



# Reliability Report – 54HC595

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8-bit shift registers with 3-state output latches

MIL-PRF-38534 CLASS K QUALIFICATION DATAPACK

Performed by Tandex Test Labs



**TANDEX**

15849 Business Center Drive, Irwindale, CA 91706, U.S.A.

Phone (626) 962-7166, Fax (626) 960-6896

[www.tandexlabs.com](http://www.tandexlabs.com)

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- Scanning Electron Microscopy (SEM) analysis.





# MIL-PRF-38534 CLASS K DATAPACK

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## Certificate of Conformance



# TANDEX TEST LABS, INC.

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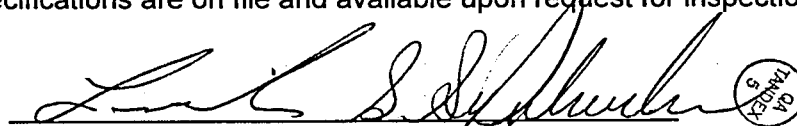
e-mail: via web site

## Certificate of Conformance

<b>CUSTOMER:</b>	<b>SILICON SUPPLIES LIMITED</b>	<b>DATE:</b> June 10, 2021
	<b>**TRAFALGAR HOUSE, THARSTON INDUSTRIAL ESTATE WELLESLEY ROAD NR15 2PD UNITED KINGDOM, VAT GB#114 3513 56</b>	
<b>TEST REPORT:</b>	<b>DDS-109-01-A</b>	<b>QUANTITY RECEIVED:</b> 30
<b>P.O. NUMBER:</b>	<b>SS692</b>	<b>QUANTITY REQUIRED:</b> 15+2
<b>DESCRIPTION:</b>	<b>CMOS LOGIC MICROCIRCUIT</b>	<b>QUANTITY PROCESSED:</b> 15+2
<b>PART NUMBER(S):</b>	<b>54HC595</b>	<b>QUANTITY PASSED:</b> 15+2
<b>P/N: AS RECEIVED / MFG. PART NUMBER:</b>	<b>54HC595</b>	<b>QUANTITY FAILED:</b> 0
<b>LOT / DATE CODE:</b>	<b>2002 LOT# 6L0315-0WF4</b>	
<b>MANUFACTURE: CAGE CODE:</b>	<b>SILICON SUPPLIES U1GU6</b>	<b>QUANTITY SHIPPING:</b> 21* <b>*(10 +2 SPARES) (5 BOND PULL) DEVICES AND ALL SPARES</b>
<b>TANDEX CAGE CODE:</b>	<b>1FE65</b>	

**METHOD OF TESTING: MIL-PRF-38534 CL K, MIL-STD-883**

I hereby certify that the subject components have been processed and inspected in accordance with instructions with specifications referenced in your purchase order. Physical records and/or data pertinent to applicable military, proprietary, and/or commercial specifications are on file and available upon request for inspection at this facility.



Linda S. Sepulveda  
QUALITY ASSURANCE



QMF 30



# MIL-PRF-38534 CLASS K DATAPACK

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Process Flow Chart + Mechanical Test Results



# TANDEX TEST LABS INC.

QMF22B

15849 BUSINESS CENTER DRIVE, IRVINDALE, CA. 91706 PH: (626)962-7166 FAX: (626) 960-6896

## PROCESS FLOW CHART

FLOW NUMBER: DDS-109-01-A REV. 0

CUSTOMER: SILICON SUPPLIES (DIE DEVICES) P.O. NUMBER: SS692  
 PART NUMBER: 54HC595 P/N AS RECEIVED: 54HC595  
 PART TYPE: CMOS LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883  
 DUE DATE: 5/26/21 JOB NUMBER: DDS-109-01-A  
 LDC AS RECEIVED: 2002 LOT# 6L0315-0 WF4 QUANTITY RECEIVED: 30 (DIE)  
 QUOTE NUMBER: DDS15309-1 MFG: SILICON SUPPLIES QUANTITY REQUIRED: 10/5/8

**\*CAUTION: ESD REFER TO TTL DRAWING #P1025\***

01	FLO	P-1015 P-1223	FLOW PREPARED BY: <u>LSS</u> ON: <u>1/27/21</u> CONTRACTUAL AGREEMENT REVIEW Y            N            NOT SPECIFIED <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Q-CLAUSES <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> DPAS <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> DFAR <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> ITAR <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> OTHER SPECIFIED						QA TANDEX 5
02	QCI		TANDEX QUALITY CONTROL INSPECTION. FLOW APPROVED BY: <u>JMI</u> ON: <u>1/27/21</u>						
03	RCV	P-1070	VERIFY PART NUMBER. ENTER INTO INCOMING LOG. <u>X</u> CUSTOMER COUNT	30			1/27/21		QA TANDEX 5
SEQ	PROC	REF #	DESCRIPTION	QTY	REJ	ACCEPT	DATE	INSP.	
04	VIS	P-1041	PERFORM 100% DIE VISUAL PER MIL-STD-883 METHOD 2010 AND MIL-PRF-38534 PARA C.3.3.2. EQUIPMENT USED: <u>Olympus</u> ASSET #: <u>20091</u>	30	0	30	2/10/21		TTL 4
05	ASSY	P-1029	PACKAGE SUFFICIENT DEVICES FOR CLASS K ELEMENT EVALUATION / ELECTRICAL AND BOND PULL PER MIL-PRF-38534 REFERENCE DIE GEOMETRY FOR ORIENTATION AND PIN - OUTS. DIE ATTACH: SCREENING EUTETIC BOND PULL Lot#: <u>133794</u> Exp. Date: <u>N/A</u> * Package Type: <del>14 PIN DIP</del> <u>16 PIN DIP</u> SEM TRANSFER TO DDS-109-01-W MIL-STD-883 METHOD 2018	10+2 5 8	0 0	10+2 5	2/22/21 2/22/21		TTL 30 TTL 30
		P-4010	WIRE BOND: Utilize 1 Mil Au Wire (.001) 1 Mil Au bonder <u>MECH-EL</u> Asset #: <u>20060</u> Gold Wire: Lot# <u>9005306292</u> Exp. Date: <u>11/12/21</u>	17	0	17	2/22/21		TTL 30

ESD MAT DUE DATE:  
2/27/21

ESD MAT DUE DATE:  
2/27/21

# TANDEX TEST LABS INC.

QMF22B


15849 BUSINESS CENTER DRIVE, IRVINDALE, CA. 91706 PH: (626)962-7166 FAX: (626) 960-6896

## PROCESS FLOW CHART

FLOW NUMBER: DDS-109-01-A REV. 0

CUSTOMER: SILICON SUPPLIES (DIE DEVICES) P.O. NUMBER: SS692  
 PART NUMBER: 54HC595 P/N AS RECEIVED: 54HC595  
 PART TYPE: CMOS LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883  
 DUE DATE: 5/26/21 JOB NUMBER: DDS-109-01-A  
 LDC AS RECEIVED: 2002 LOT# 6L0315-0 WF4 QUANTITY RECEIVED: 30 (DIE)  
 QUOTE NUMBER: DDS15309-1 MFG: SILICON SUPPLIES QUANTITY REQUIRED: 10/5/8

**\*CAUTION: ESD REFER TO TTL DRAWING #P1025\***

SEQ	PROC	REF #	DESCRIPTION	QTY	REJ	ACCEPT	DATE	INSP.
06	VIS		PERFORM 100% INTERNAL VISUAL PER MIL-STD-883 METHOD 2010 & MIL-PRF-38534 C.3.3.3, C.3.3.4.2.  EQUIPMENT USED: <u>NIKON SN2645</u> ASSET #: <u>30663</u>	17	0	17	2/23/21	TTL 30
		ESD MAT DUE DATE: <u>2/27/21</u>						
07	SEAL		SEAL DEVICES  VACUUM BAKE:  Pre Seal Bake Time: Temp: <u>125°C</u> Time: <u>24hrs</u> Actual time in: <u>9:00am - 2/23/21</u> Actual time out: <u>10:30am - 2/24/21</u> FURNACE LDC STAMP Actual temp: <u>125°C</u>	10+2	0	10+2	2/24/21	TTL 30
		ESD MAT DUE DATE: <u>2/27/21</u>						
			<u>2108</u> 					
08	ELEC		PERFORM 100% ELECTRICAL VERIFICATION TEST PER MFG DATA SHEET AND MIL-PRF-38534 @ AMBIENT OPERATING TEMPERATURE GO / NO GO  EQUIPMENT USED: <u>sevdy J</u> ASSET #: <u>15599</u> +25°C TEST FIXTURE: <u>1377/out 1210</u> SOFTWARE ID: <u>HC595</u> REV <u>N/A</u>	10+2	0	10+2	3/1/21	22
		ESD MAT DUE DATE: <u>3/21/21</u>						
09	TEMP		PERFORM TEMPERATURE CYCLING PER MIL-STD-883 METHOD 1010 CONDITION C & MIL-PRF-38534 C.3.3.3.  TEN (10) CYCLES TA = -65°C +/-10 to +150°C +/-10 10 MINUTES AT EXTREMES NO DWELL REQUIRED @+25°C  EQUIPMENT USED: <u>OYO #2</u> ASSET #: <u>31584</u> EQUIPMENT USED: _____ ASSET #: _____	10+2	0	10+2	3/1/21 3:35 P.M.	#48 B.T. TTL 48
				10+2	0	10+2	3/2/21 6:40 A.M.	#48 B.T.
10	ACCE		PERFORM CONSTANT ACCELERATION PER MIL-PRF-38534 MIL-STD-883 METHOD 2001.  Y1 DIRECTION ONLY @ 3000 G's (min)  EQUIPMENT USED: <u>TR6-TECH</u> ASSET #: <u>30260</u>	10+2	0	10+2	3/2/21	TTL 48
		ESD MAT DUE DATE: <u>3/27/21</u>						
11	SER		SERIALIZE  S/N: 01-10				3/19/21	22
		ESD MAT DUE DATE: <u>3/27/21</u>						



TANDEX TEST LABS  
 BURN - IN MONITOR SHEET

PAGE 1 OF 1

JOB NUMBER DDS-109-01-A

TEMPERATURE TA = +125C Min

PART NUMBER 54HC595

TEMP. METER # 31368

DATE CODE 2002

VOLTAGE VCC = +5VDC

BURN-IN TIME 240 hrs Min

VOLT METER# 31223

ØJC= N/A

POWER SUPPLY# 31595

BOARD# 31259

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
3/26/21	6:00AM	VCC = +5VDC	ICC = 0	126.2°C	CM	
3/29/21	5:30AM	VCC = +5VDC	ICC = 0	126.0°C	CM	
3/30/21	5:30AM	VCC = +5VDC	ICC = 0	126.3°C	CM	
3/31/21	5:35AM	VCC = +5VDC	ICC = 0	126.5°C	CM	
4/1/21	5:35AM	VCC = +5VDC	ICC = 0	127.1°C	CM	
4/2/21	5:00AM	VCC = +5VDC	ICC = 0	126.3°C	CM	
4/5/21	7:05AM	VCC = +5VDC	ICC = 0	126.7°C	CM	



# TANDEX TEST LABS INC.

QMF22B

15849 BUSINESS CENTER DRIVE, IRVINDALE, CA. 91706 PH: (626)962-7166 FAX: (626) 960-6896

## PROCESS FLOW CHART

FLOW NUMBER: DDS-109-01-A REV. 0

CUSTOMER: SILICON SUPPLIES (DIE DEVICES) P.O. NUMBER: SS692  
 PART NUMBER: 54HC595 P/N AS RECEIVED: 54HC595  
 PART TYPE: CMOS LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883  
 DUE DATE: 5/26/21 JOB NUMBER: DDS-109-01-A  
 LDC AS RECEIVED: 2002 LOT# 6L0315-0 WF4 QUANTITY RECEIVED: 30 (DIE)  
 QUOTE NUMBER: DDS15309-1 MFG: SILICON SUPPLIES QUANTITY REQUIRED: 10/5/8

**\*CAUTION: ESD REFER TO TTL DRAWING #P1025\***

SEQ	PROC	REF #	DESCRIPTION	QTY	REJ	ACCEPT	DATE	INSP.
16	SSL		PERFORM STEADY STATE LIFE TEST PER MIL-PRF-38534 AND MIL-STD 883 METHOD 1005.  TA = 125°C (min) T = 1000 HRS (min)  DATE IN: 10+2 TIME IN: DATE OUT: 10+2 TIME OUT:  BURN-IN BOARD # / DESC: <u>31259</u> BURN-IN OVEN #: <u>21</u>	10+2	0	10+2	4/24/21 6:00 AM	TTL 13
ESD MAT DUE DATE: <u>6/27/21</u>								
17	ELEC		PERFORM POST STEADY STATE LIFE ELECTRICAL VERIFICATION PER MFG DATA SHEET AND MIL-PRF-38534 C.3.3.4.3. @ AMBIENT, HIGH AND LOW OPERATING TEMPERATURE. READ AND RECORD.  STATIC AND FUNCTIONAL TESTS +25°C 10+2 0 10+2 6/2/21 222 -55°C 10+2 0 10+2 6/2/21 222 +125°C 10+2 0 10+2 6/2/21 222  TEST +25°C WITHIN 96 HOURS  EQUIPMENT USED: <u>Sentry 2</u> ASSET#: <u>15599</u> TEST FIXTURE: <u>1377/DIT 1210</u> SOFTWARE ID: <u>HLS95</u> REV <u>N/A</u> TEMPERATURE SOAK <u>15</u> SEC.	10+2	0	10+2	6/2/21	222
ESD MAT DUE DATE: <u>6/27/21</u>								
18	BP	P-1021	PERFORM DESTRUCTIVE BOND PULL TEST PER MIL-STD-883 METHOD 2011, <u>MIL-PRF-38534, C.6.3.3.2, Table C-101</u>  STAY BAKE PRIOR TO BOND PULL T = 300°C @ t = 1 Hr ±0  DELTA DESIGN 2300R # 30522 TEGAM 820A # 31579 DRY NITROGEN  TEN (10) WIRES FIVE (5) DEVICES, TWO (2) WIRES PER DEVICE.  EQUIPMENT USED <u>DAGE</u> ASSET# <u>30785</u>	5	0	5	6/3/21 9:37 AM 6/8/21 10:37 AM	#48 B.T. #48 B.T.
TIME IN: 5 TIME OUT: 5								
ESD MAT DUE DATE: <u>6/27/21</u>								
19	SEM		PULLED 8 DEVICES AT SEQ. 05 AND TRANSFERRED TO:  DDS-109-01-W	8	0	8	3/2/21	

TANDEX TEST LABS  
 BURN - IN MONITOR SHEET

PAGE 1 OF 4

JOB NUMBER DDS-109-01-A

TEMPERATURE TA = +125°C Min

PART NUMBER 54HC595

TEMP. METER # 31368

DATE CODE 2002 LOT# 6L0315-0 WF4

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

ΘJC = N/A

POWER SUPPLY# 31110

BOARD# 31259

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
4/20/21	6:00AM	VCC = +5VDC	ICC = 0	126.5°C	CM	
4/21/21	6:30AM	VCC = +5VDC	ICC = 0	126.8°C	CM	
4/22/21	7:00AM	VCC = +5VDC	ICC = 0	126.2°C	CM	
4/23/21	6:00AM	VCC = +5VDC	ICC = 0	125.4°C	CM	
4/26/21	5:45AM	VCC = +5VDC	ICC = 0	126.7°C	CM	
4/27/21	5:20AM	VCC = +5VDC	ICC = 0	126.1°C	CM	
4/28/21	5:30AM	VCC = +5VDC	ICC = 0	126.7°C	CM	
4/29/21	6:20 AM	VCC = +5VDC	ICC = 0	127.4°C	CM	
4/30/21	5:40AM	VCC = +5VDC	ICC = 0	127.5°C	CM	

TANDEX TEST LABS  
 BURN - IN MONITOR SHEET

JOB NUMBER DDS-109-01-A

TEMPERATURE TA = +125°C Min

PART NUMBER 54HC595

TEMP. METER # 31368

DATE CODE 2002 LOT# 6L0315-0 WFY

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

ΘJC = N/A

POWER SUPPLY# 31110

BOARD# 31259

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
5/3/21	5:25 AM	VCC = +5VDC	ICC = 0	127.0°C	CM	
5/4/21	5:30 AM	VCC = +5VDC	ICC = 0	127.1°C	CM	
5/5/21	5:35 AM	VCC = +5VDC	ICC = 0	127.4°C	CM	
5/6/21	5:15 AM	VCC = +5VDC	ICC = 0	126.9°C	CM	
5/7/21	5:05 AM	VCC = +5VDC	ICC = 0	127.2°C	CM	
5/10/21	5:15 AM	VCC = +5VDC	ICC = 0	127.6°C	CM	
5/11/21	5:20 AM	VCC = +5VDC	ICC = 0	127.0°C	CM	
5/12/21	5:30 AM	VCC = +5VDC	ICC = 0	127.2°C	CM	
5/13/21	5:40 AM	VCC = +5VDC	ICC = 0	126.7°C	CM	
5/14/21	6:45 AM	VCC = +5VDC	ICC = 0	127.0°C	CM	

TANDEX TEST LABS  
 BURN - IN MONITOR SHEET

JOB NUMBER DDS-109-01-A

TEMPERATURE TA = +125°C Min

PART NUMBER 54HL595

TEMP. METER# 31368

DATE CODE 2002 LOT# 6L0315-0 WF4

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

ΘJC= N/A

POWER SUPPLY# 31110

BOARD# 31259

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
5/17/21	5:20AM	VCC = +5VDC	ICC = 0	126.4°C	CM	
5/18/21	NO	DATA TAKEN				
5/19/21	5:30AM	VCC = +5VDC	ICC = 0	127.6°C	CM	
5/20/21	5:25AM	VCC = +5VDC	ICC = 0	127.7°C	CM	
5/21/21	5:20AM	VCC = +5VDC	ICC = 0	127.6°C	CM	
5/24/21	5:30AM	VCC = +5VDC	ICC = 0	127.8°C	CM	
5/25/21	8:10AM	VCC = +5VDC	ICC = 0	127.2°C	CM	
5/26/21	8:00AM	VCC = +5VDC	ICC = 0	127.4°C	CM	
5/27/21	7:50AM	VCC = +5VDC	ICC = 0	126.8°C	CM	
5/28/21	NO	DATA TAKEN				

TANDEX TEST LABS  
 BURN - IN MONITOR SHEET

JOB NUMBER DDS-109-01-A

TEMPERATURE TA = +125°C Min

PART NUMBER 54HC595

TEMP. METER# 31368

DATE CODE 2002 LOT# 6L0315-0 WF4

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

IC= N/A

POWER SUPPLY# 31110

BOARD# 31259

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
5/31/21	NO DATA TAKEN					
6/1/21	5:30AM	VCC = +5VDC	IC = 0	127.1°C	OM	

**TANDEX TEST LABS  
BOND STRENGTH TESTING**

TTL Job No. DDS-109-01-A	Part Number 54HC595	Part Type MICROCICUIT	Date JUNE 8, 2021
Lot Date Code LOT# 6L0315-0 WF4	Sample Qty. 5	Sample Numbers 11-15	Test Specifications Mil-Std-883 Method 2011 Condition C Mil-PRF-38534L, C.6.3.3.2, Table C-Xb1
Misc.	Qty Accept 5	Qty Reject 0	Suspect 0

WIRE TYPE Au	PACKAGE/POST Au	BOND TYPE WEDGE BOND
DIE METALIZATION Al	WIRE SIZE 0.001	MINIMUM PULL STRENGTH 1.0gm

S/N 11			S/N 12			S/N 13			S/N 14			S/N 15			S/N		
WIRE NO	FORCE	CODE	WIRE NO	FORCE	CODE	WIRE NO	FORCE	CODE	WIRE NO	FORCE	CODE	WIRE NO	FORCE	CODE	WIRE NO	FORCE	CODE
1	2.1	G	1	3.3	G	1	4.0	G	1	2.9	G	1	2.6	G	1		
2	2.1	B	2	3.1	G	2	3.8	G	2	3.6	G	2	4.8	G	2		
3			3			3			3			3			3		
4			4			4			4			4			4		
5			5			5			5			5			5		

**CODE INDEX**

- A. NO BREAKS UP TO \_\_\_\_\_gms.
- B. BOND LIFTS FROM DIE.
- C. BOND LIFTS FROM POST.
- D. WIRE BREAKS AT SUBSTRATE/HEAL.
- E. BOND REMOVES UNDERLYING METALLIZATION.
- F. NO CONNECTION.
- G. WIRE BREAKS AT DIE/HEAL.
- H. WIRE BREAKS AT POST/HEAL.
- J. WIRE BREAKS AT SPAN.
- X. BOND DAMAGE PRIOR TO TESTING.



TECHNICIAN STAMP: \_\_\_\_\_

# TANDEX TEST LABS INC.

QMF22B

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## PROCESS FLOW CHART

FLOW NUMBER: DDS-109-01-A REV. 0

CUSTOMER: SILICON SUPPLIES (DIE DEVICES) P.O. NUMBER: SS692  
 PART NUMBER: 54HC595 P/N AS RECEIVED: 54HC595  
 PART TYPE: CMOS LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883  
 DUE DATE: 5/26/21 JOB NUMBER: DDS-109-01-A  
 LDC AS RECEIVED: 2002 LOT# 6L0315-0 WF4 QUANTITY RECEIVED: 30 (DIE)  
 QUOTE NUMBER: DDS15309-1 MFG: SILICON SUPPLIES QUANTITY REQUIRED: 10/5/8

**\*CAUTION: ESD REFER TO TTL DRAWING #P1025\***

SEQ	PROC	REF #	DESCRIPTION	QTY	REJ	ACCEPT	DATE	INSP.
20	QCI	P-1073	TANDEX QUALITY CONTROL INSPECTION.  QCI TO VERIFY CAR IN SEQ. 01 IS COMPLIANT	30	Ø	15 +2	6/10/21	QA TANDEX 5
21	PKG		USE ORIGINAL OR TANDEX PACKAGING.  *(8) TRANSFERRED TO DDS-109-01-W	*30	Ø	15 +2	6/10/21	QA TANDEX 5
22	QAR	P-1213	TANDEX QUALITY ASSURANCE REVIEW.  SHIP VIA:  SHIP / BILL TO: TRAFALGAR HOUSE, THARSTON INDUSTRIAL ESTATE WELLESLEY ROAD NR15 2PD UNITED KINGDOM, VAT GB#114 351356  * 10 SCREENED + 2 SPARES 5 BOND PULL	*17			6/15/21	QA TANDEX 5



# MIL-PRF-38534 CLASS K DATAPACK

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Pre Burn-In Test Results at -55°C





STAT2 03/19/21 10:46  
TEST PROGRAM HC595 S/N 1

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	660.0MV	100.0MV	1.500 V
67	2	660.0MV	100.0MV	1.500 V
67	3	660.0MV	100.0MV	1.500 V
67	4	660.0MV	100.0MV	1.500 V
67	5	660.0MV	100.0MV	1.500 V
67	6	660.0MV	100.0MV	1.500 V
67	7	670.0MV	100.0MV	1.500 V
67	9	670.0MV	100.0MV	1.500 V
67	15	670.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
FUNCTIONAL TEST

VCC= 3  
-----

VIH= 2.100 VIL= 900.0E-03

-----  
-----  
VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200  
-----

INST #	PIN	MEASURED	LT	GT
347	1	2.870 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.860 V	2.200 V	

-----  
-----  
VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200  
-----

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

-----  
-----  
VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	42.00MV		400.0MV
503	2	46.00MV		400.0MV
509	3	44.00MV		400.0MV
515	4	54.00MV		400.0MV
521	5	40.00MV		400.0MV
527	6	38.00MV		400.0MV
533	7	40.00MV		400.0MV
539	15	50.00MV		400.0MV

-----  
-----  
VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	38.00MV		400.0MV

-----  
-----  
FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350  
-----

-----  
-----  
VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400  
-----

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	
282	2	4.460 V	4.400 V	
288	3	4.450 V	4.400 V	

294	4	4.450 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.270 V	3.700 V	
353	2	4.240 V	3.700 V	
359	3	4.250 V	3.700 V	
365	4	4.220 V	3.700 V	
371	5	4.260 V	3.700 V	
377	6	4.260 V	3.700 V	
383	7	4.260 V	3.700 V	
389	15	4.240 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.330 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	82.00MV		400.0MV
503	2	92.00MV		400.0MV
509	3	88.00MV		400.0MV
515	4	136.0MV		400.0MV
521	5	78.00MV		400.0MV
527	6	74.00MV		400.0MV
533	7	76.00MV		400.0MV
539	15	102.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	-64.00MV		400.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 6  
 VIH= 4.200 VIL= 1.800  
 -----

-----  
 VOH1 TEST  
 VCC= 6 IOH=-20.00E-06  
 VOH LIMIT 5.900  
 -----

INST #	PIN	MEASURED	LT	GT
276	1	5.970 V	5.900 V	
282	2	5.970 V	5.900 V	
288	3	5.970 V	5.900 V	
294	4	5.980 V	5.900 V	
300	5	5.970 V	5.900 V	
306	6	5.980 V	5.900 V	
312	7	5.970 V	5.900 V	
318	15	5.970 V	5.900 V	
324	9	5.970 V	5.900 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH2= -7.800E-03  
 VOH2 LIMIT 5.200  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	5.770 V	5.200 V	
353	2	5.750 V	5.200 V	
359	3	5.760 V	5.200 V	
365	4	5.740 V	5.200 V	
371	5	5.770 V	5.200 V	
377	6	5.770 V	5.200 V	
383	7	5.770 V	5.200 V	
389	15	5.740 V	5.200 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH3= -5.200E-03  
 VOH2 LIMIT 5.200  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	5.840 V	5.200 V	

-----  
 VOL1 TEST  
 VCC= 6 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	-4.000MV		100.0MV
432	2	-4.000MV		100.0MV
438	3	-4.000MV		100.0MV
444	4	-4.000MV		100.0MV
450	5	-4.000MV		100.0MV
456	6	-4.000MV		100.0MV
462	7	-4.000MV		100.0MV
468	15	-4.000MV		100.0MV
474	9	-4.000MV		100.0MV

-----  
 VOL2 TEST  
 -----

VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
497 1 94.00MV  
503 2 108.0MV  
509 3 102.0MV  
515 4 118.0MV  
521 5 92.00MV  
527 6 86.00MV  
533 7 88.00MV  
539 15 122.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
553 9 56.00MV  
400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP

-----  
INST # PIN MEASURED LT GT  
594 10 -2.000NA -1.000UA 1.000UA  
600 10 -3.000NA -1.000UA 1.000UA  
608 11 -2.000NA -1.000UA 1.000UA  
614 11 -3.000NA -1.000UA 1.000UA  
622 12 -2.000NA -1.000UA 1.000UA  
628 12 -3.000NA -1.000UA 1.000UA  
636 13 -2.000NA -1.000UA 1.000UA  
642 13 -3.000NA -1.000UA 1.000UA  
650 14 -2.000NA -1.000UA 1.000UA  
656 14 -3.000NA -1.000UA 1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP

-----  
INST # PIN MEASURED LT GT  
686 1 -100.0NA -10.00UA 10.00UA  
693 1 -100.0NA -10.00UA 10.00UA  
702 2 -100.0NA -10.00UA 10.00UA  
709 2 -100.0NA -10.00UA 10.00UA  
718 3 -100.0NA -10.00UA 10.00UA  
725 3 -100.0NA -10.00UA 10.00UA  
734 4 -100.0NA -10.00UA 10.00UA  
741 4 -100.0NA -10.00UA 10.00UA  
750 5 -100.0NA -10.00UA 10.00UA  
757 5 -100.0NA -10.00UA 10.00UA  
766 6 -100.0NA -10.00UA 10.00UA  
773 6 -100.0NA -10.00UA 10.00UA  
782 7 -100.0NA -10.00UA 10.00UA  
789 7 -100.0NA -10.00UA 10.00UA  
798 15 -100.0NA -10.00UA 10.00UA  
805 15 -100.0NA -10.00UA 10.00UA

-----  
ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C

ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:47  
TEST PROGRAM HC595 S/N 2

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-610.0MV	-1.500 V	-100.0MV
57	14	-610.0MV	-1.500 V	-100.0MV
57	16	-540.0MV	-1.500 V	-100.0MV
67	1	670.0MV	100.0MV	1.500 V
67	2	670.0MV	100.0MV	1.500 V
67	3	670.0MV	100.0MV	1.500 V
67	4	670.0MV	100.0MV	1.500 V
67	5	680.0MV	100.0MV	1.500 V
67	6	680.0MV	100.0MV	1.500 V
67	7	680.0MV	100.0MV	1.500 V
67	9	680.0MV	100.0MV	1.500 V
67	15	680.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.870 V	2.200 V	
353	2	2.860 V	2.200 V	
359	3	2.870 V	2.200 V	
365	4	2.860 V	2.200 V	
371	5	2.870 V	2.200 V	
377	6	2.870 V	2.200 V	
383	7	2.870 V	2.200 V	
389	15	2.860 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.870 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	36.00MV		400.0MV
503	2	46.00MV		400.0MV
509	3	40.00MV		400.0MV
515	4	42.00MV		400.0MV
521	5	36.00MV		400.0MV
527	6	34.00MV		400.0MV
533	7	36.00MV		400.0MV
539	15	44.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	36.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.270 V	3.700 V	
353	2	4.240 V	3.700 V	
359	3	4.260 V	3.700 V	
365	4	4.260 V	3.700 V	
371	5	4.270 V	3.700 V	
377	6	4.270 V	3.700 V	
383	7	4.270 V	3.700 V	
389	15	4.240 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.330 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		400.0MV
503	2	112.00MV		400.0MV
509	3	78.00MV		400.0MV
515	4	86.00MV		400.0MV
521	5	70.00MV		400.0MV
527	6	66.00MV		400.0MV
533	7	68.00MV		400.0MV
539	15	92.00MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -58.00MV 400.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.970 V 5.900 V  
282 2 5.970 V 5.900 V  
288 3 5.970 V 5.900 V  
294 4 5.970 V 5.900 V  
300 5 5.970 V 5.900 V  
306 6 5.970 V 5.900 V  
312 7 5.970 V 5.900 V  
318 15 5.970 V 5.900 V  
324 9 5.970 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
347 1 5.780 V 5.200 V  
353 2 5.750 V 5.200 V  
359 3 5.770 V 5.200 V  
365 4 5.760 V 5.200 V  
371 5 5.780 V 5.200 V  
377 6 5.780 V 5.200 V  
383 7 5.780 V 5.200 V  
389 15 5.740 V 5.200 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
403 9 5.840 V 5.200 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 -4.000MV 100.0MV  
432 2 -4.000MV 100.0MV  
438 3 -4.000MV 100.0MV  
444 4 -4.000MV 100.0MV  
450 5 -4.000MV 100.0MV  
456 6 -4.000MV 100.0MV  
462 7 -4.000MV 100.0MV  
468 15 -4.000MV 100.0MV  
474 9 -4.000MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	82.00MV		400.0MV
503	2	112.0MV		400.0MV
509	3	92.00MV		400.0MV
515	4	104.0MV		400.0MV
521	5	80.00MV		400.0MV
527	6	78.00MV		400.0MV
533	7	80.00MV		400.0MV
539	15	112.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	52.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:48  
TEST PROGRAM HC595 S/N 3

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-540.0MV	-1.500 V	-100.0MV
67	1	660.0MV	100.0MV	1.500 V
67	2	660.0MV	100.0MV	1.500 V
67	3	670.0MV	100.0MV	1.500 V
67	4	670.0MV	100.0MV	1.500 V
67	5	670.0MV	100.0MV	1.500 V
67	6	670.0MV	100.0MV	1.500 V
67	7	670.0MV	100.0MV	1.500 V
67	9	670.0MV	100.0MV	1.500 V
67	15	670.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	40.00MV		400.0MV
503	2	50.00MV		400.0MV
509	3	40.00MV		400.0MV
515	4	48.00MV		400.0MV
521	5	38.00MV		400.0MV
527	6	38.00MV		400.0MV
533	7	38.00MV		400.0MV
539	15	48.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	38.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.260 V	3.700 V	
353	2	4.240 V	3.700 V	
359	3	4.260 V	3.700 V	
365	4	4.240 V	3.700 V	
371	5	4.260 V	3.700 V	
377	6	4.260 V	3.700 V	
383	7	4.260 V	3.700 V	
389	15	4.240 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.330 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	78.00MV		400.0MV
503	2	102.00MV		400.0MV
509	3	82.00MV		400.0MV
515	4	98.00MV		400.0MV
521	5	74.00MV		400.0MV
527	6	72.00MV		400.0MV
533	7	74.00MV		400.0MV
539	15	96.00MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9  -62.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=    4.200      VIL=    1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1  5.970 V      5.900 V
282     2  5.970 V      5.900 V
288     3  5.970 V      5.900 V
294     4  5.970 V      5.900 V
300     5  5.970 V      5.900 V
306     6  5.970 V      5.900 V
312     7  5.970 V      5.900 V
318    15  5.970 V      5.900 V
324     9  5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1  5.770 V      5.200 V
353     2  5.740 V      5.200 V
359     3  5.760 V      5.200 V
365     4  5.740 V      5.200 V
371     5  5.770 V      5.200 V
377     6  5.770 V      5.200 V
383     7  5.770 V      5.200 V
389    15  5.740 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9  5.840 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1  -4.000MV              100.0MV
432     2  -4.000MV              100.0MV
438     3  -4.000MV              100.0MV
444     4  -4.000MV              100.0MV
450     5  -4.000MV              100.0MV
456     6  -4.000MV              100.0MV
462     7  -4.000MV              100.0MV
468    15  -4.000MV              100.0MV
474     9  -4.000MV              100.0MV

```



-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		400.0MV
503	2	112.0MV		400.0MV
509	3	96.00MV		400.0MV
515	4	112.0MV		400.0MV
521	5	88.00MV		400.0MV
527	6	82.00MV		400.0MV
533	7	84.00MV		400.0MV
539	15	114.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	56.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:49  
TEST PROGRAM HC595 S/N 4

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-540.0MV	-1.500 V	-100.0MV
67	1	660.0MV	100.0MV	1.500 V
67	2	670.0MV	100.0MV	1.500 V
67	3	670.0MV	100.0MV	1.500 V
67	4	670.0MV	100.0MV	1.500 V
67	5	670.0MV	100.0MV	1.500 V
67	6	670.0MV	100.0MV	1.500 V
67	7	670.0MV	100.0MV	1.500 V
67	9	670.0MV	100.0MV	1.500 V
67	15	670.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.860 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	42.00MV		400.0MV
503	2	48.00MV		400.0MV
509	3	44.00MV		400.0MV
515	4	44.00MV		400.0MV
521	5	40.00MV		400.0MV
527	6	40.00MV		400.0MV
533	7	40.00MV		400.0MV
539	15	48.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	40.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.250 V	3.700 V	
353	2	4.220 V	3.700 V	
359	3	4.240 V	3.700 V	
365	4	4.240 V	3.700 V	
371	5	4.250 V	3.700 V	
377	6	4.250 V	3.700 V	
383	7	4.250 V	3.700 V	
389	15	4.220 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.320 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	82.00MV		400.0MV
503	2	98.00MV		400.0MV
509	3	86.00MV		400.0MV
515	4	102.0MV		400.0MV
521	5	78.00MV		400.0MV
527	6	76.00MV		400.0MV
533	7	80.00MV		400.0MV
539	15	100.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -64.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.750 V      5.200 V
353     2   5.740 V      5.200 V
359     3   5.750 V      5.200 V
365     4   5.720 V      5.200 V
371     5   5.760 V      5.200 V
377     6   5.760 V      5.200 V
383     7   5.750 V      5.200 V
389    15   5.730 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.820 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	94.00MV		400.0MV
503	2	110.0MV		400.0MV
509	3	102.0MV		400.0MV
515	4	132.0MV		400.0MV
521	5	90.00MV		400.0MV
527	6	86.00MV		400.0MV
533	7	92.00MV		400.0MV
539	15	120.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	58.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



STAT2 03/19/21 10:50  
TEST PROGRAM HC595 S/N 5

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-610.0MV	-1.500 V	-100.0MV
57	11	-610.0MV	-1.500 V	-100.0MV
57	12	-610.0MV	-1.500 V	-100.0MV
57	13	-610.0MV	-1.500 V	-100.0MV
57	14	-610.0MV	-1.500 V	-100.0MV
57	16	-550.0MV	-1.500 V	-100.0MV
67	1	680.0MV	100.0MV	1.500 V
67	2	680.0MV	100.0MV	1.500 V
67	3	680.0MV	100.0MV	1.500 V
67	4	680.0MV	100.0MV	1.500 V
67	5	680.0MV	100.0MV	1.500 V
67	6	680.0MV	100.0MV	1.500 V
67	7	690.0MV	100.0MV	1.500 V
67	9	690.0MV	100.0MV	1.500 V
67	15	690.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.860 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	36.00MV		400.0MV
503	2	42.00MV		400.0MV
509	3	36.00MV		400.0MV
515	4	38.00MV		400.0MV
521	5	34.00MV		400.0MV
527	6	34.00MV		400.0MV
533	7	34.00MV		400.0MV
539	15	44.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	36.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.700 V	
353	2	4.220 V	3.700 V	
359	3	4.240 V	3.700 V	
365	4	4.200 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.220 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		400.0MV
503	2	114.0MV		400.0MV
509	3	76.00MV		400.0MV
515	4	116.0MV		400.0MV
521	5	70.00MV		400.0MV
527	6	66.00MV		400.0MV
533	7	70.00MV		400.0MV
539	15	92.00MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -58.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.960 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.960 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.960 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.730 V      5.200 V
353     2   5.710 V      5.200 V
359     3   5.720 V      5.200 V
365     4   5.690 V      5.200 V
371     5   5.730 V      5.200 V
377     6   5.740 V      5.200 V
383     7   5.730 V      5.200 V
389    15   5.700 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.810 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV              100.0MV
432     2   -4.000MV              100.0MV
438     3   -4.000MV              100.0MV
444     4   -4.000MV              100.0MV
450     5   -4.000MV              100.0MV
456     6   -4.000MV              100.0MV
462     7   -4.000MV              100.0MV
468    15   -2.000MV              100.0MV
474     9   -4.000MV              100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	84.00MV		400.0MV
503	2	100.0MV		400.0MV
509	3	90.00MV		400.0MV
515	4	154.0MV		400.0MV
521	5	80.00MV		400.0MV
527	6	78.00MV		400.0MV
533	7	82.00MV		400.0MV
539	15	112.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	54.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:51  
TEST PROGRAM HC595 S/N 6

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	660.0MV	100.0MV	1.500 V
67	2	660.0MV	100.0MV	1.500 V
67	3	660.0MV	100.0MV	1.500 V
67	4	660.0MV	100.0MV	1.500 V
67	5	660.0MV	100.0MV	1.500 V
67	6	660.0MV	100.0MV	1.500 V
67	7	670.0MV	100.0MV	1.500 V
67	9	670.0MV	100.0MV	1.500 V
67	15	670.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	38.00MV		400.0MV
503	2	40.00MV		400.0MV
509	3	40.00MV		400.0MV
515	4	48.00MV		400.0MV
521	5	36.00MV		400.0MV
527	6	36.00MV		400.0MV
533	7	36.00MV		400.0MV
539	15	46.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	36.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.700 V	
353	2	4.230 V	3.700 V	
359	3	4.230 V	3.700 V	
365	4	4.220 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.220 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	76.00MV		400.0MV
503	2	78.00MV		400.0MV
509	3	80.00MV		400.0MV
515	4	96.00MV		400.0MV
521	5	74.00MV		400.0MV
527	6	68.00MV		400.0MV
533	7	72.00MV		400.0MV
539	15	94.00MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -60.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.960 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.960 V      5.900 V
312     7   5.960 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.730 V      5.200 V
353     2   5.720 V      5.200 V
359     3   5.720 V      5.200 V
365     4   5.700 V      5.200 V
371     5   5.730 V      5.200 V
377     6   5.730 V      5.200 V
383     7   5.730 V      5.200 V
389    15   5.700 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.800 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV              100.0MV
432     2   -4.000MV              100.0MV
438     3   -4.000MV              100.0MV
444     4   -4.000MV              100.0MV
450     5   -4.000MV              100.0MV
456     6   -4.000MV              100.0MV
462     7   -4.000MV              100.0MV
468    15   -4.000MV              100.0MV
474     9   -4.000MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=    7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	88.00MV		400.0MV
503	2	90.00MV		400.0MV
509	3	94.00MV		400.0MV
515	4	140.0MV		400.0MV
521	5	84.00MV		400.0MV
527	6	80.00MV		400.0MV
533	7	84.00MV		400.0MV
539	15	112.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=    5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	54.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:52  
TEST PROGRAM HC595 S/N 7

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-610.0MV	-1.500 V	-100.0MV
57	11	-610.0MV	-1.500 V	-100.0MV
57	12	-610.0MV	-1.500 V	-100.0MV
57	13	-610.0MV	-1.500 V	-100.0MV
57	14	-610.0MV	-1.500 V	-100.0MV
57	16	-550.0MV	-1.500 V	-100.0MV
67	1	680.0MV	100.0MV	1.500 V
67	2	680.0MV	100.0MV	1.500 V
67	3	680.0MV	100.0MV	1.500 V
67	4	680.0MV	100.0MV	1.500 V
67	5	680.0MV	100.0MV	1.500 V
67	6	680.0MV	100.0MV	1.500 V
67	7	690.0MV	100.0MV	1.500 V
67	9	690.0MV	100.0MV	1.500 V
67	15	690.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.840 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	40.00MV		400.0MV
503	2	66.00MV		400.0MV
509	3	40.00MV		400.0MV
515	4	54.00MV		400.0MV
521	5	36.00MV		400.0MV
527	6	36.00MV		400.0MV
533	7	38.00MV		400.0MV
539	15	46.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	38.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.700 V	
353	2	4.200 V	3.700 V	
359	3	4.220 V	3.700 V	
365	4	4.190 V	3.700 V	
371	5	4.230 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.230 V	3.700 V	
389	15	4.210 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	78.00MV		400.0MV
503	2	108.00MV		400.0MV
509	3	82.00MV		400.0MV
515	4	118.00MV		400.0MV
521	5	76.00MV		400.0MV
527	6	70.00MV		400.0MV
533	7	74.00MV		400.0MV
539	15	96.00MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -60.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.950 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.960 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.720 V      5.200 V
353     2   5.700 V      5.200 V
359     3   5.710 V      5.200 V
365     4   5.680 V      5.200 V
371     5   5.730 V      5.200 V
377     6   5.730 V      5.200 V
383     7   5.720 V      5.200 V
389    15   5.690 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.800 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV              100.0MV
432     2   -4.000MV              100.0MV
438     3   -4.000MV              100.0MV
444     4   -4.000MV              100.0MV
450     5   -4.000MV              100.0MV
456     6   -6.000MV              100.0MV
462     7   -4.000MV              100.0MV
468    15   -4.000MV              100.0MV
474     9   -4.000MV              100.0MV

```



-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		400.0MV
503	2	108.0MV		400.0MV
509	3	98.00MV		400.0MV
515	4	136.0MV		400.0MV
521	5	88.00MV		400.0MV
527	6	82.00MV		400.0MV
533	7	86.00MV		400.0MV
539	15	116.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	56.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:53  
TEST PROGRAM HC595 S/N 8

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-610.0MV	-1.500 V	-100.0MV
57	11	-620.0MV	-1.500 V	-100.0MV
57	12	-620.0MV	-1.500 V	-100.0MV
57	13	-620.0MV	-1.500 V	-100.0MV
57	14	-620.0MV	-1.500 V	-100.0MV
57	16	-560.0MV	-1.500 V	-100.0MV
67	1	690.0MV	100.0MV	1.500 V
67	2	690.0MV	100.0MV	1.500 V
67	3	690.0MV	100.0MV	1.500 V
67	4	690.0MV	100.0MV	1.500 V
67	5	690.0MV	100.0MV	1.500 V
67	6	690.0MV	100.0MV	1.500 V
67	7	700.0MV	100.0MV	1.500 V
67	9	700.0MV	100.0MV	1.500 V
67	15	700.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.840 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	36.00MV		400.0MV
503	2	52.00MV		400.0MV
509	3	36.00MV		400.0MV
515	4	52.00MV		400.0MV
521	5	34.00MV		400.0MV
527	6	32.00MV		400.0MV
533	7	34.00MV		400.0MV
539	15	42.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	34.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.700 V	
353	2	4.220 V	3.700 V	
359	3	4.240 V	3.700 V	
365	4	4.210 V	3.700 V	
371	5	4.250 V	3.700 V	
377	6	4.250 V	3.700 V	
383	7	4.250 V	3.700 V	
389	15	4.220 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		400.0MV
503	2	122.00MV		400.0MV
509	3	76.00MV		400.0MV
515	4	116.00MV		400.0MV
521	5	68.00MV		400.0MV
527	6	64.00MV		400.0MV
533	7	68.00MV		400.0MV
539	15	88.00MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -58.00MV          400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.950 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.720 V      5.200 V
353     2   5.710 V      5.200 V
359     3   5.720 V      5.200 V
365     4   5.700 V      5.200 V
371     5   5.730 V      5.200 V
377     6   5.730 V      5.200 V
383     7   5.730 V      5.200 V
389    15   5.690 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.800 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV          100.0MV
432     2   -4.000MV          100.0MV
438     3   -4.000MV          100.0MV
444     4   -4.000MV          100.0MV
450     5   -4.000MV          100.0MV
456     6   -4.000MV          100.0MV
462     7   -4.000MV          100.0MV
468    15   -4.000MV          100.0MV
474     9   -4.000MV          100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	84.00MV		400.0MV
503	2	158.0MV		400.0MV
509	3	90.00MV		400.0MV
515	4	120.0MV		400.0MV
521	5	80.00MV		400.0MV
527	6	76.00MV		400.0MV
533	7	80.00MV		400.0MV
539	15	108.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	52.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



STAT2 03/19/21 10:54  
TEST PROGRAM HC595 S/N 9

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-540.0MV	-1.500 V	-100.0MV
67	1	670.0MV	100.0MV	1.500 V
67	2	680.0MV	100.0MV	1.500 V
67	3	670.0MV	100.0MV	1.500 V
67	4	670.0MV	100.0MV	1.500 V
67	5	670.0MV	100.0MV	1.500 V
67	6	670.0MV	100.0MV	1.500 V
67	7	680.0MV	100.0MV	1.500 V
67	9	680.0MV	100.0MV	1.500 V
67	15	680.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	36.00MV		400.0MV
503	2	58.00MV		400.0MV
509	3	38.00MV		400.0MV
515	4	42.00MV		400.0MV
521	5	36.00MV		400.0MV
527	6	32.00MV		400.0MV
533	7	34.00MV		400.0MV
539	15	44.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	34.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.700 V	
353	2	4.210 V	3.700 V	
359	3	4.230 V	3.700 V	
365	4	4.230 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.220 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		400.0MV
503	2	156.00MV		400.0MV
509	3	76.00MV		400.0MV
515	4	88.00MV		400.0MV
521	5	70.00MV		400.0MV
527	6	66.00MV		400.0MV
533	7	68.00MV		400.0MV
539	15	90.00MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -58.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.950 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.720 V      5.200 V
353     2   5.710 V      5.200 V
359     3   5.720 V      5.200 V
365     4   5.710 V      5.200 V
371     5   5.730 V      5.200 V
377     6   5.730 V      5.200 V
383     7   5.730 V      5.200 V
389    15   5.700 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.810 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV              100.0MV
432     2   -4.000MV              100.0MV
438     3   -4.000MV              100.0MV
444     4   -4.000MV              100.0MV
450     5   -4.000MV              100.0MV
456     6   -4.000MV              100.0MV
462     7   -4.000MV              100.0MV
468    15   -4.000MV              100.0MV
474     9   -4.000MV              100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	86.00MV		400.0MV
503	2	92.00MV		400.0MV
509	3	90.00MV		400.0MV
515	4	108.0MV		400.0MV
521	5	82.00MV		400.0MV
527	6	76.00MV		400.0MV
533	7	80.00MV		400.0MV
539	15	108.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	52.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:55  
TEST PROGRAM HC595 S/N 10

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-610.0MV	-1.500 V	-100.0MV
57	11	-610.0MV	-1.500 V	-100.0MV
57	12	-610.0MV	-1.500 V	-100.0MV
57	13	-610.0MV	-1.500 V	-100.0MV
57	14	-610.0MV	-1.500 V	-100.0MV
57	16	-550.0MV	-1.500 V	-100.0MV
67	1	680.0MV	100.0MV	1.500 V
67	2	690.0MV	100.0MV	1.500 V
67	3	680.0MV	100.0MV	1.500 V
67	4	690.0MV	100.0MV	1.500 V
67	5	690.0MV	100.0MV	1.500 V
67	6	690.0MV	100.0MV	1.500 V
67	7	690.0MV	100.0MV	1.500 V
67	9	690.0MV	100.0MV	1.500 V
67	15	690.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	38.00MV		400.0MV
503	2	66.00MV		400.0MV
509	3	38.00MV		400.0MV
515	4	44.00MV		400.0MV
521	5	36.00MV		400.0MV
527	6	34.00MV		400.0MV
533	7	34.00MV		400.0MV
539	15	42.00MV		400.0MV

VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	36.00MV		400.0MV

FUNCTIONAL TEST  
 VCC= 4.500  
 VIH= 3.150 VIL= 1.350

VOH1 TEST  
 VCC= 4.500 IOH=-20.00E-06  
 VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.700 V	
353	2	4.210 V	3.700 V	
359	3	4.230 V	3.700 V	
365	4	4.220 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.220 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		400.0MV
503	2	122.0MV		400.0MV
509	3	76.00MV		400.0MV
515	4	102.0MV		400.0MV
521	5	74.00MV		400.0MV
527	6	66.00MV		400.0MV
533	7	68.00MV		400.0MV
539	15	90.00MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -58.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.950 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.720 V      5.200 V
353     2   5.720 V      5.200 V
359     3   5.720 V      5.200 V
365     4   5.690 V      5.200 V
371     5   5.730 V      5.200 V
377     6   5.730 V      5.200 V
383     7   5.730 V      5.200 V
389    15   5.700 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.800 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -6.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=    7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	86.00MV		400.0MV
503	2	100.0MV		400.0MV
509	3	90.00MV		400.0MV
515	4	124.0MV		400.0MV
521	5	86.00MV		400.0MV
527	6	76.00MV		400.0MV
533	7	80.00MV		400.0MV
539	15	110.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=    5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	52.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:56  
TEST PROGRAM HC595 S/N 11

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-540.0MV	-1.500 V	-100.0MV
67	1	670.0MV	100.0MV	1.500 V
67	2	670.0MV	100.0MV	1.500 V
67	3	670.0MV	100.0MV	1.500 V
67	4	670.0MV	100.0MV	1.500 V
67	5	670.0MV	100.0MV	1.500 V
67	6	670.0MV	100.0MV	1.500 V
67	7	680.0MV	100.0MV	1.500 V
67	9	680.0MV	100.0MV	1.500 V
67	15	680.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	36.00MV		400.0MV
503	2	44.00MV		400.0MV
509	3	38.00MV		400.0MV
515	4	60.00MV		400.0MV
521	5	36.00MV		400.0MV
527	6	34.00MV		400.0MV
533	7	36.00MV		400.0MV
539	15	44.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	36.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.700 V	
353	2	4.210 V	3.700 V	
359	3	4.230 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.230 V	3.700 V	
377	6	4.230 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.210 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		400.0MV
503	2	160.00MV		400.0MV
509	3	76.00MV		400.0MV
515	4	132.00MV		400.0MV
521	5	72.00MV		400.0MV
527	6	66.00MV		400.0MV
533	7	70.00MV		400.0MV
539	15	90.00MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -58.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.950 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.720 V      5.200 V
353     2   5.690 V      5.200 V
359     3   5.710 V      5.200 V
365     4   5.670 V      5.200 V
371     5   5.720 V      5.200 V
377     6   5.720 V      5.200 V
383     7   5.720 V      5.200 V
389    15   5.690 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.800 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```



-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	88.00MV		400.0MV
503	2	110.0MV		400.0MV
509	3	92.00MV		400.0MV
515	4	138.0MV		400.0MV
521	5	86.00MV		400.0MV
527	6	76.00MV		400.0MV
533	7	82.00MV		400.0MV
539	15	110.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	54.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 -100.0NA 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 10:56  
TEST PROGRAM HC595 S/N 12

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 -55C

-----  
CONTINUITY TEST  
-----

INST # PIN MEASURED LT GT  
57 10 -590.0MV -1.500 V -100.0MV  
57 11 -590.0MV -1.500 V -100.0MV  
57 12 -590.0MV -1.500 V -100.0MV  
57 13 -600.0MV -1.500 V -100.0MV  
57 14 -600.0MV -1.500 V -100.0MV  
57 16 -530.0MV -1.500 V -100.0MV  
67 1 650.0MV 100.0MV 1.500 V  
67 2 660.0MV 100.0MV 1.500 V  
67 3 660.0MV 100.0MV 1.500 V  
67 4 660.0MV 100.0MV 1.500 V  
67 5 660.0MV 100.0MV 1.500 V  
67 6 660.0MV 100.0MV 1.500 V  
67 7 660.0MV 100.0MV 1.500 V  
67 9 670.0MV 100.0MV 1.500 V  
67 15 660.0MV 100.0MV 1.500 V

-----  
FUNCTIONAL TEST  
VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST # PIN MEASURED LT GT  
276 1 1.980 V 1.900 V  
282 2 1.980 V 1.900 V  
288 3 1.980 V 1.900 V  
294 4 1.980 V 1.900 V  
300 5 1.980 V 1.900 V  
306 6 1.980 V 1.900 V  
312 7 1.980 V 1.900 V  
318 15 1.980 V 1.900 V  
324 9 1.980 V 1.900 V

-----  
VOL1 TEST  
VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03  
 -----

-----  
 VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.200  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.840 V	2.200 V	

-----  
 VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.200  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

-----  
 VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	40.00MV		400.0MV
503	2	56.00MV		400.0MV
509	3	40.00MV		400.0MV
515	4	46.00MV		400.0MV
521	5	38.00MV		400.0MV
527	6	36.00MV		400.0MV
533	7	36.00MV		400.0MV
539	15	46.00MV		400.0MV

-----  
 VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	36.00MV		400.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 4.500  
 -----

VIH= 3.150 VIL= 1.350

-----  
-----  
VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400  
-----

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	
282	2	4.450 V	4.400 V	
288	3	4.450 V	4.400 V	
294	4	4.450 V	4.400 V	
300	5	4.450 V	4.400 V	
306	6	4.450 V	4.400 V	
312	7	4.450 V	4.400 V	
318	15	4.450 V	4.400 V	
324	9	4.450 V	4.400 V	

-----  
-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.700 V	
353	2	4.210 V	3.700 V	
359	3	4.230 V	3.700 V	
365	4	4.210 V	3.700 V	
371	5	4.230 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.230 V	3.700 V	
389	15	4.210 V	3.700 V	

-----  
-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.700 V	

-----  
-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	78.00MV		400.0MV

503	2	150.0MV		400.0MV
509	3	80.00MV		400.0MV
515	4	98.00MV		400.0MV
521	5	74.00MV		400.0MV
527	6	68.00MV		400.0MV
533	7	70.00MV		400.0MV
539	15	92.00MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	-60.00MV		400.0MV

-----  
FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

-----  
VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	5.950 V	5.900 V	
282	2	5.950 V	5.900 V	
288	3	5.950 V	5.900 V	
294	4	5.950 V	5.900 V	
300	5	5.950 V	5.900 V	
306	6	5.950 V	5.900 V	
312	7	5.950 V	5.900 V	
318	15	5.950 V	5.900 V	
324	9	5.950 V	5.900 V	

-----  
VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST #	PIN	MEASURED	LT	GT
347	1	5.710 V	5.200 V	
353	2	5.690 V	5.200 V	
359	3	5.710 V	5.200 V	
365	4	5.690 V	5.200 V	
371	5	5.720 V	5.200 V	
377	6	5.720 V	5.200 V	
383	7	5.720 V	5.200 V	
389	15	5.690 V	5.200 V	

-----  
VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST #	PIN	MEASURED	LT	GT
403	9	5.800 V	5.200 V	

-----  
VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-4.000MV		100.0MV
432	2	-4.000MV		100.0MV
438	3	-4.000MV		100.0MV
444	4	-4.000MV		100.0MV
450	5	-4.000MV		100.0MV
456	6	-4.000MV		100.0MV
462	7	-4.000MV		100.0MV
468	15	-4.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		400.0MV
503	2	136.0MV		400.0MV
509	3	92.00MV		400.0MV
515	4	118.0MV		400.0MV
521	5	86.00MV		400.0MV
527	6	80.00MV		400.0MV
533	7	82.00MV		400.0MV
539	15	112.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	54.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA

741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
 ICC TEST  
 VCC= 6  
 ICC LIMIT MAX. 4.0UA @25C  
 ICC LIMIT MAX. 160UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10      FCT      DCT  
 0000000000      PASS      PASS      EOT



# MIL-PRF-38534 CLASS K DATAPACK

---

Pre Burn-In Test Results at 25°C





STAT2 03/19/21 10:22  
TEST PROGRAM HC595 S/N 1

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
FUNCTIONAL TEST

VCC= 3  
-----

VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.840 V	2.480 V	
359	3	2.840 V	2.480 V	
365	4	2.820 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.840 V	2.480 V	
383	7	2.840 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	52.00MV		260.0MV
503	2	56.00MV		260.0MV
509	3	54.00MV		260.0MV
515	4	76.00MV		260.0MV
521	5	50.00MV		260.0MV
527	6	48.00MV		260.0MV
533	7	48.00MV		260.0MV
539	15	64.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	50.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	
282	2	4.450 V	4.400 V	
288	3	4.450 V	4.400 V	

294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.980 V	
353	2	4.210 V	3.980 V	
359	3	4.210 V	3.980 V	
365	4	4.190 V	3.980 V	
371	5	4.220 V	3.980 V	
377	6	4.220 V	3.980 V	
383	7	4.220 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	104.0MV		260.0MV
503	2	116.0MV		260.0MV
509	3	110.0MV		260.0MV
515	4	146.0MV		260.0MV
521	5	102.0MV		260.0MV
527	6	96.00MV		260.0MV
533	7	98.00MV		260.0MV
539	15	134.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	-80.00MV		260.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 6  
 VIH= 4.200 VIL= 1.800  
 -----

-----  
 VOH1 TEST  
 VCC= 6 IOH=-20.00E-06  
 VOH LIMIT 5.900  
 -----

INST #	PIN	MEASURED	LT	GT
276	1	5.980 V	5.900 V	
282	2	5.970 V	5.900 V	
288	3	5.970 V	5.900 V	
294	4	5.980 V	5.900 V	
300	5	5.970 V	5.900 V	
306	6	5.980 V	5.900 V	
312	7	5.970 V	5.900 V	
318	15	5.970 V	5.900 V	
324	9	5.980 V	5.900 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH2= -7.800E-03  
 VOH2 LIMIT 5.480  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	5.740 V	5.480 V	
353	2	5.700 V	5.480 V	
359	3	5.720 V	5.480 V	
365	4	5.690 V	5.480 V	
371	5	5.730 V	5.480 V	
377	6	5.730 V	5.480 V	
383	7	5.730 V	5.480 V	
389	15	5.690 V	5.480 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH3= -5.200E-03  
 VOH2 LIMIT 5.480  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	5.810 V	5.480 V	

-----  
 VOL1 TEST  
 VCC= 6 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	-4.000MV		100.0MV
432	2	-4.000MV		100.0MV
438	3	-4.000MV		100.0MV
444	4	-4.000MV		100.0MV
450	5	-4.000MV		100.0MV
456	6	-4.000MV		100.0MV
462	7	-4.000MV		100.0MV
468	15	-4.000MV		100.0MV
474	9	-4.000MV		100.0MV

-----  
 VOL2 TEST  
 -----

VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	120.0MV		260.0MV
503	2	138.0MV		260.0MV
509	3	126.0MV		260.0MV
515	4	162.0MV		260.0MV
521	5	116.0MV		260.0MV
527	6	108.0MV		260.0MV
533	7	112.0MV		260.0MV
539	15	158.0MV		260.0MV

VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	76.00MV		260.0MV

IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-4.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-4.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-4.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-5.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-4.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-5.000NA	-500.0NA	500.0NA

ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C

ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	2.000NA		4.000UA
847	16	0 A		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:22  
TEST PROGRAM HC595 S/N 2

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.840 V	2.480 V	
371	5	2.860 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	44.00MV		260.0MV
503	2	50.00MV		260.0MV
509	3	48.00MV		260.0MV
515	4	56.00MV		260.0MV
521	5	46.00MV		260.0MV
527	6	44.00MV		260.0MV
533	7	44.00MV		260.0MV
539	15	56.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	46.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.460 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.980 V	
353	2	4.220 V	3.980 V	
359	3	4.240 V	3.980 V	
365	4	4.210 V	3.980 V	
371	5	4.240 V	3.980 V	
377	6	4.240 V	3.980 V	
383	7	4.240 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		260.0MV
503	2	106.0MV		260.0MV
509	3	96.00MV		260.0MV
515	4	118.0MV		260.0MV
521	5	92.00MV		260.0MV
527	6	86.00MV		260.0MV
533	7	88.00MV		260.0MV
539	15	120.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -74.00MV              260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.740 V      5.480 V
353     2   5.720 V      5.480 V
359     3   5.730 V      5.480 V
365     4   5.710 V      5.480 V
371     5   5.740 V      5.480 V
377     6   5.740 V      5.480 V
383     7   5.740 V      5.480 V
389    15   5.700 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.810 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV              100.0MV
432     2   -4.000MV              100.0MV
438     3   -4.000MV              100.0MV
444     4   -4.000MV              100.0MV
450     5   -4.000MV              100.0MV
456     6   -4.000MV              100.0MV
462     7   -4.000MV              100.0MV
468    15   -4.000MV              100.0MV
474     9   -4.000MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=    7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	104.0MV		260.0MV
503	2	130.0MV		260.0MV
509	3	112.0MV		260.0MV
515	4	136.0MV		260.0MV
521	5	106.0MV		260.0MV
527	6	100.0MV		260.0MV
533	7	102.0MV		260.0MV
539	15	144.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=    5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	72.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-4.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-4.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-4.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-5.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-4.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-4.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 3.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 10:23  
TEST PROGRAM HC595 S/N 3

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.840 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.840 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	48.00MV		260.0MV
503	2	56.00MV		260.0MV
509	3	50.00MV		260.0MV
515	4	58.00MV		260.0MV
521	5	48.00MV		260.0MV
527	6	46.00MV		260.0MV
533	7	46.00MV		260.0MV
539	15	60.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	50.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.980 V	
353	2	4.210 V	3.980 V	
359	3	4.220 V	3.980 V	
365	4	4.210 V	3.980 V	
371	5	4.230 V	3.980 V	
377	6	4.230 V	3.980 V	
383	7	4.230 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	96.00MV		260.0MV
503	2	118.0MV		260.0MV
509	3	100.0MV		260.0MV
515	4	124.0MV		260.0MV
521	5	96.00MV		260.0MV
527	6	90.00MV		260.0MV
533	7	92.00MV		260.0MV
539	15	124.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -78.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.740 V      5.480 V
353     2   5.710 V      5.480 V
359     3   5.730 V      5.480 V
365     4   5.710 V      5.480 V
371     5   5.740 V      5.480 V
377     6   5.740 V      5.480 V
383     7   5.740 V      5.480 V
389    15   5.700 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.810 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	110.0MV		260.0MV
503	2	136.0MV		260.0MV
509	3	116.0MV		260.0MV
515	4	146.0MV		260.0MV
521	5	110.0MV		260.0MV
527	6	104.0MV		260.0MV
533	7	108.0MV		260.0MV
539	15	148.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	76.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-4.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-4.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-5.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-4.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-4.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-4.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-4.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	1.000NA		4.000UA
847	16	-2.000NA		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:24  
TEST PROGRAM HC595 S/N 4

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.840 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	50.00MV		260.0MV
503	2	50.00MV		260.0MV
509	3	52.00MV		260.0MV
515	4	60.00MV		260.0MV
521	5	50.00MV		260.0MV
527	6	46.00MV		260.0MV
533	7	48.00MV		260.0MV
539	15	60.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	50.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.980 V	
353	2	4.220 V	3.980 V	
359	3	4.220 V	3.980 V	
365	4	4.200 V	3.980 V	
371	5	4.230 V	3.980 V	
377	6	4.230 V	3.980 V	
383	7	4.230 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	98.00MV		260.0MV
503	2	102.0MV		260.0MV
509	3	104.0MV		260.0MV
515	4	124.0MV		260.0MV
521	5	98.00MV		260.0MV
527	6	92.00MV		260.0MV
533	7	96.00MV		260.0MV
539	15	126.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -78.00MV              260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.980 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.740 V      5.480 V
353     2   5.720 V      5.480 V
359     3   5.720 V      5.480 V
365     4   5.700 V      5.480 V
371     5   5.730 V      5.480 V
377     6   5.730 V      5.480 V
383     7   5.730 V      5.480 V
389    15   5.690 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.810 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   -2.000MV              100.0MV
432     2   -4.000MV              100.0MV
438     3   -4.000MV              100.0MV
444     4   -4.000MV              100.0MV
450     5   -4.000MV              100.0MV
456     6   -4.000MV              100.0MV
462     7   -4.000MV              100.0MV
468    15   -4.000MV              100.0MV
474     9   -4.000MV              100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	112.0MV		260.0MV
503	2	120.0MV		260.0MV
509	3	120.0MV		260.0MV
515	4	148.0MV		260.0MV
521	5	112.0MV		260.0MV
527	6	106.0MV		260.0MV
533	7	110.0MV		260.0MV
539	15	150.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	76.00MV		260.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	1.000NA	-500.0NA	500.0NA
693	1	-4.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-4.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-4.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-5.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-4.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-5.000NA	-500.0NA	500.0NA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	2.000NA		4.000UA
847	16	-2.000NA		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



STAT2 03/19/21 10:24  
TEST PROGRAM HC595 S/N 5

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.850 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	44.00MV		260.0MV
503	2	48.00MV		260.0MV
509	3	46.00MV		260.0MV
515	4	54.00MV		260.0MV
521	5	44.00MV		260.0MV
527	6	42.00MV		260.0MV
533	7	44.00MV		260.0MV
539	15	56.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	46.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.980 V	
353	2	4.230 V	3.980 V	
359	3	4.230 V	3.980 V	
365	4	4.210 V	3.980 V	
371	5	4.240 V	3.980 V	
377	6	4.240 V	3.980 V	
383	7	4.240 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		260.0MV
503	2	96.00MV		260.0MV
509	3	96.00MV		260.0MV
515	4	114.0MV		260.0MV
521	5	90.00MV		260.0MV
527	6	86.00MV		260.0MV
533	7	88.00MV		260.0MV
539	15	118.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -74.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.740 V      5.480 V
353     2   5.730 V      5.480 V
359     3   5.730 V      5.480 V
365     4   5.710 V      5.480 V
371     5   5.740 V      5.480 V
377     6   5.740 V      5.480 V
383     7   5.740 V      5.480 V
389    15   5.700 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.810 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	104.0MV		260.0MV
503	2	112.0MV		260.0MV
509	3	112.0MV		260.0MV
515	4	138.0MV		260.0MV
521	5	106.0MV		260.0MV
527	6	98.00MV		260.0MV
533	7	102.0MV		260.0MV
539	15	142.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	72.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-4.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-5.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-5.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-5.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-4.000NA	-500.0NA	500.0NA
798	15	1.000NA	-500.0NA	500.0NA
805	15	-4.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 4.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 10:26  
TEST PROGRAM HC595 S/N 6

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.840 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.840 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	46.00MV		260.0MV
503	2	52.00MV		260.0MV
509	3	48.00MV		260.0MV
515	4	58.00MV		260.0MV
521	5	48.00MV		260.0MV
527	6	44.00MV		260.0MV
533	7	46.00MV		260.0MV
539	15	58.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	48.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.980 V	
353	2	4.220 V	3.980 V	
359	3	4.230 V	3.980 V	
365	4	4.210 V	3.980 V	
371	5	4.240 V	3.980 V	
377	6	4.230 V	3.980 V	
383	7	4.230 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	92.00MV		260.0MV
503	2	106.0MV		260.0MV
509	3	98.00MV		260.0MV
515	4	120.0MV		260.0MV
521	5	94.00MV		260.0MV
527	6	88.00MV		260.0MV
533	7	92.00MV		260.0MV
539	15	122.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -76.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.740 V      5.480 V
353     2   5.720 V      5.480 V
359     3   5.730 V      5.480 V
365     4   5.710 V      5.480 V
371     5   5.740 V      5.480 V
377     6   5.740 V      5.480 V
383     7   5.740 V      5.480 V
389    15   5.700 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.810 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	106.0MV		260.0MV
503	2	124.0MV		260.0MV
509	3	116.0MV		260.0MV
515	4	142.0MV		260.0MV
521	5	108.0MV		260.0MV
527	6	102.0MV		260.0MV
533	7	104.0MV		260.0MV
539	15	144.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	1.000NA	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-4.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-5.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-5.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-5.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-5.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 2.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 10:27  
TEST PROGRAM HC595 S/N 7

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.840 V	2.480 V	
359	3	2.840 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	48.00MV		260.0MV
503	2	54.00MV		260.0MV
509	3	50.00MV		260.0MV
515	4	60.00MV		260.0MV
521	5	48.00MV		260.0MV
527	6	48.00MV		260.0MV
533	7	48.00MV		260.0MV
539	15	60.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	50.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.980 V	
353	2	4.210 V	3.980 V	
359	3	4.220 V	3.980 V	
365	4	4.200 V	3.980 V	
371	5	4.230 V	3.980 V	
377	6	4.230 V	3.980 V	
383	7	4.230 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	96.00MV		260.0MV
503	2	110.0MV		260.0MV
509	3	104.0MV		260.0MV
515	4	124.0MV		260.0MV
521	5	96.00MV		260.0MV
527	6	92.00MV		260.0MV
533	7	94.00MV		260.0MV
539	15	126.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -78.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.740 V      5.480 V
353     2   5.710 V      5.480 V
359     3   5.730 V      5.480 V
365     4   5.700 V      5.480 V
371     5   5.740 V      5.480 V
377     6   5.740 V      5.480 V
383     7   5.740 V      5.480 V
389    15   5.700 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.810 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	110.0MV		260.0MV
503	2	128.0MV		260.0MV
509	3	120.0MV		260.0MV
515	4	148.0MV		260.0MV
521	5	112.0MV		260.0MV
527	6	106.0MV		260.0MV
533	7	108.0MV		260.0MV
539	15	146.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	76.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-4.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-5.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-5.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-4.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-5.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-4.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 4.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 10:28  
TEST PROGRAM HC595 S/N 8

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.840 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	44.00MV		260.0MV
503	2	50.00MV		260.0MV
509	3	48.00MV		260.0MV
515	4	56.00MV		260.0MV
521	5	44.00MV		260.0MV
527	6	42.00MV		260.0MV
533	7	44.00MV		260.0MV
539	15	56.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	46.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.980 V	
353	2	4.220 V	3.980 V	
359	3	4.230 V	3.980 V	
365	4	4.210 V	3.980 V	
371	5	4.240 V	3.980 V	
377	6	4.240 V	3.980 V	
383	7	4.240 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		260.0MV
503	2	104.0MV		260.0MV
509	3	96.00MV		260.0MV
515	4	118.0MV		260.0MV
521	5	90.00MV		260.0MV
527	6	86.00MV		260.0MV
533	7	88.00MV		260.0MV
539	15	116.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -74.00MV 260.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.980 V 5.900 V  
282 2 5.970 V 5.900 V  
288 3 5.970 V 5.900 V  
294 4 5.970 V 5.900 V  
300 5 5.980 V 5.900 V  
306 6 5.970 V 5.900 V  
312 7 5.970 V 5.900 V  
318 15 5.970 V 5.900 V  
324 9 5.970 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.480  
-----

INST # PIN MEASURED LT GT  
347 1 5.740 V 5.480 V  
353 2 5.730 V 5.480 V  
359 3 5.730 V 5.480 V  
365 4 5.710 V 5.480 V  
371 5 5.740 V 5.480 V  
377 6 5.740 V 5.480 V  
383 7 5.740 V 5.480 V  
389 15 5.700 V 5.480 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.480  
-----

INST # PIN MEASURED LT GT  
403 9 5.810 V 5.480 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 -4.000MV 100.0MV  
432 2 -4.000MV 100.0MV  
438 3 -4.000MV 100.0MV  
444 4 -4.000MV 100.0MV  
450 5 -4.000MV 100.0MV  
456 6 -4.000MV 100.0MV  
462 7 -4.000MV 100.0MV  
468 15 -4.000MV 100.0MV  
474 9 -4.000MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2=    7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	102.0MV		260.0MV
503	2	120.0MV		260.0MV
509	3	112.0MV		260.0MV
515	4	146.0MV		260.0MV
521	5	104.0MV		260.0MV
527	6	98.00MV		260.0MV
533	7	102.0MV		260.0MV
539	15	138.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=    5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	72.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	1.000NA	-500.0NA	500.0NA
693	1	-4.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-4.000NA	-500.0NA	500.0NA
734	4	1.000NA	-500.0NA	500.0NA
741	4	-4.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-4.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-4.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-4.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 3.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT



STAT2 03/19/21 10:28  
TEST PROGRAM HC595 S/N 9

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.840 V	2.480 V	
371	5	2.860 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	44.00MV		260.0MV
503	2	50.00MV		260.0MV
509	3	46.00MV		260.0MV
515	4	58.00MV		260.0MV
521	5	44.00MV		260.0MV
527	6	42.00MV		260.0MV
533	7	42.00MV		260.0MV
539	15	54.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	46.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.980 V	
353	2	4.220 V	3.980 V	
359	3	4.230 V	3.980 V	
365	4	4.210 V	3.980 V	
371	5	4.240 V	3.980 V	
377	6	4.240 V	3.980 V	
383	7	4.230 V	3.980 V	
389	15	4.210 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		260.0MV
503	2	104.0MV		260.0MV
509	3	96.00MV		260.0MV
515	4	124.0MV		260.0MV
521	5	90.00MV		260.0MV
527	6	86.00MV		260.0MV
533	7	88.00MV		260.0MV
539	15	114.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -74.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.980 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.740 V      5.480 V
353     2   5.730 V      5.480 V
359     3   5.730 V      5.480 V
365     4   5.710 V      5.480 V
371     5   5.740 V      5.480 V
377     6   5.740 V      5.480 V
383     7   5.740 V      5.480 V
389    15   5.700 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.810 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	104.0MV		260.0MV
503	2	122.0MV		260.0MV
509	3	112.0MV		260.0MV
515	4	152.0MV		260.0MV
521	5	104.0MV		260.0MV
527	6	98.00MV		260.0MV
533	7	102.0MV		260.0MV
539	15	136.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	72.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-4.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	1.000NA	-500.0NA	500.0NA
725	3	-4.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-5.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-5.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-4.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-5.000NA	-500.0NA	500.0NA
798	15	1.000NA	-500.0NA	500.0NA
805	15	-5.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	3.000NA		4.000UA
847	16	0 A		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 10:29  
TEST PROGRAM HC595 S/N 10

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.840 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	44.00MV		260.0MV
503	2	50.00MV		260.0MV
509	3	48.00MV		260.0MV
515	4	64.00MV		260.0MV
521	5	44.00MV		260.0MV
527	6	42.00MV		260.0MV
533	7	44.00MV		260.0MV
539	15	54.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	48.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.980 V	
353	2	4.220 V	3.980 V	
359	3	4.230 V	3.980 V	
365	4	4.210 V	3.980 V	
371	5	4.240 V	3.980 V	
377	6	4.240 V	3.980 V	
383	7	4.240 V	3.980 V	
389	15	4.210 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		260.0MV
503	2	104.0MV		260.0MV
509	3	96.00MV		260.0MV
515	4	138.0MV		260.0MV
521	5	90.00MV		260.0MV
527	6	86.00MV		260.0MV
533	7	88.00MV		260.0MV
539	15	114.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -74.00MV 260.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.970 V 5.900 V  
282 2 5.970 V 5.900 V  
288 3 5.970 V 5.900 V  
294 4 5.980 V 5.900 V  
300 5 5.980 V 5.900 V  
306 6 5.980 V 5.900 V  
312 7 5.980 V 5.900 V  
318 15 5.970 V 5.900 V  
324 9 5.970 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.480  
-----

INST # PIN MEASURED LT GT  
347 1 5.740 V 5.480 V  
353 2 5.720 V 5.480 V  
359 3 5.730 V 5.480 V  
365 4 5.710 V 5.480 V  
371 5 5.740 V 5.480 V  
377 6 5.740 V 5.480 V  
383 7 5.740 V 5.480 V  
389 15 5.700 V 5.480 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.480  
-----

INST # PIN MEASURED LT GT  
403 9 5.810 V 5.480 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 -4.000MV 100.0MV  
432 2 -4.000MV 100.0MV  
438 3 -4.000MV 100.0MV  
444 4 -4.000MV 100.0MV  
450 5 -4.000MV 100.0MV  
456 6 -6.000MV 100.0MV  
462 7 -6.000MV 100.0MV  
468 15 -4.000MV 100.0MV  
474 9 -4.000MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	104.0MV		260.0MV
503	2	120.0MV		260.0MV
509	3	112.0MV		260.0MV
515	4	144.0MV		260.0MV
521	5	104.0MV		260.0MV
527	6	98.00MV		260.0MV
533	7	102.0MV		260.0MV
539	15	136.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	72.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	1.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-4.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-5.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-5.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-4.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-4.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 2.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 10:29  
TEST PROGRAM HC595 S/N 11

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.480 V	
353	2	2.840 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.840 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	44.00MV		260.0MV
503	2	50.00MV		260.0MV
509	3	48.00MV		260.0MV
515	4	58.00MV		260.0MV
521	5	44.00MV		260.0MV
527	6	42.00MV		260.0MV
533	7	44.00MV		260.0MV
539	15	54.00MV		260.0MV

VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	46.00MV		260.0MV

FUNCTIONAL TEST  
 VCC= 4.500  
 VIH= 3.150 VIL= 1.350

VOH1 TEST  
 VCC= 4.500 IOH=-20.00E-06  
 VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.980 V	
353	2	4.220 V	3.980 V	
359	3	4.230 V	3.980 V	
365	4	4.210 V	3.980 V	
371	5	4.240 V	3.980 V	
377	6	4.230 V	3.980 V	
383	7	4.240 V	3.980 V	
389	15	4.210 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		260.0MV
503	2	104.0MV		260.0MV
509	3	96.00MV		260.0MV
515	4	130.0MV		260.0MV
521	5	90.00MV		260.0MV
527	6	86.00MV		260.0MV
533	7	88.00MV		260.0MV
539	15	114.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -74.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.980 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.740 V      5.480 V
353     2   5.720 V      5.480 V
359     3   5.730 V      5.480 V
365     4   5.710 V      5.480 V
371     5   5.740 V      5.480 V
377     6   5.740 V      5.480 V
383     7   5.740 V      5.480 V
389    15   5.700 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.810 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -6.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```



-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	104.0MV		260.0MV
503	2	122.0MV		260.0MV
509	3	112.0MV		260.0MV
515	4	134.0MV		260.0MV
521	5	104.0MV		260.0MV
527	6	98.00MV		260.0MV
533	7	102.0MV		260.0MV
539	15	136.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	72.00MV		260.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-4.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-4.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-5.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-4.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-5.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-4.000NA	-500.0NA	500.0NA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 3.000NA 4.000UA  
847 16 -3.000NA 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 10:30  
TEST PROGRAM HC595 S/N 12

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +25C

-----  
CONTINUITY TEST  
-----

INST # PIN MEASURED LT GT  
57 10 -580.0MV -1.500 V -100.0MV  
57 11 -580.0MV -1.500 V -100.0MV  
57 12 -580.0MV -1.500 V -100.0MV  
57 13 -580.0MV -1.500 V -100.0MV  
57 14 -580.0MV -1.500 V -100.0MV  
57 16 -510.0MV -1.500 V -100.0MV  
67 1 640.0MV 100.0MV 1.500 V  
67 2 640.0MV 100.0MV 1.500 V  
67 3 640.0MV 100.0MV 1.500 V  
67 4 640.0MV 100.0MV 1.500 V  
67 5 630.0MV 100.0MV 1.500 V  
67 6 640.0MV 100.0MV 1.500 V  
67 7 640.0MV 100.0MV 1.500 V  
67 9 640.0MV 100.0MV 1.500 V  
67 15 640.0MV 100.0MV 1.500 V

-----  
FUNCTIONAL TEST  
VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST # PIN MEASURED LT GT  
276 1 1.980 V 1.900 V  
282 2 1.980 V 1.900 V  
288 3 1.980 V 1.900 V  
294 4 1.980 V 1.900 V  
300 5 1.980 V 1.900 V  
306 6 1.980 V 1.900 V  
312 7 1.980 V 1.900 V  
318 15 1.980 V 1.900 V  
324 9 1.980 V 1.900 V

-----  
VOL1 TEST  
VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03  
 -----

-----  
 VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.480  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.840 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

-----  
 VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.480  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

-----  
 VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	46.00MV		260.0MV
503	2	50.00MV		260.0MV
509	3	48.00MV		260.0MV
515	4	54.00MV		260.0MV
521	5	46.00MV		260.0MV
527	6	44.00MV		260.0MV
533	7	44.00MV		260.0MV
539	15	54.00MV		260.0MV

-----  
 VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	46.00MV		260.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 4.500  
 -----

VIH= 3.150 VIL= 1.350

-----  
-----  
VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400  
-----

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	
282	2	4.450 V	4.400 V	
288	3	4.450 V	4.400 V	
294	4	4.450 V	4.400 V	
300	5	4.460 V	4.400 V	
306	6	4.450 V	4.400 V	
312	7	4.450 V	4.400 V	
318	15	4.450 V	4.400 V	
324	9	4.450 V	4.400 V	

-----  
-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.980 V	
353	2	4.220 V	3.980 V	
359	3	4.230 V	3.980 V	
365	4	4.210 V	3.980 V	
371	5	4.230 V	3.980 V	
377	6	4.230 V	3.980 V	
383	7	4.240 V	3.980 V	
389	15	4.210 V	3.980 V	

-----  
-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	92.00MV		260.0MV

503	2	104.0MV		260.0MV
509	3	98.00MV		260.0MV
515	4	114.0MV		260.0MV
521	5	92.00MV		260.0MV
527	6	86.00MV		260.0MV
533	7	88.00MV		260.0MV
539	15	114.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	-76.00MV		260.0MV

-----  
FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

-----  
VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	5.980 V	5.900 V	
282	2	5.970 V	5.900 V	
288	3	5.980 V	5.900 V	
294	4	5.970 V	5.900 V	
300	5	5.980 V	5.900 V	
306	6	5.970 V	5.900 V	
312	7	5.970 V	5.900 V	
318	15	5.980 V	5.900 V	
324	9	5.970 V	5.900 V	

-----  
VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.480  
-----

INST #	PIN	MEASURED	LT	GT
347	1	5.740 V	5.480 V	
353	2	5.720 V	5.480 V	
359	3	5.730 V	5.480 V	
365	4	5.720 V	5.480 V	
371	5	5.740 V	5.480 V	
377	6	5.740 V	5.480 V	
383	7	5.740 V	5.480 V	
389	15	5.700 V	5.480 V	

-----  
VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.480  
-----

INST #	PIN	MEASURED	LT	GT
403	9	5.810 V	5.480 V	

-----  
VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-4.000MV		100.0MV
432	2	-4.000MV		100.0MV
438	3	-4.000MV		100.0MV
444	4	-4.000MV		100.0MV
450	5	-4.000MV		100.0MV
456	6	-4.000MV		100.0MV
462	7	-4.000MV		100.0MV
468	15	-2.000MV		100.0MV
474	9	-4.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	106.0MV		260.0MV
503	2	124.0MV		260.0MV
509	3	114.0MV		260.0MV
515	4	136.0MV		260.0MV
521	5	106.0MV		260.0MV
527	6	100.0MV		260.0MV
533	7	102.0MV		260.0MV
539	15	136.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	72.00MV		260.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	-2.000NA	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	-2.000NA	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-2.000NA	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-4.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-4.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-5.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA

741	4	-4.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-5.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-4.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-4.000NA	-500.0NA	500.0NA

-----  
 ICC TEST  
 VCC= 6  
 ICC LIMIT MAX. 4.0UA @25C  
 ICC LIMIT MAX. 160UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
838	16	2.000NA		4.000UA
847	16	0 A		4.000UA

EIR 1.....10      FCT      DCT  
 0000000000      PASS      PASS      EOT



# MIL-PRF-38534 CLASS K DATAPACK

---

Pre Burn-In Test Results at +125°C





STAT2

03/19/21 11:01

TEST PROGRAM HC595 S/N 1

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	10	-550.0MV	-1.500 V	-100.0MV
57	11	-550.0MV	-1.500 V	-100.0MV
57	12	-550.0MV	-1.500 V	-100.0MV
57	13	-550.0MV	-1.500 V	-100.0MV
57	14	-540.0MV	-1.500 V	-100.0MV
57	16	-470.0MV	-1.500 V	-100.0MV
67	1	580.0MV	100.0MV	1.500 V
67	2	580.0MV	100.0MV	1.500 V
67	3	580.0MV	100.0MV	1.500 V
67	4	580.0MV	100.0MV	1.500 V
67	5	580.0MV	100.0MV	1.500 V
67	6	580.0MV	100.0MV	1.500 V
67	7	580.0MV	100.0MV	1.500 V
67	9	580.0MV	100.0MV	1.500 V
67	15	570.0MV	100.0MV	1.500 V

FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03

VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

FUNCTIONAL TEST

VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.790 V	2.200 V	
359	3	2.810 V	2.200 V	
365	4	2.810 V	2.200 V	
371	5	2.810 V	2.200 V	
377	6	2.810 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.810 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.810 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	70.00MV		400.0MV
503	2	92.00MV		400.0MV
509	3	68.00MV		400.0MV
515	4	66.00MV		400.0MV
521	5	66.00MV		400.0MV
527	6	62.00MV		400.0MV
533	7	64.00MV		400.0MV
539	15	74.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	64.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	
282	2	4.450 V	4.400 V	

288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.160 V	3.700 V	
353	2	4.100 V	3.700 V	
359	3	4.140 V	3.700 V	
365	4	4.150 V	3.700 V	
371	5	4.150 V	3.700 V	
377	6	4.150 V	3.700 V	
383	7	4.150 V	3.700 V	
389	15	4.130 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.250 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	142.0MV		400.0MV
503	2	210.0MV		400.0MV
509	3	142.0MV		400.0MV
515	4	136.0MV		400.0MV
521	5	138.0MV		400.0MV
527	6	128.0MV		400.0MV
533	7	130.0MV		400.0MV
539	15	158.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	-96.00MV		400.0MV

-----  
FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

-----  
VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	5.960 V	5.900 V	
282	2	5.960 V	5.900 V	
288	3	5.960 V	5.900 V	
294	4	5.960 V	5.900 V	
300	5	5.960 V	5.900 V	
306	6	5.960 V	5.900 V	
312	7	5.960 V	5.900 V	
318	15	5.960 V	5.900 V	
324	9	5.960 V	5.900 V	

-----  
VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST #	PIN	MEASURED	LT	GT
347	1	5.640 V	5.200 V	
353	2	5.580 V	5.200 V	
359	3	5.620 V	5.200 V	
365	4	5.630 V	5.200 V	
371	5	5.620 V	5.200 V	
377	6	5.630 V	5.200 V	
383	7	5.630 V	5.200 V	
389	15	5.610 V	5.200 V	

-----  
VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST #	PIN	MEASURED	LT	GT
403	9	5.740 V	5.200 V	

-----  
VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-4.000MV		100.0MV
432	2	-4.000MV		100.0MV
438	3	-4.000MV		100.0MV
444	4	-4.000MV		100.0MV
450	5	-4.000MV		100.0MV
456	6	-4.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-2.000MV		100.0MV
474	9	-4.000MV		100.0MV

-----

VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
497 1 166.0MV 400.0MV  
503 2 204.0MV 400.0MV  
509 3 166.0MV 400.0MV  
515 4 158.0MV 400.0MV  
521 5 160.0MV 400.0MV  
527 6 148.0MV 400.0MV  
533 7 150.0MV 400.0MV  
539 15 184.0MV 400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
553 9 100.0MV 400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP

-----  
INST # PIN MEASURED LT GT  
594 10 -1.000NA -1.000UA 1.000UA  
600 10 -3.000NA -1.000UA 1.000UA  
608 11 -1.000NA -1.000UA 1.000UA  
614 11 -3.000NA -1.000UA 1.000UA  
622 12 0 A -1.000UA 1.000UA  
628 12 -3.000NA -1.000UA 1.000UA  
636 13 0 A -1.000UA 1.000UA  
642 13 -4.000NA -1.000UA 1.000UA  
650 14 -1.000NA -1.000UA 1.000UA  
656 14 -3.000NA -1.000UA 1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP

-----  
INST # PIN MEASURED LT GT  
686 1 -100.0NA -10.00UA 10.00UA  
693 1 -100.0NA -10.00UA 10.00UA  
702 2 -100.0NA -10.00UA 10.00UA  
709 2 -100.0NA -10.00UA 10.00UA  
718 3 -100.0NA -10.00UA 10.00UA  
725 3 -100.0NA -10.00UA 10.00UA  
734 4 -100.0NA -10.00UA 10.00UA  
741 4 -100.0NA -10.00UA 10.00UA  
750 5 -100.0NA -10.00UA 10.00UA  
757 5 -100.0NA -10.00UA 10.00UA  
766 6 -100.0NA -10.00UA 10.00UA  
773 6 -100.0NA -10.00UA 10.00UA  
782 7 -100.0NA -10.00UA 10.00UA  
789 7 -100.0NA -10.00UA 10.00UA  
798 15 -100.0NA -10.00UA 10.00UA  
805 15 -100.0NA -10.00UA 10.00UA

-----  
ICC TEST  
VCC= 6

ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 -100.0NA 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 11:01  
TEST PROGRAM HC595 S/N 2

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-530.0MV	-1.500 V	-100.0MV
57	11	-520.0MV	-1.500 V	-100.0MV
57	12	-520.0MV	-1.500 V	-100.0MV
57	13	-520.0MV	-1.500 V	-100.0MV
57	14	-520.0MV	-1.500 V	-100.0MV
57	16	-440.0MV	-1.500 V	-100.0MV
67	1	560.0MV	100.0MV	1.500 V
67	2	560.0MV	100.0MV	1.500 V
67	3	550.0MV	100.0MV	1.500 V
67	4	550.0MV	100.0MV	1.500 V
67	5	550.0MV	100.0MV	1.500 V
67	6	550.0MV	100.0MV	1.500 V
67	7	550.0MV	100.0MV	1.500 V
67	9	550.0MV	100.0MV	1.500 V
67	15	550.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.820 V	2.200 V	
377	6	2.810 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.810 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	64.00MV		400.0MV
503	2	60.00MV		400.0MV
509	3	64.00MV		400.0MV
515	4	62.00MV		400.0MV
521	5	64.00MV		400.0MV
527	6	58.00MV		400.0MV
533	7	60.00MV		400.0MV
539	15	70.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	62.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.150 V	3.700 V	
353	2	4.160 V	3.700 V	
359	3	4.140 V	3.700 V	
365	4	4.150 V	3.700 V	
371	5	4.140 V	3.700 V	
377	6	4.150 V	3.700 V	
383	7	4.150 V	3.700 V	
389	15	4.120 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.250 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	132.0MV		400.0MV
503	2	126.0MV		400.0MV
509	3	136.0MV		400.0MV
515	4	130.0MV		400.0MV
521	5	132.0MV		400.0MV
527	6	120.0MV		400.0MV
533	7	124.0MV		400.0MV
539	15	148.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -94.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.960 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.960 V      5.900 V
312     7   5.960 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.960 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.630 V      5.200 V
353     2   5.640 V      5.200 V
359     3   5.630 V      5.200 V
365     4   5.640 V      5.200 V
371     5   5.630 V      5.200 V
377     6   5.640 V      5.200 V
383     7   5.640 V      5.200 V
389    15   5.610 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.740 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -2.000MV             100.0MV
474     9   -4.000MV             100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	152.0MV		400.0MV
503	2	146.0MV		400.0MV
509	3	158.0MV		400.0MV
515	4	150.0MV		400.0MV
521	5	152.0MV		400.0MV
527	6	140.0MV		400.0MV
533	7	144.0MV		400.0MV
539	15	174.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	96.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	1.000NA	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	1.000NA	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	1.000NA	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 0 A 160.0UA  
847 16 0 A 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 11:02  
TEST PROGRAM HC595 S/N 3

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-530.0MV	-1.500 V	-100.0MV
57	11	-530.0MV	-1.500 V	-100.0MV
57	12	-530.0MV	-1.500 V	-100.0MV
57	13	-530.0MV	-1.500 V	-100.0MV
57	14	-530.0MV	-1.500 V	-100.0MV
57	16	-440.0MV	-1.500 V	-100.0MV
67	1	560.0MV	100.0MV	1.500 V
67	2	560.0MV	100.0MV	1.500 V
67	3	560.0MV	100.0MV	1.500 V
67	4	560.0MV	100.0MV	1.500 V
67	5	560.0MV	100.0MV	1.500 V
67	6	560.0MV	100.0MV	1.500 V
67	7	560.0MV	100.0MV	1.500 V
67	9	560.0MV	100.0MV	1.500 V
67	15	560.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.820 V	2.200 V	
377	6	2.820 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.810 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	66.00MV		400.0MV
503	2	64.00MV		400.0MV
509	3	68.00MV		400.0MV
515	4	66.00MV		400.0MV
521	5	64.00MV		400.0MV
527	6	62.00MV		400.0MV
533	7	64.00MV		400.0MV
539	15	72.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	62.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.700 V	
353	2	4.170 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.170 V	3.700 V	
371	5	4.170 V	3.700 V	
377	6	4.170 V	3.700 V	
383	7	4.170 V	3.700 V	
389	15	4.140 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	134.0MV		400.0MV
503	2	132.0MV		400.0MV
509	3	140.0MV		400.0MV
515	4	134.0MV		400.0MV
521	5	130.0MV		400.0MV
527	6	126.0MV		400.0MV
533	7	128.0MV		400.0MV
539	15	150.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -96.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.660 V      5.200 V
353     2   5.660 V      5.200 V
359     3   5.650 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.660 V      5.200 V
377     6   5.660 V      5.200 V
383     7   5.660 V      5.200 V
389    15   5.630 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.760 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	154.0MV		400.0MV
503	2	150.0MV		400.0MV
509	3	164.0MV		400.0MV
515	4	154.0MV		400.0MV
521	5	148.0MV		400.0MV
527	6	144.0MV		400.0MV
533	7	148.0MV		400.0MV
539	15	178.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	96.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 11:02  
TEST PROGRAM HC595 S/N 4

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-550.0MV	-1.500 V	-100.0MV
57	11	-550.0MV	-1.500 V	-100.0MV
57	12	-550.0MV	-1.500 V	-100.0MV
57	13	-550.0MV	-1.500 V	-100.0MV
57	14	-540.0MV	-1.500 V	-100.0MV
57	16	-460.0MV	-1.500 V	-100.0MV
67	1	580.0MV	100.0MV	1.500 V
67	2	580.0MV	100.0MV	1.500 V
67	3	580.0MV	100.0MV	1.500 V
67	4	580.0MV	100.0MV	1.500 V
67	5	580.0MV	100.0MV	1.500 V
67	6	580.0MV	100.0MV	1.500 V
67	7	580.0MV	100.0MV	1.500 V
67	9	580.0MV	100.0MV	1.500 V
67	15	570.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.820 V	2.200 V	
377	6	2.820 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	64.00MV		400.0MV
503	2	62.00MV		400.0MV
509	3	68.00MV		400.0MV
515	4	64.00MV		400.0MV
521	5	62.00MV		400.0MV
527	6	62.00MV		400.0MV
533	7	62.00MV		400.0MV
539	15	72.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	64.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.700 V	
353	2	4.170 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.170 V	3.700 V	
371	5	4.170 V	3.700 V	
377	6	4.170 V	3.700 V	
383	7	4.170 V	3.700 V	
389	15	4.150 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	134.0MV		400.0MV
503	2	128.0MV		400.0MV
509	3	140.0MV		400.0MV
515	4	132.0MV		400.0MV
521	5	130.0MV		400.0MV
527	6	126.0MV		400.0MV
533	7	128.0MV		400.0MV
539	15	152.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -94.00MV 400.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.970 V 5.900 V  
282 2 5.970 V 5.900 V  
288 3 5.970 V 5.900 V  
294 4 5.970 V 5.900 V  
300 5 5.970 V 5.900 V  
306 6 5.970 V 5.900 V  
312 7 5.970 V 5.900 V  
318 15 5.970 V 5.900 V  
324 9 5.970 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
347 1 5.660 V 5.200 V  
353 2 5.660 V 5.200 V  
359 3 5.640 V 5.200 V  
365 4 5.650 V 5.200 V  
371 5 5.660 V 5.200 V  
377 6 5.660 V 5.200 V  
383 7 5.660 V 5.200 V  
389 15 5.630 V 5.200 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
403 9 5.760 V 5.200 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 -4.000MV 100.0MV  
432 2 -4.000MV 100.0MV  
438 3 -4.000MV 100.0MV  
444 4 -4.000MV 100.0MV  
450 5 -4.000MV 100.0MV  
456 6 -4.000MV 100.0MV  
462 7 -4.000MV 100.0MV  
468 15 -2.000MV 100.0MV  
474 9 -4.000MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	156.0MV		400.0MV
503	2	148.0MV		400.0MV
509	3	164.0MV		400.0MV
515	4	154.0MV		400.0MV
521	5	150.0MV		400.0MV
527	6	144.0MV		400.0MV
533	7	148.0MV		400.0MV
539	15	178.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	98.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



STAT2 03/19/21 11:03  
TEST PROGRAM HC595 S/N 5

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-540.0MV	-1.500 V	-100.0MV
57	11	-540.0MV	-1.500 V	-100.0MV
57	12	-540.0MV	-1.500 V	-100.0MV
57	13	-530.0MV	-1.500 V	-100.0MV
57	14	-540.0MV	-1.500 V	-100.0MV
57	16	-450.0MV	-1.500 V	-100.0MV
67	1	570.0MV	100.0MV	1.500 V
67	2	570.0MV	100.0MV	1.500 V
67	3	570.0MV	100.0MV	1.500 V
67	4	570.0MV	100.0MV	1.500 V
67	5	570.0MV	100.0MV	1.500 V
67	6	570.0MV	100.0MV	1.500 V
67	7	560.0MV	100.0MV	1.500 V
67	9	560.0MV	100.0MV	1.500 V
67	15	560.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.830 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	60.00MV		400.0MV
503	2	58.00MV		400.0MV
509	3	64.00MV		400.0MV
515	4	60.00MV		400.0MV
521	5	58.00MV		400.0MV
527	6	58.00MV		400.0MV
533	7	58.00MV		400.0MV
539	15	68.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	60.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.700 V	
353	2	4.180 V	3.700 V	
359	3	4.170 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.180 V	3.700 V	
377	6	4.180 V	3.700 V	
383	7	4.170 V	3.700 V	
389	15	4.160 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	124.0MV		400.0MV
503	2	122.0MV		400.0MV
509	3	132.0MV		400.0MV
515	4	124.0MV		400.0MV
521	5	120.0MV		400.0MV
527	6	118.0MV		400.0MV
533	7	120.0MV		400.0MV
539	15	144.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -90.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.960 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.660 V      5.200 V
353     2   5.670 V      5.200 V
359     3   5.650 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.670 V      5.200 V
377     6   5.670 V      5.200 V
383     7   5.670 V      5.200 V
389    15   5.640 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.760 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```

-----  
 VOL2 TEST  
 VCC= 6 IOL2= 7.800E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	146.0MV		400.0MV
503	2	144.0MV		400.0MV
509	3	156.0MV		400.0MV
515	4	144.0MV		400.0MV
521	5	140.0MV		400.0MV
527	6	136.0MV		400.0MV
533	7	138.0MV		400.0MV
539	15	168.0MV		400.0MV

-----  
 VOL2 TEST  
 VCC= 6 IOL3= 5.200E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	92.00MV		400.0MV

-----  
 IIN TEST  
 VCC= 6  
 IIL/IIH LIMIT +- 0.1UA @25C  
 IIL/IIH LIMIT +- 1.0UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
 IOZ TEST  
 VCC= 6  
 IOZ LIMIT +- 0.5UA @25C  
 IOZ LIMIT +- 10UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
 ICC TEST  
 -----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 03/19/21 11:03  
TEST PROGRAM HC595 S/N 6

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-540.0MV	-1.500 V	-100.0MV
57	11	-540.0MV	-1.500 V	-100.0MV
57	12	-540.0MV	-1.500 V	-100.0MV
57	13	-540.0MV	-1.500 V	-100.0MV
57	14	-540.0MV	-1.500 V	-100.0MV
57	16	-450.0MV	-1.500 V	-100.0MV
67	1	580.0MV	100.0MV	1.500 V
67	2	570.0MV	100.0MV	1.500 V
67	3	570.0MV	100.0MV	1.500 V
67	4	570.0MV	100.0MV	1.500 V
67	5	570.0MV	100.0MV	1.500 V
67	6	570.0MV	100.0MV	1.500 V
67	7	570.0MV	100.0MV	1.500 V
67	9	570.0MV	100.0MV	1.500 V
67	15	570.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.820 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.810 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	62.00MV		400.0MV
503	2	60.00MV		400.0MV
509	3	66.00MV		400.0MV
515	4	64.00MV		400.0MV
521	5	62.00MV		400.0MV
527	6	60.00MV		400.0MV
533	7	60.00MV		400.0MV
539	15	70.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	62.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.700 V	
353	2	4.170 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.170 V	3.700 V	
371	5	4.170 V	3.700 V	
377	6	4.180 V	3.700 V	
383	7	4.170 V	3.700 V	
389	15	4.150 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	130.0MV		400.0MV
503	2	124.0MV		400.0MV
509	3	140.0MV		400.0MV
515	4	132.0MV		400.0MV
521	5	128.0MV		400.0MV
527	6	124.0MV		400.0MV
533	7	126.0MV		400.0MV
539	15	148.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -94.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.660 V      5.200 V
353     2   5.670 V      5.200 V
359     3   5.650 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.660 V      5.200 V
377     6   5.670 V      5.200 V
383     7   5.660 V      5.200 V
389    15   5.640 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.760 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	152.0MV		400.0MV
503	2	146.0MV		400.0MV
509	3	162.0MV		400.0MV
515	4	152.0MV		400.0MV
521	5	148.0MV		400.0MV
527	6	142.0MV		400.0MV
533	7	146.0MV		400.0MV
539	15	174.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	96.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	1.000NA	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-5.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 0 A 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 11:04  
TEST PROGRAM HC595 S/N 7

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-530.0MV	-1.500 V	-100.0MV
57	11	-530.0MV	-1.500 V	-100.0MV
57	12	-530.0MV	-1.500 V	-100.0MV
57	13	-530.0MV	-1.500 V	-100.0MV
57	14	-530.0MV	-1.500 V	-100.0MV
57	16	-450.0MV	-1.500 V	-100.0MV
67	1	570.0MV	100.0MV	1.500 V
67	2	570.0MV	100.0MV	1.500 V
67	3	570.0MV	100.0MV	1.500 V
67	4	560.0MV	100.0MV	1.500 V
67	5	560.0MV	100.0MV	1.500 V
67	6	560.0MV	100.0MV	1.500 V
67	7	560.0MV	100.0MV	1.500 V
67	9	560.0MV	100.0MV	1.500 V
67	15	560.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.820 V	2.200 V	
377	6	2.820 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.810 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	66.00MV		400.0MV
503	2	64.00MV		400.0MV
509	3	70.00MV		400.0MV
515	4	66.00MV		400.0MV
521	5	64.00MV		400.0MV
527	6	64.00MV		400.0MV
533	7	64.00MV		400.0MV
539	15	72.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	64.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.700 V	
353	2	4.170 V	3.700 V	
359	3	4.150 V	3.700 V	
365	4	4.160 V	3.700 V	
371	5	4.170 V	3.700 V	
377	6	4.160 V	3.700 V	
383	7	4.170 V	3.700 V	
389	15	4.140 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	136.0MV		400.0MV
503	2	134.0MV		400.0MV
509	3	144.0MV		400.0MV
515	4	138.0MV		400.0MV
521	5	132.0MV		400.0MV
527	6	128.0MV		400.0MV
533	7	130.0MV		400.0MV
539	15	154.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -96.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.660 V      5.200 V
353     2   5.660 V      5.200 V
359     3   5.640 V      5.200 V
365     4   5.650 V      5.200 V
371     5   5.660 V      5.200 V
377     6   5.650 V      5.200 V
383     7   5.660 V      5.200 V
389    15   5.630 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.760 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2=    7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	158.0MV		400.0MV
503	2	154.0MV		400.0MV
509	3	168.0MV		400.0MV
515	4	158.0MV		400.0MV
521	5	152.0MV		400.0MV
527	6	148.0MV		400.0MV
533	7	150.0MV		400.0MV
539	15	180.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=    5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	100.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-5.000NA	-1.000UA	1.000UA
636	13	1.000NA	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 0 A 160.0UA  
847 16 0 A 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 11:05  
TEST PROGRAM HC595 S/N 8

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-510.0MV	-1.500 V	-100.0MV
57	11	-500.0MV	-1.500 V	-100.0MV
57	12	-500.0MV	-1.500 V	-100.0MV
57	13	-500.0MV	-1.500 V	-100.0MV
57	14	-500.0MV	-1.500 V	-100.0MV
57	16	-410.0MV	-1.500 V	-100.0MV
67	1	540.0MV	100.0MV	1.500 V
67	2	540.0MV	100.0MV	1.500 V
67	3	530.0MV	100.0MV	1.500 V
67	4	540.0MV	100.0MV	1.500 V
67	5	530.0MV	100.0MV	1.500 V
67	6	530.0MV	100.0MV	1.500 V
67	7	530.0MV	100.0MV	1.500 V
67	9	530.0MV	100.0MV	1.500 V
67	15	530.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.820 V	2.200 V	
377	6	2.820 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.810 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	64.00MV		400.0MV
503	2	62.00MV		400.0MV
509	3	68.00MV		400.0MV
515	4	64.00MV		400.0MV
521	5	62.00MV		400.0MV
527	6	60.00MV		400.0MV
533	7	62.00MV		400.0MV
539	15	70.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	64.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.700 V	
353	2	4.170 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.170 V	3.700 V	
371	5	4.170 V	3.700 V	
377	6	4.170 V	3.700 V	
383	7	4.170 V	3.700 V	
389	15	4.140 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	130.0MV		400.0MV
503	2	126.0MV		400.0MV
509	3	138.0MV		400.0MV
515	4	130.0MV		400.0MV
521	5	126.0MV		400.0MV
527	6	122.0MV		400.0MV
533	7	124.0MV		400.0MV
539	15	146.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -94.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.660 V      5.200 V
353     2   5.660 V      5.200 V
359     3   5.650 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.660 V      5.200 V
377     6   5.660 V      5.200 V
383     7   5.660 V      5.200 V
389    15   5.630 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.760 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	148.0MV		400.0MV
503	2	146.0MV		400.0MV
509	3	160.0MV		400.0MV
515	4	150.0MV		400.0MV
521	5	144.0MV		400.0MV
527	6	138.0MV		400.0MV
533	7	142.0MV		400.0MV
539	15	172.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	94.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	1.000NA	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	1.000NA	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 0 A 160.0UA  
847 16 0 A 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT



STAT2 03/19/21 11:05  
TEST PROGRAM HC595 S/N 9

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-530.0MV	-1.500 V	-100.0MV
57	11	-530.0MV	-1.500 V	-100.0MV
57	12	-520.0MV	-1.500 V	-100.0MV
57	13	-520.0MV	-1.500 V	-100.0MV
57	14	-520.0MV	-1.500 V	-100.0MV
57	16	-440.0MV	-1.500 V	-100.0MV
67	1	560.0MV	100.0MV	1.500 V
67	2	560.0MV	100.0MV	1.500 V
67	3	560.0MV	100.0MV	1.500 V
67	4	550.0MV	100.0MV	1.500 V
67	5	550.0MV	100.0MV	1.500 V
67	6	550.0MV	100.0MV	1.500 V
67	7	550.0MV	100.0MV	1.500 V
67	9	550.0MV	100.0MV	1.500 V
67	15	550.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.830 V	2.200 V	
389	15	2.810 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	62.00MV		400.0MV
503	2	60.00MV		400.0MV
509	3	66.00MV		400.0MV
515	4	62.00MV		400.0MV
521	5	60.00MV		400.0MV
527	6	58.00MV		400.0MV
533	7	60.00MV		400.0MV
539	15	68.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	60.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.700 V	
353	2	4.180 V	3.700 V	
359	3	4.170 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.180 V	3.700 V	
377	6	4.180 V	3.700 V	
383	7	4.180 V	3.700 V	
389	15	4.150 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	126.0MV		400.0MV
503	2	122.0MV		400.0MV
509	3	136.0MV		400.0MV
515	4	128.0MV		400.0MV
521	5	124.0MV		400.0MV
527	6	120.0MV		400.0MV
533	7	122.0MV		400.0MV
539	15	144.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -92.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.670 V      5.200 V
353     2   5.670 V      5.200 V
359     3   5.660 V      5.200 V
365     4   5.670 V      5.200 V
371     5   5.670 V      5.200 V
377     6   5.670 V      5.200 V
383     7   5.670 V      5.200 V
389    15   5.640 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.770 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   -4.000MV              100.0MV
432     2   -4.000MV              100.0MV
438     3   -4.000MV              100.0MV
444     4   -4.000MV              100.0MV
450     5   -4.000MV              100.0MV
456     6   -4.000MV              100.0MV
462     7   -4.000MV              100.0MV
468    15   -4.000MV              100.0MV
474     9   -4.000MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	148.0MV		400.0MV
503	2	144.0MV		400.0MV
509	3	158.0MV		400.0MV
515	4	148.0MV		400.0MV
521	5	142.0MV		400.0MV
527	6	136.0MV		400.0MV
533	7	140.0MV		400.0MV
539	15	170.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	94.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-5.000NA	-1.000UA	1.000UA
636	13	1.000NA	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	1.000NA	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 0 A 160.0UA  
847 16 0 A 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 11:06  
TEST PROGRAM HC595 S/N 10

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-540.0MV	-1.500 V	-100.0MV
57	11	-540.0MV	-1.500 V	-100.0MV
57	12	-540.0MV	-1.500 V	-100.0MV
57	13	-530.0MV	-1.500 V	-100.0MV
57	14	-530.0MV	-1.500 V	-100.0MV
57	16	-450.0MV	-1.500 V	-100.0MV
67	1	570.0MV	100.0MV	1.500 V
67	2	570.0MV	100.0MV	1.500 V
67	3	570.0MV	100.0MV	1.500 V
67	4	570.0MV	100.0MV	1.500 V
67	5	570.0MV	100.0MV	1.500 V
67	6	560.0MV	100.0MV	1.500 V
67	7	560.0MV	100.0MV	1.500 V
67	9	560.0MV	100.0MV	1.500 V
67	15	560.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.830 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	60.00MV		400.0MV
503	2	56.00MV		400.0MV
509	3	64.00MV		400.0MV
515	4	60.00MV		400.0MV
521	5	60.00MV		400.0MV
527	6	58.00MV		400.0MV
533	7	58.00MV		400.0MV
539	15	68.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	60.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.700 V	
353	2	4.180 V	3.700 V	
359	3	4.170 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.180 V	3.700 V	
377	6	4.180 V	3.700 V	
383	7	4.180 V	3.700 V	
389	15	4.160 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	126.0MV		400.0MV
503	2	120.0MV		400.0MV
509	3	136.0MV		400.0MV
515	4	128.0MV		400.0MV
521	5	122.0MV		400.0MV
527	6	118.0MV		400.0MV
533	7	120.0MV		400.0MV
539	15	144.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -90.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.670 V      5.200 V
353     2   5.670 V      5.200 V
359     3   5.660 V      5.200 V
365     4   5.670 V      5.200 V
371     5   5.670 V      5.200 V
377     6   5.670 V      5.200 V
383     7   5.670 V      5.200 V
389    15   5.640 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.770 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   -4.000MV              100.0MV
432     2   -4.000MV              100.0MV
438     3   -4.000MV              100.0MV
444     4   -4.000MV              100.0MV
450     5   -4.000MV              100.0MV
456     6   -4.000MV              100.0MV
462     7   -4.000MV              100.0MV
468    15   -4.000MV              100.0MV
474     9   -4.000MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	146.0MV		400.0MV
503	2	142.0MV		400.0MV
509	3	158.0MV		400.0MV
515	4	146.0MV		400.0MV
521	5	142.0MV		400.0MV
527	6	136.0MV		400.0MV
533	7	140.0MV		400.0MV
539	15	170.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	92.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 0 A 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 11:06  
TEST PROGRAM HC595 S/N 11

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-520.0MV	-1.500 V	-100.0MV
57	11	-520.0MV	-1.500 V	-100.0MV
57	12	-520.0MV	-1.500 V	-100.0MV
57	13	-520.0MV	-1.500 V	-100.0MV
57	14	-520.0MV	-1.500 V	-100.0MV
57	16	-430.0MV	-1.500 V	-100.0MV
67	1	550.0MV	100.0MV	1.500 V
67	2	550.0MV	100.0MV	1.500 V
67	3	550.0MV	100.0MV	1.500 V
67	4	550.0MV	100.0MV	1.500 V
67	5	550.0MV	100.0MV	1.500 V
67	6	550.0MV	100.0MV	1.500 V
67	7	550.0MV	100.0MV	1.500 V
67	9	550.0MV	100.0MV	1.500 V
67	15	540.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-8.000MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.830 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	62.00MV		400.0MV
503	2	60.00MV		400.0MV
509	3	66.00MV		400.0MV
515	4	62.00MV		400.0MV
521	5	60.00MV		400.0MV
527	6	58.00MV		400.0MV
533	7	60.00MV		400.0MV
539	15	68.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	60.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.700 V	
353	2	4.180 V	3.700 V	
359	3	4.170 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.180 V	3.700 V	
377	6	4.180 V	3.700 V	
383	7	4.180 V	3.700 V	
389	15	4.160 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	128.0MV		400.0MV
503	2	122.0MV		400.0MV
509	3	136.0MV		400.0MV
515	4	128.0MV		400.0MV
521	5	124.0MV		400.0MV
527	6	120.0MV		400.0MV
533	7	122.0MV		400.0MV
539	15	144.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -92.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.670 V      5.200 V
353     2   5.680 V      5.200 V
359     3   5.660 V      5.200 V
365     4   5.670 V      5.200 V
371     5   5.670 V      5.200 V
377     6   5.670 V      5.200 V
383     7   5.670 V      5.200 V
389    15   5.640 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.770 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   -4.000MV             100.0MV
432     2   -4.000MV             100.0MV
438     3   -4.000MV             100.0MV
444     4   -4.000MV             100.0MV
450     5   -4.000MV             100.0MV
456     6   -4.000MV             100.0MV
462     7   -4.000MV             100.0MV
468    15   -4.000MV             100.0MV
474     9   -4.000MV             100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	148.0MV		400.0MV
503	2	142.0MV		400.0MV
509	3	160.0MV		400.0MV
515	4	150.0MV		400.0MV
521	5	142.0MV		400.0MV
527	6	136.0MV		400.0MV
533	7	140.0MV		400.0MV
539	15	170.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	94.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	1.000NA	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-5.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 0 A 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 03/19/21 11:07  
TEST PROGRAM HC595 S/N 12

DDS-109-01-A PN 54HC595 ELEC TEST SEQ12 +125C

-----  
CONTINUITY TEST  
-----

INST # PIN MEASURED LT GT  
57 10 -540.0MV -1.500 V -100.0MV  
57 11 -540.0MV -1.500 V -100.0MV  
57 12 -530.0MV -1.500 V -100.0MV  
57 13 -530.0MV -1.500 V -100.0MV  
57 14 -530.0MV -1.500 V -100.0MV  
57 16 -450.0MV -1.500 V -100.0MV  
67 1 570.0MV 100.0MV 1.500 V  
67 2 570.0MV 100.0MV 1.500 V  
67 3 570.0MV 100.0MV 1.500 V  
67 4 570.0MV 100.0MV 1.500 V  
67 5 570.0MV 100.0MV 1.500 V  
67 6 570.0MV 100.0MV 1.500 V  
67 7 560.0MV 100.0MV 1.500 V  
67 9 560.0MV 100.0MV 1.500 V  
67 15 560.0MV 100.0MV 1.500 V

-----  
FUNCTIONAL TEST  
VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST # PIN MEASURED LT GT  
276 1 1.980 V 1.900 V  
282 2 1.980 V 1.900 V  
288 3 1.980 V 1.900 V  
294 4 1.980 V 1.900 V  
300 5 1.980 V 1.900 V  
306 6 1.980 V 1.900 V  
312 7 1.980 V 1.900 V  
318 15 1.980 V 1.900 V  
324 9 1.980 V 1.900 V

-----  
VOL1 TEST  
VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-8.000MV		100.0MV
432	2	-8.000MV		100.0MV
438	3	-8.000MV		100.0MV
444	4	-8.000MV		100.0MV
450	5	-6.000MV		100.0MV
456	6	-8.000MV		100.0MV
462	7	-8.000MV		100.0MV
468	15	-8.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03  
 -----

-----  
 VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.200  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.830 V	2.200 V	
389	15	2.810 V	2.200 V	

-----  
 VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.200  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.200 V	

-----  
 VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	62.00MV		400.0MV
503	2	60.00MV		400.0MV
509	3	66.00MV		400.0MV
515	4	62.00MV		400.0MV
521	5	60.00MV		400.0MV
527	6	58.00MV		400.0MV
533	7	60.00MV		400.0MV
539	15	70.00MV		400.0MV

-----  
 VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	60.00MV		400.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 4.500  
 -----

VIH= 3.150 VIL= 1.350

-----  
-----  
VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400  
-----

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	
282	2	4.450 V	4.400 V	
288	3	4.450 V	4.400 V	
294	4	4.450 V	4.400 V	
300	5	4.450 V	4.400 V	
306	6	4.450 V	4.400 V	
312	7	4.450 V	4.400 V	
318	15	4.450 V	4.400 V	
324	9	4.450 V	4.400 V	

-----  
-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.700 V	
353	2	4.180 V	3.700 V	
359	3	4.170 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.180 V	3.700 V	
377	6	4.180 V	3.700 V	
383	7	4.180 V	3.700 V	
389	15	4.150 V	3.700 V	

-----  
-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-6.000MV		100.0MV
432	2	-6.000MV		100.0MV
438	3	-6.000MV		100.0MV
444	4	-6.000MV		100.0MV
450	5	-8.000MV		100.0MV
456	6	-6.000MV		100.0MV
462	7	-6.000MV		100.0MV
468	15	-6.000MV		100.0MV
474	9	-6.000MV		100.0MV

-----  
-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	128.0MV		400.0MV

503	2	124.0MV		400.0MV
509	3	138.0MV		400.0MV
515	4	128.0MV		400.0MV
521	5	124.0MV		400.0MV
527	6	120.0MV		400.0MV
533	7	122.0MV		400.0MV
539	15	146.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	-92.00MV		400.0MV

-----  
FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

-----  
VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	5.970 V	5.900 V	
282	2	5.970 V	5.900 V	
288	3	5.970 V	5.900 V	
294	4	5.970 V	5.900 V	
300	5	5.970 V	5.900 V	
306	6	5.970 V	5.900 V	
312	7	5.970 V	5.900 V	
318	15	5.970 V	5.900 V	
324	9	5.970 V	5.900 V	

-----  
VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST #	PIN	MEASURED	LT	GT
347	1	5.670 V	5.200 V	
353	2	5.670 V	5.200 V	
359	3	5.660 V	5.200 V	
365	4	5.670 V	5.200 V	
371	5	5.670 V	5.200 V	
377	6	5.670 V	5.200 V	
383	7	5.670 V	5.200 V	
389	15	5.640 V	5.200 V	

-----  
VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST #	PIN	MEASURED	LT	GT
403	9	5.770 V	5.200 V	

-----  
VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	-4.000MV		100.0MV
432	2	-4.000MV		100.0MV
438	3	-4.000MV		100.0MV
444	4	-4.000MV		100.0MV
450	5	-4.000MV		100.0MV
456	6	-4.000MV		100.0MV
462	7	-4.000MV		100.0MV
468	15	-2.000MV		100.0MV
474	9	-4.000MV		100.0MV

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	148.0MV		400.0MV
503	2	144.0MV		400.0MV
509	3	160.0MV		400.0MV
515	4	150.0MV		400.0MV
521	5	142.0MV		400.0MV
527	6	138.0MV		400.0MV
533	7	140.0MV		400.0MV
539	15	172.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	94.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	1.000NA	-1.000UA	1.000UA
628	12	-5.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA

741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
      ICC TEST
      VCC= 6
      ICC LIMIT MAX. 4.0UA @25C
      ICC LIMIT MAX. 160UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
838	16	0 A		160.0UA
847	16	-100.0NA		160.0UA

```

EIR 1.....10    FCT    DCT
      0000000000    PASS    PASS    EOT

```



# MIL-PRF-38534 CLASS K DATAPACK

---

Post Burn-In Test Results at -55°C





STAT2 04/07/21 15:08  
TEST PROGRAM HC595 S/N 1

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-610.0MV	-1.500 V	-100.0MV
57	11	-620.0MV	-1.500 V	-100.0MV
57	12	-620.0MV	-1.500 V	-100.0MV
57	13	-620.0MV	-1.500 V	-100.0MV
57	14	-620.0MV	-1.500 V	-100.0MV
57	16	-550.0MV	-1.500 V	-100.0MV
67	1	660.0MV	100.0MV	1.500 V
67	2	670.0MV	100.0MV	1.500 V
67	3	670.0MV	100.0MV	1.500 V
67	4	670.0MV	100.0MV	1.500 V
67	5	670.0MV	100.0MV	1.500 V
67	6	680.0MV	100.0MV	1.500 V
67	7	680.0MV	100.0MV	1.500 V
67	9	680.0MV	100.0MV	1.500 V
67	15	680.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----  
FUNCTIONAL TEST

VCC= 3  
-----

VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.840 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.840 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		400.0MV
503	2	78.00MV		400.0MV
509	3	102.0MV		400.0MV
515	4	74.00MV		400.0MV
521	5	72.00MV		400.0MV
527	6	70.00MV		400.0MV
533	7	84.00MV		400.0MV
539	15	84.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	
282	2	4.440 V	4.400 V	
288	3	4.450 V	4.400 V	

294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
 VOH2 TEST  
 VCC= 4.500 IOH2= -6.000E-03  
 VOH2 LIMIT 3.700  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	4.220 V	3.700 V	
353	2	4.200 V	3.700 V	
359	3	4.180 V	3.700 V	
365	4	4.210 V	3.700 V	
371	5	4.220 V	3.700 V	
377	6	4.220 V	3.700 V	
383	7	4.180 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
 VOH2 TEST  
 VCC= 4.500 IOH3= -4.000E-03  
 VOH2 LIMIT 3.700  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	4.290 V	3.700 V	

-----  
 VOL1 TEST  
 VCC= 4.500 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL2= 6.000E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	132.0MV		400.0MV
503	2	146.0MV		400.0MV
509	3	170.0MV		400.0MV
515	4	134.0MV		400.0MV
521	5	130.0MV		400.0MV
527	6	126.0MV		400.0MV
533	7	162.0MV		400.0MV
539	15	162.0MV		400.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL3= -4.000E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	-52.00MV		400.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 6  
 VIH= 4.200 VIL= 1.800  
 -----

-----  
 VOH1 TEST  
 VCC= 6 IOH=-20.00E-06  
 VOH LIMIT 5.900  
 -----

INST #	PIN	MEASURED	LT	GT
276	1	5.940 V	5.900 V	
282	2	5.940 V	5.900 V	
288	3	5.940 V	5.900 V	
294	4	5.940 V	5.900 V	
300	5	5.950 V	5.900 V	
306	6	5.940 V	5.900 V	
312	7	5.940 V	5.900 V	
318	15	5.940 V	5.900 V	
324	9	5.940 V	5.900 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH2= -7.800E-03  
 VOH2 LIMIT 5.200  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	5.690 V	5.200 V	
353	2	5.670 V	5.200 V	
359	3	5.660 V	5.200 V	
365	4	5.690 V	5.200 V	
371	5	5.690 V	5.200 V	
377	6	5.690 V	5.200 V	
383	7	5.660 V	5.200 V	
389	15	5.650 V	5.200 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH3= -5.200E-03  
 VOH2 LIMIT 5.200  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	5.770 V	5.200 V	

-----  
 VOL1 TEST  
 VCC= 6 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	36.00MV		100.0MV
432	2	36.00MV		100.0MV
438	3	36.00MV		100.0MV
444	4	36.00MV		100.0MV
450	5	36.00MV		100.0MV
456	6	36.00MV		100.0MV
462	7	36.00MV		100.0MV
468	15	36.00MV		100.0MV
474	9	36.00MV		100.0MV

-----  
 VOL2 TEST  
 -----

VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
497 1 158.0MV  
503 2 174.0MV  
509 3 186.0MV  
515 4 160.0MV  
521 5 154.0MV  
527 6 150.0MV  
533 7 180.0MV  
539 15 194.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
553 9 118.0MV  
400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP

-----  
INST # PIN MEASURED LT GT  
594 10 -2.000NA -1.000UA 1.000UA  
600 10 -3.000NA -1.000UA 1.000UA  
608 11 -2.000NA -1.000UA 1.000UA  
614 11 -3.000NA -1.000UA 1.000UA  
622 12 -2.000NA -1.000UA 1.000UA  
628 12 -3.000NA -1.000UA 1.000UA  
636 13 -2.000NA -1.000UA 1.000UA  
642 13 -3.000NA -1.000UA 1.000UA  
650 14 -2.000NA -1.000UA 1.000UA  
656 14 -3.000NA -1.000UA 1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP

-----  
INST # PIN MEASURED LT GT  
686 1 -100.0NA -10.00UA 10.00UA  
693 1 -100.0NA -10.00UA 10.00UA  
702 2 -100.0NA -10.00UA 10.00UA  
709 2 -100.0NA -10.00UA 10.00UA  
718 3 -100.0NA -10.00UA 10.00UA  
725 3 -100.0NA -10.00UA 10.00UA  
734 4 -100.0NA -10.00UA 10.00UA  
741 4 -100.0NA -10.00UA 10.00UA  
750 5 -100.0NA -10.00UA 10.00UA  
757 5 -100.0NA -10.00UA 10.00UA  
766 6 -100.0NA -10.00UA 10.00UA  
773 6 -100.0NA -10.00UA 10.00UA  
782 7 -100.0NA -10.00UA 10.00UA  
789 7 -100.0NA -10.00UA 10.00UA  
798 15 -100.0NA -10.00UA 10.00UA  
805 15 -100.0NA -10.00UA 10.00UA

-----  
ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C

ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 -100.0NA 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 04/07/21 15:12  
TEST PROGRAM HC595 S/N 2

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		400.0MV
503	2	72.00MV		400.0MV
509	3	78.00MV		400.0MV
515	4	74.00MV		400.0MV
521	5	68.00MV		400.0MV
527	6	68.00MV		400.0MV
533	7	72.00MV		400.0MV
539	15	76.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.700 V	
353	2	4.240 V	3.700 V	
359	3	4.230 V	3.700 V	
365	4	4.240 V	3.700 V	
371	5	4.250 V	3.700 V	
377	6	4.250 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.230 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	116.0MV		400.0MV
503	2	120.0MV		400.0MV
509	3	132.0MV		400.0MV
515	4	122.0MV		400.0MV
521	5	110.0MV		400.0MV
527	6	108.0MV		400.0MV
533	7	114.0MV		400.0MV
539	15	128.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -52.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.750 V      5.200 V
353     2   5.740 V      5.200 V
359     3   5.730 V      5.200 V
365     4   5.750 V      5.200 V
371     5   5.770 V      5.200 V
377     6   5.770 V      5.200 V
383     7   5.750 V      5.200 V
389    15   5.740 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.820 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   26.00MV             100.0MV
432     2   26.00MV             100.0MV
438     3   26.00MV             100.0MV
444     4   26.00MV             100.0MV
450     5   26.00MV             100.0MV
456     6   26.00MV             100.0MV
462     7   26.00MV             100.0MV
468    15   26.00MV             100.0MV
474     9   26.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	132.0MV		400.0MV
503	2	162.0MV		400.0MV
509	3	154.0MV		400.0MV
515	4	140.0MV		400.0MV
521	5	124.0MV		400.0MV
527	6	120.0MV		400.0MV
533	7	132.0MV		400.0MV
539	15	146.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	102.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:13  
TEST PROGRAM HC595 S/N 3

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	88.00MV		400.0MV
503	2	96.00MV		400.0MV
509	3	112.0MV		400.0MV
515	4	84.00MV		400.0MV
521	5	80.00MV		400.0MV
527	6	78.00MV		400.0MV
533	7	80.00MV		400.0MV
539	15	114.0MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	82.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.220 V	3.700 V	
353	2	4.180 V	3.700 V	
359	3	4.200 V	3.700 V	
365	4	4.230 V	3.700 V	
371	5	4.250 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	154.0MV		400.0MV
503	2	194.0MV		400.0MV
509	3	188.0MV		400.0MV
515	4	146.0MV		400.0MV
521	5	132.0MV		400.0MV
527	6	130.0MV		400.0MV
533	7	134.0MV		400.0MV
539	15	176.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -58.00MV          400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.730 V      5.200 V
353     2   5.710 V      5.200 V
359     3   5.730 V      5.200 V
365     4   5.740 V      5.200 V
371     5   5.760 V      5.200 V
377     6   5.760 V      5.200 V
383     7   5.750 V      5.200 V
389    15   5.710 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.820 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   36.00MV          100.0MV
432     2   36.00MV          100.0MV
438     3   36.00MV          100.0MV
444     4   36.00MV          100.0MV
450     5   36.00MV          100.0MV
456     6   36.00MV          100.0MV
462     7   36.00MV          100.0MV
468    15   36.00MV          100.0MV
474     9   36.00MV          100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	184.0MV		400.0MV
503	2	194.0MV		400.0MV
509	3	196.0MV		400.0MV
515	4	174.0MV		400.0MV
521	5	156.0MV		400.0MV
527	6	154.0MV		400.0MV
533	7	160.0MV		400.0MV
539	15	198.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	124.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:14  
TEST PROGRAM HC595 S/N 4

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.830 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		400.0MV
503	2	88.00MV		400.0MV
509	3	110.0MV		400.0MV
515	4	92.00MV		400.0MV
521	5	88.00MV		400.0MV
527	6	86.00MV		400.0MV
533	7	88.00MV		400.0MV
539	15	100.0MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	90.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.700 V	
353	2	4.230 V	3.700 V	
359	3	4.210 V	3.700 V	
365	4	4.230 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.230 V	3.700 V	
389	15	4.210 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	146.0MV		400.0MV
503	2	142.0MV		400.0MV
509	3	176.0MV		400.0MV
515	4	150.0MV		400.0MV
521	5	138.0MV		400.0MV
527	6	136.0MV		400.0MV
533	7	142.0MV		400.0MV
539	15	172.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -62.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.750 V      5.200 V
353     2   5.740 V      5.200 V
359     3   5.720 V      5.200 V
365     4   5.740 V      5.200 V
371     5   5.750 V      5.200 V
377     6   5.750 V      5.200 V
383     7   5.740 V      5.200 V
389    15   5.710 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.820 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   36.00MV             100.0MV
432     2   36.00MV             100.0MV
438     3   36.00MV             100.0MV
444     4   36.00MV             100.0MV
450     5   36.00MV             100.0MV
456     6   36.00MV             100.0MV
462     7   36.00MV             100.0MV
468    15   36.00MV             100.0MV
474     9   36.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	168.0MV		400.0MV
503	2	166.0MV		400.0MV
509	3	194.0MV		400.0MV
515	4	174.0MV		400.0MV
521	5	158.0MV		400.0MV
527	6	156.0MV		400.0MV
533	7	162.0MV		400.0MV
539	15	196.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	124.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



STAT2 04/07/21 15:15  
TEST PROGRAM HC595 S/N 5

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	650.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.840 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	84.00MV		400.0MV
503	2	82.00MV		400.0MV
509	3	96.00MV		400.0MV
515	4	82.00MV		400.0MV
521	5	78.00MV		400.0MV
527	6	76.00MV		400.0MV
533	7	78.00MV		400.0MV
539	15	82.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	82.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.700 V	
353	2	4.230 V	3.700 V	
359	3	4.220 V	3.700 V	
365	4	4.230 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.230 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	24.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	24.00MV		100.0MV
474	9	24.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	150.0MV		400.0MV
503	2	144.0MV		400.0MV
509	3	164.0MV		400.0MV
515	4	148.0MV		400.0MV
521	5	136.0MV		400.0MV
527	6	134.0MV		400.0MV
533	7	142.0MV		400.0MV
539	15	150.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -58.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.740 V      5.200 V
353     2   5.740 V      5.200 V
359     3   5.730 V      5.200 V
365     4   5.740 V      5.200 V
371     5   5.760 V      5.200 V
377     6   5.760 V      5.200 V
383     7   5.740 V      5.200 V
389    15   5.730 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.820 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   40.00MV             100.0MV
432     2   40.00MV             100.0MV
438     3   40.00MV             100.0MV
444     4   40.00MV             100.0MV
450     5   40.00MV             100.0MV
456     6   40.00MV             100.0MV
462     7   40.00MV             100.0MV
468    15   40.00MV             100.0MV
474     9   42.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	182.0MV		400.0MV
503	2	176.0MV		400.0MV
509	3	192.0MV		400.0MV
515	4	180.0MV		400.0MV
521	5	162.0MV		400.0MV
527	6	160.0MV		400.0MV
533	7	174.0MV		400.0MV
539	15	182.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	132.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:16  
TEST PROGRAM HC595 S/N 6

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-610.0MV	-1.500 V	-100.0MV
57	12	-610.0MV	-1.500 V	-100.0MV
57	13	-610.0MV	-1.500 V	-100.0MV
57	14	-610.0MV	-1.500 V	-100.0MV
57	16	-540.0MV	-1.500 V	-100.0MV
67	1	650.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	650.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	650.0MV	100.0MV	1.500 V
67	9	650.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.810 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	124.0MV		400.0MV
503	2	88.00MV		400.0MV
509	3	122.0MV		400.0MV
515	4	90.00MV		400.0MV
521	5	86.00MV		400.0MV
527	6	86.00MV		400.0MV
533	7	88.00MV		400.0MV
539	15	96.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	90.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
 VOH2 TEST  
 VCC= 4.500 IOH2= -6.000E-03  
 VOH2 LIMIT 3.700  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	4.210 V	3.700 V	
353	2	4.240 V	3.700 V	
359	3	4.200 V	3.700 V	
365	4	4.240 V	3.700 V	
371	5	4.250 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.220 V	3.700 V	

-----  
 VOH2 TEST  
 VCC= 4.500 IOH3= -4.000E-03  
 VOH2 LIMIT 3.700  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
 VOL1 TEST  
 VCC= 4.500 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	28.00MV		100.0MV
432	2	26.00MV		100.0MV
438	3	26.00MV		100.0MV
444	4	26.00MV		100.0MV
450	5	24.00MV		100.0MV
456	6	26.00MV		100.0MV
462	7	26.00MV		100.0MV
468	15	26.00MV		100.0MV
474	9	26.00MV		100.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL2= 6.000E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	202.0MV		400.0MV
503	2	162.0MV		400.0MV
509	3	208.0MV		400.0MV
515	4	172.0MV		400.0MV
521	5	158.0MV		400.0MV
527	6	158.0MV		400.0MV
533	7	164.0MV		400.0MV
539	15	186.0MV		400.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL3= -4.000E-03  
 VOL2 LIMIT 400.0E-03  
 -----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -68.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.730 V      5.200 V
353     2   5.750 V      5.200 V
359     3   5.710 V      5.200 V
365     4   5.740 V      5.200 V
371     5   5.760 V      5.200 V
377     6   5.760 V      5.200 V
383     7   5.750 V      5.200 V
389    15   5.720 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.820 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   50.00MV              100.0MV
432     2   50.00MV              100.0MV
438     3   50.00MV              100.0MV
444     4   48.00MV              100.0MV
450     5   50.00MV              100.0MV
456     6   48.00MV              100.0MV
462     7   50.00MV              100.0MV
468    15   50.00MV              100.0MV
474     9   50.00MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	224.0MV		400.0MV
503	2	194.0MV		400.0MV
509	3	234.0MV		400.0MV
515	4	202.0MV		400.0MV
521	5	184.0MV		400.0MV
527	6	184.0MV		400.0MV
533	7	194.0MV		400.0MV
539	15	222.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	148.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:16  
TEST PROGRAM HC595 S/N 7

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	650.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	18.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.830 V	2.200 V	
365	4	2.840 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	114.0MV		400.0MV
503	2	94.00MV		400.0MV
509	3	108.0MV		400.0MV
515	4	94.00MV		400.0MV
521	5	88.00MV		400.0MV
527	6	88.00MV		400.0MV
533	7	92.00MV		400.0MV
539	15	138.0MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	94.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.700 V	
353	2	4.220 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.220 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.230 V	3.700 V	
383	7	4.230 V	3.700 V	
389	15	4.210 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	24.00MV		100.0MV
432	2	24.00MV		100.0MV
438	3	24.00MV		100.0MV
444	4	24.00MV		100.0MV
450	5	24.00MV		100.0MV
456	6	24.00MV		100.0MV
462	7	24.00MV		100.0MV
468	15	24.00MV		100.0MV
474	9	24.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	194.0MV		400.0MV
503	2	164.0MV		400.0MV
509	3	264.0MV		400.0MV
515	4	162.0MV		400.0MV
521	5	148.0MV		400.0MV
527	6	148.0MV		400.0MV
533	7	156.0MV		400.0MV
539	15	172.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -68.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.960 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.700 V      5.200 V
353     2   5.720 V      5.200 V
359     3   5.680 V      5.200 V
365     4   5.720 V      5.200 V
371     5   5.740 V      5.200 V
377     6   5.740 V      5.200 V
383     7   5.730 V      5.200 V
389    15   5.710 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.800 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   44.00MV             100.0MV
432     2   44.00MV             100.0MV
438     3   42.00MV             100.0MV
444     4   42.00MV             100.0MV
450     5   42.00MV             100.0MV
456     6   42.00MV             100.0MV
462     7   42.00MV             100.0MV
468    15   42.00MV             100.0MV
474     9   42.00MV             100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2=    7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	216.0MV		400.0MV
503	2	192.0MV		400.0MV
509	3	240.0MV		400.0MV
515	4	190.0MV		400.0MV
521	5	172.0MV		400.0MV
527	6	174.0MV		400.0MV
533	7	184.0MV		400.0MV
539	15	202.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=    5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	142.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:17  
TEST PROGRAM HC595 S/N 8

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.800 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.780 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.820 V	2.200 V	
377	6	2.820 V	2.200 V	
383	7	2.800 V	2.200 V	
389	15	2.810 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	98.00MV		400.0MV
503	2	84.00MV		400.0MV
509	3	140.0MV		400.0MV
515	4	88.00MV		400.0MV
521	5	82.00MV		400.0MV
527	6	82.00MV		400.0MV
533	7	100.0MV		400.0MV
539	15	98.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.700 V	
353	2	4.210 V	3.700 V	
359	3	4.180 V	3.700 V	
365	4	4.200 V	3.700 V	
371	5	4.220 V	3.700 V	
377	6	4.210 V	3.700 V	
383	7	4.190 V	3.700 V	
389	15	4.160 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.280 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	28.00MV		100.0MV
432	2	28.00MV		100.0MV
438	3	30.00MV		100.0MV
444	4	28.00MV		100.0MV
450	5	28.00MV		100.0MV
456	6	28.00MV		100.0MV
462	7	28.00MV		100.0MV
468	15	28.00MV		100.0MV
474	9	28.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	200.0MV		400.0MV
503	2	174.0MV		400.0MV
509	3	322.0MV		400.0MV
515	4	170.0MV		400.0MV
521	5	156.0MV		400.0MV
527	6	158.0MV		400.0MV
533	7	180.0MV		400.0MV
539	15	206.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -70.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.960 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.960 V      5.900 V
312     7   5.960 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.960 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.700 V      5.200 V
353     2   5.720 V      5.200 V
359     3   5.710 V      5.200 V
365     4   5.710 V      5.200 V
371     5   5.730 V      5.200 V
377     6   5.730 V      5.200 V
383     7   5.710 V      5.200 V
389    15   5.670 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.790 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   52.00MV             100.0MV
432     2   52.00MV             100.0MV
438     3   52.00MV             100.0MV
444     4   52.00MV             100.0MV
450     5   52.00MV             100.0MV
456     6   52.00MV             100.0MV
462     7   52.00MV             100.0MV
468    15   52.00MV             100.0MV
474     9   52.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	222.0MV		400.0MV
503	2	202.0MV		400.0MV
509	3	380.0MV		400.0MV
515	4	208.0MV		400.0MV
521	5	188.0MV		400.0MV
527	6	192.0MV		400.0MV
533	7	210.0MV		400.0MV
539	15	240.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	158.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-1.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



STAT2 04/07/21 15:18  
TEST PROGRAM HC595 S/N 9

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-610.0MV	-1.500 V	-100.0MV
57	16	-540.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	660.0MV	100.0MV	1.500 V
67	4	650.0MV	100.0MV	1.500 V
67	5	650.0MV	100.0MV	1.500 V
67	6	650.0MV	100.0MV	1.500 V
67	7	650.0MV	100.0MV	1.500 V
67	9	650.0MV	100.0MV	1.500 V
67	15	650.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	86.00MV		400.0MV
503	2	82.00MV		400.0MV
509	3	156.0MV		400.0MV
515	4	84.00MV		400.0MV
521	5	80.00MV		400.0MV
527	6	80.00MV		400.0MV
533	7	82.00MV		400.0MV
539	15	90.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	86.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.220 V	3.700 V	
353	2	4.230 V	3.700 V	
359	3	4.210 V	3.700 V	
365	4	4.230 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.230 V	3.700 V	
389	15	4.210 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	28.00MV		100.0MV
432	2	28.00MV		100.0MV
438	3	28.00MV		100.0MV
444	4	28.00MV		100.0MV
450	5	28.00MV		100.0MV
456	6	28.00MV		100.0MV
462	7	28.00MV		100.0MV
468	15	28.00MV		100.0MV
474	9	28.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	176.0MV		400.0MV
503	2	166.0MV		400.0MV
509	3	194.0MV		400.0MV
515	4	172.0MV		400.0MV
521	5	160.0MV		400.0MV
527	6	160.0MV		400.0MV
533	7	166.0MV		400.0MV
539	15	186.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -70.00MV 400.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.960 V 5.900 V  
282 2 5.960 V 5.900 V  
288 3 5.960 V 5.900 V  
294 4 5.960 V 5.900 V  
300 5 5.960 V 5.900 V  
306 6 5.960 V 5.900 V  
312 7 5.960 V 5.900 V  
318 15 5.960 V 5.900 V  
324 9 5.960 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
347 1 5.720 V 5.200 V  
353 2 5.730 V 5.200 V  
359 3 5.690 V 5.200 V  
365 4 5.720 V 5.200 V  
371 5 5.740 V 5.200 V  
377 6 5.740 V 5.200 V  
383 7 5.720 V 5.200 V  
389 15 5.700 V 5.200 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
403 9 5.800 V 5.200 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 50.00MV 100.0MV  
432 2 50.00MV 100.0MV  
438 3 50.00MV 100.0MV  
444 4 50.00MV 100.0MV  
450 5 50.00MV 100.0MV  
456 6 50.00MV 100.0MV  
462 7 48.00MV 100.0MV  
468 15 50.00MV 100.0MV  
474 9 48.00MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	200.0MV		400.0MV
503	2	188.0MV		400.0MV
509	3	226.0MV		400.0MV
515	4	198.0MV		400.0MV
521	5	180.0MV		400.0MV
527	6	180.0MV		400.0MV
533	7	196.0MV		400.0MV
539	15	216.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	148.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:18  
TEST PROGRAM HC595 S/N 10

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.970 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	18.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.830 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	88.00MV		400.0MV
503	2	78.00MV		400.0MV
509	3	122.0MV		400.0MV
515	4	82.00MV		400.0MV
521	5	76.00MV		400.0MV
527	6	78.00MV		400.0MV
533	7	92.00MV		400.0MV
539	15	86.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	82.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.220 V	3.700 V	
353	2	4.240 V	3.700 V	
359	3	4.190 V	3.700 V	
365	4	4.230 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.230 V	3.700 V	
383	7	4.210 V	3.700 V	
389	15	4.210 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	24.00MV		100.0MV
432	2	24.00MV		100.0MV
438	3	24.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	24.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	24.00MV		100.0MV
468	15	24.00MV		100.0MV
474	9	24.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	162.0MV		400.0MV
503	2	136.0MV		400.0MV
509	3	186.0MV		400.0MV
515	4	148.0MV		400.0MV
521	5	134.0MV		400.0MV
527	6	138.0MV		400.0MV
533	7	164.0MV		400.0MV
539	15	158.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -62.00MV 400.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.960 V 5.900 V  
282 2 5.960 V 5.900 V  
288 3 5.960 V 5.900 V  
294 4 5.960 V 5.900 V  
300 5 5.960 V 5.900 V  
306 6 5.960 V 5.900 V  
312 7 5.960 V 5.900 V  
318 15 5.960 V 5.900 V  
324 9 5.960 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
347 1 5.710 V 5.200 V  
353 2 5.740 V 5.200 V  
359 3 5.680 V 5.200 V  
365 4 5.720 V 5.200 V  
371 5 5.740 V 5.200 V  
377 6 5.730 V 5.200 V  
383 7 5.710 V 5.200 V  
389 15 5.710 V 5.200 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
403 9 5.800 V 5.200 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 42.00MV 100.0MV  
432 2 42.00MV 100.0MV  
438 3 42.00MV 100.0MV  
444 4 40.00MV 100.0MV  
450 5 40.00MV 100.0MV  
456 6 40.00MV 100.0MV  
462 7 42.00MV 100.0MV  
468 15 42.00MV 100.0MV  
474 9 42.00MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	192.0MV		400.0MV
503	2	164.0MV		400.0MV
509	3	216.0MV		400.0MV
515	4	180.0MV		400.0MV
521	5	162.0MV		400.0MV
527	6	166.0MV		400.0MV
533	7	192.0MV		400.0MV
539	15	194.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	136.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:19  
TEST PROGRAM HC595 S/N 11

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.840 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	106.0MV		400.0MV
503	2	96.00MV		400.0MV
509	3	124.0MV		400.0MV
515	4	98.00MV		400.0MV
521	5	92.00MV		400.0MV
527	6	94.00MV		400.0MV
533	7	104.0MV		400.0MV
539	15	98.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	98.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.210 V	3.700 V	
353	2	4.220 V	3.700 V	
359	3	4.180 V	3.700 V	
365	4	4.220 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.230 V	3.700 V	
383	7	4.200 V	3.700 V	
389	15	4.220 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	26.00MV		100.0MV
432	2	26.00MV		100.0MV
438	3	26.00MV		100.0MV
444	4	26.00MV		100.0MV
450	5	26.00MV		100.0MV
456	6	26.00MV		100.0MV
462	7	26.00MV		100.0MV
468	15	26.00MV		100.0MV
474	9	26.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	188.0MV		400.0MV
503	2	170.0MV		400.0MV
509	3	206.0MV		400.0MV
515	4	174.0MV		400.0MV
521	5	156.0MV		400.0MV
527	6	164.0MV		400.0MV
533	7	190.0MV		400.0MV
539	15	174.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -72.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.960 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.960 V      5.900 V
312     7   5.960 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.960 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.710 V      5.200 V
353     2   5.710 V      5.200 V
359     3   5.690 V      5.200 V
365     4   5.710 V      5.200 V
371     5   5.730 V      5.200 V
377     6   5.720 V      5.200 V
383     7   5.690 V      5.200 V
389    15   5.710 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.800 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   42.00MV             100.0MV
432     2   40.00MV             100.0MV
438     3   40.00MV             100.0MV
444     4   40.00MV             100.0MV
450     5   40.00MV             100.0MV
456     6   40.00MV             100.0MV
462     7   40.00MV             100.0MV
468    15   42.00MV             100.0MV
474     9   40.00MV             100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	192.0MV		400.0MV
503	2	194.0MV		400.0MV
509	3	206.0MV		400.0MV
515	4	184.0MV		400.0MV
521	5	160.0MV		400.0MV
527	6	170.0MV		400.0MV
533	7	202.0MV		400.0MV
539	15	184.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	136.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 -100.0NA 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 04/07/21 15:21  
TEST PROGRAM HC595 S/N 12

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-660.0MV	-1.500 V	-100.0MV
57	11	-660.0MV	-1.500 V	-100.0MV
57	12	-660.0MV	-1.500 V	-100.0MV
57	13	-660.0MV	-1.500 V	-100.0MV
57	14	-660.0MV	-1.500 V	-100.0MV
57	16	-600.0MV	-1.500 V	-100.0MV
67	1	750.0MV	100.0MV	1.500 V
67	2	740.0MV	100.0MV	1.500 V
67	3	750.0MV	100.0MV	1.500 V
67	4	740.0MV	100.0MV	1.500 V
67	5	740.0MV	100.0MV	1.500 V
67	6	750.0MV	100.0MV	1.500 V
67	7	750.0MV	100.0MV	1.500 V
67	9	750.0MV	100.0MV	1.500 V
67	15	740.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.870 V	2.200 V	
353	2	2.870 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.860 V	2.200 V	
371	5	2.870 V	2.200 V	
377	6	2.870 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.870 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		400.0MV
503	2	70.00MV		400.0MV
509	3	82.00MV		400.0MV
515	4	78.00MV		400.0MV
521	5	72.00MV		400.0MV
527	6	70.00MV		400.0MV
533	7	80.00MV		400.0MV
539	15	88.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	76.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.260 V	3.700 V	
353	2	4.270 V	3.700 V	
359	3	4.240 V	3.700 V	
365	4	4.250 V	3.700 V	
371	5	4.270 V	3.700 V	
377	6	4.260 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.210 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.320 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	24.00MV		100.0MV
432	2	24.00MV		100.0MV
438	3	24.00MV		100.0MV
444	4	24.00MV		100.0MV
450	5	24.00MV		100.0MV
456	6	24.00MV		100.0MV
462	7	24.00MV		100.0MV
468	15	24.00MV		100.0MV
474	9	24.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	144.0MV		400.0MV
503	2	136.0MV		400.0MV
509	3	164.0MV		400.0MV
515	4	156.0MV		400.0MV
521	5	136.0MV		400.0MV
527	6	136.0MV		400.0MV
533	7	160.0MV		400.0MV
539	15	188.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -60.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.960 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.960 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.960 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.750 V      5.200 V
353     2   5.760 V      5.200 V
359     3   5.730 V      5.200 V
365     4   5.740 V      5.200 V
371     5   5.760 V      5.200 V
377     6   5.760 V      5.200 V
383     7   5.730 V      5.200 V
389    15   5.700 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.810 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   50.00MV             100.0MV
432     2   50.00MV             100.0MV
438     3   50.00MV             100.0MV
444     4   48.00MV             100.0MV
450     5   48.00MV             100.0MV
456     6   48.00MV             100.0MV
462     7   48.00MV             100.0MV
468    15   50.00MV             100.0MV
474     9   48.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	178.0MV		400.0MV
503	2	170.0MV		400.0MV
509	3	204.0MV		400.0MV
515	4	194.0MV		400.0MV
521	5	168.0MV		400.0MV
527	6	168.0MV		400.0MV
533	7	200.0MV		400.0MV
539	15	220.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	140.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	





# MIL-PRF-38534 CLASS K DATAPACK

---

Post Burn-In Test Results at 25°C



STAT2 04/05/21 15:37  
TEST PROGRAM HC595 S/N 1

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
FUNCTIONAL TEST

VCC= 3  
-----

VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.480 V	
353	2	2.810 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.820 V	2.480 V	
371	5	2.830 V	2.480 V	
377	6	2.830 V	2.480 V	
383	7	2.830 V	2.480 V	
389	15	2.820 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	78.00MV		260.0MV
503	2	90.00MV		260.0MV
509	3	78.00MV		260.0MV
515	4	82.00MV		260.0MV
521	5	76.00MV		260.0MV
527	6	74.00MV		260.0MV
533	7	74.00MV		260.0MV
539	15	84.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	78.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	
282	2	4.450 V	4.400 V	
288	3	4.450 V	4.400 V	

294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
 VOH2 TEST  
 VCC= 4.500 IOH2= -6.000E-03  
 VOH2 LIMIT 3.980  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.980 V	
353	2	4.140 V	3.980 V	
359	3	4.170 V	3.980 V	
365	4	4.160 V	3.980 V	
371	5	4.180 V	3.980 V	
377	6	4.180 V	3.980 V	
383	7	4.180 V	3.980 V	
389	15	4.170 V	3.980 V	

-----  
 VOH2 TEST  
 VCC= 4.500 IOH3= -4.000E-03  
 VOH2 LIMIT 3.980  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.980 V	

-----  
 VOL1 TEST  
 VCC= 4.500 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL2= 6.000E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	132.0MV		260.0MV
503	2	158.0MV		260.0MV
509	3	134.0MV		260.0MV
515	4	146.0MV		260.0MV
521	5	128.0MV		260.0MV
527	6	124.0MV		260.0MV
533	7	124.0MV		260.0MV
539	15	146.0MV		260.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL3= -4.000E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	-60.00MV		260.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 6  
 VIH= 4.200 VIL= 1.800  
 -----

-----  
 VOH1 TEST  
 VCC= 6 IOH=-20.00E-06  
 VOH LIMIT 5.900  
 -----

INST #	PIN	MEASURED	LT	GT
276	1	5.950 V	5.900 V	
282	2	5.950 V	5.900 V	
288	3	5.950 V	5.900 V	
294	4	5.950 V	5.900 V	
300	5	5.950 V	5.900 V	
306	6	5.950 V	5.900 V	
312	7	5.950 V	5.900 V	
318	15	5.950 V	5.900 V	
324	9	5.950 V	5.900 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH2= -7.800E-03  
 VOH2 LIMIT 5.480  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	5.660 V	5.480 V	
353	2	5.620 V	5.480 V	
359	3	5.650 V	5.480 V	
365	4	5.630 V	5.480 V	
371	5	5.660 V	5.480 V	
377	6	5.650 V	5.480 V	
383	7	5.660 V	5.480 V	
389	15	5.640 V	5.480 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH3= -5.200E-03  
 VOH2 LIMIT 5.480  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	5.740 V	5.480 V	

-----  
 VOL1 TEST  
 VCC= 6 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
 VOL2 TEST  
 -----

VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	150.0MV		260.0MV
503	2	178.0MV		260.0MV
509	3	152.0MV		260.0MV
515	4	166.0MV		260.0MV
521	5	142.0MV		260.0MV
527	6	140.0MV		260.0MV
533	7	142.0MV		260.0MV
539	15	168.0MV		260.0MV

VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	110.0MV		260.0MV

IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-5.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-5.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C

ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	1.000NA		4.000UA
847	16	-6.000NA		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/05/21 15:38  
TEST PROGRAM HC595 S/N 2

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-590.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	18.00MV		100.0MV

-----



FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.480 V	
353	2	2.820 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.840 V	2.480 V	
377	6	2.840 V	2.480 V	
383	7	2.830 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	70.00MV		260.0MV
503	2	88.00MV		260.0MV
509	3	72.00MV		260.0MV
515	4	76.00MV		260.0MV
521	5	70.00MV		260.0MV
527	6	70.00MV		260.0MV
533	7	70.00MV		260.0MV
539	15	76.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	78.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.440 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.440 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.980 V	
353	2	4.160 V	3.980 V	
359	3	4.180 V	3.980 V	
365	4	4.180 V	3.980 V	
371	5	4.190 V	3.980 V	
377	6	4.190 V	3.980 V	
383	7	4.190 V	3.980 V	
389	15	4.170 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	118.0MV		260.0MV
503	2	148.0MV		260.0MV
509	3	122.0MV		260.0MV
515	4	134.0MV		260.0MV
521	5	116.0MV		260.0MV
527	6	114.0MV		260.0MV
533	7	116.0MV		260.0MV
539	15	130.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -60.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.940 V      5.900 V
282     2   5.940 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.940 V      5.900 V
300     5   5.940 V      5.900 V
306     6   5.940 V      5.900 V
312     7   5.940 V      5.900 V
318    15   5.940 V      5.900 V
324     9   5.940 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.660 V      5.480 V
353     2   5.630 V      5.480 V
359     3   5.650 V      5.480 V
365     4   5.640 V      5.480 V
371     5   5.660 V      5.480 V
377     6   5.660 V      5.480 V
383     7   5.660 V      5.480 V
389    15   5.640 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.740 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   22.00MV             100.0MV
432     2   22.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   22.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   22.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   22.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	134.0MV		260.0MV
503	2	166.0MV		260.0MV
509	3	140.0MV		260.0MV
515	4	156.0MV		260.0MV
521	5	132.0MV		260.0MV
527	6	130.0MV		260.0MV
533	7	132.0MV		260.0MV
539	15	152.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	112.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-4.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-5.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-5.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-7.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-7.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-7.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 3.000NA 4.000UA  
847 16 -6.000NA 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 04/05/21 15:38  
TEST PROGRAM HC595 S/N 3

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.480 V	
353	2	2.810 V	2.480 V	
359	3	2.820 V	2.480 V	
365	4	2.820 V	2.480 V	
371	5	2.830 V	2.480 V	
377	6	2.830 V	2.480 V	
383	7	2.830 V	2.480 V	
389	15	2.820 V	2.480 V	

VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.480 V	

VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		260.0MV
503	2	82.00MV		260.0MV
509	3	76.00MV		260.0MV
515	4	80.00MV		260.0MV
521	5	72.00MV		260.0MV
527	6	72.00MV		260.0MV
533	7	72.00MV		260.0MV
539	15	78.00MV		260.0MV

VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	80.00MV		260.0MV

FUNCTIONAL TEST  
 VCC= 4.500  
 VIH= 3.150 VIL= 1.350

VOH1 TEST  
 VCC= 4.500 IOH=-20.00E-06  
 VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.440 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.440 V	4.400 V
312	7	4.440 V	4.400 V
318	15	4.440 V	4.400 V
324	9	4.440 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.980 V	
353	2	4.140 V	3.980 V	
359	3	4.160 V	3.980 V	
365	4	4.150 V	3.980 V	
371	5	4.170 V	3.980 V	
377	6	4.170 V	3.980 V	
383	7	4.170 V	3.980 V	
389	15	4.150 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.250 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	122.0MV		260.0MV
503	2	146.0MV		260.0MV
509	3	128.0MV		260.0MV
515	4	144.0MV		260.0MV
521	5	120.0MV		260.0MV
527	6	118.0MV		260.0MV
533	7	120.0MV		260.0MV
539	15	136.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----



```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -64.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.940 V      5.900 V
282     2   5.940 V      5.900 V
288     3   5.940 V      5.900 V
294     4   5.940 V      5.900 V
300     5   5.940 V      5.900 V
306     6   5.940 V      5.900 V
312     7   5.940 V      5.900 V
318    15   5.940 V      5.900 V
324     9   5.940 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.650 V      5.480 V
353     2   5.610 V      5.480 V
359     3   5.640 V      5.480 V
365     4   5.620 V      5.480 V
371     5   5.650 V      5.480 V
377     6   5.650 V      5.480 V
383     7   5.650 V      5.480 V
389    15   5.620 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.730 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   22.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   22.00MV             100.0MV
456     6   22.00MV             100.0MV
462     7   22.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	140.0MV		260.0MV
503	2	168.0MV		260.0MV
509	3	146.0MV		260.0MV
515	4	166.0MV		260.0MV
521	5	138.0MV		260.0MV
527	6	136.0MV		260.0MV
533	7	136.0MV		260.0MV
539	15	158.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	118.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-5.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-4.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-5.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-7.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 0 A 4.000UA  
847 16 -6.000NA 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 04/05/21 15:39  
TEST PROGRAM HC595 S/N 4

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.480 V	
353	2	2.810 V	2.480 V	
359	3	2.820 V	2.480 V	
365	4	2.820 V	2.480 V	
371	5	2.830 V	2.480 V	
377	6	2.820 V	2.480 V	
383	7	2.820 V	2.480 V	
389	15	2.820 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		260.0MV
503	2	92.00MV		260.0MV
509	3	76.00MV		260.0MV
515	4	82.00MV		260.0MV
521	5	72.00MV		260.0MV
527	6	74.00MV		260.0MV
533	7	74.00MV		260.0MV
539	15	80.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	82.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.440 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.440 V	4.400 V
318	15	4.440 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.980 V	
353	2	4.140 V	3.980 V	
359	3	4.160 V	3.980 V	
365	4	4.140 V	3.980 V	
371	5	4.170 V	3.980 V	
377	6	4.170 V	3.980 V	
383	7	4.170 V	3.980 V	
389	15	4.150 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.250 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	126.0MV		260.0MV
503	2	152.0MV		260.0MV
509	3	132.0MV		260.0MV
515	4	148.0MV		260.0MV
521	5	124.0MV		260.0MV
527	6	122.0MV		260.0MV
533	7	122.0MV		260.0MV
539	15	138.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -68.00MV              260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.940 V      5.900 V
282     2   5.940 V      5.900 V
288     3   5.940 V      5.900 V
294     4   5.940 V      5.900 V
300     5   5.940 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.940 V      5.900 V
318    15   5.940 V      5.900 V
324     9   5.940 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.650 V      5.480 V
353     2   5.610 V      5.480 V
359     3   5.640 V      5.480 V
365     4   5.620 V      5.480 V
371     5   5.650 V      5.480 V
377     6   5.640 V      5.480 V
383     7   5.640 V      5.480 V
389    15   5.630 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.730 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   22.00MV              100.0MV
432     2   22.00MV              100.0MV
438     3   22.00MV              100.0MV
444     4   22.00MV              100.0MV
450     5   22.00MV              100.0MV
456     6   22.00MV              100.0MV
462     7   22.00MV              100.0MV
468    15   24.00MV              100.0MV
474     9   22.00MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	144.0MV		260.0MV
503	2	174.0MV		260.0MV
509	3	150.0MV		260.0MV
515	4	170.0MV		260.0MV
521	5	140.0MV		260.0MV
527	6	138.0MV		260.0MV
533	7	138.0MV		260.0MV
539	15	160.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	118.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-4.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-5.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-4.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-7.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```



VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	2.000NA		4.000UA
847	16	-6.000NA		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/05/21 15:40  
TEST PROGRAM HC595 S/N 5

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-590.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.480 V	
353	2	2.820 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.820 V	2.480 V	
371	5	2.830 V	2.480 V	
377	6	2.840 V	2.480 V	
383	7	2.840 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	70.00MV		260.0MV
503	2	86.00MV		260.0MV
509	3	72.00MV		260.0MV
515	4	82.00MV		260.0MV
521	5	70.00MV		260.0MV
527	6	68.00MV		260.0MV
533	7	70.00MV		260.0MV
539	15	76.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	80.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.440 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.980 V	
353	2	4.160 V	3.980 V	
359	3	4.180 V	3.980 V	
365	4	4.160 V	3.980 V	
371	5	4.190 V	3.980 V	
377	6	4.190 V	3.980 V	
383	7	4.180 V	3.980 V	
389	15	4.170 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	118.0MV		260.0MV
503	2	144.0MV		260.0MV
509	3	124.0MV		260.0MV
515	4	148.0MV		260.0MV
521	5	116.0MV		260.0MV
527	6	114.0MV		260.0MV
533	7	116.0MV		260.0MV
539	15	130.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -62.00MV              260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.940 V      5.900 V
282     2   5.940 V      5.900 V
288     3   5.940 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.940 V      5.900 V
306     6   5.940 V      5.900 V
312     7   5.940 V      5.900 V
318    15   5.940 V      5.900 V
324     9   5.940 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.660 V      5.480 V
353     2   5.630 V      5.480 V
359     3   5.650 V      5.480 V
365     4   5.630 V      5.480 V
371     5   5.660 V      5.480 V
377     6   5.660 V      5.480 V
383     7   5.660 V      5.480 V
389    15   5.640 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.740 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV              100.0MV
432     2   24.00MV              100.0MV
438     3   22.00MV              100.0MV
444     4   24.00MV              100.0MV
450     5   22.00MV              100.0MV
456     6   22.00MV              100.0MV
462     7   24.00MV              100.0MV
468    15   24.00MV              100.0MV
474     9   24.00MV              100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	134.0MV		260.0MV
503	2	166.0MV		260.0MV
509	3	142.0MV		260.0MV
515	4	158.0MV		260.0MV
521	5	132.0MV		260.0MV
527	6	130.0MV		260.0MV
533	7	132.0MV		260.0MV
539	15	150.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	112.0MV		260.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-4.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-4.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	2.000NA		4.000UA
847	16	-6.000NA		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/05/21 15:40  
TEST PROGRAM HC595 S/N 6

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-590.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	18.00MV		100.0MV

-----



FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.480 V	
353	2	2.810 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.830 V	2.480 V	
377	6	2.830 V	2.480 V	
383	7	2.830 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		260.0MV
503	2	88.00MV		260.0MV
509	3	74.00MV		260.0MV
515	4	78.00MV		260.0MV
521	5	72.00MV		260.0MV
527	6	70.00MV		260.0MV
533	7	70.00MV		260.0MV
539	15	76.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	80.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.980 V	
353	2	4.160 V	3.980 V	
359	3	4.180 V	3.980 V	
365	4	4.170 V	3.980 V	
371	5	4.190 V	3.980 V	
377	6	4.180 V	3.980 V	
383	7	4.180 V	3.980 V	
389	15	4.170 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	120.0MV		260.0MV
503	2	144.0MV		260.0MV
509	3	128.0MV		260.0MV
515	4	138.0MV		260.0MV
521	5	118.0MV		260.0MV
527	6	118.0MV		260.0MV
533	7	118.0MV		260.0MV
539	15	132.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -64.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.950 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.940 V      5.900 V
294     4   5.940 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.660 V      5.480 V
353     2   5.620 V      5.480 V
359     3   5.650 V      5.480 V
365     4   5.630 V      5.480 V
371     5   5.660 V      5.480 V
377     6   5.660 V      5.480 V
383     7   5.660 V      5.480 V
389    15   5.640 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.740 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   22.00MV             100.0MV
450     5   22.00MV             100.0MV
456     6   22.00MV             100.0MV
462     7   22.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   22.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=    7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	138.0MV		260.0MV
503	2	170.0MV		260.0MV
509	3	146.0MV		260.0MV
515	4	164.0MV		260.0MV
521	5	136.0MV		260.0MV
527	6	134.0MV		260.0MV
533	7	136.0MV		260.0MV
539	15	154.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=    5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	114.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-4.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-4.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	1.000NA	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 2.000NA 4.000UA  
847 16 -6.000NA 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 04/05/21 15:40  
TEST PROGRAM HC595 S/N 7

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	18.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.480 V	
353	2	2.810 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.820 V	2.480 V	
371	5	2.830 V	2.480 V	
377	6	2.830 V	2.480 V	
383	7	2.830 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		260.0MV
503	2	92.00MV		260.0MV
509	3	76.00MV		260.0MV
515	4	80.00MV		260.0MV
521	5	72.00MV		260.0MV
527	6	72.00MV		260.0MV
533	7	72.00MV		260.0MV
539	15	78.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	80.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.980 V	
353	2	4.150 V	3.980 V	
359	3	4.170 V	3.980 V	
365	4	4.160 V	3.980 V	
371	5	4.180 V	3.980 V	
377	6	4.180 V	3.980 V	
383	7	4.180 V	3.980 V	
389	15	4.170 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	124.0MV		260.0MV
503	2	150.0MV		260.0MV
509	3	132.0MV		260.0MV
515	4	144.0MV		260.0MV
521	5	122.0MV		260.0MV
527	6	120.0MV		260.0MV
533	7	122.0MV		260.0MV
539	15	136.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----



-----  
INST # PIN MEASURED LT GT  
553 9 -64.00MV 260.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.950 V 5.900 V  
282 2 5.950 V 5.900 V  
288 3 5.950 V 5.900 V  
294 4 5.950 V 5.900 V  
300 5 5.950 V 5.900 V  
306 6 5.950 V 5.900 V  
312 7 5.950 V 5.900 V  
318 15 5.950 V 5.900 V  
324 9 5.950 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.480  
-----

INST # PIN MEASURED LT GT  
347 1 5.660 V 5.480 V  
353 2 5.620 V 5.480 V  
359 3 5.650 V 5.480 V  
365 4 5.630 V 5.480 V  
371 5 5.660 V 5.480 V  
377 6 5.660 V 5.480 V  
383 7 5.650 V 5.480 V  
389 15 5.640 V 5.480 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.480  
-----

INST # PIN MEASURED LT GT  
403 9 5.740 V 5.480 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 24.00MV 100.0MV  
432 2 22.00MV 100.0MV  
438 3 22.00MV 100.0MV  
444 4 22.00MV 100.0MV  
450 5 22.00MV 100.0MV  
456 6 22.00MV 100.0MV  
462 7 22.00MV 100.0MV  
468 15 24.00MV 100.0MV  
474 9 22.00MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	142.0MV		260.0MV
503	2	176.0MV		260.0MV
509	3	150.0MV		260.0MV
515	4	168.0MV		260.0MV
521	5	138.0MV		260.0MV
527	6	136.0MV		260.0MV
533	7	138.0MV		260.0MV
539	15	156.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	116.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-4.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-4.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-7.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	3.000NA		4.000UA
847	16	-4.000NA		4.000UA

EIR 1.....10      FCT      DCT  
0000000000      PASS      PASS      EOT

STAT2 04/05/21 15:41  
TEST PROGRAM HC595 S/N 8

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.480 V	
353	2	2.820 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.830 V	2.480 V	
377	6	2.840 V	2.480 V	
383	7	2.840 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	70.00MV		260.0MV
503	2	86.00MV		260.0MV
509	3	72.00MV		260.0MV
515	4	78.00MV		260.0MV
521	5	68.00MV		260.0MV
527	6	68.00MV		260.0MV
533	7	68.00MV		260.0MV
539	15	74.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	78.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.440 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.980 V	
353	2	4.170 V	3.980 V	
359	3	4.180 V	3.980 V	
365	4	4.170 V	3.980 V	
371	5	4.190 V	3.980 V	
377	6	4.190 V	3.980 V	
383	7	4.190 V	3.980 V	
389	15	4.170 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	116.0MV		260.0MV
503	2	142.0MV		260.0MV
509	3	124.0MV		260.0MV
515	4	138.0MV		260.0MV
521	5	114.0MV		260.0MV
527	6	114.0MV		260.0MV
533	7	114.0MV		260.0MV
539	15	128.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -62.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.950 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.660 V      5.480 V
353     2   5.640 V      5.480 V
359     3   5.660 V      5.480 V
365     4   5.640 V      5.480 V
371     5   5.670 V      5.480 V
377     6   5.670 V      5.480 V
383     7   5.660 V      5.480 V
389    15   5.650 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.740 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   22.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   22.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   22.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	134.0MV		260.0MV
503	2	162.0MV		260.0MV
509	3	142.0MV		260.0MV
515	4	160.0MV		260.0MV
521	5	132.0MV		260.0MV
527	6	130.0MV		260.0MV
533	7	132.0MV		260.0MV
539	15	150.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	112.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-4.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-4.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	1.000NA	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```



VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 3.000NA 4.000UA  
847 16 -5.000NA 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 04/05/21 15:41  
TEST PROGRAM HC595 S/N 9

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.480 V	
353	2	2.830 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.840 V	2.480 V	
377	6	2.840 V	2.480 V	
383	7	2.840 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	70.00MV		260.0MV
503	2	78.00MV		260.0MV
509	3	72.00MV		260.0MV
515	4	78.00MV		260.0MV
521	5	70.00MV		260.0MV
527	6	68.00MV		260.0MV
533	7	68.00MV		260.0MV
539	15	74.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	78.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.980 V	
353	2	4.170 V	3.980 V	
359	3	4.180 V	3.980 V	
365	4	4.180 V	3.980 V	
371	5	4.200 V	3.980 V	
377	6	4.190 V	3.980 V	
383	7	4.190 V	3.980 V	
389	15	4.170 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	116.0MV		260.0MV
503	2	142.0MV		260.0MV
509	3	124.0MV		260.0MV
515	4	136.0MV		260.0MV
521	5	116.0MV		260.0MV
527	6	114.0MV		260.0MV
533	7	114.0MV		260.0MV
539	15	128.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -62.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.950 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.670 V      5.480 V
353     2   5.630 V      5.480 V
359     3   5.660 V      5.480 V
365     4   5.640 V      5.480 V
371     5   5.670 V      5.480 V
377     6   5.670 V      5.480 V
383     7   5.670 V      5.480 V
389    15   5.640 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.740 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   22.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	134.0MV		260.0MV
503	2	172.0MV		260.0MV
509	3	142.0MV		260.0MV
515	4	160.0MV		260.0MV
521	5	130.0MV		260.0MV
527	6	130.0MV		260.0MV
533	7	132.0MV		260.0MV
539	15	150.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	114.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-4.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-4.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	2.000NA		4.000UA
847	16	-5.000NA		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/05/21 15:42  
TEST PROGRAM HC595 S/N 10

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-590.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	18.00MV		100.0MV



FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.480 V	
353	2	2.830 V	2.480 V	
359	3	2.840 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.840 V	2.480 V	
377	6	2.840 V	2.480 V	
383	7	2.840 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	70.00MV		260.0MV
503	2	82.00MV		260.0MV
509	3	72.00MV		260.0MV
515	4	76.00MV		260.0MV
521	5	70.00MV		260.0MV
527	6	68.00MV		260.0MV
533	7	68.00MV		260.0MV
539	15	74.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	78.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.980 V	
353	2	4.160 V	3.980 V	
359	3	4.190 V	3.980 V	
365	4	4.180 V	3.980 V	
371	5	4.190 V	3.980 V	
377	6	4.190 V	3.980 V	
383	7	4.190 V	3.980 V	
389	15	4.180 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	118.0MV		260.0MV
503	2	148.0MV		260.0MV
509	3	124.0MV		260.0MV
515	4	136.0MV		260.0MV
521	5	116.0MV		260.0MV
527	6	116.0MV		260.0MV
533	7	116.0MV		260.0MV
539	15	130.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -62.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.950 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.940 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.940 V      5.900 V
324     9   5.940 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.670 V      5.480 V
353     2   5.640 V      5.480 V
359     3   5.660 V      5.480 V
365     4   5.640 V      5.480 V
371     5   5.670 V      5.480 V
377     6   5.660 V      5.480 V
383     7   5.660 V      5.480 V
389    15   5.650 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.740 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   22.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   22.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	134.0MV		260.0MV
503	2	164.0MV		260.0MV
509	3	142.0MV		260.0MV
515	4	158.0MV		260.0MV
521	5	132.0MV		260.0MV
527	6	130.0MV		260.0MV
533	7	132.0MV		260.0MV
539	15	150.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	114.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-4.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-4.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	1.000NA	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-7.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 2.000NA 4.000UA  
847 16 -6.000NA 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 04/05/21 15:42  
TEST PROGRAM HC595 S/N 11

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.480 V	
353	2	2.830 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.840 V	2.480 V	
377	6	2.840 V	2.480 V	
383	7	2.840 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	70.00MV		260.0MV
503	2	80.00MV		260.0MV
509	3	72.00MV		260.0MV
515	4	78.00MV		260.0MV
521	5	70.00MV		260.0MV
527	6	68.00MV		260.0MV
533	7	70.00MV		260.0MV
539	15	74.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	80.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.980 V	
353	2	4.170 V	3.980 V	
359	3	4.190 V	3.980 V	
365	4	4.170 V	3.980 V	
371	5	4.190 V	3.980 V	
377	6	4.190 V	3.980 V	
383	7	4.190 V	3.980 V	
389	15	4.180 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	118.0MV		260.0MV
503	2	142.0MV		260.0MV
509	3	124.0MV		260.0MV
515	4	138.0MV		260.0MV
521	5	116.0MV		260.0MV
527	6	114.0MV		260.0MV
533	7	116.0MV		260.0MV
539	15	130.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----



```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -62.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.950 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.940 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.670 V      5.480 V
353     2   5.640 V      5.480 V
359     3   5.660 V      5.480 V
365     4   5.640 V      5.480 V
371     5   5.670 V      5.480 V
377     6   5.670 V      5.480 V
383     7   5.660 V      5.480 V
389    15   5.650 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.740 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   22.00MV             100.0MV
450     5   22.00MV             100.0MV
456     6   22.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	134.0MV		260.0MV
503	2	162.0MV		260.0MV
509	3	142.0MV		260.0MV
515	4	160.0MV		260.0MV
521	5	132.0MV		260.0MV
527	6	130.0MV		260.0MV
533	7	132.0MV		260.0MV
539	15	150.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	116.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-4.000NA	-100.0NA	100.0NA
608	11	-3.000NA	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-4.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 2.000NA 4.000UA  
847 16 -6.000NA 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 04/05/21 15:43  
TEST PROGRAM HC595 S/N 12

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

```

-----
FUNCTIONAL TEST
VCC= 3
VIH= 2.100 VIL= 900.0E-03
-----

```

```

-----
VOH2 TEST
VCC= 3 IOH2= -2.400E-03
VOH2 LIMIT 2.480
-----

```

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.480 V	
353	2	2.810 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.840 V	2.480 V	
377	6	2.830 V	2.480 V	
383	7	2.840 V	2.480 V	
389	15	2.830 V	2.480 V	

```

-----
VOH2 TEST
VCC= 3 IOH3= -2.400E-03
VOH2 LIMIT 2.480
-----

```

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.480 V	

```

-----
VOL2 TEST
VCC= 3 IOL2= 2.400E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		260.0MV
503	2	98.00MV		260.0MV
509	3	74.00MV		260.0MV
515	4	80.00MV		260.0MV
521	5	70.00MV		260.0MV
527	6	70.00MV		260.0MV
533	7	70.00MV		260.0MV
539	15	76.00MV		260.0MV

```

-----
VOL2 TEST
VCC= 3 IOL3= 2.400E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	80.00MV		260.0MV

```

-----
FUNCTIONAL TEST
VCC= 4.500
VIH= 3.150 VIL= 1.350
-----

```

```

-----
VOH1 TEST
VCC= 4.500 IOH=-20.00E-06
VOH LIMIT 4.400
-----

```

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	
282	2	4.450 V	4.400 V	
288	3	4.450 V	4.400 V	
294	4	4.450 V	4.400 V	
300	5	4.450 V	4.400 V	
306	6	4.450 V	4.400 V	
312	7	4.450 V	4.400 V	
318	15	4.450 V	4.400 V	
324	9	4.450 V	4.400 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.980 V	
353	2	4.160 V	3.980 V	
359	3	4.180 V	3.980 V	
365	4	4.170 V	3.980 V	
371	5	4.190 V	3.980 V	
377	6	4.190 V	3.980 V	
383	7	4.190 V	3.980 V	
389	15	4.180 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	120.0MV		260.0MV
503	2	146.0MV		260.0MV
509	3	124.0MV		260.0MV
515	4	142.0MV		260.0MV
521	5	116.0MV		260.0MV
527	6	114.0MV		260.0MV
533	7	116.0MV		260.0MV
539	15	130.0MV		260.0MV

-----  
VOL2 TEST  
-----

VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03

-----  
INST # PIN MEASURED LT GT  
553 9 -64.00MV 260.0MV

-----  
FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

-----  
VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

-----  
INST # PIN MEASURED LT GT  
276 1 5.950 V 5.900 V  
282 2 5.950 V 5.900 V  
288 3 5.950 V 5.900 V  
294 4 5.950 V 5.900 V  
300 5 5.950 V 5.900 V  
306 6 5.950 V 5.900 V  
312 7 5.950 V 5.900 V  
318 15 5.950 V 5.900 V  
324 9 5.950 V 5.900 V

-----  
VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.480  
-----

-----  
INST # PIN MEASURED LT GT  
347 1 5.670 V 5.480 V  
353 2 5.640 V 5.480 V  
359 3 5.660 V 5.480 V  
365 4 5.640 V 5.480 V  
371 5 5.670 V 5.480 V  
377 6 5.660 V 5.480 V  
383 7 5.660 V 5.480 V  
389 15 5.650 V 5.480 V

-----  
VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.480  
-----

-----  
INST # PIN MEASURED LT GT  
403 9 5.740 V 5.480 V

-----  
VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
426 1 22.00MV 100.0MV  
432 2 24.00MV 100.0MV  
438 3 22.00MV 100.0MV  
444 4 22.00MV 100.0MV  
450 5 22.00MV 100.0MV  
456 6 22.00MV 100.0MV  
462 7 22.00MV 100.0MV  
468 15 24.00MV 100.0MV

474 9 22.00MV 100.0MV

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	136.0MV		260.0MV
503	2	168.0MV		260.0MV
509	3	144.0MV		260.0MV
515	4	162.0MV		260.0MV
521	5	132.0MV		260.0MV
527	6	130.0MV		260.0MV
533	7	132.0MV		260.0MV
539	15	152.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	116.0MV		260.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-3.000NA	-100.0NA	100.0NA
600	10	-4.000NA	-100.0NA	100.0NA
608	11	-2.000NA	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	-3.000NA	-100.0NA	100.0NA
628	12	-4.000NA	-100.0NA	100.0NA
636	13	-3.000NA	-100.0NA	100.0NA
642	13	-4.000NA	-100.0NA	100.0NA
650	14	-3.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	0 A	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	0 A	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	0 A	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	0 A	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	0 A	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	0 A	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	0 A	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	0 A	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA



-----  
ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
838	16	2.000NA		4.000UA
847	16	-4.000NA		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



# MIL-PRF-38534 CLASS K DATAPACK

---

Post Burn-In Test Results at +125°C



STAT2 04/07/21 15:27  
TEST PROGRAM HC595 S/N 1

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-560.0MV	-1.500 V	-100.0MV
57	13	-560.0MV	-1.500 V	-100.0MV
57	14	-560.0MV	-1.500 V	-100.0MV
57	16	-480.0MV	-1.500 V	-100.0MV
67	1	580.0MV	100.0MV	1.500 V
67	2	590.0MV	100.0MV	1.500 V
67	3	590.0MV	100.0MV	1.500 V
67	4	580.0MV	100.0MV	1.500 V
67	5	580.0MV	100.0MV	1.500 V
67	6	580.0MV	100.0MV	1.500 V
67	7	580.0MV	100.0MV	1.500 V
67	9	580.0MV	100.0MV	1.500 V
67	15	590.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
FUNCTIONAL TEST

VCC= 3  
-----

VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.800 V	2.200 V	
359	3	2.790 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.820 V	2.200 V	
377	6	2.820 V	2.200 V	
383	7	2.780 V	2.200 V	
389	15	2.790 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.810 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	122.0MV		400.0MV
503	2	134.0MV		400.0MV
509	3	136.0MV		400.0MV
515	4	114.0MV		400.0MV
521	5	108.0MV		400.0MV
527	6	108.0MV		400.0MV
533	7	144.0MV		400.0MV
539	15	184.0MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	114.0MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	
282	2	4.450 V	4.400 V	
288	3	4.450 V	4.400 V	

294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
 VOH2 TEST  
 VCC= 4.500 IOH2= -6.000E-03  
 VOH2 LIMIT 3.700  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	4.150 V	3.700 V	
353	2	4.120 V	3.700 V	
359	3	4.120 V	3.700 V	
365	4	4.150 V	3.700 V	
371	5	4.170 V	3.700 V	
377	6	4.170 V	3.700 V	
383	7	4.120 V	3.700 V	
389	15	4.130 V	3.700 V	

-----  
 VOH2 TEST  
 VCC= 4.500 IOH3= -4.000E-03  
 VOH2 LIMIT 3.700  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	4.250 V	3.700 V	

-----  
 VOL1 TEST  
 VCC= 4.500 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	24.00MV		100.0MV
432	2	24.00MV		100.0MV
438	3	24.00MV		100.0MV
444	4	24.00MV		100.0MV
450	5	24.00MV		100.0MV
456	6	24.00MV		100.0MV
462	7	24.00MV		100.0MV
468	15	24.00MV		100.0MV
474	9	24.00MV		100.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL2= 6.000E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	236.0MV		400.0MV
503	2	254.0MV		400.0MV
509	3	248.0MV		400.0MV
515	4	216.0MV		400.0MV
521	5	196.0MV		400.0MV
527	6	198.0MV		400.0MV
533	7	240.0MV		400.0MV
539	15	252.0MV		400.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL3= -4.000E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	-98.00MV		400.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 6  
 VIH= 4.200 VIL= 1.800  
 -----

-----  
 VOH1 TEST  
 VCC= 6 IOH=-20.00E-06  
 VOH LIMIT 5.900  
 -----

INST #	PIN	MEASURED	LT	GT
276	1	5.970 V	5.900 V	
282	2	5.970 V	5.900 V	
288	3	5.970 V	5.900 V	
294	4	5.970 V	5.900 V	
300	5	5.970 V	5.900 V	
306	6	5.970 V	5.900 V	
312	7	5.970 V	5.900 V	
318	15	5.970 V	5.900 V	
324	9	5.970 V	5.900 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH2= -7.800E-03  
 VOH2 LIMIT 5.200  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	5.640 V	5.200 V	
353	2	5.620 V	5.200 V	
359	3	5.620 V	5.200 V	
365	4	5.640 V	5.200 V	
371	5	5.660 V	5.200 V	
377	6	5.660 V	5.200 V	
383	7	5.620 V	5.200 V	
389	15	5.630 V	5.200 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH3= -5.200E-03  
 VOH2 LIMIT 5.200  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	5.750 V	5.200 V	

-----  
 VOL1 TEST  
 VCC= 6 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	38.00MV		100.0MV
432	2	38.00MV		100.0MV
438	3	38.00MV		100.0MV
444	4	38.00MV		100.0MV
450	5	38.00MV		100.0MV
456	6	38.00MV		100.0MV
462	7	36.00MV		100.0MV
468	15	38.00MV		100.0MV
474	9	36.00MV		100.0MV

-----  
 VOL2 TEST  
 -----

VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
497 1 268.0MV  
503 2 316.0MV  
509 3 272.0MV  
515 4 252.0MV  
521 5 226.0MV  
527 6 226.0MV  
533 7 266.0MV  
539 15 264.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV  
400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
553 9 174.0MV  
400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP

-----  
INST # PIN MEASURED LT GT  
594 10 -2.000NA -1.000UA 1.000UA  
600 10 -3.000NA -1.000UA 1.000UA  
608 11 -1.000NA -1.000UA 1.000UA  
614 11 -3.000NA -1.000UA 1.000UA  
622 12 0 A -1.000UA 1.000UA  
628 12 -3.000NA -1.000UA 1.000UA  
636 13 0 A -1.000UA 1.000UA  
642 13 -3.000NA -1.000UA 1.000UA  
650 14 0 A -1.000UA 1.000UA  
656 14 -4.000NA -1.000UA 1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP

-----  
INST # PIN MEASURED LT GT  
686 1 -100.0NA -10.00UA 10.00UA  
693 1 -100.0NA -10.00UA 10.00UA  
702 2 -100.0NA -10.00UA 10.00UA  
709 2 -100.0NA -10.00UA 10.00UA  
718 3 -100.0NA -10.00UA 10.00UA  
725 3 -100.0NA -10.00UA 10.00UA  
734 4 -100.0NA -10.00UA 10.00UA  
741 4 -100.0NA -10.00UA 10.00UA  
750 5 -100.0NA -10.00UA 10.00UA  
757 5 -100.0NA -10.00UA 10.00UA  
766 6 -100.0NA -10.00UA 10.00UA  
773 6 -100.0NA -10.00UA 10.00UA  
782 7 -100.0NA -10.00UA 10.00UA  
789 7 -100.0NA -10.00UA 10.00UA  
798 15 -100.0NA -10.00UA 10.00UA  
805 15 -100.0NA -10.00UA 10.00UA

-----  
ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C

ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



STAT2 04/07/21 15:28  
TEST PROGRAM HC595 S/N 2

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	620.0MV	100.0MV	1.500 V
67	2	620.0MV	100.0MV	1.500 V
67	3	620.0MV	100.0MV	1.500 V
67	4	620.0MV	100.0MV	1.500 V
67	5	610.0MV	100.0MV	1.500 V
67	6	620.0MV	100.0MV	1.500 V
67	7	620.0MV	100.0MV	1.500 V
67	9	620.0MV	100.0MV	1.500 V
67	15	610.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.800 V	2.200 V	
353	2	2.790 V	2.200 V	
359	3	2.780 V	2.200 V	
365	4	2.810 V	2.200 V	
371	5	2.820 V	2.200 V	
377	6	2.820 V	2.200 V	
383	7	2.800 V	2.200 V	
389	15	2.810 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.810 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	108.0MV		400.0MV
503	2	112.0MV		400.0MV
509	3	124.0MV		400.0MV
515	4	94.00MV		400.0MV
521	5	86.00MV		400.0MV
527	6	88.00MV		400.0MV
533	7	104.0MV		400.0MV
539	15	94.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	94.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.440 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.130 V	3.700 V	
353	2	4.120 V	3.700 V	
359	3	4.110 V	3.700 V	
365	4	4.150 V	3.700 V	
371	5	4.160 V	3.700 V	
377	6	4.160 V	3.700 V	
383	7	4.120 V	3.700 V	
389	15	4.130 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.240 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	24.00MV		100.0MV
438	3	24.00MV		100.0MV
444	4	24.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	24.00MV		100.0MV
462	7	24.00MV		100.0MV
468	15	24.00MV		100.0MV
474	9	24.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	206.0MV		400.0MV
503	2	196.0MV		400.0MV
509	3	216.0MV		400.0MV
515	4	186.0MV		400.0MV
521	5	168.0MV		400.0MV
527	6	168.0MV		400.0MV
533	7	202.0MV		400.0MV
539	15	184.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -84.00MV          400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.960 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.960 V      5.900 V
312     7   5.960 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.960 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.620 V      5.200 V
353     2   5.620 V      5.200 V
359     3   5.620 V      5.200 V
365     4   5.640 V      5.200 V
371     5   5.660 V      5.200 V
377     6   5.650 V      5.200 V
383     7   5.610 V      5.200 V
389    15   5.630 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.740 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   36.00MV          100.0MV
432     2   36.00MV          100.0MV
438     3   36.00MV          100.0MV
444     4   36.00MV          100.0MV
450     5   36.00MV          100.0MV
456     6   36.00MV          100.0MV
462     7   36.00MV          100.0MV
468    15   36.00MV          100.0MV
474     9   36.00MV          100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	236.0MV		400.0MV
503	2	242.0MV		400.0MV
509	3	240.0MV		400.0MV
515	4	224.0MV		400.0MV
521	5	200.0MV		400.0MV
527	6	200.0MV		400.0MV
533	7	242.0MV		400.0MV
539	15	224.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	160.0MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	-1.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-1.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:28  
TEST PROGRAM HC595 S/N 3

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-500.0MV	-1.500 V	-100.0MV
67	1	600.0MV	100.0MV	1.500 V
67	2	600.0MV	100.0MV	1.500 V
67	3	600.0MV	100.0MV	1.500 V
67	4	600.0MV	100.0MV	1.500 V
67	5	590.0MV	100.0MV	1.500 V
67	6	590.0MV	100.0MV	1.500 V
67	7	600.0MV	100.0MV	1.500 V
67	9	590.0MV	100.0MV	1.500 V
67	15	590.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.790 V	2.200 V	
353	2	2.740 V	2.200 V	
359	3	2.760 V	2.200 V	
365	4	2.790 V	2.200 V	
371	5	2.800 V	2.200 V	
377	6	2.790 V	2.200 V	
383	7	2.770 V	2.200 V	
389	15	2.780 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.780 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	102.0MV		400.0MV
503	2	144.0MV		400.0MV
509	3	126.0MV		400.0MV
515	4	100.0MV		400.0MV
521	5	92.00MV		400.0MV
527	6	92.00MV		400.0MV
533	7	114.0MV		400.0MV
539	15	98.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	98.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.440 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.130 V	3.700 V	
353	2	4.100 V	3.700 V	
359	3	4.100 V	3.700 V	
365	4	4.130 V	3.700 V	
371	5	4.150 V	3.700 V	
377	6	4.140 V	3.700 V	
383	7	4.110 V	3.700 V	
389	15	4.130 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.240 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	196.0MV		400.0MV
503	2	214.0MV		400.0MV
509	3	218.0MV		400.0MV
515	4	194.0MV		400.0MV
521	5	174.0MV		400.0MV
527	6	174.0MV		400.0MV
533	7	212.0MV		400.0MV
539	15	188.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -88.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.960 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.960 V      5.900 V
312     7   5.960 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.960 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.620 V      5.200 V
353     2   5.600 V      5.200 V
359     3   5.600 V      5.200 V
365     4   5.620 V      5.200 V
371     5   5.650 V      5.200 V
377     6   5.640 V      5.200 V
383     7   5.600 V      5.200 V
389    15   5.620 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.730 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   34.00MV             100.0MV
432     2   34.00MV             100.0MV
438     3   34.00MV             100.0MV
444     4   34.00MV             100.0MV
450     5   34.00MV             100.0MV
456     6   34.00MV             100.0MV
462     7   34.00MV             100.0MV
468    15   34.00MV             100.0MV
474     9   32.00MV             100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	236.0MV		400.0MV
503	2	248.0MV		400.0MV
509	3	248.0MV		400.0MV
515	4	232.0MV		400.0MV
521	5	208.0MV		400.0MV
527	6	208.0MV		400.0MV
533	7	250.0MV		400.0MV
539	15	226.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	162.0MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-1.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:29  
TEST PROGRAM HC595 S/N 4

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-560.0MV	-1.500 V	-100.0MV
57	16	-490.0MV	-1.500 V	-100.0MV
67	1	590.0MV	100.0MV	1.500 V
67	2	590.0MV	100.0MV	1.500 V
67	3	590.0MV	100.0MV	1.500 V
67	4	590.0MV	100.0MV	1.500 V
67	5	580.0MV	100.0MV	1.500 V
67	6	580.0MV	100.0MV	1.500 V
67	7	580.0MV	100.0MV	1.500 V
67	9	580.0MV	100.0MV	1.500 V
67	15	580.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.800 V	2.200 V	
353	2	2.790 V	2.200 V	
359	3	2.780 V	2.200 V	
365	4	2.790 V	2.200 V	
371	5	2.800 V	2.200 V	
377	6	2.790 V	2.200 V	
383	7	2.780 V	2.200 V	
389	15	2.790 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.790 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	104.0MV		400.0MV
503	2	108.0MV		400.0MV
509	3	112.0MV		400.0MV
515	4	102.0MV		400.0MV
521	5	94.00MV		400.0MV
527	6	96.00MV		400.0MV
533	7	114.0MV		400.0MV
539	15	100.0MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	100.0MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.440 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.440 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.120 V	3.700 V	
353	2	4.100 V	3.700 V	
359	3	4.100 V	3.700 V	
365	4	4.120 V	3.700 V	
371	5	4.140 V	3.700 V	
377	6	4.130 V	3.700 V	
383	7	4.090 V	3.700 V	
389	15	4.120 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.230 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	200.0MV		400.0MV
503	2	202.0MV		400.0MV
509	3	214.0MV		400.0MV
515	4	196.0MV		400.0MV
521	5	176.0MV		400.0MV
527	6	178.0MV		400.0MV
533	7	220.0MV		400.0MV
539	15	192.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -90.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.960 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.960 V      5.900 V
312     7   5.960 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.960 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.620 V      5.200 V
353     2   5.600 V      5.200 V
359     3   5.590 V      5.200 V
365     4   5.610 V      5.200 V
371     5   5.640 V      5.200 V
377     6   5.630 V      5.200 V
383     7   5.590 V      5.200 V
389    15   5.620 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.730 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   34.00MV             100.0MV
432     2   34.00MV             100.0MV
438     3   34.00MV             100.0MV
444     4   34.00MV             100.0MV
450     5   34.00MV             100.0MV
456     6   32.00MV             100.0MV
462     7   32.00MV             100.0MV
468    15   34.00MV             100.0MV
474     9   32.00MV             100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	242.0MV		400.0MV
503	2	260.0MV		400.0MV
509	3	254.0MV		400.0MV
515	4	236.0MV		400.0MV
521	5	212.0MV		400.0MV
527	6	212.0MV		400.0MV
533	7	254.0MV		400.0MV
539	15	232.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	164.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-1.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:29  
TEST PROGRAM HC595 S/N 5

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	610.0MV	100.0MV	1.500 V
67	2	610.0MV	100.0MV	1.500 V
67	3	620.0MV	100.0MV	1.500 V
67	4	610.0MV	100.0MV	1.500 V
67	5	610.0MV	100.0MV	1.500 V
67	6	610.0MV	100.0MV	1.500 V
67	7	610.0MV	100.0MV	1.500 V
67	9	610.0MV	100.0MV	1.500 V
67	15	600.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.810 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.840 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.830 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	100.0MV		400.0MV
503	2	104.0MV		400.0MV
509	3	118.0MV		400.0MV
515	4	94.00MV		400.0MV
521	5	86.00MV		400.0MV
527	6	86.00MV		400.0MV
533	7	108.0MV		400.0MV
539	15	92.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	94.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.160 V	3.700 V	
353	2	4.160 V	3.700 V	
359	3	4.150 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.200 V	3.700 V	
377	6	4.190 V	3.700 V	
383	7	4.160 V	3.700 V	
389	15	4.180 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	198.0MV		400.0MV
503	2	198.0MV		400.0MV
509	3	216.0MV		400.0MV
515	4	180.0MV		400.0MV
521	5	162.0MV		400.0MV
527	6	164.0MV		400.0MV
533	7	200.0MV		400.0MV
539	15	176.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -82.00MV 400.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.970 V 5.900 V  
282 2 5.970 V 5.900 V  
288 3 5.970 V 5.900 V  
294 4 5.970 V 5.900 V  
300 5 5.970 V 5.900 V  
306 6 5.970 V 5.900 V  
312 7 5.970 V 5.900 V  
318 15 5.970 V 5.900 V  
324 9 5.970 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
347 1 5.660 V 5.200 V  
353 2 5.660 V 5.200 V  
359 3 5.640 V 5.200 V  
365 4 5.670 V 5.200 V  
371 5 5.690 V 5.200 V  
377 6 5.690 V 5.200 V  
383 7 5.650 V 5.200 V  
389 15 5.670 V 5.200 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
403 9 5.770 V 5.200 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 34.00MV 100.0MV  
432 2 34.00MV 100.0MV  
438 3 34.00MV 100.0MV  
444 4 34.00MV 100.0MV  
450 5 34.00MV 100.0MV  
456 6 34.00MV 100.0MV  
462 7 34.00MV 100.0MV  
468 15 34.00MV 100.0MV  
474 9 34.00MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	238.0MV		400.0MV
503	2	240.0MV		400.0MV
509	3	260.0MV		400.0MV
515	4	220.0MV		400.0MV
521	5	198.0MV		400.0MV
527	6	198.0MV		400.0MV
533	7	240.0MV		400.0MV
539	15	216.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	156.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-1.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



STAT2 04/07/21 15:30  
TEST PROGRAM HC595 S/N 6

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-500.0MV	-1.500 V	-100.0MV
67	1	600.0MV	100.0MV	1.500 V
67	2	600.0MV	100.0MV	1.500 V
67	3	600.0MV	100.0MV	1.500 V
67	4	590.0MV	100.0MV	1.500 V
67	5	590.0MV	100.0MV	1.500 V
67	6	590.0MV	100.0MV	1.500 V
67	7	590.0MV	100.0MV	1.500 V
67	9	590.0MV	100.0MV	1.500 V
67	15	590.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	18.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.810 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.810 V	2.200 V	
389	15	2.830 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	110.0MV		400.0MV
503	2	116.0MV		400.0MV
509	3	110.0MV		400.0MV
515	4	102.0MV		400.0MV
521	5	96.00MV		400.0MV
527	6	96.00MV		400.0MV
533	7	122.0MV		400.0MV
539	15	100.0MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	102.0MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.160 V	3.700 V	
353	2	4.150 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.190 V	3.700 V	
377	6	4.190 V	3.700 V	
383	7	4.090 V	3.700 V	
389	15	4.180 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	24.00MV		100.0MV
432	2	24.00MV		100.0MV
438	3	24.00MV		100.0MV
444	4	24.00MV		100.0MV
450	5	24.00MV		100.0MV
456	6	24.00MV		100.0MV
462	7	24.00MV		100.0MV
468	15	24.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	218.0MV		400.0MV
503	2	224.0MV		400.0MV
509	3	214.0MV		400.0MV
515	4	196.0MV		400.0MV
521	5	178.0MV		400.0MV
527	6	180.0MV		400.0MV
533	7	280.0MV		400.0MV
539	15	190.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -90.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.660 V      5.200 V
353     2   5.630 V      5.200 V
359     3   5.650 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.690 V      5.200 V
377     6   5.680 V      5.200 V
383     7   5.640 V      5.200 V
389    15   5.670 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.770 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   36.00MV             100.0MV
432     2   36.00MV             100.0MV
438     3   34.00MV             100.0MV
444     4   36.00MV             100.0MV
450     5   36.00MV             100.0MV
456     6   36.00MV             100.0MV
462     7   36.00MV             100.0MV
468    15   36.00MV             100.0MV
474     9   36.00MV             100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	246.0MV		400.0MV
503	2	264.0MV		400.0MV
509	3	244.0MV		400.0MV
515	4	230.0MV		400.0MV
521	5	206.0MV		400.0MV
527	6	208.0MV		400.0MV
533	7	252.0MV		400.0MV
539	15	222.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	162.0MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-1.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 -100.0NA 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 04/07/21 15:30  
TEST PROGRAM HC595 S/N 7

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-500.0MV	-1.500 V	-100.0MV
67	1	610.0MV	100.0MV	1.500 V
67	2	610.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	600.0MV	100.0MV	1.500 V
67	5	600.0MV	100.0MV	1.500 V
67	6	600.0MV	100.0MV	1.500 V
67	7	600.0MV	100.0MV	1.500 V
67	9	600.0MV	100.0MV	1.500 V
67	15	600.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.800 V	2.200 V	
359	3	2.790 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	106.0MV		400.0MV
503	2	124.0MV		400.0MV
509	3	130.0MV		400.0MV
515	4	100.0MV		400.0MV
521	5	92.00MV		400.0MV
527	6	92.00MV		400.0MV
533	7	108.0MV		400.0MV
539	15	98.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	100.0MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.160 V	3.700 V	
353	2	4.130 V	3.700 V	
359	3	4.130 V	3.700 V	
365	4	4.170 V	3.700 V	
371	5	4.190 V	3.700 V	
377	6	4.180 V	3.700 V	
383	7	4.150 V	3.700 V	
389	15	4.180 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	214.0MV		400.0MV
503	2	238.0MV		400.0MV
509	3	228.0MV		400.0MV
515	4	194.0MV		400.0MV
521	5	176.0MV		400.0MV
527	6	176.0MV		400.0MV
533	7	210.0MV		400.0MV
539	15	186.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -90.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.650 V      5.200 V
353     2   5.630 V      5.200 V
359     3   5.650 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.680 V      5.200 V
377     6   5.670 V      5.200 V
383     7   5.640 V      5.200 V
389    15   5.670 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.760 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   34.00MV             100.0MV
432     2   34.00MV             100.0MV
438     3   34.00MV             100.0MV
444     4   34.00MV             100.0MV
450     5   34.00MV             100.0MV
456     6   34.00MV             100.0MV
462     7   34.00MV             100.0MV
468    15   34.00MV             100.0MV
474     9   34.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	246.0MV		400.0MV
503	2	262.0MV		400.0MV
509	3	238.0MV		400.0MV
515	4	228.0MV		400.0MV
521	5	208.0MV		400.0MV
527	6	208.0MV		400.0MV
533	7	248.0MV		400.0MV
539	15	222.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	162.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:31  
TEST PROGRAM HC595 S/N 8

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-560.0MV	-1.500 V	-100.0MV
57	11	-560.0MV	-1.500 V	-100.0MV
57	12	-560.0MV	-1.500 V	-100.0MV
57	13	-560.0MV	-1.500 V	-100.0MV
57	14	-560.0MV	-1.500 V	-100.0MV
57	16	-480.0MV	-1.500 V	-100.0MV
67	1	580.0MV	100.0MV	1.500 V
67	2	580.0MV	100.0MV	1.500 V
67	3	580.0MV	100.0MV	1.500 V
67	4	580.0MV	100.0MV	1.500 V
67	5	580.0MV	100.0MV	1.500 V
67	6	580.0MV	100.0MV	1.500 V
67	7	580.0MV	100.0MV	1.500 V
67	9	570.0MV	100.0MV	1.500 V
67	15	570.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.800 V	2.200 V	
359	3	2.810 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.800 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	100.0MV		400.0MV
503	2	120.0MV		400.0MV
509	3	114.0MV		400.0MV
515	4	96.00MV		400.0MV
521	5	90.00MV		400.0MV
527	6	90.00MV		400.0MV
533	7	122.0MV		400.0MV
539	15	94.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	96.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.160 V	3.700 V	
353	2	4.160 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.190 V	3.700 V	
377	6	4.190 V	3.700 V	
383	7	4.150 V	3.700 V	
389	15	4.170 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	194.0MV		400.0MV
503	2	204.0MV		400.0MV
509	3	200.0MV		400.0MV
515	4	182.0MV		400.0MV
521	5	166.0MV		400.0MV
527	6	166.0MV		400.0MV
533	7	210.0MV		400.0MV
539	15	178.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553    9   -84.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=    4.200      VIL=    1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276    1   5.970 V      5.900 V
282    2   5.970 V      5.900 V
288    3   5.970 V      5.900 V
294    4   5.970 V      5.900 V
300    5   5.970 V      5.900 V
306    6   5.970 V      5.900 V
312    7   5.970 V      5.900 V
318   15   5.970 V      5.900 V
324    9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
347    1   5.660 V      5.200 V
353    2   5.640 V      5.200 V
359    3   5.650 V      5.200 V
365    4   5.660 V      5.200 V
371    5   5.690 V      5.200 V
377    6   5.680 V      5.200 V
383    7   5.640 V      5.200 V
389   15   5.670 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
403    9   5.760 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426    1   34.00MV              100.0MV
432    2   34.00MV              100.0MV
438    3   34.00MV              100.0MV
444    4   34.00MV              100.0MV
450    5   34.00MV              100.0MV
456    6   34.00MV              100.0MV
462    7   34.00MV              100.0MV
468   15   34.00MV              100.0MV
474    9   34.00MV              100.0MV

```



-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	226.0MV		400.0MV
503	2	240.0MV		400.0MV
509	3	234.0MV		400.0MV
515	4	220.0MV		400.0MV
521	5	198.0MV		400.0MV
527	6	198.0MV		400.0MV
533	7	240.0MV		400.0MV
539	15	214.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	156.0MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:31  
TEST PROGRAM HC595 S/N 9

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-490.0MV	-1.500 V	-100.0MV
67	1	590.0MV	100.0MV	1.500 V
67	2	590.0MV	100.0MV	1.500 V
67	3	590.0MV	100.0MV	1.500 V
67	4	590.0MV	100.0MV	1.500 V
67	5	590.0MV	100.0MV	1.500 V
67	6	580.0MV	100.0MV	1.500 V
67	7	580.0MV	100.0MV	1.500 V
67	9	580.0MV	100.0MV	1.500 V
67	15	580.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	18.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	94.00MV		400.0MV
503	2	100.0MV		400.0MV
509	3	96.00MV		400.0MV
515	4	90.00MV		400.0MV
521	5	84.00MV		400.0MV
527	6	84.00MV		400.0MV
533	7	102.0MV		400.0MV
539	15	88.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	90.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.700 V	
353	2	4.150 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.190 V	3.700 V	
377	6	4.190 V	3.700 V	
383	7	4.160 V	3.700 V	
389	15	4.180 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	176.0MV		400.0MV
503	2	192.0MV		400.0MV
509	3	178.0MV		400.0MV
515	4	168.0MV		400.0MV
521	5	150.0MV		400.0MV
527	6	150.0MV		400.0MV
533	7	186.0MV		400.0MV
539	15	162.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -78.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.650 V      5.200 V
353     2   5.640 V      5.200 V
359     3   5.650 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.690 V      5.200 V
377     6   5.680 V      5.200 V
383     7   5.640 V      5.200 V
389    15   5.670 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.760 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   26.00MV             100.0MV
432     2   28.00MV             100.0MV
438     3   26.00MV             100.0MV
444     4   26.00MV             100.0MV
450     5   26.00MV             100.0MV
456     6   26.00MV             100.0MV
462     7   26.00MV             100.0MV
468    15   26.00MV             100.0MV
474     9   26.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	208.0MV		400.0MV
503	2	220.0MV		400.0MV
509	3	210.0MV		400.0MV
515	4	198.0MV		400.0MV
521	5	174.0MV		400.0MV
527	6	176.0MV		400.0MV
533	7	216.0MV		400.0MV
539	15	190.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	140.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-1.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



STAT2 04/07/21 15:32  
TEST PROGRAM HC595 S/N 10

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-490.0MV	-1.500 V	-100.0MV
67	1	590.0MV	100.0MV	1.500 V
67	2	590.0MV	100.0MV	1.500 V
67	3	590.0MV	100.0MV	1.500 V
67	4	580.0MV	100.0MV	1.500 V
67	5	580.0MV	100.0MV	1.500 V
67	6	580.0MV	100.0MV	1.500 V
67	7	580.0MV	100.0MV	1.500 V
67	9	580.0MV	100.0MV	1.500 V
67	15	580.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	18.00MV		100.0MV
456	6	18.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	18.00MV		100.0MV
474	9	16.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.810 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	96.00MV		400.0MV
503	2	102.0MV		400.0MV
509	3	108.0MV		400.0MV
515	4	90.00MV		400.0MV
521	5	84.00MV		400.0MV
527	6	84.00MV		400.0MV
533	7	96.00MV		400.0MV
539	15	88.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	90.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.700 V	
353	2	4.140 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.190 V	3.700 V	
377	6	4.190 V	3.700 V	
383	7	4.160 V	3.700 V	
389	15	4.180 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	176.0MV		400.0MV
503	2	198.0MV		400.0MV
509	3	180.0MV		400.0MV
515	4	168.0MV		400.0MV
521	5	152.0MV		400.0MV
527	6	152.0MV		400.0MV
533	7	184.0MV		400.0MV
539	15	164.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -80.00MV 400.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.970 V 5.900 V  
282 2 5.970 V 5.900 V  
288 3 5.970 V 5.900 V  
294 4 5.970 V 5.900 V  
300 5 5.970 V 5.900 V  
306 6 5.970 V 5.900 V  
312 7 5.970 V 5.900 V  
318 15 5.970 V 5.900 V  
324 9 5.970 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
347 1 5.660 V 5.200 V  
353 2 5.640 V 5.200 V  
359 3 5.650 V 5.200 V  
365 4 5.670 V 5.200 V  
371 5 5.680 V 5.200 V  
377 6 5.680 V 5.200 V  
383 7 5.640 V 5.200 V  
389 15 5.670 V 5.200 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
403 9 5.760 V 5.200 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 26.00MV 100.0MV  
432 2 26.00MV 100.0MV  
438 3 26.00MV 100.0MV  
444 4 26.00MV 100.0MV  
450 5 26.00MV 100.0MV  
456 6 26.00MV 100.0MV  
462 7 26.00MV 100.0MV  
468 15 26.00MV 100.0MV  
474 9 26.00MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	208.0MV		400.0MV
503	2	218.0MV		400.0MV
509	3	212.0MV		400.0MV
515	4	196.0MV		400.0MV
521	5	178.0MV		400.0MV
527	6	178.0MV		400.0MV
533	7	218.0MV		400.0MV
539	15	192.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	140.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10      FCT      DCT  
0000000000      PASS      PASS      EOT

STAT2 04/07/21 15:32  
TEST PROGRAM HC595 S/N 11

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-490.0MV	-1.500 V	-100.0MV
67	1	590.0MV	100.0MV	1.500 V
67	2	590.0MV	100.0MV	1.500 V
67	3	590.0MV	100.0MV	1.500 V
67	4	590.0MV	100.0MV	1.500 V
67	5	590.0MV	100.0MV	1.500 V
67	6	590.0MV	100.0MV	1.500 V
67	7	590.0MV	100.0MV	1.500 V
67	9	580.0MV	100.0MV	1.500 V
67	15	580.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	16.00MV		100.0MV
432	2	16.00MV		100.0MV
438	3	18.00MV		100.0MV
444	4	18.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	18.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.810 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.830 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	96.00MV		400.0MV
503	2	110.0MV		400.0MV
509	3	96.00MV		400.0MV
515	4	92.00MV		400.0MV
521	5	84.00MV		400.0MV
527	6	84.00MV		400.0MV
533	7	88.00MV		400.0MV
539	15	90.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	92.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	



282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.160 V	3.700 V	
353	2	4.140 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.190 V	3.700 V	
377	6	4.180 V	3.700 V	
383	7	4.180 V	3.700 V	
389	15	4.170 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	18.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	180.0MV		400.0MV
503	2	196.0MV		400.0MV
509	3	182.0MV		400.0MV
515	4	168.0MV		400.0MV
521	5	154.0MV		400.0MV
527	6	154.0MV		400.0MV
533	7	162.0MV		400.0MV
539	15	166.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -80.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.650 V      5.200 V
353     2   5.650 V      5.200 V
359     3   5.650 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.680 V      5.200 V
377     6   5.680 V      5.200 V
383     7   5.670 V      5.200 V
389    15   5.660 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.760 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   26.00MV             100.0MV
432     2   26.00MV             100.0MV
438     3   26.00MV             100.0MV
444     4   26.00MV             100.0MV
450     5   26.00MV             100.0MV
456     6   26.00MV             100.0MV
462     7   26.00MV             100.0MV
468    15   26.00MV             100.0MV
474     9   26.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	212.0MV		400.0MV
503	2	216.0MV		400.0MV
509	3	212.0MV		400.0MV
515	4	198.0MV		400.0MV
521	5	180.0MV		400.0MV
527	6	178.0MV		400.0MV
533	7	190.0MV		400.0MV
539	15	194.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	140.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 04/07/21 15:33  
TEST PROGRAM HC595 S/N 12

DDS-109-01-A PN 54HC595 POST BURN IN SEQ14 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-560.0MV	-1.500 V	-100.0MV
57	11	-560.0MV	-1.500 V	-100.0MV
57	12	-560.0MV	-1.500 V	-100.0MV
57	13	-560.0MV	-1.500 V	-100.0MV
57	14	-560.0MV	-1.500 V	-100.0MV
57	16	-480.0MV	-1.500 V	-100.0MV
67	1	580.0MV	100.0MV	1.500 V
67	2	580.0MV	100.0MV	1.500 V
67	3	580.0MV	100.0MV	1.500 V
67	4	580.0MV	100.0MV	1.500 V
67	5	580.0MV	100.0MV	1.500 V
67	6	570.0MV	100.0MV	1.500 V
67	7	570.0MV	100.0MV	1.500 V
67	9	570.0MV	100.0MV	1.500 V
67	15	570.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	18.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	16.00MV		100.0MV
444	4	16.00MV		100.0MV
450	5	16.00MV		100.0MV
456	6	16.00MV		100.0MV
462	7	16.00MV		100.0MV
468	15	16.00MV		100.0MV
474	9	16.00MV		100.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03  
 -----

-----  
 VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.200  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.810 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.830 V	2.200 V	
389	15	2.830 V	2.200 V	

-----  
 VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.200  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

-----  
 VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	98.00MV		400.0MV
503	2	102.0MV		400.0MV
509	3	104.0MV		400.0MV
515	4	90.00MV		400.0MV
521	5	84.00MV		400.0MV
527	6	84.00MV		400.0MV
533	7	86.00MV		400.0MV
539	15	90.00MV		400.0MV

-----  
 VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	92.00MV		400.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 4.500  
 VIH= 3.150 VIL= 1.350  
 -----

-----  
 VOH1 TEST  
 VCC= 4.500 IOH=-20.00E-06  
 VOH LIMIT 4.400  
 -----

INST #	PIN	MEASURED	LT	GT
--------	-----	----------	----	----

276	1	4.450 V	4.400 V
282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
 VOH2 TEST  
 VCC= 4.500 IOH2= -6.000E-03  
 VOH2 LIMIT 3.700  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	4.160 V	3.700 V	
353	2	4.150 V	3.700 V	
359	3	4.160 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.190 V	3.700 V	
377	6	4.190 V	3.700 V	
383	7	4.180 V	3.700 V	
389	15	4.180 V	3.700 V	

-----  
 VOH2 TEST  
 VCC= 4.500 IOH3= -4.000E-03  
 VOH2 LIMIT 3.700  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.700 V	

-----  
 VOL1 TEST  
 VCC= 4.500 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	18.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL2= 6.000E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	184.0MV		400.0MV
503	2	188.0MV		400.0MV
509	3	184.0MV		400.0MV
515	4	166.0MV		400.0MV
521	5	152.0MV		400.0MV
527	6	152.0MV		400.0MV
533	7	156.0MV		400.0MV
539	15	164.0MV		400.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL3= -4.000E-03  
 -----

VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
553 9 -80.00MV 400.0MV

-----  
FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

-----  
VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

-----  
INST # PIN MEASURED LT GT  
276 1 5.970 V 5.900 V  
282 2 5.970 V 5.900 V  
288 3 5.970 V 5.900 V  
294 4 5.970 V 5.900 V  
300 5 5.970 V 5.900 V  
306 6 5.970 V 5.900 V  
312 7 5.970 V 5.900 V  
318 15 5.970 V 5.900 V  
324 9 5.970 V 5.900 V

-----  
VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

-----  
INST # PIN MEASURED LT GT  
347 1 5.660 V 5.200 V  
353 2 5.660 V 5.200 V  
359 3 5.650 V 5.200 V  
365 4 5.670 V 5.200 V  
371 5 5.680 V 5.200 V  
377 6 5.680 V 5.200 V  
383 7 5.680 V 5.200 V  
389 15 5.670 V 5.200 V

-----  
VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

-----  
INST # PIN MEASURED LT GT  
403 9 5.760 V 5.200 V

-----  
VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
426 1 26.00MV 100.0MV  
432 2 26.00MV 100.0MV  
438 3 26.00MV 100.0MV  
444 4 26.00MV 100.0MV  
450 5 26.00MV 100.0MV  
456 6 26.00MV 100.0MV  
462 7 26.00MV 100.0MV  
468 15 26.00MV 100.0MV  
474 9 26.00MV 100.0MV



```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	212.0MV		400.0MV
503	2	206.0MV		400.0MV
509	3	212.0MV		400.0MV
515	4	194.0MV		400.0MV
521	5	176.0MV		400.0MV
527	6	178.0MV		400.0MV
533	7	182.0MV		400.0MV
539	15	192.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	140.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 -100.0NA 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT



# MIL-PRF-38534 CLASS K DATAPACK

---

Post Steady-State Life Test Results at -55°C



STAT2 06/02/21 14:19  
TEST PROGRAM HC595 S/N 1

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-610.0MV	-1.500 V	-100.0MV
57	11	-610.0MV	-1.500 V	-100.0MV
57	12	-610.0MV	-1.500 V	-100.0MV
57	13	-610.0MV	-1.500 V	-100.0MV
57	14	-610.0MV	-1.500 V	-100.0MV
57	16	-550.0MV	-1.500 V	-100.0MV
67	1	670.0MV	100.0MV	1.500 V
67	2	680.0MV	100.0MV	1.500 V
67	3	670.0MV	100.0MV	1.500 V
67	4	680.0MV	100.0MV	1.500 V
67	5	680.0MV	100.0MV	1.500 V
67	6	680.0MV	100.0MV	1.500 V
67	7	680.0MV	100.0MV	1.500 V
67	9	680.0MV	100.0MV	1.500 V
67	15	680.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
FUNCTIONAL TEST

VCC= 3  
-----

VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.860 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.860 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.870 V	2.200 V	
389	15	2.860 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		400.0MV
503	2	76.00MV		400.0MV
509	3	70.00MV		400.0MV
515	4	74.00MV		400.0MV
521	5	68.00MV		400.0MV
527	6	66.00MV		400.0MV
533	7	68.00MV		400.0MV
539	15	74.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	68.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	
282	2	4.460 V	4.400 V	
288	3	4.460 V	4.400 V	

294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.270 V	3.700 V	
353	2	4.230 V	3.700 V	
359	3	4.250 V	3.700 V	
365	4	4.240 V	3.700 V	
371	5	4.260 V	3.700 V	
377	6	4.250 V	3.700 V	
383	7	4.250 V	3.700 V	
389	15	4.240 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.320 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	108.0MV		400.0MV
503	2	124.0MV		400.0MV
509	3	108.0MV		400.0MV
515	4	118.0MV		400.0MV
521	5	104.0MV		400.0MV
527	6	102.0MV		400.0MV
533	7	102.0MV		400.0MV
539	15	118.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	-38.00MV		400.0MV

-----  
FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

-----  
VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	5.980 V	5.900 V	
282	2	5.970 V	5.900 V	
288	3	5.980 V	5.900 V	
294	4	5.970 V	5.900 V	
300	5	5.980 V	5.900 V	
306	6	5.970 V	5.900 V	
312	7	5.970 V	5.900 V	
318	15	5.970 V	5.900 V	
324	9	5.970 V	5.900 V	

-----  
VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST #	PIN	MEASURED	LT	GT
347	1	5.760 V	5.200 V	
353	2	5.730 V	5.200 V	
359	3	5.750 V	5.200 V	
365	4	5.740 V	5.200 V	
371	5	5.760 V	5.200 V	
377	6	5.760 V	5.200 V	
383	7	5.760 V	5.200 V	
389	15	5.750 V	5.200 V	

-----  
VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST #	PIN	MEASURED	LT	GT
403	9	5.830 V	5.200 V	

-----  
VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	24.00MV		100.0MV
438	3	24.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	24.00MV		100.0MV
474	9	24.00MV		100.0MV

-----  
VOL2 TEST  
-----

VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	120.0MV		400.0MV
503	2	150.0MV		400.0MV
509	3	120.0MV		400.0MV
515	4	132.0MV		400.0MV
521	5	114.0MV		400.0MV
527	6	112.0MV		400.0MV
533	7	112.0MV		400.0MV
539	15	134.0MV		400.0MV

VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	26.00NA	-1.000UA	1.000UA
628	12	-33.00NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	35.00NA	-1.000UA	1.000UA
656	14	-34.00NA	-1.000UA	1.000UA

IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C



ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 14:21  
TEST PROGRAM HC595 S/N 2

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-540.0MV	-1.500 V	-100.0MV
67	1	670.0MV	100.0MV	1.500 V
67	2	670.0MV	100.0MV	1.500 V
67	3	670.0MV	100.0MV	1.500 V
67	4	680.0MV	100.0MV	1.500 V
67	5	670.0MV	100.0MV	1.500 V
67	6	670.0MV	100.0MV	1.500 V
67	7	680.0MV	100.0MV	1.500 V
67	9	670.0MV	100.0MV	1.500 V
67	15	670.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.870 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.870 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.870 V	2.200 V	
389	15	2.860 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	64.00MV		400.0MV
503	2	88.00MV		400.0MV
509	3	64.00MV		400.0MV
515	4	108.0MV		400.0MV
521	5	64.00MV		400.0MV
527	6	62.00MV		400.0MV
533	7	64.00MV		400.0MV
539	15	68.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	66.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.250 V	3.700 V	
353	2	4.210 V	3.700 V	
359	3	4.250 V	3.700 V	
365	4	4.200 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.230 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	98.00MV		400.0MV
503	2	130.0MV		400.0MV
509	3	98.00MV		400.0MV
515	4	174.0MV		400.0MV
521	5	98.00MV		400.0MV
527	6	94.00MV		400.0MV
533	7	96.00MV		400.0MV
539	15	110.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -34.00MV          400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.960 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.750 V      5.200 V
353     2   5.700 V      5.200 V
359     3   5.750 V      5.200 V
365     4   5.690 V      5.200 V
371     5   5.750 V      5.200 V
377     6   5.750 V      5.200 V
383     7   5.760 V      5.200 V
389    15   5.740 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.820 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV          100.0MV
432     2   24.00MV          100.0MV
438     3   22.00MV          100.0MV
444     4   24.00MV          100.0MV
450     5   22.00MV          100.0MV
456     6   22.00MV          100.0MV
462     7   22.00MV          100.0MV
468    15   24.00MV          100.0MV
474     9   24.00MV          100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	108.0MV		400.0MV
503	2	164.0MV		400.0MV
509	3	110.0MV		400.0MV
515	4	148.0MV		400.0MV
521	5	112.0MV		400.0MV
527	6	104.0MV		400.0MV
533	7	104.0MV		400.0MV
539	15	120.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	84.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 14:22  
TEST PROGRAM HC595 S/N 3

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-610.0MV	-1.500 V	-100.0MV
57	11	-610.0MV	-1.500 V	-100.0MV
57	12	-610.0MV	-1.500 V	-100.0MV
57	13	-610.0MV	-1.500 V	-100.0MV
57	14	-610.0MV	-1.500 V	-100.0MV
57	16	-550.0MV	-1.500 V	-100.0MV
67	1	680.0MV	100.0MV	1.500 V
67	2	680.0MV	100.0MV	1.500 V
67	3	680.0MV	100.0MV	1.500 V
67	4	680.0MV	100.0MV	1.500 V
67	5	680.0MV	100.0MV	1.500 V
67	6	680.0MV	100.0MV	1.500 V
67	7	690.0MV	100.0MV	1.500 V
67	9	690.0MV	100.0MV	1.500 V
67	15	680.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.970 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	22.00MV		100.0MV

-----



FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.870 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.870 V	2.200 V	
377	6	2.870 V	2.200 V	
383	7	2.870 V	2.200 V	
389	15	2.860 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.870 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	68.00MV		400.0MV
503	2	82.00MV		400.0MV
509	3	68.00MV		400.0MV
515	4	82.00MV		400.0MV
521	5	68.00MV		400.0MV
527	6	66.00MV		400.0MV
533	7	64.00MV		400.0MV
539	15	70.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	68.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.260 V	3.700 V	
353	2	4.230 V	3.700 V	
359	3	4.260 V	3.700 V	
365	4	4.220 V	3.700 V	
371	5	4.260 V	3.700 V	
377	6	4.260 V	3.700 V	
383	7	4.260 V	3.700 V	
389	15	4.250 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.320 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	104.0MV		400.0MV
503	2	136.0MV		400.0MV
509	3	106.0MV		400.0MV
515	4	156.0MV		400.0MV
521	5	106.0MV		400.0MV
527	6	100.0MV		400.0MV
533	7	100.0MV		400.0MV
539	15	114.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -36.00MV          400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.960 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.760 V      5.200 V
353     2   5.740 V      5.200 V
359     3   5.760 V      5.200 V
365     4   5.720 V      5.200 V
371     5   5.760 V      5.200 V
377     6   5.760 V      5.200 V
383     7   5.760 V      5.200 V
389    15   5.750 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.830 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV          100.0MV
432     2   24.00MV          100.0MV
438     3   22.00MV          100.0MV
444     4   22.00MV          100.0MV
450     5   24.00MV          100.0MV
456     6   24.00MV          100.0MV
462     7   22.00MV          100.0MV
468    15   24.00MV          100.0MV
474     9   24.00MV          100.0MV

```

-----  
 VOL2 TEST  
 VCC= 6 IOL2= 7.800E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	114.0MV		400.0MV
503	2	138.0MV		400.0MV
509	3	116.0MV		400.0MV
515	4	166.0MV		400.0MV
521	5	120.0MV		400.0MV
527	6	110.0MV		400.0MV
533	7	110.0MV		400.0MV
539	15	128.0MV		400.0MV

-----  
 VOL2 TEST  
 VCC= 6 IOL3= 5.200E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

-----  
 IIN TEST  
 VCC= 6  
 IIL/IIH LIMIT +- 0.1UA @25C  
 IIL/IIH LIMIT +- 1.0UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

-----  
 IOZ TEST  
 VCC= 6  
 IOZ LIMIT +- 0.5UA @25C  
 IOZ LIMIT +- 10UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
 ICC TEST  
 -----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 14:24  
TEST PROGRAM HC595 S/N 4

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-500.0MV	-1.500 V	-100.0MV
67	1	620.0MV	100.0MV	1.500 V
67	2	620.0MV	100.0MV	1.500 V
67	3	620.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		400.0MV
503	2	80.00MV		400.0MV
509	3	74.00MV		400.0MV
515	4	108.0MV		400.0MV
521	5	74.00MV		400.0MV
527	6	72.00MV		400.0MV
533	7	72.00MV		400.0MV
539	15	76.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.250 V	3.700 V	
353	2	4.230 V	3.700 V	
359	3	4.250 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.250 V	3.700 V	
377	6	4.250 V	3.700 V	
383	7	4.250 V	3.700 V	
389	15	4.240 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.320 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	114.0MV		400.0MV
503	2	130.0MV		400.0MV
509	3	112.0MV		400.0MV
515	4	216.0MV		400.0MV
521	5	116.0MV		400.0MV
527	6	108.0MV		400.0MV
533	7	108.0MV		400.0MV
539	15	120.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----



```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -40.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.760 V      5.200 V
353     2   5.730 V      5.200 V
359     3   5.750 V      5.200 V
365     4   5.690 V      5.200 V
371     5   5.740 V      5.200 V
377     6   5.740 V      5.200 V
383     7   5.740 V      5.200 V
389    15   5.720 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.810 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	122.0MV		400.0MV
503	2	142.0MV		400.0MV
509	3	124.0MV		400.0MV
515	4	208.0MV		400.0MV
521	5	128.0MV		400.0MV
527	6	116.0MV		400.0MV
533	7	116.0MV		400.0MV
539	15	132.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	90.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	-1.000NA	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	-2.000NA	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 14:25  
TEST PROGRAM HC595 S/N 5

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	660.0MV	100.0MV	1.500 V
67	2	660.0MV	100.0MV	1.500 V
67	3	660.0MV	100.0MV	1.500 V
67	4	660.0MV	100.0MV	1.500 V
67	5	660.0MV	100.0MV	1.500 V
67	6	660.0MV	100.0MV	1.500 V
67	7	660.0MV	100.0MV	1.500 V
67	9	660.0MV	100.0MV	1.500 V
67	15	660.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.860 V	2.200 V	

VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.860 V	2.200 V	

VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	66.00MV		400.0MV
503	2	80.00MV		400.0MV
509	3	66.00MV		400.0MV
515	4	84.00MV		400.0MV
521	5	70.00MV		400.0MV
527	6	64.00MV		400.0MV
533	7	64.00MV		400.0MV
539	15	70.00MV		400.0MV

VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	68.00MV		400.0MV

FUNCTIONAL TEST  
 VCC= 4.500  
 VIH= 3.150 VIL= 1.350

VOH1 TEST  
 VCC= 4.500 IOH=-20.00E-06  
 VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.250 V	3.700 V	
353	2	4.230 V	3.700 V	
359	3	4.240 V	3.700 V	
365	4	4.200 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.250 V	3.700 V	
383	7	4.250 V	3.700 V	
389	15	4.250 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.320 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	102.0MV		400.0MV
503	2	124.0MV		400.0MV
509	3	106.0MV		400.0MV
515	4	194.0MV		400.0MV
521	5	118.0MV		400.0MV
527	6	98.00MV		400.0MV
533	7	98.00MV		400.0MV
539	15	110.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -36.00MV 400.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.980 V 5.900 V  
282 2 5.970 V 5.900 V  
288 3 5.980 V 5.900 V  
294 4 5.980 V 5.900 V  
300 5 5.980 V 5.900 V  
306 6 5.980 V 5.900 V  
312 7 5.980 V 5.900 V  
318 15 5.980 V 5.900 V  
324 9 5.970 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
347 1 5.770 V 5.200 V  
353 2 5.740 V 5.200 V  
359 3 5.760 V 5.200 V  
365 4 5.740 V 5.200 V  
371 5 5.750 V 5.200 V  
377 6 5.770 V 5.200 V  
383 7 5.770 V 5.200 V  
389 15 5.750 V 5.200 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
403 9 5.830 V 5.200 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 24.00MV 100.0MV  
432 2 24.00MV 100.0MV  
438 3 24.00MV 100.0MV  
444 4 22.00MV 100.0MV  
450 5 24.00MV 100.0MV  
456 6 22.00MV 100.0MV  
462 7 22.00MV 100.0MV  
468 15 24.00MV 100.0MV  
474 9 24.00MV 100.0MV  
-----

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	112.0MV		400.0MV
503	2	142.0MV		400.0MV
509	3	114.0MV		400.0MV
515	4	140.0MV		400.0MV
521	5	128.0MV		400.0MV
527	6	106.0MV		400.0MV
533	7	108.0MV		400.0MV
539	15	124.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	86.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	-2.000NA	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----



VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 14:26  
TEST PROGRAM HC595 S/N 6

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	660.0MV	100.0MV	1.500 V
67	2	660.0MV	100.0MV	1.500 V
67	3	660.0MV	100.0MV	1.500 V
67	4	660.0MV	100.0MV	1.500 V
67	5	660.0MV	100.0MV	1.500 V
67	6	660.0MV	100.0MV	1.500 V
67	7	660.0MV	100.0MV	1.500 V
67	9	660.0MV	100.0MV	1.500 V
67	15	660.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.860 V	2.200 V	
383	7	2.860 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	68.00MV		400.0MV
503	2	86.00MV		400.0MV
509	3	68.00MV		400.0MV
515	4	96.00MV		400.0MV
521	5	78.00MV		400.0MV
527	6	66.00MV		400.0MV
533	7	66.00MV		400.0MV
539	15	72.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	70.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.700 V	
353	2	4.210 V	3.700 V	
359	3	4.230 V	3.700 V	
365	4	4.170 V	3.700 V	
371	5	4.210 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.240 V	3.700 V	
389	15	4.220 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	104.0MV		400.0MV
503	2	128.0MV		400.0MV
509	3	106.0MV		400.0MV
515	4	308.0MV		400.0MV
521	5	132.0MV		400.0MV
527	6	100.0MV		400.0MV
533	7	102.0MV		400.0MV
539	15	114.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -38.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.960 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.960 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.740 V      5.200 V
353     2   5.720 V      5.200 V
359     3   5.740 V      5.200 V
365     4   5.700 V      5.200 V
371     5   5.730 V      5.200 V
377     6   5.740 V      5.200 V
383     7   5.740 V      5.200 V
389    15   5.730 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.820 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV              100.0MV
432     2   24.00MV              100.0MV
438     3   24.00MV              100.0MV
444     4   24.00MV              100.0MV
450     5   24.00MV              100.0MV
456     6   22.00MV              100.0MV
462     7   24.00MV              100.0MV
468    15   24.00MV              100.0MV
474     9   24.00MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	116.0MV		400.0MV
503	2	148.0MV		400.0MV
509	3	116.0MV		400.0MV
515	4	210.0MV		400.0MV
521	5	136.0MV		400.0MV
527	6	108.0MV		400.0MV
533	7	112.0MV		400.0MV
539	15	128.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	90.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-3.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:06  
TEST PROGRAM HC595 S/N 7

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----



FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.850 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	76.00MV		400.0MV
503	2	76.00MV		400.0MV
509	3	78.00MV		400.0MV
515	4	96.00MV		400.0MV
521	5	88.00MV		400.0MV
527	6	74.00MV		400.0MV
533	7	74.00MV		400.0MV
539	15	78.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	76.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.240 V	3.700 V	
353	2	4.240 V	3.700 V	
359	3	4.230 V	3.700 V	
365	4	4.200 V	3.700 V	
371	5	4.210 V	3.700 V	
377	6	4.240 V	3.700 V	
383	7	4.250 V	3.700 V	
389	15	4.230 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	118.0MV		400.0MV
503	2	118.0MV		400.0MV
509	3	122.0MV		400.0MV
515	4	166.0MV		400.0MV
521	5	152.0MV		400.0MV
527	6	112.0MV		400.0MV
533	7	112.0MV		400.0MV
539	15	124.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -46.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.760 V      5.200 V
353     2   5.760 V      5.200 V
359     3   5.750 V      5.200 V
365     4   5.720 V      5.200 V
371     5   5.730 V      5.200 V
377     6   5.760 V      5.200 V
383     7   5.760 V      5.200 V
389    15   5.750 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.830 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=    7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	126.0MV		400.0MV
503	2	128.0MV		400.0MV
509	3	128.0MV		400.0MV
515	4	164.0MV		400.0MV
521	5	156.0MV		400.0MV
527	6	118.0MV		400.0MV
533	7	120.0MV		400.0MV
539	15	136.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=    5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	96.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	-2.000NA	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	-2.000NA	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-3.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-3.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:06  
TEST PROGRAM HC595 S/N 8

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-590.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	650.0MV	100.0MV	1.500 V
67	2	650.0MV	100.0MV	1.500 V
67	3	650.0MV	100.0MV	1.500 V
67	4	660.0MV	100.0MV	1.500 V
67	5	660.0MV	100.0MV	1.500 V
67	6	650.0MV	100.0MV	1.500 V
67	7	660.0MV	100.0MV	1.500 V
67	9	660.0MV	100.0MV	1.500 V
67	15	660.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	22.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.200 V	
353	2	2.850 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.870 V	2.200 V	
383	7	2.870 V	2.200 V	
389	15	2.860 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.870 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	68.00MV		400.0MV
503	2	100.0MV		400.0MV
509	3	72.00MV		400.0MV
515	4	88.00MV		400.0MV
521	5	84.00MV		400.0MV
527	6	64.00MV		400.0MV
533	7	66.00MV		400.0MV
539	15	70.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	70.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.270 V	3.700 V	
353	2	4.230 V	3.700 V	
359	3	4.260 V	3.700 V	
365	4	4.230 V	3.700 V	
371	5	4.220 V	3.700 V	
377	6	4.270 V	3.700 V	
383	7	4.270 V	3.700 V	
389	15	4.250 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.330 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	102.0MV		400.0MV
503	2	130.0MV		400.0MV
509	3	112.0MV		400.0MV
515	4	160.0MV		400.0MV
521	5	146.0MV		400.0MV
527	6	98.00MV		400.0MV
533	7	98.00MV		400.0MV
539	15	112.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----



```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -38.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.780 V      5.200 V
353     2   5.770 V      5.200 V
359     3   5.760 V      5.200 V
365     4   5.740 V      5.200 V
371     5   5.740 V      5.200 V
377     6   5.780 V      5.200 V
383     7   5.780 V      5.200 V
389    15   5.760 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.840 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	112.0MV		400.0MV
503	2	124.0MV		400.0MV
509	3	128.0MV		400.0MV
515	4	156.0MV		400.0MV
521	5	156.0MV		400.0MV
527	6	106.0MV		400.0MV
533	7	108.0MV		400.0MV
539	15	126.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	-2.000NA	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	20.00NA	-1.000UA	1.000UA
628	12	-27.00NA	-1.000UA	1.000UA
636	13	17.00NA	-1.000UA	1.000UA
642	13	-26.00NA	-1.000UA	1.000UA
650	14	13.00NA	-1.000UA	1.000UA
656	14	-20.00NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:06  
TEST PROGRAM HC595 S/N 9

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-530.0MV	-1.500 V	-100.0MV
67	1	650.0MV	100.0MV	1.500 V
67	2	650.0MV	100.0MV	1.500 V
67	3	660.0MV	100.0MV	1.500 V
67	4	650.0MV	100.0MV	1.500 V
67	5	660.0MV	100.0MV	1.500 V
67	6	660.0MV	100.0MV	1.500 V
67	7	660.0MV	100.0MV	1.500 V
67	9	660.0MV	100.0MV	1.500 V
67	15	660.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.870 V	2.200 V	
353	2	2.870 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.870 V	2.200 V	
383	7	2.870 V	2.200 V	
389	15	2.860 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.870 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	66.00MV		400.0MV
503	2	70.00MV		400.0MV
509	3	102.0MV		400.0MV
515	4	82.00MV		400.0MV
521	5	84.00MV		400.0MV
527	6	64.00MV		400.0MV
533	7	64.00MV		400.0MV
539	15	70.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	68.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.270 V	3.700 V	
353	2	4.260 V	3.700 V	
359	3	4.240 V	3.700 V	
365	4	4.230 V	3.700 V	
371	5	4.220 V	3.700 V	
377	6	4.270 V	3.700 V	
383	7	4.270 V	3.700 V	
389	15	4.250 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.330 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	102.0MV		400.0MV
503	2	112.0MV		400.0MV
509	3	140.0MV		400.0MV
515	4	146.0MV		400.0MV
521	5	156.0MV		400.0MV
527	6	98.00MV		400.0MV
533	7	98.00MV		400.0MV
539	15	114.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -38.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.780 V      5.200 V
353     2   5.760 V      5.200 V
359     3   5.750 V      5.200 V
365     4   5.740 V      5.200 V
371     5   5.740 V      5.200 V
377     6   5.780 V      5.200 V
383     7   5.780 V      5.200 V
389    15   5.760 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.840 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	112.0MV		400.0MV
503	2	124.0MV		400.0MV
509	3	148.0MV		400.0MV
515	4	154.0MV		400.0MV
521	5	154.0MV		400.0MV
527	6	106.0MV		400.0MV
533	7	108.0MV		400.0MV
539	15	130.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	31.00NA	-1.000UA	1.000UA
600	10	-27.00NA	-1.000UA	1.000UA
608	11	27.00NA	-1.000UA	1.000UA
614	11	-31.00NA	-1.000UA	1.000UA
622	12	69.00NA	-1.000UA	1.000UA
628	12	-66.00NA	-1.000UA	1.000UA
636	13	46.00NA	-1.000UA	1.000UA
642	13	-47.00NA	-1.000UA	1.000UA
650	14	34.00NA	-1.000UA	1.000UA
656	14	-34.00NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	0 A	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```



VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:07  
TEST PROGRAM HC595 S/N 10

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-610.0MV	-1.500 V	-100.0MV
57	14	-610.0MV	-1.500 V	-100.0MV
57	16	-540.0MV	-1.500 V	-100.0MV
67	1	670.0MV	100.0MV	1.500 V
67	2	670.0MV	100.0MV	1.500 V
67	3	670.0MV	100.0MV	1.500 V
67	4	670.0MV	100.0MV	1.500 V
67	5	670.0MV	100.0MV	1.500 V
67	6	670.0MV	100.0MV	1.500 V
67	7	680.0MV	100.0MV	1.500 V
67	9	680.0MV	100.0MV	1.500 V
67	15	680.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.870 V	2.200 V	
353	2	2.870 V	2.200 V	
359	3	2.860 V	2.200 V	
365	4	2.850 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.880 V	2.200 V	
383	7	2.870 V	2.200 V	
389	15	2.860 V	2.200 V	

VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.870 V	2.200 V	

VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	66.00MV		400.0MV
503	2	68.00MV		400.0MV
509	3	74.00MV		400.0MV
515	4	82.00MV		400.0MV
521	5	78.00MV		400.0MV
527	6	62.00MV		400.0MV
533	7	64.00MV		400.0MV
539	15	70.00MV		400.0MV

VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	66.00MV		400.0MV

FUNCTIONAL TEST  
 VCC= 4.500  
 VIH= 3.150 VIL= 1.350

VOH1 TEST  
 VCC= 4.500 IOH=-20.00E-06  
 VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.270 V	3.700 V	
353	2	4.260 V	3.700 V	
359	3	4.260 V	3.700 V	
365	4	4.240 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.270 V	3.700 V	
383	7	4.270 V	3.700 V	
389	15	4.260 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.330 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	100.0MV		400.0MV
503	2	110.0MV		400.0MV
509	3	106.0MV		400.0MV
515	4	140.0MV		400.0MV
521	5	134.0MV		400.0MV
527	6	96.00MV		400.0MV
533	7	96.00MV		400.0MV
539	15	112.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -36.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.780 V      5.200 V
353     2   5.770 V      5.200 V
359     3   5.770 V      5.200 V
365     4   5.750 V      5.200 V
371     5   5.740 V      5.200 V
377     6   5.790 V      5.200 V
383     7   5.780 V      5.200 V
389    15   5.760 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.840 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	112.0MV		400.0MV
503	2	122.0MV		400.0MV
509	3	118.0MV		400.0MV
515	4	146.0MV		400.0MV
521	5	154.0MV		400.0MV
527	6	106.0MV		400.0MV
533	7	108.0MV		400.0MV
539	15	128.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	78.00NA	-1.000UA	1.000UA
600	10	-60.00NA	-1.000UA	1.000UA
608	11	75.00NA	-1.000UA	1.000UA
614	11	-66.00NA	-1.000UA	1.000UA
622	12	52.00NA	-1.000UA	1.000UA
628	12	-52.00NA	-1.000UA	1.000UA
636	13	28.00NA	-1.000UA	1.000UA
642	13	-30.00NA	-1.000UA	1.000UA
650	14	86.00NA	-1.000UA	1.000UA
656	14	-37.00NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	0 A	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	0 A	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	0 A	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 0 A 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 06/02/21 15:07  
TEST PROGRAM HC595 S/N 11

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	12	-600.0MV	-1.500 V	-100.0MV
57	13	-600.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
57	16	-540.0MV	-1.500 V	-100.0MV
67	1	660.0MV	100.0MV	1.500 V
67	2	660.0MV	100.0MV	1.500 V
67	3	680.0MV	100.0MV	1.500 V
67	4	670.0MV	100.0MV	1.500 V
67	5	670.0MV	100.0MV	1.500 V
67	6	670.0MV	100.0MV	1.500 V
67	7	670.0MV	100.0MV	1.500 V
67	9	670.0MV	100.0MV	1.500 V
67	15	670.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----



FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.870 V	2.200 V	
353	2	2.870 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.860 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.870 V	2.200 V	
383	7	2.870 V	2.200 V	
389	15	2.870 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.870 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	66.00MV		400.0MV
503	2	68.00MV		400.0MV
509	3	82.00MV		400.0MV
515	4	78.00MV		400.0MV
521	5	76.00MV		400.0MV
527	6	62.00MV		400.0MV
533	7	64.00MV		400.0MV
539	15	70.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	68.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.270 V	3.700 V	
353	2	4.260 V	3.700 V	
359	3	4.240 V	3.700 V	
365	4	4.240 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.270 V	3.700 V	
383	7	4.270 V	3.700 V	
389	15	4.250 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.330 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	100.0MV		400.0MV
503	2	108.0MV		400.0MV
509	3	130.0MV		400.0MV
515	4	132.0MV		400.0MV
521	5	132.0MV		400.0MV
527	6	96.00MV		400.0MV
533	7	96.00MV		400.0MV
539	15	116.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -36.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.780 V      5.200 V
353     2   5.760 V      5.200 V
359     3   5.750 V      5.200 V
365     4   5.750 V      5.200 V
371     5   5.740 V      5.200 V
377     6   5.780 V      5.200 V
383     7   5.780 V      5.200 V
389    15   5.750 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.840 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV              100.0MV
432     2   24.00MV              100.0MV
438     3   24.00MV              100.0MV
444     4   24.00MV              100.0MV
450     5   24.00MV              100.0MV
456     6   24.00MV              100.0MV
462     7   24.00MV              100.0MV
468    15   24.00MV              100.0MV
474     9   24.00MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	112.0MV		400.0MV
503	2	122.0MV		400.0MV
509	3	142.0MV		400.0MV
515	4	150.0MV		400.0MV
521	5	150.0MV		400.0MV
527	6	104.0MV		400.0MV
533	7	106.0MV		400.0MV
539	15	132.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	106.0NA	-1.000UA	1.000UA
600	10	-114.0NA	-1.000UA	1.000UA
608	11	218.0NA	-1.000UA	1.000UA
614	11	-220.0NA	-1.000UA	1.000UA
622	12	236.0NA	-1.000UA	1.000UA
628	12	-241.0NA	-1.000UA	1.000UA
636	13	139.0NA	-1.000UA	1.000UA
642	13	-143.0NA	-1.000UA	1.000UA
650	14	237.0NA	-1.000UA	1.000UA
656	14	-117.0NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	100.0NA	-10.00UA	10.00UA
805	15	-200.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 0 A 160.0UA  
847 16 -100.0NA 160.0UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 06/02/21 15:08  
TEST PROGRAM HC595 S/N 12

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 -55C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-610.0MV	-1.500 V	-100.0MV
57	11	-610.0MV	-1.500 V	-100.0MV
57	12	-610.0MV	-1.500 V	-100.0MV
57	13	-620.0MV	-1.500 V	-100.0MV
57	14	-620.0MV	-1.500 V	-100.0MV
57	16	-550.0MV	-1.500 V	-100.0MV
67	1	690.0MV	100.0MV	1.500 V
67	2	690.0MV	100.0MV	1.500 V
67	3	690.0MV	100.0MV	1.500 V
67	4	690.0MV	100.0MV	1.500 V
67	5	690.0MV	100.0MV	1.500 V
67	6	690.0MV	100.0MV	1.500 V
67	7	690.0MV	100.0MV	1.500 V
67	9	700.0MV	100.0MV	1.500 V
67	15	690.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.870 V	2.200 V	
353	2	2.870 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.860 V	2.200 V	
371	5	2.860 V	2.200 V	
377	6	2.870 V	2.200 V	
383	7	2.870 V	2.200 V	
389	15	2.860 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.870 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	64.00MV		400.0MV
503	2	68.00MV		400.0MV
509	3	84.00MV		400.0MV
515	4	82.00MV		400.0MV
521	5	76.00MV		400.0MV
527	6	62.00MV		400.0MV
533	7	62.00MV		400.0MV
539	15	70.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	66.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.270 V	3.700 V	
353	2	4.260 V	3.700 V	
359	3	4.240 V	3.700 V	
365	4	4.240 V	3.700 V	
371	5	4.240 V	3.700 V	
377	6	4.280 V	3.700 V	
383	7	4.270 V	3.700 V	
389	15	4.260 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.330 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	100.0MV		400.0MV
503	2	108.0MV		400.0MV
509	3	124.0MV		400.0MV
515	4	140.0MV		400.0MV
521	5	130.0MV		400.0MV
527	6	94.00MV		400.0MV
533	7	96.00MV		400.0MV
539	15	112.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----



-----  
INST # PIN MEASURED LT GT  
553 9 -36.00MV 400.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.980 V 5.900 V  
282 2 5.980 V 5.900 V  
288 3 5.980 V 5.900 V  
294 4 5.980 V 5.900 V  
300 5 5.980 V 5.900 V  
306 6 5.980 V 5.900 V  
312 7 5.980 V 5.900 V  
318 15 5.980 V 5.900 V  
324 9 5.970 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
347 1 5.780 V 5.200 V  
353 2 5.770 V 5.200 V  
359 3 5.760 V 5.200 V  
365 4 5.750 V 5.200 V  
371 5 5.740 V 5.200 V  
377 6 5.780 V 5.200 V  
383 7 5.780 V 5.200 V  
389 15 5.760 V 5.200 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
403 9 5.840 V 5.200 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 24.00MV 100.0MV  
432 2 24.00MV 100.0MV  
438 3 24.00MV 100.0MV  
444 4 24.00MV 100.0MV  
450 5 24.00MV 100.0MV  
456 6 24.00MV 100.0MV  
462 7 24.00MV 100.0MV  
468 15 24.00MV 100.0MV  
474 9 24.00MV 100.0MV  
-----

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	110.0MV		400.0MV
503	2	124.0MV		400.0MV
509	3	134.0MV		400.0MV
515	4	146.0MV		400.0MV
521	5	148.0MV		400.0MV
527	6	104.0MV		400.0MV
533	7	106.0MV		400.0MV
539	15	130.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	220.0NA	-1.000UA	1.000UA
600	10	-190.0NA	-1.000UA	1.000UA
608	11	421.0NA	-1.000UA	1.000UA
614	11	-400.0NA	-1.000UA	1.000UA
622	12	400.0NA	-1.000UA	1.000UA
628	12	-393.0NA	-1.000UA	1.000UA
636	13	159.0NA	-1.000UA	1.000UA
642	13	-158.0NA	-1.000UA	1.000UA
650	14	289.0NA	-1.000UA	1.000UA
656	14	-157.0NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	200.0NA	-10.00UA	10.00UA
805	15	-200.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



# MIL-PRF-38534 CLASS K DATAPACK

---

Post Steady-State Life Test Results at 25°C



STAT2 06/02/21 13:41  
TEST PROGRAM HC595 S/N 1

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	630.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	7	630.0MV	100.0MV	1.500 V
67	9	630.0MV	100.0MV	1.500 V
67	15	630.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
FUNCTIONAL TEST

VCC= 3  
-----

VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.840 V	2.480 V	
359	3	2.840 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	80.00MV		260.0MV
503	2	86.00MV		260.0MV
509	3	82.00MV		260.0MV
515	4	98.00MV		260.0MV
521	5	80.00MV		260.0MV
527	6	78.00MV		260.0MV
533	7	78.00MV		260.0MV
539	15	84.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	80.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	
282	2	4.460 V	4.400 V	
288	3	4.460 V	4.400 V	

294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.470 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
 VOH2 TEST  
 VCC= 4.500 IOH2= -6.000E-03  
 VOH2 LIMIT 3.980  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.980 V	
353	2	4.200 V	3.980 V	
359	3	4.210 V	3.980 V	
365	4	4.190 V	3.980 V	
371	5	4.220 V	3.980 V	
377	6	4.220 V	3.980 V	
383	7	4.220 V	3.980 V	
389	15	4.210 V	3.980 V	

-----  
 VOH2 TEST  
 VCC= 4.500 IOH3= -4.000E-03  
 VOH2 LIMIT 3.980  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
 VOL1 TEST  
 VCC= 4.500 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL2= 6.000E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	132.0MV		260.0MV
503	2	146.0MV		260.0MV
509	3	136.0MV		260.0MV
515	4	178.0MV		260.0MV
521	5	128.0MV		260.0MV
527	6	124.0MV		260.0MV
533	7	122.0MV		260.0MV
539	15	142.0MV		260.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL3= -4.000E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	-52.00MV		260.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 6  
 VIH= 4.200 VIL= 1.800  
 -----

-----  
 VOH1 TEST  
 VCC= 6 IOH=-20.00E-06  
 VOH LIMIT 5.900  
 -----

INST #	PIN	MEASURED	LT	GT
276	1	5.980 V	5.900 V	
282	2	5.980 V	5.900 V	
288	3	5.970 V	5.900 V	
294	4	5.970 V	5.900 V	
300	5	5.980 V	5.900 V	
306	6	5.980 V	5.900 V	
312	7	5.980 V	5.900 V	
318	15	5.980 V	5.900 V	
324	9	5.970 V	5.900 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH2= -7.800E-03  
 VOH2 LIMIT 5.480  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	5.730 V	5.480 V	
353	2	5.700 V	5.480 V	
359	3	5.710 V	5.480 V	
365	4	5.660 V	5.480 V	
371	5	5.720 V	5.480 V	
377	6	5.720 V	5.480 V	
383	7	5.720 V	5.480 V	
389	15	5.710 V	5.480 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH3= -5.200E-03  
 VOH2 LIMIT 5.480  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	5.800 V	5.480 V	

-----  
 VOL1 TEST  
 VCC= 6 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	24.00MV		100.0MV
432	2	24.00MV		100.0MV
438	3	24.00MV		100.0MV
444	4	24.00MV		100.0MV
450	5	24.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	24.00MV		100.0MV
474	9	24.00MV		100.0MV

-----  
 VOL2 TEST  
 -----



VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	146.0MV		260.0MV
503	2	166.0MV		260.0MV
509	3	152.0MV		260.0MV
515	4	220.0MV		260.0MV
521	5	140.0MV		260.0MV
527	6	136.0MV		260.0MV
533	7	136.0MV		260.0MV
539	15	162.0MV		260.0MV

VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	102.0MV		260.0MV

IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	2.000NA	-500.0NA	500.0NA
709	2	-5.000NA	-500.0NA	500.0NA
718	3	2.000NA	-500.0NA	500.0NA
725	3	-5.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	2.000NA	-500.0NA	500.0NA
773	6	-5.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-5.000NA	-500.0NA	500.0NA
798	15	2.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C

ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	4.000NA		4.000UA
847	16	0 A		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 13:42  
TEST PROGRAM HC595 S/N 2

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-590.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.480 V	
353	2	2.820 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.800 V	2.480 V	
371	5	2.840 V	2.480 V	
377	6	2.840 V	2.480 V	
383	7	2.830 V	2.480 V	
389	15	2.830 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		260.0MV
503	2	78.00MV		260.0MV
509	3	74.00MV		260.0MV
515	4	102.0MV		260.0MV
521	5	72.00MV		260.0MV
527	6	70.00MV		260.0MV
533	7	70.00MV		260.0MV
539	15	76.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.440 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.440 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.980 V	
353	2	4.150 V	3.980 V	
359	3	4.170 V	3.980 V	
365	4	4.100 V	3.980 V	
371	5	4.190 V	3.980 V	
377	6	4.180 V	3.980 V	
383	7	4.190 V	3.980 V	
389	15	4.170 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	116.0MV		260.0MV
503	2	132.0MV		260.0MV
509	3	122.0MV		260.0MV
515	4	186.0MV		260.0MV
521	5	114.0MV		260.0MV
527	6	112.0MV		260.0MV
533	7	114.0MV		260.0MV
539	15	128.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -46.00MV              260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.950 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.670 V      5.480 V
353     2   5.650 V      5.480 V
359     3   5.670 V      5.480 V
365     4   5.610 V      5.480 V
371     5   5.670 V      5.480 V
377     6   5.670 V      5.480 V
383     7   5.670 V      5.480 V
389    15   5.650 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.760 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV              100.0MV
432     2   24.00MV              100.0MV
438     3   24.00MV              100.0MV
444     4   24.00MV              100.0MV
450     5   24.00MV              100.0MV
456     6   24.00MV              100.0MV
462     7   24.00MV              100.0MV
468    15   24.00MV              100.0MV
474     9   22.00MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	128.0MV		260.0MV
503	2	150.0MV		260.0MV
509	3	138.0MV		260.0MV
515	4	204.0MV		260.0MV
521	5	126.0MV		260.0MV
527	6	124.0MV		260.0MV
533	7	126.0MV		260.0MV
539	15	146.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	96.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	2.000NA	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	3.000NA	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	2.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	2.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	5.000NA		4.000UA
847	16	0 A		4.000UA

EIR 1.....10      FCT      DCT  
0000000000      PASS      PASS      EOT



STAT2 06/02/21 13:42  
TEST PROGRAM HC595 S/N 3

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-590.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	650.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.480 V	
353	2	2.820 V	2.480 V	
359	3	2.820 V	2.480 V	
365	4	2.800 V	2.480 V	
371	5	2.830 V	2.480 V	
377	6	2.820 V	2.480 V	
383	7	2.830 V	2.480 V	
389	15	2.820 V	2.480 V	

VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.480 V	

VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	76.00MV		260.0MV
503	2	82.00MV		260.0MV
509	3	78.00MV		260.0MV
515	4	100.0MV		260.0MV
521	5	74.00MV		260.0MV
527	6	74.00MV		260.0MV
533	7	74.00MV		260.0MV
539	15	80.00MV		260.0MV

VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	76.00MV		260.0MV

FUNCTIONAL TEST  
 VCC= 4.500  
 VIH= 3.150 VIL= 1.350

VOH1 TEST  
 VCC= 4.500 IOH=-20.00E-06  
 VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.160 V	3.980 V	
353	2	4.140 V	3.980 V	
359	3	4.150 V	3.980 V	
365	4	4.120 V	3.980 V	
371	5	4.160 V	3.980 V	
377	6	4.160 V	3.980 V	
383	7	4.160 V	3.980 V	
389	15	4.140 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.250 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	122.0MV		260.0MV
503	2	138.0MV		260.0MV
509	3	128.0MV		260.0MV
515	4	160.0MV		260.0MV
521	5	120.0MV		260.0MV
527	6	118.0MV		260.0MV
533	7	118.0MV		260.0MV
539	15	134.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -48.00MV              260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.950 V      5.900 V
282     2   5.950 V      5.900 V
288     3   5.950 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.950 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.950 V      5.900 V
318    15   5.950 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.670 V      5.480 V
353     2   5.650 V      5.480 V
359     3   5.660 V      5.480 V
365     4   5.650 V      5.480 V
371     5   5.670 V      5.480 V
377     6   5.670 V      5.480 V
383     7   5.670 V      5.480 V
389    15   5.650 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.760 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV              100.0MV
432     2   24.00MV              100.0MV
438     3   24.00MV              100.0MV
444     4   22.00MV              100.0MV
450     5   24.00MV              100.0MV
456     6   22.00MV              100.0MV
462     7   24.00MV              100.0MV
468    15   24.00MV              100.0MV
474     9   24.00MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	136.0MV		260.0MV
503	2	156.0MV		260.0MV
509	3	144.0MV		260.0MV
515	4	160.0MV		260.0MV
521	5	132.0MV		260.0MV
527	6	130.0MV		260.0MV
533	7	132.0MV		260.0MV
539	15	152.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	100.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	3.000NA	-500.0NA	500.0NA
709	2	-5.000NA	-500.0NA	500.0NA
718	3	2.000NA	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	2.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	3.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 3.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 06/02/21 13:43  
TEST PROGRAM HC595 S/N 4

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.840 V	2.480 V	
359	3	2.840 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.840 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	78.00MV		260.0MV
503	2	84.00MV		260.0MV
509	3	80.00MV		260.0MV
515	4	90.00MV		260.0MV
521	5	76.00MV		260.0MV
527	6	76.00MV		260.0MV
533	7	76.00MV		260.0MV
539	15	82.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	78.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	



282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.220 V	3.980 V	
353	2	4.190 V	3.980 V	
359	3	4.200 V	3.980 V	
365	4	4.190 V	3.980 V	
371	5	4.210 V	3.980 V	
377	6	4.210 V	3.980 V	
383	7	4.210 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.290 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	124.0MV		260.0MV
503	2	142.0MV		260.0MV
509	3	132.0MV		260.0MV
515	4	148.0MV		260.0MV
521	5	122.0MV		260.0MV
527	6	120.0MV		260.0MV
533	7	120.0MV		260.0MV
539	15	136.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -50.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.710 V      5.480 V
353     2   5.680 V      5.480 V
359     3   5.700 V      5.480 V
365     4   5.680 V      5.480 V
371     5   5.710 V      5.480 V
377     6   5.700 V      5.480 V
383     7   5.710 V      5.480 V
389    15   5.690 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.790 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV             100.0MV
432     2   22.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   22.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   22.00MV             100.0MV
462     7   22.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   22.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=    7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	138.0MV		260.0MV
503	2	158.0MV		260.0MV
509	3	148.0MV		260.0MV
515	4	160.0MV		260.0MV
521	5	136.0MV		260.0MV
527	6	134.0MV		260.0MV
533	7	134.0MV		260.0MV
539	15	154.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=    5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	102.0MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	2.000NA	-500.0NA	500.0NA
709	2	-5.000NA	-500.0NA	500.0NA
718	3	2.000NA	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	2.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	3.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	2.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 4.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 06/02/21 13:43  
TEST PROGRAM HC595 S/N 5

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-510.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	630.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.480 V	
353	2	2.830 V	2.480 V	
359	3	2.830 V	2.480 V	
365	4	2.830 V	2.480 V	
371	5	2.840 V	2.480 V	
377	6	2.830 V	2.480 V	
383	7	2.830 V	2.480 V	
389	15	2.820 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		260.0MV
503	2	78.00MV		260.0MV
509	3	76.00MV		260.0MV
515	4	80.00MV		260.0MV
521	5	72.00MV		260.0MV
527	6	70.00MV		260.0MV
533	7	72.00MV		260.0MV
539	15	78.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.450 V	4.400 V	

282	2	4.450 V	4.400 V
288	3	4.450 V	4.400 V
294	4	4.450 V	4.400 V
300	5	4.450 V	4.400 V
306	6	4.450 V	4.400 V
312	7	4.450 V	4.400 V
318	15	4.450 V	4.400 V
324	9	4.450 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.980 V	
353	2	4.170 V	3.980 V	
359	3	4.180 V	3.980 V	
365	4	4.170 V	3.980 V	
371	5	4.190 V	3.980 V	
377	6	4.190 V	3.980 V	
383	7	4.190 V	3.980 V	
389	15	4.170 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.270 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	118.0MV		260.0MV
503	2	134.0MV		260.0MV
509	3	124.0MV		260.0MV
515	4	138.0MV		260.0MV
521	5	114.0MV		260.0MV
527	6	112.0MV		260.0MV
533	7	114.0MV		260.0MV
539	15	130.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -46.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.950 V      5.900 V
282     2   5.960 V      5.900 V
288     3   5.960 V      5.900 V
294     4   5.950 V      5.900 V
300     5   5.960 V      5.900 V
306     6   5.950 V      5.900 V
312     7   5.960 V      5.900 V
318    15   5.960 V      5.900 V
324     9   5.950 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.680 V      5.480 V
353     2   5.660 V      5.480 V
359     3   5.660 V      5.480 V
365     4   5.650 V      5.480 V
371     5   5.680 V      5.480 V
377     6   5.670 V      5.480 V
383     7   5.670 V      5.480 V
389    15   5.650 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.750 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	130.0MV		260.0MV
503	2	150.0MV		260.0MV
509	3	140.0MV		260.0MV
515	4	152.0MV		260.0MV
521	5	128.0MV		260.0MV
527	6	126.0MV		260.0MV
533	7	126.0MV		260.0MV
539	15	146.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	98.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	3.000NA	-500.0NA	500.0NA
709	2	-5.000NA	-500.0NA	500.0NA
718	3	2.000NA	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	2.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	3.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 5.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 06/02/21 13:44  
TEST PROGRAM HC595 S/N 6

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.840 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.850 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		260.0MV
503	2	80.00MV		260.0MV
509	3	76.00MV		260.0MV
515	4	82.00MV		260.0MV
521	5	74.00MV		260.0MV
527	6	72.00MV		260.0MV
533	7	74.00MV		260.0MV
539	15	80.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	76.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.210 V	3.980 V	
353	2	4.200 V	3.980 V	
359	3	4.210 V	3.980 V	
365	4	4.200 V	3.980 V	
371	5	4.220 V	3.980 V	
377	6	4.220 V	3.980 V	
383	7	4.220 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	120.0MV		260.0MV
503	2	136.0MV		260.0MV
509	3	128.0MV		260.0MV
515	4	138.0MV		260.0MV
521	5	118.0MV		260.0MV
527	6	116.0MV		260.0MV
533	7	116.0MV		260.0MV
539	15	132.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -46.00MV              260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.710 V      5.480 V
353     2   5.690 V      5.480 V
359     3   5.700 V      5.480 V
365     4   5.690 V      5.480 V
371     5   5.710 V      5.480 V
377     6   5.720 V      5.480 V
383     7   5.710 V      5.480 V
389    15   5.690 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.800 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV              100.0MV
432     2   24.00MV              100.0MV
438     3   24.00MV              100.0MV
444     4   24.00MV              100.0MV
450     5   24.00MV              100.0MV
456     6   24.00MV              100.0MV
462     7   24.00MV              100.0MV
468    15   24.00MV              100.0MV
474     9   24.00MV              100.0MV

```

-----  
 VOL2 TEST  
 VCC= 6 IOL2= 7.800E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	134.0MV		260.0MV
503	2	154.0MV		260.0MV
509	3	144.0MV		260.0MV
515	4	154.0MV		260.0MV
521	5	130.0MV		260.0MV
527	6	128.0MV		260.0MV
533	7	130.0MV		260.0MV
539	15	150.0MV		260.0MV

-----  
 VOL2 TEST  
 VCC= 6 IOL3= 5.200E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	98.00MV		260.0MV

-----  
 IIN TEST  
 VCC= 6  
 IIL/IIH LIMIT +- 0.1UA @25C  
 IIL/IIH LIMIT +- 1.0UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

-----  
 IOZ TEST  
 VCC= 6  
 IOZ LIMIT +- 0.5UA @25C  
 IOZ LIMIT +- 10UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	3.000NA	-500.0NA	500.0NA
709	2	-5.000NA	-500.0NA	500.0NA
718	3	2.000NA	-500.0NA	500.0NA
725	3	-5.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	2.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	2.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

-----  
 ICC TEST  
 -----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 4.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT



STAT2 06/02/21 13:44  
TEST PROGRAM HC595 S/N 7

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-590.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.840 V	2.480 V	
359	3	2.840 V	2.480 V	
365	4	2.840 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.830 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	76.00MV		260.0MV
503	2	82.00MV		260.0MV
509	3	80.00MV		260.0MV
515	4	84.00MV		260.0MV
521	5	76.00MV		260.0MV
527	6	74.00MV		260.0MV
533	7	74.00MV		260.0MV
539	15	80.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	78.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.210 V	3.980 V	
353	2	4.190 V	3.980 V	
359	3	4.200 V	3.980 V	
365	4	4.190 V	3.980 V	
371	5	4.220 V	3.980 V	
377	6	4.210 V	3.980 V	
383	7	4.210 V	3.980 V	
389	15	4.200 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.290 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	124.0MV		260.0MV
503	2	142.0MV		260.0MV
509	3	132.0MV		260.0MV
515	4	142.0MV		260.0MV
521	5	120.0MV		260.0MV
527	6	120.0MV		260.0MV
533	7	120.0MV		260.0MV
539	15	136.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -50.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.700 V      5.480 V
353     2   5.680 V      5.480 V
359     3   5.690 V      5.480 V
365     4   5.680 V      5.480 V
371     5   5.710 V      5.480 V
377     6   5.700 V      5.480 V
383     7   5.700 V      5.480 V
389    15   5.680 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.790 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   22.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   22.00MV             100.0MV

```

-----  
 VOL2 TEST  
 VCC= 6 IOL2= 7.800E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	138.0MV		260.0MV
503	2	158.0MV		260.0MV
509	3	148.0MV		260.0MV
515	4	160.0MV		260.0MV
521	5	134.0MV		260.0MV
527	6	132.0MV		260.0MV
533	7	132.0MV		260.0MV
539	15	154.0MV		260.0MV

-----  
 VOL2 TEST  
 VCC= 6 IOL3= 5.200E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	102.0MV		260.0MV

-----  
 IIN TEST  
 VCC= 6  
 IIL/IIH LIMIT +- 0.1UA @25C  
 IIL/IIH LIMIT +- 1.0UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-3.000NA	-100.0NA	100.0NA

-----  
 IOZ TEST  
 VCC= 6  
 IOZ LIMIT +- 0.5UA @25C  
 IOZ LIMIT +- 10UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	2.000NA	-500.0NA	500.0NA
709	2	-5.000NA	-500.0NA	500.0NA
718	3	2.000NA	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	2.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	2.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

-----  
 ICC TEST  
 -----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	5.000NA		4.000UA
847	16	2.000NA		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 13:45  
TEST PROGRAM HC595 S/N 8

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	650.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.850 V	2.480 V	
371	5	2.860 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.860 V	2.480 V	
389	15	2.850 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		260.0MV
503	2	78.00MV		260.0MV
509	3	76.00MV		260.0MV
515	4	74.00MV		260.0MV
521	5	72.00MV		260.0MV
527	6	72.00MV		260.0MV
533	7	70.00MV		260.0MV
539	15	78.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	



282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.980 V	
353	2	4.210 V	3.980 V	
359	3	4.220 V	3.980 V	
365	4	4.220 V	3.980 V	
371	5	4.230 V	3.980 V	
377	6	4.230 V	3.980 V	
383	7	4.230 V	3.980 V	
389	15	4.210 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	116.0MV		260.0MV
503	2	134.0MV		260.0MV
509	3	124.0MV		260.0MV
515	4	122.0MV		260.0MV
521	5	114.0MV		260.0MV
527	6	112.0MV		260.0MV
533	7	114.0MV		260.0MV
539	15	130.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -46.00MV              260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.730 V      5.480 V
353     2   5.710 V      5.480 V
359     3   5.720 V      5.480 V
365     4   5.720 V      5.480 V
371     5   5.730 V      5.480 V
377     6   5.720 V      5.480 V
383     7   5.730 V      5.480 V
389    15   5.710 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT  5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.800 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV              100.0MV
432     2   24.00MV              100.0MV
438     3   24.00MV              100.0MV
444     4   24.00MV              100.0MV
450     5   24.00MV              100.0MV
456     6   22.00MV              100.0MV
462     7   22.00MV              100.0MV
468    15   24.00MV              100.0MV
474     9   24.00MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	130.0MV		260.0MV
503	2	150.0MV		260.0MV
509	3	140.0MV		260.0MV
515	4	134.0MV		260.0MV
521	5	126.0MV		260.0MV
527	6	124.0MV		260.0MV
533	7	126.0MV		260.0MV
539	15	146.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	96.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	2.000NA	-500.0NA	500.0NA
709	2	-5.000NA	-500.0NA	500.0NA
718	3	2.000NA	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	1.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	2.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 4.000NA 4.000UA  
847 16 1.000NA 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 06/02/21 13:45  
TEST PROGRAM HC595 S/N 9

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-590.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
 VCC= 3  
 VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
 VCC= 3 IOH2= -2.400E-03  
 VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.860 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.850 V	2.480 V	
371	5	2.860 V	2.480 V	
377	6	2.860 V	2.480 V	
383	7	2.860 V	2.480 V	
389	15	2.850 V	2.480 V	

VOH2 TEST  
 VCC= 3 IOH3= -2.400E-03  
 VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
 VCC= 3 IOL2= 2.400E-03  
 VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		260.0MV
503	2	78.00MV		260.0MV
509	3	74.00MV		260.0MV
515	4	74.00MV		260.0MV
521	5	72.00MV		260.0MV
527	6	70.00MV		260.0MV
533	7	70.00MV		260.0MV
539	15	76.00MV		260.0MV

VOL2 TEST  
 VCC= 3 IOL3= 2.400E-03  
 VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		260.0MV

FUNCTIONAL TEST  
 VCC= 4.500  
 VIH= 3.150 VIL= 1.350

VOH1 TEST  
 VCC= 4.500 IOH=-20.00E-06  
 VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.980 V	
353	2	4.210 V	3.980 V	
359	3	4.220 V	3.980 V	
365	4	4.230 V	3.980 V	
371	5	4.240 V	3.980 V	
377	6	4.230 V	3.980 V	
383	7	4.230 V	3.980 V	
389	15	4.220 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	116.0MV		260.0MV
503	2	134.0MV		260.0MV
509	3	124.0MV		260.0MV
515	4	120.0MV		260.0MV
521	5	114.0MV		260.0MV
527	6	112.0MV		260.0MV
533	7	112.0MV		260.0MV
539	15	128.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -46.00MV              260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.970 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.730 V      5.480 V
353     2   5.710 V      5.480 V
359     3   5.720 V      5.480 V
365     4   5.720 V      5.480 V
371     5   5.730 V      5.480 V
377     6   5.730 V      5.480 V
383     7   5.730 V      5.480 V
389    15   5.710 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.800 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV              100.0MV
432     2   24.00MV              100.0MV
438     3   24.00MV              100.0MV
444     4   24.00MV              100.0MV
450     5   22.00MV              100.0MV
456     6   24.00MV              100.0MV
462     7   24.00MV              100.0MV
468    15   24.00MV              100.0MV
474     9   24.00MV              100.0MV

```



```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	128.0MV		260.0MV
503	2	152.0MV		260.0MV
509	3	140.0MV		260.0MV
515	4	136.0MV		260.0MV
521	5	128.0MV		260.0MV
527	6	124.0MV		260.0MV
533	7	124.0MV		260.0MV
539	15	146.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	96.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	2.000NA	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	3.000NA	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	3.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	2.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	2.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 4.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 06/02/21 13:45  
TEST PROGRAM HC595 S/N 10

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.850 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.860 V	2.480 V	
383	7	2.860 V	2.480 V	
389	15	2.850 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	72.00MV		260.0MV
503	2	80.00MV		260.0MV
509	3	76.00MV		260.0MV
515	4	76.00MV		260.0MV
521	5	72.00MV		260.0MV
527	6	70.00MV		260.0MV
533	7	72.00MV		260.0MV
539	15	78.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.980 V	
353	2	4.210 V	3.980 V	
359	3	4.220 V	3.980 V	
365	4	4.220 V	3.980 V	
371	5	4.230 V	3.980 V	
377	6	4.230 V	3.980 V	
383	7	4.230 V	3.980 V	
389	15	4.220 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.310 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	116.0MV		260.0MV
503	2	136.0MV		260.0MV
509	3	126.0MV		260.0MV
515	4	124.0MV		260.0MV
521	5	114.0MV		260.0MV
527	6	112.0MV		260.0MV
533	7	114.0MV		260.0MV
539	15	130.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -46.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.730 V      5.480 V
353     2   5.710 V      5.480 V
359     3   5.720 V      5.480 V
365     4   5.720 V      5.480 V
371     5   5.730 V      5.480 V
377     6   5.730 V      5.480 V
383     7   5.730 V      5.480 V
389    15   5.710 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.810 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   22.00MV             100.0MV
462     7   22.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	130.0MV		260.0MV
503	2	152.0MV		260.0MV
509	3	142.0MV		260.0MV
515	4	138.0MV		260.0MV
521	5	128.0MV		260.0MV
527	6	124.0MV		260.0MV
533	7	126.0MV		260.0MV
539	15	146.0MV		260.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	98.00MV		260.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-4.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	-1.000NA	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	3.000NA	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	3.000NA	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	2.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	2.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	4.000NA		4.000UA
847	16	0 A		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



STAT2 06/02/21 13:46  
TEST PROGRAM HC595 S/N 11

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-580.0MV	-1.500 V	-100.0MV
57	13	-580.0MV	-1.500 V	-100.0MV
57	14	-580.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	630.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.850 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.850 V	2.480 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.480

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		260.0MV
503	2	80.00MV		260.0MV
509	3	76.00MV		260.0MV
515	4	74.00MV		260.0MV
521	5	72.00MV		260.0MV
527	6	72.00MV		260.0MV
533	7	72.00MV		260.0MV
539	15	78.00MV		260.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		260.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.980 V	
353	2	4.210 V	3.980 V	
359	3	4.220 V	3.980 V	
365	4	4.220 V	3.980 V	
371	5	4.230 V	3.980 V	
377	6	4.220 V	3.980 V	
383	7	4.230 V	3.980 V	
389	15	4.210 V	3.980 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.980  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	118.0MV		260.0MV
503	2	136.0MV		260.0MV
509	3	126.0MV		260.0MV
515	4	124.0MV		260.0MV
521	5	114.0MV		260.0MV
527	6	112.0MV		260.0MV
533	7	114.0MV		260.0MV
539	15	130.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -46.00MV             260.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.970 V      5.900 V
282     2   5.970 V      5.900 V
288     3   5.970 V      5.900 V
294     4   5.970 V      5.900 V
300     5   5.970 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.970 V      5.900 V
324     9   5.970 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.720 V      5.480 V
353     2   5.700 V      5.480 V
359     3   5.700 V      5.480 V
365     4   5.710 V      5.480 V
371     5   5.720 V      5.480 V
377     6   5.720 V      5.480 V
383     7   5.720 V      5.480 V
389    15   5.700 V      5.480 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.480
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.800 V      5.480 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   22.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

-----  
 VOL2 TEST  
 VCC= 6 IOL2= 7.800E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	130.0MV		260.0MV
503	2	152.0MV		260.0MV
509	3	144.0MV		260.0MV
515	4	138.0MV		260.0MV
521	5	126.0MV		260.0MV
527	6	124.0MV		260.0MV
533	7	126.0MV		260.0MV
539	15	146.0MV		260.0MV

-----  
 VOL2 TEST  
 VCC= 6 IOL3= 5.200E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
553	9	98.00MV		260.0MV

-----  
 IIN TEST  
 VCC= 6  
 IIL/IIH LIMIT +- 0.1UA @25C  
 IIL/IIH LIMIT +- 1.0UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

-----  
 IOZ TEST  
 VCC= 6  
 IOZ LIMIT +- 0.5UA @25C  
 IOZ LIMIT +- 10UA @TEMP  
 -----

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-6.000NA	-500.0NA	500.0NA
702	2	3.000NA	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	2.000NA	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	1.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	2.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

-----  
 ICC TEST  
 -----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----  
INST # PIN MEASURED LT GT  
838 16 4.000NA 4.000UA  
847 16 0 A 4.000UA

EIR 1.....10 FCT DCT  
0000000000 PASS PASS EOT

STAT2 06/02/21 13:46  
TEST PROGRAM HC595 S/N 12

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +25C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-590.0MV	-1.500 V	-100.0MV
57	11	-590.0MV	-1.500 V	-100.0MV
57	12	-590.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-590.0MV	-1.500 V	-100.0MV
57	16	-520.0MV	-1.500 V	-100.0MV
67	1	640.0MV	100.0MV	1.500 V
67	2	640.0MV	100.0MV	1.500 V
67	3	640.0MV	100.0MV	1.500 V
67	4	640.0MV	100.0MV	1.500 V
67	5	640.0MV	100.0MV	1.500 V
67	6	640.0MV	100.0MV	1.500 V
67	7	640.0MV	100.0MV	1.500 V
67	9	640.0MV	100.0MV	1.500 V
67	15	640.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	22.00MV		100.0MV

```

-----
FUNCTIONAL TEST
VCC= 3
VIH= 2.100 VIL= 900.0E-03
-----

```

```

-----
VOH2 TEST
VCC= 3 IOH2= -2.400E-03
VOH2 LIMIT 2.480
-----

```

INST #	PIN	MEASURED	LT	GT
347	1	2.850 V	2.480 V	
353	2	2.850 V	2.480 V	
359	3	2.850 V	2.480 V	
365	4	2.850 V	2.480 V	
371	5	2.850 V	2.480 V	
377	6	2.850 V	2.480 V	
383	7	2.850 V	2.480 V	
389	15	2.840 V	2.480 V	

```

-----
VOH2 TEST
VCC= 3 IOH3= -2.400E-03
VOH2 LIMIT 2.480
-----

```

INST #	PIN	MEASURED	LT	GT
403	9	2.850 V	2.480 V	

```

-----
VOL2 TEST
VCC= 3 IOL2= 2.400E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	74.00MV		260.0MV
503	2	80.00MV		260.0MV
509	3	76.00MV		260.0MV
515	4	76.00MV		260.0MV
521	5	72.00MV		260.0MV
527	6	72.00MV		260.0MV
533	7	72.00MV		260.0MV
539	15	78.00MV		260.0MV

```

-----
VOL2 TEST
VCC= 3 IOL3= 2.400E-03
VOL2 LIMIT 260.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	74.00MV		260.0MV

```

-----
FUNCTIONAL TEST
VCC= 4.500
VIH= 3.150 VIL= 1.350
-----

```

```

-----
VOH1 TEST
VCC= 4.500 IOH=-20.00E-06
VOH LIMIT 4.400
-----

```



INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	
282	2	4.460 V	4.400 V	
288	3	4.460 V	4.400 V	
294	4	4.460 V	4.400 V	
300	5	4.460 V	4.400 V	
306	6	4.460 V	4.400 V	
312	7	4.460 V	4.400 V	
318	15	4.460 V	4.400 V	
324	9	4.460 V	4.400 V	

-----  
 VOH2 TEST  
 VCC= 4.500 IOH2= -6.000E-03  
 VOH2 LIMIT 3.980  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	4.230 V	3.980 V	
353	2	4.210 V	3.980 V	
359	3	4.220 V	3.980 V	
365	4	4.220 V	3.980 V	
371	5	4.230 V	3.980 V	
377	6	4.230 V	3.980 V	
383	7	4.230 V	3.980 V	
389	15	4.210 V	3.980 V	

-----  
 VOH2 TEST  
 VCC= 4.500 IOH3= -4.000E-03  
 VOH2 LIMIT 3.980  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	4.300 V	3.980 V	

-----  
 VOL1 TEST  
 VCC= 4.500 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL2= 6.000E-03  
 VOL2 LIMIT 260.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	118.0MV		260.0MV
503	2	136.0MV		260.0MV
509	3	128.0MV		260.0MV
515	4	126.0MV		260.0MV
521	5	116.0MV		260.0MV
527	6	114.0MV		260.0MV
533	7	114.0MV		260.0MV
539	15	132.0MV		260.0MV

-----  
 VOL2 TEST  
 -----

VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 260.0E-03

-----  
INST # PIN MEASURED LT GT  
553 9 -46.00MV 260.0MV

-----  
FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

-----  
VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

-----  
INST # PIN MEASURED LT GT  
276 1 5.970 V 5.900 V  
282 2 5.980 V 5.900 V  
288 3 5.970 V 5.900 V  
294 4 5.980 V 5.900 V  
300 5 5.970 V 5.900 V  
306 6 5.970 V 5.900 V  
312 7 5.970 V 5.900 V  
318 15 5.970 V 5.900 V  
324 9 5.970 V 5.900 V

-----  
VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.480  
-----

-----  
INST # PIN MEASURED LT GT  
347 1 5.730 V 5.480 V  
353 2 5.710 V 5.480 V  
359 3 5.720 V 5.480 V  
365 4 5.720 V 5.480 V  
371 5 5.730 V 5.480 V  
377 6 5.730 V 5.480 V  
383 7 5.730 V 5.480 V  
389 15 5.710 V 5.480 V

-----  
VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.480  
-----

-----  
INST # PIN MEASURED LT GT  
403 9 5.810 V 5.480 V

-----  
VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
426 1 24.00MV 100.0MV  
432 2 24.00MV 100.0MV  
438 3 24.00MV 100.0MV  
444 4 24.00MV 100.0MV  
450 5 24.00MV 100.0MV  
456 6 22.00MV 100.0MV  
462 7 24.00MV 100.0MV  
468 15 24.00MV 100.0MV

474 9 24.00MV 100.0MV

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	132.0MV		260.0MV
503	2	152.0MV		260.0MV
509	3	144.0MV		260.0MV
515	4	142.0MV		260.0MV
521	5	128.0MV		260.0MV
527	6	126.0MV		260.0MV
533	7	126.0MV		260.0MV
539	15	148.0MV		260.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 260.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	98.00MV		260.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-100.0NA	100.0NA
600	10	-3.000NA	-100.0NA	100.0NA
608	11	0 A	-100.0NA	100.0NA
614	11	-3.000NA	-100.0NA	100.0NA
622	12	0 A	-100.0NA	100.0NA
628	12	-3.000NA	-100.0NA	100.0NA
636	13	0 A	-100.0NA	100.0NA
642	13	-3.000NA	-100.0NA	100.0NA
650	14	0 A	-100.0NA	100.0NA
656	14	-4.000NA	-100.0NA	100.0NA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	3.000NA	-500.0NA	500.0NA
693	1	-5.000NA	-500.0NA	500.0NA
702	2	2.000NA	-500.0NA	500.0NA
709	2	-6.000NA	-500.0NA	500.0NA
718	3	2.000NA	-500.0NA	500.0NA
725	3	-6.000NA	-500.0NA	500.0NA
734	4	2.000NA	-500.0NA	500.0NA
741	4	-6.000NA	-500.0NA	500.0NA
750	5	2.000NA	-500.0NA	500.0NA
757	5	-6.000NA	-500.0NA	500.0NA
766	6	1.000NA	-500.0NA	500.0NA
773	6	-6.000NA	-500.0NA	500.0NA
782	7	2.000NA	-500.0NA	500.0NA
789	7	-6.000NA	-500.0NA	500.0NA
798	15	2.000NA	-500.0NA	500.0NA
805	15	-6.000NA	-500.0NA	500.0NA

-----  
ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
838	16	4.000NA		4.000UA
847	16	1.000NA		4.000UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	



# MIL-PRF-38534 CLASS K DATAPACK

---

Post Steady-State Life Test Results at 125°C



STAT2 06/02/21 15:11  
TEST PROGRAM HC595 S/N 1

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-490.0MV	-1.500 V	-100.0MV
57	11	-490.0MV	-1.500 V	-100.0MV
57	12	-490.0MV	-1.500 V	-100.0MV
57	13	-490.0MV	-1.500 V	-100.0MV
57	14	-490.0MV	-1.500 V	-100.0MV
57	16	-400.0MV	-1.500 V	-100.0MV
67	1	530.0MV	100.0MV	1.500 V
67	2	530.0MV	100.0MV	1.500 V
67	3	530.0MV	100.0MV	1.500 V
67	4	530.0MV	100.0MV	1.500 V
67	5	530.0MV	100.0MV	1.500 V
67	6	530.0MV	100.0MV	1.500 V
67	7	530.0MV	100.0MV	1.500 V
67	9	520.0MV	100.0MV	1.500 V
67	15	520.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----  
FUNCTIONAL TEST

VCC= 3  
-----

VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.820 V	2.200 V	
353	2	2.820 V	2.200 V	
359	3	2.820 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.820 V	2.200 V	
377	6	2.820 V	2.200 V	
383	7	2.820 V	2.200 V	
389	15	2.820 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.820 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	106.0MV		400.0MV
503	2	102.0MV		400.0MV
509	3	100.0MV		400.0MV
515	4	106.0MV		400.0MV
521	5	98.00MV		400.0MV
527	6	96.00MV		400.0MV
533	7	96.00MV		400.0MV
539	15	102.0MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	100.0MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	
282	2	4.460 V	4.400 V	
288	3	4.460 V	4.400 V	

294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
 VOH2 TEST  
 VCC= 4.500 IOH2= -6.000E-03  
 VOH2 LIMIT 3.700  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	4.170 V	3.700 V	
353	2	4.160 V	3.700 V	
359	3	4.170 V	3.700 V	
365	4	4.160 V	3.700 V	
371	5	4.170 V	3.700 V	
377	6	4.170 V	3.700 V	
383	7	4.180 V	3.700 V	
389	15	4.170 V	3.700 V	

-----  
 VOH2 TEST  
 VCC= 4.500 IOH3= -4.000E-03  
 VOH2 LIMIT 3.700  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	4.260 V	3.700 V	

-----  
 VOL1 TEST  
 VCC= 4.500 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL2= 6.000E-03  
 VOL2 LIMIT 400.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
497	1	186.0MV		400.0MV
503	2	176.0MV		400.0MV
509	3	168.0MV		400.0MV
515	4	184.0MV		400.0MV
521	5	166.0MV		400.0MV
527	6	162.0MV		400.0MV
533	7	162.0MV		400.0MV
539	15	178.0MV		400.0MV

-----  
 VOL2 TEST  
 VCC= 4.500 IOL3= -4.000E-03  
 VOL2 LIMIT 400.0E-03  
 -----



INST #	PIN	MEASURED	LT	GT
553	9	-76.00MV		400.0MV

-----  
 FUNCTIONAL TEST  
 VCC= 6  
 VIH= 4.200 VIL= 1.800  
 -----

-----  
 VOH1 TEST  
 VCC= 6 IOH=-20.00E-06  
 VOH LIMIT 5.900  
 -----

INST #	PIN	MEASURED	LT	GT
276	1	5.980 V	5.900 V	
282	2	5.980 V	5.900 V	
288	3	5.980 V	5.900 V	
294	4	5.980 V	5.900 V	
300	5	5.980 V	5.900 V	
306	6	5.980 V	5.900 V	
312	7	5.980 V	5.900 V	
318	15	5.980 V	5.900 V	
324	9	5.970 V	5.900 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH2= -7.800E-03  
 VOH2 LIMIT 5.200  
 -----

INST #	PIN	MEASURED	LT	GT
347	1	5.670 V	5.200 V	
353	2	5.660 V	5.200 V	
359	3	5.670 V	5.200 V	
365	4	5.650 V	5.200 V	
371	5	5.670 V	5.200 V	
377	6	5.670 V	5.200 V	
383	7	5.680 V	5.200 V	
389	15	5.660 V	5.200 V	

-----  
 VOH2 TEST  
 VCC= 6 IOH3= -5.200E-03  
 VOH2 LIMIT 5.200  
 -----

INST #	PIN	MEASURED	LT	GT
403	9	5.770 V	5.200 V	

-----  
 VOL1 TEST  
 VCC= 6 IOL= 20.00E-06  
 VOL LIMIT 100.0E-03  
 -----

INST #	PIN	MEASURED	LT	GT
426	1	24.00MV		100.0MV
432	2	24.00MV		100.0MV
438	3	24.00MV		100.0MV
444	4	24.00MV		100.0MV
450	5	24.00MV		100.0MV
456	6	24.00MV		100.0MV
462	7	24.00MV		100.0MV
468	15	24.00MV		100.0MV
474	9	24.00MV		100.0MV

-----  
 VOL2 TEST  
 -----

VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
497 1 208.0MV 400.0MV  
503 2 194.0MV 400.0MV  
509 3 188.0MV 400.0MV  
515 4 208.0MV 400.0MV  
521 5 184.0MV 400.0MV  
527 6 178.0MV 400.0MV  
533 7 178.0MV 400.0MV  
539 15 200.0MV 400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03

-----  
INST # PIN MEASURED LT GT  
553 9 134.0MV 400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP

-----  
INST # PIN MEASURED LT GT  
594 10 0 A -1.000UA 1.000UA  
600 10 -4.000NA -1.000UA 1.000UA  
608 11 0 A -1.000UA 1.000UA  
614 11 -4.000NA -1.000UA 1.000UA  
622 12 0 A -1.000UA 1.000UA  
628 12 -4.000NA -1.000UA 1.000UA  
636 13 0 A -1.000UA 1.000UA  
642 13 -5.000NA -1.000UA 1.000UA  
650 14 0 A -1.000UA 1.000UA  
656 14 -5.000NA -1.000UA 1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP

-----  
INST # PIN MEASURED LT GT  
686 1 -100.0NA -10.00UA 10.00UA  
693 1 -100.0NA -10.00UA 10.00UA  
702 2 -100.0NA -10.00UA 10.00UA  
709 2 -100.0NA -10.00UA 10.00UA  
718 3 -100.0NA -10.00UA 10.00UA  
725 3 -100.0NA -10.00UA 10.00UA  
734 4 -100.0NA -10.00UA 10.00UA  
741 4 -100.0NA -10.00UA 10.00UA  
750 5 -100.0NA -10.00UA 10.00UA  
757 5 -100.0NA -10.00UA 10.00UA  
766 6 -100.0NA -10.00UA 10.00UA  
773 6 -100.0NA -10.00UA 10.00UA  
782 7 -100.0NA -10.00UA 10.00UA  
789 7 -100.0NA -10.00UA 10.00UA  
798 15 -100.0NA -10.00UA 10.00UA  
805 15 -100.0NA -10.00UA 10.00UA

-----  
ICC TEST  
VCC= 6  
ICC LIMIT MAX. 4.0UA @25C

ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:13  
TEST PROGRAM HC595 S/N 2

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-500.0MV	-1.500 V	-100.0MV
67	1	610.0MV	100.0MV	1.500 V
67	2	610.0MV	100.0MV	1.500 V
67	3	610.0MV	100.0MV	1.500 V
67	4	610.0MV	100.0MV	1.500 V
67	5	610.0MV	100.0MV	1.500 V
67	6	610.0MV	100.0MV	1.500 V
67	7	610.0MV	100.0MV	1.500 V
67	9	610.0MV	100.0MV	1.500 V
67	15	600.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.840 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.840 V	2.200 V	
383	7	2.840 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	88.00MV		400.0MV
503	2	84.00MV		400.0MV
509	3	82.00MV		400.0MV
515	4	86.00MV		400.0MV
521	5	82.00MV		400.0MV
527	6	80.00MV		400.0MV
533	7	82.00MV		400.0MV
539	15	86.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	86.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.700 V	
353	2	4.200 V	3.700 V	
359	3	4.210 V	3.700 V	
365	4	4.200 V	3.700 V	
371	5	4.210 V	3.700 V	
377	6	4.210 V	3.700 V	
383	7	4.210 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.290 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	154.0MV		400.0MV
503	2	148.0MV		400.0MV
509	3	142.0MV		400.0MV
515	4	156.0MV		400.0MV
521	5	140.0MV		400.0MV
527	6	138.0MV		400.0MV
533	7	138.0MV		400.0MV
539	15	150.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -62.00MV              400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.690 V      5.200 V
353     2   5.690 V      5.200 V
359     3   5.700 V      5.200 V
365     4   5.680 V      5.200 V
371     5   5.700 V      5.200 V
377     6   5.700 V      5.200 V
383     7   5.700 V      5.200 V
389    15   5.680 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.790 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV              100.0MV
432     2   24.00MV              100.0MV
438     3   24.00MV              100.0MV
444     4   24.00MV              100.0MV
450     5   24.00MV              100.0MV
456     6   24.00MV              100.0MV
462     7   24.00MV              100.0MV
468    15   26.00MV              100.0MV
474     9   24.00MV              100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	178.0MV		400.0MV
503	2	170.0MV		400.0MV
509	3	162.0MV		400.0MV
515	4	186.0MV		400.0MV
521	5	160.0MV		400.0MV
527	6	156.0MV		400.0MV
533	7	156.0MV		400.0MV
539	15	174.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	120.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```



VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:14  
TEST PROGRAM HC595 S/N 3

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-490.0MV	-1.500 V	-100.0MV
67	1	610.0MV	100.0MV	1.500 V
67	2	610.0MV	100.0MV	1.500 V
67	3	610.0MV	100.0MV	1.500 V
67	4	610.0MV	100.0MV	1.500 V
67	5	610.0MV	100.0MV	1.500 V
67	6	600.0MV	100.0MV	1.500 V
67	7	610.0MV	100.0MV	1.500 V
67	9	610.0MV	100.0MV	1.500 V
67	15	600.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.840 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.840 V	2.200 V	
383	7	2.840 V	2.200 V	
389	15	2.830 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	92.00MV		400.0MV
503	2	88.00MV		400.0MV
509	3	86.00MV		400.0MV
515	4	96.00MV		400.0MV
521	5	86.00MV		400.0MV
527	6	84.00MV		400.0MV
533	7	84.00MV		400.0MV
539	15	90.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.700 V	
353	2	4.190 V	3.700 V	
359	3	4.200 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.200 V	3.700 V	
377	6	4.200 V	3.700 V	
383	7	4.200 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.280 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	162.0MV		400.0MV
503	2	154.0MV		400.0MV
509	3	148.0MV		400.0MV
515	4	172.0MV		400.0MV
521	5	148.0MV		400.0MV
527	6	144.0MV		400.0MV
533	7	146.0MV		400.0MV
539	15	158.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -66.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.680 V      5.200 V
353     2   5.680 V      5.200 V
359     3   5.700 V      5.200 V
365     4   5.670 V      5.200 V
371     5   5.700 V      5.200 V
377     6   5.700 V      5.200 V
383     7   5.700 V      5.200 V
389    15   5.680 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.780 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   26.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   26.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   26.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	186.0MV		400.0MV
503	2	178.0MV		400.0MV
509	3	168.0MV		400.0MV
515	4	198.0MV		400.0MV
521	5	168.0MV		400.0MV
527	6	162.0MV		400.0MV
533	7	164.0MV		400.0MV
539	15	180.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	124.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:14  
TEST PROGRAM HC595 S/N 4

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-560.0MV	-1.500 V	-100.0MV
57	11	-560.0MV	-1.500 V	-100.0MV
57	12	-550.0MV	-1.500 V	-100.0MV
57	13	-550.0MV	-1.500 V	-100.0MV
57	14	-550.0MV	-1.500 V	-100.0MV
57	16	-470.0MV	-1.500 V	-100.0MV
67	1	590.0MV	100.0MV	1.500 V
67	2	590.0MV	100.0MV	1.500 V
67	3	590.0MV	100.0MV	1.500 V
67	4	590.0MV	100.0MV	1.500 V
67	5	590.0MV	100.0MV	1.500 V
67	6	590.0MV	100.0MV	1.500 V
67	7	590.0MV	100.0MV	1.500 V
67	9	590.0MV	100.0MV	1.500 V
67	15	580.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----



FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.830 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.830 V	2.200 V	
377	6	2.830 V	2.200 V	
383	7	2.830 V	2.200 V	
389	15	2.830 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	96.00MV		400.0MV
503	2	92.00MV		400.0MV
509	3	90.00MV		400.0MV
515	4	100.0MV		400.0MV
521	5	90.00MV		400.0MV
527	6	88.00MV		400.0MV
533	7	88.00MV		400.0MV
539	15	94.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	92.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.700 V	
353	2	4.180 V	3.700 V	
359	3	4.190 V	3.700 V	
365	4	4.170 V	3.700 V	
371	5	4.190 V	3.700 V	
377	6	4.190 V	3.700 V	
383	7	4.190 V	3.700 V	
389	15	4.180 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.280 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	168.0MV		400.0MV
503	2	160.0MV		400.0MV
509	3	154.0MV		400.0MV
515	4	178.0MV		400.0MV
521	5	154.0MV		400.0MV
527	6	150.0MV		400.0MV
533	7	150.0MV		400.0MV
539	15	164.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -70.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.680 V      5.200 V
353     2   5.680 V      5.200 V
359     3   5.680 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.690 V      5.200 V
377     6   5.690 V      5.200 V
383     7   5.690 V      5.200 V
389    15   5.680 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.780 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   24.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   24.00MV             100.0MV
444     4   24.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   26.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   24.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	192.0MV		400.0MV
503	2	182.0MV		400.0MV
509	3	174.0MV		400.0MV
515	4	210.0MV		400.0MV
521	5	172.0MV		400.0MV
527	6	166.0MV		400.0MV
533	7	168.0MV		400.0MV
539	15	186.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	126.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:15  
TEST PROGRAM HC595 S/N 5

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-490.0MV	-1.500 V	-100.0MV
67	1	610.0MV	100.0MV	1.500 V
67	2	610.0MV	100.0MV	1.500 V
67	3	610.0MV	100.0MV	1.500 V
67	4	610.0MV	100.0MV	1.500 V
67	5	610.0MV	100.0MV	1.500 V
67	6	610.0MV	100.0MV	1.500 V
67	7	610.0MV	100.0MV	1.500 V
67	9	610.0MV	100.0MV	1.500 V
67	15	600.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.840 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.840 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	88.00MV		400.0MV
503	2	86.00MV		400.0MV
509	3	82.00MV		400.0MV
515	4	96.00MV		400.0MV
521	5	82.00MV		400.0MV
527	6	82.00MV		400.0MV
533	7	82.00MV		400.0MV
539	15	86.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	86.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.700 V	
353	2	4.200 V	3.700 V	
359	3	4.210 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.210 V	3.700 V	
377	6	4.210 V	3.700 V	
383	7	4.210 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.290 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	156.0MV		400.0MV
503	2	150.0MV		400.0MV
509	3	142.0MV		400.0MV
515	4	176.0MV		400.0MV
521	5	142.0MV		400.0MV
527	6	138.0MV		400.0MV
533	7	138.0MV		400.0MV
539	15	152.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----



```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -62.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=   -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.680 V      5.200 V
353     2   5.690 V      5.200 V
359     3   5.700 V      5.200 V
365     4   5.670 V      5.200 V
371     5   5.700 V      5.200 V
377     6   5.700 V      5.200 V
383     7   5.700 V      5.200 V
389    15   5.680 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=   -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.790 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL=  20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   24.00MV             100.0MV
432     2   26.00MV             100.0MV
438     3   26.00MV             100.0MV
444     4   26.00MV             100.0MV
450     5   26.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   26.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	182.0MV		400.0MV
503	2	172.0MV		400.0MV
509	3	162.0MV		400.0MV
515	4	200.0MV		400.0MV
521	5	162.0MV		400.0MV
527	6	156.0MV		400.0MV
533	7	158.0MV		400.0MV
539	15	174.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	120.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:15  
TEST PROGRAM HC595 S/N 6

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-490.0MV	-1.500 V	-100.0MV
67	1	610.0MV	100.0MV	1.500 V
67	2	610.0MV	100.0MV	1.500 V
67	3	610.0MV	100.0MV	1.500 V
67	4	610.0MV	100.0MV	1.500 V
67	5	610.0MV	100.0MV	1.500 V
67	6	610.0MV	100.0MV	1.500 V
67	7	610.0MV	100.0MV	1.500 V
67	9	610.0MV	100.0MV	1.500 V
67	15	610.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.840 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.840 V	2.200 V	
383	7	2.840 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	92.00MV		400.0MV
503	2	88.00MV		400.0MV
509	3	86.00MV		400.0MV
515	4	98.00MV		400.0MV
521	5	84.00MV		400.0MV
527	6	84.00MV		400.0MV
533	7	84.00MV		400.0MV
539	15	88.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	86.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.700 V	
353	2	4.190 V	3.700 V	
359	3	4.200 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.200 V	3.700 V	
377	6	4.200 V	3.700 V	
383	7	4.200 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.280 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	162.0MV		400.0MV
503	2	156.0MV		400.0MV
509	3	148.0MV		400.0MV
515	4	174.0MV		400.0MV
521	5	146.0MV		400.0MV
527	6	142.0MV		400.0MV
533	7	144.0MV		400.0MV
539	15	156.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -64.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT  5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.680 V      5.200 V
353     2   5.680 V      5.200 V
359     3   5.700 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.700 V      5.200 V
377     6   5.700 V      5.200 V
383     7   5.700 V      5.200 V
389    15   5.680 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT  5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.780 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT  100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   26.00MV             100.0MV
432     2   24.00MV             100.0MV
438     3   26.00MV             100.0MV
444     4   26.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   26.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   26.00MV             100.0MV
474     9   24.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	188.0MV		400.0MV
503	2	178.0MV		400.0MV
509	3	168.0MV		400.0MV
515	4	206.0MV		400.0MV
521	5	168.0MV		400.0MV
527	6	162.0MV		400.0MV
533	7	162.0MV		400.0MV
539	15	180.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	122.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```



VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:16  
TEST PROGRAM HC595 S/N 7

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-490.0MV	-1.500 V	-100.0MV
67	1	610.0MV	100.0MV	1.500 V
67	2	610.0MV	100.0MV	1.500 V
67	3	610.0MV	100.0MV	1.500 V
67	4	610.0MV	100.0MV	1.500 V
67	5	610.0MV	100.0MV	1.500 V
67	6	600.0MV	100.0MV	1.500 V
67	7	600.0MV	100.0MV	1.500 V
67	9	600.0MV	100.0MV	1.500 V
67	15	600.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.990 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.830 V	2.200 V	
359	3	2.840 V	2.200 V	
365	4	2.820 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.840 V	2.200 V	
383	7	2.840 V	2.200 V	
389	15	2.830 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	96.00MV		400.0MV
503	2	92.00MV		400.0MV
509	3	88.00MV		400.0MV
515	4	102.0MV		400.0MV
521	5	88.00MV		400.0MV
527	6	86.00MV		400.0MV
533	7	86.00MV		400.0MV
539	15	92.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	90.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.700 V	
353	2	4.190 V	3.700 V	
359	3	4.190 V	3.700 V	
365	4	4.170 V	3.700 V	
371	5	4.200 V	3.700 V	
377	6	4.190 V	3.700 V	
383	7	4.200 V	3.700 V	
389	15	4.180 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.280 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	170.0MV		400.0MV
503	2	162.0MV		400.0MV
509	3	152.0MV		400.0MV
515	4	184.0MV		400.0MV
521	5	152.0MV		400.0MV
527	6	148.0MV		400.0MV
533	7	148.0MV		400.0MV
539	15	162.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -68.00MV 400.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.980 V 5.900 V  
282 2 5.980 V 5.900 V  
288 3 5.980 V 5.900 V  
294 4 5.980 V 5.900 V  
300 5 5.980 V 5.900 V  
306 6 5.980 V 5.900 V  
312 7 5.980 V 5.900 V  
318 15 5.980 V 5.900 V  
324 9 5.980 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
347 1 5.670 V 5.200 V  
353 2 5.680 V 5.200 V  
359 3 5.690 V 5.200 V  
365 4 5.650 V 5.200 V  
371 5 5.690 V 5.200 V  
377 6 5.690 V 5.200 V  
383 7 5.690 V 5.200 V  
389 15 5.680 V 5.200 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
403 9 5.780 V 5.200 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 26.00MV 100.0MV  
432 2 26.00MV 100.0MV  
438 3 26.00MV 100.0MV  
444 4 26.00MV 100.0MV  
450 5 26.00MV 100.0MV  
456 6 24.00MV 100.0MV  
462 7 24.00MV 100.0MV  
468 15 26.00MV 100.0MV  
474 9 24.00MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	196.0MV		400.0MV
503	2	184.0MV		400.0MV
509	3	174.0MV		400.0MV
515	4	218.0MV		400.0MV
521	5	172.0MV		400.0MV
527	6	168.0MV		400.0MV
533	7	168.0MV		400.0MV
539	15	184.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	128.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:16  
TEST PROGRAM HC595 S/N 8

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-580.0MV	-1.500 V	-100.0MV
57	11	-580.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-500.0MV	-1.500 V	-100.0MV
67	1	620.0MV	100.0MV	1.500 V
67	2	620.0MV	100.0MV	1.500 V
67	3	620.0MV	100.0MV	1.500 V
67	4	620.0MV	100.0MV	1.500 V
67	5	610.0MV	100.0MV	1.500 V
67	6	610.0MV	100.0MV	1.500 V
67	7	620.0MV	100.0MV	1.500 V
67	9	610.0MV	100.0MV	1.500 V
67	15	610.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.980 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.980 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	22.00MV		100.0MV

-----



FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.840 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.840 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	88.00MV		400.0MV
503	2	86.00MV		400.0MV
509	3	82.00MV		400.0MV
515	4	96.00MV		400.0MV
521	5	82.00MV		400.0MV
527	6	80.00MV		400.0MV
533	7	80.00MV		400.0MV
539	15	86.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	86.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.700 V	
353	2	4.200 V	3.700 V	
359	3	4.210 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.210 V	3.700 V	
377	6	4.210 V	3.700 V	
383	7	4.210 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.290 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	160.0MV		400.0MV
503	2	150.0MV		400.0MV
509	3	142.0MV		400.0MV
515	4	178.0MV		400.0MV
521	5	140.0MV		400.0MV
527	6	138.0MV		400.0MV
533	7	138.0MV		400.0MV
539	15	152.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -62.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.680 V      5.200 V
353     2   5.690 V      5.200 V
359     3   5.700 V      5.200 V
365     4   5.670 V      5.200 V
371     5   5.700 V      5.200 V
377     6   5.700 V      5.200 V
383     7   5.700 V      5.200 V
389    15   5.680 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.790 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   26.00MV             100.0MV
432     2   26.00MV             100.0MV
438     3   26.00MV             100.0MV
444     4   26.00MV             100.0MV
450     5   24.00MV             100.0MV
456     6   24.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   26.00MV             100.0MV
474     9   24.00MV             100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	188.0MV		400.0MV
503	2	172.0MV		400.0MV
509	3	162.0MV		400.0MV
515	4	202.0MV		400.0MV
521	5	160.0MV		400.0MV
527	6	154.0MV		400.0MV
533	7	156.0MV		400.0MV
539	15	174.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	120.0MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-3.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

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TEST PROGRAM HC595 S/N 9

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-500.0MV	-1.500 V	-100.0MV
67	1	620.0MV	100.0MV	1.500 V
67	2	610.0MV	100.0MV	1.500 V
67	3	610.0MV	100.0MV	1.500 V
67	4	610.0MV	100.0MV	1.500 V
67	5	610.0MV	100.0MV	1.500 V
67	6	610.0MV	100.0MV	1.500 V
67	7	610.0MV	100.0MV	1.500 V
67	9	610.0MV	100.0MV	1.500 V
67	15	610.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.990 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.850 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.850 V	2.200 V	
377	6	2.850 V	2.200 V	
383	7	2.850 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	90.00MV		400.0MV
503	2	86.00MV		400.0MV
509	3	82.00MV		400.0MV
515	4	98.00MV		400.0MV
521	5	82.00MV		400.0MV
527	6	80.00MV		400.0MV
533	7	82.00MV		400.0MV
539	15	86.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	86.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.190 V	3.700 V	
353	2	4.200 V	3.700 V	
359	3	4.210 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.210 V	3.700 V	
377	6	4.210 V	3.700 V	
383	7	4.210 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.290 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	162.0MV		400.0MV
503	2	152.0MV		400.0MV
509	3	142.0MV		400.0MV
515	4	176.0MV		400.0MV
521	5	142.0MV		400.0MV
527	6	138.0MV		400.0MV
533	7	140.0MV		400.0MV
539	15	152.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----



```

-----
INST #  PIN  MEASURED      LT      GT
553     9   -64.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT      GT
276     1   5.970 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
347     1   5.670 V      5.200 V
353     2   5.690 V      5.200 V
359     3   5.700 V      5.200 V
365     4   5.670 V      5.200 V
371     5   5.700 V      5.200 V
377     6   5.700 V      5.200 V
383     7   5.700 V      5.200 V
389    15   5.680 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT      GT
403     9   5.780 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT      GT
426     1   26.00MV             100.0MV
432     2   26.00MV             100.0MV
438     3   26.00MV             100.0MV
444     4   26.00MV             100.0MV
450     5   26.00MV             100.0MV
456     6   26.00MV             100.0MV
462     7   26.00MV             100.0MV
468    15   26.00MV             100.0MV
474     9   26.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2= 7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	194.0MV		400.0MV
503	2	176.0MV		400.0MV
509	3	164.0MV		400.0MV
515	4	200.0MV		400.0MV
521	5	162.0MV		400.0MV
527	6	156.0MV		400.0MV
533	7	158.0MV		400.0MV
539	15	176.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3= 5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	122.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:17  
TEST PROGRAM HC595 S/N 10

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-550.0MV	-1.500 V	-100.0MV
57	11	-550.0MV	-1.500 V	-100.0MV
57	12	-550.0MV	-1.500 V	-100.0MV
57	13	-550.0MV	-1.500 V	-100.0MV
57	14	-550.0MV	-1.500 V	-100.0MV
57	16	-470.0MV	-1.500 V	-100.0MV
67	1	590.0MV	100.0MV	1.500 V
67	2	590.0MV	100.0MV	1.500 V
67	3	590.0MV	100.0MV	1.500 V
67	4	590.0MV	100.0MV	1.500 V
67	5	590.0MV	100.0MV	1.500 V
67	6	590.0MV	100.0MV	1.500 V
67	7	590.0MV	100.0MV	1.500 V
67	9	590.0MV	100.0MV	1.500 V
67	15	580.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.980 V	1.900 V	
300	5	1.980 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.840 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.840 V	2.200 V	
383	7	2.840 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	94.00MV		400.0MV
503	2	88.00MV		400.0MV
509	3	84.00MV		400.0MV
515	4	98.00MV		400.0MV
521	5	84.00MV		400.0MV
527	6	84.00MV		400.0MV
533	7	84.00MV		400.0MV
539	15	88.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.700 V	
353	2	4.190 V	3.700 V	
359	3	4.200 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.200 V	3.700 V	
377	6	4.200 V	3.700 V	
383	7	4.200 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.280 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	170.0MV		400.0MV
503	2	154.0MV		400.0MV
509	3	146.0MV		400.0MV
515	4	176.0MV		400.0MV
521	5	146.0MV		400.0MV
527	6	142.0MV		400.0MV
533	7	142.0MV		400.0MV
539	15	156.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

-----  
INST # PIN MEASURED LT GT  
553 9 -64.00MV 400.0MV  
-----

FUNCTIONAL TEST  
VCC= 6  
VIH= 4.200 VIL= 1.800  
-----

VOH1 TEST  
VCC= 6 IOH=-20.00E-06  
VOH LIMIT 5.900  
-----

INST # PIN MEASURED LT GT  
276 1 5.980 V 5.900 V  
282 2 5.980 V 5.900 V  
288 3 5.980 V 5.900 V  
294 4 5.980 V 5.900 V  
300 5 5.980 V 5.900 V  
306 6 5.980 V 5.900 V  
312 7 5.980 V 5.900 V  
318 15 5.980 V 5.900 V  
324 9 5.980 V 5.900 V  
-----

VOH2 TEST  
VCC= 6 IOH2= -7.800E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
347 1 5.670 V 5.200 V  
353 2 5.690 V 5.200 V  
359 3 5.700 V 5.200 V  
365 4 5.660 V 5.200 V  
371 5 5.700 V 5.200 V  
377 6 5.700 V 5.200 V  
383 7 5.700 V 5.200 V  
389 15 5.680 V 5.200 V  
-----

VOH2 TEST  
VCC= 6 IOH3= -5.200E-03  
VOH2 LIMIT 5.200  
-----

INST # PIN MEASURED LT GT  
403 9 5.780 V 5.200 V  
-----

VOL1 TEST  
VCC= 6 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST # PIN MEASURED LT GT  
426 1 26.00MV 100.0MV  
432 2 26.00MV 100.0MV  
438 3 24.00MV 100.0MV  
444 4 26.00MV 100.0MV  
450 5 26.00MV 100.0MV  
456 6 26.00MV 100.0MV  
462 7 26.00MV 100.0MV  
468 15 26.00MV 100.0MV  
474 9 26.00MV 100.0MV  
-----

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	198.0MV		400.0MV
503	2	178.0MV		400.0MV
509	3	166.0MV		400.0MV
515	4	204.0MV		400.0MV
521	5	164.0MV		400.0MV
527	6	160.0MV		400.0MV
533	7	160.0MV		400.0MV
539	15	180.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	124.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-3.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```



VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

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TEST PROGRAM HC595 S/N 11

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-560.0MV	-1.500 V	-100.0MV
57	11	-560.0MV	-1.500 V	-100.0MV
57	12	-560.0MV	-1.500 V	-100.0MV
57	13	-560.0MV	-1.500 V	-100.0MV
57	14	-560.0MV	-1.500 V	-100.0MV
57	16	-480.0MV	-1.500 V	-100.0MV
67	1	600.0MV	100.0MV	1.500 V
67	2	600.0MV	100.0MV	1.500 V
67	3	600.0MV	100.0MV	1.500 V
67	4	600.0MV	100.0MV	1.500 V
67	5	600.0MV	100.0MV	1.500 V
67	6	590.0MV	100.0MV	1.500 V
67	7	600.0MV	100.0MV	1.500 V
67	9	590.0MV	100.0MV	1.500 V
67	15	590.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.990 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.980 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.990 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	20.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	20.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----

FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.840 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.840 V	2.200 V	
383	7	2.840 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.830 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	94.00MV		400.0MV
503	2	88.00MV		400.0MV
509	3	84.00MV		400.0MV
515	4	98.00MV		400.0MV
521	5	84.00MV		400.0MV
527	6	82.00MV		400.0MV
533	7	82.00MV		400.0MV
539	15	88.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.700 V	
353	2	4.190 V	3.700 V	
359	3	4.200 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.200 V	3.700 V	
377	6	4.200 V	3.700 V	
383	7	4.200 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.280 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	22.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	170.0MV		400.0MV
503	2	156.0MV		400.0MV
509	3	146.0MV		400.0MV
515	4	176.0MV		400.0MV
521	5	146.0MV		400.0MV
527	6	140.0MV		400.0MV
533	7	142.0MV		400.0MV
539	15	156.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -66.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.970 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.670 V      5.200 V
353     2   5.680 V      5.200 V
359     3   5.700 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.700 V      5.200 V
377     6   5.700 V      5.200 V
383     7   5.700 V      5.200 V
389    15   5.680 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.780 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   26.00MV             100.0MV
432     2   26.00MV             100.0MV
438     3   26.00MV             100.0MV
444     4   26.00MV             100.0MV
450     5   26.00MV             100.0MV
456     6   26.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   26.00MV             100.0MV
474     9   26.00MV             100.0MV

```

-----  
VOL2 TEST  
VCC= 6 IOL2= 7.800E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	198.0MV		400.0MV
503	2	180.0MV		400.0MV
509	3	166.0MV		400.0MV
515	4	204.0MV		400.0MV
521	5	164.0MV		400.0MV
527	6	160.0MV		400.0MV
533	7	162.0MV		400.0MV
539	15	178.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 6 IOL3= 5.200E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
553	9	124.0MV		400.0MV

-----  
IIN TEST  
VCC= 6  
IIL/IIH LIMIT +- 0.1UA @25C  
IIL/IIH LIMIT +- 1.0UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

-----  
IOZ TEST  
VCC= 6  
IOZ LIMIT +- 0.5UA @25C  
IOZ LIMIT +- 10UA @TEMP  
-----

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

-----  
ICC TEST  
-----

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10	FCT	DCT		
0000000000	PASS	PASS	EOT	

STAT2 06/02/21 15:18  
TEST PROGRAM HC595 S/N 12

DDS-109-01-A PN 54HC595 LIFE ELEC SEQ17 +125C

-----  
CONTINUITY TEST  
-----

INST #	PIN	MEASURED	LT	GT
57	10	-570.0MV	-1.500 V	-100.0MV
57	11	-570.0MV	-1.500 V	-100.0MV
57	12	-570.0MV	-1.500 V	-100.0MV
57	13	-570.0MV	-1.500 V	-100.0MV
57	14	-570.0MV	-1.500 V	-100.0MV
57	16	-500.0MV	-1.500 V	-100.0MV
67	1	620.0MV	100.0MV	1.500 V
67	2	620.0MV	100.0MV	1.500 V
67	3	610.0MV	100.0MV	1.500 V
67	4	610.0MV	100.0MV	1.500 V
67	5	610.0MV	100.0MV	1.500 V
67	6	610.0MV	100.0MV	1.500 V
67	7	610.0MV	100.0MV	1.500 V
67	9	610.0MV	100.0MV	1.500 V
67	15	610.0MV	100.0MV	1.500 V

-----  
FUNCTIONAL TEST  
-----

VCC= 2  
VIH= 1.500 VIL= 500.0E-03  
-----

-----  
VOH1 TEST  
-----

VCC= 2 IOH=-20.00E-06  
VOH LIMIT 1.900  
-----

INST #	PIN	MEASURED	LT	GT
276	1	1.990 V	1.900 V	
282	2	1.980 V	1.900 V	
288	3	1.990 V	1.900 V	
294	4	1.990 V	1.900 V	
300	5	1.990 V	1.900 V	
306	6	1.990 V	1.900 V	
312	7	1.980 V	1.900 V	
318	15	1.980 V	1.900 V	
324	9	1.980 V	1.900 V	

-----  
VOL1 TEST  
-----

VCC= 2 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	20.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	20.00MV		100.0MV
444	4	20.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	20.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	20.00MV		100.0MV
474	9	20.00MV		100.0MV

-----



FUNCTIONAL TEST  
VCC= 3  
VIH= 2.100 VIL= 900.0E-03

VOH2 TEST  
VCC= 3 IOH2= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
347	1	2.830 V	2.200 V	
353	2	2.840 V	2.200 V	
359	3	2.840 V	2.200 V	
365	4	2.830 V	2.200 V	
371	5	2.840 V	2.200 V	
377	6	2.840 V	2.200 V	
383	7	2.840 V	2.200 V	
389	15	2.840 V	2.200 V	

VOH2 TEST  
VCC= 3 IOH3= -2.400E-03  
VOH2 LIMIT 2.200

INST #	PIN	MEASURED	LT	GT
403	9	2.840 V	2.200 V	

VOL2 TEST  
VCC= 3 IOL2= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
497	1	94.00MV		400.0MV
503	2	88.00MV		400.0MV
509	3	86.00MV		400.0MV
515	4	98.00MV		400.0MV
521	5	84.00MV		400.0MV
527	6	82.00MV		400.0MV
533	7	82.00MV		400.0MV
539	15	88.00MV		400.0MV

VOL2 TEST  
VCC= 3 IOL3= 2.400E-03  
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
553	9	88.00MV		400.0MV

FUNCTIONAL TEST  
VCC= 4.500  
VIH= 3.150 VIL= 1.350

VOH1 TEST  
VCC= 4.500 IOH=-20.00E-06  
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
276	1	4.460 V	4.400 V	

282	2	4.460 V	4.400 V
288	3	4.460 V	4.400 V
294	4	4.460 V	4.400 V
300	5	4.460 V	4.400 V
306	6	4.460 V	4.400 V
312	7	4.460 V	4.400 V
318	15	4.460 V	4.400 V
324	9	4.460 V	4.400 V

-----  
VOH2 TEST  
VCC= 4.500 IOH2= -6.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
347	1	4.180 V	3.700 V	
353	2	4.190 V	3.700 V	
359	3	4.200 V	3.700 V	
365	4	4.180 V	3.700 V	
371	5	4.200 V	3.700 V	
377	6	4.200 V	3.700 V	
383	7	4.200 V	3.700 V	
389	15	4.190 V	3.700 V	

-----  
VOH2 TEST  
VCC= 4.500 IOH3= -4.000E-03  
VOH2 LIMIT 3.700  
-----

INST #	PIN	MEASURED	LT	GT
403	9	4.280 V	3.700 V	

-----  
VOL1 TEST  
VCC= 4.500 IOL= 20.00E-06  
VOL LIMIT 100.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
426	1	22.00MV		100.0MV
432	2	22.00MV		100.0MV
438	3	22.00MV		100.0MV
444	4	22.00MV		100.0MV
450	5	22.00MV		100.0MV
456	6	22.00MV		100.0MV
462	7	20.00MV		100.0MV
468	15	22.00MV		100.0MV
474	9	22.00MV		100.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL2= 6.000E-03  
VOL2 LIMIT 400.0E-03  
-----

INST #	PIN	MEASURED	LT	GT
497	1	172.0MV		400.0MV
503	2	156.0MV		400.0MV
509	3	148.0MV		400.0MV
515	4	174.0MV		400.0MV
521	5	146.0MV		400.0MV
527	6	142.0MV		400.0MV
533	7	144.0MV		400.0MV
539	15	158.0MV		400.0MV

-----  
VOL2 TEST  
VCC= 4.500 IOL3= -4.000E-03  
VOL2 LIMIT 400.0E-03  
-----

```

-----
INST #  PIN  MEASURED      LT          GT
553     9   -64.00MV             400.0MV

```

```

-----
FUNCTIONAL TEST
VCC=      6
VIH=     4.200      VIL=     1.800
-----

```

```

-----
VOH1 TEST
VCC=      6      IOH=-20.00E-06
VOH LIMIT 5.900
-----

```

```

INST #  PIN  MEASURED      LT          GT
276     1   5.980 V      5.900 V
282     2   5.980 V      5.900 V
288     3   5.980 V      5.900 V
294     4   5.980 V      5.900 V
300     5   5.980 V      5.900 V
306     6   5.980 V      5.900 V
312     7   5.980 V      5.900 V
318    15   5.980 V      5.900 V
324     9   5.980 V      5.900 V

```

```

-----
VOH2 TEST
VCC=      6      IOH2=  -7.800E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
347     1   5.670 V      5.200 V
353     2   5.680 V      5.200 V
359     3   5.700 V      5.200 V
365     4   5.660 V      5.200 V
371     5   5.700 V      5.200 V
377     6   5.700 V      5.200 V
383     7   5.700 V      5.200 V
389    15   5.680 V      5.200 V

```

```

-----
VOH2 TEST
VCC=      6      IOH3=  -5.200E-03
VOH2 LIMIT 5.200
-----

```

```

INST #  PIN  MEASURED      LT          GT
403     9   5.780 V      5.200 V

```

```

-----
VOL1 TEST
VCC=      6      IOL= 20.00E-06
VOL LIMIT 100.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
426     1   26.00MV             100.0MV
432     2   26.00MV             100.0MV
438     3   26.00MV             100.0MV
444     4   26.00MV             100.0MV
450     5   26.00MV             100.0MV
456     6   26.00MV             100.0MV
462     7   24.00MV             100.0MV
468    15   26.00MV             100.0MV
474     9   26.00MV             100.0MV

```

```

-----
VOL2 TEST
VCC=      6      IOL2=  7.800E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
497	1	200.0MV		400.0MV
503	2	180.0MV		400.0MV
509	3	168.0MV		400.0MV
515	4	208.0MV		400.0MV
521	5	166.0MV		400.0MV
527	6	162.0MV		400.0MV
533	7	162.0MV		400.0MV
539	15	182.0MV		400.0MV

```

-----
VOL2 TEST
VCC=      6      IOL3=  5.200E-03
VOL2 LIMIT 400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
553	9	124.0MV		400.0MV

```

-----
IIN TEST
VCC= 6
IIL/IIH LIMIT +- 0.1UA @25C
IIL/IIH LIMIT +- 1.0UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
594	10	0 A	-1.000UA	1.000UA
600	10	-4.000NA	-1.000UA	1.000UA
608	11	0 A	-1.000UA	1.000UA
614	11	-4.000NA	-1.000UA	1.000UA
622	12	0 A	-1.000UA	1.000UA
628	12	-4.000NA	-1.000UA	1.000UA
636	13	0 A	-1.000UA	1.000UA
642	13	-4.000NA	-1.000UA	1.000UA
650	14	0 A	-1.000UA	1.000UA
656	14	-4.000NA	-1.000UA	1.000UA

```

-----
IOZ TEST
VCC= 6
IOZ LIMIT +- 0.5UA @25C
IOZ LIMIT +- 10UA @TEMP
-----

```

INST #	PIN	MEASURED	LT	GT
686	1	-100.0NA	-10.00UA	10.00UA
693	1	-100.0NA	-10.00UA	10.00UA
702	2	-100.0NA	-10.00UA	10.00UA
709	2	-100.0NA	-10.00UA	10.00UA
718	3	-100.0NA	-10.00UA	10.00UA
725	3	-100.0NA	-10.00UA	10.00UA
734	4	-100.0NA	-10.00UA	10.00UA
741	4	-100.0NA	-10.00UA	10.00UA
750	5	-100.0NA	-10.00UA	10.00UA
757	5	-100.0NA	-10.00UA	10.00UA
766	6	-100.0NA	-10.00UA	10.00UA
773	6	-100.0NA	-10.00UA	10.00UA
782	7	-100.0NA	-10.00UA	10.00UA
789	7	-100.0NA	-10.00UA	10.00UA
798	15	-100.0NA	-10.00UA	10.00UA
805	15	-100.0NA	-10.00UA	10.00UA

```

-----
ICC TEST
-----

```

VCC= 6  
ICC LIMIT MAX. 4.0UA @25C  
ICC LIMIT MAX. 160UA @TEMP

-----

INST #	PIN	MEASURED	LT	GT
838	16	-100.0NA		160.0UA
847	16	-100.0NA		160.0UA

EIR 1.....10      FCT      DCT  
0000000000      PASS      PASS      EOT



# MIL-PRF-38534 CLASS K DATAPACK

---

Scanning Electron Microscopy (SEM) analysis



# TANDEX TEST LABS, INC.

15849 Business Ctr. Dr. Irwindale CA. 91706

Phone: (626)-962-7166 Fax: (626)-960-6896

## SCANNING ELECTRON MICROSCOPE ANALYSIS

SILICON SUPPLIES (DIE DEVICES)

TTL Job # DDS-109-01-W

Date: March 2, 2021

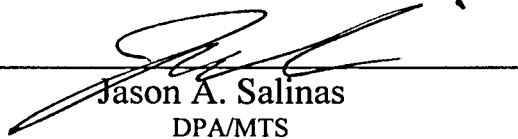
Part Number: 54HC595

Part Type: CMOS LOGIC MICROCIRCUIT

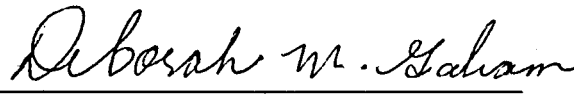
Quantity: Eight (8)

Purchase Order: SS692

Submitted by: \_\_\_\_\_

  
Jason A. Salinas  
DPA/MTS

Approved by: \_\_\_\_\_



Deborah M. Gorham

Quality Assurance

## TANDEX TEST LABS TTL Job # DDS-109-01-W

Summary

Eight (8) Transistor P/N: 54HC595 were submitted by Silicon Supplies (Die Devices) for Scanning Electron Microscopy Analysis. This Analysis was performed in accordance with Mil-Std-883, Method 2018 The devices were assigned sample number 18 through 25 by Tandex Test Labs.

1. **Plasma Etching** Carbon Tetrafluoride Gas 92% and 8% Oxygen was used to remove the glassivation. This etching is destructive and uneven in the rates of glass removal in various areas of the die.
2. **SEM Inspection** was performed on all devices. All ten devices revealed adequate metallization coverage and met the requirements of Mil-Std-883, Method 2018. See DPA form on page 3 and figures 1 through 6, for typical photographs.

**Conclusion:** This lot is acceptable for use.



**TANDEX TEST LABS TTL Job # DDS-109-01-W  
SEM EXAMINATION**

TTL Job No. <b>DDS-109-01-W</b>	Part Number <b>54HC595</b>	Part Type <b>CMOS Logic Microcircuit</b>	Date <b>February 24, 2021</b>
Lot Date Code: <b>2002 LOT# 6L0315-0 WF4</b>	Sample Qty. <b>8</b>	Serial Numbers <b>18-25</b>	Test Specifications <b>Mil-Std-883 Method 2018</b>
Misc. ID No.	Qty. Accept <b>8</b>	Qty. Reject <b>0</b>	Qty. Suspect <b>0</b>

**Notes:**

<b>S/N</b>	<b>Investigation Findings / Comments</b>	<b>A/R/S</b>
18	No Anomalies	A
19	No Anomalies	A
20	No Anomalies	A
21	No Anomalies	A
22	No Anomalies	A
23	No Anomalies	A
24	No Anomalies	A
25	No Anomalies	A

Each sample was inspected for the general metallization condition at a magnification between 1,000 X and 6,000 X over 25% of the total metallization (unless specified differently). Each sample was inspected from four (4) viewing directions at a magnification between 5,000 X and 20,000 X

Inspection required Yes:  No:  Devices constructed with expanded Metallization Yes:  No:

Sample Glassivated Yes:  No:  Dual Level Metallization Yes:  No:

Glassivation Removed Using: PLASMA ETCHING

Beam accelerating voltage 10kV to 20kV Viewing angle 45 deg



**Technician Stamp:**

TANDEX TEST LABS TTL Job # DDS-109-01-W

## Photodocumentation

TANDEX TEST LABS TTL Job # DDS-109-01-W

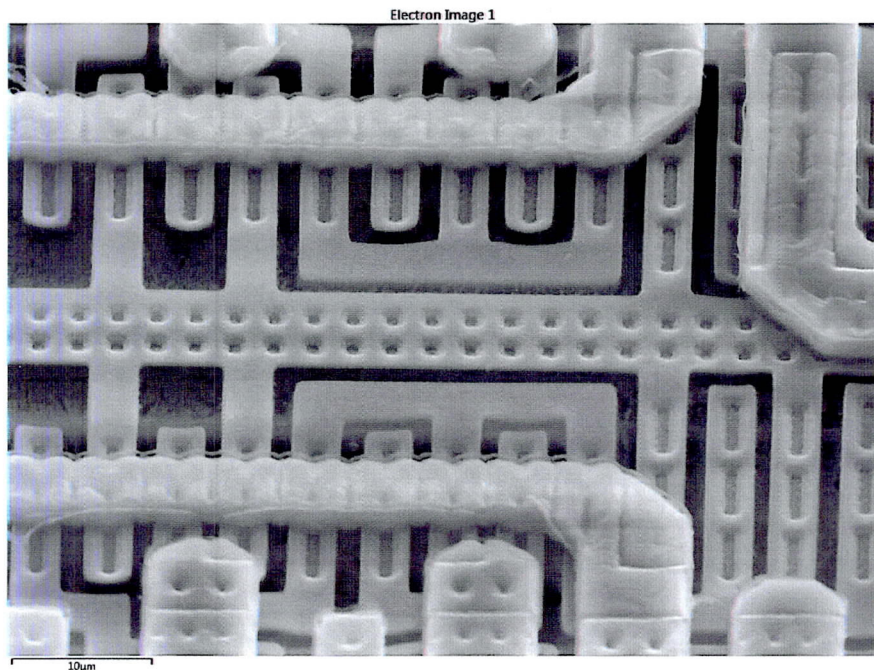


Fig: 1

Mag: 2,000X

S/N: 20

Description: SEM photograph of general metallization. (Metal 1)

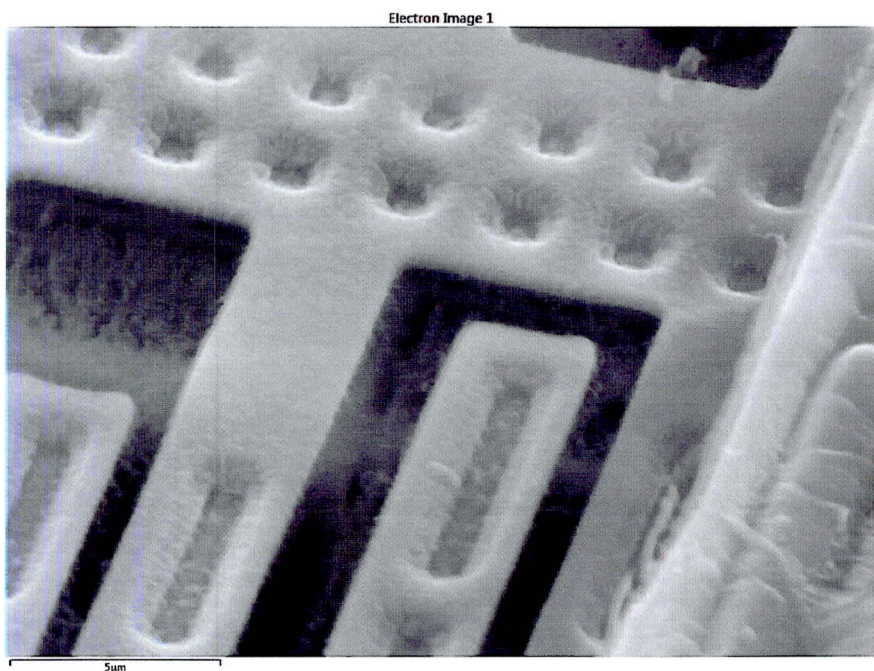


Fig: 2

Mag: 6,000X

S/N: 20

Description: SEM photograph of metallization typical step. (Metal 1)

TANDEX TEST LABS TTL Job # DDS-109-01-W

Electron Image 1

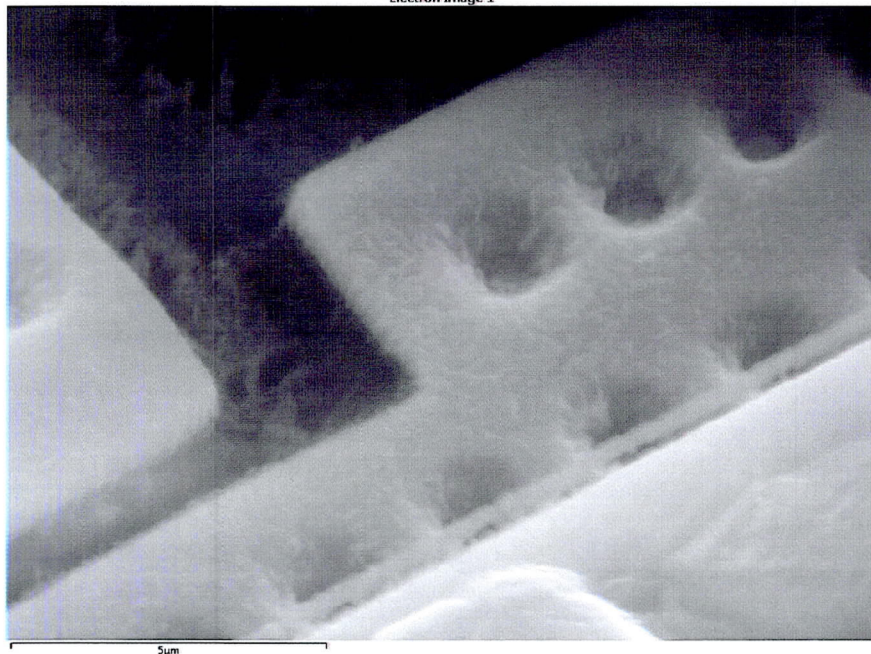


Fig: 6

Mag: 9,000X

S/N: 20

Description: SEM photograph of typical contact window device rotated 90°. (Metal 1)

TANDEX TEST LABS TTL Job # DDS-109-01-W

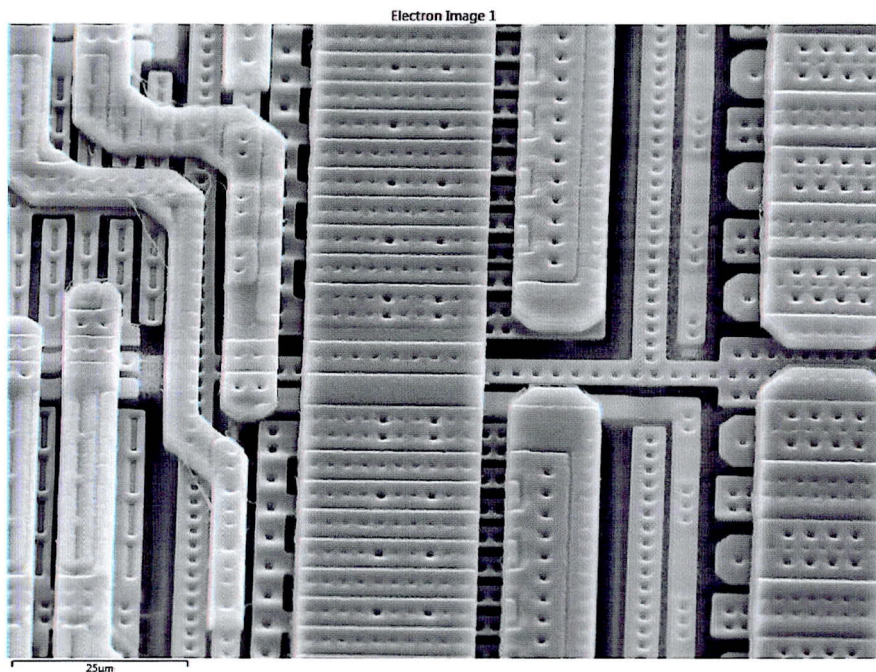


Fig: 4

Mag: 1,000X

S/N: 20

Description: SEM photograph of general metallization. (Metal 2)

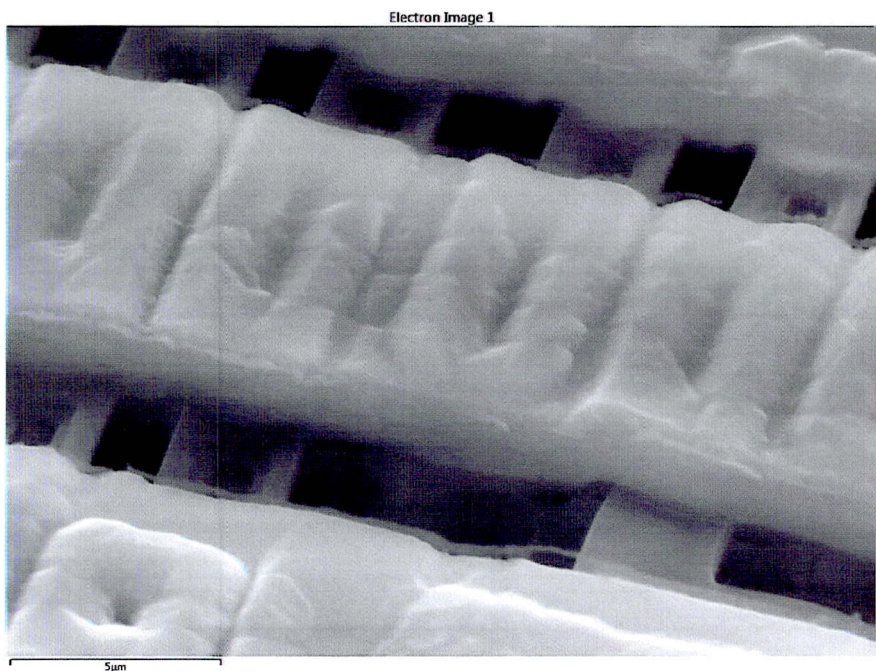


Fig: 5

Mag: 6,000X

S/N: 20

Description: SEM photograph of metallization typical step. (Metal 2)

TANDEX TEST LABS TTL Job # DDS-109-01-W

Electron Image 1

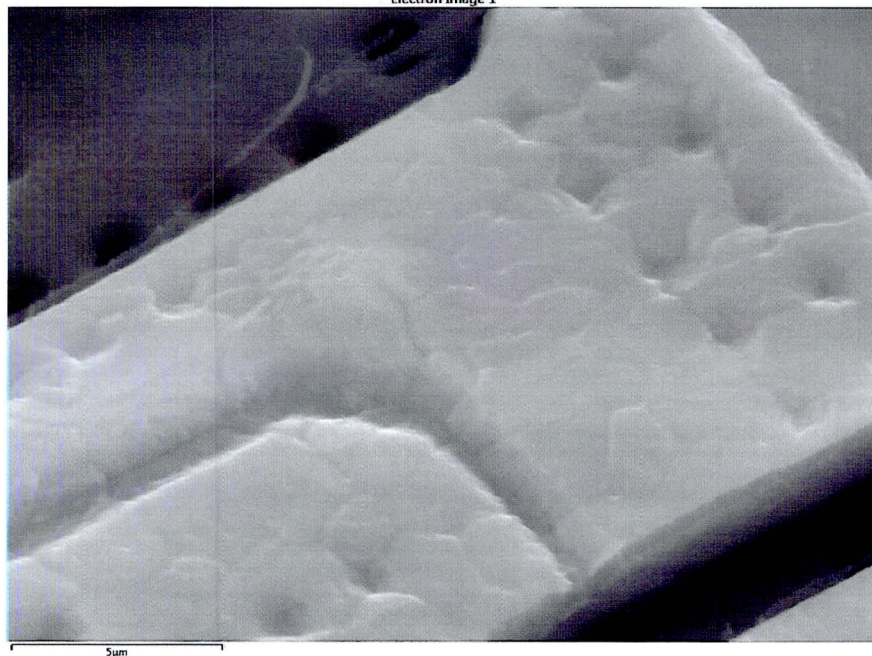


Fig: 6

Mag: 6,000X

S/N: 20

Description: SEM photograph of typical contact window device rotated 90°. (Metal 2)

# **TANDEX TEST LABS, INC.**

15849 Business Center. Dr., Irwindale CA. 91706

Phone: (626)962-7166 FAX: (626)960-6896

<http://www.tandexlabs.com>

e-mail: via web site

## **Certificate of Conformance**

CUSTOMER:	Silicon Supplies Limited 47 Wherry Road Norwich, NR1, 1WS United Kingdom Vat GB# 114 3513 56	DATE: March 2, 2021
TEST REPORT:	DDS-109-01-W	QUANTITY REQUIRED: 8
P.O. NUMBER:	SS692	QUANTITY PROCESSED: 8
DESCRIPTION:	CMOS LOGIC MICROCIRCUIT	QUANTITY PASSED: 8
PART NUMBER(S):	54HC595	QUANTITY FAILED: 0
MFG PART NUMBER	54HC595	QUANTITY SHIPPING: 8
LOT / DATE CODE:	2002 LOT# 6L0315-0 WF4	
MFG:	SILICON SUPPLIES	

METHOD OF TESTING: MIL-STD-883 METHOD 2018

I hereby certify that the subject components have been processed and inspected in accordance with instructions with specifications referenced in your purchase order. Physical records and/or data pertinent to applicable military, proprietary, and/or commercial specifications are on file and available upon request for inspection at this facility.

*Deborah M. Gorham*

Deborah M. Gorham  
QUALITY ASSURANCE

