



Reliability Report – 54LS138

3-to-8 Line Decoder / Demultiplexer IC in bare die form

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

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MIL-PRF-38534 CLASS K DATAPACK

Certificate of Conformance



TANDEX TEST LABS, INC.

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

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http://www.tandexlabs.com



e-mail: via web site

Certificate of Conformance

CUSTOMER:	SILICON SUPPLIES LIMITED	DATE: March 15, 2019
	47 WHERRY ROAD NORWICH, NR1, 1WS UNITED KINGDOM VAT GB#114 3513 56	
TEST REPORT:	DDS-101-16-A	QUANTITY RECEIVED: 30 DIE
P.O. NUMBER:	SS139	QUANTITY REQUIRED: 10/5/8
DESCRIPTION:	SCHOTTKY LOGIC MICROCIRCUIT	QUANTITY PROCESSED: 17
PART NUMBER(S):	54LS138	QUANTITY PASSED: 17
P/N: AS RECEIVED / MFG. PART NUMBER:	54LS138	QUANTITY FAILED: 0
LOT / DATE CODE:	1810 LOT# 700117 WF14	
MANUFACTURE: CAGE CODE:	SILICON SUPPLIES	QUANTITY SHIPPING: 17*
		INCLUDES: 10 PROCESS ACCEPT 5 BOND PULL DEVICES 2 SPARES
TANDEX CAGE CODE:	1FE65	*8 DIE TRANSFERRED TO DDS-101-16-W FOR SEM.

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

Process Flow Chart + Mechanical Test Results



TANDEX TEST LABS INC.

QMF22B

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

PROCESS FLOW CHART

FLOW NUMBER: DDS-101-16-A REV. 0

CUSTOMER: DIE DEVICES P.O. NUMBER: SS139
 PART NUMBER: 54LS138 P/N AS RECEIVED: 54LS138
 PART TYPE: SCHOTTKY LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
 DUE DATE: 7/12/18 JOB NUMBER: DDS-101-16-A
 LDC AS RECEIVED: 1810 LOT# 700117 WF14 QUANTITY RECEIVED: 30 (DIE)
 QUOTE NUMBER: DDS14267-1 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>3/29/18</u> CONTRACTUAL AGREEMENT REVIEW Y N NOT SPECIFIED <input type="checkbox"/> <input type="checkbox"/> <input checked="" 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"/> OTHER SPECIFIED							
02	QCI		TANDEX QUALITY CONTROL INSPECTION. FLOW APPROVED BY: <u>JMI</u> ON: <u>3/29/18</u>							#7
03	RCV	P-1070	VERIFY PART NUMBER. ENTER INTO INCOMING LOG. <u>X</u> CUSTOMER COUNT	30				3/29/18		
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	5/27/18			
		ESD MAT DUE DATE: <u>5/27/18</u>								
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 10+2 EUTETIC BOND PULL 5 Lot#: <u>149555</u> Exp. Date: <u>NA</u> SEM 8 * <u>Package Type: 16 PIN DIP</u> TRANSFER TO DDS-101-16-W MIL-STD-883 METHOD 2018							
		ESD MAT DUE DATE: <u>6/27/18</u>								
		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>9003011960</u> Exp. Date: <u>3/16/2020</u>	17	0	17	6/4/18			

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

PROCESS FLOW CHART

FLOW NUMBER: DDS-101-16-A REV. 0

CUSTOMER: DIE DEVICES P.O. NUMBER: SS139
 PART NUMBER: 54LS138 P/N AS RECEIVED: 54LS138
 PART TYPE: SCHOTTKY LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
 DUE DATE: 7/12/18 JOB NUMBER: DDS-101-16-A
 LDC AS RECEIVED: 1810 LOT# 700117 WF14 QUANTITY RECEIVED: 30 (DIE)
 QUOTE NUMBER: DDS14267-1 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>Baush Lomb</u> ASSET #: <u>30772</u>	17	0	17	6/04/18	TTL 27
ESD MAT DUE DATE: 6/27/18								
07	SEAL		SEAL DEVICES VACUUM BAKE: Pre Seal Bake Time: Temp: <u>124</u> Time: <u>9:30</u> Actual time in: <u>9:30 AM</u> <u>6/04/18</u> Actual time out: <u>11:15</u> FURNACE LDC STAMP Actual temp: <u>125</u> <u>1822</u> <u>TTL 27</u>	10+2	0	10+2	6/05/18	TTL 27
ESD MAT DUE DATE: 6/27/18								
08	ELEC		PERFORM 100% ELECTRICAL VERIFICATION TEST PER MFG DATA SHEET AND MIL-PRF-38534 @ AMBIENT OPERATING TEMPERATURE GO / NO GO EQUIPMENT USED: <u>Sentry</u> ASSET #: <u>1093</u> +25°C TEST FIXTURE: <u>1377/11210</u> SOFTWARE ID: <u>54LS138</u> REV <u>N/A</u>	10+2	0	10+2	6/6/18	Chk
ESD MAT DUE DATE: 6/27/18								
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 +0/-10 to +150°C +15/-0 10 MINUTES AT EXTREMES DATE IN TIME IN DATE OUT TIME OUT EQUIPMENT USED: <u>DELTA DESIGN</u> ASSET #: <u>30626</u> EQUIPMENT USED: <u>OMEGA HH309A</u> ASSET #: <u>31567</u>	10+2	0	10+2	6/8/18 5:49AM	TTL 48
ESD MAT DUE DATE: 6/27/18								
10	ACCE		PERFORM CONSTANT ACCELERATION PER MIL-PRF-38534 MIL-STD-883 METHOD 2001. Y1 DIRECTION ONLY @ 3000 G's (min) EQUIPMENT USED: <u>TRio Tech</u> ASSET #: <u>30260</u>	10+2	0	10+2	6/12/18	TTL 52
ESD MAT DUE DATE: 6/27/18								
11	SER		SERIALIZE S/N: <u>01-10</u> <u>1-12</u> <u>6/7/18</u>	10+2	0	10+2	6/14/18	TTL 29
ESD MAT DUE DATE: 6/27/18								

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PROCESS FLOW CHART

FLOW NUMBER: DDS-101-16-A REV. 0

CUSTOMER: DIE DEVICES P.O. NUMBER: SS139
 PART NUMBER: 54LS138 P/N AS RECEIVED: 54LS138
 PART TYPE: SCHOTTKY LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
 DUE DATE: 7/12/18 JOB NUMBER: DDS-101-16-A
 LDC AS RECEIVED: 1810 LOT# 700117 WF14 QUANTITY RECEIVED: 30 (DIE)
 QUOTE NUMBER: DDS14267-1 MFG: SILICON SUPPLIES QUANTITY REQUIRED: 10/5/8

CAUTION: ESD REFER TO TTL DRAWING #P1025

SEQ	PROC	REF #	DESCRIPTION	QTY	REJ	ACCEP	DATE	INSP.
12	ELEC		PERFORM 100% ELECTRICAL VERIFICATION PER MFG DATA SHEET3 AND MIL-PRF-38534 C.3.3.4.3 @ AMBIENT , HIGH AND LOW OPERATING TEMPERATURES. READ AND RECORD. STATIC AND FUNCTIONAL TESTS +25°C -55°C +125°C EQUIPMENT USED: <u>Sentry</u> ASSET#: <u>1093</u> TEST FIXTURE: <u>1377/1210</u> SOFTWARE ID: <u>54LS138</u> REV <u>N/A</u> TEMPERATURE SOAK <u>10</u> SEC.	12 12 12	0 0 0	12 12 12	7/23/18 7/23/18 7/23/18	Chen Chen Chen
13	BI		PERFORM BURN IN PER BURN IN CIRCUIT PER FIGURE 1 OF DWG# 1026-16668, AND MIL-STD 883 METHOD 1015. TA = 125°C (min) T = 240 HRS (min) BURN-IN BOARD # / DESC: <u>31259</u> BURN-IN OVEN #: <u>21</u>	12 12	0 0	12 12	7/26/18 7:00 AM 8/6/18 6:00 AM	TTL 13 TTL 13
14	ELEC		PERFORM POST BURN IN ELECTRICAL VERIFICATION PER MFG DATA SHEET AND MIL-PRF-38534 C.3.3.4.3 @ AMBIENT, HIGH AND LOW OPERATING TEMPERATURES. READ AND RECORD. STATIC AND FUNCTIONAL TESTS +25°C -55°C +125°C TEST +25°C WITHIN 96 HOURS EQUIPMENT USED: <u>Sentry</u> ASSET#: <u>1093</u> TEST FIXTURE: <u>1377/1210</u> SOFTWARE ID: <u>54LS138</u> REV _____ TEMPERATURE SOAK <u>10</u> SEC.	12 12 12	0 0 0	12 12 12	8/6/18 8/6/18 8/6/18	TTL 35 TTL 35 TTL 35
15	ER		PER PO REQUIREMENTS: REVIEW AT POST 240 HR. BURN-IN EMAIL: ben.white@diedevices.com POST 240 HR BURN-IN ELECTRICAL TEST DATA. HOLD FOR APPROVAL TO PROCEED DATE SENT: <u>9/5/18</u>				9/5/18	AS

TANDEX TEST LABS
 BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-16-A

TEMPERATURE TA = +125C Min

PART NUMBER 54LS138

TEMP. METER # 31368

DATE CODE 1810 LOT # 700117 WFI4

VOLTAGE VCC = +5VDC

BURN-IN TIME 240 hrs Min

VOLT METER# 31223

ΘJC = N/A

POWER SUPPLY# 30803

BOARD# 31259

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
7/26/18	7:00 AM	VCC = +5VDC	ICC = .05A	126.8°C	CM	
7/27/18	7:25 AM	VCC = +5VDC	ICC = .05A	126.6°C	CM	
7/30/18	10:50 AM	VCC = +5VDC	ICC = .05A	127.8°C	CM	
7/31/18	6:55 AM	VCC = +5VDC	ICC = .05A	127.6°C	CM	
8/1/18	6:20 AM	VCC = +5VDC	ICC = .05A	128.8°C	CM	
8/2/18	11:10 AM	VCC = +5VDC	ICC = .05A	127.3°C	CM	
8/3/18	6:45 AM	VCC = +5VDC	ICC = .05A	127.3°C	CM	
8/6/18	6:00 AM	VCC = +5VDC	ICC = .05A	126.1°C	CM	

TANDEX TEST LABS INC.

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

PROCESS FLOW CHART

FLOW NUMBER: DDS-101-16-A REV. 0

CUSTOMER: DIE DEVICES P.O. NUMBER: SS139
 PART NUMBER: 54LS138 P/N AS RECEIVED: 54LS138
 PART TYPE: SCHOTTKY LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
 DUE DATE: 7/12/18 JOB NUMBER: DDS-101-16-A
 LDC AS RECEIVED: 1810 LOT# 700117 WF14 QUANTITY RECEIVED: 30 (DIE)
 QUOTE NUMBER: DDS14267-1 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: _____ TIME IN: _____ DATE OUT: _____ TIME OUT: _____ BURN-IN BOARD # / DESC: <u>31259</u> BURN-IN OVEN #: <u>20</u>	12	0	12	9/10/18 7:00AM 10/22/18 5:45AM	TTL 13 TTL 13
117	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 TEST +25°C WITHIN 96 HOURS EQUIPMENT USED: <u>Sentry</u> ASSET#: <u>1093</u> TEST FIXTURE: <u>1377/1210</u> SOFTWARE ID: <u>445138</u> REV <u>-</u>	+25°C 12 -55°C 12 +125°C 12	0 0 0	12 12 12	10/22/18 4/2/19 4/2/19	TTL 6 TTL 27 TTL 27
18	DBP		PERFORM WIRE BOND PULL PER MIL-STD-883 METHOD 2011, & MIL-PRF-38534 C.3.3.3, C3.3.5. TEN (10) WIRES, *DO NOT USE ELECTRICAL TEST SAMPLES* EQUIPMENT USED: <u>DAGE</u> ASSET #: <u>30785</u>	5	0	5	1/21/19	TTL 4
19	SEM		PULLED 8 DEVICES AT SEQ. 05 AND TRANSFERRED TO: DDS-101-16-W	8			7/9/18	QA TANDEX 5

ESD MAT DUE DATE:
10/27/18

ESD MAT DUE DATE:
10/27/18

TANDEX TEST LABS
 BURN - IN MONITOR SHEET

PAGE 1 OF 4

JOB NUMBER DDS-101-16-A

TEMPERATURE TA = +125°C Min

PART NUMBER 54LS138

TEMP. METER# 31368

DATE CODE 1810 LOT# 700117 WFLY

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

ΘJC = N/A

POWER SUPPLY# 31657

BOARD# 31259

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
9/10/18	7:00 AM 7:00 AM	VCC = +5VDC	I _{CC} = .05A	126.2°C	CM	
9/11/18	6:00 AM	VCC = +5VDC	I _{CC} = .05A	126.0°C	CM	
9/12/18	NO	DATA	TAKEN			
9/13/18	9:05 AM	VCC = +5VDC	I _{CC} = .05A	125.8°C	CM	
9/14/18	8:55 AM	VCC = +5VDC	I _{CC} = .05A	126.5°C	CM	
9/17/18	8:00 AM	VCC = +5VDC	I _{CC} = .05A	126.4°C	CM	
9/18/18	5:50 AM	VCC = +5VDC	I _{CC} = .05A	126.6°C	CM	
9/19/18	5:30 AM	VCC = +5VDC	I _{CC} = .05A	126.2°C	CM	
9/20/18	7:30 AM	VCC = +5VDC	I _{CC} = .05A	126.3°C	CM	
9/21/18	NO	DATA	TAKEN			

TANDEX TEST LABS
 BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-16-A

TEMPERATURE TA = +125°C Min

PART NUMBER 54LS138

TEMP. METER # 31368

DATE CODE 1810 LOT # 700117 WPI4

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

ΘJC = N/A

POWER SUPPLY# 31651

BOARD# 31259

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
9/24/18	NO	DATA	TAKEN			
9/25/18	5:30AM	VCC = +5VDC	ICC = .05A	126.2°C	CM	
9/26/18	6:00AM	VCC = +5VDC	ICC = .05A	126.3°C	CM	
9/27/18	6:30AM	VCC = +5VDC	ICC = .05A	126.7°C	CM	
9/28/18	6:50AM	VCC = +5VDC	ICC = .05A	127.2°C	CM	
10/1/18	6:00AM	VCC = +5VDC	ICC = .05A	127.7°C	CM	
10/2/18	8:40AM	VCC = +5VDC	ICC = .05A	126.6°C	CM	
10/3/18	7:30AM	VCC = +5VDC	ICC = .05A	127.4°C	CM	
10/4/18	7:00AM	VCC = +5VDC	ICC = .05A	125.5°C	CM	
10/5/18	6:00AM	VCC = +5VDC	ICC = .05A	127.6°C	CM	

TANDEX TEST LABS
 BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-16-A

TEMPERATURE TA = +125°C Min

PART NUMBER 54LS138

TEMP. METER# 31368

DATE CODE 1810 LOT# 700117 WFL4

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

ΘJC = N/A

POWER SUPPLY# 31651

BOARD# 31259

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
10/8/18	5:30AM	VCC = +5VDC	ICC = .05A	127.1°C	CM	
10/9/18	NO	DATA	TAKEN			
10/10/18	6:00AM	VCC = +5VDC	ICC = .05A	126.8°C	CM	
10/11/18	5:30AM	VCC = +5VDC	ICC = .05A	127.4°C	CM	
10/12/18	5:10AM	VCC = +5VDC	ICC = .05A	126.4°C	CM	
10/15/18	6:10AM	VCC = +5VDC	ICC = .05A	127.0°C	CM	
10/16/18	7:20AM	VCC = +5VDC	ICC = .05A	126.5°C	CM	
10/17/18	12:50PM	VCC = +5VDC	ICC = .05A	127.1°C	CM	
10/18/18	12:35AM	VCC = +5VDC	ICC = .05A	126.6°C	CM	

TANDEX TEST LABS
 BURN - IN MONITOR SHEET

PAGE 4 OF 4

JOB NUMBER DDS-101-16-A

TEMPERATURE TA = +125°C Min

PART NUMBER 54LS138

TEMP. METER# 31368

DATE CODE 1810 LOT# 700117 WFL4

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

ΘJC = N/A

POWER SUPPLY# 31151

BOARD# 31259

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
10/19/18	9:45 AM	VCC = +5VDC	ICC = 0.5A	126.1°C	CM	
10/22/18	5:45 AM	VCC = +5VDC	ICC = 0.5A	127.5°C	CM	

TANDEX TEST LABS TTL# DDS-101-16-A

BOND PULL

BOND STRENGTH TESTING

TTL Job No. DDS-101-16-A	Part Number 54LS138	Part Type SCHOTTKY LOGIC MICROCIRCUIT	Date January 21, 2019
Lot Date Code LOT# 700117 W# 14 1810	Sample Qty. 5	Serial Numbers 11-15	Test Specifications Mil-Std-883 Method 2011
Misc.	Qty Accept 5	Qty Reject 0	Suspect 0

WIRE TYPE Au	PACKAGE/POST Au	BOND TYPE BALL BOND
DIE METALIZATION Al	WIRE SIZE 0.001	MINIMUM PULL STRENGTH 2.5gm

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	13.0	G	1	7.0	H	1	5.0	G	1	5.5	G	1	6.0	G	1		
2	6.5	G	2	6.5	G	2	6.0	G	2	5.0	G	2	6.0	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.

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

PROCESS FLOW CHART

FLOW NUMBER: DDS-101-16-A REV. 0

CUSTOMER: DIE DEVICES P.O. NUMBER: SS139
 PART NUMBER: 54LS138 P/N AS RECEIVED: 54LS138
 PART TYPE: SCHOTTKY LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
 DUE DATE: 7/12/18 JOB NUMBER: DDS-101-16-A
 LDC AS RECEIVED: 1810 LOT# 700117 WF14 QUANTITY RECEIVED: 30 (DIE)
 QUOTE NUMBER: DDS14267-1 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	17	∅	17	3/15/19	
21	PKG		USE ORIGINAL OR TANDEX PACKAGING.	17	∅	17	3/15/19	
22	QAR	P-1213	TANDEX QUALITY ASSURANCE REVIEW. SHIP VIA: SHIP / BILL TO: DIE DEVICES 47 WHERRY ROAD NORWICH, NR1, 1WS UNITED KINGDOM VAT GB#114 3513 56 <i>INCLUDES: 10 PROCESS ACCEPT 2 SPARES * 5 BOND PULL</i>	15 10 +2			3/15/19	



MIL-PRF-38534 CLASS K DATAPACK

Pre Burn-In Test Results at -55°C



STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 1
DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-530.0MV	-1.500 V	-100.0MV
58	2	-530.0MV	-1.500 V	-100.0MV
58	3	-530.0MV	-1.500 V	-100.0MV
58	4	-530.0MV	-1.500 V	-100.0MV
58	5	-530.0MV	-1.500 V	-100.0MV
58	6	-530.0MV	-1.500 V	-100.0MV
58	7	-690.0MV	-1.500 V	-100.0MV
58	9	-690.0MV	-1.500 V	-100.0MV
58	10	-690.0MV	-1.500 V	-100.0MV
58	11	-690.0MV	-1.500 V	-100.0MV
58	12	-690.0MV	-1.500 V	-100.0MV
58	13	-690.0MV	-1.500 V	-100.0MV
58	14	-690.0MV	-1.500 V	-100.0MV
58	15	-700.0MV	-1.500 V	-100.0MV
58	16	-600.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.090 V	-1.500 V	
87	2	-1.170 V	-1.500 V	
93	3	-920.0MV	-1.500 V	
99	4	-920.0MV	-1.500 V	
105	5	-910.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.850 V	2.500 V	
212	9	2.850 V	2.500 V	
218	10	2.850 V	2.500 V	
224	11	2.840 V	2.500 V	
230	12	2.840 V	2.500 V	
236	13	2.850 V	2.500 V	
242	14	2.840 V	2.500 V	
248	15	2.840 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	290.0MV		400.0MV
277	9	290.0MV		400.0MV
286	10	302.0MV		400.0MV
295	11	316.0MV		400.0MV

304	12	308.0MV	400.0MV
313	13	294.0MV	400.0MV
322	14	310.0MV	400.0MV
331	15	314.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-60.40MA	-100.0MA	-20.00MA
363	9	-60.50MA	-100.0MA	-20.00MA
369	10	-58.70MA	-100.0MA	-20.00MA
375	11	-56.40MA	-100.0MA	-20.00MA
381	12	-56.30MA	-100.0MA	-20.00MA
387	13	-60.90MA	-100.0MA	-20.00MA
393	14	-57.90MA	-100.0MA	-20.00MA
399	15	-55.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	0 A		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-210.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.420MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

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TEST PROGRAM LS138 S/N 2
DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-540.0MV	-1.500 V	-100.0MV
58	2	-540.0MV	-1.500 V	-100.0MV
58	3	-540.0MV	-1.500 V	-100.0MV
58	4	-540.0MV	-1.500 V	-100.0MV
58	5	-540.0MV	-1.500 V	-100.0MV
58	6	-540.0MV	-1.500 V	-100.0MV
58	7	-700.0MV	-1.500 V	-100.0MV
58	9	-710.0MV	-1.500 V	-100.0MV
58	10	-710.0MV	-1.500 V	-100.0MV
58	11	-710.0MV	-1.500 V	-100.0MV
58	12	-710.0MV	-1.500 V	-100.0MV
58	13	-710.0MV	-1.500 V	-100.0MV
58	14	-710.0MV	-1.500 V	-100.0MV
58	15	-720.0MV	-1.500 V	-100.0MV
58	16	-610.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.100 V	-1.500 V	
87	2	-1.200 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-930.0MV	-1.500 V	
105	5	-920.0MV	-1.500 V	
111	6	-940.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.820 V	2.500 V	
212	9	2.820 V	2.500 V	
218	10	2.810 V	2.500 V	
224	11	2.810 V	2.500 V	
230	12	2.810 V	2.500 V	
236	13	2.810 V	2.500 V	
242	14	2.810 V	2.500 V	
248	15	2.800 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	296.0MV		400.0MV
277	9	296.0MV		400.0MV

286	10	306.0MV	400.0MV
295	11	320.0MV	400.0MV
304	12	314.0MV	400.0MV
313	13	298.0MV	400.0MV
322	14	314.0MV	400.0MV
331	15	342.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-59.70MA	-100.0MA	-20.00MA
363	9	-59.80MA	-100.0MA	-20.00MA
369	10	-58.70MA	-100.0MA	-20.00MA
375	11	-56.00MA	-100.0MA	-20.00MA
381	12	-55.20MA	-100.0MA	-20.00MA
387	13	-60.60MA	-100.0MA	-20.00MA
393	14	-57.80MA	-100.0MA	-20.00MA
399	15	-53.70MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	0 A		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-210.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.380MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 3

DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-530.0MV	-1.500 V	-100.0MV
58	2	-540.0MV	-1.500 V	-100.0MV
58	3	-540.0MV	-1.500 V	-100.0MV
58	4	-540.0MV	-1.500 V	-100.0MV
58	5	-540.0MV	-1.500 V	-100.0MV
58	6	-540.0MV	-1.500 V	-100.0MV
58	7	-700.0MV	-1.500 V	-100.0MV
58	9	-700.0MV	-1.500 V	-100.0MV
58	10	-700.0MV	-1.500 V	-100.0MV
58	11	-700.0MV	-1.500 V	-100.0MV
58	12	-700.0MV	-1.500 V	-100.0MV
58	13	-700.0MV	-1.500 V	-100.0MV
58	14	-700.0MV	-1.500 V	-100.0MV
58	15	-710.0MV	-1.500 V	-100.0MV
58	16	-610.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.110 V	-1.500 V	
87	2	-1.200 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-930.0MV	-1.500 V	
105	5	-920.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.800 V	2.500 V	
212	9	2.800 V	2.500 V	
218	10	2.800 V	2.500 V	
224	11	2.800 V	2.500 V	
230	12	2.800 V	2.500 V	
236	13	2.800 V	2.500 V	
242	14	2.790 V	2.500 V	
248	15	2.790 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	294.0MV		400.0MV
277	9	294.0MV		400.0MV

286	10	314.0MV	400.0MV
295	11	320.0MV	400.0MV
304	12	316.0MV	400.0MV
313	13	298.0MV	400.0MV
322	14	310.0MV	400.0MV
331	15	322.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-58.00MA	-100.0MA	-20.00MA
363	9	-58.40MA	-100.0MA	-20.00MA
369	10	-55.60MA	-100.0MA	-20.00MA
375	11	-54.80MA	-100.0MA	-20.00MA
381	12	-53.90MA	-100.0MA	-20.00MA
387	13	-58.90MA	-100.0MA	-20.00MA
393	14	-56.80MA	-100.0MA	-20.00MA
399	15	-51.10MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	0 A		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-210.0UA	-400.0UA	
501	5	-200.0UA	-400.0UA	
505	6	-200.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.300MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 4

DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-520.0MV	-1.500 V	-100.0MV
58	2	-530.0MV	-1.500 V	-100.0MV
58	3	-520.0MV	-1.500 V	-100.0MV
58	4	-530.0MV	-1.500 V	-100.0MV
58	5	-530.0MV	-1.500 V	-100.0MV
58	6	-530.0MV	-1.500 V	-100.0MV
58	7	-680.0MV	-1.500 V	-100.0MV
58	9	-690.0MV	-1.500 V	-100.0MV
58	10	-680.0MV	-1.500 V	-100.0MV
58	11	-690.0MV	-1.500 V	-100.0MV
58	12	-690.0MV	-1.500 V	-100.0MV
58	13	-690.0MV	-1.500 V	-100.0MV
58	14	-690.0MV	-1.500 V	-100.0MV
58	15	-690.0MV	-1.500 V	-100.0MV
58	16	-590.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.100 V	-1.500 V	
87	2	-1.150 V	-1.500 V	
93	3	-930.0MV	-1.500 V	
99	4	-920.0MV	-1.500 V	
105	5	-910.0MV	-1.500 V	
111	6	-920.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.860 V	2.500 V	
212	9	2.850 V	2.500 V	
218	10	2.850 V	2.500 V	
224	11	2.850 V	2.500 V	
230	12	2.850 V	2.500 V	
236	13	2.850 V	2.500 V	
242	14	2.850 V	2.500 V	
248	15	2.840 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	292.0MV		400.0MV
277	9	290.0MV		400.0MV

286	10	306.0MV	400.0MV
295	11	316.0MV	400.0MV
304	12	314.0MV	400.0MV
313	13	298.0MV	400.0MV
322	14	306.0MV	400.0MV
331	15	322.0MV	400.0MV

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-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-58.00MA	-100.0MA	-20.00MA
363	9	-58.20MA	-100.0MA	-20.00MA
369	10	-55.30MA	-100.0MA	-20.00MA
375	11	-54.70MA	-100.0MA	-20.00MA
381	12	-53.70MA	-100.0MA	-20.00MA
387	13	-58.70MA	-100.0MA	-20.00MA
393	14	-56.70MA	-100.0MA	-20.00MA
399	15	-49.70MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	0 A		100.0UA
457	3	0 A		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-200.0UA	-400.0UA	
501	5	-200.0UA	-400.0UA	
505	6	-200.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.150MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```


STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 5

DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-540.0MV	-1.500 V	-100.0MV
58	2	-540.0MV	-1.500 V	-100.0MV
58	3	-540.0MV	-1.500 V	-100.0MV
58	4	-540.0MV	-1.500 V	-100.0MV
58	5	-540.0MV	-1.500 V	-100.0MV
58	6	-540.0MV	-1.500 V	-100.0MV
58	7	-700.0MV	-1.500 V	-100.0MV
58	9	-700.0MV	-1.500 V	-100.0MV
58	10	-700.0MV	-1.500 V	-100.0MV
58	11	-700.0MV	-1.500 V	-100.0MV
58	12	-700.0MV	-1.500 V	-100.0MV
58	13	-700.0MV	-1.500 V	-100.0MV
58	14	-700.0MV	-1.500 V	-100.0MV
58	15	-710.0MV	-1.500 V	-100.0MV
58	16	-610.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.190 V	-1.500 V	
87	2	-1.150 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-930.0MV	-1.500 V	
105	5	-920.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.830 V	2.500 V	
212	9	2.830 V	2.500 V	
218	10	2.830 V	2.500 V	
224	11	2.820 V	2.500 V	
230	12	2.820 V	2.500 V	
236	13	2.820 V	2.500 V	
242	14	2.820 V	2.500 V	
248	15	2.820 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	290.0MV		400.0MV
277	9	290.0MV		400.0MV

286	10	310.0MV	400.0MV
295	11	316.0MV	400.0MV
304	12	326.0MV	400.0MV
313	13	296.0MV	400.0MV
322	14	306.0MV	400.0MV
331	15	324.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-59.80MA	-100.0MA	-20.00MA
363	9	-59.90MA	-100.0MA	-20.00MA
369	10	-56.70MA	-100.0MA	-20.00MA
375	11	-56.10MA	-100.0MA	-20.00MA
381	12	-55.10MA	-100.0MA	-20.00MA
387	13	-60.10MA	-100.0MA	-20.00MA
393	14	-58.10MA	-100.0MA	-20.00MA
399	15	-50.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	0 A		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-220.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.630MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 6

DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-530.0MV	-1.500 V	-100.0MV
58	2	-530.0MV	-1.500 V	-100.0MV
58	3	-530.0MV	-1.500 V	-100.0MV
58	4	-530.0MV	-1.500 V	-100.0MV
58	5	-530.0MV	-1.500 V	-100.0MV
58	6	-530.0MV	-1.500 V	-100.0MV
58	7	-690.0MV	-1.500 V	-100.0MV
58	9	-690.0MV	-1.500 V	-100.0MV
58	10	-690.0MV	-1.500 V	-100.0MV
58	11	-690.0MV	-1.500 V	-100.0MV
58	12	-700.0MV	-1.500 V	-100.0MV
58	13	-690.0MV	-1.500 V	-100.0MV
58	14	-690.0MV	-1.500 V	-100.0MV
58	15	-700.0MV	-1.500 V	-100.0MV
58	16	-600.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.180 V	-1.500 V	
87	2	-1.150 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-930.0MV	-1.500 V	
105	5	-910.0MV	-1.500 V	
111	6	-920.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.850 V	2.500 V	
212	9	2.850 V	2.500 V	
218	10	2.840 V	2.500 V	
224	11	2.840 V	2.500 V	
230	12	2.830 V	2.500 V	
236	13	2.840 V	2.500 V	
242	14	2.840 V	2.500 V	
248	15	2.830 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	290.0MV		400.0MV
277	9	290.0MV		400.0MV

286	10	302.0MV	400.0MV
295	11	314.0MV	400.0MV
304	12	370.0MV	400.0MV
313	13	296.0MV	400.0MV
322	14	306.0MV	400.0MV
331	15	334.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-59.40MA	-100.0MA	-20.00MA
363	9	-59.50MA	-100.0MA	-20.00MA
369	10	-57.60MA	-100.0MA	-20.00MA
375	11	-56.20MA	-100.0MA	-20.00MA
381	12	-55.30MA	-100.0MA	-20.00MA
387	13	-59.90MA	-100.0MA	-20.00MA
393	14	-57.70MA	-100.0MA	-20.00MA
399	15	-51.70MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	0 A		100.0UA
457	3	0 A		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.490MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

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TEST PROGRAM LS138 S/N 7

DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-540.0MV	-1.500 V	-100.0MV
58	2	-540.0MV	-1.500 V	-100.0MV
58	3	-540.0MV	-1.500 V	-100.0MV
58	4	-540.0MV	-1.500 V	-100.0MV
58	5	-540.0MV	-1.500 V	-100.0MV
58	6	-550.0MV	-1.500 V	-100.0MV
58	7	-700.0MV	-1.500 V	-100.0MV
58	9	-710.0MV	-1.500 V	-100.0MV
58	10	-710.0MV	-1.500 V	-100.0MV
58	11	-710.0MV	-1.500 V	-100.0MV
58	12	-710.0MV	-1.500 V	-100.0MV
58	13	-710.0MV	-1.500 V	-100.0MV
58	14	-710.0MV	-1.500 V	-100.0MV
58	15	-710.0MV	-1.500 V	-100.0MV
58	16	-620.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.190 V	-1.500 V	
87	2	-1.150 V	-1.500 V	
93	3	-950.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-920.0MV	-1.500 V	
111	6	-940.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.810 V	2.500 V	
212	9	2.810 V	2.500 V	
218	10	2.810 V	2.500 V	
224	11	2.810 V	2.500 V	
230	12	2.810 V	2.500 V	
236	13	2.810 V	2.500 V	
242	14	2.800 V	2.500 V	
248	15	2.800 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	292.0MV		400.0MV
277	9	292.0MV		400.0MV

286	10	308.0MV	400.0MV
295	11	316.0MV	400.0MV
304	12	314.0MV	400.0MV
313	13	298.0MV	400.0MV
322	14	306.0MV	400.0MV
331	15	340.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=    5.500
                VIH=    2      VIL=    700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-60.00MA	-100.0MA	-20.00MA
363	9	-60.10MA	-100.0MA	-20.00MA
369	10	-57.60MA	-100.0MA	-20.00MA
375	11	-56.90MA	-100.0MA	-20.00MA
381	12	-56.50MA	-100.0MA	-20.00MA
387	13	-60.60MA	-100.0MA	-20.00MA
393	14	-58.90MA	-100.0MA	-20.00MA
399	15	-51.60MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	0 A		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-50.00UA	-400.0UA	
493	3	-50.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-220.0UA	-400.0UA	
505	6	-220.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.790MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 8

DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-540.0MV	-1.500 V	-100.0MV
58	2	-540.0MV	-1.500 V	-100.0MV
58	3	-540.0MV	-1.500 V	-100.0MV
58	4	-540.0MV	-1.500 V	-100.0MV
58	5	-540.0MV	-1.500 V	-100.0MV
58	6	-540.0MV	-1.500 V	-100.0MV
58	7	-700.0MV	-1.500 V	-100.0MV
58	9	-710.0MV	-1.500 V	-100.0MV
58	10	-710.0MV	-1.500 V	-100.0MV
58	11	-710.0MV	-1.500 V	-100.0MV
58	12	-710.0MV	-1.500 V	-100.0MV
58	13	-710.0MV	-1.500 V	-100.0MV
58	14	-710.0MV	-1.500 V	-100.0MV
58	15	-710.0MV	-1.500 V	-100.0MV
58	16	-610.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.180 V	-1.500 V	
87	2	-1.150 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-920.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.830 V	2.500 V	
212	9	2.820 V	2.500 V	
218	10	2.820 V	2.500 V	
224	11	2.820 V	2.500 V	
230	12	2.820 V	2.500 V	
236	13	2.820 V	2.500 V	
242	14	2.820 V	2.500 V	
248	15	2.820 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	294.0MV		400.0MV
277	9	294.0MV		400.0MV

286	10	310.0MV	400.0MV
295	11	320.0MV	400.0MV
304	12	314.0MV	400.0MV
313	13	298.0MV	400.0MV
322	14	306.0MV	400.0MV
331	15	332.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-58.90MA	-100.0MA	-20.00MA
363	9	-59.00MA	-100.0MA	-20.00MA
369	10	-56.40MA	-100.0MA	-20.00MA
375	11	-55.70MA	-100.0MA	-20.00MA
381	12	-55.30MA	-100.0MA	-20.00MA
387	13	-59.50MA	-100.0MA	-20.00MA
393	14	-57.90MA	-100.0MA	-20.00MA
399	15	-50.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	0 A		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	0 A		100.0UA
457	3	0 A		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-210.0UA	-400.0UA	
501	5	-200.0UA	-400.0UA	
505	6	-200.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.280MA		10.00MA

```

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

```


STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 9

DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-540.0MV	-1.500 V	-100.0MV
58	2	-540.0MV	-1.500 V	-100.0MV
58	3	-540.0MV	-1.500 V	-100.0MV
58	4	-540.0MV	-1.500 V	-100.0MV
58	5	-540.0MV	-1.500 V	-100.0MV
58	6	-540.0MV	-1.500 V	-100.0MV
58	7	-700.0MV	-1.500 V	-100.0MV
58	9	-700.0MV	-1.500 V	-100.0MV
58	10	-700.0MV	-1.500 V	-100.0MV
58	11	-700.0MV	-1.500 V	-100.0MV
58	12	-700.0MV	-1.500 V	-100.0MV
58	13	-700.0MV	-1.500 V	-100.0MV
58	14	-710.0MV	-1.500 V	-100.0MV
58	15	-710.0MV	-1.500 V	-100.0MV
58	16	-610.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.190 V	-1.500 V	
87	2	-1.140 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-920.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.830 V	2.500 V	
212	9	2.820 V	2.500 V	
218	10	2.820 V	2.500 V	
224	11	2.820 V	2.500 V	
230	12	2.820 V	2.500 V	
236	13	2.820 V	2.500 V	
242	14	2.820 V	2.500 V	
248	15	2.810 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	290.0MV		400.0MV
277	9	290.0MV		400.0MV

286	10	308.0MV	400.0MV
295	11	316.0MV	400.0MV
304	12	312.0MV	400.0MV
313	13	296.0MV	400.0MV
322	14	304.0MV	400.0MV
331	15	338.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=    5.500
                VIH=    2      VIL=    700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-59.80MA	-100.0MA	-20.00MA
363	9	-59.90MA	-100.0MA	-20.00MA
369	10	-57.20MA	-100.0MA	-20.00MA
375	11	-56.20MA	-100.0MA	-20.00MA
381	12	-55.80MA	-100.0MA	-20.00MA
387	13	-60.10MA	-100.0MA	-20.00MA
393	14	-58.60MA	-100.0MA	-20.00MA
399	15	-50.70MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	0 A		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	0 A		100.0UA
457	3	0 A		100.0UA
461	4	0 A		100.0UA
465	5	100.0NA		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.580MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 10

DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-530.0MV	-1.500 V	-100.0MV
58	2	-530.0MV	-1.500 V	-100.0MV
58	3	-530.0MV	-1.500 V	-100.0MV
58	4	-530.0MV	-1.500 V	-100.0MV
58	5	-530.0MV	-1.500 V	-100.0MV
58	6	-530.0MV	-1.500 V	-100.0MV
58	7	-690.0MV	-1.500 V	-100.0MV
58	9	-690.0MV	-1.500 V	-100.0MV
58	10	-700.0MV	-1.500 V	-100.0MV
58	11	-690.0MV	-1.500 V	-100.0MV
58	12	-700.0MV	-1.500 V	-100.0MV
58	13	-700.0MV	-1.500 V	-100.0MV
58	14	-700.0MV	-1.500 V	-100.0MV
58	15	-700.0MV	-1.500 V	-100.0MV
58	16	-600.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.190 V	-1.500 V	
87	2	-1.130 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-920.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.830 V	2.500 V	
212	9	2.830 V	2.500 V	
218	10	2.830 V	2.500 V	
224	11	2.820 V	2.500 V	
230	12	2.830 V	2.500 V	
236	13	2.820 V	2.500 V	
242	14	2.820 V	2.500 V	
248	15	2.820 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	294.0MV		400.0MV
277	9	292.0MV		400.0MV

286	10	308.0MV	400.0MV
295	11	316.0MV	400.0MV
304	12	314.0MV	400.0MV
313	13	296.0MV	400.0MV
322	14	306.0MV	400.0MV
331	15	338.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-59.50MA	-100.0MA	-20.00MA
363	9	-59.70MA	-100.0MA	-20.00MA
369	10	-56.80MA	-100.0MA	-20.00MA
375	11	-56.00MA	-100.0MA	-20.00MA
381	12	-55.50MA	-100.0MA	-20.00MA
387	13	-60.00MA	-100.0MA	-20.00MA
393	14	-58.70MA	-100.0MA	-20.00MA
399	15	-50.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	0 A		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	100.0NA		100.0UA
453	2	100.0NA		100.0UA
457	3	0 A		100.0UA
461	4	100.0NA		100.0UA
465	5	100.0NA		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.530MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 11

DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-540.0MV	-1.500 V	-100.0MV
58	2	-540.0MV	-1.500 V	-100.0MV
58	3	-540.0MV	-1.500 V	-100.0MV
58	4	-540.0MV	-1.500 V	-100.0MV
58	5	-540.0MV	-1.500 V	-100.0MV
58	6	-540.0MV	-1.500 V	-100.0MV
58	7	-710.0MV	-1.500 V	-100.0MV
58	9	-710.0MV	-1.500 V	-100.0MV
58	10	-710.0MV	-1.500 V	-100.0MV
58	11	-710.0MV	-1.500 V	-100.0MV
58	12	-710.0MV	-1.500 V	-100.0MV
58	13	-710.0MV	-1.500 V	-100.0MV
58	14	-710.0MV	-1.500 V	-100.0MV
58	15	-710.0MV	-1.500 V	-100.0MV
58	16	-610.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.200 V	-1.500 V	
87	2	-1.140 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-920.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.820 V	2.500 V	
212	9	2.810 V	2.500 V	
218	10	2.810 V	2.500 V	
224	11	2.810 V	2.500 V	
230	12	2.810 V	2.500 V	
236	13	2.810 V	2.500 V	
242	14	2.810 V	2.500 V	
248	15	2.810 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	294.0MV		400.0MV
277	9	292.0MV		400.0MV

286	10	310.0MV	400.0MV
295	11	320.0MV	400.0MV
304	12	318.0MV	400.0MV
313	13	300.0MV	400.0MV
322	14	306.0MV	400.0MV
331	15	340.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-59.70MA	-100.0MA	-20.00MA
363	9	-59.90MA	-100.0MA	-20.00MA
369	10	-57.00MA	-100.0MA	-20.00MA
375	11	-56.00MA	-100.0MA	-20.00MA
381	12	-55.50MA	-100.0MA	-20.00MA
387	13	-60.20MA	-100.0MA	-20.00MA
393	14	-58.70MA	-100.0MA	-20.00MA
399	15	-51.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	0 A		20.00UA
430	4	0 A		20.00UA
434	5	100.0NA		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	200.0NA		100.0UA
453	2	200.0NA		100.0UA
457	3	0 A		100.0UA
461	4	200.0NA		100.0UA
465	5	200.0NA		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.510MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 12
DDS-101-16-A PN 54LS138 TEST SEQ12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-530.0MV	-1.500 V	-100.0MV
58	2	-530.0MV	-1.500 V	-100.0MV
58	3	-530.0MV	-1.500 V	-100.0MV
58	4	-530.0MV	-1.500 V	-100.0MV
58	5	-530.0MV	-1.500 V	-100.0MV
58	6	-530.0MV	-1.500 V	-100.0MV
58	7	-690.0MV	-1.500 V	-100.0MV
58	9	-690.0MV	-1.500 V	-100.0MV
58	10	-690.0MV	-1.500 V	-100.0MV
58	11	-690.0MV	-1.500 V	-100.0MV
58	12	-690.0MV	-1.500 V	-100.0MV
58	13	-690.0MV	-1.500 V	-100.0MV
58	14	-690.0MV	-1.500 V	-100.0MV
58	15	-690.0MV	-1.500 V	-100.0MV
58	16	-600.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.200 V	-1.500 V	
87	2	-1.130 V	-1.500 V	
93	3	-930.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-910.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.850 V	2.500 V	
212	9	2.840 V	2.500 V	
218	10	2.840 V	2.500 V	
224	11	2.840 V	2.500 V	
230	12	2.840 V	2.500 V	
236	13	2.840 V	2.500 V	
242	14	2.840 V	2.500 V	
248	15	2.830 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	294.0MV		400.0MV
277	9	294.0MV		400.0MV

286	10	310.0MV	400.0MV
295	11	318.0MV	400.0MV
304	12	314.0MV	400.0MV
313	13	296.0MV	400.0MV
322	14	306.0MV	400.0MV
331	15	340.0MV	400.0MV

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-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-58.90MA	-100.0MA	-20.00MA
363	9	-58.90MA	-100.0MA	-20.00MA
369	10	-55.80MA	-100.0MA	-20.00MA
375	11	-55.20MA	-100.0MA	-20.00MA
381	12	-54.70MA	-100.0MA	-20.00MA
387	13	-59.50MA	-100.0MA	-20.00MA
393	14	-58.00MA	-100.0MA	-20.00MA
399	15	-50.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	100.0NA		20.00UA
422	2	100.0NA		20.00UA
426	3	0 A		20.00UA
430	4	400.0NA		20.00UA
434	5	500.0NA		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	300.0NA		100.0UA
453	2	300.0NA		100.0UA
457	3	0 A		100.0UA
461	4	1.100UA		100.0UA
465	5	1.400UA		100.0UA
469	6	200.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-210.0UA	-400.0UA	
501	5	-200.0UA	-400.0UA	
505	6	-200.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.290MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```




MIL-PRF-38534 CLASS K DATAPACK

Pre Burn-In Test Results at 25°C



STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 1

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-470.0MV	-1.500 V	-100.0MV
58	2	-470.0MV	-1.500 V	-100.0MV
58	3	-470.0MV	-1.500 V	-100.0MV
58	4	-470.0MV	-1.500 V	-100.0MV
58	5	-470.0MV	-1.500 V	-100.0MV
58	6	-470.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-490.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.030 V	-1.500 V	
87	2	-1.130 V	-1.500 V	
93	3	-870.0MV	-1.500 V	
99	4	-870.0MV	-1.500 V	
105	5	-860.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3.010 V	2.500 V	
224	11	3.010 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3.010 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	276.0MV		400.0MV
277	9	278.0MV		400.0MV
286	10	290.0MV		400.0MV

295	11	302.0MV	400.0MV
304	12	296.0MV	400.0MV
313	13	282.0MV	400.0MV
322	14	300.0MV	400.0MV
331	15	304.0MV	400.0MV

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-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-54.20MA	-100.0MA	-20.00MA
363	9	-55.70MA	-100.0MA	-20.00MA
369	10	-54.20MA	-100.0MA	-20.00MA
375	11	-52.50MA	-100.0MA	-20.00MA
381	12	-52.30MA	-100.0MA	-20.00MA
387	13	-56.20MA	-100.0MA	-20.00MA
393	14	-53.50MA	-100.0MA	-20.00MA
399	15	-51.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7V VCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0V VCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4V VCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.580MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 2

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.030 V	-1.500 V	
87	2	-1.130 V	-1.500 V	
93	3	-870.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-860.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	282.0MV		400.0MV

277	9	280.0MV	400.0MV
286	10	294.0MV	400.0MV
295	11	308.0MV	400.0MV
304	12	300.0MV	400.0MV
313	13	286.0MV	400.0MV
322	14	302.0MV	400.0MV
331	15	304.0MV	400.0MV

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-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-55.30MA	-100.0MA	-20.00MA
363	9	-55.30MA	-100.0MA	-20.00MA
369	10	-53.80MA	-100.0MA	-20.00MA
375	11	-52.30MA	-100.0MA	-20.00MA
381	12	-52.40MA	-100.0MA	-20.00MA
387	13	-55.90MA	-100.0MA	-20.00MA
393	14	-53.30MA	-100.0MA	-20.00MA
399	15	-51.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	0 A		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.460MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 3

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.040 V	-1.500 V	
87	2	-1.130 V	-1.500 V	
93	3	-880.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-870.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3 V	2.500 V	
236	13	3 V	2.500 V	
242	14	3 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	282.0MV		400.0MV

277	9	282.0MV	400.0MV
286	10	296.0MV	400.0MV
295	11	308.0MV	400.0MV
304	12	298.0MV	400.0MV
313	13	288.0MV	400.0MV
322	14	302.0MV	400.0MV
331	15	308.0MV	400.0MV

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-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-55.10MA	-100.0MA	-20.00MA
363	9	-55.20MA	-100.0MA	-20.00MA
369	10	-53.70MA	-100.0MA	-20.00MA
375	11	-51.90MA	-100.0MA	-20.00MA
381	12	-51.90MA	-100.0MA	-20.00MA
387	13	-55.60MA	-100.0MA	-20.00MA
393	14	-53.10MA	-100.0MA	-20.00MA
399	15	-51.00MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	0 A		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.450MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 4

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.040 V	-1.500 V	
87	2	-1.120 V	-1.500 V	
93	3	-880.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-860.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	280.0MV		400.0MV

277	9	282.0MV	400.0MV
286	10	294.0MV	400.0MV
295	11	308.0MV	400.0MV
304	12	300.0MV	400.0MV
313	13	288.0MV	400.0MV
322	14	306.0MV	400.0MV
331	15	310.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC=      5.500
VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-55.30MA	-100.0MA	-20.00MA
363	9	-55.30MA	-100.0MA	-20.00MA
369	10	-54.00MA	-100.0MA	-20.00MA
375	11	-52.10MA	-100.0MA	-20.00MA
381	12	-52.20MA	-100.0MA	-20.00MA
387	13	-55.70MA	-100.0MA	-20.00MA
393	14	-52.90MA	-100.0MA	-20.00MA
399	15	-50.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-170.0UA	-400.0UA	
505	6	-170.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.410MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 5

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.040 V	-1.500 V	
87	2	-1.130 V	-1.500 V	
93	3	-880.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-860.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	276.0MV		400.0MV

277	9	278.0MV	400.0MV
286	10	290.0MV	400.0MV
295	11	304.0MV	400.0MV
304	12	294.0MV	400.0MV
313	13	282.0MV	400.0MV
322	14	302.0MV	400.0MV
331	15	310.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2          VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-56.20MA	-100.0MA	-20.00MA
363	9	-56.10MA	-100.0MA	-20.00MA
369	10	-54.70MA	-100.0MA	-20.00MA
375	11	-52.80MA	-100.0MA	-20.00MA
381	12	-52.50MA	-100.0MA	-20.00MA
387	13	-56.30MA	-100.0MA	-20.00MA
393	14	-53.90MA	-100.0MA	-20.00MA
399	15	-51.00MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	0 A		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	0 A		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-190.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.740MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 6

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.040 V	-1.500 V	
87	2	-1.120 V	-1.500 V	
93	3	-880.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-860.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3.010 V	2.500 V	
224	11	3.010 V	2.500 V	
230	12	3 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	278.0MV		400.0MV

277	9	280.0MV	400.0MV
286	10	290.0MV	400.0MV
295	11	306.0MV	400.0MV
304	12	304.0MV	400.0MV
313	13	286.0MV	400.0MV
322	14	300.0MV	400.0MV
331	15	314.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC=      5.500
VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-56.00MA	-100.0MA	-20.00MA
363	9	-56.00MA	-100.0MA	-20.00MA
369	10	-54.40MA	-100.0MA	-20.00MA
375	11	-52.50MA	-100.0MA	-20.00MA
381	12	-52.30MA	-100.0MA	-20.00MA
387	13	-56.20MA	-100.0MA	-20.00MA
393	14	-53.50MA	-100.0MA	-20.00MA
399	15	-49.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.640MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 7

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.040 V	-1.500 V	
87	2	-1.130 V	-1.500 V	
93	3	-880.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-870.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3 V	2.500 V	
236	13	3 V	2.500 V	
242	14	3 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	278.0MV		400.0MV

277	9	278.0MV	400.0MV
286	10	294.0MV	400.0MV
295	11	304.0MV	400.0MV
304	12	300.0MV	400.0MV
313	13	284.0MV	400.0MV
322	14	296.0MV	400.0MV
331	15	312.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-56.10MA	-100.0MA	-20.00MA
363	9	-56.10MA	-100.0MA	-20.00MA
369	10	-54.60MA	-100.0MA	-20.00MA
375	11	-52.80MA	-100.0MA	-20.00MA
381	12	-52.20MA	-100.0MA	-20.00MA
387	13	-56.50MA	-100.0MA	-20.00MA
393	14	-54.00MA	-100.0MA	-20.00MA
399	15	-49.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-190.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.820MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 8

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.040 V	-1.500 V	
87	2	-1.130 V	-1.500 V	
93	3	-870.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-870.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	280.0MV		400.0MV

277	9	282.0MV	400.0MV
286	10	294.0MV	400.0MV
295	11	308.0MV	400.0MV
304	12	304.0MV	400.0MV
313	13	286.0MV	400.0MV
322	14	302.0MV	400.0MV
331	15	312.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-55.10MA	-100.0MA	-20.00MA
363	9	-55.20MA	-100.0MA	-20.00MA
369	10	-53.70MA	-100.0MA	-20.00MA
375	11	-51.90MA	-100.0MA	-20.00MA
381	12	-51.70MA	-100.0MA	-20.00MA
387	13	-55.60MA	-100.0MA	-20.00MA
393	14	-53.10MA	-100.0MA	-20.00MA
399	15	-51.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-170.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.440MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 9

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.040 V	-1.500 V	
87	2	-1.120 V	-1.500 V	
93	3	-880.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-860.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	278.0MV		400.0MV

277	9	278.0MV	400.0MV
286	10	292.0MV	400.0MV
295	11	304.0MV	400.0MV
304	12	306.0MV	400.0MV
313	13	284.0MV	400.0MV
322	14	298.0MV	400.0MV
331	15	302.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-55.90MA	-100.0MA	-20.00MA
363	9	-56.00MA	-100.0MA	-20.00MA
369	10	-54.30MA	-100.0MA	-20.00MA
375	11	-52.40MA	-100.0MA	-20.00MA
381	12	-52.10MA	-100.0MA	-20.00MA
387	13	-56.10MA	-100.0MA	-20.00MA
393	14	-53.70MA	-100.0MA	-20.00MA
399	15	-52.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	0 A		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.690MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 10

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.040 V	-1.500 V	
87	2	-1.120 V	-1.500 V	
93	3	-880.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-860.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	278.0MV		400.0MV

277	9	280.0MV	400.0MV
286	10	292.0MV	400.0MV
295	11	306.0MV	400.0MV
304	12	298.0MV	400.0MV
313	13	284.0MV	400.0MV
322	14	300.0MV	400.0MV
331	15	304.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-55.60MA	-100.0MA	-20.00MA
363	9	-55.60MA	-100.0MA	-20.00MA
369	10	-54.00MA	-100.0MA	-20.00MA
375	11	-52.30MA	-100.0MA	-20.00MA
381	12	-51.80MA	-100.0MA	-20.00MA
387	13	-55.90MA	-100.0MA	-20.00MA
393	14	-53.60MA	-100.0MA	-20.00MA
399	15	-52.60MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.620MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 11

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.050 V	-1.500 V	
87	2	-1.120 V	-1.500 V	
93	3	-880.0MV	-1.500 V	
99	4	-870.0MV	-1.500 V	
105	5	-870.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3 V	2.500 V	
236	13	3 V	2.500 V	
242	14	3 V	2.500 V	
248	15	3.010 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	278.0MV		400.0MV

277	9	278.0MV	400.0MV
286	10	292.0MV	400.0MV
295	11	304.0MV	400.0MV
304	12	306.0MV	400.0MV
313	13	286.0MV	400.0MV
322	14	300.0MV	400.0MV
331	15	302.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-55.50MA	-100.0MA	-20.00MA
363	9	-55.70MA	-100.0MA	-20.00MA
369	10	-54.00MA	-100.0MA	-20.00MA
375	11	-52.30MA	-100.0MA	-20.00MA
381	12	-51.30MA	-100.0MA	-20.00MA
387	13	-55.90MA	-100.0MA	-20.00MA
393	14	-53.50MA	-100.0MA	-20.00MA
399	15	-53.00MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.590MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 12

DDS-101-16-A PN 54LS138 TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-470.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-470.0MV	-1.500 V	-100.0MV
58	7	-610.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-610.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-610.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.050 V	-1.500 V	
87	2	-1.120 V	-1.500 V	
93	3	-870.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-860.0MV	-1.500 V	
111	6	-880.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3.010 V	2.500 V	
224	11	3.010 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3.010 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	282.0MV		400.0MV

277	9	282.0MV	400.0MV
286	10	292.0MV	400.0MV
295	11	306.0MV	400.0MV
304	12	302.0MV	400.0MV
313	13	286.0MV	400.0MV
322	14	304.0MV	400.0MV
331	15	304.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-56.10MA	-100.0MA	-20.00MA
363	9	-56.00MA	-100.0MA	-20.00MA
369	10	-54.60MA	-100.0MA	-20.00MA
375	11	-52.80MA	-100.0MA	-20.00MA
381	12	-52.50MA	-100.0MA	-20.00MA
387	13	-56.60MA	-100.0MA	-20.00MA
393	14	-53.90MA	-100.0MA	-20.00MA
399	15	-53.60MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	0 A		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.460MA		10.00MA

```

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

```



MIL-PRF-38534 CLASS K DATAPACK

Pre Burn-In Test Results at +125°C



STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 1
DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-430.0MV	-1.500 V	-100.0MV
58	2	-430.0MV	-1.500 V	-100.0MV
58	3	-430.0MV	-1.500 V	-100.0MV
58	4	-430.0MV	-1.500 V	-100.0MV
58	5	-430.0MV	-1.500 V	-100.0MV
58	6	-430.0MV	-1.500 V	-100.0MV
58	7	-550.0MV	-1.500 V	-100.0MV
58	9	-550.0MV	-1.500 V	-100.0MV
58	10	-550.0MV	-1.500 V	-100.0MV
58	11	-550.0MV	-1.500 V	-100.0MV
58	12	-550.0MV	-1.500 V	-100.0MV
58	13	-540.0MV	-1.500 V	-100.0MV
58	14	-540.0MV	-1.500 V	-100.0MV
58	15	-540.0MV	-1.500 V	-100.0MV
58	16	-420.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.110 V	-1.500 V	
87	2	-1.030 V	-1.500 V	
93	3	-840.0MV	-1.500 V	
99	4	-830.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-840.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.150 V	2.500 V	
212	9	3.150 V	2.500 V	
218	10	3.150 V	2.500 V	
224	11	3.150 V	2.500 V	
230	12	3.150 V	2.500 V	
236	13	3.150 V	2.500 V	
242	14	3.150 V	2.500 V	
248	15	3.150 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	270.0MV		400.0MV
277	9	270.0MV		400.0MV
286	10	280.0MV		400.0MV
295	11	310.0MV		400.0MV

304	12	300.0MV	400.0MV
313	13	276.0MV	400.0MV
322	14	292.0MV	400.0MV
331	15	294.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-52.80MA	-100.0MA	-20.00MA
363	9	-52.80MA	-100.0MA	-20.00MA
369	10	-52.40MA	-100.0MA	-20.00MA
375	11	-50.10MA	-100.0MA	-20.00MA
381	12	-49.50MA	-100.0MA	-20.00MA
387	13	-53.00MA	-100.0MA	-20.00MA
393	14	-51.10MA	-100.0MA	-20.00MA
399	15	-50.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	0 A		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	0 A		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.920MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

STAT1 07/23/11 11:51
 TEST PROGRAM LS138 S/N 2
 DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

 CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-450.0MV	-1.500 V	-100.0MV
58	2	-450.0MV	-1.500 V	-100.0MV
58	3	-450.0MV	-1.500 V	-100.0MV
58	4	-450.0MV	-1.500 V	-100.0MV
58	5	-450.0MV	-1.500 V	-100.0MV
58	6	-450.0MV	-1.500 V	-100.0MV
58	7	-570.0MV	-1.500 V	-100.0MV
58	9	-570.0MV	-1.500 V	-100.0MV
58	10	-570.0MV	-1.500 V	-100.0MV
58	11	-570.0MV	-1.500 V	-100.0MV
58	12	-570.0MV	-1.500 V	-100.0MV
58	13	-560.0MV	-1.500 V	-100.0MV
58	14	-570.0MV	-1.500 V	-100.0MV
58	15	-570.0MV	-1.500 V	-100.0MV
58	16	-440.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.190 V	-1.500 V	
87	2	-1.050 V	-1.500 V	
93	3	-850.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

 FUNCTIONAL TEST
 VCC= 4.500
 VIH= 2 VIL= 700.0E-03

 VOH TEST
 VCC= 4.500
 VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.110 V	2.500 V	
212	9	3.110 V	2.500 V	
218	10	3.110 V	2.500 V	
224	11	3.120 V	2.500 V	
230	12	3.120 V	2.500 V	
236	13	3.120 V	2.500 V	
242	14	3.120 V	2.500 V	
248	15	3.120 V	2.500 V	

 VOL TEST
 VCC= 4.500
 VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	274.0MV		400.0MV
277	9	276.0MV		400.0MV

286	10	284.0MV	400.0MV
295	11	296.0MV	400.0MV
304	12	296.0MV	400.0MV
313	13	280.0MV	400.0MV
322	14	296.0MV	400.0MV
331	15	298.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=    5.500
                VIH=    2      VIL=    700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.00MA	-100.0MA	-20.00MA
363	9	-52.90MA	-100.0MA	-20.00MA
369	10	-52.50MA	-100.0MA	-20.00MA
375	11	-51.00MA	-100.0MA	-20.00MA
381	12	-49.90MA	-100.0MA	-20.00MA
387	13	-53.50MA	-100.0MA	-20.00MA
393	14	-51.10MA	-100.0MA	-20.00MA
399	15	-51.00MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	0 A		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	0 A		100.0UA
461	4	-100.0NA		100.0UA
465	5	0 A		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.870MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 3
DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-450.0MV	-1.500 V	-100.0MV
58	2	-440.0MV	-1.500 V	-100.0MV
58	3	-440.0MV	-1.500 V	-100.0MV
58	4	-440.0MV	-1.500 V	-100.0MV
58	5	-440.0MV	-1.500 V	-100.0MV
58	6	-440.0MV	-1.500 V	-100.0MV
58	7	-560.0MV	-1.500 V	-100.0MV
58	9	-560.0MV	-1.500 V	-100.0MV
58	10	-560.0MV	-1.500 V	-100.0MV
58	11	-560.0MV	-1.500 V	-100.0MV
58	12	-560.0MV	-1.500 V	-100.0MV
58	13	-560.0MV	-1.500 V	-100.0MV
58	14	-550.0MV	-1.500 V	-100.0MV
58	15	-560.0MV	-1.500 V	-100.0MV
58	16	-440.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.220 V	-1.500 V	
87	2	-1.060 V	-1.500 V	
93	3	-850.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.120 V	2.500 V	
212	9	3.120 V	2.500 V	
218	10	3.120 V	2.500 V	
224	11	3.120 V	2.500 V	
230	12	3.130 V	2.500 V	
236	13	3.130 V	2.500 V	
242	14	3.130 V	2.500 V	
248	15	3.130 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	276.0MV		400.0MV
277	9	278.0MV		400.0MV

286	10	286.0MV	400.0MV
295	11	296.0MV	400.0MV
304	12	298.0MV	400.0MV
313	13	282.0MV	400.0MV
322	14	294.0MV	400.0MV
331	15	298.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.00MA	-100.0MA	-20.00MA
363	9	-53.00MA	-100.0MA	-20.00MA
369	10	-52.60MA	-100.0MA	-20.00MA
375	11	-51.00MA	-100.0MA	-20.00MA
381	12	-49.50MA	-100.0MA	-20.00MA
387	13	-53.30MA	-100.0MA	-20.00MA
393	14	-51.60MA	-100.0MA	-20.00MA
399	15	-51.00MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.880MA		10.00MA

```

EIR 1.....10    FCT    DCT
    000000000    PASS    PASS    EOT

```


STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 4

DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-450.0MV	-1.500 V	-100.0MV
58	2	-450.0MV	-1.500 V	-100.0MV
58	3	-450.0MV	-1.500 V	-100.0MV
58	4	-450.0MV	-1.500 V	-100.0MV
58	5	-450.0MV	-1.500 V	-100.0MV
58	6	-450.0MV	-1.500 V	-100.0MV
58	7	-570.0MV	-1.500 V	-100.0MV
58	9	-570.0MV	-1.500 V	-100.0MV
58	10	-570.0MV	-1.500 V	-100.0MV
58	11	-560.0MV	-1.500 V	-100.0MV
58	12	-560.0MV	-1.500 V	-100.0MV
58	13	-560.0MV	-1.500 V	-100.0MV
58	14	-560.0MV	-1.500 V	-100.0MV
58	15	-560.0MV	-1.500 V	-100.0MV
58	16	-440.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.100 V	-1.500 V	
87	2	-1.050 V	-1.500 V	
93	3	-850.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.120 V	2.500 V	
212	9	3.120 V	2.500 V	
218	10	3.120 V	2.500 V	
224	11	3.120 V	2.500 V	
230	12	3.120 V	2.500 V	
236	13	3.130 V	2.500 V	
242	14	3.130 V	2.500 V	
248	15	3.130 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	276.0MV		400.0MV
277	9	276.0MV		400.0MV

286	10	282.0MV	400.0MV
295	11	294.0MV	400.0MV
304	12	298.0MV	400.0MV
313	13	282.0MV	400.0MV
322	14	294.0MV	400.0MV
331	15	300.0MV	400.0MV

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-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.30MA	-100.0MA	-20.00MA
363	9	-53.30MA	-100.0MA	-20.00MA
369	10	-53.00MA	-100.0MA	-20.00MA
375	11	-51.50MA	-100.0MA	-20.00MA
381	12	-49.70MA	-100.0MA	-20.00MA
387	13	-53.50MA	-100.0MA	-20.00MA
393	14	-51.80MA	-100.0MA	-20.00MA
399	15	-51.10MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	0 A		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	0 A		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.870MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 5
DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-450.0MV	-1.500 V	-100.0MV
58	2	-450.0MV	-1.500 V	-100.0MV
58	3	-450.0MV	-1.500 V	-100.0MV
58	4	-450.0MV	-1.500 V	-100.0MV
58	5	-450.0MV	-1.500 V	-100.0MV
58	6	-450.0MV	-1.500 V	-100.0MV
58	7	-570.0MV	-1.500 V	-100.0MV
58	9	-570.0MV	-1.500 V	-100.0MV
58	10	-570.0MV	-1.500 V	-100.0MV
58	11	-570.0MV	-1.500 V	-100.0MV
58	12	-570.0MV	-1.500 V	-100.0MV
58	13	-570.0MV	-1.500 V	-100.0MV
58	14	-560.0MV	-1.500 V	-100.0MV
58	15	-560.0MV	-1.500 V	-100.0MV
58	16	-440.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.110 V	-1.500 V	
87	2	-1.050 V	-1.500 V	
93	3	-860.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.110 V	2.500 V	
212	9	3.110 V	2.500 V	
218	10	3.110 V	2.500 V	
224	11	3.110 V	2.500 V	
230	12	3.110 V	2.500 V	
236	13	3.120 V	2.500 V	
242	14	3.120 V	2.500 V	
248	15	3.120 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	272.0MV		400.0MV
277	9	272.0MV		400.0MV

286	10	280.0MV	400.0MV
295	11	290.0MV	400.0MV
304	12	294.0MV	400.0MV
313	13	278.0MV	400.0MV
322	14	292.0MV	400.0MV
331	15	294.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-54.30MA	-100.0MA	-20.00MA
363	9	-54.30MA	-100.0MA	-20.00MA
369	10	-53.90MA	-100.0MA	-20.00MA
375	11	-52.40MA	-100.0MA	-20.00MA
381	12	-50.50MA	-100.0MA	-20.00MA
387	13	-54.30MA	-100.0MA	-20.00MA
393	14	-52.50MA	-100.0MA	-20.00MA
399	15	-52.10MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-170.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-170.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.180MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 07/23/11 11:51
 TEST PROGRAM LS138 S/N 6
 DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

 CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-440.0MV	-1.500 V	-100.0MV
58	2	-440.0MV	-1.500 V	-100.0MV
58	3	-440.0MV	-1.500 V	-100.0MV
58	4	-440.0MV	-1.500 V	-100.0MV
58	5	-440.0MV	-1.500 V	-100.0MV
58	6	-440.0MV	-1.500 V	-100.0MV
58	7	-560.0MV	-1.500 V	-100.0MV
58	9	-560.0MV	-1.500 V	-100.0MV
58	10	-560.0MV	-1.500 V	-100.0MV
58	11	-560.0MV	-1.500 V	-100.0MV
58	12	-550.0MV	-1.500 V	-100.0MV
58	13	-550.0MV	-1.500 V	-100.0MV
58	14	-550.0MV	-1.500 V	-100.0MV
58	15	-550.0MV	-1.500 V	-100.0MV
58	16	-430.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.110 V	-1.500 V	
87	2	-1.050 V	-1.500 V	
93	3	-850.0MV	-1.500 V	
99	4	-840.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-840.0MV	-1.500 V	

 FUNCTIONAL TEST
 VCC= 4.500
 VIH= 2 VIL= 700.0E-03

 VOH TEST
 VCC= 4.500
 VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.140 V	2.500 V	
212	9	3.130 V	2.500 V	
218	10	3.140 V	2.500 V	
224	11	3.140 V	2.500 V	
230	12	3.140 V	2.500 V	
236	13	3.150 V	2.500 V	
242	14	3.140 V	2.500 V	
248	15	3.150 V	2.500 V	

 VOL TEST
 VCC= 4.500
 VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	270.0MV		400.0MV
277	9	270.0MV		400.0MV

286	10	280.0MV	400.0MV
295	11	290.0MV	400.0MV
304	12	300.0MV	400.0MV
313	13	278.0MV	400.0MV
322	14	290.0MV	400.0MV
331	15	296.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.60MA	-100.0MA	-20.00MA
363	9	-53.60MA	-100.0MA	-20.00MA
369	10	-53.10MA	-100.0MA	-20.00MA
375	11	-51.70MA	-100.0MA	-20.00MA
381	12	-50.00MA	-100.0MA	-20.00MA
387	13	-53.70MA	-100.0MA	-20.00MA
393	14	-51.70MA	-100.0MA	-20.00MA
399	15	-51.20MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.970MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 7
DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-440.0MV	-1.500 V	-100.0MV
58	2	-440.0MV	-1.500 V	-100.0MV
58	3	-440.0MV	-1.500 V	-100.0MV
58	4	-440.0MV	-1.500 V	-100.0MV
58	5	-440.0MV	-1.500 V	-100.0MV
58	6	-440.0MV	-1.500 V	-100.0MV
58	7	-560.0MV	-1.500 V	-100.0MV
58	9	-560.0MV	-1.500 V	-100.0MV
58	10	-560.0MV	-1.500 V	-100.0MV
58	11	-550.0MV	-1.500 V	-100.0MV
58	12	-550.0MV	-1.500 V	-100.0MV
58	13	-550.0MV	-1.500 V	-100.0MV
58	14	-550.0MV	-1.500 V	-100.0MV
58	15	-550.0MV	-1.500 V	-100.0MV
58	16	-430.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.110 V	-1.500 V	
87	2	-1.050 V	-1.500 V	
93	3	-850.0MV	-1.500 V	
99	4	-840.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.130 V	2.500 V	
212	9	3.130 V	2.500 V	
218	10	3.130 V	2.500 V	
224	11	3.140 V	2.500 V	
230	12	3.140 V	2.500 V	
236	13	3.140 V	2.500 V	
242	14	3.140 V	2.500 V	
248	15	3.140 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	270.0MV		400.0MV
277	9	270.0MV		400.0MV

286	10	280.0MV	400.0MV
295	11	288.0MV	400.0MV
304	12	296.0MV	400.0MV
313	13	278.0MV	400.0MV
322	14	288.0MV	400.0MV
331	15	294.0MV	400.0MV

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-----
                FUNCTIONAL TEST
                VCC=    5.500
                VIH=    2      VIL=    700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.80MA	-100.0MA	-20.00MA
363	9	-53.80MA	-100.0MA	-20.00MA
369	10	-53.40MA	-100.0MA	-20.00MA
375	11	-52.10MA	-100.0MA	-20.00MA
381	12	-50.50MA	-100.0MA	-20.00MA
387	13	-54.00MA	-100.0MA	-20.00MA
393	14	-52.30MA	-100.0MA	-20.00MA
399	15	-51.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	0 A		100.0UA
457	3	0 A		100.0UA
461	4	-100.0NA		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-170.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-170.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.150MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```


STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 8
DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-460.0MV	-1.500 V	-100.0MV
58	2	-460.0MV	-1.500 V	-100.0MV
58	3	-460.0MV	-1.500 V	-100.0MV
58	4	-460.0MV	-1.500 V	-100.0MV
58	5	-460.0MV	-1.500 V	-100.0MV
58	6	-460.0MV	-1.500 V	-100.0MV
58	7	-580.0MV	-1.500 V	-100.0MV
58	9	-580.0MV	-1.500 V	-100.0MV
58	10	-580.0MV	-1.500 V	-100.0MV
58	11	-580.0MV	-1.500 V	-100.0MV
58	12	-580.0MV	-1.500 V	-100.0MV
58	13	-580.0MV	-1.500 V	-100.0MV
58	14	-580.0MV	-1.500 V	-100.0MV
58	15	-580.0MV	-1.500 V	-100.0MV
58	16	-460.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.130 V	-1.500 V	
87	2	-1.070 V	-1.500 V	
93	3	-860.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-840.0MV	-1.500 V	
111	6	-860.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.090 V	2.500 V	
212	9	3.090 V	2.500 V	
218	10	3.090 V	2.500 V	
224	11	3.100 V	2.500 V	
230	12	3.100 V	2.500 V	
236	13	3.100 V	2.500 V	
242	14	3.100 V	2.500 V	
248	15	3.100 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	278.0MV		400.0MV
277	9	278.0MV		400.0MV

286	10	286.0MV	400.0MV
295	11	294.0MV	400.0MV
304	12	298.0MV	400.0MV
313	13	284.0MV	400.0MV
322	14	294.0MV	400.0MV
331	15	300.0MV	400.0MV

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-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.70MA	-100.0MA	-20.00MA
363	9	-53.70MA	-100.0MA	-20.00MA
369	10	-53.20MA	-100.0MA	-20.00MA
375	11	-51.90MA	-100.0MA	-20.00MA
381	12	-50.40MA	-100.0MA	-20.00MA
387	13	-54.00MA	-100.0MA	-20.00MA
393	14	-52.20MA	-100.0MA	-20.00MA
399	15	-51.60MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	0 A		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.950MA		10.00MA

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EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

STAT1 07/23/11 11:51
 TEST PROGRAM LS138 S/N 9
 DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

 CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-450.0MV	-1.500 V	-100.0MV
58	2	-450.0MV	-1.500 V	-100.0MV
58	3	-450.0MV	-1.500 V	-100.0MV
58	4	-440.0MV	-1.500 V	-100.0MV
58	5	-450.0MV	-1.500 V	-100.0MV
58	6	-450.0MV	-1.500 V	-100.0MV
58	7	-570.0MV	-1.500 V	-100.0MV
58	9	-570.0MV	-1.500 V	-100.0MV
58	10	-560.0MV	-1.500 V	-100.0MV
58	11	-560.0MV	-1.500 V	-100.0MV
58	12	-560.0MV	-1.500 V	-100.0MV
58	13	-560.0MV	-1.500 V	-100.0MV
58	14	-560.0MV	-1.500 V	-100.0MV
58	15	-560.0MV	-1.500 V	-100.0MV
58	16	-440.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.110 V	-1.500 V	
87	2	-1.070 V	-1.500 V	
93	3	-850.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

 FUNCTIONAL TEST
 VCC= 4.500
 VIH= 2 VIL= 700.0E-03

 VOH TEST
 VCC= 4.500
 VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.120 V	2.500 V	
212	9	3.120 V	2.500 V	
218	10	3.130 V	2.500 V	
224	11	3.130 V	2.500 V	
230	12	3.130 V	2.500 V	
236	13	3.130 V	2.500 V	
242	14	3.140 V	2.500 V	
248	15	3.140 V	2.500 V	

 VOL TEST
 VCC= 4.500
 VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	272.0MV		400.0MV
277	9	272.0MV		400.0MV

286	10	278.0MV	400.0MV
295	11	290.0MV	400.0MV
304	12	296.0MV	400.0MV
313	13	276.0MV	400.0MV
322	14	292.0MV	400.0MV
331	15	294.0MV	400.0MV

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-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2      VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.80MA	-100.0MA	-20.00MA
363	9	-53.90MA	-100.0MA	-20.00MA
369	10	-53.30MA	-100.0MA	-20.00MA
375	11	-52.00MA	-100.0MA	-20.00MA
381	12	-50.30MA	-100.0MA	-20.00MA
387	13	-53.90MA	-100.0MA	-20.00MA
393	14	-52.20MA	-100.0MA	-20.00MA
399	15	-51.70MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	0 A		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-170.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.050MA		10.00MA

```

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

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 10
DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-450.0MV	-1.500 V	-100.0MV
58	2	-450.0MV	-1.500 V	-100.0MV
58	3	-450.0MV	-1.500 V	-100.0MV
58	4	-450.0MV	-1.500 V	-100.0MV
58	5	-450.0MV	-1.500 V	-100.0MV
58	6	-450.0MV	-1.500 V	-100.0MV
58	7	-570.0MV	-1.500 V	-100.0MV
58	9	-570.0MV	-1.500 V	-100.0MV
58	10	-570.0MV	-1.500 V	-100.0MV
58	11	-570.0MV	-1.500 V	-100.0MV
58	12	-560.0MV	-1.500 V	-100.0MV
58	13	-560.0MV	-1.500 V	-100.0MV
58	14	-560.0MV	-1.500 V	-100.0MV
58	15	-560.0MV	-1.500 V	-100.0MV
58	16	-440.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.120 V	-1.500 V	
87	2	-1.070 V	-1.500 V	
93	3	-850.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.120 V	2.500 V	
212	9	3.120 V	2.500 V	
218	10	3.120 V	2.500 V	
224	11	3.120 V	2.500 V	
230	12	3.130 V	2.500 V	
236	13	3.130 V	2.500 V	
242	14	3.130 V	2.500 V	
248	15	3.130 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	272.0MV		400.0MV
277	9	274.0MV		400.0MV

286	10	282.0MV	400.0MV
295	11	294.0MV	400.0MV
304	12	296.0MV	400.0MV
313	13	278.0MV	400.0MV
322	14	290.0MV	400.0MV
331	15	296.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.60MA	-100.0MA	-20.00MA
363	9	-53.70MA	-100.0MA	-20.00MA
369	10	-53.10MA	-100.0MA	-20.00MA
375	11	-51.80MA	-100.0MA	-20.00MA
381	12	-50.10MA	-100.0MA	-20.00MA
387	13	-53.80MA	-100.0MA	-20.00MA
393	14	-52.10MA	-100.0MA	-20.00MA
399	15	-51.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	0 A		20.00UA
430	4	0 A		20.00UA
434	5	-100.0NA		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	0 A		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.000MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 11
DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-440.0MV	-1.500 V	-100.0MV
58	2	-440.0MV	-1.500 V	-100.0MV
58	3	-440.0MV	-1.500 V	-100.0MV
58	4	-440.0MV	-1.500 V	-100.0MV
58	5	-440.0MV	-1.500 V	-100.0MV
58	6	-440.0MV	-1.500 V	-100.0MV
58	7	-560.0MV	-1.500 V	-100.0MV
58	9	-560.0MV	-1.500 V	-100.0MV
58	10	-560.0MV	-1.500 V	-100.0MV
58	11	-560.0MV	-1.500 V	-100.0MV
58	12	-560.0MV	-1.500 V	-100.0MV
58	13	-550.0MV	-1.500 V	-100.0MV
58	14	-550.0MV	-1.500 V	-100.0MV
58	15	-550.0MV	-1.500 V	-100.0MV
58	16	-430.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.110 V	-1.500 V	
87	2	-1.060 V	-1.500 V	
93	3	-850.0MV	-1.500 V	
99	4	-840.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-840.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.140 V	2.500 V	
212	9	3.140 V	2.500 V	
218	10	3.140 V	2.500 V	
224	11	3.140 V	2.500 V	
230	12	3.140 V	2.500 V	
236	13	3.140 V	2.500 V	
242	14	3.140 V	2.500 V	
248	15	3.140 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	272.0MV		400.0MV
277	9	272.0MV		400.0MV

286	10	282.0MV	400.0MV
295	11	292.0MV	400.0MV
304	12	298.0MV	400.0MV
313	13	280.0MV	400.0MV
322	14	286.0MV	400.0MV
331	15	296.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=    5.500
                VIH=    2      VIL=    700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.20MA	-100.0MA	-20.00MA
363	9	-53.30MA	-100.0MA	-20.00MA
369	10	-52.70MA	-100.0MA	-20.00MA
375	11	-51.30MA	-100.0MA	-20.00MA
381	12	-49.70MA	-100.0MA	-20.00MA
387	13	-53.40MA	-100.0MA	-20.00MA
393	14	-52.20MA	-100.0MA	-20.00MA
399	15	-51.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	-100.0NA		100.0UA
457	3	0 A		100.0UA
461	4	-100.0NA		100.0UA
465	5	0 A		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.930MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```


STAT1 07/23/11 11:51
TEST PROGRAM LS138 S/N 12
DDS-101-16-A PN 54LS138 TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-450.0MV	-1.500 V	-100.0MV
58	2	-450.0MV	-1.500 V	-100.0MV
58	3	-450.0MV	-1.500 V	-100.0MV
58	4	-450.0MV	-1.500 V	-100.0MV
58	5	-450.0MV	-1.500 V	-100.0MV
58	6	-450.0MV	-1.500 V	-100.0MV
58	7	-570.0MV	-1.500 V	-100.0MV
58	9	-570.0MV	-1.500 V	-100.0MV
58	10	-570.0MV	-1.500 V	-100.0MV
58	11	-570.0MV	-1.500 V	-100.0MV
58	12	-570.0MV	-1.500 V	-100.0MV
58	13	-570.0MV	-1.500 V	-100.0MV
58	14	-570.0MV	-1.500 V	-100.0MV
58	15	-570.0MV	-1.500 V	-100.0MV
58	16	-450.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.150 V	-1.500 V	
87	2	-1.080 V	-1.500 V	
93	3	-860.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.110 V	2.500 V	
212	9	3.110 V	2.500 V	
218	10	3.110 V	2.500 V	
224	11	3.110 V	2.500 V	
230	12	3.110 V	2.500 V	
236	13	3.120 V	2.500 V	
242	14	3.120 V	2.500 V	
248	15	3.120 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	276.0MV		400.0MV
277	9	276.0MV		400.0MV

286	10	284.0MV	400.0MV
295	11	296.0MV	400.0MV
304	12	296.0MV	400.0MV
313	13	282.0MV	400.0MV
322	14	290.0MV	400.0MV
331	15	296.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=    5.500
                VIH=    2      VIL=    700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.40MA	-100.0MA	-20.00MA
363	9	-53.30MA	-100.0MA	-20.00MA
369	10	-52.90MA	-100.0MA	-20.00MA
375	11	-51.50MA	-100.0MA	-20.00MA
381	12	-49.90MA	-100.0MA	-20.00MA
387	13	-53.70MA	-100.0MA	-20.00MA
393	14	-52.40MA	-100.0MA	-20.00MA
399	15	-51.50MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.910MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```



MIL-PRF-38534 CLASS K DATAPACK

Post Burn-In Test Results at -55°C



STAT1 08/06/11 07:10
 TEST PROGRAM LS138 S/N 1
 DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

 CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-570.0MV	-1.500 V	-100.0MV
58	2	-560.0MV	-1.500 V	-100.0MV
58	3	-570.0MV	-1.500 V	-100.0MV
58	4	-570.0MV	-1.500 V	-100.0MV
58	5	-570.0MV	-1.500 V	-100.0MV
58	6	-570.0MV	-1.500 V	-100.0MV
58	7	-740.0MV	-1.500 V	-100.0MV
58	9	-740.0MV	-1.500 V	-100.0MV
58	10	-740.0MV	-1.500 V	-100.0MV
58	11	-740.0MV	-1.500 V	-100.0MV
58	12	-740.0MV	-1.500 V	-100.0MV
58	13	-740.0MV	-1.500 V	-100.0MV
58	14	-740.0MV	-1.500 V	-100.0MV
58	15	-740.0MV	-1.500 V	-100.0MV
58	16	-650.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.170 V	-1.500 V	
87	2	-1.270 V	-1.500 V	
93	3	-1.070 V	-1.500 V	
99	4	-1.070 V	-1.500 V	
105	5	-1.050 V	-1.500 V	
111	6	-1.070 V	-1.500 V	

 FUNCTIONAL TEST
 VCC= 4.500
 VIH= 2 VIL= 700.0E-03

 VOH TEST
 VCC= 4.500
 VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.760 V	2.500 V	
212	9	2.760 V	2.500 V	
218	10	2.760 V	2.500 V	
224	11	2.760 V	2.500 V	
230	12	2.760 V	2.500 V	
236	13	2.760 V	2.500 V	
242	14	2.760 V	2.500 V	
248	15	2.760 V	2.500 V	

 VOL TEST
 VCC= 4.500
 VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	368.0MV		400.0MV
277	9	370.0MV		400.0MV
286	10	380.0MV		400.0MV
295	11	372.0MV		400.0MV

304	12	378.0MV	400.0MV
313	13	372.0MV	400.0MV
322	14	382.0MV	400.0MV
331	15	386.0MV	400.0MV

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-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-60.10MA	-100.0MA	-20.00MA
363	9	-58.00MA	-100.0MA	-20.00MA
369	10	-57.40MA	-100.0MA	-20.00MA
375	11	-56.80MA	-100.0MA	-20.00MA
381	12	-55.10MA	-100.0MA	-20.00MA
387	13	-56.50MA	-100.0MA	-20.00MA
393	14	-53.60MA	-100.0MA	-20.00MA
399	15	-53.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-50.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.570MA		10.00MA

```

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

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 2
DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-530.0MV	-1.500 V	-100.0MV
58	2	-530.0MV	-1.500 V	-100.0MV
58	3	-530.0MV	-1.500 V	-100.0MV
58	4	-530.0MV	-1.500 V	-100.0MV
58	5	-540.0MV	-1.500 V	-100.0MV
58	6	-540.0MV	-1.500 V	-100.0MV
58	7	-690.0MV	-1.500 V	-100.0MV
58	9	-700.0MV	-1.500 V	-100.0MV
58	10	-700.0MV	-1.500 V	-100.0MV
58	11	-700.0MV	-1.500 V	-100.0MV
58	12	-700.0MV	-1.500 V	-100.0MV
58	13	-700.0MV	-1.500 V	-100.0MV
58	14	-700.0MV	-1.500 V	-100.0MV
58	15	-700.0MV	-1.500 V	-100.0MV
58	16	-610.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.090 V	-1.500 V	
87	2	-1.160 V	-1.500 V	
93	3	-1.030 V	-1.500 V	
99	4	-1.030 V	-1.500 V	
105	5	-1.010 V	-1.500 V	
111	6	-1.030 V	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.820 V	2.500 V	
212	9	2.820 V	2.500 V	
218	10	2.820 V	2.500 V	
224	11	2.820 V	2.500 V	
230	12	2.820 V	2.500 V	
236	13	2.820 V	2.500 V	
242	14	2.820 V	2.500 V	
248	15	2.810 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	354.0MV		400.0MV
277	9	366.0MV		400.0MV

286	10	372.0MV	400.0MV
295	11	360.0MV	400.0MV
304	12	368.0MV	400.0MV
313	13	360.0MV	400.0MV
322	14	368.0MV	400.0MV
331	15	390.0MV	400.0MV

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-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-56.90MA	-100.0MA	-20.00MA
363	9	-54.10MA	-100.0MA	-20.00MA
369	10	-53.10MA	-100.0MA	-20.00MA
375	11	-57.50MA	-100.0MA	-20.00MA
381	12	-55.60MA	-100.0MA	-20.00MA
387	13	-57.20MA	-100.0MA	-20.00MA
393	14	-55.60MA	-100.0MA	-20.00MA
399	15	-52.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-210.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.340MA		10.00MA

```

EIR 1.....10    FCT    DCT
    000000000    PASS    PASS    EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 3

DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-520.0MV	-1.500 V	-100.0MV
58	2	-520.0MV	-1.500 V	-100.0MV
58	3	-520.0MV	-1.500 V	-100.0MV
58	4	-530.0MV	-1.500 V	-100.0MV
58	5	-530.0MV	-1.500 V	-100.0MV
58	6	-530.0MV	-1.500 V	-100.0MV
58	7	-680.0MV	-1.500 V	-100.0MV
58	9	-690.0MV	-1.500 V	-100.0MV
58	10	-690.0MV	-1.500 V	-100.0MV
58	11	-690.0MV	-1.500 V	-100.0MV
58	12	-690.0MV	-1.500 V	-100.0MV
58	13	-690.0MV	-1.500 V	-100.0MV
58	14	-690.0MV	-1.500 V	-100.0MV
58	15	-690.0MV	-1.500 V	-100.0MV
58	16	-590.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-990.0MV	-1.500 V	
87	2	-1.050 V	-1.500 V	
93	3	-930.0MV	-1.500 V	
99	4	-930.0MV	-1.500 V	
105	5	-910.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.800 V	2.500 V	
212	9	2.800 V	2.500 V	
218	10	2.800 V	2.500 V	
224	11	2.810 V	2.500 V	
230	12	2.810 V	2.500 V	
236	13	2.810 V	2.500 V	
242	14	2.800 V	2.500 V	
248	15	2.800 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	294.0MV		400.0MV
277	9	300.0MV		400.0MV

286	10	310.0MV	400.0MV
295	11	300.0MV	400.0MV
304	12	304.0MV	400.0MV
313	13	298.0MV	400.0MV
322	14	304.0MV	400.0MV
331	15	332.0MV	400.0MV

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-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-54.60MA	-100.0MA	-20.00MA
363	9	-53.10MA	-100.0MA	-20.00MA
369	10	-53.30MA	-100.0MA	-20.00MA
375	11	-54.40MA	-100.0MA	-20.00MA
381	12	-50.90MA	-100.0MA	-20.00MA
387	13	-54.20MA	-100.0MA	-20.00MA
393	14	-52.30MA	-100.0MA	-20.00MA
399	15	-48.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-170.0UA	-400.0UA	
505	6	-170.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.190MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 4

DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-550.0MV	-1.500 V	-100.0MV
58	2	-550.0MV	-1.500 V	-100.0MV
58	3	-550.0MV	-1.500 V	-100.0MV
58	4	-550.0MV	-1.500 V	-100.0MV
58	5	-550.0MV	-1.500 V	-100.0MV
58	6	-550.0MV	-1.500 V	-100.0MV
58	7	-710.0MV	-1.500 V	-100.0MV
58	9	-720.0MV	-1.500 V	-100.0MV
58	10	-720.0MV	-1.500 V	-100.0MV
58	11	-720.0MV	-1.500 V	-100.0MV
58	12	-720.0MV	-1.500 V	-100.0MV
58	13	-720.0MV	-1.500 V	-100.0MV
58	14	-720.0MV	-1.500 V	-100.0MV
58	15	-720.0MV	-1.500 V	-100.0MV
58	16	-620.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	- 1 V	-1.500 V	
87	2	-1.070 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-950.0MV	-1.500 V	
105	5	-930.0MV	-1.500 V	
111	6	-940.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.800 V	2.500 V	
212	9	2.800 V	2.500 V	
218	10	2.800 V	2.500 V	
224	11	2.800 V	2.500 V	
230	12	2.800 V	2.500 V	
236	13	2.790 V	2.500 V	
242	14	2.790 V	2.500 V	
248	15	2.790 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	298.0MV		400.0MV
277	9	302.0MV		400.0MV

286	10	312.0MV	400.0MV
295	11	302.0MV	400.0MV
304	12	308.0MV	400.0MV
313	13	302.0MV	400.0MV
322	14	312.0MV	400.0MV
331	15	324.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-58.20MA	-100.0MA	-20.00MA
363	9	-57.60MA	-100.0MA	-20.00MA
369	10	-57.60MA	-100.0MA	-20.00MA
375	11	-59.50MA	-100.0MA	-20.00MA
381	12	-57.70MA	-100.0MA	-20.00MA
387	13	-57.90MA	-100.0MA	-20.00MA
393	14	-59.40MA	-100.0MA	-20.00MA
399	15	-57.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-210.0UA	-400.0UA	
501	5	-200.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.350MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 5
DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-570.0MV	-1.500 V	-100.0MV
58	2	-570.0MV	-1.500 V	-100.0MV
58	3	-570.0MV	-1.500 V	-100.0MV
58	4	-570.0MV	-1.500 V	-100.0MV
58	5	-570.0MV	-1.500 V	-100.0MV
58	6	-570.0MV	-1.500 V	-100.0MV
58	7	-740.0MV	-1.500 V	-100.0MV
58	9	-750.0MV	-1.500 V	-100.0MV
58	10	-750.0MV	-1.500 V	-100.0MV
58	11	-740.0MV	-1.500 V	-100.0MV
58	12	-750.0MV	-1.500 V	-100.0MV
58	13	-750.0MV	-1.500 V	-100.0MV
58	14	-740.0MV	-1.500 V	-100.0MV
58	15	-750.0MV	-1.500 V	-100.0MV
58	16	-660.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.020 V	-1.500 V	
87	2	-1.080 V	-1.500 V	
93	3	-960.0MV	-1.500 V	
99	4	-970.0MV	-1.500 V	
105	5	-950.0MV	-1.500 V	
111	6	-970.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.770 V	2.500 V	
212	9	2.770 V	2.500 V	
218	10	2.770 V	2.500 V	
224	11	2.770 V	2.500 V	
230	12	2.770 V	2.500 V	
236	13	2.770 V	2.500 V	
242	14	2.770 V	2.500 V	
248	15	2.770 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	304.0MV		400.0MV
277	9	316.0MV		400.0MV

286	10	326.0MV	400.0MV
295	11	310.0MV	400.0MV
304	12	314.0MV	400.0MV
313	13	306.0MV	400.0MV
322	14	324.0MV	400.0MV
331	15	324.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-62.60MA	-100.0MA	-20.00MA
363	9	-60.50MA	-100.0MA	-20.00MA
369	10	-58.50MA	-100.0MA	-20.00MA
375	11	-62.50MA	-100.0MA	-20.00MA
381	12	-60.70MA	-100.0MA	-20.00MA
387	13	-63.00MA	-100.0MA	-20.00MA
393	14	-59.10MA	-100.0MA	-20.00MA
399	15	-59.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-50.00UA	-400.0UA	
489	2	-50.00UA	-400.0UA	
493	3	-50.00UA	-400.0UA	
497	4	-230.0UA	-400.0UA	
501	5	-220.0UA	-400.0UA	
505	6	-220.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.840MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 6
DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-530.0MV	-1.500 V	-100.0MV
58	2	-530.0MV	-1.500 V	-100.0MV
58	3	-530.0MV	-1.500 V	-100.0MV
58	4	-530.0MV	-1.500 V	-100.0MV
58	5	-530.0MV	-1.500 V	-100.0MV
58	6	-530.0MV	-1.500 V	-100.0MV
58	7	-690.0MV	-1.500 V	-100.0MV
58	9	-690.0MV	-1.500 V	-100.0MV
58	10	-690.0MV	-1.500 V	-100.0MV
58	11	-690.0MV	-1.500 V	-100.0MV
58	12	-690.0MV	-1.500 V	-100.0MV
58	13	-700.0MV	-1.500 V	-100.0MV
58	14	-700.0MV	-1.500 V	-100.0MV
58	15	-700.0MV	-1.500 V	-100.0MV
58	16	-600.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	- 1 V	-1.500 V	
87	2	-1.060 V	-1.500 V	
93	3	-930.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-930.0MV	-1.500 V	
111	6	-940.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.840 V	2.500 V	
212	9	2.830 V	2.500 V	
218	10	2.840 V	2.500 V	
224	11	2.830 V	2.500 V	
230	12	2.830 V	2.500 V	
236	13	2.840 V	2.500 V	
242	14	2.830 V	2.500 V	
248	15	2.820 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	298.0MV		400.0MV
277	9	302.0MV		400.0MV

286	10	310.0MV	400.0MV
295	11	302.0MV	400.0MV
304	12	310.0MV	400.0MV
313	13	302.0MV	400.0MV
322	14	314.0MV	400.0MV
331	15	326.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-58.90MA	-100.0MA	-20.00MA
363	9	-60.50MA	-100.0MA	-20.00MA
369	10	-59.10MA	-100.0MA	-20.00MA
375	11	-61.40MA	-100.0MA	-20.00MA
381	12	-59.90MA	-100.0MA	-20.00MA
387	13	-61.90MA	-100.0MA	-20.00MA
393	14	-59.90MA	-100.0MA	-20.00MA
399	15	-57.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.590MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 7
DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-520.0MV	-1.500 V	-100.0MV
58	2	-520.0MV	-1.500 V	-100.0MV
58	3	-520.0MV	-1.500 V	-100.0MV
58	4	-520.0MV	-1.500 V	-100.0MV
58	5	-520.0MV	-1.500 V	-100.0MV
58	6	-520.0MV	-1.500 V	-100.0MV
58	7	-670.0MV	-1.500 V	-100.0MV
58	9	-680.0MV	-1.500 V	-100.0MV
58	10	-680.0MV	-1.500 V	-100.0MV
58	11	-680.0MV	-1.500 V	-100.0MV
58	12	-680.0MV	-1.500 V	-100.0MV
58	13	-680.0MV	-1.500 V	-100.0MV
58	14	-680.0MV	-1.500 V	-100.0MV
58	15	-680.0MV	-1.500 V	-100.0MV
58	16	-580.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	- 1 V	-1.500 V	
87	2	-1.080 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-930.0MV	-1.500 V	
111	6	-940.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.870 V	2.500 V	
212	9	2.860 V	2.500 V	
218	10	2.860 V	2.500 V	
224	11	2.860 V	2.500 V	
230	12	2.860 V	2.500 V	
236	13	2.860 V	2.500 V	
242	14	2.860 V	2.500 V	
248	15	2.850 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	296.0MV		400.0MV
277	9	306.0MV		400.0MV

286	10	316.0MV	400.0MV
295	11	300.0MV	400.0MV
304	12	308.0MV	400.0MV
313	13	298.0MV	400.0MV
322	14	314.0MV	400.0MV
331	15	344.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-61.20MA	-100.0MA	-20.00MA
363	9	-59.80MA	-100.0MA	-20.00MA
369	10	-59.70MA	-100.0MA	-20.00MA
375	11	-61.50MA	-100.0MA	-20.00MA
381	12	-60.00MA	-100.0MA	-20.00MA
387	13	-62.10MA	-100.0MA	-20.00MA
393	14	-59.80MA	-100.0MA	-20.00MA
399	15	-57.60MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-50.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-220.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.720MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 8
DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-520.0MV	-1.500 V	-100.0MV
58	2	-520.0MV	-1.500 V	-100.0MV
58	3	-520.0MV	-1.500 V	-100.0MV
58	4	-520.0MV	-1.500 V	-100.0MV
58	5	-520.0MV	-1.500 V	-100.0MV
58	6	-530.0MV	-1.500 V	-100.0MV
58	7	-680.0MV	-1.500 V	-100.0MV
58	9	-680.0MV	-1.500 V	-100.0MV
58	10	-680.0MV	-1.500 V	-100.0MV
58	11	-680.0MV	-1.500 V	-100.0MV
58	12	-690.0MV	-1.500 V	-100.0MV
58	13	-690.0MV	-1.500 V	-100.0MV
58	14	-690.0MV	-1.500 V	-100.0MV
58	15	-690.0MV	-1.500 V	-100.0MV
58	16	-590.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-990.0MV	-1.500 V	
87	2	-1.060 V	-1.500 V	
93	3	-940.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-920.0MV	-1.500 V	
111	6	-940.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.850 V	2.500 V	
212	9	2.850 V	2.500 V	
218	10	2.840 V	2.500 V	
224	11	2.840 V	2.500 V	
230	12	2.840 V	2.500 V	
236	13	2.840 V	2.500 V	
242	14	2.840 V	2.500 V	
248	15	2.830 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	298.0MV		400.0MV
277	9	306.0MV		400.0MV

286	10	314.0MV	400.0MV
295	11	304.0MV	400.0MV
304	12	310.0MV	400.0MV
313	13	302.0MV	400.0MV
322	14	310.0MV	400.0MV
331	15	374.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-58.00MA	-100.0MA	-20.00MA
363	9	-56.00MA	-100.0MA	-20.00MA
369	10	-54.10MA	-100.0MA	-20.00MA
375	11	-57.70MA	-100.0MA	-20.00MA
381	12	-56.30MA	-100.0MA	-20.00MA
387	13	-59.00MA	-100.0MA	-20.00MA
393	14	-59.70MA	-100.0MA	-20.00MA
399	15	-56.30MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-210.0UA	-400.0UA	
501	5	-200.0UA	-400.0UA	
505	6	-200.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.320MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 9

DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-520.0MV	-1.500 V	-100.0MV
58	2	-520.0MV	-1.500 V	-100.0MV
58	3	-530.0MV	-1.500 V	-100.0MV
58	4	-520.0MV	-1.500 V	-100.0MV
58	5	-530.0MV	-1.500 V	-100.0MV
58	6	-530.0MV	-1.500 V	-100.0MV
58	7	-680.0MV	-1.500 V	-100.0MV
58	9	-690.0MV	-1.500 V	-100.0MV
58	10	-690.0MV	-1.500 V	-100.0MV
58	11	-690.0MV	-1.500 V	-100.0MV
58	12	-690.0MV	-1.500 V	-100.0MV
58	13	-690.0MV	-1.500 V	-100.0MV
58	14	-690.0MV	-1.500 V	-100.0MV
58	15	-700.0MV	-1.500 V	-100.0MV
58	16	-590.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.020 V	-1.500 V	
87	2	-1.110 V	-1.500 V	
93	3	-970.0MV	-1.500 V	
99	4	-970.0MV	-1.500 V	
105	5	-950.0MV	-1.500 V	
111	6	-960.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.840 V	2.500 V	
212	9	2.840 V	2.500 V	
218	10	2.830 V	2.500 V	
224	11	2.840 V	2.500 V	
230	12	2.830 V	2.500 V	
236	13	2.840 V	2.500 V	
242	14	2.830 V	2.500 V	
248	15	2.830 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	312.0MV		400.0MV
277	9	326.0MV		400.0MV

286	10	366.0MV	400.0MV
295	11	318.0MV	400.0MV
304	12	322.0MV	400.0MV
313	13	316.0MV	400.0MV
322	14	328.0MV	400.0MV
331	15	360.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-60.90MA	-100.0MA	-20.00MA
363	9	-58.40MA	-100.0MA	-20.00MA
369	10	-58.70MA	-100.0MA	-20.00MA
375	11	-60.80MA	-100.0MA	-20.00MA
381	12	-59.40MA	-100.0MA	-20.00MA
387	13	-61.50MA	-100.0MA	-20.00MA
393	14	-59.90MA	-100.0MA	-20.00MA
399	15	-57.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-50.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.590MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 10

DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-520.0MV	-1.500 V	-100.0MV
58	2	-520.0MV	-1.500 V	-100.0MV
58	3	-520.0MV	-1.500 V	-100.0MV
58	4	-520.0MV	-1.500 V	-100.0MV
58	5	-520.0MV	-1.500 V	-100.0MV
58	6	-520.0MV	-1.500 V	-100.0MV
58	7	-670.0MV	-1.500 V	-100.0MV
58	9	-680.0MV	-1.500 V	-100.0MV
58	10	-680.0MV	-1.500 V	-100.0MV
58	11	-680.0MV	-1.500 V	-100.0MV
58	12	-680.0MV	-1.500 V	-100.0MV
58	13	-680.0MV	-1.500 V	-100.0MV
58	14	-680.0MV	-1.500 V	-100.0MV
58	15	-680.0MV	-1.500 V	-100.0MV
58	16	-580.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.150 V	-1.500 V	
87	2	-1.230 V	-1.500 V	
93	3	-1.110 V	-1.500 V	
99	4	-1.210 V	-1.500 V	
105	5	-1.250 V	-1.500 V	
111	6	-1.100 V	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.850 V	2.500 V	
212	9	2.840 V	2.500 V	
218	10	2.840 V	2.500 V	
224	11	2.850 V	2.500 V	
230	12	2.850 V	2.500 V	
236	13	2.840 V	2.500 V	
242	14	2.840 V	2.500 V	
248	15	2.840 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	360.0MV		400.0MV
277	9	360.0MV		400.0MV

286	10	400.0MV	400.0MV
295	11	362.0MV	400.0MV
304	12	372.0MV	400.0MV
313	13	366.0MV	400.0MV
322	14	386.0MV	400.0MV
331	15	388.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-56.80MA	-100.0MA	-20.00MA
363	9	-56.10MA	-100.0MA	-20.00MA
369	10	-53.30MA	-100.0MA	-20.00MA
375	11	-56.20MA	-100.0MA	-20.00MA
381	12	-54.50MA	-100.0MA	-20.00MA
387	13	-58.50MA	-100.0MA	-20.00MA
393	14	-55.50MA	-100.0MA	-20.00MA
399	15	-54.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-210.0UA	-400.0UA	
501	5	-200.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.270MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 11
DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-520.0MV	-1.500 V	-100.0MV
58	2	-520.0MV	-1.500 V	-100.0MV
58	3	-520.0MV	-1.500 V	-100.0MV
58	4	-520.0MV	-1.500 V	-100.0MV
58	5	-520.0MV	-1.500 V	-100.0MV
58	6	-520.0MV	-1.500 V	-100.0MV
58	7	-680.0MV	-1.500 V	-100.0MV
58	9	-680.0MV	-1.500 V	-100.0MV
58	10	-680.0MV	-1.500 V	-100.0MV
58	11	-680.0MV	-1.500 V	-100.0MV
58	12	-680.0MV	-1.500 V	-100.0MV
58	13	-680.0MV	-1.500 V	-100.0MV
58	14	-680.0MV	-1.500 V	-100.0MV
58	15	-690.0MV	-1.500 V	-100.0MV
58	16	-590.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.070 V	-1.500 V	
87	2	-1.170 V	-1.500 V	
93	3	-1.010 V	-1.500 V	
99	4	-1.010 V	-1.500 V	
105	5	- 1 V	-1.500 V	
111	6	- 1 V	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.860 V	2.500 V	
212	9	2.860 V	2.500 V	
218	10	2.860 V	2.500 V	
224	11	2.860 V	2.500 V	
230	12	2.860 V	2.500 V	
236	13	2.850 V	2.500 V	
242	14	2.850 V	2.500 V	
248	15	2.850 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	336.0MV		400.0MV
277	9	348.0MV		400.0MV

286	10	390.0MV	400.0MV
295	11	366.0MV	400.0MV
304	12	366.0MV	400.0MV
313	13	354.0MV	400.0MV
322	14	370.0MV	400.0MV
331	15	368.0MV	400.0MV

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-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-60.90MA	-100.0MA	-20.00MA
363	9	-59.90MA	-100.0MA	-20.00MA
369	10	-58.30MA	-100.0MA	-20.00MA
375	11	-61.00MA	-100.0MA	-20.00MA
381	12	-59.60MA	-100.0MA	-20.00MA
387	13	-61.70MA	-100.0MA	-20.00MA
393	14	-59.80MA	-100.0MA	-20.00MA
399	15	-58.10MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.460MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 12
DDS-101-16-A PN 54LS138 TEST SEQ14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-570.0MV	-1.500 V	-100.0MV
58	2	-570.0MV	-1.500 V	-100.0MV
58	3	-560.0MV	-1.500 V	-100.0MV
58	4	-570.0MV	-1.500 V	-100.0MV
58	5	-570.0MV	-1.500 V	-100.0MV
58	6	-570.0MV	-1.500 V	-100.0MV
58	7	-740.0MV	-1.500 V	-100.0MV
58	9	-740.0MV	-1.500 V	-100.0MV
58	10	-750.0MV	-1.500 V	-100.0MV
58	11	-740.0MV	-1.500 V	-100.0MV
58	12	-740.0MV	-1.500 V	-100.0MV
58	13	-740.0MV	-1.500 V	-100.0MV
58	14	-750.0MV	-1.500 V	-100.0MV
58	15	-740.0MV	-1.500 V	-100.0MV
58	16	-660.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.190 V	-1.500 V	
87	2	-1.210 V	-1.500 V	
93	3	-1.040 V	-1.500 V	
99	4	-1.050 V	-1.500 V	
105	5	-1.030 V	-1.500 V	
111	6	-1.040 V	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.760 V	2.500 V	
212	9	2.760 V	2.500 V	
218	10	2.750 V	2.500 V	
224	11	2.760 V	2.500 V	
230	12	2.760 V	2.500 V	
236	13	2.760 V	2.500 V	
242	14	2.760 V	2.500 V	
248	15	2.760 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	360.0MV		400.0MV
277	9	370.0MV		400.0MV

286	10	394.0MV	400.0MV
295	11	368.0MV	400.0MV
304	12	372.0MV	400.0MV
313	13	366.0MV	400.0MV
322	14	384.0MV	400.0MV
331	15	384.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-58.70MA	-100.0MA	-20.00MA
363	9	-57.80MA	-100.0MA	-20.00MA
369	10	-52.50MA	-100.0MA	-20.00MA
375	11	-58.30MA	-100.0MA	-20.00MA
381	12	-55.90MA	-100.0MA	-20.00MA
387	13	-62.60MA	-100.0MA	-20.00MA
393	14	-60.50MA	-100.0MA	-20.00MA
399	15	-59.30MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-50.00UA	-400.0UA	
493	3	-50.00UA	-400.0UA	
497	4	-220.0UA	-400.0UA	
501	5	-210.0UA	-400.0UA	
505	6	-210.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	6.530MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```



MIL-PRF-38534 CLASS K DATAPACK

Post Burn-In Test Results at 25°C



STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 1

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-610.0MV	-1.500 V	-100.0MV
58	10	-610.0MV	-1.500 V	-100.0MV
58	11	-610.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-610.0MV	-1.500 V	-100.0MV
58	14	-610.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-500.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-960.0MV	-1.500 V	
87	2	-1.050 V	-1.500 V	
93	3	-880.0MV	-1.500 V	
99	4	-890.0MV	-1.500 V	
105	5	-870.0MV	-1.500 V	
111	6	-890.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3.010 V	2.500 V	
224	11	3.010 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3 V	2.500 V	
242	14	3 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	282.0MV		400.0MV
277	9	284.0MV		400.0MV
286	10	288.0MV		400.0MV
295	11	286.0MV		400.0MV

304	12	292.0MV	400.0MV
313	13	284.0MV	400.0MV
322	14	292.0MV	400.0MV
331	15	336.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC=      5.500
VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-56.90MA	-100.0MA	-20.00MA
363	9	-57.10MA	-100.0MA	-20.00MA
369	10	-57.20MA	-100.0MA	-20.00MA
375	11	-57.60MA	-100.0MA	-20.00MA
381	12	-56.40MA	-100.0MA	-20.00MA
387	13	-58.10MA	-100.0MA	-20.00MA
393	14	-57.10MA	-100.0MA	-20.00MA
399	15	-55.60MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.680MA		10.00MA

```

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

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 2

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-490.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-960.0MV	-1.500 V	
87	2	-1.020 V	-1.500 V	
93	3	-890.0MV	-1.500 V	
99	4	-900.0MV	-1.500 V	
105	5	-880.0MV	-1.500 V	
111	6	-890.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3 V	2.500 V	
236	13	3 V	2.500 V	
242	14	3 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	290.0MV		400.0MV
277	9	292.0MV		400.0MV

286	10	294.0MV	400.0MV
295	11	290.0MV	400.0MV
304	12	300.0MV	400.0MV
313	13	290.0MV	400.0MV
322	14	294.0MV	400.0MV
331	15	304.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-56.30MA	-100.0MA	-20.00MA
363	9	-56.20MA	-100.0MA	-20.00MA
369	10	-56.20MA	-100.0MA	-20.00MA
375	11	-56.80MA	-100.0MA	-20.00MA
381	12	-55.90MA	-100.0MA	-20.00MA
387	13	-57.60MA	-100.0MA	-20.00MA
393	14	-56.80MA	-100.0MA	-20.00MA
399	15	-55.30MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	0 A		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.530MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```


STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 3

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-970.0MV	-1.500 V	
87	2	-1.030 V	-1.500 V	
93	3	-900.0MV	-1.500 V	
99	4	-910.0MV	-1.500 V	
105	5	-880.0MV	-1.500 V	
111	6	-900.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.990 V	2.500 V	
212	9	2.990 V	2.500 V	
218	10	2.990 V	2.500 V	
224	11	2.990 V	2.500 V	
230	12	2.990 V	2.500 V	
236	13	2.990 V	2.500 V	
242	14	2.990 V	2.500 V	
248	15	2.990 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	292.0MV		400.0MV
277	9	294.0MV		400.0MV

286	10	298.0MV	400.0MV
295	11	298.0MV	400.0MV
304	12	300.0MV	400.0MV
313	13	296.0MV	400.0MV
322	14	298.0MV	400.0MV
331	15	306.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2      VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-55.20MA	-100.0MA	-20.00MA
363	9	-54.80MA	-100.0MA	-20.00MA
369	10	-54.80MA	-100.0MA	-20.00MA
375	11	-55.20MA	-100.0MA	-20.00MA
381	12	-54.00MA	-100.0MA	-20.00MA
387	13	-55.80MA	-100.0MA	-20.00MA
393	14	-55.20MA	-100.0MA	-20.00MA
399	15	-53.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.510MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 4

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-970.0MV	-1.500 V	
87	2	-1.030 V	-1.500 V	
93	3	-900.0MV	-1.500 V	
99	4	-910.0MV	-1.500 V	
105	5	-880.0MV	-1.500 V	
111	6	-900.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	2.990 V	2.500 V	
212	9	2.990 V	2.500 V	
218	10	2.990 V	2.500 V	
224	11	2.990 V	2.500 V	
230	12	2.990 V	2.500 V	
236	13	2.990 V	2.500 V	
242	14	2.990 V	2.500 V	
248	15	2.990 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	294.0MV		400.0MV
277	9	296.0MV		400.0MV

286	10	298.0MV	400.0MV
295	11	298.0MV	400.0MV
304	12	304.0MV	400.0MV
313	13	296.0MV	400.0MV
322	14	302.0MV	400.0MV
331	15	310.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-55.80MA	-100.0MA	-20.00MA
363	9	-55.70MA	-100.0MA	-20.00MA
369	10	-55.70MA	-100.0MA	-20.00MA
375	11	-56.10MA	-100.0MA	-20.00MA
381	12	-54.90MA	-100.0MA	-20.00MA
387	13	-56.50MA	-100.0MA	-20.00MA
393	14	-55.80MA	-100.0MA	-20.00MA
399	15	-55.00MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.470MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 5

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-490.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-980.0MV	-1.500 V	
87	2	-1.020 V	-1.500 V	
93	3	-900.0MV	-1.500 V	
99	4	-910.0MV	-1.500 V	
105	5	-880.0MV	-1.500 V	
111	6	-910.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3 V	2.500 V	
236	13	3 V	2.500 V	
242	14	3 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	290.0MV		400.0MV
277	9	292.0MV		400.0MV

286	10	298.0MV	400.0MV
295	11	294.0MV	400.0MV
304	12	300.0MV	400.0MV
313	13	294.0MV	400.0MV
322	14	298.0MV	400.0MV
331	15	306.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=    5.500
                VIH=    2      VIL=    700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-54.80MA	-100.0MA	-20.00MA
363	9	-53.20MA	-100.0MA	-20.00MA
369	10	-51.90MA	-100.0MA	-20.00MA
375	11	-51.20MA	-100.0MA	-20.00MA
381	12	-55.20MA	-100.0MA	-20.00MA
387	13	-56.90MA	-100.0MA	-20.00MA
393	14	-56.40MA	-100.0MA	-20.00MA
399	15	-55.00MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-190.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.810MA		10.00MA

```

EIR 1.....10      FCT      DCT
    000000000      PASS     PASS     EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 6

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-980.0MV	-1.500 V	
87	2	-1.030 V	-1.500 V	
93	3	-900.0MV	-1.500 V	
99	4	-910.0MV	-1.500 V	
105	5	-890.0MV	-1.500 V	
111	6	-910.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	292.0MV		400.0MV
277	9	294.0MV		400.0MV

286	10	302.0MV	400.0MV
295	11	298.0MV	400.0MV
304	12	304.0MV	400.0MV
313	13	298.0MV	400.0MV
322	14	304.0MV	400.0MV
331	15	312.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=    5.500
                VIH=    2      VIL=    700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-57.70MA	-100.0MA	-20.00MA
363	9	-57.50MA	-100.0MA	-20.00MA
369	10	-57.50MA	-100.0MA	-20.00MA
375	11	-57.90MA	-100.0MA	-20.00MA
381	12	-56.70MA	-100.0MA	-20.00MA
387	13	-58.50MA	-100.0MA	-20.00MA
393	14	-57.50MA	-100.0MA	-20.00MA
399	15	-55.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.730MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```


STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 7

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-980.0MV	-1.500 V	
87	2	-1.030 V	-1.500 V	
93	3	-900.0MV	-1.500 V	
99	4	-910.0MV	-1.500 V	
105	5	-890.0MV	-1.500 V	
111	6	-910.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3.010 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3.010 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	294.0MV		400.0MV
277	9	296.0MV		400.0MV

286	10	300.0MV	400.0MV
295	11	298.0MV	400.0MV
304	12	304.0MV	400.0MV
313	13	298.0MV	400.0MV
322	14	302.0MV	400.0MV
331	15	310.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2      VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-57.90MA	-100.0MA	-20.00MA
363	9	-57.60MA	-100.0MA	-20.00MA
369	10	-57.80MA	-100.0MA	-20.00MA
375	11	-58.30MA	-100.0MA	-20.00MA
381	12	-57.00MA	-100.0MA	-20.00MA
387	13	-58.80MA	-100.0MA	-20.00MA
393	14	-58.00MA	-100.0MA	-20.00MA
399	15	-56.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-40.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-190.0UA	-400.0UA	
505	6	-190.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.890MA		10.00MA

```

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

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 8

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-990.0MV	-1.500 V	
87	2	-1.040 V	-1.500 V	
93	3	-920.0MV	-1.500 V	
99	4	-930.0MV	-1.500 V	
105	5	-900.0MV	-1.500 V	
111	6	-920.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3.010 V	2.500 V	
224	11	3 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	302.0MV		400.0MV
277	9	306.0MV		400.0MV

286	10	310.0MV	400.0MV
295	11	308.0MV	400.0MV
304	12	314.0MV	400.0MV
313	13	308.0MV	400.0MV
322	14	314.0MV	400.0MV
331	15	322.0MV	400.0MV

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-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-57.00MA	-100.0MA	-20.00MA
363	9	-56.70MA	-100.0MA	-20.00MA
369	10	-56.80MA	-100.0MA	-20.00MA
375	11	-57.30MA	-100.0MA	-20.00MA
381	12	-56.10MA	-100.0MA	-20.00MA
387	13	-57.90MA	-100.0MA	-20.00MA
393	14	-57.10MA	-100.0MA	-20.00MA
399	15	-55.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.500MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 9

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.010 V	-1.500 V	
87	2	-1.060 V	-1.500 V	
93	3	-930.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-910.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3.010 V	2.500 V	
224	11	3.010 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3.010 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	310.0MV		400.0MV
277	9	314.0MV		400.0MV

286	10	316.0MV	400.0MV
295	11	314.0MV	400.0MV
304	12	322.0MV	400.0MV
313	13	312.0MV	400.0MV
322	14	320.0MV	400.0MV
331	15	328.0MV	400.0MV

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-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-57.90MA	-100.0MA	-20.00MA
363	9	-57.70MA	-100.0MA	-20.00MA
369	10	-57.60MA	-100.0MA	-20.00MA
375	11	-58.00MA	-100.0MA	-20.00MA
381	12	-56.70MA	-100.0MA	-20.00MA
387	13	-58.50MA	-100.0MA	-20.00MA
393	14	-57.80MA	-100.0MA	-20.00MA
399	15	-56.10MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-190.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.740MA		10.00MA

```

EIR 1.....10    FCT    DCT
    000000000    PASS    PASS    EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 10

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.010 V	-1.500 V	
87	2	-1.050 V	-1.500 V	
93	3	-930.0MV	-1.500 V	
99	4	-940.0MV	-1.500 V	
105	5	-910.0MV	-1.500 V	
111	6	-930.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3 V	2.500 V	
218	10	3.010 V	2.500 V	
224	11	3.010 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3.010 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	310.0MV		400.0MV
277	9	312.0MV		400.0MV

286	10	316.0MV	400.0MV
295	11	316.0MV	400.0MV
304	12	320.0MV	400.0MV
313	13	312.0MV	400.0MV
322	14	318.0MV	400.0MV
331	15	326.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-57.50MA	-100.0MA	-20.00MA
363	9	-57.30MA	-100.0MA	-20.00MA
369	10	-57.20MA	-100.0MA	-20.00MA
375	11	-57.70MA	-100.0MA	-20.00MA
381	12	-56.50MA	-100.0MA	-20.00MA
387	13	-58.30MA	-100.0MA	-20.00MA
393	14	-57.70MA	-100.0MA	-20.00MA
399	15	-56.10MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.680MA		10.00MA

```

EIR 1.....10    FCT    DCT
    000000000    PASS    PASS    EOT

```


STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 11

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.060 V	-1.500 V	
87	2	-1.110 V	-1.500 V	
93	3	-980.0MV	-1.500 V	
99	4	-990.0MV	-1.500 V	
105	5	-960.0MV	-1.500 V	
111	6	-980.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3 V	2.500 V	
224	11	3.010 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3.010 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	338.0MV		400.0MV
277	9	340.0MV		400.0MV

286	10	346.0MV	400.0MV
295	11	344.0MV	400.0MV
304	12	350.0MV	400.0MV
313	13	344.0MV	400.0MV
322	14	348.0MV	400.0MV
331	15	354.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-57.50MA	-100.0MA	-20.00MA
363	9	-57.30MA	-100.0MA	-20.00MA
369	10	-57.20MA	-100.0MA	-20.00MA
375	11	-57.70MA	-100.0MA	-20.00MA
381	12	-56.50MA	-100.0MA	-20.00MA
387	13	-58.20MA	-100.0MA	-20.00MA
393	14	-57.50MA	-100.0MA	-20.00MA
399	15	-55.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-40.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-190.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.640MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 12

DDS-101-16A PN 54LS138 TEST SEQ14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-480.0MV	-1.500 V	-100.0MV
58	2	-480.0MV	-1.500 V	-100.0MV
58	3	-480.0MV	-1.500 V	-100.0MV
58	4	-480.0MV	-1.500 V	-100.0MV
58	5	-480.0MV	-1.500 V	-100.0MV
58	6	-480.0MV	-1.500 V	-100.0MV
58	7	-620.0MV	-1.500 V	-100.0MV
58	9	-620.0MV	-1.500 V	-100.0MV
58	10	-620.0MV	-1.500 V	-100.0MV
58	11	-620.0MV	-1.500 V	-100.0MV
58	12	-620.0MV	-1.500 V	-100.0MV
58	13	-620.0MV	-1.500 V	-100.0MV
58	14	-620.0MV	-1.500 V	-100.0MV
58	15	-620.0MV	-1.500 V	-100.0MV
58	16	-510.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-1.050 V	-1.500 V	
87	2	-1.100 V	-1.500 V	
93	3	-980.0MV	-1.500 V	
99	4	-980.0MV	-1.500 V	
105	5	-950.0MV	-1.500 V	
111	6	-980.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.010 V	2.500 V	
212	9	3.010 V	2.500 V	
218	10	3.010 V	2.500 V	
224	11	3.010 V	2.500 V	
230	12	3.010 V	2.500 V	
236	13	3.010 V	2.500 V	
242	14	3.010 V	2.500 V	
248	15	3.010 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	334.0MV		400.0MV
277	9	340.0MV		400.0MV

286	10	342.0MV	400.0MV
295	11	340.0MV	400.0MV
304	12	346.0MV	400.0MV
313	13	338.0MV	400.0MV
322	14	344.0MV	400.0MV
331	15	354.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-57.00MA	-100.0MA	-20.00MA
363	9	-56.60MA	-100.0MA	-20.00MA
369	10	-56.80MA	-100.0MA	-20.00MA
375	11	-57.30MA	-100.0MA	-20.00MA
381	12	-56.10MA	-100.0MA	-20.00MA
387	13	-57.90MA	-100.0MA	-20.00MA
393	14	-57.10MA	-100.0MA	-20.00MA
399	15	-55.40MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-40.00UA	-400.0UA	
497	4	-180.0UA	-400.0UA	
501	5	-180.0UA	-400.0UA	
505	6	-180.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	5.510MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```



MIL-PRF-38534 CLASS K DATAPACK

Post Burn-In Test Results at +125°C



STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 1
DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-340.0MV	-1.500 V	-100.0MV
58	2	-340.0MV	-1.500 V	-100.0MV
58	3	-340.0MV	-1.500 V	-100.0MV
58	4	-340.0MV	-1.500 V	-100.0MV
58	5	-340.0MV	-1.500 V	-100.0MV
58	6	-340.0MV	-1.500 V	-100.0MV
58	7	-430.0MV	-1.500 V	-100.0MV
58	9	-430.0MV	-1.500 V	-100.0MV
58	10	-430.0MV	-1.500 V	-100.0MV
58	11	-430.0MV	-1.500 V	-100.0MV
58	12	-430.0MV	-1.500 V	-100.0MV
58	13	-430.0MV	-1.500 V	-100.0MV
58	14	-430.0MV	-1.500 V	-100.0MV
58	15	-430.0MV	-1.500 V	-100.0MV
58	16	-290.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-850.0MV	-1.500 V	
87	2	-940.0MV	-1.500 V	
93	3	-780.0MV	-1.500 V	
99	4	-780.0MV	-1.500 V	
105	5	-760.0MV	-1.500 V	
111	6	-790.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.320 V	2.500 V	
212	9	3.320 V	2.500 V	
218	10	3.320 V	2.500 V	
224	11	3.320 V	2.500 V	
230	12	3.320 V	2.500 V	
236	13	3.320 V	2.500 V	
242	14	3.320 V	2.500 V	
248	15	3.330 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	264.0MV		400.0MV
277	9	268.0MV		400.0MV
286	10	294.0MV		400.0MV
295	11	274.0MV		400.0MV

304	12	280.0MV	400.0MV
313	13	274.0MV	400.0MV
322	14	278.0MV	400.0MV
331	15	286.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC=      5.500
VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-50.90MA	-100.0MA	-20.00MA
363	9	-50.90MA	-100.0MA	-20.00MA
369	10	-48.90MA	-100.0MA	-20.00MA
375	11	-51.10MA	-100.0MA	-20.00MA
381	12	-50.10MA	-100.0MA	-20.00MA
387	13	-51.50MA	-100.0MA	-20.00MA
393	14	-51.00MA	-100.0MA	-20.00MA
399	15	-49.70MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	0 A		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	0 A		100.0UA
457	3	0 A		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-150.0UA	-400.0UA	
501	5	-140.0UA	-400.0UA	
505	6	-140.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.460MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 2
DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-430.0MV	-1.500 V	-100.0MV
58	2	-430.0MV	-1.500 V	-100.0MV
58	3	-420.0MV	-1.500 V	-100.0MV
58	4	-420.0MV	-1.500 V	-100.0MV
58	5	-420.0MV	-1.500 V	-100.0MV
58	6	-420.0MV	-1.500 V	-100.0MV
58	7	-530.0MV	-1.500 V	-100.0MV
58	9	-530.0MV	-1.500 V	-100.0MV
58	10	-530.0MV	-1.500 V	-100.0MV
58	11	-530.0MV	-1.500 V	-100.0MV
58	12	-530.0MV	-1.500 V	-100.0MV
58	13	-520.0MV	-1.500 V	-100.0MV
58	14	-520.0MV	-1.500 V	-100.0MV
58	15	-520.0MV	-1.500 V	-100.0MV
58	16	-400.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-910.0MV	-1.500 V	
87	2	-1.030 V	-1.500 V	
93	3	-840.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-820.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.200 V	2.500 V	
212	9	3.200 V	2.500 V	
218	10	3.200 V	2.500 V	
224	11	3.210 V	2.500 V	
230	12	3.210 V	2.500 V	
236	13	3.210 V	2.500 V	
242	14	3.220 V	2.500 V	
248	15	3.220 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	276.0MV		400.0MV
277	9	280.0MV		400.0MV

286	10	298.0MV	400.0MV
295	11	284.0MV	400.0MV
304	12	292.0MV	400.0MV
313	13	284.0MV	400.0MV
322	14	288.0MV	400.0MV
331	15	298.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-52.50MA	-100.0MA	-20.00MA
363	9	-52.20MA	-100.0MA	-20.00MA
369	10	-49.90MA	-100.0MA	-20.00MA
375	11	-52.50MA	-100.0MA	-20.00MA
381	12	-51.60MA	-100.0MA	-20.00MA
387	13	-53.00MA	-100.0MA	-20.00MA
393	14	-52.60MA	-100.0MA	-20.00MA
399	15	-51.00MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-150.0UA	-400.0UA	
501	5	-150.0UA	-400.0UA	
505	6	-150.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.590MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 3
DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-380.0MV	-1.500 V	-100.0MV
58	2	-380.0MV	-1.500 V	-100.0MV
58	3	-380.0MV	-1.500 V	-100.0MV
58	4	-380.0MV	-1.500 V	-100.0MV
58	5	-370.0MV	-1.500 V	-100.0MV
58	6	-380.0MV	-1.500 V	-100.0MV
58	7	-470.0MV	-1.500 V	-100.0MV
58	9	-470.0MV	-1.500 V	-100.0MV
58	10	-470.0MV	-1.500 V	-100.0MV
58	11	-470.0MV	-1.500 V	-100.0MV
58	12	-470.0MV	-1.500 V	-100.0MV
58	13	-470.0MV	-1.500 V	-100.0MV
58	14	-470.0MV	-1.500 V	-100.0MV
58	15	-470.0MV	-1.500 V	-100.0MV
58	16	-340.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-890.0MV	-1.500 V	
87	2	- 1 V	-1.500 V	
93	3	-820.0MV	-1.500 V	
99	4	-830.0MV	-1.500 V	
105	5	-800.0MV	-1.500 V	
111	6	-830.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.280 V	2.500 V	
212	9	3.290 V	2.500 V	
218	10	3.280 V	2.500 V	
224	11	3.290 V	2.500 V	
230	12	3.290 V	2.500 V	
236	13	3.290 V	2.500 V	
242	14	3.290 V	2.500 V	
248	15	3.290 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	282.0MV		400.0MV
277	9	286.0MV		400.0MV

286	10	304.0MV	400.0MV
295	11	290.0MV	400.0MV
304	12	294.0MV	400.0MV
313	13	288.0MV	400.0MV
322	14	292.0MV	400.0MV
331	15	304.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2          VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-51.40MA	-100.0MA	-20.00MA
363	9	-51.20MA	-100.0MA	-20.00MA
369	10	-48.80MA	-100.0MA	-20.00MA
375	11	-51.40MA	-100.0MA	-20.00MA
381	12	-50.20MA	-100.0MA	-20.00MA
387	13	-51.70MA	-100.0MA	-20.00MA
393	14	-51.40MA	-100.0MA	-20.00MA
399	15	-50.00MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-150.0UA	-400.0UA	
501	5	-140.0UA	-400.0UA	
505	6	-140.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.440MA		10.00MA

```

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

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 4

DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-400.0MV	-1.500 V	-100.0MV
58	2	-400.0MV	-1.500 V	-100.0MV
58	3	-400.0MV	-1.500 V	-100.0MV
58	4	-400.0MV	-1.500 V	-100.0MV
58	5	-400.0MV	-1.500 V	-100.0MV
58	6	-400.0MV	-1.500 V	-100.0MV
58	7	-500.0MV	-1.500 V	-100.0MV
58	9	-500.0MV	-1.500 V	-100.0MV
58	10	-500.0MV	-1.500 V	-100.0MV
58	11	-490.0MV	-1.500 V	-100.0MV
58	12	-490.0MV	-1.500 V	-100.0MV
58	13	-490.0MV	-1.500 V	-100.0MV
58	14	-490.0MV	-1.500 V	-100.0MV
58	15	-490.0MV	-1.500 V	-100.0MV
58	16	-360.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-910.0MV	-1.500 V	
87	2	-1.030 V	-1.500 V	
93	3	-840.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-820.0MV	-1.500 V	
111	6	-840.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.250 V	2.500 V	
212	9	3.250 V	2.500 V	
218	10	3.260 V	2.500 V	
224	11	3.260 V	2.500 V	
230	12	3.260 V	2.500 V	
236	13	3.260 V	2.500 V	
242	14	3.260 V	2.500 V	
248	15	3.260 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	286.0MV		400.0MV
277	9	288.0MV		400.0MV

286	10	304.0MV	400.0MV
295	11	294.0MV	400.0MV
304	12	298.0MV	400.0MV
313	13	294.0MV	400.0MV
322	14	298.0MV	400.0MV
331	15	308.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-51.90MA	-100.0MA	-20.00MA
363	9	-51.40MA	-100.0MA	-20.00MA
369	10	-48.20MA	-100.0MA	-20.00MA
375	11	-51.20MA	-100.0MA	-20.00MA
381	12	-49.90MA	-100.0MA	-20.00MA
387	13	-51.00MA	-100.0MA	-20.00MA
393	14	-50.30MA	-100.0MA	-20.00MA
399	15	-48.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	0 A		20.00UA
430	4	-100.0NA		20.00UA
434	5	0 A		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	0 A		100.0UA
457	3	0 A		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-150.0UA	-400.0UA	
501	5	-140.0UA	-400.0UA	
505	6	-140.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.440MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 5
DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-400.0MV	-1.500 V	-100.0MV
58	2	-400.0MV	-1.500 V	-100.0MV
58	3	-400.0MV	-1.500 V	-100.0MV
58	4	-400.0MV	-1.500 V	-100.0MV
58	5	-400.0MV	-1.500 V	-100.0MV
58	6	-400.0MV	-1.500 V	-100.0MV
58	7	-500.0MV	-1.500 V	-100.0MV
58	9	-510.0MV	-1.500 V	-100.0MV
58	10	-500.0MV	-1.500 V	-100.0MV
58	11	-500.0MV	-1.500 V	-100.0MV
58	12	-500.0MV	-1.500 V	-100.0MV
58	13	-500.0MV	-1.500 V	-100.0MV
58	14	-500.0MV	-1.500 V	-100.0MV
58	15	-500.0MV	-1.500 V	-100.0MV
58	16	-370.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-910.0MV	-1.500 V	
87	2	-1.030 V	-1.500 V	
93	3	-840.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-820.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.230 V	2.500 V	
212	9	3.220 V	2.500 V	
218	10	3.220 V	2.500 V	
224	11	3.230 V	2.500 V	
230	12	3.230 V	2.500 V	
236	13	3.230 V	2.500 V	
242	14	3.220 V	2.500 V	
248	15	3.230 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	282.0MV		400.0MV
277	9	284.0MV		400.0MV

286	10	308.0MV	400.0MV
295	11	290.0MV	400.0MV
304	12	296.0MV	400.0MV
313	13	290.0MV	400.0MV
322	14	292.0MV	400.0MV
331	15	304.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=    5.500
                VIH=    2      VIL=    700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-51.70MA	-100.0MA	-20.00MA
363	9	-52.30MA	-100.0MA	-20.00MA
369	10	-49.50MA	-100.0MA	-20.00MA
375	11	-52.50MA	-100.0MA	-20.00MA
381	12	-51.40MA	-100.0MA	-20.00MA
387	13	-52.70MA	-100.0MA	-20.00MA
393	14	-52.40MA	-100.0MA	-20.00MA
399	15	-51.10MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	0 A		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-150.0UA	-400.0UA	
505	6	-150.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.800MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 6
DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-360.0MV	-1.500 V	-100.0MV
58	2	-360.0MV	-1.500 V	-100.0MV
58	3	-350.0MV	-1.500 V	-100.0MV
58	4	-350.0MV	-1.500 V	-100.0MV
58	5	-350.0MV	-1.500 V	-100.0MV
58	6	-360.0MV	-1.500 V	-100.0MV
58	7	-450.0MV	-1.500 V	-100.0MV
58	9	-450.0MV	-1.500 V	-100.0MV
58	10	-440.0MV	-1.500 V	-100.0MV
58	11	-450.0MV	-1.500 V	-100.0MV
58	12	-440.0MV	-1.500 V	-100.0MV
58	13	-450.0MV	-1.500 V	-100.0MV
58	14	-440.0MV	-1.500 V	-100.0MV
58	15	-440.0MV	-1.500 V	-100.0MV
58	16	-300.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-880.0MV	-1.500 V	
87	2	- 1 V	-1.500 V	
93	3	-810.0MV	-1.500 V	
99	4	-820.0MV	-1.500 V	
105	5	-790.0MV	-1.500 V	
111	6	-820.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.320 V	2.500 V	
212	9	3.320 V	2.500 V	
218	10	3.330 V	2.500 V	
224	11	3.330 V	2.500 V	
230	12	3.330 V	2.500 V	
236	13	3.330 V	2.500 V	
242	14	3.330 V	2.500 V	
248	15	3.330 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	278.0MV		400.0MV
277	9	282.0MV		400.0MV

286	10	300.0MV	400.0MV
295	11	288.0MV	400.0MV
304	12	294.0MV	400.0MV
313	13	286.0MV	400.0MV
322	14	290.0MV	400.0MV
331	15	302.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-50.90MA	-100.0MA	-20.00MA
363	9	-50.60MA	-100.0MA	-20.00MA
369	10	-47.70MA	-100.0MA	-20.00MA
375	11	-50.70MA	-100.0MA	-20.00MA
381	12	-49.70MA	-100.0MA	-20.00MA
387	13	-50.90MA	-100.0MA	-20.00MA
393	14	-50.30MA	-100.0MA	-20.00MA
399	15	-48.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	0 A		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	0 A		100.0UA
457	3	0 A		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-150.0UA	-400.0UA	
501	5	-140.0UA	-400.0UA	
505	6	-140.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.500MA		10.00MA

```

EIR 1.....10    FCT    DCT
    000000000    PASS    PASS    EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 7
DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-440.0MV	-1.500 V	-100.0MV
58	2	-440.0MV	-1.500 V	-100.0MV
58	3	-440.0MV	-1.500 V	-100.0MV
58	4	-440.0MV	-1.500 V	-100.0MV
58	5	-440.0MV	-1.500 V	-100.0MV
58	6	-440.0MV	-1.500 V	-100.0MV
58	7	-560.0MV	-1.500 V	-100.0MV
58	9	-560.0MV	-1.500 V	-100.0MV
58	10	-550.0MV	-1.500 V	-100.0MV
58	11	-550.0MV	-1.500 V	-100.0MV
58	12	-550.0MV	-1.500 V	-100.0MV
58	13	-550.0MV	-1.500 V	-100.0MV
58	14	-550.0MV	-1.500 V	-100.0MV
58	15	-550.0MV	-1.500 V	-100.0MV
58	16	-420.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-930.0MV	-1.500 V	
87	2	-1.050 V	-1.500 V	
93	3	-860.0MV	-1.500 V	
99	4	-870.0MV	-1.500 V	
105	5	-840.0MV	-1.500 V	
111	6	-870.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.160 V	2.500 V	
212	9	3.170 V	2.500 V	
218	10	3.170 V	2.500 V	
224	11	3.170 V	2.500 V	
230	12	3.170 V	2.500 V	
236	13	3.170 V	2.500 V	
242	14	3.170 V	2.500 V	
248	15	3.180 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	284.0MV		400.0MV
277	9	288.0MV		400.0MV

286	10	306.0MV	400.0MV
295	11	290.0MV	400.0MV
304	12	298.0MV	400.0MV
313	13	290.0MV	400.0MV
322	14	296.0MV	400.0MV
331	15	304.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-53.10MA	-100.0MA	-20.00MA
363	9	-52.90MA	-100.0MA	-20.00MA
369	10	-49.70MA	-100.0MA	-20.00MA
375	11	-53.30MA	-100.0MA	-20.00MA
381	12	-52.10MA	-100.0MA	-20.00MA
387	13	-53.50MA	-100.0MA	-20.00MA
393	14	-53.10MA	-100.0MA	-20.00MA
399	15	-51.30MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	-100.0NA		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-160.0UA	-400.0UA	
505	6	-160.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.990MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 8
DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-370.0MV	-1.500 V	-100.0MV
58	2	-370.0MV	-1.500 V	-100.0MV
58	3	-370.0MV	-1.500 V	-100.0MV
58	4	-370.0MV	-1.500 V	-100.0MV
58	5	-370.0MV	-1.500 V	-100.0MV
58	6	-370.0MV	-1.500 V	-100.0MV
58	7	-470.0MV	-1.500 V	-100.0MV
58	9	-470.0MV	-1.500 V	-100.0MV
58	10	-470.0MV	-1.500 V	-100.0MV
58	11	-470.0MV	-1.500 V	-100.0MV
58	12	-460.0MV	-1.500 V	-100.0MV
58	13	-460.0MV	-1.500 V	-100.0MV
58	14	-460.0MV	-1.500 V	-100.0MV
58	15	-460.0MV	-1.500 V	-100.0MV
58	16	-330.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-900.0MV	-1.500 V	
87	2	-1.010 V	-1.500 V	
93	3	-830.0MV	-1.500 V	
99	4	-840.0MV	-1.500 V	
105	5	-810.0MV	-1.500 V	
111	6	-840.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.290 V	2.500 V	
212	9	3.290 V	2.500 V	
218	10	3.300 V	2.500 V	
224	11	3.300 V	2.500 V	
230	12	3.300 V	2.500 V	
236	13	3.300 V	2.500 V	
242	14	3.300 V	2.500 V	
248	15	3.300 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	286.0MV		400.0MV
277	9	290.0MV		400.0MV

286	10	308.0MV	400.0MV
295	11	296.0MV	400.0MV
304	12	300.0MV	400.0MV
313	13	294.0MV	400.0MV
322	14	298.0MV	400.0MV
331	15	310.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-50.40MA	-100.0MA	-20.00MA
363	9	-50.10MA	-100.0MA	-20.00MA
369	10	-47.20MA	-100.0MA	-20.00MA
375	11	-50.40MA	-100.0MA	-20.00MA
381	12	-49.40MA	-100.0MA	-20.00MA
387	13	-50.70MA	-100.0MA	-20.00MA
393	14	-50.80MA	-100.0MA	-20.00MA
399	15	-49.20MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	0 A		100.0UA
457	3	0 A		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-140.0UA	-400.0UA	
501	5	-140.0UA	-400.0UA	
505	6	-140.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.380MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 9
DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-370.0MV	-1.500 V	-100.0MV
58	2	-370.0MV	-1.500 V	-100.0MV
58	3	-370.0MV	-1.500 V	-100.0MV
58	4	-370.0MV	-1.500 V	-100.0MV
58	5	-370.0MV	-1.500 V	-100.0MV
58	6	-370.0MV	-1.500 V	-100.0MV
58	7	-470.0MV	-1.500 V	-100.0MV
58	9	-470.0MV	-1.500 V	-100.0MV
58	10	-470.0MV	-1.500 V	-100.0MV
58	11	-470.0MV	-1.500 V	-100.0MV
58	12	-470.0MV	-1.500 V	-100.0MV
58	13	-460.0MV	-1.500 V	-100.0MV
58	14	-460.0MV	-1.500 V	-100.0MV
58	15	-460.0MV	-1.500 V	-100.0MV
58	16	-330.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-900.0MV	-1.500 V	
87	2	-1.010 V	-1.500 V	
93	3	-830.0MV	-1.500 V	
99	4	-840.0MV	-1.500 V	
105	5	-810.0MV	-1.500 V	
111	6	-840.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.290 V	2.500 V	
212	9	3.290 V	2.500 V	
218	10	3.280 V	2.500 V	
224	11	3.290 V	2.500 V	
230	12	3.290 V	2.500 V	
236	13	3.290 V	2.500 V	
242	14	3.290 V	2.500 V	
248	15	3.290 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	282.0MV		400.0MV
277	9	286.0MV		400.0MV

286	10	308.0MV	400.0MV
295	11	290.0MV	400.0MV
304	12	298.0MV	400.0MV
313	13	292.0MV	400.0MV
322	14	294.0MV	400.0MV
331	15	308.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2      VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-51.20MA	-100.0MA	-20.00MA
363	9	-51.00MA	-100.0MA	-20.00MA
369	10	-48.60MA	-100.0MA	-20.00MA
375	11	-51.70MA	-100.0MA	-20.00MA
381	12	-50.70MA	-100.0MA	-20.00MA
387	13	-51.90MA	-100.0MA	-20.00MA
393	14	-51.60MA	-100.0MA	-20.00MA
399	15	-49.90MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	0 A		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	-100.0NA		100.0UA
457	3	0 A		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-150.0UA	-400.0UA	
501	5	-150.0UA	-400.0UA	
505	6	-150.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.610MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000    PASS     PASS     EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 10

DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-420.0MV	-1.500 V	-100.0MV
58	2	-420.0MV	-1.500 V	-100.0MV
58	3	-420.0MV	-1.500 V	-100.0MV
58	4	-420.0MV	-1.500 V	-100.0MV
58	5	-420.0MV	-1.500 V	-100.0MV
58	6	-420.0MV	-1.500 V	-100.0MV
58	7	-530.0MV	-1.500 V	-100.0MV
58	9	-530.0MV	-1.500 V	-100.0MV
58	10	-530.0MV	-1.500 V	-100.0MV
58	11	-520.0MV	-1.500 V	-100.0MV
58	12	-520.0MV	-1.500 V	-100.0MV
58	13	-520.0MV	-1.500 V	-100.0MV
58	14	-520.0MV	-1.500 V	-100.0MV
58	15	-520.0MV	-1.500 V	-100.0MV
58	16	-390.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-910.0MV	-1.500 V	
87	2	-1.030 V	-1.500 V	
93	3	-840.0MV	-1.500 V	
99	4	-860.0MV	-1.500 V	
105	5	-820.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.210 V	2.500 V	
212	9	3.210 V	2.500 V	
218	10	3.210 V	2.500 V	
224	11	3.210 V	2.500 V	
230	12	3.210 V	2.500 V	
236	13	3.220 V	2.500 V	
242	14	3.210 V	2.500 V	
248	15	3.220 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	278.0MV		400.0MV
277	9	282.0MV		400.0MV

286	10	302.0MV	400.0MV
295	11	286.0MV	400.0MV
304	12	292.0MV	400.0MV
313	13	284.0MV	400.0MV
322	14	290.0MV	400.0MV
331	15	300.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-52.90MA	-100.0MA	-20.00MA
363	9	-52.60MA	-100.0MA	-20.00MA
369	10	-49.40MA	-100.0MA	-20.00MA
375	11	-52.70MA	-100.0MA	-20.00MA
381	12	-51.70MA	-100.0MA	-20.00MA
387	13	-53.00MA	-100.0MA	-20.00MA
393	14	-52.70MA	-100.0MA	-20.00MA
399	15	-50.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	0 A		20.00UA
426	3	-100.0NA		20.00UA
430	4	-100.0NA		20.00UA
434	5	0 A		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	-100.0NA		100.0UA
457	3	0 A		100.0UA
461	4	-100.0NA		100.0UA
465	5	-100.0NA		100.0UA
469	6	-100.0NA		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-160.0UA	-400.0UA	
501	5	-150.0UA	-400.0UA	
505	6	-150.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.740MA		10.00MA

```

EIR 1.....10 FCT DCT
000000000 PASS PASS EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 11

DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-400.0MV	-1.500 V	-100.0MV
58	2	-400.0MV	-1.500 V	-100.0MV
58	3	-400.0MV	-1.500 V	-100.0MV
58	4	-390.0MV	-1.500 V	-100.0MV
58	5	-390.0MV	-1.500 V	-100.0MV
58	6	-390.0MV	-1.500 V	-100.0MV
58	7	-500.0MV	-1.500 V	-100.0MV
58	9	-500.0MV	-1.500 V	-100.0MV
58	10	-500.0MV	-1.500 V	-100.0MV
58	11	-500.0MV	-1.500 V	-100.0MV
58	12	-500.0MV	-1.500 V	-100.0MV
58	13	-490.0MV	-1.500 V	-100.0MV
58	14	-490.0MV	-1.500 V	-100.0MV
58	15	-490.0MV	-1.500 V	-100.0MV
58	16	-360.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-900.0MV	-1.500 V	
87	2	-1.020 V	-1.500 V	
93	3	-830.0MV	-1.500 V	
99	4	-850.0MV	-1.500 V	
105	5	-810.0MV	-1.500 V	
111	6	-830.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.250 V	2.500 V	
212	9	3.250 V	2.500 V	
218	10	3.250 V	2.500 V	
224	11	3.250 V	2.500 V	
230	12	3.250 V	2.500 V	
236	13	3.250 V	2.500 V	
242	14	3.250 V	2.500 V	
248	15	3.250 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	276.0MV		400.0MV
277	9	278.0MV		400.0MV

286	10	298.0MV	400.0MV
295	11	284.0MV	400.0MV
304	12	292.0MV	400.0MV
313	13	286.0MV	400.0MV
322	14	288.0MV	400.0MV
331	15	300.0MV	400.0MV

```

-----
                FUNCTIONAL TEST
                VCC=      5.500
                VIH=      2      VIL=      700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-52.20MA	-100.0MA	-20.00MA
363	9	-52.00MA	-100.0MA	-20.00MA
369	10	-48.90MA	-100.0MA	-20.00MA
375	11	-52.20MA	-100.0MA	-20.00MA
381	12	-51.10MA	-100.0MA	-20.00MA
387	13	-52.40MA	-100.0MA	-20.00MA
393	14	-52.10MA	-100.0MA	-20.00MA
399	15	-49.80MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	0 A		20.00UA
426	3	0 A		20.00UA
430	4	0 A		20.00UA
434	5	-100.0NA		20.00UA
438	6	-100.0NA		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	0 A		100.0UA
453	2	-100.0NA		100.0UA
457	3	0 A		100.0UA
461	4	-100.0NA		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-150.0UA	-400.0UA	
501	5	-150.0UA	-400.0UA	
505	6	-150.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.640MA		10.00MA

```

EIR 1.....10      FCT      DCT
      000000000      PASS      PASS      EOT

```

STAT1 08/06/11 07:10
TEST PROGRAM LS138 S/N 12

DDS-101-16A PN 54LS138 TEST SEQ14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
58	1	-390.0MV	-1.500 V	-100.0MV
58	2	-400.0MV	-1.500 V	-100.0MV
58	3	-390.0MV	-1.500 V	-100.0MV
58	4	-390.0MV	-1.500 V	-100.0MV
58	5	-390.0MV	-1.500 V	-100.0MV
58	6	-390.0MV	-1.500 V	-100.0MV
58	7	-490.0MV	-1.500 V	-100.0MV
58	9	-500.0MV	-1.500 V	-100.0MV
58	10	-490.0MV	-1.500 V	-100.0MV
58	11	-490.0MV	-1.500 V	-100.0MV
58	12	-490.0MV	-1.500 V	-100.0MV
58	13	-490.0MV	-1.500 V	-100.0MV
58	14	-490.0MV	-1.500 V	-100.0MV
58	15	-490.0MV	-1.500 V	-100.0MV
58	16	-360.0MV	-1.500 V	-100.0MV

VIK TEST -1.5V MINIIN=-18MAVCC=4.5V

INST #	PIN	MEASURED	LT	GT
81	1	-920.0MV	-1.500 V	
87	2	-1.030 V	-1.500 V	
93	3	-840.0MV	-1.500 V	
99	4	-880.0MV	-1.500 V	
105	5	-830.0MV	-1.500 V	
111	6	-850.0MV	-1.500 V	

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 700.0E-03

VOH TEST
VCC= 4.500
VOH LIMIT 2.500

INST #	PIN	MEASURED	LT	GT
206	7	3.250 V	2.500 V	
212	9	3.260 V	2.500 V	
218	10	3.260 V	2.500 V	
224	11	3.260 V	2.500 V	
230	12	3.260 V	2.500 V	
236	13	3.270 V	2.500 V	
242	14	3.260 V	2.500 V	
248	15	3.260 V	2.500 V	

VOL TEST
VCC= 4.500
VOL LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
268	7	290.0MV		400.0MV
277	9	292.0MV		400.0MV

286	10	310.0MV	400.0MV
295	11	296.0MV	400.0MV
304	12	302.0MV	400.0MV
313	13	298.0MV	400.0MV
322	14	300.0MV	400.0MV
331	15	314.0MV	400.0MV

```

-----
FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 700.0E-03
-----

```

IOS TEST -20MA MIN, -100MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
357	7	-51.40MA	-100.0MA	-20.00MA
363	9	-51.00MA	-100.0MA	-20.00MA
369	10	-48.20MA	-100.0MA	-20.00MA
375	11	-51.50MA	-100.0MA	-20.00MA
381	12	-50.50MA	-100.0MA	-20.00MA
387	13	-51.80MA	-100.0MA	-20.00MA
393	14	-51.30MA	-100.0MA	-20.00MA
399	15	-49.60MA	-100.0MA	-20.00MA

IIH TEST 20UA MAXVIN= 2.7VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
418	1	-100.0NA		20.00UA
422	2	-100.0NA		20.00UA
426	3	0 A		20.00UA
430	4	0 A		20.00UA
434	5	0 A		20.00UA
438	6	0 A		20.00UA

II TEST 100UA MAXVIN=7.0VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
449	1	-100.0NA		100.0UA
453	2	0 A		100.0UA
457	3	0 A		100.0UA
461	4	0 A		100.0UA
465	5	0 A		100.0UA
469	6	0 A		100.0UA

IIL TEST -400UA MAXVIN=0.4VVCC=5.5V

INST #	PIN	MEASURED	LT	GT
485	1	-30.00UA	-400.0UA	
489	2	-30.00UA	-400.0UA	
493	3	-30.00UA	-400.0UA	
497	4	-150.0UA	-400.0UA	
501	5	-140.0UA	-400.0UA	
505	6	-140.0UA	-400.0UA	

ICC TEST OUTPUT HIGH 10MA MAXVCC=5.5V

INST #	PIN	MEASURED	LT	GT
523	16	4.480MA		10.00MA

```

EIR 1.....10    FCT    DCT
    000000000    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

DIE DEVICES

TTL Job # DDS-101-16-W

Date: July 09, 2018

Part Number: 54LS138

Part Type: SCHOTTKY LOGIC MICROCIRCUIT

Lot: Lot# 700117 D/C: 1810 WFR# 14

Quantity: Eight (8)

Purchase Order: SS139

Submitted by: _____


Jason A. Salinas

DPA/MTS

Approved by: _____


Deborah M. Gorham

Quality Assurance

TANDEX TEST LABS TTL Job # DDS-101-16-W

Summary

Eight (8) Schottky Logic Microcircuit P/N: 54LS138 were submitted by Die Devices for Scanning Electron Microscopy Analysis. This Analysis was performed in accordance with Mil-Std-883, Method 2018.6 The devices were assigned sample number 1 through 8 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 eight devices. All eight devices revealed adequate metallization coverage and met the requirements of MIL-STD-883, Method 2018.6. See DPA form on page 3 and figures 1 through 3, for typical photographs.

Conclusion: This lot is acceptable for use.

TANDEX TEST LABS TTL Job # DDS-101-16-W
SEM EXAMINATION

TTL Job No. DDS-101-16-W	Part Number 54LS138	Part Type Schottky Logic Microcircuit	Date July 3, 2018
Lot Date Code: WFR# 11 Lot# 700117 D/C: 1810	Sample Qty. 8	Serial Numbers 1 - 8	Test Specifications Mil-Std-883 Method 2018.6
Misc. ID No.	Qty . Accept 8	Qty. Reject 0	Qty. Suspect 0

Notes:

S/N	Investigation Findings / Comments	A/R/S
1	No Anomalies	A
2	No Anomalies	A
3	No Anomalies	A
4	No Anomalies	A
5	No Anomalies	A
6	No Anomalies	A
7	No Anomalies	A
8	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: X No: Devices constructed with expanded Metallization Yes: X No:

Sample Glassivated Yes: X No: Dual Level Metallization Yes: No: X

Glassivation Removed Using: PLASMA ETCHING

Beam accelerating voltage 10kV to 20kV Viewing angle 45 deg



Technician Stamp:

TANDEX TEST LABS TTL Job # DDS-101-16-W

Photodocumentation

TANDEX TEST LABS TTL Job # DDS-101-16-W

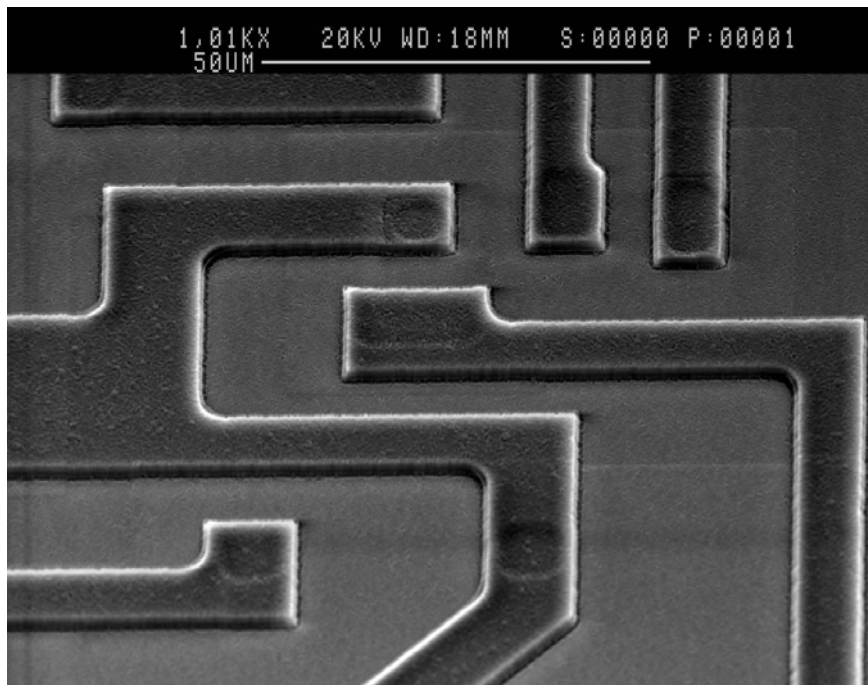


Fig: 1

Mag: 1,010X

S/N: 4

Description: SEM photograph of general metallization.

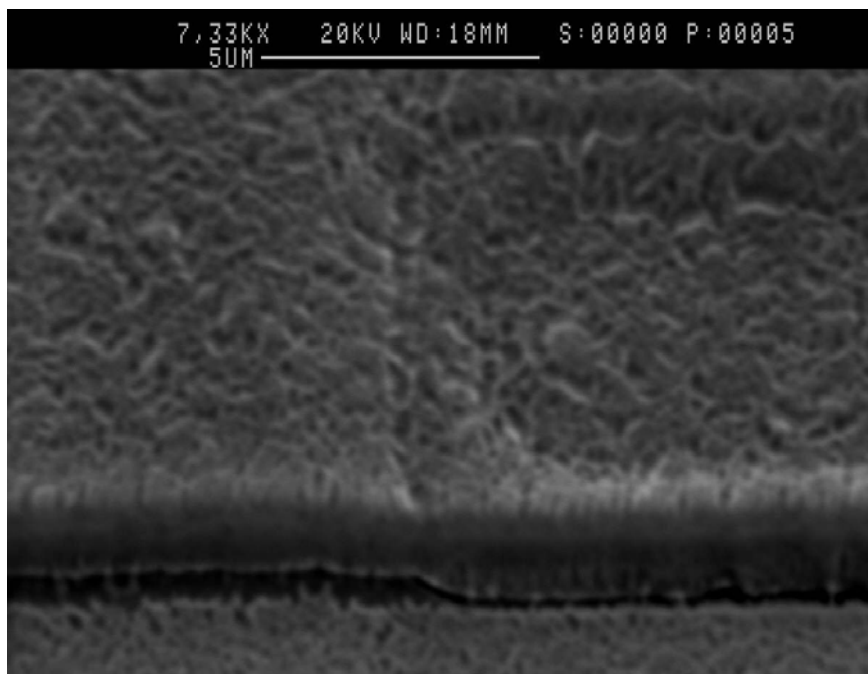


Fig: 2

Mag: 7,330X

S/N: 4

Description: SEM photograph of metallization typical step.

TANDEX TEST LABS TTL Job # DDS-101-16-W

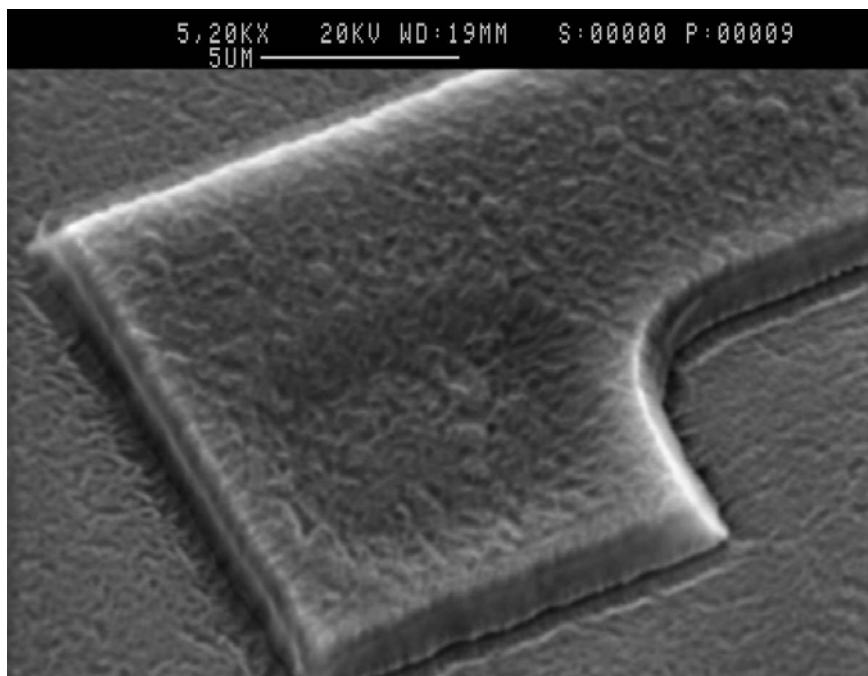


Fig: 3

Mag: 5,200X

S/N: 4

Description: SEM photograph of typical contact window device.

TANDEX TEST LABS, INC.

15849 Business Center. Dr., Irwindale CA. 91706

Phone: (626)962-7166 FAX: (626)960-6896

<http://www.tandexlabs.com>

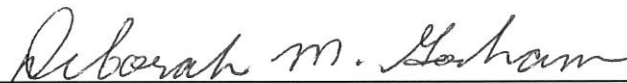
e-mail: via web site

Certificate of Conformance

CUSTOMER:	Silicon Supplies Limited 47 Wherry Road Norwich, NR1, 1WS United Kingdom Vat GB# 114 3513 56	DATE: July 09, 2018
TEST REPORT:	DDS-101-16-W	QUANTITY REQUIRED: 8
P.O. NUMBER:	SS139	QUANTITY PROCESSED: 8
DESCRIPTION:	SCHOTTKY LOGIC MICROCIRCUIT	QUANTITY PASSED: 8
PART NUMBER(S):	54LS138	QUANTITY FAILED: 0
MFG PART NUMBER	54LS138	QUANTITY SHIPPING: 8
LOT / DATE CODE:	LOT# 700117 WFR# 14 D/C: 1810	
MFG:	SILICON SUPPLIES	

METHOD OF TESTING: MIL-STD-883 METHOD 2018.6

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
QUALITY ASSURANCE

