Reliability Report – 54HCT04

High Speed CMOS TTL Input - Hex Inverter with LSTTL compatible inputs

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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- Scanning Electron Microscopy (SEM) analysis.

Certificate of Conformance

TANDEX TEST LABS, INC.
15849 Business Center. Dr., Irwindale CA. 91706 U.S.A.
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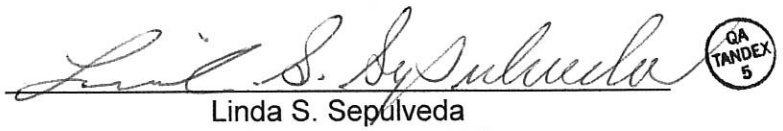
e-mail: via web site

Certificate of Conformance

CUSTOMER:	**SILICON SUPPLIES LIMITED** **47 WHERRY ROAD** **NORWICH, NR1, 1WS** **UNITED KINGDOM VAT** **GB#114 3513 56**	DATE: November 12, 2018	
TEST REPORT:	***DDS-101-13-A***	QUANTITY RECEIVED:	***30 DIE***
P.O. NUMBER:	***SS139***	QUANTITY REQUIRED:	*10/5/8*
DESCRIPTION:	***CMOS LOGIC MICROCIRCUIT***	QUANTITY PROCESSED:	*17*
PART NUMBER(S):	***54HCT04***	QUANTITY PASSED:	*17*
P/N: AS RECEIVED / MFG. PART NUMBER:	***54HCT04***	QUANTITY FAILED:	*0*
LOT / DATE CODE:	***1810 LOT# 80393 WF48***		
MANUFACTURE: CAGE CODE:	***SILICON SUPPLIES***	***QUANTITY SHIPPING:***	***17****
		INCLUDES: 10 PROCESS ACCEPT *2 SPARES* *5 BOND PULL SAMPLES*	
TANDEX CAGE CODE:	***1FE65***	***8 DIE TRANSFERRED TO DDS-101-13-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

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-101-13-A REV. 0

CUSTOMER: DIE DEVICES
P.O. NUMBER: SS139
PART NUMBER: 54HCT04
P/N AS RECEIVED: 54HCT04
PART TYPE: CMOS LOGIC MICROCIRCUIT
DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
DUE DATE: 7/12/18
JOB NUMBER: DDS-101-13-A
LDC AS RECEIVED: 1810 LOT# 80393 WF48
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.
01	FLO	P-1015 P-1223	FLOW PREPARED BY: LSS . ON: 3/29/18 . CONTRACTUAL AGREEMENT REVIEW Y / N / NOT SPECIFIED ☐ ☐ ☑ Q-CLAUSES ☐ ☑ ☐ DPAS ☐ ☐ ☐ DFAR ☐ ☑ ☐ ITAR ☐ ☐ OTHER _____ SPECIFIED					QA TANDEX 5
02	QCI		TANDEX QUALITY CONTROL INSPECTION. FLOW APPROVED BY: JMI . ON: 3/29/18 .					
03	RCV	P-1070	VERIFY PART NUMBER. ENTER INTO INCOMING LOG. X CUSTOMER COUNT	30			3/29/18	QA TANDEX 5
04	VIS	P-1041	PERFORM 100% DIE VISUAL PER MIL-STD-883 METHOD 2010 AND MIL-PRF-38534 PARA C.3.3.2. ESD MAT DUE DATE: 5/27/18. EQUIPMENT USED: Olympus . ASSET #: 20091 .	30	ϕ	30	5/10/18	TTL
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	ϕ	10+2	5/24/18	TTL 30
			EUTETIC Lot#: 149555 Exp. Date: N/A BOND PULL	5	ϕ	5	5/24/18	TTL 30
			ESD MAT DUE DATE: 6/27/18. * **Package Type: 14 PIN DIP** SEM TRANSFER TO DDS-101-13-W MIL-STD-883 METHOD 2018	8	ϕ	6	5/10/18	TTL
		P-4010	WIRE BOND: Utilize 1 Mil Au Wire (.001) 1 Mil Au bonder MECH-EL Asset #: 20060 Gold Wire: Lot# 9001882915 Exp. Date: 3/2019	17	ϕ	17	5/24/18	TTL 30

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PROCESS FLOW CHART

FLOW NUMBER: DDS-101-13-A REV. 0

CUSTOMER: DIE DEVICES
P.O. NUMBER: SS139
PART NUMBER: 54HCT04
P/N AS RECEIVED: 54HCT04
PART TYPE: CMOS LOGIC MICROCIRCUIT
DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
DUE DATE: 7/12/18
JOB NUMBER: DDS-101-13-A
LDC AS RECEIVED: 1810 LOT# 80393 WF48
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. ESD MAT DUE DATE: 6/27/18 EQUIPMENT USED: NIKON SM2645 ASSET #: 30663	17	Ø	17	5/29/18	TTL 30
07	SEAL		SEAL DEVICES VACUUM BAKE: ESD MAT DUE DATE: 6/27/18 Pre Seal Bake Time: Temp: 125°C Time: 24 hrs Actual time in: 7:36 am - 5/29/18 Actual time out: 9:25 am FURNACE 1821 LDC STAMP TTL 27 Actual temp: 125 °C	10+2	Ø	12	5/30/18	TTL 27
08	ELEC		PERFORM 100% ELECTRICAL VERIFICATION TEST PER MFG DATA SHEET AND MIL-PRF-38534 @ AMBIENT OPERATING TEMPERATURE GO / NO GO ESD MAT DUE DATE: / / EQUIPMENT USED: Sentry ASSET#: 1093 +25°C TEST FIXTURE: 1377/1201 SOFTWARE ID: 4HCT04 REV N/A	10+2	Ø	10+2	6/01/18	CM
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: DELTA DESIGN ASSET #: 30626 EQUIPMENT USED: OMEGA HH309A ASSET #: 31561	10+2 10+2	Ø Ø	10+2 10+2	6/4/18 6:44A.M. 6/4/18 11:25A.M.	TTL 48 TTL 48
10	ACCE		PERFORM CONSTANT ACCELERATION PER MIL-PRF-38534 MIL-STD-883 METHOD 2001. ESD MAT DUE DATE: 6/27/18 Y1 DIRECTION ONLY @ 3000 G's (min) EQUIPMENT USED: TRIO Tech ASSET #: 30260	10+2	0	10+2	6/5/18	TTL 52
11	SER		SERIALIZE ESD MAT DUE DATE: 6/27/18 S/N: ~~01-10~~ 1-12 6/6/18	10+2	0	10+2	6/7/18	TTL 33

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PROCESS FLOW CHART

FLOW NUMBER: DDS-101-13-A REV. 0

CUSTOMER: DIE DEVICES
P.O. NUMBER: SS139
PART NUMBER: 54HCT04
P/N AS RECEIVED: 54HCT04
PART TYPE: CMOS LOGIC MICROCIRCUIT
DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
DUE DATE: 7/12/18
JOB NUMBER: DDS-101-13-A
LDC AS RECEIVED: 1810 LOT# 80393 WF48
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. ESD MAT DUE DATE: 8/17/18. STATIC AND FUNCTIONAL TESTS +25°C - 55°C +125°C EQUIPMENT USED: Sentry ASSET#: 1093. TEST FIXTURE: 1377/1201 SOFTWARE ID: 4Hct04 REV . TEMPERATURE SOAK 10 SEC.	12 12 12	0 0 0	12 12 12	8/1/18 ctm 8/20/18 TTL 10 8/20/18 TTL 10	
13	BI		PERFORM BURN IN PER BURN IN CIRCUIT PER FIGURE 1 OF DWG# 1026-16668, AND MIL-STD 883 METHOD 1015. ESD MAT DUE DATE: 9/12/18. TA = 125°C (min) T = 240 HRS (min) DATE IN: TIME IN: BURN-IN BOARD # / DESC: 31250. BURN-IN OVEN #: 21. DATE OUT: TIME OUT:	12 12	0 0	12 12	8/30/18 6:00AM TTL 13 9/10/18 6:00AM 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. ESD MAT DUE DATE: 8/27/18 STATIC AND FUNCTIONAL TESTS TEST +25°C WITHIN 96 HOURS +25°C - 55°C +125°C EQUIPMENT USED: Sentry ASSET#: 1093. TEST FIXTURE: 1377/1201 SOFTWARE ID: 4HCT04 REV . TEMPERATURE SOAK 10 SEC.	12 12 12	0 0 0	12 12 12	9/10/18 TTL 27 9/10/18 TTL 27 9/10/18 TTL 27	
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: 9/19/18.				9/20/18 QA TANDEX 5	

TANDEX TEST LABS

BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-13-A

PART NUMBER 54HCT04

DATE CODE 1810 LOT #80393 WF48

BURN-IN TIME 240 hrs Min

θJC= N/A

TEMPERATURE TA=+125°C Min

TEMP. METER # 31368

VOLTAGE Vcc = +5VDC

VOLT METER# 31223

POWER SUPPLY# 31651

BOARD# 31250

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
8/30/18	6:00AM	Vcc = +5VDC	ICC = .01A	125.8°C	CM	
8/31/18	5:30AM	Vcc = +5VDC	ICC = 0A	126.3°C	CM	
9/3/18	NO	DATA	TAKEN			
9/4/18	6:00AM	Vcc = +5VDC	ICC = .01A	126.8°C	CM	
9/5/18	7:30AM	Vcc = +5VDC	ICC = .01A	125.5°C	CM	
9/6/18	10:00AM	Vcc = +5VDC	ICC = .01A	126.0°C	CM	
9/7/18	5:50AM	Vcc = +5VDC	ICC = .01A	126.6°C	CM	
9/10/18	6:00AM	Vcc = +5VDC	ICC = .01A	126.7°C	CM	

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-101-13-A REV. 0

CUSTOMER: DIE DEVICES
P.O. NUMBER: SS139
PART NUMBER: 54HCT04
P/N AS RECEIVED: 54HCT04
PART TYPE: CMOS LOGIC MICROCIRCUIT
DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
DUE DATE: 7/12/18
JOB NUMBER: DDS-101-13-A
LDC AS RECEIVED: 1810 LOT# 80393 WF48
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: 31250 BURN-IN OVEN #: 21 ESD MAT DUE DATE: 11/27/18.	12 12	0 0	12 12	9/26/18 6:00AM 10/7/18 5:30PM	TTL 13 TTL 13
17	ELEC		PERFORM POST STEADY STATE LIFE ELECTRICAL VERIFICATION PER MFG DATA SHEET AND MIL-PRF-38534 C.3.3.4.3. @ AMBIENT, HIGH AND LOW OPERATING TEMPERATURE. READ AND RECORD. STATIC AND FUNCTIONAL TESTS TEST +25°C WITHIN 96 HOURS +25°C - 55°C +125°C EQUIPMENT USED: Sentry 21 ASSET#: 30340 TEST FIXTURE: 1377/1201 SOFTWARE ID: HCT041 REV ESD MAT DUE DATE: 11/27/18.	12 12 12	Ø Ø Ø	12 12 12	11/8/18 11/8/18 11/8/18	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: DAGE . ASSET #: 30785	5	Ø	5	8/14/18	#4 QA TANDEX 5
19	SEM		PULLED 8 DEVICES AT SEQ. 05 AND TRANSFERRED TO: DDS-101-13-W	8	Ø	8	11/12/18	QA TANDEX 5

TANDEX TEST LABS

BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-13-A

PART NUMBER 54HCT04

DATE CODE 1810 LOT # 80393 WF48

BURN-IN TIME 1000 hrs

θJC= N/A

TEMPERATURE TA=+125°C Min

TEMP. METER # 31368

VOLTAGE VCC=+5VDC

VOLT METER# 37223

POWER SUPPLY# 31652

BOARD# 31250

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
9/26/18	6:00AM	VCC=+5VDC	ICC=.01A	126.3°C	CM	
9/27/18	6:30AM	VCC=+5VDC	ICC=.01A	126.7°C	CM	
9/28/18	6:50AM	VCC=+5VDC	ICC=.01A	127.2°C	CM	
10/1/18	6:00AM	VCC=+5VDC	ICC=.01A	127.7°C	CM	
10/2/18	8:40AM	VCC=+5VDC	ICC=.01A	126.6°C	CM	
10/3/18	7:30AM	VCC=+5VDC	ICC=.01A	127.4°C	CM	
10/4/18	7:00AM	VCC=+5VDC	ICC=.01A	125.5°C	CM	
10/5/18	6:00AM	VCC=+5VDC	ICC=.01A	127.6°C	CM	
10/8/18	5:30AM	VCC=+5VDC	ICC=.01A	127.1°C	CM	

TANDEX TEST LABS

BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-13-A

PART NUMBER 54HCT04

DATE CODE 1810 LOT # 80393 WF48

BURN-IN TIME 1000 hrs

θJC= N/A

TEMPERATURE TA=+125°C Min

TEMP. METER # 31368

VOLTAGE VCC=+5VDC

VOLT METER# 31223

POWER SUPPLY# 31652

BOARD# 31250

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
10/9/18	NO	DATA	TAKEN			
10/10/18	6:00AM	VCC=+5mi	ICC=.01A	126.8°C	CM	
10/11/18	5:30AM	VCC=+5mi	ICC=.01A	127.4°C	CM	
10/12/18	5:10AM	VCC=+5mi	ICC=.01A	126.4°C	CM	
10/15/18	8:10AM	VCC=+5mi	ICC=.01A	127.0°C	CM	
10/16/18	7:20AM	VCC=+5mi	ICC=.01A	126.5°C	CM	
10/17/18	12:50PM	VCC=+5mi	ICC=.01A	127.1°C	CM	
10/18/18	12:35AM	VCC=+5mi	ICC=.01A	126.6°C	CM	
10/19/18	9:45AM	VCC=+5mi	ICC=.01A	126.1°C	CM	

TANDEX TEST LABS

BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-13-A

PART NUMBER 54HCT04

DATE CODE 1810 LOT # 80393 WF48

BURN-IN TIME 1000 hrs

θJC= N/A

TEMPERATURE TA=+125°C Min

TEMP. METER # 31368

VOLTAGE VCC=+5VDC

VOLT METER# 31223

POWER SUPPLY# 31652

BOARD# 31250

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
10/22/18	10:40AM	VCC=+5VDC	ICC=.01A	127.2°C	CM	
10/23/18	6:30AM	VCC=+5VDC	ICC=.01A	126.9°C	CM	
10/24/18	7:15AM	VCC=+5VDC	ICC=.01A	126.8°C	CM	
10/25/18	6:00AM	VCC=+5VDC	ICC=.01A	126.6°C	CM	
10/26/18	5:35AM	VCC=+5VDC	ICC=.01A	127.0°C	CM	
10/29/18	5:45AM	VCC=+5VDC	ICC=.01A	127.3°C	CM	
10/30/18	5:35AM	VCC=+5VDC	ICC=.01A	127.4°C	CM	
10/31/18	5:30AM	VCC=+5VDC	ICC=.01A	127.0°C	CM	
11/1/18	5:45AM	VCC=+5VDC	ICC=.01A	126.5°C	CM	

TANDEX TEST LABS

BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-13-A

PART NUMBER 54HCT04

DATE CODE 1810 LOT # 80393 WF48

BURN-IN TIME 1000 hrs

θJC= N/A

TEMPERATURE TA=+125°C Min

TEMP. METER # 31368

VOLTAGE VCC=+5VDC

VOLT METER# 31223

POWER SUPPLY# 31652

BOARD# 31250

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
11/2/18	8:00 AM	VCC=+5VDC	ICC=.01A	127.5°C	CM	
11/5/18	5:35 AM	VCC=+5VDC	ICC=.01A	127.4°C	CM	
11/6/18	NO	DATA	TAKEN			
11/7/18	5:30 AM	VCC=+5VDC	ICC=.01A	126.9°C	CM	

TANDEX TEST LABS TTL# DDS-101-13-A
BOND PULL
BOND STRENGTH TESTING

TTL Job No.	Part Number	Part Type	Date
DDS-101-13-A	54HCT04	CMOS LOGIC MICROCIRCUIT	August 14, 2018
Lot Date Code LOT# 80393 W# 48 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	PACKAGE/POST	BOND TYPE
Au	Au	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	4.5	G	1	5.0	G	1	5.0	G	1	5.0	G	1	5.5	G	1		
2	5.0	G	2	3.5	G	2	5.5	H	2	5.0	G	2	5.5	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.

TTL 4

TECHNICIAN STAMP:

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-101-13-A REV. 0

CUSTOMER: DIE DEVICES
P.O. NUMBER: SS139
PART NUMBER: 54HCT04
P/N AS RECEIVED: 54HCT04
PART TYPE: CMOS LOGIC MICROCIRCUIT
DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
DUE DATE: 7/12/18
JOB NUMBER: DDS-101-13-A
LDC AS RECEIVED: 1810 LOT# 80393 WF48
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	Ø	17	11/12/18	QA TANDEX 5
21	PKG		USE ORIGINAL OR TANDEX PACKAGING.	17	Ø	17	11/12/18	QA TANDEX 5
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 * INCLUDES 10 ACCEPT 5 BOND PULL 2 SPARES ** 8 TRANSFERRED TO DDS-101-13-A FOR SEM	*17			11/12/18	QA TANDEX 5

Pre Burn-In Test Results at -55°C

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       1

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -680.0MV     -1.500 V      -100.0MV
    57    3  -680.0MV     -1.500 V      -100.0MV
    57    5  -680.0MV     -1.500 V      -100.0MV
    57    9  -680.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -680.0MV     -1.500 V      -100.0MV
    57   14  -560.0MV     -1.500 V      -100.0MV
    67    2   600.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   610.0MV      100.0MV       1.500 V
    67   10   600.0MV      100.0MV       1.500 V
    67   12   610.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.300 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.280 V      3.980 V
   236   10   4.300 V      3.980 V
   242   12   4.320 V      3.980 V

 ----------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
   275    6  -6.000MV                   100.0MV
   281    8  -6.000MV                   100.0MV
```

287	10	-6.000MV		100.0MV
293	12	-6.000MV		100.0MV

VOL2 TEST
VCC= 4.500
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
316	2	86.00MV		260.0MV
322	4	74.00MV		260.0MV
328	6	66.00MV		260.0MV
334	8	116.0MV		260.0MV
340	10	76.00MV		260.0MV
346	12	62.00MV		260.0MV

FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 5.500
VOH LIMIT 5.400

INST #	PIN	MEASURED	LT	GT
159	2	5.460 V	5.400 V	
165	4	5.460 V	5.400 V	
171	6	5.460 V	5.400 V	
177	8	5.460 V	5.400 V	
183	10	5.460 V	5.400 V	
189	12	5.460 V	5.400 V	

VOL1 TEST
VCC= 5.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	0 V		100.0MV
269	4	0 V		100.0MV
275	6	0 V		100.0MV
281	8	0 V		100.0MV
287	10	0 V		100.0MV
293	12	0 V		100.0MV

IIN TEST
VCC= 5.5
IIL/IIH LIMIT +- 0.1UA @25C/-55C
IIL/IIH LIMIT +- 1.0UA @+125C

INST #	PIN	MEASURED	LT	GT
379	1	-3.000NA	-100.0NA	100.0NA
382	1	1.000NA	-100.0NA	100.0NA
387	3	-51.00NA	-100.0NA	100.0NA
390	3	-11.00NA	-100.0NA	100.0NA
395	5	-9.000NA	-100.0NA	100.0NA
398	5	-4.000NA	-100.0NA	100.0NA
403	9	-6.000NA	-100.0NA	100.0NA
406	9	-3.000NA	-100.0NA	100.0NA
411	11	-5.000NA	-100.0NA	100.0NA
414	11	0 A	-100.0NA	100.0NA
419	13	-5.000NA	-100.0NA	100.0NA

```
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   4.000NA                   1.000UA
   458   14   1.000NA                   1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   730.0UA                   2.900MA
   500   14   700.0UA                   2.900MA
   500   14   690.0UA                   2.900MA
   500   14   680.0UA                   2.900MA
   500   14   690.0UA                   2.900MA
   500   14   720.0UA                   2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       2

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -670.0MV     -1.500 V      -100.0MV
    57    3  -670.0MV     -1.500 V      -100.0MV
    57    5  -670.0MV     -1.500 V      -100.0MV
    57    9  -670.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -680.0MV     -1.500 V      -100.0MV
    57   14  -550.0MV     -1.500 V      -100.0MV
    67    2   600.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   600.0MV      100.0MV       1.500 V
    67   10   600.0MV      100.0MV       1.500 V
    67   12   600.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.270 V      3.980 V
   218    4   4.300 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.300 V      3.980 V
   236   10   4.300 V      3.980 V
   242   12   4.320 V      3.980 V

 --------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 --------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   110.0MV                   260.0MV
   322    4   72.00MV                   260.0MV
   328    6   66.00MV                   260.0MV
   334    8   76.00MV                   260.0MV
   340   10   74.00MV                   260.0MV
   346   12   60.00MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   2.000MV                   100.0MV
   269    4   2.000MV                   100.0MV
   275    6       0 V                   100.0MV
   281    8       0 V                   100.0MV
   287   10       0 V                   100.0MV
   293   12       0 V                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -51.00NA     -100.0NA       100.0NA
   390    3  -11.00NA     -100.0NA       100.0NA
   395    5  -9.000NA     -100.0NA       100.0NA
   398    5  -4.000NA     -100.0NA       100.0NA
   403    9  -10.00NA     -100.0NA       100.0NA
   406    9  -3.000NA     -100.0NA       100.0NA
   411   11  -5.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   16.00NA                    1.000UA
   458   14       0 A                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   750.0UA                    2.900MA
   500   14   700.0UA                    2.900MA
   500   14   690.0UA                    2.900MA
   500   14   680.0UA                    2.900MA
   500   14   690.0UA                    2.900MA
   500   14   740.0UA                    2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       3

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -680.0MV     -1.500 V      -100.0MV
    57    3  -680.0MV     -1.500 V      -100.0MV
    57    5  -690.0MV     -1.500 V      -100.0MV
    57    9  -690.0MV     -1.500 V      -100.0MV
    57   11  -690.0MV     -1.500 V      -100.0MV
    57   13  -690.0MV     -1.500 V      -100.0MV
    57   14  -570.0MV     -1.500 V      -100.0MV
    67    2   610.0MV      100.0MV       1.500 V
    67    4   610.0MV      100.0MV       1.500 V
    67    6   610.0MV      100.0MV       1.500 V
    67    8   610.0MV      100.0MV       1.500 V
    67   10   610.0MV      100.0MV       1.500 V
    67   12   620.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.980 V
   218    4   4.300 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.250 V      3.980 V
   236   10   4.300 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   120.0MV                    260.0MV
   322    4   80.00MV                    260.0MV
   328    6   66.00MV                    260.0MV
   334    8   128.0MV                    260.0MV
   340   10   74.00MV                    260.0MV
   346   12   62.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                    100.0MV
   269    4       0 V                    100.0MV
   275    6       0 V                    100.0MV
   281    8       0 V                    100.0MV
   287   10       0 V                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -51.00NA     -100.0NA       100.0NA
   390    3  -11.00NA     -100.0NA       100.0NA
   395    5  -9.000NA     -100.0NA       100.0NA
   398    5  -4.000NA     -100.0NA       100.0NA
   403    9  -15.00NA     -100.0NA       100.0NA
   406    9       0 A     -100.0NA       100.0NA
   411   11  -5.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   30.00NA                    1.000UA
   458   14   1.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   680.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   620.0UA                    2.900MA
   500   14   660.0UA                    2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       4

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -670.0MV     -1.500 V      -100.0MV
    57    3  -670.0MV     -1.500 V      -100.0MV
    57    5  -670.0MV     -1.500 V      -100.0MV
    57    9  -670.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -680.0MV     -1.500 V      -100.0MV
    57   14  -560.0MV     -1.500 V      -100.0MV
    67    2   590.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   600.0MV      100.0MV       1.500 V
    67   10   600.0MV      100.0MV       1.500 V
    67   12   600.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.270 V      3.980 V
   218    4   4.300 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.300 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -8.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   114.0MV                   260.0MV
   322    4   76.00MV                   260.0MV
   328    6   64.00MV                   260.0MV
   334    8   80.00MV                   260.0MV
   340   10   72.00MV                   260.0MV
   346   12   58.00MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                   100.0MV
   269    4  -2.000MV                   100.0MV
   275    6  -4.000MV                   100.0MV
   281    8  -2.000MV                   100.0MV
   287   10  -2.000MV                   100.0MV
   293   12       0 V                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -51.00NA     -100.0NA       100.0NA
   390    3  -11.00NA     -100.0NA       100.0NA
   395    5  -9.000NA     -100.0NA       100.0NA
   398    5  -4.000NA     -100.0NA       100.0NA
   403    9  -12.00NA     -100.0NA       100.0NA
   406    9       0 A     -100.0NA       100.0NA
   411   11  -5.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   13.00NA                    1.000UA
   458   14   1.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   710.0UA                    2.900MA
   500   14   700.0UA                    2.900MA
   500   14   680.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   710.0UA                    2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       5

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -680.0MV     -1.500 V      -100.0MV
    57    3  -680.0MV     -1.500 V      -100.0MV
    57    5  -680.0MV     -1.500 V      -100.0MV
    57    9  -680.0MV     -1.500 V      -100.0MV
    57   11  -690.0MV     -1.500 V      -100.0MV
    57   13  -690.0MV     -1.500 V      -100.0MV
    57   14  -560.0MV     -1.500 V      -100.0MV
    67    2   600.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   610.0MV      100.0MV       1.500 V
    67    8   610.0MV      100.0MV       1.500 V
    67   10   610.0MV      100.0MV       1.500 V
    67   12   610.0MV      100.0MV       1.500 V

 ----------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ----------------------------------------------


 ---------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ---------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.300 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.300 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -8.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   84.00MV                    260.0MV
   322    4   74.00MV                    260.0MV
   328    6   70.00MV                    260.0MV
   334    8   80.00MV                    260.0MV
   340   10   76.00MV                    260.0MV
   346   12   62.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   2.000MV                    100.0MV
   269    4   2.000MV                    100.0MV
   275    6       0 V                    100.0MV
   281    8       0 V                    100.0MV
   287   10   2.000MV                    100.0MV
   293   12   2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -51.00NA     -100.0NA       100.0NA
   390    3  -11.00NA     -100.0NA       100.0NA
   395    5  -9.000NA     -100.0NA       100.0NA
   398    5  -4.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9  -2.000NA     -100.0NA       100.0NA
   411   11  -5.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   14.00NA                    1.000UA
   458   14       0 A                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   710.0UA                    2.900MA
   500   14   690.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   670.0UA                    2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       6

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -680.0MV     -1.500 V      -100.0MV
    57    3  -680.0MV     -1.500 V      -100.0MV
    57    5  -680.0MV     -1.500 V      -100.0MV
    57    9  -680.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -690.0MV     -1.500 V      -100.0MV
    57   14  -560.0MV     -1.500 V      -100.0MV
    67    2   600.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   610.0MV      100.0MV       1.500 V
    67   10   600.0MV      100.0MV       1.500 V
    67   12   600.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.290 V      3.980 V
   218    4   4.300 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.250 V      3.980 V
   236   10   4.300 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   88.00MV                    260.0MV
   322    4   80.00MV                    260.0MV
   328    6   70.00MV                    260.0MV
   334    8   124.0MV                    260.0MV
   340   10   78.00MV                    260.0MV
   346   12   66.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                    100.0MV
   269    4       0 V                    100.0MV
   275    6       0 V                    100.0MV
   281    8       0 V                    100.0MV
   287   10       0 V                    100.0MV
   293   12       0 V                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -51.00NA     -100.0NA       100.0NA
   390    3  -11.00NA     -100.0NA       100.0NA
   395    5  -9.000NA     -100.0NA       100.0NA
   398    5  -4.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -2.000NA     -100.0NA       100.0NA
   411   11  -5.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   9.000NA                    1.000UA
   458   14   1.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   710.0UA                    2.900MA
   500   14   690.0UA                    2.900MA
   500   14   690.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   700.0UA                    2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       7

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -670.0MV     -1.500 V      -100.0MV
    57    3  -670.0MV     -1.500 V      -100.0MV
    57    5  -670.0MV     -1.500 V      -100.0MV
    57    9  -670.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -680.0MV     -1.500 V      -100.0MV
    57   14  -550.0MV     -1.500 V      -100.0MV
    67    2   600.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   600.0MV      100.0MV       1.500 V
    67   10   610.0MV      100.0MV       1.500 V
    67   12   610.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.300 V      3.980 V
   236   10   4.300 V      3.980 V
   242   12   4.320 V      3.980 V

 --------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 --------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   84.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   64.00MV                    260.0MV
   334    8   82.00MV                    260.0MV
   340   10   74.00MV                    260.0MV
   346   12   58.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                    100.0MV
   269    4       0 V                    100.0MV
   275    6  -2.000MV                    100.0MV
   281    8  -2.000MV                    100.0MV
   287   10  -2.000MV                    100.0MV
   293   12       0 V                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -51.00NA     -100.0NA       100.0NA
   390    3  -11.00NA     -100.0NA       100.0NA
   395    5  -9.000NA     -100.0NA       100.0NA
   398    5  -4.000NA     -100.0NA       100.0NA
   403    9  -17.00NA     -100.0NA       100.0NA
   406    9   1.000NA     -100.0NA       100.0NA
   411   11  -5.000NA     -100.0NA       100.0NA
```

```
   414   11       0 A     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   48.00NA                    1.000UA
   458   14   1.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   740.0UA                    2.900MA
   500   14   720.0UA                    2.900MA
   500   14   720.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   700.0UA                    2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       8

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -670.0MV     -1.500 V      -100.0MV
    57    3  -670.0MV     -1.500 V      -100.0MV
    57    5  -670.0MV     -1.500 V      -100.0MV
    57    9  -680.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -680.0MV     -1.500 V      -100.0MV
    57   14  -560.0MV     -1.500 V      -100.0MV
    67    2   600.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   610.0MV      100.0MV       1.500 V
    67   10   610.0MV      100.0MV       1.500 V
    67   12   610.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.300 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.270 V      3.980 V
   236   10   4.300 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -8.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   86.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   64.00MV                    260.0MV
   334    8   156.0MV                    260.0MV
   340   10   74.00MV                    260.0MV
   346   12   60.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                    100.0MV
   269    4       0 V                    100.0MV
   275    6  -2.000MV                    100.0MV
   281    8  -2.000MV                    100.0MV
   287   10  -2.000MV                    100.0MV
   293   12       0 V                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -51.00NA     -100.0NA       100.0NA
   390    3  -10.00NA     -100.0NA       100.0NA
   395    5  -16.00NA     -100.0NA       100.0NA
   398    5   3.000NA     -100.0NA       100.0NA
   403    9  -36.00NA     -100.0NA       100.0NA
   406    9   3.000NA     -100.0NA       100.0NA
   411   11  -6.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   109.0NA                    1.000UA
   458   14       0 A                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                    2.900MA
   500   14   680.0UA                    2.900MA
   500   14   680.0UA                    2.900MA
   500   14   640.0UA                    2.900MA
   500   14   650.0UA                    2.900MA
   500   14   690.0UA                    2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       9

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -670.0MV     -1.500 V      -100.0MV
    57    3  -670.0MV     -1.500 V      -100.0MV
    57    5  -680.0MV     -1.500 V      -100.0MV
    57    9  -680.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -680.0MV     -1.500 V      -100.0MV
    57   14  -560.0MV     -1.500 V      -100.0MV
    67    2   600.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   610.0MV      100.0MV       1.500 V
    67   10   610.0MV      100.0MV       1.500 V
    67   12   610.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.270 V      3.980 V
   236   10   4.300 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   82.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   64.00MV                    260.0MV
   334    8   104.0MV                    260.0MV
   340   10   72.00MV                    260.0MV
   346   12   60.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                    100.0MV
   269    4  -2.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -2.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12       0 V                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -51.00NA     -100.0NA       100.0NA
   390    3  -11.00NA     -100.0NA       100.0NA
   395    5  -11.00NA     -100.0NA       100.0NA
   398    5   1.000NA     -100.0NA       100.0NA
   403    9  -24.00NA     -100.0NA       100.0NA
   406    9   1.000NA     -100.0NA       100.0NA
   411   11  -5.000NA     -100.0NA       100.0NA
```

```
   414   11       0 A     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   52.00NA                    1.000UA
   458   14   1.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   660.0UA                    2.900MA
   500   14   640.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   600.0UA                    2.900MA
   500   14   600.0UA                    2.900MA
   500   14   630.0UA                    2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N      10

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -670.0MV     -1.500 V      -100.0MV
    57    3  -670.0MV     -1.500 V      -100.0MV
    57    5  -680.0MV     -1.500 V      -100.0MV
    57    9  -680.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -680.0MV     -1.500 V      -100.0MV
    57   14  -560.0MV     -1.500 V      -100.0MV
    67    2   600.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   610.0MV      100.0MV       1.500 V
    67   10   610.0MV      100.0MV       1.500 V
    67   12   610.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.290 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.300 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   86.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   66.00MV                    260.0MV
   334    8   92.00MV                    260.0MV
   340   10   74.00MV                    260.0MV
   346   12   62.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ---------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                    100.0MV
   269    4       0 V                    100.0MV
   275    6  -2.000MV                    100.0MV
   281    8  -2.000MV                    100.0MV
   287   10  -2.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -51.00NA     -100.0NA       100.0NA
   390    3  -11.00NA     -100.0NA       100.0NA
   395    5  -10.00NA     -100.0NA       100.0NA
   398    5  -3.000NA     -100.0NA       100.0NA
   403    9  -15.00NA     -100.0NA       100.0NA
   406    9       0 A     -100.0NA       100.0NA
   411   11  -5.000NA     -100.0NA       100.0NA
```

```
   414   11       0 A     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   16.00NA                    1.000UA
   458   14   1.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   680.0UA                    2.900MA
   500   14   680.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   640.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   670.0UA                    2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N      11

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -670.0MV     -1.500 V      -100.0MV
    57    3  -670.0MV     -1.500 V      -100.0MV
    57    5  -670.0MV     -1.500 V      -100.0MV
    57    9  -680.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -680.0MV     -1.500 V      -100.0MV
    57   14  -550.0MV     -1.500 V      -100.0MV
    67    2   600.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   600.0MV      100.0MV       1.500 V
    67   10   610.0MV      100.0MV       1.500 V
    67   12   610.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   82.00MV                    260.0MV
   322    4   66.00MV                    260.0MV
   328    6   64.00MV                    260.0MV
   334    8   242.0MV                    260.0MV
   340   10   70.00MV                    260.0MV
   346   12   58.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                    100.0MV
   269    4       0 V                    100.0MV
   275    6       0 V                    100.0MV
   281    8       0 V                    100.0MV
   287   10       0 V                    100.0MV
   293   12       0 V                    100.0MV

 ---------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 ---------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -52.00NA     -100.0NA       100.0NA
   390    3  -9.000NA     -100.0NA       100.0NA
   395    5  -12.00NA     -100.0NA       100.0NA
   398    5       0 A     -100.0NA       100.0NA
   403    9  -46.00NA     -100.0NA       100.0NA
   406    9   5.000NA     -100.0NA       100.0NA
   411   11  -5.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   84.00NA                    1.000UA
   458   14   1.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   740.0UA                    2.900MA
   500   14   710.0UA                    2.900MA
   500   14   710.0UA                    2.900MA
   500   14   690.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   710.0UA                    2.900MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N      12

DDS-101-13-A PN 54HCT04 TEST SEQ12 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -690.0MV     -1.500 V      -100.0MV
    57    3  -690.0MV     -1.500 V      -100.0MV
    57    5  -690.0MV     -1.500 V      -100.0MV
    57    9  -690.0MV     -1.500 V      -100.0MV
    57   11  -700.0MV     -1.500 V      -100.0MV
    57   13  -700.0MV     -1.500 V      -100.0MV
    57   14  -580.0MV     -1.500 V      -100.0MV
    67    2   620.0MV      100.0MV       1.500 V
    67    4   620.0MV      100.0MV       1.500 V
    67    6   620.0MV      100.0MV       1.500 V
    67    8   620.0MV      100.0MV       1.500 V
    67   10   620.0MV      100.0MV       1.500 V
    67   12   620.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.300 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   82.00MV                    260.0MV
   322    4   66.00MV                    260.0MV
   328    6   64.00MV                    260.0MV
   334    8   80.00MV                    260.0MV
   340   10   72.00MV                    260.0MV
   346   12   60.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4       0 V                    100.0MV
   275    6  -2.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   1.000NA     -100.0NA       100.0NA
   387    3  -51.00NA     -100.0NA       100.0NA
   390    3  -11.00NA     -100.0NA       100.0NA
   395    5  -9.000NA     -100.0NA       100.0NA
   398    5  -4.000NA     -100.0NA       100.0NA
   403    9  -12.00NA     -100.0NA       100.0NA
   406    9   1.000NA     -100.0NA       100.0NA
   411   11  -5.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   13.00NA                    1.000UA
   458   14   1.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   690.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   640.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   660.0UA                    2.900MA


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

Pre Burn-In Test Results at 25°C

STAT1 08/01/11 08:19
TEST PROGRAM HCT04 S/N 1

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-650.0MV	-1.500 V	-100.0MV
57	3	-650.0MV	-1.500 V	-100.0MV
57	5	-650.0MV	-1.500 V	-100.0MV
57	9	-650.0MV	-1.500 V	-100.0MV
57	11	-640.0MV	-1.500 V	-100.0MV
57	13	-650.0MV	-1.500 V	-100.0MV
57	14	-520.0MV	-1.500 V	-100.0MV
67	2	550.0MV	100.0MV	1.500 V
67	4	550.0MV	100.0MV	1.500 V
67	6	550.0MV	100.0MV	1.500 V
67	8	560.0MV	100.0MV	1.500 V
67	10	550.0MV	100.0MV	1.500 V
67	12	560.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.450 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.980

INST #	PIN	MEASURED	LT	GT
212	2	4.270 V	3.980 V	
218	4	4.290 V	3.980 V	
224	6	4.290 V	3.980 V	
230	8	4.290 V	3.980 V	
236	10	4.280 V	3.980 V	
242	12	4.280 V	3.980 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-4.000MV		100.0MV
269	4	-4.000MV		100.0MV
275	6	-4.000MV		100.0MV
281	8	-4.000MV		100.0MV

```
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   106.0MV                   260.0MV
   322    4   82.00MV                   260.0MV
   328    6   82.00MV                   260.0MV
   334    8   86.00MV                   260.0MV
   340   10   96.00MV                   260.0MV
   346   12   96.00MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ---------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   10.00MV                   100.0MV
   269    4   8.000MV                   100.0MV
   275    6   8.000MV                   100.0MV
   281    8   8.000MV                   100.0MV
   287   10   8.000MV                   100.0MV
   293   12   8.000MV                   100.0MV

 ---------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 ---------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -67.00NA     -100.0NA       100.0NA
   390    3  -16.00NA     -100.0NA       100.0NA
   395    5  -13.00NA     -100.0NA       100.0NA
   398    5  -6.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -4.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
```

```
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   5.000NA                   1.000UA
   458   14   3.000NA                   1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   730.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   720.0UA                   2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N       2

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -650.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -650.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   560.0MV      100.0MV       1.500 V
    67    4   560.0MV      100.0MV       1.500 V
    67    6   560.0MV      100.0MV       1.500 V
    67    8   560.0MV      100.0MV       1.500 V
    67   10   560.0MV      100.0MV       1.500 V
    67   12   560.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.270 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.300 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.280 V      3.980 V
   242   12   4.280 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -2.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   118.0MV                   260.0MV
   322    4   82.00MV                   260.0MV
   328    6   82.00MV                   260.0MV
   334    8   88.00MV                   260.0MV
   340   10   98.00MV                   260.0MV
   346   12   94.00MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   12.00MV                   100.0MV
   269    4   12.00MV                   100.0MV
   275    6   10.00MV                   100.0MV
   281    8   10.00MV                   100.0MV
   287   10   12.00MV                   100.0MV
   293   12   10.00MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -69.00NA     -100.0NA       100.0NA
   390    3  -16.00NA     -100.0NA       100.0NA
   395    5  -13.00NA     -100.0NA       100.0NA
   398    5  -6.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -4.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   5.000NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   750.0UA                    2.400MA
   500   14   710.0UA                    2.400MA
   500   14   700.0UA                    2.400MA
   500   14   690.0UA                    2.400MA
   500   14   700.0UA                    2.400MA
   500   14   740.0UA                    2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N       3

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -660.0MV     -1.500 V      -100.0MV
    57    5  -660.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -660.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -530.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.300 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.280 V      3.980 V
   242   12   4.280 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                   100.0MV
   269    4  -2.000MV                   100.0MV
```

```
   275    6  -4.000MV                    100.0MV
   281    8  -2.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   132.0MV                    260.0MV
   322    4   92.00MV                    260.0MV
   328    6   88.00MV                    260.0MV
   334    8   98.00MV                    260.0MV
   340   10   104.0MV                    260.0MV
   346   12   104.0MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   18.00MV                    100.0MV
   269    4   16.00MV                    100.0MV
   275    6   18.00MV                    100.0MV
   281    8   16.00MV                    100.0MV
   287   10   16.00MV                    100.0MV
   293   12   18.00MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -47.00NA     -100.0NA       100.0NA
   390    3  -12.00NA     -100.0NA       100.0NA
   395    5  -11.00NA     -100.0NA       100.0NA
   398    5  -4.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -2.000NA     -100.0NA       100.0NA
   411   11  -6.000NA     -100.0NA       100.0NA
```

```
   414   11       0 A     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   5.000NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   690.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   640.0UA                    2.400MA
   500   14   630.0UA                    2.400MA
   500   14   670.0UA                    2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N       4

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -660.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   560.0MV      100.0MV       1.500 V
    67    4   560.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   560.0MV      100.0MV       1.500 V
    67   10   560.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.300 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.280 V      3.980 V
   242   12   4.280 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   124.0MV                   260.0MV
   322    4   82.00MV                   260.0MV
   328    6   82.00MV                   260.0MV
   334    8   86.00MV                   260.0MV
   340   10   96.00MV                   260.0MV
   346   12   94.00MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   10.00MV                   100.0MV
   269    4   10.00MV                   100.0MV
   275    6   8.000MV                   100.0MV
   281    8   8.000MV                   100.0MV
   287   10   8.000MV                   100.0MV
   293   12   10.00MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -56.00NA     -100.0NA       100.0NA
   390    3  -13.00NA     -100.0NA       100.0NA
   395    5  -12.00NA     -100.0NA       100.0NA
   398    5  -5.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -3.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   5.000NA                    1.000UA
   458   14   3.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   720.0UA                    2.400MA
   500   14   700.0UA                    2.400MA
   500   14   690.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   710.0UA                    2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N       5

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -650.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -650.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   560.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   560.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.270 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.300 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.280 V      3.980 V
   242   12   4.290 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

275	6	-4.000MV	100.0MV
281	8	-6.000MV	100.0MV
287	10	-4.000MV	100.0MV
293	12	-4.000MV	100.0MV

VOL2 TEST
VCC= 4.500
VOL2 LIMIT 260.0E-03

INST #	PIN	MEASURED	LT	GT
316	2	116.0MV		260.0MV
322	4	82.00MV		260.0MV
328	6	84.00MV		260.0MV
334	8	90.00MV		260.0MV
340	10	98.00MV		260.0MV
346	12	98.00MV		260.0MV

FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 5.500
VOH LIMIT 5.400

INST #	PIN	MEASURED	LT	GT
159	2	5.450 V	5.400 V	
165	4	5.450 V	5.400 V	
171	6	5.450 V	5.400 V	
177	8	5.450 V	5.400 V	
183	10	5.460 V	5.400 V	
189	12	5.450 V	5.400 V	

VOL1 TEST
VCC= 5.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	12.00MV		100.0MV
269	4	12.00MV		100.0MV
275	6	10.00MV		100.0MV
281	8	12.00MV		100.0MV
287	10	12.00MV		100.0MV
293	12	10.00MV		100.0MV

IIN TEST
VCC= 5.5
IIL/IIH LIMIT +- 0.1UA @25C/-55C
IIL/IIH LIMIT +- 1.0UA @+125C

INST #	PIN	MEASURED	LT	GT
379	1	-3.000NA	-100.0NA	100.0NA
382	1	2.000NA	-100.0NA	100.0NA
387	3	-68.00NA	-100.0NA	100.0NA
390	3	-16.00NA	-100.0NA	100.0NA
395	5	-13.00NA	-100.0NA	100.0NA
398	5	-6.000NA	-100.0NA	100.0NA
403	9	-8.000NA	-100.0NA	100.0NA
406	9	-4.000NA	-100.0NA	100.0NA
411	11	-7.000NA	-100.0NA	100.0NA

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   6.000NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   720.0UA                    2.400MA
   500   14   700.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   630.0UA                    2.400MA
   500   14   640.0UA                    2.400MA
   500   14   670.0UA                    2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N       6

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -650.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -650.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   560.0MV      100.0MV       1.500 V
    67    4   560.0MV      100.0MV       1.500 V
    67    6   560.0MV      100.0MV       1.500 V
    67    8   560.0MV      100.0MV       1.500 V
    67   10   560.0MV      100.0MV       1.500 V
    67   12   560.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.270 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.300 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.280 V      3.980 V
   242   12   4.280 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -4.000MV                    100.0MV
   281    8  -2.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   124.0MV                   260.0MV
   322    4   90.00MV                   260.0MV
   328    6   86.00MV                   260.0MV
   334    8   92.00MV                   260.0MV
   340   10   106.0MV                   260.0MV
   346   12   100.0MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   16.00MV                   100.0MV
   269    4   14.00MV                   100.0MV
   275    6   16.00MV                   100.0MV
   281    8   14.00MV                   100.0MV
   287   10   14.00MV                   100.0MV
   293   12   16.00MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -56.00NA     -100.0NA       100.0NA
   390    3  -14.00NA     -100.0NA       100.0NA
   395    5  -12.00NA     -100.0NA       100.0NA
   398    5  -4.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -3.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   5.000NA                    1.000UA
   458   14   3.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   710.0UA                    2.400MA
   500   14   690.0UA                    2.400MA
   500   14   690.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   700.0UA                    2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N       7

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -660.0MV     -1.500 V      -100.0MV
    57    5  -660.0MV     -1.500 V      -100.0MV
    57    9  -660.0MV     -1.500 V      -100.0MV
    57   11  -660.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -530.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.270 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.300 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.290 V      3.980 V
   242   12   4.290 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   112.0MV                   260.0MV
   322    4   78.00MV                   260.0MV
   328    6   76.00MV                   260.0MV
   334    8   84.00MV                   260.0MV
   340   10   92.00MV                   260.0MV
   346   12   92.00MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   8.000MV                   100.0MV
   269    4   8.000MV                   100.0MV
   275    6   8.000MV                   100.0MV
   281    8   8.000MV                   100.0MV
   287   10   8.000MV                   100.0MV
   293   12   10.00MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -69.00NA     -100.0NA       100.0NA
   390    3  -16.00NA     -100.0NA       100.0NA
   395    5  -13.00NA     -100.0NA       100.0NA
   398    5  -6.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -4.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   5.000NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   740.0UA                    2.400MA
   500   14   720.0UA                    2.400MA
   500   14   720.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   710.0UA                    2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N       8

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -660.0MV     -1.500 V      -100.0MV
    57    5  -660.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -660.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -530.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.270 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.300 V      3.980 V
   230    8   4.270 V      3.980 V
   236   10   4.290 V      3.980 V
   242   12   4.280 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   116.0MV                    260.0MV
   322    4   80.00MV                    260.0MV
   328    6   78.00MV                    260.0MV
   334    8   106.0MV                    260.0MV
   340   10   88.00MV                    260.0MV
   346   12   92.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   8.000MV                    100.0MV
   269    4   8.000MV                    100.0MV
   275    6   6.000MV                    100.0MV
   281    8   8.000MV                    100.0MV
   287   10   6.000MV                    100.0MV
   293   12   8.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -68.00NA     -100.0NA       100.0NA
   390    3  -16.00NA     -100.0NA       100.0NA
   395    5  -13.00NA     -100.0NA       100.0NA
   398    5  -6.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -3.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11  -3.000NA     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   5.000NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                    2.400MA
   500   14   690.0UA                    2.400MA
   500   14   690.0UA                    2.400MA
   500   14   650.0UA                    2.400MA
   500   14   660.0UA                    2.400MA
   500   14   690.0UA                    2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N       9

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -660.0MV     -1.500 V      -100.0MV
    57    5  -660.0MV     -1.500 V      -100.0MV
    57    9  -660.0MV     -1.500 V      -100.0MV
    57   11  -660.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -530.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.300 V      3.980 V
   230    8   4.260 V      3.980 V
   236   10   4.290 V      3.980 V
   242   12   4.280 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -4.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   120.0MV                    260.0MV
   322    4   82.00MV                    260.0MV
   328    6   82.00MV                    260.0MV
   334    8   112.0MV                    260.0MV
   340   10   88.00MV                    260.0MV
   346   12   98.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   12.00MV                    100.0MV
   269    4   12.00MV                    100.0MV
   275    6   10.00MV                    100.0MV
   281    8   10.00MV                    100.0MV
   287   10   12.00MV                    100.0MV
   293   12   10.00MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -61.00NA     -100.0NA       100.0NA
   390    3  -14.00NA     -100.0NA       100.0NA
   395    5  -12.00NA     -100.0NA       100.0NA
   398    5  -5.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -3.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11       0 A     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   5.000NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   670.0UA                    2.400MA
   500   14   650.0UA                    2.400MA
   500   14   640.0UA                    2.400MA
   500   14   610.0UA                    2.400MA
   500   14   610.0UA                    2.400MA
   500   14   640.0UA                    2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N      10

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -660.0MV     -1.500 V      -100.0MV
    57    5  -660.0MV     -1.500 V      -100.0MV
    57    9  -660.0MV     -1.500 V      -100.0MV
    57   11  -660.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -530.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.300 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.290 V      3.980 V
   242   12   4.280 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -4.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   118.0MV                   260.0MV
   322    4   82.00MV                   260.0MV
   328    6   82.00MV                   260.0MV
   334    8   88.00MV                   260.0MV
   340   10   86.00MV                   260.0MV
   346   12   96.00MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   10.00MV                   100.0MV
   269    4   10.00MV                   100.0MV
   275    6   10.00MV                   100.0MV
   281    8   8.000MV                   100.0MV
   287   10   8.000MV                   100.0MV
   293   12   10.00MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -52.00NA     -100.0NA       100.0NA
   390    3  -13.00NA     -100.0NA       100.0NA
   395    5  -11.00NA     -100.0NA       100.0NA
   398    5  -4.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -3.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11       0 A     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   5.000NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   690.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   650.0UA                    2.400MA
   500   14   640.0UA                    2.400MA
   500   14   680.0UA                    2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N      11

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -650.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -660.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   560.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.300 V      3.980 V
   230    8   4.290 V      3.980 V
   236   10   4.290 V      3.980 V
   242   12   4.280 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                  100.0MV
   269    4       0 V                  100.0MV
```

```
   275    6       0 V                    100.0MV
   281    8       0 V                    100.0MV
   287   10       0 V                    100.0MV
   293   12  -2.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   126.0MV                    260.0MV
   322    4   90.00MV                    260.0MV
   328    6   90.00MV                    260.0MV
   334    8   92.00MV                    260.0MV
   340   10   94.00MV                    260.0MV
   346   12   104.0MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ---------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   24.00MV                    100.0MV
   269    4   24.00MV                    100.0MV
   275    6   22.00MV                    100.0MV
   281    8   22.00MV                    100.0MV
   287   10   22.00MV                    100.0MV
   293   12   24.00MV                    100.0MV

 ---------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 ---------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -40.00NA     -100.0NA       100.0NA
   390    3  -10.00NA     -100.0NA       100.0NA
   395    5  -10.00NA     -100.0NA       100.0NA
   398    5  -3.000NA     -100.0NA       100.0NA
   403    9  -7.000NA     -100.0NA       100.0NA
   406    9  -2.000NA     -100.0NA       100.0NA
   411   11  -6.000NA     -100.0NA       100.0NA
```

```
   414   11       0 A     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   6.000NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   750.0UA                    2.400MA
   500   14   720.0UA                    2.400MA
   500   14   710.0UA                    2.400MA
   500   14   700.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   710.0UA                    2.400MA


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

```
STAT1               08/01/11  08:19
TEST PROGRAM   HCT04         S/N      12

DDS-101-13-A PN 54HCT04 TEST SEQ12 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -650.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -660.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.980 V
   218    4   4.290 V      3.980 V
   224    6   4.290 V      3.980 V
   230    8   4.280 V      3.980 V
   236   10   4.290 V      3.980 V
   242   12   4.280 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   116.0MV                   260.0MV
   322    4   80.00MV                   260.0MV
   328    6   80.00MV                   260.0MV
   334    8   92.00MV                   260.0MV
   340   10   84.00MV                   260.0MV
   346   12   96.00MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   8.000MV                   100.0MV
   269    4   8.000MV                   100.0MV
   275    6   8.000MV                   100.0MV
   281    8   6.000MV                   100.0MV
   287   10   8.000MV                   100.0MV
   293   12   8.000MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -58.00NA     -100.0NA       100.0NA
   390    3  -14.00NA     -100.0NA       100.0NA
   395    5  -12.00NA     -100.0NA       100.0NA
   398    5  -5.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9  -3.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11  -2.000NA     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13       0 A     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   5.000NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   650.0UA                    2.400MA
   500   14   640.0UA                    2.400MA
   500   14   670.0UA                    2.400MA


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

Pre Burn-In Test Results at +125°C

STAT1 08/20/11 09:52
TEST PROGRAM HCT04 S/N 1

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-640.0MV	-1.500 V	-100.0MV
57	3	-640.0MV	-1.500 V	-100.0MV
57	5	-640.0MV	-1.500 V	-100.0MV
57	9	-630.0MV	-1.500 V	-100.0MV
57	11	-630.0MV	-1.500 V	-100.0MV
57	13	-630.0MV	-1.500 V	-100.0MV
57	14	-490.0MV	-1.500 V	-100.0MV
67	2	530.0MV	100.0MV	1.500 V
67	4	530.0MV	100.0MV	1.500 V
67	6	520.0MV	100.0MV	1.500 V
67	8	520.0MV	100.0MV	1.500 V
67	10	520.0MV	100.0MV	1.500 V
67	12	520.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.450 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.270 V	3.700 V	
218	4	4.270 V	3.700 V	
224	6	4.280 V	3.700 V	
230	8	4.260 V	3.700 V	
236	10	4.270 V	3.700 V	
242	12	4.280 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-4.000MV		100.0MV
269	4	-6.000MV		100.0MV
275	6	-6.000MV		100.0MV
281	8	-6.000MV		100.0MV

287	10	-4.000MV		100.0MV
293	12	-4.000MV		100.0MV

```
 ---------------------------------------
            VOL2 TEST
            VCC=    4.500
            VOL2 LIMIT  400.0E-03
 ---------------------------------------
```

INST #	PIN	MEASURED	LT	GT
316	2	114.0MV		400.0MV
322	4	98.00MV		400.0MV
328	6	94.00MV		400.0MV
334	8	112.0MV		400.0MV
340	10	102.0MV		400.0MV
346	12	92.00MV		400.0MV

```
 ----------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ----------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------
```

INST #	PIN	MEASURED	LT	GT
159	2	5.450 V	5.400 V	
165	4	5.450 V	5.400 V	
171	6	5.450 V	5.400 V	
177	8	5.450 V	5.400 V	
183	10	5.450 V	5.400 V	
189	12	5.460 V	5.400 V	

```
 ---------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ---------------------------------------
```

INST #	PIN	MEASURED	LT	GT
263	2	2.000MV		100.0MV
269	4	0 V		100.0MV
275	6	0 V		100.0MV
281	8	2.000MV		100.0MV
287	10	2.000MV		100.0MV
293	12	2.000MV		100.0MV

```
 ---------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 ---------------------------------
```

INST #	PIN	MEASURED	LT	GT
379	1	-3.000NA	-1.000UA	1.000UA
382	1	1.000NA	-1.000UA	1.000UA
387	3	-6.000NA	-1.000UA	1.000UA
390	3	0 A	-1.000UA	1.000UA
395	5	-4.000NA	-1.000UA	1.000UA
398	5	1.000NA	-1.000UA	1.000UA
403	9	-4.000NA	-1.000UA	1.000UA
406	9	1.000NA	-1.000UA	1.000UA
411	11	-4.000NA	-1.000UA	1.000UA
414	11	1.000NA	-1.000UA	1.000UA
419	13	-4.000NA	-1.000UA	1.000UA

```
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14       0 A                   40.00UA
   458   14   100.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   740.0UA                   2.400MA
   500   14   710.0UA                   2.400MA
   500   14   710.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   720.0UA                   2.400MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       2

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -640.0MV     -1.500 V      -100.0MV
    57    3  -640.0MV     -1.500 V      -100.0MV
    57    5  -640.0MV     -1.500 V      -100.0MV
    57    9  -630.0MV     -1.500 V      -100.0MV
    57   11  -630.0MV     -1.500 V      -100.0MV
    57   13  -630.0MV     -1.500 V      -100.0MV
    57   14  -490.0MV     -1.500 V      -100.0MV
    67    2   540.0MV      100.0MV       1.500 V
    67    4   540.0MV      100.0MV       1.500 V
    67    6   530.0MV      100.0MV       1.500 V
    67    8   530.0MV      100.0MV       1.500 V
    67   10   530.0MV      100.0MV       1.500 V
    67   12   520.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.270 V      3.700 V
   218    4   4.270 V      3.700 V
   224    6   4.280 V      3.700 V
   230    8   4.260 V      3.700 V
   236   10   4.270 V      3.700 V
   242   12   4.290 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   108.0MV                   400.0MV
   322    4   98.00MV                   400.0MV
   328    6   92.00MV                   400.0MV
   334    8   110.0MV                   400.0MV
   340   10   100.0MV                   400.0MV
   346   12   88.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ---------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   2.000MV                   100.0MV
   269    4   2.000MV                   100.0MV
   275    6   2.000MV                   100.0MV
   281    8   2.000MV                   100.0MV
   287   10   2.000MV                   100.0MV
   293   12   4.000MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -1.000UA       1.000UA
   382    1   1.000NA     -1.000UA       1.000UA
   387    3  -4.000NA     -1.000UA       1.000UA
   390    3   1.000NA     -1.000UA       1.000UA
   395    5  -4.000NA     -1.000UA       1.000UA
   398    5   1.000NA     -1.000UA       1.000UA
   403    9  -4.000NA     -1.000UA       1.000UA
   406    9   1.000NA     -1.000UA       1.000UA
   411   11  -4.000NA     -1.000UA       1.000UA
```

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14       0 A                   40.00UA
   458   14   100.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   760.0UA                   2.400MA
   500   14   720.0UA                   2.400MA
   500   14   710.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   710.0UA                   2.400MA
   500   14   740.0UA                   2.400MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       3

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -610.0MV     -1.500 V      -100.0MV
    57    3  -600.0MV     -1.500 V      -100.0MV
    57    5  -600.0MV     -1.500 V      -100.0MV
    57    9  -600.0MV     -1.500 V      -100.0MV
    57   11  -590.0MV     -1.500 V      -100.0MV
    57   13  -590.0MV     -1.500 V      -100.0MV
    57   14  -450.0MV     -1.500 V      -100.0MV
    67    2   500.0MV      100.0MV       1.500 V
    67    4   500.0MV      100.0MV       1.500 V
    67    6   500.0MV      100.0MV       1.500 V
    67    8   490.0MV      100.0MV       1.500 V
    67   10   490.0MV      100.0MV       1.500 V
    67   12   490.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.700 V
   218    4   4.260 V      3.700 V
   224    6   4.270 V      3.700 V
   230    8   4.250 V      3.700 V
   236   10   4.260 V      3.700 V
   242   12   4.270 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -4.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   116.0MV                    400.0MV
   322    4   108.0MV                    400.0MV
   328    6   98.00MV                    400.0MV
   334    8   116.0MV                    400.0MV
   340   10   106.0MV                    400.0MV
   346   12   94.00MV                    400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                    100.0MV
   269    4       0 V                    100.0MV
   275    6       0 V                    100.0MV
   281    8  -2.000MV                    100.0MV
   287   10  -2.000MV                    100.0MV
   293   12       0 V                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -1.000UA       1.000UA
   382    1   1.000NA     -1.000UA       1.000UA
   387    3  -4.000NA     -1.000UA       1.000UA
   390    3   1.000NA     -1.000UA       1.000UA
   395    5  -4.000NA     -1.000UA       1.000UA
   398    5   1.000NA     -1.000UA       1.000UA
   403    9  -4.000NA     -1.000UA       1.000UA
   406    9   1.000NA     -1.000UA       1.000UA
   411   11  -4.000NA     -1.000UA       1.000UA
```

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14       0 A                   40.00UA
   458   14   100.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   690.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   640.0UA                   2.400MA
   500   14   680.0UA                   2.400MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       4

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -620.0MV     -1.500 V      -100.0MV
    57    3  -620.0MV     -1.500 V      -100.0MV
    57    5  -610.0MV     -1.500 V      -100.0MV
    57    9  -610.0MV     -1.500 V      -100.0MV
    57   11  -610.0MV     -1.500 V      -100.0MV
    57   13  -610.0MV     -1.500 V      -100.0MV
    57   14  -460.0MV     -1.500 V      -100.0MV
    67    2   510.0MV      100.0MV       1.500 V
    67    4   510.0MV      100.0MV       1.500 V
    67    6   510.0MV      100.0MV       1.500 V
    67    8   500.0MV      100.0MV       1.500 V
    67   10   500.0MV      100.0MV       1.500 V
    67   12   500.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.700 V
   218    4   4.250 V      3.700 V
   224    6   4.270 V      3.700 V
   230    8   4.250 V      3.700 V
   236   10   4.260 V      3.700 V
   242   12   4.280 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   116.0MV                   400.0MV
   322    4   118.0MV                   400.0MV
   328    6   98.00MV                   400.0MV
   334    8   114.0MV                   400.0MV
   340   10   106.0MV                   400.0MV
   346   12   94.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   4.000MV                   100.0MV
   269    4   2.000MV                   100.0MV
   275    6   2.000MV                   100.0MV
   281    8   2.000MV                   100.0MV
   287   10   4.000MV                   100.0MV
   293   12   4.000MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -1.000UA       1.000UA
   382    1   1.000NA     -1.000UA       1.000UA
   387    3  -4.000NA     -1.000UA       1.000UA
   390    3   1.000NA     -1.000UA       1.000UA
   395    5  -4.000NA     -1.000UA       1.000UA
   398    5   1.000NA     -1.000UA       1.000UA
   403    9  -4.000NA     -1.000UA       1.000UA
   406    9   1.000NA     -1.000UA       1.000UA
   411   11  -4.000NA     -1.000UA       1.000UA
```

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14       0 A                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   720.0UA                   2.400MA
   500   14   710.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   720.0UA                   2.400MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       5

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -610.0MV     -1.500 V      -100.0MV
    57    3  -610.0MV     -1.500 V      -100.0MV
    57    5  -600.0MV     -1.500 V      -100.0MV
    57    9  -600.0MV     -1.500 V      -100.0MV
    57   11  -600.0MV     -1.500 V      -100.0MV
    57   13  -600.0MV     -1.500 V      -100.0MV
    57   14  -450.0MV     -1.500 V      -100.0MV
    67    2   500.0MV      100.0MV       1.500 V
    67    4   500.0MV      100.0MV       1.500 V
    67    6   500.0MV      100.0MV       1.500 V
    67    8   490.0MV      100.0MV       1.500 V
    67   10   490.0MV      100.0MV       1.500 V
    67   12   490.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.700 V
   218    4   4.270 V      3.700 V
   224    6   4.270 V      3.700 V
   230    8   4.250 V      3.700 V
   236   10   4.260 V      3.700 V
   242   12   4.280 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   116.0MV                    400.0MV
   322    4   94.00MV                    400.0MV
   328    6   96.00MV                    400.0MV
   334    8   118.0MV                    400.0MV
   340   10   104.0MV                    400.0MV
   346   12   94.00MV                    400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                    100.0MV
   269    4   2.000MV                    100.0MV
   275    6       0 V                    100.0MV
   281    8       0 V                    100.0MV
   287   10       0 V                    100.0MV
   293   12       0 V                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -1.000UA       1.000UA
   382    1   1.000NA     -1.000UA       1.000UA
   387    3  -4.000NA     -1.000UA       1.000UA
   390    3   1.000NA     -1.000UA       1.000UA
   395    5  -4.000NA     -1.000UA       1.000UA
   398    5   1.000NA     -1.000UA       1.000UA
   403    9  -4.000NA     -1.000UA       1.000UA
   406    9   1.000NA     -1.000UA       1.000UA
   411   11  -4.000NA     -1.000UA       1.000UA
```

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   100.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   720.0UA                   2.400MA
   500   14   710.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   640.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   680.0UA                   2.400MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       6

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -620.0MV     -1.500 V      -100.0MV
    57    3  -620.0MV     -1.500 V      -100.0MV
    57    5  -610.0MV     -1.500 V      -100.0MV
    57    9  -610.0MV     -1.500 V      -100.0MV
    57   11  -610.0MV     -1.500 V      -100.0MV
    57   13  -610.0MV     -1.500 V      -100.0MV
    57   14  -470.0MV     -1.500 V      -100.0MV
    67    2   510.0MV      100.0MV       1.500 V
    67    4   510.0MV      100.0MV       1.500 V
    67    6   510.0MV      100.0MV       1.500 V
    67    8   510.0MV      100.0MV       1.500 V
    67   10   500.0MV      100.0MV       1.500 V
    67   12   500.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.700 V
   218    4   4.280 V      3.700 V
   224    6   4.270 V      3.700 V
   230    8   4.260 V      3.700 V
   236   10   4.270 V      3.700 V
   242   12   4.280 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

275	6	-6.000MV	100.0MV
281	8	-6.000MV	100.0MV
287	10	-4.000MV	100.0MV
293	12	-6.000MV	100.0MV

VOL2 TEST
VCC= 4.500
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
316	2	114.0MV		400.0MV
322	4	94.00MV		400.0MV
328	6	94.00MV		400.0MV
334	8	110.0MV		400.0MV
340	10	102.0MV		400.0MV
346	12	90.00MV		400.0MV

FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 5.500
VOH LIMIT 5.400

INST #	PIN	MEASURED	LT	GT
159	2	5.450 V	5.400 V	
165	4	5.450 V	5.400 V	
171	6	5.450 V	5.400 V	
177	8	5.450 V	5.400 V	
183	10	5.460 V	5.400 V	
189	12	5.450 V	5.400 V	

VOL1 TEST
VCC= 5.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	2.000MV		100.0MV
269	4	0 V		100.0MV
275	6	0 V		100.0MV
281	8	-4.000MV		100.0MV
287	10	-2.000MV		100.0MV
293	12	0 V		100.0MV

IIN TEST
VCC= 5.5
IIL/IIH LIMIT +- 0.1UA @25C/-55C
IIL/IIH LIMIT +- 1.0UA @+125C

INST #	PIN	MEASURED	LT	GT
379	1	-4.000NA	-1.000UA	1.000UA
382	1	1.000NA	-1.000UA	1.000UA
387	3	-4.000NA	-1.000UA	1.000UA
390	3	1.000NA	-1.000UA	1.000UA
395	5	-4.000NA	-1.000UA	1.000UA
398	5	1.000NA	-1.000UA	1.000UA
403	9	-4.000NA	-1.000UA	1.000UA
406	9	1.000NA	-1.000UA	1.000UA
411	11	-4.000NA	-1.000UA	1.000UA

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14       0 A                   40.00UA
   458   14   100.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   720.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   700.0UA                   2.400MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       7

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -610.0MV     -1.500 V      -100.0MV
    57    3  -610.0MV     -1.500 V      -100.0MV
    57    5  -610.0MV     -1.500 V      -100.0MV
    57    9  -600.0MV     -1.500 V      -100.0MV
    57   11  -600.0MV     -1.500 V      -100.0MV
    57   13  -600.0MV     -1.500 V      -100.0MV
    57   14  -460.0MV     -1.500 V      -100.0MV
    67    2   510.0MV      100.0MV       1.500 V
    67    4   500.0MV      100.0MV       1.500 V
    67    6   500.0MV      100.0MV       1.500 V
    67    8   500.0MV      100.0MV       1.500 V
    67   10   500.0MV      100.0MV       1.500 V
    67   12   490.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.700 V
   218    4   4.280 V      3.700 V
   224    6   4.280 V      3.700 V
   230    8   4.260 V      3.700 V
   236   10   4.270 V      3.700 V
   242   12   4.280 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   112.0MV                   400.0MV
   322    4   90.00MV                   400.0MV
   328    6   92.00MV                   400.0MV
   334    8   110.0MV                   400.0MV
   340   10   102.0MV                   400.0MV
   346   12   88.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                   100.0MV
   269    4       0 V                   100.0MV
   275    6  -2.000MV                   100.0MV
   281    8       0 V                   100.0MV
   287   10       0 V                   100.0MV
   293   12       0 V                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -3.000NA     -1.000UA       1.000UA
   382    1   1.000NA     -1.000UA       1.000UA
   387    3  -4.000NA     -1.000UA       1.000UA
   390    3   1.000NA     -1.000UA       1.000UA
   395    5  -4.000NA     -1.000UA       1.000UA
   398    5   1.000NA     -1.000UA       1.000UA
   403    9  -4.000NA     -1.000UA       1.000UA
   406    9   1.000NA     -1.000UA       1.000UA
   411   11  -4.000NA     -1.000UA       1.000UA
```

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   100.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   740.0UA                   2.400MA
   500   14   730.0UA                   2.400MA
   500   14   730.0UA                   2.400MA
   500   14   670.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   710.0UA                   2.400MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       8

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -610.0MV     -1.500 V      -100.0MV
    57    3  -600.0MV     -1.500 V      -100.0MV
    57    5  -600.0MV     -1.500 V      -100.0MV
    57    9  -600.0MV     -1.500 V      -100.0MV
    57   11  -600.0MV     -1.500 V      -100.0MV
    57   13  -590.0MV     -1.500 V      -100.0MV
    57   14  -450.0MV     -1.500 V      -100.0MV
    67    2   500.0MV      100.0MV       1.500 V
    67    4   500.0MV      100.0MV       1.500 V
    67    6   500.0MV      100.0MV       1.500 V
    67    8   500.0MV      100.0MV       1.500 V
    67   10   490.0MV      100.0MV       1.500 V
    67   12   490.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.700 V
   218    4   4.270 V      3.700 V
   224    6   4.270 V      3.700 V
   230    8   4.240 V      3.700 V
   236   10   4.260 V      3.700 V
   242   12   4.280 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   114.0MV                   400.0MV
   322    4   94.00MV                   400.0MV
   328    6   92.00MV                   400.0MV
   334    8   118.0MV                   400.0MV
   340   10   102.0MV                   400.0MV
   346   12   92.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                   100.0MV
   269    4       0 V                   100.0MV
   275    6       0 V                   100.0MV
   281    8  -2.000MV                   100.0MV
   287   10       0 V                   100.0MV
   293   12       0 V                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -1.000UA       1.000UA
   382    1   1.000NA     -1.000UA       1.000UA
   387    3  -4.000NA     -1.000UA       1.000UA
   390    3   1.000NA     -1.000UA       1.000UA
   395    5  -4.000NA     -1.000UA       1.000UA
   398    5   1.000NA     -1.000UA       1.000UA
   403    9  -4.000NA     -1.000UA       1.000UA
   406    9   1.000NA     -1.000UA       1.000UA
   411   11  -4.000NA     -1.000UA       1.000UA
```

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   100.0NA                   40.00UA
   458   14   100.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   710.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   660.0UA                   2.400MA
   500   14   670.0UA                   2.400MA
   500   14   700.0UA                   2.400MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N       9

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -590.0MV     -1.500 V      -100.0MV
    57    3  -590.0MV     -1.500 V      -100.0MV
    57    5  -580.0MV     -1.500 V      -100.0MV
    57    9  -580.0MV     -1.500 V      -100.0MV
    57   11  -580.0MV     -1.500 V      -100.0MV
    57   13  -580.0MV     -1.500 V      -100.0MV
    57   14  -430.0MV     -1.500 V      -100.0MV
    67    2   490.0MV      100.0MV       1.500 V
    67    4   480.0MV      100.0MV       1.500 V
    67    6   480.0MV      100.0MV       1.500 V
    67    8   480.0MV      100.0MV       1.500 V
    67   10   470.0MV      100.0MV       1.500 V
    67   12   470.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.700 V
   218    4   4.270 V      3.700 V
   224    6   4.270 V      3.700 V
   230    8   4.240 V      3.700 V
   236   10   4.260 V      3.700 V
   242   12   4.270 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   118.0MV                   400.0MV
   322    4   98.00MV                   400.0MV
   328    6   96.00MV                   400.0MV
   334    8   126.0MV                   400.0MV
   340   10   108.0MV                   400.0MV
   346   12   94.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                   100.0MV
   269    4  -2.000MV                   100.0MV
   275    6       0 V                   100.0MV
   281    8  -2.000MV                   100.0MV
   287   10       0 V                   100.0MV
   293   12       0 V                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -1.000UA       1.000UA
   382    1   1.000NA     -1.000UA       1.000UA
   387    3  -4.000NA     -1.000UA       1.000UA
   390    3   1.000NA     -1.000UA       1.000UA
   395    5  -4.000NA     -1.000UA       1.000UA
   398    5   1.000NA     -1.000UA       1.000UA
   403    9  -4.000NA     -1.000UA       1.000UA
   406    9   1.000NA     -1.000UA       1.000UA
   411   11  -4.000NA     -1.000UA       1.000UA
```

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   100.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   680.0UA                   2.400MA
   500   14   660.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   620.0UA                   2.400MA
   500   14   620.0UA                   2.400MA
   500   14   650.0UA                   2.400MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N      10

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -610.0MV     -1.500 V      -100.0MV
    57    3  -610.0MV     -1.500 V      -100.0MV
    57    5  -600.0MV     -1.500 V      -100.0MV
    57    9  -600.0MV     -1.500 V      -100.0MV
    57   11  -600.0MV     -1.500 V      -100.0MV
    57   13  -600.0MV     -1.500 V      -100.0MV
    57   14  -460.0MV     -1.500 V      -100.0MV
    67    2   510.0MV      100.0MV       1.500 V
    67    4   500.0MV      100.0MV       1.500 V
    67    6   500.0MV      100.0MV       1.500 V
    67    8   500.0MV      100.0MV       1.500 V
    67   10   500.0MV      100.0MV       1.500 V
    67   12   500.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.700 V
   218    4   4.270 V      3.700 V
   224    6   4.270 V      3.700 V
   230    8   4.220 V      3.700 V
   236   10   4.260 V      3.700 V
   242   12   4.270 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   114.0MV                   400.0MV
   322    4   94.00MV                   400.0MV
   328    6   94.00MV                   400.0MV
   334    8   148.0MV                   400.0MV
   340   10   104.0MV                   400.0MV
   346   12   92.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ---------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   2.000MV                   100.0MV
   269    4       0 V                   100.0MV
   275    6  -2.000MV                   100.0MV
   281    8       0 V                   100.0MV
   287   10       0 V                   100.0MV
   293   12       0 V                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -1.000UA       1.000UA
   382    1   1.000NA     -1.000UA       1.000UA
   387    3  -4.000NA     -1.000UA       1.000UA
   390    3   1.000NA     -1.000UA       1.000UA
   395    5  -4.000NA     -1.000UA       1.000UA
   398    5   1.000NA     -1.000UA       1.000UA
   403    9  -4.000NA     -1.000UA       1.000UA
   406    9   1.000NA     -1.000UA       1.000UA
   411   11  -4.000NA     -1.000UA       1.000UA
```

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14       0 A                   40.00UA
   458   14   100.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   690.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   680.0UA                   2.400MA


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

```
STAT1               08/20/11  09:52
TEST PROGRAM   HCT04         S/N      11

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -600.0MV     -1.500 V      -100.0MV
    57    3  -600.0MV     -1.500 V      -100.0MV
    57    5  -600.0MV     -1.500 V      -100.0MV
    57    9  -590.0MV     -1.500 V      -100.0MV
    57   11  -590.0MV     -1.500 V      -100.0MV
    57   13  -590.0MV     -1.500 V      -100.0MV
    57   14  -440.0MV     -1.500 V      -100.0MV
    67    2   500.0MV      100.0MV       1.500 V
    67    4   490.0MV      100.0MV       1.500 V
    67    6   490.0MV      100.0MV       1.500 V
    67    8   490.0MV      100.0MV       1.500 V
    67   10   490.0MV      100.0MV       1.500 V
    67   12   480.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.700 V
   218    4   4.270 V      3.700 V
   224    6   4.270 V      3.700 V
   230    8   4.250 V      3.700 V
   236   10   4.260 V      3.700 V
   242   12   4.270 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   114.0MV                   400.0MV
   322    4   92.00MV                   400.0MV
   328    6   92.00MV                   400.0MV
   334    8   112.0MV                   400.0MV
   340   10   102.0MV                   400.0MV
   346   12   90.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ---------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   2.000MV                   100.0MV
   269    4       0 V                   100.0MV
   275    6       0 V                   100.0MV
   281    8       0 V                   100.0MV
   287   10       0 V                   100.0MV
   293   12   2.000MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -1.000UA       1.000UA
   382    1   1.000NA     -1.000UA       1.000UA
   387    3  -4.000NA     -1.000UA       1.000UA
   390    3   1.000NA     -1.000UA       1.000UA
   395    5  -4.000NA     -1.000UA       1.000UA
   398    5   1.000NA     -1.000UA       1.000UA
   403    9  -4.000NA     -1.000UA       1.000UA
   406    9   1.000NA     -1.000UA       1.000UA
   411   11  -4.000NA     -1.000UA       1.000UA
```

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   100.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   750.0UA                   2.400MA
   500   14   730.0UA                   2.400MA
   500   14   720.0UA                   2.400MA
   500   14   710.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   720.0UA                   2.400MA


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

STAT1 08/20/11 09:52
TEST PROGRAM HCT04 S/N 12

DDS-101-13-A PN 54HCT04 TEST SEQ12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-610.0MV	-1.500 V	-100.0MV
57	3	-600.0MV	-1.500 V	-100.0MV
57	5	-600.0MV	-1.500 V	-100.0MV
57	9	-600.0MV	-1.500 V	-100.0MV
57	11	-600.0MV	-1.500 V	-100.0MV
57	13	-590.0MV	-1.500 V	-100.0MV
57	14	-450.0MV	-1.500 V	-100.0MV
67	2	500.0MV	100.0MV	1.500 V
67	4	500.0MV	100.0MV	1.500 V
67	6	490.0MV	100.0MV	1.500 V
67	8	490.0MV	100.0MV	1.500 V
67	10	500.0MV	100.0MV	1.500 V
67	12	490.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.450 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.260 V	3.700 V	
218	4	4.270 V	3.700 V	
224	6	4.270 V	3.700 V	
230	8	4.250 V	3.700 V	
236	10	4.260 V	3.700 V	
242	12	4.270 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-4.000MV		100.0MV
269	4	-6.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   114.0MV                   400.0MV
   322    4   94.00MV                   400.0MV
   328    6   92.00MV                   400.0MV
   334    8   112.0MV                   400.0MV
   340   10   104.0MV                   400.0MV
   346   12   92.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2   2.000MV                   100.0MV
   269    4       0 V                   100.0MV
   275    6  -2.000MV                   100.0MV
   281    8       0 V                   100.0MV
   287   10       0 V                   100.0MV
   293   12       0 V                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -1.000UA       1.000UA
   382    1   1.000NA     -1.000UA       1.000UA
   387    3  -4.000NA     -1.000UA       1.000UA
   390    3   1.000NA     -1.000UA       1.000UA
   395    5  -4.000NA     -1.000UA       1.000UA
   398    5   1.000NA     -1.000UA       1.000UA
   403    9  -4.000NA     -1.000UA       1.000UA
   406    9   1.000NA     -1.000UA       1.000UA
   411   11  -4.000NA     -1.000UA       1.000UA
```

```
   414   11   1.000NA     -1.000UA       1.000UA
   419   13  -4.000NA     -1.000UA       1.000UA
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14       0 A                   40.00UA
   458   14   100.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   680.0UA                   2.400MA


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

Post Burn-In Test Results at -55°C

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 1

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-720.0MV	-1.500 V	-100.0MV
57	3	-710.0MV	-1.500 V	-100.0MV
57	5	-710.0MV	-1.500 V	-100.0MV
57	9	-720.0MV	-1.500 V	-100.0MV
57	11	-720.0MV	-1.500 V	-100.0MV
57	13	-720.0MV	-1.500 V	-100.0MV
57	14	-600.0MV	-1.500 V	-100.0MV
67	2	630.0MV	100.0MV	1.500 V
67	4	630.0MV	100.0MV	1.500 V
67	6	630.0MV	100.0MV	1.500 V
67	8	630.0MV	100.0MV	1.500 V
67	10	630.0MV	100.0MV	1.500 V
67	12	630.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.460 V	4.400 V	
171	6	4.460 V	4.400 V	
177	8	4.460 V	4.400 V	
183	10	4.460 V	4.400 V	
189	12	4.460 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.980

INST #	PIN	MEASURED	LT	GT
212	2	4.330 V	3.980 V	
218	4	4.330 V	3.980 V	
224	6	4.330 V	3.980 V	
230	8	4.330 V	3.980 V	
236	10	4.330 V	3.980 V	
242	12	4.340 V	3.980 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-6.000MV		100.0MV
269	4	-6.000MV		100.0MV
275	6	-6.000MV		100.0MV
281	8	-6.000MV		100.0MV

```
   287   10  -6.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   68.00MV                    260.0MV
   322    4   56.00MV                    260.0MV
   328    6   54.00MV                    260.0MV
   334    8   54.00MV                    260.0MV
   340   10   56.00MV                    260.0MV
   346   12   56.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ---------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 ---------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 ---------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -89.00NA     -100.0NA       100.0NA
   390    3  -14.00NA     -100.0NA       100.0NA
   395    5  -14.00NA     -100.0NA       100.0NA
   398    5   1.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9   3.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
   414   11   2.000NA     -100.0NA       100.0NA
   419   13  -24.00NA     -100.0NA       100.0NA
```

```
   422   13   1.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   40.00NA                   1.000UA
   458   14   3.000NA                   1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   720.0UA                   2.900MA
   500   14   690.0UA                   2.900MA
   500   14   680.0UA                   2.900MA
   500   14   660.0UA                   2.900MA
   500   14   670.0UA                   2.900MA
   500   14   700.0UA                   2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       2

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -720.0MV     -1.500 V      -100.0MV
    57    3  -720.0MV     -1.500 V      -100.0MV
    57    5  -720.0MV     -1.500 V      -100.0MV
    57    9  -720.0MV     -1.500 V      -100.0MV
    57   11  -720.0MV     -1.500 V      -100.0MV
    57   13  -730.0MV     -1.500 V      -100.0MV
    57   14  -610.0MV     -1.500 V      -100.0MV
    67    2   640.0MV      100.0MV       1.500 V
    67    4   640.0MV      100.0MV       1.500 V
    67    6   650.0MV      100.0MV       1.500 V
    67    8   650.0MV      100.0MV       1.500 V
    67   10   650.0MV      100.0MV       1.500 V
    67   12   650.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.330 V      3.980 V
   218    4   4.330 V      3.980 V
   224    6   4.340 V      3.980 V
   230    8   4.340 V      3.980 V
   236   10   4.340 V      3.980 V
   242   12   4.340 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   62.00MV                    260.0MV
   322    4   54.00MV                    260.0MV
   328    6   52.00MV                    260.0MV
   334    8   50.00MV                    260.0MV
   340   10   52.00MV                    260.0MV
   346   12   52.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -89.00NA     -100.0NA       100.0NA
   390    3  -14.00NA     -100.0NA       100.0NA
   395    5  -14.00NA     -100.0NA       100.0NA
   398    5   1.000NA     -100.0NA       100.0NA
   403    9  -10.00NA     -100.0NA       100.0NA
   406    9   2.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
```

```
   414   11   1.000NA     -100.0NA       100.0NA
   419   13  -96.00NA     -100.0NA       100.0NA
   422   13   1.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   125.0NA                    1.000UA
   458   14   10.00NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   740.0UA                    2.900MA
   500   14   690.0UA                    2.900MA
   500   14   680.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   680.0UA                    2.900MA
   500   14   730.0UA                    2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       3

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -670.0MV     -1.500 V      -100.0MV
    57    3  -680.0MV     -1.500 V      -100.0MV
    57    5  -680.0MV     -1.500 V      -100.0MV
    57    9  -680.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -680.0MV     -1.500 V      -100.0MV
    57   14  -560.0MV     -1.500 V      -100.0MV
    67    2   600.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   610.0MV      100.0MV       1.500 V
    67   10   610.0MV      100.0MV       1.500 V
    67   12   610.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.310 V      3.980 V
   218    4   4.320 V      3.980 V
   224    6   4.330 V      3.980 V
   230    8   4.330 V      3.980 V
   236   10   4.320 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -8.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   78.00MV                    260.0MV
   322    4   58.00MV                    260.0MV
   328    6   56.00MV                    260.0MV
   334    8   54.00MV                    260.0MV
   340   10   58.00MV                    260.0MV
   346   12   58.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -86.00NA     -100.0NA       100.0NA
   390    3  -12.00NA     -100.0NA       100.0NA
   395    5  -14.00NA     -100.0NA       100.0NA
   398    5   3.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9   3.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
```

```
   414   11   2.000NA     -100.0NA       100.0NA
   419   13  -50.00NA     -100.0NA       100.0NA
   422   13   3.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   70.00NA                    1.000UA
   458   14   4.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   670.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   620.0UA                    2.900MA
   500   14   610.0UA                    2.900MA
   500   14   640.0UA                    2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       4

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -730.0MV     -1.500 V      -100.0MV
    57    3  -730.0MV     -1.500 V      -100.0MV
    57    5  -730.0MV     -1.500 V      -100.0MV
    57    9  -730.0MV     -1.500 V      -100.0MV
    57   11  -730.0MV     -1.500 V      -100.0MV
    57   13  -730.0MV     -1.500 V      -100.0MV
    57   14  -610.0MV     -1.500 V      -100.0MV
    67    2   650.0MV      100.0MV       1.500 V
    67    4   650.0MV      100.0MV       1.500 V
    67    6   650.0MV      100.0MV       1.500 V
    67    8   650.0MV      100.0MV       1.500 V
    67   10   650.0MV      100.0MV       1.500 V
    67   12   650.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.320 V      3.980 V
   218    4   4.330 V      3.980 V
   224    6   4.340 V      3.980 V
   230    8   4.340 V      3.980 V
   236   10   4.340 V      3.980 V
   242   12   4.340 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -8.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   72.00MV                    260.0MV
   322    4   52.00MV                    260.0MV
   328    6   52.00MV                    260.0MV
   334    8   52.00MV                    260.0MV
   340   10   54.00MV                    260.0MV
   346   12   50.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ---------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -6.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -87.00NA     -100.0NA       100.0NA
   390    3  -13.00NA     -100.0NA       100.0NA
   395    5  -14.00NA     -100.0NA       100.0NA
   398    5   1.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9   3.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11   1.000NA     -100.0NA       100.0NA
   419   13  -91.00NA     -100.0NA       100.0NA
   422   13   10.00NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   120.0NA                    1.000UA
   458   14   8.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                    2.900MA
   500   14   680.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   690.0UA                    2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       5

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -650.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -650.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.290 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.310 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   84.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   66.00MV                    260.0MV
   334    8   66.00MV                    260.0MV
   340   10   70.00MV                    260.0MV
   346   12   66.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -7.000NA     -100.0NA       100.0NA
   390    3   5.000NA     -100.0NA       100.0NA
   395    5  -7.000NA     -100.0NA       100.0NA
   398    5   8.000NA     -100.0NA       100.0NA
   403    9  -8.000NA     -100.0NA       100.0NA
   406    9   7.000NA     -100.0NA       100.0NA
   411   11  -6.000NA     -100.0NA       100.0NA
```

```
   414   11   4.000NA     -100.0NA       100.0NA
   419   13  -34.00NA     -100.0NA       100.0NA
   422   13   3.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   55.00NA                    1.000UA
   458   14   5.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                    2.900MA
   500   14   690.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   620.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   660.0UA                    2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       6

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -740.0MV     -1.500 V      -100.0MV
    57    3  -740.0MV     -1.500 V      -100.0MV
    57    5  -740.0MV     -1.500 V      -100.0MV
    57    9  -740.0MV     -1.500 V      -100.0MV
    57   11  -740.0MV     -1.500 V      -100.0MV
    57   13  -740.0MV     -1.500 V      -100.0MV
    57   14  -620.0MV     -1.500 V      -100.0MV
    67    2   660.0MV      100.0MV       1.500 V
    67    4   650.0MV      100.0MV       1.500 V
    67    6   660.0MV      100.0MV       1.500 V
    67    8   650.0MV      100.0MV       1.500 V
    67   10   660.0MV      100.0MV       1.500 V
    67   12   660.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.320 V      3.980 V
   218    4   4.330 V      3.980 V
   224    6   4.340 V      3.980 V
   230    8   4.330 V      3.980 V
   236   10   4.330 V      3.980 V
   242   12   4.340 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   70.00MV                    260.0MV
   322    4   54.00MV                    260.0MV
   328    6   52.00MV                    260.0MV
   334    8   50.00MV                    260.0MV
   340   10   54.00MV                    260.0MV
   346   12   54.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -87.00NA     -100.0NA       100.0NA
   390    3  -13.00NA     -100.0NA       100.0NA
   395    5  -15.00NA     -100.0NA       100.0NA
   398    5   1.000NA     -100.0NA       100.0NA
   403    9  -10.00NA     -100.0NA       100.0NA
   406    9   3.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
```

```
   414   11   1.000NA     -100.0NA       100.0NA
   419   13  -49.00NA     -100.0NA       100.0NA
   422   13   2.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   91.00NA                    1.000UA
   458   14   5.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   650.0UA                    2.900MA
   500   14   680.0UA                    2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       7

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -700.0MV     -1.500 V      -100.0MV
    57    3  -700.0MV     -1.500 V      -100.0MV
    57    5  -700.0MV     -1.500 V      -100.0MV
    57    9  -700.0MV     -1.500 V      -100.0MV
    57   11  -700.0MV     -1.500 V      -100.0MV
    57   13  -700.0MV     -1.500 V      -100.0MV
    57   14  -580.0MV     -1.500 V      -100.0MV
    67    2   620.0MV      100.0MV       1.500 V
    67    4   620.0MV      100.0MV       1.500 V
    67    6   620.0MV      100.0MV       1.500 V
    67    8   630.0MV      100.0MV       1.500 V
    67   10   630.0MV      100.0MV       1.500 V
    67   12   630.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.320 V      3.980 V
   218    4   4.330 V      3.980 V
   224    6   4.330 V      3.980 V
   230    8   4.330 V      3.980 V
   236   10   4.330 V      3.980 V
   242   12   4.330 V      3.980 V

 --------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 --------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   70.00MV                    260.0MV
   322    4   54.00MV                    260.0MV
   328    6   52.00MV                    260.0MV
   334    8   50.00MV                    260.0MV
   340   10   54.00MV                    260.0MV
   346   12   54.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -87.00NA     -100.0NA       100.0NA
   390    3  -12.00NA     -100.0NA       100.0NA
   395    5  -16.00NA     -100.0NA       100.0NA
   398    5   4.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9   3.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
```

```
   414   11   2.000NA     -100.0NA       100.0NA
   419   13  -27.00NA     -100.0NA       100.0NA
   422   13   1.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   47.00NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   720.0UA                    2.900MA
   500   14   710.0UA                    2.900MA
   500   14   710.0UA                    2.900MA
   500   14   640.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   690.0UA                    2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       8

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -670.0MV     -1.500 V      -100.0MV
    57    3  -680.0MV     -1.500 V      -100.0MV
    57    5  -670.0MV     -1.500 V      -100.0MV
    57    9  -670.0MV     -1.500 V      -100.0MV
    57   11  -680.0MV     -1.500 V      -100.0MV
    57   13  -680.0MV     -1.500 V      -100.0MV
    57   14  -550.0MV     -1.500 V      -100.0MV
    67    2   590.0MV      100.0MV       1.500 V
    67    4   600.0MV      100.0MV       1.500 V
    67    6   600.0MV      100.0MV       1.500 V
    67    8   600.0MV      100.0MV       1.500 V
    67   10   600.0MV      100.0MV       1.500 V
    67   12   600.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.320 V      3.980 V
   224    6   4.330 V      3.980 V
   230    8   4.320 V      3.980 V
   236   10   4.320 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   76.00MV                    260.0MV
   322    4   58.00MV                    260.0MV
   328    6   58.00MV                    260.0MV
   334    8   58.00MV                    260.0MV
   340   10   60.00MV                    260.0MV
   346   12   60.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -6.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -87.00NA     -100.0NA       100.0NA
   390    3  -12.00NA     -100.0NA       100.0NA
   395    5  -16.00NA     -100.0NA       100.0NA
   398    5   4.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9   4.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
```

```
   414   11   1.000NA     -100.0NA       100.0NA
   419   13  -32.00NA     -100.0NA       100.0NA
   422   13   1.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   52.00NA                    1.000UA
   458   14   3.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   690.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   620.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   660.0UA                    2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       9

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -700.0MV     -1.500 V      -100.0MV
    57    3  -700.0MV     -1.500 V      -100.0MV
    57    5  -700.0MV     -1.500 V      -100.0MV
    57    9  -710.0MV     -1.500 V      -100.0MV
    57   11  -710.0MV     -1.500 V      -100.0MV
    57   13  -710.0MV     -1.500 V      -100.0MV
    57   14  -590.0MV     -1.500 V      -100.0MV
    67    2   630.0MV      100.0MV       1.500 V
    67    4   630.0MV      100.0MV       1.500 V
    67    6   630.0MV      100.0MV       1.500 V
    67    8   630.0MV      100.0MV       1.500 V
    67   10   630.0MV      100.0MV       1.500 V
    67   12   630.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.320 V      3.980 V
   218    4   4.330 V      3.980 V
   224    6   4.330 V      3.980 V
   230    8   4.330 V      3.980 V
   236   10   4.330 V      3.980 V
   242   12   4.330 V      3.980 V

 --------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 --------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -8.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   74.00MV                   260.0MV
   322    4   54.00MV                   260.0MV
   328    6   54.00MV                   260.0MV
   334    8   54.00MV                   260.0MV
   340   10   56.00MV                   260.0MV
   346   12   56.00MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   2.000NA     -100.0NA       100.0NA
   387    3  -85.00NA     -100.0NA       100.0NA
   390    3  -13.00NA     -100.0NA       100.0NA
   395    5  -14.00NA     -100.0NA       100.0NA
   398    5   1.000NA     -100.0NA       100.0NA
   403    9  -10.00NA     -100.0NA       100.0NA
   406    9   2.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11   1.000NA     -100.0NA       100.0NA
   419   13  -16.00NA     -100.0NA       100.0NA
   422   13   1.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   34.00NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   650.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   620.0UA                    2.900MA
   500   14   590.0UA                    2.900MA
   500   14   590.0UA                    2.900MA
   500   14   620.0UA                    2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N      10

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -710.0MV     -1.500 V      -100.0MV
    57    3  -710.0MV     -1.500 V      -100.0MV
    57    5  -710.0MV     -1.500 V      -100.0MV
    57    9  -710.0MV     -1.500 V      -100.0MV
    57   11  -710.0MV     -1.500 V      -100.0MV
    57   13  -710.0MV     -1.500 V      -100.0MV
    57   14  -590.0MV     -1.500 V      -100.0MV
    67    2   630.0MV      100.0MV       1.500 V
    67    4   630.0MV      100.0MV       1.500 V
    67    6   640.0MV      100.0MV       1.500 V
    67    8   640.0MV      100.0MV       1.500 V
    67   10   640.0MV      100.0MV       1.500 V
    67   12   640.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.320 V      3.980 V
   218    4   4.330 V      3.980 V
   224    6   4.330 V      3.980 V
   230    8   4.330 V      3.980 V
   236   10   4.330 V      3.980 V
   242   12   4.330 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   70.00MV                    260.0MV
   322    4   52.00MV                    260.0MV
   328    6   52.00MV                    260.0MV
   334    8   52.00MV                    260.0MV
   340   10   54.00MV                    260.0MV
   346   12   54.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ---------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -6.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -87.00NA     -100.0NA       100.0NA
   390    3  -13.00NA     -100.0NA       100.0NA
   395    5  -16.00NA     -100.0NA       100.0NA
   398    5   3.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9   3.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
```

```
   414   11   2.000NA     -100.0NA       100.0NA
   419   13  -22.00NA     -100.0NA       100.0NA
   422   13   1.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   38.00NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   670.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   620.0UA                    2.900MA
   500   14   660.0UA                    2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N      11

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -710.0MV     -1.500 V      -100.0MV
    57    3  -710.0MV     -1.500 V      -100.0MV
    57    5  -720.0MV     -1.500 V      -100.0MV
    57    9  -720.0MV     -1.500 V      -100.0MV
    57   11  -720.0MV     -1.500 V      -100.0MV
    57   13  -720.0MV     -1.500 V      -100.0MV
    57   14  -600.0MV     -1.500 V      -100.0MV
    67    2   640.0MV      100.0MV       1.500 V
    67    4   640.0MV      100.0MV       1.500 V
    67    6   640.0MV      100.0MV       1.500 V
    67    8   640.0MV      100.0MV       1.500 V
    67   10   640.0MV      100.0MV       1.500 V
    67   12   640.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.320 V      3.980 V
   218    4   4.330 V      3.980 V
   224    6   4.340 V      3.980 V
   230    8   4.340 V      3.980 V
   236   10   4.330 V      3.980 V
   242   12   4.340 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   68.00MV                   260.0MV
   322    4   50.00MV                   260.0MV
   328    6   48.00MV                   260.0MV
   334    8   48.00MV                   260.0MV
   340   10   50.00MV                   260.0MV
   346   12   52.00MV                   260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -6.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -87.00NA     -100.0NA       100.0NA
   390    3  -12.00NA     -100.0NA       100.0NA
   395    5  -16.00NA     -100.0NA       100.0NA
   398    5   4.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9   4.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
```

```
   414   11   2.000NA     -100.0NA       100.0NA
   419   13  -46.00NA     -100.0NA       100.0NA
   422   13   3.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   68.00NA                    1.000UA
   458   14   4.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   730.0UA                    2.900MA
   500   14   700.0UA                    2.900MA
   500   14   690.0UA                    2.900MA
   500   14   690.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   700.0UA                    2.900MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N      12

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 -55C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -710.0MV     -1.500 V      -100.0MV
    57    3  -720.0MV     -1.500 V      -100.0MV
    57    5  -720.0MV     -1.500 V      -100.0MV
    57    9  -720.0MV     -1.500 V      -100.0MV
    57   11  -720.0MV     -1.500 V      -100.0MV
    57   13  -720.0MV     -1.500 V      -100.0MV
    57   14  -600.0MV     -1.500 V      -100.0MV
    67    2   640.0MV      100.0MV       1.500 V
    67    4   640.0MV      100.0MV       1.500 V
    67    6   640.0MV      100.0MV       1.500 V
    67    8   640.0MV      100.0MV       1.500 V
    67   10   640.0MV      100.0MV       1.500 V
    67   12   640.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.320 V      3.980 V
   218    4   4.330 V      3.980 V
   224    6   4.330 V      3.980 V
   230    8   4.330 V      3.980 V
   236   10   4.330 V      3.980 V
   242   12   4.330 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   72.00MV                    260.0MV
   322    4   54.00MV                    260.0MV
   328    6   54.00MV                    260.0MV
   334    8   52.00MV                    260.0MV
   340   10   56.00MV                    260.0MV
   346   12   56.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -6.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -86.00NA     -100.0NA       100.0NA
   390    3  -12.00NA     -100.0NA       100.0NA
   395    5  -16.00NA     -100.0NA       100.0NA
   398    5   4.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9   4.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
```

```
   414   11   2.000NA     -100.0NA       100.0NA
   419   13  -40.00NA     -100.0NA       100.0NA
   422   13   2.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   66.00NA                    1.000UA
   458   14   4.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   680.0UA                    2.900MA
   500   14   660.0UA                    2.900MA
   500   14   670.0UA                    2.900MA
   500   14   630.0UA                    2.900MA
   500   14   620.0UA                    2.900MA
   500   14   650.0UA                    2.900MA


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

Post Burn-In Test Results at 25°C

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 1

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-650.0MV	-1.500 V	-100.0MV
57	3	-650.0MV	-1.500 V	-100.0MV
57	5	-650.0MV	-1.500 V	-100.0MV
57	9	-650.0MV	-1.500 V	-100.0MV
57	11	-650.0MV	-1.500 V	-100.0MV
57	13	-650.0MV	-1.500 V	-100.0MV
57	14	-520.0MV	-1.500 V	-100.0MV
67	2	560.0MV	100.0MV	1.500 V
67	4	560.0MV	100.0MV	1.500 V
67	6	560.0MV	100.0MV	1.500 V
67	8	560.0MV	100.0MV	1.500 V
67	10	560.0MV	100.0MV	1.500 V
67	12	560.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.460 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.460 V	4.400 V	
183	10	4.460 V	4.400 V	
189	12	4.460 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.980

INST #	PIN	MEASURED	LT	GT
212	2	4.310 V	3.980 V	
218	4	4.310 V	3.980 V	
224	6	4.310 V	3.980 V	
230	8	4.310 V	3.980 V	
236	10	4.310 V	3.980 V	
242	12	4.310 V	3.980 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-6.000MV		100.0MV
269	4	-6.000MV		100.0MV
275	6	-6.000MV		100.0MV
281	8	-6.000MV		100.0MV

```
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   80.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   66.00MV                    260.0MV
   334    8   66.00MV                    260.0MV
   340   10   70.00MV                    260.0MV
   346   12   70.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ---------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -2.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 ---------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 ---------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -7.000NA     -100.0NA       100.0NA
   390    3   5.000NA     -100.0NA       100.0NA
   395    5  -8.000NA     -100.0NA       100.0NA
   398    5   9.000NA     -100.0NA       100.0NA
   403    9  -9.000NA     -100.0NA       100.0NA
   406    9   9.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
   414   11   6.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
```

```
   422   13   3.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   28.00NA                   1.000UA
   458   14   4.000NA                   1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   720.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   670.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   710.0UA                   2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       2

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -660.0MV     -1.500 V      -100.0MV
    57    5  -660.0MV     -1.500 V      -100.0MV
    57    9  -660.0MV     -1.500 V      -100.0MV
    57   11  -660.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -530.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.310 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.310 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

275	6	-6.000MV		100.0MV
281	8	-8.000MV		100.0MV
287	10	-8.000MV		100.0MV
293	12	-6.000MV		100.0MV

```
 ------------------------------------
            VOL2 TEST
            VCC=    4.500
            VOL2 LIMIT  260.0E-03
 ------------------------------------
```

INST #	PIN	MEASURED	LT	GT
316	2	74.00MV		260.0MV
322	4	66.00MV		260.0MV
328	6	66.00MV		260.0MV
334	8	62.00MV		260.0MV
340	10	64.00MV		260.0MV
346	12	66.00MV		260.0MV

```
 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------
```

INST #	PIN	MEASURED	LT	GT
159	2	5.460 V	5.400 V	
165	4	5.460 V	5.400 V	
171	6	5.460 V	5.400 V	
177	8	5.460 V	5.400 V	
183	10	5.460 V	5.400 V	
189	12	5.460 V	5.400 V	

```
 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------
```

INST #	PIN	MEASURED	LT	GT
263	2	-4.000MV		100.0MV
269	4	-4.000MV		100.0MV
275	6	-4.000MV		100.0MV
281	8	-4.000MV		100.0MV
287	10	-4.000MV		100.0MV
293	12	-4.000MV		100.0MV

```
 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------
```

INST #	PIN	MEASURED	LT	GT
379	1	-4.000NA	-100.0NA	100.0NA
382	1	3.000NA	-100.0NA	100.0NA
387	3	-90.00NA	-100.0NA	100.0NA
390	3	-12.00NA	-100.0NA	100.0NA
395	5	-16.00NA	-100.0NA	100.0NA
398	5	4.000NA	-100.0NA	100.0NA
403	9	-13.00NA	-100.0NA	100.0NA
406	9	6.000NA	-100.0NA	100.0NA
411	11	-9.000NA	-100.0NA	100.0NA

```
   414   11   4.000NA     -100.0NA       100.0NA
   419   13  -7.000NA     -100.0NA       100.0NA
   422   13   2.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   26.00NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   750.0UA                    2.400MA
   500   14   700.0UA                    2.400MA
   500   14   690.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   690.0UA                    2.400MA
   500   14   730.0UA                    2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       3

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -660.0MV     -1.500 V      -100.0MV
    57    5  -660.0MV     -1.500 V      -100.0MV
    57    9  -660.0MV     -1.500 V      -100.0MV
    57   11  -660.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.310 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.310 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   80.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   66.00MV                    260.0MV
   334    8   64.00MV                    260.0MV
   340   10   68.00MV                    260.0MV
   346   12   70.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -7.000NA     -100.0NA       100.0NA
   390    3   5.000NA     -100.0NA       100.0NA
   395    5  -8.000NA     -100.0NA       100.0NA
   398    5   9.000NA     -100.0NA       100.0NA
   403    9  -9.000NA     -100.0NA       100.0NA
   406    9   8.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11   6.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13   3.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   27.00NA                    1.000UA
   458   14   3.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   680.0UA                    2.400MA
   500   14   660.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   630.0UA                    2.400MA
   500   14   620.0UA                    2.400MA
   500   14   640.0UA                    2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       4

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -660.0MV     -1.500 V      -100.0MV
    57    5  -660.0MV     -1.500 V      -100.0MV
    57    9  -660.0MV     -1.500 V      -100.0MV
    57   11  -660.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.310 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.310 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   80.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   66.00MV                    260.0MV
   334    8   66.00MV                    260.0MV
   340   10   68.00MV                    260.0MV
   346   12   70.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -32.00NA     -100.0NA       100.0NA
   390    3  -5.000NA     -100.0NA       100.0NA
   395    5  -13.00NA     -100.0NA       100.0NA
   398    5   6.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9   6.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
```

```
   414   11   5.000NA     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13   2.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   26.00NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                    2.400MA
   500   14   690.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   700.0UA                    2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       5

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -660.0MV     -1.500 V      -100.0MV
    57    9  -660.0MV     -1.500 V      -100.0MV
    57   11  -660.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.310 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.310 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   76.00MV                    260.0MV
   322    4   66.00MV                    260.0MV
   328    6   64.00MV                    260.0MV
   334    8   64.00MV                    260.0MV
   340   10   66.00MV                    260.0MV
   346   12   70.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -6.000MV                    100.0MV
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -7.000NA     -100.0NA       100.0NA
   390    3   5.000NA     -100.0NA       100.0NA
   395    5  -8.000NA     -100.0NA       100.0NA
   398    5   9.000NA     -100.0NA       100.0NA
   403    9  -9.000NA     -100.0NA       100.0NA
   406    9   8.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11   6.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13   3.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   27.00NA                    1.000UA
   458   14   3.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   620.0UA                    2.400MA
   500   14   630.0UA                    2.400MA
   500   14   660.0UA                    2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       6

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -650.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -650.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.310 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -8.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   80.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   68.00MV                    260.0MV
   334    8   66.00MV                    260.0MV
   340   10   70.00MV                    260.0MV
   346   12   70.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -2.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -7.000NA     -100.0NA       100.0NA
   390    3   5.000NA     -100.0NA       100.0NA
   395    5  -8.000NA     -100.0NA       100.0NA
   398    5   9.000NA     -100.0NA       100.0NA
   403    9  -9.000NA     -100.0NA       100.0NA
   406    9   8.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11   6.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13   3.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   28.00NA                    1.000UA
   458   14   3.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   660.0UA                    2.400MA
   500   14   690.0UA                    2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       7

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -650.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.310 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.320 V      3.980 V
   236   10   4.320 V      3.980 V
   242   12   4.320 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

275	6	-6.000MV	100.0MV
281	8	-8.000MV	100.0MV
287	10	-8.000MV	100.0MV
293	12	-6.000MV	100.0MV

```
 ------------------------------------
            VOL2 TEST
            VCC=    4.500
            VOL2 LIMIT  260.0E-03
 ------------------------------------
```

INST #	PIN	MEASURED	LT	GT
316	2	76.00MV		260.0MV
322	4	66.00MV		260.0MV
328	6	64.00MV		260.0MV
334	8	64.00MV		260.0MV
340	10	66.00MV		260.0MV
346	12	66.00MV		260.0MV

```
 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------
```

INST #	PIN	MEASURED	LT	GT
159	2	5.460 V	5.400 V	
165	4	5.460 V	5.400 V	
171	6	5.460 V	5.400 V	
177	8	5.460 V	5.400 V	
183	10	5.460 V	5.400 V	
189	12	5.460 V	5.400 V	

```
 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------
```

INST #	PIN	MEASURED	LT	GT
263	2	-2.000MV		100.0MV
269	4	-6.000MV		100.0MV
275	6	-4.000MV		100.0MV
281	8	-4.000MV		100.0MV
287	10	-2.000MV		100.0MV
293	12	-4.000MV		100.0MV

```
 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------
```

INST #	PIN	MEASURED	LT	GT
379	1	-4.000NA	-100.0NA	100.0NA
382	1	3.000NA	-100.0NA	100.0NA
387	3	-90.00NA	-100.0NA	100.0NA
390	3	-12.00NA	-100.0NA	100.0NA
395	5	-16.00NA	-100.0NA	100.0NA
398	5	4.000NA	-100.0NA	100.0NA
403	9	-12.00NA	-100.0NA	100.0NA
406	9	5.000NA	-100.0NA	100.0NA
411	11	-9.000NA	-100.0NA	100.0NA

```
   414   11   4.000NA     -100.0NA       100.0NA
   419   13  -7.000NA     -100.0NA       100.0NA
   422   13   2.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   26.00NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   730.0UA                    2.400MA
   500   14   710.0UA                    2.400MA
   500   14   710.0UA                    2.400MA
   500   14   650.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   690.0UA                    2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       8

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -650.0MV     -1.500 V      -100.0MV
    57    3  -660.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -660.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -660.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.310 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   76.00MV                    260.0MV
   322    4   66.00MV                    260.0MV
   328    6   66.00MV                    260.0MV
   334    8   64.00MV                    260.0MV
   340   10   70.00MV                    260.0MV
   346   12   68.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -6.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -32.00NA     -100.0NA       100.0NA
   390    3  -5.000NA     -100.0NA       100.0NA
   395    5  -13.00NA     -100.0NA       100.0NA
   398    5   5.000NA     -100.0NA       100.0NA
   403    9  -11.00NA     -100.0NA       100.0NA
   406    9   6.000NA     -100.0NA       100.0NA
   411   11  -8.000NA     -100.0NA       100.0NA
```

```
   414   11   5.000NA     -100.0NA       100.0NA
   419   13  -6.000NA     -100.0NA       100.0NA
   422   13   2.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   26.00NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   690.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   680.0UA                    2.400MA
   500   14   630.0UA                    2.400MA
   500   14   640.0UA                    2.400MA
   500   14   670.0UA                    2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       9

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -650.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -650.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.300 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.320 V      3.980 V
   230    8   4.310 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -8.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   78.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   64.00MV                    260.0MV
   334    8   66.00MV                    260.0MV
   340   10   68.00MV                    260.0MV
   346   12   68.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -7.000NA     -100.0NA       100.0NA
   390    3   5.000NA     -100.0NA       100.0NA
   395    5  -8.000NA     -100.0NA       100.0NA
   398    5   9.000NA     -100.0NA       100.0NA
   403    9  -9.000NA     -100.0NA       100.0NA
   406    9   8.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11   6.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13   3.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   28.00NA                    1.000UA
   458   14   3.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   660.0UA                    2.400MA
   500   14   640.0UA                    2.400MA
   500   14   630.0UA                    2.400MA
   500   14   600.0UA                    2.400MA
   500   14   600.0UA                    2.400MA
   500   14   630.0UA                    2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N      10

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -660.0MV     -1.500 V      -100.0MV
    57    3  -660.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -650.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.460 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.310 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.310 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   80.00MV                    260.0MV
   322    4   66.00MV                    260.0MV
   328    6   66.00MV                    260.0MV
   334    8   66.00MV                    260.0MV
   340   10   70.00MV                    260.0MV
   346   12   68.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -7.000NA     -100.0NA       100.0NA
   390    3   5.000NA     -100.0NA       100.0NA
   395    5  -8.000NA     -100.0NA       100.0NA
   398    5   9.000NA     -100.0NA       100.0NA
   403    9  -9.000NA     -100.0NA       100.0NA
   406    9   8.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11   6.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13   3.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   27.00NA                    1.000UA
   458   14   3.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   680.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   640.0UA                    2.400MA
   500   14   630.0UA                    2.400MA
   500   14   670.0UA                    2.400MA


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

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 11

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-650.0MV	-1.500 V	-100.0MV
57	3	-650.0MV	-1.500 V	-100.0MV
57	5	-650.0MV	-1.500 V	-100.0MV
57	9	-650.0MV	-1.500 V	-100.0MV
57	11	-650.0MV	-1.500 V	-100.0MV
57	13	-650.0MV	-1.500 V	-100.0MV
57	14	-520.0MV	-1.500 V	-100.0MV
67	2	570.0MV	100.0MV	1.500 V
67	4	570.0MV	100.0MV	1.500 V
67	6	570.0MV	100.0MV	1.500 V
67	8	570.0MV	100.0MV	1.500 V
67	10	570.0MV	100.0MV	1.500 V
67	12	570.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.460 V	4.400 V	
165	4	4.460 V	4.400 V	
171	6	4.460 V	4.400 V	
177	8	4.460 V	4.400 V	
183	10	4.460 V	4.400 V	
189	12	4.460 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.980

INST #	PIN	MEASURED	LT	GT
212	2	4.310 V	3.980 V	
218	4	4.310 V	3.980 V	
224	6	4.320 V	3.980 V	
230	8	4.320 V	3.980 V	
236	10	4.310 V	3.980 V	
242	12	4.310 V	3.980 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-6.000MV		100.0MV
269	4	-6.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   76.00MV                    260.0MV
   322    4   66.00MV                    260.0MV
   328    6   64.00MV                    260.0MV
   334    8   64.00MV                    260.0MV
   340   10   64.00MV                    260.0MV
   346   12   66.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -90.00NA     -100.0NA       100.0NA
   390    3  -12.00NA     -100.0NA       100.0NA
   395    5  -16.00NA     -100.0NA       100.0NA
   398    5   4.000NA     -100.0NA       100.0NA
   403    9  -13.00NA     -100.0NA       100.0NA
   406    9   6.000NA     -100.0NA       100.0NA
   411   11  -9.000NA     -100.0NA       100.0NA
```

```
   414   11   4.000NA     -100.0NA       100.0NA
   419   13  -7.000NA     -100.0NA       100.0NA
   422   13   2.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   26.00NA                    1.000UA
   458   14   2.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   730.0UA                    2.400MA
   500   14   710.0UA                    2.400MA
   500   14   700.0UA                    2.400MA
   500   14   700.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   700.0UA                    2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N      12

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +25C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -650.0MV     -1.500 V      -100.0MV
    57    3  -650.0MV     -1.500 V      -100.0MV
    57    5  -650.0MV     -1.500 V      -100.0MV
    57    9  -650.0MV     -1.500 V      -100.0MV
    57   11  -650.0MV     -1.500 V      -100.0MV
    57   13  -650.0MV     -1.500 V      -100.0MV
    57   14  -520.0MV     -1.500 V      -100.0MV
    67    2   570.0MV      100.0MV       1.500 V
    67    4   570.0MV      100.0MV       1.500 V
    67    6   570.0MV      100.0MV       1.500 V
    67    8   570.0MV      100.0MV       1.500 V
    67   10   570.0MV      100.0MV       1.500 V
    67   12   570.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.460 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.460 V      4.400 V
   177    8   4.460 V      4.400 V
   183   10   4.460 V      4.400 V
   189   12   4.460 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.980
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.310 V      3.980 V
   218    4   4.310 V      3.980 V
   224    6   4.310 V      3.980 V
   230    8   4.310 V      3.980 V
   236   10   4.310 V      3.980 V
   242   12   4.310 V      3.980 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -8.000MV                   100.0MV
   269    4  -6.000MV                   100.0MV
```

```
   275    6  -8.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   78.00MV                    260.0MV
   322    4   68.00MV                    260.0MV
   328    6   68.00MV                    260.0MV
   334    8   66.00MV                    260.0MV
   340   10   70.00MV                    260.0MV
   346   12   70.00MV                    260.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -2.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -4.000NA     -100.0NA       100.0NA
   382    1   3.000NA     -100.0NA       100.0NA
   387    3  -7.000NA     -100.0NA       100.0NA
   390    3   5.000NA     -100.0NA       100.0NA
   395    5  -8.000NA     -100.0NA       100.0NA
   398    5   9.000NA     -100.0NA       100.0NA
   403    9  -9.000NA     -100.0NA       100.0NA
   406    9   9.000NA     -100.0NA       100.0NA
   411   11  -7.000NA     -100.0NA       100.0NA
```

```
   414   11   6.000NA     -100.0NA       100.0NA
   419   13  -5.000NA     -100.0NA       100.0NA
   422   13   3.000NA     -100.0NA       100.0NA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   28.00NA                    1.000UA
   458   14   3.000NA                    1.000UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   680.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   670.0UA                    2.400MA
   500   14   630.0UA                    2.400MA
   500   14   630.0UA                    2.400MA
   500   14   660.0UA                    2.400MA


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

Post Burn-In Test Results at +125°C

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 1

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-560.0MV	-1.500 V	-100.0MV
57	3	-560.0MV	-1.500 V	-100.0MV
57	5	-560.0MV	-1.500 V	-100.0MV
57	9	-560.0MV	-1.500 V	-100.0MV
57	11	-550.0MV	-1.500 V	-100.0MV
57	13	-560.0MV	-1.500 V	-100.0MV
57	14	-410.0MV	-1.500 V	-100.0MV
67	2	460.0MV	100.0MV	1.500 V
67	4	460.0MV	100.0MV	1.500 V
67	6	460.0MV	100.0MV	1.500 V
67	8	460.0MV	100.0MV	1.500 V
67	10	460.0MV	100.0MV	1.500 V
67	12	460.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.460 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.450 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.270 V	3.700 V	
218	4	4.280 V	3.700 V	
224	6	4.280 V	3.700 V	
230	8	4.280 V	3.700 V	
236	10	4.280 V	3.700 V	
242	12	4.280 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-6.000MV		100.0MV
269	4	-6.000MV		100.0MV
275	6	-6.000MV		100.0MV
281	8	-6.000MV		100.0MV

287	10	-6.000MV		100.0MV
293	12	-6.000MV		100.0MV

VOL2 TEST
VCC= 4.500
VOL2 LIMIT 400.0E-03

INST #	PIN	MEASURED	LT	GT
316	2	110.0MV		400.0MV
322	4	90.00MV		400.0MV
328	6	90.00MV		400.0MV
334	8	88.00MV		400.0MV
340	10	92.00MV		400.0MV
346	12	92.00MV		400.0MV

FUNCTIONAL TEST
VCC= 5.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 5.500
VOH LIMIT 5.400

INST #	PIN	MEASURED	LT	GT
159	2	5.460 V	5.400 V	
165	4	5.450 V	5.400 V	
171	6	5.450 V	5.400 V	
177	8	5.450 V	5.400 V	
183	10	5.460 V	5.400 V	
189	12	5.460 V	5.400 V	

VOL1 TEST
VCC= 5.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	0 V		100.0MV
269	4	-2.000MV		100.0MV
275	6	-4.000MV		100.0MV
281	8	-4.000MV		100.0MV
287	10	-4.000MV		100.0MV
293	12	-4.000MV		100.0MV

IIN TEST
VCC= 5.5
IIL/IIH LIMIT +- 0.1UA @25C/-55C
IIL/IIH LIMIT +- 1.0UA @+125C

INST #	PIN	MEASURED	LT	GT
379	1	-7.000NA	-1.000UA	1.000UA
382	1	0 A	-1.000UA	1.000UA
387	3	-14.00NA	-1.000UA	1.000UA
390	3	-4.000NA	-1.000UA	1.000UA
395	5	-26.00NA	-1.000UA	1.000UA
398	5	-10.00NA	-1.000UA	1.000UA
403	9	-31.00NA	-1.000UA	1.000UA
406	9	-12.00NA	-1.000UA	1.000UA
411	11	-23.00NA	-1.000UA	1.000UA
414	11	-9.000NA	-1.000UA	1.000UA
419	13	-41.00NA	-1.000UA	1.000UA

```
   422   13   1.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14       0 A                   40.00UA
   458   14   100.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   730.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   710.0UA                   2.400MA


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

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 2

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-550.0MV	-1.500 V	-100.0MV
57	3	-540.0MV	-1.500 V	-100.0MV
57	5	-540.0MV	-1.500 V	-100.0MV
57	9	-540.0MV	-1.500 V	-100.0MV
57	11	-540.0MV	-1.500 V	-100.0MV
57	13	-540.0MV	-1.500 V	-100.0MV
57	14	-390.0MV	-1.500 V	-100.0MV
67	2	450.0MV	100.0MV	1.500 V
67	4	450.0MV	100.0MV	1.500 V
67	6	450.0MV	100.0MV	1.500 V
67	8	450.0MV	100.0MV	1.500 V
67	10	450.0MV	100.0MV	1.500 V
67	12	440.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.450 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.270 V	3.700 V	
218	4	4.270 V	3.700 V	
224	6	4.280 V	3.700 V	
230	8	4.280 V	3.700 V	
236	10	4.280 V	3.700 V	
242	12	4.280 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-6.000MV		100.0MV
269	4	-6.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   106.0MV                    400.0MV
   322    4   90.00MV                    400.0MV
   328    6   88.00MV                    400.0MV
   334    8   86.00MV                    400.0MV
   340   10   90.00MV                    400.0MV
   346   12   88.00MV                    400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -2.000MV                    100.0MV
   293   12       0 V                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -7.000NA     -1.000UA       1.000UA
   382    1       0 A     -1.000UA       1.000UA
   387    3  -15.00NA     -1.000UA       1.000UA
   390    3  -5.000NA     -1.000UA       1.000UA
   395    5  -27.00NA     -1.000UA       1.000UA
   398    5  -10.00NA     -1.000UA       1.000UA
   403    9  -31.00NA     -1.000UA       1.000UA
   406    9  -12.00NA     -1.000UA       1.000UA
   411   11  -21.00NA     -1.000UA       1.000UA
```

```
   414   11  -7.000NA     -1.000UA       1.000UA
   419   13  -56.00NA     -1.000UA       1.000UA
   422   13   2.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   100.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   750.0UA                   2.400MA
   500   14   710.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   730.0UA                   2.400MA


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

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 3

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-540.0MV	-1.500 V	-100.0MV
57	3	-540.0MV	-1.500 V	-100.0MV
57	5	-540.0MV	-1.500 V	-100.0MV
57	9	-540.0MV	-1.500 V	-100.0MV
57	11	-540.0MV	-1.500 V	-100.0MV
57	13	-540.0MV	-1.500 V	-100.0MV
57	14	-390.0MV	-1.500 V	-100.0MV
67	2	450.0MV	100.0MV	1.500 V
67	4	450.0MV	100.0MV	1.500 V
67	6	450.0MV	100.0MV	1.500 V
67	8	450.0MV	100.0MV	1.500 V
67	10	450.0MV	100.0MV	1.500 V
67	12	450.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.460 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.260 V	3.700 V	
218	4	4.270 V	3.700 V	
224	6	4.280 V	3.700 V	
230	8	4.280 V	3.700 V	
236	10	4.270 V	3.700 V	
242	12	4.270 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-4.000MV		100.0MV
269	4	-4.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   112.0MV                   400.0MV
   322    4   90.00MV                   400.0MV
   328    6   90.00MV                   400.0MV
   334    8   90.00MV                   400.0MV
   340   10   94.00MV                   400.0MV
   346   12   94.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -8.000NA     -1.000UA       1.000UA
   382    1       0 A     -1.000UA       1.000UA
   387    3  -18.00NA     -1.000UA       1.000UA
   390    3  -6.000NA     -1.000UA       1.000UA
   395    5  -32.00NA     -1.000UA       1.000UA
   398    5  -12.00NA     -1.000UA       1.000UA
   403    9  -31.00NA     -1.000UA       1.000UA
   406    9  -12.00NA     -1.000UA       1.000UA
   411   11  -20.00NA     -1.000UA       1.000UA
```

```
   414   11  -7.000NA     -1.000UA       1.000UA
   419   13  -64.00NA     -1.000UA       1.000UA
   422   13   3.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   100.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   680.0UA                   2.400MA
   500   14   670.0UA                   2.400MA
   500   14   670.0UA                   2.400MA
   500   14   640.0UA                   2.400MA
   500   14   630.0UA                   2.400MA
   500   14   660.0UA                   2.400MA


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

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 4

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-550.0MV	-1.500 V	-100.0MV
57	3	-550.0MV	-1.500 V	-100.0MV
57	5	-550.0MV	-1.500 V	-100.0MV
57	9	-550.0MV	-1.500 V	-100.0MV
57	11	-550.0MV	-1.500 V	-100.0MV
57	13	-550.0MV	-1.500 V	-100.0MV
57	14	-400.0MV	-1.500 V	-100.0MV
67	2	450.0MV	100.0MV	1.500 V
67	4	450.0MV	100.0MV	1.500 V
67	6	450.0MV	100.0MV	1.500 V
67	8	450.0MV	100.0MV	1.500 V
67	10	450.0MV	100.0MV	1.500 V
67	12	450.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.460 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.460 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.460 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.270 V	3.700 V	
218	4	4.270 V	3.700 V	
224	6	4.280 V	3.700 V	
230	8	4.280 V	3.700 V	
236	10	4.270 V	3.700 V	
242	12	4.280 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-6.000MV		100.0MV
269	4	-6.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   108.0MV                   400.0MV
   322    4   90.00MV                   400.0MV
   328    6   90.00MV                   400.0MV
   334    8   86.00MV                   400.0MV
   340   10   92.00MV                   400.0MV
   346   12   90.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -2.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -5.000NA     -1.000UA       1.000UA
   382    1   3.000NA     -1.000UA       1.000UA
   387    3  -8.000NA     -1.000UA       1.000UA
   390    3   5.000NA     -1.000UA       1.000UA
   395    5  -11.00NA     -1.000UA       1.000UA
   398    5   10.00NA     -1.000UA       1.000UA
   403    9  -12.00NA     -1.000UA       1.000UA
   406    9   11.00NA     -1.000UA       1.000UA
   411   11  -10.00NA     -1.000UA       1.000UA
```

```
   414   11   9.000NA     -1.000UA       1.000UA
   419   13  -72.00NA     -1.000UA       1.000UA
   422   13   7.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   200.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   710.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   670.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   710.0UA                   2.400MA


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

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 5

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-550.0MV	-1.500 V	-100.0MV
57	3	-550.0MV	-1.500 V	-100.0MV
57	5	-540.0MV	-1.500 V	-100.0MV
57	9	-540.0MV	-1.500 V	-100.0MV
57	11	-540.0MV	-1.500 V	-100.0MV
57	13	-540.0MV	-1.500 V	-100.0MV
57	14	-390.0MV	-1.500 V	-100.0MV
67	2	450.0MV	100.0MV	1.500 V
67	4	450.0MV	100.0MV	1.500 V
67	6	450.0MV	100.0MV	1.500 V
67	8	450.0MV	100.0MV	1.500 V
67	10	450.0MV	100.0MV	1.500 V
67	12	450.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.460 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.460 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.260 V	3.700 V	
218	4	4.280 V	3.700 V	
224	6	4.280 V	3.700 V	
230	8	4.280 V	3.700 V	
236	10	4.280 V	3.700 V	
242	12	4.280 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-6.000MV		100.0MV
269	4	-8.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   108.0MV                    400.0MV
   322    4   88.00MV                    400.0MV
   328    6   88.00MV                    400.0MV
   334    8   88.00MV                    400.0MV
   340   10   92.00MV                    400.0MV
   346   12   94.00MV                    400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -5.000NA     -1.000UA       1.000UA
   382    1   3.000NA     -1.000UA       1.000UA
   387    3  -8.000NA     -1.000UA       1.000UA
   390    3   5.000NA     -1.000UA       1.000UA
   395    5  -11.00NA     -1.000UA       1.000UA
   398    5   10.00NA     -1.000UA       1.000UA
   403    9  -12.00NA     -1.000UA       1.000UA
   406    9   11.00NA     -1.000UA       1.000UA
   411   11  -10.00NA     -1.000UA       1.000UA
```

```
   414   11   9.000NA     -1.000UA       1.000UA
   419   13  -78.00NA     -1.000UA       1.000UA
   422   13   8.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   200.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   710.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   670.0UA                   2.400MA
   500   14   630.0UA                   2.400MA
   500   14   640.0UA                   2.400MA
   500   14   670.0UA                   2.400MA


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

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 6

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-560.0MV	-1.500 V	-100.0MV
57	3	-560.0MV	-1.500 V	-100.0MV
57	5	-560.0MV	-1.500 V	-100.0MV
57	9	-560.0MV	-1.500 V	-100.0MV
57	11	-560.0MV	-1.500 V	-100.0MV
57	13	-550.0MV	-1.500 V	-100.0MV
57	14	-400.0MV	-1.500 V	-100.0MV
67	2	460.0MV	100.0MV	1.500 V
67	4	460.0MV	100.0MV	1.500 V
67	6	460.0MV	100.0MV	1.500 V
67	8	460.0MV	100.0MV	1.500 V
67	10	460.0MV	100.0MV	1.500 V
67	12	450.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.460 V	4.400 V	
165	4	4.460 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.460 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.260 V	3.700 V	
218	4	4.280 V	3.700 V	
224	6	4.280 V	3.700 V	
230	8	4.280 V	3.700 V	
236	10	4.280 V	3.700 V	
242	12	4.280 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-6.000MV		100.0MV
269	4	-6.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -8.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   108.0MV                    400.0MV
   322    4   88.00MV                    400.0MV
   328    6   88.00MV                    400.0MV
   334    8   86.00MV                    400.0MV
   340   10   92.00MV                    400.0MV
   346   12   90.00MV                    400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -2.000MV                    100.0MV
   293   12       0 V                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -5.000NA     -1.000UA       1.000UA
   382    1   4.000NA     -1.000UA       1.000UA
   387    3  -8.000NA     -1.000UA       1.000UA
   390    3   5.000NA     -1.000UA       1.000UA
   395    5  -12.00NA     -1.000UA       1.000UA
   398    5   12.00NA     -1.000UA       1.000UA
   403    9  -13.00NA     -1.000UA       1.000UA
   406    9   12.00NA     -1.000UA       1.000UA
   411   11  -11.00NA     -1.000UA       1.000UA
```

```
   414   11   10.00NA     -1.000UA       1.000UA
   419   13  -83.00NA     -1.000UA       1.000UA
   422   13   8.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   200.0NA                   40.00UA
   458   14   100.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   710.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   670.0UA                   2.400MA
   500   14   670.0UA                   2.400MA
   500   14   690.0UA                   2.400MA


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

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 7

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-560.0MV	-1.500 V	-100.0MV
57	3	-560.0MV	-1.500 V	-100.0MV
57	5	-560.0MV	-1.500 V	-100.0MV
57	9	-560.0MV	-1.500 V	-100.0MV
57	11	-550.0MV	-1.500 V	-100.0MV
57	13	-550.0MV	-1.500 V	-100.0MV
57	14	-400.0MV	-1.500 V	-100.0MV
67	2	460.0MV	100.0MV	1.500 V
67	4	460.0MV	100.0MV	1.500 V
67	6	460.0MV	100.0MV	1.500 V
67	8	460.0MV	100.0MV	1.500 V
67	10	460.0MV	100.0MV	1.500 V
67	12	450.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.450 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.270 V	3.700 V	
218	4	4.280 V	3.700 V	
224	6	4.290 V	3.700 V	
230	8	4.280 V	3.700 V	
236	10	4.280 V	3.700 V	
242	12	4.280 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-6.000MV		100.0MV
269	4	-6.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -8.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   104.0MV                   400.0MV
   322    4   88.00MV                   400.0MV
   328    6   86.00MV                   400.0MV
   334    8   84.00MV                   400.0MV
   340   10   88.00MV                   400.0MV
   346   12   90.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.450 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                   100.0MV
   269    4  -4.000MV                   100.0MV
   275    6  -2.000MV                   100.0MV
   281    8  -4.000MV                   100.0MV
   287   10  -4.000MV                   100.0MV
   293   12  -2.000MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -5.000NA     -1.000UA       1.000UA
   382    1   4.000NA     -1.000UA       1.000UA
   387    3  -8.000NA     -1.000UA       1.000UA
   390    3   6.000NA     -1.000UA       1.000UA
   395    5  -12.00NA     -1.000UA       1.000UA
   398    5   13.00NA     -1.000UA       1.000UA
   403    9  -13.00NA     -1.000UA       1.000UA
   406    9   12.00NA     -1.000UA       1.000UA
   411   11  -10.00NA     -1.000UA       1.000UA
```

```
   414   11   10.00NA     -1.000UA       1.000UA
   419   13  -78.00NA     -1.000UA       1.000UA
   422   13   9.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   200.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   730.0UA                   2.400MA
   500   14   720.0UA                   2.400MA
   500   14   720.0UA                   2.400MA
   500   14   660.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   700.0UA                   2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       8

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -550.0MV     -1.500 V      -100.0MV
    57    3  -550.0MV     -1.500 V      -100.0MV
    57    5  -550.0MV     -1.500 V      -100.0MV
    57    9  -550.0MV     -1.500 V      -100.0MV
    57   11  -550.0MV     -1.500 V      -100.0MV
    57   13  -540.0MV     -1.500 V      -100.0MV
    57   14  -390.0MV     -1.500 V      -100.0MV
    67    2   450.0MV      100.0MV       1.500 V
    67    4   450.0MV      100.0MV       1.500 V
    67    6   450.0MV      100.0MV       1.500 V
    67    8   450.0MV      100.0MV       1.500 V
    67   10   450.0MV      100.0MV       1.500 V
    67   12   450.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.260 V      3.700 V
   218    4   4.280 V      3.700 V
   224    6   4.280 V      3.700 V
   230    8   4.280 V      3.700 V
   236   10   4.270 V      3.700 V
   242   12   4.280 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -6.000MV                   100.0MV
   269    4  -8.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   106.0MV                    400.0MV
   322    4   90.00MV                    400.0MV
   328    6   88.00MV                    400.0MV
   334    8   86.00MV                    400.0MV
   340   10   90.00MV                    400.0MV
   346   12   92.00MV                    400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ---------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -2.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -2.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -2.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -5.000NA     -1.000UA       1.000UA
   382    1   4.000NA     -1.000UA       1.000UA
   387    3  -8.000NA     -1.000UA       1.000UA
   390    3   6.000NA     -1.000UA       1.000UA
   395    5  -12.00NA     -1.000UA       1.000UA
   398    5   12.00NA     -1.000UA       1.000UA
   403    9  -13.00NA     -1.000UA       1.000UA
   406    9   12.00NA     -1.000UA       1.000UA
   411   11  -10.00NA     -1.000UA       1.000UA
```

```
   414   11   10.00NA     -1.000UA       1.000UA
   419   13  -85.00NA     -1.000UA       1.000UA
   422   13   9.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   200.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   700.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   680.0UA                   2.400MA


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

```
STAT1               09/10/11  08:09
TEST PROGRAM   HCT04         S/N       9

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C


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

INST #  PIN   MEASURED        LT            GT
    57    1  -540.0MV     -1.500 V      -100.0MV
    57    3  -540.0MV     -1.500 V      -100.0MV
    57    5  -540.0MV     -1.500 V      -100.0MV
    57    9  -540.0MV     -1.500 V      -100.0MV
    57   11  -540.0MV     -1.500 V      -100.0MV
    57   13  -540.0MV     -1.500 V      -100.0MV
    57   14  -390.0MV     -1.500 V      -100.0MV
    67    2   450.0MV      100.0MV       1.500 V
    67    4   450.0MV      100.0MV       1.500 V
    67    6   450.0MV      100.0MV       1.500 V
    67    8   450.0MV      100.0MV       1.500 V
    67   10   450.0MV      100.0MV       1.500 V
    67   12   450.0MV      100.0MV       1.500 V

 ------------------------------------------------
            FUNCTIONAL  TEST
            VCC=    4.500
            VIH=        2      VIL=     800.0E-03
 ------------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    4.500
            VOH LIMIT   4.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   4.450 V      4.400 V
   165    4   4.450 V      4.400 V
   171    6   4.450 V      4.400 V
   177    8   4.450 V      4.400 V
   183   10   4.450 V      4.400 V
   189   12   4.450 V      4.400 V

 ----------------------------------------
            VOH2 TEST
            VCC=    4.500
            VOH2 LIMIT  3.700
----------------------------------------

INST #  PIN   MEASURED        LT            GT
   212    2   4.270 V      3.700 V
   218    4   4.270 V      3.700 V
   224    6   4.280 V      3.700 V
   230    8   4.280 V      3.700 V
   236   10   4.270 V      3.700 V
   242   12   4.270 V      3.700 V

 ---------------------------------------
            VOL1  TEST
            VCC=    4.500
            VOL LIMIT   100.0E-03
 ---------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                   100.0MV
   269    4  -4.000MV                   100.0MV
```

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   110.0MV                   400.0MV
   322    4   90.00MV                   400.0MV
   328    6   88.00MV                   400.0MV
   334    8   88.00MV                   400.0MV
   340   10   92.00MV                   400.0MV
   346   12   92.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.460 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -5.000NA     -1.000UA       1.000UA
   382    1   4.000NA     -1.000UA       1.000UA
   387    3  -8.000NA     -1.000UA       1.000UA
   390    3   6.000NA     -1.000UA       1.000UA
   395    5  -13.00NA     -1.000UA       1.000UA
   398    5   13.00NA     -1.000UA       1.000UA
   403    9  -13.00NA     -1.000UA       1.000UA
   406    9   12.00NA     -1.000UA       1.000UA
   411   11  -10.00NA     -1.000UA       1.000UA
```

```
   414   11   10.00NA     -1.000UA       1.000UA
   419   13  -80.00NA     -1.000UA       1.000UA
   422   13   9.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   200.0NA                   40.00UA
   458   14   100.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   670.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   640.0UA                   2.400MA
   500   14   610.0UA                   2.400MA
   500   14   620.0UA                   2.400MA
   500   14   640.0UA                   2.400MA


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

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 10

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-540.0MV	-1.500 V	-100.0MV
57	3	-540.0MV	-1.500 V	-100.0MV
57	5	-540.0MV	-1.500 V	-100.0MV
57	9	-540.0MV	-1.500 V	-100.0MV
57	11	-540.0MV	-1.500 V	-100.0MV
57	13	-540.0MV	-1.500 V	-100.0MV
57	14	-380.0MV	-1.500 V	-100.0MV
67	2	450.0MV	100.0MV	1.500 V
67	4	450.0MV	100.0MV	1.500 V
67	6	440.0MV	100.0MV	1.500 V
67	8	450.0MV	100.0MV	1.500 V
67	10	440.0MV	100.0MV	1.500 V
67	12	440.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.450 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.260 V	3.700 V	
218	4	4.270 V	3.700 V	
224	6	4.280 V	3.700 V	
230	8	4.270 V	3.700 V	
236	10	4.270 V	3.700 V	
242	12	4.270 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-4.000MV		100.0MV
269	4	-6.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   112.0MV                   400.0MV
   322    4   92.00MV                   400.0MV
   328    6   92.00MV                   400.0MV
   334    8   90.00MV                   400.0MV
   340   10   94.00MV                   400.0MV
   346   12   94.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.460 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.460 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2       0 V                   100.0MV
   269    4  -2.000MV                   100.0MV
   275    6  -2.000MV                   100.0MV
   281    8  -4.000MV                   100.0MV
   287   10  -4.000MV                   100.0MV
   293   12  -4.000MV                   100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -6.000NA     -1.000UA       1.000UA
   382    1   4.000NA     -1.000UA       1.000UA
   387    3  -8.000NA     -1.000UA       1.000UA
   390    3   6.000NA     -1.000UA       1.000UA
   395    5  -12.00NA     -1.000UA       1.000UA
   398    5   13.00NA     -1.000UA       1.000UA
   403    9  -13.00NA     -1.000UA       1.000UA
   406    9   12.00NA     -1.000UA       1.000UA
   411   11  -10.00NA     -1.000UA       1.000UA
```

```
   414   11   10.00NA     -1.000UA       1.000UA
   419   13  -77.00NA     -1.000UA       1.000UA
   422   13   9.000NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   300.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   680.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   670.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   640.0UA                   2.400MA
   500   14   670.0UA                   2.400MA


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

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 11

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-540.0MV	-1.500 V	-100.0MV
57	3	-540.0MV	-1.500 V	-100.0MV
57	5	-540.0MV	-1.500 V	-100.0MV
57	9	-540.0MV	-1.500 V	-100.0MV
57	11	-540.0MV	-1.500 V	-100.0MV
57	13	-540.0MV	-1.500 V	-100.0MV
57	14	-390.0MV	-1.500 V	-100.0MV
67	2	450.0MV	100.0MV	1.500 V
67	4	450.0MV	100.0MV	1.500 V
67	6	450.0MV	100.0MV	1.500 V
67	8	440.0MV	100.0MV	1.500 V
67	10	450.0MV	100.0MV	1.500 V
67	12	440.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.450 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.270 V	3.700 V	
218	4	4.270 V	3.700 V	
224	6	4.280 V	3.700 V	
230	8	4.280 V	3.700 V	
236	10	4.280 V	3.700 V	
242	12	4.280 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-4.000MV		100.0MV
269	4	-8.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -6.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   106.0MV                    400.0MV
   322    4   86.00MV                    400.0MV
   328    6   86.00MV                    400.0MV
   334    8   82.00MV                    400.0MV
   340   10   88.00MV                    400.0MV
   346   12   90.00MV                    400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.450 V      5.400 V
   171    6   5.460 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -2.000MV                    100.0MV
   269    4  -4.000MV                    100.0MV
   275    6  -4.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12       0 V                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -5.000NA     -1.000UA       1.000UA
   382    1   4.000NA     -1.000UA       1.000UA
   387    3  -8.000NA     -1.000UA       1.000UA
   390    3   6.000NA     -1.000UA       1.000UA
   395    5  -13.00NA     -1.000UA       1.000UA
   398    5   14.00NA     -1.000UA       1.000UA
   403    9  -13.00NA     -1.000UA       1.000UA
   406    9   12.00NA     -1.000UA       1.000UA
   411   11  -11.00NA     -1.000UA       1.000UA
```

```
   414   11   10.00NA     -1.000UA       1.000UA
   419   13  -83.00NA     -1.000UA       1.000UA
   422   13   10.00NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   200.0NA                   40.00UA
   458   14   200.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   740.0UA                   2.400MA
   500   14   720.0UA                   2.400MA
   500   14   710.0UA                   2.400MA
   500   14   700.0UA                   2.400MA
   500   14   690.0UA                   2.400MA
   500   14   710.0UA                   2.400MA


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

STAT1 09/10/11 08:09
TEST PROGRAM HCT04 S/N 12

DDS-101-13-A PN 54HCT04 ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
57	1	-530.0MV	-1.500 V	-100.0MV
57	3	-530.0MV	-1.500 V	-100.0MV
57	5	-530.0MV	-1.500 V	-100.0MV
57	9	-530.0MV	-1.500 V	-100.0MV
57	11	-530.0MV	-1.500 V	-100.0MV
57	13	-520.0MV	-1.500 V	-100.0MV
57	14	-370.0MV	-1.500 V	-100.0MV
67	2	430.0MV	100.0MV	1.500 V
67	4	430.0MV	100.0MV	1.500 V
67	6	430.0MV	100.0MV	1.500 V
67	8	430.0MV	100.0MV	1.500 V
67	10	430.0MV	100.0MV	1.500 V
67	12	430.0MV	100.0MV	1.500 V

FUNCTIONAL TEST
VCC= 4.500
VIH= 2 VIL= 800.0E-03

VOH1 TEST
VCC= 4.500
VOH LIMIT 4.400

INST #	PIN	MEASURED	LT	GT
159	2	4.450 V	4.400 V	
165	4	4.450 V	4.400 V	
171	6	4.450 V	4.400 V	
177	8	4.450 V	4.400 V	
183	10	4.450 V	4.400 V	
189	12	4.450 V	4.400 V	

VOH2 TEST
VCC= 4.500
VOH2 LIMIT 3.700

INST #	PIN	MEASURED	LT	GT
212	2	4.260 V	3.700 V	
218	4	4.270 V	3.700 V	
224	6	4.280 V	3.700 V	
230	8	4.270 V	3.700 V	
236	10	4.270 V	3.700 V	
242	12	4.270 V	3.700 V	

VOL1 TEST
VCC= 4.500
VOL LIMIT 100.0E-03

INST #	PIN	MEASURED	LT	GT
263	2	-6.000MV		100.0MV
269	4	-4.000MV		100.0MV

```
   275    6  -6.000MV                    100.0MV
   281    8  -6.000MV                    100.0MV
   287   10  -6.000MV                    100.0MV
   293   12  -8.000MV                    100.0MV

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

INST #  PIN   MEASURED        LT            GT
   316    2   112.0MV                   400.0MV
   322    4   94.00MV                   400.0MV
   328    6   92.00MV                   400.0MV
   334    8   90.00MV                   400.0MV
   340   10   96.00MV                   400.0MV
   346   12   96.00MV                   400.0MV

 ---------------------------------------------
            FUNCTIONAL  TEST
            VCC=    5.500
            VIH=        2      VIL=     800.0E-03
 ---------------------------------------------


 ----------------------------------------
            VOH1 TEST
            VCC=    5.500
            VOH LIMIT   5.400
 ----------------------------------------

INST #  PIN   MEASURED        LT            GT
   159    2   5.460 V      5.400 V
   165    4   5.460 V      5.400 V
   171    6   5.450 V      5.400 V
   177    8   5.450 V      5.400 V
   183   10   5.450 V      5.400 V
   189   12   5.450 V      5.400 V

 ------------------------------------
            VOL1  TEST
            VCC=    5.500
            VOL LIMIT   100.0E-03
 ------------------------------------

INST #  PIN   MEASURED        LT            GT
   263    2  -4.000MV                    100.0MV
   269    4  -2.000MV                    100.0MV
   275    6  -2.000MV                    100.0MV
   281    8  -4.000MV                    100.0MV
   287   10  -4.000MV                    100.0MV
   293   12  -4.000MV                    100.0MV

 --------------------------------
            IIN  TEST
            VCC= 5.5
            IIL/IIH LIMIT +- 0.1UA @25C/-55C
            IIL/IIH LIMIT +- 1.0UA @+125C
 --------------------------------

INST #  PIN   MEASURED        LT            GT
   379    1  -7.000NA     -1.000UA       1.000UA
   382    1   7.000NA     -1.000UA       1.000UA
   387    3  -16.00NA     -1.000UA       1.000UA
   390    3   15.00NA     -1.000UA       1.000UA
   395    5  -30.00NA     -1.000UA       1.000UA
   398    5   43.00NA     -1.000UA       1.000UA
   403    9  -30.00NA     -1.000UA       1.000UA
   406    9   41.00NA     -1.000UA       1.000UA
   411   11  -32.00NA     -1.000UA       1.000UA
```

```
   414   11   42.00NA     -1.000UA       1.000UA
   419   13  -89.00NA     -1.000UA       1.000UA
   422   13   17.00NA     -1.000UA       1.000UA

 -------------------------------------
           ICC  TEST
           VCC= 6
           ICC LIMIT MAX. 1.0UA @25C/-55C
           ICC LIMIT MAX. 40UA @+125C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   451   14   400.0NA                   40.00UA
   458   14   300.0NA                   40.00UA

 -------------------------------------
          ICC - DELTA  TEST
          VCC= 5.5
          ICC LIMIT MAX. 2.4MA @25C/+125C
          ICC LIMIT MAX. 2.9MA @-55C
 -------------------------------------

INST #  PIN   MEASURED        LT            GT
   500   14   690.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   680.0UA                   2.400MA
   500   14   650.0UA                   2.400MA
   500   14   640.0UA                   2.400MA
   500   14   670.0UA                   2.400MA


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

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-101-13-W
Date: June 28, 2018
Part Number: 54HCT04
Part Type: CMOS LOGIC MICROCIRCUIT
Lot: Lot# 80393 D/C: 1810 WFR# 48
Quantity: Eight (8)
Purchase Order: SS139

Submitted by: _____
Jason A. Salinas
DPA/MTS

Approved by: Deborah M. Gorham
Deborah M. Gorham
Quality Assurance

TANDEX TEST LABS TTL Job # DDS-101-13-W

Summary

Eight (8) CMOS Logic Microcircuit P/N: 54HCT04 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 Tetraflouride 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-101-13-W
SEM EXAMINATION

TTL Job No.	Part Number	Part Type	Date
DDS-101-13-W	54HCT04	CMOS Logic Microcircuit	June 28, 2018
Lot Date Code: WFR# 48 Lot# 80393 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**

TTL

Technician Stamp:

TANDEX TEST LABS TTL Job # DDS-101-13-W

Photodocumentation

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: June 28, 2018	
TEST REPORT:	DDS-101-13-W	QUANTITY REQUIRED:	8
P.O. NUMBER:	SS139	QUANTITY PROCESSED:	8
DESCRIPTION:	CMOS LOGIC MICROCIRCUIT	QUANTITY PASSED:	8
PART NUMBER(S):	54HCT04	QUANTITY FAILED:	0
MFG PART NUMBER	54HCT04	QUANTITY SHIPPING:	8
LOT / DATE CODE:	LOT# 80393 WFR# 48 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

QA TANDEX 2

Deborah M. Gorham
QUALITY ASSURANCE