



Reliability Report – CD4001B

CMOS High Voltage Logic - Quad 2-Input NOR Gate

MIL-PRF-38534 CLASS K QUALIFICATION DATAPACK

Performed by Tandex Test Labs



TANDEX

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

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

www.tandexlabs.com

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MIL-PRF-38534 CLASS K DATAPACK

Certificate of Conformance



TANDEX TEST LABS, INC.

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

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http://www.tandexlabs.com

e-mail: via web site

Certificate of Conformance

CUSTOMER:	SILICON SUPPLIES LIMITED	DATE: AUGUST 10, 2018
	47 WHERRY ROAD NORWICH, NR1, 1WS UNITED KINGDOM VAT GB#114 3513 56	
TEST REPORT:	DDS-101-03-A	QUANTITY RECEIVED: 30 DIE
P.O. NUMBER:	SS139	QUANTITY REQUIRED: 10/5/8
DESCRIPTION:	CMOS LOGIC MICROCIRCUIT	QUANTITY PROCESSED: 17
PART NUMBER(S):	CD4001B	QUANTITY PASSED: 17
P/N: AS RECEIVED / MFG. PART NUMBER:	CD4001B	QUANTITY FAILED: 0
LOT / DATE CODE:	1810 LOT# 190184 WF20	
MANUFACTURE: CAGE CODE:	SILICON SUPPLIES	QUANTITY SHIPPING: 17*
		INCLUDES: 10 PROCESS ACCEPT 5 BOND PULL DEVICES 2 SPARES
TANDEX CAGE CODE:	1FE65	*8 DIE TRANSFERRED TO DDS-101-03-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.


Jessica Iraheta
QUALITY ASSURANCE



707

QMF 30



MIL-PRF-38534 CLASS K DATAPACK

Process Flow Chart + Mechanical Test Results



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PROCESS FLOW CHART

FLOW NUMBER: DDS-101-03-A REV. 0

CUSTOMER: DIE DEVICES P.O. NUMBER: SS139
 PART NUMBER: CD4001B P/N AS RECEIVED: CD4001B
 PART TYPE: CMOS LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
 DUE DATE: 7/12/18 JOB NUMBER: DDS-101-03-A
 LDC AS RECEIVED: 1810 LOT# 190184 WF20 QUANTITY RECEIVED: 30 (DIE)
 QUOTE NUMBER: DDS14267-1 MFG: SILICON SUPPLIES QUANTITY REQUIRED: 10/5/8

CAUTION: ESD REFER TO TTL DRAWING #P1025

01	FLO	P-1015 P-1223	FLOW PREPARED BY: <u>LSS</u> ON: <u>3/26/18</u> CONTRACTUAL AGREEMENT REVIEW Y N NOT SPECIFIED <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Q-CLAUSES <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> DPAS <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> DFAR <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ITAR <input type="checkbox"/> <input type="checkbox"/> OTHER SPECIFIED						QA TANDEX 5
02	QCI		TANDEX QUALITY CONTROL INSPECTION. FLOW APPROVED BY: <u>JMI</u> ON: <u>3/26/18</u>						QA TANDEX 7
03	RCV	P-1070	VERIFY PART NUMBER. ENTER INTO INCOMING LOG. <u>X</u> CUSTOMER COUNT	30			3/26/18		QA TANDEX 5
SEQ	PROC	REF #	DESCRIPTION	QTY	REJ	ACCEPT	DATE	INSP.	
04	VIS	P-1041	PERFORM 100% DIE VISUAL PER MIL-STD-883 METHOD 2010 AND MIL-PRF-38534 PARA C.3.3.2. EQUIPMENT USED: <u>Olympus</u> ASSET #: <u>20091</u>	30	∅	30	3/29/18	TTL 30	
ESD MAT DUE DATE: <u>4/12/18</u>									
05	ASSY	P-1029	PACKAGE SUFFICIENT DEVICES FOR CLASS K ELEMENT EVALUATION / ELECTRICAL AND BOND PULL PER MIL-PRF-38534 REFERENCE DIE GEOMETRY FOR ORIENTATION AND PIN - OUTS. DIE ATTACH: SCREENING 10+2 EUTETIC BOND PULL 5 Lot#: <u>149555</u> Exp. Date: <u>N/A</u> SEM TRANSFER TO DDS-101-03-W MIL-STD-883 METHOD 2018 * Package Type: 14 PIN DIP	10+2 5 8	∅ ∅ ∅	10+2 5 8	4/10/18 4/10/18 3/29/18	TTL 30 TTL 30 TTL 4	
ESD MAT DUE DATE: <u>4/12/18</u>									
		P-4010	WIRE BOND: Utilize 1 Mil Au Wire (.001) 1 Mil Au bonder <u>MECHTEL</u> Asset #: <u>20060</u> Gold Wire: Lot#: <u>9001882915</u> Exp. Date: <u>3/21/2019</u>	17	∅	17	4/10/18	TTL 30	

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PROCESS FLOW CHART

FLOW NUMBER: DDS-101-03-A REV. 0

CUSTOMER: DIE DEVICES P.O. NUMBER: SS139
 PART NUMBER: CD4001B P/N AS RECEIVED: CD4001B
 PART TYPE: CMOS LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
 DUE DATE: 7/12/18 JOB NUMBER: DDS-101-03-A
 LDC AS RECEIVED: 1810 LOT# 190184 WF20 QUANTITY RECEIVED: 30 (DIE)
 QUOTE NUMBER: DDS14267-1 MFG: SILICON SUPPLIES QUANTITY REQUIRED: 10/5/8

CAUTION: ESD REFER TO TTL DRAWING #P1025

SEQ	PROC	REF #	DESCRIPTION	QTY	REJ	ACCEPT	DATE	INSP.
06	VIS		PERFORM 100% INTERNAL VISUAL PER MIL-STD-883 METHOD 2010 & MIL-PRF-38534 C.3.3.3, C.3.3.4.2. EQUIPMENT USED: <u>NIKON SMZ645</u> ASSET #: <u>30663</u>	17	0	17	4/10/18	TTL 30
ESD MAT DUE DATE: 4/27/18								
07	SEAL		SEAL DEVICES VACUUM BAKE: Pre Seal Bake Time: Temp: <u>125°C</u> Time: <u>24 hrs</u> Actual time in: <u>10:16 am - 4/10/18</u> Actual time out: <u>10:25 am - 4/11/18</u> FURNACE LDC STAMP Actual temp: <u>125°C</u> <u>1814</u> <u>TTL 30</u>	10+2	0	10+2	4/11/18	TTL 27
ESD MAT DUE DATE: 4/27/18								
08	ELEC		PERFORM 100% ELECTRICAL VERIFICATION TEST PER MFG DATA SHEET AND MIL-PRF-38534 @ AMBIENT OPERATING TEMPERATURE GO / NO GO EQUIPMENT USED: <u>Sentry</u> ASSET #: _____ +25°C TEST FIXTURE: <u>1377/1201</u> SOFTWARE ID: <u>S4001B</u> REV <u>N/A</u>	10+2	0	10+2	4/27/18	TTL 10
ESD MAT DUE DATE: 1/1/18								
09	TEMP		PERFORM TEMPERATURE CYCLING PER MIL-STD-883 METHOD 1010 CONDITION C & MIL-PRF-38534 C.3.3.3. TEN (10) CYCLES DATE IN TIME IN TA = -65°C +0-10 to +150°C +15-0 10 MINUTES AT EXTREMES EQUIPMENT USED: <u>TENNEY</u> ASSET #: <u>30369</u> EQUIPMENT USED: <u>OMEGA HH309A</u> ASSET #: <u>31662</u>	10+2	0	10+2	4/30/18 10:04 AM	TTL 48
				10+2	0	10+2	4/30/18 3:15 P.M.	TTL 48
ESD MAT DUE DATE: 5/27/18								
10	ACCE		PERFORM CONSTANT ACCELERATION PER MIL-PRF-38534 MIL-STD-883 METHOD 2001. Y1 DIRECTION ONLY @ 3000 G's (min) EQUIPMENT USED: <u>TRIO Tech</u> ASSET #: <u>30260</u>	10+2	0	10+2	5/15/18	TTL 52
ESD MAT DUE DATE: 5/27/18								
11	SER		SERIALIZE S/N: 01-10 4/5/18 S/N 01-12 4/16/18	10+2	0	10+2	5/17/18	TTL 49
ESD MAT DUE DATE: 5/27/18								

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QMF22B

PROCESS FLOW CHART

FLOW NUMBER: DDS-101-03-A REV. 0

CUSTOMER: DIE DEVICES P.O. NUMBER: SS139
 PART NUMBER: CD4001B P/N AS RECEIVED: CD4001B
 PART TYPE: CMOS LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
 DUE DATE: 7/12/18 JOB NUMBER: DDS-101-03-A
 LDC AS RECEIVED: 1810 LOT# 190184 WF20 QUANTITY RECEIVED: 30 (DIE)
 QUOTE NUMBER: DDS14267-1 MFG: SILICON SUPPLIES QUANTITY REQUIRED: 10/5/8

CAUTION: ESD REFER TO TTL DRAWING #P1025

SEQ	PROC	REF #	DESCRIPTION	QTY	REJ	ACCEP	DATE	INSP.
12	ELEC		PERFORM 100% ELECTRICAL VERIFICATION PER MFG DATA SHEET3 AND MIL-PRF-38534 C.3.3.4.3 @ AMBIENT, HIGH AND LOW OPERATING TEMPERATURES. READ AND RECORD. STATIC AND FUNCTIONAL TESTS +25°C -55°C +125°C EQUIPMENT USED: <u>Sentry</u> ASSET#: <u>1093</u> TEST FIXTURE: <u>1377/1201</u> SOFTWARE ID: <u>S4001B</u> REV <u>N/A</u> TEMPERATURE SOAK <u>10</u> SEC.	10+2 10+2 10+2	0 0 0	10+2 10+2 10+2	5/24/18 5/29/18 5/25/18	QA TANDEX 7 TTL 10 TTL 10
13	BI		PERFORM BURN IN PER BURN IN CIRCUIT PER FIGURE 1 OF DWG# 1026-16668, AND MIL-STD 883 METHOD 1015. TA = 125°C (min) T = 240 HRS (min) BURN-IN BOARD # / DESC: <u>31284</u> BURN-IN OVEN #: <u>21</u>	12 12	0 0	12 12	5/31/18 5:20 AM 6/1/18 5:35 AM	TTL 13 TTL 13
14	ELEC		PERFORM POST BURN IN ELECTRICAL VERIFICATION PER MFG DATA SHEET AND MIL-PRF-38534 C.3.3.4.3 @ AMBIENT, HIGH AND LOW OPERATING TEMPERATURES. READ AND RECORD. STATIC AND FUNCTIONAL TESTS +25°C -55°C +125°C TEST +25°C WITHIN 96 HOURS EQUIPMENT USED: <u>Sentry</u> ASSET#: <u>1093</u> TEST FIXTURE: <u>1377/1201</u> SOFTWARE ID: <u>4010</u> REV <u>—</u> TEMPERATURE SOAK <u>5</u> SEC.	12 12 12	0 0 0	12 12 12	6/1/18 6/1/18 6/1/18	TTL 25 TTL 25 TTL 25
15	ER		PER PO REQUIREMENTS: REVIEW AT POST 240 HR. BURN-IN EMAIL: ben.white@diodevices.com POST 240 HR BURN-IN ELECTRICAL TEST DATA. HOLD FOR APPROVAL TO PROCEED DATE SENT: <u>6/19/18</u>				6/19/18	TANDEX 5 QA

ESD MAT DUE DATE:
6/27/18.

ESD MAT DUE DATE:
6/27/18.

ESD MAT DUE DATE:
6/19/18.

TANDEX TEST LABS
 BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-03-A
 PART NUMBER CD4001B
 DATE CODE 1810 LOT# 190184 WF20
 BURN-IN TIME 240hrs Min
 ΘJC= N/A

TEMPERATURE TA = +125°C Min
 TEMP. METER # 31368
 VOLTAGE VCC = +5mV
 VOLT METER# 31223
 POWER SUPPLY# 31594
 BOARD# 31284
 OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
5/31/18	8:20AM	VCC = +5mV	ICC = 5mA	125.5°C	CM	
6/1/18	10:00AM	VCC = +5mV	ICC = 5mA	126.9°C	CM	
6/4/18	NO	DATA	TAKEN			
6/5/18	5:45AM	VCC = +5mV	ICC = 5mA	127.0°C	CM	
6/6/18	6:05AM	VCC = +5mV	ICC = 5mA	124.7°C	CM	
6/7/18	1:30PM	VCC = +5mV	ICC = 5mA	126.4°C	CM	
6/8/18	6:20AM	VCC = +5mV	ICC = 5mA	126.1°C	CM	
6/11/18	5:35AM	VCC = +5mV	ICC = 5mA	126.8°C	CM	

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PROCESS FLOW CHART

FLOW NUMBER: DDS-101-03-A REV. 0

CUSTOMER: DIE DEVICES P.O. NUMBER: SS139
 PART NUMBER: CD4001B P/N AS RECEIVED: CD4001B
 PART TYPE: CMOS LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
 DUE DATE: 7/12/18 JOB NUMBER: DDS-101-03-A
 LDC AS RECEIVED: 1810 LOT# 190184 WF20 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.
7	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: 6/25/18 TIME IN: 6:00 AM DATE OUT: 8/6/18 TIME OUT: 6:00 AM BURN-IN BOARD # / DESC: <u>31283</u> BURN-IN OVEN #: <u>21</u>	12	0	12		TTL 13
ESD MAT DUE DATE: <u>8/27/18</u>								
16	ELEC		PERFORM POST STEADY STATE LIFE ELECTRICAL VERIFICATION PER MFG DATA SHEET AND MIL-PRF-38534 C.3.3.4.3. @ AMBIENT, HIGH AND LOW OPERATING TEMPERATURE. READ AND RECORD. STATIC AND FUNCTIONAL TESTS +25°C -55°C +125°C TEST +25°C WITHIN 96 HOURS EQUIPMENT USED: <u>Sentry</u> ASSET#: <u>1093</u> TEST FIXTURE: <u>1377/1201</u> SOFTWARE ID: <u>4001 B</u> REV	12	0	12	8/6/18	TTL 35
ESD MAT DUE DATE: <u>8/27/18</u>								
18	DBP		PERFORM WIRE BOND PULL PER MIL-STD-883 METHOD 2011, & MIL-PRF-38534 C.3.3.3, C3.3.5. TEN (10) WIRES, *DO NOT USE ELECTRICAL TEST SAMPLES* EQUIPMENT USED: <u>DAGE</u> ASSET #: <u>30785</u>	5	0	5	8/8/18	TTL 4
19	SEM		PULLED 8 DEVICES AT SEQ. 05 AND TRANSFERRED TO: DDS-101-03-W	8	0	8	3/29/18	QA TANDEX 7

TANDEX TEST LABS
 BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-03-A

TEMPERATURE TA = +125°C Min

PART NUMBER CD4001B

TEMP. METER # 31368

DATE CODE 1810 LOT# 19084 WF20

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

ΘJC = N/A

POWER SUPPLY# 31110

BOARD# 31283

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
6/25/18	6:00 AM	VCC = +5VDC	ICC = 5mA	126.5°C	CM	
6/26/18	7:30 AM	VCC = +5VDC	ICC = 5mA	126.9°C	CM	
6/27/18	7:15 AM	VCC = +5VDC	ICC = 5mA	126.1°C	CM	
6/28/18	8:55 AM	VCC = +5VDC	ICC = 5mA	126.6°C	CM	
6/29/18	6:00 AM	VCC = +5VDC	ICC = 5mA	127.7°C	CM	
7/2/18	5:30 AM	VCC = +5VDC	ICC = 5mA	127.7°C	CM	
7/3/18	5:50 AM	VCC = +5VDC	ICC = 5mA	127.2°C	CM	
7/4/18	NO	DATA	TAKEN			
7/5/18	6:30 AM	VCC = +5VDC	ICC = 5mA	127.5°C	CM	
7/6/18	9:35 AM	VCC = +5VDC	ICC = 5mA	128.0°C	CM	

TANDEX TEST LABS
 BURN - IN MONITOR SHEET

JOB NUMBER DPS-101-03-A

TEMPERATURE TA = +125°C Min

PART NUMBER CD4001B

TEMP. METER # 31368

DATE CODE 1810 LST# 190184 WF20

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

ΘJC = N/A

POWER SUPPLY# 31110

BOARD# 31283

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
7/9/18	8:10AM	VCC = +5VDC	ICC = 5mA	128.4°C	CM	
7/10/18	1:10PM	VCC = +5VDC	ICC = 5mA	128.5°C	CM	
7/11/18	10:00AM	VCC = +5VDC	ICC = 5mA	127.7°C	CM	
7/12/18	7:20AM	VCC = +5VDC	ICC = 5mA	127.5°C	CM	
7/13/18	6:05AM	VCC = +5VDC	ICC = 5mA	127.9°C	CM	
7/16/18	6:00AM	VCC = +5VDC	ICC = 5mA	127.6°C	CM	
7/17/18	6:15AM	VCC = +5VDC	ICC = 5mA	128.0°C	CM	
7/18/18	6:00AM	VCC = +5VDC	ICC = 5mA	128.2°C	CM	
7/19/18	NO	DATA	TAKEN			
7/20/18	NO	DATA	TAKEN			

TANDEX TEST LABS
 BURN - IN MONITOR SHEET

JOB NUMBER DDS - 101-03 - A

TEMPERATURE TA = +125°C Min

PART NUMBER CD4001B

TEMP. METER # 31368

DATE CODE 1810 LOT# 190184 WF20

VOLTAGE VCC = +5VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

ΘJC = N/A

POWER SUPPLY# 31110

BOARD# 31283

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
7/23/18	NO	DATA	TAKEN			
7/24/18	NO	DATA	TAKEN			
7/25/18	7:25AM	VCC = +5VDC	ICC = 5mA	126.1°C	CM	
7/26/18	6:00AM	VCC = +5VDC	ICC = 5mA	126.4°C	CM	
7/27/18	7:25AM	VCC = +5VDC	ICC = 5mA	126.6°C	CM	
7/30/18	10:50AM	VCC = +5VDC	ICC = 5mA	127.8°C	CM	
7/31/18	6:55AM	VCC = +5VDC	ICC = 5mA	127.6°C	CM	
8/1/18	6:20AM	VCC = +5VDC	ICC = 5mA	128.8°C	CM	
8/2/18	11:10AM	VCC = +5VDC	ICC = 5mA	127.3°C	CM	

TANDEX TEST LABS
 BURN - IN MONITOR SHEET

JOB NUMBER DDS-101-03-A

TEMPERATURE TA = +125°C Min

PART NUMBER CD 4001B

TEMP. METER# 31368

DATE CODE 1810 LOT# 190184 WF20

VOLTAGE VCC = +5 VDC

BURN-IN TIME 1000hrs Min

VOLT METER# 31223

θJC= N/A

POWER SUPPLY# 31110

BOARD# 31283

OVEN# 21

DATE	TIME	VOLTAGE	CURRENT	TEMP.	INITIAL	COMMENTS
8/3/18	6:45 AM	VCC = +5VDC	ICC = 5mA	127.3°C	CM	
8/6/18	6:00 AM	VCC = +5VDC	ICC = 5mA	126.1°C	CM	

TANDEX TEST LABS TTL# DDS-101-03-A
BOND PULL
BOND STRENGTH TESTING

TTL Job No. DDS-101-03-A	Part Number CD4001B	Part Type CMOS LOGIC MICROCIRCUIT	Date August 8, 2018
Lot Date Code LOT# 190184 W# 20 1810	Sample Qty. 5	Serial Numbers 11-15	Test Specifications Mil-Std-883 Method 2011
Misc.	Qty Accept 5	Qty Reject 0	Suspect 0

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

S/N 11			S/N 12			S/N 13			S/N 14			S/N 15			S/N		
WIRE NO	FORCE	CODE	WIRE NO	FORCE	CODE	WIRE NO	FORCE	CODE	WIRE NO	FORCE	CODE	WIRE NO	FORCE	CODE	WIRE NO	FORCE	CODE
1	3.0	G	1	5.0	G	1	5.5	G	1	5.5	G	1	6.0	G	1		
2	5.0	G	2	6.0	G	2	5.0	G	2	4.5	G	2	6.0	J	2		
3			3			3			3			3			3		
4			4			4			4			4			4		
5			5			5			5			5			5		

CODE INDEX

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



TECHNICIAN STAMP:

TANDEX TEST LABS INC.

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PROCESS FLOW CHART

FLOW NUMBER: DDS-101-03-A REV. 0

CUSTOMER: DIE DEVICES P.O. NUMBER: SS139
 PART NUMBER: CD4001B P/N AS RECEIVED: CD4001B
 PART TYPE: CMOS LOGIC MICROCIRCUIT DRAWING: MIL-PRF-38534 CL K, MIL-STD-883
 DUE DATE: 7/12/18 JOB NUMBER: DDS-101-03-A
 LDC AS RECEIVED: 1810 LOT# 190184 WF20 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	0	17	8/10/18	QA TANDEX 7
21	PKG		USE ORIGINAL OR TANDEX PACKAGING.	17	0	17	8/10/18	QA TANDEX 7
22	QAR	P-1213	TANDEX QUALITY ASSURANCE REVIEW. SHIP VIA: *Includes: 5 Bond Pull Samples 10 process accepts 2 spares. SHIP / BILL TO: DIE DEVICES 47 WHERRY ROAD NORWICH, NR1, 1WS UNITED KINGDOM VAT GB#114 3513 56 ** 8 parts transferred to DDS-101-03-A for SEM.	17			8/10/18	QA TANDEX 7



MIL-PRF-38534 CLASS K DATAPACK

Pre Burn-In Test Results at -55°C



STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 1

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-800.0MV	-1.500 V	-100.0MV
69	2	-800.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-800.0MV	-1.500 V	-100.0MV
69	6	-800.0MV	-1.500 V	-100.0MV
69	8	-800.0MV	-1.500 V	-100.0MV
69	9	-800.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-800.0MV	-1.500 V	-100.0MV
69	13	-800.0MV	-1.500 V	-100.0MV
69	14	-700.0MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.820MA		-510.0UA
293	4	-1.820MA		-510.0UA
299	10	-1.830MA		-510.0UA
305	11	-1.840MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
--------	-----	----------	----	----

```

329 3 -8.300MA -1.600MA
335 4 -8.300MA -1.600MA
341 10 -8.300MA -1.600MA
347 11 -8.300MA -1.600MA

```

```

-----
IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03
-----

```

```

INST # PIN MEASURED LT GT
371 3 3.460MA 510.0UA
377 4 3.420MA 510.0UA
383 10 3.440MA 510.0UA
389 11 3.480MA 510.0UA

```

```

-----
FUNCTIONAL TEST
VDD = 10
-----

```

```

-----
VOH TEST
VDD= 10
VOH >= 9.950
-----

```

```

INST # PIN MEASURED LT GT
220 3 9.970 V 9.950 V
224 4 9.970 V 9.950 V
228 10 9.970 V 9.950 V
232 11 9.970 V 9.950 V

```

```

-----
VOL TEST
VDD= 10
VOL >= 50MV
-----

```

```

INST # PIN MEASURED LT GT
249 3 20.02MV 50.00MV
253 4 20.02MV 50.00MV
257 10 20.02MV 50.00MV
261 11 20.02MV 50.00MV

```

```

-----
IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500
-----

```

```

INST # PIN MEASURED LT GT
287 3 -4.060MA -1.300MA
293 4 -3.950MA -1.300MA
299 10 -4.060MA -1.300MA
305 11 -4.120MA -1.300MA

```

```

-----
IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03
-----

```

```

INST # PIN MEASURED LT GT
371 3 8.070MA 1.300MA
377 4 7.220MA 1.300MA
383 10 8.020MA 1.300MA
389 11 8.200MA 1.300MA

```

```

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

```

VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.60MA		-3.400MA
293	4	-15.60MA		-3.400MA
299	10	-15.80MA		-3.400MA
305	11	-15.80MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	30.60MA	3.400MA	
377	4	31.10MA	3.400MA	
383	10	30.90MA	3.400MA	
389	11	31.20MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-10.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-10.00NA	-100.0NA	
450	6	-9.000NA	-100.0NA	
454	8	-8.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-8.000NA	-100.0NA	
466	13	-8.000NA	-100.0NA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```

-----
INST #  PIN  MEASURED      LT      GT
488     1    6.000NA                100.0NA
492     2    4.000NA                100.0NA
496     5    4.000NA                100.0NA
500     6    3.000NA                100.0NA
504     8    3.000NA                100.0NA
508     9    3.000NA                100.0NA
512    12    2.000NA                100.0NA
516    13    2.000NA                100.0NA

```

```

-----
      IDD TEST
      VDD=      5
      IDD <  250.0E-09
      VIN =      5
-----

```

```

INST #  PIN  MEASURED      LT      GT
564    14   -6.000NA                250.0NA
569    14  -33.000NA                250.0NA

```

```

-----
      IDD TEST
      VDD=      10
      IDD <  500.0E-09
      VIN =      10
-----

```

```

INST #  PIN  MEASURED      LT      GT
564    14   -3.000NA                500.0NA
569    14  -23.000NA                500.0NA

```

```

-----
      IDD TEST
      VDD=      15
      IDD <  1.000E-06
      VIN =      15
-----

```

```

INST #  PIN  MEASURED      LT      GT
564    14    1.000NA                1.000UA
569    14  -14.000NA                1.000UA

```

```

-----
      IDD TEST
      VDD=      20
      IDD <  5.000E-06
      VIN =      20
-----

```

```

INST #  PIN  MEASURED      LT      GT
564    14    3.000NA                5.000UA
569    14   -4.000NA                5.000UA

```

```

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

```

STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 2

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.660MA		-510.0UA
293	4	-1.640MA		-510.0UA
299	10	-1.610MA		-510.0UA
305	11	-1.650MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.500MA              -1.600MA
335     4   -7.500MA              -1.600MA
341    10   -7.500MA              -1.600MA
347    11   -7.600MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.250MA      510.0UA
377     4   3.210MA      510.0UA
383    10   3.050MA      510.0UA
389    11   3.180MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V      9.950 V
224     4   9.970 V      9.950 V
228    10   9.970 V      9.950 V
232    11   9.970 V      9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV      50.00MV
253     4   20.02MV      50.00MV
257    10   20.02MV      50.00MV
261    11   20.02MV      50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.840MA      -1.300MA
293     4   -3.780MA      -1.300MA
299    10   -3.640MA      -1.300MA
305    11   -3.820MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.930MA      1.300MA
377     4   7.730MA      1.300MA
383    10   7.060MA      1.300MA
389    11   7.650MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.97 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	10.01MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.20MA		-3.400MA
293	4	-14.90MA		-3.400MA
299	10	-14.50MA		-3.400MA
305	11	-15.00MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.00MA	3.400MA	
377	4	30.00MA	3.400MA	
383	10	23.90MA	3.400MA	
389	11	29.70MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-10.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-10.00NA	-100.0NA	
450	6	-9.000NA	-100.0NA	
454	8	-8.000NA	-100.0NA	
458	9	-9.000NA	-100.0NA	
462	12	-8.000NA	-100.0NA	
466	13	-8.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1    6.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    4.000NA                100.0NA  
500     6    3.000NA                100.0NA  
504     8    2.000NA                100.0NA  
508     9    3.000NA                100.0NA  
512    12    2.000NA                100.0NA  
516    13    2.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD < 250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14  -6.000NA                250.0NA  
569    14 -32.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD < 500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14  -3.000NA                500.0NA  
569    14 -22.000NA                500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD < 1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   1.000NA                1.000UA  
569    14 -13.000NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD < 5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   3.000NA                5.000UA  
569    14  -4.000NA                5.000UA  
-----
```

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


STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 3

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-200.0MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-200.0MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.710MA		-510.0UA
293	4	-1.690MA		-510.0UA
299	10	-1.680MA		-510.0UA
305	11	-1.700MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.800MA              -1.600MA
335     4   -7.700MA              -1.600MA
341    10   -7.700MA              -1.600MA
347    11   -7.800MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.260MA      510.0UA
377     4   3.190MA      510.0UA
383    10   3.140MA      510.0UA
389    11   3.180MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.880MA      -1.300MA
293     4   -3.810MA      -1.300MA
299    10   -3.770MA      -1.300MA
305    11   -3.820MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.880MA      1.300MA
377     4   7.600MA      1.300MA
383    10   7.430MA      1.300MA
389    11   7.570MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	10.01MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.30MA		-3.400MA
293	4	-15.00MA		-3.400MA
299	10	-14.80MA		-3.400MA
305	11	-15.00MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.00MA	3.400MA	
377	4	29.70MA	3.400MA	
383	10	29.00MA	3.400MA	
389	11	29.50MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-10.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-9.000NA	-100.0NA	
450	6	-10.00NA	-100.0NA	
454	8	-13.00NA	-100.0NA	
458	9	-11.00NA	-100.0NA	
462	12	-8.000NA	-100.0NA	
466	13	-8.000NA	-100.0NA	

IIH TEST

VDD= 18
 IIH < 100E-9 @ 25C/-55C
 IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	6.000NA		100.0NA
492	2	4.000NA		100.0NA
496	5	4.000NA		100.0NA
500	6	4.000NA		100.0NA
504	8	7.000NA		100.0NA
508	9	7.000NA		100.0NA
512	12	2.000NA		100.0NA
516	13	2.000NA		100.0NA

IDD TEST
 VDD= 5
 IDD < 250.0E-09
 VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-6.000NA		250.0NA
569	14	-32.00NA		250.0NA

IDD TEST
 VDD= 10
 IDD < 500.0E-09
 VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	-2.000NA		500.0NA
569	14	-22.00NA		500.0NA

IDD TEST
 VDD= 15
 IDD < 1.000E-06
 VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	1.000NA		1.000UA
569	14	-12.00NA		1.000UA

IDD TEST
 VDD= 20
 IDD < 5.000E-06
 VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	3.000NA		5.000UA
569	14	-2.000NA		5.000UA

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

STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 4

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.770MA		-510.0UA
293	4	-1.750MA		-510.0UA
299	10	-1.750MA		-510.0UA
305	11	-1.760MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -8.000MA             -1.600MA
335     4   -8.000MA             -1.600MA
341    10   -8.000MA             -1.600MA
347    11   -8.000MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.410MA      510.0UA
377     4   3.340MA      510.0UA
383    10   3.290MA      510.0UA
389    11   3.330MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -4.030MA      -1.300MA
293     4   -3.950MA      -1.300MA
299    10   -3.940MA      -1.300MA
305    11   -3.960MA      -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.230MA      1.300MA
377     4   7.890MA      1.300MA
383    10   7.760MA      1.300MA
389    11   7.860MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.70MA		-3.400MA
293	4	-15.40MA		-3.400MA
299	10	-15.30MA		-3.400MA
305	11	-15.40MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.80MA	3.400MA	
377	4	30.30MA	3.400MA	
383	10	29.60MA	3.400MA	
389	11	30.10MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-10.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-9.000NA	-100.0NA	
450	6	-10.00NA	-100.0NA	
454	8	-18.00NA	-100.0NA	
458	9	-13.00NA	-100.0NA	
462	12	-8.000NA	-100.0NA	
466	13	-11.00NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 4.000NA 100.0NA
500 6 5.000NA 100.0NA
504 8 38.00NA 100.0NA
508 9 10.00NA 100.0NA
512 12 3.000NA 100.0NA
516 13 5.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -6.000NA 250.0NA
569 14 -32.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 -2.000NA 500.0NA
569 14 -20.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 1.000NA 1.000UA
569 14 -11.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 1.000NA 5.000UA

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

STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 5

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-800.0MV	-1.500 V	-100.0MV
69	6	-800.0MV	-1.500 V	-100.0MV
69	8	-800.0MV	-1.500 V	-100.0MV
69	9	-800.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-800.0MV	-1.500 V	-100.0MV
69	13	-800.0MV	-1.500 V	-100.0MV
69	14	-700.0MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.780MA		-510.0UA
293	4	-1.780MA		-510.0UA
299	10	-1.780MA		-510.0UA
305	11	-1.790MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -8.100MA             -1.600MA
335     4   -8.100MA             -1.600MA
341    10   -8.100MA             -1.600MA
347    11   -8.200MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.540MA      510.0UA
377     4   3.510MA      510.0UA
383    10   3.460MA      510.0UA
389    11   3.470MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -4.080MA      -1.300MA
293     4   -4.060MA      -1.300MA
299    10   -4.050MA      -1.300MA
305    11   -4.070MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.460MA      1.300MA
377     4   8.330MA      1.300MA
383    10   8.180MA      1.300MA
389    11   8.230MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-16.00MA		-3.400MA
293	4	-15.80MA		-3.400MA
299	10	-15.80MA		-3.400MA
305	11	-15.80MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	32.60MA	3.400MA	
377	4	32.10MA	3.400MA	
383	10	31.30MA	3.400MA	
389	11	31.70MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-13.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-9.000NA	-100.0NA	
450	6	-9.000NA	-100.0NA	
454	8	-8.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-8.000NA	-100.0NA	
466	13	-8.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 8.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 4.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 3.000NA 100.0NA
508 9 3.000NA 100.0NA
512 12 2.000NA 100.0NA
516 13 2.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -7.000NA 250.0NA
569 14 -31.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 -5.000NA 500.0NA
569 14 -15.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 -3.000NA 1.000UA
569 14 6.000NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 -2.000NA 5.000UA
569 14 34.00NA 5.000UA

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

STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 6

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-800.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-800.0MV	-1.500 V	-100.0MV
69	13	-800.0MV	-1.500 V	-100.0MV
69	14	-700.0MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.780MA		-510.0UA
293	4	-1.760MA		-510.0UA
299	10	-1.760MA		-510.0UA
305	11	-1.770MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -8.000MA             -1.600MA
335     4   -8.000MA             -1.600MA
341    10   -8.000MA             -1.600MA
347    11   -8.000MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.530MA      510.0UA
377     4   3.470MA      510.0UA
383    10   3.410MA      510.0UA
389    11   3.430MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.980 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -4.100MA      -1.300MA
293     4   -4.010MA      -1.300MA
299    10   -4.000MA      -1.300MA
305    11   -4.020MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.560MA      1.300MA
377     4   8.160MA      1.300MA
383    10   8.060MA      1.300MA
389    11   8.110MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-16.10MA		-3.400MA
293	4	-15.60MA		-3.400MA
299	10	-15.50MA		-3.400MA
305	11	-15.60MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	33.10MA	3.400MA	
377	4	31.50MA	3.400MA	
383	10	30.70MA	3.400MA	
389	11	31.20MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-10.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-9.000NA	-100.0NA	
450	6	-12.00NA	-100.0NA	
454	8	-14.00NA	-100.0NA	
458	9	-10.00NA	-100.0NA	
462	12	-10.00NA	-100.0NA	
466	13	-13.00NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 4.000NA 100.0NA
500 6 8.000NA 100.0NA
504 8 11.00NA 100.0NA
508 9 5.000NA 100.0NA
512 12 5.000NA 100.0NA
516 13 8.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -6.000NA 250.0NA
569 14 -32.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 -2.000NA 500.0NA
569 14 -22.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 1.000NA 1.000UA
569 14 -13.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -3.000NA 5.000UA

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

STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 7

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-200.0MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.730MA		-510.0UA
293	4	-1.720MA		-510.0UA
299	10	-1.710MA		-510.0UA
305	11	-1.720MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.800MA                -1.600MA
335     4   -7.800MA                -1.600MA
341    10   -7.900MA                -1.600MA
347    11   -7.900MA                -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.300MA      510.0UA
377     4   3.270MA      510.0UA
383    10   3.200MA      510.0UA
389    11   3.220MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.900MA      -1.300MA
293     4   -3.860MA      -1.300MA
299    10   -3.820MA      -1.300MA
305    11   -3.850MA      -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.880MA      1.300MA
377     4   7.710MA      1.300MA
383    10   7.500MA      1.300MA
389    11   7.580MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.20MA		-3.400MA
293	4	-14.90MA		-3.400MA
299	10	-14.80MA		-3.400MA
305	11	-14.90MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	30.30MA	3.400MA	
377	4	29.60MA	3.400MA	
383	10	28.60MA	3.400MA	
389	11	29.10MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-10.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-12.00NA	-100.0NA	
450	6	-29.00NA	-100.0NA	
454	8	-34.00NA	-100.0NA	
458	9	-10.00NA	-100.0NA	
462	12	-10.00NA	-100.0NA	
466	13	-15.00NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1    7.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    43.00NA                100.0NA  
500     6    44.00NA                100.0NA  
504     8    58.00NA                100.0NA  
508     9    4.000NA                100.0NA  
512    12    4.000NA                100.0NA  
516    13    10.00NA               100.0NA  
-----
```

```
-----  
IDDD TEST  
VDD=      5  
IDDD <   250.0E-09  
VIN =     5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14  -6.000NA        250.0NA  
569    14  -27.00NA        250.0NA  
-----
```

```
-----  
IDDD TEST  
VDD=     10  
IDDD <   500.0E-09  
VIN =    10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14  -2.000NA        500.0NA  
569    14  -10.00NA       500.0NA  
-----
```

```
-----  
IDDD TEST  
VDD=     15  
IDDD <   1.000E-06  
VIN =    15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   1.000NA        1.000UA  
569    14   8.000NA        1.000UA  
-----
```

```
-----  
IDDD TEST  
VDD=     20  
IDDD <   5.000E-06  
VIN =    20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   3.000NA        5.000UA  
569    14  23.00NA        5.000UA  
-----
```

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

STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 8

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.740MA		-510.0UA
293	4	-1.710MA		-510.0UA
299	10	-1.720MA		-510.0UA
305	11	-1.730MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.900MA              -1.600MA
335     4   -7.800MA              -1.600MA
341    10   -7.900MA              -1.600MA
347    11   -7.900MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.410MA      510.0UA
377     4   3.330MA      510.0UA
383    10   3.280MA      510.0UA
389    11   3.300MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.950MA      -1.300MA
293     4   -3.830MA      -1.300MA
299    10   -3.850MA      -1.300MA
305    11   -3.870MA      -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.150MA      1.300MA
377     4   7.690MA      1.300MA
383    10   7.650MA      1.300MA
389    11   7.750MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.40MA		-3.400MA
293	4	-15.00MA		-3.400MA
299	10	-14.90MA		-3.400MA
305	11	-15.00MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.40MA	3.400MA	
377	4	29.60MA	3.400MA	
383	10	29.00MA	3.400MA	
389	11	29.70MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-9.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-9.000NA	-100.0NA	
450	6	-9.000NA	-100.0NA	
454	8	-8.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-8.000NA	-100.0NA	
466	13	-8.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 7.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 4.000NA 100.0NA
500 6 4.000NA 100.0NA
504 8 3.000NA 100.0NA
508 9 3.000NA 100.0NA
512 12 3.000NA 100.0NA
516 13 3.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -6.000NA 250.0NA
569 14 -33.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 -2.000NA 500.0NA
569 14 -22.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 2.000NA 1.000UA
569 14 -14.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -4.000NA 5.000UA

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

STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 9

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-800.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.820MA		-510.0UA
293	4	-1.820MA		-510.0UA
299	10	-1.800MA		-510.0UA
305	11	-1.810MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -8.300MA             -1.600MA
335     4   -8.300MA             -1.600MA
341    10   -8.300MA             -1.600MA
347    11   -8.300MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.470MA      510.0UA
377     4   3.440MA      510.0UA
383    10   3.350MA      510.0UA
389    11   3.400MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -4.090MA      -1.300MA
293     4   -4.070MA      -1.300MA
299    10   -4.020MA      -1.300MA
305    11   -4.050MA      -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.210MA      1.300MA
377     4   8.090MA      1.300MA
383    10   7.850MA      1.300MA
389    11   7.970MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.97 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.90MA		-3.400MA
293	4	-15.80MA		-3.400MA
299	10	-15.50MA		-3.400MA
305	11	-15.60MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.40MA	3.400MA	
377	4	31.10MA	3.400MA	
383	10	29.90MA	3.400MA	
389	11	30.50MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-10.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-10.00NA	-100.0NA	
450	6	-12.00NA	-100.0NA	
454	8	-18.00NA	-100.0NA	
458	9	-14.00NA	-100.0NA	
462	12	-8.000NA	-100.0NA	
466	13	-10.00NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 7.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 5.000NA 100.0NA
500 6 9.000NA 100.0NA
504 8 24.00NA 100.0NA
508 9 10.00NA 100.0NA
512 12 3.000NA 100.0NA
516 13 4.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -6.000NA 250.0NA
569 14 -32.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 -2.000NA 500.0NA
569 14 -22.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 1.000NA 1.000UA
569 14 -13.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -3.000NA 5.000UA

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

STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 10

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.770MA		-510.0UA
293	4	-1.780MA		-510.0UA
299	10	-1.780MA		-510.0UA
305	11	-1.790MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -8.100MA             -1.600MA
335     4   -8.200MA             -1.600MA
341    10   -8.200MA             -1.600MA
347    11   -8.200MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.460MA      510.0UA
377     4   3.470MA      510.0UA
383    10   3.430MA      510.0UA
389    11   3.480MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -4.050MA      -1.300MA
293     4   -4.060MA      -1.300MA
299    10   -4.060MA      -1.300MA
305    11   -4.090MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.170MA      1.300MA
377     4   8.210MA      1.300MA
383    10   8.050MA      1.300MA
389    11   8.170MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	10.01MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.90MA		-3.400MA
293	4	-15.80MA		-3.400MA
299	10	-15.70MA		-3.400MA
305	11	-15.90MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.60MA	3.400MA	
377	4	31.40MA	3.400MA	
383	10	30.70MA	3.400MA	
389	11	31.40MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-10.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-9.000NA	-100.0NA	
450	6	-12.00NA	-100.0NA	
454	8	-24.00NA	-100.0NA	
458	9	-18.00NA	-100.0NA	
462	12	-10.00NA	-100.0NA	
466	13	-12.00NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1    7.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    4.000NA                100.0NA  
500     6    14.00NA                100.0NA  
504     8    17.00NA                100.0NA  
508     9    14.00NA                100.0NA  
512    12    4.000NA                100.0NA  
516    13    7.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   -6.000NA                250.0NA  
569    14  -33.00NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   -2.000NA                500.0NA  
569    14  -22.00NA                500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    2.000NA                1.000UA  
569    14  -12.00NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    4.000NA                5.000UA  
569    14      0 A                 5.000UA  
-----
```

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


STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 11

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-800.0MV	-1.500 V	-100.0MV
69	2	-800.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-800.0MV	-1.500 V	-100.0MV
69	6	-800.0MV	-1.500 V	-100.0MV
69	8	-800.0MV	-1.500 V	-100.0MV
69	9	-800.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-800.0MV	-1.500 V	-100.0MV
69	13	-800.0MV	-1.500 V	-100.0MV
69	14	-700.0MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.880MA		-510.0UA
293	4	-1.870MA		-510.0UA
299	10	-1.870MA		-510.0UA
305	11	-1.880MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -8.600MA              -1.600MA
335     4   -8.600MA              -1.600MA
341    10   -8.600MA              -1.600MA
347    11   -8.600MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.640MA      510.0UA
377     4   3.540MA      510.0UA
383    10   3.530MA      510.0UA
389    11   3.560MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -4.260MA      -1.300MA
293     4   -4.160MA      -1.300MA
299    10   -4.200MA      -1.300MA
305    11   -4.220MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.630MA      1.300MA
377     4   8.140MA      1.300MA
383    10   8.220MA      1.300MA
389    11   8.350MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-16.50MA		-3.400MA
293	4	-16.40MA		-3.400MA
299	10	-16.20MA		-3.400MA
305	11	-16.30MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	33.00MA	3.400MA	
377	4	32.10MA	3.400MA	
383	10	31.20MA	3.400MA	
389	11	31.90MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-12.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-9.000NA	-100.0NA	
450	6	-9.000NA	-100.0NA	
454	8	-10.00NA	-100.0NA	
458	9	-9.000NA	-100.0NA	
462	12	-8.000NA	-100.0NA	
466	13	-8.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1    8.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    4.000NA                100.0NA  
500     6    4.000NA                100.0NA  
504     8    5.000NA                100.0NA  
508     9    4.000NA                100.0NA  
512    12    3.000NA                100.0NA  
516    13    3.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   -6.000NA                250.0NA  
569    14  -34.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   -2.000NA                500.0NA  
569    14  -22.000NA                500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    1.000NA                1.000UA  
569    14  -12.000NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    3.000NA                5.000UA  
569    14      0 A                 5.000UA  
-----
```

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

STAT1 05/29/11 07:07
TEST PROGRAM 4001B S/N 12

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-800.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-800.0MV	-1.500 V	-100.0MV
69	6	-800.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-800.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-800.0MV	-1.500 V	-100.0MV
69	13	-800.0MV	-1.500 V	-100.0MV
69	14	-700.0MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.830MA		-510.0UA
293	4	-1.820MA		-510.0UA
299	10	-1.810MA		-510.0UA
305	11	-1.830MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -8.300MA             -1.600MA
335     4   -8.300MA             -1.600MA
341    10   -8.300MA             -1.600MA
347    11   -8.300MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.580MA      510.0UA
377     4   3.540MA      510.0UA
383    10   3.490MA      510.0UA
389    11   3.520MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -4.160MA      -1.300MA
293     4   -4.100MA      -1.300MA
299    10   -4.070MA      -1.300MA
305    11   -4.110MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.490MA      1.300MA
377     4   8.300MA      1.300MA
383    10   8.110MA      1.300MA
389    11   8.220MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	30.03MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-16.10MA		-3.400MA
293	4	-15.90MA		-3.400MA
299	10	-15.70MA		-3.400MA
305	11	-15.90MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	32.50MA	3.400MA	
377	4	31.90MA	3.400MA	
383	10	30.70MA	3.400MA	
389	11	31.40MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-10.00NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-10.00NA	-100.0NA	
450	6	-23.00NA	-100.0NA	
454	8	-43.00NA	-100.0NA	
458	9	-27.00NA	-100.0NA	
462	12	-15.00NA	-100.0NA	
466	13	-17.00NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1    7.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    5.000NA                100.0NA  
500     6    26.00NA                100.0NA  
504     8    47.00NA                100.0NA  
508     9    27.00NA                100.0NA  
512    12    10.00NA                100.0NA  
516    13    14.00NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   -6.000NA                250.0NA  
569    14  -32.00NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   -2.000NA                500.0NA  
569    14  -21.00NA                500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    1.000NA                1.000UA  
569    14  -10.00NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    3.000NA                5.000UA  
569    14    3.000NA                5.000UA  
-----
```

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




MIL-PRF-38534 CLASS K DATAPACK

Pre Burn-In Test Results at 25°C



STAT1 05/24/11 05:13
TEST PROGRAM 4001B S/N 1

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.590MA		-510.0UA
293	4	-1.580MA		-510.0UA
299	10	-1.580MA		-510.0UA
305	11	-1.530MA		-510.0UA

IOH2 TEST

VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.200MA		-1.600MA
335	4	-7.200MA		-1.600MA
341	10	-7.200MA		-1.600MA
347	11	-7.100MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.040MA	510.0UA	
377	4	2.990MA	510.0UA	
383	10	2.980MA	510.0UA	
389	11	2.790MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.560MA		-1.300MA
293	4	-3.520MA		-1.300MA
299	10	-3.540MA		-1.300MA
305	11	-3.330MA		-1.300MA

IOL TEST
VDD= 10

IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	7.210MA	1.300MA	
377	4	7.010MA	1.300MA	
383	10	7.020MA	1.300MA	
389	11	6.250MA	1.300MA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.97 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.90MA		-3.400MA
293	4	-13.60MA		-3.400MA
299	10	-13.70MA		-3.400MA
305	11	-13.10MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.60MA	3.400MA	
377	4	26.70MA	3.400MA	
383	10	26.80MA	3.400MA	
389	11	24.60MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C

IIL < -1.0UA @ +125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
438     1   -8.000NA    -100.0NA  
442     2   -7.000NA    -100.0NA  
446     5   -7.000NA    -100.0NA  
450     6   -6.000NA    -100.0NA  
454     8   -6.000NA    -100.0NA  
458     9   -6.000NA    -100.0NA  
462    12   -6.000NA    -100.0NA  
466    13   -6.000NA    -100.0NA  
-----
```

```
-----  
      IIH TEST  
      VDD=      18  
      IIH < 100E-9 @ 25C/-55C  
      IIH < 1.0E-6 @ 125C  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1   4.000NA     100.0NA  
492     2   2.000NA     100.0NA  
496     5   1.000NA     100.0NA  
500     6   1.000NA     100.0NA  
504     8   1.000NA     100.0NA  
508     9   1.000NA     100.0NA  
512    12   1.000NA     100.0NA  
516    13   1.000NA     100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD < 250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14  -4.000NA     250.0NA  
569    14 -26.000NA     250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD < 500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14  -3.000NA     500.0NA  
569    14 -18.000NA     500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD < 1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   1.000NA     1.000UA  
569    14 -12.000NA     1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD < 5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
-----
```

564 14 1.000NA 5.000UA
569 14 -4.000NA 5.000UA

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

STAT1 05/24/11 05:13
TEST PROGRAM 4001B S/N 2

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.580MA		-510.0UA
293	4	-1.570MA		-510.0UA
299	10	-1.580MA		-510.0UA
305	11	-1.550MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.200MA		-1.600MA
335	4	-7.100MA		-1.600MA
341	10	-7.200MA		-1.600MA
347	11	-7.100MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.070MA	510.0UA	
377	4	3.030MA	510.0UA	
383	10	3.020MA	510.0UA	
389	11	2.880MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.570MA		-1.300MA
293	4	-3.520MA		-1.300MA
299	10	-3.540MA		-1.300MA
305	11	-3.410MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	7.260MA	1.300MA	
377	4	7.060MA	1.300MA	
383	10	7.090MA	1.300MA	
389	11	6.520MA	1.300MA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.97 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	10.01MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	10.01MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.90MA		-3.400MA
293	4	-13.60MA		-3.400MA
299	10	-13.70MA		-3.400MA
305	11	-13.20MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.80MA	3.400MA	
377	4	26.80MA	3.400MA	
383	10	27.10MA	3.400MA	
389	11	24.80MA	3.400MA	

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST # PIN MEASURED LT GT
438 1 -7.000NA -100.0NA
442 2 -7.000NA -100.0NA
446 5 -7.000NA -100.0NA
450 6 -7.000NA -100.0NA
454 8 -6.000NA -100.0NA
458 9 -6.000NA -100.0NA
462 12 -6.000NA -100.0NA
466 13 -6.000NA -100.0NA

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 3.000NA 100.0NA
492 2 2.000NA 100.0NA
496 5 1.000NA 100.0NA
500 6 1.000NA 100.0NA
504 8 1.000NA 100.0NA
508 9 1.000NA 100.0NA
512 12 0 A 100.0NA
516 13 0 A 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -25.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -19.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 0 A 1.000UA
569 14 -11.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	2.000NA		5.000UA
569	14	-6.000NA		5.000UA

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

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TEST PROGRAM 4001B S/N 3

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.630MA		-510.0UA
293	4	-1.610MA		-510.0UA
299	10	-1.620MA		-510.0UA
305	11	-1.580MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.400MA		-1.600MA
335	4	-7.400MA		-1.600MA
341	10	-7.400MA		-1.600MA
347	11	-7.400MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.080MA	510.0UA	
377	4	3.030MA	510.0UA	
383	10	3.020MA	510.0UA	
389	11	2.900MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.650MA		-1.300MA
293	4	-3.590MA		-1.300MA
299	10	-3.600MA		-1.300MA
305	11	-3.470MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	7.290MA	1.300MA	
377	4	7.070MA	1.300MA	
383	10	7.100MA	1.300MA	
389	11	6.570MA	1.300MA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.97 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	10.01MV		50.00MV
253	4	10.01MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.10MA		-3.400MA
293	4	-13.90MA		-3.400MA
299	10	-13.90MA		-3.400MA
305	11	-13.40MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.90MA	3.400MA	
377	4	27.00MA	3.400MA	
383	10	27.10MA	3.400MA	
389	11	25.00MA	3.400MA	

IIL TEST

VDD= 18
 IIL < -100NA @25C/-55C
 IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-7.000NA	-100.0NA	
446	5	-7.000NA	-100.0NA	
450	6	-6.000NA	-100.0NA	
454	8	-6.000NA	-100.0NA	
458	9	-6.000NA	-100.0NA	
462	12	-6.000NA	-100.0NA	
466	13	-6.000NA	-100.0NA	

IIH TEST
 VDD= 18
 IIH < 100E-9 @ 25C/-55C
 IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	3.000NA		100.0NA
492	2	2.000NA		100.0NA
496	5	2.000NA		100.0NA
500	6	1.000NA		100.0NA
504	8	1.000NA		100.0NA
508	9	1.000NA		100.0NA
512	12	1.000NA		100.0NA
516	13	1.000NA		100.0NA

IDD TEST
 VDD= 5
 IDD < 250.0E-09
 VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-5.000NA		250.0NA
569	14	-25.000NA		250.0NA

IDD TEST
 VDD= 10
 IDD < 500.0E-09
 VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	-2.000NA		500.0NA
569	14	-19.000NA		500.0NA

IDD TEST
 VDD= 15
 IDD < 1.000E-06
 VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	0 A		1.000UA
569	14	-11.000NA		1.000UA

IDD TEST
 VDD= 20
 IDD < 5.000E-06
 VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	2.000NA		5.000UA
569	14	-6.000NA		5.000UA

EIR	1.....10	FCT	DCT	
	0000000000	PASS	PASS	EOT
SN				
	F.P.	OCTAL	LITERAL	
SN	4	20700000	0X	

STAT1 05/24/11 05:13
TEST PROGRAM 4001B S/N 4

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.610MA		-510.0UA
293	4	-1.600MA		-510.0UA
299	10	-1.620MA		-510.0UA
305	11	-1.580MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.300MA		-1.600MA
335	4	-7.300MA		-1.600MA
341	10	-7.400MA		-1.600MA
347	11	-7.300MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.100MA	510.0UA	
377	4	3.050MA	510.0UA	
383	10	3.030MA	510.0UA	
389	11	2.930MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.630MA		-1.300MA
293	4	-3.590MA		-1.300MA
299	10	-3.610MA		-1.300MA
305	11	-3.480MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	7.290MA	1.300MA	
377	4	7.110MA	1.300MA	
383	10	7.100MA	1.300MA	
389	11	6.630MA	1.300MA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	10.01MV		50.00MV
261	11	10.01MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.10MA		-3.400MA
293	4	-13.90MA		-3.400MA
299	10	-14.00MA		-3.400MA
305	11	-13.40MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.90MA	3.400MA	
377	4	27.00MA	3.400MA	
383	10	27.10MA	3.400MA	
389	11	25.00MA	3.400MA	

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST # PIN MEASURED LT GT
438 1 -8.000NA -100.0NA
442 2 -6.000NA -100.0NA
446 5 -6.000NA -100.0NA
450 6 -6.000NA -100.0NA
454 8 -6.000NA -100.0NA
458 9 -6.000NA -100.0NA
462 12 -6.000NA -100.0NA
466 13 -6.000NA -100.0NA

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 3.000NA 100.0NA
492 2 2.000NA 100.0NA
496 5 2.000NA 100.0NA
500 6 2.000NA 100.0NA
504 8 1.000NA 100.0NA
508 9 1.000NA 100.0NA
512 12 1.000NA 100.0NA
516 13 1.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -26.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 -3.000NA 500.0NA
569 14 -18.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 1.000NA 1.000UA
569 14 -12.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	2.000NA		5.000UA
569	14	-5.000NA		5.000UA

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

STAT1 05/24/11 05:13
TEST PROGRAM 4001B S/N 5

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.590MA		-510.0UA
293	4	-1.570MA		-510.0UA
299	10	-1.580MA		-510.0UA
305	11	-1.560MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.200MA		-1.600MA
335	4	-7.100MA		-1.600MA
341	10	-7.200MA		-1.600MA
347	11	-7.200MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.110MA	510.0UA	
377	4	3.060MA	510.0UA	
383	10	3.050MA	510.0UA	
389	11	2.980MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.560MA		-1.300MA
293	4	-3.520MA		-1.300MA
299	10	-3.560MA		-1.300MA
305	11	-3.460MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	7.330MA	1.300MA	
377	4	7.160MA	1.300MA	
383	10	7.160MA	1.300MA	
389	11	6.790MA	1.300MA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	10.01MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.90MA		-3.400MA
293	4	-13.70MA		-3.400MA
299	10	-13.80MA		-3.400MA
305	11	-13.40MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	28.00MA	3.400MA	
377	4	27.10MA	3.400MA	
383	10	27.30MA	3.400MA	
389	11	25.60MA	3.400MA	

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-6.000NA	-100.0NA	
446	5	-6.000NA	-100.0NA	
450	6	-6.000NA	-100.0NA	
454	8	-6.000NA	-100.0NA	
458	9	-6.000NA	-100.0NA	
462	12	-6.000NA	-100.0NA	
466	13	-6.000NA	-100.0NA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	4.000NA		100.0NA
492	2	2.000NA		100.0NA
496	5	2.000NA		100.0NA
500	6	1.000NA		100.0NA
504	8	1.000NA		100.0NA
508	9	1.000NA		100.0NA
512	12	1.000NA		100.0NA
516	13	1.000NA		100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-5.000NA		250.0NA
569	14	-26.000NA		250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	-3.000NA		500.0NA
569	14	-18.000NA		500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	1.000UA		1.000UA
569	14	-12.000NA		1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	1.000NA		5.000UA
569	14	-5.000NA		5.000UA

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

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TEST PROGRAM 4001B S/N 6

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.590MA		-510.0UA
293	4	-1.580MA		-510.0UA
299	10	-1.590MA		-510.0UA
305	11	-1.570MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.200MA		-1.600MA
335	4	-7.200MA		-1.600MA
341	10	-7.200MA		-1.600MA
347	11	-7.200MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.120MA	510.0UA	
377	4	3.070MA	510.0UA	
383	10	3.060MA	510.0UA	
389	11	2.980MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.590MA		-1.300MA
293	4	-3.530MA		-1.300MA
299	10	-3.570MA		-1.300MA
305	11	-3.470MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

```
-----
INST #  PIN  MEASURED      LT          GT
    371   3   7.370MA      1.300MA
    377   4   7.150MA      1.300MA
    383  10   7.190MA      1.300MA
    389  11   6.820MA      1.300MA
-----
```

FUNCTIONAL TEST
VDD = 15

```
-----
VOH TEST
VDD= 15
VOH >= 14.95
-----
```

```
-----
INST #  PIN  MEASURED      LT          GT
    220   3  14.98 V      14.95 V
    224   4  14.97 V      14.95 V
    228  10  14.98 V      14.95 V
    232  11  14.98 V      14.95 V
-----
```

```
-----
VOL TEST
VDD= 15
VOL >= 50MV
-----
```

```
-----
INST #  PIN  MEASURED      LT          GT
    249   3  20.02MV      50.00MV
    253   4  20.02MV      50.00MV
    257  10  20.02MV      50.00MV
    261  11  20.02MV      50.00MV
-----
```

```
-----
IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50
-----
```

```
-----
INST #  PIN  MEASURED      LT          GT
    287   3  -14.00MA     -3.400MA
    293   4  -13.70MA     -3.400MA
    299  10  -13.80MA     -3.400MA
    305  11  -13.40MA     -3.400MA
-----
```

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

```
-----
INST #  PIN  MEASURED      LT          GT
    371   3  28.10MA      3.400MA
    377   4  27.20MA      3.400MA
    383  10  27.40MA      3.400MA
    389  11  25.80MA      3.400MA
-----
```

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST # PIN MEASURED LT GT
438 1 -7.000NA -100.0NA
442 2 -7.000NA -100.0NA
446 5 -7.000NA -100.0NA
450 6 -7.000NA -100.0NA
454 8 -7.000NA -100.0NA
458 9 -6.000NA -100.0NA
462 12 -6.000NA -100.0NA
466 13 -6.000NA -100.0NA

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 4.000NA 100.0NA
492 2 2.000NA 100.0NA
496 5 2.000NA 100.0NA
500 6 1.000NA 100.0NA
504 8 1.000NA 100.0NA
508 9 1.000NA 100.0NA
512 12 1.000NA 100.0NA
516 13 1.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -26.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 -2.000NA 500.0NA
569 14 -18.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 0 A 1.000UA
569 14 -12.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	2.000NA		5.000UA
569	14	-4.000NA		5.000UA

EIR	1.....10	FCT	DCT	
	0000000000	PASS	PASS	EOT
SN				
	F.P.	OCTAL	LITERAL	
SN	7	20760000	0^	

STAT1 05/24/11 05:13
TEST PROGRAM 4001B S/N 7

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.600MA		-510.0UA
293	4	-1.580MA		-510.0UA
299	10	-1.600MA		-510.0UA
305	11	-1.580MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.300MA		-1.600MA
335	4	-7.200MA		-1.600MA
341	10	-7.300MA		-1.600MA
347	11	-7.300MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.050MA	510.0UA	
377	4	3.010MA	510.0UA	
383	10	2.980MA	510.0UA	
389	11	2.900MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.600MA		-1.300MA
293	4	-3.540MA		-1.300MA
299	10	-3.570MA		-1.300MA
305	11	-3.480MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	7.220MA	1.300MA	
377	4	7.030MA	1.300MA	
383	10	7.030MA	1.300MA	
389	11	6.710MA	1.300MA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.00MA		-3.400MA
293	4	-13.70MA		-3.400MA
299	10	-13.90MA		-3.400MA
305	11	-13.40MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.70MA	3.400MA	
377	4	26.80MA	3.400MA	
383	10	26.90MA	3.400MA	
389	11	25.40MA	3.400MA	

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST # PIN MEASURED LT GT
438 1 -7.000NA -100.0NA
442 2 -7.000NA -100.0NA
446 5 -7.000NA -100.0NA
450 6 -6.000NA -100.0NA
454 8 -6.000NA -100.0NA
458 9 -6.000NA -100.0NA
462 12 -6.000NA -100.0NA
466 13 -6.000NA -100.0NA

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 3.000NA 100.0NA
492 2 2.000NA 100.0NA
496 5 2.000NA 100.0NA
500 6 1.000NA 100.0NA
504 8 1.000NA 100.0NA
508 9 1.000NA 100.0NA
512 12 1.000NA 100.0NA
516 13 0 A 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -25.000NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 -2.000NA 500.0NA
569 14 -18.000NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 0 A 1.000UA
569 14 -11.000NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	2.000NA		5.000UA
569	14	-5.000NA		5.000UA

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

STAT1 05/24/11 05:13
TEST PROGRAM 4001B S/N 8

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.590MA		-510.0UA
293	4	-1.570MA		-510.0UA
299	10	-1.580MA		-510.0UA
305	11	-1.570MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.200MA		-1.600MA
335	4	-7.100MA		-1.600MA
341	10	-7.200MA		-1.600MA
347	11	-7.200MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.080MA	510.0UA	
377	4	3.030MA	510.0UA	
383	10	3.010MA	510.0UA	
389	11	2.940MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.580MA		-1.300MA
293	4	-3.520MA		-1.300MA
299	10	-3.540MA		-1.300MA
305	11	-3.460MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	7.270MA	1.300MA	
377	4	7.060MA	1.300MA	
383	10	7.070MA	1.300MA	
389	11	6.750MA	1.300MA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	10.01MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.90MA		-3.400MA
293	4	-13.60MA		-3.400MA
299	10	-13.70MA		-3.400MA
305	11	-13.30MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.80MA	3.400MA	
377	4	26.80MA	3.400MA	
383	10	27.00MA	3.400MA	
389	11	25.50MA	3.400MA	

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST # PIN MEASURED LT GT
438 1 -7.000NA -100.0NA
442 2 -7.000NA -100.0NA
446 5 -7.000NA -100.0NA
450 6 -7.000NA -100.0NA
454 8 -6.000NA -100.0NA
458 9 -6.000NA -100.0NA
462 12 -6.000NA -100.0NA
466 13 -6.000NA -100.0NA

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 4.000NA 100.0NA
492 2 2.000NA 100.0NA
496 5 2.000NA 100.0NA
500 6 1.000NA 100.0NA
504 8 1.000NA 100.0NA
508 9 1.000NA 100.0NA
512 12 0 A 100.0NA
516 13 1.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -25.000NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 -2.000NA 500.0NA
569 14 -18.000NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 0 A 1.000UA
569 14 -11.000NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	2.000NA		5.000UA
569	14	-5.000NA		5.000UA

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

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TEST PROGRAM 4001B S/N 9

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.640MA		-510.0UA
293	4	-1.630MA		-510.0UA
299	10	-1.630MA		-510.0UA
305	11	-1.610MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.500MA		-1.600MA
335	4	-7.500MA		-1.600MA
341	10	-7.500MA		-1.600MA
347	11	-7.400MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.130MA	510.0UA	
377	4	3.070MA	510.0UA	
383	10	3.050MA	510.0UA	
389	11	2.990MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.670MA		-1.300MA
293	4	-3.620MA		-1.300MA
299	10	-3.640MA		-1.300MA
305	11	-3.540MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST # PIN MEASURED LT GT
371 3 7.360MA 1.300MA
377 4 7.140MA 1.300MA
383 10 7.130MA 1.300MA
389 11 6.810MA 1.300MA

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST # PIN MEASURED LT GT
220 3 14.97 V 14.95 V
224 4 14.98 V 14.95 V
228 10 14.97 V 14.95 V
232 11 14.97 V 14.95 V

VOL TEST
VDD= 15
VOL >= 50MV

INST # PIN MEASURED LT GT
249 3 10.01MV 50.00MV
253 4 20.02MV 50.00MV
257 10 20.02MV 50.00MV
261 11 20.02MV 50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST # PIN MEASURED LT GT
287 3 -14.20MA -3.400MA
293 4 -14.00MA -3.400MA
299 10 -14.10MA -3.400MA
305 11 -13.60MA -3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST # PIN MEASURED LT GT
371 3 28.00MA 3.400MA
377 4 27.10MA 3.400MA
383 10 27.10MA 3.400MA
389 11 25.70MA 3.400MA

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-7.000NA	-100.0NA	
442	2	-7.000NA	-100.0NA	
446	5	-7.000NA	-100.0NA	
450	6	-6.000NA	-100.0NA	
454	8	-6.000NA	-100.0NA	
458	9	-6.000NA	-100.0NA	
462	12	-6.000NA	-100.0NA	
466	13	-6.000NA	-100.0NA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	3.000NA		100.0NA
492	2	2.000NA		100.0NA
496	5	2.000NA		100.0NA
500	6	1.000NA		100.0NA
504	8	1.000NA		100.0NA
508	9	1.000NA		100.0NA
512	12	1.000NA		100.0NA
516	13	1.000NA		100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-5.000NA		250.0NA
569	14	-25.000NA		250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	-2.000NA		500.0NA
569	14	-18.000NA		500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	0 A		1.000UA
569	14	-11.000NA		1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	2.000NA		5.000UA
569	14	-5.000NA		5.000UA

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

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TEST PROGRAM 4001B S/N 10

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.630MA		-510.0UA
293	4	-1.620MA		-510.0UA
299	10	-1.620MA		-510.0UA
305	11	-1.600MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.400MA		-1.600MA
335	4	-7.400MA		-1.600MA
341	10	-7.400MA		-1.600MA
347	11	-7.400MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.170MA	510.0UA	
377	4	3.130MA	510.0UA	
383	10	3.110MA	510.0UA	
389	11	3.030MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.660MA		-1.300MA
293	4	-3.610MA		-1.300MA
299	10	-3.640MA		-1.300MA
305	11	-3.560MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	7.420MA	1.300MA	
377	4	7.220MA	1.300MA	
383	10	7.220MA	1.300MA	
389	11	6.890MA	1.300MA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.97 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	10.01MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.20MA		-3.400MA
293	4	-13.90MA		-3.400MA
299	10	-14.10MA		-3.400MA
305	11	-13.70MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	28.30MA	3.400MA	
377	4	27.30MA	3.400MA	
383	10	27.50MA	3.400MA	
389	11	25.90MA	3.400MA	

IIL TEST

VDD= 18
 IIL < -100NA @25C/-55C
 IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-7.000NA	-100.0NA	
446	5	-7.000NA	-100.0NA	
450	6	-7.000NA	-100.0NA	
454	8	-6.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-6.000NA	-100.0NA	
466	13	-6.000NA	-100.0NA	

IIH TEST
 VDD= 18
 IIH < 100E-9 @ 25C/-55C
 IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	4.000NA		100.0NA
492	2	2.000NA		100.0NA
496	5	1.000NA		100.0NA
500	6	1.000NA		100.0NA
504	8	1.000NA		100.0NA
508	9	1.000NA		100.0NA
512	12	1.000NA		100.0NA
516	13	1.000NA		100.0NA

IDD TEST
 VDD= 5
 IDD < 250.0E-09
 VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-5.000NA		250.0NA
569	14	-26.00NA		250.0NA

IDD TEST
 VDD= 10
 IDD < 500.0E-09
 VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	-3.000NA		500.0NA
569	14	-18.00NA		500.0NA

IDD TEST
 VDD= 15
 IDD < 1.000E-06
 VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	1.000NA		1.000UA
569	14	-12.00NA		1.000UA

IDD TEST
 VDD= 20
 IDD < 5.000E-06
 VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	1.000NA		5.000UA
569	14	-4.000NA		5.000UA

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

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TEST PROGRAM 4001B S/N 11

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.640MA		-510.0UA
293	4	-1.630MA		-510.0UA
299	10	-1.640MA		-510.0UA
305	11	-1.600MA		-510.0UA

```

-----
IOH2 TEST
VDD=      5
IOH >= -1.600E-03
VO =      2.500
-----

```

INST #	PIN	MEASURED	LT	GT
329	3	-7.500MA		-1.600MA
335	4	-7.500MA		-1.600MA
341	10	-7.500MA		-1.600MA
347	11	-7.400MA		-1.600MA

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
371	3	3.150MA	510.0UA	
377	4	3.090MA	510.0UA	
383	10	3.070MA	510.0UA	
389	11	3.000MA	510.0UA	

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=  9.950
-----

```

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

```

-----
VOL TEST
VDD=     10
VOL >=  50MV
-----

```

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

```

-----
IOH TEST
VDD=     10
IOH >= -1.300E-03
VO =     9.500
-----

```

INST #	PIN	MEASURED	LT	GT
287	3	-3.670MA		-1.300MA
293	4	-3.620MA		-1.300MA
299	10	-3.630MA		-1.300MA
305	11	-3.540MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

```
-----
INST #  PIN  MEASURED      LT          GT
371    3    7.380MA      1.300MA
377    4    7.140MA      1.300MA
383   10    7.150MA      1.300MA
389   11    6.830MA      1.300MA
-----
```

FUNCTIONAL TEST
VDD = 15

```
-----
VOH TEST
VDD= 15
VOH >= 14.95
-----
```

```
-----
INST #  PIN  MEASURED      LT          GT
220    3    14.98 V      14.95 V
224    4    14.98 V      14.95 V
228   10    14.98 V      14.95 V
232   11    14.98 V      14.95 V
-----
```

```
-----
VOL TEST
VDD= 15
VOL >= 50MV
-----
```

```
-----
INST #  PIN  MEASURED      LT          GT
249    3    10.01MV      50.00MV
253    4    20.02MV      50.00MV
257   10    10.01MV      50.00MV
261   11    10.01MV      50.00MV
-----
```

```
-----
IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50
-----
```

```
-----
INST #  PIN  MEASURED      LT          GT
287    3    -14.20MA     -3.400MA
293    4    -14.00MA     -3.400MA
299   10    -14.10MA     -3.400MA
305   11    -13.60MA     -3.400MA
-----
```

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

```
-----
INST #  PIN  MEASURED      LT          GT
371    3    28.10MA      3.400MA
377    4    27.10MA      3.400MA
383   10    27.20MA      3.400MA
389   11    25.70MA      3.400MA
-----
```

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST # PIN MEASURED LT GT
438 1 -7.000NA -100.0NA
442 2 -7.000NA -100.0NA
446 5 -7.000NA -100.0NA
450 6 -7.000NA -100.0NA
454 8 -6.000NA -100.0NA
458 9 -6.000NA -100.0NA
462 12 -6.000NA -100.0NA
466 13 -6.000NA -100.0NA

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 4.000NA 100.0NA
492 2 2.000NA 100.0NA
496 5 2.000NA 100.0NA
500 6 1.000NA 100.0NA
504 8 1.000NA 100.0NA
508 9 1.000NA 100.0NA
512 12 0 A 100.0NA
516 13 0 A 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -25.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -19.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 0 A 1.000UA
569 14 -11.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	2.000NA		5.000UA
569	14	-5.000NA		5.000UA

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

STAT1 05/24/11 05:13
TEST PROGRAM 4001B S/N 12

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.630MA		-510.0UA
293	4	-1.610MA		-510.0UA
299	10	-1.620MA		-510.0UA
305	11	-1.600MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.400MA		-1.600MA
335	4	-7.400MA		-1.600MA
341	10	-7.400MA		-1.600MA
347	11	-7.400MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.160MA	510.0UA	
377	4	3.110MA	510.0UA	
383	10	3.120MA	510.0UA	
389	11	3.030MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.650MA		-1.300MA
293	4	-3.600MA		-1.300MA
299	10	-3.610MA		-1.300MA
305	11	-3.550MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	7.430MA	1.300MA	
377	4	7.230MA	1.300MA	
383	10	7.270MA	1.300MA	
389	11	6.940MA	1.300MA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	10.01MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.20MA		-3.400MA
293	4	-13.90MA		-3.400MA
299	10	-14.00MA		-3.400MA
305	11	-13.70MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	28.40MA	3.400MA	
377	4	27.40MA	3.400MA	
383	10	27.70MA	3.400MA	
389	11	26.10MA	3.400MA	

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST # PIN MEASURED LT GT
438 1 -8.000NA -100.0NA
442 2 -7.000NA -100.0NA
446 5 -6.000NA -100.0NA
450 6 -6.000NA -100.0NA
454 8 -6.000NA -100.0NA
458 9 -6.000NA -100.0NA
462 12 -6.000NA -100.0NA
466 13 -6.000NA -100.0NA

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 3.000NA 100.0NA
492 2 2.000NA 100.0NA
496 5 2.000NA 100.0NA
500 6 2.000NA 100.0NA
504 8 1.000NA 100.0NA
508 9 1.000NA 100.0NA
512 12 1.000NA 100.0NA
516 13 1.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -26.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 -3.000NA 500.0NA
569 14 -18.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 0 A 1.000UA
569 14 -12.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	2.000NA		5.000UA
569	14	-5.000NA		5.000UA

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



MIL-PRF-38534 CLASS K DATAPACK

Pre Burn-In Test Results at +125°C



STAT1 05/25/11 07:12
 TEST PROGRAM 4001B S/N 1
 DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

 CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

 FUNCTIONAL TEST
 VDD = 5

 VOH TEST
 VDD= 5
 VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

 VOL TEST
 VDD= 5
 VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

 IOH TEST
 VDD= 5
 IOH >= -360.0E-06
 VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.520MA		-360.0UA
293	4	-1.530MA		-360.0UA
299	10	-1.520MA		-360.0UA
305	11	-1.540MA		-360.0UA

 IOH2 TEST

VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST # PIN MEASURED LT GT
329 3 -7.000MA -1.150MA
335 4 -7.000MA -1.150MA
341 10 -7.000MA -1.150MA
347 11 -7.000MA -1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST # PIN MEASURED LT GT
371 3 2.860MA 360.0UA
377 4 2.890MA 360.0UA
383 10 2.870MA 360.0UA
389 11 2.890MA 360.0UA

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST # PIN MEASURED LT GT
220 3 9.970 V 9.950 V
224 4 9.970 V 9.950 V
228 10 9.970 V 9.950 V
232 11 9.970 V 9.950 V

VOL TEST
VDD= 10
VOL >= 50MV

INST # PIN MEASURED LT GT
249 3 20.02MV 50.00MV
253 4 20.02MV 50.00MV
257 10 20.02MV 50.00MV
261 11 20.02MV 50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST # PIN MEASURED LT GT
287 3 -3.360MA -900.0UA
293 4 -3.410MA -900.0UA
299 10 -3.400MA -900.0UA
305 11 -3.440MA -900.0UA

IOL TEST
VDD= 10

IOL >= 900.0E-06
VO= 500.0E-03

INST # PIN MEASURED LT GT
371 3 6.590MA 900.0UA
377 4 6.720MA 900.0UA
383 10 6.650MA 900.0UA
389 11 6.750MA 900.0UA

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST # PIN MEASURED LT GT
220 3 14.98 V 14.95 V
224 4 14.98 V 14.95 V
228 10 14.97 V 14.95 V
232 11 14.97 V 14.95 V

VOL TEST
VDD= 15
VOL >= 50MV

INST # PIN MEASURED LT GT
249 3 20.02MV 50.00MV
253 4 20.02MV 50.00MV
257 10 20.02MV 50.00MV
261 11 20.02MV 50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST # PIN MEASURED LT GT
287 3 -13.00MA -2.400MA
293 4 -13.30MA -2.400MA
299 10 -13.20MA -2.400MA
305 11 -13.30MA -2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST # PIN MEASURED LT GT
371 3 25.30MA 2.400MA
377 4 25.80MA 2.400MA
383 10 25.30MA 2.400MA
389 11 25.70MA 2.400MA

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C

IIL < -1.0UA @ +125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
438     1   -8.000NA    -1.000UA  
442     2   -7.000NA    -1.000UA  
446     5   -7.000NA    -1.000UA  
450     6   -7.000NA    -1.000UA  
454     8   -7.000NA    -1.000UA  
458     9   -7.000NA    -1.000UA  
462    12   -6.000NA    -1.000UA  
466    13   -7.000NA    -1.000UA  
-----
```

```
-----  
      IIH TEST  
      VDD=      18  
      IIH < 100E-9 @ 25C/-55C  
      IIH < 1.0E-6 @ 125C  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1   4.000NA     1.000UA  
492     2   3.000NA     1.000UA  
496     5   2.000NA     1.000UA  
500     6   2.000NA     1.000UA  
504     8   2.000NA     1.000UA  
508     9   2.000NA     1.000UA  
512    12   2.000NA     1.000UA  
516    13   2.000NA     1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD < 7.500E-06  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14  -3.000NA     7.500UA  
569    14 -30.000NA     7.500UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD < 15.00E-06  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   3.000NA     15.00UA  
569    14 -16.000NA     15.00UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD < 30.00E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   8.000NA     30.00UA  
569    14  -6.000NA     30.00UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD < 150.0E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
-----
```

564	14	11.00NA	150.0UA
569	14	8.000NA	150.0UA

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

STAT1 05/25/11 07:12
TEST PROGRAM 4001B S/N 2

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.510MA		-360.0UA
293	4	-1.520MA		-360.0UA
299	10	-1.520MA		-360.0UA
305	11	-1.530MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-6.900MA		-1.150MA
335	4	-6.900MA		-1.150MA
341	10	-7.000MA		-1.150MA
347	11	-7.000MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.910MA	360.0UA	
377	4	2.950MA	360.0UA	
383	10	2.890MA	360.0UA	
389	11	2.910MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.360MA		-900.0UA
293	4	-3.420MA		-900.0UA
299	10	-3.400MA		-900.0UA
305	11	-3.430MA		-900.0UA

IOL TEST
 VDD= 10
 IOL >= 900.0E-06
 VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	6.710MA	900.0UA	
377	4	6.870MA	900.0UA	
383	10	6.700MA	900.0UA	
389	11	6.800MA	900.0UA	

FUNCTIONAL TEST
 VDD = 15

VOH TEST
 VDD= 15
 VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
 VDD= 15
 VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
 VDD= 15
 IOH >= -2.400E-03
 VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.00MA		-2.400MA
293	4	-13.30MA		-2.400MA
299	10	-13.20MA		-2.400MA
305	11	-13.30MA		-2.400MA

IOL TEST
 VDD= 15
 IOL >= 2.400E-03
 VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	25.50MA	2.400MA	
377	4	26.10MA	2.400MA	
383	10	25.60MA	2.400MA	
389	11	25.90MA	2.400MA	

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-7.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-7.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-6.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	5.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	3.000NA		1.000UA
500	6	2.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	1.000NA		1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-3.000NA		7.500UA
569	14	-28.00NA		7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	5.000NA		15.00UA
569	14	-15.00NA		15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	9.000NA		30.00UA
569	14	-3.000NA		30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	14.00NA		150.0UA
569	14	11.00NA		150.0UA

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

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TEST PROGRAM 4001B S/N 3

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-200.0MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-500.0MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.460MA		-360.0UA
293	4	-1.470MA		-360.0UA
299	10	-1.460MA		-360.0UA
305	11	-1.470MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-6.700MA		-1.150MA
335	4	-6.700MA		-1.150MA
341	10	-6.700MA		-1.150MA
347	11	-6.800MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.710MA	360.0UA	
377	4	2.750MA	360.0UA	
383	10	2.680MA	360.0UA	
389	11	2.720MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.190MA		-900.0UA
293	4	-3.250MA		-900.0UA
299	10	-3.210MA		-900.0UA
305	11	-3.250MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	6.200MA	900.0UA	
377	4	6.350MA	900.0UA	
383	10	6.170MA	900.0UA	
389	11	6.290MA	900.0UA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	10.01MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-12.30MA		-2.400MA
293	4	-12.60MA		-2.400MA
299	10	-12.40MA		-2.400MA
305	11	-12.50MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.40MA	2.400MA	
377	4	23.90MA	2.400MA	
383	10	23.30MA	2.400MA	
389	11	23.80MA	2.400MA	

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	5.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	2.000NA		1.000UA
500	6	2.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	1.000NA		1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-3.000NA		7.500UA
569	14	-28.00NA		7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	5.000NA		15.00UA
569	14	-15.00NA		15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	9.000NA		30.00UA
569	14	-3.000NA		30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	13.00NA		150.0UA
569	14	11.00NA		150.0UA

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

STAT1 05/25/11 07:12
TEST PROGRAM 4001B S/N 4

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.490MA		-360.0UA
293	4	-1.510MA		-360.0UA
299	10	-1.500MA		-360.0UA
305	11	-1.510MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-6.900MA		-1.150MA
335	4	-6.900MA		-1.150MA
341	10	-6.900MA		-1.150MA
347	11	-6.900MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.810MA	360.0UA	
377	4	2.850MA	360.0UA	
383	10	2.790MA	360.0UA	
389	11	2.830MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.290MA		-900.0UA
293	4	-3.370MA		-900.0UA
299	10	-3.310MA		-900.0UA
305	11	-3.370MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST # PIN MEASURED LT GT
371 3 6.430MA 900.0UA
377 4 6.630MA 900.0UA
383 10 6.410MA 900.0UA
389 11 6.570MA 900.0UA

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST # PIN MEASURED LT GT
220 3 14.97 V 14.95 V
224 4 14.98 V 14.95 V
228 10 14.97 V 14.95 V
232 11 14.98 V 14.95 V

VOL TEST
VDD= 15
VOL >= 50MV

INST # PIN MEASURED LT GT
249 3 20.02MV 50.00MV
253 4 20.02MV 50.00MV
257 10 20.02MV 50.00MV
261 11 20.02MV 50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST # PIN MEASURED LT GT
287 3 -12.70MA -2.400MA
293 4 -13.00MA -2.400MA
299 10 -12.80MA -2.400MA
305 11 -13.00MA -2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST # PIN MEASURED LT GT
371 3 24.40MA 2.400MA
377 4 25.20MA 2.400MA
383 10 24.30MA 2.400MA
389 11 25.00MA 2.400MA

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-7.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	5.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	3.000NA		1.000UA
500	6	2.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	2.000NA		1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-3.000NA		7.500UA
569	14	-28.00NA		7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	5.000NA		15.00UA
569	14	-14.00NA		15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	10.00NA		30.00UA
569	14	0 A		30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	15.00NA		150.0UA
569	14	13.00NA		150.0UA

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

STAT1 05/25/11 07:12
TEST PROGRAM 4001B S/N 5

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-600.1MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-500.0MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.380MA		-360.0UA
293	4	-1.390MA		-360.0UA
299	10	-1.380MA		-360.0UA
305	11	-1.400MA		-360.0UA

```

-----
IOH2 TEST
VDD=      5
IOH >= -1.150E-03
VO =      2.500
-----

```

INST #	PIN	MEASURED	LT	GT
329	3	-6.300MA		-1.150MA
335	4	-6.300MA		-1.150MA
341	10	-6.400MA		-1.150MA
347	11	-6.400MA		-1.150MA

```

-----
IOL TEST
VDD=      5
IOL >=    360.0E-06
VO=      400.0E-03
-----

```

INST #	PIN	MEASURED	LT	GT
371	3	2.640MA	360.0UA	
377	4	2.690MA	360.0UA	
383	10	2.620MA	360.0UA	
389	11	2.670MA	360.0UA	

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

```

-----
VOL TEST
VDD=     10
VOL >=  50MV
-----

```

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

```

-----
IOH TEST
VDD=     10
IOH >= -900.0E-06
VO =     9.500
-----

```

INST #	PIN	MEASURED	LT	GT
287	3	-3.040MA		-900.0UA
293	4	-3.110MA		-900.0UA
299	10	-3.080MA		-900.0UA
305	11	-3.120MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST # PIN MEASURED LT GT
371 3 6.010MA 900.0UA
377 4 6.230MA 900.0UA
383 10 6.000MA 900.0UA
389 11 6.160MA 900.0UA

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST # PIN MEASURED LT GT
220 3 14.97 V 14.95 V
224 4 14.98 V 14.95 V
228 10 14.98 V 14.95 V
232 11 14.98 V 14.95 V

VOL TEST
VDD= 15
VOL >= 50MV

INST # PIN MEASURED LT GT
249 3 20.02MV 50.00MV
253 4 20.02MV 50.00MV
257 10 20.02MV 50.00MV
261 11 20.02MV 50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST # PIN MEASURED LT GT
287 3 -11.80MA -2.400MA
293 4 -12.10MA -2.400MA
299 10 -11.90MA -2.400MA
305 11 -12.10MA -2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST # PIN MEASURED LT GT
371 3 22.70MA 2.400MA
377 4 23.60MA 2.400MA
383 10 22.60MA 2.400MA
389 11 23.40MA 2.400MA

IIL TEST

VDD= 18
 IIL < -100NA @25C/-55C
 IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-7.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-7.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-6.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
 VDD= 18
 IIH < 100E-9 @ 25C/-55C
 IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	5.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	3.000NA		1.000UA
500	6	3.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	2.000NA		1.000UA

IDD TEST
 VDD= 5
 IDD < 7.500E-06
 VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-3.000NA		7.500UA
569	14	-28.00NA		7.500UA

IDD TEST
 VDD= 10
 IDD < 15.00E-06
 VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	5.000NA		15.00UA
569	14	-15.00NA		15.00UA

IDD TEST
 VDD= 15
 IDD < 30.00E-06
 VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	10.00NA		30.00UA
569	14	0 A		30.00UA

IDD TEST
 VDD= 20
 IDD < 150.0E-06
 VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	14.00NA		150.0UA
569	14	12.00NA		150.0UA

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

STAT1 05/25/11 07:12
TEST PROGRAM 4001B S/N 6

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	30.03MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.470MA		-360.0UA
293	4	-1.480MA		-360.0UA
299	10	-1.470MA		-360.0UA
305	11	-1.490MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-6.700MA		-1.150MA
335	4	-6.700MA		-1.150MA
341	10	-6.700MA		-1.150MA
347	11	-6.800MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.810MA	360.0UA	
377	4	2.860MA	360.0UA	
383	10	2.800MA	360.0UA	
389	11	2.850MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.240MA		-900.0UA
293	4	-3.320MA		-900.0UA
299	10	-3.270MA		-900.0UA
305	11	-3.340MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	6.430MA	900.0UA	
377	4	6.640MA	900.0UA	
383	10	6.430MA	900.0UA	
389	11	6.640MA	900.0UA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-12.60MA		-2.400MA
293	4	-12.80MA		-2.400MA
299	10	-12.50MA		-2.400MA
305	11	-12.90MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	24.50MA	2.400MA	
377	4	25.30MA	2.400MA	
383	10	23.70MA	2.400MA	
389	11	25.20MA	2.400MA	

IIL TEST

VDD= 18
 IIL < -100NA @25C/-55C
 IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-7.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
 VDD= 18
 IIH < 100E-9 @ 25C/-55C
 IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	4.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	3.000NA		1.000UA
500	6	2.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	1.000NA		1.000UA

IDD TEST
 VDD= 5
 IDD < 7.500E-06
 VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-3.000NA		7.500UA
569	14	-28.00NA		7.500UA

IDD TEST
 VDD= 10
 IDD < 15.00E-06
 VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	6.000NA		15.00UA
569	14	-15.00NA		15.00UA

IDD TEST
 VDD= 15
 IDD < 30.00E-06
 VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	10.00NA		30.00UA
569	14	0 A		30.00UA

IDD TEST
 VDD= 20
 IDD < 150.0E-06
 VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	16.00NA		150.0UA
569	14	13.00NA		150.0UA

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

STAT1 05/25/11 07:12
TEST PROGRAM 4001B S/N 7

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.500MA		-360.0UA
293	4	-1.510MA		-360.0UA
299	10	-1.500MA		-360.0UA
305	11	-1.520MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-6.900MA		-1.150MA
335	4	-6.900MA		-1.150MA
341	10	-6.900MA		-1.150MA
347	11	-7.000MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.790MA	360.0UA	
377	4	2.860MA	360.0UA	
383	10	2.770MA	360.0UA	
389	11	2.830MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.280MA		-900.0UA
293	4	-3.360MA		-900.0UA
299	10	-3.310MA		-900.0UA
305	11	-3.380MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST # PIN MEASURED LT GT
371 3 6.390MA 900.0UA
377 4 6.640MA 900.0UA
383 10 6.350MA 900.0UA
389 11 6.640MA 900.0UA

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST # PIN MEASURED LT GT
220 3 14.97 V 14.95 V
224 4 14.98 V 14.95 V
228 10 14.97 V 14.95 V
232 11 14.98 V 14.95 V

VOL TEST
VDD= 15
VOL >= 50MV

INST # PIN MEASURED LT GT
249 3 10.01MV 50.00MV
253 4 30.03MV 50.00MV
257 10 20.02MV 50.00MV
261 11 20.02MV 50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST # PIN MEASURED LT GT
287 3 -12.80MA -2.400MA
293 4 -13.10MA -2.400MA
299 10 -12.80MA -2.400MA
305 11 -13.10MA -2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST # PIN MEASURED LT GT
371 3 24.60MA 2.400MA
377 4 25.30MA 2.400MA
383 10 24.20MA 2.400MA
389 11 25.30MA 2.400MA

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-7.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-7.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	4.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	3.000NA		1.000UA
500	6	3.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	2.000NA		1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-3.000NA		7.500UA
569	14	-28.00NA		7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	6.000NA		15.00UA
569	14	-14.00NA		15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	11.00NA		30.00UA
569	14	0 A		30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	16.00NA		150.0UA
569	14	13.00NA		150.0UA

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

STAT1 05/25/11 07:12
TEST PROGRAM 4001B S/N 8

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.490MA		-360.0UA
293	4	-1.500MA		-360.0UA
299	10	-1.490MA		-360.0UA
305	11	-1.510MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-6.900MA		-1.150MA
335	4	-6.900MA		-1.150MA
341	10	-6.900MA		-1.150MA
347	11	-6.900MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.850MA	360.0UA	
377	4	2.880MA	360.0UA	
383	10	2.820MA	360.0UA	
389	11	2.890MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.290MA		-900.0UA
293	4	-3.340MA		-900.0UA
299	10	-3.310MA		-900.0UA
305	11	-3.380MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	6.510MA	900.0UA	
377	4	6.640MA	900.0UA	
383	10	6.430MA	900.0UA	
389	11	6.730MA	900.0UA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	20.02MV		50.00MV
257	10	10.01MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-12.70MA		-2.400MA
293	4	-12.90MA		-2.400MA
299	10	-12.70MA		-2.400MA
305	11	-13.10MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	24.80MA	2.400MA	
377	4	25.20MA	2.400MA	
383	10	24.20MA	2.400MA	
389	11	25.60MA	2.400MA	

IIL TEST

VDD= 18
 IIL < -100NA @25C/-55C
 IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-7.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-7.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
 VDD= 18
 IIH < 100E-9 @ 25C/-55C
 IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	4.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	3.000NA		1.000UA
500	6	3.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	2.000NA		1.000UA

IDD TEST
 VDD= 5
 IDD < 7.500E-06
 VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	0 A		7.500UA
569	14	-28.00NA		7.500UA

IDD TEST
 VDD= 10
 IDD < 15.00E-06
 VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	7.000NA		15.00UA
569	14	-13.00NA		15.00UA

IDD TEST
 VDD= 15
 IDD < 30.00E-06
 VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	12.00NA		30.00UA
569	14	2.000NA		30.00UA

IDD TEST
 VDD= 20
 IDD < 150.0E-06
 VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	18.00NA		150.0UA
569	14	16.00NA		150.0UA

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

STAT1 05/25/11 07:12
TEST PROGRAM 4001B S/N 9

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.530MA		-360.0UA
293	4	-1.550MA		-360.0UA
299	10	-1.540MA		-360.0UA
305	11	-1.560MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.100MA		-1.150MA
335	4	-7.200MA		-1.150MA
341	10	-7.100MA		-1.150MA
347	11	-7.200MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.880MA	360.0UA	
377	4	2.900MA	360.0UA	
383	10	2.840MA	360.0UA	
389	11	2.930MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.370MA		-900.0UA
293	4	-3.440MA		-900.0UA
299	10	-3.390MA		-900.0UA
305	11	-3.470MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	6.540MA	900.0UA	
377	4	6.690MA	900.0UA	
383	10	6.500MA	900.0UA	
389	11	6.800MA	900.0UA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.10MA		-2.400MA
293	4	-13.30MA		-2.400MA
299	10	-13.10MA		-2.400MA
305	11	-13.40MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	24.90MA	2.400MA	
377	4	25.50MA	2.400MA	
383	10	24.70MA	2.400MA	
389	11	25.80MA	2.400MA	

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-7.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-7.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	4.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	3.000NA		1.000UA
500	6	3.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	2.000NA		1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-2.000NA		7.500UA
569	14	-28.00NA		7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	6.000NA		15.00UA
569	14	-14.00NA		15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	11.00NA		30.00UA
569	14	1.000NA		30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	17.00NA		150.0UA
569	14	14.00NA		150.0UA

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

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TEST PROGRAM 4001B S/N 10

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	30.03MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.530MA		-360.0UA
293	4	-1.540MA		-360.0UA
299	10	-1.520MA		-360.0UA
305	11	-1.560MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.000MA		-1.150MA
335	4	-7.100MA		-1.150MA
341	10	-7.100MA		-1.150MA
347	11	-7.100MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.910MA	360.0UA	
377	4	2.960MA	360.0UA	
383	10	2.850MA	360.0UA	
389	11	2.990MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.360MA		-900.0UA
293	4	-3.430MA		-900.0UA
299	10	-3.350MA		-900.0UA
305	11	-3.490MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	6.540MA	900.0UA	
377	4	6.770MA	900.0UA	
383	10	6.380MA	900.0UA	
389	11	6.900MA	900.0UA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.97 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.00MA		-2.400MA
293	4	-13.20MA		-2.400MA
299	10	-13.30MA		-2.400MA
305	11	-13.50MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	25.10MA	2.400MA	
377	4	25.70MA	2.400MA	
383	10	25.50MA	2.400MA	
389	11	26.20MA	2.400MA	

IIL TEST

VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-7.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	5.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	3.000NA		1.000UA
500	6	3.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	2.000NA		1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-2.000NA		7.500UA
569	14	-28.00NA		7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	6.000NA		15.00UA
569	14	-13.00NA		15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	12.00NA		30.00UA
569	14	1.000NA		30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	17.00NA		150.0UA
569	14	14.00NA		150.0UA

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

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TEST PROGRAM 4001B S/N 11

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.540MA		-360.0UA
293	4	-1.560MA		-360.0UA
299	10	-1.560MA		-360.0UA
305	11	-1.560MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.200MA		-1.150MA
335	4	-7.200MA		-1.150MA
341	10	-7.200MA		-1.150MA
347	11	-7.200MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.880MA	360.0UA	
377	4	2.930MA	360.0UA	
383	10	2.910MA	360.0UA	
389	11	2.940MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.360MA		-900.0UA
293	4	-3.440MA		-900.0UA
299	10	-3.460MA		-900.0UA
305	11	-3.480MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	6.520MA	900.0UA	
377	4	6.710MA	900.0UA	
383	10	6.720MA	900.0UA	
389	11	6.860MA	900.0UA	

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	10.01MV		50.00MV
253	4	10.01MV		50.00MV
257	10	10.01MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.00MA		-2.400MA
293	4	-13.30MA		-2.400MA
299	10	-13.30MA		-2.400MA
305	11	-13.40MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	24.90MA	2.400MA	
377	4	25.30MA	2.400MA	
383	10	25.50MA	2.400MA	
389	11	26.00MA	2.400MA	

IIL TEST

VDD= 18
 IIL < -100NA @25C/-55C
 IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
 VDD= 18
 IIH < 100E-9 @ 25C/-55C
 IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	5.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	3.000NA		1.000UA
500	6	2.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	2.000NA		1.000UA

IDD TEST
 VDD= 5
 IDD < 7.500E-06
 VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-3.000NA		7.500UA
569	14	-28.00NA		7.500UA

IDD TEST
 VDD= 10
 IDD < 15.00E-06
 VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	6.000NA		15.00UA
569	14	-14.00NA		15.00UA

IDD TEST
 VDD= 15
 IDD < 30.00E-06
 VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	11.00NA		30.00UA
569	14	1.000NA		30.00UA

IDD TEST
 VDD= 20
 IDD < 150.0E-06
 VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	16.00NA		150.0UA
569	14	14.00NA		150.0UA

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

STAT1 05/25/11 07:12
TEST PROGRAM 4001B S/N 12

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 12 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.530MA		-360.0UA
293	4	-1.540MA		-360.0UA
299	10	-1.540MA		-360.0UA
305	11	-1.560MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
329	3	-7.100MA		-1.150MA
335	4	-7.100MA		-1.150MA
341	10	-7.100MA		-1.150MA
347	11	-7.100MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.890MA	360.0UA	
377	4	2.950MA	360.0UA	
383	10	2.960MA	360.0UA	
389	11	3.000MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.350MA		-900.0UA
293	4	-3.420MA		-900.0UA
299	10	-3.450MA		-900.0UA
305	11	-3.480MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST # PIN MEASURED LT GT
371 3 6.500MA 900.0UA
377 4 6.780MA 900.0UA
383 10 6.830MA 900.0UA
389 11 6.950MA 900.0UA

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST # PIN MEASURED LT GT
220 3 14.98 V 14.95 V
224 4 14.98 V 14.95 V
228 10 14.98 V 14.95 V
232 11 14.98 V 14.95 V

VOL TEST
VDD= 15
VOL >= 50MV

INST # PIN MEASURED LT GT
249 3 20.02MV 50.00MV
253 4 20.02MV 50.00MV
257 10 20.02MV 50.00MV
261 11 20.02MV 50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST # PIN MEASURED LT GT
287 3 -13.10MA -2.400MA
293 4 -12.70MA -2.400MA
299 10 -13.40MA -2.400MA
305 11 -13.50MA -2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST # PIN MEASURED LT GT
371 3 25.10MA 2.400MA
377 4 22.60MA 2.400MA
383 10 25.90MA 2.400MA
389 11 26.40MA 2.400MA

IIL TEST

VDD= 18
 IIL < -100NA @25C/-55C
 IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-7.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-7.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
 VDD= 18
 IIH < 100E-9 @ 25C/-55C
 IIH < 1.0E-6 @ 125C

INST #	PIN	MEASURED	LT	GT
488	1	5.000NA		1.000UA
492	2	3.000NA		1.000UA
496	5	3.000NA		1.000UA
500	6	3.000NA		1.000UA
504	8	2.000NA		1.000UA
508	9	2.000NA		1.000UA
512	12	2.000NA		1.000UA
516	13	2.000NA		1.000UA

IDD TEST
 VDD= 5
 IDD < 7.500E-06
 VIN = 5

INST #	PIN	MEASURED	LT	GT
564	14	-2.000NA		7.500UA
569	14	-27.00NA		7.500UA

IDD TEST
 VDD= 10
 IDD < 15.00E-06
 VIN = 10

INST #	PIN	MEASURED	LT	GT
564	14	6.000NA		15.00UA
569	14	-14.00NA		15.00UA

IDD TEST
 VDD= 15
 IDD < 30.00E-06
 VIN = 15

INST #	PIN	MEASURED	LT	GT
564	14	12.00NA		30.00UA
569	14	1.000NA		30.00UA

IDD TEST
 VDD= 20
 IDD < 150.0E-06
 VIN = 20

INST #	PIN	MEASURED	LT	GT
564	14	17.00NA		150.0UA
569	14	14.00NA		150.0UA

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



MIL-PRF-38534 CLASS K DATAPACK

Post Burn-In Test Results at -55°C



STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 1

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.580MA		-510.0UA
293	4	-1.580MA		-510.0UA
299	10	-1.560MA		-510.0UA
305	11	-1.580MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
--------	-----	----------	----	----

329	3	-7.200MA		-1.600MA
335	4	-7.200MA		-1.600MA
341	10	-7.100MA		-1.600MA
347	11	-7.200MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	3.060MA	510.0UA	
377	4	3.050MA	510.0UA	
383	10	2.960MA	510.0UA	
389	11	3.010MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.980 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.530MA		-1.300MA
293	4	-3.530MA		-1.300MA
299	10	-3.460MA		-1.300MA
305	11	-3.530MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	7.270MA	1.300MA	
377	4	7.270MA	1.300MA	
383	10	6.940MA	1.300MA	
389	11	7.190MA	1.300MA	

FUNCTIONAL TEST

VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.80MA		-3.400MA
293	4	-13.80MA		-3.400MA
299	10	-13.50MA		-3.400MA
305	11	-13.80MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	28.30MA	3.400MA	
377	4	28.30MA	3.400MA	
383	10	26.90MA	3.400MA	
389	11	28.00MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-7.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```

-----
INST #  PIN  MEASURED      LT          GT
488     1    6.000NA                100.0NA
492     2    4.000NA                100.0NA
496     5    3.000NA                100.0NA
500     6    3.000NA                100.0NA
504     8    2.000NA                100.0NA
508     9    3.000NA                100.0NA
512    12    2.000NA                100.0NA
516    13    2.000NA                100.0NA

```

```

-----
      IDD TEST
      VDD=      5
      IDD <  250.0E-09
      VIN =      5
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14   -5.000NA                250.0NA
569    14  -36.000NA                250.0NA

```

```

-----
      IDD TEST
      VDD=     10
      IDD <  500.0E-09
      VIN =     10
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14      0 A                500.0NA
569    14  -25.000NA                500.0NA

```

```

-----
      IDD TEST
      VDD=     15
      IDD <  1.000E-06
      VIN =     15
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14   1.000NA                1.000UA
569    14  -16.000NA                1.000UA

```

```

-----
      IDD TEST
      VDD=     20
      IDD <  5.000E-06
      VIN =     20
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14   3.000NA                5.000UA
569    14  -6.000NA                5.000UA

```

```

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

```

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 2

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.660MA		-510.0UA
293	4	-1.660MA		-510.0UA
299	10	-1.660MA		-510.0UA
305	11	-1.670MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.500MA             -1.600MA
335     4   -7.500MA             -1.600MA
341    10   -7.500MA             -1.600MA
347    11   -7.500MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=   510.0E-06
VO=     400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.250MA      510.0UA
377     4   3.260MA      510.0UA
383    10   3.200MA      510.0UA
389    11   3.210MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V      9.950 V
224     4   9.970 V      9.950 V
228    10   9.970 V      9.950 V
232    11   9.970 V      9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV      50.00MV
253     4   20.02MV      50.00MV
257    10   20.02MV      50.00MV
261    11   20.02MV      50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=  -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.670MA     -1.300MA
293     4   -3.670MA     -1.300MA
299    10   -3.660MA     -1.300MA
305    11   -3.670MA     -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=   1.300E-03
VO=     500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.660MA      1.300MA
377     4   7.650MA      1.300MA
383    10   7.480MA      1.300MA
389    11   7.530MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.10MA		-3.400MA
293	4	-14.10MA		-3.400MA
299	10	-14.00MA		-3.400MA
305	11	-14.10MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	29.10MA	3.400MA	
377	4	29.10MA	3.400MA	
383	10	28.40MA	3.400MA	
389	11	28.60MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1    6.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    3.000NA                100.0NA  
500     6    3.000NA                100.0NA  
504     8    2.000NA                100.0NA  
508     9    3.000NA                100.0NA  
512    12    2.000NA                100.0NA  
516    13    2.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   -5.000NA                250.0NA  
569    14  -36.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    0 A                 500.0NA  
569    14  -25.000NA            500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    1.000NA            1.000UA  
569    14  -16.000NA            1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    3.000NA            5.000UA  
569    14   -6.000NA            5.000UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 3

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.630MA		-510.0UA
293	4	-1.630MA		-510.0UA
299	10	-1.620MA		-510.0UA
305	11	-1.630MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.400MA              -1.600MA
335     4   -7.400MA              -1.600MA
341    10   -7.400MA              -1.600MA
347    11   -7.400MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.130MA      510.0UA
377     4   3.120MA      510.0UA
383    10   3.070MA      510.0UA
389    11   3.090MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.650MA      -1.300MA
293     4   -3.650MA      -1.300MA
299    10   -3.610MA      -1.300MA
305    11   -3.660MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.520MA      1.300MA
377     4   7.510MA      1.300MA
383    10   7.330MA      1.300MA
389    11   7.470MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.40MA		-3.400MA
293	4	-14.40MA		-3.400MA
299	10	-14.20MA		-3.400MA
305	11	-14.40MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	29.50MA	3.400MA	
377	4	29.50MA	3.400MA	
383	10	28.60MA	3.400MA	
389	11	29.20MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-7.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-7.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 3.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 2.000NA 100.0NA
508 9 2.000NA 100.0NA
512 12 2.000NA 100.0NA
516 13 2.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -36.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -26.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 1.000NA 1.000UA
569 14 -16.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -6.000NA 5.000UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 4

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.700MA		-510.0UA
293	4	-1.700MA		-510.0UA
299	10	-1.690MA		-510.0UA
305	11	-1.710MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.700MA                -1.600MA
335     4   -7.800MA                -1.600MA
341    10   -7.800MA                -1.600MA
347    11   -7.800MA                -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.340MA      510.0UA
377     4   3.340MA      510.0UA
383    10   3.270MA      510.0UA
389    11   3.310MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.880MA      -1.300MA
293     4   -3.900MA      -1.300MA
299    10   -3.860MA      -1.300MA
305    11   -3.900MA      -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.080MA      1.300MA
377     4   8.090MA      1.300MA
383    10   7.860MA      1.300MA
389    11   8.000MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.20MA		-3.400MA
293	4	-15.30MA		-3.400MA
299	10	-15.10MA		-3.400MA
305	11	-15.20MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.50MA	3.400MA	
377	4	31.50MA	3.400MA	
383	10	30.40MA	3.400MA	
389	11	31.00MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-6.000NA	-100.0NA	
466	13	-6.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1    5.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    3.000NA                100.0NA  
500     6    3.000NA                100.0NA  
504     8    2.000NA                100.0NA  
508     9    2.000NA                100.0NA  
512    12    2.000NA                100.0NA  
516    13    2.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14  -5.000NA                250.0NA  
569    14 -36.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    0 A                500.0NA  
569    14 -26.000NA                500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    1.000NA                1.000UA  
569    14 -16.000NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    3.000NA                5.000UA  
569    14 -7.000NA                5.000UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 5

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.640MA		-510.0UA
293	4	-1.640MA		-510.0UA
299	10	-1.640MA		-510.0UA
305	11	-1.660MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.500MA              -1.600MA
335     4   -7.500MA              -1.600MA
341    10   -7.500MA              -1.600MA
347    11   -7.500MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.320MA      510.0UA
377     4   3.330MA      510.0UA
383    10   3.260MA      510.0UA
389    11   3.290MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.740MA      -1.300MA
293     4   -3.740MA      -1.300MA
299    10   -3.720MA      -1.300MA
305    11   -3.750MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.010MA      1.300MA
377     4   8.030MA      1.300MA
383    10   7.820MA      1.300MA
389    11   7.920MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.50MA		-3.400MA
293	4	-14.50MA		-3.400MA
299	10	-14.40MA		-3.400MA
305	11	-14.60MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.10MA	3.400MA	
377	4	31.10MA	3.400MA	
383	10	30.20MA	3.400MA	
389	11	30.60MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-7.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-7.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 3.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 2.000NA 100.0NA
508 9 2.000NA 100.0NA
512 12 2.000NA 100.0NA
516 13 2.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -36.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -26.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 2.000NA 1.000UA
569 14 -16.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -6.000NA 5.000UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 6

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.670MA		-510.0UA
293	4	-1.670MA		-510.0UA
299	10	-1.670MA		-510.0UA
305	11	-1.670MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.600MA              -1.600MA
335     4   -7.600MA              -1.600MA
341    10   -7.600MA              -1.600MA
347    11   -7.600MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.350MA      510.0UA
377     4   3.340MA      510.0UA
383    10   3.280MA      510.0UA
389    11   3.320MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.850MA      -1.300MA
293     4   -3.850MA      -1.300MA
299    10   -3.810MA      -1.300MA
305    11   -3.850MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.120MA      1.300MA
377     4   8.130MA      1.300MA
383    10   7.900MA      1.300MA
389    11   8.030MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	30.03MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.10MA		-3.400MA
293	4	-15.10MA		-3.400MA
299	10	-14.90MA		-3.400MA
305	11	-15.10MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.70MA	3.400MA	
377	4	31.60MA	3.400MA	
383	10	30.70MA	3.400MA	
389	11	31.20MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-7.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-6.000NA	-100.0NA	
466	13	-6.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT      GT  
488     1    6.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    3.000NA                100.0NA  
500     6    3.000NA                100.0NA  
504     8    2.000NA                100.0NA  
508     9    2.000NA                100.0NA  
512    12    2.000NA                100.0NA  
516    13    2.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14   -5.000NA                250.0NA  
569    14  -36.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    0 A                 500.0NA  
569    14  -26.000NA            500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    1.000NA            1.000UA  
569    14  -16.000NA            1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    3.000NA            5.000UA  
569    14   -7.000NA            5.000UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 7

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.680MA		-510.0UA
293	4	-1.690MA		-510.0UA
299	10	-1.690MA		-510.0UA
305	11	-1.700MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.700MA                -1.600MA
335     4   -7.800MA                -1.600MA
341    10   -7.800MA                -1.600MA
347    11   -7.800MA                -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=   510.0E-06
VO=     400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.330MA      510.0UA
377     4   3.340MA      510.0UA
383    10   3.260MA      510.0UA
389    11   3.290MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V      9.950 V
224     4   9.970 V      9.950 V
228    10   9.970 V      9.950 V
232    11   9.970 V      9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV      50.00MV
253     4   20.02MV      50.00MV
257    10   20.02MV      50.00MV
261    11   20.02MV      50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=  -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.880MA      -1.300MA
293     4   -3.870MA      -1.300MA
299    10   -3.840MA      -1.300MA
305    11   -3.880MA      -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=   1.300E-03
VO=     500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.130MA      1.300MA
377     4   8.130MA      1.300MA
383    10   7.870MA      1.300MA
389    11   8.020MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	10.01MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.10MA		-3.400MA
293	4	-15.20MA		-3.400MA
299	10	-15.00MA		-3.400MA
305	11	-15.20MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.80MA	3.400MA	
377	4	31.70MA	3.400MA	
383	10	30.60MA	3.400MA	
389	11	31.30MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-7.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1    6.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    3.000NA                100.0NA  
500     6    3.000NA                100.0NA  
504     8    2.000NA                100.0NA  
508     9    2.000NA                100.0NA  
512    12    2.000NA                100.0NA  
516    13    2.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   -5.000NA                250.0NA  
569    14  -36.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    0 A                 500.0NA  
569    14  -26.000NA            500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    2.000NA                1.000UA  
569    14  -16.000NA            1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    3.000NA                5.000UA  
569    14   -6.000NA            5.000UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 8

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.630MA		-510.0UA
293	4	-1.630MA		-510.0UA
299	10	-1.630MA		-510.0UA
305	11	-1.640MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.400MA                -1.600MA
335     4   -7.400MA                -1.600MA
341    10   -7.500MA                -1.600MA
347    11   -7.500MA                -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.240MA      510.0UA
377     4   3.240MA      510.0UA
383    10   3.170MA      510.0UA
389    11   3.220MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.720MA      -1.300MA
293     4   -3.710MA      -1.300MA
299    10   -3.660MA      -1.300MA
305    11   -3.700MA      -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.800MA      1.300MA
377     4   7.760MA      1.300MA
383    10   7.530MA      1.300MA
389    11   7.670MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.40MA		-3.400MA
293	4	-14.40MA		-3.400MA
299	10	-14.20MA		-3.400MA
305	11	-14.40MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	30.20MA	3.400MA	
377	4	30.00MA	3.400MA	
383	10	29.00MA	3.400MA	
389	11	29.70MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-7.000NA	-100.0NA	
454	8	-8.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-40.00NA	-100.0NA	
466	13	-49.00NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT      GT  
488     1    5.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    3.000NA                100.0NA  
500     6    3.000NA                100.0NA  
504     8    3.000NA                100.0NA  
508     9    3.000NA                100.0NA  
512    12    58.00NA                100.0NA  
516    13    61.00NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14   -5.000NA                250.0NA  
569    14  -36.00NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    0 A                500.0NA  
569    14  -26.00NA                500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    1.000NA                1.000UA  
569    14  -16.00NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    3.000NA                5.000UA  
569    14   -6.000NA                5.000UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 9

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-200.0MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.680MA		-510.0UA
293	4	-1.680MA		-510.0UA
299	10	-1.670MA		-510.0UA
305	11	-1.680MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.600MA              -1.600MA
335     4   -7.600MA              -1.600MA
341    10   -7.600MA              -1.600MA
347    11   -7.600MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.230MA      510.0UA
377     4   3.210MA      510.0UA
383    10   3.140MA      510.0UA
389    11   3.170MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.980 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   30.03MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.700MA      -1.300MA
293     4   -3.700MA      -1.300MA
299    10   -3.650MA      -1.300MA
305    11   -3.680MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.570MA      1.300MA
377     4   7.540MA      1.300MA
383    10   7.310MA      1.300MA
389    11   7.410MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.20MA		-3.400MA
293	4	-14.20MA		-3.400MA
299	10	-14.00MA		-3.400MA
305	11	-14.10MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	28.80MA	3.400MA	
377	4	28.60MA	3.400MA	
383	10	27.70MA	3.400MA	
389	11	28.10MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-48.00NA	-100.0NA	
466	13	-37.00NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 3.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 2.000NA 100.0NA
508 9 3.000NA 100.0NA
512 12 22.00NA 100.0NA
516 13 46.00NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -6.000NA 250.0NA
569 14 -36.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -25.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 1.000NA 1.000UA
569 14 -16.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -6.000NA 5.000UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 10

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.710MA		-510.0UA
293	4	-1.710MA		-510.0UA
299	10	-1.710MA		-510.0UA
305	11	-1.710MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.800MA              -1.600MA
335     4   -7.800MA              -1.600MA
341    10   -7.800MA              -1.600MA
347    11   -7.800MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.390MA      510.0UA
377     4   3.390MA      510.0UA
383    10   3.340MA      510.0UA
389    11   3.370MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.980 V       9.950 V
232    11   9.980 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.880MA      -1.300MA
293     4   -3.890MA      -1.300MA
299    10   -3.850MA      -1.300MA
305    11   -3.900MA      -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   8.090MA      1.300MA
377     4   8.090MA      1.300MA
383    10   7.870MA      1.300MA
389    11   8.030MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	30.03MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-15.10MA		-3.400MA
293	4	-15.10MA		-3.400MA
299	10	-14.90MA		-3.400MA
305	11	-15.10MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	31.20MA	3.400MA	
377	4	31.30MA	3.400MA	
383	10	30.20MA	3.400MA	
389	11	30.90MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-52.00NA	-100.0NA	
466	13	-54.00NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 3.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 2.000NA 100.0NA
508 9 2.000NA 100.0NA
512 12 77.00NA 100.0NA
516 13 84.00NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -36.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -26.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 1.000NA 1.000UA
569 14 -16.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -6.000NA 5.000UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 11

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-200.0MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-200.0MV	-1.500 V	-100.0MV
69	11	-700.0MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.630MA		-510.0UA
293	4	-1.640MA		-510.0UA
299	10	-1.630MA		-510.0UA
305	11	-1.630MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.500MA             -1.600MA
335     4   -7.500MA             -1.600MA
341    10   -7.500MA             -1.600MA
347    11   -7.500MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.180MA      510.0UA
377     4   3.180MA      510.0UA
383    10   3.110MA      510.0UA
389    11   3.150MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   30.03MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.700MA      -1.300MA
293     4   -3.710MA      -1.300MA
299    10   -3.680MA      -1.300MA
305    11   -3.700MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.720MA      1.300MA
377     4   7.660MA      1.300MA
383    10   7.440MA      1.300MA
389    11   7.600MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.97 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.50MA		-3.400MA
293	4	-14.50MA		-3.400MA
299	10	-14.40MA		-3.400MA
305	11	-14.50MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	30.10MA	3.400MA	
377	4	29.80MA	3.400MA	
383	10	28.90MA	3.400MA	
389	11	29.70MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-7.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-7.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 3.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 2.000NA 100.0NA
508 9 2.000NA 100.0NA
512 12 2.000NA 100.0NA
516 13 2.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -36.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -26.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 1.000NA 1.000UA
569 14 -16.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -6.000NA 5.000UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 12

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 -55C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.640MA		-510.0UA
293	4	-1.640MA		-510.0UA
299	10	-1.630MA		-510.0UA
305	11	-1.650MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.500MA             -1.600MA
335     4   -7.500MA             -1.600MA
341    10   -7.500MA             -1.600MA
347    11   -7.500MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.260MA      510.0UA
377     4   3.260MA      510.0UA
383    10   3.200MA      510.0UA
389    11   3.240MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.750MA      -1.300MA
293     4   -3.740MA      -1.300MA
299    10   -3.710MA      -1.300MA
305    11   -3.770MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.830MA      1.300MA
377     4   7.850MA      1.300MA
383    10   7.630MA      1.300MA
389    11   7.800MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	30.03MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-14.70MA		-3.400MA
293	4	-14.70MA		-3.400MA
299	10	-14.50MA		-3.400MA
305	11	-14.80MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	30.60MA	3.400MA	
377	4	30.60MA	3.400MA	
383	10	29.70MA	3.400MA	
389	11	30.50MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT      GT  
488     1    6.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    3.000NA                100.0NA  
500     6    3.000NA                100.0NA  
504     8    2.000NA                100.0NA  
508     9    2.000NA                100.0NA  
512    12    2.000NA                100.0NA  
516    13    2.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD < 250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14  -5.000NA                250.0NA  
569    14 -36.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD < 500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    0 A                500.0NA  
569    14 -26.000NA                500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD < 1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14  1.000NA                1.000UA  
569    14 -16.000NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD < 5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14  3.000NA                5.000UA  
569    14 -6.000NA                5.000UA  
-----
```

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



MIL-PRF-38534 CLASS K DATAPACK

Post Burn-In Test Results at 25°C



STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 1

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.500MA		-510.0UA
293	4	-1.500MA		-510.0UA
299	10	-1.470MA		-510.0UA
305	11	-1.490MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
--------	-----	----------	----	----

329	3	-6.800MA		-1.600MA
335	4	-6.800MA		-1.600MA
341	10	-6.800MA		-1.600MA
347	11	-6.800MA		-1.600MA

IOL TEST
VDD= 5
IOL >= 510.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.880MA	510.0UA	
377	4	2.880MA	510.0UA	
383	10	2.790MA	510.0UA	
389	11	2.840MA	510.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.970 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -1.300E-03
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.340MA		-1.300MA
293	4	-3.330MA		-1.300MA
299	10	-3.270MA		-1.300MA
305	11	-3.330MA		-1.300MA

IOL TEST
VDD= 10
IOL >= 1.300E-03
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	6.790MA	1.300MA	
377	4	6.790MA	1.300MA	
383	10	6.490MA	1.300MA	
389	11	6.680MA	1.300MA	

FUNCTIONAL TEST

VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	30.03MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-12.90MA		-3.400MA
293	4	-12.90MA		-3.400MA
299	10	-12.60MA		-3.400MA
305	11	-12.80MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	26.00MA	3.400MA	
377	4	25.90MA	3.400MA	
383	10	24.80MA	3.400MA	
389	11	25.60MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-8.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```

-----
INST #  PIN  MEASURED      LT          GT
488     1    6.000NA                100.0NA
492     2    4.000NA                100.0NA
496     5    3.000NA                100.0NA
500     6    3.000NA                100.0NA
504     8    2.000NA                100.0NA
508     9    3.000NA                100.0NA
512    12    2.000NA                100.0NA
516    13    2.000NA                100.0NA

```

```

-----
      IDD TEST
      VDD=      5
      IDD <  250.0E-09
      VIN =      5
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14   -6.000NA                250.0NA
569    14  -36.000NA                250.0NA

```

```

-----
      IDD TEST
      VDD=     10
      IDD <  500.0E-09
      VIN =     10
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14      0 A                500.0NA
569    14  -25.00NA                500.0NA

```

```

-----
      IDD TEST
      VDD=     15
      IDD <  1.000E-06
      VIN =     15
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14   2.000NA                1.000UA
569    14  -15.00NA                1.000UA

```

```

-----
      IDD TEST
      VDD=     20
      IDD <  5.000E-06
      VIN =     20
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14   3.000NA                5.000UA
569    14  -4.000NA                5.000UA

```

```

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

```


STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 2

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.560MA		-510.0UA
293	4	-1.560MA		-510.0UA
299	10	-1.550MA		-510.0UA
305	11	-1.560MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.000MA              -1.600MA
335     4   -7.000MA              -1.600MA
341    10   -7.000MA              -1.600MA
347    11   -7.100MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.040MA      510.0UA
377     4   3.050MA      510.0UA
383    10   2.940MA      510.0UA
389    11   3.000MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.460MA      -1.300MA
293     4   -3.460MA      -1.300MA
299    10   -3.400MA      -1.300MA
305    11   -3.460MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.150MA      1.300MA
377     4   7.150MA      1.300MA
383    10   6.820MA      1.300MA
389    11   7.050MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.40MA		-3.400MA
293	4	-13.30MA		-3.400MA
299	10	-13.00MA		-3.400MA
305	11	-13.30MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.20MA	3.400MA	
377	4	27.30MA	3.400MA	
383	10	25.90MA	3.400MA	
389	11	26.80MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-8.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 3.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 2.000NA 100.0NA
508 9 3.000NA 100.0NA
512 12 2.000NA 100.0NA
516 13 2.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -6.000NA 250.0NA
569 14 -36.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -25.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 2.000NA 1.000UA
569 14 -15.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -4.000NA 5.000UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 3

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.600MA		-510.0UA
293	4	-1.600MA		-510.0UA
299	10	-1.580MA		-510.0UA
305	11	-1.600MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.300MA              -1.600MA
335     4   -7.300MA              -1.600MA
341    10   -7.200MA              -1.600MA
347    11   -7.300MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.060MA      510.0UA
377     4   3.050MA      510.0UA
383    10   2.960MA      510.0UA
389    11   3.020MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.980 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.980 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.530MA      -1.300MA
293     4   -3.540MA      -1.300MA
299    10   -3.450MA      -1.300MA
305    11   -3.530MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.180MA      1.300MA
377     4   7.170MA      1.300MA
383    10   6.840MA      1.300MA
389    11   7.110MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.60MA		-3.400MA
293	4	-13.60MA		-3.400MA
299	10	-13.20MA		-3.400MA
305	11	-13.60MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.40MA	3.400MA	
377	4	27.30MA	3.400MA	
383	10	25.90MA	3.400MA	
389	11	27.00MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-8.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 3.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 2.000NA 100.0NA
508 9 3.000NA 100.0NA
512 12 2.000NA 100.0NA
516 13 2.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -6.000NA 250.0NA
569 14 -36.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -25.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 1.000NA 1.000UA
569 14 -15.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -5.000NA 5.000UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 4

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.600MA		-510.0UA
293	4	-1.600MA		-510.0UA
299	10	-1.580MA		-510.0UA
305	11	-1.600MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.300MA              -1.600MA
335     4   -7.300MA              -1.600MA
341    10   -7.300MA              -1.600MA
347    11   -7.300MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=   510.0E-06
VO=     400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.080MA      510.0UA
377     4   3.070MA      510.0UA
383    10   2.970MA      510.0UA
389    11   3.040MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=  -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.530MA      -1.300MA
293     4   -3.540MA      -1.300MA
299    10   -3.480MA      -1.300MA
305    11   -3.540MA      -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=   1.300E-03
VO=     500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.230MA      1.300MA
377     4   7.230MA      1.300MA
383    10   6.870MA      1.300MA
389    11   7.140MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.60MA		-3.400MA
293	4	-13.60MA		-3.400MA
299	10	-13.30MA		-3.400MA
305	11	-13.60MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.50MA	3.400MA	
377	4	27.50MA	3.400MA	
383	10	25.90MA	3.400MA	
389	11	27.20MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT      GT  
488     1    6.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    4.000NA                100.0NA  
500     6    3.000NA                100.0NA  
504     8    2.000NA                100.0NA  
508     9    3.000NA                100.0NA  
512    12    3.000NA                100.0NA  
516    13    2.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14   -6.000NA                250.0NA  
569    14  -36.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    0 A                500.0NA  
569    14  -25.00NA                500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    2.000NA                1.000UA  
569    14  -15.00NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    3.000NA                5.000UA  
569    14   -4.000NA                5.000UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 5

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.560MA		-510.0UA
293	4	-1.560MA		-510.0UA
299	10	-1.550MA		-510.0UA
305	11	-1.570MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.100MA              -1.600MA
335     4   -7.100MA              -1.600MA
341    10   -7.100MA              -1.600MA
347    11   -7.100MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=   510.0E-06
VO=     400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.090MA      510.0UA
377     4   3.090MA      510.0UA
383    10   3.000MA      510.0UA
389    11   3.050MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=  -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.480MA      -1.300MA
293     4   -3.480MA      -1.300MA
299    10   -3.420MA      -1.300MA
305    11   -3.490MA      -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=   1.300E-03
VO=     500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.250MA      1.300MA
377     4   7.270MA      1.300MA
383    10   6.940MA      1.300MA
389    11   7.160MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	30.03MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.40MA		-3.400MA
293	4	-13.40MA		-3.400MA
299	10	-13.10MA		-3.400MA
305	11	-13.40MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.70MA	3.400MA	
377	4	27.70MA	3.400MA	
383	10	26.30MA	3.400MA	
389	11	27.30MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 3.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 2.000NA 100.0NA
508 9 3.000NA 100.0NA
512 12 2.000NA 100.0NA
516 13 2.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -36.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -25.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 2.000NA 1.000UA
569 14 -15.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -4.000NA 5.000UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 6

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.570MA		-510.0UA
293	4	-1.570MA		-510.0UA
299	10	-1.550MA		-510.0UA
305	11	-1.570MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.100MA             -1.600MA
335     4   -7.100MA             -1.600MA
341    10   -7.100MA             -1.600MA
347    11   -7.100MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.100MA      510.0UA
377     4   3.090MA      510.0UA
383    10   3.000MA      510.0UA
389    11   3.050MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V      9.950 V
224     4   9.970 V      9.950 V
228    10   9.970 V      9.950 V
232    11   9.970 V      9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV      50.00MV
253     4   20.02MV      50.00MV
257    10   20.02MV      50.00MV
261    11   20.02MV      50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -1.300E-03
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.500MA     -1.300MA
293     4   -3.500MA     -1.300MA
299    10   -3.430MA     -1.300MA
305    11   -3.490MA     -1.300MA

```

```

-----
IOL TEST
VDD=     10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.290MA      1.300MA
377     4   7.280MA      1.300MA
383    10   6.940MA      1.300MA
389    11   7.180MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.50MA		-3.400MA
293	4	-13.40MA		-3.400MA
299	10	-13.20MA		-3.400MA
305	11	-13.40MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.80MA	3.400MA	
377	4	27.70MA	3.400MA	
383	10	26.30MA	3.400MA	
389	11	27.40MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-8.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
 IIH < 100E-9 @ 25C/-55C
 IIH < 1.0E-6 @ 125C

```
-----
INST #  PIN  MEASURED      LT      GT
488     1    6.000NA                100.0NA
492     2    4.000NA                100.0NA
496     5    3.000NA                100.0NA
500     6    3.000NA                100.0NA
504     8    3.000NA                100.0NA
508     9    3.000NA                100.0NA
512    12    3.000NA                100.0NA
516    13    2.000NA                100.0NA
-----
```

```
-----
      IDD TEST
      VDD=      5
      IDD < 250.0E-09
      VIN =      5
-----
```

```
-----
INST #  PIN  MEASURED      LT      GT
564    14  -5.000NA                250.0NA
569    14 -36.000NA                250.0NA
-----
```

```
-----
      IDD TEST
      VDD=     10
      IDD < 500.0E-09
      VIN =     10
-----
```

```
-----
INST #  PIN  MEASURED      LT      GT
564    14    0 A                500.0NA
569    14 -25.000NA            500.0NA
-----
```

```
-----
      IDD TEST
      VDD=     15
      IDD < 1.000E-06
      VIN =     15
-----
```

```
-----
INST #  PIN  MEASURED      LT      GT
564    14    2.000NA            1.000UA
569    14 -15.000NA            1.000UA
-----
```

```
-----
      IDD TEST
      VDD=     20
      IDD < 5.000E-06
      VIN =     20
-----
```

```
-----
INST #  PIN  MEASURED      LT      GT
564    14    3.000NA            5.000UA
569    14 -5.000NA            5.000UA
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 7

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.590MA		-510.0UA
293	4	-1.580MA		-510.0UA
299	10	-1.570MA		-510.0UA
305	11	-1.590MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.200MA              -1.600MA
335     4   -7.200MA              -1.600MA
341    10   -7.200MA              -1.600MA
347    11   -7.200MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.050MA      510.0UA
377     4   3.050MA      510.0UA
383    10   2.960MA      510.0UA
389    11   3.010MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.520MA      -1.300MA
293     4   -3.530MA      -1.300MA
299    10   -3.450MA      -1.300MA
305    11   -3.530MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.190MA      1.300MA
377     4   7.200MA      1.300MA
383    10   6.860MA      1.300MA
389    11   7.110MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	30.03MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.60MA		-3.400MA
293	4	-13.60MA		-3.400MA
299	10	-13.30MA		-3.400MA
305	11	-13.50MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.50MA	3.400MA	
377	4	27.50MA	3.400MA	
383	10	26.00MA	3.400MA	
389	11	27.10MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
 IIH < 100E-9 @ 25C/-55C
 IIH < 1.0E-6 @ 125C

```
-----
INST #  PIN  MEASURED      LT          GT
488     1    6.000NA                100.0NA
492     2    4.000NA                100.0NA
496     5    3.000NA                100.0NA
500     6    3.000NA                100.0NA
504     8    3.000NA                100.0NA
508     9    3.000NA                100.0NA
512    12    2.000NA                100.0NA
516    13    2.000NA                100.0NA
-----
```

```
-----
      IDD TEST
      VDD=      5
      IDD <    250.0E-09
      VIN =      5
-----
```

```
-----
INST #  PIN  MEASURED      LT          GT
564    14   -6.000NA                250.0NA
569    14  -36.000NA                250.0NA
-----
```

```
-----
      IDD TEST
      VDD=     10
      IDD <    500.0E-09
      VIN =     10
-----
```

```
-----
INST #  PIN  MEASURED      LT          GT
564    14    0 A                500.0NA
569    14  -25.00NA            500.0NA
-----
```

```
-----
      IDD TEST
      VDD=     15
      IDD <    1.000E-06
      VIN =     15
-----
```

```
-----
INST #  PIN  MEASURED      LT          GT
564    14    2.000NA            1.000UA
569    14  -15.00NA            1.000UA
-----
```

```
-----
      IDD TEST
      VDD=     20
      IDD <    5.000E-06
      VIN =     20
-----
```

```
-----
INST #  PIN  MEASURED      LT          GT
564    14    3.000NA            5.000UA
569    14   -4.000NA            5.000UA
-----
```

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


STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 8

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.570MA		-510.0UA
293	4	-1.560MA		-510.0UA
299	10	-1.550MA		-510.0UA
305	11	-1.570MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.100MA             -1.600MA
335     4   -7.100MA             -1.600MA
341    10   -7.100MA             -1.600MA
347    11   -7.100MA             -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.060MA      510.0UA
377     4   3.060MA      510.0UA
383    10   2.960MA      510.0UA
389    11   3.020MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.980 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.980 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.490MA      -1.300MA
293     4   -3.480MA      -1.300MA
299    10   -3.410MA      -1.300MA
305    11   -3.480MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.190MA      1.300MA
377     4   7.180MA      1.300MA
383    10   6.850MA      1.300MA
389    11   7.110MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	10.01MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.40MA		-3.400MA
293	4	-13.40MA		-3.400MA
299	10	-13.10MA		-3.400MA
305	11	-13.40MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.40MA	3.400MA	
377	4	27.50MA	3.400MA	
383	10	26.00MA	3.400MA	
389	11	27.20MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT      GT  
488     1    6.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    3.000NA                100.0NA  
500     6    4.000NA                100.0NA  
504     8    3.000NA                100.0NA  
508     9    3.000NA                100.0NA  
512    12    2.000NA                100.0NA  
516    13    2.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14   -6.000NA                250.0NA  
569    14  -36.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    0 A                 500.0NA  
569    14  -25.000NA            500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    1.000NA            1.000UA  
569    14  -15.000NA            1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    3.000NA            5.000UA  
569    14   -5.000NA            5.000UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 9

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.620MA		-510.0UA
293	4	-1.620MA		-510.0UA
299	10	-1.600MA		-510.0UA
305	11	-1.620MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.400MA              -1.600MA
335     4   -7.400MA              -1.600MA
341    10   -7.400MA              -1.600MA
347    11   -7.400MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

-----
INST #  PIN  MEASURED      LT          GT
371     3   3.110MA      510.0UA
377     4   3.110MA      510.0UA
383    10   3.000MA      510.0UA
389    11   3.070MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

-----
INST #  PIN  MEASURED      LT          GT
220     3   9.970 V      9.950 V
224     4   9.970 V      9.950 V
228    10   9.970 V      9.950 V
232    11   9.970 V      9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

-----
INST #  PIN  MEASURED      LT          GT
249     3   20.02MV      50.00MV
253     4   20.02MV      50.00MV
257    10   20.02MV      50.00MV
261    11   20.02MV      50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

-----
INST #  PIN  MEASURED      LT          GT
287     3   -3.580MA      -1.300MA
293     4   -3.590MA      -1.300MA
299    10   -3.490MA      -1.300MA
305    11   -3.570MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

-----
INST #  PIN  MEASURED      LT          GT
371     3   7.300MA      1.300MA
377     4   7.290MA      1.300MA
383    10   6.920MA      1.300MA
389    11   7.180MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.70MA		-3.400MA
293	4	-13.80MA		-3.400MA
299	10	-13.40MA		-3.400MA
305	11	-13.70MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	27.80MA	3.400MA	
377	4	27.80MA	3.400MA	
383	10	26.30MA	3.400MA	
389	11	27.30MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1    6.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    3.000NA                100.0NA  
500     6    3.000NA                100.0NA  
504     8    2.000NA                100.0NA  
508     9    3.000NA                100.0NA  
512    12    2.000NA                100.0NA  
516    13    2.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   -6.000NA                250.0NA  
569    14  -36.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    0 A                 500.0NA  
569    14  -25.000NA            500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    2.000NA                1.000UA  
569    14  -15.000NA            1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    3.000NA                5.000UA  
569    14   -5.000NA            5.000UA  
-----
```

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


STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 10

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.620MA		-510.0UA
293	4	-1.620MA		-510.0UA
299	10	-1.610MA		-510.0UA
305	11	-1.630MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.300MA              -1.600MA
335     4   -7.400MA              -1.600MA
341    10   -7.300MA              -1.600MA
347    11   -7.400MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.180MA      510.0UA
377     4   3.190MA      510.0UA
383    10   3.100MA      510.0UA
389    11   3.160MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.600MA      -1.300MA
293     4   -3.600MA      -1.300MA
299    10   -3.530MA      -1.300MA
305    11   -3.610MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.430MA      1.300MA
377     4   7.420MA      1.300MA
383    10   7.080MA      1.300MA
389    11   7.350MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	30.03MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.90MA		-3.400MA
293	4	-13.80MA		-3.400MA
299	10	-13.50MA		-3.400MA
305	11	-13.90MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	28.20MA	3.400MA	
377	4	28.20MA	3.400MA	
383	10	26.70MA	3.400MA	
389	11	27.90MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-7.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 3.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 2.000NA 100.0NA
508 9 3.000NA 100.0NA
512 12 2.000NA 100.0NA
516 13 2.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -6.000NA 250.0NA
569 14 -36.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -25.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 2.000NA 1.000UA
569 14 -15.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -4.000NA 5.000UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 11

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.620MA		-510.0UA
293	4	-1.630MA		-510.0UA
299	10	-1.610MA		-510.0UA
305	11	-1.620MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.400MA                -1.600MA
335     4   -7.500MA                -1.600MA
341    10   -7.400MA                -1.600MA
347    11   -7.400MA                -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.140MA      510.0UA
377     4   3.130MA      510.0UA
383    10   3.030MA      510.0UA
389    11   3.100MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V      9.950 V
224     4   9.970 V      9.950 V
228    10   9.980 V      9.950 V
232    11   9.980 V      9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV      50.00MV
253     4   20.02MV      50.00MV
257    10   20.02MV      50.00MV
261    11   20.02MV      50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.590MA     -1.300MA
293     4   -3.600MA     -1.300MA
299    10   -3.520MA     -1.300MA
305    11   -3.580MA     -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.350MA      1.300MA
377     4   7.310MA      1.300MA
383    10   6.990MA      1.300MA
389    11   7.250MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.80MA		-3.400MA
293	4	-13.80MA		-3.400MA
299	10	-13.50MA		-3.400MA
305	11	-13.70MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	28.00MA	3.400MA	
377	4	27.90MA	3.400MA	
383	10	26.40MA	3.400MA	
389	11	27.60MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-8.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT      GT  
488     1    6.000NA                100.0NA  
492     2    4.000NA                100.0NA  
496     5    3.000NA                100.0NA  
500     6    3.000NA                100.0NA  
504     8    2.000NA                100.0NA  
508     9    3.000NA                100.0NA  
512    12    2.000NA                100.0NA  
516    13    2.000NA                100.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    250.0E-09  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14   -6.000NA                250.0NA  
569    14  -36.000NA                250.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <    500.0E-09  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    0 A                500.0NA  
569    14  -25.00NA                500.0NA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <    1.000E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    2.000NA                1.000UA  
569    14  -15.00NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <    5.000E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    3.000NA                5.000UA  
569    14   -4.000NA                5.000UA  
-----
```

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


STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 12

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +25C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -510.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.610MA		-510.0UA
293	4	-1.610MA		-510.0UA
299	10	-1.600MA		-510.0UA
305	11	-1.610MA		-510.0UA

IOH2 TEST
VDD= 5
IOH >= -1.600E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -7.300MA              -1.600MA
335     4   -7.300MA              -1.600MA
341    10   -7.300MA              -1.600MA
347    11   -7.400MA              -1.600MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    510.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   3.170MA      510.0UA
377     4   3.170MA      510.0UA
383    10   3.090MA      510.0UA
389    11   3.140MA      510.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.980 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -1.300E-03
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.590MA      -1.300MA
293     4   -3.580MA      -1.300MA
299    10   -3.520MA      -1.300MA
305    11   -3.590MA      -1.300MA

```

```

-----
IOL TEST
VDD=      10
IOL >=    1.300E-03
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   7.410MA      1.300MA
377     4   7.420MA      1.300MA
383    10   7.100MA      1.300MA
389    11   7.360MA      1.300MA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 15
IOH >= -3.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-13.80MA		-3.400MA
293	4	-13.80MA		-3.400MA
299	10	-13.50MA		-3.400MA
305	11	-13.80MA		-3.400MA

IOL TEST
VDD= 15
IOL >= 3.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	28.20MA	3.400MA	
377	4	28.20MA	3.400MA	
383	10	26.80MA	3.400MA	
389	11	28.00MA	3.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-100.0NA	
442	2	-8.000NA	-100.0NA	
446	5	-8.000NA	-100.0NA	
450	6	-8.000NA	-100.0NA	
454	8	-7.000NA	-100.0NA	
458	9	-8.000NA	-100.0NA	
462	12	-7.000NA	-100.0NA	
466	13	-7.000NA	-100.0NA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 100.0NA
492 2 4.000NA 100.0NA
496 5 3.000NA 100.0NA
500 6 3.000NA 100.0NA
504 8 2.000NA 100.0NA
508 9 3.000NA 100.0NA
512 12 2.000NA 100.0NA
516 13 2.000NA 100.0NA

IDD TEST
VDD= 5
IDD < 250.0E-09
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 250.0NA
569 14 -36.00NA 250.0NA

IDD TEST
VDD= 10
IDD < 500.0E-09
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 500.0NA
569 14 -25.00NA 500.0NA

IDD TEST
VDD= 15
IDD < 1.000E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 1.000NA 1.000UA
569 14 -15.00NA 1.000UA

IDD TEST
VDD= 20
IDD < 5.000E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 3.000NA 5.000UA
569 14 -5.000NA 5.000UA

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



MIL-PRF-38534 CLASS K DATAPACK

Post Burn-In Test Results at +125°C



STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 1

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.440MA		-360.0UA
293	4	-1.430MA		-360.0UA
299	10	-1.430MA		-360.0UA
305	11	-1.430MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

INST #	PIN	MEASURED	LT	GT
--------	-----	----------	----	----

329	3	-6.500MA		-1.150MA
335	4	-6.500MA		-1.150MA
341	10	-6.500MA		-1.150MA
347	11	-6.500MA		-1.150MA

IOL TEST
VDD= 5
IOL >= 360.0E-06
VO= 400.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	2.720MA	360.0UA	
377	4	2.710MA	360.0UA	
383	10	2.650MA	360.0UA	
389	11	2.670MA	360.0UA	

FUNCTIONAL TEST
VDD = 10

VOH TEST
VDD= 10
VOH >= 9.950

INST #	PIN	MEASURED	LT	GT
220	3	9.970 V	9.950 V	
224	4	9.980 V	9.950 V	
228	10	9.970 V	9.950 V	
232	11	9.970 V	9.950 V	

VOL TEST
VDD= 10
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 10
IOH >= -900.0E-06
VO = 9.500

INST #	PIN	MEASURED	LT	GT
287	3	-3.110MA		-900.0UA
293	4	-3.100MA		-900.0UA
299	10	-3.060MA		-900.0UA
305	11	-3.090MA		-900.0UA

IOL TEST
VDD= 10
IOL >= 900.0E-06
VO= 500.0E-03

INST #	PIN	MEASURED	LT	GT
371	3	6.240MA	900.0UA	
377	4	6.210MA	900.0UA	
383	10	6.030MA	900.0UA	
389	11	6.110MA	900.0UA	

FUNCTIONAL TEST

VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-11.80MA		-2.400MA
293	4	-11.80MA		-2.400MA
299	10	-11.60MA		-2.400MA
305	11	-11.70MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.30MA	2.400MA	
377	4	23.20MA	2.400MA	
383	10	22.50MA	2.400MA	
389	11	22.90MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-8.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST
VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```

-----
INST #  PIN  MEASURED      LT          GT
488     1    6.000NA                1.000UA
492     2    4.000NA                1.000UA
496     5    3.000NA                1.000UA
500     6    3.000NA                1.000UA
504     8    3.000NA                1.000UA
508     9    3.000NA                1.000UA
512    12    2.000NA                1.000UA
516    13    2.000NA                1.000UA

```

```

-----
      IDD TEST
      VDD=      5
      IDD <    7.500E-06
      VIN =      5
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14   -5.000NA                7.500UA
569    14  -36.000NA                7.500UA

```

```

-----
      IDD TEST
      VDD=      10
      IDD <    15.00E-06
      VIN =      10
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14      0 A                15.00UA
569    14  -24.000NA            15.00UA

```

```

-----
      IDD TEST
      VDD=      15
      IDD <    30.00E-06
      VIN =      15
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14    2.000NA            30.00UA
569    14  -14.000NA            30.00UA

```

```

-----
      IDD TEST
      VDD=      20
      IDD <    150.0E-06
      VIN =      20
-----

```

```

INST #  PIN  MEASURED      LT          GT
564    14    4.000NA            150.0UA
569    14   -3.000NA            150.0UA

```

```

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

```

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 2

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-600.1MV	-1.500 V	-100.0MV
69	2	-600.1MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-600.1MV	-1.500 V	-100.0MV
69	6	-600.1MV	-1.500 V	-100.0MV
69	8	-600.1MV	-1.500 V	-100.0MV
69	9	-600.1MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-600.1MV	-1.500 V	-100.0MV
69	13	-600.1MV	-1.500 V	-100.0MV
69	14	-500.0MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.310MA		-360.0UA
293	4	-1.310MA		-360.0UA
299	10	-1.320MA		-360.0UA
305	11	-1.320MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.000MA             -1.150MA
335     4   -6.000MA             -1.150MA
341    10   -6.000MA             -1.150MA
347    11   -6.000MA             -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    360.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.520MA      360.0UA
377     4   2.520MA      360.0UA
383    10   2.470MA      360.0UA
389    11   2.470MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.980 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -900.0E-06
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -2.900MA      -900.0UA
293     4   -2.890MA      -900.0UA
299    10   -2.880MA      -900.0UA
305    11   -2.900MA      -900.0UA

```

```

-----
IOL TEST
VDD=     10
IOL >=    900.0E-06
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   5.830MA      900.0UA
377     4   5.810MA      900.0UA
383    10   5.680MA      900.0UA
389    11   5.710MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-11.20MA		-2.400MA
293	4	-11.10MA		-2.400MA
299	10	-11.00MA		-2.400MA
305	11	-11.10MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	22.00MA	2.400MA	
377	4	21.90MA	2.400MA	
383	10	21.40MA	2.400MA	
389	11	21.60MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-9.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-8.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 1.000UA
492 2 4.000NA 1.000UA
496 5 4.000NA 1.000UA
500 6 4.000NA 1.000UA
504 8 3.000NA 1.000UA
508 9 3.000NA 1.000UA
512 12 2.000NA 1.000UA
516 13 2.000NA 1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST # PIN MEASURED LT GT
564 14 -4.000NA 7.500UA
569 14 -35.00NA 7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST # PIN MEASURED LT GT
564 14 1.000NA 15.00UA
569 14 -23.00NA 15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 3.000NA 30.00UA
569 14 -12.00NA 30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 6.000NA 150.0UA
569 14 1.000NA 150.0UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 3

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-500.0MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.440MA		-360.0UA
293	4	-1.440MA		-360.0UA
299	10	-1.430MA		-360.0UA
305	11	-1.440MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.600MA             -1.150MA
335     4   -6.600MA             -1.150MA
341    10   -6.500MA             -1.150MA
347    11   -6.500MA             -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=   360.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.700MA      360.0UA
377     4   2.690MA      360.0UA
383    10   2.630MA      360.0UA
389    11   2.650MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=  9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.980 V       9.950 V
228    10   9.980 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=  50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >= -900.0E-06
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.100MA      -900.0UA
293     4   -3.090MA      -900.0UA
299    10   -3.060MA      -900.0UA
305    11   -3.080MA      -900.0UA

```

```

-----
IOL TEST
VDD=     10
IOL >=   900.0E-06
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   6.150MA      900.0UA
377     4   6.140MA      900.0UA
383    10   5.980MA      900.0UA
389    11   6.060MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	30.03MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-11.80MA		-2.400MA
293	4	-11.70MA		-2.400MA
299	10	-11.60MA		-2.400MA
305	11	-11.70MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.10MA	2.400MA	
377	4	23.00MA	2.400MA	
383	10	22.40MA	2.400MA	
389	11	22.70MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-9.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-8.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 1.000UA
492 2 4.000NA 1.000UA
496 5 3.000NA 1.000UA
500 6 3.000NA 1.000UA
504 8 3.000NA 1.000UA
508 9 3.000NA 1.000UA
512 12 2.000NA 1.000UA
516 13 2.000NA 1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 7.500UA
569 14 -36.00NA 7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 15.00UA
569 14 -24.00NA 15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 3.000NA 30.00UA
569 14 -13.00NA 30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 4.000NA 150.0UA
569 14 0 A 150.0UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 4

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.520MA		-360.0UA
293	4	-1.520MA		-360.0UA
299	10	-1.520MA		-360.0UA
305	11	-1.520MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.900MA             -1.150MA
335     4   -6.900MA             -1.150MA
341    10   -6.900MA             -1.150MA
347    11   -6.900MA             -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=   360.0E-06
VO=     400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.900MA      360.0UA
377     4   2.890MA      360.0UA
383    10   2.830MA      360.0UA
389    11   2.870MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.980 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=  -900.0E-06
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.330MA      -900.0UA
293     4   -3.340MA      -900.0UA
299    10   -3.300MA      -900.0UA
305    11   -3.330MA      -900.0UA

```

```

-----
IOL TEST
VDD=     10
IOL >=   900.0E-06
VO=     500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   6.730MA      900.0UA
377     4   6.730MA      900.0UA
383    10   6.500MA      900.0UA
389    11   6.620MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.97 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	30.03MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-12.80MA		-2.400MA
293	4	-12.80MA		-2.400MA
299	10	-12.60MA		-2.400MA
305	11	-12.70MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	25.40MA	2.400MA	
377	4	25.40MA	2.400MA	
383	10	24.50MA	2.400MA	
389	11	25.00MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-7.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT      GT  
488     1    6.000NA                1.000UA  
492     2    4.000NA                1.000UA  
496     5    3.000NA                1.000UA  
500     6    3.000NA                1.000UA  
504     8    3.000NA                1.000UA  
508     9    3.000NA                1.000UA  
512    12    2.000NA                1.000UA  
516    13    2.000NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    7.500E-06  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14   -6.000NA                7.500UA  
569    14  -36.000NA                7.500UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <   15.00E-06  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    0 A                15.00UA  
569    14  -25.00NA            15.00UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <   30.00E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    2.000NA            30.00UA  
569    14  -15.00NA            30.00UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <  150.0E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    3.000NA            150.0UA  
569    14   -4.000NA            150.0UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 5

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.420MA		-360.0UA
293	4	-1.420MA		-360.0UA
299	10	-1.410MA		-360.0UA
305	11	-1.420MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.400MA             -1.150MA
335     4   -6.400MA             -1.150MA
341    10   -6.400MA             -1.150MA
347    11   -6.400MA             -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=   360.0E-06
VO=     400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.730MA      360.0UA
377     4   2.750MA      360.0UA
383    10   2.660MA      360.0UA
389    11   2.690MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.980 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=  -900.0E-06
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.080MA      -900.0UA
293     4   -3.080MA      -900.0UA
299    10   -3.040MA      -900.0UA
305    11   -3.070MA      -900.0UA

```

```

-----
IOL TEST
VDD=     10
IOL >=   900.0E-06
VO=     500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   6.220MA      900.0UA
377     4   6.240MA      900.0UA
383    10   6.030MA      900.0UA
389    11   6.120MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.97 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-11.70MA		-2.400MA
293	4	-11.70MA		-2.400MA
299	10	-11.50MA		-2.400MA
305	11	-11.70MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.20MA	2.400MA	
377	4	23.30MA	2.400MA	
383	10	22.40MA	2.400MA	
389	11	22.90MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-9.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-8.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 1.000UA
492 2 4.000NA 1.000UA
496 5 4.000NA 1.000UA
500 6 3.000NA 1.000UA
504 8 3.000NA 1.000UA
508 9 3.000NA 1.000UA
512 12 3.000NA 1.000UA
516 13 2.000NA 1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 7.500UA
569 14 -36.00NA 7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 15.00UA
569 14 -24.00NA 15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 2.000NA 30.00UA
569 14 -13.00NA 30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 4.000NA 150.0UA
569 14 0 A 150.0UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 6

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.970 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.420MA		-360.0UA
293	4	-1.420MA		-360.0UA
299	10	-1.410MA		-360.0UA
305	11	-1.420MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.400MA             -1.150MA
335     4   -6.400MA             -1.150MA
341    10   -6.400MA             -1.150MA
347    11   -6.400MA             -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    360.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.740MA      360.0UA
377     4   2.740MA      360.0UA
383    10   2.660MA      360.0UA
389    11   2.690MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -900.0E-06
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.080MA      -900.0UA
293     4   -3.070MA      -900.0UA
299    10   -3.030MA      -900.0UA
305    11   -3.070MA      -900.0UA

```

```

-----
IOL TEST
VDD=     10
IOL >=    900.0E-06
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   6.230MA      900.0UA
377     4   6.210MA      900.0UA
383    10   6.010MA      900.0UA
389    11   6.110MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.97 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-11.70MA		-2.400MA
293	4	-11.70MA		-2.400MA
299	10	-11.50MA		-2.400MA
305	11	-11.70MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.30MA	2.400MA	
377	4	23.20MA	2.400MA	
383	10	22.30MA	2.400MA	
389	11	22.90MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-8.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 1.000UA
492 2 4.000NA 1.000UA
496 5 3.000NA 1.000UA
500 6 4.000NA 1.000UA
504 8 3.000NA 1.000UA
508 9 3.000NA 1.000UA
512 12 3.000NA 1.000UA
516 13 2.000NA 1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 7.500UA
569 14 -36.00NA 7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 15.00UA
569 14 -24.00NA 15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 3.000NA 30.00UA
569 14 -13.00NA 30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 4.000NA 150.0UA
569 14 0 A 150.0UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 7

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.450MA		-360.0UA
293	4	-1.450MA		-360.0UA
299	10	-1.440MA		-360.0UA
305	11	-1.450MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.600MA             -1.150MA
335     4   -6.600MA             -1.150MA
341    10   -6.600MA             -1.150MA
347    11   -6.600MA             -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    360.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.730MA      360.0UA
377     4   2.730MA      360.0UA
383    10   2.670MA      360.0UA
389    11   2.680MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =      10
-----

```

```

-----
VOH TEST
VDD=      10
VOH >=    9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=      10
VOL >=    50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=      10
IOH >=    -900.0E-06
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.140MA      -900.0UA
293     4   -3.140MA      -900.0UA
299    10   -3.110MA      -900.0UA
305    11   -3.130MA      -900.0UA

```

```

-----
IOL TEST
VDD=      10
IOL >=    900.0E-06
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   6.250MA      900.0UA
377     4   6.250MA      900.0UA
383    10   6.050MA      900.0UA
389    11   6.140MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.97 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-12.00MA		-2.400MA
293	4	-12.00MA		-2.400MA
299	10	-11.80MA		-2.400MA
305	11	-11.90MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.40MA	2.400MA	
377	4	23.40MA	2.400MA	
383	10	22.60MA	2.400MA	
389	11	23.00MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT      GT  
488     1    6.000NA                1.000UA  
492     2    4.000NA                1.000UA  
496     5    4.000NA                1.000UA  
500     6    4.000NA                1.000UA  
504     8    3.000NA                1.000UA  
508     9    3.000NA                1.000UA  
512    12    2.000NA                1.000UA  
516    13    2.000NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    7.500E-06  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14   -5.000NA                7.500UA  
569    14  -36.000NA                7.500UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <   15.00E-06  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    0 A                15.00UA  
569    14  -24.00NA                15.00UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <   30.00E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    2.000NA                30.00UA  
569    14  -13.00NA                30.00UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <   150.0E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    4.000NA                150.0UA  
569    14    0 A                150.0UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 8

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.970 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.430MA		-360.0UA
293	4	-1.420MA		-360.0UA
299	10	-1.410MA		-360.0UA
305	11	-1.420MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.500MA              -1.150MA
335     4   -6.400MA              -1.150MA
341    10   -6.400MA              -1.150MA
347    11   -6.400MA              -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    360.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.720MA      360.0UA
377     4   2.720MA      360.0UA
383    10   2.640MA      360.0UA
389    11   2.670MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -900.0E-06
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.080MA      -900.0UA
293     4   -3.070MA      -900.0UA
299    10   -3.040MA      -900.0UA
305    11   -3.060MA      -900.0UA

```

```

-----
IOL TEST
VDD=     10
IOL >=    900.0E-06
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   6.190MA      900.0UA
377     4   6.180MA      900.0UA
383    10   5.980MA      900.0UA
389    11   6.080MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.97 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-11.70MA		-2.400MA
293	4	-11.70MA		-2.400MA
299	10	-11.50MA		-2.400MA
305	11	-11.70MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.20MA	2.400MA	
377	4	23.10MA	2.400MA	
383	10	22.30MA	2.400MA	
389	11	22.80MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-9.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-7.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 1.000UA
492 2 4.000NA 1.000UA
496 5 4.000NA 1.000UA
500 6 4.000NA 1.000UA
504 8 3.000NA 1.000UA
508 9 3.000NA 1.000UA
512 12 3.000NA 1.000UA
516 13 2.000NA 1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 7.500UA
569 14 -36.00NA 7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 15.00UA
569 14 -24.00NA 15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 3.000NA 30.00UA
569 14 -13.00NA 30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 4.000NA 150.0UA
569 14 0 A 150.0UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 9

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.480MA		-360.0UA
293	4	-1.480MA		-360.0UA
299	10	-1.460MA		-360.0UA
305	11	-1.460MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.700MA             -1.150MA
335     4   -6.700MA             -1.150MA
341    10   -6.700MA             -1.150MA
347    11   -6.700MA             -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=   360.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.760MA      360.0UA
377     4   2.750MA      360.0UA
383    10   2.660MA      360.0UA
389    11   2.710MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=  9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.980 V       9.950 V
228    10   9.980 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=  50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >= -900.0E-06
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.170MA      -900.0UA
293     4   -3.180MA      -900.0UA
299    10   -3.110MA      -900.0UA
305    11   -3.140MA      -900.0UA

```

```

-----
IOL TEST
VDD=     10
IOL >=   900.0E-06
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   6.250MA      900.0UA
377     4   6.250MA      900.0UA
383    10   6.010MA      900.0UA
389    11   6.140MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	20.02MV		50.00MV
257	10	30.03MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-12.00MA		-2.400MA
293	4	-12.00MA		-2.400MA
299	10	-11.80MA		-2.400MA
305	11	-11.90MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.30MA	2.400MA	
377	4	23.30MA	2.400MA	
383	10	22.40MA	2.400MA	
389	11	22.90MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-9.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-8.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT      GT  
488     1    6.000NA                1.000UA  
492     2    4.000NA                1.000UA  
496     5    4.000NA                1.000UA  
500     6    4.000NA                1.000UA  
504     8    3.000NA                1.000UA  
508     9    3.000NA                1.000UA  
512    12    3.000NA                1.000UA  
516    13    2.000NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    7.500E-06  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14   -5.000NA            7.500UA  
569    14  -36.000NA            7.500UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <   15.00E-06  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    1.000NA            15.00UA  
569    14   -24.00NA           15.00UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <   30.00E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    3.000NA            30.00UA  
569    14  -12.00NA            30.00UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <  150.0E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT      GT  
564    14    5.000NA            150.0UA  
569    14      0 A           150.0UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 10

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.470MA		-360.0UA
293	4	-1.470MA		-360.0UA
299	10	-1.460MA		-360.0UA
305	11	-1.480MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.700MA             -1.150MA
335     4   -6.700MA             -1.150MA
341    10   -6.700MA             -1.150MA
347    11   -6.700MA             -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=   360.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.830MA      360.0UA
377     4   2.820MA      360.0UA
383    10   2.750MA      360.0UA
389    11   2.790MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=  -900.0E-06
VO =      9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.200MA      -900.0UA
293     4   -3.200MA      -900.0UA
299    10   -3.160MA      -900.0UA
305    11   -3.190MA      -900.0UA

```

```

-----
IOL TEST
VDD=     10
IOL >=   900.0E-06
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   6.410MA      900.0UA
377     4   6.420MA      900.0UA
383    10   6.180MA      900.0UA
389    11   6.340MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	30.03MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-12.20MA		-2.400MA
293	4	-12.20MA		-2.400MA
299	10	-12.00MA		-2.400MA
305	11	-12.20MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.90MA	2.400MA	
377	4	24.00MA	2.400MA	
383	10	23.10MA	2.400MA	
389	11	23.60MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-8.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-8.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 1.000UA
492 2 4.000NA 1.000UA
496 5 4.000NA 1.000UA
500 6 4.000NA 1.000UA
504 8 3.000NA 1.000UA
508 9 3.000NA 1.000UA
512 12 3.000NA 1.000UA
516 13 2.000NA 1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 7.500UA
569 14 -36.00NA 7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 15.00UA
569 14 -24.00NA 15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 2.000NA 30.00UA
569 14 -13.00NA 30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 4.000NA 150.0UA
569 14 0 A 150.0UA

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 11

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.970 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.970 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.480MA		-360.0UA
293	4	-1.480MA		-360.0UA
299	10	-1.470MA		-360.0UA
305	11	-1.470MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.800MA             -1.150MA
335     4   -6.800MA             -1.150MA
341    10   -6.700MA             -1.150MA
347    11   -6.700MA             -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    360.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.800MA      360.0UA
377     4   2.770MA      360.0UA
383    10   2.710MA      360.0UA
389    11   2.740MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -900.0E-06
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.190MA      -900.0UA
293     4   -3.200MA      -900.0UA
299    10   -3.160MA      -900.0UA
305    11   -3.180MA      -900.0UA

```

```

-----
IOL TEST
VDD=     10
IOL >=    900.0E-06
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   6.350MA      900.0UA
377     4   6.320MA      900.0UA
383    10   6.110MA      900.0UA
389    11   6.250MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-12.10MA		-2.400MA
293	4	-12.20MA		-2.400MA
299	10	-12.00MA		-2.400MA
305	11	-12.10MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.70MA	2.400MA	
377	4	23.60MA	2.400MA	
383	10	22.80MA	2.400MA	
389	11	23.40MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-9.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-8.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-8.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

```
-----  
INST #  PIN  MEASURED      LT          GT  
488     1    6.000NA                1.000UA  
492     2    4.000NA                1.000UA  
496     5    4.000NA                1.000UA  
500     6    4.000NA                1.000UA  
504     8    3.000NA                1.000UA  
508     9    4.000NA                1.000UA  
512    12    3.000NA                1.000UA  
516    13    2.000NA                1.000UA  
-----
```

```
-----  
      IDD TEST  
      VDD=      5  
      IDD <    7.500E-06  
      VIN =      5  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14   -5.000NA                7.500UA  
569    14  -36.000NA                7.500UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     10  
      IDD <   15.00E-06  
      VIN =     10  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14     0 A                15.00UA  
569    14  -24.00NA                15.00UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     15  
      IDD <   30.00E-06  
      VIN =     15  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    3.000NA                30.00UA  
569    14  -13.00NA                30.00UA  
-----
```

```
-----  
      IDD TEST  
      VDD=     20  
      IDD <  150.0E-06  
      VIN =     20  
-----
```

```
-----  
INST #  PIN  MEASURED      LT          GT  
564    14    4.000NA                150.0UA  
569    14     0 A                150.0UA  
-----
```

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

STAT1 06/11/11 06:49
TEST PROGRAM 4001B S/N 12

DDS-101-03-A PN CD4001B ELECTRICAL TEST SEQ 14 +125C

CONTINUITY TEST

INST #	PIN	MEASURED	LT	GT
69	1	-700.0MV	-1.500 V	-100.0MV
69	2	-700.0MV	-1.500 V	-100.0MV
69	3	-100.1MV	-1.500 V	-100.0MV
69	4	-100.1MV	-1.500 V	-100.0MV
69	5	-700.0MV	-1.500 V	-100.0MV
69	6	-700.0MV	-1.500 V	-100.0MV
69	8	-700.0MV	-1.500 V	-100.0MV
69	9	-700.0MV	-1.500 V	-100.0MV
69	10	-100.1MV	-1.500 V	-100.0MV
69	11	-100.1MV	-1.500 V	-100.0MV
69	12	-700.0MV	-1.500 V	-100.0MV
69	13	-700.0MV	-1.500 V	-100.0MV
69	14	-600.1MV	-1.500 V	-100.0MV

FUNCTIONAL TEST
VDD = 5

VOH TEST
VDD= 5
VOH >= 4.950

INST #	PIN	MEASURED	LT	GT
220	3	4.980 V	4.950 V	
224	4	4.980 V	4.950 V	
228	10	4.980 V	4.950 V	
232	11	4.980 V	4.950 V	

VOL TEST
VDD= 5
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	30.03MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	20.02MV		50.00MV

IOH TEST
VDD= 5
IOH >= -360.0E-06
VO = 4.600

INST #	PIN	MEASURED	LT	GT
287	3	-1.470MA		-360.0UA
293	4	-1.460MA		-360.0UA
299	10	-1.450MA		-360.0UA
305	11	-1.460MA		-360.0UA

IOH2 TEST
VDD= 5
IOH >= -1.150E-03
VO = 2.500

```

-----
INST #  PIN  MEASURED      LT          GT
329     3   -6.700MA             -1.150MA
335     4   -6.600MA             -1.150MA
341    10   -6.600MA             -1.150MA
347    11   -6.600MA             -1.150MA

```

```

-----
IOL TEST
VDD=      5
IOL >=    360.0E-06
VO=      400.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   2.800MA      360.0UA
377     4   2.800MA      360.0UA
383    10   2.730MA      360.0UA
389    11   2.770MA      360.0UA

```

```

-----
FUNCTIONAL TEST
VDD =     10
-----

```

```

-----
VOH TEST
VDD=     10
VOH >=   9.950
-----

```

```

INST #  PIN  MEASURED      LT          GT
220     3   9.970 V       9.950 V
224     4   9.970 V       9.950 V
228    10   9.970 V       9.950 V
232    11   9.970 V       9.950 V

```

```

-----
VOL TEST
VDD=     10
VOL >=   50MV
-----

```

```

INST #  PIN  MEASURED      LT          GT
249     3   20.02MV       50.00MV
253     4   20.02MV       50.00MV
257    10   20.02MV       50.00MV
261    11   20.02MV       50.00MV

```

```

-----
IOH TEST
VDD=     10
IOH >=   -900.0E-06
VO =     9.500
-----

```

```

INST #  PIN  MEASURED      LT          GT
287     3   -3.170MA      -900.0UA
293     4   -3.160MA      -900.0UA
299    10   -3.120MA      -900.0UA
305    11   -3.170MA      -900.0UA

```

```

-----
IOL TEST
VDD=     10
IOL >=    900.0E-06
VO=      500.0E-03
-----

```

```

INST #  PIN  MEASURED      LT          GT
371     3   6.360MA      900.0UA
377     4   6.360MA      900.0UA
383    10   6.130MA      900.0UA
389    11   6.290MA      900.0UA

```

FUNCTIONAL TEST
VDD = 15

VOH TEST
VDD= 15
VOH >= 14.95

INST #	PIN	MEASURED	LT	GT
220	3	14.98 V	14.95 V	
224	4	14.98 V	14.95 V	
228	10	14.98 V	14.95 V	
232	11	14.98 V	14.95 V	

VOL TEST
VDD= 15
VOL >= 50MV

INST #	PIN	MEASURED	LT	GT
249	3	20.02MV		50.00MV
253	4	20.02MV		50.00MV
257	10	20.02MV		50.00MV
261	11	30.03MV		50.00MV

IOH TEST
VDD= 15
IOH >= -2.400E-03
VO = 13.50

INST #	PIN	MEASURED	LT	GT
287	3	-12.10MA		-2.400MA
293	4	-12.10MA		-2.400MA
299	10	-11.80MA		-2.400MA
305	11	-12.00MA		-2.400MA

IOL TEST
VDD= 15
IOL >= 2.400E-03
VO= 1.500

INST #	PIN	MEASURED	LT	GT
371	3	23.70MA	2.400MA	
377	4	23.80MA	2.400MA	
383	10	22.80MA	2.400MA	
389	11	23.50MA	2.400MA	

IIL TEST
VDD= 18
IIL < -100NA @25C/-55C
IIL < -1.0UA @ +125C

INST #	PIN	MEASURED	LT	GT
438	1	-9.000NA	-1.000UA	
442	2	-8.000NA	-1.000UA	
446	5	-8.000NA	-1.000UA	
450	6	-8.000NA	-1.000UA	
454	8	-8.000NA	-1.000UA	
458	9	-8.000NA	-1.000UA	
462	12	-7.000NA	-1.000UA	
466	13	-7.000NA	-1.000UA	

IIH TEST

VDD= 18
IIH < 100E-9 @ 25C/-55C
IIH < 1.0E-6 @ 125C

INST # PIN MEASURED LT GT
488 1 6.000NA 1.000UA
492 2 4.000NA 1.000UA
496 5 4.000NA 1.000UA
500 6 4.000NA 1.000UA
504 8 3.000NA 1.000UA
508 9 3.000NA 1.000UA
512 12 3.000NA 1.000UA
516 13 2.000NA 1.000UA

IDD TEST
VDD= 5
IDD < 7.500E-06
VIN = 5

INST # PIN MEASURED LT GT
564 14 -5.000NA 7.500UA
569 14 -36.00NA 7.500UA

IDD TEST
VDD= 10
IDD < 15.00E-06
VIN = 10

INST # PIN MEASURED LT GT
564 14 0 A 15.00UA
569 14 -24.00NA 15.00UA

IDD TEST
VDD= 15
IDD < 30.00E-06
VIN = 15

INST # PIN MEASURED LT GT
564 14 2.000NA 30.00UA
569 14 -13.00NA 30.00UA

IDD TEST
VDD= 20
IDD < 150.0E-06
VIN = 20

INST # PIN MEASURED LT GT
564 14 4.000NA 150.0UA
569 14 0 A 150.0UA

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



MIL-PRF-38534 CLASS K DATAPACK

Scanning Electron Microscopy (SEM) analysis



TANDEX TEST LABS, INC.

15849 Business Ctr. Dr. Irwindale CA. 91706

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

SCANNING ELECTRON MICROSCOPE ANALYSIS

DIE DEVICES

TTL Job # DDS-101-03-W

Date: May 2, 2018

Part Number: CD4001B

Part Type: CMOS LOGIC MICROCIRCUIT

Lot: Lot# 190184 D/C: 1810 WFR# 20

Quantity: Eight (8)

Purchase Order: SS139

Submitted by: _____


Jason A. Salinas
DPA/MTS

Approved by: _____


Deborah M. Gorham
Quality Assurance

TANDEX TEST LABS TTL Job # DDS-101-03-W

Summary

Eight (8) CMOS Logic Microcircuit P/N: CD4001B were submitted by Die Devices for Scanning Electron Microscopy Analysis. This Analysis was performed in accordance with Mil-Std-883, Method 2018.6 The devices were assigned sample number 1 through 8 by Tandex Test Labs.

1. **Plasma Etching** Carbon Tetrafluoride Gas 92% and 8% Oxygen was used to remove the glassivation. This etching is destructive and uneven in the rates of glass removal in various areas of the die.
2. **SEM Inspection** was performed on all eight devices. All eight devices revealed adequate metallization coverage and met the requirements of MIL-STD-883, Method 2018.6. See DPA form on page 3 and figures 1 through 3, for typical photographs.

Conclusion: This lot is acceptable for use.

TANDEX TEST LABS TTL Job # DDS-101-03-W
SEM EXAMINATION

TTL Job No. DDS-101-03-W	Part Number CD4001B	Part Type CMOS Logic Microcircuit	Date May 1, 2018
Lot Date Code: WFR# 20 Lot# 190184 D/C: 1810	Sample Qty. 8	Serial Numbers 1 - 8	Test Specifications Mil-Std-883 Method 2018.6
Misc. ID No.	Qty . Accept 8	Qty. Reject 0	Qty. Suspect 0

Notes:

S/N	Investigation Findings / Comments	A/R/S
1	No Anomalies	A
2	No Anomalies	A
3	No Anomalies	A
4	No Anomalies	A
5	No Anomalies	A
6	No Anomalies	A
7	No Anomalies	A
8	No Anomalies	A

Each sample was inspected for the general metallization condition at a magnification between 1,000 X and 6,000 X over 25% of the total metallization (unless specified differently). Each sample was inspected from four (4) viewing directions at a magnification between 5,000 X and 20,000 X

Inspection required Yes: X No: Devices constructed with expanded Metallization Yes: X No:

Sample Glassivated Yes: X No: Dual Level Metallization Yes: No: X

Glassivation Removed Using: PLASMA ETCHING

Beam accelerating voltage 10kV to 20kV Viewing angle 45 deg



Technician Stamp:

TANDEX TEST LABS TTL Job # DDS-101-03-W

Photodocumentation

TANDEX TEST LABS TTL Job # DDS-101-03-W

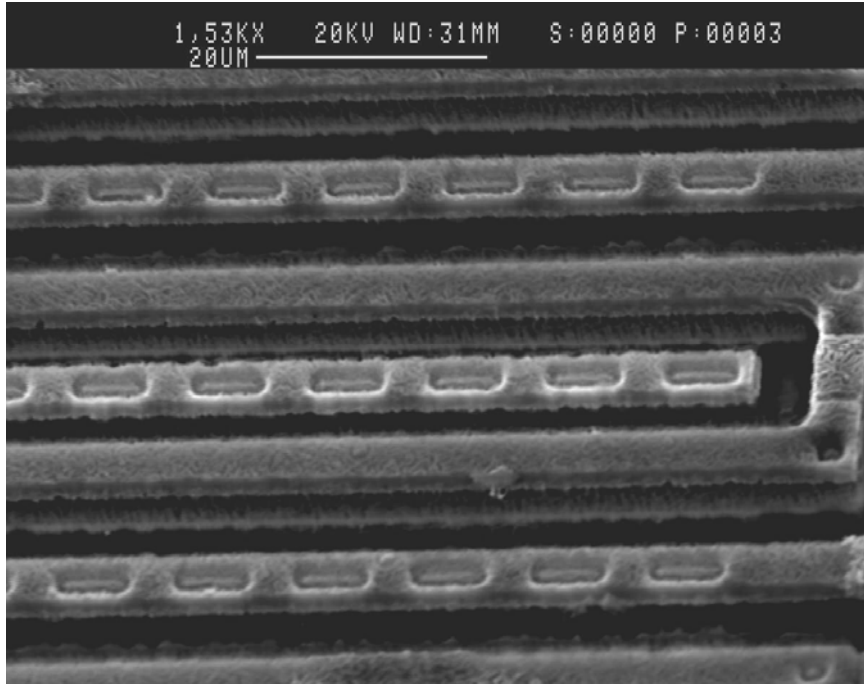


Fig: 1

Mag: 1,530X

S/N: 3

Description: SEM photograph of general metallization.

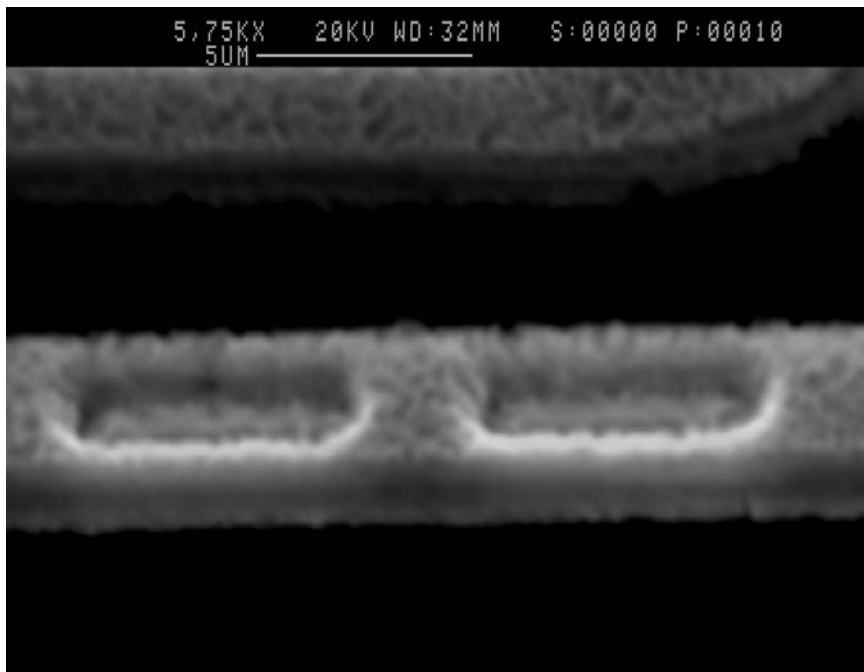


Fig: 2

Mag: 5,750X

S/N: 3

Description: SEM photograph of metallization typical step.

TANDEX TEST LABS TTL Job # DDS-101-03-W

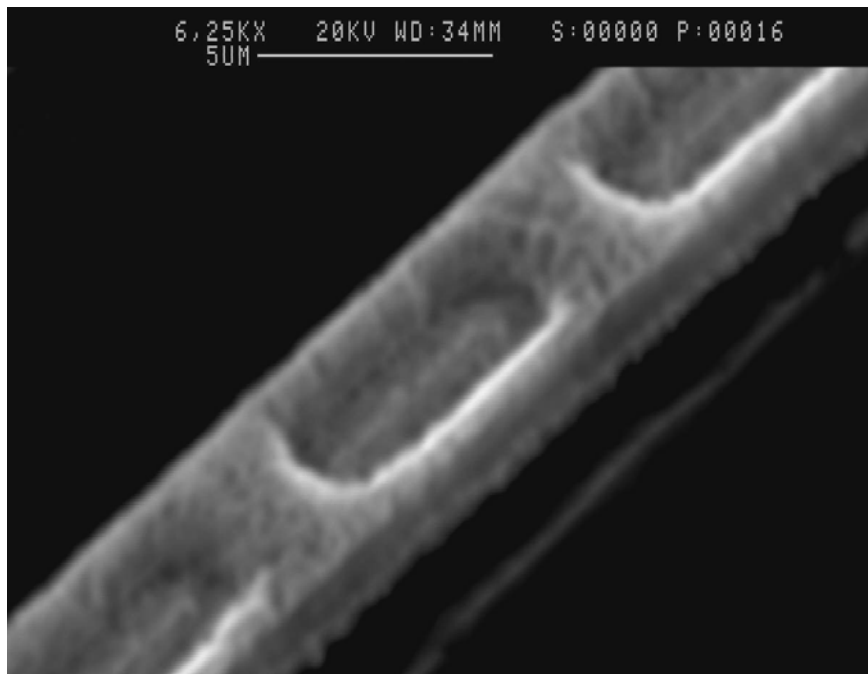


Fig: 3

Mag: 6,250X

S/N: 3

Description: SEM photograph of typical contact window device rotated 90°.

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: May 2, 2018
TEST REPORT:	DDS-101-03-W	QUANTITY REQUIRED: 8
P.O. NUMBER:	SS139	QUANTITY PROCESSED: 8
DESCRIPTION:	CMOS LOGIC MICROCIRCUIT	QUANTITY PASSED: 8
PART NUMBER(S):	CD4001B	QUANTITY FAILED: 0
MFG PART NUMBER	CD4001B	QUANTITY SHIPPING: 8
LOT / DATE CODE:	LOT# 190184 WFR# 20 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



Deborah M. Gorham
QUALITY ASSURANCE