g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-DS200IOEA**

Test Procedure for a DS200IOEA card

DOCUMENT REVISION STATUS: Determined by the last entry in the "REV" and "DATE" column

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial Release	J. Barton	7/30/2010
B	Added clarification to some steps.	P. Kelley	11/17/2010
C			

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DATE	**DATE**	**DATE**	**DATE**
7/30/2010	11/17/2010		8/16/2010

1. SCOPE

1.1 This is a functional testing procedure for a DS200IOEA Card.

2. STANDARDS OF QUALITY

2.1 Refer to the current revision of the IPC-A-610 standard for workmanship standards.

3. APPLICABLE DOCUMENTS

3.1 The following document(s) shall form part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue shall apply.
3.1.1 Check board's electronic folder for more information.

4. ENGINEERING REQUIREMENTS

4.1 Equipment Cleaning
4.1.1 Equipment should be clean and free of debris prior to applying power unless performing an initial check. Refer to site specific SRA's for cleaning guidelines.
4.2 Equipment Inspection
4.2.1 Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:
4.2.1.1 Wires - broken, cracked, or loosely connected
4.2.1.2 Terminal strips / connectors - broken or cracked
4.2.1.3 Components - visually damaged
4.2.1.4 Capacitors - bloated or leaking
4.2.1.5 Solder joints - damaged or cold
4.2.1.6 Circuit board - burned or de-laminated
4.2.1.7 Printed wire runs / Traces - burned or damaged

5. EQUIPMENT REQUIRED

5.1 The following equipment is required to perform the process requirements. Equipment may be substituted provided that all accuracy's and test ratios are equivalent or better.

Qty	Reference #	Description
1	H188629	IOS Test Station
1	H188956	IOEA Tester Cable

6. TESTING PROCESS

6.1 Setup

6.1.1 With power to the IOS Test System off, install the DS200IOEA board.

6.1.1.1 Connect 3PL on the IOEA Card to the 3PL on the DMCB

6.1.1.2 Connect 3PL from the KLDA Card to The 3PLX on the IOEA

6.1.1.3 Connect 4PL from the DMCB to the IOEA

6.1.1.4 Apply power to the IOS test system.

6.1.1.5 Verify Test Computer running IOS Test Software communicates to the DMCB by configuring the DMCB for IOEA and not the GENIUS Card.

Note: See the DS200DMCB Test procedure as a reference on the IOS SW configurations if needed

6.1.1.6 Connect the IOEA Tester Cable to 6PL on the IOEA card.

Note: Ribbon Cable should be connected with RED Stripe to pin 25.

6.2 Testing Procedure

6.2.1 From the MAIN MENU on the IOS Test Software:

6.2.1.1 Select “3” “IOEA Test”

Note: When reading connector values of 1 or 0 below, look under column “RETURN” on the screen.

6.2.1.2 Verify all 8 I/O from 6PL are reading a “1”

6.2.1.3 Disconnect IOE Test Cable.

6.2.2 [Enter] to return to Main Menu

6.2.2.1 Select “3” “IOEA Test”

6.2.2.2 Verify all 8 I/O from 6PL are reading a “0”

6.2.3 Move ribbon cable connected to 6PL to 7PL

6.2.3.1 Select “3” “IOEA Test”

6.2.3.2 Verify all 8 I/O from 7PL are reading a “1”

6.2.3.3 Disconnect IOE Test Cable.

6.2.4 [Enter] to return to Main Menu

6.2.4.1 Select “3” “IOEA Test”

6.2.4.2 Verify all 8 I/O from 7PL are reading a “0”

6.2.5 Move ribbon cable connected to 7PL to 8PL

6.2.5.1 Select “3” “IOEA Test”

6.2.5.2 Verify all 8 I/O from 8PL are reading a “1”

6.2.5.3 Disconnect IOE Test Cable.

6.2.6 [Enter] to return to Main Menu

6.2.6.1 Select “3” “IOEA Test”

6.2.6.2 Verify all 8 I/O from 8PL are reading a “0”

6.2.7 Move ribbon cable connected to 8PL to 9PL

6.2.7.1 Select “3” “IOEA Test”

6.2.7.2 Verify all 8 I/O from 9PL are reading a “1”

6.2.7.3 Disconnect IOE Test Cable.

6.2.8 [Enter] to return to Main Menu

6.2.8.1 Select “3” “IOEA Test”

6.2.8.2 Verify all 8 I/O from 9PL are reading a “0”

6.2.8.3 Turn off power to the IOS Test Station.

6.2.9 Remove IOEA and ribbon cable

6.2.10 Reconnect Genius Card and reconfig IOS as such

6.2.11 ******TEST COMPLETE***

7. NOTES

7.1 None at this time.

8. Attachments

8.1 None at this time.

8.2

IOS-2 Genius Test Fixture
H188629