g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-DS3800NCIx**

Test Procedure for a DS3800NCI card

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	D. Smith	4/23/03
B	Added a minus sign to step 6.2.10, to read -0.7VDC	D. Johnson	8/9/2010
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
D. Smith	D. Johnson		Robert Duvall
DATE	**DATE**	**DATE**	**DATE**
4/23/03	8/9/2010		4/23/03

Functional test procedure for a LOU-GED-DS3800NCIx Card

1. SCOPE

1.1 This is a functional testing procedure for a 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 the local documented procedures 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 or cracked
4.2.1.2 Terminal strips / connectors broken or cracked
4.2.1.3 Loose wires
4.2.1.4 Components visually damaged
4.2.1.5 Capacitors leaking
4.2.1.6 Solder joints damaged or cold
4.2.1.7 Circuit board burned or de-laminated
4.2.1.8 Printed wire runs 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		Fluke 85 DMM (or Equivalent)
1		Millivolt source
1	H033672	DS3800NCI* test Fixture

6. TESTING PROCESS

6.1 Setup

6.1.1 Install board on DS3800NCI* test fixture.

6.1.2 Connect 10 pin ribbon cable From JA to JB

6.1.3 Place a 47.5K Ohm 1% resistor between saddle clamps (R101)

6.1.4 Connect all ribbon cables from test fixture to DS3800NCI_ card

6.2 Testing Procedure

6.2.1 Apply power

6.2.2 Allow card to warm up for 10 min. before testing.

6.2.3 Verify +27 to 28 VDC on capacitor C204 of card. If low adjust power supply inside of test fixture to correct problem. This can cause problems during testing if not correct.

6.2.4 Short TB1-1 to TB1-2 and adjust R2 for 0 VDC +/- 1 mV at JD3 test jack.

6.2.5 Remove short between TB1-1 to TB1-2.

6.2.6 Apply + 50mV DC between TB1-1 (+) to TB1-2 (-). Adjust R1 for –10.0VDC +/- .005 VDC at test jack JD3

6.2.7 Change + 50mV DC between TB1-1 (+) to TB1-2 (-) to –75 mV. Verify that the voltage at JD3 is greater than +11.0 VDC.

6.2.8 Apply - 50mV DC between TB1-1 (+) to TB1-2 (-). Adjust R1 for +10.0VDC +/- .005 VDC at test jack JD3

6.2.9 Let card run for 10 min. and repeat steps 6.2.5 through 6.2.9

6.2.10 Verify test jack JD8 is approx. -0.7 VDC

6.2.11 Move ribbon cable for JB to JC and adjust R3 for -10 VDC +/- 1 mV at JD3 test jack.

6.2.12 Connect 10 pin ribbon cable back to JB

6.2.13 **Omit Next steps if card is a DS3800NCIB**.

6.2.14 This step is for DS3800NCID ONLY. Apply - 50mV DC between TB1-1 (+) to TB1-2 (-). Adjust R4 for +4.0VDC +/- .005 VDC at test jack JD1.

6.2.15 Seal pot R3

6.3 ***TEST COMPLETE ***

7. NOTES

Not at this time.