



GE Energy

Functional Testing Specification

Parts & Repair Services
Louisville, KY

LOU-GED-IS200ESELH1A

Test Procedure for a exciter selector card

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REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	M. Starling	03/26/2010
B	Corrected typo on connection numbers	M. Starling	02/18/2012
C			

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DATE 3/26/2010	DATE	DATE	DATE 3/26/2010

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1. SCOPE

1.1 This is a functional testing procedure for a exciter selector 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		Fluke 87 DMM (or Equivalent)
1		Bench Power Supply

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6. TESTING PROCESS

6.1 Setup

6.1.1 Connect 5 VDC to P1-C32. Connect COM to P1-C9.

6.2 Testing Procedure

6.2.1 Apply power; power LED on front of unit should come on.

6.2.2 Connect 5 VDC to GATE-1 P1-C16. GATING LED on front of unit should come on.

6.2.3 Connect 5 VDC to P1-C24. Connect COM to P1-C23.

6.2.4 ACTIVE LED on front of unit should now be on.

6.2.5 Check voltage at Q2-8, should be 5 VDC.

6.2.6 Check voltage at Q28-8, should be 0 VDC.

6.2.7 Remove voltage from GATE-1 input P1-C16.

6.2.8 Voltage at Q2-8 should now be 0 VDC.

6.2.9 Voltage at Q28-8 should now be 5 VDC.

6.2.10 Reconnect GATE-1 input P1-C16 and leave connected for following tests.

6.2.11 Apply 5 VDC to GATE-2 P1-C17.

6.2.12 Voltage at Q38-8 should be 0 VDC.

6.2.13 Voltage at Q6-8 should be 5 VDC.

6.2.14 Remove voltage from GATE-2 P1-C17

6.2.15 Voltage at Q38-8 should be 5 VDC.

6.2.16 Voltage at Q6-8 should be 0 VDC.

6.2.17 Repeat test steps 6.2.11 – 6.2.16 for the following locations.

6.2.18 GATE-3 P1-C19 – Q48-8, Q10-8.

6.2.19 GATE-4 P1-B19 – Q14-8, Q58-8.

6.2.20 GATE-5 P1-C20 – Q18-8, Q68-8.

6.2.21 GATE-6 P1-C21 – Q22-8, Q78-8.

6.2.22 Remove all connections.

6.2.23 Check for 20 Ohms resistance between the following points.

FROM	TO
Q2-5	P2-A31
Q28-5	P2-A30
Q6-5	P2-C30
Q38-5	P2-B29
Q10-5	P2-C28
Q48-5	P2-A28
Q14-5	P2-C27
Q58-5	P2-B26
Q18-5	P2-C26
Q68-5	P2-A25
Q22-5	P2-B24
Q78-5	P2-B23

6.3 *TEST COMPLETE*****

7. NOTES

7.1 It is difficult to find the component numbers on this unit, please refer to layout drawing.

8. ATTACHMENTS

8.1 None at this time.