



GE Energy

Functional Testing Specification

*Parts & Repair Services
Louisville, KY*

LOU-GED-193X728xxG01

Test Procedure for a card

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A	Initial release	G. Chandler	3/8/2010
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PREPARED BY G. Chandler	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL Charlie Wade
DATE 3/8/2010	DATE	DATE	DATE 3/8/2010

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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 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		Oscilloscope
1		20VDC Power Supply

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6. TESTING PROCESS

6.1 Setup

- 6.1.1 Connect +20v to pin 31 with com. to pin 2.
- 6.1.2 Connect an O-scope, set at 5V per div and 50uS per div, to pin 19 with com. to pin 2.

6.2 Testing Procedure

- 6.2.1 Apply power.
- 6.2.2 The O-scope waveform shall be a square wave with a one-cycle width of 225 to 300 uS and approximately 20V P to P.
- 6.2.3 Connect a 10Kohm resistor across the output pins 3 to 11.
- 6.2.4 Jumper pins 10 to 11.
- 6.2.5 Connect a DVM, with (+) to pin 3 and (–) to pin 11.
- 6.2.6 At this point in the test the DVM should read 0Vdc.
- 6.2.7 Apply +10Vdc to pin 28 with com. to pin 23.
- 6.2.8 The DVM should read +9.5Vdc +/- .1Vdc.
- 6.2.9 Reverse the polarity of the power supply connected to pins 28 to 23.
- 6.2.10 The DVM should read –9.5Vdc +/- .1Vdc.

6.3 ***TEST COMPLETE ***

7. NOTES

- 7.1 None at this time.

8. ATTACHMENTS

- 8.1 None at this time.