g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-IS200DAMAG1B**

Test Procedure for a printed circuit board.

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

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PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
Jill Hardin			Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
3/1/2010			3/1/2010

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

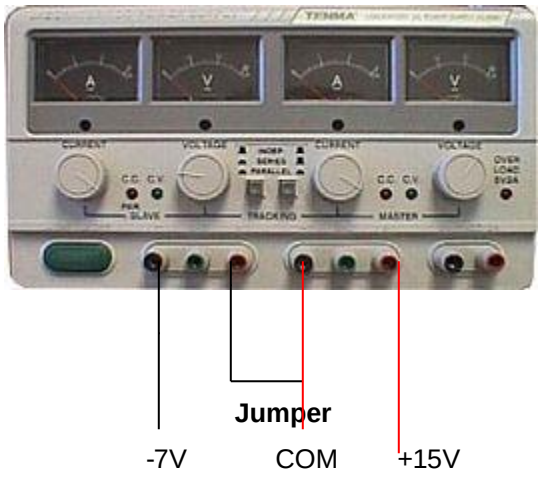
5. EQUIPMENT REQUIRED

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		72-2080 Tenma Dual Power Supply
1		Function Generator
1		TDS 2012B Tektronix Scope

6. TESTING PROCESS

6.1 Setup



Note: Make sure to check tantalum caps for shorts before apply power.

6.2 Testing Procedure

6.2.1 Upper IGBT Circuit

6.2.1.1 Set power supply for –7V and +15V.

6.2.1.2 Jumper + and – together *see drawing above.

6.2.1.3 Use - as COM and connect to PL-6.

6.2.1.4 Connect –7V to PPL-6.

6.2.1.5 Connect +15V to PPL-5.

6.2.1.6 Connect function generator pos. to PL-7 and neg. to PL-6.

6.2.1.7 Connect scope to pos. to GU and neg. to EU.

6.2.1.8 Run function generator from 0 to 1KH. LEDs UFF and UON will be solid (at <20 h lights will alternate flashing).

6.2.1.9 Should receive 20 VPP square-wave.

6.2.2 Lower IGBT Circuit

6.2.2.1 Leave power supply set-up as before.

6.2.2.2 Connect COM to PL-2.

6.2.2.3 Connect –7V to PPL-2.

6.2.2.4 Connect +15V to PPL-1.

6.2.2.5 Connection function generator pos. to PL-1 and neg. to PL-2.

6.2.2.6 Connect scope to pos. to GL and neg. to EL.

6.2.2.7 Run function generator from 0 to 1KH. LEDs LFF and LON will be solid (at <20 h lights will alternate flashing).

6.2.2.8 Should receive 20 VPP square-wave.

6.3 ***TEST COMPLETE ***

7. NOTES

7.1 None at this time.

8. ATTACHMENTS

8.1 None at this time.