g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-137D5150**

Test Procedure for a relay card.

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release, converted over from GEDS Salem test	J. Francis	3/30/2012
B			
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
J. Francis			Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
3/30/2012			3/30/2012

1. SCOPE

1.1 This is a functional testing procedure for a relay 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
- **3.1.2** GEDS Salem document 5150.doc.

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		Oscilloscope
1		Fluke 5500A
1		30VDC Power Supply

6. Modifications/Upgrades

6.1 Fill out if applicable.

7. Testing Process

7.1 Testing Procedure

7.1.1 Set Fluke 5500A for 1 Hz 40V P-P square-wave per set-up in figure 1.

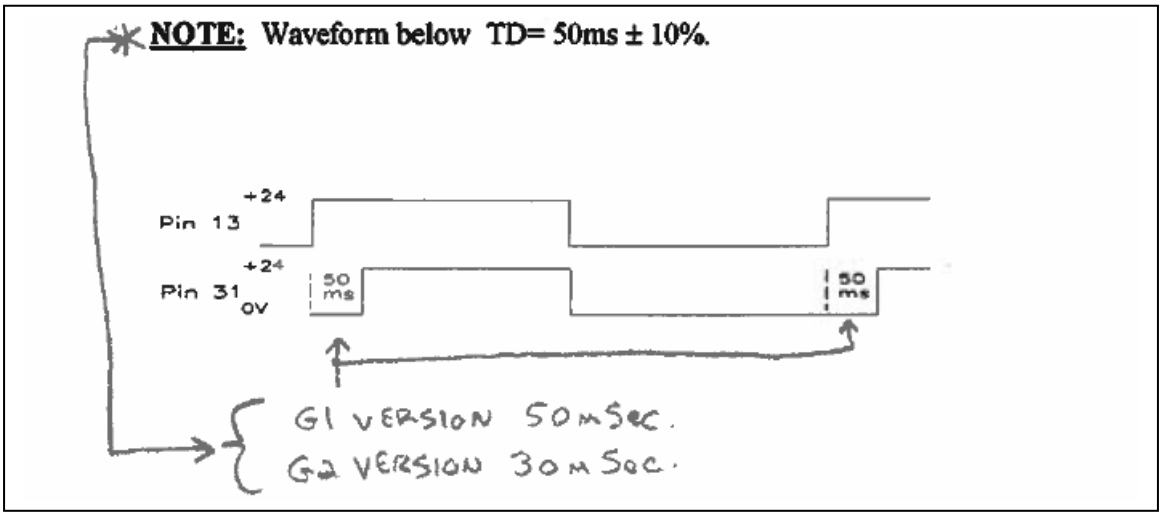
7.1.2 Connect scope channel A to point A channel B to point B. See waveform in figure 2.

7.1.3 Since both circuits are identical and in parallel, lift (disconnect) one side of resistor R1 & R2 and test each circuit independently.

7.1.4 Re-install lifted resistors R1 and R2.

7.1.5 Repeat test for both circuits together.

Figure 2



7.2 Post Testing Burn-in Required ___ Yes ___ No

Note: All MARK I, II, & III Turbine related cards require a post testing burn-in of 100 hours.

7.2.1 Apply BUS or Operational power to the card for a period of 100 hours.

7.2.2 Re-test card while warm using the above procedure.

7.3 ***TEST COMPLETE ***

8. Notes

Figure 1