g GE Energy Services *Inspection & Repair Services* *Louisville,KY*	**Functional Testing Specification** **LOU–GED-531X199SPT**

Test Procedure for a Card

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	J. Archibald	7/16/2004
B			
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
JAMES ARCHIBALD			Robert Dunlap
DATE	**DATE**	**DATE**	**DATE**
07/16/2004			7/23/04

Functional test procedure for a 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

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		2215 OSCILLOSCOPE
1		+ 24 VOLT POWER SUPPLY
1		SCR FIRING BOX

6. TESTING PROCESS

6.1 Setup

6.1.1

Note:

6.2 Testing Procedure

HOOK +24 VOLY POWER SUPPLY TO NFB PIN 17 COM TO NFB PIN 15.

CPSA CIRCUIT FIRING BOX GATE(WHITE) TO CSPA . COM TO NFB PIN 15.
OSCILLOSCOPE TO CPA PIN 2 COM TO CPA PIN 1.

TURN ON POWER SUPPLY AND FIRING BOX. SHOULD HAVE FIRING PULSES ON OSCILLOSCOPE.

CSNA CIRCUIT. FIRING BOX GATE(WHITE) TO CSNA . COM TO NFB PIN 15.
OSCILLOSCOPE TO CNA PIN 2 COM TO CNA PIN 1.

TURN ON POWER SUPPLY AND FIRING BOX. SHOULD HAVE FIRING PULSES ON OSCILLOSCOPE.

CSPB CIRCUIT. FIRING BOX GATE(WHITE) TO CSPB . COM TO NFB PIN 15.
OSCILLOSCOPE TO CPB PIN 2 COM TO CPB PIN 1.

TURN ON POWER SUPPLY AND FIRING BOX. SHOULD HAVE FIRING PULSES ON OSCILLOSCOPE.

CSNB CIRCUIT FIRING BOX GATE(WHITE) TO CSNB . COM TO NFB PIN 15.
OSCILLOSCOPE TO CNB PIN 2 COM TO CNB PIN 1.

TURN ON POWER SUPPLY AND FIRING BOX. SHOULD HAVE FIRING PULSES ON OSCILLOSCOPE.

CONTUNIED

CSPS CIRCUIT. FIRING BOX GATE(WHITE) TO CSPC . COM TO NFB PIN 15.
OSCILLOSCOPE TO CPC PIN 2 COM TO CPS PIN 1.
TURN ON POWER SUPPLY AND FIRING BOX. SHOULD HAVE FIRING PULSES ON OSCILLOSCOPE.

CSNC CIRCUIT FIRING BOX GATE(WHITE) TO CSNC . COM TO NFB PIN 15.
OSCILLOSCOPE TO CNC PIN 2 COM TO CNS PIN 1.
TURN ON POWER SUPPLY AND FIRING BOX. SHOULD HAVE FIRING PULSES ON OSCILLOSCOPE.

ATTUNIATOR TEST

1. HOOK OHM METER FROM CCA-W TO CCA-R SHOULD BE APPX 143 K OHM
2. HOOK OHM METER FROM CCB- W TO CCB-R SHOULD BE APPX 143 K OHM
3. HOOK OHM METER FROM CCC-W TO CCC-R SHOULD BE APPX 143 K OHM
4. HOOK OHM METER FROM CCA-R TO CVIA I SHOULD BE APPX 2.0 MEG
5. HOOK OHM METER FROM CCA-W TO CVCIA SHOULD BE APPX 2.0 MEG
6. HOOK OHM METER FROM CCB-R TO CVIBI SHOULD BE APPX 2.0 MEG
7. HOOK OHM METER FROM CCB-W TO CVCBI SHOULD BE APPX 2.0 MEG
8. HOOK OHM METER FROM CCC-R TO CVICI SHOULD BE APPX 2.0 MEG
9. HOOK OHM METER FROM CCC-W TO CVCCI SHOULD BE APPX 2.0 MEG

******TEST COMPLETE ******

7. NOTES

8. <u>Oscilloscope Verification Examples:</u>

Fig. 1

Fig. 2