g GE Energy Services	**Functional Testing Specification**
Inspection & Repair Services ***Louisville, KY***	**LOU–GED-531X196DFABxG1**

Test Procedure for a Digital Field Aux Card

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Frank Howard			Robert Dwall
DATE	**DATE**	**DATE**	**DATE**
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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		+24VDC Supply
1		+15VDC Supply
1		-15VDC Supply
1	H188505	Fluke 5500A Calibrator

6. TESTING PROCESS

6.1 Setup

6.1.1 Connect +24V to DFTB-5, common to DFTB-6.

6.1.2 Connect +15V to DFTB-7, -15V to DFTB-9, common to DFTB-8.

6.1.3 All meter readings should use DFTB-8 as meter common.

Note:

6.2 Testing Procedure

6.2.1 Apply voltages and verify +13VDC across C8 and C9.

6.2.2 Short CFTB-1 and CFTB-2. Using P1, adjust for 0V at pin 3 of U3. DFTB-3 should also be at 0V.

6.2.3 Apply +100mV to CFTB-1(+) and CFTB-2(-). Verify +4V at DFTB-3. Adjust with GAIN pot P2 if necessary. Verify +8V at DFTB-4. Adjust with AMET pot P3 if necessary.

6.2.4 Remove jumpers JP1 through JP4. Using Fluke 5500A, input +702VDC to VGTB-1 (+) and VCTB-1(-). Verify +8V at DFTB-1.

6.2.5 Move +702V input to VMTB-1(+) and VCTB-2(-). Verify +8V at DFTB-2.

6.3 ***TEST COMPLETE ***

7. NOTES

8. Oscilloscope Verification Examples:

Fig. 1

Fig. 2