GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-IS200TBCIH2C**

Test Procedure for an IS200TBCIH2C Mark VIe Terminal Card

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release. For TBCIH2Cxx and newer units. Older units to be tested in the Mark VI TMR Rack.	J. Francis	01/11/2018
B			
C			

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J. Francis			L. Groves
DATE	**DATE**	**DATE**	**DATE**
01/11/2018			1/16/2018

1. SCOPE

1.1 This is a functional testing procedure for an **IS200TBCIH2Cxx** MARK VIe Terminal 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	H190129	Mark Vie TMR Test Rack with computer
1	*	Fluke 87 Digital Multimeter or equivalent

6. TESTING PROCESS

6.1 Static Checks

6.1.1 Using Fluke 87 Digital Multimeter or equivalent, set for Resistance function, check for, and replace, shorted MOV's and Rectifiers before installing unit into test rack.

6.2 Functional Testing Procedure

✍ **Note: The following tests assume you are familiar with using ToolboxST.**

6.2.1.1 Turn off Rack Power switch.

6.2.1.2 Install unit to be tested into Mark VIe Simplex test rack.

6.2.1.3 Turn on Rack Power switch. Wait for approximately 3 minutes for rack to boot.

✍ **Note: The following portions of the test assume you are familiar with using ToolboxST. You will need to perform downloads at least twice for UUT to be setup fully. You must also wait for approximately 6 minutes in between downloads for rack and UUT to reboot.**

6.2.1.4 Open **ToolboxST** and open "**LSCTMR**" by double-clicking on it. Go online with ToolboxST.

6.2.1.5 Click on the "HARDWARE" tab, this will show you all of the modules setup in the rack under the "Distributed IO" icon. The PDIA-4L2 module should have a red circle with an X through it, indicating no communications.

6.2.1.6 Double click on the "X" on the PDIA-4L2 Module. This will bring up a configuration box to enter the serial number of the UUT and hardware form. Click "OK" button when done.

6.2.1.7 From the menu, Download Controller Setup by going to **Device->Download->Download Wizard.** Follow instructions in dialog boxes that follow.

6.2.1.8 After rack has rebooted, go online and verify that the "PDIA-4L2" module does not have the red "X" anymore.

6.2.1.9 Once online, select the **"HARDWARE"** tab. Under the **"Distributed I/O"** icon click on the "+" icon to the left of the **"Rear (Rear Side I/O)"** icon. This will list the modules installed.

6.2.1.10 Highlight the **"PDIA-4L2"** module. Click on the **"Inputs"** tab to the right. This should show a list of values, including Fuse01Fdbk through Fuse12Fdbk at the bottom. Initially, these values should toggle every 30 seconds between **"True" "FALSE"**, indicating contact status.

6.2.2 Burn-In Process

6.2.2.1 After letting unit run in test rack for 48 hours, repeat steps 6.2.1.6 through 6.2.1.12.

6.3 ***TEST COMPLETE ***

7. NOTES

7.1 Use the “PDIA-4L2/TBCI” liveview to monitor unit during testing.

8. ATTACHMENTS

8.1 None at this time.