



GE Energy

Functional Testing Specification

Parts & Repair Services
Louisville, KY

LOU-GED-IS200WNPS

Test Procedure for an IS200WNPSH1 and WNPSS1 Mark 6e Daughter Board

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PREPARED BY J. Francis	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL <i>Charlie Wade</i>
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LOU-GED-IS200WNPS Rev A	g GE Energy <i>Parts & Repair Services</i> <i>Louisville, KY</i>	Page 2 of 3
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1. SCOPE

1.1 This is a functional testing procedure for an **IS200WNPS** MARK VIe Daughter 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	H188922	Mark VIe Simplex Test Rack with computer
1		Computer with ToolboxST loaded

6. TESTING PROCESS



Note: The following tests assume you are familiar with using ToolboxST. You will need to perform downloads at least twice for UUT to be setup fully. You should also wait for approximately 3 minutes in between downloads for rack and UUT to reboot.

6.1 Testing Procedure

- 6.1.1 Turn “OFF” SW6 on JPDD card, just above NTRON Switches on front of test rack.
- 6.1.2 Remove test card (GOLD card) from test rack and install Unit Under Test (UUT) into test rack. Does not matter if you install UUT into “R”, “S”, or “T” slot, it will work the same.
- 6.1.3 Turn “ON” SW6 on JPDD card. Wait for test rack to fully boot, approximately 3 minutes.
- 6.1.4 Both LED’s at TOP (furthest away from connector) should illuminate.
- 6.1.5 All N24Vxx LED’s should also illuminate. For G1/H1/S1 version of the TVBA card LED labeled N24V14 will not illuminate as this circuit was not installed on the G1/H1/S1 version of this card.
- 6.1.6 Open **ToolboxST** and open “**UCSAH1A_Simplex_Vle**” by double-clicking on it and click the “ONLINE” button in the toolbar.
- 6.1.7 Click on the “HARDWARE” tab, then click on the “+” sign next to the “Simplex” group under the “Distributed IO” icon. This will show you all of the modules setup in the rack. The PVIB module should be listed among the modules installed.



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 should also wait for approximately 3 minutes in between downloads for rack and UUT to reboot.

- 6.1.8 Click on the “GAP 9 - 12” tab to the right of the PVIB icon. Should display the “LIVE VALUES” in green.
- 6.1.9 PULL open clamp labeled “GAP9-12” open. Values should turn RED and display greater than 99. PUSH closed same clamp, values should turn green and display less than 88.
- 6.1.10 Let unit run online for at least 48 hours.
- 6.1.11 After testing has been completed successfully, remove UUT, reinstall GOLD card, and verify successfully operation in ToolboxST.

6.2 ***TEST COMPLETE***

7. NOTES & ATTACHMENTS

- 7.1 None at this time.