



GE Energy

Functional Testing Specification

*Parts & Repair Operations
Louisville, KY*

LOU-GED-IS200DTURH1A

Test Procedure for a Terminal Board

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DATE 9-12-2011	DATE	DATE	DATE 9/12/2011

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1. SCOPE

1.1 This is a functional testing procedure for an IS200DTURH1A Simplex Pulse Rate Input 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
2		Fluke 87 DMM (or Equivalent)
1		TENMA 72-5015 Function Generator (or equivalent)

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6. TESTING PROCESS

6.1 Setup

- 6.1.1** The card accepts 4 passive pulse-rate transducers (magnetic pickups) for speed and flow measurements.



Note: Refer to GEI-100560 in IS200DTUR folder in design folders.

6.2 Testing Procedure

- 6.2.1** Set function generator to a 2 KHz, maximum amplitude sine wave output. The test will include sweeping frequency to a maximum of 20KHz but the amplitude will always remain at the maximum the generator will output, usually around 8VAC.
- 6.2.2** Connect one meter to the output. Connect another meter to generator to watch the input voltage as it is being applied. It should hold steady while being input to card. With generator off, connect to input, turn generator on and at 2KHz, the output should be 1.13VAC. Adjust frequency to 20KHz and output should fall to 1.10VAC. All voltages should be within (+-10%) of these figures.
- | | | |
|--------------|----------------------|-----------------------|
| 6.2.3 | <u>INPUTS</u> | <u>OUTPUTS</u> |
| | TB1-1 & 2 | JR5 - 1 & 9 |
| | TB1- 3 & 4 | JR5 - 3 & 11 |
| | TB1- 5 & 6 | JR5 - 6 & 13 |
| | TB1- 7 & 8 | JR5 - 8 & 15 |
- 6.2.4** Verify a short between JR1 – 2, 3, 6, 8, 15, 16, 17, 21 and 22, (< 2 ohms)
- 6.2.5** Verify ID chips using the chip reader program.

6.3 ***TEST COMPLETE ***

7. NOTES

- 7.1** None at this time.

8. ATTACHMENTS

- 8.1** None at this time.