



GE Energy

Functional Testing Specification

Parts & Repair Services
Louisville, KY

LOU-GED-IS200TAMB

Test Procedure for IS200TAMBH1ABB

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A	Initial release	Steve Pharris	12/30/09
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DATE 12/30/09	DATE	DATE	DATE 12/30/2009

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1. SCOPE

1.1 This is a functional testing procedure for an IS200TAMBH1ABB.

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		Fluke 87 DMM (or Equivalent)
1		Tenma Dual Power Supply
1		Fluke 715 Calibrator

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6. TESTING PROCESS

6.1 Setup

- 6.1.1 Remove all jumpers
- 6.1.2 Set both outputs of power supply to 28VDC
- 6.1.3 Connect COM to TB1-1 (This is PCOM)
- 6.1.4 Connect +28VDC to JA1-1
- 6.1.5 Connect –28VDC to JA1-20
- 6.1.6 Apply power to card

6.2 Testing Procedure

- 6.2.1 Verify 0VDC at JB1-2 and JB1-4
- 6.2.2 Verify +24VDC at the following points.

TB1-2
TB1-8
TB1-12
TB1-18
TB1-22
TB2-26
TB2-32
TB2-36
TB2-42

- 6.2.3 Verify –24VDC at the following points

TB1-4
TB1-10
TB1-14
TB1-20
TB1-24
TB2-28
TB2-34
TB2-38
TB2-44

Using dedicated 5VDC supply from dual power supply for the 5VDC until told to use different 5VDC source.

- 6.2.4 Connect COM from 5V supply to JA1-36 (this is DCOM)

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- 6.2.5 Connect 5VDC to JA1-4
- 6.2.6 Verify JB1-4 = -13.3VDC
- 6.2.7 Move 5VDC to JA1-3
- 6.2.8 Verify JB1-2 = 13.3VDC
- 6.2.9 Set JP1 to PCOM
- 6.2.10 Verify JB1-2 = 12.7VDC
- 6.2.11 Set JP1 to OPEN
- 6.2.12 Move 5VDC to JA1-26
- 6.2.13 Set JP2 to VIN
- 6.2.14 Verify JB1-3 = 24VDC
- 6.2.15 Verify JB1-22 = 24VDC
- 6.2.16 Verify TB1-5 = 24VDC
- 6.2.17 Using fluke calibrator apply 5VDC to JB1-6 with respect to PCOM
- 6.2.18 Verify BNC1 = 5VDC
- 6.2.19 These cards consist of 9 identical circuits. Continue repeating steps 6.2.5-6.2.18 using table below for reference. **Be sure to add jumpers at the correct times.**

+5VDC (ref DCOM)	+5VDC (ref PCOM)	Output	Jumper
JA1-6		JB1-4 (- output)	
JA1-5		JB1-2 (+ output)	JP3
JA1-27		JB1-5, JB1-24, TB1-9	JP4
	JB1-25	BNC2	
JA1-8		JB1-4 (- output)	
JA1-7		JB1-2 (+ output)	JP5
JA1-28		JB1-7, JB1-26, TB1-15	JP6
	JB1-8	BNC3	
JA1-10		JB1-4 (- output)	
JA1-9		JB1-2 (+ output)	JP7
JA1-29		JB1-9, JB1-28, TB1-19	JP8
	JB1-27	BNC4	
JA1-12		JB1-4 (- output)	
JA1-11		JB1-2 (+ output)	JP9
JA1-30		JB1-4, JB1-30, TB1-23	JP10
	JB1-10	BNC5	

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JA1-14		JB1-4 (- output)	
JA1-13		JB1-2 (+ output)	JP11
JA1-31		JB1-13,JB1-32,TB2-29	JP12
	JB1-29	BNC6	
JA1-16		JB1-4 (- output)	
JA1-15		JB1-2 (+ output)	JP13
JA1-32		JB1-15,JB1-34,TB2-33	JP14
	JB1-12	BNC7	
JA1-23		JB1-4 (- output)	
JA1-22		JB1-2 (+ output)	JP15
JA1-33		JB1-16,JB1-35,TB2-39	JP16
	JB1-31	BNC8	
JA1-25		JB1-4 (- output)	
JA1-24		JB1-2 (+ output)	JP17
JA1-34		JB1-17,JB1-36,TB2-43	JP18
	JB1-14	BNC9	

6.3 ***TEST COMPLETE***

7. NOTES

7.1 None at this time.

8. ATTACHMENTS

8.1 None at this time.