g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-IS200STCIH6A**

Test Procedure for a IS200STCIH6A

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Scott Cash	3-7-2013
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PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
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DATE	**DATE**	**DATE**	**DATE**
3/7/2013			3/8/2013

1. SCOPE

1.1 This is a functional testing procedure for a Din Rail Contact 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
1	Fluke 87	Multi-meter
1	MY40 Insulation tester	Megger

6. Modifications/Upgrades

6.1 Check Orange Book for any modifications or upgrades.

7. Testing Process

7.1 Setup

7.1.1 Connect ground clip of megger to E1 or E2. Connect a smaller clip jumper to the red lead to make it easier to use.

7.2 Testing Procedure

7.2.1 Use the MY40 insulation tester to verify that the TVS diodes are not bad. They should be open at the 125 VDC setting and show resistance at the 250V setting. These are 170 diodes. Use the following table.

Red Lead	Black Lead	125 VDC Test Reading	250 VDC Test Reading
TB1-2	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-4	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-6	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-8	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-10	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-12	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-14	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-16	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-18	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-20	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-22	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-24	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-26	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-28	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-30	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-32	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-34	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-36	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-38	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-40	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-42	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-44	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-46	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
TB1-48	SCOM-E1\E2	Infinity	1725-1925 Meg ohms
JA1-30	SCOM-E1\E2	Infinity	1725-1925 Meg ohms

7.2.2 Perform the resistance checks in the following tables. Check the resistance of your meter leads so that the low resistance values don't appear to be failures.

TB1-1	TB1-17	Less than 1 ohm
TB1-1	TB1-15	Less than 1 ohm
TB1-1	TB1-13	Less than 1 ohm
TB1-1	TB1-11	Less than 1 ohm
TB1-1	TB1-9	Less than 1 ohm
TB1-1	TB1-7	Less than 1 ohm
TB1-1	TB1-5	Less than 1 ohm
TB1-1	TB1-3	Less than 1 ohm
TB1-1	TB1-37	Less than 1 ohm
TB1-1	TB1-39	Less than 1 ohm
TB1-1	TB1-41	Less than 1 ohm
TB1-1	TB1-43	Less than 1 ohm
TB1-1	TB1-45	Less than 1 ohm
TB1-1	TB1-47	Less than 1 ohm
TB1-1	TB1-49	Less than 1 ohm
TB1-1	TB1-50	Less than 1 ohm
TB1-1	JE1-1	Less than 1 ohm
TB1-1	JA1-32	886k ohms +\- 1%
TB1-2	JA1-3	468k ohms +\- 1%
TB1-4	JA1-4	468k ohms +\- 1%
TB1-6	JA1-5	468k ohms +\- 1%
TB1-8	JA1-6	468k ohms +\- 1%
TB1-10	JA1-7	468k ohms +\- 1%
TB1-12	JA1-8	468k ohms +\- 1%
TB1-14	JA1-9	468k ohms +\- 1%
TB1-16	JA1-10	468k ohms +\- 1%
TB1-18	JA1-11	468k ohms +\- 1%
TB1-20	JA1-12	468k ohms +\- 1%
TB1-22	JA1-13	468k ohms +\- 1%
TB1-24	JA1-14	468k ohms +\- 1%
TB1-26	JA1-15	468k ohms +\- 1%
TB1-28	JA1-16	468k ohms +\- 1%
TB1-30	JA1-22	468k ohms +\- 1%
TB1-32	JA1-23	468k ohms +\- 1%

TB1-34	JA1-24	468k ohms +\- 1%
TB1-36	JA1-25	468k ohms +\- 1%
TB1-38	JA1-26	468k ohms +\- 1%
TB1-40	JA1-27	468k ohms +\- 1%
TB1-42	JA1-28	468k ohms +\- 1%
TB1-44	JA1-29	468k ohms +\- 1%
TB1-46	JA1-34	468k ohms +\- 1%
TB1-48	JA1-35	468k ohms +\- 1%
TB1-51	TB1-52	Less than 1 ohm
TB1-51	JE1-3	Less than 1 ohm
TB1-51	JA1-30	Less than 1 ohm
TB1-19	TB1-21	Less than 1 ohm
TB1-19	TB1-23	Less than 1 ohm
TB1-19	TB1-25	Less than 1 ohm
TB1-19	TB1-27	Less than 1 ohm
TB1-19	TB1-29	Less than 1 ohm
TB1-19	TB1-31	Less than 1 ohm
TB1-19	TB1-33	Less than 1 ohm
TB1-19	TB1-35	Less than 1 ohm
E1	E2	Less than 1 ohm
TB1-52	JA1-30	Less than 1 ohm
JE1-1	TB1-49	Less than 1 ohm

7.2.3 Check the capacitors in the following table with the Fluke meter set to capacitor check.

C5 Resistor in location	2.68k ohms +/- 10%
C9 Resistor in location	2.68k ohms +/- 10%
C13 Resistor in location	2.68k ohms +/- 10%
C17	4.82uf +\- .02
C21	4.82uf +\- .02
C1	.093uf +\- .01
C2	4.82uf +\- .02
C6	4.82uf +\- .02
C10	4.82uf +\- .02
C14	4.82uf +\- .02
C18	4.82uf +\- .02
C22	4.82uf +\- .02
C24	4.82uf +\- .02
C4	4.82uf +\- .02
C8	4.82uf +\- .02
C12	4.82uf +\- .02
C16	4.82uf +\- .02
C20	4.82uf +\- .02
C3	4.82uf +\- .02
C7	4.82uf +\- .02
C11	4.82uf +\- .02
C15	4.82uf +\- .02
C19	4.82uf +\- .02
C23	4.82uf +\- .02
C25	4.82uf +\- .02
C27	.093uf +\- .01

7.2.4 Test the remaining resistors that could not be checked with connector measurements.

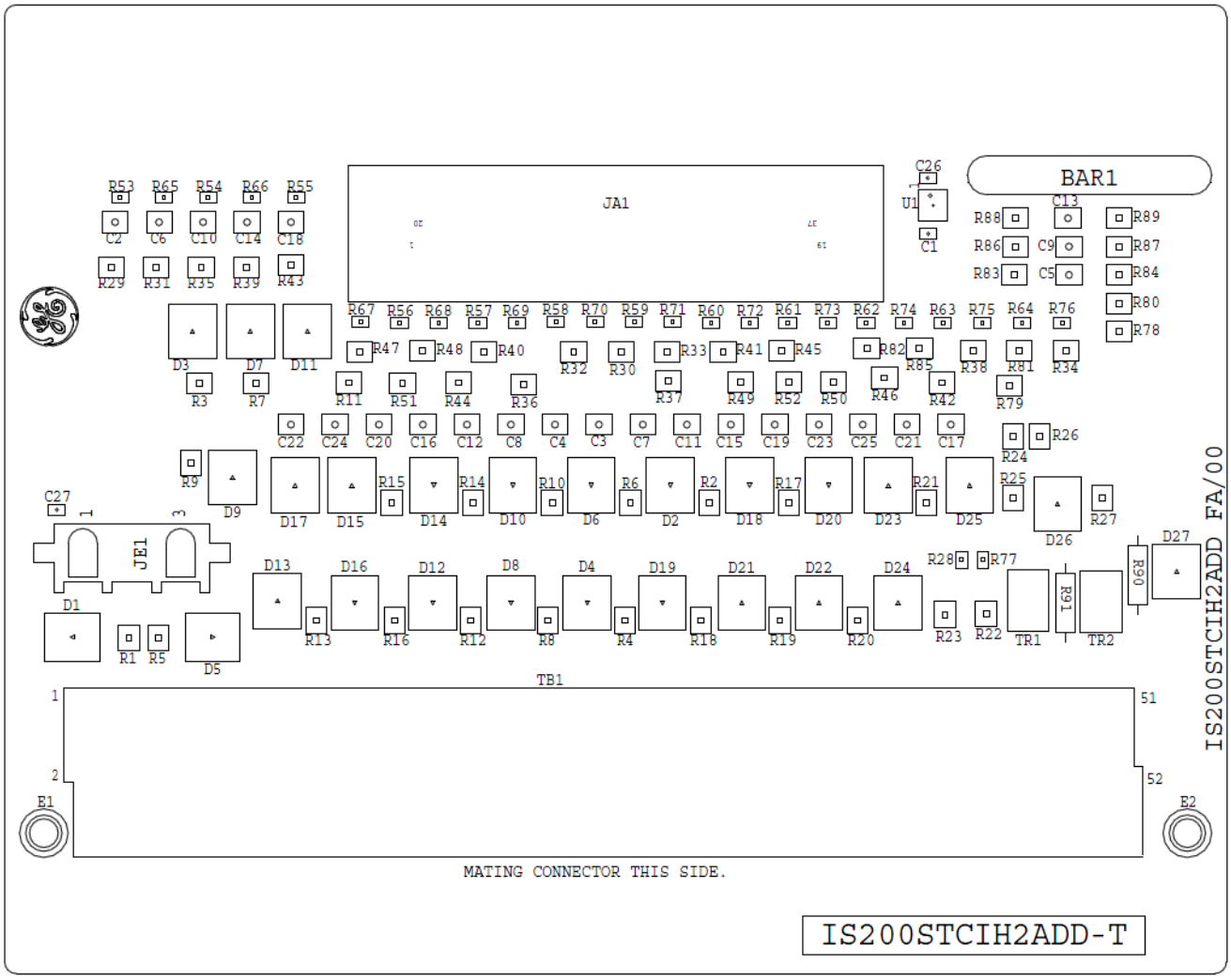
R83	2.68K ohm +\- 1%
R84	2.68K ohm +\- 1%
R86	2.68K ohm +\- 1%
R87	2.68K ohm +\- 1%
R88	2.68K ohm +\- 1%
R89	2.68K ohm +\- 1%
R22	15.56K ohm +\- 1%
R23	15.56K ohm +\- 1%
R24	15.56K ohm +\- 1%
R25	15.56K ohm +\- 1%
R26	15.56K ohm +\- 1%
R27	15.56K ohm +\- 1%
R28	444K ohms +\- 1%
R77	444K ohms +\- 1%

7.2.5 Read and verify the ID chip.

7.3 ***TEST COMPLETE ***

8. Notes

8.1 Parts locations below.



9. Attachments

9.1 None at this time.