g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-531X191RTBA**

Test Procedure for a 531X191RTBALG3 card

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Scott Cash	8/19/2010
B	Corrected a few typos	S. Cash	1/25/2013
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
Scott Cash			Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
8/19/2010			8/19/2010

1. SCOPE

1.1 This is a functional testing procedure for a 531X191RTBALG3 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 DMM (or Equivalent)
1		Switched AC source 115Vac(Variac)
1		Cable set for DS200STBA

6. TESTING PROCESS

6.1 Setup

6.1.1 Move all jumpers to 2-3 position.

6.1.2 You can us the cable set from the DS200STBA box for this test.

Note: To remain PPE compliant remove power via the switch when changing connections.

6.2 Testing Procedure

6.2.1 If all jumpers have been moved to 2-3 position and you have a switched 115Vac supply following the instructions in the following table.

6.2.2 **For PPE compliance remember to power down while changing connections or wear gloves.**

PERFORM THE FOLLOW CONTINUITY TESTS		
POINT A	**POINT B**	**READING**
OPTL1	RPL1	SHORT
OPTL1	RTB51	SHORT
OPTL2	RTB50	SHORT
RELAY K20 TESTING		
RPL3	RTB1	SHORT
RTB7	RTB6	SHORT
RTB4	RTB3	SHORT
RTB6	RTB5	OPEN
RTB3	RTB2	OPEN
APPLY AC FROM RTB50 TO RTB1		
RTB7	RTB6	OPEN
RTB4	RTB3	OPEN
RTB6	RTB5	SHORT
RTB3	RTB2	SHORT
Power Down Variac before proceeding		

RELAY K21 TESTING		
RPL5	RTB8	SHORT
RTB14	RTB13	SHORT
RTB13	RTB12	OPEN
RTB11	RTB10	SHORT
RTB10	RTB9	OPEN
APPLY AC FROM RTB50 TO RTB8		
RTB14	RTB13	OPEN
RTB13	RTB12	SHORT
RTB11	RTB10	OPEN
RTB10	RTB9	SHORT
Power Down Variac before proceeding		
RELAY K22 TESTING		
RPL7	RTB15	SHORT
RTB21	RTB20	SHORT
RTB20	RTB19	OPEN
RTB18	RTB17	SHORT
RTB17	RTB16	OPEN
APPLY AC FROM RTB50 TO RTB15		
RTB21	RTB20	OPEN
RTB20	RTB19	SHORT
RTB18	RTB17	OPEN
RTB17	RTB16	SHORT
Power Down Variac before proceeding		
RELAY K23 TESTING		
RTB22	RPL9	SHORT
RTB28	RTB27	SHORT
RTB27	RTB26	OPEN
RTB25	RTB24	SHORT
RTB24	RTB23	OPEN
APPLY AC FROM RTB50 TO RTB22		
RTB28	RTB27	OPEN
RTB27	RTB26	SHORT
RTB25	RTB24	OPEN
RTB24	RTB23	SHORT
Power Down Variac before proceeding		

RELAY K24 TESTING		
RTB29	RPL11	SHORT
RTB35	RTB34	SHORT
RTB34	RTB33	OPEN
RTB32	RTB31	SHORT
RTB31	RTB30	OPEN
APPLY AC FROM RTB50 TO RTB29		
RTB35	RTB34	OPEN
RTB34	RTB33	SHORT
RTB32	RTB31	OPEN
RTB31	RTB30	SHORT
Power Down Variac before proceeding		
RELAY K25 TESTING		
RTB36	RPL13	SHORT
RTB42	RTB41	SHORT
RTB41	RTB40	OPEN
RTB39	RTB38	SHORT
RTB38	RTB37	OPEN
APPLY AC FROM RB50 TO RTB36		
RTB42	RTB41	OPEN
RTB41	RTB40	SHORT
RTB39	RTB38	OPEN
RTB38	RTB37	SHORT
Power Down Variac before proceeding		
RELAY K26 TESTING		
RTB43	RPL15	SHORT
RTB49	RTB48	SHORT
RTB48	RTB47	OPEN
RTB46	RTB45	SHORT
RTB45	RTB44	OPEN
APPLY AC FROM RTB50 TO RTB43		
RTB49	RTB48	OPEN
RTB48	RTB47	SHORT
RTB46	RTB45	OPEN
RTB45	RTB44	SHORT
MOVE ALL JUMPERS BACK TO 1-2 POSITION ******TESTING COMPLETE******		

6.3 ***TEST COMPLETE ***

7. Notes and attachments

7.1 None at this time.