g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-DS3800NPRB-B**

Test Procedure for a DS3800NPRB

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	JC Wychulis	8/13/2008
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C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
JC Wychulis	S. Pharris		Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
8/13/2008	4/27/2009		8/20/2008

1. SCOPE

1.1 This is a functional testing procedure for a DS3800NPRB 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.

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 the local documented procedures 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		Rainbow box
1	H033772	DS3800 P/S Box
1	H033767	DS3800 Connector Box
1	H188505	Fluke 5500A Calibrator

6. TESTING PROCESS

6.1 Setup

6.1.1 Hook together the Rainbow box, P/S Box, and the connector Box.

6.1.2 Use the digital switches on box to make connections shown on chart below.

Channel	A0 PA37	A1 PA44	A2 PA63	A3 PA67	A4 PA65
VIBE0	0	0	0	0	1
VIBE1	0	1	0	0	1
VIBE2	0	0	1	0	1
VIBE3	0	1	1	0	1
VIBE4	0	0	0	1	1
POS0	1	0	0	0	1
POS1	1	1	0	0	1
POS2	1	0	1	0	1
POS3	1	1	1	0	1
POS4	1	0	0	1	1
POS5	0	1	0	1	1
POS6	1	1	0	1	1
POS7	0	0	1	1	1
P5	0	1	1	1	1
N24	1	0	1	1	1
ACOM	1	1	1	1	1

6.2 Testing Procedure

6.2.1 Power up the board and check each VIBEx & POSx channel as listed on the chart. Make sure proper output channel is selected using the switches.

6.2.2 Checking VIBEx inputs.

6.2.2.1 Input a 3V P-P 100Hz Square Wave into one circuit at a time and check the output at +PA78. Be sure to change VIBEx switch settings as you go (see switch settings in setup section of this procedure).

Switch Settings	Inputs		Check Output +PA78 & TP9 (GRD)
VIBE0	JA1	JA2	Each circuit should be 10.1VDC
VIBE1	JA3	JA4	Each circuit should be 10.1VDC
VIBE2	JA5	JA6	Each circuit should be 10.1VDC
VIBE3	JA7	JA8	Each circuit should be 10.1VDC
VIBE4	JA9	JA10	Each circuit should be 10.1VDC

6.2.3 Checking POSx inputs.

6.2.3.1 Input –16VDC into one circuit at a time and check the output at +PA78. Be sure to change POSx switch settings as you go (see switch settings in setup section of this procedure).

Switch Settings	Inputs		Check Output +PA78 & TP9 (GRD)
	-16VDC	Ground	
POS0	JA1	JA2	Each circuit should be -8VDC
POS1	JA3	JA4	Each circuit should be -8VDC
POS2	JA5	JA6	Each circuit should be -8VDC
POS3	JA7	JA8	Each circuit should be -8VDC
POS4	JA9	JA10	Each circuit should be -8VDC
POS5	JA11	JA12	Each circuit should be -8VDC
POS6	JA13	JA14	Each circuit should be -8VDC
POS7	JA15	JA16	Each circuit should be -8VDC

6.2.4 N24 selection will only read about 8VDC, which is correct.

6.3 ***TEST COMPLETE ***

7. NOTES

7.1 None

8. ATTACHMENTS

8.1 None