g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-DS3800NTIA**

Test Procedure for a Tach Interface Card

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DATE	**DATE**	**DATE**	**DATE**
3/31/2010			4/2/2010

1. SCOPE

1.1 This is a functional testing procedure for a 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)
2		Power supplies
1		Rainbow box
1		DS3800 P/S Box
1		DS3800 connector box

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6. TESTING PROCESS

6.1 Setup

6.1.1 Connect the rainbow box, 3800P/s box and connector box together

6.1.2 Connect switches on connector box PA19 to SW81, PA8 to SW82, PA6 to SW83, PA32 to SW84, PA20 to SW85, PA12 to SW86, and PA26 to SW87.

6.2 Testing Procedure

6.2.1 Power up board.

6.2.2 Check PA18 for 12.5 V (+/- .5VDC) and PA29 for a logic low.

6.2.3 Take PA30 to COM and make sure the IMOK light is on and then disconnect.

6.2.4 Make sure jumpers are on DIF and check the SING pins for 6V (+/- .5VDC).

6.2.5 Set the switches per the following table and check the PA points for proper values.

SW84	SW85	SW87	PA2	PA4
L	L	L	H	L
Toggle	H	H	L	H
Toggle	H	L	H	L

6.2.6 Set the switches up as in following table.

6.2.7 Check PA34 and PA36 for the proper values. The other columns are to aid in troubleshooting.

SW84	SW85	SW86	DS1	DS2	X1	X2	X4	PA34	PA36
L	L	L	L	L	H	H	L	H	L
H	H	L	H	L	H	H	L	H	L
H	L	H	L	H	L	H	H	L	L
T	H	H	H	H	H	H	L	H	H
L	H	H	L	H	L	H	L	L	H
H	T	H	L	H	L	L	H	H	H

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6.2.8 OP AMPS

6.2.8.1 Connect 2V to PA39 and PA42.

6.2.8.2 Power supplies will be connected to PA37 & PA35 and should be set to 0VDC.

6.2.8.3 Turn power off and then back on and adjust the power supplies to the table below. This table is used to set and check voltages.

PA37	PA35	SW81	SW85	SW86	PA34 (Output)
0	0	L	L	L	H
0	0	T	L	L	H
2.5V	0	T	L	L	H
2.5V	2.5V	T	L	L	H
0	2.5V	T	L	L	L

6.3 ***TEST COMPLETE ***

7. NOTES

7.1 None at this time

8. ATTACHMENTS

8.1 None at this time

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