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GE Energy

Functional Testing Specification

*Parts & Repair Services
Louisville, KY*

LOU-GED-DS3800NOCA

Test Procedure for a DS3800NOCA

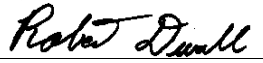
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DATE 11/02/09	DATE 11/30/2012	DATE	DATE 11/4/09

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1. SCOPE

1.1 This is a functional testing procedure for a DS3800NOCA.

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 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 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		DS3800 Power Supply
1		DS3800 Connector Box
1		Tenma Dual Power Supply
1		Resistor Assembly for NOCA cards

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6. TESTING PROCESS

6.1 Setup

6.1.1 Connect resistor assembly to DB as noted on connections

6.1.2 Make the following connections

PA1-PA9

PA80-+15VDC

PA70-+5VDC

PA50- -15VDC

6.2 Testing Procedure

6.2.1 Apply power to UUT

6.2.2 Verify IMOK, OLB, OCB, OCA, and OLA LED's illuminate

6.2.3 Toggle SW1

6.2.4 Verify OLB, OCB, OCA, and OLA LED's turn off

6.2.5 Verify IMOK LED remains illuminated

6.2.6 Set power supply for 7VDC

6.2.7 Apply 7VDC to PA36

6.2.8 Verify OCA illuminates and IMOK turns off

6.2.9 Decrease voltage at PA36 to 5VDC

6.2.10 Toggle SW1

6.2.11 Verify OCA turns off and IMOK illuminates

6.2.12 Wait for approx 2-3 minutes (see notes)

6.2.13 Verify OLA LED illuminates

6.2.14 Remove 5VDC from PA36

6.2.15 Cycle power to UUT

6.2.16 Toggle SW1 to clear all errors

6.2.17 Apply 7VDC to PA66

6.2.18 Verify OCB illuminates and IMOK turns off

6.2.19 Decrease voltage at PA66 to 5VDC

6.2.20 Toggle SW1

6.2.21 Verify OCB turns off and IMOK illuminates

6.2.22 Wait for approx 2-3 minutes (see notes)

6.2.23 Verify OLB LED illuminates

6.2.24 Remove 5VDC from PA66

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- 6.2.25 Cycle power to UUT
- 6.2.26 Toggle SW1 to clear all errors
- 6.2.27 Set power supply to 0VDC and connect to PA15
- 6.2.28 Slowly increase voltage at PA15
- 6.2.29 Verify NEQ LED illuminates at approx 3VDC
- 6.2.30 Decrease voltage to 0VDC
- 6.2.31 Toggle SW1
- 6.2.32 Verify NEQ LED turns off
- 6.2.33 Move connection at PA15 to PA16
- 6.2.34 Slowly increase voltage at PA16
- 6.2.35 Verify NEQ LED illuminates at approx 3VDC
- 6.2.36 Decrease voltage to 0VDC
- 6.2.37 Toggle SW1
- 6.2.38 Verify NEQ LED turns off
- 6.2.39 Apply BUS or Operational power to the card for a period of 100 hours.
- 6.2.40 Re-test card while warm using the above procedure.

6.3 *TEST COMPLETE*****

7. NOTES

- 7.1 OLA and OLB are timing circuits. With 5VDC applied to the proper input the fault detector will trip after 2-3 minutes.

8. ATTACHMENTS

- 8.1 None at this time.