g GE Industrial Systems	**Functional Testing Specification**
Renewal Services ***Louisville,KY***	**LOU–GED-DS3800NPSL**

Test Procedure for DS3800NPSL

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	John Wychulis	08/22/02
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C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
John Wychulis			Robert Dwall
DATE	**DATE**	**DATE**	**DATE**
08/22/02			09/03/02

Functional test procedure for a Card

1. SCOPE

1.1 This is a functional testing procedure for a DS3800NPSL Power Supply 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

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 or cracked
  - **4.2.1.2** Terminal strips / connectors broken or cracked
  - **4.2.1.3** Loose wires
  - **4.2.1.4** Components visually damaged
  - **4.2.1.5** Capacitors leaking
  - **4.2.1.6** Solder joints damaged or cold
  - **4.2.1.7** Circuit board burned or de-laminated
  - **4.2.1.8** Printed wire runs 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 85 DMM (or Equivalent)
1	HO33772	DS3800 Power Supply
1		NRTB Test Fixture

6. TESTING PROCESS

6.1 Setup

6.1.1 Connect power supply to test fixture

Note:

6.2 Testing Procedure

6.2.1 Install the NPSL board in the test fixture.Turn on power supply

6.2.2 NPSL –measure across C3 for 28v(24v)-Check to see if light is on. NRTB—measure the caps below the pots for the plus and minus 15 v supplies

6.3 ***TEST COMPLETE ***

7. NOTES

9.0 NPSL TEST INSTRUCTIONS

9.1 SCOPE

THE FOLLOWING DESCRIBES THE SETUP AND TEST PROCEDURE FOR THE PWB DS3800NPSL. THIS TEST APPLIES TO THE FOLLOWING VERSIONS:
IA1A

9.2 SPECIAL TEST EQUIPMENT

METER USED FOR MEASUREMENTS SHOULD MEASURE TRUE RMS

9.3 POWER SUPPLY REQUIREMENTS

P28 PA75 (SET FOR ABOUT .2 AMP CURRENT LIMIT)
DCOM PA1, 43, 79

9.4 INITIAL SETUP

NONE

9.5 DAUGHTER BOARD

NONE

9.6 ELECTRICAL TEST

1. PRIOR TO APPLYING POWER INSPECT THE PWB AS FOLLOWS:
   A. VERIFY THAT THREE TRANSFORMERS ARE PRESENT AND THAT PINS 1, 2, AND 3 OF EACH TRANSFORMER ARE SOLDERED TO PADS LABELED 1, 2, AND 3 ON THE BOARD.
   B. VERIFY THAT Q1-4 ARE MOUNTED CORRECTLY.
2. APPLY POWER PER SECTION 9.3.
3. VERIFY A 20 +/- 4 KHZ SIGNAL AT U1-3. THE PULSE SHOULD BE A POSITIVE PULSE WITH AN AMPLITUDE OF ABOUT 3 VOLTS AND A DURATION OF ABOUT 200 NANOSEC. (VOLTAGE AMPLITUDE AND PULSE DURATION NOT VERY CRITICAL.
4. VERIFY THAT THE VOLTAGE MEASURED BETWEEN THE COLLECTOR (CASE) OF Q2 TO THE COLLECTOR OF Q4 IS 52 +/- 6 VRMS.
5. VERIFY THAT CR39 IS ON.

REV. 1	REV. 4	REV. 7	PRINTS TO DL109 PRI	ENGINEER	GENERAL ELECTRIC	Test Specifications
REV. 2	REV. 5	ISSUED 3/10/83				
REV. 3	REV. 6	MADE BY R. Vanderpool			DSO SALEM, VA. U.S.A.	DS 3 8 0 0 N P S L CONT. ON SH. 9BA SH. NO. 9AA

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6. VERIFY THAT THE FOLLOWING GROUPS OF PINS CONSTITUTE ISOLATED +/- 15 VOLT POWER SUPPLIES. REFERENCED TO THE ASSOCIATED COM THE P15 AND N15 MAGNITUDE SHOULD BE 15.0 +/- .3 VOLTS.

GROUP	P15	COM	N15
0	PA52	PA54	PA50
1	PA44	PA42	PA38
2	PA22	PA20	PA18
3	PA12	PA10	PA8
4	PA64	PA62	PA60
5	PA4	PA6	PA2
6	PA32	PA34	PA30
7	PA74	PA72	PA70

END OF TEST

REV. 1	REV. 4	REV. 7	PRINTS TO DL109 PRI	ENGINEER	GENERAL ELECTRIC DSO SALEM, VA. U.S.A.	Test Specifications
REV. 2	REV. 5	ISSUED 3/10/83				DS 3800 N P S L
REV. 3	REV. 6	MADE BY R. Vanderpool				CONT. ON SH. F1 SH. NO. 9BA

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CARS

8. Oscilloscope Verification Examples:

Fig. 1

Fig. 2