g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-DS3800HLNC**

Test Procedure for a DS3800HLNC card

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Transferred from paper to electronic format	J. Wychulis	7/15/2011
B			
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
J. Wychulis			Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
7/15/2011			7/15/2011

1. SCOPE

1.1 This is a functional testing procedure for a DS3800HLNC.

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		FVE Module
1		See equipment section in the following page scanned test

6. Testing Process

6.1 Page 1 of scanned HLNC instruction

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9.0   HLNC.FUN FUNCTIONAL TEST INSTRUCTIONS
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9.1   SCOPE
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      THIS DOCUMENT DESCRIBES THE SETUP AND FUNCTIONAL TEST PROCEDURE FOR
      PWB DS3800HLNC. PRIOR TO PERFORMING THIS TEST, THE PWB SHOULD HAVE
      PASSED TEST ON THE 2270.

9.2   SPECIAL TEST EQUIPMENT
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      1.  FUNCTIONAL TEST MODULE: FVE

      2.  TEST SUPPORT CARDS AND SETUP.  (NOTE: HLNC IN 2D OR 2F OR BOTH
          CAN BE BOARD UNDER TEST.  USE SAME PROCEDURE FOR TESTING EITHER
          ONE BOARD OR TWO BOARDS AT A TIME.)

          SLOT 2B      HMPJ     ROM SET "SD_60_MONITOR_RAM_TE"

          SLOT 2D      HLNC     PROM "PSP3815PLNC01AB" IN SOCKET U27
                                PROM "PSP3815PLNC02AB" IN SOCKET U26
                                J1-J3,J5-J9      "F"
                                J4               "T"
                                J10-J13          "A"

          SLOT 2C      HLND     J1               "T"
                                J2-J8            "F"
                                J9               IN

          SLOT 2F      HLNC     PROM "PSP3815PLNC01AB" IN SOCKET U27
                                PROM "PSP3815PLNC02AB" IN SOCKET U26
                                J1-J3,J6-J9      "F"
                                J4,J5            "T"
                                J10-J13          "A"

          SLOT 2E      HLND     J1,J2            "T"
                                J3-J8            "F"
                                J9               IN

                       HMAC#1   JA1-JA3          "T"
                                JB1-JB3          "T"
                                J5B,D            "GND"
                                J5C,E            OPEN

                       HMAC#2   JA1-JA3          "T"
                                JB1-JB3          "T"
                                J5B,D            "GND"
                                J5C,E            OPEN

9.3   POWER SUPPLY REQUIREMENTS
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      THIS TEST IS WRITTEN ASSUMING THE USE OF POWER SUPPLY TYPE
      DS3820PSLA1A1A.

9.4   INITIAL SETUP
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      1.  PLUG CARDS IN MODULE PER SECTION 9.2

      2.  CABLE INTERCONNECTIONS.
          CABLE TYPE           FROM                TO
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6.2 Page 2 of scanned HLNC instruction

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            POWER CABLE          FYE-JA              PS-JA
            POWER CABLE          HMAC#1-JG           PS-JF
            POWER CABLE          HMAC#2-JG           PS-JE
            20 PIN RIBBON        HLND 2C-JA          HMAC#1-JA
            20 PIN RIBBON        HLND 2E-JA          HMAC#2-JA
            50 PIN RIBBON        HLNC 2D             HLNC 2F
            50 PIN RIBBON        HLND 2E             HLNC 2F
            THMAX CABLE          HMAC#2-JE           HMAC#1-JB
            THMAX CABLE          HMAC#1-JE           HMAC#2-JB
          * RS232 CABLE          COMPUTER TERM.      HMPJ SLOT 2B

        * USE NULL MODEM (DS3800HMMA) ON HMPJ END OF CABLE.
          JUMPER IN SPDE POSITION, JA CONNECTOR CONNECTED TO HMPJ.

5.5     TEST DEFINITIONS AND SPECIAL NOTES
        ----------------------------------
        NONE

5.6     TEST PROCEDURE  Each HLND connected to a HMAC
        --------------  Put HLNA in 2D (2F+2E connected) (2D+2C connected)
                        HLNC                HMPG = slot 2B
        1.  APPLY POWER.

        2.  AFTER CR2 COMES ON ON THE HMPJ, TYPE "BB" (HMPJ.)

        3.  TYPE "SM4000," (ADDA-)  SM4000, A55A-7FF7

        4.  TYPE "7FF7" THEN (RETURN) AND WATCH FOR THE FOLLOWING
            TO OCCUR AT THE HLNC IN SLOT 2D.
                - IMOK LED ON (AFTER ABOUT 10 SECONDS).
                - DIAG LED ON FOR ABOUT 5 SECONDS AND THEN GOES OUT.
                - AFTER DIAG LED GOES OUT, CONFIG LED COMES ON AND BLINKS.
                - IMOK LED REMAINS ON

        5.  TYPE "SMC000," (ADDA)  SC4000, A55A-7FF7

        6.  TYPE "7FF7" THEN (RETURN) AND THEN VERIFY THAT AFTER APPROXIMATEL
            5 SECONDS THE IMOK LED'S ON BOTH HLNC'S ARE ON.  (OTHER HLNC LED'S
            OFF)

        7.  REMOVE POWER.

        8.  IF CARDS CAME INTO TEST WITHOUT TEST ROMS THEN REMOVE TEST
                PROM FROM HLNC UNDER TEST (SLOT 2C). (OR BOTH HLNC'S
                IF TWO CARDS TESTED AT ONCE.)


        END OF TEST


        TEST INSTRUCTION REVISION STATUS
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REV     INIT    DESCRIPTION OF CHANGE                          DATE COMPLETE
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 0      REV     FIRST MADE FOR DS3800HLNE DATA                 28-APR-86
 1      REV     VARIOUS CHANGES PER DB                         08-MAY-86
 2      DB      REMOVED REFERENCES TO HLNE                     20-SEP-86
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*6.3 ***TEST COMPLETE ****

7. Attachments

7.1 None at this time