1. INTRODUCTORY DESCRIPTION

A. This procedure establishes the methods for testing a DS3800HMPF Processor card
B. Environmental ranges: 70 +/- 10 Deg. F. with 20-75% R.H.
C. Unit warm-up/stabilization period requirement: None
D. Personnel using this procedure are expected to have a high degree of confidence and expertise in related testing and calibration procedures.
E. Procedures not explained here are considered to be understood as common practice.

2. TEST EQUIPMENT VERIFICATION

A. Verify the accuracy of the standard(s) used in the repair/calibration process by evidence of recent calibration labeling affixed to the test equipment.
B. All measurement standards used in this procedure shall be traceable to the NATIONAL INSTITUTE of STANDARDS and TECHNOLOGY (N.I.S.T.) and shall have the accuracy, stability, range and resolution required for the intended use.
C. Unless otherwise specified, the collective uncertainty of the Measurement Standard(s) shall not exceed twenty five percent of the acceptable tolerance for each characteristic being calibrated.
D. All deviations shall be documented.

3. EQUIPMENT CLEANING

A. All equipment clean will be performed as instructed in the GE Renewal Services SOP Sec. 14.0

4. EQUIPMENT INSPECTION

A. The following criteria should be used as a guideline or basis for the inspection process of the this unit:
    1. Wires broken or cracked.
    2. Terminal strips / connectors broken or cracked.
    3. Loose wires.
    4. Components visually damaged.
    5. Capacitors leaking.
    6. Solder joint, cold or otherwise inadequate.
    7. Circuit board discolored or burned.
    8. Printed wire runs burned or damaged.

5. REVISION HISTORY

Revision	Date	Reason for Revision
A	6/27/01	Copied Procedure from Salem Master test book to local procedure. Added oven heating of card and overnight testing.
B	6/30/01	Loop Testing was missed when copied over from hard copy form. This step was added due to possible stress failures at customer site.
C		
D		
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F		
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K		

6. REFERENCE DOCUMENTATION

- Reference: GEK
- Factory Procedure # FVMA Master Test Book

7. THEORY OF OPERATION

- Reference: GEK
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8. TEST EQUIPMENT TO BE USED

- H033740
- PSG304A9936AABMxxAB Test Firmware
- DS3800DMPC Test Card
- DS3800HRMA Test Card
- DS3800HXMA Test Card
- DS3800HITA Test Card
- DS3800HUMA Test Card
- 50 Pin Ribbon Cable
- 40 Pin Ribbon Cable
- Data Terminal w/null modem adapter cable

9. FINAL TEST AND OPERATION PROCESS

Initial Setup

HMPF Card – slot 2G

J1 (SIG) : [D], GND
J2 (TBUSS) : [L], E
J3 : [8K], 4K

U22 = PSG304A9936AABM03AB Test Firmware
U23 = PSG304A9936AABM01AB Test Firmware
U24 = PSG304A9936AABM01AB Test Firmware
U25 = PSG304A9936AABM02AB Test Firmware

HUMA Card – slot 2F

J4 Quad A=1 J4 Quad B=1
J3 Quad A=B J3 Quad B=A
J2 Quad A=B J2 Quad B=A
J1 Quad A=B J1 Quad B=A

U23,24,25,26 = 6264 (RAM)
U27,28,29,30 = X2816 (EEPROM)

JA = 304A8483G5
JB = 304A8483G2
J6 = 250
J5 = A

HRMA Card – slot 2E

J1=B J2=A J3=B J4=B J5=A J6=B J7=B J8=A J9=A
J10=B J11=B J12=A J13=A J14=A J15=A J16=A J17=A J18=A

HXMA Card – slot 1K

LAB5=T LAB6=T LAB7=T LAB8=T FAB5=T FAB6=T LS1=T LS2=T LS3=T
LS4=T FS1=T FS2=T FS3=T FS4=T TIMF=INT TIML=INT TEST= IN

HXCA Card – slot 1H

J1= IN J2=T J4=T J6=T J3=F J5=F J7=11MHZ U26=PSP3815PXCA

HXRA Card – slot 1J

J1=Act J2-ST J3=DCOM J4=CS J5=CD

DXRA Card – slot 1J

J1=DMD J2-RUN J3 thru J10 =T J4=CS J5=CD S1 = UP

HITA Card – slot 2B

J1=B J2=B J3=A J4=B J5=B J6=LONG J7=OFF

Testing Procedure

- Connect the DS3800DMPC test card to the DS3800HMPF card to be tested.
- Insert the HMPF card set into Slot 2G of the test FVMA test rack.
- Insert the other required test cards into their appropriate slots for this test.
- Connect the HRMA to the DMPC using the 50 pin test cable.
- Connect the HXCA to the HXRA using the 40 pin test cable.
- Connect the data terminal to port JB of the HMPF card using a null model adapter cable.
- Turn On the DC power.
- Wait for the test menu to appear then type **HMPF** [Enter].

If garbage appears, check the position of J1.

- Test Time is approximately 30 seconds.
- "HMPF = PASSED" will be displayed for cards that pass the factory test. If failure codes appear then place the HMPF on an extender card and run Fluke tests to isolate problem and repair.

This step must PASS before continuing!

- Wait for the test menu to appear then type **HMPF TESTLOOP 10** [Enter].
- "HMPF = PASSED" will be displayed for cards that pass the factory test. If failure codes appear then place the HMPF on an extender card and run Fluke tests to isolate problem and repair.
- Cycle the DC power.
- Wait for the test menu to appear then type **HXMA** [Enter].
- Test Time is approximately 10 seconds.
- "HXMA = PASSED" will be displayed for cards that pass the factory test. If failure codes appear then place the HMPF on an extender card and run Fluke tests to isolate problem and repair.
- Cycle the DC power.
- Wait for the test menu to appear then type **HITA** [Enter].
- Test Time is approximately 5 seconds.

- "HITA = PASSED" will be displayed for cards that pass the factory test. If failure codes appear then place the HMPF on an extender card and run Fluke tests to isolate problem and repair.
- Remove card from test rack and place in dry-off oven for at least 1 hour to allow the card to heat up to 120 degrees Fahrenheit .
- Re-install the card into the test rack and run through the entire test procedure again.
- Wait for the test menu to appear then type **HMPF TESTLOOP 2000** [Enter].
- Test Time is approximately 17 hours.
- Remove card from test rack and remove test firmware.
- If the card under test arrived with firmware installed, compare the contents with a master copy from the library before re-installing. If a copy is not already on file, request a master copy from Salem.

THE TEST IS COMPLETE.

10. SPECIAL INFORMATION

TEST WRITTEN BY: Robert Duvall **DATE:** 06/30/01

TEST VERIFIED BY: Darren Johnson **DATE:** 06/30/01