g GE Energy	**Functional Testing Specification**
Inspection & Repair Services ***Louisville, KY***	**LOU-GEF-SINT1x**

Test Procedure for SINT1 Printed Circuit Board

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PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
Rick Diercks			Charlie Wade
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Functional test procedure for SINT1 Printed Circuit Board

1. SCOPE

1.1 This specification provides the Engineering Requirements for testing the SINT1 44A294554-G01

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 **GEK-71728** Diagnostic Software for 1050MC Controls
3.1.2 **GEK-45668** Computer Access Panel
3.1.3 **44C288574** Schematics

4. ENGINEERING REQUIREMENTS

4.1 Description
The SINT1 is a Serial Interface Local board for the 1050MCCM Control.

4.2 Equipment Cleaning
4.2.1 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.

4.3 Equipment Inspection
4.3.1 Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:
4.3.1.1 Wires broken or cracked
4.3.1.2 Terminal strips / connectors broken or cracked
4.3.1.3 Loose wires
4.3.1.4 Components visually damaged
4.3.1.5 Capacitors leaking
4.3.1.6 Solder joints damaged or cold
4.3.1.7 Circuit board burned or de-laminated
4.3.1.8 Printed wire runs burned or damaged

EQUIPMENT REQUIRED

4.4 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	GE 1050MCCM Control	CPU3 Model
1	GE Computer Access Panel	External Interface
1	Diagnostic Tape Specific to Control	Diagnostic Tape
1	Executive Tape Specific to Control	Executive Tape

5. TESTING PROCESS

5.1 Diagnostic Test

5.1.1 Configure the board' (C Closed O open) Dip Switch F5: BAUD 110 SW1 C, SW3 C, SW4 0, SW5 C, SW6 0, SW7 0, SW8 0, SW9 0, SW10 C. Dip Switch H15 SW1-SW6 C, SW7-SW10 0. Dip Switch A5 all O

5.1.2 Remove Shop SINT1 and install SINT1 to be tested.

5.1.3 Load the Diagnostics into the control.

5.1.3.1 Once the tape is fully loaded it will rewind back to the beginning (Before Test No. 1). The Display should show: Depress "Control OFF", then ON, follow this instruction at this time. If the Computer Access Panel is hooked up you will also have to hit the RUN switch to start the control's Diagnostic program.

5.1.4 Setup the control for testing.

5.1.4.1 Depress **"Option Stop"** button (Cycle Start and Option Stop push button will quit flashing).

5.1.4.2 Test All Board Test; depress "**Cycle Start "**to run test. If all pass go on to Mode One Test (Depress "**Next"** than enter 1 from keyboard. Run for 1 to 2 hours

** **If there is no Errors go on to Functional Test.**

5.2 Functional Test

5.2.1 Running COM4 in operation mole.

5.2.1.1 Load Executive Tape.

5.2.1.2 When Tape is loaded Depress Control **"ON"** to take control out of E-Stop, E-Stop light should go off and LED6 and LED7 on COM4 should come **"ON"**. Depress Emergence Stop LED6 and LED should turn **'OFF'** then Depress Control **"ON"** to take control out of E-Stop light should go "**OFF"** and LED6 and LED7 should come **"ON"**.

5.2.1.3 Shut down Control and remove SINT1 Board.

5.3 ***TEST COMPLETE ***

6. REFERENCES

6.1 None at this time