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GE Energy

Functional Testing Specification

*Inspection & Repair Services
Louisville, KY*

**LOU-GEF-550T-DAS1-A
Analog Spindle**

Test Procedure for DAS1 Spindle Card

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


REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	C. Wade	8/20/2007
B			
C			

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DATE 8/20/07	DATE	DATE	DATE 8/20/07

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Functional test procedure for DAS1 spindle card.

1. **SCOPE**

- 1.1 This specification provides the Engineering Requirements for testing DAS1 analog spindle 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.

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|-------|------------------|--------------------------|
| 3.1.1 | GEK-20289 | PWM Model II Drives |
| 3.1.2 | 44C283831 | PWMC3 & PWMC4 Schematics |

4. **ENGINEERING REQUIREMENTS**

4.1 Description

- 4.1.1 Analog spindle card used in the 550T 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

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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 550T Control	550 Control with PWM Drive Cart

5. TESTING PROCESS

5.1 Pre Test Requirement

- 5.1.1** Check and compare active circuits using a Huntron Tracker, if needed compare BUT (board under test) to a KGB (known good card).

5.2 Functionally testing a DAS1 spindle card in a 550T control.

- 5.2.1** Connect axis card to 550T control.
- 5.2.2** Verify control is running fine before testing BUT. Once verified removed KGB and install customer's card, should be slot #20. With customer's card in the control, turn on control.
- 5.2.3** Run part program test. Push cycle start to run test tape. Spindle drive should run smoothly.
- 5.2.4** Run test tape through five times monitoring spindle motor. If unit run smoothly without errors, shut down control.
- 5.2.5** End of test.

5.3 *TEST COMPLETE *****

6. REFERENCES