g GE Industrial Systems *Renewal Services* *Louisville,KY*	**Functional Testing Specification** **LOU–GED-193X276AA**

Test Procedure for a 193X276AAG01 Signal Isolator Card

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Functional test procedure for a 193X276AAG01 Card

1. SCOPE

1.1 This is a functional testing procedure for a Signal Isolator 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 224X378AA

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)

6. TESTING PROCESS

6.1 Setup

6.1.1 Apply +20VDC to Pin 31. Apply –20VDC to Pin 2. Commons to Pin 15,16.

Note: CARD HAS 2 SEPARATE CIRCUITS, AN ISOLATOR AND AN AMPLIFIER.

6.2 Testing Procedure

6.2.1 Apply 0-10VDC between Pins 22 and 27 and measure output at Pins 5 and 11. Isolator gain should be .90 to .96. (A little less than 1) in both polarities.
Disconnect inputs.

6.2.2 Apply 0-10VDC to Pin 9, com to Pin15. Output on Pin 3 and OUT terminal on card (to COM) should follow input except for polarity inversion. Reversing input polarity should invert output. Gain is approx 1:1.

6.3 ***TEST COMPLETE ***

7. NOTES

8. Oscilloscope Verification Examples:

Fig. 1

Fig. 2