

# ABB

## Functional Testing Specification

*Parts & Repair Services  
Louisville, KY*

**LOU-GED-IC3600SGDD1**

### Test Procedure for a

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Jimmy Morgan	5/15/19
B			
C			

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5/15/2019

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5/15/2019

**1. SCOPE**

1.1 This is a functional testing procedure for a IC3600SGDD1 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 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
2		Fluke 87 DMM (or Equivalent)

## 6. Modifications/Upgrades

6.1 Fill out if applicable.

## 7. Testing Process

### 7.1 Setup

7.1.1 Set up card per the attached figure 1 (see below)



### 7.2 Testing Procedure

7.2.1 Set SW2 to position A, and SW1 to position A. Turn R10 to max CCW.

7.2.1.1 Adjust R10 until the LED comes on, seal R10 with RTV.

7.2.2 Switch S1 from position A-E. The light should be on in all positions. (there may be a 5-10 second delay at each position)

7.2.2.1 Monitor PIN (10) and PIN (15) with 2 multimeters. PIN (10) should stay above 4VDC and PIN (15) should be under .8VDC for each position A-E.

7.2.3 Move SW2 to position B, move SW3 from position A-E. Light should be off for all positions.

7.2.3.1 Monitor PIN (10) and PIN (15) again. Pin (10) should be under .4VDC and pin (15) over 4VDC for all position A-E

7.2.4 Monitor output PIN (12) with multimeter. Set SW2 to mid-position. Jumper PIN (5) to ACOM. With R25 at center of range (count turns to find the center of range). Turn R40 full CW. PIN (12) should read -.464 V +- 50MV

7.2.5 Adjust R40 full CCW. PIN (12) should be +.464V +-50MV. Adjust R40 until PIN(12) reads 0Vdc.

7.2.6 Disconnect PIN (5) from ACOM.

7.2.7 Jumper GND (green jack on card) to P28Z (front of card). Monitor PIN (12) with respect to ACOM.

7.2.8 Adjust R25 for +30VDc at PIN (12)

7.2.9 Jumper GND(green jack on card) to N12Z (front of card). Adjust R40 for -13.5 Vdc at PIN (12).

**7.2.10 Note: Step 7.2.8 and 7.2.9 are interacting and should be repeated a couple of times to insure correct voltages.**

**7.3 Post Testing Burn-in**

**Required**    ☐ Yes    ☐ No



**Note:** All MARK I, II, & III Turbine related cards require a post testing burn-in of 100 hours.

**7.3.1** Apply BUS or Operational power to the card for a period of 100 hours.

**7.3.2** Re-test card while warm using the above procedure.

**7.4 \*\*\*TEST COMPLETE \*\*\***

**8. Notes**

**8.1** None at this time?

**9. Attachments**

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