g GE Energy	**Functional Testing Specification**
Parts & Repair Operations ***Louisville, KY***	**LOU-GED-IC3600PSZx**

Test Procedure for IC3600PSZD, IC3600PSZE and IC3600AOAA1 cards.

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A	Initial release	Cristyn Edlin	1/12/2012
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DATE	**DATE**	**DATE**	**DATE**
1/12/12			1/13/2012

1. SCOPE

1.1 This is a functional testing procedure for a 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 68A993273, IC 2219 (PSZx schematic), IC 2390 (AOAA schematic)

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 85 DMM (or Equivalent)
2		IC3600 Interface/Breakout boxes
1		Rainbow Breakout box
2		50VDC Supplies
1		28VDC Supply
1		10Kohm, 2 Watt Pot
1		250Kohm, 2 Watt Pot
1		22K, 2 Watt Resistor

6. SETUP

6.1 Using one of the box's built-in switches and a DMM set for Amps; build the following reference circuit on the Rainbow Breakout box with the DMM in series with the switch.

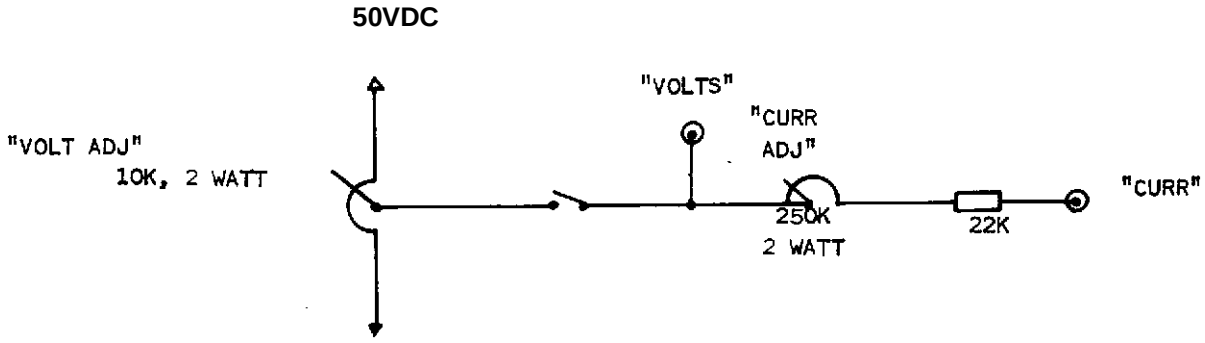

Figure 1

6.2 Connect the IC3600 Interface/Breakout box-**1** to the Rainbow Breakout box.

6.3 Leave the IC3600 Interface/Breakout box-**2** **NOT** connected to the Rainbow Breakout box.

6.4 Install the PSZx card into Interface box-**1**.

6.5 Install the AOAA card into Interface box-**2**.

6.6 Using the Interface boxes **1** and **2**, connect the PSZx card to the AOAA card in accordance with the following diagram.

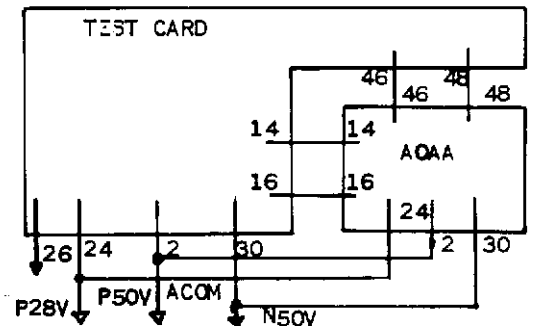

Figure 2

6.7 On the PSZx card, set R1 and R3 – R5 to their fully CCW positions.

6.8 Set R2 and R6 to their fully CW positions.

6.9 On the PSZx card, connect pin 20 to pin 32.

6.10 Connect the switches of the Rainbow box to following points of the PSZ card.

Table 1

Switch-A	**From**	**ACOM**	**To**	**Pin-40**
Switch-B	**From**	**Pin-3**	**To**	**Pin-5**
Switch-C	**From**	**Pin-3**	**To**	**Pin-22**

6.11 Set ALL switches to their opened positions (including switches A – C and the reference circuit's switch).

7. TEST PROCESS

7.1 Verify a capacitance of 5uF between pins 6 and 42 of the PSZ card.

7.2 Turn on the 50VDC, **-**50VDC and 28VDC supplies.

7.3 Reset the card by closing and then reopening Switch-A.

7.4 Verify 0VDC (+/-1.5mVCD) between ACOM and pin-46.

7.5 Apply a 1mA current reference from the +/-50VDC reference circuit to Pin-6.

7.6 Verify that Pin-46 decreased by no more than 25mVDC.

7.7 Close Switch-A.

7.8 Verify that Pin-46 measures **-**4.7VDC (+/-.5VDC).

7.9 Close Switch-B.

7.10 Verify that Pin-46 measures no more than **-.**7VDC.

7.11 Apply a **-**1mA current reference from the +/-50VDC reference circuit to Pin-6.

7.12 Verify that Pin-46 measures 4.7VDC (+/-.5VDC).

7.13 Close Switch-C.

7.14 Verify that Pin-46 measures no more than **.**7VDC.

7.15 Remove the current reference from Pin-6.

7.16 Open switches B and C.

7.17 Apply a 50VDC reference to Pin-36.

7.18 Verify that Pin-46 measures **-**.5VDC (+/-.01VDC).

7.19 Turn off all power supplies.

7.20 Remove the PSZx card from Interface box-**1.**

7.21 Jumper the saddle-clamps R41 and C46A.

7.22 Static Measurements:

7.22.1 Verify measurements in accordance with the following table.

Table 2

	JUMPER	METER LOCATION	OHMS MEASUREMENT ± 20%
	NONE	(31) TO (32)	1.8K
	R41	(4) TO (32)	100Ω
PSZE ONLY---	C46A	(34) TO (37)	ZERO
	NONE	(3) TO (46)	0 TO 5K (POT R1)
	NONE	(44) TO (48)	0 TO 20K (POT R2)
	NONE	(5) TO (24)	20K
	NONE	(20) TO (46)	0 TO 5K (POT 4)
	NONE	(22) TO (30)	20K
	NONE	(36) TO (37)	0 TO 1M (POT 6)
PSZD ONLY	C46A	(38) TO (37)	ZERO

7.23 Set R1 and R3 – R5 to their fully CCW positions.

7.24 Set R2 and R6 to their fully CW positions.

7.25 ***Test complete***

8. NOTES

8.1 Figure 1, Figure 2 and Table 2 were directly copied and pasted from document # 68A993273.

9. ATTACHMENTS

9.1 None at this time.