Test Procedure for an IS200WROBH1A Mark Vle Fuse Sense Board.

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1. **SCOPE**

    1.1   This is a functional testing procedure for an IS200WROBH1A Mark Vle Fuse Sense Board.

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)
1	*	Tenma Dual Output Power Supply
1	*	TDBS Test Card and Cable (box)

6. **TESTING PROCESS**

    6.1   **Setup**

    6.1.1   Do not apply power during setup process.

    6.1.2   Make sure Jumpers JP1 through JP6, the big blue jumpers, are installed on unit.

    6.1.3   Remove and verify the all Fuses are of the correct size, correct type, and not blown.

6.1.4 Attach IS200WROB card to be tested to IS200TDBS test card, located in marked box on shelves near the WIP shelves.

6.1.5 Connect test cable, in same box as TDBS test card, to correspondingly marked connectors on WROB card to be tested. Connect orange banana plug, marked "pos +" to +15 VDC and connect grey banana plug, marked "neg +" to 15 VDC return.

6.1.6 Connect + 28 VDC to JA1-2 on TDBS card and connect 28 VDC return to JA1-22 on TDBS card.

6.1.7 Using a pull-up resistor attached to + 5 VDC power supply connected to positive lead of Multimeter, set to measure DC Volts, connect positive lead of Multimeter to JA1-46 on TDBS card. Connect 5 VDC return to JA1-22 on TDBS card.

6.2 Testing Procedure

6.2.1 Apply power from the 28 VDC, 15 VDC, and 5 VDC power supplies. Multimeter should read logic high > +4.2 VDC.

6.2.2 Remove Fuse FU7. Multimeter should read a logic low < +1 VDC.

6.2.3 Replace Fuse FU7. Multimeter should read logic high > +4.2 VDC.

6.2.4 Remove Fuse FU1. Multimeter should read a logic low < +1 VDC.

6.2.5 Replace Fuse FU1. Multimeter should read logic high > +4.2 VDC.

6.2.6 Connect JA1-61 on TDBS card to JA1-22 on TDBS card.

6.2.7 Remove Fuse FU10. Multimeter should read a logic low < +1 VDC.

6.2.8 Replace Fuse FU10. Multimeter should read logic high > +4.2 VDC.

6.2.9 Remove Fuse FU4. Multimeter should read a logic low < +1 VDC.

6.2.10 Replace Fuse FU4. Multimeter should read logic high > +4.2 VDC.

6.2.11 Disconnect JA1-61 on TDBS card.

6.2.12 Move JA1-46 connection (step 6.1.5) to JA1-47.

6.2.13 Multimeter should read logic high > +4.2 VDC.

6.2.14 Remove Fuse FU8. Multimeter should read a logic low < +1 VDC.

6.2.15 Replace Fuse FU8. Multimeter should read logic high > +4.2 VDC.

6.2.16 Remove Fuse FU2. Multimeter should read a logic low < +1 VDC.

6.2.17 Replace Fuse FU2. Multimeter should read logic high > +4.2 VDC.

6.2.18 Connect JA1-61 on TDBS card to JA1-22 on TDBS card.

6.2.19 Remove Fuse FU11. Multimeter should read a logic low < +1 VDC.

6.2.20 Replace Fuse FU11. Multimeter should read logic high > +4.2 VDC.

6.2.21 Remove Fuse FU5. Multimeter should read a logic low < +1 VDC.

6.2.22 Replace Fuse FU5. Multimeter should read logic high > +4.2 VDC.

6.2.23 Disconnect JA1-61 on TDBS card.

6.2.24 Move JA1-47 connection (step 6.1.5) to JA1-48.

6.2.25 Multimeter should read logic high > +4.2 VDC.

6.2.26 Remove Fuse FU9. Multimeter should read a logic low < +1 VDC.

6.2.27 Replace Fuse FU9. Multimeter should read logic high > +4.2 VDC.

6.2.28 Remove Fuse FU3. Multimeter should read a logic low < +1 VDC.

6.2.29 Replace Fuse FU3. Multimeter should read logic high > +4.2 VDC.

6.2.30 Connect JA1-61 on TDBS card to JA1-22 on TDBS card.

6.2.31 Remove Fuse FU12. Multimeter should read a logic low < +1 VDC.

6.2.32 Replace Fuse FU12. Multimeter should read logic high > +4.2 VDC.

6.2.33 Remove Fuse FU6. Multimeter should read a logic low < +1 VDC.

6.2.34 Replace Fuse FU6. Multimeter should read logic high > +4.2 VDC.

6.2.35 Remove power from the 28 VDC, 15 VDC, and 5 VDC power supplies.

6.2.36 Remove all connections from WROB and TDBS cards.

6.3 CHIP ID: The ID chip needs to be read to confirm that it has been programmed properly. Take the card over to the CHIP ID pc located in the MARK VI area of the shop and select the correct revision of IS200WROB from the menu and follow the instructions given to you by the pc. When selecting which IS200WROB to use, you may see a 5G or 7G next to the number. This refers to the serial number and whether it has 5 or 7 digits in it. Select the proper one, as you will be expected to type this number into the system at a given point. When entering this data, be sure to use all CAPITAL LETTERS as lower case might cause it not to agree with what's programmed in the chip. If the particular revision you need to select doesn't have a 5G or 7G next to it, get it added before proceeding.

6.4 ***TEST COMPLETE ***

7. NOTES

7.1 None at this time.

8. ATTACHMENTS

8.1 None at this time.