PowerBoard Functionality Test

**System Name:** Tray 2 Mobo 2013 CSC/Comms 2.x

# **Aim:**

To test functionality of the newly built PowerBoard

# **Testers and Engineers:**

Cameron Brown

Yue Kang

Thien Nguyen

# **Relevant Drawings:**

Mobo.PcbDoc

Mobo.xls

Drawing3.pcbdoc

# **Equipment:**

* Tray 2 powerboard
* power supply
* digital multimeter
* soldering kit and iron

Add a diagram or picture here

# **Procedure:**

1. Solder wires at the 3V3\_bus1 and GND pin.
2. Connect the wires soldered to the power supply and set up the power supply at 3V, maximum current.
3. Using the multimeter (voltage test at 200mV display), use the positive (red) probe to find the joint with minimum voltage (ie. location of short circuit)
4. Remove the IC or resistor where the short circuit is present, then resolder if necessary. Check if the voltage across all joints are expected.

# **Results:**

(Add a diagram of results and results table here)

There were two shorts found and fixed on the motherboard.

The 0R resistor initially soldered in R18 (see document Mobo.xls) was removed, and when tested again, it was indicated that the short circuit was on the surface of one of the power monitor ICs.

By using the multimeter to find the minimum voltage, which was 40.2mV at the U3\_12 IC. The short was found in U3\_13, between pin4 and pin5. After the solder joints on this IC was fixed, there was no presence of the short circuit

# **Analysis:**

# **Conclusion:**

The board was tested to be able to function as expected after fixing the problems