Initial Electrical Test of Tray
(J:\glast\documents\Initial Tray E-Test Procedure.doc)

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In each step of this test, a certain result is expected. **The expected results are underlined** in the description below. If you find a result other than expected, stop the test immediately and report it to one of the GLAST staffs.

1. Setup
1.1 Turn on an HV source Keithley 2410 (or equivalent instrument).
1.2 Set the HV source as voltage source with current measurement.
1.3 Connect HV outputs of Keithley to probes: positive side to a steel probe with micro-manipulator, negative side with a handy probe for DVM.
1.4 Set output voltage to 1 V and current compliance to about 100 uA.
1.5 Output the voltage by pressing "ON" (or "Operate", depending on the instrument you are using).

2. Check a dead short to closeout
2.1 Touch the tray closeout with the steel probe.
2.2 Touch the tray closeout with the handy probe. **The current must reach its compliance.**
2.3 Touch bias pads on the Kapton sheet. **The current must stay less than 10 nA.** You should check at least 5 pads, one pad for each detector ladder.
2.4 Touch the GND strip on the Kapton sheet. **The current must stay less than 10 nA.**

3 Check a dead short to GND plane of Kapton sheet
3.1 Touch the GND strip of the Kapton sheet with the steel probe.
3.2 Touch the GND strip of the Kapton sheet with the handy probe. **The current must reach its compliance.**
3.3 Touch bias pads on the Kapton sheet. **The current must stay less than 10 nA.** You should check at least 5 pads, one pad for each detector ladder.
3.4 Touch the tray closeout. **The current must stay less than 10 nA.**

4 Check HV Rating of Kapton Sheet
4.1 Set the HV source voltage to 100 V.
4.2 Touch bias pads on the Kapton sheet. **The current must stay less than 50 nA.** You should check at least 5 pads, one pad for each detector ladder.
4.3 Set the HV source voltage to 1 V.

5 Test the other side of the tray
5.1 Repeat section 2 through 4 on the other side.
5.2 Update the tray database.