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Introduction

This page is for the ATLAS strips upgrade projects in SR1.

Strips Upgrade Facility

Equipments in B180CleanRoom have been moved to SR1, except the Helium leak detector and the CO2 blow-off system.

Single Module Test System

Below are the steps to run test on the single module system.

1. Check there is water in water cooling and turn on water cooling and vacuum pump.
2. Turn on power supply for HSIO and BCC (default voltage: 12V for HSIO and 4.5V for BCC).
3. Enable interlock and turn on LV/HV supply for single module when the temperature reaches lower than 12 °C (safe up to 30 °C).
4. Double click SCTDAQStavelet.cpp to run DAQ, there will be 3 windows: the ROOT session, BurstData, ScanData. In the BurstData window, select DCS->LV On (one channel) to turn on LV supply for single module (default current: 5.0A).
5. Select DCS->HV ramp up to ramp up HV (default voltage: 250V).
6. Select Capture-> Startup BCC V3(IDC) to capture BCC.
7. Select Capture-> iDelay Scan to optimize delay time for HSIO.
8. Select Test->Strobe delay to run strobe delay.
9. Select Test->3 point gain test to run 3 point gain test.

After test:

DCS->HV ramp down, DCS->LV off.

Turn off various power supplies.

Turn off water cooling and vacuum pump.

Recently, hybrid 0 of the module has a bonding problem (probably broken service bond to chip 64).

Stavelet Test System

Cooling, power supply, DAQ PC are not connected yet...

Below are the steps to run test on stavelets.

1. Check there is enough water in water cooling then turn on water cooling
2. Turn on power supply for HSIO. (On/Off then output button)
3. Enable interlock and turn on LV/HV supply for stavelet when the temperature reaches lower than 12 °C.
4. Check the configuration file correct for the setup (DCDC or SP).
5. Double click SCTDAQStavelet.cpp on desktop to run DAQ (you need to restart it whenever switching between stavelets), there will be 3 windows: the ROOT session, BurstData, ScanData. In the BurstData window, select DCS->LV On to turn on LV supply for stavelet.
6. Select DCS->HV ramp up to ramp up HV (you may need to manually change the range for HV supply).
7. Select Capture-> Startup BCC V3 (EOS) to capture BCC.
8. Select Capture-> iDelay Scan to optimize delay time for HSIO.
9. Select Test->Strobe delay to run strobe delay.
10. Select Test->3 point gain test to run 3 point gain test.

After test:

DCS->HV ramp down, DCS->LV off.

Turn off various power supplies.

Turn off water cooling.

Other infrastructure

Currently dry air and CO2 facility are in the other room of SR1...

Useful Links

- StripsUpgradeB180 - B180 Twiki
- StripsUpgradeDAQ - SCT Upgrade DAQ main page

Major updates:

-- ChenZhou - 22-Jul-2015

This topic: Sandbox > StripsUpgradeSR1

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