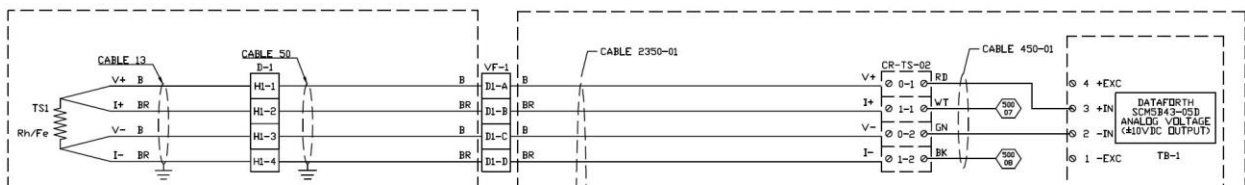


Summary

Hall A – SoLID Magnet Controls

- Continued working on Hall A 12-page AutoCAD drawing #0450 of temperature sensors' wiring diagram
- Revised drawing #2350 (temperature sensor cables)
- Modified first version of *Axial and Radial Supports – Experts* HMI screen
 - ★ Combined “Ramp Down Limits” and “Ramp Up Limits” inputs to a single “Controlled Ramp Limit” input since ramp up and down are the same
 - ★ Added colors to indicate status for Interlock Enable/Disable
- Started development of Cryo Control Reservoir instrumentation monitoring HMI screen



Temperature sensor wire drawing #0450. Shows connection of TS1 temperature sensor to signal conditioner.

Hall A – BigBite Shower Calorimeter

- Attached heat shrink and strain relief to remaining five of ten 34-contact coax ribbon cable to twisted-pair ribbon cables
- Retested eight of ten cables for shorts; found no problems
- Wrapped one of 64 blocks (~8% complete)
 - ★ Waiting on fabrication of templates by Hall A for cutting Mylar and Tedlar



Glass block being wrapped with Mylar.



Detector Support Group

Weekly Report, 2020-03-04

Hall A –GEM Gas System

- Researching I²C multiplexer PCB for Honeywell Zephyr mass flow sensors
 - ★ Current multiplexer version has four ports, new version will have eight
 - ★ Current version also uses RJ12 (telephone cable) connectors
 - Investigating if one telephone cable can handle the current to power the multiplexer
- Panel hardware and tubing order on hold until placement of panel firmly in place

Hall B Magnets Controls

- Studio 5000 v28 now starts up normally and can go online with the PLCs
 - ★ Problem resolved after a firewall exception was made by the computer center to the port CodeMeter uses
- Somehow clas12magnetpc was offline
 - ★ Changed BIOS setting to “Always On” for AC Power Recovery
- Verified clas12magnetpc is able to load PLC software and go online after computer center implemented fix of issues causing licensing problems

Hall B – RICH

- During checks of hall before closing for beam, RICH cooling panel’s regulator was adjusted resulting in a ~25 slm lower airflow to airflow 1
 - ★ Regulator set to previous setting and airflow 1 returned to normal value

Hall B - SVT

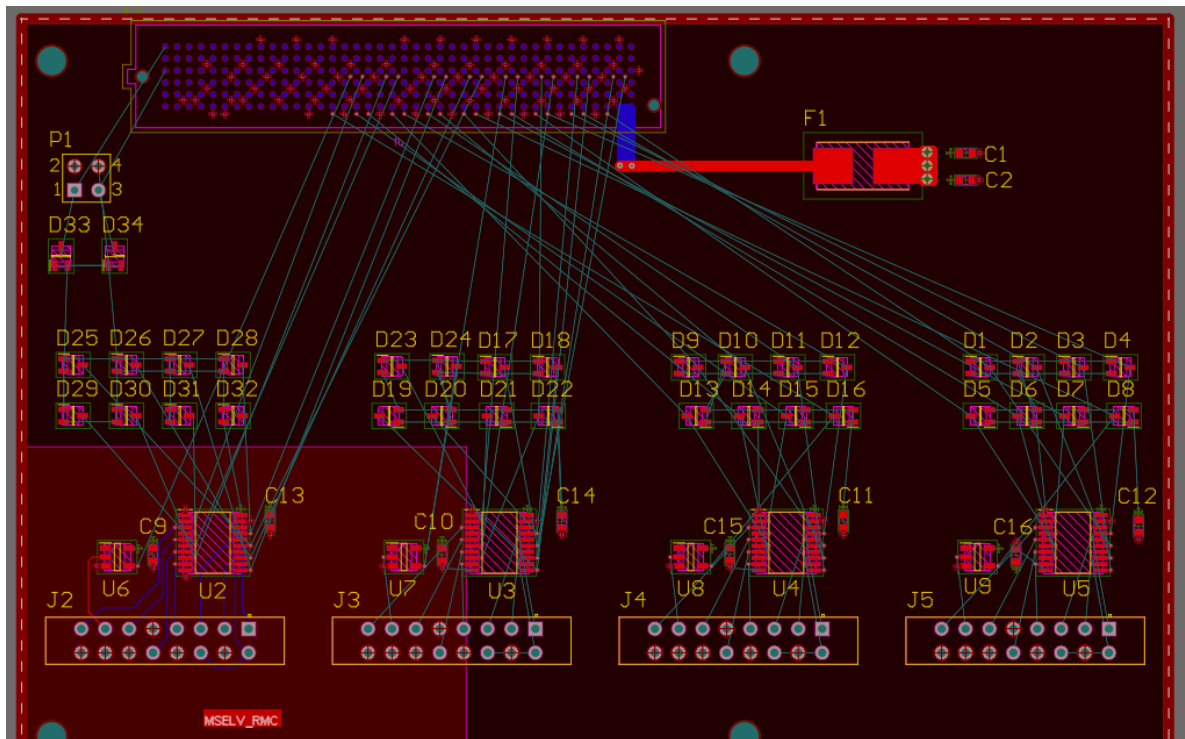
- Completed register test with the VXS Silicon Control Module (VSCM) on the old 2 Chip FSSR2 Test Board
 - ★ Register 16 fails on both chips; further investigation in progress
- Tested the reconfigured SVT Hardware Interlock System chassis hardware
 - ★ Override switches for Chiller and Mpod power supply interlocks reconnected and tested
 - ★ Verified interlock signals to chiller and Mpod power supplies
 - ★ Tested Panasonic water sensor controller and external sensor assembly
- Upgraded, installed, and tested Hardware Interlock System control software to LabVIEW version 2019
- Upgraded the 9035 cRIO processor firmware to version 7.0.0f1
- Rebuilt and tested the threshold configuration file

Hall C – CAEN HV Hardware Testing

- Continued with ramp up ramp down test with load
 - ★ Third, and final, pass on crate #3 in progress
- Wrote python program that combines all plotting programs into one
 - ★ Program automatically generates all plots and saves them to their respective files

DSG R&D – MSELV Chassis

- Generated simulation of Cernox, PT100, and Load Cells/Strain Gauges/Hall Sensors excitation circuits
 - ★ Simulation used to determine expected MSELV Chassis outputs for sbRIO self-test under development
- Developing RIO Mezzanine Card (RMC).



RMC PCB under development. The D1 – D34 components are barrier diodes and the lines represent net connections.

DSG R&D – RICH

- Designing hardware of RIO Mezzanine Card (RMC) for the interface between the sbRIO-9627 FPGA and the 24 dual-sensor temperature/humidity PCBs
 - ★ Design isolates FPGA RMC DIO bus from the ~100ft cable run to the detector with Texas Instruments PCA9515BDGKR dual bidirectional I²C repeater IC's

Engineering Division

- Beam Position Monitor PCB population
 - ★ Soldered 65 capacitors