

DSG-ECAL Controls Meeting

Date: February 2, 2023

Time: 9:00 – 10:20

Attendees: Aaron Brown, Imani Burton, Pablo Campero, Brian Eng, Tyler Lemon, Marc McMullen, Albert Shahinyan, Jennifer Williams

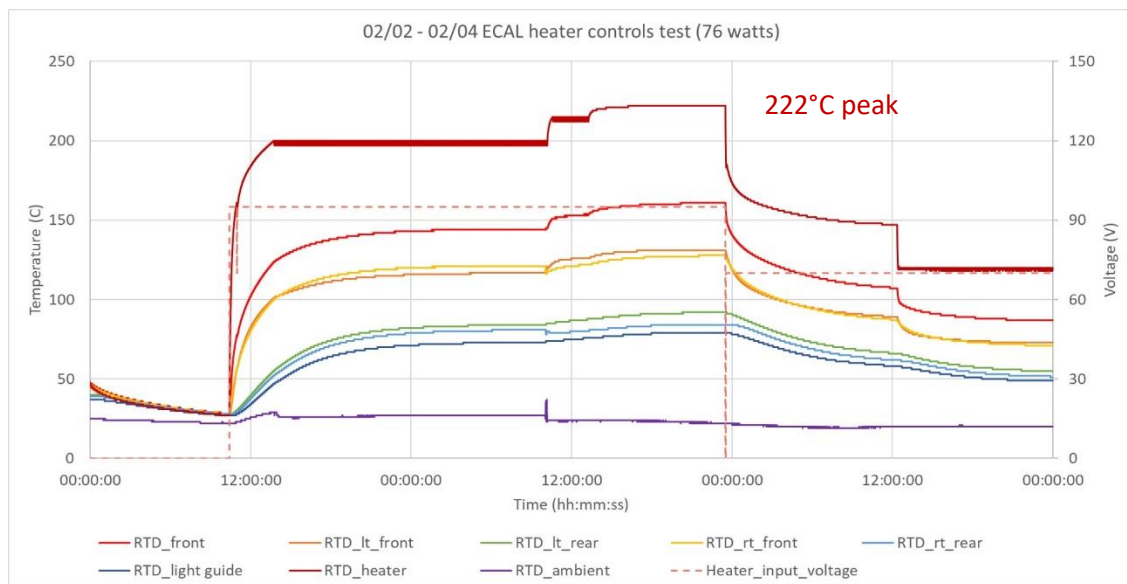
1. Heater controls test update

Marc McMullen

1. A presentation was given to update the status of the [heater controls functionality testing](#)
 - All instrumentation functioned properly
 - While applying 76 W, the heater temperature peaked at 150°C
2. A second test of the heater was conducted at 76 W from 02/02 to 02/04 (see plot below)
 - The supermodule was installed in an insulated enclosure of 1" thick mineral wool and a Teflon support



- The heater temperature peaked at 222°C



3. A test of the heater at 92 W was started on 02/06/2023
 - As of 02/07/2023 at 9:00 A.M., the heater temperature (**RTD_heater**) is greater than **225°C**

- DSG will monitor this test and update via the mailing list

2. Controls

Marc McMullen

1. Albert Shahinyan suggests that the temperature at the front of the crystals is limited to 3°C/min or less
 - The controls software will be modified to accommodate this
2. DSG will develop a procurement list for the full detector heater controls

3. Upcoming activity

DSG

1. Develop a diagram of the full detector system of heaters (188 units)
2. Purchase power supplies for testing ([LRS-450-48](#))
3. Change heater design
 - The size will be reduced from 5" x 5"
 - The tooling holes will be increased to aid in the alignment process
 - The resistance will be changed to reflect the segmentation of the system
 - The heater's RTD will be relocated so that it doesn't interfere with the supermodule handle
4. Develop controls for the six supermodule test
 - Modify the software and expand the power supply and relays
 - Develop remote monitoring with Phoebus and WEDM