

DSG-NPS R&D Meeting Minutes

Date: May 11, 2021

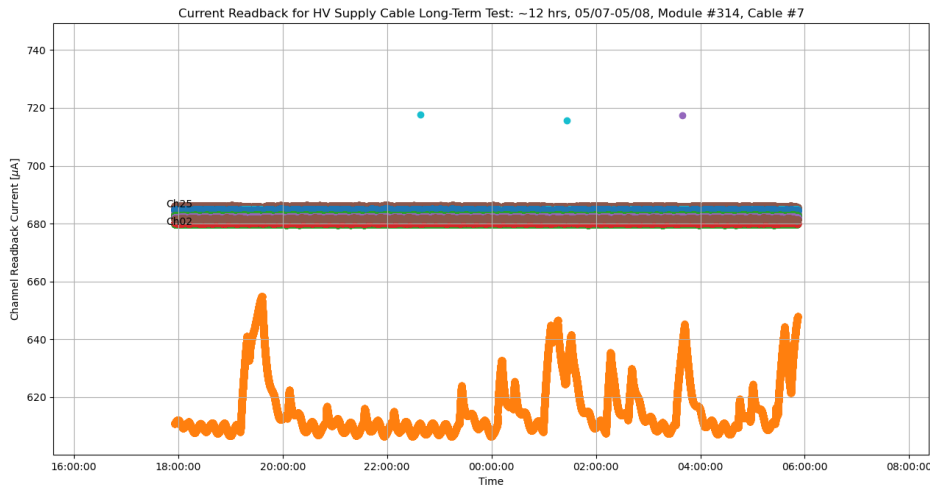
Time: 11:00AM – 12:00 PM

Attendees: Peter Bonneau, Aaron Brown, Brian Eng, Pablo Campero, George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran

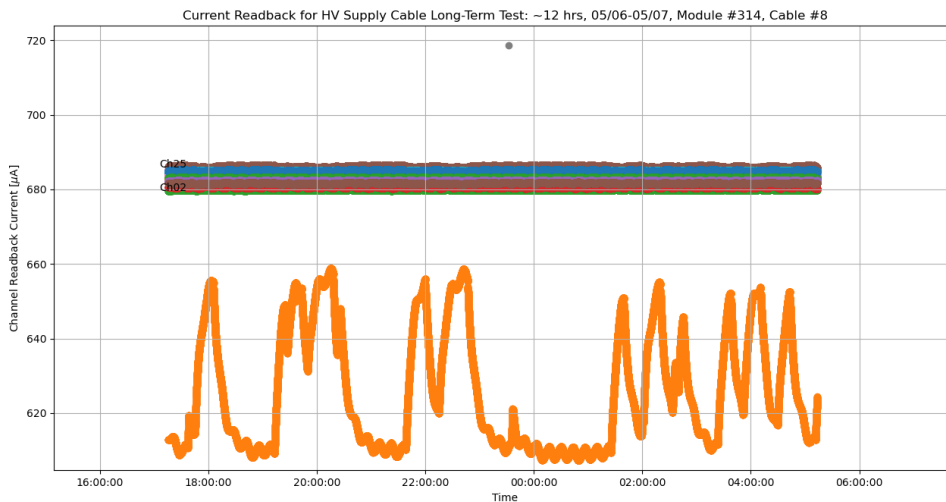
1. HV supply cable testing

Peter Bonneau, Aaron Brown, Brian Eng, George Jacobs, Mindy Leffel, and Marc McMullen

1. Reviewed plot of long-term, with load, test of cables #7 and #8 in module #314
 - The readback current for channel #1 of both cables never reached the expected value
 - The readback current for the remaining channels was still $\sim 7 \mu\text{A}$ higher than expected
 - Will conduct an additional long-term test of cable #7 using a different module in an effort to rule out the cable as the cause of the higher than expected currents



HV supply cable #7 tested using CAEN HV module #314 (channel #1 in orange at bottom of plot)



HV supply cable #8 tested using CAEN HV module #314 (channel #1 in orange at bottom of plot)

2. Discussed potential methods for testing HV supply cables independent of the CAEN HV modules
 - Mindy Leffel will fabricate one cable without terminating the SAMTEC connector end
 - Will connect cable to a voltage calibrator and measure the voltage and current using a measurement device, such as a DMM

2. Hardware interlock system development

Mary Ann Antonioli, Peter Bonneau, and Aaron Brown

1. Reviewed timeline for completion of development and testing
 - Timeline will be revised to reflect one FTE working at 50% on each task
2. Reviewed sensors and instrumentation to be purchased
 - Two PRs have been submitted (National Instruments and Keysight)
 - Plan to submit PRs for remaining sensors/instrumentation by the end of this week
3. Peter Bonneau and Aaron Brown will make list of items that need to be fabricated by DSG (e.g., cables, PCBs)