

DSG Ansys R&D Meeting

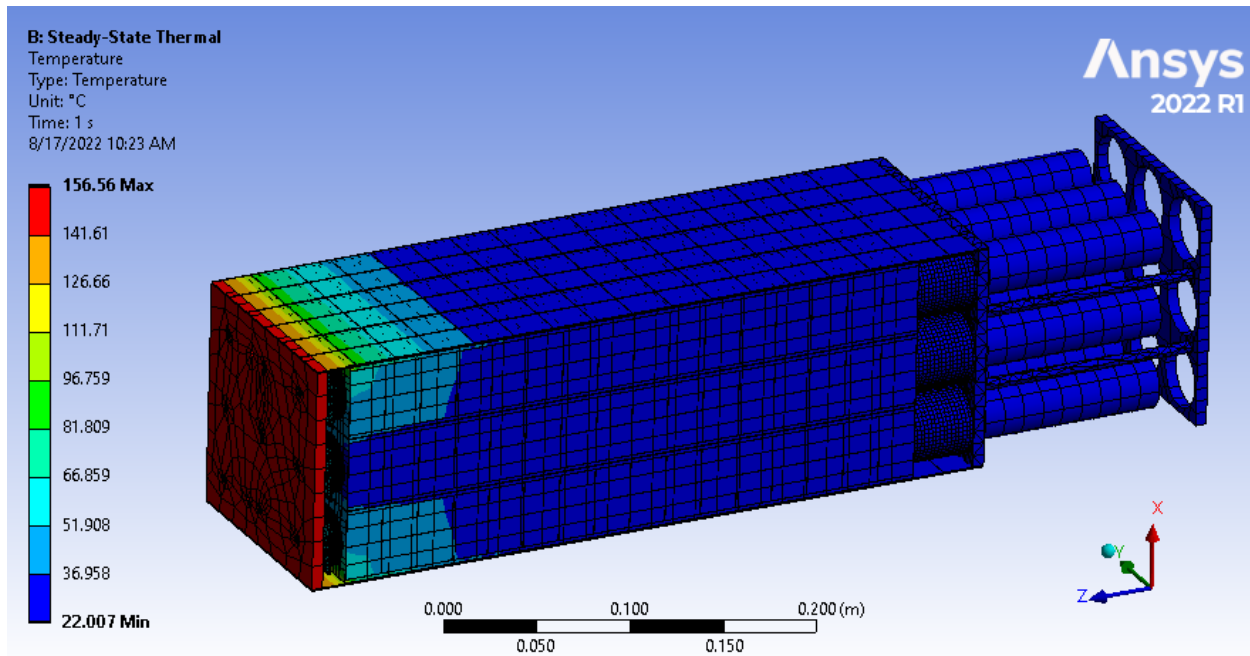
Date: August 18, 2022

Time: 2:00 PM – 3:00 PM

Attendees: Aaron Brown, Pablo Campero, Brian Eng, Marc McMullen, and Tyler Lemon

1. Discussed results of ECAL supermodule heating simulation

1. Able to complete simulation by suppressing thin items that were causing meshing errors
2. For simulation, 100 W applied to end plate of supermodule
3. Results:
 - Temperature at end plate rises to $\sim 156^{\circ}\text{C}$ but heat does not transfer very far into supermodule
4. Suspect that the nine set screws that are the contact points between the endplate and other components are too small to allow heat to properly transfer from conduction
5. Recommended that Fluent be used so air gaps around supermodule are able to be considered in heat transfer



Steady-state thermal analysis results with 100 W of heat applied to end plate of supermodule.