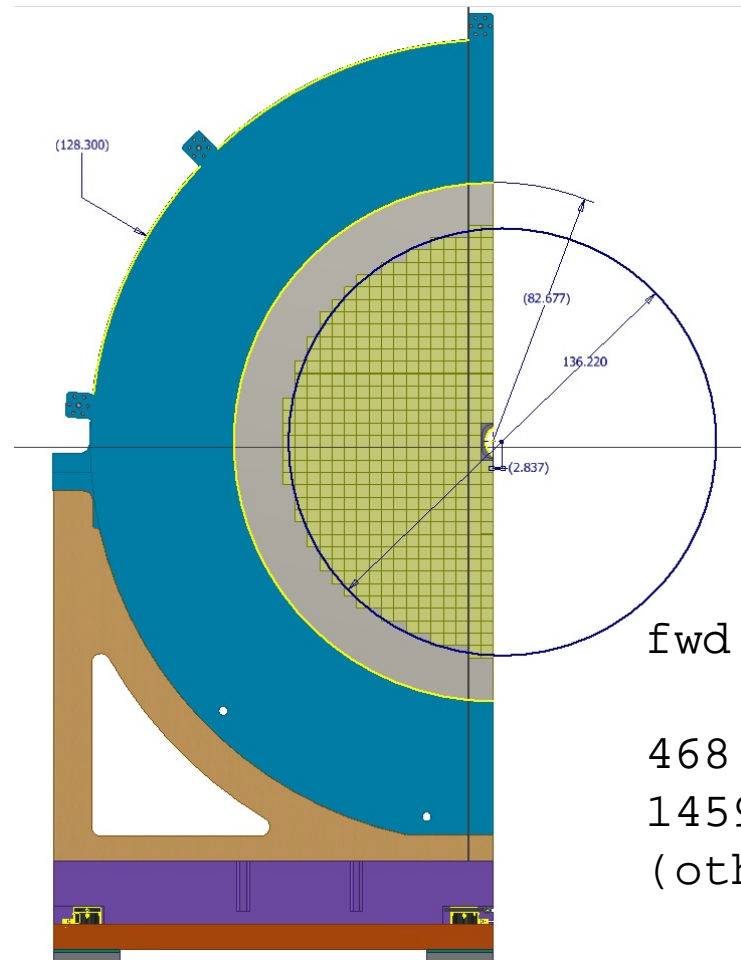


eRD109 COTS Waveform Readout FEB – update May 2 2024

G. Visser, Indiana University



fwd ECAL:

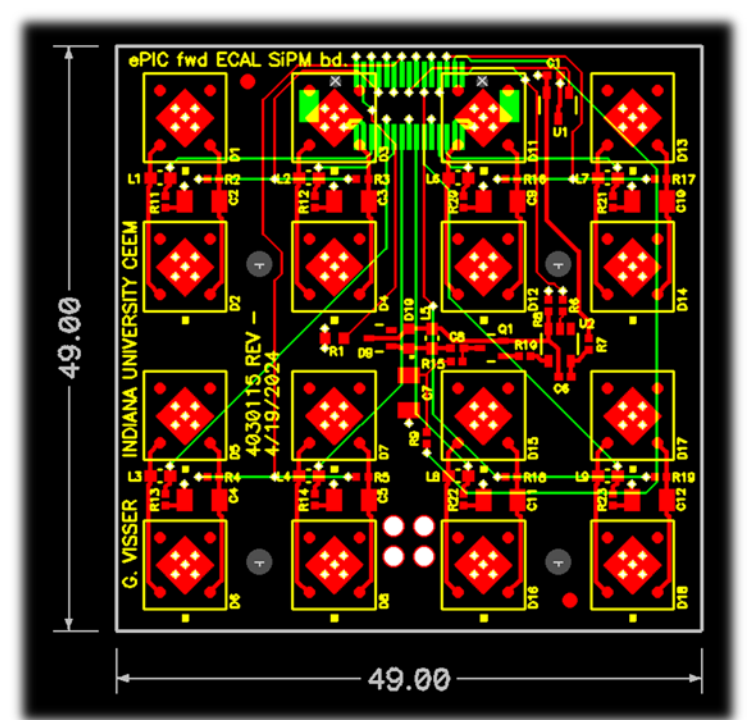
468 FEB (14976 channels)
14592 channels really used
(others masked)

Progress 4/5 – 5/2

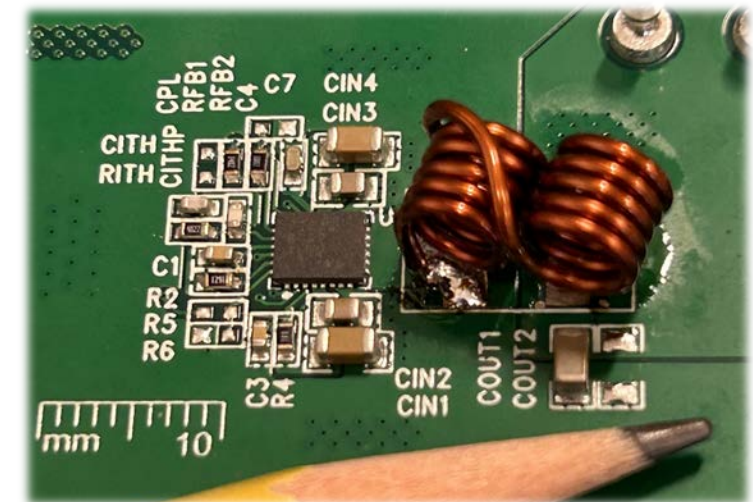
- Completed fwd ECAL SiPM board design, quoted & ready to order.
 - Also got production quote for costing, \$7.10 (qty ~4400)
- Further DC/DC converter testing (LTC7151 with dual solenoid inductor), 15 A. Prepared improved inductor for this test – it turned out not significantly improved. Nevertheless measured >80 % efficiency at up to 20 V in (1.2 V out).
 - Buck converter AC loss calculations (for air core inductor), seems to explain the negative result.
- Discussions with bwd ECAL group on SiPM's / radiation testing for SiPM's
- Preparations for DC/DC radiation testing 5/14

April was light on eRD109 accomplishments at IU due to several other projects' colliding deadlines... My apologies

May: Radiation test at UC Davis
SiPM board prototype production
FEB design progress



Fwd ECAL SiPM board (4 channels)



LTC7151 air-core 1.2 V 15 A test