



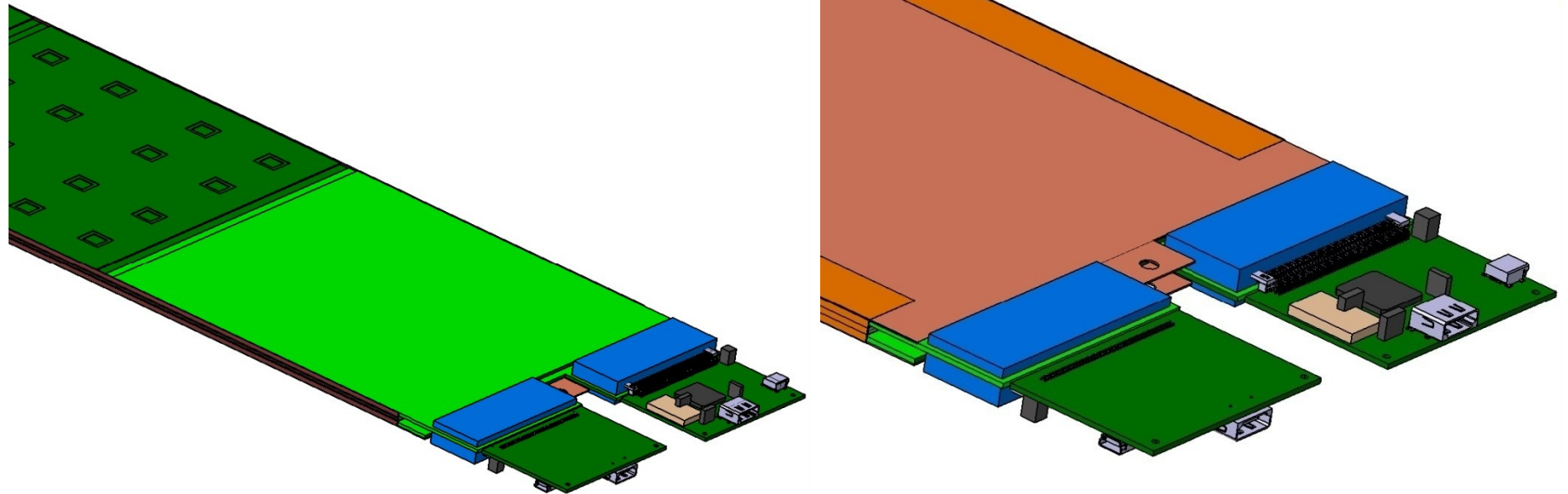
## ADAPTER BOARD for Si-W ECAL Prototype

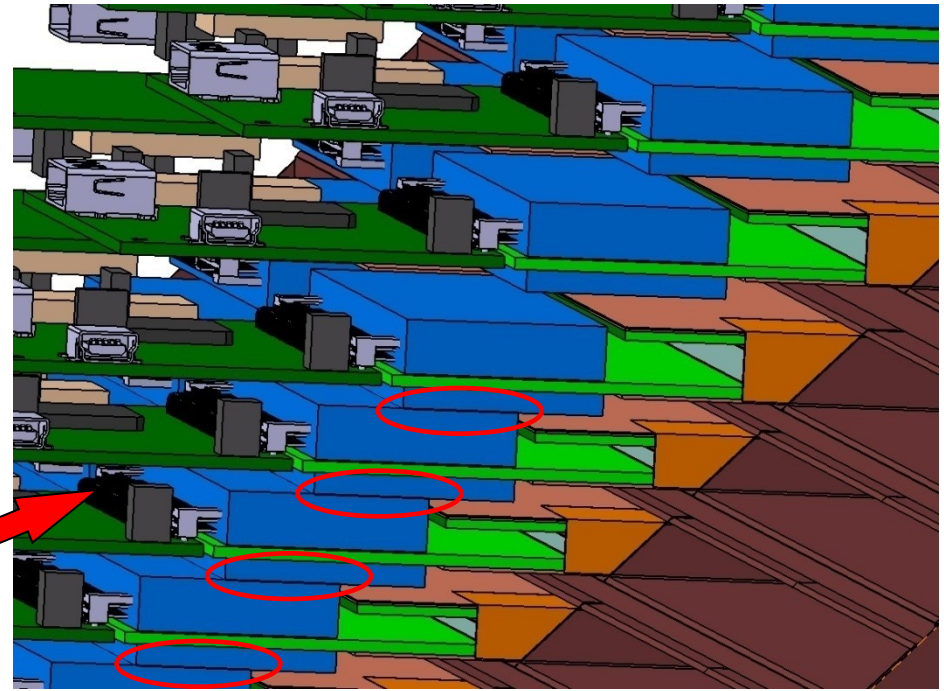
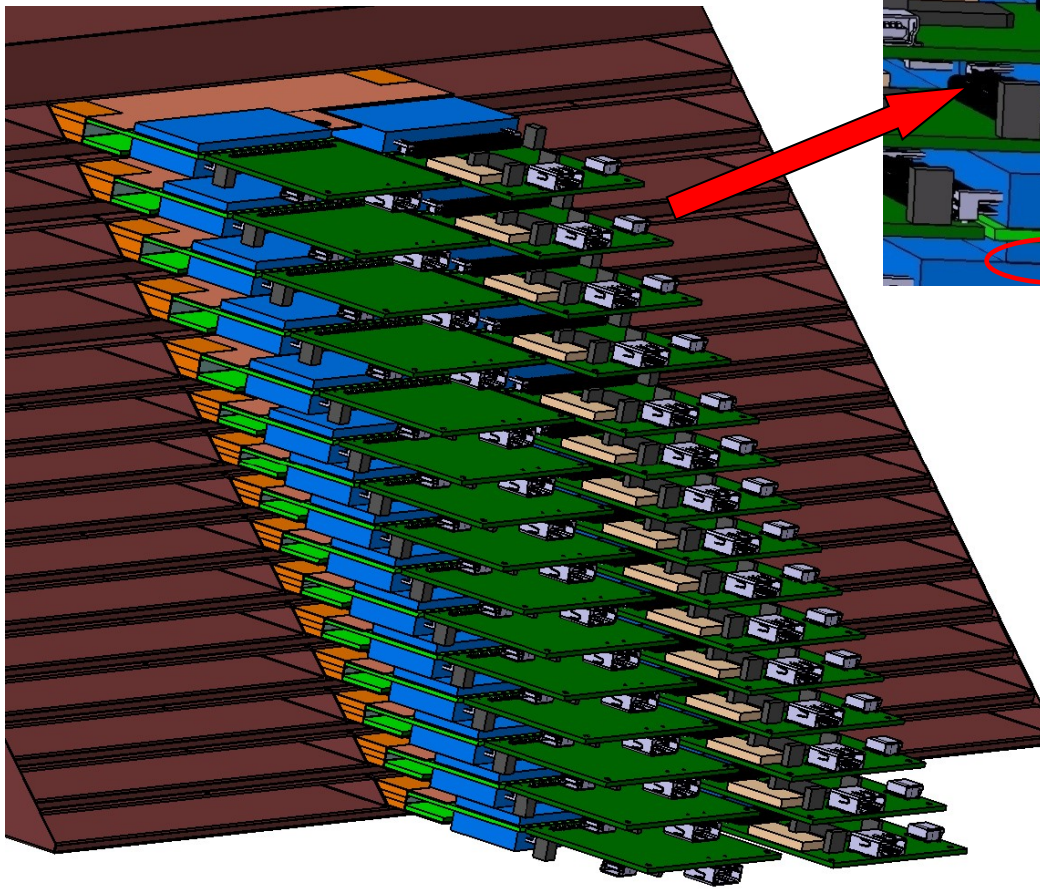
Mechanical and electrical Adapter between :

- ASU through conductive Film (LAL-3M) – 4x36 pin for FEv7
- High Voltage Kapton (LAL-Cern) through specific Footprint
- DIF through 90 pin SAMTEC Connector
- Power Unit through 3 connectors (HV, DIGITAL, ANALOG)

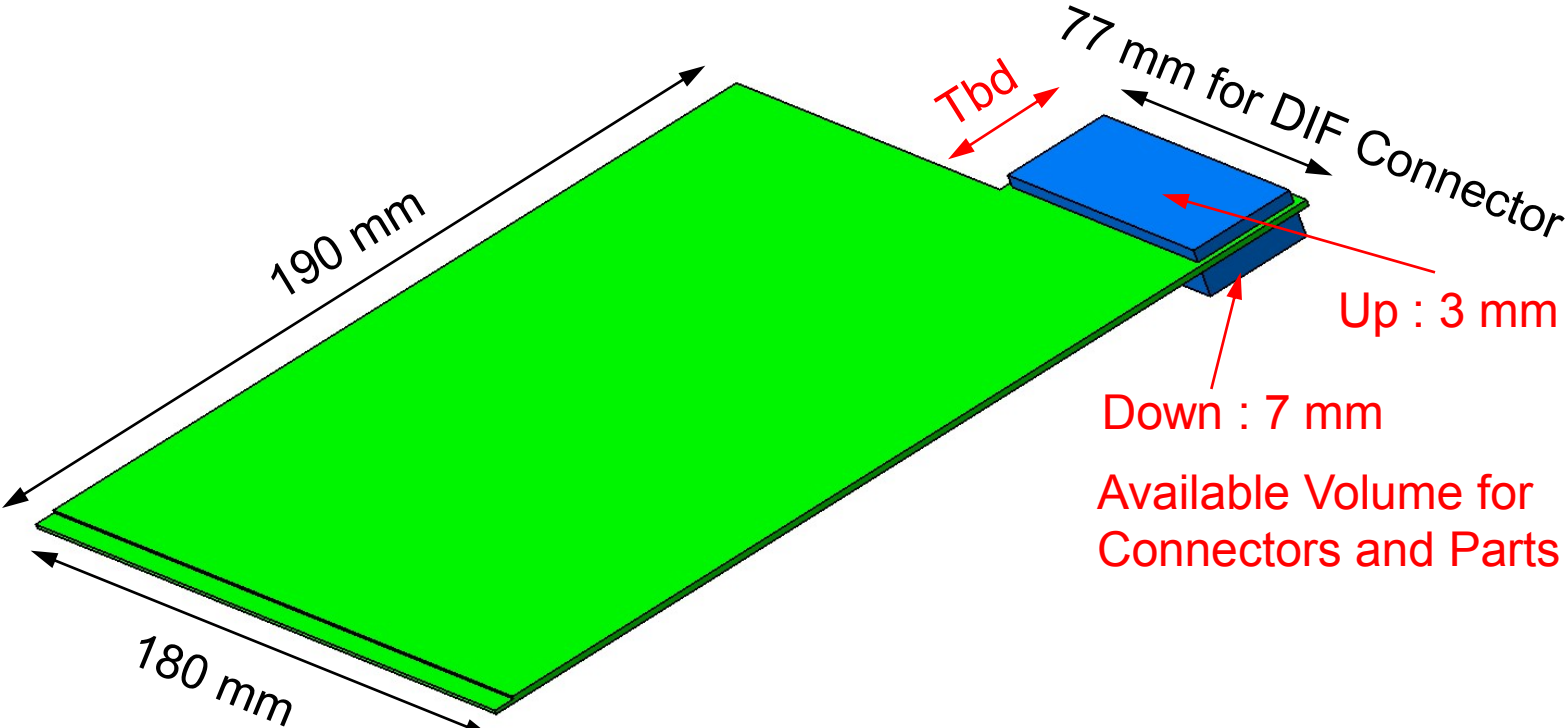
Linear Regulators that generates +3.3V DIG and +3.3V ANA for DIF and ROC operations are requiring Heat Control

# Adapter Board is part and Termination of SLAB



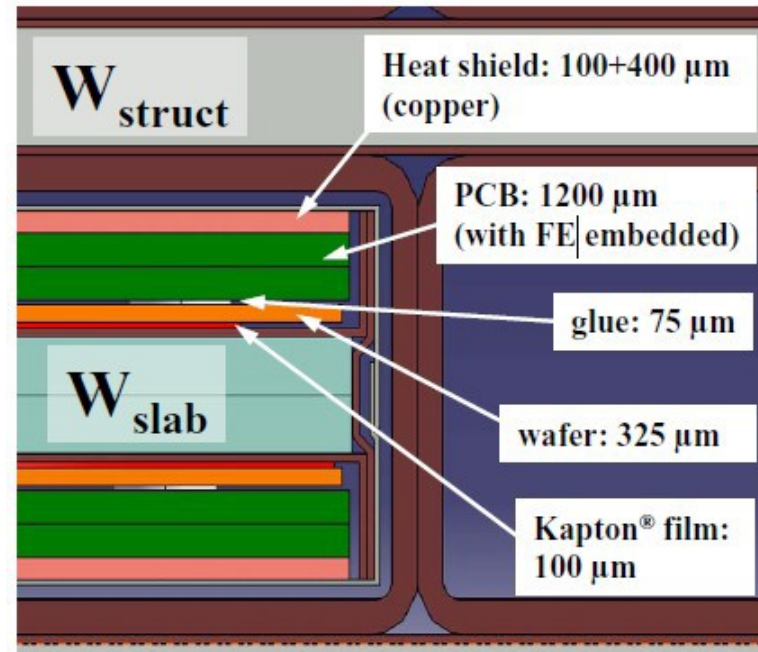
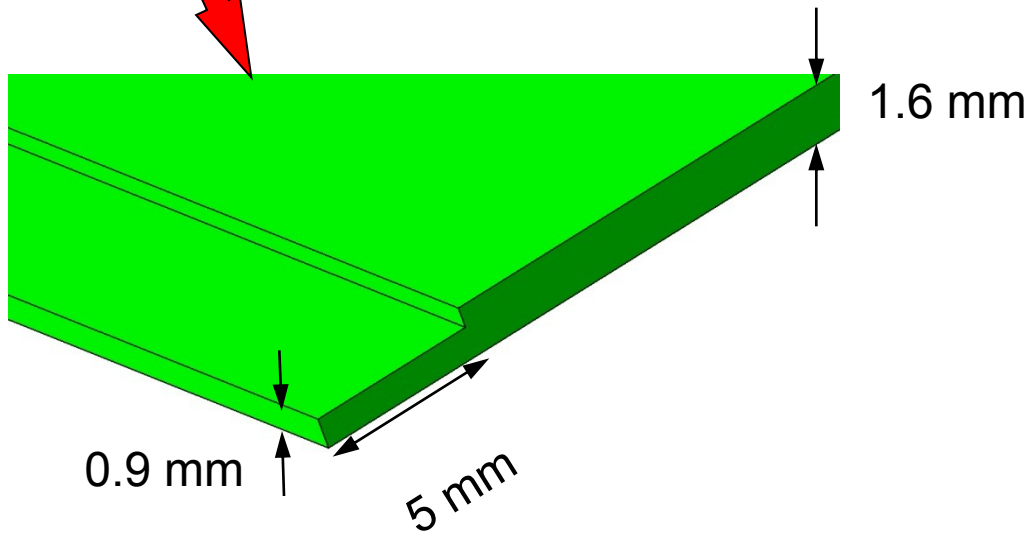
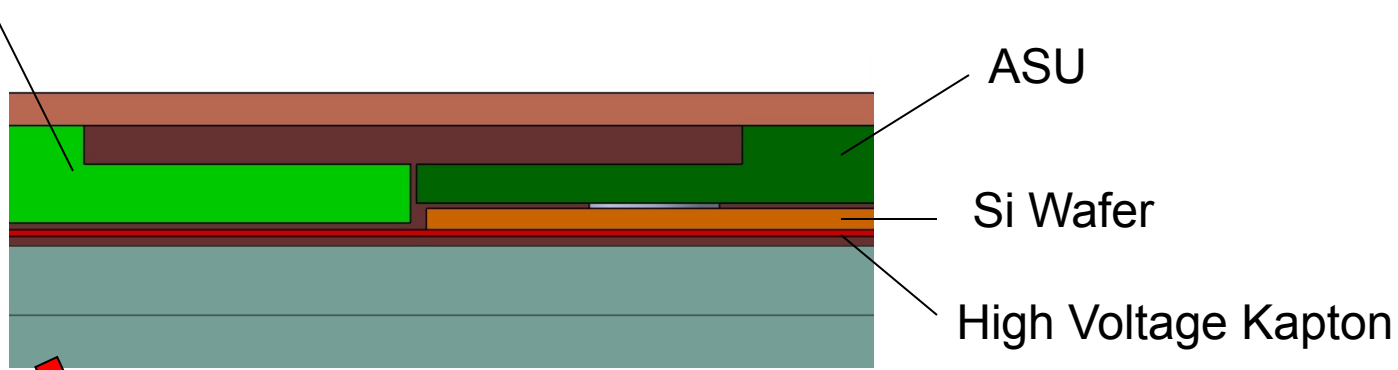


# Updated mechanical Constraints for Adapter Board

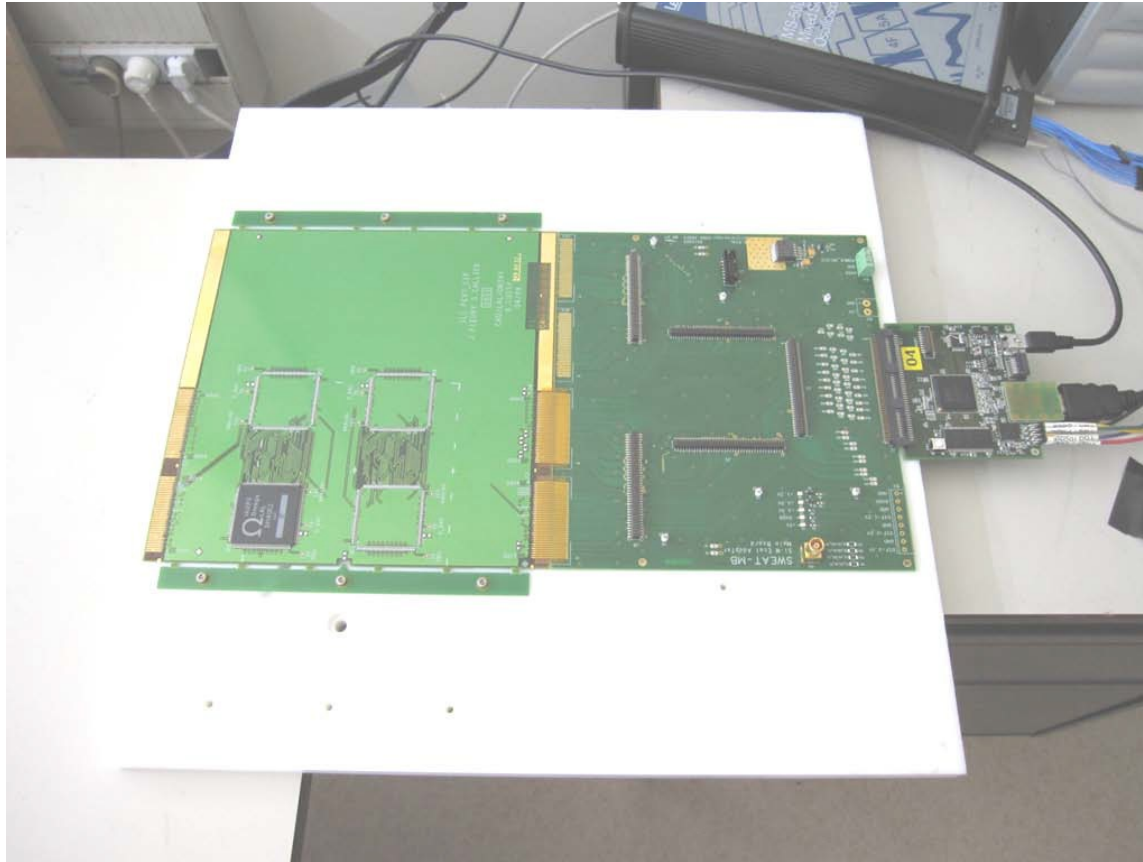


# Updated PCB Thickness for Adapter Board

Adapter Board







Actual configuration for LLR electrical Tests and Integration to DAQ :  
FEv7 + ADAPT-0 + DIF

ADAPT-1 Board is under design :

ADAPT-0 upgrade with following improvements :

- new pin allocation for FEv7 signals (bugs correction)
- representative PCB Length and Thickness
- flexible cable for both electrical connections to FE and DIF
- updated power regulation and filtering for +3.3V DIG, +3.3V ANA, +150V HV
- updated PCB Footprint for HV Kapton
- new conductive Heat Footprint to take into account Heat from DIF and linear regulators

ADAPT-1 will be compatible with FEv7 only

=> For FEv8, ADAPT-2 will be designed....

## Schedule Plan for ADAPT-1 :

- February 2011 :
  - Flat connectors HV-LV selection
  - Electrical and mechanical Drawings/Specifications
- March 2011 :
  - PCB layout
- April 2011 :
  - Manufacturing



## Open Issues :

- structural Design : DIF and ADAPT fixation, detailed design to be finalized
- thermal Design : Heat from DIF and ADAPT shall be conducted to Heat Pipe

