



# Status Forward Endcap EMC

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Thomas Held

Ruhr-Universität Bochum  
Institut für Experimentalphysik I

## APD Submodule Manufacturing

- Submodule manufacturing proceeding (currently targeted 5 modules/2 weeks)
- Finished 30 APD submodules so far (glued 50) (15 tested, 6 shipped to Bonn)
- APD matching (and sorting, extracting) ongoing as needed:  
2080 for FWEC so far,  
all for BWEC (1400, shipped to Mainz)
- Preamp cabling, 2-preamp-capsule unit production has been and still is ongoing (at home)

# APD Screening

- APD screening regularly going on
  - ▶ Currently still in weekend mode (one shift a day)
  - ▶ Return to two-shift mode from next week on
- Current numbers:
  - ▶ Screened - irradiated - screened:  
17100 - 57% of whole target calorimeter
  - ▶ Matched (on demand): 3480  
(65 FWEC APD submodules plus complete BWEC)

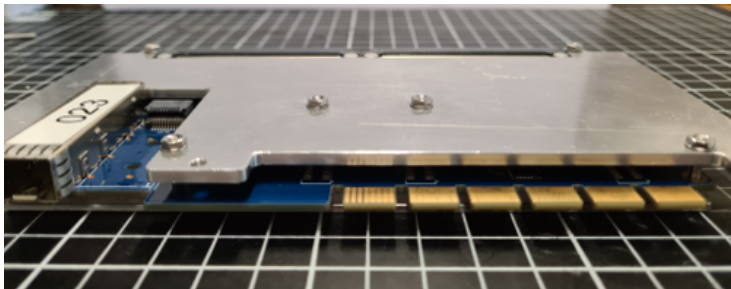
# SADC Crates

- Bochum took over the SADC cooling crate finishing from KVI, Groningen
- Thermally coupling of heat dissipating componts by silicon foam heat transfer pads to aluminum plates on top and bottom



## SADC Crates

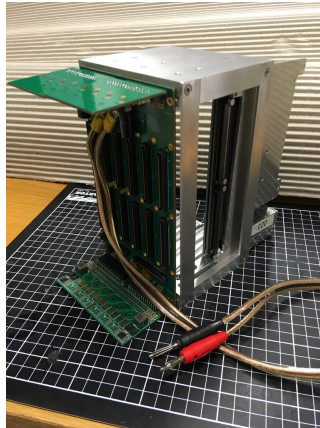
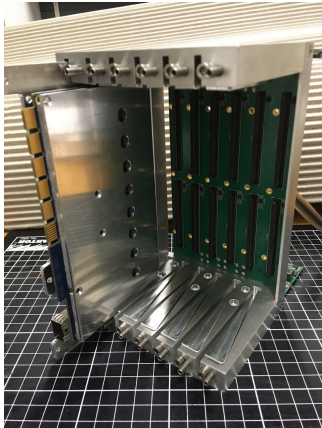
- Thermal image of aluminum plates only possible after blackening (reflection)



- Full size thermal tests in preparation, SADCs available, firmware needs update (continuous digitizing)

# SADC Crates

- Mechanical fitting of aluminum sandwiched boards to crate
- Cooling flanges (side walls) covering SADC boards and power supplies, finally complete thermal test



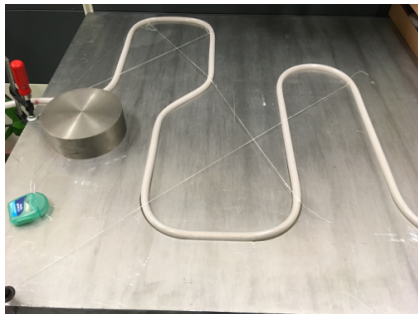
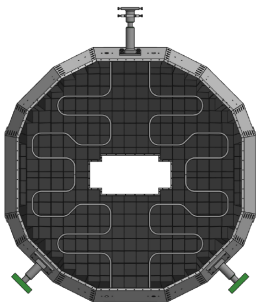
# Installation of Forward Endcap @ FZ Jülich

- Lifting pedestal for pneumatic mounting arm finished
- Brought to Jülich Cosy TOF hall last week
- Pedestal necessary in order to lift mounting arm to reach topmost submodule positions in Forward endcap



# Front Cooling

- Preparation of PA tubes: thermal conditioning w/ sand fill
- Still looking for optimum treatment and handling



- Special ATLAS (inner tracker)-approved, fast UV-ray curing glue (Dymax 6-621) to bond to aluminum front plate



# Summary

- Construction of Forward Endcap proceeds (medium speed)
- Production of submodules:
  - ▶ Built in the order of 50 APD submodules (about a quarter of the total APD modules)
  - ▶ Preparatory works partly still going on at home (capsule mounting, preamp grouping)
  - ▶ Bochum U regulations yet unchanged: Students allowed to work (picking of APD sets etc.)
- Work progress may decrease as the rate of infections increases, though