

ALCOR - dRICH

Readout

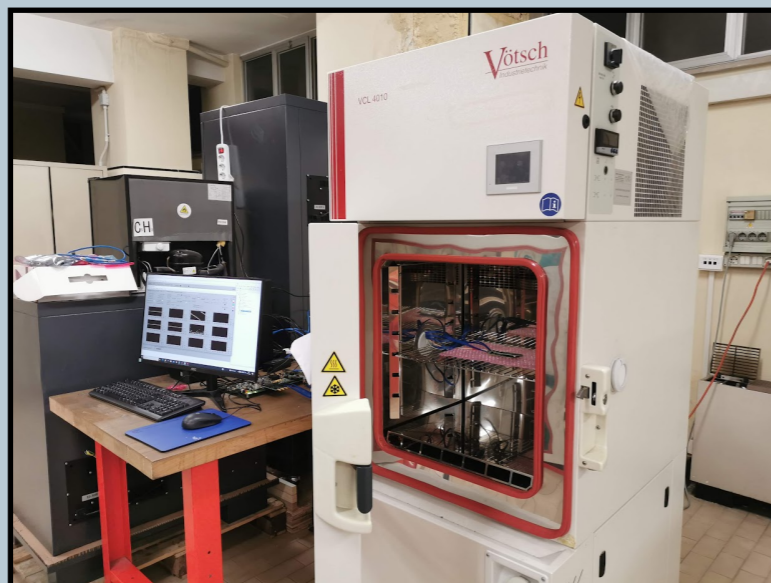
**Michela Chiosso, Fabio Cossio on behalf of the ALCOR group
INFN Torino and Bologna**

**EPIC Electronics & DAQ WG meeting
eRD109 Monthly Progress Reports, 02.05.2024**

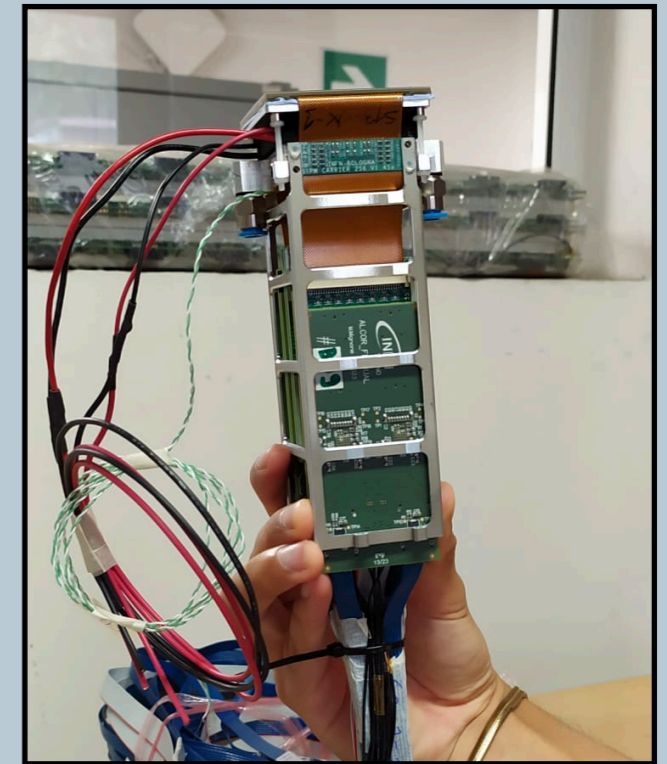
Summary of April activities - I

Preparation for the Test Beam at CERN, 22 May - 5 June

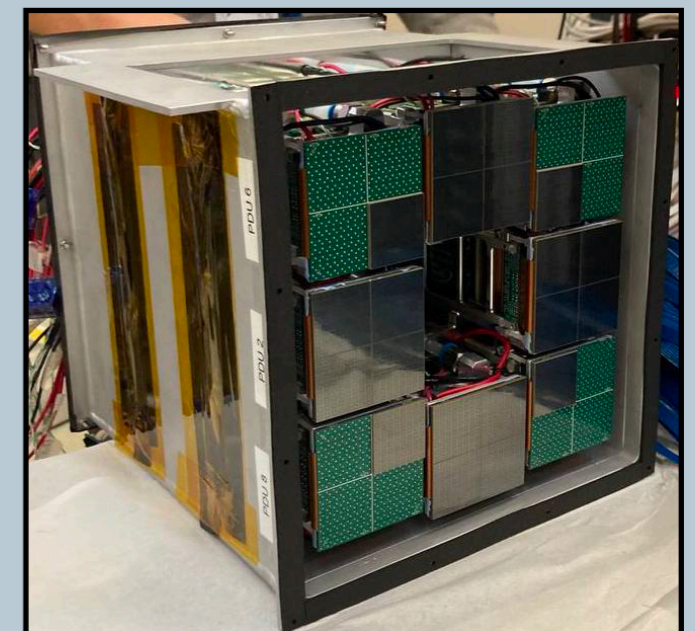
- * Validation tests of 24 ALCOR FE DUAL boards (ALCOR v2.1) completed
climatic chamber to study “reset glitch” effect occurring at low temperatures, yield $\sim 85\%$
- * ALCOR v2.0 replacement with ALCOR v2.1 is on-going on 16 ALCOR FE DUAL boards used in the last test beam in October. 8 boards have been re-bonded and tested so far
- * We are going to assemble for the test beam 8 complete PDUs (4 FEB/PDU: 32 FE DUAL, 64 ALCOR v2.1, 2048 channels)



climatic chamber tests
(INFN Torino)



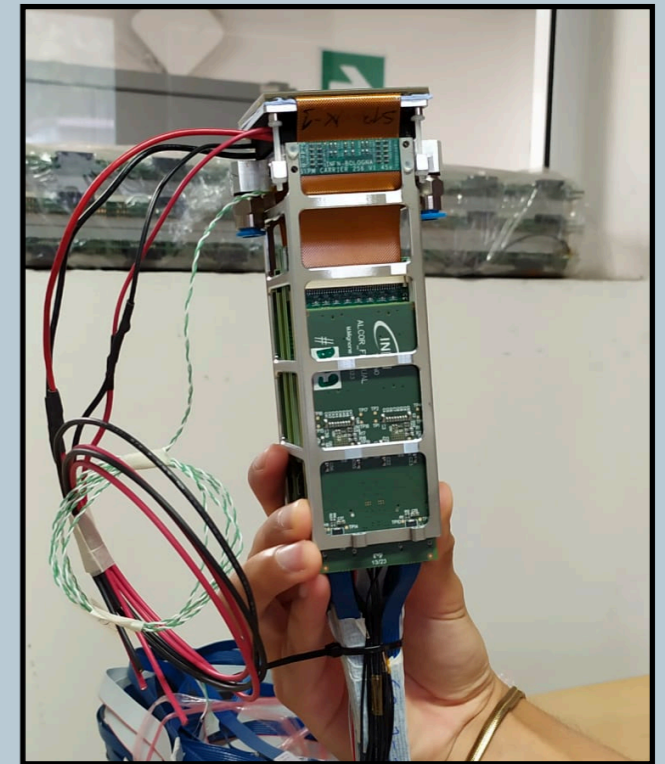
1 PDU and Detector Box -
Test Beam October 2023
(assembled at INFN Bologna)



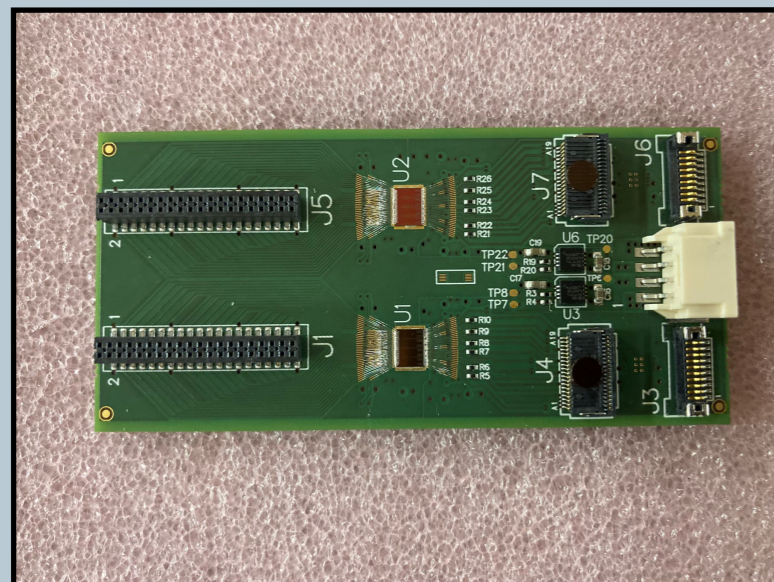
Summary of April activities - I

Preparation for the Test Beam at CERN, 22 May - 5 June

- * Validation tests of 24 ALCOR FE DUAL boards (ALCOR v2.1) completed
climatic chamber to study “reset glitch” effect occurring at low temperatures, yield $\sim 85\%$
- * ALCOR v2.0 replacement with ALCOR v2.1 is on-going on 16 ALCOR FE DUAL boards used in the last test beam in October. 8 boards have been re-bonded and tested so far
- * We are going to assemble for the test beam 8 complete PDUs (4 FEB/PDU: 32 FE DUAL, 64 ALCOR v2.1, 2048 channels)



1 PDU and Detector Box -
Test Beam October 2023
(assembled at INFN Bologna)



Summary of April activities - II

- * Design of ALCORv3 (64-channel, BGA): starting the ordering procedure for MPW, ASIC tape-out in September
- * In parallel with ALCORv3 design, Design of final FEB (for ePIC) is ongoing. We are finalising the design in agreement with the RDO board design.
An update will be given at the next meeting

8x8 pixel matrix ASIC

