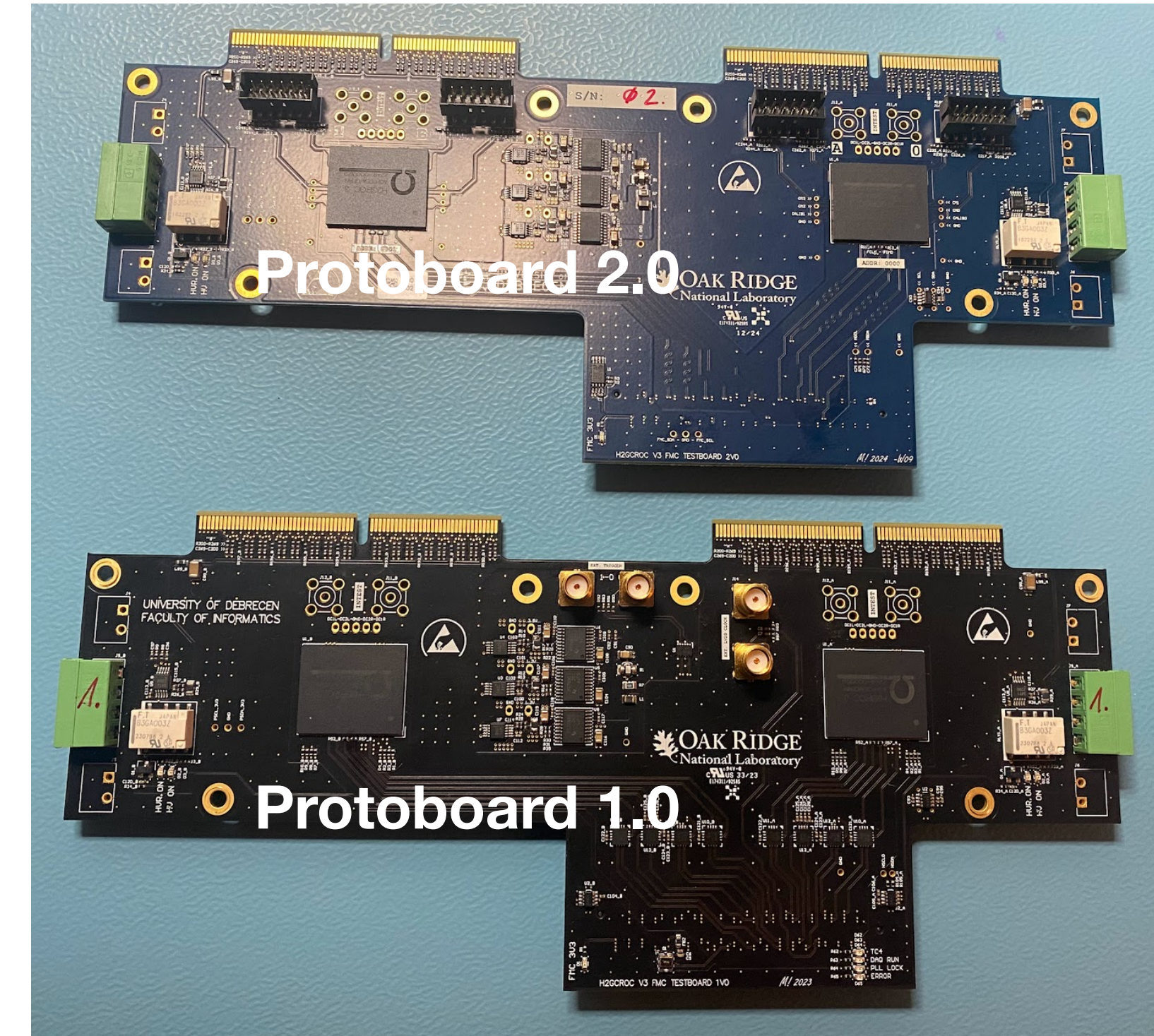


# eRD109 update

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# HGCROC protoboards 2.0 are produced and tested

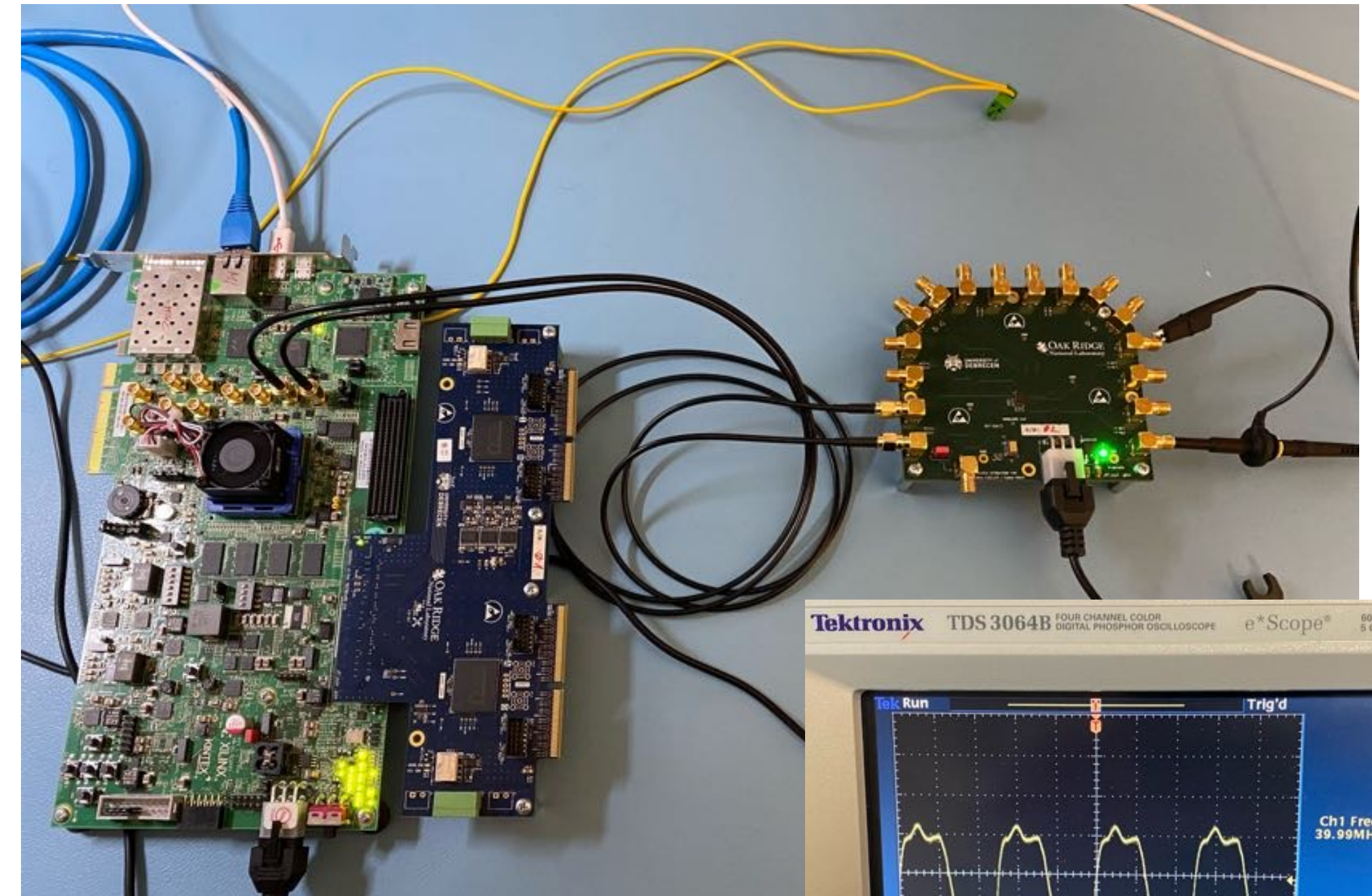


## Protoboard 2.0 are produced and tested:

- Basic communication with the ASIC shows it is alive
- No bad basics out of the 12 one:
  - Previously tested by LLR (Lida) in Paris
  - No failure during manufacturing



# Additional clock distribution PCB



## The clock distribution box with SMA connectors + 1m cable:

- This is for the synchronization of multiple KCU105 units
- Tested with single KCU, so far no showstoppers are observed



# Future steps

## May 1-14:

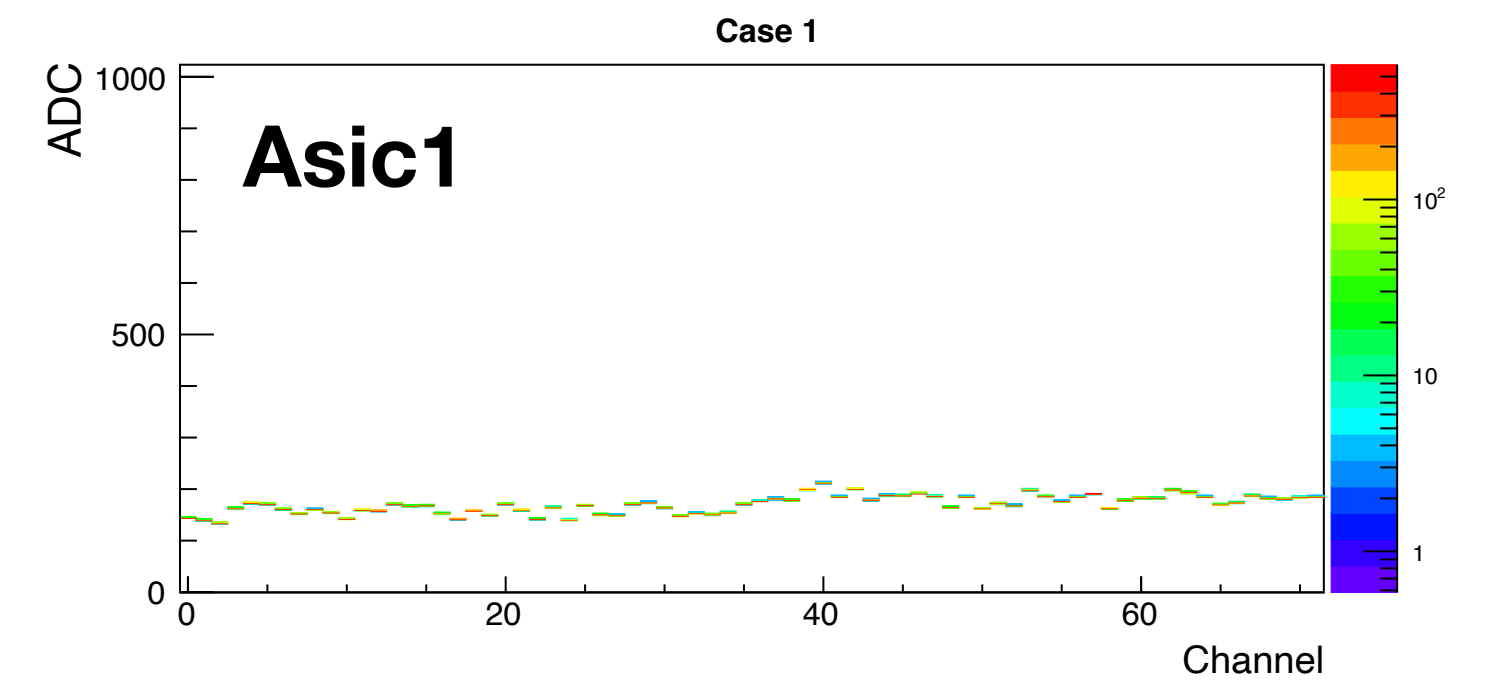
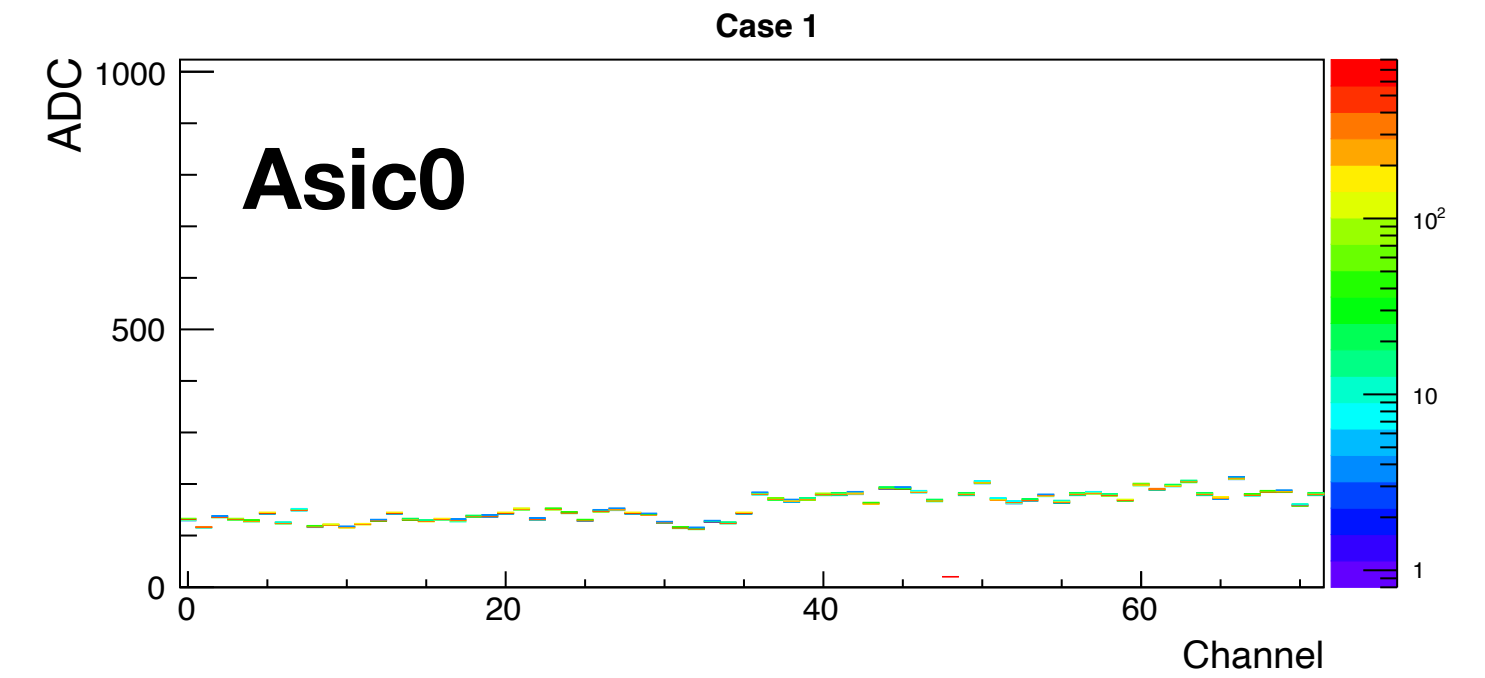
- Calibration tests of the pedestals
- Calibration tests of the internal injection
- Calibration of the TOA
- Calibration of the TOT

## May 15-22:

- LFHCal testbeam was cancelled
- Repurposing the time to test all the electronics (all 5xKCUs together):
  - Connecting to SiPM's:
    - Maybe not LFHCal setup, but same SiPM readout
  - Synchronization tests
  - Readout all channels simultaneously
- Cosmic tests on the test bench

## May 22-29:

- FoCal-H testbeam in SPS (Not an ePIC detector)
  - Capillary Cu tubes with scintillators
  - Closest ePIC detector would be the BIC with 90 degree turn
  - 250 channels
- Plan to test the readout with TOA and TOT for the full range
- Can use the NoCal (LFHCal setup without absorbers) as a parasitic setup.





# Longer plans

## **June:**

- First tests with the summing board and the BIC SiPM setup
- Boards are under developments:
  - Simple passive summing:
    - Should lengthen the signal
  - Parallel connection:
    - Capacitance and signal length should be the same
    - Should saturate quicker

## **Summer:**

- Design the BIC BabyECal (GlueX prototype) board for tests
  - Testing it in Argonne once everything is ready
- Insert testing:
  - Either in BNL or California or ORNL - discussion is ongoing
- August LFHCal testbeam (same as planned in May)

## **September-October Barrel HCal tests:**

- Tiles received from Georgia, SiPM boards also available
- Need to buy long microcoax cables (1, 3, 5 meters)