

CALOROC status

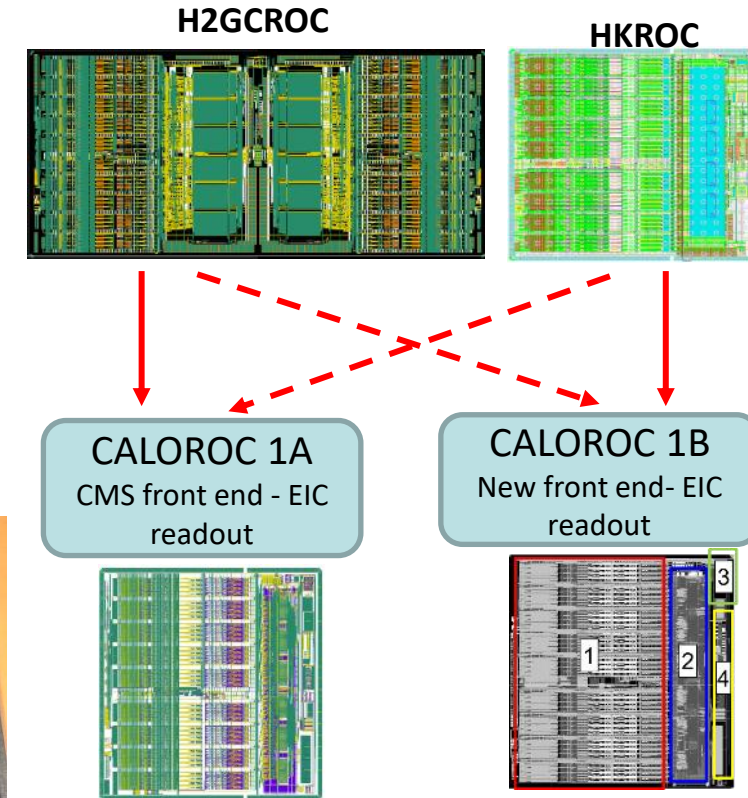
April 2026

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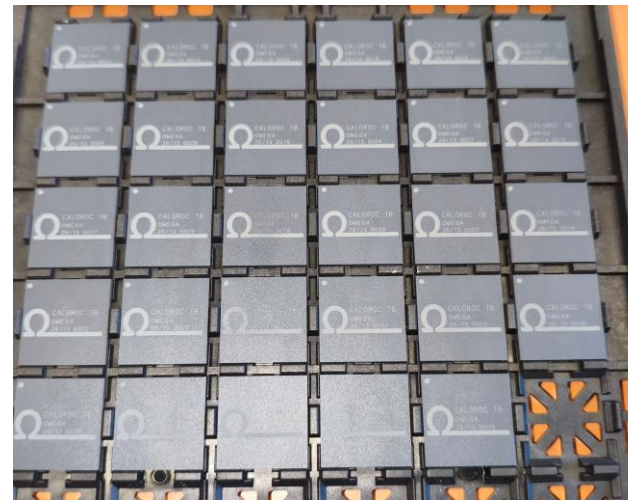
- ❑ All CALOROCs received last Friday (April 3rd)
 - ❑ About 28 samples per variant



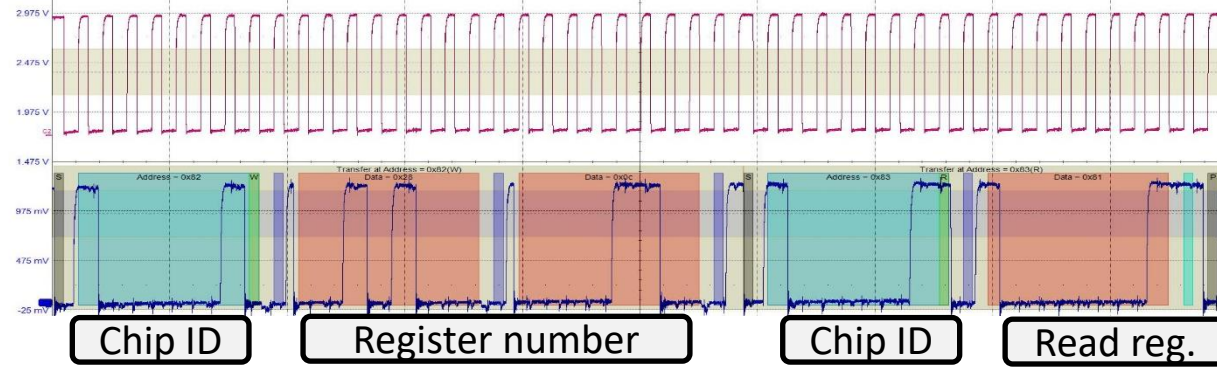
- ❑ First tests are performed on HKROC-modified testboards
 - ❑ 3 received last month but only 2 are working
 - ❑ Firmware modified by LLR (I2C, fast commands)



- ❑ Waiting dedicated CALOROC testboards
 - ❑ Expected in 2 weeks (~ April 24)
 - ❑ Dedicated firmware needed (LLR)
 - ❑ Bank power supply + FMC connections

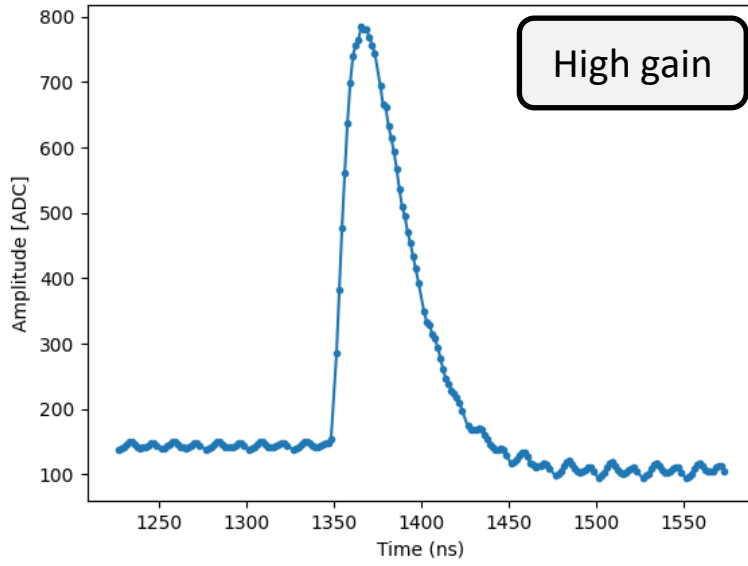


- ❑ Writing / reading ASICs parameters seems OK

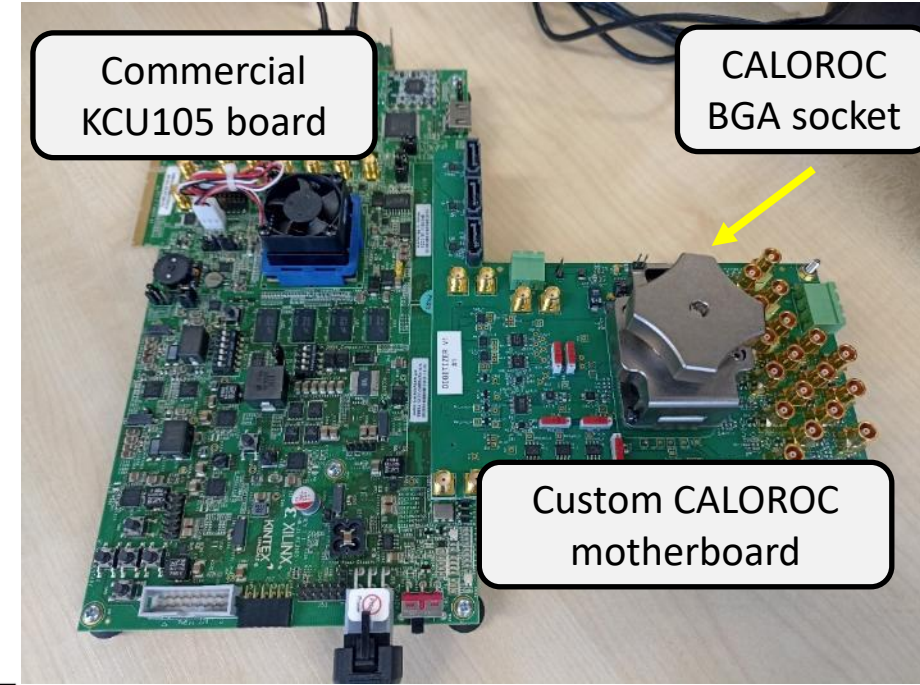
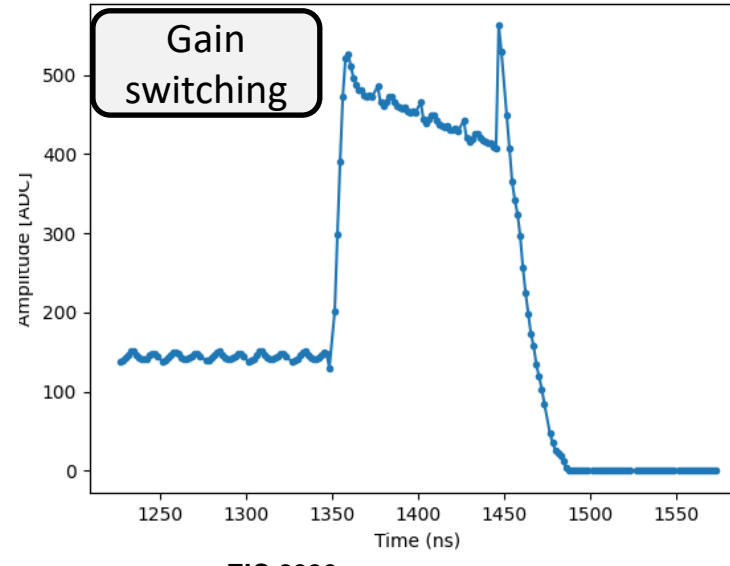


- ❑ We are able to see digitized waveforms
 - ❑ Noise larger than expected
 - ❑ 1 serial link loss if preamp current increased (to reduce noise)

Signal vs time for channel 2



Signal vs time for channel 2

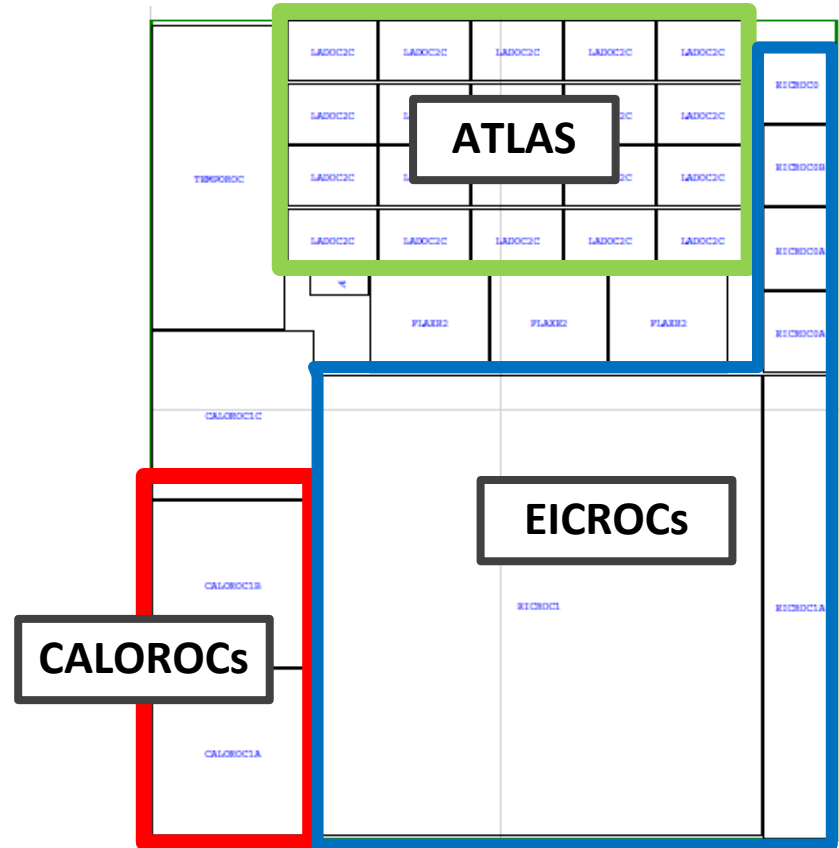


- CALOROCs finally received

- We will focus on CALOROC-B measurements
 - Not possible (now) to handle both CALOROCs tests in parallel

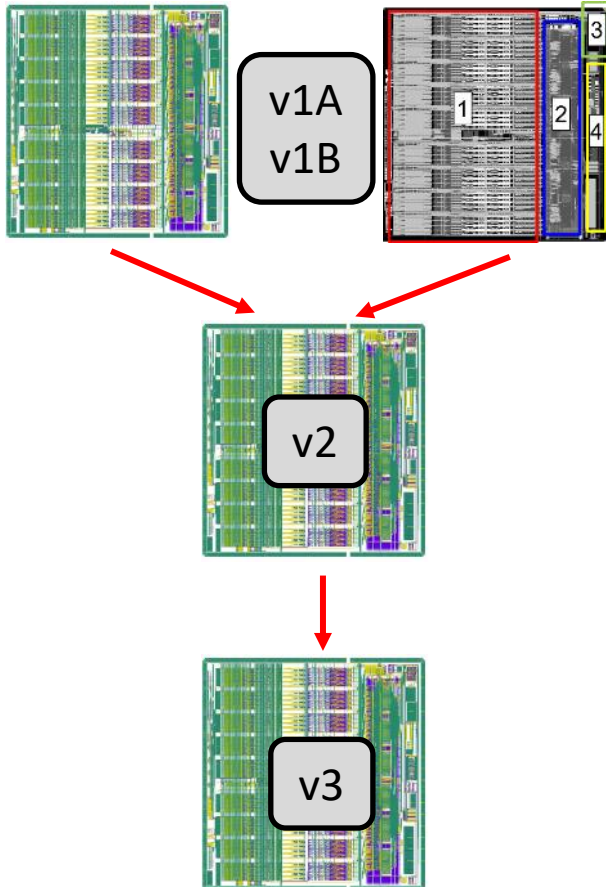
- Measurements crosscheck possible with the new testboards in ~ 2 weeks

- Work will be divide in two parts:
 - Find a configuration where all the interfaces are working properly
 - For system test (on FEB)
 - To be able to distribute some CALOROCs within ~ 1 month
 - Analog Front-end characterization





- ❑ Jan 2026: produce and distribute testboards
 - ❑ Characterization (with socket to be ordered)

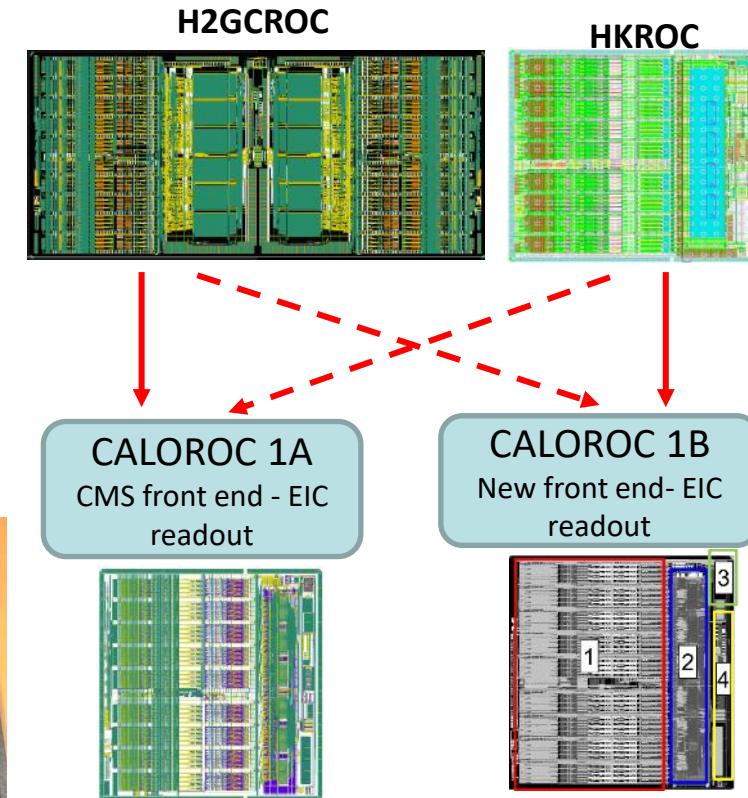


- ❑ 2026 - Extensive tests and comparison of CALOROCs
 - ❑ End of 2026: selection on performances and system needs
 - ❑ Substrate validation
 - ❑ Same channel count
- ❑ 2027: Submission of selected CALOROC2
 - ❑ If needed new substrate
 - ❑ Substrate validation
 - ❑ Irradiation tests
 - ❑ Robot testboards
- ❑ Q2 2028: Submission of final CALOROC3
 - ❑ To be adjusted with EICROC tech node (130 vs 65 nm)

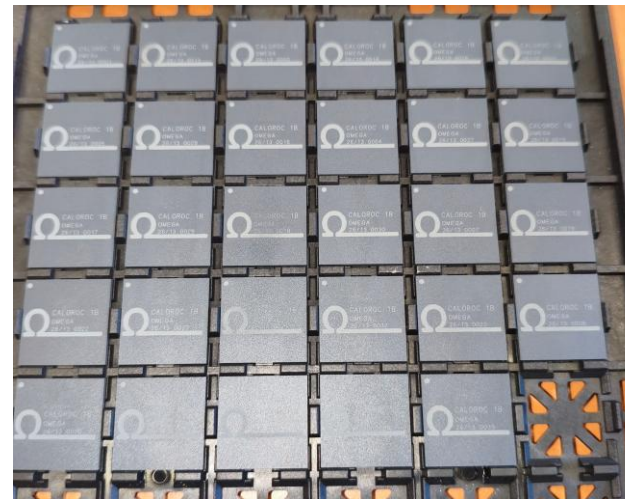
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- ❑ CALOROC timeline (preliminary)
 - ❑ CALOROC1 - Sept 2026 - Integration / FEB tests
 - ❑ CALOROC1 - Dec 2026 - Module testbeam
 - ❑ CALOROC2 - Jan 2028 - Detector test ready
 - ❑ CALOROC3 - Sept 2028 - Production