



ALCOR - dRICH Readout

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INFN Torino

ePIC Electronics & DAQ WG meeting
eRD109 Monthly Progress Reports

12.12.2024

Activities summary

Implementation of new **ALCOR data frames** structure to match **EIC orbit period** ($T = 12.7886 \mu\text{s}$)

- *newOrbit reset* sent by RDO to ALCOR (sent every EIC orbit period, $T = 12.7886 \mu\text{s}$) → start new frame inside ALCOR
- Each frame has: *header, data, trailer* (ALCOR frame number = EIC Orbit counter)
- Pixel and EoC (new reset FSM) source code, simulations and synthesis done, pixel PNR done, EoC PNR ongoing

New setup with SiPM + ALCOR readout at INFN Genova to perform studies for the **dRICH Track Tagger**

- Integrated in the dRICH, based on scintillating fibers providing a prompt and fast signal of hadrons crossing the dRICH volume, using same dRICH readout

Preparation for **irradiation tests** at Trento Proton Therapy Centre (13-14 Dec 2024)

- Repeat SEU and TID tests on ALCOR with improved setup