Subject: TIC meeting 11/27 , 2023 (Update about electronics open points (transceivers, HGCROC); fCal updates) - main outcome
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Dear Colleagues,

please, excuse the late circulation of the notes concerning the TIC meeting on November 27.

Two different items have been addressed:
update about electronics open points (transceivers, HGCROC); fCal updates.
We thank the colleagues for the highly informative reports.

Main findings:

update about electronics open points - transceivers

The dRICH needs it, mainly because of its small footprint. An estimation of the quantity has been provided, including spare at the ~ 20% level: 1500 VTRx.
ToF layers: commercial transceiver options can be fully adequate for the needs of this subsystem.
MPGDs: the development of the readout scheme is not advanced enough for commitments; at the same time, commercial options look adequate for the readout of these trackers.

The survey will be completed with information concerning MAPS, which will be provided on December 4.

update about electronics open points - HGCROC/EICROC

H2GCROC3A lab tests are on-going and several critical features have been identified, useful in view of the submission of the next ASIC version.

The 2024 planning of the ePIC-related activities of the OMEGA group have been provided.
CALOROC (= H2GCROC) to read-out calorimeter SiPMs with back-end design matching EIC specifications:
-there is the need to decide between a 64 ch. configuration or a 32 ch. one;
-two versions are foreseen, a conservative one with ADA and ToT, an improved one with multi-gain implementation;
- new version expected for Summer of Fall 2024.
EICROC: the version EICROC0A is designed to improve digital noise and to host a low power ADC;
EICROC1 will host (4 or 8) * 16 channels and probably will not yet have the EIC-compatible read-

out;
The new version is expected for Summer of Fall 2024, if the Engineering Run option is selected.

fCal updates
A reduction of the calorimeter size (smaller radius) is proposed, based on simulation studies of ~ 6 months ago. The detector description was less complete, in particular in term of subsystem services.

Action items:

CALOROC/EICROC: it is requested that all contacts with the OMEGA groups are via the r-o, electronics and DAQ WG. This WG is requested to guide the choice between the 32/62 ch.s for the CALOROC and to ask OMEGA group for a longer term planning (also beyond 2024).

fCAL: new simulation studies are needed making use of the present more complete description of the detector in the simulation software.

As usual, if this notes need corrections/integration, please, write me back.
Thank you.

Best greetings, Silvia

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