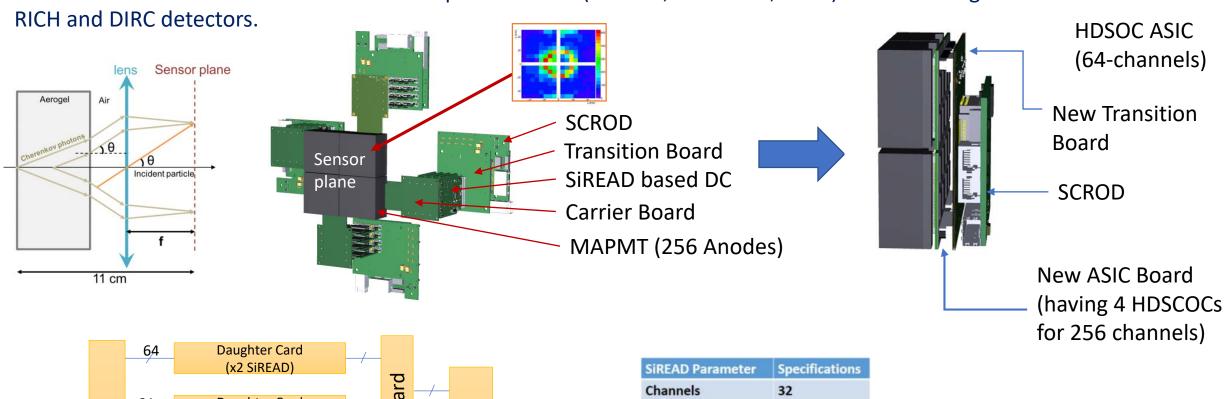
Readout Electronics for the EIC-PID detectors (eRD14)

Common solution for the read out of all the photosensors (MaPMT, MCP-PMT, SiPM) that are being considered for various



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SiREAD Parameter	Specifications			
Channels	32			
Sampling rate	1 GSa/s			
Storage samples/ch	4096			
Est. Analog BW	0.7-1.1 GHz			
RMS voltage noise	1.3 mV			
Signal voltage range	2.1 V			
ADC on chip	12 bits			
Readout	Serial LVDS			
Power consumption	20-40 mW/ch			

Yann is working on the mechanics & thermal aspects of the mRICH shoebox design

(Shivang Tripathi)

Resources Available:

- SiREAD based DCs (> 20#) (IDL_19_004) (Y. Ali)
- Transition Board (18#)
- SCROD RevA5
- Carrier Board





Present Status:

- First version of SiREAD DC FW (from Ben @Nalu) is being tested with Nathan's SCROD FW
- QBlink module is used in both FW. We are trying to sync & lock SCROD & DC
- Certain issues were identified in the design of DC & Transition Board

HMB

HMB DC is based on TARGETX ASIC (16-channes) Total #8 DCs (2/scintillating planes) => SiREAD DC (1/plane) ??

How SiREAD DC is planned to be used in HMB:

- Replacing the TX DCs
- Parallel/Redundant Readout System
- DUT (aRICH, cRICH) in HMB

Similar Readout FW for existing Hardware?

Recommendations from the 2nd Gen. BMD project (Khanh Le):

Upgrade Center DC with low power amplifiers instead of RC gain circuit

- Lots of opportunities, many things to Learn!!
- Open to work including field/manual jobs