

HRPPD order status and expectations

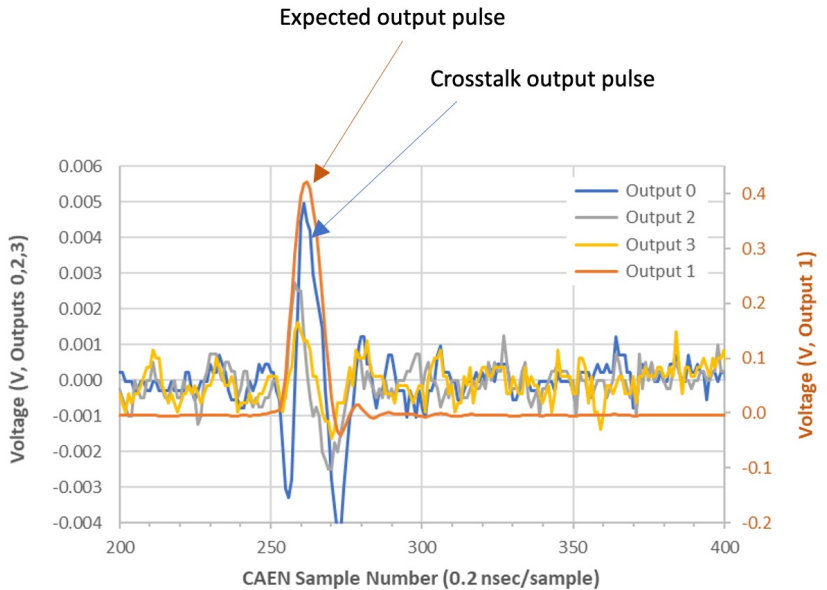
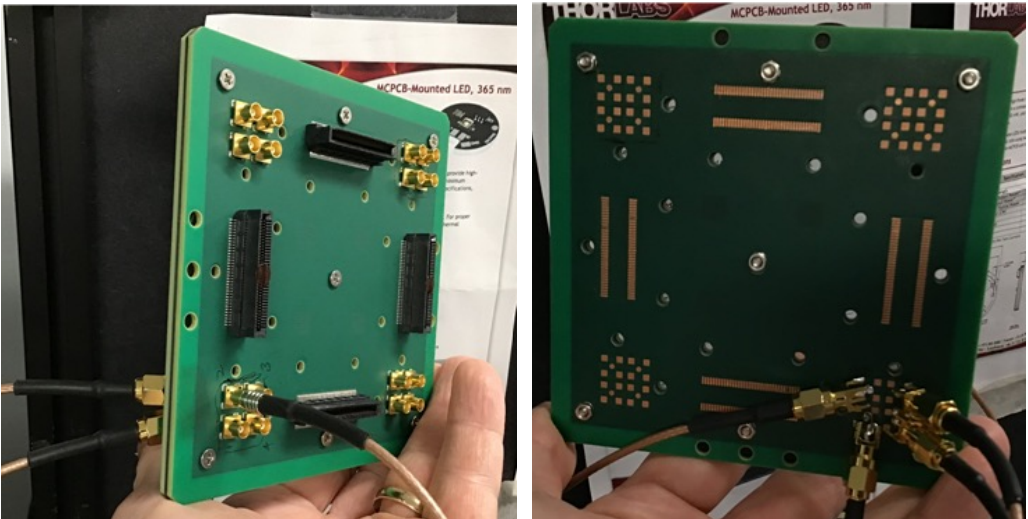
- First five anode base plates are expected from Kyocera November 15th
- Sapphire windows will hopefully be shipped next week
- Samtec interposers: five weeks ARO lead time; order placed two weeks ago
- All other components are readily available

- This essentially means:
 - We should be able to see a first EIC HRPPD end of 2023
 - Our original plan to have five tiles by March 2024 looks reasonable
 - Up until yesterday a plan for a short beam test in January-February 2024 as listed in the eRD110 FY24 proposal looked doable as well
 - **Not any more -> FTBF-related discussion follows**

Other news and discussion topics

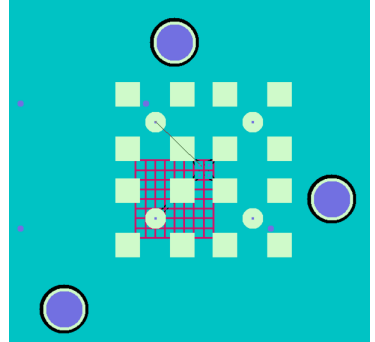
- Major changes to eRD110 FY24 proposal
 - HRPPD interfacing moved to PED proposal(s) all together
 - HRPPD studies part is essentially wiped out, except where it applied for hpDIRC-related R&D
 - B-field measurement program is reformulated with a nominal focus on Photek (Photonis) MCP-PMTs
- MCP-PMT procurement is wiped out
 - Can we recover our Planacon purchased few years ago?
- A 2" Photek MCP-PMT will hopefully be ordered by Jlab directly
 - Interface to hook it up to either DRS4 readout or HGCROC3 ASIC backplane is already designed
- Work on the HGCROC3 ASIC backplane restarted last week
 - Specifications will be frozen next week
 - 2-3 ASIC+FPGA board iterations foreseen between now and May 2024

HRPPD interposer interface cross-check at Incom

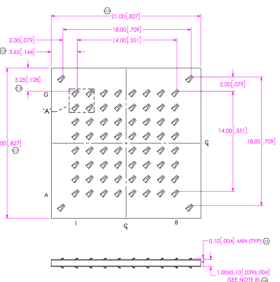
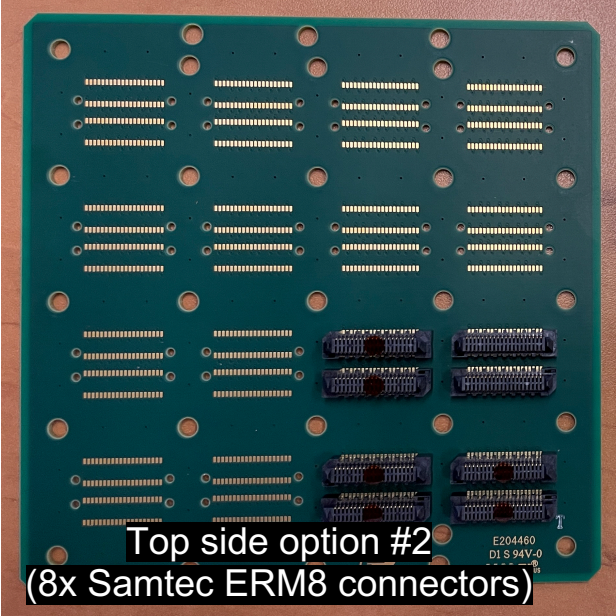
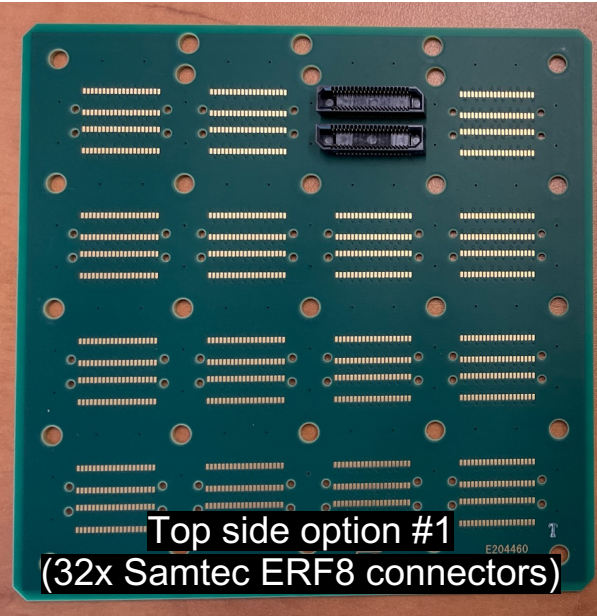
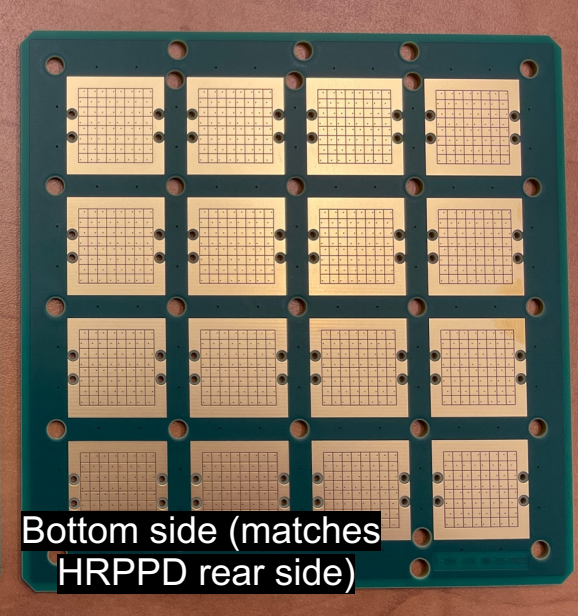


Two boards bolted together back-to-back via a stock Samtec interposer

- A 2x2 pad area on an older board was used for this exercise (Y05a)
- Observations:
 - Signal transmission via “5mm trace -> interposer -> 5mm trace” (and a pair of RG-316 cables) ~98%
 - Cross-talk on a neighboring pad <2%



A dummy HRPPD readout board Y05f



Enables ASIC interface to MCP-PMTs?

- Assembly order for 5 boards is being placed
- Connectivity for any of the sixteen 8x8 pad fields (got a quote already):
 - A set of [2x Samtec ERM8 -> MMCX] adapters, 32ch (4x8) connected at a time
 - A set of ERM8-based grounding caps for all other 8x8 fields