

HRPPD Meeting #18 Update

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U.S. DEPARTMENT
of ENERGY



Current Status

Tasks:

- **Priority tasks**

- FCFD testing
 - Prioritize FCFD board for testing at CERN
- Interposer order by early May?
 - Interposer vertical tolerance stackup

- **Upcoming items**

- Find HV connectors for PCB
- Mechanical envelope

- **Open items:**

- Review action item list

- **FCFD Test Board**

- Received FCFD boards Wed 3/11
- Regulators arriving 3/25
- Received 1 board 3/30; will overnight partial shipment of 3 boards as soon as I receive and test
- Received by BNL 4/6!
- Wirebonded first article and smoke test complete 4/13!

No update

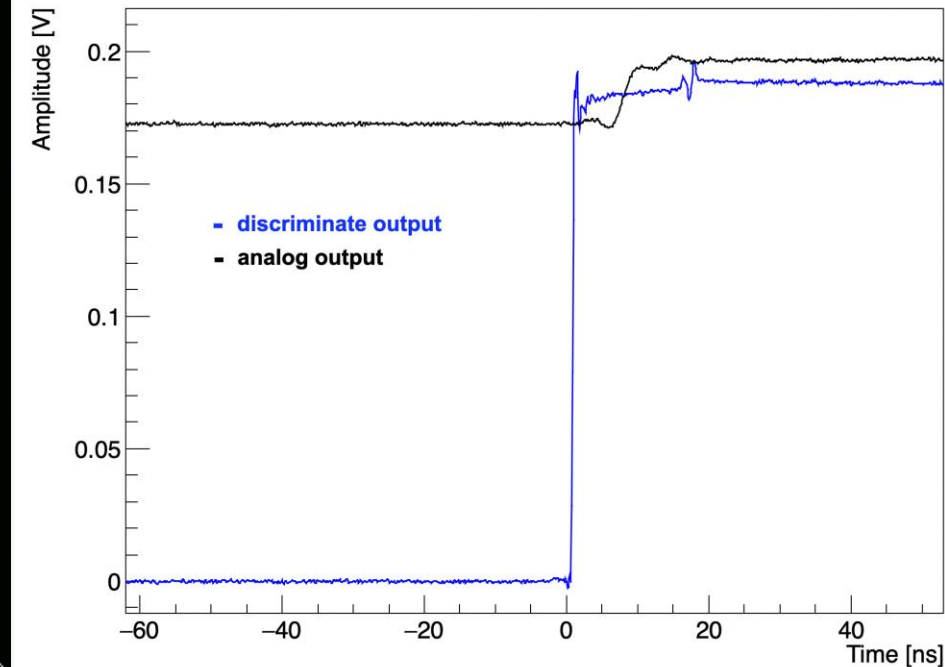
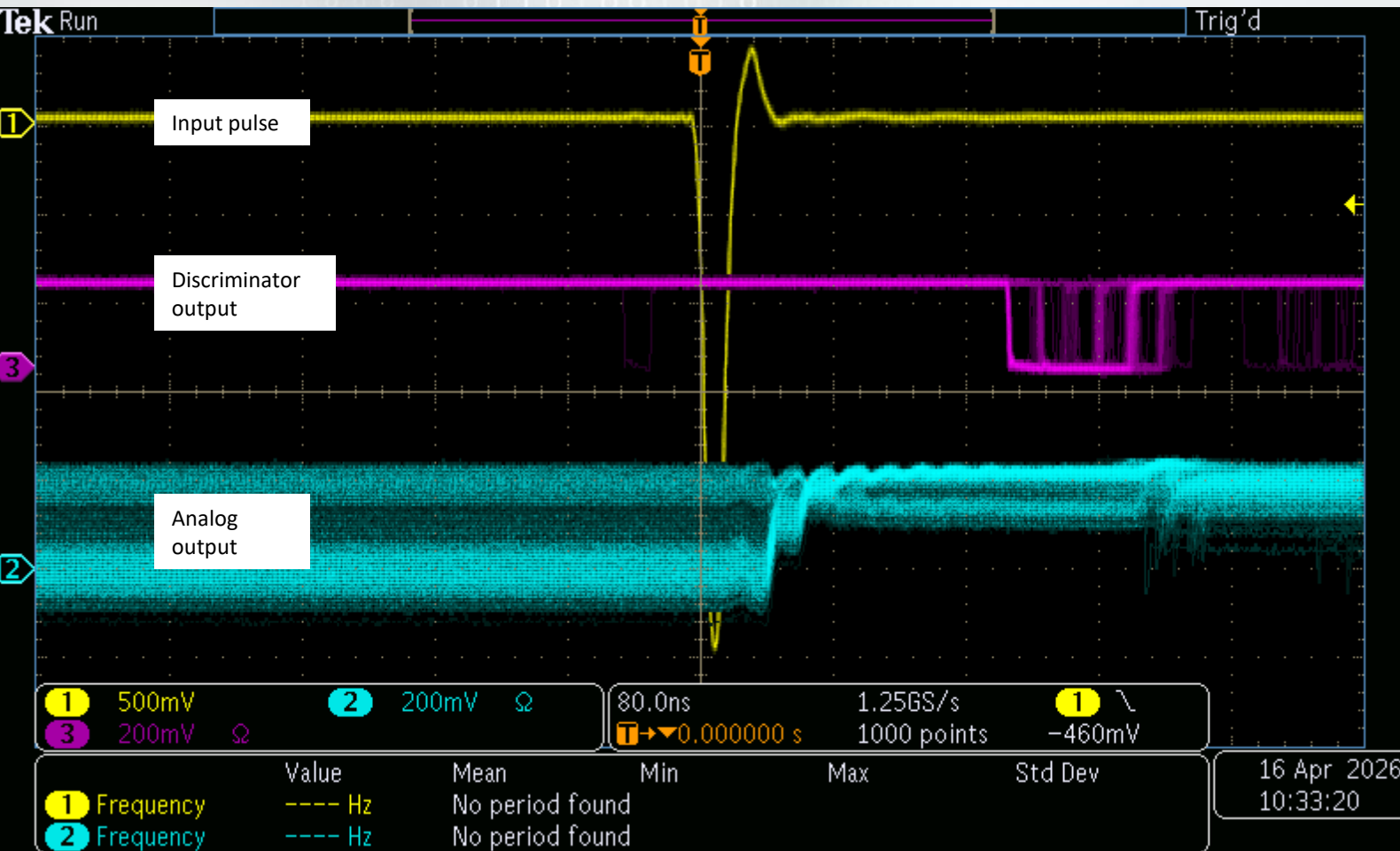
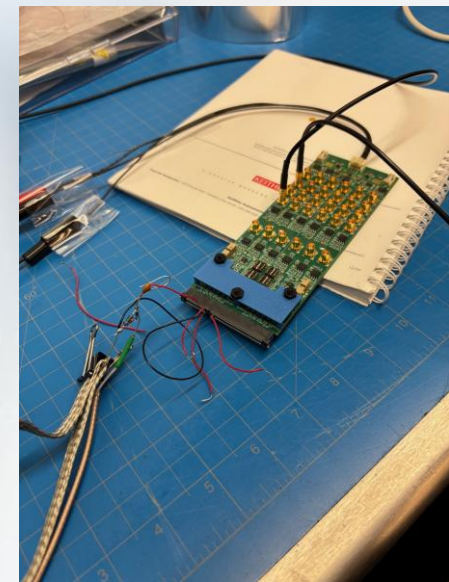
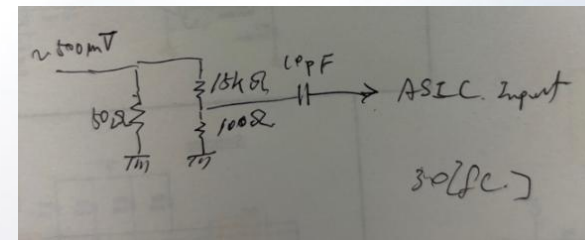
- **Backplane Changes**

- See action item list

FCFD Update

Summary

- Takao was unable to get any output from the FCFD until the termination resistor was removed
 - Tested the following charge ranges (after attenuation): 7.5 fC, 12.5 fC, 100 fC
 - Discovered output labels are reversed (Ch 0 is really Ch 5, etc.)



FCFD Update (cont.)

- Next steps

- IO group will assemble remaining boards
- Reach out to Artur/Tom for feedback
- Create better charge injection prototype
- Create test board

- Timeline

- HRPPD testing at Jlab in-between Beni's testing?
 - Seems the FCFD board may not be ready before HRPPDs ship to CERN

Interposer Vertical Stackup

See excel



Appendix

Kyocera File Updates

These changes have not been communicated, will be sent with final files

- 10-layer ODB++ files
- Slight change to 15-layer stackup for symmetry
- Outline reduction to 119.126 mm
- New cross locations at corners
- Cross thickness reduction to 5mil from 8mil
- Added alignment square outlines to interposer pads
- ~~Moved HV contact pad locations~~