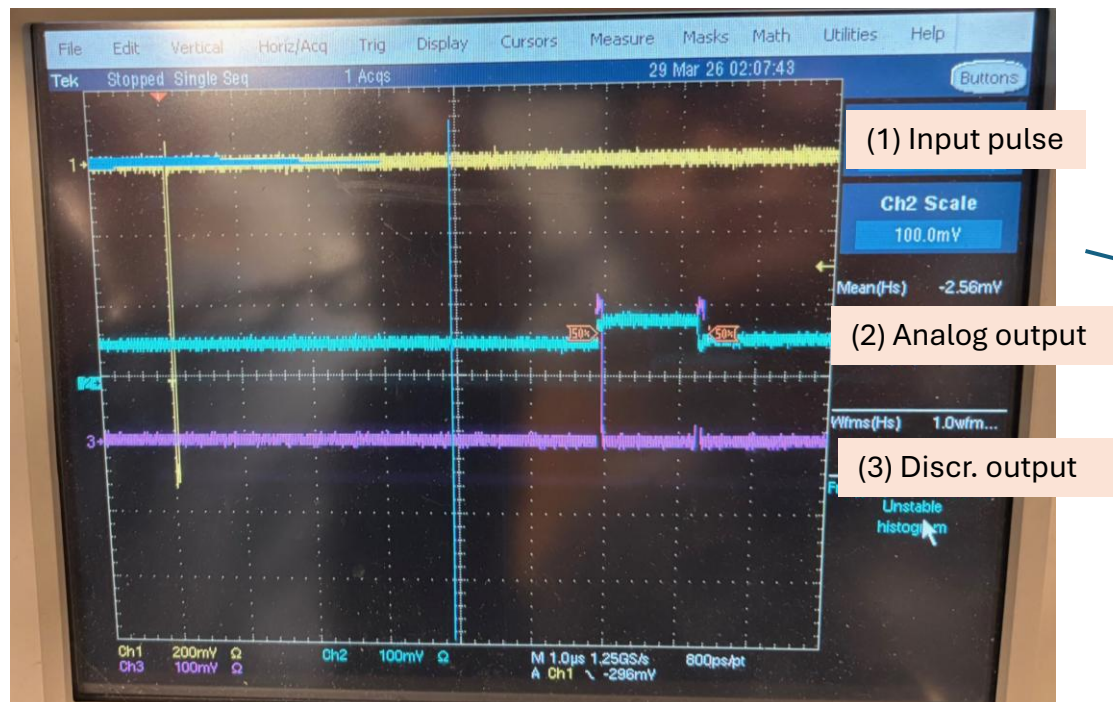
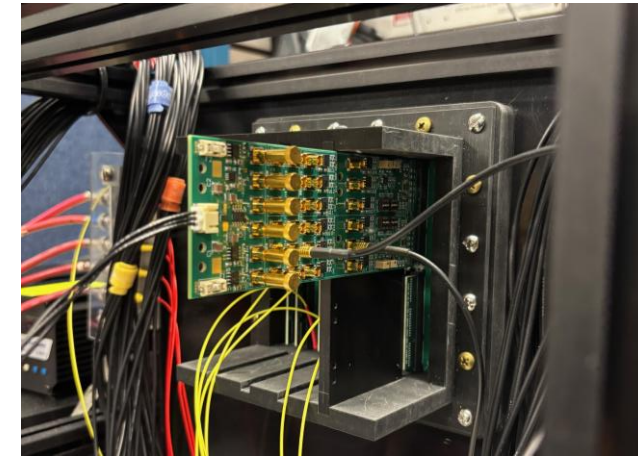


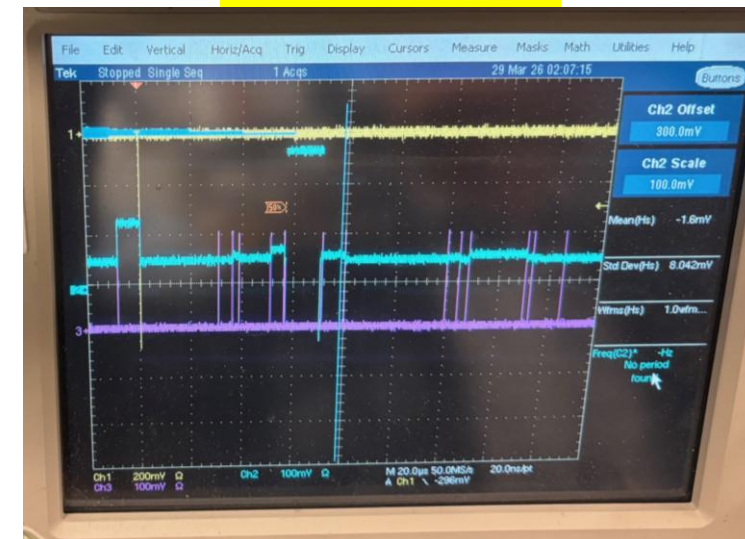
# FCFD evaluation card test status

Takao Sakaguchi, BNL on May 7, 2026

- Initial smoke test passed (Apr 13). Removed a 66.5 Ohm resistor placed at the input (Raymond's suggestion).
  - Found input/output channel mapping issue.
  - Big noise due to the “on-the-fly” pulse injection system
- Connected to HRPPD on May 1. Saw reasonable signal.
- Input charge was so high that the analog output was saturated
  - One more try tomorrow with a lower HRPPD gain

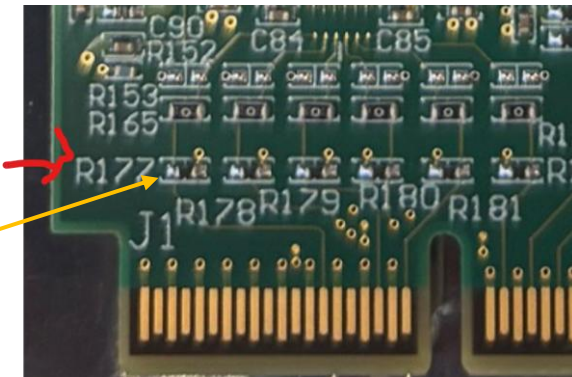
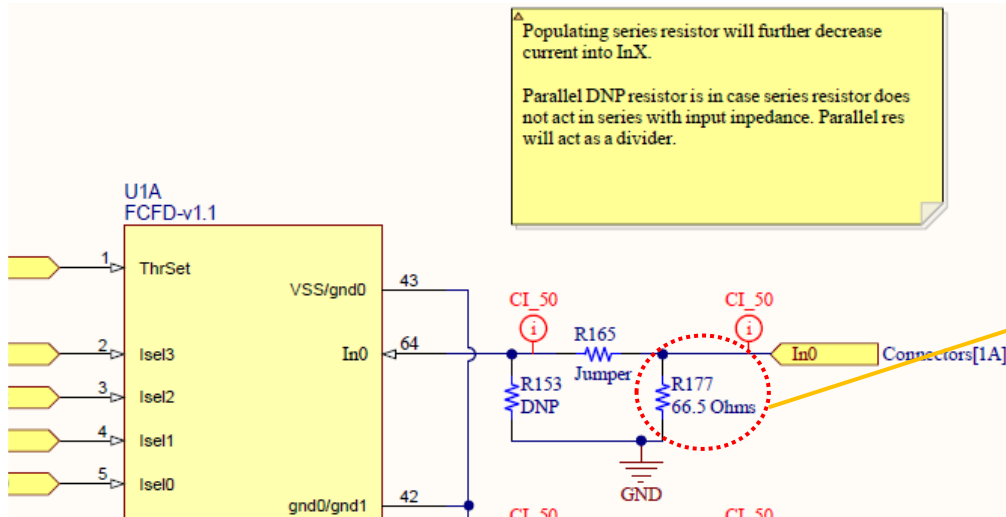


In coarser time bin



# Issue and next step

- Issue
  - No signal from channels with 66 ohm with HRPPD. Therefore, we removed all of 66 Ohms.
  - Another FCFD card produced at IO, but three inputs out of 12 were shorted GND. The three inputs belongs to the same FCFD chip. IO is looking for any issue. If none is found, we proceed to make another two cards.
- Next steps
  - One more card may be modified (66 Ohm removal and GND patch) for spare for CERN test.
  - Will send another card to Raymond for his test.
- We are asking FCFD experts on (1) impedance matching of FCFD, and (2) Power consumption of the FCFDv1.2 (all function included), but no response so far.
  - We will ask at the FCFD review that is coming on May 20.



# Backup

