



Status of the Tail Catcher/Muon Tracker

Presented by Victor Rykalin

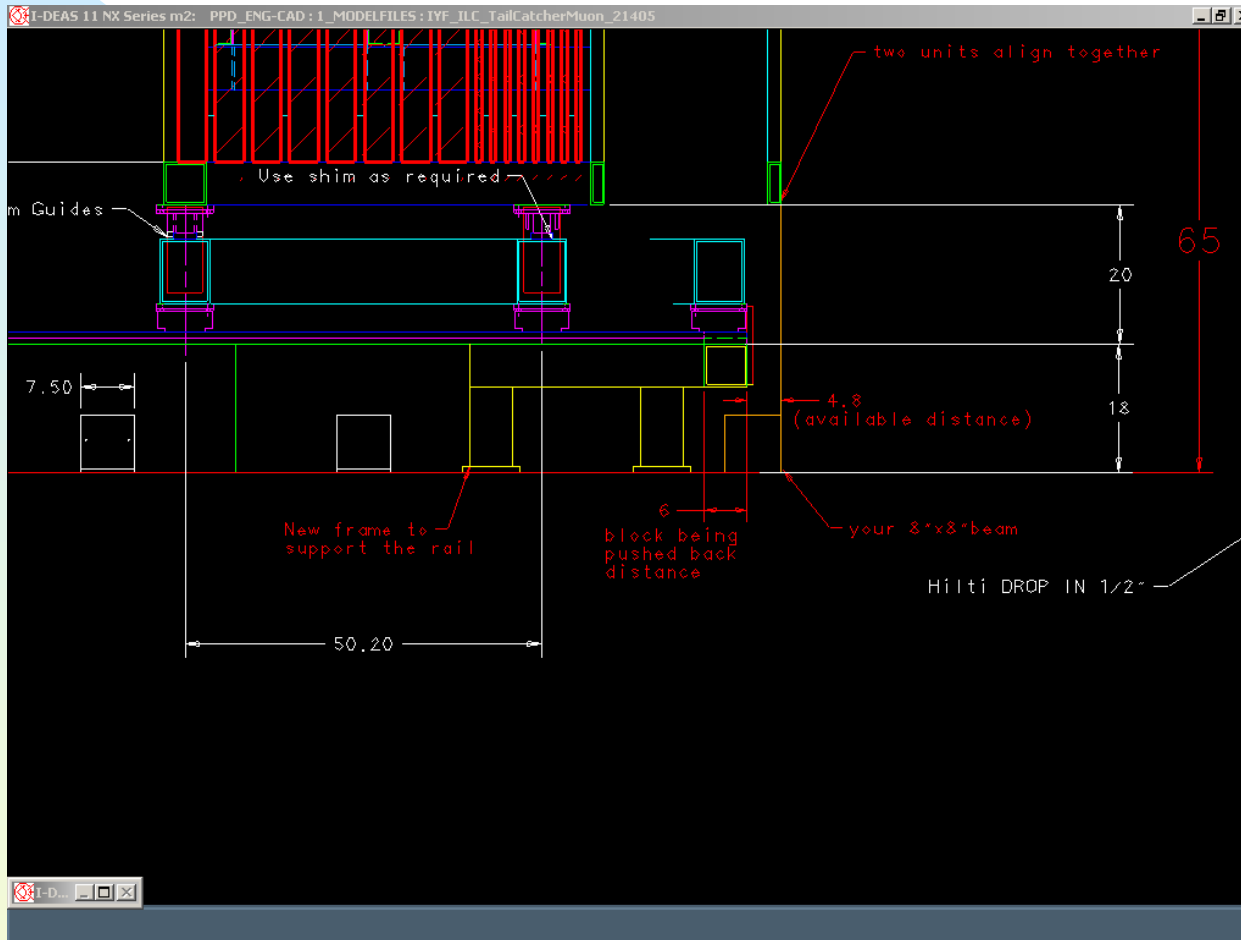
for NICADD NIU

CALICE April 28 2005

Outlines

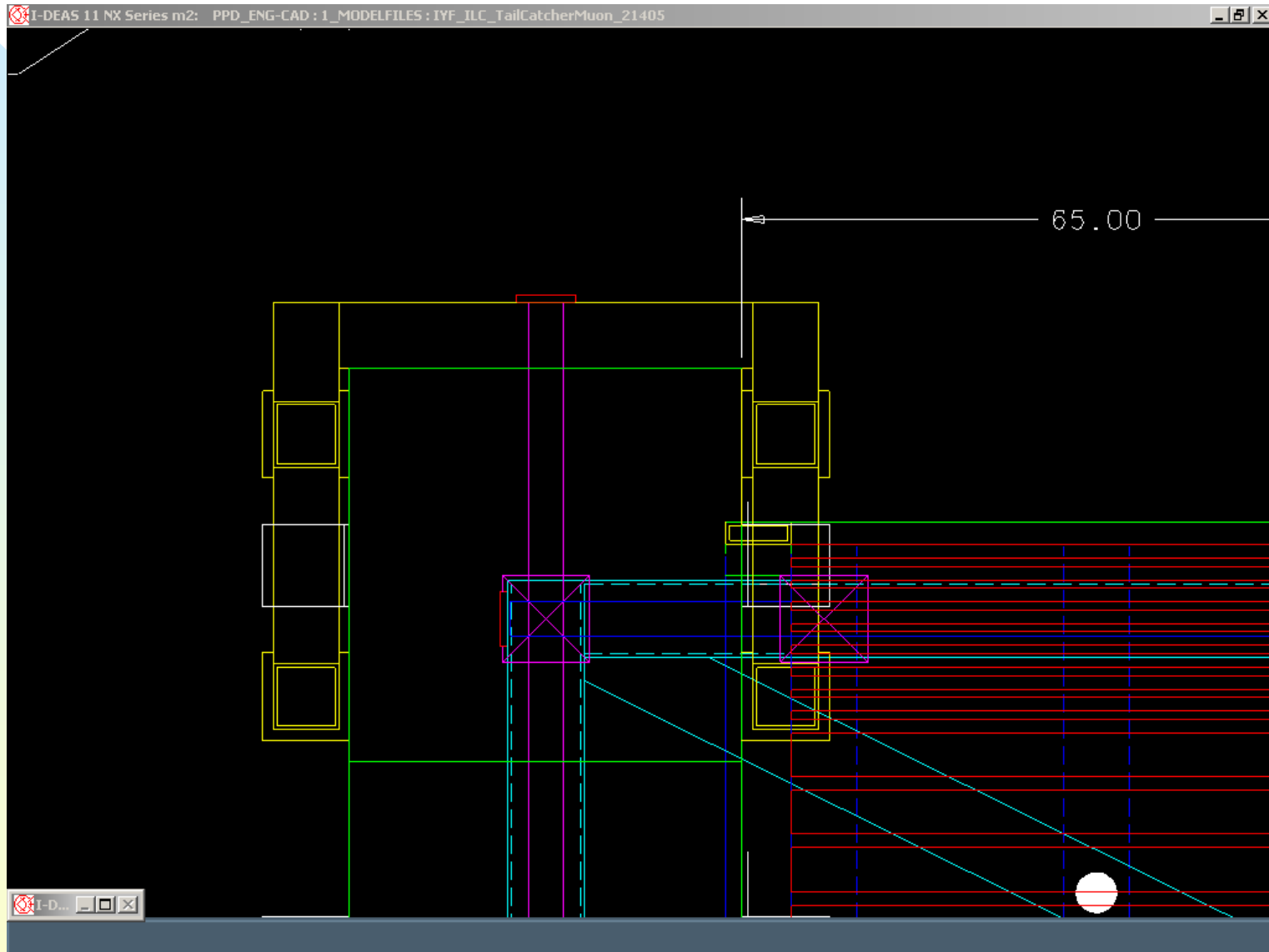
- Platform design
- FLC card
- Scintillator , fibers
- LED driver
- Cable connector choice
- Summary

Platform design



4/27/2005

Platform design

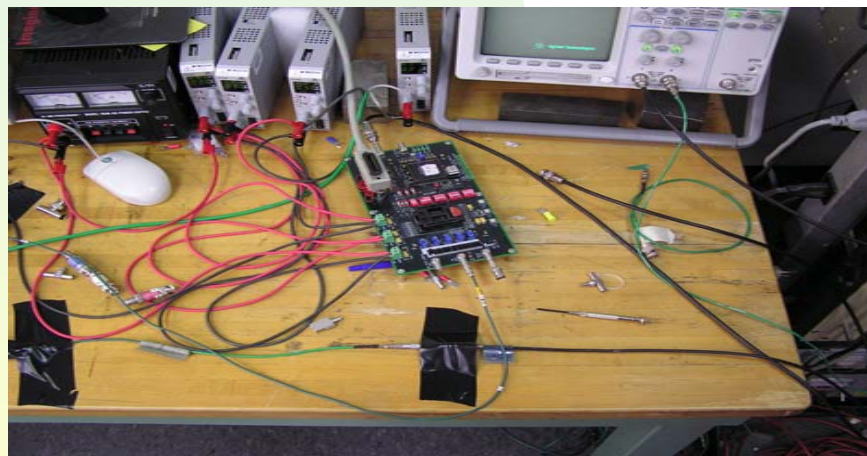
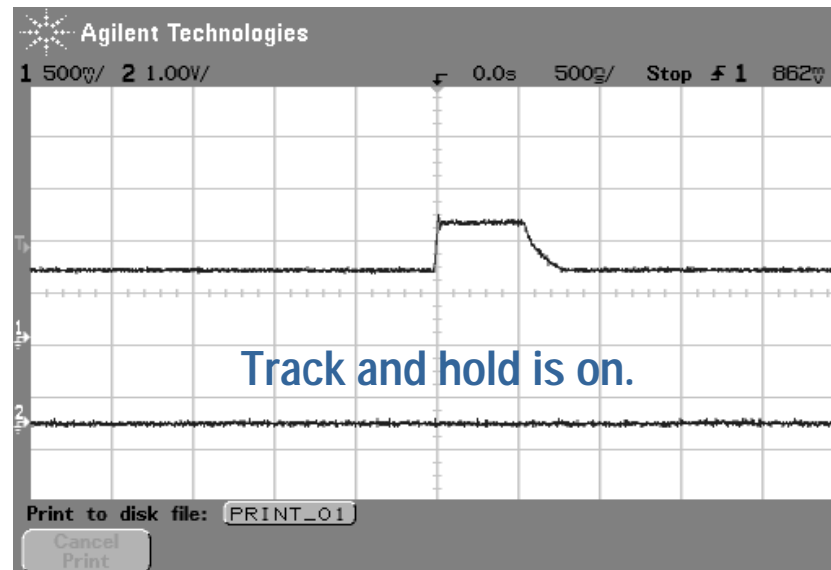
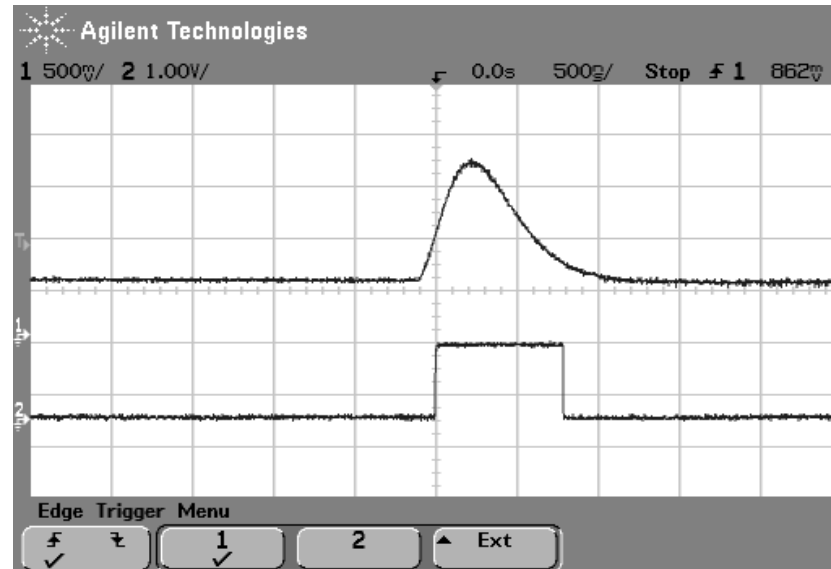
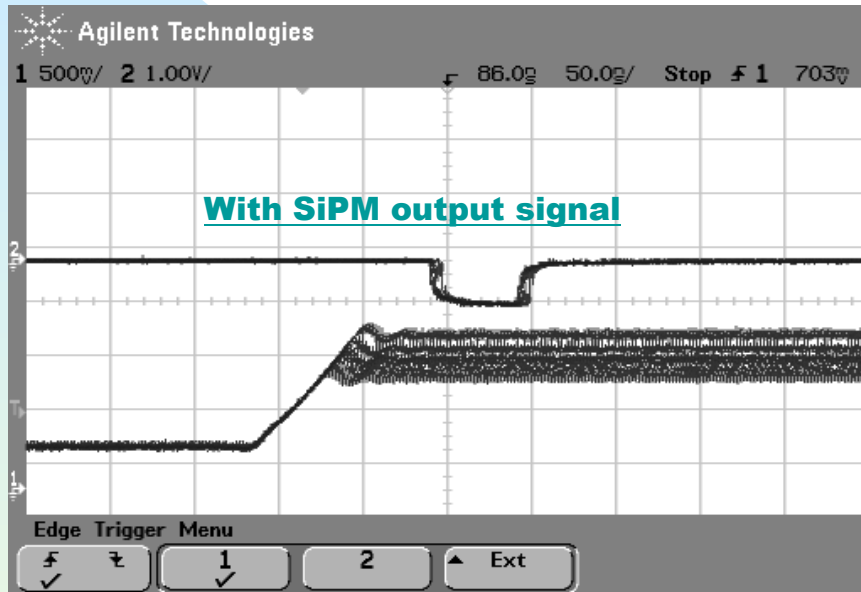


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FLC card

- GRIB controller was installed and tested. OK
- The Labview 6.1 program(downloading ASIC) has been modified. No error message anymore. I am strikingly grateful to Ludovic Raux for his patience. OK
- The inverting buffer was made and tested. OK
- Power suppliers – need more work on filtering. OK
- Multichannel pulser was tested. OK
- Electronic card was tested with SiPM signal. OK
- Peak sensitive ADC (encountered unexpected problems to find it at FNAL)

FLC card



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Scintillator trigger for HCAL

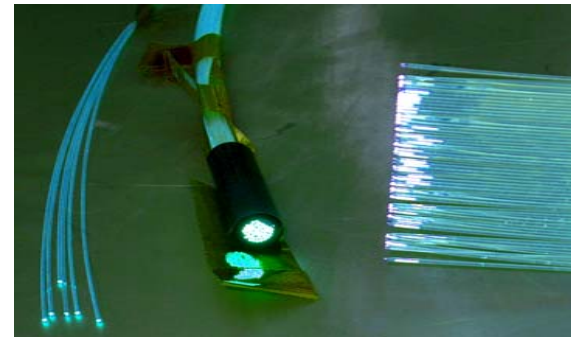
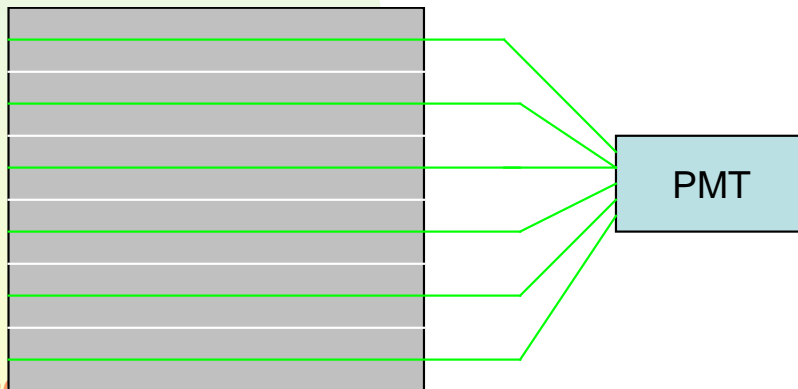
Simple

Should cover one full hcal layer

Generate coincidence but
should not have to read out the
counters

1x1 m²

- There are 3 options available:
- 1 cm x 2 cm (without co extrusion)
- 0.5 cm x 10 cm (-----/-----)
- 1 x 4 cm (with co extrusion, MINOS type)
- Disconnection at PMT end is possible to spatially constrain trigger

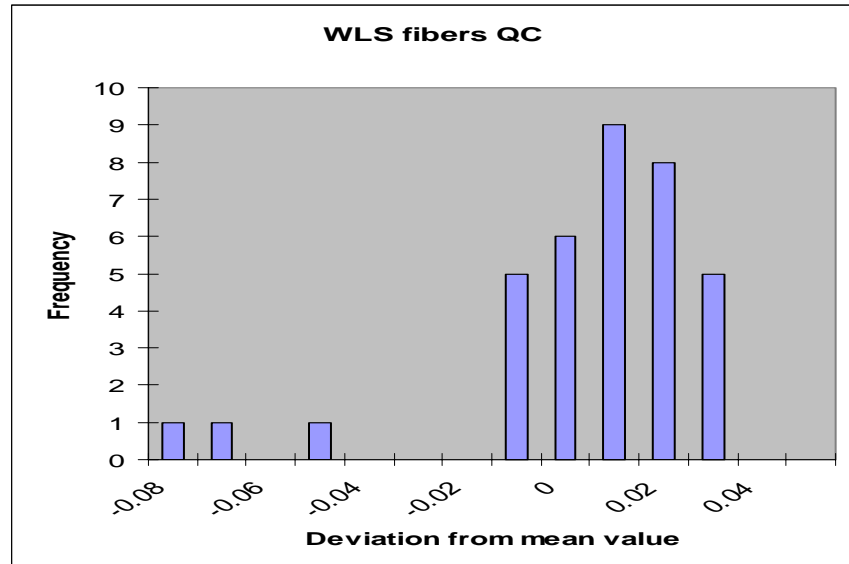
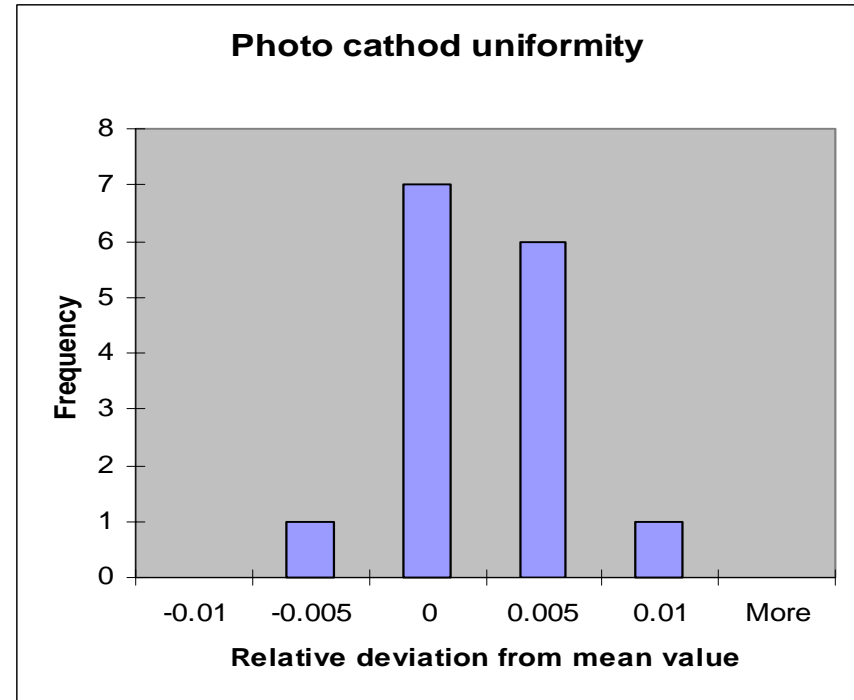


Fiber(TCMT) testing



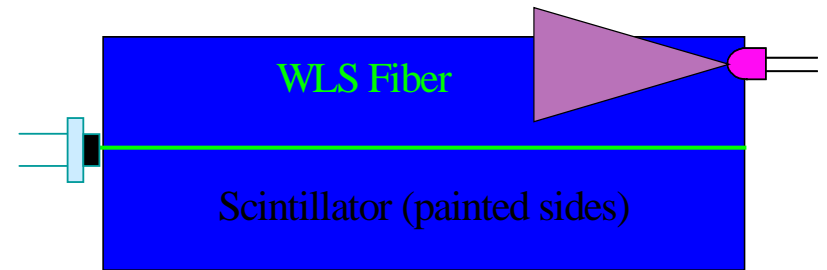
Work in progress

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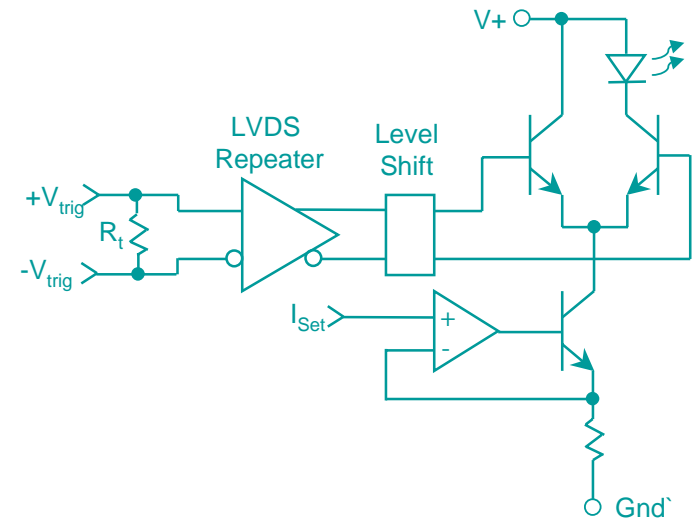


Calibration and monitoring

- Individual LED driver for the each strip.
- Driver designed and tested.
- Slower response than expected, work in progress.



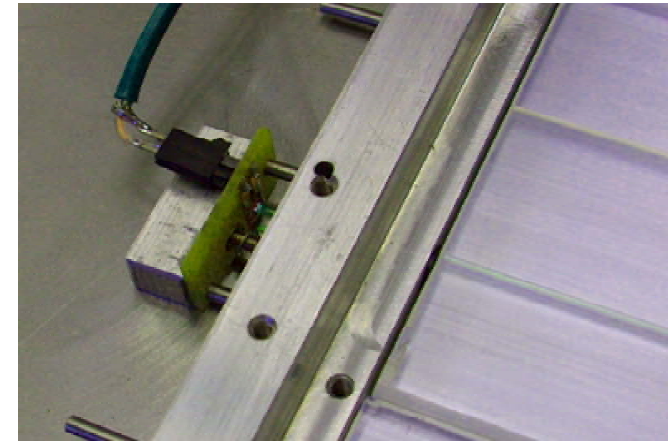
Block diagram of current switch at LED



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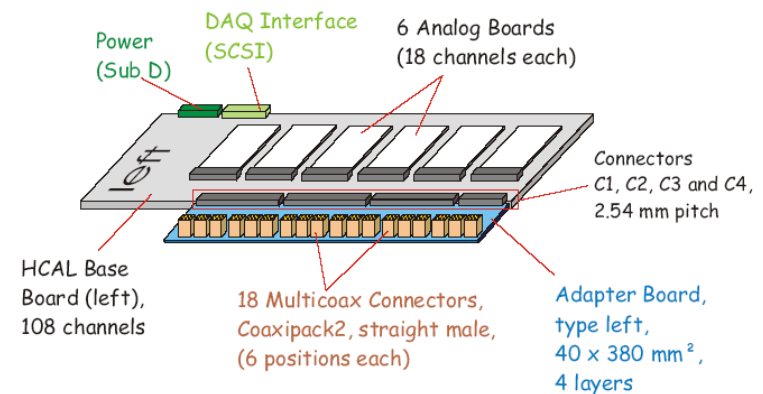
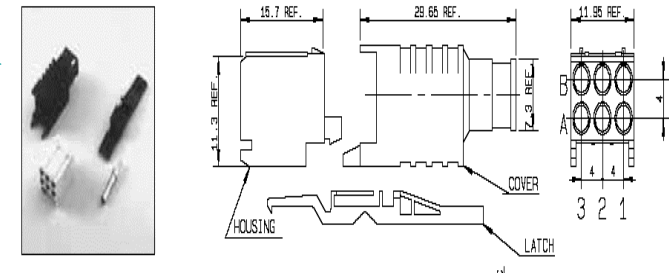
Cable connector choice

- Connector/cable assembly for 50ohm coax's
- 2 mm pitch
- 6 coax contacts
- Have to work with straight connector because of common shield in right angle connector

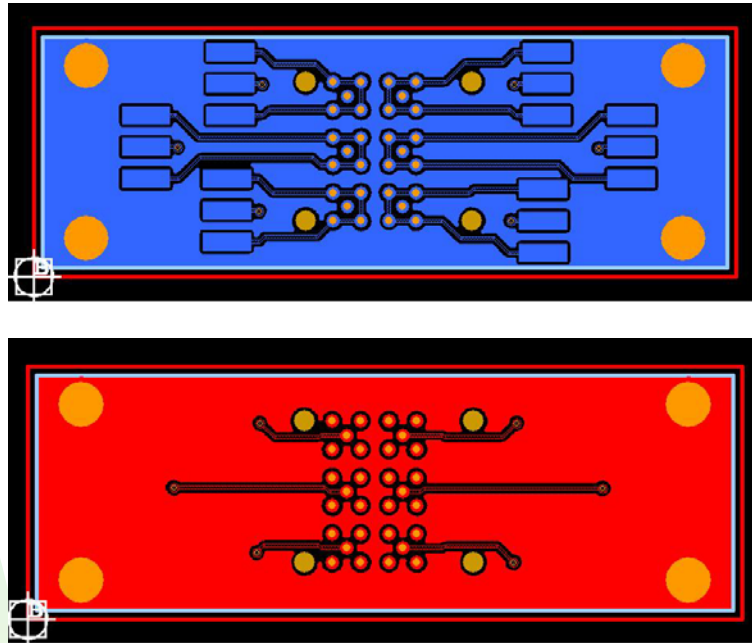


Special PC Board has been designed

STRAIGHT FEMALE KIT FOR CABLE ASSEMBLIES



PC board for 6 ch. connector



This part is ready to go and will be produced shortly.

Status summary

- **Cassette assembly starts middle of the May (strip, fibers, SiPM, coax, 6 pin connector). Final variant of the LED driver will not be ready by that time.**
- **We are intending to commission channels using the ASIC card. (simpler, newer version ?)**
- **Require more SiPM (longer legs?)**
- **Need to converge on mechanical aspects of the HCAL-TCMT interface**
- **Work on the adaptor board starts in June**