Status of the Tail Catcher/Muon Tracker

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for NICADD  NIU

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Outlines

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

- Use shim as required
- New frame to support the rail
- 6 block being pushed back distance
- 4.8 available distance
- Two units align together
- Hilti DROP IN 1/2
Platform design
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

With SiPM output signal

Track and hold is on.
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

Simple
Should cover one full hcal layer
Generate coincidence but should not have to read out the counters

1x1 m²
Fiber(TCMT) testing

Work in progress

4/27/2005
**Calibration and monitoring**

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