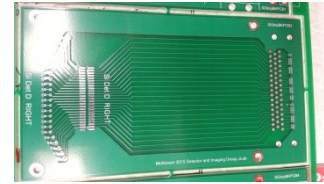


U of M test bed

Juliette Mammei

Strip detector setup



QWAD

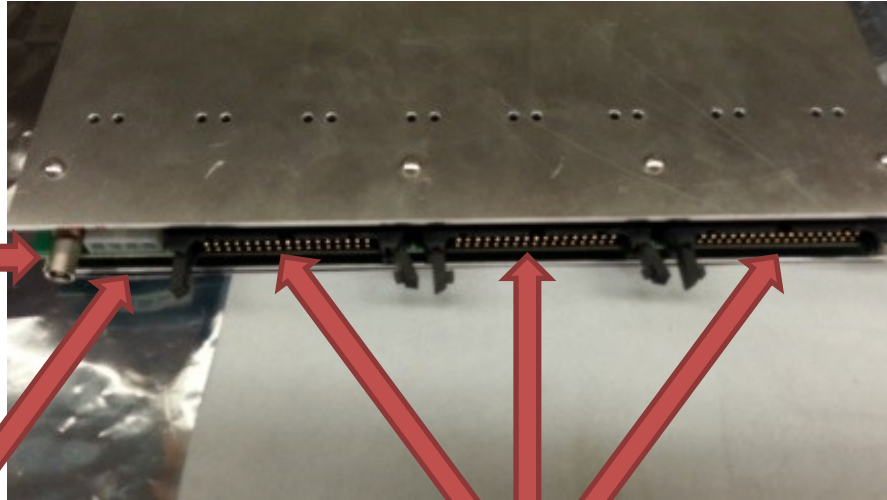
Strips

Detector
mount

Detector has some broken strips
Wire bonder on campus can't fix it
Still strips available for testing with QWAD

Electrical engineering shop can make
translator boards as above

QWAD

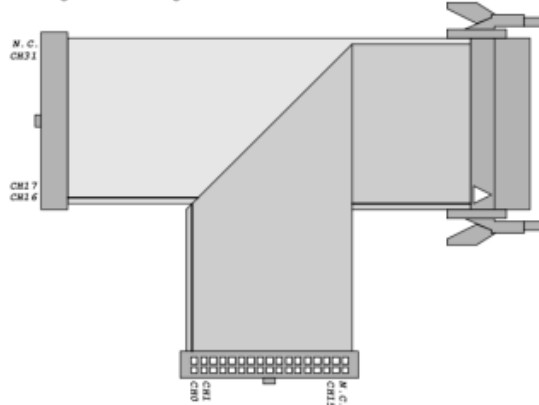


Test input

Molex connector
Power and external threshold

outputs

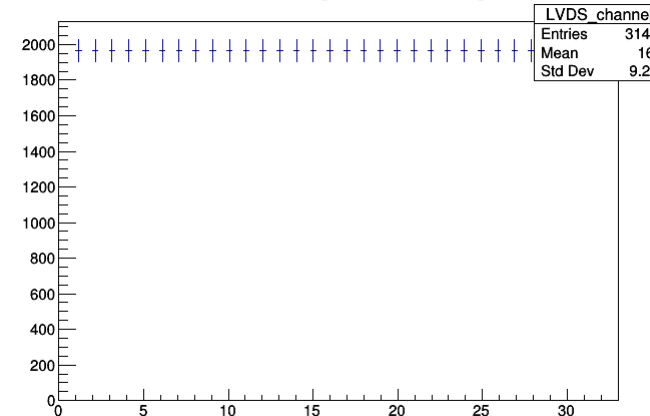
The CAEN Mod. A967 Cable Adapter allows to adapt each Robinson Nugent Multipin Connector into two 1" 17+17-pin Header-type male connectors (3M, 4634-7301) with locks through two 25 cm long flat cables.



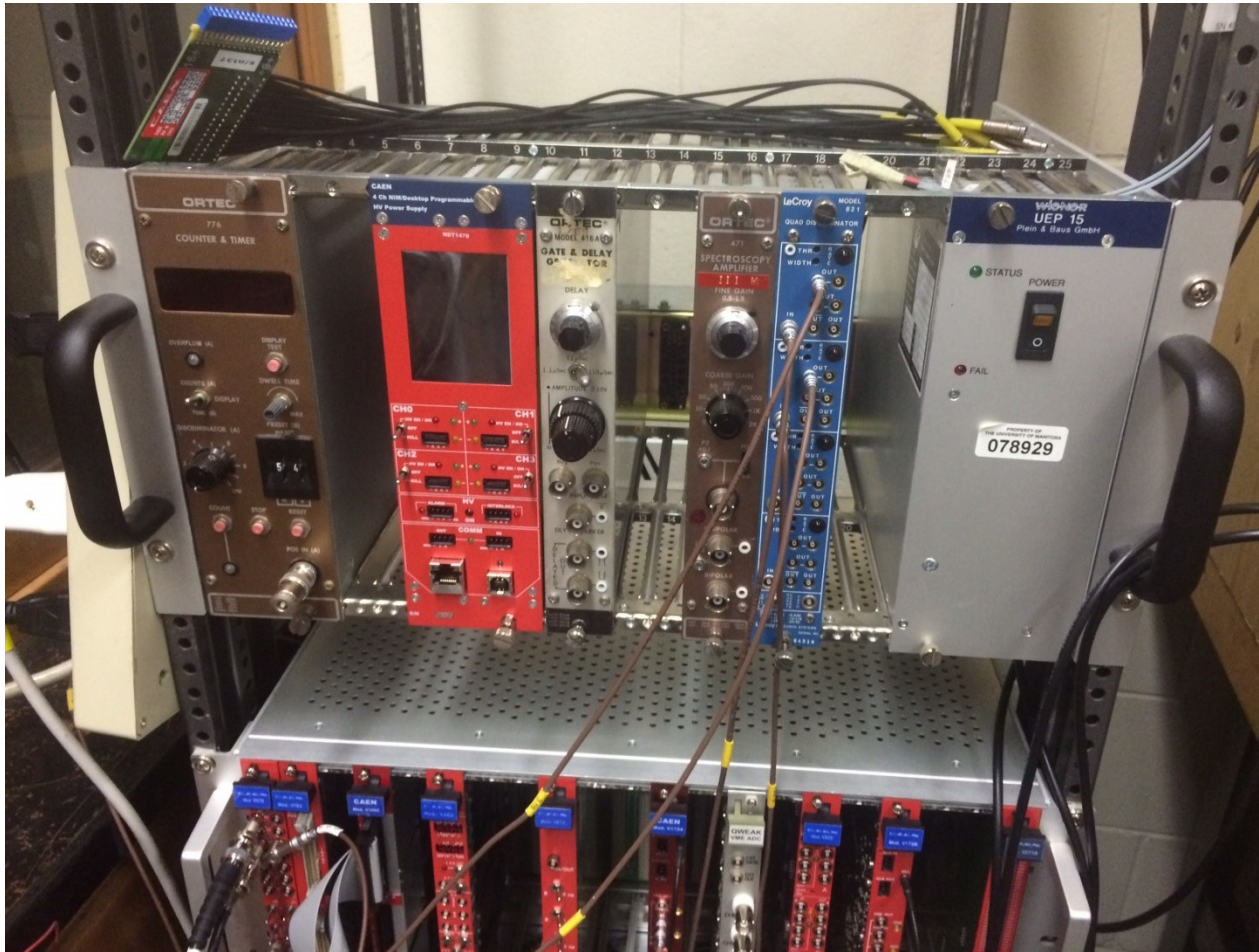
V1495

FW1495SC FPGA firmware allows 1495 to act as a multievent latching scaler

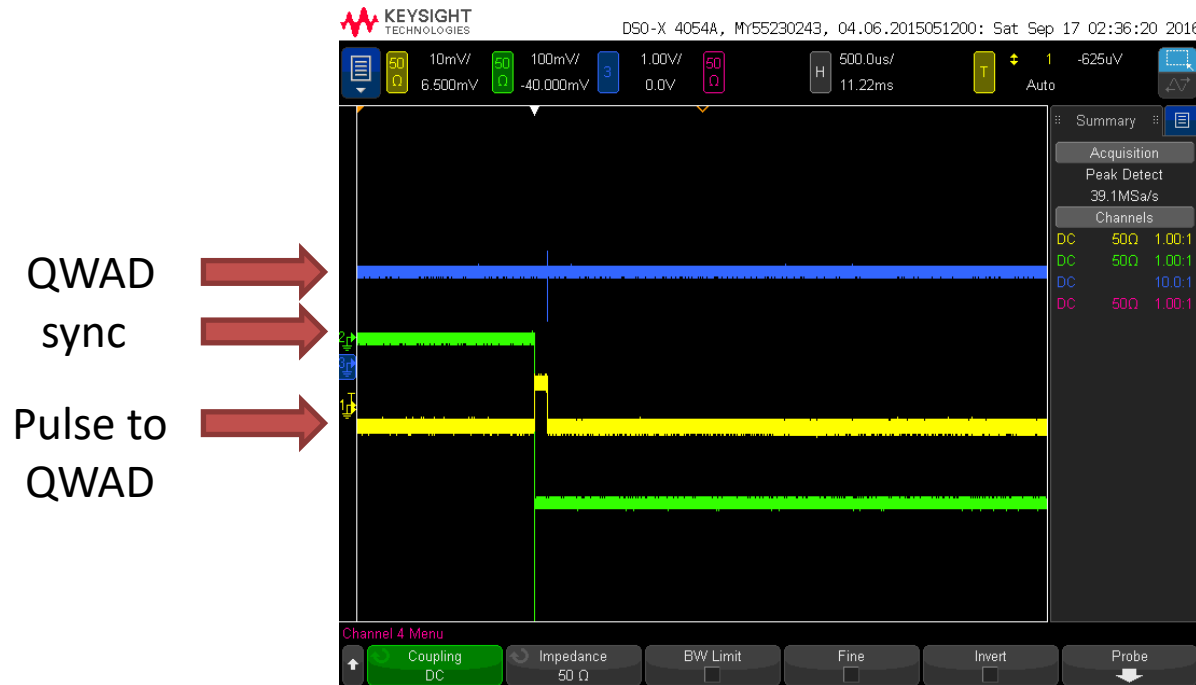
Run2 - Counter test - G1 given 200Hz NIM signal input.



Our temporary DAQ



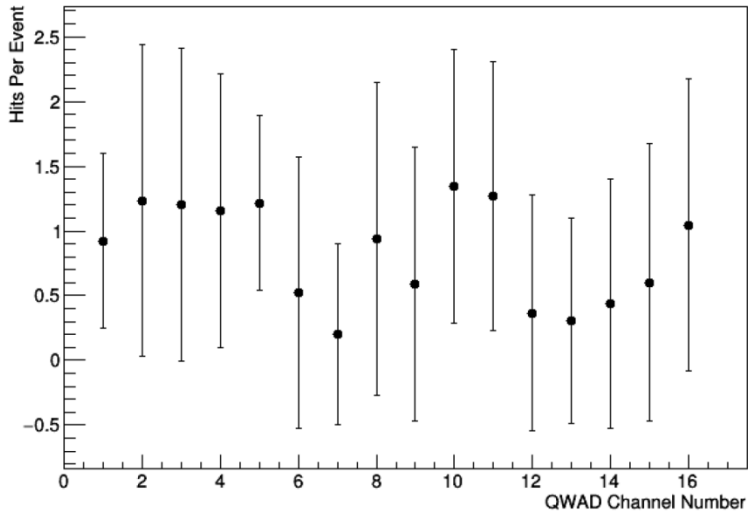
QWAD tests



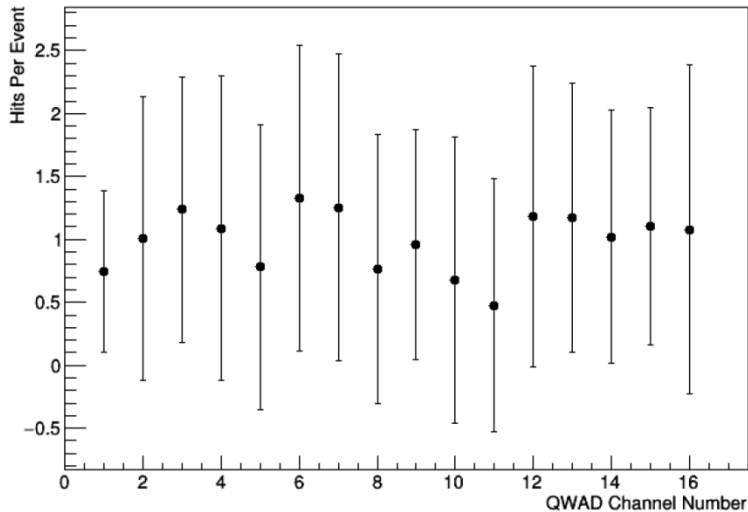
- Performing tests of QWAD with a pulse generator
- sync pulse trigger, length sets the gate
- Plans to test:
 - input voltage (10 mV max)
 - frequency
 - time over threshold

Threshold tests

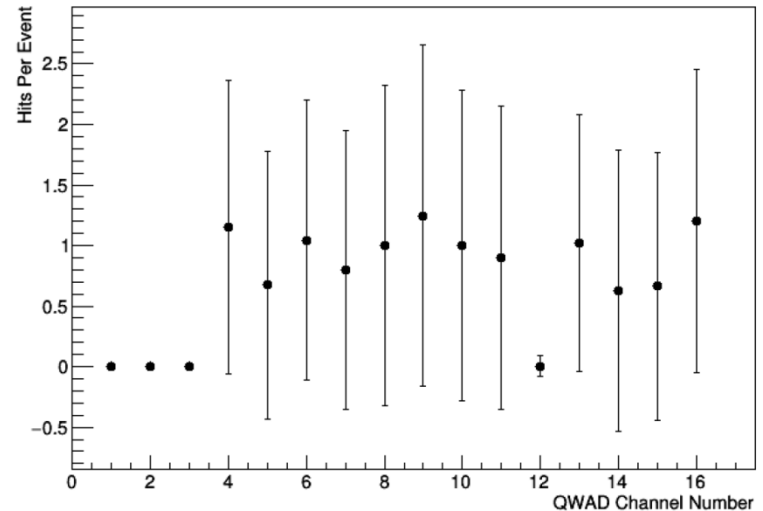
Run140 - QWAD Threshold Tests - Channel bank 1, 6.7V Threshold



Run141 - QWAD Threshold Tests - Channel bank 2, 6.7V Threshold



Run142 - QWAD Threshold Tests - Channel bank 3, 6.7V Threshold



- Currently the V1495 is programmed to accept QWAD input with input G0 acting as a trigger (sets the gate)
- Made a simple DAQ program for the V1495 to interface with the QWAD
- Performed tests of the noise as a function of external trigger voltage
- Choose 6.7 V to set external threshold

Plans

- Order needed cables for testing Hall A electronics?
- Continue testing QWAD to reduce noise to acceptable levels
- Cosmic tests with strip detector connected to QWAD
 - Have everything we need
 - Need to re-set up the cosmic trigger
 - Trigger start and stop sent to G0 and G1 inputs from cosmic coincidence gate