Status of DAQ system

Feb. 23, 2002

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1 ADC readout

- Block transfer failed for LeCroy 1885N.
- Channel-by-channel readout is possible.

  $\sim$ 10 msec/event/10modules

  $\rightarrow$ 20 Hz with 20% deadtime.

$\Downarrow$

* Use channel-by-channel for the run this summer.

* Find another type of ADC.
(Might be difficult at least for this summer.)

  CIAFB ... 96ch ADC used in OPAL experiment.
  15 bit dynamic range. (12 bit ADC, two range)
  800 pC of full scale. (1885N=1600 pC)
  30/200 fC resolution. (1885N=50/400 fC)
  1 msec conversion time. (1885N=0.75 msec)
  Block transfer available. (1.7 ms/10modules)
  Special input connector.
  Need to borrow from OPAL group.

  QtoT + multihit TDC ... Belle system
  18 bit dynamic range with three range mode.

2 FASTBUS DC power supply

- High-power regulator :
  Series-dropper type regulator was ordered.
  (Less ripple-noise in the DC output than a swiching regulator, so it will be better for ADC operation.)

3 TKO, TDC system

Ready. Nothing special.

4 Amp-Discri-Delay-Sum module

Modification of design in progress.

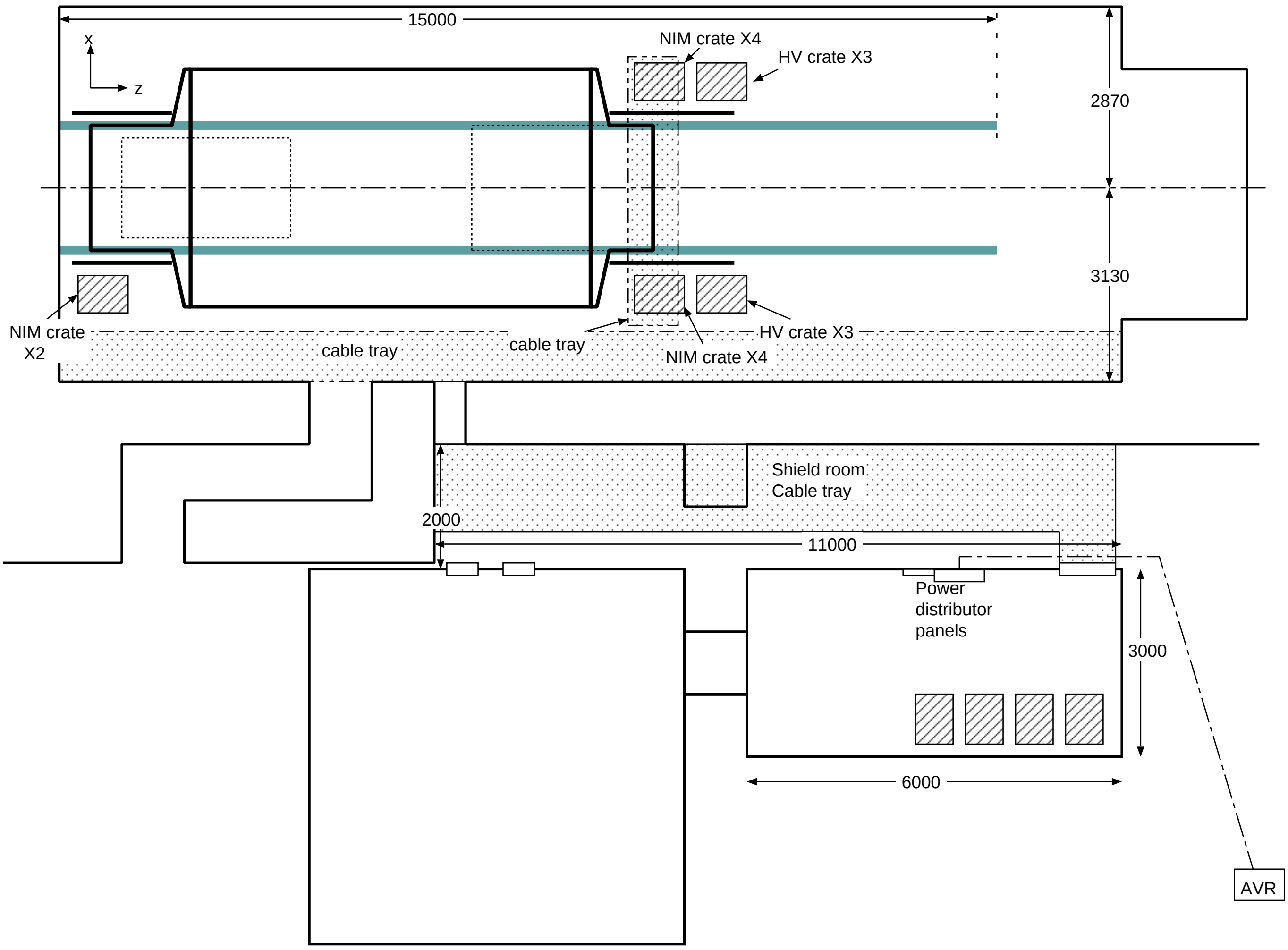
5 HV system

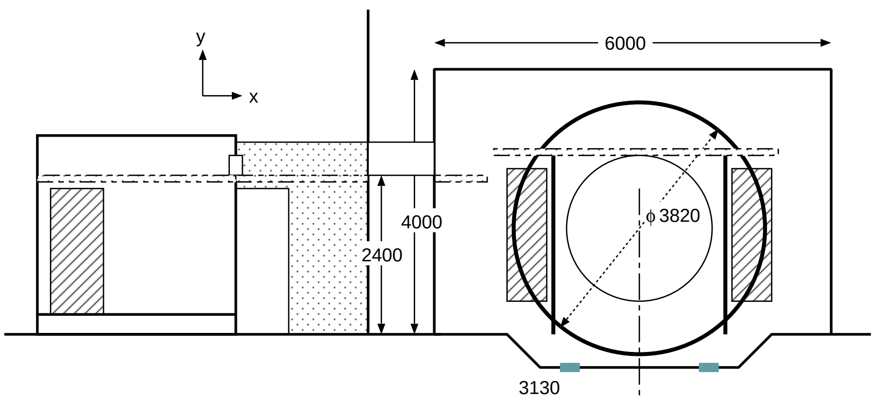
- All the necessary crates and modules are prepared.

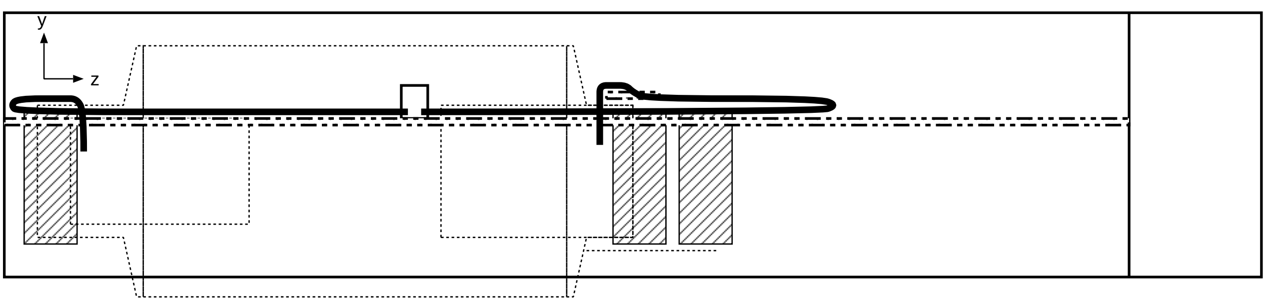
6 Cables

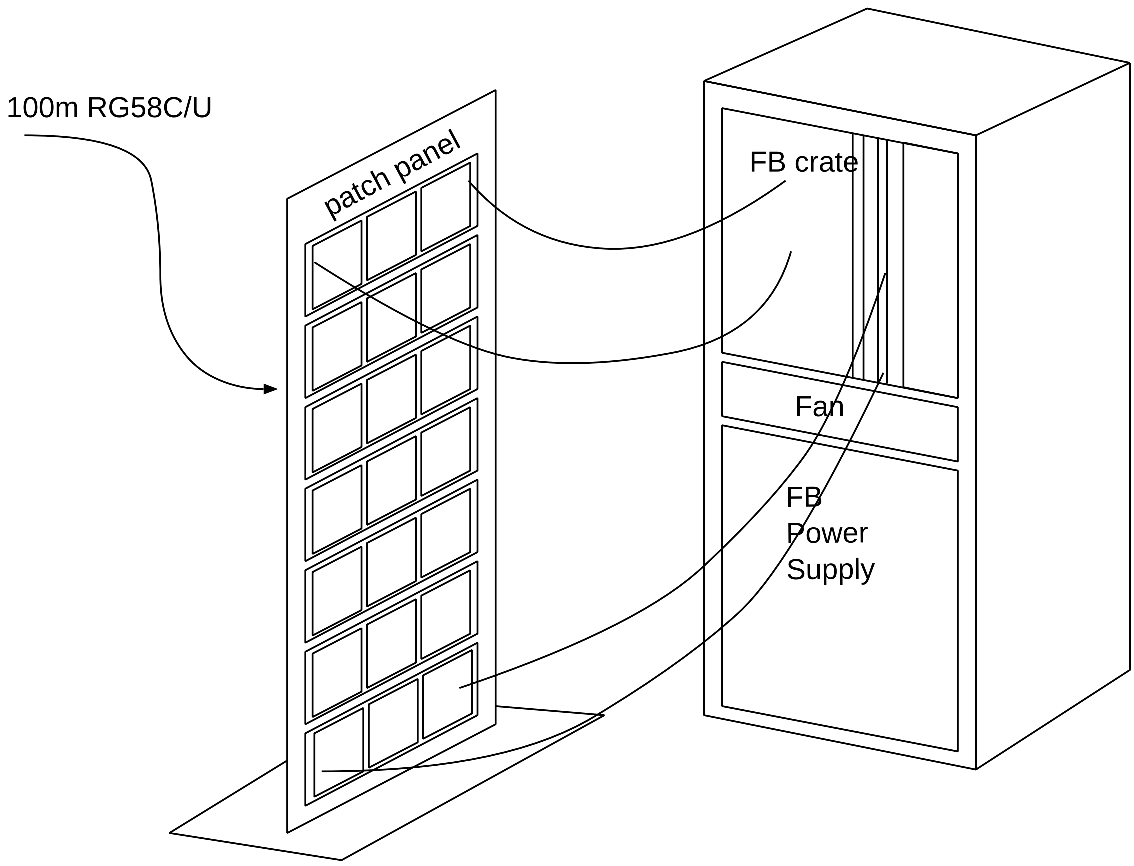
- 100m coaxial (RG58C/U) for ADC.
  40m coaxial (3D-FB) for trigger.
  40m twisted pair for TDC.
- Need to order as soos as possible.

Layout of Electronics and Cables








100m RG58C/U
patch panel
FB crate
Fan
FB
Power
Supply

7 Software

- MIDAS software will be used in this summer.
- Event building from two frontend :
  Simple test already done. Working fine.