VME BASED DIGITIZERS FOR WAVEFORM MONITORING SYSTEM OF LINEAR INDUCTION ACCELERATOR LIA-20


Budker Institute of Nuclear Physics, Novosibirsk, Russia

THMPL09
Project Goal

- Accelerating voltage
- Magnetic lens current
- Pulsed Power Supply Racks

- HV charge voltage
- PFN voltage

- 27 ch (HV)
- 480 ch (PFN)

- Slow
  - 64 ch
  - Pulsed demagnetizer current
  - ~ 1 ms
  - 32 ch
  - Magnetic lens current
  - ~ 500 μs

- Fast
  - 1000 ch
  - Accelerating voltage
  - ~ 300 ns

Beam
Fast Monitoring System

ADC4X250-1CH (1GSPS, 300 MHz)

ADC4X250-4CH (250 MSPS, 75 MHz)

ADC4X250-APD (250 MSPS, optical inp.)

1-ch mezzanine preamplifier

4-ch mezzanine preamplifier

4-ch mezzanine avalanche photodiode preamplifier

Baseboard

Calib DAC

PLL

Digital Part

Reg HV

TIA

Digital Part

ICALEPCS2017

Barcelona - Spain, October 8-13 - Palau de Congressos de Catalunya
Slow Monitoring System