

FETS Toroid Digitizing

G Boorman 19-11-2013

There are nine toroids at FETS for measuring the beam current. Eight of the toroids can be sampled in an 8-channel PXI-based digitizer and the waveforms served via an EPICS IOC, with the remaining toroid sampled by an oscilloscope and read out over the network.

The cost for the PXI digitizer is around £3200 for the card, cable and breakout box, which includes academic discount and VAT.

An EPICS IOC has already been written in Labview, with options to read out the complete waveforms, the waveform peak, a mean of the 'flat' portion of the signal etc. A basic viewing client has been developed, and a logging client will be written.