The Use of Integral TDCs with Picosecond Resolution at the IBR-2 Spectrometers

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Abstract

There are presented electronic modules for DAQ-systems at which are used integral TDC's (Time-to Digital Convertor) with picosecond resolution. The TDSs are produced by ACAM firm. The modules are designed at VME standard and intended for use at the neutron spectrometers of IBR-2.

TDC1 module uses two 2-channel TDC-GP1 with 333 picosecond selected resolution. It is intended for use with two-dimentional position sensitive detector (MWGC) with delay lines at DN-2 spectrometer.

TDC2 module ("Epsilon" spectrometer) uses 8-channel TDC-F1 with 150 picosecond selected resolution. The complete configuration intends the use of two TDC2 modules for the registration of events from 99 "point" detectors with "online" programm time focusing.