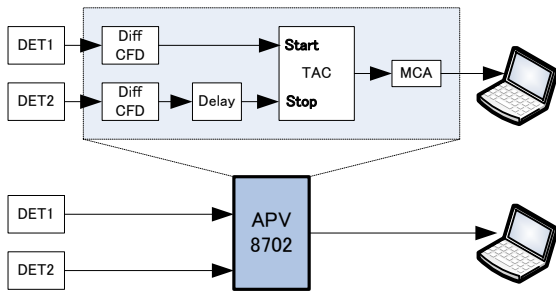


APV8702-8

This board is a spectral meter for time analysis which adopted high speed 3 GHz ADC for each channel. This board integrates the functions of radiation measurement modules such as Differential CFD, Delay, TAC, MCA required for time analysis. In the processing method, the preamplifier signal from the detector is sampled into a waveform with the high-speed ADC, then time analysis is performed in the FPGA, and the calculation result is transferred to the computer by Ethernet communication. It can be used for time difference measurement such as positron lifetime measurement.

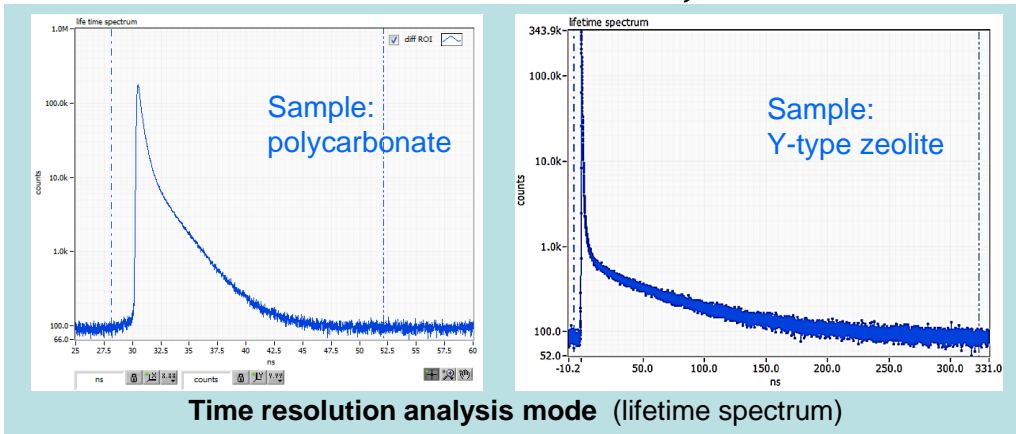
Features

- ADC: 2 channel, Sampling 3 GHz, Resolution 8-bit
- Time Resolution: < 180 ps (BaF₂ scintillator vs BaF₂ scintillator)
- Coincidence: < 1100 ns
- Analysis mode: Time lag (Lifetime), Waveform (Wave)
- Function: Digital CFD (WALK, THRESHOLD, LLD ,ULD)



Measuring of combination of some module.

APV8702-8 has integrated each module.



Time resolution analysis mode (lifetime spectrum)

Specifications

Rise time	0.5 ns
Input range	340 mVp-p / 1.7 Vp-p (Max.)
Offset	±170 mVp-p / ±0.85 V
Measurement time range	< 1100 ns (8192 ch) *10.4 ps / ch to 166.6 ps / ch
Signal input terminal	SMA connector (CH1 and CH2), 50Ω
Communication I/F	Ethernet (TCP/IP)
External I/O terminal	LEMO connector (VETO input, GATE input, CH1 and CH2 discriminator output) SMA connector
Dimensions	VME 1 width, 20 (W) x 262 (H) x 187 (D) *Unit: mm
Weight	Appx. 400g



*Images is for illustration purpose.
*Please note that contents may change without prior notice.

Website



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