Positron Lifetime Spectrometer

TechnoAP

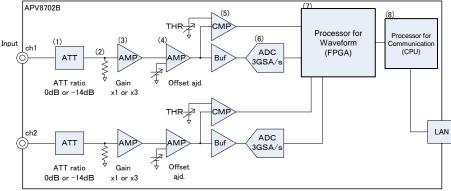
APU8702

Time Resolution: FWHM < 180 ps

UNIT

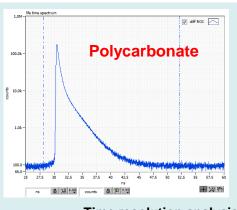
The APU8702 is a spectrometer for time analysis equipped with high-speed 3GHz ADC with each CH. Traditionally, the time analysis needed several radiation measurement module, such as differential CFD, Delay, TAC, MCA, etc. The APU8702 has integrated them. It is sampling the pre-amplifier signal from detector by high-speed ADC and then, it perform the time analysis by FPGA. An operation result is transferred to PC via Ethernet. It is mainly using as Positron Annihilation Lifetime Spectroscopy (PALS).

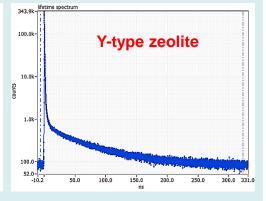
Block diagram







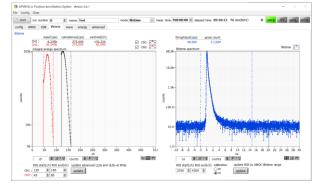




Specification

Time resolution analysis mode: Lifetime spectrum

Input	2 channel with SMA connector, 50 Ω
ADC	3GHz, 8-bit
Rise time	0.5 ns
Input range	340 mVp-p / 1.7Vp-p (Max.)
Offset	\pm 170 mVp-p / \pm 0.85 V
Time range	<1100 ns (8192ch) *10.4 ps/ch to 166.6 ps /ch.
Communicatio n I/F	Ethernet (TCP/IP)
External I/O terminal	LEMO connector: VETO and GATE input SMA connector: CH1 and CH2 for discriminator output
External dimensions	W:300 mm x H:56 mm x D:335 mm
Total weight	About 3300 g
Power supply	Built-in AC-DC (AC 100V-240V)



Window of data acquisition application software

Command manuals can be provided

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^{*}Images is for illustration purpose.

^{*}Please note that contents may change without prior notice.