

APV8504-14

This is a waveform analysis board equipped with a high-speed, high-resolution ADC (500 Msp/s, 14-bit).

It achieves dead-time-free, high-speed pipeline processing with high time resolution and high throughput through **real-time analysis** by FPGA.

All ADCs operate synchronously with a **500 MHz** clock, making it suitable for signal analysis from multiple high-speed scintillation detectors.

Features

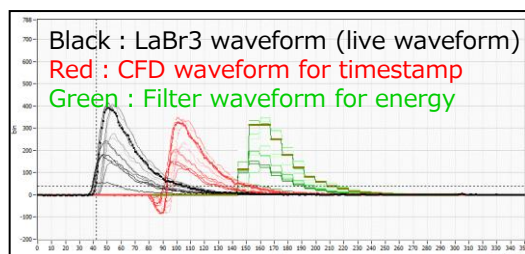
- Target Detectors: LaBr₃, CeBr₃, NaI(Tl), etc.
- Gain Switch: x1 / x3
- Time Resolution: Coarse: 2ns | Fine: 7.8ps, LSB
- Throughput: 2 Mcps or more per channel
- Modes: Histogram, List, Waveform
- Options: LIST-WAVE, LIST-PILEUP-WAVE

List data example *TDC: 1digit = 7.8ps

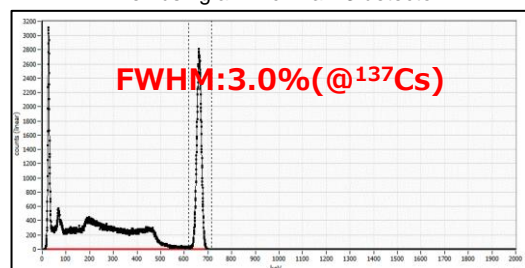
127bit			Obit		
TOTAL	FALL	RISE	TDC	CH	QDC
[15..0]	[15..0]	[15..0]	[53..0]	[3..0]	[12..0]

Specifications

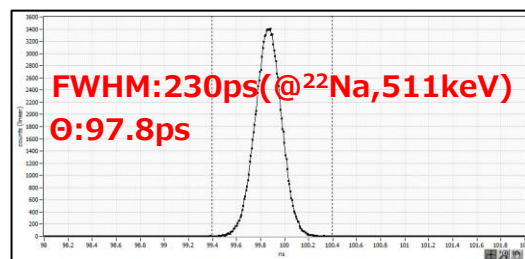
Analog input type	4-channel LEMO Connector Range: ±1V, Input Impedance: 50Ω
Offset	Adjustment ±1V
Risetime	Less than 2ns
Sampling	500Msp/s, Resolution 14bit
Digital Processing	CFD, TDC, QDC, PSD
External Input / Output terminal	CLK input, CLK output, GATE input, VETO input, CLR input, AUX
Communication	Gigabit Ethernet, TCP/IP and UDP
Power Consumption	+5V (Maximum 3.0A), +12V (Maximum 0.8A), -12V (Maximum 0.4A)
Dimensions and Weight	20(W) × 262(H) × 187(D) mm *excluding protrusions Approximately 430g
Accessories	Application



Wave mode
When using a 1-inch LaBr₃ detector



Energy Spectrum
When using a 1-inch LaBr₃ detector



Time Spectrum
When using a 1-inch LaBr₃ detector

*Images is for illustration purpose.

*Please note that contents may change without prior notice.

TechnoAP Co., Ltd.

2976-15 Mawatari, Hitachinaka, Ibaraki, Japan

Postcode: 312-0012 info@techno-ap.com

TEL: +81-29-350-8011 FAX: +81-29-352-9013



<https://www.techno-ap.com>



20221206