Digital Pulse Processor

1Gsps, Input 4ch.

TechnoAP

Detector

General case

Detector

Integrated functions of

CFD

This is a waveform analysis board equipped with four high-speed and high-resolution ADC (1 GHz, 14-bit) channels. In addition to 1 GHz real-time analysis by FPGA, high-speed processing with no dead time due to signal processing is realized with high time resolution and high throughput by adopting Gigabit Ethernet communication. All ADCs operate synchronously at 1 GHz clock and can also be used for signal analysis from multiple fast scintillation detectors. It also supports synchronous processing between multiple boards, and it is easy to extend it to multichannel analysis.

Features

ADC

1 GHz, 4 ch., Resolution: 14-bit, Synchronous

Time Resolution

Coarse:1 ns | Fine: 3.9 ps

APV8104-14

Output

1 Mcps and more / channel

Mode

80

List (TDC+QDC etc.) Waveform acquisition etc.

Functions

(digital)CFD, TDC, DC, PSD, List-wave*, LW-pileup* *Option

Example of List-data (1 event: 80-bit) 12 15

TDC[630	CH#[20] QDC[120]
Analog signal input type	Anode signal of PMT, Fast-NIM signal etc.
Analog input range	± 1 V, input impedance: 50 ohm, LEMO connector * Customizable up to \pm 4 V
Analog offset adjustment	$\pm 2V$ (12-bit) * Customizable from ± 20 mV up to $\pm 4V$
Analog gain switch	×1, ×3 * Customizable up to × 10
Analog signal risetime	1 ns or less (gain: x 1)
External terminal of input and output (TTL level)	CLK input, CLK output, GATE input, VETO input, CLR input, OR output, (LEMO connector x 6) * I/O signal customizable
Communication I/F	Ethernet (TCP / IP) 100BASE-TX, 1000BASE-T*
Dimensions Weight	20mm (W) \times 262mm (H) \times 187mm (D), VME 6U Approx. 430g
Power consumption	+5 V (approx. 2.9A), +12 V (approx. 0.7A),



Time

3000

Digital Pulse Processor

Trigger

TDC

List-Data PC

PC

GbE

various modules

Controller

VME







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

TechnoAP Co., Ltd.



-12V (approx. 0.3A)



http://www.techno-ap.com



TechnoAP