

## DSP for x-ray spectroscopy

## APN504XDC

Equipped with a circuit that minimizes the dead time that occurs when the preamplifier signal is reset from the detector. It is especially effective for high-count measurement.

## Features

**ADC: 100 Msp, 16-bit**

- **Resolution (@ 5.9 keV)**  
125 eV: peaking time 2  $\mu$ s  
140 eV: peaking time 1  $\mu$ s  
\*0.25  $\mu$ s equivalent analog
- **Measurement mode**  
Histogram, Quick-Scan
- **Functions**  
ROI-SCA etc. (FAST, SLOW)
- **Communication I / F**  
TCP / IP, Gigabit Ethernet  
Data transfer 20 M Byte / sec. or more  
\*at List-mode measurement(Optional)

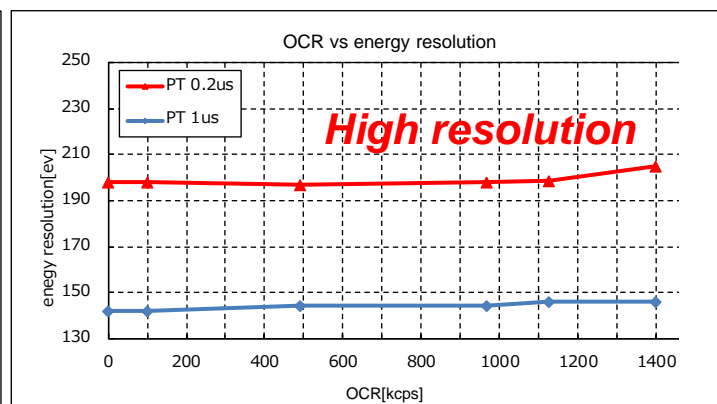
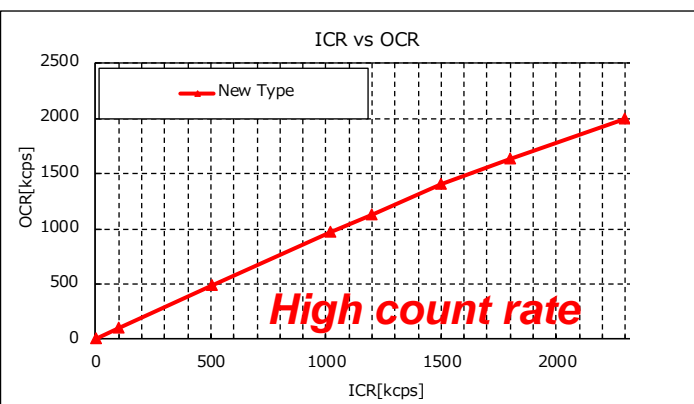
## Data format of Quick-scan

Event#1	CH1 4096ch	CH2 4096ch	CH3 4096ch	CH4 4096ch
Event#2	CH1 4096ch	CH2 4096ch	CH3 4096ch	CH4 4096ch
Event#N	CH1 4096ch	CH2 4096ch	CH3 4096ch	CH4 4096ch

The Quick-scan mode is a mode that performs time-resolved measurement, sends histogram data to the PC side at intervals of external trigger timing (minimum 10ms), and saves the data to the HDD continuously on the PC side. Ideal for QXAFS measurements.



## Performance of DC type



\*Images is for illustration purpose.

\*Please note that contents may change without prior notice.

Manufacture of Radiation and Radioactivity measurement devices

**TechnoAP Co., Ltd.**

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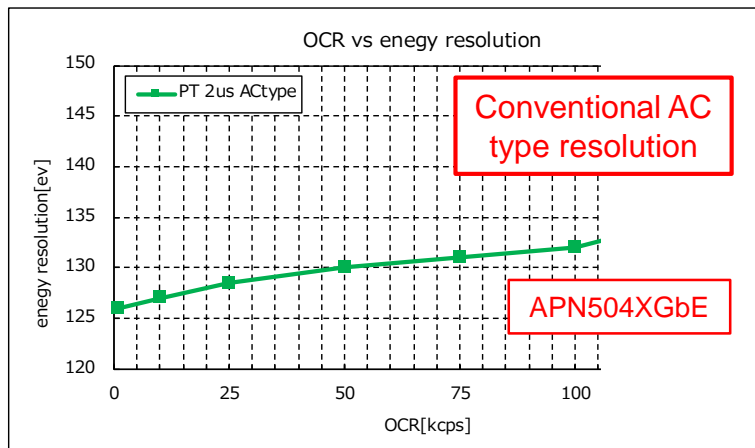
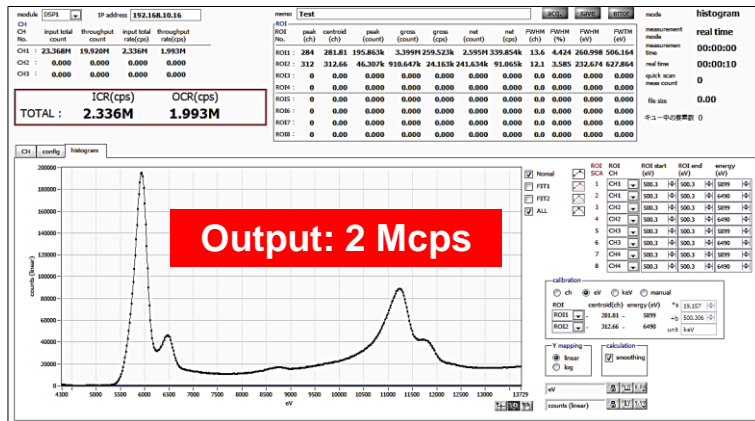
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### Next-generation measurement technology

DC type



### Specifications

Analog Input	4 channel, LEMO connector, Input Impedance: 1kΩ
Coarse Gain	x1, x4, x10, x20
Fine Gain	x0.5 - x1.5
ADC	Input range ±1 V, 100 Msps, Resolution 16-bit
ADC Gain	4096, 2048, 1024, 512, 256 channel
Trapezoidal Filter	0.05 – 12 μs
Digital Processing	Baseline Restorer, Pileup Rejecter, CFD *All parameters are set from PC
Quick-scan mode	Minimum time interval: 10 ms Data size: 32768 byte (= 2 byte × 4 CH × 4096 ch)
External Terminal	Output filtered waveform, Input CLOCK, Input GATE (Trigger), Input VETO, Input CLEAR
Communication I / F	TCP/IP, Gigabit Ethernet
Dimensions	NIM 1-width 34(W) x 221(H) x 249(T) mm *Without connectors
Weight	Appx. 900 g

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