

XCT101001-SYS

This is a measurement system that packages a CdTe semiconductor detector with compact size and high detection efficiency, capable of operating at room temperature and applicable across a wide range of fields, along with a low-noise charge-sensitive amplifier and an all-in-one digital spectrometer. It now comes with newly standard-equipped spectrum analysis software that allows real-time updates.

System Configuration

Scintillation Detector

XCT101001

CdTe10×10×1mm



Charge-Sensitive Amplifier

APG1603



Measuring Instrument

APU101S

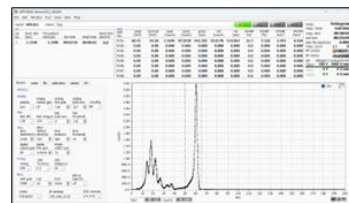


All-in-One

- High Voltage Power Supply
- Pre-amplifier Power Supply
- DSP-type MCA

*Includes high voltage power supply, pre-amplifier power supply, and signal cables.

Application Software

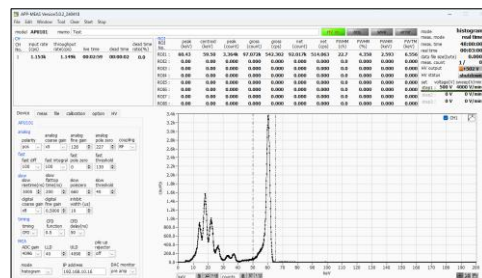


Usage of the²⁴¹Am source

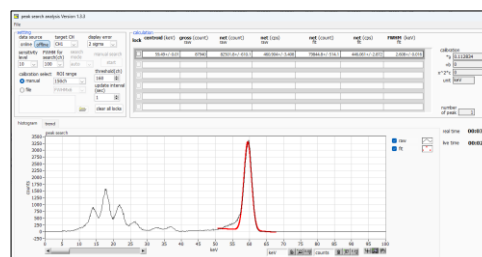
- High Voltage Power Supply Control
- Up to 8 types of ROI settings
- Spectrum Analysis

Specification

Detector	Model XCT101001
Crystal	CdTe 10×10×1mm
Resolution	< 5%@59.5keV
Dimensions, Weight	28(W)×22(H)×22(D) mm, Approximately 32g
Charge-Sensitive Amplifier	Model APG1603
Noise Characteristics	Capacity load 0pF : 750 eV (Si) Capacity load 100pF : 2.7 keV (Si)
Feedback circuit	1GΩ, 0.5pF
Dimensions, Weight	20(W)×20(H)×102(D) mm, Approximately 55g
Measuring instrument	Model APU101S
Analog input	1channel BNC connector The range ±1V, Input Impedance1kΩ
Analog gain	Coarse Gain x1, x2, x5, x10 Fine Gain x0.5~x1.5
ADC	100MSPS, 16bit
ADC gain	16k, 8k, 4k, 2k, 1k, 512, 256 ch.
Digital Processing	Trapezoidal Filter rise time 0.1~20μs(0.01μsstep) flattop time 0.05~2μs(0.01μsstep) Timing Filter, Baseline Restorer, etc.
High Voltage Power Supply	0V~±4000V (maximum 1mA), Ripple Noise 5mVp-p, SHV Connector
Pre-amplifier Power Supply	±12V, ±24V, D-sub9 Pin Connector
Communication	Gigabit Ethernet, TCP/IP and UDP
Dimensions, Weight	210(W)×45(H)×275(D) mm, Approximately 1800g
Application	Data measurement control spectrum analysis software



Histogram Mode



Spectrum Analysis Software (Peak Search Analysis)

*Images is for illustration purpose.

*Please note that contents may change without prior notice.

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20240419