Charge amplifier for semiconductor detector

TechnoAP

APG1603

PREAMP

20210810

Ideal for **Schottky CdTe detectors and CdZnTe detectors.**

Despite its **thinness and small** size, the APG1603 has achieved **ultra-low noise** characteristics with its unique circuit configuration. It has a high input withstand voltage and can **support 1000V** (BNC connector). It can be used for **CdTe**, **CZT** and other detectors that require ultra-low noise characteristics. It uses the latest parts and can be manufactured at low cost. Taking advantage of this, we also accept **OEM** supply and **custom-made** production.

750 eV or less

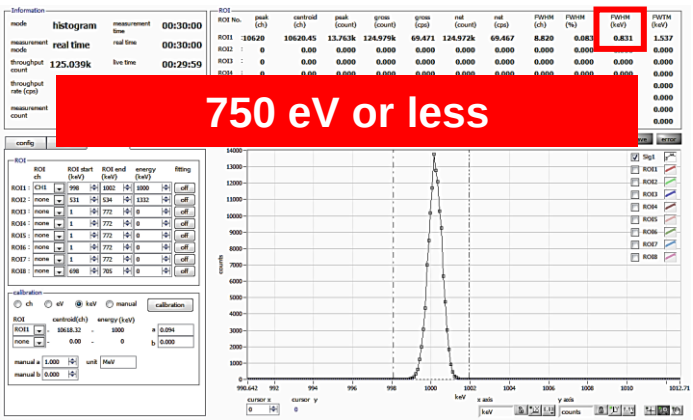
Image photo: Connected to our **CdTe detector (XCT101001)**

Signal **input** side

Specifications

Noise characteristics	Capacity load 0 pF: 750 eV (Si) Capacity load 100 pF: 2.7 keV (Si)
Feedback circuit	1 GΩ, 0.5 pF
Rise-time	< 40 ns
Decay-time	100 us
Sensitivity	11 V /pC
Detector bias	±1000 V Max.
Amplification rate	7 times *2 times at high energy
Output impedance	50 Ω
Input coupling	AC
Power Supply	+12V 30mA, -12V 20mA *At no load
Input connector	BNC / SHV
Output connector	BNC
Size	20 (W) x 20 (H) x 102 (D) mm^3 *Without connector
Weight	55g
Accessories	Composite cable (BNC, D-sub 9pin conversion)

Included composite cable



Measurement screen with our **MCA (APG7300A)**

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

Web-site

Manufacture of Radiation and Radioactivity measurement devices

TechnoAP Co., Ltd.

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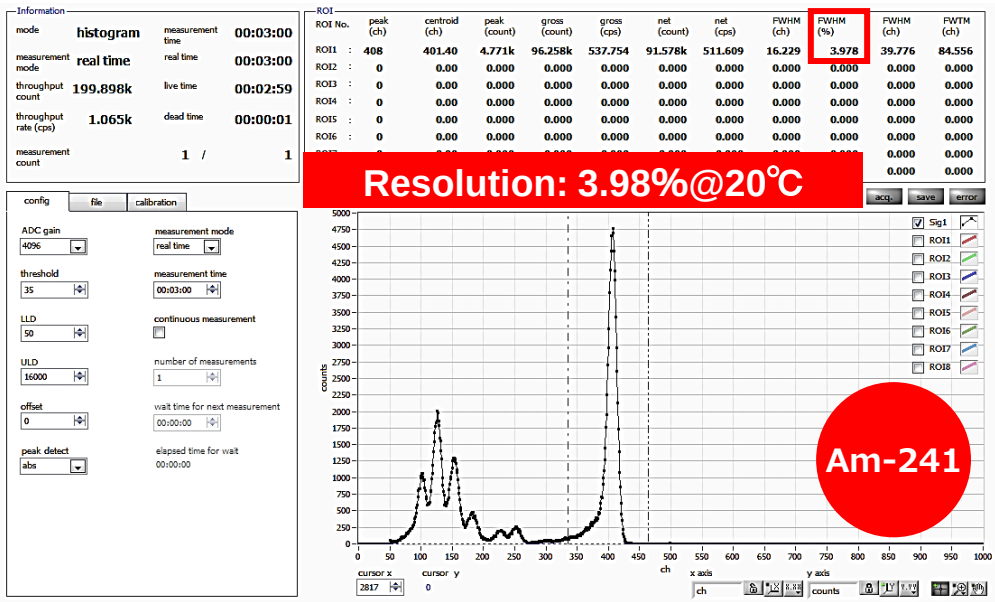
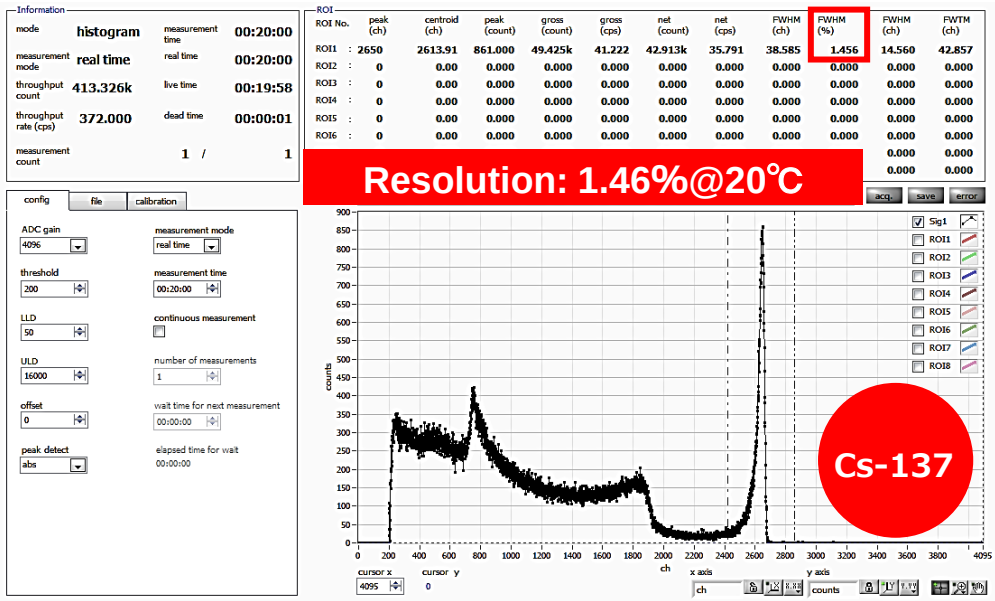
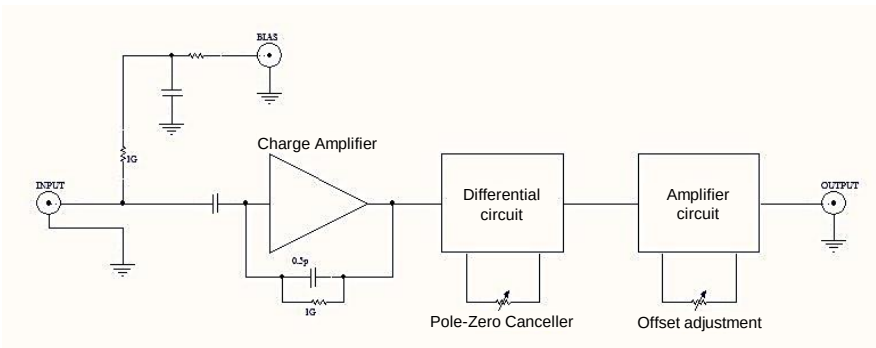


Energy spectrum when using **CdTe** detector **10 × 10 × 1 mm**



Energy spectrum when used **CZT** detector **10 × 10 × 5 mm**



Internal block diagram

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