

1. Overview

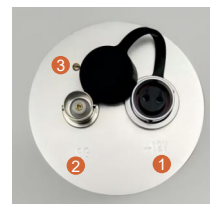
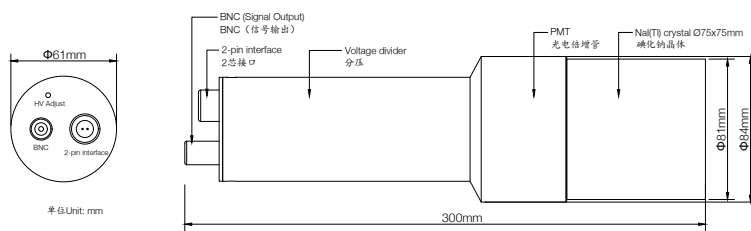


The detector consists of an NaI crystal, photomultiplier tube, voltage divider circuit, amplifier circuit, and various other components. This detector uses large-sized crystals with high detection efficiency. The NaI detector, with their excellent energy resolution and low radiation background, is widely used in various fields such as nuclear physics experiments, industrial measurement and control, and environmental monitoring, with extremely high reliability and sensitivity.

2. Main technical parameters

- ▶ Power input + 12V
- ▶ Dimensions of the scintillator $\Phi 75 \times 75$ mm
- ▶ Output signal polarity positive polarity
- ▶ Output signal amplitude Typically less than +5V
- ▶ Energy resolution $\leq 7.5\%$ @ 662keV (^{137}Cs)
- ▶ Operating temperature $+5^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- ▶ Storage temperature $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$
- ▶ Storage humidity 10% - 85%RH (Non-condensation)

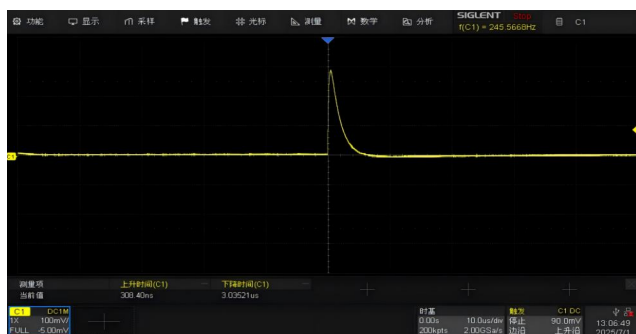
3. Outline Dimensional Drawing



Interface Definition		
serial number	Interface	Definition
1	2-core aviation connector	+12V power input
2	BNC	Positive polarity signal output
3	Potentiometer	Adjust the internal high voltage, increase the high voltage clockwise and decrease the high voltage counterclockwise

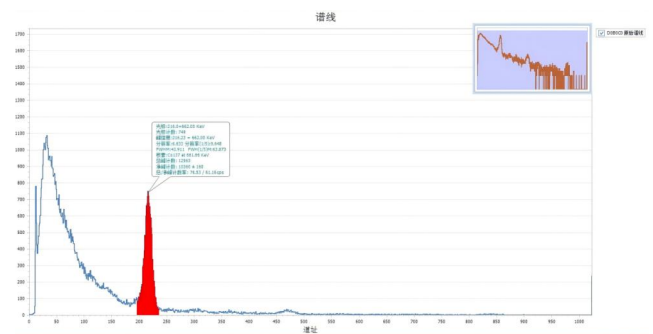
4. Waveform Test/ Energy Resolution Test

Waveform test



Oscilloscope input impedance 1M Ω (900V)

Spectral test



Power input: 600V Radioactive source: Cs137@661.66keV
Energy resolution: 6.63%