

Features

- ✓ Fast and portable imaging spectrometer
- ✓ Ready to use in only 90 s
- ✓ Rapidly identifies gamma-ray sources
- ✓ Real-time spectroscopy, imaging, and ID
- ✓ Discrimination between background and sources of interest in less than 20 s
- ✓ Precision overlay of gamma-ray and optical images
- ✓ Images both point and distributed sources
- ✓ Option for $\leq 0.8\%$ FWHM energy resolution at 662 keV and interaction-by-interaction resolution of $\leq 0.65\%$ FWHM
- ✓ Energy range covers isotopes of interest up to 3 MeV

Integrate H3D's ruggedized detector module for your application. This box contains everything you need for high-resolution spectroscopy and isotope-specific imaging.

Perfect for integration with:

- ☐ Vehicles
- ☐ Drones
- ☐ Robots
- ☐ Monitoring stations
- ☐ Other sensor suites

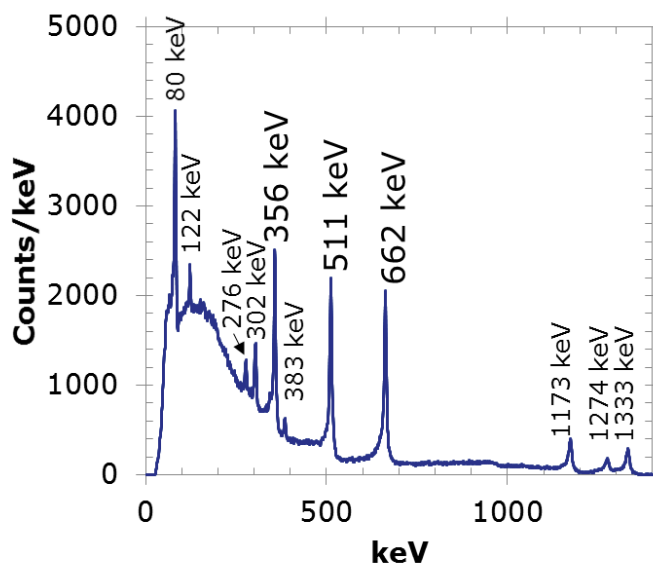


Containing the most advanced room-temperature semiconductor technology to achieve spectroscopic performance competitive with cryogenically-cooled detectors, the detector module has:

- ☐ Compact and light-weight size
- ☐ Fast startup
- ☐ Weather-resistant and durable design



T410 mounted on a special service vehicle



T410 Base Specifications

Note: Custom designs also available

Dimensions:	6.20 in x 6.04 in x 8.57 in (15.7 cm x 15.3 cm x 21.8 cm)
Weight:	8.7 lbs (3.9 kg)
Ingress Protection:	IP67
Power Supply:	24 VDC, 75 W peak
Operating Temperature:	-40° C to 50° C (-40° F to 122° F)
Operating Humidity:	0-100%
System Cooling:	Integrated fan
Energy Resolution:	≤1.1% FWHM at 662 keV ≤0.9% FWHM at 662 keV (coincident interactions separated)
Energy Range:	50 keV to 3 MeV (spectroscopic) 250 keV to 3 MeV (Compton imaging) 50 keV to 250 keV (coded-aperture imaging)
Optical Field of View:	90° horizontal, 68° vertical; full color
Radiation Field of View:	4π (360°) omnidirectional (Compton imaging) 86° × 86° (coded-aperture imaging)
Angular Precision:	±1° source localization for all 4π (real time)
Angular Resolution:	~30° FWHM for all 4π (real time; >250 keV) ~20° FWHM for all 4π (post processing; >250 keV) ~5° FWHM in coded-aperture field of view (<250 keV)
Crystal Volume:	>19 cm ³ CZT (CdZnTe)
Sensitivity:	Detects 10-μCi ¹³⁷ Cs at 1 m (~3 μR/hr) in <22 s (in natural background) Localize point source of ¹³⁷ Cs producing ~3 μR/hr in <90 s
Count-Rate Limit:	1 rem/hr (10 mSv/hr), front bare- ¹³⁷ Cs equivalent
Startup Time:	90 s at 23° C (73° F)
Isotope Library:	Select from 3573 ENDF isotopes & user defined; unlimited
Communication:	Ethernet
Warranty:	2 years (includes annual recalibration and software updates)

High-Resolution Option (T410+)

Improved energy resolution of
≤0.8% FWHM at 662 keV
(coincident interactions combined)
and ≤0.65% FWHM at 662 keV
(coincident interactions separated)

Spectroscopy-Only Option (T400S)

Remove radiation-imaging and
optical camera. Also available as
T400S+ with higher resolution.

Shielded Option (T410P)

Add shield material to all but forward
side to reduce background. Add 2.14
lbs (1.0 kg). Also available as
T400SP, T400SP+, and T410P+.



T410 mounted on a RZR