

Features

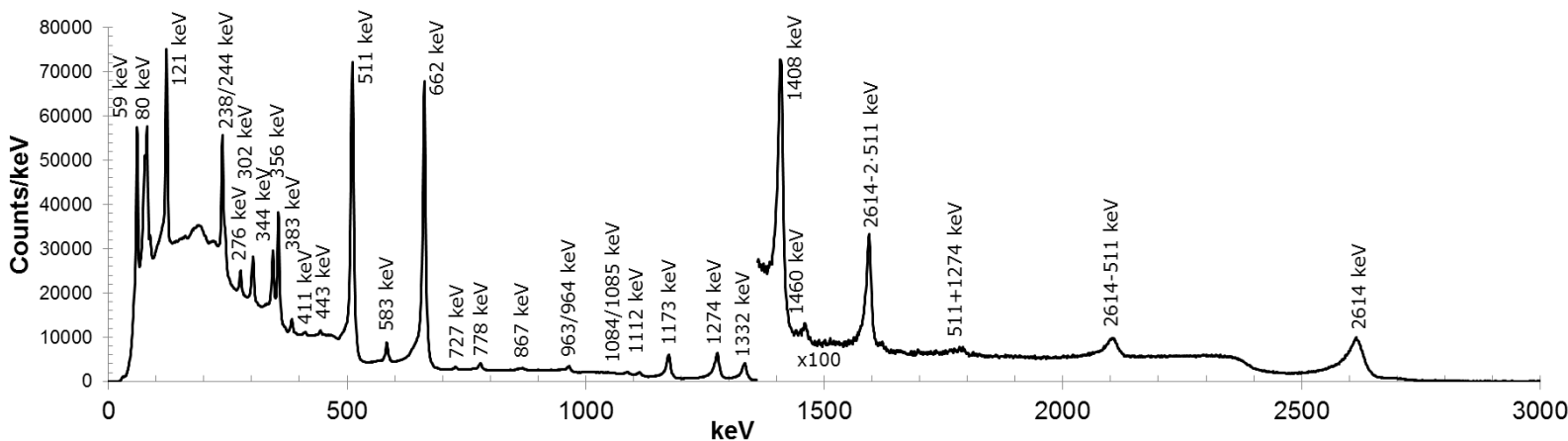
- ✓ Practical high-performance radioisotope identifier
- ✓ Compact and portable
- ✓ 3rd-party test results for ANSI N42.34 and DND0 TCS standards available by request
- ✓ Option for $\leq 0.8\%$ FWHM energy resolution at 662 keV and interaction-by-interaction resolution of $\leq 0.65\%$ FWHM
- ✓ Real-time 360° isotope-specific directionality
- ✓ Ready to use in less than 60 s
- ✓ Industry-leading efficiency with over 19 cm³ pixelated CZT
- ✓ No cryogenic cooling required
- ✓ Energy range covers isotopes of interest up to 3 MeV
- ✓ Real-time isotope detection and identification
- ✓ Embedded user interface with one-handed operation
- ✓ MFK/ATAK CBRN plugin compatible
- ✓ Software updates included
- ✓ Wireless connectivity option
- ✓ Network webpage interface for mobile devices

H3D®'s Next Generation A-Series is the new standard in radioisotope identification devices (RIIDs). Designed to meet your needs, experience:

- High energy resolution
- High efficiency
- Directionality
- Compact and ergonomic design

The most advanced semiconductor technology available to achieve spectroscopic performance competitive with cryogenically cooled detectors for:

- Border security
- First responders
- Military and defense
- Environmental radiation measurements



A400 Specifications

Dimensions:	12.0 in x 3.0 in x 3.75 in (30.5 cm x 7.6 cm x 9.5 cm)
Weight:	2.6 lbs (1.2 kg)
Battery Life:	>8 hours
Power Supply:	100-240 V, 47-63 Hz
Operating Temperature:	-20° C to 50° C (-4° F to 122° F)
Operating Humidity:	Up to 93% at 35° C (95° F)
Ingress Protection:	IP65
Energy Resolution at 25° C (77° F):	≤1.1% FWHM at 662 keV (gamma; coincident interactions combined) ≤0.9% FWHM at 662 keV (gamma; coincident interactions separated)
Sensitivity:	Detects 10-μCi ¹³⁷ Cs at 1 m (~3 μR/hr) in < 22 s (in natural backgrd) Localize 10-μCi ¹³⁷ Cs point source at 1 m (~3 μR/hr) in <120 s to ±15°
Energy Range:	50 keV to 3 MeV (spectroscopy) 250 keV to 3 MeV (directionality)
Gamma-Ray Detector:	>19 cm ³ CZT (CdZnTe)
Count-Rate Limit:	1 rem/hr (10 mSv/hr) bare- ¹³⁷ Cs equivalent for spectroscopy
Startup Time:	<60 s
Isotope Library:	Selectable from manufacturer-provisioned master library
User Interface:	3.5" embedded screen with button control Also viewable on any internet browser
Views:	Spectrum, identifications, dose, count-rate history, status information
Communication:	WiFi, Bluetooth, USB-C, RJ45 Ethernet through adapter
Data Storage:	32 GB internal (>1 million measurements)
Data Stored:	ANSI N42.42 xml file
Certifications:	ANSI N42.34 and DND0 TCS test reports available by request UL (predicted)
Warranty:	2 years (includes annual recalibration and software updates)
Includes:	Power cables Watertight Pelican™ Storage Case with custom foam

About H3D, Inc.

H3D® is commercializing CZT-based 3D radiation-imaging technologies. Our team has over 100 years of combined experience in Compton Imaging, CZT readout, and system integration. We are employee-owned, market-driven, and committed to providing our customers with the highest performance and most user-friendly instruments possible.

Any options can be combined, except as noted.

High-Resolution Option (A400+)

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

Neutron-Detector Option (A401)

Add 16 cm² Micro-Structured Neutron Detector (MSND)
Neutron Sensitivity from ANSI-Moderated Cf-252:
4.8 cps/nv (bare detector)
>10.5 cps/nv (hand present)

Lower Efficiency Options

A200

Weight: 2.6 lbs (1.2 kg)
Sensitivity: Detection and
localization times increased by 2x
Crystal Volume: >9 cm³ CZT

A100

Weight: 2.5 lbs (1.1 kg)
Sensitivity: Detection and
localization times increased by 4x
Crystal Volume: >4.5 cm³ CZT



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No. 10,032,264 & U.S. Pat No. D867,169.

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