

Features

- ✓ Fast, portable, and easy to use imaging spectrometer
- ✓ Rapidly identifies and locates primary source terms
- ✓ Real-time spectroscopy, ID, and imaging
- ✓ Omnidirectional sensing and imaging
- ✓ Better than 1.1% FWHM energy resolution at 662 keV
- ✓ Energy range covers isotopes of interest up to 3 MeV
- ✓ Industry-leading imaging sensitivity using pixelated CZT technology
- ✓ Precision overlay of gamma-ray and optical images
- ✓ Images both point and distributed sources
- ✓ Ready to use in only 2 minutes
- ✓ Discrimination between background and sources of interest in less than 1 minute
- ✓ Light weight and highly portable
- ✓ Integrated range finder
- ✓ Air/water tight for easy decontamination
- ✓ Dose-range gauge
- ✓ Automatic report generation
- ✓ Annual recalibration and software updates included

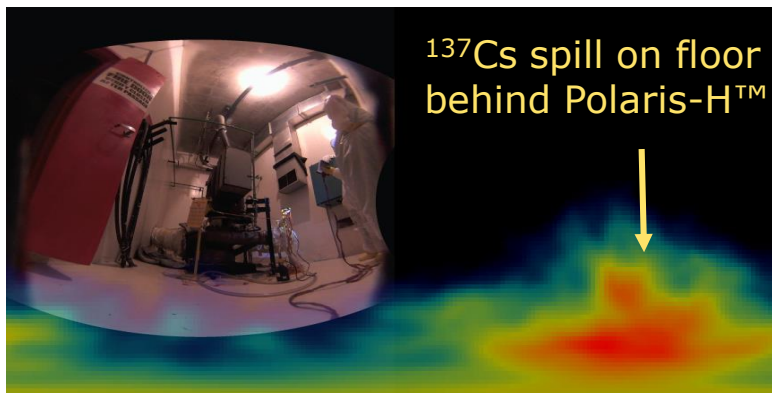
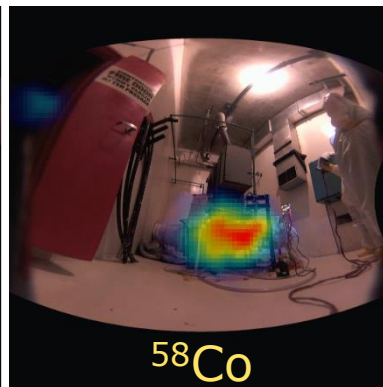
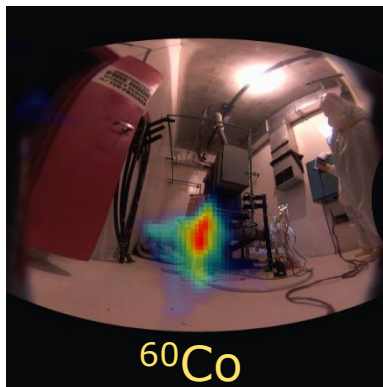
Polaris-H™ is your complete solution for the identification, quantification, and localization of gamma-ray sources at nuclear power plants:

- Easy to use
- Highly portable
- Cost effective

20 years of development and 5+ years of application-specific engineering to the exacting standards of nuclear power plant operators to support:

- Routine monitoring and maintenance
- Decommissioning operations
- Emergencies, incidents, and outages

Spectroscopic performance competitive with cryogenically cooled detectors and omnidirectional isotope-specific imaging... at under 9 lbs.



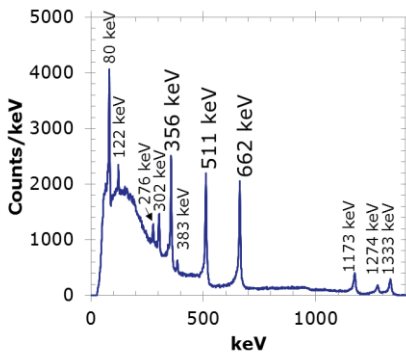
"All of our technology that we have—that I've worked with for 30 years—doesn't touch what this shows us."

- RPM, U.S. Nuclear Power Plant

10-minute isotope-specific images of an RHR pump room in a U.S. nuclear facility.

About H3D, Inc.

Our team has over 100 years of combined experience in Compton Imaging, CZT readout, and system integration. We are privately held, market-driven, and committed to providing our customers with the highest performance and most user-friendly instruments possible.



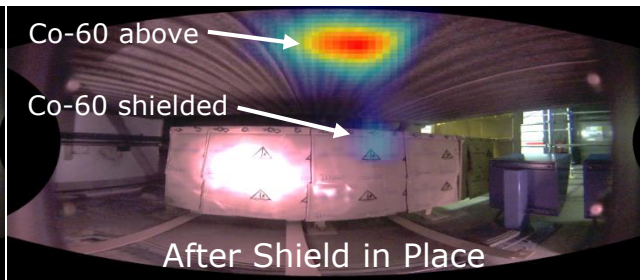
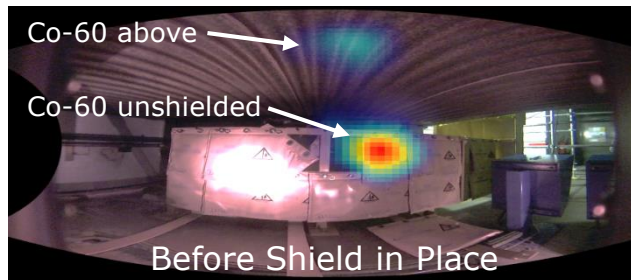
Low-Energy-Imaging Option

Add a pinhole to extend imaging:
 Energy Range: 50 keV to 250 keV
 Radiation Field of View: 90° × 90°
 Angular Resolution: ~10° FWHM



Specifications

Dimensions:	9.6 in x 3.5 in x 7.25 in (24 cm x 9 cm x 18 cm)
...with Exoskeleton:	14.8 in x 4.7 in x 8.3 in (37.5 cm x 12 cm x 21 cm)
Weight:	7.3 lbs (3.3 kg)
	10.5 lbs (4.8 kg) with exoskeleton
Battery Life:	>7 hours at 23° C (73° F)
	>3 hours at -20° C (-4° F) or 50° C (122° F)
Power Supply:	100-240 V, 47-63 Hz
Startup & Operating Temp.:	-20° C to 50° C (-4° F to 122° F)
Storage Temperature:	-20° C to 60° C (-4° F to 140° F)
Ingress Protection:	IP65 (IP67 with fan replacement)
Tripod Mounts:	1/4"-20 with reinforced thread
	3/8"-16 (with exoskeleton only)
System Cooling:	Proprietary external heat sink and removable fan
User Service:	Removable fan cover; replaceable fan and fuse
Range Finder:	Integrated Class 2 laser; 635 nm; <1 mW
Energy Resolution:	≤1.1% FWHM at 662 keV
Optical Field of View:	>162° horizontal, >122° vertical
Radiation Field of View:	4π (360°) omnidirectional
Angular Precision:	±1° source localization for all 4π (real time)
Angular Resolution:	~30° FWHM for all 4π (real time)
	~20° FWHM for all 4π (post processing)
Sensitivity:	Detects ¹³⁷ Cs producing ~3 μR/hr in <1 min (spectroscopy)
	Localize point source of ¹³⁷ Cs producing ~3 μR/hr in <5 min
Energy Range:	50 keV to 3 MeV (spectroscopy)
	250 keV to 3 MeV (imaging)
Crystal Volume:	6 cm ³ CZT (CdZnTe)
Count-Rate Limit:	0.5 rem/hr (5 mSv/hr) bare- ¹³⁷ Cs equivalent
Isotope Library:	Select from 3573 ENDF isotopes & user defined; unlimited
Startup Time:	2 min
Display:	7" 1280x800 HD tablet (mountable to back cover)
Tablet Communication:	Peer-to-peer Wifi or Bluetooth, or wired connection
Other Communication:	Ethernet RJ45 port; TCP/IP
Views:	Spectrum, gamma image, optical image, composite image
Data Storage:	Removable USB (16 GB) included
Warranty:	2 years (includes annual recalibration and software updates)
Includes:	Visualizer 2.3 software for advanced post processing
	Exoskeleton for drop protection
	Tablet-mounting bracket
	Power/accessory cables, stylus, and tablet
	Pelican™ Storm iM2600 Case



90-s measurements; Shield Verification



H3D, Inc. • 812 Avis Drive • Ann Arbor, MI 48108 • USA
 Tel +1 734-661-6416 • sales@h3dgamma.com • www.h3dgamma.com

© 2014-2017 H3D, Inc. All Rights Reserved. Polaris-H™ and related systems patent protected by: U.S. Pat No. 7,411,197 & U.S. Pat No. 7,692,155 under license from the University of Michigan.

Specifications, descriptions and images contained in this document were in effect at time of publication. H3D, Inc. reserves the right to change specifications or discontinue products without notice or obligation. All names, logos, and products herein are trademarks of their respective companies.