

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
- ✓ Air/water tight for easy decontamination
- ✓ Dose gauge
- ✓ Annual recalibration and software upgrades 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

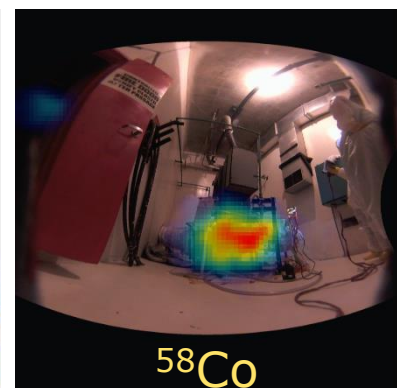
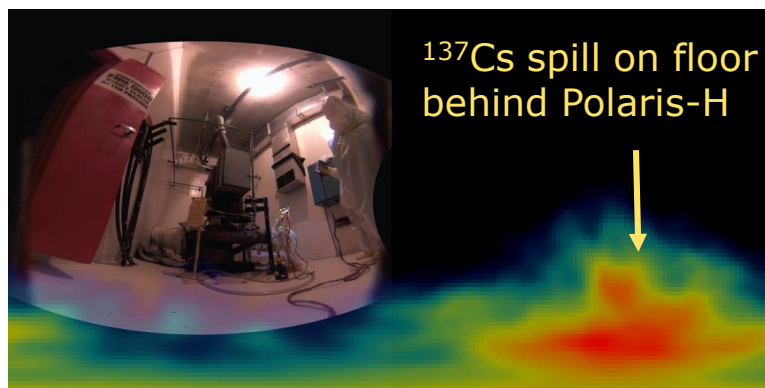
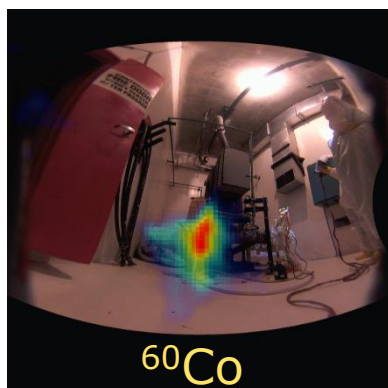
Spectroscopic performance competitive with cryogenically cooled detectors and omnidirectional isotope-specific imaging... at only 9 lbs.



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

- Cook Nuclear Plant

CWNPP-14



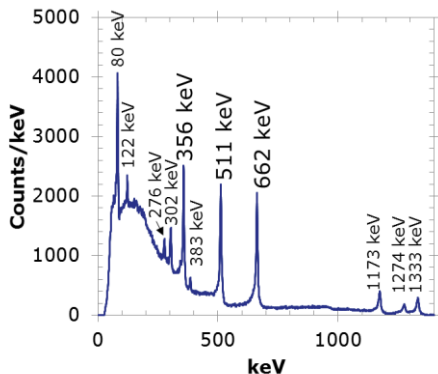
10-minute isotope-specific images of an RHR pump room in a U.S. nuclear facility.

Specifications

Dimensions: 8.5 in x 7.5 in x 5.0 in (~21 cm x 19 cm x 13 cm)
Weight: 8.52 lbs (3.86 kg)
 17.9 lbs (8.12 kg) with transport case/accessories
Battery Life: 5 hours (removable Li-ion)
Power Supply: 100-240 V, 47-63 Hz
Operating Temp: 0° C to 38° C (32° F to 100° F)
Storage Temp: -7° C to 49° C (20° F to 120° F)
Ingress Protection: IP65
System Cooling: Proprietary external heat sink and removable fan/shroud
User Service: Replaceable fan dust filter
 Removable air-channel shroud for cleaning

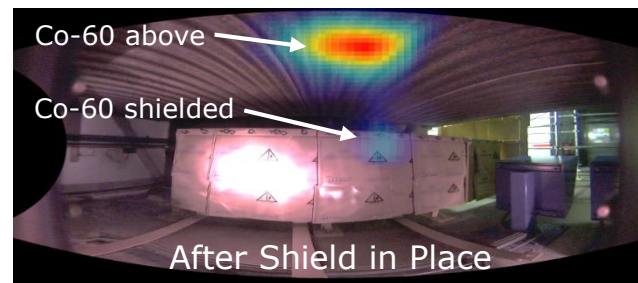
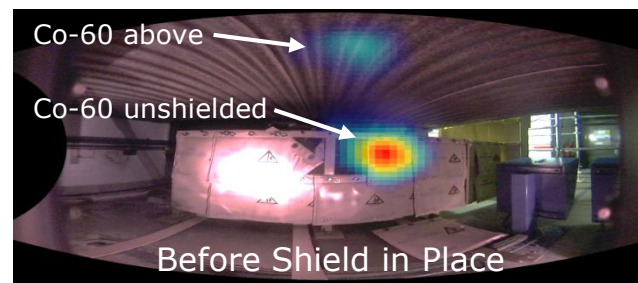
Energy Resolution: $\leq 1.1\%$ FWHM at 662 keV
Optical Field of View: $>162^\circ$ horizontal, $>122^\circ$ vertical
Radiation Field of View: 4π (360°) omnidirectional
Angular Precision: $\pm 1^\circ$ source localization for all 4π (real time)
Angular Resolution: $\sim 30^\circ$ FWHM for all 4π (real time)
 $\sim 20^\circ$ FWHM for all 4π (post processing)
Sensitivity: Detects ^{137}Cs producing $\sim 3 \mu\text{R/hr}$ in < 1 min (spectroscopy)
 Localize point source of ^{137}Cs producing $\sim 3 \mu\text{R/hr}$ 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: User defined; unlimited

Startup Time: 2 min
Display: 7" 1280x800 HD tablet
Tablet Communication: Peer-to-peer Wifi or Bluetooth, or wired connection
Views: Spectrum, gamma image, optical image, composite image
Data Storage: Removable USB (16 GB) included
Warranty: 2 years (includes annual recalibration and software upgrades)
Includes: Visualizer 2.1 software for advanced post processing
 Power/accessory cables, stylus, and tablet
 Pelican™ Storm iM2300 Case



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90-s measurements; Shield Verification



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