

Features

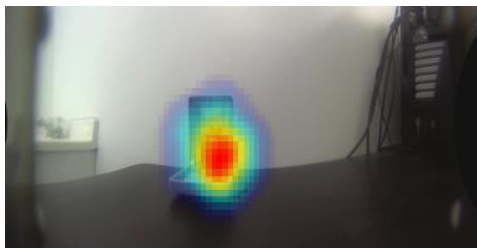
- ✓ Fast, portable, and easy to use imaging spectrometer
- ✓ Rapidly identifies and locates lost sources or x-ray leakage
- ✓ Real-time spectroscopy, ID, and imaging
- ✓ Better than 1.1% FWHM energy resolution at 662 keV
- ✓ Energy range covers isotopes of interest up to 1 MeV
- ✓ Precision overlay of 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
- ✓ Dose-range gauge
- ✓ Automatic report generation
- ✓ Annual recalibration and software updates included



The H3D[®] M series is your complete solution for radiation protection in medical facilities. Find dropped sources, locate x-ray leakage, and identify isotopes.

- Easy to use
- Highly portable
- Cost effective

The M110 quickly locates x-ray leakage. Position in various locations to see all the contributions to employee dose.

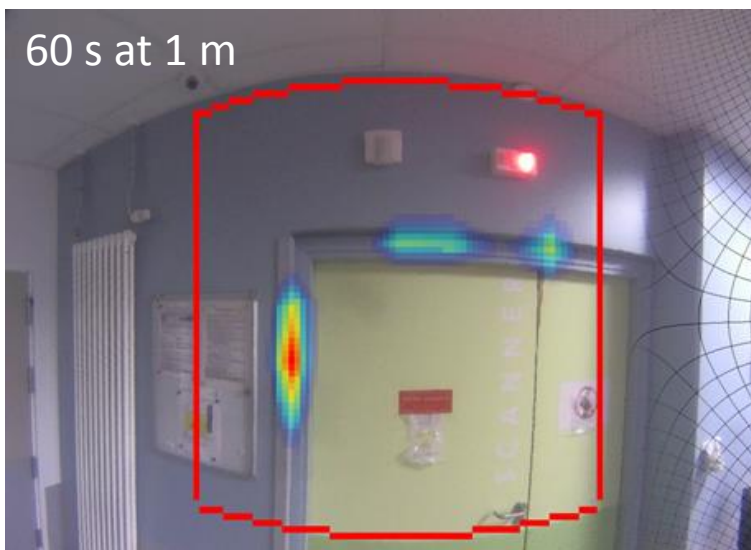


609-keV emissions from a radium pocket watch

With the high-efficiency option, M420, pinpoint even weak, far-away gamma-ray point sources rapidly. Turn on real-time mode to see sources as you are moving the camera. Find dropped brachytherapy seeds with ease.

Image 511-keV emissions with great sensitivity. Determine the location of spills or other contamination, and reduce dose.

60 s at 1 m



60 s at 2.5 m



50-100 keV x-ray leakage around door hinges at a hospital

About H3D, Inc.

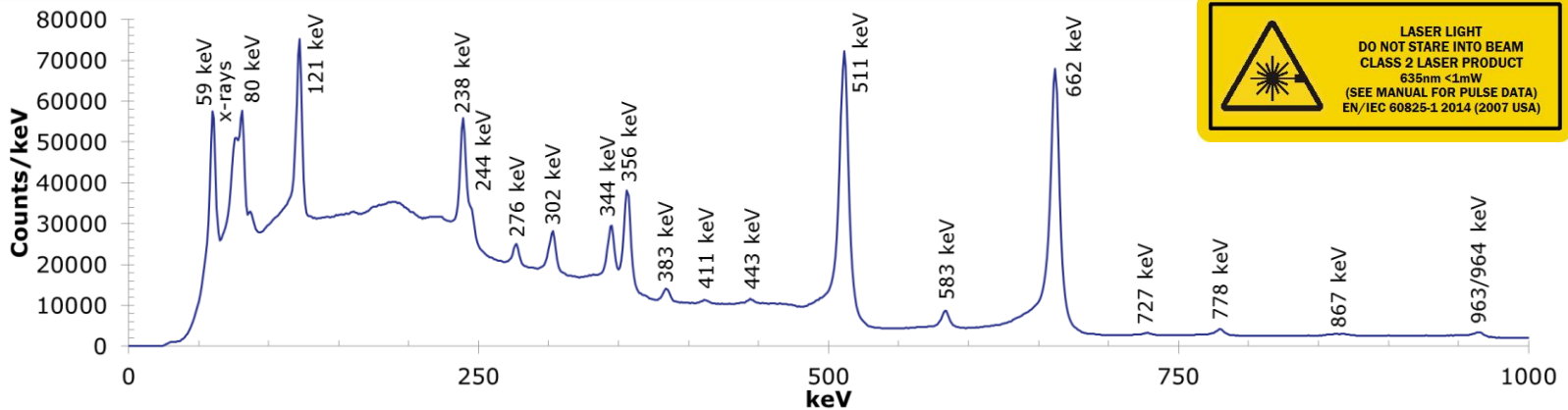
H3D® is commercializing CZT-based 3D radiation-imaging technologies for nuclear power plant, defense & homeland security, and medical applications. We have performed sponsored research for the Defense Threat Reduction Agency, Department of Energy NA-22, and National Institutes of Health. We currently ship H100 to nuclear power plants and research labs around the world. 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.

High-Efficiency Option (M420)

- Increase detector volume to >19 cm³
- Improve radiation field of view to 86° × 86° and angular resolution to ~5° FWHM at <250 keV
- Improve low-energy efficiency by >200x
- Detection and imaging in <1/4 of the time
- Increase weight by 0.5 lbs (0.2 kg)

M110 Specifications

Dimensions:	9.6 in x 3.5 in x 7.25 in (24 cm x 9 cm x 18 cm)
Weight:	6.8 lbs (3.1 kg)
Battery Life:	>7 hours at 23° C (73° F)
Power Supply:	100-240 V, 47-63 Hz
Startup & Operating Temp.:	10° C to 30° C (50° F to 86° F)
Storage Temperature:	-20° C to 60° C (-4° F to 140° F)
Tripod Mounts:	1/4"-20 with reinforced thread
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
Optical Registration:	±2° to radiation image
Radiation Field of View:	4π (360°) omnidirectional at >250 keV 67° × 67° at <250 keV
Angular Precision:	±1° source localization for all 4π (real time)
Angular Resolution:	~30° FWHM (real time) at >250 keV ~20° FWHM (post processing) at >250 keV ~7.5° FWHM at <250 keV
Sensitivity:	Detects ¹³⁷ Cs producing ~3 μR/hr in <80 s (spectroscopy) Localize point source of ¹³⁷ Cs producing ~3 μR/hr in <7 min
Energy Range:	25 keV to 1 MeV (spectroscopy and imaging)
Crystal Volume:	>4.5 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 2.4 software for advanced post processing Power/accessory cables, stylus, and tablet Pelican™ Storm iM2600 Case



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