

Product Datasheet

GammAware

3D Radiation Imaging

GammAware is an add-on to H3D imagers to perform Simultaneous Localisation and Mapping (SLAM). Now you can create 3D radiation images by moving around with your detector. Virtually navigate around the resulting map to see radiation maps and radiation hot spots in a 3D model of the scanned area.

New capabilities can be unlocked, such as:

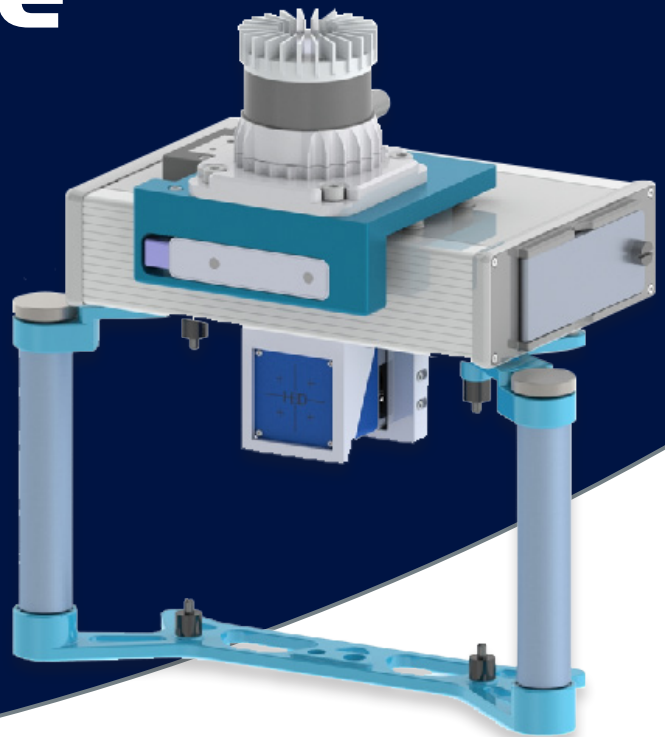
- Improved source-term maps and dose-rate visualisation tools.
- Shielding evaluations.
- Time-motion ALARA dose estimations.
- Accurate characterisation for waste shipments and storage.

GammAware can utilise existing H3D gamma-ray imaging systems:

- H Series.
- M Series.

Features

- Portable mapping platform with detector mount.
- Rapidly map large indoor areas.
- Start mapping within minutes.
- Integration with existing H3D detectors and tools.
- Real-time map view of radiation hot spots.
- Quantify source strength and map dose rates.
- User-friendly control and visualisation interface.
- Supports full 3D detector motion and quantification dwell measurements.
- Import and align 3D map with existing point clouds.
- Image to surfaces, volumes, or all space.
- Wireless or Ethernet communication.
- Powerful post-processing software for detailed analysis.
- Integrates state-of-the-art odometry sensors.
- Hot-swappable batteries for extended operation.
- Option for GPS-sensor addition for large-area outdoor mapping.
- Full spectroscopic and isotope ID capabilities of H3D detector preserved.



**Southern
Scientific**

EXPERIENCE & EXPERTISE

Specifications

H Version	
Dimensions (L x W x H)	38 cm x 20 cm x 43 cm
Weight	9.1 kg with detector
Ingress Protection (Target)	IP67
Battery Life	1.5 hr with continuous mapping (swapable battery)
Power Input	24 V, <70 W (continuous mapping)
Startup and Operating Temperature	-20° C to 50° C (-4° F to 122° F)
Startup Time	<90 s
Radiation Detector Module	H3D's H100, H400, H420
Radiation Imaging Modes	As supported on radiation detector module
Movement Modes	Full 3D motion Stop and dwell, retaining relative 3D position
Real-Time Views	2D map; 2D path colored by dose rate 2D isotope-specific radiation hot spots
Post-Processing Views	3D point cloud; 3D path coloured by dose rate 3D isotope-specific image to surfaces, volumes, or all space Activity quantification, with input of material geometry
Communication Options	Ethernet or WiFi
Display	8" 1280 - 800 HD tablet
Includes	1-year license to Visualiser 3D software for post processing Tablet Transport and storage case Two batteries External battery charger Power cables
Warranty	2 years (includes annual sensor alignment and software updates)

Specifications are subject to change without notice.
For the most up-to-date specifications, please visit www.h3dgamma.com

M Version	
Dimensions (L x W x H)	50.5 cm x 18.4 cm x 21.3 cm
Weight	5.8 kg with detector
Ingress Protection (Target)	IP67
Battery Life	3 hr with continuous mapping (hot-swapable batteries)
Power Input	24 V, <70 W (continuous mapping)
Startup and Operating Temperature	-20° C to 50° C (-4° F to 122° F)
Startup Time	<90 s
Radiation Detector Module	H3D's M100, or M400
Radiation Imaging Modes	As supported on radiation detector module Additional coded-aperture-imaging option
Movement Modes	Full 3D motion Stop and dwell, retaining relative 3D position
Real-Time Views	2D map; 2D path colored by dose rate 2D isotope-specific radiation hot spots
Post-Processing Views	3D point cloud; 3D path coloured by dose rate 3D isotope-specific image to surfaces, volumes, or all space Activity quantification, with input of material geometry
Communication Options	Ethernet or WiFi
Display	8" 1280 - 800 HD tablet
Includes	1-year license to Visualiser 3D software for post processing Tablet Transport and storage case Two batteries External battery charger Power cables
Warranty	2 years (includes annual sensor alignment and software updates)
Optional Add-Ons	GPS sensor – M version only, adds 0.3 kg Coded aperture imaging – M version only, adds 0.9 kg

Southern Scientific Limited
Scientific House, The Henfield Business Park
Shoreham Road, Henfield, BN5 9SL, UK
E-mail: info@southernscientific.co.uk
Tel: +44 (0)1273 497600
www.southernscientific.co.uk

A LabLogic Group Company



Version 1.0 March 2025