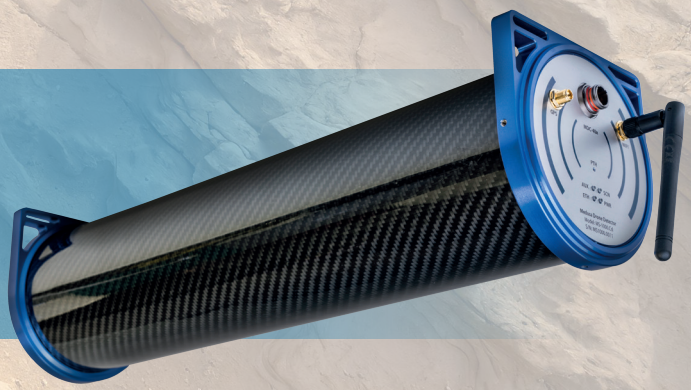
drone-borne

MS-1000



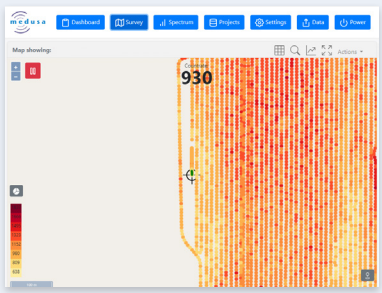
The Medusa Radiometrics MS-1000 gamma-ray spectrometer is specifically designed with the drone deployment use case in mind. It is an all-in-one sensor system featuring a spectrometer, GNSS, pressure, temperature, and humidity sensors. The onboard mDOS enables real-time analysis and onboard storage. This sensor is a robust stand-alone solution suitable, but not limited to drone use.

Sensor key features

- 6.7 kg, easy to integrate under a drone
- Ultra rugged 1000 ml CsI scintillator crystal
- Optimized for ease of use
- Integrated data storage and processing
- Life-long feature updates

Typical applications

- Drone-borne measurements
- Backpack soil scanning
- NORM characterization
- Contamination mapping



'A uniform interface for all our sensors'

Medusa Detector Operating System (mDOS)

Whether doing an airborne survey, locating a lost source with a UAV, or using our detector for a hand-held survey for mapping the environment, you can count on using the same familiar interface.

mDOS is developed for in-the-field usage. Optimized for real-time monitoring, ease of use and automating your survey workflow.

About Medusa Radiometrics

- Scientific collaboration with eminent research institutes and peer-reviewed publications of the analysis procedures
- We have over 20 years of experience in developing gamma–ray spectrometers and their applications
- We help you to develop your business by delivering state of the art gamma-ray spectrometer solutions, tailored to your needs
- We don't sell, we deliver. Our support is excellent and worldwide. You can count on us, wherever you are
- We share our knowledge and expertise through scientific publications, whitepapers, tutorials, and case studies

Medusa Radiometrics
Skagerrak 26, 9723 JR
Groningen, The Netherlands

www.medusa-radiometrics.com
info@medusa-radiometrics.com
+3150 577 0280

MS-1000 Technical specifications

Recommended application: drone-borne

All-in-one sensor system featuring a spectrometer, GNSS, pressure, temperature, and humidity sensors

Gamma-ray spectrometer

Scintillation crystal	3x9” (1000 ml) CsI
Typical mapping speed	Up to 30 km/h
Recording frequency	Up to 5 hz
Radionuclide analysis	^{40}K, ^{238}U, ^{232}Th and ^{137}Cs

Electrical

Input voltage	5 - 35 V
Power consumption	3 W (average), 6 W (max)
Battery	Up to 8 hours

GPS

Type	uBlox ZED-F9P
Accuracy	1.5 m CEP
RTK accuracy	<1 cm
Signals	GLONASS, BeiDou, Galileo

Mechanical

Dimension	100 (Ø) x 375 (L) mm
Weight	6.7 kg
Operating Temperature	-20 to +65 °C
IP rating	IP65

Connectivity

Wi-Fi	2.4 and 5 Ghz
Ethernet	100 Mbps
Port	RS-232

Data

Format	JSON, NMEA, CSV
Streaming	RS-232, ethernet and Wi-Fi
Sensors	Spectrometer, GPS, PTH
Internal storage	16 GB, 500 hours of data

Included software

Onboard-processing (by mDOS)	Real-time analysis Survey planner Real-time radionuclide inspection Sample measurements
Post-processing (by GammAn)	Full spectrum analysis (FSA) Window analysis (WA)

Support

Online support	Extensive library of support guides
Custom support	Optional

Visit us online at
medusa-radiometrics.com

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