

BACKPACK RADIATION DETECTION AND IDENTIFICATION SYSTEM

GAMON-Pack

APPLICATIONS AND SCENARIOS

GAMON-Pack is suitable for a wide range of applications, including:

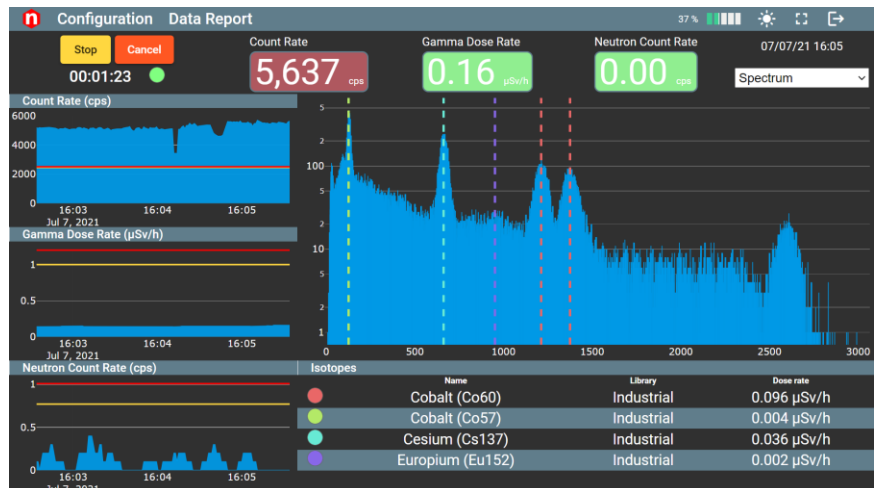
- Emergency and first response operations for rapid assessment and control of contaminated areas
- Area survey and control before, during, and after public events
- Characterization of NORM accumulation in Oil & Gas extraction and processing sites, including pipeline inspections
- Detection of orphan sources in scrap materials at reprocessing plants

DESCRIPTION

GAMON-Pack is a portable detection unit designed for the detection and identification of radiation sources in crowded or sensitive areas where vehicle access is restricted. It is ideally suited for discrete operations in locations such as airports, railway stations, and other high-risk environments with elevated probability for terrorist threats.



The web interface provides real-time display of the scintillator count rate and the ambient dose equivalent rate (the dosimeter and the neutron detector are available on request). Data is displayed on a smartphone or tablet, allowing the operator to remain unobtrusive and anonymous within a crowded space. No app or software installation is required.



TECHNICAL SPECIFICATIONS

Scintillation Detector

- Standard Version 3"x3" NaI(Tl)
- Optional: 4"x4"x2" or other sizes of NaI(Tl) on request
- Energy range: 25 ÷ 3000 keV
- Energy resolution:
 - FWHM @ 662 keV (¹³⁷Cs): 7.5%

Optional Neutron Detector

- Solid-state detection module for thermal neutrons
- Volume: 36.8 x 16.5 x 5.7 cm
- Sensitivity: 40 cps/nv

Sensors

- Internal temperature sensor
- GPS

Wired Communication interfaces

- Ethernet RJ45
- Communication protocol TCP/IP

Wireless communication interfaces

- 3G/4G LTE through the tablet
- WiFi

Embedded PC

- Low power ARM based CPU
- 8 GB internal data storage

Software

- Integrated web interface
- Local database and data repository
- Automatic nuclide identification
- Total and nuclide related H*(10) rates
- Spectrum stabilization with natural background
- Configurable isotope library
- Adjustable isotope related alarms
- Maps with georeferenced data, displayed with colour codes

Power supply

- Power consumption: < 10 W
- Voltage: 5 ÷ 12 VDC
- Internal chargeable battery with 8 hours autonomy

Physical dimensions and weight

Basic version

- LxHxW 62 x 35 x 30 cm
- Weight 5 kg

High sensitivity + neutron detector

- LxHxW 75 x 40 x 35 cm
- Weight 9 kg

Environmental

- Temperature range -20 ÷ 50 °C
- Humidity 0 ÷ 95 %
- Protection rating: IP65

Optional Military Tablet

- 10.1" touchscreen sunlight readable
- Intel® Core™ i5-7200U
- IP65
- Temperature range -15 ÷ 50 °C
- MIL-STD-810G compliant

10" Tablet included

Alternative tablets or optional Laptop under request

MAIN FEATURES

The **GAMON Pack** is a backpack radionuclide identifier for gamma radiation spectroscopy system designed to detect for radiological threats or searching orphan sources.

- High detection efficiency for detecting small variation in background radioactivity during survey
- Optional neutron detector
- Web page for an easy system configuration and visualization of the measurements
- Programmable ROI based alarms
- Georeferenced and real time data visualized by the operator
- Internal database for an easy access to the acquired data
- Count rate alarm and alarm reporting to the operator directly on the notebook
- Embedded gain stabilization of the detector
- Wifi and Ethernet communication
- Embedded rechargeable battery



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