

## **PDS -100GN ID Spectrometric Personal Radiation Detector**

- Detection, search, and identification of nuclear material for homeland security applications
- Designed for first responders, law enforcement, customs inspectors and for personnel and site security in critical infrastructures
- Small, rugged, compact and user-friendly
- High sensitivity and fast response time
- Embedded identification, automated & manual mode
- Visual, audio and vibration alarms
- Wireless communication interface
- Includes leather Pouch, alkaline Batteries, earphone



The PDS-100GN ID is a sensitive, pocket-sized device designed to detect, locate, quantify, and identify both gamma and neutron sources to discriminate on-the-spot Naturally Occurring Radioactive Material (NORM) and medical isotopes against industrial sources or Special Nuclear Materials.

High sensitivity provides better spectra in a shorter time. Fully automated acquisition and identification as well as manual modes are provided. Identification results are displayed as a list of isotopes with categories and confidence levels. Spectra and ID results are memorized for later transmission.

**RTM-A027** PDS-100GN-ID Spectroscopic Pocket Radiation Detector with Identification includes Leather Pouch, Alkaline Batteries, Earphone. Gamma/Neutron version

### **ACCESSORIES**

- PDSmass software for remote display, spectra, and historic retrieve, parameter settings
- SMI Software for spectra analysis and identification replay
- Silicon protection
- Belt Clip
- Pouch with belt clip
- External power supply / battery charger

## **SPECIFICATIONS**

### **DETECTION**

Detector Gamma: CsI(Tl)  $\geq 400$  cps per  $\mu\text{Sv/hr}$  for  $^{137}\text{Cs}$

Detector Neutron: Li(Eu)

Gamma Dose Rate Display: 0.01  $\mu\text{Sv/hr}$  to 100  $\mu\text{Sv/hr}$  (1  $\mu\text{rem/hr}$  to 10  $\text{mrem/hr}$ )

Gamma Count Rate Display 0 to 99 999 cps

Neutron Count Rate Display 0 to 999 cps

Gamma Alarm Response Time: Standard threshold 0.5  $\mu\text{Sv/hr}$  step, alarm within 1 sec; Sensitive threshold 0.5  $\mu\text{Sv/hr}$  step, alarm within 3 sec

Neutron Alert Response Time: Mean time to detect 20000 n/s Cf252 at 10 cm:  $\leq 2$  sec

### **SPECTROMETRY AND IDENTIFICATION**

512/1024 channel spectra: 30 keV to 1.7 MeV

Automated alarm triggered mode with auto confirmation

Manual mode with preset time and/or counts and resume capability

Identification by NMD algorithm

Up to 4 isotopes mixed

Detectability grade, unknown or ID unsure

Identification time a 1  $\mu\text{Sv/hr}$  typical 1 minute

Designed to exceed ANSI N42-48 SPRD Standard

### **FUNCTIONAL FEATURES**

Detection, Search and/or Identification modes

Source indication alarm and danger alarm

Visual, audible, and silent alarms (vibration, earphone)

Easy-to-read display (OLED technology)

Memory of 100/50 512 channel/1024 channel spectra and  $> 1000$  events

IRDA and Bluetooth™ technology communication

### **ELECTRICAL AND MECHANICAL**

Power Supply: 2x AA batteries (Lithium, Alkaline or Ni-MH); lifetime typical 100 hours

Dimensions (l x w x h) 123 x 74 x 43 mm (4.84 x 2.91 x 1.69 inches); Weight 300 gr (10.58oz.) with battery

### **ENVIRONMENTAL**

Temperature Range  $-20^{\circ}\text{C}$  to  $50^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $122^{\circ}\text{F}$ ); ID  $-15^{\circ}\text{C}$  to  $45^{\circ}\text{C}$  ( $5^{\circ}\text{F}$  to  $115^{\circ}\text{F}$ )

EMI, shock, vibration, drop and water resistant