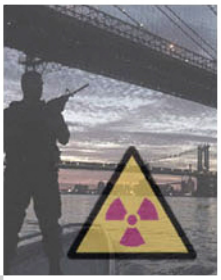
ADVANCED TECHNOLOGY FOR A SAFER WORLD

SPIR-Ace

Radionuclide Identification Device (RID)



The SPIR-Ace is a versatile Radionuclide Identification Device (RID) addressing all applications requiring efficient detection and identification of radiological threats in security applications, including civil defense, border security and customs. The SPIR-Ace can be used by in law enforcement, emergency response and other critical infrastructure applications. It also provides accurate assessment of nuclear materials for power plants, safeguard inspection, forensic laboratories and OSI/CTBTO agents.

The SPIR-Ace offers identification performance beyond current standards for RIDs such as for heavily shielded isotopes, unbalanced mixtures of nuclides and Special Nuclear Material (SNM) masked by medicals or Naturally Occurring Radioactive Material (NORM) within a few seconds.

The SPIR-Ace offers user-friendly and state-of-the-art features such as easy localization with directional indication, geo-localization and remote data transfer to a command center.

FEATURES

- Ultra-fast and accurate compact identifier
- Superior performance in heavy shielded and unbalanced SNM masking scenarios
- Radiological performance exceeds current standardsfor RIIDs and RIDs
- Multiple usage scenarios: radiological security, nuclear accident, source assessment applications, etc
- Automatic gain stabilization without the need for a source
- User-friendly interface
- Optional external alpha and beta contamination probes
- Internal mapping capability
- Live data transmission and reachback capability
- Remote display and control through a web enabled wireless devices

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SPIR-Ace

SPECIFICATIONS

NUCLEAR CHARACTERISTICS

- **Detectors**
  NaI(Tl) version: dia 35 mm x 51 mm (1.4” dia x 2”)
  LaBr3 (Ce) version: dia 25,4 mm x 34 mm (1” dia x 1.34”)
  Energy compensated GM tube for high gamma dose rate
  Optional neutron detector: moderated ^{6}LiZnS:Ag scintillator
  Optional external alpha/beta probe
- **Energy range**
  25 keV to 3 MeV (gamma)
  0,025 eV to 15 MeV (neutron)
- **Gamma Dose Rate range**
  0.001 µSv/h to 100 mSv/h (0.1 µR/hr to 10 R/hr)
- **Identification**
  Fast digital, MCA 1024 channels, throughput >100 000 cps
  Single, bare or shielded, and mixed isotopes
  7 libraries containing 80 nuclides
  Identifies up to 8 nuclides simultaneously
  Detection and identification performance exceeds ANSI N42-34, IEC62327 and IAEA NSS 1
  Identifies the radionuclides in 5 to 15 seconds at a dose rate of 0.5 µSv/h (50 µR/h)

FUNCTIONAL FEATURES

- **Interface**
  4.3” color touch screen LCD
  LCD readable in all lighting conditions
  Fast display update (every 0,25 s)
  Alarm indicators: LEDs, vibrator and sound
  Touch screen and 2 buttons for (PPE) operation
  Earphone jack
- **Connectivity**
  Internet connection by WiFi or cellular:
  Send measurements by emails (includes .n42 files)
  Remote supervision with SpirVIEW or other software using file transfer (FTP or HTTP/SSL)
  Remote display and control via a web enabled wireless devices (WiFi)
  Records the location of all measurements/events
  Micro USB connection
  Wireless:
  Cellular UMTS/HSPA/HSPA+, global (800/850, 900, AWS1700, 1900, 2100 MHz)
  Wi-Fi b/g/n
  GNSS receiver (global GPS)
  ogressive alarm based on identification and level
  Easy acknowledge
  Safety alarm
- **Measurements**
  Wake-up on alarm
  Automated acquisition and identification upon alarm
  Manual measurement mode (start/stop/resume)

CHARACTERISTICS

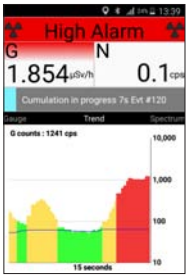
- **Standards Compliance**
  ANSI N42.34
  IEC62327
  CE
- **Environment**
  Operating temperature range: -20°C to +55°C (-4°F to +131°F)
  Humidity: 93% relative humidity at 40°C
  Water and dust: IP65
- **Electrical**
  Li-ion rechargeable, 6700 mAh, 3.6 V, built-in charger, replaceable
  Battery life: 8,5 hours
  Charge time: 5 hours using a standard micro USB charging cord
- **Physical**
  Weight: maximum (NaI and LiZnS detectors) 1.45 kg (2.2 lb)
  Dimensions: 206 x 153 x 57 mm (8.1 x 6.2 x 2.2”)

ACCESSORIES AND OPTIONS

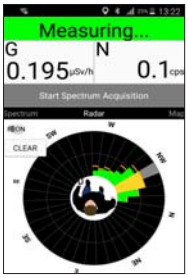
- **Included Accessories**
  Transportation and storage case
  USB AC power adapter
  Micro USB cable
  Hand strap
  Earphones
- **Options**
  SpirVIEW Mobile: real-time supervision (licence for 1 device) includes SpirREPLAY: centralization, visualization and mapping
  GMP-25 alpha/beta pancake probe

IP67 carrying case

Easy display



Source search



Direction to the source

Spectrum showing identified peaks

Mapping with hotspot localization

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