

Mirion Technologies, Inc. (MGPI) - SPIR-ID Handheld Detection & Identification



GENERAL DESCRIPTION:

The SPIR-ID is a rugged handheld device designed to efficiently search for radioactive materials and “on the fly” discriminate threats such as illicit trafficking and Radiological Dispersal Devices (RDDs). The SPIR-ID quickly and reliably identifies and categorizes radionuclides for demanding scenarios including heavily shielded or masked threats due to a large volume detector associated with the Identpro/SIA algorithm specifically designed for homeland security. Detection and Identification performances exceed all ANSI N42-34 requirements. Rugged construction and simple routine user mode are ideally suited for field use in harsh environments.



TECHNICAL DESCRIPTION:

The SPIR-ID 3" NaI(Tl) includes a 3*2" rugged NaI(Tl) detector, plus a GM tube and 2 ancillary LiI(Eu) Neutron detectors. Identification performance allow correct threat assessment for very demanding scenarios exceeding current standards such as mixed isotopes, heavily shielded isotopes, medical isotopes or background masked SNMs.

CONTACT INFORMATION

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COST

- \$25,000/system
- N/A/analysis

Tier Selection

Final tier assignment is based on overall product score.

- Top Tier ● Second Tier ● Third Tier
● Fourth Tier ● Bottom Tier

RANKINGS

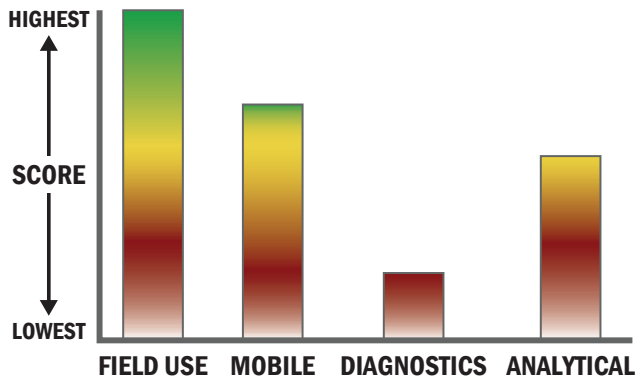
	Biological	Chemical	Radiological
FIELD USE System	N/A	N/A	
MOBILE Laboratory	N/A	N/A	
DIAGNOSTIC Laboratory	N/A	N/A	
ANALYTICAL Laboratory	N/A	N/A	

Survey Source

Vendor and Internet Supplied Information

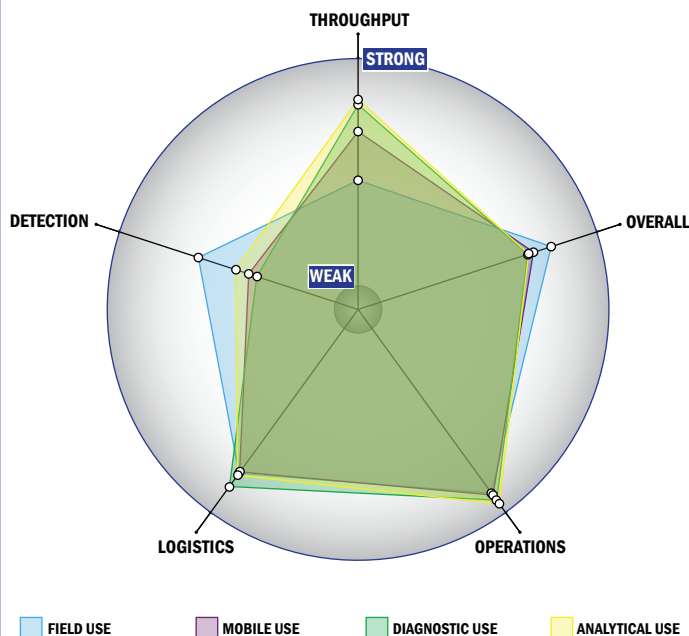
Scoring Analysis

System scores are compared across the four scenarios and ranked from highest to lowest.



Impact Chart

The Impact Chart is a spider graph representing specific categories and designed to give the reader a visual depiction of how a particular system is expected to operate across the four different scenarios. The score for each of the seven categories is presented as the percentage of the total possible score. Higher category scores extend the spokes of a graphic toward the outer edge of the chart. The area graphed for each of the four scenarios relates to how well the system performed in that scenario. Graphics for each of the four scenarios are super-imposed for ease of comparison.



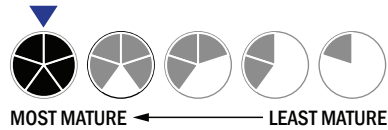
Evaluation Criteria

Throughput:

- 2 minutes or less for detection
- Multiple samples, multiple tests/sample per run
- System is continuous and provides real time analysis with no defined tests/samples
- The system or device is currently fully automated
- Device or system is intended for multiple detection assays
- Less than 5 minutes is required for set-up
- 1-2 steps are required for detection

Logistics:

- A day of training and technical skills are required
- Approximately the size of a toaster
- Between 1 and 5 kg
- Wireless and wired connections are available
- System or device uses batteries
- 4-8 hours battery life



Operations:

- Can be used from -21°C to 42°C (All temperatures)
- Performance is not influenced by relative humidity
- Greater than 10 years expected life
- Results can be viewed in real-time
- The system or device is currently fully autonomous
- The system software is open but modification requires licensing
- The system hardware is open but modification requires licensing

Detection:

- This system does not test liquids
- Total dose, dose rate and count rate with simultaneous display readout and automatic differentiation between types of radiation detected
- Down to background level radiation for dose rate
- Down to background level radiation for count rate
- System is used for surveying