



CBRNe Detection

for Security and Policing Applications

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Griffin™ G510

The Griffin G510 is a next-generation chemical detector and identifier for military, civil, forensic, and environmental responders.

Versatile and person-portable, the G510 provides the user with the ability to quickly identify unknown threats and confirm known hazards which in turn gives responders the confidence to take immediate action.

- Completely self-contained, including vacuum system, batteries, and carrier gas – no service module needed.
- Accepts all phases of matter (liquid, solid, vapour).
- Large, 9" touchscreen can be operated in the Hot Zone while wearing full PPE.
- Decon-ready with IP65-rated enclosure that is dust-tight, spray-resistant.



Specifications

Mass Analyser Type	Linear quadrupole mass filter
Mass Range/Resolution	15 - 515 m/z; 0.7 amu@FWHM
Detection Limit	PPM (parts per million) – PPT (parts per trillion)
LTM-GC Column	DB-5MS (15 m x 0.18 mm x 0.25 µm); others available

Griffin™ G510x

The Griffin G510x is a versatile, person-portable chemical identifier specifically optimised for the detection of narcotics and explosives.

- Confirmatory identification of major and minor chemical constituents in street drugs in under 5 min.
- Integrated Sample injection port allowing for environmental, forensic, and hazardous material sampling via the included Sample Prep Kit.
- RTX-TNT column (5m).



CQL Max-ID

The Rigaku CQL Max-ID handheld 1064 nm Raman analyser provides chemical threat analysis for safety and security applications.

Featuring an on-board library of over 13,000 items, it provides first responders, border security, and the military with a device that can identify narcotics, explosives, toxic chemical industrial chemicals, chemical warfare agents (CWAs), and more – without the concerns of fluorescence interference.

- Nondestructive testing.
- Capable of analysing solids, liquids, powders, gels, pastes, and more.
- Can scan through translucent packaging.
- Priority listing of a substance (utilisation of ThreatAlert hazard targeting).
- Detection of an unknown (with optional QuickDetect).
- Results in less than 1 minute.
- IP-68 tested, protecting the Max-ID from dust ingress and water immersion.



CQL Gen-ID

The Rigaku CQL Gen-ID provides advanced analytical chemical identification of the more common threats found at the border, or in clandestine or crime laboratories. It is a cost-effective solution for departments looking for targeted chemical threat analysis, such as narcotics, explosives, household chemicals, precursors, and more.

- Automatic mixture analysis of up to 5 components.
- Identify bulk and trace levels of an unknown substance.
- Automatic precursor monitoring.
- Add pictorial evidence using on-board camera.
- Adjustable focal position to accommodate sampling through different packaging.
- Integrated CommandSuite fleet management capability.



CQL Narc-ID

The handheld Rigaku CQL Narc-ID 1064 nm Raman analyser provides presumptive identification of narcotics, precursor chemicals, and cutting agents – even in non-visible amounts.

Suitable for counter-narcotics agencies, law enforcement, crime laboratories, prison facilities, customs agencies, or public safety efforts, the CQL Narc-ID can have a direct impact on protecting communities from dangerous chemicals that currently pervade through the illicit drug supply market.



MX908 Handheld Chemical Identifier

The MX908, is a handheld, portable device capable of detecting trace levels of drugs, explosives, chemical warfare agents and hazardous chemicals.

The MX908 uses innovative High-Pressure Mass Spectrometry to perform detection and identification of chemicals, giving high sensitivity and selectivity.

Capable of detecting nanogram/ppb levels of substances, device users can sample exteriors of suspect packages for trace residues, limiting their exposure to the substances inside.

- Fast start up time.
- Analysis in less than 60 seconds.
- Audio and visual alerts.
- Simple user interface.



MX908 Beacon

Deployed by militaries and first responders around the world for detection and identification of chemical threats, the MX908 Beacon™ allows operators to augment their area monitoring capability providing real time identification of aerosol and vapour chemical warfare agents (CWAs) and pharmaceutical based agents (PBAs).

A remote communications package allows users to operate and monitor multiple Beacons from anywhere in the world while sharing real time data with their team.

- Only area monitor for vapour and aerosol identification.
- Compatible with any MX908 device.
- Trace identification (low-mid ppb/ng) of threats.
- Extended operation and standby time.



MUVE™ C360

The FLIR MUVE C360 is a multi-gas detector completely integrated with an unmanned aerial system (UAS) to provide real-time continuous monitoring of chemical hazards while on the move.

The sensor block boasts 8-channels, which includes a photoionisation detector (PID), Lower Explosive Limit (LEL) detector, and five other electrochemical sensors.

The MUVE C360 sensor block quickly latches to a proprietary integration dock mounted to the UAS. The FLIR calibration station features the same dock, so the operator can easily connect for routine sensor verification. Sensor readouts are prioritised based on alarm conditions and are displayed real-time through the pilot's user interface.

- Analyse air quality surrounding active scenes prior to entry.
- Select proper PPE before entering scene.
- Locate leak source and track incident progression.
- Cover difficult terrain from the air to assess hazards.
- Quickly draw a perimeter to assess and map hazards.
- Preset alarm thresholds to make quicker decisions on-scene.
- Understand the flow of hazardous vapours at the source, but also in the air.



Agentase C2

Agentase C2 agent disclosure spray complements electronic sensors by providing the ability to map chemical agent contamination for emergency response missions, as well as aid in the decontamination of personnel or equipment after exposure to CWAs, specifically nerve agents (G- & V-series) and sulphur mustard (HD).

After being sprayed directly onto a surface, the Agentase C2 enzymes react by changing colour to red within 5 minutes of detecting CWAs. This colour change reveals the specific location of contamination. The forensic spray is translucent yet allows the threat to be seen under UV-light, a critical feature for covert operations.

- Ability to detect submicrogram (trace) levels of agents.
- Three applicator sizes: handheld, man-portable backpack, and wide-area cart-based system.
- Reveals exact location of agent on surface to reduce decontamination costs.
- Optional fluorescent additive enhances the visual response when used with an ultraviolet (UV) light in poor lighting conditions.
- Rapid response (within 5 minutes).





Fido® X4

Fido X4 is an ultra-lightweight, handheld explosives trace detector (ETD). It features FLIR's proprietary TrueTrace™ technology to detect a broad range of chemicals used in the manufacture of homemade, commercial, and military explosives with best-in-class sensitivity.

- TrueTrace detection in ≤ 10 seconds.
- Detects broad range of threats.
- Quick three-minute start-up.
- Rapid clear-down in seconds.
- Intuitive, go/no-go alarms.
- On-screen guided operation.
- On-device video training.
- Ultra-lightweight <680 g.
- Reusable sampling swipes.
- No radioactive ionisation source.
- No hazardous chemicals.



Fido® X2

Fido X2 is an ultra-lightweight, handheld explosives trace detector (ETD). It features FLIR's proprietary TrueTrace™ technology to detect a broad range of chemicals used in the manufacture of homemade, commercial, and military explosives with best-in-class sensitivity.

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- Nondestructive testing.
- Capable of analysing solids, liquids, powders, gels, pastes, and more.
- Can scan through translucent packaging.
- Priority listing of a substance (utilisation of ThreatAlert hazard targeting).
- Detection of an unknown (with optional QuickDetect).
- Results in less than 1 minute.
- IP-68 tested, protecting the Max-ID from dust ingress and water immersion.



CQL Gen-ID

The Rigaku CQL Gen-ID provides advanced analytical chemical identification of more common threats found at the border, or in clandestine or crime laboratories. A cost-effective solution for departments looking for targeted chemical threat analysis, such as narcotics, explosives, household chemicals, precursors, and more.

- Automatic mixture analysis of up to 5 components.
- Identify bulk and trace levels of an unknown substance.
- Automatic precursor monitoring.
- Add pictorial evidence using on-board camera.
- Adjustable focal position to accommodate sampling through different packaging.
- Integrated CommandSuite fleet management capability.



MX908 Handheld Chemical Identifier

The MX908, is a handheld, portable device capable of detecting trace levels of explosives.

The MX908 uses innovative High-Pressure Mass Spectrometry to perform detection and identification of chemicals, giving high sensitivity and selectivity.

- Fast start up time.
- Analysis in less than 60 seconds.
- Audio and visual alerts.
- Simple user interface.



BioThreat Alert® Reader VII

The BioThreat Alert® Reader VII by Tetracore is a handheld instrument designed for advanced molecular and immunological detection of biological threats such as anthrax, ricin, and more.

Weighing in at less than half a kilo, is it light and portable, and can deliver results in less than 30 seconds.

The reader can detect a range of biological threats from toxic plant proteins such as abrin to viruses such as orthopox with the use of the Multiplex Test strips.

- Accurate results LFA readings in less than 30 seconds.
- Weighs only 450 g.
- Internal memory storage for thousands of readings.
- Optional WiFi and USB compatibility for data downloads.
- Built-in touchscreen.



BioThreat Alert® Multiplex Test Strips

The BioThreat Alert® (BTA) multiplex strips are based on principle of Lateral Flow Assay (LFA) (like the covid tests) and intended to screen for presence of up to five targets in one environmental sample per test on site such as swab on surfaces, animal or human samples (not blood), beverages and food samples, etc.

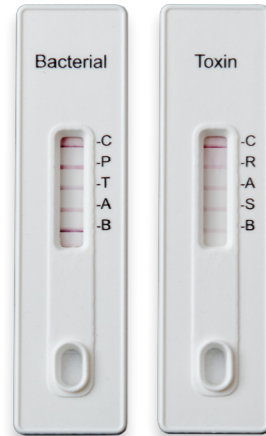
- Easy to use and can be stored at room temperature.
- Require a very small amount of sample (0.12mL) per test.
- Results are obtained in around 15 minutes.
- Each test has four test lines and one control line.

The bacterial strip can detect the following:

- Anthrax.
- Plague.
- Tularemia.
- Burkholderia.
- Orthopox (family of smallpox).

The toxin strip can detect:

- Ricin
- Abrin
- SEB (Staphylococcal Enterotoxin B).
- Botulinum Toxin A & B.



C2T Sample Preparation Swab

Tetracore's C2T Sample Preparation Swab is an all-in-one sampling system which is ideal for use by first responders with the BioThreat Alert® strips.

Once a sample has been prepared with the C2T swab, it is suitable to use simultaneously with the BioThreat Alert® strips and the T-COR 8™ Multiplex assay cartridges.



T-COR 8

The Tetracore T-COR 8 Real-Time PCR Thermocycler analyses potential threats for the rapid confirmatory analysis of biothreats and high-impact veterinary diseases. In less than an hour, the T-COR 8 allows first responders in the field or scientists in the lab to confirm the presence or absence of a biothreat.

T-COR 8™ Polymerase Chain Reaction (PCR) technology

Polymerase chain reaction (PCR) testing is a commonly used technique in molecular biology to identify and quantify bacteria and viruses via amplification of DNA, using thermal cycling to perform the amplification. PCR can be performed in real time (RT-PCR), allowing users to view data whilst it is being acquired.

It is an extremely sensitive technique for biological materials containing a significant quantity of DNA, such as bacteria, making it highly applicable to the detection and identification of biological warfare agents including:

- BW C2T™ Anthrax Multiplex Assay (pX01, pX02, Vaccinia, Internal Control)
- BW C2T™ Multiplex Assay (Burkholderia, SEB, Bot, Internal Control)
- BW C2T™ Multiplex Assay (F. tularensis -Tularemia; Yersinia pestis - Plague; Brucella; Internal Control)
- BW C2T™ Multiplex Assay (Ricin, Abrin, Internal Control)





IBAC™2

The IBAC™2 is a continuously operating monitor that provides early warning of biological aerosol threats.

It can operate independently or as part of a network configuration to form the 'first tier' of a building air-security system. In addition to providing real time alerts to biological aerosol threats, it can trigger a secondary aerosol sampler for subsequent identification.

- Rugged design and high sensitivity allow the IBAC to be deployed in severe environments such as HVAC systems and outdoor environments.
- Provides near real time warning capability for biological aerosol threats.
- Government validated with over 125,000 hours of run time in relevant environments.
- Alert can automatically trigger a particular sampler for subsequent identification.
- Operates unattended 24/7 without consumables.
- Complete self-diagnostic system.
- Battery or line powered with up to 16 hour run time per battery charge.
- Easily integrated with most building monitoring and control systems.
- Alert algorithms validated for both indoor and outdoor environments.



MUVE™ B330

The MUVE™ B330 is a Continuous Biological Detector and Collector purpose-designed for unmanned aerial systems (UAS) to provide real-time continuous monitoring of biological threats while on the move.

The B330 leverages the legacy design and performance of the IBAC product line in a SWaP-optimised configuration providing next level protection to combat forces by identifying biological threats remotely and down range.

- Deployment via the SkyRanger® R70 and R80 SkyRaider™ serves as the platforms.
- Payload is designed to be intuitive, easy to use, and require minimal maintenance.
- Sensor display is provided via the Mission Control Station (MCS) piloting interface.
- Alarming conditions and collector status are displayed to the Pilot to not only alert them to a threat, but also provide positive confirmation that a sample is being collected.



Personal Electronic Dosimeter (PED)

Ideal for users who are not specially trained to measure radiation exposure, the PED family have been specially designed to be easy to use and understand. Encased in weather, shock and drop proof housings each PED features a smooth clean design and simple to use DoseVision™ software.

- Detects X-rays and gamma rays from 33/48 keV - 3 MeV (model dependent).
- One touch operation.
- Easy to read large Amoled display screen displaying dose rate, accumulated dose and animated silhouette indicating dose received.
- Multiple languages.
- Multiple users.
- Waterproof up to 1 m.

PED-Blue

This is the non-intrinsically safe version of the PED-IS. Lighter, it retains the same high quality design and features a direct micro USB connection.

PED-ER

The PED-ER's extended dose rate range of 1 Sv/h (100 R/h) and an energy range of 48 KeV to 3 MeV, provides perfect radiation dosimetry for nuclear medicine environments.

PED2-IS

Built on over a decade of user experience with the original model, PED2-IS is a rugged, lightweight and easy-to-use personal electronic dosimeter that effectively monitors, measures and manages radiation exposure. It is an intrinsically safe certified device for use in potentially explosive environments, such as the oil and gas industries. A new Graphical User Interface (GUI) features intuitive visual elements, simple menus, and a single-button navigation for effortless operation.



DMC 3000 / DMC 3000 Personal Electronic Radiation Dosimeter

The DMC 3000 Personal Electronic Radiation Dosimeter features superior gamma and X-ray energy response, programmable alarms with visual LED, audible, and vibrating alarm indicators, simple 2-button navigation, and the ability to be fitted with external modules for expanded capabilities.

The DMC 3000 has a complete line of attachable modules that expand the detection and communications capabilities of the dosimeter these are: DMC 3000 Beta Module, DMC 3000 Neutron Module and DMC 3000 Telemetry Module.

- Designed for ruggedness and durability.
- Loud audible alarms, coupled with ultrabright LEDs and vibration capability.
- Simple 2-button operation and navigation of display options.
- Meets or exceeds applicable IEC and ANSI standards.
- Operates for up to 9 months on a single standard AAA battery.

The add-on PRD Module attaches to the DMC 3000 dosimeter and provides radiation counting information for source and hot spot location assessment, while providing dosimetry protection to the operator. It is powered by the DMC 3000 for over 1000 hours of use.



AccuRAD™ PRD

A discreet yet robust PRD designed for law enforcement, fire rescue, and other emergency responders to detect and interdict nuclear and radioactive materials. It also provides dose measurement and alarming capabilities for event response.

The AccuRad PRD has your back with best-in-class radiation detection, search and localisation technology, all sealed up in a durable, discreet, easy-to-use device.

- IP67 rated.
- Discreet mode option.
- USB C connectivity.
- NFC and BLE data transmission.
- Smart Phone App available.
- >900 hrs battery life.



RDS-32™ Survey Meter

The RDS-32 is a survey meter that measures H*(10) dose equivalent rate with its internal detector or detector combination (for wide range variation) but also contamination (Alpha, Beta, X-ray) and remote dose-rate (Gamma and Neutron) with external probes.

The RDS-32 Survey Meters are small hand-held, battery operated radiation survey instruments. Due to its versatile functions and durability it is suited for a wide range of applications in civil defence, industrial use, nuclear power plants, laboratories, etc.

The meter features excellent ergonomics; lightweight and easy handling, with visual, audible, and vibration functions.

Each meter includes an additional battery cover with belt clip to make it wearable, freeing the user's hands to focus on their primary job.

With both Warning and Alarm levels users can know when they are approaching their limit without constantly monitoring their device and can act accordingly.

To extend the capabilities of the instrument, a wide variety of external Smart probes are available to meet user needs with any RDS-32 version. GMP-12/GMP-25 probes, and the full CSP probe range can be connected to all RDS32 versions with adequate cable. The selection includes probes for gamma and neutron dose rate and alpha and/or beta contamination with various detection areas and scaler counting.

- H*(10) dose equivalent rate.
- External Alpha, Beta, Gamma and Neutron Probes for direct connection.
- 4-way navigation keys with practical shortcuts.
- Intuitive user interface.
- Large graphic screen with configurable backlight.
- Automatic display rotation via the built-in tilt sensor.
- High impact durable case construction – IP67 immersion proof.
- Internal memory allows versatile histogram functions and the ability to manually store measurements.
- Complies with IEC 60846 standards and is designed to meet ANSI 42.17A, 42.17C standards.



SAB-100™ Alpha / Beta Probe

The SAB-100 probe for measurement of surface contamination is designed to be used with any CSP survey meter. Its phoswich detector with 100 cm² detection area makes it an ideal tool for direct measurement of Alpha and Beta emitters.

- 100 cm² Phoswich scintillation detector.
- Belongs to CSPTM family.
- Calibration via PC.
- Easy removable grid for decontamination.
- Ergonomic counting mode selector on probe body.
- New probe angle for hands contamination free.

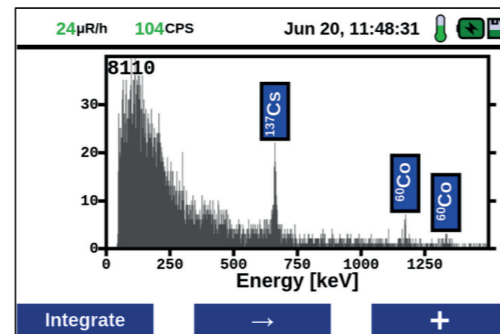


A400 Handheld Radioisotope Identification Device (RIID)

Providing high energy resolution, high efficiency and directionality the Next Generation A400 has been designed to set a new standard in radioisotope identification devices (RIIDs).

Using the most advanced semiconductor technology available the A400 offers spectroscopic performance competitive with cryogenically cooled detectors for border security operations, first responders, environmental monitoring, military and defence applications.

- Practical high-performance gamma-ray spectrometer.
- Compact and portable.
- Designed to exceed ANSI N42.34.
- Real-time 360° isotope-specific directionality.
- Industry-leading efficiency with over 19 cm³ pixelated CZT.
- No cryogenic cooling required.
- Real-time isotope detection and identification.
- Embedded user interface with one-handed operation.
- Storage case included.
- Removable battery.
- Wireless connectivity.
- Network webpage interface for mobile devices.



Model	A400
Resolution (% FWHM @662 keV)	< 1.0
Spectrometer Range (keV)	50 - 3000
CZT Volume (cm ³)	> 19
Weight (kg)	1.8
Battery Life (Hrs)	8
IP Rating	IP65
Temperature Rating (°F)	-4 to 122
Start Up Time (Minutes)	< 1
User Interface	Embedded Screen

H420 Gamma-Ray Imaging Spectrometer

The H3D® H420 is a fast, portable, and easy to use imaging spectrometer optimised for identification and localisation of gamma-ray sources.

- Rapidly identifies and locates primary source terms.
- Precision overlay of gamma-ray and optical images.
- Images both point and distributed sources.
- Discrimination between background and sources of interest in less than 20 seconds.
- Air/water tight for easy decontamination.
- Dose-range gauge.
- Automatic report generation.
- Annual recalibration and software updates included.



Model	H400	H420
Resolution (% FWHM @662 keV)	< 1.1	< 1.1
Spectrometer Range (keV)	50 - 3000	50 - 3000
Imaging Range (keV)	250 - 3000	50 - 3000
Collimator (" Tungsten)	N/A	N/A
CZT Volume (cm ³)	19	19
Weight (kg)	3.6	3.6
Battery Life (Hrs)	> 6	> 6
IP Rating	IP65	IP65
Temperature Rating (°C)	-20 to +50	-20 to +50
Start Up Time (Minutes)	> 1.5	> 1.5
User Interface	Tablet	Tablet





identiFINDER R225®

The identiFINDER® R225 is a pager-sized Spectroscopic Personal Radiation Detector (SPRD).

Featuring a single 18 mm cubic CsI detector with SiPM (G/GN) providing exceptional sensitivity and identification capability, there is also an option for an LaBr(Ce) spectroscopic detector (LG/LGN) for $\leq 3.5\%$ resolution. The device features the familiar three-button control common to all identiFINDER products.

- Familiar three-button control common to all identiFINDER products.
- Outstanding spectral ability to enable fast front-line detection and response.
- Belt-worn and detects gamma and neutron. It also has the ability to identify gamma.
- Field-proven and trusted template matching algorithms, characteristic and present in the entire identiFINDER family of products.
- Survives tough missions so you can wear with confidence.
- IP67 rated for use in harsh environments or temporary submersion during decontamination. MIL-STD 810G (salt/fog) compliant.
- Automatic calibration, stabilization, and no user maintenance required.
- ≥ 36 -hour battery life, plus additional 18-hour replaceable battery.
- Low training burden for quick field adoption.
- Ability to monitor and control remotely using the mobile app (iOS and Android).
- Built in communications and a robust API enable integration with user deployed networks. ANSI N42.42 data output is standard.
- Integration with SIGMA Edge with ATAK coming soon.



identiFINDER R400

The R400 is able to rapidly detect, quickly locate, accurately measure and precisely identify gamma emitting radionuclides.

- TFT LCD 64k colour display.
- LED stabilised.
- 12 channel, SIRF III GPS.
- Reachback via Bluetooth® connected to DUN capable cell phone.
- ANSI N42.42 output format.
- Web interface for monitoring and configuring instrument.
- Original three button operation.
- 1GB event data storage.
- Visible, audible and tactile alarm annunciators.
- Embedded windows CE operating system.
- Meets ANSI N42.34 shock conditions.
- A neutron option is available.



identiFINDER R425

The identiFINDER R425 is a next generation instrument, vastly improving on its predecessor. The R425 uses the same algorithms that have proved themselves in the R400, whilst building and expanding upon its advantages. This new device raises the standard of the modern RIID, and should be at the forefront of a responder's arsenal.

This device comes packed with innovative features, including:

- 2 x 2 NaI Detector – The R425 is 3.5 x more sensitive than other all-purpose RIIDs, whilst including up to 10% superior resolution.
- Sourceless Stabilisation – Automatic stabilisation reduces false positives when taking measurements in the field, improving data collection and decision making.
- IP67-Rated – The R425 is protected from total dust ingress and water immersion, up to 1 meter in depth for 30 minutes. This covers you for rain, splashing and accidental submersion of the device.
- Rugged Construction – Built to survive rigorous use, the device is drop tested to 1 meter and has a fully enclosed crystal. Fully meeting the ANSI N42.34 standard.
- 360° Easyfinder Mode – Easily navigate and respond to threats. The 360° Easyfinder mode collects and interprets data, pinpointing the exact location of a source.
- Wireless Communications – This in-built feature enhances interagency standardisation, improving response options.
- A neutron option is available.



MUVE™ R430

The MUVE R430 is a radiation detector designed for unmanned aerial systems (UAS) used to detect, locate, measure, map, and identify radioactive sources from above.

The SkyRanger® R70 and SkyRanger® R80D serve as the airframe for the R430. The R430 is integrated into the R70 and R80D's Mission Control Software (MCS) providing visible and audible alerts that expedite response measures.

The R430 provides a balance of size and weight for various situations including emergency response, environmental monitoring and surveying.

The MUVE R430 brings the pedigree of the identiFINDER series of best-selling radionuclide identification devices to the sky. Utilising the same, familiar interface the R430 can go quickly to perform assessments in hard-to-reach places and environments while keeping the operator at a safe distance.

- Evaluate radioactive events from a safe distance – When dangerous conditions exist, or are anticipated, utilise the MUVE R430 to fly in for an initial assessment.
- Reduce reaction times – Quick deployment allows for rapid threat assessment even in areas where contamination would be difficult to access normally.
- Fully integrated situational awareness – When gathering a comprehensive view of a scene, the MUVE R430 provides the Mission Control Software the data needed to give a complete view.



identiFINDER® R700 Backpack Radiation Detector (BRD)

The FLIR identiFINDER R700 Backpack Radiation Detector (BRD) offers new spectroscopic broad-search capabilities.

Once dismantled, the identiFINDER R700 provides the capabilities required to successfully perform wide-area searches quickly and efficiently while offering exceptional sensitivity, communication, and trusted spectroscopic algorithms in a lightweight, ergonomic form-factor.

- Interrogate and isolate radiological threats quickly.
- Can be configured as a stationary screening device to deploy at the scene, or as a nondescript backpack for covert on the move operations.
- Wireless communications and a robust API enable integration with user-deployed networks allowing the user to share intelligence broadly, or operate silently.



identiFINDER R440

The identiFINDER R440 is a next generation instrument, vastly improving on its predecessor. The R440 uses the same algorithms that have proved themselves in the R400, whilst building and expanding upon its advantages. This new device raises the standard of the modern RIID, and should be at the forefront of a responder's arsenal.

This device comes packed with innovative features, including:

- 2 x 2 NaI Detector – The R440 is 3.5 x more sensitive than other all-purpose RIIDs, whilst including up to 10% superior resolution.
- Sourceless Stabilisation – Automatic stabilisation reduces false positives when taking measurements in the field, improving data collection and decision making.
- IP67-Rated – The R440 is protected from total dust ingress and water immersion, up to 1 metre in depth for 30 minutes. This covers you for rain, splashing and accidental submersion of the device.
- Rugged Construction – Built to survive rigorous use, the device is drop tested to 1 meter and has a fully enclosed crystal. Fully meeting the ANSI N42.34 standard.
- 360° Easyfinder Mode – Easily navigate and respond to threats. The 360° Easyfinder mode collects and interprets data, pinpointing the exact location of a source.
- Wireless Communications – This in-built feature enhances interagency standardisation, improving response options.
- A neutron option is available.



SPIR-Ace

The SPIR-Ace is a versatile Radio-Isotope Identifier (RIID), utilising SPIR technology in a compact, user-friendly package. Useful for a variety of applications that require efficient detection and identification of radiological threats. These include security applications, such as civil defence, border and customs. The SPIR-Ace is also useful for obtaining accurate assessments of nuclear materials for nuclear power plants, safeguarding labs, and more.

- Continuous acquisition: dose rate, count rate and detection.
- Multiple specific nuclide libraries depending on application.
- Source searching guidance.
- Enclosure class: IP54.
- Connection to external alpha/beta probe.
- Can be connected to other warning and surveillance devices (e.g. watch, tablet).



SPIR-Pack

The SPIR-Pack is a backpack device which provides discrete search and identification of radiological and nuclear materials. It is also a powerful tool for mapping of contaminated areas that may be difficult to access by vehicle.

The SPIR-Pack is based on the 'detection by identification' concept, which limits alarms to cases of real threats only while filtering out any false alarms generated by background variation or anomalies such as medical isotopes. It is a high performing system for heavily shielded and complex masking scenarios seen in radiological security endeavours.

- Human portable radiation detection system.
- Real-time mapping.
- Hand-free operation.
- Discrete monitoring in densely populated areas or crowds during events.
- Instant identification of complex scenarios of masking and/or shielding.
- Direct confirmation of the detection and the nature of the threat.
- Expert or simplified mode.
- Information transfer to Smartphone or Tablet PC.
- Remote supervision with SpirVIEW MOBILE or any other installed supervision system.
- Integrated into SIGMA.





SPIR-Ident Mobile

The SPIR-Ident Mobile Platform utilises large advanced gamma spectroscopic detectors, various neutron detection modules and sophisticated algorithms to deliver fast and reliable detection and real-time nuclide identification capabilities for military, homeland security, law enforcement, and environmental applications. It is a modular and scalable system that can be configured for easy deployment in vehicles, compact transportable modules, or in low profile (stealth) configurations.

- Can be powered by a single USB connection from a Laptop computer.
- SPIR View software provides mapping, data reach back and mission replay capabilities.
- Very sensitive nuclear detection and real-time nuclide identification.
- Advanced algorithm for nuclide identification, categorisation into NORM, medical, industrial, and Special Nuclear Materials (SNM), and nuclear threat assessment.
- Post event contamination level mapping.
- Supervision software including integration into SIGMA.



SPIR-Explorer Sensor

The SPIR-Explorer Sensor allows detection, measurement and identification of radiological sources over a very large range. It is intended to be mounted on demanding carrier, such as UAVs or robots. It may also be used within fixed or deployable systems.

Typical uses are searching for any unexpected radiological sources and checking for radiological risk in case of accident, and mapping of contaminated areas.

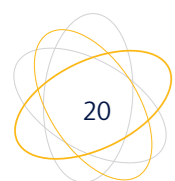
Operation is fully automated and results are shown and memorised at an associated radiological base station. The SPIR-Explorer Sensor is using proven technology from the 'SPIR-Ident' and 'SPIR-ID' product family in a much smaller and lighter form factor.

- Real-time, instant detection, measurement and identification.
- Wide dose rate range: from natural background to high accident levels.
- Light and robust.
- Simple and fully automated use.

SPIR-Ident Vehicle and Pedestrian Portal

The SPIR-Ident Vehicle and Pedestrian is a gamma and neutron spectrometric portal. It is intended for dynamic detection and identification mode for protecting sites and critical infrastructure from the intrusion of special nuclear materials (SNM) or radiological dispersion devices (RDD) by controlling pedestrian, luggage, small items, parcels and vehicles. It can be configured for use with occupancy detector or ancillary cameras to provide a complete protection solution.

- Gamma and neutron detectors.
- Dynamic pass through mode.
- Effective real-time Medical and NORM rejection.
- Single, double sided and multiple pillars for passage ways.
- Masked and shielded SNM and RDD identification.
- Automated operation with full camera support.
- 'Easy' display and advanced modes.
- Automated log with spectrum and image capture.
- Masked and shielded SNM and RDD identification.





Guardian RPM Radiation Portal Monitor

A customisable system for vehicle and freight radiation monitoring.

- Permits throughput speeds up to 20 mph (30 kph).
- Gamma and neutron sensitive.
- NORM discrimination.
- Very low false alarm rate (1:15,000 typical).
- Fully digital systems design.



TSA VM250 Automatic Vehicular Traffic Screener

The TSA VM250 automatically screens vehicular traffic without the need for frequent calibration.

High sensitivity allows the VM250 to be used at locations such as uranium enrichment plants, weapons manufacturing and storage plants, nuclear laboratories, and nuclear waste disposal and storage sites where detection of Special Nuclear Materials (SNM) is essential. The VM250 is designed for use in harsh environmental conditions.

- Portal monitor for vehicles.
- Continuously screens moving traffic.
- High throughput.
- Cost effective.

TSA PM700 Portal Monitor

The PM-700AG's large detectors and unique detection algorithm improve its performance to the point that it can achieve ASTM Standard C 1169 Category III sensitivity for SNM (special nuclear materials).

All of the essential components are contained in the pillars: radiation monitors / detectors, controller, occupancy detector. The system operates from an internal battery which is constantly charged from the site's AC line during normal operation. In the event of a power outage, the battery permits continued operation for at least 12 hours.

The PM-700AGN adds neutron detection capability to the basic PM-700AG. Both models are equipped with RS-232 and Ethernet communications capability.

- Designed to automatically scan pedestrian traffic without the need for frequent calibration.
- Intended for applications where the relatively low energy emissions from ^{235}U and ^{239}Pu are the main concern.
- Currently in use at uranium enrichment plants, weapons manufacturing plants, weapons storage sites, nuclear laboratories, nuclear waste disposal, and storage sites where protection of SNM is essential.



Service and Support

Southern Scientific has a team of fully qualified service engineers, who support customers spanning the length and breadth of the UK. We can provide factory or on-site service as required, based on single visits, planned maintenance or full support under contract. We maintain a high level of spare parts, ensuring lifetime support capability.

Our systems group can offer its service for the larger installed equipment, from initial planning to installation, completion and training. We can provide expert knowledge and experience, gained through involvement in a number of large-scale projects throughout the years.

ISO Certified

Southern Scientific Ltd is certified to ISO 9001 and ISO 13485 representing the high level of quality assurance and management that we provide at every stage of the supply process, whether a product is distributed on behalf of our trusted manufacturers or constructed in our UK workshop. This accreditation means that our customers can place an order knowing that the delivered product will be suitable for its intended use, fully compliant with EU legislation and in full working order.

All our products are CE marked.



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