



APPLICATIONS



FEATURES

RSI Proprietary ADS

- Fast and accurate radiation detection, Nuclide ID, and Dose Rate
- High throughput with essentially zero dead time

Unique and Advanced Algorithm

- Automatic and continuous multi peak gain stabilization on natural isotopes
- Accurately locate and identify hidden and shielded sources with categorized NID (SNM, MED, NORM, IND)
- Anomaly detection with adaptable background techniques to maximize sensitivity and minimize false alarms

Easy Operation

- No radioactive test sources required for system setup or for system performance validation

Protection

- Incorporated thermal shock and vibration absorbing material

RadAssist Software

- Audible and visual alarms
- User control, monitoring, and recording
- Includes mapping displays with navigational position and definable radiation overlays

Compact Airborne Detector System

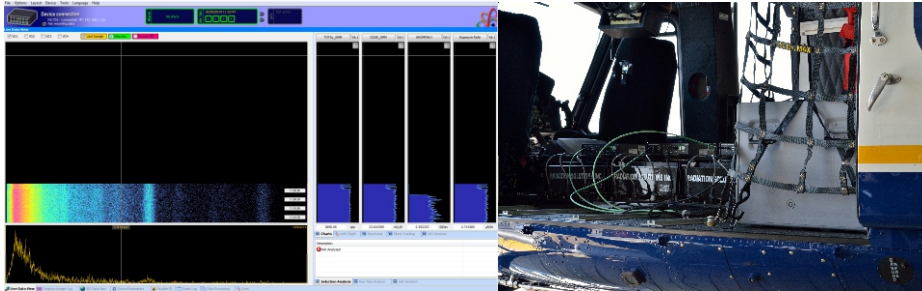
The RSX-3 Detector consists of three 2"x4"x16" Sodium-Iodide (NaI) detectors coupled to a PMT System which produces high quality analog signals for digital analysis by the ADS module. The ADS (Advanced Digital Spectrometer) Module processes the incoming gamma-ray pulses to produce a fully linearized 1024 channel spectrum for additional analysis with the RadAssist setup / support software. These spectra are fed by 1 Mbps/sec RS-485 data connections to the DPU Unit for summing and gain analysis. The ADS spectrometer is the latest technology in this field and obsoletes all other previous instrumentation in it's ability to achieve very clean linearized spectra, at very high throughput data rates and up to 10/sec data sampling. This makes the Unit ideal to handle the wide dynamic range of radiation data seen in airborne vehicle applications.



RSX-3

Compact Airborne Detector System

The RSX-3 is designed for minimal operator interaction and the RadAssist Software provides a variety of monitoring displays indicating the radiation activity. A high level of self diagnostics and performance verification routines are implemented with automatic notification of any error conditions. With the multiple data verification methods implemented, the User is assured of the quality and accuracy of the data.



RadAssist Software

RadAssist is a suite of utilities, running under Windows XP, and provides the User with control and monitoring capabilities. The software operates in real time or in Playback Mode. Along with the functions above, the following outlines some of the additional features:

- Setup menus for operational parameters
- Display and monitoring:
 - 4 Channel Chart Display with selectable items
 - Spectral Waterfall excellent for highlighting data
 - Navigation Track with "Breadcrumb" Trail
 - Contour Plot
 - Mapping Displays with selectable data overlays
 - Nuclide Identification
 - Alarm Capability

Energy Resolution

- <8.5%

Pile-Up Contamination

- <1% @ 250kcps

Power Input

- 10-40V DC, 10A maximum

Communication

- Ethernet, USB Storage, RS-232

Enclosure Material

- Carbon Fiber

MCA Channel

- 256, 512, 1024 (3keV/channel)

Gain Stabilization

- Automatic multi-peak using naturally occurring isotopes

USB Storage

- System Log, Stabilization Log, GPS Stamped data, etc.

Operating Temperature

- -30°C to +45°C

Timing

- Internal/External

Dimensions w/ RS-701 Console

- 27.27" (692.7mm) x 18.33" (465.6mm) x 10.52" (176.4mm)

Weight

-

Outputs

- Composite Spectrum ✓
- Individual Spectra ✓
- State of Health ✓

Inputs

- Detector Configuration ✓
- Operational Parameters ✓
- Trigger Signal ✓
- Calibration Data ✓

Radiation Solutions Inc

Radiation Solutions Inc. (RSI) is specialized in nuclear instrumentation for the detection, measurement and analysis of low-level ionizing radiation from both naturally occurring and man-made sources.

RSI's cutting edge radiation detection technology incorporates a fully digital system design, spectral analysis and advanced data processing. RSI deploys this technology in fixed installed, airborne and mobile systems, portable and handheld spectrometers providing a level of quality previously only attainable in laboratory equipment.

RSI is committed to working as closely as possible with customers in all aspects of the product life cycle including product requirement, application, training, support and product enhancement. Our comprehensive approach results in hardware components and industry leading software techniques that produce outstanding results above expectations.



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