NUCARE USA

RAD IQ™ VMRDS

VMRDS (Vehicle-Mounted Radiological Detection System)

"Deploy Anywhere, Identify Everything"

From covert mobile missions to wide-area surveillance, the RAD IQ™ VMRDS delivers RIID-grade spectroscopic identification across any platform—vehicles, vessels, or aircraft —wirelessly controlled from tablet or smartphone.

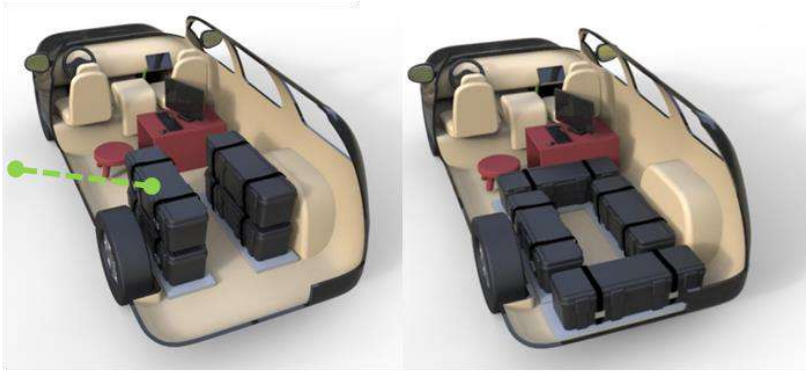
The RAD IQ™ VMRDS is a mobile radiation detection solution engineered for deployment on vehicles, aircraft, and marine platforms. Designed with operational agility in mind, it eliminates the limitations of traditional systems through Bluetooth-enabled wireless communication between detector modules and control units, such as rugged tablets or smartphones.

Its modular detector configuration—supporting up to two large 2×4×16" NaI(Tl) gamma detectors and optional neutron detectors—can be tailored to mission-specific needs.

Multiple VMRDS units can be synchronized to generate directional data, guiding vehicle operators toward radiation sources with greater speed and accuracy.

Nucare's unmatched integration of hardware, wireless control, and software intelligence makes the VMRDS a powerful, flexible, and future-ready solution for homeland security, border surveillance, first res ponse, and critical infrastructure protection.

Bluetooth communication to
a PDA or Tablet PC



Modular detector configuration
Tailored to mission-specific needs

Applications

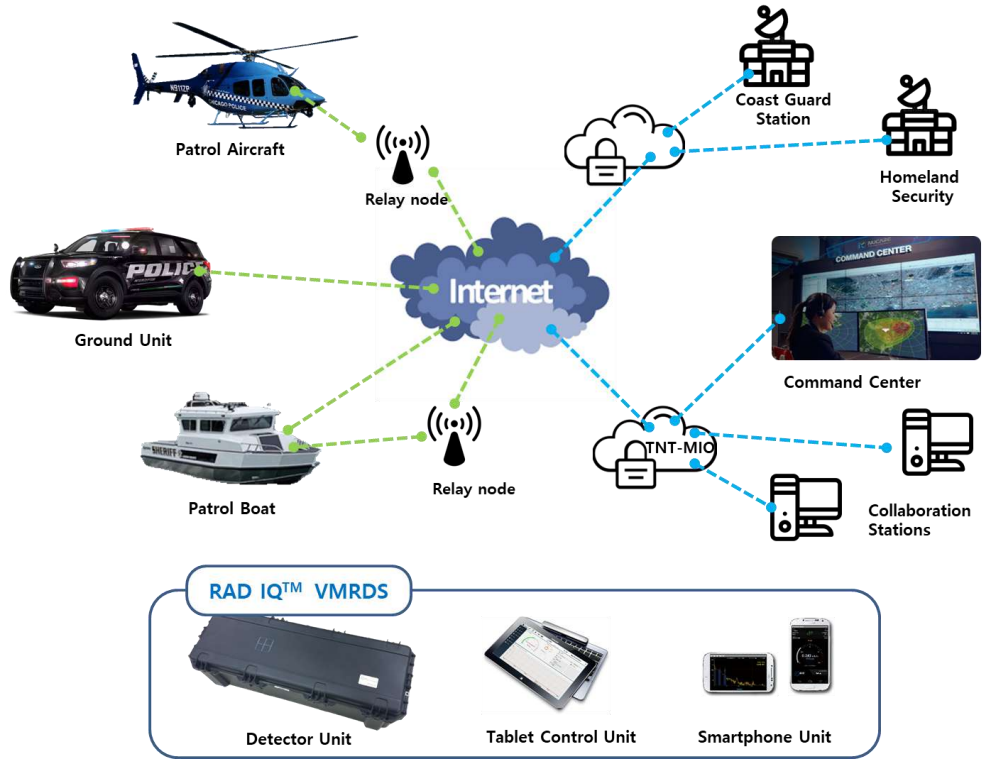
- Emergency first responders
- Military marine interceptors
- Radiological Area Mapping
- Geological Radiation Survey
- Safeguard and nuclear security

Key Features

- Spectroscopic VMRDS
- Modula detector configuration
- Bluetooth Communication to PAD and/or Tablet PC
- Up to 8 hour operation on a single battery charge
- Automatic System Calibration and Stabilization
- Database protocol for log files and alarm events
- Water and Shock Resistant (IP 67)

❖ Connected Detection, Real-Time Coordination

RAD IQ™ VMRDS integrates seamlessly into modern operations with wireless communication, enabling real-time data transfer from patrol vehicles, boats, or UAVs to remote command centers over secure n etworks.
Operators can monitor and control the system using tablet PCs or smartphones, while supervisors acce ss live radiation maps and alerts through centralized platforms—empowering fast, informed decision-m aking in dynamic environments.

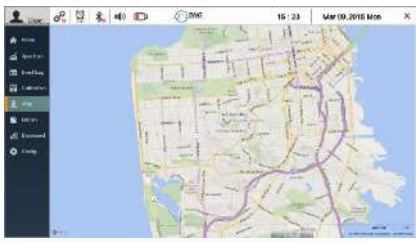


PeakGo

Measurement status, visual display, spectrum analysis, background measurement, configuration, and calibration are all controlled by th e Tablet PC and its application software PeakGo.

Home screen

Analysis screen



Map screen

❖ Specifications

DETECTORS	
Gamma detector	NaI(Tl) : 2x4x16 inch (standard), 4x4x16 inch (optional) up to 2 detectors/unit
Gamma (High dose)	Gain compensation Geiger-Muller detector
Neutron detector	He-3, Solidstate (Domino), or CLLBC

PERFORMANCE	
Energy Range	30 KeV - 3 MeV
Dose rate range	< 100nSv/h ~ 1mSv/h (Scintillation detector), 1mSv/h ~ 10mSv/h (GM tube)
Energy resolution	< 8% (NaI)
Linearity	< 2% (Realtime Linearization by firmware)
MCA Channel	16bit 1024ch
Stabilization	Temperature corrected real time stabilization

BATTERY			
Type	Lithium Ion	**Operation Time**	> 8 hr.

PHYSICAL			
Dimensions(WxDxH)	740 mm x 520 mm x 300mm	**Weight**	20 kg (44 lb)/2G1 model

ENVIRONMENTAL			
Operating Temp	-20 °C (-4°F) ~ 50 °C (122°F)	**Protection Rating**	IP67
Relative Humidity	10 to 80%, non condensing	**Testing Condition**	EN 61326, MIL-STD-810G 501.5, MIL-STD-810G 514.6

ACCESSORIES			
Carrying Case	Pelican-type hard case	**Charger**	USB charger
Backpack	Backpack or waist backpack	**PDA**	Samsung Galaxy J5 or equivalent
		Tablet PC	Samsung Tablet or equivalent

SOFTWARE	
Reach-back	ANSI N42.42 or CSV event data via a smartphone or a tablet PC
Application SW	PeakAbout: Android based application SW for a smartphone PeakGo: Windows based application SW for a Tablet PC PeakID: Windows based application SW for a command center

DETECTABLE ISOTOPE LIST	
Norm	K^{40}, Ra^{226} and daughters, Th^{232} and daughters
Medical	F^{18}, Cr^{51}, Ga^{67}, Mo^{99}, Tc^{99m}, Pd^{103}, In^{111}, I^{123}, I^{125}, I^{131}, Xe^{133}, Sm^{153}, Tl^{201}
Industrial	Na^{22}, Co^{57}, Co^{60}, Se^{75}, Rh^{106}, I^{132}, I^{133}, Ba^{133}, Cs^{134}, Cs^{137}, Eu^{152}, Ir^{192}, Am^{241}
SNM	U^{233}, U^{235}, U^{238}, Pu^{239}, Pu^{241}, Np^{237}

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