

RAD IQ™ HH300

CE FC 

Hand-Held RIID (Radiological Isotope Identification Device)

"More Than a RIID – It Sees, Tracks, and Adapts"

Now in its third generation – NuCare's most advanced RIID yet!



The RAD IQ™ HH300 represents the third generation of NuCare's hand-held RIID solution, catering to the growing need for portability without compromising on speed or the quality of radionuclide identification.

Weighing in at just 1.3 Kg, this lightweight unit combines cutting-edge technology with user-friendly design.

Driven by NuCare's extensive experience in innovative RIID development, the RAD IQ™ HH300 offers advanced features such as sourceless auto-stabilization and real time reach back capabilities, along with innovative radiation detectors.

The features include a high resolution camera, multi-channel GPS, gyro sensor, and a hot swappable battery pack, all coming together to create a state-of-the-art unit.

These exceptional features ensure that users can rely on outstanding performance that meets and often exceeds the stringent requirements established by Homeland Security in the USA and other regions.

Applications

- Homeland Security
- Emergency Responder
- Safeguard and nuclear security
- Radiological Area Mapping
- Geological Radiation Survey

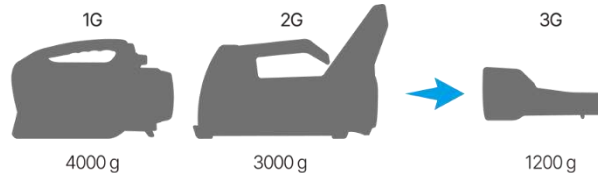
Key Features

- ANSI N42.34 compatible
- Hot-swappable battery pack
- Built-in camera, GPS, and Gyro sensors
- One-touch reach-back service
- Sourceless auto-stabilization
- Add-on peripheral external device(s)

❖ Key Features

• RAD IQ™ HH300 Evolution

The third generation HH300 is the most compact and lightweight RIID product ever developed. Its volume and weight are reduced by one third compared to earlier models, all while incorporating advanced features such as multi-media support.



• One-click Reach-back service



The HH300 offers one-click Reach-back solutions for seamless data transfer to command centers.

Users can attach GPS information and site images to the spectroscopic report, assisting analysts in their evaluations.

Additionally, 4G/5G network access is available through an external adapter when WiFi is not an option.

• Connect-ability

A key feature of the HH300 is its ability to connect to external devices, including detectors, 4G/5G network adapters, and more through its USB port.



• Isotope location finder

The built-in gyro sensor helps the user to locate the source of the radiation.



• High resolution camera

The HH300 features a built-in camera that enables effortless image attachments to event reports, significantly boosting its practicality.



❖ Description of Device

The HH300 establishes new standards for compactness, lightness, and ease of use. It comes standard with the assemblies listed below.



1	Gamma detector	2	LCD display	3	Neutron det. (optional)	4	Replaceable battery pack	5	AA battery holder
6	Universal adaptor	7	Belt holster, Hand strip	8	Camera	9	Vehicle Battery charger	0	Bluetooth Earphone

❖ Application software: PeakAbout®

The application software provides enhanced convenience and performance. Its intuitive menu, hierarchical design, and ergonomic keypad ensure easy operation.



Alarm status



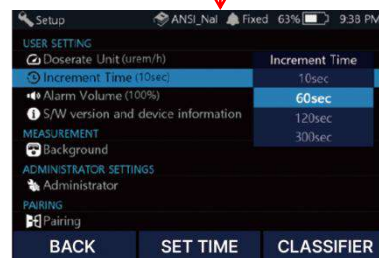
PeakAbout provides 4 levels of alarm with intuitive graphical icons. Depend on dose rate and threshold setup, it informs the user 'move forward', 'move back', 'in range' and 'danger' alarm level.



Finder



Manual ID



Configuration

❖ Specifications

DETECTORS			
Gamma	2x2 inch NaI(Tl) or CeBr ₃ . And PIN detector (for high dose rate)		
Neutron	1.5x1.5 or 1.5x2 inch CLYC or CLLBC		
External Probe	Custom size gamma or neutron probe. Pancake (alpha, beta and gamma)		
PERFORMANCE			
Energy Range	20 keV – 3 MeV		
Linearization	Real-time linearization by firmware		
Dose rate range (ID mode)	0 ~ 100 μSv/h		
Dose rate range (Count mode)	0-10 mR/h (NaI), 10 mR/h-10 R/h (PIN)		
Sensitivity	> 1500 cps / μSv/h @Cs-137		
Stabilization	Sourceless automatic real-time stabilization		
Identification	ANSI N42.34 compatible		
MCA channel	16 bit 2048 ch.		
Library categories	SNM, IND, MED, NORM		
Typical resolution	NaI(Tl) < 7%, CeBr3 < 5%, LaBr3 < 4%, CLLBC < 4% @ 662 keV		
BATTERY			
Type	replaceable Li-ion		
Operation time	15x2h in sleep mode, Max run time 8x2h		
Backup battery adapter	4 AA alkaline batteries (> 2h. backup)		
PHYSICAL			
Dimension	102 x 243 x 97 (mm)	Weight	1.3 kg
ENVIRONMENTAL			
Operating Temperature	-20°C(-4°F)~50°C(122°F)	Protection Rating	IP65
Relative Humidity	10 to 80%, non condensing	Testing Condition	IEC 62706, EN 61326
DISPLAY		INPUT/OUTPUT	
Type	LCD	USB	micro USB 3.0
Size	3.5inch	Bluetooth	Class 4.0
Resolution	480 x 320, configurable up to 1920x1080	WLAN	802.11n Wireless LAN
MISCELLANEOUS		SOFTWARE	
GPS	22tracking, 66channels, 1-10Hz	Reach-back	ANSI N42.42 or CSV event data
CCD Camera	CMOS 8MP	Application SW	PeakAbout (application SW) PeakID (PC version SW)
GYRO sensor	Linearity 0.1 ±% FS		
ACCESSORIES			
Case	Pelican style carrying case	Charger	USB charger / Vehicle Battery charger
Holster	Belt holster	Connection cable	mini USB cable

