

# Battery-Powered Wireless Radiation Detector

geotech

## RAE Systems MeshGuard Gamma

The RAE Systems MeshGuard Gamma radiation detection monitor is a key building block of the MeshGuard intelligent network of connected sensors for gamma radiation detection in industrial and environmental monitoring applications. The MeshGuard system is designed for quick deployment in areas where low cost/high ROI solutions are required.

MeshGuard Gamma is available with field-replaceable pre-calibrated sensors specifically designed to sense gamma radiation.

### FEATURES

- Fastest deployment and decommissioning time
- Simple to install and operate
- Rugged and reliable
- Versatile to accommodate many applications
- Self-forming wireless network; units come online automatically
- Local display with Dose Rate in  $\mu\text{R}/\text{h}$ ,  $\mu\text{Sv}/\text{h}$  or  $\mu\text{Gy}/\text{h}$
- High sensitivity scintillator detector
- Compact and lightweight
- P-54 rated weather resistant
- Multiple controller options for real-time wireless data collection and viewing
- Directly compatible with ProRAE Guardian mobile command center software
- Self-healing network automatically routes data back to controller through best wireless path available
- Battery powered operation for up to 2 months
- SolarPak provides 24/7 uptime
- Magnetic mounting option for quick and easy MeshGuard installation

### APPLICATIONS

- Environmental monitoring and protection
- Nuclear industry plant monitoring
- Homeland security & venue protection
- Plant maintenance turnarounds
- Industrial safety
- Nuclear medicine



2 Super-Bright  
Red LED Visual  
Alarm

**CALL GEOTECH TODAY (800) 833-7958**

**Geotech Environmental Equipment, Inc.**

2650 East 40th Avenue • Denver, Colorado 80205

(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242

email: sales@geotechenv.com website: www.geotechenv.com

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### SPECIFICATIONS

#### Detector Specifications

<b>Dose Rate Range</b>	1 $\mu$ R/h to 20 mR/h (0.01 $\mu$ Sv/h to 200 $\mu$ Sv/h, or 0.01 $\mu$ Gy/h to 200 $\mu$ Gy/h)
<b>Energy Range</b>	0.06 to 3.0 MeV (X-ray and Gamma radiation)
<b>Accuracy</b>	$\pm$ 20% from 100 $\mu$ R/h to 20 mR/h (1 $\mu$ Sv/h to 200 $\mu$ Sv/h, or 1 $\mu$ Gy/h to 200 $\mu$ Gy/h)  $\pm$ 30% or 5 $\mu$ R/h from 1 $\mu$ R/h to 100 $\mu$ R/h (0.01 $\mu$ Sv/h to 1 $\mu$ Sv/h, or 0.01 $\mu$ Gy/h to 1 $\mu$ Gy/h), whichever is greater
<b>Response Time</b>	T90 < 5 sec (Dose Rate > 1 mR/h, 10 $\mu$ Sv/h or 10 $\mu$ Gy/h)
<b>Size</b>	10.5" L x 3.7" W x 2.1" H (26.5cm x 9.5cm x 5.5cm)
<b>Weight</b>	1.3 lbs. (0.6kg)
<b>Visual Alarm</b>	2 super-bright red LEDs
<b>Audible Alarm</b>	90dB @ 30cm
<b>Operating Range</b>	990 feet/300 meters (line of sight)
<b>Keypad</b>	Three operation and programming keys
<b>Display</b>	Customized LCD (1" x 1.5"/72mm x 108mm) with backlight
<b>Power Supply</b>	Disposable Lithium Battery, +3.6V (optional rechargeable external battery for extended run time)
<b>Operating Time</b>	Up to 30 days on internal battery
<b>Operating Temperature</b>	-20° to 50°C (-4° to 122°F)
<b>Humidity</b>	5% to 95% relative humidity, non-condensing
<b>IP Rating</b>	IP-54
<b>Wireless Frequency</b>	ISM license free band. IEEE 802.15.4 2.4 GHz
<b>Wireless Approvals</b>	FCC Part 15, CE R&TTE, Others <sup>1</sup>
<b>Radio Module</b>	Supports RM2400A

<sup>1</sup>Contact Geotech for country specific wireless approvals and certificates.  
Specifications are subject to change.

### MESHGUARD GAMMA ORDERING INFORMATION

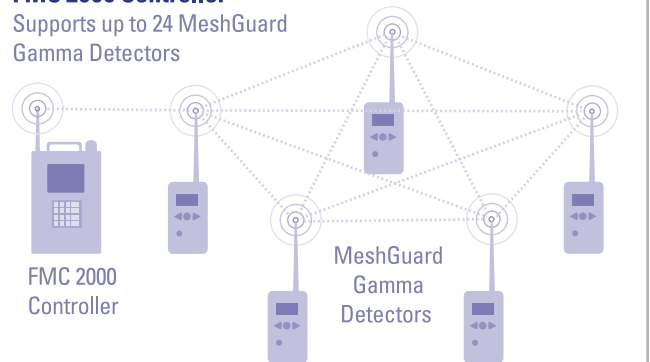
MeshGuard Gamma Detector Includes:

- MeshGuard Gamma Detector
- Operation and Maintenance Manual
- High-Capacity Lithium Battery installed
- Maintenance Tool
- Radiation Check Source

### MESHGUARD GAMMA SYSTEM CONFIGURATION OPTIONS

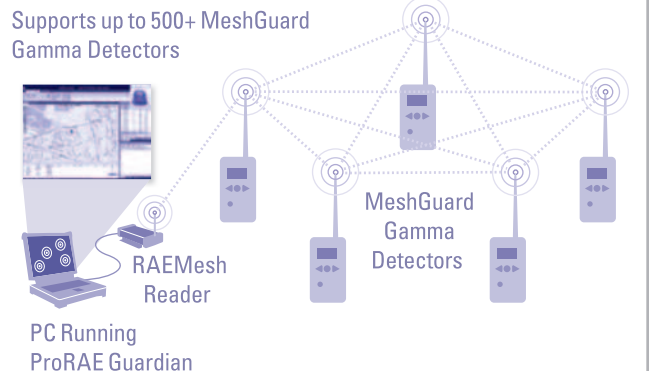
#### FMC 2000 Controller

Supports up to 24 MeshGuard  
Gamma Detectors



#### PC Controller

Supports up to 500+ MeshGuard  
Gamma Detectors



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