Defentect
Intelligent Threat Awareness

V1.3 0909

GT2™ Geiger-Muller Sensor
Version 2.0

The growing use of radiological material in a variety of industries and the global threat of terrorism has increased the risk of unwanted radiation exposure. Homeland, physical security and radiation safety professionals and first responders are seeking advanced tools to protect workers and the public.

Defentect's GT2™ uses a Geiger-Muller (GM) tube for detection. A small form Linux based embedded PC104 computer is the operating platform that allows the GT2 to be powerful in its analytic capability and flexible in its configuration.

The GT2 is a "stand-off" sensor that detects radiation in designated areas and, via Defentect's DM3™ software, notifies required personnel of a radiological event. The Power-over-Ethernet (PoE) sensor enables remote monitoring, real-time alerts and browser-based management. PoE enables easy installation.

Sensor management and communication can be configured as two-way between the sensor and DM3 or for increased security as outbound devices only. During a radiological event above a preset threshold, alert, count and date/time stamp are sent to the DM3 messaging system.

The system can be up set as an area monitor or portal monitor. With demonstrated sensitivity of 50 uR/hr or better, and a typical response time of less than one second, the sensor transmits its data corresponding to a radiation event back to the DM3 server.

Sensors can be positioned adjacent to security cameras to provide visual identification of a threat, or hidden above ceilings and behind walls to prevent being compromised.

System administrators can designate the appropriate alerts to be triggered through the DM3 control panel. These alerts can include messages to PDAs, cell phones, pagers or other mobile clients, as well as communications to other command and control systems to better incorporate radiation detection into the security framework of the organization.

Through DM3, the system's sensors can be paired with a facility's security network for truly integrated Intelligent Threat Awareness.

Key GT2 features include:

- Internal Geiger-Mueller Tube
- Analog-to-Digital Conversion
- Remote Access
- NEMA Security Enclosure
- Power-over-Ethernet (PoE)

GT2 information on RKB

GT2™ GM Sensor
w/ NEMA IV housing

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GT2™ System Specifications

GT2 sensors, integrated with Defentect architecture and connected to a server, create a grid of threat-level radiation protection. Networked to Defentect software, GT2 triggers alerts to incident command centers or mobile clients. GT2 is designed to avoid innocent positives caused by low-level radiation from medical treatments and naturally occurring radiation.

Operating Indicated Use	Gamma Detection: Above 7 keV
Sensitivity	50 uR/hr
Sampling Rate	1 Millisecond
Sensor Configuration	Dynamic
Communication with DM3	Outbound only or two way via TCP
Detector	1.5 Inch Geiger-Mueller
System Chassis	NEMA IV rated security enclosure
Power Consumption	Source PoE GT2 draws 150mA @ 5v. 3.0 BTU/hr.
Dimensions (standard enclosure only)	6" H x 6" W x 4" D / 2 Lbs
External Connector	Panduit INDUSTRIALNET ™ TX5e™ Coupler - Part Number: IAEBHC5E Mates with: INDUSTRIALNET™ TX5e™ Shielded Plug Part Number: MPSI588T

Sensitivity of the Gammatect GT2™ Radiation Sensor

Source Activity In Curies (Ci)	Approximate Detection Distance in Feet
50 µCi	.5
100 µCi	.8
10 mCi	8
50 mCi	25
500 mCi	57
1 Ci	77
100 Ci	580

The GT2 demonstrated detection below 50 µR/hr based on testing performed at JRT Calibration Services, an ANSI & NRC certified calibration facility. Detection distances for various activity levels in this table were calculated with the RadPro Calculator* using 50 µR/h.

*http://www.radprocalculator.com/Gamma.aspx

For more information or to schedule a web demonstration, please call toll free: 888-868-8386.

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