

MATRIX ESP is an area threat-detection device that provides real-time detection, analysis, and location of radiation threats/incidents within a local, statewide, or even national area.

M A T R I X *ESP*TM

Environmental Satellite Probe

Real-time Remote Portable Radiation Detection



The Matrix ESP (Environmental Satellite Probe) is a state-of-the-art radiation threat detection device that provides real-time detection, analysis, and location of radiation threats across any area. Incorporating an extremely robust wireless interconnect, Matrix ESP units ensure error-free data transmission, whether used in fixed or mobile applications.

The Matrix ESP system has the capacity to provide radiation readings from any remote location as the user defines it. Cities, Fields, Rooftops, valleys etc., can be monitored by means of the integrated satellite unit. GSM/Cellular and on board proprietary communications can also be used. The real-time threat assessment can be determined over a large area via wireless communications.

The Matrix ESP system also incorporates a sensitive (10 μ R/hr to 1000 R/hr) proportional detector. Dose rates and Count rates can be provided, as well as the Natural Background Rejection (NBR) technology, greatly reducing innocent alarms by distinguishing between naturally occurring radiation sources and potential threats.

Thermo Fisher Scientific's full line of radiation probes offers an impenetrable radiation barrier that covers the complete spectra of artificial radiation sources that might be a threat to an area. Our detector network can be established in a fixed or mobile mode, which can be configured and reconfigured, depending upon your detection objectives.

Highly sensitive probes provide fast detection of concealed radioactive sources. The Matrix ESP is a highly scalable, easily deployable unit, which provides a clear path to additional centralized detection, and analysis as it can be quickly upgraded to incorporate data from other sources.



Benefits:

- Centralization of radiation threat information from multiple sources
- Detects, analyzes and locates all possible radiation threats
- Highly configurable: fixed, mobile or venue-driven

Features:

- Rugged and secure wireless network
- Highly sensitive probes provide fast detection of hidden radioactive sources
- Greatly reduces innocent alarms with NBR technology
- Self-diagnostic capabilities
- Expandable platform over 40 detectors

Applications:

- Municipalities
- Chemical plants
- Nuclear plants
- Special events
- Critical facilities



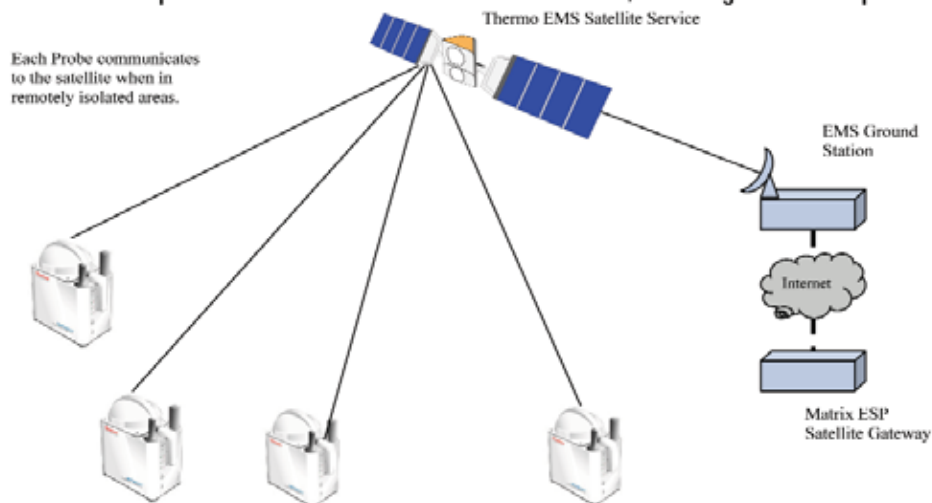
Fully Integrated GPS Capabilities

The Matrix ESP probe is a sophisticated communication and data transmission unit for the primary purpose of ensuring reliable data can be obtained from any external location.

MATRIX ESP Capabilities and Specifications

Architecture

The Matrix ESP is based upon satellite communications network architecture, consisting of these components:



Detailed Capabilities

- Probe** The probe provides the radiation data and information required to monitor conditions from any location.
- EMS Satellites** The EMS satellites provided are geostationary satellites that receive the data from the Matrix ESP Probes for remotely transmitting radiation data from the probe unit. The EMS satellites provide coverage anywhere within the North American continent.
- EMS Ground Station** The EMS ground station provides connectivity to the remote probes and the satellite system from any network-accessible server system. In this case, this is the ViewPoint™ DataEngine satellite gateway.
- Atlanta Matrix ESP Satellite Gateway** The Atlanta Probe and satellite gateway ensures connectivity is maintained and accessed for each Matrix ESP and the emergency operation facilities.

Detailed Features

- | | |
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| - Rugged aluminum case design | - Side Panel Operational Indications |
| - Test/Emergency Switch mode | - Key switch On/Off |
| - Water-tight Ethernet Connection | - Water-tight Battery Charge Connection |
| - External power supply for charging | - Sensitive Environmental Gamma probe |
| - GSM/Cellular Modem Option | - Low Center of Gravity for Balance |
| - Handle/shoulder Strap Option | - Simple parts repair/replacement |
| - Simultaneous Radio and Satellite Communications | - Smart Rollover Communications Technology |

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