RFCODE
Gateways

M250 Fixed Gateway (Reader)

With a modular design and low price, the M250 fixed gateway provides an economical solution to a wide variety of asset tracking problems.

Features & Benefits

- Full Function Ethernet Port (10/100, full duplex)
- Standard 110-220 V Power Supply and On-board Power over Ethernet (PoE)
- 32 MB RAM and On-board Sensor Database up to 65,000 Sensor IDs
- Instantaneous Sensor Reporting
- Software-Configurable Range Control Settings
- Small Footprint and Flexible Mounting Options Direct API Interface Available
- High Throughput Performance Supports Large Sensor Populations
- Ability to Support Multiple Simultaneous Connections
- Optional Antenna Configurations for Customized Coverage Zones
- Integrates with RF Code's CenterScape Platform

M250 gateways are dual-channel radio receivers tuned to 433.92 MHz. The gateways are programmed, calibrated and dedicated to interpreting and reporting the radio frequency messages emitted by RF Code sensors. Sensor transmissions are processed in real-time to quickly locate and identify tagged assets or personnel in defined areas. M250 gateways use standard network secure protocols for rapid integration into an organization's IT infrastructure.

RF Code's patented communication protocols allow for very high sensor densities. Large populations of sensors can be monitored using a single gateway. A single M250 gateway will process in excess of 140 events per second, or 1,400 sensors monitored simultaneously with 10-second beacon intervals. Gateways running in 'exception reporting' mode will report only those events that represent a change in asset / location status; this significantly reduces the amount of software data processing.

The M250 also supports multiple simultaneous network connections enabling multiple applications to consume sensor event information. For example, the M250 can be utilized by RF Code's CenterScape, Asset Manager, and Zone Manager applications all at the same time.

The M250 gateway's maximum sensitivity (maximum range) depends upon the installation, location and antenna configuration. The operating read range is software configurable and can be adjusted for customized applications.

At default settings, the gateway operates with no attenuation and reports every sensor in its environment. The effective range can be reduced in 5 dB steps by selecting one of the pre-programmed settings (1 through 7). Additional fine tuning can be accomplished by dialing down the sensitivity in 1 dB increments to limit coverage to a single room or defined zone.

The RF data is made available by an application connected to the gateway via TCP/IP. The operational settings are password protected.

The M250 gateway supports encrypted connections (HTTPS and SSH). M250 gateways can be powered over Ethernet, 100-240 V power supply w/ IEC connector and US cord, DC barrel jack connector, or DC bare wire connector (12 to 24 volt).

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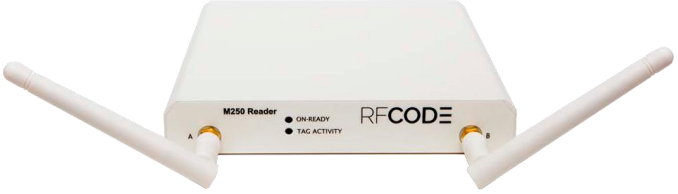

RF Code M250 Fixed Gateway Specifications

OPERATION	
Operating Frequency	433.92 Mhz
Ethernet	10/100 Mbps Full Duplex via RJ45
Protocol	TCP/IP
USB	USB_A and USB-B serial
Receiver Sensitivity	> 50 dB dynamic range (-58 dB to -108 dB)
Default Range Settings	8 factory programmable range settings in 5 dB increments
Customizable Control	Range settings selectable in 1 dB increments
Sensor Density	Up to 140 sensor reports per second (TRPS)
Group Code Management	Monitors up to 8 tag group codes simultaneously

READ RANGE	
Helical Antenna	Up to 150 feet (45 m)
Omni-angle Antenna	Up to 300 feet (91 m)

ENCLOSURE	
Width	5.72 in (145 mm)
Depth	5.72 in (145 mm)
Height	0.98 in (25 mm)
Weight	24.7 oz (700 g)
Construction	Powder coated steel enclosure
Mounting	Ceiling, wall-mount or desktop operation

ENVIRONMENTAL	
Operating Temperature	-20° C to +70° C
Storage Temperature	-40° C to +80°C
Operating Humidity	10% to 90% non-condensing

POWER	
Power	12-24V DC (non-PoE operation)
Power Consumption	2.5 W (typical), <3 W PoE
Power Supply	100-240 V with IEC connector
Optional Power	On-board Power over Ethernet (PoE) adapter (IEEE 802.3af-2003 compliant)

LED INDICATORS	
Front	On-Ready, Sensor Activity
Back	Link, Speed, USB-A In Use, Status

ANTENNA CONNECTION	
Connector Type	Dual-channel SMA flange receptacles

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