

M220 Mobile Reader

The rugged, lightweight M220 mobile reader enhances mobile asset and personnel monitoring, and is equally valuable for the performance of on-demand audits and field inventories.

Features & Benefits

- ◆ **Mobile Form Factor with Bluetooth Wireless Data Interface**
- ◆ **Wearable, Lightweight Design with Full M-Series Reader Functionality**
- ◆ **Enables Remote Inventory and On-Demand Search Applications**
- ◆ **High Throughput Performance Supports Large Tag Populations**
- ◆ **Patented Anti-Collision Technology to Manage High RF Densities**
- ◆ **Software Configurable Range Control Settings**
- ◆ **On-board Rechargeable Battery**
- ◆ **Long and Short-Range Antenna Configurations**
- ◆ **Direct API Interface Available**

The M220 Mobile Reader can be used to aid in the discovery and management of assets in areas beyond the perimeter of a fixed reader infrastructure. It can also serve as a complimentary search device within a dedicated, multi-zonal system featuring RF Code's fixed readers. It is a powerful solution in enterprise environments where customers demand the ability to search for a specific tagged asset or group of assets.

The M220 is a battery-powered, portable reader which processes active RFID tag data and links directly to a wide variety of Bluetooth®-enabled computing devices. The capabilities of the rugged, lightweight reader further enhance a customer's ability to monitor mobile assets or personnel. It is equally valuable for the performance of on-demand audits and field inventories. It can be worn on a belt clip, mounted in a vehicle, stowed in a pocket or used in a variety of ad-hoc applications.

The M220 Mobile Reader interprets and reports the radio frequency messages emitted by RF Code's active RFID

tags at distances up to 70 meters and reports signal strength information for each tag processed. Tag transmissions are processed in real time which enables asset managers to quickly locate and identify tagged assets. With software applications from RF Code's integration partners, almost any Bluetooth-enabled wireless device can be put into service as an asset tracking terminal (when paired with an M220 Mobile Reader). Windows Mobile® handhelds, notebook PCs, ultramobile computers and BlackBerry® smartphones can be empowered for asset tracking and management purposes.

RF Code's patented communication protocols allow for very high tag densities. Large populations of tags can be monitored and inventoried using a single reader. When used in conjunction with RF Code's tags that include motion sensors, panic buttons, or infrared location sensors, the M220 can deliver real-time location, context and condition-aware data to managers in today's most demanding markets.

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RF Code M220 Mobile Reader Specifications

OPERATION

Operating Frequency	433.92 MHz
Communication Interface	Bluetooth® Serial 1.1 and wired USB 2.0
Receiver Sensitivity	>50 dB dynamic range (-58 dB to -108 dB)
Default Range Setting	8 factory programmed range setting in 5 dB increments
Customizable Threshold Control	Threshold settings selectable in 1 dB increments
Tag Density	Greater than 100 tag reports per second
Group Code Management	Monitors up to 8 tag group codes simultaneously

ENCLOSURE

Form Factor	Injection-molded chassis of high-impact ABS plastic
Audio Indicator	Audible low battery indicator (and low battery messaging)
Mounting Options	Handheld, desktop, wearable (with belt clip)
Length	4.37 in (111 mm); 4.79 in (122 mm) with belt clip
Width	3.01 in (76.5 mm); 3.01 in (76.5 mm) with belt clip
Height	0.99 in (25.1 mm); 1.15 in (29 mm) with belt clip
Weight	5.2 oz (147 g); 5.7 oz (162 g) with belt clip

ENVIRONMENTAL

Operating Temperature	-20° C to +45° C
Storage Temperature	-20° C to +60° C
Operating Humidity	10% to 90% non-condensing

POWER

Power	Push button on/off switch
Battery	Rechargeable lithium polymer battery pack
Battery Life	3-5 years (Note: Do not leave the battery in a discharged state: always recharge it after use. Otherwise, it could lead to loss of performance or in more severe cases make the battery useless.)
Charger Interface	USB power interface

LED INDICATORS

Front	Link, Activity, Power, Charging
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ANTENNAS

Long Range	(2) ¼ wave articulated helical antennas
Short Range	(2) stub antennas

BLUETOOTH

Bluetooth Qualification	Bluetooth QD ID B012541
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Note: The reader's maximum sensitivity (maximum range) depends upon the operating environment. The operating read range is software configurable and can be adjusted for near- and long-range searches. Continuous operating time is typically 8-10 hours on a fully-charged battery.