

PATRIOT MR



Give your users seamless, hands-free entry from up to 10 feet away. with the low-profile, reliable EMX Patriot MR mid-range RFID reader.

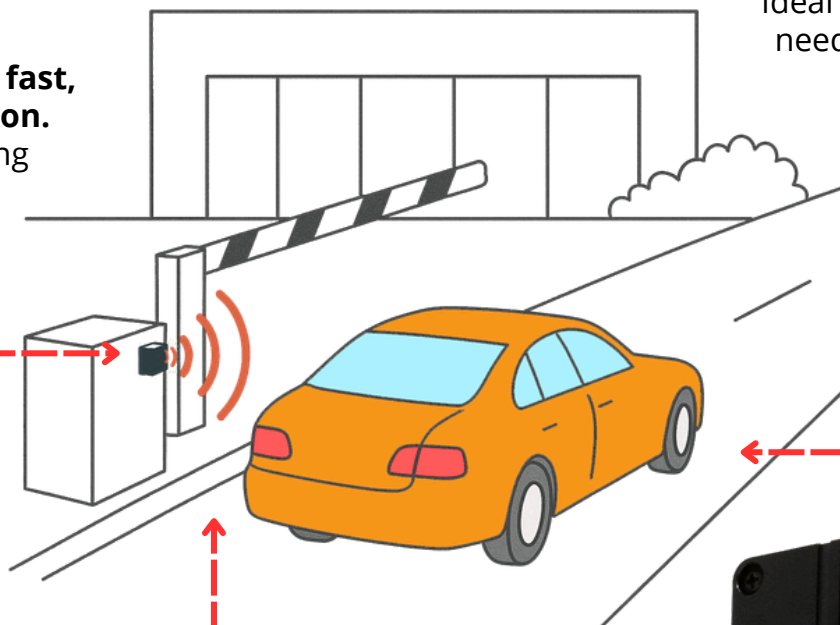
Low-profile reader with fast, hands-free tag detection.

No stopping or reaching required.

Designed for Drive-Thru Environments

Ideal for anywhere cars need to keep moving.

Reads up to 10 ft. Perfect for windshield and hang tag use.



MINI UHF PASSIVE RFID READER

PATRIOT MR

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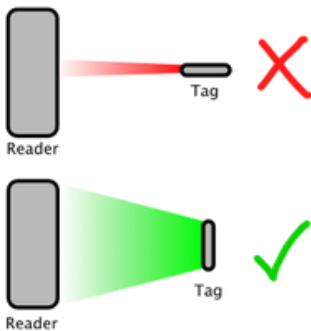
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READER AND TAG POSITIONING GUIDELINES

Before installing the unit, ensure that the unit will be positioned optimally. The following guidelines will help maximize the read range of the Patriot MR reader:

- The reader should be installed at least a few feet above the earth's surface. **It's best to install the reader at the same height that tags will be held or mounted.**
- The front (lid) side of the reader should point towards the zone of desired coverage, but do not point it downwards.
- **Parallel surfaces rule:** The flat faces of the reader and the tags should face one another in order to maximize the power transmission. (See image)



If you are using the EMX Universal L-Bracket to mount the reader, ensure that the top edge of the bracket and the top edge of the reader are aligned. This typically gives the best performance.

Failure to follow the above guidelines may result in reduced performance and read range.

TECHNICAL DATA

Dimensions	5.4" x 3.5" x 1.3" (137mm x 90mm x 33mm)
Supply Voltage	9~30V DC (12~24 VDC recommended)
Typical Operation Current (12V)	Average: 52mA, Peak: 160mA
Typical Operation Current (24V)	Average: 18mA, Peak: 60mA
Antenna	Internal 4dBi ceramic, circular polarized
RF Power	2~25dBm (configurable)
Tag Read Zone Range	6-10ft (1.8-3.0m) long (tag/environment dependent)
Tag Read Zone Width	6-10ft (1.8-3.0m) wide (tag/environment dependent)
Radio Frequency	902-928 MHz (USA ISM Band)
Tag/Credential Types	EMX 26-bit UHF EPC Gen2 credentials
Indicators	Flashing blue LED, Audible Buzzer
Data Output Interfaces	26-bit Wiegand, RS-232
Wiegand Timing (Default)	Pulse width 80µs, pulse period 1600µs (configurable)
Serial Data Output Format	ASCII (Hexadecimal); HID simulation
Configuration Interface	RS-232 (USB to RS-232 adapter sold separately)
Tag Identification Time	<100ms after trigger activation
Controller Functionality	Trigger input
Firmware Updates	Field-upgradable via setup software
Operating Temperature	-4°F to 158°F (-20°C to +70°C)
Certification	FCC Part 15 (FCC ID: 2BAW3-FM505)
Connection Style	9-conductor flying leads

WARRANTY EMX INC. the product described herein for a period of 2 years under normal use and service from the date of sale to our customer. The product will be free from defects in material and workmanship. This warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products, or damage caused by the purchaser from incorrect connections, or lightning damage. There is no warranty of merchantability. There are no warranties expressed, implied or any affirmation of fact or representation which extend beyond the description set forth herein. EMX Inc. sole responsibility and liability, and purchaser's exclusive remedy shall be limited to the repair or replacement at EMX's option of a part or parts not so conforming to the warranty. In no event shall EMX Inc. be liable for damages of any nature, including incidental or consequential damages, including but, not limited to any damages resulting from non-conformity defect in material or workmanship. Rev 3 12/06/2022



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Patriot MR Overview

The EMX Patriot MR is a compact and versatile UHF Passive RFID reader engineered for reliable access control. It provides a dependable read range of 6-10 feet, seamlessly integrating with EMX 26-bit credentials and existing Wiegand or RS-232 systems. Effortlessly manage access with its user-configurable settings and straightforward installation.

Intuitive Operation & Customization

Clear operational status is provided through a visual indicator LED and an audible buzzer. The reader includes a tag read input trigger for precise activation control and offers extensive customization via the RS-232 setup software, allowing adjustment of RF power (2-25dBm), read interval, Wiegand buffer period, and Wiegand pulse timing to suit specific application needs.

Reliable Mid-Range RFID Reading

The Patriot MR's UHF passive RFID technology ensures dependable tag reads. With an operating range of 6-10 feet (1.8-3.0m), you gain the flexibility to define optimized access zones, ensuring reliable performance across diverse entry and exit points

Seamless Integration

Engineered for compatibility, the Patriot MR ensures hassle-free integration. It works flawlessly with EMX 26-bit UHF EPC Gen2 credentials and features industry-standard 26-bit Wiegand and RS-232 data outputs, giving you straightforward connection to existing systems.



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Part Numbers:

- PATRIOT-MR

Email or Call to Order

WARRANTY EMX INC. the product described herein for a period of 2 years under normal use and service from the date of sale to our customer. The product will be free from defects in material and workmanship. This warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products, or damage caused by the purchaser from incorrect connections, or lightning damage. There is no warranty of merchantability. There are no warranties expressed, implied or any affirmation of fact or representation which extend beyond the description set forth herein. EMX Inc. sole responsibility and liability, and purchaser's exclusive remedy shall be limited to the repair or replacement at EMX's option of a part or parts not so conforming to the warranty. In no event shall EMX Inc. be liable for damages of any nature, including incidental or consequential damages, including but, not limited to any damages resulting from non-conformity defect in material or workmanship. Rev 3 15/01/2024



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Streamlined Traffic Flow

Minimize delays at gates and entrances. With fast tag detection (<100ms) and a configurable trigger input, **Patriot MR keeps vehicles moving—even during peak hours.**

Hands-Free Vehicle Access

No need to roll down windows or fumble with badges. **Patriot MR reads UHF windshield and hang tags automatically from up to 10 feet away**, ensuring smooth, contactless entry.

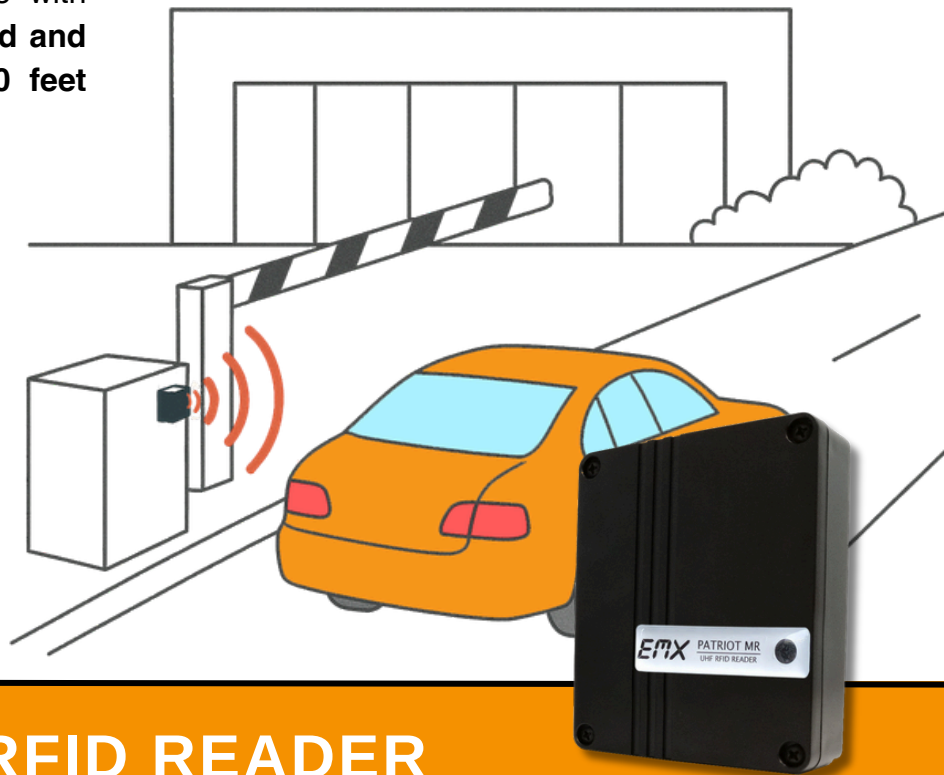
Designed for Drive-Thru Environments

Ideal for parking lots, gated communities, commercial facilities ... anywhere cars need to keep moving.

Patriot MR is compact, weather-ready, and made to perform.

Installs in Minutes

Mounts with a simple L-bracket, connects via flying leads, and using industry-standard 26-bit Wiegand and RS-232 data outputs. **The Patriot MR is designed for quick setup and easy integration into your existing access control system.**



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