

# MPRX

## Multiprotocol Reader

TransCore's MPRX Multiprotocol Reader is a radio frequency identification (RFID) reader that is specifically designed for harsh environment applications.

The MPRX comes in an IP65/67 rated case for dust and water ingress protection in harsh outdoor or rail environments. The MPRX boasts Ethernet (via sealed M12 connector), RS422, and RS232 communication protocols. All interfaces support simultaneous host communications in real-time for passing read data to the host computer.

The MPRX employs advanced multiplexing techniques that improve reader performance at higher vehicle speeds when compared to legacy products, allowing one reader to manage up to four antennas. In addition, the reader can supply active antenna information to the host, tying tag reads to each multiplexed antenna.



### Features

- ▶ IP65/67 dust and water ingress protection
- ▶ Meets AREMA C&S Manual Standards for Classes C, D, E, H, I, & J
- ▶ Multiple communication schemes allow simultaneous monitoring over Ethernet, RS422, and RS232
- ▶ Wide-input DC power (24-110V) or low-voltage DC power (12-24V) for on-board and rail automatic equipment identification (AEI) applications
- ▶ Programmable RF attenuation and frequency
- ▶ Multiplexes up to four antennas

### Applications

- ▶ Rail AEI
- ▶ On-board train environment
- ▶ Access control

# MPRX Multiprotocol Reader

## COMMUNICATION

### Available Frequency Ranges

902-928MHz, Fixed Frequency

### Protocols

American Trucking Associations (ATA) ISO 10374  
Super eGo (SeGo)  
eGo (ISO 18000 6B)  
Interagency Group (IAG)

## HARDWARE FEATURES

### RF Connector

N-type Socket (single/4 port)

### Host Port

12 Pin M23 Circular Connector with:  
1 – RS232 Interface  
1 – RS422 Interface  
Tag Lock Relay

### Sense Port

12 Pin M23 Circular Connector with:  
2 - Sense Inputs (0/5V)  
2 - Outputs (0/5V)  
2 - Checktag/Weigand Outputs  
1 - Mux Antenna Select Output

### Ethernet Port

4 Pin M12 Circular Connector with:  
10/100 Industrial Ethernet

## POWER REQUIREMENTS

### Input Voltage

**Wide-Input Option:** 24VDC-110VDC 30W  
(12-150VDC Min/Max)

**Low-Voltage Option:** 12VDC-24VDC 30W  
(9-36VDC Min/Max)

## PHYSICAL

### Dimensions

Size: 13 x 5 x 2.49 in (33 x 7.62 x 6.32 cm)  
Weight: 5.7 lb (2.6 kg)

## COMPLIANCE

### RF Interference

Units have been tested and are verified to Part 15 of the FCC rules for a Class A digital device.

### Safety

Complies with the requirements of Underwriters Laboratories UL-60950-1, Standard for Safety of Information Technology Equipment

## REGULATORY

### Standards

Designed to meet the following standards:  
AREMA C&S Part 11.5.1 Class C  
AREMA C&S Part 11.5.1 Class D  
AREMA C&S Part 11.5.1 Class E  
AREMA C&S Part 11.5.1 Class H  
AREMA C&S Part 11.5.1 Class I  
AREMA C&S Part 11.5.1 Class J  
EN 50125-3:2003  
EN 50121-3-2  
EN 50155  
EN 55022:2006 +A1:2007  
EN 61000-4-3:2006 +A1:2008  
EN 61000-4-4:2004  
EN 61000-4-6:2007  
EN 61000-4-8:1994 +A1:2001  
EN 61000-4-9  
EN 61000-6-4  
EN 61373:2011  
UL 60950-1

## LICENSING

### Equipment License

**FCC:** The user is required to obtain a Part 90 site license from the FCC to operate in the United States. Access the FCC website at <http://wireless.fcc.gov/uls> for more information.

**FCC ID:** FIHMMPRX

## ENVIRONMENTAL

### Operating Air Temperature

-40°F to +158°F (-40°C to +70°C)

### Storage Temperature

-67°F to +185°F (-55°C to +85°C)

### Ingress Protection

Certified to IP65/67  
Dust-proof/Waterproof Enclosure

### Vibration Tolerance

Complies with AREMA C&S Manual, Part 11.5.1, Class I & J  
Complies with EN61373

### Shock Tolerance

Complies with AREMA C&S Manual, Part 11.5.1 Class I & J  
Complies with EN61373

## ACCESSORIES

**MPRR Check Tag Accessory Kit:** 20-7001-001

**Host Cable:** 58-7200-NNN (Contact Sales for lengths)

**Sense Cable:** 58-7201-NNN (Contact Sales for lengths)

## For more information:

### Sales Support

800.923.4824

### Technical Support

505.856.8007

[transcore.com](http://transcore.com)

