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
► Multiple communication schemes allow simultaneous monitoring over Ethernet, RS422, and RS232
► Onboard +12-110VDC (+24-110VDC EN50155) or Wayside +12-110VDC options for positioning 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
## 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**
- **Onboard Option:** +12-110VDC (+24-110VDC EN50155)
- **Wayside Option:** +12-110VDC

## RF EMISSIONS

**Maximum RF Power Output**
- 32 dBm ± 0.5 dBm (1.6W ± 200mW)

**Minimum RF Power Output**
- 17 dBm ± 0.25 dBm (50mW ± 3mW)

*Note:* The MPRX can be set from the maximum to minimum power level in 1dB steps.

## 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 61000-4-2:2004
  - EN 61000-4-6:2007
  - EN 61000-4-9
  - 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:** FIHPRX

## 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

**MPRX 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)

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**For more information:**

**Sales Support**
- 800.923.4824

**Technical Support**
- 505.856.8007

**transcore.com**