

# JANUS® Multi-Protocol Reader II - MPR2.4

**The JANUS® MPR2.4 takes accurate transponder identification and reliable revenue capture to the next level – and ensures your interoperable future, with the option of redundancy.**

JANUS Multi-Protocol Readers are built on a highly flexible architecture to provide highly scalable systems, and support major North American industry tolling protocols.

The reader is the industry's only truly redundant multi-protocol reader with eight individual RF channels for the most flexible and cost effective deployment. JANUS MPR2.4 reader provides ease of installation, integration, maintenance, protocol selection, and facilitates a smooth transition to an interoperable future.

The JANUS MPR2.4 reader makes very efficient use of available communication time. Flexible protocol configuration allows for prioritizing time sharing of protocols, thereby maximizing multiprotocol capture for your particular environment. These configurable readers add multi-protocol capture capability to new or existing lanes. A single MPR2.4 reader can support up to eight RF channels for lane based tolling or AET (All Electronic Tolling), and sync to previous generation readers.♦

## Key Features

- No extra license fees - Single price for all protocols and antenna ports.
- High power output (up to +36 dBm).

- Tested in multi-protocol mode up to 100mph.
- Ability to remotely access, diagnose, download data and update software/firmware
- Buffered transaction capacity up to 1,000,000 transactions.
- Ensures precise lane reads. Provides a flexible platform facilitating multiple transponder deployment strategies and smooth migration from legacy protocols.
- Field software upgradable – JANUS MPR2.4 adapts and supports your operational strategy upgrades. It allows for the possible addition of protocols.♦
- Protects operator technology investment as the market evolves to national interoperability.



# Technical Features

**Industry-proven voting algorithm ensures accurate lane identification.**

**Highly redundant architecture sustains the revenue collection process and ensures uptime, with a higher confidence level in performance.**

**Fully expandable to support additional lanes, including AET, by synchronizing additional readers.**

**Intuitive web interface that supports remote diagnostics, software update management, and system performance monitoring.**

## Dimensions (W x H x D)

19.0 in (48.3 cm) rack mount (10U height)  
19.0 x 17.5 x 11.0 in. / 48.3 x 44.5 x 27.9 cm

## Weight

63 lbs. / 28.6 kg (without optional cabinet)

## Input Power Consumption (with 8 RF modules)

115-230 VAC  
350W (Redundant), 296W (Non-redundant)

## RF Conducted Power

Max. +36 dBm (4W)

## Operating /Storage Temperature

Operation:  
-29 °F to +131 °F / -34 °C to +55 °C  
-29 °F to +165 °F\* / -34 °C to +74 °C\*  
\* With circulating fans, meets NEMA TS-1

## Storage:

-49 °F to +199 °F / -45 °C to +93 °C

## Relative Humidity

5% to 95% (non-condensing)

## Shock & Vibration

NEMA TS-1  
Shock @ 10G in three planes  
Vibration @ 5-30Hz, 0.5G in three planes

## Antenna Ports

Up to 8 antennas by installing individual RF modules – single RF channel per antenna.

## Operating Frequency (Protocol specific)

902.5 to 903.5 MHz and 910 to 921.5 MHz

## Communications Interface

Ethernet (10/100/1000Base-T) / RS232 / RS422

## Regulatory

Reader: FCC Part 15 Class A  
UL 60950-01  
RF Module: FCC Part 90\*  
Industry Canada RSS137  
\* User obtained site license may be required for operation in your region (I.e. USA = FCC Part 90)

## Supported Protocols

R = Read, R/W = Read/Write  
Kapsch TDM (E-ZPass®) - R/W  
ISO 18000-63 (6C) - R/W  
ISO 18000-62 (6B) - R  
ISO 18000-62 / 80 kbps (SeGo) - R  
ISO 18000-62 / 31.25 kbps - R  
ISO 10374 (ATA) - R

## Lane Expandability

Supports synchronization with other Janus readers to support additional lanes.



## RF Modules (MRFMS+)

MPR2.4 reader requires at least one RF radio (MRFMS+ module) to be installed. MRFMS+ modules are available as stand-alone or as lane kits that include antenna and other hardware.

## Kapsch TrafficCom

is a provider of intelligent transportation systems in the fields of tolling, traffic management, smart urban mobility, traffic safety and security, and connected vehicles. As a one-stop solutions provider, Kapsch TrafficCom offers end-to-end solutions covering the entire value creation chain of its customers, from components and design to the implementation and operation of systems.

>>> [www.kapsch.net](http://www.kapsch.net)

◆ Janus MPR2.4 supports a number of different protocol installations and features based upon customer requirements; contact your account executive for more information.

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