MARKIV IVHS
— REINVENTING THE ROAD ®

JANUS® MULTIPROTOCOL READER

High Performance, Multiprotocol Reader from MARK IV

Overview

Based on MARK IV's high performance, next-generation reader platform, **JANUS** is a cost-effective, multi-lane capable reader that offers redundancy features and builds upon the industry-leading performance of MARK IV's predecessor system, with the addition of new features and even greater reliability. The **JANUS** multiprotocol reader takes accurate transponder identification and reliable revenue capture to the next level in an updated design. New features, including an open source operating platform and the availability of industry standard interfaces allow for easy expansion and integration. The multiprotocol design approach makes very efficient use of the available communication time interval thereby maximizing capture performance and identification accuracy for all supported protocols. The modular architecture of **JANUS** results in an extraordinarily flexible reader that adds multiprotocol capture capability to new or existing lanes and means that existing customers can upgrade to a multiprotocol configuration when business requirements dictate.

Performance enhancements include fractional lane assignment that delivers improved system operations and better enforcement capabilities. Further, the high-position resolution analysis can automatically adapt to traffic speed. Dynamically adjustable output power and input sensitivity coupled with more efficient use of bandwidth deliver even greater success capturing and writing to mismounted transponders. The **JANUS** reader has a buffered transaction capacity five times greater than its predecessor and is capable of auto switch-over recovery to preserve optimal performance.

Administration of the **JANUS** reader is completed through an intuitive Web interface that supports remote diagnostics, including RF power and sensitivity adjustments per antenna, firmware update management and system performance monitoring.

Scalability

The single-antenna-per-lane architecture of a **JANUS** reader can support up to eight lane-based or five open road tolling (ORT) channels in MARK IV proprietary lane-based TDM-only configuration. With **JANUS** RF Modules, the reader can support four lane-based or two ORT lanes and a shoulder in multiprotocol configuration, handling any combination of the four supported protocols simultaneously, with all lanes and protocols reporting on a common network connection.

Key Benefits

» Supports MARK IV's TDM, ISO 18000-6B, ISO 18000-6C and ISO 10374/ATA/AAR S-918 protocols
» High lane discrimination performance at single and multi-reader sites
» Increased transaction memory capacity
» Provides more efficient and cost-effective diagnostic data gathering
» Simplifies system configuration, diagnostics and overall maintenance
» Faster reader to lane controller communications

JANUS® MULTIPROTOCOL READER

Technical Specifications

Operating Frequency	902 to 928 MHz
Dimensions (WxHxD)	19.0 in. rack-mountable ; rack 9U high 19.0 x 15.8 x 10.8 in. 48.26 x 40.13 x 27.43 cm
Weight	63 lb. (excluding cabinet) 28.6 kg
Buffered Data Capacity	400,000 transactions
Error Checking	Cyclic Redundancy Check
Operating Temperature	-20° C to +60° C -4° F to +140° F
Storage Temperature	-40° C to +65° C -40° F to +149° F
Relative Humidity	5% to 95% non-condensing
Vibration	NEMA TS-1
Shock	NEMA TS-1
Input Power/Consumption	145W @ 110VAC, UL/CSA power supply
Regulatory	Makes use of FCC approved RF module(s). Part 90 site license required for operation in the USA
Compatibility	**For lane-based or open road tolling applications:** MARK IV **JANUS** Interior, **JANUS** FME Exterior, **JANUS** Feedback as well as MARK IV 256-bit transponders, including ROADCHECK FPT, LPT, RMT and FUSION® **Recommended in lane-based applications only:** ISO 10374/ATA/AAR S-918, ISO 18000-6B and ISO 18000-6C
Communications Interface	Consult factory for details and available options
RF Channel Capacity	**In TDM-only mode:** Support up to 8 lane-based or 5 ORT channels. **In multiprotocol mode:** Supports 4 lane-based or up to 2 ORT lanes and a shoulder. Option to connect multiple readers to support additional lanes

MARK IV IVHS
REINVENTING THE ROAD®

MARK IV Industries Corp
IVHS Division
6020 Ambler Drive
Mississauga, ON L4W 2P1
Tel: 905.624.3020
Fax: 905.624.4572

MARK IV IVHS, Inc.
54 South Commerce Way, Suite 100
Bethlehem, PA 18017
www.ivhs.com