

BADGER READER

The Rugged Industry Benchmark For Open Road Applications

Overview

MARK IV's Badger Reader is the rugged industry benchmark for multi-lane monitoring in high-speed open road applications. The Badger Reader establishes high-speed communication between vehicle-mounted transponders and the host roadside, achieving improved transponder acquisition capability in higher vehicle speed environments. This improves transaction capture performance - with greater accuracy and reliability – in multilane environments.

Scalability

The Badger Reader is available in both single and redundant configurations, and can simultaneously monitor up to eight lanes of traffic using multiplexed antennas. It is compatible with IAG FPT, LPT, IAG-mode FUSION® Transponders and JANUS Transponders. The redundant configuration of the Badger Reader ensures fail-safe operations.

Key Benefits

Provides accurate, reliable monitoring of up to eight lanes in highway-speed, open road environments

- » Improves transponder acquisition capability in high-speed vehicle environments
- » Cyclical Redundancy Checksums and built-in test routines ensure high transaction accuracy and reliability
- » Increased reliability with redundant configuration
- » Fully automatic and unattended operation



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Technical Specifications

Operating Frequency	915.75 MHz (nominal center using FCC RF Module)
Dimensions (WxHxD)	19 inch Rack mountable Unit - 12 U high 19.0 x 20.9 x 12.9 in. 48.26 x 53.21 x 32.77 cm
Weight	68 lbs. (excluding cabinet) 30.8 kg
Buffered Data Capacity	200,000 / 400,000 / 800,000 transactions; dependant on memory board size
Data Format	Manchester Keyed Carrier
Error Checking	16-bit Cyclic Redundancy Check (CRC)
Data Rate	500 kbps \pm 10% (uplink/downlink)
Operating Temperature	-40° C to +75° C -40° F to +167° F
Storage Temperature	-40° C to +80° C -40° F to +176° F
Relative Humidity	5% to 95% non-condensing
Vibration	NEMA TS-1
Shock	MIL-STD-810E
Input Power/Consumption	160W @110 VAC (fully loaded dual redundant reader)
Regulatory	Makes use of FCC approved RF module(s). Part 90 site license required for operation in the USA
Compatibility	MARK IV JANUS Interior, JANUS FME Exterior, JANUS Feedback as well as IAG style 256-bit transponders, including ROADCHECK FPT, LPT, RMT and Fusion®
Maximum Cabling Distance	200 ft. assuming IAG-1 antenna and using Ultralink TL93605 cabling
Communications Interface	RS-232-C interface. Up to 56K asynchronous. Optional RS422-A interface. Handshake protocol required. Each master and slave reader unit features up to 8 serial ports, plus Host Port and Diagnostic Port. Sync cable connection



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