

SIMREX Corporation

DataMover™ DR(M) Wireless Modem Card

Detector Rack
Wireless / Wired
Modem Card



WIRELESS traffic CONTROL

CARD FEATURES

- Fits Directly into Loop Detector Rack Card Slot.
- No External Power Supply Required
- 4 Wire/2 Wire FSK Interface (DRM)
- Full FSK Modem Feature Set.
- Ethernet Interface Option

RADIO FEATURES

- Variable RF Output up to Maximum FCC Limit of 1W.
- License Free, Robust, Spread Spectrum Technology
- Forward Error Correction (FEC)
- Up to 25 Miles Range
- Store and Forward Repeater Capability with Self Healing Networks.
- Transparent to asynchronous protocols.
- Network Wide Data/Diagnostics Compatible with SIMREX DataMover SS Radios
- Separate Data and Diagnostics ports.

Applications

- Broken Copper Line Bridging
- Existing System Wireless / Wired Expansion.

SIMREX..Global wireless solutions

For almost 3 decades, SIMREX Corporation's wireless products have been providing wireless networking solutions with applications in SCADA, telemetry, telecommunications, mobile data and online transaction markets. SIMREX Corporation provides licensed and unlicensed frequency solutions, installed worldwide.

Product Overview

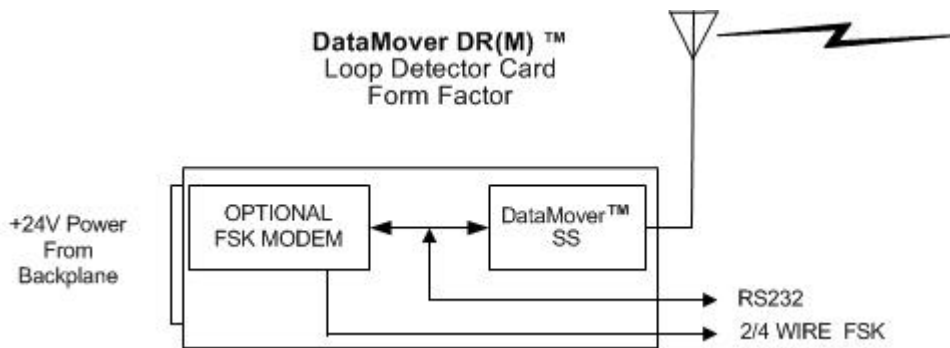
SIMREX Corporation has created the DataMover DR(M) by integrating the unparalleled DataMover SS spread spectrum wireless modem and a full featured FSK modem in a Loop Detector Rack form factor card. The DR(M) Card form factor provides the ultimate in system integration flexibility in a high-speed, compact license-free wireless solution.

Why Consider a DataMover™ DR(M) Solution?

- **Flexibility and rapid installation.** Quick return on investment due to "Plug and Play" installation, and no data or power wiring.
- **Performance under the most adverse conditions.** Robust design provides excellent performance in the face of interference or difficult signal paths.
- **High system performance and data integrity.** Robust construction, digital signal processing (DSP) technology with adaptive equalization, automatic CRC/ARQ and powerful forward error correction (FEC).
- **"Zero" Footprint.** Fits in the place of the existing model 400 modem while providing 400 modem functionality and wireless data link.
- **Traffic Network Functionality.** SIMREX DataMover DR(M) implements HOST or Local network nodes with the radio configurable as MASTER, REMOTE or REPEATER. Multiple repeaters can exist, preventing a single radio failure from disabling a network. Multi-hop repeater configuration is possible.
- **Full Featured FSK Modem compatibility** with support of Anti-Streaming, Softkey, 2/4 wire operation and variable delays on RS-232 handshake lines.
- **Network-wide diagnostic software** reduces the cost of managing the network infrastructure by eliminating trips to the field. Provides a non-intrusive means of maintaining link and network performance.
- **SIMREX DataMover DR(M) is a price/performance leader** offering flexibility and reliability for all traffic controller network topologies.

DataMover™ DR(M) Wireless Modem Card Specifications

Frequency Band	902-928 MHz ISM band	Data	
Physical and Environmental		Interface	RS-232 and/or FSK 2-wire/4-wire.
Dimensions	Standard Loop Detector Card (Approx. 7.32 D x 4.50 W x .85 H inches) (Approx. 186 D x 114 W x 22 H cm)	Port Speeds	1200 to 115.2 kbps
Input Power	Powered by Detector RackCard Cage +24V 260 mA	Connectors	Power (DR backplane), Diagnostics (RJ11), Diagnostic data (DB9), RF(TNC), Ethernet (RJ45-10baseT)
Transmitter		Operating Modes	
Power Output	1W (30 dBm) , user selectable lower power levels.	Point-to-Multipoint	Master Remote Repeater Extension (Store and Forward) - Unlimited repeaters - Self healing networks
Modulation	CPFSK	Network Management	
Receiver			Diagnostics, Spectrum Analyzer Centralized network control eliminates site visits Create store-and-forward configurations Compatible with other SIMREX DataMover products
Sensitivity	-110 dBm (1 x 10 ⁻⁶ BER) typical	Agency Approvals	
Error Detection	CRC16; Resend on Error	FCC	Part 15 Approved
Interference Avoidance	64,000 hop patterns selected automatically via network address FEC, CRC/ARQ and/or Multiple Packet Transmits Excellent Strong Signal (interference) Characteristics Band Segmentation for Friendly Coexistence with Other Services such as LMS	Industry Canada	Approved
		Modem Features:	Models for 1200, 1800, 2400 FSK operation Transformer Isolation Anti Streaming, Soft Key Variable Handshake delays.



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SIMREX DataMover products are manufactured under a quality system certified to ISO 9001. SIMREX reserves the right to make changes to specifications of products described in this data sheet at any time without notice and without obligation to notify any person of such changes.
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