

# SIMREX Corporation

## DataMover™ 2070-TA Wireless Modem Card

2070 Controller  
Wireless / Wired  
Modem Card



# WIRELESS traffic CONTROL

### CARD FEATURES

- Fits Directly into 2070 Controller Communications Card Slots.
- Compatible with All Existing 2070 Controllers
- No External Power Supply Required
- Electrically Isolated Serial Ports
- Electrically Isolated Coaxial RF Connector for Radio Antenna

### 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 all Asynchronous Protocols.
- Network Wide Data/Diagnostics Compatible with SIMREX DataMover SS Radios
- Separate Data and Diagnostics ports.
- An available second electrically isolated serial port is port shared with the radio.
- Second serial port has configurable routing for port sharing purposes.

### 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 2070-TA by integrating its unparalleled DataMover SS spread spectrum wireless modem onto a 2070 Controller communications card. The 2070 Card form factor provides the ultimate in system integration flexibility in a high-speed, compact license-free wireless solution. The data and antenna connections are isolated from the controller chassis ground.

### Why Consider a DataMover™ 2070-TA Solution?

- **Flexibility and rapid installation.** Quick return on investment due to "Plug and Play" installation, and no data or power wiring.
- **Electrical isolation of all data and RF connections** provides the ultimate in protection for the traffic controller.
- **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 2070-6A, 2070-7 and 2070-7a communications cards.
- **2070 Network Functionality.** SIMREX DataMover 2070-TA implements HOST or Local 2070 network nodes with either MASTER, REMOTE or REPEATER radio configurations. Multiple repeaters can exist, preventing a single radio failure from disabling a network.
- **SIMREX 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 2070-TA is a price/performance leader** offering flexibility and reliability for all 2070 controller network topologies.

\* with high gain antennas and clear RF line of sight.

# DataMover™ 2070-TA Wireless Modem Card Specifications

**Frequency Band** 902-928 MHz ISM band

## Physical and Environmental

**Dimensions** Standard 2070 Controller Comm. Card  
(Approx. 8.92 D x 5.68 W x .80 H inches)  
(Approx. 227 D x 144 W x 21 H cm)

**Input Power** Powered from 2070 Card Cage

## Transmitter

**Power Output** 1W (30 dBm) , user selectable lower power levels in 1 db increments.

**Modulation** CPFSK

## Receiver

**Sensitivity** -110 dBm (1 x 10<sup>-6</sup> BER) typical

**Error Detection** CRC16; Resend on Error

**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 Partitioning for Friendly Coexistence with Other Services such as LMS

## Data

**Interface** RS-232 and 2070 Controller backplane.

**Usable Throughput** 115.2 kbps

**Port Speeds** 1.2 to 115.2 kbps

**Ethernet Option**

## Connectors (All Electrically Isolated)

Power (2070 backplane), Diagnostics (RJ11), Diagnostic data (DB9), RF(TNC)

## Operating Modes

**Point-to-Multipoint** Master  
Remote  
Repeater Extension (Store and Forward)  
- Unlimited repeaters  
- self healing networks

## Network Management

Diagnostics, Spectrum Analyzer  
Centralized network control eliminates site visits  
Create store-and-forward configurations  
Compatible with other SIMREX DataMover products

## Agency Approvals

**FCC** Part 15 Approved

**Industry Canada** Approved

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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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