DATA-LINC GROUP

SRM6000

Serial Radio Modem for the 900 MHz band

Wireless Serial Modem-900 MHz Band

Data-Linc Group's wireless, license-free SRM6000 Serial Modem offers superior reliability, versatility and performance for wireless serial transmission. The SRM6000 is factory pre-configured for easy, hassle-free installation. It offers an unsurpassed rated range of up to 25 miles (40 km) and an installed range of up to 35 miles (56 km) with line-of-sight and omni directional antennas, farther with Repeaters and/or higher gain antennas.

The SRM6000 employs Smart Spectrum™ frequency hopping spread spectrum (FHSS) technology in the 902-928 MHz frequency band for secure, robust communication. Data-Linc Group's FHSS technology, coupled with 32-bit CRC error detection, enables the SRM6000 to reliably deliver critical information.

RF site surveys are usually unnecessary and an FCC site license is not required. The SRM6000 wireless technology eliminates the need for hard wire or fiber cable, which are often expensive and difficult to install.

The SRM6000 supports a number of configurations, including point-to-point and point-to-multipoint as well as multiple Repeaters if required. Multipoint operation permits an unlimited number of Remotes. The SRM6000 can also function as a Repeater/Remote to extend range or work around obstructions. Back-to-back radio modems are not required for Repeater function.

Features

- License-free and wireless—operates in the 902-928 MHz ISM (industrial/scientific/medical) band
- Rated range of up to 25 miles (40 km) and installed range of up to 35 miles (56 km) with line-of-sight and an omni directional antenna—farther with Repeaters or higher gain antennas
- Employs Smart Spectrum™ frequency hopping technology for maximum data integrity—even in high interference environments
- Factory or field configured for your application, ensuring trouble-free installation
- User configurable for Master, Remote, Repeater or Repeater/Remote mode
- Frequency key options allow for different systems to operate simultaneously in close proximity

Applications

- PLCs located on moving platforms, overhead cranes and turntables or other revolving equipment
- Remote PLC programming
- SCADA systems, such as water/wastewater, utilities and oil/gas systems
- Underground or off-shore communications
- High RFI environments (e.g., steel, manufacturing)
- Industrial automation machine control on plant floors

SRM6000 Specifications

Operating Frequency
License-free, 902-928 MHz

Transmitter
Rated Range. 25 miles (40 km), line-of-sight distance using omni directional antennas
Installed Range. 35 miles (56 km), line-of-sight distance using omni antennas
Output Power. 1 Watt maximum (10 programmable steps up to 1 Watt) (+30 dBm)
Modulation. Spread Spectrum, GFSK
Spreading Code. Frequency Hopping
Hop Patterns. 15 (user selectable)
Occupied Bandwidth. 230 KHz

Receiver
Sensitivity. -108 dBm @ 10-6 raw BER;
Selectivity. 40 dB @ fc +-230 KHz;
60 dB @ fc +-460 KHz
System Gain. 135 dB

RF Data Transmission
Error Detection. 32 Bit CRC
Data Encryption. Substitution Dynamic Key
RF Data Rate. 144 Kbps-188 Kbps

Interface
RS232. Asynchronous, 10 or 11 bit words, Optional RS422 and AE485
Data Throughput (uncompressed).
1200 Baud - 115.2 Kbaud (115.2 Kbaud throughput measured assuming 75% frequency availability)
Connector. RS232, DB9 female

Antenna
Standard thread SMA female
Supplied bench test antenna
Optional external omni directional or yagi antennas

Power
Supply Voltage. 10.5 - 18.0 VDC; 12 VDC wall mounted transformer. Optional 24 VDC
Transmit Current. 650 mA @ 12 VDC @ 1 Watt
Receive Current. 100 mA @ 12 VDC

Operating Modes
Point-to-point, point-to-multipoint, Store-and-Forward Repeater, Repeater/Remote

Diagnostics
Serial Data Port. Stored signal strength, noise and disconnect information
Optional. LincView™ Diagnostics for real-time RF nework monitoring

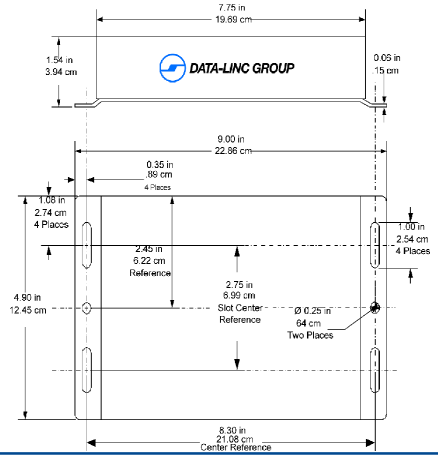
Operating Environment
Temperature. -40º to 167ºF (-40º to 75º C)
Humidity. 0 to 95% non-condensing humidity

Enclosure
Standard. NEMA 1; 18-gauge steel with mounting flanges. Optional NEMA 4 available
Chassis Mount. Available for Allen-Bradley, GE Fanuc and Schneider

Weight. 2 lbs (.91kg)

Specifications subject to change without notice.

SRM6000 Dimensions



LincView™ Diagnostics Software

Data-Linc Group's LincView™ Diagnostic Software provides an optional RF network diagnostics management tool for any of the wireless stand-alone modems in the SRM Family. LincView offers complete system network monitoring and maintenance from your Master location. Key parameters at a remote location can be monitored or changed with a few simple keystrokes. This allows technicians to track the actual data path to the Master, view every SRM network link in miles or kilometers and monitor key parameters such as signal or noise level, voltage and much more. LincView even provides visual trend analysis of packet errors, supply voltage levels and radio temperature.

Alliance Partners

Rockwell Automation Encompass™ Americas · Asia-Pacific Partner
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OMRON

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