

SRM6210E

ETHERNET RADIO MODEM-900 MHz ISM BAND

WIRELESS ETHERNET MODEM-900MHz BAND



FEATURES

- License-free and wireless—operates in the 902-928 MHz ISM (industrial/scientific/medical) band
- Compact, flexible design with universal mounting—back panel or on optional DIN rail clip
- Rated range of up to 25 miles (40 km) and an installed range of up to 35 miles (56 km) in optimal conditions with line-of-sight and an omni directional antenna—farther with Repeaters or higher gain antennas
- Employs Smart Spectrum™ frequency hopping technology for exceptional data integrity—even in high interference environments
- Wirelessly connects Ethernet PLCs and workstations
- Factory or field configured for your application—ensuring trouble-free installation
- User configurable for Master, Remote, Repeater or Repeater/Remote mode
- Front panel LEDs. Power, RF Link, RF In, RF Out, LAN In, LAN Out, LAN Link, LAN Collision, Overrun Error
- PLC slot mount versions also available

Data-Linc Group's SRM6210E Wireless Ethernet Modem offers superior reliability, versatility and performance. The SRM6210E 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) in optimal conditions with line-of-sight and an omni directional antenna, farther with Repeaters and/or higher gain antennas. Based upon proven technology, the SRM6210E adds flexibility to system design by providing a highly reliable wireless alternative in a compact package.

The SRM6210E 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 SRM6210E to reliably deliver critical information.

RF site surveys are usually unnecessary and an FCC site license is not required. The SRM6210E wireless technology eliminates the need for hard wire or fiber cable, which are often expensive and difficult to install.

The SRM6210E offers easy to read LEDs and affords maximum installation flexibility, including optional DIN rail mounting. The SRM6210E can bridge two Ethernet segments or connect multiple Ethernet nodes to a Master PLC. The SRM6210E offers a 10BaseT (UTP) interface to the Ethernet device, uses MAC layer filtering and fully supports most Ethernet protocols for true protocol transparency.

The SRM6210E 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 SRM6210E 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 but can be used to maximize data throughput.

SRM6210E SPECIFICATIONS

Operating Frequency License-free, 902-928 MHz

Transmitter

Rated Range. Up to 25 miles (40 km), line-of-sight distance using omni directional antennas (extended range capability available)

Installed Range. Up to 35 miles (56 km), line-of-sight distance using omni directional antennas (extended range capability available)

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 Correction. 32 Bit CRC

Data Encryption. Substitution Dynamic Key

RF Data Rate. 144 Kbps - 188 Kbps

Interface

10BaseT (UTP); one straight, one cross-pinned (only one connector can be used at a time)

Data Throughput. 108 Kbps maximum in point-to-point mode; throughput measured assuming 75% frequency availability

Connectors. 10BaseT, DB9 (configuration)

Antenna

Standard thread SMA female

Supplied bench test antenna

Optional external omni directional or yagi antenna

Power

Input Voltage Requirements. 10 to 28 VDC; 115 VAC to 12 VDC wall mounted transformer provided

Connector. Latching screw terminal

RF Output Power. 0.1 to 1.0 Watt

Transmit Current (Peak). 700 mA @ 12 VDC for 1 Watt

Receive Current. 100 mA @ 12 VDC

Operating Modes

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

Configuration.

Serial Port 19.2 Kbaud terminal based

Diagnostics

Front Panel LEDs. Power, RF Link, RF In, RF Out, LAN In, LAN Out, LAN Link, LAN Collision, Overrun Error

Serial Data Port . Stored signal strength, noise and disconnect information

Optional. LincView™ Diagnostics for real-time RF network monitoring

Operating Environment

Standard Temperature. -40° to 167° F (-40° to 75° C)

Humidity. 0 to 95% non-condensing humidity

Enclosure

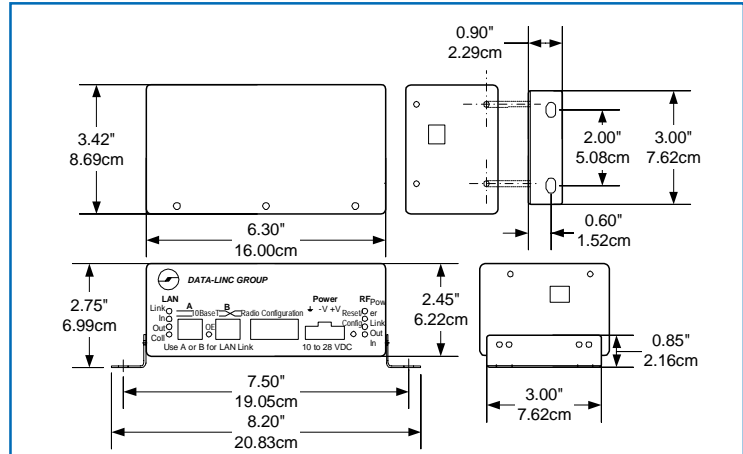
Standard. NEMA 1; 18-gauge steel; 2.45 x 3.42 x 6.3 in (6.22 x 8.69 x 16 cm)

Mounting. Two "L" brackets on either side, rear, top or bottom for panel mounting. Optional DIN rail clip

Weight. 1.94 lb (.88 kg)

Specifications subject to change without notice.

SRM6210E DIMENSIONS



LincView™ Diagnostic 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



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