

SRM7210E

ETHERNET RADIO MODEM-900 MHz ISM BAND

INDUSTRIAL WIRELESS ETHERNET-900 MHz BAND



Data-Linc Group's SRM7210E Wireless Ethernet Modem offers superior reliability, versatility and performance. The SRM7210E is factory pre-configured for easy, hassle-free installation. It offers an unsurpassed rated range of up to 20 miles (32 km) in optimal conditions with line-of-sight and an omni directional antenna. Based upon proven technology, the SRM7210E adds flexibility to system design by providing a highly reliable wireless alternative in a compact package for a broad array of applications, even those where hazardous environments require Class 1 Div 2 .

The SRM7210E employs Wideband Frequency Hopping Technology in the 902-928 MHz frequency band for secure and robust communication. Data-Linc Group's Wideband Frequency Hopping Technology enables the SRM7210E to reliably deliver critical communications at higher speeds than conventional Frequency Hopping Spread Spectrum radio modems.

RF site surveys are usually unnecessary and an FCC site license is not required. The SRM7210E wireless technology eliminates the need for hard wire or fiber cable, which are often expensive and difficult to install.

FEATURES

- **Class 1 Div 2 Certification**
- **Fast RF data rate of 614 or 867 Kbps ensures highest possible throughput rate at long distances**
- **Compact, flexible design with universal mounting— back panel or on optional DIN rail clip**
- **Range of up to 20 miles (32 km) with line-of-sight and an omni directional antenna**
- **Wirelessly connects Ethernet PLCs and workstations**
- **Factory or field configured for your application—ensuring trouble-free installation**
- **Operates as Master, Remote**
- **License-free and wireless— operates in the 902-928 MHz ISM (industrial/scientific/medical) band**
- **Compatible with basic features of *LincView™* OPC Diagnostics for real-time RF network monitoring**

The SRM7210E offers easy to read LEDs and affords maximum installation flexibility, including optional DIN rail mounting. It can bridge two Ethernet segments or connect multiple Ethernet nodes to a Master PLC. The SRM7210E offers a 10BaseT (UTP) interface to the Ethernet device, uses MAC layer filtering and fully supports most Ethernet protocols for true protocol transparency.

The SRM7210E supports point-to-multipoint configuration. Multipoint operation permits virtually an unlimited number of Remotes.

SRM7210E SPECIFICATIONS

Operating Frequency

License-free, 902-928 MHz

Transmitter

Range. Up to 20 miles (32 km) for point-to-point, up to 15 miles (24 km) for point-to-multipoint— line-of-sight distance using omni directional antennas (extended range capability available)

Output Power. 1 Watt maximum (+30 dBm)
(10 programmable steps up to 1 Watt)

Modulation. Spread Spectrum, GFSK

Spreading Code. Frequency Hopping/FCC DTS

Hop Patterns. 15 (user selectable)

Occupied Bandwidth. 1.88 KHz

Receiver

Sensitivity. -101 dBm @ 10^{-6} raw BER @ 614 Kbps
-95 dBm raw BER @ 10^{-6} @ 867 Kbps

RF Data Transmission

Error Correction. 32 Bit CRC

Data Encryption. Substitution Dynamic Key

RF Data Rate. 614 Kbps or 867 Kbps

Interface

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

Data Throughput. up to 600 Kbps maximum in point-to-point mode; throughput measured assuming 75% frequency availability

Certification

Class 1 Div 2

Configuration

DB9 serial port; 19.2 Kbaud terminal based

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

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*TM OPC Diagnostics for real-time RF network monitoring

Operating Environment

Standard Temperature. -40° to 149° F (-40° to 65° 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)

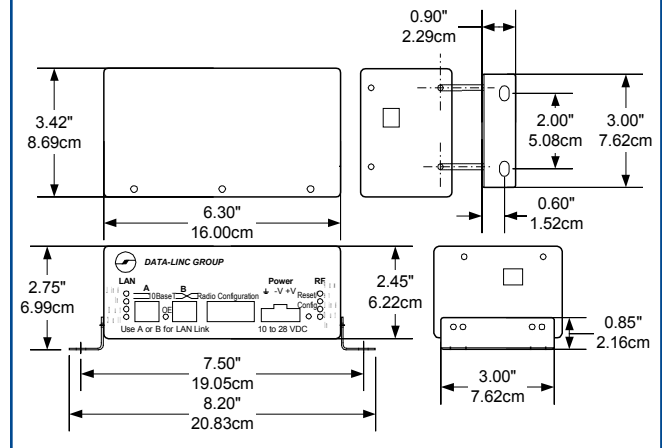
Mounting. Two "L" brackets on either side, rear, top or bottom for panel mounting. Optional DIN rail clip

Weight 1.94 lb (.88 kg)

Specifications subject to change without notice.

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SRM7210E DIMENSIONS



LINCVIEWTM OPC DIAGNOSTIC SOFTWARE

Data-Linc Group's *LincView*TM OPC Software provides an optional RF network diagnostics management tool for any of the wireless stand-alone modems in the SRM Family*. *LincView* OPC 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* OPC even provides visual trend analysis of packet errors, supply voltage levels and radio temperature.

*Due to speed and data prioritization assignment, not all features are compatible with the SRM7210E high speed modem.

ALLIANCE PARTNERS



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