

SRM7210E

HIGH SPEED ETHERNET RADIO MODEM-900 MHz ISM BAND

HIGH SPEED 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, farther with Repeaters. Based upon proven technology, the SRM7210E adds flexibility to system design by providing a highly reliable wireless alternative in a compact package.

The SRM7210E employs Wideband Frequency Hopping Technology in the 902-928 MHz frequency band for high speed 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.

The SRM7210E offers easy to read LEDs and affords maximum installation flexibility, including optional DIN rail mounting. The SRM7210E can bridge two Ethernet segments or connect multiple Ethernet nodes to a Master PLC. The SRM7210E offers a 10BaseT (UTP)

FEATURES

- **Very fast RF data rate of 614 or 867 Kbps ensures highest possible throughput rate at long distances.**
- **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 20 miles (32 km) in optimal conditions with line-of-sight and an omni directional antenna—farther with Repeaters**
- **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**

interface to the Ethernet device, uses MAC layer filtering and fully supports most Ethernet protocols for true protocol transparency.

The SRM7210E 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 SRM7210E 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.

SRM7210E SPECIFICATIONS

Operating Frequency

License-free, 902-928 MHz

Transmitter

Rated Range. Up to 20 miles (32 km), 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 - 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

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

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)

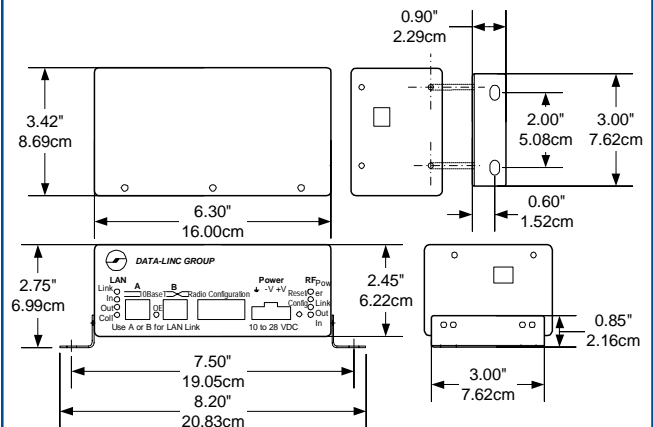
Mounting. Two "L" brackets on either side, rear, top or bottom for panel mounting. Optional DIN rail clip

Weight 1.94 lb (.88 kg)

Specifications subject to change without notice.

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SRM7210E DIMENSIONS



ABOUT DATA-LINC GROUP

For over fifteen years, Data-Linc Group has provided reliable communication solutions for industrial automation systems. Data-Linc Group, an alliance partner with most major PLC manufacturers including Rockwell Automation, Siemens, Schneider Electric, GE Fanuc, and Omron, as well as others, provides expert technical support and communications consultation. Data-Linc's industry proven RF technology has been successfully implemented in all major industries including automotive plants, consumer goods manufacturing/packaging, steel mills, mines, oil/gas refineries, paper mills, utilities and transportation systems. Its products are available worldwide. Data-Linc recently expanded its market with a line of wireless modems for the European Union.

ALLIANCE PARTNERS



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