

SRM6310E/EU

WIRELESS ETHERNET MODEM - 2.4 GHz BAND

WIRELESS ETHERNET MODEM 2.4 GHz BAND - EUROPE



Data-Linc Group's wireless, licence-free SRM6310E/EU Wireless Ethernet Modem offers superior reliability, versatility and performance for Ethernet transmission. Designed to meet European CE Mark and ETSI RF regulations, the SRM6310E/EU combines advanced frequency hopping technology and a highly sensitive RF receiver to maximize transmission range and industrial performance for a broad array of applications, even those where hazardous environments require Class 1 Div 2.

The SRM6310E/EU employs Smart Spectrum™ frequency hopping spread spectrum (FHSS) technology in the 2.4-2.4835 GHz frequency band for secure, robust communication. (Data-Linc Group's *LincView*™ Diagnostic Software, an optional RF network diagnostics management tool for stand-alone SRM modems, offers system network monitoring and maintenance from Master locations.) Data-Linc Group's FHSS technology, coupled with 32-bit CRC error detection, enables the SRM6310E/EU to reliably deliver critical information.

The SRM6310E/EU has a rated range of 8 km (5 miles) with unobstructed line-of-sight. The built-in Repeater mode may be used to extend range or work around obstructions. The modem functions as a wireless Ethernet bridge and is transparent to all Ethernet protocols (TCP/IP, UDP, etc.).

The SRM6310E/EU is easily field configurable and includes built-in diagnostics to evaluate RF signal quality during installation and operation. Additionally, Data-Linc can often pre-configure the modems for even easier installation.

FEATURES

- **Conforms to European Union safety and emission requirements**
- **Class 1 Div 2 certifie**
- **Rated range up to 8 km (5 miles) line-of-sight, farther with Repeaters**
- **Built-in Repeater mode to extend range and work around obstructions**
- **Designed for extreme environments (- 40° to +75° C operating temperature)**
- **Built-in diagnostics for quick installation and troubleshooting; optional LincView RF network diagnostic software**
- **Licence-free and wireless—operates in the 2.4-2.4835 GHz ISM (industrial/scientific/medical) band**
- **Industrial proven performance for secure wireless Ethernet plant networking, material handling and SCADA systems**
- **Wireless bridging technique transparently supports TCP/IP, UDP and other Ethernet protocols**
- **Employs Smart Spectrum™ frequency hopping technology for exceptional data integrity—including high interference environments**
- **Excellent receiver sensitivity for superior range performance**
- **Factory or field configuration for easy installation**

The SRM6310E/EU is designed for extreme environments. It is rated for extended temperature operation (-40° to +75° C) and may be powered from a 230 VAC adaptor or 10 to 28 VDC voltage sources.

SRM6310E/EU SPECIFICATIONS

Operating Frequency License-free, 2.4-2.4835 GHz (Europe)

Transmitter

Range. Up to 8 km (5 miles) with unobstructed line-of-sight, farther with Repeaters

Output Power. Selectable up to 500 mW; 100 mW maximum at antenna

Modulation. Spread Spectrum, GFSK

Spreading Code. Frequency Hopping

Hop Patterns. 15 (user selectable)

Occupied Bandwidth. 230 KHz

Receiver

Sensitivity. -107 dBm @ 10^{-4} raw BER;

-105 dBm @ 10^{-6} raw BER

Selectivity. 40 dB @ $f_c \pm 230$ KHz; 60 dB @ $f_c \pm 460$ KHz

System Gain. 135 dB

RF Data Transmission

Error Correction. 32 Bit CRC with retransmission

Data Encryption. Substitution Dynamic Key

RF Data Rate. 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 RS232 (configuration)

Compliance. CE Mark and ETSI EN 300 328

Certification. Class 1 Div 2

Antenna

Reverse thread SMA female

Supplied bench test antenna

Optional external omni directional or yagi antenna

Power

Input Voltage Requirements. 10 to 28 VDC; 230 VAC to 12 VDC wall mounted transformer provided

Connector. Latching screw terminal

Transmit Current (Peak). less than 700 mA @ 12 VDC

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

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

Operating Environment

Standard Temperature. -40° to 75° C

Humidity. 0 to 95% non-condensing humidity

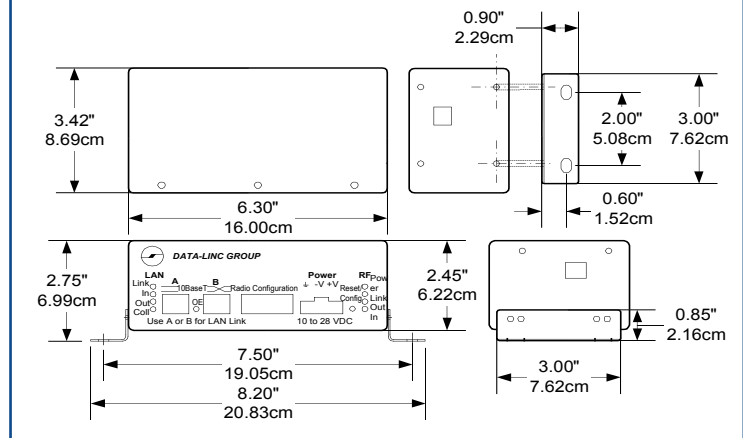
Enclosure

Standard. NEMA 1; 18-gauge steel; 6.22 x 8.69 x 16 cm

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

Weight. 0.88 kg

SRM6310E/EU 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 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.

ALLIANCE PARTNERS



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