

SRM6100-EU

WIRELESS SERIAL MODEM - 2.4 GHz BAND

WIRELESS SERIAL MODEM 2.4 GHz BAND - EUROPE



FEATURES

- Licence-free and wireless—operates in the 2.4 - 2.4835 GHz ISM (industrial/scientific medical) band
- Industrial proven performance for secure wireless plant networking, material handling and SCADA applications
- Employs Smart Spectrum™ frequency hopping technology for exceptional data integrity—especially in high interference environments
- Excellent receiver sensitivity for superior range performance
- Rated range up to 11.3 km (7 miles) line-of-sight required
- Built-in Repeater mode to extend range and work around obstructions
- Configurable for Master, Remote and Repeater operation
- Factory or field configuration for easy installation
- Built-in diagnostics for quick installation and troubleshooting
- Designed for extreme environments
 - 40° to +75° C operating temperature
- Conforms to European Union safety and emission requirements

*PLC slot-mount models also available.
Contact Data-Linc Group for more information.*

Data-Linc Group's new wireless, licence-free SRM6100-EU Serial Modem offers superior reliability, versatility and performance for industrial wireless serial transmission. Designed to meet European CE Mark and ETSI RF regulations, the SRM6100-EU combines advanced frequency hopping technology and a highly sensitive RF receiver to maximize transmission range and industrial performance.

The SRM6100-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 FHSS technology, coupled with 32-bit CRC error detection, enables the SRM6100-EU to reliably deliver critical information.

The SRM6100-EU has a rated range of 11.3 km (7 miles), and the built-in Repeater mode may be used to extend range or work around obstructions. For multi-point applications, one Master can communicate to an unlimited number of Remotes when a polled protocol such as DF1, Modbus or DNP is used.

The SRM6100-EU is easily field configurable and includes built-in diagnostics to evaluate RF signal quality during installation and operation. (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.) Additionally, Data-Linc can pre-configure the modems and provide correctly pinned serial cables for even easier installation.

The SRM6100-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.

APPLICATIONS

- Cost-effective alternative to factory floor cable installation
- Communications to mobile equipment (automatic guide vehicles, conveyor systems, transfer cars, overhead cranes, warehouse automation, etc.)
- Eliminates trenching to pump stations, storage tanks, pipelines, sub-stations and control rooms for SCADA communications
- Communications over bodies of water, highways and other obstacles

SRM6100-EU SPECIFICATIONS

Operating Frequency

Licence-free, 2.4-2.4835 GHz (Europe)

Transmitter

Rated Range. 11.3 km (7 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 @ fc +-230 KHz;

60 dB @ fc +-460 KHz

System Gain. 135 dB

RF Data Transmission

Error Detection. 32 Bit CRC with retransmission

Data Encryption. Substitution Dynamic Key

RF Data Rate. 144 Kbps or 188 Kbps

Interface

RS232, Asynchronous, 10 or 11 bit words,

Optional AE422 and AE485 host interface

Data Throughput (uncompressed).

1200 Bps - 115.2 Kbps (115.2 Kbaud throughput measured assuming 75% frequency availability)

Connector. RS232 (DB9)

Antenna

Reverse thread SMA female

Supplied bench test antenna

Optional external omni directional or yagi antenna available

Power

Supply Voltage. 10-28 VDC; 230 VAC/12 VDC exterior wall mounted transformer.

Peak Transmit Current. 650 mA @ 12 VDC

Receive Current. 100 mA @ 12 VDC

Operating Modes

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

Diagnostics

Front Panel LEDs. Power, Carrier, Data In, Data Out

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

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

Compliance. CE Mark and ETSI EN 300 328

Operating Environment

Temperature. -40° to 75°C

Humidity. 0 to 95% non-condensing humidity

Enclosure

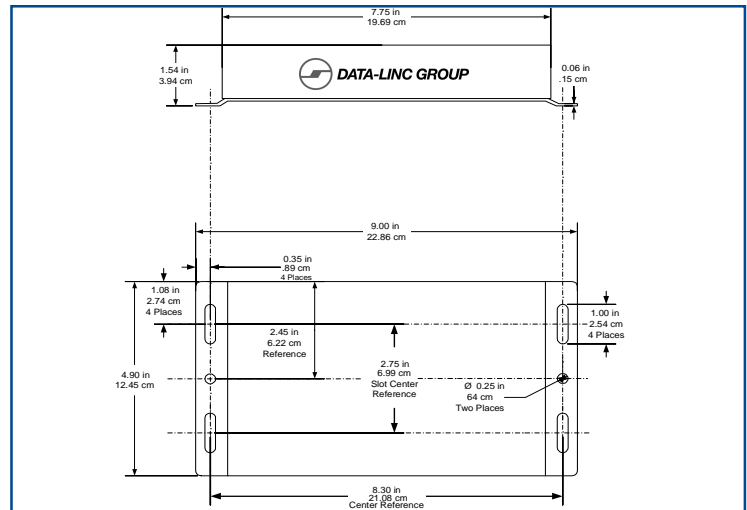
Standard. NEMA 1; 18-gauge steel with mounting flanges. 12.45 x 19.69 x 3.94 cm

Weight. .91k

Specifications subject to change without notice.

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SRM6100-EU 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.

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