DATA-LINC GROUP™
The Industrial Data Communication Experts

SRM6230

Long-range 900 MHz FHSS Ethernet Radio Modem

Data-Linc's license-free SRM6230 Ethernet radio modem offers exceptional reliability, versatility and performance for Ethernet wireless data communications. This latest version offers improved hardware with a faster processor, while maintaining Data-Linc's commitment to backward compatibility with its corresponding legacy Ethernet connectivity SRM6220, SRM6210E and SRM6200E versions.

Like its predecessors, the SRM6230 Ethernet radio module employs SmartSpectrum™ FHSS (Frequency Hopping Spread Spectrum) technology. Along with operating in the 900MHz ISM frequency band, customers benefit by the assurance of an ultra reliable, robust, proprietary wireless network with the benefit of exceptional data integrity even in noisy high RFI/EMI environments– including areas with existing wireless infrastructure.

The SRM6230 is software configurable. Data-Linc's proprietary *Set-Linc*™ software, that is included with the SRM6330 modems, simplifies modem setup and configuration. The 10/100 Auto-MDIX Ethernet ports not only support data transfer but also provide access to the configuration software. Configuration is also available via a separate DB9 serial port. For customer convenience and first-line diagnostics, the front panel includes LED status lights that provide direct access to critical information.

As with all members of the SRM Family of license-free SmartSpectrum Radio Modems, the SRM6230 supports both point-to-point and point-to-multipoint network topologies and a virtually unlimited number of radios. Each modem can be individually configured as Master, Remote, Repeater and Remote/Repeater, through the included Set-Linc software.

The SRM6230 not only provides superior security through AES-256 encryption but also offers a long-distance range of up to 25 miles (40 km) with line-of-sight, farther with Repeaters and/or high gain antennas.

Features

- 900MHz license-free ISM band
- Range of 25+ miles (40+ km)*
- SmartSpectrum™ Technology for maximum data integrity, even in noisy environments
- 10/100 Auto-MDIX Ethernet port
- AES-256 encryption
- RS-232 DB9 configuration port
- Configurable as Master, Remote, Repeater and Remote/Repeater
- User adjustable hop patterns and frequency zones for exceptional performance in close proximity networks
- Replaces any legacy Ethernet SRM series radio modem
- User assignable IP address
- Factory custom-configured for easy, trouble-free installation
- Optional DIN rail mounting

* with line-of-sight and omni antennas, farther with Repeaters and/or high gain antennas

Applications

- PLCs on mobile equipment— stackers, reclaimers, overhead cranes, etc.)
- SCADA systems— water/wastewater, power, oil & gas, etc.
- Underground and off-shore communications
- Networks in high RFI/EMI environments
- Telemetry

900 MHz Long-range FHSS Ethernet Radio Modem

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SRM6230 Specifications

License-free 900 MHz Ethernet radio modem

Included
CD *Set-Linc*™ Configuration Software
User Manual
Test antenna
Ethernet Cat 5 cable
Power supply Wall mount 115-230 VAC supply, 12 VDC output

Transmitter
Range 25 miles (40 km) with LOS & omni antennas
Output Power 1 Watt maximum (10 programmable steps) / +30dBm
Modulation Spread Spectrum, GFSK
Spreading code Frequency Hopping
Hop Patterns 15 (user selectable)
Occupied Bandwidth 230 KHz

Receiver
Sensitivity -108 dBm @ 115.2 kbps for BER 10^{-4}
-103 dBm @ 153.6 kbps for BER 10^{-4}
Selectivity 40 dB @ fc ±230 KHz and 60dB @ fc ±460 KHz
System Gain 138dB

RF Data Transmission
Data Throughput 115.2 Kbps – 153.6 Kbps
Error Correction 32 bit CRC
Data Encryption 256-bit AES

Interface
10/100 Auto-MDIX Ethernet port
Serial Port RS-232 – DB9 female
RS-485 – terminal block

Antenna
Standard thread SMA female
Supplied bench test antenna
Nominal Impedance 50 Ω

Power
Input Voltage 10-28VDC. Wall mount 12Vdc/ 115-230VAC power supply included
Transmit Current 650mA@12Vdc (8W)
Receive Current 167mA@12Vdc (2W)

Operating Modes
Master, Remote, Repeater, Remote/Repeater

Configuration Software
Set-Linc included configuration software

Diagnostics
Front panel LEDs Power, RF Carrier, RF Out, RF In, LAN (Link-Act), Mode LEDs x 4

Operating Environment
Temperature -40º to 167º F (-40º to 75º C)
Humidity 0 to 95% non-condensing

Enclosure
Standard 18 gauge steel
2.47 X 3.70 X 6.4 in. (6.274 X 9.398 X 16.26 cm)
Included Optional DIN rail mounting flanges (2)

Weight 1.8 lb (0.82 kg)

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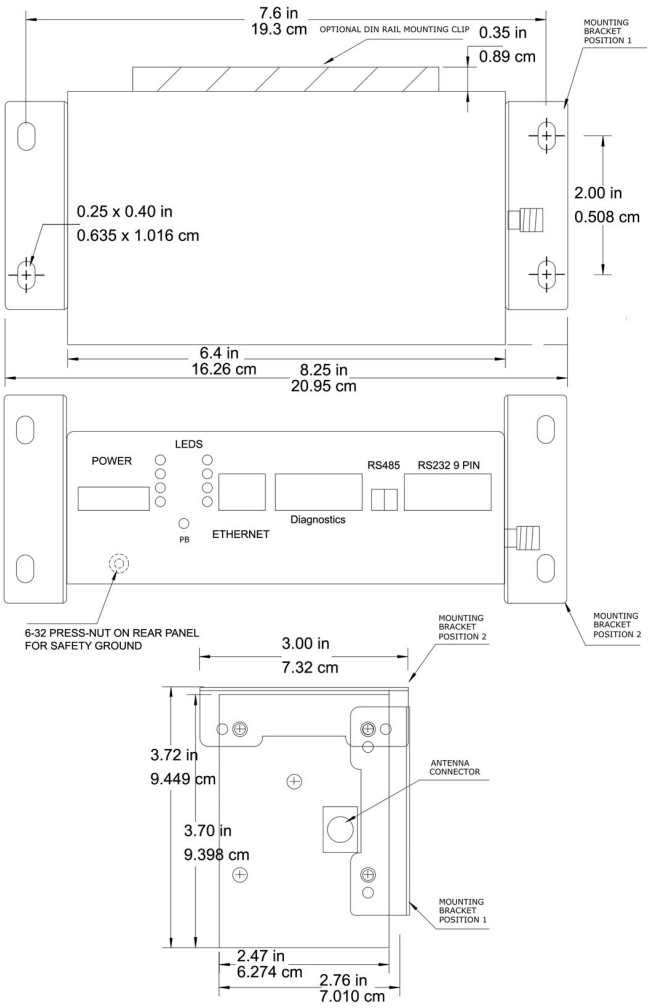
SRM6230 Dimensions



Note: Mounting bracket can be mounted in 4 positions on end plate for multiple mounting options.

Partnerships

GE Fanuc
Rockwell Automation Encompass Product Partner
Mitsubishi Electric
Omron
Gold Technology Partner for Industry Schneider Electric
National Instruments
Siemens Product Partner

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