



SRM8200

ADAPTIVE SPECTRUM TECHNOLOGY

900 MHz ETHERNET-SERIAL MODEM

HIGH-SPEED, LONG-RANGE, EDGE-READY

ADVANCEDTM
Adaptive Spectrum
Proprietary FHSS Technology

**Designed for The
Connected Enterprise &
other data intensive projects**



DATA-LINC's SRM8200, the latest member of the SRM Family, is a frequency hopping spread spectrum (FHSS) modem that utilizes the advanced Adaptive Spectrum Technology to obtain reliable links in RF congested environments. Its cognitive learning ability and support for band intensive applications makes it an ideal choice for IIoT and Edge Technology evolution. With RF speeds of up to 4Mbps and range of up to 64km/40 miles with line-of-sight (LOS) and farther with repeaters and high gain antennas, it is a significant advancement in DATA-LINC's FHSS line of products.

To ensure wireless reliability, the SRM8200 uses FEC (Forward Error Correction), packet compression and packet aggregation techniques as network accelerators to improve overall data integrity and wireless efficiency. In the event of an error, FEC allows the receiver to correct errors without requesting retransmission of data and packet aggregation and compression combine multiple small packets and improve overall wireless data exchanges. The result is the ultimate in data reliability for coverage from limited to extensive data transfer solutions along with unsurpassed confidence in the data integrity.

The combination of these outstanding features has produced an advanced technology, data communication product with exceptional performance. Its excellent noise resistance and high data transfer rates in the 900 MHz band makes the SRM8200 an excellent choice for industrial and instrumentation applications.

FEATURES

- Full, 1 Watt power supports long-range transmission (up to 40 miles/ 64 km)*
- Advanced Technology supports user-selectable RF speeds up to 4 Mbps
- Adaptive learning minimizes interference - uses "listen-before-talk" intelligence
- Remotes can talk to Remotes allowing peer-to-peer communication
- Selectable frequency bands ensure reliable RF links in noisy and congested environments
- Configured via web interface, Command Line Interface (CLI), Drag & Drop and Secure Shell (SSH)
- NetworkNowTM, live network map, displays network-wide RF diagnostics data
- Create Support Bundle instantly to view configuration summary for network troubleshooting
- Enable/disable Ethernet and microUSB port to prevent unauthorized access
- EDGE-LINC - a Linux platform to create and host applications for edge computing
- Packet compression, aggregation, and Forward Error Correction to fine tune network performance

To meet high-data rate demands, whether indoors or out, for short distances or long, you can depend upon the SRM to get your data through in bandwidth challenging applications, in the harshest of industrial environments. When you need wireless data transfer you can depend upon, **THINK, DATA-LINC.**

* Range depends upon speed.



ADAPTIVE SPECTRUM SRM8200 SPECIFICATIONS

License-free 900 MHz Band, Adaptive FHSS High-Speed, Long Range

Included

5 ft CAT5 cable
Bench-test whip antenna
Power Supply 12 VDC, 2 Amp

EDGE-LINC

Storage 4MB

Encryption

128 & 256 AES CCM

Transmitter

Frequency Range	902 to 928MHz ISM Band
Frequency - Custom Hop Tables	Australia, Brazil, Peru and New Zealand
Output Power	10mW to 1W (User selectable)
Range	40 miles/64 km
Hop Channels	Up to max 112 (User selectable)
Hop Pattern	Max 16, (User selectable)
Data Rates	115.2, 250, 500 kbps, and 1 & 4 Mbps; (User Selectable)

Receiver

System Gain 136dB, If Selective >40dB

RF Data Transmission

RF Data Throughput & Sensitivity	(User selectable rate)		
	Rate	No FEC	w/ FEC
	115 kbps	-105 dBm	-108 dBm
	250 kbps	-102 dBm	-105 dBm
	500 kbps	-99 dBm	-102 dBm
	1 Mbps	-95 dBm	-98 dBm
	4 Mbps	-83 dBm	-86 dBm

Error Detection CRC, FEC and ARQ

Security 128-bit and 256-bit AES CCM

IP Filtering Reduces congestion by blocking non-RF Ethernet traffic

Power Requirements/Consumption

Operating Voltage +10 to +30 VDC (+/- 10%)

Transmit Current 355 mA @ 12V

Receive Current 100 mA @ 12V

Diagnostics

Live & Local Network Map & Statistics

Front Panel Interface

Ethernet Ports 1 & 2 10/100 Base-T

Serial Ports 1 & 2 DB9 RS232, Max 250 Kbps,

Micro USB Port Drag & Drop config and CLI (Command Line Interface)

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

Power Supply Two-pin Phoenix terminal

Indicator LEDs Power, RF Link

Advanced Features

Adaptive Spectrum Adaptive learning for superior performance in RF noise and congested environments

Forward Error Correction Ensures packet accuracy

Packet Aggregation & Compression >bandwidth efficiency

Operating Environment

Temperature -40 to 167°F (-40 to 75°C)

Humidity 0 to 95% non-condensing

Enclosure

Standard Cast aluminum with 2 optional, included mounting flanges

Optional DIN Rail Mount

Dimensions 6.50 in. x 4.21 in. x 2.09 in.;
165mm x 107mm x 53mm

Weight 1.50 pounds/0.680 kg

NetworkNow™

Troubleshoot, update firmware, and reconfig from any site using DATA-LINC's Live Mapping & Configuration Tool for the license-free, high-speed SRM8200 Adaptive Spectrum Ethernet-serial modem.



EDGE-LINC™

Supporting edge computing for remote decision-making and real-time control of bandwidth-intensive Industrial SCADA installations

Tomorrow's Technology Today



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