SRM6220

HYBRID ETHERNET-SERIAL MODEM— 900 MHz ISM BAND

SRM6220 FEATURES

- **Hybrid wireless modem— Ethernet with serial tunneling (DF1, Modbus RTU etc.)**

- **EtherNet/IP to DF1 bridging**

- **Modbus TCP/IP to modbus RTU bridging**

- **Legacy 900 MHz SRM compatibility- single, "spare" backup**

- **Field firmware upgradable**

- **Web or *SetLinc*™ software configurable via Ethernet or serial links**

- **Serial port—RS232**

- **Pingable — user assignable IP address**

- **Compatible with *LincView*™ OPC RF network diagnostic software**

Data-Linc Group's SRM6220 wireless Ethernet-serial modem replaces the SRM6210E and provides users an advanced, state-of-the-art blending of Data-Linc's successful SRM6000 serial and SRM6210E Ethernet modems. The SRM6220 offers Ethernet to serial, EtherNet/IP to DF1 and modbus TCP/IP to modbus RTU connectivity for hybrid integration of serial and Ethernet devices. Only one modem is required for this integration which reduces cost and increases efficiency. The accompanying, *SetLinc*™ software makes SRM6220 configuration easy and intuitive.

SRM6220 meets or exceeds the prior technology. Its updated features and cutting-edge auxiliary microprocessor add a broad range of enhanced, user-friendly features and capabilities. The SRM6220's backward compatibility with the SRM6200E and SRM6210E Ethernet modems allows it to be used as a replacement. It can be used as a serial tunnel Master with SRM6000 modems with series 2.xx radio firmware.

Modem setup and configuration have been simplified by Data-Linc's proprietary *SetLinc* software. Configuration via the Ethernet or the serial port (RS232) provides versatility. To further simplify installation and increase user confidence, the SRM6220 is "ping-able." Radio network communication can be readily determined by pinging the Master or the Remote— an invaluable troubleshooting feature for determining if the communication link is functioning.

Additional advantages of the SRM6220 include Ethernet bridging, selectable MAC (Media Access Control) address filtering and dual Ethernet/CAT5 connectors for straight or crossover cables. The radio network forms an Ethernet bridge between Master radio Ethernet devices and one or more Remote radio Ethernet devices. RF network perfor-

mance is improved by a switchable MAC Filter in each radio that learns MAC addresses of Ethernet devices connected to its wired side and only forwards packets across the RF link of devices not on the wired side.

Like the prior SRM Family 900 MHz modems, the 25+ miles (40 km)* range offers superior reliability and performance in the license-free band. The SRM6220 utilizes the same high performance, ultra-reliable Smart Spectrum™ technology that ensures exceptional data integrity— even in high noise environments. It continues the SRM Family tradition of allowing each modem to be configured for Master, Remote, Repeater or Repeater/Remote mode. The SRM6220's compact design with optional DIN rail clip, allows easy mounting. The front panel power and data connectors give the user immediate connectivity and front-located LED status lights provide direct visual access to critical diagnostic information.

* Greater range in optimal conditions with clear line-of-sight, Repeaters and/or higher gain antennas.

SRM6220 Specifications

License-free 900 MHz Wireless Hybrid Modem Frequency Hopping Spread Spectrum

Included
 CD. *SetLinc™* configuration software, *LincView™* OPC RF network management software, User Manual
 Antenna. Test antenna
 Cable. CAT 5 (7')
 Power. Wall mount 115 VAC supply, 12 VDC output

Operating Modes
 Point-to-point and multipoint mode
 Master, Repeater, Remote or Repeater/Remote

Interfaces
 Ethernet.
 One 10baseT (UTP)— straight and crossover CAT5s
 Serial data port.
 Serial-Linc RS232/RS485 screw terminal
 Serial data tunneling via UDP or TCP/IP
 Diagnostics port. RS232

Operational ranges
 System gain. 138 dB
 Distance. 25 miles (40 km) with omni antennas
 (with line-of-sight)

Transmitter
 RF Output Power. 1 Watt maximum (30dBm),
 (10 programmable steps up to 1 Watt)
 Modulation. Frequency Hopping Spread Spectrum, GFSK
 RF Data Rate. 144Kbps - 188 Kbs
 Hop Patterns. 15 (user selectable)
 Occupied Bandwidth. 230KHz
 Error Correction. 32 bit CRC
 RF Encryption. Substitution Dynamic Key

Receiver
 Sensitivity. -108 dBm @ 10^{-6} raw BER
 Selectivity. 40 dB @ fc ±230 KHz and 60dB @ fc ±460 KHz
 Maximum data throughput. 115Kbps point-to-point mode assuming 75% frequency availability

Antenna Interface
 SMA connector
 Optional. External omni directional or yagi
 FCC power limit. 4 Watts EIRP (36dB) max at antenna
 Impedance. 50 Ohms

Configuration
 SetLinc™ software or web browser

DC Power Requirements
 8 Watts transmit peak
 2 Watts receiving
 10 to 28 VDC via screw terminal

Diagnostics
 Front panel LEDs. Power, RF Link, RF Out, RF In, LAN Link, LAN Activity, Mode setup enabled status
 LincView™ **OPC.** Diagnostic software for real-time RF network monitoring; via Ethernet (UDP) or serial Diagnostic port

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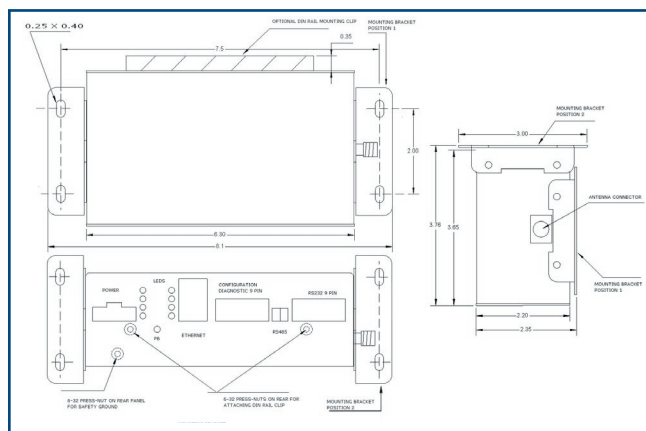 **Humidity.** 0 to 95% non-condensing

Enclosure
 Standard. NEMA 1, 18 gauge steel; 2.35 X 3.75 X 8.1 in. (6 X 9.5 X 20.6 cm) using mounting brackets
 Optional. 2.35 X 3.76 X 6.3 in. (6 X 9.5 X 16 cm) using DIN rail mounting
 Weight. 1.8 lb (0.82 kg)

SRM6220 Dimensions

Included Software

Data-Linc's proprietary *SetLinc™* software, that is included with the SRM6220/6320 modems, simplifies modem setup and configuration— executed via the Ethernet or the serial port (RS232).

Data-Linc Group's *LincView™* 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 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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