

Spectra 920A



900 MHz Spread Spectrum Wireless Modem

The Spectra 920A is a 900 MHz ISM Band Frequency Hopping Wireless Modem, which can be optimized for long distance communications of over 60 miles (100km). Spectra 920A radios offer the fastest communication over the longest distances.

Applications

- SCADA (PLCs, Modbus), Telemetry
- Commercial Communications
- GPS Vehicle Data/Tracking, DGPS
- Electric, Oil & Gas Utilities/Metering
- Robotics
- Display Signs
- Transparent Low Latency Communication



Microhard Systems Inc.'s proprietary radio technology excels in the most demanding RF and physical environments.

The Spectra 920A features robust, high speed, low latency, secure data communications. It has a full serial port and a separate diagnostics port for real-time diagnostics without interrupting data communications. Excellent noise figure, superior interference rejection, agile frequency synthesis, digital modulation, and matched filter detection, are among the many advantages to using the Spectra 920A.

Features of the Spectra 920A

- Transparent, low latency link, providing up to 230 kbps continuous throughput to support protocols such as MODBUS
- Communicates with virtually all PLCs, RTUs, and serial devices
- Industrial Grade - extended temperature specification
- Supports Point-to-Point, Point-to-Multipoint, Peer-to-Peer, Store and Forward Repeater, TDMA, Multimaster
- Adjustable transmit power (100mW - 1W)
- Low power consumption in Sleep Mode
- 32 bits of CRC, selectable Forward Error Correction with retransmission
- Separate diagnostics port - transparent remote diagnostics and online network control



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Specifications



Frequency	902 - 928 MHz	Connectors	Antenna	RP-TNC Female Bulkhead
Spread Method	Frequency Hopping		Data	Female DE9
Band Segments	Selectable via Freq. Restriction		Diagnostic	Locking screw connector RJ-45
Error Detection	32 bits of CRC, ARQ	Environmental		-40°F to 185°F (-40°C to +85°C) 5-95% humidity, noncondensing
Encryption	Optional (Canada & USA only. NOT AVAILABLE for export, see -AES option)	Weight		Approx. 0.92lbs (420g)
Range	60+ miles (100+ km) (dependant on link rate and line of sight)	Dimensions		Approx. 4.40" x 3.75" x 1.75" (111mm x 95.3mm x 44.5mm)
Sensitivity	-108dBm @ 172kbps link rate -116dBm @ 19.2kbps link rate (see -SL option)	Enclosure		Extruded Aluminum
Output Power	100mW - 1W (20-30dBm)	Mount		Panel Mount
System Gain	142dB w/Rubber Ducky antennas 150dB w/6dBi antennas	Approvals		FCC Part 15.247 IC RSS210
Serial Interface	RS-232/RS485/RS422	Order Options		
Serial Baud Rate	300bps to 230.4kbps	-DIN		DIN rail mount kit
Link Rate	19.2 kbps - 230.4kbps (See Order Options)	-FT		Standard FAST Mode 115kbps - 230.4kbps
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer, TDMA, Multimaster	-SL		Extended sensitivity / SLOW Mode 19.2kbps - 230.4kbps
Signals Interface	RxD1, TxD1, RTS, CTS, DCD, DSR, DTR, RxD2, TxD2, RSSI LEDs, Tx/Rx LEDs, Reset, Config, Wake-up, RSmode	-C1D2		Class 1 Div 2 (for use in hazardous environments)
Diagnostics	Battery Voltage, Temperature, RSSI, and remote diagnostics	-AES		128-AES Encryption (Canada & USA only. NOT AVAILABLE for export)
Rejection	Excellent strong signal interference & rejection characteristics	-AU		Australian Hop Tables (915 to 928 MHz)
Input Voltage	9-30VDC	-NZ		New Zealand Hop Tables (921 to 929 MHz)

Contact Information

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