

Spectra 920A

900MHz Spread Spectrum Wireless Modem

The Spectra 920A is a long range, high-speed 900MHz Frequency Hopping Spread Spectrum Modem. The Spectra 920A's rate can be optimized for long distance communication 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 environments. There are many radio companies that make claims - just run our radios side by side and see what happens.

The Spectra 920A features robust, high-speed, low latency, secure data communications. The Spectra 920A has a full serial data port and a separate diagnostics port for real-time diagnostics without interrupting data communications. The Spectra 920A offers excellent noise figure, superior interference rejection, very agile frequency synthesis, digital modulation, and matched filter detection. The Spectra 920A can be user-optimized for speed and distance.

Features of the Spectra 920A

- Transparent, low latency link providing 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
- Maximum allowable transmit power (1W)
- Low power consumption in Sleep Mode
- 32 bits of CRC, selectable Forward Error Correction with retransmission
- Separate diagnostics port - transparent remote diagnosis and online network control

Back View



Spectra 920A

Specifications

Frequency	902 to 928 MHz	Power Supply	9VDC to 30VDC
Spread Method	Frequency Hopping	Connectors	
Band Segments	Selectable via Freq. Restriction	Antenna	RP-TNC
Error Detection	32 bits of CRC, ARQ	Data	Female DE9
Data Encryption	Optional (see Option 250)	Diagnostic	Locking screw connector RJ-45
Range	60+ miles (100+ km) line of sight	Environmental	-40°F to 167°C (-40°C to +85°C) 5-95% humidity, noncondensing
Output Power	100mW to 1W (20-30dBm)	Weight	Approx. 0.92lbs (420g)
Sensitivity	-108dbm @ 172kbps link rate (see also Option 120)	Dimensions	4.755" x 3.75" x 1.75" (111mm x 95.3mm x 44.5mm)
System Gain	142dB w/Rubber Ducky antennas 150dB w/6dBi antennas	Enclosure	Extruded Aluminum
Serial Interface	RS232: RxD, TxD, RTS, CTS, DCD, DSR, DTR RS422: Tx+, Tx-, Rx+, Rx- RS485: 4-wire/2-wire Aux: Config, Shutdown	Mount	Panel Mount
Serial Baud Rate	300bps to 230.4kbps	Approvals	FCC Part 15.247 IC RSS210
Throughput	230.4kbps	Order Options	
Operating Modes	Point-to-Point, Point-to-Multipoint, Peer-to-Peer, Store&Forward Re- peater, TDMA, Multimaster	Option 100	DIN rail mount Kit
Diagnostic Port	RS232: RxD, TxD	Option 120	SLOW Mode (-116 dBm) * * Standard is FAST Mode
Diagnostics	Battery Voltage, Temperature, RSSI, Real-time event logging and re- mote diagnostics	Option 200	Class 1 Div 2 (for use in hazard- ous environments)
Rejection	Excellent Strong Signal Interference & Rejection Characteristics	AUST VERSION	Australian Hop Tables (915 to 928 MHz)
		NZ VERSION	New Zealand Hop Tables (921 to 929 MHz)
		<small>Copyright 2007 Microhard Systems Inc. Specifications subject to change without notice.</small>	

Contact Information

Microhard Systems Inc.
#17, 2135-32nd Ave N.E.
Calgary, AB, Canada T2E 6Z3
email: info@microhardcorp.com
Tel: (403) 248-0028
Fax: (403) 248-2762



**Microhard
Systems Inc.™**

www.microhardcorp.com