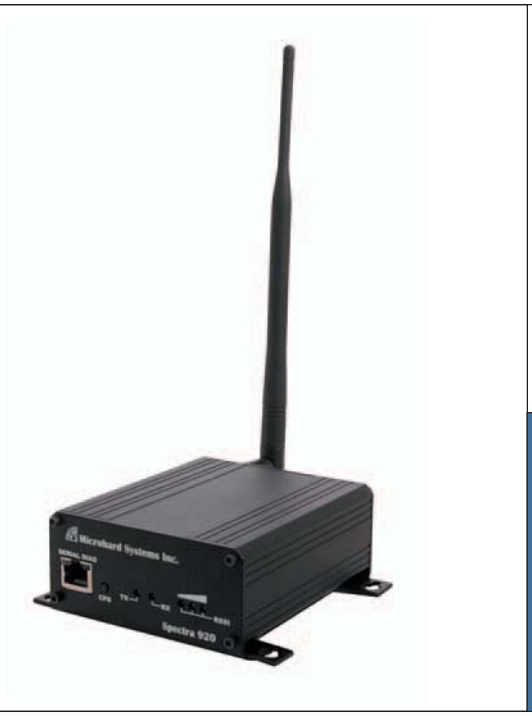
Spectra 920 Industrial Wireless Modem

The Spectra 920 is a long range - high speed 900MHz Frequency Hopping Spread Spectrum Modem. The Spectra 920's rate can be optimized for long distance communication over 60 miles. Spectra 920 radios offer the fastest communication over the longest distances.



Applications:

- SCADA (PLCs, Modbus), Telemetry
- Security, Surveillance
- GPS Vehicle Data/Tracking, DGPS
- Electric, Oil, & Gas Utilities/Metering
- Display Signs
- Traffic Control, Loop detectors
- Transparent low latency communication

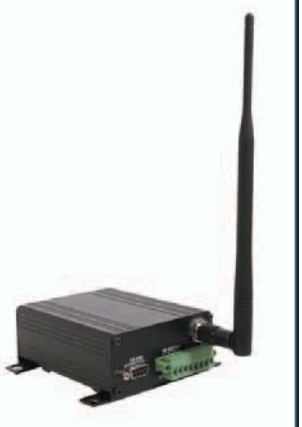
Microhard's highest performance modem!

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

Features of the Spectra 920

- Transparent, low latency link providing true 230 kbps continuous throughput
- Communicates with virtually all PLCs, RTUs, and serial devices
- Industrial temperature specifications
- Supports point-to-point, point-to-multipoint, Store and Forward Repeater, TDMA, Multimaster
- Maximum allowable transmit power, (1W)
- Low power consumption in Sleep Mode (Real-Time Clock wakeup)
- 32-bit CRC, selectable forward error correction with retransmission
- Separate diagnostics port - transparent remote diagnosis and online network control

Back View



Spectra 920 Specifications (preliminary)

Frequency	902 - 928 MHz
Spreading Method	Frequency Hopping
Band Segments	16 user selectable
Hopping Patterns	128 user selectable
Hopping Channels	minimum 50
Error Detection	32bit CRC, ARQ, FEC
Data Encryption	Dynamic Key Substitution
Range	+60 miles (line of sight)
Sensitivity	-110 dBm High Speed -112 dBm Slow Speed
Output Power	1mW, 100mW to 1W (30dBm)
System Gain	140dB
Data Port	RS232: RxD, TxD, RTS, CTS, DCD, DSR, DTR RS422: Tx+, Tx-, Rx+, Rx- RS485: 4 wire/2 wire Aux: Config, Shutdown
Serial Baud Rate	300bps to 230.4kbps
Throughput	230.4kbps
Operating Modes	Point-to-Point, Point-to-Multipoint, Store&Forward Repeater, TDMA, Multimaster, Peer to Peer, Transparent
Diagnostic Port	RS232: Rxd, TxD
Diagnostics	Forward & Reflected Power, VSWR, Current, Battery voltage, Temperature, RSSI, Real-time event logging and remote diagnostics
Rejection	Excellent Strong Signal Interference & Rejection Characteristics

Power Supply	9VDC to 30VDC
Current (12VDC)	
Transmit	600 mA
Receive	95 mA
Idle	20 mA
Sleep	1mA
Connectors	
Antenna	Reverse gender TNC
Data	Female DB9 Locking screw connector
Diagnostic	RJ-45
Environment	-40 °C to +75 °C 5-95% non-condensing
Weight	Approx. 420 grams (0.92 lbs)
Dimensions	4.375" x 3.75" x 1.75"
Enclosure	Extruded aluminum
Mount	Panel mount
Approvals	FCC Part 15.247 approved IC RSS210 approved

Contact Information

Campbell Scientific (Canada) Corp.
11564 - 149 Street
Edmonton, AB T5M 1W7
(780) 454-2505

CAMPBELL SCIENTIFIC CANADA CORP.