

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



Applications:

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

If you thought our MHX-910 was good - you'll be amazed with the MHX-920. There are many radios that make claims - just run our radios side by side and see what happens.

The MHX-920 features robust, high speed, low latency, secure data communications. The MHX-920 has a full data serial port and a separate diagnostics port for real-time diagnostics; which does not interfere with data communications. MHX-920 offers excellent noise figure, superior interference rejection, very agile frequency synthesis, digital modulation, and matched filter detection. The MHX-920 can be user optimized for speed and distance.

Features of the MHX-920

- Transparent, low latency link providing true 230 kbps continuous throughput to support protocols such as MODBUS
- License-free communication in the 902 - 928 MHz ISM band
- Industrial Grade - extended temperature specification
- Supports point-to-point, point-to-multipoint, Store and Forward Repeater, TDMA, Multimaster
- Maximum allowable transmit power, (1W)
- Low power consumption in Sleep Mode and High Voltage Option
- 32-bit CRC, selectable forward error correction with retransmit
- Separate diagnostics port - transparent remote diagnosis and online network control
- Backwards and Footprint Compatible with MHX-910 and Spectra-910 radios

MHX-920 HV Option



MHX-920**Specifications (preliminary)**

Frequency	902 - 928 MHz	Core Voltage	4VDC to 5.5VDC, 7VDC to 40VDC(See option 100)			
Spreading Method	Frequency Hopping	IO voltage (user selectable)	3.3VDC to 5.5VDC, RS232/485/422 Levels(See option 100)			
Band Segments	16 user selectable	Current (mA)	4 VDC	12 VDC	30 VDC	
Hopping Patterns	128 user selectable		(High Voltage Option)			
Hopping Channels	50 to 128 user selectable		Transmit	1200	600	220
Error Detection	32 bit CRC, retransmit on error		Receive	220	95	40
Data Encryption	Dynamic Key Substitution		Idle	60	20	8
Range	+60 miles (line of sight)	Sleep	1	1	1	
Sensitivity	-108 dBm	Antenna Connector	MCX, Reverse polarity SMA (See option 110)			
Output Power	1mW, 100mW to 1W (30dBm)	Environment	-40 °C to +75 °C			
System Gain	140dB	Weight	Approx. 80 grams			
Data Port Interface	RS-232/RS485/RS422 TTL or Drivers Level	Dimensions	Approx. 3.5" x 2.1" x 0.7"			
Serial Baud Rate	300bps to 230.4kbps	Approvals	FCC Part 15.247, pending IC RSS210, pending			
		Order Options				
Operating Modes	Point-to-Point, Point-to-Multipoint, Store&Forward Repeater, TDMA, Multimaster, Peer to Peer, Transparent	Option 100	HV OPTION - High Input voltage (7V to 40V) with optional RS232/RS485/RS422 Drivers			
Signals Interface	RxD1, TxD1, RTS, CTS, DCD, DSR, DTR, RxD2, TxD2, RSSI1,RSSI2,RSSI3, Tx LEDs, Rx LEDS, Reset, Config, Wake-up, RSmode, User Analog Input	Option 110	Reverse Polarity SMA Connector			
Diagnostics	Forward & Reflected Power, VSWR, Current, Battery voltage, Temperature, RSSI, Real-time event logging and remote diagnostics					
Rejection	Excellent Strong Signal Interference & Rejection Characteristics					
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