

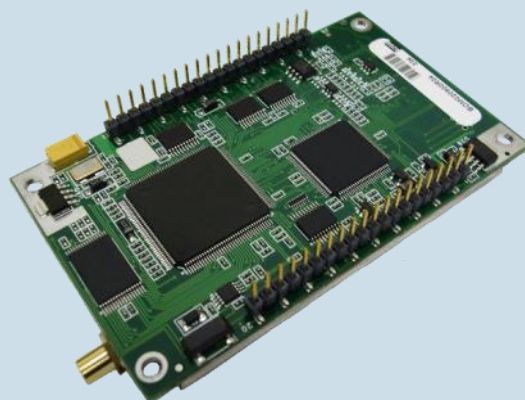
2.4 GHz OEM Industrial Wireless Modem

The MHX2420 is a 2.4 GHz Frequency Hopping Spread Spectrum Modem, which can be optimized for long distance communication over 30 miles (50km). MHX2420 radios offer the fastest communication over the longest distances

Applications

- SCADA (PLCs, MODBUS), Telemetry
- Commercial Communications
- GPS Vehicle Data/Tracking, DGPS
- Electric, Oil & Gas Sensors/Detection
- Display Signs
- Transparent Low Latency Communication

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



The MHX2420 features robust, low latency, secure data communications. It has full serial port and separate diagnostics port for real-time diagnostics without interrupting data communications. Excellent noise figure, superior interference rejection, very agile frequency synthesis, digital modulation, and matched filter detection, are among the many advantages to using the MHX2420.

Features of the MHX2420

- 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 and High Voltage Option
- 32 bits of CRC, selectable Forward Error Correction with retransmission
- Separate diagnostics port - transparent remote diagnostics and online network control
- Footprint backwards compatible with MHX2400

MHX2420 HV Option



MHX2420

Specifications



Frequency	2.4000 - 2.4835 GHz	Core Voltage	4.0VDC to 5.5VDC, 7VDC to 30VDC (see –HV option)
Spreading Method	Frequency Hopping	I/O Voltage (user selectable)	3.3VDC to 5.5VDC; RS232/485/422 levels (See –HV option)
Band Segments	Selectable via Freq. Restriction	Antenna Connector	MCX
Error Detection	32 bits of CRC, ARQ	Environmental	-40°F - +185°F (-40°C - +85°C) 5-95% humidity, noncondensing
Encryption	Optional (Canada & USA only. NOT AVAILABLE for export, see –AES option)	Weight	Approx. 2oz. (55 grams)
Range	30+ miles (50+ km) (dependant on link rate and line of sight)	Dimensions	Approx. 3.5" x 2.1" x .7" (89mm x 53.4mm x 17.8mm)
Output Power	100mW to 1W (30dBm)	Approvals	FCC Part 15.247 IC RSS210
Sensitivity	-108dBm @ 115.2kbps link rate (Also see option –SL)	Order Options	
System Gain	142dB (w/rubber duck antennas)	-HV	HV Option - High input voltage (12V to 30V) with RS232/485/422 Drivers
Serial Interface	RS232/RS485/RS422 TTL Driver Level (see –HV option)	-FT	Standard FAST Mode 115kbps - 230.4kbps
Serial Baud Rate	300bps to 230.4kbps	-FT1	Extended FAST mode 115kbps - 345.6kbps
Link Rate	19.2 kbps - 230.4kbps (See Order Options)	-SL	Extended sensitivity / SLOW Mode 19.2kbps - 230.4kbps
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer, TDMA, Multimaster	-C1D2	Class 1 Div 2 (for use in hazardous environments)
Signals Interface	RxD1, TxD1, RTS, CTS, DCD, DSR, DTR, RxD2, TxD2, RSSI LEDs, Tx/Rx LEDs, Reset, Config, Wake-up, RSmode	-AES	128-AES Encryption (Canada & USA only. NOT AVAILABLE for export)
Diagnostics	Battery Voltage, Temperature, RSSI, and remote diagnostics		
Rejection	Excellent strong signal interference & rejection characteristics		

Contact Information

Copyright 2010 Microhard Systems Inc.
Specifications subject to change without notice.

Microhard Systems Inc.
150 Country Hills Landing N.W.
Calgary, AB, Canada T3K 5P3

Email: info@microhardcorp.com
Tel: (403) 248-0028
Fax: (403) 248-2762



www.microhardcorp.com