

OEM 900 MHz Wireless Modem

For size conscious consumers, consider the Nano Series with its small footprint and design flexibility. The Nano Series offers the reliability, features, and performance of our larger modems, yet can fit almost anywhere! Fully compatible with MHX series radio modems!

Applications

- Robotics
- Remote Control
- Telemetry, DGPS
- Electric, Oil & Gas Sensors/Detection
- Display Signs
- Small Enclosure Communication Devices
- Industrial Communications

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



The Nano Series features robust, high speed, low latency, secure data communications. The n920 has full serial and diagnostics data capabilities and is 'radio compatible' with 910/910A and 920/920A modems! The n920 offers excellent noise figure, superior interference rejection, agile frequency synthesis, digital modulation, and matched filter detection. The n920 can support 1.2Mbps and higher!

Features of the n920

- Supports up to 1.2Mbps (higher rates available, contact Microhard for details)
- Quad Filter Stage provides Extreme Noise & Interference Rejection
- Supports Point-to-Point, Point-to-Multipoint, Store and Forward Repeater, TDMA
- Maximum allowable transit power (1W)
- Low Power consumption in Sleep and Sniff modes
- 32 bits of CRC, selectable Forward Error Correction with retransmit
- Separate diagnostics port—transparent remote diagnosis and online network control
- Very Small Footprint
- MHX910 and MHX920A compatible interface card available

N920 Interface Card



Nano Series - n920 Specifications



Frequency	902-928 MHz	Connectors:	Antenna Data	MMCX 60 Pin OEM Header
Spreading Method	Frequency Hopping / DTS			
Band Segments	Selectable via Freq Restriction	Environmental		-40°F - +185°F (-40°C - +85°C) 5-95% humidity, noncondensing
Error Detection	32 bits of CRC, ARQ	Weight		Approx. 0.7 oz. (19 grams)
Encryption	128-bit AES (NOT AVAILABLE on any Export versions)	Dimensions		Approx. 1.25" x 2.0" x .25" (32mm x 51mm x 6.35mm)
Range	60+ miles (100+ km) (dependant on link rate and line of sight)	Approvals		FCC Part 15.247 IC RSS210
Sensitivity n920F	-108 dBm @ 172 kbps link rate	Order Options		
Output Power	100mW - 1W (20-30dBm)			
Serial Interface	TTL		MHS113000 MHS113020 MHS113040	n920S - Slow n920F - Fast n920T - Turbo
Serial Baud Rate	- Up to 230.4 kbps asynchronous - Up to 3.2 Mbps synchronous			
Link Rate	Up to 1.2Mbps (higher rates available, contact Microhard for details)	Export		128-bit AES Encryption NOT AVAILABLE for export outside of Canada and USA.
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer		MHS113010 MHS113030 MHS113050	n920S-EXP n920F-EXP n920T-EXP
Signals Interface	RxD1, Tx D1, RTS, CTS DCD, DSR, DTR, RxD2, Tx D2, RSSI LEDs, Tx/Rx LEDs, Reset, Config, Wake-up, RSmode			
Diagnostic Port	RS232: Rx D, Tx D	-C1D2		Class 1 Div 2 (for use in hazard-ous environments)
Diagnostics	Battery Voltage, Temperature, RSSI, Real-time event logging and remote diagnostics			
Rejection	Quad Filter Stage provides excellent strong signal interference & rejection characteristics			
Core Voltage	3.3VDC Nominal (+/- 0.3V)			

Contact Information

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Microhard Systems Inc.
#17, 2135 - 32nd Avenue N.E.
Calgary, AB, Canada T2E 6Z3

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



www.microhardcorp.com