

## Miniature OEM 900 MHz Wireless Modem

For size conscious consumers, consider the powerful and robust Nano Series n920X2, with its small footprint and design flexibility, it can be integrated into any application. Operating in the 902 - 928 MHz ISM Band, the Nano Series n920X2 offers the reliability, features, and performance of our larger modems, yet can fit almost anywhere!

19.2 to 345 kbps

Up to 1 Watt

Low Latency

Extended Temperature

Diagnostics Port

RS232/485/422 Port

Weights only 15 grams!



2" X 1.25" X 0.25"

## Features

- Supports up to 345 kbps Wireless Link Rate
- Supports Point-to-Point, Point-to-Multipoint, Store and Forward Repeater, TDMA
- Quad Filter Stage provides Extreme Noise & Interference Rejection
- Supports Point-to-Point & Point-to-Multipoint Topologies
- Maximum allowable transit power (up to 1W—Adjustable)
- 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
- Wide temperature specification (-40°C to +85°C)

## Interface Options

### Enclosed Solution



### Motherboard Solution

# n920X2

# Specifications

<b>Frequency</b>	902 - 928 MHz	<b>Power Consumption*</b> (OEM: 3.3V +/- 0.3V)	AT Command: 80 mA Rx: 102mA Master Tx: 200mA Continuous Tx: 1.8 A
<b>Spreading Method</b>	Frequency Hopping / DTS		
<b>Band Segments</b>	Selectable via Freq Restriction	* power consumption values +/- 10%	
<b>Forward Error Detection</b>	Hamming BCH Golay Reed-Solomon	<b>Connectors:</b>	<b>OEM</b> Antenna Data MMCX 60 Pin OEM Header  <b>Enclosed</b> Antenna Data RP-SMA Female Bulkhead Female DB9 x2
<b>Error Detection</b>	32 bits of CRC, ARQ		
<b>Encryption</b>	Optional (see -AES option)	<b>Environmental</b>	-40°C - +85°C (All units are fully tested over the entire temperature Range)
<b>Range</b>	60+ miles (100+ km)	<b>Weight</b>	<b>OEM</b> Approx. 15 grams <b>Enclosed</b> Approx. 210 grams
<b>Sensitivity</b>	-108 dBm @ 10 <sup>-6</sup>		
<b>Output Power</b>	100mW - 1W (20-30dBm)	<b>Dimensions</b>	<b>OEM</b> Approx. 1.25" x 2.0" x .25" (32mm x 51mm x 6.35mm) <b>Enclosed</b> Approx. 2.25" x 3.85" x 1.50" (57mm x 98mm x 38mm)
<b>Serial Interface</b>	TTL		
<b>Serial Baud Rate</b>	300 bps to 230.4 kbps	<b>Approvals</b>	FCC Industry Canada
<b>Link Rate</b>	19.2 kbps - 345 kbps (selectable)	<b>Order Options</b>	
<b>Operating Modes</b>	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer	<b>MHS113150</b>	n920X2-OEM
<b>Signals Interface</b>	RxD1, TxD1, RTS, CTS DCD, DSR, DTR, RxD2, TxD2, RSSI LEDs, Tx/Rx LEDs, Re-set, Config, Wake-up, RSmode	<b>MHS113160</b>	n920X2-ENC
<b>Input IP3 (Antenna Connector)</b>	+12 dBm	<b>-AES</b>	128-bit AES Encryption (requires permit for export outside of Canada and USA.)
<b>RF Selectivity</b>		<b>-AES256</b>	256-bit AES Encryption (requires permit for export outside of Canada and USA.)
<b>Adjacent Channel</b>	60 dB		
<b>Alternate Channel</b>	75 dB		
<b>Out of Band</b>	>90 dB		
<b>Remote Diagnostics</b>	Battery Voltage, Temperature, RSSI, Packet Statistics		
<b>Core Voltage</b>	OEM 3.3VDC Nominal (+/- 0.3V) Enclosed 7-30VDC		

## Contact Information

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