

## Miniature OEM 900 MHz Wireless Modem

For size conscious consumers, consider the powerful and robust Nano Series n920BD, 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 n920BD offers the reliability, features, and performance of our larger modems, yet can fit almost anywhere!

19.2 to 230 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 230kbps 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

# n920BD

# Specifications

<b>Frequency</b>	902 - 928 MHz	<b>Power Consumption (OEM: 3.3V +/- 0.3V)</b>	Rx: 90mA to 140mA
<b>Spreading Method</b>	Frequency Hopping / DTS		Idle: 20mA
<b>Band Segments</b>	Selectable via Freq Restriction	<b>Connectors:</b>	Tx: 1000mA to 1300mA
<b>Forward Error Detection</b>	Hamming BCH Golay Reed-Solomon		<b>OEM</b> Antenna MMCX Data 60 Pin OEM Header
<b>Error Detection</b>	32 bits of CRC, ARQ	<b>Enclosed</b> Antenna RP-SMA Female Bulkhead Data Female DB9 x2	
<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>Sensitivity</b>	-108 dBm @ 10 <sup>-6</sup>	<b>OEM</b>	Approx. 15 grams
<b>Output Power</b>	100mW - 1W (20-30dBm)	<b>Enclosed</b>	Approx. 210 grams
<b>Serial Interface</b>	TTL	<b>Dimensions</b>	
<b>Serial Baud Rate</b>	300 bps to 230.4 kbps	<b>OEM</b>	Approx. 1.25" x 2.0" x .25" (32mm x 51mm x 6.35mm)
<b>Link Rate</b>	19.2 kbps - 230kbps (selectable)	<b>Enclosed</b>	Approx. 2.25" x 3.85" x 1.50" (57mm x 98mm x 38mm)
<b>Operating Modes</b>	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer	<b>Approvals</b>	FCC Part 15.247 IC RSS210 RoHS Compliant
<b>Signals Interface</b>	RxD1, TxD1, RTS, CTS DCD, DSR, DTR, RxD2, TxD2, RSSI LEDs, Tx/Rx LEDs, Reset, Config, Wake-up, RSmode	<b>Order Options</b>	
<b>Input IP3 (Antenna Connector)</b>	+12 dBm	<b>Models</b>	n920BD (19.2kbps - 230 kbps)
<b>RF Selectivity</b>		<b>-AES</b>	128-bit AES Encryption (requires permit for export outside of Canada and USA.)
<b>Adjacent Channel</b>	60 dB	<b>-AES256</b>	256-bit AES Encryption (requires permit for export outside of Canada and USA.)
<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

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

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

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