

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

Frequency	902 - 928 MHz	Power Consumption (OEM: 3.3V +/- 0.3V)	Rx: 90mA to 140mA
Spreading Method	Frequency Hopping / DTS		Idle: 20mA
Band Segments	Selectable via Freq Restriction	Connectors:	Tx: 1000mA to 1300mA
Forward Error Detection	Hamming BCH Golay Reed-Solomon		OEM Antenna MMCX Data 60 Pin OEM Header
Error Detection	32 bits of CRC, ARQ	Enclosed Antenna RP-SMA Female Bulkhead Data Female DB9 x2	
Encryption	Optional (see -AES option)	Environmental	-40°C - +85°C (All units are fully tested over the entire temperature Range)
Range	60+ miles (100+ km)	Weight	
Sensitivity	-108 dBm @ 10 ⁻⁶		OEM Approx. 15 grams Enclosed Approx. 210 grams
Output Power	100mW - 1W (20-30dBm)	Dimensions	
Serial Interface	TTL		OEM Approx. 1.25" x 2.0" x .25" (32mm x 51mm x 6.35mm) Enclosed Approx. 2.25" x 3.85" x 1.50" (57mm x 98mm x 38mm)
Serial Baud Rate	300 bps to 230.4 kbps	Approvals	FCC Part 15.247 IC RSS210 RoHS Compliant
Link Rate	19.2 kbps - 230kbps (selectable)		
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer	Order Options	
Signals Interface	RxD1, TxD1, RTS, CTS DCD, DSR, DTR, RxD2, TxD2, RSSI LEDs, Tx/Rx LEDs, Re-set, Config, Wake-up, RSmode	Models	n920BD (19.2kbps - 230 kbps)
Input IP3 (Antenna Connector)	+12 dBm	-AES	128-bit AES Encryption (requires permit for export outside of Canada and USA.)
RF Selectivity Adjacent Channel Alternate Channel Out of Band	60 dB	-AES256	256-bit AES Encryption (requires permit for export outside of Canada and USA.)
	75 dB		
	>90 dB		
Remote Diagnostics	Battery Voltage, Temperature, RSSI, Packet Statistics		
Core Voltage	OEM 3.3VDC Nominal (+/- 0.3V) Enclosed 7-30VDC		

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