

Nano Series - n2420



Miniature 2.4 GHz Wireless Modem

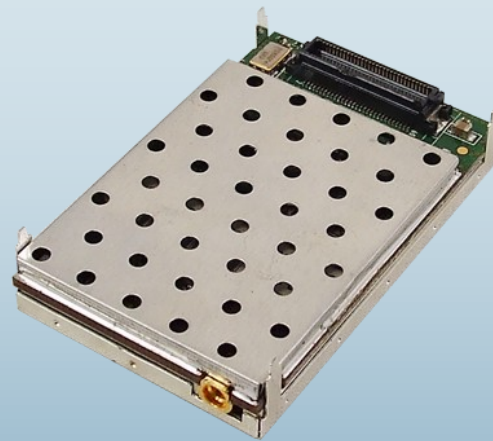
For size conscious consumers, consider the Nano Series with its small footprint and design flexibility. The Nano Series offers the reliability, features, and performance of our larger modems, yet can fit almost anywhere! Fully compatible with MHX series radio modems!

Applications

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

Features an Input IP3 with more linearity than most spectrum analyzers!

Weights only 19 grams!



2" X 1.25" X 0.25"

The Nano Series features robust, high speed, low latency, secure data communications. The n2420 has full serial and diagnostics data capabilities and is 'radio compatible' with 2420 modems! The n2420 offers excellent noise figure, superior interference rejection, agile frequency synthesis, digital modulation, and matched filter detection. The n2420 can support 1.384Mbps and higher!

Features of the n2420

- 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
- MHX2400 and MHX2420 compatible interface card available

Interface Options

Enclosed Solution



Motherboard Solution

n2420

Specifications

Frequency	2.4000 - 2.4835 GHz		Input Voltage	OEM Enclosed	3.3VDC Nominal (+/- 0.3V) 7-30VDC
Spreading Method	Frequency Hopping / DTS		Power Consumption (OEM: 3.3V +/- 0.3V)		Sleep < 1mA Rx: 90mA to 140mA Idle: 20mA Tx: 1000mA to 1300mA
Band Segments	Selectable via Freq Restriction		Connectors:	OEM Antenna Data Enclosed	MMCX 60 Pin OEM Header RP-TNC Female Bulkhead Female DE9 (x2)
Forward Error Detection	Hamming BCH Golay Reed-Solomon		Environmental		Temperature -40°F to +185°F (-40°C to +85°C) Humidity 5-95%, noncondensing
Error Detection	32 bits of CRC, ARQ		Weight	OEM Enclosed	Approx. 19 grams Approx. 220 grams
Encryption	Optional (see -AES option)		Dimensions	OEM Enclosed	Approx. 1.25" x 2.0" x .25" (32mm x 51mm x 6.35mm) Approx. 2.25" x 3.85" x 1.70" (57mm x 98mm x 43mm)
Range	30+ miles (50+ km)		Approvals		FCC Part 15.247 IC RSS210
Sensitivity	n2420T n2420F	-99 dBm @ 10 ⁻⁴ -107 dBm @ 10 ⁻⁶	Order Options		
Output Power	100mW - 1W (20-30dBm)			n2420F n2420T	115 - 230 kbps 1.2 Mbps
Serial Interface	OEM Enclosed	TTL RS232/RS485/RS422	-AES		128-bit AES Encryption (NOT AVAILABLE for export outside of Canada and USA.)
Serial Baud Rate	- Up to 230.4 kbps asynchronous - Up to 3.2 Mbps synchronous		-AES256		256-bit AES Encryption (NOT AVAILABLE for export outside of Canada and USA.)
Link Rate	19.2kbps to 1.3824 Mbps (higher rates available, contact Microhard for details)		-2W		Up to 2 Watts Output Power. (Government, Export Only. Not for commercial / Industrial use) Contact Microhard for details.
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer		-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, Re-set, Config, Wake-up, RSmode				
Input IP3 (Antenna Connector)	+12 dBm				
RF Selectivity	Adjacent Channel	60 dB			
	Alternate Channel	75 dB			
	Out of Band	>90 dB			
Remote Diagnostics	Battery Voltage, Temperature, RSSI, Packet Statistics				

Contact Information

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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