

Nano Series - n3420

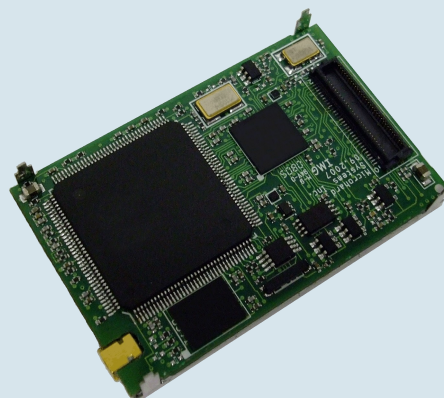


Miniature Wireless Modem

For size conscious consumers, consider the Nano Series with its small footprint and design flexibility. Operating in the 3.3 - 3.5 GHz range, the n3420 offers the reliability, features, and performance of our larger modems, yet can fit almost anywhere!

Applications

- Licensed Band SCADA
- WiMAX Band Operation
- GPS Vehicle Data/Tracking, DGPS
- Unmanned Vehicles / Drones
- Robotics
- Wireless Video, Telemetry
- Research & Development



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 n3420 has full serial and diagnostics data capabilities. The n3420 offers excellent noise figure, superior interference rejection, agile frequency synthesis, digital modulation, and matched filter detection.

Features

- Supports up to 230 kbps Wireless Link Rate
- Customizable to meet different emission bandwidths
- Quad Filter Stage provides Extreme Noise & Interference Rejection
- Supports Point-to-Point, Point-to-Multipoint, Store and Forward Repeater, TDMA
- Adjustable transmit 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
- Wide temperature specification

Interface Options

Enclosed Solution



Motherboard Solution



n3420

Specifications

Frequency	3.3 - 3.5 GHz	Input Voltage	OEM Enclosed	3.3VDC Nominal (+/- 0.3V) 7-30VDC
Channel Bandwidth	50kHz to 400kHz	Connectors:	OEM Antenna Data Enclosed	MMCX
Synthesizer Step	200Hz			60 Pin OEM Header
Spreading Method	Frequency Hopping			RP-TNC Female Bulkhead Female DE9 (x2)
Error Detection	32 bits of CRC, ARQ	Environmental		-40°F - +185°F (-40°C - +85°C) 5-95% humidity, noncondensing
Encryption	Optional (See -AES option)	Weight	OEM Enclosed	Approx. 19 grams Approx. 220 grams
Range	40+ miles (70+ km) (dependant on link rate and line of sight)	Dimensions	OEM Enclosed	Approx. 1.25" x 2.0" x .25" (32mm x 51mm x 6.35mm)
Sensitivity	-108dBm @ 172 kbps			Approx. 2.25" x 3.85" x 1.70" (57mm x 98mm x 43mm)
Output Power	100mW - 1W (20-30dBm) * Higher Output power available (See order options)	Approvals		Pending
Serial Interface	OEM Enclosed TTL RS232/RS485/RS422	Order Options		
Serial Baud Rate	300 bps to 230.4 kbps asynchronous	n3420F	115 - 230 kbps	
Link Rate	115 to 230.4kbps	-AES	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	-AES256	256-bit AES Encryption (NOT AVAILABLE for export outside of Canada and USA.)	
Signals Interface	RxD1, TxD1, RTS, CTS DCD, DSR, DTR, RxD2, TxD2, RSSI LEDs, Tx/Rx LEDs, Re-set, Config, Wake-up, RSMODE	-2W	Up to 2 Watts Output Power. (Military/ Government Only. Not for commercial / Industrial use) Contact Microhard for details.	
Diagnostic Port	RS232: RxD, TxD			
Diagnostics	Battery Voltage, Temperature, RSSI, Real-time event logging and remote diagnostics			
Rejection	Quad Filter Stage provides excellent strong signal interference & rejection characteristics			

Contact Information

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