

Nano Series - n320



Miniature Wireless Modem

For size conscious consumers, consider the Nano Series with its small footprint and design flexibility. Operating in the 310 - 400 MHz range, the n320 offers the reliability, features, and performance of our larger modems, yet can fit almost anywhere! Fully compatible with MHX series radio modems!

Applications

- Wireless Telemetry
- Wireless Control Systems
- Robotics
- Wireless Video
- DGPS
- Research & Development

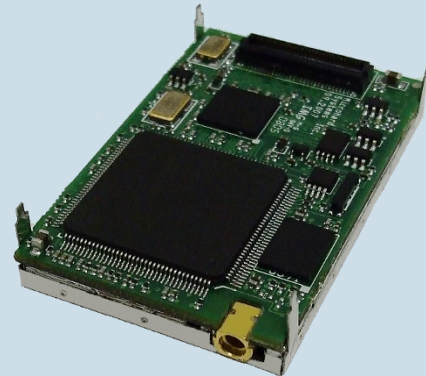
Microhard Systems Inc.'s proprietary radio technology excels in the most demanding RF and physical environments.

The Nano Series features robust, high speed, low latency, secure data communications. The n320 has full serial and diagnostics data capabilities and is 'radio compatible' with MHX320 modems! The n320 offers excellent noise figure, superior interference rejection, agile frequency synthesis, digital modulation, and matched filter detection. The n320 can support 1.2Mbps and higher!

Features of the n320

- Supports up to 1.2Mbps (higher rates available, contact Microhard for details)
- 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 (2W)
- 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

Weights only 19 grams!



2" X 1.25" X 0.25"

Interface Options

Enclosed Solution



Motherboard Solution

Restricted Sale to Military, Government and Export to Qualifying Customers Outside Canada and USA.

Nano Series - n320 Specifications

Frequency	310 - 390 MHz	Input Voltage	OEM Enclosed	3.3VDC Nominal (+/- 0.3V) 7-30VDC
Spreading Method	Frequency Hopping / DTS	Connectors:	OEM Antenna Data Enclosed	MMCX 60 Pin OEM Header RP-TNC Female Bulkhead Female DE9 (x2)
Band Segments	Selectable via Freq Restriction			
Error Detection	32 bits of CRC, ARQ			
Encryption	Optional (See -AES option)	Environmental	Temperature Humidity	-40°F to +185°F (-40°C to +85°C) 5-95%, noncondensing
Range	60+ miles (100+ km) (dependant on link rate and line of sight)	Weight	OEM Enclosed	Approx. 19 grams Approx. 220 grams
Sensitivity	n320F -108 dBm @ 172 kbps link rate	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)
Output Power	100mW - 1W (20-30dBm)			
Serial Interface	OEM Enclosed TTL RS232/485/422	Sale Restriction	Restricted Sale to Military, Government and Export. Export Means Qualifying Customers Outside Canada and USA.	
Serial Baud Rate	- Up to 230.4 kbps asynchronous - Up to 3.2 Mbps synchronous (OEM)	Order Options		
Link Rate	Up to 1.2Mbps (higher rates available, contact Microhard for details)	n320S	- 19.2 kbps link rate	
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer	n320F	- 115, 172, 230 kbps link rate	
		n320T	- Up to 1.2 Mbps link rate	
Signals Interface	RxD1, TxD1, RTS, CTS DCD, DSR, DTR, RxD2, TxD2, RSSI LEDs, Tx/Rx LEDs, Re-set, Config, Wake-up, RSmode	-F1	- 350 - 400 MHz	
Diagnostic Port	RS232: RxD, TxD	-AES	128 bit-AES Encryption	
Diagnostics	Battery Voltage, Temperature, RSSI, Real-time event logging and remote diagnostics	-AES256	256 bit-AES Encryption	
Rejection	Quad Filter Stage provides excellent strong signal interference & rejection characteristics	-2W	Up to 2 Watts Output Power. (Government, Export Only. Not for commercial / Industrial use) Contact Microhard for details.	

Contact Information

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