

Miniature OEM Licensed Narrowband Modem

The Nano L Series is a long range, licensed, narrowband wireless modem which is configured to operate in the 400-480 MHz frequency range. The small size of the nL400 make it ideal to integrate into applications where space is at a premium.

Applications

- SCADA (PLCs, MODBUS), Telemetry
- Commercial Communications
- GPS Vehicle Data/Tracking, DGPS
- Electric, Oil & Gas Sensors/Detection
- Robotics
- Display Signs
- Transparent Low Latency Communication

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



The Nano L Series features robust, low latency, secure data communications. The Nano L Series has full serial and separate diagnostics port for real-time diagnostics without interrupting data communications. The nL400 offers excellent noise figure and superior interference rejection.

Features of the nL Series

- User-selectable frequency from within wide operating band
- Communicates with virtually all PLCs, RTUs, and serial devices
- Industrial Grade - robust 19.2kbps wireless link rate
- Supports Point-to-Point, Point-to-Multipoint, Peer-to-Peer, Store and Forward Repeater, TDMA
- Programmable transmit power: 100mW - 2W
- Programmable bandwidth: 6.25, 12.5, or 25kHz
- 32 bits of CRC, selectable Forward Error Correction with retransmission
- Separate diagnostics port - transparent remote diagnostics and online network control
- RoHS Compliant

nL400

Specifications



Frequency	406.1 - 480 MHz* * Band use may be limited by country or operating zone/regulatory body	Core Voltage	3.3VDC Nominal (+/- 0.3V)
Occupied Bandwidth	6.25, 12.5, or 25kHz	Connectors: Antenna Data	MMCX 60 Pin OEM Header
Modulation Type	GMSK	Environmental	-40°F - +185°F (-40°C - +85°C) 5-95% humidity, noncondensing
Error Detection	32 bits of CRC, ARQ	Weight	Approx. 0.7oz. (19 grams)
Encryption	Optional (see -AES option)	Dimensions	Approx. 1.25" x 2.0" x .25" (32mm x 51mm x 6.35mm)
Range	60+ miles (100+ km) (dependant on link rate and line of sight)	Approvals	FCC Part 90 IC RSS119 CE
Sensitivity	-115dBm @ 2400bps link rate -114dBm @ 4800bps link rate -110dBm @ 9600bps link rate	Order Options	
Output Power	100mW - 2W	-C1D2	Class 1 Div 2 (for use in hazardous environments)
Serial Interface	RS232/RS485/RS422 TTL Driver Level (see -HV option)	-AES	128 BIT AES Encryption (Canada & USA only. NOT AVAILABLE for export)
Signals Interface	RxD1, TxD1, RTS, CTS, DCD, DSR, DTR, RxD2, TxD2, RSSI LEDs, Tx/Rx LEDs, Reset, Config, Wake-up, RSmode		
Serial Baud Rate	300bps to 230.4kbps		
Link Rate	19.2 kbps		
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer, TDMA		
Diagnostics	Battery Voltage, Temperature, RSSI, and remote diagnostics		
Rejection	Excellent strong signal interference & rejection characteristics		

Contact Information

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