nL100

Miniature OEM Licensed Narrowband Modem

The Nano nL100 Series is a licensed, narrowband wireless modem which is configured to operate in the 145-185 MHz frequency range. The small size of the nL100 make it ideal to integrate into Leaky Feeder applications in underground mining operations.
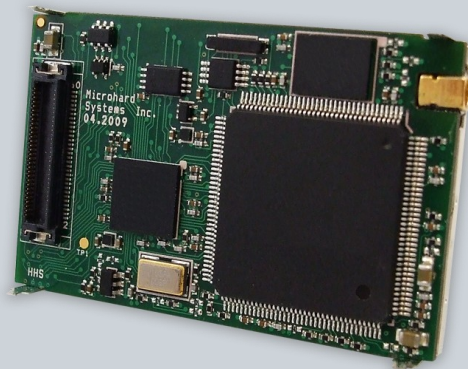
Up to 19.2 kbps

145 - 185 MHz

Leaky Feeder Operation

12.5 | 25 KHz Band

Extended Temperature

Features

➢ User-selectable frequency from within wide operating band

➢ Communicates with virtually all PLC's, RTUs, and other serial devices

➢ Industrial Grade - Robust 19.2 kbps wireless link rate

➢ Supports Point-to-Point, Point-to-Multipoint, Peer-to-Peer, Store & Forward Repeater, TDMA

➢ Programmable transmit power: 100mW - 1W

➢ Programmable bandwidth: 12.5kHz or 25 kHz

➢ 32 bits of CRC, selectable Forward Error Correction with retransmission

➢ Separate diagnostics port - transparent remote diagnostics and online network control

➢ RoHS Compliant

Specifications

Frequency	145 - 185 MHz	**Core Voltage**	3.3VDC Nominal (+/- 0.3V)
Channel Bandwidth	12.5 KHz | 25 kHz (selectable)	**Connectors:** Antenna Data	MMCX 60 Pin OEM Header
Modulation Type	GMSK	**Environmental**	-40°F - +185°F (-40°C - +85°C) 5-95% humidity, non-condensing (All units are fully tested over the entire temperature Range)
Error Detection	32 bits of CRC, ARQ		
Encryption	Optional (see –AES option)	**Weight**	Approx. 19 grams
Range	60+ miles (100+ km) (dependant on link rate and line of sight)	**Dimensions**	Approx. 1.25" x 2.0" x .25" (32mm x 51mm x 6.35mm)
Sensitivity	-115dBm @ 2400bps link rate -114dBm @ 4800bps link rate -110dBm @ 9600bps link rate		

Order Options

Output Power	100mW - 1W	**-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 (Requires Export Permit Outside Canada & USA only)
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	Up to 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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