

making RF the strongest link

NL6000 Wireless Modem

TELEMETRY APPLICATIONS

- Data Terminals
- Water Management
- Remote Data Loggers
- Oil & Gas Monitoring
- Irrigation Control Security Systems

MOBILE APPLICATIONS

- Database Access
- Computer Aided Dispatch
- Vehicle Tracking
- Asset Tracking
- Fleet Management

FEATURES

- Modem and Transceiver
- Synthesized VHF and UHF
- Narrow Band or Wideband
- Complete Programmable Features
- Compact Size
- 3.0" L x 2.6" W x 1.6" H
- CRC and Forward Error Correction
- Separate Telemetry and Mobile Media Access Control layers
- Powerful DSP - 288 MIPS
- Superior Radio Performance
- USB & Serial Port

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PRODUCT OVERVIEW

The RF NEULINK NL6000 Wireless Data Modem sets new standards for the wireless telemetry and mobile data industry. The modem and VHF or UHF transceiver are enclosed in one package. NL6000 radio channel data rates exceed typical Land Mobile Radio (LMR) frequency standards while maintaining radio channel reliability.

The NL6000 is capable of half and full channel spacing operation, this permits installation in systems where rearming compliant narrow band frequencies have been assigned.

Due to several advanced signal processing techniques which correct for limitations of typical land mobile radios at high data rates, the NL6000 exhibits outstanding radio channel performance.

The NL6000 is ideal for any system where high performance RF specifications, high LMR data rates, and compact size are a requirement.

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FREQUENCY RANGES

136-162 MHz VHF
 148-174 MHz VHF
 216-235 MHz VHF
 400-420 MHz UHF
 450-470 MHz UHF

- Configurable as Data Repeater
- Configurable Via Serial Data Port or USB
- High Performance DSP TMS320VC5509 - 288 MIPS



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TECHNICAL SPECIFICATIONS

General	VHF	UHF
Frequency Range	136-174 MHz	400-470 MHz
Channel Spacing	12.5 or 25 kHz	12.5 or 25 kHz
Channel Increment	2.5 kHz	5/6.25 kHz
Operating Temperature	-30° to +60° C	-30° to +60° C
Frequency Stability (-30°to+60°C)	1.5 PPM	1.5 PPM
12.5 kHz Channel Data Rate	12 kbps	12 kbps
25 kHz Channel Data Rate	22 kbps	22 kbps

User Interface

Data Rate of RS-232 Serial Port 300 – 57,600 baud configurable
 Connectors USB and 9 pin D type as DCE
 Addressing Selective ID, Group & Broadcast

Supply Voltage

Input Voltage Range 11 – 16 VDC with internal regulator
 NL6000 Max Current Drain ≤2.5 A ≤2.5 A

Transmitter

	VHF	UHF
Operating Bandwidth	26 MHz	20 MHz
RF Output Power	1-6 watts	1-6 Watts
Duty Cycle	5 to 100% depending on power and temperature	
RF Load Impedance	50 ohms	50 Ohms
Transmitter Attack Time	≤15 ms	≤15 ms
Spurious & Harmonics	≤-20 dbm	≤-20 dbm
FM Hum & Noise		
12.5 kHz channel operation	≥40 db	≥40 db
25 kHz channel operation	≥45 db	≥45 db
Current Drain		
1 watt	≤1.0 A	≤1.0 A
6 watt	≤2.4 A	≤2.4 A

Receiver

Operating Bandwidth	26 MHz	20 MHz
Sensitivity		
(12 db SINAD w de-emphasis)	≤0.28 uV	≤0.28 uV
Adjacent Channel Selectivity		
+/- 12.5 w/narrow IF	≥60 db	≥60 db
+/- 25 w/wide IF	≥70 db	≥70 db
Spurious & Image Rejection	≥70 db	≥70 db
Intermodulation Rejection	≥70 db	≥70 db
FM Hum & Noise		
12.5 kHz channel operation	≥40 db	≥40 db
25 kHz channel operation	≥45 db	≥45 db
Conducted Spurious	≤-57 dbm	≤-57 dbm
Receive Attack Time	≤15 ms	≤15 ms
RSSI Squelch Attack Time	≤15 ms	≤15 ms
Receive Current Drain	≤80 mA	≤75 mA

RF Neulink reserves the right to change specifications of this product at any time without notice and without obligation to notify any person of such changes.



WHO IS RF NEULINK?

RF Neulink has been manufacturing radio link equipment for over 25 years. Our line of transmitter and receiver units for point-to-point communications, paging exciters, radio data and control products reflect our experience in this marketplace.

Our publicly held parent company, RF Industries (NASDAQ symbol RFIL), provides a well capitalized base for continued future growth and product development. RF Neulink's customers include Fortune 500 companies, municipalities, government agencies, educational and health institutions, utilities, small companies, casinos, irrigation companies, armed forces here and abroad, and many others that need or want reliable, state-of-the-art, cost-effective communications links.