

# NL6000

## 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
- RS232 Serial Port

## 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 AND WITH ERROR CORRECTION

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# VHF/UHF Wireless Modem



## 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 that 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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Division of RF Industries

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Telemetry



Oil and Gas Monitoring



Irrigation Control



Public Safety

## TECHNICAL SPECIFICATIONS – NL6000

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
Humidity.....	90% at 40° C non-condensing	
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.....	1200 – 38,400 bps 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

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

\*6.25 KHz available in 220 MHz only

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.

For outside operation of radio modem products, a NEMA 4 enclosure is recommended.

## ORDERING INFO

Contact RF Neulink for details  
Call toll-free (800) 233-1728 or  
email: [rfneulink@rfindustries.com](mailto:rfneulink@rfindustries.com)

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## WHO IS RF NEULINK?



RF Neulink has been manufacturing radio link equipment for 30 years. Our line of transmitter and receiver units for point-to-point communications, paging excitors, 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.