

making **RF** the strongest link

NL5500

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 1.4" H
- Powerful DSP - 288 MIPS
- Superior Radio Performance
- Serial Port – RS232
- CRC (For FEC use NL6000)

FREQUENCY RANGES

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

HIGH PERFORMANCE DSP
TMS320VC5509 - 288 MIPS

Wireless Modem

Cost-Effective VHF/UHF Performance



PRODUCT OVERVIEW

The NL5500 Transceiver Series is a price/performance leader in licensed conventional radios in both the VHF and UHF frequency range. The capability for transparent and direct asynchronous communication offers real-time communication. The NL5500 is fully compatible with RF Neulink's NL6000. It will communicate and coexist with NL6000s, while providing excellent throughput and long range for multiple address systems. The NL5500 Transceiver Series is field configurable as a master station or remote radio. These units can operate as a half-duplex or simplex radios. The simplex mode facilitates peer-to-peer radio communications while using a carrier sense (CSMA) channel collision avoidance technique.

The NL5500 is ideal for any system where cost-effective performance, reliable data rates, and compact size are a requirement.

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Division of RF Industries

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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 |
| Operating Humidity..... | 90% at 40° C non-condensing..... | 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..... | 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 |

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 |

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

To contact RF Neulink's Sales Team for details, call toll-free 1-800-233-1728 or email rwhite@rfneulink.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.