Nestlawn

enabling intelligent solutions

NL221 4GX
Cellular Router

www.nestlawn.com

4G/4GX LTE Category 1 Industrial IoT Router Robust, highly secure router with enhanced remote management and software development capabilities enabling bespoke applications. Telstra 4GX (band 28) provides enhanced coverage.

Designs and updates can be rapidly downloaded. The locations and status of all machines can be quickly ascertained.

The device can be set to power up whenever the earth moving equipment is started. Connection to a pre set computer is automatic. NL221 can be configured to integrate into a range of OEM remote support systems.

All machines can receive GPS corrections from a CORS network.

Hard wearing and shock resistant 4GX cellular modem, suitable for use in less hostile environments with the full functionality of application upgrades such as an inbuilt NTRIP client / server.

Applications:

- Remote connectivity to earthmoving equipment
- Transmission of GPS corrections
- Monitoring equipment
- Collection and analysis of data
- Connection to proprietary networks
- Server controlled modem application update support
- Inbuilt NTRIP to serial converter

NL221 4GX Technical Specifications

Frequency Bands

LTE FDD (4G) Bands:

- Band 1 (2100 MHz) Telstra 4G
- Band 3 (1800 MHz) Telstra 4G
- Band 5 (850 MHz)
- Band 8 (900 MHz) Telstra 4G
- Band 2 (1900 MHz)
- Band 4 (1700 MHz)
- Band 7 (2600 MHz) Telstra 4G
- Band 28 (700 MHz) Telstra 4GX

LTE TDD Bands:

- Band 40 (2300 MHz)

WCDMA (3G) Bands:

- Band 1 (2100 MHz) Telstra 3G
- Band 2 (1900 MHz)
- Band 5 (850 MHz) Telstra 3G
- Band 8 (900 MHz)

GSM (2G) Bands:

- Band 2 (1900 MHz)
- Band 5 (850 MHz)
- Band 3 (1800 MHz)
- Band 8 (900 MHz)

Dimensions

- 143 mm (L) x 107 mm (W) x 34 mm (D)
- Weight: 221 g

Enclosure

- IP41 rated

Power

- DC Power (8 - 40V DC)
- Consumption 6W
- Vehicle compatible protection on DC Input Jack

Antenna Connectors

- 2 x SMA connectors for 4G/3G/2G (1 x Main and 1 x RX Diversity)
- 1 x SMA connector for active GPS antennae

Interfaces

- 1 x 100Base-T Ethernet RJ45 port
- 1 x RS232 Serial Port DB-9 female DCE supporting either 9 wire RS232 or RS485/RS422 (software selectable)
- 1 x Micro USB 2.0 OTG interface with 0.5A supply capability
- 1 x Recessed multifunctional reset button

LED Indicators

- 8 x tri-colour LEDs - Power, Network, a GPS/customizable LED and 5x Signal Strength indicators
- Easy and clear LED status display for connection status, connected network type, and connection error

Network and Routing

- Static Routing, RIP (v1/v2), Port Forwarding and DMZ
- DHCP Server including address reservation by MAC address
- Custom DNS server definitions

Sim Card Reader

- 1 x SIM card slot SIM Format (2FF)

Processor and Storage

- 1 GHz ARM Cortex A8 processor with 256 MB RAM and 512 MB flash memory storage

GPS Indicators

- GPS
- Glonass
- BeiDou
- Galileo
- QZSS

Administration and Configuration

- Secure web-based user interface (HTTPS) for full device status and configuration
- Password protected configuration file backup and restore for quick device configuration and device cloning
- SSH Command Line Interface for status monitoring, configuration and control
- Ping monitor watchdog (Reset connection on repeated ping failure)
- Diagnostic Log Viewer (remote and local)
- System Status and Security Logs
- NTP Server Support for network time sync of device's system clock
- Supplied with full VPM software for connection to support networks
- GPS Poller 1
- GPS Location, Sim ID Signal Strength
- GPS Poller 2
- GPS firmware serial number board version PC MAC address
- Remote upgrade via central server
- Preconfigured with test certificate
- Dual VPN support
- MCX1 Detector
- Onboard NTRIP server
- Onboard NTRIP client

Firmware Management

- Secure web-based user interface (HTTPS) for full device Firmware Upgrade locally via LAN or remotely
- Automated configuration updates via the Nestlawn Modem Manager
- Multiple firmware image storage on device and dynamic install