

# NWL-25-02

## 4G LTE Light Industrial M2M Router



### Device Features *At a glance*

- 1 SIM card slot (for USIM/SIM 2FF format)
- 2 SIM tray eject button
- 3 6-way Terminal block connector (power, ignition input and 3 x I/O ports)
- 4 Reset button
- 5 Fast Ethernet LAN port
- 6 Cellular antenna connectors
- 7 Micro USB 2.0 OTG port
- 8 Serial port

### What's in the box

### Quick Facts

- Rugged enclosure, multiple wall mount options and a wide range of input power options making it ideal for use in harsh environments
- Powerful cellular connectivity supporting 4G LTE
- A serial port software selectable to support either 9 wire RS232 or RS485/RS422
- 3 x multipurpose I/O pins to connect to external sensors or relays
- A Fast Ethernet (100Mbps) port to connect to a local device or network
- USB-OTG for additional interfaces or extra storage
- Ignition sense capability for graceful shutdown and startup in vehicle applications
- Configurable power save mode with minimum current draw when in sleep mode
- Supports PPPoE, RIP, VRRP, DDNS, MAC/NET address filtering and DHCP/DHCP relay
- VPN support for establishing a secure connection over public cellular networks using: OpenVPN, PPTP, IPSec or GRE Tunnelling
- Powerful processor and spare storage capacity ideal for applications requiring edge processing



1 x NetComm Wireless 4G LTE Light Industrial M2M Router (NWL-25-02)



1 x Quick start guide



2 x 4G LTE Cellular antennas



1 x DIN rail mounting bracket



1 x 6 way termination block



1 x 1.5m yellow Ethernet cable



# Technical Specifications

## PROCESSOR & STORAGE

- Powerful 450MHz ARM9 processor with 128MB DDR2 RAM
- 256MB Flash memory storage (~120MB available on board space for user storage)

## OPERATING SYSTEM

- Embedded Linux 3.6

## PEAK DATA SPEED

- LTE Category 4

## CELLULAR BANDS

- Multi-band FDD capable
- LTE:
  - Band 4 (AWS) (1700 / 2100 MHz)
  - Band 13 (700 MHz)

## CONNECTIVITY

- 1x (RJ-45) 10/100Base-TX Port with Auto MDIX
- 1x RS232 Serial Port DB-9 female DCE supporting either 9 wire RS232 or RS485/RS422 (software selectable)
- Software controlled termination resistors for RS485
- Micro USB 2.0 OTG interface with 0.5A supply capability
- 3 x Multipurpose I/O pins

## I/O PINS

- NAMUR (EN 60947-5-6 / IEC 60947-5-6) compatible sensor input
- Analogue 0V to 30V input
- Digital input (through measurement of voltage above/below threshold)
- Open collector output

## SIM CARD READER

- Lockable Tray Reader with Push-Button-to-Release
- Supports Mini USIM/SIM Format (2FF)

## RESET BUTTON

- Reset button (recessed, requiring pen/paperclip) with three functions: Reboot, reboot into recovery mode, and reset unit to factory defaults

## ANTENNA CONNECTORS

- 2 x LTE SMA connectors (MIMO)

## LED INDICATORS

- 7x tri-colour LEDs. Power, Network and 5x Signal Strength indicators
- Easy and clear LED status display for connection status, connected network type, and connection errors

## CELLULAR

- Profile managed packet data connections
- NAT Disable for framed route configuration
- Transparent bridge mode using PPPoE to allow the router to transparently forward Public WAN IP address to a downstream device
- SIM Security Management (PIN configuration, enable and disable)
- Automatic cellular band selection
- Automatic operator selection

## NETWORK & ROUTING

- Static Routing, RIP (v1/v2), Port Forwarding and DMZ
- Dynamic DNS
- VRRP for redundant router failover
- DHCP Server, including:
  - Address reservation by MAC address
  - Custom DNS server definitions
  - DHCP Relay
  - DHCP list display in Web-UI
  - Advanced DHCP Option configuration (Option 42 NTP, Option 66 TFTP, Option 150, Option 160)VPN
- Data Stream Manager providing ability to create mappings between input and output ports (e.g. Serial Port, USB) and perform required translation or data processing by each virtual tunnel

- Modbus Server TCP/IP Gateway and Client TCP/IP Agent with up to 247 slaves connected to the Serial TCP/IP Gateway.
- Modbus RTU/ASCII frames support.

## VPN

- Verizon Wireless Private Network Certified
- PPTP Client for VPN connectivity to remote PPTP VPN Server
- IPSec tunnel termination (for up to 5 tunnels)
- GRE Tunneling
- OpenVPN (Client, Server and P2P)

## ADMIN & CONFIGURATION

- Web-based User Interface (HTTP/HTTPS) for full device status and configuration
- Password protected configuration file backup and restore for quick device configuration and device cloning
- Telnet/SSH Command Line Interface for status monitoring, configuration and control
- SNMP v1/v2 including cellular specific MIB, config and firmware download
- TR-069 Client for remote device configuration, configuration backup and restore, and firmware upgrade
- 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
- Device User Guide stored on the device and accessible via the Web-based User Interface (HTTP/HTTPS)

## FIRMWARE MANAGEMENT

- Firmware Upgrade locally via LAN or remotely Over-The-Air (HTTP/HTTPS, SNMP, TR-069, LWM2M)
- Multiple firmware image storage on device and dynamic install

## SOFTWARE DEVELOPMENT KIT

- Develop and install custom software applications
- Open Linux standard development environment
- Develop applications/scripting in standard ANSI C/Shell script and LUA
- Package manager built into Web-UI for Application installation/removal
- API (C, LUA and Shell libraries) to the unit's internal Runtime Database to allow full status monitoring configuration and control of the device from custom applications

## TEMPERATURE

- Operating Temperature Range:
  - -30°C ~ +70°C
- Storage Temperature Range: -40°C ~ +85°C

## POWER SUPPLY

- Power input and I/O's via 6 way termination block receptacle
- Field terminable power input via screw type terminal block included
- DC Power (8 - 40V DC)
- 1x Dedicated ignition input on 6 way connector
- Power consumption 6W, recommended DC supply via terminal block (12V 1.5A)
- Vehicle compatible protection on DC Input Jack. (ISO7637 standard)

## DIMENSIONS & WEIGHT

- Device dimensions (excluding external antenna): 140mm (L) x 103mm (W) x 30mm (D) / 193g

## MOUNTING OPTIONS

- Wall mount support in multiple orientations via embedded mounting holes
- DIN Rail mount support via plastic bracket included in box (Top hat section rail TH 35 IEC60715)

## CERTIFICATIONS

- FCC
- Verizon Wireless Network Approval
- Verizon Wireless Private Network Certified

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