The NetComm 4G LTE Cat 6 Industrial IoT Router with Dual Band WiFi (NTC-400) creates high speed and reliable data connectivity where fixed line connections are either unavailable or not suitable for the application. The NTC-400 creates high speed dual band WiFi hotspots in public transport, streams HD video from multiple surveillance cameras simultaneously, tracks vehicles using GPS, and supports countless other bandwidth-intensive IIoT applications in real time.

**KEY BENEFITS**

**IMPROVED CONNECTIVITY**
The NTC-400 supports 4G LTE Cat 6 to deliver the highest speed possible. External antennas with high gain reception make the device ideal for installation at the fringe of the network. The high-speed dual band WiFi and integrated hotspot functionality allow the NTC-400 to provide public Internet access when necessary.

**CONFIGURABLE POWER MANAGEMENT SCHEME**
Ignition sensing interface and timer-based activation are ideal for vehicular and power constrained environments, allowing the NTC-400 to wake up only when needed, complete the required process and return to low power sleep mode.

**REMOTE MANAGEMENT**
Supporting industry leading protocols, the NTC-400 is easy to integrate into the existing remote management platform. A built-in event notification, remote configuration and troubleshooting via SMS makes it faster and easier to manage a large fleet of devices.

**ENHANCED RELIABILITY**
To endure harsh industrial and automotive environments, the NTC-400 features a robust enclosure made from steel and extruded aluminium. Electrical components have been carefully selected to allow the device to operate at extreme temperatures for many years without fail.

**APPLIED BENEFITS**
- Surveillance cameras
- WiFi in a bus
- Smart fleet tracking
- Digital signs
- Network fringe installation
- Business continuity for point of sales systems
- Temporary offices

**KEY FEATURES**
- Cat 6 4G LTE (300 Mbps) and dual band Wi-Fi for high speed applications
- Dual SIM functionality for network redundancy
- Three Gigabit Ethernet ports, a serial port, and a USB port for network flexibility
- Integrated GPS compatible with all global systems for reliable tracking applications
- I/O ports to read sensors or remotely control equipment such as lights, fans or pumps
- Rugged industrial design with a metal housing and a wide temperature rating for harsh environments
- Ignition sense capability and a wide input voltage range for vehicular application

www.netcommwireless.com
Device Features
NTC-400 Series

WHAT’S IN THE BOX

1 x NetComm Wireless NTC-400 Series Router
2 x Wall mounting brackets
2 x Wi-Fi antennas
4 x Wall mounting bracket screws
2 x Cellular antennas
1 x Quick start guide
1 x 8-way terminal connector

OPTIONAL ACCESSORIES

GPS Active Patch Antenna

ANT-0038
SPECIFICATIONS
- Frequency range: 1575.42 MHz
- Gain: 28 dBi (GPS)
- VSWR: 1.92:1 MAX
- Polarization: R.H.C.P.
- Cable: RG174
- Cable length: 3 m
- Impedance: 50 Ω
- Voltage: 3.3-5.5 V
- Connector: SMA male
- Radome colour: Black
- Radome material: ABS

12V DC Power Supply

PSU-0060
SPECIFICATIONS
- International Efficiency Level VI Power supply
- No-Load Power Consumption: 0.1 W (115 VAC 60 Hz)
- Average Efficiency in Active Mode: 85% (115VAC 60Hz)
- Maximum input voltage range: 90 - 264 V AC (100 - 240 V AC Normal)
- Maximum input frequency range: 47 - 63 Hz (50/60 Hz Normal)
- Output voltage range: 11.4 - 12.6 V DC (Typical 12 V DC)
- Maximum output current: 1.5 A
- Maximum ripple and noise: 150 mV peak to peak
- Maximum output overshoot: 10%
- Protection against Over-Voltage, Over-Current and Short-Circuit
- Temperature range: 0°C - 40°C (Operating), -30°C - 70°C (Storage)
- Relative humidity range: 10% - 90%
- Altitude range: Sea level to 2,000 m
- Suitable regions: US/UK/EU/SA/TW/CH/JP
- Safety certifications: UL60950-1, CSA C22.2 NO.60950-1, EN60950-1, AS/NZS 60950, GB4943, J60950, IEC 60950-1
- Lead length: 1.5 m
## Technical Specifications
### NTC-400 Series

### Cellular Bands
- **LTE Bands:**
  - Band 1 (2100 MHz)
  - Band 3 (1800 MHz)
  - Band 5 (850 MHz)
  - Band 7 (2600 MHz)
  - Band 8 (900 MHz)
  - Band 18 (850 MHz)
  - Band 19 (850 MHz)
  - Band 21 (1500 MHz)
  - Band 28 (700 MHz)
  - Band 38 (2600 MHz)
  - Band 39 (1900 MHz)
  - Band 40 (2300 MHz)
  - Band 41 (2500 MHz)
- **WCDMA Bands:**
  - Band 1 (2100 MHz)
  - Band 5 (850 MHz)
  - Band 6 (800 MHz)
  - Band 8 (900 MHz)
  - Band 9 (1700 MHz)
  - Band 19 (800 MHz)
- **TD-SCDMA Bands:**
  - Band 39 (1900 MHz)

### Carrier Aggregation Combinations
- Band 1 + 8/18/19/21
- Band 3 + 5/7/19/28
- Band 5 + 3/7
- Band 7 + 3/5/7/28
- Band 8 + 1
- Band 18 + 1
- Band 19 + 1/3/21
- Band 21 + 1/19
- Band 28 + 3/7
- Band 38 + 38
- Band 39 + 39
- Band 40 + 40
- Band 41 + 41

### Peak Data Speed
- 300 Mbps downlink
- 50 Mbps uplink
- LTE Category 6

### Antenna Connectors
- 2 x SMA connectors for 3G/4G antennas
- 1 x SMA connector for active GPS antenna
- 2 x Reverse SMA connectors for Wi-Fi antennas

### Antennas
- 2 x Dual band Wi-Fi antennas
  - 3 dBi gain @ 2.4 GHz
  - 5 dBi gain @ 5 GHz

### Interfaces
- 3 x 1000 Base-T Ethernet RJ45 port
  - 1 x LAN/WAN port
  - 2 x LAN ports
- Concurrent Dual Band Wi-Fi with 802.11n 2T2R (2.4 GHz) and 802.11ac 2T2R (5 GHz)
- I/O terminal block providing:
  - 1 x RS-232 Serial (TX and RX only) interface via I/O terminal block
  - 2 x Digital input
  - 1 x Digital output
  - 1 x Ignition sense
- 1 x USB port

### GPS
- GPS
- GLONASS

### SIM Card Reader
- 1 x SIM card slot (NTC-402-01)
- 2 x SIM card slots (NTC-402-02)

### Wi-Fi Functions
- Wi-Fi Operation
  - AP Router
  - WDS
  - WDS Hybrid Modes
- Wi-Fi Security
  - WEP
  - WPA
  - WPA2
  - WPA-PSK
  - WPA2-PSK
  - 802.1x

### WAN Functions
- 3G/4G WAN
- 3G/LTE IPv4, IP Passthrough
- Wi-Fi WAN
## Technical Specifications
### NTC-400 Series

### Network & Routing
- **Routing**
  - Static & Dynamic routing
  - RIP (v1/v2)
  - OSPF
  - BGP
- **Port forwarding**
  - Virtual server/computer
  - DMZ Host
  - Special AP & ALG
  - PPTP/L2TP/IPSec Passthrough
- **QoS**
  - Policy-based Bandwidth Control
  - Packet Flow Prioritization
- **VLAN**
  - Port-based
  - Tag-based

### Security
- **VPN Tunnelling**
  - PPTP
  - L2TP
  - GRE
  - IPSec tunnel termination (for up to 8 tunnels)
  - OpenVPN
- **VPN Scenario (dependent on VPN Tunnel type)**
  - Site to Site
  - Site to Host
  - Host to Site
  - Host to Host
  - Hub and Spoke
  - Dynamic VPN
  - Tunnelling with Full Tunnel
  - Tunnel Failover
- **Firewall**
  - SPI Firewall with stealth mode, IPS
  - Access Control
  - MAC Address Control
  - URL Blocking
  - Packet / Content Application Filters
- **Authentication**
  - Captive Portal
  - MAC Authentication
- **Virtual COM**
  - RFC 2217
  - TCP Client
  - TCP Server
  - UDP Server
  - UDP Client

### Service
- **Cellular toolkit**
  - SMS
  - Data Usage
  - SIM PIN
  - USSD
  - Network Scan
- **Event notification / triggering**
  - Location tracking
    - GPS
    - Track Viewer
  - Power control
    - Ignition sense
    - Low voltage sense

### Administration
- **Configuration and Management**
  - Web interface
  - Telnet CLI
  - SSH CLI
  - Command script
  - TR-069
  - SNMP (v1/v2/v3)
- **System Operation**
  - MMI
  - System Information
  - System Time
  - System Log
  - Backup and Restore
  - Reboot and Reset
- **FTP**
  - FTP Server/SFTP
  - User Account
- **Diagnostic**
  - Packet Analyzer
  - Diagnostic Tools

### Storage and Logging
- **1 x USB port**
- **1 x Embedded 8GB storage**

### Power
- **Power input range**
  - DC 9 V – 36 V

### Dimensions
- **Without mounting kit**
  - 160 mm (L) x 125 mm (W) x 47 mm (H)
- **With mounting kit**
  - 200 mm (L) x 125 mm x (W) x 50 mm (H)
ENVIRONMENTAL

- Operating temperature range
  - -30 °C – 70 °C
- Storage temperature range
  - -40 °C – 85 °C
- Humidity
  - 10% – 95% (non-condensing)

CARRIER APPROVALS

- Telstra
- Spark

REGULATORY CERTIFICATIONS

- RCM (Australia / New Zealand)
- Wi-Fi Alliance
- RoHS
- E-Mark