NetCommWireless

3G Multiport WiFi M2M Router

The robust NetComm Wireless 3G Multiport WiFi M2M Router (NTC-8000) supports vehicular use and provides a secure and powerful connection to multiple remote devices virtually anywhere.

NTC-8000
Specification Sheet

3G Multiport WiFi M2M Router
Overview

Temporary site offices, connected vehicles, mobile assets and remote businesses located beyond the reach of fixed line infrastructure rely on mobile networks to access broadband Internet. The industrial-grade NTC-8000 supports multi-device Machine-to-Machine (M2M) deployments by enabling the connection and remote management of multiple WiFi enabled mobile devices and up to 8 Ethernet devices simultaneously. Designed to be vibration proof with an extended temperature range, the NTC-8000 is built to withstand harsh industrial and on-road conditions.

QUICK FACTS

- Industrial-grade fixed wireless gateway with extended temperature tolerance
- Designed for rugged deployments in industrial applications
- Tested for vehicular applications Class 5M2 and MIL-STD-810F Method 516.5
- Ideal for providing primary and backup wireless connectivity over 3G UMTS networks
- 802.11n WiFi, configurable as access point or network client, with 2x2 MIMO antenna technology
- Powerful processor for optimal performance on advanced 3G UMTS networks
- 8 x Fast Ethernet (100Mbps) ports for universal deployment
- Flexible DC power input to suit diverse installation environments
- Power save mode with minimum current draw
- Built-in VPN clients for a secure connection over a public cellular network
- Embedded Linux based OS and Software Development Kit (SDK)
- Remote diagnostics, configuration and firmware upgrade capabilities
- Management and configuration via web user interface, SNMP or SMS
- Optional mounting bracket for easy mounting/installation (HDW-0022)

The NetComm Wireless 3G Multiport WiFi M2M Router (NTC-8000) provides a secure and powerful connection to multiple devices in harsh environments. Designed to support M2M applications that usually require multiple devices to connect and communicate, the NTC-8000 features 8 Ethernet ports to reduce total system costs by negating the need for an additional industrial grade Ethernet switch to connect external devices to the router. Its powerful processor, which runs an embedded Linux based OS, is an ideal Edge Processor allowing customised IoT applications to be added using the NetComm Wireless Software Development Kit (SDK).

GLOBAL 3G COMPATIBILITY

The NTC-8000 delivers speeds reaching 14.4Mbps over 3G networks and is ideal for global deployment offering penta-band connectivity for worldwide network compatibility. The device features external antenna connectors to boost 3G signal strength in low signal areas and locations without fixed-line (ADSL/Cable/Fibre) broadband connectivity.

EXTENSIVE LOCAL NETWORKING CONNECTIVITY

The device creates an expansive WiFi network. With access to an integrated Wireless LAN access point and MIMO antenna technology, a reliable 802.11n WiFi signal reaching wireless N speeds of up to 300Mbps is transmitted over a radius of up to 100 metres from the router. And the built-in industrial grade 8 port Fast Ethernet (100Mbps) switch allows high quality connectivity with fixed line devices such as printers, cameras, control panels and PCs.

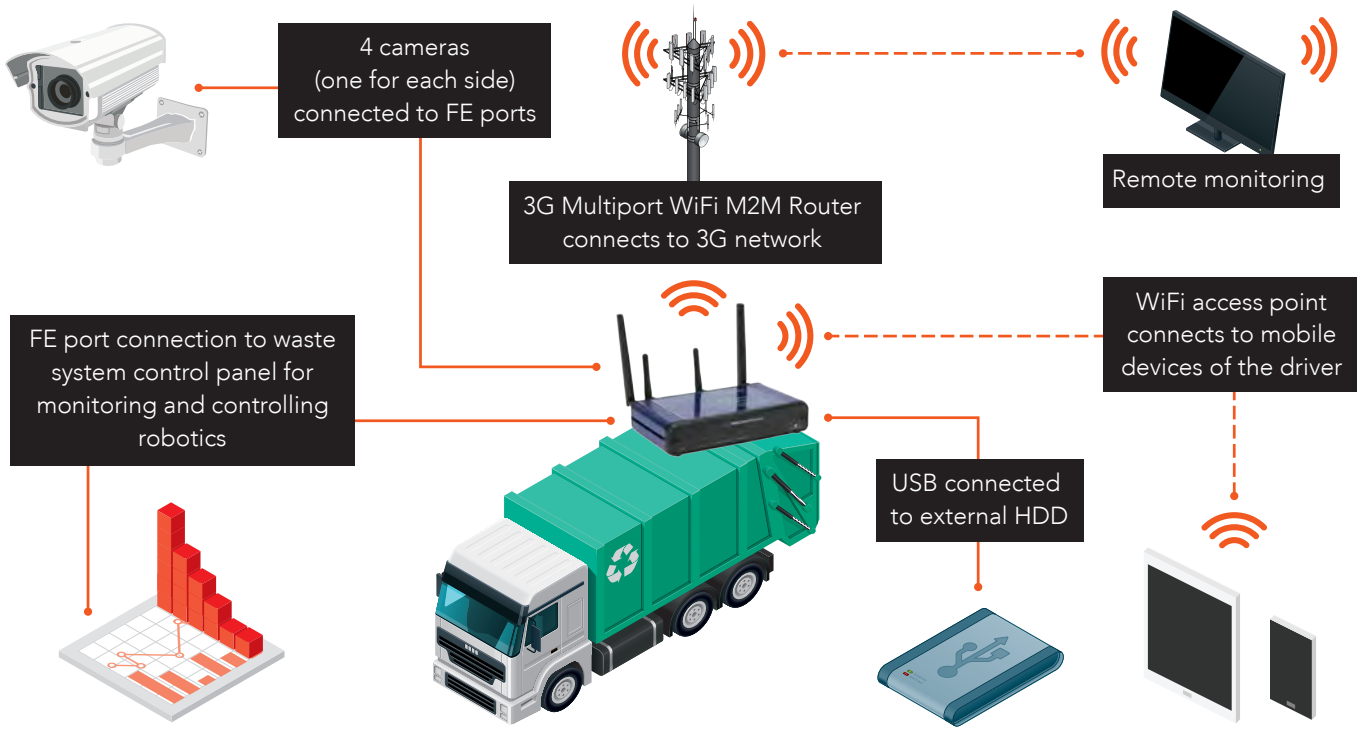
INDUSTRIAL GRADE DESIGN

The robust NTC- 8000 is proven to withstand severe environmental conditions including extreme temperatures and vibrations to ensure durability and longevity in industrial construction and commercial vehicles or harsh remote and isolated climates. Ideal for vehicular applications, it also features an ignition sensing port to shutdown gracefully and conserve power when connectivity is not required.

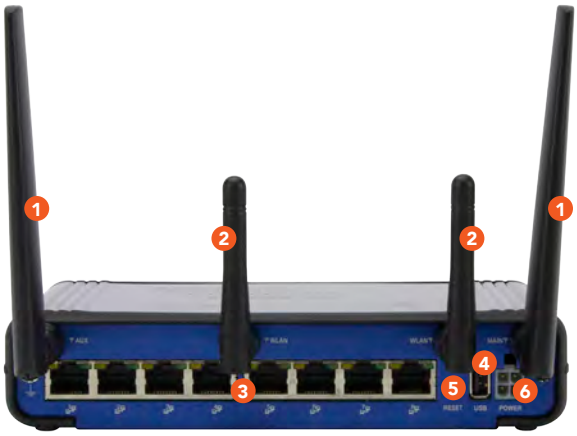
ADVANCED REMOTE MANAGEMENT

Designed to provide remote diagnostics, configuration and firmware upgrade capabilities, the NTC-8000 allows a range of issues to be diagnosed and resolved over the air without requiring a technician onsite. It features a range of industry standard remote device management protocols to make it easy to integrate the router into any existing management platform.

Application Example
Connectivity to all devices on a garbage truck



Device Features
At a glance



1. Dual 3G antennas
2. MIMO WiFi antennas
3. 8 Fast Ethernet ports
4. USB 2.0
5. Reset button
6. Molex power connector with ignition sensing port

Package Contents
What's in the box?

1 x NetComm Wireless M2M Multiport WiFi M2M Router (NTC-8000)

2 x 3G antennas

2 x WiFi antennas

1 x 1.5m yellow Ethernet cable 8P8C

1 x Power and ignition cable

1 x WiFi Security Card

1 x Quick start guide and safety manual

Technical Specifications

PROCESSOR & STORAGE
- Powerful 400Mhz ARM9 processor with 128MByte DDR2 RAM
- 256MByte Flash memory storage
- Micro SD card slot for expandable storage

OPERATING SYSTEM
- Embedded Linux & Software Development Kit (SDK)

PEAK DATA SPEED
- HSDPA Cat. 10 / HSUPA Cat. 6 data rates DL: max. 14.4 Mbps, UL: max. 5.76 Mbps
- EDGE class 12 data rates: DL: max. 237 kbps, UL: max. 237 kbps
- GPRS class 12 data rates: DL: max. 85.6 kbps, UL: max. 85.6 kbps
- CSD transmission: 14.4 kbps, V.110

CELLULAR BANDS
- UMTS/HSPA+: 800/850/900/2100/1900 MHz
- GSM/GPRS/EDGE: 850/900/1800/1900 MHz

CONNECTIVITY
- 8 x 10/100 Base-TX Ethernet RJ45 ports with Auto MDIX
- 1 x USB 2.0 port (standard Type A receptacle) for storage
- 1 x 4-way Molex mini fit connector with ignition switch detection capability.

SIM CARD READER
- Lockable tray reader supporting Mini USIM/ SIM Format (2FF)
- Optional surface mount MFF2 SIM (ETSI MFF2 DFN-8 USIM) offers higher resistance against corrosion, vibration and extreme temperatures

RESET BUTTON
- Reset button (recessed, requiring pen/ paperclip) with three functions: reboot, recover and reset unit to factory defaults

ANTENNA CONNECTORS
- 2x SMA connectors for 3G (1x Main and 1x RX Diversity)
- 2x Reverse SMA connectors for Wireless LAN (MIMO)

LED INDICATOR
- 6 x LEDs indicating:
  - Power
  - WLAN status
  - Mobile broadband connection status
  - Network Service Type
  - Signal strength

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 and manual cellular band selection
- Automatic and manual operator selection

WIFI/WLAN
- High throughput and extended range 2.4GHz WiFi operable in Access Point or Client mode
- 802.11b/g/n 2x2 MIMO antenna technology
- 2 x External antennas
- 5 configurable Wireless AP SSID profiles

WIFI SECURITY
- WEP 64-bit, WEP 128-bit, WPA, WPA2, WPA-PSK, WPA2-PSK, TKIP, AES

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)
- Support for Wireless Distribution System (WDS) to expand the wireless network using multiple access points
- MAC Filtering via black list or white list

VPN
- PPTP Client for VPN connectivity to remote PPTP VPN Server
- IPSec tunnel termination (for up to 5 tunnels)
- GRE Tunnelling

SECURITY
- Secure Shell server supporting SSH Protocol 1 and 2

ADMINISTRATION & 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 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 device on repeated ping failure)
- Diagnostic Log Viewer (remote and local)
- System Status Log
- NTP Server Support for network time sync of device's system clock

FIRMWARE MANAGEMENT
- Firmware upgrade locally via WLAN or remotely Over-The-Air (HTTP/ HTTPS, SNMP and SMS)
- 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: -40°C ~ +85°C

POWER SUPPLY
- Input voltage range 9-36V DC

DIMENSIONS & WEIGHT
- Device dimensions (with mounting bracket, excluding external antennas): 199 mm (W) x 154mm (D) x 62mm (H) / 970g

CERTIFICATIONS
- A-Tick
- RoHS

Optional Accessories

HDW-0022

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