3G M2M
Router Plus

NTC-6200

Device Features

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ESIS
Industrial Electronics

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143 mm

107 mm

NetCommWireless

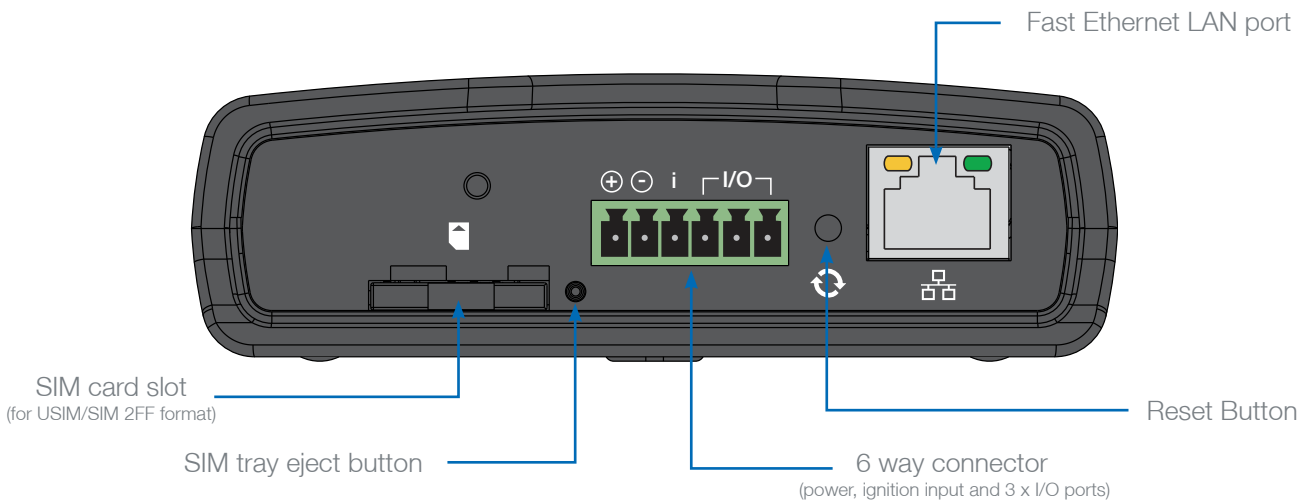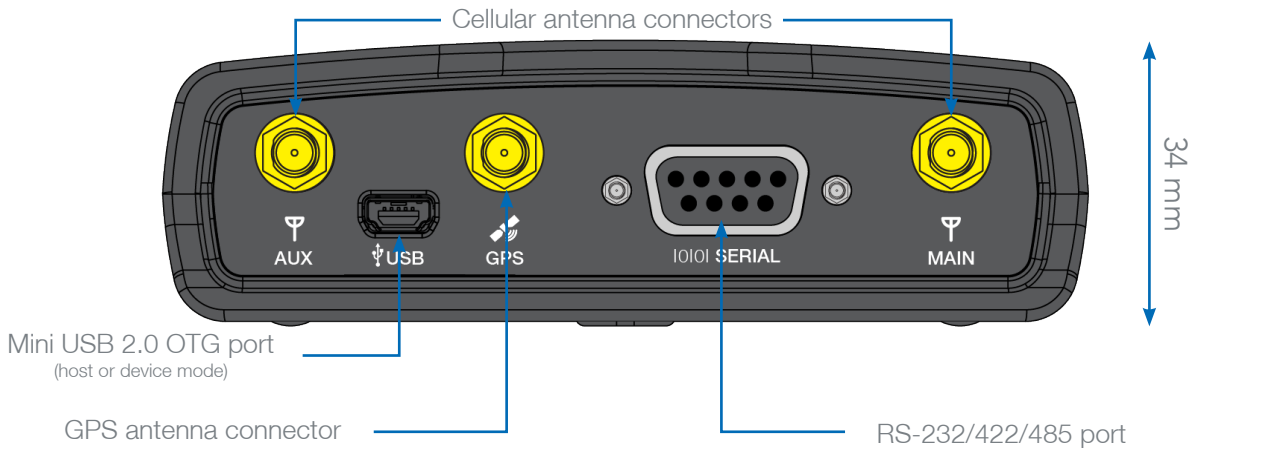221 g

Key Features

- Penta-band 3G and quad-band 2G auto-fallback for undisrupted communications

- Connect to global 3G HSPA+ networks reaching speeds up to 14.4 Mbps (downlink)

- Fast Ethernet port (100Mbps)

- Connect legacy devices using the Serial (RS232/RS422/RS485) port and USB 2.0 OTG port

- Track assets with built-in GPS supporting an active GPS antenna via external SMA connector *(selected models)*

- Three multi-purpose I/O ports and one dedicated ignition sensing input *(selected models)*

- Intelligent, tri-Colour LED display for clear, easy to read modem status

- Remote device management with support for LWM2M, TR-069, web GUI and full feature management with SMS

- Save power using low power 'sleep' mode (~5mA at 12V)

- Flexible mounting suitable for industrial applications with built-in wall mount and DIN rail mounting options

- Device dimensions (excluding external antenna): 143mm (L) x 107mm (W) x 34mm (D) / 221g (254g with bracket)

- Browser-based device management and on-board processing capabilities for customised software and all-in-one monitoring and communications functionality

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Cellular antenna connectors

34 mm

AUX ⬥USB GPS IOIOI SERIAL MAIN

Mini USB 2.0 OTG port
(host or device mode)

GPS antenna connector

RS-232/422/485 port

Fast Ethernet LAN port

⊕ ⊖ i ⌐I/O⌐

SIM card slot
(for USIM/SIM 2FF format)

Reset Button

SIM tray eject button

6 way connector
(power, ignition input and 3 x I/O ports)

What's in the box*

1 x DIN rail
mounting bracket

2 x Cellular
antennas

1 x six-way
terminal block

1 x 1.5m yellow
Ethernet cable

1 x NetComm Wireless 3G M2M Router Plus (NTC-6200)

1 x SIM card
tray cover

1 x Torx screw for
SIM card tray cover

1 x Quick start
guide

* GPS Antenna sold as optional accessory

Optional Accessories

GPS Active Patch Antenna
ANT-0038 - SPECIFICATIONS

- Frequency range: 1575.42MHz
- Gain: 28dBi (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-0062 - SPECIFICATIONS

- International Efficiency Level VI Power supply
- No-Load Power Consumption: 0.1W (115VAC 60Hz)
- 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 (50/60Hz 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/AU/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

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PROCESSOR & STORAGE

- Powerful 450Mhz ARM9 processor with 64MByte DDR2 RAM
- 256MByte Flash memory storage (~120MB available on board space for user storage)

OPERATING SYSTEM

- Embedded Linux 3.6

PEAK DATA SPEED

- HSDPA/HSUPA data rates: DL: 7.2 / 14.4 Mbps, UL: 2.0 / 5.76
- Mbps (Concurrent data rate: DL: 7.2 Mbps, UL: 5.76 Mbps)
- UMTS data rates: DL: max. 384 kbps, UL: max. 384 kbps
- EDGE class 12: DL: max. 237 kbps, UL: max. 237 kbps
- GPRS class 12: DL: max. 85.6 kbps, UL: max. 85.6 kbps
- CSD data transmission 14.4 kbps, V.110

CELLULAR BANDS

- UMTS/HSDPA/HSUPA: 800/850/900/2100/1900 MHz
- GSM/GPRS/EDGE: 850/900/1800/1900 MHz

CONNECTIVITY

- 1x (RJ45) 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
- Mini USB 2.0 OTG interface with 0.5A supply capability

I/O PINS (only available on some models)

- 3x Multipurpose 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

- 2x SMA connectors for 2G/3G (1x Main and 1x RX Diversity)
- 1x SMA connector for GPS (only available on some models)

LED INDICATORS

- 8x 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 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 and manual cellular band selection
- Automatic and manual operator selection
- GPS (only available on some models)
- Embedded GPS receiver (1575.42Mhz)
- SMA Connector for external active GPS Antenna
- Active antenna voltage: 3.05V
- Maximum current: 50mA
- Short circuit protection
- Tracking sensitivity under open sky: -159dBm
- Acquisition sensitivity under open sky: -149dBm
- Cold start sensitivity: -145dBm
- Time to first fix (TTFF): Cold 25s, Warm 10s, Hot 3s
- Supports NMEA-0183 (v2.3)
- Redirect NMEA stream to serial or forward over IP
- Odometer reading available via Web-UI, CLI and SDK

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)
- Data Stream Manager providing ability to create mappings between input and output ports (e.g. Serial Port, SMS, 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

- PPTP Client for VPN connectivity to remote PPTP VPN Server
- IPSec tunnel termination (for up to 5 tunnels)
- GRE Tunnelling
- OpenVPN (Client, Server and P2P)

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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/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
- SMS Client (Send/Receive) including inbox, outbox
- 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)
- Advanced Diagnostics and Control via SMS
  - Query status information – such as Signal Strength, WAN IP, Uptime, and many more
  - Configure device remotely via SMS – such as APN, authentication settings, and many more
  - Execute commands via SMS – such as reboot, reset to defaults, go offline, and many more
  - Secure SMS management using sender whitelisting and password management
  - SMS acknowledgement replies for queries and commands

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
- Triggered firmware upgrade via SMS (initiate download & install from HTTP/HTTPS)

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

- Module Manufacturer's Recommended Operating Temperature Range: -40°C ~ +85°C
- Operating Temperature Range: -30°C ~ +75°C
- Storage Temperature Range: -40°C ~ +85°C
- Operating Humidity Range: 0-95%

POWER SUPPLY

- Power input 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 and 3 x I/O ports on 6 way connector (only available on some models)
- Power consumption 6W, recommended DC supply via terminal block (12V 1.5A)
- Vehicle compatible protection on DC Input Jack. (ISO7637 standard)

DIMENSIONS, WEIGHT & MOUNTING

- Device dimensions (excluding external antenna): 143mm (L) x 107mm (W) x 34mm (D) / 221g (254g with bracket)
- 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)

MODEL	NTC-6200-02			NTC-6200-12	NTC-6200-13
GPS	Yes			Yes	No
3 x Multipurpose I/O ports	Yes			Yes	No
1 x Ignition sensing port	Yes			Yes	No
Regulatory Certifications	• CE (Europe) • RCM (Australia / New Zealand) • E-Mark (Europe) • TRA (UAE) • iDA (Singapore) • GCF (Europe)	• RoHS • IC (Canada) • FCC (USA) • PTCRB (USA) • NBTC (Thailand) • SIRIM (Malaysia) • SDPPI (Indonesia)	• SRRC/CCC/ NAL (China) • ICASA (South Africa) • MIC (Vietnam) • CB Compliant • IP41 • REACH	• JRF (Japan) • JPA (Japan) • REACH	• JRF (Japan) • JPA (Japan) • REACH
Carrier Approvals	• AT&T • Rogers	• Spark • Telstra		• NTT DoCoMo	

Listen.
Innovate.
Solve.

For over 35 years, NetComm Wireless has engineered new generations of first to market technologies and helped to change the way that the world communicates.

Innovation comes from our people. Working together, from all parts of the globe, we listen to our customers and achieve innovation through a unique understanding of the challenges and opportunities of a connected world.

No matter the challenge, we look at the world through the eyes of our operator partners and customers and innovate solutions engineered to deliver lasting results in line with specific business needs.

Whether transforming rural and regional communities with superfast Fixed Wireless; optimising business efficiencies with smart wireless Machine-to-Machine (M2M) solutions, or extending network infrastructure with Fibre or Cable to the distribution point – NetComm Wireless is backed by the experience, expertise and capabilities needed to optimise outcomes.