



4G LTE CAT 1 BIS INDUSTRIAL IoT ROUTER

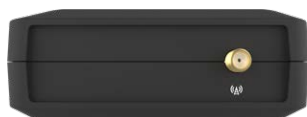
NTC-201

The **NTC-201** is a highly focused, industrial-grade **4G LTE Cat 1 bis router**. It is designed for critical and complex applications and provides ultra-reliable, cost-effective throughput even in extremely harsh environments.



NEXT-GENERATION TECHNOLOGY

The **NTC-201** supports **4G LTE Category 1 bis**, which enables next-generation connectivity for several mission-critical applications. The **NTC-201** supports all global **4G LTE bands**, making it the perfect device for worldwide deployments.



POWERFUL EDGE PROCESSING

The **NTC-201** features the highly acclaimed Linux-based NetComm OS, which allows custom applications created using the **NetComm Software Development Kit (SDK)** to run on the device processor, eliminating the need for an external Industrial-grade computer.



REMOTE MANAGEMENT

IoT deployments in isolated unmanned locations can be managed remotely in real-time to eliminate costly site visits and reduce on-site maintenance costs. Technicians can receive status alerts, extract and analyse data, upgrade firmware over the air, and configure and update the **NTC-201** from their headquarters or any other location using a wide range of management protocols, including OMA LWM2M, TR-069, SNMP, HTTP/HTTPS, Telnet/CLI, and SMS.

DEVICE OVERVIEW



PERFECT FOR

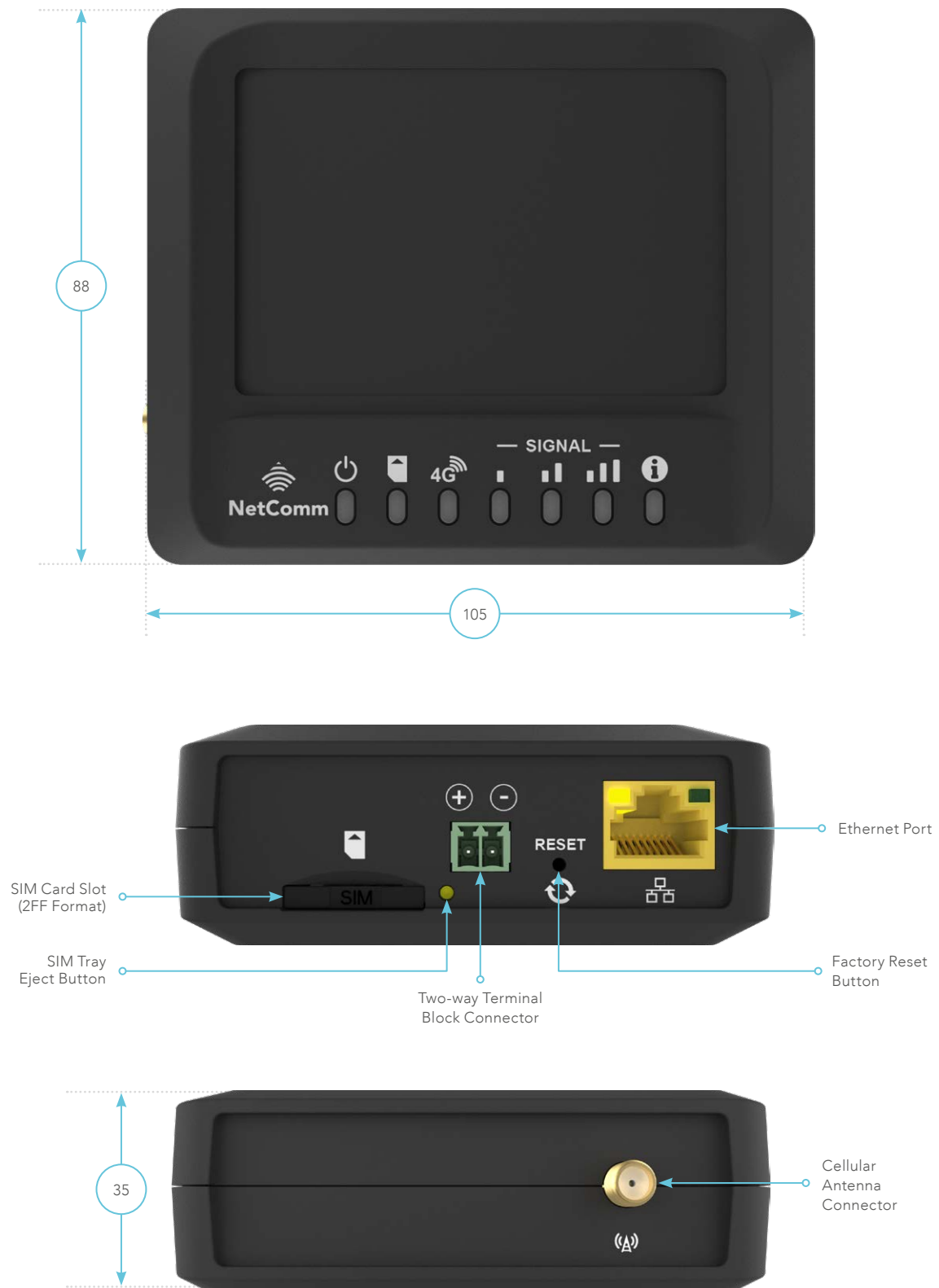
- › Connected elevators / escalators
- › Smart building systems
- › Vending and ticketing machines
- › Digital signs
- › Access control systems
- › Surveillance cameras
- › Traffic lights control

FEATURES AT A GLANCE

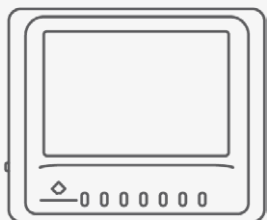
- › 4G LTE Cat 1 bis
- › Software development capability (SDK)
- › Rugged industrial design for harsh environments
- › Easy and clear LED status display for connection status, connected network type, and connection errors
- › Remote device configuration, management and firmware upgrade

DEVICE FEATURES

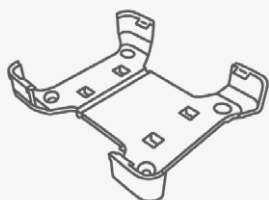
MEASUREMENTS
in millimeters



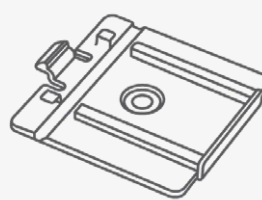
WHAT'S IN THE BOX



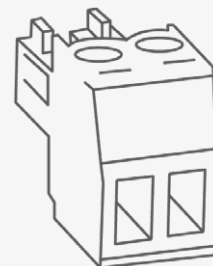
1x NTC-201 Router



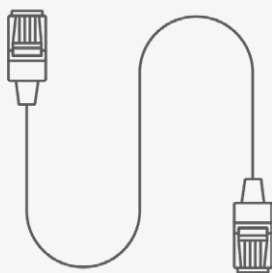
1x DIN Rail Bracket



1x DIN Rail Adapter Bracket



1x Two-way Terminal Block



1x 1m Ethernet Cable



1x Compliance Leaflet



1x Welcome Card



1x Antenna

Please note: The box contents are negotiable for high volume opportunities to reduce cost and environmental waste.



DIN RAIL MOUNTING BRACKET

The **DIN Rail Mounting Bracket** is a multi-purpose bracket for mounting the **NTC-201** to either a **DIN rail** (in different orientations), a flat surface (wall, ceiling or cabinet plate) or a pole (using cable ties).

Once the mounting bracket is installed, the **NTC-201** can be easily attached for installation or removed for maintenance without a screwdriver.



OPTIONAL ACCESSORIES



12 V DC POWER SUPPLY PSU-0079 - SPECIFICATIONS

- › International Efficiency Level VI Power Supply
- › No-Load Power Consumption (115 V AC 60 Hz): 0.07 W
- › No-Load Power Consumption (230 V AC 50 Hz): 0.1 W
- › 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: 11.92 - 12.21 V DC (Typical 12 V DC)
- › Maximum output current: 1.5 A
- › Maximum ripple and noise: 83 mV peak-to-peak
- › Maximum output overshoot: 2.7%
- › Protection against overvoltage, overcurrent and short circuit
- › Temperature range: 0°C to 40°C (Operating), -30°C to 70°C (Storage)
- › Relative humidity range: 10% to 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

CELLULAR BANDS

4G / LTE Bands

- › Band 1 (2100 MHz)
- › Band 2 (1900 MHz)
- › Band 3 (1800 MHz)
- › Band 4 (1700 MHz)
- › Band 5 (850 MHz)
- › Band 7 (2600 MHz)
- › Band 8 (900 MHz)
- › Band 12 (700 MHz)
- › Band 13 (700 MHz)
- › Band 18 (850 MHz)
- › Band 19 (850 MHz)
- › Band 20 (800 MHz)
- › Band 25 (1900 MHz)
- › Band 26 (850 MHz)
- › Band 28 (700 MHz)
- › Band 34 (2000 MHz)
- › Band 38 (2600 MHz)
- › Band 39 (1900 MHz)
- › Band 40 (2300 MHz)
- › Band 41 (2500 MHz)
- › Band 66 (1700 MHz)

DEVICE CATEGORY

- › LTE FDD Cat 1 bis 3GPP Rel 13 compliant
 - › Downlink up to 10 Mbps
 - › Uplink up to 5 Mbps

ANTENNA CONNECTORS

- › 1 x SMA antenna connector

INTERFACES

- › 1 x 100Base-T Ethernet RJ45 port
- › 1 x Recessed multifunctional reset button
 - › Reboot
 - › Reboot into recovery mode
 - › Reset to factory default settings

LED INDICATORS

- › 1 x Power
- › 1 x SIM
- › 1 x 4G
- › 3 x Signal strength
- › 1 x Custom indicators

SIM CARD SUPPORT

- › 1 x SIM card slot supports Mini USIM/SIM Format (2FF)
- › Optional soldered-down SIM (ETSI MFF2 DFN-8 USIM)

PROCESSOR AND STORAGE

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

CELLULAR

- › Profile managed packet data connections
- › Profile Routing
- › SIM Management
- › SIM Security (PIN configuration, enable and disable)
- › Automatic and manual cellular band selection
- › Automatic and manual operator selection
- › Up to 6 APN configurations

NETWORK & ROUTING

- › Static Routing, 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)
- › Firewall to protect against DoS attacks

VPN

- › IPSec tunnel termination (for up to 5 tunnels)
- › GRE Tunnelling
- › OpenVPN (Client, Server and P2P)

ADMINISTRATION & CONFIGURATION

- › Secure web-based user interface (HTTPS) for complete 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
- › SNMP v1/v2/v3, including cellular-specific MIB, config and firmware download
- › LWM2M and TR-069 client for remote device configuration, configuration backup and restore, and firmware upgrade
- › Ping monitor watchdog (reset the connection on repeated ping failures)
- › Diagnostic Log Viewer (remote and local)
- › System Status and Security Logs
- › NTP Server Support for network time sync of the device's system clock
- › SMS over SGs support
- › Advanced Diagnostics and Control via SMS
 - › Query status information – such as Signal Strength, WAN IP, and Uptime.
 - › Configure the device remotely via SMS – such as APN and authentication settings.
 - › Execute commands via SMS – such as reboot and reset to defaults.
 - › Secure SMS management using sender whitelisting and password management
 - › SMS acknowledgement replies for queries and commands

TECHNICAL SPECIFICATIONS

FIRMWARE MANAGEMENT

- › Firmware Upgrade locally via LAN or remotely Over-The-Air (HTTPS, SNMP, TR-069, LWM2M)
- › Multiple firmware image storage on the device and dynamic install
- › Triggered firmware upgrade via SMS (initiate download & install from 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 complete status monitoring, configuration and control of the device from custom applications

TEMPERATURE

- › Operating Temperature Range: -40°C to +75°C
- › Storage Temperature Range: -40°C to +85°C
- › Operating Humidity Range: 0-95%

POWER SUPPLY

- › Power input via 2-way termination block receptacle
- › Field terminable power input via screw-type terminal block included
- › DC Power (8 – 40V DC)
- › Recommended DC supply via terminal block (12V 1.5A)

DIMENSIONS & MOUNTING

- › Device dimensions (excluding external antennas): 105 mm (L) x 88 mm (W) x 35 mm (H)
- › Device dimensions with Mounting Bracket (excluding external antennas): 111 mm (L) x 96 mm (W) x 40 mm (H)
- › Wall mount support in multiple orientations via mounting bracket
- › DIN Rail mount support via mounting bracket (Top hat section rail TH 35 IEC60715)

ENCLOSURE

- › IP40 rated

NetComm NTC-201 Spec Sheet Rev 2

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NetComm

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