NTC-100

4G LTE Cat M1 / NB1
Industrial IoT Serial Modem

Device Features

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ESIS
Industrial Electronics

Ph 02 9481 7420
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84 mm

50 mm

Key Features

- Robust industrial design for reliable long-term deployment in harsh environments
- Designed for space-constrained installations
- Software configurable serial port (RS232/RS422/RS485)
- USB 2.0 device port

Specifications subject to change.

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21 mm

Cellular antenna
connector

10-pin NANO-fit (locking) connector
(power and serial interface)

Reset button
Micro USB 2.0 port

SIM Card slot

What's in the box

1 x Quick start guide

1 x NTC-100

1 x DIN rail mounting bracket

1 x Y-cable
(Nano-fit to DE-9 and
DC power input)

Specifications subject to change.

Optional Accessories

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AC/DC Power Adaptor

PSU-0004 - SPECIFICATIONS

- 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
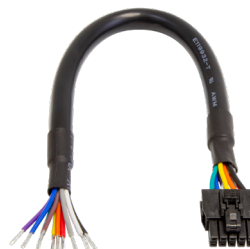- Lead length: 1.5 m

LTE Tube Antenna

NANT-00001-000 - SPECIFICATIONS

- Frequency (MHz): 698-2700
- Maximum Gain (dBi): 4.71
- VSWR: < 3.0:1
- Polarization: Vertical
- Impendence (Ω): 50
- Max. power input (W): 50
- Connector: SMA

10-pin Nano to 8P8C cable
MCBL-00003

10-pin Nano to open cable
MCBL-00005

Specifications subject to change.

Technical Specifications

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UE CATEGORY

- Cat M1/NB1
- 3GPP E-UTRA Release 13

CELLULAR BANDS

- LTE-FDD:
  - Band 1 (2100 MHz)
  - Band 2 (1900 MHz)
  - Band 3 (1800 MHz)
  - Band 4 (1700 MHz)
  - Band 5 (850 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 28 (700 MHz)
- LTE-TDD
  - Band 39 (1900 MHz, Cat. M1 only)
- EGPRS:
  - 850 MHz
  - 900 MHz
  - 1800 MHz
  - 1900 MHz

PEAK DATA SPEED

- Cat M1:
  - 375 Kbps / 375 Kbps (Downlink / Uplink)
- Cat NB1:
  - 32 Kbps / 70 Kbps (Downlink / Uplink)
- GPRS:
  - 107 Kbps / 85.6 Kbps (Downlink / Uplink)
- EDGE:
  - 296 Kbps / 236.8 Kbps (Downlink / Uplink)

ANTENNA CONNECTORS

- 1 x SMA Connector

INTERFACES

- 1 x SIM card slot (2FF)
- 1 x USB 2.0 (Device only)
  - Micro-B receptacle
- 1 x 10-pin NANO-fit (locking) connector providing Serial interface (RS-232 / RS-422 / RS-485)
  - 15kV RMS Protection

LED INDICATORS

- 2 x Tri-colour (Red/Amber/Green) LEDs indicating:
  - Power
  - Network

RESET BUTTON

- Recessed reset button with two functions:
  - Reboot
  - Reset unit to factory defaults

MODES OF OPERATION

- PPP
- IP
- 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 protection
  - SMS acknowledgement replies for queries and commands

CELLULAR CONNECTION MANAGEMENT

- Profile managed packet data connections
- SIM PIN protection
- Automatic and manual cellular band selection
- Automatic and manual operator selection

FIRMWARE MANAGEMENT

- Firmware upgrade locally via USB or remotely Over-The-Air
- Triggered firmware upgrade via SMS (initiate download & install from FTP)

POWER SUPPLY

- Power input via 10-pin NANO-fit connector
- DC Power input (4.5 – 36 V DC)
- Minimum power input rating of 4 W

TEMPERATURE & HUMIDITY

- Operating temperature range: -30°C to +70°C
- Storage temperature range: -40°C to +85°C
- Non-condensing humidity: 5-95% RH @ 60°C

DIMENSIONS & WEIGHT

- Device dimensions (excluding external antenna): 84 mm (L) x 50 mm (W) x 21 mm (D)
- Device weight: TBD

MOUNTING OPTIONS

- Wall mountable via mounting holes
- DIN Rail mount support via included plastic bracket (Top hat section rail TH 35 IEC60715)

ENCLOSURE

- IP40 rated

CERTIFICATIONS

- Approvals: RCM / CE / IC / FCC / GCF / PTCRB*
- Carrier approval: Telstra
- Environmental: RoHS2 / REACH / WEEE

* Pending

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ESIS
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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 Industrial IoT (IIoT) 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.