

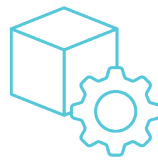
# 4G LTE CAT M1/ NB1 INDUSTRIAL IOT SERIAL MODEM

NTC-100-01



RELIABLE  
COST-EFFECTIVE  
CONNECTIVITY

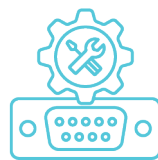
## KEY FEATURES



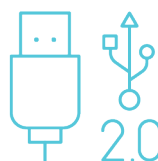
**ROBUST INDUSTRIAL DESIGN**  
for reliable long-term deployment  
in harsh environments



**DESIGNED FOR**  
space-constrained installations



**SOFTWARE CONFIGURABLE**  
serial port (RS232/RS422/RS485)



**USB 2.0** device port

# DEVICE FEATURES

MEASUREMENTS  
in millimeters



# WHAT'S IN THE BOX

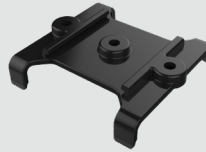
1 x NTC-100



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



1 x DIN rail  
mounting bracket



1 x Quick start guide



## OPTIONAL ACCESSORIES



### 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 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



### LTE Tube Antenna NANT-00001-000 - SPECIFICATIONS

- Frequency (MHz): 698–2700
- Maximum Gain (dBi): 4.71
- VSWR: < 3.0:1
- Polarization: Vertical
- Impedance ( $\Omega$ ): 50
- Max. power input (W): 50
- Connector: SMA



### LTE Tube Antenna (for Japan) NANT-00006-000 - SPECIFICATIONS

- Frequency (MHz): 698–2700
- Maximum Gain (dBi): 3.24
- VSWR: < 3.0:1
- Polarization: Vertical
- Impedance ( $\Omega$ ): 50
- Max. power input (W): 50
- Connector: SMA

# TECHNICAL SPECIFICATIONS

## 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)

## POWER CONSUMPTION

- › Idle power consumption: 0.24W (measured under ideal conditions)
- › Full load power consumption: 2W

## 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: 55 g (approx.)

## 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

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