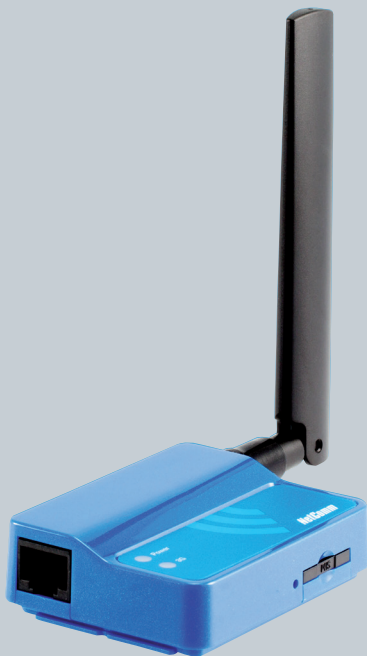


# Quick Start **Guide**

**NTC-4000 Series -  
M2M Intelligent Serial Router**








# Quick Start Guide

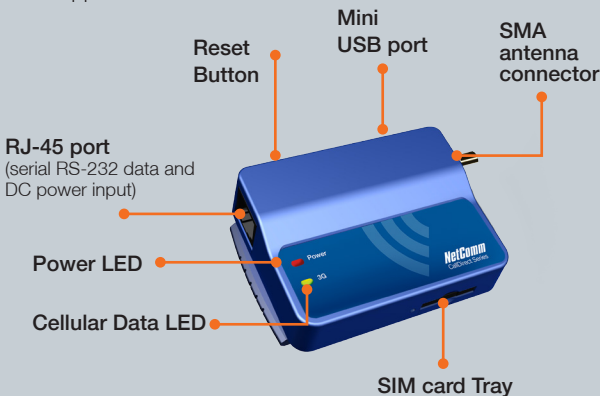
This guide covers the NTC-4000 Series M2M WiFi Rotuers. This guide provides a series of step by step instructions to ensure the configuration of your router goes as smoothly as possible.

Please check that you have received all the items in your package:

## The NTC-4000 series package consists of:

-  NTC-4000 Series Modem Device
-  RS-232 Data/Power Cable 1m
-  SMA Antenna
-  Mounting bracket
-  Quick Start Guide

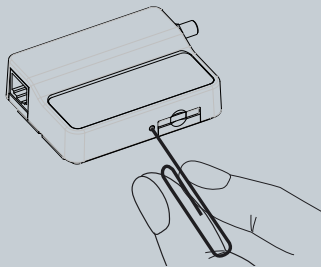
If any of these items are missing, please contact NetComm Wireless Technical Support.



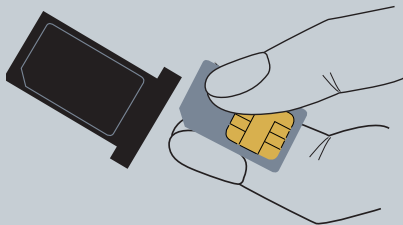
# Installing your Router

## Inserting the SIM card

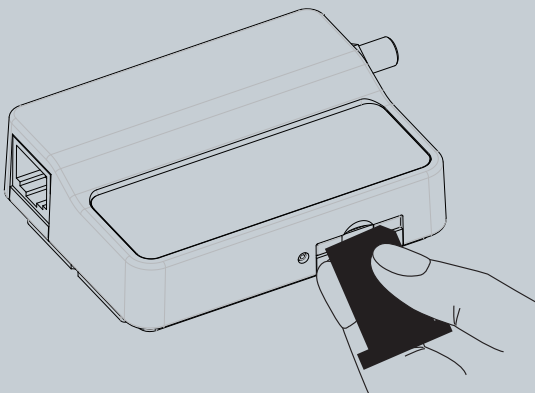
- ⚡ Please ensure that the NTC-4000 is not connected to the power cable before proceeding.
- ⚡ Push the small yellow button besides the SIM card holder.



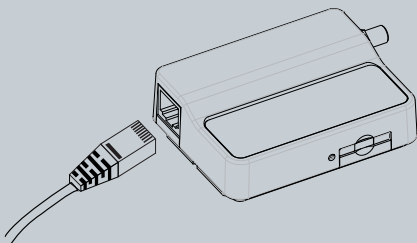
- ⚡ Insert the SIM card into the holder with the SIM conductor pins facing up.



- ◆ Insert the SIM card holder with the SIM conductor pins facing down into the NTC-4000.



## Connecting the Data/ Power cable



- ⚡ Connect the included antenna to the SMA connector of the NTC-4000.
- ⚡ Plug the included RS-232 data/power cable into the RJ-45 socket of the NTC-4000 and then plug the serial port (DB9) end of the same cable into the COM port of the device you would like to connect to.
- ⚡ Connect a compatible power adapter to the DC power jack (2.1mm barrel) of the RS-232 data/power cable and then plug the power adapter into a power outlet.



### WARNING

Please note: It is not possible to utilise the mini-USB and Serial connection concurrently. Make sure any open connection on the Serial port is disabled before connecting via the mini-USB cable.

# Connecting via mini USB

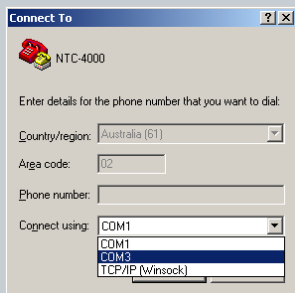
Please refer to the NTC-4000 Series User Manual for instructions on utilising the mini USB connection.

Please note: The mini USB cable is not supplied with the NTC-4000 Series.

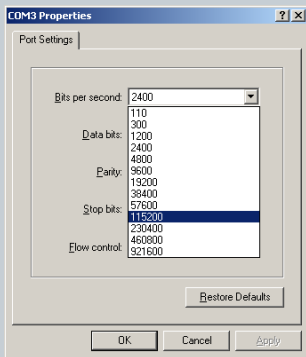
# Communicating with the NTC-4000 Series

Any terminal emulator can be utilised to facilitate communication to the NTC-4000 Series. In the example below, HyperTerminal from Windows XP is shown.

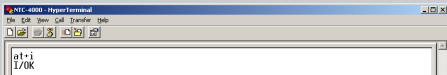
- Click on the **Start** button and then navigate to the **Accessories** item and then **Communications**.
- Click on the **HyperTerminal** item.
- Enter a name for the connection profile (for example: NTC-4000) and click **OK**.
- On the **Connect to** window, select the COM port the NTC-4000 Series is connected to in the **Connect using** dropdown menu.



- On the COM port settings window that appears, select **115200** in the **Bits per second** dropdown menu.



The terminal window should then display indicating a connection is open to the NTC-4000 Series. This can be tested by entering the command **at+i** and receiving the response **I/OK** as shown below:



You can now use the enhanced AT command set to configure or perform tasks on the NTC-4000 Series. Please refer to the AT Command Set guide for more information on the functions available.

If you are unable to type **at+i**, check that you have selected the correct COM port to attempt to connect on. This should be the physical COM port with the supplied DB-9 cable attached.

# AT Commands

Please refer to the AT Command Set guide available from the **Downloads** tab at: [www.netcommwireless.com/product/m2m/ntc-4000](http://www.netcommwireless.com/product/m2m/ntc-4000)

This guide contains a full list of the supported AT Commands available with the NTC-4000 series.

# Mounting Options

The NTC-4000 series modem can be mounted on the wall or a DIN rail by using the mounting bracket. The mounting bracket is made from polyamide, which is a flexible material.

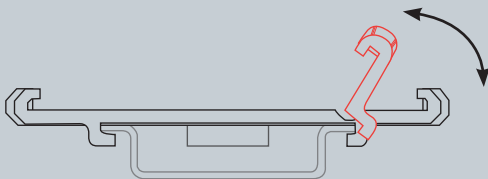
Mounting the NTC-4000 series modem is as simple as bending the mounting bracket to snap into place on the Type-O (Top Hat) DIN rail. This holds the NTC-4000 series modem in place securely.

Alternatively, the mounting bracket can be screwed onto a wall to provide a permanent fixture.

## DIN rail mounting

The NTC-4000 Series mounting bracket has been designed to fit a TS 35 Type-O DIN rail with a 25mm core.

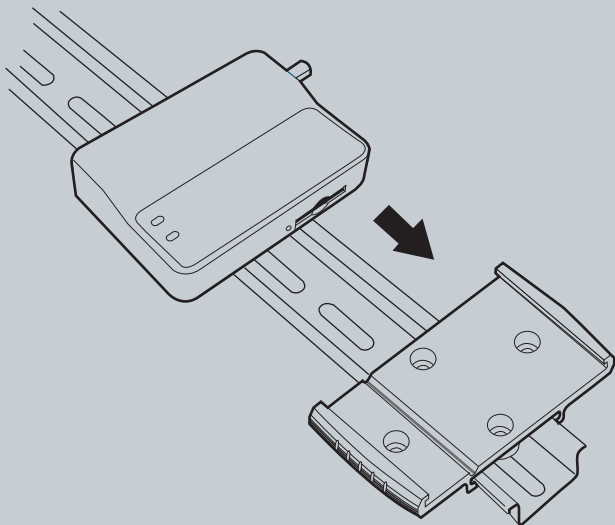
- 🌀 Bend / Flex the mounting bracket at the bend line so that the ridges are able to **hold** onto the DIN rail edges as per the diagram above. You also have the option of securing the mounting bracket further by screwing it into place on the rail.



DIN Rail

## NTC-4000 Series - M2M Intelligent Serial Router

- Once the bracket is attached to the DIN rail, slide the NTC-4000 Series modem into the mounting bracket to securely fix it in place.



## Wall Mounting

- ❖ Select the location you would like to attach the NTC-4000 Series modem to. Attach the mounting bracket to the chosen wall or ceiling by using the 4 screw holes (screws not included).

## LED Indicators

The NTC-4000 Series uses two LEDs to display the current system and connection status.

LED Indicator	Colour	Definition
<b>Power</b>	Off	The Power is Off
	Red	The Power is on and the NTC-4000 is operating normally
<b>3G</b>	Off	The NTC-4908 is not connected to a 3G network
	Slow flashing green	The NTC-4908 is attempting to connect to a 3G network
	Quick flashing green	Data is moving across the 3G connection

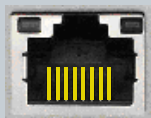
# Technical Specifications

The following table lists the hardware specifications of the NTC-4000 series.

Model	NetComm NTC-4000 Series
<b>CPU</b>	Connect One iChip™ CO2128SEC (ARM7, embedded IP stack)
<b>Modem Chipset/Module</b>	Qualcomm MSM6290 / Sierra Wireless MC8790
<b>UMTS bands</b>	Tri-band HSDPA / HSUPA / UMTS 850/1900/2100MHz
<b>GSM bands</b>	Quad-band EDGE/GPRS/GSM 850/900/1800/1900MHz
<b>Maximum Data Throughput / 3G Radio interface</b>	7.2Mbps downlink / 5.76Mbps uplink
<b>Maximum Data Throughput / Serial RS232 interface</b>	Auto baud rate - 115,200 / 57,600 / 38,400 / 19,200 / 9,600 / 4,800 / 2,400 bps
<b>Connectivity</b>	1x RJ-45 port (incl. DB-9 adapter) for serial RS-232 connections   1x Mini USB console port
<b>SIM Card Reader</b>	Lockable tray, supports standard USIM/SIM
<b>Antenna connector</b>	1x SMA
<b>LED Indicators</b>	Power, 3G Status
<b>Operating Temperature</b>	Normal: -20 ~ 55 °C
<b>Power input</b>	8 ~ 56 V DC
<b>Dimensions &amp; Weight</b>	74 x 57 x 24 mm / 85g (w/o mounting bracket and antenna)
<b>Regulatory Compliancy</b>	A-tick, RoHS compliant

## RJ45 Connector

The RJ-45 connector provides a serial connection utilising 2 pins (as shown below) to provide power.



PIN8—PIN1

Pin	Signal	Description
1	VCC	Input voltage 8VDC - 56VDC
2	DCD	Data Carrier Detect
3	DTR	Not Used
4	GND	Common Ground
5	RXD	Serial Data out
6	TXD	Serial Data in
7	RTS	Ready to Send
8	CTS	Clear to Send

### Mini USB Connector

The mini USB connector provides a USB based virtual COM port to facilitate communications to the NTC-4000 series in the event a COM port. It utilises a standard mini USB pin out configuration.

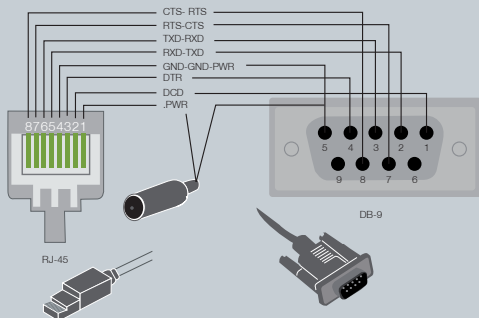


PIN1 – PIN5











Pin	Signal
1	VIN
2	D-
3	D+
4	N/C
5	GND

# RJ-45 to DB-9 Serial/Power Adapter Cable

The NTC-4000 Series uses a RJ-45 to DB-9 serial cable to facilitate communications to an attached device. Pins 1 and 4 are used to supply power to the NTC-4000 Series.



## NTC-4000 Series - M2M Intelligent Serial Router

DB9	Signals		RJ45	Description
1	DCD		2	Data Carrier Detect
2	RXD		5	Serial Data Out
3	TXD		6	Serial Data In
4	DTR		3	Data Terminal Ready
5	GND		4	Common Ground GND (Power Ground)
6	DSR		NA	Not Used
7	RTS		7	Request to Send (received by the NTC-4000)
8	CTS		8	Clear to Send (transmitted by the NTC-4000)
9	RI			Not Used
	Power		1	Red Wire: VCC (Input voltage from 8V – 56VDC)
			4	Black wire: GND (Power Ground)

### Product Warranty

NetComm Wireless products have a standard 12 months warranty from date of purchase.

### Technical Support

For firmware updates or if you have any technical difficulties with your product, please refer to the support section of our website.

[http://support.netcommwireless.com/  
product/m2m/ntc-4000](http://support.netcommwireless.com/product/m2m/ntc-4000)



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