

# N10 Demo Board User Guide

Version 1.0



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## Notice

This document provides guide for users to use the N10.

This document is intended for system engineers (SEs), development engineers, and test engineers.

The information in this document is subject to change without notice due to product version update or other reasons.

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# 1 Overview

N10 Development board is used to debug hardware and software. It provides a series of peripheral interfaces including main power supply, UART interfaces, SIM card, antenna, ON/OFF control and USB interface. All relevant debugging can be carried out on condition that power supply and UART interface are connected.

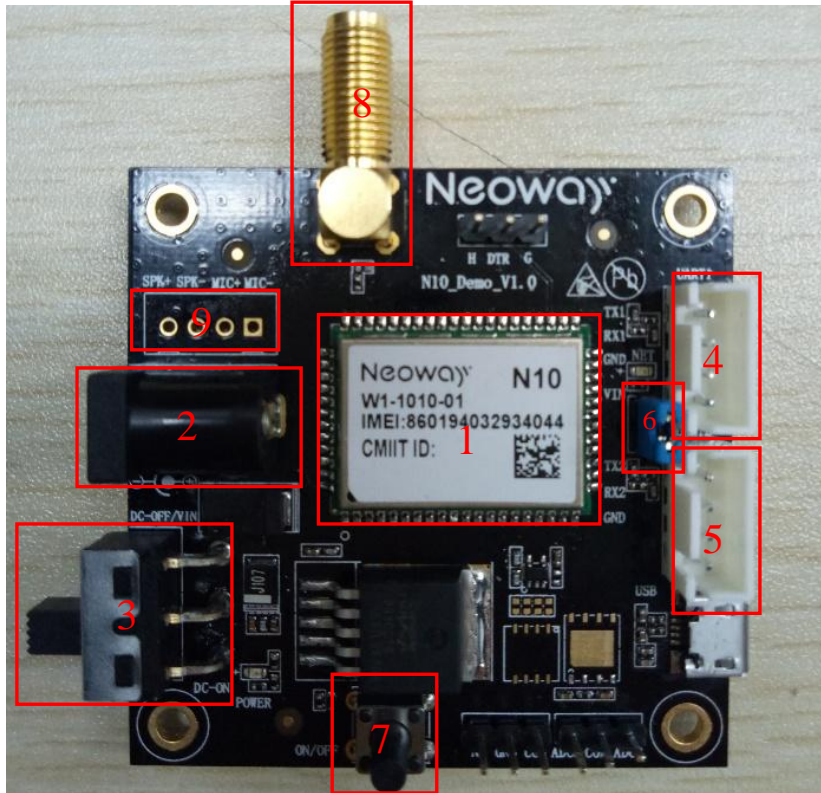
## 2 N10 Description of Interfaces

N10 development board interface and function description as following:

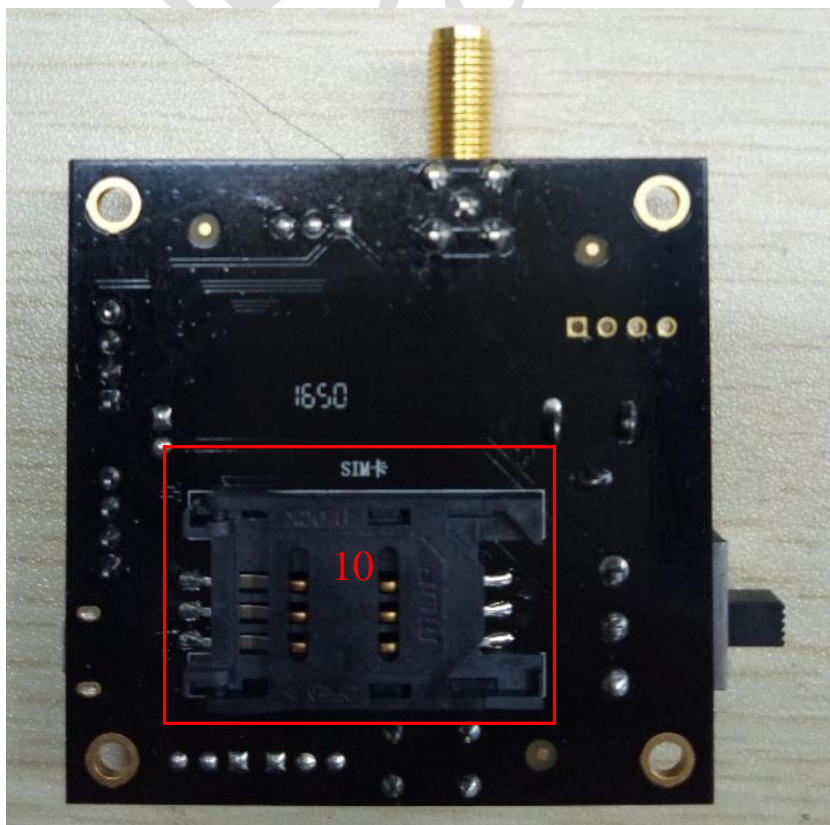
Interface	Function Description
5V power interface	Module main power input, module voltage: 3.6V ~ 4.5V.
5V power switch	Move the switch away from the 5V power interface to power on. Move the switch towards 5V power interface to power off.
SIM card interface	Can be used to insert the SIM card.
Serial port 1	Serial port 1 support serial function debugging, download and also it can offer power to the module.
Serial port 2	Not available on standard modules, other open platforms can be connected to this peripheral (such as GPS module).
Antenna interface	GPRS antenna.
Power (ON/OFF) key	Press the ON / OFF key after supplying the power and hold it more than 1.2s, to turn on the module.
USB port	No support yet.
Audio port	MIC and SPK voice interface.

# 3 N10 Development board interfaces

## 3.1 N10 Development board



Front side



Back side

In red frame place of function as following:

- 1、 N10 GPRS module;
- 2、 5V DC power input jack;
- 3、 5V DC power switch;
- 4、 Serial port 1 interface;
- 5、 Serial port 2 interface;
- 6、 UART Interface powered jumper;
- 7、 ON/OFF power switch;
- 8、 GPRS Antenna interface;
- 9、 Audio port;
- 10、 SIM card interface.

## 3.2 Power and Serial port development board

N10 development board supports two ways of power supply:

**Way 1** Use the M5X0-PWR serial port board, through the serial port 1 it can supply 3.9V voltage to the module;

**Way 2** Use the 5V / 2A DC power adapter to supply power, put the DC output into the development board's DC jack directly.

### 3.2.1 5V/2A power adapter

When using the power adapter to supply the power, the adapter output is plugged into the development board DC jack and move the 5V power switch away the power interface side and disconnect the jumper. It can supply power to the module normally. 5V / 2A power adapter picture as following



### 3.2.2 M5X0-PWR serial port board

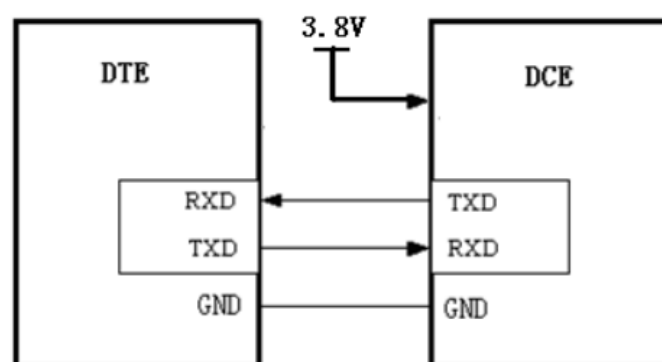


The above picture is the M5X0-PWR serial port board, the main function is supply power to the module via computer USB interface with the voltage of 3.8V / 0.6A, and through the USB to serial chip output 3.3V COMS logic level, TXD / RXD achieve computer and module to communicate. The connection with the development board is through the supply of power and serial port cable connect line as red, black, yellow, green order from bottom to top soldering to the power board, the other side plugged into the development board socket. PWR board has two pins, through disconnect or short-circuit them to open or close the supply power to the module.

M5X0-PWR board and the development board serial port connected to the 4pin socket as following:

- Green: module send data (TXD), output, 2.85V CMOS logic level;
- Yellow: module receive data (RXD), input, CMOS logic level, the maximum voltage it can withstand is 3.3V
- Black: main ground;
- Red: VBAT, the main power input, 3.6 ~ 4.5V, recommended 3.8V.

If you use the serial port function, you need to install the USB driver (PL2303); when using the MCU to control the development of the module, you need to connect the above 4 lines, the connections are as shown below:



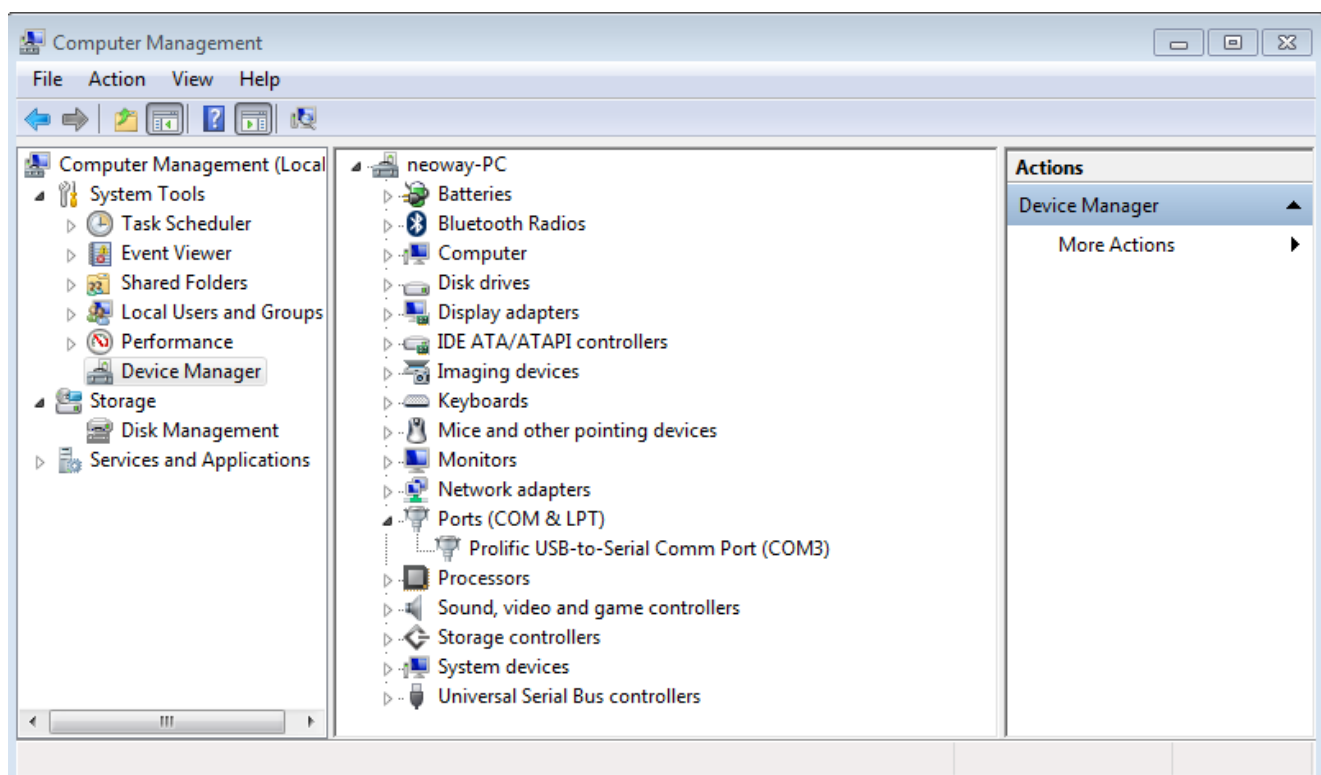


## 3.3 Product debugging

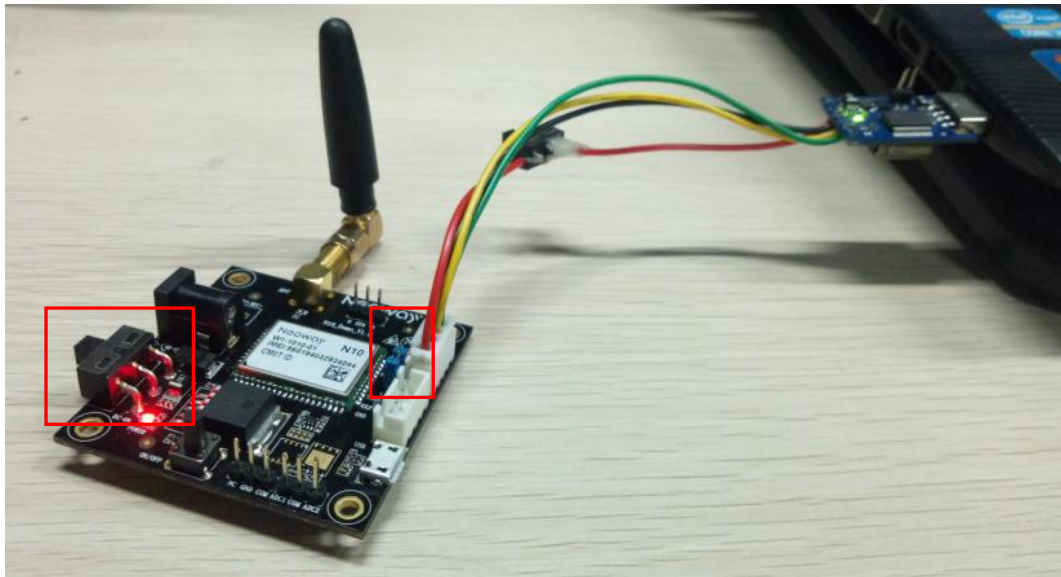
Product debugging through the serial port do debugging, details operation as following:

### 3.3.1 Serial port debugging through serial port power supply

For serial port debugging, you need to install the serial port driver (PL2303). After driver is Installed, after inserting the M5X0-PWR board, the device manager port (COM and LPT) shows” Profile USB-to-Serial Comm Port(COMx)” and we can start debugging now.

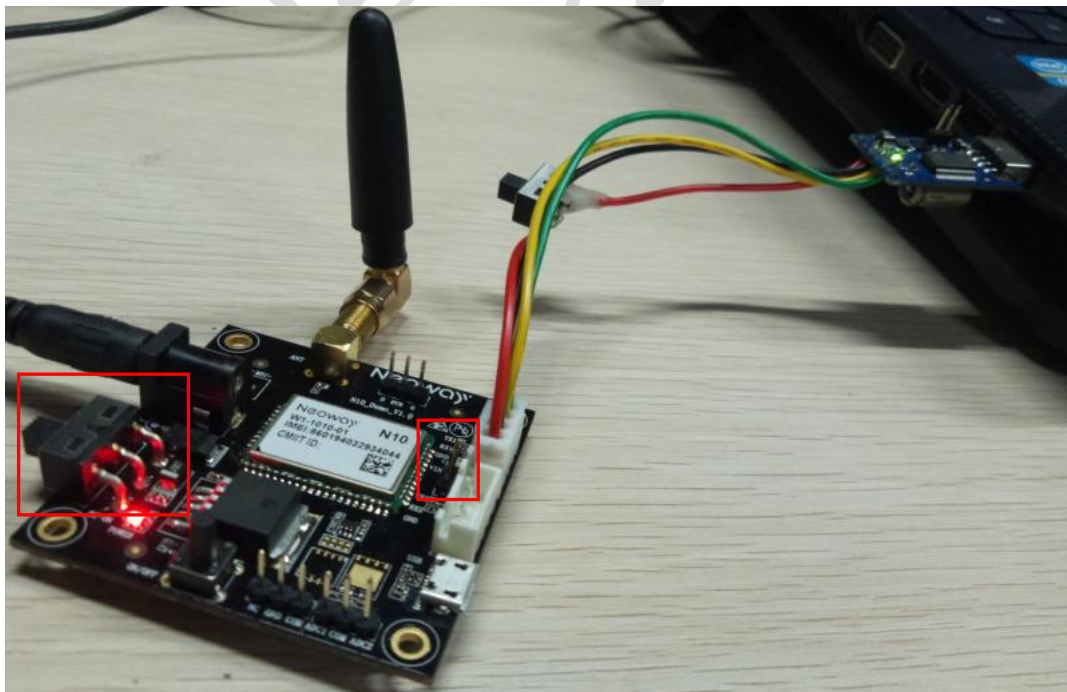


The M5X0-PWR board should be connected as shown below. That is, the M5X0-PWR board plugged into the development board of the serial port 1, the other side connected to the PC's USB port, PC through the serial port 1 supply the power to the module; at the same time, the power switch be move to the 5V DC power interface side, and connect the jumper. At this time, please press the ON / OFF button more than 1.2s, the module can be power on normally; after module powered on, through the serial port tool SScom32 / SScom42/teraterm debugging can be done.

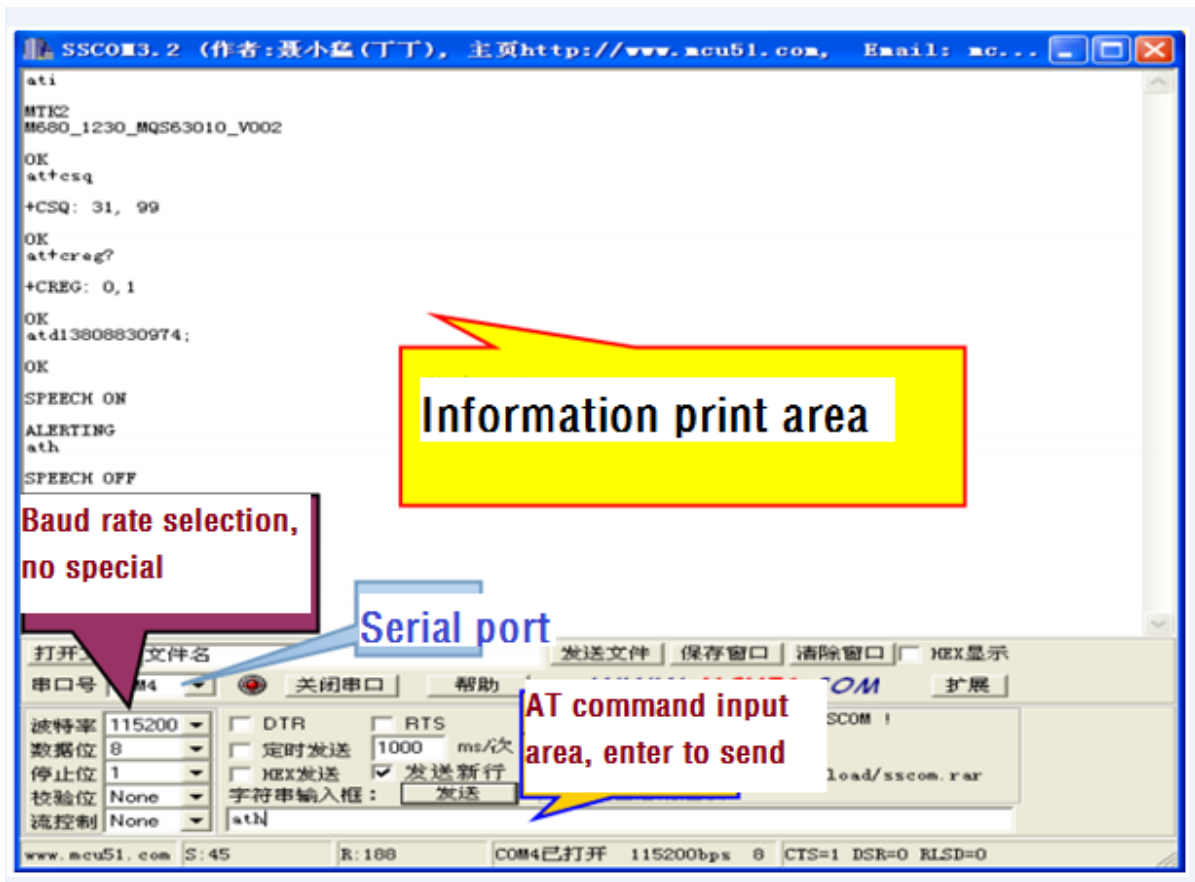


### 3.3.2 Serial port debugging, with DC power supply

Through DC power supply connection method is as shown below picture, while move power switch away from the 5V DC power supply side, and disconnect jumper connection, then, it can supply power to the module. At this moment, press the ON / OFF button more than 1.2s, the module can be power on normal, and this time through the serial port tool SSScom32 / SSScom42/tera term can be used for debugging.



Serial port print information:



## 4 Availabel list of accessories

- N10 Demo board (Including Moudle)
- M5X0-PWR serial port board
- Others (5V / 2A power adaptor, GPRS antenna, etc.)