

N75

EVK User Guide

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Notice

This document provides a guide for users to use N75.

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

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Contents

1 Overview.....	1
2 About N75 EVB.....	2
3 Connection and Power	4
3.1 Micro_USB Cable.....	4
3.2 Power Supply	4
3.2.1 5V/3A Adapter.....	4
3.2.2 M5X0-PWR Board.....	5
4 Commissioning	7
4.1 Through Serial Port	7
4.2 Through USB Port.....	8

About This Document

Scope

This document is applicable to the N75 series.




Audience

This document is intended for [system engineers \(SEs\)](#), [development engineers](#), and [test engineers](#).

Change History

Issue	Date	Change	Changed By
1.0	2019-10	Initial draft	Bale Chang

Conventions

Symbol	Indication
	This warning symbol means danger. You are in a situation that could cause fatal device damage or even bodily damage.
	This means the reader be careful. In this situation, you might perform an action that could result in module or product damages.
	Means note or tips for readers to use the module

Related Documents

[Neoway_N75_Datasheet](#)

[Neoway_N75_Product_Specifications](#)

Neoway_N75_HW_User_Guide

Neoway_N75_AT_Command_Manual

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1 Overview

N75 EVB is designed to commission and test the N75 module. It provides one power interface, two UART interfaces, one USB interface, one SIM card interface, antenna interfaces, and one PWRKEY button. Developers can connect it to a power supply and a computer through the USB cable or serial-to-USB cable to commission the functions of the module.

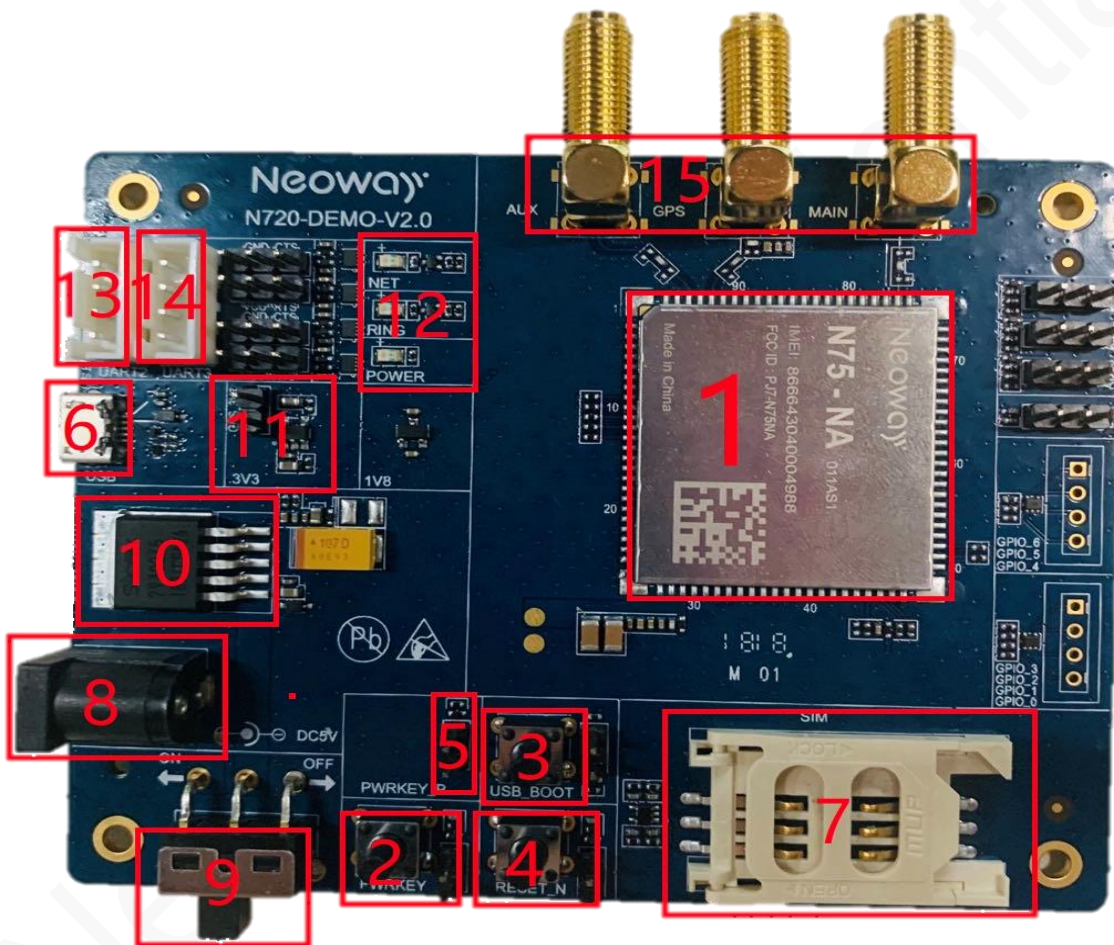
N75 EVK provides the following items:

- N75 EVB (including N75 module)
- M5X0-PWR power cable
- Micro-USB cable
- Others (power adapter, jumper caps, LTE antenna)

2 About N75 EVB

This chapter describes the hardware layout of the N75 EVB.

Figure 2-1 Top view of N75 EVB



In Figure 2-1, each interface and keys of N75 is marked in red rectangles. Read this user guide carefully before using N75 EVB. If necessary, please refer to the schematic diagram and PCB file of the board.

Table 2-1 lists each interface or button and their functions.

Table 2-1 Interfaces and button of N75 EVB

No.	Interface/Button	Description
1	N75	4G module
2	PWRKEY button	After supplying power to the module, hold this button for more than 1 second to start the module
3	USB_BOOT button	Force the module to enter download mode
4	RESET_N button	Hold this button for more than 1 second to reset the module
5	High-level start pin	To start the module by a high level
6	USB port	To download firmware or send AT command
7	SIM connector	Micro-SIM card
8	5V DC power port	Main power supply, ranging from 3.6V to 4.5V
9	Power control switch	To control the power supply
10	3.8V LDO regulator	Level shift
11	3.3V LDO regulator	Level shift
12	Indicators	Power, ring, network
13	UART2	Used to commission the module CANNOT be used to supply power
14	UART3	Not supported
15	Antenna interfaces	Diversity antenna connector, GPS antenna connector, 2G/3G/4G antenna connector

3 Connection and Power

3.1 Micro_USB Cable

A micro-USB cable is used to connect N75 to a computer for USB or UART communication. The USB interface of N75 EVB is used for communication only. It cannot be used to supply power for the EVB. Use a power adapter for power supply.

Figure 3-1 USB cable



3.2 Power Supply

N75 EVB supports different types of power supply:

- Adapter, 5V@3A
- M5X0-PWR board, 3.9V through UART1

3.2.1 5V/3A Adapter

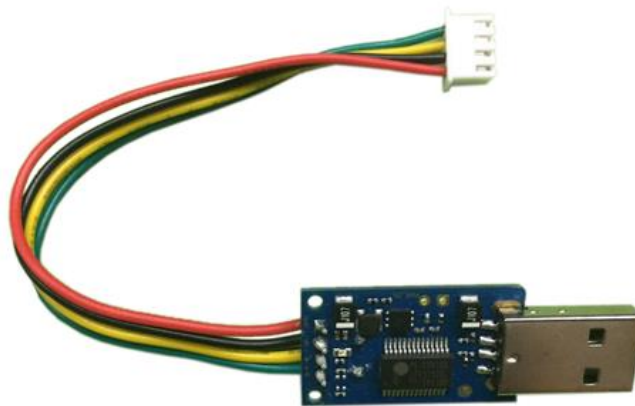
Figure 3-1 shows the recommended power adapter for N75 EVB.

Figure 3-2 Power adapter



3.2.2 M5X0-PWR Board

M5X0-PWR board is developed on PL2303 chipset by Neoway and used to convert USB to UART. You can also choose another USB-to UART cable/board based on FT2232, CP210X, and other chipsets.

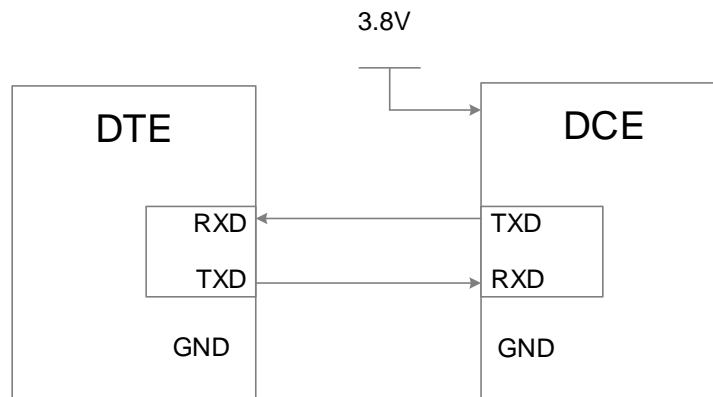


M5X0-PWR is connected to the N75 EVB through 4-pin cables, which have been soldered to the power board in a sequence of red, black, yellow, and green at one end and should be inserted into the plug of the EVB at the other end. Among the 4-pin cables:

- Green
Module TXD, outputs 3.3 V CMOS level
- Yellow
Module RXD, inputs maximum 3.3 V CMOS level
- Black
Ground
- Red

3.8 V power supply. It is not applicable to N21 EVB.

To use the UART function, install the USB-to-UART driver (PL2303) first. If an MCU is used to control the module, connect the as shown in the following figure:

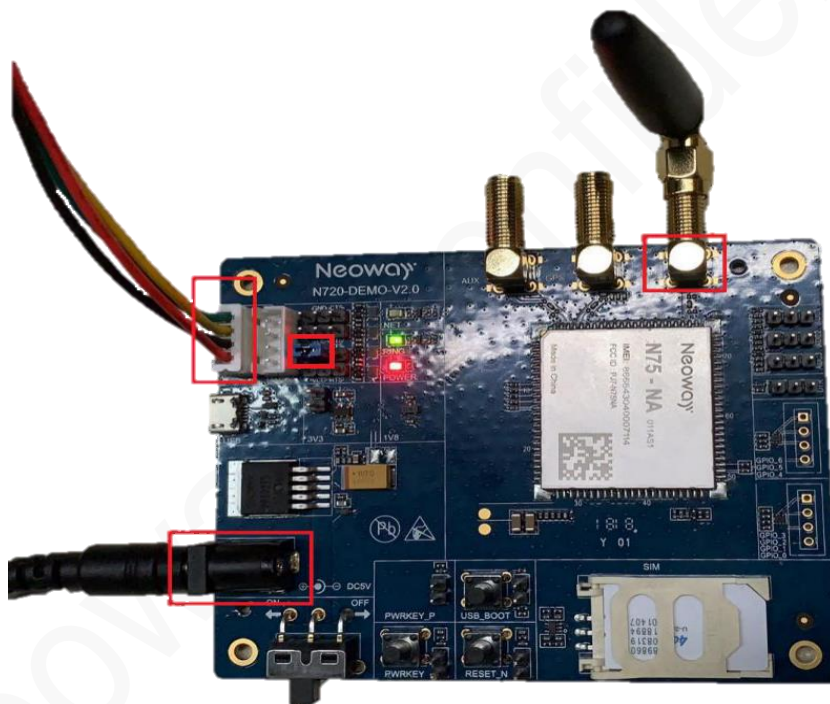


4 Commissioning

N75 can be commissioned either through a serial port or a USB port. This chapter describes how to connect the module and how to implement commissioning through either port.

4.1 Through Serial Port

Step 1: Use the 5V adapter to supply power, power up the N75 EVB and connect it to the computer through the M5X0-PWR board.



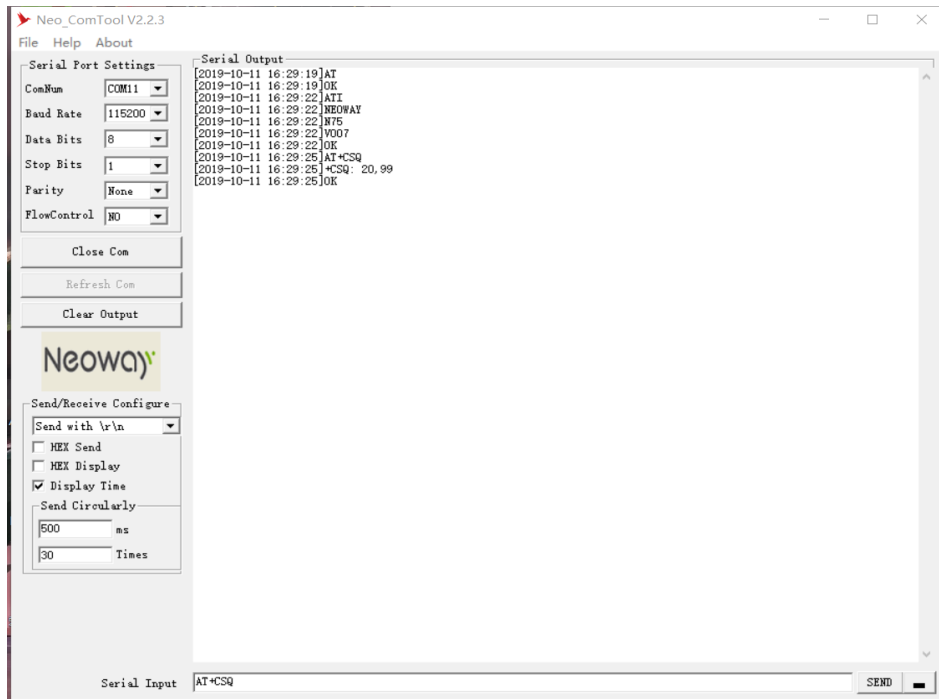
Add a jumper next to the serial port connector.

Step 2: Install the PL2303 driver.

Obtain the driver package from Neoway FAE or download it from the Internet if you use the serial-to-USB cable Neoway provided.

- ▼ 端口 (COM 和 LPT)
- Prolific USB-to-Serial Comm Port (COM11)

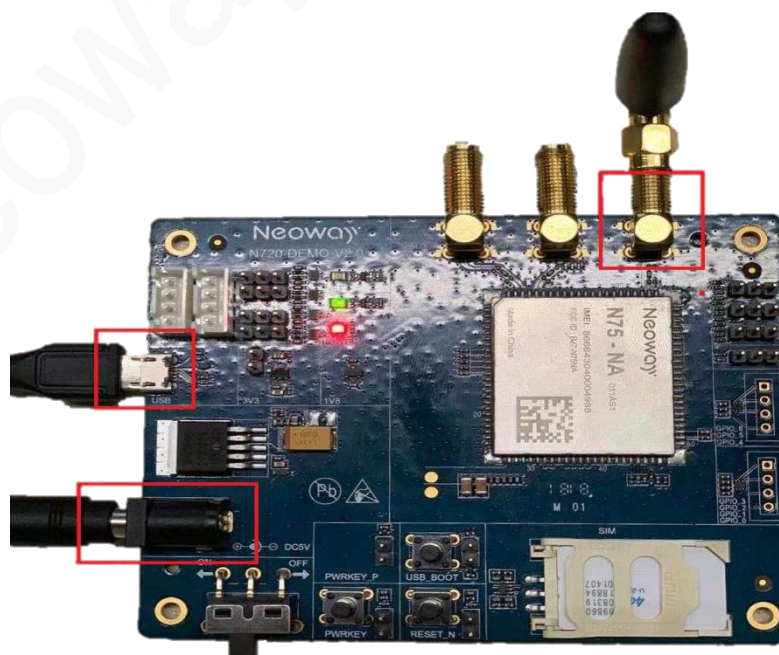
Step 3: Start the Neo_ComTool and send AT commands.



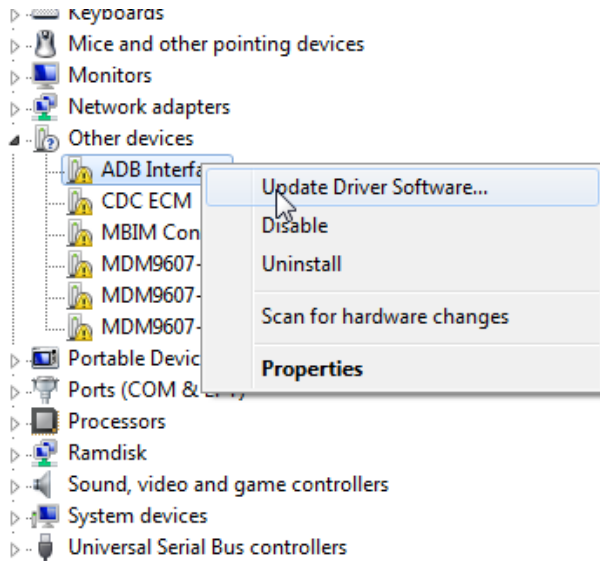
4.2 Through USB Port

Perform the following steps to commission N75 through USB port:

Step 1: Use the 5V adapter to supply power, power up the N75 EVB and connect it to the computer through USB.



Step 2: Update the N75 USB drivers on your computer.



If the computer runs Windows 8 or 10, disable driver signature enforcement before updating the USB drivers.

Step 3: Start the Neo_ComTool and send AT commands.

