

Configuring from DTU to modem mode in M1200

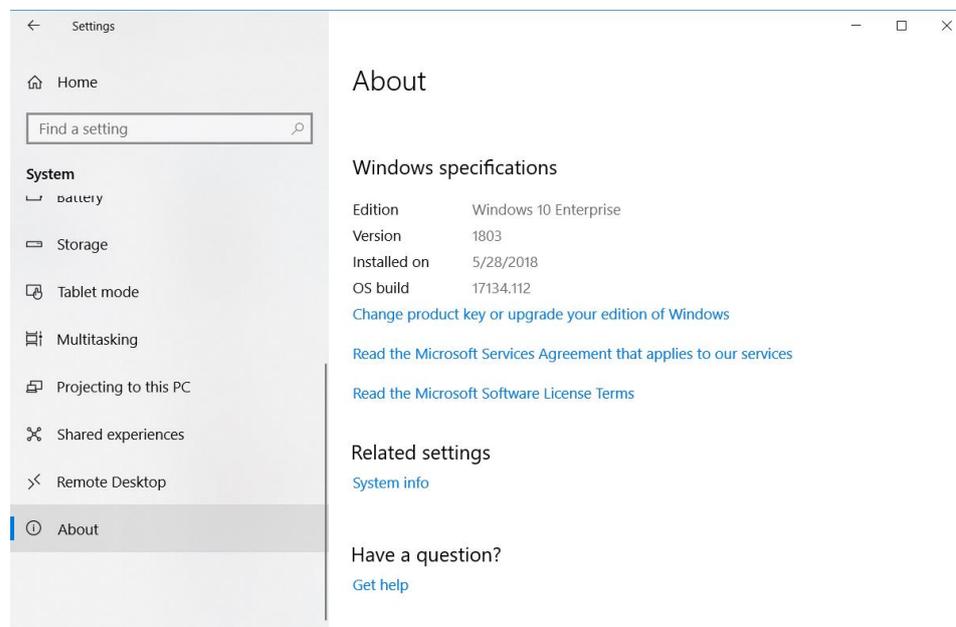
Introduction

Overview

M1200 support software selection of DTU and Modem mode after firmware v1.0.1. This brief note aims at teaching you how to configure M1200 from DTU to modem mode and use modem mode of M1200 to dial up based on PC with Windows 10.

For more details or PC of other OS, please refer to later official UG of M1200.

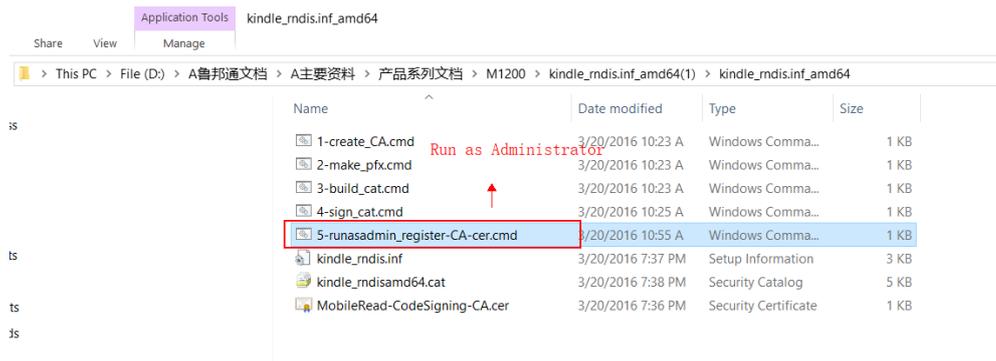
- Firmware version: v1.0.1 or after
- Testing device: M1200-3P (UC20 module)
- Version of Windows 10 OS build: after 16299.98



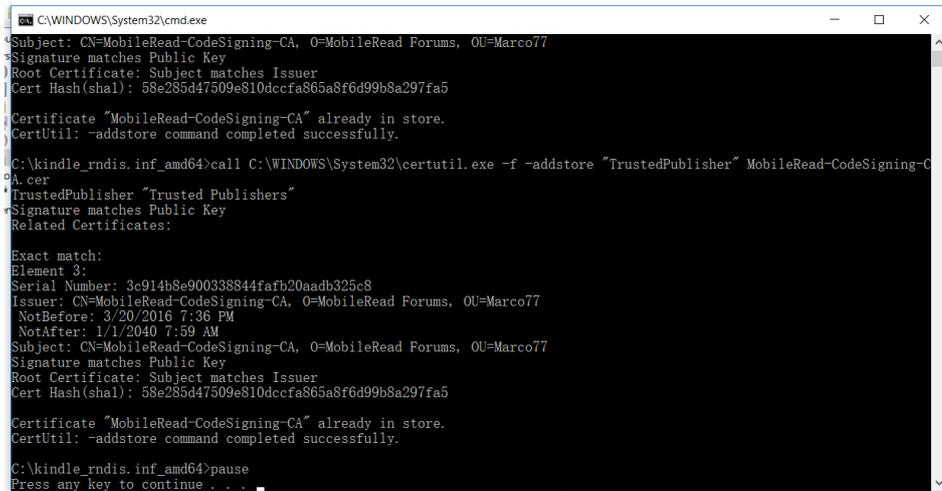
Configuration

Connect configuration webpage of M1200 with USB (if you use first time).

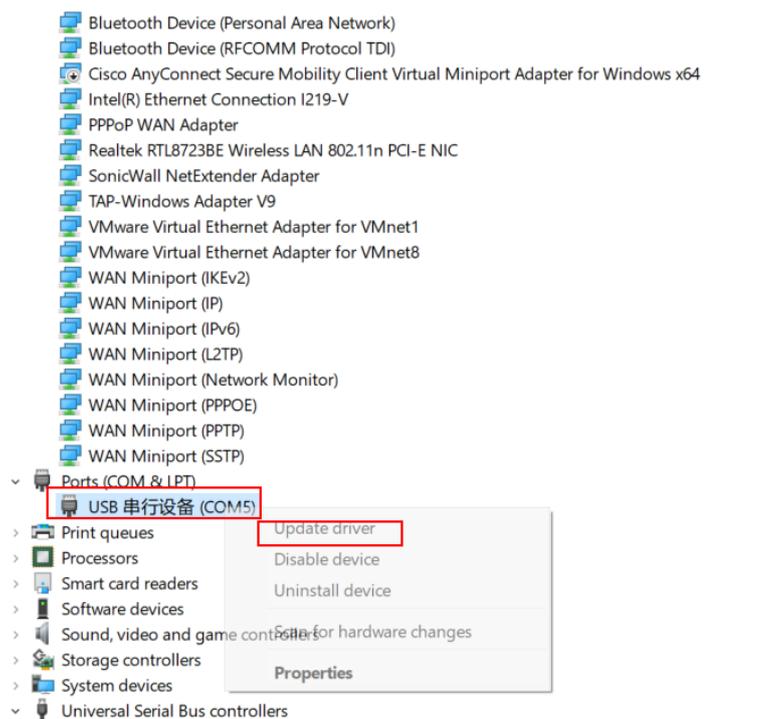
1. Please get the proper USB driver for WIN10 from Robustel Technical Support Team or local distributor channel. The packet is **kindle_rndis.inf_amd64**.
2. Extract this packet and you will get related files below and run **5-runasadmin_register-CA-cer.cmd** as administrator and attain the driver authority. Then you can go further to next step to update the USB-to-Ethernet driver.



Note: C disk is suggested to put this packet and run specific certificate. CMD message might be seen as below after you install the certificate sometimes. You can hit any key to exit.



- Find USB port of M1200 in your Device Manager and select the path **kindle_rndis.inf_amd64** to update the driver.



How do you want to search for drivers?

→ Search automatically for updated driver software
Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.

→ Browse my computer for driver software
Locate and install driver software manually.

Select the folder that contains drivers for your hardware.

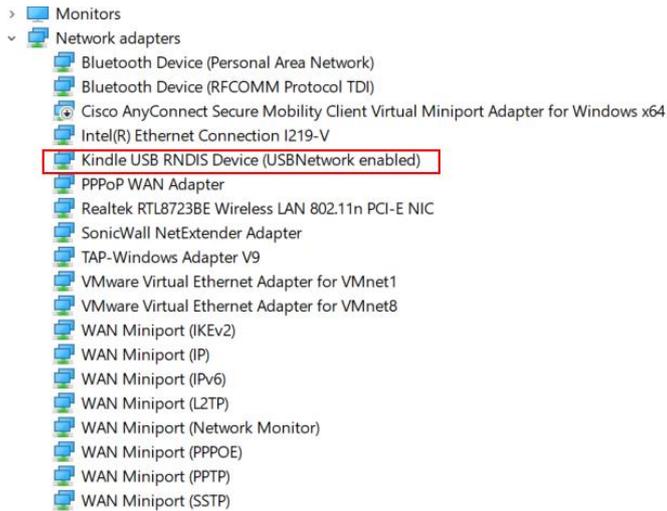


Browse for drivers on your computer

Search for drivers in this location:

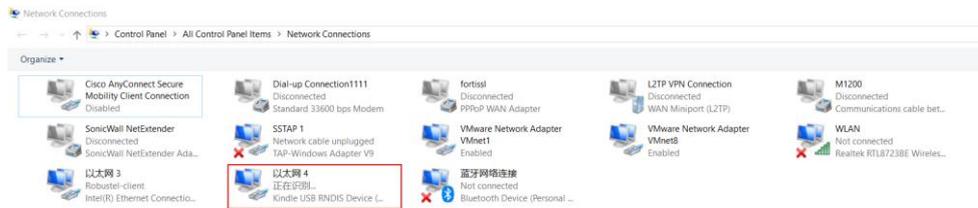
此文档\A主要资料\产品系列文档\M1200\kindle_rndis.inf_amd64(1) Browse...

Include subfolders



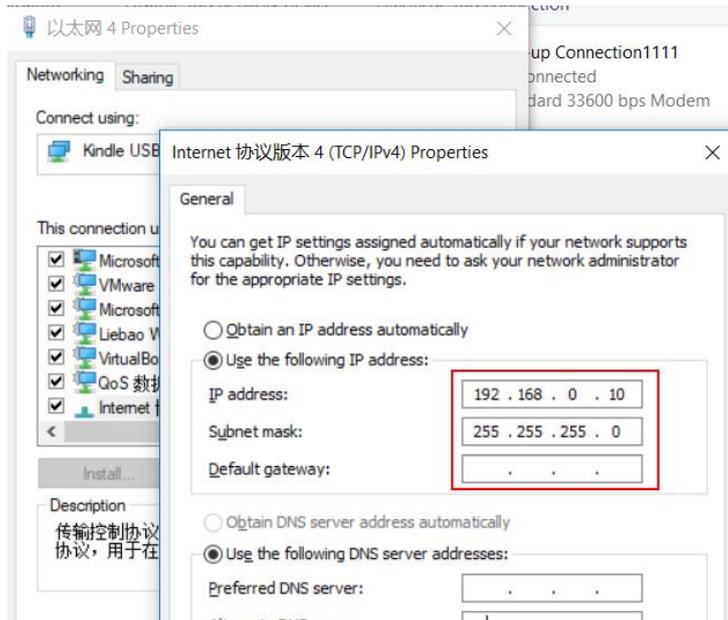
Note: When you change USB of M1200 to connect another COM of PC, you might install the driver again for that COM to simulate another network adapter.

4. After you update driver successfully, there is a new network adapter pop up names Kindle USB RNDIS Driver. This network make engineer can visit M1200 like a router via LAN.



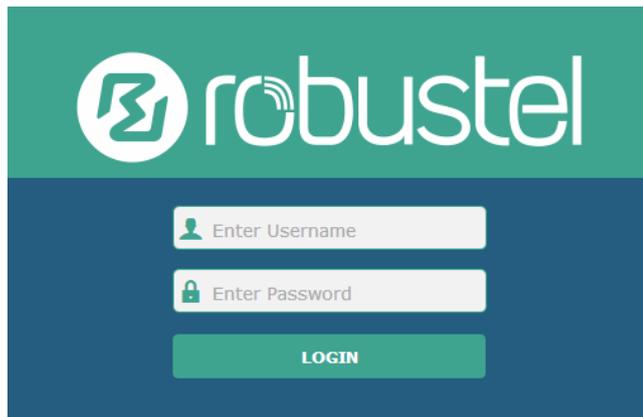
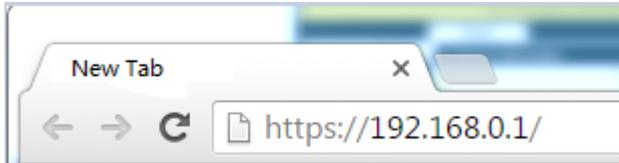
5. Set adapter a local IP address manually within LAN range of M1200. E.g. Configure PC as 192.168.0.10 because the LAN of M1200 is 192.168.0.1/24 as default.

Note: DHCP is not supported at this driver and usage.

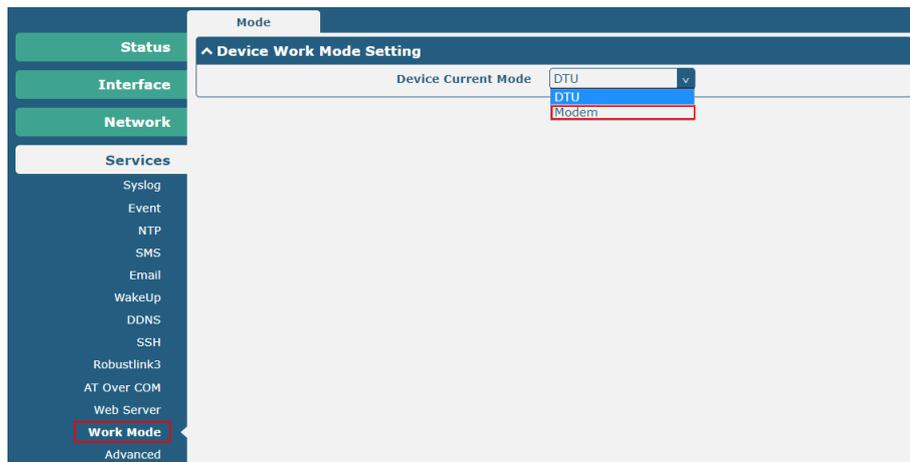


Login M1200 and configure modem mode

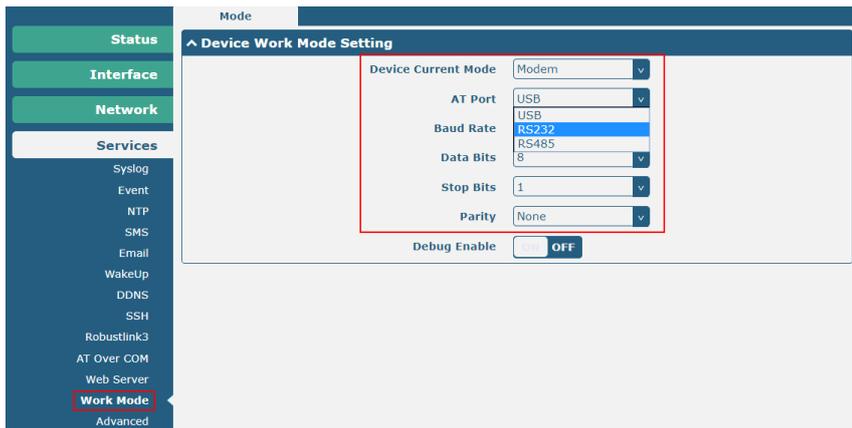
1. Visit the default LAN IP 192.168.0.1 of M1200 and you can login by input initial username/password which is admin/admin.



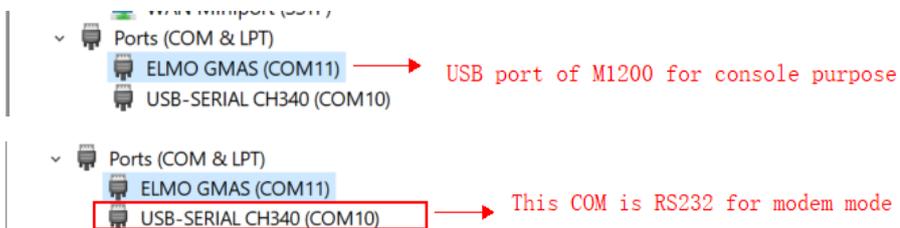
2. Change Work mode of M1200 from DTU to Modem. Path: Service -> Work mode



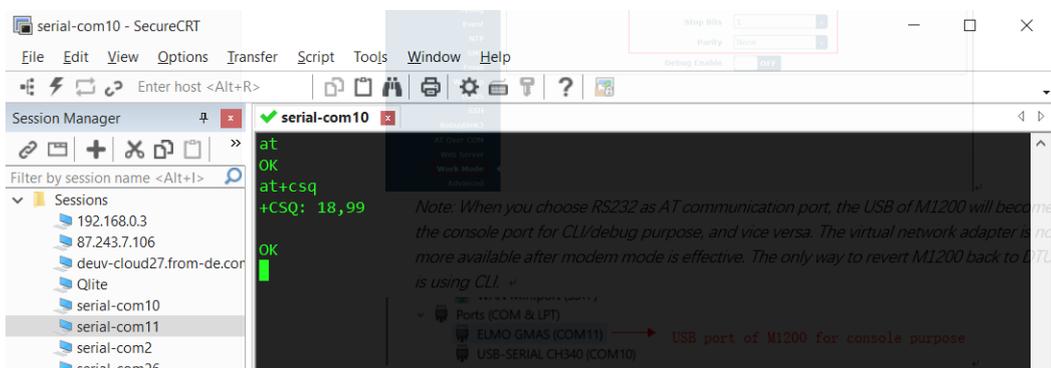
3. Set your favorite serial interface type and serial parameters. Following example is based on RS232.



Note: When you choose RS232 as AT communication port, the USB of M1200 will become the console port for CLI/debug purpose, and vice versa. The virtual network adapter is no more available after modem mode is effective. The only way to revert M1200 back to DTU is using CLI.

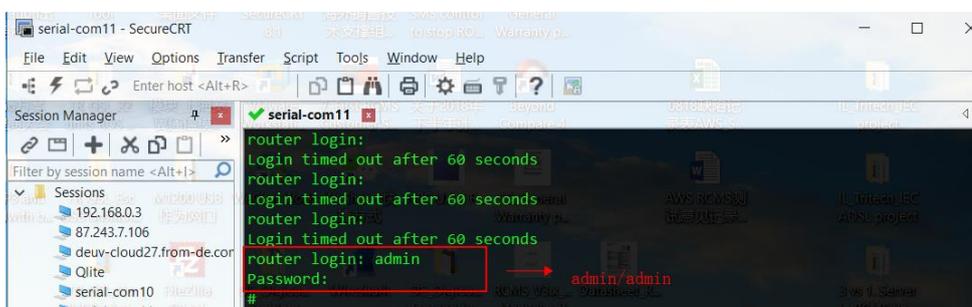


- Operate AT command on related RS232 COM like a modem.



- (Optional) Revert back to DTU mode by CLI.

- Use corresponding console port regarding above and login CLI window.



- Input set mode current_mode dtu then config save_and_apply, to switch back to DTU if needed

```
# set mode current_mode
Enum Device Current Mode (dtu/modem)

# set mode current_mode dtu

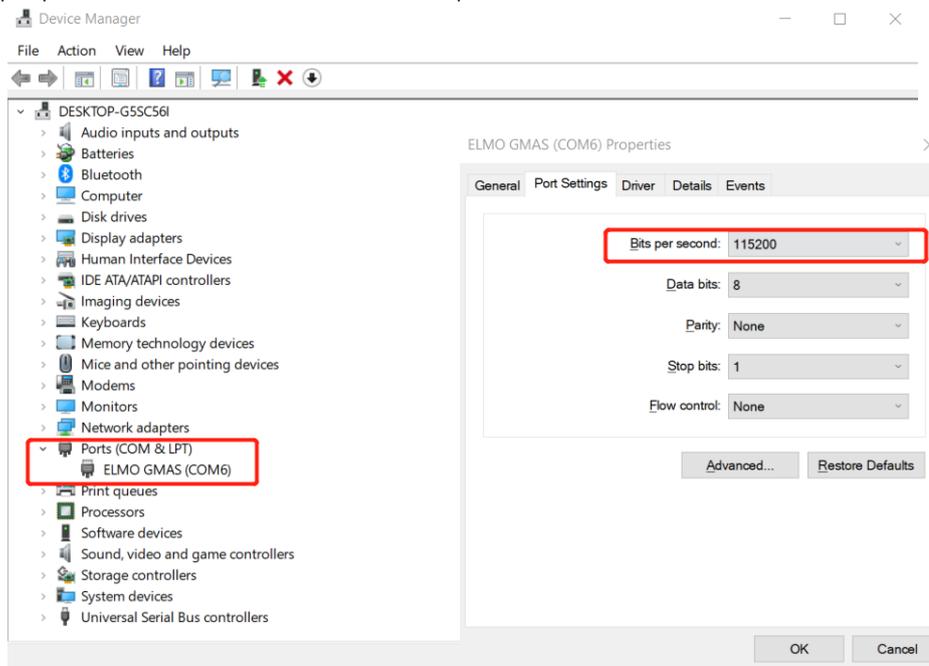
# config save_and_apply
OK
```

Use AT modem mode to realize dial-up application on Windows 10

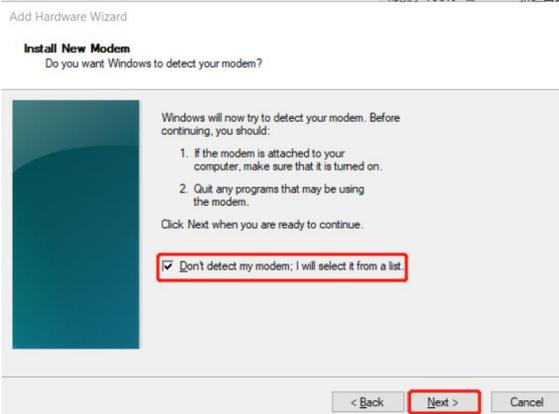
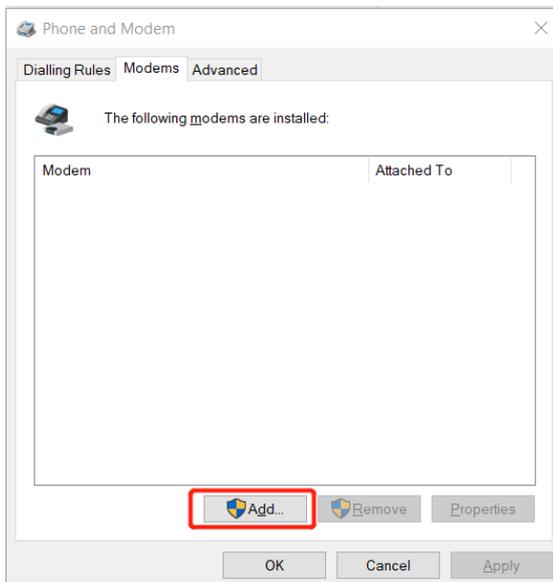
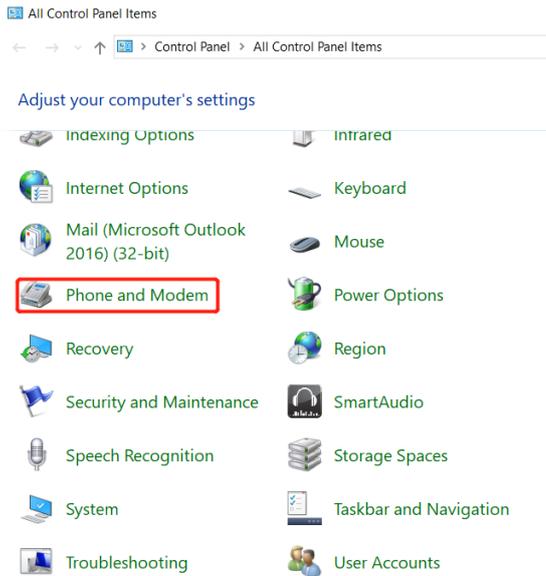
1. Please connect the RS232 pin of M1200 to your intelligent end device, like embedded PC, PLC, RTU, etc.

Note: RS232 of M1200 just support TXD, RXD and GND, which mean hardware flow control is incompatible.

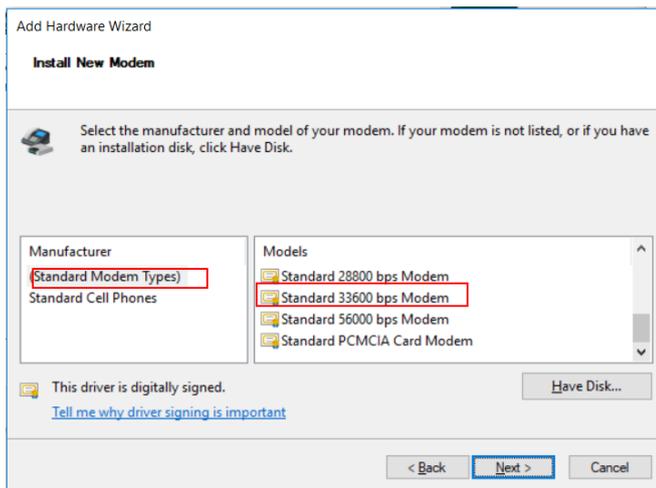
2. After RS232 is connected to the PC, check the identified serial port and right click properties to set the rate of the serial port.



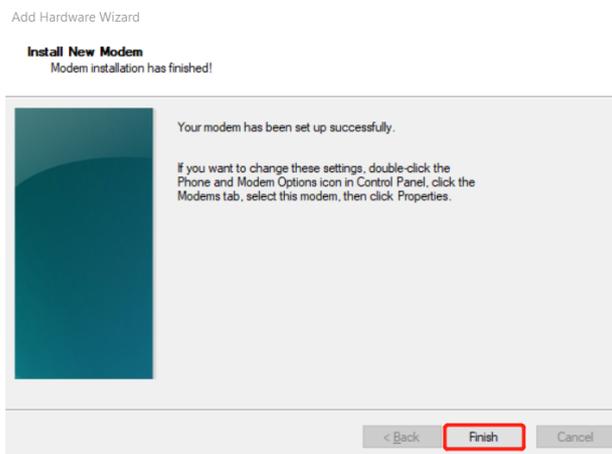
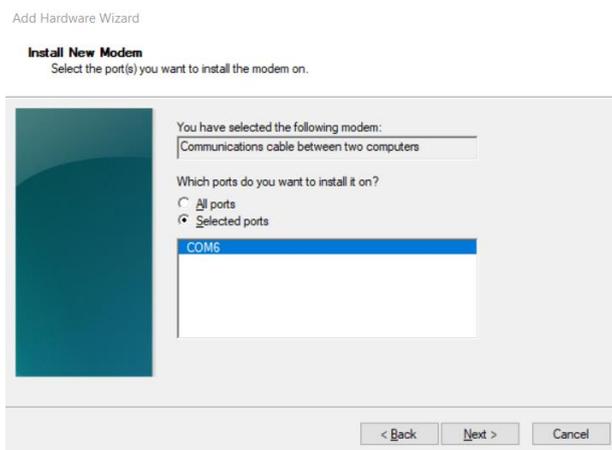
3. Move to Control Panel of Windows, select "Phone and Modem" and add a common dial-up modem.



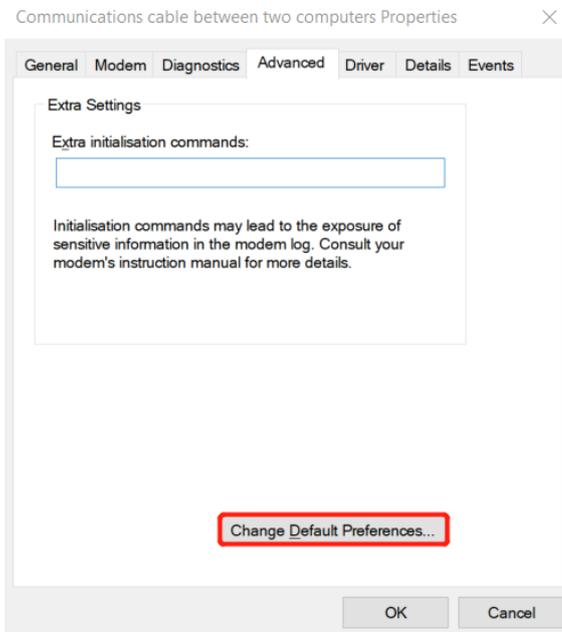
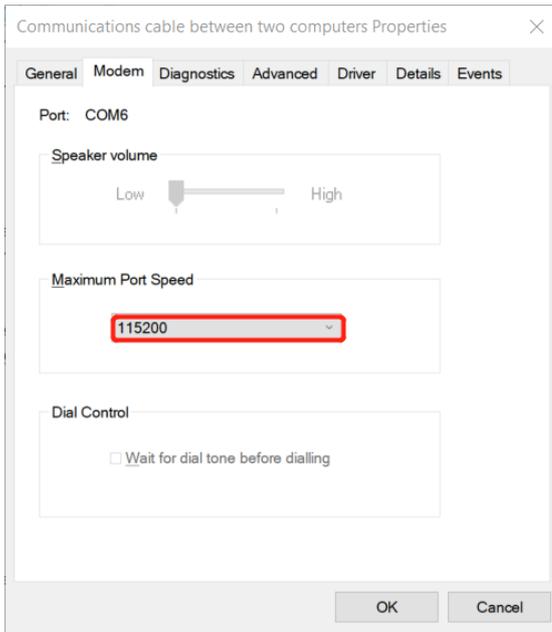
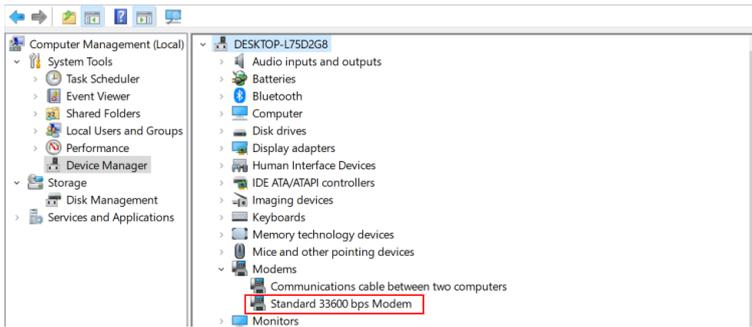
4. If the Standard Modem Types listed below does not exit, please refer to the readme under `m1200_ppp_configure\modem_inf`, and the related appendix can be downloaded on the official website or requested for the Robsutel technical support.

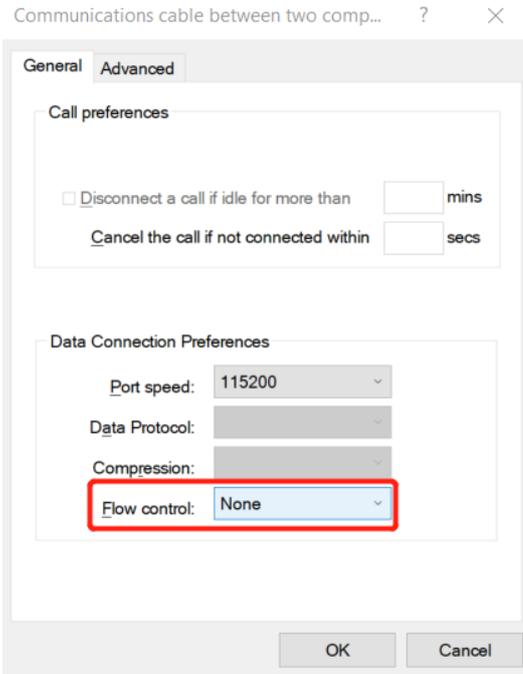


5. Please select that COM6 of RS232 of M1200 appears in Windows 10.

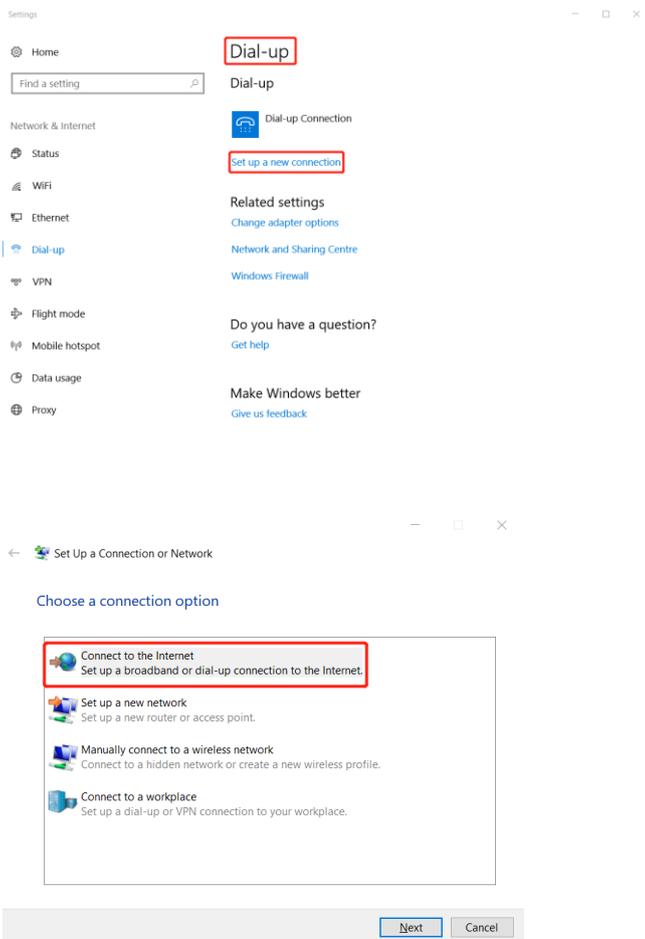


6. Right click the Properties to configure with proper serial parameters and without hardware flow control.





7. After the modem is all set well, just go to the Network&Internet and start the dial-up procedure.



← Connect to the Internet

You are already connected to the Internet



→ Browse the Internet now

→ Set up a new connection anyway

Cancel

← Connect to the Internet

Do you want to use a connection that you already have?

No, create a new connection

Yes, I'll choose an existing connection

Dial-up Connection
Communications cable between two computers

Next

Cancel

← Connect to the Internet

Do you want to use a connection that you already have?

No, create a new connection

Yes, I'll choose an existing connection

Dial-up Connection
Communications cable between two computers

Next

Cancel

How do you want to connect?

 **Broadband (PPPoE)**
Connect using DSL or cable that requires a username and password.

 **Dial-up**
Connect using a dial-up modem or ISDN.

Cancel

Type the information from your Internet service provider (ISP)

Dial-up phone number:

User name:

Password:

[APN parameters](#)
[Dialing Rules](#)

- Show characters
- Remember this password

Connection name:

Allow other people to use this connection
This option allows anyone with access to this computer to use this connection.

[I don't have an ISP](#)

Connect Cancel

Connecting to M1200...



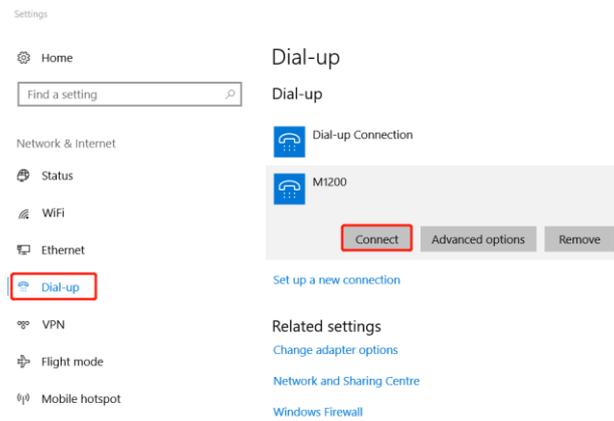
Verifying username and password...



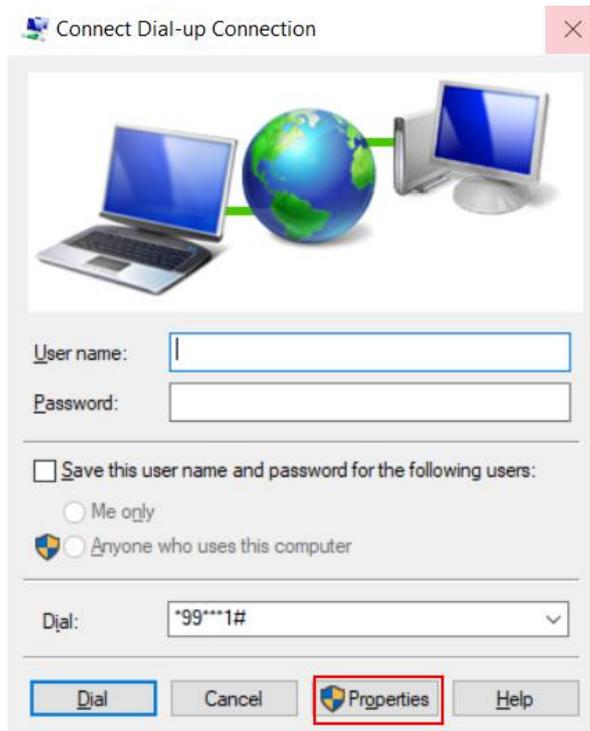
Skip Cancel

Note: you might fail to dial up with above screenshot, and you could click skip to redial up again like check 1),2),3). Afterwards, you can double check the property of dial-up network as following steps show, to ensure the serial setting.

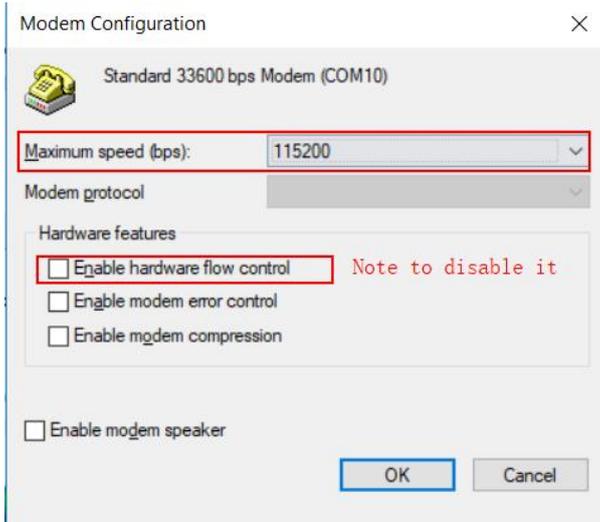
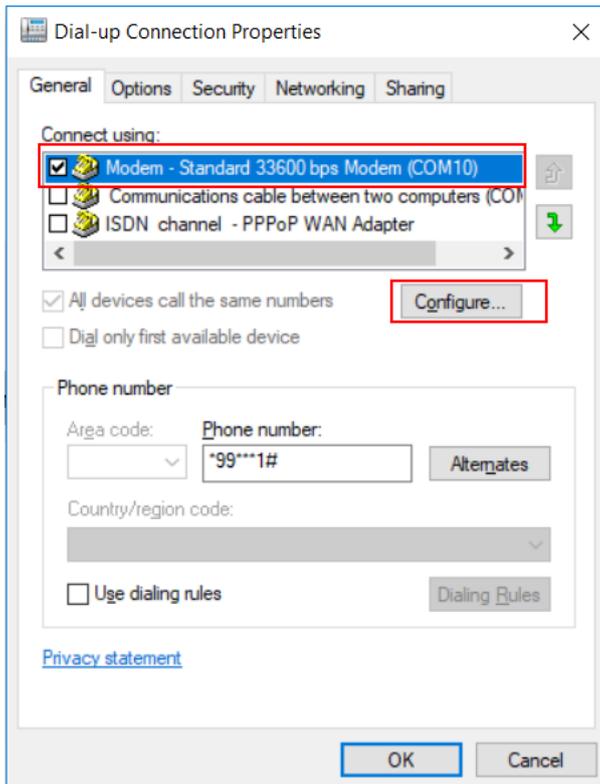
1)



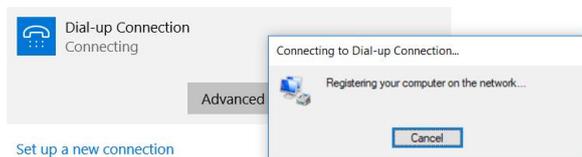
2)



3)



8. Dial up and visit internet successfully.



```
C:\Users\Singson>ping 114.114.114.114
```

```
Pinging 114.114.114.114 with 32 bytes of data:
```

```
Reply from 114.114.114.114: bytes=32 time=585ms TTL=248
```

```
Reply from 114.114.114.114: bytes=32 time=143ms TTL=248
```

```
Reply from 114.114.114.114: bytes=32 time=111ms TTL=248
```

```
Reply from 114.114.114.114: bytes=32 time=2038ms TTL=248
```

```
Ping statistics for 114.114.114.114:
```

```
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

```
    Approximate round trip times in milli-seconds:
```

```
        Minimum = 111ms, Maximum = 2038ms, Average = 719ms
```