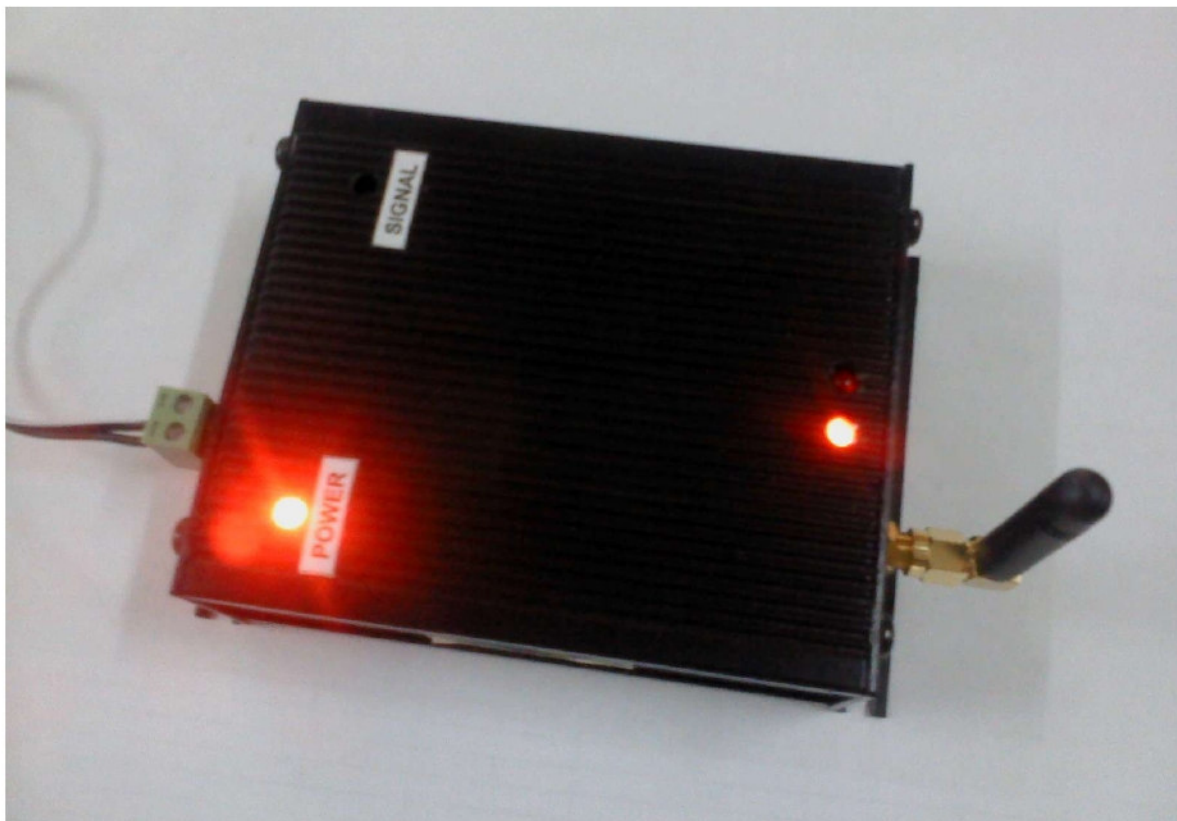




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DUAL SIM MODEM



USER MANUAL

Developed & Designed by:

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Chapter 1: Brief Introduction of Product

1.1 General

Dual SIM modem is based on GPRS network and adopts industrial GPRS module. It supports SMS, CSD and function. It is designed with industrial standards and has been widely used on finance, water supply, weather fields and so on.

1.2 Product features

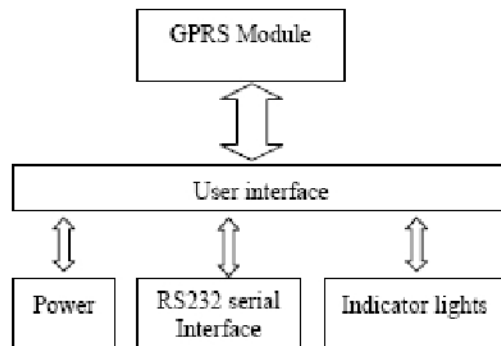
Designed with industrial standard.
Supports SMS, CSD and data function.
Supports RS232 & USB port. Power range
DC 5V to 24V.

1.3 System Components

The modem is composed of following parts mainly.

GPRS module.
RS232 module.
Power supply.
GPRS antenna.

1.4 Working principle





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1.5 Technical specification

Wireless specification:

Supports DTMF.
Support SMS, CSD and Data function.
Standard AT command Interface. Q2686 or
Q2687 wireless module.

Interface:

RS232 serial port, rates: 115200 bps max.
Indicator lights: "Power", "Signal", "Sim1 LED", and "Sim2 LED. Antenna
interface: Standard SMA Female interface, 50ohm. Standard user card
interface.
Power interface: 2Pin Terminal block.

Power Supply:

Power range: DC 5 to 24V.



Chapter 2: Installation introduction

2.1 General

The MODEM must be installed correctly to make it work properly.

2.2 Encasement list

Name	Quantity	Remark
MODEM host	1	
Antenna	1	
Power adapter	1	
RS232 data cable	1	
Manual CD	1	

2.3 Installation and cable connection

Installation of SIM card:

Firstly power off the MODEM, and press the out button of the SIM card outlet with a needle object. Then the SIM/UIM card sheath will flick out at once. Put SIM/UIM card into the card sheath (Pay attention to put the side which has metal point outside), and insert card sheath back to the SIM/UIM card outlet.

Warning: Do not insert SIM card when powered!

Installation of antenna:

Screw the SMA male pin of the antenna to the female SMA outlet of the MODEM tightly. Warning: The antenna must be screwed tightly, or the signal quality of antenna will be influenced!

Installation of cable:

Insert DB9F end of the RS232 data cable into the DB9M interface of MODEM, and connect the other end with user's device.



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2.4 Power

The power range of the MODEM is 5 - 24V.

Warning: When we use other power, we should make sure that the power can supply power above 4W.

We recommend user to use the standard DC 05V/0.5A Power adapter.

2.5 Indicator Lights Introduction

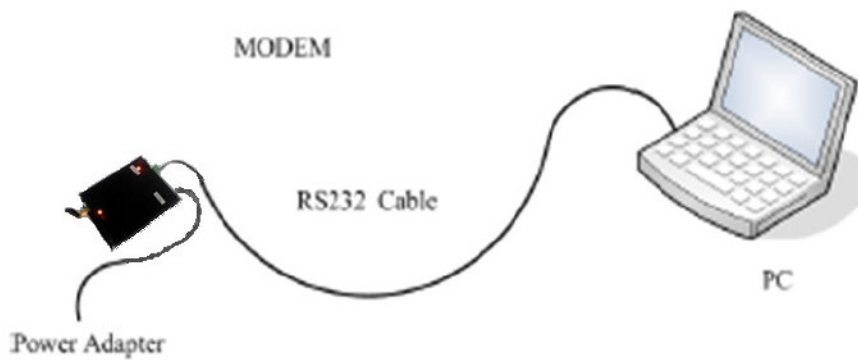
Indicator lights	: "Power", "Signal", "Sim1 LED", and "Sim2 LED".
Power LED ON	: Modem is powered.
Signal LED Dark	: Data is not communicating.
Twinkle	: Data is communicating.
Sim1 LED ON	: Sim 1 is activated.
Sim2 LED ON	: Sim 2 is activated.



Chapter 3: Dial-Up settings

3.1 Modem Connection:

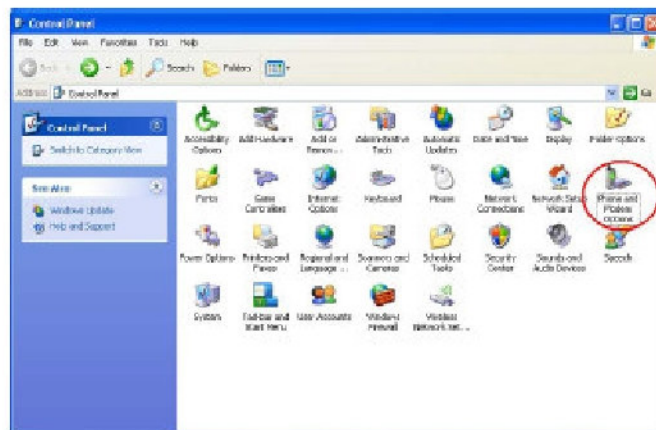
Connect Modem and PC with the shipped RS-232 cable as following:



3.2 Dial-Up Settings:

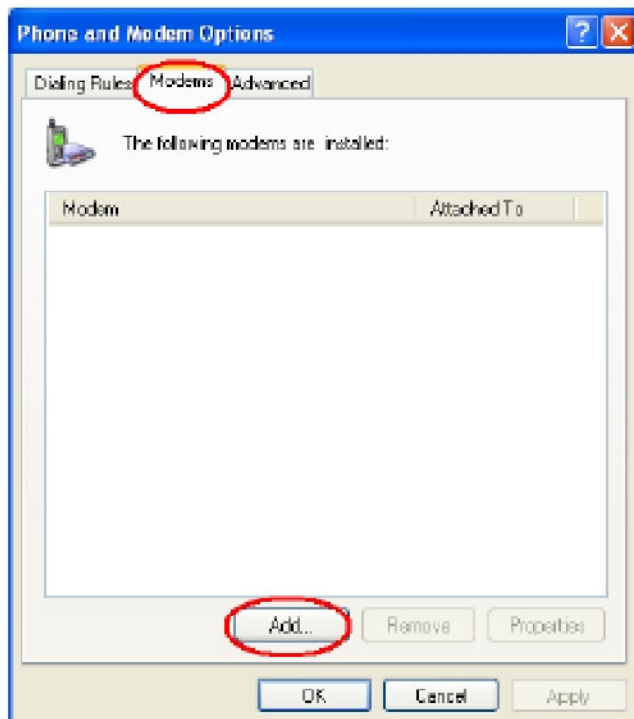
1. Press "Start" "Settings" and Modem" Options

"Control Panel", Double click "Phone and Modem" Options

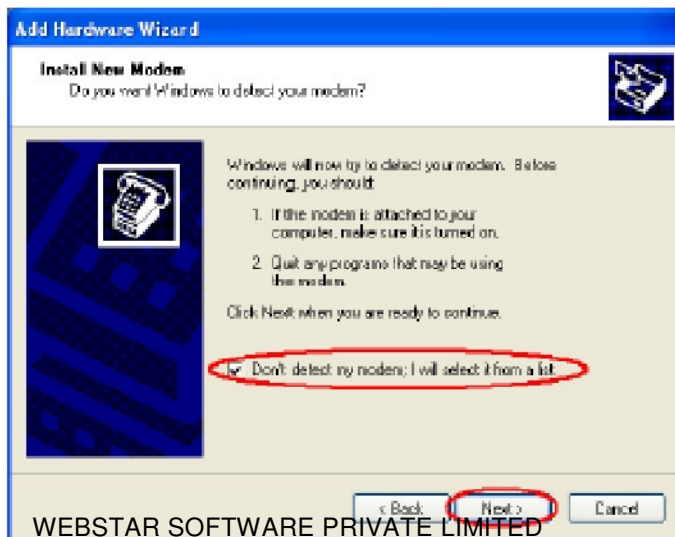




2. Choose "Modems", Press "Add" button.

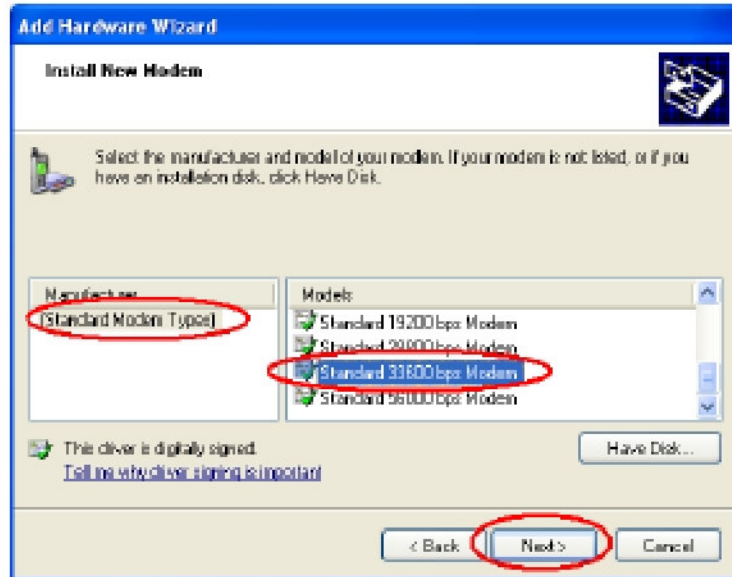


3. Choose "Don't detect my modem; I will select it from a list", and click "Next".

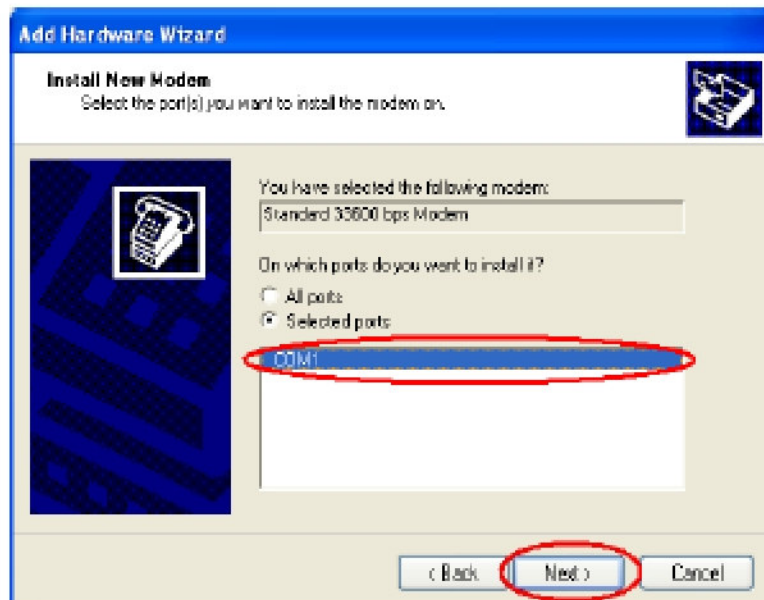




4. Manufacture choose "Standard Modem Types", Models choose "Standard 56000bps Modem", click "Next" button.

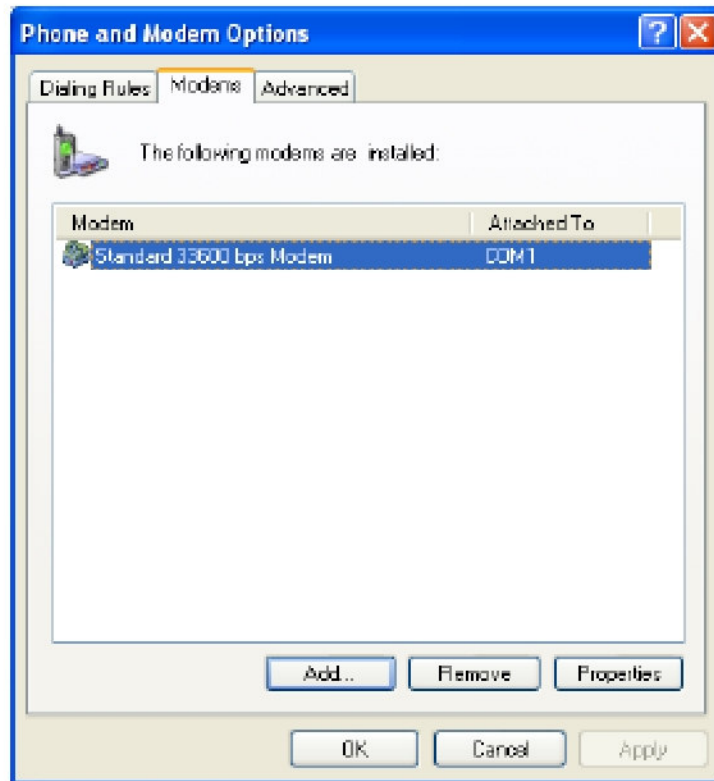


5. "Selected ports" choose the actual COM port which connects to Modem, click "Next" button.



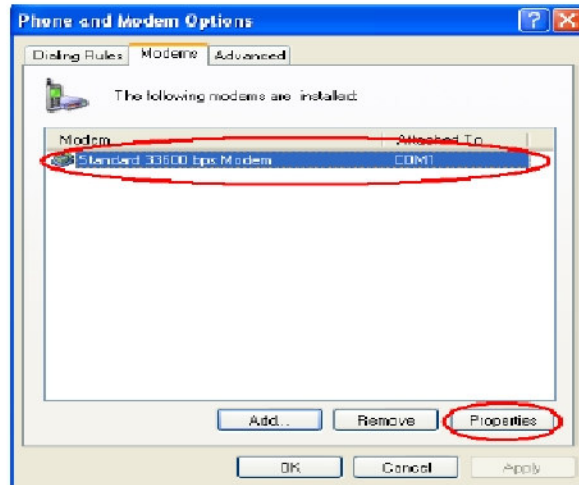


6. Click "Finish" button, return back to "Modems" page

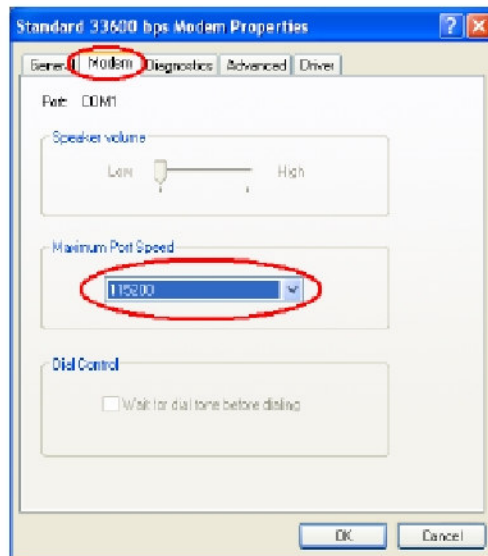




7. Choose the modem you have just installed, click "properties "button to configure the modem driver

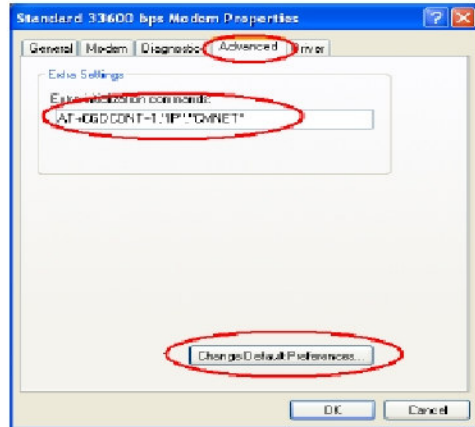


8. Choose "Modem" page, set Maximum Port Speed as 115200.

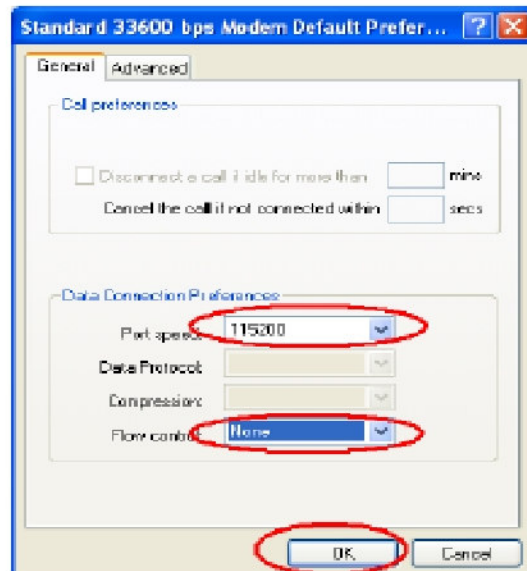




9. Choose "Advanced" page, input Extra Initialization commands:
For example: For airtel AT+CGDCONT=1,"IP","airtelgprs.com",
click "Change Default Preferences" button

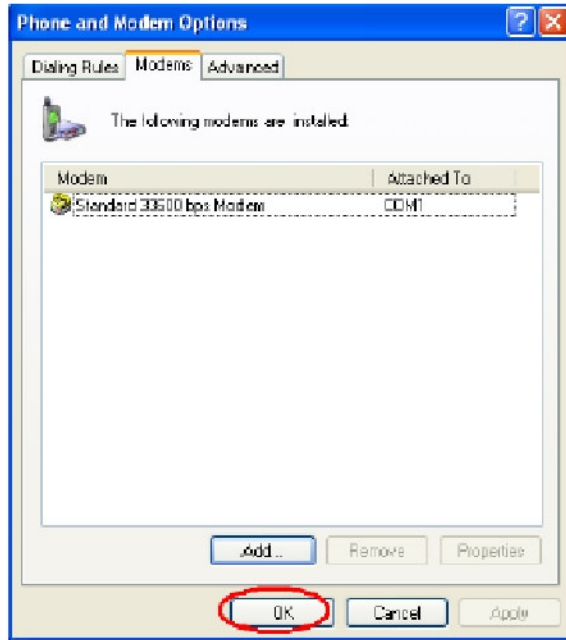


10. "Port Speed" choose 115200, "Flow control" choose None, click "OK" button.





11. On the "Advanced" page, click "OK" button return to "Phone and Modems" page, click "OK" button to finish the Modem driver installation

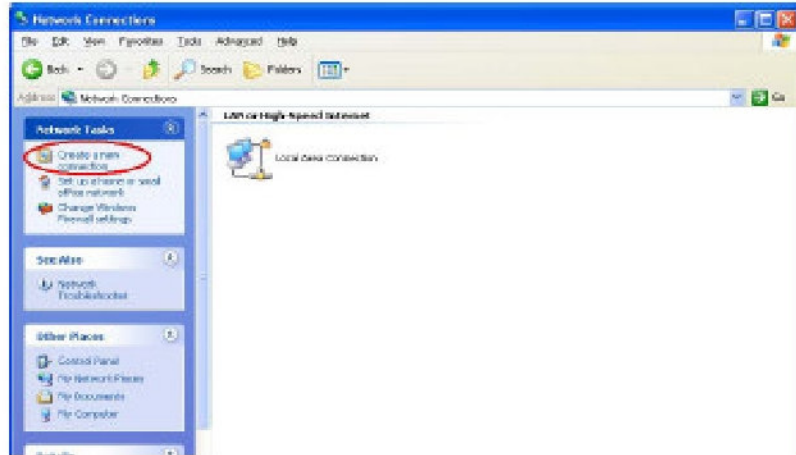


12. Finish installing Modem driver, It's necessary to install the Dial-Up connection. Open "Control Panel", double click "Network connections"





13. Click "Create a new connection" to start creating a new Dial-Up connection.

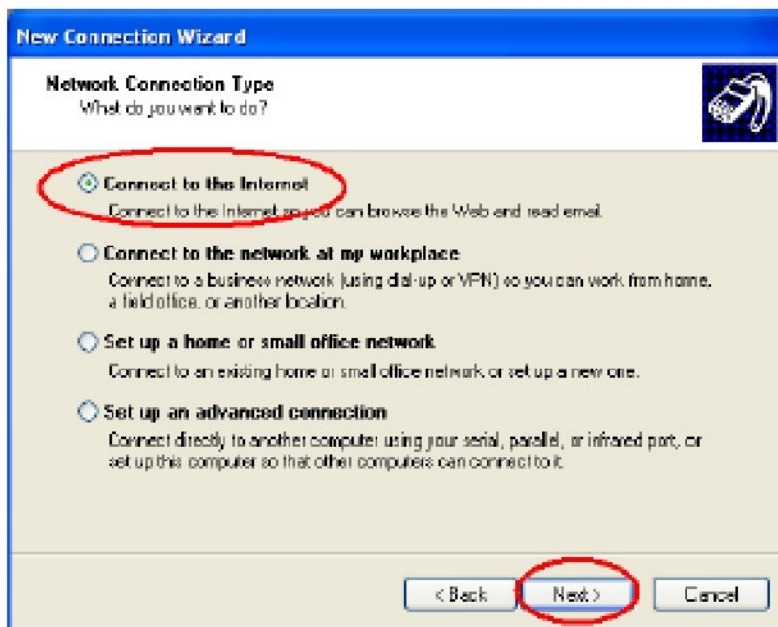


14. Click "Next" button

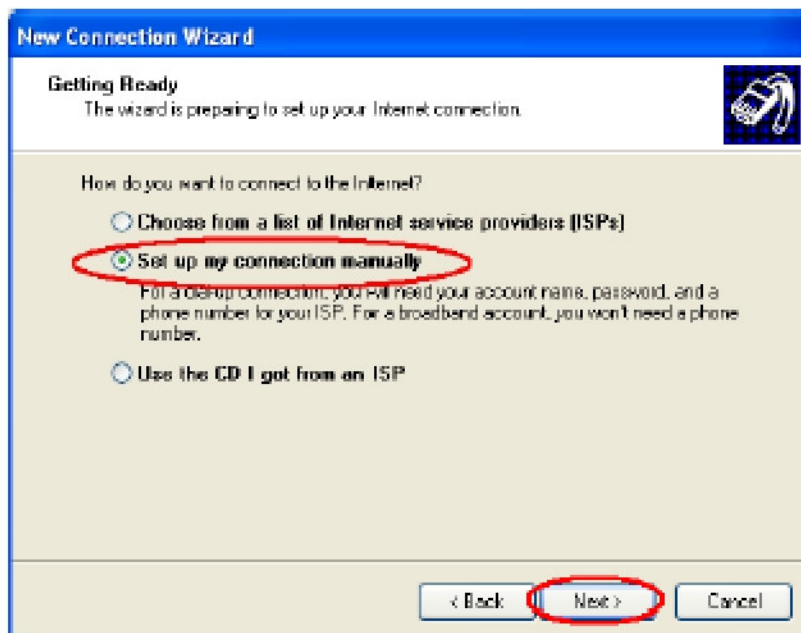




15. Choose "Connect to the Internet", click "Next" button.

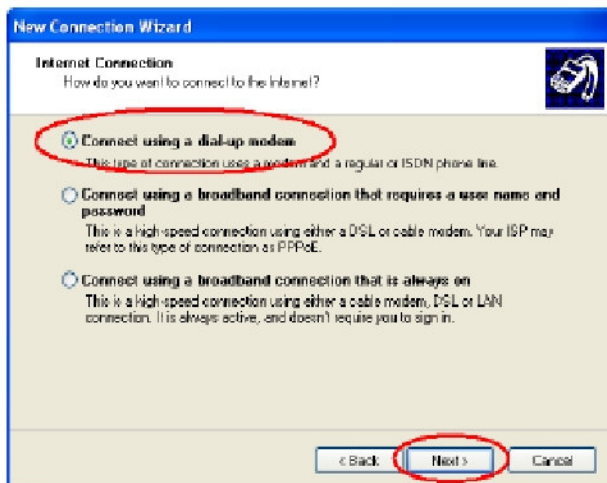


16. Choose "Set up my connection manually", click "Next"

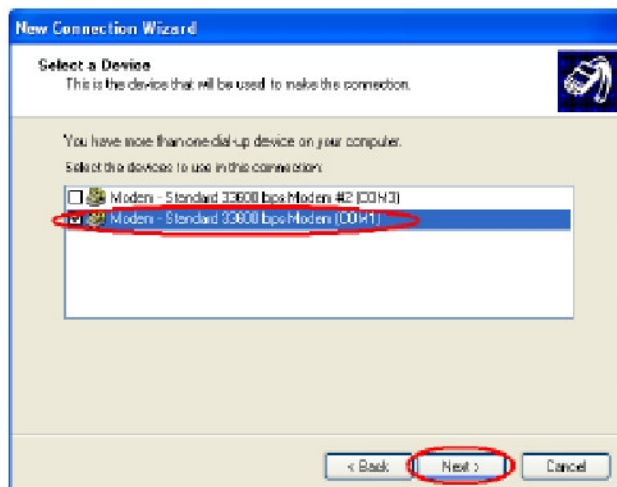




17. Choose "Connect using a dial-up modem", click "Next"

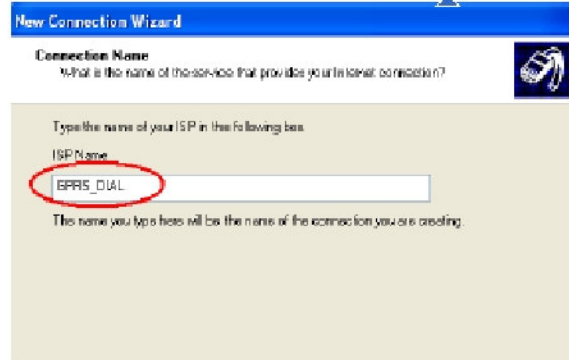


18. Choose the Modem driver installed just now, click "Next" button

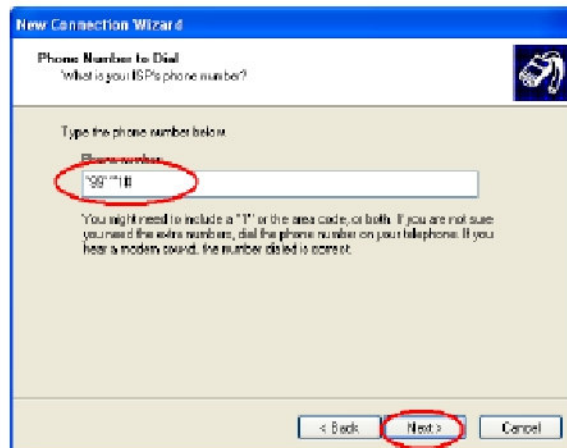




19. Input the ISP Name, click "Next" button

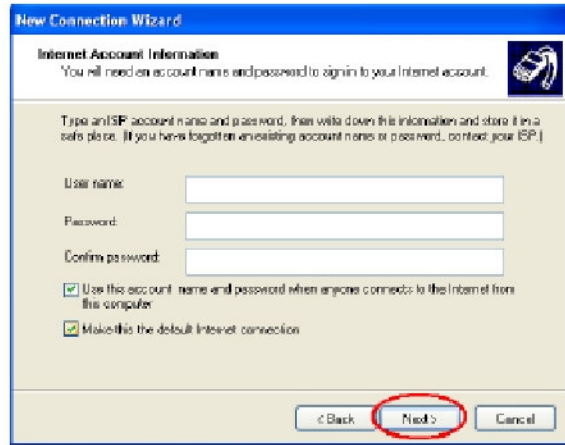


20. Input the call center number of your ISP. In China, It is *99***1#. Click "Next" button.

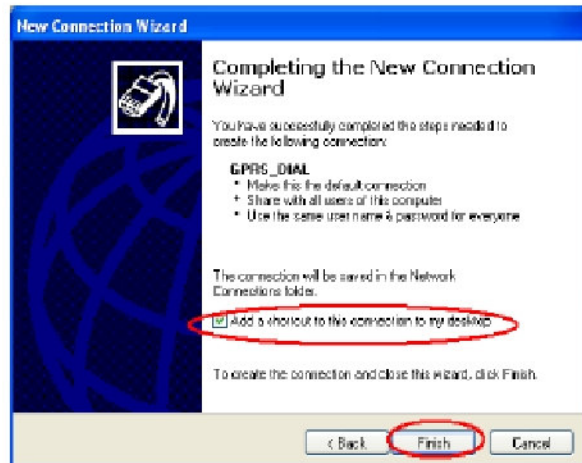




21. Input the username and password. In India they are both null. Click "Next".



22. Choose "Add a shortcut to this connection to my desktop", click "Finish" button.



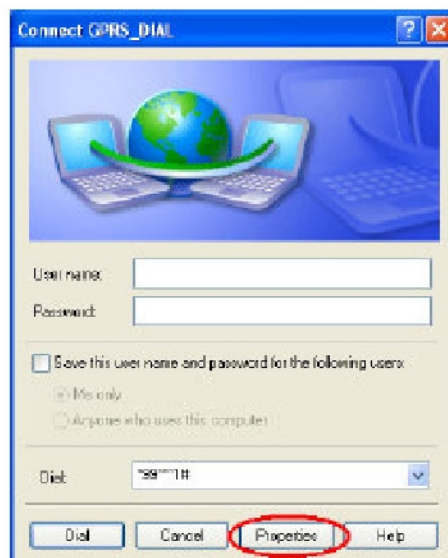


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23. Double click the Dial-Up shortcut on your desktop to run Dial- Up program.

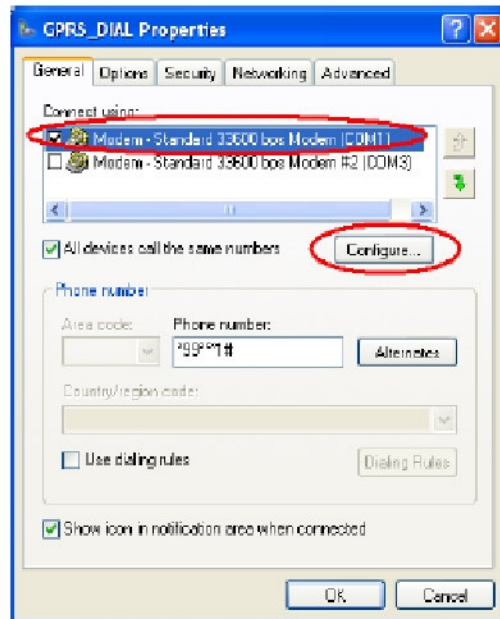


24. Click the "Properties" button of the Dial-Up program

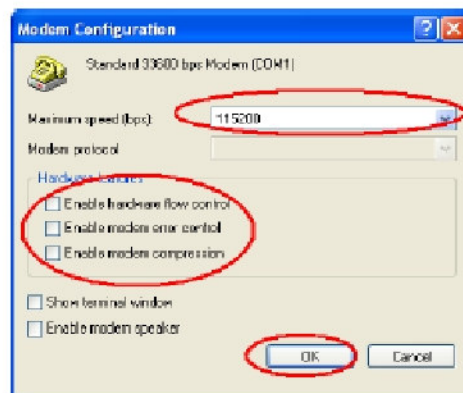




25. Choose the Modem driver installed before, Click "Configure" button

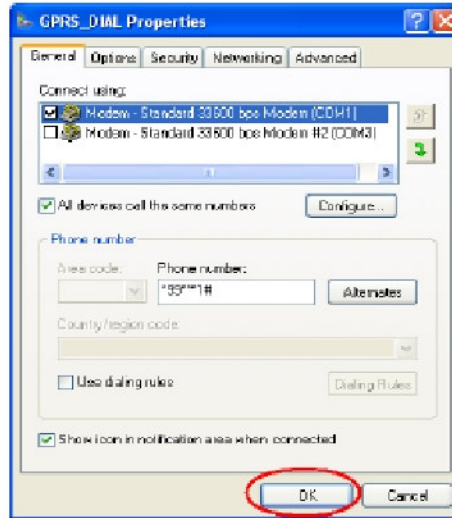


26. Set "Maximum Speed [bps]" as 115200, set Hardware features as following, click "OK" button

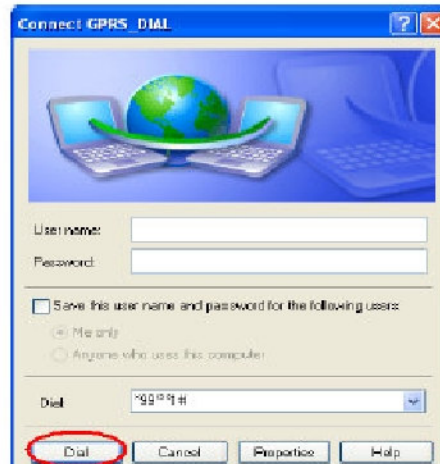




27. Click "OK" button to finish Dial-Up program configuration



28. Click "Dial" button to start dial



29. When dial success, There is a connection icon on the right of your taskbar.





Chapter 4: SIM Card Selection Procedure

4.1) Manual SIM Selection:

Hardware Configuration in PCA (TIPA0260):

- SIM1 will be selected by default
- Short Pin No. 1 and 2 of JP3 to select SIM1
- Short Pin No. 2 and 3 of JP3 to select SIM2
- Note: JP2 and JP4 are OPEN

Default Settings:

Baud-rate: 115200, Bits: 8, Parity: None, Stop bit:1 Flow control: Hardware.

4.2) SIM selection using AT Commands

For sending Commands to the Modem use Hyper terminal or COMMAN (Provide with the CD)

- AT command to select SIM1: AT+WIOM=1, "GPIO22",1,0
- AT command to select SIM2: AT+WIOM=1, "GPIO22",1,1
- AT command to save the selection made : AT+WIOM=4

Response to above commands should be OK.

Hardware Configuration in PCA (TIPA0260) :

JP3 and JP4 are OPEN, JP2 is Shorted

After Saving any SIM selection send these commands:

```
AT+CFUN=1
AT+CGDCONT=1,"IP","AIRTELGPRS.COM" // FOR AIRTEL
AT+CGACT=1,1
AT+CGATT=1
```



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If the response for all the above 4 commands are OK, Then the Modem is ready for Dialing.

AT Commands for Sending / Receiving SMS.

AT+CMGS="MOBILE NO" and Press Ctrl+Z after typing the message to SEND a SMS.

AT+CMGR="Index No" to READ a SMS.

(Index no. appears on receipt of any SMS to the modem)

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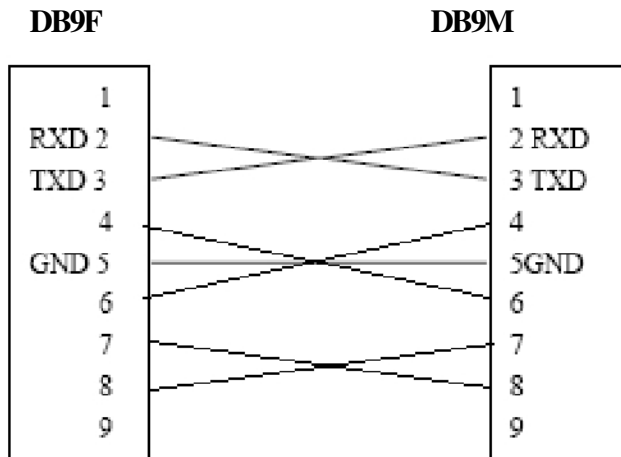
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Chapter 5: Serial Cable wiring Details

8 Core Cross cable:



RS232 data cable



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Chapter 6: Photos





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