M-4132

User's Manual
Version 1.00

Warranty

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List of Revision

Date	Author	Version	Revision
2008/11/30	Raiden	1.00	Release

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1. Introduction

The M-4132 module is specially designed for the remote maintenance solution with voice streaming. This module provides 2 major technologies on networking: Voice streaming and Pair connection functions. The Pair connection means that the user can operate remote COM port device via Ethernet TCP/IP protocol just like a local COM port and the Voice streaming means the user can talk to remote operator while operate remote COM-linked devices. Refer to the following graph.
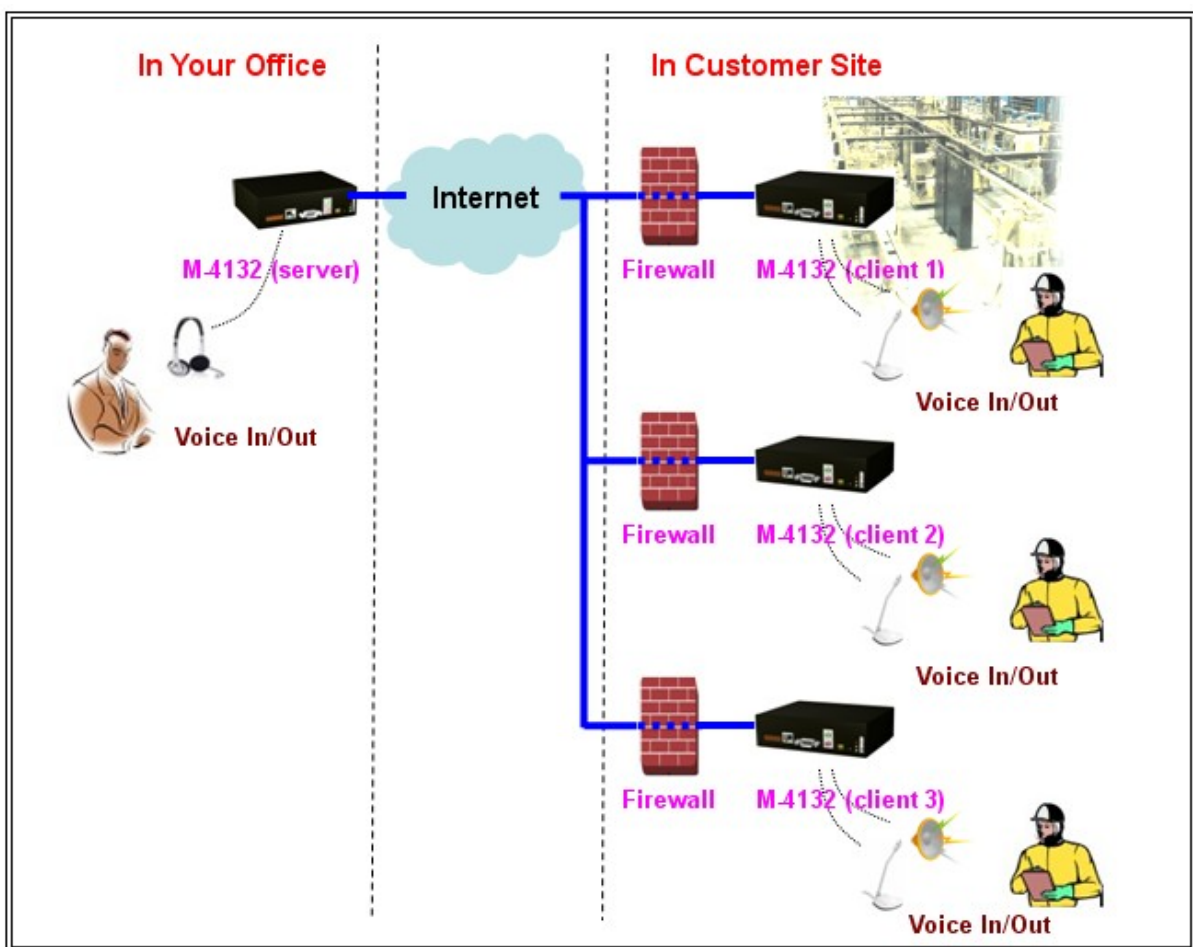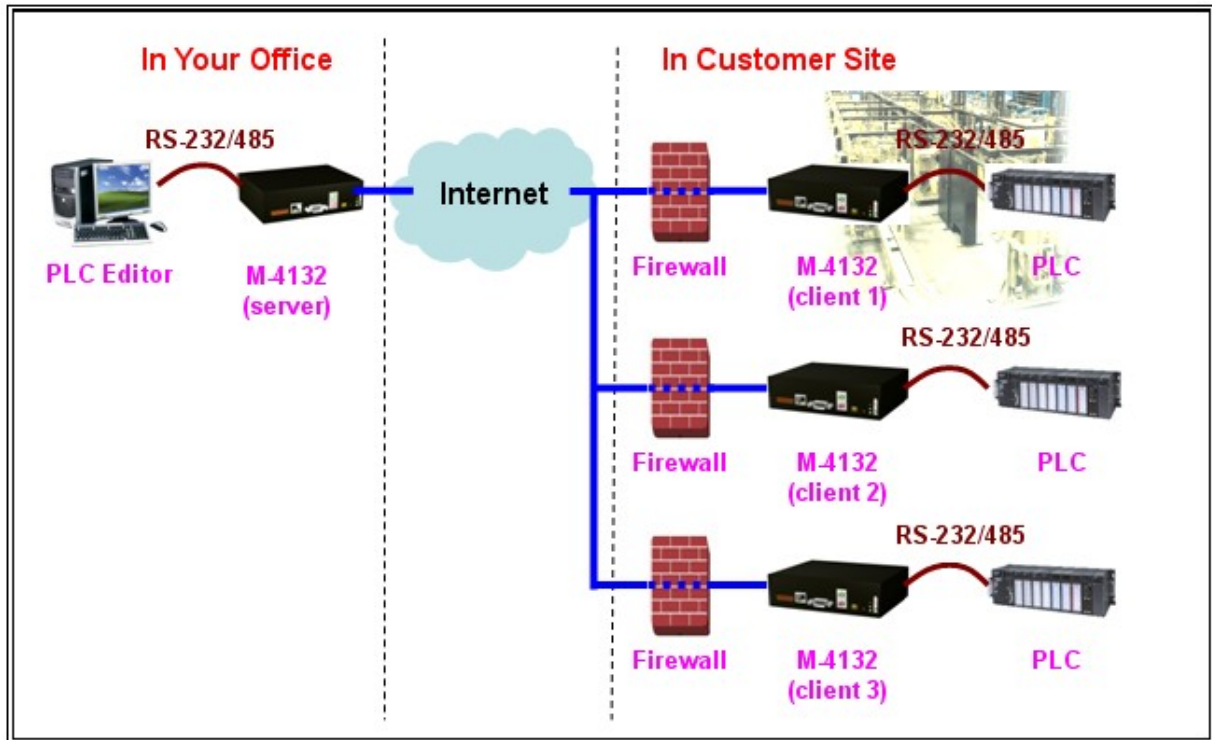

Figure 1: Voice streaming

Figure 2: Pair connection

1.1 Features

- Support voice streaming on network
- Provide pair connection (RS-232,RS-485) on network
- Web-based administration
- Linux 2.6 platform
- Support TCP/IP protocols
- Provide dynamic DNS function
- Provide event record and e-mail function
- Built-in web server, FTP server
- Built-in RTC
- Built-in self-tuner ASIC chip for RS-485 port
- 2500V isolated on RS-485 port
- Provide LED indicators
- Robust, fan less design
- CE/FCC, EMI, RoHS compliance

1.2 Hardware Specifications

Item	Description
CPU	*xScale PXA-255 400 MHz processor*
Memory	*SDRAM: 64 MB* *Flash: 32 MB* *SRAM:256 KB*
Ethernet	*Ethernet IC: DM9000A.* *Bit rate: 10/100 Mbps* *Ethernet interface: RJ-45 connector* *Internet connection type: DHCP, Static IP, PPPoE* *Ethernet protocols & services: TCP/IP, Web server,* *FTP server, Telnet & ssh*
Audio	*Provide microphone input and stereo speaker output* *Microphone and speaker interface: 3.5mm 3-pin phone jack* *Volume and tone quality adjustable*
Com port	*Serial port - RS-232/ RS-485* *COM1:RS-232 interface -- D-sub 9-pin male* *RS-232: TXD, RXD, RTS, CTS, GND* *COM2:RS-485 interface -- 2-pin screw terminal block* *RS-485: D+, D-, self-tuner ASIC inside* *Baud Rate：* *1200/2400/4800/9600/19200/38400/57600/115200 bps* *Data Format: 5/6/7/8 data bits, None/Odd/Even parity bit, 1/2 stop bit*
Power requirement	*Unregulated +10V ~ +30V DC* *Power consumption 2.5W*
Environmental	*Operating temperature: -20 ~ 60 ºC* *Storage temperature: -25 ~ 85 ºC* *ESD protection: 2500V* *CE/FCC, EMI, RoHS compliance*
Dimensions	*160 x 135 x 44 (mm)*

2. Hardware

2.1 Pin Assignment

Figure 3: Pin assignment of M-4132

Table 1: 7-pin screw terminal block

Pin	Name	Description
1	T.GND	GND of trigger input
2	Trig	Trigger input
3	D+	Data+ of RS-485
4	D-	Data- of RS-485
5	PWR	V+ of Power Supply (+10 to +30VDC)
6	GND	GND of Power Supply
7	F.G.	Frame Ground

Table 2: RJ-45 socket

Pin	Name	Description
1	TX+	TX+ output
2	TX-	TX- output
3	RX+	RX+ input
4	-	N/A
5	-	N/A
6	RX-	RX- input
7	-	N/A
8	-	N/A
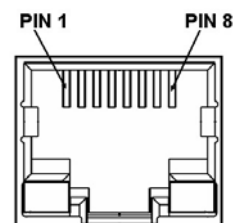
Table 3: RS-232 DB9 Female Connector

Pin	Name	Description
1	DCD(CD)	(Data) Carrier Detect
2	RXD	Received Data
3	TXD	Transmitted Data
4	DTR	Data Terminal Ready
5	GND	Signal Ground/Common
6	DSR	Data Set Ready
7	RTS	Request to Send
8	CTS	Clear to Send
9	-	N/A
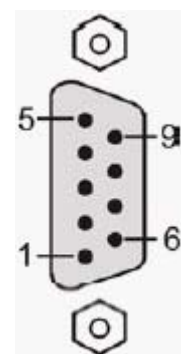
Table 4: 3.5mm Phone Jack (Speaker Out)

Pin	Name	Description
1	GND	Ground
2	Tip	Left channel
3	-	N/A
4	-	N/A
5	Ring	Right channel
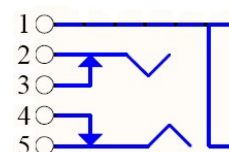
Table 5: 3.5mm Phone Jack (Microphone In)

Pin	Name	Description
1	GND	Ground
2	Tip	Input Signal
3	-	N/A
4	-	N/A
5	Ring	Ground
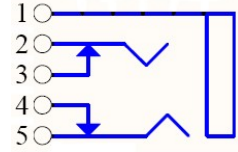
2.2 Wiring Instructions

The communication interface includes RS-232, RS-485 and Ethernet. The wiring instructions describe in section 2.2.1, 2.2.2 and 2.2.3.

2.2.1   RS-232 connection

There are two types of RS-232 ports, DTE (Data Terminal Equipment, like PC, Serial Printers, PLC, Video Cameras) and DCE (Data Circuit-Terminating Equipment, like modem) type, and that the signal names and pin numbers are the same, but signal flow is opposite!

The M-4132 module is a DTE and the user can uses "3-wire" RS-232 or "5-wire" RS-232 to connect. When connecting the M-4132 to a DCE device, the user just needs to match the signal names. When connecting the M-4132 to a DTE device, the user needs to use a crossover cable (TX crosses to RX, GND to GND,), as shown in the figure 4, 5.

M-4132   DTE
RS-232 Port   RS-232 Port

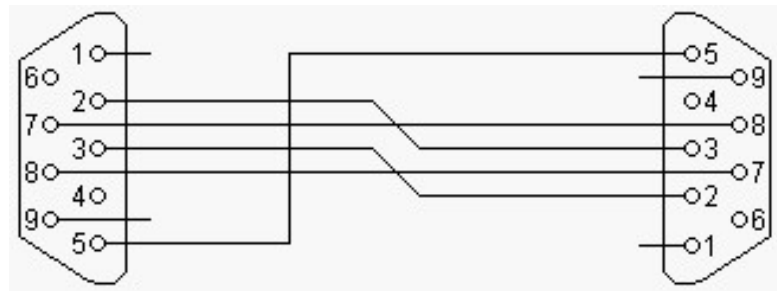
Figure 4: "3-wire" RS-232 (M-4132 to DTE)

M-4132
RS-232 Port

DTE
RS-232 Port

Figure5: "5-wire" RS-232 (M-4132 to DTE)

2.2.2　RS-485 connection
The RS-485 wiring diagram is shown in figure 6.
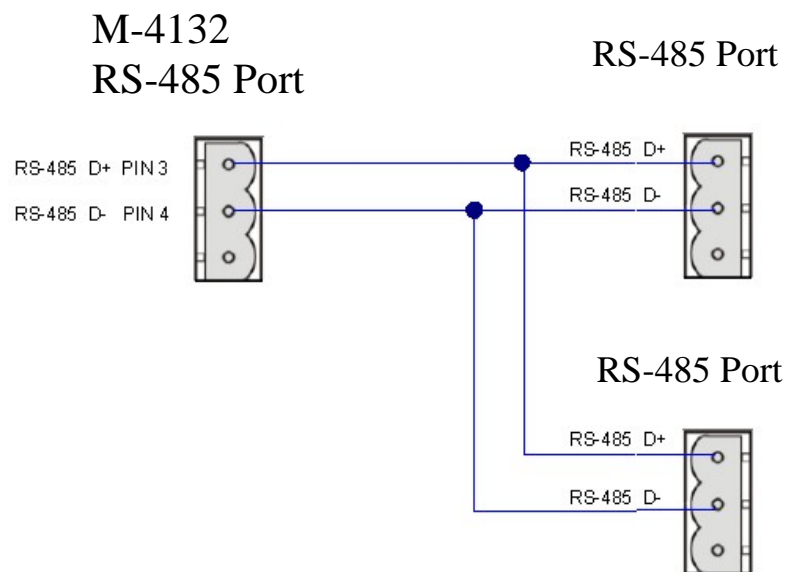

M-4132
RS-485 Port

RS-485 Port

RS-485 Port

Figure 6: RS-485 connection

2.2.3　Ethernet connection
The M-4132 module is based on a client-server architecture model. When the M-4132 works as a server, it should adjust the firewall before the M-4132 module appropriately or else the client will not connect to the server.
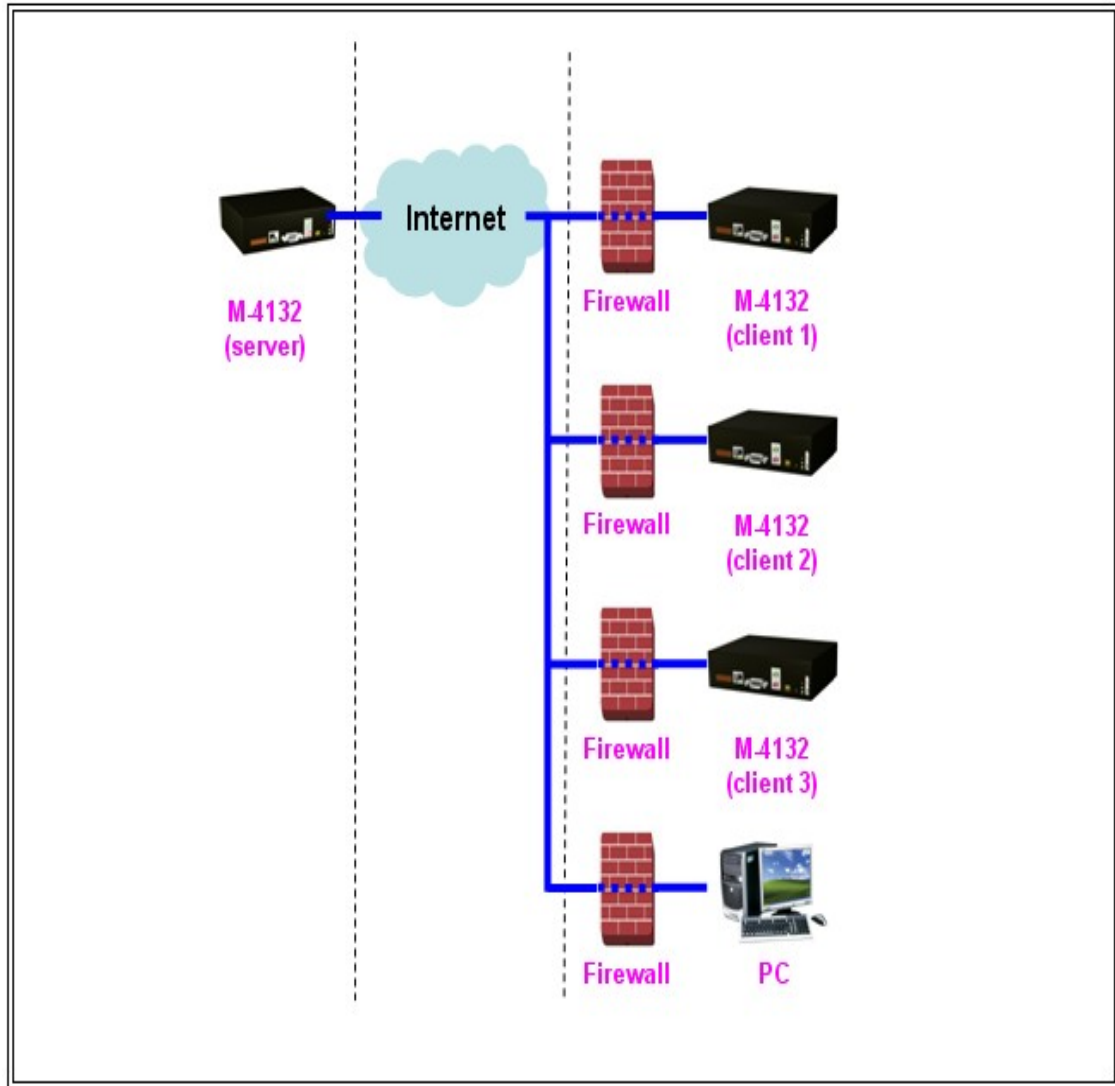
Figure 7: Ethernet connection

2.3   Dip Switch and Trigger button

The M-4132 provides two switches (SW1, SW2) and a trigger button (TB). These switches and button can decide initial function of the system after power on and enable/disable the request to connect. The descriptions are shown in table 6, 7.

Figure 8: Dip Switch and Trigger Button

Table 6: Dip switch and trigger button for initial function

Option	State	Description
Recover default setting forever	SW2=ON SW1=ON To press the TB about 40 second after power on	All system settings will be cleared and recover default settings. (Warning: it will not restore settings after clear)
IP recover default setting for this time	SW2= OFF SW1= ON To press the TB about 40 second after power on	After power on, it will set IP to default setting (192.168.1.217) for this time, but it will restore original IP at next time.
IP recover default setting forever	SW2= ON SW1= OFF To press the TB about 40 second after power on	After power on, it will set IP to default setting (192.168.1.217) and save to flash.
Display the current IP and version	SW2=OFF SW1=OFF To press the TB about 40 second after power on	After power on, it will display the message about current IP and version information from Com Port(RS-232).
Normal setting	The other states	Normal state; It will not change any setting and data.

Table 7: Dip switch and trigger button for the request

Option	State	Description
Disable the request to connect	SW2=OFF SW1=OFF Press the TB	Client: Send the request to disconnect. The voice and com port connection will be disconnected, but the login connection will hold on.
Enable the request to connect	SW2=ON SW1=ON Press the TB	Client: request server to connect.

2.4 LED Status Indicators

The M-4132 provides three LEDs to indicate the status, as shown below.

Figure 9: LED indicator

Table 8: LED status description

Name	Status	Description
PWR	on	Power supply is ok.
	off	Power supply has failed.

Name	Status	Description
SA1	flash	It is receiving com port data via Ethernet.
SA2	flash slowly	Server: The Ethernet is initial ok and wait for the client to login. Client: The Ethernet is initialized ok and login completely. It has readied to enable voice and com port data connection by the server.
	flash fast	It is sending or receiving voice data via Ethernet.
SA1 & SA2	on	There are happening some errors. (Client: Please check settings about IP & DNS)
	flash slowly (SA1 & SA2 flash at the same time)	It is trying to establish the connection with the server/client. If it can't connect to the server/client for a long time, please check that the M-4132 has available network settings and is working well on Ethernet.
	flash (SA1 & SA2 alternate flash)	Server: Receive the request to connect from the client. Client: Request server to connect.

3. Configuration and Operation with Web Browser

The M-4132 module is built-in web server, the user can configure and operate the M-4132 by web browser (ex: IE).

3.1 Connection Setting

Before you open the web browser to configure the module, it needs to connect the M-4132 and your PC to the same sub network or same Ethernet Switch (as shown in figure 10) and set network settings (such as IP/Mask/Gateway) of the PC. The example of connection setting will describe below and Microsoft Windows XP Professional SP2 is used.
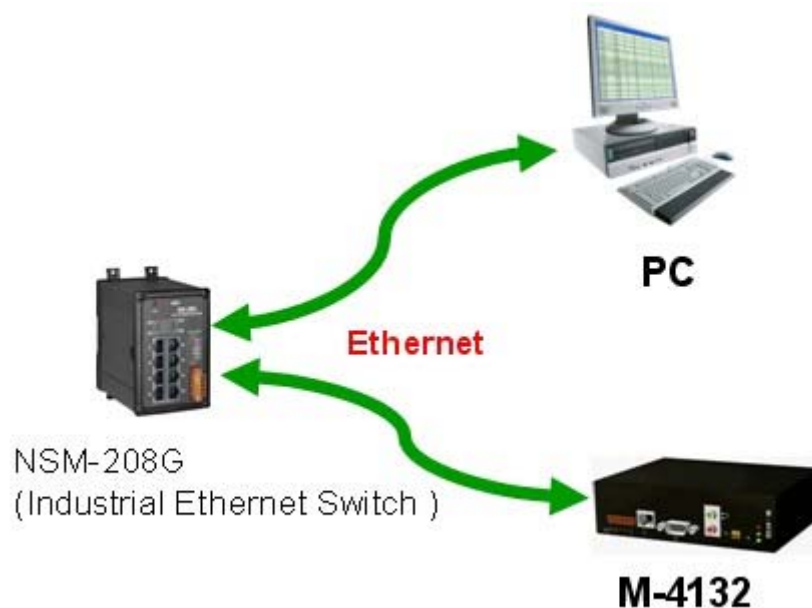
Figure 10: connection architecture

Connection steps：

Step 1: Open Network Connections

    1.Click "start->Settings->Network Connections"
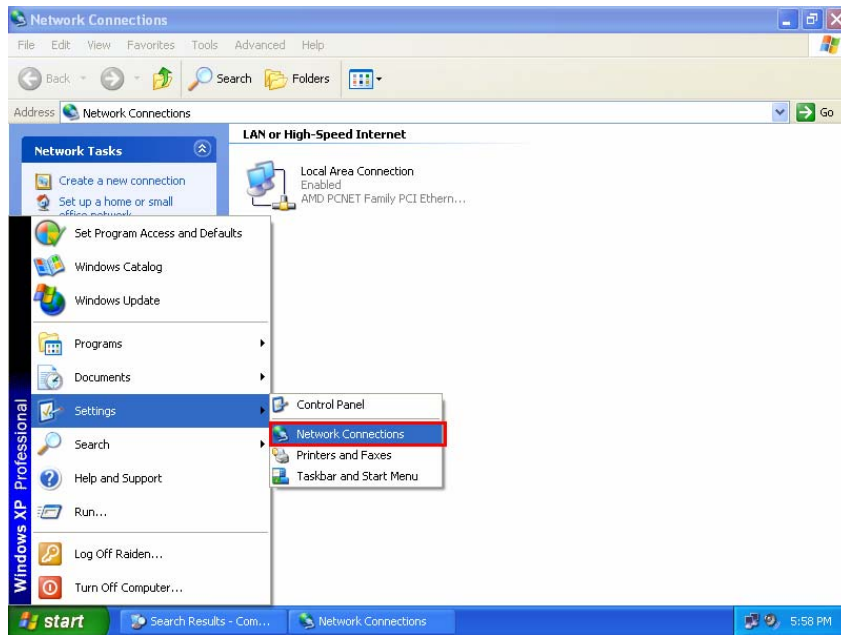
Figure 11: click "start->Settings->Network Connections"

2. Double click "Local Area Connection" icon
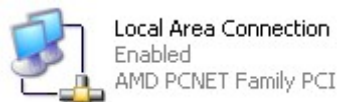
3. click "Properties" button
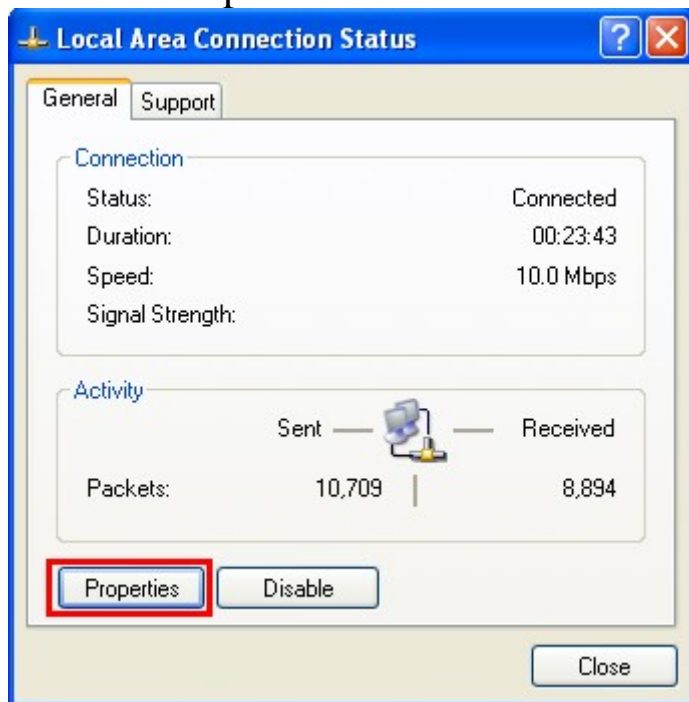
Figure 12: click "Properties" button

4. Select "Internet Protocol(TCP/IP)" and click "Properties" button
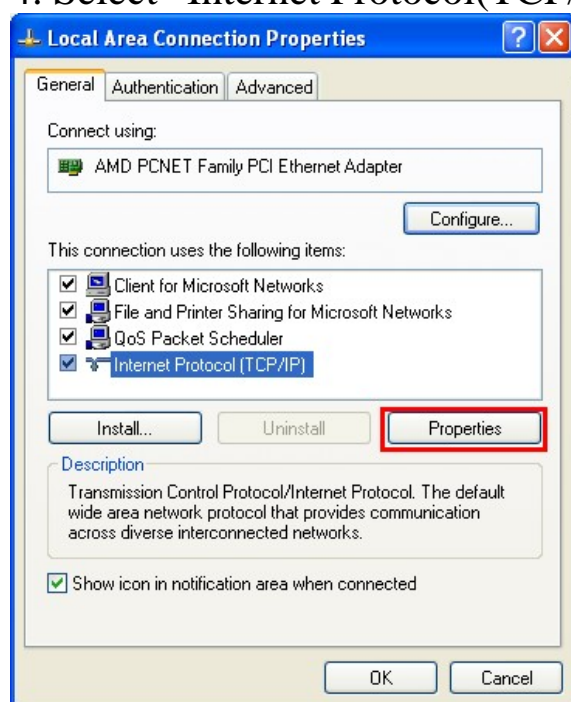
Figure 13: click "Properties" button

Step 2: Set "Internet Protocol Properties" and then click "OK" button.
The settings must have the same domain and different IP with the M-4132. (ex: M-4132's default IP = 192.168.1.217, PC's IP = 192.168.1.210).
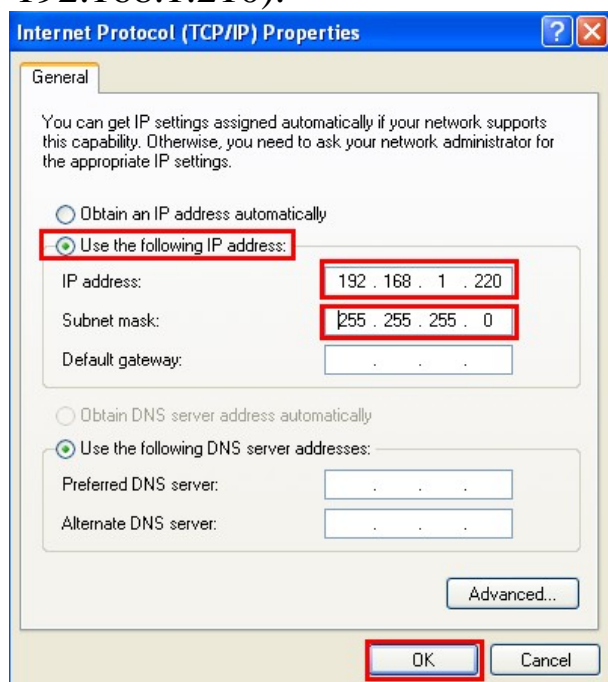
Figure 14: set "Internet Protocol Properties"

Step 3: test connection
1. Click "start->Run..."

Figure 15: click "start->Run..."

2. Key in "cmd" and then click "OK" button
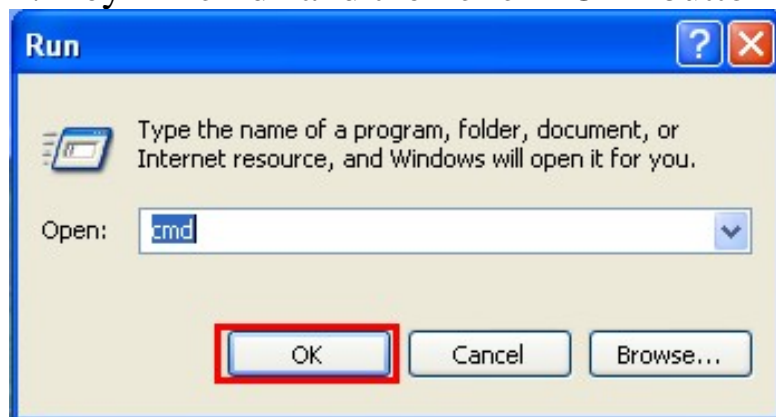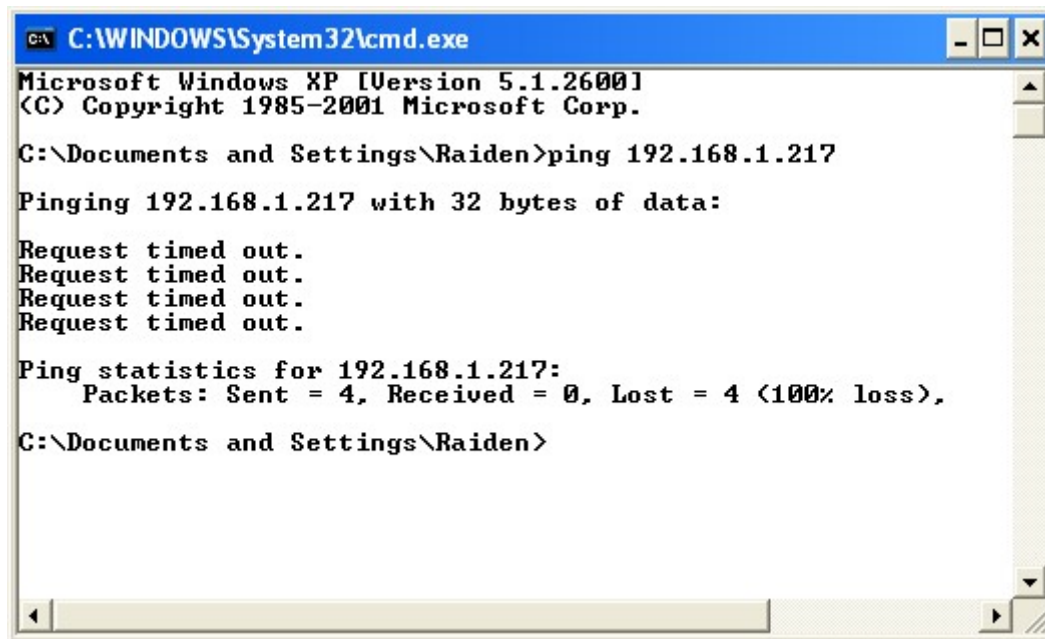
Figure 16: key in "cmd" and then click "OK" button

3. key in "ping 192.168.1.217" and click "Enter". If the response message shows "Request timed out"(figure 17), it means the network settings between PC and the module are not correct. Please check the network is available and the settings are all correct.
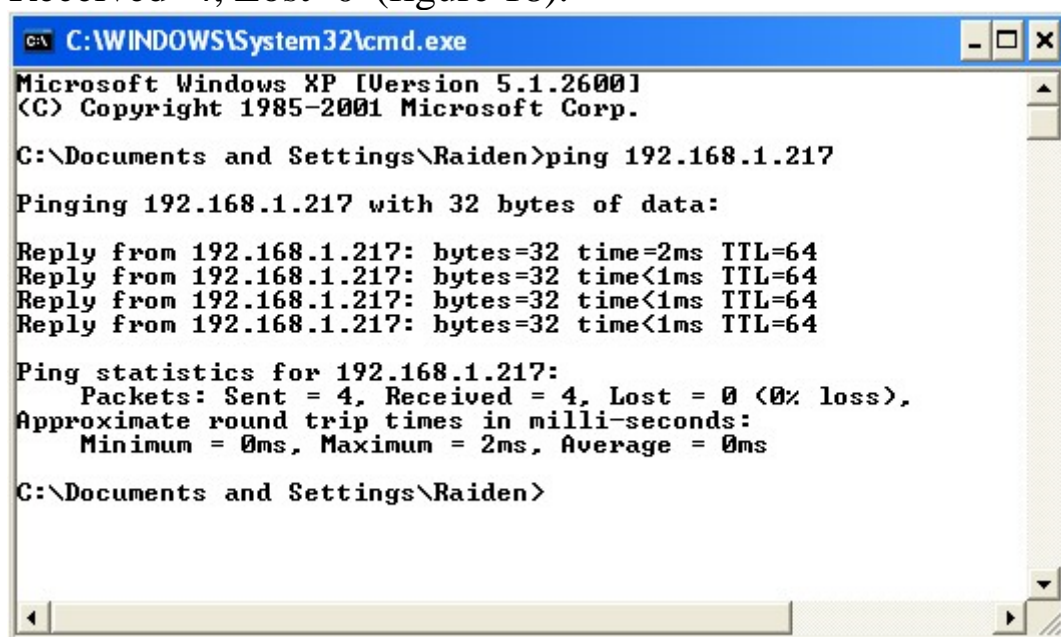
Figure 17: Ping IP Error

If the network settings are correct, it will show "Packets: Sent=4, Received=4, Lost=0"(figure 18).

Figure 18: Ping IP OK

3.2 Web Configuration—function menu

Now the PC is set completely and working well with the M-4132. Please

open web browser (ex: IE, Mozilla, etc.) on PC and key in http://192.168.1.217/main.htm in the Address line and then press "Enter" key to link the M-4132, as shown in figure 19.
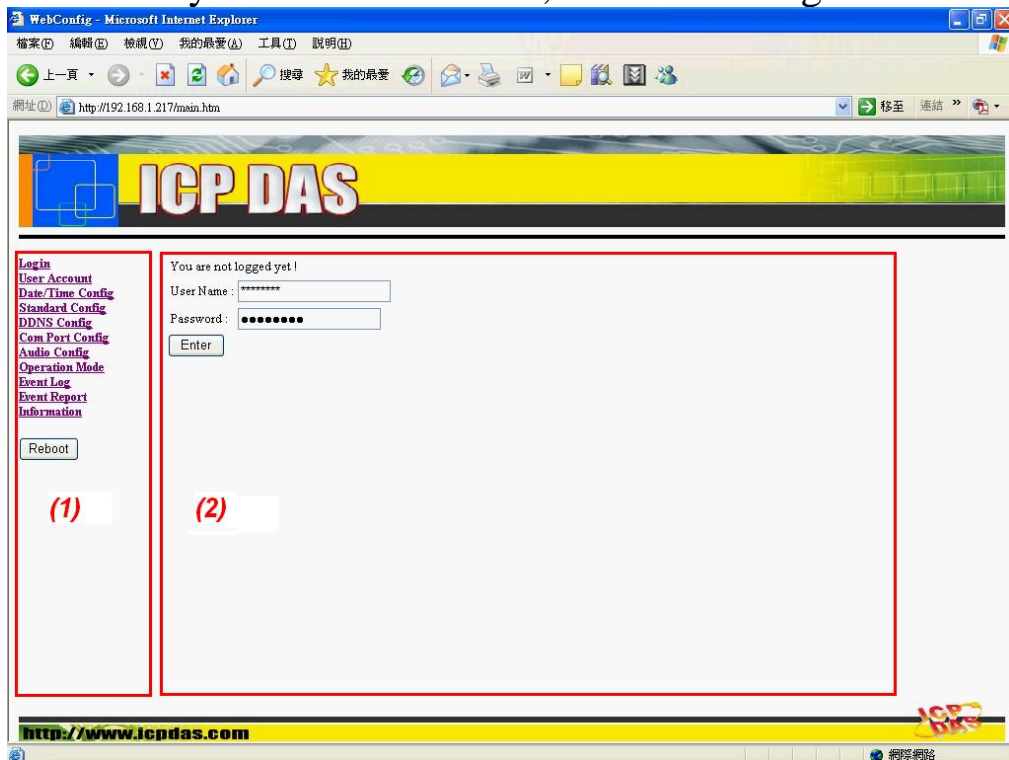
Figure 19: Web Configuration page

When the browser connects with the M-4132, Figure 19 is the first page. The left side is the function menu and the other is the setup page in the first page. Server and Client is different in the function menu, as shown in the below.

Function menu (Server)--
● Login
● User Account
● Date/Time Config
● Standard Config
● DDNS Config
● Com Port Config
● Audio Config
● Operation Mode
● Event Log

- Event Report
- Information
  Reboot
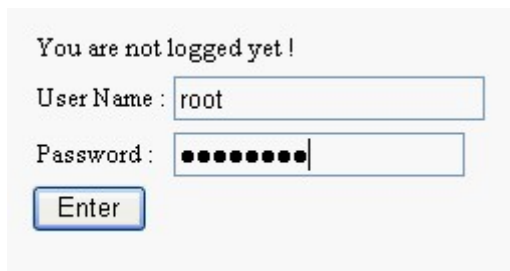
Function menu (Client)--
- Login
- User Account
- Date/Time Config
- Standard Config
- Com Port Config
- Audio Config
- Operation Mode
- Information
  Reboot

The "Reboot" button can provide the user to restart the M-4132.
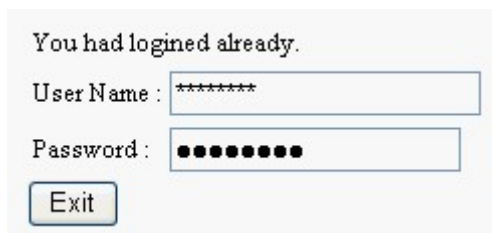
3.3   Web Configuration—setup page

1、Login：The user login and logout interface

Figure 20: user login page

Figure 21: user logout page

2、User Account：The user account setting limits which user can configure the module settings. The super user (Account 1, name="root", password="icpdas") is an only the user that can edit this page.

Figure 22: User Account page

3、Date/Time Config：The Date and Time of M-4132 can be set via "Date/Time Config" page. The format of date is "Year(4 digits)/Month(2 digits)/Day(2 digits)" and the time is "Hour(2 digits):Minute(2 digits):Second(2 digits)". The user can get current date and time of M-4132 by click "Refresh" button and set date and time of M-4132 by click "Setting" button.

Figure 23: System Time page

4、Standard Config： When the user changes the setting in this page, the user must restart the M-4132 for an active setting.

1. System
   a. Operation Mode：VSoIP Server / VSoIP Client。
      The M-4132 has 2 operation modes. They are "VSoIP Server" and "VSoIP Client". The user can set the M-4132 to be a server or client in this page. When the M-4132 plays the role of client, it will try to connect with the server. When the M-4132 plays the role of server, it will wait client to link.

2. NetWork
   a. Host Name：For the module name.

   b. Connect to Server by：IP / DNS
      The setting can provide the client to connect with the server by IP or DNS of the server

   c. ServerIP：The user can set the IP address of the server that the client wants to connect.

   d. ServerDNS：The user can set the DNS of the server that the client wants to connect.

   e. Communication Port：The user can set the port number of the server that the client want to link in this setting. The factory setting is "443".

   f. Boot Protocol：Static IP / DHCP / ADSL Connection
      M-4132 supports three kinds of IP modes, they are "Static IP", "DHCP" and "PPPoE (ADSL)". The user can choose one of these modes to set the IP address of M-4132.

3. Static IP Config
   a. IP Address：When Boot Protocol is "Static IP", the user can set IP address of M-4132 in this setting.

b. NetMask：When Boot Protocol is "Static IP", the user can set subnet mask of M-4132 in this setting.

c. GateWay：When Boot Protocol is "Static IP", the user can set gateway of M-4132 in this setting.

d. DNS Server：When Boot Protocol is "Static IP", the user can set DNS server of M-4132 in this setting

4. ADSL Config：When Boot Protocol is "ADSL", the user needs to set "user name" and "password" for ADSL connection. The user can get the "user name" and "password" from your ISP (Internet Service Provider).

Figure 24: Standard Config page

5、DDNS Config：When the M-4132 plays the role of server and Boot Protocol isn't "Static IP", the client may not connect with the server, because the IP address of the server is floating, not static. We provide a solution for this situation. That is DDNS service. When IP address of the server is changed, the server will register current IP to website that provides DDNS service. The client can connect with the server by domain name that the user registers.

NOTE: Every company that provides DDNS service has different way to register. In order to make it correctly work, we recommend the user to use DDNS service that the DynDNS Company provide. DynDNS website: http://www.dyndns.com/.

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1. Create your Dynamic DNS account
    a. Please open web browser (ex: IE, Mozilla, etc.) on PC and key in http://www.dyndns.com/ in the Address line and then press "Enter" key.

    b. Key in "user name" and "password" and click "Login" button. If the user has not created user account, please click "Create Account" Hyperlink to create user account and then login user account.
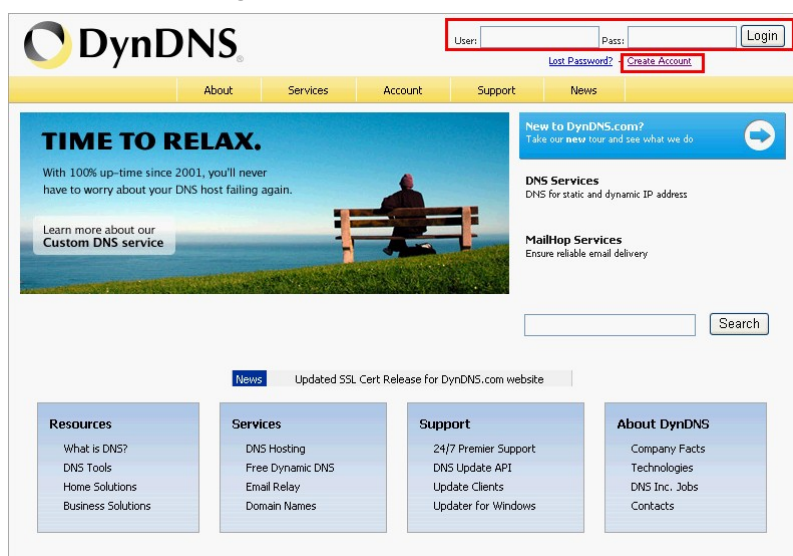
Figure 25: DynDNS home page

c. Click "Services" Hyperlink to enter Services page
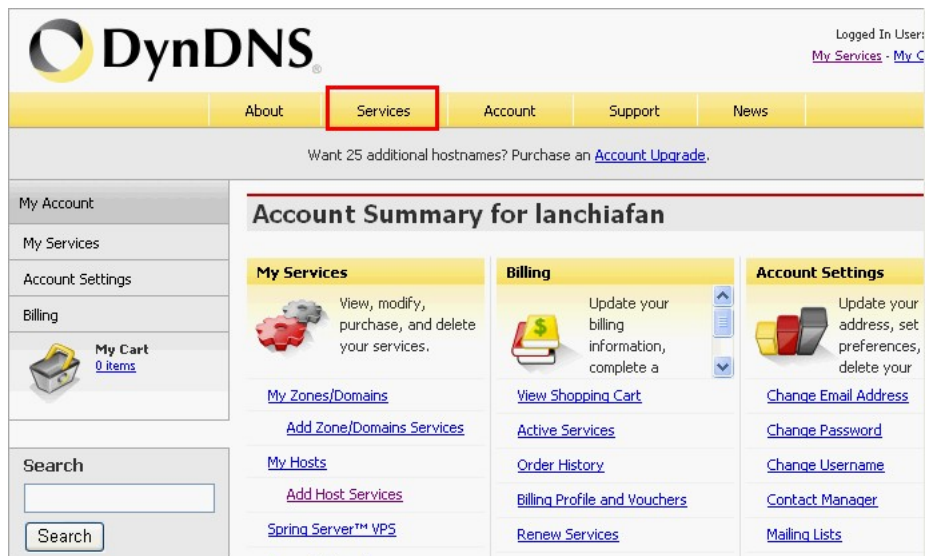
Figure 26: click "Services" Hyperlink

d. Click "Dynamic DNS" Hyperlink to enter Dynamic DNS page
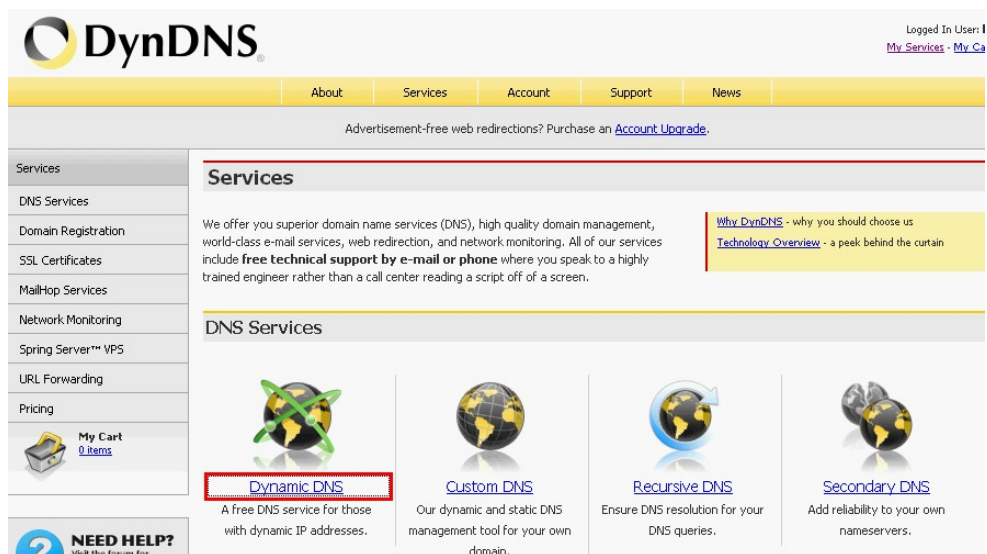

Figure 27: click " Dynamic DNS" Hyperlink
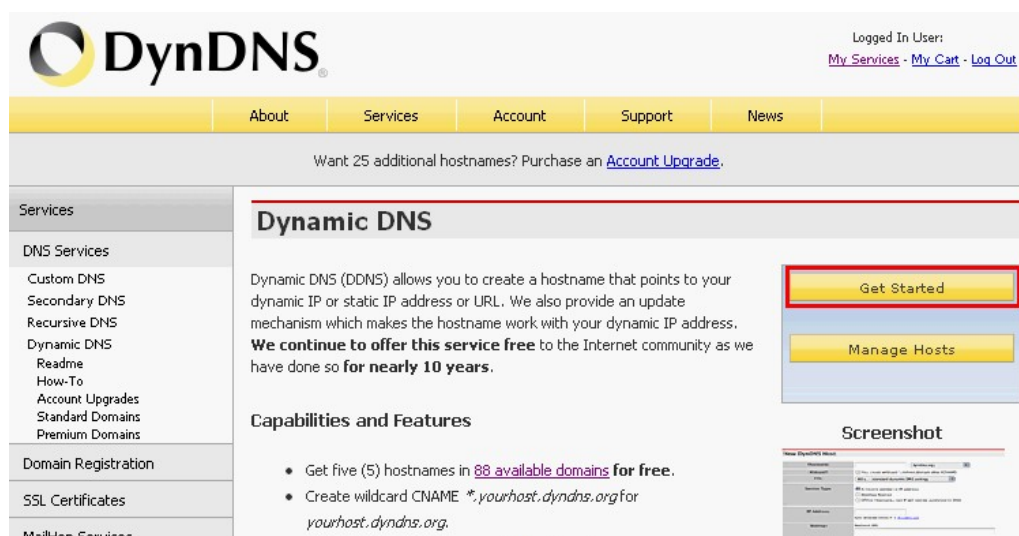
e. Click "Get Started" button

Figure 28: click "Get Started" button

f. Key in and select your hostname (ex: icpdas.home linux.com), and key in IP address of the server. Don't care the other settings and click "Create Host" button.

Figure 29: Add New Hostname

Figure 30: Create New hostname success

2. DDNS Config：
   a. DDNS：Disable / Enable
      The user can Enable or Disable DDNS function by this setting.

   b. Host Name：It is the hostname that user creates in DynDNS website (ex:icpdas.homelinux.com).

   c. User Name：It is the name of the user account in DynDNS website.

   d. Password：It is the password of the user account in DynDNS website.

Figure 31: DDNS Config page

6、Com Port Config：The user can set com port setting of M-4132 in this page. If com port setting of the server and client is different, Com port setting of the client will be covered by the server. When the user changes the setting in this page, the user must restart the M-4132 to active the new setting.

1. Port：RS232 / RS485
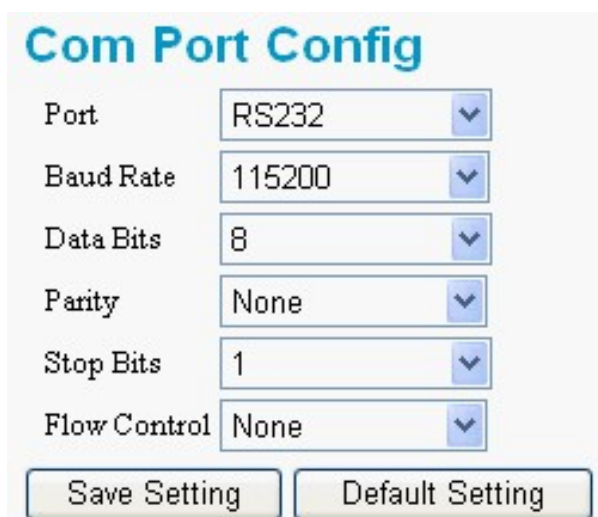   Select com port connection from RS-232 or RS-485.
2. Baud Rate：1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 / 230400 bps
3. Data Bits：5 / 6 / 7 / 8 data bits
4. Parity：None / Odd / Even / Space
5. Stop Bits：1 / 2 stop bits
6. Flow Control：None / Hardware / XonXoff

Figure 32: Com Port Config page

7、Audio Config：The user can set the Audio quality, output volume and input volume in this page. When the audio quality is bad, the user can turn audio quality, output volume and input volume between the server and client to improve.

1. Quality：2~10
   Select the audio quality, including sample rate and sample resolution. The best quality is 10.

2. Output Volume：0~10

    The maximum output volume is 10.
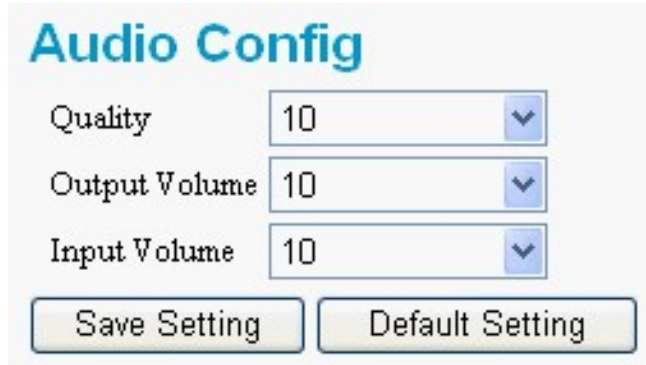
3. Input Volume：0~10

    The maximum input volume is 10.

Figure 33: Audio Config page

8、Operation Mode：The user can use or test voice and com port transmission functions in this page.

1. Communication configure：The user can select communication parameters in this page. The parameters are effective in current connection, but it will not change the system settings.

    a. Quality：2~10

        Select the audio quality.

    b. UART Port：RS232/RS485

        Select com port connection from RS-232 or RS-485.

    c. Baud Rate：1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 / 230400 bps

        Select baud rate of com port.

    d. Data Bits：5 / 6 / 7 / 8 data bits

        Select data bits of com port.

    e. Parity：None / Odd / Even / Space

        Select parity of com port.

    f. Stop Bits：1 / 2 stop bits

Select stop bits of com port.

g. Flow Control：None / Hardware / XonXoff
Select flow control of com port.

h. GetStatus：The user can get current communication parameters from this button.

i. SetStatus：The user can set current communication parameters from this button.

2. Operation：The settings will only show in page of the server. If you want to refresh the status in this page, you can click "GetStatus" button.

a. Your Status：Show status of M-4132

● Idle Mode：
The voice and com port connection have not established yet.

● Broadcast Connection Mode：
All clients will hear the voice from microphone of the server via Ethernet.

● Broadcast & Pair Mode：
Server and client that the user selected will setup a virtual channel over Ethernet that allow bi-directional voice and serial (RS232 or RS485) data to pass through and the other client will also hear the voice from microphone of the server.

● Pair Connection Mode：
Server and client that the user selected will setup a virtual channel over Ethernet that allow bi-directional voice and serial (RS232 or RS485) data to pass through.

b. Request connection list：This item can show the name of client that send out the communication request.

c. Login list：This item can show the name of client that login completely.

d. "Pair Connection" button：The user can send "Pair Connection" command to M-4132 by this button. The user must select the name of the client from "Login list" before click this button.

e. "Broadcast Connection" button：The user can send "Broadcast Connection" command to M-4132 by this button.

f. "Broadcast & Pair" button：The user can send "Broadcast & Pair Connection" command to M-4132 by this button. The user must select name of the client from "Login list" before click this button.

g. "Drop Client" button：The user can cancel "Pair Connection" command and return to "Broadcast Connection" mode by this button.

h. "Request Break" button：The user can cancel all audio and com port connections by this button.

PS：Server can accept a maximum of 64 clients to login. When Server is at "Broadcast Connection" mode or "Broadcast & Pair" mode, we recommend that server must not login to exceed 32 clients, because it will make a intermittent audio transmission.

Figure 34: Operation Mode page

9、Event Log：It will show the event log that clients login and connection break. To clear the event log can click "Clear Log" button.

Figure 35: Event Log page

10、Event Report：The page provides the server sending "Event Log" to user by e-mail. It uses SMTP protocol to provide mail service.

    1. Function：Disable / Enable
       The user can Enable or Disable "Event Report" function by this setting. It must finish setting mail server before enable this function, else event log will not be sent to the user's mailbox correctly.

    2. Report Cycle：every month / every week / every day
       Select report cycle from every month, every week or every day.

    3. Report Date for monthly：1~31
       Set report date, when report cycle is every month.

    4. Report Date for weekly：Monday ~ Sunday
       Set report date, when report cycle is every week.

    5. Report Time：00:00 ~ 23:59
       Set report time. The format is "Hour (2 digits):minute (2 digits)".

    6. "Save Setting" button：For saving the settings.

    7. "Default Setting" button：For getting the default settings.

    8. "Mail Server Setting" button：The user can link "Mail Server Setting" page by this button. The description is shown below about "Mail Server Setting" page.

       a. Mail Server：Set URL of mail server. Mail server is "smtp.gmail.com", if you use Gmail.

b. Mail Port：Set port number of mail server. Mail port is "587", if you use Gmail.

c. Mail To：Set mail address that receive event report (ex: ****@gmail.com).

d. Mail From：Set mail address that the user create at Gmail (ex: ****@gmail.com).

e. Authentication Method：None / AUTH LOGIN / AUTH PLAIN
Select Authentication method. Authentication method is "AUTH LOGIN", if you use Gmail.

f. User Name：Set the user name for sign in to mail server with your account.

g. Password：Set the password for sign in to mail server with your account.

h. TLS/SSL Certification：Enable / Disable
Select enable or disable TLS/SSL certification. It is Enable, if you use Gmail.

i. "Save Setting" button：For saving the settings.

j. "Default Setting" button：For getting the default settings.

k. "SendMail test" button：For testing the mail server settings. If the settings are all correct, it will show "Send Mail success" message after the user click the button.

l. "Return" button：For returning the "Event Report" page.

Figure 36: Event Report page

Figure 37: Mail Server Setting page

11、Information：

1. OS Version：Show OS version.
2. Firmware Version：Show application program version.
3. Current IP：Show current IP.
4. Subnet Mask：Show current subnet mask.
5. Mac Address：Show current Mac address.
6. Licence Verify：Show the result that the licence is verified. If it shows "OK", it means the licence is passed.

Information

OS Version :	0.91
Firmware Version :	1.00
Current IP :	192.168.0.210
Subnet Mask :	255.255.0.0
Mac Address :	00:0d:e0:b1:00:08
Licence Verify :	OK

Figure 38: Information page

4. Application

4.1 Pair connection

A server can accept one or more clients to login, but a server can only connect with a client in pair connection mode. In this mode, two M-4132s (one as Server, the other as Client) setup a virtual channel over Ethernet or Internet that allow bi-directional voice and serial (RS-232 or RS-485) data to pass through, as shown in figure 39, 40.
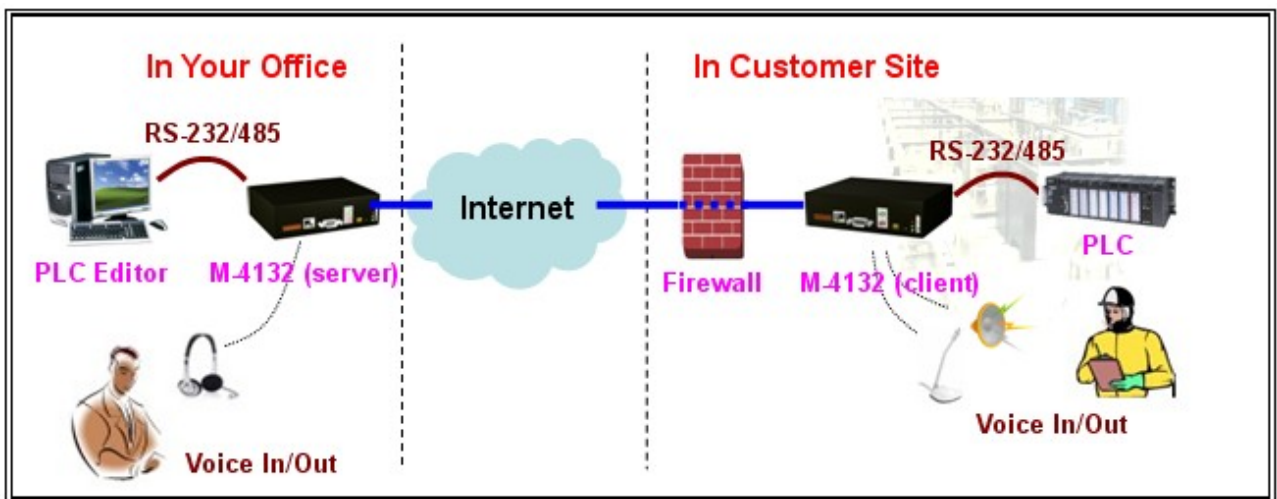
Figure 39: Pair connection (one server to one client)
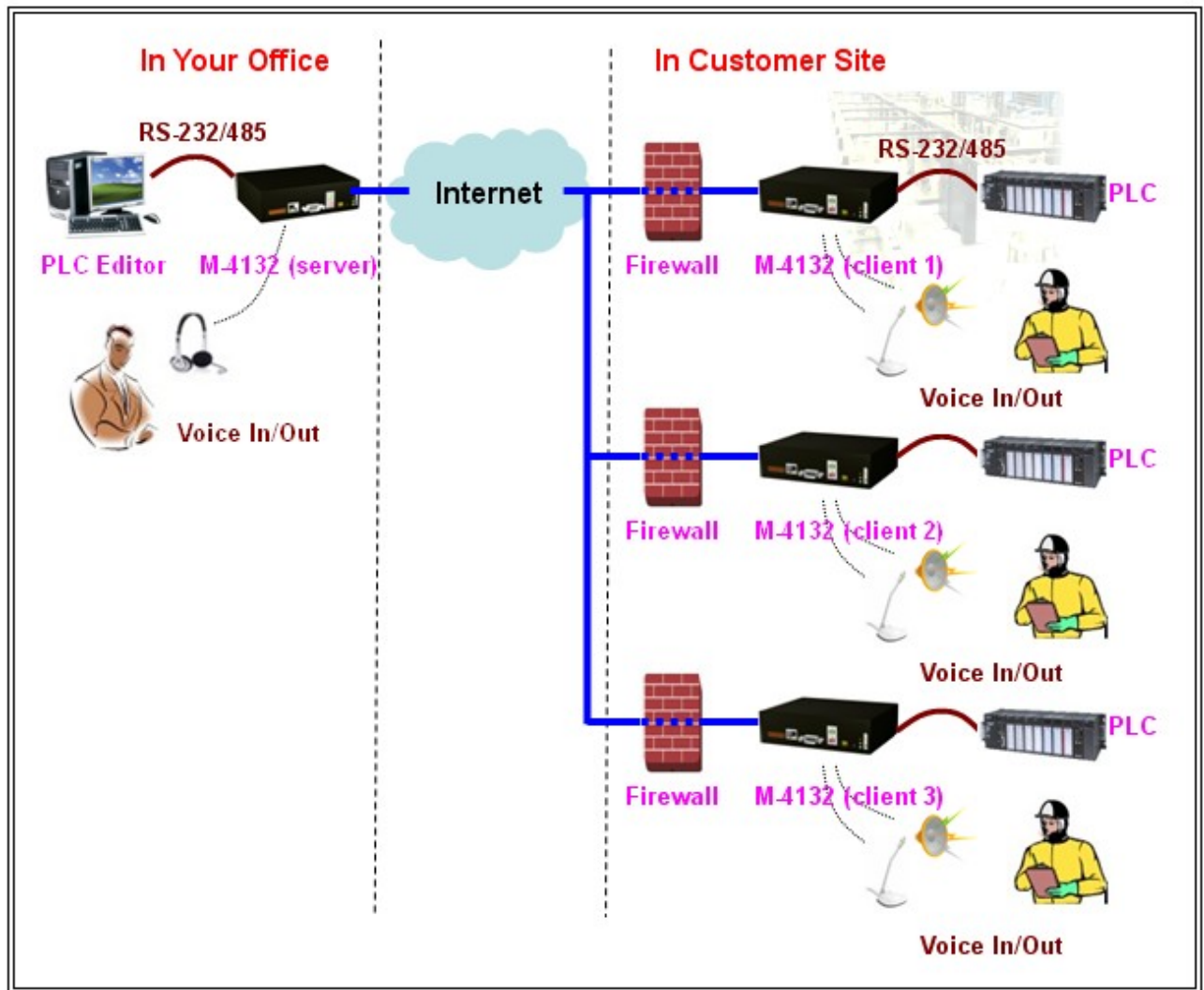
Figure 40: Pair connection (one server to more clients)

4.2 Broadcast connection

A server can connect with one or more clients in this mode. Voice collected from the server's MIC will transfer to all clients' speakers over Ethernet or Internet
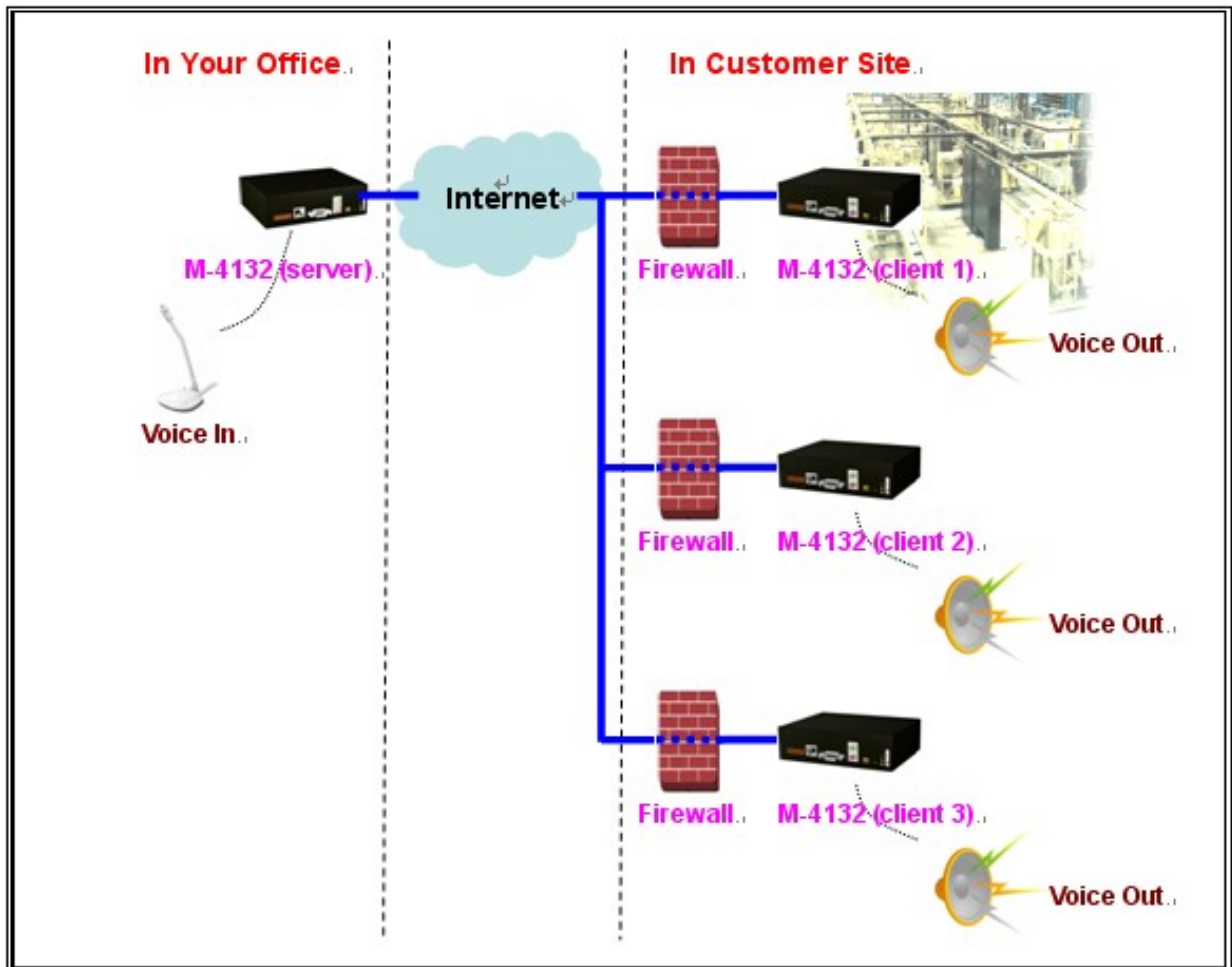
Figure 41: Broadcast connection

5. Troubleshooting

The troubleshooting list can help users to resolve the problems when using the M-4132. If the problem still can't be solved, please contact with the technical staff of ICP DAS.

Table 9　Errors and solutions

| Item	Trouble state	Solution
1	PWR LED indication of M-4132 is always turned off	The power supply of M-4132 has some problems. Please check the wire connection of the power and the voltage is between 10~30VDC.
2	SA1 and SA2 of M-4132 is always turned on	Application program has some errors. Please reset the M-4132 and then check licence is OK in "information" page. Client: Please check server's DNS and network settings are all correct in "Standard Config" page.
3	SA1 and SA2 LED of M-4132 flash slowly at the same time and keep the state long	It means M-4132 can't establish the connection with the other M-4132. Please check the network settings and M-4132 is working well on Ethernet. Client: Please check server's IP/DNS and network settings are all correct in "Standard Config" page.
4	The audio quality of M-4132 is bad.	Please turn audio quality, output volume and input volume of server and client in "Audio Config" page.
5	M-4132 can't send event report.	Please check the settings are all correct in "Event Report" and "Mail Server Setting" page.

6. FAQ

Q1: If I forget the M-4132's IP, how can I set and operate the M-4132 by web browser?

A1: You should get M-4132's IP first. It has two ways to get the IP, as shown below.

I. Recover default IP provisionally.

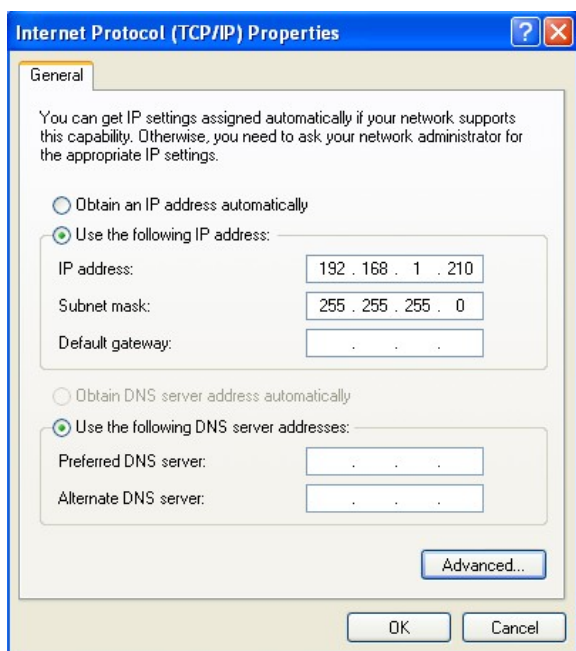Step 1: Connect PC and the M-4132 by Ethernet Switch.
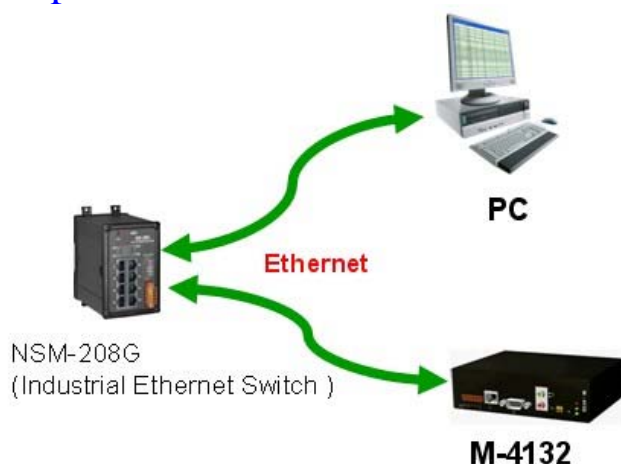
Step 2: Set SW1=ON, SW2=OFF.
Step 3: Press the Trigger Button about 40 second after power on.

Step 4: M-4132's IP should be returned to "192.168.1.217". Please set PC's Network settings. The settings must have the same domain and different IP with the M-4132 (ex: IP=192.168.1.210, mask=255.255.255.0).

Step 5: Open web browser on PC and key in
http://192.168.1.217/main.htm in the Address line.

Step 6: If the connection is ok, it will show "login" page at web browser. Current IP is provisional, the user can refer to the user manual section 3.3 to login and then set network setting of M-4132 at "Standard Config" page.
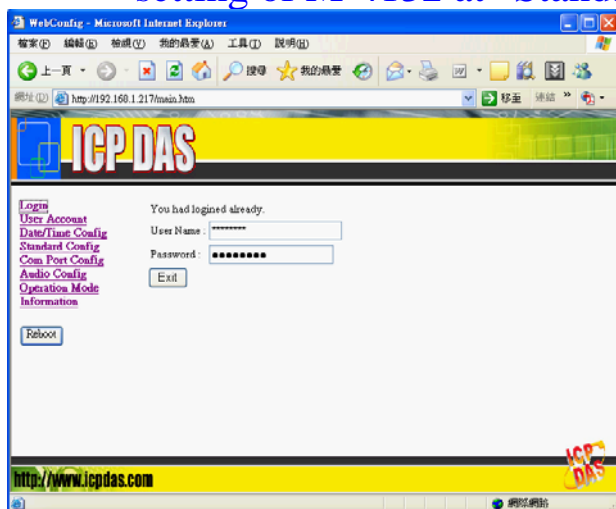
II. Print current IP from Com Port (RS-232).
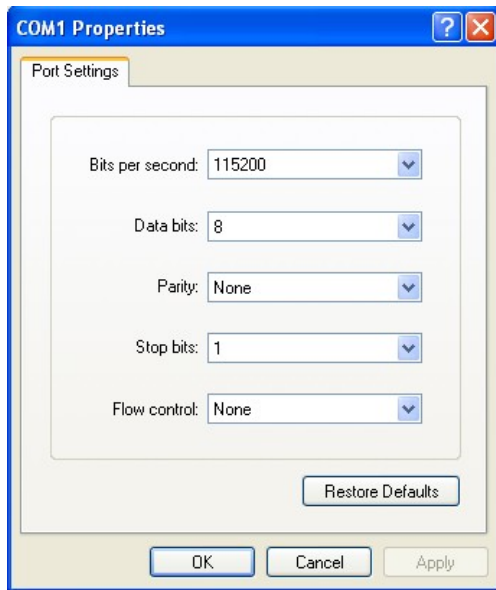
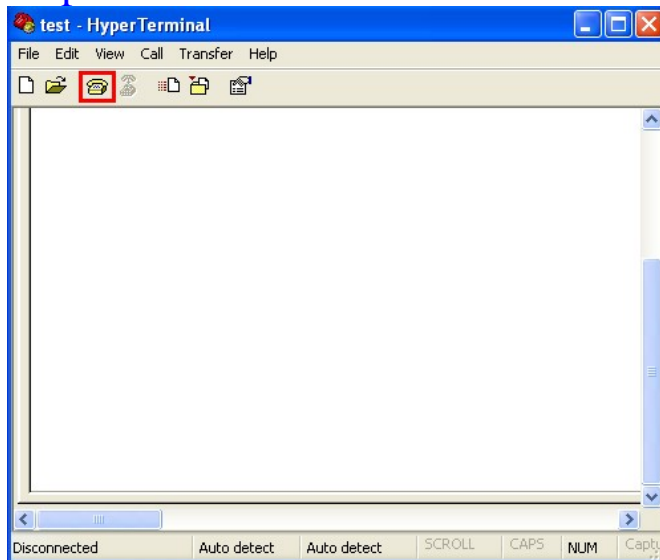Step 1: Connect PC and the M-4132 by RS-232 cable.

**RS-232 Cable
(Null Modem Cable DB9 F/F)**

PC

M-4132
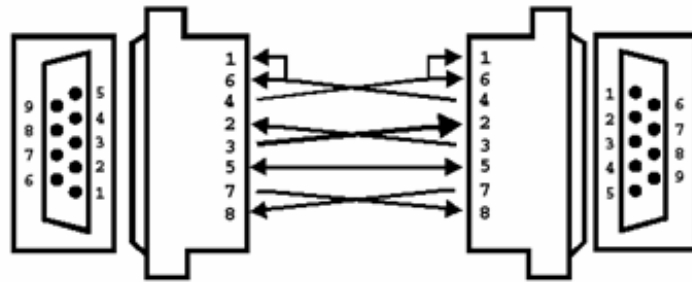
Pinout for a 9-pin to 9-pin null modem cable

Step 2: Open Com Port program. We used "Hyper Terminal" of Microsoft Window XP to test here.
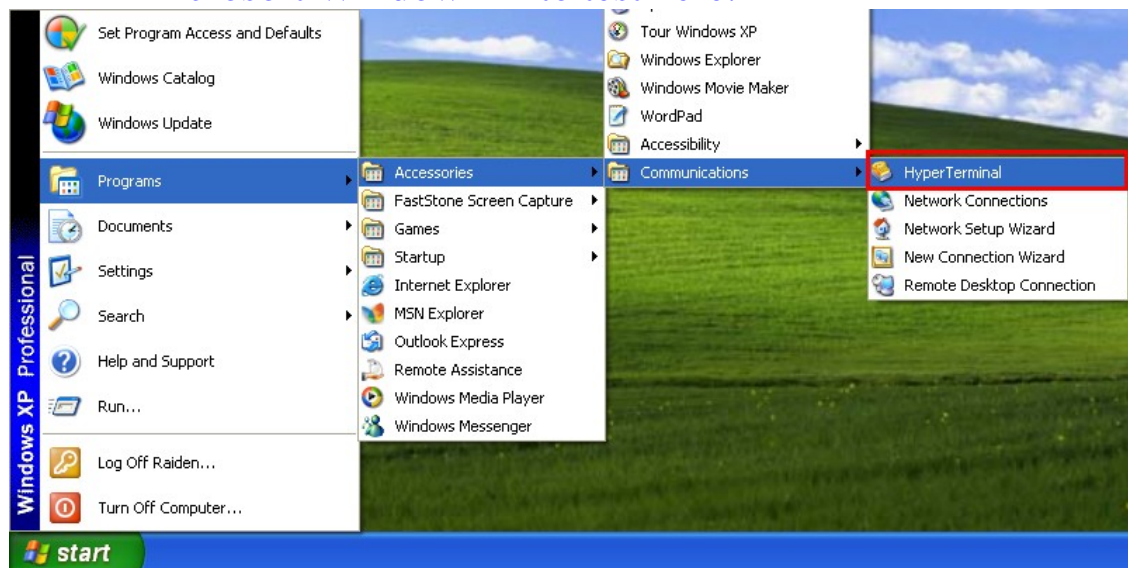
Step 3: Set communication setting of Com Port. (baud rate = 115200, data bits=8, parity=none, stop bits=1, flow control=none).
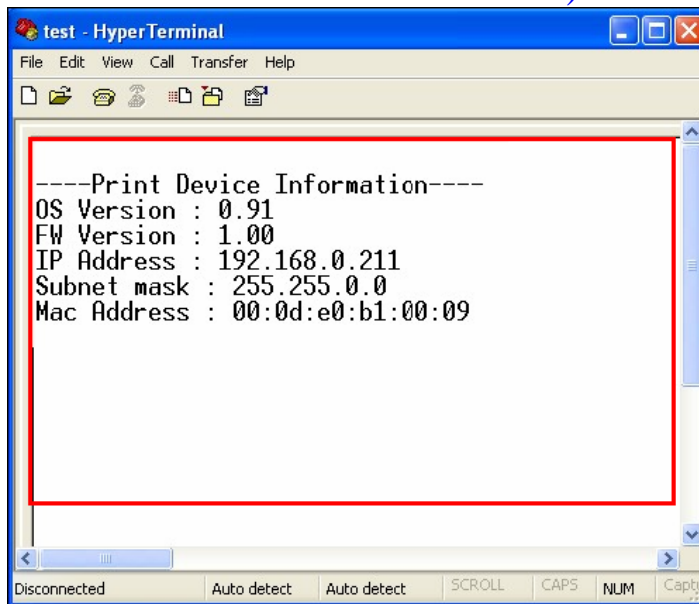
Step 4: Press Call icon.
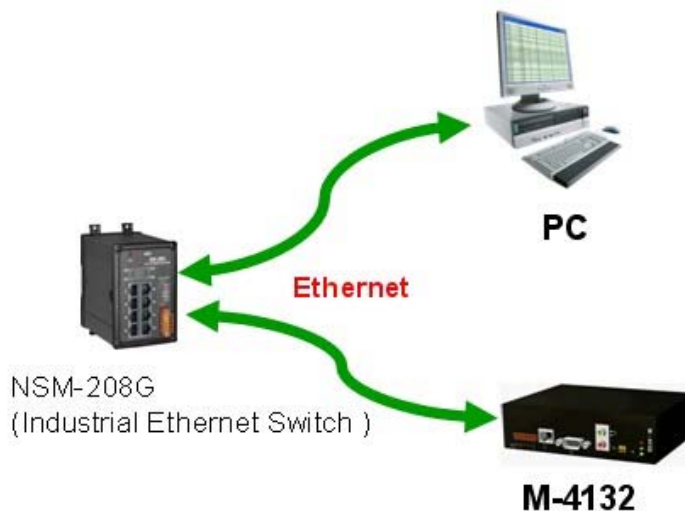

Step 5: Set SW1=OFF, SW2=OFF.
Step 6: Press the Trigger Button about 40 second after power on.

Step 7: It will show M-4132's IP in "Hyper Terminal"(ex: IP Address = 192.168.0.211).


```
----Print Device Information----
OS Version : 0.91
FW Version : 1.00
IP Address : 192.168.0.211
Subnet mask : 255.255.0.0
Mac Address : 00:0d:e0:b1:00:09
```

Step 8: Connect PC and the M-4132 by Ethernet Switch.

Step 9: Please set PC's Network settings. The settings must have the same domain and different IP with the M-4132 (ex: IP=192.168.0.210, mask=255.255.255.0).
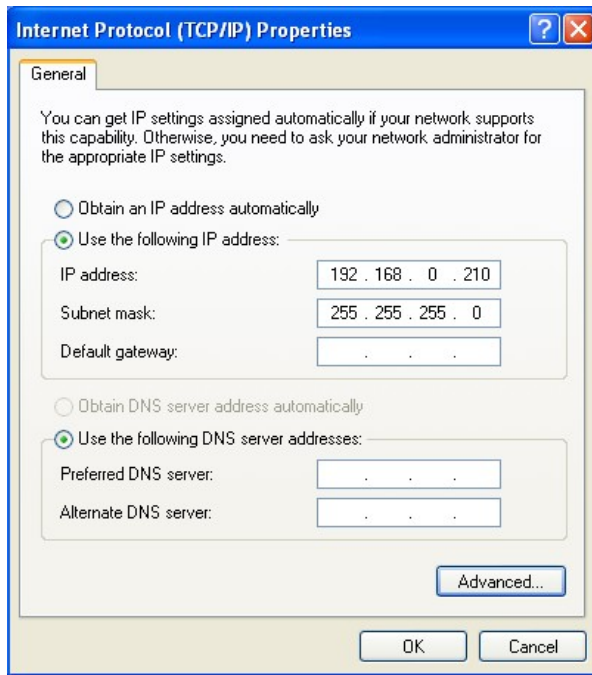
Step 10: Open web browser on PC and key in http://ip/main.htm (ex: http://192.168.0.211/main.htm) in the Address line.

Step 11: If the connection is ok, it will show "login" page at web browser.
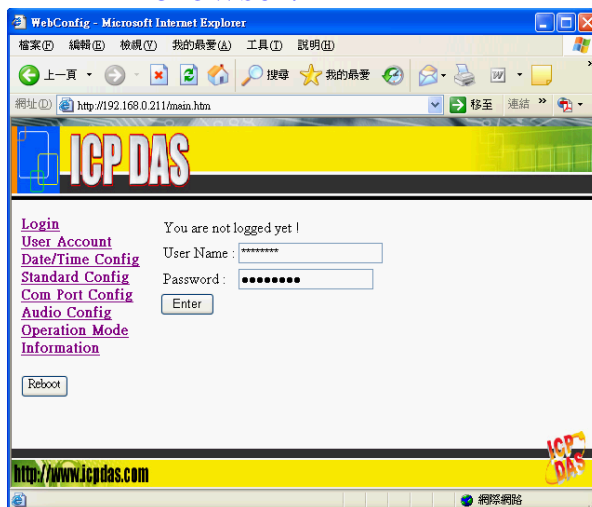
Q2: Client can not connect to Server.

A2: Please follow the following steps to check that the network configuration is correct.

Step 1: Check IP of Server and Client is the only. The IP is not the same with the other network device.

Step 2: Please confirm the network configurations are correct. The configurations include IP Address, Net Mask, Gateway and DNS Server. If the configurations are all correct, it should respond to the ping command from PC (PC's network setting must have the same domain with the Server and Client, the user can refer to user manual section 3.1 about ping IP).
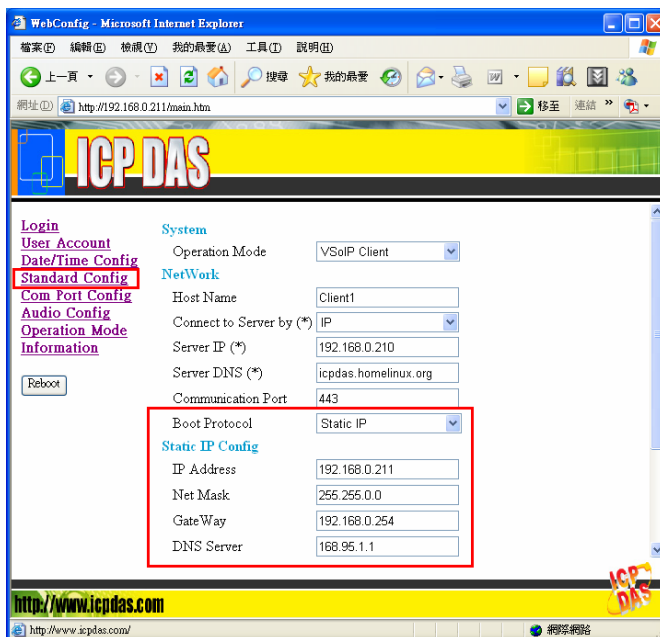
Step 3: Please confirm that the following settings are correct.

➢ "Server IP(*)" of Client is the same with "IP Address" of Server.

➢ "Communication Port" of Server and Client are the same.

➢ "Operation Mode" of Client is "VSoIP Client".

➢ "Operation Mode" of Server is "VSoIP Server".

Client's "Standard Config" page

Server's "Standard Config" page

Step 4: If Client connects to Server via internet, please confirm there is not any firewall before the Server and check network of Server and Client are available.

The user can open web browser and key in http://ip/cgi-bin/NetworkTest.cgi (ex: http://192.168.0.211/cgi-bin/NetworkTest.cgi) in the Address line and press "Test" button to test the network. If the network is available, it will show "0% packet loss".
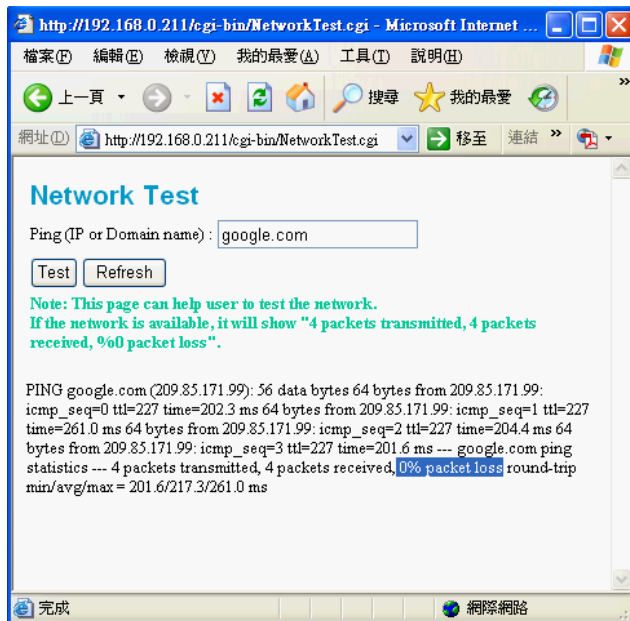
Q3: Server and Client can't establish Com Port connection.

A3: Please follow the steps to check below.
  Step 1: Confirm Client has already login the Server and the user can find the host name of Client in the "Login list" at Server's "Operation Mode" page..
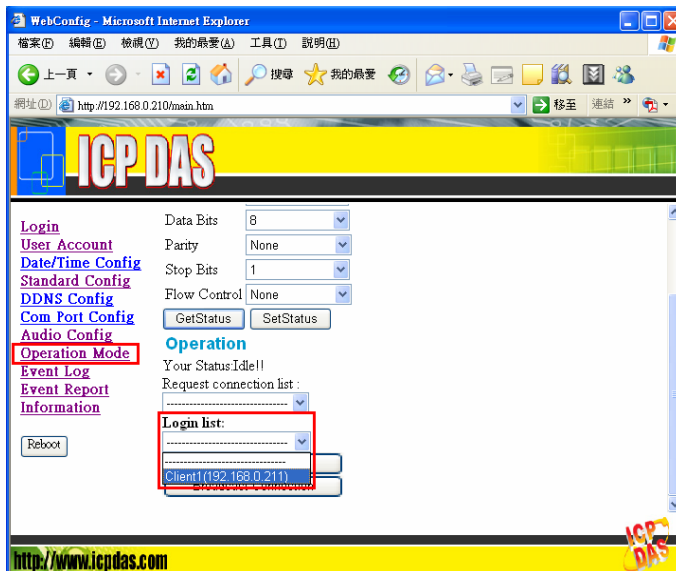

  Step 2: Confirm Server and Client are in "Pair Connection" mode and it shows "Your Status: Pair Connection with Client (IP)" at Server's "Operation Mode" page.
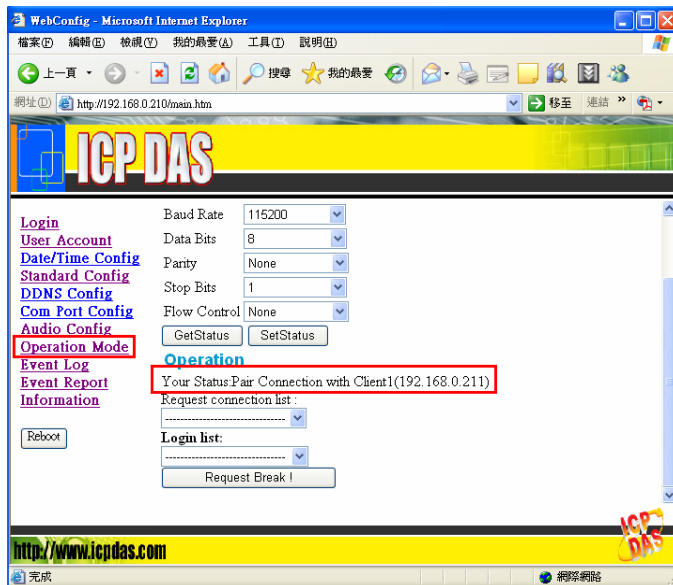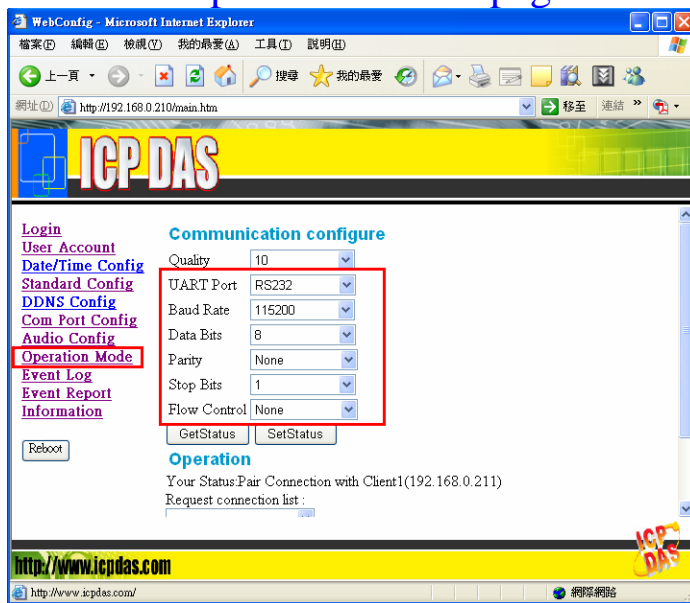
Step 3: Confirm that the Com Port devices connected with Server have the same communication settings with Server's "Com Port Config" page. Confirm that the Com Port devices connected with Client have the same communication settings with Server's "Operation Mode" page.

Server's "Com Port Config" page
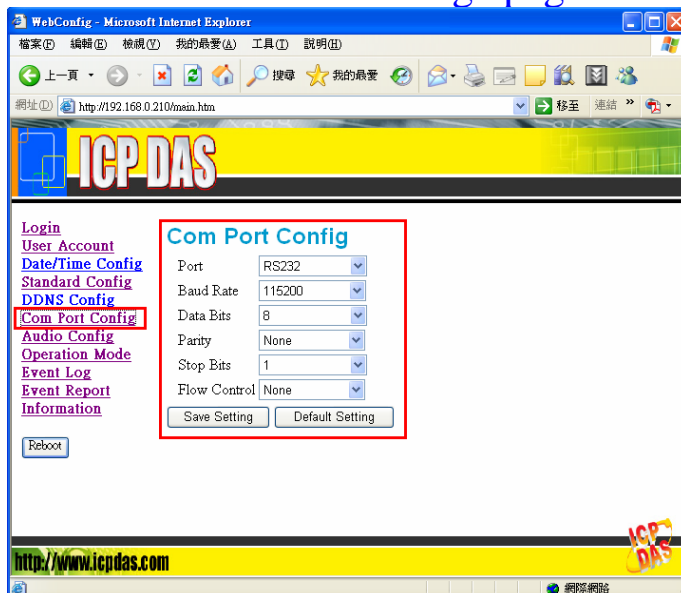
Server's "Operation Mode" page

Step 4: Confirm the Cable connected Server/Client to Com Port device is wired correctly. If the Com Port device is a data circuit-terminating equipment(DCE), the user just needs to match the signal names to connect Server/Client to Com Port device, else the user needs to use a crossover cable to connect(please refer to user manual section 2.2.1).

7. Dimensions

(Unit: mm)