MS21p1 ADSL MODEM
User manual

Contents

Chapter 1 Introduction

The device is a well-designed high-speed ADSL modem/router.

Features

- Full rate ADSL router, support Router/ Bridge
- Provides 24Mbps downstream and 1Mbps upstream
- Maximum transmission range: 5.4 Kilometers
- One Ethernet port, 10/100 Mbps Auto-MDI/MDIX
- One USB port. Comply with USB 1.1
- Friendly GUI for web configuration.
- Configurable as a DHCP Server on Your Network
- Compatible with all standard Internet applications
- Industry standard and interoperable DSL interface
- Simple web-based status page displays a snapshot of your configuration, and links to the configuration pages.
- Downloadable flash software upgrades
- Support up to 8 Permanent Virtual Circuits (PVC)
- Support up to 8 PPPoE sessions

ADSL standard supports

- ITU G.992.1 (G.dmt) Annex A
- ITU G.992.2 (G.lite)
- ANSI T1.413 Issue 2
- ITU G.992.3(ADSL2)
- ITU G.992.5(ADSL2+)

Encapsulation supports

- RFC 1483 bridge
- RFC 1483 Router
- Classical IP over ATM (RFC 1577)
- PPP over ATM (RFC 2364)
- PPP over Ethernet (RFC 2516)

System requirements

Recommended system requirements are:

- Pentium 300MHZ or above
- Memory: 128MB or above
- 10M Base-T Ethernet or above
- Win9X, Win2000, WinXP, WinMe, WinNT
- Ethernet Network Card

Please collect the following information from your ADSL service provider. This information will be very helpful for your ADSL configuration. To keep a record for reference, you can fill in the column as follow:

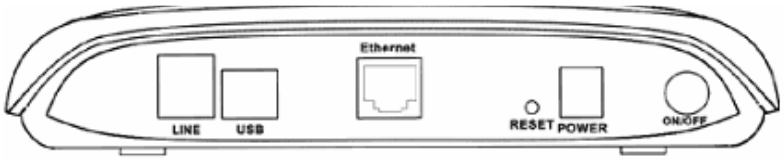
VPI	
VCI	
Encapsulation: VCMUX or LLC	
Protocol	
Standard	
User name	

Password	
Password protocol	

LED status description

Indicator	Status	Description
DATA	Blink	DSL data transferring
POWER	Off	No power
	ON	Power supplied
LAN	ON	Ethernet connection is OK
	Blink	Ethernet data transferring
LINK	Quick Blink	DSL line is training
	ON	DSL line is connected

Rear panel layout



Interface	Description
SWITCH	Power on/off switch
POWER	Plug in for power adaptor
RESET	Modem Reset button Switch power off, Press and hold the reset button, then switching power on continue holding the reset button 5~10s. The modem will auto restart. This action will recover the modem's default configuration.
LAN	LAN interface for connecting to computer or Switch
LINE	ADSL connector for connecting to ADSL telephone line
USB	USB interface for connecting to computer

Chapter 2 Hardware Installation

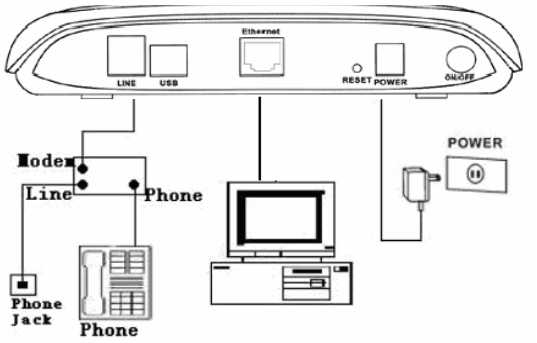
The DSL gateway may connect to a PC's USB, Ethernet. DSL gateway will support at least one of connectivity methods. The preferred connectivity method is to use the Ethernet; if your PC does not support an Ethernet port, you will need to use the USB port and install additional software.

Note: Connect your DSL gateway to only one interface (Ethernet, USB).

Note: The USB driver supports Windows machines only.

Please connect the device to you computer as follow:

- ⌘ If connecting to the splitter, connect the "Line" splitter to wall jack using one telephone cable
- ⌘ Use the other telephone cable to connect "MODEM" port of the splitter and "LINE" port of the modem. The "phone" port of the splitter can be use to connect the telephone by a telephone cable.
- ⌘ Use Ethernet cable to connect "LAN" port of the modem and "LAN" port of your computer.



If do not need to connect to the splitter,

- ⌘ Connect the modem to wall jack with a telephone cable
- ⌘ Use Ethernet cable to connect “LAN” port of the modem and network adaptor of your computer.

USB Installation

To connect the DSL gateway to the PC’s USB port, perform the following:

- ⌘ Connect the USB cable to the USB port on the DSL gateway. The cable has two different connectors; you may have to try both connectors and the connector is keyed so try different orientations.
- ⌘ Connect the other end of the USB cable into the PC’s USB

Chapter 3 Modem Parameters Setting

Configuring computer network card IP address

Configure your network card's TCP/IP properties to Obtain an IP address automatically from modem, or set the computer's IP with th same network mask of the modem.(For example: modem's IP is 192.168.1.1/255.255.255.0,

Then you can set computer's IP to:

192.168.1.x/255.255.255.0.

The range for x is from 3 to 253)

Web setting interface

Open IE or Netscape Web browser, Input **http://192.168.1.1**(MODEM default IP address) in the address column, then click <ENTER> button, access the following setting interface:

Input user name and password, then click **Login** key to enter WEB setting interface.

Default setting:

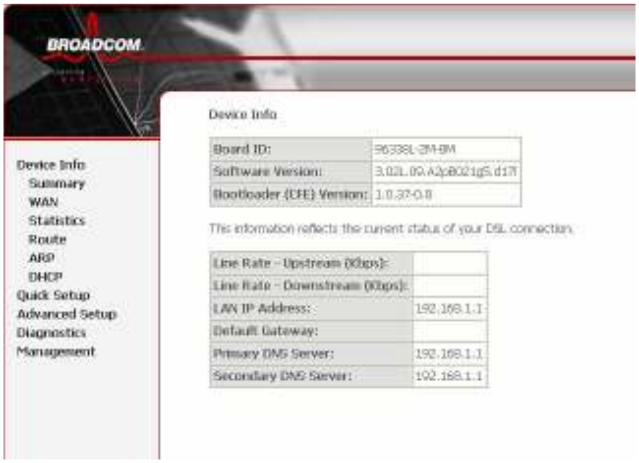
IP Address: **192.168.1.1**

Subnet Mask: **255.255.255.0**

Username/Password: **admin**/**admin**

Main interface

After type right user name and password, the following window will pop up:



Here provide the most common RFC1483 Bridge and PPP over Ethernet (RFC2516) setting for reference. If you want to know more about other protocol, please contact your ADSL service provider for details

Ethernet over ATM (RFC1483 Bridge) setting

1. From the Home page, click on "**Quick Setup ",** the screen shown below will appear:

2. Select the check box to enable DSL Auto-connect process. Set any PVC channel, Click on VPI/VCI, the screen shown below will appear:

3. Click the “Next” button, and you can set the encapsulation which get from your ADSL service provider, see the following:

4. Click the “Next” button , select the check box below to enable this WAN service, see the following:

5. Click the “Next” button, configure the DSL Router IP Address and Subnet Mask for your Local Area Network (LAN) , please use the default configurations, see the following:

6. Click the “Next” button, make sure that the settings below match the settings provided by your ISP., see the following:

7. Click the “Save/Reboot” button, save your configurations.

NOTICE:

If you select Dial-UP link, after configuring your ADSL modem, please install the third-party dial up program to access Internet (For example: Ethernet 300/Ethernet 500/WinPoet). If your system is WinXP, you can use its own Internet access program without any other additional programs.

PPP over Ethernet (RFC2516) setting

PPPoE is also named as RFC 2516. It is a method of encapsulating PPP packets over Ethernet. PPP or Point-to-Point protocol is a method of establishing a network connection/session between network hosts. It usually provides a mechanism of authenticating users.

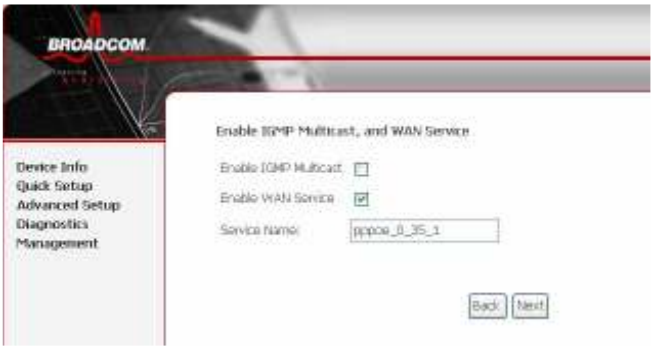
To configure the MODEM for PPPoE:

1. From the Home page, click “**Quick Setup ”,** see the following:

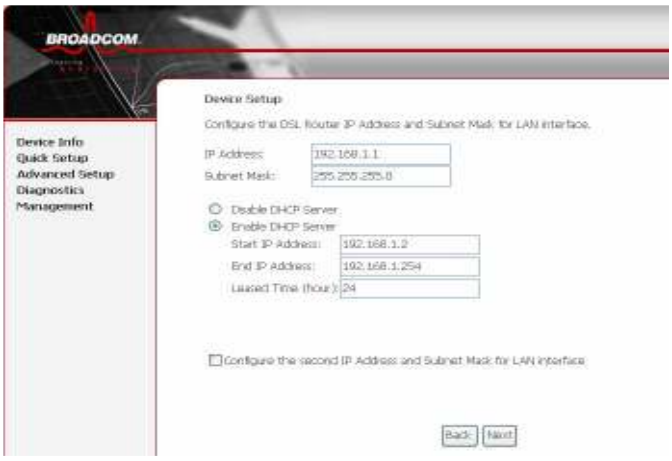
2. Click the “Next” button , select the type of network protocol and encapsulation mode over the ATM PVC that your ISP has instructed you to use, see the following:

3. Select PPP over Ethernet (PPPoE), Click the “**Next**” button.

4. Click the “**Next**” button, unenable IGMP Multicast, and enable



5. Click the "**Next**" button, configure the DSL Router IP Address
and Subnet Mask for LAN interface, please use the default



6. Click the "**Next**" button; make sure that the settings below match the settings provided by your ISP. See the following:

7. Click the “Save/Reboot” button, save your configurations, and

Chapter 4 Questions & Answers

1. **Question: Why all LED indicators are off?**

   Answer:

   ⌘ Check the connection between the power adaptor and the power socket

   ⌘ Check the power switch is on or not

2. **Question: Why LAN LED is not lighting?**

   Answer:

   ⌘ Check the connection between the ADSL modem and your computer or Hub/Switch

   ⌘ Check your PC or Hub/Switch running status and make sure them are working normally.

   ⌘ Check your network cable for connecting the Modem with other device:

   For PC, you should use the crossover cable;

   For Hub/Switch, you should use straight through cable.

3. **Question: Why ADSL LED is not lighting?**

   Answer:

   Check the connection between the ADSL “line” port and the wall jack.

4. **Question: Why cannot visit Internet with ADSL LED is on?**

   Answer:

   Make sure following information has been input correctly:

   VPI/VCI

Username/password.

5. **Question: Why cannot open the Modem configuring web page?**

   Answer:

   Follow below steps to check the communication between the computer and Modem:

   Click start -> run (input ping demands)-> Ping 192.168.1.1 (MODEM IP ADDRESS).

   If cannot reach the modem, please check following configuration:

   - ⌘ The type of the network cable
   - ⌘ The connection between the modem and computer
   - ⌘ You computer's TCP/IP configuration

6. **Question: How to load the default setting after incorrect configuration?**

   Answer:

   Press "reset" button 5s-10s to load the default configuration.

   The modem's default IP address: 192.168.1.1/255.255.255.0,

   Username/password: admin/admin