ADSL2+ MODEM

User manual

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Chapter 1 Introduction

The device is a well-designed high-speed ADSL2+ modem/router.

Features

- Full speed, Auto-sense a ADSL routing, bridging
- Up to 24Mbps downstream and up to 1Mbps upstream data rate
- Friendly GUI for web configuration
- Support TR-069
- Support for up to 8 Permanent Virtual Circuits (PVCs)
- Support Port Mapping/Forwarding and DMZ Host network
- NAT, IP filtering and Password Authentication to Modem
- VPN Pass-through support
- DHCP Server support
- Support remote management & Local Web Based Firmware Upgrade
- Support Bulid-in PPPoE

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			
Power	Off	No power			
	ON	Power supplied			
ADSL	Quick Blink	DSL line is training			
ADSL	ON	DSL line is connected			
Data	Blink	DSL data transferring			
LAN	ON	Ethernet connection is OK			
	Blink	Ethernet data transferring			

Rear panel layout



Interface	Description
Switch	Power on/off switch
Power	Plug in for power adaptor
RESET	Modem Reset button

	Press and hold around 5~10s to reset the
	hardware. 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

Chapter 2 Hardware Installation

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 "Ethernet" port of the modem and "Ethernet" 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 "Ethernet" port of the modem and network adaptor of your computer.

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 the 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 "Advanced Setup", see the following:

wanced Sertup WAN	Port/Vpi/Vci	VLAN Max	Cors. ID	Calegory	Service	Interface	Protocial	Sprip	005	State	Renove	file.
ecurity	0/0/33	of	4	UBR	br_0_0_31	nis_0_0,0,33	bridge	P454	Deabled	Erskied		1132
outing	0,60,795	Off	1	LEFE	br.0,0,25	nm_0_0_23	bridge	PALIA.	Deabled	Enabled		Edit
il. postica	0,8735	DIT	1	1.894	54.0.0.35	nes_0_0_25	heatpe	N/4	Disabled	Ersbled		filt
anagement					Add Fee	San San	e/Feboot]				

2. Click Edit. Set VPI/VCI, see the following:



 Click the "Next" button, and you can set the encapsulation which get from your ADSL service provider. Select Bridging, see the following:

	~
ENDIDCON.	
	Connection Type
Contrast last	Select the type of network protocol for IP over Ethernet as WAN interface
Device Info Quick Settup	O PPP over x114 (PPPoX)
Advanced Setup Diagnostics	O 1999 over Ethernet (FFFGE)
Management	O Mild Enciptulatori Routing (MER)
	O IP DW ATM (PDA)
	@ bridging
	Encapsolation Mode
	LLOSHAP BROONG -
	Back (Nert

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

BROADCOM	1
Device Infl Quick Sotup Advanced Senso Disports Management	timefet the check box fellow to disable this WAX survice Ende for day Survice 2 General Surve: 加小(1,0,25) Lank Note

5. Click the "Next" button, make sure that the settings below match the settings provided by your ISP., see the following:

вполрсом	-		
THE WORK	100 C		
K	WAN Setup - Summ	ωrγ	
vice Info	Make sure that the se	tings below make	the settings provided by your 20P.
ick Setup	PORT / VPL/.VCE	0/0/35	
Nanced Setup	Connection Type:	(trulge)	
ignostics	Service Name:	br_0_0_25	
anaponent	Service Category:	0.01	
	IP Address:	Not Applicable	
	Dervice State:	Enubled	
	NAT:	Daughted	
	feesal:	Delabled	
	IGMP Maticast:	Fact Applicable	
	Quality Of Service:	Deabled	
	Click "Same/Faboor" to NOTE: The configurat	: save these setting phiprocess takes a	and reboot router. Click "Back" to make any inclaffcatore. col 1 innute to complete and poor Clic Router will reboot. Back Exempleations

6. 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 on "Advanced Setup", see the following:

EROADCOM	Wide Area Nett Choose Add, Bat Choose Save, Fail	wark (w , or Farm	AN) Set ove to co ply the	tup offgure 104 changes and	i etterfaces relocative	opters.						
WAN LAN	Part/Vpi/Vci	VLAN Max	Cors. ID	Category	Service	Interface	Protocial	Sprip	Qu5	State	Renove	fdR.
Security	0,85/33	off	1	LBR	br.0.0.31	nie_0_0,33	textpr	P4.54	Deabled	Enabled	0	1151
puerty of service touting	0,60,095	OF	1	LEN	br.0,0,35	nm,0,0,25	Bridge	PALSE.	Deabled	Evabled	D	Edit .
rsi.	0,8,95	DIT	1	1.891	tr.0.0.35	nes_ULUS	hodge	N/4	Disabled	Evabled		Esst.
Diognostics Management					Add Fee	NH Sam	e,Roboot)				

2. Click Edit. Set VPI/VCI, see the following

BROADCOM		_
		1
10000	ATM EVE Configuration	
Device Info	This screen allows you to configure an ATM PVC identifier (PORT and VPC and VCD) and select a service category. Otherweek	
Advanced Setup	choose an eventing interface by selecting the checkbox to enable it.	
WAN	Last 25,0001 (n.	
LAN	ers formed for	
Security	vo. (12405/01) (6	
Quality of Service		
Routing	VLAN Max - Enable Multiple Protocols Over a Single PVC	
ONS	Terris Common 1990/100-+5000	
054.	Security Constantion For	
Diagnostics	Enable Quality Of Service	
Management		
	bracing patient everyors for a rive improves performance for evented cancel of approximately. Gost control be set for can and Assistere VSR, Gost consumer system resources, therefore the number of PVCs will be reduced, the Advanced Setup/Guality.	
	of Service to amigs promotion for the applications	
	name drawk cupevine. El	
	Back Plant	- 1

3. Click the "Next" button. Select PPP over Ethernet (PPPoE) and the type of network protocol and encapsulation mode over the ATM PVC that your ISP has instructed you to use, see the following:

BROADCOM	
Device Info Quick Setup Advanced Setup Diagnostiks Management	Connection Type Select the type of retenoic protocol and encapsulation mode over the ATM PVC that your ISP the instructed you to use. © PKP over ATM (EXPON) © PKP over Efference (PKPC) © Muc Encapsulation Records (MER) © JP over ATM (PGN) © Israging
	Encapsolation Mode [LLC/3849-583156136]

4. Click the "**Next**" button, fill out PPP Username and PPP Password, see the following:

BROADCOM	~	
Devide a linfo Quick Sertap Advancend Sertap Dilagnotics Management	PPP Nerrome and Maxword PPP Nerrome and Plasmond PPP Nerrome PP	
	TPF Professor Iden Status Produces	

5. Click the "Next" button, uncheck IGMP Multicast, and enable WAN Service, see the following:

вполосом	
Device Info Quét Sortup Aubanced Sortup Diagnostics Management	Loude 1094 Malcost Dode 324 Malcost Dode Will Server @ Serves Name

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

Device Info	WAN Setup - Same Male sure that the se	ery targi below metch the se	tagy privided by your EM.
Quick Setup	PORT / VPL / VCE:	0/0/25	
Advanced Setup	Connection Type:	PEPLE	
Diagnostics	Service Name:	pppoe_0_0_35_1	
Management	Service Category:	CEA.	
	IP Address:	Automatically Autograd	
	Service State:	Enabled	
	NAT:	Enabled	
	firmal:	Ended	
	IGNP Multicast:	Deabled	
	Quality Of Service:	Denabled	
	Citck "Save/Reboot" to NOTE: The configurat	I save Texe settings and a on process takes about 1	etoot router. Dick "Bask" to male any nodificatore. neute to templete and your f26. Router will retoot. Bask <u>Sans</u> Retoot.

7. Click the "**Save/Reboot**" button, save your configurations, then finish the Setting for PPPoE.

TR-069 Configuration

Click the "Management" and then click the "TR-069 Client" to configure the MODEM for TR069:

diam of a second	A second second				
	TR-069 client - Configuration				
Device Info	WAN Management Protocol (TR-069) this device.	alows a Auto-Configurat	ion Server (ACS) to perform auto-configuration, provision, collection, and diagnostics		
Juick Setup	Select the desired values and clok "Apply" to configure the TR-069 clent options.				
Advanced Setup					
Diagnostics	Inform 🕘 Disable 💁 Enab	łe			
danagement					
Settings	Inform Interval:	300			
System Log	ACS URL1				
TR-069 Client		adapta:			
Internet Time	ACS User Nemt:	aamin			
Access Control	ACS Password:	*****			
Update Software Save/Reboot	Connection Request User Name:	admin			
	Connection Request Password:	*****			
		Sava	Annual Call DCMatheuts		

Disable: modem cannot automatically send out the request to the TR069 server

Enable: modem can automatically send out the request to the TR069 server Select "Enable", all items below are effective

Inform Interval: Each modem how many seconds sends out the connection request to the TR069 server

ACS URL: the path of modem sending out the request the TR069 server

ACS User Name: the username of modem logging in TR069 server

ACS Password: the password of modem logging in TR069 server

Connection Request User Name: the username of the TR069 server visits modem TR069 process

Connection Request Password: the password of the TR069 server visits modem TR069 process

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 Ethernet 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 cannot visit Internet with ADSL LED is on?

Answer:

Make sure following information has been input correctly:

VPI/VCI

Username/password.

4. Question: Why cannot open the Modem configure 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
- 5. 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