

NT3BB-4PWN

Quick Installation Guide

1 Introduction

The NT3BB-4PWN device is an ADSL access device that supports multiple line modes. With four 10/100Base-T Ethernet interfaces at the user end, it provides high-speed ADSL broadband connection to the Internet or Intranet for high-end users such as net cafes and office users. The device provides high performance access to the Internet with a downlink of 24 Mbps and an uplink of 1 Mbps.

As a WLAN AP or WLAN router, the device supports WLAN access to the Internet. It complies with the IEEE 802.11b/g/n specifications, WEP, WPA and WPA2 security specifications.

2 System Requirements

Recommended system requirements are as follows:

- A 10/100 base-T Ethernet card is installed on your PC
- A hub or Switch. (connected to several PCs through one of Ethernet interfaces on the device)
- Operating system: Windows 98 SE, Windows 2000, Windows ME, Windows XP, Windows Vista, Windows 7
- Internet Explorer V5.0 or higher, Netscape V4.0 or higher, or Firefox 1.5 or higher

3 Hardware Installation

Step 1 Connect the **DSL** interface of the device and the **Modem** interface of the splitter through a telephone cable. Connect the phone to the **Phone** interface of the splitter through a cable. Connect the incoming line to the **Line** interface of the splitter.

The splitter has three interfaces:

- **Line:** Connect to a wall phone jack (RJ-11 jack).
- **Modem:** Connect to the ADSL jack of the device.
- **Phone:** Connect to a telephone set.

Step 2 Connect the **LAN** interface of the device to the network card of the PC through an Ethernet cable (MDI/MDIX).

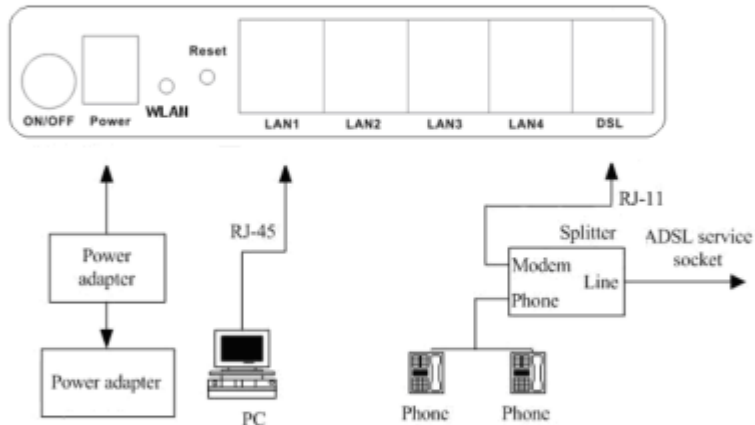


Note:

Use twisted-pair cables to connect with the hub or switch.

Step 3 Plug one end of the power adapter to the wall outlet and connect the other end to the **Power** interface of the device.

The following is the application diagram for the connection of the router, PC, splitter and the telephone sets.



The following table describes the interfaces of the device:

Items	Description
	Power switch for powering on/off the device.
Power	Power interface for connecting to the power adapter.
WLAN	Press the button gently and let go after 2 seconds to enable WLAN function.
Reset	Reset to the factory defaults. To reset to the factory

Items	Description
	defaults, keep the device powered on and push a paper clip in to the hole for over 3 seconds. Then release it, the configuration is reset to the factory defaults.
LAN1/2/3/4	RJ-45 interface for connecting to the Ethernet interface of PC or other Ethernet devices through the Ethernet cable.
DSL	RJ-11 interface for connecting to the ADSL interface or a splitter through the telephone cable.

4 Web Configuration

4.1 Configuring IP Address of Network Card

Configure TCP/IP properties of your network card to **Obtain an IP address automatically from modem**, or set the IP address of the computer with the same network mask of the modem.

For example, if the IP address of Router is 10.0.0.2/255.255.255.0, you can set the IP address of the computer to **10.0.0.x/255.255.255.0**. The range for x is from 3 to 254.

4.2 Accessing the Router

- Step 1** Open the Internet Explorer (IE) browser and enter <http://192.168.1.1>.
- Step 2** In the **Login** page that is displayed, enter the username and password. The username and password of the user are **admin** and **3bb**.



After logging in to the DSL router as a super user, you will see the following interface. You can check, configure and modify all the settings.

Status	Quick Start	Interface Setup	Advanced Setup	Access Management	Maintenance	Status	Help
	Device Info		System Log	Statistics			

Device Information	Firmware Version : 3BB_TESTCODE_31620_5306R_20121113 MAC Address : 00 1e a0 13 41 41																																								
LAN	IP Address : 192.168.1.1 Subnet Mask : 255.255.255.0 DHCP Server : Enabled																																								
WAN	<table border="1"> <thead> <tr> <th>PVC</th> <th>VPVC</th> <th>IP Address</th> <th>Subnet</th> <th>Gateway</th> <th>DNS Server</th> <th>Encapsulation</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>PVC0</td> <td>0/33</td> <td>9.0.0.0</td> <td>0.0.0.0</td> <td>0.0.0.0</td> <td>0.0.0.0</td> <td>PPPoE</td> <td>Down</td> </tr> <tr> <td>PVC1</td> <td>0/35</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>Bridge</td> <td>Down</td> </tr> <tr> <td>PVC2</td> <td>0/36</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>Bridge</td> <td>Down</td> </tr> <tr> <td>PVC3</td> <td>0/38</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>Bridge</td> <td>Down</td> </tr> </tbody> </table>	PVC	VPVC	IP Address	Subnet	Gateway	DNS Server	Encapsulation	Status	PVC0	0/33	9.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	PPPoE	Down	PVC1	0/35	N/A	N/A	N/A	N/A	Bridge	Down	PVC2	0/36	N/A	N/A	N/A	N/A	Bridge	Down	PVC3	0/38	N/A	N/A	N/A	N/A	Bridge	Down
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PVC3	0/38	N/A	N/A	N/A	N/A	Bridge	Down																																		
ADSL	ADSL Firmware Version : FwVer3.16.21.0_TC3090 HvVer:T14_FT_T0 Line State : Down Modulation : N/A Annex Mode : N/A <table border="1"> <thead> <tr> <th></th> <th>Downstream</th> <th>Upstream</th> </tr> </thead> <tbody> <tr> <td>SNR Margin :</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>Line Attenuation :</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>Data Rate :</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>Max Rate :</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>CRC :</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table>		Downstream	Upstream	SNR Margin :	N/A	N/A	Line Attenuation :	N/A	N/A	Data Rate :	N/A	N/A	Max Rate :	N/A	N/A	CRC :	N/A	N/A																						
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Note:

In the Web configuration page, the settings can be saved permanently.

4.3 Internet Settings

Choose **Interface Setup > Internet**. Click **Internet** pane, the page shown in the following figure appears. In this page, you can configure WAN interface of your router.

Interface	Quick Start	Interface Setup	Advanced Setup	Access Management	Maintenance	Status	Help
		Internet	LAN	Wireless			
ATM VC	Virtual Circuit: PVC0 <input type="button" value="PVCs Summary"/>						
QoS	Status: <input checked="" type="radio"/> Activated <input type="radio"/> Deactivated						
	VPI: 0 (range: 0-255)						
	VCI: 33 (range: 1-65535)						
	ATM QoS: UBR						
Encapsulation	PCR: 0 cells/second						
	BCR: 0 cells/second						
	MBS: 0 cells						
	ISP: <input type="radio"/> Dynamic IP Address <input type="radio"/> Static IP Address <input checked="" type="radio"/> PPPoE/PPPoA <input type="radio"/> Bridge Mode						
PPPoE/PPPoA	Service name: <input type="text"/> Username: default3bb Password: **** Encapsulation: PPPoE LLC Bridge Interface: <input type="radio"/> Activated <input checked="" type="radio"/> Deactivated						
Connection Setting	Connection: <input checked="" type="radio"/> Always On (Recommended) <input type="radio"/> Connect On-Demand (Close if idle for <input type="text"/> minutes) <input type="radio"/> Connect Manually						
IP Address	TCP MSS Option: TCP MSS (default) <input type="text"/> bytes						
	Get IP Address: <input type="radio"/> Static <input checked="" type="radio"/> Dynamic						
	Static IP Address: <input type="text"/>						
	IP Subnet Mask: <input type="text"/>						
	Gateway: <input type="text"/>						
	NAT: <input type="radio"/> Enable <input checked="" type="radio"/> Disabled						
Default Route: <input checked="" type="radio"/> Yes <input type="radio"/> No							
TCP MTU Option: TCP MTU (default) <input type="text"/> bytes							
Dynamic Route: RIP1 Direction: None							
Multicast: Disabled							
<input type="button" value="SAVE"/>							

The following table describes the parameters of this page:

Field	Description
Virtual Circuit	You can select a virtual circuit from the

Field	Description
	drop-list. Click PVCs Summary you can view eight PVCs (from PVC0 to PVC7), and only PVC0 status is activated by default.
Status	You can select Activated or Deactivated for currently selected virtual circuit.
VPI	The virtual path between two points in an ATM network, ranging from 0 to 255 .
VCI	The virtual channel between two points in an ATM network, ranging from 1 to 65535 .
ATM QoS	Select the Quality of Service types for this Virtual Circuit. The ATM QoS types include CBR (Constant Bit Rate), VBR (Variable Bit Rate) and UBR (Unspecified Bit Rate). These QoS types are all controlled by the parameters specified below, including PCR, SCR and MBS. You can choose CBR , UBR , rt-VBR or nrt-VBR .
PCR	Peak cell rate (PCR) is the maximum rate at which cells can be transmitted along a connection in the ATM network.
SCR	Sustain cell rate (SCR) is the maximum rate that traffic can pass over PVC without the risk of cell loss.
MBS	Maximum burst size (MBS) is the maximum number of cells that can be transmitted at the PCR.
ISP	You can choose Dynamic IP Address , Static IP Address , PPPoA/PPPoE or Bridge Mode .

Select **PPPoA/PPPoE** in the **ISP** encapsulation if your ISP requires you to use a PPPoE connection. This option is typically used for DSL services. Select Dynamic PPPoE to obtain an IP address automatically for your PPPoE

connection. Select Static PPPoE to use a static IP address for your PPPoE connection. Please enter the information accordingly.

Interface	Quick Start	Interface Setup	Advanced Setup	Access Management	Maintenance	Status	Help
	Internet	LAN	Wireless				
ATM VC	Virtual Circuit: PVC3 <input type="button" value="PVCs Summary"/> Status: <input checked="" type="radio"/> Activated <input type="radio"/> Deactivated VR: 0 (range: 0-255) VC: 33 (range: 1-65535)						
QoS	ATM QoS: UBR PCR: 0 cells/second SCR: 0 cells/second MBS: 0 cells						
Encapsulation	IP: <input type="radio"/> Dynamic IP Address <input type="radio"/> Static IP Address <input checked="" type="radio"/> PPPoA/PPPoE <input type="radio"/> Bridge Mode						
PPPoA/PPPoE	Servicename: <input type="text"/> Username: default@3bb Password: *** Encapsulation: PPPoE LLC Bridge Interface: <input type="radio"/> Activated <input checked="" type="radio"/> Deactivated						
Connection Setting	Connection: <input checked="" type="radio"/> Always On (Recommended) <input type="radio"/> Connect On-Demand (Close if idle for 0 minutes) <input type="radio"/> Connect Manually TCP MSS Option: TCP MSS (default) 0 bytes						
IP Address	Get IP Address: <input type="radio"/> Static <input checked="" type="radio"/> Dynamic Static IP Address: 0.0.0.0 IP Subnet Mask: 0.0.0.0 Gateway: 0.0.0.0 NAT: Enable Default Route: <input checked="" type="radio"/> Yes <input type="radio"/> No TCP MTU Option: TCP MTU (default) 1492 bytes Dynamic Route: RIP Direction: None Multicast: Disabled						
<input type="button" value="SAVE"/>							

The following table describes the parameters of this page:

Field	Description
Username	Enter the username for PPPoE dial-up, which is provided by your ISP.
Password	Enter the password for PPPoE dial-up, which is provided by your ISP.
Encapsulation	You can choose PPPoE LLC , PPPoE VC-Mux , PPPoA LLC or PPPoA VC-Mux .
Bridge Interface	You can choose Activated or Deactivated .
Connection	You can choose Always On (Recommended) , Connect On-Demand or Connect Manually .
TCP MSS Option	You can set a tcp mss value. The range is from 100 to 1452 . The default is 0 .
Get IP Address	You can choose Static or Dynamic .
Static IP Address	You can enter the ip address for dial-up, which is provided by your ISP.
IP Subnet Mask	Enter the ip subnet mask for dial-up, which is provided by your ISP.
Gateway	You can enter the gateway ip for dial-up, which is provided by your ISP.
NAT	Select it to enable Network Address Translation (NAT) function. If you do not select it and you want to access the Internet normally, you must add a route on the uplink equipment. Otherwise, the access to the Internet fails. Normally, it is enabled.
Default Route	You can enable or disable default route.
TCP MTU Option	You can set a TCP MTU value. The range is from 100 to 1500. The default is 0 .
Dynamic Route	You can select RIP1 , RIP2-B or RIP2-M .
Direction	You can select None , Both , IN Only or OUT Only .
Multicast	IGMP (Internet Group Multicast Protocol) is a session-layer protocol used to establish membership in a multicast group. The ADSL Router supports IGMP version 1 (IGMP-v1).

Field	Description
	IGMP-v2 and IGMP-v3 .Select Disabled to disable it.

After finishing, click **SAVE** to apply the settings of this PVC.

4.4 Wireless

Choose **Interface Setup > Wireless**. The page as shown in the following figure appears.

Interface	Quick Start	Interface Setup	Advanced Setup	Access Management	Maintenance	Status	Help
	Internet	LAN	Wireless				
Access Point Settings	Access Point: <input checked="" type="radio"/> Activated <input type="radio"/> Deactivated Channel: TRAILAND <input type="button" value="Auto"/> Current Channel: <input type="text"/> Beacon Interval (ms): 100 (range: 20-1000) RTS/CTS Threshold: 2347 (range: 1500-2347) Fragmentation Threshold (bytes): 2346 (range: 256-2346, even numbers only) DTF (ms): 1 (range: 1-255) Wireless Mode: 802.11n-g+n <input type="button" value="v"/>						
11n Settings	Channel Bandwidth: 20/40 MHz <input type="button" value="v"/> Extension Channel: above the control channel <input type="button" value="v"/> Guard Interval: AUTO <input type="button" value="v"/> MCS: AUTO <input type="button" value="v"/>						
Multiple SSIDs Settings	SSID Index: 1 <input type="button" value="v"/> Broadcast SSID: <input checked="" type="radio"/> Yes <input type="radio"/> No Use WPS: <input type="radio"/> Yes <input checked="" type="radio"/> No SSID: 2bb-wlan <input type="text"/> Authentication Type: WEP-64bit <input type="button" value="v"/>						
WEP	WEP 64-bit: For each key, please enter either (1) 5 characters excluding symbols, or (2) 10 characters ranging from 0-9, a, b, c, d, e, f. WEP 128-bit: For each key, please enter either (1) 13 characters excluding symbols, or (2) 26 characters ranging from 0-9, a, b, c, d, e, f. <input checked="" type="radio"/> Key#1: 2x1111100000 <input type="text"/> <input type="radio"/> Key#2: 2x0000000000 <input type="text"/> <input type="radio"/> Key#3: 2x0000000000 <input type="text"/> <input type="radio"/> Key#4: 2x0000000000 <input type="text"/>						
WDS Settings	WDS Mode: <input type="radio"/> On <input checked="" type="radio"/> Off Mac Address #1: 00:00:00:00:00:00 <input type="text"/> Mac Address #2: 00:00:00:00:00:00 <input type="text"/> Mac Address #3: 00:00:00:00:00:00 <input type="text"/> Mac Address #4: 00:00:00:00:00:00 <input type="text"/>						
Wireless MAC Address Filter	Active: <input type="radio"/> Activated <input checked="" type="radio"/> Deactivated Action: Allow Association <input type="button" value="v"/> the follow (Wireless LAN) station(s) association Mac Address #1: 00:00:00:00:00:00 <input type="text"/> Mac Address #2: 00:00:00:00:00:00 <input type="text"/> Mac Address #3: 00:00:00:00:00:00 <input type="text"/> Mac Address #4: 00:00:00:00:00:00 <input type="text"/> Mac Address #5: 00:00:00:00:00:00 <input type="text"/> Mac Address #6: 00:00:00:00:00:00 <input type="text"/> Mac Address #7: 00:00:00:00:00:00 <input type="text"/> Mac Address #8: 00:00:00:00:00:00 <input type="text"/>						
<input type="button" value="SAVE"/> <input type="button" value="CANCEL"/>							

The following table describes the parameters of this page:

Field	Description
Access Point	You may choose Activated or Deactivated .
Channel	Countries apply their own regulations to both the allowable channels, allowed users and maximum power levels within these frequency ranges. The default is 12 .
Beacon Interval	Beacon Interval range is from 20 to 1000 .
RTS/CTS Threshold	RTS/CTS Threshold range is from 1500 to 2347 .
Fragmentation Threshold	Fragmentation Threshold range are only even numbers between 256 and 2346 .
DTIM	DTIM range is from 1 to 255 . A delivery traffic indication message is a kind of traffic indication message (TIM) which informs the clients of the presence of buffered multicast/broadcast data on the access point.
Wireless Mode	Comply with the IEEE 802.11b/g and IEEE802.11n standards. You can select 802.11b , 802.11g , 802.11b+g , 802.11n , 802.11g+n or 802.11b+g+n .
Channel Bandwidth	Supporting 20MHz/40MHz Dual Channel.
Extension Channel	You can set below the control channel or above the control channel .
Guard Interval	You can set 800 nsec or AUTO .
MCS	You can set an MCS index between 0 and 7 , or select AUTO .
SSID index	Supporting only a root SSID to be modified
Broadcast SSID	Select whether the router broadcasts SSID or not. You can select Yes or No . <ul style="list-style-type: none"> ● Select Yes, and the wireless client searches the router through broadcasting SSID. ● Select No to hide SSID, and the wireless client can not search the SSID.
Use WPS	WPS technology allows new customers without a previously-established account to securely

Field	Description
	connect to your network at the Wi-Fi hotspot, create and pay for an account, and access the Internet.
SSID	The service set identification (SSID) is a unique name to identify the router in the wireless LAN. You may modify the SSID.
Authentication Type	You can set a type from Disabled , WEP-64Bits , WEP-128Bits , WPA-PSK , WPA2-PSK , WPA-PSK/WPA2-PSK .
Key#1~4	When WEP-64Bits is selected, enter 5 characters or 10 hexadecimal digits ("0-9", "A-F") preceded by "0x" for each Key. When WEP -128Bits is selected, enter 13 characters or 26 hexadecimal digits("0-9", "A-F") preceded by "0x" for each Key.
WDS Mode	Choose to enable or disable WDS (Wireless Distribution System).
Mac Address #1~4	Enter the MAC address of the opposite end.
Active	Activate or deactivated Wireless MAC Address Filter.
Action	You can set Allow or Deny to make Wireless LAN station(s) association. This function can be used to allow or deny access to certain wireless clients based on their MAC Address.
Mac Address #1~8	You can set eight Mac Addresses at most.