

Netac AirTrack T610 Wireless Broadband Router

User's Manual



Netac Technology Co., Ltd.

http://www.netac.com

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Radio Frequency Interference Remarks

This equipment has passed the test, and affirmed that it compatible to constrain B type digital equipment in section 15 of FCC. This constraint is mainly used to protect the home-keeping equipment, avoid to be interfered banefully. This equipment can produce, use, and radiate radio frequency energy. If you don't install and use according to the descriptive manual, the equipment may interfere the wireless communication banefully.

If this equipment interfere the wireless communication and TV receiving device banefully (can tested by turning on/off the equipment's power), users can try to correct interference referring to the following method:

- 1 Adjust or resettle receive antenna.
- 2 Enlarge the distance between equipment and receiver.
- 3 Connect the equipment to the outlet different to the receiver.
- 4 Consult dealer or experienced wireless/TV technology engineer.

The radiant output power is lower than the exposed constraint of FCC wireless radio frequency brings. Nevertheless, it should notice that reduce the latent radiance to human body when you use equipment. Please keep more than 20cm space between equipment and human body when you use and install it.

Under some cases or environments, the use of this equipment may be bounded, if there is no clear designation to allow to use Wireless Local Area Internet equipment, please ask whether it can be used or not. Such as:

- 1 On the airplane.
- 2 The environment easy to burn and burst.
- 3 At some particular situation (such as airport, hospital, chemical/petrol/gas industrial place, private house, and so on).

CAUTION

- 1. Please use original power adapter of Netac AirTrack T610 Wireless Broadband Router, if you use other kinds, it maybe destroy the product.
- 2. Prevent to get an electric shock and be destroyed, please don't replug the power of Netac AirTrack T610 Wireless Broadband Router by wet hand.
- 3. Avoid to be destroyed, please don't put Netac AirTrack T610 Wireless Broadband Router under burning sun or in dirty place.
- 4. Please avoid Netac AirTrack T610 Wireless Broadband Router falling down from high, or be violent shock.
- 5. Prevent volatility gas; diluents and other chemical go into Netac AirTrack T610 Wireless Broadband Router.
- 6. Please avoid using wet cloth wipe the product and its accessory.

Table of Contents

1 Introduction	1
1.1 Welcome	1
1.2 Checklist	1
1.3 Product function	1
1.4 Appearance	2
2 Logging on configuration page	3
2.1 Connecting	3
2.2 Configure TCP/IP	4
2.3 Check Configuration	8
2.4 Log on configuration page	10
3 Router Configuration	13
3.1 Radio Setting	14
3.2 Security	15
3.3 WAN	16
3.4 LAN	17
3.5 MAC Filter	18
3.6 IP Filter	19
3.7 Port Forward	20
3.8 Admin	21
3.9 Association Table	22
4 Mode of build network	23
4.1 Build at-home network	23
4.2 Build network of enterprise	25
5 Specifications	28
Appendix A: FAQ	29
Appendix B: Contact Netac	30
Appendix C: Glossary	31

1 Introduction

1.1 Welcome

Thank you for purchasing Netac AirTrack T610 Wireless Broadband Router. Netac AirTrack T610 Wireless Broadband Router is a wireless network product for SOHO and family, it is developed successfully based on the environment of wirelessly broadband access technology oncoming and wired network extend to wirelessly network. This product can be used easily, provide all-round network solution scheme, economized on saving the cost of the network usage availably.

1.2 Checklist

- Netac AirTrack T610 Wireless Broadband Router
- Original-packaged Power Adapter
- Antenna
- CD (contain User's Manual)
- Quick User Guide
- Certificate of inspection
- Warranty

1.3 Product function

- Ethernet Switching
 - ✓ One 10/100Mbps uplink Ethernet port, used for the connection with WAN/Internet
 - ✓ Four 10/100Mbps downlink Ethernet port, used for the connection with LAN, support auto-switch without cross cable
- Wireless Local Area Network
 - ✓ Can use as Access Point
 - ✓ IEEE 802.11g compliant and 802.11b compatible
 - ✓ Self-adapting Modulate rate (54/48/36/24/18/12/11/9/6/5.5/2/1Mbps)
 - ✓ The maximal Wireless transmit distance: 80-100m indoors, 100-150m outdoors (Distance will be different according to environmental condition.)
 - ✓ Support WEP data encryption and WPA secure certificate
 - ✓ Can support at most 253 WLAN and LAN user
- Firewall

- ✓ IP address filter
- ✓ MAC filter
- ✓ Support port forward
- ✓ Support DMZ

1.4 Appearance



Figure 1.1 Appearances

LED	Status	Description
Power	Light	Equipment power turned on.
	Off	Equipment power turned off or failure.
LAN(1,2,	Light	LAN1, 2, 3, 4 port build Ethernet connection.
3,4)	Blink	LAN1, 2, 3, 4 port is transferring data.
WAN	Light	WAN port build Ethernet connection.
	Blink	WAN port is transferring data.
Wireless	Blink	It is transferring data wirelessly.



2 Logging on configuration page

Netac AirTrack T610 Wireless Broadband Router (T610) is configured by a Web page with password. Table2.1 list the default IP address, user name and password of T610 configuration Web.

Parameter	Default
IP Address	192.168.1.1
User name	admin
Password	password

Table 2.1 T610's default

User can log on T610's configuration page by desktop configured Ethernet Network Interface Card or laptop configured 802.11g/b Wireless Network Interface Card, in order to describe it convenient, we define the computer as computer A, the notebook PC as computer B (Figure 2.1).



Figure 2.1 Configure T610

Before logging on configuration page, user should prepare as following.

2.1 Connecting

1. Take out T610 from the pack, and put it on an appropriate place.

User can put T610 on the table or some plane object, or build it on the wall. In order to get the best effect, you'd better put T610 on the center position of the net which will be build, far away from some disturb fountain, such as, metal wall, micro-wave oven, and so on.

T610's antenna can build up sensibility of wireless signal, generally, the high the antenna be put, the effect will be better. So we suggest you put T610 on a higher place, and adjust the antenna to upright position, then it can cover the whole physics room better.

Note:

- a. When you build T610 on the wall, avoid to fall down be destroyed, please fix it well.
- b. Leave enough roomage around T610, so that can dispel heat normally.
- 2. Connect T610's 1[#] LAN port with the Network Interface Card port of computer A through an Ethernet cable.

Note:

- a. The length of Ethernet cable connected to computer or LAN cannot exceed 100 meters.
- b. User also can connect the Network Interface Card port of computer A with 2[#], 3[#], 4[#] LAN port of T610.
- c. Computer B can communicate with T610 directly by wireless mode.
- 3. Connect ADSL Modem/Cable Modem/Broad Band/LAN/WAN/Internet with the WAN port of T610 through Ethernet cable.

Note:

This step is not required, but if you want exchange data with exterior, you must use it.

4. Connect the power adapter to T610 correctly.

Note:

Please don't use other kind of power adapter, it maybe destroy the equipment.

2.2 Configure TCP/IP

When install Windows 98/Me/XP/2000, it will install TCP/IP protocol default, and configure it as obtain an IP address automatically. There will be a little difference between different operating system, for Windows 2000, look into the property of TCP/IP component of computer, please refer to the following steps:

 Click "Start" menu, select "Settings" and click "Control Panel", double click the "Network and Dial-up Connections" icon in the pop-up window, this brings up the "Network and Dial-up Connections" dialog box.



Figure 2.2 "Network and Dial-up Connections" dialog box

2. Double click "Local Area Connection" icon; the "Local Area Connection Status" dialog box will pop-up, as Figure 2.3.

onnection	
Status:	Connected
Duration:	00:10:46
Speed:	100.0 Mbps
ctivity S	ent — 🕮 🖂 Received
Packets:	138 6
Properties Di	sable

Figure 2.3 "Local Area Connection Status" dialog box

3. Click "Properties" button, bring up the "Local Area Connection Properties" dialog box, as Figure 2.4.

明 Realtek RTL8	39(A) PCI Fast Etherne	t Adapter
		<u>C</u> onfigure
omponents checke	l are used by this conne	ection:
	0.11.1	
🗹 🔜 Client for Mici	osoft Networks	
🗹 🔜 Client for Mic 🗹 畏 File and Print	osoft Networks er Sharing for Microsoft	Networks
✓ ➡ Client for Mic: ✓ ➡ File and Print ✓ ↓ Internet Proto	osoft Networks er Sharing for Microsoft col (TCP/IP)	Networks
✓ ➡ Client for Mici ✓ ➡ File and Print ✓ ¥ Internet Proto	osoft Networks er Sharing for Microsoft col (TCP/IP)	Networks
Elient for Mic Elie and Print File and Print Internet Proto Install	osoft Networks er Sharing for Microsoft col (TCP/IP)	Networks Properties
Client for Mic Eile and Print File and Print Internet Proto Install	osoft Networks er Sharing for Microsoft col (TCP/IP)	Networks
Client for Mic List file and Print Listall Description	osoft Networks er Sharing for Microsoft col (TCP/IP)	Networks Properties
Client for Mic Lient for Mic Listal Listal Description Transmission Cont wide area network	osoft Networks er Sharing for Microsoft col (TCP/IP) 	Networks Properties tocol. The default

Figure 2.4 "Local Area Connection Properties" dialog box

4. Look over whether the "Internet Protocol (TCP/IP)" has been installed or not in the Figure 2.4. If it has been installed, you can go up to the step 6; if it hasn't been installed, you should click "Install" in figure 2.4, the pop-up window shows as Figure 2.5.

Client			
Service			
Protocol			
ascription			
escription			
ommunic	is a language y ate with other ci	our computer omputers.	uses to

Figure 2.5 "Select Network Component Type" dialog box

5. Select "Protocol", click "Add", Figure 2.6 shows the pop-up dialog box, select "Internet Protocol (TCP/IP)", click "OK", then you can finish installing and go back to the interface as figure 2.4.

Select Ne	twork Protocol			×
<u>~</u>	Click the Network an installation disk	Protocol that you for this componer	want to install, th nt, click Have Dis	en click OK. If you have ik.
AppleT	alk Protocol			
DLC Pr	rotocol t Protocol (TCP/IP)			
NetBEL	JI Protocol			
Networ	K Monitor Driver			
				Have Disk
5				
			OK	Cancel

Figure 2.6 "Select Network Protocol" dialog box

6. Select "Internet Protocol (TCP/IP)" in the figure 2.4, click "Properties" button, Figure 2.7 shows the "Internet Protocol (TCP/IP) Properties" dialog box.

is capability. Otherwise, you nee e appropriate IP settings.	ed to ask y	our ne	twork	administ	rator for
Obtain an IP address autom	atically				
C Use the following IP addres:	s:				
]P address:		10	÷	63	
Sybnet mask:			35	- 62	1
Default gateway:		÷	1	-25	
Obtain DNS server address	automatic	ally			
C Use the following DNS serv	er address	ses:			
Preferred DNS server:		- 20		-	1
Alternate DNS server:		÷	÷	£)	

Figure 2.7 "Internet Protocol (TCP/IP) Properties" dialog box

7. Select "Obtain an IP address automatically" or "Use the following IP address", and then click "OK".

meral	
' ou can get IP settings assigned is capability. Otherwise, you ne ie appropriate IP settings.	l automatically if your network supports red to ask your network administrator for
C Obtain an IP address autor	natically
Use the following IP address	\$\$:
IP address:	192.168.1.2
S <u>u</u> bnet mask:	255 . 255 . 255 . 0
Default gateway:	192.168.1.1
C Obtain DNS server address	s automatically
Use the following DNS service	ver addresses:
Preferred DNS server:	202 . 96 . 134 . 133
<u>A</u> lternate DNS server:	<u>x x</u>
	Advanced.

Figure 2.8 Internet Protocol (TCP/IP) Properties setup

Note:

a. With built-in DHCP server, T610 can assign IP address to LAN host computer automatically, it is suggested that users select "Obtain an IP address automatically". Select "Use the following IP address", user should configure the parameter by hand, T610's default IP address is 192.168.1.1, the range of IP address can assigned to other computer are 192.168.1.2 ~ 192.168.1.254, subnet

mask is 255.255.255.0, please make sure that the configuration is correct, or obtain the correct parameter configuration from network manager.

b. Computer B (Wireless Network Interface Card user), please select the "Local Area Connection" opposite to Wireless Network Interface Card in figure 2.2, and configure it refer to the step as said.

2.3 Check Configuration

Power on T610, the power indicator get bright, and T610 will self check about 30 seconds. T610 will detect all devices that connected to it. After self check, through observe the status of the LED that opposite to the 1[#] Ethernet port, you can distinguish whether the connection between Computer A and T610 successfully or not.

Also, you can check the status of Computer A and T610's connection by command ping as follows:

1. Click "Run" under the "Start" menu, input "cmd" in the pop-up dialog box, then press "Enter", as Figure 2.9.

ın			?
2	Type the name of Internet resource,	a program, folder, do , and Windows will ope	cument, or en it for you.
Open:	cmd		<u>•</u>

Figure 2.9 "Run" dialog box

Input "ping 192.168.1.1" in the dialog box, press "Enter". The following message indicates the connection successfully.
"Pinging 192.168.1.1 with 32 bytes of data: Reply from 192.168.1.1: bytes=32 time<10ms TTL=255"

D:\WINNT\System32\cmd.exe	- O ×
Microsoft Windows 2000 [Version 5.00.2195] (C) Copyright 1985-2000 Microsoft Corp.	-
D://ping 192.168.1.1	
Pinging 192.168.1.1 with 32 bytes of data:	
Reply from 192.168.1.1: bytes=32 time<10ms TTL=255 Reply from 192.168.1.1: bytes=32 time<10ms TTL=255 Reply from 192.168.1.1: bytes=32 time<10ms TTL=255 Reply from 192.168.1.1: bytes=32 time<10ms TTL=255	
Ping statistics for 192.168.1.1: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 20ms, Maximum = 90ms, Average = 60ms	
D:\>	
	-

Figure 2.10 communication successfully

3. If display message as follows:

"Pinging 192.168.1.1 with 32 bytes of data:

Request timed out."

It means connected unsuccessfully. See Figure 2.11.



Figure 2.11 communication unsuccessfully

Communication unsuccessfully indicates wrong in the install, please check the items in turn as follows:

- Make sure the computer is connected to T610 properly.
 Mention: The link light on the computer's Network Interface Card is bright, and the LED that opposite to the 1[#] Ethernet port is bright.
- b. Make sure the TCP/IP protocol is configured properly on the computer. Mention: Refer to "2.2 Configure TCP/IP" for details.

Computer B (Wireless Network Interface Card user) also can check the status of Computer and T610's connection by command ping. If display "Request timed out.", please check the items in turn as follows:

- a. Make sure the Wireless Network Interface Card working normally. Mention: Generally, you can distinguish it by follows: observe the indicator of Wireless Network Interface Card, whether the icon of Wireless Network Interface Card appears or not, whether the driver is installed properly on the Wireless Network Interface Card or not.
- Make sure the network name (SSID) of Wireless Network Interface Card is the same as the wireless network name of T610.
 Mention: The default SSID of T610 is "AirTrack", general Wireless Network Interface Card can

search this network name automatically and build connection, but cannot include out another Wireless access device working at the same region.

- c. Make sure the TCP/IP protocol is configured properly on the Wireless Network Interface Card. Mention: Refer to "2.2 Configure TCP/IP" for details.
- 4. Input "ipconfig" or "ipconfig /all" and press "Enter" to view detailed information.



Figure 2.12 detailed information

2.4 Log on configuration page

After Computer A or Computer B communication successfully with T610, then can log on T610's configuration page by Web browser (such as Internet Explorer or Netscape Communicator and so on). Use Internet Explorer on Windows 2000 operating system for example to introduce the configuration of T610 in the below. Open Internet Explorer, input "http://192.168.1.1" on address bar, press "Enter".

http://192.168.	1.1/ - Microsoft Internet Explorer	
<u>Eile E</u> dit <u>V</u> iew	F <u>a</u> vorites <u>T</u> ools <u>H</u> elp	
Address 🙋 http://	192.168.1.1	. ⊂ Go
Done		🔁 Internet

Figure 2.13 Open Internet Explorer

Please input user name and password in the pop-up logging dialog box, as Figure 2.14.

ter Net	work Passwo	rd	1
%	Please type y	our user name and password	
9	Site:	192. 1 68.1.1	
	Realm	AirTsack T610 Wireless Broadband Router	
	∐aar Name		
	Bassword		
	E Sere his	password in your password list	
		DK Ear	cut

Figure 2.14 logging

The default user name is "admin", password is "password", click "OK" or press "Enter", then you can log on T610's configuration page by administrator ship. At the same time you can select "Save this password in your password list", next visit will enter the configuration page directly without the logging dialog box.

🖉 Radio Setting - Microsoft Inter	net Explorer			<u>_8×</u>
File Edit View Favorites To	ools Help			<u>11</u>
Address 🛃 http://192.168.1.1/radio	o.asp			▼ 🖓 Go
Radio Setting			Netac	
AssociationRadioTableSetting	urity <u>Wan</u> Lan	MAC IP Filter List I	<u>Filter</u> <u>Port</u> List <u>Forward</u> <u>Admin</u>	
Service Set ID (SSID)	AirTrack			
Radio Preamble	Long			
AP Mode	mixed 💌			
G Mode protection	RTS-CTS 🗾			
Rate Selection For B	Auto 💌			
Rate Selection For G	Auto 💌			
RF Channel	Channel 6 💌			
RTS Threshold (256-2432)	2347			
Beacon Period (20-1000 milliseconds)	100			
DTIM Period (1-255)	2			
Apply Reset				
©1999-2005 Netac Technolo	gy Co., Ltd. All rights res	erved.		
(d) Deep				Tokavast
Police				Mantenier

Figure 2.15 T610's configuration page

3 Router Configuration

Configure T610 by the following pages, Figure 2.15 shows:

Radio Setting

The Radio Setting page allows the user to configure the connection of WLAN.

Security

The Security page allows the user to configure the security of WLAN.

WAN

The WAN page allows the user to configure the connection of WAN.

LAN

The LAN page allows the user to configure the connection of LAN.

MAC Filter

The MAC Filter page allows the user to configure the LAN firewall of T610. The specified computer with specified MAC address in LAN wouldn't communicate through WAN port.

IP Filter

The IP Filter page allows the user to configure the LAN firewall of T610. The specified computer with specified IP address in LAN wouldn't communicate through WAN port.

Port Forward

This page allows the user to configure the forward options. Forward the data package sent from WAN port to T610 to the specified port of the computer with specified IP address.

Admin

The Admin page allows the user to upgrade the Firmware of T610 and modify the user name and password.

Association Table

This Page lists the MAC address of wireless user, which connected to this device.

3.1 Radio Setting



Figure 3.1 Radio Setting Page

Field	Description
Service Set ID (SSID)	Wireless Network Name.
Radio Preamble	Select: Short preamble, Long preamble or Auto.
AP Mode	Select B only, G only or mixed mode.
G Mode protection	Select CTS ONLY, RTS-CTS or force 802.11g mode off.
Rate Selection For B	Select transmit rate: 1, 2, 5.5, 11Mbps or Auto.
Rate Selection For G	Select transmit rate: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54Mbps or Auto.
RF Channel	Select the RF channel. Default: Channel 6.
RTS Threshold	Set RTS threshold, range: 256-2432.
(256-2432)	
Beacon Period (20-1000	Set Beacon period, range: 20-1000 milliseconds.
milliseconds)	
DTIM Period (1-255)	Set DTIM period, range: 1-255.

3.2 Security

🚰 Security - Microsoft Interne	et Explorer		_ 8 ×
File Edit View Favorites	Tools Help		
Address 🛃 http://192.168.1.1/	wep.asp		. € 60
Security		Netac	
Association Radio Table Setting	<u>Security Wan Lan</u>	MAC IP Filter Port Admin ilter List List Forward Admin	
WPA Mode	Disabled 💌		
Pass Phrase	selectedeletetete		
WEP Encryption	Not Required 💌		
Transmit WEP Key	Key 1		
WEP Key Size	Not Set 🔽		
	Key Va	lue	
WEP Key 1	ylakakakakakakakak		
WEP Key 2	slolololololololok		
WEP Key 3	ylokolokolokolok		
WEP Key 4	Jobolololololok		
Tenut 10 horro docimal digit	a for 40 hit from 26 horrodocimal a	ligita far 104 bit Iron	
	s for 40 bit key, 20 nexadecimar c	agas for 104 of Key	
Apply Reset			
©1999-2005 Netac Techr	ology Co., Ltd. All rights reserved	d.	.
e] Done			Internet

Figure 3.2 Security Page

Table 3.2 Security C	onfigurations
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Field	Description
WPA Mode	Disable/enable the WPA encryption.
Pass Phrase	Pass phrase is used to generate the WPA keys.
WEP Encryption	Disable/enable the WEP encryption.
Transmit WEP Key	Select transmit WEP key from Keys1-4.
WEP Key Size	Select WEP Key size: 40 bits or 104 bits, you can also do not set WEP key size.
WEP Key 1-4	WEP keys.

3.3 WAN

🗿 Wan - Microsoft Inl	ternet Explorer									_ 8 ×
File Edit View F	Favorites Tools	Help								-
Address 🛃 http://192	2.168.1.1/wan.asp								-	∂G0
Wan						No	lac			
						ne	uc			
Association Ra	adio Security	<u>Wan</u> <u>I</u>	an <u>M.</u> Filter	<u>AC</u> ∐ ∙List	<u>P Filter</u> List	<u>Port</u> Forward	<u>Admin</u>			
Protocol	Г	DHCP 💌								
IP Address	Î	0.0.0.0								
Subnet Mask	[0.0.0								
Gateway	ſ	0.0.0.0								
DNS Server 1	l.	0.0.0.0								
DNS Server 2	l.	0.0.0.0								
PPPoE User Nan	ne [
PPPoE Password	1 [
Apply Reset										
Statue										
Protocol:	DHCP		-							
IP Address:	0.0.0.0		-							
Subnet Mask:	0.0.0		-							
Gateway:	0.0.0.0									
DNS Address 1:	0.0.0		-							
DNS Address 2:	0.0.0.0									
Link:	Down		_							
-										
@1999-2005 Neta	ac Technology C	o Itd All rights	reserved							
0.000 2000 1906	io recumonogy o	0., 280. Thi rights	. 10001004.							-
Done								🥑 Interi	net	

Figure 3.3 WAN Page

Table 3.3 WAN Configurations

Field	Description
Protocol	Set the method to obtain IP address for WAN connection. Select DHCP, Static or
	PPPoE.
IP Address	Set the WAN IP address of T610. (It is available when use Static protocol.)
Subnet Mask	Allow the user to specify a subnet mask. (It is available when use Static
	protocol.)
Gateway	Allow the user to specify a gateway. (It is available when use Static protocol.)
DNS Server 1-2	The address of DNS server.
PPPoE User Name,	Set dialup's user name and password of PPPoE. Network Operator supplies the

Password	user name and password.
Status	The relevant information for WAN connection.

3.4 LAN



Figure 3.4 LAN Page

Table 3.4 LAN Configuration	nfigurations
-----------------------------	--------------

Field	Description
	Set the IP address of T610. Default: 192.168.1.1.
IP Address	Note: To configure T610, the user must access T610 from a PC that is on the
	same subnet.
Subnet Mask	Allow the user to specify a subnet mask. Default: 255.255.255.0.
Enable DHCP Service	Disable/Enable DHCP server.
Start IP Address	Set the starting IP address of DHCP server's IP address. Default: 192.168.1.100.
End IP Address	Set the ending IP address of DHCP server's IP address. Default: 192.168.1.150.
DHCP lease	Set the effective time of the IP address assigned by DHCP server.

3.5 MAC Filter

	A CARLES AND A CAR				
le Edit View Fav	orites Tools Help				
iress 🏼 http://192.16	8.1.1/macfilter_list.asp				- C
AC Filt	er List			Netac	
				110100	
ssociation Radi	<u>o</u> Security Wan	Lan M	AC IP Filter	<u>Port</u> , <u>Admin</u>	
<u>Table</u> <u>Settir</u>	ġ.	<u>Filte</u>	<u>r List List</u>	Forward	
Teachta MACTER	-ar				
Distant MAC Fill	er.				
Disable MAC Fi	ter.				
Station in list allo	wed to be associated				
Chatian in fist dan	ind to be associated.				
Station in list den	ed to be associated.				
ationa Tiati					
ALIOTIS LASE					
No	MAC Addre	ess	_		
No 1	MAC Addre	ESS	_		
No 1	MAC Addre	ess			
No 1 2	MAC Addre	855			
No 1 2 3	MAC Addre	255			
No 1 2 3 4	MAC Addre	855			
No 1 1 2 3 3 4 5	MAC Addre	855			
No 1 1 2 3 3 4 5 6 5	MAC Addre	855			
No		855			



Table 3.5 MAC Filter Settings	S
-------------------------------	---

Field	Description
MAC Filter	Enable/Disable MAC filter mode.
Filter Mode	Allow or deny clients listed in "Stations List" to access T610.
Stations List	Up to 32 MAC addresses can be listed.
MAC addresses	List of MAC addresses to filter.

3.6 IP Filter

ET III IIIPIOI E AV			
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sss 🔄 nctp://192.16	o.1.1/ipriter_list.asp		<u> </u>
P Filter	List	Netac	
		The time	
sociation Radi	<u>•</u> Security Wan Lan	MAC IP Filter Port	
<u>lable</u> <u>Settur</u>		Filter List List Forward	
Enchia ID Eilter			
Dischie IP Filler.			
Disable IP Filler.			
Station in list allo	wed to be associated		
Station in list allo Station in list den	wed to be associated.		
Station in list allo Station in list den	wed to be associated. ied to be associated.		
Station in list allo Station in list den ions List:	wed to be associated. ied to be associated.		
Station in list allo Station in list den ions List: No	wed to be associated. ied to be associated. IP Address		
Station in list allo Station in list den ions List: No 1	wed to be associated. ied to be associated. IP Address		
Station in list allo Station in list den ions List: No 1 2	wed to be associated. ied to be associated. IP Address		
Station in list allo Station in list den ions List: No 1 2 3	wed to be associated. ied to be associated. IP Address		
Station in list allo Station in list den ions List: No 1 2 3	wed to be associated. ied to be associated. IP Address		
Station in list allo Station in list den ions List: No 1 2 3 4	wed to be associated. ied to be associated. IP Address		
Station in list allo Station in list den ions List: No 1 2 3 4 5	wed to be associated. ied to be associated. IP Address		
Station in list allo Station in list den ions List: No 1 2 3 4 5 6	wed to be associated. ied to be associated. IP Address		



Table 3.6 IP Filter Setting

Field	Description
IP Filter	Enable/Disable IP filter mode.
Filter Mode	Allow or deny clients listed in "Stations List" to access T610.
Stations List	Up to 32 IP addresses can be listed.
IP Addresses	List of IP addresses to filter.

3.7 Port Forward

Edit V	iew Favorites Tools	Help				
s 🥙 htt	p://192.168.1.1/portforv	vard.asp				
ort I	⁷ orward 1	List		Net	ac	
ciation	Radio Secur	ity Wan Lan ,	MAC IP Filte	er Port	Admin	
<u>abie</u>	Setting		<u>iiter List</u> <u>List</u>	Forward		
· ·	<i></i>					
:orward No	WAN Port	LAN IP Address	LAN Port	Enabled		
1					5	
2						
3				Г	5	
					-	
4						
4 5						
4 5 6					-	
4 5 6 7					-	
4 5 6 7 8					-	
4 5 6 7 8 9					-	
4 5 6 7 8 9 10					-	

Figure 3.7 Port Forward Page

Field	Description
Port forward list	Forward the data package sent from WAN port to T610 to the specified port of
	the computer with specified IP address.
DMZ	Forward all data package sent from WAN port to T610 to the specified IP
	address.

3.8 Admin

Admin - Microsoft Internet Explorer	
File Edit View Favorites Tools Help	(B)
Address 🙋 http://192.168.1.1/fw_upgrade.asp	T 🖓 GO
	×
Admin	Netac
	THE HER
<u>Association Radio</u> <u>Table Setting Security Wan Lan Filter I</u>	<u>C IP Filter Port</u> <u>List List Forward</u> <u>Admin</u>
New Username:	
New Password:	
Reconfirm Password:	
Apply	
Firmware Version: V1.0.2.13	
Select File: Browse	
Upgrade Cancel	
© 1999-2005 Netac Technology Co., Ltd. All rights reserved.	
	×
Done	🔹 🚺 🔮 Internet

Figure 3.8 Admin Page

Table 3.8 A	\dmin	Settings
-------------	-------	----------

Field	Description
New Username	To modify the user name, enter the new user name in the New Username field
	and click Apply .
Password	To modify the password, enter the new password in the New Password and
1 8530010	Reconfirm Password fields and click Apply.
Firmware Version	Displays the firmware version.
Select File	To upgrade the firmware, click the Browse button and select the image file. Click
Select The	Upgrade to upgrade.

3.9 Association Table

🎒 Associa	tion Table - Microsoft Internet Explorer			<u>_8×</u>
File Ed	it View Favorites Tools Help			(B)
Address	http://192.168.1.1/association_tbl.asp			▼ ∂Go
				A
Ass	ociation Table		Netac	
<u>Associa</u> <u>Tabl</u>	ation <u>Radio</u> e <u>Setting</u> <u>Security</u> <u>Wan</u>	LanMAC Filter ListIP Filter List	Port ForwardAdmin	
No	MAC Address	Status		
1	00:0E:0B:12:34:56	Associated		
©1999-	2005 Netac Technology Co., Ltd. All rig	hts reserved.		
🛃 Done 📃			📄 📄 🔡 Intern	et

Figure 3.9 Association Table Page

This Page displays the MAC address of wireless user, which connected to this device.

4 Mode of build network

Note: The AirTrack T100, AirTrack T200, AirTrack T300, AirTrack T700 in the following pictures are products of Netac, AirTrack T100, AirTrack T200 and AirTrack T300 are Wireless Network Interface Card, AirTrack T700 is Broadband Router. You can choose the product of the same kind from the other companies to build network.

4.1 Build at-home network

1. Building requirement

As a gateway of family LAN, T610 access Internet through ADSL Modem/Cable Modem/optic fiber.

- Suppose the PPPoE user name is "szhomeg@163.gd", password is "netac123".
- The laptop and bedroom desktop access Internet wirelessly, the wireless network name is "Home".



- 3. Setup
 - Configure WAN. According to the access mode, there are three configuration: use PPPoE protocol when access Internet through ADSL Modem, input "szhomeg@163.gd" in the PPPoE User Name field and "netac123" in the PPPoE Password field, then click "Apply"; when access Internet through Cable Modem, please use DHCP protocol, click "Apply"; use DHCP or Static protocol when access Internet through optic fiber, when use Static protocol, you need to configure IP address, gateway, subnet mask and DNS server, click "Apply" button to effect the configuration. Figure 4.2 details the configuration.

2. Figure

Protocol	PPPoE -	
IP Address	0.0.0.0	
Subnet Mask	0.0.0.0	
Gateway	0.0.0.0	
DNS Server 1	0.0.0	
DNS Server 2	0.0.0.0	
PPPoE User Name	szhomeg@163.g	
PPPoE Password	kolololololok	

Access Internet through ADSL Modem

Protocol	
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Gateway	0.0.0.0
DNS Server 1	0.0.0.0
DNS Server 2	0.0.0.0
PPPoE User Name	
PPPoE Password	

Access Internet through Cable Modem/optic fiber

Protocol	Static 💌	
IP Address	172.17.0.150	
Subnet Mask	255.255.0.0	
Gateway	172.17.0.254	
DNS Server 1	202.96.134.133	
DNS Server 2	210.39.0.33	
PPPoE User Name		
PPPoE Password		

Access Internet through optic fiber Figure 4.2 WAN configurations

Configure LAN. Enter the LAN page, we suggest you to enable DHCP server, and configure start IP address and end IP address, such as: the start IP address is "192.168.1.2", the end IP address is "192.168.1.254". Also you can use default configuration without any change.

Enable DHCP Server	Enable 💌	
Start IP Address	192.168.1.2	
End IP Address	192.168.1.254	

Figure 4.3 LAN configurations

 Radio Setting. Enter the Radio Setting page, the default network name is "AirTrack", modify it to "Home" or other specialized network name.

Service Set ID (SSID)	Home	
	J. J. Herrie	

Figure 4.4 Radio setting

4.2 Build network of enterprise

1. Building requirement

As a gateway of enterprise LAN, T610 access Internet through ADSL Modem/optic fiber.

- Modify the logging user name to "AirTrack", and password to "netac".
- Enable DHCP server.
- The start IP address is "192.168.1.10", and the end IP address is "192.168.1.100".
- Suppose the PPPoE user name is "szhomeg@163.gd", password is "netac123".
- The clients which IP address is in the range of 192.168.1.10 ~ 192.168.1.15 cannot access Internet.
- The wireless client access Internet wirelessly, wireless network name is "ABC".

2. Figure



Figure 4.5 Build network of enterprise

- 3. Setup
 - Enter Admin page. Modify the user name to "AirTrack", password to "netac".

xolololok
Yolololok

Figure 4.6 Admin page

Enter the LAN page. Enable DHCP server, set the start IP address to "192.168.1.10", the end IP address to "192.168.1.100".

Enable DHCP Server	Enable 💌
Start IP Address	192.168.1.10
End IP Address	192.168.1.100

Figure 4.7 LAN configuration

Configure WAN. According to the access mode, there are two configuration: use PPPoE protocol when access Internet through ADSL Modem, input "szhomeg@163.gd" in the PPPoE User Name field and "netac123" in the PPPoE Password field, then click "Apply"; use DHCP or Static protocol when access Internet through optic fiber, when use Static protocol, you need to configure IP address, gateway, subnet mask and DNS server, click "Apply" button to effect the configuration. Figure 4.8 details the configuration.



Access Internet through ADSL Modem

Protocol	DHCP 💌	Protocol	Static 💌
IP Address	0.0.0.0	IP Address	172.17.0.150
Subnet Mask	0.0.0	Subnet Mask	255.255.0.0
Gateway	0.0.0	Gateway	172.17.0.254
DNS Server 1	0.0.0	DNS Server 1	202.96.134.133
DNS Server 2	0.0.0.0	DNS Server 2	210.39.0.33
PPPoE User Name		PPPoE User Name	
PPPoE Password		PPPoE Password	

Access Internet through optic fiber Figure 4.8 WAN configurations

• Enter IP Filter page. Figure 4.9 details the configuration.

Station in	list denied to be associa	ited.
ne Tiet		
No No	IP	Address
1	192.168.10	
2	192.168.11	
~	192.168.12	
3	A concerning of the second	
4	192.168.13	
3 4 5	192.168.13	

Figure 4.9 IP filter

• Radio settings. Enter the Radio Setting page, the default network name is "AirTrack", modify it to "ABC".

Service Set ID (SSID)	ABC	

Figure 4.10 Radio setting

5 Specifications

Item	Description
Compatible Standard	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX 802.11b/g
Network Interface	One 10/100Mbps uplink interface (RJ45 type) 4-port 10/100Mbps downlink Ethernet interface (RJ45 type) 802.11b/g wireless LAN interface
LED	Power, Wireless, WAN, LAN
Antenna	Dipole Antenna
Maximal Launch Power	20 ± 2dBm
Wireless Frequency Range	2.4000 ~ 2.4835 GHz
Wireless Modulation Mode	802.11b: CCK, DQPSK, DBPSK 802.11g: OFDM
Wireless Transferring Rate	1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54Mbps (modulated automatically)
Wireless Transmission Distance	80 ~ 100m indoors, 100 ~ 150m outdoors (It will be different by environment.)
Protocol	TCP/IP, DHCP, PPPoE, NAT, UDP, HTTP, FTP, SNMP and so on
Administration Mode	User interface administration based on WEB
Operating Temperature *	0 ~+45
Storage Temperature *	-20 ~+80
Relative Humidity under Operating *	10% ~ 85%
Relative Humidity under Storage *	5% ~ 90%
Power Supply	5VDC, 1.5A
Dimensions (L x W x H)	147mm x 106mm x 23mm (without antenna)
Weight	172g

Table 5.1 Specifications

* For Reference only. Netac reserves the rights to make changes on any specification without prior notice.

Appendix A: FAQ

1. The power indicator of Netac AirTrack T610 Wireless Broadband Router not bright, why?

Answer: Please check the items as follows:

- A. Make sure the power adapter is original-packaged.
- B. Make sure your Netac AirTrack T610 Wireless Broadband Router connected to power properly.
- C. Make sure your Netac AirTrack T610 Wireless Broadband Router is powered on.

2. The LAN indicator of Netac AirTrack T610 Wireless Broadband Router not bright, why?

Answer: Please check the items as follows:

- A. Make sure the computer, hub, switchboard or ADSL Modem/Cable Modem is connected to Netac AirTrack T610 Wireless Broadband Router properly.
- B. Make sure the Network Interface Card installing properly. Please refer to "2.2 Configure TCP/IP" for details.

3. I cannot log on the configuration page of Netac AirTrack T610 Wireless Broadband Router, why?

Answer: Please refer to "2.3 Check Configuration" for details.

4. Why I cannot access Internet through Netac AirTrack T610 Wireless Broadband Router?

Answer: Please refer to "2.3 Check Configuration" for details.

5. How many IP addresses Netac AirTrack T610 Wireless Broadband Router can support?

Answer: Can support at most 253 IP address, range: 192.168.1.2 ~ 192.168.1.254.

6. When shall I use DMZ?

Answer: When Internet users need unlimited communication with LAN host, it need use DMZ. Such as: play network game or hold Net meeting.

7. My question is not included in "FAQ", what shall I do?

Answer: Please E-mail to support@netac.com, Netac customer service engineer will reply you in time.

Appendix B: Contact Netac

Netac Technology Co., Ltd. 6F, Incubator Building, China Academy or Science & Tech Development, No.1 High-tech South St, Shenzhen, China 518057 Tel: +86-755-26727800, 26727449 (English) Fax: +86-755-26727610, 26727620 Website: http://www.netac.com Email: sales@netac.com overseas@netac.com (Sales) support@netac.com (Technical Support)

Appendix C: Glossary

802.11

A family of specifications developed by the IEEE for WLAN technology.

802.11b

An extension to 802.11 that applies to WLANS and provides 11 Mbps transmission rate in the 2.4GHz band. 802.11b use only DSSS.

802.11g

An extension to 802.11 that applies to WLANS and provides 54 Mbps transmission rate in the 2.4 GHz band. 802.11g use OFDM and is backward compatible with 802.11b.

Ad-hoc

Under this mode, any two wireless stations can communicate with each other directly, each station contention public wireless channel. The advantage is build network conveniently, lower charge, and stabilization. The disadvantage is that when user's station is too many, it will bring down the capability of Internet because each station contention public wireless channel. At the same time, each station need to be connected directly, the layout of Internet will be bounded sometimes. Furthermore, it can't access Internet. So this configuration only can be used when the users are less.

AP

Access Point, A communication hub for wireless device users to connect to a wired LAN.

BBP

Baseband Processor, The processor that handles the original band of frequencies of a signal before it is modulated for transmission at a higher frequency.

Bridging

Bridging, provide path between two or more net section or subnet, these subnet have the same address and topological structural. The device which bring off bridging called bridge, some station can use bridge to broadcast message to other station, so bridge is a device which can connect net section's two port or more port. And bridge also can divide the busy net into two section, reduce the traffic of each section to improve capability. It can filter net broadcasting message, only allow the communication message get to another net by bridge.

ССК

Complementary Code Keying.

CTS/RTS

Clear to Send/Request to Send. They are two special administrant data frame, a protecting mechanism to avoid the conflict in WLAN.

DHCP

Dynamic Host Configuration Protocol.

DSSS

Direct Sequence Spread Spectrum. DSSS is one of two types of spread spectrum radio.

DTIM

Delivery Traffic Indication Message.

FCC

Federal Communications Commission.

HTTP

Hypertext Transfer Protocol.

IEEE

Institute for Electrical and Electronic Engineers.

Infrastructure Mode

Infrastructure Mode, use AP to control the accessing to net by the user in the net. Because AP can control it, when the user stations in the net are increased, the handle capability of the net can be controlled in a range. And the bound of user station's layout is smaller, building net is more active, it fit for commixing net configuration of wired net and wireless net. If you want to connect to the Internet, you can choose Infrastructure Mode.

IP

Internet Protocol.

ISM band

Industrial Scientific Medical Band.

LAN

Local Area Network.

MAC

Media Access Control.

Mbps

Megabits Per Second.

OFDM

Orthogonal Frequency Division Multiplexing.

OSI

Open System Interconnect.

P2P

Point-to-Point.

PMP

Point-to-Multipoint.

QoS

Quality of Service.

RF

Radio Frequency.

RJ-45 Ethernet Interface of A type.

WAN

Wide Area Network.

WEP

Wired Equivalent Privacy. A security protocol for WLANs defined in the IEEE 802.11 standard.

Wi-Fi

Wireless Fidelity (IEEE 802.11) .

WLAN

Wireless Local Area Network.

WPA

Wi-Fi Protected Access