







W54A 54M Wireless AP



Tenda[®]

Tenda^{*} is the registered trademark of Shenzhen Tenda Technology Co., Ltd. All the products and product names mentioned herein are the trademarks or registered trademarks of their respective holders. Copyright of the whole product as integration, including its accessories and software, belongs to Shenzhen Tenda Technology Co., Ltd. Without the permission of Shenzhen Tenda Technology Co., Ltd, any individual or party is not allowed to copy, plagiarize, imitate or translate it into other languages.

All the photos and product specifications mentioned in this guide are for references only. As the upgrade of software and hardware, there will be changes. And if there are changes, Tenda is not responsible for informing in advance. If you want to know more about our product information, please visit our website at <u>www.tenda.cn</u>.



Contents

Chapter 1 Introdution	1
1.1 Product Features 1.2 Package contents	1 2
Chapter 2 Hardware Installation	3
Chapter 3 Configuration	5
3.1 Log in3.2 Wizard3.3 Status3.4 LAN Setting	5 6 9 .11
Chapter 4 Radio Setting	12
4.1 Basic Setting4.2 Mode Setting4.3 Access Filter	.12 .13 .23
Chapter 5 System Tools	25
 5.1 Change Password 5.2 Firmware Upgrade 5.3 Reboot 5.4 Restore Factory Default 5.5 Restore/Backup Setting 5.6 Exit 5.7 Help 	.25 .25 .27 .27 .28 .28 .28
Appendix I: Glossary	30
Appendix II: TCP/IP Address Setting (Take Winxp as example)	33



Chapter 1 Introdution

W54A is fully compliant with IEEE802.11g/b standards. It can help you extend from the wired network to the wireless network, free from the cabling troubles. It is the best choice for SOHO and small enterprise users. W54A provides five work modes: AP, WDS P2P Bridge, WDS P2MP Bridge, WDS AP Bridge and Client. It also supports 64/128-bit WEP, WPA, TKIP, AES, WPA2, WPA&WPA2 encryptions and security mechanism. The MAC address filter can protect your network against any malicious intrusion. Moreover, the Web management utility can benefit you to manage the device easily.

1.1 Product Features

- Supports IEEE 802.11g, IEEE 802.11b standards
- Supports five connection modes: AP, WDS P2P Bridge, WDS P2MP Bridge, WDS AP Bridge and Client
- Provides up to 54M transmission rate and 54/48/36 /24/18/12/9/6M or 11/5.5/2/1M Auto-Negotiation rate selection
- Supports one 10/100M Auto-Negotiation Ethernet port
- Supports 150 meters indoors and 400 meters outdoors (depends on the environments around)

W54A 54M Wireless AP User Guide

- Supports Web management utility and easy Setup Wizard
- Supports 64/128-bit WEP data encryption
- Supports WPA, TKIP, AES, WPA2, WPA&WPA2 encryptions and security mechanism
- Supports IEEE802.11b/IEEE802.11g Auto-negotiation and manual configuration modes
- Supports Auto MDI/MDIX

Tenda[®]

- Supports Firefox1.0, IE5.5 or above
- Supports authorization access over thirty-two MAC addresses
- Supports auto wireless channel selection
- Provides detachable antenna

1.2 Package contents

- One W54A Wireless AP
- One Power Adapter
- One Quick Installation Guide
- One CD-ROM



Chapter 2 Hardware Installation

This chapter explains how to connect the Access Point (take the AP mode installation as example, other installation modes please refer to the Quick Installation Guide). The detailed processes are shown as below:

- Connect one end of the network cable to your Ethernet broadband router, switch or PC, and the other end to the W54A's LAN port.
- Connect the power adapter to the AP's Power port. Then plug the power adapter into an electrical outlet. The LEDs on the front panel will light up as soon as the AP's powers on. Then, connect wireless adapter to the AP via wireless signal. Please refer to the topology below:



The topology plan of AP mode connection



Chapter 3 Configuration

Now that you've connected the AP to your wired network, you are ready to begin setting it up. This chapter will take you through all the steps necessary to configure your AP.

3.1 Log in

Launch Internet Explorer or Netscape Navigator. In the address bar, enter the AP's default IP address, 192.168.0.254. Press Enter key and the login screen will appear. Before doing this, you need set 192.168.0.x(x ranges 1-253) as your PC's IP address, and 255.255.255.0 as your subnet mask. (Please refer to the Appendix II for the detail of TCP/IP setting)

Enter **admin** in both the user name and password field. When this is your first time to open the Web-based management interface, you can set a new password from the *System Tool – Change password* tab.



W54A 54M Wireless AP User Guide

Connect to 192.1	68.0.254 🛛 🛛 🔀
54M Wireless AP	
User name:	🖸 admin 💌
<u>P</u> assword:	•••••
	Remember my password
	OK Cancel

Click **Ok**; the welcome screen will appear;

Wel	come !
	Thanks for your deploying Tenda W54A facility AP.
	If you are not quite familiar with Tenda series products, we strongly recommend that you following the wizard for fast installation.
	If you are a professional networking common mind, you can directly shift to the Left Menu for customized settings that required.
	This wizard is in the serve for your easy and fast installation ease only!
	Next

Click **Next** and Wizard screen will appear. On the screen, there are five different operating modes including W54A—AP, WDS P2P Bridge, WDS P2MP Bridge, WDS AP Repeater and the client. The specific setting for each mode will be showed below.

3.2 Wizard



If the wizard page hasn't appeared, you can also click the *wizard* tab on the left to active.

Wizard	
Choose your preferable mode:	
1. AP	
2. WDS P2P Bridge	
3. WDS P2MP Bridge	
4. WDS AP Repeater	
○ 5. Client	
	Next Help

For different requirements, you can select one of the suitable operating modes. Here, we'll take AP mode as example to introduce the settings method.

Select AP mode and click Next.

Wizard - A	P		
SSID:	Tenda		
Channel:	6 🔽 Frequency:2.437 GHz		
		Back	Next Help

This page will require you to enter the SSID, Channel settings for your wireless network.

SSID: The name of your wireless network. The default value is "Tenda".

Channel: Select the operating frequency for your wireless network.

Click the Next button to continue or the Back button to return to



the previous screen.

Wizard - AP - Secu	urity Setting		
Encryption :	🔘 Disable	 Enable 	
Authentication:	WEP_Open System	n 💌	
Кеу Туре:	WEP Open System WEP Share Key		
Key Size:	WPA_PSK		
*64Bit Key need in	IPUWPA2_PSK WPA_WPA2_Mixed	5 words in ASCII.	
*128Bit need input	26 numbers in Hex, or	13 words in ASCII.	
ID		Key	Key Size
Key1 💿 :			Not Set 💌
Key2 🔘 :			Not Set 💌
Key3 🔘 :			Not Set 🛩
Key4 🔘 :			Not Set 🛩
		B	ack Apply Help

Then you'll see the security setting screen. You can select the different level of security:

Authentication: WEP_Open System/Share Key, WPA, WPA2, and WPA_WPA2_Mixed

Key Type: Select ASCII or Hex format.

Key Size: 64-bit or 128-bit (Note: If you select 64-bit, please enter 10 Hexadecimal characters or 5 ASCII Characters for the key content. For 128 -bit, you should enter 26 Hexadecimal characters or 13 ASCII Characters).

Key Choice: when using the WEP encryption mode, you could save up to 4 keys.

According to W54A modes, wireless encryption settings supported are shown below.



Mode	WEP	WPA	WPA2	WPA_WPA2_Mi
				xed
AP	Yes	Yes	Yes	Yes
Repeater	Yes	NO	NO	NO
P2P	Yes	NO	NO	NO
P2MP	Yes	NO	NO	NO
Client	Yes	Yes	Yes	Yes

Table 1: Wireless Security

Note: After clicking **Apply** to save your settings, you have to reboot the device (From *System Tools—Reboot*) to let your settings take effect.

3.3 Status

This page shows the AP's product information and working status.



Product informa	tion			
F N S C F	Firmware Version: MAC Address: P Address: Subnet Mask: Gateway: Running time:	R_1.0.5 00:B0:C6:00:24 192.168.0.254 255.255.255.0 192.168.0.1 00:03:21	I:DD	
Padia status				_
Raulo status				
(Current Mode:	AP		
ę	SSID:	TENDA		
١	Wireless Client:			
F	RF Mode:	BG Mixed		
(Channel:	6(frequency:2.4	137GHz)	
E	Encryption Mode:	Close		
Association Tab	le			
No. MAG	Caddr Status M	Node Rate	Signal Quality	RSSI

Product information: Display current firmware version, MAC Address, LAN IP Address, subnet mask, Gateway etc.

Radio Status: Current mode, SSID, RF mode, Channel and Encryption mode etc.

Association Table: Display the clients' information of connecting with the AP including the MAC address, status, mode, rate, signal quality and RSSI. Click **Refresh** button to update the linking info.



3.4 LAN Setting

From LAN Setting Screen, we can set the LAN port's network parameters

LAN Setting			
	 Manual O DHCP Client 		
IP address:	192.168.0.254		
Subnet mask:	255.255.255.0		
Gateway:	192.168.0.1		
		Apply	Help

Manual: if you want to assign a static or fixed IP address to the AP, then select this, and enter the specified IP address (The default IP is 192.168.0.254), Subnet mask, and Gateway

DHCP Client: if your network router will automatically assign an IP address to the AP, then you can select this.

Note: If you change the IP address here, your login IP address to the Web-based management interface will vary corresponding.



W54A 54M Wireless AP User Guide

Chapter 4 Radio Setting

4.1 Basic Setting

Click *Radio Setting—Basic Setting* tab. This screen requires you to set the basic parameters for your wireless network.

Radio setting - Basic Setting	
SSID:	TENDA
SSID Broadcast:	◯ Off
RF Mode:	BG Mixed 💌
Rate Selection For B:	Auto 💌
Rate Selection For G:	Auto 💌
Channel:	6 Frequency:2.437 GHz
Radio Preamble:	Auto 🔽
RTS Threshold(256-2432):	2347
Beacon Period (20-1000)ms:	100
DTIM Period(1-255):	1
Booster Mode:	Off 💌
Update info successfully	Apply

SSID: Enter the name of your wireless network.

SSID Broadcast: Enable/disable the SSID broadcast

AP Mode: Selects 802.11g, 802.11b, BG Mixed

Tenda[®] W54A 54M Wireless AP User Guide

Rate selection for B: Selects the transmission rate of B mode, auto or a fixed rate, 11/5.5/2/1Mbps

Rate selection for G: Selects the transmission rate of G mode, auto or a fixed rate, 54/48/36/24/18/12/11/9/ 6/5.5/2/1Mbps

Channel: Select the operating channel for your wireless network, auto or fixed, range from1-13.

Radio Preamble: Selects short, long, or Auto.

RTS: RTS threshold. This value should remain its default setting of 2347(Bytes).

Beacon: This value indicates the frequency interval of the beacon (in milliseconds)

DTIM: This value indicates how often the AP sends out a DTIM.

Booster mode: When used with Marvell client cards, Boost Mode enhances throughput an additional 30% at 54Mbps.

Click **Apply** to save your settings, and **Help** for more information.

4.2 Mode Setting

The first step in using the W54A is selecting the operating mode. The default operating mode is AP mode. To select a mode, click the *Mode Setting* tab. Select your preferable mode from the drop-down menu.



Radio Setti	ng - Mode Setting - AP	P
Choose your	preferable mode:	
	AP	×
COID.	AP	
55ID:	WDS P2P Bridge	
Channel:	WDS AP Repeater	.437 GHz
	Client	
Encryption :	Oisable	Enable
Authenticatio	on: WPA_PSK	<
Key Type:	ASCII 🗸	
Cipher:	AES 🚩	
Key:		
		Apply Help

Here, we can see the W54A supports 5 operating modes, which will be introduced respectively.

4.2.1 AP mode

The AP mode is the basic mode of the device. When the system is reset to the default factory settings, the operating mode reverts to AP mode. In this mode, the AP will act as a central hub for different wireless LAN clients. For example, when traveling to a hotel that has high-speed internet access, you can connect to the internet through the AP which is connected to an Ethernet cable in the room (see Figure 1)





Figure 1

Click *Mode Setting* tab and select AP, the following screen will appear.



Radio Setti	ing - Mode Setting - AP
Choose you	r preferable mode:
	AP
SSID:	Tenda
Channel:	6 Frequency:2.437 GHz
Encryption :	O Disable O Enable
Authenticati	on: WPA_PSK 💌
Key Type:	ASCII 💌
Cipher:	AES 💌
Key:	
	Apply Help

- **SSID**: The name of your wireless network.
- **Channel**: The operating channel
- Encryption: Select disable or WEP, WPA, WPA2, WPA_WPA2 Mixed mode for security.

Click Apply to save your settings.

4.2.2 WDS P2P Bridge

In this mode, 2 APs in two remote locations connect with each other to provide a wireless bridge between 2 remote LANs, as shown in Figure 2. The two W54A devices operating in P2P mode do not allow client associations. It is mostly used by enterprise to connect 2 remote office's network together.



Figure 2

Click *Mode Setting* tab and select WDS P2P Bridge, the following screen will appear.

Ra	Radio Setting - Mode Setting - WDS P2P Bridge							
Choo	Choose your preferable mode:							
WDS P2P Bridge ✓ SSID: Tenda Channel: 6 ✓ Frequency:2.437 GHz								
WDS	Fremote AP ma	ac List:						
	1.							
						С	lose scan	
				Sc	an		Add	
	SSID	MAC Addr	Channel	AP	Mode	Security	Strength	^
0	SSID Tenda	MAC Addr 00:B0:0C:00:05:47	Channel 6	AP Yes	Mode G	Security Close	Strength 4	^
0	SSID Tenda Tenda	MAC Addr 00:B0:0C:00:05:47 00:0C:43:28:60:90	Channel 6 11	AP Yes Yes	Mode G G	Security Close Close	Strength 4 2	< III
0	SSID Tenda Tenda	MAC Addr 00:B0:0C:00:05:47 00:0C:43:28:60:90	Channel 6 11	AP Yes Yes	Mode G G	Security Close Close	Strength 4 2	×
0	SSID Tenda Tenda	MAC Addr 00:B0:0C:00:05:47 00:0C:43:28:60:90	Channel 6 11	AP Yes Yes	Mode G G	Security Close Close	Strength 4 2	
O O Encr	SSID Tenda Tenda yption :	MAC Addr 00:B0:0C:00:05:47 00:0C:43:28:60:90 Oisable	Channel 6 11	AP Yes Yes	Mode G G	Security Close Close	Strength 4 2	× III ×
O O Encr Auth	SSID Tenda Tenda yption : entication:	MAC Addr 00:B0:0C:00:05:47 00:0C:43:28:60:90 Disable WEP_Open System	Channel 6 11 C Enab	AP Yes Yes	Mode G G	Security Close Close	Strength 4 2	< III >
O O Encr Auth Key	SSID Tenda Tenda yption : entication: Type:	MAC Addr 00:B0:0C:00:05:47 00:0C:43:28:60:90 Obisable WEP_Open System ASCII	Channel 6 11 © Enab	AP Yes Yes	Mode G G	Security Close Close	Strength 4 2	< III >

Tenda[®] W54A 54M Wireless AP User Guide

- **SSID**: The name of your wireless network.
- **Channel:** The operating channel
- WDS remote AP MAC List: Enter MAC addresses whose remote device need to connect. (Also you can obtain MAC address for copying or entering manually by the scan.)
- Encryption: support only WEP mode for security.

Click **Apply** to save your settings.

4.2.3 WDS P2MP Bridge

A W54A device operating in Point-to-Multipoint (P2MP) bridge mode wirelessly connects two or more wired networks, as shown in Figure 3.

The root W54A device (LAN1) operates in P2MP mode, while the other W54A devices (LAN2, LAN3) must operate in P2P mode.

When operating in P2MP bridge, the W54A device does not allow client associations.



Figure 3



Click *Mode Setting* tab and select WDS P2MP bridge, the following screen will appear.

Radio Setti	ing - Mode	e Setting - WDS P2MP B	Bridge					
Choose you	r preferat	ole mode:						
	WDS P	2MP Bridge 🚩						
SSID:	Tenda							
Channel:	11 🚩	Frequency:2.462 C	GHz					
WDS remot	e AP ma	c List:						
1.	00:B0:0	C:00:05:47						
2.	00:0C:4	3:28:60:90						
3								
4								
4.								
5.								
6.								_
						С	lose scan	
				Sc	an		Add	
SSID)	MAC Addr	Channel	AP	Mode	Security	Strength	^
Ten	da	00:B0:0C:00:05:47	6	Yes	G	Close	4	≡
💿 te:	st	00:0C:43:28:60:90	11	Yes	G	Close	2	
								~
Encryption :	(Disable	O Enab	le				
Authenticati	on:	WEP_Open System	~					
Key Type:		ASCII 🗸						
Key Size:								

- **SSID:** The name of your wireless network.
- **Channel:** The operating channel
- WDS remote AP List: MAC addresses of the P2P Bridge that are connected to this P2MP Bridge. Up to six MAC addresses can be entered. (Also you can obtain MAC address for copying



or entering manually by the scan.)

• Encryption: support only WEP mode for security. Click Apply to save your settings.

4.2.4 WDS AP Repeater

A repeater is placed between an AP and a client to extend the distance between the two WLAN devices. Functioning as a WDS repeater, the W54A connects to both a client card as an AP and to another AP. In typical repeater applications, APs connecting to other APs equipped with WDS functionality must also support WDS. Figure 4 shows an example of a Repeater network with two W54A Repeaters connected to a W54A (AP mode), with each Repeater allowing wireless clients to associate.



Figure 4

Click *Mode Setting* tab and choose WDS AP Repeater, the following screen will appear.



Radio Setti	ng - Mode Setting - WDS AP	Repeater					
Choose you	r preferable mode:						
	WDS AP Repeater 🔽						
SSID:	Tenda]					
Channel:	6 Y Frequency:2.43	87 GHz					
WDS mode:	🔘 Dynamic Key 💿 S	tatic Key					
WDS remote	e AP mac List:						
1.	06:50:43:00:01:32]					
2.	00:B6:11:22:33:44						
З.]					
4.]					
5.]					
6.]					
						Close scan	
			\$	Gcan		Add	
SSID	MAC Addr	Channel	AP	Mode	Security	Strength	^
 Tenda 	06:50:43:00:01:32	6	Yes	G	Close	4	

- **SSID**: The name of your wireless network.
- **Channel**: The operating channel
- WDS mode: Dynamic key or Static key; At least one of the two associated repeater should be set as static key. If selecting dynamic key for one repeater, you don't have to fill the other repeater's MAC addresses at the MAC list field.
- WDS remote AP MAC List: MAC addresses of the repeaters that are connected to this repeater. Up to six MAC Addresses can be entered. (Also you can through the Scan function and Add the selected item to the list).
- Encryption: support only WEP mode for security. Click Apply to save your settings.



4.2.5 Client mode

When Client mode is selected, the W54A associates with another AP within its range. The device behaves like a wireless network adapter.

Figure 5 shows the Client mode W54A as a wireless client in infrastructure mode. Connect the LAN port of the W54A with Ethernet interface of the wired network.



Figure 5

Click *Mode Setting* tab and choose Client, the following screen will appear.



Radio Setting - Mode Setting - Client							
Choose your preferable mode:							
Client 💌							
SSID:	Tenda						
Channel: 6 MAC addr: 06:50:43:00:01:32							
						Close scan	
			Ş	Scan		Add	
SSID	MAC Addr	Channel	AP	Mode	Security	Strength	^
💿 Tenda	06:50:43:00:01:32	6	Yes	G	Close	4	
							~
Encryption :	🔘 Disable	⊙ E	nable				
Authenticatio	n: WPA_PSK	*					
Key Type:	ASCII 🛩						
Cipher:	AES 💌						
Key:	•••••						

- SSID: The wireless network's name you want to associate with.
- **Channel**: The operating channel of the wireless network.
- MAC Addr: The MAC address of the wireless network.
- Scan: you can through the scan function to display exit wireless network of the neighborhood, and click Add to establish connection with it.
- Encryption: Select disable or WEP, WPA, WPA2, WPA_WPA2 Mixed mode for security.

4.3 Access Filter



Click Radio setting---Access Filter tab, the follow screen will appear.

N	ilter Moo 1AC add	de: Allor ress:	w 💌		Add]		
CC	lick" de ess con	iress format: lete" button trol .	to delete al	I the selected	items' Dele	te		
		No.	MAG	C address				
		1	00:0C:	43:27:60:00				
						Close	e Associati	on Table
						Refre	sh	Add
	No	MAC A	ddress	Status	Mode	Rate	Signal Quality	RSSI
				connection	BG Mixed	1M	72	38

The Access filter page allows you to configure the AP to allow or block association with itself based on the MAC address of clients. Up to 32 MAC addresses can be added to the list.

Filter mode: you can select off to disable the filter function. Or Allow / Block client with the MAC address listed.

MAC address: The PCs MAC addresses to filter. Click **Add** to take it in. Or **Delete** to remove it from the list.

Open/Close Association Table: To view the current association information with the device. Click **Refresh** to update the association info, and **Add** to take the selected item into filter list. Click **Apply** to save your settings.



Chapter 5 System Tools

Click *System Tools* tab, there are 5 submenus-----Change password, Firmware upgrade, Reboot, Restore factory and Restore/Backup Setting.

5.1 Change Password

To change the password, enter the new password in the new password and Confirm New password fields. Click **Apply**.

System Tools- Change password		
User name:	admin	
Current password:	••••	
New password:	••••	
Confirm New password:	••••	
	Appl	y Help

NOTE: For security reason, it is strongly recommend that you change the default user name and password.

5.2 Firmware Upgrade

On this screen you can upgrade the AP's firmware. Do not upgrade the firmware unless you are experiencing problems with the AP or

Tenda[®] W54A 54M Wireless AP User Guide

the new firmware has the features you want to use. To upgrade the AP's firmware:

- 1. Download the firmware file from our website: <u>www.tenda.cn</u>.
- 2. Extract the firmware file on your computer.
- On the Firmware Upgrade screen, enter the location directory of the firmware file in the field provided, or click the Browse button and find the file.
- Click Upgrade button, and follow the on-screen instructions.
 You can click the Help button for more information.

System Tools- Firm	uware upgrade
Notice:	 Choose the Firmware version. Please make sure the power continuely work during the processing of firmware upgrading, or otherwise may cause System Broken.
Current Version: File:	R_1.0.5
	Upgrade Help

NOTE: During the firmware upgrade, please make sure the device is always powered on. Otherwise, power failure will result in a fatal damage to the device. After the process is completed, the device will reboot automatically. It will take about several minutes, please wait for a few seconds patiently.



5.3 Reboot

Reboot the AP to make the configured settings effective. Before rebooting is completed, the AP will disconnect automatically.

System Tools-F	leboot		
0	Click"OK" to reboot the system.		
	[Ok	Help

5.4 Restore Factory Default

That will erase all of your settings (including wireless security, current working mode, etc), and restore to the factory defaults.

- Working mode: AP mode
- Default user name: admin
- Default password: admin
- Default IP address: 192.168.0.254
- Default subnet mask: 255.255.255.0
- Default Gateway: 192.168.0.1

Systen	1 Tools- Restore Factory		
notice:	Click this 'Apply' all the settings will be as default factory setting.	Apply	
			Help

Tenda[®]

5.5 Restore/Backup Setting

On this page you can create a backup setting file or save the configured setting to the AP.

Export: To save a backup setting file on your computer, click the **Export** button and follow the on-screen instructions.

Import: To upload a setting file to the AP, click **Browse** to select the existing setting file, then click **Import** button and follow the on-screen instructions. Don't forget reboot the device to take effect finally.

System Tools- Restore	
Click " Export" to save the current config files into your backup path.	Export
Click " Browse " to choose the config files you want to import.	Import
	Help

5.6 Exit

Click the **Exit** button to log out the web-based utility.



Exit		
Click " Exit" sign out.	Exit	
		Help

5.7 Help

Click the **Help** button to get more information about the AP's settings and applications.

Help	
Wizard	Following the Wizard, you can easily set the parameters of the AP,No need specialist in the networking devices, you can also return to the menu tab, to choose any functions that needs customization.
LAN Setting	Manual and Auto, such as IP address designated to the AP, and Subnet Mask, Gateway, or you can open the DHCP for IP address Auto obtain .
Basic Setting	SSID: AP service tag, it's the network name of radio AP .
	SSID broadcast: If close SSID broadcast , AP won't broadcast its SSID, you need to set SSID manually if have the radio application .
	radio mode, Speed , Channels,RF mode,Booster Mode, RTS value,Beacon Period, DTIM Period,please input according to the relative value range.
	then click on " Apply " Button after finished the config.
Mode Setting	Radio Mode (W54A with 5 different modes):
	1_{\times} AP: working as a radio HUB,making communication between radio and radio , radio and wired, radio to WAN .
	2、P2P Bridge: Two wired LAN can be connected by W54A at bridge model,to connect two wired LAN by radio , or Extend the Wired LAN by radio .
	3、P2MP Bridge: point to multipoint bridge to gathering numbers of Remote LAN area sources, normally it's central point working as a transmitter, other operating as clients unit receiving datastream.(W54A Support 6 channels remote access)
	4、 AP Repeater: Repeating and amplifering the datastream, extendrange technology. designated for Openair,Non-cable case,like Office,Metropolitan hotspot, Town to Town share.



Appendix I: Glossary

Access

- **Point(AP)**: Any entity that has station functionality and provides access to the distribution services, via the wireless medium(WM) for associated stations.
- Channel: An instance of medium use for the purpose of passing protocol data units (PDUs) that may be used simultaneously, in the same volume of space, with other instances of medium use(on other channels) by other instances of the same physical layer (PHY), with an acceptably low frame error ratio(FER) due to mutual interference.
- SSID: Service Set identifier. An SSID is the network name shared by all devices in a wireless network. Your network's SSID should be unique to your network and identical for all devices within the network. It is case-sensitive and must not exceed 20 characters (use any of the characters on the keyboard).Make sure this setting is the same for all devices in your wireless network.
- WEP: Wired Equivalent Privacy (WEP) is the method for secure wireless data transmission. WEP adds data encryption to every single packet transmitted in the

Tenda[®] W54A 54M Wireless AP User Guide

wireless network. The 40bit and 64bit encryption are the same because of out 64 bits, 40 bits are Conversely, 104 and 128 bit are the private. same. WEP uses a common KEY to encode the data. Therefore, all devices on a wireless network must use the same key and same type of encryption. There are 2 methods for entering the KEY; one is to enter a 16-bit HEX digit. Using this method, users must enter a 10-digit number (for 64-bit) or 26-digit number (for 128-bit) in the KEY field. Users must select the same key number for all devices. The other method is to enter a text and let the WEP for the computer generate key vou. However, since each product use different method for key generation, it might not work for different products. Therefore, it is NOT recommend using.

WPA/WPA2: A security protocol for wireless networks that builds on the basic foundations of WEP. It secures wireless data transmission by using a key similar to WEP, but the added strength of WPA is that the key changes dynamically. The changing key makes it much more difficult for a hacker to learn the key and gain access to the network.WPA2 is the second generation of



WPA security and provides a stronger encryption mechanism through Advanced Encryption Standard (AES), which is a requirement for some government users.



Appendix II: TCP/IP Address Setting (Take Winxp as example)

Click the "Start—>Settings—>Control Panel" (Fig- 1):



Fig-1

Click "Network and Internet Connections", the windows as below will appear (Fig- 2):



Fig- 2



Click the "Network Connections", as Fig-3:



Fig-3

Choose "Local Area Connection", right-click on the icon, choose the "Properties", then the "Local Area Connection Properties" windows appear, choose the "Internet Protocol (TCP/IP)" in the "This connection uses the following items", click the "Properties".



📥 Local Area Connection Properties 🛛 📑	2 🗙	
General Authentication Advanced		
Connect using:		
Realtek RTL8139 Family PCI Fast Eth Configure		
This connection uses the following items:		
Client for Microsoft Networks Client for Microsoft Networks Ple and Printer Sharing for Microsoft Networks Ple GoS Packet Scheduler Themet Protocol (TCP/IP)		
Install Uninstall Properties		
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.		
✓ Show icon in notification area when connected ✓ Notify me when this connection has limited or no connectivity		
OK Cano	el	
_, ,		

Fig- 4

Choose the "Use the following IP address", enter the IP address as:

192.168.0.xxx. (xxx ranges 1~253), Subnet mask is:

255.255.255.0(As Showed in Fig- 5)



Internet Protocol (TCP/IP) Properties 🛛 🛛 🛛 🔀		
General		
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.		
Obtain an IP address automatically		
O Use the following IP address:		
IP address:	192.168.0.2	
Subnet mask:	255 . 255 . 255 . 0	
Default gateway:	· · ·	
Obtain DNS server address automatically		
 Use the following DNS server addresses: 		
Preferred DNS server:		
Alternate DNS server:	· · ·	
Advanced		
OK Cancel		
<u> </u>		

Fig- 5

Click "OK" to apply and return to the "Local Area Connection Properties" windows.

Continue click "OK" to exit the setting windows.