

Model No.: W45AP/W40AP

Wireless N300 High Power Access Point Wireless N300 Ceiling Access Point

User Guide



Copyright Statement

IP-COM is the registered trademark of Shenzhen IP-COM 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 IP-COM Technology Co., Ltd. Without prior expressed written permission from Shenzhen IP-COM Technology Co., Ltd, any individual or party is not allowed to copy, plagiarize, reproduce, or translate it into other languages.

All photos and product specifications mentioned in this manual are for references only. Upgrades of software and hardware may occur; IP-COM reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes. If you would like to know more about our product information, please visit our website at <u>www.ip-com.com.cn</u>

2



Conventions

This User Manual applies to W45AP & W40AP. As these two products share many similarities in their appearances and features, if not specifically indicated, this User Manual will take W45AP for example.



Contents

COPYRIGHT STATEMENT	1
CONTENTS	4
CHAPTER 1 PRODUCT OVERVIEW	6
1 Package Contents	6
2 Hardware Description	6
3 Product Features	7
CHAPTER 2 INSTALLATION	8
1 Physical Installation	
2 IP CONFIGURATION	
3 Wireless Internet Connection	
Win7 OS	
Windows XP OS	
CHAPTER 3 ADVANCED SETTINGS	
1 WEB LOGIN	
2.1 System Status	
2.2 Wireless Status	
2.3 Traffic Statistics	
3 QUICK SETUP	
3.1 AP Mode	
3.2 WDS Mode	
3.3 AP Client Mode	
4 LAN SETUP	
5 WIRELESS	
5.1 Basic	
5.2 Radio	
5.3 Advanced	
5.4 Access Control	
7 SNMP	
8 Tools	
8.1 Maintenance	
8.2 Time	

IP-COM

8.3 Logs	21
8.4 Configuration	22
8.5 User Name & Password	23
8.6 Diagnostics	24
APPENDIX 1 CONFIGURE PC	25
WIN7 OS CONFIGURATION	25
WINDOWS XP OS CONFIGURATION	28
APPENDIX 2 JOIN A WIRELESS CONNECTION	
WIN7 OS	
WINDOWS XP OS	
APPENDIX 3 DEFAULT SETTINGS	35
APPENDIX 4 SAFETY AND EMISSION STATEMENT	



Chapter 1 Product Overview

The Wireless AP, mini and exquisite, is a best-in-class 802.11n indoor access point designed specifically for wireless projects. With standard X-86 installation and existed structure, the device saves time and costs and provides an adequate level of service to all users who connect with legacy 802.11b/g adapters in addition to the latest 802.11n adapters for faster downloads and instant communication. Versatile and powerful, the Wireless AP offers multiple security modes, which makes your data transmission safe. Plus, the provided unified management utility based on X86 allows network administrators to centrally manage IP addresses, SSID and security settings, etc of APs on LAN, thus enabling a highly manageable and extremely robust wireless network.

1 Package Contents

Please verify that the package contains the following items:

- Wireless AP
- Power Adapter
- Screws
- Ethernet Cable
- Chassis
- CD
- Quick Installation Guide

If any of the above items are incorrect, missing, or damaged, please contact your reseller for immediate replacement.

2 Hardware Description

The wireless access point hardware functions are described below.



System Indicator LED

Solid: Device is functioning improperly.

Off: Device is receiving no electrical power or the LED is disabled manually.

Blinking: Device is functioning properly.

IP-COM



- **RST:** Restores the device to the factory default settings when pushed and held for 7 seconds (This button has been hidden by the outer frame of this device. Before pressing this button, you should remove the outer frame.).
- **PoE/LAN:** PoE Port for connecting to power supply or connecting to IEEE802.3af switch;/1000M Ethernet Port for connecting to an Ethernet LAN device such as a PC or switch, etc.

3 Product Features

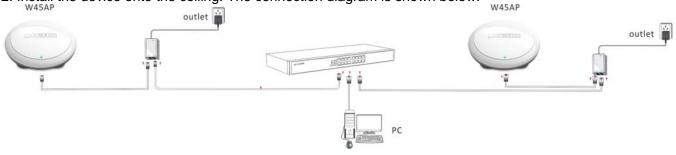
- Compliant with IEEE 802.11b/g/n;
- 1000M Ethernet port for wired LAN connection;
- PoE Port for connecting to power supply or connecting to IEEE802.3af switch;
- One RJ-45 10/100/1000 IEEE802.3ab、IEEE802.3u、IEEE802.3 auto-sensing Gigabit port for data transmission or power supply;
- Wireless rates of up to 300Mbps;
- Unified Management allows network administrators to centrally manage APs on LAN;
- WEP, WPA-PSK, WPA2-PSK and WPA-PSK/WPA2-PSK encryptions secure wireless network against unauthorized accesses;
- IEEE802.11b/IEEE802.11g/IEEE802.11n auto-sensing and auto-negotiating capabilities for all ports;
- Can be configured to select an optimum channel for device to operate on;
- Can be configured to adjust transmitting power;
- Supports 12V/1A power supply;
- Supports IP address and domain diagnostics;
- Supports AP and WDS mode.



Chapter 2 Installation

1 Physical Installation

- 1. Connect the device to 802.3af power adapter;
- 2. Install the device onto the ceiling. The connection diagram is shown below:



2 IP Configuration

The default IP address of your wireless access point is 192.168.0.254. If you are using the default IP subnet, the computer you are using to connect to the device should be configured with an IP address that starts with 192.168.0.x (where x can be any number between 1~253) and a Subnet Mask of 255.255.255.0; if you have changed the subnet of the wireless access point, the computer you are using to connect must be within the same subnet. If you are not clear about this configuration, please refer to <u>Appendix 1: Configure PC</u>.

3 Wireless Internet Connection

Win7 OS

1. Click on the desktop icon data the bottom of right hand corner;

Not connected	÷,	
Connections are available		Ш
Wireless Network Connection 5	^	
Tenda_07A02D	all	
Intelbras_518004	I	
c2	I	
jishukaifa_tianfengyang	all	
IP-COM_888511	I	
IP-COM_888512	all	
855	I	
Tenda_010001	3 41	-
Open Network and Sharing Cer	nter	
t, 🖻 🔒 🔩 🕅	8:42 PN	

2. Select the wireless network you wish to and click Connect;

Tenda_0001F8	3 .01	
huangshan	311	
test	3 00	
ТХJ	5 all	111
HiWiFi_01007E	5 00	
Tenda_UGWTest	9 10	
ChinaNet-0001	9 10	
IP-COM_888510	311	
IP-COM_033070	1100	
Connect automatically	<u>C</u> onnect	
Tenda_00006E		Ŧ
Open Network and Sh	aring Center	

3. Enter your security key and click **OK**(If you have configured it);

🔮 Connect to a Netv	vork	×
Type the netwo	rk security key	
Security key:	•••••	
	Hide characters	
		OK Cancel

4. When displaying Connected, you have connected the wireless network successfully.

Currently connected to: Unidentified network No network access	49	4 III
Wireless Network Connection 5	^	
123	I	
IP-COM_033070 connected	للدو	
Tenda_00006E	I	
Tenda_102030	I	
jishukaifa_tianfengyang	I	
222	lle.	
Tenda_DDF0E8	ألد	
123456	al	Ŧ
Open Network and Sharing Cent	ter	



∆_{Note}

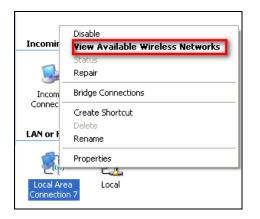
If you cannot find the icon at the bottom of right hand corner on your desktop, please refer to <u>Appendix 2</u> Join a Wireless Connection.

Windows XP OS

1. Right click My Network Places on your desktop and select Properties;

8		
	Open	
My P	Explore	
PI	Search for Computers	
	Map Network Drive	
N 1	Disconnect Network Drive	
Rec	Create Shortcut	
	Delete	
1	Rename	
Z	Properties	
-	0000	
link	Br	

2. Right click Local Area Connection(wireless) and select View Available Wireless Networks;



3. Select the SSID you wish to connect, enter the network security key and click Connect;

Refresh network list Click an item in the list below to connect to a wireless network information. Set up a wireless network for a home or small office Wireless Network Connection The network 'IP-COM_1_888888' requires a network key (also called a WEP key Learn about networking the network 'IP-COM_1_888888' requires a network key (also called a WEP key learn about retworking the network 'IP-COM_1_888888' requires a network key (also called a WEP key learn about retworking the network key, and then click Connect. Network key: Confirm network key:	v or WPA
Change the Prefered ne Network key: Change the Prefered ne Network key: Change the Prefered ne Network key: Output Determine the set of the se	y or WPA
Related Tasks The network 'IP-COM_1_888888' requires a network key (also called a WEP key, helps prevent unknown intruders from connecting to this networking to the key, and then click Connect. Change the preferred ns Network key:	y or WPA
Learn about networking Change the preferred nr Change the Change the preferred nr Change the Change the preferred nr Change the Change the preferred nr Change the preferred nr	
settings	Cancel attr

4. When it displays Connected, you have connected to the network successfully.



Chapter 3 Advanced Settings

1 Web Login

To connect to the Wireless AP using the defaults IP address:

- 1. Open a Web browser.
- 2. Enter 192.168.0.254 into your browser.
- 3. Enter the default User Name admin and default Password admin into the login window.

IP-CO	M
	ername: admin ssword: admin Login

4. Click Login and your Web browser shall automatically display the home page. 2 Status

2.1 System Status

This screen displays this device's current system status.

IP-CON	1 °	- Ender	www.ip-com.com.cn
Status	System Status		
System Status	System Status		Help
Wireless Status	Device Name	W45AP	
Traffic Statistics	System Time	2013-07-25 10:43:13	
Wireless Clients	Up Time	00:15:04	
Quick Setup	Working Mode	AP Mode	
LAN Setup	Number of Clients	0	
Wireless	Firmware Version	V1.0.0.5_EN (7297)	
SNMP	Hardware Version	1.0.0.0	
Tools	LAN Status		
	MAC Address	C8:3A:35:00:00:5A	
	IP Address	192.168.0.254	
	Subnet Mask	255.255.255.0	

- 1. Device Name: Displays this device's name.
- 2. System Time: Displays system's current time.
- 3. Up Time: Displays the device's uptime.
- 4. Working Mode: Displays this device's current working mode
- 5. Number of Clients: Displays the information of connected wireless clients(if any).

- 6. Firmware Version: Displays Device's current firmware version.
- 7. Hardware Version: Displays Device's current hardware version.

2.2 Wireless Status

This section displays radio status and SSID status.

IP-COM	¢	\$12 V.	www	v.ip-com.com.	cn	
Status System Status	ireless Status	Radio Status			Help	
Wireless Status	Radio (On/Off)		On			
Traffic Statistics	Network Mode		11b/g/n mixed			
Wireless Clients	Channel		11			
Quick Setup						
LAN Setup		SSID Status				
Wireless	SSID	SSID MAC Address Working Status Sect		Security Mode		
SNMP	IP-COM_00005B	C8:3A:35:00:00:5B	Enabled	None		
Tools	IP-COM_00005C	C8:3A:35:00:00:5C	Disabled	None		
erendin endin endin endin endin didin Addr Addr (IP-COM_00005D	C8:3A:35:00:00:5D	Disabled	None		
	IP-COM_00005E	C8:3A:35:00:00:5E	Disabled	None		

- 1. Radio ON/OFF: Displays the primary SSID's wireless status.
- 2. Network Mode: Displays currently operative network mode.
- 3. Channel: Displays the channel the device is currently operating on.
- 4. SSID: Displays the current SSID name.
- 5. MAC Address: Displays the current AP's MAC address.
- 6. Work Status: Displays the wireless signal's work status
- 7. Security Mode: Displays the current security mode.

2.3 Traffic Statistics

This section displays the AP's traffic statistics.

IP-COM'		www.ip-com.com			p-com.com.c	n
Status	Traffic Statistics					
System Status	SSID	Total RX Traffic (MB)	Total RX Packets	Total TX Traffic (MB)	Total TX Packets	Help
Wireless Status	IP-COM_00005B	0.00MB	0	0.04MB	517	
> Traffic Statistics	IP-COM_00005C	0.00MB	0	0.00MB	0	Refres
Wireless Clients	IP-COM_00005D	0.00MB	0	0.00MB	0	
Quick Setup	IP-COM_00005E	0.00MB	0	0.00MB	0	
LAN Setup			5			
Wireless						
SNMP						
Tools						

- 1. Total RX Traffic: Total RX bytes SSID has received.
- 2. Total RX Packets: Total RX packets SSID has received.
- 3. Total TX Traffic: Total TX bytes SSID has transmitted.
- 4. Total TX Packets: Total TX packets SSID has transmitted.

5. Total Link Speed: Total link speed rate has transmitted.

2.4 Wireless Clients

This section displays information of connected clients(if any).

IP-COM [®]			S. S. S.		www.ip-com.com.cn		n
 Status System Status Wireless Status 		ist tion displays information Connected Currently:	of connected clients	(if any).	IP	-COM_00005C 💌	Help
Traffic Statistics Wireless Clients	ID	MAC Address	Ib	Encryption	Bandwidth	Connection Duration	
Quick Setup			No cli	ents connected!			
LAN Setup							
Wireless							
SNMP							
Tools							

- 1. MAC Address: Displays the connected wireless client's MAC address.
- 2. IP: Displays the connected wireless client's IP.
- 3. Encryption: Displays SSID's encryption type.
- 4. Bandwidth: Displays the current wireless client's bandwidth.
- 5. Connection Duration: Displays connection time SSID has connected to.

3 Quick Setup

This device supports 3 working modes. You can select it as you need.

IP-COM	A *	- 49 C	www.ij	p-com.com.cn
Status) Quick Setup LAN Setup Wireless	Quick Setup Mode SSID Security Mode	AP Mode WDS Mode IP-COM_00005B None T	OAP Client Mode	Save
SNMP Tools				Help

3.1 AP Mode

In this mode, you can achieve the conversion between cable signals and wireless signals. If this device is connected to the broadband interface of a hotel room, you can achieve network sharing among multiple PCs without any configuration.



IP-COM	•	Sal X	www.ip-com.com.cn
Status	System Status		
System Status	System Status		Help
Wireless Status	Device Name	W45AP	
Traffic Statistics	System Time	2013-07-25 10:43:13	
Wireless Clients	Up Time	00:15:04	
Quick Setup	Working Mode	AP Mode	
LAN Setup	Number of Clients	0	
Wireless	Firmware Version	V1.0.0.5_EN (7297)	
SNMP	Hardware Version	1.0.0.0	
Tools	LAN Status		
	MAC Address	C8:3A:35:00:00:5A	
	IP Address	192.168.0.254	
	Subnet Mask	255.255.255.0	

3.2 WDS Mode

In this mode, this device can provide access to at most 4 APs.

IP-COM [®]				www.ip-com.com.cn	
Status Quick Setup LAN Setup Wireless SNMP Tools	Quick Setup Mode SSID Security Mode MAC Address MAC Address MAC Address	IP-COM_00005E	WDS Mode AP Client M	Mode S	Save estore Help
	Uplink AP Channel	En	able Scan		

1. SSID: Displays the device's SSID. The default is this device's primary SSID. Once WDS is enabled, the primary SSID will be modified to the first remote AP's SSID.

2. Security Mode: You can configure primary SSID's security mode and it should be kept the same as that of the remote AP.

3. MAC Address: You can enter the remote MAC address manually or open scan to add it automatically.

4. Uplink AP Channel: When WDS is enabled, please keep all APs on the same channel.

5. Enable Scan: Scans wireless signals nearby.

▲_{Note}

In WDS mode, the two APs should support WDS and you should keep their SSIDs, channels, security modes and keys the same. As for IP address, they should not be the same but on the same network segment;
 Once the security mode has been changed, please reboot the device.

3.3 AP Client Mode

In this mode, this device negotiates with the uplinked AP successfully and also provides access to lower

IP-COM

clients. The device's SSID won't be changed.

IP-COM'		Em		www.ip	-com.com.cn
Status Quick Setup LAN Setup Wireless SNMP Tools	Quiick Setup Mode SSID Security Mode Uplink AP MAC Address Uplink AP Channel	C AP Mode	©WDS Mode	●AP Client Mode	Save Restore Help

- 1. SSID: You can configure the uplinked AP's SSID name here.
- 2. Security Mode: You can configure the uplinked AP's security mode here.
- 3. MAC Address: You can configure the uplinked AP's MAC address here.
- 4. Uplink AP Channel: You can configure the uplink AP's channel here.
- 5. Enable Scan: Scans wireless signals nearby.

4 LAN Setup

Here you can configure the LAN IP address and subnet mask.

IP-CO	M*	End	www.ip-co	om.com.cn
	LAN Setup			
Status				
Quick Setup	MAC Address	C8:3A:35:00:00:5A		Save
LAN Setup	Address Mode	Static IP Dynamic IP		
Wireless	IP Address	Static IP	For example: 192.168.1.1	Restore
SNMP	Subnet Mask	255.255.255.0	For example:255.255.255.0	Help
Tools	Gateway	192.168.0.1		
	Device Name	W45AP		

- 1. MAC Address: Displays the LAN's MAC address.
- 2. Address Mode: Two modes are available: Static IP and Dynamic IP.
- 3. IP address: Displays the device's LAN IP address. When the address mode is Static IP, you can change it

as you need. The default is 192.168.0.254.

- 4. Subnet Mask: Displays the device's LAN subnet mask. The default is 255.255.255.0.
- 5. Gateway: Displays the device's gateway.
- 6. Device Name: Displays the device name.

▲_{Note}

If you change this IP address, you must use the new one to re-log on to this web utility.

5 Wireless

5.1 Basic

This section describes how to configure the available wireless settings.



IP-COM*	See Contemporation	www.ip-com.com.cn
Basic Status SSID Quick Setup Enable LAN Setup Hide SSID automatically Wireless Broadcast SSID Radio AP isolation Advanced Maximum clients Access Control SSID SNMP Security Mode	IP-COM_00005B C Enable Disable Enable 15 (Rangle:1-60) IP-COM_00005B None	Save Restore Help

1. SSID: Select the SSID from the drop-down list. It supports 4 SSIDs at most.

2. Enable: When select this item, wireless will be enabled.

3. Hide SSID Automatically: When number of clients outnumbers the maximum value, SSID will be hidden automatically.

4. SSID Broadcast: This option allows you to have your network name (SSID) publicly broadcast or if you choose to disable it, the SSID will be hidden. It is enabled by default.

5. AP Isolation: Isolates clients connecting to the same SSID.

6. Maximum Clients: Displays the number of clients can be connected to the current SSID. Total number should be within 60.

7. SSID: Displays the SSID name and you can change the name here.

8. Security Mode: Select WEP, WPA-PSK, WPA2-PSK or Mixed WPA /WPA2-PSK.

(1)WEP: Enter a WEP key that is either 5~13 ASCII characters or 10~26 Hex characters if you select the WEP encryption.

(2)WPA-PSK/WPA2-PSK: You can enable personal (PSK) or mixed mode, but you must make sure that the wireless client also supports the selected encryption method. Enter a security key that is either 8-63 ASCII characters or 8-64 Hex characters.

5.2 Radio

Here you can configure basic wireless settings including network mode, channel, extension channel, channel bandwidth and etc.

IP-CO	M°	www.ip-com.com	n.cn
Status Quick Setup LAN Setup Wireless Basic Radio Advanced Access Control SNMP Tools	Radio Enable Wireless Network Mode Channel Channel Bandwidth Extension Channel Channel Lockout WMM Capable APSD Capable	 ✓ 11b/g/n mixed ▼ Auto ▼ 20 @ 20/40 Auto ▼ ✓ ● Enable ● Disable ● Enable ● Disable 	Save Restore Help
	Key Update Interval Channel Scan	3600 Seconds(Rangle:60—99999, If set to 0, key will not be updated.) Enable Scan	

1. Enable Wireless: Check/uncheck to enable/disable the wireless feature.

2. Network Mode: Select a right mode according to your wireless client. The default mode is 11b/g/n mixed.

11b mode: Select it if you have only 11b wireless devices in your wireless network. Up to 11Mbps wireless rate is supported on this mode.

11g mode: Select it if you have only 11g wireless devices in your wireless network. Up to 54Mbps wireless rate is supported on this mode.

11b/g mixed mode: Select it if you have 11b and 11g wireless devices in your wireless network.

11b/g/n mixed mode: Select it if you have 11b, 11g and 11n wireless devices in your wireless network. In this mode wireless connection rate is negotiated.

3. Channel: Select from 1~13 channels or Auto. The best selection is a channel that is the least used by neighboring networks.

4. Channel Bandwidth: Select a proper channel bandwidth to enhance wireless performance. Select 20/40M frequency width when device is operating in 11n, select 20M frequency width when device is operating in non-11n mode.

5. Extension Channel: This is used to ensure N speeds for 802.11n devices on the network.

6. WMM-Capable: WMM is QoS for your wireless network. Enabling this option may better stream wireless multimedia data such as video or audio (recommended).

7. ASPD Capable: Select to enable/disable the auto power saving mode. By default, this option is disabled.

5.3 Advanced

This section allows you to configure advanced wireless settings. If you are new to networking and have never configured these settings before, we recommend you to leave the default settings unchanged.

Inge: 20 - 999; Default: 100) Inge: 256 - 2346; Default: 2346) Inge: 1 - 2347; Default: 2347) Inge: 1 - 255; Default: 1) Inge:17 - 23(dBm); Default:23) Disable Ible ©Short Preamble

1. Beacon Interval: This is a time interval between any two consecutive Beacon packets sent by an Access Point to synchronize a wireless network. Specify a valid value between 20 and 999. The default setting is 100.

2. Fragment Threshold: Specify a valid Fragment Threshold value between 255 and 2346. The default is 2346. Any wireless packet exceeding the preset value will be divided into several fragments before transmission.

3. RTS Threshold: Specify a valid value between 1 and 2347. The default is 2347. If a packet exceeds the preset value, RTS/CTS scheme will be used to reduce collisions. A smaller value is recommended if you have distant clients or interference on your network.

4. DTIM Interval: A DTIM (Delivery Traffic Indication Message) Interval is a countdown informing clients of the next window for listening to broadcast and multicast messages. When such packets arrive in the router's buffer, the router will send DTIM (delivery traffic indication message) and DTIM interval to alert clients of the receiving packets. Specify a valid value between 1-255. The default is 1.

5. TX Power: Control TX power. Specify a valid value between 17 and 23. The default is 23.

- 6. Power Lockout: Once enabled, you cannot change power manually.
- 7. Wireless LED: You can enable or disable wireless LED.

8. Preamble: The 8 bytes of the preamble and the Start of Frame create a pattern of 64 bits. 7 bytes of the preamble are for synchronization and 1 byte is for SFD, which basically says here comes a new frame, being a "get ready" notification. There are two types of preambles: long preamble and short preamble. By default, the device transmits data using the long preamble.

5.4 Access Control

Specify a list of devices to allow or disallow a connection to your wireless network via the device's MAC addresses. To deactivate this feature, select "Disable"; to activate it, select "Allow" or "Deny".

IP-COI	N	. A	met a	w	ww.ip-com.com.	cn
Status Quick Setup LAN Setup Wireless Basic	Specify a list	cess Control of devices to allow or disallow et seperately on each SSID. MAC Address	v a connection to	your wireless network via the d SSID MAC Filter Mode Connection Duration	IP-COM_00005B 💌 Allow 💌 Disable	Save Restore Help
Radio Advanced	U	MAC AUDIESS	No clients co		Allow st Deny	
Access Control		MAC	Address		Action	
SNMP Tools		:) [; [:	Add	

MAC Filter Mode: Select Allow or Deny from the drop-down list.

1. To permit a wireless device to connect to your wireless network, select **Allow**, enter its MAC address, click **Add** and then **OK**. Then only this device listed as "Allowed" will be able to connect to your wireless network; all other wireless devices will be forbidden.

2. To disallow a wireless device to connect to your wireless network, select **Deny**, enter its MAC address, click **Add** and then **OK**. Then this device listed as "Denied" will be unable to connect to your wireless network.

7 SNMP

The Simple Network Management Protocol (SNMP) is widely used in local area networks (LANs) for collecting information, managing, and monitoring network devices, such as servers, printers, hubs, switches, and routers. Specialized software in each SNMP capable device, known as an Agent, continuously monitors the status of the device and reports the results to the SNMP Manager software, which can then act on the report. This device supports both SNMP v1 and SNMP v2C.



IP-CO	M*	Sec. Co	www.ip-com.com.cn
Status Quick Setup LAN Setup Wireless SNMP Tools	Here you can configure SNMP s SNMP Administrator Name Device Name Location Read Community Write/Read Community	settings. SNMP v1 and v2c are supporte Disable Enable Administrator W45AP ShenZhen public private	d. Save Restore Help

Click **Enable** to enable the SNMP feature.

- 1. Administrator Name: Input the administrator's name.
- 2. Device Name: Input the name of the AP, e.g., WIRELESS AP.
- 3. Location: Input the AP's location.

4. Read Community: Indicates the community read access string to permit reading this AP's SNMP information. The default is Public.

5. Write/Read Community: Indicates the community write/read access string to permit reading and re-writing this AP's SNMP information. The default is Private.

8 Tools

8.1 Maintenance

Firmware Upgrade

Firmware upgrade is released periodically to improve the functionality of your device or to add new features.

If you run into a problem with a specific feature of the device, log on to our website (http://www.ip-com.com.cn/) to download the latest firmware to update your device.

Click **Tools** > **Firmware Update** to enter the screen below:

IP-CC	DM.	Engen		www.ip-c
	Firmware Upgrade Reboot	Administrator Name[<mark>adr</mark>	min] Version:V1.0.0.5	5_EN (7297)
Status		6 h h h f	at the second	-10-1-17
Quick Setup	Use this section to update device	s firmware for better func	tionalities or new feat	ures.
LAN Setup	Select a Firmware File:	Browse	Upgrade	
Wireless	Current Firmware Version: V1.0.0.	5_EN (7297); Release Dat	te: Jul 25 2013	
SNMP	Note: DO NOT disconnect the dev	vice from power and netw	vork connections while	upgrade is in process,
Tools	it may be permanently damaged.	When upgrade is complete	e, the device restarts a	automatically. Upgrade
Maintenance	about 90 seconds. Please wait.			
Time				
Logs				
Configuration				

To upgrade device software:

1. Open a web browser and go to <u>http://www.ip-com.com.cn/</u> to download latest firmware.

IP-COM

- 2. Unzip the compressed upgrade file (.ZIP file).
- 3. Click **Browse** to locate and select upgrade file on your hard disk.
- 4. Click **Update** to upgrade device firmware.
- 5. When the firmware upgrade completes, your wireless access point will automatically restart.
- 6. Restore the AP back to factory default settings after reboot.

▲_{Note}

When uploading software to the Wireless AP, it is important not to disconnect the device from power supply. If the power supply is interrupted, the upload may fail, corrupt the software, and render the device inoperable. When the upload completes, your wireless access point will automatically restart. The upgrade process typically takes about several minutes.

Reboot

The Reboot option restarts the wireless access point using its current settings. Connections will be lost during reboot.

Click Tools > Reboot to display screen below:

IP-CO	M*	412	www.ip-com.com.cn
	Firmware Upgrade	Reboot	
Status	CONTRACTOR CONTRACTOR		
Quick Setup	Click the "Reboot" butt	ton to restart your device.	
LAN Setup	Reboot		
Wireless			
SNMP			
▶ Tools			
Maintenance			
Time			
Logs			
Configuration			
Username & Password			
Diagnostics			

8.2 Time System Time

This page is used to set the device's system time. You can choose to set the time manually or get the GMT time from the Internet and the system will automatically connect to NTP server to synchronize the time



IP-CO	www.ip-com.com.cn	
Status Quick Setup LAN Setup Wireless SNMP Tools Maintenance Time Logs	System Time Login Timeout This page is used to set the device's system time. You can select either to set the time manually or get the GMT time from Internet and system will automatically connect to NTP server to synchronize the time. Note: System time will be lost when the device is disconnected from power supply. However, it will be updated automatically when the device reconnects to Internet. Image: Sync with Internet time servers Sync Interval: 30 minutes Image: 30 minut	Save Restore Help
Configuration Username & Password Diagnostics	2013 Year 7 Month 23 Day 9 h 50 m 47 s Sync with Your PC	

Login Timeout

Here you can configure the web login timeout (1-60 minutes). The default is 5 minutes. Device returns to login window automatically depending on the specified login timeout and user name/password will be required.

IP-CO	M °		www.ip-com.com.cn
	System Time Login Tim	ieout	
Status			
Quick Setup	Login Timeout Setup		Save
LAN Setup	Login Timeout:	5 (1~60 minu	utes)
Wireless			Restore
SNMP			Help
• Tools			
Maintenance			
Time			
Logs			
Configuration			
Username & Password			
Diagnostics			

8.3 Logs

View Logs

Here you can view the history of the device's actions. Click **Refresh** to update current log info or click **Clear** to clear all logs.



	View Logs	Log Setup			
Status Quick Setup				Type of logs to display: All	Refres
LAN Setup	Index	Time	Туре	Log Content	Clear
Wireless SNMP	7	2011-05-01 01:02:49	System	Login time: web free timeout.	
Tools	6	2011-05-01 00:53:26	System	Login time: web free timeout.	
Maintenance	5	2011-05-01 00:48:07	System	Login time: web free timeout.	
Time	4	2011-05-01 00:33:42	System	Login time: web free timeout.	
) Logs	3	2011-05-01 00:14:42	System	Login time: web free timeout.	
Configuration	2	2011-05-01 00:00:07	Lan	Lan mode: static ip start.	
Username & Password	1	2011-05-01 00:00:07	System	System start success.	

Log Setup

Here you can set up number of logs and rules of log settings. Up to 300 entries can be logged. The default is 150.

IP-CO	M*		Eng N		www.ip-com.co	m.cn
	View Logs	Log Setup				
Status Quick Setup LAN Setup	Number of L	And Action 19 17	(Default:150,Range s, you must check this box.)			Save
Wireless	ID	Log Server IP	Log Server Port	Enable	Action	Restore
SNMP Tools					Add	Help
Maintenance Time						
Logs Configuration						
Username & Password Diagnostics						

8.4 Configuration

Backup & Restore

This section allows you to save a copy of the device configurations on your local hard drive or to restore the previous configurations back to the device.

1. **Backup**: Once you have configured the device the way you want it, you can save these settings to a configuration file on your local hard drive that can later be imported to your device in case that the device is restored to factory default settings. To do so, click the **Backup** button and specify a directory to save settings on your local hardware.

2. **Restore**: Click the **Browse** button to locate and select a configuration file that is saved previously on your local hard drive and then click **Restore** to restore it. Configurations will be restored after device reboot.



IP-CO	M*	200	www.ip-c
Status Quick Setup LAN Setup Wireless SNMP Tools Maintenance Time Logs Configuration	Backup & Restore Restore To Factor This section allows you to save current sett Save Settings to Local Hard Drive Load Settings from Local Hard Drive		

Restore to Factory Default

Click the **Restore to Factory Default** button to reset Device to factory default settings.

IP-COM		www.ip-com.com.cn
	Backup & Restore Restore to Factory Default	
Status		
Quick Setup	Click this button to reset the device to factory default values.	Help
LAN Setup	Restore to Factory Default	
Wireless		
SNMP		
▶ Tools		
Maintenance		
Time		
Logs		
Configuration		
Username & Password		
Diagnostics		

Factory Default Settings:

- User Name: admin
- Password: admin
- IP Address: 192.168.0. 254
- Subnet mask: 255.255.255.0

8.5 User Name & Password

Here you can change the user name and password for web login. The default password is **admin**. We suggest that you change this password to a more secure password.



Wireless SNMP Administrator Name Tools User Delete Add Time Logs		User Name & P	assword				
Access Mode User Name Enable Action SNMP Administrator admin Image Tools User Image Maintenance Image Time Logs	Quick Setup					erscore!	Sa
Administrator Name admin Image Tools User Delete Maintenance Image Time Image Logs Image		Access Mode	User Name	Enable	Action		Res
Maintenance Time Logs		1000	admin	\lor	Change		He
Time Logs		User			Delete Add		
Logs	Maintenance						
Configuration	Logs						
configuration	Configuration						
	Diagnostics						

∆_{Note}

You must log in as an administrator to make any change.

8.6 Diagnostics

This page allows you to test your network connection.

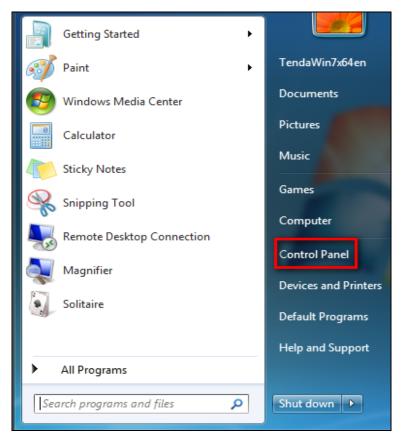
IP-COI	MI *	End.		www.ip-com.com.cn
	Ping			
Status				
Quick Setup		ain name to test network connection		
LAN Setup		: 192.168.0.254) address or a dom	nain name(eg: www.goo	gle.com):
Wireless	ping	ping		
SNMP				
• Tools				
Maintenance				
Time				
Logs				
Configuration			-	
Username & Password				
Diagnostics				



Appendix 1 Configure PC

WIN7 OS Configuration

1. Click Start>Control Panel;



2. Enter Control Panel and click Network and Internet;

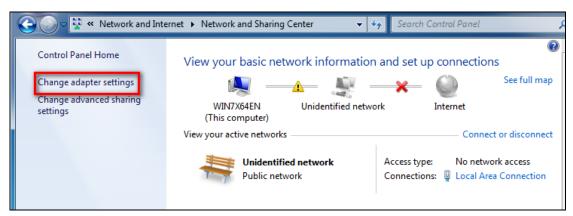




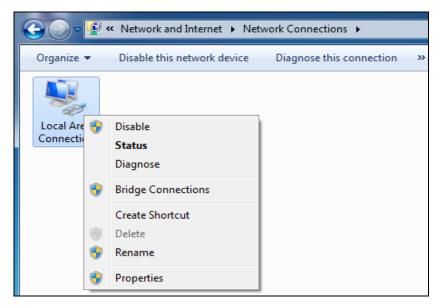
3. Click Network and Sharing Center;



4. Click Change adapter settings;



5. Right click Local Area Connection and select Properties;







6. Select Internet Protocol Version 4(TCP/IPv4) and click Properties;

🕒 🗢 🗐 « Network and Internet 🕨 Network Connections 🕨
Local Area Connection Properties
Networking Connect using: Intel(R) PRO/1000 MT Network Connection Configure This connection uses the following items: Image: Client for Microsoft Networks Image: Client for Mi
A- Link-Layer Topology Discovery Responder Install Uninstall Properties Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks. OK Cancel

7. Select **Use the following IP address**, enter 192.168.0.X (where x can be any number between 1~253) in the IP address bar and 255.255.255.0 in the subnet mask and then click **OK** to save the configurations.

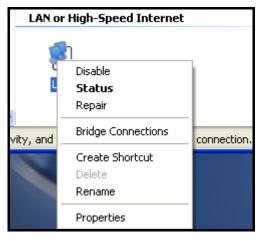
Internet Protocol Version 4 (TCP/IPv4)	Properties ? X
General	
You can get IP settings assigned autor this capability. Otherwise, you need to for the appropriate IP settings.	
💿 Obtain an IP address automaticall	у
Use the following IP address:	
IP address:	192.168.0.25
Subnet mask:	255.255.255.0
Default gateway:	
Obtain DNS server address autom	atically
Ose the following DNS server add	resses:
Preferred DNS server:	
Alternate DNS server:	• • •
Validate settings upon exit	Advanced
	OK Cancel

Windows XP OS Configuration

1. Right click My Network Places and select Properties;



2. Right click Local and select Properties;



3. Select Internet Protocol(TCP/IP) and click Properties;

+ Local Properties
General Authentication Advanced
Connect using:
Intel(R) PR0/1000 MT Network Con Configure
This connection uses the following items:
🗹 📮 QoS Packet Scheduler 🗾 🔼
PPP over Ethernet Protocol Internet Protocol (TCP/IP)
<u> </u>
Install Uninstall Properties
Description
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
Votify me when this connection has limited or no connectivity
OK Cancel



4. Select **Use the following IP address**, enter 192.168.0.X (where x can be any number between 1~253) in the IP address bar and 255.255.255.0 in the subnet mask and then click **OK** to save the configurations.

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 automaticall	y			
• Use the following IP address:				
IP address:	192.168.0.1			
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				

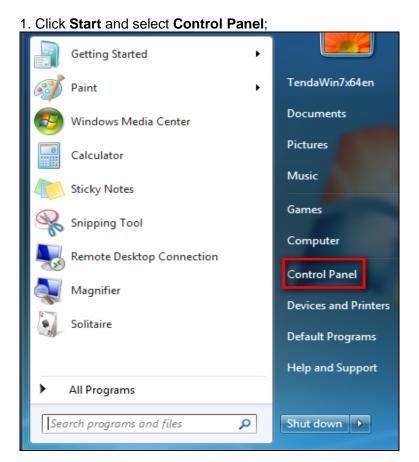


Appendix 2 Join a Wireless Connection

≜Note

For wireless connection, desktop computers need to be equipped with network cards first.

Win7 OS

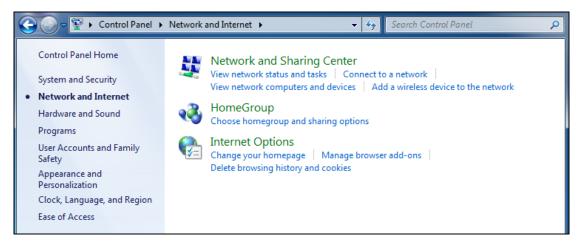


2. Enter Control Panel and click Network and Internet;





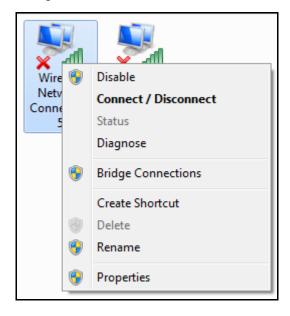
3. Click Network and Sharing Center;



4. Click Change adapter settings;



5. Right click Wireless Network Connection and select Connect/Disconnect;





6. Select the wireless network you wish to and click Connect;

Tenda_0001F8	3 40	-	
huangshan	311		
test	3 11		
UXT	Sall	III	
HiWiFi_01007E	501		
Tenda_UGWTest	500		
ChinaNet-0001	500		
IP-COM_888510	500		
IP-COM_033070	lte.		
Connect automatically	Connect		
Tenda_00006E		Ŧ	
Open Network and Sharing Center			

7. Enter your security key and click **OK**(If you have configured it);

P Connect to a Network				
Type the network security key				
Security key:	•••••			
	📝 Hide characters			
		OK Cancel		

8. When displaying Connected, you have connected the wireless network successfully.

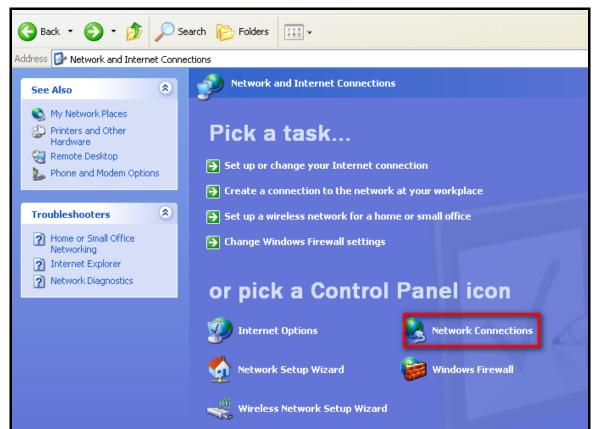


Windows XP OS

1. Click Start and select Control Panel;



2. Select Network Connections;



300M Wireless AP



Г

3. Right click Local Area Connection and select View Available Wireless Networks;

Incoming	Disable	
	View Available Wireless Networks	
	Status	
	Repair	
Incoming Connections	Bridge Connections	
	Create Shortcut	
LAN or High-Spee	Delete	
-	Rename	
2. 1	Properties	
Local Area		

4. Select the network you wish to connect, enter your network key and click Connect;

^(e) Local Area Co	onnection 6		×
Network Tasks		Choose a wireless network	
💋 Refresh network list		Click an item in the list below to connect to a wireless network in range or to g information.	get more
Set up a wireless network for a home or small office		((o)) IP-COM_033071 Limited	l or no ☆ 🔷
-	Wireless Ne	twork Connection 🛛 🔀	- L006a
Related Tasks	key). A netwo	IP-COM_1_888888' requires a network key (also called a WEP key or WPA ork key helps prevent unknown intruders from connecting to this network. and then click Connect.	00000 0000 Dilite
		معتقدة (۱۹۵۱) medialink	

5. When it displays **Connected**, you have connected to the network successfully;

Network Tasks	Choos	e a wireless network	
🚭 Refresh network list	Click an ite information	m in the list below to connect to a wireless netwo	rk in range or to get more
Set up a wireless network for a home or small office	((ဓူ))	IP-COM_033070	Acquiring network 🔶 address
	U	😚 Security-enabled wireless network (WPA)	Ubbe
Related Tasks	((0))	IP-COM_033071	Automatic 🐓
Learn about wireless networking Change the order of preferred networks Change advanced		Unsecured wireless network	
	((@))	ChinaNet-0001	
		Unsecured wireless network	
	((@))	huangshan	
settings	.1.	Unsecured wireless network	8880.
	((Q))	TP-LINK_22FF24	
		Security-enabled wireless network (WPA2)	00600
	((Q))	f1ck2	
		Unsecured wireless network	



Appendix 3 Default settings

Parameters		Default Settings
	Address	192.168.0.254
AP Web Login	Username	admin
	Password	admin
Quick Setup	Working Mode	AP Mode
	IP Address	192.168.0.254
LAN Setup	Subnet Mask	255.255.255.0
	Gateway	192.168.0.1
	Wireless Setup	Enabled
	Primary SSID	IP-COM_XXXXXX
	Network Mode	11/b/g/n mixed
	SSID Broadcast	Enabled
	AP Isolation	Disabled
Wireless	Channel	Auto
	Channel Bandwidth	20/40
	Channel Extension	Auto
	WMM Capable	Enabled
	APSD Capable	Disabled
	Security Mode	None
	Access Control	Disabled
SNMP	SNMP	Disabled
Tools	Time	Sync with Internet time servers

Appendix 4 Safety and Emission Statement

CE

CE Mark Warning

This is a Class B product In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures. This device complies with EU 1999/5/EC. NOTE:(1)The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.(2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.



FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

36



This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

NOTE: (1)The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.(2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

NCC Notice

經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變更頻率、加大功率或變 更設計之特性及功能。

低功率射頻電機之作用不得影響飛航安全及幹擾合法通信;經發現有幹擾現象時,應立即停用,並改善至 無幹擾時方得繼續使用。前項合法通信,指依電信規定作業之無線電信。低功率射頻電機須忍受合法通信 或工業、科學及醫療用電波輻射性電機設備之幹擾。