Knowledge Center

802.11 Mode: Select a correct network mode according to your wireless clients.

- **11b mode:** This network mode delivers wireless speed up to 11Mbps and is only compatible with 11b wireless clients.
- **11g mode:** This network mode delivers wireless speed up to 54Mbps and is only compatible with 11g wireless clients.
- **11b/g mixed mode:** This network mode delivers wireless speed up to 54Mbps and is compatible with 11b/g wireless clients.
- **11b/g/n mixed mode:** This network mode delivers wireless speed up to 300Mbps and is compatible with 11b/g/n wireless clients.

BSSID: This is the MAC address of the device's wireless interface.

SSID Broadcast: This option allows you to have your wireless network name (SSID) publicly broadcast or if you choose to disable it, the SSID will be hidden.

Channel Bandwidth: Select a proper channel bandwidth to enhance wireless performance. This option is available only in 802.11b/g/n mixed mode. Maximum wireless speed in the channel bandwidth of 20/40 is 2 times in 20.

Extension Channel: This is used to ensure N speeds for 802.11n devices on the network. This option is available only in 11b/g/n mixed mode with the channel bandwidth of 20/40.

3.2 Security

Click **Wireless** -> **Security** to enter the configuration screen. Here you can define a security key to secure your wireless network against unauthorized accesses.

Tenda					AL	\mathbf{O}			
		Wizard	Status	Basic	Wireless	Advanced	Tools		
Basic	Wireless Security					Help			
	SSID	Tenda_38DD	0C9			WEP Key: Selec	ct Open,		
Access Control Connection Status	Security Mode Cipher Type Security Key Key Renewal Interval WPS Settings	WPA2 - PSI	C TKIP C TH seconds (Key will to "0".)	KIP&AES	Key Renewal	Shared or Mixed WEP from th corresponding drop-down lis ASCII: Enter 5 or 13 ASCII characters. Hex: Enter 10 or 1 Hex characters. WPAWPA2: You can select either personal or mixed, only ensure that either one you select is supported on your wireless clients.			
	WPS	Oisable Sav	C Enable			advanced user configured sect before, you can mode you like, that the one you also supported wireless clients new to networki never configure parameter befo that you select " WPA2-PSK	and have urity mode select any only to assure i choose is by your s; if you are ing and have d this re, we suggest WPA-PSK" or		

Configuration Procedures:

- ① Configure Security Mode, Cipher Type and Security Key.
- 2 Click **Save** to save your settings.

Knowledge Center

WEP: WEP is intended to provide data confidentiality comparable to that of a traditional wired network.

Open: If selected, wireless speed can reach up to 54Mbps.

Shared: If selected, wireless speed can reach up to 54Mbps.

Default Key: Select a key to be effective for the current WEP encryption. For example, if you select **Key 2**, wireless clients must join your wireless network using this **Key 2**.

WPA-PSK: WPA personal supports AES and TKIP cipher types.

WPA2-PSK: WPA2 personal supports AES, TKIP and TKIP+AES cipher types.

Mixed WPA/WPA2-PSK: If selected, both WPA-PSK and WPA2-PSK secured wireless clients can join your wireless network.

AES: If selected, wireless speed can reach up to 300Mbps.

TKIP: If selected, wireless speed can reach up to 54Mbps.

TKIP&AES: If selected, both AES and TKIP secured wireless clients can join your wireless network.

Key Renewal Interval: Enter a valid time period for the key to be changed.

WPS

Wi-Fi Protected Setup makes it easy for home users who know little of wireless security to establish a home network, as well as to add new devices to an existing network without entering long passphrases or configuring complicated settings. Simply enter a PIN code or press the hardware WPS button and a secure wireless connection is established.

Tenda					10K	Ø	
		Wizard	Status	Basic	Wireless	Advanced	Tools
					•		
Basic	Wireless Security					Help	
Security	SSID	Tenda_38D	DC9			WEP Key: Selec	ct Open,
Access Control	Security Mode	Disable		•		Shared or Mixed corresponding	d WEP from the drop-down list.
Connection Status	WPS Settings					ASCII: Enter 5 o characters.Hex	r 13 ASCII : Enter 10 or 16
	WPS	C Disable	Enable			Hex characters. WPA/WPA2: You either personal	u can select or mixed, only
	Device Pin	69790980				ensure that eith	ier one you
	WPS Type	• PBC	O PIN			select is suppo	rted on your
						Important: If you	, are an
			Start PIN	Reset OOB		advanced user	and have
						configured sect	urity mode
		Sa	ve Cancel			mode you like,	only to assure
						that the one you	ı choose is
						also supported	by your
						wireless clients	s; if you are
						new to network	ing and have
						never configure	d this
						parameter befo	re, we suggest
						that you select "	WPA-PSK" or
						WPA2-PSK.	

Knowledge Center

WPS: Select Enable/Disable to enable/disable the WPS encryption.

WPS Type: Select PBC (Push-Button Configuration) or PIN.

Reset OOB: If clicked, the WPS LED will turn off and the security function will be disabled automatically. The WPS server on the router enters idle mode and will not respond to any client's WPS connection request. Device PIN: Displays the device's PIN code.

Start PIN: If you enter the client's PIN code on the router, clicking this button starts the PIN connection.

Operation Instructions:

PBC: If you press the hardware WPS button on the device for 1 second, the WPS LED will blink for about 2 minutes, indicating that the PBC encryption method is successfully enabled. During this time, an authentication routine can be performed between your device and a WPS/PBC capable wireless client. Simply enable the WPS/PBC on the client wireless device. If it passes the authentication, the wireless client device connects to your device and the WPS LED turns off. Repeat the steps above if you want to add more wireless client devices to your device.

PIN: To use this option, you must know the PIN code from the wireless client and enter it in the corresponding field on your device while using the same PIN code on the client side for this connection.

∆_{Note}

- To use the WPS encryption, the wireless client device must also be WPS-capable.
- ② The WPS becomes unavailable if you select any of the following option: Open, Shared, WPA2-PSK plus TKIP, and Mixed WPA/WPA2-PSK plus TKIP.

3.3 Access Control

Specify a list of devices to "Allow" or "Deny" a connection to your wireless network via the devices' MAC Addresses.

Click **Wireless** -> Access Control to enter the configuration screen. Three options are available: **Disable**, **Deny** and **Allow**.

A. If you want to allow all wireless clients to join your wireless network, select
 Disable.

- B. If you want to allow ONLY the specified wireless clients to join your wireless network, select Allow.
- C. If you want to disallow ONLY the specified wireless clients to join your wireless network, select **Deny**.

Wireless Access Control Application Example:

To only allow your own notebook at the MAC address of C8:3A:35:CC:34:25 to join your wireless network:

- 1 Select Allow.
- 2 Enter C8:3A:35:CC:34:25.
- ③ Click Add to add the MAC address to the MAC address list.
- ④ Click **Save** to save your settings.

Tenda								
		Wizard	Status	Basic	Wireless	Advanced	Tools	
Basic Security Access Control	Wireless Access C Configure the wireless MAC Fill	control interface MAC addre ter Allow	ess filtering policy.			Help Specify a list of devices to allow or disallow a connectio to your wireless network via the devices'MAC addresses. To deactivate this feature, select "Disable"; to activate it, select "Allow" or "Deny".		
	MAC address	CC : 34 : 25 Address		Action Add Delete				
	1 C8:3A	:35:CC:34:25 Sav	e Cancel	Delete				

🧳 Тір

If you don't want to configure the complex wireless security settings and want to disallow others to join your wireless network, you can configure a wireless access control rule to allow only your own wireless device.

3.4 Connection Status

Click Wireless -> Connection Status. Here you can see a list of wireless

devices (if any) connected to the device.

Tenda							
		Wizard	Status	Basic	Wireless	Advanced	Tools
						-	
Basic	Wirele	ss Connection Status				Help	
Security	This sec	ction displays info of connected wi	reless clients.			This section di	splays info of
Access Control	Currently Connected Clients: Refresh connected wireless clients. MAC: Wireless MAC address						
Connection Status	NO.	MAC address	of a current nost.				
	1	70:72:3C:30:4B:D7					



- The Bandwidth here refers to the channel bandwidth instead of wireless connection rate.
- ② You can know whether there are unauthorized accesses to your wireless network by viewing this connection status list.

4 Advanced Applications

This section includes the following:

- To remotely access the device via a domain name or access a server on a LAN PC, see <u>4.1 DDNS Settings</u>.
- To let an Internet user access your LAN PC without any restriction, see

<u>4.2 DMZ Host</u>.

- To automatically map the ports between WAN and LAN, see **4.3 UPNP**.
- To enable the remote Web management feature, see <u>4.4 Remote Web</u> Management.
- To regulate bandwidth, see <u>4.5 Bandwidth Control (Available only in</u>
 4G600).
- To restrict your LAN PCs to access certain services on the Internet via their IP addresses, see <u>4.6 Client Filter (Available only in 4G600)</u>.

4.1 DDNS Settings

Dynamic DNS or DDNS is a term used for the updating in real time of Internet Domain Name System (DNS) name servers. We use a numeric IP address allocated by Internet Service Provider (ISP) to connect to the Internet; the address may either be stable ("static"), or may change from one session on the Internet to the next ("dynamic"). However, a numeric address is inconvenient to remember; an address which changes unpredictably makes connection impossible. The DDNS provider allocates a static host name to the user; whenever the user is allocated a new IP address this is communicated to the DDNS provider by software running on a computer or network device at that address; the provider distributes the association between the host name and the address to the Internet's DNS servers so that they may resolve DNS queries. Thus, uninterrupted access to devices and services whose numeric IP address may change is maintained.

Click Advanced -> DDNS Settings to enter the screen below.

Tenda					10K	Ŏ	
	v	Vizard	Status	Basic	Wireless	Advanced	Tools
DDNS Settings	DDNS Settings					Help	
DMZ Host	DNS Settings	🗖 Enable D	DNS			DDNS makes i associate a sta	t possible to Ible domain
UPnP	DDNS Service Provider	no-ip.com	▼ Rec	<u>gister Now</u>		name with a dy	namically
Remote Web Management	User Name Password Domain Name	Sav	e Cancel			changing WAN you can access web/FTP sever in LAN without a changing IP. configuring any settings, click " to register a do with your DDNS provider on its v DDNS Service your DDNS service your DDNS service not the drop-ce enter the user of password, and (Host Name) th	IP address. So sor establish s, etc on PCs worrying about Before 'DDNS Register Now" main name S service website. Provider: Select vice provider lown menu and name, domain name iat you
						registered with service provide	your DDNS r.

Tip

To use the DDNS feature, you need to have an account with one of the **DDNS** Service Providers in the drop-down list first.

DDNS Application Example:

If your ISP gives you a dynamic (changing) public IP address, you want to access your router remotely (see <u>4.4 Remote Web Management</u>) but you cannot predict what your router's WAN IP address will be, and the address can change frequently. In this case, you can use a commercial Dynamic DNS service. It lets you register your domain to their IP address and forwards traffic directed at your domain to your frequently changing IP address.

If your DDNS service provider provides you with a DDNS account (**User Name:** tenda, **Password:** 123456, **Domain Name:** tenda.dyndns.org) and you want to use the PC at the IP address of 218.88.93.33 to remotely access this device on the port number of 8090. Then follow the steps below:

1 DDNS Settings: Check the Enable DDNS box.

② **DDNS Service Provider:** Select your DDNS service provider from the drop-down list. Here in this example, select **dyndns.org**.

3 User Name: Enter the DDNS user name you have registered with your

DDNS service provider. Here in this example, enter tenda.

④ Password: Enter the DDNS Password you have registered with your DDNS service provider. Here in this example, enter 123456.

Domain Name: Enter the DDNS domain name you have registered with your DDNS service provider. Here in this example, enter tenda.dyndns.org.

6 Click **Save** to save your settings.

Tenda					OK	Ō	
		Wizard	Status	Basic	Wireless	Advanced	Tools
DDNS Settings	DDNS Settings					Help	
DMZ Host	DNS Settings	🔽 Enable D	DNS			DDNS makes	it possible to
UPnP	DDNS Service Provider	dyndns org	▼ Rec	iister Now		associate a st name with a d	able domain ynamically
Remote Web Management	Licor Namo	tanda				changing WAN	IP address. So
	User Name	tenua				web/FTP seve	rs, etc on PCs
	Password	•••••				in LAN without	tworrying about
	Demois Mene					a changing IP.	Before
	Domain Name	tenda.dyndr	is.org			settings, click	"Register Now"
		David	Canaal			to register a de	omain name
		Sav	Cancer			with your DDN	S service
						provider on its	website.
						DDNS Service	Provider: Select
						your DDNS se	rvice provider
						from the drop-	down menu and
						enter the user	name,
						password, and	d domain name
						(Host Name) t	hat you
						registered with	n your DDNS
						service provide	er.

⑦ Click Remote Web Management, enable the Remote Web Management feature, enter 8090 in the Port field, 218.88.93.33 in the IP Address field and then click Save to save your settings.

Tenda								
		Wizard	Status	Basic	Wireless	Advanced	Tools	
						- 		
DDNS Settings	Remote WEB Manager	ment				Help		
DMZ Host	Enable	Enable 🔽						
UPnP	Port	8090				Management reature allows the Router to be managed		
Remote Web Management	IP Address	218.88.93.3	3			from the Internet via a web browser. To use this feature,		
		Sav	e Cancel			Check the Ena Web Managem specify a Remo Management F Port: Remote a port used to ac from Internet o networks.	ble Remote nent box and ote Port. Idmin port; the iccess the device r external	

Now, you can access your device from the Internet by typing your device's domain name into your browser's address or location field on your PC

(218.88.93.33) followed by a colon (:) and the remote management port number. Here in this example, enter http://tenda.dyndns.org:8090.

4.2 DMZ Host

The DMZ (De-Militarized Zone) function disables the firewall on the router for one device for a special purpose service such as Internet gaming or video conferencing applications that are not compatible with NAT (Network Address Translation).

Click Advanced -> DMZ Host to enter the screen below.

<mark>∆</mark>Note

- ① DMZ host poses a security risk. A computer configured as the DMZ host loses much of the protection of the firewall and becomes vulnerable to attacks from external networks.
- ② Hackers may use the DMZ host computer to attack other computers on your network.

Tenda					CK		
		Wizard	Status	Basic	Wireless	Advanced	Tools
DDNS Settings	DMZ Host					Help	
DMZ Host UPnP Remote Web Management	Note: Once a PC is set to vulnerable to attack as fir Enable DMZ Host IF	a DMZ host, it wi ewall settings be a 192.168.0.1 Sav	II be completely exp come inoperative. 100 /e Cancel	osed to Internet, an	d may be	The DMZ (De-h function disable on the router for a special purport such as Internet video conferen statically set th the DMZ host for to be consister static IP addres your LAN which set as a DMZ h enabled, the D protection from firewall and be vulnerable to al	lilitarized Zone) es the firewall r one device for use service et gaming or cing. Be sure to e IP Address of or this function it. Enter the so of the PC on you want to ost. Once MZ host loses device's comes tacks.

Configuration Procedures:

① DMZ Host IP: The IP address of the device for which the router's firewall

will be disabled. Be sure to statically set the IP address of the device that serves as a DMZ host for this function to be consistent.

2 Enable: Check to enable the DMZ host functionality.

3 Click **Save** to save your settings.

. Tip

Security softwares such as anti-virus softwares and OS built-in firewall, etc. may affect the DMZ host feature. Disable them if the DMZ host fails.

4.3 UPNP

The Universal Plug and Play (UPnP) feature allows network devices, such as computers from the Internet, to access resources on local host or devices as needed. UPnP-enabled devices can be discovered automatically by the UPnP service application on the LAN. If you use applications such as multiplayer gaming, peer-to-peer connections, real-time communications such as instant messaging, or remote assistance (a feature in Windows XP), you may need to enable Universal Plug and Play (UPnP) for better experience.

Click **Advanced -> UPnP** to enter the configuration screen. The UPnP feature is enabled by default.

Tenda					OK		
		Wizard	Status	Basic	Wireless	Advanced	Tools
DDNS Settings DMZ Host	UPnP Enable UP	nP 🗹				Help The Universal F (UPnP) feature	Plug and Play allows network
Remote Web Management		Sav	Cancel			devices, such a from Internet, to resources on Io devices as nee enabled device discovered auto the UPnP servi- on the LAN. Pre only supported systems like W and Windows >	is computers access vcal host or ded. UPnP- s can be pomatically by ce application isently, it is by operating indows ME (P or later.

4.4 Remote Web Management

The Remote Web Management allows the device to be configured and managed remotely from the Internet via a Web browser.

Click Advanced -> Remote Web Management to enter the configuration screen.

Tenda						Ŏ	
		Wizard	Status	Basic	Wireless	Advanced	Tools
DDNS Settings	Remote WEB Manage	ment				Help	
DMZ Host	Enable					The Remote V	/eb
UPnP	Port	8080				Management f	eature allows e managed
Remote Web Management	IP Address	0.0.0.0				from the Intern browser. To us	et via a web se this feature,
		Sav	re Cancel			Check the Ena Web Managen specify a Rem Management P Port: Remote a port used to ad from Internet o networks. IP: Enter the IP trusted PC fror other external you want to au manage your Note: If the IP a "0.0.0.0", it ind WAN IP can ad	bble Remote hent box and ote Port. admin port; the access the device r external address of a m Internet or hetworks which thorize to router remotely. address is licates that all access the web.



- ① For better security, configure a port number (between 1025 and 65535) as the remote Web management interface, do not use the number of any common service port (1~1024).
- ② Make sure your WAN IP address (Internet IP address) is a public IP address. Private IP addresses are not routed on the Internet.
- ③ It is unsafe to make your router remotely accessible to all PCs on external network. For the purpose of security, we suggest that you only enter the IP address of the PC that is to be used to remotely manage your device.

Remote Web Management Application Example:

To access your device (WAN IP address: 102.33.66.88) at your home from the

PC (218.88.93.33) at your office via the port number of 8090, follow the steps below:

1 Enable: Check to enable the remote Web management feature.

2 Port: Enter 8090.

③ **IP Address:** Specify the IP address for remote management. Here in this example, enter 218.88.93.33.

Olick Save to save your settings.

Tenda					SOK			
		Wizard	Status	Basic	Wireless	Advanced	Tools	
DDNS Settings	Remote WEB Manage	ment				Help		
DMZ Host	Enable	V				The Remote W	/eb	
UPnP	Port	8090				Management feature allows the Router to be managed		
Remote Web Management	IP Address	218.88.93.3	3			from the Intern browser. To us	et via a web se this feature,	
		Sav	Cancel			Check the Ena Web Managen specify a Rem Management F Port: Remote a port used to ac from Internet o networks	ble Remote nent box and ote Port. admin port; the ccess the device r external	

Type "http://102.33.66.88:8090" into your browser's address or location field and you can remotely access the router from your home.

Knowledge Center

IP Address: Here you can specify the IP address for remote management (If set to "0.0.0.0", the device becomes remotely accessible to all the PCs on the Internet or other external networks).

Port: This is the management port to be open to outside access. The default setting is 8080. This can be changed.

4.5 Bandwidth Control (Available only in 4G600)

If there are multiple PCs behind your device competing for limited bandwidth resource, then you can use this feature to specify a reasonable amount of

bandwidth for each such PC, so that no one will be over stuffed or starved to death. Note that this feature is unavailable in **3G/4G Router Mode**.

Tenda	
	Wizard Status Basic Wireless Advanced Tools
DDNS Settings	Bandwidth Control Help
Bandwidth Control	Bandwidth Control 🔲 Enable Use this section to manage
DMZ Host	bandwidth allocation to devices on your LAN.
UPnP	Save Cancel Upload/Download Limit. Set a
Client Filter	upload/download bandwidth
Remote Web Management	of PCs on the LAN. Upload/Download Limit: Set a
	upload/download limit on specified PC(s).

Bandwidth Control Application Example:

You share a 4M-broadband service with your neighbor (at the IP address of 192.168.0.125). He always downloads a large volume of data from the Internet, which sharply frustrates your Internet surfing experience; you can use this feature to set limits for the volume of Internet traffic he can get. For example, you can equally split the bandwidth, so your neighbor can only use up to 2M Internet traffic and you can smoothly enjoy 2M.

Configuration Procedures:

1 Bandwidth Control: Check the **Enable** box to enable the feature.

(2) IP Address: Enter the last number of the IP address. Here in this example, enter 125 in both boxes.

Opload Limit: Set a limit to regulate the uplink bandwidth of PC(s) on the LAN. Here in this example, enter 32 in both boxes.

Ownload Limit: Set a limit to regulate the downlink bandwidth of PC(s) on the LAN. Here in this example, enter 256 in both boxes.

6 Enable: Check to enable the current rule.

6 Add to List: Click to add the current rule to the rule list.

Olick Save to save your settings.

Tenda				~~	LP.		Ö	
		Wizard	Stat	us	Basic	Wireless	Advanced	Tools
DDNS Settings Bandwidth Control	Bandwidth Control						Help	n to manage
DMZ Host UPnP	IP Address Upload Limit	✓ Enable 192.168.0.	125	~	125 KB/s(Max	Traffic)	bandwidth alloo devices on your Upload/Downlo limit to regulate	ation to LAN. ad Limit: Set a
Client Filter Remote Web Management	Download Limit	256			KB/s(Max	Traffic)	upload/downloa of PCs on the L Upload/Downloa	ad bandwidth AN. ad Limit: Set a ad limit on
	Liable		Add to Li	st			specified PC(s)	
	ID IP Range	Uplink	Downlink	Enable	Edit D)elete		
	1 192.168.0.125~125	32	256	~	Edit	Delete		
		Sa	ave (Cancel				

- Tip

- 1M=128KByte/s.
- ② The volume of uplink traffic/downlink traffic should not be larger than that allowed on your device's WAN (Internet) port. Consult your ISP, if you are not sure of the total volume of Internet traffic that you can have.
- ③ The bandwidth for ADSL/DSL line usually refers to the download bandwidth.

4.6 Client Filter (Available only in 4G600)

This section allows you to set the times specific clients can or cannot access the Internet via the devices' IP addresses and service port. Note that this feature is unavailable in **3G/4G Router Mode**.

Tenda								
			Wizard	Status	Basic	Wireless	Advanced	Tools
DDNS Settings Bandwidth Control DMZ Host UPnP	Client Filt Enab	er le Client Filter Default	Deny	Access fro	m clients NOT included	f in below list to	Help This section all the times spec or cannot acce: via the devices' addresses and	ows you to set fic clients can ss the Internet assigned IP Ioort
Client Filter Remote Web Management	Mode	IP	Port Ty	/pe Time	S M T W T F	Action S	numbers.You o access restricti permission in o to statically ass	an set the on or letails. Be sure ign IP address
			Sav	Del Can	ete All Add		of the devices y for this function consistent. For information, se Tips: To add a simply click the edit an existing click the Edit or next to it.	ou wish to filter to be more e User Guide. new rule, Add button ; to rule, simply Change button

Knowledge Center

Default: The default policy for the client filter. For the packets that do not match the set rule, the default rule is applied.

Filter Mode: Specify a filter mode for the rule.

- Deny: Disallow the packets that match the set rule to pass the router. For other packets that do not match the set rule, the default policy is applied.
- Allow: Allow the packets that match the set rule to pass the router. For other packets that do not match the set rule, the default policy is applied.

Client Filter Application Example:

To prohibit PCs within the IP address range of 192.168.0.110--192.168.0.111 from accessing Web pages during the time period of 8:00~18:00 from Monday to Friday, follow the steps below:

- ① Click Add to add a filter rule.
- 2 Filter Mode: Select Deny.
- **3 Description:** Briefly describe the current rule. This field is optional.
- IP: Enter 192.168.0.110 as the starting IP address and 192.168.0.111 as the ending IP address.

- WAN Port Range: Enter a service port number. Here in this example, enter80 in both boxes. HTTP port 80 is the standard protocol for Web servers.
- **6 Type:** Select a protocol for the traffic. If you are unsure, select **Both**.
- Time: Specify a time period for the current rule to take effect. Here in this example, select 8:00~18:00.

Day: Select a day, or several days of the week for the current rule to take effect. Here in this example, select **Mon**, **Tue**, **Wed**, **Thur** and **Fri**.

8 Click **Save** to save your settings.

Tenda							
		Wizard	Status	Basic	Wireless	Advanced	Tools
DDNS Settings	Client Filter Setting					Help	
Bandwidth Control	Filter Mode	Deny				This section all the times spec	ows you to set ific clients can
DMZ Host	Description	access wel	opage			or cannot acces	ss the Internet
UPnP	IP	192.168.0.1	110	192.168.0.111		addresses and	l port
Client Filter		(Specify a sir	ngle IP address or	an IP range)		numbers.You o access restricti	an set the on or
Remote Web Management	WAN Port Range	80	~ 80			permission in o to statically ass	details. Be sure ign IP address
	Туре	Both		•		for this function	to be
	Time	08 💌 :	00 🔽 ~ 18	• : 00 •		consistent. For information, se	more e User Guide.
	Day	EveryDay	🗖 Sun 🔽 Mon	🔽 Tue 🔽 Wed	🔽 Thu	Tips: To add a	new rule,
		🔽 Fri 🗖 S	at			edit an existing	Add button ; to rule, simply Change button
		Sav	/e Cancel			next to it. Deny: Disallow specified IP ad access Internet	clients at dress(es) to

9 Enable Client Filter: Check to enable the client filter feature.

60 Select Allow from the Default drop-down list and then click Save.

Tenda			OKO
	Wizard	Status Basic	Wireless Advanced Tools
DDNS Settings Bandwidth Control DMZ Host	Client Filter Enable Client Filter Default Internet	Access from clients NOT included in	Help This section allows you to set the times specific clients can or cannot access the Internet via the devices' assigned IP
UPnP Client Filter Remote Web Management	Mode IP Port Type	Time Day	addresses and port numbers.You can set the access restriction or Action permission in details. Be sure
	Deny 192.168.0.110- 192.168.0.111 80- 80 Both	08:00- 18:00 × √ √ √ √ √ ×	Edit to statically assign IP address of the devices you wish to filter for this function to be Del consistent. For more
	Save	Delete All Add Cancel	Tips: To add a new rule, Tips: To add a new rule, simply click the Add button ; to edit an existing rule, simply click the Edit or Change button next to it. Deny: Disallow clients at specified IP address(es) to access Internet.

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- (1) The valid service port number range is $1 \sim 65535$.
- ② If you have not set up the system time for this device, click Tools -> Time & Date to configure correct time and date settings for the rule(s) to be effective.

5 Tools

- To configure system time, see <u>5.1 Time & Date</u>.
- To upgrade firmware, see <u>5.2 Firmware Upgrade</u>.
- To backup or restore configurations, see <u>5.3 Backup & Restore</u>.
- To restore factory default settings, see **<u>5.4 Restore to Factory Default</u>**.
- To change login password, see <u>5.5 Change Password</u>.
- To view logs, see <u>5.6 Logs</u>.
- To restart device, see <u>5.7 Reboot</u>.

5.1 Time & Date

Click Tools -> Time & Date to enter the configuration screen.

🧳 Tip

Configured time and date settings will be lost if the device gets disconnected from power supply. However, it will be updated automatically when the device reconnects to the Internet. To activate time-based features (e.g. **Client Filter**), the time and date settings should be set correctly first, either manually or automatically.

- A. To synchronize with Internet time servers:
- Internet Time Server: Check to enable the feature (If enabled, time and date will be updated automatically from the Internet).
- ② Sync Interval: Specify a time interval for periodic update of time and date information from the Internet.
- **3 Time Zone:** Select your current time zone.
- ④ Click Save to save your settings.
- 6 Go to the **Status** screen to make sure the system time is correctly updated.

Tenda		
	Wizard Status Basic	Wireless Advanced Tools
Time & Date	Time & Date	Негр
Firmware Upgrade	Internet Time Server 🔽 Enable	This page is used to set the
Backup & Restore	Sync Interval 2 hours	device's system time. You can choose to set the time
Restore to Factory Default	Time Zone (GMT+08:00)Bejing,China, Hong	manually or get the GMT time from the Internet and the
Change Password	Input Time And Date 2013 - 12 - 16 18 43 11	system will automatically connect to NTP server to
Logs		synchronize the time.
Reboot	Copy Local Time	when the device is
	Save Cancel	disconnected from power supply. However, it will be updated automatically when the device reconnects to Internet. To activate time- based features (e.g. firewall), the time and date info shall be set correctly first, either manually or automatically.

<mark>∆</mark>Note

In the **Universal Repeater Mode**, the **Internet Time Server - Enable** feature is not available, so you can only set the time and date manually.

- **B.** To set time and date manually/synchronize with your PC:
- 1 Internet Time Server: Uncheck to disable the feature.
- ② Specify the time and date manually or click **Copy Local Time** to automatically copy your PC's time to the device.
- ③ Click **Save** to save your settings.

Tenda			~~~				
		Wizard	Status	Basic	Wireless	Advanced	Tools
Time & Date	Time & Date					Help	
Firmware Upgrade Backup & Restore	Internet Time Server	Enable		T		This page is use device's system choose to set th	ed to set the time. You can e time
Restore to Factory Default	Time Zone	(GMT+08:0	0)Bejing,China, H	ong 💌		from the Internet	the GMT time and the
Change Password	Input Time And Date	2013 - 1	2 - 16 18	43 : 11		connect to NTP synchronize the	server to time. ne will be lost
Reboot		Co Sav	py Local Time			when the device disconnected fro supply. Howeve updated automa	is om power r, it will be tically when
						the device recon Internet. To activ based features the time and dat set correctly first manually or auto	nects to ate time- (e.g. firewall), e info shall be , either omatically.

Go to the **Status** screen to make sure the system time is correctly updated.

5.2 Firmware Upgrade

Click **Tools -> Firmware Upgrade** to enter the configuration screen. Firmware upgrade is released periodically to improve the functionality of your device and also to add new features. If you run into a problem with a specific feature of the device, log on to our Website (<u>http://www.tendacn.com</u>) to download the latest firmware to update your device.

<mark>∆</mark>Note

- ① Before you upgrade the firmware, make sure you are having a correct firmware. A wrong firmware may damage the device.
- It is advisable that you upgrade the device's firmware over a wired connection. DO NOT disconnect the power connection to the device when the upgrade is in process otherwise the router may be permanently damaged.

Configuration Procedures:

1 Click Browse.

Tenda	
	Wizard Status Basic Wireless Advanced Tools
Time & Date	Fireware Upgrade Help
Firmware Upgrade	Use this section to update your router's software for better functionality or new features. To download latest firmware,
Backup & Restore	Select a Software File: Upgrade go to www.tendacn.com. Browse:Upgrade Browse: Click to locate and
Restore to Factory Default	Current System Version: 4G630_V1.0.0.1_EN; Release Date:Dec 11 2013 select the latest firmware for update.
Change Password	Note: Do not power off the router while upgrading otherwise it may be permanently damaged. Upgrade: Click to update the device. The device router the
Logs	automatically when update
Reboot	completes.

2 Select the firmware file you want to use and click **Open**.

3 Click Upgrade.

④ Click **OK** on the appearing screen and wait for it to complete.

When upgrade is completed, check the **Current System Version** field. It should display the firmware you load.

5.3 Backup & Restore

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. Click **Tools -> Backup & Restore** to enter the configuration screen.

🦗 Тір

It is advisable to include the file name suffix of ".cfg" to avoid problems when renaming the file name.

To backup configurations:

1 Click Backup.

Tend a [®]	
	Wizard Status Basic Wireless Advanced Tools
Time & Date	Backup & Restore Help
Firmware Upgrade	Note: Use this section to backup current settings or restore previous settings. Click "Backup" to save a copy
Backup & Restore	Save Settings to Local Backup of the device's current settings to your local hard drive. Click
Restore to Factory Default	Load Settings From Local Browse Restore the "Browse" button to locate and select a configuration file
Change Password	that is saved previously to your local hard drive. And then click
Logs	the "Restore" button to reset
Reboot	settings.

2 Click **OK** on the appearing window.



3 Click Save on the File Download window.



4 Select a local hard drive to save the file and click **Save**.



To restore configurations:

1 Click Browse.

Tend a'						
	Wizard	Status	Basic	Wireless	Advanced	Tools
Time & Date	Backup & Restore				Help	
Firmware Upgrade	Note: Use this section to backup curren	t settings or restore pr	evious settings.		Click "Backup" t	o save a copy
Backup & Restore	Save Settings to Local Bat	ckup			of the device's c to your local har	urrent settings d drive. Click
Restore to Factory Default	Load Settings From Local	Bro	wse Resto	re	the "Browse" bu and select a cor	tton to locate nfiguration file
Change Password					that is saved pre	eviously to your
Logs					the "Restore" bu	itton to reset
Reboot					your device to pr settings.	revious

② Select the configuration file that is saved previously to your local hard drive and click **Open**.



③ Click the **Restore** button to reset your device to previous settings.

5.4 Restore to Factory Default

Click Tools -> Restore to Factory Default to enter the configuration screen.

Here you can reset the device to factory default settings.

<mark>∆</mark>Note

- If you enable this option, the device will be restored to factory default values. You will have to reconfigure Internet connection settings and wireless settings.
- 2 Do not restore factory default settings unless the following happens:
- You need to join a different network or unfortunately forget the login password.
- ✓ You cannot access the Internet and your ISP or our technical support asks

you to reset the device.

Tenda				2	10K	0	
		Wizard	Status	Basic	Wireless	Advanced	Tools
Time & Date Firmware Upgrade Backup & Restore Restore to Factory Default	Restore to Factory D To restore factory defaults Restore to Factory D	Default s, click the "Restor Default	e to Factory Defaulť	' button below.		Help The device will b factory defaults i enabled. Default Passwor Default IP-122 11	e reset to f this option is rd:admin 38.0 1
Change Password						Default Subnet Mask:255.255.2	55.0
Logs							
Reboot							

The factory default settings are listed below:

- IP Address: 192.168.0.1
- Subnet Mask: Enter 255.255.255.0.
- **Password:** admin

5.5 Change Password

Click **Tools -> Change Password** to enter the configuration screen. It is strongly recommended that you change the factory default login password. Otherwise, anyone in your network can access this utility to change your settings.



- 1 The default login password is "admin".
- 2 A valid password must only include letters, numbers or underscore.

	Wizard	Status	Basic	Wireless	Advanced	Tools
Change Password					Help	
Note:Password can only in	clude letters, nur	nbers or underso	ore.		Device's default	password is
Old Password					"admin". It is adv	visable to
New Password					Otherwise, anyo network may acc	ter security. ne in your cess this utility
Confirm New Password					to view or chang	e your
	Save	Cancel			settings. Old Password: E password. If you	Enter the old use the
					device for the first	st time, the
					password is adr	nin by default.
					retrieved once to	cannot be ist. If you
					already changed	i the
					password and u	nfortunately
					forget, restore th	e device to
					factory defaults.	
					New Password:	Input a new
					password. Pass	word must
					only include 3 ~	12 characters
					except space.	
					Confirm New Pa	issword: Re-
					enter the new pa	assword for
	Change Password Note:Password can only in Old Password New Password Confirm New Password	Wizard Change Password Note:Password can only include letters, nur Old Password New Password Confirm New Password Save	Wizard Status Change Password Note:Password can only include letters, numbers or underso Old Password Old Password New Password Confirm New Password Save Cancel	Wizard Status Basic Change Password Note:Password can only include lefters, numbers or underscore. Old Password New Password Confirm New Password Save Cancel	Wizard Status Basic Wireless	Wizard Status Basic Wireless Advanced Change Password Help Device's default Note:Password

Configuration Procedures:

- (1) **Old Password:** Enter the current login password.
- 2 New Password: Input a new password.
- **3 Confirm New Password:** Re-enter the new password for confirmation.
- 4 Click **Save** to save your settings.

5.6 Logs

Click **Tools -> Logs** to enter the configuration screen. Here you can view the history of the device's actions upon system startup.

Tenda							
		Wizard	Status	Basic	Wireless	Advanced	Tools
Time & Date	System Logs					Help	
Firmware Upgrade	Refresh	clear Type of log	is to display: All	•		The Logs option allows you to	
Backup & Restore						view all events th system startup a	nat occur upon and check
Restore to Factory Default	Index Log Content					whether there ar	e attacks
	22 2013-12-16 1	8:59:05 system	m wan1 up			present in your n	network.
Change Password	21 2013-12-16 1	8:59:02 system	m wan1 down			automatically on	ce it reaches
Logs	Page 3 2 1					20 pages, (name entries)	ely, 200
Reboot							

5.7 Reboot

When a certain feature does not take effect or the device is malfunctioning, try rebooting the device.

Tenda					C K		
		Wizard	Status	Basic	Wireless	Advanced	Tools
Time & Date Firmware Upgrade Backup & Restore Restore to Factory Default Change Password Logs	Reboot Click the button below to res Reboot	tart your router				Help Rebooting the o new settings. A will be disconn automatically w	tevice activates Il connections ected hile rebooting.
Reboot							

IV Appendix

1 Configure Your PC

Windows 7

Step 1: Click the icon **1** on the right bottom corner of your desktop.

Step 2: Click Open Network and Sharing Center.





If you cannot find the icon and the right bottom corner of your desktop, follow steps below: Click Start -> Control Panel -> Network and Internet -> Network and Sharing Center.

4			
🐨 🗸 🙀 🛛 Networ	k and Internet 🕨 Network and Sl	haring Center 👻 🗸	🕈 Search Control Panel 🔎
Control Panel Home	Local Area Connection Status		
Change adapter setti	General		See full map
Change advanced sh settings	Connection IPv4 Connectivity:	No Internet access	Internet
	IPv6 Connectivity: Media State:	No Internet access Enabled	Connect or disconnect
	Duration: Speed:	03:40:31 1.0 Gbps	ss type: No Internet access lections: Local Area Connection
	Details		
	Activity		-
	Sent —	Received	or VPN connection; or set up a
	Bytes: 758,61	8 8,236,680	I-up, or VPN network connection.
See also	Properties 🔞 Disable	Diagnose	work computers, or change sharing
HomeGroup Internet Options		Close	

Step 3: Click Local Area Connection -> Properties.

Step 4: Find and double click Internet Protocol Version 4(TCP/IPv4).

Local Area Connection Properties
Networking
Connect using:
Intel(R) PRO/1000 MT Network Connection
Configure
This connection uses the following items:
Client for Microsoft Networks
🗹 틙 File and Printer Sharing for Microsoft Networks
Internet Protocol Version 6 (TCP/IPv6)
✓ Internet Protocol Version 4 (TCP/IPv4)
Install Uninstall Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK Cancel

Step 5: Select Obtain an IP address automatically and Obtain DNS server address automatically and click OK.

I	nternet Pr	otocol Version 4 (TCP/IPv4	4) Prop	erties			P	X
	General	Alternate Configuration						
	You can this cap for the a	get IP settings assigned aut ability. Otherwise, you need appropriate IP settings.	omatica to ask y	ally if y your n	vour n ietwo	etwork : rk admin	suppo istrato	rts or
	⊚ Ob	tain an IP address automatic	ally					
	_⊚ Us	e the following IP address: –						
	IP ad	dress:						
	Subn	et mask:						
	Defa	ult gateway:						
1	Ob	tain DNS server address aut	omatica	lly				
	_⊚ Us	e the following DNS server a	ddresse	s:				
	Prefe	rred DNS server:						
ľ	Alteri	nate DNS server:						
	Va	alidate settings upon exit				Adva	anced	
					ОК		Ca	ncel

Step 6: Click OK on the Local Area Connection Properties window (see Step 4 for the screenshot).

Windows XP

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



Step 2: Right click Local Area Connection and select Properties.



Step 3: Scroll down to find and double click Internet Protocol (TCP/IP).

ieneral Advanced		
Connect using:		
Marvell Yukon	88E8057 PCI-E Giga	bi Configure
This connection uses	the following items:	
Client for Mix	crosoft Networks Iter Sharing for Micros t Scheduler tocol (TCP/IP)	oft Networks
Install	Uninstall	Properties
Description		
Transmission Contr wide area network across diverse inte	rol Protocol/Internet F protocol that provide rconnected networks	Protocol. The default s communication
Show icon in notif	ication area when co is connection has lim	nnected ited or no connectivity

Step 4: Select Obtain an IP address automatically and Obtain DNS server address automatically and click OK.

aeneral	Alternate Configuration	
You ca this cap the app	n get IP settings assigned a bability. Otherwise, you need propriate IP settings.	utomatically if your network supports I to ask your network administrator for
<u>ا</u> ن (btain an IP address automa	tically
OU	se the following IP address:	
IP ad	ddress;	14 10 10 10 10 10 10 10 10 10 10 10 10 10
Subr	net mask:	
Defa	ult gateway:	
<u>ا</u> ن و	btain DNS server address a	utomatically
OU	se the following DNS server	addresses:
Prefe	erred DNS server	
Alter	nate DNS server.	
		Advanced

Step 5: Click **OK** on the **Local Area Connection Properties** window (see **Step 3** for the screenshot).

2 Join Your Wireless Network



- ① To join your wireless network, the PC you use must have an installed wireless network adapter. If not, install one.
- ② The device's SSID is "Tenda_XXXXXX" by default (where "XXXXXX" is the last six characters of its MAC address). You can find the MAC address and/or SSID on the label attached to the device's bottom).

Windows 7

Step 1: Click or From the right bottom of your desktop.

Step 2: Double click the name of the wireless network (SSID) you wish to join and then follow onscreen instructions.



When **Connected** appears next to the selected wireless network (SSID), you have successfully connected to it.

Currently connected to: Network 4 Internet access Identifying (Tenda_ No Internet access	€2 0FF02D.)
Wireless Network Connection	^
Tenda_0FF02D Conn	ected 📶
Tenda_5	3 41
Default_5G	3 41
Default_2.4G	341
123	311
Tenda_020070	511
100450	0.a 🔍
Open Network and Sharii	ng Center

Windows XP

Step 1: Right click My Network Places and select Properties.



Step 2: Right click Wireless Network Connection and select View Available Wireless Networks.



Step 3: Double click the name of the wireless network (SSID) you wish to join and then follow onscreen instructions.



When **Connected** appears next to the selected wireless network (SSID), you have successfully connected to it.



3 FAQs

This section provides solutions to problems that may occur during installation and operation of the device. Read the following if you are running into problems. If your problem is not covered here, please feel free to go to <u>www.tendacn.com</u> to find a solution or email your problems to: <u>support@tenda.com.cn</u> or

support02@tenda.com.cn. We will be more than happy to help you out as soon as possible.

1. Q: I cannot access the device's management interface. What should I do?

- Make sure the PWR (power) LED on the device is on and the SYS LED blinks normally.
- Make sure all cables are correctly connected and the corresponding LAN LED on the device is on.
- Verify that your PC's TCP/IP settings are configured correctly. If you select the "Use the following IP address" option, set your PC's IP address to any IP address between 192.168.0.2~192.168.0.254. Or you can select the "Obtain an IP address automatically" option.
- Delete your browser cache and cookies or use a new browser. Make sure you enter 192.168.0.1 in your browser's address bar.
- Open your browser and click Tools -> Internet Options -> Connections -> LAN
 Settings, uncheck the Use a proxy server for your LAN option.
- Press the WPS/Reset button for over 6 seconds to restore your device to factory default settings. Then log in to your device again.

2. Q: I changed the login password and unfortunately forget it. What should I do?

Press the **WPS/Reset** button for over 6 seconds to restore your device to factory default settings.

3. Q: My computer shows an IP address conflict error when it connects to the

device. What should I do?

- Make sure there are no other DHCP servers on your LAN or other DHCP servers are disabled.
- Make sure the device's LAN IP is not used by other devices on your LAN. The device's default LAN IP address is 192.168.0.1.
- Make sure the statically assigned IP addresses to the PC(s) on LAN are not used by others device(s).

4. Q: I cannot access email and the Internet/Some Websites do not open. What should I do?

This problem mainly happens to users who use the PPPoE or Dynamic IP Internet connection type. You need to change the MTU size. Try changing the MTU to 1450 or 1400. If this does not help, gradually reduce the MTU from the maximum value until the problem disappears. For details, see <u>WAN MTU Setup</u>.

4 Remove Wireless Network from Your PC

When you change your wireless network (For example, change your device's SSID or security key), the old wireless settings on your PC will not be updated accordingly, you must manually remove them from your PC; otherwise, you may not be able to wirelessly connect to the device. This section explains how to remove a wireless network from your PC.

Windows 7



1 Right-click the **Network** icon and select **Properties**.

2 Select Manage Wireless Networks.



③ Select the wireless network and click **Remove network**.

Control Panel Network and Internet Manage Wireless Networks Ada Adapter properties Profile types Network and Sharing Center Add Adapter properties Profile types Network and Sharing Center Networks you can view, modify, and reorder (2) Tenda_home Security: WPA-Personal Type: Any supported Automatically connect Tenda_AAAABA Security: WPA-Personal Type: Any supported Automatically connect				
Manage wireless networks that use (Wireless Network Connection 8) Windows tries to connect to these networks in the order listed below. Add Adapter properties Profile types Network and Sharing Center Image: Center Content of the content	Control Pa	inel 🕨 Network and Internet 🕨 Manag	ge Wireless Networks 👻 🍫 Searc	ch Manage Wireless Networks 👂
Add Adapter properties Profile types Network and Sharing Center Image: Center Security: wp. and reorder (2) Image: Center Security: Wp. Personal Type: Any supported Automatically connect Image: Tenda_AAAABA Security: WPA-Personal Type: Any supported Automatically connect Image: Tenda_AAAABA Security: WPA-Personal Type: Any supported Automatically connect	Manage wireless no Windows tries to connect	etworks that use (Wireless Netw to these networks in the order listed bel	work Connection 8) Iow.	
Networks you can view, modify, and reorder (2) Tenda_home Security: WPA-Personal Type: Any supported Automatically connect 	Add Adapter properties	Profile types Network and Sharing C	Center	0
Tenda_home Security: WPA-Personal Type: Any supported Automatically connect Tenda_AAAABA Security: WPA-Personal Type: Any supported Automatically connect	Networks you can view, mod	ify, and reorder (2)		•
Tenda_AAAABA Security: WPA-Personal Type: Any supported Automatically connect	Tenda_home	Security: WPA-Personal	Type: Any supported	Automatically connect
	Tenda_AAAABA	Security: WPA-Personal	Type: Any supported	Automatically connect

Windows XP

① Right-click My Network Places and select Properties.



② Right click Wireless Network Connection and then select Properties.



3 Click Wireless Networks, select the wireless network name under Preferred

networks and then click the Remove button.

🕹 Local Area Connection 2 Properties 🔹 🤶
General Wireless Networks Advanced
Use Windows to configure my wireless network settings
Available <u>n</u> etworks:
To connect to, disconnect from, or find out more information about wireless networks in range, click the button below.
View Wireless Networks
Preferred networks: Automatically connect to available networks in the order listed below:
Tenda_home (Automatic) Move up
Move <u>d</u> own
Add <u>R</u> emove Properties
Leam about <u>setting up wireless network</u> Ad <u>vanced</u>
OK Cancel

5 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 RJ-45 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. 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 RJ-45 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。