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Archer NX500_V2_Installation and User Guide

About This Guide

This guide provides a brief introduction to 5G AX3000 Dual Band Wi-Fi 6 Router and regulatory information.

Note: Features available in this range extender may vary by model and software version. Router availability may also vary only examples and may not reflect your actual router experience.

Conventions

In this guide the following conventions are used:

Convention	Description
Underline	Underlined words or phrases are hyperlinks. You can click to redirect to a website or a specific section.
Bold	Contents to be emphasized and texts on the web page are in bold, including the menus, items, buttons
>	The menu structures to show the path to load the corresponding page. For example, Settings > System under the System Tools menu that is located in the Settings tab.
Note:	Ignoring this type of note might result in a malfunction or damage to the device.
Tip:	Indicates important information that helps you make better use of your device.

More Info

The latest software, management app and utility can be found at Download Center at <https://www.tp-link.com/support>.

The Quick Installation Guide can be found where you find this guide or inside the package of the router.

Specifications can be found on the product page at <https://www.tp-link.com>.

TP-Link Community is provided for you to discuss our products and share knowledge at <https://community.tp-link.com>

Our Technical Support contact information can be found at the Contact Technical Support page at <https://www.tp-link>.

Disclaimer

*Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless rates may vary as a result of 1) environmental factors, including building materials, physical objects, and obstacles, 2) network conditions, including network complexity, and network overhead, and 3) client limitations, including rated performance, location, and device type.

*Use of Wi-Fi 6 (802.11ax), and features including OFDMA, MU-MIMO, 1024-QAM, and HT160 require clients to also support the corresponding features.

*Saving clients' battery power requires clients to also support the 802.11ax Wi-Fi standard. Actual power reduction may vary due to environmental factors.

*Use of WPA3 requires clients to also support the corresponding feature.

*This router may not support all the mandatory features as ratified in Draft 3.0 of IEEE 802.11ax specification.

*Further software upgrades for feature availability may be required.

1. Get to Know About Your Modem Router

1.1 Product Overview

TP-Link's Router is a combined wired/wireless network connection device with integrated WAN router, reducing hassle with Ethernet ports and antennas, the router provides wired and wireless access for multiple computers and mobile devices. With various features and functions, the modem router is the perfect hub of your home or business network.







Moreover, it is simple and convenient to set up and use the TP-Link router due to its intuitive Tether app and powerful w

1.2 Appearance

1.2.1 Front Panel



The router's LEDs (view from top to bottom) are located on the front. You can check the router's working status by follo

Name	Status	
 (Signal Strength)	Solid white	The signal strength is above 75%.
	Solid green	The signal strength is between 50% and 75%.
	Solid yellow	The signal strength is below 50%.
	Off	No mobile network signal.
 (LAN)	On	At least one LAN port is connected.
	Off	No LAN port is connected or LAN port is not cor
 (Wi-Fi)	On	At least one radio interface is enabled.
	Flashing	The WPS pairing is ongoing. If the connection is established successfully, it w If it is not successfully established, it will continu If Wi-Fi is turned off during WPS pairing, the Wi-f
	Off	Both 2.4 GHz and 5 GHz radio interfaces are disa
 (Network Type)	Solid white	The device is on a 5G network.
	Solid teal	The device is on a 4G+ network.
	Solid green	The device is on a 4G network.
	Solid yellow	The device is on a 3G network.
	Off	The device is not registered on the network.
 (Internet)	On	Internet service is available.
	Off	The router's WAN port is unplugged, or the SIM c
 (Power)	On	The system has started up successfully.
	Blinking	The system is starting up or the firmware is bein

	Off	Power is off.
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Notes:

1. If the Signal Strength LED is off, please check your Internet connection first. Refer to **Connect the Hardware** for more information. If you have already made a right connection, please contact your ISP to make sure your Internet service is available now.

2.If the Internet LED is off, please check your Signal Strength LED first. If your Signal Strength LED is also off, please refer to the **Connect the Hardware** for Internet configuration. You may need to check this part of information with your ISP and make sure everything have been configured correctly.

3.If the Network Type LED is off, please check your Internet LED first. If the Internet LED is also off, please check your Internet connection first. If the Internet LED is also off, please check your ISP to make sure your 5G/4G network service is available.

1.2.2 Back panel



The following parts (view from top to bottom) are located on the back panel.

Item	Description
RESET	Press and hold this button for at least 2 seconds until the Power LED blinks to reset the router to its default settings.
Wi-Fi/WPS	Press and immediately release the button, and within 2 minutes press the WPS button on your client device to connect. Press and hold the button for about 2 seconds, then release the button to turn on or off the wireless function.
LAN1, LAN2, LAN3/WAN Ports	For connecting the router to your PC or other Ethernet network devices. In wireless router mode, LAN3/WAN is used as the WAN port.
ON/OFF	The switch for the power. Press it to power on or off the router.
POWER	For connecting the modem router to power socket via the provided power adapter.

2. Connect the Hardware

2.1 Position Your Router

- The product should not be located in a place where it will be exposed to moisture or excessive heat.
- Place the router in a location where it can be connected to multiple devices as well as to a power source.
- Make sure the cables and power cord are safely placed out of the way so they do not create a tripping hazard.
- The router can be placed on a shelf or desktop.
- Keep the router away from devices with strong electromagnetic interference, such as Bluetooth devices, cordless phones, etc.
- Generally, the router is placed on a horizontal surface, such as on a shelf or desktop.

- Try relocating the router to a spot that may receive a stronger mobile network signal, such as near a window.

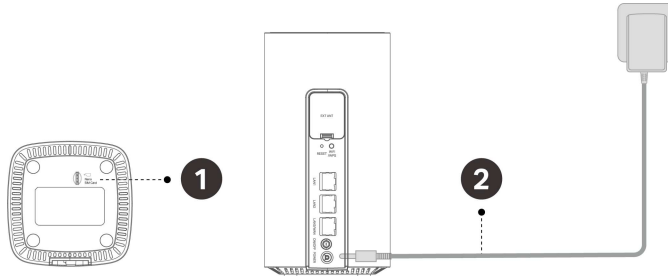
2.2 Connect Your Router

Before you start, turn off your modem, if any, and remove the backup battery if it has one. And place the router horizontal

Follow the steps below to connect your router.

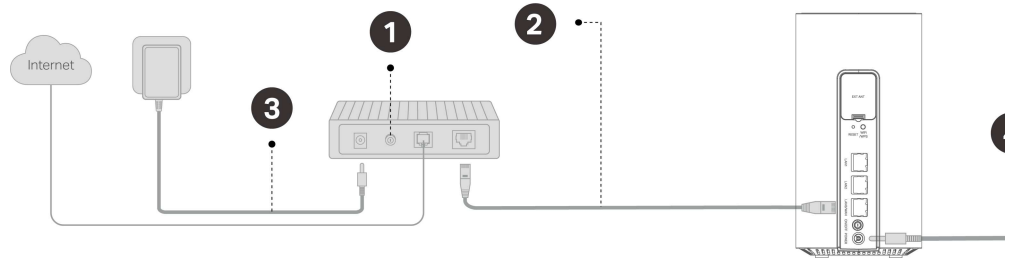
There are two dial-up Internet access methods: dial-up Internet access via Mobile WAN (SIM card), and dial-up Internet card) and EWAN.

Method 1: Via Mobile WAN



1. With the gold contacts facing right, insert the nano SIM card into the slot until you hear a click.
2. Connect the power adapter to the router and turn on the router.

Method 2: Via EWAN



If your internet comes from an Ethernet outlet instead of a DSL / Cable / Satellite modem, connect the router's WAN/LAN connection.

1. Turn off the modem, and remove the backup battery if it has one.
2. Connect the modem to the router's WAN port with an Ethernet cable.
3. Turn on the modem, and then wait about 2 minutes for it to restart.
4. Connect the power adapter to the router and turn on the router.
5. Verify that the hardware connection is correct by checking the following LEDs.

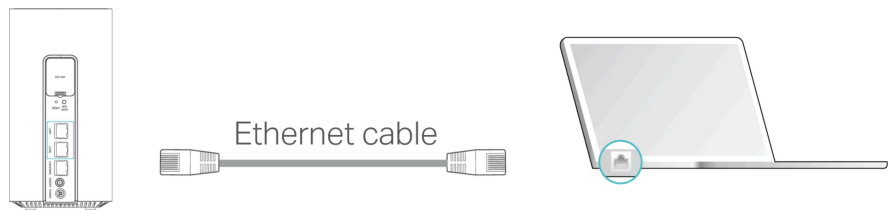


Note: If the Internet LED and Wi-Fi LED are off, press and hold the RESET button on the back for more than 2 seconds t

6. Connect your computer to the router.

Option 1: Wired

Turn off the Wi-Fi on your computer and connect the devices as shown below.

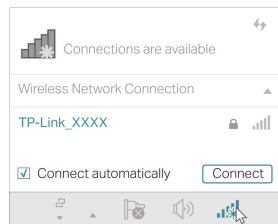


Option 2: Wirelessly

Find the SSID (Network Name) and Wireless Password printed on the label at the bottom of the router.

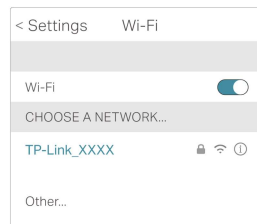
Click the network icon of your computer or go to Wi-Fi Settings of your smart device, and then select the SSID to join t

Computer



Smart Device

OR



Option 3: Use the WPS button

Wireless devices that support WPS, including Android phones, tablets, and most USB network cards, can be connecte

Notes:

- WPS is not supported by iOS devices.
- The WPS function cannot be configured if the wireless function of the router is disabled. Also, the WPS function will b wireless function is enabled and is configured with the appropriate encryption before configuring the WPS.

- 1) Tab the WPS icon on your device's screen. Here we take an Android phone for instance.
- 2) Within two minutes, press the WPS button on your router.



3. Setup Your Modem Router

Method 1: Via the TP-Link Tether App

1. Launch the Apple App Store or Google Play Store and search TP-Link Tether or simply click the button below to download



2. Launch the Tether app and log in with your TP-Link ID.

Note: If you don't have a TP-Link ID, create one first.

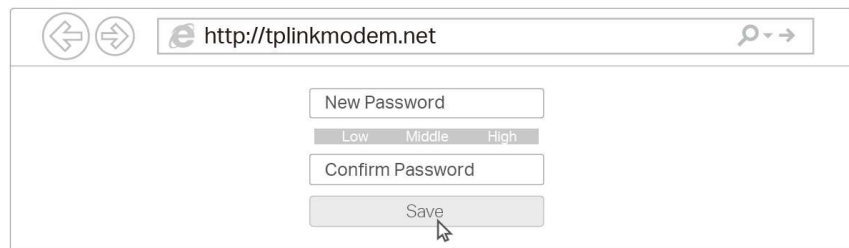
3. Tap the + icon on the upper-right corner and select **Add a Router**. Follow app instructions to set up and connect to the router.

Method 2: Via the Web Browser

1. Make sure your computer is connected to the router (wired or wireless).

2. Launch a web browser and type in <http://tplinkmodem.net> or <http://192.168.1.1>. Create a new password for future login.

Note: If the login page does not appear, please refer to **Q1** of [Need Help?](#) in this guide.



3. Follow the step-by-step instructions of the Quick Setup to complete the initial configuration.

Note: The router can also be used (or configured) in EWM Mode (wireless router mode) for Cable connections. For more information, visit the official website at www.tp-link.com.

FAQ

Q1. What should I do if I forget my wireless password?

The default wireless password is printed on the label of the router. If the password has been altered:

1. Connect your computer to the router using an Ethernet cable.
2. Visit <http://tplinkmodem.net> or <http://192.168.1.1>, and log in with the password you set for the router.
3. Go to Wireless to retrieve or reset your wireless password.

Q2. What should I do if I forget my web management password?

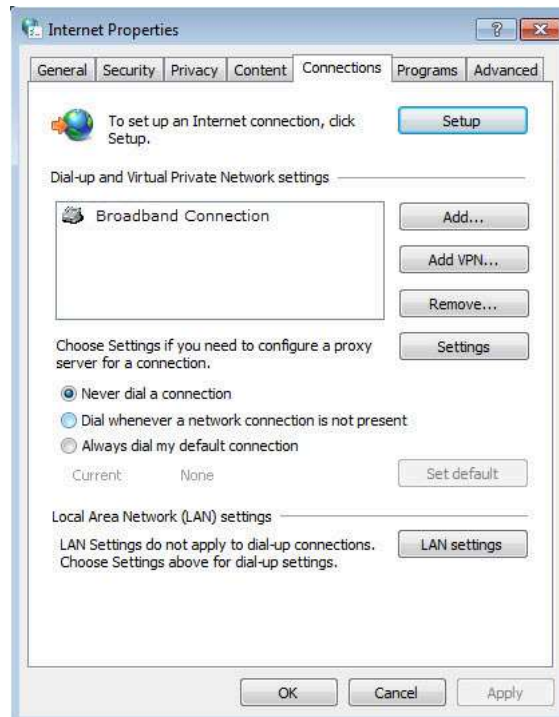
- If you are using a TP-Link ID to log in, click **Forgot Password** on the login page and then follow the instructions to reset your password.
- Alternatively, press and hold the Reset button of the router until the Power LED blinks to restore factory default settings and create a new login password.

Note: You'll need to reconfigure the router to surf the internet once the router is reset, and please mark down your new

Q3. What should I do if I can't log in to the router's web management page?

This can happen for a variety of reasons. Please try the methods below to log in again.

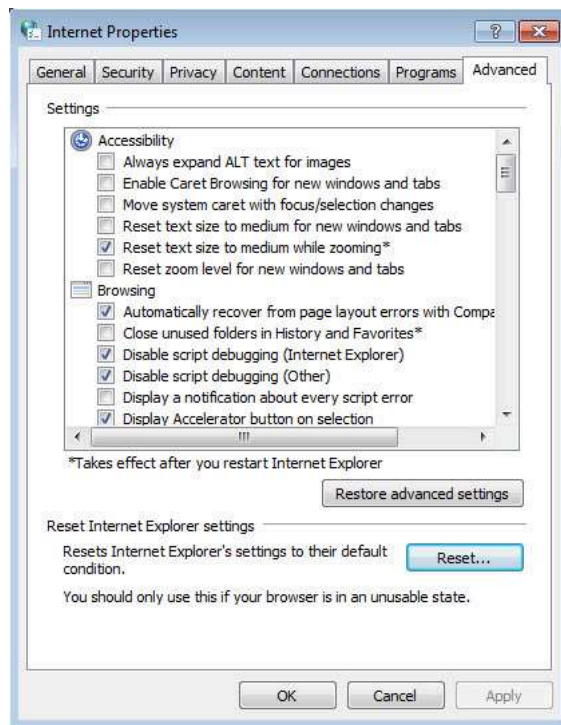
- Make sure your computer is connected to the router correctly and the corresponding LED indicator(s) light up.
- Make sure the IP address of your computer is configured as Obtain an IP address automatically and Obtain DNS server addresses automatically.
- Make sure <http://tplinkmodem.net> or <http://192.168.1.1> is correctly entered.
- Check your computer's settings:
 - 1) Go to **Start > Control Panel > Network and Sharing Center**.
 - 2) Click **Internet Options** on the bottom left.
 - 3) Click **Connections** and select **Never dial a connection**.



- 4) Click **LAN settings** and deselect the following three options and click **OK**.



- 5) Go to **Advanced > Restore advanced settings**, click **OK** to save the settings.



- Use another web browser or computer to log in again.
- Reset the router to factory default settings and try again. If login still fails, please contact the technical support.

Note: You'll need to reconfigure the router to surf the internet once the router is reset.

Q4. What should I do if I can't access the internet even though the EWAN configuration is finished?

1. Visit <http://tplinkmodem.net> or <http://192.168.1.1>, and log in with your TP-Link ID or the password you set for the router.
2. Go to Advanced > Status to check internet status:

If IP Address is a valid one, please try the methods below and try again:

- Your computer might not recognize any DNS server addresses. Please manually configure the DNS server.

1) Go to **Advanced > Network > LAN Settings > DHCP Server**.

2) Enter 8.8.8.8 as Primary DNS, click **Save**.

Tips: 8.8.8.8 is a safe and public DNS server operated by Google.

- Restart the modem and the router.
 - 1) Power off your modem and router, and leave them off for 1 minute.
 - 2) Power on your modem first, and wait about 2 minutes until it gets a solid cable or Internet light.
 - 3) Power on the router.
 - 4) Wait another 1 or 2 minutes and check the internet access.

- Reset the router to factory default settings and reconfigure the router.
- Upgrade the firmware of the router.
- Check the TCP/IP settings on the particular device if all other devices can get internet from the router.

As the picture below shows, if the IP Address is 0,0,0,0, please try the methods below and try again:

- Make sure the physical connection between the router and the modem is proper.
- Clone the MAC address of your computer.
 - 1) Visit <http://tplinkmodem.net> or <http://192.168.1.1> and log in with your TP-Link ID or the password you set for t
 - 2) Go to Internet or **Advanced** > **Network** > **Internet** and focus on the **MAC Clone** section.
 - 3) Choose an option as needed (enter the MAC address if **Use Custom MAC Address** is selected), and click **OK**.

Tips:

- Some ISP will register the MAC address of your computer when you access the internet for the first time through your internet connection, the ISP will not accept it as the MAC address is changed, so we need to clone your computer's MAC address.
- The MAC addresses of a computer in wired connection and wireless connection are different.
- Modify the LAN IP address of the router.

Note: Most TP-Link routers use 192.168.0.1/192.168.1.1 as their default LAN IP address, which may conflict with your computer's IP address and you can't access the internet. To resolve this problem, we need to change the LAN IP address, for example, 192.168.2.1.

- 1) Visit <http://tplinkmodem.net> or <http://192.168.1.1> and log in with your TP-Link ID or the password you set for t
- 2) Go to Advanced > Network > LAN Settings.
- 3) Modify the LAN IP address as the follow picture shows. Here we take 192.168.2.1 as an example.
- 4) Click Save.

- Restart the modem and the router.
 - 1) Power off your modem and router, and leave them off for 1 minute.

- 2) Power on your modem first, and wait about 2 minutes until it get a solid cable or Internet light.
 - 3) Power on the router.
 - 4) Wait another 1 or 2 minutes and check the internet access.
- Double check the internet connection type.
 - 1) Confirm your internet connection type, which can be learned from the ISP.
 - 2) Visit <http://tplinkmodem.net> or <http://192.168.1.1>, and log in with your TP-Link ID or the password you set for t
 - 3) Go to **Advanced > Network > Internet**.
 - 4) Select your **Internet Connection Type** and fill in other parameters.
 - 5) Click **Save**.

Internet Setup

Connection Name	Service Type	VLAN ID	Status	Operation	Enable	Modify
ipoe_0_0_d	Internet	N/A	Connected	Disconnect		

Connection Name: (Optional)

☒ Enable This Entry

Service Type: ☒ Internet ☐ IPTV ☐ TR069 ☐ Others

Default Gateway:

Internet Connection Type:

VLAN ID:

IPv4:

IP Address:

Subnet Mask:

Gateway:

IPv6:

IPv6 Tunnel: ☐ Enable

- 6) Restart the modem and the router again.
- Please upgrade the firmware of the router.

If you've tried every method above but still cannot access the internet, please contact the technical support.

Q5. What should I do if I can't find my wireless network or I cannot connect the wireless network?

If you fail to find any wireless network, please follow the steps below:

- Make sure the wireless function of your device is enabled if you're using a laptop with built-in wireless adapter. You
- Make sure the wireless adapter driver is installed successfully and the wireless adapter is enabled.
 - On Windows 7/8/10/11
 - 1) If you see the message **No connections are available**, it is usually because the wireless function is disable
 - 2) Click **Troubleshoot** and windows might be able to fix the problem by itself.
 - On Windows XP
 - 1) If you see the message **Windows cannot configure this wireless connection**, this is usually because winc configuration tool to connect the wireless.
 - 2) Exit the wireless configuration tool (the TP-Link Utility, for example).
 - 3) Select and right click on **My Computer** on desktop, select **Manage** to open Computer Management windo
 - 4) Expand **Services and Applications > Services**, find and locate **Wireless Zero Configuration** in the Service
 - 5) Right click **Wireless Zero Configuration**, and then select **Properties**.
 - 6) Change **Startup type** to **Automatic**, click on Start button and make sure the Service status is **Started**. And

If you can find other wireless network except your own, please follow the steps below:

- Check the Wi-Fi LED indicator on your wireless router/modem.
- Make sure your computer/device is still in the range of your router/modem. Move it closer if it is currently too far a
- Go to **Wireless** or **Advanced > Wireless > Wireless Settings**, and check the wireless settings. Double check youi

If you can find your wireless network but fail to connect, please follow the steps below:

- **Authenticating problem/password mismatch:**

1) Sometimes you will be asked to type in a PIN number when you connect to the wireless network for the first time. Security Key, usually you can only find it on the label of your router.



2) If you cannot find the PIN or PIN failed, you may choose **Connecting using a security key instead**, and then try

3) If it continues to show note of **Network Security Key Mismatch**, it is suggested to confirm the wireless password.

Note: Wireless Password/Network Security Key is case sensitive.

- **Windows unable to connect to XXXX / Can not join this network / Taking longer than usual to connect to this**
 - Check the wireless signal strength of your network. If it is weak (1~3 bars), please move the router closer and
 - Change the wireless Channel of the router to reduce interference from other networks.
 - Re-install or update the driver for your wireless adapter of the computer.

Q6. What should I do if I can't access the internet even though the Mobile WAN (SIM card) configuration is finished?

- Verify that your SIM card is a 5G/4G or WCDMA card.
- Verify that your SIM card is in your internet service provider's service area.
- Verify that your SIM card has sufficient credit.
- Check the LAN connection: Open a web browser and enter <http://tplinkmodem.net> or <http://192.168.1.1> in the address bar and press Enter again.
- Launch a web browser, log in to the web management page, and check the following:
 - 1) Go to **Advanced > Network > Mobile WAN** to verify the parameters provided by your ISP are correctly entered. Enter correct parameters, then select the new profile from the **Profile Name** list.
 - 2) Go to **Advanced > Network > PIN Management** to verify if PIN is required. If it is, enter the correct PIN provided by your ISP.
 - 3) Go to **Advanced > Network > Data Settings** to verify if the **Total/Monthly Used** exceeds the **Total/Monthly Allowed** (zero), or disable **Data Limit**.
 - 4) Go to **Advanced > Network > Mobile WAN** to verify that **Mobile Data** is enabled. If it is not, enable it to access the internet.
 - 5) Confirm with your ISP if you are in a roaming service area. If you are, go to **Advanced > Network > Mobile WAN** to verify that **Roaming** is enabled.
 - 6) Go to **Advanced > Network > Mobile WAN** to confirm whether **External Antennas** is enabled:
 - If it is determined that an external antenna is connected, enable **External Antennas**.
 - If you are sure that no external antenna is connected, disable **External Antennas**.

Authentication

CE Mark Warning



Power Adapter

Manufacturer	Spec	Model
Dongguan Lianzhou Technologies Co., Ltd.	US	T120250-2B4
Dongguan Lianzhou Technologies Co., Ltd.	CE	T120250-2C4
Dongguan Lianzhou Technologies Co., Ltd.	UK	T120250-2D4
Dongguan Lianzhou Technologies Co., Ltd.	AU	T120250-2E4

OPERATING FREQUENCY(the maximum transmitted power)

2400MHz~2483.5MHz (20dBm)

5150MHz~5250MHz (23dBm)

5250MHz~5350MHz (23dBm)

5470MHz~5725MHz (30dBm)

5G N1,3,7,8,20,28,38 (23 dBm \pm 2.7 dB)

5G N40 (26 dBm +2/-3 dB)

5G N41/77/78 (29 dBm +2/-3 dB)

LTE Band1,3,7,8,20,28,38,40 (23 dBm \pm 2.7 dB)

LTE Band 41,42,43 (26 dBm +2/-3 dB)

WCDMA Band 1,5,8 (23 dBm \pm 2 dB)**EU Declaration of Conformity**

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions (EU)2015/863.

The original EU Declaration of Conformity may be found at <https://www.tp-link.com/en/support/ce/>

RF Exposure Information

This device meets the EU requirements (2014/53/EU Article 3.1a) on the limitation of exposure of the general public to

The device complies with RF specifications when the device used at 30 cm from your body.

National Restrictions

Frequency band: 5150 - 5250 MHz:


Indoor use: Inside buildings only. Installations and use inside road vehicles and train carriages are not permitted. Limited fixed installation or to the external body of road vehicles, a fixed infrastructure or a fixed outdoor antenna. Use by unlicensed band.

Frequency band: 5250 - 5350 MHz:

Indoor use: Inside buildings only. Installations and use in road vehicles, trains and aircraft are not permitted. Outdoor use

Frequency band: 5470 - 5725 MHz:

Installations and use in road vehicles, trains and aircraft and use for unmanned aircraft systems (UAS) are not permitted

	AT	BE	BG	CH	CY	CZ	DE	DK
	EE	EL	ES	FI	FR	HR	HU	IE
	IS	IT	LI	LT	LU	LV	MT	NL
	NO	PL	PT	RO	SE	SI	SK	UK(NI)

UKCA Mark



UK Declaration of Conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions

The original UK Declaration of Conformity may be found at <https://www.tp-link.com/support/ukca/>

Attention: This device may only be used indoors in Great Britain.



Korea Warning Statements:

당해 무선설비는 운용중 전파혼신 가능성이 있음.



Продукт сертифіковано згідно з правилами системи УкрСЕПРО на відповідність вимогам нормативно-законодавчими актами України.



Safety Information

- Keep the device away from water, fire, humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device. If you need service, please contact us.
- Do not use damaged charger or USB cable to charge the device.
- Do not use any other chargers than those recommended.
- Do not use the device where wireless devices are not allowed.
- Adapter shall be installed near the equipment and shall be easily accessible.

- Use only power supplies which are provided by manufacturer and in the original packing of this product. If you have
- Operating Temperature: 0°C~40°C
- 請勿使用損壞的充電器或USB線來供應設備充電。
- 請勿使用推薦充電器以外的任何其他充電器。
- 變壓器應安裝在設備附近且易於操作。
- 運作溫度: 0°C~40°C (32°F~104°F)

This product uses radios and other components that emit electromagnetic fields. Electromagnetic fields and magnets
Always keep the product and its power adapter more than 15 cm (6 inches) away from any pacemakers or other implanted
pacemaker or any other implanted medical device, turn off your product and consult your physician for information specific
Please read and follow the above safety information when operating the device. We cannot guarantee that no accident
this product with care and operate at your own risk.

Explanation of the symbols on the product label

Note: The product label is on the bottom of the product and its I.T.E. power supply. Symbols may vary from products.

Symbol 符號解釋	Explanation 解釋
	Class II equipment Class II 設備
	Class II equipment with functional earthing 具有功能接地的Class II 設備
	Alternating current 交流電
	DC voltage 直流電壓
	Polarity of output terminals 輸出端子極性
	Indoor use only 僅限室內使用
	Dangerous voltage 危險電壓
	Caution, risk of electric shock 注意・有觸電危險
	Energy efficiency Marking 能源效率標示
	Protective earth 保護地線
	Earth 地線

Symbol 符號解釋	Explanation 解釋
	Frame or chassis 機架接地
	Functional earthing 功能地線
	Caution, hot surface 警告 · 表面高溫
	Caution 警告
	Operator's manual 操作手冊
	Stand-by 待機
	"ON"/"OFF" (push-push) 「開」/「關」(按壓式)
	Fuse 保險絲
	Fuse is used in neutral N 保險絲用於中性線N
	<p>RECYCLING</p> <p>This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled. User has the choice to give his product to a competent recycling organization or to the retailer when he no longer needs it.</p> <p>回收利用</p> <p>本產品標示有「廢棄電氣電子設備 (WEEE)」的分類回收標誌。這表示本產品必須依據歐盟指令 2012/19/EU 進行處理，以減少對環境的影響。</p> <p>使用者可選擇將本產品交給合格的回收機構，或在購買新電器或電子設備時，交回給零售商進行回收處理。</p>
m	Switch of mini-gap construction 微間隙結構的開關
μ	<p>Switch of micro-gap construction (for US version)</p> <p>Switch of micro-gap / micro-disconnection construction (for other versions except US)</p> <p>微小間隙結構開關 (適用於美國版)</p> <p>微小間隙 / 微小斷開結構開關 (適用於美國以外的其他版本)</p>
ε	Switch without contact gap (Semiconductor switching device) 無接點間隙開關 (半導體開關裝置)

Sign Up for News & Offers

Follow Us

Email Address

Sign Up

About	Press	Learning Center
About Us	News	Technology Library
Corporate Information	Blog	
Our Security Commitment	Awards	
Sustainability	Security Advisory	
Privacy Policy		
Ethical Violation Complaint		
Accessibility		
Contact Us		

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Worldwide / English

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