tp-link | built for Google Wifi

User Guide

OnHub



REV1.0.1

1910011984

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http://www.tp-link.com

FCC STATEMENT



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 or more 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.

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.

2） This device must accept any interference received, including interference that may cause undesired operation.

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

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

"To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 31cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

Canadian Compliance Statement

This device complies with Industry Canada license-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(2)This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage;

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

Radiation Exposure Statement:

This equipment complies with IC 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.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

This device complies with RSS-247 of the Industry Canada 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.

Ce dispositif est conforme à la norme CNR-247 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Industry Canada Statement

Caution :

(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

(ii) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;

(iii) the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate; and

(iv) the worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.

(v) Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Avertissement:

Le guide d'utilisation des dispositifs pour réseaux locaux doit inclure des instructions précises sur les restrictions susmentionnées, notamment :

(i) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes de 5250 à 5 350 MHz et de 5470 à 5725 MHz doit être conforme à la limite de la p.i.r.e;

(iii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5 725 à 5 850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas;

(iv) les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, et énoncée à la section 6.2.2 3), doivent être clairement indiqués.

(v) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 37cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 37cm de distance entre la source de rayonnement et votre corps.

Safety Information

- When product has power button, the power button is one of the way to shut off the product; when there is no power button, the only way to completely shut off power is to disconnect the product or the power adapter from the power source.
- Don’t disassemble the product, or make repairs yourself. You run the risk of electric shock and voiding the limited warranty. If you need service, please contact us.
- Avoid water and wet locations.

Chapter 1 TGR1900 Theory of Operation

1.1 Overview of the Router

The TGR1900 integrates a Switch, Firewall, NAT-Router and Wireless AP. The TGR1900 delivers exceptional range and speed, which can fully meet the need of home networks and users demanding high networking performance.

The TGR1900 utilizes a high speed ARM CPU. The router provides up to 600Mbps (2.4GHz) + 1300Mbps (5GHz) wireless connection with wireless clients. It is compatible with IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n and IEEE 802.11ac products. Multiple protection measures include Wi-Fi Protected Access (WPA2-PSK), as well as advanced firewall protection.

Management of the device is provided by Google cloud services. All of the system software for the platform and specifically for the control of all radios is signed and authenticated at every time of initialization (booting). Google will build and distribute upgrades using the same secure boot mechanism.

1.2 Main Features

- Supports IEEE 802.11 a, b, g, n, ac and required WLAN amendments
- Supports simultaneous 2.4GHz 600Mbps and 5GHz 1300Mbps connections for 1.9Gbps of total available bandwidth
- Two 10/100/1000Mbps Auto-Negotiation RJ45 LAN ports (Auto MDI/MDIX)
- Provides a USB 2.0/3.0 port
- Supports wired bridge mode and Router functionality
- Multi-user sharing a high-speed Internet connection
- WAN connection supports PPPoE, static IP configuration, and DHCP
- Remote configuration, logging and device monitoring
- Supports secure boot technology
- Built-in DHCP server with static reservations
- Built-in firewall and supports UPnP
- Provides WPA2-PSK key management with AES cipher suite
- Supports Bandwidth Control
- Supports IPv6
- Operating frequency including WiFi / BT & ZIGBEE：

  Radio 2.4 GHz: 2.400GHz ~ 2.4835GHz

  Radio 5 GHz: 5.170GHz ~ 5.250GHz, 5.735GHz ~ 5.835GHz.
- Modulation type

  CCK,DQPSK,DBPSK for DSSS
  BPSK,QPSK,16QAM,64QAM,256QAM for OFDM

Chapter 2 OnHub

Table of Contents

- Welcome
- What's In the Box
- What You Need
- Plug in OnHub
- Get the Google Wifi App
- Set-Up WiFi

Welcome to OnHub

We use the Internet for so much more than we used to. We stream movies, watch TV, download music. OnHub keeps up with all the ways you're enjoying the Internet, easily and securely. Let's plug it in and get started.

What's in the Box

- OnHub wireless router with housing
- 2x ethernet cables
- 1 power adapter

What You Need

The Google Wifi app on Android or iOS mobile device:

- Android 4.0 and above
- iOS 7 and above
- A broadband Internet account via Ethernet connection—typically through a DSL or cable modem. Contact your local Internet Service Provider (ISP) for details.

Plugging in the OnHub

a) Twist left and lift the plastic housing to find the power and ethernet ports at the base of the port.
b) Connect one end of the provided ethernet cable to the OnHub ethernet WAN port (SYMBOL) and the other end to one of the ethernet ports of your DSL or model cable.
c) Connect the cable from your power adapter to your OnHub and plug your OnHub into a power outlet.
Important: Use only the AC adapter that came with your OnHub.
d) The status light will pulse blue when OnHub is ready for setup.
e) Open the Google Wifi app on your mobile device to set up your OnHub and wireless network.

What color is the OnHub?

- White

    - Solid: OnHub is ready to go.
- Blue
    - OnHub is ready for setup or, if flashing, setting up.
- Teal / Green
    - OnHub has successfully completed a command.
- Deep Orange / Red
    - Something is wrong. Check the Google Wifi app for more details.

Set-Up WiFi

a) To get started, open the Google Wifi app.

- On **iOS**, the app will prompt you to sign-in with your Google Account or ask you to create a new account.
- On **Android**, your OnHub will automatically be associated with the Google account used with your Android phone.

What's a Google Account?

A Google Account gives you access to Google products like Gmail, Google+, YouTube, and more with a single username and password. To create a new account, visit

https://accounts.google.com

b) Follow the on-screen instructions to set up your OnHub and WiFi network.

- Connect to the onHub
    - [**Android**] The Google Wifi app will detect your OnHub.
    - [**iOS**] Follow the onscreen instructions to connect to your network in the connection manager.
    - Note: You may be asked to enter the setup code. Find these on a label under the base of your OnHub.
- Create WiFi network, name (SSID), and password
    - Note: Your OnHub may automatically update software at this time. While it's updating, the status light on the OnHub will have a quick blue pulse. This should only take about 5 minutes.]
- Follow the onscreen instructions to complete setup. Your OnHub will slowly pulsate a blue light when setup is in process.
- Once you see the on-screen confirmation and the light on the OnHub is solid white, OnHub has successfully completed setup.

Warranty

TP-Link 2 Year Warranty