User's Guide

TRENDnet®

4K Wireless HDMI Extender Kit w/Audio Support

TWP-100R1K

Contents

I. Product Information 4

I-1. Package Contents 4

I-2. System Requirement 4

I-3. Hardware Interface 5

I-3-1. TWP-101R Overview 5

I-3-2. TWP-101T Overview 6

I-4. LED Status 7

II. Hardware Installation 8

II-1. TWP-101R Installation 8

II-2. TWP-101T Installation 9

II-3. Share the Screen 10

III. Web Configuration 11

III-1. Network Management 12

III-1-1. Connect to 5GHz Wi-Fi 12

III-1-2. Remember Wi-Fi 14

III-2. Device Management 14

III-2-1. Language 15

III-2-2. Resolution 15

III-2-3. Resolution Mode 16

III-2-4. Maximum Connections 16

III-2-5. Android Audio Streaming 17
III-2-6. Display Mode 17
III-2-7. Reboot Timer 18
III-2-8. One Touch Play settings 18
III-3. About Device 19
IV. Web UI (Administrator) 20
IV-1. Wi-Fi Channel 21
IV-2. LAN IP Settings 22
IV-3. SSID 23
IV-4. Password 24
IV-5. Sketch 24
IV-6. Central Management System 25
IV-7. Conference Control 25
IV-8. My Screen 26
IV-9. Wallpaper Switch 27
IV-10. Dynamic Wallpaper 27
IV-11. Host Control 28
IV-12. Airview 28
IV-13. Airplay Support 29
IV-14. Admin Password 30

IV-15. Screen Saver 30
IV-16. Wi-Fi Enterprise 31
IV-17. Fixed Host 32
IV-18. Google Cast 33
IV-19. Castcode Control 33
IV-20. Upgrade 34
IV-21. Wi-Fi Diagnostic Tool 34
IV-22. Pairing Settings 40
IV-23. Multicast 40
IV-24. Download Pairing File 41
IV-25. Reboot 41
IV-26. Reset to Factory Default 41

V. Connecting the TWP-100R1K via Smart phone App 42

IV-1. Android OS 42
IV-2. iOS 43

VI. Applications & Operation 44

Regulations 46

Federal Communication Commission Interference Statement..... 46
RoHS46

Limited Warranty 47

I. Product Information

The TWP-100R1K 4K Wireless HDMI Extender Kit offers efficiency and creativity with unprecedented 4K HD wireless presentation solution for business meetings and lectures.

Easy plug-and-play makes group presentations possible with just one click, users can cast, interact and receive high-quality imagery over multiple types of devices (desktop, laptop, tablet and mobile).

I-1. Package Contents

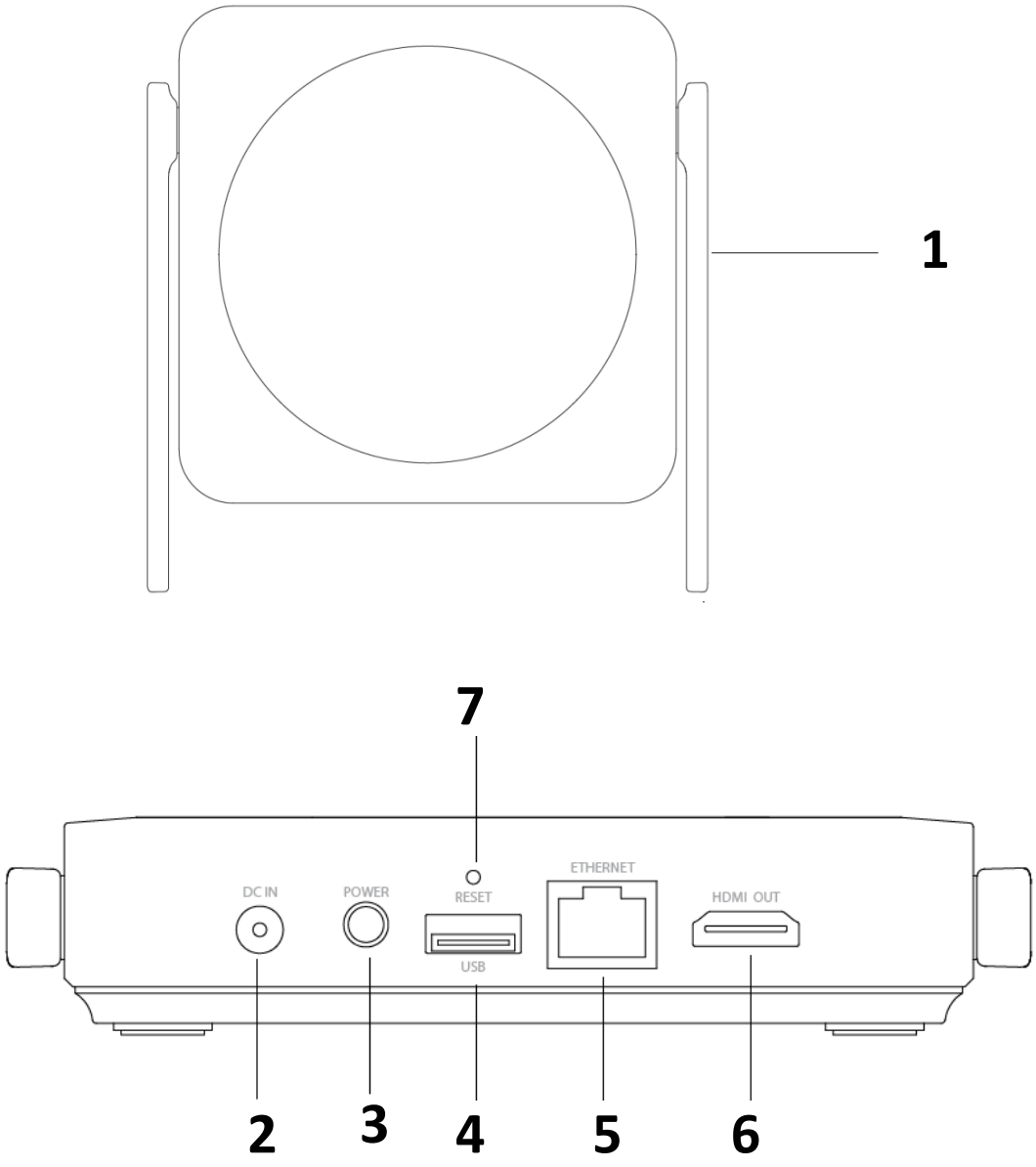
- TWP-100R1K (TWP-101R / TWP-101R)
- Quick Installation Guide
- HDMI cable (100cm/ 3ft)
- HDMI cable (30cm/ 1ft.)
- Universal Power Adapter (5V DC, 2A)

I-2. System Requirement

- Windows 8/10 32bit/64bit or above
- Mac 10.9 or above
- iOS 9 or above
- Android 5 or above

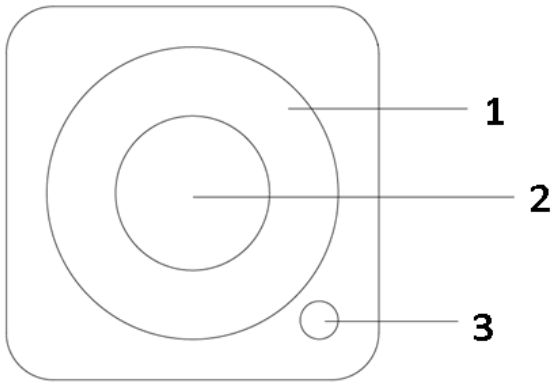
I-3. Hardware Interface

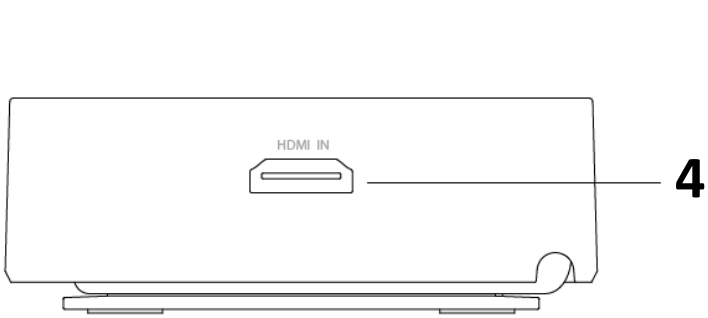
I-3-1. TWP-101R (RX) Overview

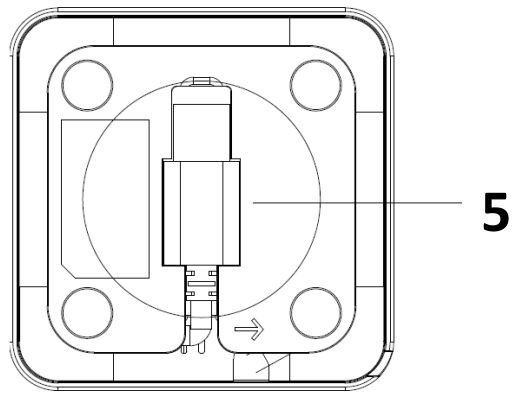


No.	Description
1	Antenna
2	Power Jack
3	Power Button
4	USB Port
5	Ethernet Port
6	HDMI Port
7	Reset Button

I-3-2. TWP-101T (TX) Overview







No.	Description
1	Status (Ring) LED
2	Main Button
3	Side Button
4	HDMI Port
5	USB Cable

I-4. LED Status

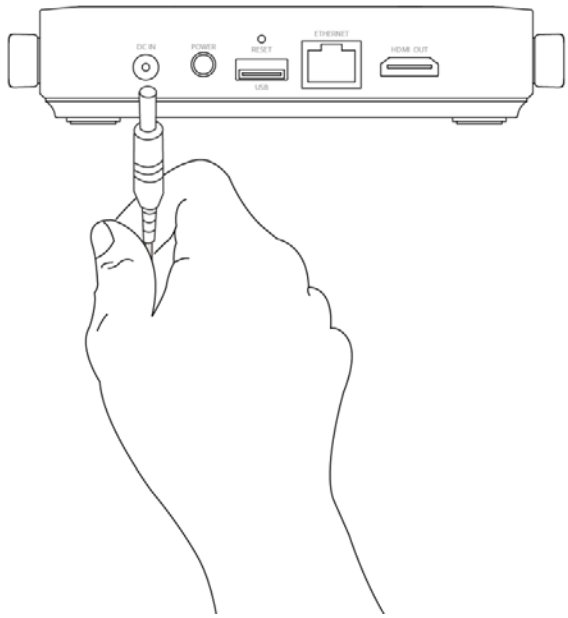
Ring Status	Ring Color	Side Button LED Color	Description
Off	N/A	Green	TX is in Host mode and not projecting.
Off	N/A	Red	TX is in Guest mode and not projecting.
On	White	Green	TX is in Host mode and projecting.
On	White	Red	TX is in Guest mode and projecting.
On	Red	Red	TX is in Guest mode and standby. Not projecting.
On	Red	Green	TX is in Host mode and standby. Not projecting.
Flashing	Red	Red	TX is in Guest mode and sending request.
Flashing	Red	Red and flashing	1. Under connection 2. Paring and in OTA 3. Connection failed
Flashing	Red	Off	TX OTA fails.
Flashing	White	Off	Paring is done.
Flashing	White	Off	TX OTA completes.

II. Hardware Installation

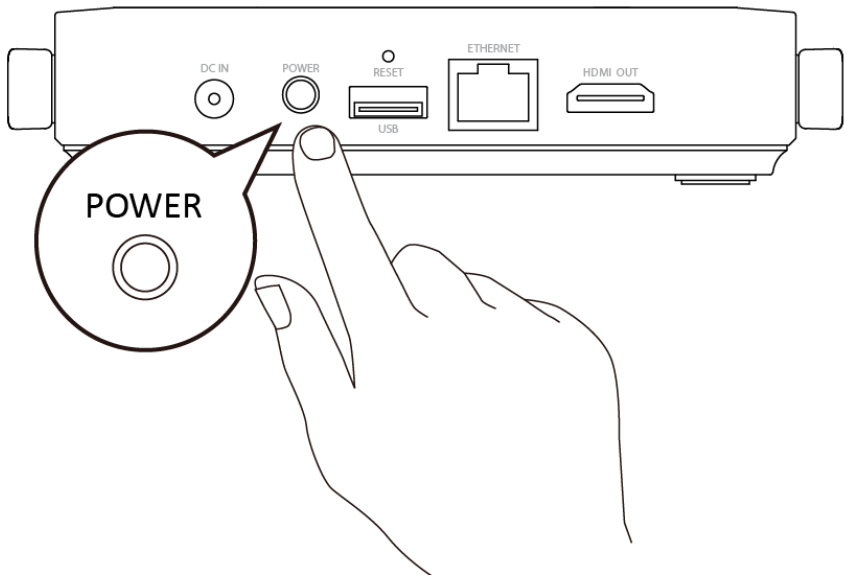
Please follow the steps below to install your TWP-100R1K.

II-1. TWP-101R Installation

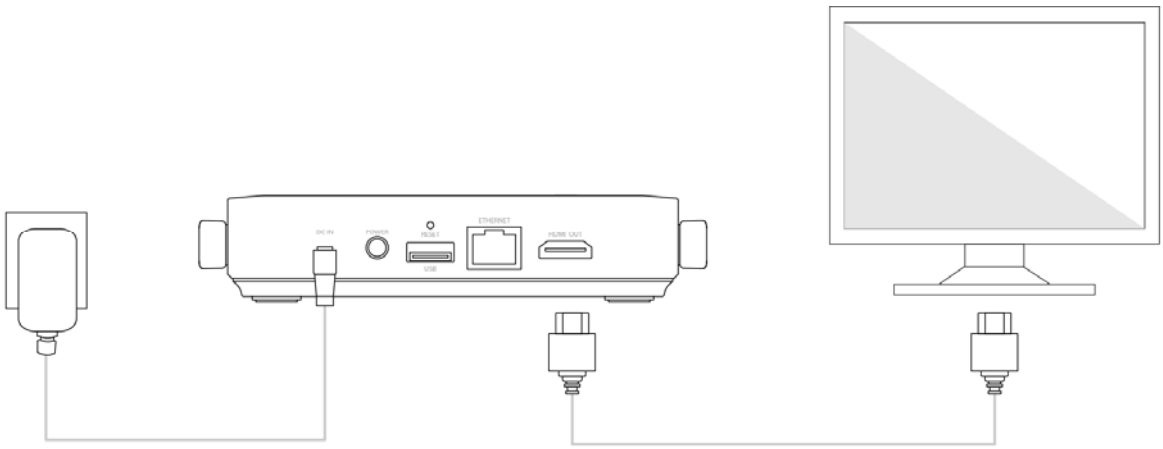
1. Attach the included power adapter to the device.



2. Press the Power Button at the back.



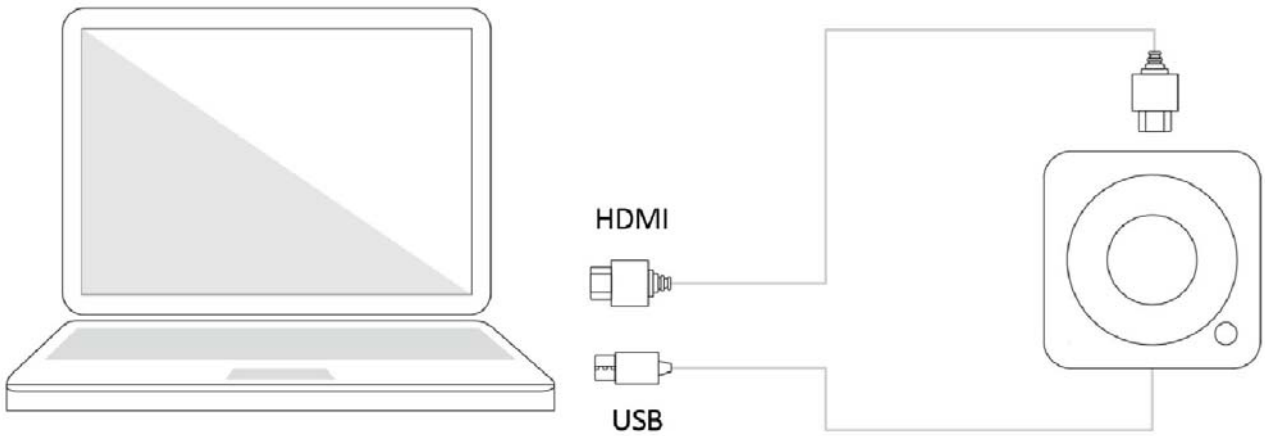
3. Plug HDMI cable into the device and projector’s, TV's or monitor’s HDMI port.



II-2. TWP-101T Installation

1. Connect TWP-101T’s USB cable into your laptop USB port.

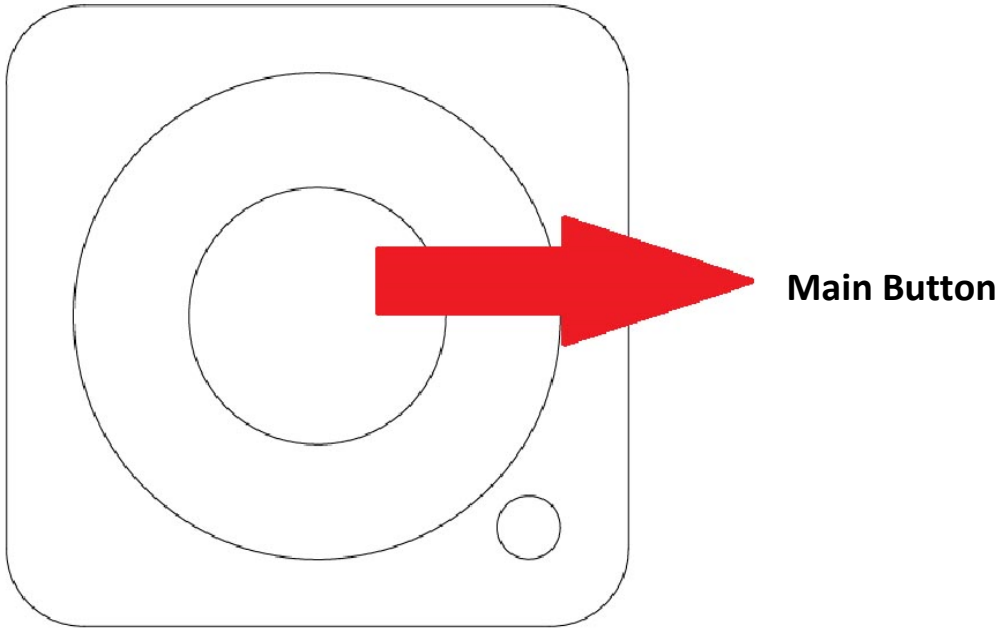
2. Connect the HDMI cable between TWP-101T and your laptop.



II-3. Share the Screen

1. Press the main button on the device to share your laptop screen to the projector, TV or monitor.

2. Press again the main button to disconnect.



III. Web Configuration

TWP-100R1K comes with two standard access levels: Administrator and Base

User.

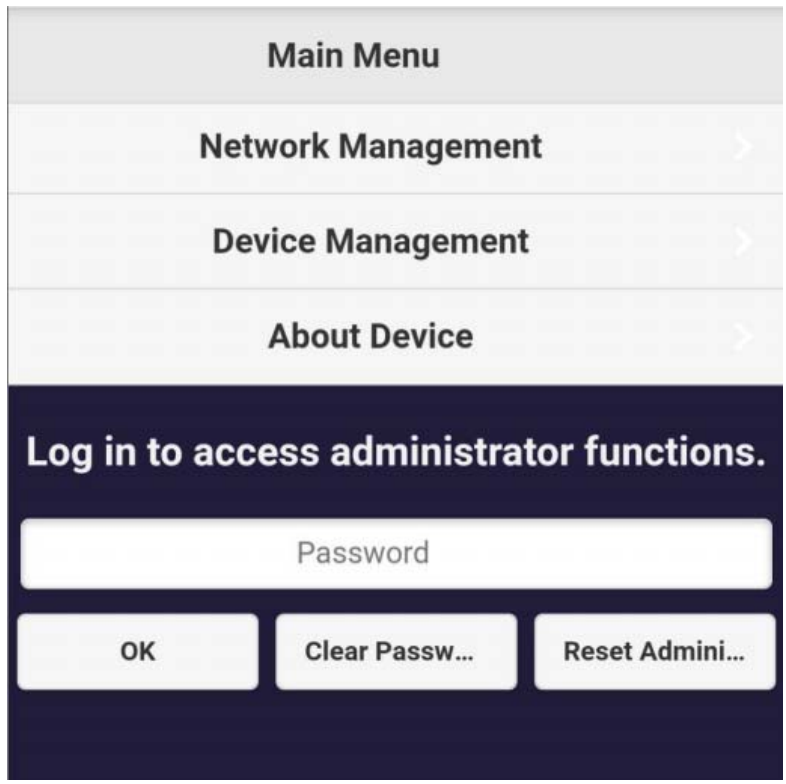
NOTE: Please login as administrator for higher level of access control.

Please follow the steps below to access the TWP-100R1K Web UI.

1. Connect the SSID “TRENDnet_HDMI” from your laptop network Wi-Fi and enter the password shown on the screen.

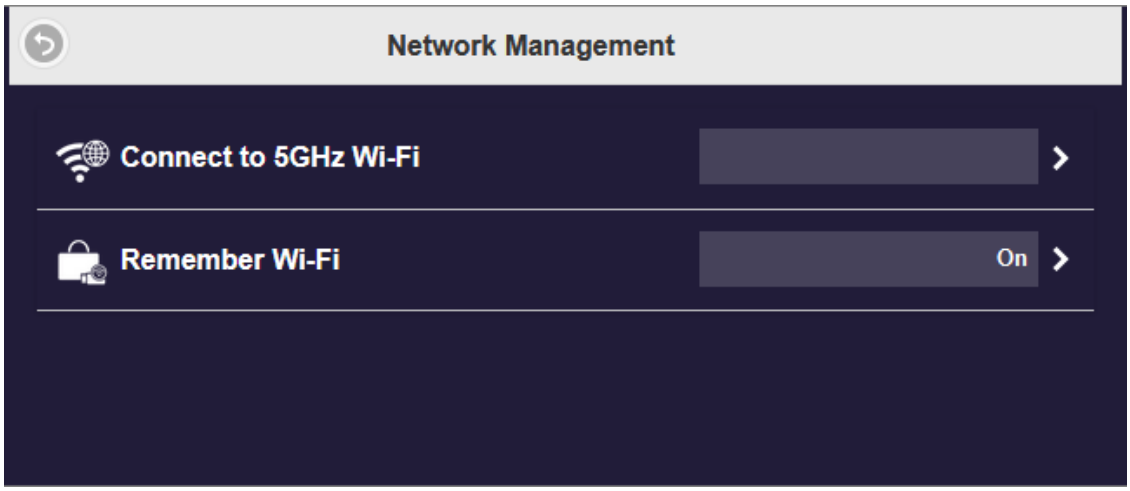
2. Turn on web browser and enter “192.168.168.1” in the address bar.

This page allows user to edit some basic settings such as Network Management, Device Management and check the WHDMI status in About Device.



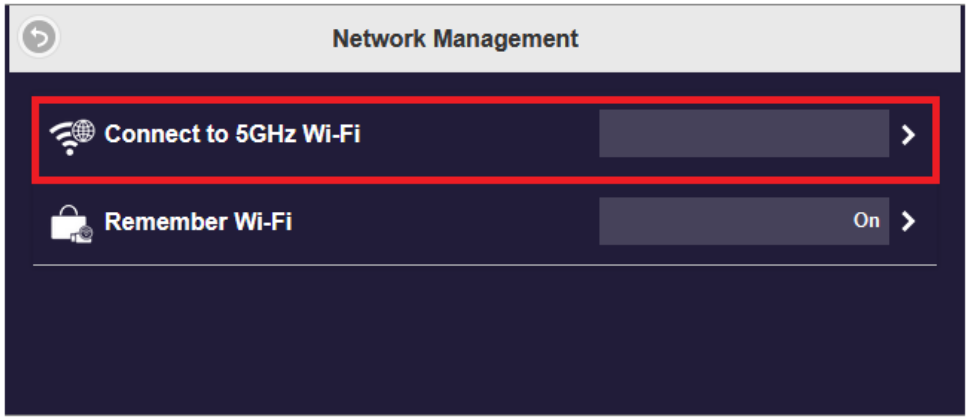
III-1. Network Management

Use the Network Management page to configure Wi-Fi settings for the TWP-101R and encryption.

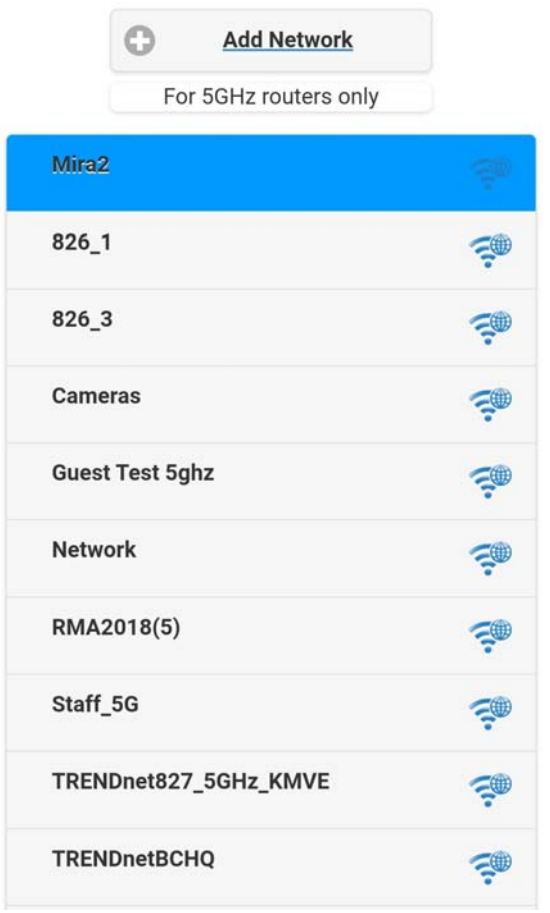


III-1-1. Connect to 5GHz Wi-Fi

In this page you can connect TWP-101R to the internet via external Wi-Fi from the list or manually add network.



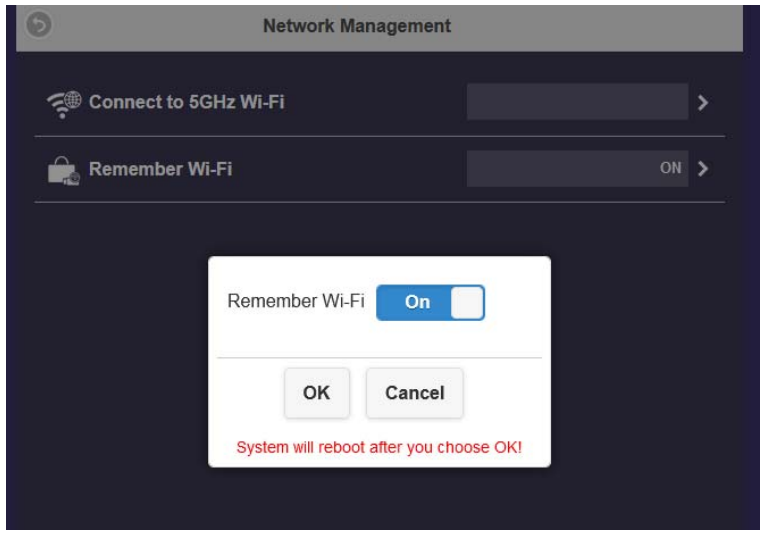
Connect TWP-101R to the available SSID from the list and enter the Wi-Fi password.



Alternatively, you can click the “Add Network” button to manually add network. In this page you can define the encryption type in WPA/WPA2, OPEN or 802.1xEAP.

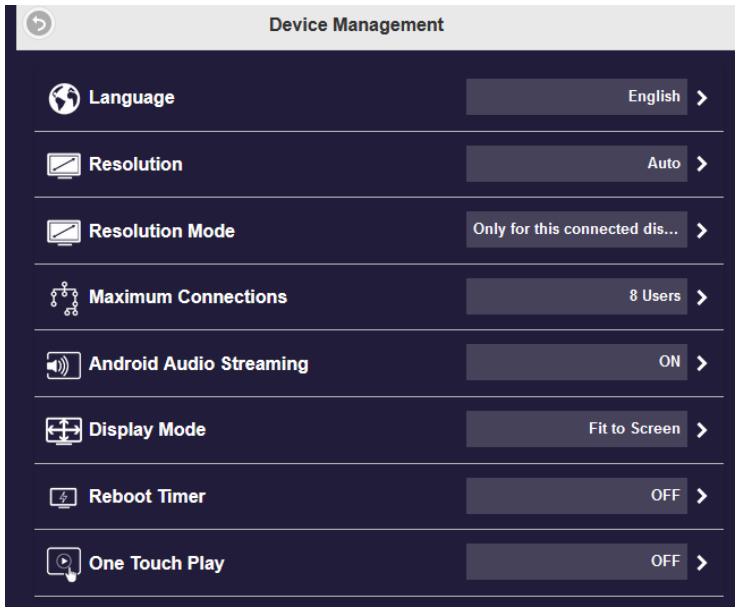
III-1-2. Remember Wi-Fi

In this page you can allow TWP-101R to remember the previous W-Fi settings



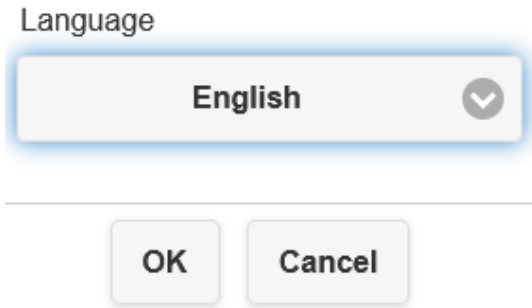
III-2. Device Management

This page allows user to configure Language, Resolution, Resolution Mode, Maximum Connections, Android Audio Streaming, Display Mode, Reboot Timer and One Touch Play settings.



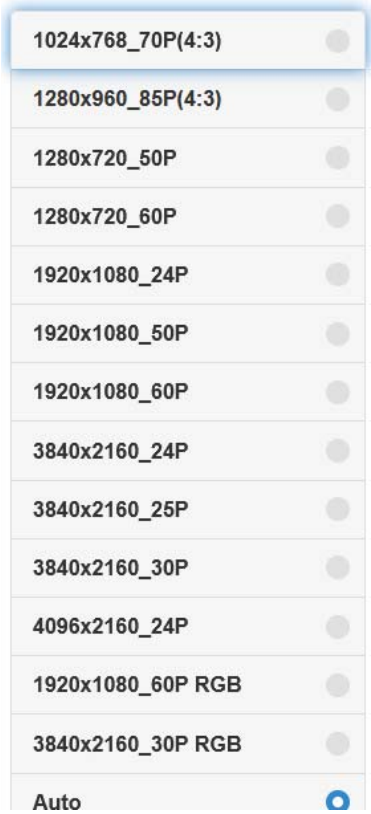
III-2-1. Language

Scroll down and choose your language from the list.



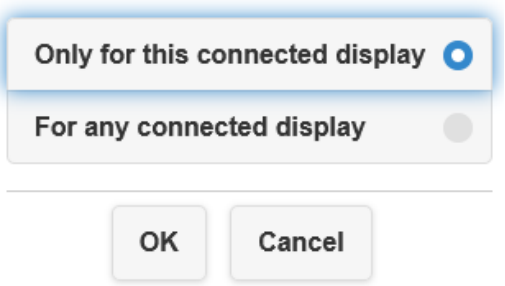
III-2-2. Resolution

Move the slider to the resolution you want, and then click Ok.



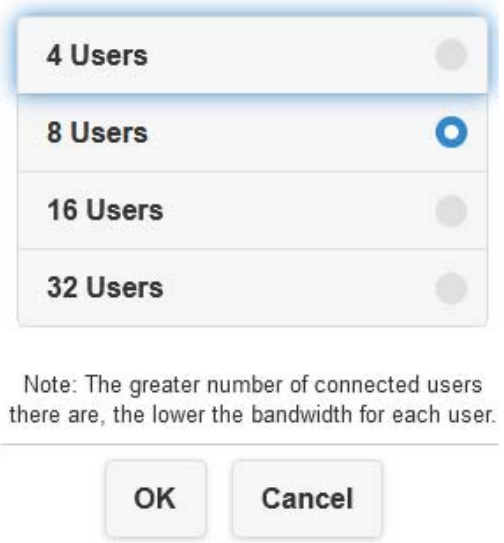
III-2-3. Resolution Mode

In this page there are two modes for resolution.



III-2-4. Maximum Connections

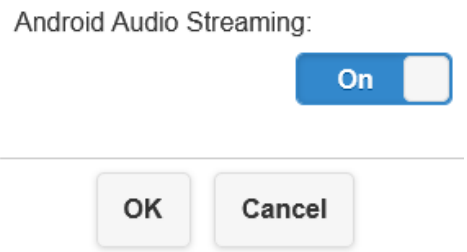
This page allows user to configure maximum connections limit for TWP-101R. Please select the applicable maximum connections for your usage. It supports up to 32 users and the defaults maximum connection is 8 users.



NOTE: Please be aware that when multiple users use a single device, more connections consume the finite bandwidth.

III-2-5. Android Audio Streaming

Enable the function to allow Android users to cast video and audio to the external display.



NOTE: Please be aware that the default setting of Android audio streaming is Off.

III-2-6. Display Mode

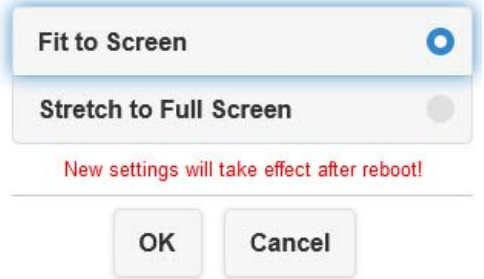
It supports below Display Modes.

Fit to screen:

Keep your original aspect ratio of the video.

Zoom to screen:

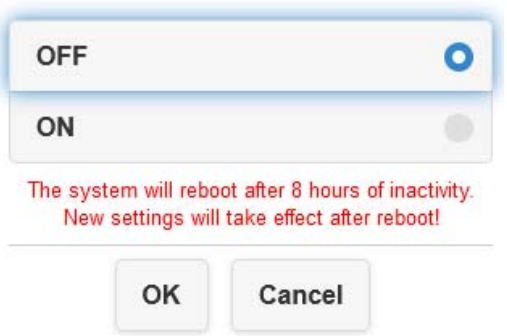
It would not keep the aspect ratio of the video.



III-2-7. Reboot Timer

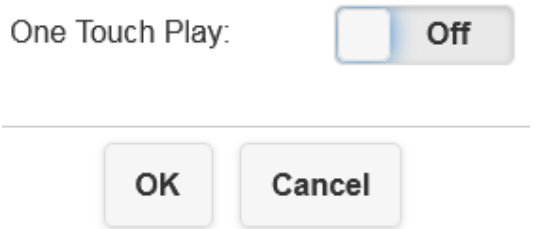
TWP-101R will automatically reboot every 8 hours under the following conditions:

- No TWP-101T is connected to TWP-101R.
- None of the device is connected to TWP-101R, including Windows, Android, MacOS, iOS.



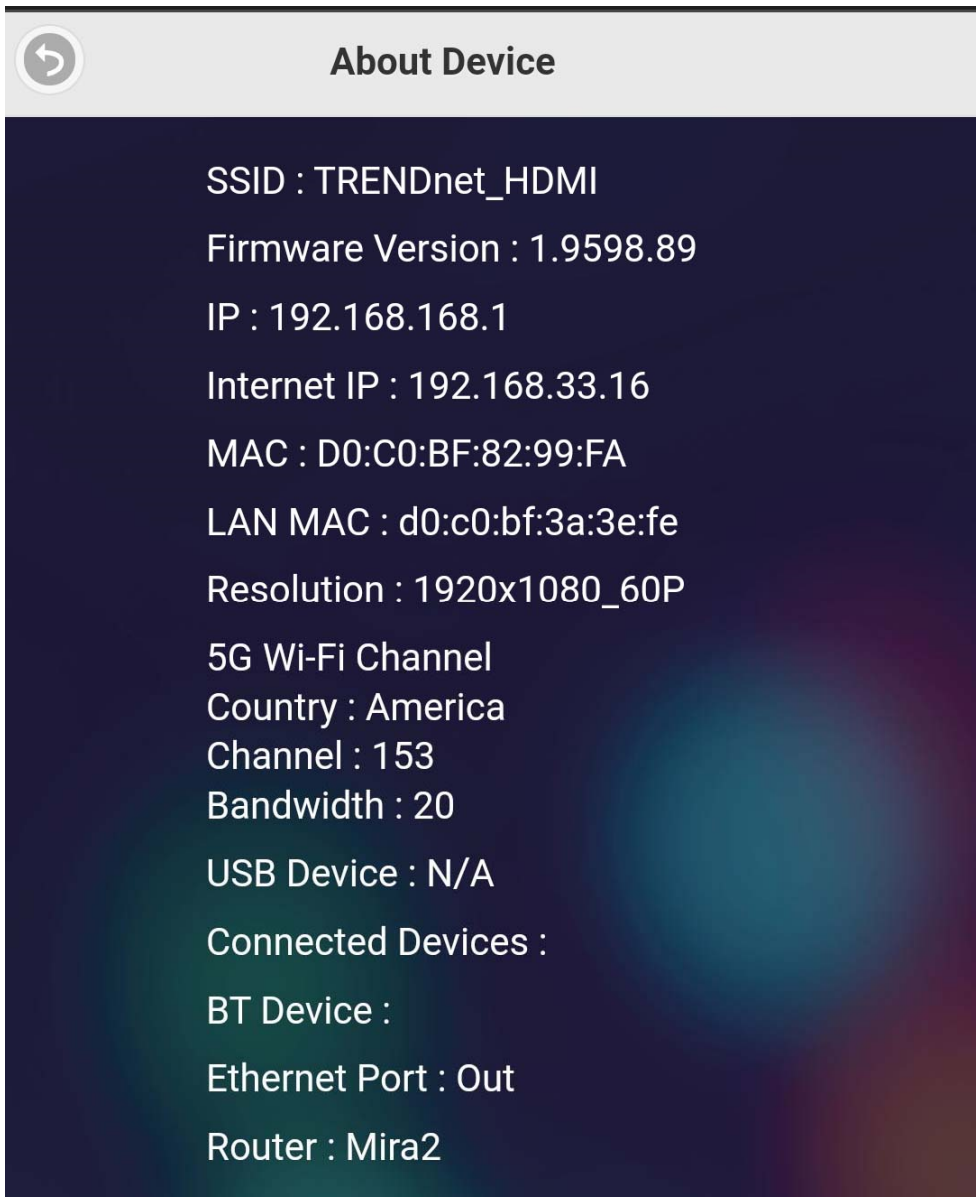
III-2-8. One Touch Play settings

Allows the device becomes an active resource when pressing the button.



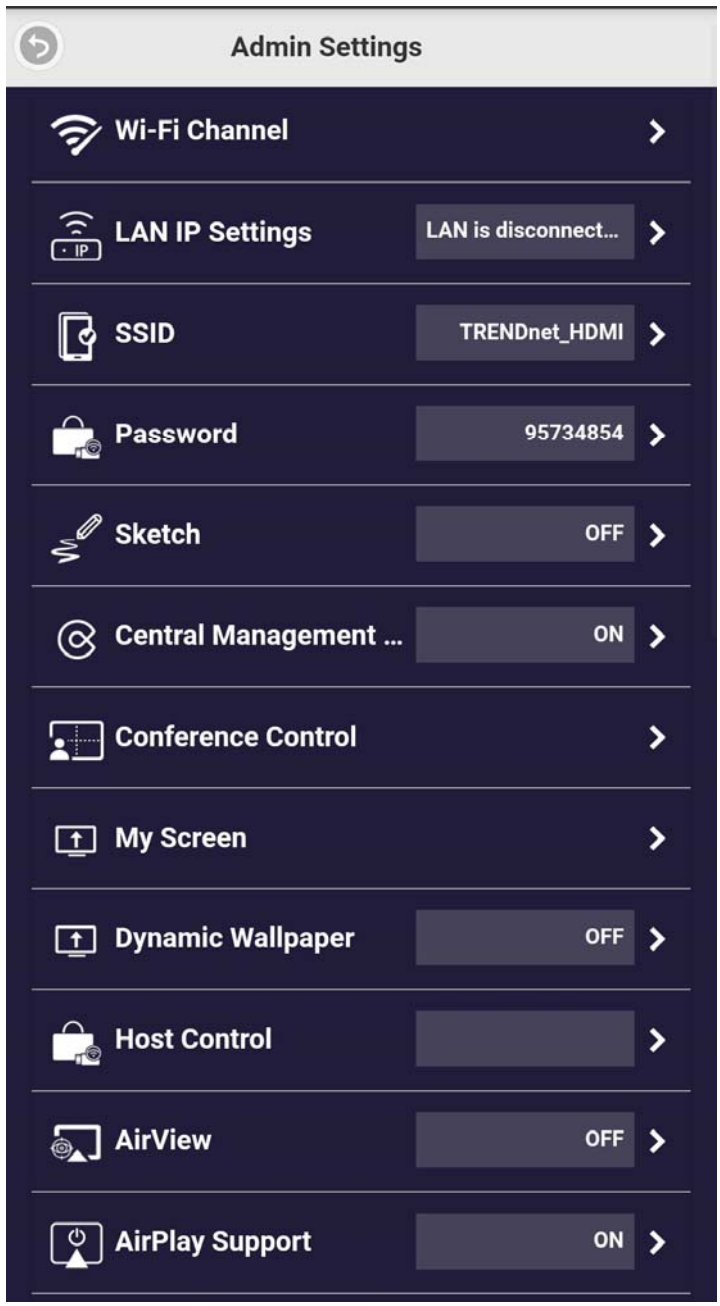
III-3. About Device

In “About Device” page provides you with information on:



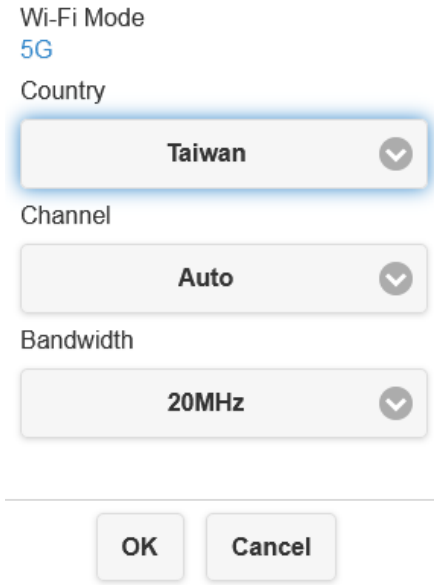
IV. Web UI (Administrator)

The Admin Setting page allows users with higher access authorization to customize it’s network settings and features.



IV-1. Wi-Fi Channel

In this page you can set up the receiver's Wi-Fi channel.

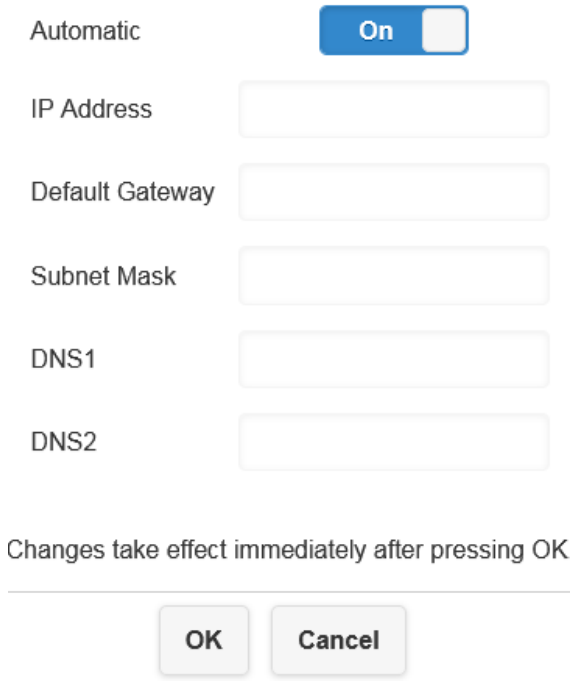


Item	Description
Country	Please select the correct country for 5GHz channel
Channel	Select a wireless channel from 36 – 165
Bandwidth	Select the bandwidth in 20MHz or 80MHz

NOTE: Please be aware that users cannot configure the Wi-Fi Channel while TWP-101R is connecting to the external internet.

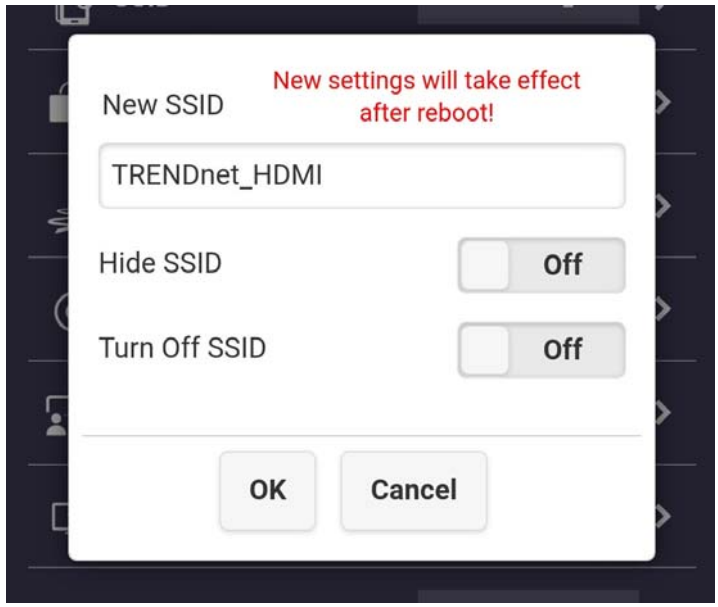
IV-2. LAN IP Settings

The LAN IP Settings page is used to configure the settings for LAN network, including IP address, Default Gateway, Subnet mask, DNS.



IV-3. SSID

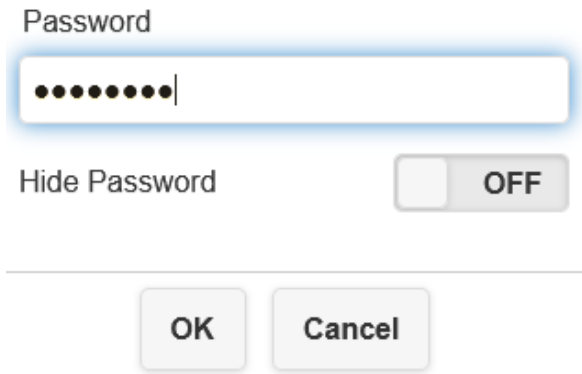
The SSID page is used to customize the SSID, including renaming, Hide SSID or Turn Off SSID.



NOTE: After changing the new SSID, please reconnect TWP-100R1K by re-pairing the transmitter and the receiver.

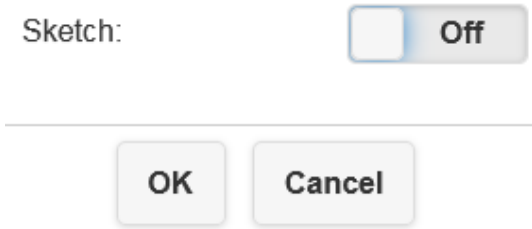
IV-4. Password

You can change or hide the Wi-Fi connection password on the landing page.



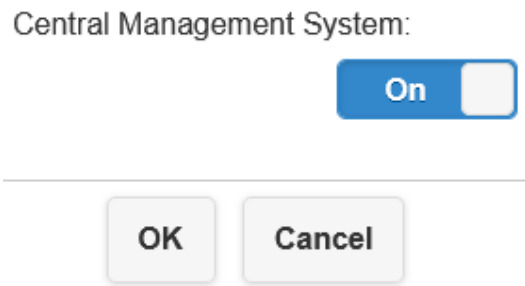
IV-5. Sketch

You can turn On/Off sketch in this page.



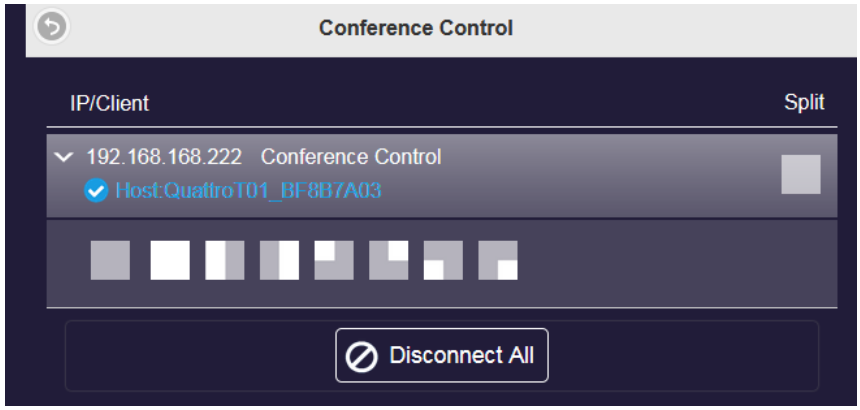
IV-6. Central Management System

You can turn On/Off Central Management System in this page.



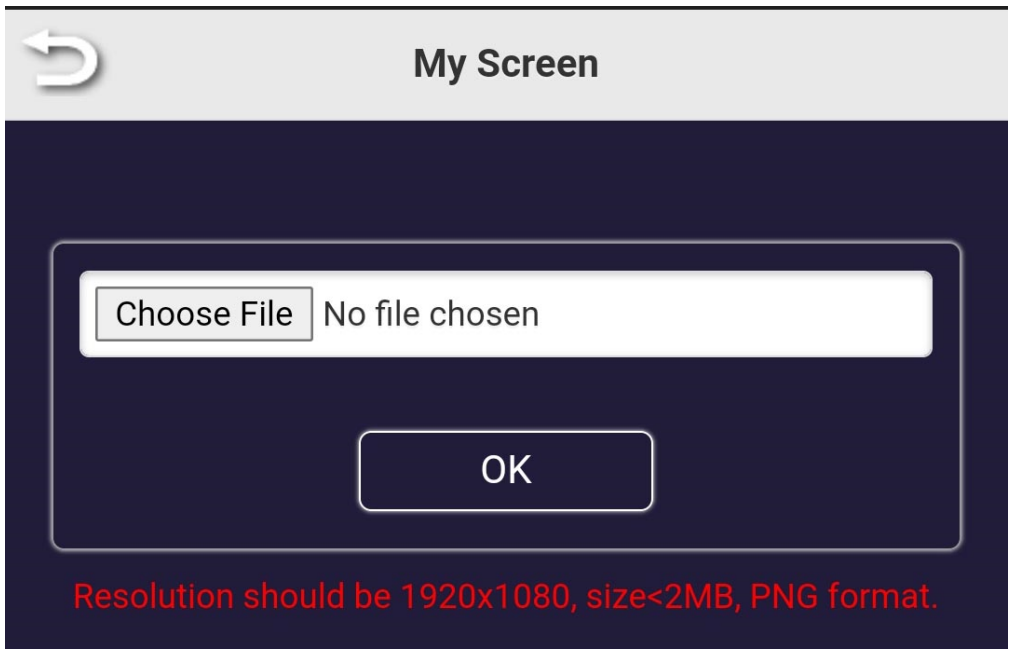
IV-7. Conference Control

This Conference Control page allows assign monitor split screen position that will appear on monitor's screen.



IV-8. My Screen

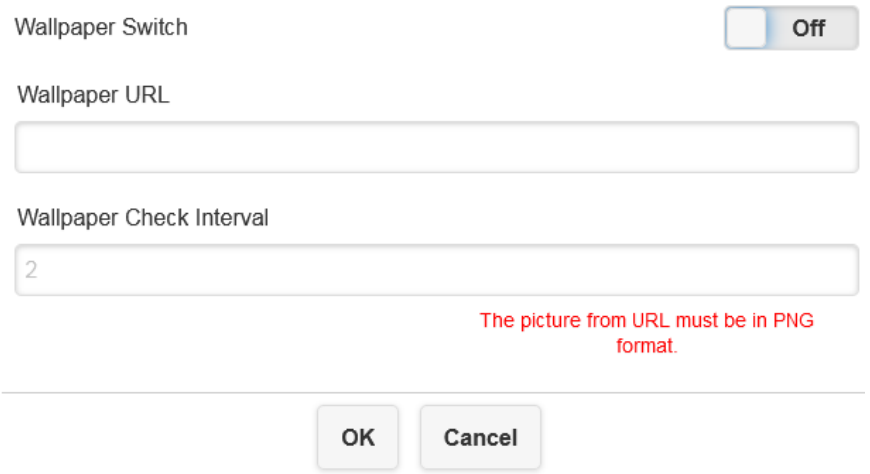
The My Screen page allows users to change the theme of the main page of RX by uploading images.



NOTE: Images (ONG format) size should be 1920 x 1080 resolution and 2MB in size.

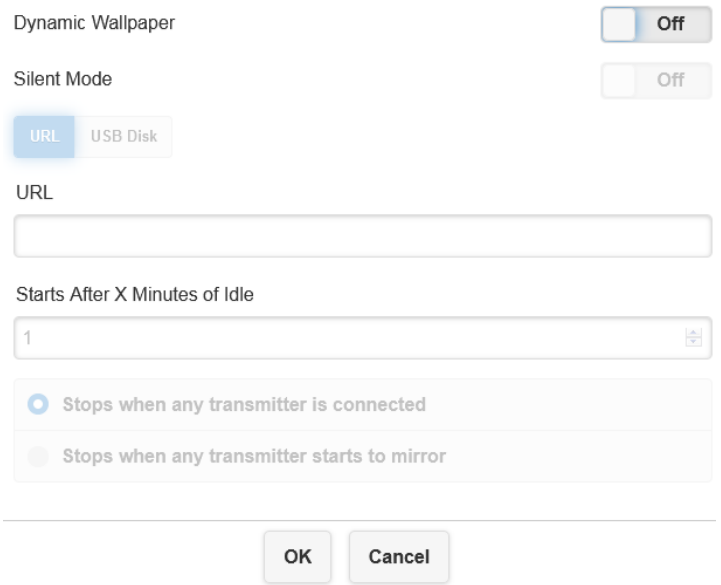
IV-9. Wallpaper Switch

This page allows users to set wallpaper URL and check interval.



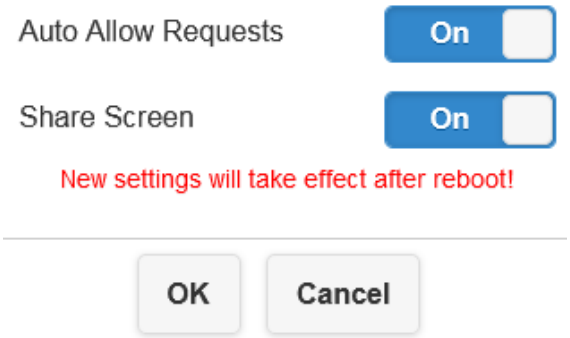
IV-10. Dynamic Wallpaper

The Dynamic Wallpaper allows you to use wallpapers as native Dynamic Desktops after monitor idle for a certain number of minutes. You can set the idle time when this mode enabled.



IV-11. Host Control

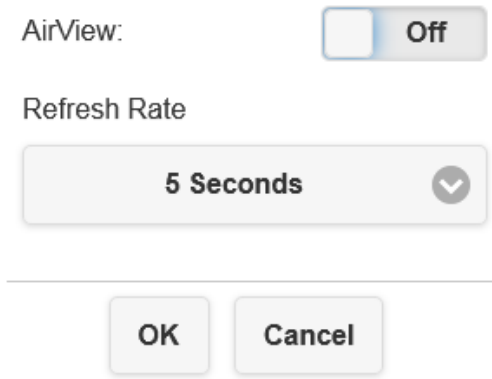
The host control allows the 1st user to become the Host of display, all other casting requests will be transferred to Host before casting. There are also some items to be set.



Item	Description
Auto Allow Requests	The new request will be cast on screen directly.
Share screen	The new request will be mirrored in screen split when this function is on. The new casting will in full-screen size when this function is off.

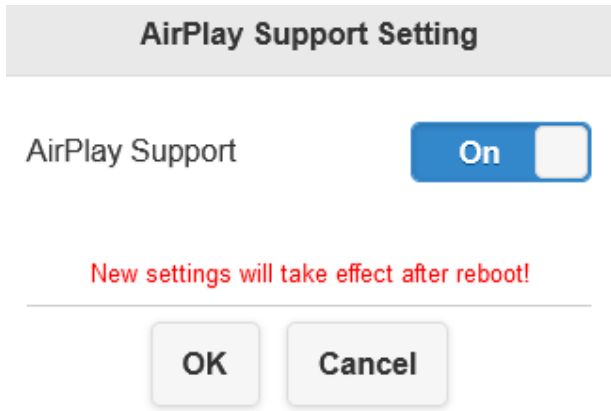
IV-12. Airview

The Airview page allows users to enable/disable Airview function. And you can set the number of times the monitor updates with new images each second in Refresh Rate.



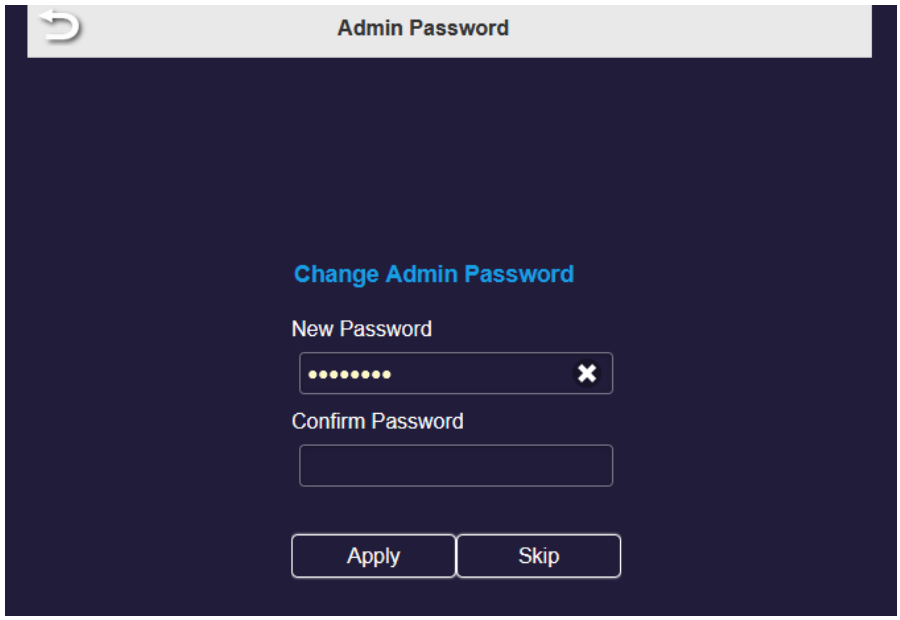
IV-13. Airplay Support

The Airplay function allows iOS /Mac users to cast without TX.



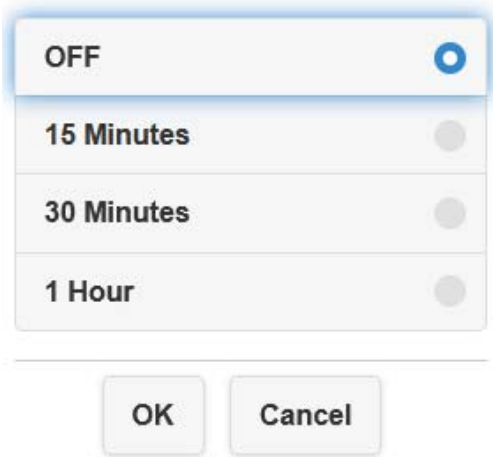
IV-14. Admin Password

The Admin Password page allows the users to change the password for better security.



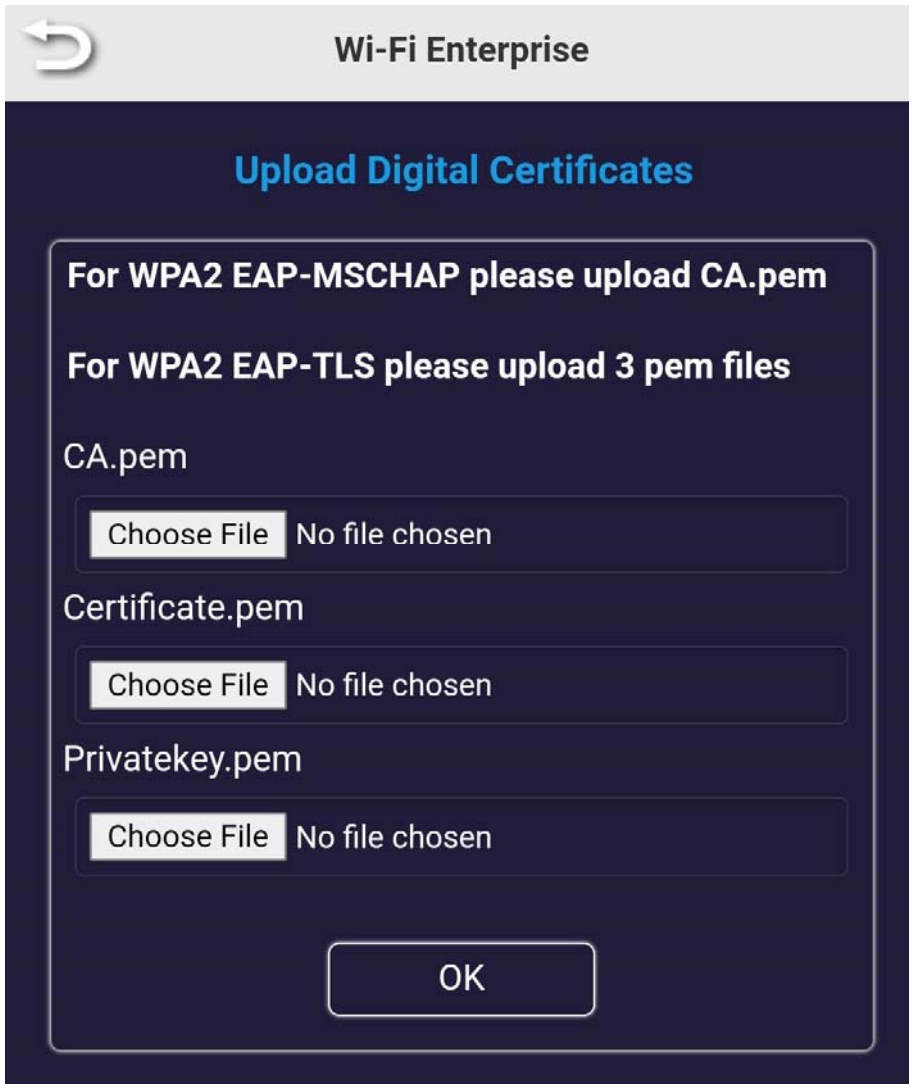
IV-15. Screen Saver

The Screen Saver page allows users to set the idle time and can be set to blank the screen after a period of user inactivity.



IV-16. Wi-Fi Enterprise

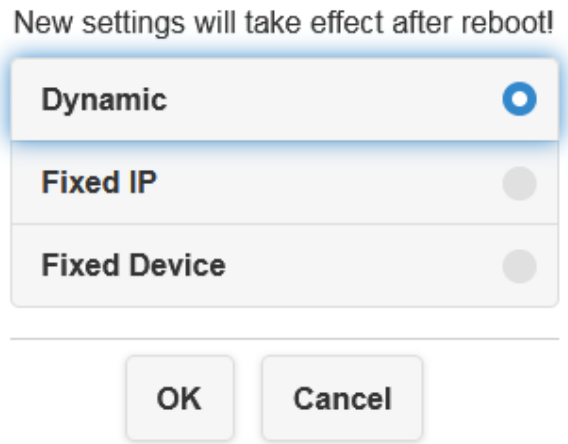
The Wi-Fi Enterprise page allows admin to upload Digital certificates.



IV-17. Fixed Host

The Fixed Host page allows users to set a specific device as fixed host.

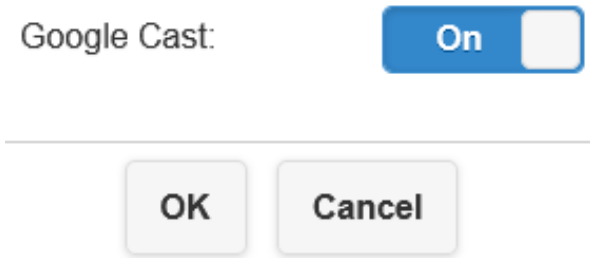
NOTE: Please reboot your TWP-100R1K before new settings will take effect.



Item	Description
Dynamic	The first connected device will be set as the host.
Fixed IP	Assigning a specific IP address as the fixed host.
Fixed device	Assigning a certain device as the fixed host.

IV-18. Google Cast

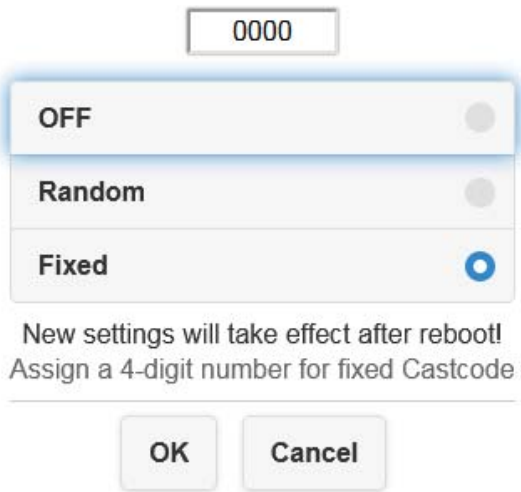
The Google Cast page allows users to direct casting via Chromecast for Android, MacOS users.



NOTE: Please be aware that when casting via Chromecast, the TWP-100R1K must connect to the internet.

IV-19. Castcode Control

The Castcode Control page allows users to set castcode to prevent unauthorized casting.



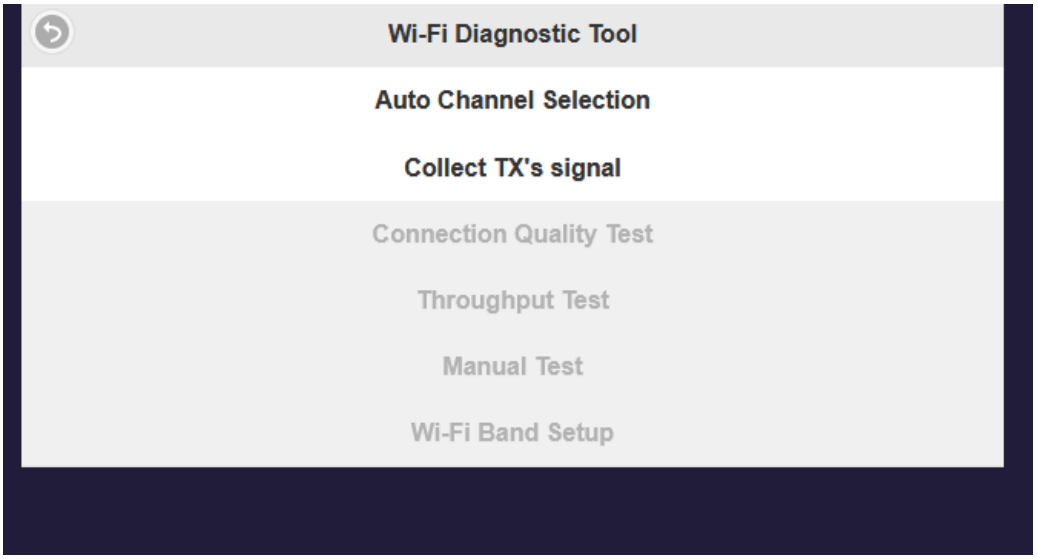
IV-20. Upgrade

The Upgrade page allows users to update TWP-100R1K firmware.

NOTE: TWP-101R must be connected to the internet.

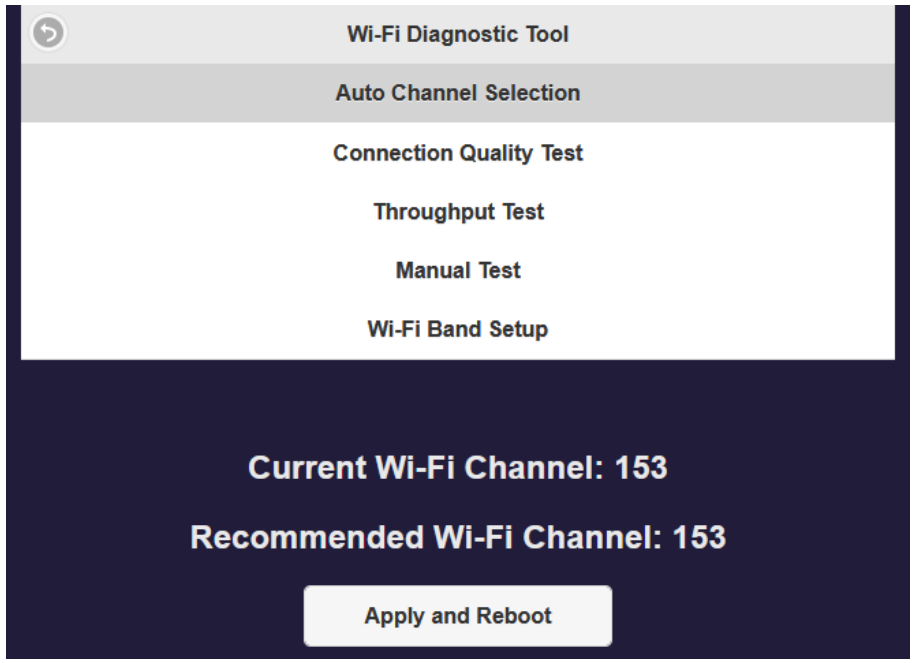
IV-21. Wi-Fi Diagnostic Tool

The Wi-Fi Diagnostic Tool allows users to easily test TX wireless networks and its corresponding information. Please tap the “Collect TX’s signal” button to establish the connection.



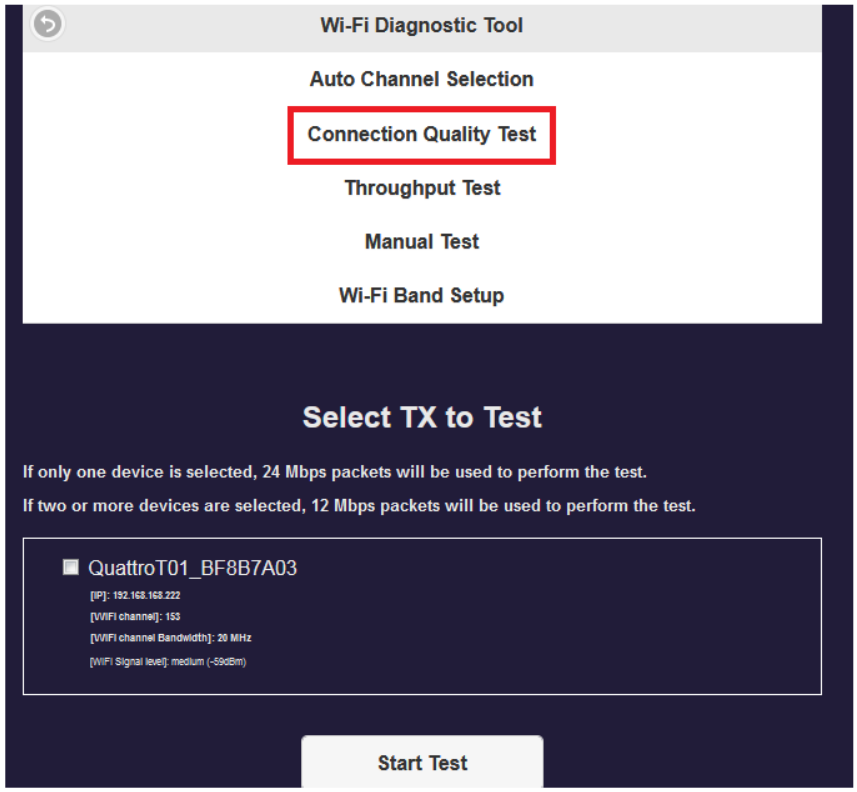
Auto Channel Selection:

The Auto Channel Selection scans all available channels and connects to the channel with the best signal. Tap the “Apply and Reboot” button to start scanning the channels.



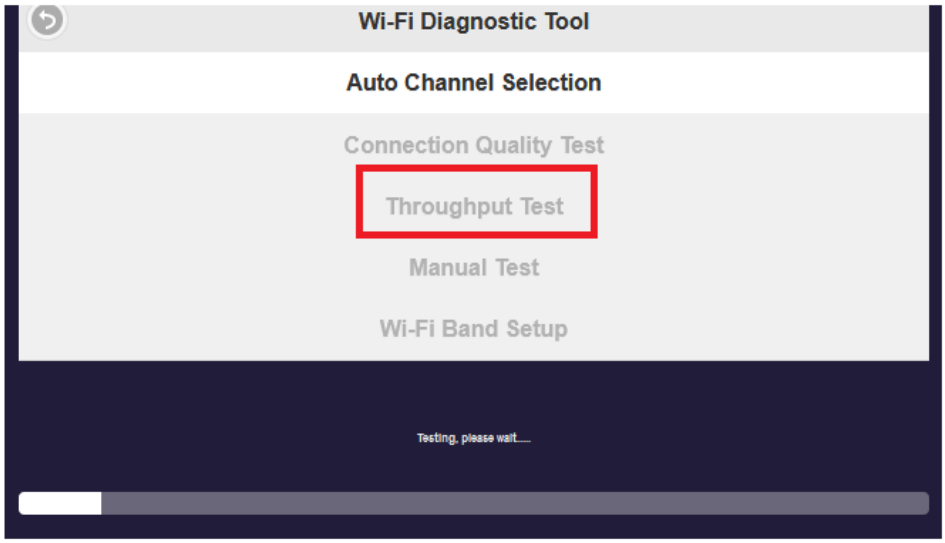
Connection Quality Test:

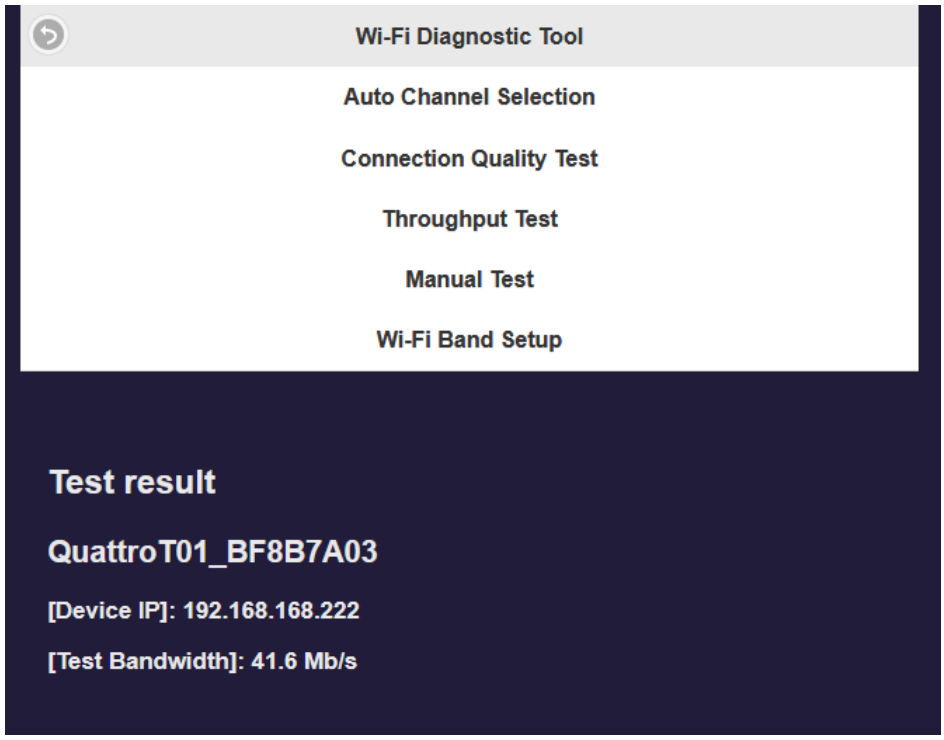
In this page you can test the TX network connection by tapping the “Stat Test” button.



Throughput Test:

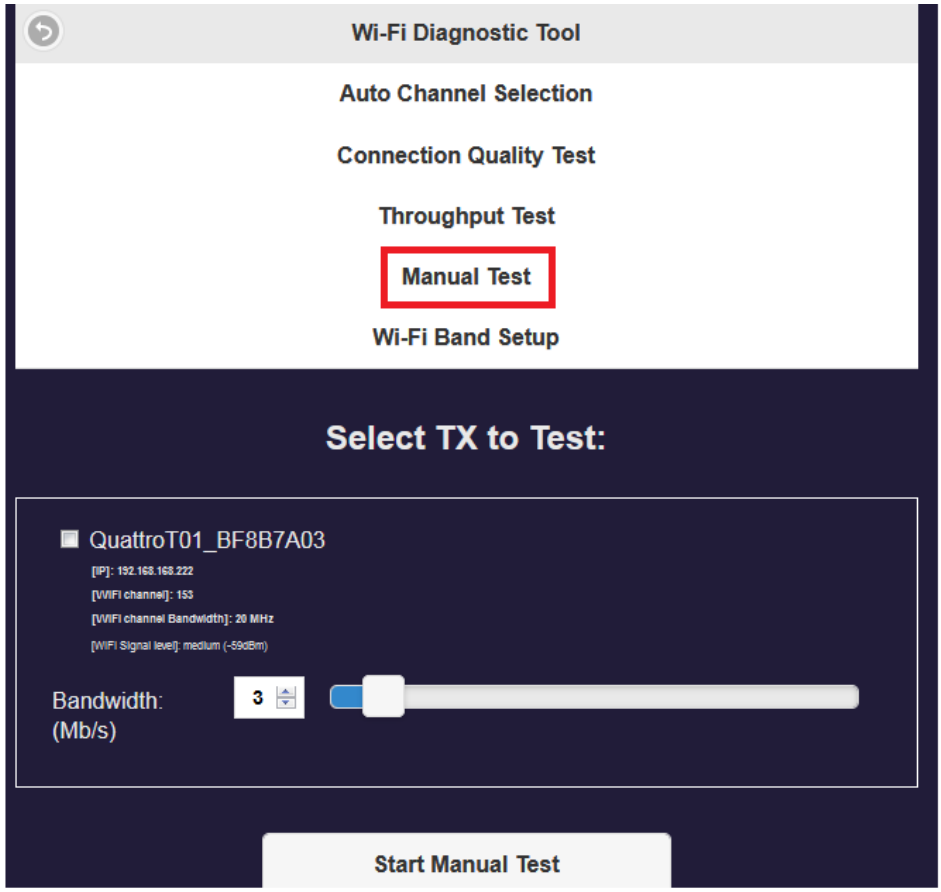
The Throughput Test page allows users to use the tool to analyze TWP-100R1K networks throughput performance.





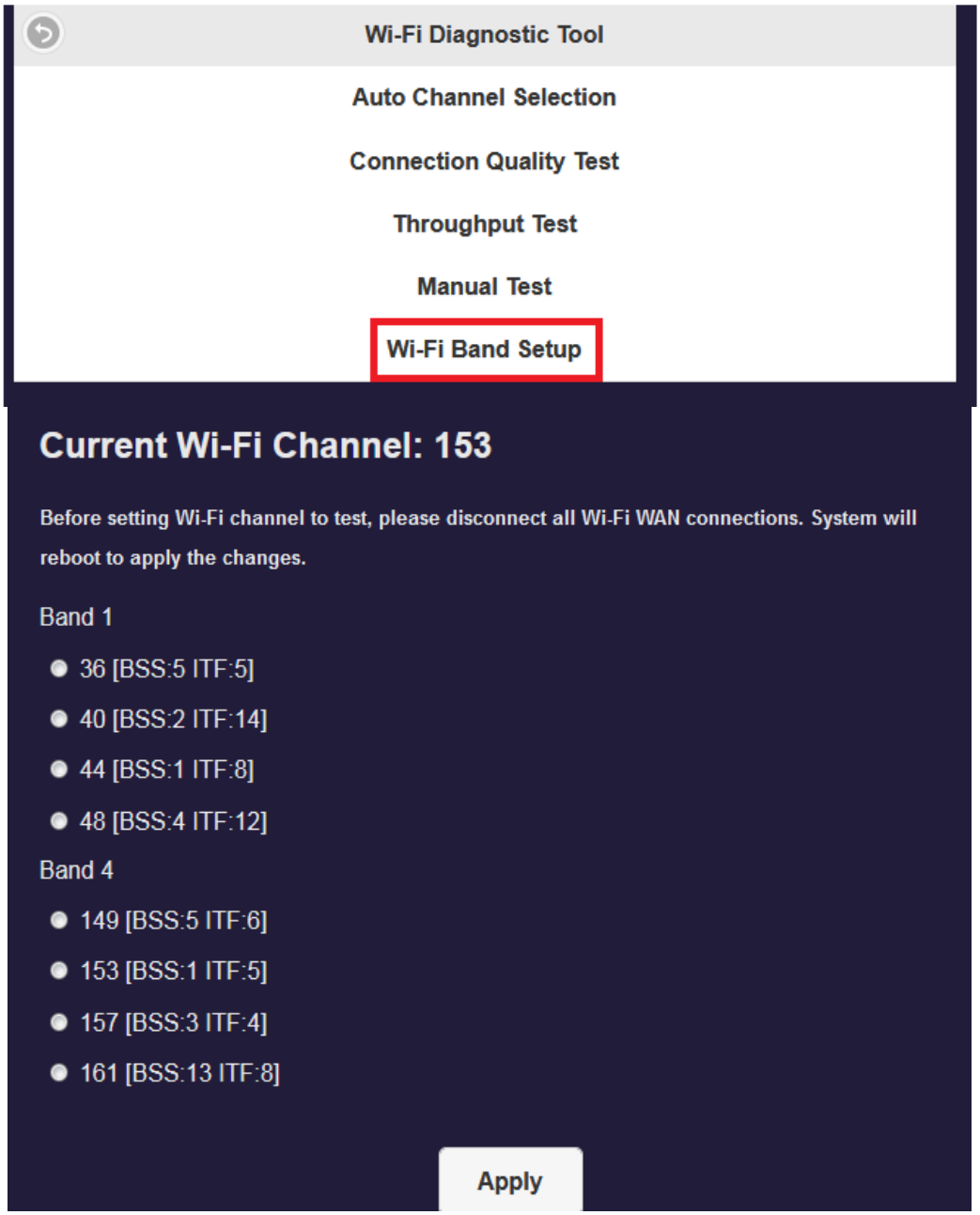
Manual Test:

The Manual Test page allow users to manually adjust the bandwidth to check the throughput of your TWP-100R1K. Tap the “Start Manual Test” button to start the testing.


Wi-Fi Diagnostic Tool
Auto Channel Selection
Connection Quality Test
Throughput Test
Manual Test
Wi-Fi Band Setup
Select TX to Test:
QuattroT01_BF8B7A03
[IP]: 192.168.168.222
[WiFi channel]: 153
[WiFi channel Bandwidth]: 20 MHz
[WiFi Signal level]: medium (-59dBm)
Bandwidth: (Mb/s)
3
Start Manual Test

Wi-Fi Band Setup:

The Wi-Fi Band Setup page allows users to set the Wi-Fi channel before testing. Tap the Apply button to save the changes.

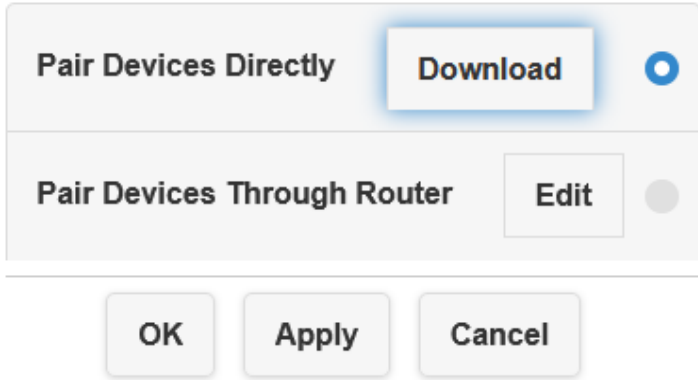


IV-22. Pairing Settings

The Pairing Settings page allows users to set up the download path of the pairing file.

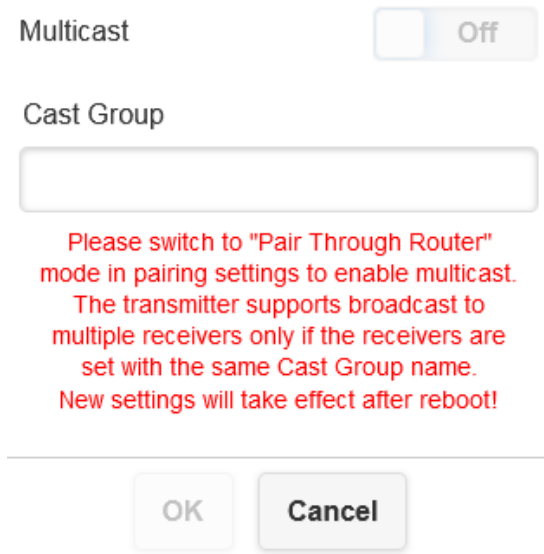
- Directly from RX

- Through the router.



IV-23. Multicast

You can broadcast to multiple RX by turning on the Multicast function in this page.

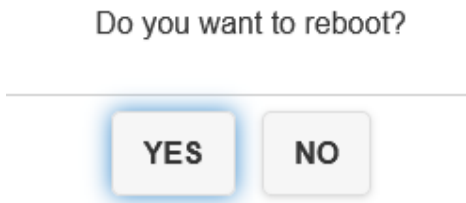


IV-24. Download Pairing File

The Download Pairing File page allows users to download the pairing file from the RX. You can save the pairing file in USB disk and plug into the TX for pairing.

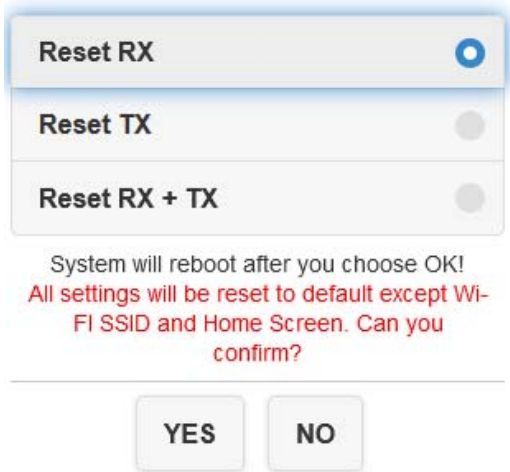
IV-25. Reboot

The Reboot page allows users to remotely reboot the RX.



IV-26. Reset to Factory Default

The Reset to Factory Default page allows users to remotely reset RX, TX or RX+TX to factory default settings.



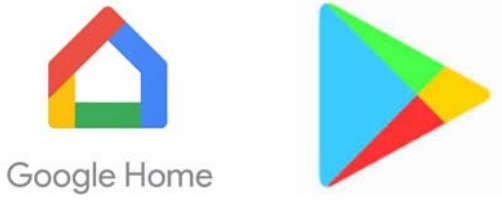
V. Connecting the TWP-100R1K via Smart phone App

You can connect the TWP-100R1K via App in Android and iOS.

IV-1. Android OS

Please follow the steps below to connect your TWP-100R1K with Android phone.

1. Download and install “Google Home” App from Play Store.



2. Connect your RX to the Internet with an Ethernet cable.

3. Connect the SSID “TRENDnet_HDMI” from your Android phone and enter the password shown on the main screen.

4. Tap on the name of the device list you wish to mirror your Android device's display to.

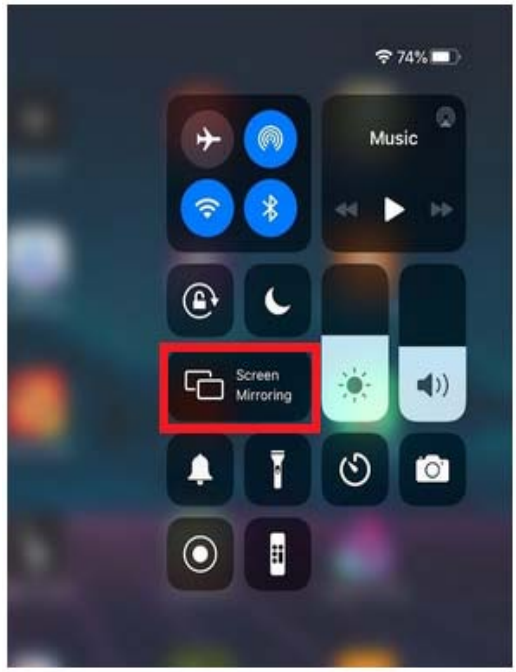
IV-2. iOS

Please follow the steps below to connect your TWP-100R1K with iOS phone.

1. Connect the SSID “TRENDnet_HDMI” from your iOS phone and enter the password shown on the screen.

2. Swipe down from the upper-right corner to reveal the Control Center.

3. Tap the “Screen Mirroring” button.



VI. Applications & Operation

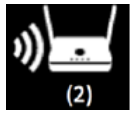
Please follow the steps below to mirror your screen to the monitor.

1. Follow the instructions on “Hardware Installation” Chapter to set up the TWP-100R1K projector system.

2. Connect the SSID “TRENDnet_HDMI” from your laptop network Wi-Fi and enter the password shown on the screen.

3. You will see the image that displays on your monitor as below.

NOTE: To disconnect the connection from the host, please click the main button on TX again.

Icon/Item	Description
	This icon shows the Airplay status (activated or deactivated)
	This icon shows the RX paring and connection status. The number (2) shows the total number of TX that are connected to the RX.
	This icon shows the Wi-Fi signal status (connected or disconnected)
	This icon shows the RJ45 port connection status (connected or disconnected)
Direct Link IP	RX's IP address.

4. Press the main button on TX to establish a connection with your laptop.

Regulations

Federal Communication Commission Interference 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 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 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.

IMPORTANT NOTE:

FCC 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.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

RoHS

This product is RoHS compliant.

Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

TWP-100R1K – 3 Years Warranty

If a product does not operate as warranted during the applicable warranty period, TRENDnet shall reserve the right, at its expense, to repair or replace the defective product or part and deliver an equivalent product or part to the customer. The repair/replacement unit's warranty continues from the original date of purchase. All products that are replaced become the property of TRENDnet. Replacement products may be new or reconditioned. TRENDnet does not issue refunds or credit. Please contact the point-of purchase for their return policies.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet within the applicable warranty period and providing a copy of the dated proof of the purchase. Upon proper submission of required documentation a Return Material Authorization (RMA) number will be issued. An RMA number is required in order to initiate warranty service support for all TRENDnet products. Products that are sent to TRENDnet for RMA service must have the RMA number marked on the outside of return packages and sent to TRENDnet prepaid, insured and packaged appropriately for safe shipment. Customers shipping from outside of the USA and Canada are responsible for return shipping fees. Customers shipping from outside of the USA are responsible for custom charges, including but not limited to, duty, tax, and other fees.

WARRANTIES EXCLUSIVE: IF THE TRENDNET PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT TRENDNET'S OPTION, REPAIR OR REPLACE. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

TRENDNET NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION MAINTENANCE OR USE OF TRENDNET'S PRODUCTS.

TRENDNET SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR OR MODIFY, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, OR OTHER HAZARD.

LIMITATION OF LIABILITY: TO THE FULL EXTENT ALLOWED BY LAW TRENDNET ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATE, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT TRENDNET'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

Governing Law: This Limited Warranty shall be governed by the laws of the state of California.

Some TRENDnet products include software code written by third party developers. These codes are subject to the GNU General Public License ("GPL") or GNU Lesser General Public License ("LGPL").

Go to http://www.trendnet.com/gpl or http://www.trendnet.com Download section and look for the desired TRENDnet product to access to the GPL Code or LGPL Code. These codes are distributed WITHOUT WARRANTY and are subject to the copyrights of the developers. TRENDnet does not provide technical support for these codes. Please go to http://www.gnu.org/licenses/gpl.txt or http://www.gnu.org/licenses/

lgpl.txt for specific terms of each license.

TRENDnet®

Product Warranty Registration

Please take a moment to register your product online.
Go to TRENDnet's website at http://www.trendnet.com/register

TRENDnet
20675 Manhattan Place
Torrance, CA 90501. USA

Copyright ©2021. All Rights Reserved. TRENDnet.