

# Configuring the EAPs Separately via Omada Controller

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## CHAPTERS


1. View the Information of the EAP
2. View Clients Connecting to the EAP
3. View Mesh Information of the EAP
4. Configure the EAP



### This guide applies to:

Omada Controller 3.2.1.

In addition to global configuration, you can configure the EAPs separately and the configuration results will be applied to a specified EAP.

To configure a specified EAP, please click the EAP's name on the **Access Points** tab or click  of connected EAP on the map. Then you can view the EAP's detailed information and configure the EAP on the pop-up window.

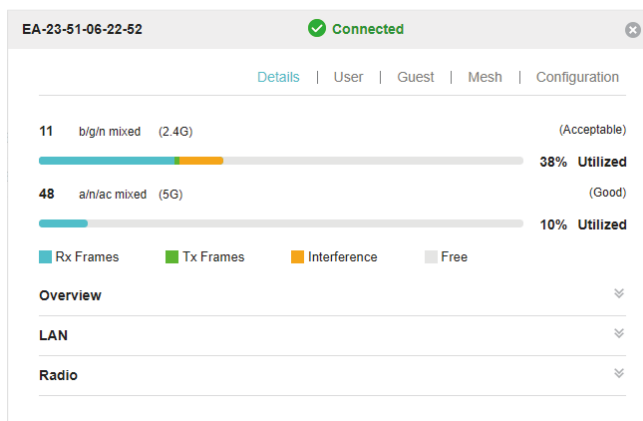
This chapter includes the following contents:

1. View the Information of the EAP
2. View Clients Connecting to the EAP
3. View Mesh Information of the EAP
4. Configure the EAP

# 1 View the Information of the EAP

## 1.1 Active Channel Information

The active channel information on each radio band will be displayed in a bar graph, which indicates its percentages of the following: Rx Frames (blue), Tx Frames (green), Interference (orange), and Free bandwidth (gray). The percentage of channel utilization is also displayed with the corresponding evaluation.



You can click a point on either bar graph for more details:

Tx Pkts/Bytes	5730951 / 1.11 G
Rx Pkts/Bytes	39200052 / 8.72 G
Tx Error/Dropped	0.0% / 0.0%
Rx Error/Dropped	0.0% / 0.0%
Ch.Util.(Busy/Rx/Tx)	38% / 28% / 1%

Tx Pkts/Bytes	Displays the amount of data transmitted as packets and bytes.
Rx Pkts/Bytes	Displays the amount of data received as packets and bytes.
Tx Error/Dropped	Displays the percentage of transmit packets that have errors and the percentage of packets that were dropped.
Rx Error/Dropped	Displays the percentage of receive packets that have errors and the percentage of packets that were dropped.

Ch.Util.(Busy/Rx/Tx)

Displays channel utilization statistics.

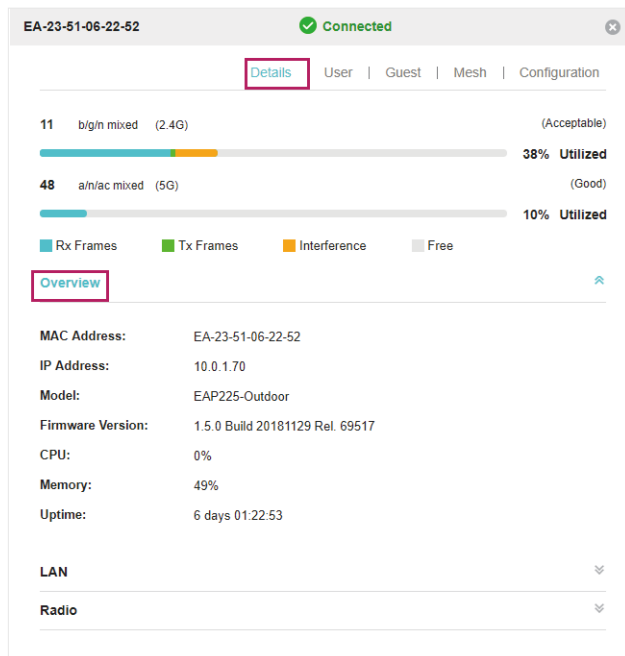
**Busy:** This number is the sum of Tx, Rx, and also non-WiFi interference, which indicates how busy the channel is.

**Rx:** This number indicates how often the radio is in active receive mode.

**Tx:** This number indicates how often the radio is in active transmit mode.

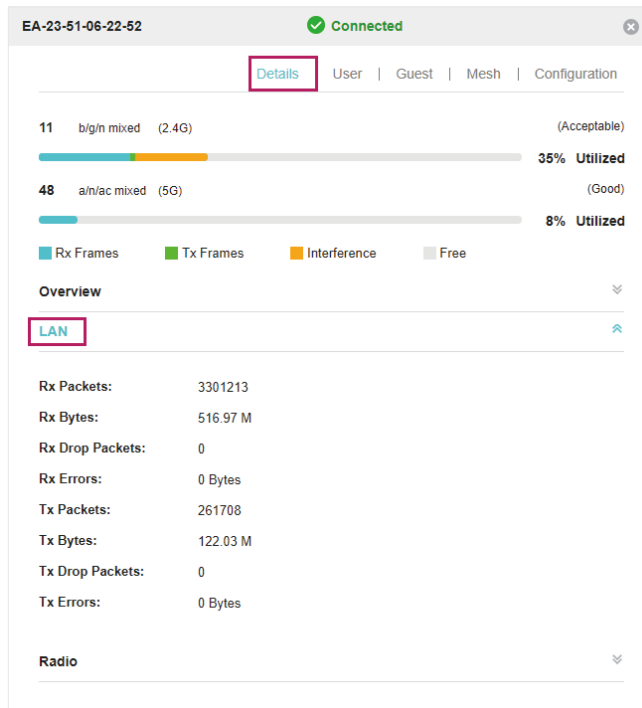
## 1.2 Overview

Click **Overview** to view the basic information of the EAP which includes EAP's MAC address (or name you set), IP address, model, firmware version, the usage rate of CPU and Memory and uptime (indicates how long the EAP has been running without interruption).



## 1.3 LAN

Click **LAN** to view the traffic information of the LAN port, including the total number of packets, the total size of data, the total number of packets loss, and the total size of error data in the process of receiving and transmitting data.



## 1.4 Radio

Click **Radio** to view the radio information including the frequency band, the wireless mode, the channel width, the channel, and the transmitting power. You can also view parameters of receiving/transmitting data on each radio band.

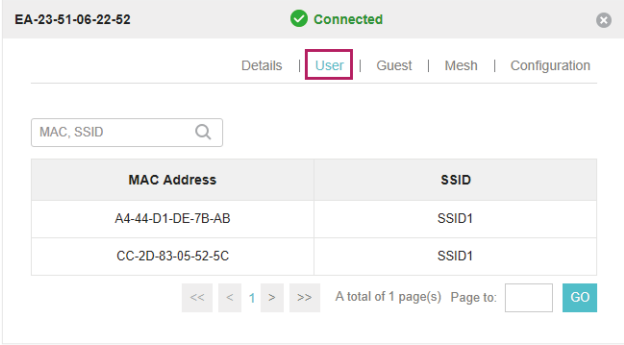
The screenshot shows the Omada Controller interface for a connected device (EA-23-51-06-22-52). The 'Radio' tab is selected, displaying the following information:

- Radio Utilization:**
  - Channel 11 (b/g/n mixed, 2.4G): 35% Utilized (Acceptable)
  - Channel 48 (a/n/ac mixed, 5G): 8% Utilized (Good)
- Legend:** Rx Frames (blue), Tx Frames (green), Interference (orange), Free (grey)
- Overview:** Collapsed
- LAN:** Collapsed
- Radio:** Expanded
  - Band: 2.4GHz (selected) / 5GHz
  - Mode: 802.11b/g/n mixed
  - Channel Width: 20/40MHz
  - Channel: 11 / 2462MHz
  - Tx Power: 20
  - Rx Packets: 45441772
  - Rx Bytes: 10.28 G
  - Rx Drop Packets: 0
  - Rx Errors: 0 Bytes
  - Tx Packets: 6534936
  - Tx Bytes: 1.26 G
  - Tx Drop Packets: 0
  - Tx Errors: 0 Bytes

# 2 View Clients Connecting to the EAP

## 2.1 User

The **User** page displays the information of clients connecting to the SSID with Portal disabled, including their MAC addresses and connected SSIDs. You can click the client's MAC address to get its connection history.

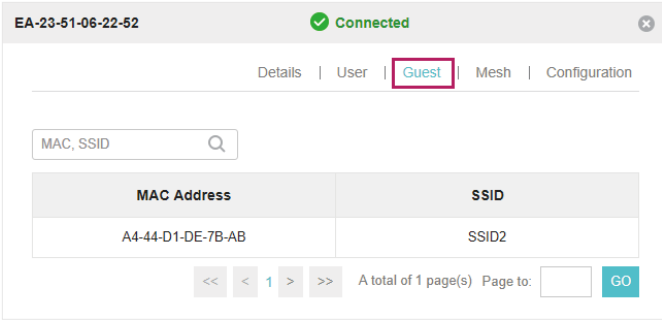


The screenshot shows the 'User' page in the Omada Controller interface. The page title is 'EA-23-51-06-22-52' and it has a 'Connected' status. The navigation menu includes 'Details', 'User', 'Guest', 'Mesh', and 'Configuration', with 'User' highlighted. A search bar for 'MAC, SSID' is present. Below it is a table with two columns: 'MAC Address' and 'SSID'. The table contains two rows of data. At the bottom, there are pagination controls showing 'A total of 1 page(s)' and a 'GO' button.

MAC Address	SSID
A4-44-D1-DE-7B-AB	SSID1
CC-2D-83-05-52-5C	SSID1

## 2.2 Guest

The **Guest** page displays the information of clients connecting to the SSID with Portal enabled, including their MAC addresses and connected SSIDs. You can click the client's MAC address to get its connection history.



The screenshot shows the 'Guest' page in the Omada Controller interface. The page title is 'EA-23-51-06-22-52' and it has a 'Connected' status. The navigation menu includes 'Details', 'User', 'Guest', 'Mesh', and 'Configuration', with 'Guest' highlighted. A search bar for 'MAC, SSID' is present. Below it is a table with two columns: 'MAC Address' and 'SSID'. The table contains one row of data. At the bottom, there are pagination controls showing 'A total of 1 page(s)' and a 'GO' button.

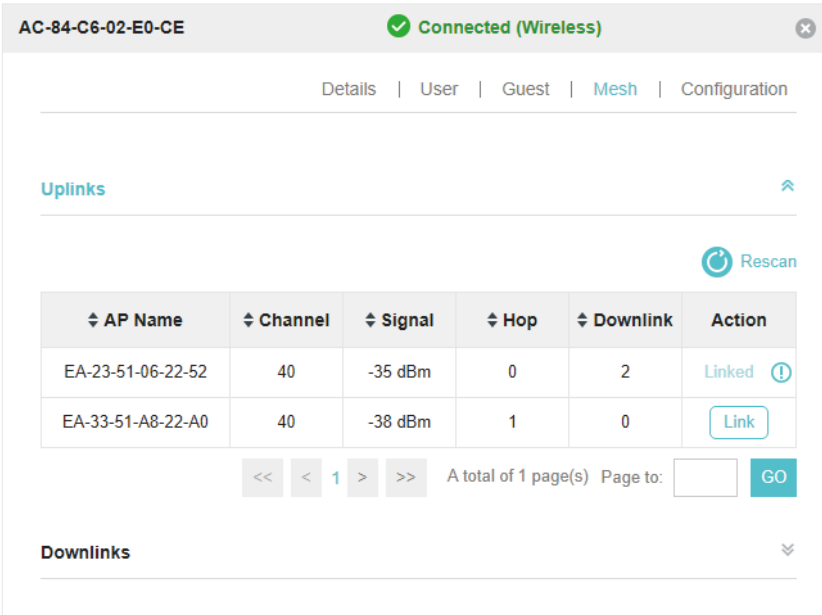
MAC Address	SSID
A4-44-D1-DE-7B-AB	SSID2

# 3 View Mesh Information of the EAP

The **Mesh** page is used to view and configure the mesh parameters of the EAP.

## 3.1 Uplinks

Here you can view the parameters of the uplink APs or click [Link](#) to change the uplink AP.



The screenshot shows the Omada Controller interface for a specific EAP. At the top, it displays the EAP ID 'AC-84-C6-02-E0-CE' and a status 'Connected (Wireless)' with a green checkmark. Below this, there are navigation tabs: 'Details', 'User', 'Guest', 'Mesh', and 'Configuration'. The 'Mesh' tab is active, and the 'Uplinks' section is expanded. A 'Rescan' button is visible. Below the button is a table of uplink APs:

↕ AP Name	↕ Channel	↕ Signal	↕ Hop	↕ Downlink	Action
EA-23-51-06-22-52	40	-35 dBm	0	2	Linked ⓘ
EA-33-51-A8-22-A0	40	-38 dBm	1	0	<a href="#">Link</a>

Below the table, there are pagination controls: '<<' '<' '1' '>' '>>' and a text 'A total of 1 page(s) Page to:  GO'. Below the table, the 'Downlinks' section is collapsed.

### Note:

- You can click [Rescan](#) to search the available uplink APs and the Uplink list will refresh.
- To build a mesh network with better performance, we recommend that you select the Uplink AP with the strongest signal, least hop and least Downlink AP.



## 3.2 Downlinks

Here you can view the downlink APs.

EA-33-51-A8-22-A0 ✔ Connected (Wireless)

Details | User | Guest | **Mesh** | Configuration

**Uplinks** ⌵

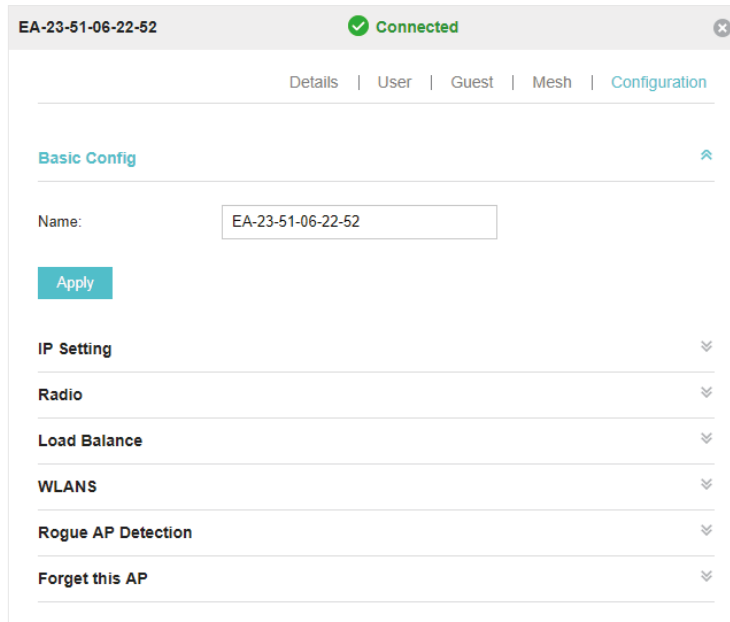
**Downlinks** ⌴

AP Name	Signal
AC-84-C6-02-E0-CE	-52 dBm

<< < 1 > >> A total of 1 page(s) Page to:  **GO**

# 4 Configure the EAP

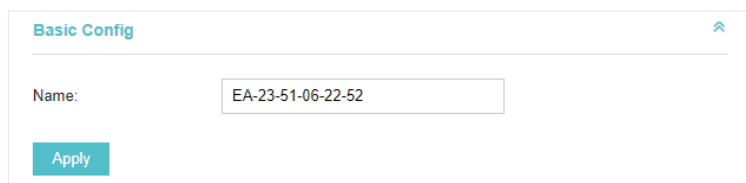
The **Configuration** page is used to configure the EAP. All the configurations will only take effect on this device.



The screenshot shows the configuration page for an EAP device with ID EA-23-51-06-22-52, which is currently connected. The page has a navigation bar with tabs for Details, User, Guest, Mesh, and Configuration. The Configuration tab is active. Under the Configuration tab, there is a section for Basic Config, which is expanded. The Name field is set to EA-23-51-06-22-52. Below the Name field is an Apply button. Other configuration sections are collapsed: IP Setting, Radio, Load Balance, WLANS, Rogue AP Detection, and Forget this AP.

## 4.1 Basic Config

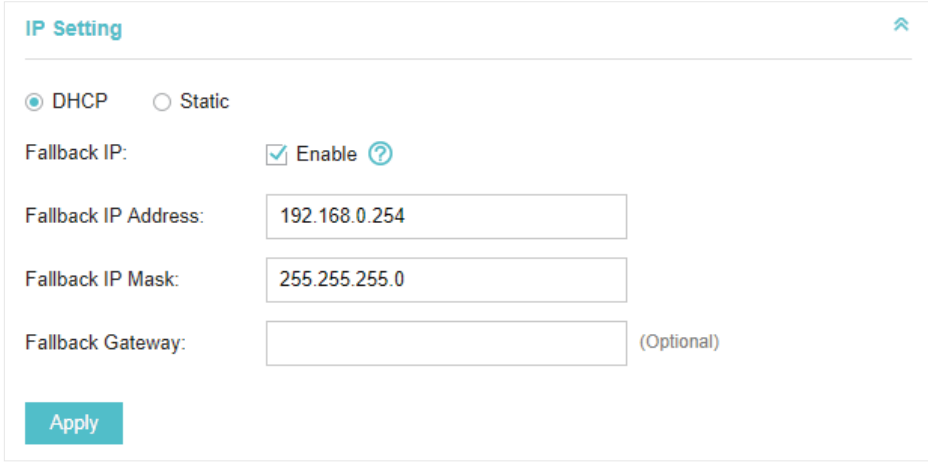
Here you can change the name of the EAP.



The screenshot shows the Basic Config section of the configuration page. The Name field is set to EA-23-51-06-22-52. Below the Name field is an Apply button.

## 4.2 IP Setting

You can configure an IP address for this EAP. Two options are provided: DHCP and Static.



**IP Setting**

DHCP  Static

Fallback IP:  Enable ⓘ

Fallback IP Address:

Fallback IP Mask:

Fallback Gateway:  (Optional)

**Apply**

### Get a Dynamic IP Address From the DHCP Server

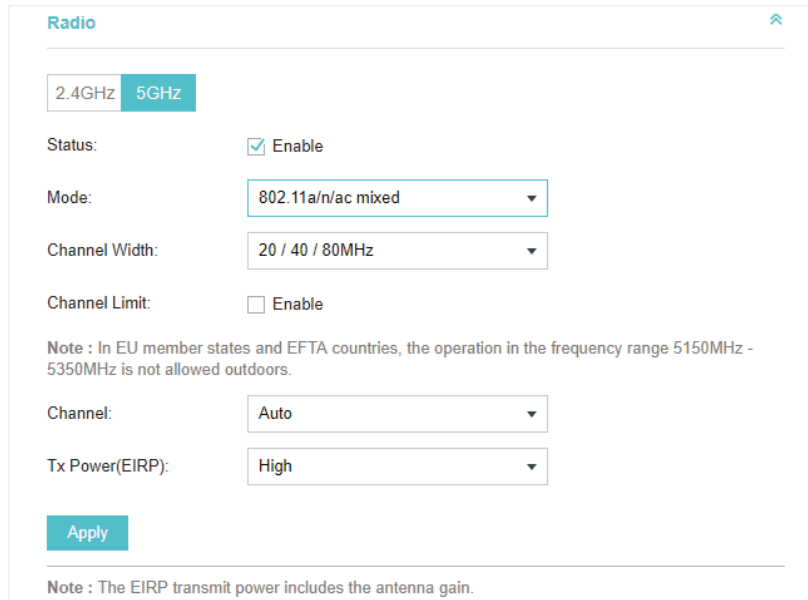
1. Configure your DHCP server.
2. Select **DHCP** on the page above.
3. Enable the Fallback IP feature. When the device cannot get a dynamic IP address, the fallback IP address will be used.
4. Set IP address, IP mask and gateway for the fallback address and click **Apply**.

### Manually Set a Static IP Address for the EAP

1. Select **Static**.
2. Set the IP address, IP mask and gateway for the static address and click **Apply**.

## 4.3 Radio

Radio settings directly control the behavior of the radio in the EAP and its interaction with the physical medium; that is, how and what type of signal the EAP emits.



**Radio**

2.4GHz 5GHz

Status:  Enable

Mode: 802.11a/n/ac mixed

Channel Width: 20 / 40 / 80MHz

Channel Limit:  Enable

Note : In EU member states and EFTA countries, the operation in the frequency range 5150MHz - 5350MHz is not allowed outdoors.

Channel: Auto

Tx Power(EIRP): High

Apply

Note : The EIRP transmit power includes the antenna gain.

Select the frequency band (2.4GHz/5GHz) and configure the following parameters.

<b>Status</b>	Enabled by default. If you disable the option, the radio on the frequency band will turn off.
<b>Mode</b>	<p>Select the IEEE 802.11 mode the radio uses.</p> <p>When the frequency of 2.4GHz is selected, 802.11b/g/n mixed, 802.11b/g mixed, and 802.11n only modes are available:</p> <p><b>802.11b/g/n mixed:</b> All of 802.11b, 802.11g, and 802.11n clients operating in the 2.4GHz frequency can connect to the EAP. We recommend that you select the 802.11b/g/n mixed mode.</p> <p><b>802.11b/g mixed:</b> Both 802.11b and 802.11g clients can connect to the EAP.</p> <p><b>802.11n only:</b> Only 802.11n clients can connect to the EAP.</p> <p>When the frequency of 5GHz is selected, 802.11 n/ac mixed, 802.11a/n mixed, 802.11 ac only, 802.11a only, and 802.11n only modes are available:</p> <p><b>802.11n/ac mixed:</b> Both 802.11n clients and 802.11ac clients operating in the 5GHz frequency can connect to the EAP.</p> <p><b>802.11a/n mixed:</b> Both 802.11a clients and 802.11n clients operating in the 5GHz frequency can connect to the EAP.</p> <p><b>802.11ac only:</b> Only 802.11ac clients can connect to the EAP.</p> <p><b>802.11a only:</b> Only 802.11a clients can connect to the EAP.</p> <p><b>802.11n only:</b> Only 802.11n clients can connect to the EAP.</p>

<b>Channel Limit</b>	For the EAPs that support DFS in EU version, there is a Channel Limit option. If you want to use your EAP outdoors, enable this option to comply with the laws in your country.
<b>Channel Width</b>	<p>Select the channel width of the EAP. The available options differ among different EAPs.</p> <p>For some EAPs, available options include <b>20MHz, 40MHz</b> and <b>20/40MHz</b>.</p> <p>For other EAPs, available options include <b>20MHz, 40MHz, 80MHz</b> and <b>20/40/80MHz</b>.</p> <p>The 20/40 MHz and 20/40/80MHz channels enable higher data rates but leave fewer channels available for use by other 2.4GHz and 5GHz devices. When the radio mode includes 802.11n, we recommend that you set the channel bandwidth to 20/40 MHz or 20/40/80MHz to improve the transmission speed.</p>
<b>Channel</b>	Select the channel used by the EAP to improve wireless performance. The range of available channels is determined by the radio mode and the country setting. If you select Auto for the channel setting, the EAP scans available channels and selects a channel where the least amount of traffic is detected.
<b>Tx Power (EIRP)</b>	<p>Select the Tx Power (Transmit Power) in the 4 options: <b>Low, Medium, High</b> and <b>Custom</b>. Low, Medium and High are based on the Min. Txpower (Minimum transmit power) and Max. TxPower (Maximum transmit power. It may vary among different countries and regions).</p> <p><b>Low:</b> <math>\text{Min. TxPower} + (\text{Max. TxPower} - \text{Min. TxPower}) * 20\%</math> (round off the value)</p> <p><b>Medium:</b> <math>\text{Min. TxPower} + (\text{Max. TxPower} - \text{Min. TxPower}) * 60\%</math> (round off the value)</p> <p><b>High:</b> Max. TxPower</p> <p><b>Custom:</b> Enter a value manually.</p>

## 4.4 Load Balance

By setting the maximum number of clients accessing the EAPs, Load Balance helps to achieve rational use of network resources.

**Load Balance** ⤴

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2.4GHz
5GHz

Max Associated Clients:  Enable

1 (1-99)

RSSI Threshold:  Enable ?

0 (-95-0 dBm)

Apply

Select the frequency band (2.4GHz/5GHz) and configure the parameters.

<b>Max Associated Clients</b>	Enable this function and specify the maximum number of connected clients. While more clients requesting to connect, the EAP will disconnect those with weaker signals.
<b>RSSI Threshold</b>	Enable this function and enter the threshold of <b>RSSI</b> (Received Signal Strength Indication). When the clients' signal is weaker than the <b>RSSI Threshold</b> you've set, the clients will be disconnected from the EAP.

## 4.5 WLANs

You can specify a different SSID name and password to override the previous SSID. After that, clients can only see the new SSID and use the new password to access the network. Follow the steps below to override the SSID.

**WLANs** ⤴

WLAN Group: Default ▾

Name	Band	Overrides	Action
SSID1	2.4GHz, 5GHz		
SSID2	2.4GHz		

1. Select the WLAN group.
2. Click and the following window will pop up.

**SSID Override(SSID1)** ✕

Enable:  Enable On AP

VLAN:  Use VLAN ID 0 (1-4094)

SSID: SSID-2

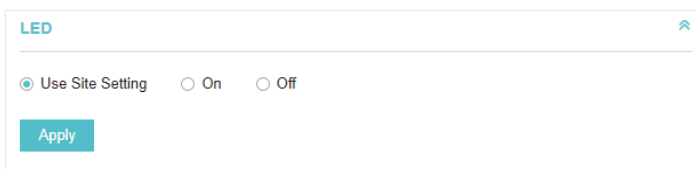
PSK: ••••••  (WPA-PSK)

Apply

3. Check the box to enable the feature.
4. You can join the overridden SSID in to a VLAN. Check the **Use VLAN ID** box and specify a VLAN ID.
5. Specify a new name and password for the SSID.
6. Click **Apply** to save the configuration.

## 4.6 LED

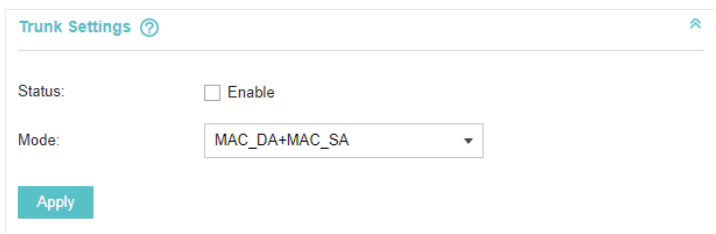
You can change the LED status of each EAP.



Using Site Setting	The LED status will be the same as the site settings.
On	Turn on the LED.
Off	Turn off the LED.

## 4.7 Trunk Settings (Only for EAP330)

The trunk function can bundles multiple Ethernet links into a logical link to increase bandwidth and improve network reliability.

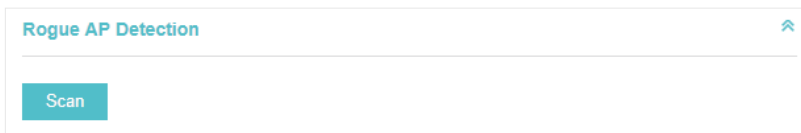


Status	Enable this function.  The EAP330 has two 1000Mbps Ethernet ports. If the Trunk function is enabled and the ports are in the speed of 1000Mbps Full Duplex, the whole bandwidth of the trunk link is up to 4Gbps (2000Mbps * 2).
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<b>Mode</b>	<p>Select the applied mode of Trunk Arithmetic from the drop-down list.</p> <p><b>MAC_DA+MAC_SA:</b> When this option is selected, the arithmetic will be based on the source and destination MAC addresses of the packets.</p> <p><b>MAC_DA:</b> When this option is selected, the arithmetic will be based on the destination MAC addresses of the packets.</p> <p><b>MAC_SA:</b> When this option is selected, the arithmetic will be based on the source MAC addresses of the packets.</p>
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## 4.8 Rogue APs Detection

With this option enabled, the EAP will detect rogue APs in all channels. You can view the results in **Insight > Untrusted Rogue APs** page.

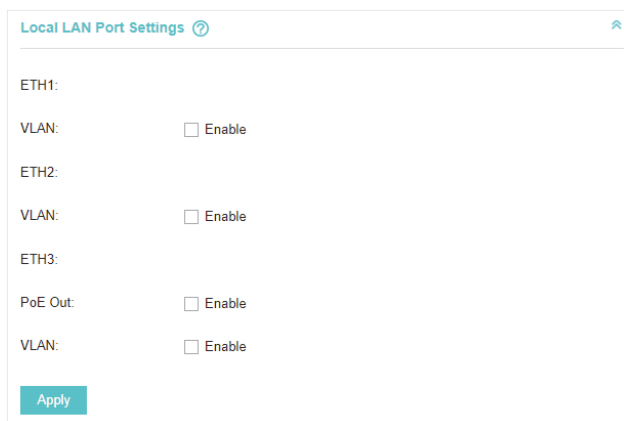


### Note:

For some specific versions of the firmware, some EAPs will detect rogue APs automatically when this option is enabled.

## 4.9 Local LAN Port Settings (Only for EAP115-Wall and EAP225-Wall)

You can configure the LAN port of the EAP.



<b>VLAN</b>	<p>Enable this feature and specify the VLAN that the EAP is added to, and then the hosts connected to this EAP can only communicate with the devices in this VLAN. The valid values are from 1 to 4094, and the default is 1.</p>
<b>PoE Out</b>	<p>If your EAP has PoE OUT port, you can enable this option to supply power to the connected device on this port.</p> <p>The EAP that has no PoE OUT port does not support this feature.</p>



## 4.10 Forget this AP

If you no longer want to manage this EAP, you may remove it. All the configurations and history about this EAP will be deleted. It is recommended to back up the configurations of this EAP before you forget it.

