11N Multi-Function Access Point

EAP350

11N Multi-Function Access Point

V1.0

Table of Contents

Revision History

Version	Date	Notes
1.0	2011/07/28	First Release

1 Introduction

EAP350 is a multi-functioned 11n product with 3 major multi-functions, is designed to operate in every working environment for enterprises.

EAP350 is a Wireless Network device that delivers up to 6x faster speeds and 7x extended coverage than 802.11b/g devices. EAP350 supports home network with superior throughput, performance and unparalleled wireless range.

To protect data during wireless transmissions, EAP350 encrypts all wireless transmissions through WEP data encryption and supports WPA/WPA2. Its MAC address filter allows users to select stations with access to connect network. In addition, the function of user isolation protects private network between client users. EAP350 thus is the best product to ensure network safety for enterprises.

1.1 Features and Benefits

Features	Benefits
High Speed Data Rate Up to 300Mbps	Capable of handling heavy data payloads such as MPEG video streaming.
10/100/1000 Fast Ethernet	Support up to 1Gbps networking speed.
IEEE 802.11n draft Compliant and backward compatible with 802.11b/g	Fully compatible with IEEE 802.11b/g/n devices.
Multi-Function, 3 functions	Allowing users to select AP, WDS AP or WDS Bridge mode in various applications.
Point-to-point, Point-to-multipoint Wireless Connectivity	Allowing to transfer data from buildings to buildings.

Support Multi-SSID function (4 SSID) in AP mode	Allowing clients to access different networks through a single access point and to assign different policies and functions for each SSID by manager.
WPA2/WPA/ IEEE 802.1x support	Powerful data security.
MAC address filtering in AP mode	Ensuring secure network connection.
User isolation support (AP mode)	Protecting the private network between client users.
Power-over-Ethernet (IEEE802.3af)	Flexible Access Point locations and saving cost.
Keep personal setting	Keeping the latest setting when firmware upgrade.
SNMP Remote Configuration Management	Helping administrators to remotely configure or manage the Access Point easily.
QoS (WMM) support	Enhancing user performance and density.

1.2 Package Contents

The package contains the following items. In case of return, please keep the original box set, and the complete box set must be included for full refund.

- EAP350
- 12V/1A 100V~240V Power Adapter
- RJ-45 Ethernet LAN Cable
- CD-ROM with User's Manual
- Quick Guide

1.3 System Requirements

The following are the minimum system requirements in order configure the device.

- Computer with an Ethernet interface or Wireless Network function.
- Windows, Mac OS or Linux based operating systems
- Internet Explorer or Firefox or Safari Web-Browser Software

1.4 Applications

The wireless LAN products are easy to install and highly efficient. The following list describes some of the many applications made possible through the power and flexibility of wireless LANs:

a) Difficult-to-wire environments

There are many situations where wires cannot be laid easily. Historic buildings, older buildings, open areas and across busy streets make the installation of LANs either impossible or very expensive.

b) Temporary workgroups

Consider situations in parks, athletic arenas, exhibition centers, disaster-recovery, temporary offices and construction sites where one wants a temporary WLAN established and removed.

c) The ability to access real-time information

Doctors/nurses, point-of-sale employees, and warehouse workers can access real-time information while dealing with patients, serving customers and processing information.

d) Frequently changed environments

Show rooms, meeting rooms, retail stores, and manufacturing sites where frequently rearrange the workplace.

e) Small Office and Home Office (SOHO) networks

SOHO users need a cost-effective, easy and quick installation of a small network.

f) Wireless extensions to Ethernet networks

Network managers in dynamic environments can minimize the overhead caused by moves, extensions to networks, and other changes with wireless LANs.

g) Wired LAN backup

Network managers implement wireless LANs to provide backup for mission-critical applications running on wired networks.

h) Training/Educational facilities

Training sites at corporations and students at universities use wireless connectivity to ease access to information, information exchanges, and learning.

2 Before you Begin

This section will guide you through the installation process. Placement of the ENGENIUS EAP350 is very important to avoid poor signal reception and performance. Avoid placing the device in enclosed spaces such as a closet, cabinet or wardrobe.

2.1 Considerations for Wireless Installation

The operating distance of all wireless devices cannot be pre-determined due to a number of unknown obstacles in the environment that the device is deployed. These could be the number, thickness and location of walls, ceilings or other objects that the wireless signals must pass through. Here are some key guidelines to ensure that you have the optimal wireless range.

- Keep the number of walls and ceilings between the EnGenius access point and other network devices to a minimum. Each wall or ceiling can reduce the signal strength; the degradation depends on the building's material.

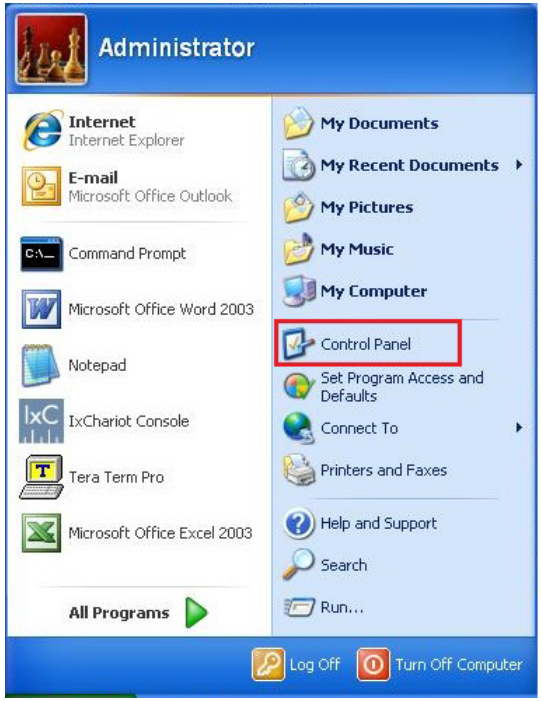
- Building materials makes a difference. A solid metal door or aluminum stubs may have a significant negative effect on range. Locate your wireless devices carefully so the signal can pass through a drywall or open doorways. Materials such as glass, steel, metal, concrete, water (fish tanks), mirrors, file cabinets and brick will also degrade your wireless signal.

- Interferences can also come from your other electrical devices or appliances that generate RF noise. The most usual types are microwaves, or cordless phones.

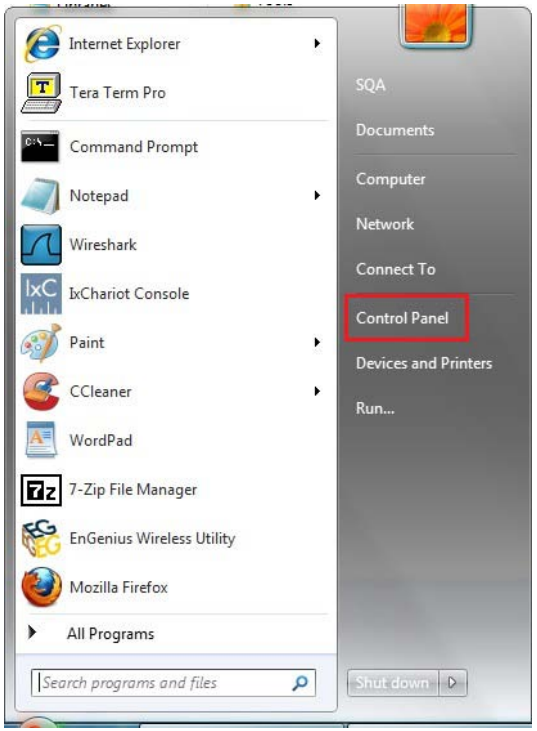
2.2 Computer Settings (Windows XP/Windows 7)

This device can be configured as an Access Point, WDS AP or WDS Bridge. The default IP address of the device is **192.168.1.1** (In Access Point Mode as default). In order to log into this device, you must first configure the TCP/IP settings of your PC/Notebook.

- Click Start button and open Control Panel.



Windows XP

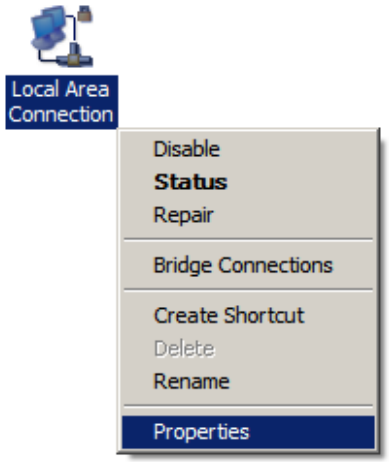


Windows 7

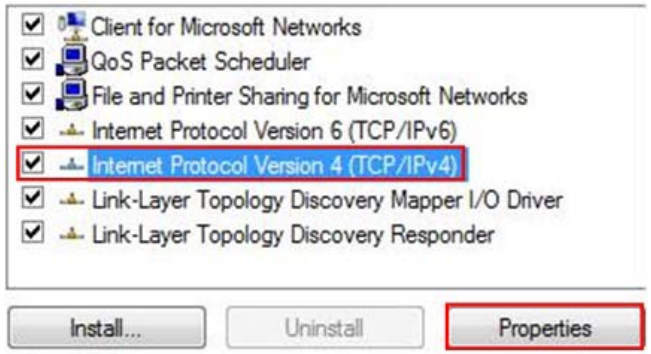
- Windows XP, click [Network Connection]

- Windows 7, click [View Network Status and Tasks] then [Change adapter settings]

- Right click on [Local Area Connection] and select [Properties].



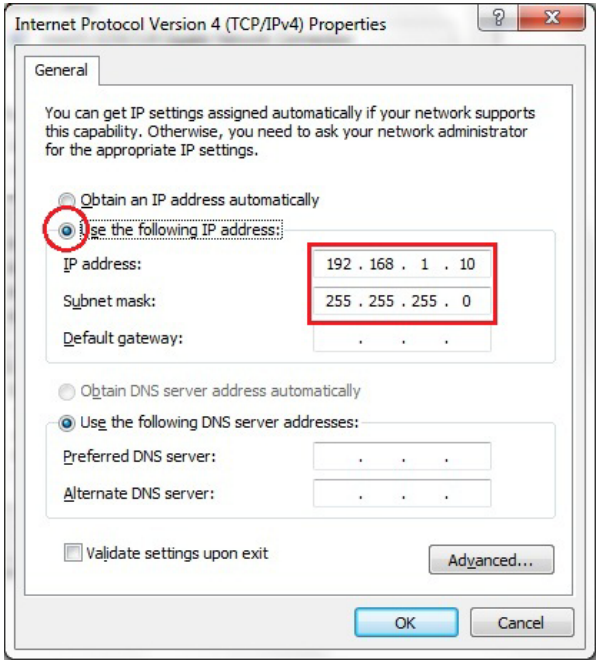
- Select "**Internet Protocol (TCP/IP)**" and click [Properties]



- Select "**Use the following IP address**" and enter IP address and subnet mask then click [OK].

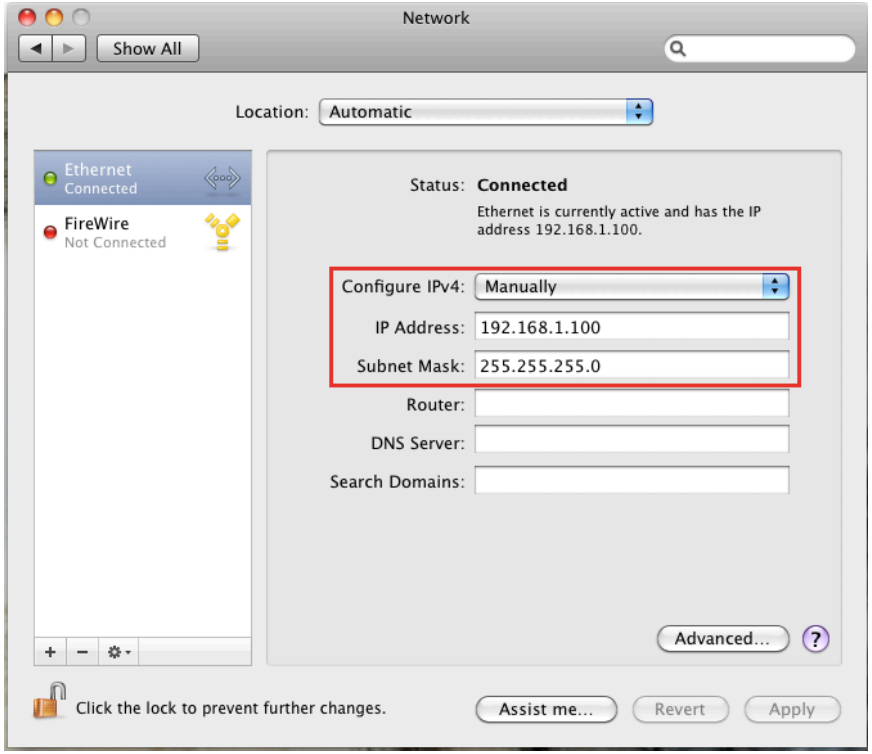
Note: Ensure that the IP address and subnet mask are on the same subnet as the device.

For example: Device IP address: 192.168.1.1
PC IP address: 192.168.1.10
PC subnet mask: 255.255.255.0



2.3 Apple Mac X OS

- Go to **System Preferences** > **Network**



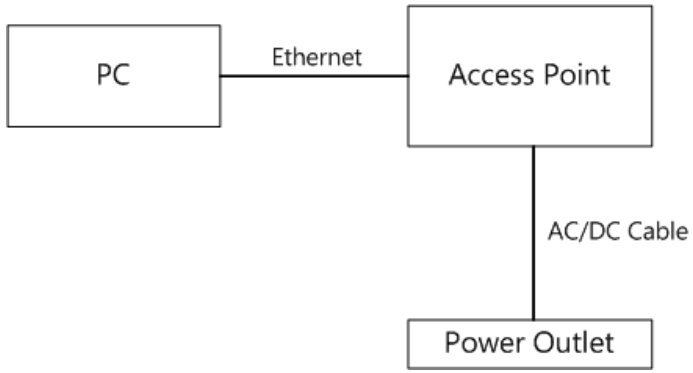
- Under Network setting, select "**Manually**" and enter IP address and subnet mask.

- Click **Apply** when done.

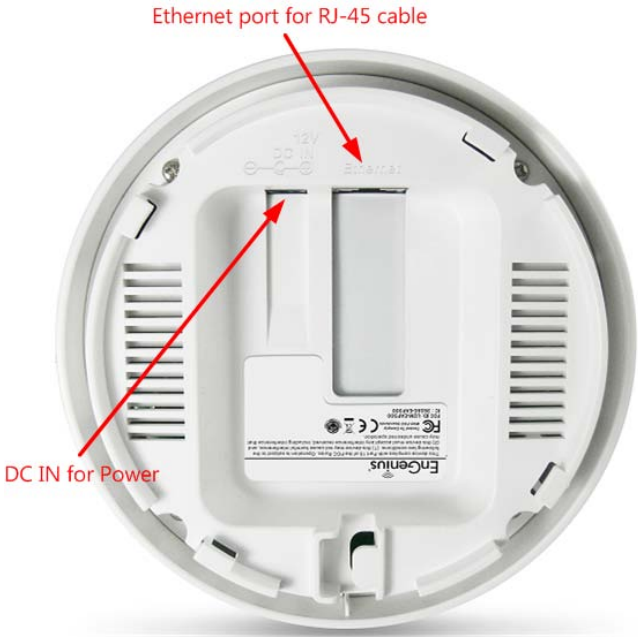
2.4 Hardware Installation

1. Place the unit in an appropriate location after conducting a site survey.
2. Plug one end of the Ethernet cable into the Ethernet port of the device and another end into your PC/Notebook.
3. Insert the DC-inlet of the power adapter into the port labeled “DC-IN” and the other end into the power socket on the wall.

This diagram depicts the hardware configuration.



Front Panel



Rear Panel

Front Panel	
Reset Button	One click for reset the device. Press over 10 seconds for reset to factory default.
LED Lights	LED lights for Wireless, Ethernet port and Power.
Rear Panel	
DC IN	DC IN for Power.
Ethernet Port	Ethernet port for RJ-45 cable.

3 Configuring Your Access Point

This section will show you how to configure the device using the web-based configuration interface.

3.1 Default Settings

Please use your Ethernet port or wireless network adapter to connect the Access Point.

Default Settings

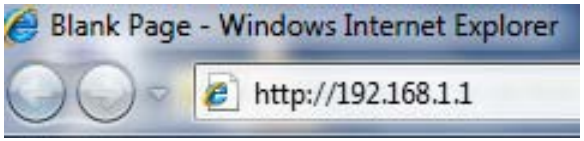
IP Address	192.168.1.1
Username / Password	admin / admin
Operation Mode	Access Point
Wireless SSID	EnGenius*xxxxxx*
Wireless Security	None

Note: *xxxxxx* represented in the wireless SSID above is the last 6 characters of your device MAC Address. This can be found on the device body label and is unique for each device.

3.2 Web Configuration

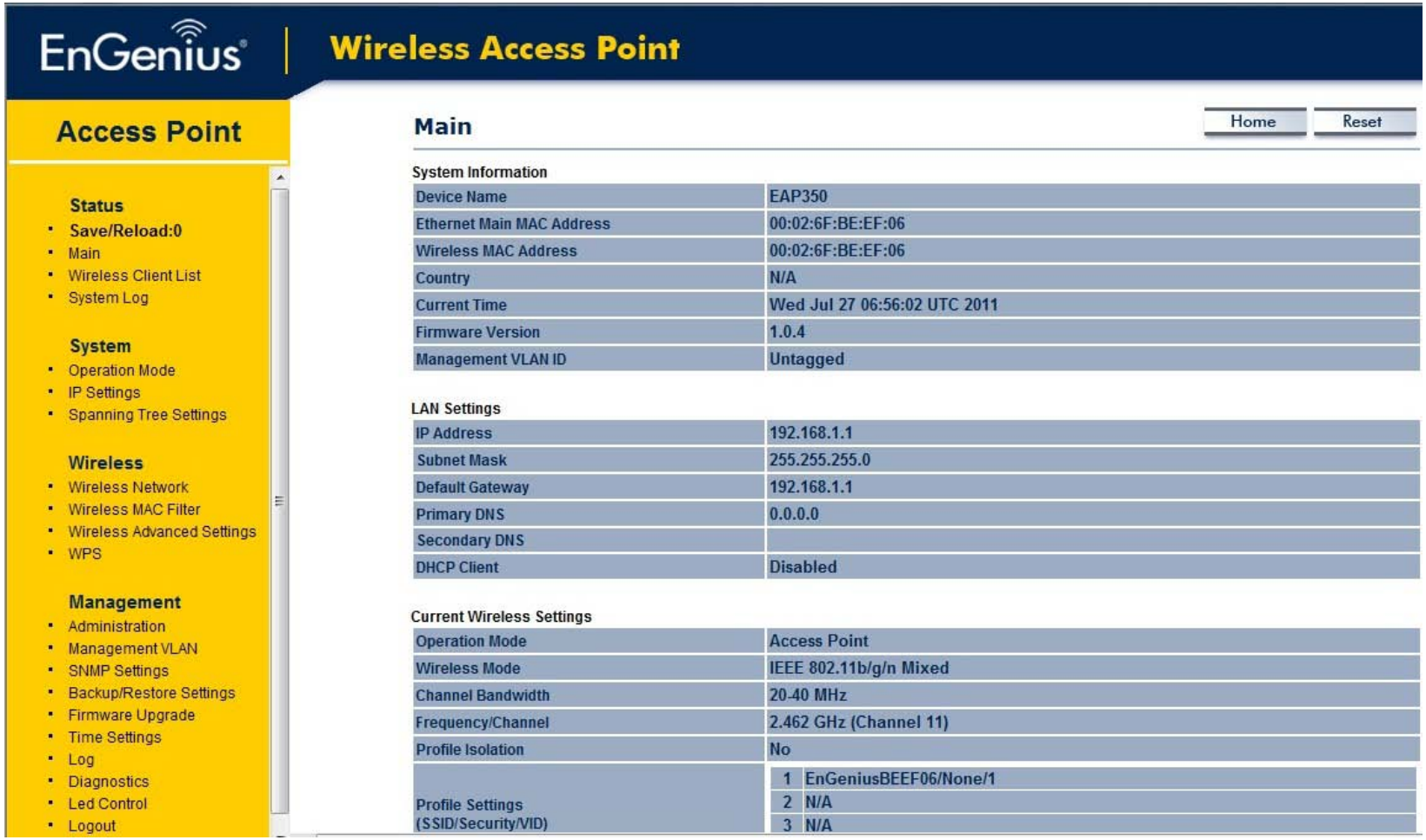
- Open a web browser (Internet Explorer/Firefox/Safari) and enter the IP Address **http://192.168.1.1**

  Note: If you have changed the default LAN IP Address of the Access Point, ensure you enter the correct IP Address.



- The default username and password are **admin**. Once you have entered the correct username and password, click the **Login** button to open the web-base configuration page.

- You will see the following webpage if login successfully.



4 Status

The **Status** section contains the following options: Main, Wireless Client List and System Log.

The following sections describe these options.

4.1 Save/Reload

This page lets you save and apply the settings shown under **Unsaved changes list**, or cancel the unsaved changes and revert to the previous settings that were in effect.

4.2 Main

Clicking the **Main** link under the **Status** menu or clicking **Home** at the top-right of the Web Configurator shows status information about the current operating mode.

- The **System Information** section shows general system information such as device name, MAC address, current time, firmware version and management VLAN ID.

System Information

Device Name	EAP350
Ethernet Main MAC Address	00:02:6F:BE:EF:06
Wireless MAC Address	00:02:6F:BE:EF:06
Country	N/A
Current Time	Wed Jul 27 06:56:02 UTC 2011
Firmware Version	1.0.4
Management VLAN ID	Untagged

- The **LAN Settings** section shows Local Area Network setting such as the LAN IP address, subnet mask, and DNS address.

LAN Settings

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
Primary DNS	0.0.0.0
Secondary DNS	
DHCP Client	Disabled

- The **Current Wireless Settings** section shows wireless information such as operating mode, frequency and channel. Since the EAP350 supports multiple-SSIDs, information about each SSID, such as its ESSID and security settings, are displayed.

Current Wireless Settings

Operation Mode	Access Point
Wireless Mode	IEEE 802.11b/g/n Mixed
Channel Bandwidth	20-40 MHz
Frequency/Channel	2.462 GHz (Channel 11)
Profile Isolation	No
Profile Settings (SSID/Security/VID)	1 EnGeniusBEEF06/None/1 2 N/A 3 N/A 4 N/A
Spanning Tree Protocol	Disabled
Distance	1 Km

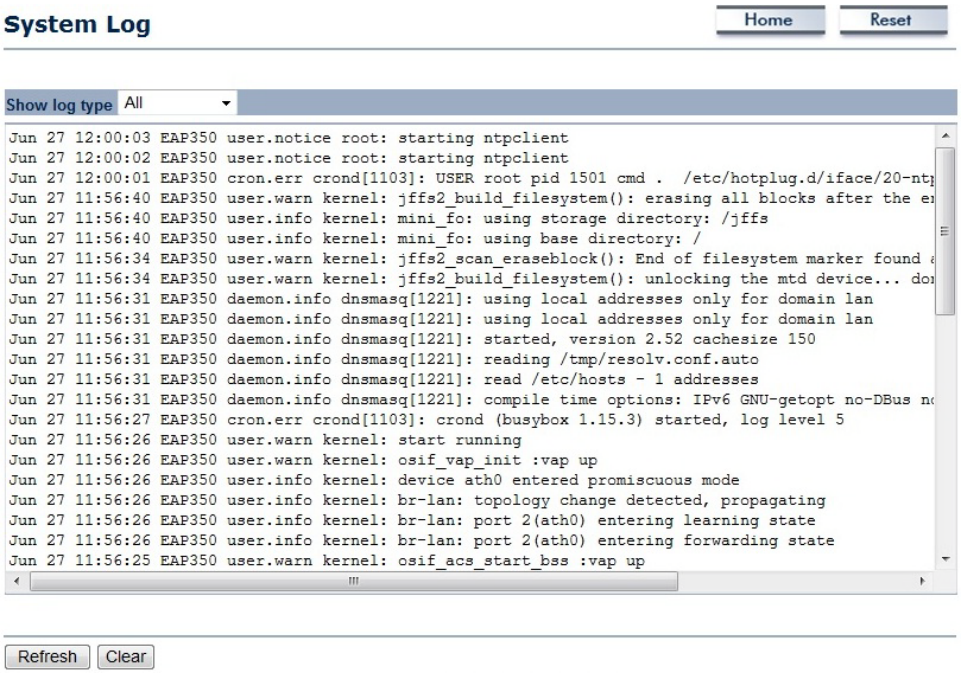
4.3 Wireless Client List

Clicking the **Wireless Client List** link under the **Status** menu displays the list of clients associated to the EAP350, along with the MAC addresses and signal strength for each client. Clicking the [**Refresh**] button updates (refreshes) the client list.

Note: Only in Access Point and WDS AP mode.

4.4 System Log

The EAP350 automatically logs (records) events of possible interest in its internal memory. To view the logged information, click the **System Log** link under the **Status** menu. If there is not enough internal memory to log all events, older events are deleted from the log. When powered down or rebooted, the log will be cleared.

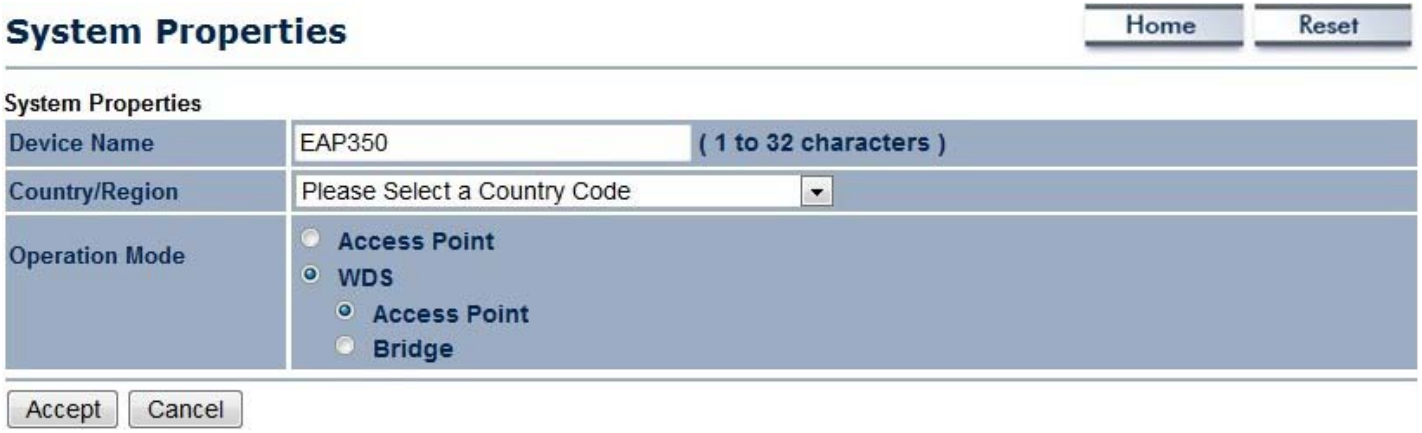


System Log	
Refresh	Update the log.
Clear	Clear the log.

5 System

5.1 Operation Mode

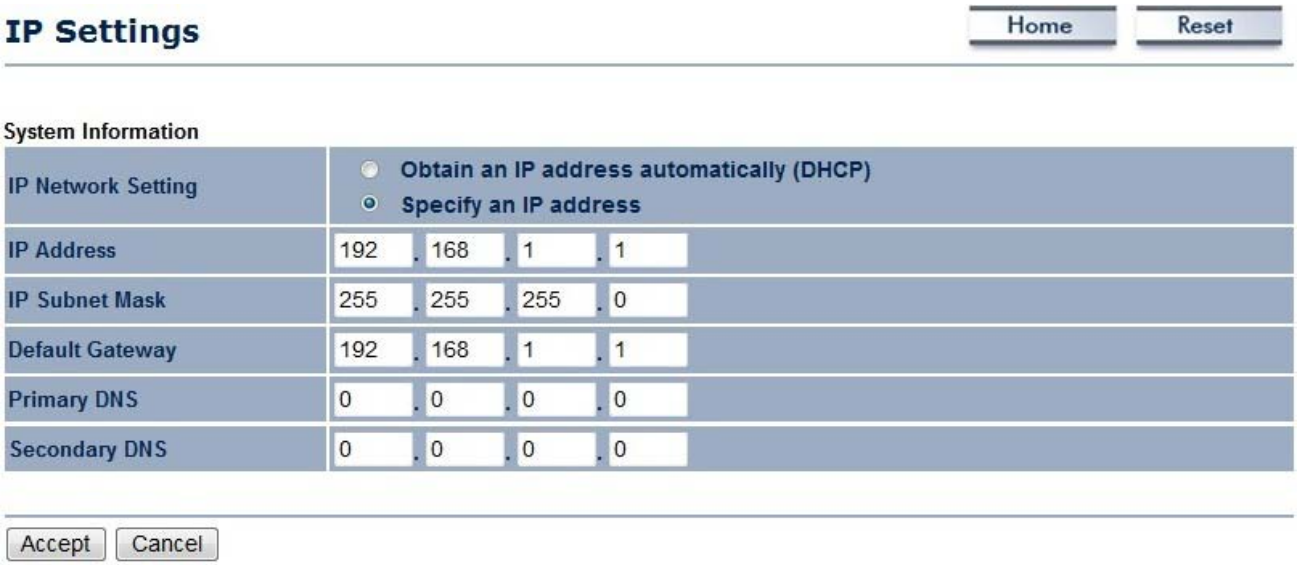
The EAP350 supports three operating modes: Access Point, WDS Access Point and WDS Bridge.



System Properties	
Device Name	Enter a name for the device. The name you type appears in SNMP management. This name is not the SSID and is not broadcast to other devices.
Country/Region	Select a Country/Region to conform to local regulations.
Operation Mode	Use the radio button to select an operating mode.
Accept / Cancel	Click [**Accept**] to confirm the changes or [**Cancel**] to cancel and return previous settings.

5.2 IP Settings

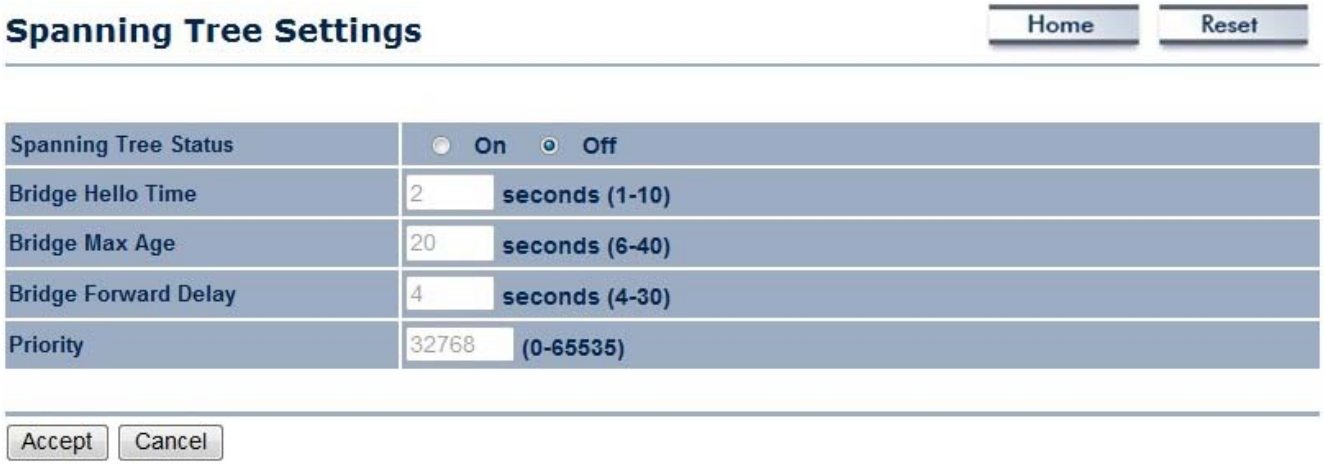
This page allows you to modify the device's IP settings.



IP Settings	
IP Network Setting	Select whether the device IP address will use the static IP address specified in the IP Address field or be obtained automatically when the device connects to a DHCP server.
IP Address	The IP Address of this device.
IP Subnet Mask	The IP Subnet Mask of this device.
Default Gateway	The Default Gateway of this device. Leave it blank if you are unsure of this setting.
Primary / Secondary DNS	The primary / secondary DNS address for this device.

5.3 Spanning Tree Setting

This page allows you to modify the Spanning Tree settings. Enabling Spanning Tree protocol will prevent network loops in your LAN network.



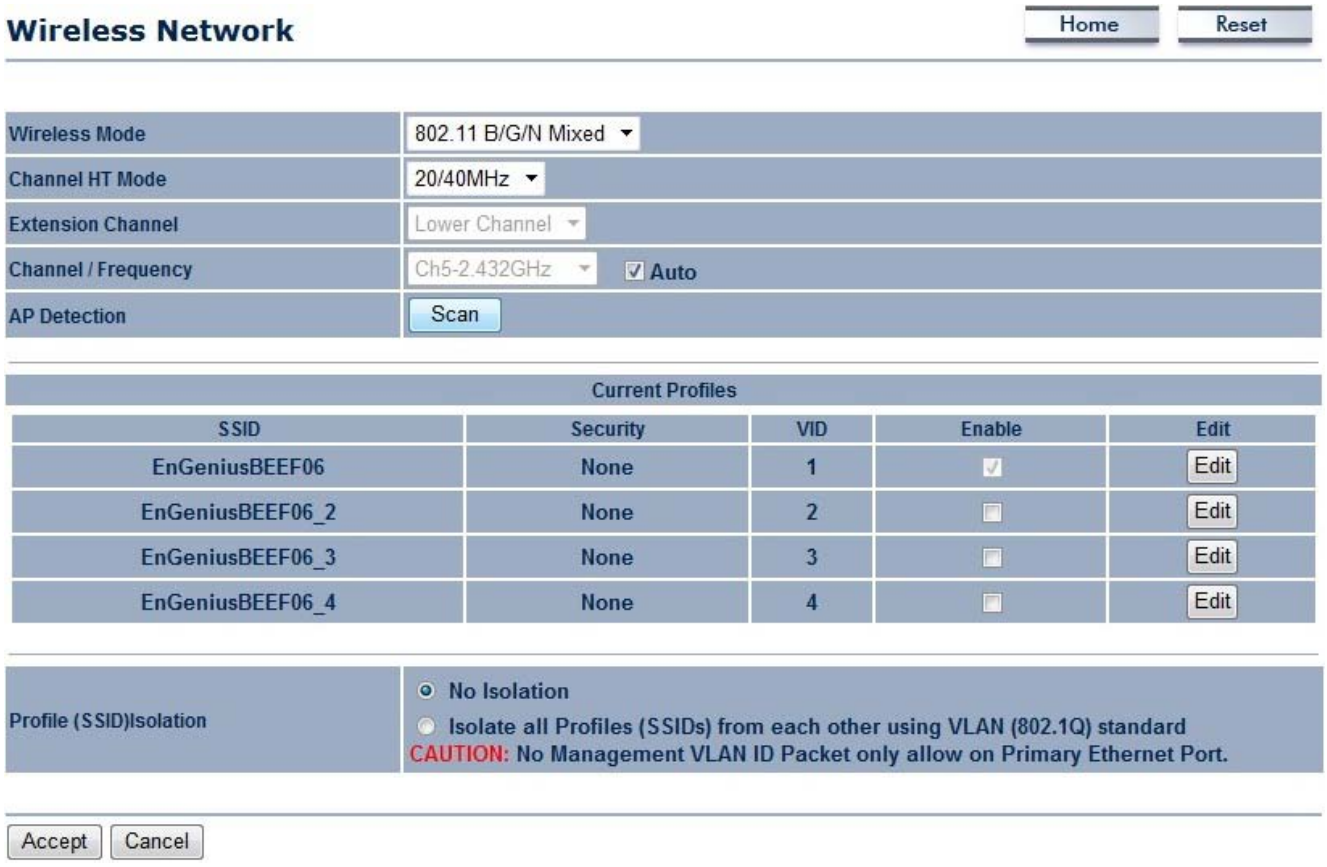
Spanning Tree	
Spanning Tree Status	Enable or disable the Spanning Tree function.
Bridge Hello Time	Specify Bridge Hello Time, in seconds. This value determines how often the device sends hello packets to communicate information about the topology throughout the entire Bridged Local Area Network.
Bridge Max Age	Specify Bridge Max Age, in seconds. If another bridge in the spanning tree does not send a hello packet for a long period of time, it is assumed to be dead.
Bridge Forward Delay	Specify Bridge Forward Delay, in seconds. Forwarding delay time is the time spent in each of the Listening and Learning states before the Forwarding state is entered. This delay is provided so that when a new bridge comes onto a busy network, it looks at some traffic before participating.

Priority	Specify the Priority number. Smaller number has greater priority.
Accept / Cancel	Click [**Accept**] to confirm the changes or [**Cancel**] to cancel and return previous settings.

6 Wireless

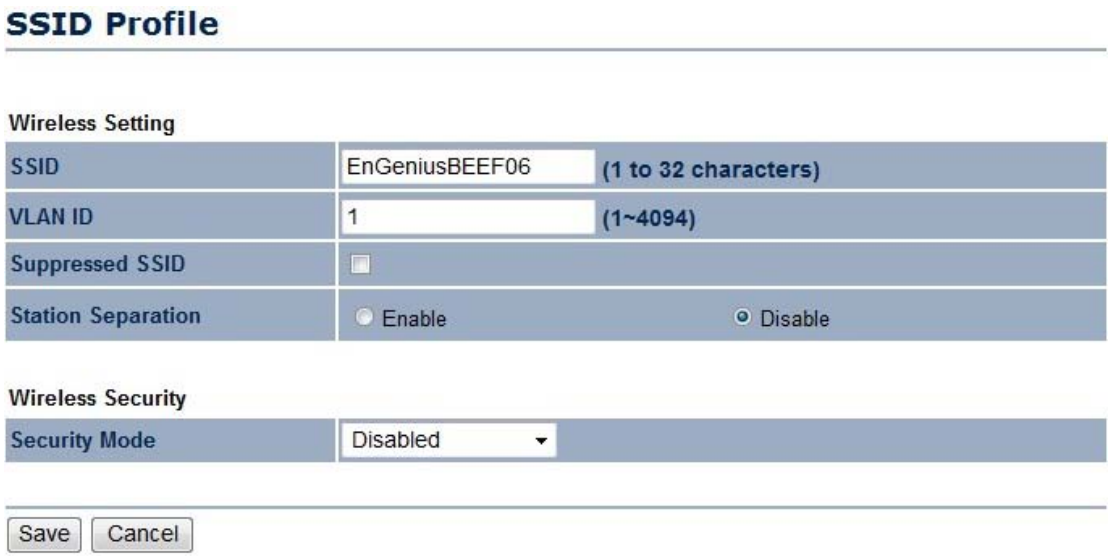
6.1 Wireless Network

This page shows the current status of the device's Wireless settings.



Wireless Network	
Wireless Mode	Wireless mode supports 802.11b/g/n mixed mode.
Channel HT Mode	The default channel bandwidth is 20/40MHz. The larger the channel, the better the transmission quality and speed.
Extension Channel	Select upper or lower channel. Your selection may affect the Auto channel function.
Channel / Frequency	Select the channel and frequency appropriate for your country's regulation.
Auto	Check this option to enable auto-channel selection.
AP Detection	AP Detection can select the best channel to use by scanning nearby areas for Access Points.
Current Profile	Configure up to four different SSIDs. If many client devices will be accessing the network, you can arrange the devices into SSID groups. Click [**Edit**] to configure the profile and check whether you want to enable extra SSID.
Profile Isolation	Restricted client to communicate with different VID by selecting the radio button.
Accept / Cancel	Click [**Accept**] to confirm the changes or [**Cancel**] to cancel and return previous settings.

SSID Profile



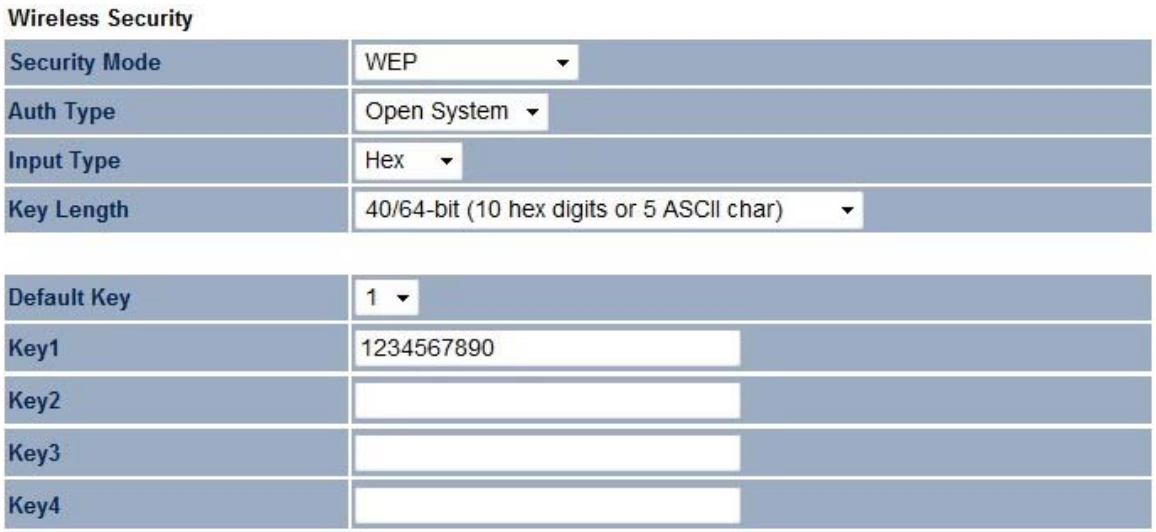
SSID Profile	
SSID	Specify the SSID for the current profile.
VLAN ID	Specify the VLAN tag for the current profile.
Suppressed SSID	Check this option to hide the SSID from clients. If checked, the SSID will not appear in the site survey.
Station Separation	Click the appropriate radio button to allow or prevent communication between client devices.
Wireless Security	See the Wireless Security section.
Save / Cancel	Click [**Save**] to accept the changes or [**Cancel**] to cancel and return previous settings.

6.2 Wireless Security

The Wireless Security section lets you configure the EAP350's security modes: WEP, WPA-PSK, WPA2-PSK, WPA-PSK Mixed, WPA, WPA2, and WPA Mixed. We strongly recommend you use WPA2-PSK.

Note: Only in Access Point and WDS AP mode.

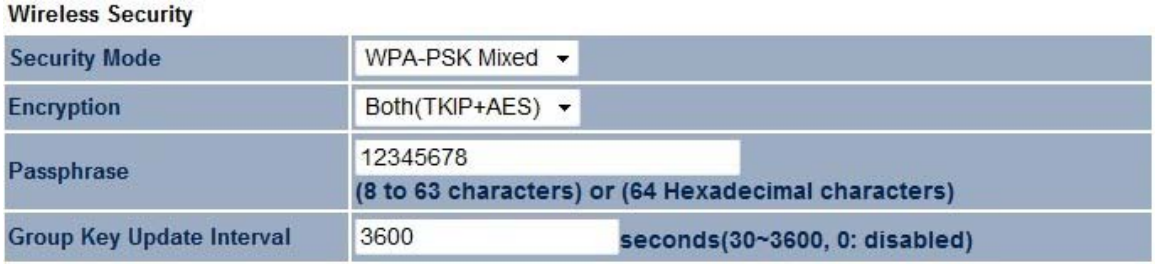
WEP Encryption:



WEP Encryption	
Auth Type	Select **Open System** or **Shared Key**.
Input type	**ASCII**: regular text (recommended) **HEX**: for advanced users
Key Length	Select the desired option, and ensure the wireless clients use the same setting. Choices are 64, 128, 152-bit password lengths.

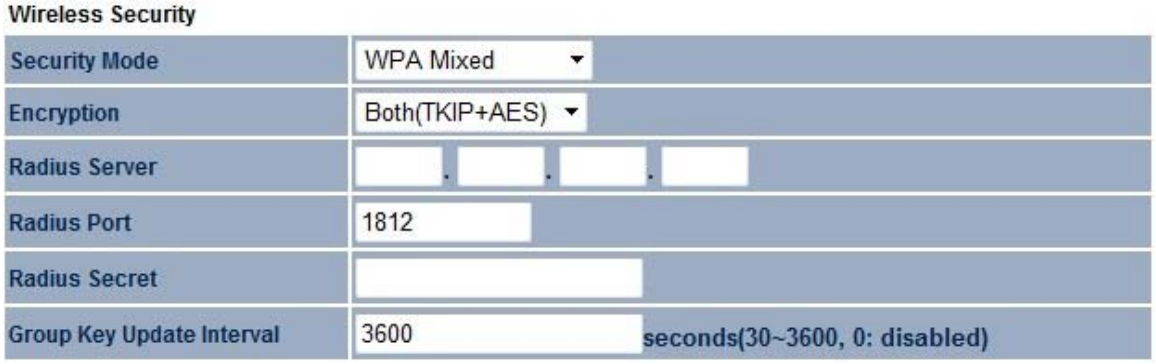
Default Key	Select the key you wish to be the default. Transmitted data is ALWAYS encrypted using the Default Key; the other Keys are for decryption only. You must enter a **Key Value** for the **Default Key**.
Encryption Key #	Enter the key value or values you wish to use. Only the Key selected as Default is required. The others are optional.

WPA-PSK (WPA Pre-Shared Key) Encryption:



WPA-PSK (WPA Pre-Shared Key) Encryption	
Encryption	Select the WPA encryption you would like. Please ensure that your wireless clients use the same settings.
Passphrase	Wireless clients must use the same key to associate the device. If using passphrase format, the Key must be from 8 to 63 characters in length.
Group Key Update Interval	Specify how often, in seconds, the group key changes.

WPA Encryption:



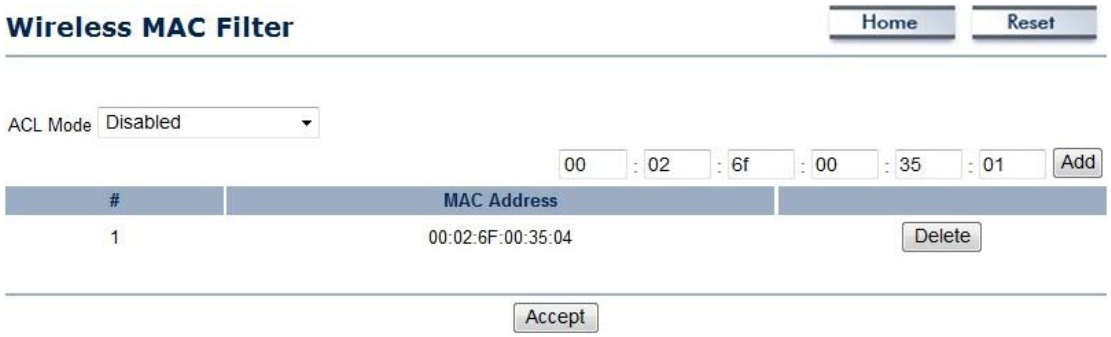
WPA Encryption	
Encryption	Select the WPA encryption you would like. Please ensure that your wireless clients use the same settings.
Radius Server	Enter the IP address of the Radius Server
Radius Port	Enter the port number used for connections to the Radius server.
Radius Secret	Enter the secret required to connect to the Radius server.
Group Key Update Interval	Specify how often, in seconds, the group key changes.

Note: 802.11n does not allow WEP/WPA-PSK TKIP/WPA2-PSK TKIP security mode. The connection mode will change from 802.11n to 802.11g.

6.3 Wireless MAC Filter

Wireless MAC Filters are used to allow or deny network access to wireless clients according to their MAC addresses. You can manually add a MAC address to restrict the permission to access EAP350. The default setting is Disable Wireless MAC Filter.

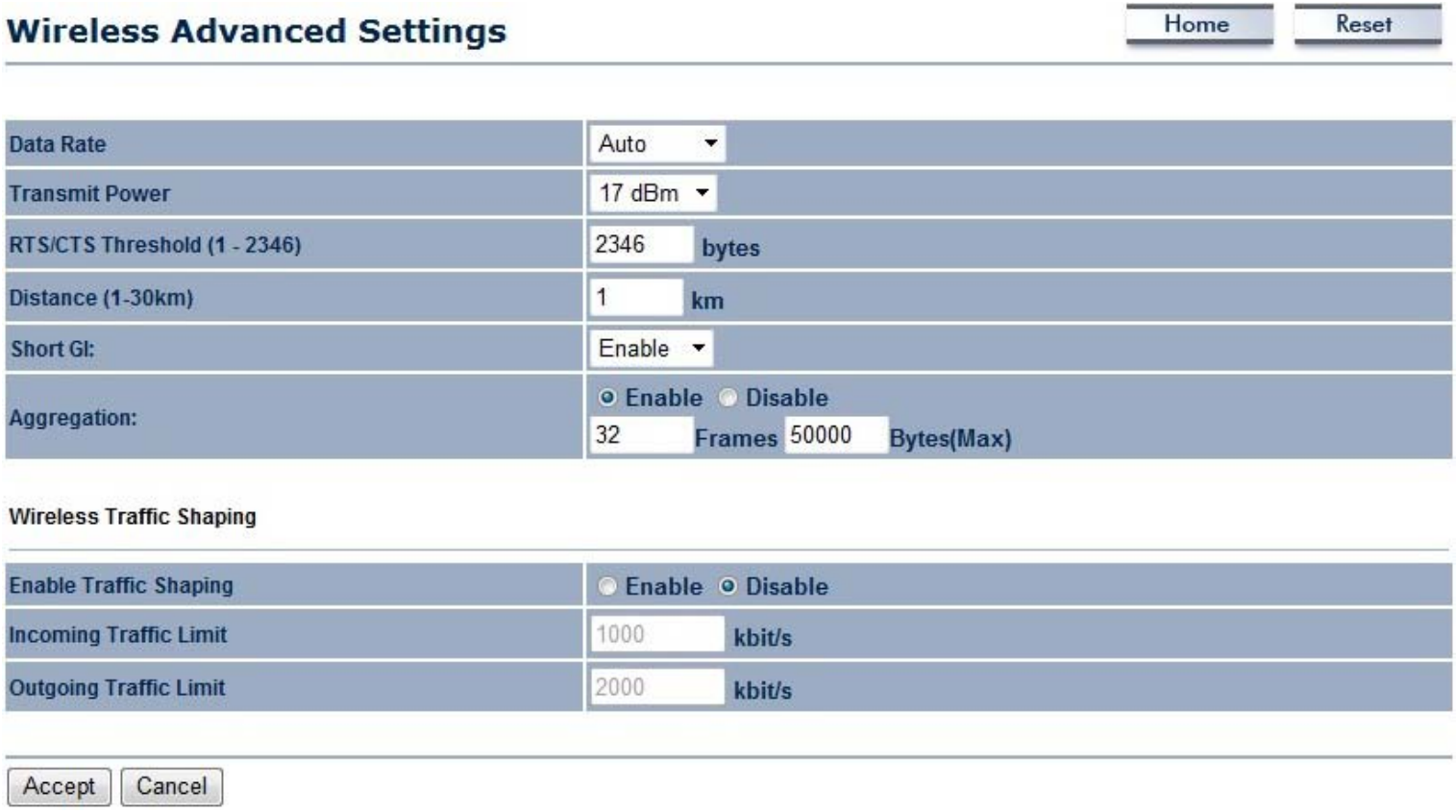
Note: Only in Access Point and WDS AP mode.



Wireless Filter (Access Point / WDS AP mode)	
ACL Mode	Determines whether network access is granted or denied to clients whose MAC addresses appear in the MAC Address table on this page. Choices are **Disable**, **Deny MAC in the list**, or **Allow MAC in the list**.
MAC Address	Enter the MAC address of the wireless client.
Add	Click **Add** to add the MAC address to the **MAC Address** table.
Delete	Delete the selected entries.
Apply	Click Apply to apply the changes.

6.4 Wireless Advanced

This page allows you to configure wireless advance settings. It is recommended the default settings are used unless the user has experience with these functions.



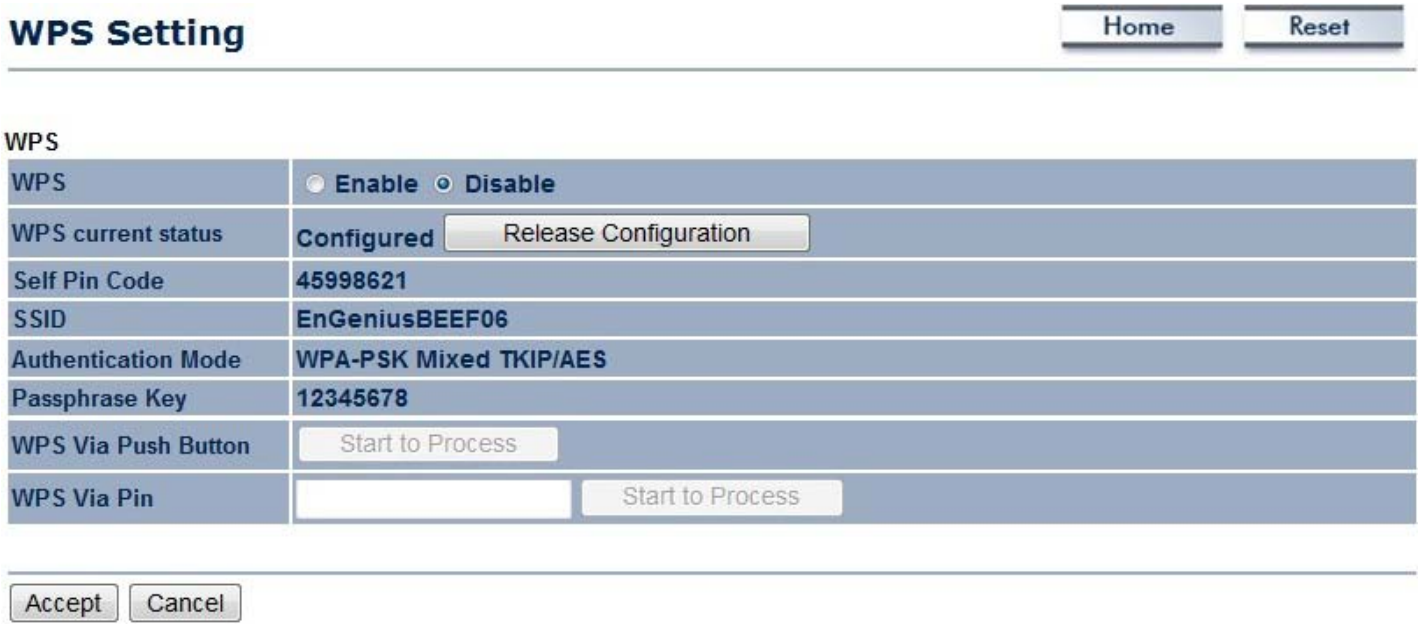
Wireless Advanced	
Data Rate	Select a data rate from the drop-down list. The data rate affects throughput. If you select a low data rate value, for example, the throughput is reduced but the transmission distance increases.
Transmit Power	Set the power output of the wireless signal.
RTS/CTS Threshold	Specify the threshold package size for RTC/CTS. A small number causes RTS/CTS packets to be sent more often and consumes more bandwidth.
Distance	Specify the distance between Access Points and clients. Longer distances may drop high-speed connections.
Short GI	Sets the time that the receiver waits for RF reflections to settle out before sampling data. Using a short (400ns) guard interval can increase throughput, but can also increase error rate in some installations due to increased sensitivity to radio-frequency reflections. Select the option that works best for your installation.
Aggregation	Merges data packets into one packet. This option reduces the number of packets, but increases packet sizes.
Wireless Traffic Shaping	Check this option to enable wireless traffic shaping. Traffic shaping regulates the flow of packets leaving an interface to deliver improved Quality of Service.
Incoming Traffic Limit	Specify the wireless transmission speed used for downloading.
Outgoing Traffic Limit	Specify the wireless transmission speed used for uploading.
Accept / Cancel	Click [**Accept**] to confirm the changes or [**Cancel**] to cancel and return previous settings.

6.5 WPS (Wi-Fi Protected Setup)

WPS feature is following the Wi-Fi Alliance WPS standard and it eases the set up of security-enabled Wi-Fi networks in the home and small office environment.

It reduces the user steps required to configure a network and supports two methods that are familiar to most consumers to configure a network and enable security.

Note: Only in Access Point and WDS AP mode.



Wi-Fi Protected Setup (WPS)	
WPS	Select Enable or Disable the WPS feature.
WPS Current Status	Shows whether the WPS function is **Configured** or **unConfigured**. Configured means that WPS has been used to authorize connection between the device and wireless clients.
Self Pin Code	The PIN code of this device.
SSID	The SSID (wireless network name) used when connecting using WPS.
Authentication Mode	Shows the encryption method used by the WPS process.
Passphrase Key	This is the passphrase key that is randomly generated during the WPS process. It is required if wireless clients that do not support WPS attempts to connect to the wireless network.
WPS Via Push Button	Click this button to initialize WPS feature using the push button method.
WPS Via PIN	Enter the PIN code of the wireless device and click this button to initialize WPS feature using the PIN method.

6.6 WDS Link Settings

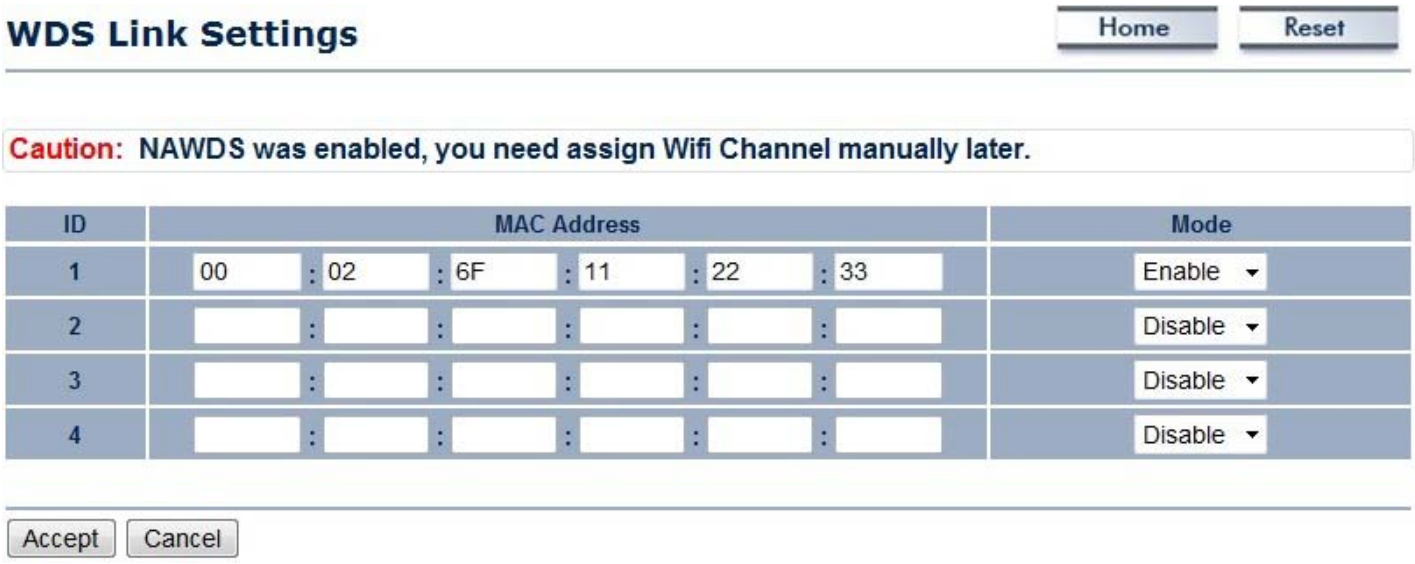
Using WDS (Wireless Distribution System) to connect Access Point wirelessly, and in doing so extend a wired infrastructure to locations where cabling is not possible or inefficient to implement.

Note that compatibility between different brands and models is not guaranteed. It is recommended that the WDS network be created using the same models for maximum compatibility.

Also note that all Access Points in the WDS network needs to use the same Channel and Security settings.

To create a WDS network, please enter the MAC addresses of the Access Points that you want included in the WDS. There can be a maximum of four access points.

Note: Only in WDS AP and WDS Bridge mode.



WDS Link Settings	
MAC Address	Enter the Access Point's MAC address to which you want to extend the wireless area.
Mode	Select **Disable** or **Enable** from the drop-down list.
Accept / Cancel	Click [**Accept**] to confirm the changes or [**Cancel**] to cancel and return previous settings.

7 Management

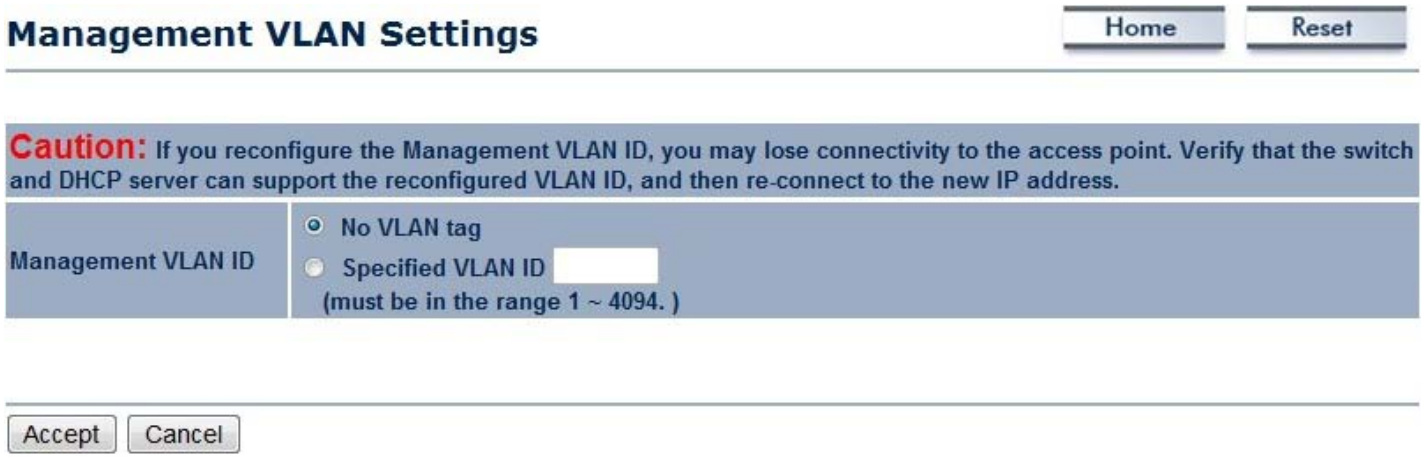
7.1 Administration

This page allows you to change the system password and to configure remote management. By default, the user name is **admin** and the password is: **admin**. Password can contain 0 to 12 alphanumeric characters and are case sensitive.

Change Password	
Name	Enter a new username for logging in to the Web Configurator.
Password	Enter a new password for logging in to the Web Configurator.
Confirm Password	Re-enter the new password for confirmation.
Save/Apply / Cancel	Click **Save/Apply** to apply the changes or **Cancel** to return previous settings.

7.2 Management VLAN

This page allows you to assign a VLAN tag to the packets. A VLAN is a group of computers on a network whose software has been configured so that they behave as if they were on a separate Local Area Network (LAN). Computers on VLAN do not have to be physically located next to one another on the LAN.



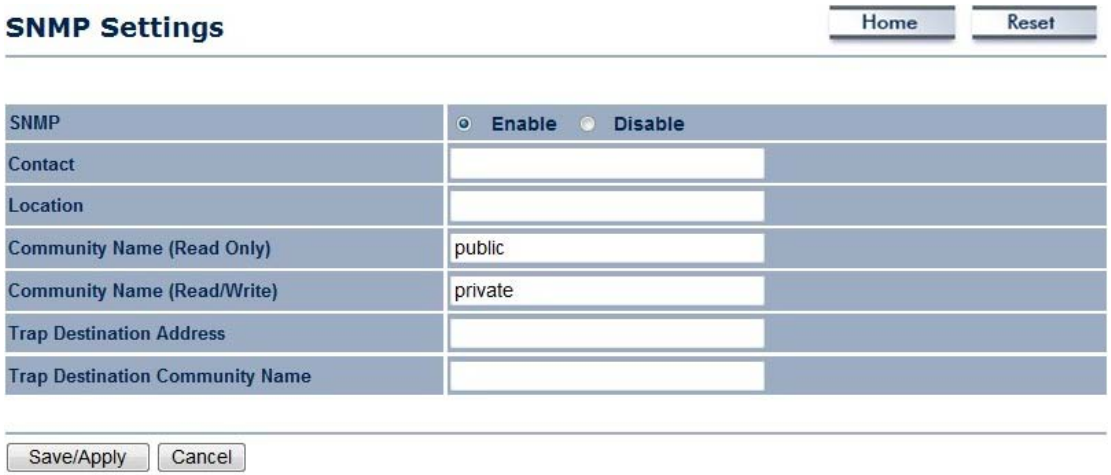
Management VLAN	
Management VLAN ID	If your network includes VLANs and if tagged packets need to pass through the Access Point, enter the VLAN ID. Otherwise, click **No VLAN tag**.
Accept / Cancel	Click **Accept** to confirm the changes or **Cancel** to cancel and return previous settings.

Note:

1. If you reconfigure the Management VLAN ID, you may lose your connection to the EAP350. Verify that the DHCP server supports the reconfigured VLAN ID and then reconnect to the EAP350 using the new IP address.
2. Clicking **Accept** does not apply the changes. To apply them, use Status > Save/Load (see section 4.1).

7.3 SNMP

This page allows you to assign the contact details, location, community name and trap settings for SNMP. This is a networking management protocol used to monitor network-attached devices. SNMP allows messages (called protocol data units) to be sent to various parts of a network. Upon receiving these messages, SNMP-compatible devices (called agents) return data stored in their Management Information Bases.

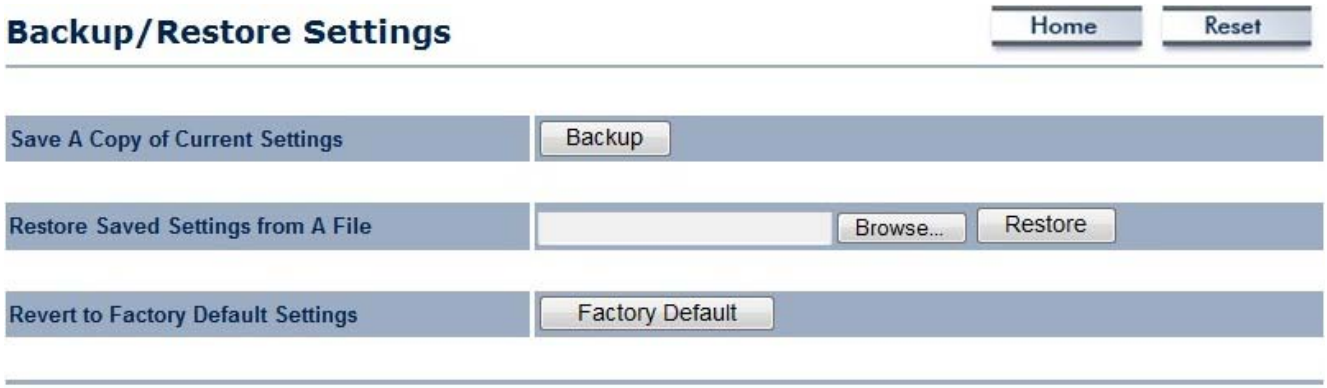


SNMP	
SNMP Enable/Disable	Enable or disable SNMP feature.
Contact	Specify the contact details of the device
Location	Specify the location of the device.
Community Name (Read Only)	Specify the password for access the SNMP community for read only access.

Community Name (Read/Write)	Specify the password for access to the SNMP community with read/write access.
Trap	
Trap Destination Address	Specify the IP address of the computer that will receive the SNMP traps.
Trap Destination Community Name	Specify the password for the SNMP trap community.

7.4 Backup/Restore

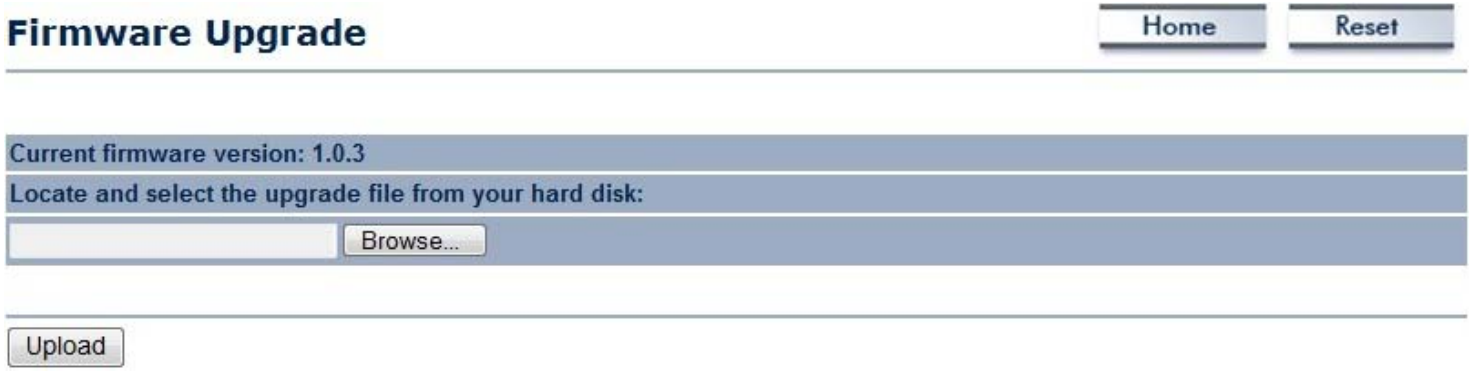
This page allows you to save the current device configurations. When you save the configurations, you also can re-load the saved configurations into the device through the [**Restore Saved Settings from A File**]. If extreme problems occur you can use the [**Revert to Factory Default Settings**] to set all configurations to its original default settings.



Backup/Restore	
Save A Copy of Current Settings	Click [**Backup**] to save the current configured settings.
Restore Saved Settings from A File	To restore settings that have been previously backed up, click [**Browse**], select the file, and click [**Restore**].
Revert to Factory Default Settings	Click [**Factory Default**] button to restore the EAP350 to its factory default settings.

7.5 Firmware Upgrade

This page allows you to upgrade the device's firmware.



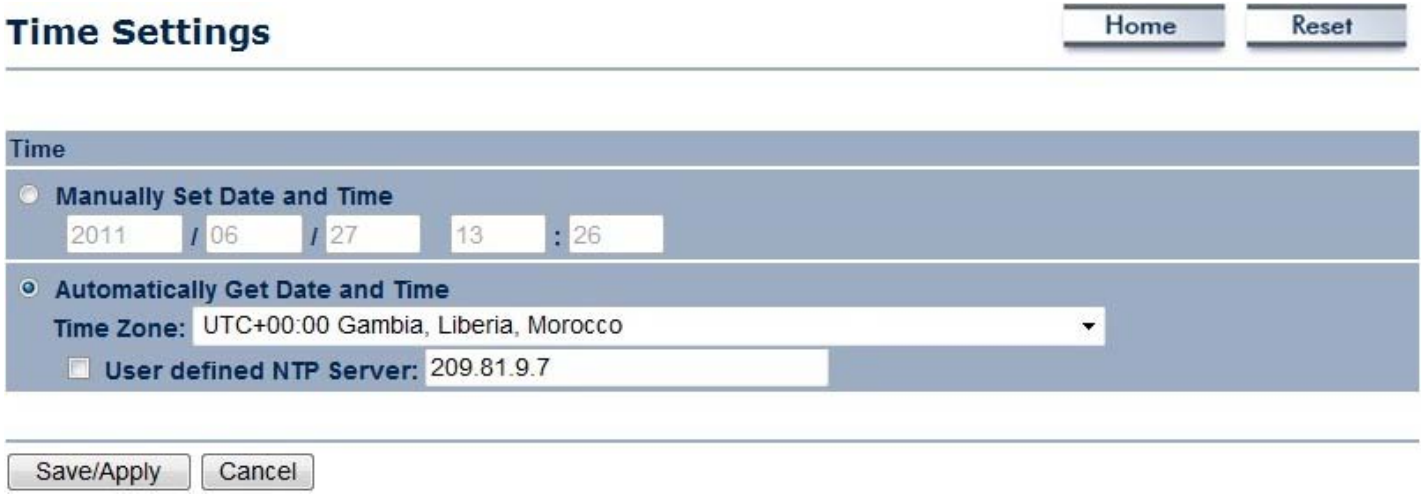
To perform the Firmware Upgrade:

1. Click the [**Browse**] button and navigate to the location of the upgrade file.
2. Select the upgrade file. Its name will appear in the *Upgrade File* field.
3. Click the [**Upload**] button to commence the firmware upgrade.

Note: The device is unavailable during the upgrade process, and must restart when the upgrade is completed. Any connections to or through the device will be lost.

7.6 Time Setting

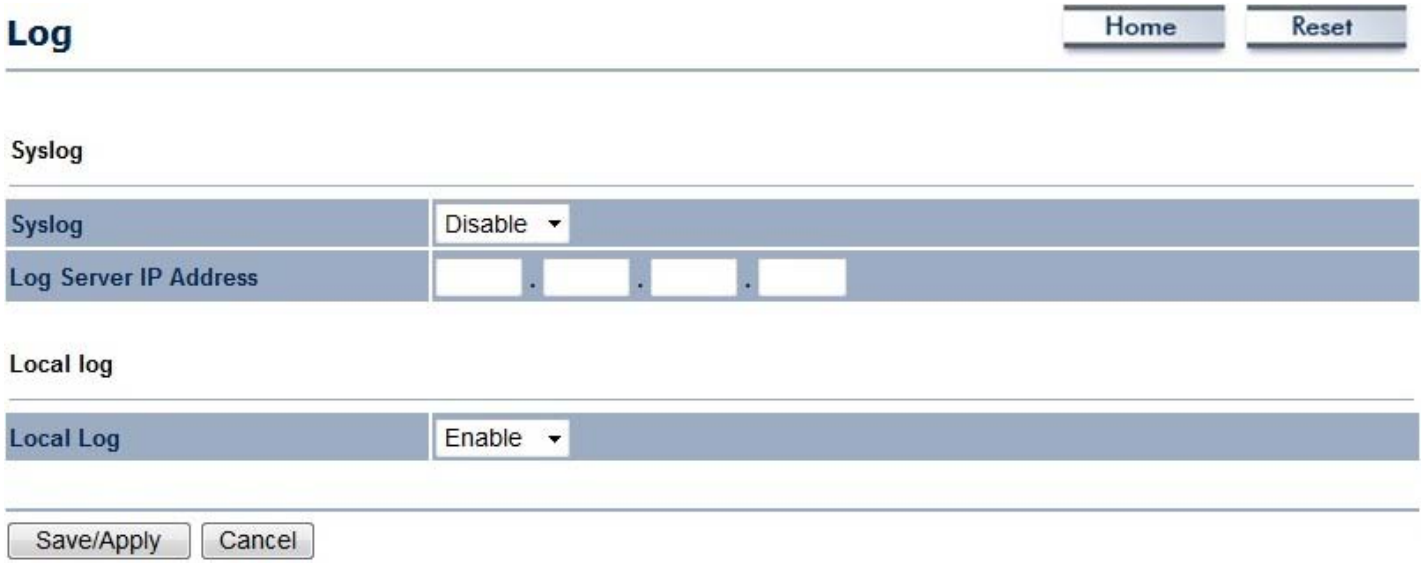
This page allows you to set the system time.



Time	
Manually Set Date and Time	Manually specify the date and time.
Automatically Get Date and Time	Select a time zone from the drop-down list and check whether you want to enter the IP address of an NTP server or use the default NTP server.

7.7 Log

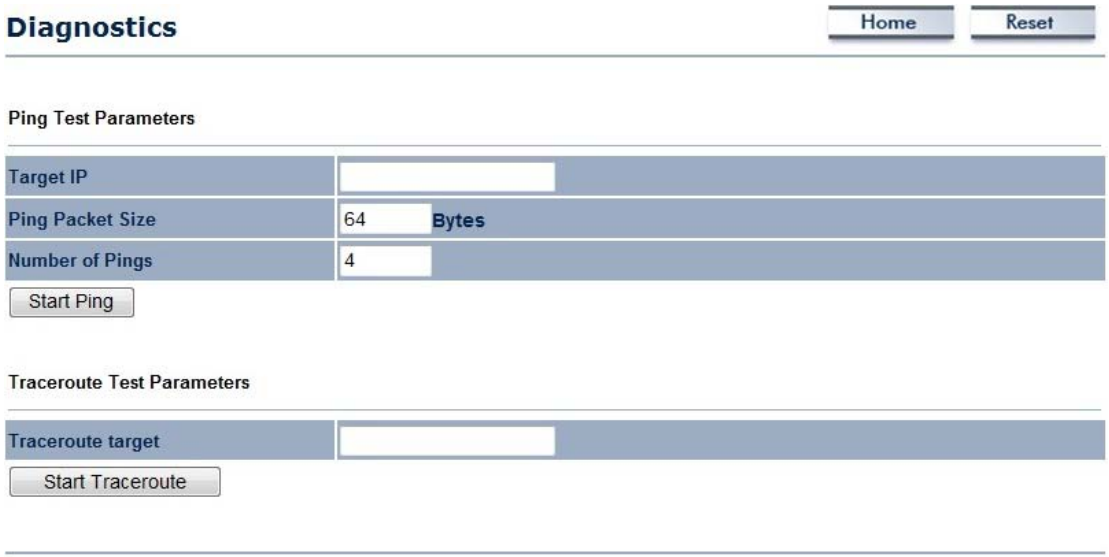
This page allows you to setup Syslog and local log functions.



Log	
Syslog	Enable or disable the syslog function.
Log Server IP Address	Enter the IP address of the log server.
Local Log	Enable or disable the local log service.
Save/Apply / Cancel	Click **Save/Apply** to apply the changes or **Cancel** to return previous settings.

7.8 Diagnosis

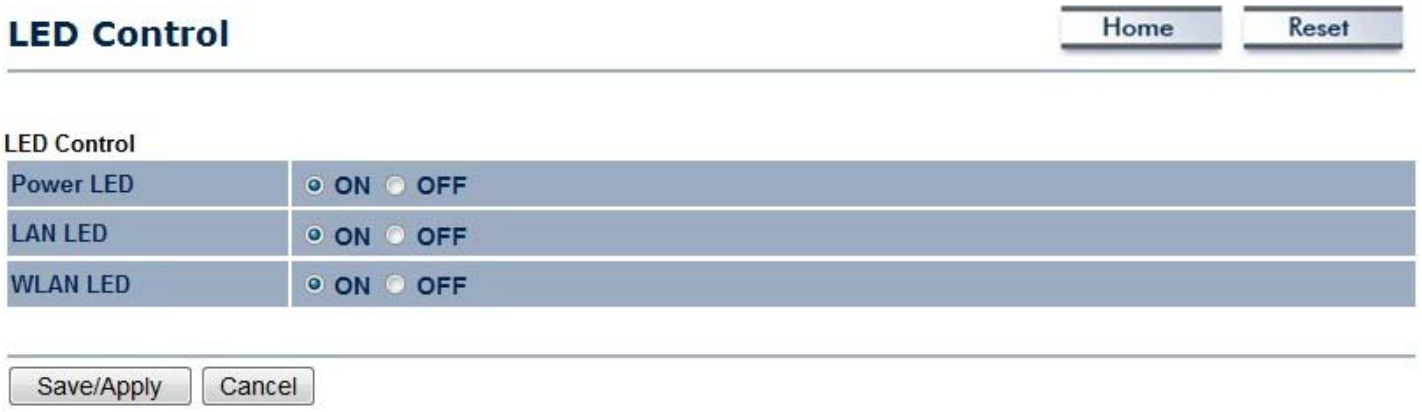
This page allows you to ascertain connection quality and trace the routing table to the target.



Diagnosis	
Target IP	Enter the IP address you would like to search.
Ping Packet Size	Enter the packet size of each ping.
Number of Pings	Enter the number of times you want to ping.
Start Ping	Click [**Start Ping**] to begin pinging.
Traceroute Target	Enter an IP address or domain name you want to trace.
Start Traceroute	Click [**Start Traceroute**] to begin the trace route operation.

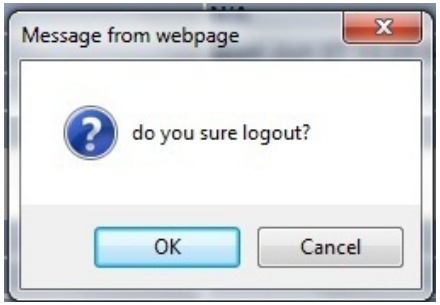
7.9 LED Control

This page allows you to control LED on/off for Power, LAN interface and WLAN interface.



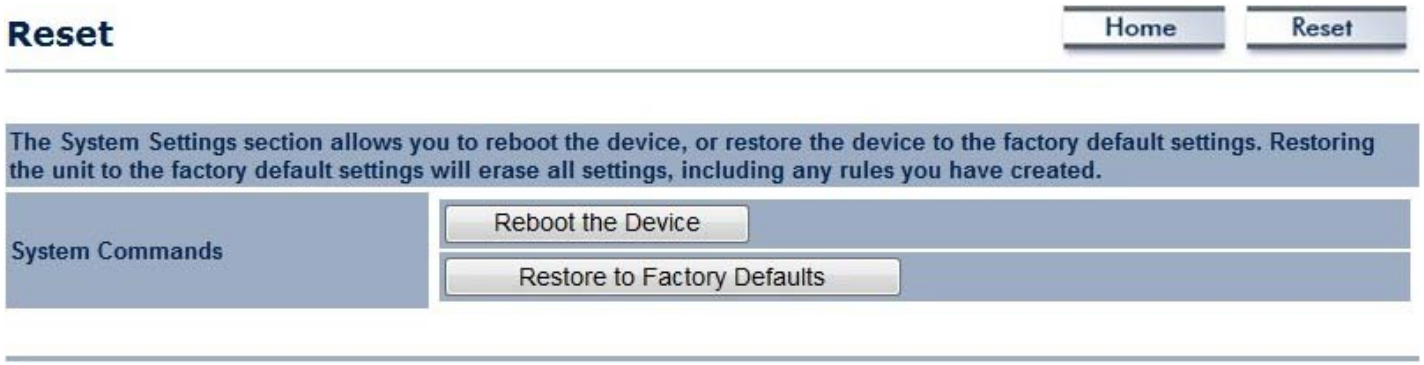
7.10 Logout

Click [**Logout**] in **Management** menu to logout.



7.11 Reset

In some circumstances it may be required to force the device to reboot. Click on [**Reboot the Device**] to reboot.



8 Building a Wireless Network

With its ability to operate in various operating modes, your EAP350 is the ideal device around which you can build your WLAN. This appendix describes how to build a WLAN around your EAP350 using he device's operating modes.

8.1 Access Point Mode

In Access Point Mode, EAP350 behaves likes a central connection for stations or clients that support IEEE 802.11b/g/n networks. Stations and client must be configured to use the same SSID and security password to associate with the EAP350. The EAP350 supports four SSIDs at the same time for secure guest access.

8.2 Access Point Mode with WDS Function (WDS AP mode)

The EAP350 also supports WDS AP mode. This operating mode allows wireless connections to the EAP350 using WDS technology. In this mode, configure the MAC addresses in both Access Points to enlarge the wireless area by enabling WDS Link settings. WDS supports four AP MAC addresses.

8.3 WDS Bridge Mode

In WDS Bridge Mode, the EAP350 can wirelessly connect different LANs by configuring the MAC address and security settings of each EAP350 device. Use this mode when two wired LANs located a small distance apart want to communicate with each other. The best solution is to use the EAP350 to wirelessly connect two wired LANs, as shown in the following figure.

WDS Bridge Mode can establish four WDS links, creating a star-like network.

Note: WDS Bridge Mode is unlike Access Point. Access Points linked by WDS are using the same frequency channel, more Access Points connected together may lower throughput. Please be aware to avoid loop in your wireless connection, otherwise enable Spanning Tree Function.

Appendix A – FCC Interference Statement

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 device complies with FCC RF Exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d)(2).
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.