

Wireless Access Point

802.11g

Manual

Table of Contents

<u>Chapter 1 Introduction.....</u>	<u>1</u>
1.1 Package Contents.....	2
1.2 Features	2
1.3 Specifications	2
1.4 Physical Description	3
<u>Chapter 2 Wireless LAN Access Point Connection</u>	<u>5</u>
<u>Chapter 3 Wireless LAN Access Point Configuration.....</u>	<u>6</u>
3.1 Getting Started.....	6
3.2 Configuring the Access Point	11
3.2.1 Client Mode configuration.....	12
3.2.2 AP Mode configuration.....	15
3.2.3 Repeater Mode configuration	17
3.2.4 P2P Mode configuration	20
3.2.5 PMP Mode configuration	21
3.2.6 WEP Setting.....	23
3.2.7 WPA Setting	25
3.2.8 Advanced Setting.....	26
3.2.9 Access Filter	27
3.2.10 Status Setup	29
3.2.11 Admin Setup	30
3.2.10 LAN Setup	32
<u>Charpter 4 Troubleshooting</u>	<u>33</u>

Chapter 1 Introduction

This product is an access point for IEEE 802.11g/b 2.4GHz wireless network. You can use this access point to build up a wireless LAN.

The product supports WPA-PSK, WEP, ESSID and MAC address filter functions to consolidate the wireless network security. With ESSID authentication, WPA-PSK, 64/128 bit WEP encryption and MAC address filtering you can prevent unauthorized wireless stations from accessing your wireless network.

The product's dipole antenna is detachable by connecting to a RP-SMA connector. Users can install a high gain antenna to the connector for better network link quality so that you can build wireless network with more flexibility.

This product provides easy to use user interface and allows users to configuring from web browser. With the versatile of features, this product is the best choice for you to integrate your wireless and wired network seamlessly.

1.1 Package Contents

The Access Point includes the following items:

- One Access Point
- One Power Adapter
- One User's Manual

1.2 Features

- Complies with the IEEE 802.11g/b 2.4GHz specification.
- High data rate 54, 48, 36, 24, 18, 12, 11, 5.5, 2 and 1Mbps network speed.
- Seamlessly integrate wireless and wired Ethernet LAN networks.
- Auto rate fallback in case of obstacles or interferences.
- Provide 64/128-bit WEP Data Encryption function to protect the wireless data transmissions.
- Supports Web-based configuration.

1.3 Specifications

- Standards: IEEE 802.11g/b (Wireless), IEEE 802.3 (Wired)
- Data Rate: 54/48/36/24/18/12/11/5.5/2/1Mbps auto fallback
- Security: 64/128-bit WEP Data Encryption
- Frequency Band: 2.400~2.4835GHz (Industrial Scientific Medical Band)
- Antenna: External detachable dipole antenna (with RP-SMA connector)
- Connectors: 10/100Mbps RJ-45 x 1

- Power: 12VDC, 0.5A
- Transmit Power: 16dBm (Typical)
- LEDs: Power, LAN Link/Activity, Wireless Activity
- Dimension: 30(H) x 127(W) x 87(D) mm
- Temperature:
 - ◆ Operating: 32~131°F (0~55°C)
 - ◆ Storage: -4~158°F(-20~70°C)
- Humidity: 10-90% (Noncondensing)

1.4 Physical Description

Front Panel

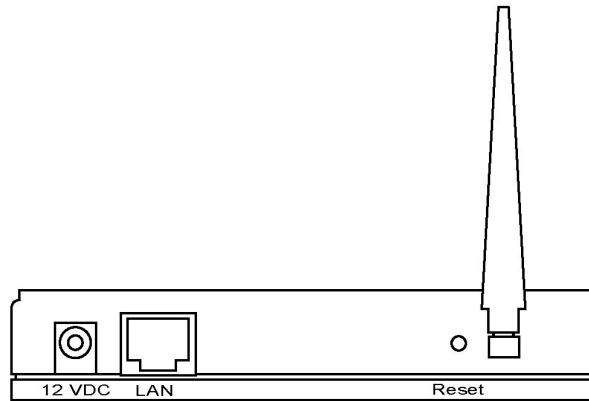
On the Access Point's front panel there are LED lights that inform you of the Access Point's current status. Below is an explanation of each LED.



LED	Color	Status	Description
Power	Green	Lit	Power is supplied.
		Off	No Power.
Wireless Activity	Green	Flash	Antenna is transmitting or receiving data.
		Off	Antenna is not transmitting or receiving data.
LAN Link/Activity	Green	On	A valid link is established.
		Flash	It is transmitting or receiving data.
		Off	No link is established.

Back Panel

Access Point's connection ports are located on the back panel. Below is the description of each connection port.



1 Antenna Connector

This round connection is standard Reverse SMA connector where any antennas with Reverse SMA connector can connect to the Access Point.

2 DC Adapter Port

Insert the power jack of the power adapter into this port.

3 LAN Port

The Access Point's LAN port is where you connect to your LAN's network devices.

4 Reset

The Reset button allows you to do one of two things.

- 1) If problems occur with your Access Point, press the reset button with a pencil tip (for less than 5 seconds) and the Access Point will re-boot itself, keeping your original configurations.
- 2) If problems persist or you experience extreme problems or you forgot your password, press the reset button for longer than 5 seconds and the Access Point will reset itself to the factory default

settings (warning: your original configurations will be replaced with the factory default settings).

Chapter 2 Wireless LAN Access Point Connection

1. Locate an optimum location for the Wireless LAN Access Point.

The best location for your Access Point is usually at the center of your wireless network, with line of sight to all of your mobile stations.

2. Connect the Wireless LAN Access Point to your router, hub or switch.

Connect one end of standard UTP cable to the Access Point's LAN Port and connect the other end of the cable to a switch, a router or a hub. The Access Point will then be connected to your existed wired LAN Network.

3. Connect the DC Power Adapter to the Wireless LAN Access Point's Power Socket.

Only use the power adapter supplied with the Access Point. Using a different adapter may damage the product.

The Hardware Installation is completely also you can start to enjoy the wireless network environment.

Please follow below step to access the UI to configure the more function.

Chapter 3 Wireless LAN Access Point Configuration

3.1 Getting Started

This Access Point provides web-based configuration tool allowing you to configure from wired or wireless stations. Follow the instructions below to get started configuration.

From Wired Station

1. Make sure your wired station is in the same subnet with the Access Point.

The default IP Address and Sub Mask of the Access Point is:

Default IP Address: 192.168.2.1

Default Subnet: 255.255.255.0

Configure your PC to be in the same subnet with the Access Point.

1a) Windows 95/98/Me

1. Click the *Start* button and select *Settings*, then click *Control Panel*. The *Control Panel* window will appear.
2. Double-click *Network* icon. The *Network* window will appear.
3. Check your list of *Network Components*. If TCP/IP is not installed, click the *Add* button to install it now. If TCP/IP is installed, go to **step 6**.
4. In the *Network Component Type* dialog box, select *Protocol* and click *Add* button.
5. In the *Select Network Protocol* dialog box, select *Microsoft and TCP/IP* and then click the *OK* button to start installing the TCP/IP protocol. You may need your Windows CD to complete the installation.
6. After installing TCP/IP, go back to the *Network* dialog box. Select *TCP/IP* from the list of *Network Components* and then click the *Properties* button.
7. Check each of the tabs and verify the following settings:

Bindings: Check *Client for Microsoft Networks* and *File and printer sharing*

for Microsoft Networks.

Gateway: All fields are blank.

DNS Configuration: Select *Disable DNS*.

WINS Configuration: Select *Disable WINS Resolution*.

IP Address: Select *Specify an IP Address*. Specify the IP Address and Subnet Mask as following example.

- 1 IP Address: 192.168.2.3 (any IP address within 192.168.2.2~192.168.2.254 is available, **do not setup 192.168.2.1**)
 - 2 Subnet Mask: 255.255.255.0
8. Reboot the PC. Your PC will now have the IP Address you specified.

1b) Windows 2000

1. Click the *Start* button and select *Settings*, then click *Control Panel*. The *Control Panel* window will appear.
2. Double-click *Network and Dial-up Connections* icon. In the *Network and Dial-up Connection* window, double-click *Local Area Connection* icon. The *Local Area Connection* window will appear.
3. In the *Local Area Connection* window, click the *Properties* button.
4. Check your list of *Network Components*. You should see *Internet Protocol [TCP/IP]* on your list. Select it and click the *Properties* button.
5. In the *Internet Protocol (TCP/IP) Properties* window, select *Use the following IP address* and specify the IP Address and Subnet mask as following.
IP Address: 192.168.2.3 (any IP address within 192.168.2.2~192.168.2.254 is available, **do not setup 192.168.2.1**)
Subnet Mask: 255.255.255.0
6. Click *OK* to confirm the setting. Your PC will now have the IP Address you specified.

1c) Windows NT

1. Click the *Start* button and select *Settings*, then click *Control Panel*. The *Control Panel* window will appear.
2. Double-click *Network* icon. The *Network* window will appear. Select the *Protocol* tab from the *Network* window.

3. Check if the *TCP/IP Protocol* is on your list of *Network Protocols*. If *TCP/IP* is not installed, click the *Add* button to install it now. If *TCP/IP* is installed, go to **step 5**.
4. In the *Select Network Protocol* window, select the *TCP/IP Protocol* and click the *Ok* button to start installing the *TCP/IP protocol*. You may need your Windows CD to complete the installation.
5. After you install *TCP/IP*, go back to the *Network* window. Select *TCP/IP* from the list of *Network Protocols* and then click the *Properties* button.
6. Check each of the tabs and verify the following settings:

IP Address: Select *Specify an IP address*. Specify the IP Address and Subnet Mask as following example.

- 3 IP Address: 192.168.2.3 (any IP address within 192.168.2.2~192.168.2.254 is available, **do not setup 192.168.2.1**)
- 4 Subnet Mask: 255.255.255.0

- **DNS:** Let all fields are blank.
- **WINS:** Let all fields are blank.
- **Routing:** Let all fields are blank.

7. Click *OK* to confirm the setting. Your PC will now have the IP Address you specified.

2. Enter **192.168.2.1** from Web Browser to get into the Access Point's configuration tool.
3. A screen will be popped up and request you to enter user name and password. The default user name and password is as follows.
User Name: Admin
Password: 1234
Enter the default user name and password, then press **OK** button directly.



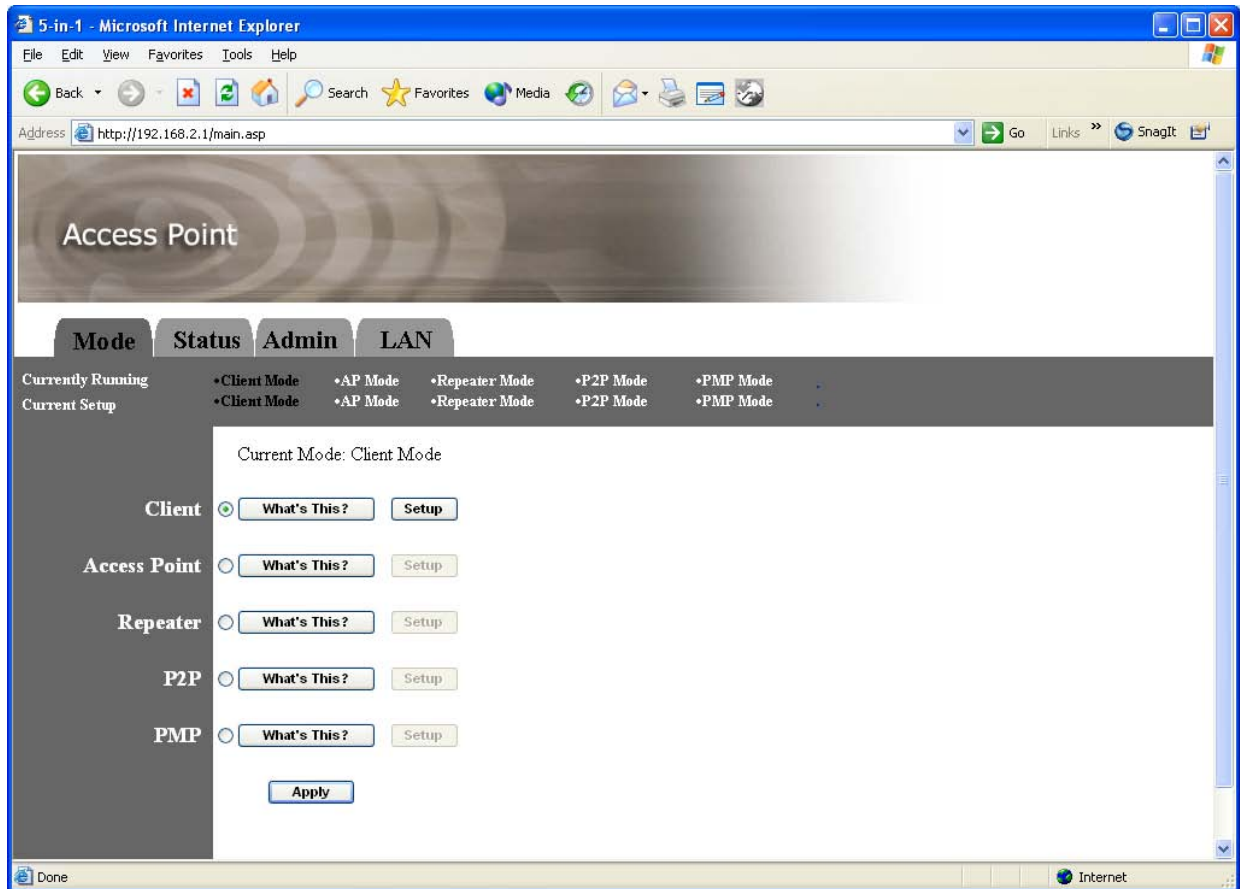
4. You can start configuring the Access Point.

From Wireless Station

1. Make sure your wireless station is in the same subnet with the Access Point. Please refer to the **step 1** above for configuring the IP Address and Sub Mask of the wireless station.
2. Connect to the Access Point.
The Access Point's ESSID is "**default**" and the WEP Encryption function is disabled. Make sure your wireless station is using the same ESSID as the Access Point and associate your wireless station to the Access Point.
3. Enter **192.168.2.1** from Web Browser to get into the Access Point's configuration tool.
4. Enter the user name and password and then press **OK** button and you are available to configure the Access Point now.

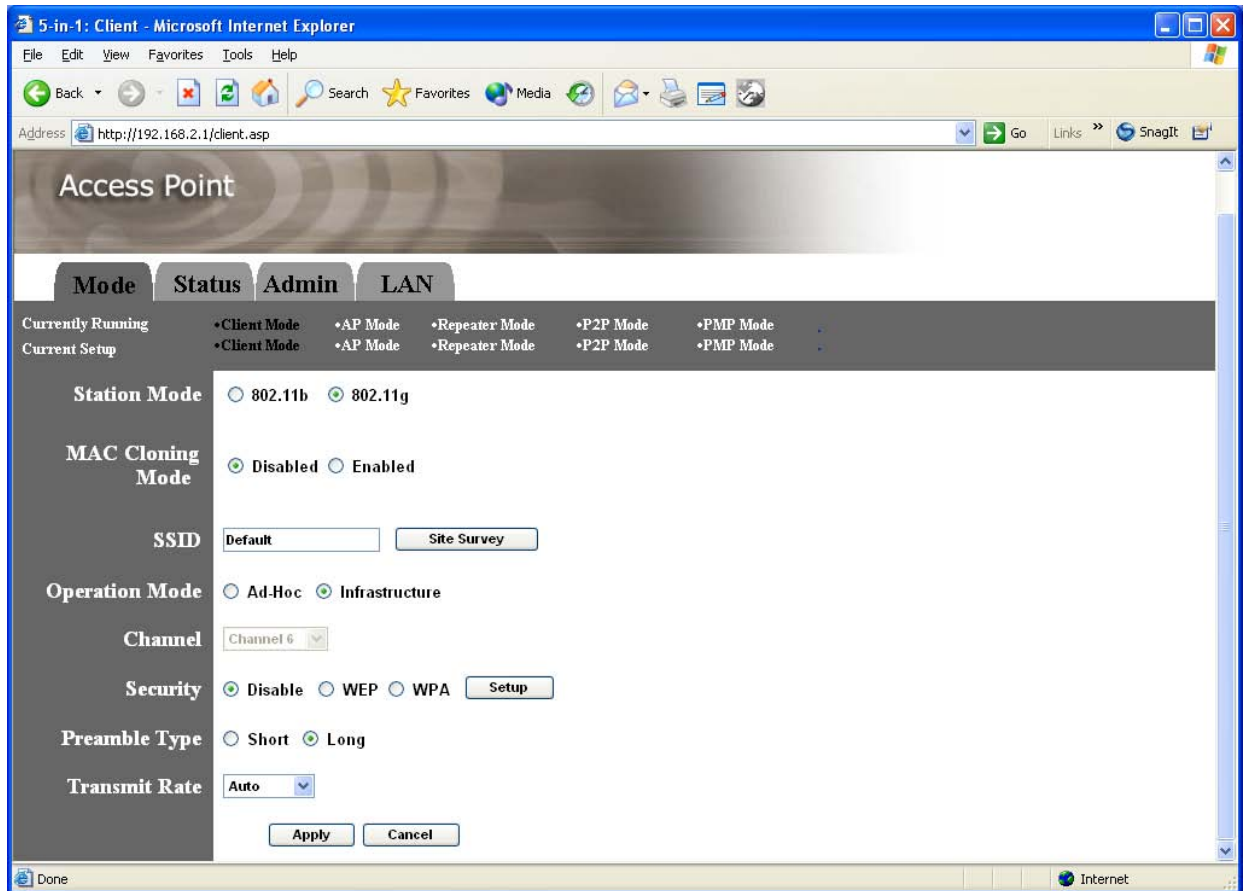
3.2 Configuring the Access Point

This Access Point supports Client, AP, Repeater and Bridge modes. “Client Mode” is used to let a network device with only wired Ethernet function to have wireless LAN communication capability. It provides both Ad Hoc and Infrastructure modes for the “Station Mode”. With “Station-Ad Hoc mode”, it can let your network device join a wireless LAN with peer-to-peer communication. With “Station-Infrastructure mode”, it can let your network device join a wireless LAN through an access point. “AP Mode” provides pure access point function. The simplest way to build up a wireless LAN is to use “AP Mode”. If you want an access point to bridge wired Ethernet network and provide connection service for other wireless station at the same time, you have to set the access point to “Repeater mode”. Simply speaking, “Repeater mode” function is the combination of “AP mode” and “PMP mode”. “AP Bridge Mode” provides the function to bridge more than 2 wired Ethernet networks together by wireless LAN. You can use two access points with “P2P mode” to bridge two wired Ethernet networks together. If you want to bridge more than two wired Ethernet networks together, you have to use enough access points with “PMP mode”. An access point with “P2P mode” or “PMP mode” can only be used to bridge wired Ethernet networks together. It can’t accept connection from other wireless station at the same time.



3.2.1 Client Mode configuration

It is used to let a network device with only wired Ethernet function to have wireless LAN communication capability. It provides both Ad Hoc and Infrastructure modes for the “Client Mode”. With “Ad Hoc mode”, it can let your network device join a wireless LAN with peer-to-peer communication. With “Infrastructure mode”, it can let your network device join a wireless LAN through an access point.

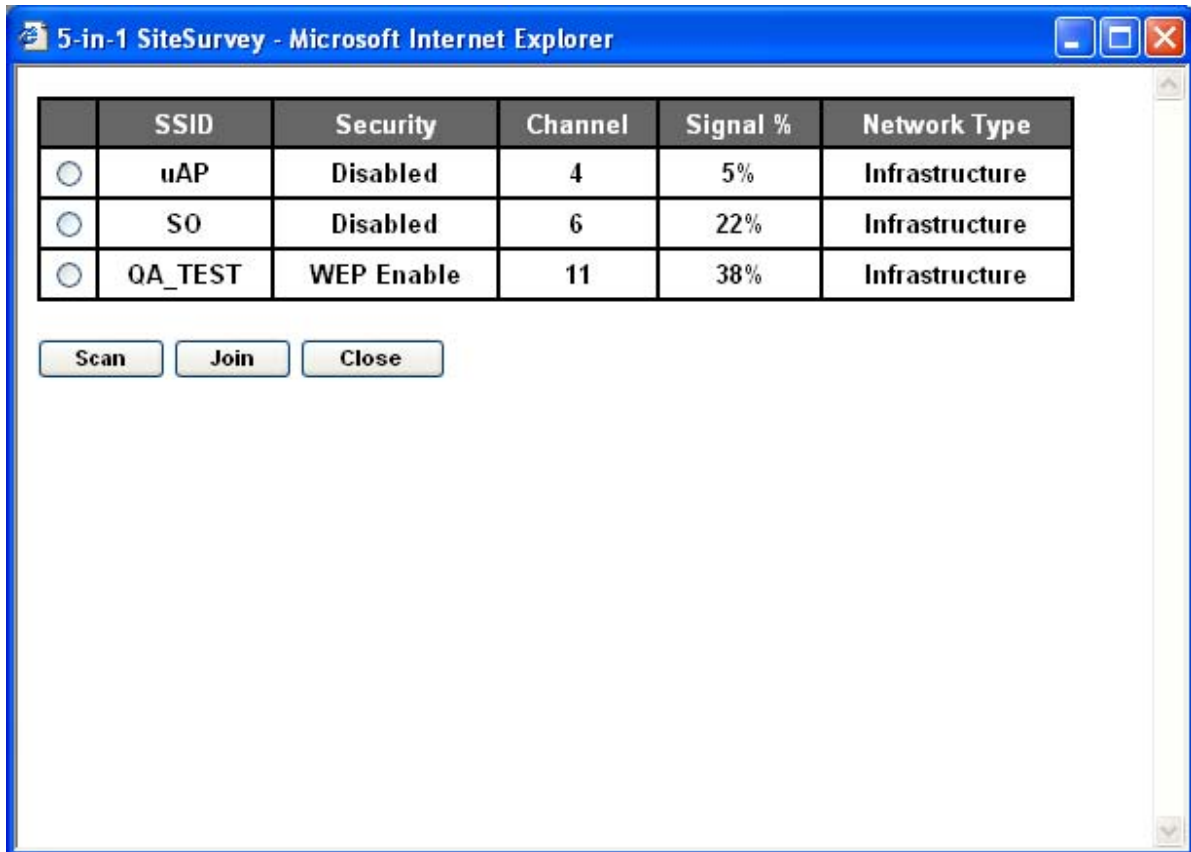


Parameter	Description
Station Mode	802.11b mode: It allows to select the transmit rate up to 11Mbps 802.11g mode: It allows to select the transmit rate up to 54Mbps
MAC Cloning Mode	Disabled: It will use it's own MAC address to access the wireless LAN. Enabled: It will use PC's MAC address to access the wireless LAN.
SSID	The SSID (up to 32 printable ASCII characters) is the unique name identified in a WLAN. The ID prevents the unintentional merging of two co-located WLANs. Please make sure that the SSID of all stations in the same WLAN network are the same. The default SSID is " default ".
Site Survey	Click "Site Survey" button, then a "Wireless Site Survey Table" will pop up. It will list all available access points near by. You can select one access point in the table and it will join wireless LAN through this access point.
Operation Mode	AD-Hoc : It can let your network device join a wireless LAN with

	peer-to-peer communication.
	Infrastructure: It can let your network device join a wireless LAN through an access point.
Channel	Select the appropriate channel from the list provided to correspond with your network settings. Channels differ from country to country. Channel 1-11 (North America) Channel 1-14 (Japan) Channel 1-13 (Europe) There are 14 channels available.
Security	Disable: Disable the security function. WEP: WEP is an authentication algorithm, which protects authorized Wireless LAN users against eavesdropping. The Authentication type and WEP key of wireless stations must be the same with the Access Point. This Access Point supports 64/128-bit WEP Encryption function. With this function, your data will be transmitted over the wireless network securely. # You can refer to the detail setting from chapter 3.2.6. WPA: You can use a pre-shared key to authenticate wireless stations and encrypt data during communication. When you enabled WPA mode, you can not use WEP encryption. # You can refer to the detail setting from chapter 3.2.7.
Preamble Type	Preamble type defines the length of preamble block in the frames during the wireless communication. Auto select: It will auto switch to the more suitable method. Short: It is suitable for high traffic wireless network Long: It can provide more reliable communication
Transmit Rate	When you enable the station mode selection to “802.11b” and it allows you to select the speed of 1-11Mbps. When you enable the station mode selection to “802.11g” and it allows you to select the speed of 1-54Mbps.
Click Apply button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.	

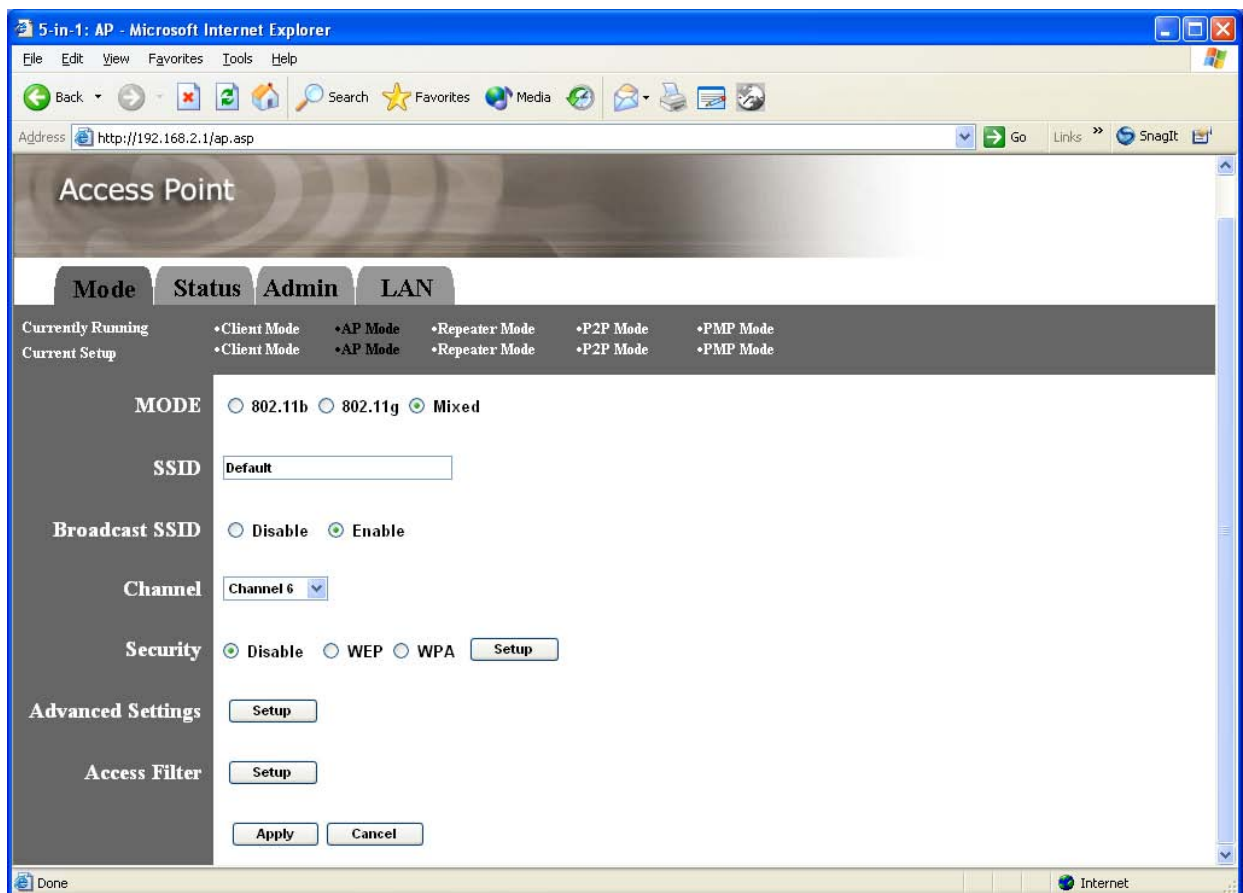
Site Survey table:

When this access point is in “Client-Infrastructure mode”, it should associate with an access point and connect to your wireless LAN through the associated access point. “Wireless Site Survey” searches for all available access points near by. You can select one access point listed in this table.



3.2.2 AP Mode configuration

This Access Point supports AP modes. “AP Mode” provides pure access point function. The simplest way to build up a wireless LAN is to use “AP Mode”.



Parameter	Description
Mode	802.11b mode: It allows to select the transmit rate up to 11Mbps 802.11g mode: It allows to select the transmit rate up to 54Mbps Mixed mode: It provides best performance for 11g transmission when you enable the AP mode selection to "Mixed mode".
SSID	The SSID (up to 32 printable ASCII characters) is the unique name identified in a WLAN. The ID prevents the unintentional merging of two co-located WLANs. Please make sure that the SSID of all stations in the same WLAN network are the same. The default SSID is " default ".
Broadcast SSID	It will respond to Broadcast SSID requests. If you enable this function, every wireless station located within the coverage of this access point can discover this access point easily. If you are building a public wireless network, enabling this feature is recommended. Disabling "Response to

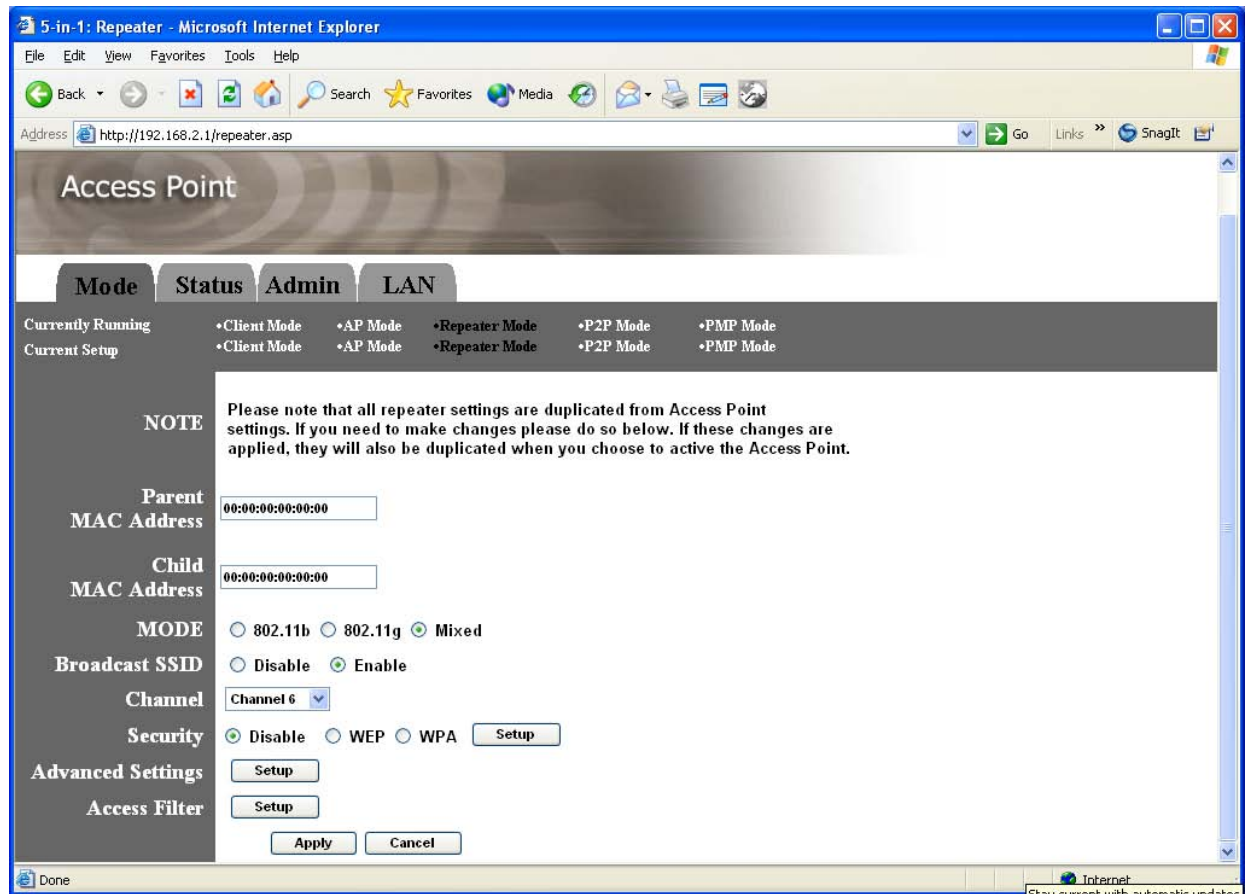
Channel	Broadcast ESSID requests" can provide better security. Select the appropriate channel from the list provided to correspond with your network settings. Channels differ from country to country. Channel 1-11 (North America) Channel 1-14 (Japan) Channel 1-13 (Europe) There are 14 channels available.
Security	Disable: Disable the security function. WEP: WEP is an authentication algorithm, which protects authorized Wireless LAN users against eavesdropping. The Authentication type and WEP key of wireless stations must be the same with the Access Point. This Access Point supports 64/128-bit WEP Encryption function. With this function, your data will be transmitted over the wireless network securely. # You can refer to the detail setting from chapter 3.2.6. WPA: You can use a pre-shared key to authenticate wireless stations and encrypt data during communication. When you enabled WPA mode, you can not use WEP encryption. # You can refer to the detail setting from chapter 3.2.7.
Advance setting	It provides more powerful features for you to configuring. # You can refer to the detail setting from chapter 3.2.8.
Access Filter	This Access Point allows you to provide a Filter List of MAC addresses that are allowed associating with this AP. # You can refer to the detail setting from chapter 3.2.9.

Click **Apply** button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.

3.2.3 Repeater Mode Configuration

If you want an access point to bridge wired Ethernet network and provide connection service for other wireless station at the same time, you have to

set the access point to “Repeater mode”. Simply speaking, “Repeater mode” function is the combination of “AP mode” and “PMP mode”.

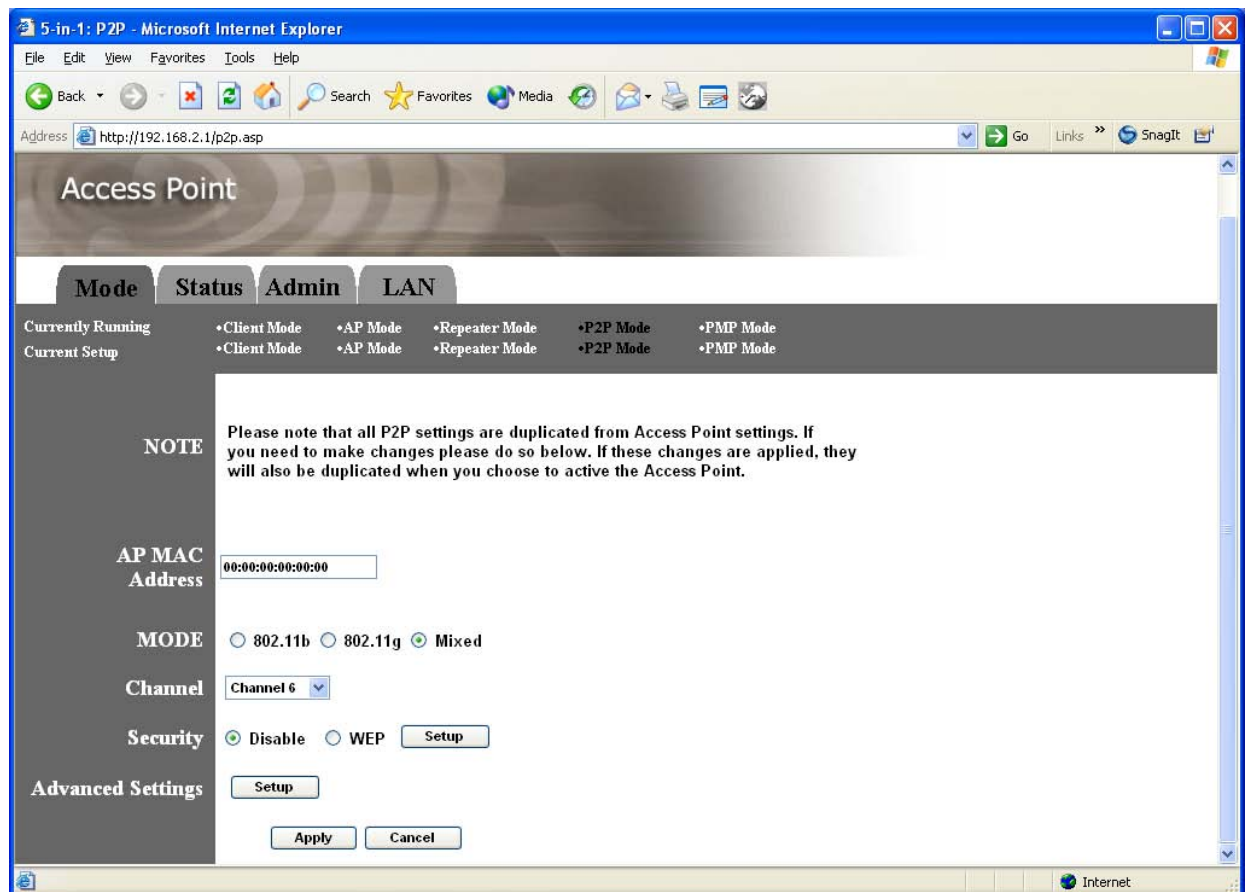


Parameter	Description
Parent MAC Address	You have to enter the MAC addresses of other access points that join the bridging work.
Child MAC Address	You have to enter the MAC addresses of other access points that join the bridging work.
Mode	802.11b mode: It allows to select the transmit rate up to 11Mbps 802.11g mode: It allows to select the transmit rate up to 54Mbps Mixed mode: It provides best performance for 11g transmission when you enable the AP mode selection to “Mixed mode”.
Broadcast SSID	It will respond to Broadcast SSID requests. If you enable this function, every wireless station located within the coverage of this access point

Channel	can discover this access point easily. If you are building a public wireless network, enabling this feature is recommended. Disabling "Response to Broadcast ESSID requests" can provide better security. Select the appropriate channel from the list provided to correspond with your network settings. Channels differ from country to country. Channel 1-11 (North America) Channel 1-14 (Japan) Channel 1-13 (Europe) There are 14 channels available.
Security	Disable: Disable the security function. WEP: WEP is an authentication algorithm, which protects authorized Wireless LAN users against eavesdropping. The Authentication type and WEP key of wireless stations must be the same with the Access Point. This Access Point supports 64/128-bit WEP Encryption function. With this function, your data will be transmitted over the wireless network securely. # You can refer to the detail setting from chapter 3.2.6. WPA: You can use a pre-shared key to authenticate wireless stations and encrypt data during communication. When you enabled WPA mode, you can not use WEP encryption. # You can refer to the detail setting from chapter 3.2.7.
Advance setting	It provides more powerful features for you to configuring. # You can refer to the detail setting from chapter 3.2.8.
Access Filter	This Access Point allows you to provide a Filter List of MAC addresses that are allowed associating with this AP. # You can refer to the detail setting from chapter 3.2.9.
Click Apply button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.	

3.2.4 P2P Mode configuration

This function provides to bridge more than 2 wired Ethernet networks together by wireless LAN. You can use two access points with “P2P mode” to bridge two wired Ethernet networks together.



Parameter	Description
AP MAC Address	You have to enter the MAC addresses of other access points that join the bridging work.
Mode	802.11b mode: It allows to select the transmit rate up to 11Mbps 802.11g mode: It allows to select the transmit rate up to 54Mbps Mixed mode: It provides best performance for 11g transmission when you enable the AP mode selection to “Mixed mode”.
Channel	Select the appropriate channel from the list provided to correspond with

your network settings. Channels differ from country to country.

Channel 1-11 (North America)

Channel 1-14 (Japan)

Channel 1-13 (Europe)

There are 14 channels available.

Security

Disable: Disable the security function.

WEP: WEP is an authentication algorithm, which protects authorized Wireless LAN users against eavesdropping. The Authentication type and WEP key of wireless stations must be the same with the Access Point. This Access Point supports 64/128-bit WEP Encryption function. With this function, your data will be transmitted over the wireless network securely.

You can refer to the detail setting from chapter 3.2.6.

Advance setting

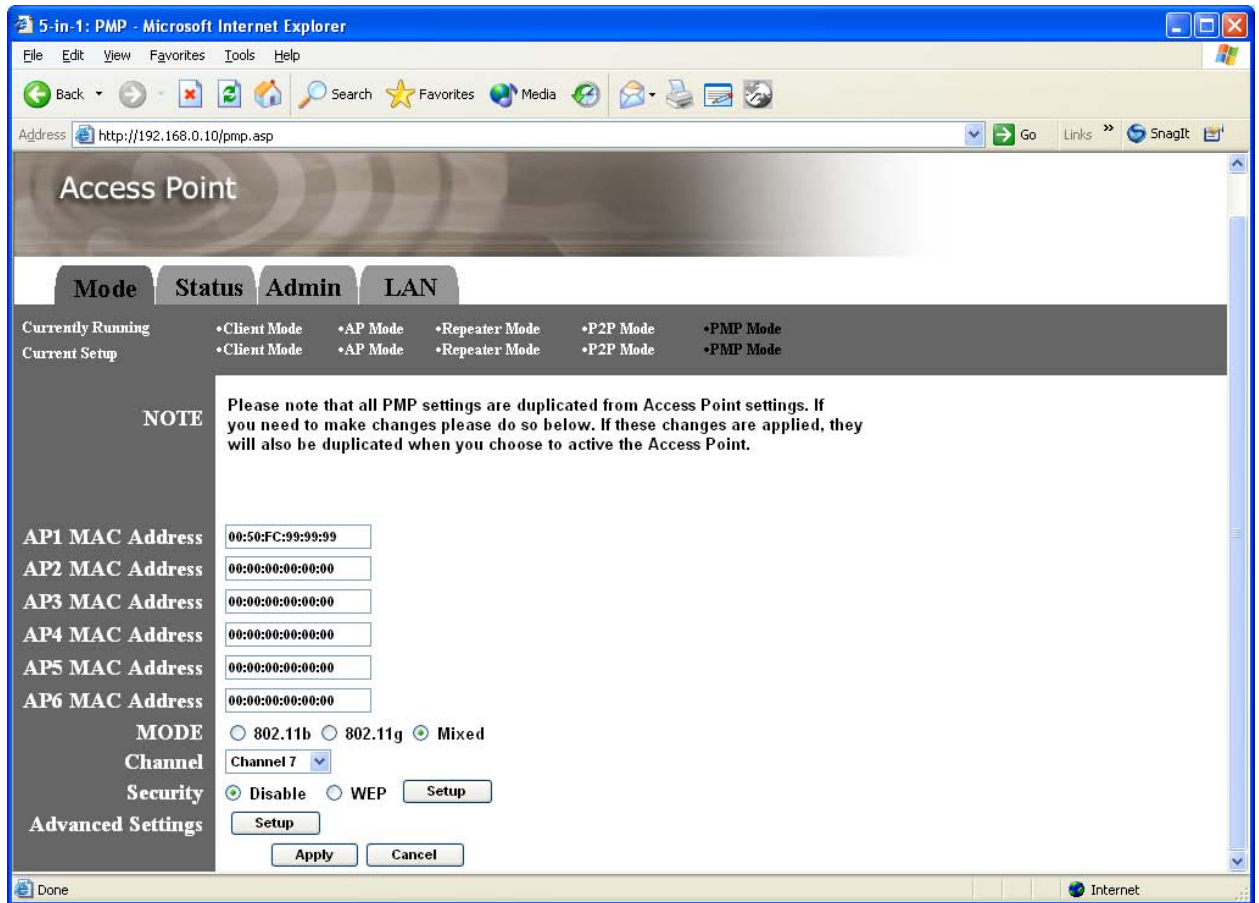
It provides more powerful features for you to configuring.

You can refer to the detail setting from chapter 3.2.8.

Click **Apply** button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.

3.2.5 PMP Mode Configuration

This function provides to bridge more than 2 wired Ethernet networks together by wireless LAN. You can use two access points with “P2P mode” to bridge two wired Ethernet networks together.



Parameter	Description
AP MAC Address	If you want to bridge more than one wired Ethernet networks together with wireless LAN, you have to enter the MAC addresses of other access points that join the bridging work.
Mode	802.11b mode: It allows to select the transmit rate up to 11Mbps 802.11g mode: It allows to select the transmit rate up to 54Mbps Mixed mode: It provides best performance for 11g transmission when you enable the AP mode selection to "Mixed mode".
Channel	Select the appropriate channel from the list provided to correspond with your network settings. Channels differ from country to country. Channel 1-11 (North America) Channel 1-14 (Japan) Channel 1-13 (Europe) There are 14 channels available.

Security

Disable: Disable the security function.

WEP: WEP is an authentication algorithm, which protects authorized Wireless LAN users against eavesdropping. The Authentication type and WEP key of wireless stations must be the same with the Access Point. This Access Point supports 64/128-bit WEP Encryption function. With this function, your data will be transmitted over the wireless network securely.

You can refer to the detail setting from chapter 3.2.6.

Advance setting

It provides more powerful features for you to configuring.

You can refer to the detail setting from chapter 3.2.8.

Click **Apply** button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.

3.2.6 **WEP Setting**

WEP

WEP Length ☒ WEP-64 ☐ WEP-128

Mode ☒ HEX ☐ ASCII

Passphrase

Key 1

Key 2

Key 3

Key 4

Default TX Key ☒ Key 1 ☐ Key 2 ☐ Key 3 ☐ Key 4

Parameter	Description
WEP Length	WEP-64: input 10-digit Hex values (in the “A-F”, “a-f” and “0-9” range) or 5-digit ASCII character as the encryption keys. WEP-128: input 26-digit Hex values (in the “A-F”, “a-f” and “0-9” range) or 13-digit ASCII characters as the encryption keys.
Mode	HEX: input Hex values (in the “A-F”, “a-f” and “0-9” range) ASCII: input alphanumeric format.
Passphrase	Enter passphrase and click “Generate”, then the access point will automatically generate WEP keys by the passphrase for you.
Key 1 - Key 4	To entry 10 Hex digits for 64 bit key, 26 Hex digits for 128 bit key.
Default TX Key	Select the WEP key used to encrypt data transmitted in the wireless network.

Click **Apply** button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.

3.2.7 WPA Setting

AP: WPA - Microsoft Internet Explorer

WPA

Authentication Method

Passphrase

Group Re-Key Time (seconds)

☒ PSK (Pre-Shared keys)

XXXXXXXX Clear

86400

Apply Close

Parameter	Description
Authentication Type	The Pre-shared key is used to authenticate and encrypt data transmitted in the wireless network.
Passphrase	To entry at least 8 characters pass phrase as the pre-shared keys.
Group Re-Key Time (second)	It will auto re-generate the Key after the default time (86400) has passed, or you can change the default time by yourself.

Click **Apply** button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.

3.2.8 Advanced Setting

AP: Advanced Settings - Microsoft Internet Explorer

Beacon Interval	100 (msec, range: 20~1000, default: 100)
RTS Threshold	2347 (range: 256~2347, default: 2347)
DTIM Interval	2 (range: 1~255, default: 2)
Protection Mode	☐ Disable ☒ Enable
Transmit Rate	Auto ▼
Preamble Type	☐ Short ☒ Long ☐ Auto

Apply Close

Parameter	Description
Beacon Interval (20-1000)	The period of time that this access point broadcast a beacon. Beacon is used to synchronize the wireless network.
RTS Threshold (256-2432)	When the packet size is smaller the RTS threshold, the access point will not use the RTS/CTS mechanism to send this packet.
DTIM Period (1-255)	This is the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing stations of the next window for listening to broadcast and multicast messages. When the Access Point has buffered broadcast or multicast messages for associated stations, it sends the next DTIM with a DTIM Interval value. Stations for the Access Point hear the beacons and awaken to receive the broadcast and

	multicast messages.
Protection Mode	It provides best performance for 11g transmission when you enable it.
Transmit Rate	When you enable the station mode selection to “802.11b” and it allows you to select the speed of 1-11Mbps. When you enable the station mode selection to “802.11g” and it allows you to select the speed of 1-54Mbps.
Preamble Type	Preamble type defines the length of preamble block in the frames during the wireless communication. Auto select: It will auto switch to the more suitable method. Short: It is suitable for high traffic wireless network Long: It can provide more reliable communication

Click **Apply** button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.

3.2.9 **Access Filter**

This Access Point allows you to provide a Filter List of MAC addresses that are allowed/denied associating with this AP.

AP: MAC Filter Settings - Microsoft Internet Explorer

MAC Filtering

☐ Enable ☒ Disable

Filter Mode

☒ Only **deny** PCs with MAC listed below to access this device

☐ Only **allow** PCs with MAC listed below to access this device

Filter List

1	00:00:00:00:00:00	17	00:00:00:00:00:00
2	00:00:00:00:00:00	18	00:00:00:00:00:00
3	00:00:00:00:00:00	19	00:00:00:00:00:00
4	00:00:00:00:00:00	20	00:00:00:00:00:00
5	00:00:00:00:00:00	21	00:00:00:00:00:00
6	00:00:00:00:00:00	22	00:00:00:00:00:00
7	00:00:00:00:00:00	23	00:00:00:00:00:00
8	00:00:00:00:00:00	24	00:00:00:00:00:00
9	00:00:00:00:00:00	25	00:00:00:00:00:00
10	00:00:00:00:00:00	26	00:00:00:00:00:00
11	00:00:00:00:00:00	27	00:00:00:00:00:00
12	00:00:00:00:00:00	28	00:00:00:00:00:00
13	00:00:00:00:00:00	29	00:00:00:00:00:00
14	00:00:00:00:00:00	30	00:00:00:00:00:00
15	00:00:00:00:00:00	31	00:00:00:00:00:00
16	00:00:00:00:00:00	32	00:00:00:00:00:00

Apply **Close**

Parameter	Description
MAC Filtering	You can enable or disable the MAC Filtering function.
Filter Mode	If you select "Only deny PCs with MAC listed below to access this device", then all the PCs in the list will be denied to access and all other PCs will be allowed to access. If you select "Only allow PCs with MAC listed below to access this device", then all PCs in the list will be allowed

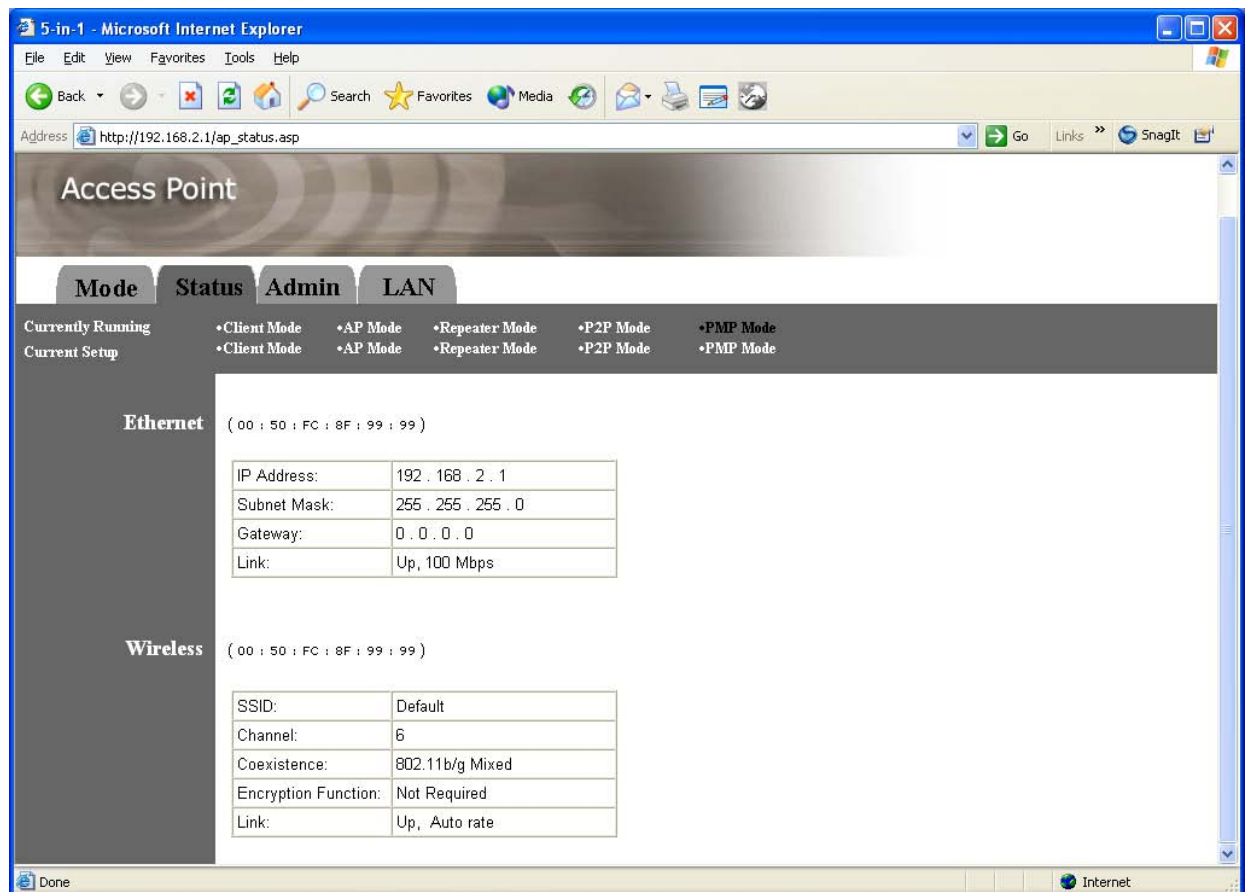
to access but all other PCs will be denied to access.

Filter List

Enter the MAC address of PC that will be managed by the MAC Filtering rule.

Click **Apply** button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.

3.2.10 Status Setup



Parameter

Description

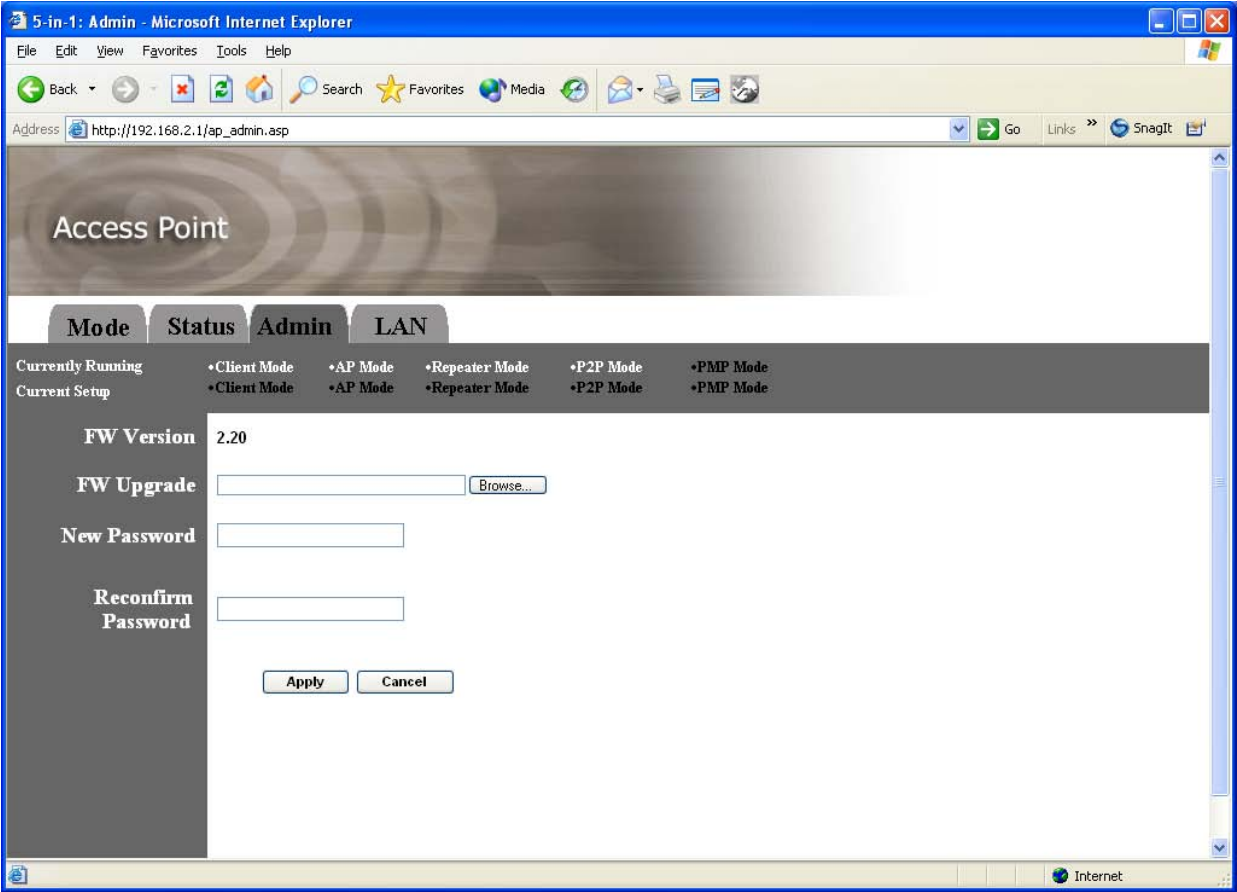
Ethernet

It shows the default IP address, Subnet Mask, Gateway and Link status

information.

Wireless It shows the current Wireless information.

3.2.11 Admin Setup



Parameter	Description
FW Version	It shows current FW version.
FW Upgrade	This tool allows you to upgrade the Access Point's system firmware. To upgrade the firmware of your Access Point, you need to download the

firmware file to your local hard disk, and enter that file name and path in the appropriate field on this page. You can also use the **Browse** button to find the firmware file on your PC. Please reset the Access Point when the upgrade process is complete.

New Password

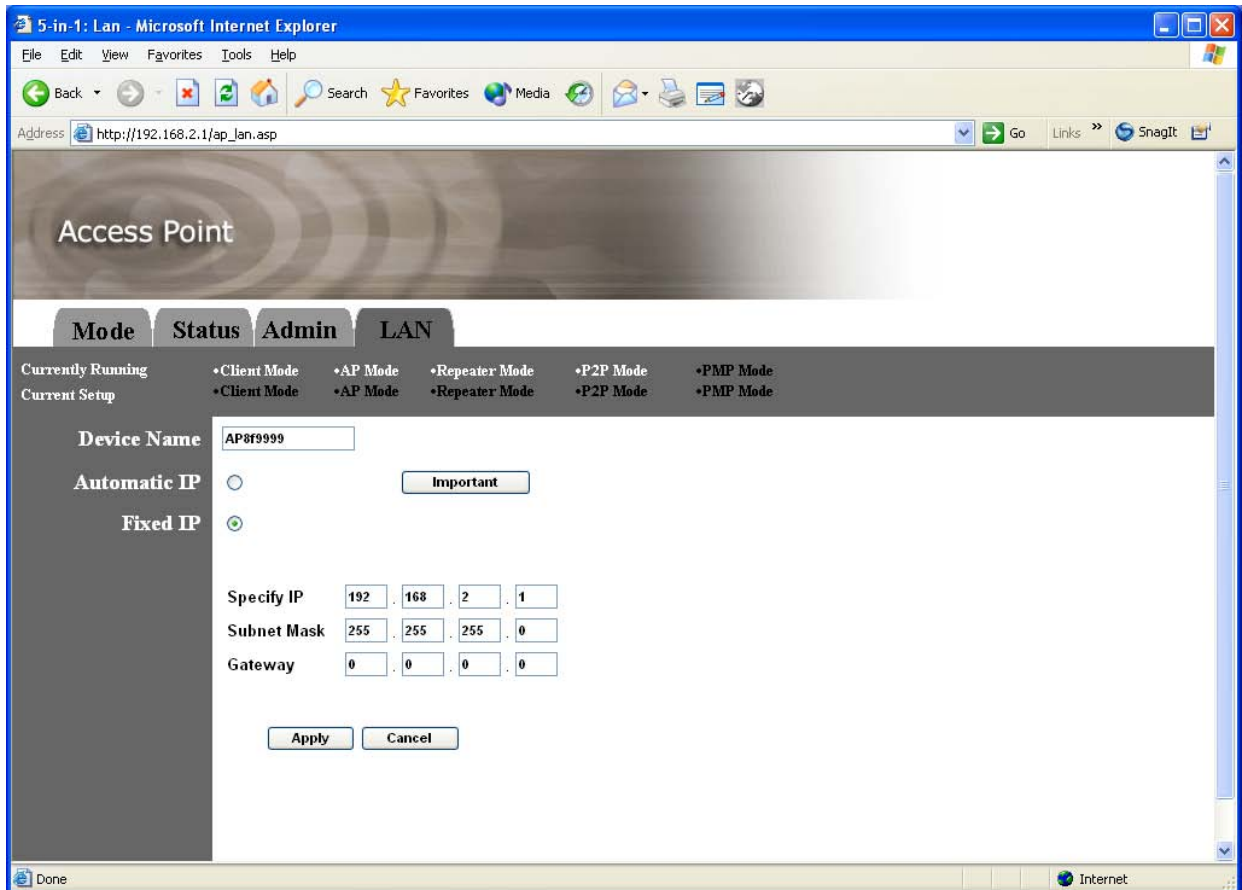
Enter the password (up to 32-digit alphanumeric string) you want to login to the Access Point. Note that the password is case-sensitive.

Reconfirm Password

Reconfirm the password (up to 32-digit alphanumeric string) you want to login to the Access Point. Note that the password is case-sensitive.

Click **Apply** button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.

3.2.12 LAN Setup



Parameter	Description
Device Name	It shows current FW version.
Automatic IP	Selecting this option is not advised unless you have direct access to the device that provides the IP address.
Fixed IP	Specify IP: Designate the Access Point's IP Address. This IP Address should be unique in your network. The default IP Address is 192.168.2.1. Subnet Mask: Specify a Subnet Mask for your LAN segment. Gateway: Specify the default gateway IP of this Access Point.

Click **Apply** button at the bottom of the screen to save the above configurations. You can now configure other advance sections or start using the Access Point.

Chapter4 Troubleshooting

This chapter provides solutions to problems usually encountered during the installation and operation of the Access Point.

1. How to manually find your PC's IP and MAC Address?

- 1) In Windows, open the Command Prompt program
- 2) Type **Ipconfig /all** and **Enter**
 - 1 Your PC's IP address is the one entitled **IP address**
 - 2 Your PC's MAC Address is the one entitled **Physical Address**

2. What is BSS ID?

A group of wireless stations and an Access Point compose a Basic Service Set (BSS). Computers in a BSS must be configured with the same BSSID.

3. What is ESSID?

An Infrastructure configuration could also support roaming capability for mobile workers. More than one BSS can be configured as an Extended Service Set (ESS). Users within an ESS could roam freely between BSSs while maintaining a continuous connection to the wireless network stations and the Wireless LAN Access Points.

4. Can data be intercepted while transmitting through the air?

WLAN features two-fold protection in security. On the hardware side, as with Direct Sequence Spread Spectrum technology, it has the inherent scrambling security feature. On the software side, the WLAN series offers the encryption function (WEP) to enhance security and access control.

5. What is WEP?

WEP stands for Wired Equivalent Privacy, a data privacy mechanism based on a 64(40)-bit shared key algorithm.

6. What is a MAC Address?

The Media Access Control (MAC) address is a unique number assigned by the manufacturer to any Ethernet networking device, such as a network adapter, that allows the network to identify it at the hardware level. For all practical purposes, this number is usually permanent.

Unlike IP addresses which can change every time a computer logs on to the network, the MAC address of a device stays the same, making it a valuable identifier for the network.

FCC Warning Statements

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

Note:

This device and its antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.