

User's ▶▶▶▶▶▶▶▶▶▶ manual

802.11G Hi-Speed Wireless-G
Access Point and Workgroup Bridge

HWBA54G



HI-SPEED
SERIES 54G



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Introduction

Thank you for purchasing the Hawking Technologies Hi-Speed 54G Wireless-G Access Point and Ethernet Bridge. This product is compliant with the IEEE 802.11g wireless standard and operates at transfer speeds up to 54Mbps. It is backwards compatible current 802.11b wireless hardware.

The **Hi-Speed 54G Wireless AP/Bridge** utilizes the highest wireless security standards (WPA) to protect your network from outside intruders.

The unique multi-function feature of the HWBA54G puts three solutions into one compact unit, saving you time and money. You may setup your HWBA54G as a Wireless Access Point to provide wireless access to any wired network or you may choose to set up your device as an Ethernet Bridge to make any Ethernet-ready device wireless. The Hi-Speed 54G Wireless AP/Bridge can also function as a wireless repeater to extend your wireless network range.

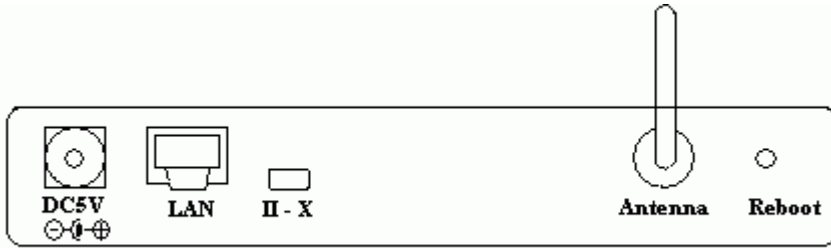
LED Indicators

LED Indicators on the Front Panel

HWBA54G	On / Solid	Off / Flashing
Power	Unit is Powered	Off - Not Powered
Status	Unit is functioning normally	Flashing when upgrading firmware
LAN Link	Unit is connected to the network	Flashing when data is sent and recieved
LAN 100M	100Mbps network connection detected	10Mbps network connection detected
LAN Full Duplex	Full Duplex Mode	Half Duplex Mode
WLAN Link	Assciated to a Wireless Network	No Wireless Association
WLAN Ready	Connected to WLAN	No WLAN Connected
WLAN Active	N/A	Flashing when unit is actively sending - receiving wireless data



Ports on the Rear Panel



	Port/button	Functions
A	5V DC	Connects to the power adapter.
B	LAN	Connects to your LAN's network device.
C	II-X	Switch this button for choosing different wiring scheme LAN connections; Switch left to select using a straight Ethernet cable (To connect to a hub or switch); Switch right to use a Crossover Ethernet cable (To connect directly to a PC or device).
D	Antenna	Adjust to have better performance. Twist off to remove and replace with a Hawking Hi-Gain Antenna (sold separately) for better performance.
E	Reboot	Use a pin-shape item, for example a pin tip, to press this button to re-boot this device when the device stops working properly.

Getting Connected

1. **Find a Location:** choose a location to place the access point. Usually, the best place for the access point is at the center of your wireless network, with line of straight to all your wireless stations.
2. **Adjust the Antenna:** usually the higher the antenna is placed, the better your performance will be.
3. **Connect to your local area network:** connect a straight or a crossover **Ethernet cable** to one of the **Ethernet** port of the access point, and the other end to a hub or switch. (If you are using a straight Ethernet cable, make sure the II-X button is switched right; the other way for Cross Ethernet cable.)
4. **Power on the device:** connect the included AC power adapter to the access point's power port and the other end to a wall outlet. *Note: use only the power adapter that provided with the access point. Using a different power adapter may cause permanent damage to the device.*

About the Operating Modes

This device provides two main operational applications: **Access Point** and **Bridge** modes, which are mutually exclusive.

1. **Access Point:** As a wireless access point the HWBA54G allows any existing wired network to have wireless access.



2. **Bridge:** When acting as a Bridge, the HWBA54G serves as a wireless adapter that connects a wired network with another wired or wireless network through an access point(s). See the sample application below.




This device is shipped with configuration that is functional right out of the

box. If you want to change the settings in order to perform more advanced configuration or even change the mode of operation, you can use the web-based utility provided by the manufacturer as described in the following sections or use the Software-based Setup Wizard in the included CD-Rom.

WPA AP -Configuration via Web

Login

1. Open the browser, enter the local port IP address of the Device (default at **192.168.1. 240**), and click “Go” to get the login page.
2. The user name and password are not required and should be left blank for the first-time login. Just click **OK** to enter.



Enter Network Password ? X

 Please type your user name and password.

Site: 192.168.1.240

Realm: Login

User Name

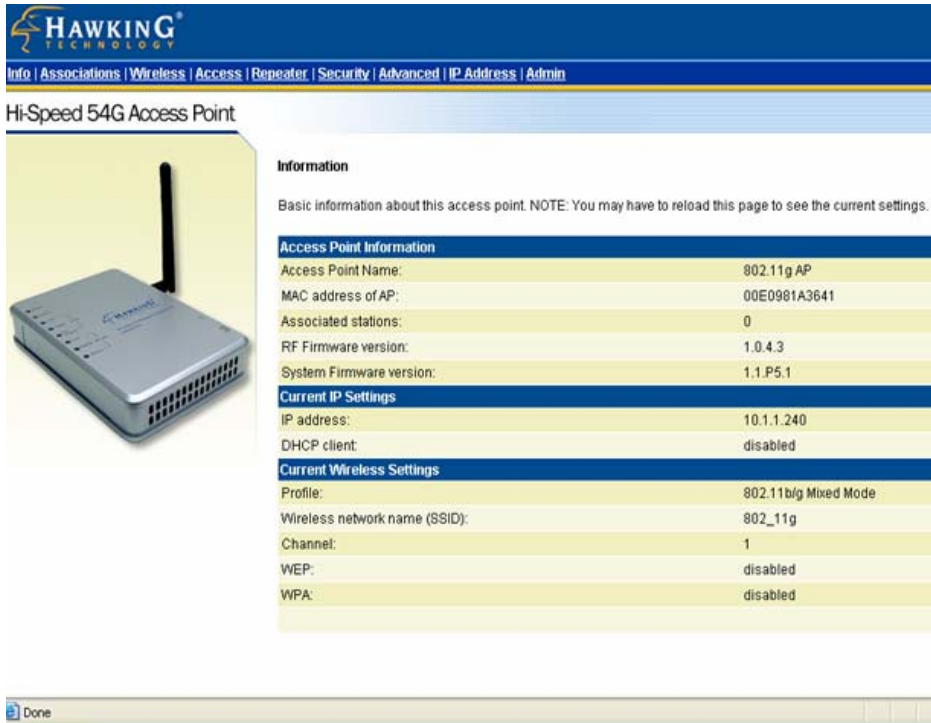
Password

Save this password in your password list

OK Cancel

Info(Information)


The setup home page will display the information about the current settings of this access point.



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[Info](#) | [Associations](#) | [Wireless](#) | [Access](#) | [Repeater](#) | [Security](#) | [Advanced](#) | [IP Address](#) | [Admin](#)

Hi-Speed 54G Access Point



Information

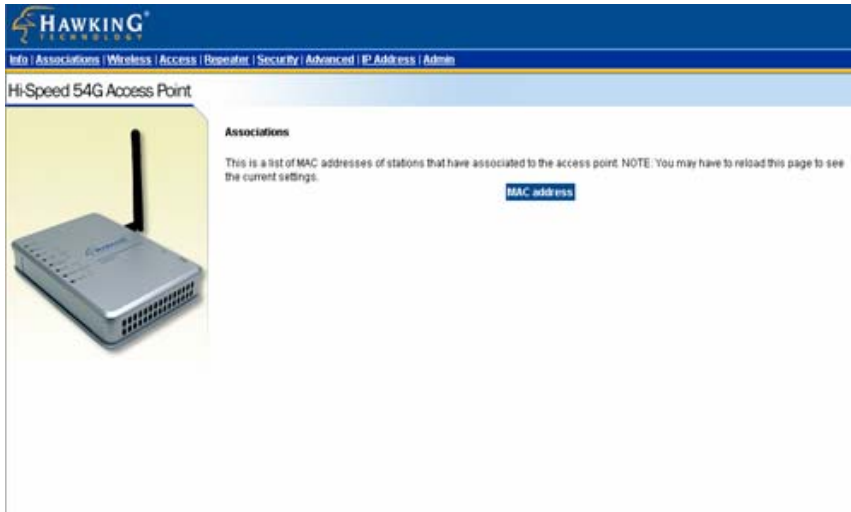
Basic information about this access point. NOTE: You may have to reload this page to see the current settings.

Access Point Information	
Access Point Name:	802.11g AP
MAC address of AP:	00E0981A3641
Associated stations:	0
RF Firmware version:	1.0.4.3
System Firmware version:	1.1.P5.1
Current IP Settings	
IP address:	10.1.1.240
DHCP client:	disabled
Current Wireless Settings	
Profile:	802.11b/g Mixed Mode
Wireless network name (SSID):	802_11g
Channel:	1
WEP:	disabled
WPA:	disabled

Done

Assoc(Associations)

This page shows the **MAC addresses** of devices connected to this Wireless 802.11g Access Point.

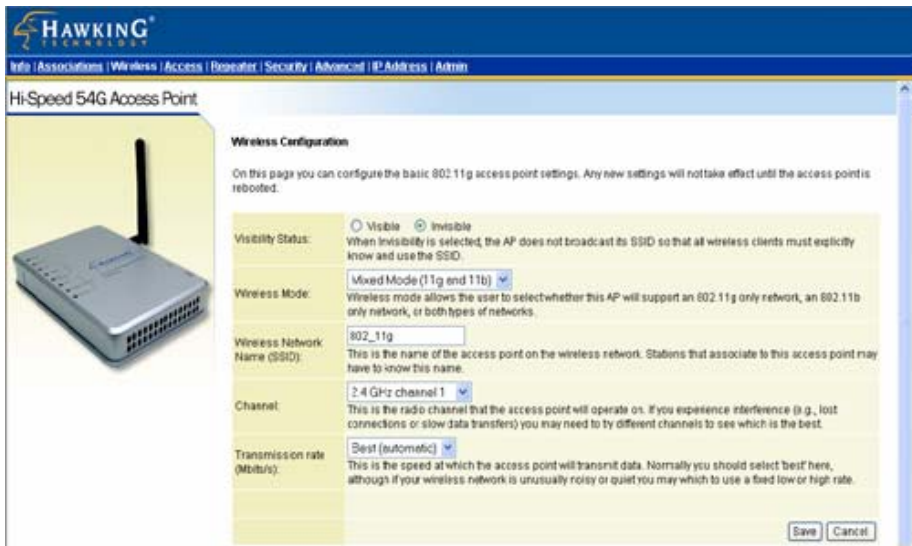


The screenshot displays the web management interface for a Hawking Hi-Speed 54G Access Point. At the top, the Hawking Technology logo is visible, followed by a navigation menu with links for Info, Associations, Wireless, Access, Repeater, Security, Advanced, IP Address, and Admin. The main heading is "Hi-Speed 54G Access Point". On the left, there is an image of the silver access point device. The "Associations" section on the right contains the text: "This is a list of MAC addresses of stations that have associated to the access point. NOTE: You may have to reload this page to see the current settings." Below this text is a button labeled "MAC address".

Wireless (Wireless Configuration)

Here you can set/change wireless configuration including **visibility status**, **PHY profiles**, **SSID**, **channel**, **transmission rate** ... etc. See the description that comes after each function.


When you are done with the change, remember to **restart** this access point to let the new settings take effect.



The screenshot shows the configuration interface for a Hawking Hi-Speed 54G Access Point. The page title is "Hi-Speed 54G Access Point" and the breadcrumb trail is "Info / Associations / Wireless / Access / Repeater / Security / Advanced / IP Address / Admin". The "Wireless Configuration" section is highlighted in yellow and contains the following settings:

- Visibility Status:** Radio buttons for "Visible" and "Invisible". A note states: "When Invisible is selected, the AP does not broadcast its SSID so that all wireless clients must explicitly know and use the SSID."
- Wireless Mode:** A dropdown menu set to "Mixed Mode (11g and 11b)". A note states: "Wireless mode allows the user to select whether this AP will support an 802.11g only network, an 802.11b only network, or both types of networks."
- Wireless Network Name (SSID):** A text input field containing "802_11g". A note states: "This is the name of the access point on the wireless network. Stations that associate to this access point may have to know this name."
- Channel:** A dropdown menu set to "2.4 GHz channel 1". A note states: "This is the radio channel that the access point will operate on. If you experience interference (e.g., lost connections or slow data transfers) you may need to try different channels to see which is the best."
- Transmission rate (Mbit/s):** A dropdown menu set to "Best (automatic)". A note states: "This is the speed at which the access point will transmit data. Normally you should select 'best' here, although if your wireless network is unusually noisy or quiet you may wish to use a fixed low or high rate."

At the bottom right of the configuration area are "Save" and "Cancel" buttons.

Visibility Status	If you select invisible , this AP can not be detected by wireless sniffers; which means all the wireless clients can not associated to this AP unless they know/use the SSID.
PHY Profiles	<p>You can select different wireless networking hardware (PHY) to meet your wireless environment or for optimal performance. You can thus choose from the</p>  <p>list.</p>
Wireless Network Name (SSID)	The SSID is the unique name shared among all points in your wireless network. The name must be identical for all devices and points attempting to connect to the same network.
Channel	Shows the selected channel that is currently in use. (There are 14 channels available, depending on the country.)
Transmission rate (Mbps)	Shows the current transfer rate There are Best (Automatic), Fixed 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54Mbps.)

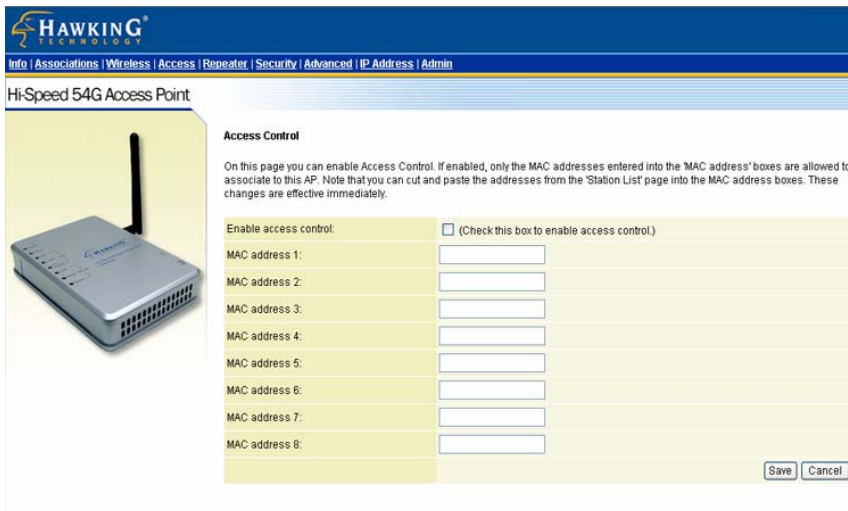
Access (Access Control)

This AP provides MAC Address filtering, which prevents unauthorized MAC Addresses from accessing your Wireless LAN.

Once you check to enable access control, only MAC addresses entered in following fields are allowed to associate to this AP.

Note:

1. You can enter 16 MAC Addresses to associate to this AP.
2. You can copy the MAC addresses shown on the Station List and past them to the MAC address table to save the effort of typing and avoid typo as well.



HAWKING TECHNOLOGY

Info | Associations | Wireless | Access | Repeater | Security | Advanced | IP Address | Admin

Hi-Speed 54G Access Point

Access Control

On this page you can enable Access Control. If enabled, only the MAC addresses entered into the 'MAC address' boxes are allowed to associate to this AP. Note that you can cut and paste the addresses from the 'Station List' page into the MAC address boxes. These changes are effective immediately.


Enable access control: (Check this box to enable access control.)

MAC address 1:	<input type="text"/>
MAC address 2:	<input type="text"/>
MAC address 3:	<input type="text"/>
MAC address 4:	<input type="text"/>
MAC address 5:	<input type="text"/>
MAC address 6:	<input type="text"/>
MAC address 7:	<input type="text"/>
MAC address 8:	<input type="text"/>


Save Cancel

Figure: Access Control

Advanced (Advanced Wireless)



Info | Associations | Wireless | Access | Repeater | Security | Advanced | IP Address | Admin



Cloning	
Maximum associated stations:	<input type="text" value="200"/> This is the maximum number of wireless stations that can be associated at any one time.
Fragmentation threshold:	<input type="text" value="2346"/> Transmitted wireless packets larger than this size will be fragmented to maintain performance in noisy wireless networks.
RTS threshold:	<input type="text" value="2432"/> Transmitted wireless packets larger than this size will use the RTS/CTS protocol to (a) maintain performance in noisy wireless networks and (b) prevent hidden nodes from degrading performance.
Beacon period:	<input type="text" value="100"/> Access point beacons are sent out periodically. This is the number of milliseconds between each beacon.
DTIM interval:	<input type="text" value="1"/> This is the number of beacons per DTIM (Delivery Traffic Indication Message), e.g. '1' means send a DTIM with each beacon, '2' means with every 2nd beacon, etc.
Maximum burst time:	<input type="text" value="650"/> This is also known as PRISM Nitro (tm) technology. The technology uses fully standards-compliant methods that eliminate collisions in mixed-mode networks, while greatly increasing the performance of both pure 802.11g and mixed 802.11b/g networks. The setting is for the amount of time the radio will be reserved to send data without requiring an ACK. This number is in units of microseconds. The optimized value is 650. When this number is zero, bursting is disabled.
Enable PSM buffer:	<input type="checkbox"/> Turn this on to enable support for stations in power save mode.

Maximum associated stations	200
Fragmentation threshold	To fragment MSDU or MMPDU into small sizes of frames for increasing the reliability of frame (The maximum value of 2346 means no fragmentation is needed) transmission. The performance will be decreased as well, thus a noisy environment is recommended.
RTS Threshold	RTS (Request To Send) is a control frame sent from the transmitting station to the receiving station requesting permission to transmit. This value is recommended to remain at its default setting of 2432 . Should you encounter inconsistent data flow, only minor modifications of this value are recommended.
Beacon period	This is also called Beacon Interval . This value indicates the frequency interval of the beacon. A beacon is a packet broadcast by the AP to synchronize the wireless network. The default value is 100.
DTIM interval	DTIM stands for Delivery Traffic Indication Message . A DTIM is a countdown field informing clients of the

	<p>next window for listening to broadcast and multicast messages. When the access point has buffered broadcast or multicast message for associated clients, it sends the next DTIM with a DTIM Interval value. Access point clients hear and awaken to receive the broadcast and multicast messages.</p>
--	--

Maximum burst time	<p>The amount of time the radio will be reserved to send data without requiring an ACK. Adding a burst time should help throughput for 802.11g clients when AP is running in mixed mode. This number is in units of microseconds. A typical value would be 1000 microseconds. When this number is zero, bursting is disabled.</p>
Enable PSM buffer	<p>PSM stands for Power Save Mechanisms. Turn this on to enable support for stations in power save mode.</p>

Security

Here you can configure the security of your wireless network. Selecting different method will enable you to have different level of security.

WPA (Wi-Fi Protected Access) is the new wireless LAN security standard for 802.11 networks, which was developed to replace the existing standard WEP. **WPA** authorizes and identifies users based on a secret key that changes periodically.

WPA configuration	
Enable WPA Authenticator to require stations to use high grade encryption and authentication.	
WPA enabled:	<input type="checkbox"/>
PSK pass-phrase:	<input type="text"/> Leave blank if stations will be supplied a key by the 1X Authentication Server. Choose a pass-phrase between 8 and 63 characters.
WPA Multicast Cipher Type:	TKIP - WPA Default Currently TKIP is the only permitted setting.
WPA Pairwise Cipher Type:	TKIP - WPA Default Currently TKIP is the only permitted setting.
WPA Group Key Update Interval:	<input type="text" value="3600"/> seconds.

PSK pass-phrase	PSK stands for Pre-Shared-Key and serves as a password. User may key in a 8 to 63 characters string to set the password or leave it blank, in which the 802.1x Authentication will be activated. Note that if user key in own password, make sure to use the same password on client's end.
-----------------	---

WPA Multicast Cipher Type	Select TKIP - WPA Default
WPA Pairwise Cipher Type	Select TKIP - WPA Default
WPA Group Key Update Interval	This shows the time period for the next key change. The default value is 3600 (seconds) . Users may set the values of their preference.

**Note that WPA Multicast Cipher Type & WPA Pairwise Cipher Type are the same.*

802.1x Authentication in conjunction with the RADIUS SERVER verifies the identity of would be clients.

802.1X configuration

When 802.1X authentication is enabled then the AP will authenticate clients via a remote RADIUS server.

802.1X enabled:

Authentication timeout (mins):

RADIUS server IP address:

number:

RADIUS server shared secret:

MAC Address Authentication:

Authentication timeout (mins)	The default value is 60 (minutes). When the time expires, the device will re-authenticate with RADIUS server.
-------------------------------	--

RADIUS server IP address	Enter the RADIUS server IP.
RADIUS server port number	Port used for RADIUS, the number of ports must be the same as the RADIUS server , normally the port is 1812
RADIUS server shared secret	When registered with a RADIUS server, a password will be assigned. This would be the RADIUS server shared secret.
MAC Address Authentication	Use client mac address for authentication with RAIDUS server

WEP (Wired Equivalent Privacy) is a data privacy mechanism based on a 64-bit/128-bit shared key algorithm. WEP encryption scrambles the communication between your access points and client devices to keep the communication private. However, if an intruder passively receives enough packets encrypted by the same WEP key, the intruder can perform a calculation to learn the key and use it to join your network.

WEP configuration

WEP is the wireless encryption standard. To use it you must enter the same key(s) into the access point and the wireless stations. For 64 bit keys you must enter 10 hex digits into each key box. For 128 bit keys you must enter 26 hex digits into each key box. A hex digit is either a number from 0 to 9 or a letter from A to F. If you leave a key box blank then this means a key of all zeros.

Enable WEP: Check this box to enable WEP. For the most secure use of WEP, also select "Deny Unencrypted Data" and set Authentication to "Shared Key" when WEP is enabled

WEP key lengths: 64 bit Select the WEP key size. This length applies to all keys.

WEP key:

Default WEP key to use: Wep Key 1 Select the key to be used as the default key. Data transmissions are always encrypted using the default key. The other keys can only be used to decrypt received data.

Deny unencrypted data: Select this to require peers to use encryption. This is only effective when WEP is enabled.

Authentication: Open Shared Key Both 'Open' allows anyone to authenticate to this access point. 'Shared key' allows only stations that know the key(s) to authenticate. 'Both' allows a station to use either mode.

Enable WEP	WEP (Wired Equivalent Privacy) encryption can be used to ensure the security of your wireless network. The window allows you to set to 64bit or 128bit Encryption (WEP) by using either Passphrase or Manual Entry methods. <i>Note:</i> To allow Decryption and communication, all wireless devices must share the identical encryption key on the same network.
WEP key lengths	Select between 64-bit and 128-bit.
WEP key	You can enter WEP key here or use the default settings shown in the next field.

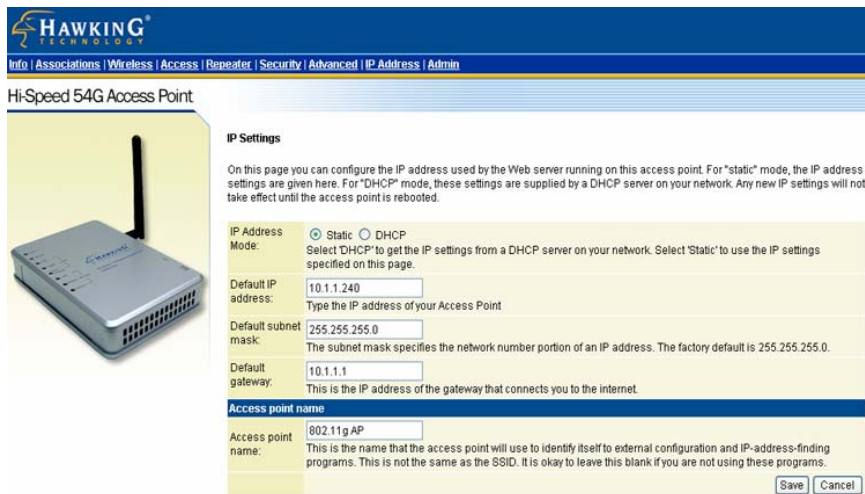
Default WEP key to use	Select one of the four keys to encrypt your data. Only the key you select it in the “Default WEP key to use” will take effect.
Deny unencrypted data	To access this wireless network clients are required to use encryption. This should be checked together with the item “Enable WEP”.
Authentication	The authentication mode defines configuration options for the sharing of wireless networks to verify identity and access privileges of roaming wireless network cards. You may choose between Open , Shared Authentication , and Both . If the access point is using " Open Authentication ", then the wireless adapter will need to be set to the same authentication mode. Shared Authentication is when both the sender and the recipient share a secret key. Select Both for the network adapter to select the Authentication mode automatically depending on the access point Authentication mode.

IP Addr (IP Address Settings)

Set the management IP for the Wireless 802.11g Access Point, the default IP address is 192.168.1.240.

IP Address Mode

If you select **DHCP**, the DHCP server will automatically assign an IP address to [this device](#). The fields that follow will be grayed out and require no further configuration. If you select **Static**, you will have to manually set the [device IP address](#).



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Hi-Speed 54G Access Point

IP Settings

On this page you can configure the IP address used by the Web server running on this access point. For "static" mode, the IP address settings are given here. For "DHCP" mode, these settings are supplied by a DHCP server on your network. Any new IP settings will not take effect until the access point is rebooted.

IP Address Mode: Static DHCP
Select "DHCP" to get the IP settings from a DHCP server on your network. Select "Static" to use the IP settings specified on this page.

Default IP address:
Type the IP address of your Access Point

Default subnet mask:
The subnet mask specifies the network number portion of an IP address. The factory default is 255.255.255.0.

Default gateway:
This is the IP address of the gateway that connects you to the internet.

Access point name

Access point name:
This is the name that the access point will use to identify itself to external configuration and IP-address-finding programs. This is not the same as the SSID. It is okay to leave this blank if you are not using these programs.

Access point name

You can name this access point for identification. You can leave it blank without entering anything. However, the name for the access point will be useful for identification especially when there are more than on access points in your wireless network.

Admin (Administration)

In this Administration page, you can

Change password.

The device has no password at default. It is recommended that you set a password to ensure that no one can adjust the device's settings;

To set/change password:

1. Enter your password in the first password box.
2. Enter the password again in the next box to confirm.
3. Click **SAVE** to save the setting.

Reboot/Reset this device.


Reboot: the device will re-boot itself and while still keep your original settings. You will probably do this if problems occur with this access point.

Reset, the device will reset itself to the factory default settings. *(Note that all your original settings will be replaced by factory default settings.)*


Upgrade system firmware.

To upgrade system firmware,

1. You will have to download the file to your computer.
2. Enter the file name and path in the field next to the Browse button. Or you can click Browse to find the file you previously downloaded.
3. Click the **Upload** button to start upgrading. Wait for about 1 minute for the upgrade.
4. When the firmware upgrade is complete, remember to reboot the device.
5. If you want to change the operation mode, remember the default IP address for WAP Access Point is 192.168.1.240, while for Bridge mode it is 192.168.1.241.



Info | Associations | Wireless | Access | Repeater | Security | Advanced | IP Address | Admin



On this page you can configure the IP address used by the Web server running on this bridge. For "static" mode, the IP address settings are given here. For "DHCP" mode, these settings are supplied by a DHCP server on your network. You can also change the password, reboot the bridge, or reset all settings to their factory defaults. If you have changed any settings it is necessary to reboot the bridge for the new settings to take effect.

User name

User name:

This is the user name that you must type when logging in to these web pages.

Administrator password:

This is the password that you must type when logging in to these web pages. You must enter the same password into both boxes, for confirmation

Commands

Reboot access point:

Reset to factory defaults:

Upgrade system firmware

File to upload:

The upload may take up to 60 seconds.

Bridge -Configuration via Web


Login

Open the browser, enter the local port IP address of the Device (default at **192.168.1. 241**), and click “Go” to get the login page.

The user name and password are not required and should be left blank for the first-time login. Just click **OK** to enter.



Enter Network Password ? X

 Please type your user name and password.

Site: 192.168.1. 241

Realm Login

User Name


Password

Save this password in your password list


OK Cancel

Info(Information)

The setup home page will display the information about the current settings of this access point.



Info | Wireless | Security | Advanced | Admin



Basic information about this bridge. NOTE: You may have to reload this page to see the current settings.

Access Point Information	
State:	Associated
Wireless network name (SSID):	hawking AP
Channel:	10
Transmission rate:	Best (automatic)
Communications strength:	74%
BSSID:	00E0984C6AF6
WEP:	disabled
WPA:	disabled

Bridge Information	
Bridge Name:	802.11g Bridge
Number of bridged clients:	1
IP address:	10.1.1.234
MAC address:	00E0981A3641
RF Firmware version:	1.0.4.3
System Firmware version:	1.1.P5.1


Available access points

SSID	BSSID	Channel	Strength	Mode
hawking AP	00E0984C6AF6	10	74%	802.11g


Wireless (Wireless Configuration)

Here you can set/change wireless configuration including **visibility status**, **PHY profiles**, **SSID**, **channel**, **transmission rate** ... etc. See the description that comes after each function.

When you are done with the change, remember to restart this access point to let the new settings take effect.



Info | Wireless | Security | Advanced | Admin



Basic Wireless

On this page you can configure the basic 802.11g wireless settings. Any new settings will not take effect until the bridge is rebooted.

Wireless Mode: Infrastructure Ad-hoc
Select 'Infrastructure' to connect to a wireless access point, select 'Ad-hoc' to connect to another bridge or wireless station.


Wireless Network Name (SSID):
This is the name of the wireless access point that this bridge will associate to. Leave this field blank to associate to any access point.

Desired BSSID:
This provides manual selection for the desired Access Point to join with. The SSID for the Access Point still has to match. You can copy and paste the desired MAC address from the Info page.

Channel:
This is the radio channel that is used in ad-hoc mode. This setting has no effect in infrastructure mode. If you experience interference (e.g. lost connections or slow data transfers) you may need to try different channels to see which is the best.

Transmission rate (Mbits/s):
This is the speed at which the bridge will transmit data. Normally you should select 'best' here, although if your wireless network is unusually noisy or quiet you may wish to use a fixed low or high rate.

PHY Profiles:
These profiles control a number of settings for overall wireless network usage. Their meanings are self-explanatory. For more details, please see Intersil documentation.

Wireless Mode	Infrastructure mode: to connect to a AP Ad-hoc mode to connect to other bridge station.
Wireless Network Name (SSID)	The SSID is the unique name shared among all points in your wireless network. The name must be identical for all devices and points attempting to connect to the same network.
Channel	Select channel that is currently in use. (There are 14 channels available, depending on the country.) only for Ad-hoc mode
Transmission rate (Mbps)	Shows the current transfer rate There are Best (Automatic), Fixed 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54Mbps.)
PHY Profiles	You can select different wireless networking hardware (PHY) to meet your wireless environment or for optimal performance. You can thus choose from the  list.

Security

Here you can enable the WEP and set the WEP key, if you enable WEP, the client PC must also set their WEP key.

Enable WEP	WEP (Wired Equivalent Privacy) encryption can be used to ensure the security of your wireless network. The window allows you to set to 64bit or 128bit Encryption (WEP) by using either Passphrase or Manual Entry methods. <i>Note:</i> To allow Decryption and communication, all wireless devices must share the identical encryption key on the same network.
Default WEP key to use	Select one of the four keys to encrypt your data. Only the key you select it in the “Default WEP key to use” will take effect.
Deny unencrypted data	To access this wireless network clients are required to use encryption. This should be checked together with the item “Enable WEP”.
Authentication	The authentication mode defines configuration options for the sharing of wireless networks to verify the identity and access privileges of roaming wireless network cards. You may choose between Open , Shared Authentication , and Both . If the access point is using " Open Authentication ", then the wireless adapter will need to be set to the same authentication mode. Shared Authentication is when both the sender and the recipient share a secret key. Select Both for the network adapter to select the Authentication mode automatically depending on

	the access point Authentication mode.
WEP key lengths	Select between 64-bit and 128-bit.
WEP key	Enter WEP key here .

Advanced (Advanced Wireless)

HAWKING TECHNOLOGY

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Hi-Speed 54G Bridge

Advanced

On this page you can configure the advanced 802.11g wireless settings. Any new settings will not take effect until the bridge is rebooted.

Cloning

Cloning mode: WLAN Card Ethernet Client

Select "WLAN Card" to set the MAC Address of the Bridge (as seen by the Access Point and other wireless devices) to be that of the MAC Address of WLAN Card inside the Bridge. Select "Ethernet Client" to set the MAC Address to that of the first Ethernet client that transmits data from behind the Bridge.

Advanced wireless

Fragmentation threshold:
 Transmitted wireless packets larger than this size will be fragmented to maintain performance in noisy wireless networks.

RTS threshold:
 Transmitted wireless packets larger than this size will use the RTS/CTS protocol to (a) maintain performance in noisy wireless networks and (b) prevent hidden nodes from degrading performance.

Maximum burst time:
 The amount of time the radio will be reserved to send data without requiring an ACK. Adding a burst time should help throughput for 802.11g clients when AP is running in mixed mode. This number is in units of microseconds. A typical value would be 1000 microseconds. When this number is zero, bursting is disabled.

Internet

Cloning mode	WLAN Card : set MAC address by internal MAC address, Ethernet Client: Set MAC address as the first LAN client.
Fragmentation threshold	To fragment MSDU or MMPDU into small

	<p>sizes of frames for increasing the reliability of frame (The maximum value of 2346 means no fragmentation is needed) transmission. The performance will be decreased as well, thus a noisy environment is recommended.</p>
RTS Threshold	<p>RTS (Request To Send) is a control frame sent from the transmitting station to the receiving station requesting permission to transmit. This value is recommended to remain at its default setting of 2432. Should you encounter inconsistent data flow, only minor modifications of this value are recommended.</p>
Maximum burst time	<p>The amount of time the radio will be reserved to send data without requiring an ACK.</p>

Admin (Administration)

In this Administration page, you can

Change device name.

This is the name that the bridge will use to identify itself to external configuration and IP-address-finding programs. It is okay to leave this blank if you are not using these programs

IP address setting.

Set the IP address for this device or use dhcp to get a ip for this device.

Change password.

The device has no password at default. It is recommended that you set a password to ensure that no one can adjust the device's settings;

To set/change password:

4. Enter your password to the first password box.
5. Enter the password again in the next box to confirm.
6. Click **SAVE** to save the setting.

Reboot/Reset this device.

Reboot, the device will re-boot itself and still keep your original settings. You will probably do this if problems occur with this access point.

Reset, the device will reset itself to the factory default settings.

(Note that all your original settings will be replaced by factory default settings.)

Upgrade system firmware.

To upgrade system firmware,

1. You will have to download the file to your computer.
2. Enter the file name and path in the field next to the Browse button. Or you can click Browse to find the file you previously downloaded.
3. Click the **Upload** button to start upgrading. Wait for about 1 minute for the upgrade.
4. When the firmware upgrade is complete, remember to reboot the device.

Hi-Speed 54G Bridge



Administration

On this page you can configure the IP address used by the Web server running on this bridge. For "static" mode, the IP address settings are given here. For "DHCP" mode, these settings are supplied by a DHCP server on your network. You can also change the password, reboot the bridge, or reset all settings to their factory defaults. If you have changed any settings it is necessary to reboot the bridge for the new settings to take effect.

Device name

Device name:
 This is the name that the bridge will use to identify itself to external configuration and IP-address-finding programs. This is not the same as the SSID. It is okay to leave this blank if you are not using these programs.

IP settings

IP Address Mode: Static DHCP
 Select 'DHCP' to get the IP settings from a DHCP server on your network. Select 'Static' to use the IP settings specified on this page.

Default IP address:
 Type the IP address of your bridge

Default subnet mask:
 The subnet mask specifies the network number portion of an IP address. The factory default is 255.255.255.0.

Default gateway:
 This is the IP address of the gateway that connects you to the internet. The factory default is 192.168.1.1.

Security

User name:
 This is the user name that you must type when logging in to these web pages.

Administrator password:

 This is the password that you must type when logging in to these web pages. You must enter the same password into both boxes, for confirmation

Commands

Reboot bridge:

Reset to factory defaults:

Upgrade system firmware

File to upload:

The upload may take up to 60 seconds.