Wireless 802.11g Access Point

User's Manual

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Introduction

The Wireless 802.11g Access Point is a 54 Mbps Access Point (AP) that can also act as a Media Access Control (MAC) bridge between wired Local Area Networks, and one or more LAN wireless networks. Placed anywhere along with an Ethernet LAN, the Wireless 802.11g Access Point allows up to 200 wireless stations within its area of coverage to access transparently to the corporate network.

Features

- High speed for wireless LAN connection, 54 Mbps.
- Web browser-based configuration utility.
- Wireless security of 128-bit WEP Encryption/ MAC Address Filtering
- AP Visibility Modes
- Firmware upgrades
- Static IP Address or DHCP
- Automatic Device Discovery

LED Indicators

LED Indicators on the Front Panel



| LED Indicator | St | atus | | | |
|-----------------|-----------------------------|------------------------------|--|--|--|
| | Solid | Dim/ Flashing | | | |
| Power | Glows when power is | Dim when no power is | | | |
| | applied to this device, the | applied. | | | |
| | LED turns solid yellow. | | | | |
| Status | Normal | Flashing when upgrading | | | |
| | | firmware. | | | |
| LAN-Link | Glows when Ethernet is | Dim when no Ethernet is | | | |
| | connected. | connected. | | | |
| | | Flashing when this device is | | | |
| | | sending/receiving data | | | |
| LAN-100M | Glows for 100Mbps | Dim for 10 Mbps Ethernet | | | |
| | Ethernet connection. | connection | | | |
| LAN-Full Duplex | Glows for Full duplex | Dim for half duplex | | | |
| | mode | | | | |
| WLAN-Link | Glows when this device is | Dim when it is not | | | |
| | associated | associated | | | |
| WLAN-Ready | Glows when WLAN is | Dim when no WLAN is | | | |
| | connected. | connected. | | | |

| | | Flashing when trying to |
|-------------|-----|------------------------------|
| | | connect to WLAN. |
| WLAN-Active | N/A | Flashing when this device is |
| | | actively sending/receiving |
| | | data over the wireless LAN |
| | | connection. |

Ports on the Rear Panel



| | Port/button | Functions |
|---|-------------|---|
| A | 5V DC | Connects the power adapter plug. |
| В | LAN | Connects to your LAN's network device. |
| С | II-X | Switch this button for choosing different wiring |
| | | scheme LAN connection; Switch left to select |
| | | using a straight Ethernet cable; Switch right to |
| | | use a Crossover Ethernet cable |
| D | Antenna | Adjust to have better performance |
| Е | Reboot | Use a pin-shape item, for example a pin tip, to |
| | | press this button to re-boot this device when the |
| | | device stop 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 will be the performance.
- 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.*

AP MODES:

This device is shipped with configuration that can be utilized right out of the box. The default configuration is as a AP/bridge depending on your purchase. If you want to change the settings in order to perform more advanced configuration or just configure into the other mode, namely Access Point to bridge or the other way, you can use the web-based utility provided by the manufacturer as described below.

Configuration via Web

Login

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.

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

| Enter Netv | vork Passwor | d | ? × |
|------------|-----------------------|-------------------------------|-----|
| ? > | Please type yo | ur user name and password. | |
| ধ | Site: | 192.168.1.240 | |
| | Realm | Login | |
| | <u>U</u> ser Name | | |
| | Password | | |
| | □ <u>S</u> ave this p | assword in your password list | |
| | | OK Cano | el |

Info(Information)

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

| | Connecting Wireless Clients to a Backbone Ethernet LAN | | | | | | | | | |
|-------------------------------|---|--------|------|--------|-----|------|-----|-----|------|--|
| 802.11g Access Point | Info | Ass | 00 | Wirele | 155 | Acc | 855 | | | |
| | Advar | nced | Se | curity | IP | Addr | Adm | tin | Help | |
| 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: | 802.1 | l 1g A | Р | | | | | | | |
| MAC address of AP: | 0060 | B31/ | 00; | 2D | | | | | | |
| Associated stations: | 1 | | | | | | | | | |
| RF Firmware version: | 1.0.4 | 3 | | | | | | | | |
| System Firmware version: | 1.0.P | _1 | | | | | | | | |
| Current IP Settings | | | | | | | | | | |
| IP address: | 192.1 | 68.1 | .24(| 0 | | | | | | |
| DHCP client: | disab | led | | | | | | | | |
| Current Wireless Settings | | | | | | | | | | |
| Profile: | 802.1 | 1b/g | Mb | ed Mo | de | | | | | |
| Wireless network name (SSID): | 802_ | 11g | | | | | | | | |
| Channel: | 1 | | | | | | | | | |
| WEP: | disab | led | | | | | | | | |
| WPA: | disab | led | | | | | | | | |
| | | | | | | | | | | |

Assoc(Associations)—Only for Access Point mode

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

| | Connecting Wireless Clients to a Backbone Ethernet LAN | | | | | | | | | |
|-----------------------------|---|------|----|------------|----------|--------|-------|------|--|--|
| 802.11g Access Point | Info Ass | | 00 | c Wireless | | Access | | | | |
| | Advar | nced | Se | curity | urity IP | | Admin | Help | | |
| Associations | 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. | | | | | | | | | |
| MAC address 006083111657 | | | | | | | | | | |

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.

| | Connecting Wireless Clients to a Backbone Ethernet LAN | | | | | | | | | |
|-------------------------------|--|---|---|---------------------------------------|--|-----------------------------------|--|--|--|--|
| 802.11g Access Point | Info | Asso | oc Wirek | ISS AD | cess | | | | | |
| | Advar | nced | Security | IP Addr | Admin | Help | | | | |
| Wireless Configuration | On this settings point is | On this page you can configure the basic 802.11g access point settings. Any new settings will not take effect until the access point is rebooted. | | | | | | | | |
| Visibility Status: | ∕e Vi | sible | Invisit | ble | | | | | | |
| | When I discove explicit | rwisibili ry by w ly know | ty is select freless snift and use th | ed, the AP fers, and a ve SSID. | is protecte Il wireless o | d against :lients must | | | | |
| PHY Profiles: | 802.11 | b/g Mi | oed Mode | | * | | | | | |
| | These p network details, | profiles cusage please | control a n . Their mea see Intersi | umber of s nings are I documen | ettings for o self-explana tation. | werall wireless dory. For more | | | | |
| Wireless Network Name (SSID): | 802_11 | g | | | | | | | | |
| | This is Station this nar | the nar s that a me. | ne of the ac associate to | cess poin this acce | t on the win as point ma | eless network. In have to know | | | | |
| Channel: | 2.4 GH | iz char | nel1 💌 | | | | | | | |
| | This is the radio channel that the access point will operate you experience interference (e.g. lost connections or slow transfers) you may need to try different channels to see wh the best. Channels 1-14 are in the 2.4 GHz band and chan 36-64 are in the 5 GHz band. | | | | | | | | | |
| Transmission rate (Mbits/s): | Best (| automa | dic) 💌 | | | | | | | |
| | This is the speed at which the access point will transmit of Normally you should select 'best' here, although if your will network is unusually noisy or quiet you may which to use low or high rate. | | | | | | | | | |

| 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 | You can select different wireless networking |
|------------------------------|---|
| | hardware (PHY) to meet your wireless |
| | environment or for optimal performance. |
| | You can thus choose from the list. |
| | 802.11b/g Mined Mode 802.11g Only 802.11g Only, Maximum performance 802.11b/g Mined Mode Long 802.11b Wi-Fl 802.11b Only 802.11b Only |
| 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 <u>14</u> 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)-Only for Access Point mode

This AP provides MAC Address filtering, which prevents the 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.

| | Connecting Wireless Clients to a Backbone Ethernet LAN | | | | | | | | |
|------------------------|---|---------|-------|----------|------|-------|-------------|-------------|--|
| 802.11g Access Point | Info | Ass | 00 | Wirele | 55 | Acc | 255 | | |
| | Advar | nced | Se | curity | IP. | Addr | Admin | Help | |
| 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: | □ (C) | ieck tř | vis b | ax to en | able | acces | s control.) | | |
| MAC address 1: | | | | | | | | | |
| MAC address 2: | | | | | | | | | |
| MAC address 3: | | | | | | | | | |
| MAC address 4: | | | | | | | | | |
| MAC address 5: | | | | | | | | | |
| MAC address 6: | | | | | | | | | |
| MAC address 7: | | | | | | | | | |
| MAC address 8: | | | | | | | | | |
| | | | | | | | | Save Cancel | |

Figure: Access Control

Advanced (Advanced Wireless)

| | Connecting Wireless Clients to a Backbone Ethernet LAN | | | | | | | | | |
|------------------------------|---|----------------------------|----------------------|------------------------------------|------------------------|------------------------------|---------------------------------------|----------------------------------|--|--|
| 802.11g Access Point | Info | Ass | oc | Wirele | 88 | Acci | 888 | | | |
| | Advan | ced | Se | curity | IP | Addr | Admin | Help | | |
| Advanced Wireless | On this point se access | page ttings point | yau . An is re | can con y new s ibooted. | ngur ettin | e the a gs will | dvanced 8 not take el | 02.11g access flect until the | | |
| Maximum associated stations: | 200 | | 1 | | | | | | | |
| | This the associa | maxi ted at | mur any | n numbe one tim | r of ie. | wireles | s stations | that can be | | |
| Fragmentation threshold: | 2346 | | | | | | | | | |
| | Transm fragmen | itted v ted to | virela ma | ess pack intain pe | oets Inform | larger t nance i | han this si in noisy wi | ze will be reless networks. | | |
| RTS threshold: | 2432 | | 1 | | | | | | | |
| | 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: | 100 | | 1 | | | | | | | |
| | Access number | point of mil | bea liser | cons are | ser stwe | nt out p en eacl | eriodically h beacon. | . This is the | | |
| DTIM interval: | 1 | | | | | | | | | |
| | This is f Indication beacon | the nu on Me , '2' m | mbe ssa(eans | r of bea ge), e.g. a with av | cons '1' m ery 2 | per Di teans s and bea | RM (Delive and a DTI acon, etc. | ry Traffic M with each | | |

| 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 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. |

| Maximum burst time: | 0 |
|---------------------|---|
| | This is also known as PRISM Nitro (Im) 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. A typical value would be 1000 microseconds. When this number is zero, bursting is disabled. |
| Enable PSM buffer: | |
| | Turn this on to enable support for stations in power save mode. |
| | Save Cancel |

| 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. | | | | | |
| Enable PSM buffer | PSM stands for Power Save | | | | | |
| | Mechanisms. Turn this on to enable support | | | | | |
| | for stations in power save mode. | | | | | |

Security

Here you can enable the WEP and set the WEP key, if you enable the WEP, the client PC also need to set the 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. | | | | |
| 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. | | | | |



| | 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) -Only for Access Point

mode

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**, DHCP server will automatically assign IP addresses to this device. And the fields that follow will be grayed out and need no settings. If, otherwise you select **Static**, you will have to manually set the device IP address.

| | Connec | ting V | Nire | less Cli | ents | to a B | ackbone t | Ethernet LAN |
|----------------------|--|---------------------------|--------------------------|-------------------------|------------------|--------------------|--|---------------------------------------|
| 802.11g Access Point | Info | Ass | 00 | Wirel | 255 | Acc | ess | |
| | Adva | nced | Se | curity | IP | Addr | Admin | Help |
| 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. | | | | | | used by the Web 'mode, the IP ode, these r network. Any ess point is | |
| IP Address Mode: | ⊛ St | atic (| 0.0 | HCP | | | | |
| Default IP address: | Select network page. 192.16 | DHCF Selo B124 | ^o to act 3 | get the I Static' to | P se use | ttings f the IP | from a DHI settings s | CP server on your pecified on this |
| Default subnet mask: | 255.25 | 5.255. | 0 | ns or ye | AT 44 | CCM101 | - uni | |
| Default eateway: | The su addres | bnet m s. The B.1.1 | hask fact | specifie ory defa | is the ult is | e netwo 255.25 | irk number 55.255.0. | portion of an IP |
| , , | This is internet | the IP | add | ress of t | he g | ateway | that conn | ects you to the |
| Access point name | | | | | | | | |
| Access point name: | 802.11 | g AP | | | | | | |



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 to 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.

By **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.

By **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.

| | Connec | ting V | Nirele | iss Cli | HINTER | to a B | ickbone E | thernet LAN |
|----------------------------|---|--------------------------------------|---------------------------------------|--|------------------------------------|--|--|---|
| 802.11g Access Point | Info | Ass | oc | Wirele | 155 | Acc | 05/5 | |
| | Advar | nced | Sec | urity | IP | Addr | Admin | Help |
| Administration | On this point, or changed for the n | page y reset i any s ew set | you ca all se setting ttings | an chan ttings t gs it is i to take | ige ti lo the nece e effe | he pas: air facto issary t ict. | sword, reb ory default: to reboot th | oot the access a. If you have he access point |
| User name: | | | | | | | | |
| | This is t web pag | he use es. | er nam | ne that | you | must ty | ype when I | ogging in to these |
| Administrator password: | | _ | _ | | | | | |
| | This is t web pag for confi | he pas es. Yo matio | ssword su mu n | d that y ist ente | ou n r the | nust ty same | pe when lo password | gging in to these into both boxes, |
| | | | | | | | | Save Cancel |
| Commands | | | | | | | | |
| Reboot access point: | Rebo | ot | | | | | | |
| Reset to factory defaults: | Reset | | | | | | | |
| Upgrade system firmware | File to | uploa | ıd: | | | | | |
| | | | | | | | Bro | WSQ |
| | Upli | bad | | | | | | |
| | The up | load r | nay t | ake up | to BC | 0 seco | nds. | |

Help

| | Connec | Connecting Wireless Clients to a Backbone Ethernet LAN | | | | | | | |
|----------------------|---|--|----|---------------|--|--------|------|---------|--|
| 802.11g Access Point | Info | Ass | oc | oc Wireles | | Access | | | |
| | Advanced | | Se | curity IP Add | | Addr | Admi | n Help | |
| Help | This is where some helpful information will go. There is nothing here right now. | | | | | | | nothing | |

Bridge MODES:

Info(Information)

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

| 802.11g Bridge | Ireless Enabling Desktops PCs, Printers & Game Consoles Ise an Ethemet Hub or Switch to Support Multiple Devices) | | | | | | | |
|-------------------------------|--|-------------------------------|-----------------------------|-----------------------------|-----------|---------|--|--|
| | Info | Wireless | Security | Advanced | Admin | Help | | |
| Information | Basic reload | information a this page to | bout this br see the cur | idge. NOTE rent settings | : You may | have to | | |
| Access Point Information | | | | | | | | |
| State: | Disc | onnected | | | | | | |
| Wireless network name (SSID): | | | | | | | | |
| Channel: | 6 | | | | | | | |
| Transmission rate: | Best | (automatio | :) | | | | | |
| Communications strength: | 0% | | | | | | | |
| BSSID: | 00000000000 | | | | | | | |
| WEP: | disal | bled | | | | | | |
| Bridge Information | | | | | | | | |
| Bridge Name: | 802. | 11g Bridge | э | | | | | |
| Number of bridged clients: | 12 | | | | | | | |
| IP address: | 192.168.1.241 | | | | | | | |
| MAC address: | 00E | 09814EAA | 2 | | | | | |
| RF Firmware version: | 1.0.4 | 1.3 | | | | | | |
| System Firmware version: | 1.0.F | 2_3 | | | | | | |

Available access points

| SSID | BSSID | Channel | Strength | Mode |
|-------------------|--------------|---------|----------|---------|
| CISCO1200AP_B | 000D28A45E0B | 1 | 76% | 802.11b |
| Genesis Microchip | 009096284335 | 6 | 71% | 802.11b |
| Abocom | 00E0984C041E | 10 | 73% | 802.11g |
| ATC | 0010E7F5C823 | 1 | 66% | 802.11b |
| WP | 000028A45E00 | 6 | 67% | 802.115 |

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.

| 802 11g Bridge | Wreless Enabling Desktops PCs, Printers & Game Consoles Use an Ethernet Hub or Switch to Support Multiple Devices) | | | | | |
|-------------------------------|---|--|--|--|--|--|
| | Info Wireless Security Advanced Admin Help | | | | | |
| 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 Made: | Infrastructure O Ad-hoc | | | | | |
| | Select 'Infrastructure' to connect to a wreless access point, select 'Ad-hoc' to connect to another bridge or wireless station. | | | | | |
| Wireless Network Name (SSID): | 800_11g | | | | | |
| | 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. | | | | | |
| Channel: | 2.4 GHz cheard 1 🖌 | | | | | |
| | 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): | Bert (somaatid) 🛩 | | | | | |
| | 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 which to use a fixed low or high rate. | | | | | |
| PHY Profiles: | 802.11b/g Miard Mode | | | | | |
| | These profiles control a number of settings for overall wireless network usage. Their meanings are self-explanatory. For more details, please see Intersil documentation. | | | | | |
| | Sive Gad | | | | | |

| 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 <u>14</u> 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. | | | |
| | 802.11b/g Mirred Mode 802.11g Only 802.11g Only, Maximum performance 802.11b/g Mirred Mode Long 802.11b/g Mirred Mode Long 802.11b Wi-Fi 802.11b Only Test Mode | | | |

Security

Here you can enable the WEP and set the WEP key, if you enable the WEP, the client PC also need to set the WEP key.

| 802.11g Bridge | Vireless Enabling Desktops PCs, Printers & Game Consoles Use an Ethernet Hub or Switch to Support Multiple Devices) | | | | | |
|-------------------------------------|--|----------------|----------|----------|-------|----------|
| | Info | Wireless | Security | Advanced | Admin | Help |
| Security and Encryption Settings | On this page you can set the 802.11g security and encryption options. Any new settings will not take effect until the bridge is rebooted. | | | | | |
| WEP configuration | WEP is the wireless encryption standard. To use it you must enter the same key(s) into the bridge and the access point. 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 Unencrysted Data" and set Authentication to "Shared Key" when WEP is enabled | | | | | |
| Default WEP key to use: | WEP I | ley 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 O Shared Key | | | | | |
| | Select the type of authentication used when connecting to an access point. "Open' is used if anyone can connect to the AP. Shared key' is used if both devices must know the encryption key. | | | | | |
| WEP key lengths: | 64 bit () | 10 her digits) | * | | | |
| | Select the WEP key size. This length applies to all keys. | | | | | |
| WEP key 1: | | | | | | |
| WEP key 2: | | | | |] | |
| WEP key 3: | | | | | | |
| WEP key 4: | | | | | | |
| | | | | | 3 | we Cacel |

| 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. | | | |
| | Note: 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 | | | |
| | 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)

| 802.11g Bridge | fireless Enabling Desktops PCs, Printers & Game Consoles Jse an Ethernet Hub or Switch to Support Multiple Devices) | | | | | |
|--------------------------|--|--|--|--|--|--|
| | Info Wireless Security Advanced Admin Help | | | | | |
| 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 C 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: | 2346 | | | | | |
| PTP double 14 | Transmitted wireless packets larger than this size will be fragmented to maintain performance in noisy wireless networks. | | | | | |
| KTS Inresnold: | Transmitted wireless packets larger than this size will use the RTS/CTS protocol to (a) maintain performance in noisy wireles networks and (b) prevent hidden nodes from degrading performance. | | | | | |
| Maximum burst time: | 0 | | | | | |
| | 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. | | | | | |
| | Save Cancel | | | | | |

| Clonling 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 |

| | 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. |
| Maximum burst time | The amount of time the radio will be reserved |
| | to send data without requiring an ACK. |

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.

By **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.

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

To upgrade system firmware,

- 5. You will have to download the file to your computer.
- 6. 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.
- 7. Click the **Upload** button to start upgrading. Wait for about 1 minute for the upgrade.
- 8. When the firmware upgrade is complete, remember to reboot the device.

| 802.11g Bridge | Wireless Enabling Desktops PCs, Printers & Game Consoles (Use an Ethemet Hub or Switch to Support Multiple Devices) | | | | | |
|----------------------------|---|--|---------------------------------|-----------------------------|---|--|
| | Info | Wireless | Security | Advanced | Admin Help | |
| 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 to their factory defaults. If you have changed any settings to take effect. | | | | | |
| Device name | | | | | | |
| Device name: | 802.11g Birklam | | | | | |
| | This is the name that the bridge will use to identify itself to external configuration and IP-address-finding programs. This is no the same as the SSID it is okay to leave this blank if you are no using these programs. | | | | | |
| IP settings | - | | | | | |
| IP Address Model | Sta | atic O DH | ICP | | | |
| | Select network | DHCP' to ge Select 'Sta | t the IP sett dic' to use th | ings from a te IP settin | DHCP server on your gs specified on this | |
| Default IP address: | 192.168 | 1.241 | | | | |
| | Type th | e IP address | of your brid | ge | | |
| Default subnet mass. | The sut | unet mask se | necifies the | network nur | nber portion of an IP | |
| | address | s. The factory | y default is 2 | 56 255 255 | a. | |
| Default gateway: | 192.168 | 4.1 | | | | |
| | This is internet | the IP addres The factory | es of the get default is 15 | arway that a 92 168.1 1 | connects you to the | |
| Security | | | | | | |
| User name: | | | | | | |
| | This is web pa | the user nan ges. | ne that you i | nust type w | then logging in to these | |
| Administrator password: | | | | | | |
| | This is web part for conf | the passwor ges. You mu Irmation | d that you m ist enter the | ust type wi same pass | word into both boxes, | |
| | | | | | Save Cancel | |
| Commands | | | | | | |
| Roboot bridge: | Tarboot | | | | | |
| Reset to factory defaults: | Repet | | | | | |
| Upgrade system firmware | File 1 | o upload: | | | | |
| | | | | | (2011) | |
| | Uple The c | ad pload may t | ake up to 60 | seconds. | | |

FEDERAL COMMUNICATIONS 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 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.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void

the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.