

INSTALLATION MENU

Wireless LAN Access Point

2.4 GHz / 11 Mbps / DSSS

PN:A2588

FCC INFORMATION

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

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 instruction, may cause harmful interference to radio communication. 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 following measures:

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Radiation Exposure:

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 20 centimeters between the radiator and your body.

The user should not modify or change this equipment.
Modification could void authority to use this equipment.

Notice

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Package Contents

The package should contain following items:

1. The EMTAC A2588 11Mbps WLAN Access Point.



2. Driver disc.
3. This menu.
4. USB cord
5. Power Adapter

External Interface

1. USB Cord
2. Ethernet Cord

Software Installation Guide

You should have an Access Point driver disk from our agent, it includes 2 major programs, one is “DFU” using USB port, and the other is “AP Configuration” using Ethernet port.

For DFU

1. Run the “Setup.exe” in the folder of DFU of the driver disk. Follow the guideline on the screen, and select the directory where the application will be installed, it will deploy all files that needed at that. At the end, windows will show a message that installation is completed.
2. Power on the Access point.
3. After Access Point had powered on, then plug USB cord into both port of host PC and AP.
4. You can run the program of “DFU”, which you can find in “start” →”program” →”Atmel Utilities” →”DFU”. When the DFU is working correctly, it will tell you what both version of the Access Point firmware and this utility.



For AP Configuration

1. Run the “Setup.exe” in the folder of AP Configuration of the driver disk. Follow the guideline on the screen, and select the directory where the application will be installed, it will deploy all files that needed at that. At the end, windows will show a message that installation is completed.
2. Power on the Access point.
3. Plug the “**cross over**” type Ethernet cord into both port of host PC and AP. (If you don’t have “cross over” type Ethernet cord and have a hub, then you can use normal type Ethernet cable to connect both host PC and AP to hub.)
4. You can run the program of “AP Configuration”, which you can find in “start” → “program” → “Atmel Utilities” → “AP Configuration”
5. Make sure that the IP address of your host PC and AP are in the same sub-net, because this program is based on SNMP. The default setting of IP address of AP is **192.168.0.251**

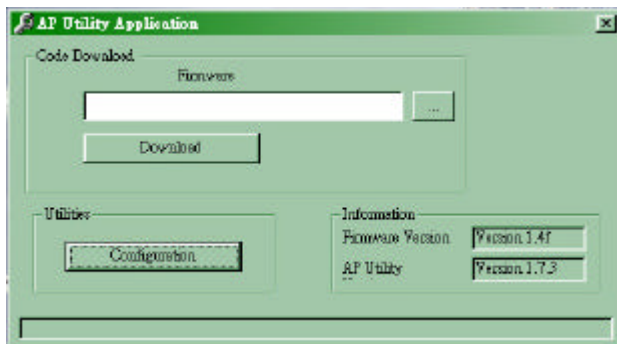
Utilities Using Guide

Basic Configuration

We highly recommend you that using “DFU” utility for the first time setting of AP, and “AP Configuration” for latter regular setting, (of course, you should already have a connect with AP through the Ethernet cable). Because the DFU utility configures the AP through USB port, it won’t care about any setting inside the AP. So you can change any setting you need and make sure what all the setting of AP are. After that, you may deploy the AP in a not-easily-reachable working place, it is very inconvenient to connect host PC and AP by USB cord, but it should have an Ethernet cable to connected to.

For DFU

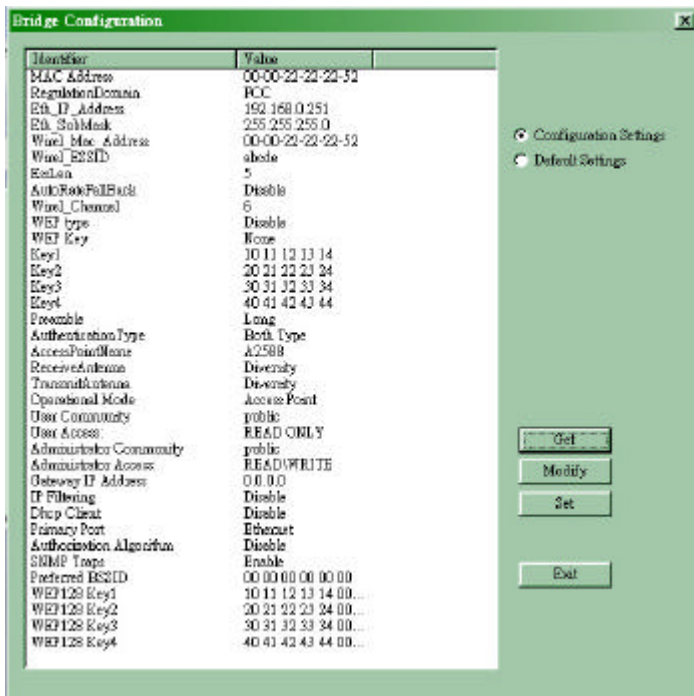
When you run the DFU, you will see a page like below.



Press “Configuration” to get the configuration of AP.

Note: Don’t download any file to AP, it will cause AP crashed, except that your vendor give you the correct firmware file(, like *.rom) and told you to download it.

Now, you can see all the setting of AP.

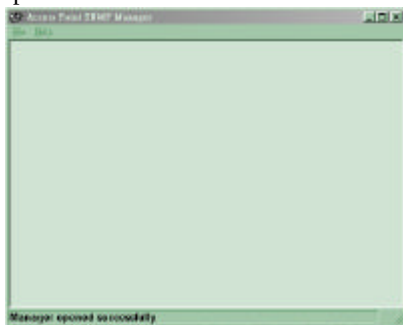


1. First, set the field of “Eth_IP_Address”, that is the IP address of this AP. You should make sure that the IP address is a valid address in your sub-net.
2. Set the field of “Eth_SubMask”, that is the sub-net mask of this sub-net. It should be the same with your sub-net.
3. Set the field of “Wirel_ESSID”, that is the Extended Service Set ID (ESSID) of this AP. All wireless stations want to connect with this AP must have the same ESSID.
4. Set the field of “Wirel_Channel”, that is the channel that this service set using. If more than one service set on the same channel, they will equal-share the same access. And we recommend you that it's better to depart from more than one channel for adjacent using channels, e.g. using channel 6 and channel 8 concurrently will be better for channel 6 and channel 7.

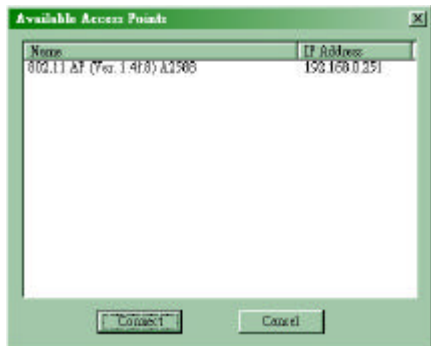
After the above setting, the AP should work properly.

For AP Configuration

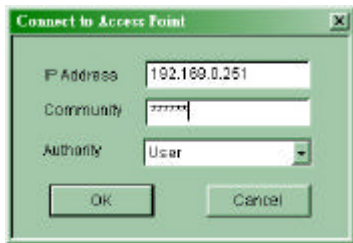
When you run the AP Configuration, you will see a dialog box pop up like below. Of course, the AP is already connected to your host PC by Ethernet port.



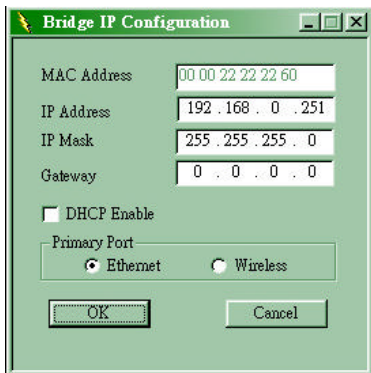
1. Press “File”→”Find Access Point”, it will show a dialog box like below to show you how many Access Points it found on the net.



2. Choose the one you want to configure and press “Connect”, it shows another dialog box like below. Enter your community and choose your Authority. (The default settings of community are all “public”.) Press “OK”, After then, if both of you are in the same sub-net, it will get the Access point you choose, and turn into a configuration dialog box.



3. Press “Setup” →”Bridge” →”IP Configuration”, a Bridge IP Configuration dialog box will pop up. Here, you can set the IP address and IP mask.



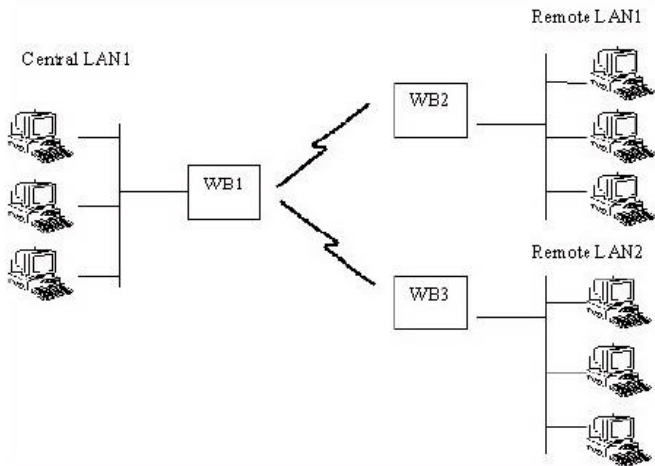
4. Press “Setup” →”Wireless LAN” →”Operational Settings”, a Wireless Operational Settings dialog box will pop up. Here, you can set the ESSID and the channel you want.
5. Press “File” →”Download Changes” to make all you change download to AP.



After done the above setting, the AP should work properly.

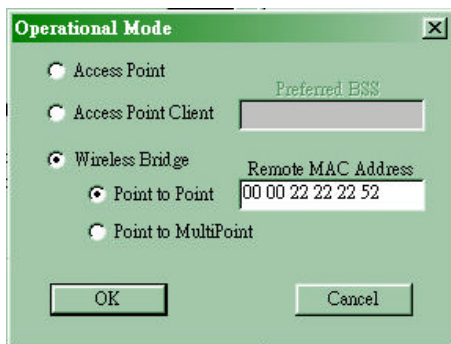
Configuration for Optional function ---Wireless Bridge

Wireless Bridge function is somewhat like a repeater in the Ethernet world. It can make 2 remote Ethernet LANs just like to be one, which both LANs must got an individual AP connected with. (in another word, 2 remote Ethernet LANs can connected with each other by APs working under the mode.) There are 2 type of bridge mode, point-to-point and point-to-multipoint. You can see from below.



Point-to-Point Wireless Bridge: This mode allows one wireless bridge communicate with a specific remote one only.

1. Run the “AP Configuration” and make a connection with your AP.
2. Press “Advanced” button in the right lower Conner of “Setup” → “Wireless LAN” → “Operational Settings”, then you will see a pop-up dialog like this.



3. click on “Point to Point” and fill in the remote MAC address of the other side of AP in this field.
4. Press “File” → “Download Changes” to make all you change download to AP.
5. On the other side, do as the same, but only the field of “Remote MAC Address” is that of this side of AP.
6. Make both APs working on the same channel, then you should have an wireless bridge working now.

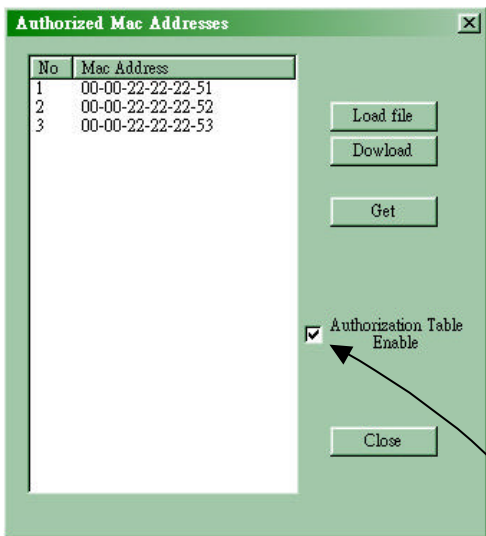
Point-to-Multipoint Wireless Bridge: This mode allows wireless bridge communicate with any bridge on the same channel.

1. Like in “Point-to-Point” mode, just clicks on “Point-to-MultiPoint”, do the same step to all AP you want to work in bridge mode.
2. Make sure that all bridge mode AP on the same channel.

Then you can connect with each other.

If you want to allow only AP with authentication to connect, then you can start up authorization algorithm.

1. Make an authorized MAC list---just put all the MAC address of AP you want to connect in a text file. For example, if you want AP which MAC address is 00-00-22-22-22-50 in your MAC list, then you just put “000022222250” in your list file.
2. Run “AP Configuration”. Clicks on “Setup” →”Wireless LAN” →”Authorized Mac Addresses”, you will see a pop-up dialog box as below, except the content is blank.



3. Clicks on “Load file” button, and choose the authorized MAC list file that you did in last step.
4. Clicks on “Dowload” button to download the list into AP.
5. Check on “Authorization Table Enable” to make authorization function enabled.
6. Press “File” → “Download Changes” to make all you change download to AP.
7. Then, only Access Point which MAC address is listed on the table can communicate with.