If you just want to modify some program components or reinstall all program components, you can run the installation program directly. And then the InstallShield Wizard will appear.

Please choose one of the options what you want then click "**Next**" continues to modify, repair or remove the Gigabyte AP Manager Utility.

InstallShield Wize	end		×
Welcome Modily, 1906	ir, crianova (Fe program		
Welesne to yeu nodity t C Muliy C Rg vi	the Bigsbyte AP Menage Libity Se he current instatetion. Click one of t Select new program companients components to remove	elup Manterance proces he option+ bela#. to ado or saloof aunonily	m, l'his program lista ) natallad
C Berrovs	Reinstal all program components Remove all installed components	instaled by the previous	set, p
Intelliged		Bick New	Cance

# **Chapter4 Web-Based Configuration Utility**

The Wireless Access Point can be configured one of two ways, through the AP Manager Utility or the Web-based configuration Utility. If you choose to use the Web-based configuration utility, please configure the Access Point from a computer with an ethernet connection to the Access Point.

Please input the IP address of the Access Point 192.168.1.1 into the address column in the web browser.

Eile	Edit	⊻iew	Favorite	s <u>I</u> c	iols <u>t</u>	<u>t</u> elp
🔶 🔶 87	adk 💌	÷ -	🛛 🔄	₫	Q Sea	irch
Addres	is 🦉	192.168	8.1.1			

#### <u>Login</u>

Please Input the default Username "**admin**" and the default Password "**admin**" to access the Web configuration Utility.

GIGABYTE'	GN-A15AG	
Site contents: Tre P Vireless Slute Vireless Sacs Vireless Storrig Vireless Address Vireless Address Vireless	Login rpuithe construisens we are coss-ordic occess the web Use filence Passwind Cogin	

#### <u>Status</u>

You can use this status screen to view the Access Point's system information, current connection status.and configuration.

GIGABYTE	SOHE/240Ha	GN-A15AG	
Site contents: - Site contents: - Sistue - Wraless bitAs - Wraless bitAs	Access Point	Status encolatus and some pasivisellings of the dentre	
<ul> <li>Windess Strutte</li> <li>Windess Ditbe</li> <li>Windess Ditbe</li> <li>Windess Ava</li> <li>CFT Extern</li> <li>AF Wasser Friting</li> <li>Zistel os</li> <li>Approch Fritigs</li> <li>Schweisum</li> </ul>	System Al'Name Hotimo Hintimo Hintovare Version Vilant : 002:019 Fondig SSID Channel Number	A) (SAC Tday 173, 19m-776 which Lived uration sploat 4	
- <b>5</b> Fors-ond - <b>5</b> uogou: <b>6</b> -etool	Security Mode DSSID Wan1 : 802.114 Junio : SSID	bone Thiohim variation Configuration apticas 1	
	Channel Number Security Mede BSSID TCPAP Configuration	53 None "J:2J:EU:EE::UF_	

### Wireless STAs

The Wireless Stations page will show you the information of the joined stations.

GIGABYTE	GN-A15AG
Site contents:	Wireless Stations  Inspage shore the joined stature' internation  State (PS Mode (RSS))
<ul> <li>Wreless Ditbe</li> <li>Wreless Alture</li> <li>CH-F Solling</li> <li>AF Manaper Foliate</li> <li>Estal ca</li> <li>Service Frances</li> <li>Service Frances</li> <li>Recommit</li> <li>Account</li> <li>Leboot</li> </ul>	ap15eg_1 MAC Address Authentication STA State PS Mode RSSI

#### Wireless Basic settings

You will be able to configure settings for IEEE802.11a and IEEE802.11g devices in your network. The wlan0 represents the embedded IEEE802.11b/g Card and the wlan1 represents the embedded IEEE802.11a Card.

GIGABYTE	GN-A15AG
<ul> <li>Site contents:</li> <li>Bitus</li> <li>Wrieless bitas</li> <li>Wrieless bitas</li> <li>Wrieless bitas</li> <li>Wrieless bitus</li> <li>Wrieless bituit</li> <li>Wrieless bituit<td>Wian0 Basic Setting         Inversion Route:         Operation Route:         83:11;         © Stinut Provide         SSID:         • ************************************</td></li></ul>	Wian0 Basic Setting         Inversion Route:         Operation Route:         83:11;         © Stinut Provide         SSID:         • ************************************
-m .Luyu. - Siton	6

#### C Operation Mode

You can select which operation mode you want to use. The wlan0 can support 802.11b, 802.11g and 802.11g turbo. The wlan1 can support 802.11a, 802.11a turbo. Besides, the wlan0 also support Preamble Type. The Preamble shall be provided so that the receiver can perform the necessary operations for synchronization.

#### 🗁 SSID

The ESSID or SSID is the name represent the AP in the wireless network. The ESSID of all AP in your network should set to identical for the mobile client can roam between access points. This ESSID string is case sensitive of up to 32 ASCII characters.

The "Suppressed" setting allows you to hide the ESSID in wireless transmission. Those who don't know the ESSID will not be able connect to the AP.

#### Channel Number

Please choose the channel, which you can get best performance. Normally, it doesn't need to change. The default setting is the "Auto Select" channel.

#### 🗁 Rate

You can select one of the rates baesd on your need. The Data Rate of the 802.11g standard are 1M, 2M, 5.5M, 11M, 6M, 9M, 12M, 18M, 24M, 36M, 48M and 54M. The Data Rate of the 802.11b standard are 11M, 5.5M, 2M, 1M. The Data Rate of the 802.11a standard are 6M, 9M, 12M, 18M, 24M, 36M, 48M, 54M. The Data Rate of the 802.11g turbo and 802.11a turbo can up to 108Mbps.

#### 🗁 RTS Length

This value should remain at its default setting of 2346. Should you encounter inconsistent data flow, only minor modifications are recommended. The setting range is 0 ~ 2346.

Verify the desired setting and then click the "**Apply Changes**" button to set the value into access point.

#### Wireless Security

The Access Point supports four Security type you can select : "WEP", "802.1x", "WPA", "WPA Pre-Shared Key".



WEP



☐ Authentication Type

You may choose between "Open System", "Shared Key", and "Auto". The Authentication Type default is set to "Auto".

- **Open System** in which the sender and the recipient do NOT share a secret key. Each party generates its own key-pair and asks the receiver to accept the randomly generated key. Once accepted, this key is used for a short time only. Then a new key is generated and agreed upon.
- Shared Key is both the sender and the recipient share a secret key.

# 🗁 64 (40) Bits, 128 (104) Bits or 152 (128) Bits

There are three levels of encryption 64 bits, 128 bits and 152 bits. The 64 bits encryption is referenced as a lower level encryption. The 152 bits encryption is referenced as a higher level encryption.

The 64 bits WEP encryption use 40 bits as a secret key, which can controlled by user, and 24 bits as the initialize vector, which user can not control. These two portions plus together is 64 bits encryption. Some other vendor's product might refer as 40 bits encryption. It is the same thing.

The 128 bits WEP encryption use 104 bits as a secret key, which can controlled by user, and 24 bits as the initialize vector, which user can not control. These two portions plus together is 128 bits encryption. Some other vendor's product might refer as 104 bits encryption. It is the same thing.

The 152 bits WEP encryption use 128 bits as a secret key, which can controlled by user, and 24 bits as the initialize vector, which user can not control. The 152 bits WEP encryption spawns a KEY ID containing 32 HEX digits.

Verify the desired setting and then click the "**Apply changes**" button to set the value into access point.

GIGABYTE	GN-A15AG
Sile contents: Strue Arrees SiAs Wrees Urses Wrees Urses 	WianD Security Setting         This pape is and set set right face were first This does a sup dist different type mixemply were as WT= Twenther bag WT= SDT1: were WEP         Security Made         CN mar CONFT CONFT CONTE CONTE Twenthered Arg         Podarus Sprive P         PADUE D1         Accely Changes         Changes         Changes         Changes         Changes         Confference         Changes         Products Sprive P         Papers         Changes         Changes
RADIUS server	<u>IP</u> , Please assign a IP address to the primary RADIUS (authentication server).
RADIUS Port,	The setting range is 1~65536 and the default value
RADIUS sercet	, This filed can key in up to 256 character.

Verify the desired setting and then click the "**Apply changes**" button to set the value into access point.

server

is 1812.

#### ■ 802.1x

## ■ WPA

GIGABYTE	GN-A15AG
Site contents:	wian0 Security Setting
- 📕 (friedes S. Ac - 🔤 (friedes Ursico - 🐨 (friedes Strain)	Tria pagalia isadi i satisadi nty. CAd was Tubri Tria daa si o pritsi tafo typea disaconty an ogsi GATA Tue Pador Gaa, WTA, SDI ta an WEP
<ul> <li>Wrokes Stature</li> <li>and</li> <li>and</li> <li>and</li> <li>chreats U date</li> <li>threats Vita</li> <li>th</li></ul>	Security Mode C N.a., C P. C 312 1., P when C when have day
	Cher Alacian I ar -
	Red Op Strive P
SeloRecto :	PAD (# P ) [F(2
Process:	H-deUs Steret
- Kabaot	Tur p Taxay 🛛 🖂 Enable , Interval : 🏹 Minuteko (1460)

<u>Cipher Algorithm,</u>	There are three settings you can select : "TKIP", "AES" and "Auto".
RADIUS server IP,	Please assign a IP address to the primary RADIUS server (authentication server).
RADIUS Port,	The setting range is $1 \sim 65536$ and the default value is $1812$ .
RADIUS sercet,	This filed can key in up to 256 character.
<u>Group Rekey</u> ,	If the Group Rekey is enabled, please enter a Rekey Interval (normally the unit is seconds).

Verify the desired setting and then click the "**Apply changes**" button to set the value into access point.

#### ■ WPA Pre-Shared Key



<u>Cipher Algorithm,</u>	There are three settings you can select : "TKIP", "AES" and "Auto".
Pre-Shared Key,	This filed can key in up to 256 character.
<u>Group Rekey</u> ,	If the Group Rekey is enabled, please enter a Rekey Interval (normally the unit is seconds).

Verify the desired setting and then click the "**Apply changes**" button to set the value into access point.

## Wireless Bridge (WDS Setting)

To make Wireless Distribution System, please store the MAC addresses of bridge AP in this AP and store the MAC address of this AP in bridge AP. Furthermore, You have to assign the same (fixed) channel and security setting (no encryption or standard WEP) for this AP and bridge AP.

GIGABYTE	GN-A15AG SGHz / 246Hz Winskiss Appensis Paint
Site contents: Site : Site : Uneless dive Wieless deales Wieless dively Wieless Dive	wian0 WDS Setting t make wheless Usinitution dystem work, store ine NAC accress of proge AP in this AP and store the MAU address of the AP in bridge A - unthempter. You must assign the same ()xed/channel and security setting (no entryption or standard WEIC of the AP and bridge AP (
Conflict Conflict      Adam     Adam     Adam     CEAP Satisfy     AD Manager Satisfy     AD Manager Satisfy     St. Echop	MAU Aldress of Bridge AI' : Apoly Changes (Resat)
- Lygade Firston - SoveRectore I Isse-ord Lygad - Filmo	Content All' List:

# Add a MAC Address of bridge AP

Input a MAC address of bridge AP. Verify the desired setting and then click the "**Apply Changes**" button to set the value into WDS list.

#### Delete the MAC Address

You can select which MAC address of AP you wish to delete then click "**Delete** selected" button. Or, you can click "**Delete All**" button to delete all the MAC address of AP in the list.

#### Wireless Access Control

For enhance the security of the wireless network, this AP provide the Wireless address control mechanism to prevent the unauthorized user access. Check "**Enable ACL**" and edit the Access Control list, then only those MAC address in the list are allowed to connect to this AP.

GIGABYTE	GN-A15AG
<ul> <li>Site contents:</li> <li>B State</li> <li>Wrsless SiAs</li> <li>Wrsless Saves</li> <li>Wrsless Saves</li> </ul>	Wian0 ACL Setting I you ensure melassis success control, only intee charts whose wheless MAT addresses are in the access control isolant be able to contect to your Access Port Wien this optimized and no wheless charts will be able to contect in the
<ul> <li>Wireless Didde</li> <li>Wireless Add</li> <li>chail</li> <li>chail</li> <li>Chail</li> <li>CF/F Setting</li> <li>Mareger setting</li> <li>Mareger setting</li> </ul>	Tel Lucleris nue des:
Lycara Frivur SawResona SawResona Sayuu Sarau	Concent ACI Table :

#### Add a MAC Address

Input a MAC address and the comment of the client. Verify the desired setting and then click the "**Apply Changes**" button to set the value into Access Control list.

#### Delete the MAC Address

You can select which MAC address you wish to delete then click "**Delete selected**" button. Or, you can click "**Delete All**" button to delete all the MAC address in the list.

#### TCP/IP Settings

Each setup item of the local area network is the default settings, and is not necessary to make change to it for nomal operation.

GIGABYTE	19Hz/246)	GN-A15AG			
Site contents:  Site contents:  Site contents:  Site contents:  Site contents:  Write::State  Write::State	TCP/IP Setting Tricace scalar and profile provide forfactors and the setting of				
<ul> <li>Arcless Dibe</li> <li>Wraless Abe</li> <li>Wraless Abe</li> <li>CH-F Sulling</li> <li>AF Manager Friting</li> <li>The Manager Friting</li> <li>Stephensure</li> <li>Reserve</li> <li>Reserve</li> <li>Reserve</li> <li>Reserve</li> <li>Reserve</li> </ul>	IP Address : Solme: Mask : Default Galeway ; DHC1' Mode ; IP Range ; DNS 1: DNS 2: DNS 2: Spanning Tree ;	I** 1631 1 2:0285285. JFC1001225 I SUV 2: 2 HE1601.02 * 1215/1225 JCDC 0:00 3:00 D sco sc 2			

## D IP Address & Subnet Mask

The values are the Access Point's IP Address and Subnet Mask. The default values are 192.168.1.1 for the IP Address and 255.255.255.0 for the Subnet Mask. You may need to assign a different Static IP address to each Access Point. But all devices on the network must have the same subnet mask to communicate on the network.

#### 🗁 Gateway

Enter the IP address of the default route. The default gateway is 192.168.1.254

#### DHCP Mode

There are four settings under this option you can choose: "Disabled", "Client Enabled", "Server Enabled" and "Auto". Disabled is the default setting.

If you want to get IP address from the DHCP server automatically on your network, you will select "**Client Enabled**". Or you want to use the Access Point as a DHCP server to automatically assign dynamic IP address on the network, you will select "**Server Enabled**"

#### DHCP Client Range & DNS

If you select the "Server Enabled" setting, please input the IP address range and the DNS for your network. The DNS information provied by your ISP company.

#### ➢ Spanning Tree

Enabled or Disabled the Spanning Tree function. The default setting is Disabled.

Verify the desired setting and then click the "Apply Changes" button to set the value into access point.

#### AP Manager Setting

From this page, you can set the Community Name and AP Name for AP Manager.

GIGABYTE	GN-A15AG
Site contents: Sitsus Wratess blike Wratess blike	AP Manager Setting The page taluador to set the parameters for AP Manager.
Window Son (1)     Window Son (1)     Windows Drible     Windows Alue     Ul (1) Exiting     Single Son     Single Son	Community Name: p.bir (1.16) AP Name: :: ::PISA:: (1.16) (Apply Changes) (::Rosat)
-a .cgour. -cEovi	

Verify the desired setting and then click the "**Apply Changes**" button to set the value into access point.

#### **Statistics**

From this page, you can veiew the packet count for the transmission of the Network.

0	bone/246Ha V	reless Access Point		
Site contents:	Statisitos		-	
<ul> <li>Wratess SIAs</li> <li>Wratess SIAs</li> <li>Wratess States</li> <li>Wratess States</li> </ul>	This page shows the vecket opposite for transmission and receptor regarding to there as sind quietnes, networks			
		Soul inspecte	(14):	
- AF Harager Stilling	ROZ.TTY VITIPLESSILAN	Necesied Paceate	2Mee	
- 📑 Etstel os	007.11a Turha Wireless	Sert Fackels	07	
.pgrade Firmwata	I AR	Shinkon Packess	Λ.	
	Filment F 62	Send Harticle	1987	
- acqour	Concerner Carrier	herened l'achera	1997	

#### Upgrade firmware

This tool allows you to upgrade the latest firmware of the Access Point using a file provided by Gigabyte. You can download the upgraded firmware version from Gigabyte website. Please click "**Browse**" and select your desired upgrade file (firmware version), and then click "**Upload**".

GIGABYTE	Koriz/ 2.46Hz W	GN-A15AG	
<ul> <li>Site contents:</li> <li>Estas</li> <li>Wraless SiAs</li> <li>Wraless SiAs</li> <li>Wraless SiAs</li> <li>Wraless SiAs</li> </ul>	Upgrade Firm this page allows you upgradues do not power of the size	<b>Walle</b> Escond Accessibility, formas or context early of Escond Daning the colored percession respo	s un maxeasea nesia il e
Aranses ALL     Aranses A	Select I ile:	Trure	

#### Save/ Reload Settings

This page allows you to save the current system settings as a file onto your computer. The saved file or any other saved setting file can be reloaded back on the Access Point. You may also restore the Access Point back to the factory settings.

Gite contents: Star # Vielses 27As Vielses 27As Vielse

#### Password

User can choose to set the administration password to prevent other user access to the Web-based configuration utility. Please enter a user name, new password and confirm password then press "**Apply Changes**" button. You have to enter this new password to log in when you want to configure the Access Point by Web-Based configuration utility next time.

**Note:** If you don't want use the protection function, please keep the empty user name and password.

GIGABYTE	GN-A15AG SGHL: 2 4GHL: Mindels & Access Point
She comients: Sita a Vinclass 1 As Vinclass cestos Vinclass cestos Vinclass cestos Vinclass ACL Vinclass ACL CHA (Setta) Vinclass ACL CHA (Setta) CHA (Setta) Vinclass ACL CHA (Setta) Vinclass ACL Vinclass A	Password Setting The page is used to set the secourd to socreate the web extremel Access Form Empty user name and cases-ord to 1 desbisions or cattor. User Hamin: New Password : Confirm Password : Confirm Password : Confirm Password :

## <u>Reboot</u>

Reboot this device for new firmware/setting to take effect. If the TCP/IP setting is changed, you must MANUALLY assign the new correct IP address for the web interface of this device.



#### Logout

As you finished the configuration of the Access Point, please choose "Logout".



# **Chapter5 Troubleshooting**

This chapter gives information about troubleshooting your wireless Access Point. Read the descriptions below to help you diagnose and solve the problem.

- Q: What to do if you forget your password or forget the IP address of the Access Point?
- A: Please press the "init" bottom on the Access Point about 5 sec. The Access Point will be restart and the system setting will restore to the default value.

## Q: Unable to connect to the Internet?

- A: 1. Please confirm whether or not the power cord is connected properly, and the power indicating light of the Access Point is normal.
  - 2. Please confirm whether or not all of the settings described in this manual are set.
  - 3. Please confirm if ADSL or Cable Modem operates properly, and if the ISP network service expires.
  - 4. Please confirm if your network cable is connected properly, and the LED status is normal.

#### Q: Unable to access the Access Point's Web Configuration Interface?

- A: 1. Please check the Ethernet connection between the PC and the Access Point is correctness.
  - 2. Make sure your computer's IP address is on the same subnet as the Access Point.
  - 3. Make sure you are using the correct login information.

# Q: What is the IEEE802.11b standard?

A: It also referred to as 802.11 High Rate or Wi-Fi. It is an extension to 802.11 that applies to wireless LANS and provides 11 Mbps transmission (with a fallback to 5.5, 2 and 1 Mbps) in the 2.4 GHz band. 802.11b uses only DSSS. 802.11b was a 1999 ratification to the original 802.11 standard, allowing wireless functionality comparable to Ethernet.

# Q: What is WEP?

A: Wired Equivalent Privacy. Security mechanism defined within the 802.11 standard designed to make the link integrity of the wireless medium equal to wired cable. Data privacy mechanism based on a 40 bits (128 bit optional) shared key algorithm, as described in the IEEE 802.11 standard.

## Q: What is the IEEE802.11g standard?

A: IEEE 802.11g standard specifies data rates of up to 54 Mbits/s in the 2.45-GHz band. It uses orthogonal frequency division multiplexing (OFDM), mandatory provisions have been made within the standard to make it inherently compatible with the well-established 802.11b standard at 11 Mbits/s, which uses complementary code keying (CCK) modulation. Both .11g and .11b operate at ranges of up to 300 feet.

# **Appendix A: Glossary**

## Access Point

An access point is a wired controller that sends data to the wireless NICs installed in your network computers, and received data back from them. An AP is often connected to the Network computer that has Internet access, or is directly connected to a ADSL or cable modem.

#### ADSL

Asymmetric digital subscriber line (ADSL) is a new modern technology that converts existing twisted-pair telephone lines into access paths for high-speed communications of various sorts.

## Auto-MDI/MDIX

On a network hub or switch, an auto-MDI/MDIX port automatically senses if it needs to act as a MDI or MDIX port. The auto-MDI/MDIX capability eliminates the need for crossover cables.

## Auto-negotiate

To automatically determine the correct settings. The term is often used with communications and networking.

# DHCP

The Dynamic Host Configuration Protocol (DHCP) is an Internet protocol for automating the configuration of computers that use TCP/IP. DHCP can be used to automatically assign IP addresses, to deliver TCP/IP stack configuration parameters such as the subnet mask and default router, and to provide other configuration information such as the addresses for printer, time and news servers.

# DSSS

Also known as "Direct Sequence Spread Spectrum," this is a variety of radio transmission methods that continuously change frequencies or signal patterns. Direct Sequence Spread Spectrum (DSSS), which is used in CDMA, multiplies the data bits by a very fast, pseudo-random bit pattern (PN sequence) that "spreads" the data into a large coded stream that takes the full bandwidth of the channel.

### DNS

The Domain Name System (DNS) is a distributed Internet directory service. DNS is used mostly to translate between domain names and IP addresses, and to control Internet email delivery. Most Internet services rely on DNS to work, and if DNS fails, web sites cannot be located and email delivery stalls.

### **Dynamic IP Address**

An IP address that is automatically assigned to a client station in a TCP/IP network, typically by a DHCP server.

## Firewall

A system designed to prevent unauthorized access to or from a private network. Firewalls can be implemented in both hardware and software, or a combination of both. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet, especially intranets. All messages entering or leaving the intranet pass through the firewall, which examines each message and blocks those that do not meet the specified security criteria.

#### Gateway

A device, usually a router, that connects hosts on a local network to other networks.

#### **IP Address**

Every machine on the Internet has a unique identifying number, called an IP Address. A typical IP address looks like this: 216.27.61.137

# MAC Address

On a local area network (LAN) or other network, the MAC (Media Access Control) address is your computer's unique hardware number. Usually written in the form 01:23:45:67:89: ab

# Ping (Packet Internet Groper)

A utility to determine whether a specific IP address is accessible. It works by sending a packet to the specified address and waiting for a reply. PING is used primarily to trouble-shoot Internet connections.

#### Router

A device that forwards data packets along networks. A router is connected to at least two networks, commonly two LANs or WANs or a LAN and its ISP's network. Routers are located at gateways, the places where two or more networks connect.

## SSID

The SSID is the name represent the router in the wireless network.

### Subnet Mask

A mask used to determine what subnet an IP address belongs to. An IP address has two components, the network address and the host address. Subnetting enables the network administrator to further divide the host part of the address into two or more subnets.

# TCP/IP

TCP/IP (Transmission Control Protocol/Internet Protocol), the suite of communications protocols used to connect hosts on the Internet.

## WAN

Wide Area Network, a communication network that covers a relatively large geographic area, consisting of two or more LANs. Broadband communication over the WAN is often through public networks such as the ADSL or Cable systems, or through leased lines or satellites. In its most basic definition, the Internet could be considered a WAN.

#### WEP

WEP (Wired Equivalent Privacy) is a data privacy mechanism based on a 64/128-bit shared key algorithm, as described in the IEEE 802.11 standard.

# **Appendix B: Specification**

# Physical Interface

The Wireless Access Point includes 1 RJ-45 Ethernet LAN ports, one init hole and one antenna.

ltem	Feature	Description
1.	LAN Port x 1	RJ-45, Auto-sensing for 10/100M Ethernet LAN connection.
2.	Init Bottom	Initial reset
3.	Wireless	1 external dual-band antenna and 2 internal bulit-in printed antenna.

# **System Specification**

System	
Power Adapter	5VDC-2A
LEDs	Power, WLAN1, WLAN2, and LAN
RF- 802.11a	
Frequency Bands	5150 ~ 5850 MHz (subject to local regulations)
Modulation Technology	OFDM
Modulation Techniques	64QAM, 16QAM, QPSK, BPSK
Data Rates	54, 48, 36, 24, 18, 12, 9, 6 Mbps, auto fallback
	Turbo mode: 108, 96, 72, 48, 36, 24, 18, 12 Mbps
Peak Output power	18 dBm @ Nominal Temp Range at antenna connector
Receive Sensitivity	- 66 dBm @ 54 Mbps date rate at nominal temp range
RF- 802.11g	
Frequency Bands	2412 ~ 2484 MHz (subject to local regulations)
Modulation Technology	OFDM and DSSS
Modulation Techniques	64QAM, 16QAM, QPSK, BPSK, CCK, DQPSK, DBPSK
Data Rates	54, 48, 36, 24, 18, 12, 9, 6, 11, 5.5, 2, 1 Mbps, auto fallback
	Turbo mode: 108, 96, 72, 48, 36, 24, 18, 12 Mbps
Peak Output power	19 dBm @ Nominal Temp Range at antenna connector
Receive Sensitivity	-73 dBm @ 54 Mbps date rate at nominal temp range
Safety Regulation a	nd Operating Environment
EMC certification	FCC part 15 (USA)
	CE (Europe)
Temperature Range	Operating: 0 ~ 55 degree C, Storage: -20 ~ 65 degree C
Humidity	10% ~ 90% Non-condensing
Mechanical	
Packaging	Packaging specially used by Gigabyte
Gross Weight	320± 5g
Dimension	178mm x 132mm x 43mm

# **Appendix C: Configuration of the PCs**

To connect to the Access Point, you may need to configure your computer on the same subnet as Access Point. Please follow the instructure to perform the setup under the TCP/ IP network environment. By default Windows 98, Me, 2000 and XP has TCP/IP installed. If you have not installed the TCP/IP communication Protocol, please install it now, and then select your operating system for the setup.

# The Setting under Windows 2000

Step1. Click "Start" in the desktop of the Windows to select "Settings", and then select "Control Panel".



#### Step2. Double-click the "Network and Dial-up Connections" icon.



#### Step3. Double-click the "LAN CONNECTION" and click the "Properties" button.

Connection	
Slatux	Lonnocted
Duration	00.48:38
Speec:	100.0 МБрэ
Aclivity	Seni - Pr - Hecewed
Packets:	1'4   0
Properties 1	Disabe

Step4. The "Local Area Connection Properties" dialog box will appear. Verfiy that the Internet Protocol (TCP/IP) item is checked. And then double-click the "Internet Protocol (TCP/IP)" item.

And the second second second second	50 Seriex PCV CIA Write	le>≮l élit é i cile:
		Sent 2 m
Triprisents merked /	are used by this connect	on:
1 COMPANY AND AN ANY ANY ANY ANY ANY ANY ANY ANY ANY	Freedol	
3 In emet Poloc.	Y CHEMICA	
Ú.		
11 V.a	Laint.al	≥oper.ce
L'escriptor		<ul> <li>Transformation</li> </ul>
Lieschphon Thar anniac um Cunho	J Protoco ylatemet Protoc	
Lieschphon Transmiss um Cunico oran heiwr 4 protoco diverse intercomerc	J Protocu (Internet Protoc of that provides of minute at instantiks	10 EN - 3-36
Lieschptor Transmiss um Cuntu nrei hetwirk protoco diverse imercompect	J Protoco (Internet Protoc of that provides arranged arringtoniks	n rn - 3-34

Step5. Please assign a static IP address and the same subnet as Access Point to the computer (e.g, IP address is 192.168.1.2 and Subnet Mask is 255.255.255.0), and then click the "OK" button to return to Local Area Connection Properties. Click the "OK" button again to complete the PC configuration.

"o, can got Factinge assigne he oppblit, Dihonviso, you ∩ he approvials IF sevir qu	ed assonationly figtur nativels supports road to ask your notwark naministator to
O gbtain on IP address auto Disc the following IP address auto	onctically
I address:	100.1.2
Eubnol mas «	255 255,255, 2
Zetauli gateway	4 4
C Otran Diff terrer addie	warmairab
• Use the following DNS vs	aver aud esses.
Bicforred DNAS sorver	<u>6 31</u>

# The Settings under Windows 95/98/Me

Step1. Click "Start" at the desktop of the Windows and select "Settings", and then select the "Control Panel".



Step2. Double-click the "Network" icon.

2 Control Panel							2.8J
I have the second of the second of the	ll <del>a</del> r						10
AN CHARTER T	X R	215	isty 🚿 Iona Date	Till Antornal W	III -		
Petren Liel Cort o Plan							2
🚮 Control Panel	autoria Marian	Allia Allia	All Report	Jac <sup>or</sup> II.	🔛 E Alg	744 F_165	Sare Sare
Katonick ou fours network sees in and software,	e lawin u	internet C.C.A.S.	ra, sout	and the second s	Ş	<b>649.</b>	単語 (MDR/23)
Riccollect. Icency secon	OC SE Diva Le nive (C. Ne	Frimade Faint adv	Ra Ramit	Enter P	S Poku Ni M	in the second se	System
	in North	<b>1</b> 100					
	Cor Querras	e were	an a bhais		<u>19</u> 7	b Cum do	

Step3. On the Configuration tab, please choose your appropriate setting "TCP/IP-> your network LAN card" and click "Properties" button.

stwork		
Curriquedur  Idonitionline	ADDDR Contre	4]
The following gerwork an	vpenents are inst	elleri
■Dial-Up Adapter ■D Bealick BTI 8139 Fo 電 TCP/IP > Ductooth 資 TCP/IP > Dial-Up Au	mily PC, Ens: Ethe AN Anness Serv Japter	anot NIC. er Driver
TILF/IF > Reales H	1128135 Family HU	i Fast Etherne, NL 🔫
Add	Remove	Perpetition
Pilmary Network Locon		
Minneoft Family Logon		2
Ele and Print Sharing	4 ()	
Eleveription TCP/IF is to protocolly wide-erest networks	iou as to conner	s in the internet and
		UK Lancel

Step4. Select the "**IP Address**" tab. Please assign a static IP address and the same subnet as Access Point to the computer (e.g, IP address is 192.168.1.2 and Subnet Mask is 255.255.255.0), and then click the "**OK**" button.

service renopanties	_		1222		110
Bindings	ALM	anced		14.	BIUS
DNS Configuration	Galenay	WINS D.	nligera	licri	IP Acdress
An IP addiess can If your notwork doo your network a hier if e space Letow,	be automati e not autom ést al m fru 7	icelly askiq iatoaly as in a litiess	nectol sigr IF . aril M	nis o adore Hu ly	omputer. 1990: ask 1991 in
C Optain on P :	address aut	oraticaly			
Specily on IP	accress				
IP/Acchecs	192	.160.	1.2	2	
Subre Mask	255	.25523	bha d	εĨ	
1999	4.4				:
		1	OK.		Carnet

Step5. Click the "**OK**" button again. Windows will ask you to restart your PC. Please click the "**Yes**" button. If Windows does not ask you to restart, please restart your computer anyway.

System 9	Settings Change 🛛 🕅
٢	You must restart your computer balons tha new settings will take effect. Lic you want to restart your computer now?

**Note:** The Windows may ask you for the original Windows installation disk or additional files. Please insert your Windows CD-ROM into your CD-ROM drive and check the correct location, e.g., D:\win98, D:\win9x, etc. (If "D" is your CD-ROM drive).

# The Settings under Windows XP

Step1. Click "Start" in the desktop of the Windows to select "Settings", and then select "Control Panel".



Step2. Double-click the "Network and Dial-up Connections" icon.



Step3. Double-click the "LAN CONNECTION" and click the "Properties" button.

Connection	
Status:	Connected
o uracure Com l	100.35:30
otvity Sent —	- 😼 - Received
Packets: 1	04 0

Step4. The "Local Area Connection Properties" dialog box will appear. Verfiy that the Internet Protocol (TCP/IP) item is checked. And then double-click the "Internet Protocol (TCP/IP)" item.

ionrectiusing:		
🖷 Boatel: B713	U 39 Earaily ECI East Filte	ant M.T
		Configure
This og middion acco	e the following items	
🔲 📇 Qoʻʻ Packe	: Scheduler	
	NO PIOLOCOLITE EL SUZO	() × .464
Managan	AAADAA AAAAAAAAAAA	*
¢		3
e   I_scall		Coperties
C Locall Description		Pjoperties
C Losall Description Transmission Cont wide area network across diverse ma	tol Pictopo Anicros. Pro	Coperties
Losall Description Transmission Cont wide area network across diverse ma	tol Pictoco Anicroc. Pro	Properties

Step5. Please assign a static IP address and the same subnet as Access Point to the computer (e.g, IP address is 192.168.1.2 and Subnet Mask is 255.255.255.0), and then click the "OK" button to return to Local Area Connection Properties. Click the "OK" button again to complete the PC configuration.

eneral	
ru, dan get Fisellingviassign his cepeblit, Diberwise, you he approvide IF settings	ed ano natoain ( non-natoork sopports read to ask you network arminikaaronin:
Olitain or IF address out	mainaly
💿 las the following IP of an	087
Haddress.	192 168 I I I d
zubnet i iav«.	205 255 . 295
Default gateway	19 H
O D Jain DNS I sinninadas	se automatesty
(i) Iso the following DES set	nuni adtimesee
_terened DNS server	10 G2
Atomate DNL (erver:	24
	Advarced.
	10 CAN 2011 CO.

# Limited Warranty

# 1-Year Warranty

Gigabyte warrants to the original consumer/purchaser that the product free from defects in material and workmanship for no limited time from the original manufactory shipment date. This warranty does not cover the product if it is damaged in the process of being installed or improperly used.

Gigabyte may replace or repair the product with either new or reconditioned parts. Repaired or replaced products will be returned to you at the same revision level as received or higher at Gigabyte's option. Gigabyte reverses the right to replace discounted products with an equivalent generation product.

Customer:	
Phone No:	
Address:	
Email:	
Model:	
Serial:	
Date of Purchase:	
Place of Purchase:	
From Whom:	
Distributor:	

# KEEP THIS STUB FOR YOUR PURCHASING RECORD

# **Customer Satisfaction**

# GIGA-BYTE TECHNOLOGY CO., LTD.

No.6, Bau Chiang Road, Hsin-Tien, Taipei Hsien, Taiwan, R.O.C. Tel: 886-2-89124888 Fax:886-2-89124007 http://www.gigabyte.com.tw

# **Technical Support**

E-mail: networksupport@gigabyte.com.tw

www.gigabyte.com.tw