

User Manual Ver 1.1

WLO-2401AG



#### **Federal Communication 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 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.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

### **IMPORTANT NOTE:**

#### FCC Radiation Exposure Statement:

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

# **Table of Contents**

Table of Contents 4
Package Contents
Hardware Setup
Ethernet & RS-232 Console Connector:7
PSE BOX : for Power Over Ethernet (POE)
Minimum System Requirements
Introduction
Features and Benefits
Specification15
Four Operational Modes 17
AP Mode17
Repeater Mode
Point to Point Mode19
Point to Multi Point Mode
Using the Configuration Menu
Device IP Setting $\rightarrow$ Ethernet
Set Spanning Tree Protocol27
AP Setting> Wireless0 or Wireless1
Encryption
Set Encryption to Open System 48
Set Encryption to Shared Key 49
Set Encryption to WPA-PSK
Set Encryption to WPA-Enterprise(802.1x)

Point to Point Mode Setting $\rightarrow$ Wireless0 or Wireless1	59
Point to Multi Point Mode Setting $\rightarrow$ Wireless0 or Wireless1	60
Repeater Mode Setting $\rightarrow$ Wireless0 or Wireless1	663
Dual Radio Setting For Simultaneous Operation	
AP and Bridge	63
AP and AP	63
Bridge and Bridge	63
DHCP Server Setting $\rightarrow$ DHCP	64
WAN Setting $\rightarrow$ WAN	71
Firewall Setting $\rightarrow$ Firewall	
Virtual Server setting $\rightarrow$ Virtual Server	
Static Router→Static Router Configuration	81
Admin→Admin Configuration	87
Profiles	91
Status $\rightarrow$ Network Status	
Connection Status	
Save & Check System $\rightarrow$ Save & Check	94
Reboot System $\rightarrow$ Reboot	95
Firmware upgrade $\rightarrow$ Upgrade	
Trouble Shooting	97
Technical Specifications	101

# **Package Contents**

The standard package of the system includes:

- Wireless-ABG Outdoor AP/Bridge x 1
- PSE BOX x 1
- Arrester x 2
- RF Cable x 2
- Ethernet cable x 2
- Console cable x 1
- AC Power cable x1
- Accessories package x1
- CD-ROM x 1

Note: Using a power supply with a different voltage than the one included with the Outdoor Bridge will cause damage and void the warranty for this product.

# Hardware Setup

Ethernet & RS-232 Console Connector:



Console Port --- It is used for initial setup and configuration of the device

LAN Port --- It is used for connecting the enclosed PSE for Power Over Ethernet

WAN Port --- It used for connecting to ADSL for ISP

### **PSE BOX : for Power Over Ethernet (POE)**



Link Active LED

## **Minimum System Requirements**

Computers with Windows, Macintosh, or Linux-based operating systems with an installed Ethernet Adapter

Internet Explorer version 6.0 or Netscape Navigator version 7.0 and above

## Introduction

The Outdoor Bridge covers a large operating distance, providing an 802.11a/b/g outdoor WLAN which enables users to access the Internet or an organization's network.

At up to five times the speed of previous wireless devices, you can work faster and more efficiently, increasing productivity. With the Outdoor Bridge, bandwidth-intensive applications like graphics or multimedia will benefit significantly because large files are able to move across the network quickly.

The Outdoor Bridge features a die-cast watertight housing and a built-in lightning protector to protect the access point from harsh environmental conditions, including extreme variance in temperature. It also includes Power over Ethernet (POE) and a unique outdoor remote-mounted design for easy installation. With two mounting kits, you have the option of either pole or wall mounting.

The Outdoor Bridge is suitable for manufacturing plants, industrial sites, military bases, universities, hotels, airports and golf courses.

The Outdoor Bridge has Dual Radio functionality for simultaneous AP and Bridge operations for backhaul applications.

Configurable in four different modes (access point, bridge, multi-point bridge, and wireless client), the Outdoor Bridge offers 128-bit encryption, WPA and 802.1X authentication when used with a RADIUS server, MAC address access control, and additional security features. Wireless Outdoor AP/Bridge are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home, business or public access wireless networks. Wireless Outdoor AP/Bridge wireless products will allow you to access the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking brings. A Wireless Local Area Network (WLAN) is a computer network that transmits and receives data with radio signals instead of wires. WLANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops and universities. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial for many users. Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards. People use WLAN technology for many different purposes:

**Mobility** - Productivity increases when people have access to data in any location within the operating range of the WLAN. Management decisions based on real-time information can significantly improve worker efficiency.

**Low Implementation Costs** - WLANs are easy to set up, manage, change and relocate. Networks that frequently change can benefit from WLANs ease of implementation. WLANs can operate in locations where installation of wiring may be impractical.

**Installation and Network Expansion** - Installing a WLAN system can be fast and easy and can eliminate the need to pull cable through walls and ceilings. Wireless technology allows the network to go where wires cannot go - even outside the home or office.

Inexpensive Solution - Wireless network devices are as competitively priced as conventional

Ethernet network devices. We can save money by providing multi-functionality, configurable in one of three different modes.

**Scalability** - WLANs can be configured in a variety of ways to meet the needs of specific applications and installations. Configurations are easily changed and range from Peer-to-Peer networks suitable for a small number of users to larger Infrastructure networks to accommodate hundreds or thousands of users, depending on the number of wireless devices deployed.

The Wireless Outdoor AP/Bridge Wireless Access Point utilizes the 802.11a, 802.11b and the 802.11g standards. The IEEE 802.11g standard is an extension of the 802.11b standard. It increases the maximum wireless signal rate of up to 54Mbps within the 2.4GHz band, utilizing OFDM technology. This means that in most environments, within the specified range of this device, you will be able to transfer large files quickly or even watch a movie in MPEG format over your network without noticeable delays. This technology works by transmitting high-speed digital data over a radio wave utilizing OFDM (Orthogonal Frequency Division Multiplexing) technology. OFDM works by splitting the radio signal into multiple smaller sub-signals that are then transmitted simultaneously at different frequencies to the receiver. OFDM reduces the amount of crosstalk (interference) in signal transmissions. The Wireless Outdoor AP/Bridge will automatically sense the best possible connection speed to ensure the greatest speed and range possible. The Wireless Outdoor AP/Bridge offers the most advanced network security features available today, including WPA and WPA2. In addition to its compatibility with 802.11g and 802.11a devices, the Wireless Outdoor AP/Bridge is compatible with 802.11b devices. This means that if you have an existing 802.11b network, or a network with a mixture of 802.11g, 802.11a and 802.11b, the devices in that network will be compatible with the Wireless Outdoor AP/Bridge.

**WPA-EAP** is ideal for businesses that have existing security infrastructures in place. Management and security implementation can now be centralized on a server participating on

11

the network. Utilizing 802.1x with a RADIUS (Remote Authentication Dial-in User Service) server, a network adminstrator can define a list of authorized users who can access the wireless LAN. When attempting to access a wireless LAN with either **WPA-EAP** configured, the new client will be challenged with a username and password. If the new client is authorized by the administration, and enters the correct username and password, then access is granted. In a scenario where an employee leaves the company, the network administrator can remove the employee from the authorized list and not have to worry about the network being compromised by a former employee.

**802.1x:** Authentication which is a first line of defense against intrusion. In the authentication process, the Authentication Server verifies the identity of the client attempting to connect to the network. Unfamiliar clients would be denied access.

**EAP (Extensible Authentication Protocol)** is available through the Windows XP Operating System. You will need to use the same type of EAP protocol on all the devices in your network when using the 802.1x feature.

### **Features and Benefits**

Features the benefit of **Robust Outdoor Housing -** Designed for harsh outdoor environments, with die-cast, watertight housing, built-in heater and temperature sensor

High Performance **Dual Radio usage** for simultaneous operations of AP and Bridge for backhaul applications. The dual radio can be configures for AP and Bridge ; AP and AP ; Bridge and Bridge for various applications

Features the benefits of **repeating up to 10 MAC ID** for each radio, therefore ability to repeat up to **20 MAC ID** with dual radio functionality for great coverage and benefits

**4 Different Operation modes with WDS (Wireless Distribution System)** – Capable of operating in one of four different operation modes to meet your wireless networking requirements: access point (AP), Point-to-Point (PtP) bridge,Point-to-multipoint (PtMP) bridge, Repeater.

Embedded DHCP Server automatically assigns IP addresses to wireless clients.

**Connect networks in different buildings** when used in conjunction with high-gain outdoor antennas.

**Easy Installation with PoE.** 

**Compatible with IEEE802.11g standards** to provide a wireless data rate of up to 54Mbps.\*

**Backward compatible with the 802.11b standard** to provide a wireless data rate of up to 11Mbps with 802.11b devices - that means you can migrate your system to the 802.11g standard on your own schedule without sacrificing connectivity.

**Better security with WPA and 802.1X-** The Outdoor Bridge can securely connect to wireless clients on the network using WPA (Wi-Fi Protected Access) providing a much higher level of security for your data and communications than has previously been available. In conjunction with a RADIUS server, 802.1X authentication verifies the identity of would-be clients.

### Communicate between IEEE802.11b and IEEE802.11g bands - Optional

configuration allows communication between bands.

Two mounting kits - Gives you the flexibility of either wall or pole outdoor mounting.

# Specification

### Wireless Feature

- 7 Operation Modes : Wireless WAN ,Access Point, Repeater(WDS) ,Bridge, Client Bridge,Point-To-Point, Point-To-Multi-Point
- 802.11a and 802.11g wireless LANs can be used simultaneously
- High Speed data rate up to 54Mbps/108Mbps in "Turbo " mode in 11g and 11a
- Hide SSID Boradcast (Site Survey Prevention)
- Denial Wireless 802.11abg "ANY" Station
- Handover users to other AP
- Multi country Roaming (802.11d)

### **Bridging Feature**

- 3 Way bridging for 802.3 and 802.a/g
- Scalable WDS (Wireless Distribution System) up to 10 Link
- Spanning Tree Back Up

### Wireless Security Feature

### Authentication

- 802.11i compliant WPA/PSK, WPA/Enterprise(802.1x)
- 802.1x supported Port Based network access(EAP-MD5/TLS) with Radius client (user authentication and accounting)
- EAP-PEAP and EAP-TLS , EAP-TTLS support
- 64/128- bit WEP encryption
- Protocol Filter
- MAC Access Control List
- PPPoE Authentication PAP/CHAP

### Encryption

- AES-CCMP encryption (WPA2)
- TKIP encryption enhancements : key hashing(per packet keying), message integrity check(MIC) and broadcast key rotation via WPA TKIP
- Support for static and dynamic IEEE802.11 WEP keys of 64/128 bits
- VPN-Pass Through
- Zone Privacy for client to client blocking (User Isolation)
- Blocks client to client discovery within a specified VLAN for public Hotspots

### Management

- Change IP setting
- Change Password setting
- Firmware update

- Load Default setting
- Remote Link Test a) Display WAN information b) Display Connect statics
- SNMP Traps to a list of IP number
- Adminstrative Access : Web browser (HTTP)
- Support SNMP v2c & v3
- Support MIB II
- Support HTTP/WEB
- Support TFTP

### **Monitoring and Diagonstics**

- Remote Link Test
- Display WAN information
- Display Connect statistics
- SNMP Traps to a list of IP number

### Protocol

- IPV4
- NetBIOS
- DHCP Client/Server
- IPX
- UDP
- ICMP
- RIP1 , RIP 2
- PPPoE (Cleint)
- NAT/NAPT
- Built-in NAT firewall
- Virtual Server(NAT inbound server)
- Static Routing
- Internet Connection Detection

# **Four Operational Modes**

### **AP Mode**

AP Mode



## **Repeater Mode**

## Repeater Mode



Repeater2

Wireless Client

### **Point to Point Mode**

### Point to Point (P2P : Wireless Bridge) Mode



### **Point to Multi Point Mode**

### PMP (Wireless Bridge) Mode



## **Using the Configuration Menu**

To configure the Outdoor Bridge, use a computer which is connected to the Outdoor Bridge with an Ethernet cable (see the Network Layout diagram).

First, disable the **Access the Internet using a proxy server** function. To disable this function, go to **Control Panel > Internet Options > Connections > LAN Settings** and uncheck the enable box.

Start your web browser program (Internet Explorer, Netscape Navigator). Type the IP address and http port of the Outdoor Bridge in the address field (http://192.168.2.254) and press **Enter**. Make sure that the IP addresses of the Outdoor Bridge and your computer are in the same subnet.



After the connection is established, you will see the user identification window as shown. Note: If you have changed the default IP address assigned to the Outdoor Bridge, make sure to enter the correct IP address.

🗿 Basic Setup -	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(V) 我的最愛( <u>A</u> ) 工具(I	) 說明(出)	
④上一頁 ・	🕞 - 💽 🛃 🔎 搜	章 🧙 我的最爱 🧭 🔗 - 🌺 🔺 📙 🔛 🎎 🥸	
網址①) 🗃 http://	192.168.2.254/		▼ → 移至 連結 >
Google -	✓ C 搜尋	・ 🥩 🍄 22 己欄載 🛛 🖤 検査 🔹 🛃 選項 🤌	•
			Advanced
	Welcome	Ethernet Wireless DHCP WAN Profiles Status Sa	ve & Check Reboot
		:: Wireless 0 :: :: :: Wireless 1 ::	
		Welcome	
ど 完成			

If you want to change setting, you will see the user identification window as shown.

Connect to 19	2.168.2.254	? 🛛
R		GR
cgi-bin User name: Password:		
	Remember my	password

Type admin in the User Name field

Type default the Password field blank

Click OK

Note: If you have changed the password, make sure to enter the correct password.

### Device IP Setting $\rightarrow$ Ethernet

LAN is short for Local Area Network. This is considered your internal network. These are the IP settings of the LAN interface for the Outdoor Bridge. These settings may be referred to as private settings. You may change the LAN IP address if needed.

#### **IP address:**

The default IP address is 192.168.2.254. Assign a static IP address that is within the IP address range of your network.

🗿 Basic Setup - I	Microsoft Internet Explorer					
檔案 (注) 線輯 (注) 核親 (注) 我的最爱 (法) 工具 (1) 說明 (注)						
(3) 上一頁 ・	🕑 · 🖹 🗟 🏠 🔎 拱	導 ☆ 翔的最爱 🥝 🔗 🍓 🔺 🛄 🔛 🍇 🦓				
網址① 🙋 http://1	網址 🕐 🗃 http://192.168.2.254/Ethernet_border.html 🔍 🏲 移至					
Google -	✓ C 搜尋	*   🛷 🕾 22 已攔載   🍄 検査 🔹 🚾 選項 🥒	1	•		
				~		
		Advanced				
	Ethernet	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot				
		a Wireless 0 a a Wireless 1 a				
		Ethernet Configuration				
		Use this page to set up the local IP address and subnet mask for your router.				
		IP Address : 192 188 2 254				
		IP Netmask : 255 255 0				
		IP Gateway :				
		STP Configuration				
		Enable Spanning Tee Protocol :				
		MAC Table Ageing Time : (seconds)				
		Hello Time : (seconds)				
		Forward Delay: (<=300 seconds)				
		Firewall settings				
		: Apply : Cancel				
				$\sim$		
🥑 完成			網際網路			

### IP Netmask:

Enter the subnet mask. All devices in the network must share the same subnet mask..

🗿 Basic Setup - 1	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(♥) 我的最愛(▲) 工具(1	D 説明(王)	<b></b>
③上一頁 ▼	🕞 - 🖹 🗟 🏠 🔎 携	專 🗙 我的最爱 🥝 🔗 🍓 🛛 - 📙 🔝 🎇 🥸	
網址(D) 🕘 http://	192.168.2.254/Ethernet_border.html	· · · · · · · · · · · · · · · · · · ·	▶ 移至 連結 ≫
Google -	✓ C 搜尋	🔹 🤝 🕾 22 已編載 👋 検査 🔹 🛃 選項 🥒	<b>1</b>
			^
		Advanced	
	Ethernet	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
	Ethernet	:: Wireless 0 :: :: :: :: :: :: :: :: :: :: :: :: :	
		Ethernet Configuration	
		Use this page to set up the local IP address and subnet mask for your router.	
		IP Address 192 168 2 254	
		IP Netmask: 255 256 5	
		IP Gateway:	
		STP Configuration	
		Enable Spanning Tee Protocol:	
		MAC Table Ageing Time : (seconds)	
		Hello Time : (seconds)	
		Forward Delay: (<=300 seconds)	
		Firewall settings	
		: Apply : Cancel	
🙆 完成			際網路

### **IP Gateway:**

Enter the IP address of the gateway in your network.

🗿 Basic Setup - Microsoft Internet Explorer 📃 🖻 🔀					
檔案(E) 編輯(E)	) 檢視(♥) 我的最愛(▲) 工具(1	[] 說明(出)	<b>**</b>		
(3 上一頁 ・	🕤 · 🖹 🛃 🏠 🔎 捜	瑋 🧙 我的最爱 🥝 🔗 🍓 🔲 📃 🔝 🎇 🦓			
網址(D) 🙋 http://	192.168.2.254/Ethernet_border.html	🗸 🄁 移至	· 連結 »		
Google -	✓ C 搜尋	- 🧭 🕾 22 己爛載 峰 検査 - 🔁 選項 🥒	• 1		
			~		
		Advanced			
		Ethernet Wireless DHCD WAN Profiles Status Save & Check Peboot			
	Ethernet				
		Ethernet Configuration			
		Use this page to set up the local IP address and subnet mask for your router.			
		IP Address : 192 168 2 254			
		IP Netmask: 255 255 0			
		IP Gateway :			
		STP Configuration			
		Enable Spanning Tee			
		Protocol :			
		MAC Table Ageing Time : (seconds)			
		Hello Time : (seconds)			
		Forward Delay : (<=300 seconds)			
		Firewall settings			
		: Apply : Cancel			
		< · · · · · · · · · · · · · · · · · · ·			
	-		X		
🥘 完成		(2) 網際網路			

(Note: If you change any item, click "submit" to store the value. Or click "clear" to restore previous value. To make settings working click **Submit-> Reboot-> Reboot.**)

#### **Enable Spanning Tree Protocol:**

You can enable/disable the 802.1d STP (Spanning Tree Protocol) function on the bridge of WLAN and Ethernet (i.e. the LAN interface). Enable this function can detect loops in your LAN environment and then protect the LAN from being saturated with infinite loop traffic.

🗿 Basic Setup -	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(A) 工具(	D 説明(H)	<u></u>
€上一頁 -	🕞 - 💌 🗟 🏠 🔎 搜	碑 🌟 我的最爱 🥝 🔗 - 🌺 🔺 🛄 🔛 👯 🦓	
網址(D) 🙋 http://	/192.168.2.254/Ethernet_border.html		✓ → 移至 連結 ※
Google -	✓ C 搜尋	🔹 🔊 😰 22 己欄載 🛛 🌱 檢査 👻 🧏 選項 🥒	1
			~
		Advanced	
	-4	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
	Ethernet	o Wheless 0 o o Wheless 1 o	
		Ethernet Configuration	
		Use this page to set up the local IP address and subnet mask for your router.	
		IP Address : 192 168 2 254	
		IP Netmask: 255 255 0	
		IP Gateway:	
		STP Configuration	
		Enable Spanning Tee Protocol:	
		MAC Table Ageing Time : (seconds)	
		Hello Time : (seconds)	
		Forward Delay : (<=300 seconds)	
		Firewall settings	
		: Apply : Cancel	
		× ک	
ど 完成			同際網路

### MAC Table Ageing Time:

Determines the amount of time the root bridge stores protocol information received on an interface.

🚰 Basic Setup	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(♥) 我的最愛(▲) 工具(1	〕 説明(出)	
	🕤 - 💌 🗟 🏠 🔎 捜	專 👷 我的最爱 🥝 🔗 🍓 🖬 🕘 🛄 🏭 🆓	
網址① 🍯 http://	192.168.2.254/Ethernet_border.html	▶ → 移至	連結 »
Google -	✓ C 搜尋	-   🍻 👺 22 己鵬載   🌱 検査 - 🚾 選項 🥒	•
			^
		Advanced	
	Ethernet	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		a Wineless 0 a a Wineless 1 a	
		Ethernet Configuration	
		Use this page to set up the local IP address and subnet mask for your router.	
		IP Address : 192 188 2 254	
		IP Netmask: 255 ,255 ,0	
		IP Gateway :,,	
		STP Configuration	
		Enable Spanning Tee Protocol :	
		MAC Table Ageing Time : (seconds)	
		Hello Time : (seconds)	
		Forward Delay: (<=300 seconds)	
		Firewall settings	
		: Apply : Cancel	
			Y
🙆 完成			

### Hello Time:

Determines how often the root bridge broadcasts hello messages to other bridge.

🗿 Basic Setup - 1	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(▲) 工具(工	) 説明(出)	<b></b>
(3 上一頁 -	🕗 - 🖹 🗟 🏠 🔎 搜	幸 📩 我的最爱 🥝 🎯 - 🌺 🔺 🛄 🔝 🆓	
網址(D) 🙆 http://	192.168.2.254/Ethernet_border.html	· · · · · · · · · · · · · · · · · · ·	▶ 移至 連結 ≫
Google -	✓ C 搜尋	🗸 🍻 🎦 22 已編載 🛛 💖 檢査 👻 🛃 選項 🎤	n 🔁 🔹
			~
		Advanced	
	Ethernet	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		:: Wineless 0 :: :: Wineless 1 ::	
		Ethernet Configuration	
		Use this page to set up the local IP address and subnet mask for your router.	
		IP Address : 192	
		IP Netmask: 266	
		IP Gateway :	
		STP Configuration	
		Enable Spanning Tee Protocol :	
		MAC Table Ageing Time : (seconds)	
		Hello Time : (seconds)	
		Forward Delay : (<=300 seconds)	
		Firewall settings	
		: Apply : Cancel	
			×
🙆 完成			際網路

### Forward Delay:

Determines how long each of the listening and learning states last before the interface begins forwarding.(Maxmum:300 seconds)

🎒 Basic Setup - Mi	icrosoft Internet Explorer			
檔案(E) 編輯(E)	檢視(型) 我的最愛(▲) 工具(1	) 説明(1)		<b>.</b>
③ 上一頁 • €	) 🔹 🗟 🏠 🔎 搜	專 🧙 我的最爱 🥝 🔗 🍓 🔺 📙 🚺 🎎 🧏		
網址(1) 🙋 http://192	2.168.2.254/Ethernet_border.html		🗙 🄁 移至	連結 »
Google -	✓ C 搜尋	▼   🚿 🕾 22 已攔載   🌱 檢查 👻 🛃 選項 🥒		•
				~
		Advanc	ced	
	Ethernet	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reb	oot	
		:: Wheless 0 :: :: :: :: :: :: :: :: :: :: :: :: :		
		Ethernet Configuration		
		Use this page to set up the local IP address and subnet mask for your router.		
		IP Address : 192		
		IP Netmask: 255 255 5		
		IP Gateway:		
		STP Configuration		
		Enable Spanning Tee Protocol :		
		MAC Table Ageing Time : (seconds)		
		Hello Time . (seconds)		
		Forward Delay : (<=300 seconds)		
		Firewall settings		
		Annix Cancel		
		<x< th=""><th></th><th></th></x<>		
-				~
			一 網際網路	

### AP Setting --> Wireless0 or Wireless1

### Wireless Mode:

Bridge/AP Bridge/WDS Routing/AP Routing/WDS or Disable Wireless. Select Bridge/AP if you want to set wireless in AP mode.

🚰 Basic Setup - Microsoft Internet Explorer						
檔案(E) 編輯(E) 檢視(型) 我的最愛(A) □	L具(I) 説明(H)			100 A		
③ 上-頁 ▼ ③ ▼ ▲ 2 分 2 提尋 ☆ 裁約最要 ↔						
網址 ① @ http://192.168.2.254/WirelessO_border.html 🔹 🄁 移至 連						
Google C 捜	譚 🝷 🚿 👰 22 已攔截 🛛 🌱 枝	🕸 🝷 🛃 選項 🌛		🔁 •		
				Advanced		
	Ethernet Mireless	DHCP WAN Profiles St	atus Save & Check	Rehoot		
Wireless	: Wireless 0 ::	:: Wireless 1 ::		Reboot		
	Wireless0 Configura	tion	<u>^</u>			
	MAC address : 00:0b:6b:4e	9 <mark>8-17</mark>				
		Wireless0 Mode : Bridge/AP 🗸				
		Encryption Mode : Disabled 💌				
	Enable WMM(Wi-Fi Mu	timedia) extensions : 「				
	General					
	ESSID :	default				
	Hidden SSID :	у 💌				
	Client Isolation :	у 💙				
	Band Mode :	802.11g 😒				
	Enable Pure G :					
	Enable Super AG :					
	Transmit Rate Control :	Auto 🗸				
	Country :	US 🗸	~			
	<	ill in the second se	>			
<b>A</b> 1				▲ 細図細胞		

### **Encryption Mode:**

Disable/WEP/WPA-PSK/WPA-Enterpris if you want to set security in your network

🗿 Basic Setup - Microsoft Internet Explorer						PX
檔案(F) 編輯(E) 檢視(Y) 我的最愛(A) 工具(	<u>I)</u> 說明( <u>H</u> )					
③上─頁 • ③ · 区 ② ☆ 20 括	韓 📩 我的最爱 🚱 🙆	3• 🎍 🗈 - 🗖	🗄 🛍 🔏			
網址(D) 🍘 http://192.168.2.254/Wireless0_border.html					🚩 🋃 移至	連結 »
Google - C 搜尋	• 🚿 🕾 22 已攔截 👋 🧍	檢查 🔸 🔁 選項 🌛				•
						~
					Advanced	
Wireless	Ethernet Wireless	DHCP WAN	Profiles Status	Save & Check	Reboot	
Wileless	:: Wineless 0 ::	:: Wireless 1 ::				
	Wireless0 Configura	tion		~		
	MAC address : 00:0b:6b:4	e:98:f2				
		Wireless0 Mode :	Bridge/AP 😽			
		Encryption Mode :	Disabled 🗸 🗸			
	Enable WMM(Wi-Fi Mu	ltimedia) extensions :				
	General					
	ESSID :	default				
	Hidden SSID :	у 🕶				
	Client Isolation :	y 🕶				
	Band Mode :	802.11g 💙				
	Enable Pure G :					
	Enable Super AG :					
	Transmit Rate Control :	Auto 🗸				
	Country :	US 🗸		~		
	<			>		
						~
<u>é</u>					一 網際網路	

### Enable WMM(Wi-Fi Multimedia)extension

WMM provides advanced quality of service (QoS) features for Wi-Fi networks to improve the end-user experience by prioritizing audio, video and voice traffic and optimizing the way shared network resources are allocated among competing applications.

🕘 Basic Setup - I	Microsoft Internet Explorer							_	
檔案(E) 編輯(E)	檢視(型) 我的最愛(▲) 工具(1	[) 説明(出)							<b>.</b>
	🕑 - 💽 🛃 🌈 捜	尋 🥎 我的最爱 🥝 🖉	3- 🎍 🔺 🚺	🕽 🗄 🛍	-28				
網址① 🕘 http://1	192.168.2.254/Wireless0_border.html						~	👌 移至	連結 »
Google -	✓ C 搜尋	- 🚿 🕾 22 已攔截 👋 🤻	臉查 🔹 🛃 選項 🌛						•
									~
							Advanced		
	Wireless	Ethernet Wireless	DHCP WAN	Profiles	Status	Save & Check	Reboot		
		:: Wireless 0 ::	:: Wireless 1 ::						
		Wireless0 Configura	tion						
		MAC address : 00:0b:6b:4	e:98:f2						
		-	Wireless0 Mode :	Bridge/AP	~				
			Encryption Mode :	Displied	~				
		Enable WMM(Wi-Fi Mu	ltimedia) extensions :	Γ					
		General				=			
		ESSID :	default						
		Hidden SSID :	y 🛰						
		Client Isolation :	y 🗸						
		Band Mode :	802.11g 🗸						
		Enable Pure G :							
		Enable Super AG :							
		Transmit Rate Control :	Auto 🗸						
		Country :	US 🗸			~			
		<	III			>			
									Y
<b>E</b>							1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	際網路	

### **ESSID:**

Service Set Identifier (SSID) is the name designated for a specific wireless local area network (WLAN). The SSID's factory default setting is **DDA**. The SSID can be easily changed to connect to an existing wireless network or to establish a new wireless network.

🗿 Basic Setup - I	Microsoft Internet Explorer	m. Bead an			
「備菜만」 減翔也) ○ トー百 ▼	) (奴視(Y) 戎的转变(A) 工具(	1) 説明(1) 11 説明(1)			
Google -	192.108.2.254/wirelessi_border.html	- 1 1 22 已 相裁 ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲	*************************************	±#4	
- 0				>	
			Advanced		
	Wireless	Ethernet Wireless	DHCP WAN Profiles Status Save & Check Reboot		
		:: Wireless 0 ::	0 Wheless 1 0		
	Wireless0 Configuration				
		MAC address : 00:0b:6b:4e:98:f2			
			Wireless0 Mode : Bridge/AP		
			Encryption Mode : Disabled		
		Enable WMM(Wi-Fi Mul	timedia) extensions :		
		General			
		ESSID :	default		
		Hidden SSID :	y 🗸		
		Client Isolation :	y v		
		Band Mode :	802.11g 🗸		
		Enable Pure G :			
		Enable Super AG :			
		Transmit Rate Control :	Auto 🗸		
		Country :	US 🗸		
		<			
-				×	
e					

### Hidden SSID:

Enable or Disable SSID broadcast. Pull down select "y" Disable SSID broadcast or "**n**" Enable SSID broadcast. Disable this feature broadcasts the SSID across the network.

🗿 Basic Setup - 1	Microsoft Internet Explorer		_ 7 🛛
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(A) 工具(	) 說明(出)	<b>.</b>
	🕑 - 🖹 🗟 🏠 🔎 搜	章 📩 我的最爱 🥝 🔗 - 🌺 🔺 🛄 🔝 🎇 🦓	
網址(D) 🙋 http://	192.168.2.254/Wireless0_border.html	💟 🔁 🕅	· 連結 >>
Google -	✓ C 搜尋	-   🍻 🍄 22 已耦載   🌱 検査 - 🛃 選項 🥒	1
			~
		Advanced	
	Wireless	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		o Wineless 0 o o o Wineless 1 o	
		Wireless0 Configuration	
		MAC address : 00:0b:6b:4e:98:f2	
		Wireless0 Mode : Bridge/AP 💉	
		Encryption Mode : Disabled	
		Enable WMM(Wi-Fi Multimedia) extensions:	
		General	
		ESSID . default	
		Hidden SSID : y 💌	
		Client Isolation : y v	
		Band Mode : 802.11g V	
		Enable Pure G:	
		Enchle Super AG :	
		Country: Us V	
æ)		2 網際網路	

#### **Client Isolation:**

Pull down "y" isolation or "n" none isolation


#### **Band Mode:**

You can select 802.11a for 5.180-5.825GHz Band, 802.11b/g for 2.4Ghz Band



## Enable Pure G:

Pull down " $\sqrt{}$ " to enable pure G

🚰 Basic Setup -	Microsoft Internet Explorer							
檔案(E) 編輯(E)	) 檢視(V) 我的最愛( <u>A</u> ) 工具(]	〕 説明(出)						<b>.</b>
③ 上一頁 ▼	🕞 - 🖹 🗟 🏠 🔎 捜	尋 🥎 我的最愛 🚱 🖉	3- 🍇 🗈 - 🗖	, 🗄 🗱 🔏				
網址① 🕘 http://	192.168.2.254/Wireless0_border.html					*	▶ 移至	連結 »
Google -	✓ C 搜尋	- 🚿 🕾 22 已攔截 🏼 🗳 4	🕸 🔻 🔁 選項 🌛					•
								~
						Advanced		
	Wireless	Ethernet Wireless	DHCP WAN	Profiles Status	Save & Check	Reboot		
	The close	:: Wireless 0 ::	:: Wireless 1 ::					
		Wireless0 Configura	tion		^	- 1		
		MAC address : 00:0b:6b:4	e:98:f2					
			Wireless0 Mode :	Bridge/AP 🗸				
			Encryption Mode :	Disabled 😽				
		Enable WMM(Wi-Fi Mu	timedia) extensions :	<b>—</b>				
		General						
		ESSID :	default					
		Hidden SSID :	y 🗸					
		Client Isolation :	y 🗸					
		Band Mode :	802.11g 🗸					
		Enable Pure G :						
		Enable Super AG :						
		Transmit Rate Control :	Auto 🗸					
		Country :	US 🗸		~			
		<	iii					
5h								Y
۲						🧶 網	除網路	

## Enable Super AG:

Pull down " $\sqrt{}$ " to enable super AG

🚰 Basic Setup - 1	Microsoft Internet Explorer						_ 7 🛛
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(▲) 工具(工	) 説明(出)					<b>*</b>
③上一頁 -	🕥 - 🖹 🗟 🏠 🔎 搜	尋 🥎 我的最愛 🚱 🖉	3- 🍓 📧 - 🚺	, 🗄 🗱 🔏			
網址① 🙆 http://	192.168.2.254/Wireless0_border.html						移至 連結 >>
Google -	✓ C 搜尋	- 🚿 🕾 22 已攔截 🏼 🗳 4	🗴 🕶 🔁 選項 🌛				• 1
							~
						Advanced	
		Ethernet Wireless	DHCP WAN	Profiles Status	Save & Check	Reboot	
	Wireless	: Wireless 0 ::	:: Wireless 1 ::				
		Wireless0 Configura	tion		~		
		MAC address : 00:0h:6h:4	e:98:12				
			Wireless0 Mode :	Bridge/AP 🗸			
		-	Encryption Mode :	Disabled 🗸			
		Enable WMM(Wi-Fi Mu	ltimedia) extensions :	Г			
		General					
		ESSID :	default				
		Hidden SSID :	y *				
		Client Isolation :	y 💙				
		Band Mode :	802.11g 🗸				
		Enable Pure C :	_				
		Enable Super AG :	-				
		Transmit Rate Control	Auto 🗸				
		Country					
		<			>		
							~
٢						🌍 網際網路	8

#### **Transmit Rate Control:**

The value are Auto, 1Mbps, 2Mbps, 5.5Mbps, 6Mbps, 9Mbps, 11Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps.

🕘 Basic Setup -	Microsoft Internet Explorer						
檔案E) 編輯E	) 檢視(Y) 我的最愛( <u>A</u> ) 工具(	I) 説明(H)					<b>.</b>
③上一頁 ▼	🕞 - 💌 🗟 🏠 🔎 н	韓 🥎 我的最爱 🚱 🔗	3- 🍇 🗈 - 🚺	. 😥 🗱 🦀			
網址(D) 🙆 http://	/192.168.2.254/Wireless0_border.html					🖌 🄁 移至	連結 »
Google -	✓ G 搜尋	・ 🚿 🕾 22 已攔截 👋 れ	🗴 🕶 🔁 選項 🌛				•
							~
						Advanced	
	Wireless	Ethernet Wireless	DHCP WAN	Profiles Status	s Save & Check	Reboot	
	Wileiess	:: Wireless 0 ::	:: Wireless 1 ::				
		Wireless0 Configura	tion		^		
		MAC address : 00:0b:6b:4e	e:98:f2				
			Wireless0 Mode :	Bridge/AP 🗸			
			Encryption Mode :	Disabled 🗸			
		Enable WMM(Wi-Fi Mul	ltimedia) extensions :	<b>—</b>			
		General					
		ESSID :	default				
		Hidden SSID :	у 💙				
		Client Isolation :	y 🕶				
		Band Mode :	802.11g 🗸				
		Enable Pure G :					
		Enable Super AG :					
		Transmit Rate Control :	Auto 🗸				
		Country :	US 🗸		~		
		<			<u>&gt;</u>		
							×
<b>e</b>						《 網際網路	

## **Country:**

You can select US for channel 1~11, ETSI for channel 1~13, Japan for channel 1~14.

🗿 Basic Setup - Microsoft Inte	rnet Explorer							_	
檔案 (Ε) 編輯 (Ε) 檢視 (Ψ) ま	戦的最愛(A) 工具(T) 説明(H)	)							<b>**</b>
(3 上─頁 - ② - 💌	💈 🏠 🔎 搜尋 🤺 #	的最愛 🙆 💈	3- 🍓 🛯 - 🚺	. 🔝 🛍 🖇	8				
網址D) 🕘 http://192.168.2.254/W	Vireless0_border.html						*	▶ 移至	連結 »
Google -	🔽 🖸 建章 🔹 🚿 🦉	22 已攔截 🍄 🤅	🖞 🕆 🛃 選項 🌽				_		•
									~
							Advanced		
Wir	reless	t Wireless	DHCP WAN	Profiles S	Status Save	e & Check	Reboot		
		:: Wireless 0 ::	:: Wireless 1 ::						
	Wireles	ss0 Configura	tion						
	MAC add	dress : 00:0b:6b:4	e:98:f2						
			Wireless0 Mode :	Bridge/AP 🗸 🗸					
			Encryption Mode :	Disabled 🗸	·				
	Ena	able WMM(Wi-Fi Mu	ltimedia) extensions :						
	General								
		ESSID :	default						
		Hidden SSID :	y 🗸						
		Client Isolation :	y 🗸						
		Band Mode :	802.11g 🗸						
		Enable Pure G							
		Enable Super AG -	-						
	Trees	Enable Super AO.							
	Trans	smit Rate Control .	Auto 🗸						
	2	Country :	US 🗸			~			
									1
ê							🔮 網路	際網路	

#### Channel:

You can select blow (US: Channel 1 ~ 11, ETSI: Channel 1 ~13, Japan: Channel 1 ~ 14) (Note: Channel 14 only 802.11b mode). All devices on the network must share the same channel. (Note: The wireless adapters will automatically scan and match the wireless setting.)

🚰 Basic Setup - 1	Microsoft Internet Explorer								PX
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(A) 工具(	I) 説明(H)							
(3 上一頁 ▼	🕤 - 💌 🗟 🏠 🔎 排	韓 📩 我的最愛 🚱 🖇	3- 🎍 🔺 🛛	. 🔣 🔣	-28				
網址 D 🙆 http://1	/192.168.2.254/Wireless0_border.html						~	▶ 移至	連結 »
Google -	✓ C 搜尋	• 🚿 🕾 22 已攔截 👋	檢查 🔸 🛃 選項 🌛						•
									^
				/			Advanced		
	Wireless	Ethernet Wireless	DHCP WAN	Profiles	Status	Save & Check	Reboot		
						(man many)			
		General				^			
		ESSID :	default						
		Hidden SSID :							
		Client Isolation 1							
		Band Mode :	000.11a be						
		Sanu Mode .	802.11g 👻						
		Enable Pure G :							
		Enable Super AG :							
		Transmit Rate Control :	Auto 💙						
		Country	US ¥						
		Channel :	1 💌						
		Output Power :	60 (Default: 60,	Range: 1~100)					
		Slot Time :	40 (Default: b->	20 a/q->40, MA	X: 160)				
			1						
				: Арр	oly :	Cancel v			
		<	IIII			>			
									$\sim$
🕘 完成							🥑 網	際網路	

## **Output Power:**

You can select  $1 \sim 100$  to control the output power level

🚰 Basic Setup -	Microsoft Internet Explorer			
檔案(E) 編輯(E)	) 檢視(17) 我的最愛( <u>A</u> ) 工具(	I) 説明(H)		
	🕑 · 🖹 🗟 🏠 🔎 担	韓 🥎 我的最愛 🚱 💈	3- 😓 🔺 🛄 🔛 🇱 🦓	
網址① 🕘 http://	192.168.2.254/Wireless0_border.html		Y → 移至 3	重結 »
Google -	✓ C 搜尋	• 🚿 🕾 22 己攔截 👋 🧐	檢查 🔹 🔁 選項 🤌	2 -
				~
			Advanced	
	Wireless	Ethernet Wireless	DHCP WAN Profiles Status Save & Check Reboot	
		General		
		ESSID :	default	
		Hidden SSID :	y 💌	
		Client Isolation :	y w	
		Band Mode :	802.11g v	
		Enable Pure G :	Г	
		Enable Super AG :	Г	
		Transmit Rate Control :	Auto 🗸	
		Country :	US V	
		Channel :		
		Output Power :	60 (Default: 60, Range: 1~100)	
		Slot Time	40 (Default h->20 a(n->40 MAX 160)	
			1. (Coludit 5 · 20 u/g · 40, m/c · 100)	
			: Apply : Cancel	
		<		
The setue - 10				×
₴ 完成				

#### Slot time:

Slot time is a concept in computer networking. It is the time it takes for an electronic pulse Physical Layer to travel the length of the maximum theoretical distance between two nodes.

🗿 Basic Setup - I	Microsoft Internet Explorer			X
檔案(E) 編輯(E)	檢視(型) 我的最愛(▲) 工具(	I) 説明(H)		<b></b>
(] 上一頁 -	🕑 - 🖹 🗟 🏠 🔎 IS	韓 📩 我的最爱 🥝 💈	a 👌 🖬 - 🖵 🖸 🛍 🦀	
網址① 🙆 http:///	192.168.2.254/Wireless0_border.html		💌 🄁 移至 連結	吉 <b>》</b>
Google -	✓ C 搜尋	・ 🚿 👰 22 已攔截 🛛 🎸	検査 - 🛃 選項 🌽	-
				~
			Advanced	
	Wireless	Ethernet Wireless	DHCP WAN Profiles Status Save & Check Reboot	
		1	•	
		General		
		ESSID :	default	
		Hidden SSID :	у 🗸	
		Client Isolation :	у 🗸	
		Band Mode :	802.11g 🖤	
		Enable Pure G :		
		Enable Super AG :		
		Transmit Rate Control :	Auto 💙	
		Country :		
		Channel		
		Output Power :	En (Default 60, Parme: 1.400)	
		Output i ower.	(Default to), Kange, (*) (0)	
		Slot Time :	140 (Default: b->20 a/g->40, MAX: 160)	
			: Apply : Cancel	
		<		
				~
🙆 完成				

#### Encryption

The Outdoor Bridge has the newest, strongest and most advanced security features available today. When used with other 802.11 WPA (Wi-Fi Protected Access) compatible products in a network with a RADIUS server, the security features include:

**WPA & 802.1x** represent the first line of defense against network intrusion. In the authentication process the RADIUS server verifies the identity of the client attempting to connect to the network. Unfamiliar clients will be denied access. **EAP**(Extensible Authentication Protocol) is available through the Windows XP Operating System. You will need to use the same type of EAP protocol on all the devices in your network when using the 802.1x feature.

WPA (Wi-Fi Protected Access) authorizes and identifies users based on a secret key that changes automatically at regular intervals. WPA uses TKIP (Temporal Key Integrity Protocol) to change the temporal key every 10,000 packets (a packet is a kind of message transmitted over a network.) This ensures much greater security than the standard WEP security. (By contrast, the previous WEP encryption implementations required the keys to be changed manually.)

**WPA-PSK** allows home users that will not incorporate a RADIUS server in their network, access to WPA security. Utilizing the **Pre-Shared Key mode** of WPA, the Outdoor Bridge will obtain a new security key every time it connects to the 802.11 network. You only need to input your encryption information once in the configuration menu. No longer will you have to manually input a new WEP key frequently to ensure security. With the Outdoor Bridge and WPA-PSK, you will automatically receive a new key every time you connect, vastly

increasing the safety of your communication.

檔案 E 編輯 E ④ 上一頁 ▼ €			
(子上一頁 ▼ € 細址の) ▲ ユーノリロロ	檢視(♥) 我的最愛(▲) 工具		<b>A</b> *
網北(11) 🔊 14.00	) 🛛 🖾 🕼 🔎	搜尋 🌟 我的最爱 🥝 🔗 🍓 🔺 🛄 🔝 🆓	
Coorde	2.168.2.254/Wireless0_border.html		▶ 移至 連結 ※
Googie			N
		Advanced	
	Wireless	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		o Wireless 0 o o Wireless 1 o	
		Output Power: 60 (Default: 60, Panne: 1,-100)	
		WEP	
		WEP Mode : 122 bits V	
		WEP auth method : Topen system T Shared	
		Passphrase : Generate	
		© WEP Key 1 :	
		© WEP Key 2 :	
		C WEP Key 3:	
		C WEP Key 4:	
-			2
🕘 完成			際網路
- Rosis Satan Mi	arreaft Internet Burlauer		
檔案(F) 編輯(E)	檢視(型) 我的最愛(▲) 工具	(① 説明(出)	
(] 上─頁 • €	) - 🖹 🗟 🏠 🔎	搜尋 🧙 我的最爱 🥝 🔗 - 🏊 🔺 🔜 🗉 🔞 🔣	
網址① 🙆 http://192	2.168.2.254/Wireless0_border.html		▶ 移至 連結 ≫
Google -	✓ C 搜尋	▼ 🛷 🖓 22 已編載 👋 検査 ▼ 🔁 遵項 🥖	<ul> <li>•</li> </ul>
			~
		Advanced	<
	Wireless	Advanced Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
	Wireless	Advanced Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot : Wineless 0 :: Wineless 1 ::	~
	Wireless	Advanced Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot :: Wireless 0:::: Wireless 1:: Country::::::::::::::::::::::::::::::::::::	~
	Wireless	Advanced Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot : Wineless 0 : :: Wineless 1 :: Country: US V Channel : 1 V	<
	Wireless	Advanced           Ethernet         Wireless         DHCP         WAN         Profiles         Status         Save & Check         Reboot           :::Wireless 0:::::::::::::::::::::::::::::::::::	<
	Wireless	Advanced          Ethernet       Wireless       DHCP       WAN       Profiles       Status       Save & Check       Reboot         :: </th <th>8</th>	8
	Wireless	Advanced  Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot  Wireless 0 :: :: Wireless 1 ::  Country: US  Channel : I  Output Power : 50 (Default: 60, Range: 1~100) Slot Time : #0 (Default: b->20 a/g->40, MAX: 160)  WEP	8
	Wireless	Advanced  Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot  Wineless 0 : ::Wineless 1 ::  Country: US  Channel : 1  Output Power : 00 (Default: 60, Range: 1~100) Slot Time : 40 (Default: b->20 a/g->40, MAX: 160) WEP WEP Mode : 128 bits	8
	Wireless	Advanced  Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot  Wireless 0: Wireless 1:  Country: US  Channel: 1  Output Power: 50 (Default: 60, Range: 1~100) Slot Time: 40 (Default: b->20 a/g->40, MAX: 160)  WEP  WEP Mode: 128 bis  WEP auth method: Popen system Shared	<
	Wireless	Advanced          Ethernet       Wireless       DHCP       WAN       Profiles       Status       Save & Check       Reboot         ::Wurkes 0::::::::::::::::::::::::::::::::::::	<
	Wireless	Advanced          Ethernet       Wireless       DHCP       WAN       Profiles       Status       Save & Check       Reboot         ::Wireless 0:::::Wireless 1:::::::::::::::::::::::::::::::::::	3
	Wireless	Advanced  Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot  Wireless 0 : Wireless 1 :  Country: US  Channel :  Output Power :  O	
	Wireless	Advanced  Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot  :Wireless 0::::Wireless 1::  Country: US  Channel: I  Output Power: © (Default: 60, Range: 1~100) Slot Time: #© (Default: b->20 a/g->40, MAX: 160)  WEP  WEP Mode: 128 bts  VEP wireless 0:::::::::::::::::::::::::::::::::::	
	Wireless	Advanced         Ethernet       Wireless       DHCP       WAN       Profiles       Status       Save & Check       Reboot         ::Wireless 0:::::Wireless 1:::::::::::::::::::::::::::::::::::	3
	Wireless	Advanced         Ethernet       Wireless       DHCP       WAN       Profiles       Status       Save & Check       Reboot         ::Wureless 0:::::Wureless 1:::::::::::::::::::::::::::::::::::	
	Wireless	Advanced         Ethernet       Wireless       DHCP       WAN       Profiles       Status       Save & Check       Reboot         :::Wireless 0:::::Wireless 1::::       :::Wireless 1::::       :::Wireless 1::::       :::Wireless 1::::         ::::::::::::::::::::::::::::::::::::	3

🚰 Basic Setup - Microsoft Internet Explorer			- 7 🛛
檔案(12) 編輯(12) 檢視(12) 我的最愛(止) 工具(1	I) 説明(H)		<b>#</b>
🄇 上—頁 + 🕥 - 💌 🛃 🏠 🔎 担	韓 🧙 我的最爱 🚱 💈	3- 😓 🗖 - 📴 🔝 🍪	
網址 (D) 🗃 http://192.168.2.254/Wireless0_border.html			▼ ● 移至 連結 >>
Google - C 搜尋	・ 🚿 🕾 22 己攔截 🛛 🌱 :	👷 🔻 🔁 選項 🖉	- 🔁 -
		Advanc	ed
	Ethomot Mindone	DUCD WAN Brefler Status Save & Check Bak	
Wireless	- Wireless I	Windess 1	
	Country :	US 🗸	
	Channel :		
	Output Power :	60 (Default: 60, Range: 1~100)	
	Slot Time :	40 (Default b->20 a/c->40 MAX: 160)	
	WED		
	WEP Mode :	128 bits 🗸	
	WEP auth method :	Open system V Shared	
	Passphrase :	Generate	
	C WEP Key 1		
	C WEP Key 1.		
	O WEP Key 2:		
	O WEP Key 3 :		
	C WEP Key 4 :		
		: Apply : Cancel	
	<		
			×
② 完成			2 網際網路

## Set Encryption to Open System

WEP mode: Select 64, 128 bits.

WEP auth method: Select Open System to communicate the key across the network.

🕘 Basic Setup -	Microsoft Internet Explorer					FX
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(A) 工具(1	) 説明(出)				
	🕤 - 💌 🗟 🏠 🔎 捜	尋 🥎 我的最愛 🥝 👔	3- 🍓 🗖 - 🗾 🗄 🏭 🦓			
網址(D) 🙋 http://	/192.168.2.254/Wireless0_border.html				💌 🄁 移至	連結 »
Google -	✓ C 搜尋	• 🚿 🕾 22 己攔截 👋	檢查 👻 選項 🤌			•
						~
				Adv	ranced	
	Wineless	Ethernet Wireless	DHCP WAN Profiles Status S	Save & Check Re	eboot	
	wireless	:: Wireless 0 :	:: Wineless 1 ::			
		Country :	US 🗸	~		
		Channel :	1 💌			
		Output Power :	60 (Default: 60, Range: 1~100)			
		Slot Time :	40 (Default: b->20 a/g->40, MAX: 160)			
		WEP				
		WEP Mode :	128 bits 🗸			
		WEP auth method :	Dpen system 🔽 Shared			
		Passphrase :	Generate			
		C WEP Key 1 :				
		C WEP Key 2 :				
		C WEP Key 3 :				
		C WEP Key 4 :				
			. Аррту . Са	meen ~		
		<u> </u>	III III III III III III III III III II	>		
 <li> 完成</li>					劉 網際網路	×

#### **Passphrase:**

64 bit support WEP password 10 bit HEX(Hexadecimal digits consist or the numbers 0-9 and the letters A-F) code. 128 bit support WEP password 26 bit HEX code.( **Note :**Currently version does not support ASCII code.)

WEP Key1 :
Enter up encryption keys here.
WEP Key2 :
Enter up encryption keys here.
WEP Key3 :
Enter up encryption keys here.
WEP Key4 :
Enter up encryption keys here.

🗿 Basic Setup - Microsoft Internet Explorer		
檔案(E) 編輯(E) 檢視(Y) 我的最愛(A) 工	具(I) 説明(H)	<b></b>
🔇 l-ā - 🜔 - 💌 🗟 🏠 🔎	) 搜尋 🐈 我的最爱 🥝 🔗 - 🌺 🔯 - 🕞 🛃 🏭 🔏	
網址① @ http://192.168.2.254/Wireless0_border.ht	ml	▶ 移至 連結 ≫
Google - ✓ G 搜	幸 👻 🥵 22 已攔載 👋 検査 👻 選項 🤌	- <u>-</u>
		~
	Advanced	
	Ethered Meriland Dillon WAN British States States Charles Babart	
Wireless	Ethernet Vireless DHCP VVAN Promies Status Save & Check Reboot	
	Country: Us V	
	Channel: 1 V	
	Output Power : 60 (Default: 60, Range: 1~100)	
	Slot Time : 40 (Default h->20 a(n->40 MAX: 160)	
	WED	
	WEP Mode : 128 bits V	
	WEP auth method :	
	Passphrase Generate	
	O WEP Key 3:	
	© WEP Key 4 : ]	
	: Apply : Cancel	
② 完成		膠網路

## Set Encryption to Shared Key

## WEP mode: Select 64, 128 bits

WEP auth method: Select Shared Key to communicate the key across the network..

🚰 Basic Setup - I	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(▲) 工具(工	) 說明(出)	<b></b>
(] 上一頁 -	🕑 - 🖹 🗟 🏠 🔎 搜	尋 📩 我的最爱 🥝 🔗 🍓 🔺 📙 🔝 鑬 🥸	
網址(D) 🙆 http://1	192.168.2.254/Wireless0_border.html		✓ ● 移至 連結 ※
Google -	✓ C 搜尋	🗸 🤝 🎦 22 已購載 👋 檢查 👻 🛃 選項 🌽	• 1
		Adv	vanced
	Wireless	Ethernet Wireless DHCP WAN Profiles Status Save & Check R	eboot
		: Wireless U :: : Wireless I ::	
		Channel:	
		Output Power : 60 (Default: 60, Range: 1~100)	
		Slot Time : 40 (Default: b->20 a/g->40, MAX: 160)	
		WEP	
		WEP Mode : 128 bits 🗸	
		WEP auth method : 🔽 Open system 🔽 Shared	
		Passphrase : Generate	
		C WEP Key 1:	
		C WEP Key 3 : ]	
		© WEP Key 4 :	
		: Apply : Cancel	
		< >	
			~
ど 完成			劉際網路

#### **Passphrase:**

64 bit support WEP password 10 bit HEX(Hexadecimal digits consist or the numbers 0-9 and the letters A-F) code. 128 bit support WEP password 26 bit HEX code.( **Note :**Currently version does not support ASCII code.)

#### WEP Key1 :

Enter up encryption keys here.

#### WEP Key2 :

Enter up encryption keys here.

#### WEP Key3 :

Enter up encryption keys here.

#### WEP Key4 :

Enter up encryption keys here.

🚰 Basic Setup - 1	Microsoft Internet Explorer				
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(A) 工具(	I) 説明(H)			
(3) 上一頁 -	🕞 - 💌 🗟 🏠 🔎 搜	韓 📩我的最愛 🚱 👔	🎘 🛃 🕞 🖻 🕵	-28	
網址① 🙆 http://	192.168.2.254/Wireless0_border.html				🔽 🄁 移至 連結 🎽
Google -	✓ C 搜尋	- 🚿 🕾 22 已攔截 👋	檢查 🝷 🛃 選項 🌛		📆 -
					A
			/		Advanced
	Wireless	Ethernet Wireless	DHCP WAN Profiles	Status Save & Check	Reboot
	wireless	:: Wireless 0	:: Wineless 1 ::		
		Country	US 🗸	^	
		Channel	1 2		
		Output Bower			
		Output Fower	. joo (Delauli, 60, Range, 1~100	"	
		Slot Time	: 40 (Default: b->20 a/g->40, MA	¥X: 160)	
		WEP			
		WEP Mode	128 bits 💙		
		WEP auth method	- Charad	-	
		Passphrase	Generate		
		C WEP Key 1	:		
		C WEP Key 2			
		C WEP Key 3	:		
		C WEP Key 4	:		
			- An	nly de Cancoli	
			. Ap	pry Cancer	
		<		>	
					×
🗶 完成					約除網路

## Set Encryption to WPA-PSK

#### WPA Mode:

When you select **WPA-PSK**, you must select **AES** or **TKIP** from the pull-down menu.

🗿 Basic Setup - 1	Microsoft Internet Explorer		FX
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(A) 工具(	〕 說明(出)	-
(3)上一頁 -	🕤 - 💽 🛃 💋 д	幸 🐈 我的最爱 🥝 🔗 - 🌺 🔺 🛄 🔛 🍇	
網址① 🕘 http://	192.168.2.254/Wireless0_border.html	▼ → 移至	連結 »
Google -	✓ C 搜尋	-   🍻 🍄 22 已攔載   🍄 検査 - 🛃 選項 🥒	• 1
			~
		Advanced	
	Wiroloss	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
	Wileless	a Wireless 0 a a Wireless 1 a	
		Transmit Rate Control : Auto 💌	
		Country: US 💌	
		Channel: 1 V	
		Output Power : 60 (Default: 60, Range: 1~100)	
		Slot Time : 40 (Default: b->20 a/g->40, MAX: 160)	
		WPA General	
		WPA Mode : AES V	
		Group rekey interval : (>=10 seconds)	
		Master rekey interval : (>=10 seconds)	
		WPA-PSK	
		C Ascii : (8~63 Characters)	
		C Hex: (Only 64 Hex Characters)	
		: Apply : Cancel	
			~
ど 完成			

## Group rekey interval:

Select the interval during which the group key will be valid.

🚰 Basic Setup - 1	Microsoft Internet Explorer				
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(A) 工具(	[) 説明(出)			<b>1</b>
(3 上一頁 ・	🕞 - 🖹 🗟 🏠 🔎 搜	尋 🥎 我的最愛 🚱 💈	3- 🎍 🖬 - 📙 🛃 🖓		
網址(D) 🙋 http://	192.168.2.254/Wireless0_border.html			~	▶ 移至 連結 ≫
Google -	✓ C 搜尋	- 🚿 🍄 22 己攔截 🛛 👋 🤅	檢查 🔻 🛃 選項 🌛		• 1
					~
				Advanced	
	Wireless	Ethernet Wireless	DHCP WAN Profiles Status Save	& Check Reboot	
		: witeless 0 :	:: wireless 1 ::	A	
		Transmit Rate Control :	Auto 🗸		
		Country :	US 🗸		
		Channel :			
		Output Power :	60 (Default: 60, Range: 1~100)		
		Slot Time :	40 (Default: b->20 a/g->40, MAX: 160)		
		WPA General			
		VVPA Mode :	AES 🗸		
		Group rekey interval :	(>=10 seconds)		
		Master rekey interval :	(>=10 seconds)		
		WPA-PSK		-	
		C Ascii :	(8~63 Characters)		
		C Hex :	(Only 64 Hex Characters)		
			: Apply : Cancel	~	
		<			
					1947 46319.0
<b>一</b> 元成					NF:117018

## Master rekey interval:

Select the interval during which the master key will be valid.

							Microsoft Internet Explorer	🖄 Basic Setup - I
							) 檢視(Y) 我的最愛(A) 工具(T)	檔案(E) 編輯(E)
			1 3	. 🗄 🛍	3- 🍓 🗖 - 🚺	的最愛 🚱 💈	🕥 - 🖹 🛃 🏠 🔎 搜尋	③上一頁 ▼ (
i結 »	🖌 🔁 移至	8					192.168.2.254/Wireless0_border.html	網址 (1) 🙋 http://1
9 -					檢查 🝷 🛃 選項 🌛	122 已攔截 👋 🧐	✓ 🥃 搜尋 🔸	Google -
~								
		Advanced						
		Obasili Dalast		Durfler				
		Check Reboot	Status Save &	Profiles	DHCP WAN	vvireless	Wireless	
		1	~		wheless 1			
		2			Auto 🗸	smit Rate Control :		
					US 🗸	Country :		
					1 🗸	Channel :	_	
			00)	Range: 1~100	60 (Default: 60,	Output Power :		
			MAX: 160)	20 a/g->40, M/	40 (Default: b->:	Slot Time :		
						eneral	W	
					AES 🗸	WPA Mode :		
				conds)	(>=10 set	oup rekey interval :		
				conds)	(>=10 sec	ster rekey interval :		
		-				βK	w	
			53 Characters)	(8~63		C Ascii :		
			ly 64 Hex Characters)	(Only		C Hex :		
			only Cancel	- An				
			ouncer N	. AP				
100			2					
<u></u>	際網路	▲ #						 </th
	11.11.11.11.11.11.11.11.11.11.11.11.11.	Advanced Check Reboot	Status Save &	Profiles Range: 1~100 20 a/g->40, M/ conds) conds) (8~63 (0nly : Ap	DHCP         WAN           :: Wireless 1: ::           Aao           US           1           90           (Default 60, 40           (Default b->)           AES           (>=10 sec           (>=10 sec	t Vireless Wireless 0 smit Rate Control : Country : Channel : Output Power : Slot Time : sneral WPA Mode : oup rekey interval : ster rekey interval : SK C Ascli : Hex :	Wireless	2 完成

#### ASCII:

Enter a passphrase. The passphrase is a password between 8 and 63 characters long. The password can include symbols (!?\*&\_) and spaces. Make sure you enter this key exactly the same on all other wireless clients.

🗿 Basic Setup - M	ficrosoft Internet Explorer				
檔案(E) 編輯(E)	檢視(♥) 我的最愛(▲) 工具(Ⅰ	) 説明(出)			<b></b>
(3) - 頁 - (	🕘 - 🖹 🛃 🏠 🔎 搜	尋 🥎 我的最爱 🧐 💈	3- 🎍 🖻 - 📙 🗄 🎎 🦀		
網址① 🥘 http://19	92.168.2.254/Wireless0_border.html			~	▶ 移至 連結 ≫
Google -	✓ C 搜尋	- 🚿 🕾 22 已攔截 🛛 🌱 🗧	檢查 🔹 🛃 選項 🤌		🔁 •
					~
				Advanced	
	Windless	Ethernet Wireless	DHCP WAN Profiles Status Save 8	Check Reboot	
	Wireless	:: Wireless 0 ::	$\odot$ Wireless 1 $\odot$		
		Transmit Rate Control :	Auto 🗸	^	
		Country :	US V		
		Channel :	1 💌		
		Output Power :	60 (Default: 60, Range: 1~100)		
		Slot Time :	40 (Default: b->20 a/g->40, MAX: 160)		
		WPA General			
		WPA Mode :	AES 🗸		
		Group rekey interval :	(>=10 seconds)		
		Master rekey interval :	(>=10 seconds)		
		WPA-PSK			
		C Ascii :	(8~63 Characters)		
		C Hex:	(Only 64 Hex Characters)		
			: Apply : Cancel		
		<		×	
					~
🙆 完成				🔮 網	際網路

## Hex:

Enter a passphrase. The passphrase is a password only 64 Hex characters

🗿 Basic Setup - M	dicrosoft Internet Explorer		- 7 🛛
檔案(E) 編輯(E)	檢視(型) 我的最愛(△) 工具(	D 説明(出)	<b>A</b>
③上一頁 - (	🕞 - 🖹 🗟 🏠 🔎 拱	專 👷 我的最爱 🥝 🔗 🍓 🔺 🛄 👔 🎇 🦓	
網址① 🙆 http://19	92.168.2.254/Wireless0_border.html	8	🖌 🄁 移至 連結 🎽
Google -	✓ C 搜尋	🔹 🍻 😰 22 已編載 👋 検査 🔹 🚾 選項 🥒	1
			<u>^</u>
		Advanced	
	Wireless	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
	Mileless.	a Wineless 0 a constraint a wineless 1 a	
		Transmit Rate Control : Ano 🗸	
		Country: US 🗸	
		Channel: 1 v	
		Output Power : 60 (Default: 60, Range: 1~100)	
		Slot Time : 40 (Default: b->20 a/g->40, MAX: 160)	
		WPA General	
		WPA Mode : AES 🗸	
		Group rekey interval : (>=10 seconds)	
		Master rekey interval : (>=10 seconds)	
		WPA-PSK	
		C Ascii: (8~63 Characters)	
		C Hex: (Only 64 Hex Characters)	
		: Apply : Cancel	
			~
			郡祭網路

## Set Encryption to WPA-Enterprise (802.1x)

#### Authentication Server:

Enter the IP address of the RADIUS server.

🚰 Basic Setup - I	Microsoft Internet Explorer			
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(▲) 工具(Ⅰ	) 説明(出)		<b></b>
(] 上一頁 -	🕑 - 🖹 🗟 🏠 🔎 搜	尋 🥎 我的最爱 🚱 🖉	3- 😓 🗖 🕘 🖸 🎎 🦓	
網址① 🙆 http:///	192.168.2.254/Wireless0_border.html		🗹 🔁	移至 連結 >>
Google -	✓ C 搜尋	- 🚿 🕾 22 已攔截 🛛 🗳 🤅	檢查 🔻 🛃 選項 🖉	🔁 •
				~
			Advanced	
	Wireless	Ethernet Wireless	DHCP WAN Profiles Status Save & Check Reboot	
		:: Wireless 0 ::	:: Wireless 1/::	
		Output Power :	60 (Default: 60, Range: 1~100)	
		Slot Time :	40 (Default: b->20 a/g->40, MAX: 160)	
		WPA General		
		WPA Mode :	AES 🗸	
		Group rekey interval :	(>=10 seconds)	
		Master rekey interval :	(>=10 seconds)	
		WPA_Enterprise		
		Authontication Convert		
		Autientication server .		
		Port :		
		Shared Key :	(1~64 Characters)	
		EAP reauth :	(>=300 seconds)	
		C Accounting Ser	ver is on different Server	
			Apply Cancel	
			N N	
				2
- 10HA			🖤 ภัษทรงกับเฉ	

#### Port:

The port number your RADIUS server uses for authentication. The default setting is 1812

🚰 Basic Setup - 1	Microsoft Internet Explorer							
檔案(E) 編輯(E)	検視(型) 我的最愛(▲) 工具(	[) 説明(H)						
(3)上一頁 -	🕥 - 💌 🗟 🏠 🔎 搜	母 📩 我的最愛 🥝 👔	🗟 • 🍓 🛯 · 🚺	. 🔝 🔣 🤻	3			
網址(D) 🙋 http://	192.168.2.254/Wireless0_border.html							移至 連結 >>
Google -	✓ C 搜尋	• 🚿 🕾 22 已攔截 👋	檢查 🝷 🔁 選項 🌛					• 1
								~
							Advanced	
	Wireless	Ethernet Wireless	DHCP WAN	Profiles S	Status	Save & Check	Reboot	
		:: Wireless 0 :	:: Wireless 1 ::					
		Output Power :	: 60 (Default: 60, I	Range: 1~100)		^		
		Slot Time :	40 (Default: b->2	20 a/g-≻40, MAX: 1	160)			
		WPA General						
		WPA Mode :	AES 🗸					
		Group rekey interval :	: [(>=10 sec	onds)				
		Master rekey interval :	: /=10 sec	onds)				
		WPA-Enterprise						
		Authentication Server :						
		Port:	:					
		Shared Key.		(1~64 Ch	naracters)			
		EAP reauth :	: (>=300 se	conds)				
		□ Accounting Se	rver is on diffe	rent Serve	r			
				: Apply	/ : C	ancel		
		<				>		
								Y
🥘 完成							🥑 網際網路	ŝ

#### Shared Key:

This is used by your RADIUS server in the Shared Secret field in RADIUS protocol messages. The shared secret configured in the Wireless Outdoor AP/Bridge must match the shared secret configured in the RADIUS server. The shared secret can contain up to 64 alphanumeric characters.

🗿 Basic Setup - Microsoft Internet Explorer		
檔案(F) 編輯(E) 檢視(Y) 我的最愛(A) 工具(	) 説明(出)	<b>R</b>
😋 上—頁 + 💿 - 💌 🗟 🏠 🔎 拱	章 🧙 我的最爱 🤣 🔗 - 🌺 🔟 🛛 🛄 🔝 🍪	
網址D @ http://192.168.2.254/Wireless0_border.html		✓ ● 移至 連結 ※
Google → G 搜尋	- 🛷 🕾 22 已攔截 👋 検査 - 🚾 選項 🥜	1
		<u>_</u>
	Advanced	
Wireless	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
	o Wineless 0 o o Wineless 1 o	
	Output Power: 60 (Default: 60, Range: 1~100)	
	Slot Time : 40 (Default: b->20 a/g->40, MAX: 160)	
	WPA General	
	WPA Mode : 🛛 🖛	
	Group rekey interval : [/>=10 seconds)	
	Master rekey interval : [/>=10 seconds)	
	WPA-Enterprise	
	Authentication Server :	
	Port:	
	Shared Key : (1~64 Characters)	
	EAP reauth : (>=300 seconds)	
	□ Accounting Server is on different Server	
	: Apply : Cancel	
	۲ ۲	
		X
② 完成		周際網路

(Note: If you change any item, click "submit" to store the value. Or click "clear" to restore previous value. To make settings working click **Submit-> Reset-> Restart**.)

## **Point to Point Mode Setting → Wireless0 or Wireless1**

## Point to Point (P2P : Wireless Bridge) Mode



PtP mode setting is like AP mode setting, but encryption only WEP encryption method can select. When wireless0 or wireless1 in PtP mode will also do AP function, suggest disable SSID broadcast(Pull down select "y" in hidden SSID to disable SSID broadcast) and set WEP encryption.

#### e.g.

P2P-1 Wireless0 Mac: 00.01.02.03.04.05 Wireless1 Mac: 00.01.02.03.04.06 P2P-2 Wireless0 Mac: 00.01.02.03.04.07 Wireless1 Mac: 00.01.02.03.04.08 Set P2P-1 Wireless 1 in AP/Bridege Mode, and type P2P-2 Wireless1 Mac: 00.01.02.03.04.08 in WDS macs fields. Then set WEP encryption, and disable WPA encryption. Pull down select "y" in hidden SSID to disable SSID broadcast. Set P2P-2 Wireless1 in AP/Bridege Mode, and type P2P-1 Wireless1 Mac: 00.01.02.03.04.06 in WDS macs fields. Then set channel the same as P2P-1 Wireless1.Set WEP encryption the same as P2P-1 Wireless1.Dsiable P2P-2 Wireless1 WPA encryption. Pull down select "y" in **hidden SSID** to disable SSID broadcast.

#### Point to Multi Point Mode Setting → Wireless0 or Wireless1



PMP (Wireless Bridge) Mode

PtMP mode setting is like AP mode setting, but encryption only WEP encryption method can select. When wireless0 or wireless1 in PtMP mode will also do AP function, suggest disable SSID broadcast(Pull down select "y" in hidden SSID to disable SSID broadcast) and set WEP encryption.

e.g PMP Wireless0 Mac: 00.01.02.03.04.05 Wireless1 Mac: 00.01.02.03.04.06 P2P-1 Wireless0 Mac: 00.01.02.03.04.07 Wireless1 Mac: 00.01.02.03.04.08 P2P-2 Wireless0 Mac: 00.01.02.03.04.09 Wireless1 Mac: 00.01.02.03.04.0A Set PMP Wireless1 in AP/Bridege Mode, and type P2P-1 Wireless1 Mac: 00.01.02.03.04.08 and P2P-2 Wireless1 Mac: 00.01.02.03.04.0A in WDS macs fields.

Then set WEP encryption, and disable WPA encryption. Pull down select "**y**" in **hidden SSID** to disable SSID broadcast.

Set P2P-1 Wireless1 in AP/Bridege Mode, and type PMP Wireless1 Mac: 00.01.02.03.04.06 in WDS macs fields. Then set channel the same as PMP Wireless1.Set WEP encryption the same as PMP Wireless1.Dsiable P2P-1 Wireless1

WPA encryption. Pull down select "y" in hidden SSID to disable SSID broadcast.

Set P2P-2 Wireless1 in AP/Bridege Mode, and type PMP Wireless1 Mac: 00.01.02.03.04.06 in WDS macs fields. Then set channel the same as PMP Wireless1.Set WEP encryption the same as PMP Wireless1.Dsiable P2P-2 Wireless1 WPA encryption. Pull down select "y" in **hidden SSID** to disable SSID broadcast.

## **Repeater Mode Setting** → **Wireless0 or Wireless1**

Repeater Mode



Repeater mode setting is like AP mode setting, but encryption only WEP encryption method can select.

e.g AP Wireless0 Mac: 00.01.02.03.04.05 Wireless1 Mac: 00.01.02.03.04.06 Repeater1 Wireless0 Mac: 00.01.02.03.04.07 Wireless1 Mac: 00.01.02.03.04.08 Repeater2 Wireless0 Mac: 00.01.02.03.04.09 Wireless1 Mac: 00.01.02.03.04.0A Set AP Wireless1 in AP/Bridege Mode, and type Repeater1 Wireless0 Mac: 00.01.02.03.04.07 in WDS macs fields.Then set WEP encryption, and disable WPA encryption.

Set Repeater1 Wireless0 in AP/Bridege Mode, and type AP Wireless1 Mac: 00.01.02.03.04.06 in WDS macs fields. Then set channel the same as AP Wireless1.Set WEP encryption the same as AP Wireless1.Dsiable Repeater1 Wireless0

WPA encryption. Set Repeater1 Wireless1 in AP/Bridege Mode, and type Repeater2

Wireless0 Mac: 00.01.02.03.04.09 in WDS macs fields. Set WEP encryption the same as AP
Wireless1.Dsiable Repeater1 Wireless1 WPA encryption.
Set Repeater2 Wireless0 in AP/Bridege Mode, and type Repeater1 Wireless1 Mac:
00.01.02.03.04.08 in WDS macs fields. Then set channel the same as Repeater1 Wireless1.Set
WEP encryption the same as AP Wireless1.Dsiable Repeater2 Wireless0
WPA encryption.

## **Dual Radio Setting For Simultaneous Operation AP and Bridge**

e.g. Wireless0 do AP Setting as page 11 and Wireless1 do Bridge setting as page 21 (PtP Setting) or page 22 (PtMP setting). Wireless0 and Wireless1 can do different Setting such as different channel and different Encryption

#### AP and AP

Wireless0 and Wireless1 do AP Setting as page 11. Wireless0 and Wireless1 can do different Setting such as different channel and different Encryption.

#### **Bridge and Bridge**

Wireless0 and Wireless1 do Bridge setting as page 21 (PtP Setting) or page 22 (PtMP setting). Wireless0 and Wireless1 can do different Setting such as different channel and different Encryption

# DHCP Server Setting → DHCP

## DHCP Server Control: Dynamic Host Configuration Protocol assigns dynamic IP

addresses to devices on the network. This protocol simplifies network management and

allows new wireless devices to receive IP

addresses automatically without the need to manually assign new IP addresses.

#### Subnet :

Select Subnet on device IP(Such as 192.168.2.254) to allow the Outdoor Bridge to function as a DHCP server.

🗿 Basic Setup - 1	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(17) 我的最愛( <u>A</u> ) 工具(	) 説明(出)	
(3) 上一頁 ▼	🕞 - 💌 🗟 🏠 🔎 н	奉 🧙 我的最爱 🤣 🔗 - 🌺 🔲 - 🛄 🔝 🍇 🦓	
網址@ 🕘 http://	192.168.2.254/DHCP_border.html	💟 🔁 移至	連結 »
Google -	✓ C 搜尋	▼ 🛷 🕾 22 已編載 👋 検査 ▼ 🚾 選項 🥒	•
			~
		Advanced	
	рнср	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		o Wineless 0 o	
		DHCP Server Configuration	
		Use this page to set up the local IP address and subnet mask for your router.	
		Subnet: Disable 🗸	
		Start IP :	
		End IP :	
		Router:	
		DNS:	
		WINS:	
		. Apply . Canter	
		DHCP Clients List	
		none none	
			Y
🥶 完成			

## Start IP:

Input the first IP address available for assignment in your network.

🗿 Basic Setup -	Microsoft Internet Explorer		- 7 🛛
檔案 (E) 編輯 (E)	) 檢視(型) 我的最愛(A) 工具(	) 說明(出)	<b>1</b>
	🕤 - 💌 🗟 🏠 🔎 搜	尋 🧙 我的最爱 🥝 🔗 - 🌺 🔺 📙 🔝 🎇 🦓	
網址(D) 🙋 http://	/192.168.2.254/DHCP_border.html	8	移至 連結 ※
Google -	✓ C 搜尋	- 🛷 🕾 22 己欄載 👋 檢査 - 🛃 選項 🥒	•
			~
		Advanced	
	DHCP	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		:: Wireless 0 :: :: :: :: :: :: :: :: :: :: :: :: :	
		DHCP Server Configuration	
		Use this page to set up the local IP address and subnet mask for your router.	
		Subnet : Disable 🗸	
		Start IP :	
		ENGIN'	
		Router: j j j j	
		DNS :	
		WINS:	
		: Apply : Cancel	
		DHCP Clients List	
		IP Address MAC Address	
		none none	
			×
🕘 完成			際網路

## End IP:

Input the end IP address available for assignment in your network.

🗿 Basic Setup - I	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(▲) 工具(	) 説明(王)	
(] 上一頁 -	🕑 - 🖹 🗟 🏠 🔎 搜	幸 🌟 我的最爱 🥝 🔗 - 🌺 🔺 📙 🔝 🍪	
網址① 🙋 http:///	192.168.2.254/DHCP_border.html	· · · · · · · · · · · · · · · · · · ·	移至 連結 ※
Google -	✓ C 搜尋	🗸 🥩 😤 22 已攔載 🛛 🌱 檢査 👻 🛃 選項 🥜	• 1
			<u></u>
		Advanced	
	DHCP	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		:: Wireless 0 :: :: :: Wireless 1 ::	
		DHCP Server Configuration	
		Use this page to set up the local IP address and subnet mask for your router.	
		Subnet : Disable 🗸	
		Start IP :	
		End IP	
		DNS:	
		WINS :	
		: Apply : Cancel :	
		DHCP Clients List	
		IP Address MAC Address	
		none none	
			×
⑧ 完成			際網路

#### **Router:**

Input device IP

🚰 Basic Setup - 1	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(▲) 工具(	〕 説明①	<b></b>
(3) 上一頁 -	🕞 - 🖹 🛃 🏠 🔎 ц	幸 🌟 我的最爱 🥝 🔗 🍓 🔺 🛄 🔝 🍪	
網址(D) 🕘 http://	192.168.2.254/DHCP_border.html	8	移至 連結 ※
Google -	✓ C 搜尋	- 🤣 💁 22 己爛載 峰 檢查 - 🛃 選項 🤌	- <del>(</del>
			<u>^</u>
		Advanced	
	DHCP	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		:: Wireless 0 :: :: :: :: :: :: :: :: :: :: :: :: :	
		DHCP Server Configuration	
		Use this page to set up the local IP address and subnet mask for your router.	
		Subnet : Disable 🗸	
		Start IP :	
		End IP :	
		Bouter	
		WINS: ] .] .] .]	
		: Apply : Cancel	
		DHCP Clients List	
		IP Address MAC Address	
		none none	
		S	
おきの			
C JUNA			ประการแกร

#### **DNS**:

Input your ISP DNS.

🗿 Basic Setup -	Microsoft Internet Explorer		- 6 🗙
檔案 (E) 編輯 (E)	) 檢視(型) 我的最愛(A) 工具(	〕 説明(出)	<b>1</b>
	🕑 · 💌 🗟 🏠 🔎 iy	彝 🧙 我的最爱 🧭 🔗 🍓 🔺 📙 🔝 🏦 🎎	
網址① 🕘 http://	/192.168.2.254/DHCP_border.html	N 🔁 🔂	連結 >>
Google -	✓ C 搜尋	-   🧭 🔁 22 已耦載   🍄 検査 - 🛃 選項 🥒	• 1
			~
		Advanced	
		Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
	DHCP		
		DHCP Server Configuration	
		Use this page to set up the local IP address and subnet mask for your router.	
		Subnet: Disable 🗸	
		Start IP :	
		End IP :	
		Router	
		WINS:	
		: Apply : Cancel :	
		DHCP Clients List	
		IP Address MAC Address	
		none none	
			1777
 </th <th></th> <th>#12.4</th> <th>×</th>		#12.4	×

#### WINS:

Input wins server IP

🚰 Basic Setup - 1	Microsoft Internet Explorer			
檔案(E) 編輯(E)	) 檢視(Y) 我的最愛(A) 工具(1	) 説明④		<b>1</b>
	🔘 - 🖹 🗟 🏠 🔎 捜	專 📌 我的最爱 🥝 🔗 - 🌺 🔺 - 📜 🔝 🎎 🥸		
網址① 🙆 http://	192.168.2.254/DHCP_border.html	· · · · · · · · · · · · · · · · · · ·	🖌 🔁 移至	連結 »
Google -	✓ C 搜尋	🔹 🛷 💁 22 已攔截 🛛 🖐 檢査 👻 🛃 選項 🥜		•
				~
		Advanced		
	DHCP	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot		
		:: Wineless 0 :: :: :: Wineless 1 ::		
		DHCP Server Configuration		
		Use this page to set up the local IP address and subnet mask for your router.		
		Subnet: Disable 💌		
		Start IP :		
		End IP :		
		Router:		
		WINS: ] .] .] .]		
		: Apply : Cancel		
		DHCP Clients List		
		IP Address MAC Address		
		none none	8	
		2		
				100
) ② 完成			際網路	M
🙆 完成			際網路	

#### **DHCP Clients list:**

Show the client IP and client MAC setting.

🗿 Basic Setup -	Microsoft Internet Explorer		- 7 🗙
檔案(E) 編輯(E)	) 檢視(17) 我的最愛(A) 工具(1	〕 説明⑪	<b></b>
(3) 上一頁 -	🕥 - 💽 🛃 🌈 д	幸 🌟 我的最爱 🥝 🔗 - 嫨 🔺 📙 🔝 🎇 🎎	
網址①) 🙆 http://	/192.168.2.254/DHCP_border.html	· · · · · · · · · · · · · · · · · · ·	→ 移至 連結 ≫
Google -	✓ C 搜尋	- 🧭 💁 22 己爛載 👋 検査 - 🛃 選項 🤌	<ul> <li>•</li> </ul>
			~
		Advanced	
	DHCP	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		:: Wileless U :: :: Wileless I ::	
		DHCP Server Configuration	
		Use this page to set up the local IP address and subnet mask for your router.	
		Subnet: Disable 🗸	
		Start IP :	
		End IP :	
		Router:	
		DNS :	
		WINS :	
		· Apply · Cancel	
		IP Address MAC Address	
		none none	
		2002	
			×
🥙 完成			際網路

(e.g. If your device ip is 192.168.2.254, then start ip is 10 and end ip is 100. System will asign ip from 192.168.2.10 to 192.168.2.100 to client.)

(Note: If you change any item, click "submit" to store the value. Or click "clear" to restore

previous value. To make settings working click **Submit-> Reset-> Restart**.)

# WAN Setting $\rightarrow$ WAN

To select the connection type for WAN port you can choose any of the following Mode: For static IP,:

please click Static IP and type IP address, IP netmask, IP gateway

🚰 Basic Setup - I	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(Y) 我的最愛(A) 工具(	D 說明(H)	
🚱 上─頁 🝷	🕥 - 💌 🛃 🏠 🔎 и	脖 📩 我的最爱 🥝 🔗 🍓 🔺 🛄 🔛 🍇 🖄	
網址① 🛃 http://	/192.168.2.254/WAN_border.html		₿至 連結 <sup>≫</sup>
Google -	✓ C 搜尋	- 🥩 🍄 22 己編載 👋 検査 - 🛃 遵項 🖉	• 1
			~
		Advanced	
-			
	WAN	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		WAN Configuration	
		Select the connectiong type to connect to your ISP.	
		• Static IP	
		C Dynamic IP	
		Internet Connection Type : C PPPoE	
		C Disable	
		Static IP	
		Choose this option to set static IP information provided to you by your ISP.	
		IP netmask: j .j .j .j	
		IP Gateway:	
		: Apply : Cancel .	
			~
会 完成			_
### For dynamic IP:

Please click the **Dynamic IP** and type Hostname

🚰 Basic Setup - I	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(▲) 工具(	D 説明(H)	<b></b>
③上一頁 ▼	🖸 - 🖹 🗟 🏠 🔎 H	韓 🧙 我的最爱 🥝 🔗 🍓 🔺 🛄 🔛 🚷	
網址① 🕘 http://1	192.168.2.254/WAN_border.html		✓ → 移至 連結 ※
Google -	✓ G 搜尋	▼ 🚿 🍄 22 已攔截 👋 検査 ▼ 🛃 選項 🤌	• 1
		Advanced	
	WAN	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		:: Wineless 0 :: ::: Wineless 1 ::	
		WAN Configuration	
		Select the connectiong type to connect to your ISP.	
		C Static IP Dynamic IP Internet Connection Type : C PPPoE C LAN Backup C Disable	
		Dynamic IP	
		Choose this option to obtain an IP address automatically from your ISP. (For most Cable modem users)	
		Hostname :	
		: Apply : Cancel	
			2
🥘 完成			網際網路

#### For PPPoE:

For xDSL and using PPPoE to connect to Internet, please click PPPoE and type username and password.

🗿 Basic Setup - I	Microsoft Internet Explorer		- 7 🛛
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(A) 工具	① 說明(出)	<b></b>
(] 上一頁 -	🕤 - 🗷 🗟 🏠 🔎 i	腹壁 📌 我的最爱 🥝 🔗 🍓 🔺 🛄 🔛 🍇	
網址① 🙆 http://1	/192.168.2.254/WAN_border.html		▶ 移至 連結 ≫
Google -	✓ C 搜尋	- 🤣 🕾 22 已編載 👋 檢査 - 🔁 選項 🥒	🔁 -
			~
		Advanced	
	111101	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
	WAN	Literiet Wileless Brief Walk Fromes Status Save a Shock Resour	
		WAN Configuration	
		Select the connectiona type to connect to your ISP.	
		C Static IP	
		C Dynamic IP	
		Internet Connection Type :	
		C Disable	
		PPPoE	
		Choose this option if your ISP uses PPPoE.(From most DSL users)	
		User name :	
		Password :	
		MTU: (576~1492)	
		Idle Time : (0~60 minutes)	
		Apply Cancel	
Charter II			~
⑧ 完成			脳

### • For LAN Backup:

The two LAN ports provide failover support a backup operation that automatically



#### • For Disable WAN Port:

#### Please click **Disable**.

🚰 Basic Setup -	Microsoft Internet Explorer		. 7 🗙
檔案(E) 編輯(E)	) 檢視(Y) 我的最愛(A) 工具		<b>4</b>
(3)上一頁 ▼		韓マ 🏫 我的最爱 🎯 🙆 - 嫨 🔺 - 📙 🔝 🐹 🦄	
網址D Coogle -	/192.168.2.254/WAN_border.html	▶ 🛃 💽 22 日期時 🛝 始末 - 📼 1975 🔌	連結 »
Google	C (24		
		Advanced	
	WAN	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
		WAN Configuration	
		Select the connectiong type to connect to your ISP.	
		C Static IP	
		Internet Connection Type : C PPPoE	
		CLAN Backup	
		: Apply : Cancel	
🔊 完成		A 相応相比	×

(Note: If you change any item, click "submit" to store the value. Or click "clear" to restore previous value. To make settings working click **Submit-> Reset-> Restart**.)

# Firewall setting $\rightarrow$ Firewall

#### **IP Rules:**

Once a choice is made, the choice applies to all filtering rules.

To define/add an IP filtering rule, enter the following information

#### Source:

Address/Mask: you must define Single IP and subnet mask of source IP addresses. Port: you must define one port numbers.



#### **Destination:**

Address/Mask: you must define single IP and submask of destination IP addresses. Port: you must define one port numbers.

🚰 Advance Setup	p - Microsoft Internet Explorer								PX
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(▲) 工具(1	[) 説明(出)							<b>*</b>
	🕑 - 💽 🛃 💋 搜	韓 🥎 我的最愛	\varTheta 🔗	🛛 - 🗾 🗄 Í	12 - 28				
網址① 🙆 http://1	192.168.2.254/Firewall_border.html							🖌 🄁 移至	連結 »
Google -	✓ C 搜尋	• 🚿 👰 22 📑	開截 🏰 檢査 🔹 🛃	選項 🌽				_	•
							Basic		
	Firewall	Firewall	VirtualServer	StaticRouter	Admin	Upgrade	Reboot		
		Firewall Cor	nfiguration			^			
		IP Rules							
			Source	Destinati	ion	n/out P			
		Address/I	Mask Port	Address/Mask	Port				
		1.				Cout			
						C in C			
		2.		JJ	I	Cout C			
		3.				Cin ( Cout ( (			
		4.				Cin ( Cout (			
		<	Ш	j		~			
🙆 完成								網際網路	×

### MAC Rules:

fields you can control 20 MACs which can pass connect to system or deny from system.

🗿 Advance Setup - Microsoft Internet Explore								×
檔案(F) 編輯(E) 檢視(Y) 我的最愛(A) 工	4(I) 説明(H)						1	
🌀 上一頁 🔹 🛞 🖌 🔊 🖉	搜尋 🥎 我的最多	🥝 🎯 🍓	🛛 - 🗾 💓	12 - 28				
網址① 🗃 http://192.168.2.254/Firewall_border.html							✓ → 移至 連結	i »
Google → C 搜细	i 🔹 💋 🍄 22 📑	開截 🏰 校査 🕶 🗹	3 選項 🌛				٩	•
				_				
						Basic		
Firewall	Firewall	VirtualServer	StaticRouter	Admin	Upgrade	Reboot		
Thewan								
	MAC Rules							
	Action Deny all	•						
	MAC							
	1. 📃 :			2.	:			
	3. 🔽 :			4.				
	5:			6.	:			
	7:			8.	: 「			
	9. [ :	: :: ::		10.	:			
	11. 📃 :	:	:	12.	:			
	13. 📃 :		: - : - :	14.	:			
	15. 📃 :	: .	::	16.	:			
	17. 🔽 :			18.	:		i i	
	19. 📃 :		_::	20.	:			
	<		)		>			
								V
② 完成							網際網路	

(Note: If you change any item, click "submit" to store the value. Or click "clear" to restore previous value. To make settings working click **Submit-> Reset-> Restart**.)

## Virtual Server setting $\rightarrow$ Virtual Server

A Virtual Server is a server built on a single or a cluster of real servers. A server is a term commonly used to describe the default Virtual Server - the router will redirect all traffic from the Internet without a valid port address mapping to this device. An HTTP server with a private IP address on the LAN allows access from the Internet by mapping a special port to the HTTP server. In this case, the HTTP service will be mapped to a special port of the Router.

You can add a virtual server mapping by (1) decription of the service name (such as HTTP, FTP,TELNET, SMTP, POP3, CUSTOM), (2) enter the **public port number** to be used (either a **single** port number), (3)enter the **Local IP address(Private)** of the server on your LAN, (4)enter its **local port number** to map(5) choose tcp protocol or udp protocol

You can define 10 groups Virtual Server here.

e.g. If you build a Server at local PC(client) and Wireless-G Outdoor AP/Bridge is connect to internet have a real IP. Check Enable the rule in Virtual Server and type Description, then key-in local PC's IP in Local IP fields and port(use by the Server) in Local Port and select protocol (use by the Server). After finish those setting click **Submit**-> **Reset**-> **Restart** restart system to make settings work. The Server build at local PC will work in internet.

🗿 Advance Setup - Microsoft Internet Explore								
福楽(上) 編輯(上) 板視(⊻) 戎的殺愛(Δ) 上。	具(I) 説明(H)			00				
				-40			10 IN 10 T	·志休 >>
Google - C 搜	ər.html 🛊 👻 💋 22 🖻	開載 🏾 🗳 検査 👻 尾	選項 🍠				Y 10 ±	>⊞#⊐
								~
						Basic		
VirtualServer	Firewall	VirtualServer	StaticRouter	Admin	Upgrade	Reboot		
	Virtual Serv	er Configuration			<u>^</u>		1	
	Virtual Server is	s used to allow Interne	t users to access LAN	services				
	Enable Des	cription Public Port	Local (Private) IP	Port	Protoci			
					C top C			
					C top C			
					C top C			
					C top C			
					C top C			
					C top C			
					C top C			
					C top C			
					C top C			
	<				<u>í</u>			
② 完成							網際網路	~

🚰 Advance Setup - Microsoft Internet Explorer										PX
檔案(F) 編輯(E) 檢視(Y) 我的最愛(A) 工具(I	) 説明(1	Ð								<b>.</b>
🔾 上—頁 🗸 🐑 · 💌 🗟 🏠 🔎 搜	幸 ☆	我的最愛 🧭	2- 🎍	<b>N T</b>	) 🗄 🛍	-28				
網址① ( http://192.168.2.254/Virtual_server_border.htt	മി								✔ 🄁 移至	連結 »
Google - C 搜尋	- 🕡 🖁	Ӯ 22 已攔截 🛛 🗳	檢查 •	🧕 選項 🌛						•
										~
								Basic		
	E inc	A Party	-10	Obstan		Autoria	1100000000	Deber		
VirtualServer	Fire	ewali virtua		Statich	couter	Admin	Upgrade	Reboot	-	
	A linter of	I Carrier Carri	Investion				~			
	Virtua	i Server Con	iguration	n 	1 0.NI					
	Virtual a	Server is used to :	Public	let users to a	ccess LAN	services				
	Enable	Description	Port	If	o D	Port	Protoci			
		FTP	21	192 168	2 100	21	C lop C			
							C ten C			
	-						C top			
	-						C L C			
							tcp			
		J					C top C			
							C top C			
							C top C			
							C top C			
							C top C			
	~ -	· · · · · · ·					<u>∩</u> , <u>∽</u>			
									-	~
一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一								0	網際網路	

## ■ Static Router→Static Router Configuration

**Routing Table:** The Routing Table shows a list of destinations that the IP software maintains on each host and router. The destination network IP address, subnet mask, gateway address, and the corresponding interface are displayed.

#### **Enable:**

If you want to enable routing protocol, pull down " $\sqrt{}$ " to enable routing protocol.



#### **Dest Net:**

Enter the IP address of the destination network in the Dest Net field.

🗿 Advance Setup	) - Microsoft Internet Explorer											PX
檔案(E) 編輯(E)	檢視(型) 我的最愛(▲) 工具(工	) 説明(	H)									<b>.</b>
	🜔 - 🖹 🛃 🏠 🔎 搜	尋 🥎	我的最愛 🤗 🍃	è 🖻			g 🔏 🔰					
網址① 🙆 http://1	192.168.2.254/Static_routing_border.htm	nl									🗙 🄁 移至	連結 »
Google -	✓ C 搜尋	- 🕡 1	💁 22 已攔截 🛛 🎸 檢查	• 🛃 選	g 🎤		_				_	•
												~
										Basic		
	StaticRouter	Fin	ewall VirtualServe	er	StaticR	outer	Admin	Up	grade	Reboot		
		Statio	Router Configurati	on					^		1	
		Routin	g Tables									
		Enable	Dest Net	Mask		Gate	way		De			
		П	, <u></u> ,	J				0	Bł			
					1 • F			0	Bi			
								0	Et			
		Γ		<u></u>	i o [			С	BI			
		Г						С	Bł			
		П						C	Bł			
		Π						С	B			
								0	BI			
		Г						C	BI			
		< -			l _ lr			~	>			
A 1 10 10 100 100 00											100177 4000	~
http://192.168.2.2	204/ v intual_server_border.html										相序涂附陷	

### Mask:

Enter the subnet in the Subnet Mask field.

🗿 Advance Setup - Microsoft Internet Explorer 👘				
檔案(E) 編輯(E) 檢視(Y) 我的最愛(A) 工具(1	D) 説明(H)			<b>N</b>
🔇 上—頁 🔹 📀 🖌 🗾 🛃 🏠 🔎 捜	😝 🥎 我的最爱 🥝 🔗 👌	🎍 🖬 · 📙 🛃 🖓 👘		
網址① 🍘 http://192.168.2.254/Static_routing_border.ht	ml			▶ 移至 連結 ≫
Google → C 搜尋	• 🥩 🕾 22 已攔截 🏾 🌱 検査	• 🛃 選項 🖉		n 🔁 🗸
				Basic
StaticRouter	Firewall VirtualServe	er StaticRouter Admin	Upgrade	Reboot
	Static Router Configurati	on	~	
	Routing Tables			
	Enable Dest Net	Mask Gateway	De	
			CB	
			СВ	
			CB	
			C B	
			~ ~	
http://192.168.2.254/Virtual_server_border.html				御際網路

### Gateway:

Enter the IP address of the specific router in the Gateway IP Address field.

🗿 Advance Setup	) - Microsoft Internet Explorer											
檔案(E) 編輯(E)	檢視(型) 我的最愛(▲) 工具(1	) 説明(出)										<b>.</b>
③ 上一頁 •	🔘 - 🖹 🗟 🏠 🔎 搜	尋 🥎 鹅	的最愛 🤗 👔	<b>∂</b> • 🎍 I	• •		8 3					
網址① 餐 http://1	192.168.2.254/Static_routing_border.ht	nl									💙 🄁 移至	連結 »
Google -	✓ C 搜尋	• 🕷 🕾 :	22 已攔截 🛛 🗳	検査 🔹 🔁	難項 🍠						_	•
												~
										Basic		
	StaticRouter	Firewa	all Virtua	lServer	StaticR	outer	Admin	Up	grade	Reboot		
		Static R	outer Config	guration					^		1	
		Routing T	ables			0.11						
		Enable				Gale	way					
							1 1	-				
						,		-				
								0	BI			
								C	Bł			
								0	BI			
								0	Bł			
								0	Bi		i –	
			_,,					0	BI			
		<						~	>			
											ACTION OF ACTION OF	~
e http://192.168.2.2	254/Virtual_server_border.html										和序新制造	

#### **Device:**

Select Ethernet • Wireless0 • Wireless1 orWAN, where is the specific router is, from the Interface menu.

🗿 Advance Setup - Microsoft Internet Explorer		
檔案(E) 編輯(E) 檢視(V) 我的最愛(A) 工具(	) 説明(出)	<b>A</b>
🔇 l-ā · 🕥 · 💌 🗟 🏠 🔎 B	章 🌟 我的最爱 🥝 🔗 🍓 🔺 📙 💽 🎇 🖄	
網址① 🗃 http://192.168.2.254/Static_routing_border.ht	ฑไ	▶ 移至 連結 ≫
Google - C 搜尋	- 🍻 💁 22 已攔載 👋 検査 - 🛃 選項 🥒	•
	Ba	sic
StaticRouter	Firewall VirtualServer StaticRouter Admin Upgrade Rebo	ot
	uration 🔷	
	Mask Gateway Device OSPFarea RIP	
御餘6個項目。) 正在下載圖片 http://102.168.2.254	imaeed#102.oif	✓
● (With 0 HE St 4 0 / 正正 1 載 ● / Http://152.100.2.2.94		A markenated

**OSPF** can be enabled to consolidate multiple routes into one single advertisement and hence reduce the routing database make routing simpler and faster. When this function is enabled, it will only be effective when the Wireless Outdoor AP/Bridge is an area border rouer, that is,at least two OSPF enabled interface are configured with different Router IDs. For each summarization entry, you have to enter the **Router ID** such that routes from the Area falling into the specified subnet (**IP address/Netmask**) will be summarized into a single route to the specified subnet and it is the single route instead of the individual route to be injected into other Areas.

When OSPF is selected. You can select the interface (Ethernet • Wireless0 • Wireless1 orWAN) to run OSPF.For each interface where OSPF is enabled, you have to configure the Area that the interface belongs to by specifying the **RouterID**, and the priority of the Wireless Outdoor AP/Bridge on the segment the interface belongs to. Also, for the segment that an OSPF enabled interface, you have to configure the Hello interval and Dead interval on the segment, the Cost for transmitting a packet on the segment.

🗿 Advance Setuj	p - Microsoft Internet Explorer						FX
檔案(E) 編輯(E)	) 檢視(Y) 我的最愛(A) 工具(	〕 説明(H)					<b>.</b>
	🕗 - 💌 🗟 🏠 🔎 搜	尋 🥎 我的最爱 🚱 🔗 🍦	N - 🗾 🗄	12 38			
網址① 🕘 http://	192.168.2.254/Static_routing_border.ht	ml			~	🖌 🔁 移至	連結 »
Google -	✓ C 搜尋	- 🚿 🕾 22 已攔截 🛛 🎸 検査 🔸	🔁 選項 🌛				•
							~
					Basic		
				-			
	StaticRouter	Firewall VirtualServer	StaticRouter	Admin Upgrade	e Reboot		
		OSPF Settings	[]				
		RoutenD :	192.168.2.264 🗸				
		Distribute RIP over OSPF :					
		RIP Settings					
		Enable RIP :					
		Side (Devices) :	WAN				
			Wireless0				
			Ethernet				
		Distribute OSPF over RIP :	Г				
		-	Apply	Cancel			
			Apply	vanser v			
		5					
   (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)					<b>20.</b> 45		×
Now A					<b>2</b> 114	าเวราเกรา	

# ■ Admin→Admin Configuration

### Set New Admin Password:

The default factory password is "**default**". If want to change the password, enter the new password.

🗿 Advance Setup - Microsoft Internet Explorer		
檔案(F) 編輯(E) 檢視(Y) 我的最愛(A) 工具(	D) 說明(出)	
🔇 l-ā - 🕥 - 💌 🗟 🎲 🔎 i	障 🧙 我的最爱 🥝 🔗 🎍 🔺 📙 🔝 🎎 🦓	
網址① 🗃 http://192.168.2.254/Admin_border.html		▼ ● 移至 連結 ≫
Google - C 搜尋	▼ 🛷 🕾 22 已編載 👋 検査 ▼ 🛃 選項 🎤	<ul> <li>•</li> </ul>
		<u>^</u>
	Basic	
	Eirewall VirtualServer StaticBouter Admin Upgrade Reboot	
Admin		-
	Admin Configuration	
	Deblew Adress Descende	
	Set New Admin Password : (If you don't want to change , don't type anything)	
	Type New Password Again :	
	Admin HTTP port :	
	SNMP	
	□ v2c	
	□ v3	
	SNMP Trap	
	Enable SNMP Trap 📕	
	: Apply : Cancel	
		×
http://192.168.2.254/Virtual_server_border.html		網際網路

### Type New Password Again:

Followed by the new password twice. The entered characters will appear as asterisks.

🗿 Advance Setup - Microsoft Internet Explorer	
檔案·[] 編輯·[] 檢視·[] 我的最愛(A) 工具·[] 說明·[]	<b>1</b>
③ 上─頁 ▼ ③ ▼ ▲ ②  ▲ ②  ★ 株的最要  ● ◎ ▼ ● ■ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	
網址② (劉 http://192.168.2.254/Admin_border.html	移至 連結 ※
Coogle - C 搜尋 - 1 🛷 🕾 22 已編載 👋 檢查 - 🔁 遵項 🥒	1
	~
Basic	
Admin Firewall VirtualServer StaticRouter Admin Upgrade Reboot	
Admin Configuration	
Set New Admin Password :	
Admin HTTP port.	
SNMP	
□ v2c	
□ v3	
SNMP Trap	
Enable SNMP Trap	
: Apply : Cancel :	
<	
	1
attp://192.168.2.254/Wirtual_server_border.html	利祭網路

#### **SNMP:**

### Choose v2c or v3 version

🚰 Advance Setup - Microsoft Internet Explore	π	X
檔案(P) 編輯(E) 檢視(V) 我的最愛(A) 工	具(I) 説明(II)	<b>**</b>
🌀 l-ā - 🐑 - 💌 🗟 🏠 🔪	) 搜尋 👷 我的最爱 🥝 😥 🍓 🔟 🛄 🔛 🎇 🦓	
網址 (D) 🗃 http://192.168.2.254/Admin_border.html		✓ → 移至 連結 ※
Google - ☑ 및	幸 👻 🥵 🛂 22 已編載 🛛 🎸 檢查 👻 🛃 選項 🥒	🐔 -
	Basic	
Admin	Firewall VirtualServer StaticRouter Admin Upgrade Reboot	_
	Admin Configuration	
	Set New Admin Password : (If you don't want to change , don't type anything)	
	Type New Password Again :	
	Admin HTTP port :	
	SNMP	
	□ v2c	
	<b>□ v3</b>	
	SNMP Trap	
	Enable SNMP Trap	
	: Apply : Cancel	
		1
	C	
http://192.168.2.254/Virtual_server_border.html		網際網路

### **Enable SNMP Trap:**

A trap manager is a remote SNMP management station where special SNMP trap messages are generated (by the Access Point) and sent to in the network.

🗿 Advance Setup	p - Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(型) 我的最愛(▲) 工具(	[] 説明(11)	<b></b>
(] 上一頁 ▼	🕞 - 🖹 🗟 🏠 🔎 搜	專 👷 我的最爱 🥝 🔗 - 🌺 🔺 🛄 🔝 🎇 🦓	
網址①) 🙋 http://1	192.168.2.254/Admin_border.html	· · · · · · · · · · · · · · · · · · ·	▶ 移至 連結 ≫
Google -	✓ C 搜尋	▼ 🥩 🎦 22 已編載 👋 検査 ▼ 🛃 選項 🤌	1
		Basic	
	Admin	Firewall VirtualServer StaticRouter Admin Upgrade Reboot	
		Admin Configuration	
		Set New Admin Password : (If you don't want to change , don't type anything)	
		Type New Password Again :	
		Admin HTTP port:	
		SNMP	
		□ v2c	
		- Y3	
		SNMP Trap	
		Enable SNMP Trap	
		: Apply : Cancel	
A http://102.168.2.1	254 Wintral server bonler html		<u>∼</u> 8%:個%
Julp.#192.100.2.2	20477 Intola_server_border.html		िकनापाल

## **Profiles**

#### Load Setting From PC:

In this page, you can save your current configuration, restore a previously saved configuration, or restore all of the settings in the router to the factory (default) settings.

🗿 Basic Setup - Microsoft Internet Explorer		- 7 🛛
檔案 (上) 編輯 (上) 檢視 (型) 我的最愛 (▲) 工具 (	D) 説明(出)	
🔇 l-ī - 🕥 - 💌 💈 🏠 🔎 iķ	韓 🧙 我的最爱 🥝 🔗 💺 🔺 📙 🔣 🛍 🔏	
網址 D 🕘 http://192.168.2.254/profiles_save_border.htm	ni	▶ 移至 連結 ≫
Google - C 搜尋	🔹 🛷 💁 22 已編載 👋 検査 👻 🛃 選項 🥒	•
		~
	Advanced	
Profiles	Ethemet Wireless DHCP WAN Promies Status Save & Check Reboot	
	Drafiles Cave	
	In this name your and your automatic configuration restore a provincely agreed	
	configuration, or restore all of the settings in the router to the factory (default)	
	settings.	
	Save Settings To PC: : Save	
	Load Settings From PC :	
	Restore To Factory Default : Restore	
	Settings:	
	8	
② 完成		系網路

# Status → Network Status

When WAN setting is **Static IP** click Status/Network Status will show current IP status. You can click **renew** or **release** to renew or release IP at **Dynamic IP** setting, and click **disconnect** or **connect** to disconnect or connect your ISP at **PPPoE** setting.

🗿 Basic Setup - Microsoft Internet Explorer								FX
檔案(F) 編輯(E) 檢視(Y) 我的最愛(A) 工具(	I) 説明(H)							
🔇 上—頁 - 🜔 - 💌 😫 🏠 🔎 и	國 📩 我的最爱 🚱 🛛	🗟 • 🍓  🖻 🗉 🖉	, 🔛 🎎 🕹	8				
網址① 🙆 http://192.168.2.254/Status_border.html						~	▶ 移至	連結 »
Google - C 搜尋	• 🚿 🕾 22 已攔截 🛛 💖	檢查 🔸 🌄 選項 🌛						•
								~
				<u></u>	1	Advanced		
			<u> </u>			Auvanceu		
Status	Ethernet Wireless	DHCP WAN	Profiles	Status Save 8	k Check	Reboot		
	Network Status				^			
		LAN Status	5					
			W	/IRELESS				
	Status	WIRE	Wireless0	Wireless1				
	WLAN Mode :	N/A	Bridge/AP	Bridge/AP				
	IP Address :	192.168.2.254		N/A				
	IP Netmask:	255.255.255.0						
	IP Gaeway:							
	DHCP :							
	ESSID :		default	default				
	Encryption Mode :		disabled	disabled				
	Receive bytes :	878032	0	0				
	Receive packets :	4537	334867	364672				
	Transmit bytes :	4526282	8940	8940				
	Transmit packets :	4795	78	78				
	WAN Status			>	×			
								Y
金) 完成						🔮 網	際網路	

## Save & Check System → Save & Check

Click Save & Check  $\rightarrow$  It will store settings and check system.



# Reboot System $\rightarrow$ Reboot

Click Reboot  $\rightarrow$  Restart will store settings and restart system.

🙆 Basic Setup - 1	Microsoft Internet Explorer		
檔案(E) 編輯(E)	) 檢視(17) 我的最愛(A) 工具(1	)) 説明(出)	<b>R</b>
- 頁 - 〔	🕗 - 💽 🛃 🌈 搜	尋 🧙 我的最爱 🥝 🔗 🍓 🔺 📙 🔝 🎎 🧏	
網址 D 🙋 http://	/192.168.2.254/Reset_border.html		▶ 移至 連結 ≫
Google -	✓ C 搜尋	- 🥩 💁 22 已攔截 🦓 檢査 - 🔁 選項 🤌	•
		· · · · · · · · · · · · · · · · · · ·	^
		Advanced	
	Rehoot	Ethernet Wireless DHCP WAN Profiles Status Save & Check Reboot	
	Reboot		
		Reboot	
		<ul> <li>Sometimes it may be necessary to reboot the Outdoor AP if it begins working improverly</li> </ul>	
		o Rebuoting the router will not delete any of your conliguration settings.	
		<ul> <li>Click reboot button to reboot the Outdoor AP.</li> </ul>	
		: Rebool	
ど 元队			宗術哈

# Firmware upgrade $\rightarrow$ Upgrade

Step 1 : Set your PC IP (192.168.2.X), and close PC's firewall.

Step 2 : Open a TFTP server on your PC and put the firmware in the same direct. Step 3 : Click on the **Upgrade** tab and then the main screen enter the PC IP address in the "tftp server :"field section 192.168.2.X , and the second option "file name" please key in the firmware file name. Then click **Download and reset**. It may take a up to 2 min for the upgrade to complete.

🚰 Advance Setur	p - Microsoft Internet Explorer			
檔案(E) 編輯(E)	) 檢視(Y) 我的最愛( <u>A</u> ) 工具( <u>1</u>	) 説明(出)		<b>.</b>
(3 上─頁 •	🕞 - 🖹 🗟 🏠 🔎 搜	章 🧙 我的最爱 🤣 🙆 - 🌺 🔺 🛄 🔛 🎇 🦓		
網址(D) 🙆 http://	192.168.2.254/Upload_border.html		💙 🄁 移至	連結 »
Google -	✓ C 搜尋	🗸 🍻 🎦 22 已耦載 🛛 👋 檢查 👻 🔀 選項 🥒	_	•
				~
		Basic		
	Upgrade	Firewall VirtualServer StaticRouter Admin Upgrade Reboot	_	
		Firmware Upgrade		
		Current Firmware Version : A 0.0.15		
		Firmware Date : Mon May 22 11:36:33 CST 2006		
		TFTP Server:		
		File Nome		
		Download and Reboot		
Fight anter all				~
🕙 完成			)網際網路	

## Trouble Shooting

**1.**This Chapter provides solutions to problems that can occur during the installation and operation of the Wireless Outdoor AP/Bridge Wireless Access Point. We cover various aspects of the network setup, including the network adapters. Please read the following if you are having problems.

Note: It is recommended that you use an Ethernet connection to configure the Wireless Outdoor AP/Bridge Wireless Access Point.

- The computer used to configure the Wireless Outdoor AP/Bridge cannot access the Configuration menu.
- Check that the Ethernet LED on the Wireless Outdoor AP/Bridge is ON. If the LED is not ON, check that the cable for the Ethernet connection is securely inserted.
- Check that the Ethernet Adapter is working properly. Please see item 3 (Check that the drivers for the network adapters are installed properly) in this Troubleshooting section to check that the drivers are loaded properly.
- Check that the IP address is in the same range and subnet as the Wireless Outdoor AP/Bridge. Please see Checking the IP Address in Windows XP in the Networking Basics section of this manual.

Note: The IP address of the Wireless Outdoor AP/Bridge is 192.168.2.254. All the computers on the network must have a unique IP address in the same range, e.g., 192.168.2.x. Any computers that have identical IP addresses will not be visible on the network. They must all have the same subnet mask, e.g., 255.255.255.0. Do a Ping test to make sure that the Wireless Outdoor AP/Bridge is responding. Go to Start>Run>Type Command>Type ping 192.168.2.254. A successful ping will show four replies.

Note: If you have changed the default IP address, make sure to ping the correct IP address assigned to the Wireless Outdoor AP/Bridge.

```
C:\WINNT\system32\cmd.exe
                                                                             - 🗆 ×
Microsoft Windows 2000 [版本 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.
C:\Documents and Settings\lsliver>ping 192.168.2.254
Pinging 192.168.2.254 with 32 bytes of data:
Reply from 192.168.2.254: bytes=32 time=1ms TTL=64
Reply from 192.168.2.254: bytes=32 time<10ms TTL=64
Reply from 192.168.2.254: bytes=32 time<10ms TTL=64
Reply from 192.168.2.254: bytes=32 time<10ms TTL=64
Ping statistics for 192.168.2.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = Oms, Maximum = 1ms, Average =
                                              Øms
C:\Documents and Settings\lsliver>_
```

#### 2. The wireless client cannot access the Internet in the Infrastructure mode.

Make sure the wireless client is associated and joined with the correct access point, and please make sure you have selected the correct available network, as shown in the illustrations below. Check that the IP address assigned to the wireless adapter is within the same IP address range as the access point and gateway. Since the Wireless Outdoor AP/Bridge has an IP address of 192.168.2.254, wireless adapters must have an IP address in the same range, e.g., 192.168.2.x. Each device must have a unique IP address; no two devices may have the same IP address. The subnet mask must be the same for all the computers on the network.) To check the IP address assigned to the wireless adapter, double-click on the Local Area Connection icon in the taskbar > select the Support tab and the IP address will be displayed. Please refer to Checking the IP Address in the Networking Basics section of this manual.) If it is necessary to assign a Static IP Address to the wireless adapter, please refer to the appropriate section in Networking Basics. If you are entering a DNS Server address you must also enter the Default Gateway Address. (Remember that if you have a DHCP-capable router, you will not need to

assign a static IP address. See Networking Basics: Assigning a Static IP Address.)

#### 3. What variables may cause my wireless products to lose reception?

Wireless outdoor products let you access your network from virtually anywhere you want. However, the positioning of the products within your environment will affect the wireless range. Please refer to **Installation Considerations** in the **Wireless Basics** section of this manual for further information about the most advantageous placement of your wireless products.

#### 4. Why does my wireless connection keep dropping?

Antenna Orientation- Try different antenna orientations for the Wireless Outdoor AP/Bridge. Try to keep the antenna at least 6 inches away from the wall or other objects. If you are using 2.4GHz cordless phones, other home security systems, ceiling fans, and lights, your wireless connection will degrade dramatically or drop altogether. Try changing the channel on your router, access point and wireless adapter to a different channel to avoid interference.Keep your product away (at least 3-6 feet) from electrical devices that generate RF noise, like microwaves, monitors, electric motors, etc.

#### 5. Why can't I get a wireless connection?

If you have enabled encryption on the Wireless Outdoor AP/Bridge, you must also enable encryption on all wireless clients in order to establish a wireless connection.

- Make sure that the SSID on the router and the wireless client are exactly the same. If they are not, wireless connection will not be established.
- Move the Wireless Outdoor AP/Bridge and the wireless client into the same room and then test the wireless connection.
- Disable all security settings.
- Turn off your Wireless Outdoor AP/Bridge and the client.
- Turn the Wireless Outdoor AP/Bridge back on again, and then turn on the client.
- Make sure that all devices are set to Infrastructure mode.

- Check that the LED indicators are indicating normal activity. If not, check that the AC power and Ethernet cables are firmly connected.
- Check that the IP address, subnet mask, gateway and DNS settings are correctly entered for the network.
- If you are using 2.4GHz cordless phones, other home security systems, ceiling fans, and lights, your wireless connection will degrade dramatically or drop altogether. Try changing the channel on your Wireless Outdoor AP/Bridge, and on all the devices in your network to avoid interference.
- Keep your product away (at least 3-6 feet) from electrical devices that generate RF noise, like microwaves, monitors, electric motors, etc.

## Technical Specifications

Standards

- IEEE 802.11a
- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x

Device Management

- Web-Based Internet Explorer v6 or later; Netscape Navigator v7 or later; or other Java-enabled browsers.
- SNMP v.2c
- SNMP v.3

Data Rate

For 802.11a/g

:• 54, 48, 36, 24, 18, 12, 9 and 6Mbps

For 802.11b:

• 11, 5.5, 2, and 1Mbps

Security

- WPA
- WPA2
- 64/128bit WEP
- SSID Broadcast Disable

Wireless Frequency Range

- 2.4GHz to 2.4835GHz
- $\bullet$  5.180GHz to 5.825GHz

Wireless Operating Range

\*802.11a/g

Indoors:

- 98ft (30m) @ 54Mbps
- 112ft (34m) @ 48Mbps
- 128ft (39m) @ 36Mbps
- 154ft (47m) @ 24Mbps
- 184ft (56m) @ 18Mbps
- 217ft (66m) @ 12Mbps
- 259ft (79m) @ 9Mbps
- 325ft (99m) @ 6Mbps

#### Outdoors:

- 367ft (112m) @ 54Mbps
- 820ft (250m) @ 18Mbps
- 1640ft (500m) @ 6Mbps

Operating Voltage

• 48VDC +/- 10% for PoE

Radio and Modulation Type

For 802.11b:DSSS:

- DBPSK @ 1Mbps
- DQPSK @ 2Mbps

• CCK @ 5.5 and 11Mbps

For 802.11a/g:

OFDM:

- BPSK @ 6 and 9Mbps
- QPSK @ 12 and 18Mbps
- 16QAM @ 24 and 36Mbps
- 64QAM @ 48, 54 Mbps DSSS:
- DBPSK @ 1Mbps
- DQPSK @ 2Mbps
- CCK @ 5.5 and 11Mbps

Transmit Output Power

For 802.11a:

- 100mW (20dBm)
- 50mW (17dBm)
- 30mW (15dBm)
- 20mW (13dBm)
- 10mW (10dBm)
- 5mW (7dBm)
- 1mW (0dBm)

For 802.11b:

- 200mW (23dBm)
- 63mW (18dBm)
- 30mW (15dBm)
- 20mW (13dBm)
- 10mW (10dBm)
- 5mW (7dBm)

• 1mW (0dBm)

For 802.11g:

- 200mW (23dBm)
- 63mW (18dBm)
- 30mW (15dBm)
- 20mW (13dBm)
- 10mW (10dBm)
- 5mW (7dBm)
- 1mW (0dBm)

**Receiver Sensitivity** 

For 802.11a:

- 6Mbps: -85dBm
- 9Mbps: -84dBm
- 12Mbps: -82dBm
- 18Mbps: -80dBm
- 24Mbps: -77dBm
- 36Mbps: -73dBm
- 48Mbps: -69dBm
- 54Mbps: -68dBm

For 802.11b:

- 1Mbps: -94dBm
- 2Mbps: -91dBm
- 5.5Mbps: -89dBm
- 11Mbps: -85dBm

For 802.11g:

- 1Mbps: -95dBm
- 2Mbps: -91dBm
- 5.5Mbps: -89dBm
- 6Mbps: -90dBm
- 9Mbps: -84dBm
- 11Mbps: -88dBm
- 12Mbps: -82dBm
- 18Mbps: -80dBm
- 24Mbps: -77dBm
- 36Mbps: -73dBm
- 48Mbps: -72dBm
- 54Mbps: -72dBm

#### LEDs

- Power
- Active

Temperature

- Operating: -40°F to 140°F (-40°C to 60°C)
- Storing: -40°F to 149°F (-40°C to 65°C)Humidity
- Operating: 10%~90% (non-condensing)
- Storing: 5%~95% (non-condensing)Certifications

Warranty• 1 Year