電信終端設備與低功率射頻電機審驗一致性

第26次會議會議紀錄

壹、時間： 97年12月19日(星期五)下午2時

貳、地點：本會濟南路辦公室（台北市濟南路2段16號）2樓會議室

參、主席：黃科長銘眞　　　　　　　　記錄：陳慶琮

肆、出列席人員：如簽到單

伍、結論：

一、本次會議提出「審驗一致性意見提案處理單」共計 3 案，各提案經充分討論後之結論，詳如附件（編號：9712090-9712092）。

二、為本會會計室 97 年會計年度結帳需要，請各驗證機構於 98 年 1 月 5 日前將審驗請款發票送達本會，該發票開立日期須為 12 月份。

三、尚未完成 97 年度 TTE 或 LP 市場稽查之 RCB，請儘快辦理。市場稽查不能僅附市場訪查表，須另附市場稽查器材測試報告。市場稽查資料請於 98 年 2 月底前送至本會。

四、請各 RCB 檢視 TTE 或 LP 委託審驗契約，部分 RCB 契約屬較早簽訂之契約，該契約仍規定每年須辦 2 場審驗及標示說明會。

五、為提升 RCB 審驗能力及行政作業品質，未來簽訂 RCB 之 TTE 或 LP 委託審驗契約時，對於審驗費用開立錯誤、誤繕型式認證證明、誤繕型式認證證明之核發公文、怠於參加本會舉辦之電信終端設備及低功率射頻電機審驗一致性會議等各樣不良行為將採累計制，本會得依契約中止 RCB 審驗。

六、Cable Modem 須測試 Safety 及 EMC，委託審驗契約中驗證項目含數據設備之 RCB，皆得審驗該類器材。

陸、散會：同日下午4時30分

電信終端設備與低功率射頻電機審驗一致性

會議簽到表

開會時間： 97年12月19日（星期五）下午2時

開會地點：台北市濟南路2段16號2樓會議室（NCC濟南路辦公室）

主持人：黃科長銘真　　　　　　　　記錄：陳慶琮

列席長官：

出席者：

財團法人台灣電子檢驗中心

中華電信研究所

港商立德桃園分公司

程智科技股份有限公司

全國公證檢驗股份有限公司

耕興股份有限公司

快特電波股份有限公司

挪威商聯廣驗證股份有限公司台灣分公司

電信技術中心

NCC技術管理處

審驗一致性意見提案處理單

提案日期: 97 年 12 月 5 日　　　　　　　　　　　　　　提案編號: 9712090

提案單位: 香港商立德桃園分公司(原誠信科技) 聯絡人: 郭吉安　聯絡電話: 03-3183232 轉 1893

☐低功率射頻電機　　　☑電信終端設備

提案主旨	提案說明 (依據及理由)	相關文件 (需註明文件或檔案之名稱)	提案建議(解決方法)
傳真卡/傳真模組安裝於多個平台(印表機及多功能事務機)中使用，若平台的 EMC 等級有 Class A 及 Class B 二種，是否應依平台 EMC 等級分別申請型式認證？	廠商現有一款傳真模組可安裝於多個平台(印表機及多功能事務機)，而平台的 EMC 等級有 Class A 及 Class B 二種，因有的 RCB 要求分開為二案申請，有的 RCB 認為可一個案件申請，造成廠商困擾。	CNS 13438	建議以一個案件申請。

審驗一致性會議結論:　　　　　　　　　　　　　　開會日期: 97 年 12 月 19 日

考量同一傳真卡/傳真模組以同一 ID 對廠商的影響最小，爰以一個案件申請並核發一張證書，所有搭配的平台均須檢附 EMC 測報，並於型式認證證書上登載平台的名稱、廠牌、型號及 EMC 等級、、、等相關資訊。

備註: 1.對不同的提案主旨，請個別填具提案處理單。
　　　2.提案編號由國家通訊傳播委員會填寫。

審驗一致性意見提案處理單

提案日期: 97 年 12 月 05 日 　　　　　　　　　　　　　　　　提案編號:9712091

提案單位: 香港商立德桃園分公司(原誠信科技) 聯絡人: 郭吉安　聯絡電話:03-3183232 轉 1893

☑低功率射頻電機　　　　　□電信終端設備

提案主旨	提案說明 (依據及理由)	相關文件 (需註明文件或 檔案之名稱)	提案建議(解決方法)
採用跳頻或數位調變技術的 922-928MHz RFID 器材審驗規費為 6000 元或 9800 元?	依「低功率射頻電機規費收費基準表」,工作頻率 1GHz 以下的 LPD 器材為第一類規費 6000 元,又同表中採用跳頻或數位調變技術的 LPD 器材為第三類規費 9800 元。現有 922-928MHz RFID 採用跳頻或數位調變技術,因 RCB 問彼此認定不同,以致有 6000 元及 9800 元二種不同審驗規費,造成廠商困擾。	低功率射頻電機規費收費基準表	建議採第一類規費 6000 元

審驗一致性會議結論:	開會日期: 97 年 12 月 19 日

1. 依規費法第 10 條第 1 項第 1 款規定,行政規費:依直接材(物)料、人工及其他成本,並審酌間接費用定之
2. 依低功率射頻電機規費收費基準表訂定之核心概念,考量 LP 技術規範 3.10.1 節、4.7 節及 4.8 節展頻、跳頻或數位調變之器材測試項目多且較複雜,適用該等章節之 LP 器材收取 9800 元審驗費。
3. 另部分器材雖使用展頻、跳頻或數位調變之調變技術,因適用 LP 技術規範僅測試輻射,並未多加測試項目,仍收 6000 元審驗費。

備註:1.對不同的提案主旨,請個別填具提案處理單。
　　　2.提案編號由國家通訊傳播委員會填寫。

審驗一致性意見提案處理單

提案日期: 97 年 12 月 16 日　　　　　　　　　　　　　　提案編號: 9712092

提案單位: 香港商立德桃園分公司(原誠信科技) 聯絡人: 郭吉安　聯絡電話: 03-3183232 轉 1893

☑低功率射頻電機　　　☑電信終端設備

提案主旨	提案說明 (依據及理由)	相關文件 (需註明文件或檔案之名稱)	提案建議(解決方法)
802.11b/g/n wireless AP/Router 具有可擴充的 3G/3.5G 行動通信介面，檢測 LP0002 時是否應選擇三個不同廠牌的 3G/3.5G USB Modem 連接測試? 是否須檢附 EMC 及 SAFETY 測報?	廠商現有一款設備 802.11b/g/n wireless AP/Router，具有 Ethernet RJ-45 WAN Port、RJ-45 LAN Ports、2.4GHz Wireless LAN 介面及 3G/3.5G Modem USB Port，消費者可透過 Ethernet RJ-45 WAN Port 與固網電信業者介接，或消費者可自行選購 3G/3.5G Modem，插到設備的 USB port 後可與行動通訊電信業者網路介接，廠商並不隨設備提供 3G/3.5G Modem，請問在檢測 LP0002 時是否須選擇三個不同廠牌的 3G/3.5G USB Modem 週邊連接測試? 是否須檢附 EMC 及 SAFETY 測報?	802.11b/g/n wireless AP/Router設備架構圖說明	建議參考 FCC 要求，須選擇三個不同廠牌的 3G/3.5G USB Modem 週邊連接測試。

審驗一致性會議結論:　　　　　　　　　　　　　　　　　開會日期:年　　月　　日
本案因設備搭配的 3G/3.5G Modem 係由消費者自行選購，又考量 3G/3.5G Modem 於市面上販售時已個別經過型式認證，爰本設備於檢測 LP0002 時可選擇一個具代表性的 3G/3.5G Modem 做為測試週邊，此設備屬低功率射頻電機，目前不須檢附 EMC 及 SAFETY 測報。

備註: 1.對不同的提案主旨，請個別填具提案處理單。

　　　　2.提案編號由國家通訊傳播委員會填寫。
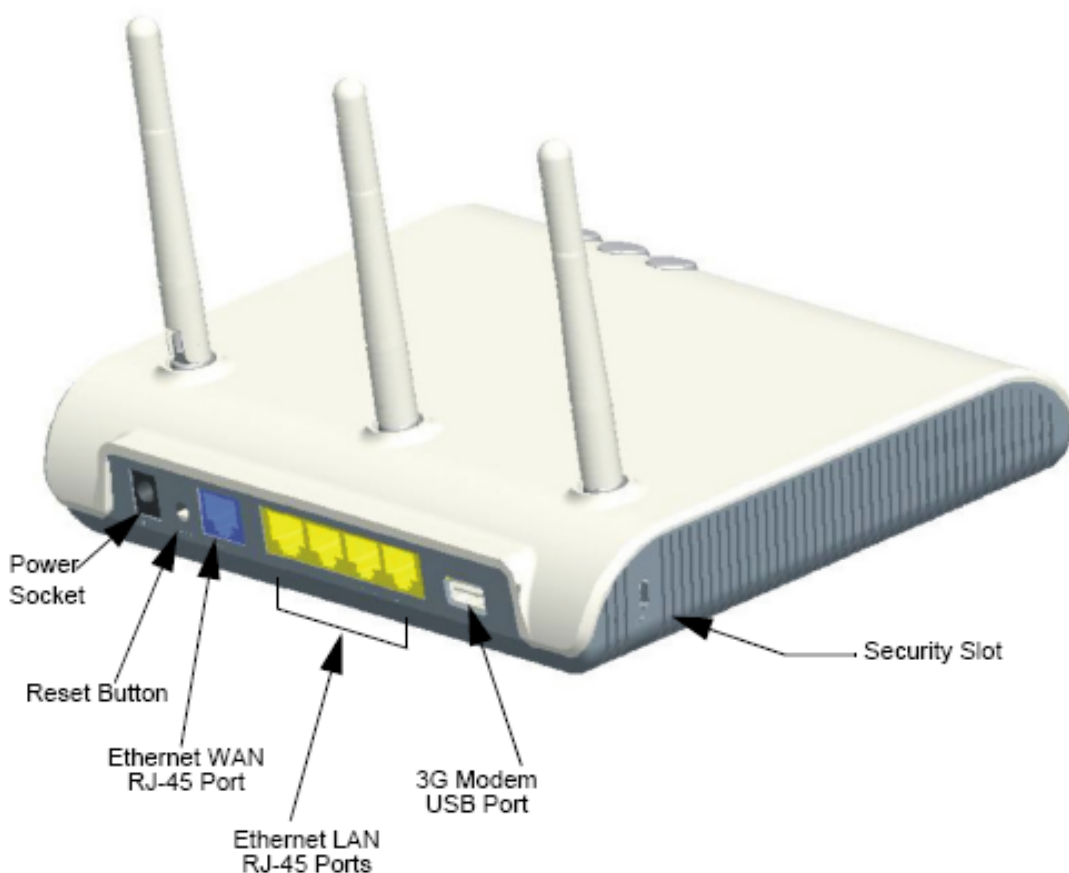
Hardware Description

Figure 1-1.   Rear Panel

Ethernet RJ-45 Ports

The wireless AP/Router has the following RJ-45 ports:

- The four RJ-45 LAN ports are for connections to PCs or to a 10/100 Mbps.
- The RJ-45 WAN port is for connection to a DSL or cable modem, or to a LAN or other device that provides your Internet access.

All RJ-45 ports auto-negotiate the operating speed to 10/100 Mbps, the mode to half/full duplex, and the pin signals to MDI/MDI-X. Automatic MDI/MDI-X support enables you to use straight-through cables for all network connections to PCs, switches, or hubs.

3G Modem USB Port

The 3G Modem USB Port supports connection to a wireless cellular 3G or 3.5G modem for broadband internet access. A PIN code is required for connection to the internet.
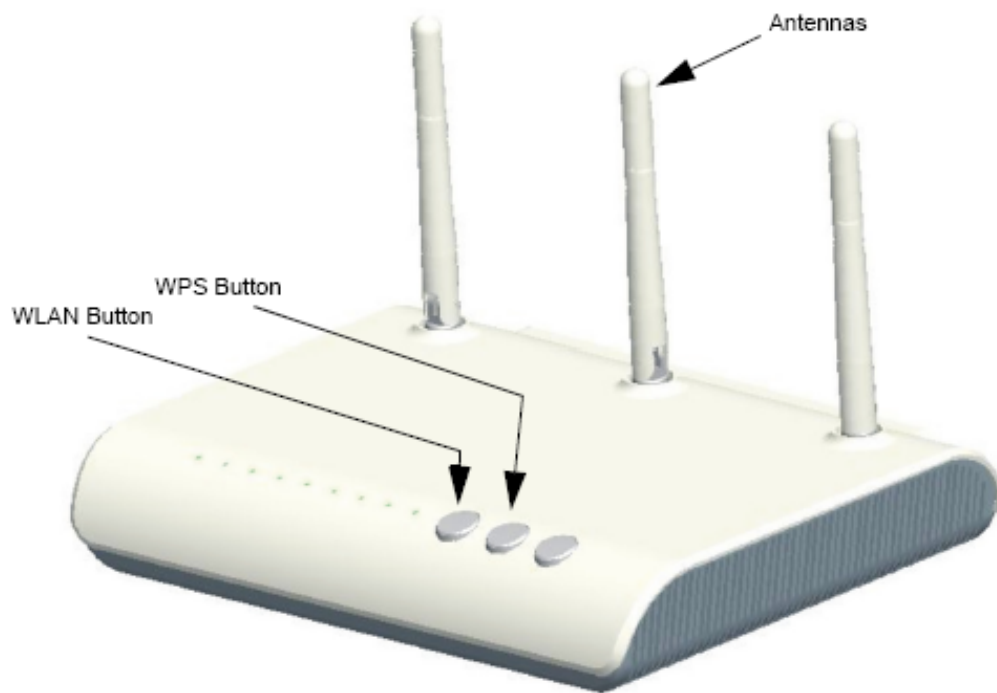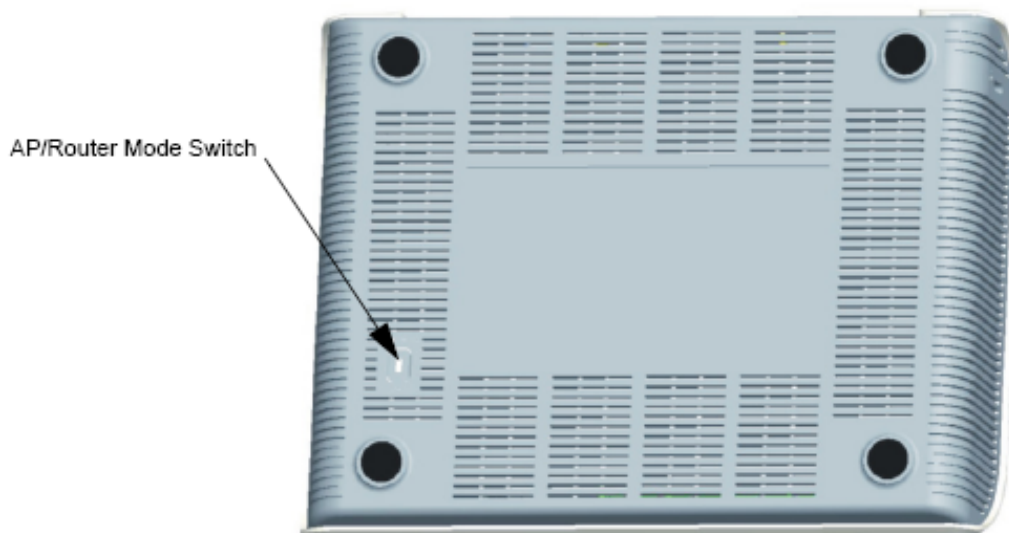
Figure 1-2.   Front Panel

Figure 1-3.   Bottom Panel

LED Indicators

The wireless AP/Router includes nine status LED indicators, as described in the following figure and table.
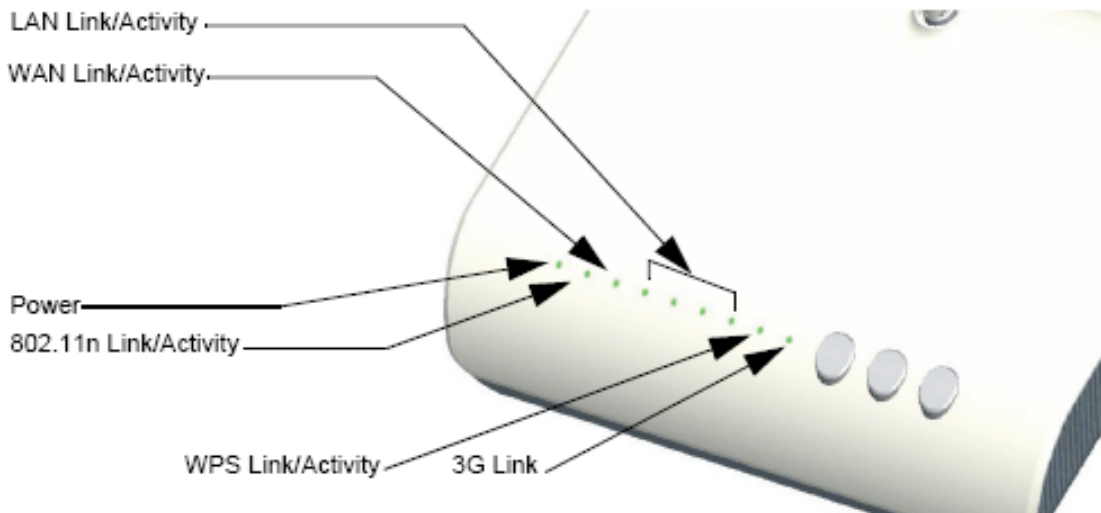

LAN Link/Activity

WAN Link/Activity

Power

802.11n Link/Activity

WPS Link/Activity   3G Link

Figure 1-4. LED Indicators

LED	Status	Description
POWER	On Green	Indicates that the system is working normally.
WAN	On/Flashing Green	Indicates a valid link on the WAN Ethernet port. Flashing indicates network activity.
	Off	The Ethernet port has no valid link.
LAN (4 LEDs)	On/Flashing Green	Indicates a valid link on the LAN Ethernet port. Flashing indicates network activity.
	Off	The Ethernet port has no valid link.
WLAN	On/Flashing Green	Indicates the 802.11n radio is enabled. Flashing indicates wireless network activity.
	Off	Indicates the 802.11n radio is disabled.
WPS	On (for 10 seconds)	Indicates the WPS authentication of a device has been successfully completed.
	Fast Flashing Green	Indicates the WPS authentication of a client device is in progress.
	Slow Flashing Green (for 10 seconds)*	Indicates the WPS authentication of a device did not complete after 120 seconds.
	Off	Indicates that WPS is not in progress.
3G Link	On	Indicates a connection through the attached 3G/3.5G USB modem.
	Fast Flashing Green	Indicates that the PIN code has failed.
	Slow Flashing Green	Indicates that the 3G/3.5G USB modem is in the process of connecting.
	Off	Indicates that there is no connection or no attached 3G/3.5G device.

*Slow flashing is an on-off cycle of once every 2 seconds. The flashing lasts for 10 seconds then stops.

Chapter 3: Network Planning

The wireless AP/Router is designed to be very flexible in its deployment options. It can be used as an Internet gateway for a small network, or as an access point to extend an existing wired network to support wireless users. It also supports use as a wireless bridge to connect two wired LANs.

This chapter explains some of the basic features of the wireless AP/Router and shows some network topology examples in which the device is implemented.

Internet Gateway Router

The wireless AP/Router can connect directly to a cable or DSL modem to provide an Internet connection for multiple users through a single service provider account. Users connect to the wireless AP/Router either through a wired connection to a LAN port, or though the device's own wireless network. The wireless AP/Router functions as an Internet gateway when set to Router Mode.

An Internet gateway employs several functions that essentially create two separate Internet Protocol (IP) subnetworks; a private internal network with wired and wireless users, and a public external network that connects to the Internet. Network traffic is forwarded, or routed, between the two subnetworks.
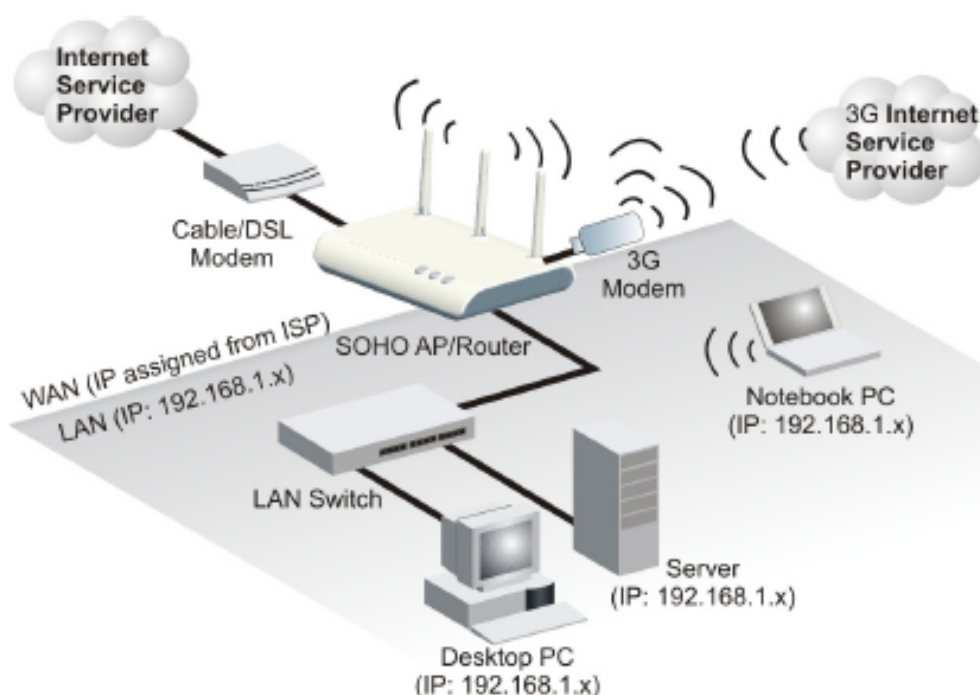

Figure 3-1. Operating as an Internet Getway Router

The private local network, connected to the LAN port or wireless interface, provides a Dynamic Host Configuration Protocol (DHCP) server for allocating IP addresses to local PCs and wireless clients, and Network Address Translation (NAT) for mapping the multiple "internal" IP addresses to one "external" IP address.

The public external network, connected to the WAN port, supports DHCP client, Point-to-Point Protocol over Ethernet (PPPoE) and static IP for connection to an Internet service provider (ISP) through a cable or DSL modem.

The 3G Modem link can provide a backup Internet connection with automatic failover and fallback to the primary WAN connection.

LAN Access Point

The wireless AP/Router can provide an access point service for an existing wired LAN, creating a wireless extension to the local network. The wireless AP/Router functions as purely an access point when set to AP Mode. When used in this mode, there are no gateway functions between the WAN port and the LAN and wireless interface.

A Wi-Fi wireless network is defined by its Service Set Identifier (SSID) or network name. Wireless clients that want to connect to a network must set their SSID to the same SSID of the network service. The wireless AP/Router supports two separate wireless interfaces, that is two SSIDs or Virtual Access Points (VAPs). The two VAP interfaces can be configured separately to support different security settings or other wireless functions.
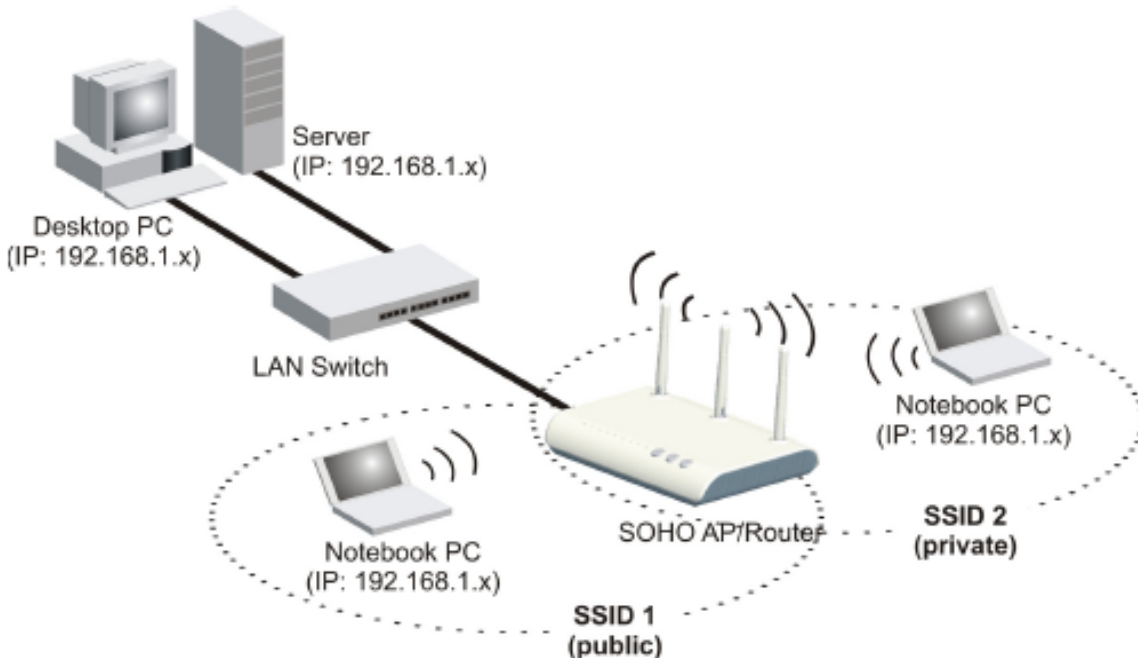

Figure 3-2. Operating as an Access Point

Wireless Bridge

The IEEE 802.11 standard defines a Wireless Distribution System (WDS) for bridge connections between access points. The wireless AP/Router can use WDS to forward traffic on links between units.

A single WDS bridge link can be specified for the WLAN1 interface. One end of a link must be configured as the "WDS Parent" and the other as the "WDS Child."

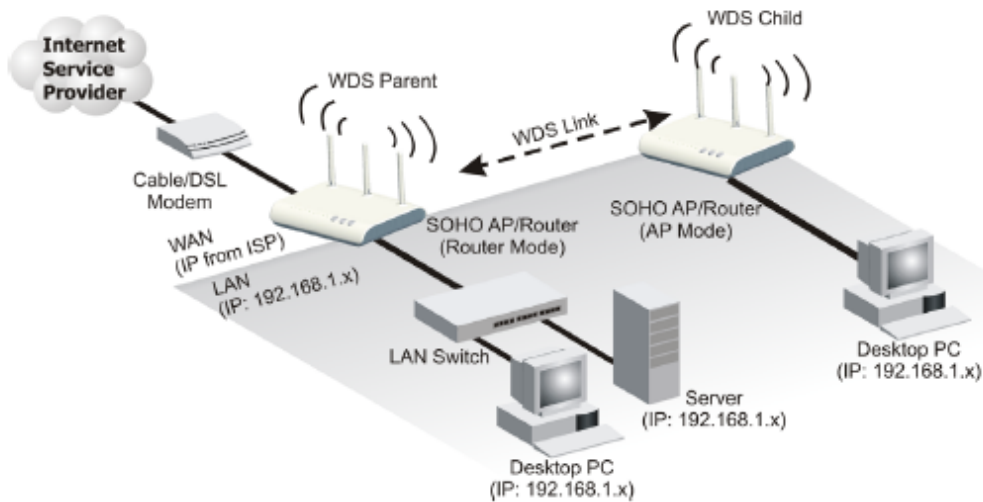**Note:** The network domain of WDS child has to be the same as WDS parent.

Figure 3-3. Operating as a Wireless Bridge

Router Mode

In its default Router Mode, the wireless AP/Router forwards traffic between an Internet connected cable or ADSL modem, and wired or wireless PCs or notebooks. The basic connections are illustrated in the figure below.
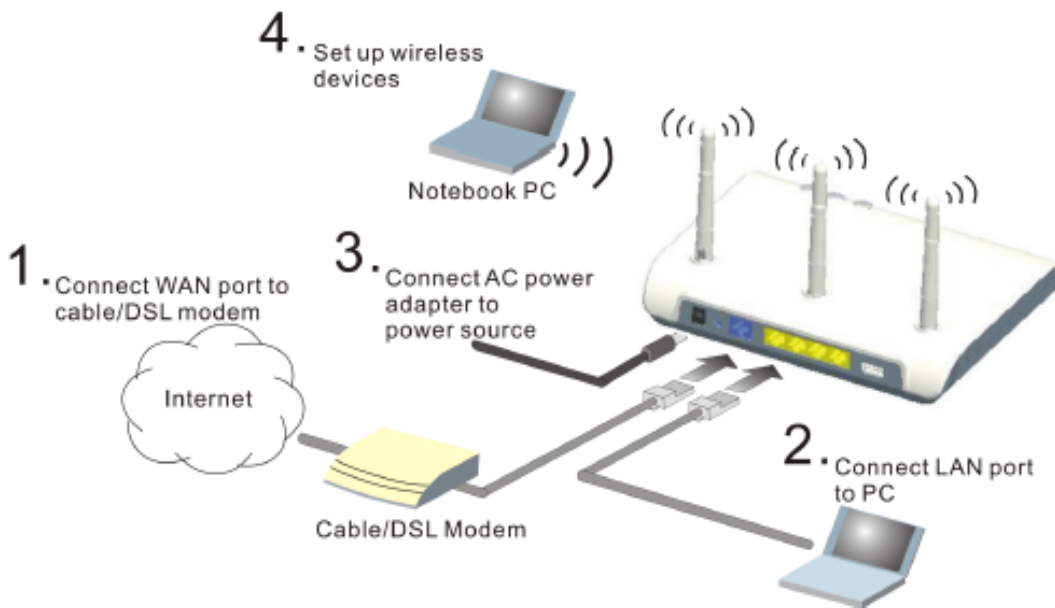

Figure 2-1. Router Mode Connection

3G

Enables a 3G/3.5G wide-area wireless cellular link on the WAN port using an optional USB modem.

Note: To use this option you need to first connect a 3G/3.5G USB modem to the USB port on the back of the unit and have registered an account with a cellular operator.

The following example shows the dual WAN function enabled using 3G as a primary connection and Static IP as a secondary WAN connection. An authenticated 3G connection displays the message 'Authenticated successfully' beneath the PIN code.

WAN Setting	
WAN Connection	○ Static IP ○ DHCP ○ PPPoE ⦿ 3G ○ PPTP ○ L2TP ○ Bigpond
Dual WAN	
Backup WAN	⦿ None ○ Static IP ○ DHCP ○ PPPoE ○ 3G ○ PPTP ○ L2TP ○ Bigpond
Main WAN Fallback	☐ Enable (default:disabled)
3G	
3G MTU	1500 bytes
3G MRU	1500 bytes
Pin Code Protect	☑ Enable (default:enabled)
Pin Code	0000 Authenticated successfully
Dial Code	*99#
APN Service	internet
3G Username	3G_USERNAME
3G Password	••••••••••••
Common Settings	
WAN Ethernet MAC	⦿ Original MAC (00:12:CF:9B:57:C4) ○ Manual Setting 00:00:00:00:00:00 [MAC Clone]
Ping from WAN	☐ Allowed
Set DNS Server	○ Manually ⦿ Automatically

Figure 4-9. Setup Wizard - WAN 3G Authenticated