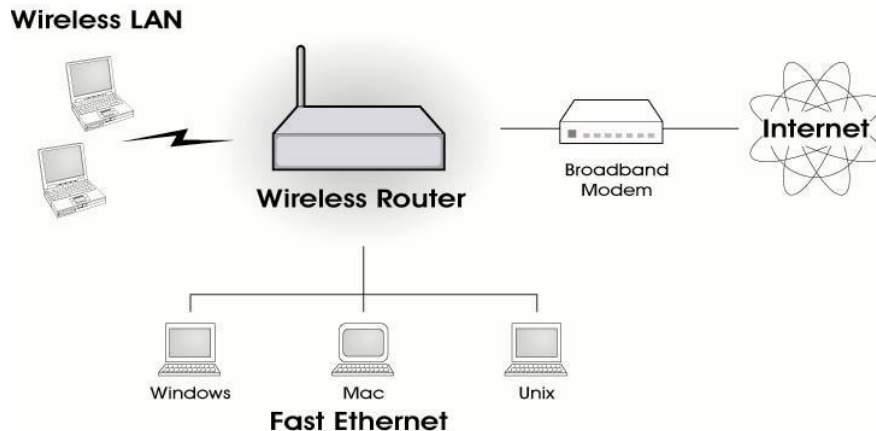# Technical Description

Congratulations on the purchase of your new Wireless Router. The Wireless Router is a multi-function device providing the following services:

- *Shared Broadband Internet Access* for all LAN users.

- *4-Port Switching Hub* for 10BaseT or 100BaseT connections.

- *Wireless Access Point* for 802.11b and 802.11g Wireless Stations.

Wireless Router Features

The Wireless Router incorporates many advanced features, carefully designed to provide sophisticated functions while being easy to use.

Internet Access Features

- *Shared Internet Access.* All users on the LAN or WLAN can access the Internet through the Wireless Router, using only a single external IP Address. The local (invalid) IP Addresses are hidden from external sources. This process is called NAT (Network Address Translation).

- *DSL & Cable Modem Support.* The Wireless Router has a 10/100BaseT Ethernet port for connecting a DSL or Cable Modem. All popular DSL and Cable Modems are supported. SingTel RAS and Big Pond (Australia) login support is also included.

- *PPPoE,* and *PPTP.* The Internet (WAN port) connection supports PPPoE (PPP over Ethernet), PPTP (Peer-to-Peer Tunneling Protocol), as well as "Direct Connection" type services. Unnumbered IP with PPPoE is also supported.

- *Fixed or Dynamic IP Address.* On the Internet (WAN port) connection, the Wireless Router supports both Dynamic IP Address (IP Address is allocated on connection) and Fixed IP Address.

Advanced Internet Functions

- *Communication Applications.* Support for Internet communication applications, such as interactive Games, Telephony, and Conferencing applications, which are often difficult to use when behind a Firewall, is included.

- *Special Internet Applications.* Applications which use non-standard connections or port numbers are normally blocked by the Firewall. The ability to define and allow such applications is provided, to enable such applications to be used normally.

- *Virtual Servers.* This feature allows Internet users to access Internet servers on your LAN. The required setup is quick and easy.

- *DDNS Support.* DDNS (Dynamic DNS) allows Internet users to connect to Virtual Servers on your LAN using a domain name, even if your IP address is not fixed.

- *Multi-DMZ.* For each WAN (Internet) IP address allocated to you, one (1) PC on your local LAN can be configured to allow unrestricted 2-way communication with Servers or individual users on the Internet. This provides the ability to run programs which are incompatible with Firewalls.

- *URL Filter.* Use the URL Filter to block access to undesirable Web sites by LAN users.

- *Internet Access Log.* See which Internet connections have been made.

- *Access Control.* Using the Access Control feature, you can assign LAN users to different groups, and determine which Internet services are available to each group.

- *VPN Pass through Support.* PCs with VPN (Virtual Private Networking) software using PPTP, L2TP and IPSec are transparently supported - no configuration is required.

Wireless Features

- *Standards Compliant.* The Wireless Router complies with the IEEE802.11g (DSSS) specifications for Wireless LANs.

- *Supports both 802.11b and 802.11g Wireless Stations.* The 802.11g standard provides for backward compatibility with the 802.11b standard, so both 802.11b and 802.11g Wireless stations can be used simultaneously.

- *Speeds to 54Mbps.* All speeds up to the 802.11g maximum of 54Mbps are supported.

- *WEP support.* Support for WEP (Wired Equivalent Privacy) is included. Key sizes of 64 Bit and 128 Bit are supported.

- *Wireless MAC Access Control.* The Wireless Access Control feature can check the the MAC address (hardware address) of Wireless stations to ensure that only trusted Wireless Stations can access your LAN.

- *Simple Configuration.* If the default settings are unsuitable, they can be changed quickly and easily.

LAN Features

- **4-Port Switching Hub.** The Wireless Router incorporates a 4-port 10/100BaseT switching hub, making it easy to create or extend your LAN.

- **DHCP Server Support.** **D**ynamic **H**ost **C**onfiguration **P**rotocol provides a dynamic IP address to PCs and other devices upon request. The Wireless Router can act as a **DHCP Server** for devices on your local LAN and WLAN.

- **Multi Segment LAN Support.** LANs containing one or more segments are supported, via the Wireless Router's RIP (Routing Information Protocol) support and built-in static routing table.

Configuration & Management

- **Easy Setup.** Use your WEB browser from anywhere on the LAN or WLAN for configuration.

- **Configuration File Upload/Download.** Save (download) the configuration data from the Wireless Router to your PC, and restore (upload) a previously-saved configuration file to the Wireless Router.

- **Remote Management.** The Wireless Router can be managed from any PC on your LAN. And, if the Internet connection exists, it can also (optionally) be configured via the Internet.

- **Network Diagnostics.** You can use the Wireless Router to perform a *Ping* or *DNS lookup*.

- **UPnP Support.** UPnP (Universal Plug and Play) allows automatic discovery and configuration of the Wireless Router. UPnP is by supported by Windows ME, XP, or later.

Security Features

- **Password - protected Configuration**. Optional password protection is provided to prevent unauthorized users from modifying the configuration data and settings.

- **Wireless LAN Security**. WEP (Wired Equivalent Privacy) is supported, as well as Wireless access control to prevent unknown wireless stations from accessing your LAN.

- **NAT Protection.** An intrinsic side effect of NAT (Network Address Translation) technology is that by allowing all LAN users to share a single IP address, the location and even the existence of each PC is hidden. From the external viewpoint, there is no network, only a single device - the Wireless Router.

- **Stateful Inspection Firewall.** All incoming data packets are monitored and all incoming server requests are filtered, thus protecting your network from malicious attacks from external sources.

- **Protection against DoS attacks.** DoS (Denial of Service) attacks can flood your Internet connection with invalid packets and connection requests, using so much bandwidth and so many resources that Internet access becomes unavailable. The Wireless Router incorporates protection against DoS attacks.