

Planex BLW-54SAG

User's Manual

2.4/5.0 GHz IEEE 802.11 Super a+g 108Mbps Wireless LAN Router

1. Introduction

The Wireless A+G Broadband Router is a complete all-in-one networking solution for homes and small/medium enterprises. With its built-in 4 10/100Mbps auto-sensing Ethernet switch ports, users can link multiple computers to Internet without hassle. The built-in wireless function can let you connect wirelessly with your desktop or notebook computers from up to 300 meters away, either wireless A or wireless G. A natural firewall protects your local computers from outside intruders. Enhanced firewall capabilities can resist various kinds of malicious attacks.

- Share Internet Connection

The device supports ADSL/Cable Internet connection sharing. It is an all-in-one box for user to share Internet access.

- Wireless Function

The Wireless A+G Router's efficient dipole antennas offer a covered range up to 300 meters and seamless roaming throughout wireless LAN infrastructure. The wireless operation provides data rate at 54,48,36,24,18,12, 9,6 Mbps on 11g and auto fallback as well as 11, 5.5, 2, 1 Mbps on 11b The Wireless Router provides multiple levels of security: 64-bit/128-bit key WEP data encryption for high-level security. Moreover, the use of IEEE 802.1X offers an effective framework for authenticating and controlling user traffic to a protected network, as well as dynamically varying encryption keys. Proprietary wireless range extension technology expands wireless range at lower bitrate.

- Firewall Security

This Router is a special design for local network users to resist the hacker attacking your private network and share networking resource. Not only with the NAT as natural firewall, the build-in powerful advanced firewall engine prevents the DoS attack, proceeds SPI, stops LAN users accessing inappropriate web site, as well as setting the Internet accessing time schedule. Content filtering shields you children from any inappropriateness allowing you to set levels for nudity, sex, violence, and language.

- Easy Management

Users can manage the device using standard Java-compatible browser, like IE5.0 or above, Netscape 4.0 or above.

-Time of Day Access Control List

Users can set up the schedule for individual PCs through ToD (Time of Day) ACL (Access Control List) for when blocking occurs.

Main features:**- Hardware**

- 10/100 802.3/u (RJ-45) WAN interface with auto MDIX sensing
- Integrated 4 port MDIX Ethernet Switch
- 802.11a and 802.11g WLAN I/F

- Software

- Static and Dynamic Routing (RIP 1, RIP2)
- Multicast Pass-Through
- Denial of Service (DoS) Prevention Helps Prevent Ping of Death, SYN Flood, Land Attack, and IP Spoofing
- Configurable through Your Networked PC's Web Browser
- Supports VPN Pass-Through with IPsec, PPTP and L2TP
- Remote Management SNMP v1, v2c
- Supports Traffic and Event Logging
- Acts as a DHCP Server for Your Existing Network
- Administrators Can Block Specific Internal Users' Internet Access.
- Support for NTP (Network Time Protocol) for Synchronizing with a Real-Time Server
- Supports Universal Plug and Play (UPnP)

2. Specification

Product Name	Wireless A+G Dual Band Router
Model Number	BLW-54SAG
Main Processor	AR5312 at 220MHz
SDRAM	16 MByte
Flash ROM	4 MByte
Switch controller	KENDIN KS8995 PQFP-128
Power Input	5VDC, 2.5A
I/O Port	DC Jack, 4 port LAN, 1 port WAN, Reset Button, LED indicators
Antenna Type, Gain and Connector Type	Dual Band Dipole, 2.4G/ 2dBi, 5G/ 2dBi, R-SMA
Transmitted Power	802.11a: max 16dBm (non-include Antenna gain) 802.11g: max 18dBm (non-include Antenna gain) 802.11b: max 20dBm (non-include Antenna gain)
Frequency Band	802.11a Unlicensed National Information Infrastructure (U-NII) frequency band, 5.15G ~ 5.35GHz 5.47G ~ 5.725GHz 5.725G ~ 5.850GHz (subject to local regulations) 802.11b/g ISM band 2.400 ~ 2.4835GHz (subject to local regulations)
Modulation	802.11a/g: OFDM; 802.11b: CCK (11 Mbps, 5.5 Mbps), DQPSK (2 Mbps), DBPSK (1 Mbps)
Data Rate	802.11a 54, 48, 36,24,18,12, 9, 6 Mbps per channel, auto fallback for extended

	range 802.11b 11,5.5, 2, 1 Mbps per channel, auto fallback for extended range 802.11g 54, 48, 36,24,18,12, 9, 6 Mbps per channel, auto fallback for extended range
Receive Sensitivity	802.11a/g Typical -69dBm@54Mbps 802.11b Typical -85dBm@11Mbps
Operation Requirement	Operating Temp: 0°C to 40°C (32°F to 104°F) Storage Temp: -20°C to 70°C (-4°F to 158°F) Operating Humidity: 10% to 85% Non-Condensing Storage Humidity: 5% to 90% Non-Condensing
Dimensions	140 x 160 x 18 mm

LED Status

LED	Color(s)	Activity	Description
Power	Green	Off	Power OFF
		Green On	Power On / Device Ready
		Green Blinking	Booting / System Self-Test / Firmware upgrade
DMZ	Green	Off	DMZ function is disabled
		Green On	DMZ function is enabled
11a	Green	Off	5G Wireless option is disabled
		Green On	5G Wireless option is enabled
		Green Blinking	Data is transmission through wireless
11g	Green	Off	2.4G Wireless option is disabled
		Green On	2.4G Wireless option is enabled
		Green Blinking	Data is transmission through wireless
LAN (1-4ports)	Green	Off	No connection on LAN port
		Green On	LAN link is up
		Green Blinking	Data is transmission through LAN interface
WAN	Green	Off	No connection on Internet port
		Green On	WAN link is up
		Green Blinking	Data is transmission through Internet interface

3. Software Feature

NAT Requirements

The implementation of NAT must allow for specific port redirection, and must provide support for the following "NAT-unfriendly" applications:

- MSN Messenger
- NetMeeting
- CuSeeMe
- Microsoft PPTP client

- Microsoft Traceroute
- RealAudio
- VDOLive
- IRC
- ICQ
- Quake, Quake variants, and other popular games
- Port Forwarding

Firewall Support

WRT55AG V2 supports Stateful Packet Inspection (SPI), and DoS prevention.

Denial of Service

- DoS: Denial of Service (DoS) attacks is aimed at devices and networks with a connection to the Internet. Their goal is to disable a device or network so users no longer have access to network resources. This feature is to protect the WRT55AG V2 Router from these attacks.
- Periodical reports and logs:
The log will always keep the latest attack information, up to 500 messages.
The log can be sent to the assigned administrator via email by weekly, daily, hourly, or every periodical report page included the latest 128 attacking messages list.

General Features Summary

Feature	Additional Info
Protocol Support	<ul style="list-style-type: none"> • Point-to-Point Protocol (PPP) • IP Routing • RIP1/RIP-2 • Advanced Routing • TFTP in firmware • PPTP support • IGMP Proxy
Management	<ul style="list-style-type: none"> • Embedded Web configuration • TFTP sever, firmware upgrade, configuration backup and restore are supported • DHCP, Static IP, PPPoE, and PPTP login support
Diagnostics Capabilities	<p>The router can perform self-diagnostic tests. These tests check the integrity of the following circuitry:</p> <ul style="list-style-type: none"> • FLASH memory • RAM • CPU • LAN
UPnP	<ul style="list-style-type: none"> • UPnP DCP • UPnP protocols • NAT traversal
Port triggering	
Port forwarding/UPnP Port forwarding	
support exporting log	be able to send log to external viewer

manually set time	user adjustable time/date setting
manually enter NTP server address	enter NTP server address
save and load configuration file	
QoS support	<ul style="list-style-type: none"> • 4 priority level • port based • application based • MAC address based • 802.1p • DSCP
Other Features	<ul style="list-style-type: none"> • DHCP Server/Client • DNS Proxy • Dynamic DNS • Dynamic / Static IP Address Assignment • multiple VPN passthru • Super G capable • URL Blocking • WEB filter and keyword blocking • Traceroute • Security Log • DHCP Client Log • SPI Firewall

Information

FCC Statement

DECLARATION OF CONFORMITY WITH FCC RULES FOR ELECTROMAGNETIC COMPATIBILITY

We, PLANEX COMMUNICATIONS INC. of 12-7 Nihonbashi Ohdenmacho, Chuo-ku, Tokyo 103-0011, JAPAN, declare under our sole responsibility that the product, CQW-NS108G

to which this declaration relates, 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.

Caution: Exposure to Radio Frequency Radiation.

The radiated output power of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such a manner that the potential for human contact during normal operation is minimized.

When connecting an external antenna to the device, the antenna shall be placed in such a manner to minimize the potential for human contact during normal operation. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only.

Federal Communications Commission Notice

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. 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 and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the distance between the equipment and the receiver.

- Connect the equipment to 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.

EC DECLARATION OF CONFORMITY (EUROPE)

Planex declares that the Wireless-G Notebook Adapter conforms to the specifications listed below, following the

provisions of the European R&TTE directive 1999/5/EC:

EN 301 489-1, 301 489-17 General EMC requirements for Radio equipment.

EN 609 50 Safety

DGT STATEMEN

根據交通部 低功率管理辦法 規定：

第十二條

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信規定作業之無線電信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。