



## AT-WA1000 Series SOHO Wireless Router

### AT-WA1104G

IEEE802.11g Wireless LAN Router  
with 4 10/100TX switch ports

#### Share Internet Access With and Without Wires

With Allied Telesis' AT-WA1104G, you can connect to xDSL, Cable modem, fix IP and etc, get your Internet Access instantly and share the connection among multiple PCs either wired or wirelessly. It's ideal for home networking and small offices. With AT-WA1104G, you not only can share your internet connections, but also your printer and files among the networked PCs.

#### Secure and Interoperable

Your network via AT-WA1104G is protected by 128-bit, "Shared Key" WEP encryption and WPA. AT-WA1104G helps keep intruders out of your networked computers. The roadmap for future IEEE802.11i support through future firmware upgrades provides additional comfort of mind that your network will remain highly secured in the future. AT-WA1104G is also Wi-Fi certified, which means you can use it with any wireless client devices from other Wi-Fi vendors.

#### WDS-Based Wireless Bridging and Repeating Support

With the WDS (Wireless Distribution system) support in AT-WA1104G, you can cover network dead spots by adding the products in that area to gain signal strength. Also, WDS allows AT-WA1104G to wirelessly communicate with each other or other WDS-based wireless routers in order to extend the range of a wireless network.

#### Easy-to-use Configuration Software

Allied Telesis Inc.'s user friendly configuration Wizard takes you through configuring your network, step by step. With the AT-WA1104G at the center of your network, you don't have to be an IT professional to set up your own network place with shared printers, files, and Internet connections.

#### Key Features

- 802.11b/g compliant
- Wi-Fi Certified
- 3 operation modes: Gateway, Bridge and Wireless ISP
- WEP/WPA Encryption - 64bit/128bit (WEP), WPA TKIP
- WPA2 Support
- Wireless Auto-channel Selection
- Wireless users access control
- Support TCP/UDP/ICMP/ARP protocol stack
- Wireless Distribution System (WDS)
- NAT/NAPT.VPN Pass-through with multiple sessions (IPSEC,L2TP, PPTP)
- Firewall, DoS,IP/Port/MAC Filtering
- WAN access mode
- PPPoE PPTP/L2TP Support
- Fixed IP Address support

## Product Specifications

### Internet Access

#### Shared Internet Access

All users on the LAN or WLAN can access the Internet through the AT-WA1104G, 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 AT-WA1104G 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 AT-WA1104G 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.

#### DMZ

For each WAN (Internet) IP address allocated to you, only 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 Access

#### Standards Compliant

The AT-WA1104G 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.

#### Support Wireless Distribution System (WDS)

Ability to use the AP as a bridge and/or a repeater in order to extend the coverage of your network.

#### 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.

### LAN Access

#### 4-Port Switching Hub

The AT-WA1104G incorporates a 4-port 10/100BaseT switching hub, making it easy to create or extend your LAN.

#### DHCP Server Support

Dynamic Host Configuration Protocol provides a dynamic IP address to PCs and other devices upon request. The AT-WA1104G can act as a DHCP Server for devices on your local LAN and WLAN.

## 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 AT-WA1104G to your PC, and restore (upload) a previously-saved configuration file to the AT-WA1104G.

### Remote Management

The AT-WA1104G can be managed from any PC on your LAN. And, if the Internet connection exists, it can also be configured via the Internet.

### Network Diagnostics

You can use the AT-WA1104G to perform a Ping or DNS lookup.

### UPnP Support

UPnP (Universal Plug and Play) allows automatic discovery and configuration of the AT-WA1104G. UPnP is supported by Windows ME, XP, or later.

### Security

#### 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 AT-WA1104G.

#### 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 AT-WA1104G incorporates protection against DoS attacks.

# AT-WA1000 Series | SOHO Wireless Router

## Radio Characteristics

### Data Rate with Automatic Fallback

1, 6, 9, 12, 24, 36, 48, 54 Mbps for 802.11g  
1, 2, 5.5, and 11 Mbps for 802.11b

## Modulation Schemes

802.11b CCK (11 Mbps)  
DQPSK (2 Mbps)  
DBPSK (1 Mbps)  
DSSS  
802.11g OFDM

## Transmit Power

Minimum 15dBm typically @ 802.11b  
Minimum 12dBm typically @ 802.11g

## Range Coverage

Indoors 15 m @ 54 Mbps  
120 m @ 6 Mbps or lower  
Outdoors 40 m @ 54 Mbps  
300 m @ 6 Mbps or lower

## Standards Capability

IEEE 802.11b  
IEEE 802.11g

## Media Access Protocol

CSMA/CA with ACK

## Antenna

Detached

## Network Management

### Web-Based Interface

Managed via HTTP protocol, be able to displaying the configuration and status of the system.

### Configure Wizard

Built-in wizard utility in the browser-based management interface for users to identify and input information to connect to Internet by xDSL, Cable Modem, fix IP, DHCP client, J-COM type service, PPPoE or PPTP login procedure.

### Remote Management

Use any browser-based applications to login to the router and manage it remotely.

### Firmware Upgrade

New firmware binary file can be downloaded into router through HTTP or through TFTP upload. Special window-based utility preferred.

## LED Status Indicators

Power	ON	
	OFF	
Internet	ON	Link on
	OFF	Link off
	Flashing	Activities
WAN	ON	WAN connection established
	OFF	No WAN connection
100M	ON	LAN speed of 100Mbps
	OFF	LAN speed of 10Mbps
WLAN	ON	Wireless connection on
	OFF	No wireless connection
	Flashing	Activities

## Interface

### Wireless Interface

IEEE802.11g WLAN, JEIDA 4.2, roaming support  
Frequency: 2.4 to 2.4835 GHz

### Network Interface

Four 10/100Base-T (RJ45) LAN connection  
One 10/100Base-T (RJ45) for WAN

## Driver Support

Windows 2000  
Windows ME  
Windows XP  
Linux

## Technical Specifications

### Power Characteristics

Input 12V DC External  
Output 13 dBm (typical)

### Environmental Specifications

Operating Temperature 0°C to 40°C  
Storage Temperature -10°C to 70°C  
Operating Humidity 10% to 95% no condensation

### Physical Characteristics

Dimensions 141mm x 100mm x 27mm  
(W x H x D)  
Weight 0.74 lb

### Electrical/Mechanical Approvals

FCC/EN55022 Class B  
VCCI  
CE  
Wi-Fi

## Ordering Information

### AT-WA1104G-xx

IEEE802.11g Wireless Access Point  
with 4 10/100TX switch ports

Where xx = 10 for US  
= 30 for UK  
= 40 for Australia  
= 50 for Europe

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