# 802.11n Wireless ADSL 2/2+ Router

## Improved Networking Function for Future IP Compatibility

PLANET ADN-4101 is a Wireless ADSL 2/2+ Router compliant with 802.11n and features 1T1R MIMO antenna technology. The ADN-4101 is the ideal solution for office and residential users to share a high-speed ADSL 2/2+ broadband Internet connection and four-10/100Mbps Fast Ethernet backbone. It provides transmission rates up to 24Mbps downstream and 3.5Mbps upstream with ADSL 2+ support. Through integration with single chipset to reduce boot time, the ADN-4101 brings more powerful performance to users. The ADN-4101 supports PPPoA (RFC 2364 - PPP over ATM Adaptation Layer 5), RFC 2684 encapsulation over ATM (bridged or routed), PPP over Ethernet (RFC 2516), and IPoA (RFC1483) to establish a connection with ISP.

ADSL Series Comparison

	Speed (Down/Up)
ADSL	8Mbps/896kbps
ADSL2	12Mbps/3.5Mbps
ADSL2+	24Mbps/3.5Mbps
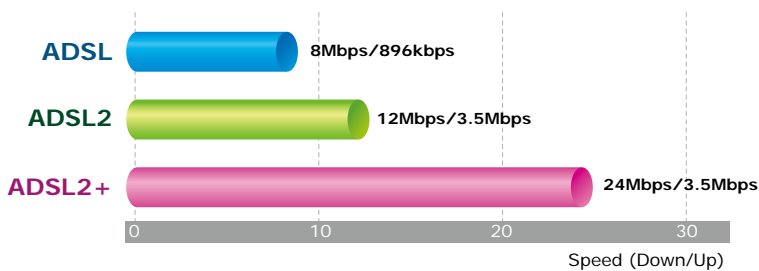
High-Speed 802.11n Wireless Type

With built-in IEEE 802.11b/g and 802.11n wireless network capabilities, the ADN-4101 allows any computer and wireless-enabled network device to connect it without additional cabling. The 802.11n wireless capability gives you the high speed of wireless transmission up to 150Mbps. With a compatible wireless card installed in your PC, any file can be transferred in very high speed. The radio coverage is also doubled than before, which offers the high speed wireless connection even in a wide space of your office or house.

1T1R —		(Mb/SEC)
802.11n	ADN-4101	150Mbps 3X faster
802.11g	54Mbps	
802.11b	11Mbps	

* Theory Value
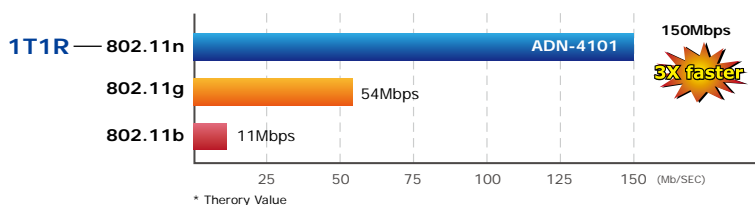
Internet Access Features

- **Shared Internet Access**
  All users in the LAN can access the Internet through the ADN-4101 by using a single external IP Address. The local (invalid) IP Addresses are hidden from external sources. This process is called NAT (Network Address Translation).

- **Built-in ADSL 2/2+ Modem**
  The ADN-4101 provides ADSL 2/2+ modem service and supports all common ADSL connections.

- **PPPoE, PPPoA, Direct Connection Support**
  Various WAN connections are supported by the ADN-4101.

- **Fixed or Dynamic IP Address**
  On the Internet (WAN port) connection, the ADN-4101 supports both Dynamic IP Address (IP Address is allocated on connection) and Fixed IP Address.

Advanced Internet Functions

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

- **DMZ Support**
  The ADN-4101 can translate public IP addresses into private IP address and allow unrestricted 2-Way communication with servers or individual users on the Internet. This provides the most flexibility to run programs which could be incompatible in NAT environment.

- **Firewall**
  The ADN-4101 supports simple firewall with NAT technology and provides options for access control from Internet like Telnet, FTP, TFTP, HTTP, SNMP, and ICMP services. It also supports IP/ MAC/ Application/ URL filtering.

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

- **Dynamic DNS Support**
  Based on the Virtual Servers feature, the ADN-4101 allows users to connect a server to the LAN by using a Domain Name even if you have a dynamic IP address. The ADN-4101 supports Planet Dynamic DNS that it is free for customers.

- **RIP Routing**
  It supports RIPv1/2 routing protocol for routing capability.

- **Simple Network Management Protocol (SNMP)**
  It is an easy way to remotely manage the router via SNMP.

One-touch Secure Wireless Connection

To secure the wireless communication, the ADN-4101 features the most up-to-date encryption, WEP, WPA-PSK and WPA2-PSK. The ADN-4101 also supports WPS configuration with PBC/PIN type for users to easily connect to a secured wireless network with no need of complicated settings.

WPS (Wi-Fi Protected Setup)
Quick & Easy Wireless Connection

STEP 1	STEP 2	STEP 3
WPS / Click	Press	Connected
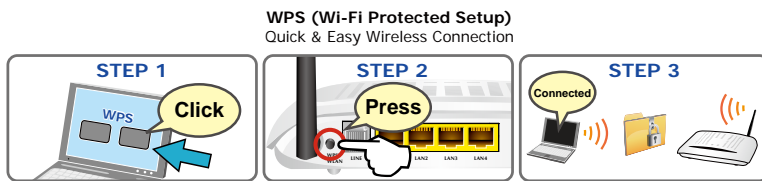
## Powerful Firewall and Complete Access Control Functions

The ADN-4101 has user-friendly management interfaces so it can be managed by workstations running standard web browsers. It provides DHCP server, NAT, Virtual Server, DMZ, Access Control, IP Filter, DDNS, and UPnP capability. The ADN-4101 also serves as an Internet firewall to protect your network from being accessed by unauthorized users. It offers the natural firewall function. All the incoming and outgoing IPs can be monitored and filtered. For the advanced application, it even can block internal users accessing to the Internet services.

Applications

Internet Connection with Wired/Wireless Type

The ADN-4101 is a perfect solution for a small group of PCs connecting to a high-speed broadband Internet connection. Multi-users can access the Internet simultaneously. With built-in 802.11n capability, the ADN-4101 enables the mobile users to access Internet by up to 150Mbps high speed.

The ADN-4101 also incorporates a 4-port 10/100Base-TX switching hub, which can easily create or extend your LAN and prevent the attacks from the internet.
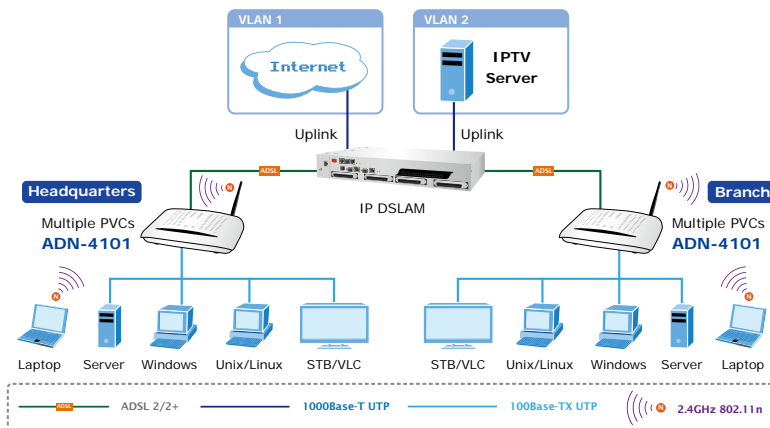
LAN Features

- **4-port Switch**
  The ADN-4101 incorporates a 4-port 10/100Base-TX switching hub, making it easy to create or extend your LAN.

- **DHCP Server Support**
  Dynamic **H**ost **C**onfiguration **P**rotocol provides a dynamic IP address to PCs and other devices upon request. The ADN-4101 can act as a DHCP Server for devices on your local LAN and WLAN.

Wireless Features

- **Supports IEEE 802.11b, g and 802.11n Wireless Standard**
  The 802.11n standard provides backward compatibility with the 802.11b and 802.11g standard, so 802.11b, 802.11g, and 802.11n compliant devices can be used simultaneously.

- **802.11n Technology**
  The ADN-4101 complies with IEEE 802.11n wireless technology standard and provides data rate up to 150Mbps. It provides farther coverage, less dead spaces and higher throughput.

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

- **WPS Push Button Control**
  The ADN-4101 supports WPS (Wi-Fi Protected Setup) for users to easily connect to wireless network without configuring the security.

- **WPA-PSK Support**
  WPA-PSK_TKIP and WAP-PSK_AES encryption are supported.

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

Specifications

Model	ADN-4101A
Hardware	

Standard	Compliant with ADSL Standard
	  - Full-rate ANSI T1.413 Issue 2
	  - G.dmt (ITU G.992.1)
	  - G.lite (ITU G.992.2)
	  - G.hs, Multimode (ITU G.994.1)
	Capable of ADSL2 Standard
	  - G.dmt.bis (ITU G.992.3)
	Capable of ADSL 2+ Standard
	  - G.dmt.bisplus (ITU G.992.5)
	  - Reach Extended ADSL (RE ADSL)
	Supports Annex A, B, M, L

Protocol	RFC 2364 - PPP over ATM (LLC/VCMUX) RFC 2516 - PPP over Ethernet (LLC/VCMUX) RFC 1483 - Classic IP over ATM (LLC/VCMUX) RFC 2684 - Bridged IP over ATM (LLC/VCMUX) RFC 2684 - Routed IP over ATM (LLC/VCMUX)
AAL and ATM Support	■ Supports up to 8 PVCs ■ ATM Forum UNI 3.1/4.0 PVC ■ VC and LLC Multiplexing ■ Integrated ATM AAL5 support (UBR,CBR,VBR-rt, and VBR-nrt) ■ 0~255 VPI plus 1~65535 VCI address range ■ OAM F4 & F5 Segment end-to-end loop-back, AIS, and RDI OAM cells
Ports — LAN	4 x Ethernet (10/100Mbps, Auto-Negotiation, Auto MDI/MDI-X)
Ports — WLAN	1 x 802.11b/g/n Access Point with one 2dBi dipole antenna
Ports — WAN	1 x RJ-11
LED Indicators	PWR, Link, Data, LAN 1~4, WLAN, WPS
Button	WLAN, Reset, WPS, Power
Max. Concurrent Sessions	2048
Wireless Standard	IEEE 802.11b, g and 802.11n
Wireless Frequency	2.4 to 2.4835GHz (Industrial Scientific Medical Band)
Wireless Channels	Maximum 14 Channels, depending on regulatory authorities
Wireless Data Encryption	64 bit / 128 bit WEP, WPA-PSK / WPA2-PSK, and WPS PBC
Wireless Data Rate	Maximum up to 150 Mbps IEEE 802.11b: 1/2/5.5/11Mbps IEEE 802.11g: 6/9/12/18/24/36/48/54Mbps IEEE 802.11n: 14/29/43/58/87/116/130/144Mps in 20MHz 30/60/90/120/150Mbps in 40MHz
RF Modulation	IEEE 802.11b mode: DSSS (CCK, QPSK, BPSK) IEEE 802.11g mode: OFDM (BPSK, QPSK, 16QAM, 64QAM) HT20 and HT40: 64 QAM, 16QAM, QPSK, BPSK
Transmit Power	11b: 16.5dBm ± 1.5dBm 11g: 14dBm ± 1.5dBm 11n HT20M:13dbm± 1.5dBm 11n HT40M: 13dbm± 1.5dBm
Receiver Sensitivity	802.11b: <-80dBm 802.11g: <-68dBm 802.11n HT20M: <-64dbm 802.11n HT40M: <-61dbm
Software	
Protocols/Features	NAT supports multimedia applications NAT, Static Routing, and RIPv1/2 Transparent Bridging Dynamic Domain Name System (DDNS) SNTP DNS relay and IGMP proxy DMZ and Virtual Server Quality of Service (QoS) for Traffic Prioritization TR-069 Ready UPnP

Security	PPP over PAP (Password Authentication Protocol, RFC1334) PPP over CHAP (Challenge Authentication Protocol, RFC1994) DoS Protection Access Control ACL (Access Control) IP/MAC /Application/URL Filter Stateful Packet Inspection (SPI) Firewall Password protection for system management
Management	Web-based configuration Embedded Telnet server for remote and local management Firmware upgraded and configuration data upload/download via WEB SNMP v1/v2c MIB supported Support DHCP Server/Client/Relay Built-in Diagnostic tool TR-069

Environment Specification	
Dimensions (W x D x H)	176 x 124 x 35 mm
Power	12V DC, 0.8A
Temperature and Humidity	Operating temperature: 0 ~ 50 degrees C Storage temperature: -10 ~ 70 degrees C Humidity: 10 ~ 95% non-condensing
Emission	FCC, CE

Ordering Information

ADN-4101	802.11n Wireless ADSL 2/2+ Router

Related Products

ADE-4400	ADSL 2/2+ 4-Port Router
ADE-3400	ADSL 2/2+ Router
IDL-2402	24-Port IP DSLAM
IDL-4802	48-Port ADSL 2/2+ IP DSLAM (2 x GbE Combo, 100~240 VAC)
IDL-4802-48	48-Port ADSL 2/2+ IP DSLAM (2 x GbE Combo, -48 VDC)