



BiPAC 8400VAL

Dual-Band Wireless-N 600Mbps VoIP VDSL2/ADSL2+ Firewall Router

The BiPAC 8400VAL is an all-in-one VDSL2/ADSL2+ broadband router including concurrent dual-band Wireless-N 600Mbps (2.4GHz and 5GHz), Voice over IP, Gigabit Ethernet, and in one unit. It is designed for home and SOHO users who seek high-speed wireless connection and better wireless coverage while maintaining high-speed broadband access with VDSL2/ADSL2+. Users can enjoy VDSL2 services and broadband multimedia applications such as interactive gaming, video streaming and real-time audio much easier and faster than ever before. The SOHO Firewall is integrated to provide protection against hacker attacks while the Quality of Service prioritizes queues and traffic for applications such as music downloads, online gaming, video streaming and file sharing.

Very High-speed Connectivity for Internet Access

The BiPAC 8400VAL complies with VDSL2 and ADSL2+ worldwide standards, the router supports the highest rate of up to 100Mbps/100Mbps in VDSL2 Profile (30a). It is also built-in with 4-port 100/1000Mbps Gigabits Ethernet switch and dual-band 802.11n wireless AP, enabling users to connect to multiple computers or devices easily.

Maximum Performance Dual-band Router

Featured with simultaneous dual-band technology, the BiPAC 8400VAL can runs both 2.4GHz and 5GHz frequency bands at the same time, offering ultra-fast wireless speeds of up to 600Mbps and multiple SSIDs on both bands. The BiPAC 8400VAL-T, by adopting this state-of-the-art technology, allows for multiple-demand applications, such as streaming HD videos and multiplayer gaming simultaneously. With an integrated 802.11n Wireless Access Point, the router delivers up to 6 times the speed of an 802.11a/b/g network device. It supports a data rate of up to 600Mbps (2.4GHz and 5GHz) and is also compatible with 802.11a/b/g equipment. The Wireless Protected Access (WPA-PSK/WPA2-PSK) and Wireless Encryption Protocol (WEP) features enhance the level of transmission security and access control over wireless LAN. The router also supports the Wi-Fi Protected Setup (WPS) standard, allowing users to establish a secure wireless network by simply pushing a button. If your network requires wider coverage, the built-in Wireless Distribution System (WDS) repeater function allows you to expand your wireless network without the need for any external wires or cables.

Firewall Security and Smooth Traffic

With the built-in NAT default firewall, the advanced anti-hacker pattern-filtering protection features automatically detect and block Denial of Service (DoS) attacks. In addition, packet filtering provides high-level security for access control. Quality of Service control prioritizes the traffic and allows users to enjoy smooth traffic while running applications such as IPTV, VoIP calls or interactive game through the Internet.

Easy Network Management

The Web-based user interface of the BiPAC 8400VAL makes it extremely easy for users to install and manage the network. The router supports both DHCP client and server, enabling system administrators to easily integrate this router into existing network environments, as well as manage IP assignment without having to reconfigure other stations.

IPv6 Ready - Pathway to the Future

The BiPAC 8400VAL fully supports IPv6 (Internet Protocol Version 6), launched as the current IPv4 range is filling up, and IPv6 is gradually becoming the indispensable addressing system for savvy cloud computing users. Dual stack means the router is capable of running IPv4 and IPv6 in parallel during the transition period. With Billion IPv6 enabled devices, three major transition mechanisms such as IPv4/IPv6 Dual-Stack, DS-Lite, and 6RD are supported to be adapted easily into service provider's IPv4/IPv6 network.*1

*Ideal for
SOHO and
Residential
Users*

- Very High-speed Internet access via VDSL2; Auto fallback to ADSL2+
- VDSL2 profiles: 8a/b/c/d, 12a/b, 17a, 30a
- 4-port 100/1000Mbps Gigabits Ethernet switch
- Supports Simultaneous dual-band Wireless-N 600Mbps (2.4GHz and 5GHz) Wi-Fi access point with WPA-PSK/WPA2-PSK
- WPS (Wi-Fi Protected Setup) for easy setup
- Two RJ-11 FXS ports for connecting to regular telephones and compliant with SIP
- Supports telephony features: Call Hold and Consultation, Caller ID, Call Forward, Call Waiting, VAD and CNG, etc.
- Quality of Service control for traffic prioritization
- SOHO firewall security with DoS prevention and packet filtering
- Universal Plug and Play (UPnP) compliance
- Dynamic Domain Name System (DDNS)
- Ease of use with Quick Installation Wizard
- Supports IPv6*1
- Supports TR-069 (CWMP)*1

Features & Specifications

VDSL / ADSL Compliance

- Compliant with xDSL standard
 - ITU-T G.993.2 (VDSL2)
 - ITU-T G.998.4 (G.inp)
 - ITU-T G.993.5 (G.vector)
 - ITU-T G.992.5 (G.dmt.bis plus)
 - ITU-T G.992.5 Annex M (ADSL2+ Annex M)
 - ITU-T G.992.3 (G.dmt.bis)
 - ITU-T G.992.3 Annex M (ADSL2 Annex M)
 - Full-rate ANSI T1.413 Issue 2
 - ITU-T G.992.1 (G.dmt)
 - ITU-T G.992.2 (G.lite)
 - ITU-T G.994.1 (G.hs)
 - ITU-T G.997.1
- Supports VDSL2 band plan: 997 and 998
- Supports VDSL2 profiles: 8a, 8b, 8c, 8d, 12a, 12b, 17a and 30a
- Supports Annex A, I, J, M & L
- Supports ATM and PTM modes
- Supports PTM-TC (Packet Transfer Mode – Transmission Convergence) for Ethernet packets (IEEE EFM 802.3ah)

Network Protocols and Features

- PPPoE (RFC 2516), PPPoA (RFC 2364), DHCP Client, Static IP
- IPv4, IPv6, IPv4/IPv6 Dual Stack^{*1}
- DS-Lite and 6RD^{*1}
- NAT, static routing and RIP v1/v2
- Universal Plug and Play (UPnP) compliant
- Virtual server and DMZ
- SNTP, DNS proxy
- Dynamic Domain Name System (DDNS)
- IGMP proxy and IGMP snooping
- MLD proxy and MLD snooping

Firewall

- Built-in NAT firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Access control
- MAC filtering, IP filtering, URL filtering
- VPN (IPSec, PPTP and LT2P) pass-through

Quality of Service Control

- Traffic prioritization management based on MAC address, IP address, protocol and port number

IPTV Applications^{*2}

- Virtual LAN (interface grouping)
- Quality of Service (QoS)
- IGMP proxy and snooping
- MLD proxy and snooping

Wireless LAN

- Compliant with IEEE 802.11n, 802.11g and 802.11b standards
- Concurrent 2.4GHz & 5GHz frequency band
- 300Mbps+300Mbps wireless operation rate
- 64/128 bits WEP supported for encryption
- Wireless Security with WPA-PSK/WPA2-PSK
- WPS (Wi-Fi Protected Setup) for easy setup
- Multiple wireless SSIDs
- Wireless clients isolation

VoIP

- Two RJ-11 FXS ports for connecting to regular telephones
- Compliant with SIP (RFC 3261 and compatible with RFC 2543)
- Support G.711 A/u-Law, G.729A/B (Optional)
- RFC 2833 (RTP Payload for DTMF and DTMF Emulation)
- Out of Band DTMF RFC 2833
- Echo Cancellation (G.168)
- RTP / RTCP
- Adaptive Jitter buffer
- Support Call Hold and Consultation, Caller ID, Call Forward, Call Waiting, VAD and CNG
- FAX Tone Detection & FAX Auto Fallback to G.711 Support
- FSK Caller ID Detection & Generator
- Call Progress Tone Detection

Management

- Quick installation wizard
- Web-based GUI for remote and local management
- Web GUI permission
- Firmware upgrades and configuration data upload and download via web-based GUI
- Supports DHCP server/relay/client(WAN port)
- TR-069 (CWMP) supports remote management^{*1}
- Supports SNMP
- Diagnostic tool

Hardware Specifications

Physical Interface

- DSL: 1 x VDSL2/ADSL2+ fallback port
- Giga Ethernet: 4-port 10/100/1000Mbps auto-crossover (MDI/MDI-X) switch
- VoIP: 2 x FXS interface
- WLAN:
 - 2 x 3dBi internal antennas for 2.4G
 - 2 x 5dBi external antennas for 5G
- Factory default reset button
- WPS push button
- Power jack
- Power switch

Physical Specifications

- Dimensions: 210mm X 152mm X 37mm

Power Requirements

- Input: 100 ~ 240V, 50/60Hz,
- Output: 12V, 1.5A

Operating Environment

- Operating temperature: 0°C - 40°C
- Storage temperature: -20°C - 70°C
- Humidity: 20% - 95% non-condensing

Notes:

1. Only upon request for Telco/ISP tender projects.
2. IPTV application may require subscribing to IPTV services from a Telco/ISP.
3. Specifications in this datasheet are subject to change without prior notice.

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