

## BiPAC 7300V(G)P



# VoIP/802.11g ADSL2+ Firewall Router with PSTN Fixed-line support

**Easily make calls over Internet!** Billion's BiPAC 7300V(G)P series router is a true all-in-one VoIP router with powerful features designed for home and SOHO users. With the BiPAC 7300V(G)P you can enjoy affordable VoIP calls and mobile, high-speed, secure Internet access at the same time. The router supports Easy Sign-On (EZSO) technology, enabling users to establish ADSL connections via standard web browsers such as Internet Explorer. This user-friendly design supports all kinds of operating systems, significantly reducing the time and effort spent configuring your system. Integrated with one FXO port, this router enables you to make calls through PSTN Fixed-line while you enjoy high-speed Internet access sharing that is even faster with the advanced ADSL2/2+ standard. An abundance of integrated firewall security features such as SPI, DoS attack prevention, and URL Content Filtering provide users unparalleled protection from hackers. The Quality of Service feature ensures a smooth net connection for inbound and outbound data, with minimal traffic congestion.

- Voice-over IP compliant with SIP standard
- Two FXS ports for connecting to regular telephones
- One FXO port for voice calls via PSTN Fixed-line
- High speed Internet access with ADSL2/2+; backward compatible with ADSL
- 802.11g Wireless AP with WPA-PSK/ WPA2-PSK Support (BiPAC 7300VGP)
- SOHO Firewall Security with DoS Prevention and SPI
- QoS Control for Traffic Prioritization and Bandwidth Management
- Easy Sign-On (EZSO) and Web-based Configuration
- Supports Virtual Private Network (VPN) pass-through
- Dynamic Domain Name System (DDNS)
- Supports IPTV Application\*
- Ideal for Home and SOHO Users



▲ BiPAC 7300VGP



▲ BiPAC 7300VP

## Benefits

### Economical Phone Calls

The BiPAC 7300V(G)P series complies with the most popular VoIP industrial standard, SIP protocol, to ensure interoperability with SIP devices and major VoIP Gateways. By connecting the router to an existing telephone line, users can make affordable yet toll-quality VoIP calls via ADSL Internet connections. The router also supports telephony features such as call waiting, silence suppression, voice activity detection (VAD), comfort noise generation (CNG), line echo cancellation, caller ID and much more. The router integrates one RJ-11 FXO port for inbound and outbound calls transmitted through PSTN Fixed-line so that users can even receive phone calls via PSTN at the same time as they are enjoying VoIP call service. In addition, outgoing calls will be automatically redirected to PSTN when VoIP service or Internet access is not available.

### Express Internet Access

This router complies with worldwide ADSL standards. It supports downstream rates of up to 12/24 Mbps with ADSL2/2+, 8 Mbps with ADSL, and upstream rates of up to 1 Mbps. With this technology, users enjoy not only high-speed ADSL service but also broadband multimedia applications such as interactive gaming, video streaming and real-time audio much more quickly and easily than ever. In particular, by doubling the upstream data rate, the Annex M standard included in the BiPAC 7300V(G)PA model supports the latest ADSL2/2+ for higher upload speeds.

### Easy Sign-On (EZSO)

Easy Sign-On (EZSO) technology allows users to effortlessly establish an ADSL connection through standard web browsers such as Internet Explorer. The router can automatically detect the PPPoE/PPPoA or DHCP protocol for your ADSL connection. Just log into the system with the required username and password provided by your ISP, and the router will automatically establish the Internet connection for you. This user-friendly design supports all kinds of operating systems.

### Wireless Mobility (BiPAC 7300VGP)

With an integrated 802.11g Wireless Access Point, the router offers quick and easy access and mobility to the users of wired networks, wireless networks, and broadband connections (ADSL). In addition to supporting the 54 Mbps 802.11g data rate, it is also backward compatible with existing 802.11b equipment. The Wireless Protected Access (WPA-PSK/WPA2-PSK) and Wireless Encryption Protocol (WEP) features enhance the level of data protection and access control via a Wireless LAN. If your network requires wider coverage, the built-in Wireless Distribution System (WDS) repeater function allows you to expand the wireless network without using any wires at all.

### Smooth and Responsive Net Connection

Quality of Service (QoS) gives you full control over outgoing data traffic. Priority can be assigned by the router to ensure that important data like gaming packets, customer information, or management information passes through the router at lightning speed, even under a heavy load. You can also control the speed of different types of outgoing data passing through the router to ensure that users do not saturate your bandwidth with their browsing activities.



# Features & Specifications

## ADSL Compliance

- Compliant with ADSL Standard
  - Full-rate ANSI T1.413 Issue 2
  - G.dmt (ITU G.992.1)
  - G.hs (ITU G.994.1)
  - ADSL over ISDN/U-R2
- Compliant with ADSL2 Standard
  - G.dmt.bis (ITU G.992.3)
  - ADSL2 Annex M (ITU G.992.3 Annex M) (Available for BiPAC 7300V(G)PA model only)
- Compliant with ADSL2+ Standard
  - G.dmt.bisplus (ITU G.992.5)
  - ADSL2+ Annex M (ITU G.992.5 Annex M) (Available for BiPAC 7300V(G)PA model only)

## Network Protocols and Features

- NAT, static routing
- Universal Plug and Play (UPnP) Compliant
- Dynamic Domain Name System (DDNS)
- Virtual Server and DMZ
- SNTP, DNS relay and IGMP proxy

## Firewall & Virtual Private Network (VPN)

- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevent DoS attacks including IP Spoofing, Land Attack, Smurf Attack, Ping of Death, TCP SYN Flooding, etc.
- Packet Filtering - port, source IP address, destination IP address, MAC address
- URL Content Filtering - string or domain name
- Password protection for system management
- VPN pass-through

## VoIP

- Compliant with SIP standard (RFC3261)
- Supports G.711 A/μ law, G.723.1 and G.729ab standards
- Supports Telephony Features: call waiting, Call Transfer (Attended), Call Forward (Busy / No Answer / Unconditional), Call Hold / Retrieve, Caller ID Display/ Blocking, Anonymous Call Blocking
- Voice over data, QoS control to ensure higher voice quality
- CNG/VAD/Adaptive Jitter Buffer support
- PSTN backup while Power failure/ network failure/SIP registration failure
- DTMF: In-band/out-of-band(RFC2833)/SIP INFO
- Direct IP Call/ Dial via SIP Proxy
- Tone Generation/Detection
- Local dialing table for VoIP/PSTN routing control

## Wireless 802.11g (BiPAC 7300VGP)

- Compliant with IEEE 802.11g and 802.11b standards
- 2.4 GHz - 2.484G Hz frequency range
- Up to 54 Mbps wireless operation rate
- 64/128 bits WEP supported for encryption
- Wireless Security with WPA-PSK/WPA2-PSK support
- WDS repeater function support

## IPTV Application\*

- IGMP Snooping
- Virtual LAN (VLAN)
- Quality of Service (QoS)

## ATM and PPP Protocols

- ATM Adaptation Layer Type 5 (AAL5)
- Multiple Protocol over AAL5 (RFC 2684, formerly RFC 1483)
- Bridged or routed Ethernet encapsulation
- VC and LLC based multiplexing
- PPP over Ethernet (PPPoE)
- PPP over ATM (RFC 2364)
- OAM F4/F5

## Models & Standards Support

- BiPAC 7300V(G)PA: Annex A & Annex M
- BiPAC 7300V(G)PB: Annex B
- BiPAC 7300V(G)PU: U-R2
- Annex A and Annex M: ADSL over POTS
- Annex B and Annex U-R2: ADSL over ISDN

## Hardware Specification

### Physical Interface

- WLAN: fixed antenna (7300VGP only)
- WAN: ADSL port
- Telephone: 2-port FXS  
1-port FXO
- LAN: 4-port 10/100M auto-crossover (MDI/MDI-X) Switch
- Factory default reset button
- Power jack
- Power switch

### Physical Specification

- Dimensions: 8.27" x 5.83" x 1.42"  
(210mm x 148mm x 36mm)

### Power Requirement

- Input: 12V DC, 1.2A

## Management

- Quick Installation Wizard and Auto-scan ADSL settings
- Web-based GUI for remote and local management
- Firmware upgrade and configuration data upload and download via
  - Web-based GUI
  - Embedded Telnet server for remote and local management
- Available Syslog monitoring
- Supports DHCP server/client/relay

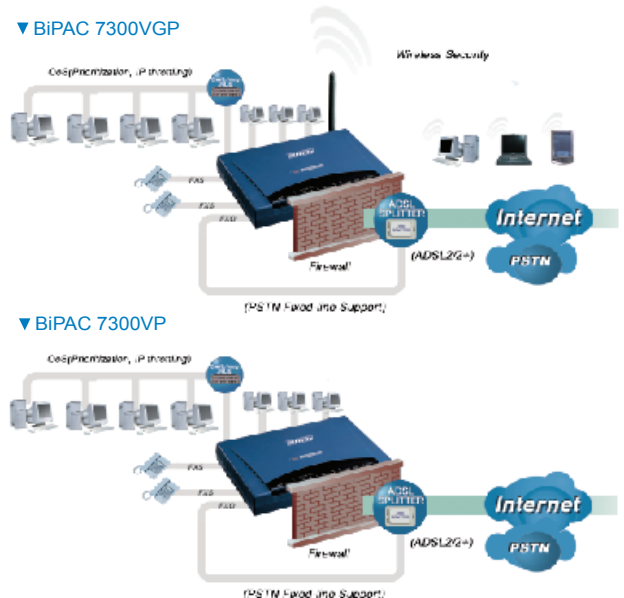
## Quality of Service Control

- Supports the DiffServ approach
- Traffic prioritization and bandwidth management based-on IP
  - protocol, port number and address

## Operating Environment

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

## Application Diagram



\*Notes:

1. The router may require firmware modification for certain ADSL2/2+ / Annex M DSLAMs.
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.

**Billion Electric Co., Ltd.**

8F, No.192, Sec.2, Chung Hsing Road,  
Hsin Tien City, Taipei Hsien, Taiwan

TEL : +886-2-2914-5665

FAX : +866-2-2918-6731, +886-2-2918-2895

E-mail : sales@billion.com

[www.billion.com](http://www.billion.com)