

BiPAC 7404VGO



BILLION™

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

Want to make the most economical and secure VoIP calls over VPN tunnels? Billion's BiPAC 7404VGO is your first choice! BiPAC 7404VGO is a truly all-in-one compact VoIP router with powerful functionalities designed for SOHO and office users to enjoy economical VoIP calls concurrently with mobile, high-speed and high-level security of data communications. The router supports IPSec VPN protocols, allowing users to establish encrypted private connections of up to 16 tunnels over the Internet. The world-leading Gateway feature "Least Cost Routing" enables users to choose the most economical rate of VoIP calls provided by different Internet Telephony Service Providers (ITSP). This device integrates the two FXS ports offering dual lines for making VoIP calls. The additional FXO port enables you to make calls through PSTN Fixed-line while sharing a high-speed Internet connection. The Internet access is also safely protected from attack of hackers through unparalleled Firewall security features such as SPI, DoS attack prevention, and URL Content Filtering. The Quality of Service feature ensures a smooth net connection for inbound and outbound data with minimal traffic congestion.



- Make phone calls via Internet as well as PSTN Fixed-line
- 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
- Gateway - Least Cost Routing support (for retail package only)
- Secured Virtual Private Network (VPN) with powerful 3DES
- High speed Internet Access with ADSL2/2+, backward compatible with ADSL
- 802.11g Wireless AP with WPA-PSK/ WPA2-PSK Support
- SOHO Firewall Security with DoS Prevention and SPI
- Quality of Service for Traffic Prioritization and Bandwidth Management
- Ease of Use with Quick Installation Wizard and Auto-scan ADSL Settings
- Supports IPTV Application*
- Ideal for SOHO and Office Users

Benefits

Truly Cost Saving

Making VoIP calls with toll-quality is extremely simple; just connect the router to your existing telephone sets. The BiPAC 7404VGO complies with the most popularly adopted VoIP industrial standard, SIP protocol, to ensure the interoperability with SIP devices and major VoIP Gateways. The Gateway feature "Least Cost Routing" offers the choice of the most economical rate provided by different ITSP. One RJ-11 FXO port is integrated to transmit inbound and outbound calls through PSTN Fixed-line so that users may still be able to receive phone calls through PSTN while enjoying VoIP service at the same time. In addition, outgoing calls will be automatically redirected to PSTN when the Internet or VoIP service is not available. The router also supports a wider range of telephony features, such as call waiting, silence suppression, line echo cancellation, caller ID, etc.

Double Security

The router with integrated IPSec VPN (Virtual Private Network) protocols allows users to establish encrypted private connections of up to 16 simultaneous tunnels over the Internet. With a built-in DES/3DES VPN accelerator, the router enhances IPSec VPN performance significantly and ensures that data is transmitted securely between two or more sites. An abundance of integrated firewall security features such as SPI, DoS attack prevention, and URL Content Filtering provide users unparalleled protection from hackers.

Express Internet Access

The router complies with worldwide standards of ADSL, supporting a downstream rate of up to 12/24 Mbps with ADSL2/2+, 8 Mbps with ADSL and upstream rate up to 1 Mbps. With this technology, users not only enjoy high-speed ADSL services but also other broadband multimedia applications such as interactive gaming, video streaming and real-time audio, enabling their usage to be easier and faster than ever before. Particularly, the Annex M standard applied in the model of BiPAC 7404VGO supports the latest ADSL2/2+ for higher upload speeds by doubling the upstream data rate.

Smooth and Responsive Net Connection

The Quality of Service (QoS) feature helps users to manage the bandwidth and prioritize data transfer effectively. It gives one full control over any type of data transfer, ensuring latency-sensitivity and bandwidth-consuming applications such as VoIP calls, video conferencing, or customer information, can move through the router at instantaneous speed, even when under heavy tasking. The speed of inbound and outbound data passing through the router can be controlled to ensure that users do not saturate the bandwidth with their browsing activities.

Wireless Mobility

With an integrated 802.11g Wireless Access Point in the router, the device offers a quick yet easily accessible and mobile to the users among wired network, wireless network, broadband connection (ADSL). In addition to having a 54 Mbps 802.11g data rate, it is also backward compatible with existing 802.11b equipments. The supported features of Wireless Protected Access (WPA-PSK/WPA2-PSK) and Wireless Encryption Protocol (WEP) enhance the security level of data protection and access control via 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.



ADSL Modem / Router

Wireless ADSL Router

Home Networking ADSL Router

Broadband Router

Security Router

VoIP ADSL Modem/Router

SHDSL Bridge / Router

iBusiness Security Appliance

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 7404VGOM 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 7404VGOM model only)

Network Protocols and Features

- NAT, static routing and RIP-1/2
- Universal Plug and Play (UPnP) Compliant
- Dynamic Domain Name System (DDNS)
- Virtual Server and DMZ
- SNTP, DNS relay and IGMP proxy
- POP3 (email account checking)
- IGMP Snooping for video service

Firewall

- 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 detection in URL string

VoIP

- Two RJ-11 FXS ports for connecting to regular telephones
- One RJ-11 FXO port for PSTN Fixed-line
- Compliant with SIP standard (RFC3261)
- Supports G.711 A/μ law, and G.729 Audio Codec standards
- Supports Telephony Features: call waiting, silence suppression, voice activity detection (VAD), comfort noise generation (CNG), G.168 line echo cancellation, caller ID (Bell 202,V23)
- Voice over data, QoS control to ensure higher voice quality
- Automatic fallback to PSTN Fixed-line when the Internet or VoIP service is not available.
- Gateway - Least Cost Routing support (for retail package only)

Quality of Service Control

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

Wireless 802.11g

- 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

Models & Standards Support

- BiPAC 7404VGOA: Annex A
- BiPAC 7404VGOM: Annex A & Annex M
- BiPAC 7404VGOB: Annex B & U-R2
- Annex A and Annex M: ADSL over POTS
- Annex B and Annex U-R2: ADSL over ISDN

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)
- Classical IP over ATM (RFC 1577)
- MAC Encapsulated Routing (RFC 1483 MER)
- OAM F4/F5

Virtual Private Network (VPN)

- 16 IPsec VPN Tunnels
 - 8 L2TP VPN Tunnels (Dial-in: 4, Dial-out: 4)
 - 8 PPTP VPN Tunnels (Dial-in: 4, Dial-out: 4)
- Embedded IPsec & PPTP client/server
- IKE key management
- DES, 3DES and AES encryption for IPsec
- Embedded powerful 3DES accelerator
- MPPE Encryption for PPTP
- L2TP over IPsec
- L2TP/PPTP/IPsec pass-through

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
- SNMP v3, MIB-I and MIB-II support
- Supports DHCP server/client/relay

Hardware Specification

Physical Interface

- WLAN: detachable antenna
- WAN: ADSL port
- Telephone: 2-port FXS
1-port FXO (For PSTN Fixed-line support)
- LAN: 4-port 10/100M auto-crossover (MDI/MDI-X) Switch
- Console: the Ethernet Port # 4 can be also connected to console
- Factory default reset button
- Power jack
- Power switch
- SDRAM 32MB

Physical Specification

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

Power Requirement

- Input: 12VDC, 1.2A

Operating Environment

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



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*Note:

1. The router may require firmware modification for certain ADSL2+/ 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.