802.11g
Wireless
WPA-PSK / WPA2-PSK

WPS

VoIP
WWW

BILLION ™

▲ **BiPAC 7401VGP** *R3* **Front Panel**

▲ **BiPAC 7401VGP** *R3* **Rear Panel**

BiPAC 7401VGP *R3*

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

Communication just got cheaper! Make the most economical and secure VoIP calls with Internet sharing!

The BiPAC 7401VGP *R3*, an ADSL2+ firewall router integrated with VoIP functionalities is designed for home and SOHO users to enjoy economical VoIP calls concurrently with mobile, high-speed and high-level security of data communications. This router integrates an FXS port allowing you to make VoIP calls simply by connecting the device to your existing telephone set. The additional FXO port enables you to make calls through PSTN Fixed-line while sharing a high-speed Internet connection. The Quality of Service (QoS) feature ensures a smooth net connection for inbound and outbound data with minimal traffic congestion. With the BiPAC 7401VGP *R3*, you can make low cost landline calls and mobile calls while sharing Internet access with your family or colleagues in the office.

Truly Cost Saving

Making VoIP calls with toll-quality is extremely simple; just connect the router to your existing telephone sets. The BiPAC 7401VGP *R3* complies with the most popularly adopted VoIP industrial standard, SIP protocol, to ensure the interoperability with SIP devices and major VoIP Gateways. 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.

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 7401VGP *R3*A model supports the latest ADSL2/2+ for higher upload speeds.

Wireless Mobility and Protection

An integrated 802.11g Wireless Access Point offers quick yet easy access with data encryption for added security. 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 BiPAC 7401VGP *R3* also supports 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 cables.

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.

• High speed Internet access with ADSL2 / 2+; backward compatible with ADSL
• Make phone calls via the Internet as well as PSTN Fixed-line
• Voice over IP compliant with SIP standard
• One FXS port for connecting to regular telephones
• One FXO port for voice calls via PSTN Fixed-line
• 802.11g Wireless AP with WPA-PSK / WPA2-PSK support
• Wi-Fi Protected Setup (WPS)
• SOHO firewall security with DoS prevention and SPI
• Quality of Service control
• Ease of Use with Quick Installation Wizard and Auto-scan ADSL Settings
• Supports IPTV Application[*3]

- -

Ideal for:
• **SOHO users**
• **Home users**

Powering communications
with **Security**

Features & Specifications

ADSL Compliance

- **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 (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) (BiPAC 7401VGP *R3*A only)
- **Compliant with ADSL2+ Standard**
  - G.dmt.bis plus (ITU G.992.5)
  - ADSL2+ Annex M (ITU G.992.5 Annex M) (BiPAC 7401VGP *R3*A 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
- IGMP snooping for video service

Firewall

- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- DoS attack prevention 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

Quality of Service Control

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

Wireless LAN

- Compliant with IEEE 802.11g and 802.11b standards
- 2.4 GHz - 2.484 GHz frequency range
- Up to 54Mbps wireless operation rate
- Wi-Fi Protected Setup (WPS) for easy setup
- 64 / 128 bits WEP supported for encryption
- Wireless Security with WPA-PSK / WPA2-PSK support
- WDS repeater function support

IPTV Applications*3

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

VoIP

- One RJ-11 FXS port 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.

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

Management

- Quick Installation Wizard and Auto-scan ADSL settings
- Web-based GUI for remote and local management
- Firmware upgrades and configuration data upload and download via web-based GUI
- Embedded Telnet server for remote and local management
- SNMP v3, MIB-I and MIB-II support
- Supports DHCP server / client / relay
- TR-069*1 supports remote management

Hardware Specifications

Physical Interface
- WLAN: detachable antenna
- DSL: ADSL port
- Telephone:
  1-port FXO (For PSTN Fixed-line support)
  1-port FXS
- Ethernet: 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
- WPS push button
- Power jack
- Power switch

Physical Specifications
- Dimensions: 9.04" x 6.10" x 1.46" (229.5mm x 155mm x 37mm)

Power Requirements
- Input: 12V DC, 1A

Operating Environment

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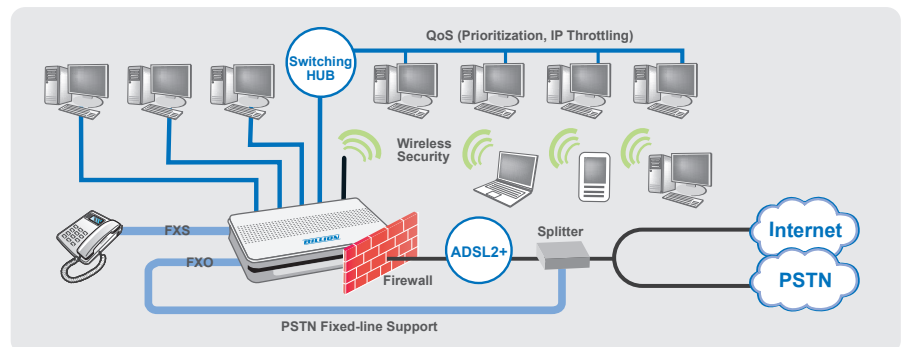- Storage temperature: -20 – 70°C
- Humidity: 20 – 95% non-condensing

Models & Standards Supported

Product Models
- BiPAC 7401VGP *R3*:
  VoIP / 802.11g ADSL2+ Firewall Router

Standards
- BiPAC 7401VGP *R3*A:
  Supports Annex A and Annex M
  (Annex A and Annex M: ADSL over POTS)
- BiPAC 7401VGP *R3*U:
  Supports Annex B and U-R2
  (Annex B and U-R2: ADSL over ISDN)

V.122408

Billion in Australia:
PC Range Pty Ltd

TEL : 08-8322-9544
FAX : 08-8322-9600
E-mail : sales@billion.com.au

www.billion.com.au