BILLION™

BiPAC 7402R2

ADSL2+ VPN Firewall Router

Billion's BiPAC 7402R2 is an enhanced 4-port VPN Firewall router designed for users who need to access to corporate networks or a remote VPN to enjoy secure, smooth, and express-speed Internet access. It supports 16 IPSec Virtual Private Network (VPN) tunnels with powerful 3DES accelerator, enabling users to securely connect multiple computers over the public Internet. With latest ADSL2/2+ technology, faster downstream data rate goes up to 24Mpbs. The powerful Quality of Service feature integrated makes the device a perfect mate for users to benefit from traffic prioritization and bandwidth management. The BiPAC 7402R2 is truly a fantastic solution for SOHO and Office users to receive greater value and business productivity!

- High speed Internet access with ADSL2/2+; backward compatible to ADSL
- 16 secured IPSec Virtual Private Network (VPN) with powerful 3DES accelerator
- Quality of Service (QoS) for Traffic Prioritization and Bandwidth Management
- SOHO Firewall Security with DoS Prevention and SPI
- Parental Control with URL Content Filtering
- IGMP Snooping for video service
- Dynamic Domain Name System (DDNS)
- Universal Plug and Play (UPnP) compliance
- Available Syslog Monitoring
- Ease of Use with Quick Installation Wizard and Auto-scan ADSL settings
- Support IPTV Application*
- Ideal for SOHO and Office users

Benefits

Express Internet Access
The router complies with ADSL worldwide standards. It supports downstream rate up to 12/24 Mbps with ADSL2/2+, 8 Mbps with ADSL and upstream rate up to 1 Mbps. With this technology, users enjoy not only high-speed ADSL services but also broadband multimedia applications such as interactive gaming, video streaming and real-time audio much easier and faster than ever. Particularly, Annex M standard combined in the model of BiPAC 7402R2M supports the latest ADSL2/2+ for higher upload speeds by doubling the upstream data rate.

Secured Data Communication
The router supports embedded Virtual Private Network (VPN) protocols and up to 16 simultaneous IPSec VPN tunnels for users to establish private encrypted tunnels over the public Internet. With built-in DES/3DES accelerator, the router enhances IPSec VPN performance significantly and ensures data transmitted securely between two or more sites.

Fast and Responsive Net Connection
Quality of Service (QoS) gives users the full control over which type of outgoing data traffic given priority by the router, ensuring important data like gaming packets, customer information, or management information move through the router at lightning speed, even under heavy load. The transmission speed can be throttled both inbound and outbound data passed through the router to ensure no saturating uploading bandwidth, or office browsing not bringing client web serving to a halt. In addition, the priority of uploading data can be changed in order to let the router sort out the actual speeds.

Robust Firewall Security
Along with the built-in NAT natural firewall feature, the router also provides advanced hacker pattern-filtering protection. It can automatically detect and block Denial of Service (DoS) attacks. Built with Stateful Packet Inspection (SPI), the router enables users to determine whether or not a data packet is allowed to pass through the firewall to the private LAN.

Powering communications with **Security**

ADSL Modem / Router

Wireless ADSL Router

Powerline ADSL Router and Adapter

Broadband Router

Security Router

VoIP ADSL Modem/Router

SHDSL Bridge / Router

iBusiness Security Appliance

Feature & Specification

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) (Available for BiPAC 7402R2M 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 7402R2M 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, 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

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

Quality of Service Control
- Support DiffServ approach
- Traffic prioritization and bandwidth management based-on IP protocol, port number and address

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

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
- Available Syslog monitoring
- SNMP v3, MIB-I and MIB-II support
- Support DHCP server/client/relay

Hardware Specification
Physical Interface
- WAN: ADSL port
- LAN: 4-port 10/100M auto-crossover (MDI/MDI-X) Switch
- Console: PS2
- Factory default reset button
- Power jack
- Power switch
Physical Specification
- Dimensions: 7.09" x 4.72" x 1.57" (180mm x 120mm x 40mm)
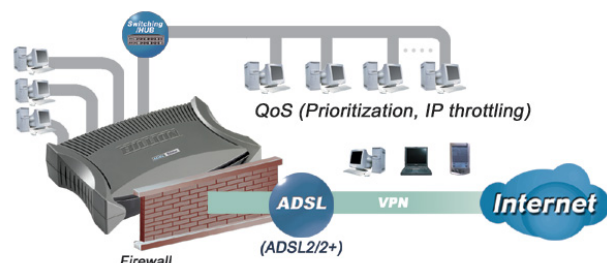### Power Requirement
- Input: 12V DC, 1A

Operating Environment
- Operating temperature: 0 ~ 40 ℃
- Storage temperature: -20 ~ 70 ℃
- Humidity: 20 ~ 95% non-condensing

Models & Standards Support
- BiPAC 7402R2A: Annex A
- BiPAC 7402R2M: Annex A & Annex M
- BiPAC 7402R2B: Annex B & U-R2
- Annex A and Annex M: ADSL over POTS
- Annex B and Annex U-R2: ADSL over ISDN

Application Diagram

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*Note:
1. The router may require firmware modification for certain ADSL2/2+/ Annex M DSLAMs.
2. IPTV application may require subscribing IPTV services from Telco/ISP.
3. Specifications in this datasheet are subject to changes without notice.