

BiPAC 8501



BILLION™

5.7 Mbps SHDSL.bis VPN Firewall Bridge/Router

Higher symmetric data rate to power your office productivity! Small businesses often need to have a cost-effective networking solution instead of expensive leased lines to maintain their competitiveness. As a substitute of a local leased line, Billion's BiPAC 8501 offers a perfect solution of symmetric transmission for SOHO and SME users to enjoy high-speed SHDSL.bis broadband services, as well as bandwidth-consuming applications such as video conferencing with more ease and speed than ever before. The device supports the latest SHDSL.bis technology on a single 2-wire telephone line, with a higher symmetric upstream and downstream data rate of up to 5.7 Mbps. With the Rate Adaptive feature, the BiPAC 8501 is capable of adjusting the data rate automatically according to the quality of the wire connectivity. The 4-Port switch design allows multiple PC users to share high-speed Internet access in their office network environment. The Quality of Service feature ensures a smooth net connection for inbound and outbound data with minimal traffic congestion. The router also supports IPSec VPN for users to create a secure data communications environment between two or more sites. Rich Firewall security features such as SPI, DoS attack prevention, and URL Content Filtering are integrated within to provide users with unparalleled access protection.



▲ BiPAC 8501

- Supports Symmetric Data Rate of up to 5.7 Mbps.
- High-speed Internet Access with SHDSL.bis, backward compatible with SHDSL
- SOHO Firewall Security with DoS Prevention and SPI
- Parental Control with URL Blocking and Packet Filtering
- DiffServ Quality of Service Control
- Secured Virtual Private Network (VPN)
- Dynamic Domain Name System (DDNS)
- Available Syslog monitoring
- Integrated 4-port Ethernet Switch
- Ideal for Office Users

Benefits

High-speed Internet Access with 2-wire SHDSL.bis

The router complies with the latest standard of SHDSL.bis technology for worldwide deployment and supports a symmetric data rate of up to 5.7 Mbps. With the SHDSL.bis technology, the BiPAC 8501 allows office users to enjoy high-speed symmetric bandwidth and multimedia applications such as FTP sharing, video conferencing and real-time audio with much ease and speed than ever before.

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 the traffic of any type of data, ensuring latency-sensitivity and bandwidth-consuming applications such as video conferencing, customer information or FTP sharing, can move through the router at instantaneous speed, even when under heavy tasking. The speed for inbound and outbound data passed through the router can be controlled to ensure that users do not saturate the bandwidth with their browsing activities.

Firewall Security with DoS Prevention and SPI

Besides having a built-in NAT natural firewall feature, the BiPAC 8501 also provides an advanced hacker pattern-filtering protection that can automatically detect and block Denial of Service (DoS) attacks, such as IP Spoofing, Ping of Death, etc. The router is also built with Stateful Packet Inspection (SPI) to determine whether a data packet should be allowed to pass through the firewall to the private LAN.

Virtual Private Network

The router supports embedded Virtual Private Network (VPN) protocols for users to establish private encrypted tunnels over the public Internet.



Powering communications
with Security

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

SHDSL Compliance

- Compliant with ITU-T G.991.2 Standard
- Compliant with ITU-T G.991.2.bis Standard
- Symmetric data rate of up to 5.7 Mbps on 2-wire
- Rate Adaptive Mode

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

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

Hardware Specifications

Physical Interface

- WAN: SHDSL port
- Console: PS2
- LAN: 4-port 10/100M auto-crossover (MDI/MDI-X) Switch
- Factory default reset button
- Power jack
- Power switch

Physical Specifications

- Dimensions: 7.09" x 4.72" x 1.57"
(180mm x 120mm x 40mm)

Power Requirements

- Input: 12V DC, 1A

Application Diagram



ATM and PPP Protocols

- Supports ATM over SHDSL.bis and SHDSL
- 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)

Virtual Private Network (VPN)

- Embedded IPsec & PPTP client/server
- IKE key management
- DES, 3DES and AES encryption for IPsec
- MPPE Encryption for PPTP
- L2TP over IPsec
- L2TP/PPTP/IPsec pass-through

Management

- 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

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
- Operating Humidity: 20% ~ 95% non-condensing

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Specifications in this datasheet are subject to change without prior notice.

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