

**BiPAC 7300M**



## 802.11g MIMO ADSL2+ Router

**No more dead zones with Wireless MIMO!** Billion's BiPAC 7300M is an all-in-one 802.11g ADSL2+ Router with MIMO technology perfectly designed for home and SOHO users. The router provides modem functionality and supports the latest ADSL2+ downstream rates of up to 24Mbps to give you access to a high-speed ADSL Internet connection. It features MIMO (Multiple Input Multiple Output) technology, increasing both speed and range to well above the 802.11g standard to deliver the ultimate in wireless freedom. An abundance of integrated security features such as Firewall and VPN pass-through, Wi-Fi Protected Access and WPA2 provide unparalleled security for your Internet connection. The Quality of Service feature ensures a smooth net connection for inbound and outbound data, with minimal traffic congestion. In addition, this router supports Easy Sign-On (EZSO) technology that enables users to establish an ADSL connection 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.



▲ **BiPAC 7300M**

- High speed Internet access with ADSL2/2+; backward compatible with ADSL
- Supports Smart Antenna MIMO Technology
- 6 times better Wireless Speed and Range Performance than standard 802.11g
- Wireless Access Point with WPA-PSK/WPA2-PSK
- Quality of Service Control for Traffic Prioritization and Bandwidth Management
- SOHO Firewall Security with DoS Prevention and SPI
- Supports Virtual Private Network (VPN) pass-through
- Easy Network Management
- Easy Sign-On (EZSO) and Web-based Configuration
- Universal Plug and Play (UPnP) Compliant
- Dynamic Domain Name System (DDNS)
- Supports IPTV Application\*
- Ideal for Home and SOHO Users

### Benefits

#### Express Internet Access

This router features the latest ADSL2/2+ standard, providing downstream rates of up to 12/24 Mbps with ADSL2/2+, or backward to 8Mbps with ADSL, and upstream rates of up to 1 Mbps. Users enjoy not only high-speed ADSL services but also broadband multimedia applications such as interactive gaming, video streaming and real-time audio much more quickly and easily than ever before. Particularly, the Annex M standard included in the BiPAC 7300MA model supports the latest ADSL2/2+ to provide higher upload speeds by doubling the upstream data rate.

#### Ultimate Wireless Coverage and Speed

With Smart Antenna MIMO technology, BiPAC 7300M effectively reduces the multi-path effect, which is typically the reason for the fading and loss of wireless signals, by automatically sensing interference and physical barriers. By changing the wireless configuration to circumvent these obstacles, Smart Antenna MIMO technology eliminates dead zones. This router delivers the ultimate in wireless coverage, speed, and performance, up to 6 times that of the standard 802.11g in some situations\*. As a result, your wireless freedom at home is dramatically improved! Furthermore, the built-in Wireless Distribution System (WDS) repeater function allows you to expand your wireless network without using any wires at all.

#### Smooth and Responsive Net Communication

Quality of Service (QoS) gives you full control over outgoing data traffic. The router is able to prioritize traffic to ensure that important data such as gaming packets, customer information, and management information move through the router at lightning speed, even under heavy loads. QoS also lets you 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.

#### Hassle-free Setup

With Billion's unique Easy Sign-On (EZSO) technology built in, the router allows users to effortlessly establish an ADSL connection via 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 create an Internet connection for you. This user-friendly design supports all kinds of operating systems.

#### Double Security

With an abundance of firewall features built in, the router provides advanced anti-hacker pattern filtering protection by automatically detecting and blocking 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. In addition, the router features Wi-Fi Protected Access, WPA2 and Wireless Encryption Protocol (WEP) to enhance the security level of data protection and access control via Wireless LAN.



# 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) (Available for BiPAC 7300MA 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 7300MA 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

## 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

## Quality of Service Control

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

## 802.11g MIMO

- Smart MIMO antenna with two RX and one TX
- MIMO-class performance and backward compatible with 802.11g
- Compliant with IEEE 802.11b, and 802.11g
- 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

## 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

## 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
- SNMP v3, MIB-I and MIB-II support

## Operating Environment

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

## Hardware Specification

### Physical Interface

- WLAN: 3 external antennas
- LINE: ADSL port
- LAN: 4-port 10/100M auto-crossover (MDI/MDI-X) switch
- Factory default reset button
- Power jack

### Physical Specification

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

### Power Requirement

- Input: 12V DC, 1A

## Models & Standards Support

- BiPAC 7300MA: Annex A & Annex M
- BiPAC 7300MB: Annex B
- BiPAC 7300MU: 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)

## Application Diagram



### \*Notes:

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. Actual throughput and performance will vary in different environments. Normally, the farther away you are, the more wireless advantage you get.
4. Specifications in this datasheet are subject to change without prior notice.

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