



▲ BiPAC 7800GZ Front Panel



▲ BiPAC 7800GZ Rear Panel

BiPAC 7800GZ

3G / HSPA Embedded ADSL2+ Wireless VPN Firewall Router

Share your secure mobile broadband anywhere with just a 3G SIM card!

The BiPAC 7800GZ, a dual-WAN 3G / ADSL2+ firewall router integrated with the 802.11g wireless access point and 4-port switch, is a cutting-edge networking product for SOHO and office users. Uniquely, the router allows users to directly insert a 3G / HSPA SIM card into its built-in SIM slot instead of requiring external USB modems. This design will avoid the common problem of compatibility issues of many different 3G USB modems. With the increasing popularity of the 3G standard, communication via the BiPAC 7800GZ is becoming more convenient and widely available - enabling users to use a 3G / UMTS HSDPA / HSUPA or GSM GPRS / EDGE Internet connection, making downstream rates of up to 7.2Mbps possible. Users can watch movies, download music on the road or access e-mail wherever a 3G connection is available. In addition, the integrated IPSec VPN function allows you to encrypt connections of up to 4 VPN tunnels to securely transmit data over the Internet, making the BiPAC 7800GZ a perfect unit for SOHO and office users.

Mobility

The BiPAC 7800GZ router allows you to insert a 3G / HSPA USIM card to its built-in SIM slot, enabling you to use a 3G / HSPA, UMTS, EDGE, GPRS, or GSM Internet connection, which makes downstream rates of up to 7.2Mbps^{*4} possible. With the increasing popularity of the 3G standard, communication via the BiPAC 7800GZ is becoming more convenient and widely available - allowing you to watch movies, download music on the road, or access e-mail no matter where you are. You can even share your Internet connection with others, whether you're in a meeting, or speeding across the country on a train. The integrated Wireless technology complied with 802.11g and backward compatible with 802.11b devices allow wireless access of up to 54Mbps. The BiPAC 7800GZ is truly free and mobile.

Always-On Connection

The BiPAC 7800GZ features dual-WAN interface allowing users to connect to the Internet via either wired connectivity of ADSL or broadband connectivity by configuring one of Ethernet ports as a WAN, or via 3G connections via inserting a 3G / HSPA SIM card into its built-in SIM slot. The auto fail-over feature ensures maximum connectivity and minimum interruption by quickly and smoothly connecting to a 3G network in the event that your ADSL line fails. The 7800GZ will then automatically reconnect to the ADSL connection when it's restored, minimizing connection costs. These features are perfect for office situations where constant connection is paramount.

Concern-free Access Security

The BiPAC 7800GZ supports embedded IPSec VPN (Virtual Private Network) protocols, allowing users to establish encrypted private connections of up to 4 simultaneous tunnels over the Internet. With a built-in DES / 3DES VPN accelerator, the router enhances IPSec VPN performance significantly - so that you can access your corporate intranet and transmit sensitive data between branch offices and remote sites anytime; even when you are on the road, thus enhancing productivity. The Wi-Fi Protected Access (WPA-PSK / WPA2-PSK) and Wired Equivalent Privacy (WEP) support ensures high-level data protection and WLAN access control. In addition, the rich firewall security features such as SPI, DoS attack prevention and URL content filtering are integrated to provide unparalleled protection for Internet access. The router also supports the 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 further wires or cables.

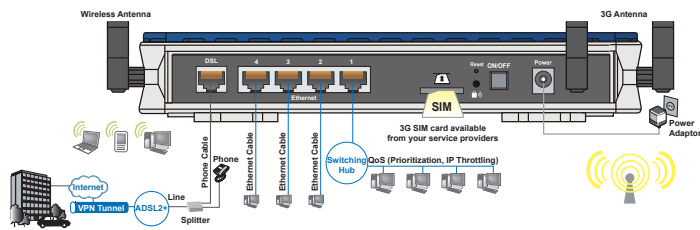
- Dual-WAN approach - ADSL2+, 3G or Ethernet WAN for broadband connectivity
- 3G / HSPA embedded with a built-in SIM card slot
- Integrated 4-port Ethernet switch, one port can be configured as a WAN interface
- 4 IPSec VPN tunnels supported
- Secure VPN with powerful DES / 3DES / AES
- High-speed Internet access via ADSL2 / 2+; backward compatible with ADSL
- Supports 802.11g wireless access point with WPA-PSK / WPA2-PSK
- WPS (Wi-Fi Protected Setup) for easy setup
- Quality of Service Control for traffic prioritization and bandwidth management
- SOHO firewall security with DoS prevention and packet filtering
- Easy Sign-On (EZSO) and auto-scan ADSL settings
- Universal plug and play (UPnP) compliance
- Dynamic Domain Name System (DDNS)
- Available Syslog
- Supports IPTV application^{*2}

Ideal for

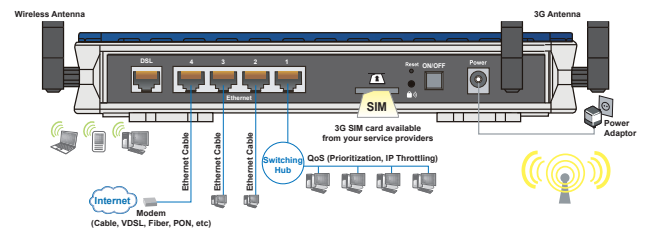
- SOHO users
- Office users
- Event or meeting organizers



ADSL Router Mode



Broadband Router Mode



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 7800GZA only)
- Compliant with ADSL2+ Standard
 - G.dmt.bis plus (ITU G.992.5)
 - ADSL2+ Annex M (ITU G.992.5 Annex M) (BiPAC 7800GZA only)

3G / HSPA^{*4}

- Supports third generation (3G / 3.5G / 3.75G) digital cellular standards
- Peak downlink speeds up to 7.2Mbps and peak uplink speeds up to 2.0Mbps
- Supports tri-band UMTS (HSPA): 900, 1900, and 2100MHz
- Receive equalizer with antenna diversity on the 900, 1900, and 2100MHz bands
- Supports quad band EDGE / GPRS / GSM: 850 / 900 / 1800 / 1900MHz
- Web-based GUI for 3G configuration and management

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
- Management based-on IP protocol, port number and address
- SMTP client with SSL / TLS

Virtual Private Network (VPN)

- 4 IPsec VPN Tunnels
- IKE key management
- DES, 3DES and AES encryption for IPsec
- Embedded powerful 3DES accelerator
- IPsec pass-through

Firewall

- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Remote access control for web base access
- Packet Filtering - port, source IP address, destination IP address, MAC address
- URL Content Filtering - string or domain name detection in URL string
- MAC Filtering
- 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

IPTV Applications^{*2}

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

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

Wireless LAN

- Compliant with IEEE 802.11g and 802.11b standards
- 2.4GHz - 2.484GHz frequency range
- Up to 54Mbps wireless operation rate
- Wi-Fi Protected Setup (WPS) for easy setup
- 64 / 128 bits WEP encryption supported
- Wireless Security with WPA-PSK / WPA2-PSK support
- WDS repeater function support
- 802.1x radius supported
- WLAN on / off time schedule control

Management

- Easy Sign-On (EZSO) and Auto-scan ADSL settings
- Web-based GUI for remote and local management
- Upload and download of firmware upgrades and configuration data via web-based GUI
- Embedded Telnet server for remote and local management
- Available Syslog
- Mail Alert for WAN IP Changed, Failover indication
- Wake On LAN
- Supports DHCP server / client / relay
- TR-069^{*3} supports remote management
- SNMP v1 / v2 / v3^{*3} supports remote and local management

Hardware Specifications

Physical Interface

- SIM slot : (for the SIM card from Telco / ISP)
- WLAN: 1 detachable antenna
- 3G antenna x 2pcs
- DSL: ADSL port
- EWAN: Ethernet port #4 can be configured as a WAN interface for connecting to ADSL / Cable / FTTH / VDSL device
- Ethernet: 4-port 10 / 100Mbps auto-crossover (MDI / MDI-X) Switch
- Factory default reset button
- WPS push button
- Power jack
- Power switch

Physical Specifications

- Dimensions: 9.04" x 6.10" x 1.69" (229.5mm x 155mm x 43mm)

Power Requirements

- Input: 12V DC, 1.2A

Operating Environment

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

Models & Supported Standards

- BiPAC 7800GZA: Annex A and Annex M (Annex A and Annex M: ADSL over POTS)
- BiPAC 7800GZU: U-R2 and Annex B (Annex B and U-R2: ADSL over ISDN)

*Notes:

- The router may require firmware modification for certain ADSL2 / 2+ / Annex M DSLAMs.
- IPTV application may require subscription to IPTV services from a Telco / ISP.
- Either TR-069 or SNMP v1 / v2 / v3 can be available; but only upon request for Telco / ISP tender projects. The TR-069 and SNMP v1 / v2 / v3 software can only be applied to one device and will not work together on the same device.
- The 3G / HSDPA data rate is dependent on your local service provider and your 3G / HSDPA card.
- Specifications in this datasheet are subject to change without prior notice.