



▲ BEC 7800GZ

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3G/HSPA embedded ADSL2+ Wireless Firewall Router

Enjoy the flexibility of 3G Internet connections while sharing your networking anywhere with always-on connectivity!

The BEC 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. The router offers users more flexibility to directly insert a 3G/HSPA SIM card into its built-in SIM slot instead of requiring external USB modems. With the increasing popularity of the 3G standard, communication via the BEC 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. Planned support for auto fail-over⁶ means that users will be assured of a constant Internet connection - in the event that the ADSL line fails, the BEC 7800GZ will connect via the embedded 3G card to deliver uninterrupted connectivity.

Communication Flexibility via 3G/HSPA

The BEC 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, makes downstream rates of up to 7.2Mbps⁴ possible. With the increasing popularity of the 3G standard, communication via the BEC 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, no matter if you're in a meeting, or speeding across the country on a train.

Always-On Connection

The BEC 7800GZ is compliant with worldwide ADSL standards, and supports download rates of up to 12/24Mbps using ADSL2/2+, 8Mbps using ADSL and an upload rate of up to 1Mbps. Using this technology you'll be able to enjoy high-speed ADSL and broadband multimedia applications such as interactive gaming, video streaming and real-time audio. The integrated Annex M standard supports ADSL2/2+ for higher upload speeds by doubling the upload data rate. Planned support for auto fail-over⁶ means that you'll be assured of a constant Internet connection - in case your ADSL line fails, the BEC 7800GZ will connect via embedded 3G to deliver uninterrupted connectivity.

Smooth, Responsive Net Connection

Quality of Service (QoS) gives users full control over outgoing data traffic. Priority can be assigned by the router to ensure that important transmissions like gaming packets, VoIP calls or IPTV / streaming content passes through the router at lightning speed, even when there is heavy Internet traffic. The speed of different types of outgoing data passing through the router is also controlled to ensure that users do not saturate bandwidth with their browsing activities.

Wireless Mobility and Double-layer Protection

An integrated 802.11g Wireless Access Point offers quick yet easy access with data encryption for added security. Wireless Protected Access (WPA-PSK/WPA2-PSK) and Wireless Encryption Protocol (WEP) support ensures high-level data protection and WLAN access control. In addition, 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 external wires or cables.



▲ BEC 7800GZ Front Panel



▲ BEC 7800GZ Rear Panel

- Dual-WAN approach - ADSL2+ and 3G connection
- Auto fail-over⁶ feature to ensure an always-on connection
- 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 settings⁶
- Universal Plug and Play (UPnP) Compliance
- Dynamic Domain Name System (DDNS)
- Available Syslog
- Supports IPTV Application^{*2}

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

3G HSPA^{*4}

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

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

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 and URL filtering^{*6}
- Password protection for system management
- VPN pass-through

Quality of Service Control

- Supports the DiffServ approach
- Traffic prioritization and bandwidth

IPTV Applications^{*2}

- 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

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

Management

- Easy Sign-On (EZSO) and Auto-scan ADSL settings^{*6}
- 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
- Supports DHCP server / client / relay
- TR-069^{*3} supports remote management

Hardware Specifications

Physical Interface

- SIM slot : (for the SIM card from Telco/ISP)
- WLAN: 2 dbi detachable antenna
- 3G antenna* 2pcs
- DSL: ADSL port
- Ethernet: 4-port 10/100Mbps auto-crossover (MDI / MDI-X) Switch
- Factory default reset button
- WPS push button
- Power indicator LED
- 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, 1.5A

Operating Environment

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

Models & Supported Standards

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

Notes:

1. The router may require firmware modification for certain ADSL2 / 2+ / Annex M DSLAMs.
2. IPTV application may require subscribing to IPTV services from a Telco / ISP.
3. Only upon request for Telco / ISP tender projects.
4. The 3G/HSDPA data rate is dependent on your local service provider and your 3G/HSDPA card.
5. Specifications in this datasheet are subject to change without prior notice.
6. Future release

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