

# GigaConnect®

## Dual-Band Multi-Service Gateway



**BEC 7800X5**



The BEC GigaConnect® 7800X5 is an all-in-one, robust and powerful router which equipped with triple WAN interfaces, ADSL, Gigabit Ethernet broadband and 3G/4G-LTE via USB dongle connections, Gigabit Ethernets, and concurrent dual-band WIFI speed of up to 600Mbps can support IPTV, video streaming over 5GHz WIFI. The IPv4/IPv6-capable is available on Gigabit EWAN and ADSL WAN Interfaces. The BEC 7800X5 support automatic fail-over and least cost routing capabilities. The single USB port services multiple features such as a print server, NAS (Network Attached Storage) device with DLNA (Digital Living Network Alliance), FTP Server and be a 3G/4G-LTE WAN connection for the Internet access.

### Maximum Performance Dual-band Gigabit Router

With simultaneous dual-band wireless technology, BEC 7800X5 not only offer ultra-fast wireless speeds of up to two 300Mbps wireless-N network, 2.4GHz and 5GHz, at the same time, but also provide stable solutions to achieve for multiple-demand, such as running IPTV streaming HD videos over 5GHz band and multiplayer gaming, Web browsing over 2.4GHz without interference from each other. In addition to Dual-band Wireless-N, the BEC 7800X5 has four Gigabit LAN ports and the fourth port (#4) can be configured as a WAN port for broadband connectivity to any other Ethernet broadband device.

### Flexible Deployment Options

The BEC 7800X5 provides service operators with a flexible, scalable deployment option optimized to both reduce costs and provide the longest possible lifespan for the investment. The BEC 7800X5 integrates dual WAN options; an ADSL2+ interface and a second 10/100/1000 Ethernet WAN interface which can be used for broadband connectivity to any other Ethernet broadband device. Operators can now deploy one device to support current and future network migration.

### Smooth, Responsive Net Connection

Quality of Service (QoS) gives user's 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.

### Robust Firewall Security

The NAT default firewall has advanced anti-hacker pattern-filtering protection features that automatically detect and block Denial of Service (DoS) attacks. In addition, Packet Filtering provides high-level security for access control. xBuilt 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.

### Pathway to the Future

The BEC 7800X5 fully supports IPv6 (Internet Protocol Version 6), implementation of IPv6 igrowing significantly and multiple transition methods are required to support the coexistence and migration from IPv4. With BEC IPv6 enabled devices, service providers easily adapt IPv6 to thier network as we support major transition mechanisms such as Dual-Stack, Dual-Stack Lite, and 6RD .

### Performance

- Dual-WAN Broadband Connectivity: ADS2+ or Ethernet WAN
- Enhanced throughput with PTM over ADSL2+
- IPv4 / IPv6 Dual Stack
- Simultaneous 2.4GHz & 5GHz Dual Band Wireless 802.11n
- 4 port Gigabit Switch

### Interoperability

- Interoperable with all major DSLAMs
- Enhanced ADSL DMT Engine
- Improved INP (impulse noise protection) better range, superior performance, less transmission errors

### Firewall

- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- DoS Prevention and Packet Filtering
- Parental Control functions

### QoS (Quality of Service)

- IP ToS, Diffserv
- 802.1p/q Prioritization
- Enhanced IGMP, Proxy/Snooping and Fast Leave

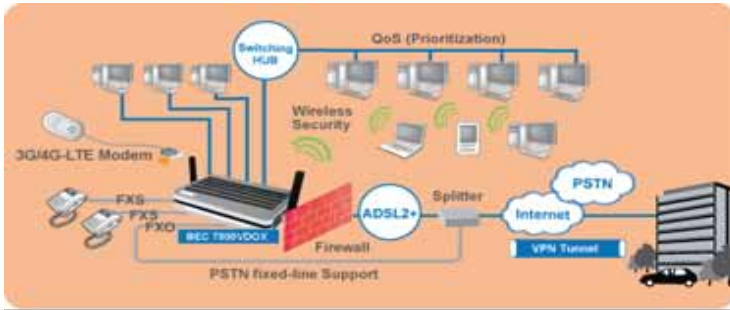
### Management

- ESZO Quick Installation Wizard and Auto-scan ADSL
- Web-based GUI for remote and local management
- TR-069 remote management
- Telnet
- SNMP v3, MIB-I and MIB-II support

### Ideal for

- Home, SOHO environments
- Standard IPTV and Microsoft Mediaroom

## Application Diagram



## 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)
- Compliant with ADSL2+ Standard
  - G.dmt.bis plus (ITU G.992.5)
  - ADSL2+ Annex M (ITU G.992.5 Annex M)

### Network Protocols and Features

- IPv4 or IPv4/IPv6 dual stacks
- NAT, static (v4/v6) routing and RIP-1/2
- IPv6 stateless/stateful address auto-configuration
- IPv6 router advertisement
- IPv6 over PPP
- DHCPv6
- IP Tunnel IPv6 in IPv4 (6RD)
- IP Tunnel IPv4 in IPv6 (DS-Lite)
- Universal Plug and Play (UPnP) compliant
- Dynamic Domain Name System (DDNS)
- Virtual server and DMZ
- SNTP, DNS relay, IGMP proxy and IGMP snooping for video service
- MLD proxy and MLD snooping for video service
- Management based-on IP protocol, port number and IP address
- Supports port-based Virtual LAN (VLAN)

### Firewall

- Built-in NAT firewall
- Stateful Packet Inspection (SPI)
- DoS attack prevention
- Packet filtering (v4/v6) - port, source & destination IP address and MAC address
- URL content filtering (v4/v6) - string or domain name detection in URL string

### IPTV Applications

- Enhanced IGMP Proxy/Snooping/Fast Leave
- MLD snooping and MLD proxy
- Virtual LAN (VLAN)
- Quality of Service (QoS)

### Quality of Service Control

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

### ATM, PTM and PPP Protocols

- PTM over ADSL2+
- 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 802.11a/b/g/n standards
- 2.4GHz and 5.0GHz frequency range
- Up to 600Mbps wireless operation rate
- 64/128 bits WEP supported for encryption
- WPS V2 (Wi-Fi Protected Setup) for easy setup
- Wireless Security with WPA-PSK / WPA2-PSK support
- Multiple SSID support (up to 4)
- Enable/Disable SSID Broadcast
- Wireless Client Isolation
- MAC address filtering
- Wireless Distribution Systems (WDS)

### Management

- ESZO Quick Installation Wizard and Auto-scan ADSL
- 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
- Multiple User Access levels
- Available Syslog monitoring
- SNMP v3, MIB-I and MIB-II support
- DHCP server/client/relay
- TR-069 remote management
- Mail alert for WAN IP changed
- Auto failover and fallback
- Push service

### Hardware Specifications

#### Physical Interface

- WLAN: 2 x 2 dBi fixed antennae
- DSL: ADSL port
- USB 2.0: 1 x USB
- Gigabit Ethernet: 4 x 10/100/1000M auto-crossover (MDI/MDI-X) switch
- EWAN: 1 x Gigabit Ethernet using port #4
- Factory default reset button
- WPS push button
- Power jack
- Power switch

#### Physical Specifications

- Dimensions: 9.04" x 6.10" x 1.46" (229.5mm x 155mm x 37mm)

#### Power Requirements

- Input: 15V DC, 1.6A

#### Operating Environment

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

#### Supported Standards