



BEC 7800_{TN-R2}

Wireless-N ADSL2+/FTTH Multi-Service Gateway



Performance:

- Compliant with all standard ADSL2/2+ profiles
- IPv4 / IPv6 Dual Stack
- Wireless Speed up to 300Mbps and 3 Times the Coverage of Standard 802.11b/g

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)
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Parental Control functions

Management:

- ESZO Quick Installation Wizard and Auto-scan ADSL
- Web-based GUI for remote and local management
- TR-069 remote management

Ideal for:

- Home, SOHO environments
- Self-Installation Service Offerings

The BEC 7800TN R2 series is an all-in-one ADSL2+/Broadband Router that offers users the flexibility of multiple Internet connections and expanded wireless coverage. All this is offered while maintaining high-speed broadband access via ADSL2+ or through an Ethernet WAN. The integrated 802.11n Wireless Access Point ensures the 7800TN offers faster wireless speeds (up to 300Mbps) while two built-in antennae effectively search for wireless signals. The BEC 7800TN R2 automatically adopts the optimal connection to deliver smooth, constant signal reception even if obstacles are present. The BEC 7800TN R2 series is equipped with a second Ethernet WAN interface, which can be used to connect to an external broadband modem. This unique feature frees users to add fiber-to-the-home (FTTH) services when they become available. Users can easily enjoy high-bandwidth applications such as High Definition IPTV services without changing their home network. A robust Firewall is also built in to provide protection against hacker attacks while the Quality of Service feature prioritizes queues and traffic for applications such as music downloads, online gaming, video streaming and file sharing.

Express Internet Access

The BEC 7800TN R2 series 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. The integrated Annex M standard supports ADSL2/2+ for higher uploads by doubling the upload data rate. The 4-port 10/100 Switch incorporated into the BEC 7800TN R2 enables users to connect to multiple computers or wired-Ethernet devices easily and enjoy blistering LAN transmission for multimedia applications such as interactive gaming, IPTV video streaming and real-time audio.

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

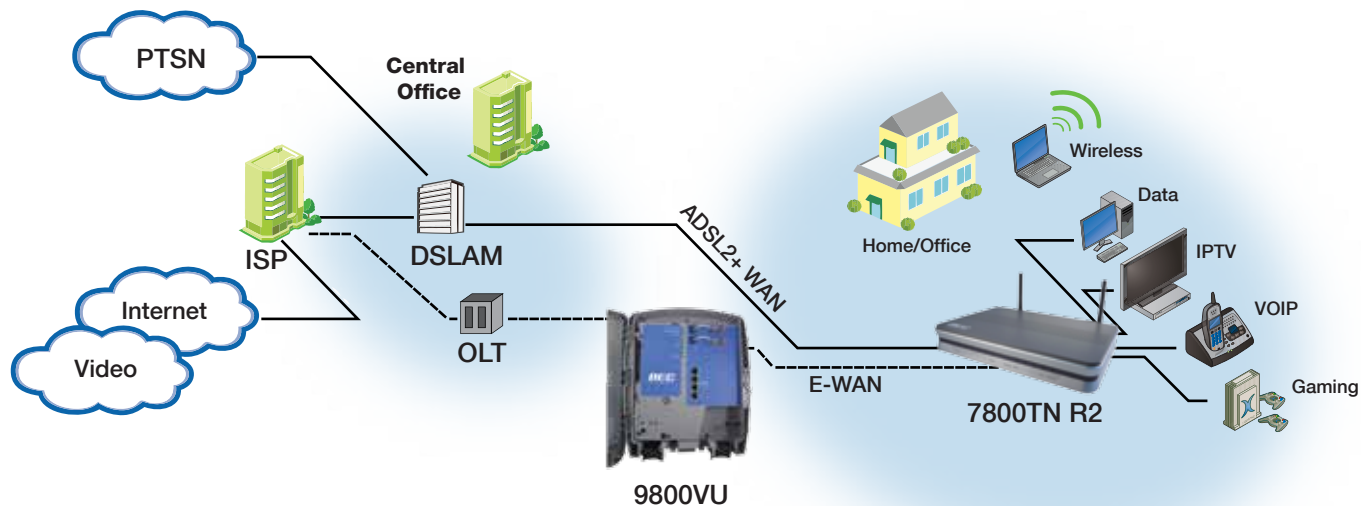
The NAT default firewall has advanced anti-hacker pattern-filtering protection features that automatically detect and block Denial of Service (DoS) attacks. In addition, Packet Filtering provides high-level security for access control. Built with Stateful Packet Inspection (SPI), the router enables users to determine whether or not a data packet is allowed to pass through the firewall to the private LAN.

Optimal Wireless Speeds and Coverage

With an integrated 802.11n Wireless Access Point, the gateway delivers up to 6 times the speed and 3 times the wireless coverage of an 802.11b / g network device. It supports data rates of up to 300Mbps and is also compatible with 802.11b / g equipment. The 7800TN R2 supports WEP 64/128 bit, WPA, WPA2 (PSK, TKIP and AES, 802.1X, SSID broadcast disable and wireless MAC address filtering to enhance the level of transmission security and access control over the Wireless LAN. The gateway also supports the Wi-Fi Protected Setup (WPS) standard, allowing users to establish a secure wireless network by simply pushing a button. If the network requires wider coverage, the built-in Wireless Distribution System (WDS) repeater function allows users to expand the wireless network without the need for any external wires or cables.



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

- NAT, static routing and RIP-1 / 2
- IPv4 / IPv6 Dual stack
- Universal Plug and Play (UPnP) Compliant
- Dynamic Domain Name System (DDNS)
- Virtual Server and DMZ
- NTP, DNS relay and IGMP Proxy
- Enhanced IGMP

Firewall

- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Packet and URL filtering
- Parental Control functions
- 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

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

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 802.11n draft, 802.11g and 802.11b standards
- 2.4–2.484GHz frequency range
- Up to 300Mbps wireless operation rate
- 64/128 bits WEP supported for encryption
- WPS (Wi-Fi Protected Setup) for easy setup
- Wireless Security with WPA-PSK / WPA2-PSK support
- WDS repeater function support
- Multiple SSID support
- WMM APSD

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

Hardware Specifications

Physical Interface

- WLAN: 2 x 2 dBi detachable antennae
- DSL: ADSL port
- EWAN: RJ-45 Ethernet port for connecting to ADSL / Cable 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 1.46" (229.5mm x 155mm x 37mm)

Power Requirements

- Input: 12V DC, 1.A

Operating Environment

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

Supported Standards

- (Annex A and Annex M: ADSL over POTS)