

AirConnect® BEC 8110

5G NR/LTE Dual Mode Router

AIRCONNECT
by BEC



Ideal Use Cases

- Ultra-High Speed Internet Services
- Delay Sensitive and Bandwidth Intensive Applications
- Fixed Wireless Broadband
- Residential or SOHO Users
- Managed Services

The BEC AirConnect® 8110 5G NR/LTE Dual Mode Router is equipped with the new fifth-generation cellular networks, the 5G Sub-6 GHz new radio technology and 4G/LTE dual-connectivity, 4-port Gigabit Ethernet Switch, USB 2.0, dual radio 4x4 802.11ac access point with multi-user MIMO, Wi-Fi Hotspot, dynamic routings, and a robust Firewall security. The BEC 8110 simplifies implementation, increase deployment flexibility, boost network performance, and most importantly, it will bring you a whole new 5G NR internet experience.

New 5G Radio Technology Overthrow Your Imagination

BEC 8110 supports 4G/LTE and 5G Sub-6 GHz with dual connectivity modes, standalone access (SA) fully benefiting from all the 5G capabilities and non-standalone access (NSA) attached to a 4G network up to a gigabit speed to ensure a quick and flexible adaptation to any LTE or 5G NR networks.

Cellular Network and Fixed Broadband Services Ready

The seamless automatic WAN failover with traffic prioritization in the event of an Internet connectivity failure of the primary WAN interface, traffic is automatically redirected to the secondary WAN interface within seconds.

Exceeding Wi-Fi Expectations

Experience the ultra-fast, dual-band 802.11ac with speed of 1700Mbps in 5GHz and 600Mbps in 2.4GHz frequency. MU-MIMO-equipped BEC 8110 is capable to communicate with multiple end devices simultaneously help to increase network efficiency of high-density networks.

High Performance and Network Resilience

- 5G NR
 - : 3GPP Release 15 NSA/SA Operation, Sub-6 GHz
 - : SA (Max.) DL 2.1Gbps (DL) / 450Mbps (UL)
 - : NSA (Max.) DL 2.5Gbps (DL) / 650Mbps (UL)
- 4G/LTE Cat.16 (Max.) 1Gbps (DL) / 200Mbps (UL)
- Offer 5G, LTE fixed wireless, and Gigabit broadband connectivity
- Automatic Failover and dual WAN interfaces for network resilience and reliable connectivity
- 4-Port Gigabit Auto-MDI/MDI-X Switch
- Advanced SX Antenna Technology for increased coverage, signal reception and efficiency

Enterprise Class Routing and Secured VPN

- BGP and OSPF Dynamic Routing Protocols
- IPSec, GRE, L2TP, PPTP, and OpenVPN
- Advanced secure and simultaneous VPN connections



Ease-of-Use Wireless Hotspot and Captive Portal

The Wi-Fi hotspot is le to share the Internet connection via mobile or a wired connection with any wireless-enabled devices which is completed separate from the private Wi-Fi network. The captive portal enables highly secure connectivity with multiple authentication options and extensive controls for access and bandwidth management.

24/7 Cloud Management and Network Visibility

Remote monitoring, management, and control of devices in real-time is essential for IoT networking devices, M2M and critical applications. BECentral®, BEC's Cloud Remote Management, is a comprehensive device management platform designed to minimize deployment, lower support expenses, and maximize the operational efficiency and profitability of the operator.

Superior Wireless Technology

- Support 4x4:4SS 11ac Wave2 MU-MIMO
- Simultaneous Dual Band Wi-Fi with high-power design
- Wi-Fi Hotspot with Captive Portal
- Supports Wi-Fi Multimedia (WMM) wireless QoS
- Carrier-Grade Wi-Fi, WPA2/AES and MSSID with isolation
- Multiple Operation Modes: Access Point, Bridge and Repeater

Management

- Web-based GUI for remote and local management
- SNMP v1, v2, v3, MIB-I and MIB-II support
- TR-069 remote management
- SMS Control function for status and reboot
- Supported by BECentral®, BEC's Cloud-Based device management platform, to extend network visibility and control of devices remotely

Features & Specifications

Availability and Resilience

- Multiple WAN ports (4G/5G, ETH WAN, or Wireless)
- Load Balancing - Maximizing bandwidth of outbound traffic
- Automatic WAN failover

Supported Frequency Bands

• 5G NR Sub-6 GHz

- : Comply 3GPP Rel.15
- : Support Frequency Range 1 Bands (SA & NSA): n1 / n2 / n3 / n5 / n7 / n8 / n12 / n20 / n25 / n28 / n38 / n40 / n41 / n48 / n66 / n71 / n77 / n78
- : Modulation (Uplink): π/2-BPSK, QPSK, 16QAM, 64QAM, and 256QAM
- : Modulation (Downlink): QPSK, 16QAM, 64QAM, and 256

• 4G / LTE (Cat.16)

- : Support Frequency Bands (FDD & TDD)
- : FDD: B1 / B2 / B3 / B4 / B5 / B7 / B8 / B9 / B12 / B13 / B14 / B17 / B18 / B19 / B20 / B25 / B26 / B28 / B29 / B30 / B32 / B66 / B71
- : TDD: B34 / B38 / B39 / B40 / B41 / B42 / B43 / B48

• Data Transmission

- 5G NSA: DL 2.1Gbps / UL 450Mbps
- 5G SA: DL 2.5Gbps / UL 650Mbps
- 4G/LTE: DL 1.0Gbps / UL 200Mbps

• 4G/LTE/5G SX Antenna

- Low Band: 2x2 MIMO
- Mid Band / High Band: 4x4 MIMO (DL Only)
- 4G/5G Management Center in web-based GUI

Firewall

- Built-in NAT Firewall and Stateful Packet Inspection
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Access Control
- IP / MAC / URL / Domain Filtering

USB Application Server

- Storage: FTP server and Samba server

Network Protocols and Features

- IPv4, IPv6, IPv4 / IPv6 dual stack
- IPv6 in IPv4 (6RD) / IPv4 in IPv6 (DS-Lite) / IPv6-464XLAT
- 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, IGMP proxy and IGMP snooping, MLD proxy and MLD snooping for video service
- Supports port-based Virtual LAN (VLAN)

Carrier Grade Wireless LAN

- Compliant with IEEE 802.11 a/b/g/n/ac standards
- 802.11n 2.4GHz 3x3 & 802.11ac 5GHz 4x4 Wave2
- 5, 10, 20, 40, 80, 80+80, 160MHz Channel Bandwidth
- Up to 600Mbps (2.4GHz) & 1700Mbps (5GHz) speed
- 64/128 bits WEP supported for encryption
- Wireless security with WPA-PSK, WPA2-PSK, Mixed WPA/WAP2-PSK, (TKIP/AES), 802.1x/RADIUS
- AP, Client Bridge and WDS Operational Modes
- Multiple SSID (4 SSIDs), BSSID, Band
- Wireless MAC filtering, Wireless Client Isolation
- Wi-Fi Hotspot with Captive Portal
- Dynamic, Wi-Fi client rate-limiting
- Supports up to 4 Spatial Streams & TX Beamforming
- Supports Hardware-based Airtime Fairness (QoS)

Quality of Service Control

- Traffic prioritization based-on IP protocol, port number, and IP address
- Uplink and Downlink Bandwidth Control

VPN/Tunneling (Optional)

- IPsec, OpenVPN, PPTP, L2TP VPN Tunneling
- OpenVPN VPN Tunneling
- PPTP VPN Tunneling
- L2TP VPN Tunneling
- GRE (up to 8 tunnels)
- Embedded PPTP / L2TP / IPsec / OpenVPN Client and Server
- IKE Key Management
- MPPE Encryption for PPTP
- IPsec DES, 3DES and AES encryption

Management

- Quick Installation Wizard
- Web-based GUI for remote and local management
- Firmware upgrade and configuration data upload and download via web-based GUI and over-the-air
- Supports DHCP server/client/relay
- TR-069 supports remote management
- BECentral® Cloud Management
- SNMP v1 , v2, v3, MIB-I and MIB-II support
- Syslog monitoring
- SMS Control function for status and reboot

Hardware Specifications

Physical Interface

- Power On/Off button
- Power Jack
- USB 2.0 : (1) port
- Ethernet LAN: 4-port 10/100/1000Mbps auto-crossover (MDI/ MDI-X) switch - 1 x Versatile Port (LAN#4 / WAN)
- SIM Card Slot (2FF)
- Reset button
- Wireless On/Off and WPS push button
- LED indicators

Physical Specifications

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

Power Requirements

- Input: 15V DC, 2.0A

Operating Environment

- Operating temperature: 32° to 104°F (0° to 40°C)
- Storage temperature: - 4° to 158°F (-20° to 70°C)
- Humidity: 20 ~ 95% non-condensing

Application Diagram

