CriticalLinc™

Beyond Reliable.

Ideal Use Cases

- Fixed Wireless Broadband
- Last Mile Access
- Mission-Critical & Performance Intensive Networks
- Industrial Connectivity Applications
- Urban and Rural Environments

RidgeWave® BEC 7000 Series Gigabit LTE Outdoor Router

The RidgeWave® by BEC 7000 Series of Gigabit LTE Outdoor routers adapts LTE generation technology capable of delivering peak v data rates of 1.2 Gbps downlink and 150 Mbps uplink, making it fastest commercially available outdoor router today. Purpose-built for performance, the BEC 7000 Series integrates high-gain MIMO antenna technology for increased efficiency and coverage in line-of-sight (LOS) environments. Fixed Wireless Access (FWA) at 1 Gbps data rates make the BEC 7000 Series a practical alternative to wired broadband options such as Fiber to the Home (FTTH) or Hybrid ber-coax (HFC). Network Operators can deliver equivalent broadband speeds and capacity to regional, rural, remote locations, and the underserved over 4G LTE.

Innovative MIMO Antenna Technology

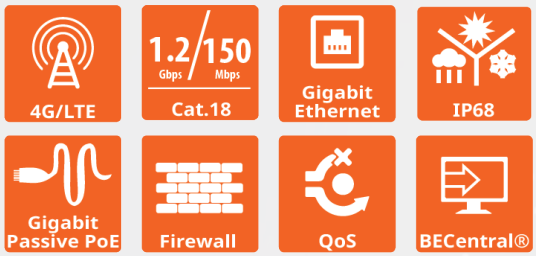
Operators need innovative antenna technology to meet capacity and throughput demands in challenging deployment scenarios such as Fixed Wireless Access (FWA). The MIMO high-gain embedded dual-polarization/dual slant antenna technology ensures faster and efficient bi-directional transmission for maximum bandwidth and coverage.

Rugged Weatherproof Design

The RidgeWave® by BEC 7000 Series is built to last, fully ruggedized with industrial graded components. Unique to BEC devices are GORE® Vents for pressure equalization, humidity, and air ow, this accompanied with lighting/ESD Protection and the IP68/UL 50E enclosure ensure protection against dirt, harmful ingress of water and extreme temperatures for years of dependable operation.

24/7 Cloud Management and Network Visibility

The BEC 7000 Series integrates seamlessly with BECentral®, BEC's cloud-based remote management platform as a complete solution, for managing large-scale UE deployments. Administrators can remotely provision, monitor, upgrade, and troubleshoot devices from a single centralized location in real-time. BECentral® extends network visibility with RF signal measurements, historical analysis/charts, proactive alerts/ notifications, connectivity management, and well-defined API to facilitate application development or integration into other platforms. For CAF II or other ETC support recipients, BECentral® fully supports scheduling, testing, report generation, and submission for FCC Performance Measures. BECentral® is a comprehensive device management platform designed to minimize deployment, lower support expenses, and maximize the operational efficiency and profitability of the operator.



Designed for Challenging and Rugged Deployments

- IP68 / UL-50E Hardened enclosure for protection against dust and water ingress
- Industrial-grade components for greater reliability
- GORE™ vent for pressure equalization, humidity, and air flow
- Electrostatic Discharge (ESD) & Surge protection
- Wind tunnel tested/rated for successful operation up to 132mph (F2 Tornado Speeds)

High Performance and Support for LTE FDD / TDD Bands

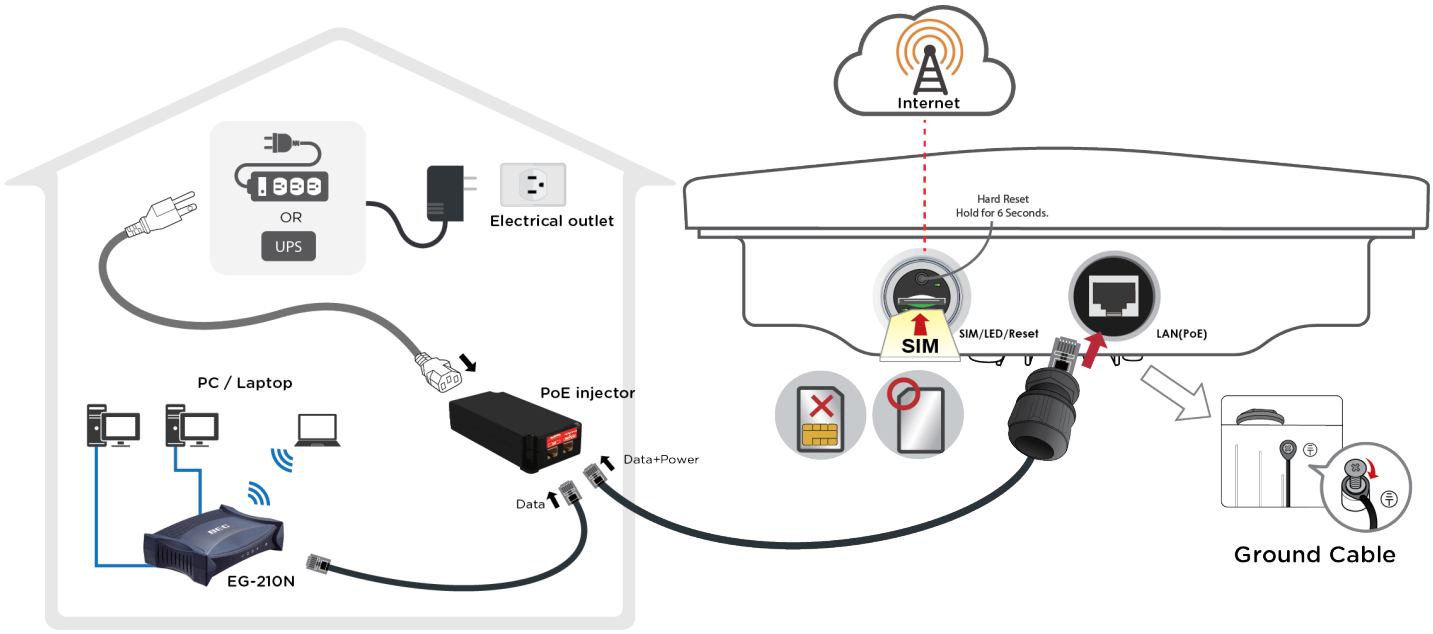
- 3GPP Release 12, up to Category 18, with data rates of up to 1.2Gbps (DL) / 150Mbps (UL)
- Offers multiple LTE frequency band support
- Carrier Aggregation to increase date rates, up to 5CA DL and 2CA UL
- Advanced IP networking functionalities including bridge and router modes
- Advanced secure VPN termination (Optional)
- 3G Fallback technology (model dependant)

Patented Dual-Polarization / Dual Slant Antenna Technology

- Embedded High-Gain 4x4 MIMO Antenna
- H-Plane & V-Plane Polarization
- Ensures exceptional RF performance for maximum bandwidth and coverage
- Precise alignment achievable with multi-angle, multi-position pole mount brackets
- High isolation for stable and reliable connectivity

Package includes Gigabit PoE injector and Mounting Kit

Application Diagram



Features & Specifications

Supported Frequency Band

- **Model: 7000 R24**

LTE Category 18
LTE Bands: 2(25), 4(66), 5(26), 7, 12(17), 13, 14, 29, 30, 41, 71
3G/WCDMA: B2, B4, B5
Carrier Aggregation: 5CA DL & 2 CA UL
Channel Bandwidth: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz & 20MHz
RF Characteristics: Maximum Transmit Power 23 ± 2dBm
Modulation: 256QAM DL / 64QAM UL
LTE Antenna: 2x2 UL and 4x4 DL MIMO
Directional (Dual Polarization & Dual Slant)
Maximum Peak Gain: 9 ± 1dBi

- **Model: 7000 R24-25**

LTE Category 18
LTE Bands: 41
Carrier Aggregation: 3CA DL & 2 CA UL
Channel Bandwidth: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz & 20MHz
RF Characteristics: Maximum Transmit Power 23 ± 2dBm
Modulation: 256QAM DL / 64QAM UL
LTE Antenna: 2x2 UL and 4x4 DL MIMO
Directional (Dual Polarization & Dual Slant)
Maximum Peak Gain: 15.5 ± 1dBi

- **Model: 7000 25**

LTE Category 15
LTE Bands: 41
Carrier Aggregation: 4CA DL & 2 CA UL
Channel Bandwidth: 5MHz, 10MHz, 15MHz & 20MHz
RF Characteristics: Maximum Transmit Power 35dBm EIRP
Modulation: 256QAM DL / 64QAM UL
LTE Antenna: 2x2 UL and 4x4 DL MIMO
4T4R
Directional (Dual Polarization & Dual Slant)
Maximum Peak Gain: 12.5 ± 1 dBi

- **Model: 7000 R26**

LTE Category 18
LTE Bands: 1, 2(25), 3, 4(66), 5(26), 7, 8, 12(17), 13, 14, 20, 28, 29, 30, 32, 38, 39, 40, 41, 42, 46(LAA), 48, 71
3G/WCDMA: B1, B2, B4, B5, B8
Carrier Aggregation: 5CA DL & 2 CA UL
Channel Bandwidth: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz & 20MHz
RF Characteristics: Maximum Transmit Power 23 ± 2dBm
Modulation: 256QAM DL / 64QAM UL
LTE Antenna: 2x2 UL and 4x4 DL MIMO
Directional (Dual Polarization & Dual Slant)
Maximum Peak Gain: 9± 1 dBi

- **Model: 7000 R28-G (CBRS CAT B CPE-CBSD)**

LTE Category 15
LTE Bands: 48
Carrier Aggregation: 4CA DL & 2 CA UL
Channel Bandwidth: 5MHz, 10MHz, 15MHz & 20MHz
RF Characteristics: Maximum Transmit Power 23 ± 2dBm
Modulation: 256QAM DL / 64QAM UL
LTE Antenna: 2x2 UL and 4x4 DL MIMO
Directional (Dual Polarization & Dual Slant)
Maximum Peak Gain: 9 ± 1dBi

Quality of Service Control

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

Network Protocols and Features

- NAT, static routing and RIP-1/2
- NAT supports PAT and multimedia applications
- Virtual server and DMZ
- SNTP, DNS relay and DDNS
- IGMP snooping and IGMP proxy

Operational Modes

- Router or Bridge

Management

- Quick Installation Wizard
- Web-based GUI for remote and local management
- Firmware upgrade and con guration data upload & download via web-based GUI or BECentral®
- DHCP server/client/relay
- TR-069 supports remote management
- BECentral® Cloud Management
- SNMP and Syslog monitoring

Hardware Specifications

Physical Interface

- Gigabit LAN Interface with IEEE 802.3at compliant PoE P.D (25.5W)
- SIM Card Slot: One (1), Mini SIM (2FF)
- LED Indicators: Power, LAN(PoE), LTE Signal Strength and Internet

Operating Environment

- Operating temperature: -40°C to 70°C (-40°F to 158°F)

Surge/ESD Protection

