

# 4G/LTE Outdoor Router

## Broadband Access without Boundaries

### BEC 6800RUL Series



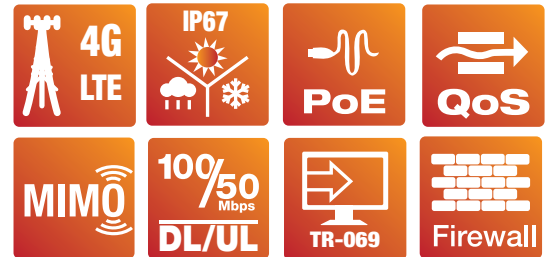
#### Overview

The BEC 6800RUL 4G LTE Outdoor Broadband Router supports the latest generation of LTE fixed wireless networks providing connectivity for homes, businesses, rural areas and the underserved. The 6800RUL integrates a high performance device with an embedded LTE module and advanced IP networking features enabling support of multiple high bandwidth applications at peak speeds up to 100Mbps downlink and 50Mbps uplink.

Homes and businesses with a weak or nonexistent wireless signal can benefit from the extended range and reach of the 6800RUL. Multiple MIMO antenna technology options allow service providers to select the optimal solution for their environment or application whether LOS (Line of Sight) or NLOS (Non-Line of Sight). Physical size and weight were key design considerations of the 6800RUL, it can be mounted directly on exterior walls, chimneys, lightweight poles and used for retrofitting applications such as the replacement of older generation wireless technology.

The 6800RUL is an industrial-grade outdoor fixed wireless router with an IP67 rated enclosure to withstand extreme weather conditions and harsh rugged deployments. In addition to outdoor, it can be installed in environments such as: manufacturing plants, industrial automation, stadiums, convention halls, stadium facilities, school campuses or virtually any venue requiring a robust wireless solution.

Easy Installation is realized with integrated IEEE 802.3af Power over Ethernet (PoE) support, eliminating the need for separate power and data cables. Site installation aids provide for rapid deployment and remote management via TR-069 minimize support expenses and maximize the operational efficiency and profitability for a service provider.



#### Key Features

##### High Performance and support for Multiple LTE frequency Bands

- Category 3 UE, data rates of up to 100Mbps (DL) /50Mbps (UL)
- Advanced IP networking functionalities including bridge and router modes
- Support for most North America LTE bands

##### Multiple MIMO antenna options for maximum bandwidth and service coverage

- Embedded Dual-Polarized Antenna
- Omni-directional external (Optional)
- Optimize antenna design per band

##### Lightweight, compact and unobtrusive design

- Multiple mounting options, easily installed by single person
- Support Passive Power of Ethernet (PoE)
- Can be installed virtually anywhere

##### Designed for challenging/rugged deployments

- IP67 hardened enclosure with Industrial-grade components
- Designed for the toughest industrial environments

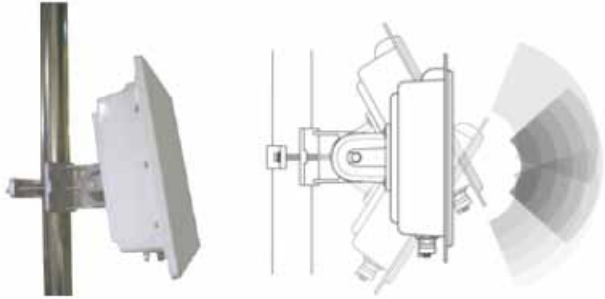
##### Patented Dual-Pol dual polarization antenna technology ensures faster and efficient bi-directional transmission.

- H-Plane & V-Plane Polarization
- Precise alignment achievable with multi-angle, multi-position pole mount brackets
- Simplicity and high isolation for stable and reliable connections

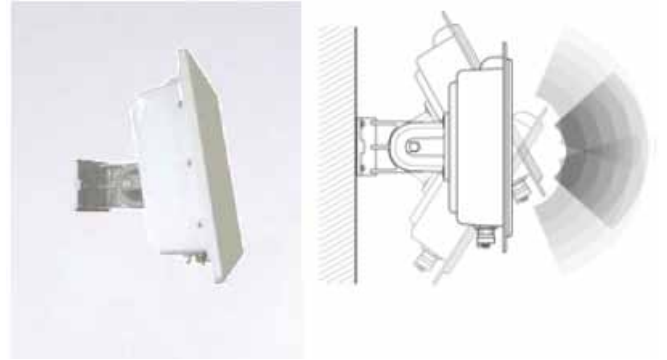
Package includes PoE injector and mounting kit

## Application Diagram

Mounting Kit – Pole Mount



Mounting Kit – Wall Mount



Patch Antenna with Pole Mount



MIMO Antenna with Pole Mount



## Features & Specifications

### LTE Antenna Options

- Embedded MIMO Directional (700MHz): 6~8dBi
- Embedded MIMO Directional (1700 ~2100MHz): 10~13dBi
- Two (2) detachable MIMO N-Type: (Optional)
  - OX-7 Antenna (700MHz): 5dBi
  - OX-17 Antenna (1700~2100MHz): 9dBi

### Supported Frequency Bands

- 4G LTE:
  - 6800RUL R4-A: B17
  - 6800RUL R4-B4: B4
  - 6800RUL R5: B12 / B17
  - 6800RUL R7\*: B41 (TDD)
  - 6800RUL R8: B3 / B7 / B8 / B20
  - 6800RUL R9: B38 (TDD)
- LTE FDD (Cat. 3) Data Rate: DL up to 100Mbps & UL up to 50 Mbps
- LTE TDD (Cat. 3) Data Rate: DL up to 100Mbps & UL up to 50 Mbps
- LTE Bandwidth: 5, 10, 15, 20 MHz
- Max. Output Power: 23dBm

### Operational Mode

- Bridge or Routed

### Operating Mode in Routed Mode

#### 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
- Supports DHCP server/client/relay

#### Quality of Service Control

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

#### Firewall

- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Access Control
- IP Filtering, MAC Filtering, URL Filtering
- Password protection for system management
- VPN pass-through

### Management

- Web-based GUI for remote and local management
- Firmware upgrade and configuration data upload and download via web-based GUI\*
- TR-069 supports remote management
- Syslog monitoring

### Hardware Specifications

#### Physical Interface

- 10/100 Ethernet LAN with IEEE 802.3af complaint PoE P.D
- SIM slot (for the SIM from Telco / ISP)
- LED Indicators: Power, LAN(PoE), Boot, LTE, and Internet

#### Physical Specifications

- Dimensions: 8.5" (W) x 7.5" (H) x 3.0" (D) (257mm x 227 mm x 91mm)
- Weight: 1.81kg (4lbs)
- IP-67 Grade Enclosure

#### Operating Requirements

- Operating temperature: -40°C to 60°C (-40°F to 140°F)