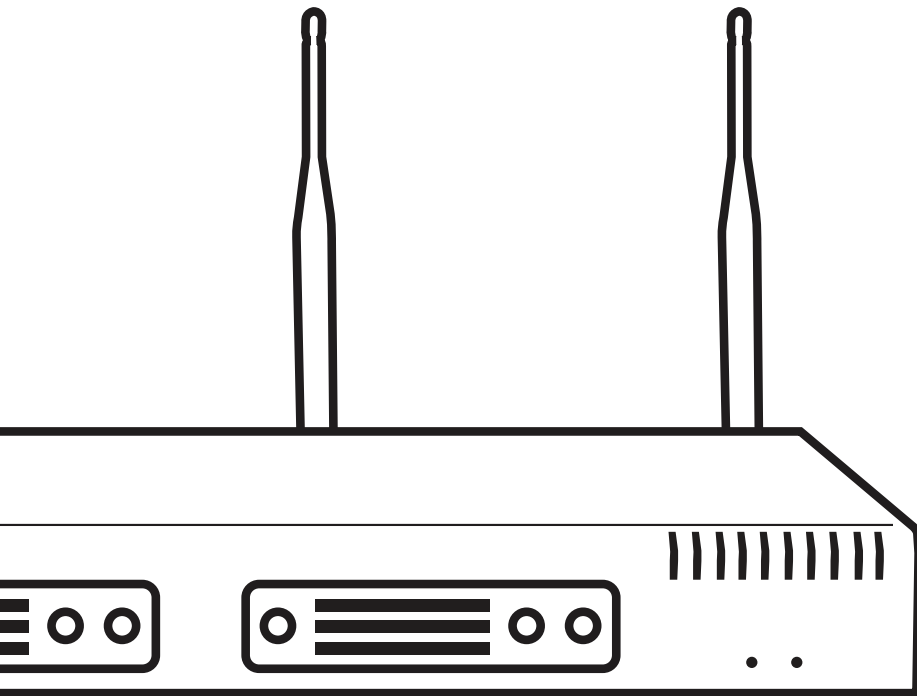




# AER Series Router

**AER3100 / AER3150**

Spec Sheet



[cradlepoint.com](http://cradlepoint.com)

# INTRODUCTION

## WHAT'S IN THE BOX

- AER3100 or AER3150
- MC400 4G LTE or LTE Advanced modem with security screws (2)
- External 3G/4G mobile broadband modem antennas (2) (SMA); finger tighten only
- External dual-band high-gain WiFi antennas (3) reverse SMA (5 dBi, 2.4 GHz, 5 dBi 5 GHz, VSWR ≤ 2); finger tighten only
- 54 V, 2.25 A AC/DC power adapter
- Ethernet cable
- Quick Start Guide
- Warranty information
- Brackets (2) for rack mounting with screws (8 + 4)
- Rubber feet (4) for desk mounting
- Field-replaceable battery for real-time clock, with pull tab

## KEY FEATURES

### WAN

- LP6: LTE Advanced LTE/DC-HSPA+ (SIM-based Auto-Carrier Selection for all North American carriers and European operators)
- LP5: Cat 6 LTE Advanced for operators in Asia Pacific and Saudi Arabia (SIM-based Auto-Carrier selection)
- LP4 (accessory option only): LTE/DC-HSPA+ for AT&T, Verizon, T-Mobile and Canadian carriers (SIM-based Auto-Carrier Selection, dual-modem capable)
- LPE: 4G LTE/HSPA+/EVDO (multi-carrier, North America)
- LP3: 4G LTE/HSPA+ (Europe, EMEA, and Australia/New Zealand)
- Dual integrated modem option
- Dual SIM slot in each modem
- Most models include support for active GPS
- 13 10/100/1000 Ethernet ports (WAN/LAN switchable)
- WiFi as WAN (only on AER3100)
- Failover/Failback
- Load Balancing
- Advance Modem Failure Check
- WAN Port Speed Control
- WAN/LAN Affinity
- IP Passthrough
- Standby

### LAN

- 13 10/100/1000 Ethernet ports (WAN/LAN switchable); Supports four ports of PoE (9–12) for class I, II, or III devices (up to 15 W) or two ports high power PoE for class IV devices (up to 30 W)
- LLDP support
- VLAN 802.1Q
- DHCP Server, Client, Relay
- DNS and DNS Proxy
- DynDNS
- Split DNS

- UPnP
- DMZ
- Multicast/Multicast Proxy
- Auto QoS
- QoS (DSCP and Priority Queuing)
- MAC Address Filtering

### WIFI (ONLY ON AER3100)

- Dual-Band Dual-Concurrent (3×3 MIMO)
- 802.11 (a/b/g/n/ac)
- Up to 256 connected devices (128 per channel – 2.4 GHz and 5 GHz)
- WEP Auto, WPA/WPA2 Personal, WPA2 Enterprise (WiFi)
- Hotspot/Captive Portal
- SSID-based Priority

### MANAGEMENT

- Cradlepoint NetCloud Manager (NCM)<sup>2</sup>
- Web UI, API, CLI
- NetCloud Engine gateway support
- SDK support
- GPS Location
- Data Usage Alerts (router and per client)
- Advanced Troubleshooting (support)<sup>5</sup>
- Device Alerts
- SNMP
- SMS control
- Console Port for OOBM Management

### VPN AND ROUTING

- IPsec Tunnel – up to 40 concurrent sessions
- IKEv2 support (includes MOBIKE)
- OpenVPN (SSL VPN)<sup>1</sup>
- L2TP<sup>1</sup>
- GRE Tunnel
- OSPF/BGP/RIP<sup>1</sup>
- Route Filters (Access Control Lists, Prefix Filters, Route Maps, Communities for BGP)
- Policy-based Routing
- Per-Interface Routing
- Static Routing
- NAT-less Routing
- Virtual Server/Port Forwarding
- VTI Tunnel Support
- NEMO/DMNR<sup>1</sup>
- IPv6
- VRRP<sup>1</sup>
- STP<sup>1</sup>
- NHRP<sup>1</sup>

### SECURITY

- RADIUS and TACACS+ support\*
- 802.1x authentication for Wireless and Wired Networks
- Zscaler Internet Security<sup>4</sup>
- Certificate support
- ALGs
- MAC Address Filtering
- CP Secure Threat Management<sup>3</sup>
- Advanced Security Mode (local user management only)
- Per-Client Web Filtering
- IP Filtering
- Content Filtering (basic)
- Website Filtering
- Real-time clock with battery backup for CA certificate validation

\* - Native support for authentication. Authorization and accounting support through hotspot/captive portal services

## CLOUD OPTIMIZED IP COMMUNICATIONS

- Automated WAN Failover/Failback support
- WAN Affinity and QoS allow prioritization of VoIP services
- Advanced VPN connectivity options to HQ
- SIP ALG and NAT to allow VoIP and UC communications to traverse firewall
- MAC Address Filtering
- 802.1p/q for LAN QoS segmentation and treatment of VoIP on LAN
- Private Network support (wired and 4G WAN)
- Cloud-based management<sup>2</sup>

1 – Requires an **NCM PRIME** subscription or an **Extended Enterprise License**

2 – **NetCloud Manager** requires a subscription

3 – Requires a **CP Secure Threat Management** license

4 – Requires **Zscaler** Internet Security License

5 - Requires **CradleCare** Support

## SPECIFICATIONS

### WAN:

- Integrated LP6 Category 6 LTE Advanced LTE modem (with DC-HSPA+ failover), LP5 Category 6 LTE Advanced LTE modem (with DC-HSPA+ failover), LPE 4G LTE modem (with HSPA+/ EVDO/3G and 2G failover), or LP3 4G LTE modem (with HSPA+ and 2G failover)
- One modem included, dual-modem option
- 13 10/100/1000 Ethernet ports (cable/DSL/T1/satellite/Metro Ethernet; WAN/LAN switchable)
- WiFi\* (as WAN; Metro WiFi) 3x3 MIMO 2.4 GHz or 5 GHz (802.11 a/b/g/n/ac)

### LAN:

- Dual-band dual-concurrent WiFi\* (802.11 a/b/g/n/ac)
- 13 10/100/1000 Ethernet ports (WAN/LAN switchable)
- Serial console

### TEMPERATURE:

- 0 °C to 50 °C (32 °F to 122 °F) operating
- -20 °C to 70 °C (-4 °F to 158 °F) storage
- Redundant internal fans for reliable cooling

**HUMIDITY (non-condensing):**

- 10% to 85% operating
- 5% to 90% storage

**MEMORY:** 1 GB DRAM; 16 MB SPI Flash; 1 GB NAND Flash

**SIZE:**

- 12.2 x 10.6 x 1.75 in (310 x 270 x 45 mm)
- 1U height for rack mount

**WEIGHT:** 6 lb (2.72 kg)

**CERTIFICATIONS:** FCC, WiFi Alliance, CE, IC, carrier certifications

**WIFI POWER (FCC):**

- 2402–2483.5 MHz (2.4 GHz band): 29.8 dBm conducted
- 5150–5250 MHz (5 GHz band 1): 28.5 dBm conducted
- 5725–5850 MHz (5 GHz band 3): 24.4 dBm conducted

**WIFI POWER (Europe/Rest of World):**

- 2.4 GHz band: 19.96 dBm EIRP
- 5150–5250 MHz: 22.98 dBm EIRP

**POWER CONSUMPTION (Typical)****AER3100**

- Idle: 16.4 W
- Single Modem: 20.6 W
- Dual Modem: 22.4 W

**AER3150**

- Idle: 13.1 W
- Single Modem: 14.9 W
- Dual Modem: 17.3 W

\*-only on AER3100

**ACCESSORIES**

- Second integrated 4G LTE modem
  - MC400LP6 (North America or EU)
  - MC400LP5 (Asia Pacific or Saudi Arabia)
  - MC400LP4 (AT&T, Verizon, T-Mobile and Canada)
  - MC400LPE-VZ (Verizon)
  - MC400LPE-AT (AT&T)
  - MC400LPE-SP (Sprint)
  - MC400LPE-GN (generic – for use on T-Mobile in the U.S. and Rogers, Bell, & TELUS in Canada)
  - MC400LP3-EU (Europe)
- 700 MHz–2700 MHz Wide Band Directional Antenna (Yagi/Log- Periodic) Part #: 170588-000
- 12" Mag-Mount Antenna with SMA Male Connector Part #: 170605-000
- 4" Mini Mag-Mount Antenna with SMA Male Connector Part #: 170606-000
- 2.4/5 GHz Dual-band Dual-concurrent WiFi Antenna Part #: 170628-000 (WiFi models only)
- Universal 3G/4G/LTE Modem Antenna Part #: 170649-000
- GPS Screw-Mount Antenna Part #: 170651-000
- GPS Mag-Mount Antenna Part #: 170652-000
- Multi-Band Omni-Directional Antenna Part #: 170668-000
- Indoor/Outdoor Panel Patch Part #: 170669-000

## BUSINESS-GRADE MODEM SPECIFICATIONS

**AER3100/AER3150 LP6 models** include an integrated LTE Advanced Category 6 4G LTE modem. The LP6 modems support SIM-Based Auto-Carrier selection so there is only one model for all of North America. Simply insert the SIM and wait for the router to automatically detect the SIM and establish a connection.

The LTE bands certified for each carrier are listed below.

### **AER3100LP6-NA, AER3150LP6-NA, AER3100LP6-EU, AER3150LP6-EU, AER3100LP6-UK, AER3150LP6-UK**

- **Technology:** LTE Advanced, DC-HSPA+
- **Downlink Rates:** LTE 300 Mbps, DC-HSPA+ 42.2 Mbps
- **Uplink Rates:** LTE 50 Mbps, DC-HSPA+ 5.76 Mbps
- **Frequency Bands:**
  - **LTE Bands 1–5, 7, 8, 12, 13, 20, 25, 26, 29, 30, 41**
    - **Verizon:** 2, 4, 5, 13 (XLTE support w/carrier aggregation)
    - **AT&T:** 2, 4, 5, 12, 29, 30
    - **Sprint:** 25, 26, 41 (LTE Plus Support)
    - **T-Mobile:** 2, 4, 12 (T-Mobile Wideband LTE Support)
    - **Generic:** all
- **Carrier Aggregation:**
  - 1+ 8
  - 2+ 2/5/12/13/29
  - 3+ 7/20
  - 4+ 4/5/12/13/29
  - 5+ 2/4/30
  - 7+ 3/7/20
  - 8+ 1
  - 12+ 2/4/30
  - 13+ 2/4
  - 20+ 3/7
  - 30+ 5/12
  - 41+ 41
- **Fallback:** WCDMA/DC-HSPA+ (42/5.76 Mbps): Bands 1, 2, 3, 4, 5, 8
- **Power:** LTE: 23 dBm ±1; DC-HSPA+: 23 dBm ±1
- **Antennas:** two SMA male (plug), finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)
- **GPS:** active GPS support
- **SMS:** SMS support
- **Industry Standards & Certs:** CE, FCC, GCF-CC, IC, PTCRB, AT&T, Sprint, Verizon

**AER3100/AER3150LP5 models** include an integrated LTE Advanced Category 6 4G LTE modem, and support Asia Pacific and Saudi Arabia. The LP5 modems support SIM-Based Auto-Carrier selection. Simply insert the SIM and wait for the router to automatically detect the SIM and establish a connection.

### **AER3100LP5-AU, AER3150LP5-AU, AER3100LP5-UK**

- **Technology:** FDD/TDD (Category 6) LTE Advanced, DC-HSPA+
- **Downlink Rates:** LTE 300 Mbps, DC-HSPA+ 42.2 Mbps
- **Uplink Rates:** LTE 50 Mbps, DC-HSPA+ 5.76 Mbps
- **Frequency Bands:**
  - LTE Bands: 1, 3, 5, 7, 8, 11, 18, 19, 21, 28, 38, 39, 40, 41
  - TD-SCDMA 39
- **Carrier Aggregation:**
  - 1+ (8, 18, 19, 21)
  - 3+ (5, 7, 19, 28)

- 7+ (5, 7, 28)
- 19+ 21
- 38+ 38
- 39+ 39
- 40+ 40
- 41+ 41
- **Fallback:** WCDMA/DC-HSPA+ (42/5.76 Mbps): Bands 1, 5, 6, 8, 9, 19
- **Power:** LTE: 23 dBm ± 1; DC-HSPA+: 23 dBm ± 1
- **Antennas:** two SMA male (plug), finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)
- **GPS:** active GPS support
- **SMS:** SMS support
- **Industry Standards & Certs:** CE, GCF-CC, RC Australia, others pending
- **Modem Part Number:** MC400LP5

**AER3100/AER3150LPE models** include an internal 4G LTE modem (MC400); specific model names include a specific modem (e.g., the AER3100LPE-VZ includes an MC400LPE-VZ modem for Verizon).

Please note that LPE models are flexible and support bands for multiple cellular providers; however, only the frequency bands in **bold** below are supported by the listed provider.

#### **AER3100LPE-VZ – 4G LTE/HSPA+/EVDO for Verizon**

- **Technology:** LTE, HSPA+, EVDO Rev A
- **Downlink Rates:** LTE 100 Mbps, HSPA+ 21.1 Mbps, EVDO 3.1 Mbps (theoretical)
- **Uplink Rates:** LTE 50 Mbps, HSPA+ 5.76 Mbps, EVDO 1.8 Mbps (theoretical)
- **Frequency Bands:**
  - LTE Band 2 (1900 MHz), **Band 4 – AWS (1700/2100 MHz)**, Band 5 (850 MHz), **Band 13 (700 MHz)**, Band 17 (700 MHz), Band 25 (1900 MHz)
  - HSPA+/UMTS (850/900/1900/2100 MHz, AWS)
  - GSM/GPRS/EDGE (850/900/1800/1900 MHz)
  - **CDMA EVDO Rev A/1xRTT (800/1900 MHz)**
- **Power:** LTE: 23 dBm ±1; HSPA+: 23 dBm ±1; EVDO: 24 dBm +0.5/-1 (typical conducted)
- **Antennas:** two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain; finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)
- **GPS:** active GPS support
- **Industry Standards & Certs:** FCC, Verizon
- **Modem Part Number:** MC400LPE

#### **AER3150LPE-VZ – 4G LTE/HSPA+/EVDO for Verizon**

- **Technology:** LTE, HSPA+, EVDO Rev A
- **Downlink Rates:** LTE 100 Mbps, HSPA+ 21.1 Mbps, EVDO 3.1 Mbps (theoretical)
- **Uplink Rates:** LTE 50 Mbps, HSPA+ 5.76 Mbps, EVDO 1.8 Mbps (theoretical)
- **Frequency Bands:**
  - LTE Band 2 (1900 MHz), **Band 4 – AWS (1700/2100 MHz)**, Band 5 (850 MHz), **Band 13 (700 MHz)**, Band 17 (700 MHz), Band 25 (1900 MHz)
  - HSPA+/UMTS (850/900/1900/2100 MHz, AWS)
  - GSM/GPRS/EDGE (850/900/1800/1900 MHz)
  - **CDMA EVDO Rev A/1xRTT (800/1900 MHz)**
- **Power:** LTE: 23 dBm ±1; HSPA+: 23 dBm ±1; EVDO: 24 dBm +0.5/-1 (typical conducted)
- **Antennas:** two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain; finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)

- **GPS:** active GPS support
- **Industry Standards & Certs:** FCC, Verizon
- **Modem Part Number:** MC400LPE

#### **AER3100LPE-AT – 4G LTE/HSPA+/EVDO for AT&T**

- **Technology:** LTE, HSPA+, EVDO Rev A
- **Downlink Rates:** LTE 100 Mbps, HSPA+ 21.1 Mbps, EVDO 3.1 Mbps (theoretical)
- **Uplink Rates:** LTE 50 Mbps, HSPA+ 5.76 Mbps, EVDO 1.8 Mbps (theoretical)
- **Frequency Bands:**
  - **LTE Band 2 (1900 MHz), Band 4 – AWS (1700/2100 MHz), Band 5 (850 MHz), Band 13 (700 MHz), Band 17 (700 MHz), Band 25 (1900 MHz)**
  - **HSPA+/UMTS (850/900/1900/2100 MHz, AWS)**
  - **GSM/GPRS/EDGE (850/900/1800/1900 MHz)**
  - **CDMA EVDO Rev A/1xRTT (800/1900 MHz)**
- **Power:** LTE: 23 dBm ±1; HSPA+: 23 dBm ±1; EVDO: 24 dBm +0.5/-1 (typical conducted)
- **Antennas:** two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain; finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)
- **GPS:** active GPS support
- **Industry Standards & Certs:** PTCRB, FCC, IC, AT&T
- **Modem Part Number:** MC400LPE

#### **AER3150LPE-AT – 4G LTE/HSPA+/EVDO for AT&T**

- **Technology:** LTE, HSPA+, EVDO Rev A
- **Downlink Rates:** LTE 100 Mbps, HSPA+ 21.1 Mbps, EVDO 3.1 Mbps (theoretical)
- **Uplink Rates:** LTE 50 Mbps, HSPA+ 5.76 Mbps, EVDO 1.8 Mbps (theoretical)
- **Frequency Bands:**
  - **LTE Band 2 (1900 MHz), Band 4 – AWS (1700/2100 MHz), Band 5 (850 MHz), Band 13 (700 MHz), Band 17 (700 MHz), Band 25 (1900 MHz)**
  - **HSPA+/UMTS (850/900/1900/2100 MHz, AWS)**
  - **GSM/GPRS/EDGE (850/900/1800/1900 MHz)**
  - **CDMA EVDO Rev A/1xRTT (800/1900 MHz)**
- **Power:** LTE: 23 dBm ±1; HSPA+: 23 dBm ±1; EVDO: 24 dBm +0.5/-1 (typical conducted)
- **Antennas:** two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain; finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)
- **GPS:** active GPS support
- **Industry Standards & Certs:** PTCRB, FCC, IC, AT&T
- **Modem Part Number:** MC400LPE

#### **AER3100LPE-SP – 4G LTE/HSPA+/EVDO for Sprint**

- **Technology:** LTE, HSPA+, EVDO Rev A
- **Downlink Rates:** LTE 100 Mbps, HSPA+ 21.1 Mbps, EVDO 3.1 Mbps (theoretical)
- **Uplink Rates:** LTE 50 Mbps, HSPA+ 5.76 Mbps, EVDO 1.8 Mbps (theoretical)
- **Frequency Bands:**
  - **LTE Band 2 (1900 MHz), Band 4 – AWS (1700/2100 MHz), Band 5 (850 MHz), Band 13 (700 MHz), Band 17 (700 MHz), Band 25 (1900 MHz)**
  - **HSPA+/UMTS (850/900/1900/2100 MHz, AWS)**
  - **GSM/GPRS/EDGE (850/900/1800/1900 MHz)**
  - **CDMA EVDO Rev A/1xRTT (800/1900 MHz)**
- **Power:** LTE: 23 dBm ±1; HSPA+: 23 dBm ±1; EVDO: 24 dBm +0.5/-1 (typical conducted)



- **Antennas:** two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain; finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)
- **GPS:** active GPS support
- **Industry Standards & Certs:** FCC, Sprint
- **Modem Part Number:** MC400LPE

#### **AER3150LPE-SP – 4G LTE/HSPA+/EVDO for Sprint**

- **Technology:** LTE, HSPA+, EVDO Rev A
- **Downlink Rates:** LTE 100 Mbps, HSPA+ 21.1 Mbps, EVDO 3.1 Mbps (theoretical)
- **Uplink Rates:** LTE 50 Mbps, HSPA+ 5.76 Mbps, EVDO 1.8 Mbps (theoretical)
- **Frequency Bands:**
  - LTE Band 2 (1900 MHz), Band 4 – AWS (1700/2100 MHz), Band 5 (850 MHz), Band 13 (700 MHz), Band 17 (700 MHz), **Band 25 (1900 MHz)**
  - HSPA+/UMTS (850/900/1900/2100 MHz, AWS)
  - GSM/GPRS/EDGE (850/900/1800/1900 MHz)
  - **CDMA EVDO Rev A/1xRTT (800/1900 MHz)**
- **Power:** LTE: 23 dBm ±1; HSPA+ 23 dBm ±1; EVDO: 24 dBm +0.5/-1 (typical conducted)
- **Antennas:** two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain; finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)
- **GPS:** active GPS support
- **Industry Standards & Certs:** FCC, Sprint
- **Modem Part Number:** MC400LPE

#### **AER3100LP3-EU (3100LP3-UK\*) – 4G LTE/HSPA+ for Europe (United Kingdom)**

- **Technology:** LTE, HSPA+
- **Downlink Rates:** LTE 100 Mbps, HSPA+ 21.1 Mbps (theoretical)
- **Uplink Rates:** LTE 50 Mbps, HSPA+ 5.76 Mbps (theoretical)
- **Frequency Bands:**
  - **LTE Band 1 (2100 MHz), Band 3 (1800 MHz), Band 7 (2600 MHz), Band 8 (900 MHz), Band 20 (800 MHz)**
  - **HSPA+/UMTS (800/850/900/1900/2100 MHz)**
  - **GSM/GPRS/EDGE Quad-Band (850/900/1800/1900 MHz)**
- **Power:** LTE Band 1/3/8/20: 23 dBm ±1; LTE Band 7: 22 dBm ±1; HSPA+: 23 dBm ±1 (typical conducted)
- **Antennas:** two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain; finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)
- **GPS:** active GPS support
- **Industry Standards & Certs:** CE, GCF-CC
- **Modem Part Number:** MC400LP3

*\*The 3100LP3-EU and 3100LP3-UK models are equivalent except for the line cord.*

#### **AER3150LP3-EU (3150LP3-UK\*) – 4G LTE/HSPA+ for Europe (United Kingdom)**

- **Technology:** LTE, HSPA+
- **Downlink Rates:** LTE 100 Mbps, HSPA+ 21.1 Mbps (theoretical)
- **Uplink Rates:** LTE 50 Mbps, HSPA+ 5.76 Mbps (theoretical)
- **Frequency Bands:**
  - **LTE Band 1 (2100 MHz), Band 3 (1800 MHz), Band 7 (2600 MHz), Band 8 (900 MHz), Band 20 (800 MHz)**
  - **HSPA+/UMTS (800/850/900/1900/2100 MHz)**
  - **GSM/GPRS/EDGE Quad-Band (850/900/1800/1900 MHz)**
- **Power:** LTE Band 1/3/8/20: 23 dBm ±1; LTE Band 7: 22 dBm ±1, HSPA+: 23 dBm ±1 (typical conducted)
- **Antennas:** two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain; finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)

spec is 7 kgf/cm<sup>2</sup>)

- **GPS:** active GPS support
- **Industry Standards & Certs:** CE, GCF-CC
- **Modem Part Number:** MC400LP3

*\*The 3150LP3-EU and 3150LP3-UK models are equivalent except for the line cord.*

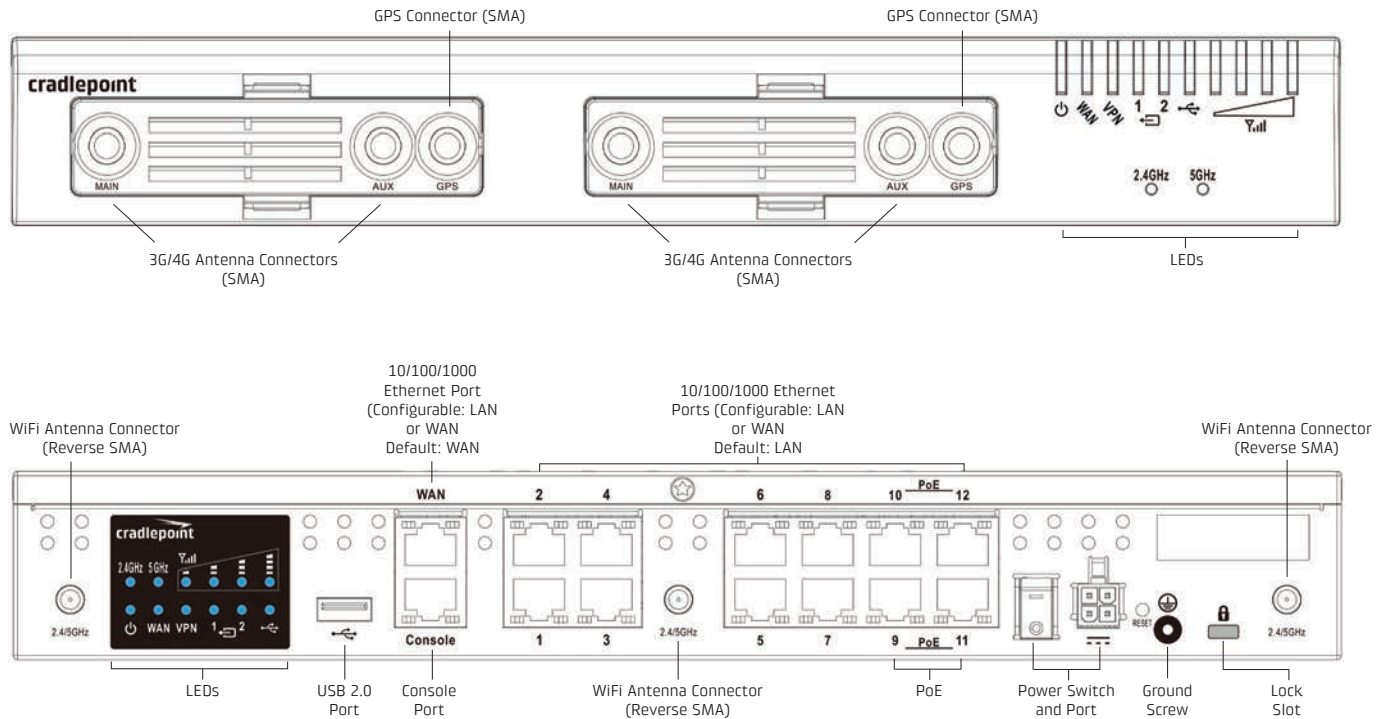
**AER3100LPE-GN – 4G LTE/HSPA+/EVDO (generic – for use on T-Mobile and US Cellular in the U.S. and Rogers, Bell, & TELUS in Canada)**

- **Technology:** LTE, HSPA+, EVDO Rev A
- **Downlink Rates:** LTE 100 Mbps, HSPA+ 21.1 Mbps, EVDO 3.1 Mbps (theoretical)
- **Uplink Rates:** LTE 50 Mbps, HSPA+ 5.76 Mbps, EVDO 1.8 Mbps (theoretical)
- **Frequency Bands:**
  - **LTE Band 2 (1900 MHz), Band 4 (AWS), Band 5 (850 MHz), Band 13 (700 MHz), Band 17 (700 MHz), Band 25 (1900 MHz)**
  - **HSPA+/UMTS (850/900/1900/2100 MHz, AWS)**
  - **GSM/GPRS/EDGE (850/900/1800/1900 MHz)**
  - CDMA EVDO Rev A/1xRTT (800/1900 MHz)
- **Power:** LTE: 23 dBm ±1; HSPA+: 23 dBm ±1; EVDO: 24 dBm +0.5/-1 (typical conducted)
- **Antennas:** two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain; finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)
- **GPS:** active GPS support
- **Industry Standards & Certs:** PTCRB, FCC, IC
- **Modem Part Number:** MC400LPE

**AER3150LPE-GN – 4G LTE/HSPA+/EVDO (generic – for use on T-Mobile and US Cellular in the U.S. and Rogers, Bell, & TELUS in Canada)**

- **Technology:** LTE, HSPA+, EVDO Rev A
- **Downlink Rates:** LTE 100 Mbps, HSPA+ 21.1 Mbps, EVDO 3.1 Mbps (theoretical)
- **Uplink Rates:** LTE 50 Mbps, HSPA+ 5.76 Mbps, EVDO 1.8 Mbps (theoretical)
- **Frequency Bands:**
  - **LTE Band 2 (1900 MHz), Band 4 (AWS), Band 5 (850 MHz), Band 13 (700 MHz), Band 17 (700 MHz), Band 25 (1900 MHz)**
  - **HSPA+/UMTS (850/900/1900/2100 MHz, AWS)**
  - **GSM/GPRS/EDGE (850/900/1800/1900 MHz)**
  - CDMA EVDO Rev A/1xRTT (800/1900 MHz)
- **Power:** LTE: 23 dBm ±1; HSPA+: 23 dBm ±1; EVDO: 24 dBm +0.5/-1 (typical conducted)
- **Antennas:** two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain; finger tighten only (maximum torque spec is 7 kgf/cm<sup>2</sup>)
- **GPS:** active GPS support
- **Industry Standards & Certs:** PTCRB, FCC, IC
- **Modem Part Number:** MC400LPE

## HARDWARE







## SUPPORT AND WARRANTY

CradleCare Support available with technical support, software upgrades, and advanced hardware exchange – 1-, 3-, and 5-year options.

One-year limited hardware warranty available in the US and Canada; two-year limited hardware warranty for integrated EU products when purchased from an authorized EU distributor – extend warranty to 2, 3, or 5 years.

## LEDS

INDICATOR	BEHAVIOR
	<p><b>POWER</b> The Cradlepoint AER3100/AER3150 must be powered using an approved 54 V DC power source.</p> <ul style="list-style-type: none"> <li>• Green = Powered ON.</li> <li>• No Light = Not receiving power. Check the power switch and the power source connection.</li> <li>• Amber = Attention. Open the administration pages and check the router status.</li> </ul>
<b>WAN</b>	<p><b>ETHERNET WAN</b> Indicates status of WAN connection.</p> <ul style="list-style-type: none"> <li>• Blue = Connected to an active Ethernet WAN interface.</li> </ul>
<b>VPN</b>	<p><b>VPN</b> Indicates status of VPN connection.</p> <ul style="list-style-type: none"> <li>• Blue = Connected to an active VPN.</li> </ul>
	<p><b>REMOVABLE MODEM</b> Indicates the status of removable modem(s).</p> <ul style="list-style-type: none"> <li>• Green = Modem has established an active connection.</li> <li>• Blinking Green = Modem is connecting.</li> <li>• Blinking Amber = Data connection error. No modem connection possible.</li> <li>• Blinking Red = Modem is in the process of resetting.</li> </ul>
	<p><b>EXTERNAL USB MODEM</b> Indicates the status of external USB modem. Both internal and external USB modems have the following LED indicators:</p> <ul style="list-style-type: none"> <li>• Green = Modem has established an active connection.</li> <li>• Blinking Green = Modem is connecting.</li> <li>• Blinking Amber = Data connection error. No modem connection possible.</li> <li>• Blinking Red = Modem is in the process of resetting.</li> </ul>
	<p><b>SIGNAL STRENGTH</b> Blue LED bars indicate the active modem's signal strength (only for integrated and removable modems).</p> <ul style="list-style-type: none"> <li>• 4 Solid Bars = Strongest signal.</li> <li>• 1 Blinking Bar = Weakest signal. (A blinking bar indicates half of a bar.)</li> </ul>
<b>2.4GHz 5GHz</b>	<p><b>WiFi BROADCAST</b> These two LEDs indicate activity on the WiFi broadcast for both the 2.4 GHz and 5 GHz bands (AER3100 only).</p> <ul style="list-style-type: none"> <li>• 2.4 GHz (green) = 2.4 GHz WiFi is on and operating normally.</li> <li>• 5 GHz (blue) = 5 GHz WiFi is on and operating normally.</li> </ul>
<b>Other</b>	<p><b>ADDITIONAL LED INDICATIONS</b></p> <ul style="list-style-type: none"> <li>• Several different LEDs blink when the factory reset button is detected.</li> <li>• Two of the modem LEDs blink red in unison for 10 seconds when there is an error during NCOS upgrade.</li> </ul>