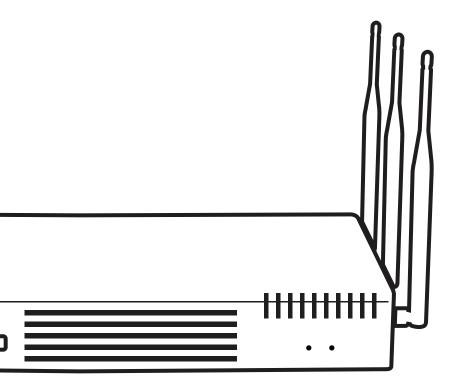


Global Leader in 4G LTE Network Solutions

# **AER Series** Router

**AER2100** 

Spec Sheet



cradlepoint.com



# INTRODUCTION

## WHAT'S IN THE BOX

- AER 2100 with integrated MC400 4G LTE modem
- External 3G/4G mobile broadband modem antennas (2) (SMA) w/ multiplexing for GPS; 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
- 12V 3A AC/DC power adapter
- Multipurpose Retaining Tool
- Ethernet cable
- · Quick Start Guide with warranty information

# **KEY FEATURES**

#### WAN

- LP6: LTE Advanced LTE/HSPA+ (SIM-based Auto-Carrier Selection for all North American carriers and European operators)
- 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
- WiFi as WAN
- Failover/Failback
- Load Balancing
- Advance Modem Failure Check
- WAN Port Speed Control
- WAN/LAN Affinity
- IP Passthrough
- Standby

#### LAN

- VLAN 802.10
- DHCP Server, Client, Relay
- DNS and DNS Proxy
- DynDNS
- UPnP
- DMZ
- Multicast/Multicast Proxy
- QoS (DSCP and Priority Queuing)
- MAC Address Filtering

#### WIFI

- Dual-Band Dual-Concurrent (3×3 MIMO)
- 802.11x (a, b, g, n, ac)
- Up to 256 connected devices (128 per channel 2.4 GHz and 5 GHz)
- WPA2 Enterprise (WiFi)



- Hotspot/Captive Portal
- SSID-based Priority

#### MANAGEMENT

- Cradlepoint Enterprise Cloud Manager<sup>2</sup>
- Web UI, API, CLI
- GPS Location
- Data Usage Alerts (router and per client)
- Advanced Troubleshooting (support)
- Auto APN Recovery
- Device Alerts
- SNMP
- SMS control
- Serial Redirector

### VPN AND ROUTING

- IPsec Tunnel up to 20 concurrent sessions
- OpenVPN (SSL VPN)¹
- L2TP¹
- GRE Tunnel
- VTI Tunnel support
- OSPF/BGP/RIP¹
- Route Filters (Access Control Lists, Prefix Filters, Route Maps, Communities for BGP)
- Per-Interface Routing
- Routing Rules
- Policy-based Routing
- NAT-less Routing
- Virtual Server/Port Forwarding
- NEMO/DMNR¹
- IPv6
- VRRP¹
- STP¹
- NHRP¹
- CP Secure VPN compatible

#### SECURITY

- RADIUS and TACACS+ support\*
- 802.1x authentication for Ethernet
- Zscaler integration¹
- Certificate support
- ALGs
- MAC Address Filtering
- Advanced Security Mode (local user management only)
- Per-Client Web Filtering
- IP Filtering
- Content Filtering (basic)
- Website Filtering
- \* 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 **ECM PRIME** subscription or an **Extended Enterprise License**
- 2 **Enterprise Cloud Manager** requires a subscription

### **SPECIFICATIONS**

#### WAN:

- Integrated LP6 Category 6 LTE Advanced LTE modem (with DC-HSPA+ failover) or 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
- Five 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)
- Five 10/100/1000 Ethernet ports (WAN/LAN switchable)
- Serial console support w/ USB-to-serial adapter

#### TEMPERATURE:

- 0°C to 50°C (32°F to 122°F) operating
- -20°C to 70°C (-4°F to 158°F) storage

#### **HUMIDITY** (non-condensing):

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

MEMORY: 256 MB DRAM; 16MB SPI Flash; 256 MB NAND Flash

#### SIZE:

10.25 x 8.5 x 1.75 in (260 x 214 x 45 mm)

WEIGHT: 6 lb

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

LAN TO WAN: 940 Mbps WAN TO LAN: 940 Mbps

STATEFUL THROUGHPUT: 940 Mbps

WIFI POWER (FCC):

2.4 GHz band: 24.47 dBm
 Lower 5 GHz band: 16.9 dBm
 Upper 5 GHz band: 27.77 dBm



#### ACCESSORIES

- Second integrated 4G LTE modem
  - MC400LP6 (North America or EU)
  - 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)
- Standard rack mount with modem and WiFi cables (Part # 170629-000)
- 12V 3A wall power adapter (Part # 170623-000)
- 12V 4A wall power adapter (Part # 170624-000)
- 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**

**AER2100 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.

#### AER2100LP6-NA, AER2100LP6-EU, AER2100LP6-UK

- Technology: LTE Advanced, HSPA+
- Downlink Rates: LTE 300 Mbps, HSPA+ 42.2 Mbps
- Uplink Rates: LTE 50 Mbps, HSPA+ 5.76 Mbps
- Frequency Bands:
  - LTE Bands 1-5, 7, 8, 12, 13, 17, 20, 25, 26, 29, 30, 41
    - Verizon: 2, 4, 5, 13 (XLTE support w/carrier aggregation)
    - AT&T: 2, 4, 5, 12/17, 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 (17 w/MFBI)/13/29
  - · 3+ 7/20
  - 4+ 4/5/12 (17 w/MFBI)/13/29
  - 5+ 2/4/30
  - · 7+ 3/7/20
  - 8+1
  - 12 (17 w/MFBI) + 2/4/30
  - 13+ 2/4
  - · 20+ 3/7



- 30+ 5/12 (17 w/MFBI)
- · 41+ 41
- Fallback: WCDMA/DC-HSPA+ (42/5.76 Mbps): Bands 1, 2, 3, 4, 5, 8
- Power: LTE 23 dBm +/- 1, HSPA+ 23 dBm +/- 1
- Antennas: two SMA male (plug), finger tighten only (maximum torque spec is 7 kgfcm)
- GPS: active GPS support
- SMS: SMS support
- Industry Standards & Certs: CE, FCC, GCF-CC, IC, PTCRB, AT&T, Sprint (pending certification), Verizon

**AER2100 LPE/LP3 models** include an integrated 4G LTE modem (MC400); specific model names include a specific modem (e.g., the AER 2100LPE-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.

#### AER 2100LPE-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)
- GPS: active GPS support
- Industry Standards & Certs: FCC, Verizon
- Modem Part Number: MC400LPE

#### AER 2100LPE-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)
- GPS: active GPS support
- Industry Standards & Certs: PTCRB, FCC, IC, AT&T
- Modem Part Number: MC400LPE

#### AER 2100LPE-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)
- **GPS**: active GPS support
- Industry Standards & Certs: FCC, Sprint
- Modem Part Number: MC400LPE

#### AER 2100LP3-EU (2100LP3-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
- **GPS**: active GPS support
- Industry Standards & Certs: CE, GCF-CC
- Modem Part Number: MC400LP3

# AER 2100LPE-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)
- **GPS**: active GPS support
- Industry Standards & Certs: PTCRB, FCC, IC
- Modem Part Number: MC400LPE

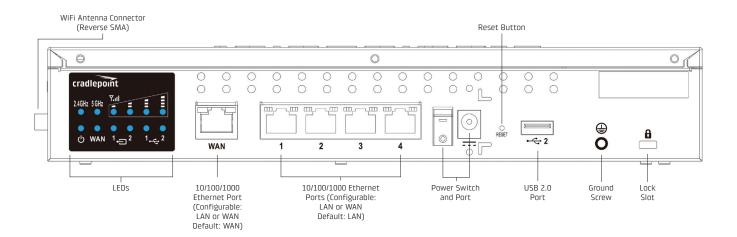


<sup>\*</sup>The 2100LP3-EU and 2100LP3-UK models are equivalent except for the line cord.

LEDS

cradlepoint

2.4GHz 5GHz



# SUPPORT AND WARRANTY

USB 2.0

Port

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.



WiFi Antenna Connector (Reverse SMA)

# **Legacy Technology Services**

# We Rent & Sell All Types Of Barcode Equipment

# Call now to talk to an expert

866-271-9891

#### About us

- Legacy Technology Services is a leading nationwide provider of mobile computing, barcode, printers and point of sale equipment and services.
- For over a decade, thousands of clients across North America have trusted us to provide equipment from leading manufacturers backed by the services to support them.

## **Latest Hardware from top manufacturers**

• Legacy handles virtually every major manufacturer of mobile computing, barcoding and point of sale equipment.

### **Expert Repair and Maintenance services**

· Legacy is one of the best repair facilities in North America

#### Discontinued product sourcing

 They don't make it anymore? Our inventory also includes manufacturer close-outs and discontinued equipment to support our clients legacy infrastructure.

#### Trade-in and Disposal services

- That old equipment laying around your facility may still have some value.
   Legacy routinely purchases equipment from our clients around the globe.
  - · Data destruction
  - · Hardware disposal
  - Auditing services

#### Dedicated client account team

 Dedicated, highly trained account managers are here to answer all your questions and provide top notch service.

### **Equipment rental services**

 Sometimes renting is a better solution, Legacy's huge rental inventory provides the equipment you need for temporary needs and projects.









Toll Free: 866-271-9891

Fax: 888-522-4684



Some brands we carry

www.LegacyGlobal.com





















