

cradlepoint

AER2200

Spec Sheet



INTRODUCTION

WHAT'S IN THE BOX

- AER2200 with embedded LTE Advanced modem
- External 3G/4G mobile broadband modem antennas (2) (SMA); finger tighten only
- External dual-band high-gain WiFi antennas (4) reverse SMA (5 dBi, 2.4 GHz, 5 dBi 5 GHz, VSWR \leq 2); finger tighten only
- 54 V, 1.2 A (65 W) AC/DC power adapter, 30 W PoE budget, C8 line cord
- Ethernet cable
- Quick Start Guide
- Warranty information
- Rubber feet (4) for desk mounting

KEY FEATURES

WAN

- 600M: LTE Advanced 600/75 Mbps DL/UL, FDD/TDD w/HSPA+ fallback (SIM-based, Auto-carrier Selection for all North American, European, and Asia Pacific carriers)
- One embedded modem
- One MC400 slot for 2nd modem
- Dual SIM slot in each modem
- Active GPS
- 10 10/100/1000 Ethernet ports (WAN/LAN switchable)
- WiFi as WAN
- Smart WAN Selection
- Multi-PDN
- Failover/Failback
- Load Balancing
- Advance Modem Failure Check
- WAN Port Speed Control
- WAN/LAN Affinity
- IP Passthrough
- Standby
- DynDNS
- Auto QoS
- QoS (DSCP and Priority Queuing)

LAN

- 10 10/100/1000 Ethernet ports (WAN/LAN switchable); Supports four ports of PoE (1–4) for class I, II, III, or IV devices (default 30 W power budget, up to 120 W with accessory power supply)
- LLDP support
- VLAN 802.1Q
- DHCP Server, Client, Relay
- DNS and DNS Proxy
- Split DNS
- STP¹
- Multicast/Multicast Proxy

WIFI

- Dual-Band Dual-Concurrent (2×2 2.4 GHz MU-MIMO and 4×4 5 GHz MU-MIMO)
- 802.11 (a/b/g/n/ac) wave 2
- Up to 248 connected devices (124 per channel – 2.4 GHz and 5 GHz)
- WPA/WPA2 Personal, WPA2 Enterprise (WiFi), WEP Auto
- Hotspot/Captive Portal
- SSID-based Priority
- 802.11k – Radio Resource Management - Client load balancing
- 802.11r – Fast Roaming
- 802.11v – Wireless Network Management

MANAGEMENT

- Cradlepoint NetCloud Manager (NCM)²
- Real-time diagnostics/troubleshooting
- Remote connect / OOBM
- Secure remote cloud configuration
- GeoView location services
- Web UI, API, CLI
- NetCloud Engine gateway support
- Client and Traffic Visibility and Control
- SDK support
- GPS Location
- Data Usage Alerts
- Advanced Troubleshooting (support)⁵
- Device Alerts
- SNMP
- SMS control
- Console Port for OOBM

VPN & ROUTING

- IPsec Tunnel – up to 20 concurrent sessions
- IKEv2 support (includes MOBIKE)
- OpenVPN (SSL VPN)¹
- L2TP¹
- GRE Tunnel
- OSPF/BGP/RIP¹
- Route Filters (Access Control Lists, Prefix Filters, Route Maps, Communities for BGP)
- Policy-based Routing
- Per-Interface Routing
- Static Routing
- NAT
- NAT-less Routing
- WAN Affinity
- Virtual Server/Port Forwarding
- VTI Tunnel Support
- NEMO/DMNR¹
- IPv6
- VRRP¹
- STP¹
- NHRP¹

SECURITY

- RADIUS and TACACS+ support*
- 802.1x authentication for Wireless and Wired Networks
- Zscaler Internet Security⁴
- Certificate support
- Application-level gateways
- MAC Address Filtering
- CP Secure Threat Management³
- Advanced Security Mode (local user management only)
- IP Filtering
- Content Filtering
- FIPS 140-2 Inside version available

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

1 – Requires an [Extended Enterprise License](#) and [NetCloud Manager](#)

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:

- Embedded 600M LTE Advanced modem (with DC-HSPA+ failover)
- MC400 slot for optional 2nd modem
- 10 10/100/1000 Ethernet ports (cable/DSL/T1/satellite/Metro Ethernet; WAN/LAN switchable)
- WiFi (as WAN; Metro WiFi) 2x2 MIMO 2.4 GHz and 4x4 MIMO 5 GHz (802.11 a/b/g/n/ac)

LAN:

- Dual-band dual-concurrent WiFi (802.11 a/b/g/n/ac wave 2)
- 10 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: 512 MB DRAM; 8 GB eMMC

SIZE:

- 7.3 × 8.3 × 1.7 in (185 × 210 × 44 mm)
- 1U height for rack mount

WEIGHT: 3 lb 5 oz (1.5 kg)

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

WIFI POWER (FCC):

- 2402–2483.5 MHz (2.4 GHz band): 28.3 dBm conducted
- 5150–5250 MHz (5 GHz band 1): 29.1 dBm conducted
- 5725–5850 MHz (5 GHz band 3): 30.0 dBm conducted

WIFI POWER (Europe/Rest of World):

- 2.4 GHz band: 19.88 dBm EIRP
- 5150-5250 MHz: 22.96 dBm EIRP

GPS: Modem-based GPS

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
- AER2200 high power supply for up to 4 ports of PoE+ .at (30W) power (120W PoE budget) (C14 line cord not included) Part #: 170751-000
- AER2200, 54V 2.22A (60W PoE budget) power supply (C14 line cord not included) Part #: 170671-000
- AER2200 Rack-Mount Brackets Part #: 170749-000
- 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
- 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

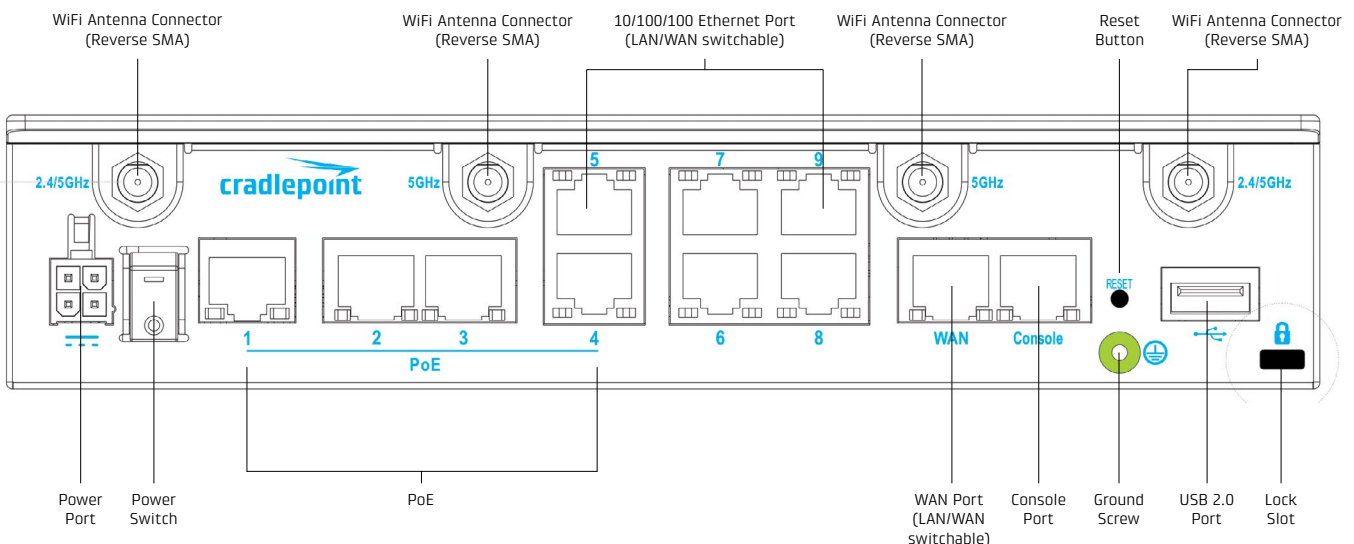
AER2200 600M models include an embedded LTE Advanced 600 Mbps 4G LTE modem. The 600M modems support Worldwide, SIM-based, Auto-carrier selection. Simply insert the SIM and wait for the router to automatically detect the SIM and establish a connection.

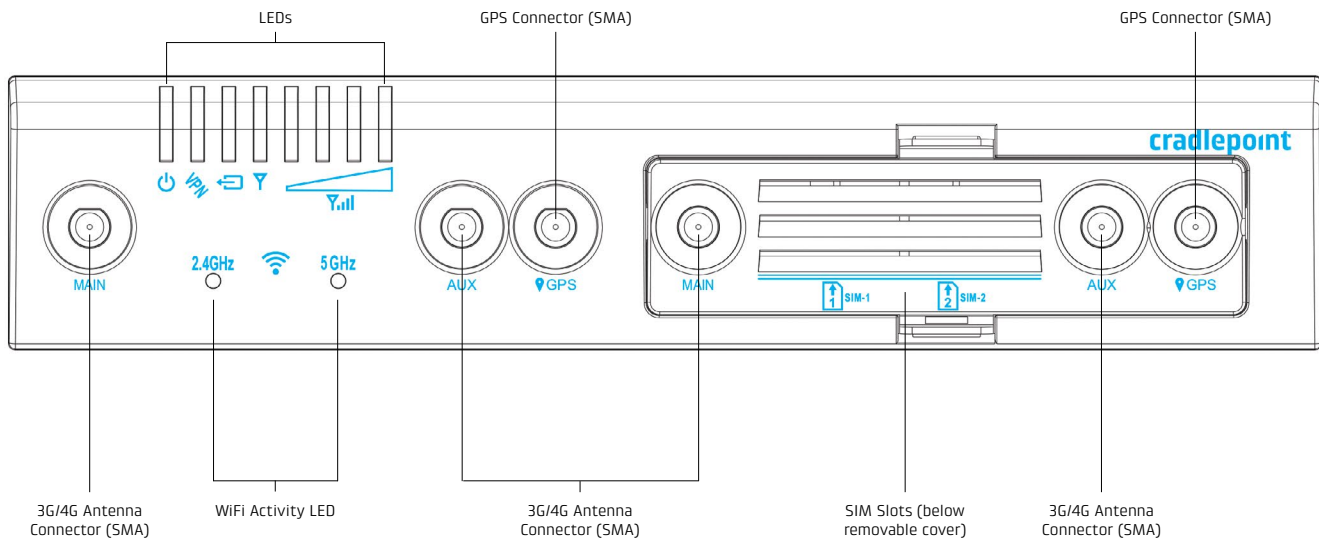
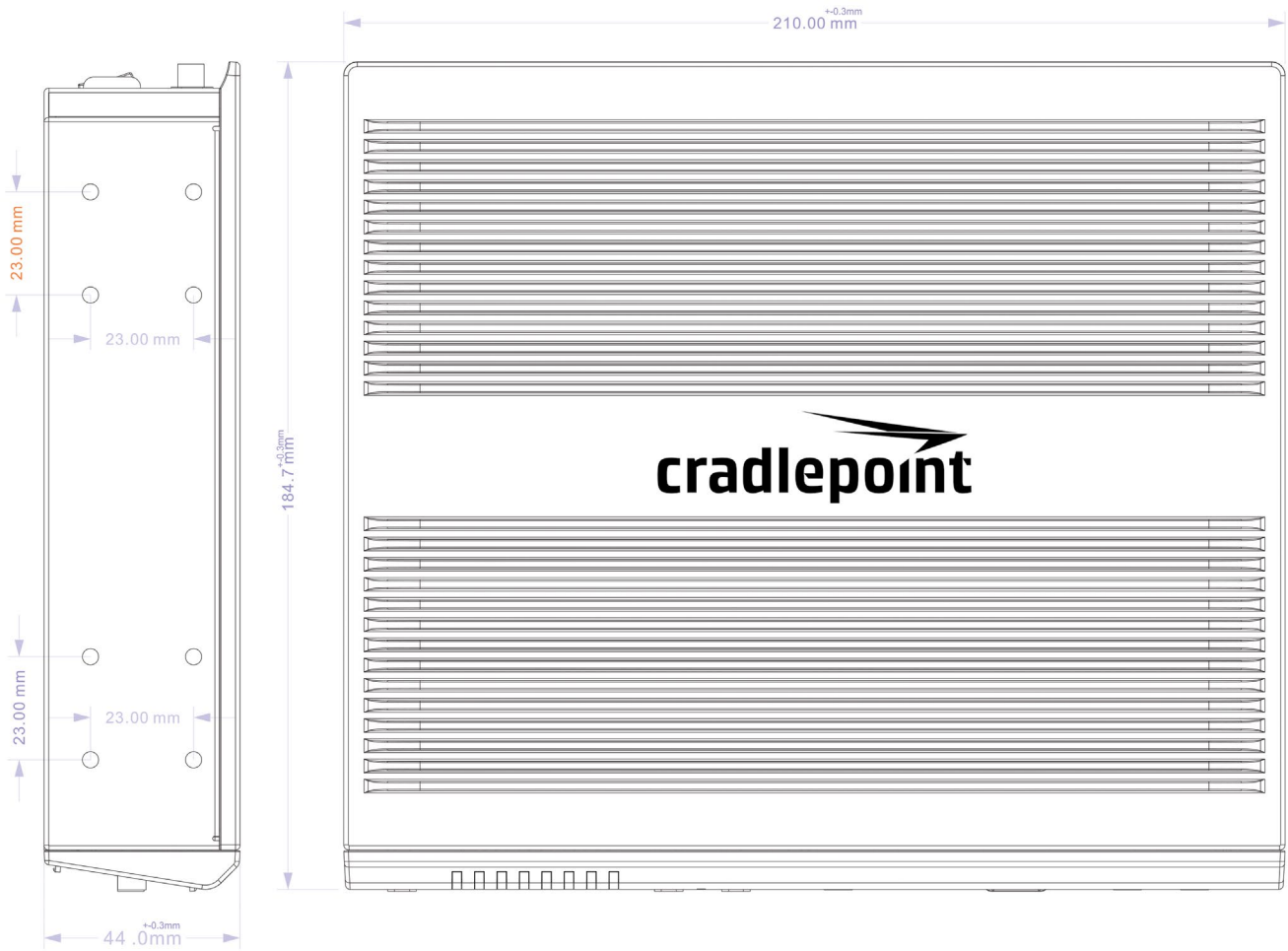
The LTE bands certified for each carrier are listed below.

AER2200-600M-NA:





- Technology: LTE Advanced, DC-HSPA+
- Downlink Rates: LTE 600 Mbps, DC-HSPA+ 42.2 Mbps
- Uplink Rates: LTE 75 Mbps, DC-HSPA+ 5.76 Mbps
- Frequency Bands:
 - LTE Bands
 - LTE FDD: 1-5, 7-8, 12-13, 17, 20, 25-26, 28-30, 66
 - LTE TDD: 38, 40-41
 - HSPA+: 1-2, 4-5, 8
- LTE 2DL Carrier Aggregation Combinations:
 - B2+B2, B2+B4, B2+B5, B2+B12, B2+B13, B2+B17, B2+B29, B2+B30, B4+B4, B4+B5, B4+B7, B4+B12, B4+B13, B4+B17, B4+B29, B4+B30, B5+B30, B12+B12, B12+B30, B25+B25, B25+B26, B25+B41, B26+B41, B29+B30, B41+B41, B1+B20, B3+B3, B3+B7, B3+B20, B3+B38, B7+B7, B7+B8, B7+B20, B38+B38, B1+B3, B1+B7, B1+B28, B3+B8, B3+B28, B5+B7, B5+B40, B7+B8, B7+B20
- LTE 3DL Carrier Aggregation Combinations:
 - B2+B2+B12/17, B2+B2+B13, B2+B2+B4, B2+B4+B5, B2+B4+B12, B2+B4+B13, B2+B4+B29, B2+B5+B30, B2+B12+B12, B2+B12+B30, B2+B29+B30, B4+B4+B5, B4+B4+B7, B4+B4+B12, B4+B4+B13, B4+B5+B30, B4+B12+B12, B4+B12+B30, B4+B29+B30, B25+B26+B41, B25+B41+B41, B26+B41+B41, B41+B41+B41, B1+B3+B20, B1+B7+B20, B3+B3+B7, B3+B3+B20, B3+B7+B20, B3+B7+B7, B3+B20+B38, B3+B38+B38, B3+B3+B5, B3+B3+B8, B3+B7+B7, B3+B7+B28, B7+B7+B28, B28+B40+B40, B40+B40+B40
- Fallback: WCDMA/DC-HSPA+ (42/5.76 Mbps): Bands 1, 2, 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/cm2)
- GPS: active GPS support
- SMS: SMS support
- Industry Standards & Certs: CE, FCC, GCF-CC, IC, PTCRB, AT&T, Sprint (pending certification), Verizon, Verizon NEMO/DMNR for Primary Wireless Access

HARDWARE





LEDS

INDICATOR	BEHAVIOR
	<p>POWER: The Cradlepoint AER2200 must be powered using an approved 54 V DC power source.</p> <ul style="list-style-type: none"> Green = Powered ON. No Light = Not receiving power. Check the power switch and the power source connection. Amber = Attention. Open the administration pages and check the router status.
VPN	<p>VPN: Indicates status of VPN connection.</p> <ul style="list-style-type: none"> Blue = Connected to an active VPN.
	<p>REMOVABLE MODEM: Indicates the status of removable modem(s).</p> <ul style="list-style-type: none"> Green = Modem has established an active connection. Blinking Green = Modem is connecting. Blinking Amber = Data connection error. No modem connection possible. Blinking Red = Modem is in the process of resetting.
	<p>INTEGRATED MODEM: Indicates information about the integrated modem.</p> <ul style="list-style-type: none"> Green = Modem has established an active connection. Blinking Green = Modem is connecting. Amber = Modem is not active. Blinking Amber = Data connection error. No modem connection possible. Blinking Red = Modem is in the process of resetting. Blinking Red with Signal Strength LEDs = SIM door is not installed, modem is off. No Light = Modem not connected.
	<p>SIGNAL STRENGTH: Blue LED bars indicate the active modem's signal strength (only for integrated and removable modems).</p> <ul style="list-style-type: none"> 4 Solid Bars = Strongest signal. 1 Blinking Bar = Weakest signal. (A blinking bar indicates half of a bar.) 4 Blinking Bars = SIM door is not installed, modem is off.
2.4GHz 5GHz	<p>WiFi BROADCAST: These two LEDs indicate activity on the WiFi broadcast for both the 2.4 GHz and 5 GHz bands.</p> <ul style="list-style-type: none"> 2.4 GHz (green) = 2.4 GHz WiFi is on and operating normally. 5 GHz (blue) = 5 GHz WiFi is on and operating normally.
Other	<p>ADDITIONAL LED INDICATIONS</p> <ul style="list-style-type: none"> Several different LEDs blink when the factory reset button is detected. Two of the modem LEDs blink red in unison for 10 seconds when there is an error during NCOS upgrade.

SUPPORT & WARRANTY

The AER2200 is only sold as a component of NetCloud Solution Packages.

- NetCloud Solution Packages include support for the full subscription term.
- All Cradlepoint hardware products are covered by a Limited Lifetime Warranty for as long as they are under a NetCloud Solution Package subscription

The AER2200 includes a minimum three-year hardware warranty when purchased from an authorized Cradlepoint Partner.