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Data Sheet

AER2200 Series Enterprise Router

Designed for small to mid-sized branches, the Cradlepoint AER2200 Series Router is an all-in-one router that offers organizations the high availability of embedded Gigabit-Class LTE and ease of use of point-and-click cloud management. With wired and wireless routing, foundational SD-WAN, embedded Gigabit-Class LTE, Wi-Fi, and comprehensive security, the cloud-managed AER2200 router greatly simplifies branch networking. The AER2200 router offers single-pane-of-glass management for the entire branch site, including Cradlepoint APs and IoT devices.

Notable Features

- Gain agility through an embedded Gigabit-Class LTE Advanced Pro 1.2 Gbps modem (theoretical maximum modem speed).
- Comprehensive wired and wireless routing for flexibility and high availability.
- Enable larger branch locations needing security and connections to cloud-based applications.
- Foundational SD-WAN ensures optimal application performance and uptime.
- Define policies through centralized, cloud-based management for easy deployment at scale.
- Remote management of router-connected devices.
- Add 5G with modular modem or Captive Modem capability.

Ideal for Wireless WAN

For an all wireless WAN, the AER2200 Series Router offers Gigabit LTE performance, which can support the throughput and service needs of an enterprise branch with the ability to add a second LTE connection for increased available bandwidth and reliability. For organizations moving to a Wireless WAN, the AER2200 Series Router offers the ability to pair with a wired link and use LTE as a failover connection or a primary connection.

5G Ready for Upward Compatibility

The AER2200 Series Router is 5G-ready with the ability to act as a controller for a Cradlepoint 5G Wideband Adapter. The unique capability of Cradlepoint to operate the adapter in captive mode means that the two separate, Ethernet-connected appliances can be managed as a single entity. In addition, the AER2200 Series Router Is designed to embed a future generation modular 5G modem. These two capabilities ensure compatibility for 5G.

Performance

Stateful Firewall Throughput:	IPS Throughput:	Application Aware Services & Analytics:	IPSec VPN Throughput:	Concurrent VPN Tunnels:	Concurrent Sessions (TCP):	Typical Client Count:
940 Mbps	**250 Mbps**	**250 Mbps**	**40 Mbps**	**20**	**32,000**	**100**

Performance testing was conducted based on requirements as defined in RFC2544 using fixed-frame 1518 byte packets. Throughput results reflect uni-directional UDP traffic with less than 1% packet loss as tested with wired connections.

Results do not reflect performance of the cellular wireless operator networks.

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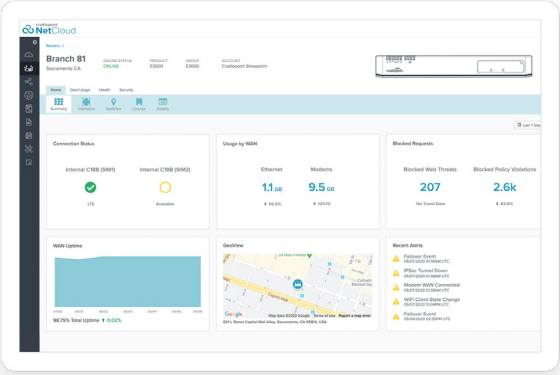
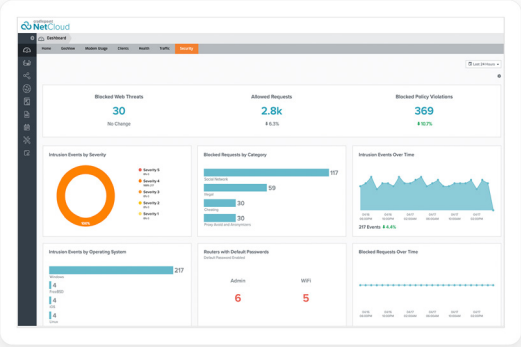
Key Software Capabilities

The Cradlepoint NetCloud for Branch with AER2200 Series Router provides everything needed to unlock the power of LTE at the network edge and connect users and IoT devices to critical applications and services. NetCloud includes routing, VPN, SD-WAN, and security capabilities for robust, enterprise-class performance. Cloud-based management designed for simplification, insights and scale includes group policy definition, reports, troubleshooting, and analytics dashboards. The service includes a warranty for as long as there is an active subscription on the router, online training, live and online support, and all software and firmware updates.

Router Services

The next generation hardware has the processing power to handle demanding router-delivered services, dynamic routing protocols, and application aware traffic steering, supported with our exclusive NetCloud Essentials + Advanced software package.



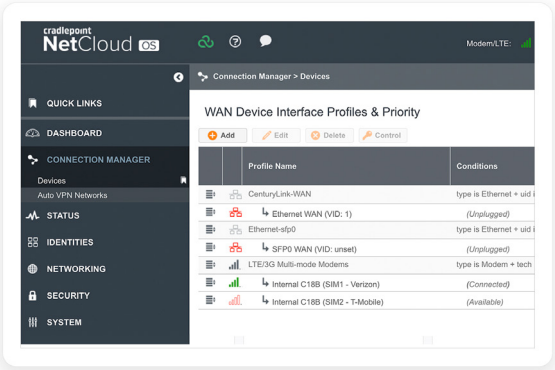


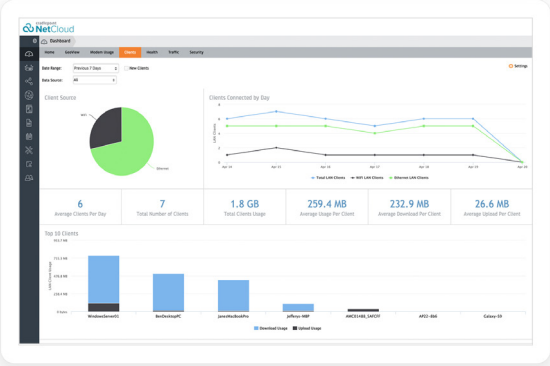
Security Services

NetCloud Essentials + Advanced packages include security features and options, such as stateful zone-based firewall, intrusion prevention, and threat protection, to optimize the AER2200 Series Router to meet the evolving security needs of distributed environments. Additional security add-ons from leading technology partners make a rich security stack manageable from NetCloud.

Connection Manager

Connection Manager provides the ability to manage all WAN connections types, both wireless and wired, from a single software-defined policy. Our custom-built modem software ensures users establish Wireless WAN connectivity faster while maintaining the highest level of resiliency.





Cloud Services

NetCloud Manager delivers true zero-touch deployment with the ability to define and deliver policy across entire groups of endpoints. Users can create a cloud-orchestrated hub and spoke VPN network and gain insights and analytics required for rapid troubleshooting and diagnostic workflows.

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Hardware Specifications

The following features are delivered through the hardware.

INTERFACES	
Modem:	One of the following: — Embedded Cat 18 LTE 4G Modem — 4 x SMA cellular antenna connectors — Embedded Cat 11 LTE 4G Modem — 2 x SMA cellular antenna connectors Optional dual modem: — Modular MC400 Modem
Ethernet:	10 x GbE (LAN/WAN switchable)
PoE:	4 x 802.3at PoE Type 3/4 (up to 30W per port) — 30W total PoE power budget (with 170671-000) — 120W total PoE power budget (with 170751-000)
Wi-Fi:	Dual-band, dual-concurrent operation (2.4 GHz and 5 GHz) — 4x4 MU-MIMO 802.11ac Wave 2 Wi-Fi 5 with DFS — 600 Mbps (2.4 GHz) and 1.7 Gbps (5 GHz) — 4 x RP-SMA Wi-Fi antenna connectors — Up to 120 concurrent wireless associations per radio — Supports 20/40/80 MHz channel widths — Modes: AP and Wi-Fi-as-WAN — WPA/WPA2/WPA3 Personal, WPA2/WPA3 Enterprise, WEP Auto, Open — 802.11k, 802.11r, 802.11v
Expansion / Console:	1 x USB 2.0 Type A (Output: 5V, 500mA, 2.5W) 1 x RJ45 Console
GNSS/GPS:	1 x SMA GNSS antenna connector
ENVIRONMENTAL	
Temperature:	Operating: 0 °C to 50 °C (32 °F to 122 °F) Storage: -20 °C to 70 °C (-4 °F to 158 °F)
Humidity:	Operating: 5% to 95% Storage: 5% to 95%

POWER	
Required:	Powered by external DC power supply, 100-240 VAC input, 54 VDC 3.34A output (included)
PHYSICAL	
Size:	185 x 210 x 44 mm (7.3 x 8.3 x 1.7 in)
Weight:	1.5 kg (3 lb 5 oz)
CERTIFICATIONS	
Safety:	UL/cUL, CB Scheme, EN 60950-1
Materials:	WEEE, RoHS, RoHS-2, California Prop 65
WI-FI POWER	
FCC:	2402-2483.5 MHz (2.4 GHz): 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
IC:	2.4 GHz: 19.88 dBm Conducted 5150–5250 MHz: 22.96 dBm Conducted
Rest of World:	2.4 GHz band: 19.88 dBm EIRP 5150-5250 MHz: 22.96 dBm EIRP
LEDs	

Refer to the AER2200 Branch Router Quick Start Guide.

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Enterprise-Class Modem Specifications

SPECIFICATION	1200M-B	600M
Technology:	Cat 18 LTE Advanced Pro (3GPP Rel. 12) — Dual SIM slots, mini 2FF form factor — SIM-based auto-carrier selection	Cat 11 LTE Advanced (3GPP Rel. 11) — Dual SIM slots, mini 2FF form factor — SIM-based auto-carrier selection
Fallback:	WCDMA/DC-HSPA+	WCDMA/DC-HSPA+
Carrier Aggregation:	Up to 5CA downlink, 2CA uplink Refer to the Modem Carrier Aggregations article.	Up to 3CA downlink Refer to the Modem Carrier Aggregations article.
Peak Downlink Rates:	LTE: 1.2 Gbps DC-HSPA+: 42.2 Mbps	LTE: 600 Mbps DC-HSPA+: 42.2 Mbps
Peak Uplink Rates:	LTE: 150 Mbps DC-HSPA+: 5.76 Mbps	LTE: 75 Mbps DC-HSPA+: 5.76 Mbps
MIMO:	4x4 MIMO	2x2 MIMO
QAM:	Up to 256	Up to 256
LTE Bands:	LTE FDD — B2, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B66 , B71 LTE TDD — B38, B39, B40, B41, B42, B43, B46, B48	LTE FDD — B1, B2, B3, B4, B5, B7, B8, B12, B13, B17, B20, B25, B26, B28, B29, B30, B66 LTE TDD — B38, B40, B41
WCDMA Bands:	B1, B2, B4, B5, B8	B1, B2, B4, B5, B8
Power:	LTE 23 dBm ± 1, DC-HSPA+ 23 dBm ± 1 (typical conducted)	LTE 23 dBm ± 1; HSPA+ 23 dBm ± 1 (typical conducted)
Antennas:	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 4, included)	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 2, included)
GNSS/GPS:	Active GPS	Active GPS
SMS:	Yes	Yes
Regulatory:	FCC (U.S.), IC (Canada), CE (EU), RCM (AU/NZ)	FCC (U.S.), IC (Canada), CE (EU), RCM (AU/NZ), ICASA (ZA), iMDA (SG), SIRM QAS (MY)
Network Operator Standards:	PTCRB (U.S., Canada), GCF (Worldwide)	PTCRB (U.S.), GCF (Worldwide)
Network Operator Certifications:	AT&T, Verizon†	AT&T, Verizon, Sprint†
Public Safety Network Certifications:	Verizon Frontline, FirstNet Ready™ (Incl. Band 14)	Verizon Frontline
Private Cellular Network:	Yes, includes FCC Part 96 (CBRS Band 48)	N/A

†*Cellular carriers and operators throughout the world may only require telecom industry certifications, like PTCRB or GCF, to operate on their network. Some carriers require additional testing and approval, beyond telecom certifications, to operate on their network. A carrier listed in the approvals section means Cradlepoint completed additional testing and acquired technical approval for that given carrier. Any carrier not listed may not require additional testing or approval beyond telecom industry certifications to operate on their network.*

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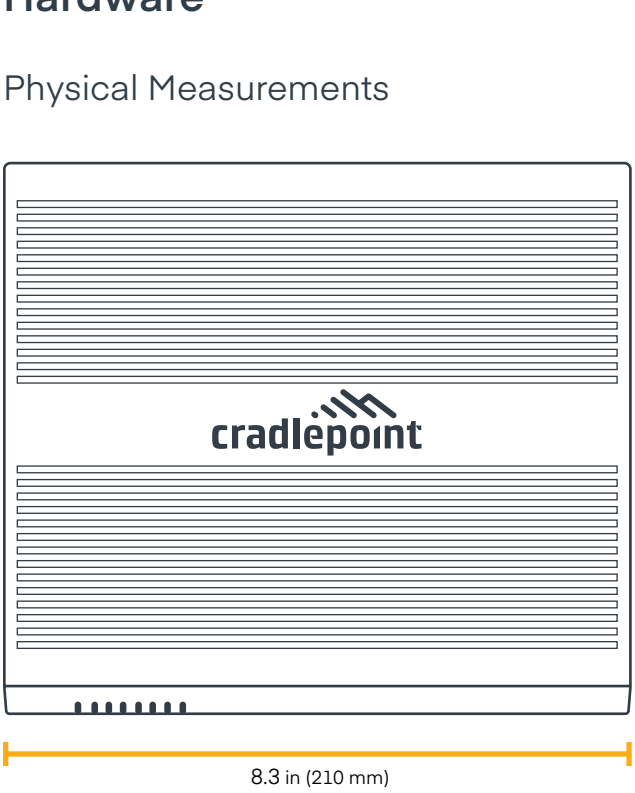
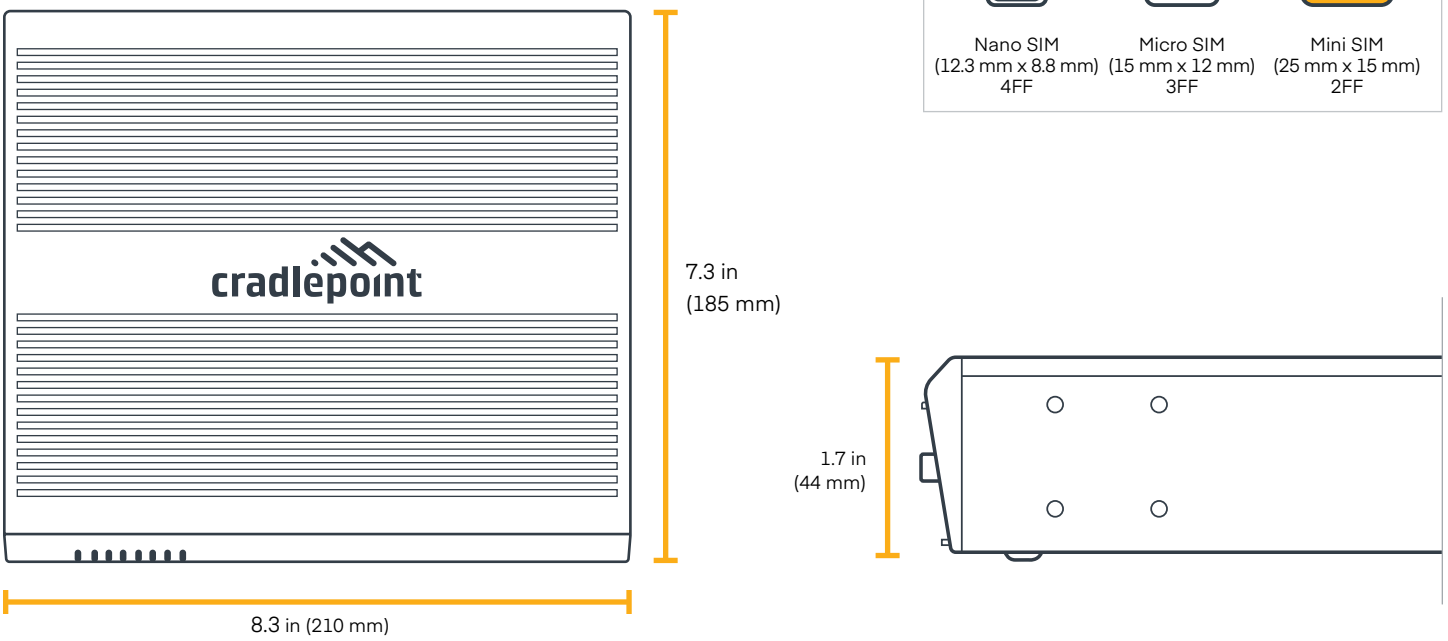
Hardware

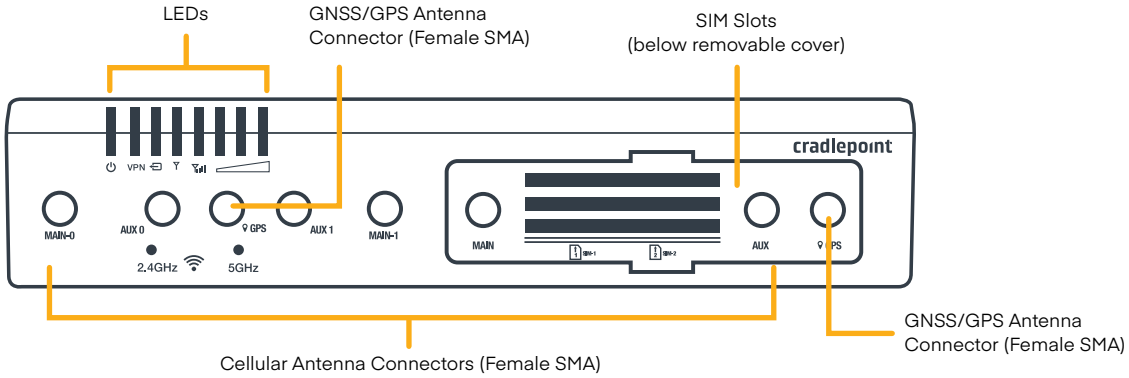
Physical Measurements

Correct SIM: Mini SIM — 2FF

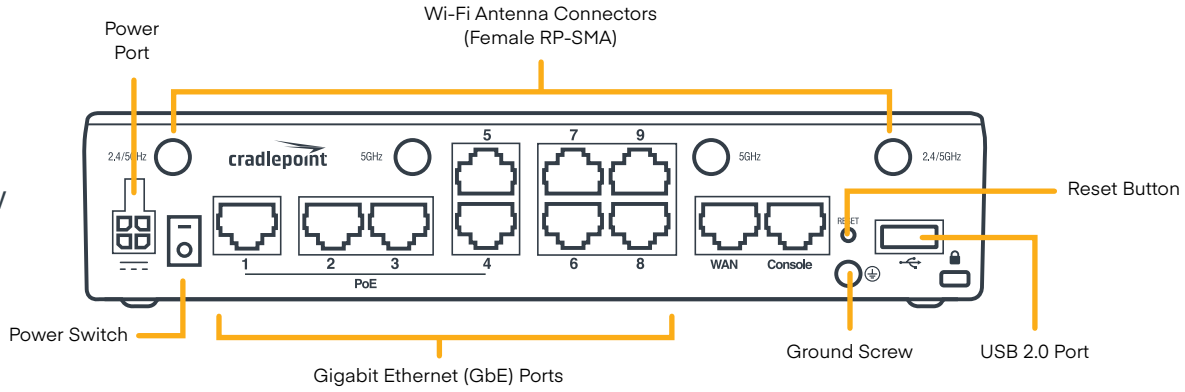




Front View



Rear View



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Ordering Guide

NetCloud Branch Essentials packages and plans contain all the features and capabilities required for small to mid-sized branch applications. Essentials Packages include 24x7 support (phone support: 24 hour weekdays with emergency response on weekends, web: 24x7, chat: 24x5) and a limited lifetime warranty.

For additional capabilities, a **NetCloud Branch Advanced Plan** can be added to the NetCloud Branch Essentials Package at any time.

See additional details of what is included in the Essential and Advanced NetCloud software: cradlepoint.com/netcloud-service

For more details on the AER2200 Series router, included with the NetCloud Branch Packages, see below.

NetCloud Package & Plans

REGION	DESCRIPTION	PART NUMBER
The Americas: U.S. & Canada	**CAT 11 Modem**	
	NetCloud Branch Essentials Plan and AER2200 router with Wi-Fi (600 Mbps modem), North America	BAx-2200600M-NNN
	NetCloud Branch Essentials Plan, Advanced Plan, and AER2200 router with Wi-Fi (600 Mbps modem), North America	BAAx-2200600M-NN
	NetCloud Branch FIPS Essentials Plan, Advanced Plan, and AER2200 FIPS router with Wi-Fi (600 Mbps modem), North America	BAx-220F600M-XFN
	CAT 18 Modem	
	NetCloud Branch Essentials Plan and AER2200 router with Wi-Fi (1200 Mbps modem), North America	BAx-2200120B-NNN
	NetCloud Branch Essentials Plan, Advanced Plan, and AER2200 router with Wi-Fi (1200 Mbps modem), North America	BAAx-2200120B-NN
	NetCloud Branch FIPS Essentials Plan, Advanced Plan, and AER2200 FIPS router with Wi-Fi (1200 Mbps modem), North America	BAx-220F120B-XFN
	Branch FIPS Essentials Plan, Advanced Plan, and AER2200 FIPS router with dual 1200 Mbps modem, North America	BAX5-220F120B-F0
Europe: European Union, South Africa & United Arab Emirates	**CAT 11 Modem**	
	NetCloud Branch Essentials Plan and AER2200 router with Wi-Fi (600 Mbps modem), Europe	BAx-2200600M-EWE
	NetCloud Branch Essentials Plan, Advanced Plan, and AER2200 router with Wi-Fi (600 Mbps modem), Europe	BAAx-2200600M-EE
	CAT 18 Modem	
	NetCloud Branch Essentials Plan and AER2200 router with Wi-Fi (1200 Mbps modem), Europe	BAx-2200120B-EWE
	NetCloud Branch Essentials Plan, Advanced Plan, and AER2200 router with Wi-Fi (1200 Mbps modem), Europe	BAAx-2200120B-EE

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NetCloud Package & Plans

REGION	DESCRIPTION	PART NUMBER
Europe: United Kingdom	**CAT 11 Modem**	
	NetCloud Branch Essentials Plan and AER2200 router with Wi-Fi (600 Mbps modem), UK	BAx-2200600M-EWU
	NetCloud Branch Essentials Plan, Advanced Plan, and AER2200 router with Wi-Fi (600 Mbps modem), UK	BAA1-2200600M-EU
	CAT 18 Modem	
	NetCloud Branch Essentials Plan and AER2200 router with Wi-Fi (1200 Mbps modem), UK	BAx-2200120B-EWU
	NetCloud Branch Essentials Plan, Advanced Plan, and AER2200 router with Wi-Fi (1200 Mbps modem), UK	BAAx-2200120B-EU
Asia Pacific: Australia, Malaysia, New Zealand & Singapore	**CAT 11 Modem**	
	NetCloud Branch Essentials Plan and AER2200 router with Wi-Fi (600 Mbps modem), APAC	BAx-2200600M-PWP
	NetCloud Branch Essentials Plan, Advanced Plan, and AER2200 router with Wi-Fi (600 Mbps modem), APAC	BAAx-2200600M-PP
	CAT 18 Modem	
	NetCloud Branch Essentials Plan and AER2200 router with Wi-Fi (1200 Mbps modem), APAC	BAx-2200120B-PWP
	NetCloud Branch Essentials Plan, Advanced Plan, and AER2200 router with Wi-Fi (1200 Mbps modem), APAC	BAAx-2200120B-PP
All Regions	NetCloud Enterprise Branch Advanced Plan Upgrade	BF0x-NCADV
	Renewal NetCloud Enterprise Branch Advanced Plan	BF0x-NCADV-R
	Renewal NetCloud Enterprise Branch Essentials and Advanced Plans	BFAx-NCEA-R
	Renewal NetCloud Enterprise Branch Essentials Plan	BF0x-NCESS-R

x = 1, 3, or 5 years

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Accessories

INCLUDED	PART NUMBER
Power Supply, 54V, Large 2x2, Line Cord not included	170671-000
C14 Line Cord (Qty. 1, varies based on the regional NetCloud package ordered)	N/A
Cellular Antenna, Charcoal, 600 MHz - 6 GHz, SMA (Qty 4)	170801-000
Wi-Fi Antenna, Charcoal, Dual-Band 2.4/5 GHz, RPSMA (Qty 4)	170836-000
Antenna Alignment Tool (E3000-C18B models only)	N/A
Wall Mount Screw Pack	N/A
Rack Mount Brackets	N/A
Rubber Feet for Desk Mounting	N/A
OPTIONAL	**PART NUMBER**
Power Supply C14 Line Cord Options: — Line Cord, North America (C14) — Line Cord, European Union (C14) — Line Cord, United Kingdom (C14) — Line Cord, Australia (C14)	 170671-001 170671-002 170671-003 170671-004
Power Supply, 54V, Large 2x2, 2M, Line Cord not included	170751-000
Rack Mount Kit	170749-001
LTE Advanced Pro (1200 Mbps) Modem Upgrade for Branch†: — MC400-1200M-B Cat 18 LTE Advanced Pro Modular Modem — AER2200 MC400-1200M-B Modem Door with Screw — Cellular Antenna, Charcoal, 600 MHz - 6 GHz, SMA (Qty 4)	BA-MC400-1200M-B MC400-1200M-B N/A 170801-000
Enterprise Branch E3000 Cat 6 LTE Advanced Modular Modem Kit†: — MC400LP6 Cat 6 LTE Advanced Pro Modular Modem — Cellular Antenna, Charcoal, 600 MHz - 6 GHz, SMA (Qty 4)	BF-MC400LP6 MC400LP6 170801-000
LTE Captive Modem Accessory, Indoor: — Indoor, CBA550-150M-D (150 Mbps modem), Americas — Indoor, CBA550-150M-E (150 Mbps modem), Global	 170900-001 170900-002
LTE Captive Modem Accessory, Indoor: — CBA850-1200M-B (1200 Mbps modem), Americas — CBA850-1200M-B (1200 Mbps modem), Global	 170900-003 170900-004
LTE Captive Modem Accessory, Indoor: — L950-C7A (300 Mbps modem), Americas — L950-C7B (300 Mbps modem), Global	 170900-005 170900-006

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Accessories

OPTIONAL	PART NUMBER
5G Captive Modem Accessory, Outdoor:	
— W2005-5GB (4.1 Gbps modem), North America	170900-007
— W2005-5GB (4.1 Gbps modem), EU	170900-008
— W2005-5GB (4.1 Gbps modem), AP	170900-009
— W2005-5GB (4.1 Gbps modem), UK	170900-010
5G Captive Modem Accessory, Outdoor, High-Band, W4005-5GB (7.5 Gbps modem), North America	170900-011
5G Captive Modem Accessory, Indoor, W1850-5GB (4.1 Gbps modem), Americas	170900-012

† Refer to the Cradlepoint MC400 Modular Modem webpage for more information about modular modems.

Support & Warranty

The AER2200 Series Router is only sold as a component of NetCloud Branch Packages.

— NetCloud Packages include support for the full subscription term.

— All Cradlepoint hardware products are covered by a limited lifetime warranty for as long as they have a subscription license to an active NetCloud Service Plan.

Find the most up-to-date information at cradlepoint.com/aer2200