## cradlepoint

# ARC CBA850 <br> Spec Sheet 



Cradlepoint ARC CBA850 LTE Adapter is sold as part of an all-inclusive branch networking package.

## NetCloud Branch LTE Adapter Packages Include:

- LTE to Ethernet adapters for branch
- A NetCloud Service Plan tailored for branch networking and set for a specific term
- $24 \times 7$ support and limited lifetime warranty


## What to Buy

## Description

Part Numbers
North America (U.S., Canada)

- NetCloud Branch LTE Adapter Essentials Package with CBA850-1200M-B

BBx-0850120B-NON

- NetCloud Branch LTE Adapter Essentials Package with CBA850-1200M

BBx-08501200-NON

- NetCloud Branch LTE Adapter Essentials Package with CBA850LP6

BBx-0850LP6-NON

- NetCloud Branch LTE Adapter Essentials Package with CBA850LP4

Europe (EU)

- NetCloud Branch LTE Adapter Essentials Package with CBA850-1200M-B-EU

BBx-0850120B-EOM

- NetCloud Branch LTE Adapter Essentials Package with CBA850LP6-EU

Asia-Pacific (Australia, New Zealand, Singapore)

- NetCloud Branch LTE Adapter Essentials Package with CBA850-1200M-B-AP

BBx-0850120B-P0M

- NetCloud Branch LTE Adapter Essentials Package with CBA850LP5-AP

BBx-0850LP5-P0M

## All Regions

- NetCloud Branch LTE Adapter Advanced Plan

BBx-NCADV
$x=1,3$, or 5 years

NetCloud Branch LTE Adapter Essentials packages and plans contain all the features and capabilities required for a broad range of mobile or in-vehicle applications. Essentials packages include $24 \times 7$ Support (Phone Support: 24 hour weekdays with Emergency response on weekends, Web: $24 \times 7$, Chat: $24 \times 5$ ) and a Limited Lifetime Warranty.

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

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

For more details on the ARC CBA850 LTE Adapter, included with the NetCloud Branch LTE Adapter Packages, see below.

## What's in the Box

- CBA850 with embedded MC400 multi-carrier, modular modem with SIM-based Auto-Carrier Selection
- Universal 3G/4G/LTE antennas with dedicated active GPS antenna port
- 12 V DC / 1.5 A power adapter ( 1.5 meter cord)
- Ethernet cable
- Mounting hardware
- Safety, Regulatory, and Warranty guide


## Key Features

WAN

- 1200M-B: LTE Advanced Pro 1.2 Gbps LTE/HSPA+ (SIM-based auto-carrier selection for all North American, European, and Asia Pacific carriers)
- 1200M: LTE Advanced Pro 1.2 Gbps LTE/HSPA+ with SIM-based auto-carrier selection for AT\&T/FirstNet™ and Verizon
- 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: LTE/DC-HSPA+ for AT\&T, Verizon, T-Mobile and Canadian carriers (SIM-based auto-carrier selection)
- Advanced Modem Failure Check
- IP Passthrough
- Standby
- Ethernet WAN for inline failover

LAN

- VLAN 802.1Q
- DHCP Server, Client, Relay
- DNS and DNS Proxy
- DynDNS
- UPnP
- DMZ
- MAC Address Filtering

Management

- Cradlepoint NetCloud Manager
- Web UI, API, CLI, SSH
- Data Usage Alerts (router and per client)
- Advanced Troubleshooting (support)
- Device Alerts
- SNMP
- SMS control


## Routing

- Routing Rules
- NAT-less Routing
- Virtual Server/Port Forwarding
- IPv6


## Security

- RADIUS and TACACS+ support*
- 802.1x authentication for Ethernet
- 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.


## Specifications

The following features are delivered through the hardware.
WAN:

- Embedded 1200M-B Category 18 LTE Advanced Pro modem with (DC-HSPA+ failover), or
- Embedded 1200M Category 18 LTE Advanced Pro modem with (DC-HSPA+ failover), or
- LP6 Category 6 LTE Advanced LTE modem (with DC-HSPA+ failover), or
- LP5 Category 6 LTE Advanced LTE modem (with DC-HSPA+ failover), or
- LP4 Category 4 LTE modem (with DC-HSPA+ failover), or

LAN:

- White, Universal 600MHz-6GHz 3G/4G/LTE 2dBi/3dBi 6" antenna with SMA connector
- (1x) Part \# 170761-000
- White, 600MHz-2.7 GHz LTE/4G/3G 2/3 dBi antenna with SMA connector (lx) Part \# 170765-000
- Two LAN 10/100/1000 Ethernet ports (default one NAT, one IP Passthrough)
- RJ45 Serial Port for console access or out-of-band management


## Temperature:

- $0^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}\left(32^{\circ} \mathrm{F}\right.$ to $122^{\circ} \mathrm{F}$ ) operating
- $-20^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left(-4^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right)$ storage

Humidity (non-condensing):

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

Power:

- 12 V DC / 1.5 A adapter
- 802.3af ( 15 W ) or 802.3at (30 W) PoE capable


## Power Consumption (typical):

- Idle: 4.0 W
- Single Modem: 6.0 W

Size: $4.8 \times 4.8 \times 1.7$ in $(122 \times 122 \times 42 \mathrm{~mm})$
Housing:

- White plastic, locking compatible
- Wall, desk, or DIN Rail mounting


## Certifications:

- FCC, CE, IC
- Safety: UL/CUL/CB Scheme
- Materials: WEEE, RoHS, RoHS-2, California Prop 65


## Accessories

- DIN Rail Mounting Bracket (Part \# 170656-000)
- Wall/Ceiling Mounting Bracket (Part \# 170666-000)
- Rollover Adapter for RJ45 Ethernet cable M/F (Part \# 170662-000)
- RJ45 Rollover serial console cable 7 ft (Part \# 170663-000)
- RJ45 Rollover serial console cable 14 ft (Part \# 170663-001)
- Cradlepoint Certified Antennas for Fixed Sites

See the Cradlepoint antenna accessories page for more information about antennas. Also see the Antenna Ordering and Installation Guide, available as a PDF in the Resources section of antenna and router product pages.

## Enterprise-Class Modem Specifications

## ARC CBA850-1200M-B LTE Advanced Pro/HSPA+ for Worldwide

ARC CBA850-1200M-B models include an integrated LTE Advanced Pro Category 18 4G LTE modem. The 1200M 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.

- Technology: Category 18 LTE Advanced Pro, DC-HSPA+ with SIM-based auto-carrier selection
- The MC400-1200M-B is FirstNet Ready ${ }^{\text {TM }}$
- Downlink Rates: LTE 1.2 Gbps, DC-HSPA+ 42.2 Mbps*
- Uplink Rates: LTE 150 Mbps, DC-HSPA+5.76 Mbps*
- MIMO: $2 \times 2$ or $4 \times 4$ MIMO
- 256 QAM support
- Frequency Bands:
- LTE Bands
- LTE FDD: 1, 2(25), 3, 4(66), 5(26/18/19), 7, 8, 12(17), 13, 14, 20, 28, 29, 30, 32, 71
- LTE TDD: $38,39,40,41,42,43,46,48$
- 1200M-B Antenna Mapping:
- Main/Aux 0: 1, 2(25), 3, 4(66), 5(26, 18, 19), 8, 12(17), 13, 14, 20, 28, 29, 39, 71, [41] for 4x4MIMO
- Main/Aux1: $7,30,32,38,40,41,42,43,46,48,[2(25)]$ for $4 \times 4$ MIMO, [4(66)] for $4 \times 4$ MIMO.
- If Main/Aux 1 are not connected, these bands are not supported: $7,30,32,38,40,41,42,43,46,48$
- Carrier Aggregation: Up to 5CA. [ ] indicates $4 \times 4$ MIMO
- Carrier Aggregation: Up to 5CA. [ ] indicates $4 \times 4$ MIMO
- AT\&T:
- LTE Bands:
- LTE FDD: 2, 4, 5, 7, 12, 13, 14, 17, 25, 26, 29 (DL), 30, 66, 71 (FDD)
— LTE TDD: 41, 46 (DL), 48
- 3G DC-HSPA+: 1, 2, 4, 5, 8
- 2CA DL carrier aggregation combinations:

CA_[2A]-[4A], CA_[2A]-5A, CA_2A-7A, CA_[2A]-12A, CA_[2A]-14A, CA_[2A]-29A, CA_2A-30A, CA_[2A]-46A, CA_[2A]48A, CA_[2A]-[66A], CA_[2A]-71A, CA_[4A]-5A, CA_4A-7A, CA_[4A]-12A, CA_[4A]-29A, CA_4A-30A, CA_[4A]-46A, CA_[4A]-71A, CA_5A-30A, CA_5A-[66A], CA_7A-12A, CA_12A-30A, CA_12A-[66A], CA_14A-30A, CA_14A-[66A], CA_[25A]-26A, CA_25A-41A, CA_26A-[41A], CA_29A-30A, CA_29A-[66A], CA_30A-66A, CA_46A-[66A], CA_48A-[66A], CA_[66A]-71A, CA_[2A]-[2A], CA_[4A]-[4A], CA_[25A]-[25A], CA_[41A]-[41A], CA_48A-48A, CA_[66A]-[66A], CA_[2C], CA_5B, CA_7C, CA_12B, CA_[41C], CA_48C, CA_[66B], CA_[66C]

- 3CA DL carrier aggregation combinations:

CA_[2A]-2A-5A, CA_2A-[2A]-5A, CA_[2A]-2A-12A, CA_2A-[2A]-12A, CA_2A-2A-30A, CA_[2A]-2A-66A, CA_2A-[2A]-66A, CA_2A-2A-[66A], CA_[2A]-2A-71A, CA_2A-[2A]-71A, CA_[2A]-4A-4A, CA_2A-[4A]-4A, CA_2A-4A-[4A], CA_[2A]-4A-5A, CA_2A-[4A]-5A, CA_[2A]-4A-12A, CA_2A-[4A]-12A, CA_[2A]-4A-29A, CA_2A-[4A]-29A, CA_2A-4A-30A, CA_[2A]-4A71A, CA_2A-[4A]-71A, CA_2A-5A-30A, CA_[2A]-5A-66A, CA_2A-5A-[66A], CA_2A-7A-12A, CA_2A-12A-30A, CA_[2A]-12A-66A, CA_2A-12A-[66A], CA_[2A]-12B, CA_2A-14A-30A, CA_[2A]-14A-66A, CA_2A-14A-[66A], CA_2A-29A-30A, CA_2A-30A-66A, CA_[2A]-46A-46A, CA_[2A]-46A-66A, CA_2A-46A-[66A], CA_[2A]-46C, CA_[2A]-48A-48A, CA_[2A]48C, CA_[2A]-48A-66A, CA_2A-48A-[66A], CA_[2A]-66A-66A, CA_2A-[66A]-66A, CA_2A-66A-[66A], CA_[2A]-66A-71A,

CA_2A-[66A]-71A, CA_[2A]-[66C], CA_[2A]-66C, CA_2A-[66C], CA_[4A]-4A-5A, CA_4A-[4A]-5A, CA_4A-4A-7A, CA_[4A]-4A-12A, CA_4A-[4A]-12A, CA_4A-4A-30A, CA_[4A]-4A-71A, CA_4A-[4A]-71A, CA_4A-5A-30A, CA_4A-7A-12A, CA_4A-12A-30A, CA_[4A]-12B, CA_4A-29A-30A, CA_[4A]-46A-46A, CA_[4A]-46C, CA_5A-30A-66A, CA_5A-[66A]-66A, CA_5A-66A-[66A], CA_5A-[66C], CA_12A-30A-66A, CA_12A-[66A]-66A, CA_12A-66A-[66A], CA_12A-[66C], CA_14A-30A-66A, CA_14A-[66A]-66A, CA_14A-66A-[66A], CA_[25A]-25A-26A, CA_25A-[25A]26A, CA_25A-41C, CA_26A-[41C], CA_29A-30A-66A, CA_29A-[66A]-66A, CA_29A-66A-[66A], CA_30A-66A-66A, CA_[41A]-[41C], CA_[41A]-41C, CA_41A-[41C], CA_[41D], CA_46C-[66A], CA_48A-48C, CA_48D, CA_48A-48A[66A], CA_48C-[66A], CA_[66A]-66A-71A, CA_66A-[66A]-71A

- 4CA DL carrier aggregation combinations:

CA_2A-2A-5A-30A, CA_2A-2A-5A-66A, CA_2A-2A-12A-30A, CA_2A-2A-12A-66A, CA_2A-2A-29A-30A, CA_2A$2 A-66 A-66 A, C A \_2 A-2 A-66 A-71 A, C A \_[2 A]-2 A-66 C, C A \_2 A-[2 A]-66 C, C A \_2 A-2 A-[66 C], C A \_2 A-4 A-4 A-12 A$, CA_2A-4A-5A-30A, CA_2A-4A-7A-12A, CA_2A-4A-12A-30A, CA_2A-5A-30A-66A, CA_2A-5A-66A-66A, CA_2A-5B-30A, CA_[2A]-5B-66A, CA_2A-5B-[66A], CA_2A-12A-30A-66A, CA_2A-12A-66A-66A, CA_2A-29A-30A-66A, CA_2A-46A-46A-66A, CA_[2A]-46A-46C, CA_[2A]-46C-66A, CA_2A-46C-[66A], CA_[2A]-46D, CA_2A-66A-66A71A, CA_2A-66C-71A, CA_[2C]-66A-66A, CA_2C-[66A]-66A, CA_2C-66A-[66A], CA_4A-4A-12A-30A, CA_[4A]-46A-46C, CA_[4A]-46D, CA_5A-30A-66A-66A, CA_5B-30A-66A, CA_5B-66A-66A, CA_12A-30A-66A-66A, CA_25A-41D, CA_29A-30A-66A-66A, CA_[41A]-41D, CA_[41C]-41C, CA_41C-[41C], CA_41E, CA_46A-46C[66A], CA_46D-[66A], CA_48D-[66A], CA_48E

- 5CA DL carrier aggregation combinations:

CA_2A-2A-46D, CA_2A-5B-30A-66A, CA_2A-5B-66A-66A, CA_2A-46A-46C-66A, CA_2A-46D-66A, CA_5B-30A-66A-66A, CA_46D-66A-66A

- 2CA UL carrier aggregation combinations:

UL_2A-5A, UL_2A-12A, UL_4A-12A, UL_5A-66A, UL_5B, UL_41C

## - Verizon:

- LTE Bands:
— LTE FDD: 2, 4, 5, 13, 66 (FDD)
- LTE TDD: 48
- 3G DC-HSPA+: 1, 2, 4, 5, 8 (roaming)
- 2CA DL carrier aggregation combinations:

CA_[2A]-[2A], CA_[2A]-[4A], CA_[2A]-5A, CA_[2A]-13A, CA_[2A]-[66A], CA_[4A]-[4A], CA_[4A]-5A, CA_[4A]-13A, CA_5A- [66A], CA_5B, CA_13A[66A], CA_[66A]-[66A], CA_[66B], CA_[66C], CA_[2A]-48A, CA_13A-48A, CA_48A[66A]

- 3CA DL carrier aggregation combinations:

CA_[2A]-2A-5A, CA_[2A]-2A-13A, CA_[2A]-2A-66A, CA_2A-2A-[66A], CA_[2A]-4A-5A, CA_2A-[4A]-5A, CA_[2A]4A13A, CA_2A-[4A]-13A, CA_[2A]-5A-66A, CA_2A-5A-[66A], CA_[2A]-13A-66A, CA_2A-13A-[66A], CA_[2A]-66A-66A, CA_2A-[66A]-66A, CA_[2A]-[66B], CA_[2A]-[66C], CA_[4A]-4A-5A, CA_[4A]-4A-13A, CA_5A-[66A]-66A, CA_5A-[66B], CA_5A[66C], CA_13A-[66A]-66A, CA_13A-[66B], CA_13A-[66C], CA_[66A]-[66C], CA_[66D], CA_[2A]-48A-48A, CA_[2A]- 48A-66A, CA_2A-48A-[66A], CA_[2A]-48C, CA_13A-48A-48A, CA_13A-48A-[66A], CA_13A-48C, CA_48A-48A-[66A], CA_48A-[66A]66A, CA_48A-[66B], CA_48C-[66A]

- 4CA DL carrier aggregation combinations:

CA_2A-48A-48A-66A, CA_[2A]-48D, CA_13A-48A-48A-66A, CA_13A-48A-48C, CA_13A-48C-[66A], CA_13A-48D, CA_48A-48A-66A-66A, CA_48A-48A-[66B], CA_48A-48A-[66C], CA_48A-48C-[66A], CA_48D-[66A]

- 5CA DL carrier aggregation combinations:

CA_2A-48E, CA_13A-48A-48C-66A, CA_13A-48C-48C, CA_13A-48D-66A, CA_13A-48E, CA_48A-48C-66B, CA_48A48C-66C, CA_48C-48C-66A,CA_48E-66A

- 2CA UL carrier aggregation combinations:

CA_2A-13A, CA_4A-13A

- North America Generic:
- LTE Bands:
- LTE FDD: $2,4,5,7,12,13,14,17,25,26,29$ (DL), 30, 66, 71 (FDD)
- LTE TDD: 41, 46 (DL), 48
- 3G DC-HSPA+: 1, 2, 4, 5, 8
- 2CA DL carrier aggregation combinations:

CA_[2A]-[4A], CA_[2A]-5A, CA_2A-7A, CA_[2A]-12A, CA_[2A]-14A, CA_[2A]-29A, CA_2A-30A, CA_[2A]-46A, CA_[2A]-48A, CA_[2A]-[66A], CA_[2A]-71A, CA_[4A]-5A, CA_4A-7A, CA_[4A]-12A, CA_[4A]-29A, CA_4A-30A, CA_[4A]-46A, CA_[4A]-71A, CA_5A-30A, CA_5A-[66A], CA_7A-12A, CA_12A-30A, CA_12A-[66A], CA_14A-30A, CA_14A-[66A], CA_[25A]-26A, CA_25A-41A, CA_26A-[41A], CA_29A-30A, CA_29A-[66A], CA_30A-66A, CA_46A[66A], CA_48A-[66A], CA_[66A]-71A, CA_[2A]-[2A], CA_[4A]-[4A], CA_[25A]-[25A], CA_[41A]-[41A], CA_48A-48A, CA_[66A]-[66A], CA_[2C], CA_5B, CA_7C, CA_12B, CA_[41C], CA_48C, CA_[66B], CA_[66C]

- 3CA DL carrier aggregation combinations:

CA_[2A]-2A-5A, CA_2A-[2A]-5A, CA_[2A]-2A-12A, CA_2A-[2A]-12A, CA_2A-2A-30A, CA_[2A]-2A-66A, CA_2A-[2A]-66A, CA_2A-2A-[66A], CA_[2A]-2A-71A, CA_2A-[2A]-71A, CA_[2A]-4A-4A, CA_2A-[4A]-4A, CA_2A-4A-[4A], CA_[2A]-4A-5A, CA_2A-[4A]-5A, CA_[2A]-4A-12A, CA_2A-[4A]-12A, CA_[2A]-4A-29A, CA_2A-[4A]-29A, CA_2A-4A-30A, CA_[2A]-4A-71A, CA_2A-[4A]-71A, CA_2A-5A-30A, CA_[2A]-5A-66A, CA_2A-5A-[66A], CA_2A-7A12A, CA_2A-12A-30A, CA_[2A]-12A-66A, CA_2A-12A-[66A], CA_[2A]-12B, CA_2A-14A-30A, CA_[2A]-14A-66A, CA_2A-14A-[66A], CA_2A-29A-30A, CA_2A-30A-66A, CA_[2A]-46A-46A, CA_[2A]-46A-66A, CA_2A-46A-[66A], CA_[2A]-46C, CA_[2A]-48A-48A, CA_[2A]-48C, CA_[2A]-48A-66A, CA_2A-48A-[66A], CA_[2A]-66A-66A, CA_2A-[66A]-66A, CA_2A-66A-[66A], CA_[2A]-66A-71A, CA_2A-[66A]-71A, CA_[2A]-[66C], CA_[2A]-66C, CA_2A-[66C], CA_[4A]-4A-5A, CA_4A-[4A]-5A, CA_4A-4A-7A, CA_[4A]-4A-12A, CA_4A-[4A]-12A, CA_4A-4A-30A, CA_[4A]-4A71A, CA_4A-[4A]-71A, CA_4A-5A-30A, CA_4A-7A-12A, CA_4A-12A-30A, CA_[4A]-12B, CA_4A-29A-30A, CA_[4A]-46A-46A, CA_[4A]-46C, CA_5A-30A-66A, CA_5A-[66A]-66A, CA_5A-66A-[66A], CA_5A-[66C], CA_12A-30A-66A, CA_12A-[66A]-66A, CA_12A-66A-[66A], CA_12A-[66C], CA_14A-30A-66A, CA_14A-[66A]-66A, CA_14A-66A[66A], CA_[25A]-25A-26A, CA_25A-[25A]-26A, CA_25A-41C, CA_26A-[41C], CA_29A-30A-66A, CA_29A-[66A]66A, CA_29A-66A-[66A], CA_30A-66A-66A, CA_[41A]-[41C], CA_[41A]-41C, CA_41A-[41C], CA_[41D], CA_46C[66A], CA_48A-48C, CA_48D, CA_48A-48A-[66A], CA_48C-[66A], CA_[66A]-66A-71A, CA_66A-[66A]-71A

- 4CA DL carrier aggregation combinations:

CA_2A-2A-5A-30A, CA_2A-2A-5A-66A, CA_2A-2A-12A-30A, CA_2A-2A-12A-66A, CA_2A-2A-29A-30A, CA_2A-2A-66A-66A, CA_2A-2A-66A-71A, CA_[2A]-2A-66C, CA_2A-[2A]-66C, CA_2A-2A-[66C], CA_2A-4A-4A-12A, CA_2A-4A-5A-30A, CA_2A-4A-7A-12A, CA_2A-4A-12A-30A, CA_2A-5A-30A-66A, CA_2A-5A-66A-66A, CA_2A-5B-30A, CA_[2A]-5B-66A, CA_2A-5B-[66A], CA_2A-12A-30A-66A, CA_2A-12A-66A-66A, CA_2A-29A-30A-66A, CA_2A-46A-46A-66A, CA_[2A]-46A-46C, CA_[2A]-46C-66A, CA_2A-46C-[66A], CA_[2A]-46D, CA_2A-66A-66A71A, CA_2A-66C-71A, CA_[2C]-66A-66A, CA_2C-[66A]-66A, CA_2C-66A-[66A], CA_4A-4A-12A-30A, CA_[4A]-46A-46C, CA_[4A]-46D, CA_5A-30A-66A-66A, CA_5B-30A-66A, CA_5B-66A-66A, CA_12A-30A-66A-66A, CA_25A-41D, CA_29A-30A-66A-66A, CA_[41A]-41D, CA_[41C]-41C, CA_41C-[41C], CA_41E, CA_46A-46C[66A], CA_46D-[66A], CA_48D-[66A], CA_48E

- 5CA DL carrier aggregation combinations:

CA_2A-2A-46D, CA_2A-5B-30A-66A, CA_2A-5B-66A-66A, CA_2A-46A-46C-66A, CA_2A-46D-66A, CA_5B-30A-66A-66A, CA_46D-66A-66A

- 2CA UL carrier aggregation combinations:

UL_2A-5A, UL_2A-12A, UL_4A-12A, UL_5A-66A, UL_5B, UL_41C

## - EU/APAC Generic:

- LTE Bands:
- LTE FDD: $1,2,3,4,5,7,8,12,13,14,17,18,19,20,25,26,28,29$ (DL), 30, 32, 66, 71
- LTE TDD: 38, 39, 40, 41, 42, 43, 46 (DL), 48
- 3G DC-HSPA+: $1,2,4,5,8,9,19$
- 2CA DL carrier aggregation combinations:

> CA_1A-3A, CA_1A-5A, CA_1A-7A, CA_1A-8A, CA_1A-18A, CA_1A-19A, CA_1A-20A, CA_1A-26A, CA_1A28A, CA_1A-32A, CA_1A-38A, CA_1A-40A, CA_1A-41A, CA_1A-42A, CA_[2A]-[4A], CA_[2A]-5A, CA_[2A]-7A, CA_[2A]-12A, CA_[2A]-28A, CA_[2A]-46A, CA_[2A]-48A, CA_[2A]-[66A], CA_[2A]-71A, CA_3A-5A, CA_3A-7A, CA_3A-8A, CA_3A-19A, CA_3A-20A, CA_3A-26A, CA_3A-28A, CA_3A-32A, CA_3A-38A, CA_3A-40A, CA_3A-42A, CA_[4A]-5A, CA_4A-7A, CA_[4A]-12A, CA_[4A]-28A, CA_[4A]-46A, CA_5A-7A, CA_7A-8A, CA_7A-12A, CA_7A20A, CA_7A-28A, CA_7A-42A, CA_8A-38A, CA_8A-40A, CA_8A-42A, CA_12A-[66A], CA_20A-32A, CA_20A-38A, CA_20A-40A, CA_20A-42A, CA_26A-[41A], CA_28A-40A, CA_28A-42A, CA_39A-41A, CA_40A-42A, CA_46A[66A], CA_48A-[66A], CA_[66A]-71A, CA_1A-1A, CA_[2A]-[2A], CA_3A-3A, CA_[4A]-[4A], CA_7A-7A, CA_40A40A, CA_42A-42A, CA_48A-48A, CA_[66A]-[66A], CA_[2C], CA_3C, CA_7B, CA_7C, CA_8B, CA_12B, CA_38C, CA_39C, CA_40C, CA_[41C], CA_42C, CA_48C, CA_[66B], CA_[66C]

- 3CA DL carrier aggregation combinations:

CA_1A-1A-3A, CA_1A-3A-3A, CA_1A-3A-7A, CA_1A-3A-8A, CA_1A-3A-19A, CA_1A-3A-20A, CA_1A-3A-28A, CA_1A-3A-32A, CA_1A-3A-38A, CA_1A-3A-40A, CA_1A-3A-41A, CA_1A-3A-42A, CA_1A-3C, CA_1A-7A-7A, CA_1A-7A-8A, CA_1A-7A-20A, CA_1A-7A-28A, CA_1A-7A-42A, CA_1A-7C, CA_1A-8A-40A, CA_1A-20A-32A, CA_1A-20A-42A, CA_1A-28A-42A, CA_1A-40C, CA_1A-41C, CA_1A-42C, CA_1A-46C, CA_1C-3A, CA_[2A]-2A12A, CA_2A-[2A]-12A, CA_[2A]-2A-66A, CA_2A-[2A]-66A, CA_2A-2A-[66A], CA_[2A]-2A-71A, CA_2A-[2A]-71A, CA_[2A]-4A-4A, CA_2A-[4A]-4AC, CA_2A-4A-[4A], CA_[2A]-4A-5A, CA_2A-[4A]-5A, CA_[2A]-4A-12A, CA_2A-[4A]-12A, CA_[2A]-4A-29A, CA_2A-[4A]-29A, CA_[2A]-4A-71A, CA_2A-[4A]-71A, CA_2A-7A-12A, CA_[2A]-12A66A, CA_2A-12A-[66A], CA_[2A]-12B, CA_[2A]-46A-46A, CA_[2A]-46A-66A, CA_2A-46A-[66A], CA_[2A]-46C, CA_[2A]-48A-48A, CA_[2A]-48C, CA_[2A]-48A-66A, CA_2A-48A-[66A], CA_[2A]-66A-66A, CA_2A-[66A]-66A, CA_2A-66A-[66A], CA_[2A]-66A-71A, CA_2A-[66A]-71A, CA_[2A]-[66C], CA_[2A]-66C, CA_2A-[66C], CA_3A-3A7A, CA_3A-3A-8A, CA_3A-3A-20A, CA_3A-3A-28A, CA_3C-5A, CA_3A-7A-7A, CA_3A-7A-8A, CA_3A-7A-20A, CA_3A-7A-28A, CA_3A-7A-42A, CA_3A-7B, CA_3A-7C, CA_3C-7A, CA_3A-8A-38A, CA_3A-8A-40A, CA_3C-8A, CA_3A-20A-32A, CA_3A-20A-42A, CA_3A-28A-40A, CA_3A-28A-42A, CA_3C-20A, CA_3C-28A, CA_3A-40A-40A, CA_3A-40C, CA_3A-42A-42A, CA_3A-42C, CA_3A-46C, CA_3C-32A, CA_3C-38A, CA_3C-40A, CA_4A-4A-7A, CA_[4A]-4A-12A, CA_4A-[4A]-12A, CA_[4A]-4A-71A, CA_4A-[4A]-71A, CA_4A-7A-12A, CA_[4A]-12B, CA_[4A]-46A-46A, CA_[4A]-46C, CA_7A-7A-8A, CA_7A-20A-42A, CA_7C-20A, CA_7B-28A, CA_7C-28A, CA_7A-46C, CA_8A-40C, CA_8A-42C, CA_12A-[66A]-66A, CA_12A-66A-[66A], CA_12A-[66C], CA_19A-42C, CA_20A-38C, CA_28A-40C, CA_28A-42C, CA_40A-40C, CA_40D, CA_40A-42C, CA_40C-42A, CA_42A-42C, CA_42D, CA_46C[66A], CA_48A-48C,CA_48D, CA_48A-48A-[66A], CA_48C-[66A], CA_[66A]-66A-71A, CA_66A-[66A]-71A

- 4CA DL carrier aggregation combinations:

CA_1A-1A-3A-28A, CA_1A-3A-3A-28A, CA_1A-3A-7A-7A, CA_1A-3A-7C, CA_1A-3A-7A-8A, CA_1A-3A-7A20A, CA_1A-3A-7A-28A, CA_1A-3A-8A-40A, CA_1A-3A-3A-8A, CA_1A-3A-40C, CA_1A-3A-42C, CA_1A-3C-5A, CA_1A-3C-7A, CA_1A-3C-8A, CA_1A-3C-28A, CA_1A-7C-28A, CA_1A-42D, CA_1A-46D, CA_2A-2A-12A-66A, CA_2A-2A-66A-66A, CA_2A-2A-66A-71A, CA_[2A]-2A-66C, CA_2A-[2A]-66C, CA_2A-2A-[66C], CA_2A-4A-7A-12A, CA_2A-12A-66A-66A, CA_2A-46A-46A-66A, CA_[2A]-46A-46C, CA_[2A]-46C-66A, CA_2A-46C-[66A], CA_[2A]-46D, CA_[2C]-66A-66A, CA_2C-[66A]-66A, CA_2C-66A-[66A], CA_3A-3A-7A-7A, CA_3A-3A-7A-8A, CA_3A-3A-7A-20A, CA_3A-3A-7A-28A, CA_3A-5A-7A-7A, CA_3A-7A-7A-8A, CA_3A-7C-20A, CA_3A-7C-28A, CA_3A-28A-40C, CA_3A-28A-42C, CA_3A-40D, CA_3A-46D, CA_3C-7A-20A, CA_3C-7A-28A, CA_3C-7C, CA_3C-40C, CA_[4A]-46A-46C, CA_[4A]-46D, CA_7A-46D, CA_28A-40D, CA_28A-46D, CA_40C-40C, CA_40C42C, CA_40E, CA_[41C]-42C, CA_42C-42C, CA_42E, CA_46A-46C-[66A], CA_46D-[66A], CA_48D-[66A], CA_48E

- 5CA DL carrier aggregation combinations:

```
CA_1A-3A-7C-28A, CA_1A-3C-7C, CA_1A-3C-40C, CA_2A-46A-46C-66A, CA_2A-46D-66A, CA_3A-28A-40D, CA_3C-7C-28A, CA_3A-40E
```

- 2CA UL carrier aggregation combinations:

CA_1A-7A, CA_1A-8A, CA_1A-28A, CA_3A-7A, CA_3A-8A, CA_3A-20A, CA_3A-28A, CA_4A-7A, CA_3C, CA_7C, CA_38C, CA_39C, CA_40C, CA_41C,CA_42C

- Fallback: WCDMA/DC-HSPA+ (42/5.76 Mbps): Bands 1, 2, 4, 5, 8, 9, 19
- Power: LTE $23 \mathrm{dBm} \pm 1$, DC-HSPA+ $23 \mathrm{dBm} \pm 1$
- Antennas: SMA \& RP-SMA male plugs, Maximum torque not to exceed 4 in-lbs
- GPS: Active GPS support
- SMS: SMS support
- Industry Standards \& Certs: FCC, IC, CE, PTCRB, GCF-CC, AT\&T, FirstNet Ready ${ }^{\text {™ }}$, Verizon Pending: (Singapore, Malaysia, South Africa)
- Requires modem doors that accommodate five antenna ports:
- BB-MC400-1200M-B modem includes CBA850 door \& 4 white antennas


## ARC CBA850-1200M LTE Advanced Pro/HSPA+ (Verizon, AT\&T, and FirstNet ${ }^{\text {TM }}$ only)

ARC CBA850-1200M models include an integrated LTE Advanced Pro Category 18 4G LTE modem. The 1200M modems support SIM-based auto-carrier selection for AT\&T/FirstNet ${ }^{\text {TM }}$ and Verizon. Simply insert the SIM and wait for the router to automatically detect the SIM and establish a connection.

- Technology: Category 18 LTE Advanced Pro, DC-HSPA+
— Downlink Rates: LTE 1.2 Gbps, DC-HSPA+ 42.2 Mbps*
- Uplink Rates: LTE 150 Mbps, DC-HSPA+ 5.76 Mbps*
- MIMO: $2 \times 2$ or $4 \times 4$ MIMO
- 256 QAM support
- Frequency Bands:
- LTE Bands
- LTE FDD: $2,4(66), 5,12,13,14,29,30$
- LTE TDD: 46, 48
- Carrier Aggregation: Up to 5CA. [ ] indicates $4 \times 4$ MIMO
- AT\&T: 2,4,5,12,14,29,30,66,46; 3G 2, 5
- 2CA DL carrier aggregation combinations:

CA_[2A]-[2A], CA_[2A]-[4A], CA_2A-5A, CA_2A-12A, CA_2A-14A, CA_2A29A, CA_2A-30A, CA_[2A]-46A, CA_ [2A]-[66A], CA_2C, CA_[4A]-[4A], CA_4A-5A, CA_4A-12A, CA_4A-29A, CA_4A-30A, CA_[4A]-46A, CA_5A30A, CA_5A-66A, CA_5B, CA_12A-30A, CA_12A-66A, CA_12B, CA_14A30A, CA_14A-66A, CA_29A-30A, CA_29A-66A, CA_30A-66A, CA_[66A][66A], CA_66B, CA_66C

- 3CA DL carrier aggregation combinations:

CA_2A-2A-5A, CA_[2A]-2A-12A, CA_2A-2A-14A, CA_2A-2A-30A, CA_2A2A-66A, CA_[2A]-4A-4A, CA_2A-[4A][4A], CA_[2A]-4A-5A, CA_2A-[4A]-5A, CA_[2A]-4A-12A, CA_2A-[4A]-12A, CA_2A-4A-30A, CA_2A-5A-30A, CA_ [2A]-5A-66A, CA_2A-5A-[66A], CA_2A-12A-30A, CA_[2A]-12A-66A, CA_2A-12A-[66A], CA_2A-14A-30A, CA_2A-

14A-66A, CA_2A-29A-30A, CA_2A-30A-66A, CA_2A-46C, CA_2A-66A-66A, CA_[4A]-4A-5A, CA_[4A]4A-12A, CA_4A-4A-30A, CA_4A-5A-30A, CA_4A-12A-30A, CA_4A-12B, CA_4A-29A-30A, CA_5A-30A-66A, CA_5A-66A66A, CA_5A-66C, CA_12A30A-66A, CA_12A-[66A]-66A, CA_14A-30A-66A, CA_14A-66A-66A, CA_29A-30A-66A, CA_29A-66A-66A, CA_30A-66A-66A

- 4CA DL carrier aggregation combinations:

$$
\begin{aligned}
& \text { CA_2A-2A-5A-30A, CA_2A-2A-5A-66A, CA_2A-2A-12A-30A, CA_2A-2A12A-66A, CA_2A-2A-14A-66A, CA_2A- } \\
& \text { 2A-29A-30A, CA_2A-2A-66A-66A, CA_2A-4A-4A-12A, CA_2A-4A-5A-30A, CA_2A-4A-12A-30A, CA_2A-5A30A- } \\
& \text { 66A, CA_2A-5A-66A-66A, CA_2A-5B-30A, CA_2A-5B-66A, CA_2A12A-30A-66A, CA_2A-12A-66A-66A, CA_2A- } \\
& \text { 14A-30A-66A, CA_2A-14A66A-66A, CA_2A-29A-30A-66A, CA_[2A]-46D, CA_[4A]-46D, CA_4A-4A12A-30A, } \\
& \text { CA_5A-30A-66A-66A, CA_5B-30A-66A, CA_5B-66A-66A, CA_12A-30A-66A-66A, CA_14A-30A-66A-66A, } \\
& \text { CA_29A-30A-66A-66A, CA_46D-[66A] }
\end{aligned}
$$

- 5CA DL carrier aggregation combinations:

CA_2A-2A-46D, CA_2A-5B-30A-66A, CA_2A-5B-66A-66A, CA_2A-46D66A, CA_5B-30A-66A-66A, CA_46D-66A66A

- 2CA UL carrier aggregation combinations:

```
CA_2A-12A, CA_2A-5A, CA_4A-12A, CA_5A-66A, CA_5B, CA_12A-66A
```

- Verizon: 2, 4, 5, 13, 66, 48; 3G (roaming): 1, 2, 4, 5, 8
- 2CA DL carrier aggregation combinations:

CA_[2A]-[2A], CA_[2A]-[4A], CA_[2A]-5A, CA_[2A]-13A, CA_[2A]-[66A], CA_[4A]-[4A], CA_[4A]-5A, CA_[4A]-13A, CA_5A- [66A], CA_5B, CA_13A[66A], CA_[66A]-[66A], CA_[66B], CA_[66C], CA_[2A]-48A, CA_13A-48A, CA_48A[66A]

- 3CA DL carrier aggregation combinations:

CA_[2A]-2A-5A, CA_[2A]-2A-13A, CA_[2A]-2A-66A, CA_2A-2A-[66A], CA_[2A]-4A-5A, CA_2A-[4A]-5A, CA_[2A]4A13A, CA_2A-[4A]-13A, CA_[2A]-5A-66A, CA_2A-5A-[66A], CA_[2A]-13A-66A, CA_2A-13A-[66A], CA_[2A]-66A-66A, CA_2A-[66A]-66A, CA_[2A]-[66B], CA_[2A]-[66C], CA_[4A]-4A-5A, CA_[4A]-4A-13A, CA_5A-[66A]-66A, CA_5A-[66B], CA_5A[66C], CA_13A-[66A]-66A, CA_13A-[66B], CA_13A-[66C], CA_[66A]-[66C], CA_[66D], CA_[2A]-48A-48A, CA_[2A]- 48A-66A, CA_2A-48A-[66A], CA_[2A]-48C, CA_13A-48A-48A, CA_13A-48A-[66A], CA_13A-48C, CA_48A-48A-[66A], CA_48A-[66A]66A, CA_48A-[66B], CA_48C-[66A]

- 4CA DL carrier aggregation combinations:

CA_2A-48A-48A-66A, CA_[2A]-48D, CA_13A-48A-48A-66A, CA_13A-48A-48C, CA_13A-48C-[66A], CA_13A-48D, CA_48A-48A-66A-66A, CA_48A-48A-[66B], CA_48A-48A-[66C], CA_48A-48C-[66A], CA_48D-[66A]

- 5CA DL carrier aggregation combinations:

```
CA_2A-48E, CA_13A-48A-48C-66A, CA_13A-48C-48C, CA_13A-48D-66A, CA_13A-48E, CA_48A-48C-66B, CA_48A48C-66C, CA_48C-48C-66A,CA_48E-66A
```

- 2CA UL carrier aggregation combinations:

```
CA_2A-13A, CA_4A-13A
```

- Fallback: WCDMA/DC-HSPA+ (42/5.76 Mbps): Bands 1, 2, 4, 5, 8
- Power: LTE $23 \mathrm{dBm} \pm 1, \mathrm{DC}-\mathrm{HSPA}+23 \mathrm{dBm} \pm 1$
- Antennas: SMA \& RP-SMA male plugs, maximum torque not to exceed 4 in-lbs
- GPS: Active GPS support
- SMS: SMS support
- Industry Standards \& Certs: FCC, PTCRB, AT\&T, Verizon.
- Modem Part \# MC400-1200M


## ARC CBA850LP6-NA, -EU

ARC CBA850 LP6 models include an integrated LTE Advanced Category 6 4G LTE modem. The LP6 modems support SIMbased 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.

- 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 1-5, 8
- Power: LTE: $23 \mathrm{dBm} \pm 1$; DC-HSPA+: $23 \mathrm{dBm} \pm 1$
- Antennas: Two SMA male
- GPS: Active GPS support
- SMS: SMS support
- Industry Standards \& Certs: CE, FCC, GCF-CC, IC, PTCRB, AT\&T, Sprint, Verizon
- Modem Part \# MC400LP6


## ARC CBA850LP5-AP

ARC CBA850 LP5 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.

- 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+ $5.76 \mathrm{Mbps}^{*}$
- 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: $23 \mathrm{dBm} \pm 1$; DC-HSPA+: $23 \mathrm{dBm} \pm 1$
- Antennas: Two SMA male (plug), maximum torque not to exceed 4 in-lbs
- GPS: Active GPS support
- SMS: SMS support
- Industry Standards \& Certs: CE, GCF-CC, RC Australia, others pending
- Modem Part \# MC400LP5


## ARC CBA850LP4

ARC CBA850 LP4 models include an embedded LTE Advanced Category 4 4G LTE modem. The LP4 modems support SIMbased auto-carrier selection so there is only one model for North America. Simply insert the SIM and wait for the router to automatically detect the SIM and establish a connection.

- Technology: Category 4 LTE, DC-HSPA+
- Downlink Rates: LTE 150 Mbps, DC-HSPA+ 42.2 Mbps
- Uplink Rates: LTE 50 Mbps, DC-HSPA+ 5.76 Mbps
- 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)
- DC-HSPA+/UMTS Rel. 9, Cat 24: Bands 5 and 2 ( $850 / 1900 \mathrm{MHz}$ )
- Power: LTE: $23 \mathrm{dBm} \pm$ 1; DC-HSPA+: $23 \mathrm{dBm} \pm 1$
- Antennas: Two SMA male (plug), maximum torque not to exceed 4 in-Ibs
- Industry Standards \& Certs: FCC, Verizon, AT\&T, PTCRB, carrier Private Networks, IC
- SIM: Two 2FF slots (secured)
- Modem Part \# MC400LP4


## Support \& Warranty

The CBA850 is only sold as a component of NetCloud 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 are under a NetCloud Service Plan.
*Theoretical
**To be enabled with a future modem software update.
FirstNet ${ }^{T M}$ and FirstNet Ready ${ }^{T M}$ are registered trademarks and service marks of the First Responder Network Authority, an independent authority within the U.S. Department of Commerce.


## Hardware

## Bottom View



Right View
CBA850-1200M-B shown


1200M-B models = 2 MAIN, 2 AUX LPx models $=1$ MAIN, 1 AUX

## Rear View



LEDs

| Indicator | Behavior |
| :---: | :---: |
| On Top of Router | Power The Cradlepoint CBA850 must be powered using an approved 12 V DC power source. <br> - Blue = Powered ON: 4G. <br> - Green = Powered ON: 3G. <br> - Amber = Attention. <br> - No Light = Not receiving power. Check the power switch and the power source connection. |
| 든 | Integrated Modem Indicates information about the integrated modem. <br> - Green = Modem has established an active connection. <br> - Blinking Green = Modem is connecting. <br> - Amber = Modem is not active. <br> - Blinking Amber = Data connection error. No modem connection possible. <br> - Blinking Red = Modem is in the process of resetting. |
| $\rightarrow$ | External USB Modem Indicates information about an attached USB modem. <br> - Green = Modem has established an active connection. <br> - Blinking Green $=$ Modem is connecting. <br> - Amber = Modem is not active. <br> - Blinking Amber = Data connection error. No modem connection possible. <br> - Blinking Red = Modem is in the process of resetting. |
| Yell | Signal Strength Blue LED bars indicate the active modem's signal strength. <br> - 4 Solid Bars $=$ Strongest signal. <br> - 1 Blinking Bar = Weakest signal. (A blinking bar indicates half of a bar.) |

