

Cradlepoint ARC CBA850 Specifications



Figure 1: Cradlepoint ARC CBA850

Key Features

- Cloud-managed for zero-touch deployment and intelligent management
- Out-of-Band Management
- Integrated Multi-Carrier Software-Defined Radio with 3G & 4G LTE, HSPA+ and EVDO modem
- Two 10/100/1000 Ethernet ports for simultaneous local management and IP Passthrough
- RJ45 serial console port for direct out-of-band management to connected devices
- Drop into existing network for a turnkey failover solution
- Remote management capabilities
- Power over Ethernet (PoE)
- IPv6 support

Features

WAN

- 4G LTE Multi-Carrier Software-Defined radio with 4G/3G/2G
- Advanced Modem Failure Check
- IP Passthrough

LAN

- VLAN 802.1Q

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

Management

- Cradlepoint Enterprise Cloud Manager¹
- Web UI, API, CLI
- Data Usage Alerts (router and per client)
- Advanced Troubleshooting (support)
- Device Alerts
- SNMP
- SMS control

1 – [Enterprise Cloud Manager](#) requires a subscription

Routing

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

Security

- RADIUS and TACACS+
 - 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
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Specifications

WAN

- Integrated 4G LTE Multi-Carrier Software-Defined Radio modem

LAN

- Two LAN 10/100/1000 Ethernet ports (default one NAT, one IP Passthrough)
- RJ45 Serial Port for console access or out-of-band management

PORTS AND BUTTONS

- 12V DC Power
- Two 10/100/1000 Ethernet LAN
- RJ45 Serial
- Two cellular antenna connectors (SMA)
- GPS antenna connector (SMA)
- Lock compatible
- External USB port for USB modem and/or firmware updates
- Cable Guide Slot
- Factory Reset

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 non-condensing
- 5% to 90% storage non-condensing

POWER

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

SIZE – 4.8 in x 4.8 in x 1.7 in (122 mm x 122 mm x 42 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

What's In The Box

- CBA850 with integrated MC400 Multi-Carrier Software-Defined Radio modem
- Universal 3G/4G/LTE antennas with dedicated active GPS antenna port
- 12VDC 1A power adapter (1.5 meter cord)
- Ethernet cable
- Quick Start Guide
- Mounting hardware
- Warranty and regulatory information

Feature Details

- **WAN Security** – NAT, SPI, ALG, inbound filtering of IP addresses, port blocking, service filtering (FTP, SMTP, HTTP, RPL, SNMP, DNS, ICMP, NNTP, POP3, SSH), protocol filtering, WAN ping (allow/ignore)
- **Intelligent Routing** – UPnP, DMZ, virtual server/port forwarding, routing rules, NAT-less routing, WAN-to-LAN IP passthrough, route management, content filtering, IP filtering, website filtering, per-client Web filtering, local DHCP server, DHCP client, DHCP relay, DNS, DNS proxy; ALGs: PPTP, SIP, TFTP, FTP, IRC; MAC address filtering, Dynamic DNS, LAN/WAN affinity, VLAN 802.1Q, IP setting overrides, IPv6 support
- **Management** – Enterprise Cloud Manager: cloud-enabled management and application platform (subscription-based); web-based GUI (local management), optional RADIUS or TACACS+ username/password; remote WAN web-based management w/ access control (HTTP, HTTPS); SNMP v1, v2c, & v3; CLI over SSH, SSH to serial, SSH to telnet; API; one-button firmware upgrade; modem configuration, update, and management; modem data usage w/ alerts, per-client data usage; custom AT scripting to modems
- **Performance & Health Monitoring** – Modem Health Management (MHM) improves connectivity of modem, WAN port speed control, several levels of basic and advanced logging for troubleshooting

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 – extend warranty to 2, 3, or 5 years

Accessories

- Universal 3G/4G multi-band cellular modem antenna (white) – 2dBi/3dBi (Part # 170659-000)
- Directional Patch antennas for external (outside) mounting (Part # 170587-000)
- Directional Yagi (Log-Periodic) antennas for external (outside) mounting (Part # 170588-000)
- Omni-directional antennas for external (outside) mounting (Part # 170586-000)
- 12" Mag-mount antenna (Part # 170605-000)
- 4" Mini mag-mount antenna (Part # 170606-000)
- 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 7ft (Part # 170663-000)
- RJ45 Rollover serial console cable 14ft (Part # 170663-001)

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.

Business-Grade Modem Specifications

ARC CBA850 models include an integrated 4G LTE modem – specific model names include a specific modem (e.g., the ARC CBA850LPE-VZ includes a Verizon LTE modem).

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.

ARC CBA850LPE-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-VZ
- **SIM:** two 2FF SIM slots

ARC CBA850LPE-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:** FCC, PTCRB, AT&T
- **Modem Part Number:** MC400LPE-AT
- **SIM:** two 2FF SIM slots

ARC CBA850LPE-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-SP
- **SIM:** two 2FF SIM slots

ARC CBA850LP3-EU – 4G LTE/HSPA+ for Europe

- **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-EU
- **SIM:** two 2FF SIM slots

ARC CBA850LPE-GN – 4G LTE/HSPA+/EVDO for Canada and T-Mobile in the U.S.

- **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:** FCC, IC, PTCRB
- **Modem Part Number:** MC400LPE-GN
- **SIM:** two 2FF SIM slots