



NetCloud Services for Mobile



# COR IBR1700 Spec Sheet



Shown: COR IBR1700-1200M-B

Cradlepoint COR IBR1700 mobile routers are sold as part of an all-inclusive mobile networking package.

**NetCloud Mobile Packages Include:**

- Ruggedized endpoints, purpose-built for mobile applications
- A NetCloud Service Plan tailored for mobile networking and set for a specific term
- 24x7 support and limited lifetime warranty

## What to Buy

Description	Part Numbers
<b>North America</b> (U.S., Canada)	
— NetCloud Mobile Essentials with IBR1700-1200M-B	MAx-1700120B-NNA
— NetCloud Mobile Essentials with IBR1700-1200M	MAx-17001200-NNA
— NetCloud Mobile Essentials with IBR1700-600M	MAx-1700600M-NNA
<b>Europe</b> (EU)	
— NetCloud Mobile Essentials with IBR1700-1200M-B-EU	MAx-1700120B-EWA
— NetCloud Mobile Essentials with IBR1700-600M-EU	MAx-1700600M-EWA
<b>Asia-Pacific</b>	
<i>Australia, New Zealand</i>	
— NetCloud Mobile Essentials with IBR1700-1200M-B-AP	MAx-1700120B-PAA
— NetCloud Mobile Essentials with IBR1700-600M-AP	MAx-1700600M-PWA
<i>Singapore, Malaysia</i>	
— NetCloud Mobile Essentials with IBR1700-1200M-B-AP	MAx-1700120B-PWA
— NetCloud Mobile Essentials with IBR1700-600M-AP	MAx-1700600M-PWA
<b>All Regions</b>	
— NetCloud Mobile Advanced Plan	MAx-NCADV

x = 1, 3, or 5 years

**NetCloud Mobile Essentials** packages and plans contain all the features and capabilities required for a broad range of mobile or in-vehicle 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 Mobile Advanced Plan** can be added to the NetCloud Mobile Essentials Package at any time.

See additional details of what is included in the Essential and Advanced NetCloud software: [cradlepoint.com/netcloud-manager](http://cradlepoint.com/netcloud-manager)

For more details on the COR IBR1700 mobile router, included with the NetCloud Mobile Packages, see below.

## What's in the Box

- Ruggedized, high-performance router with an embedded business-class, LTE modem featuring an integrated mounting plate
- 4-Wire Power/GPIO Cable (3-meters)
- Safety, Regulatory, and Warranty Guide

## Required Accessories

- 3G/4G LTE cellular antennas (qty. 2 or 4)
- 2.4/5GHz Dual-band WiFi antennas (qty. 6)
- An active (powered) GPS antenna

## Models

- COR IBR1700-1200M-B: LTE Advanced Pro 1.2 Gbps LTE/HSPA+ with SIM-based, auto-carrier selection
  - FirstNet® Ready (includes support for Band 14)
  - Supports Private LTE (includes support for CBRS Band 48)
  - Approved for use on the UK Emergency Services Network (ESN), including Critical Services
- COR IBR1700-1200M: LTE Advanced Pro 1.2 Gbps LTE/HSPA+ with SIM-based, auto-carrier selection for AT&T, FirstNet, and Verizon
  - FirstNet Ready (includes support for Band 14)
- COR IBR1700-600M: LTE Advanced 600 Mbps LTE/HSPA+ with SIM-based, auto-carrier selection for all North American, European, and Asia Pacific carriers (includes support for 700 MHz Band 28 in Asia Pacific)
  - FirstNet capable (does not support Band 14)

## Key Features

### WAN

- Dual-modem capable with MC400 modem slot for second modular modem
- WiFi-as-WAN, with WPA2 Enterprise Authentication for WiFi-as-WAN
- 3rd radio for dedicated back haul
- WiFi client mode
- Failover/Failback
- Load Balancing
- Advanced Modem Failure Check
- WAN Port Speed Control
- WAN/LAN Traffic Steering
- IP Passthrough
- Standby

- Multi-PDN
- Smart WAN Selection
- Serial PAD mode
- DynDNS
- AutoQoS
- QoS (DSCP and Priority Queuing)

## LAN

- VLAN 802.1Q
- DHCP Server, Client, Relay
- DNS and DNS Proxy
- DMZ
- Multicast/Multicast Proxy
- MAC Address Filtering
- STP<sup>2</sup>
- GPS broadcast to LAN

## WiFi

- Dual-Band, Simultaneous Tri Band 2x2 2.4GHz + 2x2 5GHz + 4x4 5GHz WiFi
- 802.11 a/b/g/n/ac wave 2 MU-MIMO and 256 QAM support
- Up to 192 connected devices (64 per radio – one @ 2.4 GHz and two @ 5 GHz)
- Multiple SSIDs: 2 per radio (6 total)
- WPA2 Enterprise (WiFi)
- Hotspot/Captive Portal
- SSID-based Priority
- Client Mode for faster data offload

## Management

- Cradlepoint NetCloud Manager
  - Secure remote cloud configuration
  - Real-time diagnostics/troubleshooting
  - Remote connect / Out-of-Band Management
  - Geoview location services
  - Pool data alerts
- Client and Traffic Visibility and Control
- Web UI, API, CLI
- Active GPS support
- Data usage alerts

- Advanced troubleshooting (support)
- Device alerts
- SDK support
- SNMP
- SMS control
- Serial redirector
- Auto APN Recovery
- Syslog

## VPN & Routing

- IPsec Tunnel – up to ten concurrent sessions
- IKEv2 support (includes MOBIKE)
- L2TP
- GRE Tunnel
- OSPF/BGP/RIP
- Route Filters (Access Control Lists, Prefix Filters, Route Maps, Communities for BGP)
- Per-Interface Routing
- Policy-based Routing
- NAT
- NAT-less Routing
- Traffic Steering
- Virtual Server/Port Forwarding
- NEMO/DMNR
- IPv6
- VRRP
- NHRP
- VTI Tunnel support
- OpenVPN support

## Security

- NetCloud Perimeter compatible
- RADIUS and TACACS+ support\*
- 802.1x authentication for Ethernet\*\*
- Zscaler Internet Security Compatible
- Certificate support
- Application-level gateways
- MAC Address Filtering
- Advanced Security Mode (local user management only)

- FIPS 140-2 Inside version available
- Application-aware firewall
- IP Filtering
- Content Filtering
- Zone-based Object Firewall with host address (IP or FQDN), port, and MAC address

## IoT Connector

- NetCloud Edge Connector for Microsoft® Azure IoT Central

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

\*\* 802.1x Authentication for Ethernet not available for FIPS SKUs.

## Specifications

The following features are delivered through the hardware.

### WAN:

- Dual-modem capable with MC400 modular modem slot
- Embedded 1200M LTE Advanced Pro 1.2 Gbps modem (with DC-HSPA+ failover)
- Embedded 600M LTE Advanced 600 Mbps modem (with DC-HSPA+ failover)
- Five LAN/WAN switchable 10/100/1000 ethernet ports – one default WAN (cable/DSL/T1/satellite/Metro Ethernet)
- WiFi-as-WAN, Metro WiFi; 2x2 MIMO “N” 2.4 GHz or 4x4 5 GHz; 802.11 a/b/g/n/ac wave 2

### LAN:

- Simultaneous Tri-Band WiFi: 802.11 a/b/g/n/ac wave 2
- Five LAN/WAN switchable 10/100/1000 Ethernet ports – four default LAN
- Serial console support for out-of-band management of a connected device

### Ports:

- Power + GPIO (1 input / ignition sense input, 1 output)
- 20-pin power + GPIO port:
  - Alternate DC power input
  - Two analog inputs
  - One input / ignition sense input
  - Four configurable input/output
  - One low current 5V output (50mA max)
- USB 2.0
- Five Ethernet LAN/WAN
- Two cellular antenna connectors (SMA)
- One active GPS antenna connector (SMA)
- Six WiFi antenna connectors (R-SMA)

- Serial DE-9 (commonly called “DB-9”) connector—RS-232 (out-of-band management of an external device requires a null modem adapter/cable)

**Temperature:**

- -30 °C to 70 °C (-22 °F to 158 °F) operating
- -40 °C to 85 °C (-40 °F to 185 °F) storage

**Humidity (non-condensing):**

- 5% to 95% operating
- 5% to 95% storage

**Power:**

- DC input steady state voltage range: 9–36VDC (requires 3A inline fuse for vehicle installations)
- Reverse polarity and transient voltage protection per ISO 7637-2
- Ignition sensing (automatic ON and time-delay OFF)
- Power consumption:
  - Conditions: 12V input, room temperature
  - Sleep: 10 mW
  - Idle: 8 W
  - Typical: 14 W
  - Heavy Usage: 24 W
- Analog to Digital Converter:
  - Port 1: Selectable 0.5–36 V or 0.1–5 V ranges
  - Port 2: 0.5–36 V range
  - Accuracy: Typical  $\pm 0.5\%$ , Maximum  $\pm 1\%$
  - Configurable low and high voltage alerts
  - Low voltage router shutoff

**WiFi Power (FCC):**

- 2402–2483.5 MHz (2.4 GHz band): 29.2 dBm conducted
- 5150–5250 MHz (5 GHz band 1): 29.0 dBm conducted
- 5725–5850 MHz (5 GHz band 3): 30.0 dBm conducted

**WiFi Power (Australia/New Zealand):**

- Radio 1 (2x2):
  - 2.4 GHz: 33.4 dBm EIRP
  - 5150-5250 MHz: 22.9 dBm EIRP
  - 5250-5350 MHz: 22.9 dBm EIRP
  - 5475-5725 MHz: 29.8 dBm EIRP
  - 5725-5850 MHz: 35.8 dBm EIRP
- Radio 2 (4x4)
  - 5150-5250 MHz: 22.9 dBm EIRP

- 5250-5350 MHz: 22.9 dBm EIRP
- 5475-5725 MHz: 29.8 dBm EIRP
- 5725-5850 MHz: 35.8 dBm EIRP

**WiFi Power (Europe/Rest of World):**

- 2.4 GHz band: 19.81 dBm EIRP
- 5150-5250 MHz: 22.80 dBm EIRP

**Size:** 8.8 × 7.5 × 1.7 in (224.3 × 190 × 44 mm)

**Weight:** 3 lb 7 oz (1.7 kg)

**Material:** Metal

**Certifications:**

- WiFi Alliance – 802.11a/b/g/n/ac wave 2 certified
- Safety: UL/CUL, CB Scheme, EN60950-1
- Shock/Vibration/Humidity: compliant with MIL STD 810G and SAEJ1455
- Ingress Protection: compliant with IP64 (includes protection from dust and splashing water)
- Materials: WEEE, RoHS, RoHS-2, California Prop 65
- Telecom: PTCRB/CTIA, GCF-CC
- Regulatory Models: S5A803A, S5A804A, S5A808A, S5A809A, S5A844A
- FIPS 140-2 Inside

**GPS:**

- GPS Protocols: NMEA 0183 V3.1
- Satellite channels: Maximum 48 channels, simultaneous tracking
- Concurrent standalone GPS, GLONASS, BeiDou, and Galileo
- 1 Hz refresh rate
- Accuracy:
  - Horizontal: < 1.7 m (50%)
  - Velocity: < 0.1 m/s
- Acquisition (measured with signal strength = -130 dBm):
  - Hot start: < 1.3 seconds
  - Warm start: < 31 seconds
  - Cold start: < 32 seconds
- Sensitivity
  - Tracking: -163 dBm (tracking sensitivity is the lowest GNSS signal level for which the device can still detect an in-view satellite 50% of the time when in sequential tracking mode)
  - Acquisition (standalone): -147 dBm (acquisition sensitivity is the lowest GNSS signal level for which the device can still detect an in-view satellite 50% of the time)
- Operational limits: altitude <18000 m and velocity <515 m/s



## Performance

- Max Throughput (Default Configuration\*): 950 Mbps
- Max Concurrent TCP Sessions: 32,000
- Recommended Max Client Count: 30\*

Performance testing based off requirements defined in RFC2544, using a mix of 64-, 256-, and 1500-byte packet sizes. Throughput is shown as bi-directional, TCP traffic with less than a 1% packet loss using four wired clients.

Specifications and information in this datasheet are subject to change without notice.

\* Cradlepoint defines client as any network connected device utilizing resources, such as bandwidth, on the local network.

\*\* Default configuration shipped with hardware including NAT and basic stateful/zone firewall configuration.

## Accessories

Cradlepoint offers several accessory options for extensibility, power, and antennas:

### Second Integrated LTE Modem with MC400:

- MC400-1200M-B
- MC400-1200M
- MC400LP6 (North America or EU)
- MC400LP5 (Asia Pacific or Saudi Arabia)
- MC400LP4 (AT&T, Verizon, T-Mobile and Canada)

### Power & Mounting:

- Two-meter locking power and GPIO cable (direct wire), Part # 170585-000
- COR extended temperature (-30C to 70C) power supply (line cord not included), Part # 170648-001
  - US line cord, Part # 170623-001
  - EU line cord, Part # 170623-002
  - UK line cord, Part # 170623-003
  - AU line cord, Part # 170623-004
- IBR1700 Rack-Mount Brackets, Part # 170750-000

### Adapters:

- 2x10 GPIO, Part # 170712-000
- OBD-II Adapter Kit, Part # 170758-000

### Antennas – 3G/4G Modem, WiFi & GPS:

- 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
- Universal LTE/4G/3G / 2dBi/3dBi antenna with SMA connector for all AER, ARC, COR, and MC400 products, Part # 170704-001

**Vehicle Antennas:**

- 3-in-1 GPS & Modem Screw-Mount, Part # 170653-000
- 3-in-1 Adhesive-Mount Antenna, Part # 170653-001
- 5-in-1 GPS, Modem & WiFi Screw-mount, Part # 170654-000
- Low Profile 5-in-1 MIMO LTE, MIMO WiFi (2.4/5 GHz), & GPS Screw Mount Antenna with 5M Cables, Part # 170654-001
- 9-in-1 Dome GPS, Modem & WiFi Screw-mount, Part # CP-1019-1-PAN - Black, CP-1020-1-PAN, White
- Cradlepoint Certified Antennas for Mobile

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

**COR IBR1700-1200M-B**

- IBR1700-1200M-B LTE Advanced Pro/HSPA+
- Technology: Category 18 LTE Advanced Pro, DC-HSPA+ with SIM-based, auto-carrier selection
- Downlink Rates: LTE 1.2 Gbps, DC-HSPA+ 42.2 Mbps\*
- Uplink Rates: LTE 150 Mbps, DC-HSPA+ 5.76 Mbps\*
- MIMO: 2x2 or 4x4 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 4x4MIMO, [4(66)] for 4x4 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 4x4 MIMO
  - AT&T:
    - 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-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-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-66A-71A, 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 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 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-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-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-66A-71A, 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 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\_1A-28A, 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\_7A-20A, 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\_40A-40A, 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]-2A-12A, 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]-12A-66A, 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-3A-7A, 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-7A-20A, 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\_40C-42C, 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 dBm ± 1, DC-HSPA+ 23 dBm ± 1
- Antennas: SMA & RP-SMA male plugs, torque not to exceed 4 in-lbs
- GPS: Active GPS support
- SMS: SMS support
- Industry Standards & Certs: FCC (includes Part 96), IC, CE, PTCRB, GCF-CC, ESN, AT&T, FirstNet Ready, Verizon, Pending: (South Africa)

## **COR IBR1700-1200M**

COR IBR1700-1200M models include an embedded LTE Advanced Pro 1.2 Gbps 4G LTE modem. The 1200M modems supports SIM-based, auto-carrier selection for AT&T, FirstNet, 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: 2x2 or 4x4 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 4x4 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-66A-66A, 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:  
 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-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-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-14A-30A-66A,  
 CA\_2A-14A66A-66A, CA\_2A-29A-30A-66A, CA\_[2A]-46D, CA\_[4A]-46D, CA\_4A-4A12A-30A, CA\_5A-30A-66A-66A,  
 CA\_5B-30A-66A, CA\_5B-66A-66A, CA\_12A-30A-66A-66A, , CA\_14A-30A-66A-66A, CA\_29A-30A-66A-66A, CA\_46D-  
 [66A]
- 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-66A-66A
- 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]-4A-  
 13A, 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\_48A-  
 48C-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 dBm ± 1, DC-HSPA+ 23 dBm ± 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, FirstNet, Verizon.

**COR IBR1700-600M**

COR IBR1700-600M 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.

- Technology: Category 11 LTE Advanced, HSPA+
- Downlink Rates: LTE 600 Mbps, HSPA+ 42.2 Mbps\*
- Uplink Rates: LTE 75 Mbps, 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, HSPA+ 23 dBm ± 1
- Antennas: SMA & RP-SMA male plugs, torque not to exceed 4 in-lbs
- GPS: Active GPS support
- SMS: SMS support
- Industry Standards & Certs: CE, FCC, GCF-CC, IC, PTCRB, AT&T, Sprint, Verizon, Verizon NEMO/DMNR for Primary Wireless Access

\* Theoretical

\*\* To be enabled with a future modem software update.

FirstNet™ and FirstNet Ready™ are registered trademarks and service marks of the First Responder Network Authority, an independent authority within the U.S. Department of Commerce.



## Support & Warranty

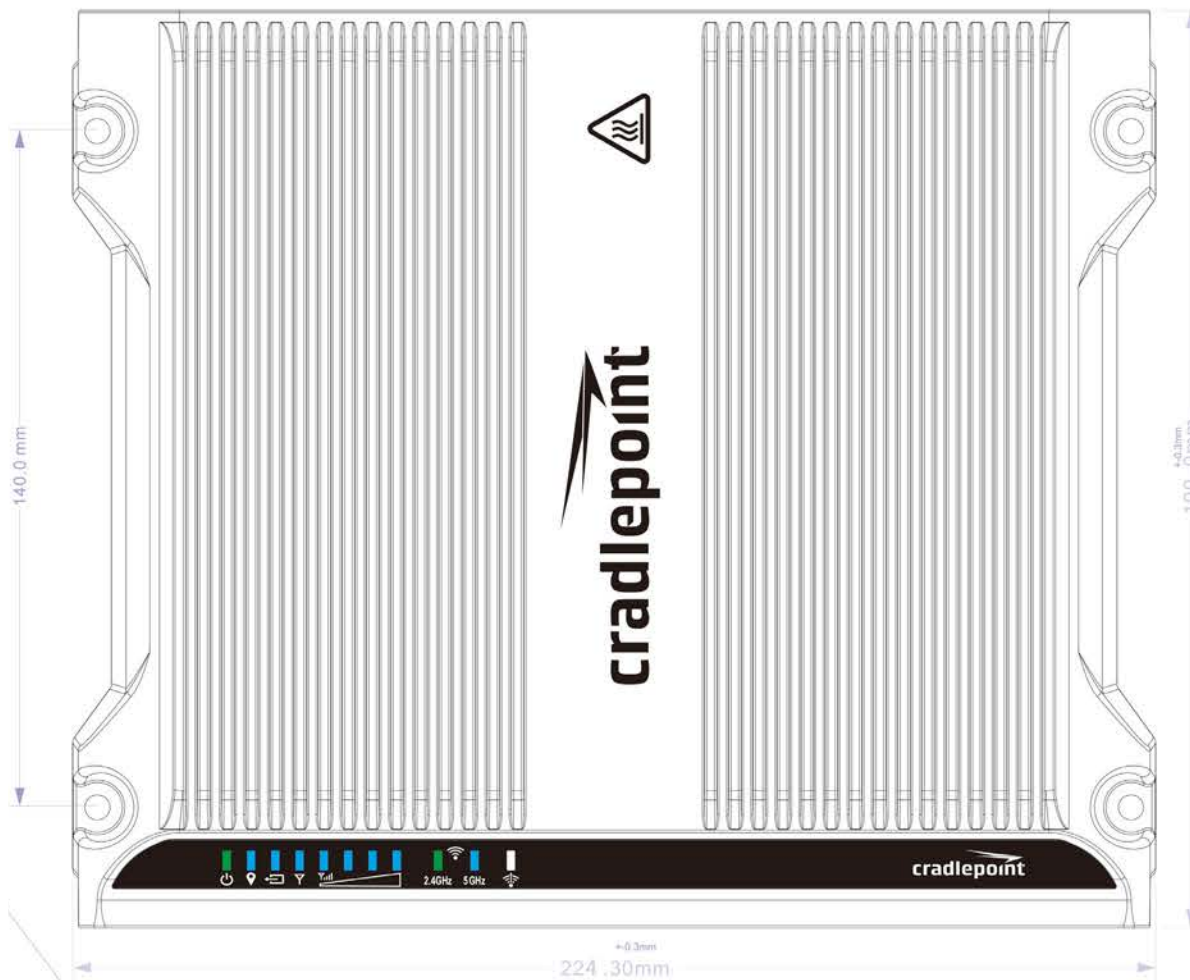
The COR IBR1700 is only sold as a component of NetCloud Packages.

- 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 have a subscription license to an active NetCloud Service Plan.

FirstNet and FirstNet Ready are registered trademarks and service marks of the First Responder Network Authority, an independent authority within the U.S. Department of Commerce.

## Hardware

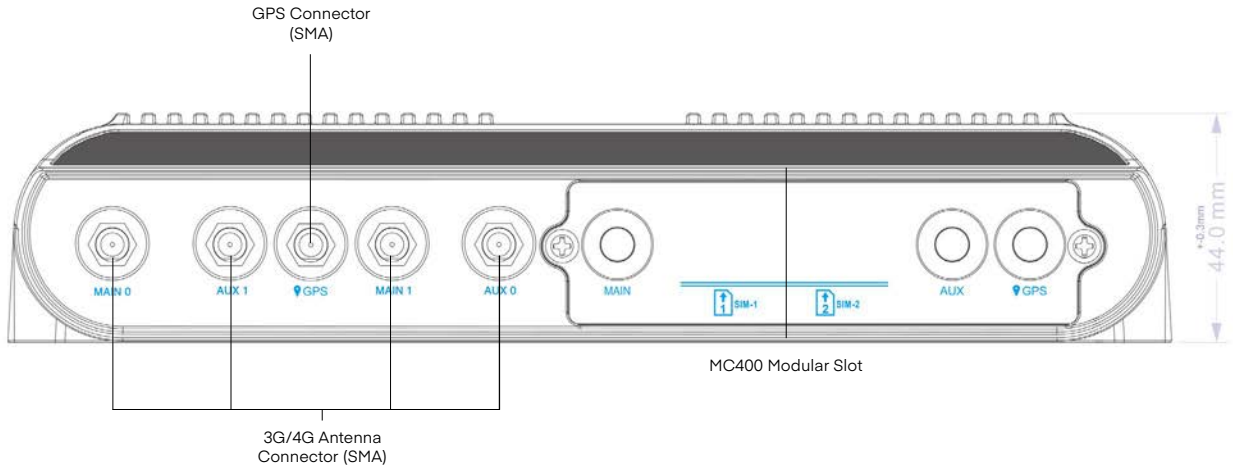
Top



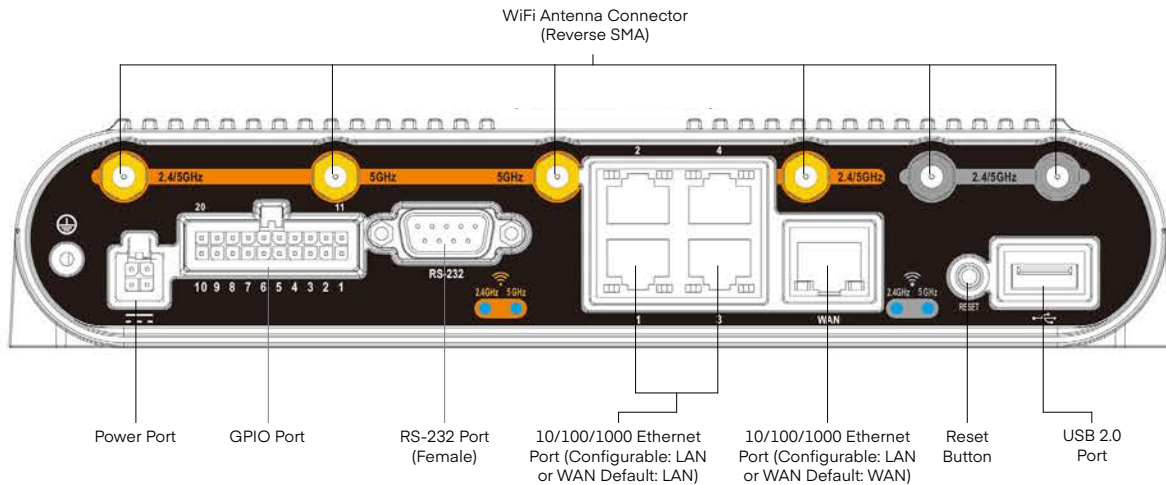
## Front

(COR IBR1700-1200M-B shown)

1200M-B model = 2 MAIN, 2 AUX  
600M model = 1 MAIN, 1 AUX









## Back



### IBR1700 2x10 Connector

PIN	Bottom Row	6	GPIO1
1	Router Voltage Input	7	GPIO2
2	Router Voltage Input	8	GPIO3
3	ADC Channel 1	9	GPIO4
4	ADC Channel 2	10	Low Current 5V Output (50mA max)
5	GPI / Ignition Sense	11-20	GND Top Row

## LEDs

Indicator	Behavior
	<p><b>Power:</b> The Cradlepoint IBR1700 must be powered using an approved 9–36 V DC power source.</p> <ul style="list-style-type: none"> <li>— Green = Powered ON.</li> <li>— Yellow = Attention is required.</li> <li>— No Light = Not receiving power. Check the power source connection.</li> </ul>
	<p><b>GPS:</b> Indicates the status of GPS connection.</p> <ul style="list-style-type: none"> <li>— Blue = GPS locked.</li> <li>— Blinking Blue = Obtaining lock.</li> <li>— No Light = Off/no lock.</li> </ul>
	<p><b>MC400 Modem:</b> Indicates information about the optional MC400 modem.</p> <ul style="list-style-type: none"> <li>— Green = Modem has established an active connection.</li> <li>— Blinking Green = Modem is connecting.</li> <li>— Amber = Modem is not active.</li> <li>— Blinking Amber = Data connection error. No modem connection possible.</li> <li>— Blinking Red = Modem is in the process of resetting.</li> <li>— No Light = Modem not connected.</li> </ul>
	<p><b>Integrated Modem:</b> Indicates information about the integrated modem.</p> <ul style="list-style-type: none"> <li>— Green = Modem has established an active connection.</li> <li>— Blinking Green = Modem is connecting.</li> <li>— Amber = Modem is not active.</li> <li>— Blinking Amber = Data connection error. No modem connection possible.</li> <li>— Blinking Red = Modem is in the process of resetting.</li> <li>— Blinking Red with Signal Strength LEDs = SIM door is not installed, modem is off.</li> <li>— No Light = Modem not connected.</li> </ul>
	<p><b>Signal Strength:</b> Blue LED bars indicate the active modem’s signal strength.</p> <ul style="list-style-type: none"> <li>— 4 Solid Bars = Strongest signal.</li> <li>— 1 Blinking Bar = Weakest signal. (A blinking bar indicates half of a bar.)</li> <li>— 4 Blinking Bars = SIM door is not installed, modem is off</li> </ul>
<p><b>2.4GHz 5GHz</b></p>	<p><b>WiFi Status</b> Indicates information about WiFi channels.</p> <ul style="list-style-type: none"> <li>— 2.4 GHz Green = Activity on 2.4 GHz WiFi band.</li> <li>— 5 GHz Blue = Activity on 5 GHz WiFi band.</li> </ul>
	<p><b>WiFi as WAN:</b> Indicates WiFi as WAN status.</p> <ul style="list-style-type: none"> <li>— White = WiFi as WAN active.</li> </ul>
<p><b>Other</b></p>	<p><b>Additional LED Indications:</b></p> <ul style="list-style-type: none"> <li>— Several different LEDs blink when the factory reset button is detected.</li> <li>— Two of the modem LEDs blink red in unison for 10 seconds when there is an error during NCOS upgrade.</li> <li>— When an external USB modem is plugged in, only the Signal Strength LEDs will light up.</li> </ul>