



NetCloud Services for IoT



# COR IBR200 Spec Sheet



Cradlepoint COR IBR200 IoT routers are sold as part of an all-inclusive IoT networking package.

**NetCloud IoT Gateway Essentials Packages include:**

- Compact endpoints, purpose-built for IoT and M2M applications
- A NetCloud Service Plan tailored for branch 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 IoT Gateway Essentials with IBR200-10M for VZ	TAX-020010M-VNN
— NetCloud IoT Gateway Essentials with IBR200-10M for AT & GN	TAX-020010M-ANN
— NetCloud IoT Gateway Essentials with IBR200-10M for SP	TAX-020010M-SNN
<b>Europe &amp; South Africa</b>	
— NetCloud IoT Gateway Essentials with IBR200-10M for EU	TAX-020010M-EWM
<b>Asia-Pacific</b> (Australia, New Zealand, Singapore & Malasia)	
— NetCloud IoT Gateway Essentials with IBR200-10M for AP	TAX-020010M-PWM
<b>All Regions</b>	
— NetCloud IoT Advanced Plan	TAX-NCADV

*x = 1, 3, or 5 years*

**NetCloud IoT Gateway Essentials** packages and plans contain all the features and capabilities required for a broad range of IoT applications. IoT 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 IoT Advanced Plan** can be added to the NetCloud IoT Essentials Package at any time.

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

For more details on the COR IBR200 IoT router, included with the NetCloud IoT Packages, see below.

## What’s in the Box

- IBR200 M2M router with embedded Cat 1 LTE modem; includes integrated mounting holes
- 12VDC 1A power supply adapter, 100-240VAC input (2-meter cord)
- Two (2) LTE modem antennas
- One (1) WiFi antenna
- Safety, Regulatory, and Warranty Guide

## Key Features

### WAN

- Cat 1 LTE
- Advanced Modem Failure Check
- Failover/Failback
- Standby
- WiFi as WAN
- IP Passthrough

### LAN

- VLAN 802.1Q
- DHCP Server, Client, Relay
- DNS and DNS Proxy
- STP
- Multicast/Multicast Proxy

### WiFi

- 802.11 1x1 b/g/n 2.4 GHz
- Up to 16 connected devices
- 2 SSIDs
- WPA2 Enterprise
- DynDNS
- AutoQoS
- QoS (DSCP and Priority Queuing)

### Management

- Cradlepoint NetCloud Manager
- Web UI, API, CLI
- Data Usage Alerts (router and per client)
- Advanced Troubleshooting (support)
- Device Alerts
- SNMP
- SMS control
- Remote Connect / OOBM
- Client Visibility Control
- Pool data alerts
- SDK support

## VPN & Routing

- IPsec Tunnel – up to two concurrent sessions
- IKEv2 support (includes MOBIKE)
- GRE Tunnel
- Traffic Steering
- NAT-less Routing
- Virtual Server/Port Forwarding
- IPv6

## Security

- NetCloud Edge Connector for Microsoft® Azure IoT Central
- RADIUS and TACACS+ support\*
- 802.1x authentication for ethernet
- Certificate support
- ALGs
- MAC address filtering
- Advanced security mode (local user management only)
- Per-client web filtering
- IP filtering
- Content filtering (basic)
- Website filtering
- Zone-based object firewall with host address (IP or FQDN), port, and mac address
- NetCloud Perimeter compatible

## IoT Connector

- NetCloud Edge Connector for Microsoft® Azure IoT Central

*\*-Native support for authentication only. Authorization and accounting not available.*

## Specifications

The following features are delivered through the hardware.

### WAN:

- Cat 1 LTE modem (10/5 Mbps DL/UL)
- One SIM slot

**LAN:** One LAN 10/100 ethernet port

### PORTS:

- Power w/2-wire GPIO (one input, one output)
- One ethernet LAN
- Two LTE cellular antenna connectors (SMA)
- One USB 2.0 Type-A
- One WiFi connector (RP-SMA)

**TEMPERATURE:** -20° C to 60° C (-4° F to 140° F) operating

### HUMIDITY (non-condensing):

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

### POWER:

- Power input: 12VDC 1A
- Power consumption:
  - Conditions: 12V input, room temperature
  - Idle: 2.7W (1.8W w/WiFi off)
  - Typical: 3.6 W (2.8W w/WiFi off)
  - Heavy Usage: 5.8 W

### WIFI POWER (FCC):

- IBR200-10M-VZ, IBR200-10M-B-AT, IBR200-10M-C-SP
- 2402–2483.5 MHz (2.4 GHz band): 25.3 dBm conducted
- IBR200-10M-D-EU, IBR200-10M-E-AP
- 2402–2483.5 MHz (2.4 GHz band): 14.99 dBm conducted

**SIZE:** 3.0 × 3.7 × 1.0 in (76.5 × 94.5 × 24.5 mm)

**WEIGHT:** 6 oz (175 g)

### CERTIFICATIONS:

- PTCRB, FCC, IC, Carrier
- Safety: UL/CUL
- Materials: WEEE, RoHS, RoHS-2, California Prop 65

## Accessories

- 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)
- Barrel to 4-pin power adapter (Part # 170665-000)
- Replacement mini cellular antenna (Part # 170704-002)

See the [Cradlepoint Certified Antennas for Fixed Sites](#) for more information about antennas. Also see the [Antenna Ordering and Installation Guide](#), also available in the Resources section of antenna and router product pages.

## Enterprise-Class Modem Specifications

COR IBR200 models include a Cat 1 LTE modem – specific model names include a specific modem (e.g., the COR IBR200-10M-VZ includes a Verizon Cat 1 LTE modem).

### **COR IBR200-10M-VZ – Cat 1 LTE for Verizon**

- Technology: LTE
- Downlink Rates: LTE 10 Mbps (theoretical)
- Uplink Rates: LTE 5 Mbps (theoretical)
- Frequency Bands:
  - LTE: Band 4 – AWS (1700/2100 MHz), Band 13 (700 MHz)
- Power: LTE 23 dBm ± 1 (typical conducted)
- Antennas: SMA & RP-SMA male plugs, torque not to exceed 4 in-lbs
- Industry Standards & Certs: FCC, UL, Verizon
- SIM: One 2FF slot
- GPS: Passive, muxed on aux LTE port

### **COR IBR200-10M-C-SP – Cat 1 LTE for Sprint**

- Technology: LTE
- Downlink Rates: LTE 10 Mbps (theoretical)
- Uplink Rates: LTE 5 Mbps (theoretical)
- Frequency Bands:
  - LTE: 2/25, 4, 5/26, 12
- Power: LTE 23 dBm ± 1 (typical conducted)
- Antennas: SMA & RP-SMA male plugs, maximum torque not to exceed 4 in-lbs

- Industry Standards & Certs: FCC, UL, Sprint
- SIM: One 2FF slot
- GPS: No GPS support

**COR IBR200-10M-B-AT – Cat 1 LTE for AT&T, T-Mobile, Canada (Bell, Rogers, TELUS)**

- Technology: LTE, HSPA+
- Downlink Rates: LTE 10 Mbps, HSPA+ 42 Mbps (theoretical)
- Uplink Rates: LTE 5 Mbps, HSPA+ 5.76 Mbps (theoretical)
- Frequency Bands:
  - LTE: Band 2 (1900 MHz), Band 4 – AWS (1700/2100 MHz), Band 5 (850 MHz), Band 12 (700 MHz)
  - HSPA+/UMTS (Fallback): (850/1700/1900/2100 MHz, AWS)
- Power: LTE 23 dBm  $\pm$  1; HSPA+ 23 dBm  $\pm$  1 (typical conducted)
- Antennas: SMA & RP-SMA male plugs, maximum torque not to exceed 4 in-lbs
- Industry Standards & Certs: PTCRB, FCC, IC, UL, AT&T
- SIM: One 2FF slot
- GPS: Passive, muxed on aux LTE port

**COR IBR200-10M-D-EU – Cat 1 LTE for Europe and South Africa**

- Technology: LTE, HSPA+
- Downlink Rates: LTE 10 Mbps, HSPA+ 42 Mbps (theoretical)
- Uplink Rates: LTE 5 Mbps, HSPA+ 5.76 Mbps (theoretical)
- Frequency Bands:
  - LTE: Band 1 (2100 MHz), Band 3 (1800 MHz), Band 5 (850 MHz), Band 7 (2600 MHz), Band 8 (900 MHz), B20 (800MHz)
  - HSPA+/UMTS (Fallback): Band 1(2100 MHz), Band 5 (850 MHz), Band 8 (900 MHz)
  - GSM: Band 3 (1800 MHz), Band 8 (900 MHz)
- Power: LTE 23 dBm  $\pm$  1; HSPA+ 23 dBm  $\pm$  1; GSM 850 MHz 33dBm $\pm$ 2dB; GSM 1800 MHz 30dBm $\pm$ 2dB (typical conducted)
- Antennas: SMA & RP-SMA male plugs, maximum torque not to exceed 4 in-lbs
- Industry Standards & Certs: CE, GCF-CC, others pending
- SIM: One 2FF slot
- GPS: No GPS support

**COR IBR200-10M-E-AP – Cat 1 LTE for Asia Pacific**

- Technology: LTE, HSPA+
- Downlink Rates: LTE 10 Mbps, HSPA+ 42 Mbps (theoretical)
- Uplink Rates: LTE 5 Mbps, HSPA+ 5.76 Mbps (theoretical)
- Frequency Bands:
  - LTE: Band 1 (2100 MHz), Band 3 (1800 MHz), Band 5 (850 MHz), Band 7 (2600 MHz), Band 28 (700 MHz)
  - HSPA+/UMTS (Fallback): Band 1(2100 MHz), Band 5 (850 MHz)
- Power: LTE 23 dBm ± 1; HSPA+ 23 dBm ± 1 (typical conducted)
- Antennas: SMA & RP-SMA male plugs, maximum torque not to exceed 4 in-lbs
- Industry Standards & Certs: RC Australia, others pending
- SIM: One 2FF slot
- GPS: No GPS support

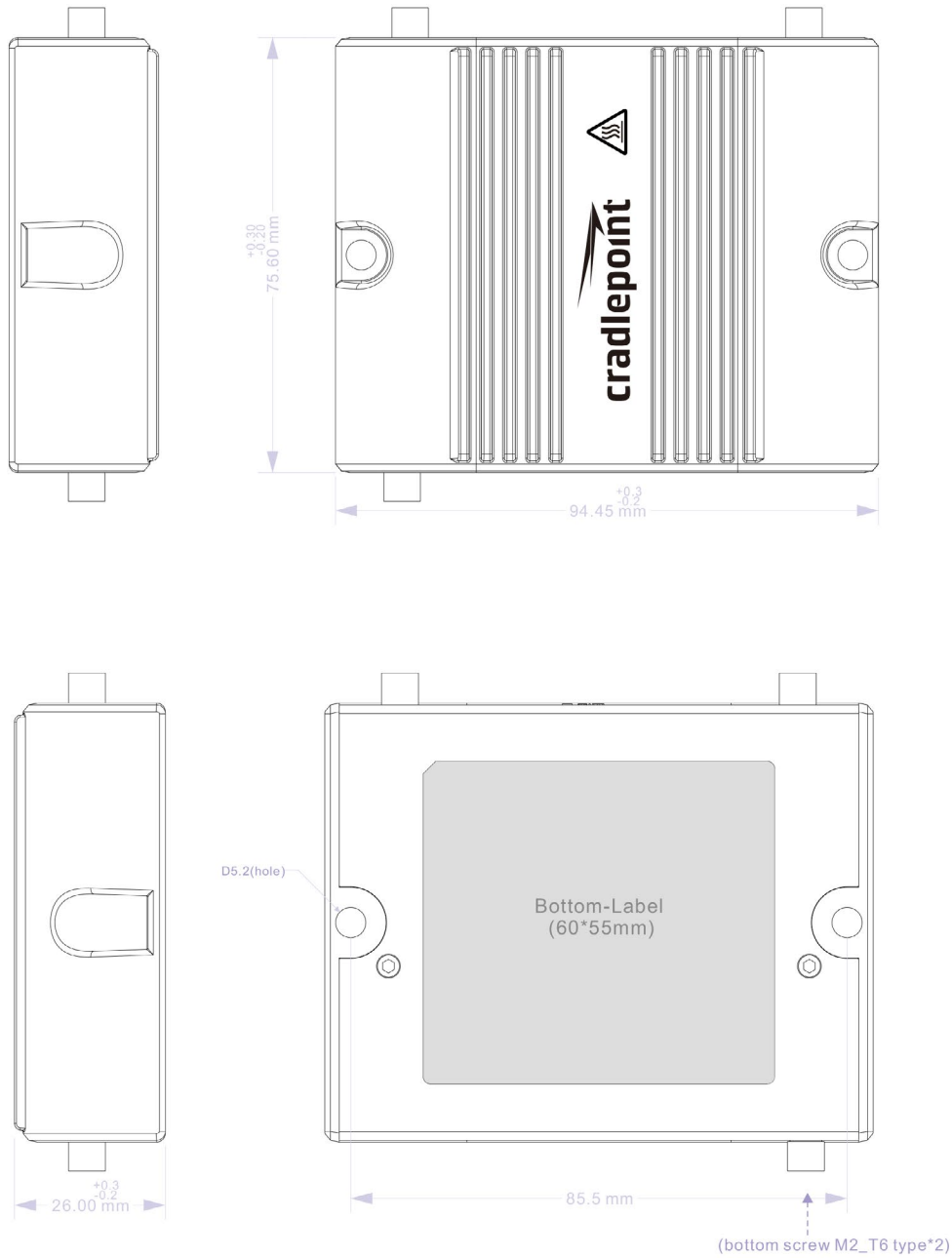
## Support & Warranty

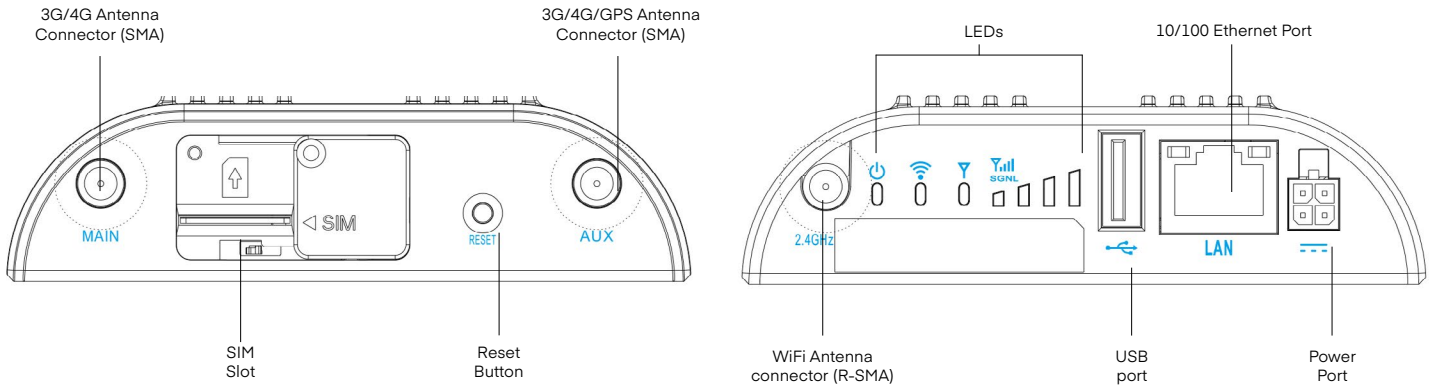
The COR IBR200 is only sold as a component of NetCloud Packages.

- 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.



# Hardware





## LEDs

Indicator	Behavior
	<p><b>Power:</b></p> <ul style="list-style-type: none"> <li>Green = Powered ON</li> <li>No Light = Not receiving power. Check the power source connection</li> </ul>
	<p><b>WiFi Broadcast:</b> Indicates WiFi activity</p> <ul style="list-style-type: none"> <li>Green = On and operating normally</li> <li>Yellow = Attention</li> </ul>
	<p><b>Integrated Modem:</b> Indicates information about the integrated modem</p> <ul style="list-style-type: none"> <li>Green = Established cellular connection on modem</li> <li>Blinking Green = modem activity</li> <li>Blinking Amber = Cellular data connection error</li> <li>Blinking Red = Modem is being reset. Also used to indicate additional conditions as listed in "Additional LED indications" section. With SIGNAL STRENGTH means the SIM door is open and the modem is powered off.</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 open and the modem is powered off</li> </ul>
<b>Other</b>	<p><b>Additional LED Indications:</b></p> <ul style="list-style-type: none"> <li>Modem LED blinks amber twice when the factory reset button is detected.</li> <li>Modem LEDs blink red when there is an error during NCOS upgrade.</li> </ul>