



NetCloud Services for IoT



COR IBR600B Series Spec Sheet



Cradlepoint COR IBR600C Series IoT routers are sold as part of an all-inclusive IoT networking package.

NetCloud Packages for IoT include:

- Compact routers, 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
North America (U.S., Canada)	
— NetCloud Essentials for IoT Routers (Standard) with IBR600B-LP4	TAx-600BLP4-NNN
— NetCloud Essentials for IoT Routers (Standard) with IBR650B-LP4	TAx-650BLP4-N0N
All Regions	
— NetCloud Advanced for Mobile Routers (Enterprise)	TAx-NCADV

x = 1, 3, or 5 years

NetCloud 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 Advanced** Upgrade can be added to the NetCloud Essentials Package at any time.

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

For more details on the COR IBR600C IoT Router, included with the NetCloud Packages for mobile, see below.

What's in the Box

- COR IBR600B/IBR650B Integrated Broadband Router w/ integrated mounting bracket
- External 3G/4G mobile broadband modem antennas (2) (SMA), finger tighten only
- External WiFi antennas (2) reverse SMA*, 5 dBi gain, finger tighten only
- 12V / 1.5A power supply w/ locking connector; GPIO/power cable available
- Quick Start Guide, regulatory and warranty information

**IBR600B only*

Key Features

WAN

- Cat 4 LTE modem with auto-carrier selection (Verizon, AT&T, T-Mobile)
- Dual-modem capable with optional COR Extensibility Dock 4G LTE/DC-HSPA+
- WiFi as WAN*
- Failover/Failback
- Load Balancing
- Advanced Modem Failure Check
- WAN Port Speed Control
- WAN/LAN Affinity
- IP Passthrough

*IBR600B only

LAN

- VLAN 802.1Q
- DHCP Server, Client, Relay
- DNS and DNS Proxy
- DynDNS
- UPnP
- DMZ
- Multicast/Multicast Proxy
- QoS (DSCP and Priority Queuing)
- MAC Address Filtering

WiFi*

- 802.11 b/g/n
- Up to 64 connected devices
- Two SSIDs
- WPA2 Enterprise WiFi
- Hotspot/Captive Portal
- SSID-based Priority

*IBR600B only

Management

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

VPN & Routing

- IPsec Tunnel – up to five concurrent sessions
- L2TP
- GRE Tunnel
- OSPF/BGP/RIP
- Per-Interface Routing
- Routing Rules
- NAT-less Routing
- Virtual Server/Port Forwarding
- NEMO/DMNR
- IPv6
- VRRP
- STP
- NHRP
- VTI Tunnel support
- OpenVPN support
- CP Secure VPN compatible

Security

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

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

Specifications

The following features are delivered through the NetCloud Service.

WAN:

- Integrated 4G LTE modem (with DC-HSPA+ failover)
- Dual-modem capable with optional COR Extensibility Dock
- One 10/100/1000 Ethernet port (WAN or LAN), one 10/100 (WAN or LAN)

LAN:

- One 10/100/1000 Ethernet port (WAN or LAN), one 10/100 Ethernet port (WAN or LAN)

Ports:

- Power
- 2-wire GPIO
- Two Ethernet LAN or WAN
- Two cellular antenna connectors (SMA)
- Two WiFi connectors* (reverse SMA)
- Cradlepoint COR Extensibility Dock Port/custom cable Port (15-pin) with 4 GPIOs, power input, ignition sensing & 5 V out

Temperature:

- -20 °C to 60 °C (-4 °F to 140 °F) operating
- -30 °C to 70 °C (-22 °F to 158 °F) storage

Humidity (non-condensing):

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

Power:

- IBR600B
 - Idle: 0.17 A @ 12 V
 - Typical: 0.45 A @ 12 V
 - Max: 1.2 A @ 12 V

- IBR650B
 - Idle: 0.13 A @ 12 V
 - Typical: 0.25 A @ 12 V

Accessories

- COR Extensibility Dock (Part #: 170700-000)
- Indoor/Outdoor Panel Patch (Part #: 170669-000)
- Multi-Band Omni-Directional Antenna (Part #: 170668-000)
- Universal 3G/4G/LTE antenna w/ SMA connector (2dBi/3dBi) (Part # 170649-000)
- Directional Yagi (Log-Periodic) antenna for external (outside) mounting (Part # 170588-000)
- 12" Mag-mount antenna (Part # 170605-000)
- 4" Mini mag-mount antenna (Part # 170606-000)
- 9-wire power & GPIO cable (Part #170680-000)
- COR 2-meter power & GPIO cable (direct wire) (Part # 170585-000)
- COR vehicle power adapter (Part # 170635-000)
- COR wall power adapter (Part # 170584-001)

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 IBR600B/IBR650B models include an integrated 4G LTE/DC-HSPA+ modem.

COR IBR600B-LP4, COR IBR650B-LP4:

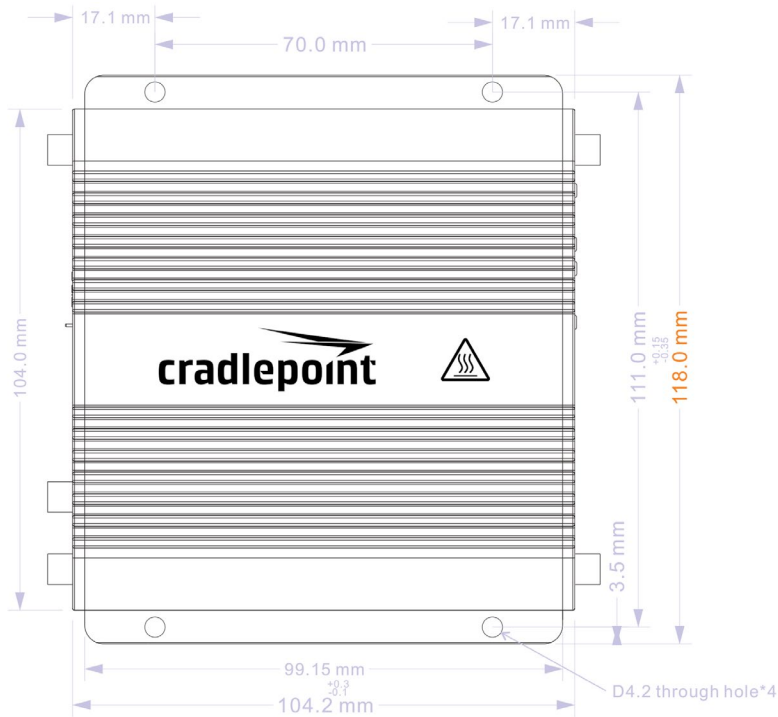
- Technology: Category 4 LTE, DC-HSPA+
- Downlink Rates: LTE 150 Mbps, DC-HSPA+ 42.2 Mbps
- Uplink Rates: LTE 50 Mbps, DC-HSPA+ 5.76 Mbps
- Frequency Bands:
 - LTE: Band 2 (1900 MHz), Band 4 – AWS (1700/2100 MHz), Band 5 (850 MHz), Band 13 (700 MHz), Band 17 (700 MHz)
 - DC-HSPA+/UMTS Rel. 9, Cat 24: Bands 5 and 2 (850/1900 MHz)
- Power: LTE 23 dBm ± 1, DC-HSPA+ 23 dBm ± 1
- Antennas: two SMA male (plug), finger tighten only (maximum torque spec is 7 kgf/cm2)
- Industry Standards & Certs: FCC, WiFi Alliance (IBR600B only), Verizon, AT&T, PTCRB, carrier Private Networks
- SIM: two 2FF slots (secured)

Support & Warranty

The COR IBR600B is only sold as a component of NetCloud Packages.

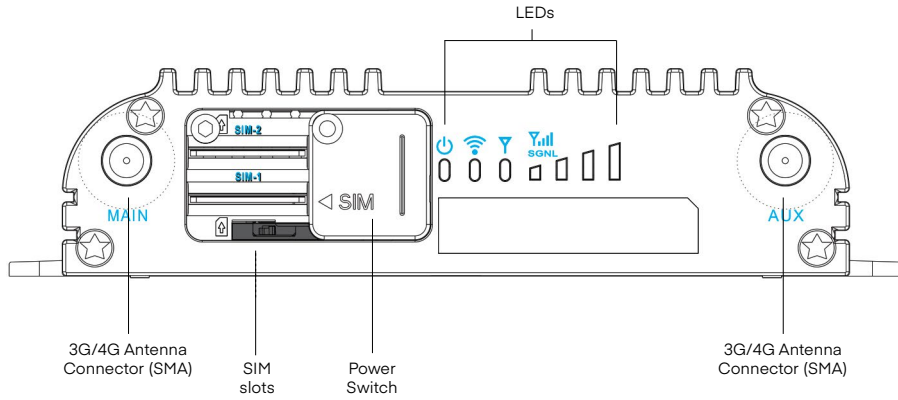
- NetCloud Packages include support for the full subscription term.
- All Cradlepoint hardware products are covered by a limited lifetime warranty for as long as they are under a NetCloud Service Plan.

Hardware

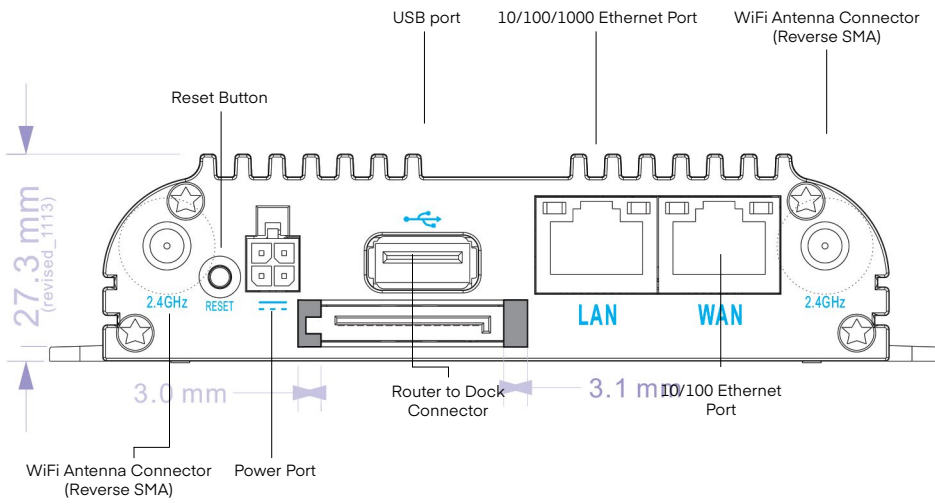


IBR600B-LP4

FRONT

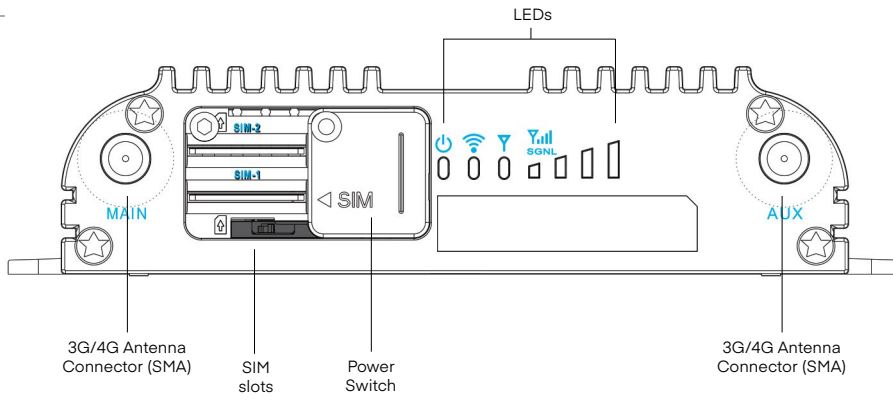


REAR

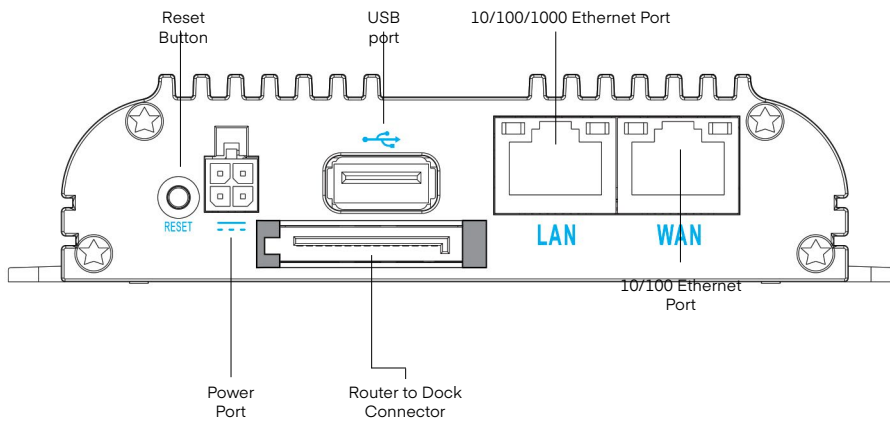


IBR650B-LP4





FRONT



REAR



LEDs

Indicator	Behavior
	<p>Power The Cradlepoint IBR600B/IBR650B must be powered using an approved 12 V DC power source.</p> <ul style="list-style-type: none"> • Blue = Powered ON. • No Light = Not receiving power. Check the power source connection.
	<p>WiFi Broadcast Indicates WiFi activity (IBR600B only).</p> <ul style="list-style-type: none"> • Green = WiFi is on and operating normally. • Amber = Attention. Open the administration pages and check the router status.
	<p>Integrated or USB Modem Indicates information about the integrated modem or attached USB modem.</p> <ul style="list-style-type: none"> • Green = Modem has established an active connection. • Blinking Green = Modem is connecting. • Amber = Modem is not active. • Blinking Amber = Data connection error. No modem connection possible. • Blinking Red = Modem is in the process of resetting.
	<p>Signal Strength Blue LED bars indicate the active modem's signal strength.</p> <ul style="list-style-type: none"> • 4 Solid Bars = Strongest signal. • 1 Blinking Bar = Weakest signal. (A blinking bar indicates half of a bar.)
<p>Other</p>	<p>Additional LED Indications</p> <ul style="list-style-type: none"> • Several different LEDs blink when the factory reset button is detected. • Two of the modem LEDs blink red in unison for 10 seconds when there is an error during NCOS upgrade. • The IBR650B has a dedicated Attention LED. • If a USB modem is plugged in, only Signal Strength LEDs will light up.