COR IBR600B Series Spec Sheet

Cradlepoint COR IBR600B Series IoT routers are sold as part of an all-inclusive IoT networking package.

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

x = 3 or 5 years

NetCloud IoT Essentials packages and plans contain all the features and capabilities required for a broad range of mobile or in-vehicle 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

For more details on the COR IBR600B series IoT Router, included with the NetCloud IoT Essentials Packages, see below.

What's in the Box

— COR IBR600B series IoT Broadband Router; includes integrated mounting plate

— Two (2) external 3G/4G mobile broadband modem antennas (SMA)

— Two (2) external WiFi antennas (RP-SMA) for IBR600B only

— 12V/1.5A power supply with locking connector

— Safety, Regulatory, and Warranty Guide

Key Features

WAN

— Cat 4 LTE modem with SIM-based, 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

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

Management

— Cradlepoint NetCloud Manager[1]

— 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

IoT Connector

— NetCloud Edge Connector for Microsoft® Azure IoT Central

* IBR600B only
**Native support for authentication. Authorization and accounting support through hotspot/captive portal services.

Specifications

The following features are delivered through the hardware.

WAN:

— Embedded 4G LTE modem (with DC-HSPA+ failover)

— Dual-modem capable with optional COR Extensibility Dock and compatible MC400 modular modem

— 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 (2) cellular antenna connectors (SMA)

— Two (2) WiFi connectors* (RP-SMA), 5 dBi gain

— Cradlepoint COR Extensibility Dock Port/custom cable Port (15-pin) with 4 GPIOs, power input, ignition sensing & 5 V out

Tempurature:

— -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:

— DC input steady state voltage range: 9–33 VDC (requires inline fuse for vehicle installations)

  — For 9–24 VDC installations, use a 3 A fuse

  — For > 24 VDC installations, use a 2.5 A fuse

— Reverse polarity and transient voltage protection per ISO 7637-2

— Ignition sensing (automatic ON and time-delay OFF)

- Power Consumption (@25°C):
    - IBR600B
        - Idle: 1.98 W
        - Max: 12.24 W
    - IBR650B
        - Idle: 1.5 W
        - Max: 10.08 W

Accessories

- COR Extensibility Dock (Part # 170700-000) and compatible MC400 modular modem
    - MC400-1200M-B (Part # MA-MC400-1200M-B)
    - MC400-1200M (Part # MA-MC400-1200M)
    - MC400-600M-C-AT (Part # MC400-C-AT)
    - MC400LP6 (Part # MC400LP6)
    - MC400LP4 (Part # MC400LP4)
- 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 (2) SMA male (plug), maximum torque not to exceed 4 in-lbs

— Industry Standards & Certs: FCC, WiFi Alliance (IBR600B only), Verizon, AT&T, PTCRB, carrier private networks
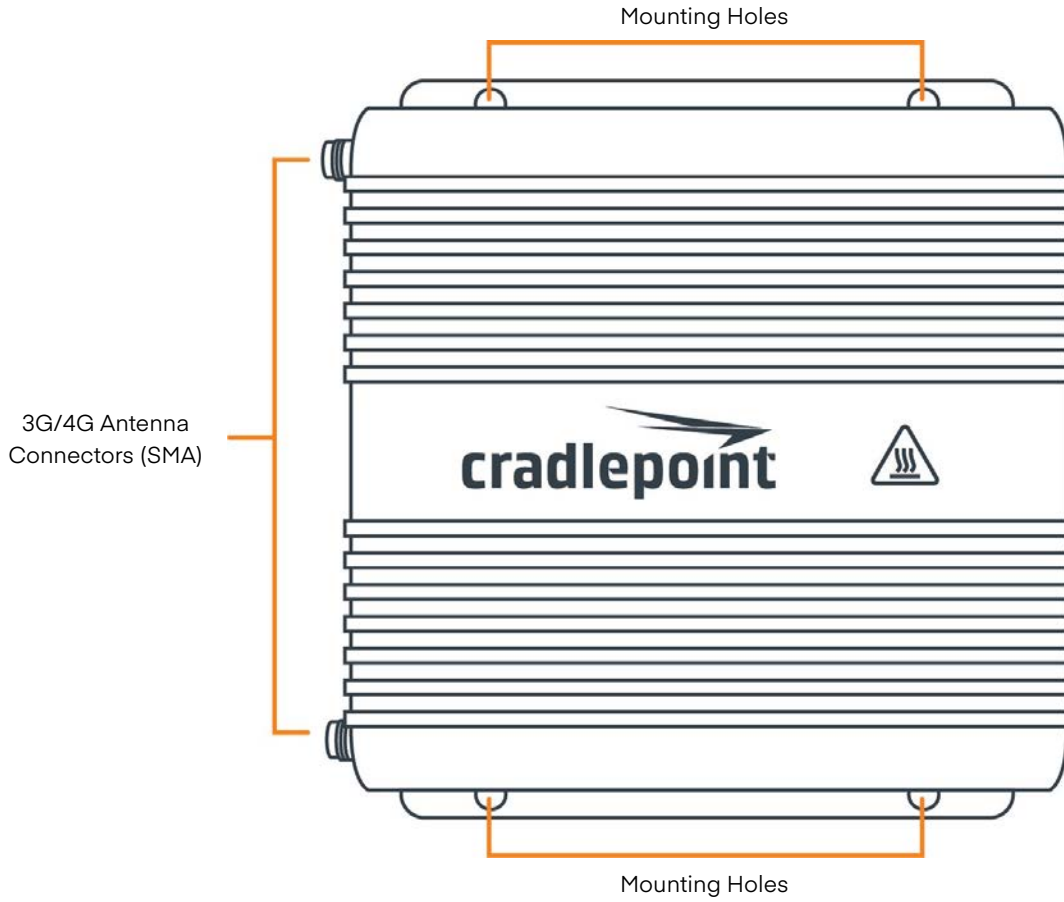
— SIM: Two 2FF slots (secured)

Support & Warranty

The COR IBR600B series endpoints are only sold as a components 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.
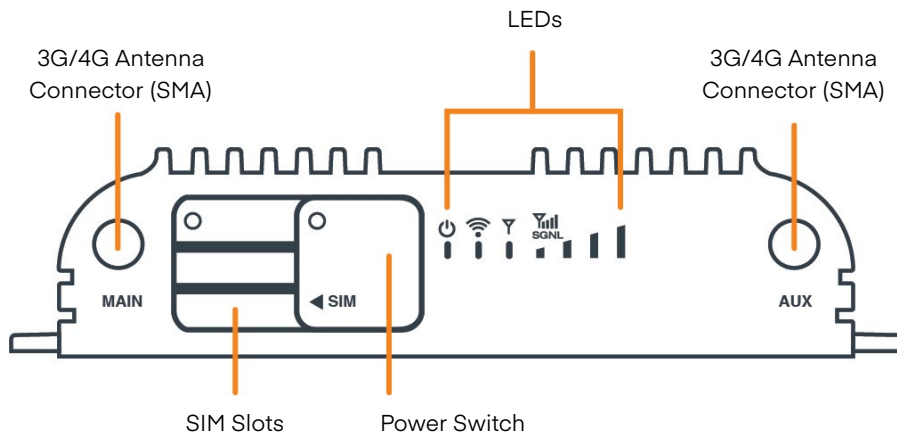
FirstNet and FirstNet Ready are registered trademarks and service marks of the First Responder Network Authority, an independent authority within the U.S. Department of Commerce.
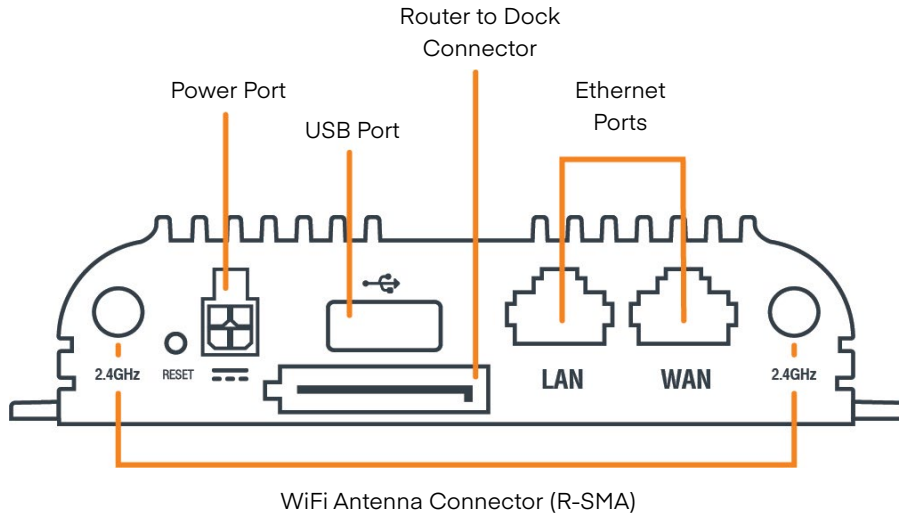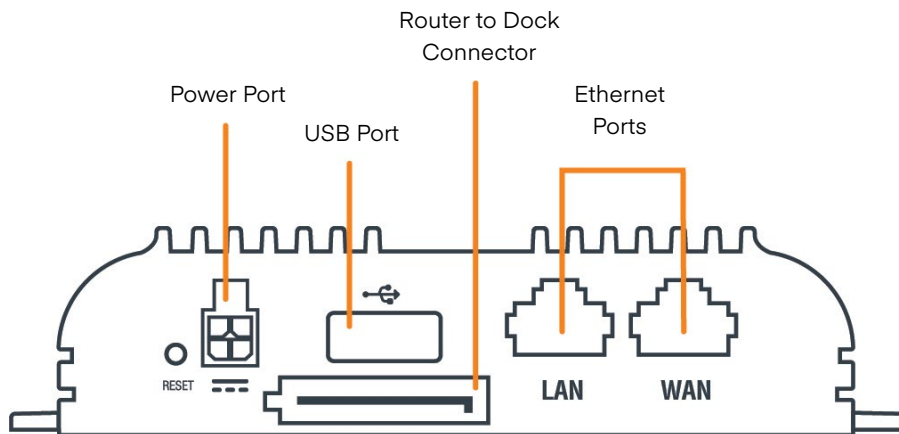
Hardware

IBR600B/650B LP4 — Top

Mounting Holes

3G/4G Antenna
Connectors (SMA)

Mounting Holes

IBR600B/650B LP4 — Front

LEDs

3G/4G Antenna
Connector (SMA)

3G/4G Antenna
Connector (SMA)

MAIN

SIM

AUX

SIM Slots

Power Switch

IBR600B LP4 — BACK

Router to Dock
Connector

Power Port

USB Port

Ethernet
Ports

2.4GHz   RESET   ---   LAN   WAN   2.4GHz

WiFi Antenna Connector (R-SMA)

IBR650B LP4 — BACK

Router to Dock
Connector

Power Port

USB Port

Ethernet
Ports

RESET   ---   LAN   WAN

LEDs

Indicator	Behavior
⏻	**Power** The Cradlepoint IBR600B/IBR650B must be powered using an approved 12 V DC power source. • Blue = Powered ON. • No Light = Not receiving power. Check the power source connection.
📶	**WiFi Broadcast** Indicates WiFi activity (IBR600B only). • Green = WiFi is on and operating normally. • Amber = Attention. Open the administration pages and check the router status.
Y	**Embedded or USB Modem** Indicates information about the embedded modem or attached USB modem. • 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.
Yıll	**Signal Strength** Blue LED bars indicate the active modem's signal strength. • 4 Solid Bars = Strongest signal. • 1 Blinking Bar = Weakest signal. (A blinking bar indicates half of a bar.)
Other	**Additional LED Indications** • 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.