cradlepoint

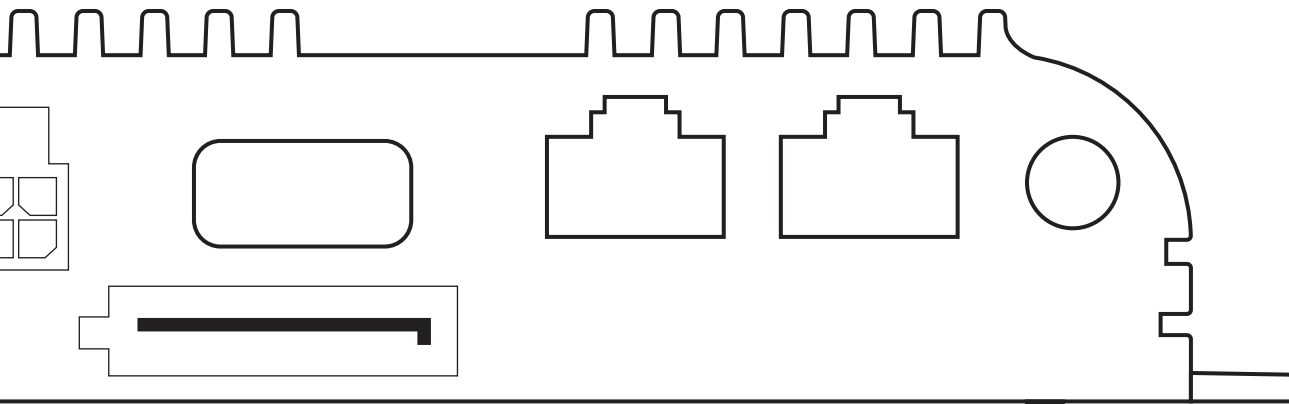*Global Leader in 4G LTE Network Solutions*

COR Series Router

IBR600B / IBR650B

Spec Sheet

cradlepoint.com

INTRODUCTION

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 Enterprise Cloud 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 AND ROUTING

- IPsec Tunnel – up to five concurrent sessions
- L2TP[2]
- GRE Tunnel
- OSPF/BGP/RIP[2]
- Per-Interface Routing
- Routing Rules
- NAT-less Routing
- Virtual Server/Port Forwarding
- NEMO/DMNR[2]
- IPv6
- VRRP[2]
- STP[2]
- NHRP[2]
- VTI Tunnel support
- OpenVPN support
- CP Secure VPN compatible

SECURITY

- RADIUS and TACACS+ support*
- 802.1x authentication for Ethernet
- Zscaler integration[2]
- 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.

1 – **Enterprise Cloud Manager** requires a subscription
2 - Requires an **Extended Enterprise License**

SPECIFICATIONS

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 and 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
    - max: 1.0 A @ 12 V

- DC input steady state voltage range: 9–33 VDC
- Recommended inline fuse for vehicle installations: 1.5 A fast-blow

SIZE: 4.6 × 4.1 × 1.1 in (117 × 104 × 27.3 mm)

WEIGHT: 10.1 oz. (285 g)

CERTIFICATIONS:
- FCC
- WiFi Alliance*
- Safety: UL/CUL, CB Scheme, EN60950-1
- Shock/Vibration/Humidity: compliant with MIL STD 810G and SAEJ1455
- Materials: WEEE, RoHS, RoHS-2, California Prop 65
- Vehicle: E-Mark, compliant with ISO 7637-2
- Telecom: PTCRB/CTIA
- Carrier certifications (see individual SKUs for additional certifications)

*-IBR600B only

GPS Protocols: TAIP and NMEA 0183 V3.0

NOTE: GPS requires COR Extensibility Dock with 2nd modem that supports GPS (MC400LP6, MC400LPE)

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 **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

COR IBR600B/IBR650B models include an integrated 4G LTE/DC-HSPA+ modem.
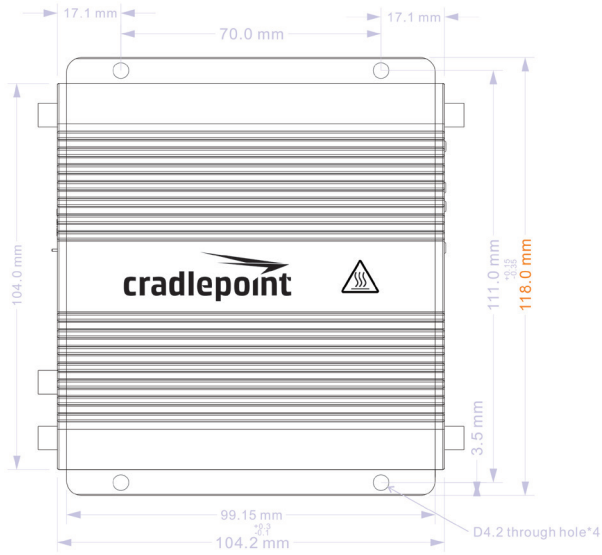
COR IBR600B-LP4, COR IBR650B-LP4
- **Technology**: Category 4 LTE, DC-HSPA+
- **Downlink Rates**: LTE 150 Mbps, DC-HSPA+ 42.2 Mbps
- **Uplink Rates**: LTE 50 Mbps, DC-HSPA+ 5.76 Mbps
- **Frequency Bands**:
    - LTE: Band 2 (1900 MHz), Band 4 – AWS (1700/2100 MHz), Band 5 (850 MHz), Band 13 (700 MHz), 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)
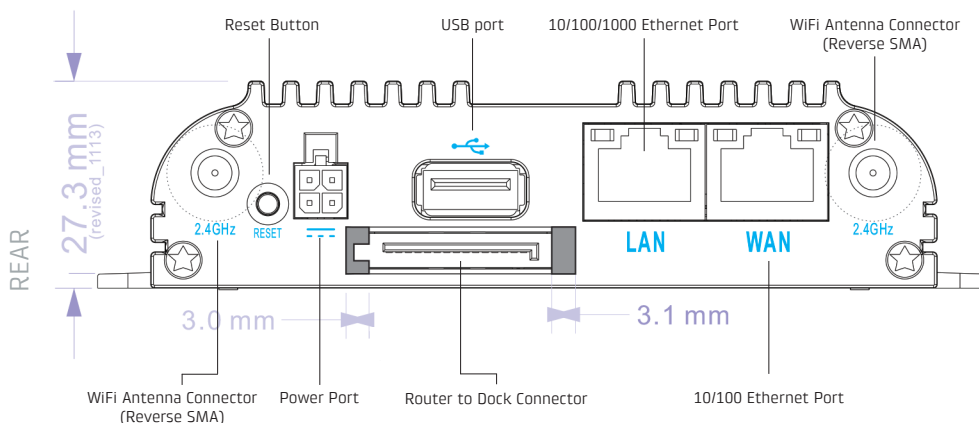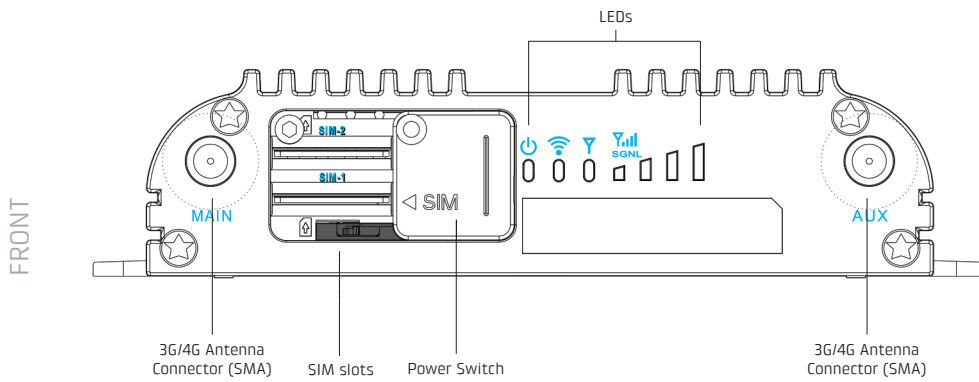
SUPPORT AND WARRANTY

CradleCare Support available in the US and Canada with technical support, software upgrades, and advanced hardware exchange – 1-, 3-, and 5-year options.

Three-year limited hardware warranty available world-wide on IBR600B/IBR650B series products when purchased from an approved Cradlepoint Partner or Distributor – extend warranty to 5 years.
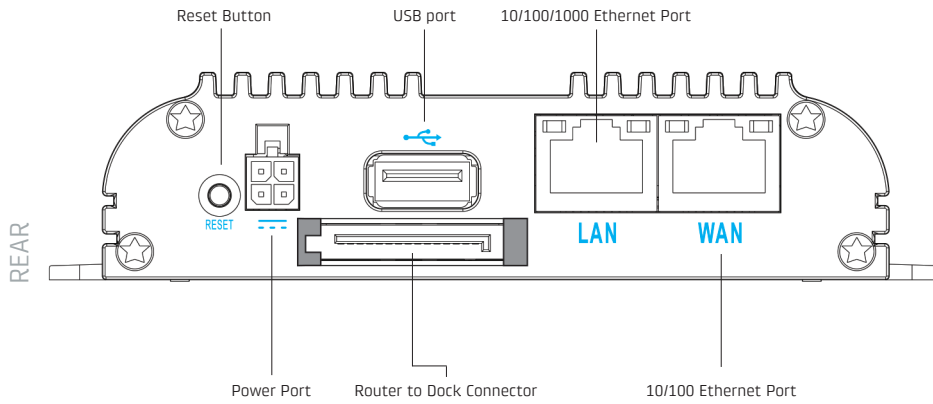
HARDWARE

IBR600B-LP4

FRONT

LEDs

MAIN

AUX

SIM-2
SIM-1
◁ SIM

SGNL

3G/4G Antenna
Connector (SMA)

SIM slots

Power Switch

3G/4G Antenna
Connector (SMA)

REER

27.3 mm
(revised_1113)

Reset Button

USB port

10/100/1000 Ethernet Port

WiFi Antenna Connector
(Reverse SMA)

2.4GHz

RESET

LAN

WAN

2.4GHz

3.0 mm

3.1 mm

WiFi Antenna Connector
(Reverse SMA)

Power Port

Router to Dock Connector

10/100 Ethernet Port

IBR650B-LP4

LEDs

FRONT

MAIN

SIM-2
SIM-1
◁ SIM

SGNL

AUX

3G/4G Antenna
Connector (SMA)

SIM slots

Power Switch

3G/4G Antenna
Connector (SMA)

Reset Button

USB port

10/100/1000 Ethernet Port

REAR

RESET

LAN

WAN

Power Port

Router to Dock Connector

10/100 Ethernet Port

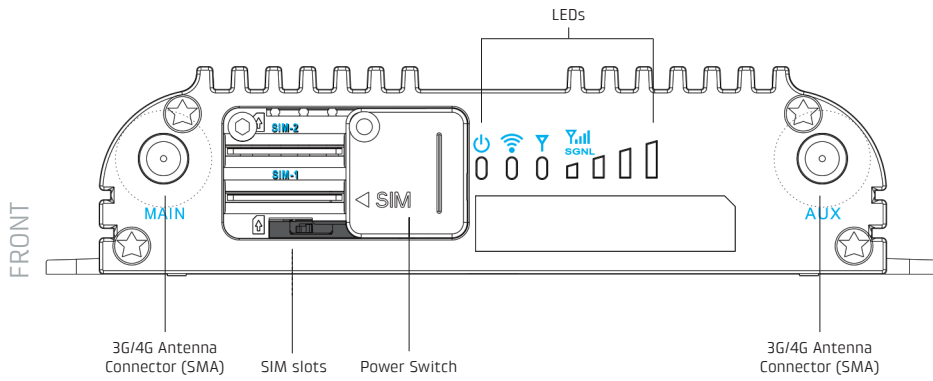cradlepoint

LEDS

POWER The Cradlepoint IBR600B/IBR650B must be powered using an approved 9–33 VDC power source.

- Green = Powered ON.
- No Light = Not receiving power. Ensure SIM door is closed and/or check the power source connection.
- Yellow = Attention. Open the administration pages and check the router status.

WiFi BROADCAST Indicates WiFi activity.

- Green = WiFi is on and operating normally.
- Yellow = Attention. Open the administration pages and check the router status.

INTEGRATED MODEM Indicates information about the integrated modem.

- Green = Connected to integrated modem.

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.)

ADDITIONAL LED INDICATIONS

- Several different LEDs flash 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 firmware upgrade.