CradlePoint COR IBR600/IBR650

INTEGRATED BROADBAND ROUTERS
IBR600 Series - Hardened for Machine-to-Machine

COR IBR600

The CradlePoint COR Series is built for your M2M network. It's an affordable, highly-featured, compact router with embedded modem module designed for critical business and enterprise applications that require 24/7 connectivity.

With its compact size, sleek metal case, mounting bracket, external mobile broadband and WiFi antennas (IBR600 only), CradlePoint COR is ideal for use in high-availability portable or fixed applications like ATMs, kiosks, surveillance, vehicles, etc.

CradlePoint COR provides instant network connectivity with a built-in modem – just add a mobile broadband plan or insert an activated SIM and go. It also supports traditional wired data networks like DSL, Cable or T1 for maximum network flexibility.

Increase your Internet availability and ensure maximum uptime with business continuity features like failover/failback standard in CradlePoint COR. When configured for failover, the router detects network failures and seamlessly switches over to another active connected network(s) - keeping your network online.

Additionally, CradlePoint COR is ideal for deployment as a primary connection solution, even when a wired Internet is not available.

CradlePoint COR also provides VPN endpoint functionality, VLAN support, multiple remote management methods, modem data usage management and alerts, GPIO support, USB-to-serial console pass-through support for out-of-band management of connected devices and the ability to be part of a PCI-DSS compliant solution. It allows for secure access to company networks for enterprise applications and provides a secure way to transmit sensitive data to and from a remote site.

*NOTE: WiFi is only supported on IBR600 models. IBR650 models have no WiFi radio.

THE HEART OF YOUR M2M NETWORK

• For use in business-critical, high-availability installations such as ATMs, kiosks, surveillance, vehicles, etc. that require 24/7 connectivity

• WiFi* (IBR600) and no-WiFi (IBR650) options available

• Wireless 2x2 MIMO "N" WiFi (802.11 b/g/n)*

• Increase your network availability with WiPipe™-powered automatic failover and failback

• Supports both wireless and wired Internet connections (two Ethernet ports for either LAN/LAN or WAN/LAN)

• Several models available with 3G and/or 4G support on US and international carriers

• IPsec VPN termination (tunnel, NAT-T, and transport) with GRE support

• VLAN support to isolate, segment and secure network traffic

• Create a customized Hotspot with our captive portal feature (include ToS, Ads, etc.)*

• GPS support on most models

POWER / RESET / LAN / WAN / MICRO USB
COR IBR650

SIM SLOT/ON-OFF / LEDs / SIGNAL STRENGTH
COR IBR600

www.cradlepoint.com/cor

INTEGRATED BROADBAND ROUTER: COR IBR600/IBR650

Provides advanced support for distributed operations and emerging industries that require flexible, reliable and secure access such as temporary Internet installations, those needing additional network bandwidth or for kiosks, digital signage, and other Machine-to-Machine (M2M) applications.

Internet Access and Device Connectivity

Includes integrated modem (see attached for SKU options and specifications)

2 Ethernet LAN/WAN ports for Ethernet-enabled devices or landline Internet

Wireless 2x2 MIMO "N" WiFi (802.11 b/g/n) *

Supports up to 32 WiFi connections at a time*

Two SSIDs (with individual security , bandwidth limits, and QoS settings; separate critical traffic or create a public WiFi hotspot)*

Security

IPsec VPN (up to 5 concurrent sessions) and GRE Tunneling, also supports pass-through VPN connections (IPSec, L2TP, PPTP)

WEP, WPA, WPA2, WPA2 Enterprise with AES encryption for secure WiFi*

VLAN support to isolate, segment and secure network traffic

SPI Firewall and NAT (Network Address Translation) to prevent unwanted access to connected computers

Variety of security features (URL filtering, traffic filtering, DMZ, virtual server, port forwarding) for safer Internet access.

Advanced security mode and reporting to facilitate PCI-DSS compliance

Flexibility

First-time and Advanced setup wizards for easy, swift and secure setup

Remote management with WiPipe™ Central, SNMP v1/2c/3 or CLI over SSH

IP Pass-through support provides broadband-to-Ethernet adapter

Create a WiFi hotspot with a captive portal (terms of service, ads, etc)*

Network failover support & load balancing

GPIO for additional hardware control, Serial console available (USB to Serial)

LAN/WAN affinity to assign specific LAN traffic to a WAN

Service, Support, and Warranty

Limited 1 Year Warranty included featuring 5x12 technical support, access to software updates and hardware repair or replacement

CradleCare Plus and CradleCare Premier optional enterprise support agreements available with 24/7 technical support, software updates and upgrades and advanced hardware exchange

IBR600/IBR650 Differences

IBR600: Includes WiFi, Hotspot Services/Captive Portal, WiFi-as-WAN*

IBR650: WiFi not included to facilitate PCI and HIPAA compliance

*NOTE: WiFi related items are supported only on IBR600 models

Specifications

DATA IN: Internal modem (see below), 10/100 Ethernet Port, WiFi-as-WAN*
DATA OUT: WiFi (802.11 b/g/n)*, two 10/100 Ethernet ports (WAN or LAN)

TEMPERATURE:
-20°C to 60°C (-4°F to 140°F) operating modem as WAN
-20°C to 50°C (-4°F to 122°F) operating Ethernet as WAN
-30°C to 70°C (-22°F to 158°F) storage

RELATIVE HUMIDITY: (non-condensing): 10% to 85%, Operating
5% to 90%, Storage

POWER: DC input steady state voltage range: 9 - 18VDC
Recommended inline fuse for vehicle installations: 1.5A slow blow

WIFI POWER* (IBR600): Transmit power:15dBm typ for all modes receive sensitivity: -68dBm @ HT20 (11n), -65dBm @ HT40 (11n), -72dBm typ @ 54Mbps (11g), -84dBm typ @ 11Mbps (11b)

SIZE: 3.3-in x 4-in x 0.9-in (85mm x 102mm x 22mm)
WEIGHT: 7.2 oz (200g)

CERTIFICATIONS: FCC, WiFi Alliance*, 802.3, carrier specific certifications

What's In The Box

IBR600 or IBR650 Integrated Broadband Router with metal mounting bracket

External 4G and/or 3G mobile broadband modem antennas (2) (SMA) w/ support for GPS on Aux connection (some models), finger tighten only

External WiFi antennas (2) Reverse SMA*, finger tighten only

12V / 1.5A power supply w/locking connector; GPIO/power cable available

Setup Guide with warranty information,

Accessories

High-gain external antennas (Omni-directional, Patch, Yagi), GPIO/power cable, see www.cradlepoint.com/COR for more

Requirements

Internet Service and Modem Active mobile broadband plan with cellular provider or Ethernet-based Internet connection (DSL, Cable, Satellite, T1)

Browser (to configure router) Minimum of Firefox v2.0, Internet Explorer v7.0, Chrome, or Safari v1.0

Router Details

WAN Security NAT, SPI, ALG, inbound filtering of IP addresses, port blocking, service filtering (FTP, SMTP, HTTP, RPL, SNMP, DNS, ICMP, NNTP, POP3, SSH), protocol filtering, WAN ping (allow/ignore)

Redundancy and Load Balancing Failover/Failback with 3G/4G/Ethernet, load balancing, WAN failure detection

Intelligent Routing UPnP, DMZ, virtual server/port forwarding, routing rules, NAT-less routing, route management, content filtering, website filtering, local DHCP server, DHCP client, DNS, DNS proxy. ALGs: PPTP, L2TP, PPPoE pass-through, IPSec pass-through, FTP (passive), FTP (active), MAC address filtering, Dynamic DNS, LAN/WAN affinity

Management WiPipe™ Central for remote configuration, updates and management (subscription-based); web-based GUI (local management); remote WAN web-based management w/access control (HTTP, HTTPS); SNMP v1, v2c & v3, CLI over SSH, API.
One-button firmware upgrade; modem configuration, update and management, modem data usage and alerts

Performance & Health Monitoring WiPipe™ QoS, with traffic shaping, Modem Health Management (MHM) improves connectivity of modem, SSID-based priority*, WAN port speed control

VPN (IPSec). Tunnel, NAT-T and transport modes. Device to CradlePoint, Cisco/Linksys, Linux system, Hash (MD5, SHA128, SHA256, SHA384, SHA512), Cipher (AES, 3DES, DES), support for 5 concurrent connections, GRE tunneling, multiple networks supported in a single tunnel

GPS. Standalone GPS supported on most models (see attached). GUI mapping as well as local (LAN) or remote (WAN) server logging

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Verizon SKUs

WiFi

No-WiFi

COR IBR600E-VZ   3G EVDO for Verizon

3G

Technology: EVDO RevA, A/O; CDMA 1x

Downlink Rates: 3.1 Mbps (theoretical)

Uplink Rates: 1.8 Mbps (theoretical)

Frequency Band: Cellular/PCS (800MHz/1,900 MHz)

Module Power: 24 +/- 0.5dBm (typical conducted)

Module: Sierra Wireless 5728v

Antennas: Two SMA male (plug), 2 dBi gain. Finger tight is sufficient. Maximum torque spec is 7kgf-cm

GPS: standalone GPS support

Power
Idle: Typ=300mA@12V (3.6W) worst case=600mA@12V (7.2W)
Tx/Rx: Typ=500mA@12V (6W) worst case=1000mA@12V (12W)

Industry Standards & Certs: FCC, WiFi Alliance, 802.3, plus carrier specific certifications

Certification Model Number: IBR600E
Certification Part Number: IBR600E-VZ

COR IBR650E-VZ   3G EVDO for Verizon

Technology: EVDO RevA, A/O; CDMA 1x

Downlink Rates: 3.1 Mbps (theoretical)

Uplink Rates: 1.8 Mbps (theoretical)

Frequency Band: Cellular/PCS (800MHz/1,900 MHz)

Module Power: 24 +/- 0.5dBm (typical conducted)

Module: Sierra Wireless 5728v

Antennas: Two SMA male (plug), 2 dBi gain. Finger tight is sufficient. Maximum torque spec is 7kgf-cm

GPS: standalone GPS support

Power
Idle: Typ=300mA@12V (3.6W) worst case=600mA@12V (7.2W)
Tx/Rx: Typ=500mA@12V (6W) worst case=1000mA@12V (12W)

Industry Standards & Certs: FCC, 802.3, plus carrier specific certifications

Certification Model Number: IBR650E
Certification Part Number: IBR650E-VZ

COR IBR600LE-VZ   4G/3G LTE/EVDO for Verizon

4G

Technology: LTE 3GPP Rel. 8 , EVDO RevA, A/O; CDMA 1x

Downlink Rates: LTE 100 Mbps, EVDO 3.1 Mbps (theoretical)

Uplink Rates: LTE 50 Mbps, EVDO 1.8 Mbps (theoretical)

Frequency Band: LTE Band 13 (700MHz)

Cellular/PCS (800MHz/1,900 MHz)

Module Power: LTE 23 +/-1dBm, EVDO 24 +/-1dBm (typ conducted)

Module: Sierra Wireless MC7750

Antennas: Two SMA male (plug), 1 dBi (LTE), 2 dBi (Cellular/PCS) gain. w/ support for GPS on Aux connection, finger tighten only.

GPS: standalone GPS support

Power
Idle:typ=350mA@12V(4.2W) worst case=700mA@12V(8.4W)
Tx/Rx:typ=600mA@12V(7.2W) worst case=1200mA@12V(14.4W)

Industry Standards & Certs: FCC, WiFi Alliance, 802.3, plus carrier specific certifications

Certification Model Number: IBR600LE
Certification Part Number: IBR600LE-VZ

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Sprint SKUs

WiFi

3G

COR IBR600E-SP	3G EVDO for Sprint

Technology: EVDO RevA, A/O; CDMA 1x

Downlink Rates: 3.1 Mbps (theoretical)

Uplink Rates: 1.8 Mbps (theoretical)

Frequency Band: Cellular/PCS (800MHz/1,900 MHz)

Module Power: 24 +/- 0.5dBm (typical conducted)

Module: Sierra Wireless 5728v

Antennas: Two SMA male (plug), 2 dBi gain. Finger tight is sufficient. Maximum torque spec is 7kgf-cm

GPS: standalone GPS support

Power
Idle: Typ=300mA@12V (3.6W) worst case=600mA@12V (7.2W)
Tx/Rx: Typ=500mA@12V (6W) worst case=1000mA@12V (12W)

Industry Standards & Certs: FCC, WiFi Alliance, 802.3, plus carrier specific certifications

Certification Model Number: IBR600E
Certification Part Number: IBR600E-SP

No-WiFi

COR IBR650E-SP	3G EVDO for Sprint

Technology: EVDO RevA, A/O; CDMA 1x

Downlink Rates: 3.1 Mbps (theoretical)

Uplink Rates: 1.8 Mbps (theoretical)

Frequency Band: Cellular/PCS (800MHz/1,900 MHz)

Module Power: 24 +/- 0.5dBm (typical conducted)

Module: Sierra Wireless 5728v

Antennas: Two SMA male (plug), 2 dBi gain. Finger tight is sufficient. Maximum torque spec is 7kgf-cm

GPS: standalone GPS support

Power
Idle: Typ=300mA@12V (3.6W) worst case=600mA@12V (7.2W)
Tx/Rx: Typ=500mA@12V (6W) worst case=1000mA@12V (12W)

Industry Standards & Certs: FCC, 802.3, plus carrier specific certifications

Certification Model Number: IBR650E
Certification Part Number: IBR650E-SP

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Clearwire SKUs

No-WiFi

4G

COR IBR650W	4G WiMAX for Clear
Technology: WiMAX 802.16e Wave 2	
Downlink Rates: 10Mbps peak, 6Mbps average	
Uplink Rates: 5 Mbps peak, 1.2 Mbps average	
Frequency Band: 2,500 MHz band	
Module Power: 23.5 +/- 0.5 dBm (RSU/CPE)	
Module: Beceem 250 chipset	
Antennas: Two SMA male (plug), 5 dBi gain. Finger tight is sufficient. Maximum torque spec is 7kgf-cm	
GPS: No GPS support	
Power Idle:typ=350mA@12V(4.2W) worst case=700mA@12V(8.4W) Tx/Rx:typ=600mA@12V(7.2W) worst case=1200mA@12V(14.4W)	
Industry Standards & Certs: FCC, 802.3, plus carrier specific certifications	
Certification Model Number: IBR650W **Certification Part Number: IBR650W**	

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