

Ericsson Cradlepoint IBR1700

2025-06-03

Ericsson NetCloud Service for mobile with an IBR1700 ruggedized router is a Gigabit-class LTE networking platform designed to provide persistent connectivity for in-vehicle deployments. Ericsson NetCloud provides connectivity, network, security, and location services to connect everything in the vehicle, while providing access to IT for remote management, troubleshooting, and analytics.

High Performance In-Vehicle Connectivity

The Ericsson Cradlepoint IBR1700 ruggedized router for vehicles with the Ericsson NetCloud Service for mobile was designed for organizations that depend on field forces and mobile networks. In addition to embedded Gigabit-class LTE, it also includes tri-radio Wi-Fi allowing dedicated radios for video offload, enhanced security, better signal quality, and higher client capacities. Ericsson NetCloud mobile advanced features add threat management, web filtering, application visibility, analytics, and advanced GNSS/GPS functionality including location tracking and cellular coverage maps to the service.

5G Ready for Upward Compatibility

The IBR1700 ruggedized router for in-vehicle uses is 5G-ready with the ability to be field upgraded and accept a future generation modular 5G modem. In addition, it can act as a controller for an Ericsson Cradlepoint 5G wideband adapter. The unique capability of Ericsson to operate the adapter in captive mode allows two separate, Ethernet-connected appliances to be managed as a single entity. These two capabilities ensure investment protection and upward compatibility to the latest LTE and 5G technology as they evolve over time.

[Product Page](#)



[NetCloud Service](#)



[Quick Start Guide](#)

Notable Features

- Deploy high-speed connectivity with Gigabit LTE, Wi-Fi, and Ethernet delivering enterprise grade performance.
- Gain 5G Ready capabilities with a second modem slot and captive modem functionality for simultaneous multi-carrier connectivity.
- Prioritize access on public safety networks for reliable, secure connectivity.
- Integrate into Automatic Vehicle Location systems with discrete GNSS and dead reckoning.
- Extend your deployment with GPIOs, NetCloud SDK and API, and container support for customizable solutions.
- Define policies through centralized cloud-based management for easy deployment at scale.
- Enable unified edge security with application aware multizone firewalls, IDS/IPS, and internet security.
- Create a cellular coverage map for complete visibility into your area's 5G and LTE coverage (5G mapping requires an optional 5G modem).

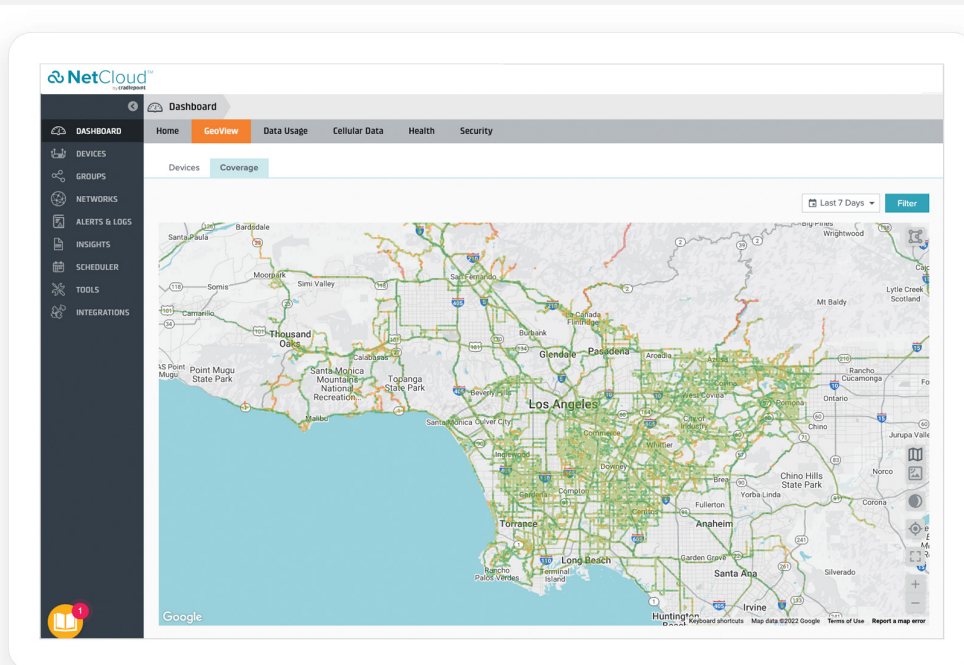
Key Software Capabilities

Ericsson NetCloud Service for mobile with a IBR1700 in-vehicle router provides everything needed to unlock the power of cellular technology to connect vehicles, users, and IoT to critical applications and services. Ericsson NetCloud includes router software for optimizing routing,

VPN, SD-WAN, and security capabilities along with capabilities centralized in the cloud such as group policy definition, reports, troubleshooting, and analytics dashboards as well as cellular coverage maps. Ericsson NetCloud Service includes a warranty (for the router), online training, live and online support, and continuous software updates for both the router and the modem.

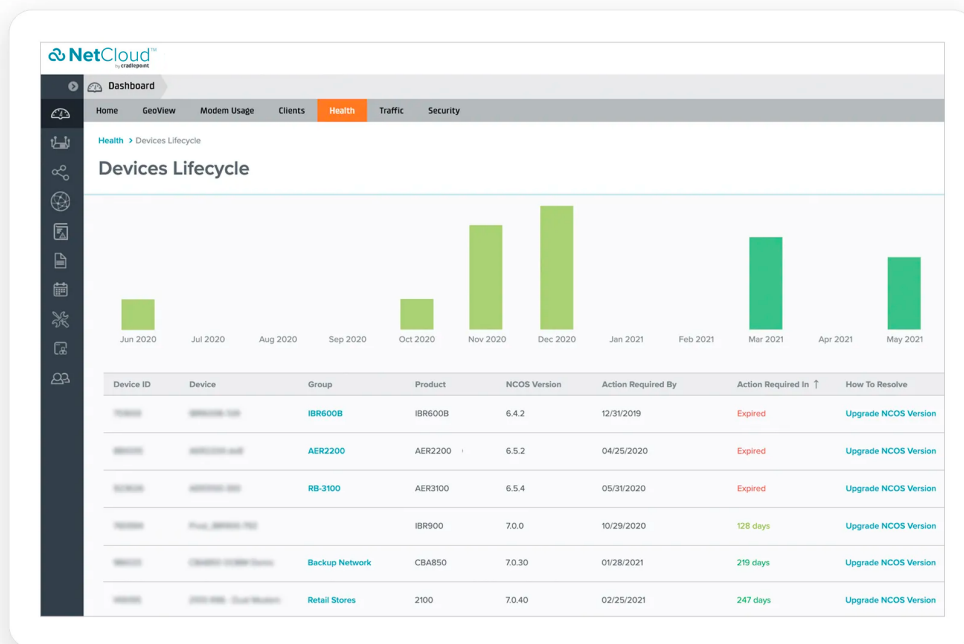
Coverage Map

Ericsson NetCloud uses GNSS/GPS and 5G/4G cellular health to provide precise analytics about location and signal strength. Data can be mapped to display both the current and historical locations of a vehicle, as well as generate detailed coverage maps that display cellular health, allowing users to gain operational insights and solve problems.



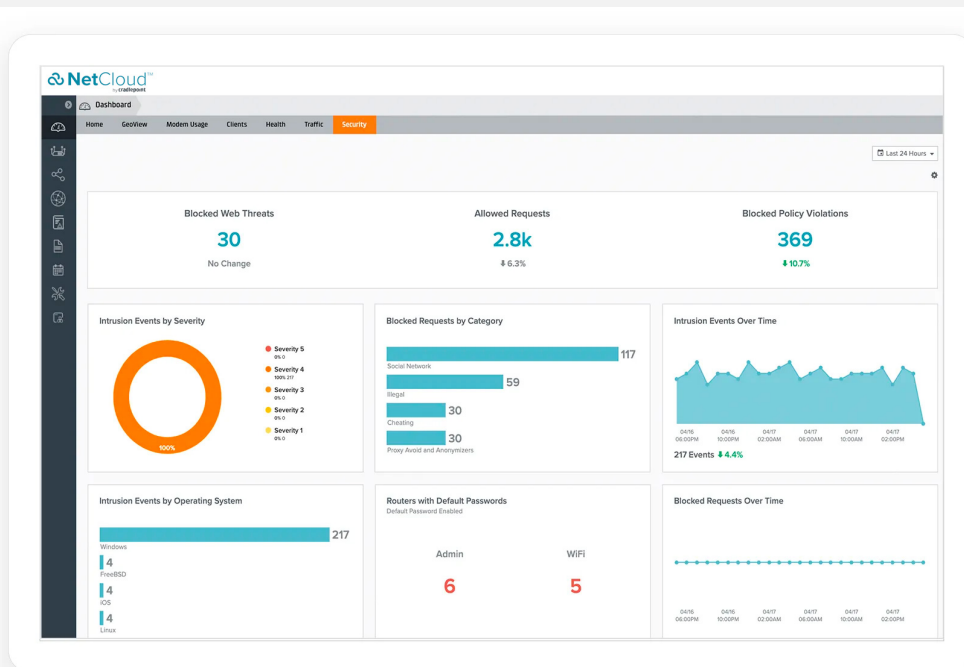
Advanced Software Lifecycle Management

Ericsson NetCloud improves the typical software lifecycle management process. New features are continuously delivered to Ericsson NetCloud and become available for the router without interrupting network performance. Software versions are tracked for every endpoint, with the latest update just a click away. Straightforward subscription and license management is easily accessible and provided to keep the network running without interruption.



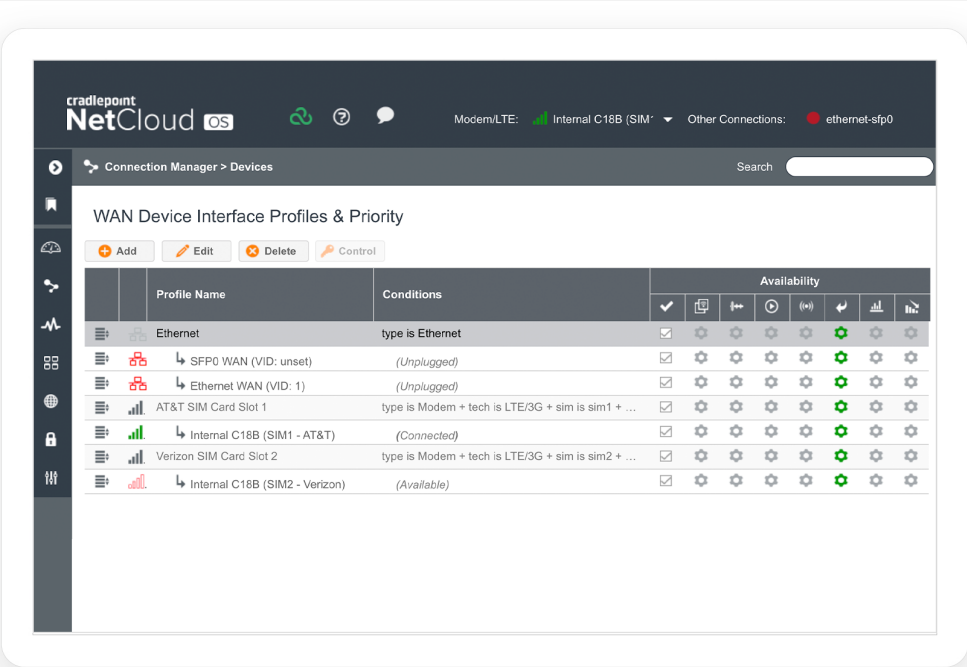
Security Services

Ericsson NetCloud Service advanced security features add application aware zone-based firewall, CP Secure Threat Management (IPS/IDS), and CP Secure Web Filter for protecting your network and meeting the evolving security needs of in-vehicle environments.



Connection Manager

Connection Manager provides the ability to manage all WAN connections types including wireless, Wi-Fi as WAN, and wired, from a single software-defined policy. Our custom-built modem software ensures users establish wireless WAN connectivity faster while maintaining the highest level of resiliency.



Hardware Specifications

The following features are delivered through the hardware.

INTERFACES

- Modem:

One of the following:
 - Embedded 1200M-B Modem with 4 x SMA cellular antenna connectors
 - Embedded 600M Modem with 2 x SMA cellular antenna connectorsOptional dual modem:
 - MC400 Modular Modem

- Ethernet:

5 x GbE (LAN/WAN switchable)

Wi-Fi:

Tri-radio, dual-band, concurrent operation (2.4 GHz and 5 GHz)

- Two 2x2 MU-MIMO 802.11n
- One 4x4 MU-MIMO 802.11ac Wave 2
- Modes: AP, Wireless Client, and WiFi as WAN
- Silver SMAs: 574 Mbps (2.4 GHz) and 1.2 Gbps (5 GHz)
- Gold SMAs 2x2: 574 Mbps (2.4 GHz)
- Gold SMAs 4x4: 1.733 Gbps (5 GHz)
- 6 x RP-SMA Wi-Fi antenna connectors
- Multiple SSIDs
- WPA/WPA2/WPA3 Personal, WPA2/WPA3 Enterprise, WEP Auto, Open
- Wi-Fi Alliance Certified

Expansion:

- 1 x MC400 Modular Modem Slot (Peak throughput: 300 Mbps)
- 1 x USB 2.0 Type A (output: 5V, 500mA, 2.5W)
- 1 x GPIO Connector
- 1 x RS-232 Serial Port

GNSS/GPS:

1 x SMA GPS antenna connector

GNSS / GPS**Acquisition:
(Time to First Fix)**

32 seconds (cold start)

Protocols:

NMEA 0183

Constellations: 600M

- GPS
- Galileo
- GLONASS
- BeiDou
- GNSS

1200M-B

- GPS
- Galileo
- GLONASS
- BeiDou

Accuracy: Horizontal: < 2 m (50%), < 5 m (95%)

Sensitivity: 600M

- Acquisition: -145 dBm
- Tracking: - 160 dBm

1200M-B

- Tracking: - 159 dBm

Frequencies: L5

Power: 600M

- Voltage Supply: 3.15 V
- Max Current: 3.25 V

1200M-B

- Voltage Supply: 3.1 V
- Max Current: 20 mA

ENVIRONMENTAL

Temperature:

- Operating: -30 °C to 70 °C (-22 °F to 158 °F)
- Storage: -40 °C to 85 °C (-40 °F to 185 °F)

Humidity:

- Operating: 5% to 95%
- Storage: 5% to 95%

Ingress Protection:

IP64 (dust tight and splashing water)

POWER**Required:**

One of the following:

- 9-36 VDC steady state input (vehicle installations with 9-24 VDC requires 3A inline fuse, >24 VDC requires 2.5A fuse)
- External DC power supply, 100-240 VAC input, 12 VDC 3A output (optional)

Features:

- Reverse polarity and transient voltage protection (ISO 7637-2)
- Ignition sensing (automatic ON and time-delay OFF)

Consumption:

- Idle: 8 W
- Typical: 14 W
- Heavy: 24 W

PHYSICAL**Size:**

224.3 × 190 × 44 mm (8.8 × 7.5 × 1.7 in)

Weight:

1.7 kg (3 lb 7 oz)

RELIABILITY**Calculated MTBF:**

286,853 hours (Telcordia SR332 at 25 °C)

CERTIFICATIONS

Safety:

- UL/cUL
- CB Scheme
- EN 62368-1
- e-Mark

**Substance
Compliance:**

- WEEE
- RoHS
- RoHS-2
- California Prop 65

Security:

FIPS 140-2 Inside (IBR1700-FIPS models only)

**Shock/ Vibration/
Humidity:**

- MIL STD 810G
- SAE J1455

CLOUD SERVICES**Service Plans:**

NetCloud Service for Mobile

Service Add-Ons:

NetCloud Exchange, NetCloud Advanced

Support:

NetCloud Packages include support for the full subscription term.

Warranty:

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.

Device Management:

NetCloud Manager for the full subscription term.

Software Updates:

NetCloud Manager for the full subscription term.

WI-FI POWER**FCC:**

- 2.4 GHz: 29.2 dBm Conducted
- 5150–5250 MHz: 29.0 dBm Conducted
- 5725–5850 MHz: 30.0 dBm Conducted

Australia/ New Zealand:**Radio 1 (2x2)**

- 2.4 GHz: 30.9 dBm Conducted
- 5180-5240 MHz: 19.5 dBm Conducted
- 5260-5320 MHz: 19.5 dBm Conducted
- 5500-5700 MHz: 26.3 dBm Conducted
- 5745-5825 MHz: 29.1 dBm Conducted

Radio 2 (4x4)

- 5180-5240 MHz: 18.0 dBm Conducted
- 5260-5320 MHz: 18.0 dBm Conducted
- 5500-5700 MHz: 25.0 dBm Conducted
- 5745-5825 MHz: 30.5 dBm Conducted

EU/Rest of World:

- 2.4 GHz band: 17.3 dBm Conducted
- 5180-5240 MHz: 17.8 dBm Conducted

PERFORMANCE**Stateful Firewall:** 940 Mbps**Point-to-Point IPsec VPN:** 20 Mbps**Concurrent VPN Tunnels:** 10**Concurrent Sessions (TCP):** 32,000**Typical Client Count:** 30**Layer 2 / Layer 3 VLANs:** Up to 64**LEDs**Refer to the **[IBR1700 Series Router Quick Start Guide](#)**.

Performance testing was conducted based on requirements as defined in RFC2544 using fixed-frame 1518-byte packets. Throughput results reflect unidirectional UDP traffic with less than 1% packet loss as tested with wired connections. Results do

not reflect performance of the cellular wireless operator networks.

Enterprise-Class Modem Specifications

SPECIFICATION	IBR1700-600M	IBR1700-1200M-B
Technology:	Cat 11 LTE Advanced - Dual SIM slots, 2FF form factor - SIM-based auto-carrier selection	Cat 18 LTE Advanced Pro - Dual SIM slots, 2FF form factor - SIM-based auto-carrier selection 3GPP Release 12
3G:	WCDMA/UMTS/HSPA+	WCDMA/DC-HSPA+
Carrier Aggregation:	Up to 5 CA downlink, 2 CA uplink See Understanding Carrier Aggregation .	Up to 5 CA downlink, 2 CA uplink See Understanding Carrier Aggregation .
Peak Downlink Rates:	- LTE: 600 Mbps - HSPA+: 42.2 Mbps	- LTE: 1.2 Gbps - DC-HSPA+: 42.2 Mbps
Peak Uplink Rates:	- LTE: 75 Mbps - HSPA+: 5.76 Mbps	- LTE: 150 Mbps - DC-HSPA+: 5.76 Mbps
MIMO:	2x2 MIMO	4x4 MIMO
Modulation:	Up to 256	Up to 256

4G/LTE Bands:**LTE FDD**

- B1 (2100), B2 (1900), B3 (1800), B4 (1700), B5 (850), B7 (2600), B8 (900), B12 (700), B13 (700), B14 (700), B17 (700), B20 (800), B25 (1900), B26 (850), B28 (700), B29 (700), B30 (2300), B66 (1700)

LTE TDD

- B38 (2600), 40 (2300), B41 (2500)

LTE FDD

- B1 (2100), B2 (1900), B3 (1800), B4 (1700), B5 (850), B7 (2600), B8 (900), B12 (700), B13 (700), B14 (700), B17 (700), B18 (850), B19 (850), B20 (800), B25 (1900), B26 (850), B28 (700), B29 (700), B30 (2300), B32 (1500), B66 (1700), B71 (600)

LTE TDD

- B38 (2600), B39 (1900), B40 (2300), B41 (2500), B42 (3500), B43 (3700), B46 (5200), B48 (3500)

3G Bands:

1, 2, 4, 5, 8, 19

1, 2, 4, 5, 8, 9, 19

Power:LTE 23 dBm $\pm$ 1, HSPA+ 23 dBm $\pm$ 1 (typical conducted)LTE 23 dBm $\pm$ 1, DC-HSPA+ 23 dBm $\pm$ 1 (typical conducted)**Antennas:**

SMA male connectors, external 600 MHz - 6 GHz cellular paddle antennas

SMA male connectors, external 600 MHz - 6 GHz cellular paddle antennas

GNSS/GPS:

Discrete Active GPS with Dead Reckoning

Discrete Active GPS with Dead Reckoning

SMS:

Yes

Yes

Regulatory:

- FCC (U.S.)
- IC (Canada)
- CE (EU)
- RCM (AU/NZ)

- FCC (U.S.)
- IC (Canada)
- CE (EU)
- RCM (AU/NZ)

**Network
Operator
Standards:**

- PTCRB (U.S., Canada)
- GCF (Worldwide)
- PTCRB (U.S., Canada)
- GCF (Worldwide)

**Network Operator
Certifications[†]:**

- AT&T
- Verizon
- AT&T
- Verizon

**Public Safety
Network
Certifications:**

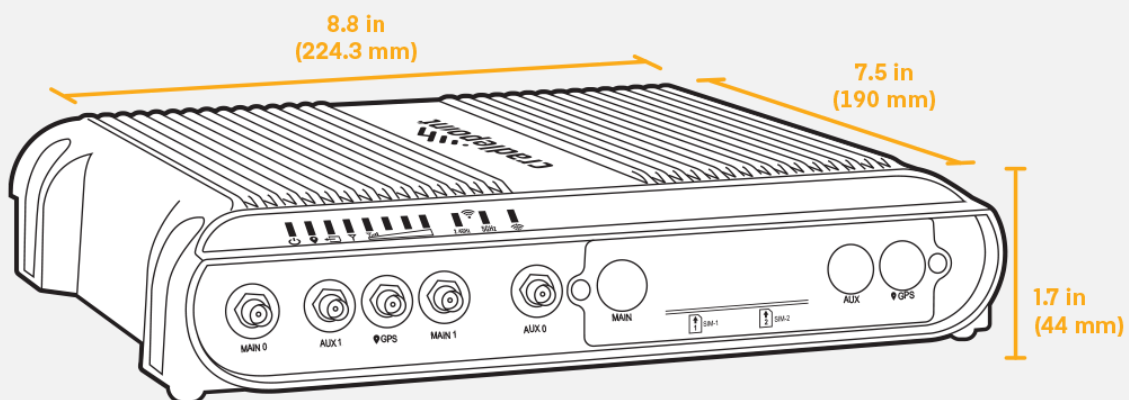
- Verizon Frontline
- ESN
 - FirstNet Trusted™
 - Verizon Frontline

**Private Cellular
Network:**

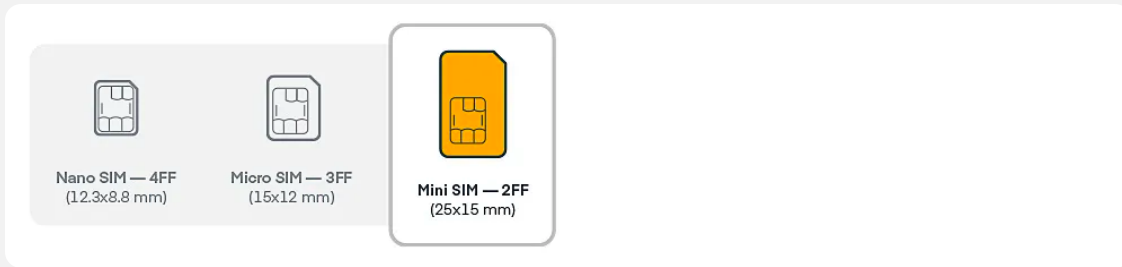
- N/A
- Yes, includes FCC Part 96 (CBRS Band 48)

[†] Cellular carriers and operators throughout the world may only require telecom industry certifications, like PTCRB or GCF, to operate on their network. Some carriers require additional testing and approval, beyond telecom certifications, to operate on their network. A carrier listed in the approvals section means Cradlepoint completed additional testing and acquired technical approval for that given carrier. Any carrier not listed may not require additional testing or approval beyond telecom industry certifications to operate on their network.

Physical Measurements & Features



SIM Card Info



Ordering Guide

Ericsson NetCloud Service Mobile 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, an **Ericsson NetCloud Service Mobile Advanced plan** can be added to the Ericsson NetCloud Service Mobile Essentials package at any time.

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

Ericsson NetCloud Service Mobile Packages for the IBR1700 Router

REGION	MODEM	MOBILE PACKAGE PLAN	PART NUMBER
North America: U.S. & Canada	Cat 11 (600 Mbps) with Wi-Fi	Essentials	MAx-1700600M-NNA
		Essentials + Advanced	MAAx-1700600M-NA

	Cat 18 (1200 Mbps) with Wi-Fi	Essentials Essentials + Advanced	MAx-1700120B-NNA MAAx-1700120B-NA
	Cat 11 (600 Mbps) with Wi-Fi	FIPS — Essentials + Advanced	MAx-170F600M-XFA
	Cat 18 (1200 Mbps) with Wi-Fi	FIPS — Essentials + Advanced	MAx-170F120B-XFA
	Cat 18 with dual 1200 Mbps modem, Verizon & AT&T SIMs inserted	FIPS — Essentials + Advanced	MAX5-170F120B-F0
United States Federal Government	Cat 11 (600 Mbps) with Wi-Fi, no AC power supply or antennas	TAA Compliant NC — Essentials	TAA-MAy-1700600M-NNA
		TAA Compliant NC — Essentials + Advanced	TAA-MAAy-1700600M-NA
	Cat 18 (1200 Mbps) with Wi-Fi, no AC power supply or antennas	TAA Compliant NC — Essentials	TAA-MAy-1700120B-NNA
		TAA Compliant NC — Essentials + Advanced	TAA-MAAy-1700120B-NA
	Cat 11 (600 Mbps) with Wi-Fi, no AC power supply or antennas	TAA Compliant NC FIPS — Essentials + Advanced	TAA-MAy-170F600M-XFA
	Cat 18 (1200 Mbps) with Wi-Fi, no AC power supply or antennas	TAA Compliant NC FIPS — Essentials + Advanced	TAA-MAy-170F120B-XFA

	Cat 18 (1200 Mbps) with dual 1200 Mbps modem, high temp AC power supply, antennas, Verizon & AT&T SIMs inserted	TAA Compliant NC FIPS — Essentials + Advanced	TAA-MAX5-170F120B-F0
Europe: European Union, South Africa & United Kingdom	Cat 11 (600 Mbps) with Wi-Fi	Essentials	MAx-1700600M-EWA
		Essentials + Advanced	MAAx-1700600M-EA
	Cat 18 (1200 Mbps) with Wi-Fi	Essentials	MAx-1700120B-EWA
		Essentials + Advanced	MAAx-1700120B-EA
Asia Pacific: Australia, Malaysia, New Zealand & Singapore	Cat 11 (600 Mbps) with Wi-Fi	Essentials	MAx-1700600M-PWA
		Essentials + Advanced	MAAx-1700600M-PA
	Cat 18 (1200 Mbps) with Wi-Fi	Essentials	MAx-1700120B-PAA
		Essentials + Advanced	MAAx-1700120B-PA

All Regions

Advanced

MAx-NCADV

Renewal
Essentials +
Advanced

MAx-NCADV-
R

Renewal
Essentials

MAx-NCESS-
R

x = 1, 3, or 5 years

y = 3 or 5 years

Accessories

INCLUDED

PART NUMBER

GPIO Cable, Small, 2x2, Black, 3 meters 22 AWG

170585-001

OPTIONAL

PART NUMBER

One of the following:

- Power Supply 12V, Small, 2x2, 1.5 meters (North America Type A)
- Power Supply, 12V, Small, 2x2, 1.5 meters (North America-United Kingdom-Europe-Australia Types A-G-C-I)
- Power Supply, 12V, Small, 2x2 (C7 line cord not included), -30 °C to 70 °C

170716-001

170717-000

170869-000

GPIO Cable, DB9, Black, 3 meters

170676-000

GPIO Cable, Small, 2x10, Black, 2.3 meters

170712-000

DAT-Int Cable, OBD-II M/F with DB9-DB9, Black, 4.6 meters

170758-000

Rail Safe GPIO Cable, Small 2x2, Black, 3 meters, 20 AWG

170871-000

Small 2x2 Power to Barrel Adapter, 152 mm

170665-000

Rack Mount Kit

170750-001

LTE Captive Modem Accessory, Indoor

- | | |
|--|------------|
| • CBA550-150M-D (150 Mbps modem), Americas | 170900-001 |
| • CBA550-150M-D (150 Mbps modem), Global | 170900-002 |
| • L950-C7A (300 Mbps modem), Americas | 170900-005 |
| • L950-C7A (300 Mbps modem), Global | 170900-006 |

5G Captive Modem Accessory, Outdoor

- | | |
|---|------------|
| • W2005-5GB (4.1 Gbps modem), AP | 170900-009 |
| • W4005-5GB (7.5 Gbps modem), High Band, North America | 170900-011 |
| • W1855-5GC (3.4 Gbps modem), North America | 170900-016 |
| • W1855-5GC (3.4 Gbps modem), EU | 170900-018 |
| • W1855-5GC (3.4 Gbps modem), UK | 170900-019 |
| • W1855-5GC (3.4 Gbps modem), AP | 170900-021 |
| • R2105-5GB (4.1 Gbps modem), Captive Modem Accessory, Global | 170900-015 |

5G Captive Modem Accessory, Indoor

- | | |
|--|------------|
| • W1850-5GB (4.1 Gbps modem), Americas | 170900-012 |
| • W1850-5GB (4.1 Gbps modem), Global | 170900-013 |
| • W1850-5GC (3.4 Gbps modem), Americas | 170900-017 |
| • W1850-5GC (3.4 Gbps modem), Global | 170900-020 |

MC400 Modular Modem Kit[†]

- | | |
|---|------------------|
| • MC400 Cat 18 LTE Advanced Pro Modular Modem (1200 Mbps). Includes IBR1700 modem door with screw and COR Extensibility Dock modem door with screw. | MA-MC400-1200M-B |
| • MC400 5G Modem (requires 4FF SIM) upgrade for R1900 with RX30-MC or IBR1700 Mobile Routers. Includes modem doors. | MB-MC400-5GB |

UNITED STATES FEDERAL GOVERNMENT

PART NUMBER

Power Supply 12 V, Small 2x2, 1.5 meters (North America Type A)

TAA-170716-001

Power Supply, 12 V, Small 2x2, 1.5 meters (North America-United Kingdom-Europe-Australia Types A-G-C-I)	TAA-170717-000
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GPIO Cable, Small 2x2, Black, 3 meters, 22 AWG	TAA-170585-001
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GPIO Cable, DB9, Black, 3 meters	TAA-170676-000
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GPIO Cable, Small 2x10, Black, 2.3 meters	TAA-170712-000
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Small 2x2 Power to Barrel Adapter, 152 mm	TAA-170665-000
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Rack Mount Kit	TAA-170750-001
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LTE Captive Modem Accessory, Indoor, CBA550-150M-D (150 Mbps modem), Americas	TAA-170900-001
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LTE Captive Modem Accessory, Indoor, L950-C7A (300 Mbps modem), Americas	TAA-170900-005
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5G Captive Modem Accessory, Outdoor, W2005-5GB (4.1 Gbps modem), North America	TAA-170900-007
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5G Captive Modem Accessory, Outdoor, High-Band, W4005-5GB (7.5 Gbps modem), North America	TAA-170900-011
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5G Captive Modem Accessory, Indoor, W1850-5GB (4.1 Gbps modem), Americas	TAA-170900-012
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MC400 Modular Modem upgrade for Mobile [†]	
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- | | |
|---|--|
| <ul style="list-style-type: none">MC400 Cat 18 LTE Advanced Pro Modular Modem (1200 Mbps). Includes IBR1700 modem door with screw and COR Extensibility Dock modem door with screw.MC400 5G Modem (requires 4FF SIM) upgrade for R1900 with RX30-MC or IBR1700 Mobile Routers. Includes modem doors. | |
|---|--|

TAA-MA-MC400-1200M-B

TAA-MB-MC400-5GB

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Refer to the [Cradlepoint MC400 Modular Modem](#) webpage for more information about modular modems.

Support & Warranty

The Ericsson Cradlepoint IBR1700 router is only sold as a component of Ericsson NetCloud Service Mobile Essentials or Essentials and Advanced packages.

- Ericsson NetCloud Service packages include support for the full subscription term.
- All Ericsson Cradlepoint hardware products are covered by a limited lifetime warranty for as long as they have a subscription license to an active Ericsson NetCloud Service plan.

Find the most up-to-date information at cradlepoint.com/ibr1700