

Ericsson Cradlepoint R2100

2026-07-23

The Ericsson Cradlepoint R2100 5G ruggedized router is designed for vehicle and IoT deployments. This high-bandwidth, exterior-mounted solution provides mass transit, public safety, and other organizations with the latest cellular performance in a uniquely flexible and simplified form factor.

5G Ruggedized Router for High-Performance Vehicle and IoT Connectivity

The Ericsson Cradlepoint R2100 5G ruggedized router is available with the Ericsson NetCloud Performance Mobile Service plan or the Ericsson NetCloud Ruggedized IoT Service plan. Designed to be mounted on the roof of a vehicle or attached to IoT cabinet enclosures, the R2100 integrates the modem, antennas, and router into a single aerodynamic, ruggedized casing allowing for simplified deployment. The R2100 is sold with or without Wi-Fi 6 and can be deployed as a self-contained router or to supplement an existing router as a 5G adapter.

High Performance Captive Modem

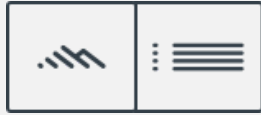
Customers can add 5G to a current installation by deploying the R2100 as a captive modem with supported Ericsson Cradlepoint controlling routers. This allows them both to be managed in Ericsson NetCloud Manager as a single entity. The Ericsson NetCloud management system treats the R2100 as an internal modem, eliminating the need for a separate license. Similarly, for select controlling routers, the R2100 can serve as an additional Wi-Fi source in captive mode to expand coverage for applications such as video offload. The R2100 can be PoE powered while providing a high-performance 5G connection over Ethernet.



[Product Page](#)



[Ericsson NetCloud Service](#)



[Quick Start Guide](#)

Notable Features

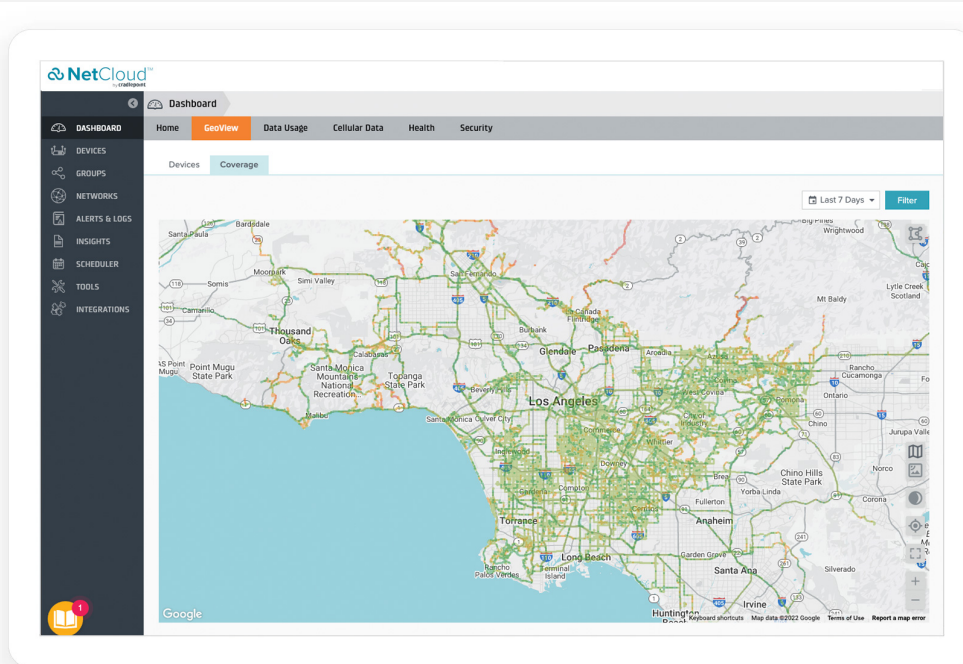
- Deploy the integrated 5G NR / Cat 20 LTE modem, antenna, and Wi-Fi 6-equipped router in one complete package
- Install as a self-contained 5G router or supplement an existing router as a 5G adapter
- Provide easy installation with a power cable or Power over Ethernet (PoE) and no coax cables
- Define policies through centralized cloud-based management for easy deployment at scale
- Prioritize access on public safety networks for reliable, secure connectivity
- Create a cellular coverage map of your area's 5G and LTE
- Integrate into Automatic Vehicle Location systems with GNSS/GPS

Key Software Capabilities

The R2100 5G ruggedized router is enabled by an Ericsson NetCloud Service subscription plan which includes everything needed to unlock the power of 5G at the network edge and connect devices to critical applications and services. It all works together, making it easy to deploy, connect, and secure edge applications at scale across the organization. The service includes a warranty for as long as there is an active subscription, online training, live and online support, and all software and firmware updates.

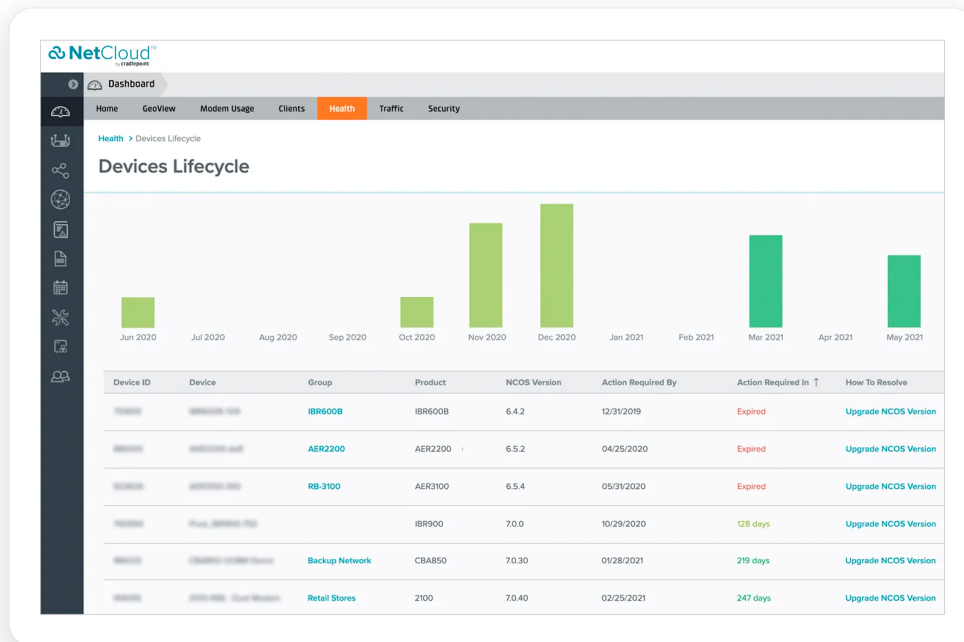
Coverage Map

Ericsson NetCloud Advanced Mobile Performance Service 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

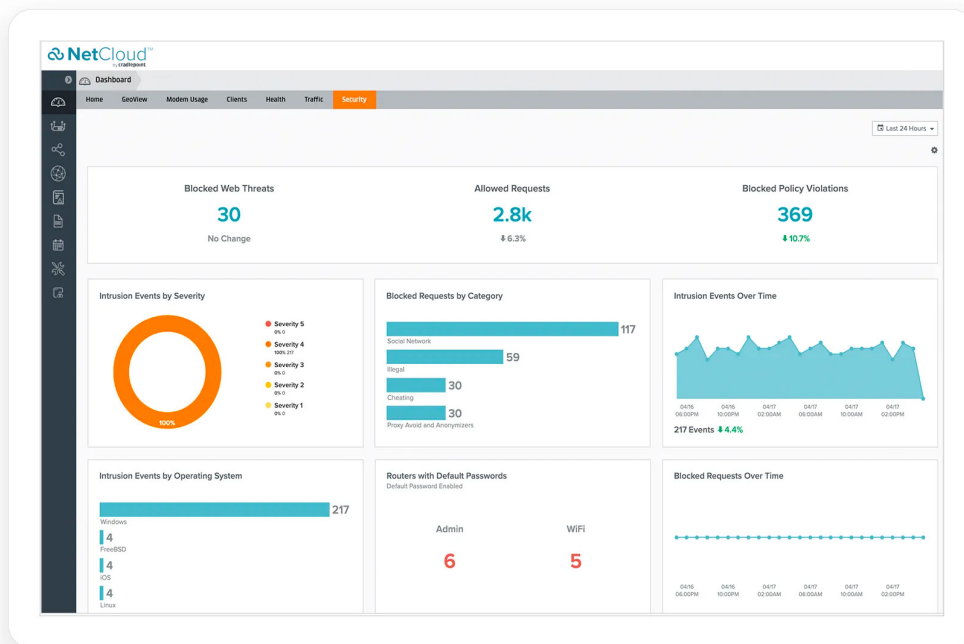
Ericsson NetCloud improves the typical software lifecycle management process. New features are continuously delivered to Ericsson NetCloud and become available for the router without interrupting network performance. Software versions are tracked for every endpoint, with the latest update just a click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



Security Services

Ericsson NetCloud Advanced Mobile Performance Service includes security features that include 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.

The R2100 supports NetCloud Exchange, a unified network and security WAN architecture built upon zero-trust principles and optimized for 5G. NetCloud Exchange helps lean IT organizations simplify deployment and management with shared policies and simplified processes.



Connection Manager

Connection Manager provides the ability to manage all WAN connection types, including wireless, Wi-Fi as WAN, and wired, from a single software-defined policy. Our proprietary modem software enables users to quickly establish robust Wireless WAN connectivity while maintaining the highest level of resiliency.

The Connection Manager interface displays a table of WAN Device Interface Profiles & Priority. The table includes columns for Profile Name, Conditions, and Availability. The following table represents the data shown in the interface:

Profile Name	Conditions	Availability
Ethernet	type is Ethernet	Available
SFP0 WAN (VID: unset)	(Unplugged)	Available
Ethernet WAN (VID: 1)	(Unplugged)	Available
AT&T SIM Card Slot 1	type is Modem + tech is LTE/3G + sim is sim1 + ...	Available
Internal C18B (SIM1 - AT&T)	(Connected)	Available
Verizon SIM Card Slot 2	type is Modem + tech is LTE/3G + sim is sim2 + ...	Available
Internal C18B (SIM2 - Verizon)	(Available)	Available

Hardware Specifications

The following features are delivered through the hardware.

INTERFACES

Modem:	Embedded 5G NR FR1 low-, mid-band, and 4G LTE Category 20 modem
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Ethernet:	1 x 2.5 GbE RJ45 (LAN only) • 380 mm (14.96 in) , non-removable CAT5e, shielded twisted pair, flat ethernet cable with male RJ45 connector
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Wi-Fi:	Dual-radio, dual-band, concurrent operation (2.4 GHz and 5 GHz) • 2x2 MU-MIMO 802.11ax Wi-Fi 6 with DFS • Global Optimized Wi-Fi & International SDR • 5 GHz Wi-Fi use in the European Union is limited to client mode
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Bluetooth:	N/A
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Expansion / Console:	N/A
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GNSS / GPS:	Passive GNSS (multiplex with internal cellular antennas)
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ENVIRONMENTAL

Temperature:	• Operating: -30 °C to 70 °C (-22 °F to 158 °F) • Storage: -40 °C to 85 °C (-40 °F to 185 °F)
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Humidity:	• Operating: 5% to 95% • Storage: 5% to 95%
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Ingress Protection / Corrosion:	• IP67 (dust tight and water immersion up to 1 meter) • IEC60068-2-11 corrosion resistance (salt mist)
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Impact Protection:

IK09 (protected against 10 joules impact)

POWER**Required:**

One of the following:

- DC input steady state voltage range: 9–36 VDC
 - 380 mm (14.96 in) non-removable DC input cable with 4-pin 2x2 Molex micro-fit connector
 - For 9–24 VDC installations, use a 3 A fuse
 - For > 24 VDC installations, use a 2.5 A fuse
- 802.3at PSE Type 2 (30 W)

Features:

- Ignition sensing (automatic ON & time-delay OFF)

Consumption:

R2105:

- Sleep: 50 mW
- Idle: 8 W
- Typical: 14.5 W
- Heavy: 17 W

R2155:

- Sleep: 50 mW
- Idle: 6 W
- Typical: 10 W
- Heavy: 11.5 W

PoE:

- 802.3at Class 4 PD (30 W)

PHYSICAL**Size:**

115 x 386 x 82 mm (4.5 x 15.7 x 3.2 in)

Weight:

1.46 kg (3 lb 4 oz)

RELIABILITY

Calculated MTBF: 1,895,792 hours (Telcordia SR332 at 25 °C)

Layer 2 / Layer 3 VLANs: Up to 64

Shock/Vibration/Humidity:

- MIL-STD-810G, Section 2.2.2, Procedure 1 (Shock, Vibration)
- MIL-STD-810G, Section 2.2.2, Procedure 5 (Shock)

CERTIFICATIONS

Safety:

- CB Scheme
- IEC/EN 62368-1

Vehicle:

- E-Mark
- SAE J1455 Category 2

Rail: N/A

Substance Compliance:

- WEEE
- RoHS
- REACH
- California Prop 65

Security: FIPS 140-3 Level 1 Module in process (R2100 FIPS models only)

Shock/Vibration/Humidity:

- MIL-STD-810G, Section 2.2.2, Procedure 1 (Shock, Vibration)
- MIL-STD-810G, Section 2.2.2, Procedure 5 (Shock)

EDGE COMPUTING

CPU: Quad-core ARMv8 64-bit

Memory:	Up to 1.8 GB See Adjusting Memory Resources for NetCloud Container Orchestrator for more information.
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Flash Storage:	Up to 8 GB See Adjusting Memory Resources for NetCloud Container Orchestrator for more information.
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Applications:	Docker containerized applications
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CLOUD SERVICES

Service Plans:	Ericsson NetCloud Service for Mobile Performance, Ericsson NetCloud Service for Ruggedized IoT
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Service Add-Ons:	NetCloud Exchange, Ericsson NetCloud Advanced
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Support:	Ericsson NetCloud Service packages include support for the full subscription term.
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Warranty:	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.
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Device Management:	Ericsson NetCloud Manager for the full subscription term.
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Software Updates:	Ericsson NetCloud Manager for the full subscription term.
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R2105 WI-FI POWER

FCC:	• 2.4 GHz: 30.9 dBm EIRP • 5250–5350 MHz: 29.4 dBm EIRP • 5470–5725 MHz: 29.5 dBm EIRP • 5725–5850: 34.3 dBm EIRP
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European Union:	• 2.4 GHz: 20.0 dBm EIRP • 5470–5725 MHz: 22.7 dBm EIRP
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Canada:

- 2.4 GHz: 30.9 dBm EIRP
- 5470–5725 MHz: 29.5 dBm EIRP
- 5725–5850 MHz: 34.3 dBm EIRP

Global Safe Mode:

2.4 GHz: 20.0 dBm EIRP

PERFORMANCE**Stateful Firewall:**

900 Mbps

**IPS/Application Aware
Services/Client Analytics:**

650 Mbps

Point-to-Point IPsec VPN:

300 Mbps

Concurrent VPN Tunnels:

10

Concurrent Sessions (TPC):

32,000

Typical Client Count:

100

Layer 2/Layer 3 VLANs:

Up to 64

LEDsSee the [Ericsson R2100 Quick Start Guide](#).

Performance testing was conducted based on requirements as defined in RFC2544 using fixed-frame 1518-byte packets. Throughput results reflect uni-directional 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**R2105-5GB / R2155-5GB****Technology:**

5G FR1 NSA/SA and 4G LTE

- LTE Advanced Pro Category 20
- Dual SIM slots, 4FF form factor
- 3GPP Release 15

3G:

WCDMA/UMTS/HSPA+

**Carrier
Aggregation:**

LTE Only

- Downlink: Up to 7 CA
- Uplink: Up to 2 CA

LTE + 5G NR ENDC

- Downlink: 1 CA
- Uplink: 1 CA

See [Understanding Carrier Aggregation](#).

Peak Rates:

- Downlink: Up to 4.14 Gbps
- Uplink: Up to 660 Mbps

MIMO:

4x4 MIMO

Modulation:

5GB FR1

- Downlink: Up to 256 QAM
- Uplink: Up to 256 QAM. (Only enabled on particular carrier equipment from 9190 data sheet.)

5G NR Bands:

NSA and SA

- n1 (2100), n2 (1900), n3 (1800), n5 (850), n7 (2600), n8 (900), n12 (700), n20 (800), n25 (1900), n28 (700), n38 (2600), n40 (2300), n41 (2500), n48 (3500), n66 (1700/2100), n71 (600), n77 (3700), n78 (3500), n79 (4900)

4G/LTE Bands:

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)

TDD

- B34 (2000), B38 (2600), B39 (1900), B40 (2300), B41 (2500), B42 (3500), B43 (3700), B46 (5200), B48 (3500)

3G Bands: 1, 2, 4, 5, 6, 8, 9, 19

Power: 5G NR

- 5G NR bands: 23 dBm $\pm$ 1.5 (typical conducted)

LTE + 5G NR ENDC

- LTE + 5G NR: 20 dBm $\pm$ 1 (typical conducted)

LTE

- LTE bands: 23 dBm $\pm$ 1 (typical conducted)
- LTE HPUE: 25 dBm $\pm$ 1 (B41 standalone mode only)

Antennas: 4 x cellular internal antennas

GNSS/GPS: Passive GNSS

SMS: Yes

Regulatory:

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

Network Operator Standards:

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

GCF Global Operators: <https://www.globalcertificationforum.org/membership/gcf-members-directory.html>[†]

PTCRB North America Operators: <https://www.ptcrb.com/about/>

Network Operator Certifications[†]:

- AT&T
- T-Mobile
- Verizon

Public Safety

Network

Certifications:

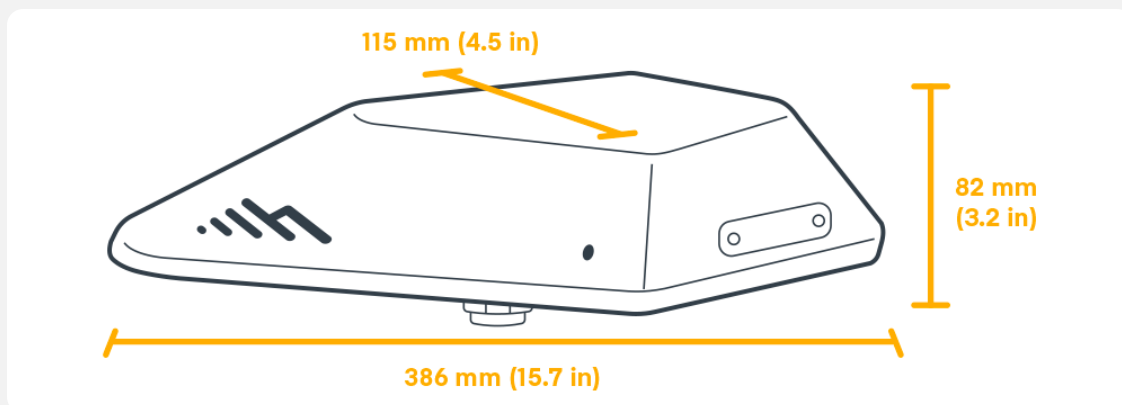
- FirstNet Trusted™
- T-Mobile Connecting Heroes
- Verizon Frontline Verified

Private Cellular Network:

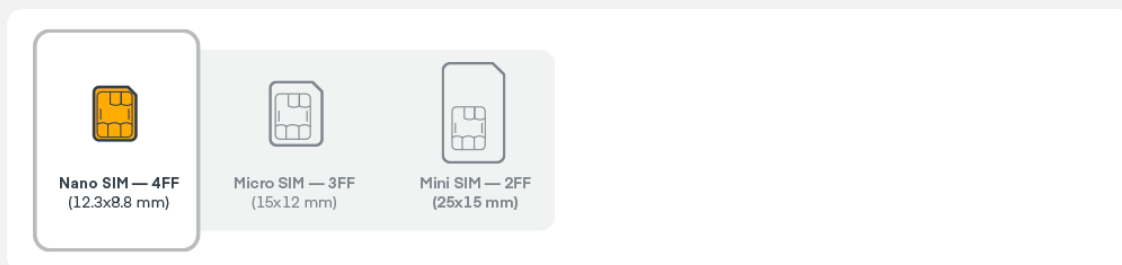
Yes, includes FCC Part 96 (CBRS Band 48)

† 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 Mobile Performance and Ericsson NetCloud Ruggedized IoT packages include all the features and capabilities required to fulfill a broad range of mobile, in-vehicle, and IoT solutions. The base Essentials subscription includes a purpose-built endpoint, 24x7 support

(phone support: 24-hour weekdays with emergency response on weekends, web: 24x7, chat: 24x5), a limited lifetime warranty, and access to Enterprise Wireless University.

For additional feature capabilities, an **Ericsson NetCloud Advanced** plan license can be added at any time to endpoints in the network.

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

Ericsson NetCloud Mobile Performance Packages for the R2100

REGION	MODEM	MOBILE PACKAGE PLAN	PART NUMBER
All Regions:	R2105 5G router with Wi-Fi (Mobile)	Mobile Performance Essentials	MB0x-2105-5GB-GA
	4FF SIM optional but not included, integrated antennas, no AC power supply	Mobile Performance Essentials + Advanced	MBAx-2105-5GB-GA
	R2155 5G router without Wi-Fi (Mobile)	Mobile Performance Essentials	MB0x-2155-5GB-GA
	4FF SIM optional but not included, integrated antennas, no AC power supply	Mobile Performance Essentials + Advanced	MBAx-2155-5GB-GA
		Adapter Advanced (requires corresponding Essentials Plan)	MC0x-NCADV

**United
States:
Federal
Government**

R2105 5G router with
Wi-Fi (Mobile)

- 4FF SIM optional but not included, integrated antennas, no AC power supply

TAA Complaint NC
Mobile Performance
Essentials

TAA Complaint NC
Mobile Performance
Essentials + Advanced

TAA-MB0x-
2105-5GB-
GA

TAA-MBAx-
2105-5GB-
GA

R2105 5G router with
Wi-Fi (Mobile)

- 4FF SIM optional but not included, integrated antennas, no AC power supply

TAA Complaint NC
Mobile FIPS
Performance Essentials +
Advanced

TAA-MBAx-
2105-5GB-
FA

R2155 5G router without
Wi-Fi (Mobile)

- 4FF SIM optional but not included, integrated antennas, no AC power supply

TAA Complaint NC
Mobile Performance
Essentials

TAA Complaint NC
Mobile Performance
Essentials + Advanced

TAA-MB0x-
2155-5GB-
GA

TAA-MBAx-
2155-5GB-
GA

R2155 5G router without
Wi-Fi (Mobile)

- 4FF SIM optional but not included, integrated antennas, no AC power supply

TAA Complaint NC
Mobile FIPS
Performance Essentials +
Advanced

TAA-MBAx-
2155-5GB-
FA

Renewals:

Renewal Mobile Performance Essentials	MB0x- NCESS-R
Renewal Mobile Performance Advanced	MB0x- NCADV-R
Renewal Mobile Performance Essentials + Advanced	MBAx- NCEA-R
Renewal Ruggedized IoT Essentials	TC0x- NCESS-R
Renewal Ruggedized IoT Advanced	TC0x- NCADV-R
Renewal Ruggedized IoT Essentials + Advanced	TCAx-NCEA- R

All Regions:

R2105 5G Captive Modem and Wi-Fi Accessory	N/A	170900-014
	N/A	170900-015
R2155 5G Captive Modem Accessory		
R2155 5G router without Wi-Fi (IoT)	Ruggedized IoT Essentials	TC0y-2155- 5GB-GA
4FF SIM optional but not included, integrated antennas, no AC power supply	Ruggedized IoT Essentials + Advanced	TCAy-2155- 5GB-GA

R2105 5G router with
Wi-Fi (IoT)

- 4FF SIM optional but not included, integrated antennas, no AC power supply

Ruggedized IoT
Essentials

Ruggedized IoT
Essentials + Advanced

TC0y-2105-
5GB-GA

TCAy-2105-
5GB-GA

R2105 5G router with
Wi-Fi (IoT)

- 4FF SIM optional but not included, integrated antennas, no AC power supply

TAA Complaint NC
Ruggedized IoT
Essentials

TAA Complaint NC
Ruggedized IoT
Essentials + Advanced

TAA-TC0y-
2105-5GB-
GA

TAA-TCAy-
2105-5GB-
GA

R2105 5G router with
Wi-Fi (IoT)

- 4FF SIM optional but not included, integrated antennas, no AC power supply

TAA Complaint NC FIPS
Ruggedized IoT
Essentials + Advanced

TAA-TCAy-
2105-5GB-
FA

R2155 5G router without
Wi-Fi (IoT)

- 4FF SIM optional but not included, integrated antennas, no AC power supply

TAA Complaint NC FIPS
Ruggedized IoT
Essentials + Advanced

TAA-TCAy-
2155-5GB-
FA

R2155 5G router without Wi-Fi (IoT)

- 4FF SIM optional but not included, integrated antennas, no AC power supply

TAA Complaint NC Ruggedized IoT Essentials

TAA Complaint NC Ruggedized IoT Essentials + Advanced

TAA-TC0y-2155-5GB-GA

TAA-TCAy-2155-5GB-GA

x = 1, 3, or 5 years

y = 3 or 5 years

Accessories

INCLUDED	PART NUMBER
Small Accessories Kit	N/A
Mounting Template	N/A
Power Supply, 12V, 2x2 Small 1.5 meters (North America Type A)	170716-001
Power Supply, 12 V, Small 2x2, 1.5 meters (North America-United Kingdom-Europe-Australia Types A-G-C-I)	170717-000
Vehicle Mounting Foam	170905-000
Vehicle Mounting Extension Bolt	170906-000
OPTIONAL	
GPIO Cable, 2x2, 3 meters, 20 AWG	170864-000

Support & Warranty

The R2100 5G ruggedized router is only sold as a component of Ericsson NetCloud Mobile Performance Essentials or Essentials + Advanced packages.

- Ericsson NetCloud 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/r2100