cradlepoint PART OF ERICSSON

Data Sheet

Ericsson Cradlepoint E300

2024 - 11 - 15

The Ericsson NetCloud Service for enterprise branch with an E300 router is ideally suited for providing 4G and 5G cellular connectivity, agile VPN security, and cellular optimized SD-WAN to pop-up temporary locations, branches, stores, and clinics. The all-in-one form factor includes full-featured routing, security, and Wi-Fi, making it easy to connect offices and sites to the internet and critical applications without the need for extra hardware or complicated configurations. And the embedded 5G or LTE modem means that connectivity is always available from day 1 without waiting for a wired connection.

Ideal for Wireless WAN

For organizations moving to a wireless WAN, the E300 offers the ability to pair 5G or LTE with a wired link and use a cellular link as a failover connection, hybrid WAN or a primary connection. For an all-wireless WAN, the E300 offers 5G or LTE performance, which can support the throughput needs of a small- or medium-sized office with the ability to add a second cellular connection to increase available bandwidth and reliability.

5G, SD-WAN, and Security Integration

5G has emerged as an essential WAN infrastructure to offer agile and reliable connections. The E300 router with 5G cellular intelligence makes it easy to deploy 5G-enabled networks while optimizing both cellular and wired traffic to enhance application performance. Security postures can be reinforced, and attack surfaces minimized with zero trust privileged access, protected IP addresses, detailed security policies and consolidated authentication usage.

Additionally, the E300 router can serve as the user equipment router for private cellular networks that provide reliable local area network connectivity where wireless LAN fails to meet the network needs due to large areas or excessive congestion.

Notable Features

- Connect to the internet or applications anywhere with all-wireless 5G or LTE connectivity.
- Terminate a primary wired broadband link with cellular as failover for highly resilient hybrid connectivity.
- Open temporary locations without compromising security or reliability with an all-in-one design and compact form factor.
- Reduce network attack surface, build encrypted tunnels, and incorporate zero trust principles with Secure Connect.
- Optimize cellular and wired traffic flows for the best quality of experience (QoE) with SD-WAN.
- Define policies through centralized, cloud-based management for easy deployment at scale.
- Add a second cellular modem for dual cellular connectivity.
- Acts as Captive Modem controller for Cradlepoint 5G Wideband Adapters

Product Page

NetCloud Service

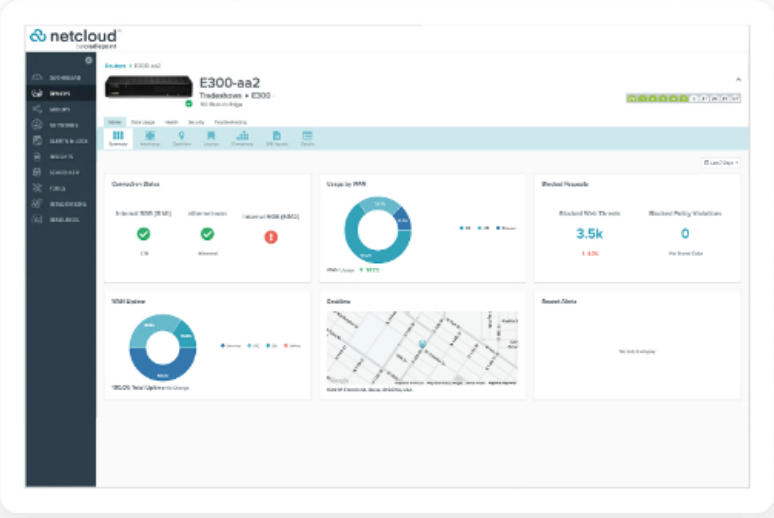
Quick Start Guide

Key Software Capabilities

Ericsson NetCloud Service for the E300 provides everything needed to unlock the power of 5G and LTE at the network edge and connect users and IoT devices to critical applications and services. The Ericsson NetCloud Service package for the E300 includes router software for optimizing routing, VPN, SD-WAN, and security capabilities. The cloud capabilities include group policy definition, reports, troubleshooting, and analytics dashboards. The service includes a warranty for as long as there is an active subscription on the router, online training, live and online support, and all software and firmware updates.

SD-WAN and Routing Services

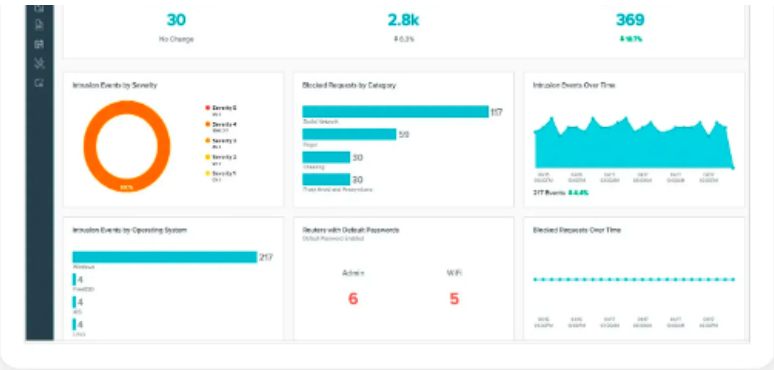
SD-WAN and routing hardware provides local processing power to handle demanding router-delivered services, such as support for VPN tunneling encryption that includes Secure Connect, DMVPN, IPsec, GRE, and other tunneling technologies. SD-WAN optimizes cellular and wired traffic but adds data plan and carrier selection capabilities needed for wireless. NetCloud delivers true zero-touch deployment with the ability to define and deliver policy across entire groups of endpoints.



Security Services

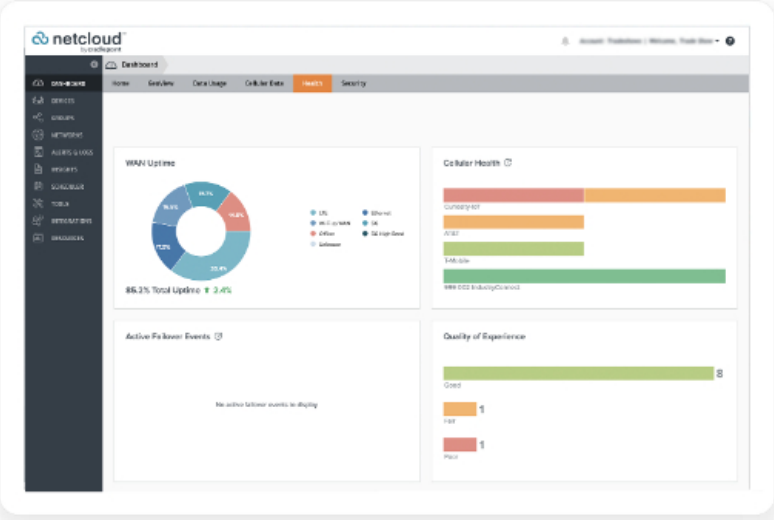
Ericsson NetCloud Service includes security features and options to optimize the E300 to meet the evolving security needs of distributed environments. The Essential service includes stateful zone-based firewall enhancement capability to Application Aware Traffic Steering with the Advanced package. Secure remote management and other security add-on capabilities such as IPS, Content Filtering, and Zero Trust Network Access help reduce the network attack surface.

© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com



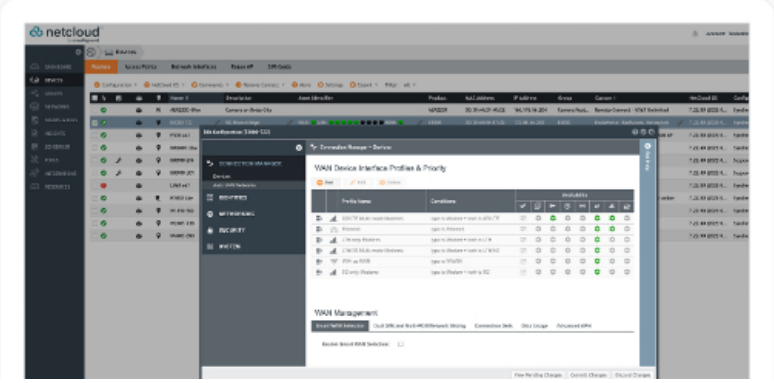
Cellular Intelligence

Ericsson NetCloud Cellular Intelligence collection of software features that allow administrators with distributed wireless WANs to visualize, optimize, and troubleshoot cellular connections, data plans, and traffic flow. These insights give IT teams the necessary tools to manage the unique demands of cellular with more predictable connectivity, deeper insights, and more accurate cost containment.



Remote Access and Troubleshooting

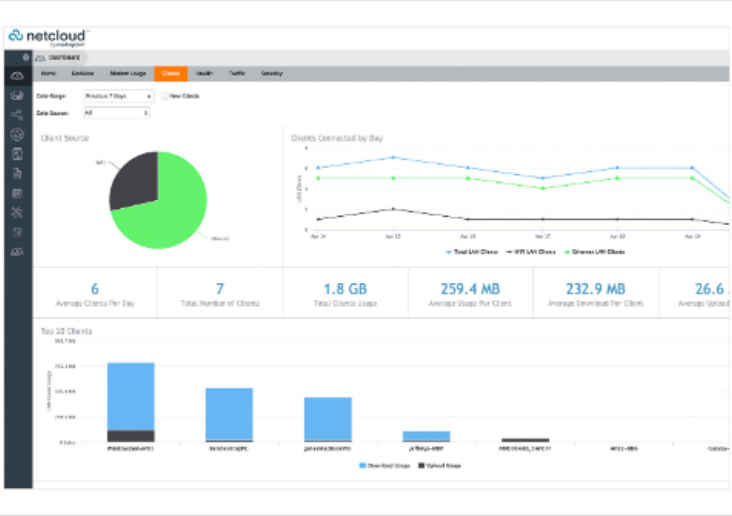
Connection Manager provides the ability to manage all WAN connection types, both wireless and wired, from a single software-defined policy. Our custom-built modem software ensures users establish wireless WAN connectivity faster while maintaining the highest level of resiliency.



© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com

Cloud Insights

Use the dashboard for analytics on client, traffic, and modem data usage to gain insights into network status and make necessary adjustments. Configure device and wireless-carrier alerts to notify when important thresholds or limits are reached to know when to make changes



Hardware Specifications

The following features are delivered through the hardware.

INTERFACES	
Modem:	One of the following: — Embedded 5GB low/mid-band modem, including 4 x SMA cellular antenna connectors — Embedded Cat 7 LTE modem, including 2 x SMA cellular antenna connectors — Embedded Cat 18 LTE modem, including 4 x SMA cellular antenna connectors Optional dual modem: — Modular MC400 Modem
Ethernet:	— 5 x GbE RJ45 (LAN/WAN switchable) — 1 x 10 GbE SFP+ (LAN/WAN switchable) — SFP: Finisar FTLF8519P3BNL, FTLF1318P3BTL — SFP+: Finisar FTLX8574D3BCL, FTLX1475D3BCL, FCBG110SD1Cxx
Wi-Fi:	Dual-radio, dual-band, concurrent operation (2.4 GHz and 5 GHz)

© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com

	— 2x2 MU-MIMO 802.11ax Wi-Fi 6 with DFS — 574 Mbps (2.4 GHz) and 1,200 Mbps (5 GHz) — Internal 2x2 antenna — Global Optimized Wi-Fi — WPA/WPA2/WPA3 Personal, WPA2/WPA3 Enterprise, Open — 802.11k, 802.11v

Expansion:	— 1 x MC400 Modular Modem Slot (Peak throughput: 300 Mbps) — 1 x USB 2.0 Type A (output: 5 V, 500 mA, 2.5 W) — 1 x Expansion Slot — MC20BT Bluetooth® wireless technology Low Energy Module
GNSS/GPS:	1 x SMA GNSS antenna connector†
ENVIRONMENTAL	
Temperature:	— Operating: 0 °C to 45 °C (32 °F to 113 °F) — Storage: -20 °C to 70 °C (-4 °F to 158 °F)
Humidity:	— Operating: 10% to 90% — Storage: 5% to 95%
POWER	
Required:	External power supply (included) — Input: 100-240 VAC 1 A — Output: 12 VDC 3 A
Consumption:	— Idle: 9 W — Typical: 13 W — Heavy: 17 W
PHYSICAL	
Size:	135 x 270 x 44 mm (5.3 x 10.6 x 1.7 in)
Weight:	.86 kg (1 lb 14 oz)
RELIABILITY	
Calculated MTBF:	— E300-C7C and E300-C7D: 483,968 hours (Telcordia SR332 at 25 °C) — E300-C18B and E300-C4D: 324,742 hours (Telcordia SR332 at 25 °C) — E300-5GB: 399,642 hours (Telcordia SR332 at 25 °C)
CERTIFICATIONS	
Safety:	UL/cUL, CB Scheme, EN 60950-1, EN 62368-1
Materials:	WEEE, RoHS, REACH, California Prop 65
CLOUD SERVICES	

© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com

Service Plans:	NetCloud Service for Enterprise Branch
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: 33.14 dBm EIRP — 5150–5250 MHz: 32.94 dBm EIRP — 5250–5350 MHz: 29.90 dBm EIRP — 5470–5725 MHz: 30.00 dBm EIRP — 5725–5850 MHz: 32.81 dBm EIRP
IC:	— 2.4 GHz: 33.14 dBm EIRP — 5150–5250 MHz: 25.74 dBm EIRP — 5250–5350 MHz: 25.84 dBm EIRP — 5470–5725 MHz: 29.82 dBm EIRP — 5725–5850 MHz: 32.81 dBm EIRP
Europe:	— 2.4 GHz: 19.93 dBm EIRP — 5150-5250 MHz: 22.76 dBm EIRP — 5250-5350 MHz: 22.92 dBm EIRP — 5500-5700 MHz: 29.08 dBm EIRP
Australia/ New Zealand:	— 2.4 GHz: 19.93 dBm EIRP — 5150-5250 MHz: 22.98 dBm EIRP — 5250-5350 MHz: 22.98 dBm EIRP — 5500-5700 MHz: 29.82 dBm EIRP — 5475-5825 MHz: 32.81 dBm EIRP
PERFORMANCE	
Stateful Firewall Throughput:	940 Mbps
IPS Throughput:	940 Mbps
Application Aware Services & Analytics:	940 Mbps
IPSec VPN Throughput:	400 Mbps
Concurrent VPN Tunnels:	20
Concurrent Sessions (TCP):	130,000
Typical Client Count:	50
Layer 2 / Layer 3 VLANs:	Up to 64
LEDs	

© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com

Refer to the E300 Series Enterprise Branch Router Quick Start Guide.

†Not available on E300-5GB routers.
Performance testing 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	E300-C18B
Technology:	Cat 18 LTE Advanced Pro (3GPP Rel. 12) — Dual SIM slots, 2FF form factor — SIM-based auto-carrier selection
3G:	WCDMA/UMTS/HSPA+
Carrier Aggregation:	Up to 5 x CA downlink, 2 x CA uplink See Understanding Carrier Aggregation.
Peak Downlink Rates:	— LTE: 1.2 Gbps — WCDMA: 42.2 Mbps
Peak Uplink Rates:	— LTE: 150 Mbps — WCDMA: 5.76 Mbps
MIMO:	4x4 MIMO
Modulation:	Up to 256 QAM
4G/LTE Bands:	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B48, B66, B71
3G Bands:	B1, B2, B4, B5, B8, B19
Power:	LTE 23 dBm ± 1, DC-HSPA+ 23 dBm ± 1 (typical conducted)
Antennas:	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 4, included)
GNSS/GPS:	Active GNSS — GPS, GLONASS, BeiDou, Galileo — DC voltage bias supplied (typical 3.1 V)
SMS:	Yes
Regulatory:	FCC (U.S.), IC (Canada), CE, RCM
Network Operator Standards:	PTCRB (U.S., Canada), GCF (Worldwide)
GCF Global Operators:	https://www.globalcertificationforum.org/membership/gcf-members.html†
PTCRB North America Operators:	https://www.ptcrb.com/about/
Network Operator Certifications:	AT&T, Telstra (Cat 16), T-Mobile, Verizon†
Public Safety Network Certifications:	Verizon Frontline
Private Cellular Network:	Yes, includes FCC Part 96 (CBRS OnGo 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. A carrier listed in the approvals section means Cradlepoint completed additional testing and acquired technical approval for that given

© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com

carrier. Any carrier not listed may not require additional testing or approval beyond telecom industry certifications to operate on their network.

SPECIFICATION	E300-5GB
Technology:	5G FR1 NSA/SA and 4G LTE — LTE Advanced Pro Category 20 — Dual SIM slots, 2FF form factor — 3GPP Release 15
3G:	WCDMA/UMTS/HSPA+
Carrier Aggregation:	LTE Only — Downlink: Up to 7CA — Uplink: Up to 2CA LTE + 5G NR ENDC — Downlink: 1CA — Uplink: 1CA 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.)
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)
5G NR Bands:	NSA and SA — n1 (2100), n2 (1900), n3 (1800), n5 (850), n7 (2600), n8 (900), n12 (700), n20 (800), n25 (1900), n26 (850), n28 (700), n38 (2600), n40 (2300), n41 (2500), n48 (3500), n66 (1700/2100), n71 (600), n77 (3700), n78 (3500), n79 (4900)
Power:	LTE — LTE bands: 23 dBm ± 1 (typical conducted) — LTE HPUE: 25 dBm ± 1 (B41 standalone mode only)

© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com

	LTE + 5G NR ENDC — LTE + 5G NR: 20 dBm ± 1 (typical conducted) 5G NR — 5G NR bands: 23 dBm ± 1.5 (typical conducted)
Antennas:	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 4, included)
GNSS/GPS:	Passive GNSS (multiplex with DIV/MIMO2 antenna ports)
SMS:	Yes
Regulatory:	FCC (U.S.), CE (EU), RCM (AU/NZ)
Network Operator Standards:	PTCRB (U.S., Canada), GCF (Worldwide)
Network Operator Certifications:	AT&T, T-Mobile, Verizon†
Public Safety Network Certifications:	FirstNet Trusted™, T-Mobile Connecting Heros, Verizon Frontline
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. 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.

SPECIFICATION	E300-C7C
Technology:	Cat 7 LTE (3GPP Rel. 11) — Dual SIM slots, 2FF form factor — SIM-based auto-carrier selection
3G:	WCDMA/UMTS/HSPA+
Carrier Aggregation:	Up to 2 x CA downlink, 2 x CA uplink See Understanding Carrier Aggregation.
Peak Downlink Rates:	— LTE: 300 Mbps — WCDMA: 42.2 Mbps
Peak Uplink Rates:	— LTE: 150 Mbps — WCDMA: 5.76 Mbps
MIMO:	2x2 MIMO
Modulation:	Up to 64 QAM
4G/LTE Bands:	LTE FDD — B2 (1900), B4 (1700), B5 (850), B7 (2600), B12 (700), B13 (700), B14 (700), B25 (1900), B26 (850), B66 (1700), B71 (600) LTE TDD — B41 (2500), B42 (3500), B43 (3700), B48 (3500)

© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com

3G Bands:	B2, B4, B5
Power:	LTE 22.5 dBm ± 1, DC-HSPA+ 23 dBm ± 1
Antennas:	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 2, included)
GNSS/GPS:	Passive GNSS
SMS:	Yes
Regulatory:	FCC (U.S.), IC (Canada)
Network Operator Standards:	PTCRB (U.S., Canada)
Network Operator Certifications:	AT&T, T-Mobile, Verizon†

Public Safety Network Certifications:	FirstNet Trusted™, T-Mobile Connecting Heros, Verizon Frontline
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. 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.

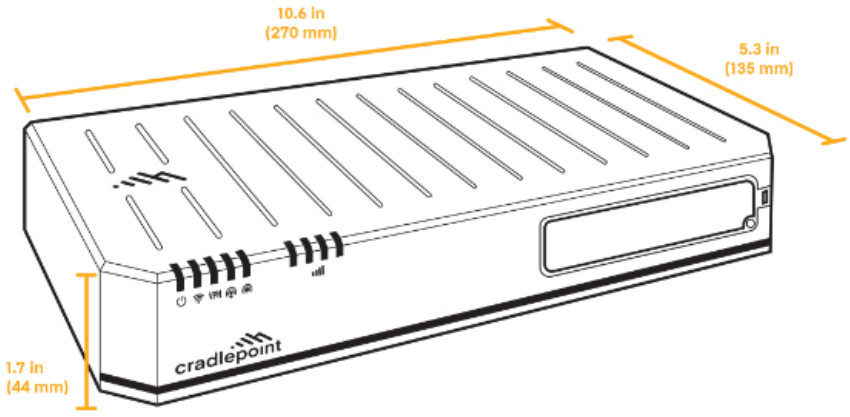
SPECIFICATION	E300-C7D
Technology:	Cat 7 LTE (3GPP Rel. 11) — Dual SIM slots, 2FF form factor — SIM-based auto-carrier selection
3G:	WCDMA/UMTS/HSPA+
Carrier Aggregation:	Up to 2 x CA downlink, 2 x CA uplink Refer to the Modem Carrier Aggregations article.
Peak Downlink Rates:	— LTE: 300 Mbps — WCDMA: 42.2 Mbps
Peak Uplink Rates:	— LTE: 150 Mbps — WCDMA: 5.76 Mbps
MIMO:	2x2 MIMO
Modulation:	Up to 64 QAM
4G/LTE Bands:	LTE FDD — B1, B3, B7, B8, B20, B28, B32 LTE TDD — B38, B40, B41, B42, B43
3G Bands:	B1, B5, B8
Power:	LTE 22.5 dBm ± 1, DC-HSPA+ 23 dBm ± 1
Antennas:	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 2, included)
GNSS/GPS:	Passive GNSS
SMS:	Yes

© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com

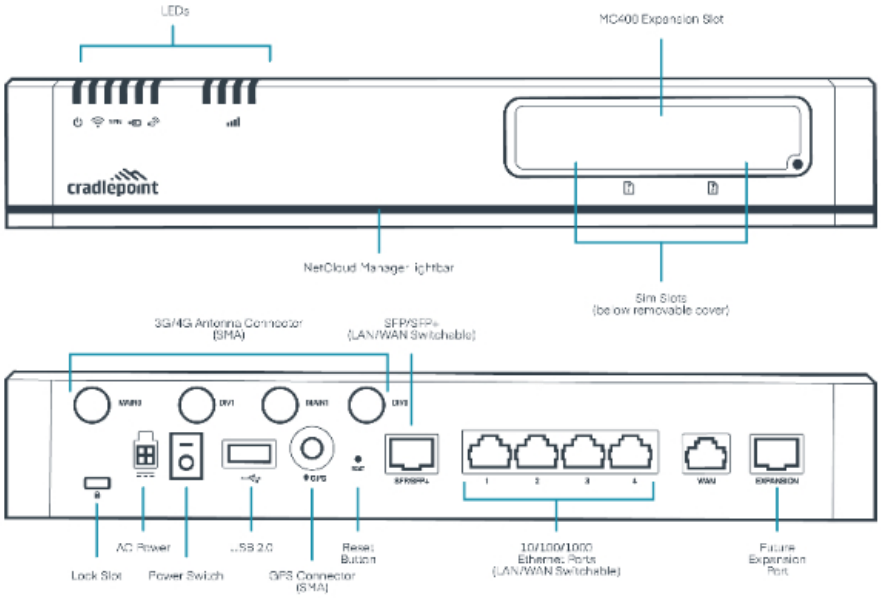
Regulatory:	CE (EU)
Network Operator Standards:	GCF (Worldwide)
Network Operator Certifications:	See note†
Public Safety Network Certifications:	N/A
Private Cellular Network:	N/A

†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. 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

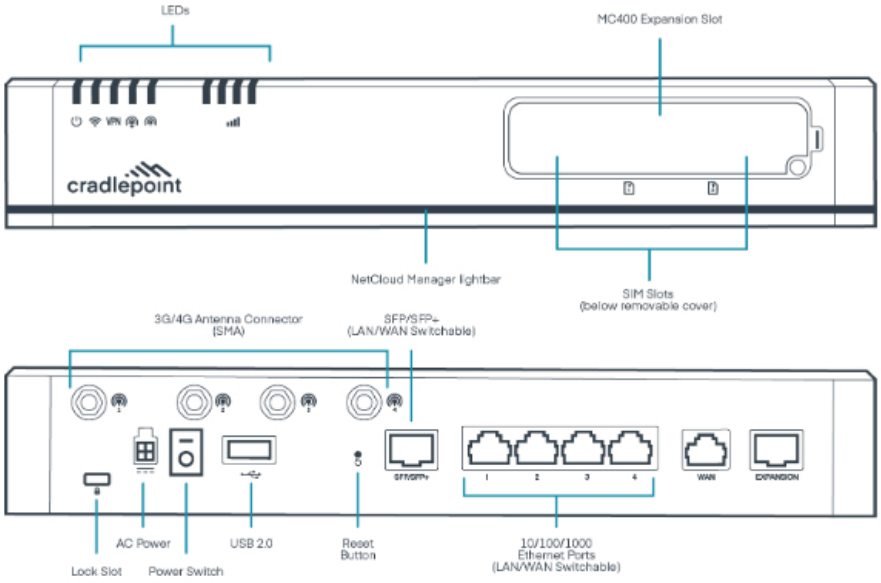


Features — E300-C18 & C7C/D



© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com

Features — E300-5GB



SIM Card Info

Ordering Guide

Ericsson NetCloud Service Enterprise Branch Essentials packages and plans contain all the features and capabilities required for small to mid-sized branch 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 Enterprise Branch Advanced plan** can be added to the Ericsson NetCloud Service Enterprise Branch 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 Branch Packages for the E300 Series Router

REGION	MODEM	BRANCH PACKAGE PLAN	PART NUMBER
North America: U.S. & Canada	5G with Wi-Fi	Essentials	BF0x-03005GB-GN
		Essentials + Advanced	BFAx-03005GB-GN
	Cat 18 (1200 Mbps)	Essentials	BF0x-0300C18B-GN

© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com

	with Wi-Fi	Essentials + Advanced	BFAx-0300C18B-GN
	Cat 7 (300 Mbps) with Wi-Fi	Essentials	BF0x-0300C7C-GN
		Essentials + Advanced	BFAx-0300C7C-GN

United States: Federal Government	5G with Wi-Fi	Essentials	TAA-BF0y-03005GB-GN
		Essentials + Advanced	TAA-BFAy-03005GB-GN
		TAA Compliant NC FIPS — Essentials + Advanced	TAA-BFAx-03005GB-FN
		FIPS — Essentials + Advanced	BFAx-NCESSF
		FIPS — Renewal Essentials + Advanced	BFAx-NCESSF-R
	Cat 18 (1200 Mbps) with Wi-Fi	Essentials	TAA-BF0y-0300C18B-GN
		Essentials + Advanced	TAA-BFAy-0300C18B-GN
	Cat 7 (300 Mbps) with Wi-Fi	Essentials	TAA-BF0y-0300C7C-GN
		Essentials + Advanced	TAA-BFAy-0300C7C-GN
Rest of World: **European Union, United Kingdom, Australia, Malaysia, Singapore, South Africa & New Zealand**	5G with Wi-Fi	Essentials	BF0x-03005GB-GM
		Essentials + Advanced	BFAx-03005GB-GM
	Cat 7 (300 Mbps) with Wi-Fi	Essentials	BF0x-0300C7D-GM
		Essentials + Advanced	BFAx-0300C7D-GM
	Cat 18 (1200 Mbps) with Wi-Fi	Essentials	BF0x-0300C18B-GM

© Cradlepoint. All Rights Reserved. | All specifications subject to change without notice | cradlepoint.com