Data Sheet:

E100 Series Enterprise Router

2023 - 10 - 30

The Cradlepoint NetCloud Service for Small Branch with the E100 Series Enterprise Router is ideally suited for enabling mission-critical employees to work from home or outside the office with the same services, security, and ease of management. The portable, compact form factor includes full-featured routing, security, traffic shaping, and Wi-Fi, making it easy to connect and maintain connectivity to the Internet for supporting crucial business applications. The embedded 5G or LTE modem means that reliable, private connectivity is always available from day one without waiting for a wired connection and without having to depend upon consumer-class, underlying networking conditions.

Ideal for Small Branch Wireless WAN

For organizations moving to a Small Branch Wireless WAN, the E100 offers the ability to pair 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 E100 offers LTE performance, which can support the throughput needs of a small- sized office with the ability to add a second cellular connection to increase available bandwidth and reliability.

Work from Anywhere

NetCloud Service for Small Branch, combined with an E100 Series Router, provides a dedicated connection for remote, mission-critical workers and executives with a similar experience as the office network, with access to critical cloud and corporate data center applications. Instead of relying on uneven levels of household equipment, this Work From Anywhere (WFX) solution offers IT providers cloud-based management to define and distribute policies, set security parameters, isolate corporate assets, and fine-tune bandwidth considerations in a uniform, corporate-class offering that interoperates with existing network solutions.

Notable Benefits

- Connect to the internet or applications anywhere with all-wireless 5G or LTE connectivity.
- Open temporary locations without compromising security or reliability with an all-in-one design and compact form factor.
- Extend office networking capabilities to critical remote employees without compromising security or reliability.
- Reduce network attack surface, build encrypted tunnels, and incorporate zero trust principles with NCX Secure Connect and NCX ZTNA.
- Define policies through centralized, cloud-based management for easy deployment at scale.
- Use zero-touch deployment with pre-configured router and pre-inserted SIM to speed installation.

Product Page | NetCloud Service | Quick Start Guide

- Key Software Capabilities
- Hardware Specifications
- Enterprise-Class Modem Specifications
- Physical Measurements & Features
- Ordering Guide
- Accessories
- Support & Warranty

Notice: All specifications subject to change without notice.

Key Software Capabilities

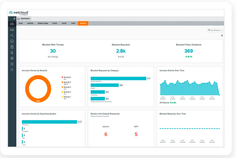
Cradlepoint NetCloud Service for Small Branch provides everything needed to connect the remote worker to their corporate applications and services they need most from virtually any location. The NetCloud Service includes cloud-based management for optimizing routing, VPN, SD-WAN, and security capabilities. The cloud capabilities include defining and applying policies, at-a-glance status insights, reports, troubleshooting, and analytics dashboards. The service includes a warranty that as long as there is an active subscription on the router, online training, live and online support, and all software and firmware updates.

Deployment Capabilities

Zero-touch deployment features allow pre-configured and pre-activated equipment to arrive on location, so the employee is able to power up an E100 Series Router, locate the best cellular connection path, and instantly setup the pre-established office parameters through the NetCloud Service, upon authentication.

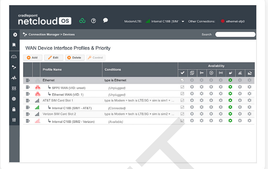
Security Services

NetCloud Service includes Unified Edge security features and options to optimize an E100 Series Router to meet and scale to the security needs of distributed environments. The service includes stateful zone-based and application-aware firewall, unified threat management, and authenticated wireless connection that is fully isolated from the surrounding networks.



Cloud Services

NetCloud delivers true zero-touch deployment with the ability to define and deliver policy across entire groups of endpoints. Users can create a cloud-orchestrated hub and spoke VPN network and gain insights and analytics required for rapid troubleshooting and diagnostic workflows.



Hardware Specifications

The following features are delivered through the hardware.

SPECIFICATION	E100-C4D and E100-C7C	E100-5GC
INTERFACES		
Modem:	One of the following: — Embedded Cat 4 LTE modem, including 2 x SMA cellular antenna connectors — Embedded Cat 7 LTE modem, including 2 x SMA cellular antenna connectors	— Embedded 5GC low/mid-band modem, including 4 x SMA cellular antenna connectors
Ethernet:	5 x GbE RJ45 (LAN/WAN switchable)	5 x GbE RJ45 (LAN/WAN switchable)
Wi-Fi:	Dual-radio, dual-band, concurrent operation (2.4 GHz and 5 GHz) — 2x2 MU-MIMO 802.11ac Wi-Fi 5 with DFS — 300 Mbps (2.4 GHz) and 867 Mbps (5 GHz) — Internal 2x2 antenna — Wi-Fi Alliance Certified	Dual-radio, dual-band, concurrent operation (2.4 GHz and 5 GHz) — 2x2 MU-MIMO 802.11ac Wi-Fi 5 with DFS — 300 Mbps (2.4 GHz) and 867 Mbps (5 GHz) — Internal 2x2 antenna — Wi-Fi Alliance Certified
Expansion:	1 x USB 2.0 Type A (Output: 5 V, 500 mA, 2.5 W)	1 x USB 2.0 Type A (Output: 5 V, 500 mA, 2.5 W)
GNSS/GPS:	1 x SMA GNSS antenna connector	Passive GNSS (muxed with external cellular antennas)
ENVIRONMENTAL		
Temperature:	— Operating: 0 °C to 40 °C (32 °F to 104 °F) — Storage: -20 °C to 70 °C (-4 °F to 158 °F)	— Operating: 0 °C to 40 °C (32 °F to 104 °F) — Storage: -20 °C to 70 °C (-4 °F to 158 °F)
Humidity:	— Operating: 10% to 90% — Storage: 5% to 95%	— 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	External power supply (included) — Input: 100-240 VAC 1 A — Output: 12 VDC 3 A
Backup:	Up to 2 optional backup batteries	Up to 1 optional backup battery
Consumption:	— Idle: 6 W — Idle Charging 1 Battery: 9.3 W — Idle Charging 2 Batteries: 15 W — Typical Usage with Charging 2 Batteries: 17 W — Heavy Usage with Charging 2 Batteries: 20 W	— Idle: 4 W — Idle Charging 1 Battery: 10 W — Typical Usage with Charging 1 Battery: 19.5 W — Heavy Usage with Charging 1 Battery: 22 W
PHYSICAL		
Size:	135 x 270 x 48 mm (5.3 x 10.6 x 1.9 in)	135 x 270 x 48 mm (5.3 x 10.6 x 1.9 in)
Weight:	.68 kg (1 lb 8 oz)	.49 kg (1 lb 1.34 oz)
RELIABILITY		
Calculated MTBF:	673,341 hours (Telcordia SR332 at 25 °C)	TBD
CERTIFICATIONS		
Safety:	UL/cUL, CB Scheme, EN 60950-1, EN 62368-1	UL/cUL, CB Scheme, EN 62368-1
Materials:	RoHS, California Prop 65, Bell Catalog Listing	RoHS, California Prop 65, Bell Catalog Listing
Security:	Secureboot	Secureboot
CLOUD SERVICES		
Service Plans:	NetCloud Service for Small Branch	NetCloud Service for Small Branch
Service Add-Ons:	NetCloud Exchange, NetCloud Advanced	NetCloud Exchange, NetCloud Advanced
Support:	NetCloud Packages include support for the full subscription term.	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.	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.	NetCloud Manager for the full subscription term.
Software Updates:	NetCloud Manager for the full subscription term.	NetCloud Manager for the full subscription term.
Wi-Fi POWER		
PCO:	— 2412-2462 MHz (2.4 GHz): 29.4 dBm EIRP — 5150-5250 MHz (5 GHz band 1): 29.85 dBm EIRP — 5250-5350 MHz (5 GHz band 2a): 27.91 dBm EIRP — 5470-5725 MHz (5 GHz band 2c): 27.62 dBm EIRP — 5745-5850 MHz (5 GHz band 3): 29.91 dBm EIRP	— 2412-2462 MHz (2.4 GHz): 29.4 dBm EIRP — 5150-5250 MHz (5 GHz band 1): 29.85 dBm EIRP — 5250-5350 MHz (5 GHz band 2a): 27.91 dBm EIRP — 5470-5725 MHz (5 GHz band 2c): 27.62 dBm EIRP — 5725-5850 MHz (5 GHz band 3): 29.91 dBm EIRP
IO:	— 2412-2462 MHz (2.4 GHz): 29.4 dBm EIRP — 5150-5250 MHz (5 GHz band 1): 25.46 dBm EIRP — 5250-5350 MHz (5 GHz band 2a): 22.94 dBm EIRP — 5470-5725 MHz (5 GHz band 2c): 27.09 dBm EIRP — 5745-5850 MHz (5 GHz band 3): 29.91 dBm EIRP	— 2412-2462 MHz (2.4 GHz): 29.4 dBm EIRP — 5150-5250 MHz (5 GHz band 1): 25.46 dBm EIRP — 5250-5350 MHz (5 GHz band 2a): 22.94 dBm EIRP — 5470-5725 MHz (5 GHz band 2c): 27.09 dBm EIRP — 5745-5850 MHz (5 GHz band 3): 29.91 dBm EIRP
CE:	N/A	— 2412-2472 MHz (2.4 GHz): 19.80 dBm EIRP — 5180-5240 MHz (5 GHz band 1): 22.70 dBm EIRP — 5260-5320 MHz (5 GHz band 2a): 22.59 dBm EIRP — 5500-5700 MHz (5 GHz band 2c): 25.98 dBm EIRP
PERFORMANCE		
Stateful Firewall Throughput:	850 Mbps	850 Mbps
IPS Throughput:	290 Mbps	290 Mbps
Application Aware Services & Analytics:	250 Mbps	250 Mbps
IPSec VPN Throughput:	40 Mbps	40 Mbps
Concurrent VPN Tunnels:	20	20
Concurrent Sessions (TCP):	32,000	32,000
Typical Client Counts	5	5
LEDs		
	Refer to the E100 Router Quick Start Guide.	Refer to the E100 Router Quick Start Guide.
E100 BATTERY (OPTIONAL)		
Size:	126.5 x 81 x 24.5 mm (4.7 x 3.2 x 1.0 in)	126.5 x 81 x 24.5 mm (4.7 x 3.2 x 1.0 in)
Weight:	.35 kg (12.2 oz)	.34 kg (12 oz)
Chemistry:	Lithium-ion	Lithium-ion
Capacity:	7800 mAh	7800 mAh
Voltage:	— Nominal: 7.2 V — Maximum: 8.4 V	— Nominal: 7.2 V — Maximum: 8.4 V
Estimated Runtime:	— Single Battery: Up to 8 hours — Dual Batteries: Up to 16 hours	Single Battery: Up to 9 hours

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	E100-C4D	E100-C7C	E100-5GC
Technology:	Cat 4 LTE (3GPP Rel. 11) — Dual SIM slots, 2FF form factor — SIM-based auto-carrier selection	Cat 7 LTE (3GPP Rel. 11) — Dual SIM slots, 2FF form factor — SIM-based auto-carrier selection	5G NSA/SA with LTE-ADV PRO Cat 19 fallback — Dual SIM slots, 4FF form factor — 3GPP Release 16
3G:	WCDMA/UMTS/HSPA+	WCDMA/UMTS/HSPA+	WCDMA/HSPA+
Carrier Aggregation:	N/A	Up to 2 x CA downlink, 2 x CA uplink See the Modem Carrier Aggregations article.	— ENDC up to 4CA LTE downlink, up to 2CA NR downlink, up to 2CA LTE uplink, 1CA NR uplink — LTE only: up to 5CA downlink, 2CA uplink See the Modem Carrier Aggregations article.

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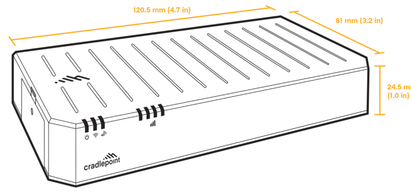
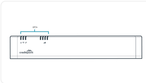
Peak Downlink Rates:	— LTE: 150 Mbps — WCDMA: 42.2 Mbps	— LTE: 300 Mbps — WCDMA: 42.2 Mbps	Up to 3.4 Gbps NSA and 2.4 Gbps SA
Peak Uplink Rates:	— LTE: 50 Mbps — WCDMA: 5.76 Mbps	— LTE: 150 Mbps — WCDMA: 5.76 Mbps	Up to 550 Mbps NSA and 450 Mbps SA
MIMO:	2x2 MIMO	2x2 MIMO	4x4 MIMO
Modulation:	Up to 64 QAM	Up to 64 QAM	Up to 256 QAM
4G/LTE Bands:	LTE FDD — B2, B4, B5, B12, B13, B14, B66, B71	LTE FDD — B2, B4, B5, B7, B12, B13, B14, B25, B26, B41, B42, B43, B48, B66, B71	LTE FDD — B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B66, B71 LTE TDD — B34, B38, B39, B40, B41, B42, B43, B46, B48
5G NR Bands:	N/A	N/A	NSA and SA — n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n70, n71, n75, n76, n77, n78, n79
3G Bands:	B2, B4, B5	B2, B4, B5	B1, B2, B3, B4, B5, B8, B19
Power:	LTE 23 dBm ± 1; HSPA+ 23 dBm ± 1 (typical conducted)	LTE 23 dBm ± 1, DC-HSPA+ 23 dBm ± 1 (typical conducted)	— LTE only; 23 dBm ± 1 (typical conducted) — ENDC 5G + LTE; 20 dBm ± 1 (typical conducted)
Antennas:	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 2, included)	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 2, included)	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 4, included)
GNSS/GPS:	Active GNSS	Active GNSS	Passive GNSS (multiplex with DIV/MIMO2 antenna ports) — GPS, GLONASS, BeiDou, Galileo, QZSS
SMS:	Yes	Yes	Yes
Regulatory:	FCC (U.S.), IC (Canada)	FCC (U.S.), IC (Canada)	FCC (U.S.), IC (Canada), CE (EU), RCM (AU/NZ)
Network Operator Standards:	PTCRB (U.S., Canada)	PTCRB (U.S., Canada)	PTCRB (U.S., Canada), GCF (Worldwide)
Network Operator Certifications:	AT&T, Verizon[1]	AT&T, Verizon, Bell (pending)[1]	AT&T, T-Mobile, Verizon[1]
Public Safety Network Certifications:	N/A	N/A	N/A
Private Cellular Network:	N/A	Yes, includes FCC Part 96 (CBRS Band 48)	Yes, includes FCC Part 96 (CBRS Band 48)

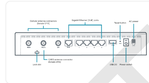
[1]Cellular carriers and operators throughout the world may only require telecom industry certifications, like PTCRB or GCF, to operate on their network. Some carriers require additional testing and approval, beyond telecom certifications. A carrier listed in the approvals section means Cradlepoint completed 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.

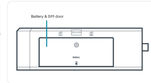
Physical Measurements & Features



Features — E100-C4D/C7C







Features — E100-5GC

SIM Card Info — E100-C4D/C7C

SIM Card Info — E100-5GC

Ordering Guide

NetCloud Small Branch Essentials + Advanced packages and plans contain all the features and capabilities required for remote or virtual workers. NetCloud 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, a **NetCloud Small Branch Advanced Plan** can be added to the NetCloud Small Branch Essentials Package at any time.

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

NetCloud Packages for the E100 Series Router

REGION	MODEM	PACKAGE PLAN	PART NUMBER
North America: **U.S & Canada**	5G with Wi-Fi	**Small Branch** — Essentials **Small Branch** — Essentials + Advanced	BK0x-01005GC-GN BKAx-01005GC-GN
	Cat 7 (300 Mbps) with Wi-Fi	**Small Branch** — Essentials **Small Branch** — Essentials + Advanced	BK0x-0100C7C-GN BKAx-0100C7C-GN
United States: **Federal Government**	Cat 7 (300 Mbps) with Wi-Fi	**Small Branch** — Essentials + Advanced	TAA-BKAx-0100C7C-GN
Rest of World: **Australia, European Union, Hong Kong, New Zealand, & United Kingdom**	5G with Wi-Fi	**Small Branch** — Essentials **Small Branch** — Essentials + Advanced	BK0x-01005GC-GM BKAx-01005GC-GM
All Regions:		**Small Branch** — Renewal — Advanced Upgrade (requires Essentials) — Essentials — Advanced (requires Essentials) — Essentials + Advanced	BK0x-NCADV BK0x-NCESS-R BK0x-NCADV-R BKAx-NCEA-R

x = 1, 3, or 5 years
y = 3 or 5 years

Accessories

INCLUDED	PART NUMBER
One of the following: — Power Supply, 12VDC, 2X2 1.5 meters (North America) — Power Supply, 12VDC, 2x2 1.5 meters (International)	170716-001 170717-000
Cellular Antenna, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm (Qty 2 or 4)	170801-000
Cable, Ethernet RJ45-to-RJ45, Black, 1.5 meters	170725-000
Small Accessories Kit — SIM/battery door screws (Qty 2) — Rubber feet (Qty 4)	N/A
OPTIONAL	**PART NUMBER**
Single Battery Pack for E100 Series Router	170848-000
UNITED STATES FEDERAL GOVERNMENT	**PART NUMBER**
Cellular Antenna, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm	TAA-170801-000

Support & Warranty

The E100 Series Router is only sold as a component of NetCloud Small Branch Packages.

— NetCloud Packages include support for the full subscription term.

— 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.

More Information

Find the most up-to-date information at cradlepoint.com/e100

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