

Data Sheet

X10 Series Router

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The Cradlepoint X10 Series Router is an ideal solution for providing enterprise-class business internet to small and medium sized businesses, temporary sites, and 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, switching, security, and Wi-Fi, making it easy to connect and maintain connectivity to the internet for supporting crucial business applications. The embedded 5G modem provides reliable, private, day-1 connectivity without waiting for a wired connection or having to depend upon best effort, consumer-class wireless solutions. And integration with NetCloud Exchange architecture enables advanced services, improved network stability, traffic prioritization, mitigation of data loss and much more.

Ideal for Small and Medium Sized Businesses

The X10 Series Router can be used as a primary connection, as part of a hybrid WAN or as a failover connection to a wired link. The X10 combines these flexible routing options with integrated switching and Wi-Fi to securely connect local devices for an all-in-one network. The X10 offers 5G performance, with 4G LTE fallback for comprehensive network coverage and the ability to deploy in more places. Businesses can also benefit from day-1 connectivity, without waiting for wireline service to be available in their location.

Great for Temporary Sites

The X10 Series Router is perfect for pop-up stores, store-in-a-store, and other temporary sites like clinics and construction sites. These businesses can rapidly deploy and re-deploy their X10 router to new locations, providing maximum operational flexibility. They will also benefit from a reliable and stable 5G connection to ensure their business-critical functions are always connected. Whether it's facilitating transactions in pop-up retail spaces, enabling essential medical services in clinics, or supporting construction site operations, the X10 Series Router provides a robust and consistent 5G connectivity experience.

Advanced Services

With 5G SASE delivered through Cradlepoint NetCloud Exchange (NCX), organizations can combine the performance of 5G, the efficiency of SD-WAN, and the security of zero trust networking and Secure Internet Access into a full-stack WWAN solution.

- NCX Secure Connect - Build zero trust encrypted tunnels – replacing VPNs – over hybrid cellular and wired links.
- NCX SD-WAN - Deploy a cellular-optimized SD-WAN solution that amplifies the 5G experience.
- Hybrid Mesh Firewall - Utilizes on-premise, cloud-based, and on-router capabilities to deliver optimal performance along with enhanced security.
- Secure Internet Access - Protect web access by isolating users and devices from all Internet-based malware.

Notable Benefits

- Connect to the internet or applications anywhere with all-wireless 5G 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.
- 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.

Hardware Specifications

The following features are delivered through the hardware.

PERFORMANCE [†]	
Stateful Firewall Throughput:	850 Mbps
IPS Throughput:	250 Mbps
Application Aware Services & Analytics:	250 Mbps
IPSec VPN Throughput:	40 Mbps
Concurrent VPN Tunnels:	20
Concurrent Sessions (TCP):	32,000
Typical Client Count:	25 (up to 248 Wi-Fi connections ^{††})
INTERFACES	
Modem:	Embedded 5G FR1 NSA/SA 3GPP release 16 and 4G LTE Category 19 modem, including 4 x SMA cellular antenna connectors
Ethernet:	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) — Up to 248 Wi-Fi connections (124 per radio - 2.4 GHz and 5 GHz) — Internal 2x2 antenna — WPA/WPA2/WPA3 Personal, WPA/WPA2/WPA3 Enterprise, Open — Wi-Fi Alliance Certified
Expansion:	1 x USB 2.0 Type A (Output: 5 V, 500 mA, 2.5 W)
GNSS/GPS:	Passive GNSS
ENVIRONMENTAL	
Temperature:	— 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%
POWER	
Required:	External power supply (included) — Input: 100-240 VAC 1 A — Output: 12 VDC 3 A
Backup:	Up to 1 optional backup battery

Consumption:	— 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)
Weight:	.83 kg (1 lb 13 oz)
RELIABILITY	
Calculated MTBF:	527,789 hours (Telcordia SR332 at 25 degrees °C)
CERTIFICATIONS	
Safety:	— UL/cUL 62368-1 — IEC 62368-1 — CB Scheme
Materials:	— California Prop 65 — RoHS
Security:	Secureboot
CLOUD SERVICES	
Service Plans:	NetCloud Connect
Service Add-Ons:	NetCloud Exchange
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:	— 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
IC:	— 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): 27.59 dBm EIRP — 5745-5850 MHz (5 GHz band 3): 29.91 dBm EIRP

CE:	2412-2472 MHz (2.4 GHz): 19.94 dBm EIRP 5180-5240 MHz (5 GHz band 1): 22.22 dBm EIRP 5260-5320 MHz (5 GHz band 2a): 22.57 dBm EIRP 5500-5700 MHz (5 GHz band 2c): 26.26 dBm EIRP
LEDs	
Refer to the X10-5GC Router Quick Start Guide.	
E100 BATTERY (OPTIONAL)	
Size:	120.5 x 81 x 24.5 mm (4.7 x 3.2 x 1.0 in)
Weight:	.35 kg (12.2 oz)
Chemistry:	Lithium-ion
Capacity:	7800mAh
Voltage:	Nominal 7.2 V Max 8.4 V
Estimated Runtime:	Single Battery: Up to 8 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.*

***Wi-Fi connections refer only to client association with the Wi-Fi radios and do not reflect overall endpoint performance and scale.*

Enterprise-Class Modem Specifications

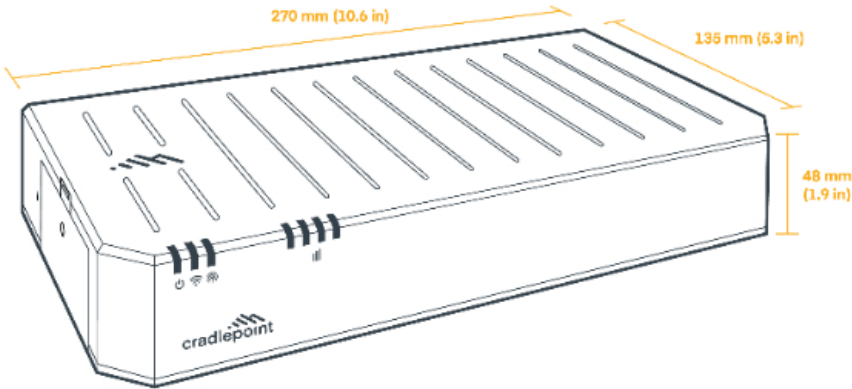
SPECIFICATION	X10-5GC
Technology:	5G FR1 NSA/SA LTE Advanced Pro Category 19 fallback Dual SIM slots, 4FF form factor 3GPP Release 16
3G:	UMTS/HSPA+
Carrier Aggregation:	LTE Only Downlink: Up to 5CA Uplink: Up to 2CA LTE + 5G NR ENDC Downlink: Up to 4CA (LTE) + Up to 1CA (5G NR) Uplink: Up to 2CA (LTE) + Up to 2CA (5G NR) 5G NR Only Downlink: Up to 2CA Uplink: 1CA See the Modem Carrier Aggregations article.

Peak Rates:	NSA - Downlink: Up to 3.4 Gbps - Uplink: Up to 550 Mbps SA - Downlink: Up to 2.4 Gbps - Uplink: Up to 450 Mbps LTE - Downlink: Up to 1.6 Gbps - Uplink: Up to 200 Mbps
MIMO:	4x4 MIMO
Modulation:	5GC FR1 - Downlink: Up to 256 QAM - Uplink: Up to 256 QAM
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), n13 (700), n14 (700), n18 (850), n20 (800), n25 (1900), n26 (850), n28 (700), n29 (700), n30 (2300), n38 (2600), n40 (2300), n41 (2500), n48 (3500), n66 (1700/2100), n70 (2000), n71 (600), n75 (1500), n76 (1500), n77 (3700), n78 (3500), n79 (4900)
3G Bands:	B1, B2, B4, B5, B8, B19
Power:	LTE - LTE bands: 23 dBm ± 2 (typical conducted) - LTE HPUE bands: 26 dBm ± 2 (typical conducted) 5G NR 5G NR bands: 23 dBm ± 2 (typical conducted) 5G NR HPUE bands: 26 dBm ± 2 (typical conducted)
Antennas:	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 4, included)
GNSS/GPS:	Passive GNSS (multiplex with antenna ports 2 and 4) GPS, GLONASS, BeiDou, Galileo, QZSS

SMS:	Yes
Regulatory:	FCC (U.S.), IC (Canada), CE (EU), RCM (AU/NZ), UKCA (UK)
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, T-Mobile, Verizon [†]
Public Safety Network Certifications:	N/A
Private Cellular Network:	Yes, includes FCC Part 96 (CBRS Band 48)

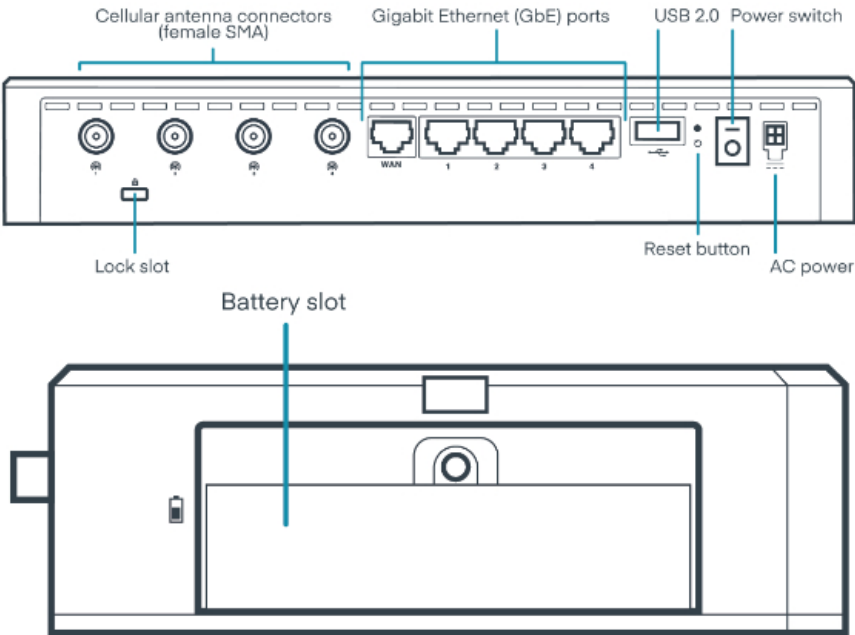
[†] Cellular carriers and operators throughout the world may only require telecom industry certifications, like PTCRB or GCF, to operate on their network. Some carriers require additional testing and approval, beyond telecom certifications. A carrier listed in the approvals section means Cradlepoint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

Physical Measurements & Features

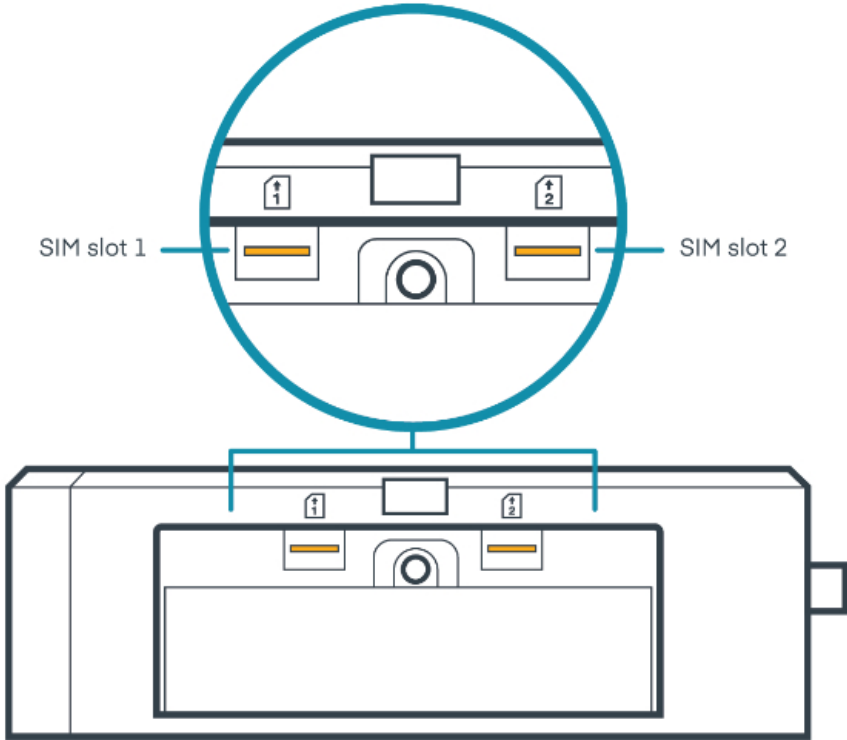


Features



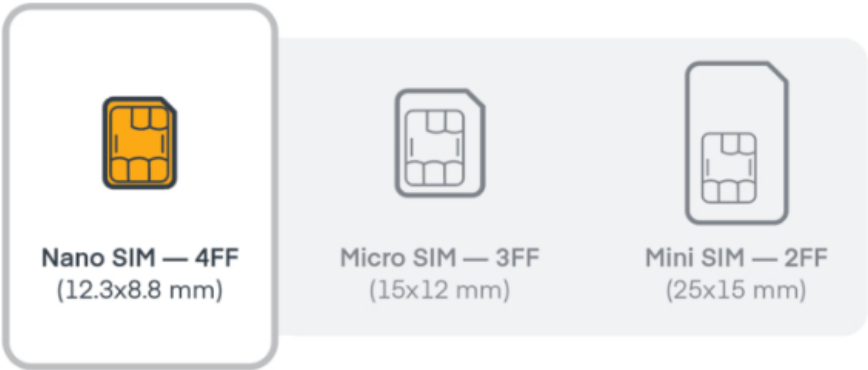


Battery door removed



SIM door removed

SIM Card Info



Accessories

INCLUDED	PART NUMBER
One of the following:	
— Power Supply, 12 VDC, 2X2 1.5 meters (North America)	170716-001
— Power Supply, 12 VDC, 2x2 1.5 meters (International)	170717-000
Cellular Antenna, Charcoal, 600 MHz - 6 GHz, SMA, 180 mm (Qty 2)	170801-000
Cable, Ethernet RJ45-to-RJ45, Black, 1.5 meters	170725-000
Small Accessories Kit	N/A
— SIM/battery door screws (Qty 2)	
— Rubber feet (Qty 4)	
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

More Information

Find the most up-to-date information at cradlepoint.com/X10sp