

L950 Series



Designed for remote sites that require secure, reliable failover connectivity in the event of a primary link disruption, the L950 Series cellular broadband adapter is a simple addition at the branch which significantly improves uptime and business continuity. These sophisticated devices can be configured at scale with NetCloud to offer a full range of zero-touch deployment, troubleshooting, and management features and integrate into existing configurations with standards-based routing, traffic shaping, and VPN support.

Notable Features

- Maximize network uptime using LTE WAN for failover and link diversity.
- Deploy within any existing networking or SD-WAN environment.
- Configure with greater simplicity and confidence with the wizard-based installation application.
- Utilize Day-1 connectivity while waiting for terrestrial links.
- Manage the Cradlepoint router and LTE adapter as one entity for singular control and visibility.
- Troubleshoot adapter and in-line devices with advanced Out-of-Band Management to reduce truck rolls.
- Offload primary connections during traffic surges and network congestion.

High Performance LTE for Failover Link Diversity

LTE wireless WANs provide a powerful, flexible, and cost-effective failover option to minimize disruption in the event of an outage. Working in conjunction with an existing router or SD-WAN, the L950 Series Adapter establishes a cellular connection based on established failover policies. The L950, despite its compact design, houses a Cat 7 modem, two Ethernet interfaces with a power over ethernet (PoE), a dual SIM capability to connect up to two carriers, and antenna. With this performance, many remote location operations and applications continue functioning while in failover.

Day-1 Connectivity for Rapid Deployment

Establish secure network connections to get operations running while waiting for a wired connection. L950 Series Adapters uniquely connect via LTE independently of the primary link so they don't require prior connection via wired networks. Cradlepoint wireless broadband solutions can be set up in hours with zero-touch deployment without IT staff on location, so local personnel can set up the network. Once the wired link is established, the L950 Series Adapter falls into backup mode.

Performance

IP Passthrough
Mode Throughput

940 Mbps

Standard NAT
Mode Throughput

940 Mbps

Captive Modem
Mode Throughput

940 Mbps

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.

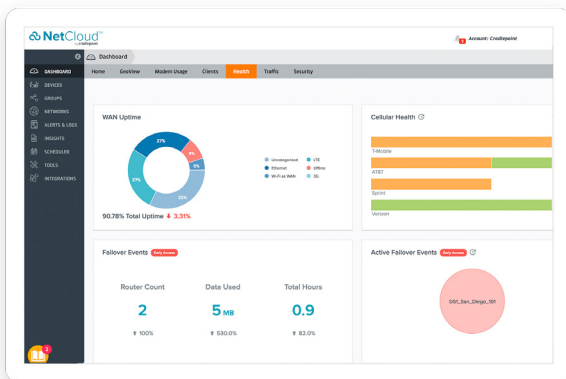
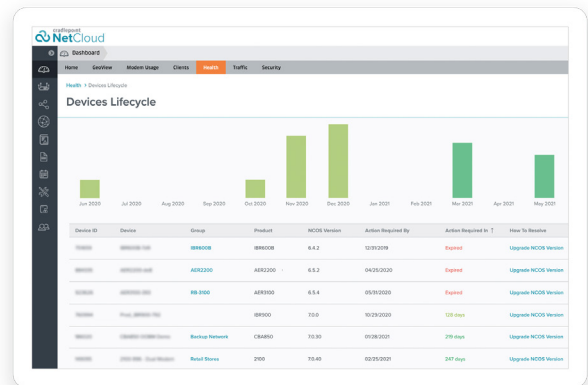
Results do not reflect performance of the cellular wireless operator networks.

Key Software Capabilities

The NetCloud Service provides everything needed to unlock the power of LTE at the network edge and connect devices to critical applications and services. It enables customers to build and manage wireless WANs with complete lifecycle management, true zero-touch deployment, robust security, and foundational SD-WAN traffic management for optimal application performance and reliability. The service includes a warranty for as long as an active subscription on the router, online training, live and online support, and all software and firmware updates.

Out-of-Band Management

To mitigate the effects of an unreachable router, the L950 offers efficient, advanced Out-of-Band Management. Network administrators can connect to the router and other in-line devices over the air, even if IP and Ethernet are unavailable on the router, improving uptime and reducing truck rolls.

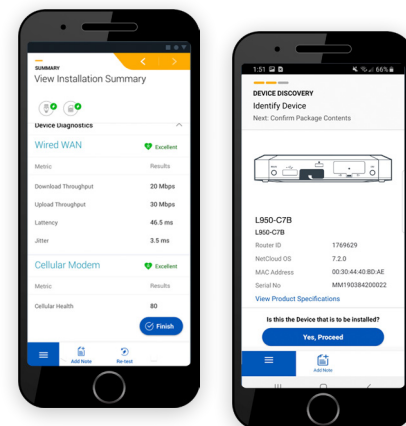


Quantifiable Data and Insights on Failover Events

In the NetCloud Health dashboard, view data for avoided disruptions from failover events, and see quantified ROI in the NetCloud Insights failover report. Additionally, analyze the primary-links service level agreement (SLA) performance for potential to recoup costs, as well as understand the secondary network's performance, including Interface Uptime, Cellular Health, and Quality of Experience.

Cradlepoint Verify™ Mobile Application

As an extension to NetCloud, Cradlepoint Verify helps installers quickly and accurately install the L950 for optimal LTE signal reception. Upon a verified installation, users receive a detailed report that includes installation pictures, speed test results, and modem health metrics.



Hardware Specifications

The following features are delivered through the hardware.

INTERFACES

| | |
|------------------|---|
| Modem: | Embedded Cat 7 modem — 2 x SMA cellular antenna connectors |
| Ethernet: | 2 x GbE RJ45 (LAN/WAN switchable) — LAN1 port pre-configured in IP NAT LAN mode — LAN2 port pre-configured in IP Passthrough LAN mode |
| Wi-Fi: | N/A |
| GNSS/GPS: | Passive GNSS (multiplex with DIV antenna port) |

ENVIRONMENTAL

| | |
|---------------------|---|
| Temperature: | 0 °C to 50 °C (32 °F to 122 °F) operating -40 °C to 85 °C (-40 °F to 185 °F) storage |
| Humidity: | 10% to 90% operating 5% to 95% storage |

POWER

| | |
|------------------------|--|
| Power Required: | PoE — 802.3af PSE Type 1 (15W) — PoE power injector optional |
|------------------------|--|

PHYSICAL

| | |
|----------------|--|
| Size: | 5.7 x 5.7 x 1.2 in (145 x 145 x 30 mm) |
| Weight: | 13.9 oz (0.39 kg) |

CERTIFICATIONS

| | |
|-------------------|---|
| Safety: | UL/cUL, CB Scheme, EN60950-1, EN62368-1 |
| Materials: | WEEE, RoHS, REACH, California Prop 65 |

LEDs

Refer to the [L950 Series LTE Adapter Quick Start Guide](#)

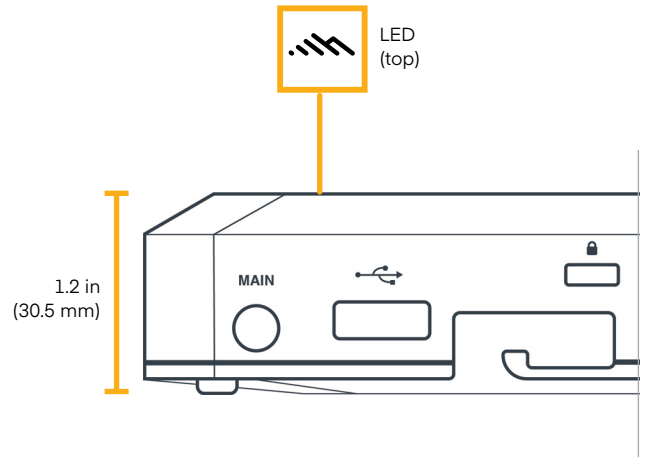
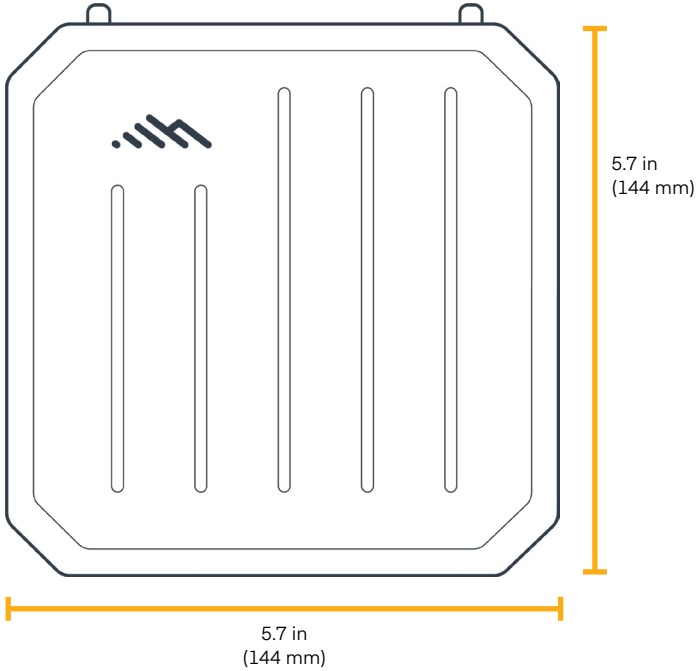
Enterprise-Class Modem Specifications

| SPECIFICATION | L950-C7A (MODEL S5A033A) | L950-C7B (MODEL S5A034A) |
|--|---|---|
| Technology: | Cat 7 LTE (3GPP Rel. 11) <ul style="list-style-type: none"> — Dual SIM slots, 4FF form factor — SIM-based auto-carrier selection | Cat 7 LTE (3GPP Rel. 11) <ul style="list-style-type: none"> — Dual SIM slots, 4FF form factor — SIM-based auto-carrier selection |
| Fallback: | WCDMA/UMTS/HSPA+ | WCDMA/UMTS/HSPA+ |
| Carrier Aggregation: | Downlink Cat 7 with 2CA with 64 QAM = 300 Mbps, Uplink Cat 13 with 2CA 64 QAM = 150 Mbps Refer to the Modem Carrier Aggregations article. | Downlink Cat 7 with 2CA with 64 QAM = 300 Mbps, Uplink Cat 13 with 2CA 64 QAM = 150 Mbps Refer to the Modem Carrier Aggregations article. |
| Peak Downlink Rates: | <ul style="list-style-type: none"> — LTE: 300 Mbps — WCDMA: 42.2 Mbps | <ul style="list-style-type: none"> — LTE: 300 Mbps — WCDMA: 42.2 Mbps |
| Peak Uplink Rates: | <ul style="list-style-type: none"> — LTE: 150 Mbps — WCDMA: 5.76 Mbps | <ul style="list-style-type: none"> — LTE: 150 Mbps — WCDMA: 5.76 Mbps |
| MIMO: | 2x2 MIMO | 2x2 MIMO |
| QAM: | Up to 64 | Up to 64 |
| LTE Bands: | LTE FDD <ul style="list-style-type: none"> — B2, B4, B5, B7, B12, B13, B14, B25, B26, B41, B42, B43, B48, B66, B71 | LTE FDD <ul style="list-style-type: none"> — B1, B3, B7, B8, B20, B28, B32, B38, B40, B41, B42, B43 |
| HSPA+ Bands: | B2, B4, B5 | B1, B5, B8 |
| Power: | LTE 22.5 dBm ± 1, DC-HSPA+ 23 dBm ± 1 | LTE 22.5 dBm ± 1, DC-HSPA+ 23 dBm ± 1 |
| Antennas: | <ul style="list-style-type: none"> — SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (qty 2, included) — (LTE) External Multi-Band 2 x 2 MIMO Antenna System | <ul style="list-style-type: none"> — SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (qty 2, included) — (LTE) External Multi-Band 2 x 2 MIMO Antenna System |
| GNSS/GPS: | Passive GNSS (multiplex with DIV antenna port) | Passive GNSS (multiplex with DIV antenna port) |
| SMS: | Yes | Yes |
| Regulatory: | FCC (U.S.), IC (Canada) | CE (EU) |
| Network Operator Standards: | PTCRB (U.S., Canada) | GCF (Worldwide) |
| Network Operator Certifications*: | AT&T, Verizon | |
| Private LTE: | Yes, includes FCC Part 96 (CBRS Band 48) | |

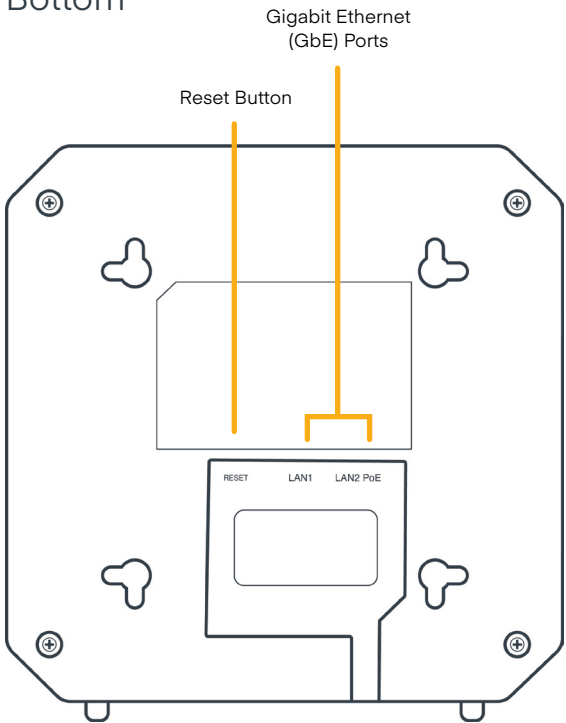
* Cellular carriers and operators throughout the world may only require telecom industry certifications, like PTCRB or GCF, to operate on their network. Some carriers require additional testing and approval, beyond telecom certifications. A carrier listed in the approvals section means Cradlepoint completed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

Hardware

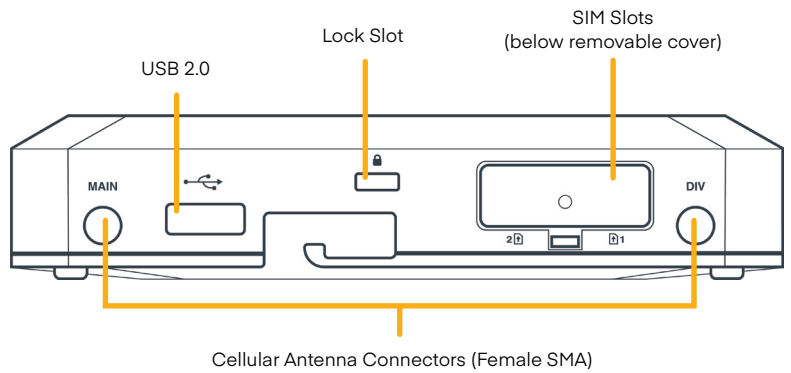
Physical Measurements



Bottom



Side



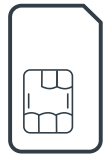
Correct SIM: Nano SIM — 4FF



Nano SIM (12.3mm x 8.8mm) 4FF



Micro SIM (15mm x 12mm) 3FF



Mini SIM (25mm x 15mm) 2FF

Ordering Guide

NetCloud L950 Adapter Essentials and Advanced packages and plans are full featured for performance and connectivity. Essentials + Advanced packages include 24x7 support (phone support: 24 hour weekdays with emergency response on weekends, web: 24x7, chat: 24x5) and a limited lifetime warranty.

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

For more details on the L950 Series Adapters, included with Essentials + Advanced packages, see below.

NetCloud Package and Plans

| REGION | DESCRIPTION | PART NUMBER |
|--|---|-----------------|
| North America: U.S. & Canada | NetCloud Branch LTE Adapter Essentials Plan and L950 Adapter (300 Mbps modem), Americas | BB0x-0950C7A-N0 |
| | NetCloud Branch LTE Adapter Essentials Plan, Advanced Plan, and L950 Adapter (300 Mbps modem), Americas | BBAx-0950C7A-N0 |
| Global: Rest of World | NetCloud Branch LTE Adapter Essentials Plan and L950 Adapter (300 Mbps modem), Global | BB0x-0950C7B-G0 |
| | NetCloud Branch LTE Adapter Essentials Plan, Advanced Plan, and L950 Adapter (300 Mbps modem), Global | BBAx-0950C7B-G0 |
| All Regions: | Renewal NetCloud Branch LTE Adapter Essentials Plan | BBx-NCESS-R |
| | Renewal NetCloud Branch LTE Adapter Advanced Plan | BBx-NCSDV-R |
| | Renewal NetCloud Branch LTE Adapter Essentials Plan and Advanced Plan | BBAx-NCEA-R |

x = 1, 3, or 5 years

Accessories

| INCLUDED | PART NUMBER |
|---|-------------|
| L950 Series Branch Adapter | |
| — Cellular Antenna, SMA connector (Qty. 2) | N/A |
| OPTIONAL | PART NUMBER |
| PoE Injector, 48V, .35A, 15.4W, 1.8 meters (with C6 NA line cord) | 170732-000 |

Support & Warranty

The L950 Series Adapters are only sold as components of Branch LTE Performance Adapter Essentials + Advanced 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.