Celona Indoor Access Point AP-12

Enabling cellular wireless connectivity for enterprise environments, within private spectrum options
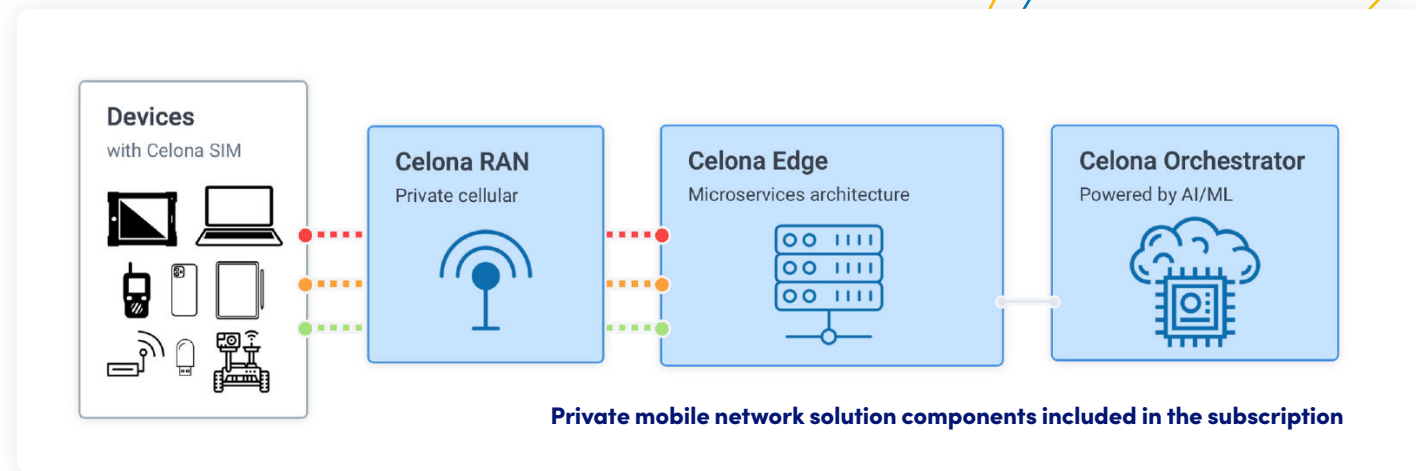
Celona indoor AP-12 hardware is part of Celona's private mobile network subscription. It is optimized for indoor environments where wireless connectivity with predictable performance and low latency are required. Delivering up to 25K SQFT of coverage, Celona access points are designed to accelerate the adoption of mission-critical devices and applications on enterprise wireless. They support plug and play deployment, dynamic spectrum management, remote provisioning and centralized cloud-based management.

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The Celona AP-12 can be mounted on indoor ceilings or walls in various indoor environments. They are powered via Power over Ethernet (802.3at PoE+) or via AC power. They take advantage of existing Ethernet/IP infrastructure for network connectivity. After installation these access points auto-discover the Celona Edge and Celona Orchestrator over any enterprise IP network to enable a plug and play deployment model.

Private mobile network solution components included in the subscription

Key Benefits

Plug-n-Play at Scale

- Zero touch deployment and centralized cloud-based operational model to make cellular wireless accessible to enterprise IT and industrial IoT

- Coordinated spectrum management algorithm to optimize system wide performance

- Adapts to existing enterprise IT network configuration across remote, branch and campus

- Celona APs leverage secure, standards-based interfaces (S1 and TR-069 over IPSec) to establish data and control plane communications with the Celona Edge software.

- They are configured and monitored via the cloud-hosted Celona Orchestrator.

Predictable reliability

- Interference free operation within the private cellular wireless spectrum via centralized coordination of frequency and power level allocation across the Celona network

- Highly reliable connectivity by leveraging advanced cellular wireless protocol features

- Infrastructure control for traffic scheduling and mobility events for client devices

Application aware

- Support Celona's unique MicroSlicing™ technology to enforce service level objectives for minimum throughput, maximum latency / jitter / packet error rate

- Assign radio resources in realtime to MicroSlicing policies on a per application type and device group basis

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AP-12 Specifications

High Level Specifications

Type	4G LTE Access Point 3GPP Release 13, TDD
Frequency	3550 – 3700 MHz
Simultaneously Active Devices	Up to 96

Ports and Interfaces

Network Interfaces	One (1) 10/100/1000 Mbps Ethernet (RJ-45) One (1) SFP Port for future use
LED	Power, Cell 1, Cell 2, Alarm
Power	802.3at PoE+ or 12V/2.5A power (AC adapter included)
Timing	GPS antenna port Support for IEEE 1588v2 PTP
Other Interfaces	Reset Button External GPS antenna interface

Performance Specifications

TDD Config 1 Peak Data Rates	**Download:** 150 Mbps, with Carrier Aggregation **Upload:** 25 Mbps per radio, 50 Mbps per AP
TDD Config 2 Peak Data Rates	**Download:** 200 Mbps, with Carrier Aggregation **Upload:** 12 Mbps per radio, 24 Mbps per AP

RF Specifications

Channel Bandwidth	10, 20 MHz per carrier With carrier aggregation up to 40 MHz
Antennas	Internal with 2x2 MIMO support per carrier
Max Transmission Power	24dBm / 250mW per RF Path
Antenna Gain	3 dBi

AP-12 Other Specifications

Dimensions (WxDxH)	8.7 x 8.7 x 1.8 (inches) 21 x 21 x 4.6 (cm)
Weight	3.5 lbs | 1.6 kg
Environmental	Operating Temperature: -5° to 45°C Storage Temperature: -10° to 50° C Humidity: 5% to 95% non-condensing
Mounting and Installation	Wall or ceiling mount

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Ordering Information

Celona Indoor APs are included in the Celona private mobile network subscription, scaling with the number of access points in the network.

CN-SUB-INDI-3

3-year cloud subscription for one indoor AP including network management, SIM provisioning, mobile core services via Celona Edge and Celona Orchestrator software. Also includes Celona indoor access point hardware with integrated antennas, Celona express technical support, limited lifetime warranty and 20 private LTE SIM cards.

CN-SUB-INDI-5

5-year cloud subscription for one indoor AP including network management, SIM provisioning, mobile core services via Celona Edge and Celona Orchestrator software. Also includes Celona indoor access point hardware with integrated antennas, Celona express technical support, limited lifetime warranty and 20 private LTE SIM cards.

Compliance and Certifications

The Celona Indoor AP conforms to the following:

• FCC Part 15 Class A, FCC Part 96 Cat. A

• 3GPP Rel9 Technical Specifications 36.104 and 36.141

Warranty

Celona indoor access points are covered with limited lifetime warranty as long as they are operational under an active subscription.

CN-SUB-INDI-1-R **1 year indoor CBRS LTE cloud service subscription renewal**	1 year cloud subscription renewal of CBRS LTE service for one indoor access point including management, SIM provisioning, mobile core services via Celona Edge and Celona Orchestrator cloud service. Includes Celona Express technical support, hardware warranty, and 20 private LTE SIM cards.
CN-SUB-SIM-10-1-R **1 year subscription renewal for 10 SIM cards**	1 year subscription renewal for a pack of 10 private LTE SIM cards to be used on a Celona network with an active cloud subscription.
CN-SUB-INDI-2-R **2 year indoor CBRS LTE cloud service subscription renewal**	2 year cloud subscription renewal of CBRS LTE service for one indoor access point including management, SIM provisioning, mobile core services via Celona Edge and Celona Orchestrator cloud service. Includes Celona Express technical support, hardware warranty, and 20 private LTE SIM cards.
CN-SUB-SIM-10-2-R **2 year subscription renewal for 10 SIM cards**	2 year renewal for a pack of 10 private LTE SIM cards to be used on a Celona network with an active cloud subscription.