CELONA INDOOR ACCESS POINTS

Enabling LTE wireless connectivity for enterprise environments, within the CBRS spectrum

Celona indoor access point (AP) hardware is part of Celona's Indoor Private LTE subscription. They are optimized for indoor environments in the enterprise where wireless connectivity with predictable reliability is required. With an enterprise friendly operational model – including plug and play deployment and centralized cloud-based management – Celona APs are designed to accelerate the adoption mission-critical devices and applications on wireless infrastructure.

The Celona indoor APs 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.

Celona APs then 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.

KEY BENEFITS

Plug-n-Play at Scale
- Simplified deployment and operations to make LTE accessible for enterprise IT users
- Coordinated spectrum management algorithm to optimize system wide performance
- Adapts to existing enterprise IT network configuration across remote, branch and campus

Predictable reliability
- 150+ Mbps downlink and 15+ Mbps uplink application throughput per AP
- Highly reliable wireless connectivity by leveraging advanced LTE features
- Infrastructure control for traffic scheduling and mobility events for client devices

Application aware
- Assign radio resources in real-time to MicroSlices on a per application basis
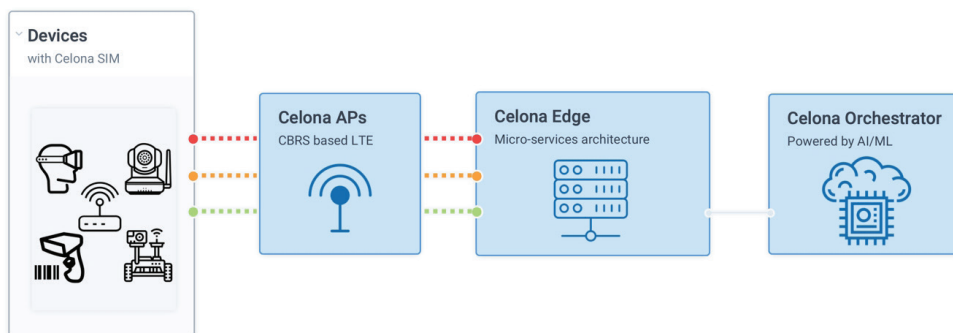

Figure 1: Private mobile network solution components

SPECIFICATIONS

HIGH LEVEL SPECIFICATIONS	
Type	CBRS LTE Access Point (3GPP Rel 13. TDD)
Frequency/LTE Band	Band 48 (3550 - 3700 MHz)
TDD Configs Supported	TDD Config 1 and 2

PERFORMANCE SPECIFICATIONS	
Application throughput	TDD Config 1 Peak Data Rates Download: 130 Mbps, with career aggregation Upload: 27 Mbps per radio, 54 Mbps per AP TDD Config 2 Peak Data Rates Download: 188 Mbps, with career aggregation Upload: 14 Mbps per radio, 28 Mbps per AP
Simultaneously active user endpoints (UEs) / devices	Up to 96

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	6 dBi

PORTS AND INTERFACES	
Network Interfaces	2 10/100/1000 Mbps Ethernet (RJ-45) 1 SFP Port (for future use)
LED	Power, WAN/Uplink Status, LTE, Sync
Power	PoE+ or 12V/2.5A DC power in, up to 30W
Timing	GPS antenna port Support for IEEE 1588v2 PTP
Other Interfaces	1 Reset Button 1 External GPS antenna interface

OTHER SPECIFICATIONS	
Dimensions	210mm (W) x 256mm (D) x 80mm (H)
Weight	1.9Kg
Environmental	Operating Temperature: 0°C to 45°C Storage Temperature: -20°C to 70°C Humidity: 5% to 95% non-condensing
Mounting and installation	Wall or ceiling mount

COMPLIANCE AND CERTIFICATIONS

The Celona Indoor AP conforms to the following specifications:

- FCC Part 15 Class A
- FCC Part 96 Cat. A
- 3GPP Rel9 Technical Specifications 36.104 and 36.141
- EN/EIC61000, ESD values: 8KV for air, 4KV for contact
- Material: Directive 2002/95/EC on RoHS
- General: CE marking
- ESD: 8KV for air, 4KV for contact
- AC power adapter Surge protection
- EN61000-4-5 Lightning Surge protection

WARRANTY

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

ORDERING INFO

Celona Indoor CBRS LTE access points are included in the Celona Private LTE subscription, which scales with the number of access points in the network.

R7C38A	3-year cloud subscription to CBRS LTE service for one indoor AP including management, SIM provisioning, mobile core services via Celona Edge and Celona Orchestrator software. Also includes CBRS LTE category A access point with integrated antennas, Celona express technical support, limited lifetime warranty and 20 private LTE SIM cards.
R7C39A	5-year cloud subscription to CBRS LTE service for one indoor access point including management, SIM provisioning, mobile core services via Celona Edge and Celona Orchestrator software. Also includes CBRS LTE category A access point with integrated antennas, Celona express technical support, limited lifetime warranty and 20 private LTE SIM cards.

Celona, the enterprise 5G company, is focused on accelerating the adoption of business-critical apps on enterprise wireless and helping organizations implement new generation of digital business initiatives. Taking advantage of the Citizens Broadband Radio Service (CBRS) in the United States, Celona's solution architecture is designed to automate deployment of cellular wireless technology by enterprise organizations and their technology partners. For more information, please visit celona.io and follow Celona on Twitter @celonaio.

https://www.celona.io/

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