Celona Access Points (APs)

Features and Benefits

Specifically engineered for indoor and outdoor LTE/5G enterprise use cases and operating environments, Celona Access Points (APs) deliver pervasive coverage, interference-free access, and unmatched wireless performance.

Celona APs support most sub-6 GHz frequency bands (3.3 GHz – 4.2 GHz), offering highly deterministic over the air over the air including up to 1Gbps aggregate throughput, less than 10ms latency. Easy to deploy, Celona APs are managed and monitored through Celona's cloud-based Orchestrator platform as part of a complete private LTE/5G turnkey solution.

FEATURES	BENEFITS
Supports global private wireless spectrum bands - n48, n78,n77	Enables global enterprises to pick a single unified solution for deployments
Plug-and-play deployment	Enterprise friendly operations and management enabling zero-touch operations and simplifying day 0/1 bringup
Secure wireless communication	Adherence to enterprise best-practices reduces friction in technology buy-in and adoption
Performance optimized and built for critical communications	Delivery of deterministic performance for mission-critical use-cases and applications
Integrated timing source	Simplifies deployments and reduces cost by eliminating dependence on external timing equipment
Multi-mode AP with support for LTE & 5G	Seamless transition from LTE to 5G controlled in software alleviating concerns about technology lock-in and future proofing
Ruggedized for installation in harsh environments	Can be deployed safely in many industrial environments where certified hardware is required with flexible mounting options – ceilings, walls, rooftops & poles

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Supports global private wireless spectrum bands

Multinational organizations can take comfort knowing that Celona private LTE and 5G APs support a broad range of spectrum from 3.3 GHz to 4.2 GHz, covering n48, n78 & n77 bands. This gives Celona product coverage in US, UK and Europe. Future support for n79 will address Japan and South-east Asia market. Spectrum availability is evolving globally but is closely aligned with the 4 spectrum bands – n48, n77, n78, n79. Hence the list of supported countries will continue to expand.

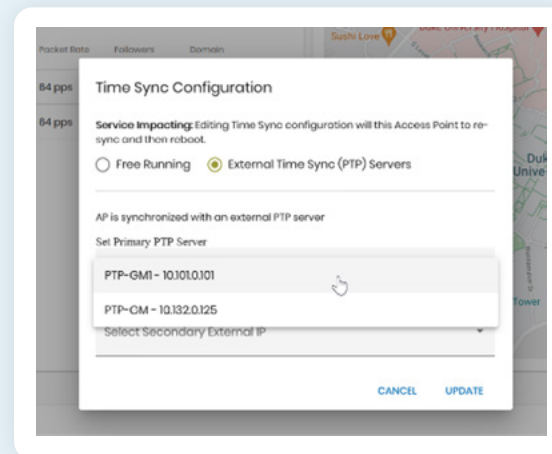## Performance optimized and built for critical communications

Delivering the utmost in private wireless performance, Celona APs are designed for the transport of mission-critical applications. The APs have been purpose-built to deliver

- Predictable performance for mission-critical apps via MicroSlicing™ with QOS enforcements on a per-application flow

- RAN mobility when automated guided vehicles (AGV) and bots are moving at speeds over 25mp/h

Integrated timing source

LTE and 5G APs require highly accurate and precise time synchronization. This time synchronization is required so that APs in overlapping coverage areas can coordinate the transmission of data to avoid collisions from occurring on the wireless spectrum.

Outdoor APs use GPS antennas for time synchronization. Lack of consistent GPS signal in Indoor environments adds a need for an external timing source, such Precision Time Protocol (PTP) Grandmaster clock. Unlike indoor private LTE/5G APs from other vendors that require an external PTP Grandmaster device as the timing source, Celona integrates PTP Grandmaster capabilities into each AP. What's more, the Celona design requires that only one AP (more can be added for redundancy) be connected to an external GPS antenna for clock synchronization. All other APs on the Celona network can then synchronize their clock over the LAN with AP set up as time-source, resulting in a reduction of cabling installation cost and complexity.

Secure wireless communication

Securing private 5G operational data and configurations within a Celona private 5G network is accomplished using certificate-based mutual authentication mechanisms between Celona APs and the cloud while comprehensive encryption methods and protocols are used to protect data at rest and in motion. Additionally, Celona partners with several third-party IT security firms that perform regular threat and penetration tests for the rapid identification and remediation of AP vulnerabilities.
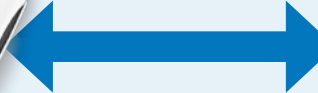
Multi-mode AP with support for LTE & 5G

Celona Edge OS with support for converged core and multi-mode AP that can be operated in LTE or 5G mode allow enterprise to plan for a graceful technology transition from LTE to 4G when they are ready with appropriate devices and use-cases. Futureproofing investments and avoiding technology lock-in will reduce friction and accelerate time to value for enterprises.

The first 4G/5G multimode AP   **The first 4G/5G converged core**

Ruggedized for installation in harsh environments

For the safe deployment of outdoor and industrial environments that commonly experience rain, snow, wind and extreme temperatures, Celona offers several access points that are IP65 rated for protection against dust and water as well as devices that are rated for C1D2 classification for safe operation in areas that contain flammable gasses, vapors, or liquids. To further simplify the physical installation process in a variety of environments, Celona APs come with several mounting bracket options to choose from. No matter if the AP needs to be mounted to a drop ceiling, wall, or exterior pole, installation flexibility is boundless. For added protection and longevity of hardware, weatherproofing accessories are also included with outdoor APs and mounting bracket hardware.

AP 20

4G 5G

- Multimode 5G/4G, Indoor
- b48(4G), n48(5G) spectrums
- POE++
- IP52, Indoor ruggedized, dusty environment
- Software upgradable to 5G

Data Sheet

AP 22

5G

- 5G NR, Indoor
- n48, n78, n77 spectrum
- POE++
- IP52, Indoor ruggedized, dusty environment
- Global 5G indoor, ruggedized deployments

Data Sheet

AP 21

5G

- 5G-NR, Outdoor
- n48, n78H, n78L, n77, n79 spectrums
- IP66 rated
- C1D2 hazardous enviroment
- Global 5G outdoor deployments

Data Sheet

AP 24

5G

- 5G-NR , indoor
- n79
- POE++
- IP50, Indoor ruggedized, dusty environment
- 5G for indoor deployments

Data Sheet

AP 11

4G

- 4G, industrial outdoor
- b48 (4G)
- IP66 rated
- C1D2 certified for hazardous environments
- CBRS LTE for outdoor coverage

Data Sheet

AP 13, AP 13-E

4G

- 4G, industrial indoor/outdoor
- b48 (4G), external antenna option (AP 13-E)
- POE++
- IP65 rated, ruggedized
- CBRS LTE indoor & large outdoor coverage

Data Sheet

AP 12

4G

- 4G, Indoor
- b48 spectrum
- POE+
- Industrial indoor, retail, carpeted enterprises

Data Sheet

Ready to learn more about **Celona?**

Start the journey by starting a free trail, planning your network from your browser, getting a one-to-one personalized demo, or going on-demand to learn the basics of Celona in your own time.

Start your journey with Celona >

Explore Celona >

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