

DATA SHEET

Celona Indoor Access Point AP 24

Enabling 5G NR cellular wireless connectivity for indoor environments with internal or external antennas, within a wide range of global 5G NR bands.

AP24 is a plug-and-play indoor 5G NR access point delivering deterministic, enterprise-grade wireless performance for business-critical applications across 3.4–4.2, 4.5–4.9 GHz spectrum, supporting bands n48, n77, n78, and n79. Powered by CelonaOS, AP24 enables AerFlex™ AP-only, controller-less deployments with external antenna support on select models.



Celona Indoor AP 24

Celona AP 24 is a fully integrated 5G NR indoor access point designed for enterprise private wireless environments.

Bringing the speed, security, and reliability of 5G NR technology to enterprises and organizations across industries, Celona's AP 24 was purposely engineered to deliver pervasive cellular coverage in enterprise environments like warehouses, retail stores, manufacturing plants, hospitals, and offices. Ultra-low latency of < 10 msec can enable applications like wireless Programmable Logic Controllers (PLC), PROFINET.

Key benefits of AP 24:

Support for Global Private Wireless spectrums

- Operates in 4.5–4.9 GHz frequency bands (n79) and 3.5–4.2 GHz frequency bands (n48, n77, n78), supporting global private wireless deployments
- Transmit power configurability to comply with local regulatory and compliance requirements

Secure wireless communication

- Certificate based mutual authentication secures connection between AP and cloud
- Data at rest and in-transit secured by comprehensive encryption mechanisms
- Regular penetration tests of system components are conducted by 3rd party security labs

Enterprise friendly management and operations

- Out-of-the-box zero touch provisioning to bring up each AP in minutes without any manual touch
- Self-organizing spectrum management enables selection of the best bands for interference free operation
- Integrated PTP timing source eliminates the need for external timing equipment

Built for indoor ruggedized environments

- IP-50 rated and built for indoor ruggedized environments with dust protection
- Seamless integration with existing network infrastructure with IEEE 802.3bt Type 3 PoE++
- Flexible mounting options including ceiling or wall mounts

Deterministic performance for mission critical applications

- Delivers predictable performance for mission critical apps via 5QI MicroSlicing™ with QoS enforcements on a per application flow
- Delivers up to 1 Gbps aggregate throughput (2x2 MIMO, up to 256 QAM modulation, sub-carrier space of 30 KHz) and supports various uplink/downlink slot configurations
- Operates in channel bandwidth of up to 100 MHz
- One-way application latency of less than 10ms (device to edge)
- Engineered for predictable high-speed mobility (>25 mph) of devices between access points

Celona 5G LAN

Unlike traditional small cells that require configuration of various radio parameters and integration with 5G mobile core from a third party vendor, AP 24 is included as a part of Celona's 5G LAN platform that integrates the essential elements including access points, LTE/5G core network edge hardware/software, radio resource management software and cloud-based orchestration tools specifically designed and developed for enterprise network use-cases.

5G LAN Value Prop

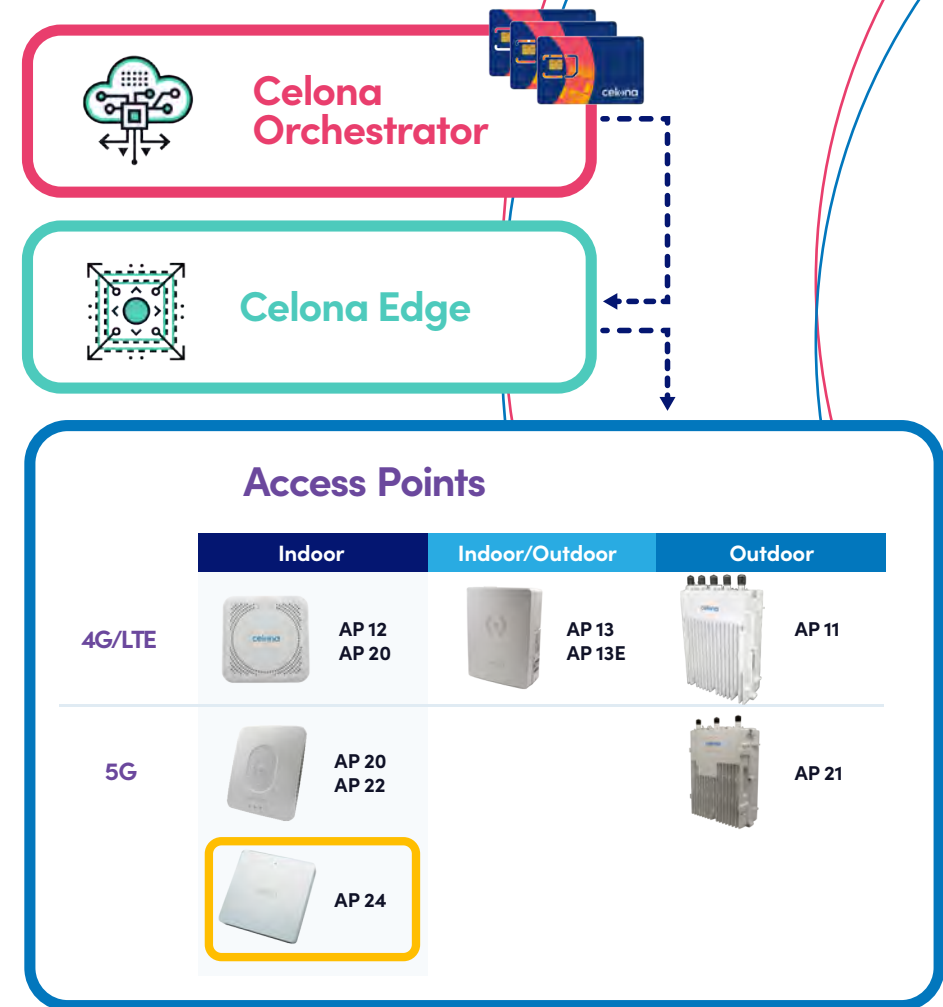
- Turn-key solution, designed for the enterprise
- Deterministic performance for mission-critical applications
- Enterprise friendly management and operations
- Support for global private wireless spectrums

Celona's Access Point Portfolio

Key benefits of Celona's 5G LAN Access Points

- Plug-and-play deployment
- Supports variety of global private 5G spectrums
- Deploy anywhere: Indoor/Outdoors, ceiling, wall, roof, poles
- Built for tough environments – Ruggedized, IP67 rated, C1D2
- certified
- Built for critical communications – Microslicing, < 10ms latency,
- RAN mobility >25 mph, Up to 1 Gbps
- Built-in PTP Grandmaster, eliminates external components
- End-End secure wireless communication

Celona's 5G LAN



Specifications

High Level Specifications

Type	5G Ruggedized Access Point (3GPP Rel. 15 TDD)
RF Specifications (5G)	2x2 MIMO UL/DL, up to 256 QAM Modulation
Power (Rx/Tx)	Up to 24 dBm max per port
Latency	<10ms one-way (between Device and Celona Edge)
Connected Devices	Active: 128 (concurrent)
Dimensions (WxDxH)	250 x 250 x 65 (WxHxD, in millimeters)
Weight	5.5 lbs. 2.5 kg
Environmental	Operating Temperature: -5° to 45°C Storage Temperature: -10° to 50° C Humidity: 5% to 90% non-condensing
IP (Ingress Protection) Rating	IP50
Surge Protection	Yes
Installation	Wall or ceiling mount
Power Consumption	51 W (maximum), 802.3 bt Type 3
MTBF	>70K hours

Ports and Interfaces

Network Interfaces	1 RJ-45 Ethernet interface (1/2.5 GE)
Antenna	Built-in omni (max 6 dBi antenna gain)
Power Supply	PoE injector (AC to PoE power, included in the AP package)
Timing	PTP grand master and IEEE 1588v2 PTP Option for external GNSS antenna
LED Indicators	System, 5G

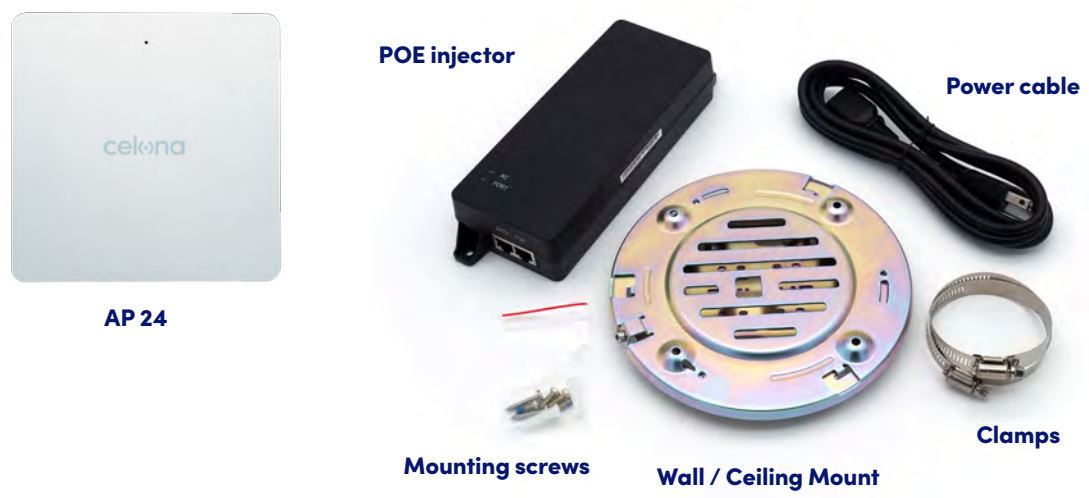
Compliance and Certifications

- AP24-79: TELEC
- P24-48|77|78H: FCC, CE

Frequency Band Support (seperate SKUs)

AP24-79	4.5-4.9 GHz, 60, 100MHz
AP24-48 77 78H	3.5-4.2 GHz, 20, 40, 60, 100MHz

What's in the box?



Warranty

Limited lifetime warranty coverage for Celona Outdoor access points is included as part of an active Celona Private Mobile Network subscription.

Ordering Information

Celona indoor AP 24 is included in the per AP Celona private mobile network subscription.

CS5G79NNX3	3YR 1AP indoor 5G private wireless subscription for management, SIM, mobile core via Celona Edge/Orchestrator. Includes 5G cat A n79 (4500-4900MHz) AP24, 20 SIM/ 20 eSIM, LLW and tech support.
CS5G79NNX5	5YR 1AP indoor 5G private wireless subscription for management, SIM, mobile core via Celona Edge/Orchestrator. Includes 5G cat A n79 (4500-4900MHz) AP24, 20 SIM/ 20 eSIM, LLW and tech support.
CSAP2448P5GX3	3YR 1AP indoor 5G private wireless subscription for management, SIM, mobile core via Celona Edge/Orchestrator. Includes 5G n77 (3800-4200 MHz) AP22, 20 SIM/ 20 eSIM, LLW and tech support.

CSAP2448P5GX5	5YR 1AP indoor 5G private wireless subscription for management, SIM, mobile core via Celona Edge/Orchestrator. Includes 5G n48 (3550-3700 MHz) AP24, 20 SIM/20 eSIM, LLW and tech support.
CSAP2478HP5GX3	3YR 1AP indoor 5G private wireless subscription for management, SIM, mobile core via Celona Edge/Orchestrator. Includes 5G n78H (3550-3800 MHz) AP24, 20 SIM/20 eSIM, LLW and tech support.
CSAP2478HP5GX5	5YR 1AP indoor 5G private wireless subscription for management, SIM, mobile core via Celona Edge/Orchestrator. Includes 5G n78H (3550-3800 MHz) AP24, 20 SIM/20 eSIM, LLW and tech support.
CSAP2477P5GX3	3YR 1AP indoor 5G private wireless subscription for management, SIM, mobile core via Celona Edge/Orchestrator. Includes 5G n77 (3550-4200 MHz) AP24, 20 SIM/20 eSIM, LLW and tech support.
CSAP2477P5GX5	5YR 1AP indoor 5G private wireless subscription for management, SIM, mobile core via Celona Edge/Orchestrator. Includes 5G n77 (3550-4200 MHz) AP24, 20 SIM/20 eSIM, LLW and tech support.
CNANTOMNIKIT	Omni antenna 3.3-3.8GHz, H/V polarization, 13dBi gain, 7-deg V bw, 360-deg H bw, 1-deg electrical downtilt, 30dB port isolation, 2x Type N Female connectors. Includes 2x surge protect and 2x 10-ft LMR400 antenna cable.

CNANT33DKIT	33-deg sector antenna 3.5–4.2GHz, polarization type of 45-deg slant, 18.8dBi gain, 8-deg V bw, 33-deg H bw, 4-deg electrical downtilt, 35dB front to back ratio, 2x Type N Female connectors. Includes 2x surge protect and 2x 10-ft LMR400 antenna cable.
CNANT90DKIT	90-deg sector antenna 3.5–3.8GHz, polarization type of 45-deg slant, 16.7dBi gain, 6.5-deg V bw, 45-deg H bw, 2-deg electrical downtilt, 31dB front to back ratio, 2x Type N Female connectors. Includes 2x surge protect and 2x 10-ft LMR400 antenna cable.
CNANT120DKIT	120-deg sector antenna 3.5–3.8GHz, polarization type of 45-deg slant, 14.5dBi gain, 7-deg V bw, 120-deg H bw, 3.5-deg electrical downtilt, 30dB front to back ratio, 2x Type N Female connectors. Includes 2x surge protect and 2x 10-ft LMR400 antenna cable.
CNANT65DKIT	65-deg sector antenna 3.5–3.8GHz, polarization type of 45-deg slant, 17dBi gain, 6-deg V bw, 62-deg H bw, 38dB front to back ratio, 2x Type N Female connectors. Includes 2x surge protect and 2x 10-ft LMR400 antenna cable.
CNANT90D4P	4-port 90-deg sector antenna 3.5–3.8GHz, polarization type of 45-deg slant, 17dBi gain, 6-deg V bw, 90-deg H bw, 30dB front to back ratio, 4x Type N Female connectors. Includes 4x surge protect and 4x 10-ft LMR400 antenna cable.