

Data Sheet

Celona Ruggedized Access Point AP 25

Enabling 5G NR cellular wireless connectivity for enterprise environments, within a wide range of International 5G NR bands.

AP 25 is a ruggedized Private 5G access point. It delivers pervasive **outdoor and indoor** coverage with deterministic performance for business-critical enterprise applications. Powered by **CelonaOS**, AP25 supports **AerFlex** - AP-only deployments with zero on-site infrastructure.



Data Sheet

Celona Outdoor AP 25

Celona Outdoor AP 25 is a ruggedized and fully integrated 5G NR outdoor and 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 25 was purposely engineered to deliver pervasive cellular coverage across massive and critical industrial and outdoor areas such as oil refineries, shipping ports, manufacturing yards and large-scale industrial campus environments. Ultra-low latency of <10 msec can enable applications like Wireless Programmable Logic Controllers (PLC), PROFINET

Key benefits of AP 25:

Support for global private wireless spectrums

- Operates in 3.55 GHz–3.7 GHz frequency bands, supporting global enterprises
- 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

- Zero-touch provisioning out-of-the-box makes AP operational in minutes
- Self-organizing spectrum management enables the selection of the best bands for interference-free operation

Supports AerFlex AP-only deployment

- Cloud controlled, with local data break-out
- No on-site appliances, racks, custom cabling
- Distributed, space-constrained, or remote sites
- Supported on AP2X radios

Built for tough environments

- IP-66 rated and built for tough environments with extended operating temperature, shock, vibration, and noise immunity
- C1D2 certified for work in hazardous environments such as chemical plants, Oil & Gas, where gasses, vapors and dust could be present

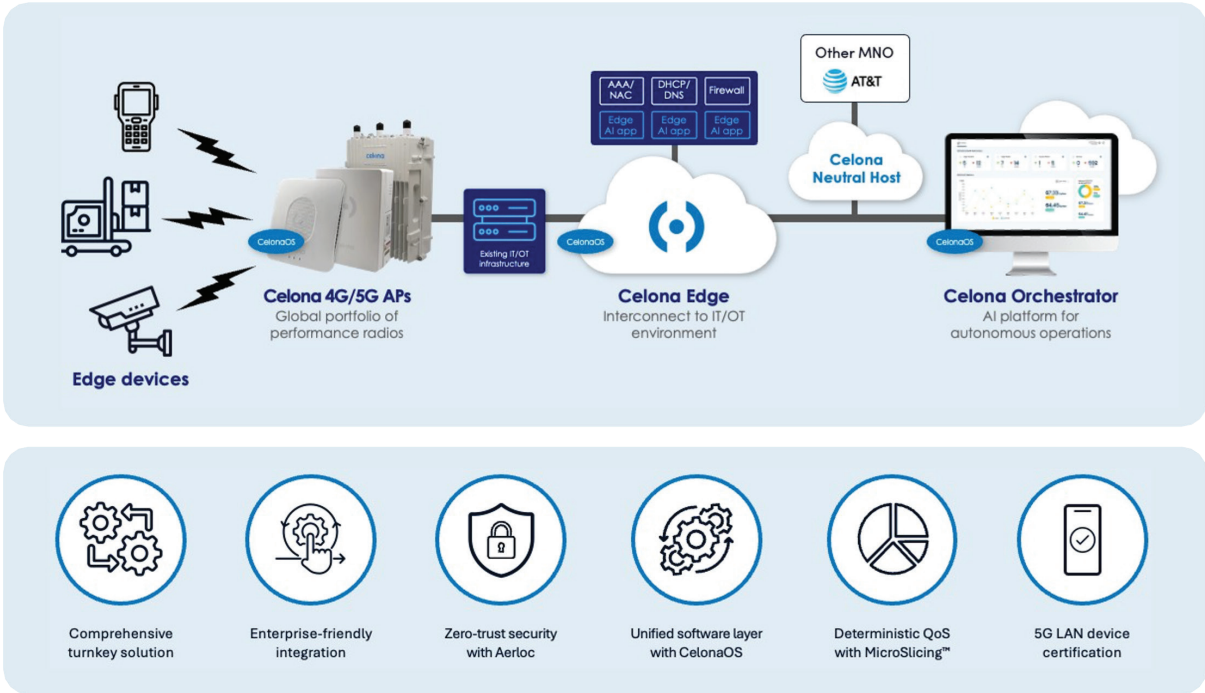
Deterministic performance for mission-critical applications

- Delivers predictable performance for mission-critical apps via 5QI MicroSlicing™ with QoS enforcements on a per application flow
- Operates in channel bandwidth of up to 40 MHz
- Outdoor range of greater than 1km with a transmit power of up to 37 dBm per port with directional antennas
- One-way application latency of less than 10ms (device to edge)
- Engineered for predictable high-speed mobility (>25 mph) of devices between access points

Data Sheet

Celona 5G LAN

Celona 5G LAN is a turnkey private wireless solution that brings the benefits of 5G—high performance, reliability, and deterministic QoS—into enterprise and industrial environments. Unlike traditional telco architectures, it's designed specifically for enterprise integration and AI-driven operations.



Comprehensive turnkey solution



Enterprise-friendly integration



Zero-trust security with Aerloc



Unified software layer with CelonaOS



Deterministic QoS with MicroSlicing™



5G LAN device certification

Celona Edge

Celona Edge offers flexible deployment options—run locally on dedicated appliances or virtual infrastructure, or use Celona AerFlex for cloud-controlled deployments at distributed, space-constrained, or remote sites with AP-only infrastructure.

Celona Orchestrator

AI-powered cloud-based network management. Provides centralized visibility and control for deploying, monitoring, and optimizing private 5G across all enterprise sites.

CelonaOS

The industry's only unified private 5G operating system — delivering a fully integrated solution across radio hardware, core networking functions, and AI-powered management.

Celona Neutral Host

Public mobile coverage on private 5G. Extends T-Mobile, AT&T and other MNO signals on 5G LAN infrastructure, delivering full-strength coverage at remote and in-building sites.

Data Sheet

Specifications

| High Level Specifications | |
|---------------------------------------------|------------------------------------------------------------------------------|
| Type | 5G Ruggedized Access Point (3GPP Rel. 15 TDD) |
| RF Specifications | 2x2 MIMO UL/DL , up to 256 QAM Modulation |
| Power (Rx/Tx) | Up to 37 dBm per port. Celona provides and supports external antennas |
| Channel Bandwidth | AP25-48: 20, 40 MHz |
| Latency | <10ms one-way (between Device and Celona Edge) |
| Connected Devices | Active: 128 (concurrent) |
| Dimensions (WxDxH) | 12.64 x 9.09 x 5.31 (inches) 321 x 231 x 135 (millimeters) |
| Weight | 15.9 lbs 7.2 kg |
| Environmental | Operating Temperature: -40°C to +55°C Storage Temperature: -40°C to +70°C |
| IP (Ingress Protection) Rating | IP66 |
| Power interface lightning protection | Differential mode: ±10KA Common mode: ±20 KA |
| Surge Spec | Surge: 1 kV (Net), 6 kV (Power) |
| Installation | Pole or wall mount |
| Power Consumption | 100 W (maximum) |
| MTBF | 390K hours |







| Ports and Interfaces | |
|---------------------------|------------------------------------------------------------------|
| Network Interfaces | 1 optical (SFP+) and 1 RJ-45 Ethernet interface (1/2.5 GE) |
| Antenna Interfaces | 2x N-Type antenna connectors |
| Power Supply | +/- 48V DC (AC adapter and power surge protector included) |
| Timing | GPS (antenna included) |
| LED Indicators | 1 x LED / Active |






| Compliance and Certifications | |
|----------------------------------------------------------------------------------------------------------------------------|--|
| <ul style="list-style-type: none"> • AP 25-48: FCC Cat A/B • Hazardous location, CSA Class 1 Div 2 | |

| Frequency Band Support | |
|------------------------|--------------|
| AP25-48 | 3.55-3.7 GHz |

Data Sheet

What's in the box?

| # | | Item Description |
|----|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1. |  | AP25 Outdoor Access Point |
| 2. |  | Power Adapter 48V DC (AC adapter with power plug and surge protector) |
| 3. |  | M12 DC Power Cable Device power link (x1) |
| 4. |  | Power Terminal and Cable Extension AP power terminal and DC cable extension with coupler |
| 5. |  | Optical Module SFP, LC optical module, LC needs dual strand fiber cable |
| 6. |  | GPS Antenna and Accessories Includes mount screws (x3) and GPS jumper cable (x1) |

| # | | Item Description |
|-----|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 7. |  | Mounting Bracket |
| 8. |  | C1D2 Accessory Kit GPS & IO covers (x1) |
| 9. |  | Cold Shrink Tubes Installation accessory |
| 10. |  | Waterproof Connectors Sealed connectors for DC cable extension (x2) Short weather-resistant cable seal (x2) |
| 11. |  | Grounding wire |

Data Sheet

Ordering Information

Celona Outdoor AP 25 is included in the Celona private mobile network subscription, which scales with the number of access points in the network.

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| CSAP2548P5GX3 | 3YR 1AP outdoor 5G private wireless subscription for management, SIM, mobile core via Celona Edge/Orchestrator. Includes 5G Cat B n48 (3550–3700 MHz) AP25–48, 40 SIM/40 eSIM, LLW and tech support. Separate external antennas purchase required. |
| CSAP2548P5GX5 | 5YR 1AP outdoor 5G private wireless subscription for management, SIM, mobile core via Celona Edge/Orchestrator. Includes 5G Cat B n48 (3550–3700 MHz) AP25–48, 40 SIM/40 eSIM, LLW and tech support. Separate external antennas purchase required. |
| CSAERFLEX3 | 3YR add-on AerFlex subscription for 1AP private wireless service including mobile core with cloud-based control plane and data plane managed by the AP. Includes Celona Express technical support. |
| CSAERFLEX5 | 5YR add-on AerFlex subscription for 1AP private wireless service including mobile core with cloud-based control plane and data plane managed by the AP. Includes Celona Express technical support. |
| CSAERFLEXM | 1M Add-on AerFlex subscription for 1AP private wireless service including mobile core with cloud-based control plane and data plane managed by the AP. Includes Celona Express technical 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. |

Data Sheet

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| 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. |

Warranty

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