

DATA SHEET

Celona Ruggedized Access Point AP 21

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

AP 21 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**, AP21 supports **AerFlex** - AP-only deployments with zero on-site infrastructure.



celona

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Celona Outdoor AP 21

Celona Outdoor AP 21 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 21 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 21:

Support for global private wireless spectrums

- Operates in 3.3 GHz- 4.9 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

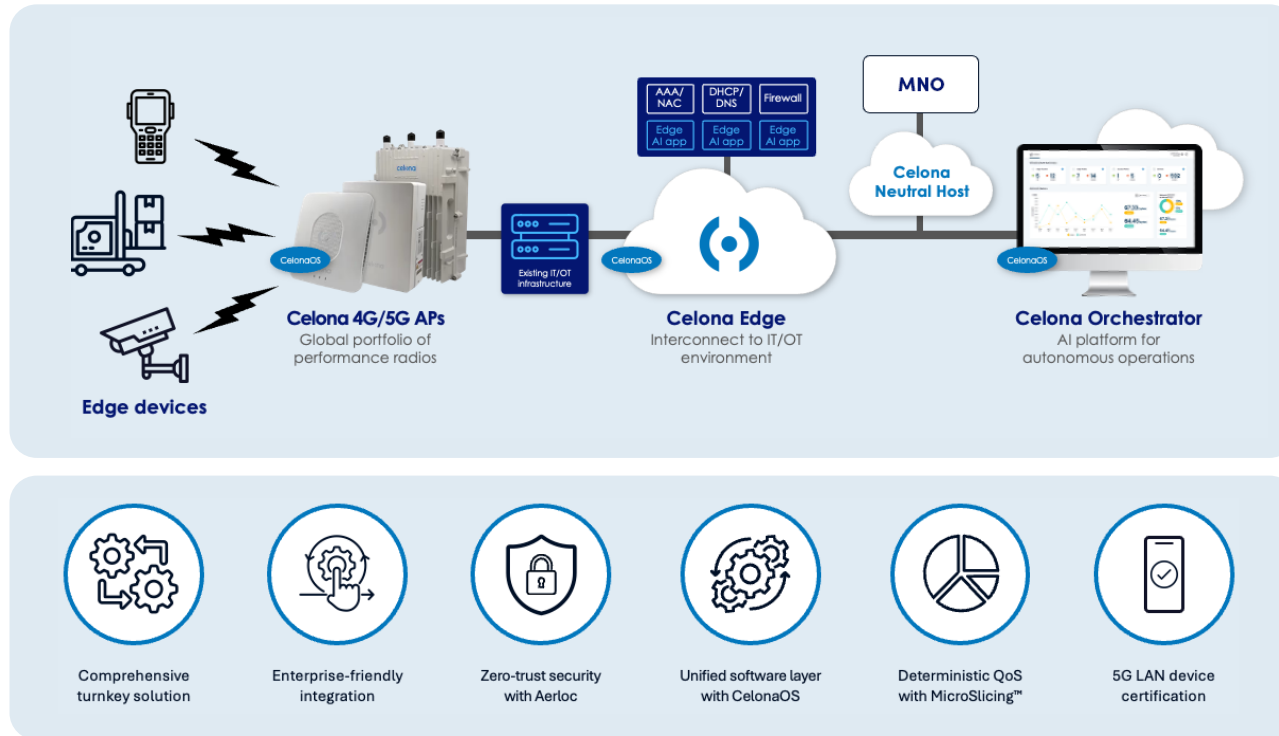
- IP-66 rated and built for tough environments with extended operating temperature, shock, vibration, and noise immunity
- C1D2 certified for work in hazardous environments such as chemical plants, Oil & Gas, where gasses, vapors and dust could be present

Deterministic performance for mission-critical applications

- Delivers predictable performance for mission-critical apps via 5QI MicroSlicing™ with QoS enforcements on a per application flow
- 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
- 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

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 MNO signals on 5G LAN infrastructure, delivering full-strength coverage at remote and in-building sites.

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 (AP21-48) and 35 dBm (AP21-78L/H, AP21-77, AP21-79) per port. Celona provides and supports external antennas
Channel Bandwidth	AP21-48: 20, 40 MHz AP21-77/78H: 40, 60, 100 MHz AP21-79: 100 MHz
Latency	<10ms one-way (between Device and Celona Edge)
Connected Devices	Active: 128 (concurrent)
Dimensions (WxDxH)	13.1 x 9.4 x 4.3 (inches) 333 x 240 x 109 (millimeters)
Weight	18.7 lbs 8.5 kg
Environmental	Operating Temperature: -30° to 55°C Storage Temperature: -40° to 65°C Humidity: 2% to 95% RH
IP (Ingress Protection) Rating	IP66
Power interface lightning protection	Differential mode: ±10 KA Common mode: ±20 KA
Surge Protection	Yes
Installation	Pole or wall mount
Power Consumption	100 W (maximum)
MTBF	>150K hours

Ports and Interfaces

Network Interfaces	1 optical (SFP+) and 1 RJ-45 Ethernet interface (1 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	4 x status LEDs Power / Active / Running / Alarm

Compliance and Certifications

- AP 21-48: FCC Cat A/B
- OnGo Alliance in the United States
- AP 21-78H: CE, UK-CA, Brazil ANATEL, Mexico NOM
- AP 21 -77: CE, UK-CA, Canada IC
- AP 21-78L: CE, UK-CA
- AP 21 -79: TELEC, KCC (Korea Certification)
- Hazardous location, Class 1 Div 2

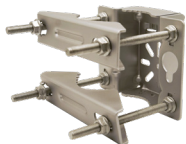
Frequency Band Support (separate SKUs)

AP21-48	3.55-3.7 GHz
AP21-78L	3.3-3.6 GHz
AP21-78H	3.6-3.8 GHz
AP21-77	3.8-4.2 GHz
AP21-79	4.6-4.9 GHz

What's in the box?



AP 21



Mount bracket for pole and wall mount



GPS antenna



Power adapter with regional plugs



SFP optical module

Ordering Information

Celona Outdoor AP 21 is included in the Celona private mobile network subscription, which scales with the number of access points in the network.

C-S-5G-48-TX-X-3	3 year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes 5G category B n48 (3550–3700 MHz) access point, Celona express technical support, limited lifetime warranty and 40 private SIM cards. Separate external antenna purchase required.
C-S-5G-78H-TX-X-3	3 year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes 5G outdoor n78H (3600–3800 MHz) access point, Celona express technical support, limited lifetime warranty and 40 private SIM cards. Separate external antenna purchase required.
C-S-5G-78L-TX-X-3	3 year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes 5G outdoor n78L (3300–3600 MHz) access point, Celona express technical support, limited lifetime warranty and 40 private SIM cards. Separate external antenna purchase required.
C-S-5G-77-TX-X-3	3 year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes 5G outdoor n77 (3800–4200 MHz) access point, Celona express technical support, limited lifetime warranty and 40 private SIM cards. Separate external antenna purchase required.

C-S-5G-79-TX-X-3	3 year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes 5G outdoor n79 (4600–4900 MHz) access point, Celona express technical support, limited lifetime warranty and 40 private SIM cards. Separate external antenna purchase required.
C-S-5G-48-TX-X-5	5 year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes 5G category B n48 (3550–3700 MHz) access point, Celona express technical support, limited lifetime warranty and 40 private SIM cards. Separate external antenna purchase required.
C-S-5G-78H-TX-X-5	5 year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes 5G outdoor n78H (3600–3800 MHz) access point, Celona express technical support, limited lifetime warranty and 40 private SIM cards. Separate external antenna purchase required.
C-S-5G-78L-TX-X-5	5 year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes 5G outdoor n78L (3300–3600 MHz) access point, Celona express technical support, limited lifetime warranty and 40 private SIM cards. Separate external antenna purchase required.
C-S-5G-77-TX-X-5	5 year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes 5G outdoor n77 (3800–4200 MHz) access point, Celona express technical support, limited lifetime warranty and 40 private SIM cards. Separate external antenna purchase required.
C-S-5G-79-TX-X-5	5 year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes 5G outdoor n79 (4600–4900 MHz) access point, Celona express technical support, limited lifetime warranty and 40 private SIM cards. Separate external antenna purchase required.
CS-AERFLEX-X-3	3 year add-on AerFlex service subscription for one access point private wireless service including mobile core services separated into cloud-based control plane and data plane managed by the access point. Includes Celona express technical support.
CS-AERFLEX-X-5	5 year add-on AerFlex service subscription for one access point private wireless service including mobile core services separated into cloud-based control plane and data plane managed by the access point. Includes Celona express technical support.
CS-AERFLEX-X-M	Add-on AerFlex service subscription for one access point private wireless service including mobile core services separated into cloud-based control plane and data plane managed by the access point. Includes Celona express technical support.

CN-ANT-OMNI-KIT	Omni-directional antenna with 3.3-3.8GHz frequency range, horizontal/vertical polarization type, 13 dBi gain, 7 degree vertical beamwidth, 360 degree horizontal beamwidth, 1 degree electrical downtilt, 30 dB port isolation, 2 x Type N Female connectors and 1-year warranty. Each antenna comes with an accessory kit of two surge protectors and two 10-ft LMR400 antenna cables. Each Celona 5G outdoor AP has two connectors and requires one external antenna.
CN-ANT-33D-KIT	33-degree sector antenna with 3.5-4.2 GHz frequency range, polarization type of 45 degree slant, 18.8 dBi gain, 8 degree vertical beamwidth, 33 degree horizontal beamwidth, 4 degree electrical downtilt, 35 dB front to back ratio, 2 x Type N Female connectors and 1-year warranty. Each antenna comes with an accessory kit of two surge protectors and two 10-ft LMR400 antenna cables. Each Celona 5G outdoor AP has two connectors and requires one external antenna.
CN-ANT-90D-KIT	90-degree sector antenna with 3.3-3.8GHz frequency range, polarization type of 45 degree slant, 16.7 dBi gain, 6.5 degree vertical beamwidth, 45 degree horizontal beamwidth, 2 degree electrical downtilt, 31 dB front to back ratio, 2 x Type N Female connectors and 1-year warranty. Each antenna comes with an accessory kit of two surge protectors and two 10-ft LMR400 antenna cables. Each Celona 5G outdoor AP has two connectors and requires one external antenna.
CN-ANT-120D-KIT	120-degree sector antenna with 3.3-3.8 GHz frequency range, polarization type of 45 degree slant, 14.5 dBi gain, 7 degree vertical beamwidth, 120 degree horizontal beamwidth, 3.5 degree electrical downtilt, 30 dB front to back ratio, 2 x Type N Female connectors and 1-year warranty. Each antenna comes with an accessory kit of two surge protectors and two 10-ft LMR400 antenna cables. Each Celona 5G outdoor AP has two connectors and requires one external antenna.
CN-ANT-65D-KIT	65-degree sector antenna with 3.3-3.8 GHz frequency range, polarization type of 45 degree slant, 17 dBi gain, 6 degree vertical beamwidth, 62 degree horizontal beamwidth, 38 dB front to back ratio, 2 x Type N Female connectors and 1-year warranty. Each antenna comes with an accessory kit of two surge protectors and two 10-ft LMR400 antenna cables. Each Celona 5G outdoor AP has two connectors and requires one external antenna.

Warranty

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