



/ DATA SHEET

Celona ruggedized outdoor access point AP 21



The ruggedized indoor/outdoor Celona Orion 5G NR access point – deterministic private 5G reach across a wide range of international 5G NR bands for industrial environments, oil refineries, ports, and large-scale campuses.

/ AT A GLANCE

WIRELESS TYPE	Integrated Private 5G NR
DEPLOYMENT	Indoor + Outdoor
BAND	n48, n78L, n78H, n77, n79 (3.3–4.9 GHz)
HAZARDOUS ENVIRONMENTS	C1D2 certified
IP RATING	IP66
AERFLEX	Supported

/ CONTENTS

- 01 Overview
- 02 Key benefits
- 03 Celona Orion platform
- 04 Specifications
- 05 What's in the box
- 06 Ordering information
- 07 Warranty

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celona.io/resources/ap-21-data-sheet | Talk to Celona: celona.io/contact-us

01 Overview

The AP 21 is a ruggedized access point in the Celona Orion platform – bringing deterministic private 5G NR reach to the most demanding industrial environments across a wide range of international 5G NR bands. Bringing the speed, security, and reliability of 5G NR to enterprises across industries, it was engineered to deliver pervasive indoor and outdoor cellular coverage across massive, critical industrial and outdoor areas – oil refineries, shipping ports, manufacturing yards, and large-scale campus environments. As a fully integrated access point, it connects directly to your IT network with fewer components. Powered by CelonaOS, it delivers deterministic performance for business-critical applications and supports AerFlex – AP-only deployments with zero on-site infrastructure. Ultra-low latency under 10 ms enables applications like wireless PLCs and PROFINET.

02 Key benefits

An integrated private 5G NR access point powered by CelonaOS, purpose-built for the harshest enterprise environments – indoor and outdoor, IP66 rated, and C1D2 certified for hazardous locations including chemical plants and oil & gas sites. Operating across international 5G NR bands from 3.3–4.9 GHz with AerFlex support, it delivers fewer components, zero-touch provisioning, simpler installation, and a direct IT network connection – no additional hardware required.

Global outdoor Private 5G platform

Supports global private 5G spectrum bands including n77, n78H, n78L and n79, enabling enterprises to standardize on a common outdoor access point platform across worldwide deployments.

Industrial-Grade Ruggedness

Purpose-built for harsh industrial environments with IP66 ingress protection and UL Class I Division 2 certification for manufacturing, mining, ports, utilities, transportation and oil and gas facilities.

Advanced RF architecture

Delivers up to 37 dBm conducted transmit power per RF port with 2x2 MIMO and flexible external antenna support, enabling higher EIRP, extended coverage, directional or omnidirectional designs, optimized sectorization and fewer access points across large outdoor environments.

Carrier-Class outdoor hardware

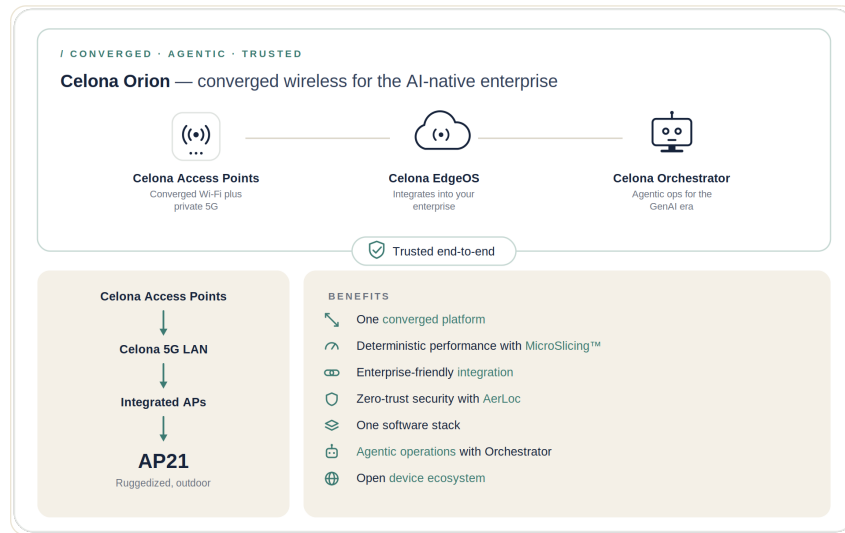
Designed with integrated GNSS timing, secure hardware architecture, industrial thermal design and enterprise-grade components for reliable, continuous operation in mission-critical networks.

Flexible deployment

Supports Celona Edge, Virtualized Edge and AerFlex™ deployment architectures, with DC power input, flexible pole and wall mounting options and simplified outdoor installation.

03 Celona Orion platform

Celona Orion is converged wireless for the AI-native enterprise – one platform spanning radio, core networking, and AI-powered management. It brings 5G performance, reliability, and deterministic QoS into enterprise and industrial environments, designed specifically for enterprise integration and AI-driven operations.



Celona SIM + AerConnect

Device identity and intelligence

Celona Access Points

Wi-Fi + private 5G as one system

Celona EdgeOS

Integrates into your enterprise

Celona Orchestrator AI

Agentic ops for the GenAI era

04 Specifications

HIGH LEVEL

Type	5G Ruggedized Access Point (3GPP Rel. 15 TDD)
RF Specifications	2×2 MIMO UL/DL, up to 256 QAM
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	<10 ms one-way (device to Celona Edge)
Connected Devices	128 active (concurrent)
Dimensions (W×D×H)	333 × 240 × 109 mm / 13.1 × 9.4 × 4.3 in
Weight	8.5 kg (18.7 lbs)
Environmental	Operating: -30°C to +55°C / Storage: -40°C to +65°C / Humidity: 2-95% RH
Power Interface Lightning Protection	Differential: ±10KA / Common: ±20KA
Surge Protection	Yes
Installation	Pole or wall mount
Power Consumption	100 W (maximum)
MTBF	>150K hours

PORTS & INTERFACES

Network Interfaces	1× optical (SFP+) and 1× RJ-45 Ethernet interface (1 GE)
Antenna Interfaces	2× N-Type antenna connectors
Power Supply	±48V DC (AC adapter and power surge protector included)
Timing	GPS (antenna included)
LED Indicators	4× status LEDs – Power / Active / Running / Alarm

COMPLIANCE & FREQUENCY

Certifications

AP21-48: FCC Cat A/B, OnGo Alliance (US); AP21-78H: CE, UK-CA, Brazil ANATEL, Mexico NOM; AP21-77: CE, UK-CA, Canada IC; AP21-78L: CE, UK-CA; AP21-79: TELEC, KCC (Korea); Hazardous location, CSA Class 1 Div 2

Frequency Band

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

05 What's in the box

Image placement is illustrative – confirmed during review. Five items ship with each unit.



AP 21 outdoor access point



Power adapter with regional
plugs



Mount bracket (pole & wall
mount)



SFP optical Module



AP 21 GPS antenna

06 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.

SKU	DESCRIPTION
C-S-5G-48-TX-X-3	3-year outdoor 5G private wireless service subscription for one outdoor access point including management, SIM provisioning, and mobile core services via Celona Edge software and Celona Orchestrator cloud service. Includes a 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 – same inclusions as above, with a 5G outdoor n78H (3600–3800 MHz) access point.
C-S-5G-78L-TX-X-3	3-year outdoor 5G private wireless service subscription for one outdoor access point – same inclusions as above, with a 5G outdoor n78L (3300–3600 MHz) access point.
C-S-5G-77-TX-X-3	3-year outdoor 5G private wireless service subscription for one outdoor access point – same inclusions as above, with a 5G outdoor n77 (3800–4200 MHz) access point.
C-S-5G-79-TX-X-3	3-year outdoor 5G private wireless service subscription for one outdoor access point – same inclusions as above, with a 5G outdoor n79 (4600–4900 MHz) access point.
C-S-5G-48-TX-X-5	5-year outdoor 5G private wireless service subscription – same inclusions as the C-S-5G-48-TX-X-3 SKU.
C-S-5G-78H-TX-X-5	5-year outdoor 5G private wireless service subscription – same inclusions as the C-S-5G-78H-TX-X-3 SKU.
C-S-5G-78L-TX-X-5	5-year outdoor 5G private wireless service subscription – same inclusions as the C-S-5G-78L-TX-X-3 SKU.
C-S-5G-77-TX-X-5	5-year outdoor 5G private wireless service subscription – same inclusions as the C-S-5G-77-TX-X-3 SKU.
C-S-5G-79-TX-X-5	5-year outdoor 5G private wireless service subscription – same inclusions as the C-S-5G-79-TX-X-3 SKU.
CS-AERFLEX-X-3	3-year add-on AerFlex service subscription for one access point – cloud-based control plane and AP-managed data plane. Includes Celona express technical support.
CS-AERFLEX-X-5	5-year add-on AerFlex service subscription – same inclusions as the 3-year SKU.

SKU	DESCRIPTION
CS-AERFLEX-X-M	Monthly add-on AerFlex service subscription for one access point. Includes Celona express technical support.
CN-ANT-OMNI-KIT	Omni-directional antenna, 3.3–3.8 GHz, 13 dBi, 360° horizontal. Kit includes 2 surge protectors and 2× 10-ft LMR400 cables. One antenna required per AP.
CN-ANT-33D-KIT	33° sector antenna, 3.5–4.2 GHz, 18.8 dBi. Kit includes 2 surge protectors and 2× 10-ft LMR400 cables.
CN-ANT-65D-KIT	65° sector antenna, 3.3–3.8 GHz, 17 dBi. Kit includes 2 surge protectors and 2× 10-ft LMR400 cables.
CN-ANT-90D-KIT	90° sector antenna, 3.3–3.8 GHz, 16.7 dBi. Kit includes 2 surge protectors and 2× 10-ft LMR400 cables.
CN-ANT-120D-KIT	120° sector antenna, 3.3–3.8 GHz, 14.5 dBi. Kit includes 2 surge protectors and 2× 10-ft LMR400 cables.

07 Warranty

C-S-5G-78H-TX-X-3