

Altai C1ni Super WiFi CPE/AP

The Altai C1ni is an industrial CPE/AP specifically designed to deliver unparalleled Wi-Fi experience and highly reliable and consistent connectivity at the market's most affordable price point.

The C1ni offers several powerful features to meet the challenges of today's industrial Wi-Fi networks:

- Together with the A8n (ac) or the A3-Ei, C1ni delivers over ten times the coverage of any conventional Wi-Fi solution
- Altai's Fast Roaming technology allows C1ni to roam seamlessly between APs, with millisecond-level handover time
- Support industrial communications standards such as PROFINET
- Advanced Interference Mitigation Suite offers significant reduction in interference in harsh and noisy industrial environments
- Due to the wide operating temperature range and a robust design with enhanced surge, ESD, and vibration protection, C1ni can be used in harshest conditions with the highest reliability

Super Dual-band Coverage

C1ni Max. LOS Access with 5dBi Omni	500 m
C1ni Max. LOS Access with 7dBi Omni	500 m
C1ni Max. LOS CPE with 5dBi Omni	2 km to A8-Ein (ac)
C1ni Max. LOS CPE with 7dBi Omni	1.5 km to A3-Ei
Max. Data Rate	300 Mbps



Applications

- The C1ni, with fast roaming technology, enhanced vibration protection and compact design, is ideally suited for installation on AGV or AS/RS platform in factories, logistics centers, and warehouses
- Due to its superior coverage and flexible deployment options, the C1ni is the most affordable high-performance CPE in the market for real-time device monitoring, remote management, and data collection in a wide range of industrial environments
- With support for industrial standards such as PROFINET, the A8n (ac) Super WiFi Base Station/ A3-Ei AP and C1ni offers the most cost-effective solution for factory automation, enabling automate production across all levels

Key Features and Benefits

- **Extended coverage requires fewer APs** Together with A8n (ac) Super WiFi Base Station, C1ni delivers over 10 times the coverage of any conventional Wi-Fi solution, thus, minimizing the number of APs required for any Wi-Fi network
- **Fast roaming technology** Altai's Fast Roaming technology allows the C1ni to roam seamlessly between APs, with handover time of < 80 ms under WPA2
- **Industrial communications standards** The C1ni supports industrial communications standards such as PROFINET
- **Advanced Interference Mitigation** Advanced Interference Mitigation Suite provides significant reduction in interference in both harsh and noisy environments
- **Hardened for Adverse Environments** Sleek, compact design with enhanced surge, ESD, and vibration protection enables the C1ni to be installed in a wide range of industrial environments
- **Flexible Deployment Options** Supported by multiple management platforms: standalone, controller, or cloud-based / on-premises by AltaiCare

Wireless Interface

C1ni

802.11b/g/n (2x2) Radio

- Operating Mode AP/ CPE/ Bridge/ Repeater
- Standard IEEE 802.11b/g/n
- Operating Frequency 2.400 – 2.484 GHz (Ch 1-13)
- Transmit Power 29 dBm (Max.)
26 dBm (Per Chain)
- Receiver Sensitivity (Typical)

802.11b	11 Mbps	-91 dBm
	1 Mbps	-96 dBm
802.11g	54 Mbps	-81 dBm
	6 Mbps	-95 dBm
802.11n	HT20	-95 dBm
	HT40	-92 dBm

C1ani

802.11a/n (2x2) Radio

- Operating Mode AP/ CPE/ Bridge/ Repeater
- Standard IEEE 802.11a/n
- Operating Frequency 5.150 – 5.350 GHz
5.470 – 5.725 GHz
5.725 – 5.850 GHz
- Transmit Power 29 dBm (Max.)
26 dBm (Per Chain)
- Receiver Sensitivity (Typical)

802.11a	54 Mbps	-83 dBm
	6 Mbps	-96 dBm
802.11n	HT20	-95 dBm
	HT40	-91 dBm
- 16 SSID (Max.)
- 802.11h*, 802.11k*, 802.11r*, 802.11v*, 802.11w*
- Hotspot 2.0
- Fast Roaming
- Altai AirFi™ Throughput Optimization
- WMM (802.11e)

Antenna

- Antenna Connector 2 x RP-SMA Female
- External Antenna 2.4G 8 dBi Omni
2.4G 5 dBi Omni
5G 9 dBi Omni
5G 7 dBi Omni

Networking

- Switch (Bridge) and Gateway Mode
- IPv4/ IPv6 Dual-Stack
- NAT
- DHCP Client/ Server
- PPPoE Client
- VPN (IPsec)*
- VLAN
- Bandwidth Control Per VAP/ Client
- Multicast Rate Filter/ IGMP Snooping

Security

- Authentication – Open system, Shared key, WPA/ WPA-PSK, WPA2/ WPA2-PSK, 802.1x (EAP-PEAP/ TLS/ TTLS/ SIM/ AKA)
- Encryption – WEP, TKIP, AES
- Inter/ Intra-client Isolation
- MAC-based Access Control (White/ Black List)
- RADIUS
- Active directory
- Firewall*
- WIPS*

Management

- Cloud or Server-based Management by AltaiCare
- Controller-based Management by Access Controller
- Web User Interface
- Command Line Interface (SSH)
- SNMP v1/ v2c / v3*
- MIB2/ IF-MIB/ Altai Enterprise MIB
- Syslog
- Auto Channel Selection and TX Power Control
- Spectral Analysis*
- KPI Monitoring*
- Client OS Detection*

Physical Specification

- Dimension 197 mm x 96 mm x 29 mm
- Weight 0.5 kg
- Mounting DIN rail (35mm) or Wall
- Network Interface 10/100 Mbps Ethernet Port
- LED Display Power Status
Ethernet Status
8-level Signal Strength
(User configurable)

Power Supply

- Power Supply DC Input on 2-Pin Connector
(12 to 24 VDC)
Passive PoE (12 to 24 VDC)
- Power Consumption 6 W (Typical) / 8 W (Max.)

Environmental Specification

- Operating Temperature -20 °C to +70 °C
- Storage Temperature -40 °C to +70 °C
- Humidity 5 to 95% (Non-condensing)
- Surge Protection EN 61000-4-5 (6kV)

Certification

- FCC / CE / SRRC* / Others*
- RoHS2 Compliance

Product Ordering Information

C1ni (Part No.: SD.C1-NI00-01)

- C1ni Super WiFi CPE/AP With External RF Ports
- Mounting Kit

C1ani (Part No.: SD.C1-ANI0-01)

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Optional Accessories

- Indoor Power Supply Accessories (UK) for C1n Series
- Indoor Power Supply Accessories (US) for C1n Series
- Indoor Power Supply Accessories (EU) for C1n Series

Contact Us

- Email: sales@altaitechnologies.com

*Will be available in the future

C1ni-PB-180827

Note: Coverage or range may vary depending on environmental conditions. Max. transmit power varies according to country regulations

Note: Specifications are subject to change without notice