Altai C1n Super WiFi CPE/AP

The Altai C1n WiFi CPE/AP is designed as an essential component in the Altai Super WiFi system to extend outdoor Wi-Fi coverage into indoor areas for broadband connectivity or use as an AP for pico coverage.

The Altai C1n employs patented smart signal processing algorithms and antenna design to increase Wi-Fi signal strength (transmit and receive) by as much as 16 dB in areas covered by an A8n Super WiFi Base Station or A2 WiFi Access Point. It can be installed exactly where the throughput is required to boost up, and it allows the service operator to increase the coverage range of an A8n base station substantially and provides greater flexibility and cost savings to Wi-Fi deployments.

Super Long Range Coverage

Max. LOS Access	800 m
Max. LOS CPE	4 km to A8-Ein(ac) 3 km to A3-Ei
Max. Data Rate	300 Mbps

Control Traffic Throughput Flexibly

From day one, the C1n is designed and purpose-built for service operators. Its built-in traffic shaping based bandwidth control mechanism allows the control of uplink and downlink traffic throughput on a per-client or per-VAP basis. A full set of networking and management features are available to meet carriers' requirements.

Altai C1n for Wireless Broadband

The C1n is a key component in wireless broadband access provisioning. It can be installed outdoor by the side of a window, mounted to a wall, at the rooftop of a building or placed at the desktop inside for fixed broadband access provisioning.

Altai C1n for Access Point

The C1n can also be used as a standalone Wi-Fi access point for smaller networks supporting 802.11b/g/n clients. With its high gain built-in smart antenna, it is an important solution to complement the large coverage and high throughput of an A8n series Super WiFi Base Station and A2 Access Point to improve Wi-Fi performance.

As an integral part of our Super WiFi network infrastructure, the Altai C1n differentiates others with:

- Features built-in for carriers including per client/VAP based bandwidth control, remote web-based management and client association status

- ±45° dual slant patch antennas are optimized to match with the Altai A8n/A2 series antennas. It provides 3 dB more gain as compared to other V/H polarized CPEs

- High performance antenna with 20 dB front-to-back ratio, which is on average 5 dB better than others in directional transmission without picking up unwanted signal

- One-piece weatherproof chassis compliant to IP55 standard for direct outdoor installation

- 8-level LED for easy alignment in the strongest signal direction

- Increase signal strength for both NLOS and LOS coverage areas

- Improve data transmission rate and throughput utilization of base station

Wireless Interface

802.11b/g/n (2x2) Radio

- Operating Mode — AP/ CPE/Repeater
- Standard — IEEE 802.11b/g/n
- Operating Frequency — 2.400 – 2.485 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

- 16SSID
- WMM, 802.11h, 802.11k, 802.11r, 802.11v, 802.11w
- Passpoint (Release 2)
- Fast Roaming
- Auto Channel Selection and TX Power Control
- Bandwidth Control Per SSID/Client
- Altai *AirFi™* Throughput Optimization
- 1+ N Redundancy
- Multi-AP Steering*

Antennas

- Built-in 2.4 GHz Antenna — 10 dBi Dual Slant ±45° Sector
- Horizontal Beamwidth — 70° (-3 dB)
- Vertical Beamwidth — 30° (-3 dB)
- Front-to-back Ratio — -20 dB (Max.)

Networking

- Switch (Bridge) and Gateway Mode
- IPv4/IPv6 Dual-Stack
- NAT
- DHCP Client/Server
- PPPoE Client
- Soft-GRE
- VLAN
- Multicast Rate Filter/IGMP Snooping

Security

- Authentication – Open, Shared key, WPA/WPA-PSK, WPA2/WPA2-PSK, WPA3*, 802.1x (EAP-PEAP/TLS/TTLS/SIM/AKA)
- Encryption – WEP, TKIP, AES
- Inter/Intra-SSID Client Isolation
- MAC-based Access Control (White/Black List)
- RADIUS/Active directory
- Dynamic VLAN Assignment
- Firewall
- WIDS/WIPS
- Broadcast/Multicast/Unicast Flooding Control

Management

- Management Platforms: AltaiGate, AltaiCare, AtlaiCare Appliance
- Web User Interface
- Command Line Interface (SSH)
- Remote Factory Reset
- Trusted Management IP List
- SNMP v1/v2c/v3
- MIB2/IF-MIB/Altai Enterprise MIB
- Syslog
- Spectral Analysis*
- KPI Monitoring*
- Client OS and Hostname Detection

Physical Specifications

- Dimension — 242 x 80 x 27 mm (Without Mounting Kit)
- Weight — 0.4 kg
- Mounting — Desktop, Pole, Wall or Window-Mounted
- Network Interface — 10/100 Mbps Ethernet Port
- LED Display — Main Power Status / Ethernet Status / 8-Level Signal Strength (User Configurable)
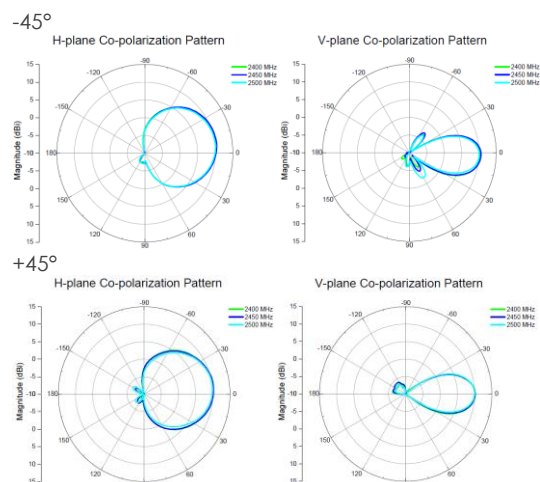
Power Supply

- Power Supply — 18V Passive PoE PD or 802.3af PoE PD via Adapter
- Power Consumption — 6 W (Typical)/8 W (Max.)

Environmental Specifications

- Operating Temperature — -20 °C to +55 °C
- Storage Temperature — -40 °C to +80 °C
- Humidity — Up to 95% (Non-Condensing)
- Wind Loading — Up to 200 km/h (124 mph)
- Weatherproof — Outdoor UV Stabilized Plastic IP55 Compliant

Antenna Pattern (Built-in Antennas)

Certifications

- FCC/CE/Others*
- RoHS Compliance

Product Ordering Information

C1n (Part No.: SD.C1-N000-UK/US/EU)

Standard Package
- C1n Super WiFi CPE/AP with Built-in 2.4 GHz Patch Antennas (Model No.: WA1011N-G)
- DC Injector and AC Adapter (UK, US, or EU)
- Cable Ties

Optional Accessories
- 802.3af to Passive PoE Adapter

Contact Us
- Email: sales@altaitechnologies.com

C1n-PB-210830

Will be available in the future.
The coverage range will vary depending on NLOS and interference conditions
The transmit power may vary according to country regulation