Altai C1n Super WiFi CPE

802.11n Bandwidth Control and Remote Management Capable

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The Altai C1an WiFi CPE is designed as an essential component in the Altai Super WiFi system to extend outdoor WiFi coverage into indoor areas for broadband connectivity.

The Altai C1n employs patented smart signal processing algorithms and antenna design to increase WiFi 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 WiFi deployments.

Super Long Range Coverage

LOS Access	600 m
LOS CPE	4 km to A8-Ein 3 km to A2-Ei
LOS Bridge	20 km
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 outdoors 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 WiFi 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 WiFi performance.

As an integral part of our Super WiFi network infrastructure, the Altai C1n WiFi CPE/AP 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

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Wireless Interface

802.11b/g/n (2x2) Radio

- Operating Mode: AP/CPE/Bridge*/Repeater
- Standard: IEEE 802.11b/g/n
- Operating Frequency: 2.412 – 2.472 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

- Transmit and Receive Diversity
- Altai *AirFi*™ Throughput Optimization
- Automatic Channel Selection (with Scheduling*)
- Site Survey Channel Scan

Antenna

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

Networking

- 8 Multiple SSID/ Virtual AP
- Bandwidth Control/ VAP/ Client
- DHCP Client/ Server
- Dynamic NAT
- Port Forward
- Preferred AP Association
- Auto ACK Timeout Calculation by Distance Input
- Web Based Antenna Alignment Tool
- 2 User Access Levels for Web Login (3 Levels*)
- WMM*

Security

- Authentication: Open system, Shared key,
  WPA/ WPA-PSK
  WPA2/ WPA2-PSK
  802.1x, PEAP
- Encryption: WEP, TKIP, AES
- MAC based Access Control
- SSID Suppression

Management

- Web-based Administration Tool
- Web-based Antenna Alignment Tool
- Telnet Management (SSH)*
- Remote Firmware Upgrade (HTTP)
- SNMP v2c
- WiFi Client Association Status
- Altai Wireless Management System (AWMS) Support

Power Supply

- Power Source: PoE Injector (18V)
- Power Consumption: 6 W (Typical) / 8W (Max.)

Physical Specification

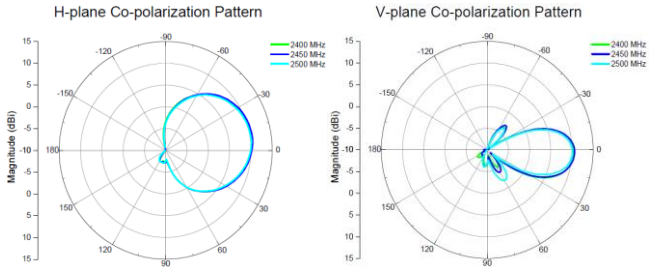
- Dimension: 220 x 80 x 24 mm (excluding mounting)
- Weight: 0.4 kg
- Mounting: Desktop, Pole, Wall or Window-mounted
- Network Interface: 10/100 Mbps Ethernet Port
- LED Display: Main Power Status
  Ethernet Status
  8-level Signal Strength
  (User configurable)

Environmental Specification

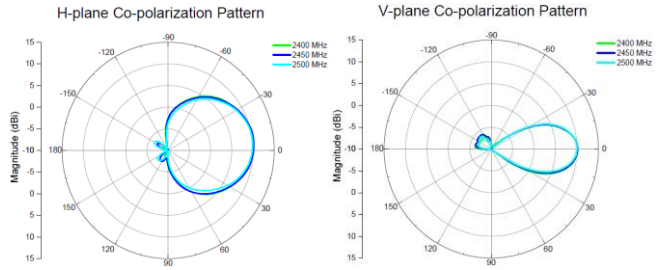
- Operating Temperature: -20 °C to +55 °C
- Storage Temperature: -40 °C to +80 °C
- Humidity: 5 – 95% (Non-condensing)
- Wind Loading: 145 km/h (Operational)
  200 km/h (Survival)
- Weatherproof: Outdoor UV Stabilized Plastic
  IP55 Compliant

Antenna Pattern (Built-in Antennas)

-45°



+45°



Certification

- FCC/ CE/ Others*

Product Ordering Information

Standard Package

- C1n Super WiFi CPE With Built-in 2.4 GHz Patch Antennas (Model No.: WA1011N-G)
- DC Injector and AC Adaptor
- Wire Clamp
- Power Cord (UK, US, EU or CN, country dependent)
- Table Stand (optional)

Contact Us

- Email: sales@altaitechnologies.com

** Feature will be available in future release* *C1n-PB-130812*

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