Altai C1an Super WiFi CPE/AP

The Altai C1an 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 in 5 GHz band or use as an AP for pico coverage.

The Altai C1an employs patented smart signal processing algorithms and antenna design to increase Wi-Fi signal strength (transmit and receive) by as much as 18 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	1 km/ext. (5 GHz)
Max. LOS CPE	4 km to A8-Ein(ac) 3 km to A3-Ei
Max. LOS Bridge	13 km
Max. Data Rate	300 Mbps

Control Traffic Throughput Flexibly

From day one, the C1an is designed and purpose-built for carriers. 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 C1an for Wireless Broadband

The C1an 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 C1an for Access Point

The C1an can also be used as a standalone Wi-Fi access point for smaller networks operating at 5 GHz with fast Ethernet backhaul. With its high gain built-in smart antenna, it is an important solution to complement the large coverage and high throughput of an A8n Base Station and A2 Access Point to improve Wi-Fi performance.

Altai C1an for PTP Bridge

The C1an is perfect for use as low cost point-to-point bridge, in deployment scenarios such as commercial wireless broadband users or high definition surveillance cameras.

As an integral part of our Super WiFi network infrastructure, the Altai C1an 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 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

802.11a/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

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
- Altai *AirFi™* Throughput Optimization
- Band Steering
- WMM (802.11e)

Antenna

• Built-in 5 GHz Antenna	14 dBi Dual Slant ±45° Sector
• Horizontal Beamwidth	35 - 45° (-3 dB)
• Vertical Beamwidth	15 - 20° (-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
- 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	242 x 80 x 27 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)

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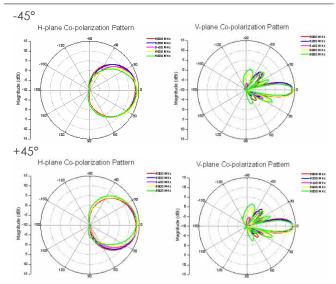
• Power Supply	18V Passive PoE PD or 802.3af PoE PD via Adapter
• Power Consumption	6 W (Typical) / 8 W (Max.)

Environmental Specification

• Operating Temperature	-20 °C to +55 °C
• Storage Temperature	-40 °C to +80 °C
• Humidity	5 – 95% (Non-condensing)
• Wind Loading	Up to 200 km/h (124 mph)
• Weatherproof	Outdoor UV Stabilized Plastic IP55 Compliant

Antenna Pattern (Built-in Antennas)

-45°

+45°

Certification

- FCC / CE / Others*

Product Ordering Information

Standard Package
- C1an Super WiFi CPE/AP with Built-in 5 GHz Patch Antennas (Model No.: WA1011N-A)
- Cable Ties

Accessories
- DC Injector and AC Adapter
- 802.3af to Passive PoE Adapter

Contact Us
- Email: sales@altaitechnologies.com

C1an-PB-160727

* Will be available in future.
The coverage range will be varied depending on NLOS and interference conditions.
The transmit power may be varied according to country regulation.
Although Altai has attempted to provide accurate information in these materials, Altai assumes no legal liability for the accuracy and completeness of the information. All specifications are subject to change without notice.