Altai C1xn Super WiFi CPE/AP

The Altai C1xn 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 C1xn employs patented smart signal processing algorithms and external antenna design to increase Wi-Fi signal strength (transmit and receive) by as much as 21 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.

Flexible External Antennas

The Altai C1xn employed 2-external SMA antenna port design. It allows the user to choose the exact antenna gain and beamwidth as they need. Our standard antenna accessories include 2.4 GHz 5 dBi omni, 8 dBi omni and 15 dBi 120º sector antennas for standard AP and CPE applications. User can also equip with his own high gain antenna for longer range AP and CPE applications.

Super Long Range Coverage

Max. LOS Access	500 m (With 5 dBi Omni)
Max. LOS CPE	7 km to A8-Ein(ac) 5 km to A3-Ei (With 15 dBi Sector)
Max. LOS Bridge	50 km
Max. Data Rate	300 Mbps

Control Traffic Throughput Flexibly

From day one, the C1xn 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 C1xn for Wireless Broadband

The C1xn 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 wireless broadband access provisioning.

Altai C1xn for Access Point

The C1xn can be used as a standalone Wi-Fi access point with omni or sector coverage supporting 802.11b/g/n clients. With its flexible external antennas, it suits for different scenarios 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 C1xn differentiates others with:

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

- External antenna ports design allows users to choose exactly the antenna gain and beamwidth they need

- Low cost omni or sector AP and CPE applications for outdoor and indoor areas

- 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/ 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

- 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 (Optional Accessories)

- External Antenna — 15 dBi 120º (-6 dB) Sector
  8 dBi Omni
  5 dBi Omni
- Antenna Connector — 2 x RP-SMA Female

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 — 280 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 to 95% (Non-condensing)
- Wind Loading — Up to 200 km/h (124 mph)
- Weatherproof — Outdoor UV Stabilized Plastic IP55 Compliant

Certification

- FCC*/ CE*/ Others*
- RoHS2 Compliance
- Wi-Fi Alliance Certified*

Product Ordering Information

Standard Package
- C1xn Super WiFi CPE/AP With External Antenna Ports (Model No.: WA1011N-GX)
- Cable Ties

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

Contact Us
- Email: sales@altaitechnologies.com

C1xn-PB-170810

* 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.