

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 WiFi 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 WiFi 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 WiFi 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 120° 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

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|------------|---|
| LOS Access | 900 m with 15 dBi Sector 500 m with 8 dBi Omni 400 m with 5 dBi Omni |
| LOS CPE | 5,500 m to A8-Ein with 15 dBi Sector 4,700 m to A2-Ei with 15 dBi Sector |
| 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 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 C1xn for Access Point

The C1xn can be used as a standalone WiFi 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 WiFi 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.)
- WDS
- Altai AirFi™ Throughput Optimization
- Automatic Channel Selection (with Scheduling)
- WMM
- Preferred AP Association

Antenna (Optional Accessories)

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

Networking

- VLAN
- IPv4/ IPv6 Dual-stack
- Switch (Bridge) and Gateway Mode
- DHCP Client/ Server
- NAT
- PPPoE Client
- Bandwidth Control Per VAP/ Client
- Multicast Rate Filter/ IGMP Snooping
- Port Forwarding

Security

- Authentication – Open system, Shared key, WPA/ WPA-PSK, WPA2/ WPA2-PSK, 802.1x (EAP-PEAP/ TLS/ TTLS/ SIM/ AKA)
- Encryption – WEP, TKIP, AES
- RADIUS Client (PAP, CHAP)
- RADIUS Accounting
- Inter/ Intra-client Isolation
- MAC-based Access Control (White/ Black List)
- SSID Suppression
- WAPI

Management

- Cloud-based Management by AltaiCare
- Server-based Management by AWMS
- Controller-based Management by Access Controller
- Web User Interface
- Command Line Interface (SSH)
- 3-level User Login
- Remote Firmware Upgrade (HTTP, TFTP)
- SNMP v1/ v2c
- MIB2/ IF-MIB/ Altai Enterprise MIB
- Performance Statistics/ Alarm Information Display
- WiFi Client Association/ Disassociation Statistics
- Syslog

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

Certification

- FCC*/ CE*/ Others*

Product Ordering Information

Standard Package

- C1xn Super WiFi CPE/AP With External Antenna Ports (Model No.: WA1011N-GX)
- DC Injector and AC Adaptor
- Wire Clamps
- Power Cord (UK, US, EU or CN, country dependent)
- Clip and Screws for Ethernet Cable
- Table Stand (optional)

Contact Us

- Email: sales@altaitechnologies.com

* Will be available in future.

C1xn-PB-150428

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.