



C1 Super WiFi CPE With Bandwidth Control and Remote Management Capabilities

The Altai C1 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 C1 employs patented smart signal processing algorithms and antenna design to increase WiFi signal strength (transmit and receive) as well as the client's throughput in areas covered by an A8/A8-Ei/A8i Super WiFi Base Station. It enables network operators to take advantage of the cost savings provided by the A8 series Super WiFi Base Station's 10X greater coverage area when initially installing the WiFi system.

With powerful built-in antennas, the C1 WiFi CPE can be used to improve the link budget by as

much as 16 dB. The C1 can be installed exactly where the signal strength requirement is the greatest. This allows an increase in the coverage distance from the A8 series base station substantially and provides greater flexibility and savings compared to the initial WiFi coverage provided by the A8 alone.

From day one, the C1 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. WDS, VPN pass-through and a full set of networking and management features are available to meet carriers' requirements.

The C1 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.

The C1 can also be used as a standalone WiFi Access Point for smaller networks with Fast Ethernet backhaul. With its high gain built-in smart antenna, it is an important solution to complement the large coverage of an A8 series Super WiFi Base Station and the high throughput of the A2 WiFi Access Point to improve WiFi performance.

The Altai C1 WiFi CPE is the most cost effective and versatile way to replace traditional last mile access. When combined with the A8 series Super WiFi Base Station and A2 WiFi AP/Bridge, it can be used to build a high capacity WiFi system that achieves the fastest ROI for both telecom operators and enterprises.

As an integral part of our Super WiFi network infrastructure, the Altai C1 WiFi CPE/AP differentiates others with:

- Features built-in for carriers including per client/VAP bandwidth control, remote web-based management and client performance statistics
- $\pm 45^\circ$ cross-polarized patch antennas are optimized to match with the Altai A8 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 Radio

- Operating Mode CPE/AP/Repeater*
- Standard IEEE 802.11b/g
- Operating Frequency 2.412 – 2.472 GHz (Ch 1-13)
- Transmit Power

802.11b	1 – 11 Mbps	26 dBm (Max.)
802.11g	6 – 54 Mbps	26 dBm (Max.)
- Receiver Sensitivity (Typical)

802.11b	11 Mbps	-90 dBm
	1 Mbps	-95 dBm
802.11g	54 Mbps	-72 dBm
	6 Mbps	-92 dBm
- Transmit and Receive Diversity
- Automatic Channel Assignment
- Site Survey/ Channel Scan
- Preferred Channel List

Antenna

- Built-in 2.4 GHz Antenna 10 dBi ±45° X-pol Patch
- 3-dB Horizontal Beamwidth 70°
- 3-dB Vertical Beamwidth 30°
- Front-to-back Ratio 20 dB (Typical)

Networking

- 4 Multiple SSID/ Virtual AP
- Bandwidth Control
- DHCP Client/ Server/ Relay
- Dynamic NAT
- PPPoE Client, PPPoE Pass-through
- VPN Pass-through
- Bridge/Router Mode
- 10/100 Mbps Ethernet Port
- Radius Server Per VAP
- WDS
- Firewall (DMZ)
- Port Forward
- Preferred AP Association
- Click to Connect
- Auto ACK Timeout Calculation by Distance Input
- Web Based Antenna Alignment Tool
- 2-level Login*
- WMM

Security

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

Management

- Web-based Administration Tool
- Telnet Management
- Remote Firmware Upgrade (HTTP, FTP)
- SNMP v1, v2c, Altai MIB
- Performance Monitoring
- WiFi Client Association Status
- Altai Wireless Management System (AWMS) Support
- Customized Configuration File*
- TR-069 Support*

* Features will be available in future release

Physical Specification

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

Power Supply

- Power Source DC Injector
- Power Consumption 4 W (Max.)

Environmental Specification

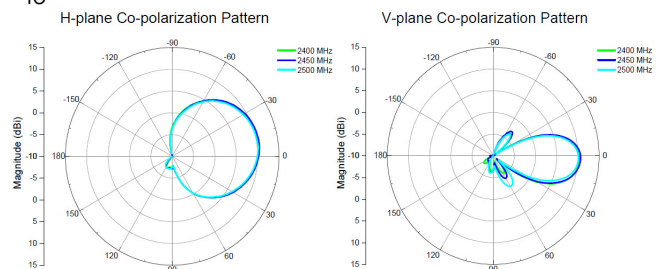
- Operating Temperature -20 °C to +55 °C
- Storage Temperature -40 °C to +80 °C
- Humidity 5 – 95% (Non-condensing)
- Wind Loading 90 mph (Operational), 125 mph (Survival)
- Weatherproof Outdoor UV Stabilized Plastic, IP55 Compliant

Certification

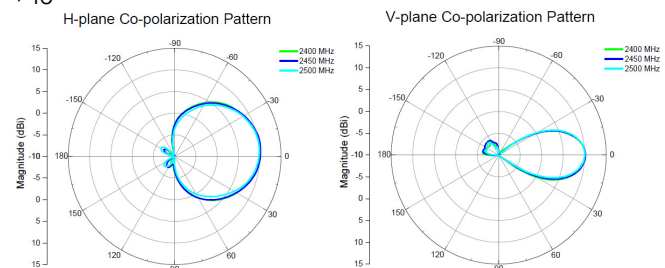
- FCC
- CE
- Others

Antenna Pattern (Built-in Antennas)

-45°



+45°



Product Ordering Information

Standard Package

- C1 Super WiFi CPE With Built-in 2.4 GHz Patch Antennas (Model No.: WA1011C)
- DC Injector and AC Adaptor
- Table Stand and Wire Clamp

Power Cord Options

- UK, US, EU and CN



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