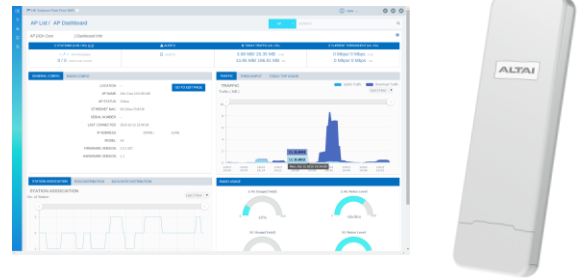**ALTAI**
Super WiFi

Altai C2S Dual-band 2x2 AC WiFi AP/CPE

The Altai C2S Dual-band 2x2 WiFi AP/CPE is specifically designed to offer carrier grade WiFi performance at the market's most affordable price point.

Altai C2S combines several technology breakthroughs to deliver unparalleled WiFi experience and highly reliable and consistent services to mobile users:

- Superior RF and filter design, in conjunction with Altai's interference mitigation algorithm, offers optimal capacity and interference rejection

- Much higher TX power at MCS7/MCS15 data rates for 802.11n and MCS9 data rate for 802.11ac delivers up to 50% more coverage and capacity over the majority of the competitions

- Altai's smart band steering and load balancing technologies allow Altai C2S to effectively utilize both 2.4GHz and 5GHz spectrums for supporting a large number of mobile users running bandwidth hungry applications

Applications

- In conjunction with AltaiCare and its powerful user access management, Altai C2S offers the most cost effective indoor or outdoor WiFi hotspot solution for MNOs and WISPs

- The low cost Altai C2S, together with the controller-less, cloud-based AltaiCare and its pay-as-you-grow subscription model, are ideally suited for enterprises and SMEs that want enterprise features such as security and performance but not the price points associated with controller-based solutions

- With 5GHz as backhaul and 2.4GHz as access, as well as two Gigabit Ethernet ports, Altai C2S is the perfect WiFi CPE for WISPs. Combined with either A8-Ein (ac) or A3-Ei, the solution delivers WiFi coverage up to 3km

- The Altai C2S offers a low cost solution for high capacity point-to-point and point-to-multipoint infrastructure backhaul for MNOs

Super Dual-band Coverage

LOS Access	600 m (2.4 GHz) 700 m (5 GHz)
LOS CPE	3,000 m to A8-Ein (ac) (2.4 GHz) 2,000 m to A3-Ei (5 GHz)
LOS Bridge	7 km (5 GHz)
Data Rate	300 + 867 Mbps

Key Features and Benefits

- **Best value in price/performance** Dual band 802.11ac with extended coverage at the market's most affordable price point

- **Extended coverage requires fewer APs** Up to 50% larger coverage minimizes the number of APs required for any WiFi network

- **Dual-band with 802.11ac** 802.11ac delivers data rate up to 867 Mbps in the 5 GHz band. This, together with Altai's smart band steering and load balancing technologies, allows a WiFi network to support a large number of mobile users running high bandwidth apps

- **Best-in-class performance** Superior RF and filter design, in conjunction with Altai's smart interference mitigation algorithm, offers optimal capacity and interference rejection

- **Superior antenna design** Integrated high gain diversity polarized antenna design increases the effectiveness of MIMO for both 802.11n and 802.11ac

- **AirFi optimizes capacity** AirFi enhances Altai C2S's capacity by optimizing each client's throughput based on its signal strength and traffic

- **Flexible architecture** Standalone, controller-based, or cloud-based management with AltaiCare

- **Ease of deployment** Support for standard 802.3at power over Ethernet allows enterprises to use existing PoE switches; furthermore, zero configuration of AltaiCare allows a non-technical person to simply unpack and plug Altai C2S to WiFi network

Wireless Interface

802.11b/g/n (2x2:2) Radio
- Operating Mode   AP/ CPE/ Bridge/ Repeater
- Standard   IEEE 802.11b/g/n
- Operating Frequency   2.400 – 2.484 GHz (Ch 1-13)
- EIRP   100 mW (Max.)
- Receiver Sensitivity (Typical)

802.11b	11 Mbps	-89dBm	1 Mbps	-92 dBm
802.11g	54 Mbps	-78 dBm	6 Mbps	-92 dBm
802.11n	HT20	-91 dBm	HT40	-88 dBm

802.11a/n/ac (2x2:2) Radio
- Operating Mode   AP/ CPE/ Bridge/ Repeater
- Standard   IEEE 802.11a/n/ac
- Operating Frequency   5.150 – 5.350 GHz
    5.470 – 5.725 GHz
    5.725 – 5.850 GHz
- EIRP   1000 mW (Max.)
- Receiver Sensitivity (Typical)

802.11a	54 Mbps	-79 dBm;	6 Mbps	-93 dBm
802.11n	HT20	-93 dBm;	HT40	-90 dBm
802.11ac	VHT20	-93 dBm;	VHT40	-90 dBm;
	VHT80	-87 dBm		

For both 2.4 and 5 GHz
- 32 SSID (Max. 16 SSID per Radio)
- WDS
- Altai AirFi™ Throughput Optimization
- Band Steering
- Automatic Channel Selection (with Scheduling)
- WMM

Antenna

2.4 GHz Antenna
- Built-in Antenna   6 dBi Patch
- Frequency   2.4 – 2.5 GHz
- Polarization   2x2 MIMO Diversity Polarized
- Horizontal Beamwidth   65° (-3 dB)
- Vertical Beamwidth   60° (-3 dB)
- VSWR   2 (Max.)
- Impedance   50 Ω
- Front-to-back Ratio   -15 dB (Max.)
- Isolation Between Ports   15 dB (Min.)

5 GHz Antenna
- Built-in Antenna   9 dBi Patch
- Frequency   5.150 – 5.875 GHz
- Polarization   2x2 MIMO Diversity Polarized
- Horizontal Beamwidth   70° (-3 dB)
- Vertical Beamwidth   30° (-3 dB)
- VSWR   2 (Max.)
- Impedance   50 Ω
- Front-to-back Ratio   -15 dB (Max.)
- Isolation Between Ports   15 dB (Min.)

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
- Weight   0.4 kg
- Mounting   Desktop, Pole, Wall or Window-mounted
- Network Interface   2 x 10/100/1000 Mbps Ethernet Port

Power Supply
- Power Source   Passive PoE (24V) or 802.3at compliant PoE (56V)#
- Power Consumption   6 W (Typical)/12W (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
- C2S Dual-band 2x2 AC WiFi AP/CPE with Built-in 2.4 GHz and 5 GHz Patch Antennas (Model No.: C2-2221-000)
- Wire Clamps

Accessories
- DC Injector and AC Adapter (UK, US, or EU)
- 802.3at to Passive PoE Adapter

Contact Us
- Email: sales@altaitechnologies.com

Will be available in the future.
#Requires 802.3at to Passive PoE Adapter.
The coverage range will be varied depending on NLOS and interference conditions.
The transmit power may vary according to country regulations.
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.

C2S-PB-160126