Altai A2e WiFi Access Point / Bridge

802.11n, External 5 GHz and Built-in 2.4 GHz Antennas

Altai A2e WiFi Access Point/Bridge

The A2e WiFi Access Point/Bridge is designed to be used in Altai Super WiFi systems as high capacity directional access point and long range-bridge with flexible external high gain antennas. It is capable of providing the highest possible data throughput and capacity that the 802.11n standards can offer.

Super Long Bridging Distance

Max. LOS Access	900 m
Max. LOS Bridge	50 km
Max. Data Rate	300 + 300 Mbps

Altai A2e for Super Long Range Backhaul

The A2e 5 GHz radio provides 2 external antenna ports connection which allows user to choose exactly the antenna gain they wanted for a particular distance and throughput requirement, and the type of panel or sector antenna they wanted for point-to-point or point-to-multi-point applications.

Point-to-Multi-Point Bridging

Besides the A2e to A2e PTP long range bridging uses, the A2e also supports PTMP bridging with A2/A2e, fulfilling high throughput, high user capacity and fully IP-67 weatherproof requirements. This is commonly used for hub site bridging such as campus network, city network or surveillance.

Altai A2e for 5 GHz Wireless Access

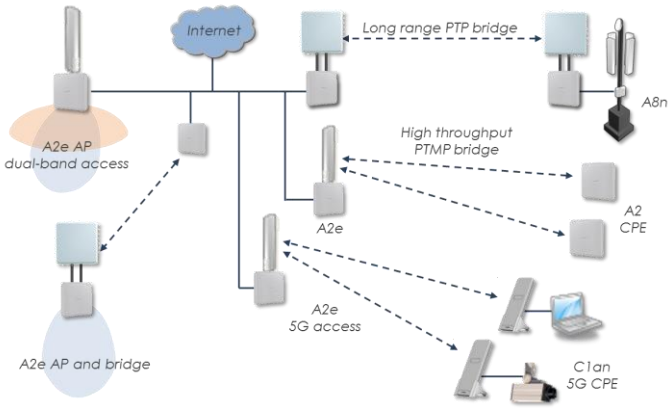
The A2e can be used for 5 GHz wireless access for applications such as wireless broadband or surveillance. It is a cost effective solution when worked with the Altai C1an CPE supporting a distance as far as 2 km without costly cabling.

Altai A2e for Micro Sector Coverage

The A2e can be used as a standalone access point for directional coverage. With built-in 2.4 GHz high gain panel antenna, it can be used to provide simple and cost effective long range sector coverage. The single-sided coverage makes installation simple by just mounting at building wall side.

Altai A2e for System Capacity

As the system capacity of an A8n network needs to be increased, the A2e Access Point can be used to double the user capacity at low cost. The A2e can be installed exactly where the capacity requirement is the greatest.



As an integral part of our Super WiFi network infrastructure, key benefits of the Altai A2e include:

- Built-in 2.4 GHz high gain panel antenna for high capacity directional AP applications
- External 5 GHz high gain panel antenna for long range high throughput PTP/PTMP bridging
- 2 x 2 MIMO for both 2.4 GHz (802.11b/g/n) and 5 GHz (802.11a/n) radios
- 2.4 and 5 GHz Dual-band concurrent access
- IP-67 rated carrier grade product for both outdoor and indoor applications
- Increase system capacity under the coverage area of A8n Super WiFi Base Station
- Gigabit Ethernet or 2 x 2 802.11a/n wireless backhaul
- PTP and PTMP bridging with optional external dual slant panel or omni antennas
- Light weight with built-in lightning protection
- Multi-operating modes allowed: AP, bridge, repeater mode or CPE

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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: 30 dBm (Max.) / 27 dBm (Per Chain)
- Receiver Sensitivity (Typical)

802.11b	11 Mbps	-91 dBm
	1 Mbps	-97 dBm
802.11g	54 Mbps	-78 dBm
	6 Mbps	-95 dBm
802.11n	HT20	-95 dBm
	HT40	-92 dBm

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: 30 dBm (Max.) / 27 dBm (Per Chain)
- Receiver Sensitivity (Typical)

802.11a	54 Mbps	-78 dBm
	6 Mbps	-94 dBm
802.11n	HT20	-94 dBm
	HT40	-91 dBm

For both 2.4 and 5 GHz

- 32 SSID (Max. 16 SSID per Radio)
- 802.11h*, 802.11k*, 802.11r*, 802.11v*, 802.11w*
- Hotspot 2.0
- Altai *AirFi*™ Throughput Optimization
- Band Steering
- WMM (802.11e)

Antenna

2.4 GHz Antenna

- Built-in Antenna: 13 dBi Flat Panel
- Frequency: 2.4 – 2.5 GHz
- Polarization: Dual Slant ±45°
- Horizontal Beamwidth: 37° (-3 dB)
- Vertical Beamwidth: 33° (-3 dB)
- VSWR: 2 (Max.)
- Impedance: 50 Ω
- Front-to-back Ratio: -20 dB (Max.)
- Isolation Between Ports: 20 dB (Min.)

5 GHz Antenna (Optional Accessories)

- External Antenna: 20 dBi Panel/ 9 dBi Omni/ 16 dBi 100° Sector
- Antenna Connector: 2 x N-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: 220 x 220 x 60 mm
- Weight: 1.3 kg (Unit Weight) / 4.4 kg (Gross Weight)
- Mounting: Pole or Wall-mounted
- Network Interface: 10/100/1000 Mbps Ethernet Port

Power Supply

- Power Supply: 802.3at PoE PD or 56V Passive PoE PD
- Power Consumption: 10 W (Typical) / 20 W (Max.)

Environmental Specification

- Operating Temperature: -40 °C to +60 °C (Ambient) / 0 °C to +40 °C (PoE Injector)
- Storage Temperature: -40 °C to +80 °C
- Humidity: 5 to 100% (Condensing)
- Lightning Protection: EN 61000-4-5
- Wind Loading: Up to 216 km/h (134 mph)
- Weatherproof: IP67 Compliant

Certification

- FCC / CE / Others*

Product Ordering Information

Standard Package

- A2e WiFi Access Point / Bridge with Built-in 2.4 GHz Panel Antenna (Model No.: AP5822)
- PoE Injector and Mounting Accessories
- 5 GHz Omni/ Panel/ Sector Antennas (Optional)

Contact Us

- Email: sales@altaitechnologies.com

** Will be available in future.* *A2e-PB-160815*

The coverage range will be varied depending on NLOS and interference conditions.
The transmit power may be varied according to country regulation.
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