Altai A2e WiFi Access Point / Bridge

The Altai A2e WiFi Access Point/Bridge is designed to be used either as an access point with backhaul for high density user environments, or as a point-to-point and point-to-multipoint bridge that delivers wire-like throughput at the market’s most affordable price point.

The Altai A2e offers several powerful features to deliver unparalleled Wi-Fi experience and highly reliable and consistent performance:

- Superior RF and filter design, in conjunction with Altai’s interference mitigation algorithm, offers optimal capacity and interference rejection
- Higher TX power over competitions at the highest data rates allows up to 50% more coverage, capacity, and link distance
- The Altai A2e supports a wide range of applications such as social login, hotspot authentication, guest access, firewall, and wireless intrusion detection that allow either enterprises to set up their private networks easily, or WISPs to quickly deploy and monetize hotspot services

Super Coverage and Backhaul Performance

| Max. 2.4 GHz LOS Access | 700 m |
| Max. LOS Bridge        | 50 km |
| Max. Data Rate         | 300 + 867 Mbps |

Applications

- In conjunction with AltaiCare and its powerful user access management, Altai A2e offers the most affordable outdoor Wi-Fi hotspot solution
- With 5 GHz as backhaul and 2.4 GHz as access point, Altai A2e is ideal for MNOs, WISPs, hotels, schools, warehouses, and other enterprises to extend their Wi-Fi networks to remote sites or buildings and where Ethernet cabling is not possible
- The Altai A2e offers a cost effective solution for high capacity point-to-point and point-to-multipoint infrastructure backhaul for MNOs and WISPs, smart cities, building to building bridging, and video surveillance applications

Key Features and Benefits

- Best value in price/performance As an AP, the Altai A2e offers up to 50% larger coverage, thus minimizes the number of APs required for any Wi-Fi network. As backhaul, it delivers much higher throughput than at only a fraction of the cost
- Flexible deployment With external 5 GHz antenna and 802.11ac, Altai A2e offers flexible backhaul deployment options that support wire-like throughput over a wide range of bridge distance
- Best-in-class performance Superior RF and filter design, in conjunction with Altai’s smart interference mitigation algorithm, offers optimal capacity and interference rejection
- AirFi optimizes capacity AirFi enhances Altai A2e’s capacity by optimizing client’s throughput based on its signal strength and traffic
- Advanced access and security Features A wide range of features such as social login, hotspot authentication, guest access, firewall, and wireless intrusion detection for private networks or hotspot services
- Location-based advertising The advertising engine of AltaiCare offers a powerful content management platform for advertising content to users based on AP location and user demographics
- Multiple management options Standalone, controller-based, or cloud-based
- Ease of deployment Zero configuration of AltaiCare allows a non-technical person to simply unpack and plug Altai A2e to Wi-Fi network. Furthermore, support for standard 802.3at PoE allows the use of existing PoE switches
Wireless Interface

802.11b/g/n (2x2:2) Radio
- Operating Mode: AP/ CPE/ Bridge/ Repeater
- Standard: IEEE 802.11b/g/n
- Physical Data Rate: Up to 300 Mbps
- Operating Frequency: 2.400 – 2.484 GHz (Ch 1-13)
- Transmit Power: 28 dBm (Max.)
- Receiver Sensitivity (Typical):
  - 802.11b: 11 Mbps, 110 dBm
  - 802.11g: 54 Mbps, 99 dBm
- 802.11n HT20: 90 dBm
- 802.11n HT40: 86 dBm

802.11a/n/ac (2x2:2) Radio
- Operating Mode: AP/ CPE/ Bridge/ Repeater
- Standard: IEEE 802.11a/n/ac
- Physical Data Rate: Up to 867 Mbps
- Operating Frequency: 5.150 – 5.350 GHz
- Transmit Power: 28 dBm (Max.)
- Receiver Sensitivity (Typical):
  - 802.11a: 54 Mbps, 93 dBm
  - 802.11n: HT20, 93 dBm
  - 802.11n: VHT20, 92 dBm
  - 802.11n: VHT80, 86 dBm

Wireless Features
- 32 SSID (Max. 16 SSID per Radio)
- 802.11n*, 802.11k*, 802.11r*, 802.11v*, 802.11w*
- Hotspot 2.0
- Altai AirFit™ Throughput Optimization
- Band Steering
- WMM (802.11e)
- Multi-Address MAC Cloning

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 (Without Mounting Kit)
- Mounting: Pole or Wall-mounted
- Network Interface: 10/100/1000 Mbps Ethernet Port

Power Supply
- Power Supply: 802.3at PoE PD, 54V Passive PoE PD or -48V DC PoE Injector
- Power Consumption: 10 W (Typical) / 20 W (Max.)

Environmental Specification
- Operating Temperature: -40 °C to +60 °C (Ambient)
- Storage Temperature: 0 °C to +40 °C (PoE Injector)
- Humidity: Up to 100% Condensing
- Lightning Protection: EN 61000-4-5 (6 kV)
- Wind Loading: Up to 216 km/h (134 mph)
- Weatherproof: IP67 Compliant

Certification
- FCC / CE / Others*

Product Ordering Information

Standard Package
- Altai A2e, Dual-Band 2x2 802.11ac Outdoor AP / Bridge, integrated 2.4 GHz 13 dBi Panel Antenna
  (Model No.: APS822)
- Mounting Kit

Accessories
- 54V Passive PoE Injector (Optional)
- 5 GHz Omni/ Panel/ Sector Antenna (Optional)

Contact Us
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*Will be available in the future.

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