

Altai A2 WiFi Access Point/Bridge

The Altai A2 is a dual-band 802.11ac outdoor AP/bridge designed to be used either as an access point with built-in 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 A2 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 A2 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	500 m
Max. LOS Bridge	20 km
Max. Data Rate	300 + 867 Mbps



Applications

- In conjunction with AltaiCare and its powerful user access management, Altai A2 offers the most affordable outdoor Wi-Fi hotspot solution
- With 5 GHz as backhaul and 2.4 GHz as access, Altai A2 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 A2 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 A2 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 T1/E1 or xDSL lines at only a fraction of the cost
- **Wire-like Throughput with 802.11ac** 802.11ac supports 5 GHz data rate of up to 867 Mbps. This, together with Altai A2's integrated high gain diversity polarized antenna, delivers a backhaul solution with wire-like throughput
- **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 A2'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
- **Flexible architecture** Standalone, controller-based, or cloud-based management
- **Ease of deployment** Zero configuration of AltaiCare allows a non-technical person to simply unpack and plug Altai A2 to Wi-Fi network. Furthermore, support for standard 802.3at PoE allows the use of existing PoE switches

Wireless Interfaces

802.11b/g/n (2x2:2) Radio

- Operating Mode AP/CPE/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.)
25 dBm (Per Chain)
- Receiver Sensitivity (Typical)

802.11b	11 Mbps	-89 dBm;	1 Mbps	-99 dBm
802.11g	54 Mbps	-79 dBm;	6 Mbps	-90 dBm
802.11n	HT20	-90 dBm;	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
5.470 – 5.725 GHz
5.725 – 5.850 GHz
- Transmit Power 28 dBm (Max.)
25 dBm (Per Chain)
- Receiver Sensitivity (Typical)

802.11a	54 Mbps	-79 dBm;	6 Mbps	-93 dBm
802.11n	HT20	-93 dBm;	HT40	-90 dBm
802.11ac	VHT20	-92 dBm;	VHT40	-89 dBm
	VHT80	-87 dBm		

For both 2.4 and 5 GHz

- 32 SSID (16 SSID per Radio)
- WMM, 802.11h, 802.11k, 802.11r, 802.11v, 802.11w
- Passpoint (Release 2)
- Fast Roaming
- Band Steering/Multi-AP Steering*
- Smart Load Balancing
- Dual-Radio 1+ 1 Redundancy*
- Smart Mesh Networking*
- Auto Channel Selection and TX Power Control
- Bandwidth Control Per SSID/Client
- Altai AirFi™ Throughput Optimization

Antennas

2.4 GHz Antenna (Optional Accessories)

- Antenna Connector 2 x N-Female
- External Antenna 5 dBi Omni
12 dBi Panel
15 dBi 120° Sector

5 GHz Antenna

- Built-in Antenna 16 dBi Panel
- Frequency 5.150 – 5.875 GHz
- Polarization Dual Linear V/H
- Horizontal Beamwidth 20° (-3 dB)
- Vertical Beamwidth 20° (-3 dB)

Networking

- Switch (Bridge) and Gateway Mode
- IPv4/IPv6 Dual-Stack
- NAT
- DHCP Client/Server
- PPPoE Client
- Soft-GRE
- VLAN
- Multicast Rate Filter/IGMP Snooping

Security

- Authentication – Open, Shared key, WPA/WPA-PSK, WPA2/WPA2-PSK, WPA3*, 802.1x (EAP-PEAP/TLS/TTLS/SIM/AKA)
- Encryption – WEP, TKIP, AES
- Inter/Intra-SSID Client Isolation
- MAC-based Access Control (White/Black List)
- RADIUS/Active directory
- Dynamic VLAN Assignment
- Firewall
- WIDS/WIPS
- Broadcast/Multicast/Unicast Flooding Control

Management

- Management Platforms: AltaiGate, AltaiCare, AltaiCare Appliance
- Web User Interface
- Command Line Interface (SSH)
- Remote Factory Reset
- Trusted Management IP List
- SNMP v1/v2c/v3
- MIB2/IF-MIB/Altai Enterprise MIB
- Syslog
- Spectral Analysis*
- KPI Monitoring*
- Client OS and Hostname Detection

Physical Specifications

- 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

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

Environmental Specifications

- Operating Temperature -40 °C to +60 °C (Ambient)
- Storage Temperature -40 °C to +80 °C
- Humidity Up to 95% (Non-Condensing)
- Lightning Protection EN 61000-4-5
- Wind Loading Up to 216 km/h (134 mph)
- Weatherproof IP67 Compliant

Certifications

- FCC/CE/Others
- RoHS Compliance

Product Ordering Information

A2 (Part No.: SD.A2-0000-00)

Standard Package

- Altai A2, Dual-Band 2x2 802.11ac Outdoor AP/Bridge, Integrated 5 GHz 16 dBi Panel Antenna (Model No.: AP5822)
- Mounting Kit

Accessories

- 56 VDC Passive PoE Injector (Optional)
- 2.4 GHz Omni/Panel/Sector Antennas (Optional)

Contact Us

- Email: sales@altaitechnologies.com

*Will be available in the future.

The coverage range will vary depending on NLOS and interference conditions.

The transmit power may vary according to country regulation.

A2-PB-191213