Altai A2 WiFi Access Point / Bridge

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

Altai A2 WiFi Access Point/Bridge

The Altai A2 WiFi Access Point/Bridge is designed to be used in Altai Super WiFi systems to increase system capacity, extend coverage, fill-in areas of low or blocked signals caused by obstructions and bridge wirelessly to remote site. It is capable of providing the highest possible data throughput and capacity that the 802.11n standards can offer.

Super High Performance Backhaul and Access

Max. LOS Access	500 m (2.4 GHz)
Max. LOS Bridge	15 km
Max. Data Rate	300 + 300 Mbps

Altai A2 for Micro Coverage

The A2 can be used as a standalone access point for micro coverage. With built-in backhaul capability, it can be used to create simple and efficient 1 to 3 master-slave cluster systems that can be a cost effective alternative for smaller coverage areas where the super large coverage of an A8n Super WiFi Base Station is not required.

Altai A2 for Dual-band Access

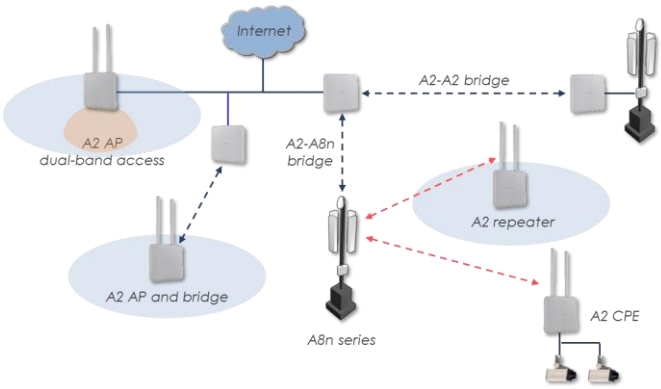
The A2 has both a high capacity 2.4 GHz (2x2 802.11b/g/n) radio and a 5 GHz (2x2 802.11a/n) radio which can be operated at the same time for 2.4 and 5 GHz dual-band dual concurrent access coverage. The dual-band operation not only doubles the system capacity but also performs better in the less interfered 5 GHz band.

Altai A2 for System Capacity

As the system capacity of an A8n network needs to be increased, the A2 Access Point can be used to double the user capacity at low cost. The A2 can be installed exactly where the capacity requirement is the greatest.

Long Range Backhaul

The A2 can be used as point-to-point or point-to-multi-point wireless bridge, by either connecting a pair of A2, or by connecting an A2 to the 5 GHz radio of an A8n. With both access and backhaul radios in one unit, the Altai A2 unit can extend the A8n network to discrete remote areas, or to fill the holes under the A8n macro coverage.



Altai A2 for Low Signal Area

The A2 Access Point/Bridge can be used as a repeater to overcome low signal areas that are found in every system. It can be used to reach areas that are blocked by terrain or buildings, or be used to strengthen signals into areas of heavy foliage.

As an integral part of our Super WiFi network infrastructure, key benefits of the Altai A2 include:

- Multi-operating modes allowed: AP, bridge, repeater mode or CPE
- 2 x 2 MIMO for both 2.4 GHz (802.11b/g/n) and 5 GHz (802.11a/n) radios
- IP-67 rated carrier grade 802.11b/g/n AP for both outdoor and indoor applications
- Increase system capacity under the coverage area of A8n Super WiFi Base Station
- Fill-in coverage area in challenging RF environment
- Gigabit Ethernet or 2 x 2 802.11a/n wireless backhaul
- PTP and PTMP bridging with built-in dual slant panel antenna
- Light weight with built-in lightning protection
- Easy installation & web-based management
- 2.4 GHz and 5 GHz dual-band dual concurrent access

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

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 (Optional Accessories)

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

5 GHz Antenna

- Built-in Antenna: 16 dBi Flat Panel
- Frequency: 5.150 – 5.875 GHz
- Polarization: Dual Linear V/H
- Horizontal Beamwidth: 20° (-3 dB)
- Vertical Beamwidth: 20° (-3 dB)
- VSWR: 2 (Max.)
- Impedance: 50 Ω
- Front-to-back Ratio: -21 dB (Max.)
- Isolation Between Ports: 27 dB (Min.)

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, 56V 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) / 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

- A2 WiFi Access Point/ Bridge with Built-in 5 GHz Panel Antenna (Model No.: AP5822)
- PoE Injector and Mounting Accessories
- 2.4 GHz Omni/ Panel/ Sector Antennas (Optional)

Contact Us

- Email: sales@altaitechnologies.com

**Will be available in the future.*

A2-PB-160727

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