

### 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

LOS Access	500 m
LOS Bridge	25 km
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.

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

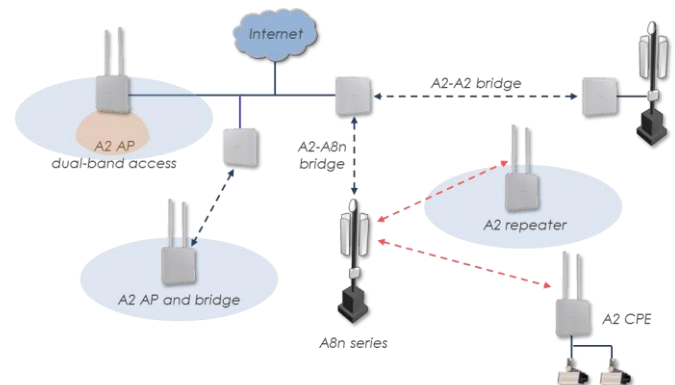
- Multi-operating modes allowed: AP, bridge, repeater mode or CPE
- 2 x 2 MIMO for both 2.4 GHz (802.11b/g/n) and 5 GHz (802.11a/n) radios
- IP-67 rated carrier grade 802.11b/g/n AP for both outdoor and indoor applications
- Increase system capacity under the coverage area of A8n Super WiFi Base Station
- 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 and 5 GHz dual-band dual concurrent access

### 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.

## Wireless Interface

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

- Operating Mode AP/ CPE/ Bridge/ Repeater
- Standard IEEE 802.11b/g/n
- Operating Frequency 2.412 – 2.472 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 5.15 – 5.35 GHz  
5.47 – 5.725 GHz  
5.725 – 5.825 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)
- WDS
- Altai AirFi™ Throughput Optimization
- Band Steering
- Automatic Channel Selection (with Scheduling)
- WMM

## 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

- VLAN
- IPv4/ IPv6 Dual-stack
- Switch (Bridge) and Gateway Mode
- DHCP Client/ Server/ Relay
- NAT
- PPPoE Client/ PPPoE Pass-through
- VPN Pass-through
- 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
- RADIUS Client (PAP, CHAP)
- RADIUS Accounting
- Inter/ Intra-client Isolation
- MAC-based Access Control (White/ Black List)
- SSID Suppression
- WAPI

## Management

- Standalone (Managed by AWMS)
- Thin AP/ CAPWAP Protocol (Managed 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 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 Source PoE Injector (56 V), 802.3at  
Compliant\*, Optional -48V DC
- 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](mailto:sales@altaitechnologies.com)

*\* Will be available in future. A2-PB-140306*  
*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.*