



Altai A2e WiFi Access Point/Bridge (802.11n capable)

The Altai 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, and at the same time is backward compatible to standard 802.11a/b/g.



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.

As the system capacity of a network covered by

the A8 Super WiFi Base Station needs to increase, the A2e Access Point/Bridge can be used to double the user capacity, or to increase the network throughput by 6 times supported by the 11n. The A2e can be installed exactly where the capacity requirement is the greatest, with appropriate fast Ethernet or 5 GHz wireless backhaul. As a whole, it enables network operators to take advantage of the cost savings provided by the A8 Super WiFi Base Station's 10X greater coverage area when a WiFi system is initially installed, and to subsequently enhance the coverage and capacity where and when it is needed.

The A2e Access Point/Bridge has both a high capacity 2.4 GHz (2x2 802.11bgn) broadcast radio and a 5 GHz (2x2 802.11an) backhaul radio. The 5 GHz radio provides 2 external antenna ports connection which allows user to choose exactly the type of high gain panel antennas they wanted for distance and throughput exceeding what A2's built-in antenna allows.

Besides the point-to-point long range bridging uses, the A2e also supports point-to-multi-point high throughput bridging. This is a cost effective method in building high definition video surveillance network within building complex, without the costly cabling.

A2e Access Point/Bridge provides the most cost effective and versatile way to build the backhaul network and to enhance a WiFi system capacity. When combined with the A8 Super WiFi Base Station, it can create possibly the most cost-effective high capacity WiFi network system.

As an integral part of our Super WiFi network infrastructure, the Altai A2e provides the following:

- 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 (802.11bgn) and 5 GHz (802.11an) radios
- IP-67 rated carrier grade product for both outdoor and indoor applications
- Multi-operating modes allowed: AP, bridge, repeater mode or CPE
- Increase system capacity under the coverage area of A8 Super WiFi Base Station
- Fast Ethernet or 2 x 2 802.11a/n wireless backhaul
- PTP and PTMP bridging with optional external dual polarized panel or omni antennas
- Light weight with built-in lightning protection

Altai A2e WiFi Access Point/Bridge

Wireless Interface

802.11b/g/n (2x2) Radio

- Operating Mode Access Point/CPE/ Repeater*
- Standard IEEE 802.11b/g/n
- Operating Frequency 2.412 – 2.472 GHz (Ch 1-13)
- Transmit Power 29 dBm (Max.)
26 dBm (Per Chain)
- Receiver Sensitivity (Typical)

802.11b	11 Mbps	-91 dBm
	1 Mbps	-96 dBm
802.11g	54 Mbps	-81 dBm
	6 Mbps	-95 dBm
802.11n	HT20	-95 dBm
	HT40	-92 dBm
- Transmit and Receive Diversity
- Automatic Channel Assignment
- Site Survey/ Channel Scan

802.11a/n (2x2) Radio

- Operating Mode Point to Point Bridging
Point to Multi-point Bridging
(Up to 4 peers)
- Standard IEEE 802.11a/n
- Operating Frequency 5.15 – 5.35 GHz
5.47 – 5.725 GHz
5.725 – 5.825 GHz
- Transmit Power 26 dBm (Max.)
23 dBm (per chain)
- Receiver Sensitivity (Typical)

802.11a	54 Mbps	-79 dBm
	6 Mbps	-95 dBm
802.11n	HT20	-95 dBm
	HT40	-92 dBm

Antenna

2.4 GHz Antenna

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

5 GHz Antenna

- External Antenna 20dBi Panel ($\pm 45^\circ$)/9dBi Omni
- Antenna Connector 2 x N-female

Networking

- 16 Multiple SSID/ Virtual AP
- User Limit Per SSID
- VLAN/ Configurable Management VLAN
- DHCP Client/ Server/ Relay
- Dynamic NAT
- PPPoE Client, PPPoE Pass-through
- VPN Pass-through
- Switch and Gateway Mode
- WDS
- 10/100 Mbps Ethernet Port
- Radius Server Per VAP Support
- 2-level Login*
- WMM

* Will be available in future

Security

802.11b/g/n

- Authentication Open system, Shared key,
WPA/ WPA-PSK
WPA2/ WPA2-PSK
802.1x (PEAP, TLS, TTLS)
WEP, TKIP, AES
- Encryption
- Rogue AP Detection
- MAC based Access Control
- SSID Suppression
- Inter/ Intra-VAP Client Communication Control

802.11a/n

- Encryption WEP, AES

Management

- Web-based Administration Tool
- Telnet Management
- Remote Firmware Upgrade (HTTP, FTP)
- SNMP v1/ v2c, Altai MIB
- SNMP Manager Access Control List
- Performance Monitoring
- WiFi Client Association Status
- Syslog Support

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

Power Supply

- Power Source PoE Injector (48 V)
- Power Consumption 15 W (Typical) / 30 W (Max.)

Environmental Specification

- Operating Temperature -33 °C to +55 °C (Ambient)
0 °C to +60 °C (PoE Injector)
- Storage Temperature -40 °C to +80 °C
- Humidity 5 to 100% (Condensing)
- Lightning Protection IEC 1000-4-2/
Instant Surge 4 KV
- Wind Loading 90 mph (Operational)
125 mph (Survival)
- Weatherproof IP67 Compliant

Certification

- FCC
- CE*
- Others

Product Ordering Information

Standard Package

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

Altai Technologies Limited
www.altaittechnologies.com
A2e-PB-120110