

## Altai A2-Ei Dual-band WiFi Access Point

The Altai A2-Ei WiFi Dual-band Access Point is designed to be used in Altai Super WiFi systems to provide 2.4 and 5 GHz dual-band dual-concurrent access coverage for both outdoor and indoor areas, and to increase system capacity, extend coverage, fill-in areas of low or blocked signals caused by obstructions. It is capable of providing the highest possible data throughput and capacity that the 802.11n standards can offer.



### Super Dual-band Coverage

Max. LOS CPE	3 km (2.4 GHz) 2 km (5 GHz)
Max. LOS Smartphones	1 km (2.4 GHz) 800 m (5 GHz)
Max. Data Rate	300 + 300 Mbps

### Altai A2-Ei for Dual-band Micro Coverage

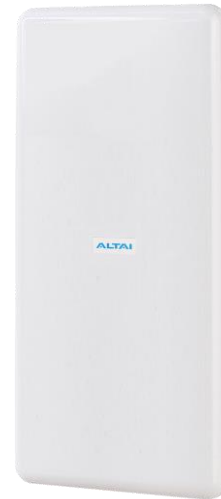
The A2-Ei has both a high capacity 2.4 GHz (2x2 802.11b/g/n) radio and a 5 GHz (2x2 802.11a/n) radio which can be operated at the same time for 2.4 GHz and 5 GHz dual-band dual-concurrent access coverage. The dual-band operation not only doubles the system capacity but also performs better in the less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

### Altai A2-Ei for System Capacity

As the system capacity of an A8n network needs to increase, the A2-Ei can be used as repeater to double the user capacity at low cost. The A2-Ei can be installed exactly where the capacity is required, or where the signal need to be improved.

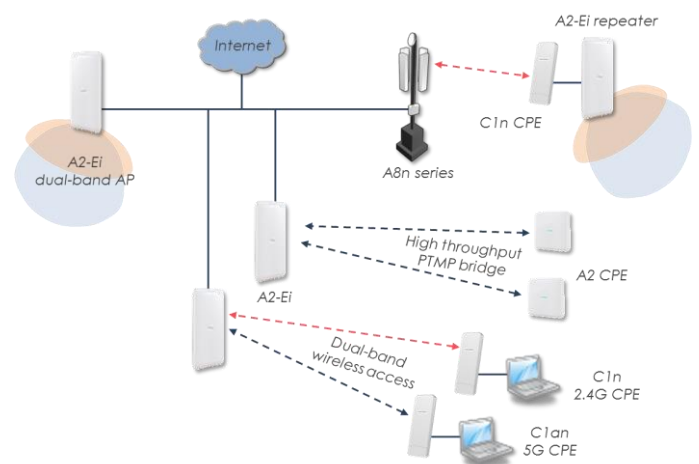
### Altai A2-Ei for Dual-band Wireless Access

The A2-Ei can be used for wireless broadband access for both the residential users and commercial customers. It supports concurrent 2.4 GHz and 5 GHz dual-band operations, and is a cost effective and flexible solution which supports long access range with an Altai C1n or C1an CPE for 2.4 and 5 GHz operation respectively.



### Point-to-Multi-Point Bridging

The A2-Ei also supports PTMP bridging with A2/A2e, fulfilling high throughput, high user capacity and fully IP-67 weatherproof bridging requirements. This is commonly used for hub site bridging such as campus network, city network or surveillance.



#### As an integral part of our Super WiFi network infrastructure, key benefits of the Altai A2-Ei 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
- Built-in 2.4 GHz and 5 GHz dual slant high gain panel sector antennas
- 2.4 GHz and 5 GHz dual-band dual concurrent access
- 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
- Light weight with built-in lightning protection
- Easy installation & web-based management

## Wireless Interface

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

- Operating Mode Access Point/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 Access Point/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)
- WDS
- Altai AirFi™ Throughput Optimization
- Band Steering
- Automatic Channel Selection (with Scheduling)
- WMM

## Antenna

### 2.4 GHz Antenna

- Built-in Antenna 14 dBi Sector
- Frequency 2.4 – 2.5 GHz
- Polarization Dual Slant ±45°
- Horizontal Beamwidth 60° (-3 dB), 80° (-6 dB)
- Vertical Beamwidth 13° (-3 dB), 20° (-6 dB)
- VSWR 2 (Max.)
- Impedance 50 Ω
- Front-to-back Ratio -20 dB (Max.)
- Isolation Between Ports 20 dB (Min.)

### 5 GHz Antenna

- Built-in Antenna 15 dBi Sector
- Frequency 5.150 – 5.875 GHz
- Polarization Dual Slant ±45°
- Horizontal Beamwidth 80° (-3 dB), 110° (-6 dB)
- Vertical Beamwidth 7° (-3 dB), 10° (-6 dB)
- VSWR 2 (Max.)
- Impedance 50 Ω
- Front-to-back Ratio -20 dB (Max.)
- Isolation Between Ports 20 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 490 x 220 x 60 mm
- Weight 2.6 kg (Unit Weight) /  
5.7 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-Ei WiFi Access Point with Built-in 2.4 GHz and 5 GHz Sector Antennas (Model No.: WA2011N-E)
- Mounting Accessories
- PoE Injector

### Contact Us

- Email: [sales@altaitechnologies.com](mailto:sales@altaitechnologies.com)

A2Ei-PB-160727

\* Will be available in future.

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.