

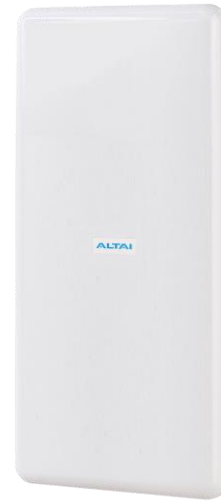
Altai A3-Ei Outdoor 802.11ac 3x3 Access Point

The Altai A3-Ei Dual-band 3x3 WiFi Access Point is designed to be used in Altai Super WiFi systems to provide high capacity 2.4 GHz 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 802.11ac 3x3 3-stream MIMO standards can offer.



Altai A3-Ei for Dual-band Wireless Access

The A3-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 GHz and 5 GHz operation respectively.



Super Dual-band Coverage

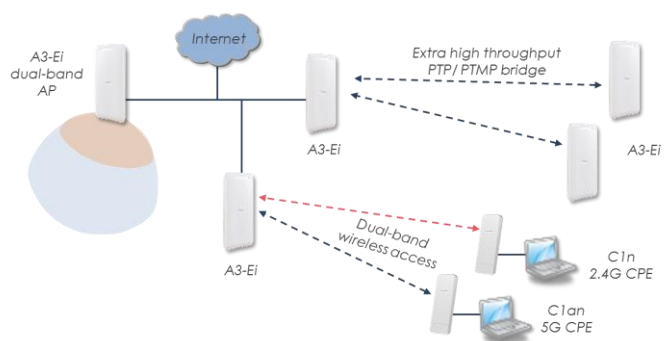
Max. LOS CPE	3 km (2.4 GHz) 2 km (5 GHz)
Max. LOS Smartphones	1 km (2.4 GHz) 800 m (5 GHz)
Max. LOS Bridge	11 km (5 GHz)
Max. Data Rate	450 + 1300 Mbps

Altai A3-Ei for Dual-band Micro Coverage

The A3-Ei has both a high capacity 2.4 GHz (3x3:3 802.11b/g/n) radio and a 5 GHz (3x3:3 802.11a/n/ac) 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 operations not only provide the highest capacity up to 1.75 Gbps but also perform better in the less interfered 5 GHz frequency band.

Extra High Capacity PTP/PTMP Bridging

The A3-Ei supports up to 1.3 Gbps data rate high capacity PTP/PTMP bridging, fulfilling extra 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 A3-Ei include:

- Multi-operating modes allowed: AP, bridge, repeater mode or CPE
- 3x3:3 MIMO for both 2.4 GHz (802.11b/g/n) and 5 GHz (802.11a/n/ac) radios
- Built-in 2.4 GHz and 5 GHz 3x3 spatial polarized high gain sector antennas
- High capacity 1300 Mbps in 5 GHz and 450 Mbps in 2.4 GHz
- 2.4 GHz and 5 GHz dual-band dual concurrent access
- IP-67 rated carrier grade dual-band AP for both outdoor and indoor applications
- Fill-in coverage area in challenging RF environment
- Light weight with built-in lightning protection
- Easy installation & web-based management

Wireless Interfaces

802.11b/g/n (3x3:3) Radio

- Operating Mode AP/CPE/Repeater
- Standard IEEE 802.11b/g/n
- Operating Frequency 2.400 – 2.484 GHz (Ch 1-13)
- Transmit Power 30 dBm (Max.)
25 dBm (Per Chain)
- Receiver Sensitivity (Typical)

802.11b	11 Mbps	-90 dBm;	1 Mbps	-100 dBm
802.11g	54 Mbps	-79 dBm;	6 Mbps	-92 dBm
802.11n	HT20	-92 dBm;	HT40	-88 dBm

802.11a/n/ac (3x3:3) Radio

- Operating Mode AP/CPE/Bridge/Repeater
- Standard IEEE 802.11a/n/ac
- Operating Frequency 5.150 – 5.350 GHz
5.470 – 5.725 GHz
5.725 – 5.850 GHz
- Transmit Power 30 dBm (Max.)
25 dBm (Per Chain)
- Receiver Sensitivity (Typical)

802.11a	54 Mbps	-79 dBm;	6 Mbps	-93 dBm
802.11n	HT20	-94 dBm;	HT40	-90 dBm
802.11ac	VHT20	-93 dBm;	VHT40	-90 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 Redundancy
- 1+ N Redundancy
- Smart Mesh Networking*
- Auto Channel Selection and TX Power Control
- Bandwidth Control Per SSID/Client
- Altai AirFit™ Throughput Optimization

Antennas

2.4 GHz Antenna

- Built-in Antenna 12 dBi Sector
- Frequency 2.4 – 2.5 GHz
- Polarization 3x3 MIMO Spatial Polarized
- Horizontal Beamwidth 60° (-3 dB)
- Vertical Beamwidth 25° (-3 dB)
- VSWR 2 (Max.)

5 GHz Antenna

- Built-in Antenna 13 dBi Sector
- Frequency 5.150 – 5.875 GHz
- Polarization 3x3 MIMO Spatial Polarized
- Horizontal Beamwidth 80° (-3 dB)
- Vertical Beamwidth 12° (-3 dB)
- VSWR 2 (Max.)

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/TLS/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: Standalone, 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 491 x 221 x 73mm
- Weight 2.1 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)/25 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

A3-Ei (Part No.: SD.A3-EH00-00)

Standard Package

- A3-Ei Dual-band 3x3 802.11ac WiFi AP with Built-in 2.4 GHz and 5 GHz Sector Antennas (Model No.: WA3311NAC-E)
- Mounting Kit

Accessories

- 56 VDC Passive PoE Injector (Optional)

Contact Us

- Email: sales@altaitechnologies.com

A3Ei-PB-210830

*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