

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 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.



Super Dual-band Coverage

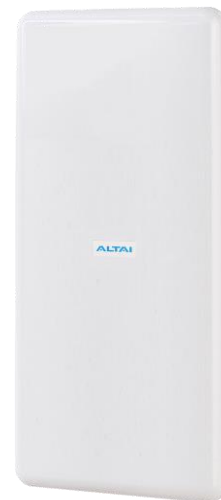
LOS / CPE	2,500 m (2.4 GHz) 1,500 m (5 GHz)
LOS Laptops / Smartphones	1,000 m (2.4 GHz) 250 m (5 GHz)
LOS Bridge	11 km (5 GHz)
Data Rate	450 + 1300 Mbps

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 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.

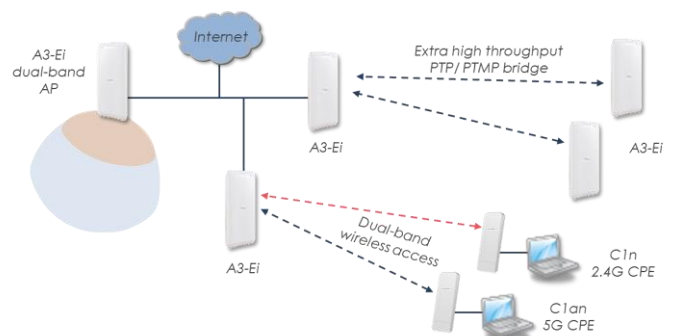
Altai A3-Ei for Dual-band Wireless Access

The A3-Ei can be used for wireless broadband access for both the residential users and commercial customers. It supports concurrent 2.4 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.



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 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 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 Interface

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

- Operating Mode Access Point/CPE/Bridge/ Repeater
- Standard IEEE 802.11b/g/n
- Operating Frequency 2.412 – 2.472 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 Access Point/CPE/Bridge/ Repeater
- Standard IEEE 802.11a/n/ac
- Operating Frequency 5.15 – 5.35 GHz
5.47 – 5.725 GHz
5.725 – 5.825 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	-92 dBm;	VHT40	-89 dBm;
	VHT80	-87 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 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.)
- Impedance 50 Ω
- Front-to-back Ratio -25 dB (Max.)
- Isolation Between Ports 18 dB (Min.)

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.)
- Impedance 50 Ω
- Front-to-back Ratio -25 dB (Max.)
- Isolation Between Ports 18 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 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 Source PoE Injector (56 V), 802.3at Compliant, Optional -48V DC
- Power Consumption 10 W (Typical) / 25 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

- A3-Ei Dual-band 3x3 AC WiFi Access Point with Built-in 2.4 and 5 GHz Sector Antennas (Model No.: WA3311NAC-E)
- PoE Injector and Mounting Accessories

Contact Us

- Email: sales@altaitechnologies.com

A3Ei-PB-140901

* 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.