Altai A3-Ei Dual-band 3x3 802.11ac WiFi AP

Outdoor 802.11n/ac, Built-in 2.4 GHz and 5 GHz Sector Antennas

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.

Super Dual-band Coverage

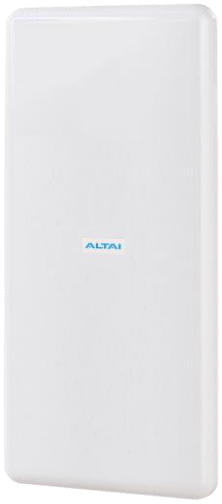
Max. LOS CPE	3 km (2.4 GHz) 2 km (5 GHz)
Max. LOS Smartphones	1 km (2.4 GHz) 800 m (5 GHz)
Max. LOS Bridge	11 km (5 GHz)
Max. Data Rate	450 + 1300 Mbps

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.

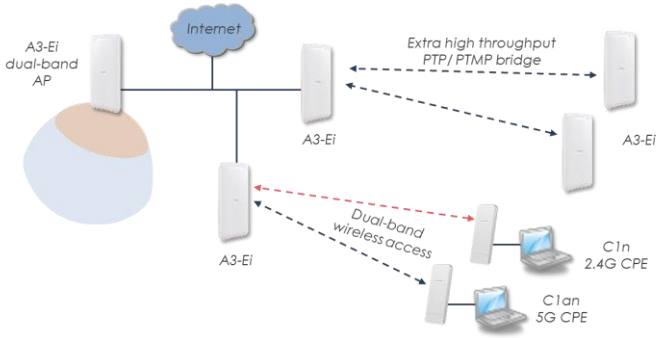
Altai A3-Ei for Dual-band Wireless Access

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.



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

Altai A3-Ei Dual-band 3x3 802.11ac WiFi AP

Outdoor 802.11n/ac, Built-in 2.4 GHz and 5 GHz Sector Antennas

Wireless Interface

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

- Operating Mode: Access Point/CPE/Bridge/ Repeater
- Standard: IEEE 802.11b/g/n
- Operating Frequency: 2.400 – 2.484 GHz (Ch 1-13)
- EIRP: 100mW Max.
- 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: 5.725 – 5.850 GHz
- EIRP: 1000mW Max.
- 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 (Max. 16 SSID per Radio)
- 802.11h*, 802.11k*, 802.11r*, 802.11v*, 802.11w*
- Hotspot 2.0
- Altai *AirFi*™ Throughput Optimization
- Band Steering
- WMM (802.11e)

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: 5.725 – 5.850 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

- Switch (Bridge) and Gateway Mode
- IPv4/ IPv6 Dual-stack
- NAT
- DHCP Client/ Server
- PPPoE Client
- VPN (IPsec)*
- VLAN
- Bandwidth Control Per VAP/ Client

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: 491 x 221 x 73mm
- Weight: 2.1 kg (Unit Weight) / 2.5 kg (With Mounting Kit)
- 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) / 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 / SRRC / Others*

Product Ordering Information

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)
- PoE Injector and Mounting Accessories

Contact Us

- Email: sales@altaitechnologies.com

A3Ei-PB-170302

** Will be available in future.*
*** Restricted in some Countries*
The coverage range will be varied depending on NLOS and interference conditions.
The transmit power may be varied according to country regulation.
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