Altai A3c – Indoor Dual-band 3x3 802.11ac WiFi AP

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

Altai A3c Indoor 802.11ac 3x3 WiFi Access Point

The Altai A3c Indoor WiFi Dual-band Access Point is designed to be used in Altai Super WiFi systems to provide the highest speed 2.4 and 5 GHz dual-band dual-concurrent access coverage for indoor areas. It is capable of providing the highest possible data throughput and capacity that the 3x3 MIMO 802.11ac standards can offer.

Super High Capacity Coverage

LOS Access	500 m (2.4 GHz) 150 m (5 GHz)
Data Rate	450 + 1300 Mbps

Altai A3c for Dual-band Micro Coverage

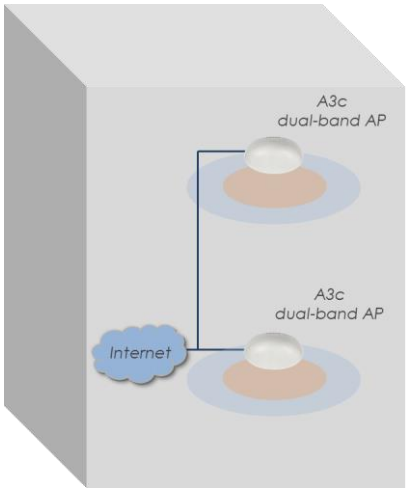
The A3c has both a 2.4 GHz (3x3:3 802.11b/g/n) radio and a high capacity 5 GHz (3x3:3 802.11a/n/ac) radio which can be operated at the same time for 2.4 and 5 GHz dual-band dual-concurrent access coverage. The dual-band operation not only provides the highest capacity up to 1.75 Gbps but also performs better in the less interfered 5 GHz frequency band.

Altai A3c for System Capacity

As the indoor system capacity of an A8n network needs to increase, the A3c can be used to highly increase the user/throughput capacity at low cost. The A3c can be installed exactly at the indoor ceiling where the capacity is required.

Cost Effective Deployment

The A3c WiFi Access Point provides the most cost effective and versatile way to enhance a WiFi in terms of its capacity, coverage or range. When combined with the A8n 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, key benefits of the Altai A3c include:

- Carrier grade 802.11a/b/g/n/ac AP for indoor applications
- Multi-operating modes allowed: AP, bridge, repeater mode or CPE
- 3x3 MIMO in 3 streams for both 2.4 GHz (802.11b/g/n) and 5 GHz (802.11a/n/ac) radios
- 1300 Mbps (5 GHz) + 450 Mbps (2.4 GHz) high capacity
- Built-in 2.4 and 5 GHz spatial polarized high gain omni antennas
- Increase system capacity under the coverage area of A8n Super WiFi Base Station
- Easy ceiling-mounted deployment
- User-friendly web-based management

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802.11n/ac, Built-in 2.4 and 5 GHz Omni 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)
- 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: 5.150 – 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	-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: 3 dBi Omni
- Frequency: 2.4 – 2.5 GHz
- Polarization: 3x3 MIMO Spatial Polarized
- Horizontal Beamwidth: 360°
- Vertical Beamwidth: 80°
- VSWR: 2 (Max.)
- Impedance: 50 Ω
- Front-to-back Ratio: -20 dB (Max.)

5 GHz Antenna

- Built-in Antenna: 8 dBi Omni
- Frequency: 5.150 – 5.875 GHz
- Polarization: 3x3 MIMO Spatial Polarized
- Horizontal Beamwidth: 360°
- Vertical Beamwidth: 40°
- VSWR: 2 (Max.)
- Impedance: 50 Ω
- Front-to-back Ratio: -20 dB (Max.)

Networking

- VLAN
- IPv4/ IPv6 Dual-stack
- Switch (Bridge) and Gateway Mode
- DHCP Client/ Server
- NAT
- PPPoE Client
- 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

- Cloud-based Management by AltaiCare
- Server-based Management by AWMS
- Controller-based Management 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: 230 x 230 x 66 mm
- Weight: 1.2 kg (Unit Weight)
- Mounting: Ceiling-mounted
- Network Interface: 2 x 10/100/1000 Mbps Ethernet Port

Power Supply

- Power Source: PoE Injector (12 V), 802.3at and 802.3af# Compliant, Optional -48V DC
- Power Consumption: 10 W (Typical) / 25 W (Max.)

Environmental Specification

- Operating Temperature: 0 °C to +50 °C (Ambient)
- Storage Temperature: -40 °C to +80 °C
- Humidity: 5 to 95% (Non-condensing)

Certification

- FCC*/ CE*/ Others*

Product Ordering Information

Standard Package

- A3c Indoor Dual-band 3x3 802.11ac AP with Built-in 2.4 and 5 GHz Omni Antennas (Model No.: WA3311NAC-C)
- Mounting Accessories
- PoE Injector or AC Adaptor (optional)

Contact Us

- Email: sales@altaitechnologies.com

A3c-PB-150428

** Will be available in future.*

 # In 802.3af power safe mode, AP will operate in 2x3 MIMO with max. Tx power 24 dBm.

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.