

Altai A8n (ac) Super WiFi Base Station

The world's leading 802.11n WiFi outdoor access point optimized for maximum coverage and highest throughput from a minimum number of installation sites. It is the A8n model with the 5 GHz radio upgraded to 802.11a/n/ac standards.



The A8n (ac) is a multi-radio base station utilizing 8x8 MIMO smart antenna technologies and a patented signal processing algorithm to provide the industry's best coverage per base station, especially in non-line-of sight (NLOS) environments. The multiple antennas of the A8n (ac) can be configured to provide coverage that is optimized for area, pattern and elevation. The multi-beam antennas of the A8n (ac) is designed to provide up to 3 times the range and 10 times the per site coverage as standard access point. Accordingly, up to 90% fewer installation sites for the same coverage area.

Super Long Range High Throughput Coverage

Max. LOS CPE	3 km (2.4 GHz) 2 km (5 GHz)
Max. LOS Smartphones	1 km (2.4 GHz) 900 m (5 GHz)
Max. LOS Backhaul	30 km (5 GHz)
Max. Data Rate	300 + 867 Mbps

As an integral part of our Super WiFi network infrastructure, key benefits of the Altai A8n (ac) include:

- Extended coverage in a Non-Line-of-Sight (NLOS) environment which matches the foot print of most 3G/LTE deployments in dense urban environments
- High 11ac throughput capacity up to 1,167 Mbps data rate
- 4-sector x dual slant advanced Smart Antenna Technology provides flexible 70 to 360-degree and large vertical beamwidth coverage with minimal holes in dense urban environments
- Multi-radio 8x8:2 MIMO platform maximizing both uplink/downlink performance and access redundancy
- 2.4 GHz and 5 GHz dual band concurrent access
- Backhaul redundancy and access link safe mode
- Adaptive interference control mitigates the influence from surrounding interfering sources
- Standard 802.11b/g/n access and 802.11a/n/ac access/ backhaul
- Giga Ethernet or integrated 802.11a/n/ac wireless backhaul
- Remote configuration through the Altai Wireless Management System (AWMS) or AltaiCare network management solution

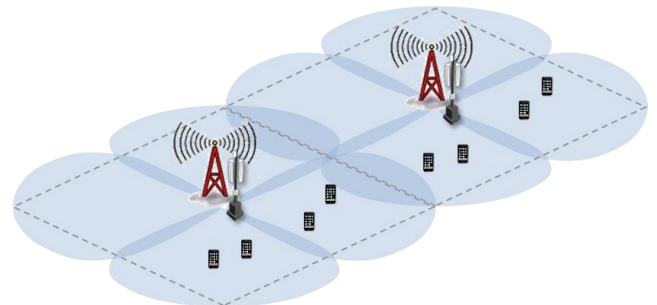
Altai A8n for Wireless Broadband

The Altai A8n (ac) can serve as last mile infrastructure for a wide range of wireless broadband access applications. It provides low deployment cost and fast provisioning of Wi-Fi systems with the greatest coverage and bandwidth per installed base station.



Altai A8n (ac) for Super 3G/4G Offload

The A8n (ac) Super WiFi Base Station can be deployed in conjunction with existing 3G networks to provide low cost high bandwidth mobile data offloading solution. The A8n can be co-located with existing 3G cell sites allowing immediate Wi-Fi provisioning at much lower acquisition and operating costs.



Co-locate A8n (ac) with existing 3G/LTE cell site to offload traffic for an almost identical cell area.

Wireless Interfaces

802.11b/g/n (8x8:2) Radio

- Operating Mode Access Point
- Standard IEEE 802.11b/g/n
- Operating Frequency 2.400 – 2.484 GHz (Ch 1-13)
- Transmit Power 27 dBm (Max.); 5 – 24 dBm (Per Chain) in 1 dB step
- Receiver Sensitivity (Typical)

802.11b	11 Mbps	-90 dBm;	1 Mbps	-95 dBm
802.11g	54 Mbps	-80 dBm;	6 Mbps	-93 dBm
802.11n	HT20	-94 dBm;	HT40	-89 dBm
- Connect up to 8 Antennas
- Interference Mitigation

802.11a/n/ac (2x2:2) Radio

- Operating Mode AP/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 29 dBm (Max.)
26 dBm (Per Chain)
- Receiver Sensitivity (Typical)

802.11a	54 Mbps	-79 dBm;	6 Mbps	-92 dBm
802.11n	HT20	-92 dBm;	HT40	-89 dBm
802.11ac	VHT20	-92 dBm;	VHT40	-89 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
- Dual Radio Redundancy
- 1+ N Redundancy
- Auto Channel Selection and TX Power Control
- Bandwidth Control Per SSID/Client
- Altai AirFi™ Throughput Optimization

Antennas

2.4 GHz Antenna

- External Antenna 14 dBi (Max.) Sector
- Frequency 2.4 – 2.5 GHz
- Polarization Dual Slant ±45°
- Horizontal Beamwidth 70° (-3 dB)
- Vertical Beamwidth 12° (-3 dB)
- Antenna Connector 8 x N-Female

5 GHz Antenna (Optional Accessories)

- External Antenna 20 dBi Panel/9 dBi Omni/
16 dBi 100° Sector
- Antenna Connector 2 x N-Female

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/TTLS/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: 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 360 x 234 x 80 mm (Chassis)
- Weight 4 kg (Unit Weight)
6.5 kg (Gross Weight)
- Mounting Pole or Wall-mounted
- Network Interface 10/100/1000 Mbps Ethernet Port

Power

- Power Supply 56V Passive PoE PD
- Power Consumption 30 W (Typical)/65 W (Max.)

Environmental Specifications

- Operating Temperature -40 °C to +60 °C (Ambient)
- Storage Temperature -40 °C to +85 °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

A8n(ac) (Part No.: SD.A8-NAC0-00)

Standard Package

- A8n (ac) Super WiFi Base Station (Model No.: WA8011NAC-X)
- Mounting Kit

Antennas:

- Smart Antennas and RF Cables

Optional Accessories

- 56 VDC Passive PoE Injector

Contact Us

- Email: sales@altaitechnologies.com

A8n(ac)-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