



Altai A8n Super WiFi Base Station

802.11n Long Range Outdoor WiFi

The Altai A8n Super WiFi Base Station is the world's leading 802.11n WiFi outdoor access point optimized for maximum coverage and highest throughput from a minimum number of installation sites. The Altai A8n has been designed to provide industry best coverage and capacity without complicated networking protocols or the need for a high density of transmitters.



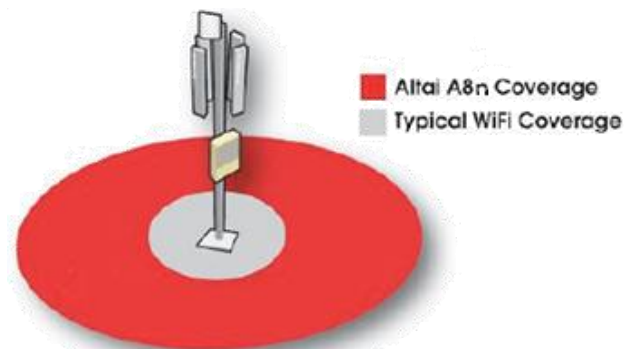
The A8n is a multi-radio base station utilizing 2x2 MIMO smart antenna technologies and a patented signal processing algorithm to provide the industry's best coverage per base station, especially in non-line-of sight (NLOS) environments. The multiple antennas of the A8n can be configured to provide coverage that is optimized for area, pattern and elevation. Using up to 80% fewer access points than other WiFi systems to cover the same area enables less complex network design and provides lower

latency for improvement in handling real-time applications such as VoIP and video streaming.

Whether deployed for a single location, a campus area or city-wide network coverage, the Altai A8n is designed to minimize the total cost of ownership with significant savings in network equipment, broadband access, planning, site acquisition and installation.

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

The A8n 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 WiFi provisioning at much lower acquisition and operating costs.



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

- Extended coverage in a Non-Line-of-Sight (NLOS) environment which matches the foot print of most 3G deployments in dense urban environments
- High 11n throughput capacity up to 300 Mbps data rate
- 4-sector x dual-diversity advanced Smart Antenna Technology provides flexible 90 to 360-degree and large vertical beamwidth coverage with minimal holes in dense urban environments
- Multi-radio 2x2:2 MIMO platform maximizing both uplink/downlink performance and access redundancy
- Link integrity, backhaul link self healing 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 backhaul
- Giga Ethernet or integrated 802.11a/n wireless backhaul
- Flexible antenna deployment for various site conditions
- Remote configuration through the Altai Wireless Management System (AWMS)

Altai A8n Super WiFi Base Station

Wireless Interface

802.11b/g/n (2x2:2)

• Operating Mode	Access Point
• Standard	IEEE 802.11b/g/n
• Operating Frequency	2.412 – 2.462 GHz (Ch 1-11)
• Max. EIRP	36 dBm
• Receiver Sensitivity (Typical)	
802.11b	11 Mbps -89 dBm
	1 Mbps -95 dBm
802.11g	54 Mbps -79 dBm
	6 Mbps -93 dBm
802.11n	HT20 -92 dBm
	HT40 -89 dBm

- Interference Mitigation
- Bandwidth Control – Airtime/ Throughput/ VAP/Client
- Altai AirFi™ Bandwidth Control
- Transmit and Receive Diversity
- Automatic Channel Selection
- Site Survey/ Channel Scan (2.4 and 5 GHz)

802.11a/n (2x2:2)

• Operating Mode	Access Point/Bridge
• Standard	IEEE 802.11a/n
• Operating Frequency	5.745 – 5.825 GHz
• EIRP	36 dBm
• Receiver Sensitivity (Typical)	
802.11a	54 Mbps -77 dBm; 6 Mbps -94 dBm
802.11n	HT20 -93 dBm; HT40 -90 dBm

Antenna

2.4 GHz Antenna

• External Antenna	14 dBi (Max.) Sector
• Frequency	2.4 – 2.5 GHz
• Polarization	Dual Slant ±45°
• 3-dB Horizontal Beamwidth	70° ±3°
• 3-dB Vertical Beamwidth	12° ±2°
• VSWR	2 (Max.)
• Impedance	50 Ω
• Front-to-back Ratio	25 dB (Max.)
• Isolation Between Ports	20 dB (Min.)
• Antenna Connector	8 x Dual N-female

5 GHz Antenna (separate orderable item)

• External Antenna	20 dBi Panel
• Antenna Connector	2 x N-female

Networking

- 16 Multiple SSID/ Virtual AP
- User Limit Per SSID
- VLAN / Configurable Management VLAN
- DHCP Client/ Server/ Relay
- Dynamic NAT
- PPPoE Client, PPPoE Pass-through
- VPN Pass-through
- Switch and Gateway Mode
- VLAN trunking/ WDS
- 10/100/1000 Mbps Ethernet Port
- Radius Server Per VAP/ Backup Radius Server Support
- Multicast Rate Filter/ IGMP Snooping
- Link Integrity/ Backhaul Link Self-Healing/ Safe Mode
- WMM/ Port-based Prioritization

Security

802.11b/g/n

- Authentication – Open system, Shared key, WPA/ WPA-PSK, WPA2/ WPA2-PSK, 802.1x (PEAP, TLS, TTLS)
- Encryption – WEP, TKIP, AES
- WAPI
- Rogue AP Detection
- MAC based Access Control
- SSID Suppression
- Inter/ Intra-VAP Client Communication Control

802.11a/n

- Encryption – WEP, AES

Management

- Web-based Administration Tool
- CLI-based Administration Tool (Telnet and Console)
- SNMP v1/ v2c, Altai MIB
- SNMP Manager Access Control List
- Remote Firmware Upgrade (HTTP, FTP)
- Performance Monitoring
- WiFi Client Association Status/ Bad Client Disassociation
- Customized Configuration File
- Syslog Support
- Packet Capture Diagnosis
- Throughput Test Utility
- TR-069 Support*

Physical Specification (BTS Unit)

- Dimension 360 x 234 x 80 mm (Chassis)
- Weight 4 kg (Unit Weight) / 6.5 kg (Gross Weight)
- Mounting Pole or Wall-mounted

Power Supply

- Power Source PoE Injector, -48V DC*
- Power Consumption 25 W (Typical) / 60 W (Max.)

Environmental Specification

- Operating Temperature -40 °C to +60 °C (Ambient) 0 °C to +40 °C (PoE Injector)
- Storage Temperature -40 °C to +85 °C
- Humidity 5 to 100% (Condensing)
- Lightning Protection EN 61000-4-5
- Wind Loading 100 mph (Operational) 135 mph (Survival)
- Weatherproof IP67 Compliant

Certification

- FCC*/ CE*/ Others*

Product Ordering Information

Standard Package

- A8n Super WiFi Base Station (PoE Power) (Model No.: WA8011N)
- Smart Antennas
- RF Cables
- PoE Injector and Mounting Accessories

Other Package

- A8n (bgn) Package Removed 11a/n Radio



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* Feature will be available in future release

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