



Altai A8 Super WiFi Base Station

The Altai A8 Super WiFi Base Station is the world's leading WiFi outdoor access point optimized for maximum coverage from a minimum number of installation sites. The Altai A8 has been designed to provide industry best coverage and capacity without complicated networking protocols or the need for a high density of transmitters.

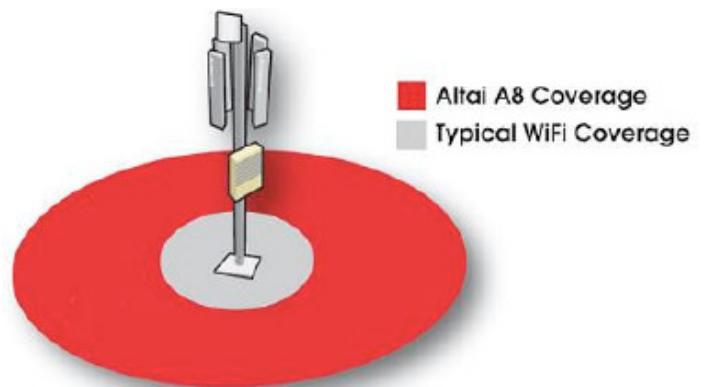


The A8 is a multi-radio base station utilizing smart antenna technologies and a patented signal processing algorithm to provide the industry's best coverage per base station, especially in non-line-of-sight (NLOS) environments. The multiple antennas of the A8 can be configured to provide coverage that 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 A8 is designed to minimize the total cost of ownership with significant savings in network equipment, broadband access, planning, site acquisition and installation.

The Altai A8 can also 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 A8 Super WiFi Base Station can also be deployed in conjunction with existing 3G networks to provide low cost high bandwidth mobile data offloading solution. The A8 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 A8 include:

- Extended coverage in a Non-Line-of-Sight (NLOS) environment which matches the foot print of most 3G deployments in dense urban environments
- Dual-diversity advanced Smart Antenna Technology to provide flexible 90 to 360-degree coverage with minimal holes in dense urban environments
- Multi-radio platform to maximize 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
- Supports real-time applications such as VoIP, video-streaming and interactive gaming with minimal latency
- Standard 802.11b/g access and 802.11a backhaul
- Fast Ethernet or integrated 802.11a wireless backhaul
- Flexible antenna deployment for various site conditions
- Remote configuration through the Altai Wireless Management System (AWMS)

Altai A8 Super WiFi Base Station

Wireless Interface

802.11b/g Radio

- Operating Mode Access Point
- Standard IEEE 802.11b/g
- Operating Frequency 2.412 – 2.472 GHz (Ch 1-13)
- Transmit Power 5 – 25 dBm in 1 dB step
- Receiver Sensitivity (Typical)

802.11b	11 Mbps	-90 dBm
	1 Mbps	-96 dBm
802.11g	54 Mbps	-74 dBm
	6 Mbps	-92 dBm
- Connect up to 8 Antennas
- Congestion Avoidance
- Bandwidth Control – Airtime/ Throughput/ VAP/Client
- Altai AirFi™ Bandwidth Control*
- Transmit and Receive Diversity
- Automatic Channel Selection
- Site Survey/ Channel Scan

802.11a Radio

- Operating Mode Point to Point Bridging
Point to Multi-point Bridging
(Up to 4 peers)
- Standard IEEE 802.11a
- Operating Frequency 5.15 – 5.35 GHz
5.47 – 5.725 GHz
5.725 – 5.825 GHz
- Transmit Power 24 dBm (Max.)
- Data Rate 54, 48, 36, 24, 18, 12, 9, 6Mbps
- Receiver Sensitivity (Typical)

54 Mbps	-73 dBm
6 Mbps	-90 dBm
- Turbo Mode Support

Antenna

2.4 GHz Antenna

- External Antenna 14 dBi (Max.) Sector
- Frequency 2.4 – 2.5 GHz
- Polarization Dual Linear ±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 18 dBi Panel/ 9 dBi Omni
- Antenna Connector 1 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 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

* Features will be available in future release

Security

802.11b/g

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

802.11a

- 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
- TR-069 Support*

Physical Specification (BTS Unit)

- Dimension 290 x 210 x 89 mm
- Weight 4 kg (Unit Weight) / 6.5 kg (Gross Weight)
- Mounting Pole or Wall-mounted

Power Supply

- Power Source PoE Injector
- Power Consumption 20 W (Typical) / 58 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

- A8 (PoE) Super WiFi Base Station (PoE Power) (Model No.: WA8011A-A)
- Smart Antennas
- RF Cables
- PoE Injector and Mounting Accessories

Other Packages

- A8 Package Added 90 – 240 VAC Power
- A8 (bg) Package Removed 11a Radio



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