

Altai A8-Ei Super WiFi Base Station

The world's leading WiFi outdoor access point with integrated multi-beam antenna array optimized for maximum coverage from a minimum number of installation sites. This eliminates external RF cabling between base station and antennas and makes installation simple.



The A8-Ei 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 multi-beam antenna array of the A8-Ei is designed to provide up to 5 times the range and 10 times the per site coverage as traditional access point. Accordingly, up to 90% fewer installation sites for the same coverage area.

Super Long Range Coverage

A8-Ei Sector	Range
LOS / CPE	4,000 m
LOS Laptop / Smartphones	1,700 m
NLOS Laptop / Smartphones	800 m
LOS Backhaul	30 km

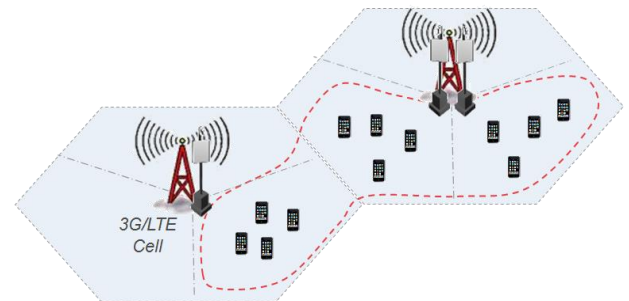
Altai A8-Ei for Wireless Broadband

The Altai A8-Ei serves 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.



Altai A8-Ein for Super 3G/4G Offload

The A8-Ei Super WiFi Base Station can also be deployed in conjunction with existing 3G mobile networks to provide low cost high bandwidth mobile data offloading solution. The A8-Ei can be co-located with existing 3G cell sites allowing immediate WiFi provisioning at much lower acquisition and operating costs.



Co-locate A8-Ei with existing 3G/LTE cell site to offload traffic for an almost identical cell area.

As an integral part of our Super WiFi network infrastructure, key benefits of the Altai A8-Ei include:

- Base station and antenna array in one integrated unit, eliminating RF cabling work. Simple installation at rooftop, wall, tower and lamppost
- Extended coverage in a Non-Line-of-Sight (NLOS) environment which matches the foot print of most 3G deployments in dense urban environments
- Multi-beam Smart Antenna Technology to provide superior signal strength and link budget in dense urban environment deployments
- Multi-radio platform to maximize both uplink/downlink performance and access redundancy
- Link integrity, backhaul link self healing and 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 wireless backhaul
- Fast Ethernet or integrated 802.11a wireless backhaul
- Remote configuration through the Altai Wireless Management System (AWMS)

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
- Built-in Antenna Array
- Congestion Avoidance
- Bandwidth Control – Airtime/ Throughput/ VAP/ Client
- Altai AirFi™ Throughput Optimization
- 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, 6 Mbps
- Receiver Sensitivity (Typical)
 - 802.11a 54 Mbps -73 dBm; 6 Mbps -90 dBm
- Turbo Mode Support

Antenna

2.4 GHz Antenna

- Built-in Antenna Array 19 dBi (Max.)
- Frequency 2.4 – 2.5 GHz
- Polarization Dual Slant ±45°
- Horizontal Beamwidth 80°(-3 dB), 100°(-8 dB)
- Vertical Beamwidth 14°(-3 dB)
- VSWR 2 (Max.)
- Impedance 50 Ω
- Front-to-back Ratio -25 dB (Max.)
- Isolation between Ports 15 dB (Min.)

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

Security

802.11b/g

- Authentication – Open system, Shared key, WPA/ WPA-PSK, WPA2/ WPA2-PSK, 802.1x (PEAP, TLS, TTLS)
- Encryption – WEP, TKIP, AES
- 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

- Dimension 467 x 439 x 111 mm (without mounting)
- Weight 8.2 kg (without mounting)
- 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 161 km/h (Operational)
217 km/h (Survival)
- Weatherproof IP67 Compliant

Certification

- FCC/ CE/ Others

Product Ordering Information

Standard Package

- A8-Ei Super WiFi Base Station (PoE Power) (Model No.: WA8011E)
- Built-in Antenna Array
- PoE Injector and Mounting Accessories

Other Package

- A8-Ei (bg) Package Without 11a Radio

Contact Us

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* Feature will be available in future release / A8Ei-PB-130812
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