

Altai A2 WiFi Access Point/Bridge (802.11n capable)



The Altai A2 WiFi Access Point/Bridge is designed to be used in Altai Super WiFi systems to increase system capacity, extend coverage, fill-in areas of low or blocked signals caused by obstructions and bridge wirelessly to remote site. It is capable of providing the highest possible data throughput and capacity that the 802.11n standards can offer, and at the same time is backward compatible to standard 802.11a/b/g.



The A2 employs the cellular concept of expanding system capacity by dividing the coverage area of an A8 Super WiFi Base Station. It enables network operators to take advantage of the cost savings provided by the A8 Super WiFi Base Station's 10X greater coverage area when a WiFi system is initially installed.

As system capacity needs to increase, the A2 Access Point/ Bridge can be used to expand system capacity by over 300%. The A2 can be installed exactly where the capacity requirement is the greatest. This will create even greater savings compared to other competitive systems.

The A2 Access Point/Bridge has both a high capacity 2.4 GHz (2x2 802.11b/g/n) broadcast radio and a 5 GHz (2x2 802.11a/n) backhaul radio to enable it to function not only to expand in-system capacity but also to extend the range of a WiFi system. Being equipped with a built-in 5 GHz backhaul radio, the A2 can be connected directly to an A8 5 GHz bridge radio to create a high capacity WiFi system.

The A2 Access Point/Bridge can be used as a repeater to overcome low signal areas that are found in every system. It can be used to reach areas that are blocked by terrain or buildings, or be used to strengthen signals into areas of heavy foliage.

The A2 can be used as a standalone Access Point for smaller systems. With built-in backhaul capability, it can be used to create simple and efficient 1 to 3 cell systems that can be a cost effective alternative for smaller coverage areas and systems where the coverage of an A8 Super WiFi Base Station is not required.

The A2 Access Point/Bridge provides the most cost effective and versatile way to enhance a WiFi in terms of its capacity, coverage or range. When combined with the A8 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, the Altai A2 provides the following:

- Multi-operating modes allowed: AP, bridge, repeater mode or CPE
- 2 x 2 MIMO for both 2.4GHz (802.11b/g/n) and 5 GHz (802.11a/n) radios
- IP-67 rated carrier grade 802.11b/g/n AP for both outdoor and indoor applications
- Increase system capacity under the coverage area of A8 Super WiFi Base Station
- Fill-in coverage area in challenging RF environment
- Fast Ethernet or 2 x 2 802.11a/n wireless backhaul
- PTP and PTMP bridging with built-in dual polarized panel antenna
- Light weight with built-in lightning protection
- Easy installation & web-based management

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Wireless Interface

802.11b/g/n (2x2) Radio

- Operating Mode Access Point/Repeater
- Standard IEEE 802.11b/g/n
- Operating Frequency 2.412 – 2.4835 GHz (CH 1- 13)
- Transmit Power 26 dBm (max.)
- Receiver Sensitivity (Typical)
 - 802.11b
 - 11 Mbps -91 dBm
 - 1 Mbps -96 dBm
 - 802.11g
 - 54 Mbps -83 dBm
 - 6 Mbps -96 dBm
 - 802.11n
 - HT20 -96 dBm
 - HT40 -90 dBm
- Antenna (Connect up to 2 antennas)
 - External 5 dBi Omni (Optional)
- Transmit and Receiver Diversity
- Automatic Channel Assignment

802.11a/n (2x2) Radio

- Operating Mode
 - Point to Point Bridging
 - Point to Multi-Point Bridging (Up to 4 peers)
- Standard IEEE 802.11a/n
- Operating Frequency
 - 5.15 – 5.35 GHz
 - 5.47 – 5.725 GHz
 - 5.725 – 5.825 GHz
- Transmit Power 23 dBm (Max.)
- Receiver Sensitivity
 - 802.11a
 - 54 Mbps -83 dBm
 - 6 Mbps -96 dBm
 - 802.11n
 - HT20 -95 dBm
 - HT40 -91 dBm
- Antenna
 - Built-in 16 dBi Flat Panel (Dual Polarization)

Networking

- 16 Multiple SSID/ Virtual AP
- VLAN
- DHCP Client/ Server/ Relay
- Dynamic NAT
- PPPoE Client, PPPoE Pass-through
- VPN Pass-through
- Switch and Gateway Mode
- 10/100 Mbps Ethernet Port
- Backhaul link integrity/ resilience

Security

802.11b/g/n

- Authentication Open system, Shared key, WPA/ WPA-PSK WPA2/ WPA2-PSK 802.11x (PEAP, TLS, TTLS) WEP, TKIP, AES
- Encryption
- MAC based Access Control
- SSID Suppression

802.11a/n

- Encryption WEP, AES

Management

- Web-based Administration Tool
- Remote Firmware Upgrade (HTTP)
- SNMP

Physical Specification

- Dimension 220 x 220 x 60 mm
- Weight < 2 kg (Unit Weight) 8kg (Gross Weight for 2 units in a pack) Pole or Wall-mounted
- Mounting

Power Supply

- Power Source PoE Injector (48V or 12V)
- Power Consumption 15 W (Typical) / 30 W (Max.)

Environmental Specification

- Operating Temperature
 - Ambient -33 °C to +55 °C
 - PoE Power Injector 0 °C to +60 °C
- Storage Temperature -40 °C to +80 °C
- Humidity 0 – 95% (Non-condensing)
- Altitude 4,572 m
- Lightning Protection IEC 1000-4-2/ Instant Surge 4 KV
- Wind Loading 90 mph (Operational) 125 mph (Survival)
- Weatherproof IP-67 compliant

Certification

- FCC
- CE
- Others

Product Ordering Information

Standard Package

- A2 Super WiFi Access Point/Bridge with Built-in 5GHz Panel Antenna
- PoE Injector and Mounting Accessories
- 2.4GHz Omni/Patch Antennas (optional)



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