



## Altai A2 WiFi Pico Access Point

The Altai A2 WiFi Pico Access Point is designed to be used in Altai Super WiFi systems to increase system capacity, extend coverage and fill-in areas of low or blocked signals caused by obstructions.

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 initially installing a WiFi system.

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

The A2 Pico-cell has both a high capacity 2.4 GHz broadcast radio and a 5 GHz 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 Pico-cell can be connected directly to an A8 or an Altai A0 5 GHz Bridge radio to create a high capacity WiFi system.

The A2 can also 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 Pico-cell can also 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.

A2 Pico-cell provides the most cost effective versatile way to enhance a WiFi for capacity, coverage or range. When combined with the A8 Super WiFi Base Station and the A0 WiFi Bridge, it can be used to create the most cost-effective high capacity WiFi system possible.



As an integral part of our Super WiFi network infrastructure, Altai A2 provides the following:

1. 2 operating modes allowed: AP or repeater mode
2. Increase system capacity under the coverage area of A8 Super WiFi Base Station
3. Fill-in coverage area in challenging RF environment
4. Standard 802.11b/g access and 802.11a backhaul radio
5. Fast Ethernet or 802.11a wireless backhaul
6. Light weight with built-in lightning protection
7. Weather-proof design against extended temperature range and wind vibration
8. Easy installation & web-based management

## Wireless Interface

### 802.11bgn Radio

- Operation Mode Access Point/Repeater
- Standard IEEE 802.11bgn
- Operation Frequency 2.412 – 2.4835 GHz (Ch 1 – 13)
- Transmit Power 26 dBm (max.)
- Receive 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
- Connect up to 2 Antennas (External)
- Transmit and Receive Diversity
- Automatic Channel Assignment

### 802.11an Radio

- Operation Mode Point to Point Bridging  
Point to Multi-point  
Bridging (Up to 4 peers)
- Standard IEEE 802.11an
- Operating Frequency 5.15 – 5.35 GHz  
5.47 – 5.725 GHz  
5.725 – 5.825 GHz
- Transmit Power 23 dBm (max.)
- Receive 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

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

### 802.11a

- 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)  
8 kg (Gross Weight for 2 units in a pack)
- Mounting Pole or Wall Mounted

## 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



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