Altai A3 Smart WiFi

The Altai A3 Smart WiFi is one of the first indoor/outdoor 802.11n WiFi products in the market. It is capable of providing the highest possible data throughput that the 802.11n standard can offer, and at the same time is backward compatible to standard 802.11a/b/g.

Combining MIMO, patented smart antenna technology, and multi-radio hardware design, the Altai A3 Smart WiFi extends our technological leadership in advanced wireless broadband solutions and gives superior performance under various deployment scenarios.

To cope with the dynamic market requirements for wireless broadband solutions, the Altai Smart A3 is designed to be a highly versatile WiFi device that can operate in different modes under different environments. For example, the A3 can act as a repeater to extend the outdoor WiFi signal to indoor areas, or the A3 can be configured as an AP with dual operating channels to double the AP capacity. Furthermore, the A3s can interconnect to each other with a mesh-type backhaul and provide WiFi access simultaneously. Different operating modes are easily configured by software.

The Altai A3 Smart WiFi can provide dual-band (2.4G and 5GHz) backhaul and access links with its built-in antenna array or external antenna option, making it the most flexible WiFi device for easy deployment. There is an optional connection to a HSPA/WiMAX/LTE backhaul module so that the A3 can be installed in public transportation (bus, train, ferry) to provide WiFi services to passengers with ubiquitous backhaul.

Apart from the advanced features offered by the Altai A3 Smart WiFi, the A3 can be installed in both outdoor and indoor environments. The weatherproof IP67 design makes it possible to withstand harsh outdoor environments, and the aesthetic appearance allows flexible installation in indoor environments including shopping malls, hotels, campus and vehicles. The A3 has several mounting options to suit different site requirements; it can be mounted in or under the ceiling, on walls, and on poles.

As an integral part of our Super WiFi network infrastructure, the Altai A3 Smart WiFi offers the following:

- Extended indoor/outdoor coverage with full 802.11n capabilities

- Advanced smart antenna technologies to deliver robust, powerful RF performance

- Multi-function – can be configured as an AP, a CPE, a repeater or a bridge device

- Multi-mode – supports 802.11a/b/g/n backhaul and access interface with built-in dual band antenna array

- Multi-backhaul options – support Gigabit Ethernet backhaul, built-in 2.4/5GHz WiFi backhaul or external HSPA/WiMAX/LTE backhaul

- Multi-environment – can be deployed in both outdoor & indoor environment

- Multi-mounting options – ceiling, wall, pole-mounted options

- Integrated access controller with advanced authentication and bandwidth control features in A3 Plus model

Wireless Interface

802.11a/b/g/n Radio

- Operating Mode   AP/CPE/Repeater/Bridge
- 2-radio and 3-radio factory options available
- Up to 3 radios for different operating modes
- 20MHz and 40MHz channels
- Operating Frequency   2.412 – 2.4835 GHz(Ch1-13)

       5.15 – 5.35 GHz
       5.47 – 5.825 GHz
- Transmit Power   10-19 dBm
- Receive Sensitivity (Typical)

802.11b	11 Mbps	-91 dBm
	1 Mbps	-96 dBm
802.11a/g	54 Mbps	-83 dBm
	6 Mbps	-96 dBm
802.11ng	HT20	-96 dBm
	HT40	-90dBm
802.11na	HT20	-95 dBm
	HT40	-91dBm

- Built-in antenna array, 1 optional external antenna
- Smart antenna algorithm
- USB port for external HSPA/WiMAX/LTE module

Networking

- 1 to 16 Multiple Virtual AP (Per AP Radio)
- VLAN
- DHCP Client/Server/Relay
- Dynamic NAT
- PPPoE Client, PPPoE Pass-through
- VPN Pass-through
- Switch and Gateway mode
- 10/100/1000Mbps GE Port
- WMM

Security

- Authentication   Open system, Shared key
       WPA/WPA-PSK,
       WPA2/WPA2-PSK
       802.1x (PEAP, TLS, TTLS)
- Encryption   WEP, TKIP, AES
- MAC based Access Control
- SSID suppression
- Inter-VAP/Intra-VAP client communication control
- Integrated Access Controller in A3 Plus model

Management

- Web-based administration tool
- SNMP v1/v2c, Altai MIB
- SNMP Manager Access Control List
- Remote Firmware Upgrade

Physical Specification

- Dimension   Ø232(D) x 93.8(H)mm
- Weight   1.5kg (Unit Weight) /
       2.5kg (Gross Weight)
- Mounting   Ceiling/Pole/Wall-mounted
- LEDs   Power, Radio, Ethernet

Power Supply

- Power Source   PoE Injector
- Power Consumption   20W (Typical) / 30W (Max.)

Environmental Specification

- Operating Temperature
  Ambient   -33˚C to +60˚C
  PoE Injector   0˚C to +40˚C
- Storage Temperature   -40˚C to +80˚C
- Humidity   0-95% (non-condensing)
- Lightning Protection   IEC 1000-4 -2
- Wind Loading   90mph (Operational)
       125mph (Survival)
- Weatherproof   IP67

Certification

- FCC
- Others

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