

Altai AX600-S Outdoor 802.11ac 2x2 Access Point

The Altai AX600-S Dual-band 2x2 WiFi Access Point is designed to be used in Altai Super WiFi systems to provide high capacity 2.4 GHz and 5 GHz dual-band dual-concurrent access coverage for both outdoor and indoor areas, and to increase system capacity, extend coverage, fill-in areas of low or blocked signals caused by obstructions. It is capable of providing the highest possible data throughput and capacity that the 802.11ac 2x2 2-stream MIMO standards can offer.

Super Dual-band Coverage

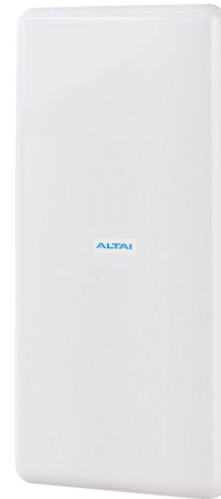
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|----------------------|---------------------------------|
| Max. LOS CPE | 3 km (2.4 GHz) 2 km (5 GHz) |
| Max. LOS Smartphones | 1 km (2.4 GHz) 800 m (5 GHz) |
| Max. Data Rate | 574 + 1201 Mbps |

Altai AX600-S for Dual-band Micro Coverage

The AX600-X has both a high capacity 2.4 GHz (2x2:2 802.11b/g/n/ax) radio and a 5 GHz (2x2:2 802.11a/n/ac/ax) radio which can be operated at the same time for 2.4 GHz and 5 GHz dual-band dual-concurrent access coverage. The dual-band operations not only provide the highest capacity up to 1.75 Gbps but also perform better in the less interfered 5 GHz frequency band.

Altai AX600-S for Dual-band Wireless Access

The AX600-S can be used for wireless broadband access for both the residential users and commercial customers. It supports concurrent 2.4 GHz and 5 GHz dual-band operations, and is a cost effective and flexible solution which supports long access range with an Altai C1n or C1an CPE for 2.4 GHz and 5 GHz operation respectively.



Extra High Capacity PTP/PTMP Bridging

The AX600-S supports up to 1.7 Gbps data rate high capacity PTP/PTMP bridging, fulfilling extra high throughput, high user capacity and fully IP-67 weatherproof bridging requirements. This is commonly used for hub site bridging such as campus network, city network or surveillance.

As an integral part of our Super WiFi network infrastructure, key benefits of the Altai AX600-S include:

- Multi-operating modes allowed: AP, bridge, repeater mode or CPE
- 2x2:2 MIMO for both 2.4 GHz (802.11b/g/n/ax) and 5 GHz (802.11a/n/ac/ax) radios
- Built-in 2.4 GHz and 5 GHz 2x2 spatial polarized high gain sector antennas
- High capacity 1201 Mbps in 5 GHz and 574 Mbps in 2.4 GHz
- 2.4 GHz and 5 GHz dual-band dual concurrent access
- IP-67 rated carrier grade dual-band AP for both outdoor and indoor applications
- Fill-in coverage area in challenging RF environment
- Light weight with built-in lightning protection
- Easy installation & web-based management

Wireless Interfaces

802.11b/g/n/ax (2x2:2) Radio

- Operating Mode AP/CPE/Repeater
- Standard IEEE 802.11b/g/n/ax
- Operating Frequency 2.400 – 2.484 GHz (Ch 1-13)
- Transmit Power 26 dBm (Max.)
23 dBm (Per Chain)
- Receiver Sensitivity (Typical)

| | | | | |
|----------|---------|----------|------|---------|
| 802.11b | 11 Mbps | -93 dBm | | |
| 802.11g | 54 Mbps | -80 dBm | | |
| 802.11n | HT20 | -77 dBm; | HT40 | -74 dBm |
| 802.11ax | HE20 | -65 dBm; | HE40 | -63 dBm |

802.11a/n/ac/ax (2x2:2) Radio

- Operating Mode AP/CPE/Repeater
- Standard IEEE 802.11a/n/ac/ax
- Operating Frequency 5.150 – 5.350 GHz
5.470 – 5.725 GHz
5.725 – 5.850 GHz
- Transmit Power 27 dBm (Max.)
24 dBm (Per Chain)
- Receiver Sensitivity (Typical)

| | | | | |
|----------|---------|----------|--------|----------|
| 802.11a | 54 Mbps | -78 dBm; | 6 Mbps | -95 dBm |
| 802.11n | HT20 | -75 dBm; | HT40 | -73 dBm |
| 802.11ac | VHT20 | -69 dBm; | VHT40 | -67 dBm; |
| | VHT80 | -64 dBm | | |
| 802.11ax | HE20 | -64dBm; | HE40 | -61dBm; |
| | HE80 | -58dBm | | |

For both 2.4 and 5 GHz

- 32 SSID (16 SSID per Radio)
- WMM, 802.11h, 802.11k, 802.11r, 802.11v, 802.11w
- Passpoint (Release 2)
- Fast Roaming
- Band Steering
- Multi-AP Steering
- Smart Load Balancing
- Dual-Radio Redundancy
- 1+ N Redundancy
- Smart Mesh Networking*
- Auto Channel Selection and TX Power Control
- Bandwidth Control Per SSID/Client
- Altai AirFi™ Throughput Optimization

Antennas

2.4 GHz Antenna

- Built-in Antenna 14 dBi Sector
- Frequency 2.4 – 2.5 GHz
- Polarization 2x2 MIMO Spatial Polarized
- Horizontal Beamwidth 60° (-3 dB)
- Vertical Beamwidth 13° (-3 dB)
- VSWR 2 (Max.)

5 GHz Antenna

- Built-in Antenna 15 dBi Sector
- Frequency 5.150 – 5.875 GHz
- Polarization 2x2 MIMO Spatial Polarized
- Horizontal Beamwidth 80° (-3 dB)
- Vertical Beamwidth 7° (-3 dB)
- VSWR 2 (Max.)

Networking

- Switch (Bridge) and Gateway Mode
- IPv4/IPv6 Dual-Stack
- NAT
- DHCP Client/Server
- PPPoE Client
- Soft-GRE
- VLAN
- Multicast Rate Filter/IGMP Snooping

Security

- Authentication – Open, Shared key, WPA/WPA-PSK, WPA2/WPA2-PSK, WPA3*, 802.1x (EAP-PEAP/TLS/TLS/SIM/AKA)
- Encryption – WEP, TKIP, AES
- Inter/Intra-SSID Client Isolation
- MAC-based Access Control (White/Black List)
- RADIUS/Active directory
- Dynamic VLAN Assignment
- Firewall
- WIDS/WIPS
- Broadcast/Multicast/Unicast Flooding Control

Management

- Management Platforms: Standalone, AltaiGate, AltaiCare, AltaiCare Appliance
- Web User Interface
- Command Line Interface (SSH)
- Remote Factory Reset
- Trusted Management IP List
- SNMP v1/v2c /v3
- MIB2/IF-MIB/Altai Enterprise MIB
- Syslog
- Spectral Analysis*
- KPI Monitoring*
- Client OS and Hostname Detection

Physical Specifications

- Dimension 491 x 221 x 73mm
- Weight 2.1 kg (Without Mounting Kit)
- Mounting Pole or Wall-mounted
- Network Interface 1 x 2.5GbE Mbps Port
1 x optical SFP connector

Power

- Power Supply 802.3bt PoE PD or 56 VDC Passive PoE PD
- Power Consumption 20 W (Typical)/45 W (Max.)

Environmental Specifications

- Operating Temperature -40 °C to +65 °C (Ambient)
- Storage Temperature -40 °C to +70 °C
- Humidity Up to 95% (Non-Condensing)
- Lightning Protection EN 61000-4-5
- Wind Loading Up to 265 km/h (134 mph)
- Weatherproof IP67 Compliant

Certifications

- FCC/CE/Others
- RoHS Compliance

Product Ordering Information

AX600-S (Part No.: SD.AX600-EH40-000) Standard Package

- AX600-X Dual-band 2x2:2 802.11ax WiFi AP with 4x N-female connectors (Model No.: AX600)
- Mounting Kit

Accessories

- 56 VDC 1Gb/2.5Gb Passive PoE Injector (Optional)

Contact Us

- Email: sales@altaitechnologies.com

AX6S-PB-220112

*Will be available in the future.

The coverage range will vary depending on NLOS and interference conditions
The transmit power may vary according to country regulation