

Altai A2x WiFi Access Point/Bridge

Designed for medium to high-density outdoor venues, the Altai A2x delivers unparalleled Wi-Fi experience and highly reliable connectivity at the market's most affordable price point.

Exceptional Performance in Harsh Outdoor Conditions

The A2x features patented Altai technologies to extend coverage, optimize capacity, mitigate interference, and offer ultra-fast speed – up to data rates of 867 Mbps on 5 GHz and 300 Mbps on 2.4 GHz.

With an IP67-rated weatherproof enclosure and industrial-grade surge and vibration protection, the A2x is an ideal solution for harsh environmental conditions.



Super Dual-Band Coverage

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|------------------|----------------------------------|
| Max. LOS Access* | 500 m (2.4 GHz) 400 m (5 GHz) |
| Max. LOS Bridge† | 50 km |
| Max. Data Rate | 300 + 867 Mbps |

*With external 2.4 GHz 5 dBi and 5 GHz 7 dBi Omni antennas

†Distance varies with antenna used. 50 km is the limit

Ease of Deployment

Whether a Wi-Fi network has a few or hundreds of A2x APs, it can be easily managed through the AltaiGate WLAN controller, the AltaiCare cloud service, or the on-premise virtual appliance.

Use Cases

- Combined with AltaiCare, the A2x delivers a cost-effective outdoor Wi-Fi hotspot solution with a powerful advertisement engine and extensive login options such as free access, email registration, pay-to-access, and social media logins
- Due to its rugged design, the A2x is ideally suited for medium to high-density outdoor or industrial applications at airports, container terminals, factories, warehouses, and stadiums
- For city-wide wireless infrastructure, the A2x complements the A8n (ac) Super WiFi Base Station and AX500 Smart APs for wireless broadband services, Smart Cities, and IoT
- The A2x supports up to 867 Mbps data rate in 5 GHz for high capacity PTP/PTMP bridging, fulfilling high throughput and rugged outdoor bridging requirements. It is perfect for hub site bridging such as campus network, city network, or surveillance

As an integral part of the Altai Super WiFi solution, the A2x has the following key benefits:

Powerful Performance MU-MIMO significantly improves multi-client capacity, and dual-radios deliver data rates up to 867 Mbps on 5 GHz and 300 Mbps on 2.4 GHz

Versatile Antenna Options Use high gain Omni or sectorized antennas for extended coverage

AlwaysConnected Altai's AlwaysConnected feature ensures redundant wireless connectivity and fast recovery for 100% network uptime

Fast Roaming Millisecond roaming for mission-critical applications

AirFi Optimization Altai's AirFi technology enhances client's throughput based on their speed and data volume

Hardened for Adverse Environments IP67-rated waterproof and industrial-grade surge protection for harsh environments

Flexible Management Standalone, controller-based management with AltaiGate, cloud service or on-premise virtual appliance with AltaiCare

Wireless Interface

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

- Operating Mode Access Point/CPE/Bridge/
Repeater
- Standard IEEE 802.11b/g/n
- Operating Frequency 2.400 – 2.835 GHz (Ch 1-13)
- Transmit Power 28 dBm (Max.)
25 dBm (Per Chain)
- Receiver Sensitivity (Typical)

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|---------|---------|----------|--------|---------|
| 802.11b | 11 Mbps | -89 dBm; | 1 Mbps | -99 dBm |
| 802.11g | 54 Mbps | -79 dBm; | 6 Mbps | -90 dBm |
| 802.11n | HT20 | -90 dBm; | HT40 | -86 dBm |

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

- Operating Mode Access Point/CPE/Bridge/
Repeater
- Standard IEEE 802.11a/n/ac
- Operating Frequency 5.150 – 5.250 GHz
5.250 – 5.350 GHz
5.470 – 5.725 GHz
5.725 – 5.850 GHz
- Transmit Power 28 dBm (Max.)
25 dBm (Per Chain)
- Receiver Sensitivity (Typical)

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|----------|---------|----------|--------|---------|
| 802.11a | 54 Mbps | -79 dBm; | 6 Mbps | -93 dBm |
| 802.11n | HT20 | -93 dBm; | HT40 | -90 dBm |
| 802.11ac | VHT20 | -92 dBm; | VHT40 | -89 dBm |
| | VHT80 | -87 dBm | | |

For both 2.4 and 5 GHz

- 32 SSID (16 SSID per Radio)
- 802.11h, 802.11k, 802.11r, 802.11v, 802.11w
- Passpoint (Release 2)
- Fast Roaming
- Multi-AP Steering
- Smart Load Balancing
- Smart Mesh Networking*
- Altai AirFit™ Throughput Optimization
- WMM (802.11e)

Antenna

2.4 GHz Antenna

- Antenna Connector 2 x N-Female

5 GHz Antenna

- Antenna Connector 2 x N-Female

Networking

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

Security

- Authentication – Open, Shared key, WPA/ WPA-PSK, WPA2/ WPA2-PSK, , WPA3*, 802.1x (EAP-PEAP/ TLS/ TTLS/ SIM/ AKA)
- Encryption – WEP, TKIP, AES
- Client Isolation
- MAC-Based Access Control (White/ Black List)
- RADIUS
- Active Directory
- Firewall
- WIPS* – Denial of Service, Rogue AP Detection, Alerting and Reporting

Management

- Management Platforms – Standalone, AltaiGate, AltaiCare cloud service, AltaiCare On-Premise Virtual Appliance
- Web User Interface
- Command Line Interface (SSH)
- SNMP v1/ v2c / v3
- MIB2/ IF-MIB/ Altai Enterprise MIB
- Syslog
- Remote Factory Reset
- Auto Channel Selection and TX Power Control
- Spectral Analysis*
- KPI Monitoring*
- Client OS Detection

Physical Specifications

- Dimension 220 x 220 x 60 mm
- Weight 1.3 kg (Unit Weight)
- Mounting Pole/Wall-Mounted
- Network Interface 1 x 1GbE Port

Environmental Specifications

- Operating Temperature -40 °C to +60 °C
- Storage Temperature -40 °C to +80 °C
- Humidity Up to 95 % (Non-Condensing)

Power Supply

- Power Supply 802.3at PoE PD or 56 VDC
Passive PoE PD
- Power Consumption 10 W (Typical) / 20 W (Max.)

Certification

- FCC / CE / SRRC /Others*
- RoHS Compliance

Product Ordering Information

A2x (Part No.: SD.A2AC-2224-000)

- A2x Wi-Fi Access Point/Bridge (Model No.: AP5822)
- Mounting Accessories

Optional Accessories

- 56 VDC Passive PoE Injector
- External Omni or Sector Antennas

Contact Us

- Email: sales@altaitechnologies.com

A2X-PB201117

** Will be available in future.
All specifications are subject to change without notice*