

## 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

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)
 

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)
 

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
- Band Steering
- Multi-AP Steering
- Smart Load Balancing
- Dual Radio Redundancy
- 1+ N Redundancy
- Smart Mesh Networking\*
- Altai AirFi™ 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)
- Lightning Protection EN 61000-4-5
- Wind Loading Up to 216 km/h (134 mph)
- Weatherproof IP67 Compliant

## 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-PB-210914

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