## Altai AX600-X Outdoor Wi-Fi 6 Access Point

The Altai AX600-X is a cutting-edge Wi-Fi 6 access point designed to deliver exceptional performance and highly reliable connectivity in outdoor challenging environments. With its advanced features and competitive pricing, it offers an unmatched Wi-Fi experience for a wide range of applications.

### Key Features

**Super Dual-band Coverage**

| Max. LOS Access* | 500 m (2.4 GHz) ‡ |
| | 400 m (5 GHz) ‡ |
| Max. LOS Bridge † | 50 km ‡ |
| Max. Data Rate | 574 + 1201 Mbps ‡ |

**Wi-Fi 6 Enhanced Capacity**

- Utilizes OFDMA and multi-user MIMO for increased capacity on both 2.4 GHz and 5 GHz radios.
- Supports up to 512 concurrent users with a total data rate of up to 1.775 Gbps.

**Hardened for Harsh Outdoor Conditions**

- Housed in an IP67-rated weatherproof enclosure to withstand harsh environmental conditions.
- Equipped with industrial-grade surge protection for enhanced durability.

**Robust System Design**

- Supports dual-image and fail-safe boot to minimize the risk of system file corruption caused by power supply issues or improper operations.
- Integrates with §Check Point's Nano Agent to fend off sophisticated cyber attacks.

**Versatile Antenna Options**

Supports various external antenna types for diverse applications, e.g., access coverage, PTP/PTMP bridging, and mobile CPE.

**Fast Roaming**

Support 802.11k/v/r and proprietary CPE roaming technologies to realize seamless roaming for mission-critical applications.

**Multi-Link Redundancy**

Enables wireless link redundancy and fast recovery for CPE and bridging applications through Altai's AlwaysConnected feature.

**Flexible Management**

Supports standalone mode and controller-based management with AltaiGate, AltaiCare cloud, or on-premise virtual appliance.

Compatible with:

| AltaiCare Cloud/On-Premises | AltaiGate | § Check Point Nano Agent |
| --- | --- | --- |

## Use Cases:

**Industrial Applications**

The rugged design of the AX600-X ensures reliable performance in challenging industrial environments. It is an ideal solution for airports, container terminals, manufacturing facilities, warehouses, oil & gas, mining, energy & utility, agriculture, and construction sites.

**Fixed Wireless Infrastructure**

The AX600-X offers high-capacity PTP/PTMP bridging to meet demanding traffic requirements and ensure high SLA compliance with the AlwaysConnected feature.

**Mobile CPE**

The AX600-X provides reliable wireless connectivity and seamless roaming experience for high-mobility, mission-critical applications. It is particularly suitable for autonomous vehicles and remote-controlled machinery, thanks to fast roaming and AlwaysConnected feature support.

*With external 2.4 GHz 5 dBi and 5 GHz 7 dBi omni antennas.
†Distance varies with antenna used. 50 km is the limit.
‡The actual distance and performance vary depending on site conditions, device configurations and client capabilities.
§License and firmware upgrade is required for the support of Check Point's Nano Agent.

## Wireless Interfaces

### 2.4 GHz (2x2:2) Radio

- Operating Mode — AP/CPE (STA)/Repeater
- Standard — IEEE 802.11b/g/n/ax
- Operating Frequency ‖ — 2.400 – 2.484 GHz (Ch 1-13)
- Channel Bandwidth — 20/40 MHz
- Transmit Power ‖ — 28 dBm (Max.)
  25 dBm (Per Chain)
- Receiver Sensitivity (Typical, per chain)

| | | | | |
|---|---|---|---|---|
| 802.11b | 1 Mbps | -98 dBm; | 11 Mbps | -90 dBm |
| 802.11g | 6 Mbps | -94 dBm; | 54 Mbps | -77 dBm |
| 802.11n | HT20, MCS0 | -94 dBm; | HT20, MCS7 | -76 dBm |
| | HT40, MCS0 | -92 dBm; | HT40, MCS7 | -74 dBm |
| 802.11ax | HE20, MCS0 | -94 dBm; | HE20, MCS11 | -65 dBm |
| | HE40, MCS0 | -91 dBm; | HE40, MCS11 | -62 dBm |

### 5 GHz (2x2:2) Radio

- Operating Mode — AP/CPE (STA)/Repeater
- Standard — IEEE 802.11a/n/ac/ax
- Operating Frequency ‖ — 5.150 – 5.250 GHz (Ch 36-48)
  5.250 – 5.350 GHz (Ch 52-64)
  5.470 – 5.725 GHz (Ch 100-140)
  5.725 – 5.850 GHz (Ch 149-165)
- Channel Bandwidth — 20/40/80 MHz
- Transmit Power ‖ — 28 dBm (Max.)
  25 dBm (Per Chain)
- Receiver Sensitivity (Typical, per chain)

| | | | | |
|---|---|---|---|---|
| 802.11a | 6 Mbps | -94 dBm; | 54 Mbps | -77 dBm |
| 802.11n | HT20, MCS0 | -94 dBm; | HT20, MCS7 | -76 dBm |
| | HT40, MCS0 | -91 dBm; | HT40, MCS7 | -74 dBm |
| 802.11ac | VHT20, MCS0 | -94 dBm; | VHT20, MCS9 | -71 dBm |
| | VHT40, MCS0 | -91 dBm; | VHT40, MCS9 | -69 dBm |
| | VHT80, MCS0 | -88 dBm; | VHT80, MCS9 | -65 dBm |
| 802.11ax | HE20, MCS0 | -94 dBm; | HE20, MCS11 | -65 dBm |
| | HE40, MCS0 | -91 dBm; | HE40, MCS11 | -62 dBm |
| | HE80, MCS0 | -88 dBm; | HE80, MCS11 | -59 dBm |

### For both 2.4 GHz and 5 GHz Radios

- Client Association Control per SSID by SNR/Data Rate
- 32 SSID (16 SSID per Radio)
- 802.11e (WMM), 802.11h, 802.11k, 802.11r, 802.11v, 802.11w
- Fast Roaming
- Band Steering#
- Multi-AP Steering#
- Smart Load Balancing#
- Dual-Radio Redundancy
- 1+ N Redundancy
- Auto Channel Selection and TX Power Control
- Bandwidth Control Per SSID/Client

## Antennas

### 2.4 GHz Antenna

- Antenna Connector  2 x N-Female

### 5 GHz Antenna

- Antenna Connector  2 x N-Female

## Networking

- Switch/Gateway Mode
- NAT
- DHCP Client/Server
- PPPoE Client#
- VLAN per SSID/per User
- Multicast Rate Filter/IGMP Snooping

## Security

- Authentication – Open, Shared key, WPA/WPA2/WPA3 (Personal/Enterprise), 802.1X (EAP-PEAP/TLS/TTLS/SIM/AKA)
- Encryption – WEP, TKIP, AES
- Inter/Intra-SSID Client Isolation
- MAC-based Access Control (White/Black List)
- RADIUS/Active Directory
- Multiple PSK
- Firewall#
- WIDS/WIPS#
- Broadcast/Multicast/Unicast Flooding Control
- Check Point Nano Agent§

## Management

- Management Platforms: Standalone, AltaiGate, AltaiCare Cloud, AtlaiCare On-Premises
- Web User Interface
- Command Line Interface (SSH)
- Remote Factory Reset#
- SNMP v1/v2c /v3
- MIB2/IF-MIB/Altai Enterprise MIB
- Syslog
- Client OS and Hostname Detection#

## Physical Specifications

- Dimension — 214 x 214 x 68mm
- Weight — 1.8 kg (Without Mounting Kit)
- Mounting — Pole or Wall-mounted
- Network Interface — 1 x 2.5GbE RJ-45 Port
  1 x optical SFP connector

## Power

- Power Supply — 802.3bt PoE PD or 48 – 56VDC 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 (165 mph)
- Weatherproof — IP67 Compliant
- MTBF — 1,296,138 hours (25℃)
  351,883 hours (65℃)

## Certifications

- FCC/CE/Others
- RoHS Compliance

### Product Ordering Information

**AX600-X (Part No.: SD.AX600-2244-000)**

**Standard Package**

- AX600-X Dual-band 2x2 Wi-Fi 6 AP with 4 x N-female connectors (Model No.: AX600-X)
- Standard non-titling wall/pole mounting Kit

**Optional Accessories**

- 56 VDC 1Gb / 2.5Gb Passive PoE Injector
- External Omni or Sector Antennas

**Contact Us**

- Email: sales@altaitechnologies.com

AX6X-PB-231108

§License and firmware upgrade is required for the support of Check Point's Nano Agent.
‖The transmit power and operating frequency may vary according to country regulations.
#Will be available in the future.
The information contained herein is subject to change without prior notice.