

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

The Altai AX600-S 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 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*

#### ➤ Wi-Fi 6 Enhanced Capacity

- Utilizes OFDMA and bi-directional multi-user MIMO to significantly increase capacity on both 2.4 GHz and 5 GHz radios.
- Provides a total data rate of up to 1.75 Gbps and supports up to 512 concurrent users.

#### ➤ Hardened for Harsh Outdoor Conditions

- Features an advanced RF filter design to combat interference and ensure optimal performance.
- 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, including shell injections, memory corruption and control flow hijacking.

#### ➤ Ease of Deployment

- Supports integrated dual-band high-gain sector antennas to eliminate the need for external antennas, saving installation time.
- Easily managed through multiple options of WLAN controllers, including AltaiGate, AltaiCare cloud, or on-premise virtual appliance. Whether you have a small-scale deployment or a massive network with hundreds of APs, our management solutions enable quick and efficient network rollout.



Compatible with:



### Use Cases:

#### ➤ Industrial Applications

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

#### ➤ Cost-Effective Outdoor Wi-Fi Hotspots

When combined with AltaiCare, the AX600-S provides a powerful advertisement engine and various login options for guest Wi-Fi access, including email sign-up, click-through, and social media logins.

#### ➤ City-Wide Wireless Infrastructure

The AX600-S complements Altai Super WiFi Base Stations for city-wide wireless infrastructure deployments. It enables wireless broadband services, Smart City and IoT applications.

#### ➤ Medium to High-Density Environments

With Wi-Fi 6 support and a built-in directional antenna, the AX600-S is an excellent choice for medium to high-density environments such as stadiums and ad-hoc events.

*\*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

### 802.11b/g/n/ax (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)
- 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

### 802.11a/n/ac/ax (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)
- 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 and 5 GHz

- 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
- Passpoint (Release 2)#
- 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
- Altai AirFi™ Throughput Optimization

## Antennas

### 2.4 GHz Antenna

- Built-in Antenna 14 dBi Sector
- Frequency 2.4 – 2.5 GHz
- Polarization 2x2 MIMO ±45° Polarized
- Horizontal Beamwidth 60° (-3 dB), 80° (-6 dB)
- Vertical Beamwidth 13° (-3 dB), 20° (-6 dB)
- VSWR 2 (Max.)

### 5 GHz Antenna

- Built-in Antenna 15 dBi Sector
- Frequency 5.150 – 5.875 GHz
- Polarization 2x2 MIMO ±45° Polarized
- Horizontal Beamwidth 80° (-3 dB), 110° (-6 dB)
- Vertical Beamwidth 7° (-3 dB), 10° (-6 dB)
- VSWR 2 (Max.)

## Networking

- Switch/Gateway Mode
- IPv4/IPv6# Dual-Stack
- 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, AltaiCare 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 491 x 221 x 100mm
- Weight 2.68 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 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 216 km/h (134 mph)
- Weatherproof IP67 Compliant
- MTBF 1,296,138 hours (25°C)  
351,883 hours (65°C)

## Certifications

- FCC/CE/Others
- RoHS Compliance

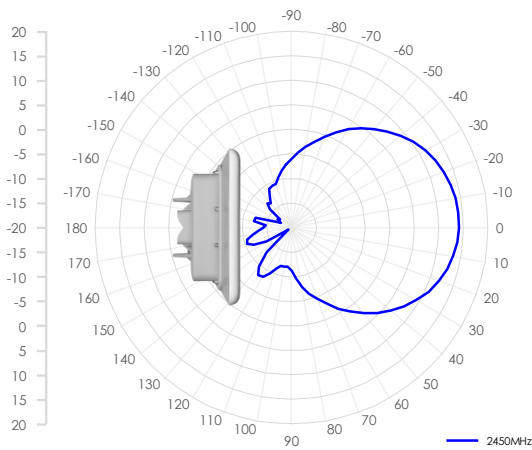
†License and firmware upgrade is required for the support of Check Point's Nano Agent.

‡The transmit power and operating frequency may vary according to country regulations.

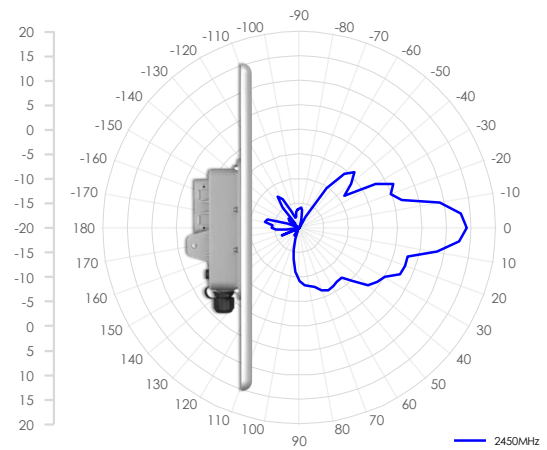
#Will be available in the future.

**Radiation Pattern**

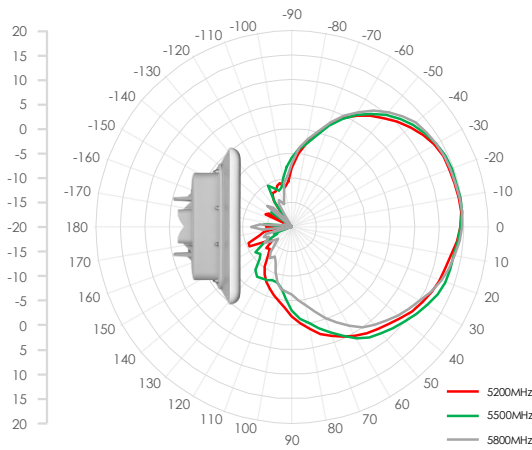
2.4GHz Azimuth Plane



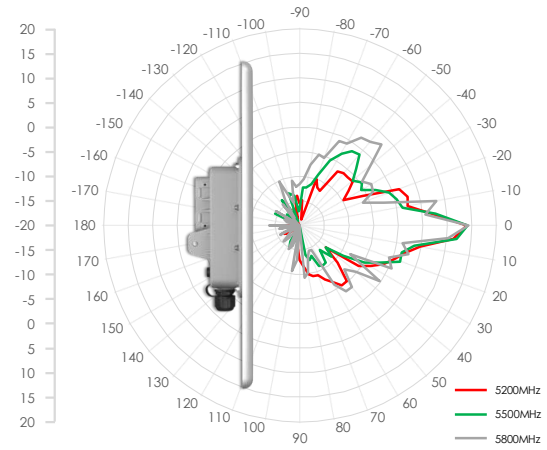
2.4GHz Elevation Plane



5GHz Azimuth Plane



5GHz Elevation Plane



**Product Ordering Information**

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

**Standard Package**

- AX600-S Dual-band 2x2 Wi-Fi 6 AP with integrated sector antenna (Model No.: AX600-S)
- Standard titling wall/pole mounting Kit

**Optional Accessories**

- 56 VDC 1Gb / 2.5Gb Passive PoE Injector

**Contact Us**

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AX6S-PB-230811

The information contained herein is subject to change without prior notice.