

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 1.775 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:



AltaiCare
Cloud/On-Premises



AltaiGate



† Check Point
Nano Agent

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

2.4GHz (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
- EIRP 100 mW (Max.)
- Modulation CCK, BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM
- 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

5GHz (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
- EIRP 200 mW (Max.) for 5.150 – 5.350 GHz
1000 mW (Max.) for 5.470 – 5.850 GHz
- Modulation BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM
- 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

- 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
- 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 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 216 km/h (134 mph)
- Weatherproof IP67 Compliant
- MTBF 1,296,138 hours (25°C)
351,883 hours (65°C)

Certifications

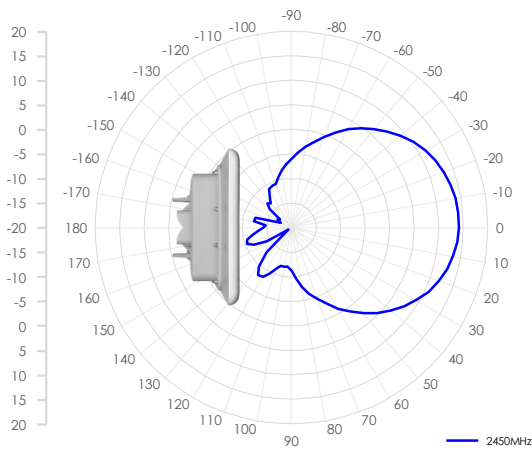
- FCC/CE/Others
- RoHS Compliance

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

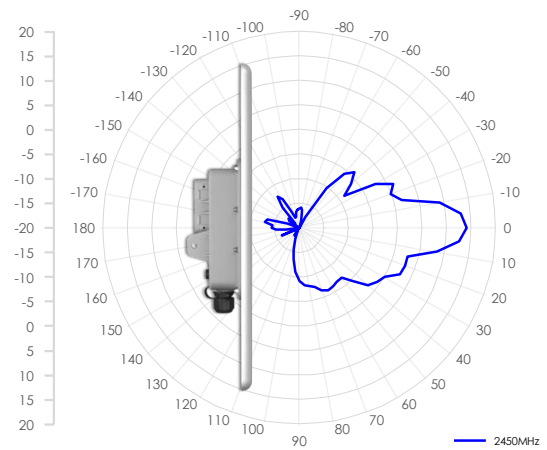
[#]Will be available in the future.

Radiation Pattern

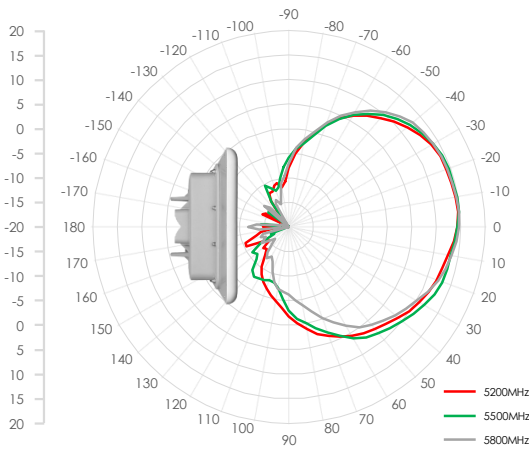
2.4GHz Azimuth Plane



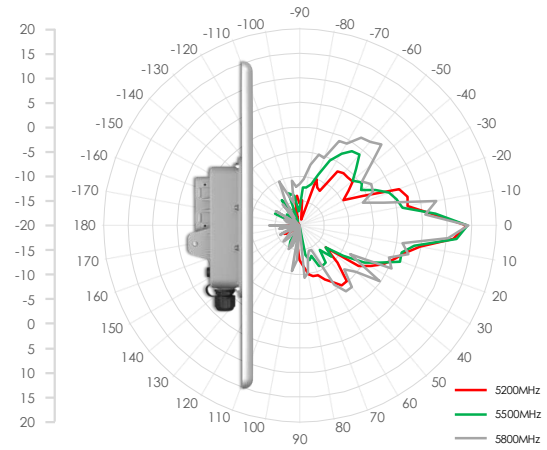
2.4GHz Elevation Plane



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 fitting wall/pole mounting Kit

Optional Accessories

- 56 VDC 1Gb / 2.5Gb Passive PoE Injector

Contact Us

- Email: sales@altaitechnologies.com

AX6S-PB-240829

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