Altai AX600-Sn Outdoor Wi-Fi 6 Access Point

The Altai AX600-Sn 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	1 km (2.4 GHz)* 2 km (5 GHz)*
Max. LOS Smartphones	500m (2.4 GHz)* 800m (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
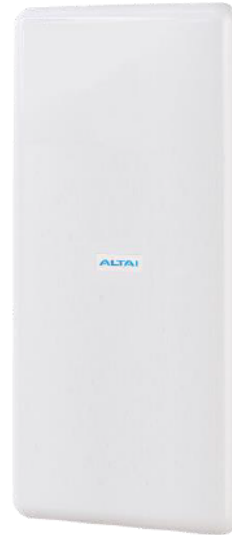
Use Cases:

») Industrial Applications

The rugged design of the AX600-Sn 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-Sn 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-Sn 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-Sn 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
- Transmit Power ‡ — 24 dBm (Max.) / 21 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

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
- Transmit Power ‡ — 24 dBm (Max.) / 21 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

- Built-in Antenna — 8 dBi Sector
- Polarization — 2x2 MIMO ±45° Polarized
- Horizontal Beamwidth — 60° ~80° (-3 dB ~ -6dB)
- Vertical Beamwidth — 13° ~20° (-3 dB ~ -6dB)
- VSWR — 2 (Max.)

5 GHz Antenna

- Built-in Antenna — 14 dBi Sector
- Polarization — 2x2 MIMO ±45° Polarized
- Horizontal Beamwidth — 80° ~110° (-3 dB ~ -6dB)
- Vertical Beamwidth — 7° ~10° (-3 dB ~ -6dB)
- 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, 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 — 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℃) / 351,883 hours (65℃)

Certifications

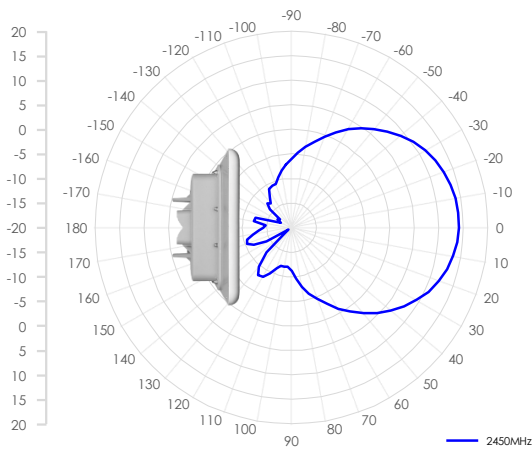- FCC/CE/Others
- RoHS Compliance

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

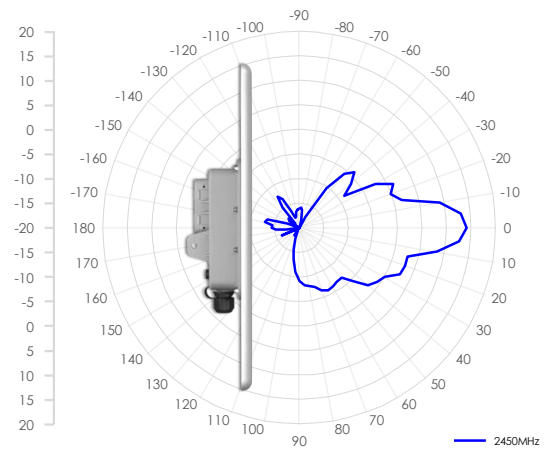.The transmit power and operating frequency may vary according to country regulations.

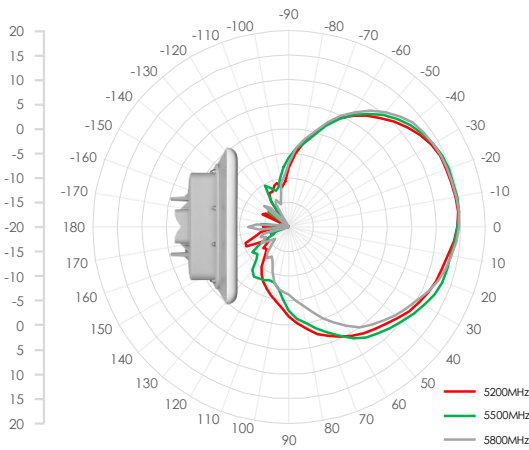#Will be available in the future.
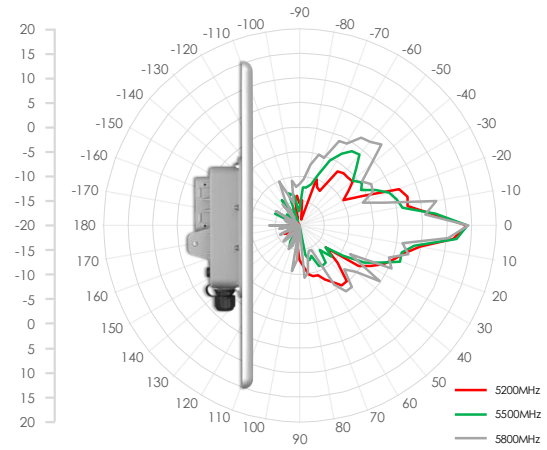
Radiation Pattern

2.4GHz Azimuth Plane

2.4GHz Elevation Plane

5GHz Azimuth Plane

5GHz Elevation Plane

Product Ordering Information

AX600-Sn (Part No.: SD.AX600-Sn EH40-001)

Standard Package

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

Optional Accessories

- 56 VDC 1Gb / 2.5Gb Passive PoE Injector

Contact Us

- Email: sales@altaitechnologies.com

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