

The Altai IX600, with the latest Wi-Fi 6 (802.11ax) technology, is specifically designed to provide highly reliable and consistent connectivity to mobile users and IoT devices at the market's most affordable price point.

With maximum data rates of 1.775 Gbps, Altai's patented technologies, and Wi-Fi 6 features such as OFDMA and bi-directional multi-user MIMO, the IX600 delivers the capacity, coverage, and reliability to meet the challenges for medium-density indoor deployments.



Features and Benefits



Enhanced Capacity with Wi-Fi 6 Support

Harnesses Wi-Fi 6 features such as OFDMA and bi-directional multi-user MIMO to significantly increase capacity on both 2.4 GHz and 5 GHz radios, ensuring superior performance.

Total Data Rate	1.775 Gbps (2.4 GHz: 574 Mbps + 5 GHz: 1201 Mbps)
Max. Concurrent Users	512 (256 per Radio)



Super Dual-Band Coverage

Max. LOS Distance for Smartphones	300 m (2.4 GHz)*
	250 m (5 GHz)*



Power over Ethernet (PoE) Support

With 802.3af/at standard PoE, the IX600 can be easily powered up by any PoE/PoE+ switches without the need for additional adapters.



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.



Seamless Mobility

Enables low-latency roaming and resolves sticky client issues with support for 802.11k/v/r and Altai's Smart Roaming and Steering algorithm.



Secure Wireless Protection

- Supports WPA3 for secure Wi-Fi access, offering advanced encryption protocols to safeguard data transmission.
- 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

Offers flexible management options through a variety of WLAN controllers, including AltaiGate, AltaiCare cloud/on-premise virtual appliance, and Insights, enabling quick and efficient network rollout regardless of the network size.

* The actual distance and performance vary depending on site conditions, device configurations and client capabilities.

Wireless Interfaces

2.4 GHz (2x2:2) Radio

• Operating Mode	AP/CPE (STA)/Repeater #		
• Standard	IEEE 802.11b/g/n/ax		
• Maximum Data Rate	574 Mbps		
• Operating Frequency †	2.400 – 2.484 GHz (Ch 1-13)		
• Channel Bandwidth	20/40 MHz		
• Transmit Power †	22 dBm (Max.), 19 dBm (Per Chain) Adjustable in 1 dB step		
• Receiver Sensitivity (Typical)			
802.11b	1 Mbps	-98 dBm;	11 Mbps -87 dBm
802.11g	6 Mbps	-94 dBm;	54 Mbps -77 dBm
802.11n	HT20, MCS0	-94 dBm;	HT20, MCS7 -76 dBm
	HT40, MCS0	-91 dBm;	HT40, MCS7 -73 dBm
802.11ax	HE20, MCS0	-94 dBm;	HE20, MCS11 -65 dBm
	HE40, MCS0	-92 dBm;	HE40, MCS11 -59 dBm

5 GHz (2x2:2) Radio

• Operating Mode	AP/CPE (STA)/Bridge/Repeater #		
• Standard	IEEE 802.11a/n/ac/ax		
• Maximum Data Rate	1201 Mbps		
• 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 †	22 dBm (Max.), 19 dBm (Per Chain) Adjustable in 1 dB step		
• Receiver Sensitivity (Typical)			
802.11a	6 Mbps	-92 dBm;	54 Mbps -75 dBm
802.11n	HT20, MCS0	-92 dBm;	HT20, MCS7 -75 dBm
	HT40, MCS0	-90 dBm;	HT40, MCS7 -72 dBm
802.11ac	VHT20, MCS0	-92 dBm;	VHT20, MCS9 -69 dBm
	VHT40, MCS0	-90 dBm;	VHT40, MCS9 -67 dBm
	VHT80, MCS0	-87 dBm;	VHT80, MCS9 -63 dBm
802.11ax	HE20, MCS0	-92 dBm;	HE20, MCS11 -62 dBm
	HE40, MCS0	-90 dBm;	HE40, MCS11 -61 dBm
	HE80, MCS0	-86 dBm;	HE80, MCS11 -58 dBm

Other Radio Specifications

- 20 SSID (10 SSID per Radio) by default, expandable to 32 SSID
- Hidden SSID in Beacons
- Client Association Control per SSID by SNR and Data Rate
- Bandwidth Control Per SSID/Client
- Auto Channel Selection and Interference Mitigation Suite
- Dynamic Frequency Selection (DFS) in 5 GHz spectrum
- Band Steering #
- Multi-AP Steering and Stickiness Optimization (802.11k/v) #
- Fast Roaming (802.11r)
- QoS: 802.11e (WMM)
- Dual-Radio and 1+N Redundancy #
- Transmit Power Control (802.11h) #

Antennas

• 2.4 GHz Antenna	Built-In 3 dBi Omni, 2x2 MIMO
• 5 GHz Antenna	Built-In 5 dBi Omni, 2x2 MIMO

Networking

- Switch/Gateway Mode
- IPv4/IPv6 Dual-Stack
- NAT

- DHCP Client/Server
- PPPoE Client #
- VLAN per SSID
- VLAN per User (Dynamic VLAN)
- VLAN Pooling
- 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
- Management Frame Protection (802.11w)
- Inter/Intra-SSID Client Isolation
- MAC-based Access Control (White/Black List)
- RADIUS
- Multiple PSK
- External Captive Portal
- Trusted IP Management Access
- WIDS/WIPS #
- Check Point Nano Agent

Management

- Management Platforms: Standalone, AltaiGate, AltaiCare Cloud, AltaiCare On-Premises, Insights
- SNMP v1/v2c /v3
- MIB2/IF-MIB/Altai Enterprise MIB
- Syslog
- Remote Factory Reset #

Physical Specifications

• Dimension	160 x 160 x 33 mm
• Weight	0.43 kg
• Mounting	Ceiling, Pole or Wall-mounted
• Network Interface	1 x 10/100/1000Mbps RJ-45 Port (PoE In)
• Indicator	1 x Power Status 1 x Ethernet Interface Status 2 x Radio Interface Status
• Reset Button	Onboard
• Security	Kensington Lock Slot

Power

• Power Supply ‡	802.3af/at PoE PD, or Passive 48 – 54 V PoE PD, or 12 VDC Jack, Ø5.5 x Ø2.1 x 10 mm
• Power Consumption	12 W (Typical)

Environmental Specifications

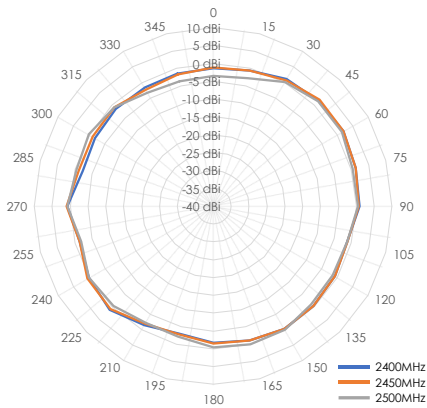
• Operating Temperature	0 °C to +40 °C (Ambient)
• Storage Temperature	-30 °C to +70 °C
• Humidity	Up to 90% (Non-Condensing)

Certifications

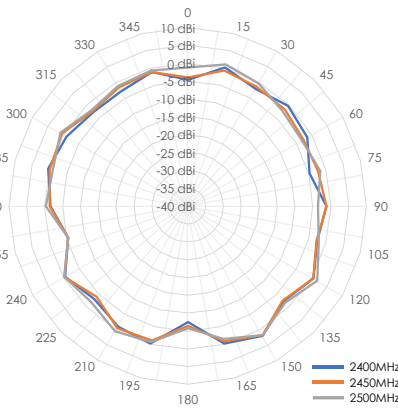
- FCC/CE/Others
- RoHS2 Compliance

† The transmit power and operating frequency may vary according to country regulations.
‡ Power accessories including PoE injectors and AC-to-DC adapters are not included.
Will be available in the future.

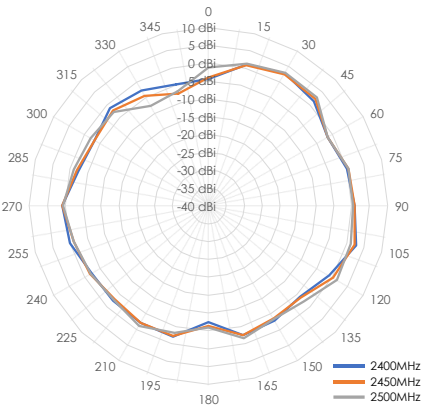
Radiation Pattern



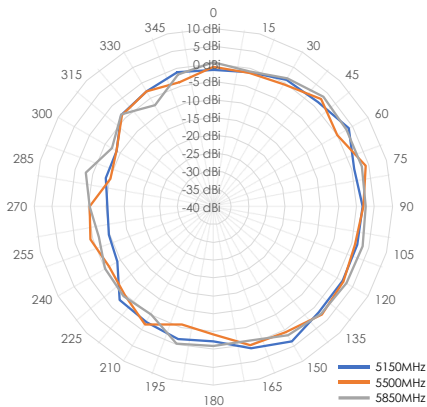
2.4 GHz XY Plane



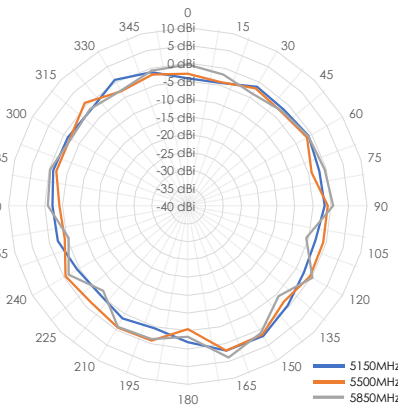
2.4 GHz XZ Plane



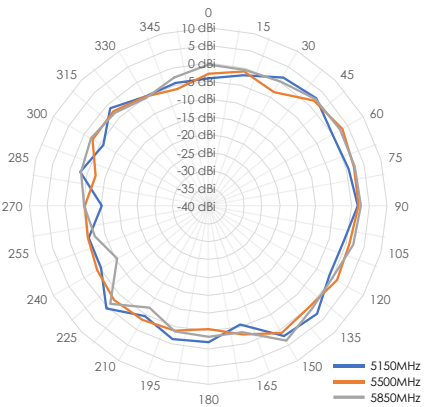
2.4 GHz YZ Plane



5 GHz XY Plane



5 GHz XZ Plane



5 GHz YZ Plane

Product Ordering Information	
Standard Package	
Part No.: SD.IX600-2241-000	<ul style="list-style-type: none"> IX600 Indoor 2x2 Wi-Fi 6 Access Point with Integrated Omni Antenna (Model No.: IX600) Ceiling/Wall/pole mounting Kit
Optional Accessories	
Part No.: SD.PE-A201-00	<ul style="list-style-type: none"> 54V Gigabit Passive PoE Injector
Contact Us	
<ul style="list-style-type: none"> Email: sales@altaitechnologies.com or info@altaitechnologies.com 	

IX600-PB-240413

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