

## Altai IX500 Indoor 2x2 802.11ac Wave 2 AP

The Altai IX500, with next generation 802.11ac Wave 2 technology, is specifically designed to deliver unparalleled Wi-Fi experience and highly reliable and consistent services to mobile users at the market's most affordable price point.

The IX500 offers several powerful features to meet the challenges of today's Wi-Fi networks:

- By allowing simultaneous transmissions from AP to multiple clients, MU-MIMO increases the capacity of the IX500 substantially
- Altai's Advance Interference Mitigation Suite provides significant reduction in interference
- AirFi technology enhances the performance of the IX500 by optimizing clients' throughput based on their signal strength and traffic
- Altai's smart band steering and load balancing technologies allow the IX500 to effectively utilize both 2.4GHz and 5GHz spectrums for supporting a large number of mobile users running bandwidth hungry applications



### Applications

- With AltaiCare and its powerful access management features and advertisement engine, the IX500 delivers the best-in-class indoor Wi-Fi hotspot solution with extensive login options such as free access, email registration and verification, pay-to-access, and social media logins
- The IX500, together with AltaiCare, allows plug-and-play Wi-Fi network deployment and offers a pay-as-you-grow model. Thus, it is ideally suited for small and mid-size enterprises
- Due to its superior range and capacity, the IX500 offers the most cost effective solution that delivers highly reliable dual-band Wi-Fi services for venues such as schools, hotels, retail stores, and warehouses

### Super Dual-band Coverage

Max. LOS Access	350 m (2.4 GHz) 250 m (5 GHz)
Max. Data Rate	400 + 867 Mbps

### Key Features and Benefits

- **Best value in price/performance** Dual band 802.11ac wave 2 with extended coverage at the market's most affordable price point
- **MU-MIMO Increases Capacity** By allowing simultaneous transmissions from AP to multiple clients, MU-MIMO increases the capacity of IX500 substantially
- **Dual-Band Dual-Concurrent** The IX500 delivers data rates of up to 867 Mbps in 5GHz and 400 Mbps in 2.4GHz. This, together MU-MIMO, allows a Wi-Fi network to support a large number of mobile users running high bandwidth applications
- **Advance Interference Mitigation** Altai's Advance Interference Mitigation Suite offers optimal capacity and interference rejection
- **AirFi optimizes capacity** AirFi enhances the IX500's capacity by optimizing a client's throughput based on its signal strength and traffic
- **Low profile housing design** Sleek, low profile design allows it to blend into any surrounding environment
- **Flexible Management Options** Standalone, controller-based management with AltaiGate, or cloud-based management with AltaiCare
- **Ease of Deployment** Zero configuration of AltaiCare allows a non-technical person to simply unpack and plug the IX500 to Wi-Fi network.
- **IP 55 Rating** Flexible even in outdoor applications

## Wireless Interface

### 802.11b/g/n (2x2:2) Radio

- Operating Mode AP/CPE/Repeater
- Standard IEEE 802.11a/b/g/n
- Operating Frequency 2.400 – 2.484 GHz (Ch 1-13)
- EIRP 100mW
- Receiver Sensitivity (Typical)
 

802.11b	11 Mbps	-88 dBm;	1 Mbps	-91 dBm
802.11g	54 Mbps	-73 dBm;	6 Mbps	-88 dBm
802.11n	HT20	-91 dBm;	HT40	-85dBm

### 802.11a/n/ac (2x2:2) Radio

- Operating Mode AP/CPE/Bridge/Repeater
- Standard IEEE 802.11a/b/g/n/ac
- MU-MIMO Up to 2 Streams
- Operating Frequency
 

5.150 – 5.350 GHz	
5.470 – 5.725 GHz	
5.725 – 5.850 GHz	
- EIRP 1000mW
- Receiver Sensitivity (Typical)
 

802.11a	54 Mbps	-73 dBm;	6 Mbps	-88 dBm
802.11n	HT20	-90 dBm;	HT40	-84 dBm
802.11ac	VHT20	-90 dBm;	VHT40	-84 dBm;
	VHT80	-81 dBm		

### For both 2.4 and 5 GHz

- 32 SSID (16 SSID per Radio)
- 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 1+ 1 Redundancy\*
- Smart Mesh Networking\*
- Auto Channel Selection and TX Power Control
- Bandwidth Control Per SSID/Client
- Altai AirFi™ Throughput Optimization

## Antenna

### 2.4 GHz Antenna

- Built-in Antenna 4 dBi Omni
- Frequency 2.4 – 2.5 GHz
- Polarization 2x2 MIMO Diversity Polarized
- Horizontal Beamwidth 360° (-3 dB)

### 5 GHz Antenna

- Built-in Antenna 5 dBi Omni
- Frequency 5.150 – 5.875 GHz
- Polarization 2x2 MIMO Diversity Polarized
- Horizontal Beamwidth 360° (-3 dB)

## Networking

- Switch (Bridge) and Gateway Mode
- IPv4/IPv6 Dual-Stack
- NAT
- DHCP Client/Server
- PPPoE Client
- Soft-GRE
- VLAN
- Multicast Rate Filter/IGMP Snooping

## Security

- Authentication – Open, Shared key, WPA/WPA-PSK, WPA2/WPA2-PSK, WPA3\*, 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
- Dynamic VLAN Assignment
- Firewall
- WIDS/WIPS
- Broadcast/Multicast/Unicast Flooding Control

## Management

- Management Platforms: AltaiGate, AltaiCare, AltaiCare Appliance
- Web User Interface
- Command Line Interface (SSH)
- Remote Factory Reset
- Trusted Management IP List
- SNMP v1/v2c/v3
- MIB2/IF-MIB/Altai Enterprise MIB
- Syslog
- Spectral Analysis\*
- KPI Monitoring\*
- Client OS and Hostname Detection

## Physical Specification

- Dimension 142 mm x 142 mm x 34 mm
- Weight 0.3 kg
- Mounting Ceiling, T-Rail, or Wall-Mounted
- Network Interface 1 x 10/100/1000 Mbps Ethernet Port

## Power Supply

- Power Supply 802.3af/at PoE 12 VDC
- Power Consumption 8 W (Typical)/12 W (Max.)

## Environmental Specification

- Operating Temperature -10 °C to + 50 °C
- Storage Temperature -30 °C to + 80 °C
- Humidity Up to 90% (Non-Condensing)
- Weatherproof IP55 Compliance

## Certification

- FCC/CE/Others
- RoHS Compliance

## Product Ordering Information

### IX500 (Part No.: SD.IX500-2231-OUK/OUS/OEU)

- IX500 Indoor 2x2 802.11ac Wave 2 AP with Integrated 2.4 GHz and 5 GHz Omni Antennas
- Indoor Mounting Accessories
- 12 VDC AC/DC Adapter (UK, US, or EU)
- Quick Start Guide

### Optional Accessories

- Outdoor Mounting Accessories

### Contact Us

- Email: sales@altaitechnologies.com

IX500-PB-200410

\*Will be available in the future.

The coverage range will vary depending on NLOS and interference conditions  
The transmit power may vary according to country regulation