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

Super Dual-band Coverage

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

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

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 appliacations

Wireless Interface

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

• Operating Mode	AP/CPE/Repeater
• Standard	IEEE 802.11b/g/n
• Operating Frequency	2.400 – 2.484 GHz (Ch 1-13)
• Transmit Power	25 dBm (Max.)
• 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/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
• Transmit Power	24 dBm (Max.)
• 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, AtlaiCare 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 x142 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.IX500-2231-0UK/0US/0EU)
- 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-191213

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