Altai VX200 Dual-Band CPE/AP

The Altai VX200 is an industrial CPE/AP specifically designed to deliver unparalleled Wi-Fi experience and highly reliable connectivity at the market's most affordable price point.

The VX200 offers several powerful features to meet the challenges of today's industrial Wi-Fi networks:

- Together with the A8n (ac) or the A3-Ei, VX200 delivers over ten times the coverage of any conventional Wi-Fi solution
- Altai's Fast Roaming technology allows VX200 to roam seamlessly between APs, with millisecond-level handover time
- Support industrial communications standards such as PROFINET
- Advanced Interference Mitigation Suite offers significant reduction in interference in harsh and noisy industrial environments
- Due to the wide operating temperature range and a robust design with enhanced surge, ESD, and vibration protection, VX200 can be used in harshest conditions with the highest reliability

Super Dual-band Coverage

Max. LOS AP Access with 5dBi Omni	350 m (2.4 GHz) 250 m (5 GHz)
Max. LOS CPE with 5dBi Omni	2 km to A8-Ein (ac) 1.5 km to A3-Ei
Max. Data Rate	300 + 867 Mbps

Applications

- The VX200, with fast roaming technology, enhanced vibration protection and compact design, is ideally suited for installation on AGV or AS/RS platform in factories, logistics centers, and warehouses

- Due to its superior coverage and flexible deployment options, the VX200 is the most affordable high-performance CPE in the market for real-time device monitoring, remote management, and data collection in a wide range of industrial environments

- With support for industrial standards such as PROFINET, the A8n (ac) Super WiFi Base Station/ A3-Ei AP and VX200 offers the most cost-effective solution for factory automation, enabling automate production across all levels

Key Features and Benefits

- **Dual-Band Concurrent** Operating in both 2.4 GHz and 5 GHz bands, the VX200 is backward-compatible with existing 802.11a/b/g/n/ac deployments

- **Wave 2 MU-MIMO** MU-MIMO significantly improves multi-client capacity, and dual radios deliver data rates up to 867 Mbps at 5 GHz and 400 Mbps at 2.4 GHz

- **Fast Roaming Technology** Allows the VX200 to roam seamlessly between APs, with handover time of < 120 ms under WPA2

- **Redundant Link** VX200's dual radios can connect to two APs simultaneously, with one as an active link and the other as backup, ensuring a highly reliable wireless connection

- **Compact Size** The VX200's size is 120x85x32mm; making it one of the smallest Industrial CPEs in the market

- **Anti-Vibration** Enhanced vibration and shock protection (IEC60068-2-6 and IEC60068-2-27 standards) makes the VX200 ideally suited for installation on AGV/AS/RS platforms

- **Industrial Ruggedness** Integrated power isolation and enhanced surge and ESD protection against environmental interference

- **Graphene Coating** Industrial-grade housing with Advanced Graphene Coating helps VX200 dissipate heat even in confined space.

- **Flexible Deployment Options** Supported by multiple management platforms: standalone, controller, or cloud-based / on-premises by AltaiCare

Wireless Interfaces

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	1 Mbps	-90 dBm
	11 Mbps	-90 dBm
802.11g	6 Mbps	-86 dBm
	54 Mbps	-73 dBm
802.11n	HT20	-86 dBm
	HT40	-83 dBm

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   25 dBm (Max.)
- Receiver Sensitivity (Typical)

802.11a	6 Mbps	-88 dBm
	54 Mbps	-73 dBm
802.11n/ac	HT20	-88 dBm
	HT40	-85 dBm
	VHT20	-88 dBm
	VHT40	-85 dBm
	VHT80	-83 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

Antennas

- Antenna Connector   2 x RP-SMA Female

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 Specifications

- Dimension   120 mm x 85 mm x 32 mm
- Weight   0.2 kg
- Mounting   DIN-Rail Mount, Wall Mount
- Network Interface   1 x 10/100 /1000 Mbps Ethernet Port
- Serial Interface   DB9 Male
- Serial Standard   RS-232

Power Supply

- Power Supply   DC Input (12 to 48 VDC) 802.3af/at PoE PD
- Power Consumption   8 W (Typical)/12 W (Max.)

Environmental Specifications

- Operating Temperature   -20 °C to +60 °C
- Storage Temperature   -40 °C to +75 °C
- Humidity   Up to 95% (Non-Condensing)
- Corrosion/Thermal Protection   Advanced Graphene Coating
- Surge Protection   EN 61000-4-5: ±4kV CM, ±2kV DM (10/700us)
- Vibration Protection   IEC60028-2-6/IEC60068-2-27
- IP Rating   IP 30

Certifications

- FCC/CE/Others*
- RoHS Compliance

Product Ordering Information

VX200 (Part No.: SD.VX200-2231-002)
- VX200 Dual-Band 2x2 802.11ac Wave 2 CPE/AP
- Wall Mounting Kit
- DIN-Rail Mounting Kit
- 2 x Dual-Band 3 dBi Omni Antennas

Optional Accessories
- Dual-Band 5 dBi Omni Antennas

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VX200-PB-200326

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