AS250

802.11ax, 2x2, Dual-Band
Indoor Access Point

Product Specification

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Description

Z-COM AS250 is high performance Wi-Fi 6 enterprise indoor access point and perfect choice for campus, restaurant, offices, clinic, and commercial spaces etc.

AS250 verifies on user capacity up to 1024 Wi-Fi clients, fully comply with IEEE 802.11ax, OFDMA Modulation, MU-MIMO, and BSS Color Spatial Reuse, and provides up to 65% higher total throughput in Wi-Fi 5 environment. The Z-COM AS250 significantly improves network coverage in different corners in an industrial field environment with advanced security. Z-COM AS250 can serve dual-band 5GHz and 2.4GHz radio at the same time.

Feature

- Dual-band Wi-Fi 6 (802.11ax), backward compatible with Wi-Fi 5 (802. 11ac)
- Support up to 1,200 Mbps in 5GHz and 574 Mbps in 2.4GHz
- Max. EIRP up to 30dBm in 5GHz and 30dBm in 2.4GHz
- Internal dual-band antennas
- Target wake time for power-saving of clients & IoT devices
- Uplink and downlink of MU-MIMO improves transmission to APs and client devices
- Support up to 2.5 Gbps WAN and LAN faster than standard Ethernet to increase network performance to boost productivity

ZCOM

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Overview

Network Performance

Ultra-Fast Wi-Fi 6 Data Rate

Simultaneous 574 Mbps on 2.4 GHz and 1200 Mbps on 5 GHz totals 1774 Mbps Wi-Fi 6 speeds.

High Capacity and Reliable Connections

Z-COM AS250 ensures large numbers of users have smooth and reliable network experiences in high-density business networks.

Flexible Power Options with 2.5Gbps PoE+ Ethernet

AS250 delivers exceptional performance to support the demand for better Wi-Fi with optimized wired performance, 2.5Gbps Ethernet port. Compatibility with standard 802.3at PoE+ is ideal for flexible deployment.

Multiple Applications

Allows to perform multiple functions, ideal for various scenarios like campus, restaurant, offices, clinic, and commercial space.

Security and Installation

Advanced Enterprise Security, WPA3

This is another level of security over the older WPA2 technology. By using 192-bit encryption key, more secure encryption of passwords and enhanced protection against brute-force attacks combine to safeguard your Wi-Fi.

Easy and Flexible Installation

The AS250 provides the necessary parts for installation and features Plug-and-play and configuration free for celling and wall installation.

Advanced Setting with FAP/TAP

AS250 come with pre-configuration default settings with TAP mode. Users are able to select APs tunnel by advanced settings for centrally managed traffic forwarding and segmentation, data encryption, and policy enforcement to optimize network performance, roaming and security.

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Addition Software Features

Fast Roaming*

AS250 provides fast roaming IEEE 802.11r/802.11k for reliable data and seamless switching to the access point with optimal signal when moving between APs.

Remote VPN Deployment*

With the VPN tunnel you can run both a SSL/IPSec VPN tunnel and an ordinary internet connection – simultaneously.

Dynamic Channel Allocation*

Dynamic channel allocation eliminates the time consuming and error-prone task of managing complex and static VLANs by dynamically assigning policies and keeping traffic secure and separated.

Optimized RF Management*

Airtime Fairness, Load Balance, and Band Steering Technologies guarantee optimal RF performance for wireless applications.

Centralized Management Optional*

AS250 are allowed to configure and manage multi-APs in a centralized choices include zMEC (container-based) or Wireless LAN Controller solutions.
Through Z-COM WLC that includes troubleshooting, efficiency-optimized and enjoys simple management, configuration and monitoring of all access points.

With zMEC, the platform for edge computing and PaaS, manages virtualized applications and import software by any x86 servers under different applications.

Technical Benefits

Advantages of OFDMA

OFDMA is ideal for bandwidth applications which results in more efficient channel use , reduced latency, and increased efficiency to clients share a channel and not competing for airtime and bandwidth.

Uplink and downlink of MU-MIMO

Serve multiple devices simultaneously that enhances the capacity of connected devices for both uplink and downlink data transmission.

Reduced Interference and Waiting Time

Maximizes network performance by working even within heavily congested, co-channel interference environments.

Transmit Beamforming

AS250 with beamforming design (TxBF) to improve the signal strength and achieve higher range to a single client for RF reliability.

Note: *The function actives with Z-COM wireless controller or zMEC.

Specification

Wi-Fi		
Wireless Standards	IEEE 802.11 a/b/g/n/ac/ax	
Physical Data Rates Supported Rates	802.11ax: 4 to 1200 Mbps 802.11ac: 6.5 to 866 Mbps 802.11n: 6.5 to 300 Mbps 802.11a/g: 6 to 54 Mbps 802.11b: 1 to 11 Mbps	
Bandwidth Channelization	2.4GHz: 20/40 MHz	5GHz: 20/40/80 MHz
MIMO	MU-MIMO	
Radio Chains and Streams	2.4GHz: 2×2:2 5GHz: 2×2:2	
Frequency Bands and Operating Channels	Taiwan	US
	2.412 – 2.462 GHz;11 channels 5.180 – 5.320 GHz ;8 channels 5.500 – 5.720 GHz ;12 channels 5.745 – 5.825 GHz ;5 channels	2.412 – 2.462 GHz;11 channels 5.180 – 5.320 GHz ;8 channels 5.500 – 5.720 GHz ;12 channels 5.745 – 5.825 GHz;5 channels
	EU	China
	2.412 – 2.472 GHz;13 channels 5.180 – 5.320 GHz;8 channels 5.500 – 5.700 GHz ;11 channels	2.412 – 2.472 GHz;13 channels 5.180 – 5.320 GHz;8 channels 5.745 – 5.825 GHz;5 channels
	Japan	India
	2.412 – 2.472 GHz;13 channels 5.180 – 5.320 GHz;8 channels 5.500 – 5.720 GHz;12 channels	2.412 – 2.472 GHz;13 channels 5.180 – 5.320 GHz ;8 channels 5.500 – 5.720 GHz ;12 channels 5.745 – 5.865 GHz ;7 channels
	*Operating Channel depends on configured regulatory domain.	

RF		
Antenna Type	Internal	
Antenna Gain (max)	2.4GHz: 4dBi	5GHz: 4dBi
EIRP	2.4GHz: 30dBm	5GHz: 30dBm
Frequency Bands	ISM (2.4-2.484GHz) U-NII-1 (5.15-5.25GHz) U-NII-2A (5.25-5.35GHz) U-NII-2C (5.47-5.725GHz) U-NII-3 (5.725-5.85GHz)	

PERFORMANCE AND CAPACITY

Peak PHY Rates	2.4 GHz: 574 Mbps 5 GHz: 1200 Mbps
Client Capacity	1024

PERFORMANCE TABLE

	2.4GHz TX TARGET POWER (PER CHAIN)		5GHz TX TARGET POWER (PER CHAIN)	
MU HE40	MCS0	23dBm±2dBm	MCS0	23dBm±2dBm
	MCS11	16dBm±2dBm	MCS11	15dBm±2dBm
MU VHT40	MCS9	20dBm±2dBm	MCS9	17dBm±2dBm
	2.4GHz RECEIVE SENSITIVITY		5GHz RECEIVE SENSITIVITY	
HE20	MCS0	<-82dBm	MCS0	<-82dBm
	MCS11	<-52dBm	MCS11	<-52dBm
HE40	MCS0	<-79dBm	MCS0	<-79dBm
	MCS11	<-49dBm	MCS11	<-49dBm
HE80			MCS0	<-76dBm
			MCS11	<-46dBm

INTERFACE

Ethernet	1x 10/100/1000M/2.5Gbps WAN Port 1x 10/100/1000M/2.5Gbps LAN Port	
Addition	1x Reset Button	
Power	**Power Supply**	**Consumption**
	WAN Port: PD Input (802.3at) LAN Port : PSE Output (802.3af) DC Jack: DC 48 V/1A	≤ 25W
Bluetooth	**Version**	**Frequency**
	5.0	2400 ~ 2480MHz
Environmental	**Storage**	**Operating**
	Temperature: -40~ 70 ℃ Humidity: 5 ~ 95%	Temperature: -15 ~ 55 ℃ Humidity: 5 ~ 95% (non-condensing)

STANDARDS	
Compliance Standards	IEC/EN 62368-1:2020+A11:2020 (Ed. 3) EN 55032:2015/A11:2020 EN 55035:2017/A11:2020 WEEE & RoHS **IEEE standards:** IEEE 802.11a/b/g/n/ac/ax IEEE 802.11d, e, h, i, j, k, r, u, v time stamp, w, and z standards **Multimedia:** Wi-Fi multimedia (WMM) **Security:** Open System 802.1x WPA-PSK/WPA-Enterprise WPA3-PSK **Extensible Authentication Protocol (EAP) types:** EAP-Transport Layer Security (TLS) EAP-Tunneled TLS (TTLS) Protected EAP (PEAP) EAP-Subscriber Identity Module (SIM) *Above partial functions should be configured by Z-COM Wireless LAN Controllers (WLC)

MECHANICAL	
Mounting Method	Ceiling/Wall
Dimensions	217.46 (L) × 216.65 (W) × 58.24 (H) mm
Anti-static Grade	IEC61000-4-2(Criteria B) Air: ±8kV Contact: ±4kV
Green	RoHS compliant
LED Definition	LED by SW control - Steady: Connected to the Internet. - Blinking: Can't connect to the Internet.
Supported WLC or container-base	- WS5G2 / WS7G2 /WS10G2 / WS200G2 / WS500G2 / WS1000G2 - zMEC
IP rating	IP41
Warranty	1 year