Datasheet

Wi-Fi 6 5400Mbps Outdoor Directional Wireless Access Point

WI-AP520AX-D



Overview

WI-AP520AX-D is a high-performance outdoor directional Access Point. Complying with 802.11ax Wi-Fi 6 standards, it provides concurrent dual-band with access rate up to 5.4Gbps. Supporting 4x4 MU-MIMO, OFDMA, 1024-QAM and 160MHz, WI-AP520AX-D can ensure multiple clients access to the Internet at the same time and enables improved data transmission efficiency, which makes it capable of providing outstanding performance in outdoor high-density public venues such as amusement parks, plazas, outdoor stadiums, indoor warehouse and etc,. Equipped with IP67 ingress protection, 6kV lighting protection and 18kV ESD protection, it can withstand extreme weather and other environmental conditions, which significantly reduces maintenance. In addition, the AP also supports cloud management functions. Users can quickly complete network-wide equipment configuration, remote management, and operation and maintenance, greatly reducing equipment costs, labor costs and time costs for wireless network construction.

Features

Blazing-fast Wi-Fi 6 Speed up to 5.4Gbps

Adopting 802.11ax Wi-Fi 6 standard, it delivers ultra-fast wireless speed of uo to 5.4Gbps, which allows users to smoothly enjoy network applications such as large file downloading and video conferencing.

Built-in High-Gain Directional Antennas

Equipped with 12dBi high-gain Antennas, WI-AP520AX-D provides extensive wireless coverage and strong signal, which ensures the devices can have stable Internet access.

Flexible Internet Access with 1GE RJ45 Port and 2.5G SFP Slot

With 1GE with and 2.5G SFP Slot, WI-AP520AX-D provides flexible Internet Access. 2.5G SFP Slot can boost Internet speed and supports up to 20km transmission.

802.3at PoE Input for Flexible Deployment

Supporting 802.3at PoE Input, which enables flexible deployment and cost–savings.

Industrial Design for Outdoor Extreme Environments

Ip67 Ingress Protection, 6kV lighting protection and wide operating temperature makes it capable of withstanding the extreme environments, which ensures normal operation of the device and reduces maintenance costs.

OFDMA and MU–MIMO Technology

Coming with OFDMA and MU–MIMO technology, WI–AP520AX–D enables more efficient channel use and ensure multiple device terminals online at the same time even in the congested environments.

Enables higher capacity with 1024–QAM

With 1024–QAM modulation, there are more bits per symbol–10 bits per symbol versus 8 bits in 256 QAM, improving speeds by 25% compared to 802.11ac 256–QAM, which meets ever–increasing network traffic demands from high–demand applications.

Cloud Management

Wi–Tek Cloud’s quick installation and configuration provide reliable performance, visual managemment,which is easy to operate and maintain and remote access.

Specifications



Model	WI-AP520AX-D
Hardware Version	V1
Hardware Features	
Memory	1GB RAM, 128MB Flash
Interface	1× 2.5Gbps SFP Slot 1*10/100/1000Mbps RJ45 PoE+ Input Port 1*Reset Button (long press for 8 seconds to restore the factory default configuration)
Power Supply	802.3at PoE IN
Power Consumption (max)	25.5W
Wireless Features	
Standards	IEEE 802.11a/b/g/n/ac/ax
Data Rates	2.4GHz: up to 574Mbps 5GHz: up to 4804Mbps
MIMO	2.4GHz: 2x2 MU-MIMO 5GHz: 4x4 MU-MIMO
Antenna Gain	2.4GHz: 8dBi 5GHz: 12dBi
Antenna Beamwidth	Horizontal: 65° Vertical: 45°
Frequency	2.4GHz: 2.4GHz-2.484GHz 5GHz: 5.150GHz-5.850GHz *Please follow national regulations to select the appropriate frequency.
Channel Width	2.4GHz: 20/40MHz 5GHz: 20/40/80/160MHz
Max. TX power	≤23 dBm(2.4GHz) ≤22 dBm(5GHz)

Model	WI-AP520AX-D
Software Features	
Recommended Number of Clients	130
Wireless Mode	Fit AP/Repeater/Wireless Router/WISP Mode (Default: Fit AP mode)
Network	LAN: Static IP, Dynamic IP WAN: Static IP, Dynamic IP, PPPoE Client
Wireless	Wireless Disable or Enable Modify default SSID SSID Hiding
Wireless Security	WPA-TKIP , WPA2-AES, WPA1/WPA2-Mixed, WPA2/WPA3-Mixed, WPA/WPA2-Enterprise
VLAN	Supports IEEE 802.1Q VLAN Supports SSID-to-VLAN mapping
Wi-Fi Schedule	Yes
RF Parameter	Adjustable Country Auto Channel Width Selection Automatic Frequency Selection Adjustable Transmission Power Max Associated STA Weak Signal Rejection Threshold User Isolation Supports Wi-Fi Multimedia (WMM)
Advanced	Multiple SSID (Up to 8 per radio) Ping Watchdog Scheduled Reboot DHCP Server NTP Server Diagnosis: PING, TRACERT

Model	WI-AP520AX-D
Status Monitoring	Base Info: LAN/WAN Info, Wireless Info, System Info Radio Status Real Time Flow Chart Wireless Terminal Station SSID List DHCP Client ARP Table Routing Table
Management	Quickly scan devices by discovery tools Web-based management by locally Support remote management by cloud platforms and applications Support AC management
Reliability	Ingress Protection: IP67 Lighting Protection: 6kV ESD Protection: Contact discharge ±18KV Air discharge ±18KV
Environment	Operating Temperature: -40℃-70℃ (-40°F-158°F) Storage Temperature: -40℃-70℃ (-40°F-158°F) Operating Humidity: 10%~95% (non-condensing) Storage Humidity: 5%~95% (non-condensing)
Others	
Certification	CE, FCC, ROHS, UKCA, RCM
Product Dimension (excluding mounting kits)	308*320*69mm
Mounting Kit Dimension	229*170*170mm
Weight (excluding mounting kits)	3.19kg

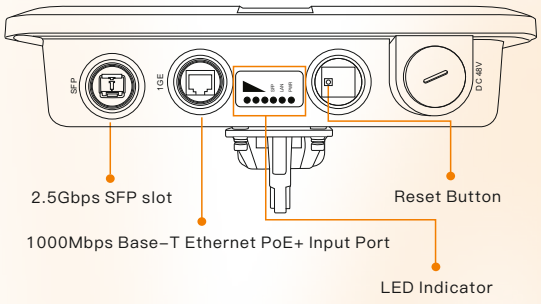
Model	WI-AP520AX-D	
Fast-Roaming AP Combo Recommendations		
Type	Model	Hardware Version
Celling-Mount	WI-AP217	V2
	WI-AP218AX	V2
	WI-AP219AX	V2
	WI-AP219AX-Lite	V1
	WI-AP229BE	V1
Wall-Plate	WI-AP419P	V1
Outdoor	WI-AP315	V1
	WI-AP316AX	V1
	WI-AP317	V1
	WI-AP510	V1
	WI-AP518AX	V1
	WI-AP520AX-D	V1

WI-AP520AX-D

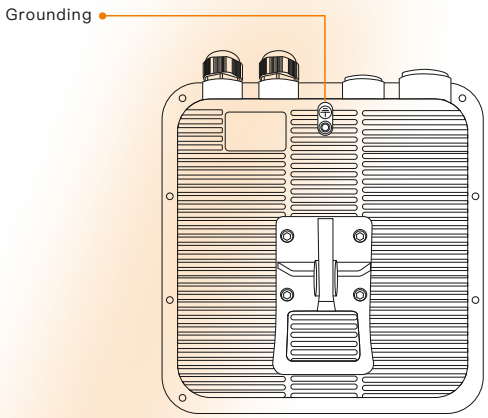
Dimensions (mm)



Bottom



Rear Panel



Package Contents

Welcome to order our products. After purchasing, you will receive:

Items	Quantity
AP	1 pcs
Waterproof Gland	2 pcs
Rubber Plug	2 pcs
M6 x 30 Screws	2 pcs
M6 x 16 Screws	5 pcs
Power Adapter	1 pcs
Metal Tie Accessory	2 pcs
Mounting Bracket	3 pcs
Quick Installation Guide	1 pcs

Wireless-Tek Technology Limited
Address:Building 3, Units 1801-1807, 1812, Huaqiang Era Plaza, Tangwei Community, Fuhai Street, Bao'an District, Shenzhen City, Guangdong Province, China.
Website:www.wireless-tek.com
Tel:86-0755-32811290
Email:sales@wireless-tek.com
Technical Support:tech@wireless-tek.com

Technical Support | Cloud Management | Company Website

©2025 Wireless-tek Technology Limited. All Rights Reserved.
Version,V1.0, updated 2025.11.07.
The information in this document is subject to change without notice.
Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.