WL8200-X10

Indoor 802.11ax Wi-Fi 6 Triple Band Enterprise AP

Product Overview

WL8200-X10 is a next generation Wi-Fi 6 high-performance enterprise Wi-Fi AP (Access Point) released by DCN, it can support 802.11ax and provide 2.5G Ethernet uplink connectivity. With high performance 6.82Gbps access bandwidth, WL8200-X10 is expected to have high density client connectivity to deliver better Wi-Fi user experience. With industry-leading triple band 14 spatial streams, WL8200-X10 is ideal choice for high-density and high-bandwidth access scenarios such as AR/VR application, 4K/8K HD video streaming, libraries, lecture halls, convention centers, etc.
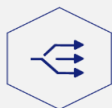
Wi-Fi	**6.82Gbps, 8*8 MIMO**	**Triple band**
802.11a/b/g/n/ac/ax		
concurrent user 400+	**flexible power input**	**cloud management**

Highlights

Industry-leading innovative design of tri-band, 14 spatial streams

Traditional wireless APs usually use 2.4GHz and 5GHz dual-band solutions. The WL8200-X10 product innovatively adopts a tri-band design. The whole AP supports 3 radio frequency modules to work at the same time, with an access rate of up to 6.82Gbps, and one radio frequency is fixed for 2.4G working mode, the other two radios are in 5G working mode. Adopt the latest MU-MIMO technology (multi-user input and output), OFDMA technology (orthogonal frequency division multiple access), spatial multiplexing technology, TWT technology (target wake-up time) and other advanced wireless technologies, the data transmission breaks through the traditional wireless network serial communication mechanism. The utilization rate of wireless spectrum resources has been doubled, and the number of effective access users has been greatly increased, effectively reducing the deployment cost of wireless network and increasing the user experience in high density scene.

Flexible installation

WL8200-X10 supports wall mounting, ceiling mounting, T-keel mounting, desktop mounting, you can deploy it almost everywhere that you want.

Triple band total 6.82Gbps for high density scene

WL8200-X10 support tri-band, accessing bandwidth can reach to 6.82Gbps, it could connect much more clients simultaneously, improve the overall throughput of the WIFI network greatly.

Dual mode fit & fat

WL8200-X10 can work in fit or fat mode and can flexibly switch between the fit mode and the fat mode according to network planning requirements.

Anti-thief

WL8200-X10 can work with Kensington technology to protect the investment of customer, which is very important to the specific customer.

Flexible power input

The power input of WL8200-X10 can be standard PoE or DC adapter, customer can make choice accordingly.

Product Specifications

Hardware Specifications

Item	WL8200-X10
Dimensions (L*W*H) (mm)	215 x 215 x 45
Physical port	2 x 10/100/1000/2500Mbps ethernet ports 1 x BLE module
Console port (RJ-45)	1
USB 2.0 port	1
Power supply	802.3bt PoE and External power adapter(Input: 100～240V AC，Output: 12 V DC)
Maximum power consumption	<30W
RF port	Built-in 2.4 GHz 4 dBi antenna and 5 GHz 5 dBi antenna
Working frequency band	802.11b/g/n/ax: 2.4GHz-2.483GHz 802.11a/n/ac/ax : 5.725~5.850GHz；5.150~5.350GHz；5.47~5.725GHz
Modulation technology	11b：DSS: CCK@5.5/11Mbps, DQPSK@2Mbps, DBPSK@1Mbps 11a/g :OFDM:64QAM@48/54Mbps,16QAM@24Mbps, QPSK@12/18Mbps, BPSK@6/9Mbps 11n：MIMO-OFDM: BPSK, QPSK,16QAM,64QAM 11ac：MIMO-OFDM: BPSK, QPSK,16QAM,64QAM,256QAM 11ax: MIMO-OFDMA: BPSK, QPSK,16QAM,64QAM,256QAM,1024QAM
Transmit power	2.4GHz：23dBm（Per Chain） 5GHz：23dBm（Per Chain） (*Note：final output power comply to deployment regulation might be different in different countries*)

Power adjustment granularity	1 dBm
Working/Storage temperature	0°C to +50°C −40°C to +70°C
Working/Storage RH	5% to 95% (non-condensing)
Protection level	IP41

## Software Specifications

Item	Feature	WL8200-X10
WLAN	Product positioning	Indoor tri-band Wi-Fi6 AP
	Working frequency band	1st band: 2.4 GHz, 4*4MIMO 2nd band: 5GHz, 8*8MIMO 3rd band: 5GHz, 2*2MIMO
	Bandwidth performance	Total 6.82Gbps 1st band: 2.4 GHz, 1.15Gbps 2nd band: 5GHz, 4.8Gbps 3rd band: 5GHz, 867Mbps
	Virtual AP (BSSID)	48
	Concurrent user	400+
	Number of spatial streams	1st band: 2.4 GHz, 4 spatial streams 2nd band: 5GHz, 8 spatial streams 3rd band: 5GHz, 2 spatial streams
	Dynamic channel adjustment (DCA)	Yes
	Transmit power control (TPC)	Yes
	Blind area detection and repair	Yes
	SSID hiding	Yes
	RTS/CTS	Yes
	RF environment scanning	Yes
	Hybrid access	Yes
	Restriction on the number of access users	Yes
	Link integrity check	Yes
	Accessing control of terminals based on signal strength	Yes
	Forcing terminals to roam based on signal strength	Yes
	Intelligent control of terminals based on airtime fairness	Yes
	High-density application optimization	Yes
802.11ax	Space streams	2.4GHz:4, 5GHz:8
	Frequency band	2.4GHz + 5GHz
	80 MHz bundling	Yes
	Frame aggregation (A-MPDU)	Yes
	Frame aggregation (A-MSDU)	Yes
	Maximum likelihood demodulation (MLD)	Yes
	Transmit beamforming (TxBF)	Yes

Item	Feature	WL8200-X10
	Maximum ratio combining (MRC)	Yes
	Space-time block coding (STBC)	Yes
	Low-density parity-check code (LDPC)	Yes
Security	Encryption	64/128 WEP, TKIP, and CCMP encryption
	802.11i	Yes
	Portal authentication	Yes
	WAPI	Yes
	MAC address authentication	Yes
	LDAP authentication	Yes
	PEAP authentication	Yes
	WIDS/WIPS	Yes
	Protection against DoS attacks	Anti-DoS for wireless management packets
	Forwarding security	Frame filtering, white list, static blacklist, and dynamic blacklist
	User isolation	AP L2 forwarding suppression isolation between client
	Periodic SSID enabling and disabling	Yes
	Access control of free resources	Yes
	Wireless SAVI	Yes
	ACL	Access control of various data packets such as MAC, IPv4, and IPv6 packets
	Secure access control of APs	Secure access control of APs, such as MAC authentication, password authentication, or digital certificate authentication between an AP and an AC
	802.11W	Yes, encryption of management frames
Forwarding	IP address setting	Static IP address configuration or dynamic DHCP address allocation
	IPv6 forwarding	Yes
	IPv6 portal	Yes
	Local forwarding	Yes
	Multicast	IGMP snooping
	Roaming	Yes
	AP switching reference	Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.
	WDS	Yes
QoS	WMM	Yes
	Priority mapping	Ethernet port 802.1P identification and marking Mapping from wireless priorities to wired priorities
	QoS policy mapping	Mapping of different SSIDs/VLANs to different QoS policies Mapping of data streams that match with different packet fields to different QoS policies
	L2-L4 packet filtering and flow classification	Yes: MAC, IPv4, and IPv6 packets
	Load balancing	Load balancing based on the number of users Load balancing based on user traffic Load balancing based on frequency bands
	Bandwidth limit	Bandwidth limit based on APs Bandwidth limit based on SSIDs Bandwidth limit based on terminals Bandwidth limit based on specific data streams
	Call admission control (CAC)	CAC based on the number of users
	Power saving mode	Yes
	Automatic emergency mechanism of	Yes

Item	Feature	WL8200-X10
	APs	
	Intelligent identification of terminals	Yes
	Multicast enhancement	Multicast to unicast
Management	**Network management**	Centralized management through an AC; both fit and fat modes
	Maintenance mode	Both local and remote maintenance
	Log function	Local logs, Syslog, and log file export
	Alarm	Yes
	Fault detection	Yes
	Statistics	Yes
	Switching between the fat and fit modes	An AP working in fit mode can switch to the fat mode through a wireless AC; An AP working in fat mode can switch to the fit mode through a local control port or Telnet.
	Remote probe analysis	Yes
	Watchdog	Yes
Value added service	**Value added marketing**	Support: various apps based on intelligent terminals, advertising push based on location, personalized push of portals
	Value added authentication	WeChat, SMS, QR code
	Passenger flow analysis	yes

Typical Application

WL8200-X10
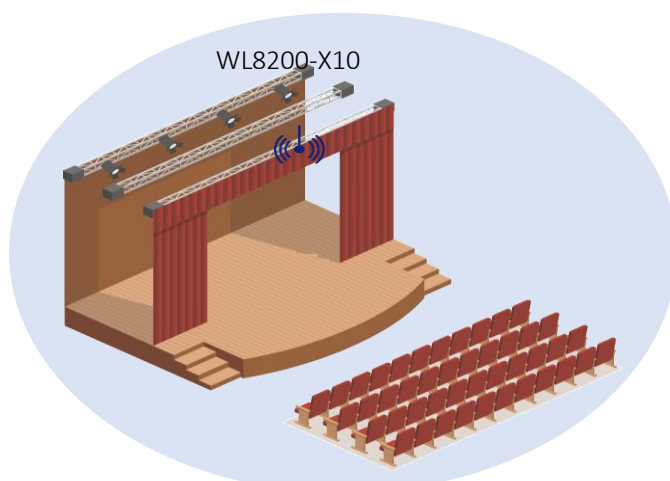
- 802.11ax
- Access bandwidth 6.82Gbps
- 3 radio bands
- High density access scenario
- Concurrent user 400+

Great hall

Order Information

Product	Description

WL8200-X10	DCN new generation Wi-Fi6 indoor AP, tri-band and total 14 spatial streams, 802.11a/b/g/n/ac/ax supported (2.4GHz 4*4, first 5GHz 8*8 and second 5GHz 2*2), fat/fit, default no power adapter, could be managed by DCN AP controller.

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