

**11ax 3657Mbps Ceiling Indoor Wireless AP**

Model: AX870 - i (Indoor)



## Short Specification


AgniGate AX870-i is an 11ax Wi-Fi standard Qualcomm Chipset high power industrial Ceiling Indoor Wireless Access Point support MU-MIMO, Wave2.0, OFDMA and Seamless Roaming.

It comply with 802.11ax, 4\*4 MIMO technology, dual band, up to 3657Mbps data rate; equipped with 2.5G WAN & LAN ports, support MU-MIMO and DL/UL-OFDMA modulation, faster Ethernet data rate and more users, then multiple users can upload or download multiple packets at same time, narrower subcarrier spacing and longer symbol time, improved the stability and data processing efficiency, publicly to be used in high density access environment such as university campus, concert venue, gymnasium, etc.

## Main Features:

Qualcomm 4-core enterprise CPU with more stable performance.

Equipped with Qualcomm enterprise CPU IPQ8072, superior than other manufacturers as the stronger processing capacity, running more stable.



<b>High Speed</b> The data forwarding speed increased by 20%	<b>Anti-Interference</b> Qualcomm Wi-Fi6 chipset 33% improved in Anti-Interference	<b>Low Latency</b> The latency decreased 36.8%	<b>Stable Performance</b> Multiple device access CPU utilization is less than 20%
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2.5G Ethernet port. Using 2.5Gbps Ethernet port, compared with Gigabit port, the speed is greatly improved, so that the wired interface is no longer the bottleneck of wireless transmission, and the wireless experience I high pedestrian density scenarios such as conference room, bar, office area, KTV is optimized.



Wireless data rate up to 3.6Gbps. 802.11ax support 1024QAM, long OFDM symbol, 160M bandwidth and 11ax 4x4 MIMO technology, the wireless data rate up to 3.6Gbps, meet with demand of high-speed applications such as VR/ AR, 4K or 8K stream media.

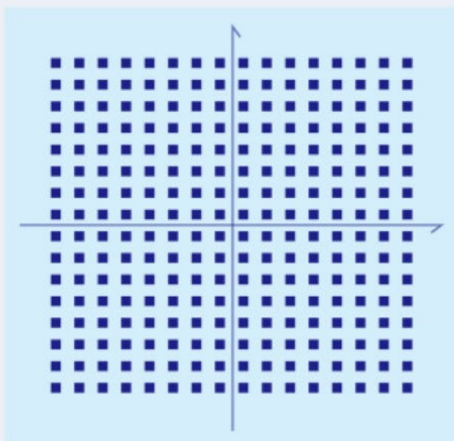
802.11ax:

1024-QAM, Long OFDM Symbol, Max 160MHz bandwidth

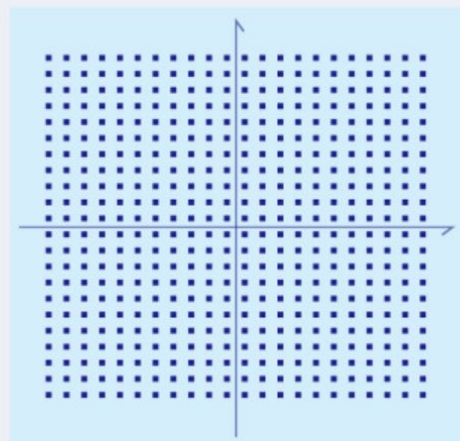
802.11ac:

256-QAM

1024-QAM Modulation Mode. 802.11ax adopt 1024-QAM modulation, which is more efficient than 802.11ac modulation, the throughput of single spatial traffic is increased by 25%.



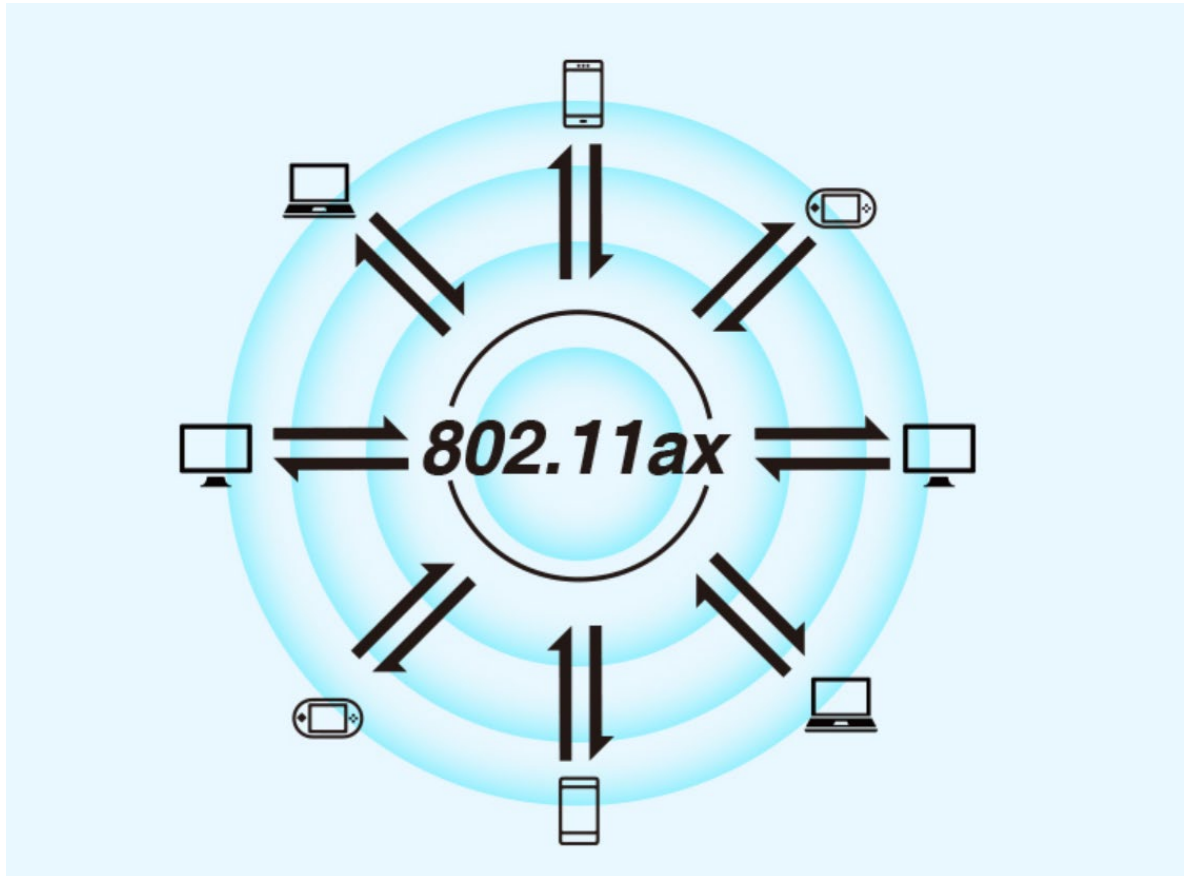
802.11ac: support 256qam modulation mode



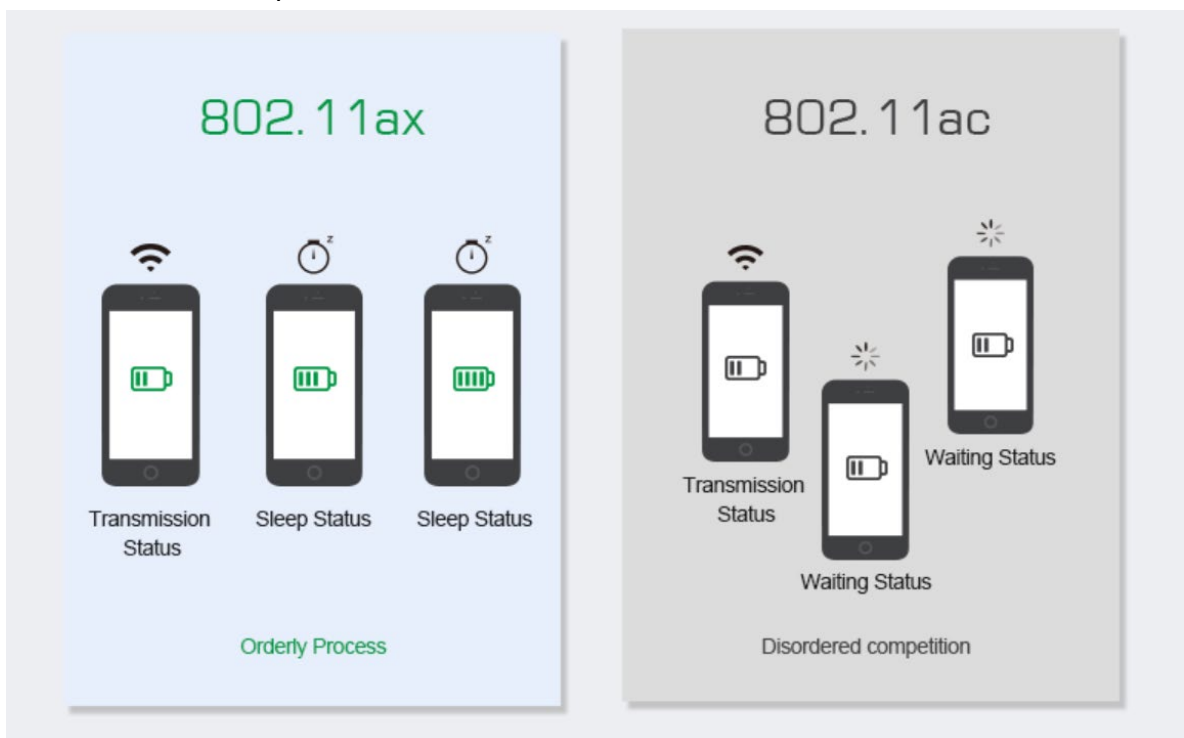
802.11ax: support 1024qam modulation mode

DL/ UL MU-MIMO 802.11ax support both downlink MU-MIMO and uplink MU-MIMO. It can communicate with multiple end users at the same time, greatly improving the user's uplink transmission rate and the system's uplink and downlink capacity, improving the efficiency of

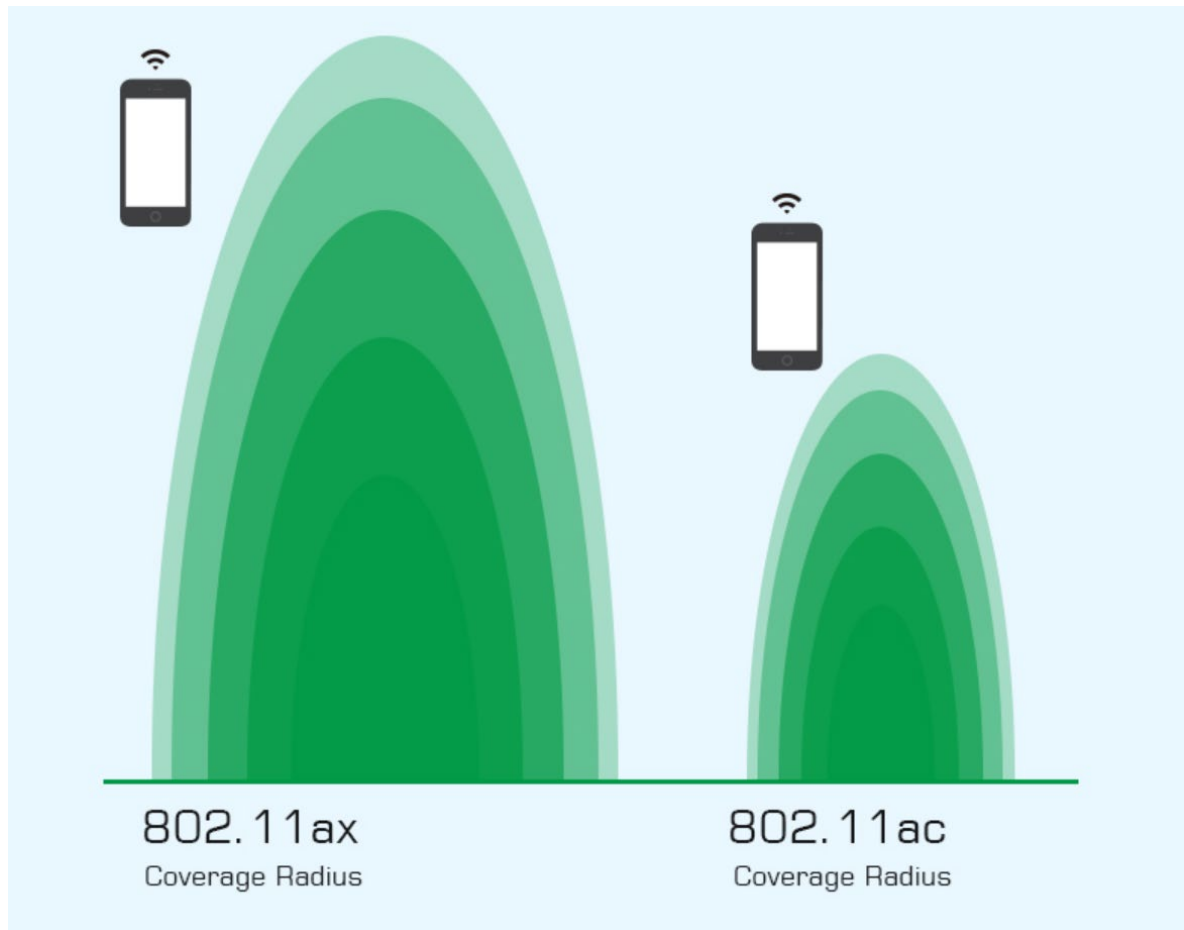
multi-user concurrent scenarios, reducing the terminal application latency.



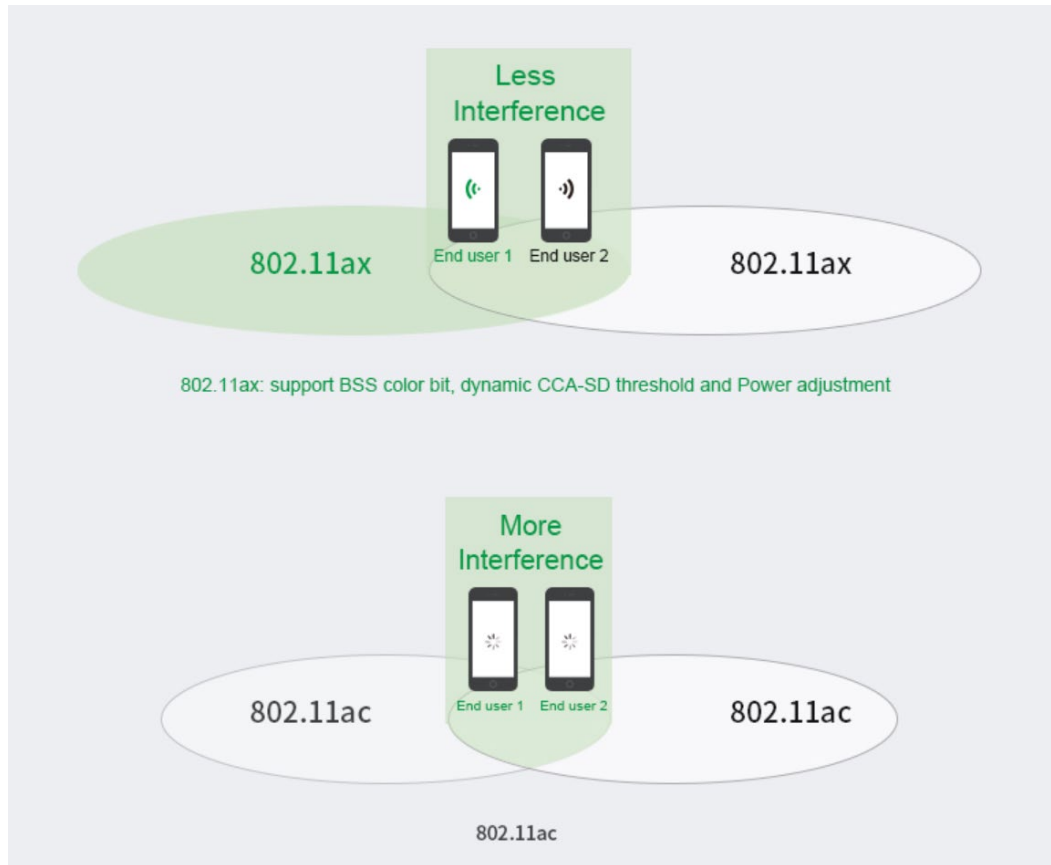
TWT (Target Wake-up Time). 802.11ax support TWT, allowing devices to negotiate when need to wake up, send and receive data. In additional, wireless AP can group the device into different TWT cycles, increase sleep time, reduce the device competing after wake-up, and save the device power.



Coverage Improvement. 802.11ax support long OFDM symbol transmission mechanism and 2MHz narrowband transmission, effectively reduced the packet loss rate and noise interference, improve the receive sensitivity and increase the WiFi coverage.



Improvement of Anti-Interference Ability. 802.11ax support BSS color bit and dynamic CCA-SD (Clear Channel Assessment Signal Detection) threshold and power adjustment, effectively alleviates the channel interference in multi-users scenarios, improve the utilization of spectrum resources.



## Hardware Specification

Chipset	IPQ8072				
Standard	802.11ax/ac/b/g/n				
Flash	SPI NOR 8MB				
DDR3	512MB*2				
Nand Flash	128MB				
2.4G Frequency	2.4GHz – 2.484GHz				
2.4G Protocol	802.11 b / g / n / ac / ax				
5G Frequency	5.150GHz ~ 5.850GHz				
5G Protocol	802.11 a / n / ac / ax				
Antenna	4*2.4G/5.8G dual band omin antennas: 4 dBi+				
Data Rate	3657Mbps ( 2.4G: 1182Mbps (11ax 4x4); 5.8G: 2475Mbps (11ax 4x4)				
2.4G TX Power	802.11b	11M	17±2dBm	1M	18±2dBm
	802.11g	54M	16±2dBm	6M	17±2dBm
	802.11n HT20	MCS7	16±2dBm	MCS0	17±2dBm
	802.11n HT40	MCS7	15±2dBm	MCS0	16±2dBm
	802.11ax HE20	MCS11	15±2dBm	MCS0	16±2dBm
	802.11ax HE40	MCS11	15±2dBm	MCS0	16±2dBm

5G TX Power	802.11a	54M	16±2dBm	6M	17±2dBm
	802.11n HT20	MCS7	15±2dBm	MCS0	16±2dBm
	802.11n HT40	MCS7	15±2dBm	MCS0	16±2dBm
	802.11ac VHT20	MCS7	15±2dBm	MCS0	16±2dBm
	802.11ac VHT40	MCS7	15±2dBm	MCS0	16±2dBm
	802.11ac VHT80	MCS9	14±2dBm	MCS0	15±2dBm
	802.11ax HE20	MCS11	15±2dBm	MCS0	16±2dBm
	802.11ax HE40	MCS11	15±2dBm	MCS0	16±2dBm
	802.11ax HE80	MCS11	14±2dBm	MCS0	15±2dBm
2.4G Receiving Sensitivity	802.11b	11M	-85dBm	1M	-92dBm
	802.11g	54M	-72dBm	6M	-90dBm
	802.11n HT20	MCS7	-70dBm	MCS0	-88dBm
	802.11n HT40	MCS7	-68dBm	MCS0	-86dBm
	802.11ax HE20	MCS11	-60dBm	MCS0	-85dBm
	802.11ax HE40	MCS11	-56dBm	MCS0	-85dBm
5G Receiving Sensitivity	802.11a	54M	-72dBm	6M	-92dBm
	802.11n HT20	MCS7	-70dBm	MCS0	-90dBm
	802.11n HT40	MCS7	-68dBm	MCS0	-88dBm
	802.11ac VHT20	MCS7	-70dBm	MCS0	-90dBm
	802.11ac VHT40	MCS7	-68dBm	MCS0	-88dBm
	802.11ac VHT80	MCS9	-58dBm	MCS0	-85dBm
	802.11ax HE20	MCS11	-62dBm	MCS0	-88dBm
	802.11ax HE40	MCS11	-58dBm	MCS0	-86dBm
	802.11ax HE80	MCS11	-55dBm	MCS0	-84dBm
2.4G EVM	802.11b: ≤-10 dB ; 802.11g: ≤-25 dB ; 802.11n: ≤-28dB ; 802.11ax: ≤-35 dB				
5G EVM	802.11a: ≤-25 dB ; 802.11n: ≤-28 dB ; 802.11ac: ≤-32 dB; 802.11ax: ≤-35 dB				
ppm	±20ppm				
WAN	1*10/100/1000/2500M RJ45, support 48V PoE				
LAN	1*10/100/1000/2500M RJ45				
Reset	Reset to factory settings by pressing 6-10 seconds				
Indicators	WAN, LAN, tricolor LED(sys-red, 2.4G-green, 5.8G-blue)				
Power	DC2.0 12V ⚡ 2A, PoE 802.3at				
Max_Power Consumption	< 22W				

Dimension	198mm×198mm×41mm
Weight	0.9kg
Temperature	Working: -20°C to 55°C; Storage: -40°C to 70°C; Humidity: 5% ~ 95%(Non-Condensing)
ESD	Air:±8K, Touch:±4K
Electrical Surge	Common Mode: 2K, Differential Mode: 1K

## Firmware Specification

Working Mode	Gateway, AP
Wireless Functions	Multiple SSID functions: 2.4GHz: 4; 5.8GHz: 4.
	Support SSID hidden
	Support seamless roaming, 802.11kvr standard.
	Support 5G Prior for a faster Ethernet.
	Wireless Security: Open, WPA2PSK_TKIPAES, WAP2,3_EAP, 802.1x
	Support MAC filter
	Support Wi-Fi time on/off to save energy
	Support client isolation to improve the wireless stability
	Support RF power adjustable, adjust the RF power based on environment.
	Support user quantity limited, Max 64 users to access each band.
Networking Function	VLAN settings
	Cloud access support in gateway mode
Device Management	Back-up the configuration
	Restore the configuration
	Reset to factory default
	Reboot the device: including time reboot or reboot immediately
	Admin management password modify
	Firmware upgrade
	System log
Support firmware GUI web management, AC controller management, remote management and cloud management	
Protocols	IPv4



## Antenna Specification

Frequency Range	2.4GHz & 5.8GHz
Impedance	50 Ohms nominal
Gain	5dBi
Radiation	Omni
Polarization	Vertical

## Application

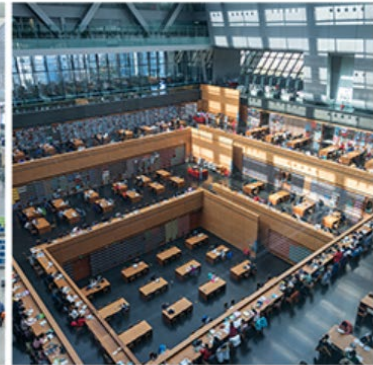
Airport Terminal



Station waiting hall



Large library



Large scale conference



Market



Hospital



## Product Box

Wi-Fi6 Access Point	1
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Mounting Accessories	1