DIGISOL®

DIGISOL Wi-Fi6 11ax 1800Mbps Ceiling Wireless AP

DG-WM840AX

3 YEARS WARRANTY*

Key Features:-

- Upto 1800Mbps aggregate speed.
- Support WiFi 6 802.11ax Standard
- 2 x Gigabit LAN Port
- Multimode AP / Repeater / Gateway
- Qualcomm WiFi Chipset
- Target Wake Up time (TWT)
- Support FIT / FAT Mode.
- MU-MIMO and OFDMA.

Introduction:-

DG-WM840AX is an 11ax Wi-Fi standard Qualcomm Chipset high power industrial Ceiling Wireless Access Point support MU-MIMO, Wave2.0, OFDMA and Seamless Roaming.

Combined 1800Mbps Wi-Fi speed over 2 radios: 2.4GHz (600Mbps 11ax 2*2) + 5GHz (1200Mbps 2*2), equipped Gigabit 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 IPQ6000, superior than other manufacturers as the stronger processing capacity, running more stable.

High Speed
The data forwarding speed increased by 20%

Anti-Interference
Qualcomm Wi-Fi6 chipset 33% improved in Anti-Interference

Low Latency
The latency decreased 36.8%

Stable Performance
Multiple device access CPU utilization is less than 20%

Wireless data rate up to 1.8Gbps. 802.11ax support 1024QAM, long OFDM symbol, 160M bandwidth and 11ax 2x2 MIMO technology, the wireless data rate up to 1.8Gbps, 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
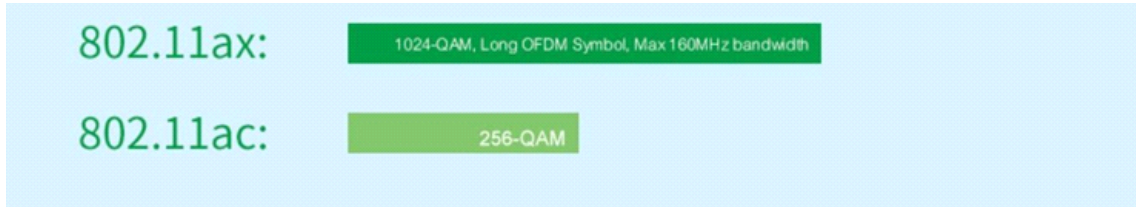
1024-QAM Modulation Mode. 802.11ax adopt 1024-QAM modulation, which is more efficient than 802.11ac modulation, the throughput of single spatial traffic is increased by 25%.

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.
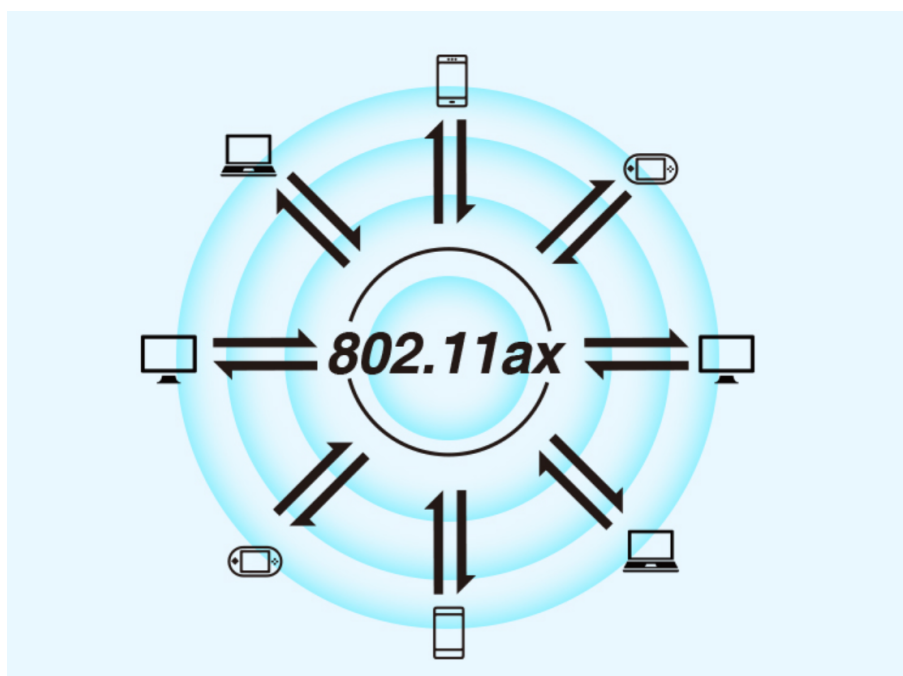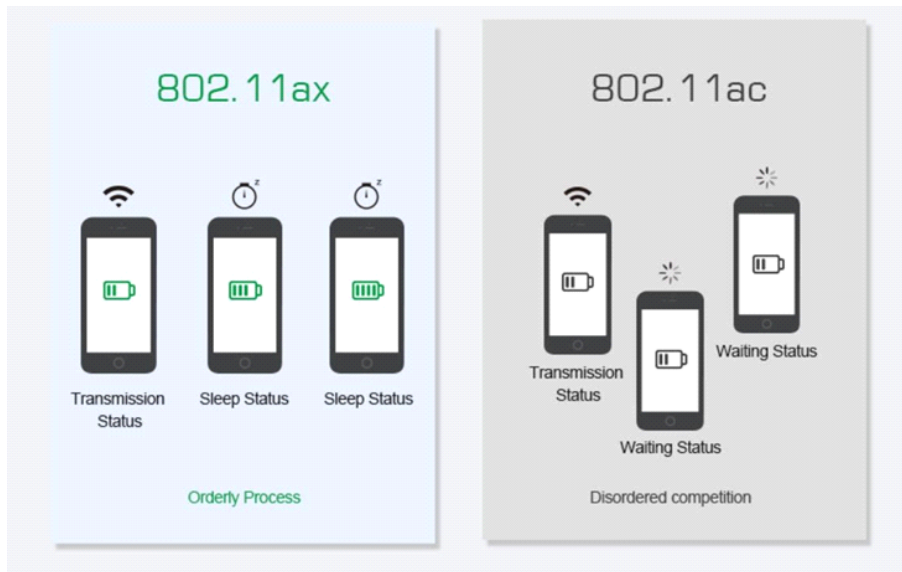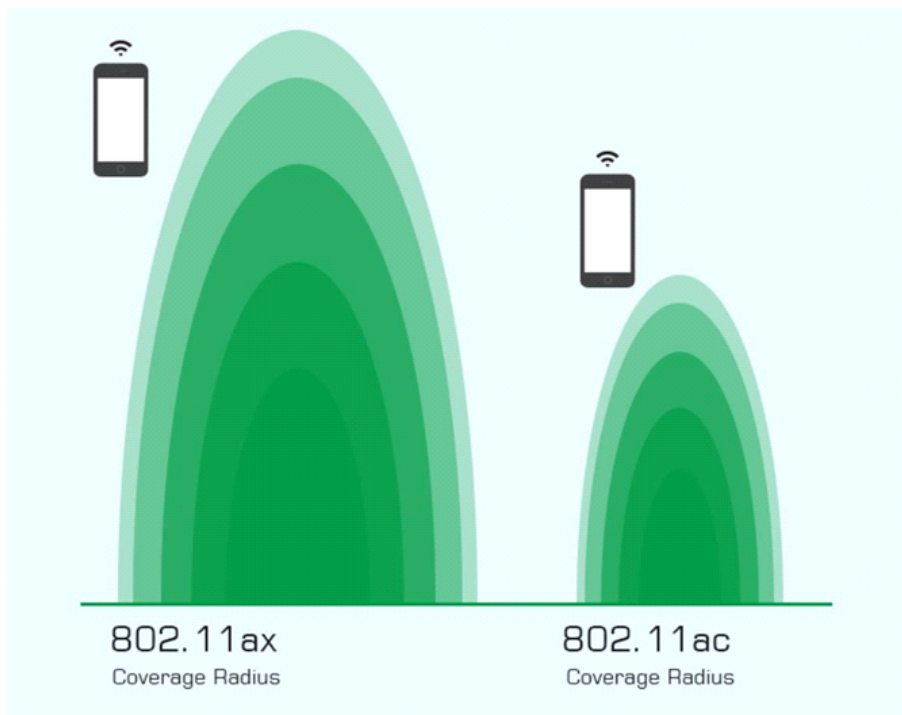

802.11ax

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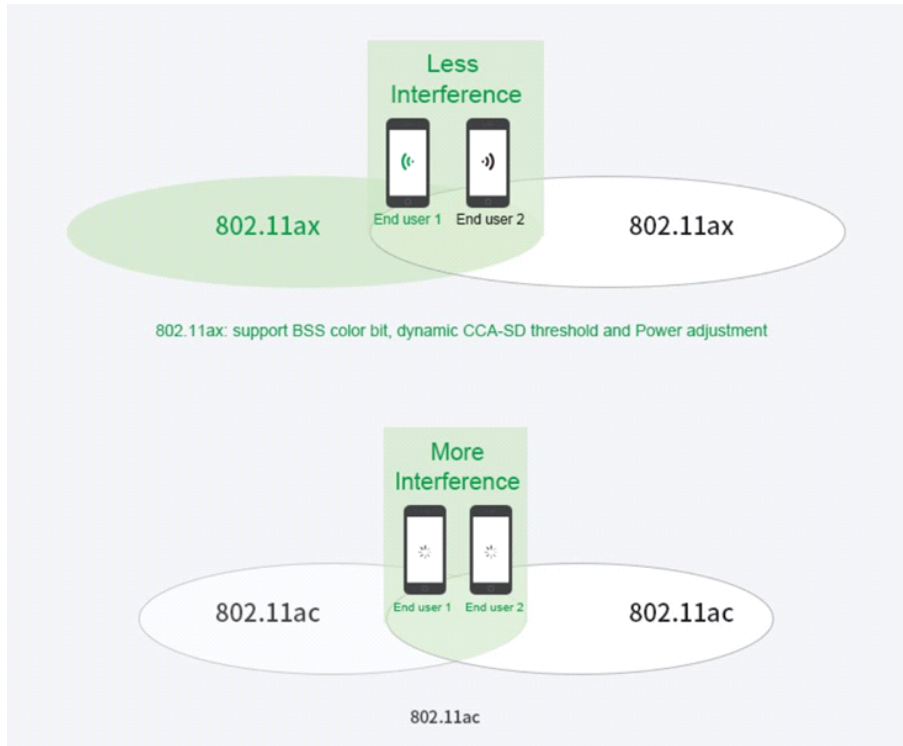
Improvement of Anti-Interference Ability. 802.11ax support BSS color bit and dynamic CCA-SD (Clear Channel Assessment Signal Detection) threshold and power adjustment, effectively alleviates the channel interference in multi-users scenarios, improve the utilization of spectrum resources.

Technical Specifications:-

HARDWARE SPECIFICATIONS	
Standard	802.11ax/ac/b/g/n
2.4G Frequency	2.4GHz - 2.484GHz
2.4G Wi-Fi standard	802.11b/g/n/ax
5.8G Frequency	5150~5850MHz
5.8G Wi-Fi Standard	802.11 a/n/ac/ax
Interface	1 * 10/100 /1000 Rj45 WAN Port
	1 * 10/100 /1000 RJ45 LAN Port
	1 * Reset button, press 10 seconds to revert to default setting
Antenna >	Build in 4*3dBi dual band MIMO Antenna
Data rate >	1800Mbps
End Users	150+
2.4G RF Power	≤ 20dBm
5.8G RF Power	≤ 19dBm
2.4G Receive	802.11b

Technical Specifications:-

HARDWARE SPECIFICATIONS					
Sensitivity	802.11g	54M	-77dBm	6M	-93dBm
	802.11n HT20	MCS7	-72dBm	MCS0	-92dBm
	802.11n HT40	MCS7	-71dBm	MCS0	-90dBm
	802.11ax HT20	MCS11	-63dBm	MCS0	-93dBm
	802.11ax HT40	MCS11	-60dBm	MCS0	-91dBm
5.8G Receive Sensitivity	802.11a	54M	-77dBm	6M	-95dBm
	802.11n HT20	MCS7	-75dBm	MCS0	-93dBm
	802.11n HT40	MCS7	-72dBm	MCS0	-91dBm
	802.11ac HT20	MCS7	-74dBm	MCS0	-93dBm
	802.11ac HT40	MCS7	-72dBm	MCS0	-91dBm
	802.11ac HT80	MCS9	-62dBm	MCS0	-88dBm
	802.11ax HT20	MCS11	-63dBm	MCS0	-93dBm
	802.11ax HT40	MCS11	-60dBm	MCS0	-90dBm
	802.11ax HT80	MCS11	-56dBm	MCS0	-87dBm
2.4G EVM	802.11b: ≤-10 dB; 802.11g: ≤-25 dB; 802.11n: ≤-28dB ;				
	802.11ac: ≤-32 dB; 802.11ax: ≤-35 dB				
5G EVM	802.11a: ≤-25 dB; 802.11n: ≤-28 dB;				
	802.11ax: ≤-35 dB				
PPM	±20ppm				
DC	12V----1.5A				
PoE	48V (IEEE 802.3at)				
LED light	Sys, WAN, LAN (Single LED)				
Power Consumption	≤ 14W				
Size	186*186*35.8mm				

FIRMWARE SPECIFICATIONS	
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, WPA, WPA2PSK_TKIPAES, WAP2_EAP, WPA3, 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
	Access support in gateway mode

Technical Specifications:-

FIRMWARE SPECIFICATIONS	
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
Protocols	IPv4

ANTENNA SPECIFICATIONS	
Frequency Range	2.4GHz, 5.8GHz
Impedance	50 Ohms nominal
Gain	3dBi
Radiation	Omni
Polarization	Vertical
S-Parameters (2.4/ 5.8G #2 VSWR)	

Supported on Controllers	DG-WU2008 / DG-WU2004 / DG-WU2003 / DG-WU2001

Ordering Information:-

DG-WM840AX : DIGISOL Wi-Fi6 11ax 1800Mbps Ceiling Wireless AP

RESET LAN WAN/PoE LED DC
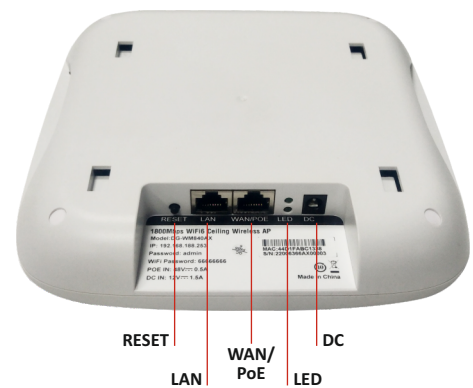
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