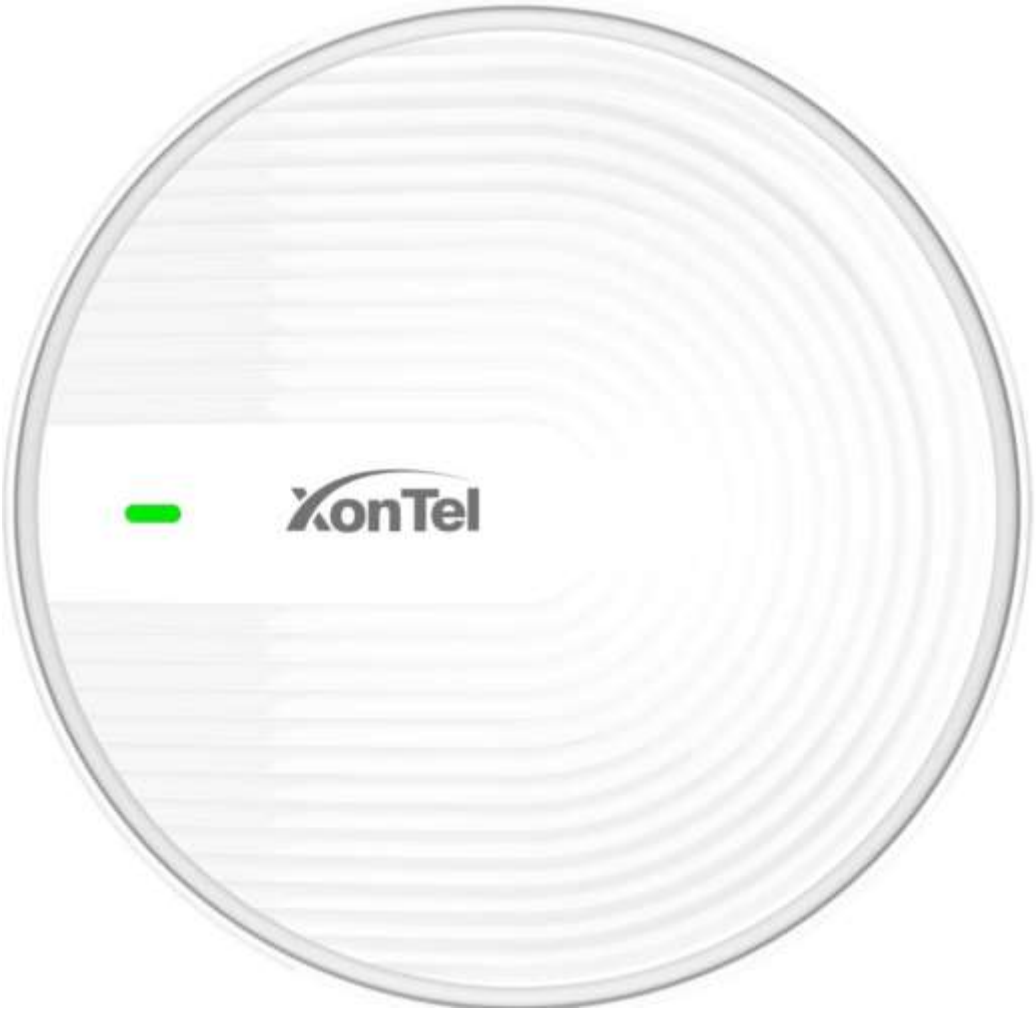
XonTel

Wi Fi 6
CERTIFIED



XT-1800AX

11ax 1800Mbps Ceiling Wireless AP

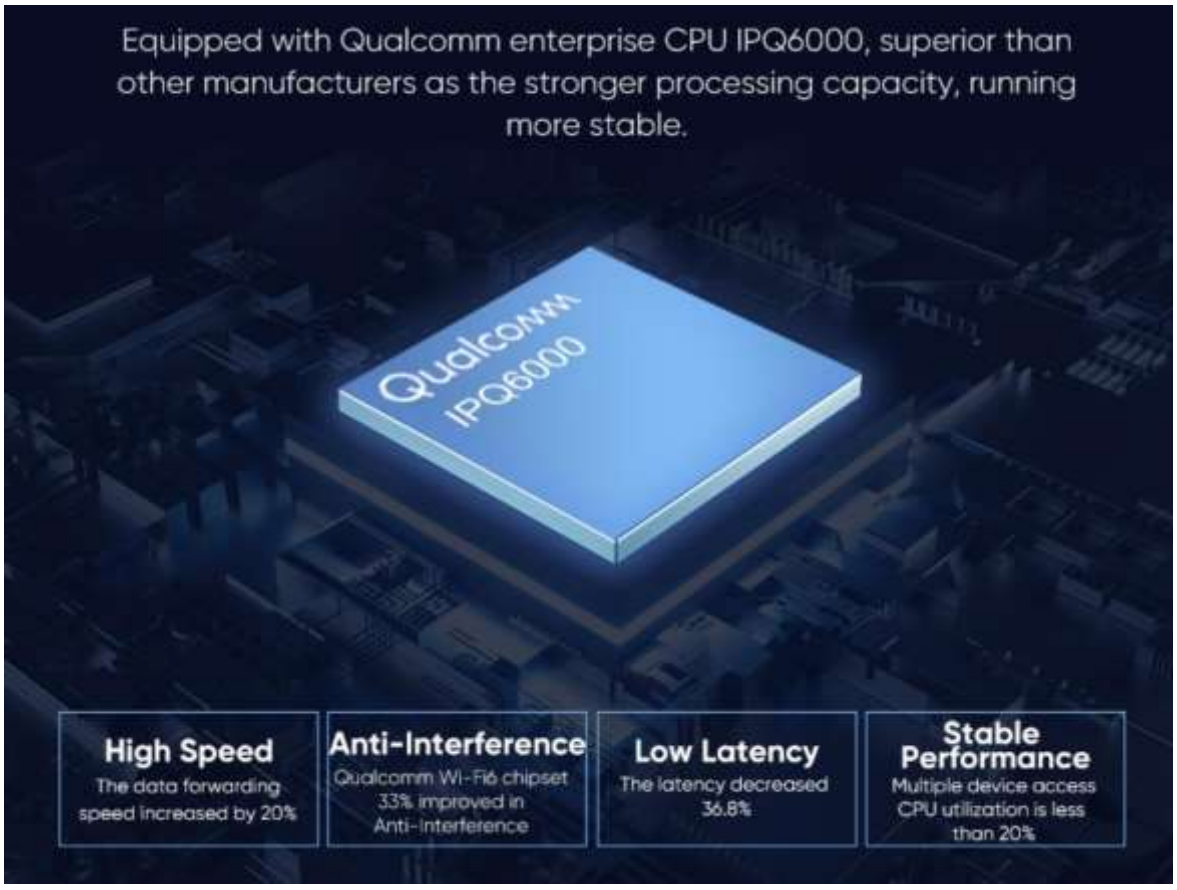
Short Specification

XT-1800AX 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.

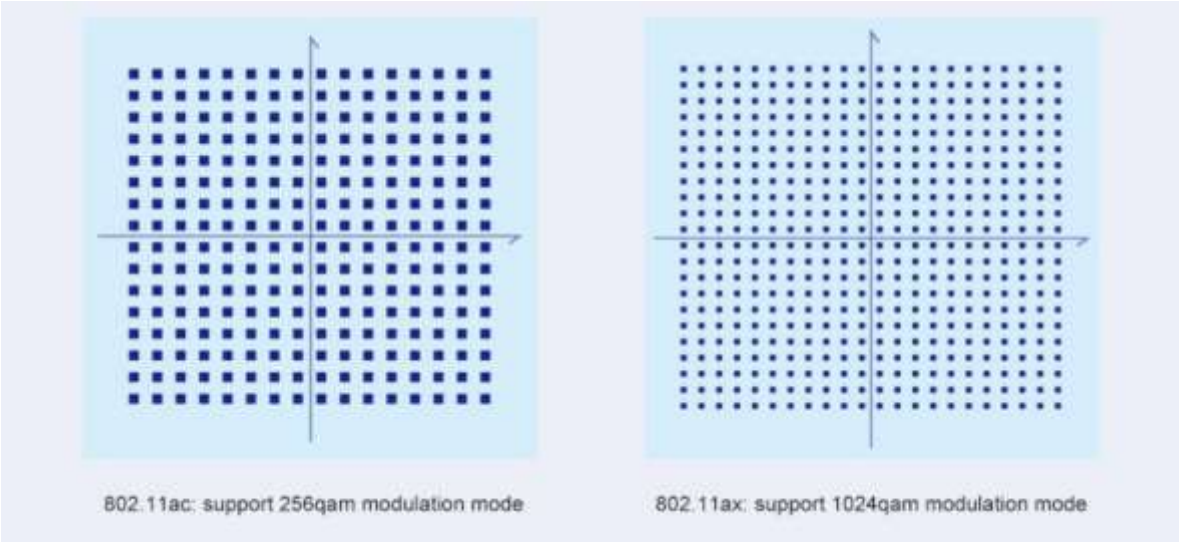
Main Features:

Qualcomm 4-core enterprise CPU with more stable performance.

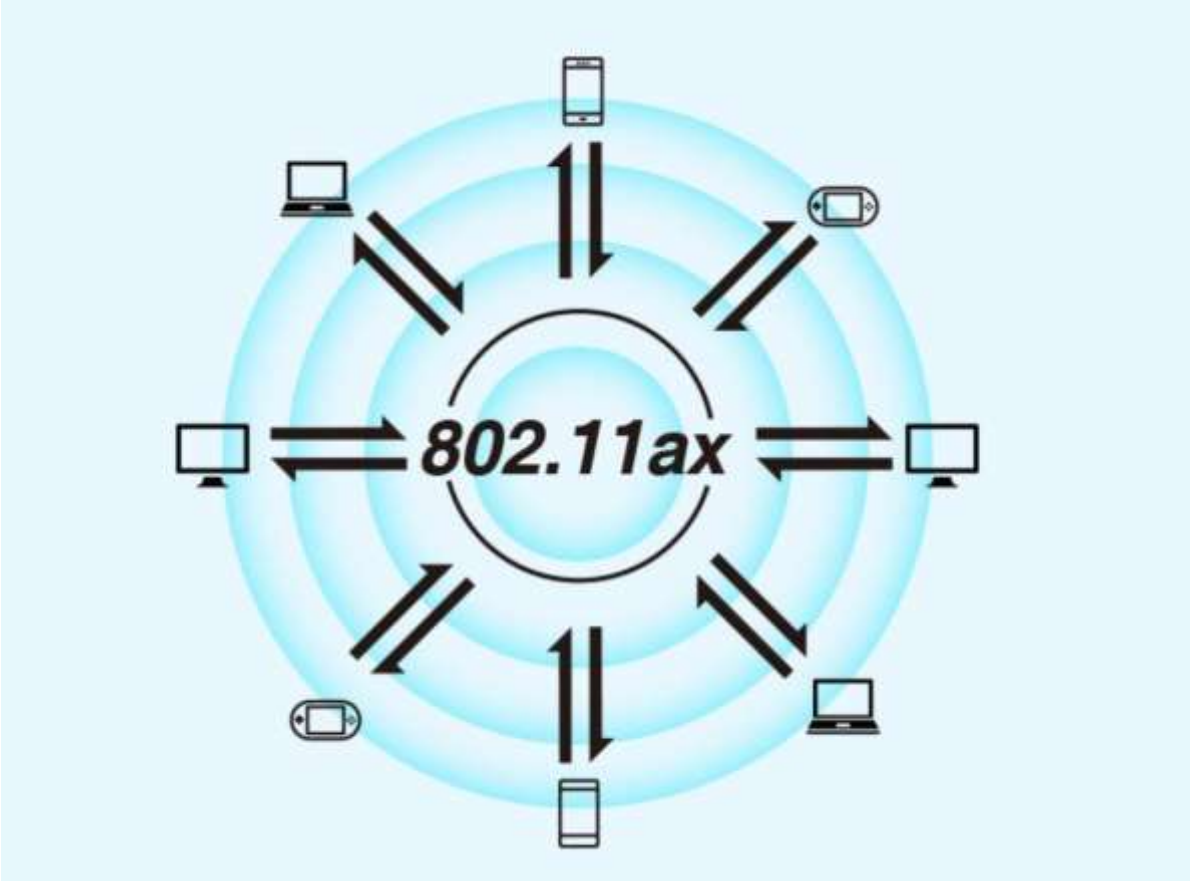


Wireless data rate up to 1.8Gbps. 802.11ax support 1024QAM, long OFDM symbol, 160M bandwidth and 11ax 2x2 MIMO technology, the wireless data rate up to 1.8Gbps, meet with demand of high-speed applications such as VR/ AR, 4K or 8K stream media.

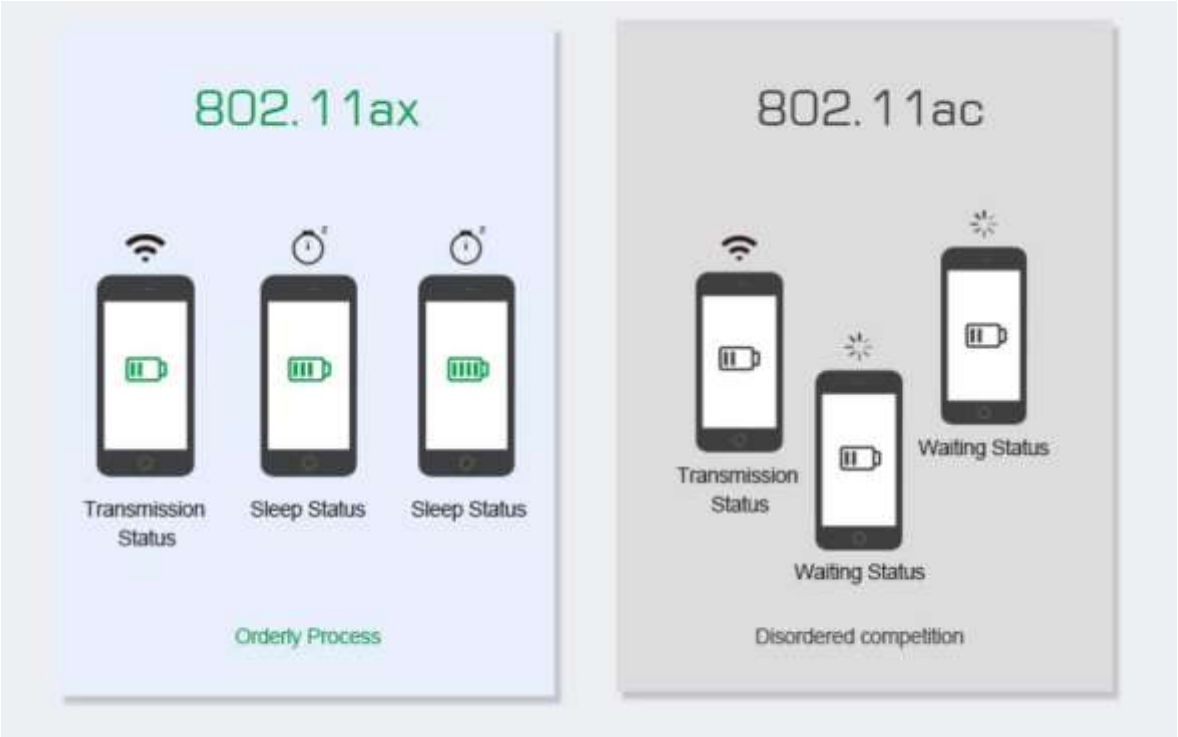
1024-QAM Modulation Mode. 802.11ax adopt 1024-QAM modulation, which is more efficient than 802.11ac modulation, the throughput of single spatial traffic is increased by 25%.



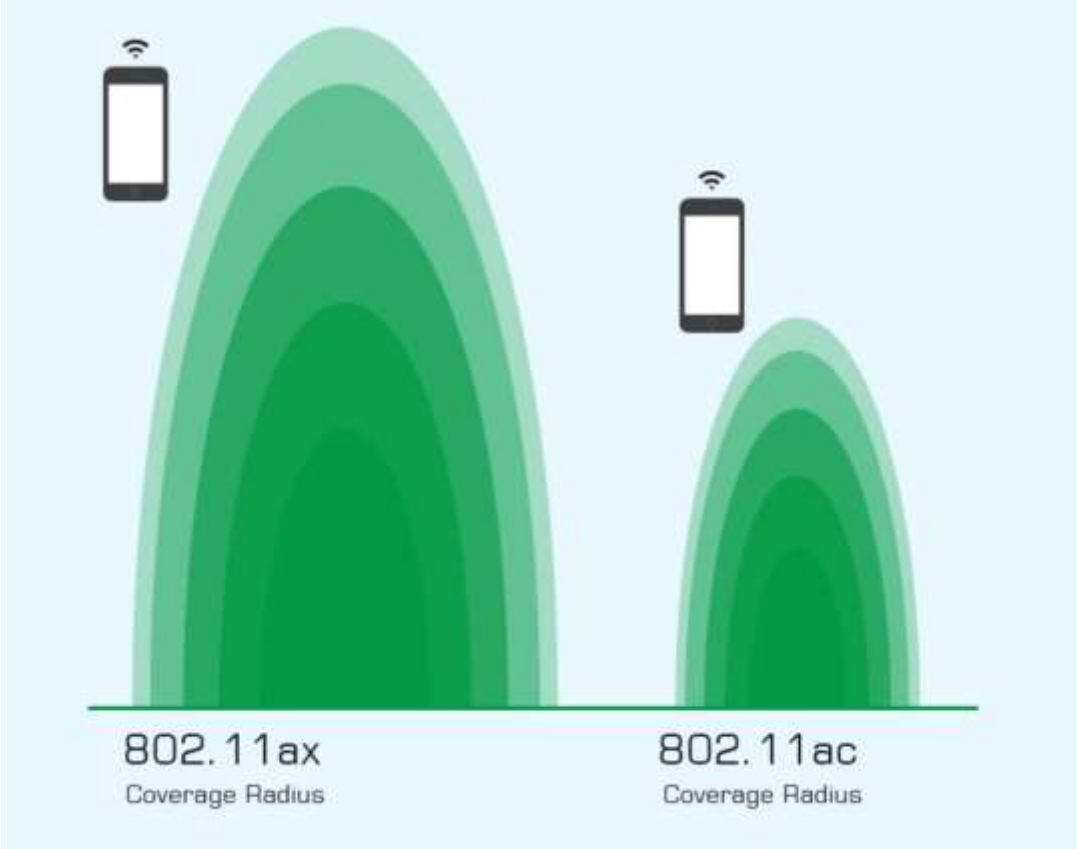
DL/ UL MU-MIMO. 802.11ax support both downlink MU-MIMO and uplink MU-MIMO. It can communicate with multiple end users at the same time, greatly improving the user's uplink transmission rate and the system's uplink and downlink capacity, improving the efficiency of multi-user concurrent scenarios, reducing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



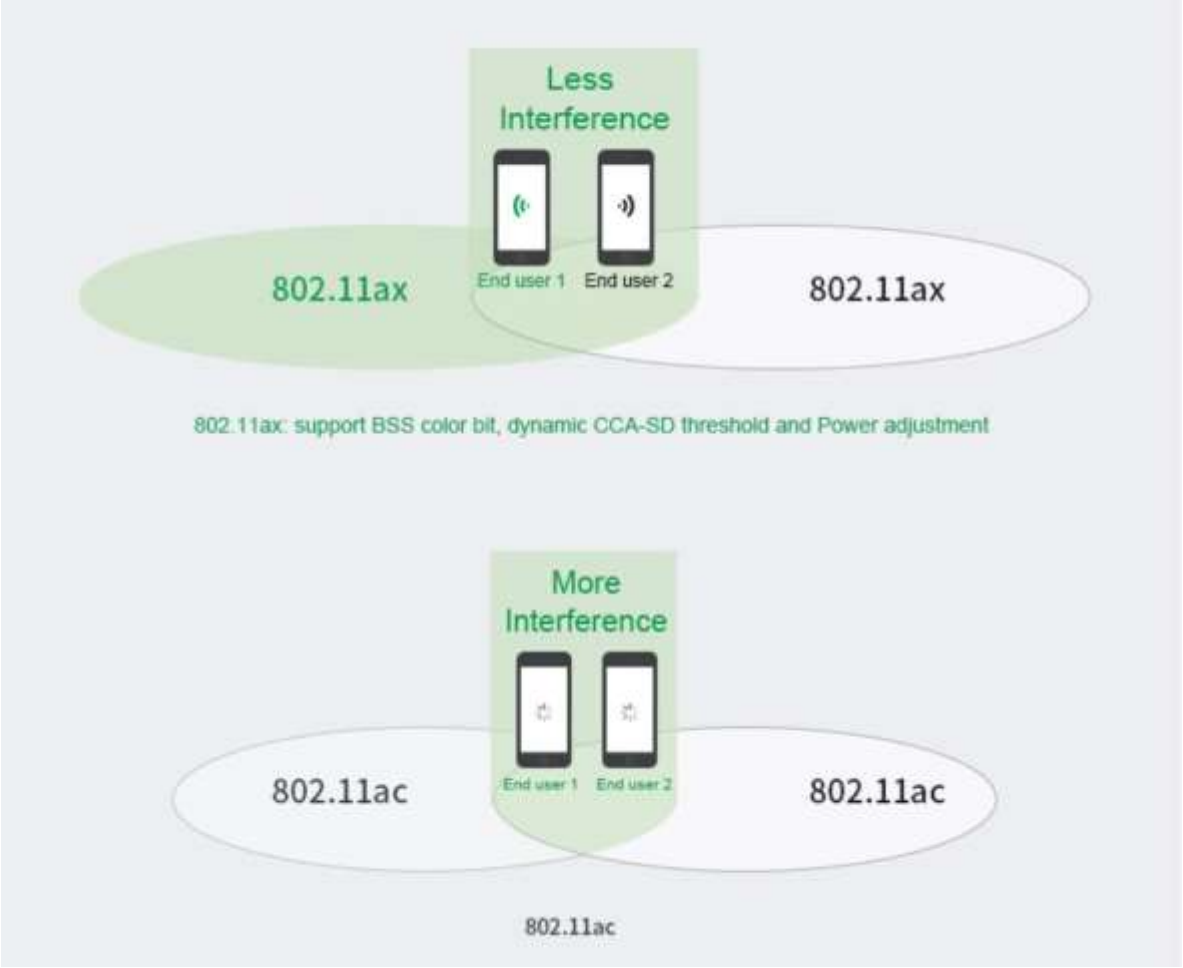
TWT (Target Wake-up Time). 802.11ax support TWT, allowing devices to negotiate when need to wake up, send and receive data. In additional, wireless AP can group the device into different TWT cycles, increase sleep time, reduce the device competing after wake-up, and save the device power.



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	IPQ6000
Standard	802.11ax/ac/b/g/n
Flash	SPI NOR 8MB (1.8v) + NAND 128MB
DDR3L	512MB
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*4dBi dual band MIMO Antenna
Data Rate	1800Mbps
End Users	150+
2.4G RF Power	≤ 20dBm

5.8G RF Power	≤ 19dBm				
2.4G Receive Sensitivity	802.11b	11M	-90dBm	1M	-98dBm
	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; 802.11ac: ≤-32 dB; 802.11ax: ≤-35 dB				
PPM	±20ppm				
DC	12V----1.5A				
PoE	48V (IEEE 802.3at)				
LED light	Sys, WAN, LAN				
Power Consumption	≤ 14W				
Size	186*186*35.8mm				

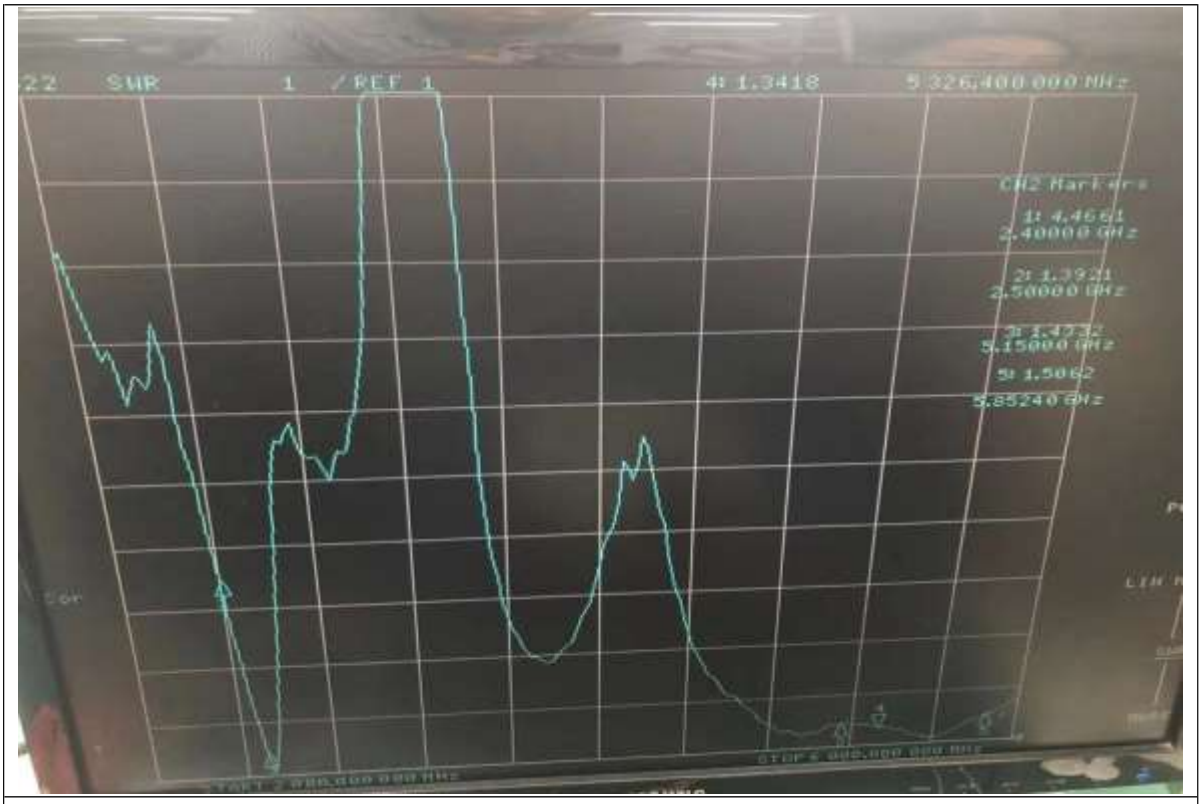
Firmware Specification

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, WPA, WPA2PSK_TKIPAES, WAP2_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

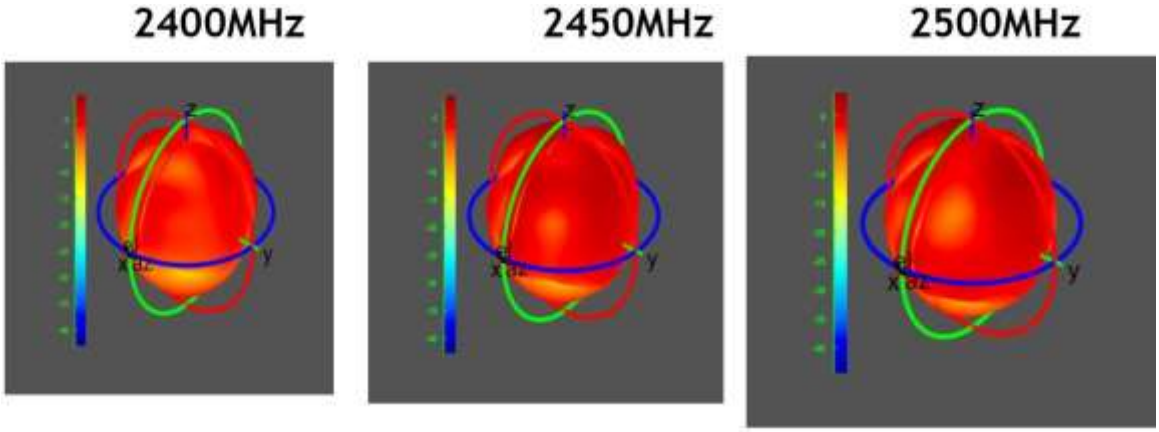
Frequency Range	2.4GHz & 5.8GHz
Impedance	50 Ohms nominal
Gain	4dBi
Radiation	Omni
Polarization	Vertical
S-Parameters (2.4/ 5.8G #2 VSWR)	



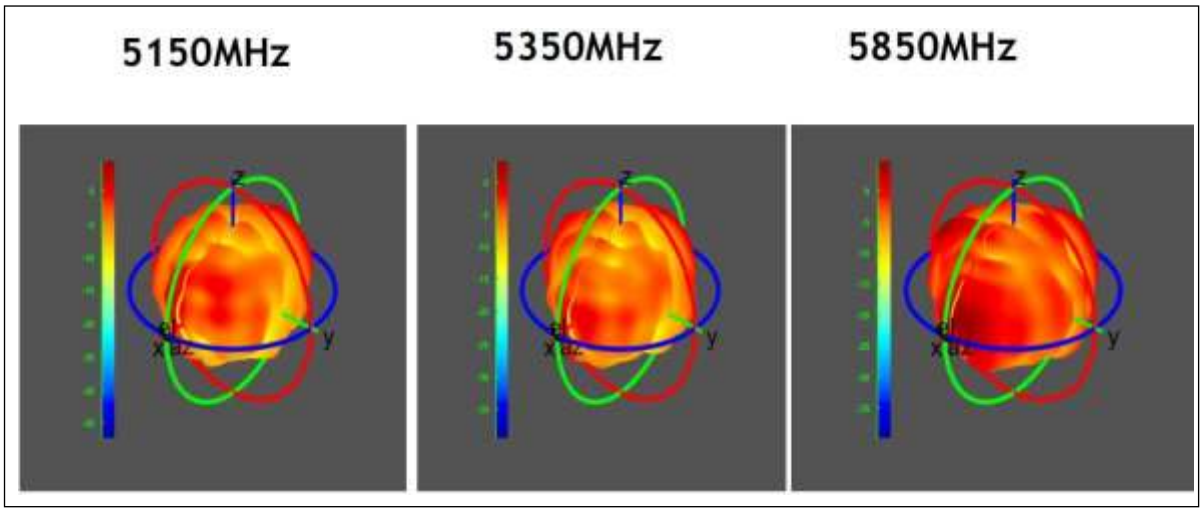
Antenna Efficiency& Peak Gain (2.4/5.8G#2)

2400	6.3353	4.41	-1.9253	84.1906	53.8117	65.4418	84.9686	6.5873	13.6366	6.7287	33
2450	5.8209	3.6652	-1.3557	72.1968	51.948	65.9976	116.9061	5.9739	11.9681	5.3284	34
2500	5.6424	3.9792	-1.6632	88.1836	54.7478	86.5025	100.4049	7.8784	9.0155	4.2988	72
5150	5.0104	4.2135	-3.0972	45.6863	38.2662	17.6371	71.4729	7.1067	11.3183	15.9557	0
5200	5.0108	3.4193	-4.3924	34.7348	38.9223	17.3434	70.4911	6.5451	12.3228	16.4128	4
5250	7.8239	2.8227	-5.0912	31.6138	42.3843	16.9389	72.915	7.4006	12.6833	15.6869	8
5300	5.0655	2.968	-4.0975	30.9206	40.2303	19.015	73.6867	9.3891	11.8026	16.593	22
5350	5.0025	2.6809	-5.1016	30.8917	35.4891	21.9018	72.3433	11.2179	10.9733	16.9256	0
5400	5.3559	3.439	-4.9248	32.1748	35.6594	24.9651	67.7329	13.0413	11.2309	17.931	0
5450	5.3071	4.0273	-3.0798	40.9217	37.99	24.6068	67.9888	11.6972	13.0435	18.1802	2
5500	5.5902	5.0359	-2.9543	50.6484	35.9196	25.4389	69.3701	10.92	15.967	17.7478	4
5550	5.6204	5.7178	-2.9026	51.2553	33.2672	35.666	69.5587	9.2653	14.4105	17.3788	6
5610	5.1581	5.2606	-2.3973	57.5801	34.5794	44.0294	66.6877	8.4687	13.9858	18.8	10
5670	7.0767	5.1349	-1.9418	63.9674	39.6406	36.6061	62.4793	9.351	11.0162	17.0613	14
5730	7.1306	5.1505	-1.9831	65.386	35.0025	35.7867	48.9887	13.3967	12.5148	16.5334	10
5795	7.4477	5.0305	-2.4174	57.314	33.5883	72.4597	48.1525	11.7179	14.556	15.6756	10
5850	6.988	4.4886	-2.5013	56.2171	39.1551	77.913	39.6982	10.4381	18.9779	14.9826	188
5900	7.1781	4.7168	-2.4613	56.7374	40.0221	76.4709	40.5435	10.0351	19.5536	14.6616	14
5950	7.3959	4.8968	-2.7891	52.6127	40.1784	86.7174	71.7295	8.8566	19.6051	14.2134	14
6000	7.8468	4.747	-2.8978	51.3123	41.5137	81.8456	64.5913	8.4006	18.2328	14.3567	188

Radiation patterns- 3D (2.4G#2)



Radiation patterns- 3D (5.8G#2)



Throughput Testing:

Mode	11AX HT40 (2.4G)
Upload Link	422.942Mbps
Download Link	435.394Mbps
Mode:	11AX HT80 (5.8G)
Upload Link	923.934Mbps
Download Link	901.328Mbps

RF Signal Strength Testing:

Distance	Band	Signal Strength/ Link Quality
5M	2.4G	-27dBm/ 78%
5M	5.8G	-36dBm/ 67%

Accessory

AP	1
Lan cable	1
Mounting Accessories	1
Gift Box	1

Sticker and Packing box: