

11ax 1800Mbps Inwall Wireless AP

Model: AIR-WAP640



Specification

AIR-WAP640 is an 11ax Wi-Fi standard high performance in wall wireless access point with multiple ports and 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:

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.

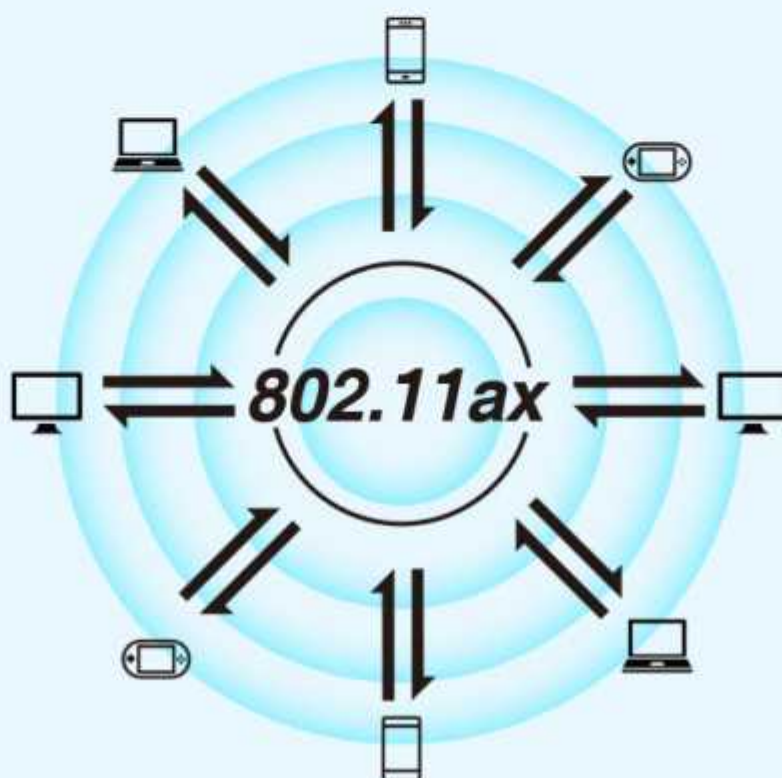
802.11ax:

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

802.11ac:

256-QAM

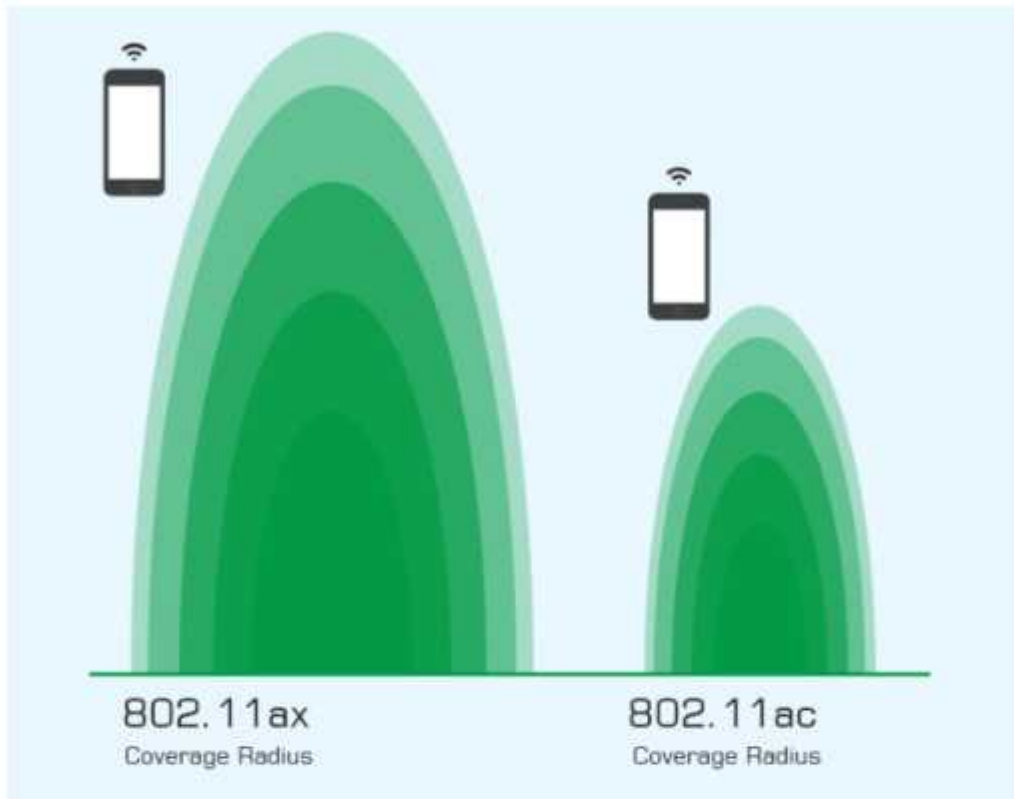
DL/ UL MU-MIMO. 802.11ax support both downlink MU-MIMO and uplink MU-MIMO. It can communicate with multiple end users at the same time, greatly improving the user's uplink transmission rate and the system's uplink and downlink capacity, improving the efficiency of multi-user concurrent scenarios, reducing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



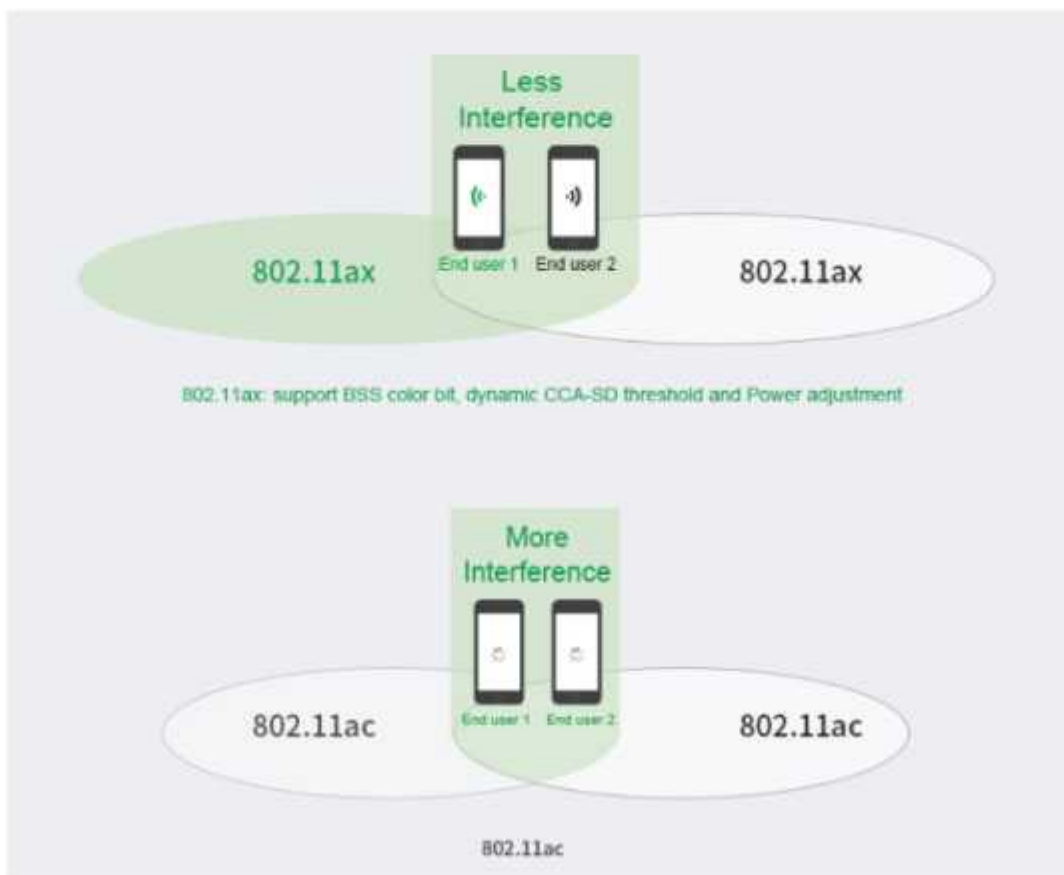
TWT (Target Wake-up Time). 802.11ax support TWT, allowing devices to negotiate when need to wake up, send and receive data. In additional, wireless AP can group the device into different TWT cycles, increase sleep time, reduce the device competing after wake-up, and save the device power.



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 Wi-Fi 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

Standard	802.11ax/ac/b/g/n
Flash	SPI NOR 16MB
Memory	128MB
2.4G Frequency	2.4GHz - 2.484GHz
2.4G Wi-Fi standard	802.11b/g/n/ac/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
	4 * 10/100 /1000 RJ45 LAN Ports (Optional: 3*10/ 100/ 1000 RJ45 LAN, 1* RJ11)
	1 * Reset button, press 10 seconds to revert to default setting
Antenna	2.4G: 2dBi; 5G: 4dBi
Data Rate	1800Mbps
End Users	120+
RF Power	2.4G≤20dBm; 5.8G≤19dBm
PoE	48V (IEEE 802.3af/at)
LED light	Sys
Power Consumption	≤ 14W
ESD	±6KV
Size	86mmX86mmX45mm

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,
	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.

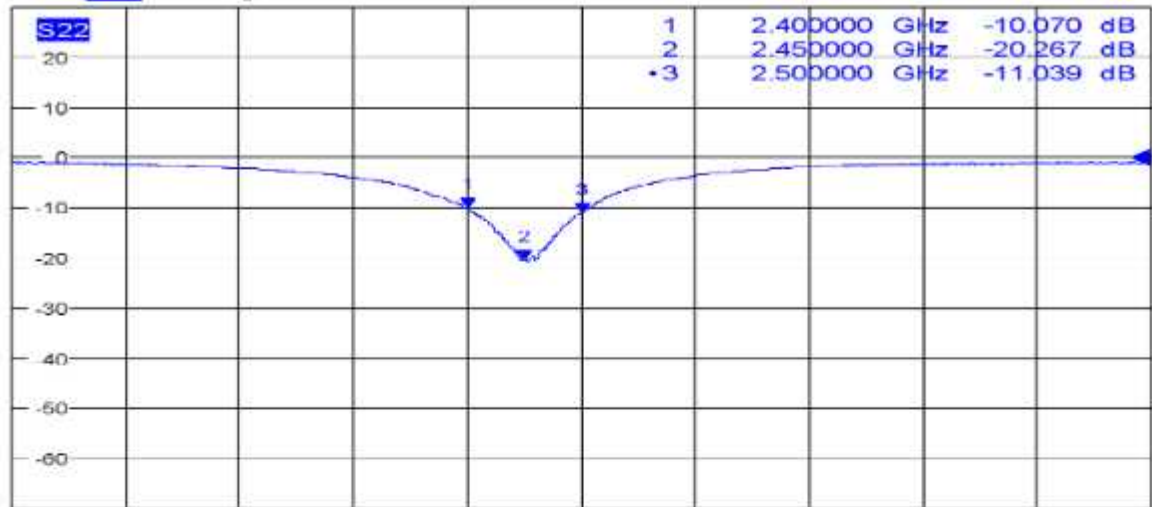
Networking Function	VLAN settings
	Bridge / NAT mode
Device Management	Back-up the configuration
	Restore the configuration
	Reset to factory default
	Reboot the device: including time reboot or reboot immediately
	Admin management password modify
	Firmware upgrade
	System log
	Support firmware GUI web management, AC controller management, Remote or Local
Protocols	IPv4

Antenna Specification

Frequency Range	2.4-2.5GHz
Impedance	50 Ohms nominal
Gain	2dBi
Radiation	Omni
Polarization	Linear
Return Loss/VSWR	



Trc1 S22 dB Mag 10 dB / Ref 0 dB Cal 1

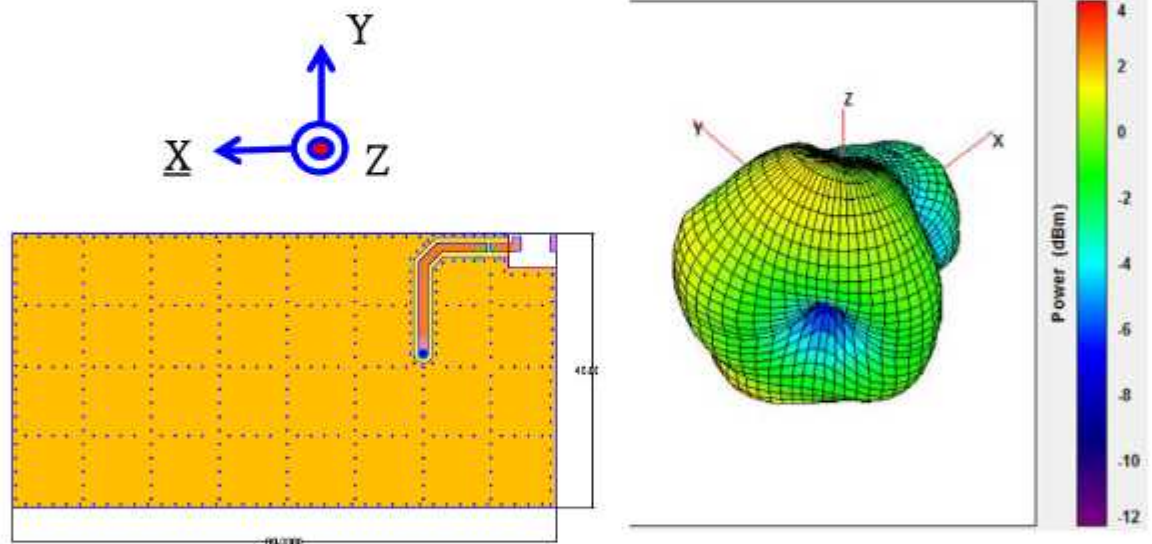


Ch1 Start 2 GHz

Pwr -10 dBm

Stop 3 GHz

Radiation Pattern



	Efficiency	Peak Gain	Directivity
2400MHz	64.77 %	2.62 dBi	5.15 dBi
2450MHz	75.12 %	3.19 dBi	5.03 dBi
2500MHz	66.18 %	2.64 dBi	5.10 dBi

Frequency Range

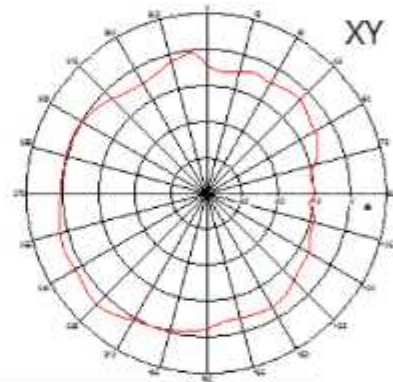
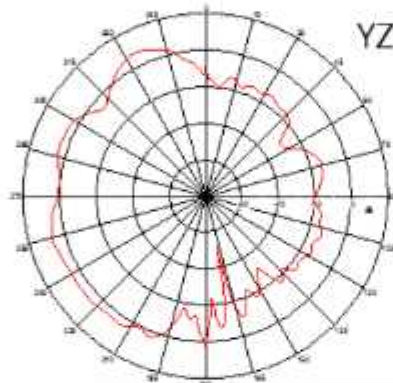
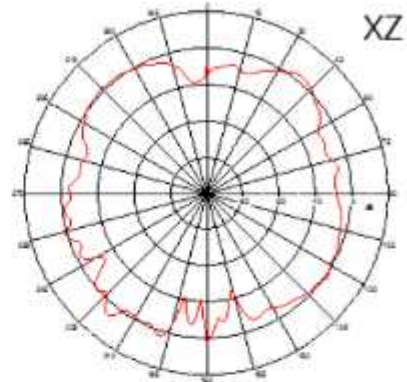
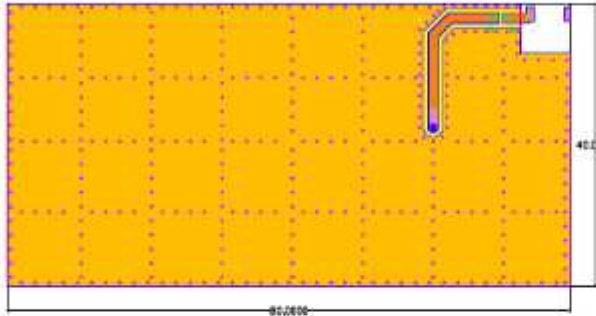
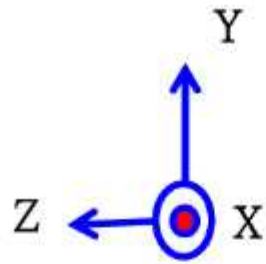
5.15-5.85GHz

Impedance	50 Ohms nominal
Gain	4dBi
Radiation	Omni
Polarization	Linear

Return Loss/VSWR



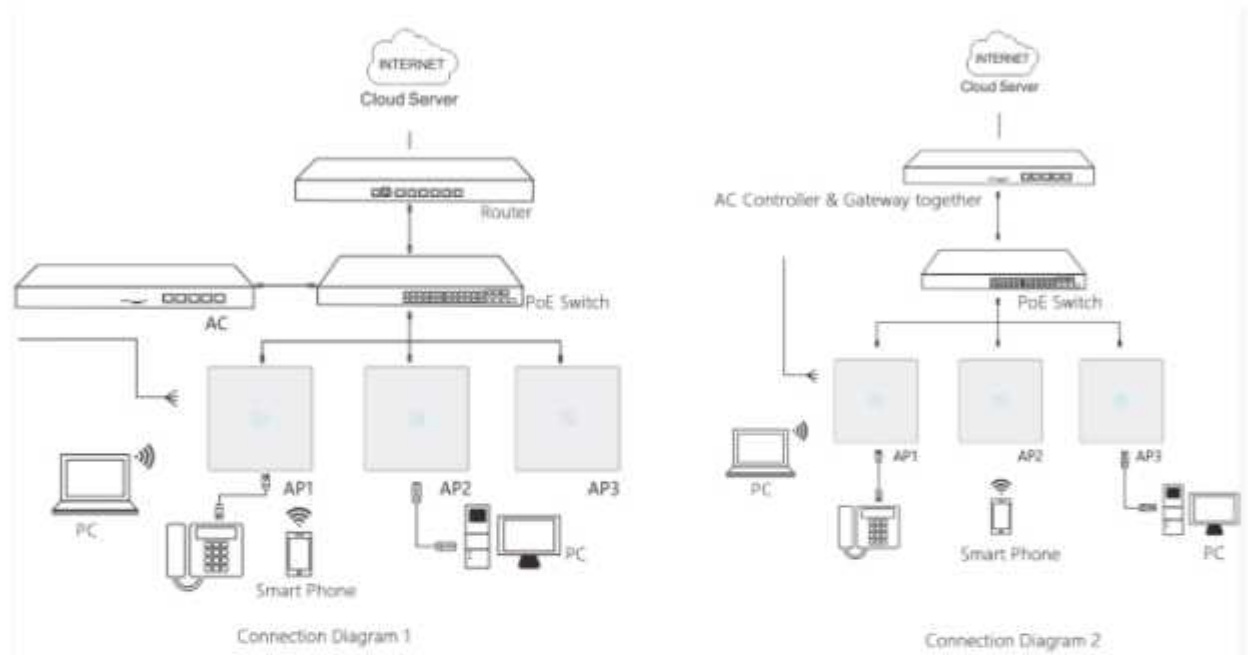
Radiation Pattern



	Efficiency	Peak Gain
5150MHz	72.73 %	4.05 dBi
5500MHz	84.66 %	4.63 dBi
5850MHz	69.57 %	3.87 dBi

Application

For Hostel/School:



Accessory

AP	1Pcs
Screw	2Pcs
Gift Box	1