

11ax 1800Mbps Ceiling Wireless AP

Model: G-LITE-6



Short Specification

G-LITE-6 is an 11ax Wi-Fi standard MTK Chipset high power industrial Ceiling Wireless Access Point support MU-MIMO, Wave2.0, OFDMA and Seamless Roaming.

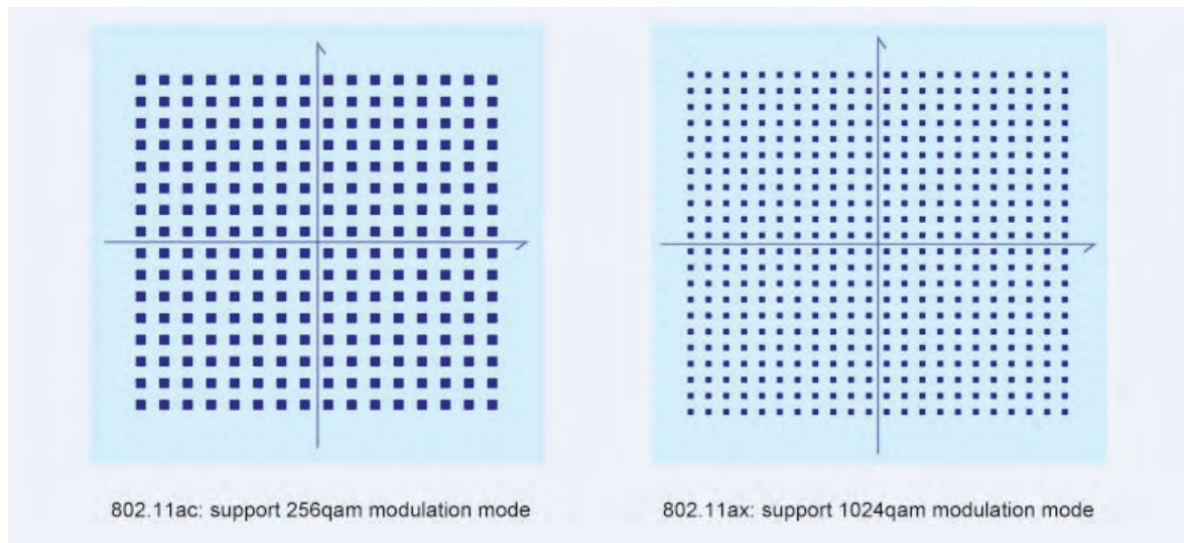
Combined 1800Mbps Wi-Fi speed over 2 radios: 2.4GHz (600Mbps 11ax 2*2) + 5GHz (1200Mbps 2*2), equipped Gigabit WAN & LAN ports, support MU-MIMO and DL/UL-OFDMA modulation, faster Ethernet data rate and more users, then multiple users can upload or download multiple packets at same time, narrower subcarrier 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:

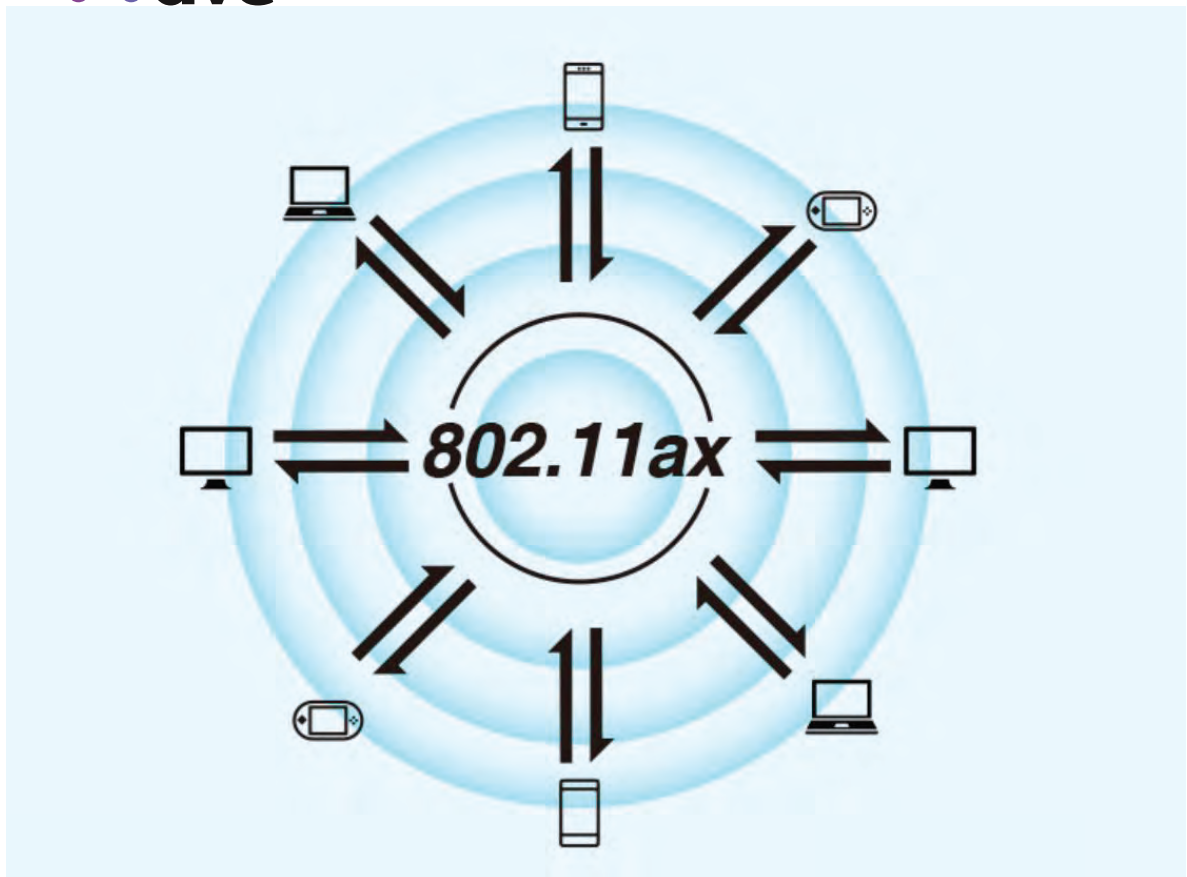
Wireless data rate up to 1.8Gbps. 802.11ax support 1024QAM, long OFDM symbol, 80M bandwidth and 11ax 2x2 MIMO technology, the wireless data rate up to 1.8Gbps, meet with demand of high-speed applications such as VR/ AR, 4K or 8K stream media.

802.11ax:	1024-QAM, Long OFDM Symbol, Max 160MHz bandwidth
802.11ac:	256-QAM

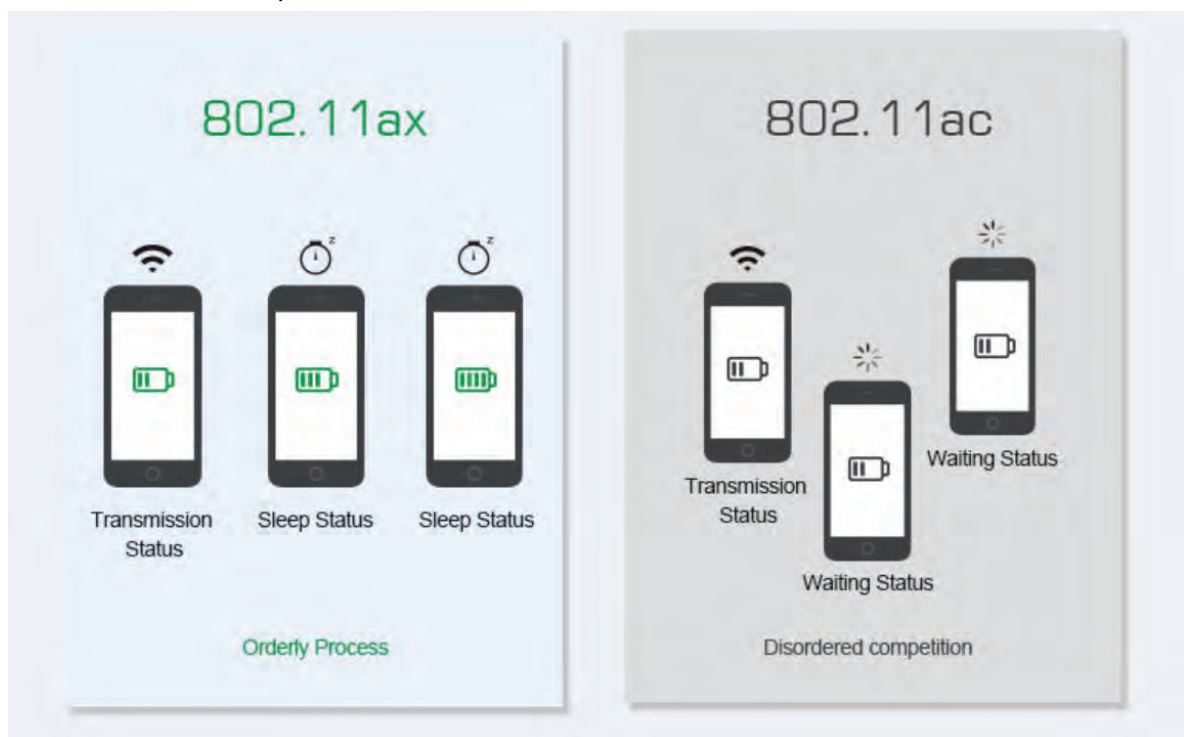
1024-QAM Modulation Mode. 802.11ax adopt 1024-QAM modulation, which is more efficient than 802.11ac modulation, the throughput of single spatial traffic is increased by 25%.



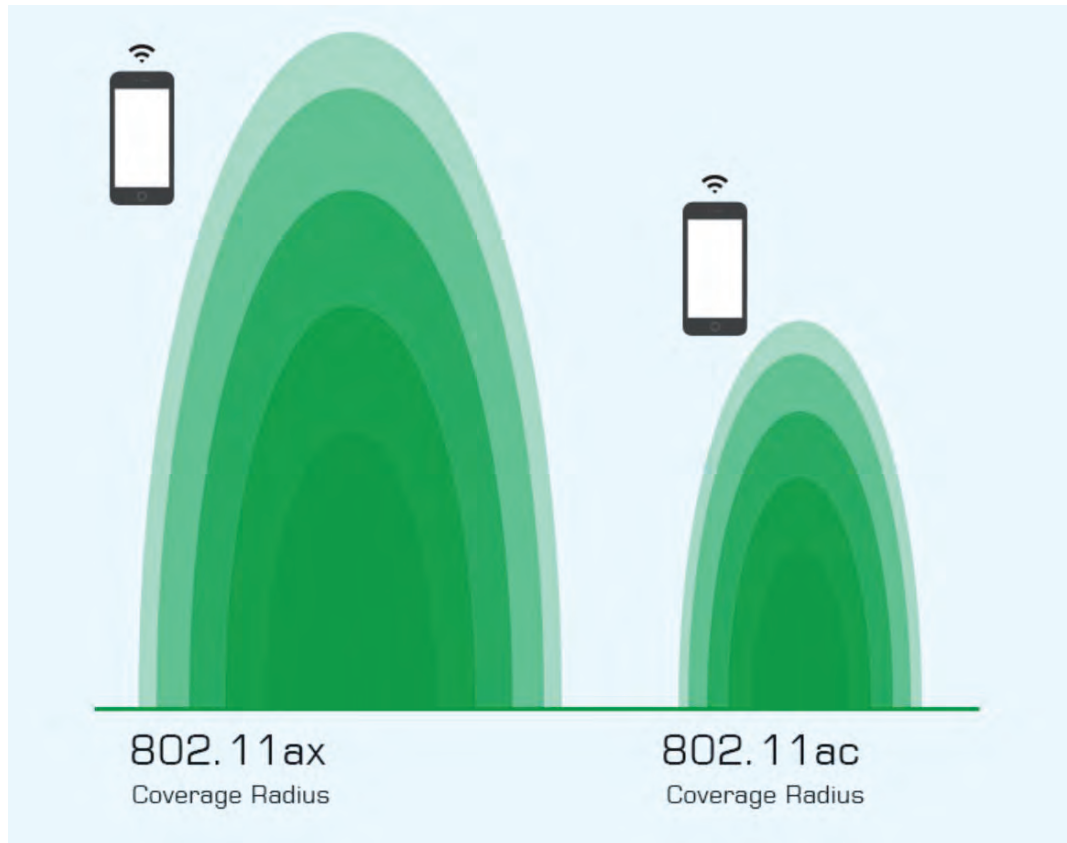
DL/ UL MU-MIMO. 802.11ax support both downlink MU-MIMO and uplink MU-MIMO. It can communicate with multiple end users at the same time, greatly improving the user's uplink transmission rate and the system's uplink and downlink capacity, improving the efficiency of multi-user concurrent scenarios, reducing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



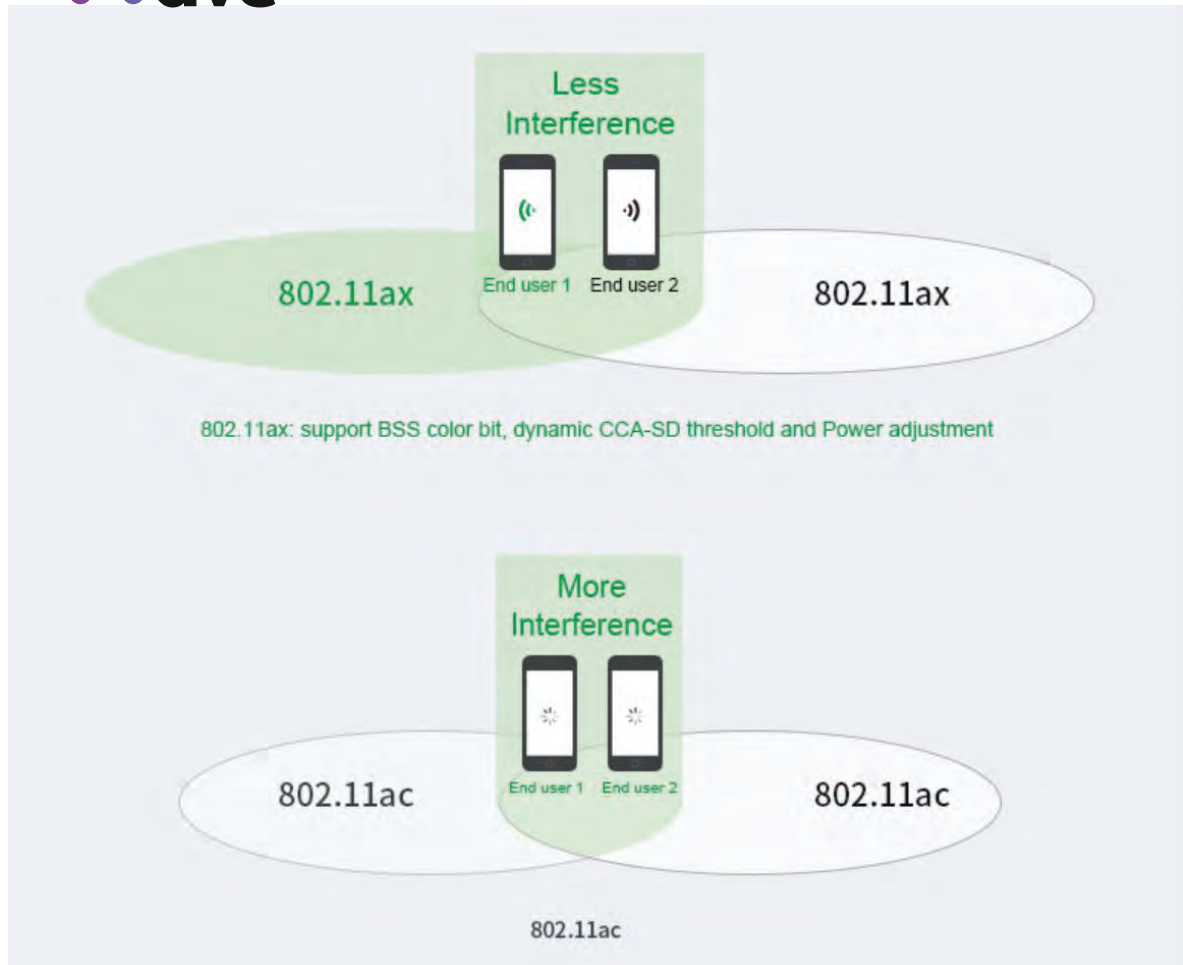
TWT (Target Wake-up Time). 802.11ax support TWT, allowing devices to negotiate when need to wake up, send and receive data. In additional, wireless AP can group the device into different TWT cycles, increase sleep time, reduce the device competing after wake-up, and save the device power.



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	MT7621DAT+MT7905N+MT7975DN
Standard	802.11ax/ac/b/g/n
Flash	SPI NOR 8MB
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
	1 * 10/100 /1000 RJ45 LAN Port
	1 * Reset button, press 10 seconds to revert to default setting
	USB3.0 and Bluetooth are optional if need.
Antenna	Build in 4dBi MIMO Antenna
Data Rate	1800Mbps
End Users	120+
RF Power	≤ 18dBm
DC	12V----1.5A
PoE	48V (IEEE 802.3af/at)



LED light	Sys and WiFi, WAN, LAN
Power Consumption	≤ 15W
Size	168mmX168mmX32mm

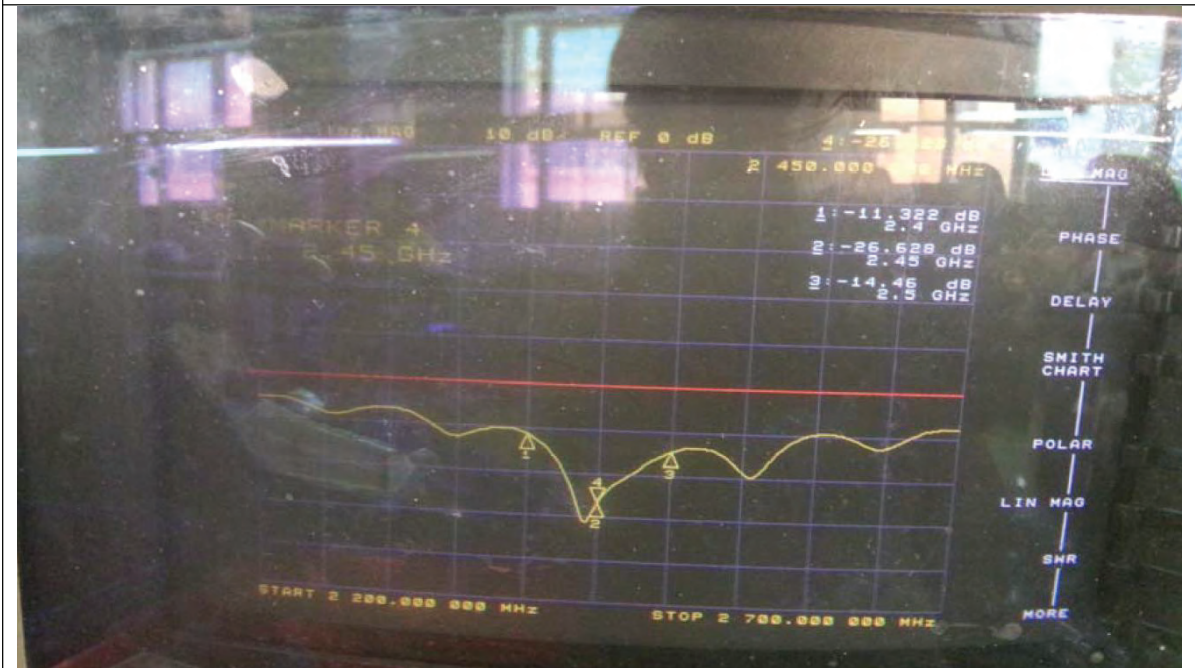
Firmware Specification

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	2.4-2.5GHz
Impedance	50 Ohms nominal
Gain	4dBi
Radiation	Omni
Polarization	Vertical

Return Loss/VSWR

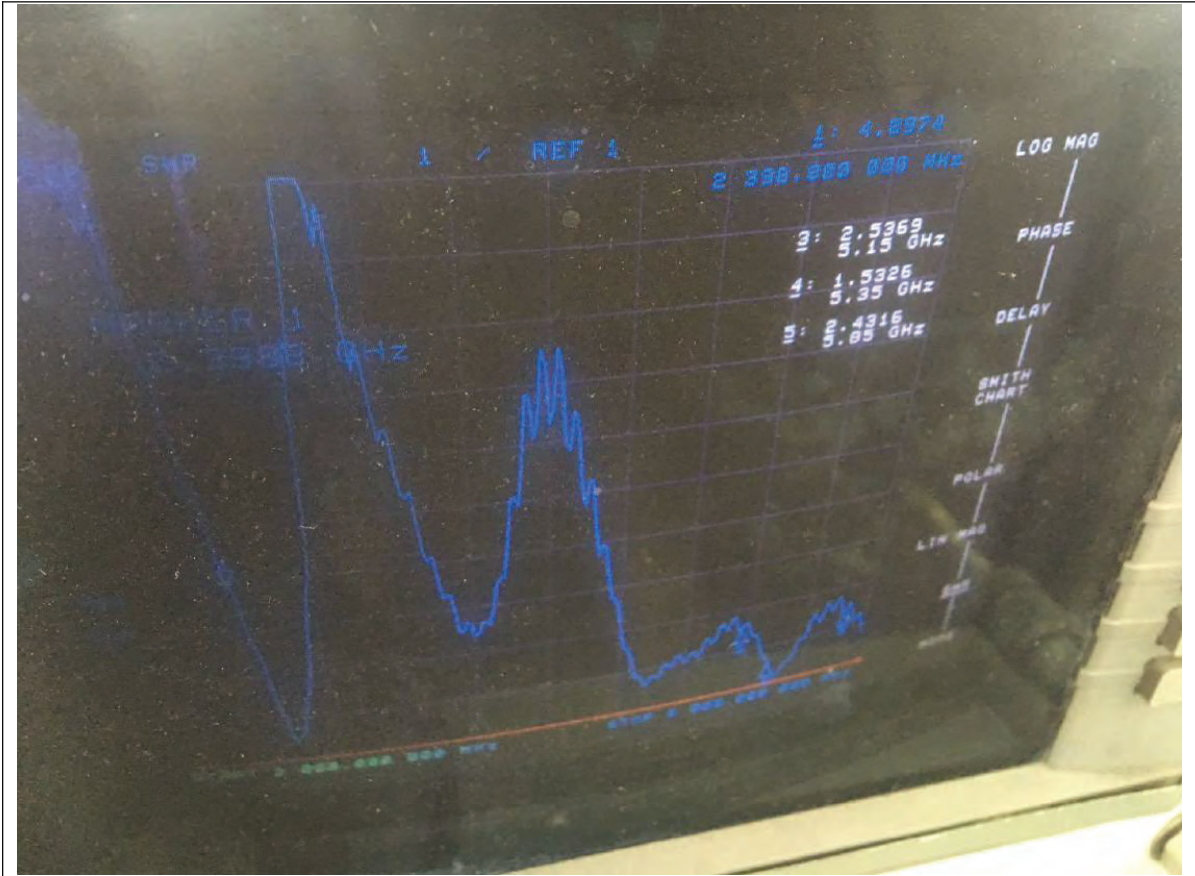


Frequency Range	5.15-5.85GHz
Impedance	50 Ohms nominal

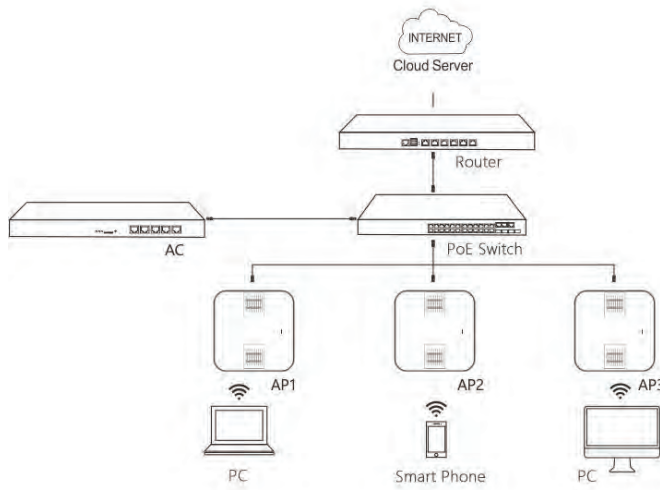
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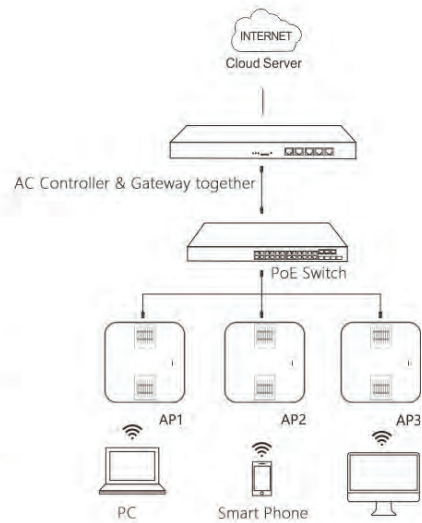




Application



Connection Diagram 1

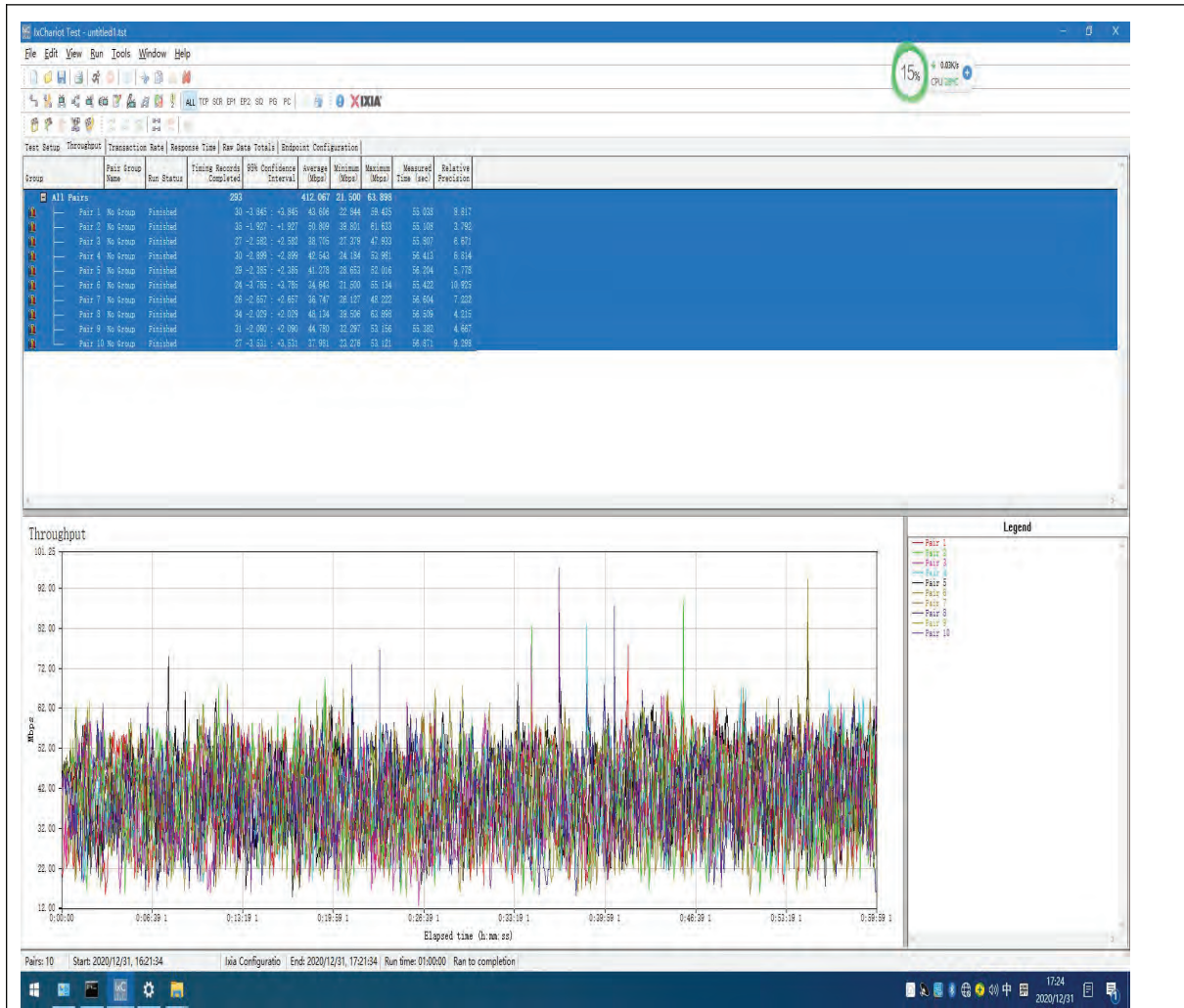


Connection Diagram 2

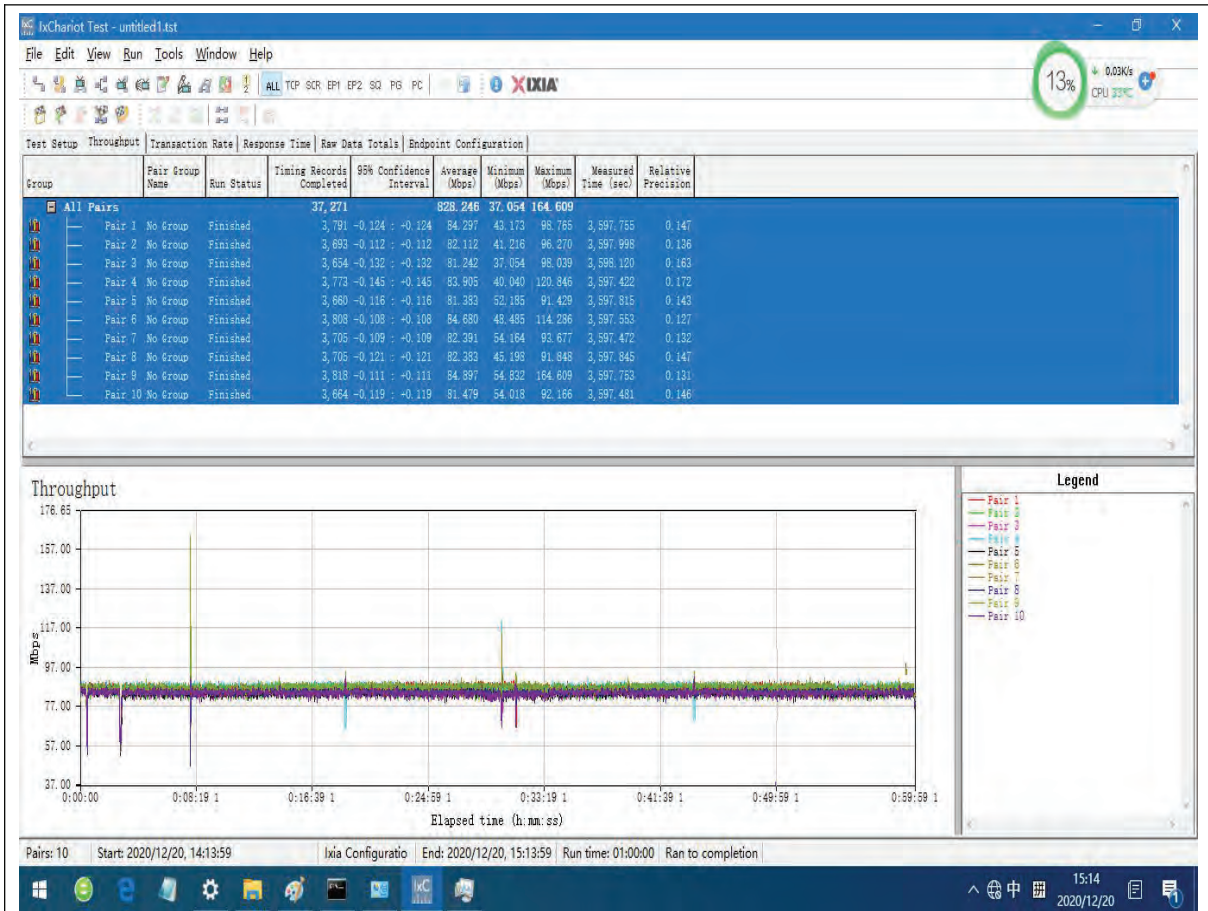


Throughput Testing:

Mode	11AX HT40 (2.4G)																																																																																																																								
Upload Link	397Mbps																																																																																																																								
<p>The screenshot displays the IxChnelt Test interface. At the top, it shows 'Mode: 11AX HT40 (2.4G)' and 'Upload Link: 397Mbps'. Below this is a table of test results for 10 pairs. The 'All Pairs' summary shows 18,208 transactions, 397,967 records, and an average throughput of 14,338 Mbps. The throughput graph below shows a steady performance around 40,000 Mbps with some spikes. The legend identifies the 10 test pairs.</p> <table border="1"> <thead> <tr> <th>Group</th> <th>Pair Group Name</th> <th>Run Status</th> <th>Timing Records Completed</th> <th>95% Confidence Interval</th> <th>Average (Mbps)</th> <th>Minimum (Mbps)</th> <th>Maximum (Mbps)</th> <th>Measured Time (sec)</th> <th>Relative Precision</th> </tr> </thead> <tbody> <tr> <td>All Pairs</td> <td></td> <td></td> <td>18,208</td> <td>397,967</td> <td>14,338</td> <td>73,665</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pair 1</td> <td>No Group</td> <td>Finished</td> <td>1,019</td> <td>-0.110 ~ +0.110</td> <td>45.039</td> <td>24.933</td> <td>52.049</td> <td>3,653.694</td> <td>0.216</td> </tr> <tr> <td>Pair 2</td> <td>No Group</td> <td>Finished</td> <td>1,015</td> <td>-0.130 ~ +0.130</td> <td>40.452</td> <td>22.721</td> <td>57.554</td> <td>3,653.094</td> <td>0.328</td> </tr> <tr> <td>Pair 3</td> <td>No Group</td> <td>Finished</td> <td>1,027</td> <td>-0.105 ~ +0.105</td> <td>39.947</td> <td>23.509</td> <td>55.325</td> <td>3,653.943</td> <td>0.262</td> </tr> <tr> <td>Pair 4</td> <td>No Group</td> <td>Finished</td> <td>1,012</td> <td>-0.097 ~ +0.097</td> <td>39.624</td> <td>26.711</td> <td>73.665</td> <td>3,653.435</td> <td>0.246</td> </tr> <tr> <td>Pair 5</td> <td>No Group</td> <td>Finished</td> <td>1,015</td> <td>-0.099 ~ +0.099</td> <td>39.438</td> <td>23.175</td> <td>51.680</td> <td>3,657.346</td> <td>0.250</td> </tr> <tr> <td>Pair 6</td> <td>No Group</td> <td>Finished</td> <td>1,036</td> <td>-0.124 ~ +0.124</td> <td>40.146</td> <td>14.359</td> <td>56.219</td> <td>3,653.651</td> <td>0.334</td> </tr> <tr> <td>Pair 7</td> <td>No Group</td> <td>Finished</td> <td>1,015</td> <td>-0.093 ~ +0.093</td> <td>39.551</td> <td>25.833</td> <td>53.121</td> <td>3,657.891</td> <td>0.236</td> </tr> <tr> <td>Pair 8</td> <td>No Group</td> <td>Finished</td> <td>1,023</td> <td>-0.101 ~ +0.101</td> <td>39.993</td> <td>22.179</td> <td>54.652</td> <td>3,657.519</td> <td>0.252</td> </tr> <tr> <td>Pair 9</td> <td>No Group</td> <td>Finished</td> <td>1,031</td> <td>-0.133 ~ +0.133</td> <td>40.045</td> <td>15.143</td> <td>53.619</td> <td>3,657.889</td> <td>0.333</td> </tr> <tr> <td>Pair 10</td> <td>No Group</td> <td>Finished</td> <td>1,034</td> <td>-0.108 ~ +0.108</td> <td>41.111</td> <td>27.452</td> <td>55.440</td> <td>3,657.886</td> <td>0.370</td> </tr> </tbody> </table>		Group	Pair Group Name	Run Status	Timing Records Completed	95% Confidence Interval	Average (Mbps)	Minimum (Mbps)	Maximum (Mbps)	Measured Time (sec)	Relative Precision	All Pairs			18,208	397,967	14,338	73,665				Pair 1	No Group	Finished	1,019	-0.110 ~ +0.110	45.039	24.933	52.049	3,653.694	0.216	Pair 2	No Group	Finished	1,015	-0.130 ~ +0.130	40.452	22.721	57.554	3,653.094	0.328	Pair 3	No Group	Finished	1,027	-0.105 ~ +0.105	39.947	23.509	55.325	3,653.943	0.262	Pair 4	No Group	Finished	1,012	-0.097 ~ +0.097	39.624	26.711	73.665	3,653.435	0.246	Pair 5	No Group	Finished	1,015	-0.099 ~ +0.099	39.438	23.175	51.680	3,657.346	0.250	Pair 6	No Group	Finished	1,036	-0.124 ~ +0.124	40.146	14.359	56.219	3,653.651	0.334	Pair 7	No Group	Finished	1,015	-0.093 ~ +0.093	39.551	25.833	53.121	3,657.891	0.236	Pair 8	No Group	Finished	1,023	-0.101 ~ +0.101	39.993	22.179	54.652	3,657.519	0.252	Pair 9	No Group	Finished	1,031	-0.133 ~ +0.133	40.045	15.143	53.619	3,657.889	0.333	Pair 10	No Group	Finished	1,034	-0.108 ~ +0.108	41.111	27.452	55.440	3,657.886	0.370
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Mode:	11AX HT80 (5.8G)
Upload Link	828Mbps



Download Link 880Mbps

