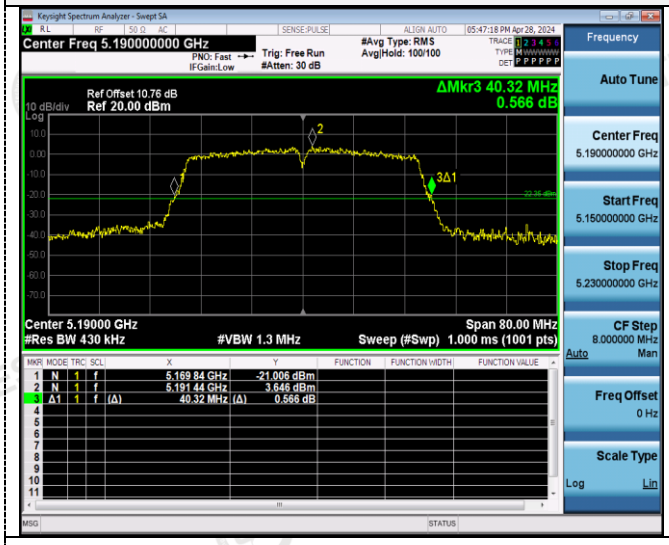
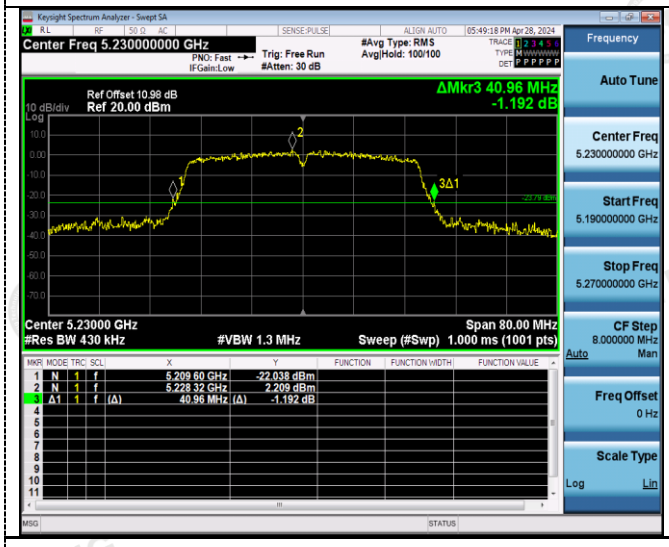
802.11n(HT40)

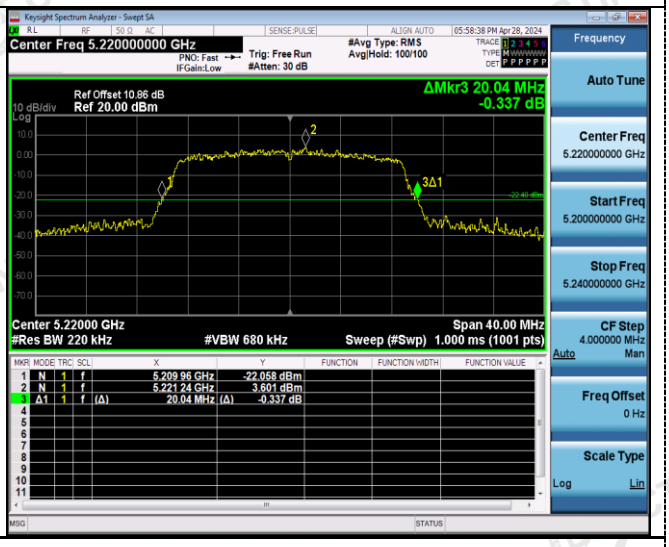


802.11ac(HT20)

CH38

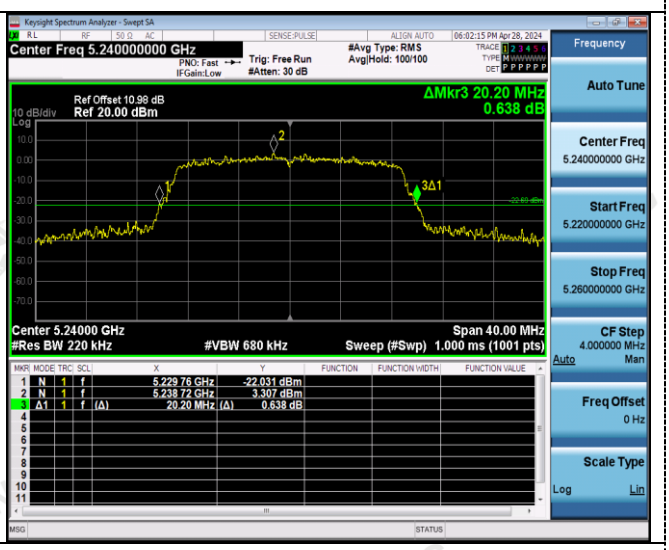
CH36





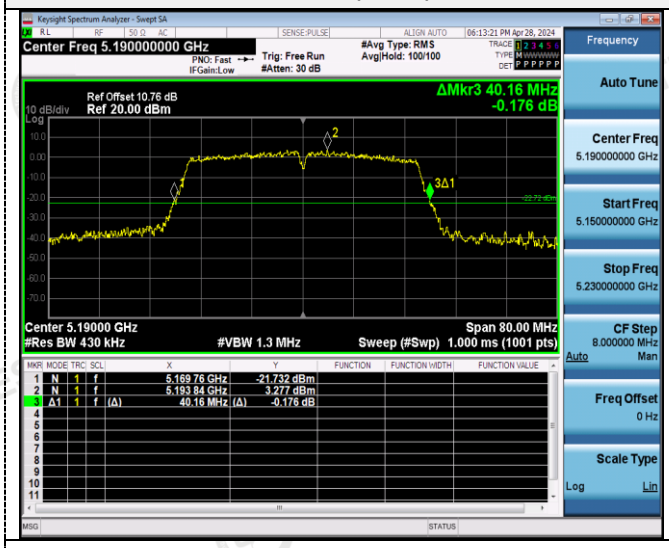
CH46

CH44

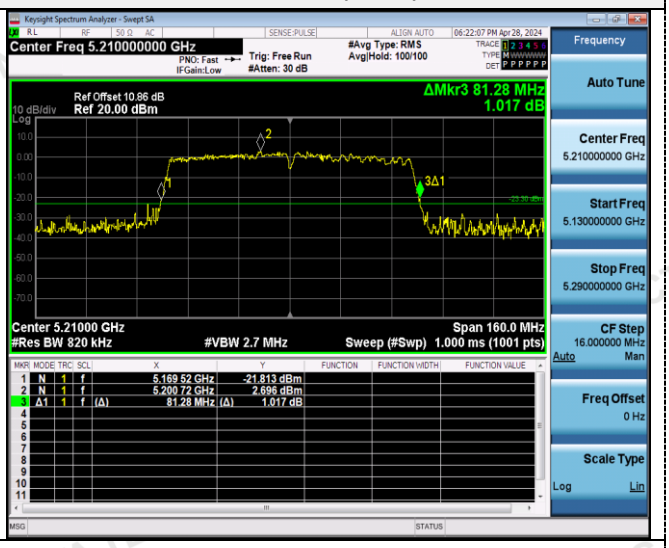


CH48

802.11ac(HT40)

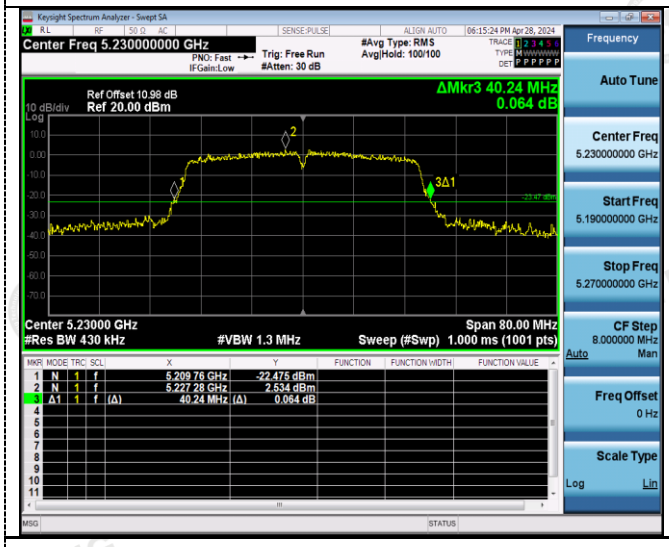


802.11ac(HT80)



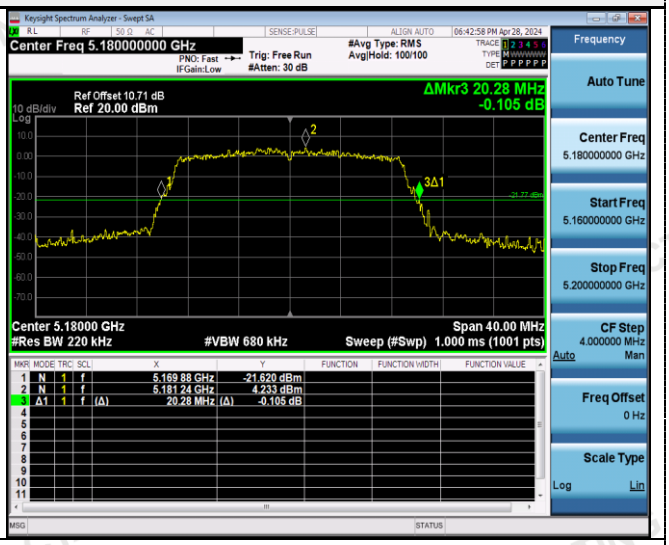
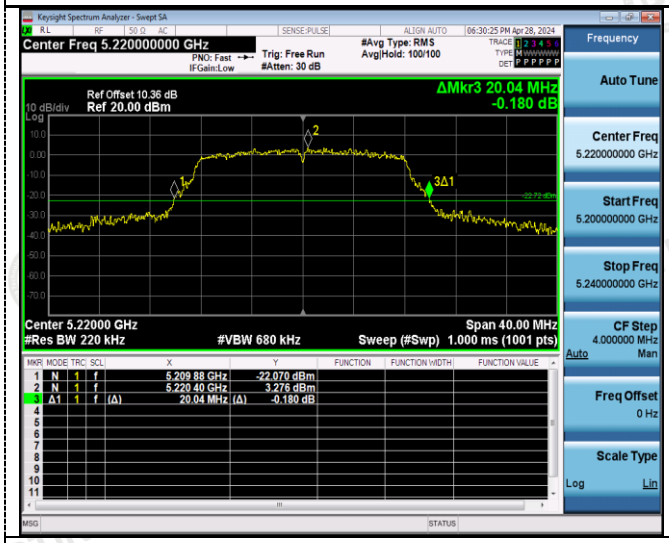
CH38

CH42



CH46

ANT 2

802.11a	*802.11n(HT20)*
	
CH36	*CH36*
	
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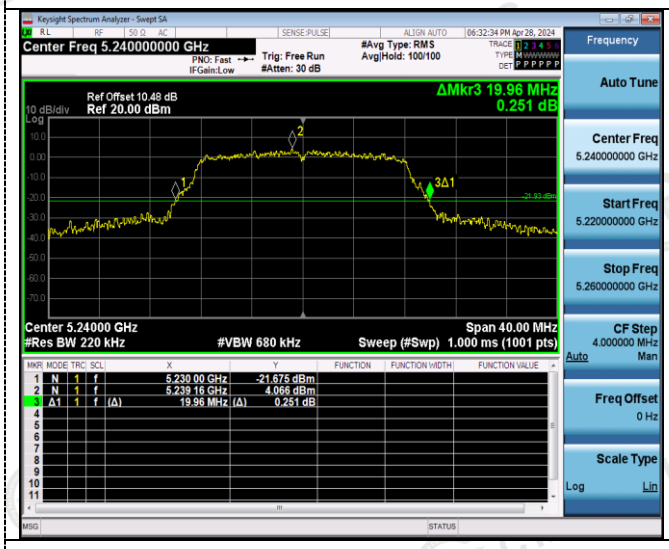
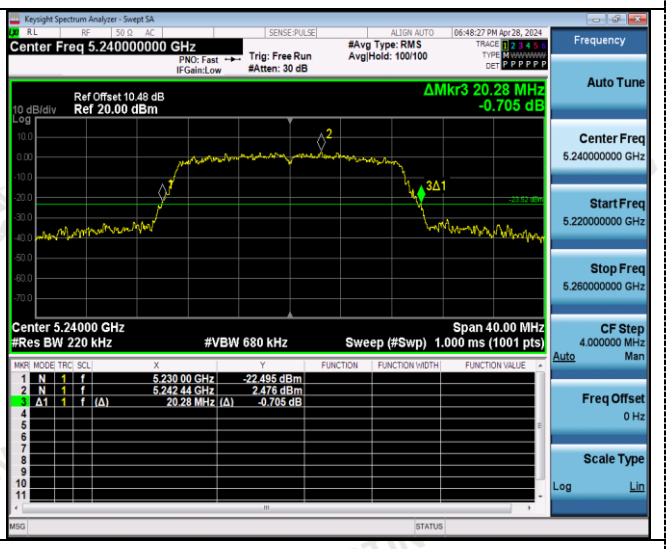
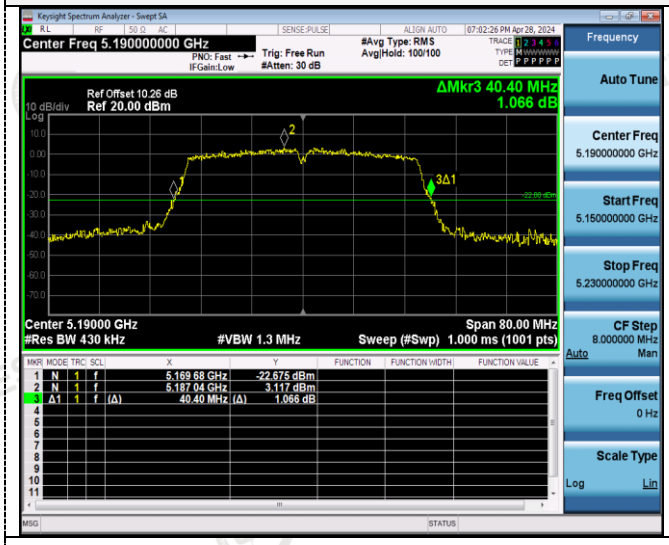
	
CH48	*CH48*

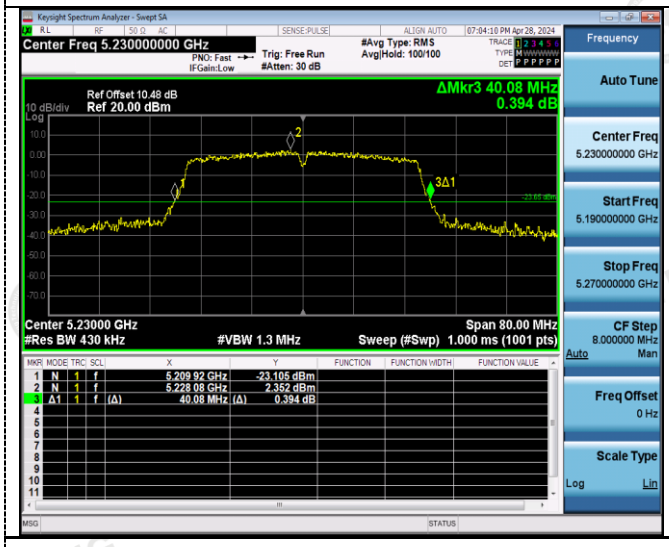
802.11n(HT40)

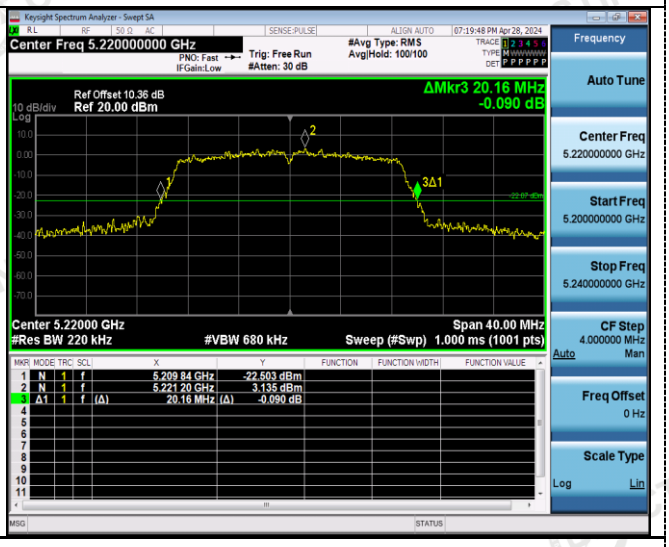


802.11ac(HT20)

CH38

CH36



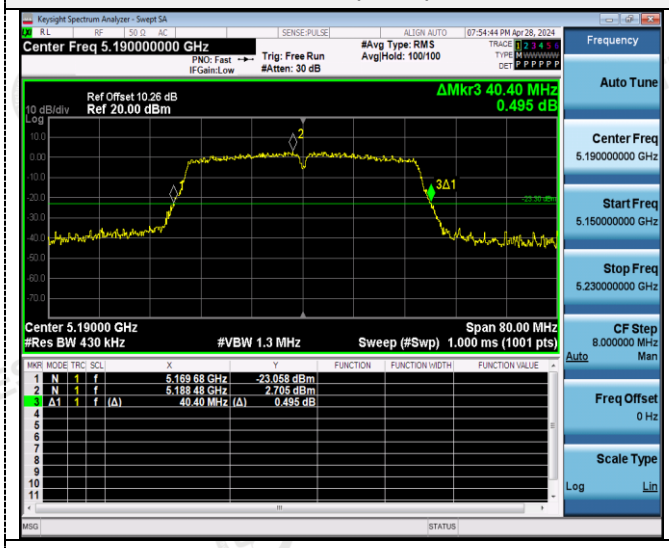


CH46

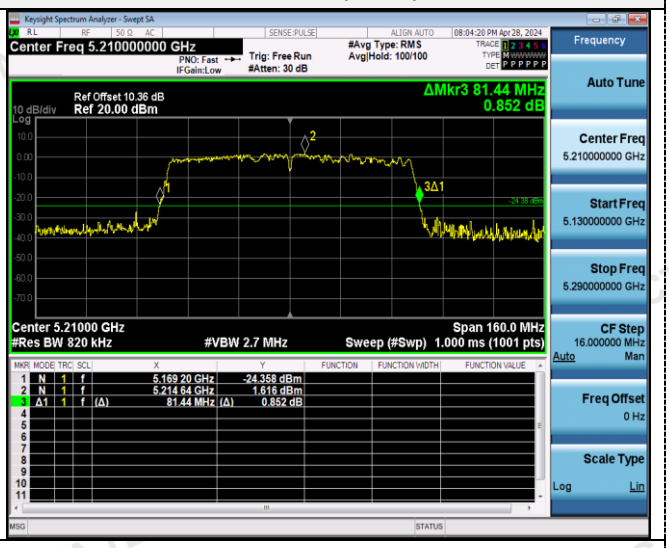
CH44

CH48

802.11ac(HT40)



802.11ac(HT80)



CH38

CH42

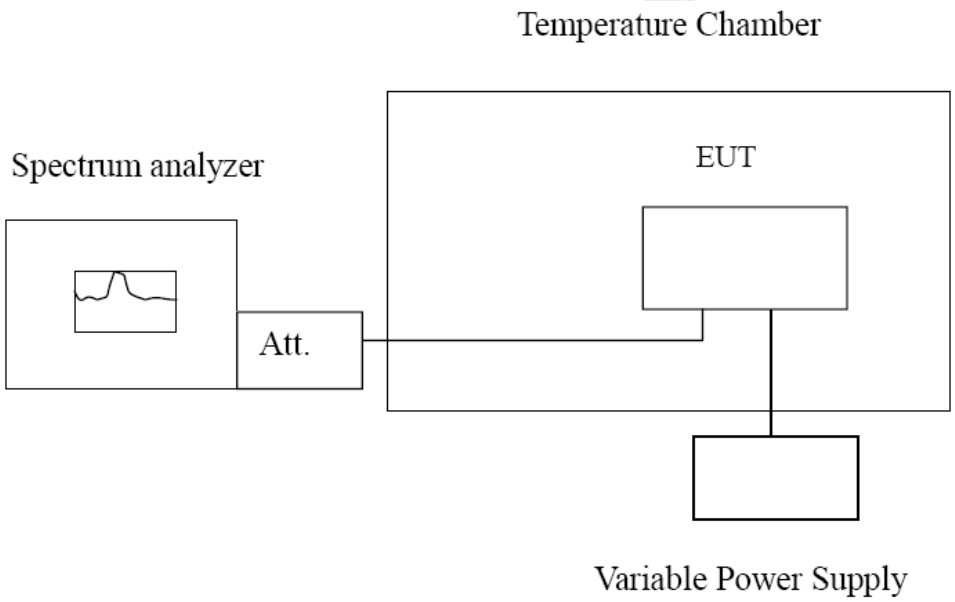
CH46

4.6 Frequency Stability

LIMIT

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

TEST CONFIGURATION



TEST PROCEDURE

Frequency Stability under Temperature Variations:
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached.

Frequency Stability under Voltage Variations:
Set chamber temperature to 20℃. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.
Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.

TEST RESULTS

Record worst case as below:

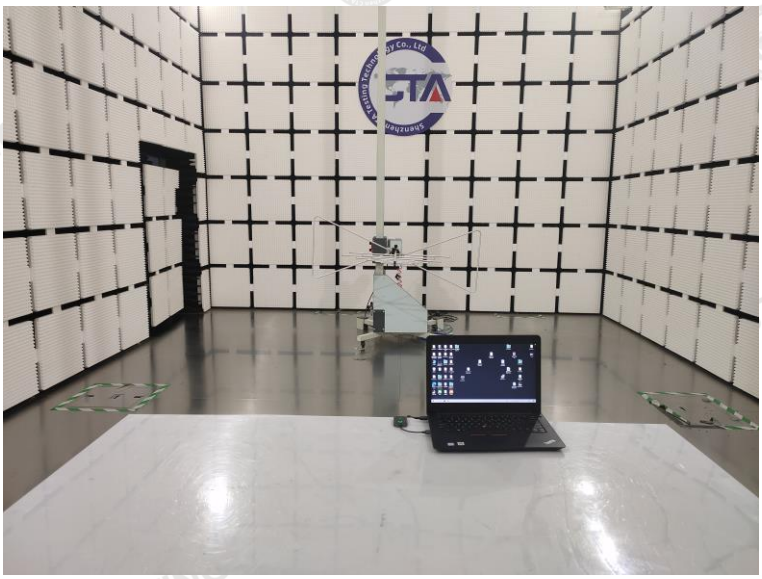
Ant1

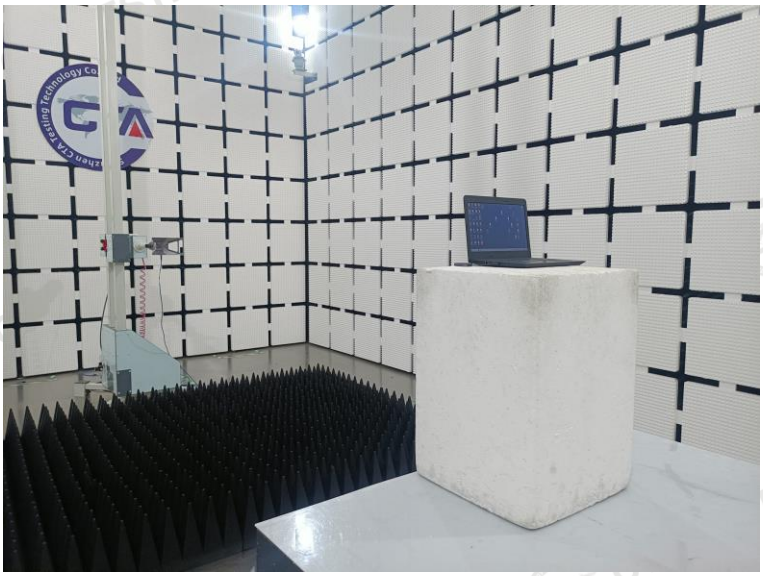
Reference Frequency: 802.11ac channel=36 frequency=5180MHz					
Voltage (V)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC 230	-30	110.63	0.021357	Within the band of operation	Pass
	-20	173.74	0.033541		
	-10	145.29	0.028048		
	0	146.85	0.028349		
	10	145.46	0.028081		
	20	99.10	0.019131		
	30	167.25	0.032288		
	40	129.83	0.025064		
	50	128.44	0.024795		
AC 240	25	195.35	0.037712		
AC 207	25	118.09	0.022797		

Ant2

Reference Frequency: 802.11ac channel=36 frequency=5180MHz					
Voltage (V)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC 230	-30	110.17	0.021268	Within the band of operation	Pass
	-20	172.25	0.033253		
	-10	145.41	0.028071		
	0	145.94	0.028174		
	10	145.08	0.028008		
	20	98.32	0.018981		
	30	166.52	0.032147		
	40	129.73	0.025044		
	50	128.85	0.024875		
AC 240	25	196.46	0.037927		
AC 207	25	117.80	0.022741		

5 Test Setup Photos of the EUT





6 Photos of the EUT

Reference to the test report **No. CTA24042402201.**

********** End of Report **********