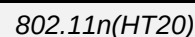
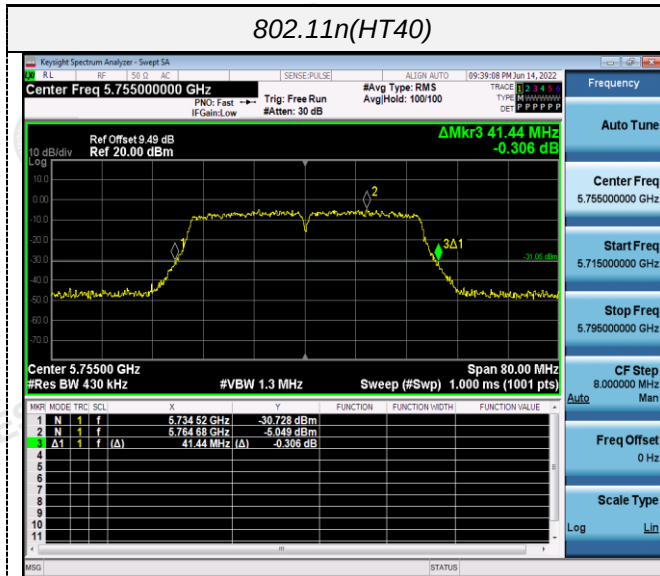


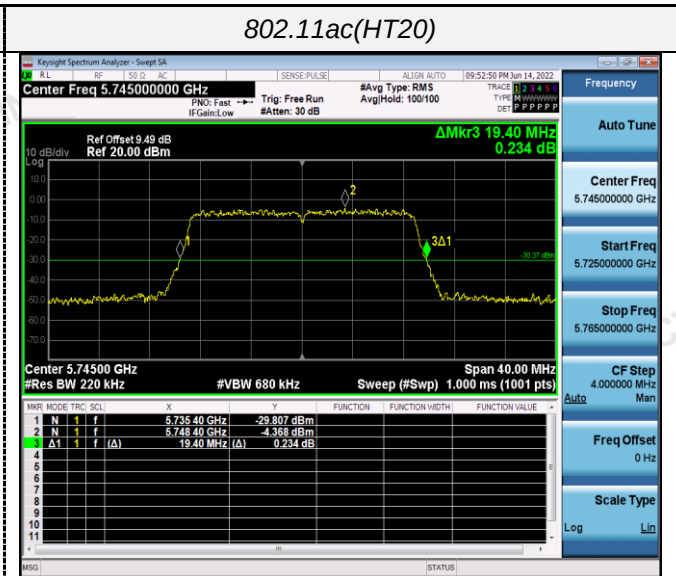
802.11a



802.11n(HT40)



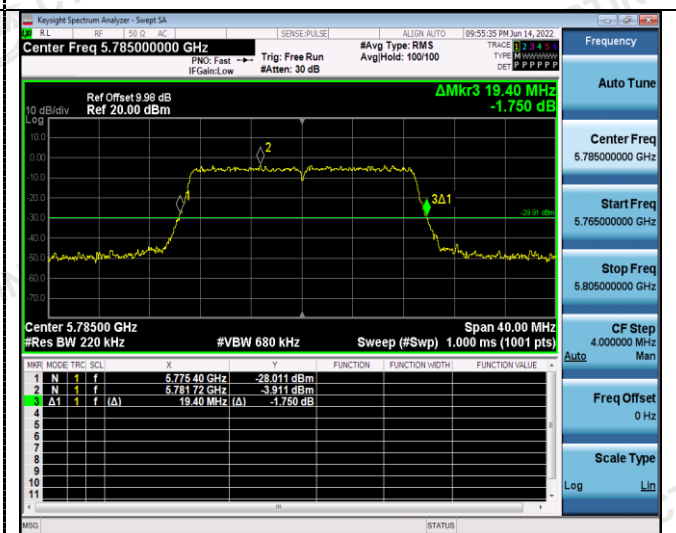
802.11ac(HT20)



CH151



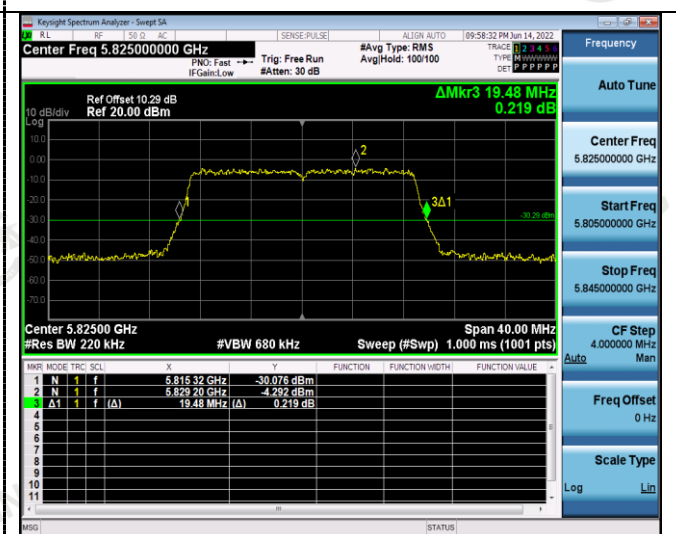
CH149



CH159

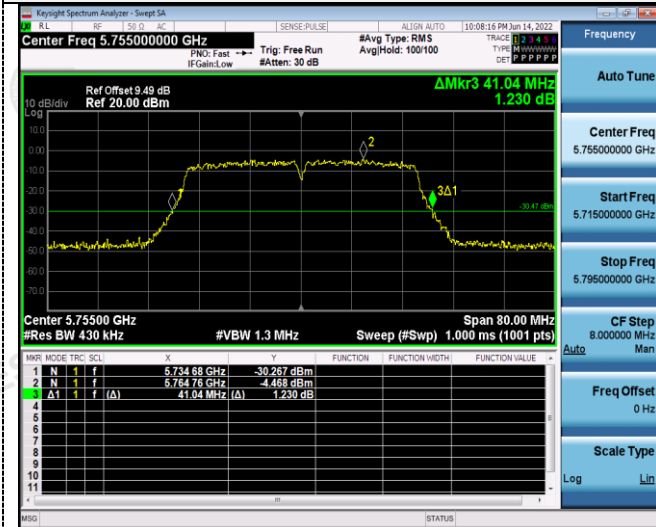


CH157



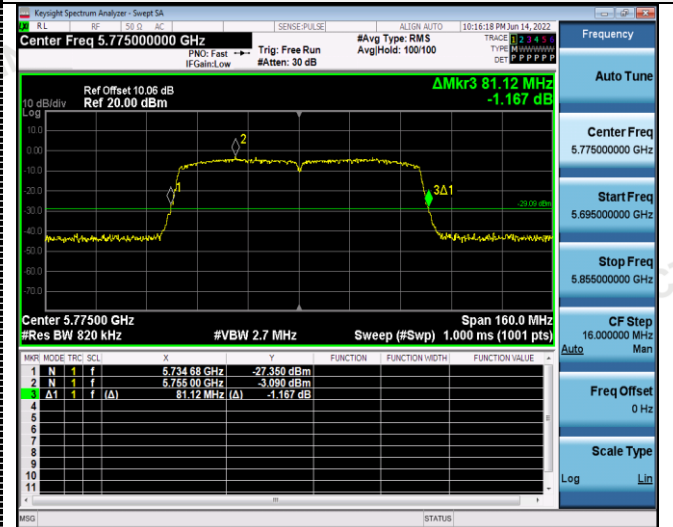
CH165

802.11ac(HT40)



CH151

802.11ac(HT80)



CH155

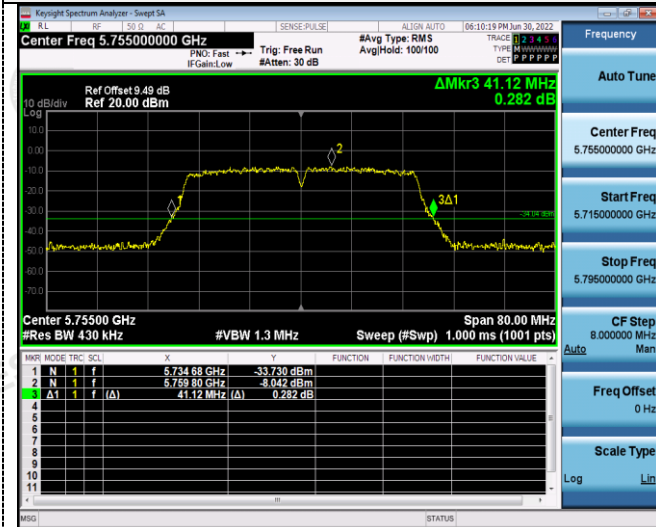


CH159

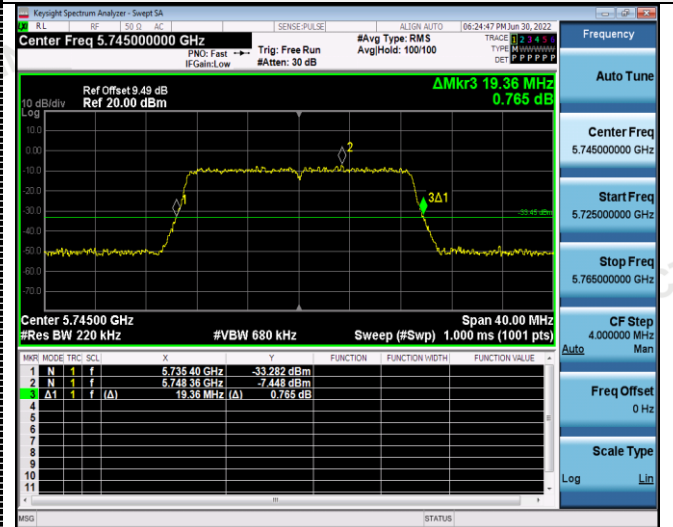
ANT 2



802.11n(HT40)



802.11ac(HT20)



CH151



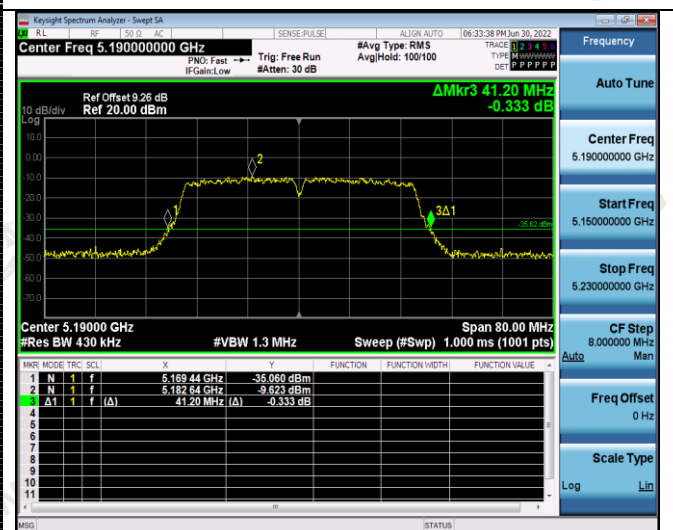
CH149



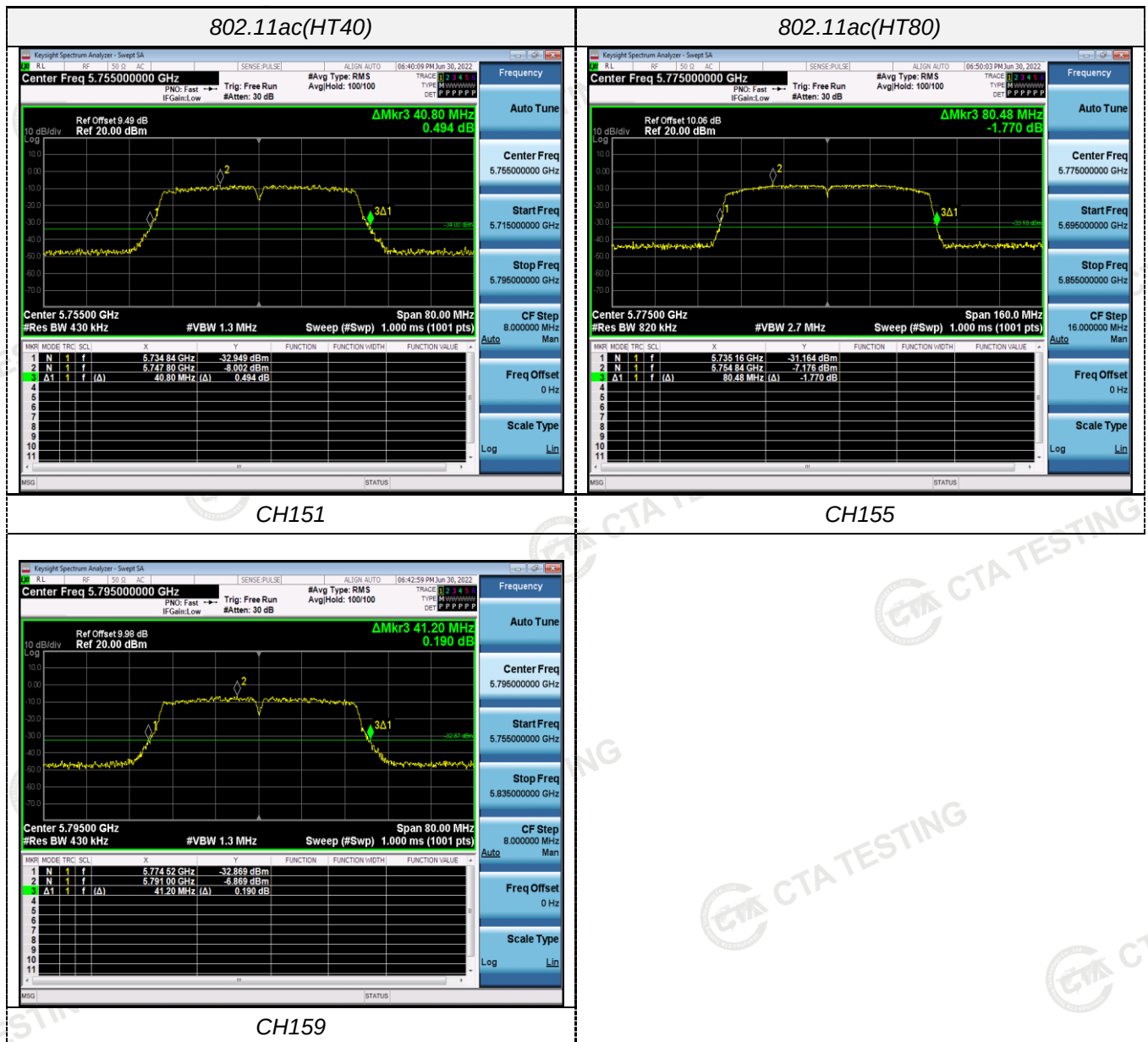
CH159



CH157



CH165

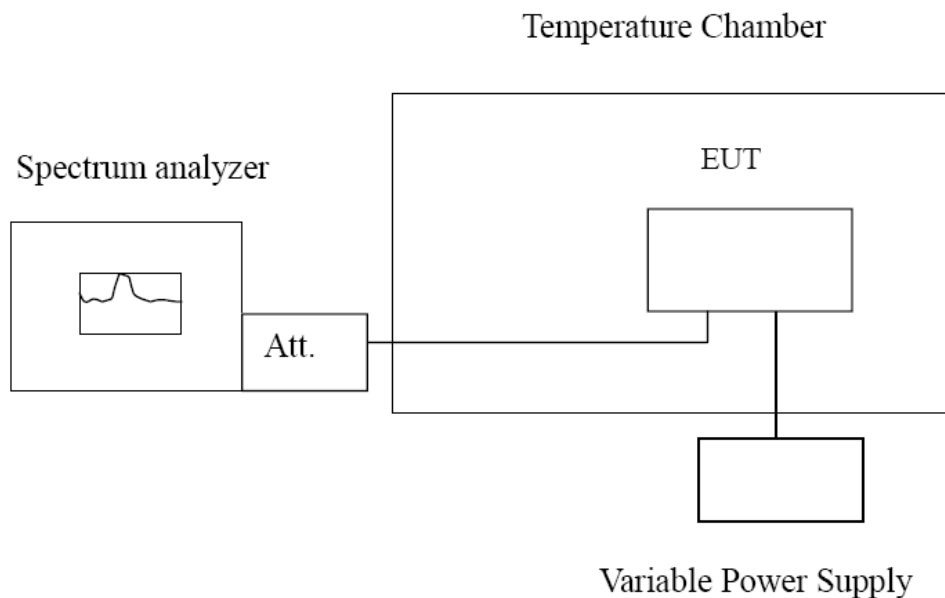


4.7 Frequency Stability

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°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Frequency Stability under Voltage Variations:

Set chamber temperature to 20°C. 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 ($\pm 15\%$) and endpoint, record the maximum frequency change.

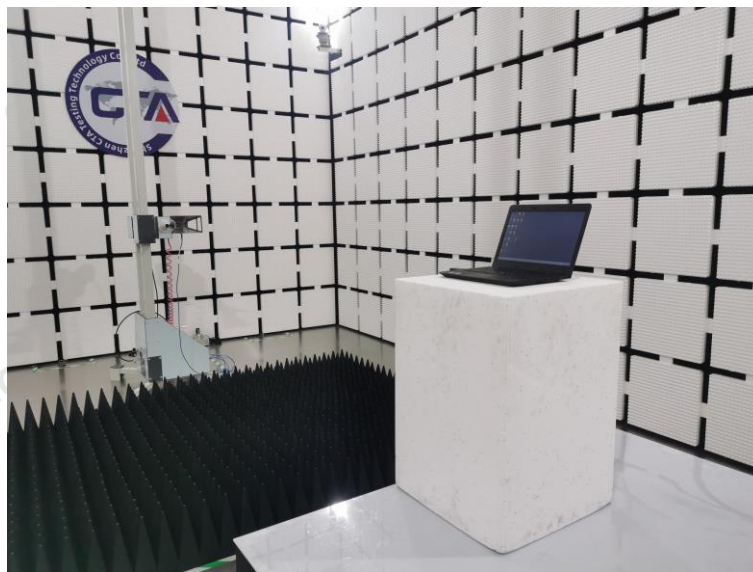
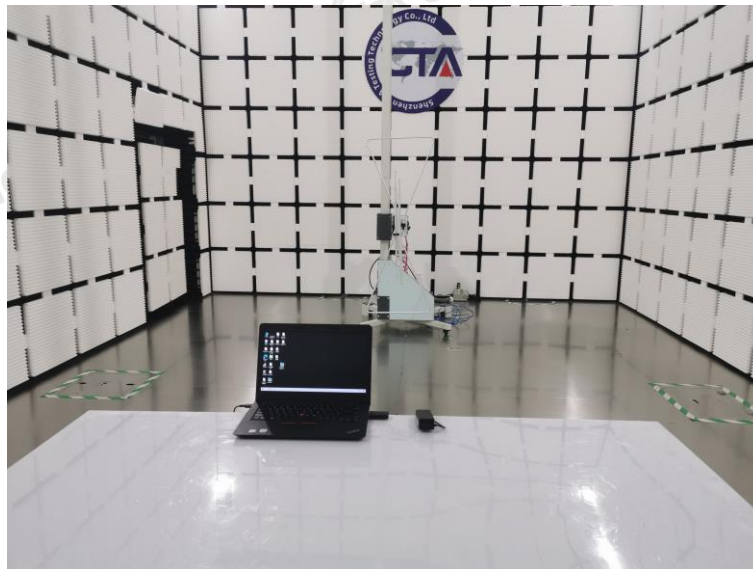
TEST RESULTS

Record worst case as below:

Reference Frequency: 802.11ac channel=36 frequency=5180MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC120	-30	110.78	0.021386	Within the band of operation	Pass
	-20	175.45	0.033871		
	-10	141.24	0.027266		
	0	152.70	0.029479		
	10	126.62	0.024444		
	20	98.35	0.018986		
	30	167.56	0.032347		
	40	123.58	0.023857		
	50	156.56	0.030224		
AC132	25	147.38	0.028452	Within the band of operation	Pass
AC108	25	137.58	0.026560		

Reference Frequency: 802.11ac channel=149 frequency=5745MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC120	-30	142.48	0.024801	Within the band of operation	Pass
	-20	134.30	0.023377		
	-10	156.73	0.027281		
	0	148.18	0.025793		
	10	134.58	0.023426		
	20	132.56	0.023074		
	30	123.51	0.021499		
	40	147.27	0.025634		
	50	158.48	0.027586		
AC132	25	136.36	0.023735	Within the band of operation	Pass
AC108	25	121.38	0.021128		

5 Test Setup Photos of the EUT



6 Photos of the EUT

Reference to the test report No. **CTA22061000201**

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