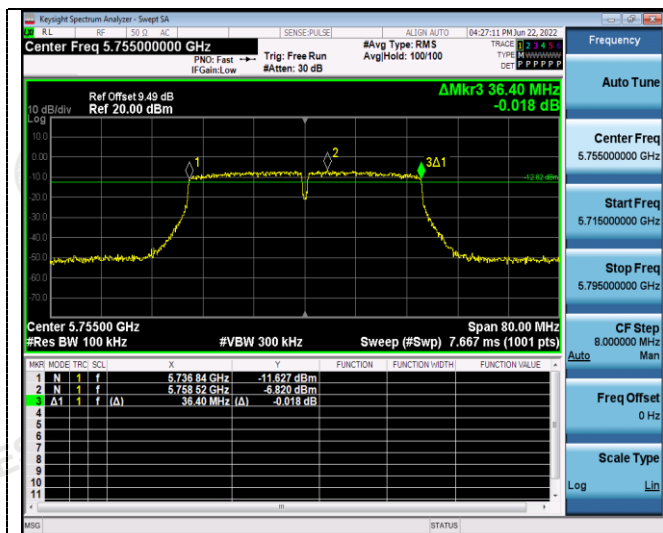
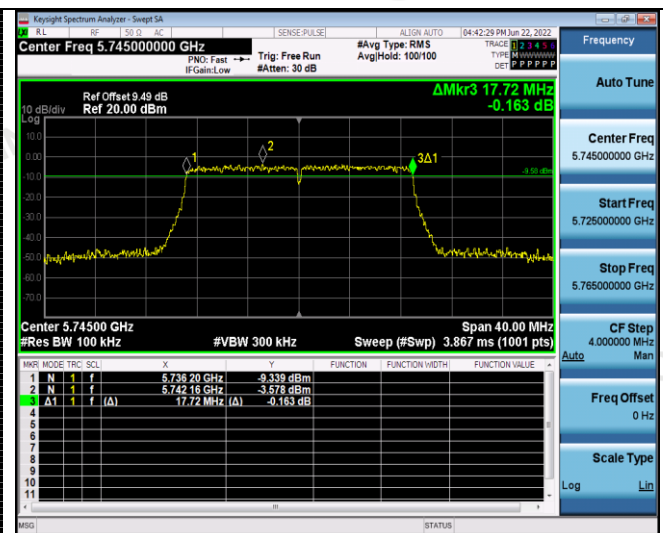
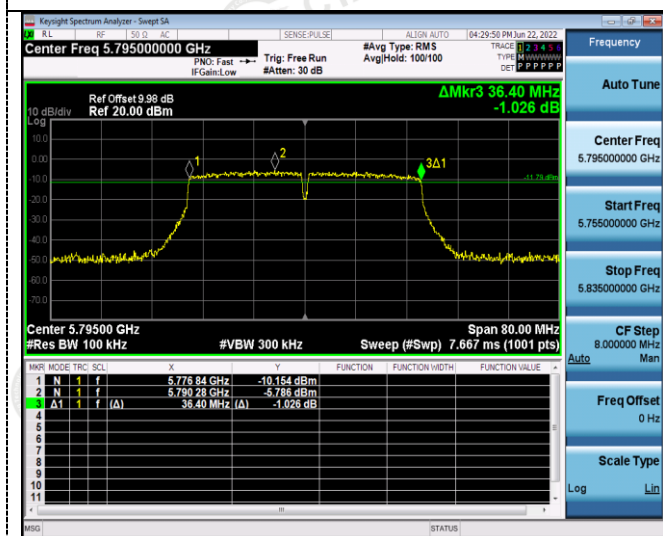




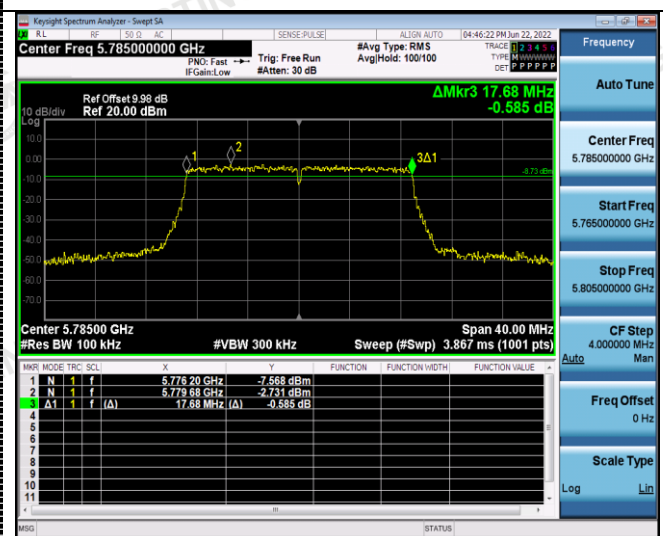
CH151



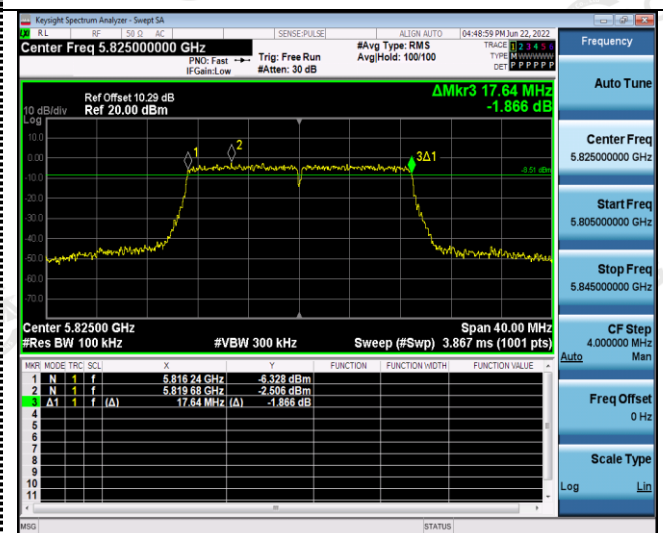
CH149



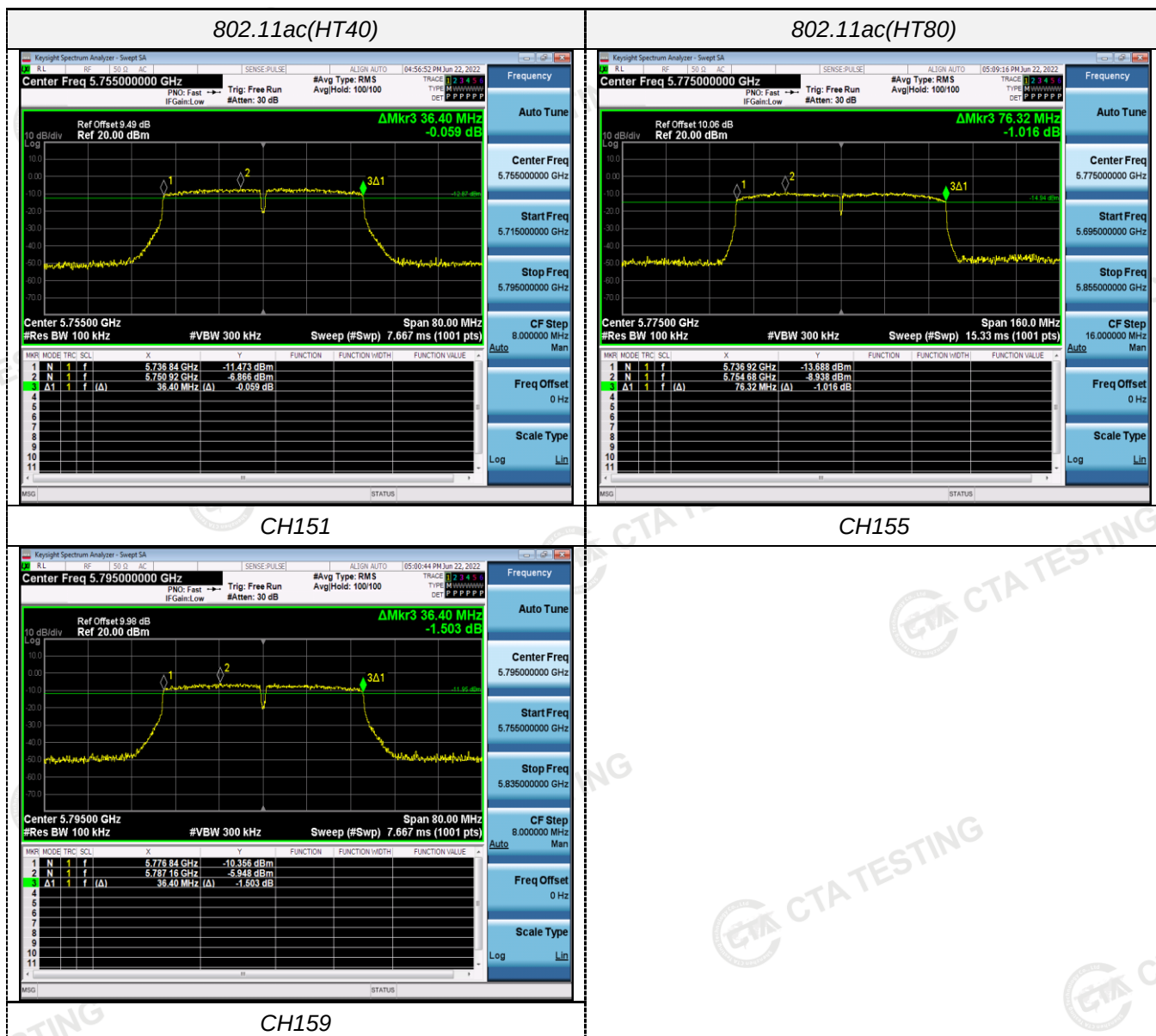
CH159



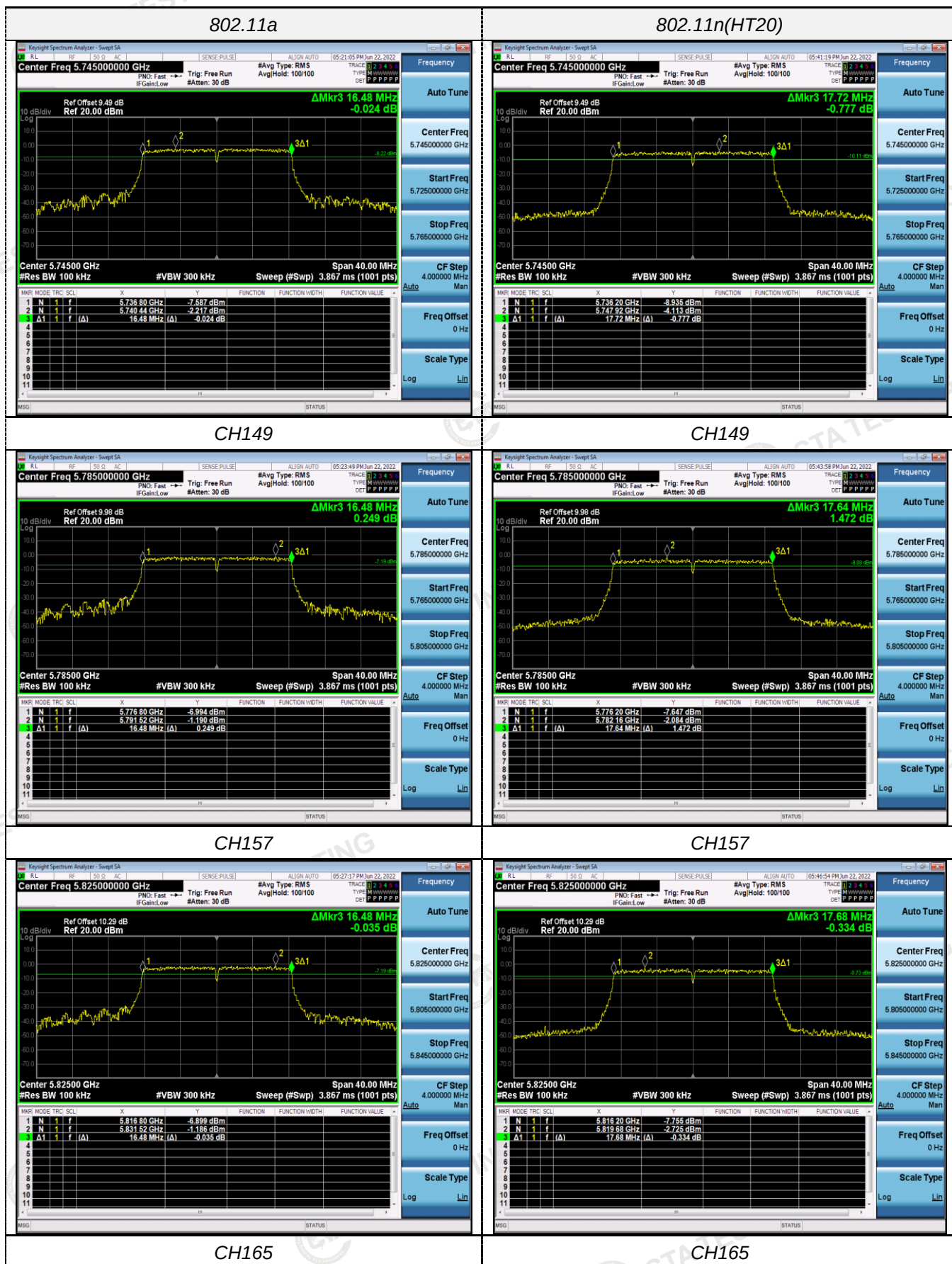
CH157



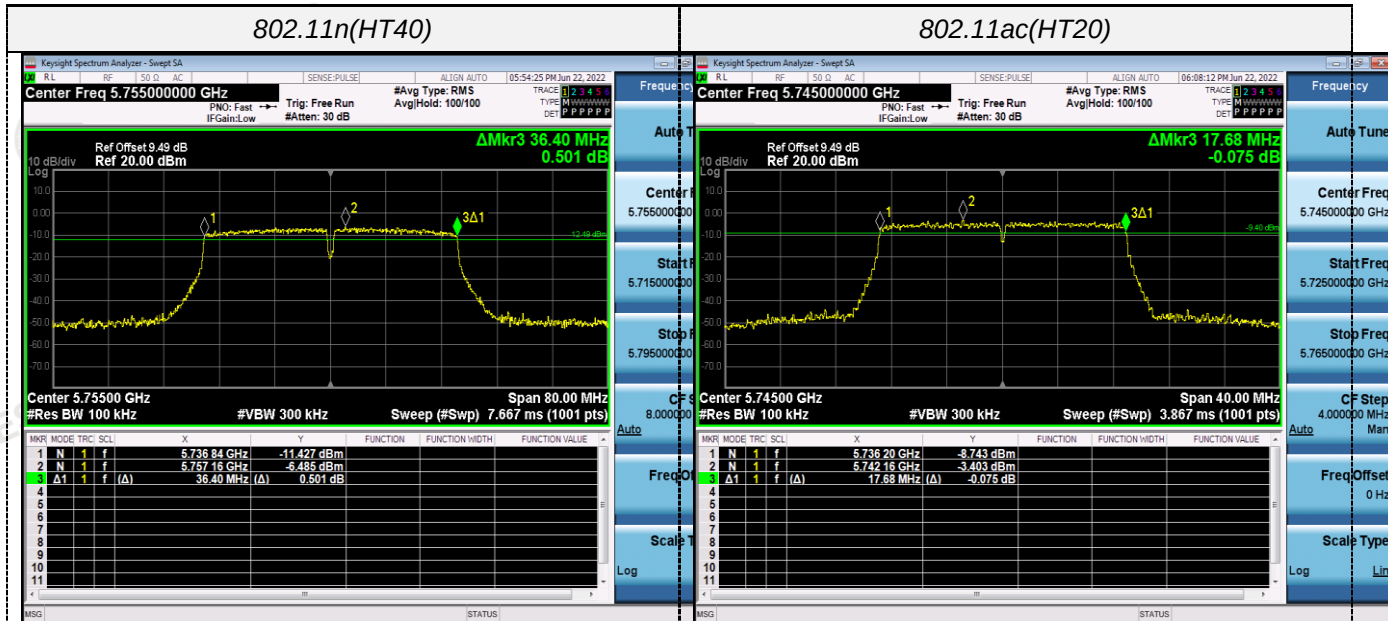
CH165



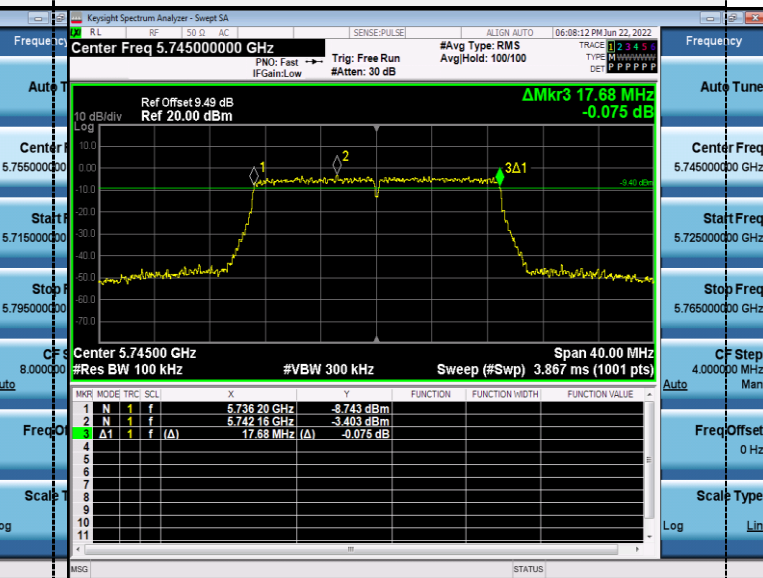
ANT 2



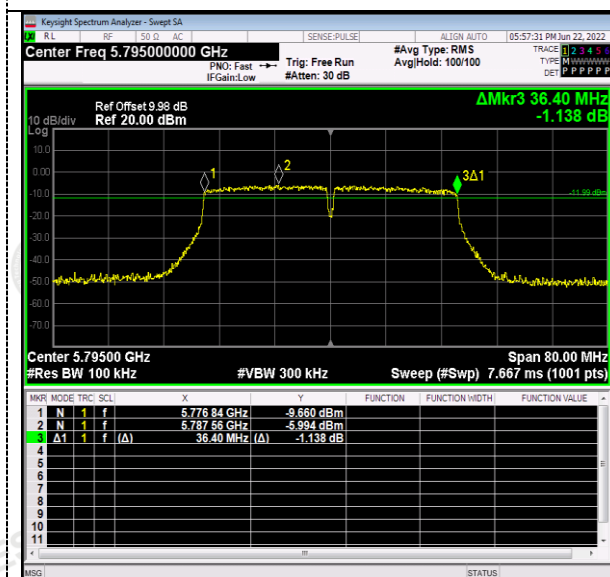
802.11n(HT40)



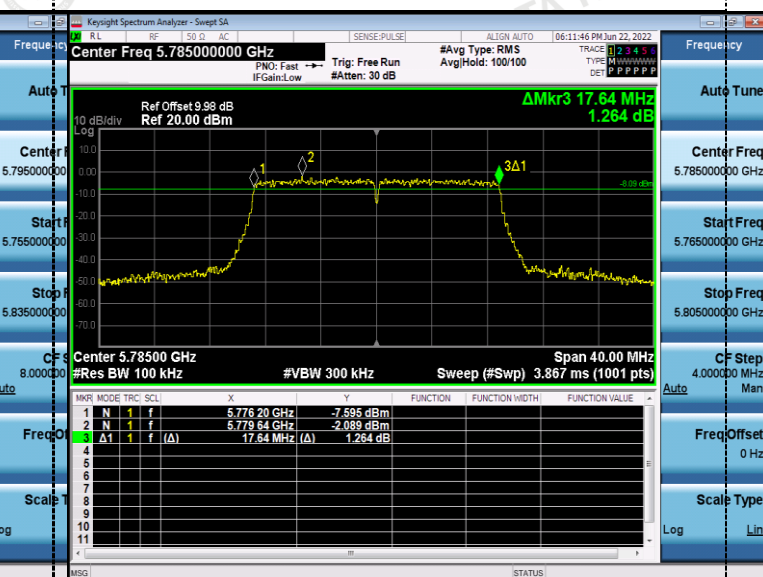
802.11ac(HT20)



CH151



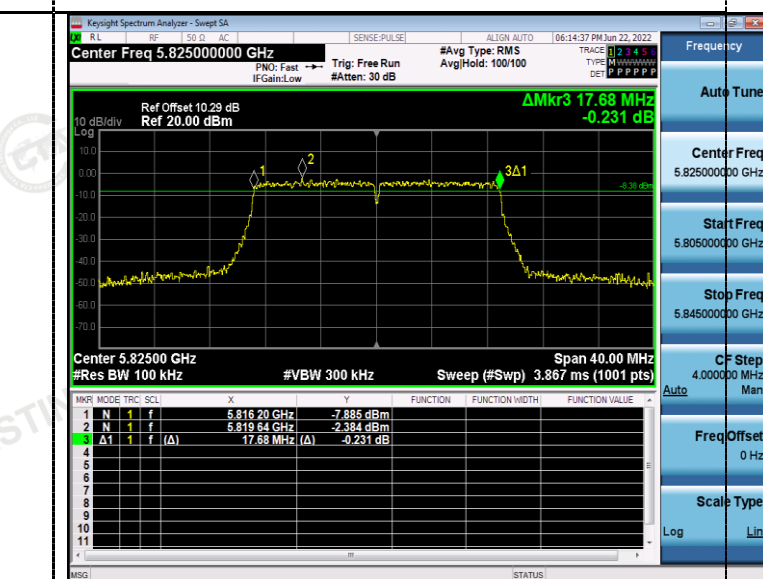
CH149



CH159



CH157



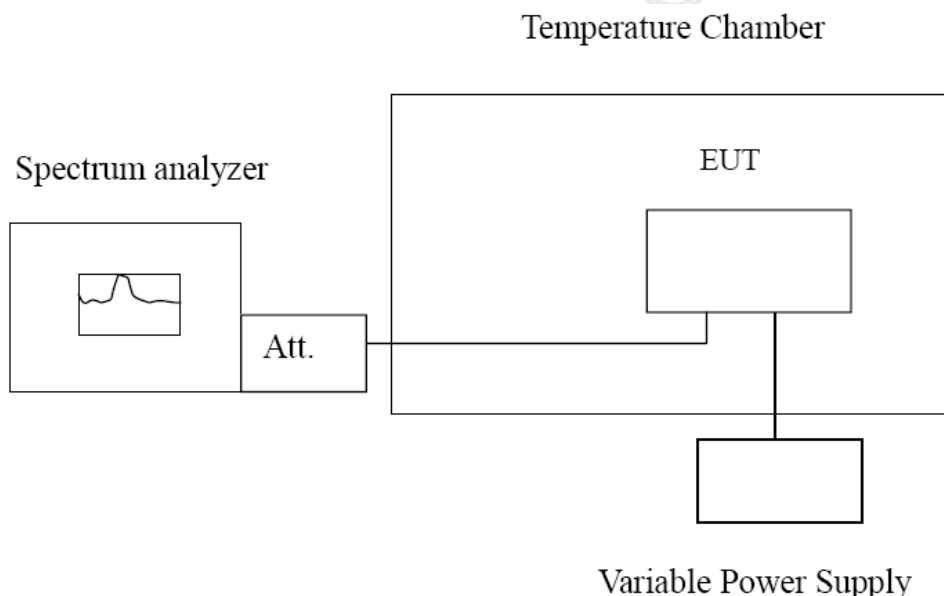
CH165

4.8 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.

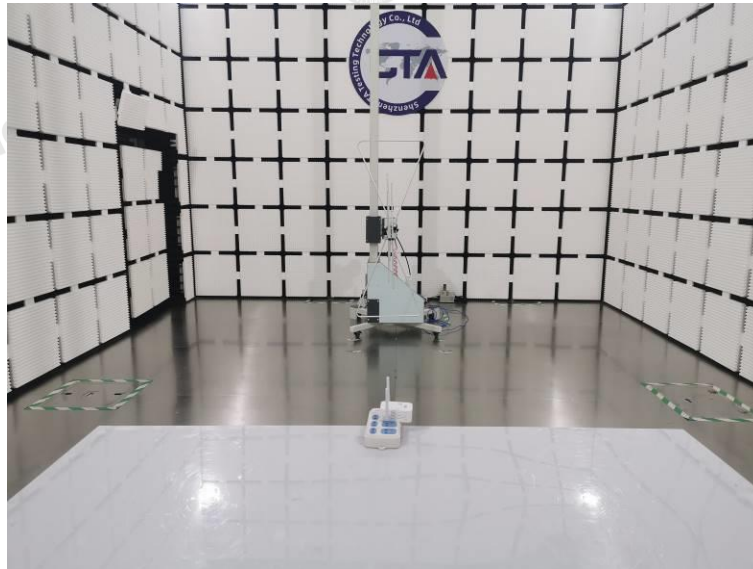
TEST RESULTS

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	109.56	0.019070	Within the band of operation	Pass
	-20	173.23	0.030153		
	-10	145.51	0.025328		
	0	146.23	0.025453		
	10	145.11	0.025258		
	20	98.11	0.017077		
	30	167.45	0.029147		
	40	129.45	0.022533		
	50	128.78	0.022416		
AC132	25	196.43	0.034191	Within the band of operation	Pass
AC108	25	117.89	0.020520		

Reference Frequency: 802.11ac channel=149 frequency=5745MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC120	-30	136.34	0.023732	Within the band of operation	Pass
	-20	129.32	0.022510		
	-10	167.56	0.029166		
	0	169.12	0.029438		
	10	136.77	0.023807		
	20	143.59	0.024994		
	30	116.56	0.020289		
	40	170.23	0.029631		
	50	160.56	0.027948		
AC132	25	150.12	0.026131	Within the band of operation	Pass
AC108	25	129.45	0.022533		

5 Test Setup Photos of the EUT



6 Photos of the EUT

Reference to the test report No. **CTA22061500401**

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