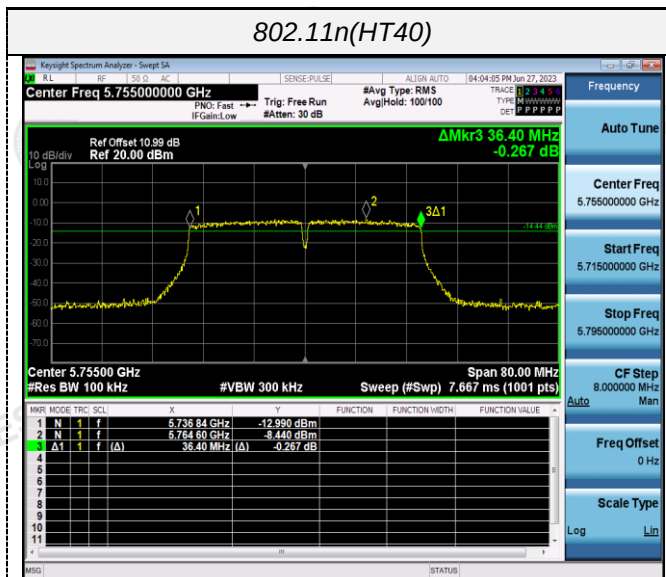
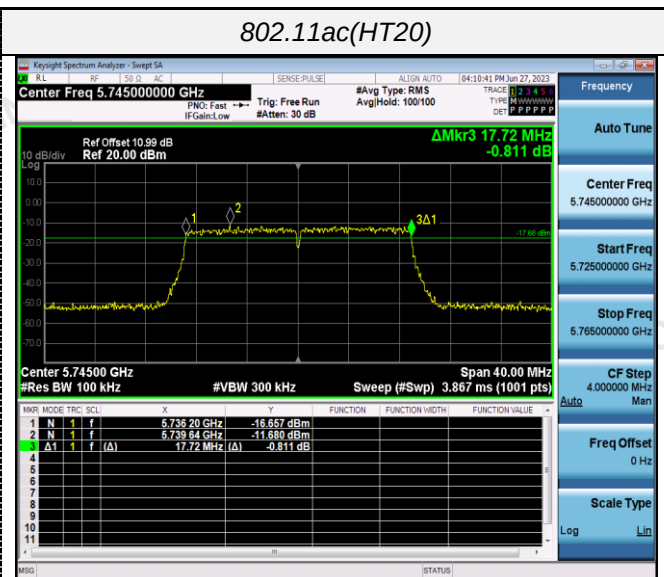


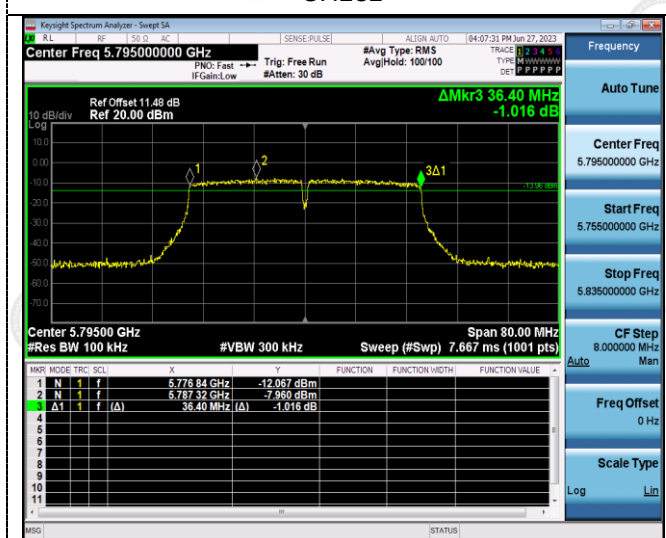
802.11n(HT40)



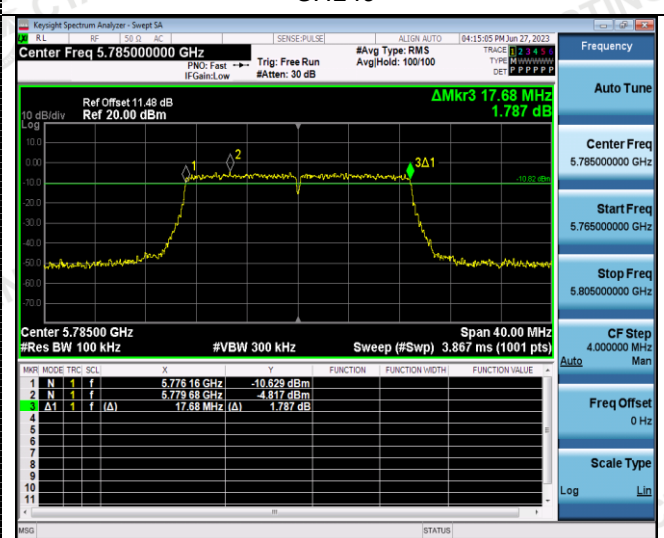
802.11ac(HT20)



CH151



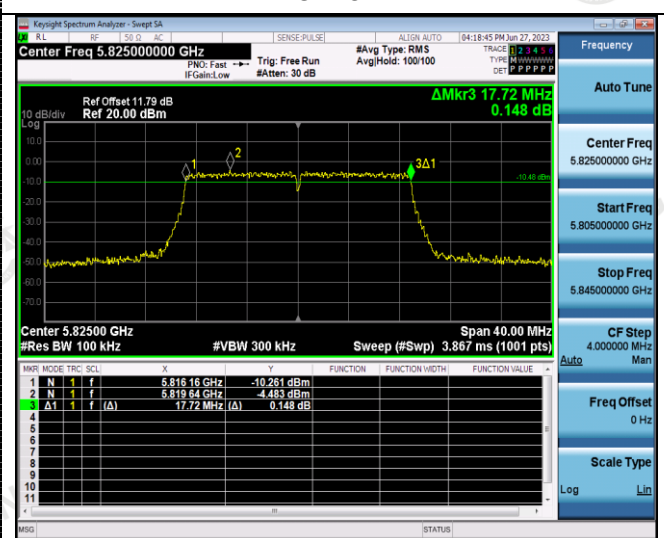
CH149



CH159

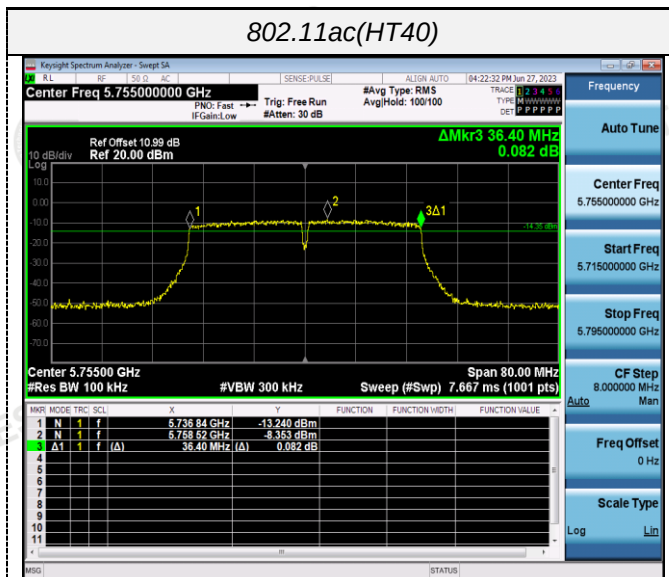


CH157



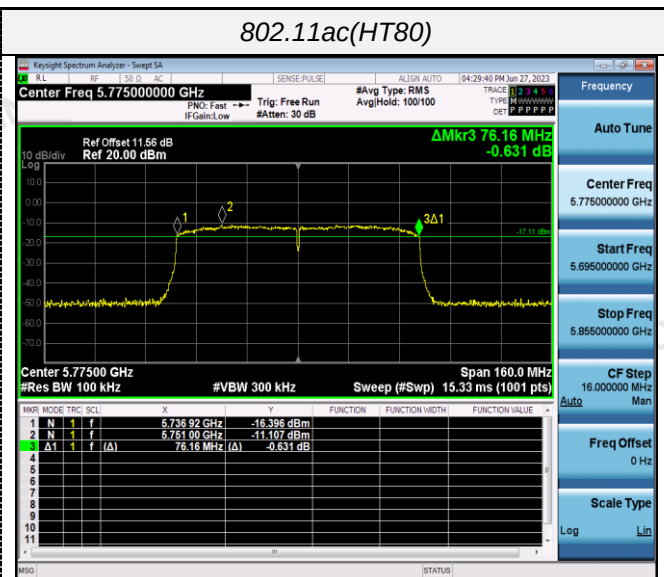
CH165

802.11ac(HT40)

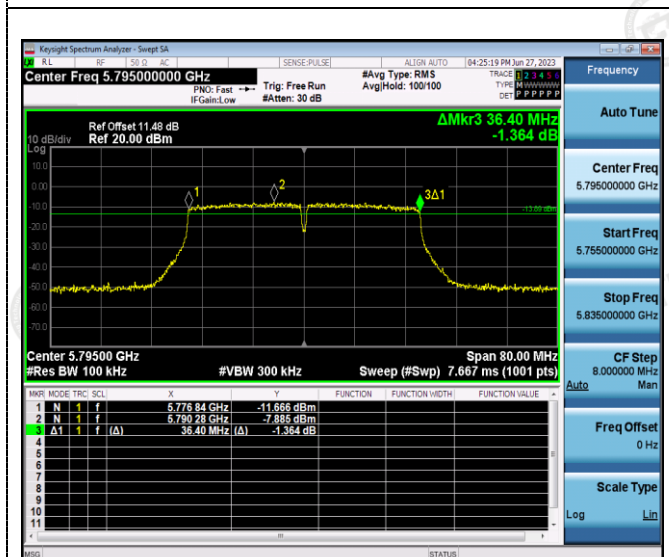


CH151

802.11ac(HT80)



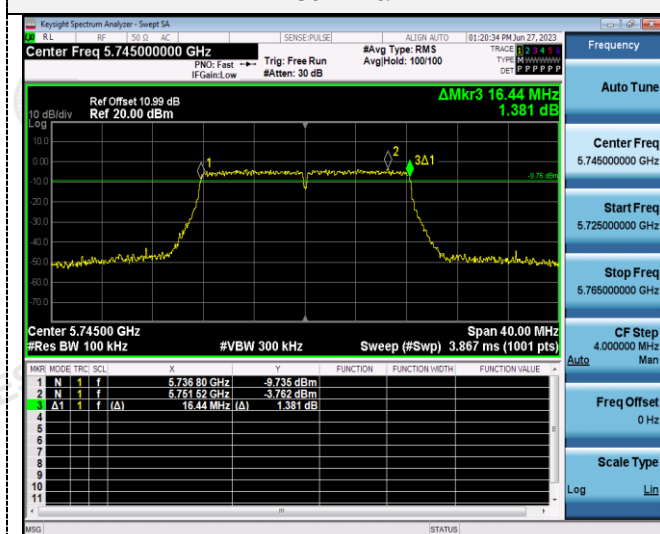
CH155



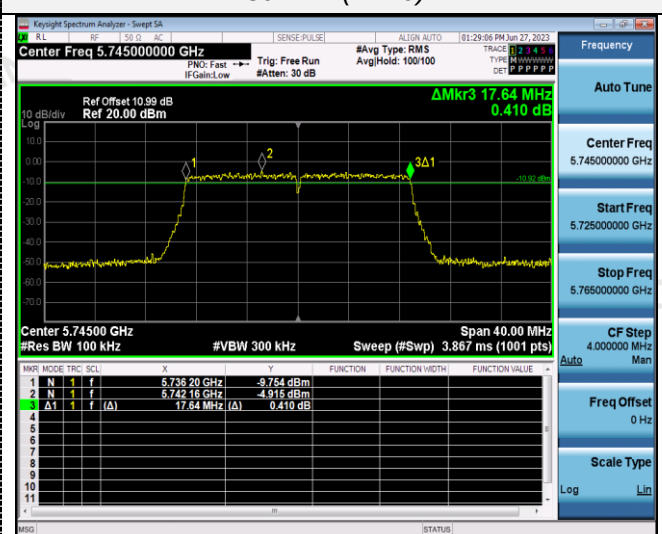
CH159

Ant2:

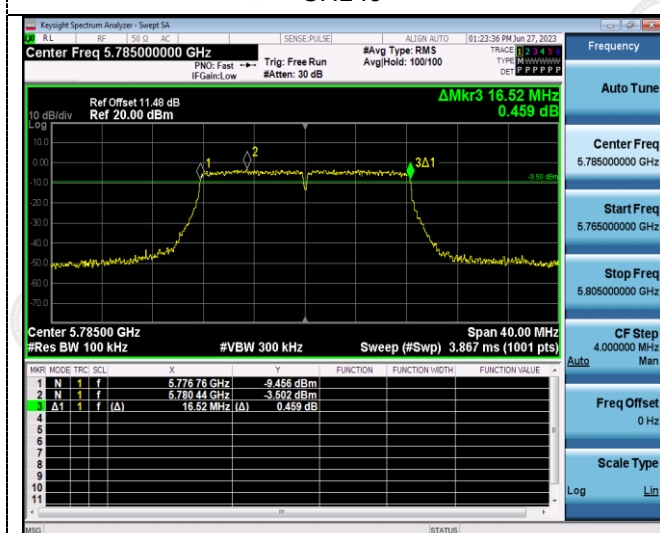
802.11a



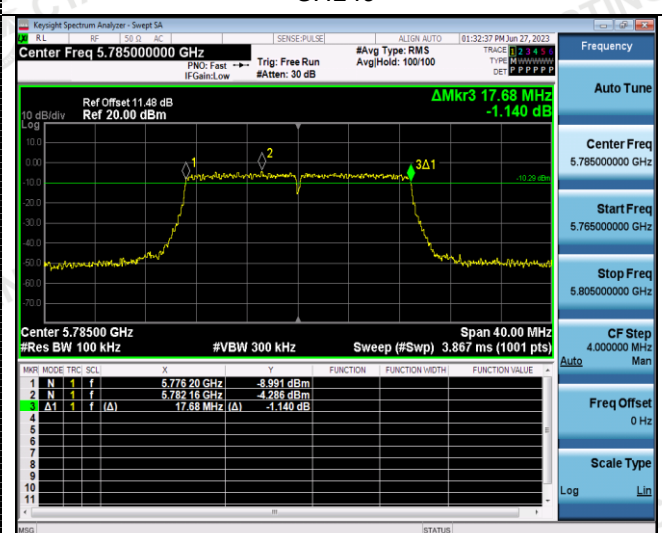
802.11n(HT20)



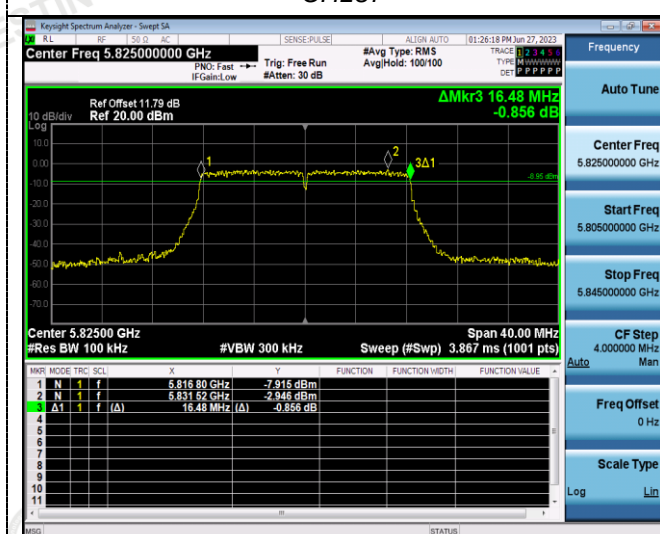
CH149



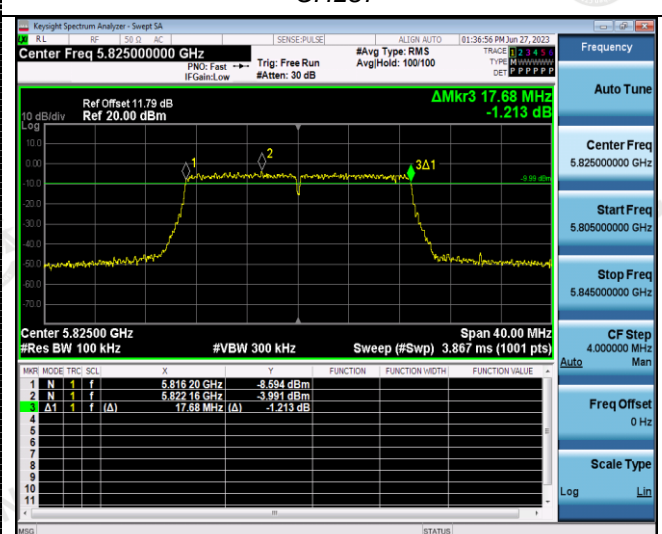
CH149



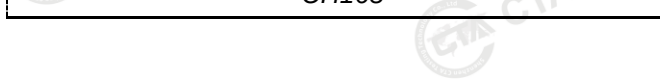
CH157



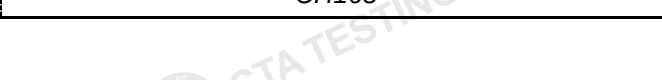
CH157



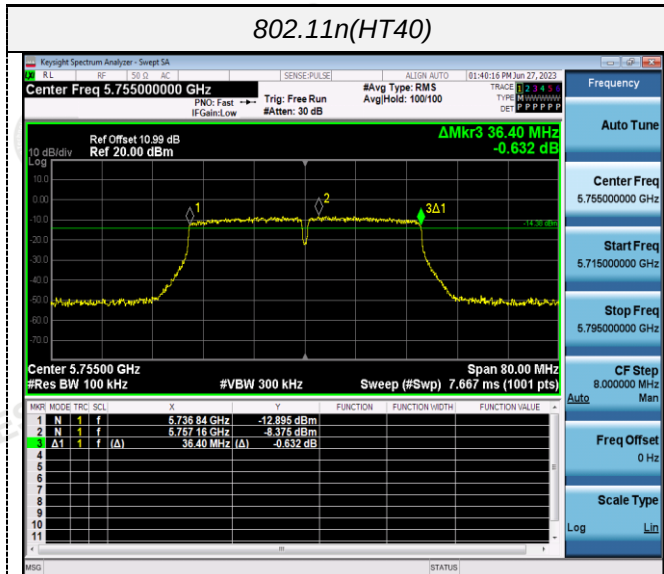
CH165



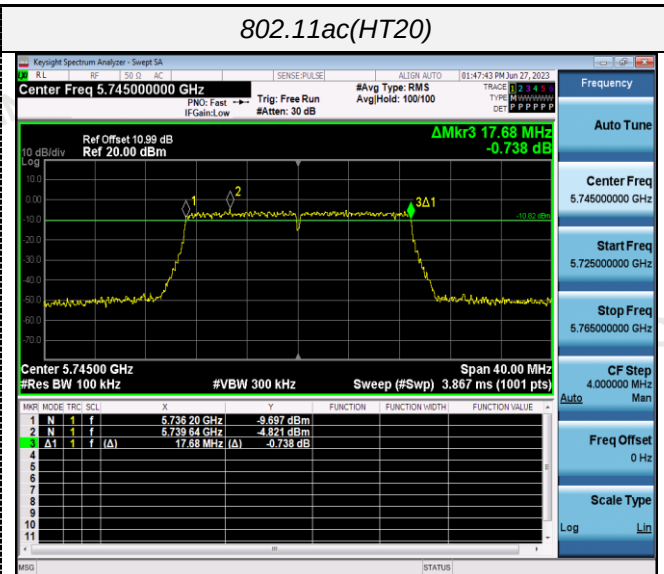
CH165



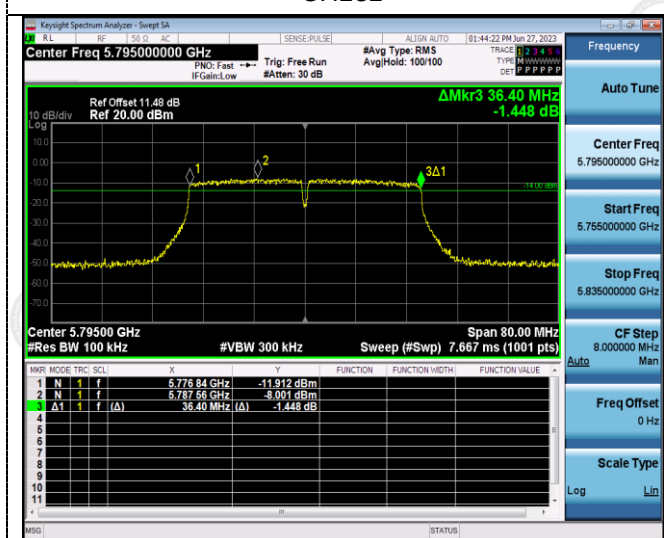
802.11n(HT40)



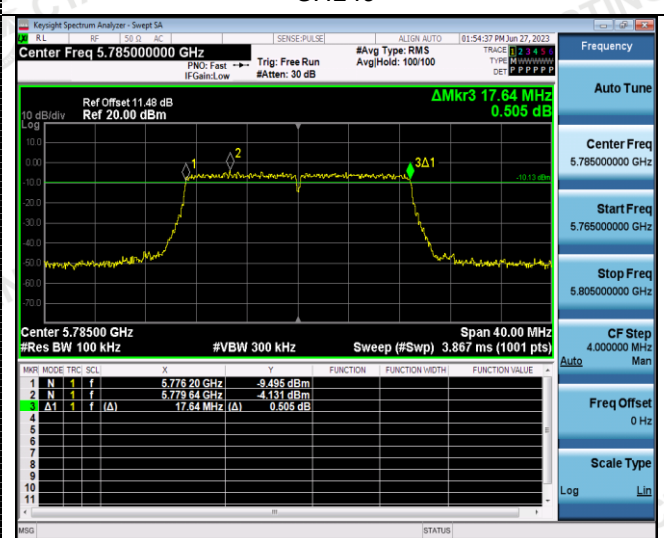
802.11ac(HT20)



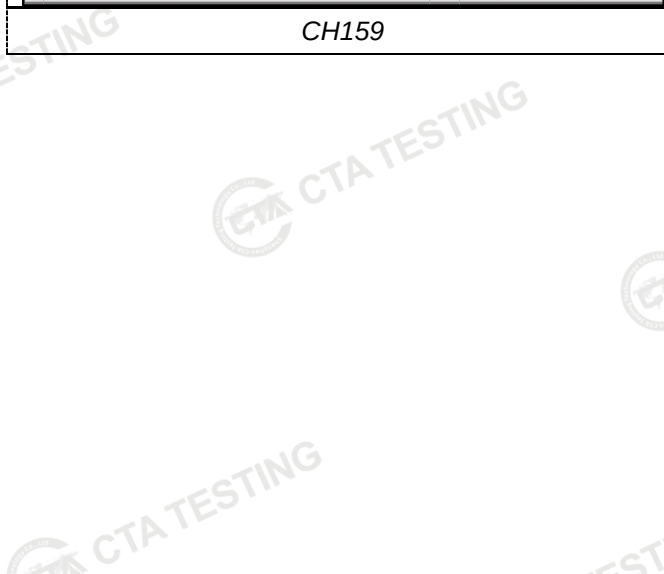
CH151



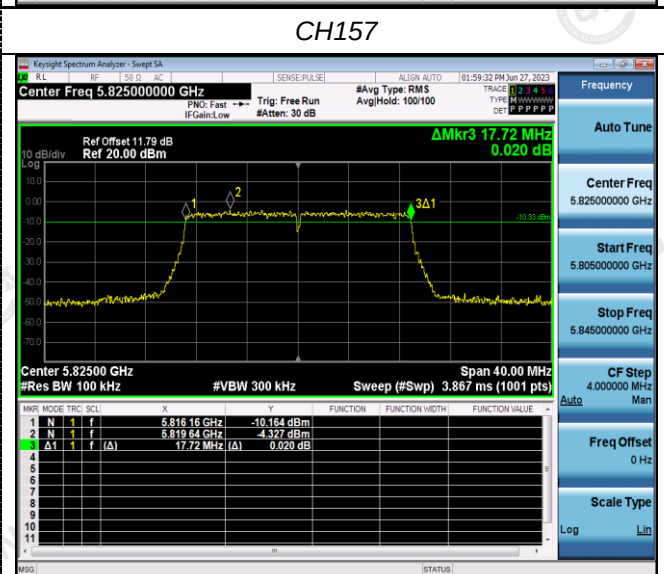
CH149



CH159

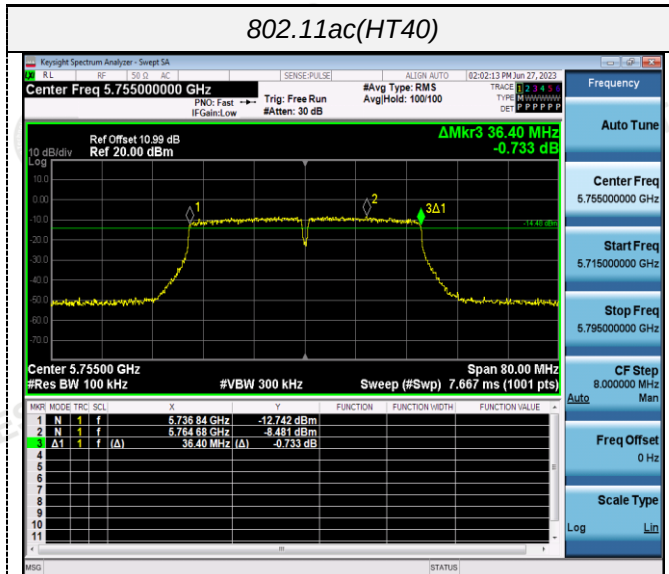


CH157



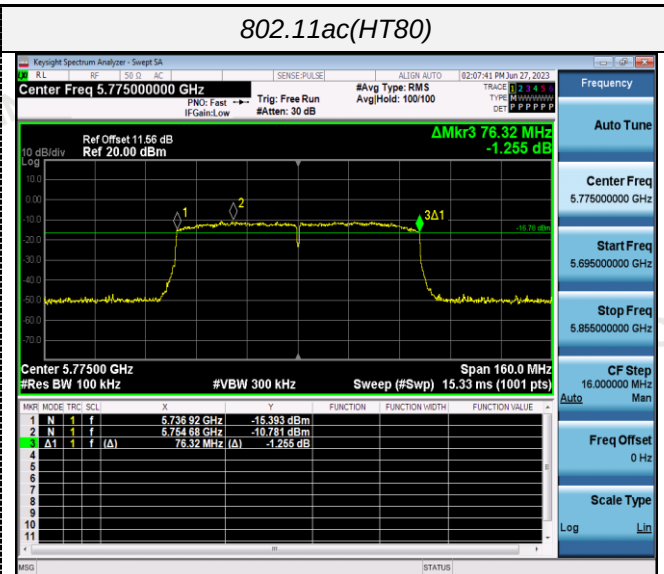
CH165

802.11ac(HT40)

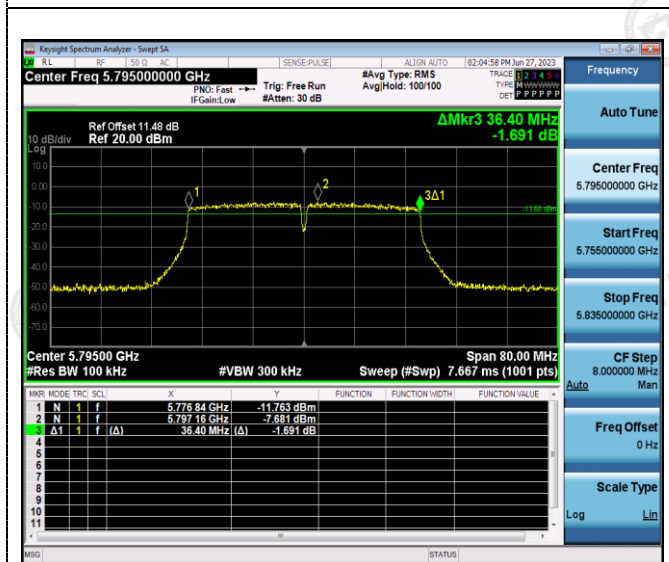


CH151

802.11ac(HT80)



CH155



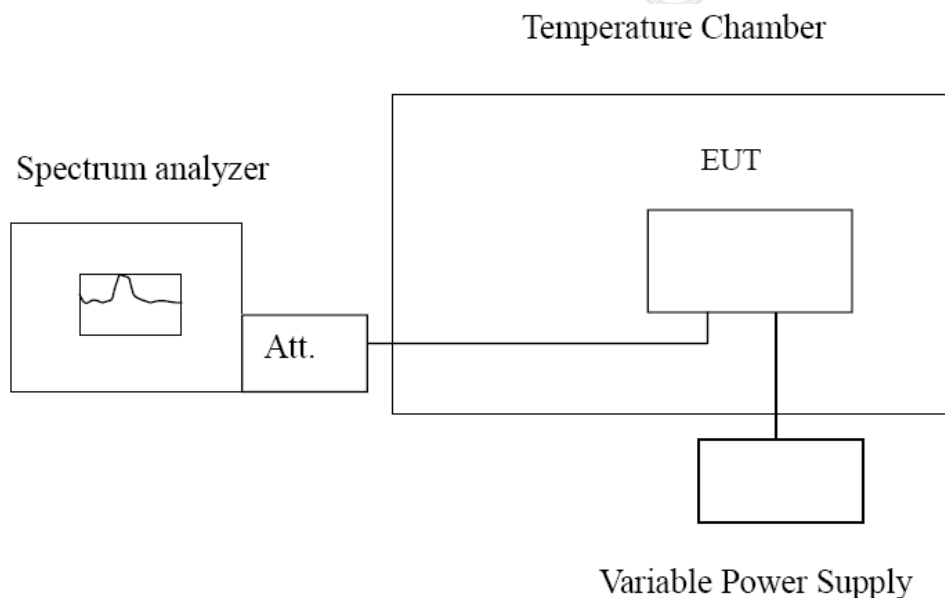
CH159

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°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:

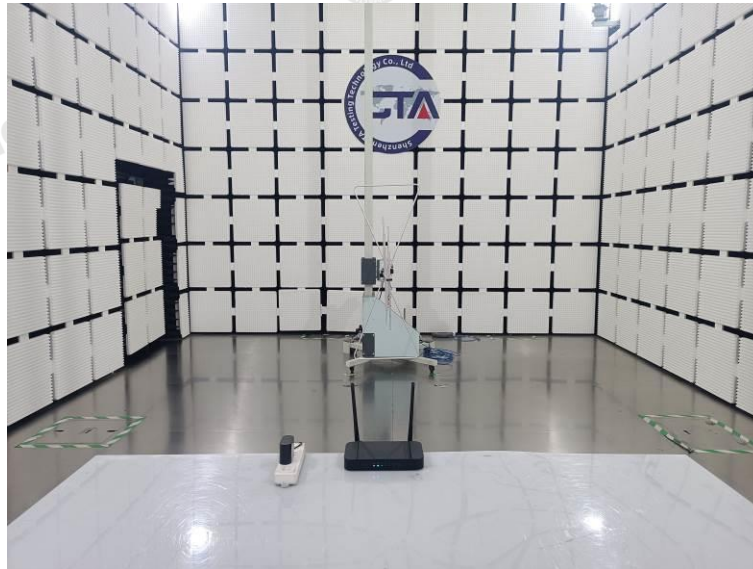
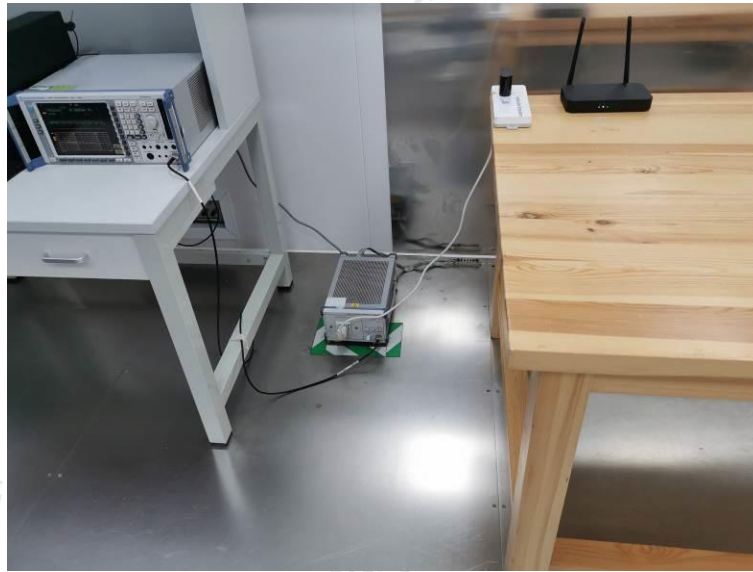
Ant1:

Reference Frequency: 802.11ac channel=149 frequency=5745MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC 230V	-30	134.42	0.023398	Within the band of operation	Pass
	-20	126.39	0.022000		
	-10	167.06	0.029079		
	0	168.81	0.029384		
	10	145.73	0.025366		
	20	129.26	0.022500		
	30	119.50	0.020801		
	40	165.39	0.028789		
	50	158.84	0.027648		
AC 240V	25	144.65	0.025178	Within the band of operation	Pass
AC 207V	25	118.37	0.020604		

Ant2:

Reference Frequency: 802.11ac channel=149 frequency=5745MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC 230V	-30	134.11	0.023344	Within the band of operation	Pass
	-20	126.74	0.022061		
	-10	167.26	0.029114		
	0	167.53	0.029161		
	10	145.26	0.025285		
	20	128.97	0.022449		
	30	118.79	0.020677		
	40	165.12	0.028742		
	50	157.49	0.027413		
AC 240V	25	144.07	0.025077	Within the band of operation	Pass
AC 207V	25	118.20	0.020574		

5 Test Setup Photos of the EUT



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6 Photos of the EUT

Reference to the test report No. CTA23062001001

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