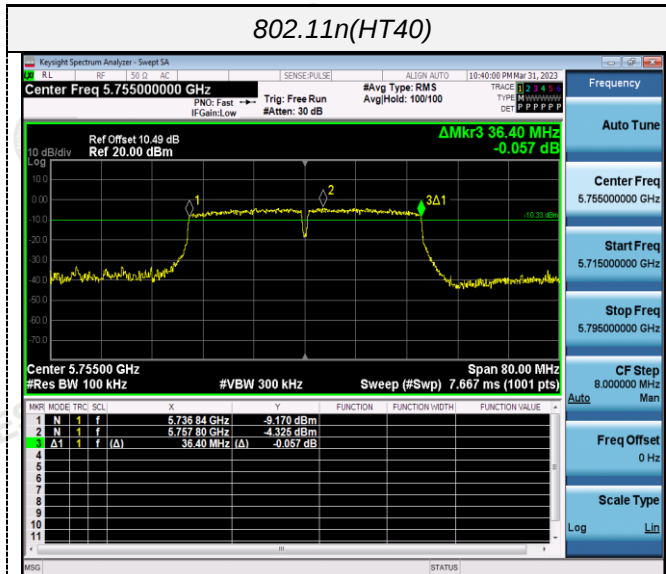
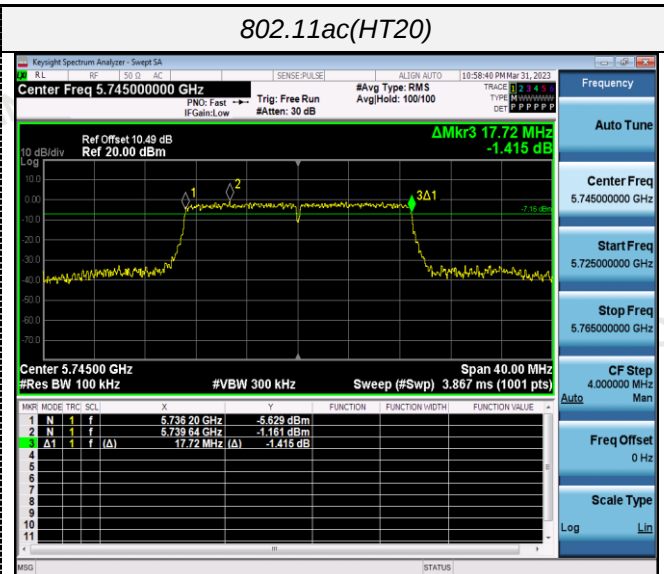


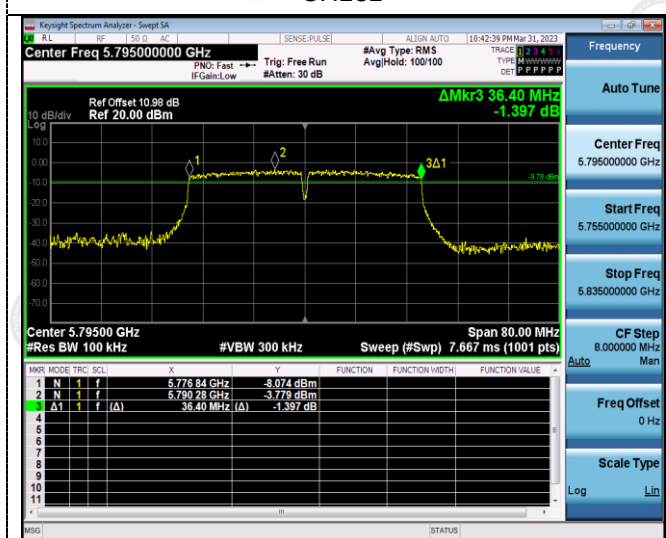
802.11n(HT40)



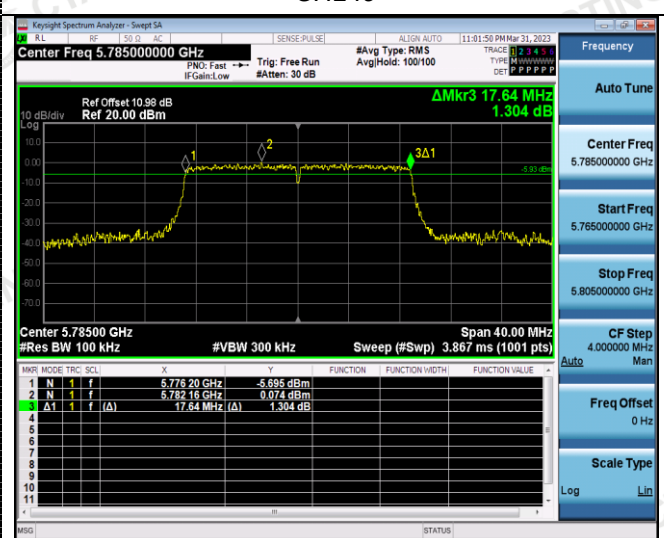
802.11ac(HT20)



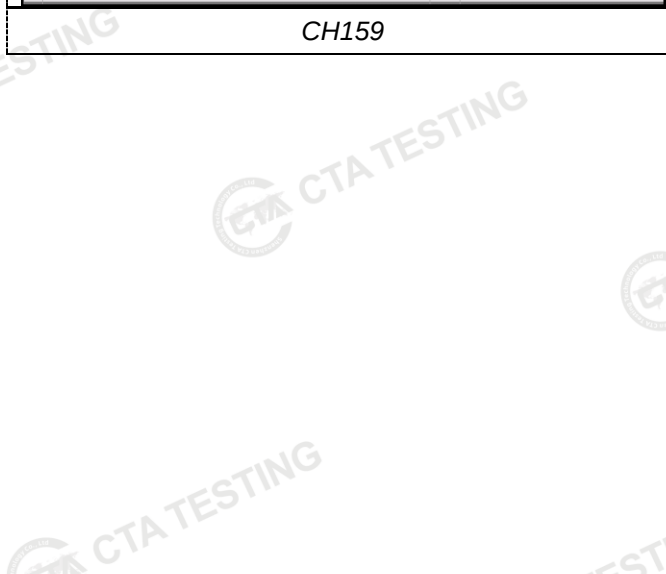
CH151



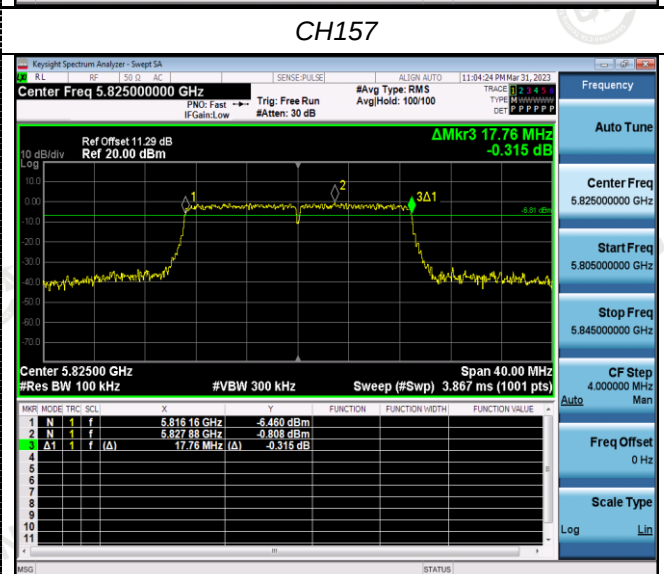
CH149



CH159

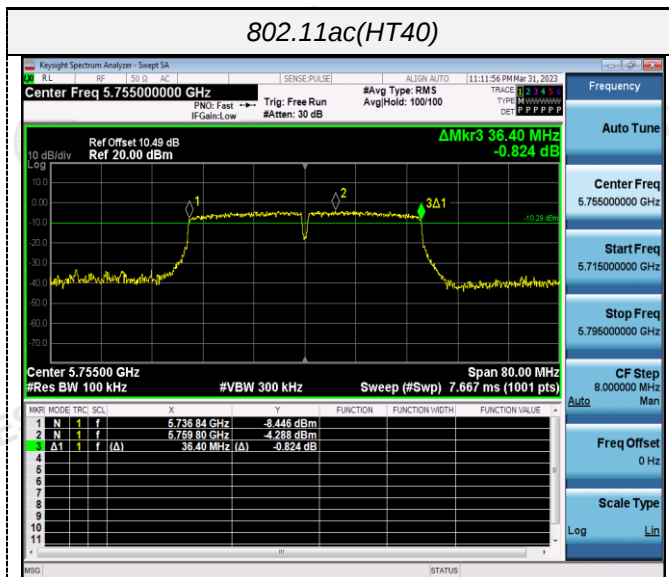


CH157



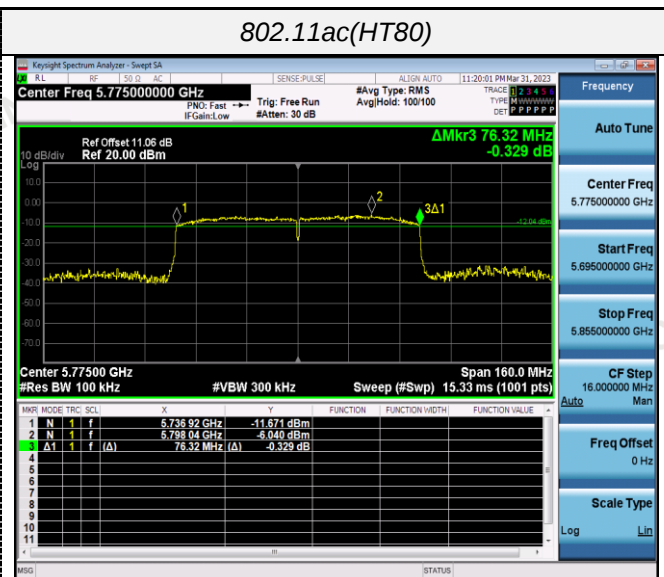
CH165

802.11ac(HT40)

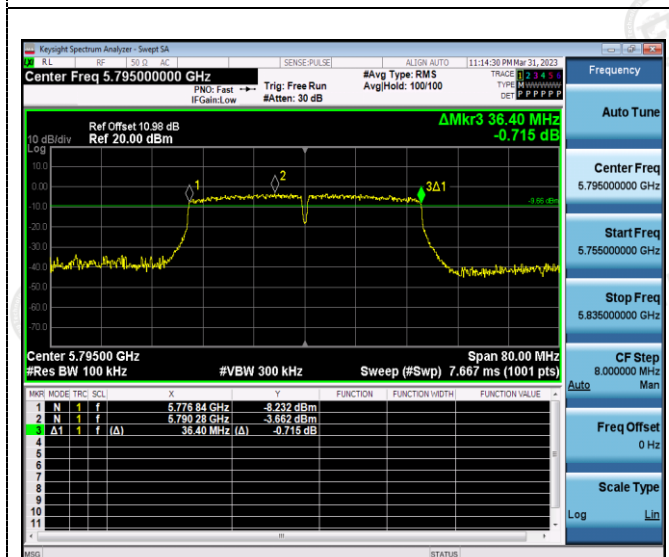


CH151

802.11ac(HT80)

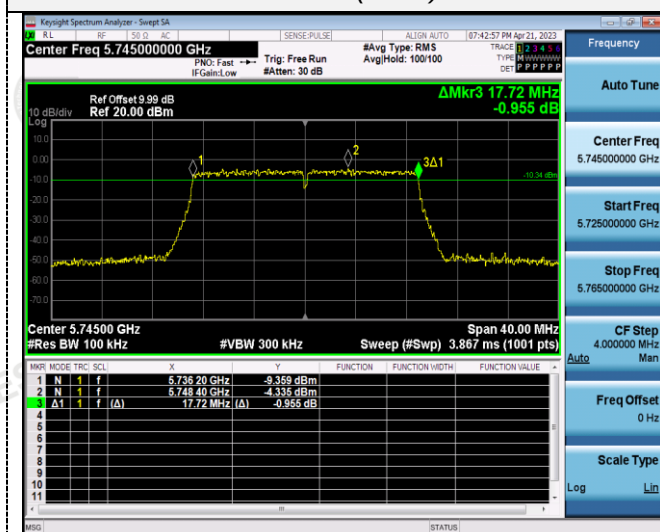


CH155

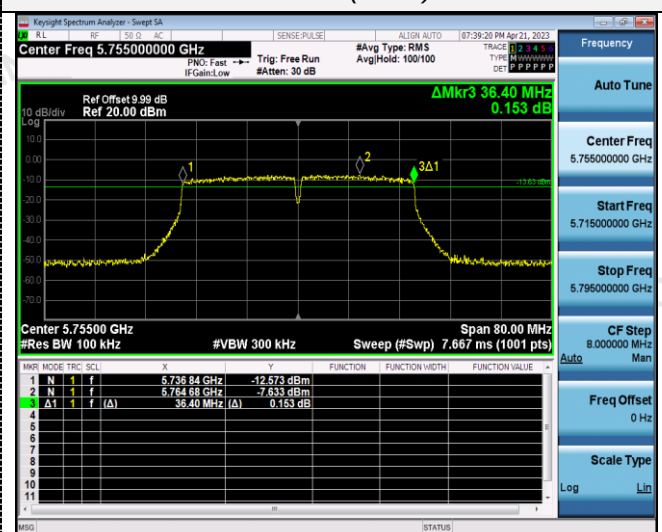


CH159

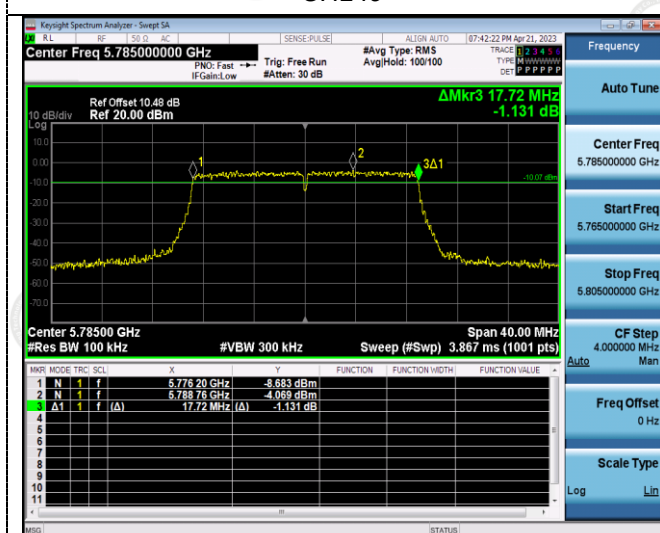
802.11ax(HT20)



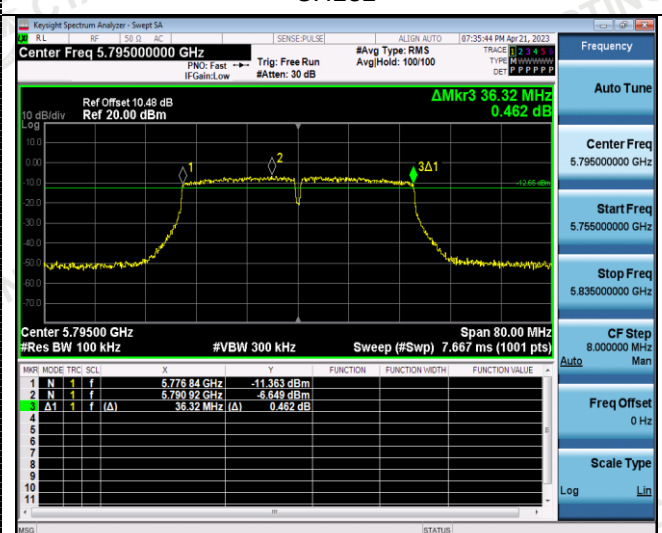
802.11ax(HT40)



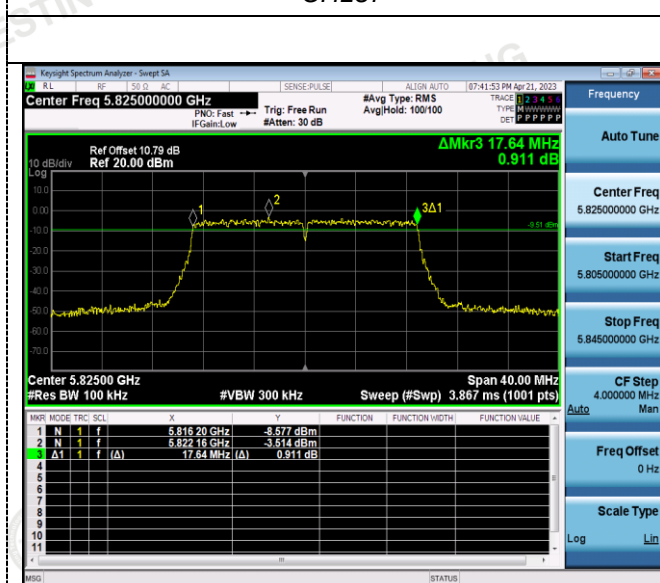
CH149



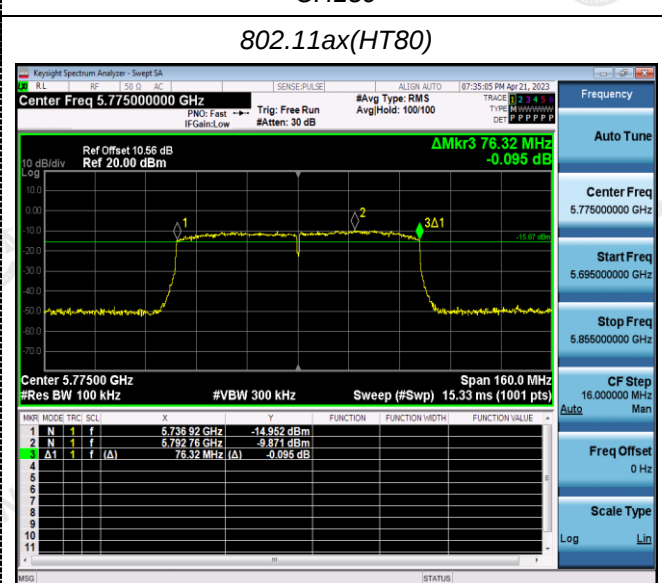
CH151



CH157



CH159



802.11ax(HT80)

CH156

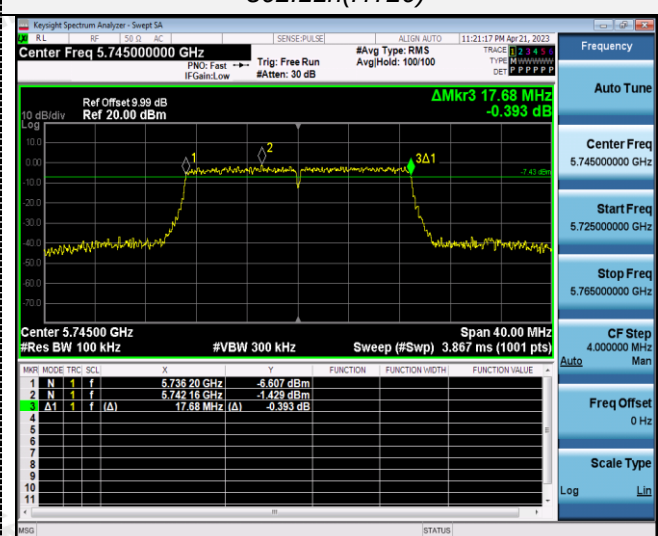
CH155

ANT 1

802.11a



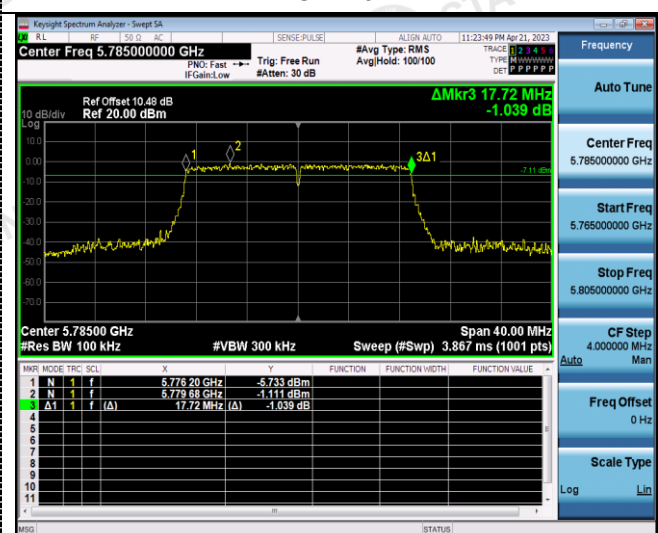
802.11n(HT20)



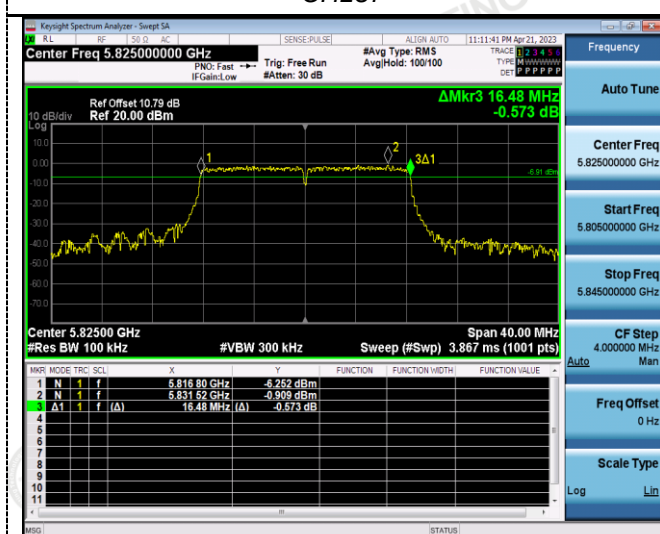
CH149



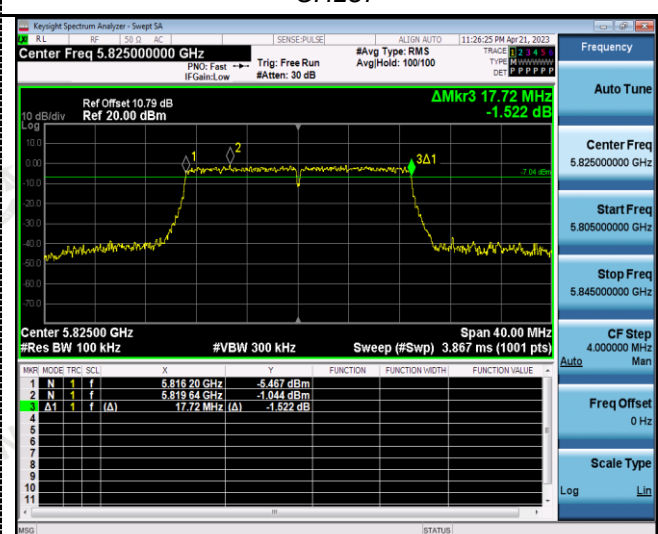
CH149



CH157



CH157

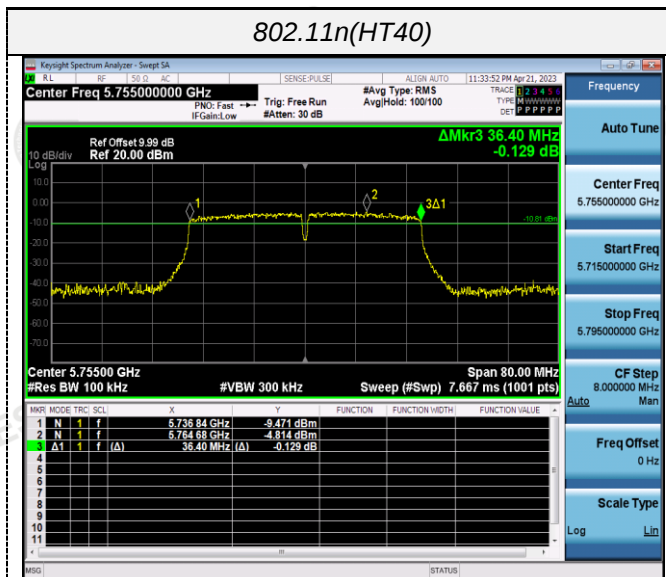


CH165

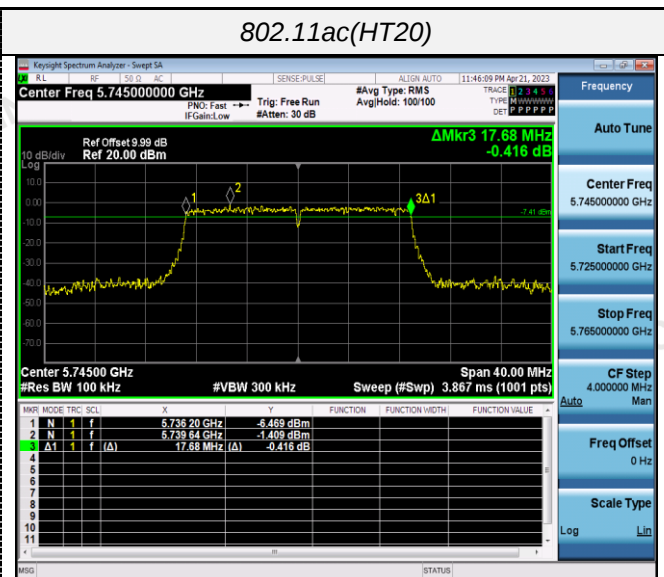


CH165

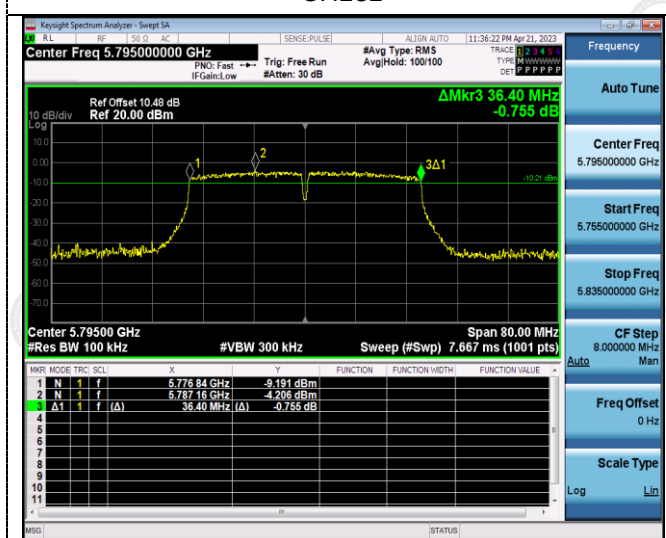
802.11n(HT40)



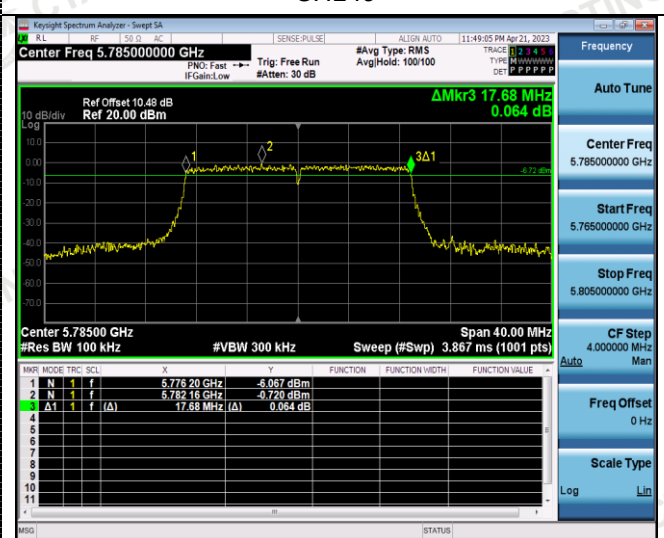
802.11ac(HT20)



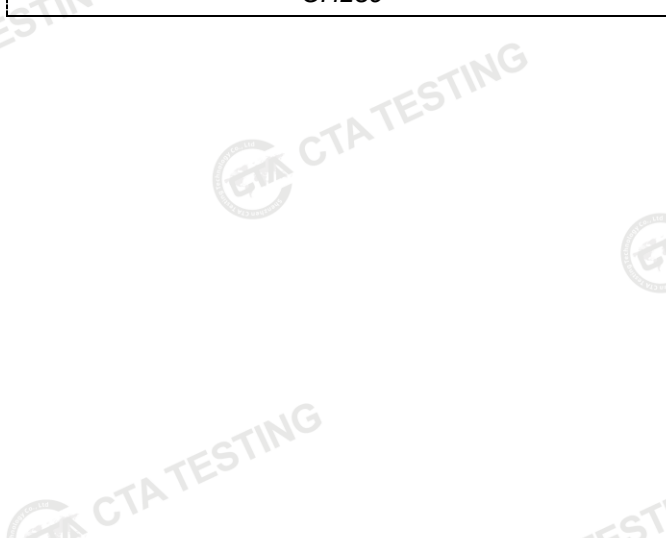
CH151



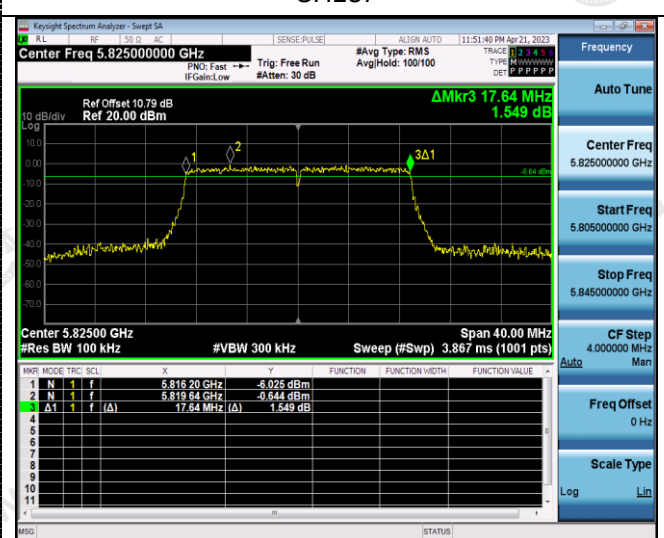
CH149



CH159

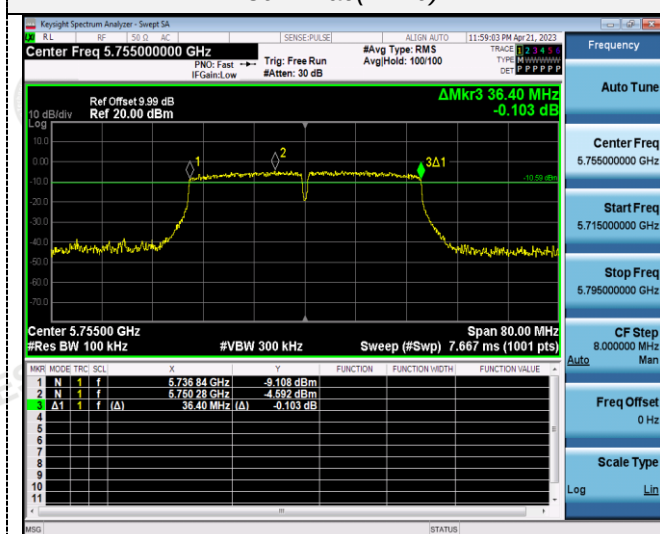


CH157

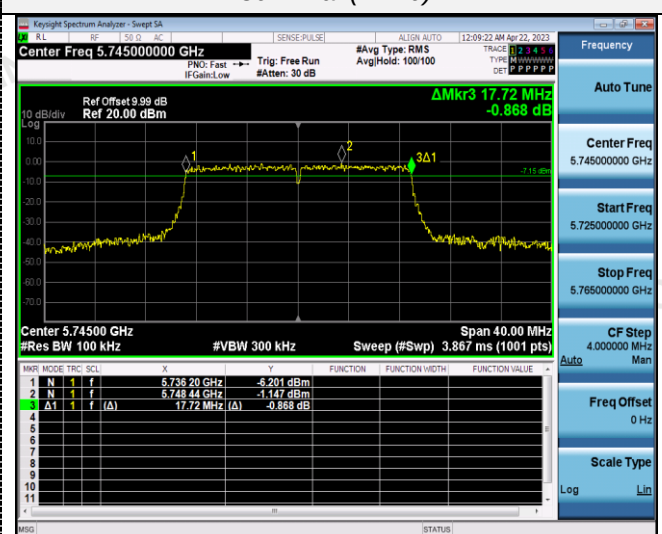


CH165

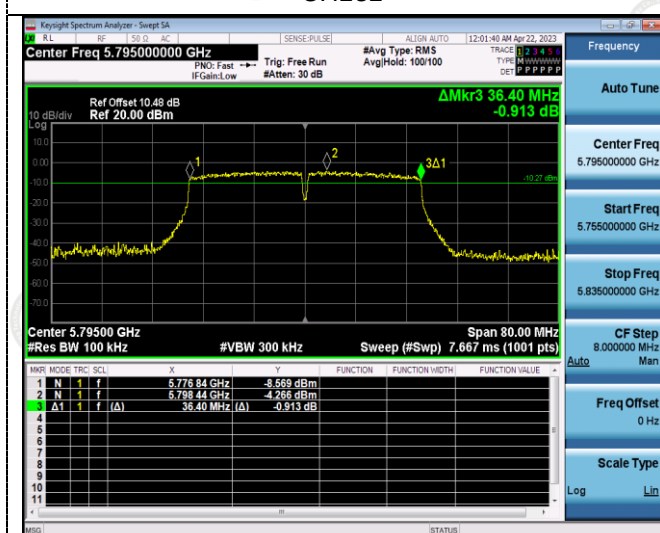
802.11ac(HT40)



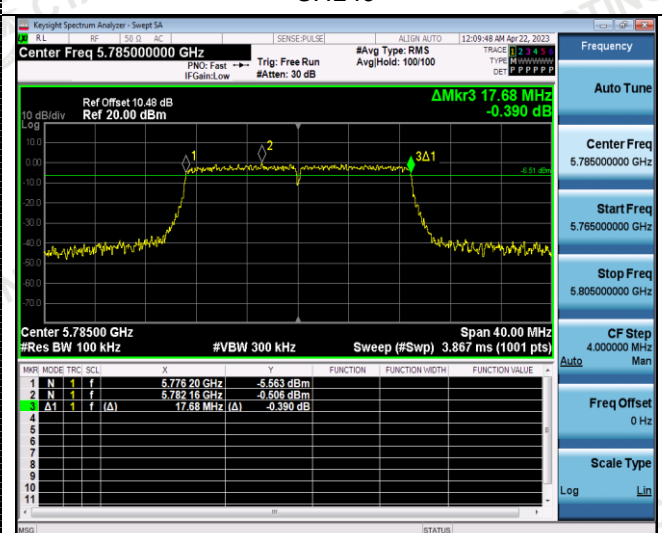
802.11ax(HT20)



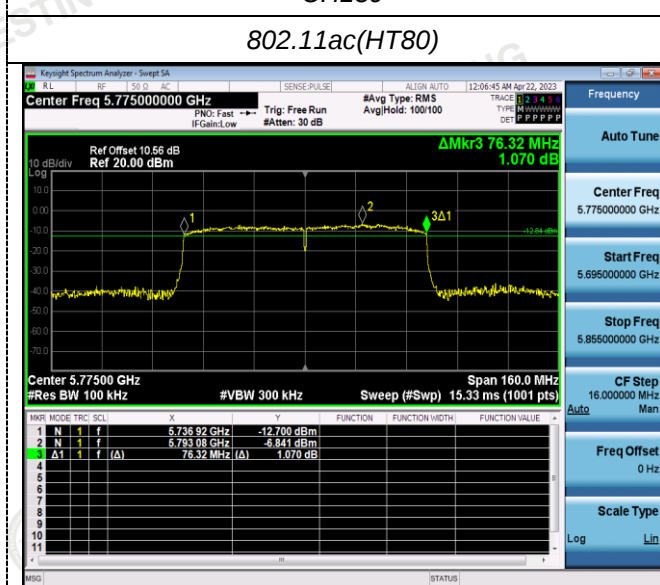
CH151



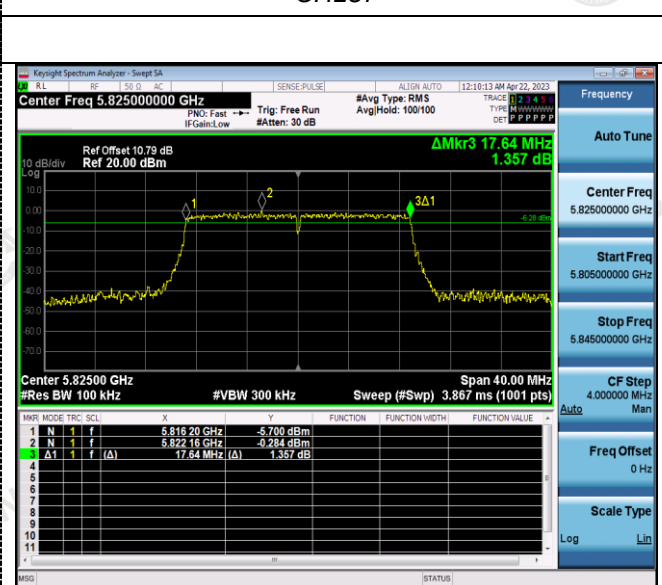
CH149



CH159



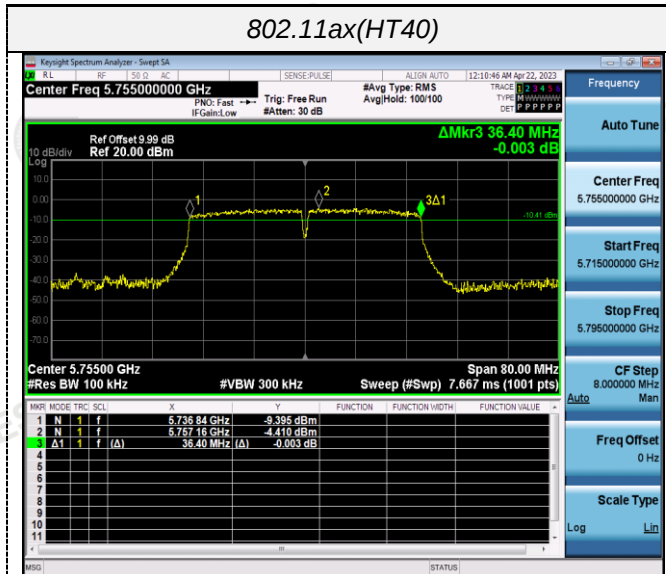
CH157



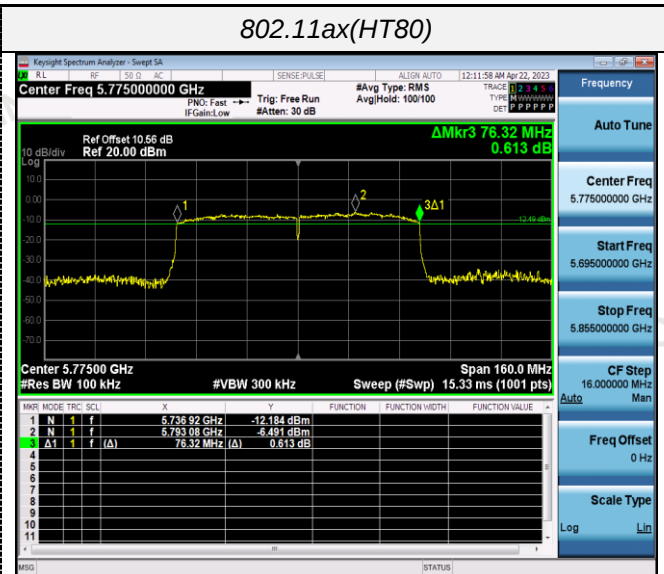
CH155

CH165

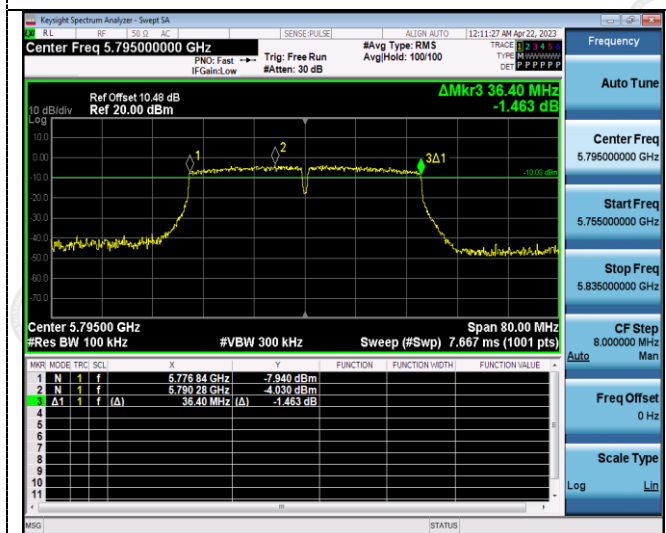
802.11ax(HT40)



802.11ax(HT80)



CH151



CH155



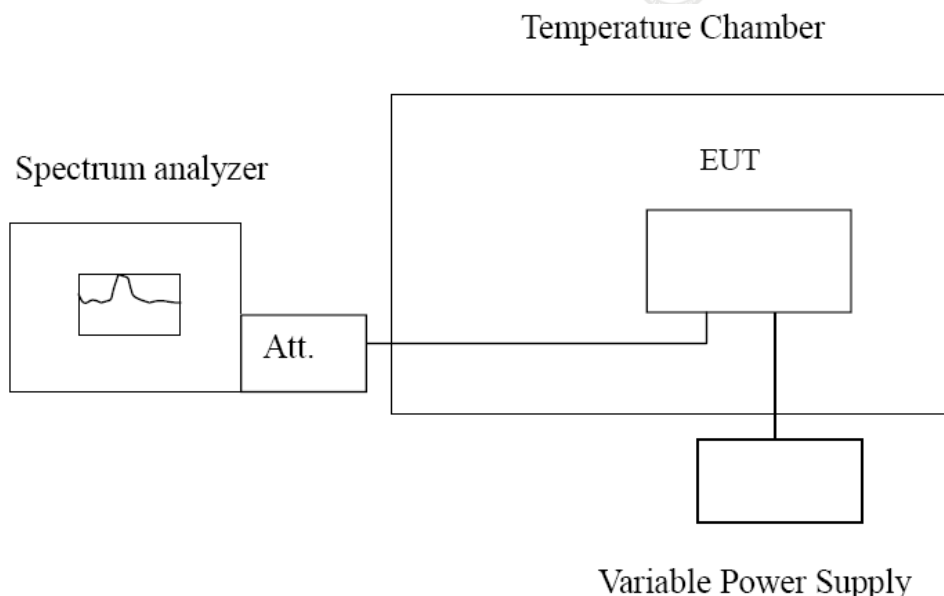
CH159

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:

Ant0:

Reference Frequency: 802.11ac channel=36 frequency=5180MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC 120V	-30	112.43	0.021705	Within the band of operation	Pass
	-20	170.76	0.032965		
	-10	138.52	0.026741		
	0	112.15	0.021651		
	10	142.63	0.027535		
	20	99.58	0.019224		
	30	164.40	0.031737		
	40	127.35	0.024585		
	50	126.68	0.024456		
AC 132V	25	193.47	0.037349	Within the band of operation	Pass
AC 108V	25	115.24	0.022247		

Reference Frequency: 802.11ac channel=149 frequency=5745MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC 120V	-30	135.21	0.023535	Within the band of operation	Pass
	-20	128.48	0.022364		
	-10	165.42	0.028794		
	0	166.91	0.029053		
	10	130.27	0.022675		
	20	127.83	0.022251		
	30	112.62	0.019603		
	40	169.54	0.029511		
	50	158.14	0.027527		
AC 132V	25	148.63	0.025871	Within the band of operation	Pass
AC 108V	25	115.29	0.020068		

Ant1:

Reference Frequency: 802.11ac channel=36 frequency=5180MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC 120V	-30	113.06	0.021826	Within the band of operation	Pass
	-20	169.85	0.032790		
	-10	138.79	0.026793		
	0	112.53	0.021724		
	10	142.18	0.027448		
	20	98.94	0.019100		
	30	163.25	0.031515		
	40	127.67	0.024647		
	50	126.90	0.024498		
AC 132V	25	194.13	0.037477		
AC 108V	25	115.45	0.022288		

Reference Frequency: 802.11ac channel=149 frequency=5745MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC 120V	-30	134.56	0.023422	Within the band of operation	Pass
	-20	128.14	0.022305		
	-10	165.27	0.028768		
	0	166.82	0.029037		
	10	129.58	0.022555		
	20	127.73	0.022233		
	30	112.19	0.019528		
	40	169.35	0.029478		
	50	158.87	0.027654		
AC 132V	25	149.78	0.026071		
AC 108V	25	114.62	0.019951		

5 Test Setup Photos of the EUT

Please refer to separated files for Test Setup Photos of the EUT.

6 Photos of the EUT

Please refer to separated files for External & Internal Photos of the EUT.

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