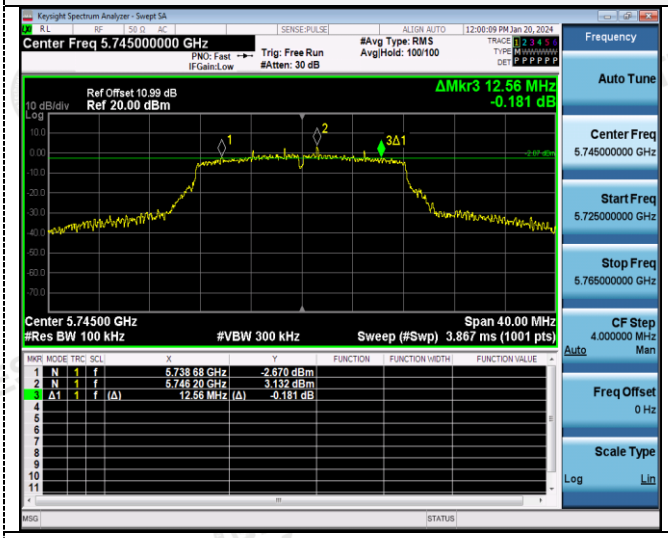
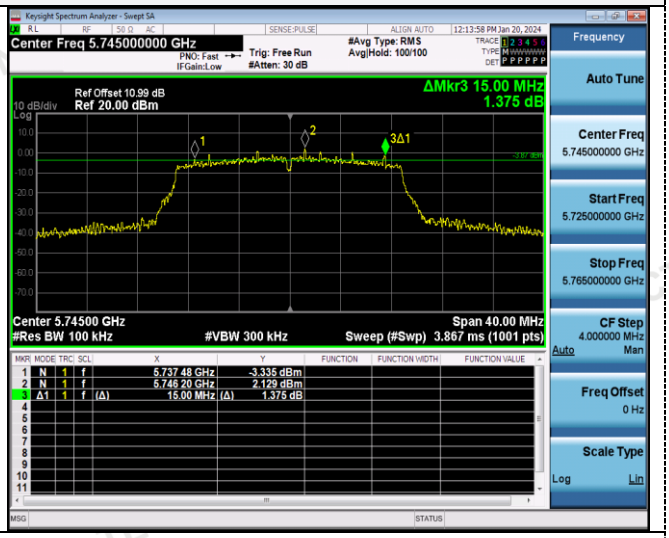
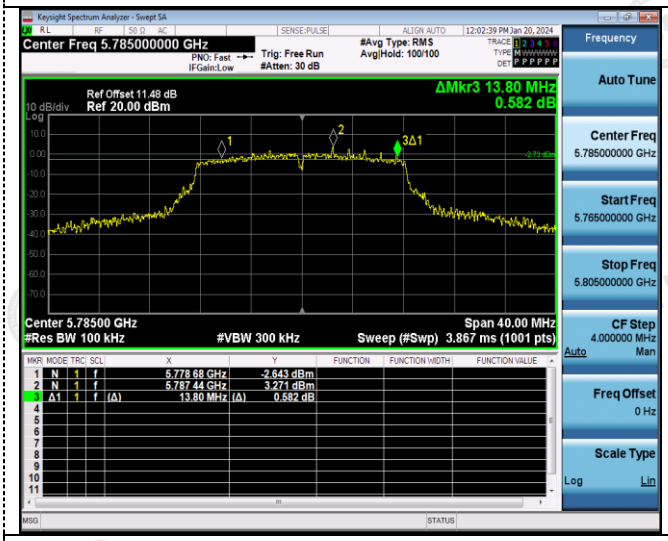
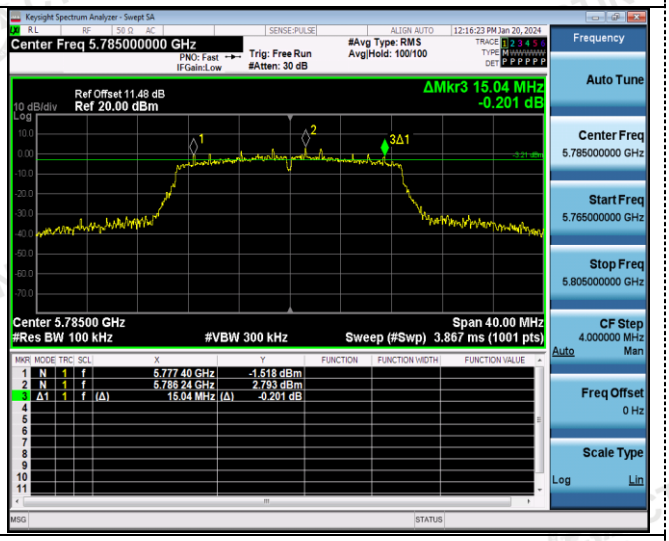
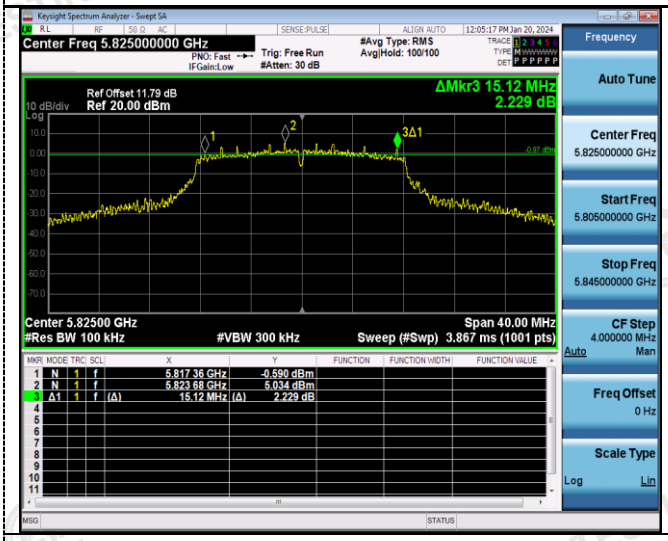
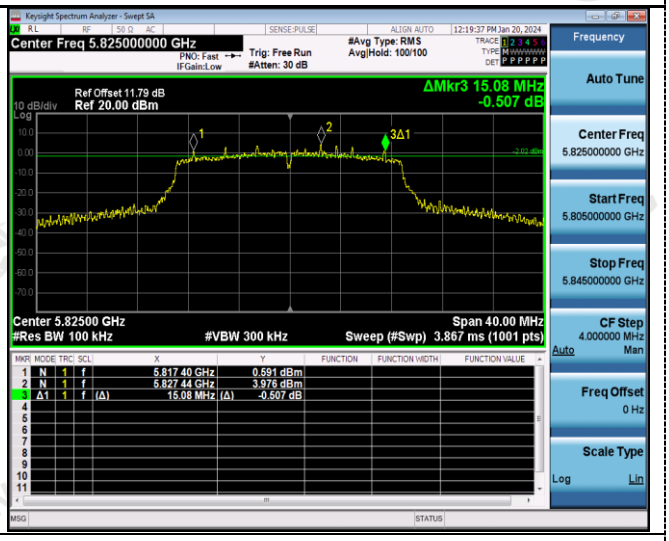
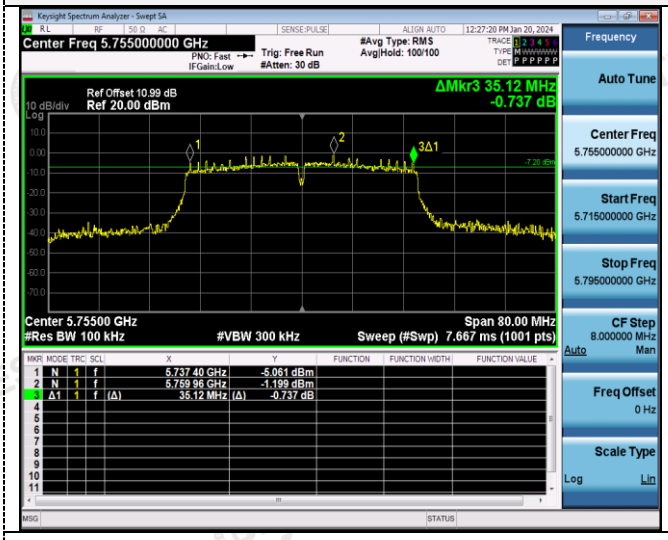
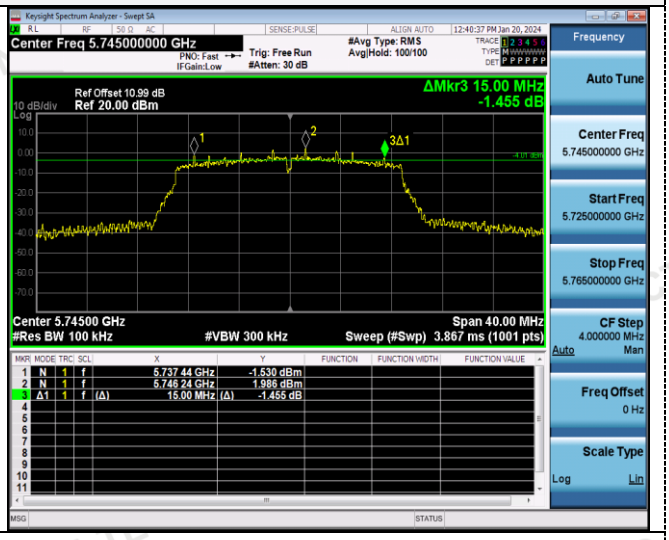
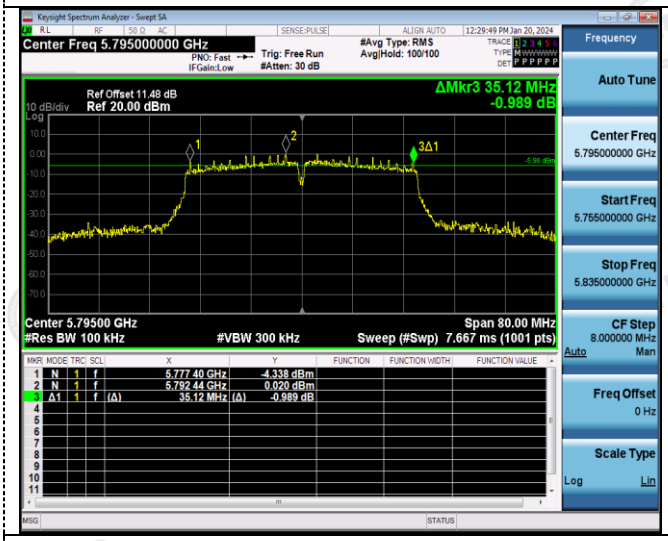
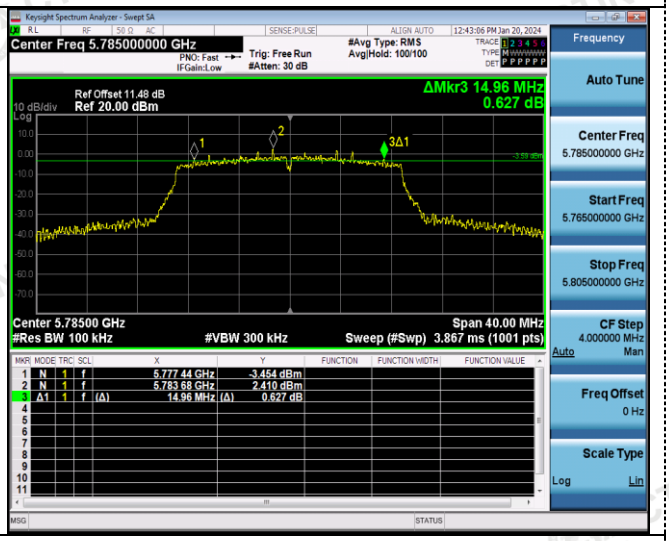
ANT 1

802.11a	802.11n(HT20)
	
CH149	CH149
	
CH157	CH157
	
CH165	CH165

802.11n(HT40)	802.11ac(HT20)
	
CH151	CH149
	
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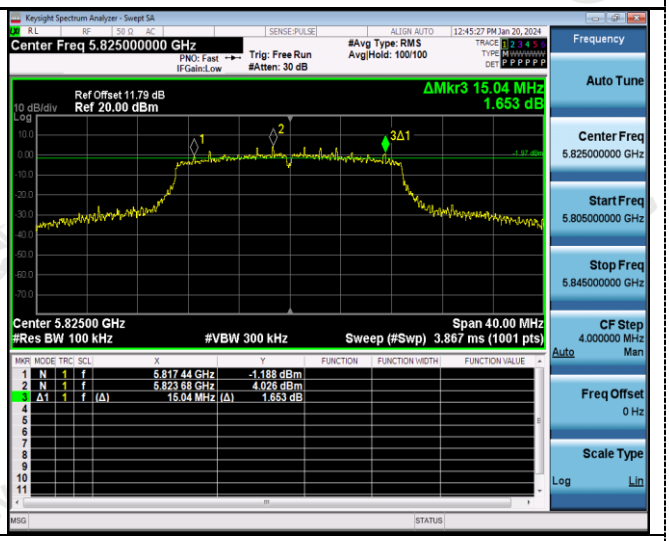
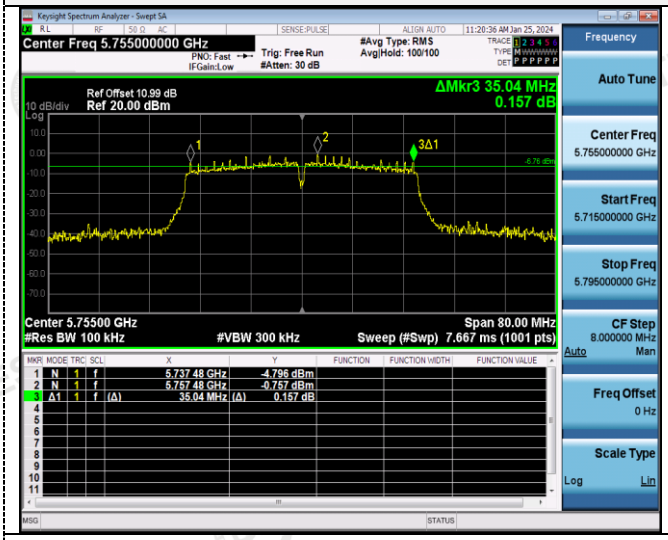
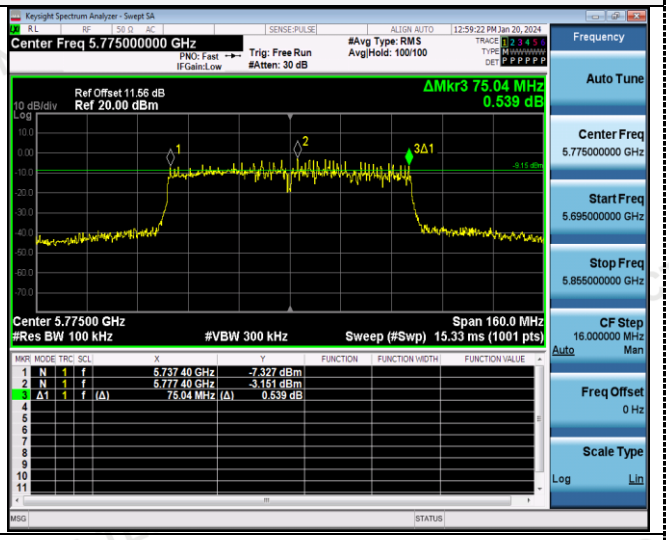
	
	CH165

802.11ac(HT40)	802.11ac(HT80)
	
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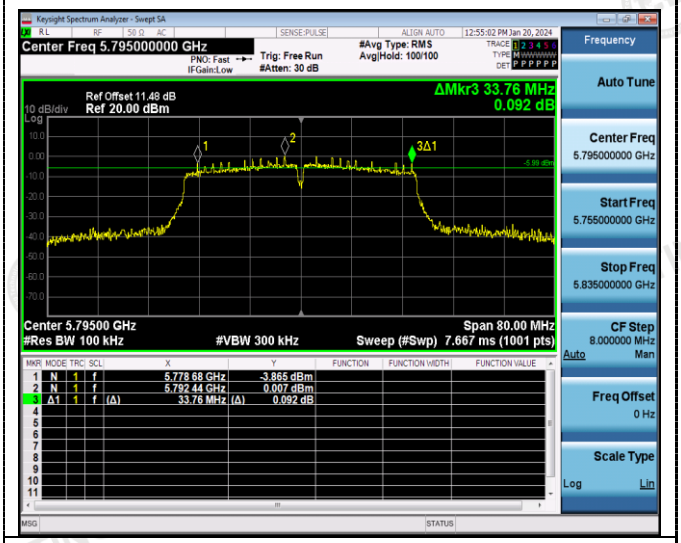
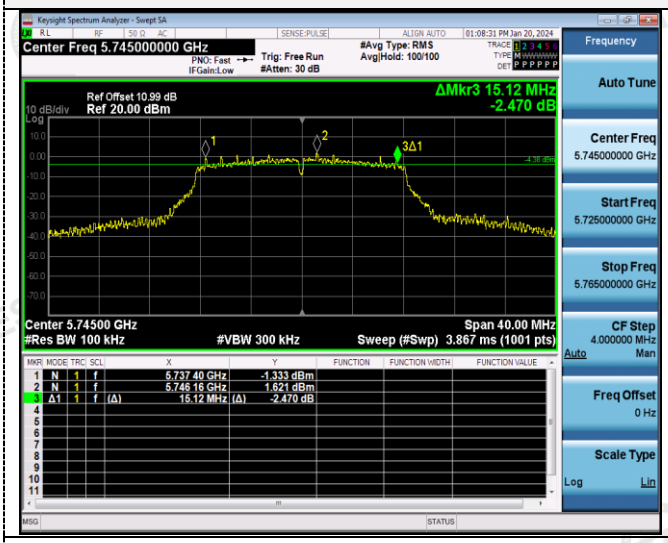
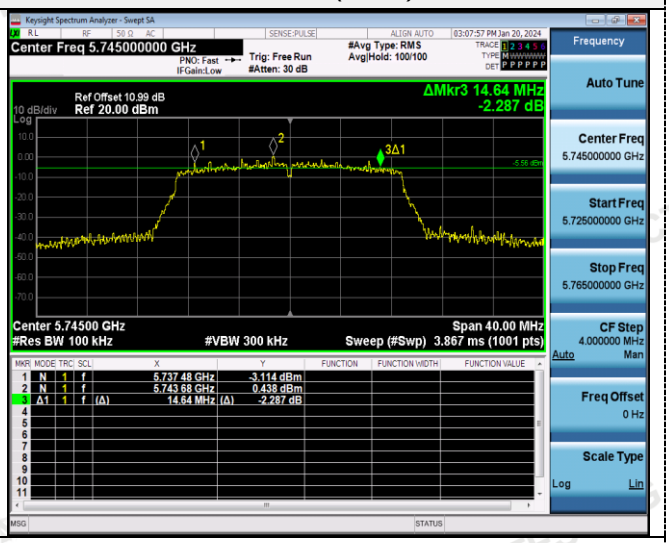
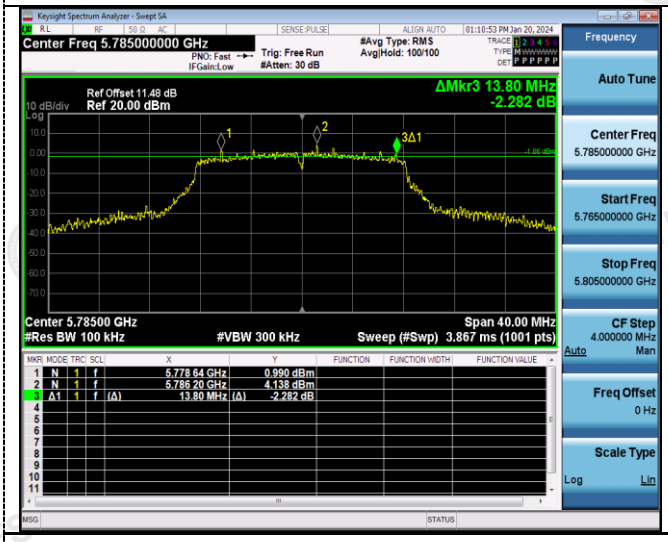
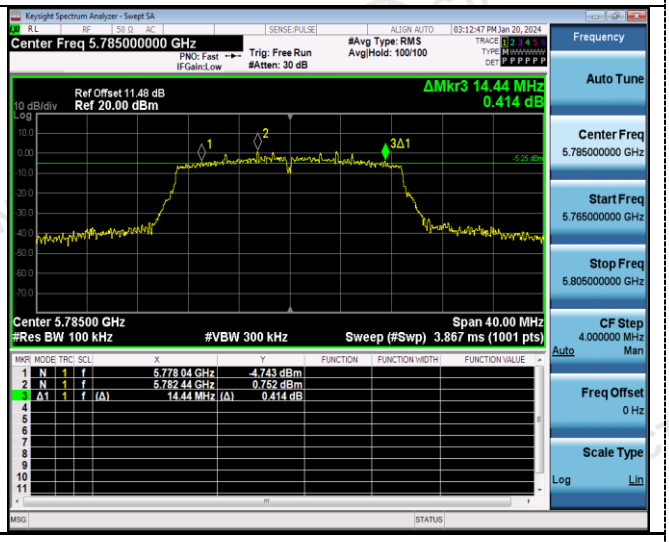
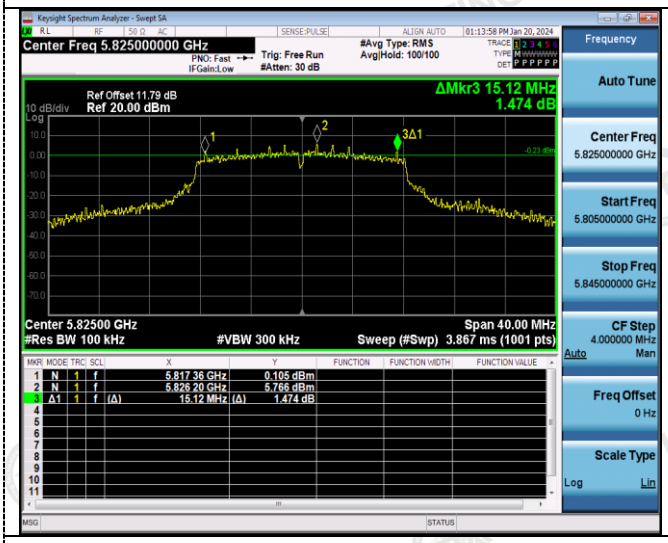
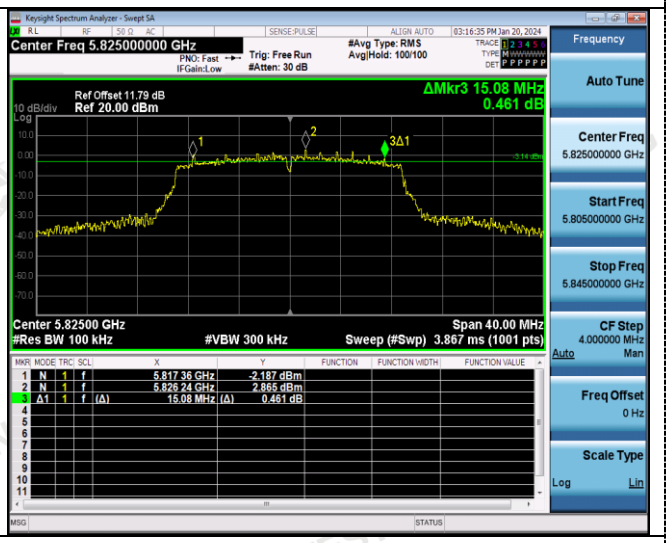
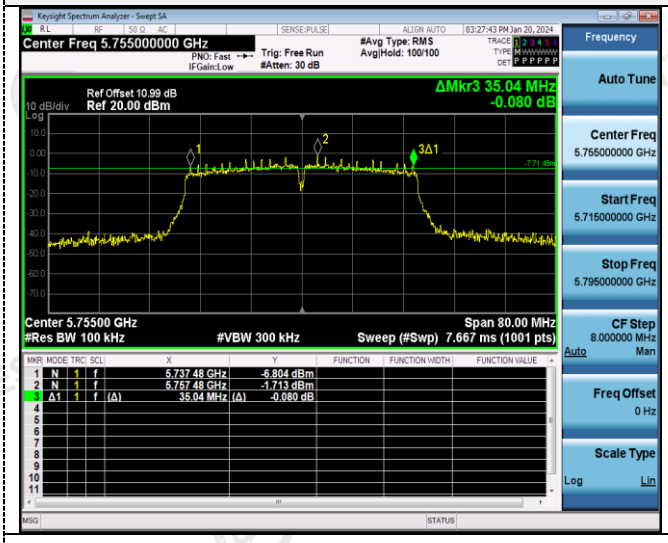
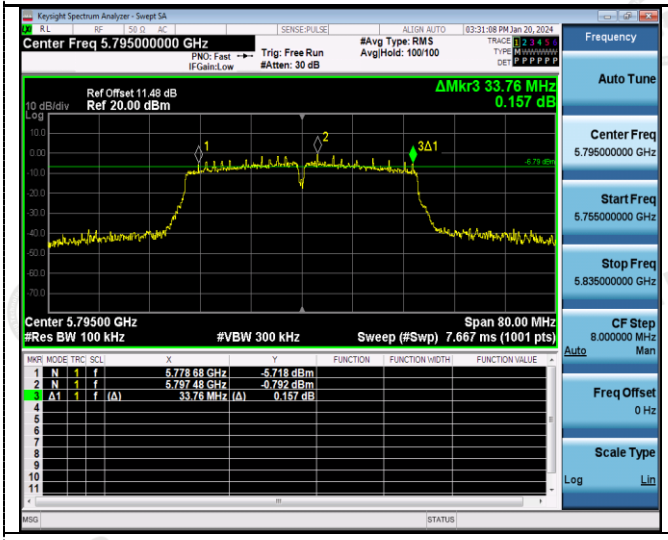
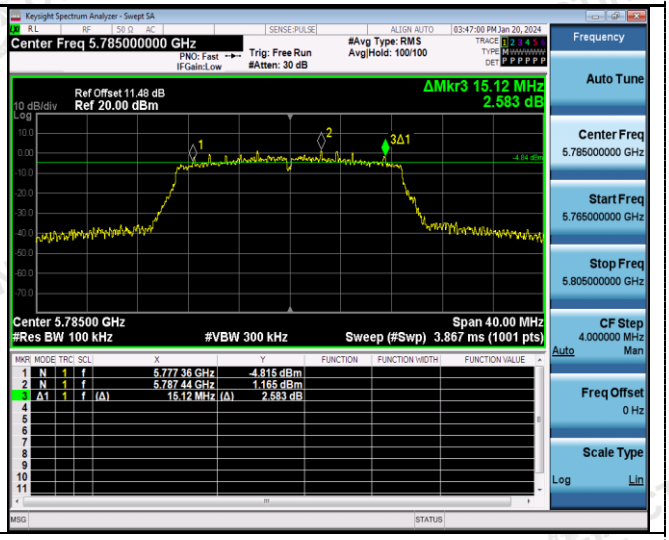
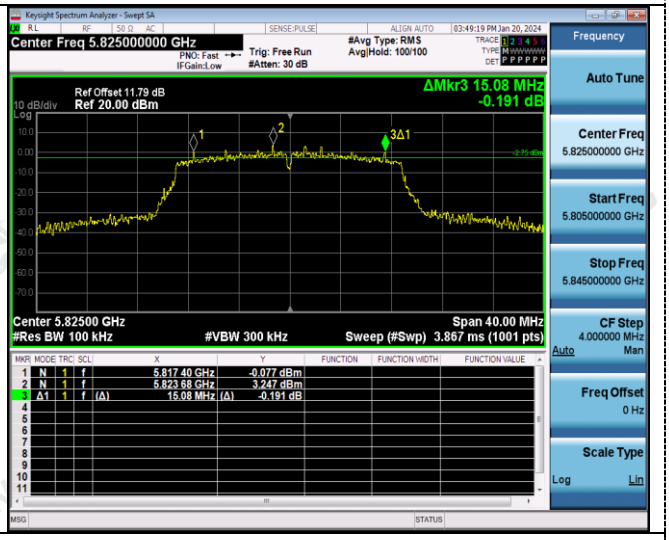
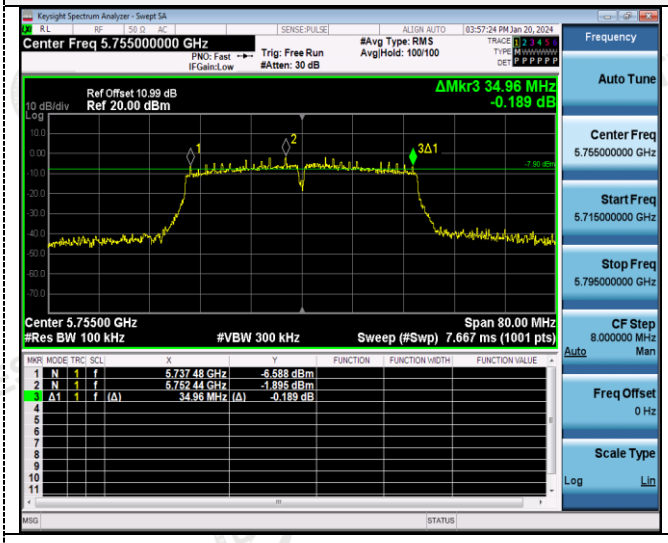
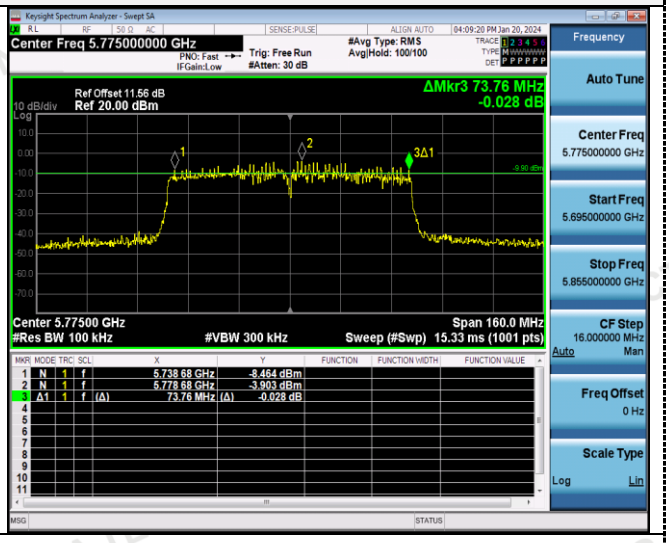
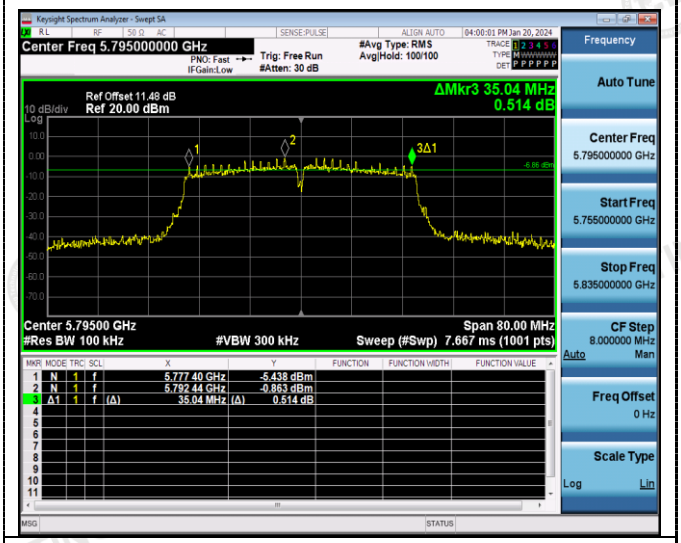
	
CH159	

ANT 2

802.11a	802.11n(HT20)
	
CH149	CH149
	
CH157	CH157
	
CH165	CH165

802.11n(HT40)	802.11ac(HT20)
	
CH151	CH149
	
CH159	CH157
	
	CH165

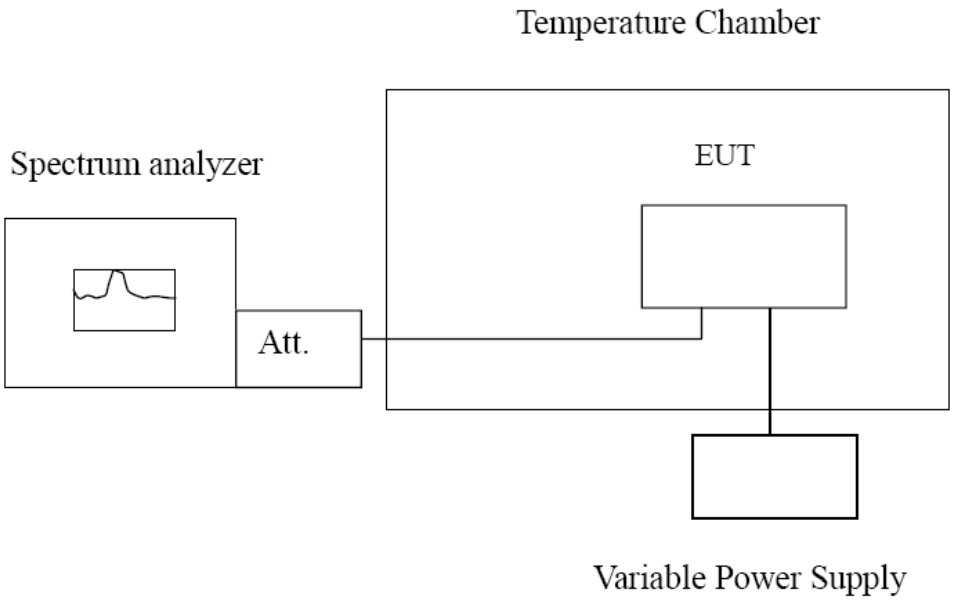
802.11ac(HT40)	802.11ac(HT80)
	
CH151	CH155
	
CH159	

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℃ 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		
DC 7.60V	-30	110.68	0.021367	Within the band of operation	Pass
	-20	174.36	0.033660		
	-10	145.45	0.028079		
	0	146.48	0.028278		
	10	146.00	0.028185		
	20	99.44	0.019197		
	30	167.53	0.032342		
	40	129.35	0.024971		
	50	128.55	0.024817		
DC 8.74V	25	195.70	0.037780		
DC 6.46V	25	118.82	0.022938		

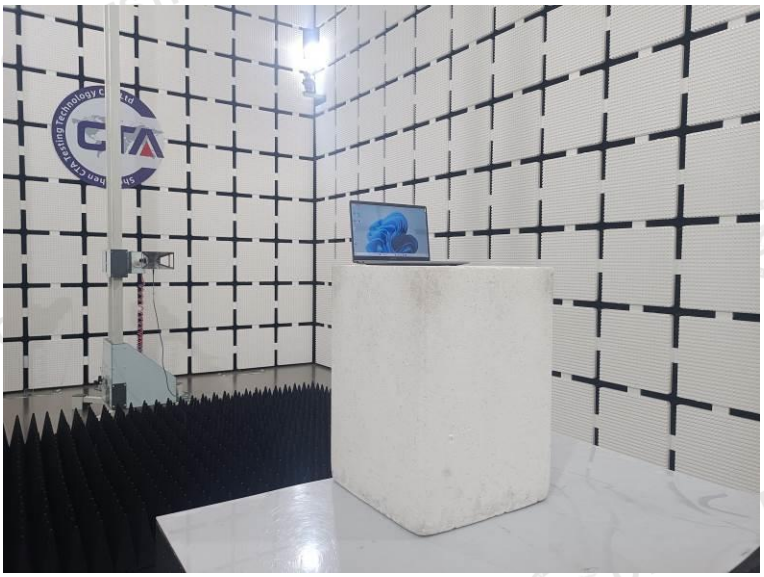
Reference Frequency: 802.11ac channel=149 frequency=5745MHz					
Voltage (V)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
DC 7.60V	-30	135.79	0.023636	Within the band of operation	Pass
	-20	129.42	0.022527		
	-10	167.38	0.029135		
	0	169.74	0.029546		
	10	136.42	0.023746		
	20	145.00	0.025239		
	30	116.42	0.020265		
	40	168.34	0.029302		
	50	160.88	0.028003		
DC 8.74V	25	150.82	0.026252		
DC 6.46V	25	129.91	0.022613		

Ant2:

Reference Frequency: 802.11ac channel=36 frequency=5180MHz					
Voltage (V)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
DC 7.60V	-30	110.67	0.021365	Within the band of operation	Pass
	-20	174.68	0.033722		
	-10	145.63	0.028114		
	0	146.59	0.028299		
	10	146.27	0.028237		
	20	99.83	0.019272		
	30	167.41	0.032319		
	40	129.45	0.024990		
	50	128.66	0.024838		
DC 8.74V	25	195.45	0.037732		
DC 6.46V	25	118.56	0.022888		

Reference Frequency: 802.11ac channel=149 frequency=5745MHz					
Voltage (V)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
DC 7.60V	-30	135.50	0.023586	Within the band of operation	Pass
	-20	129.74	0.022583		
	-10	167.06	0.029079		
	0	169.50	0.029504		
	10	136.45	0.023751		
	20	144.72	0.025191		
	30	116.68	0.020310		
	40	168.48	0.029326		
	50	160.83	0.027995		
DC 8.74V	25	150.92	0.026270		
DC 6.46V	25	129.47	0.022536		

5 Test Setup Photos of the EUT



6 Photos of the EUT

Reference to the test report No. **CTA24011800301.**

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