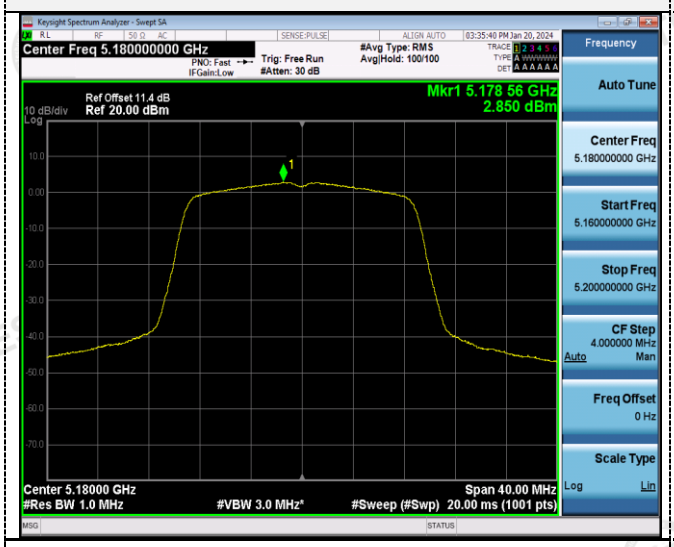
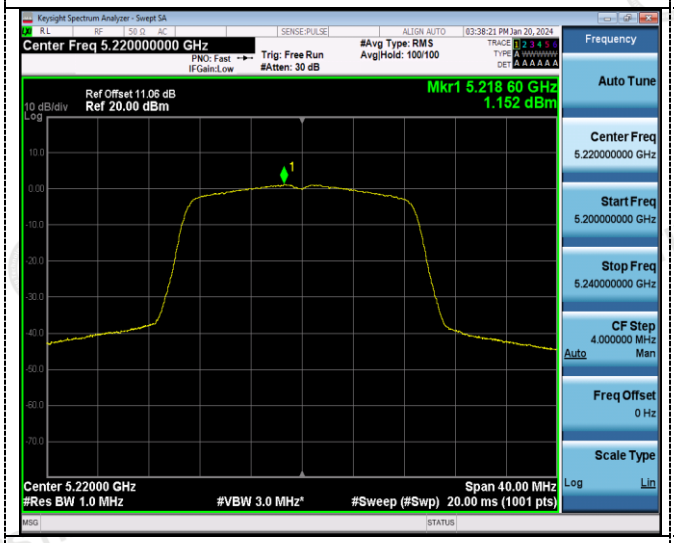
802.11ac(HT20)

U-NII 1



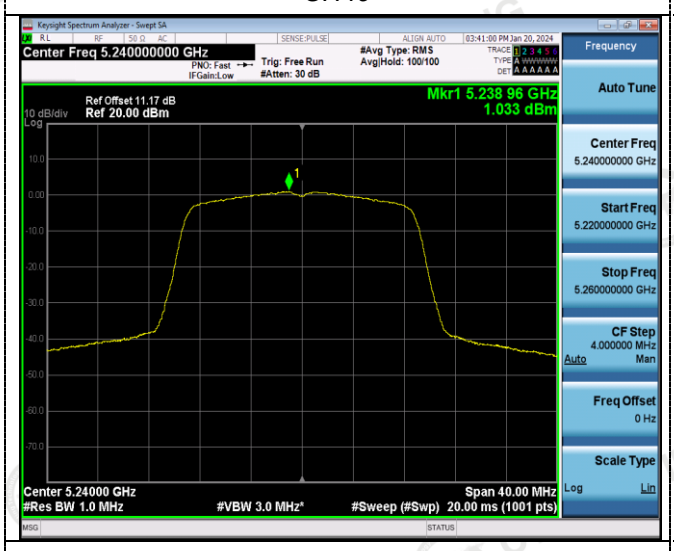
U-NII 3

CH36



CH149

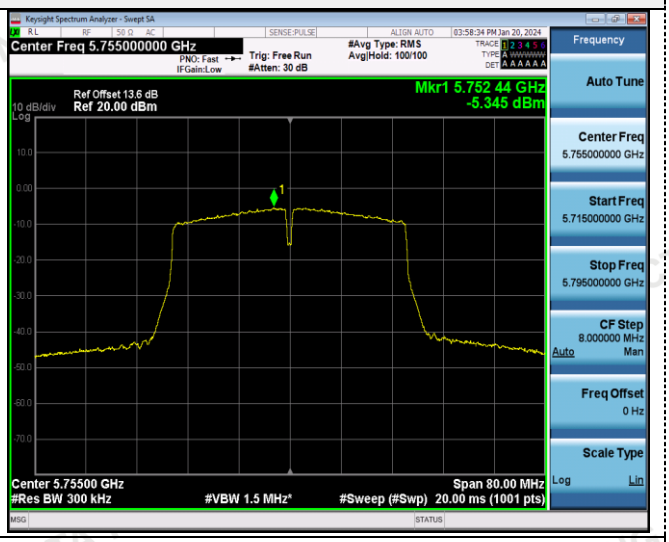
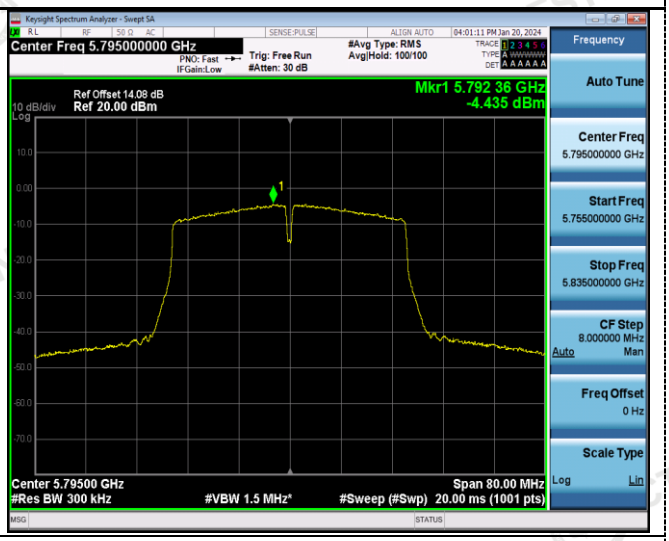
CH40



CH157

CH48

CH165

802.11ac(HT40)	
U-NII 1	U-NII 3
	
CH38	CH151
	
CH46	CH159

802.11ac(HT80)	
U-NII 1	U-NII 3
CH42	CH155

4.5 Emission Bandwidth (26dB Bandwidth)

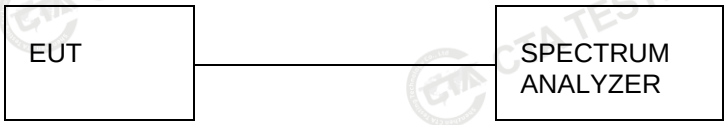
Limit

N/A

Test Procedure

1. Set resolution bandwidth (RBW) = approximately 1 % of the EBW.
2. Set the video bandwidth (VBW) > RBW.
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW / EBW ratio is approximately 1 %.

Test Configuration



Test Results

ANT 1

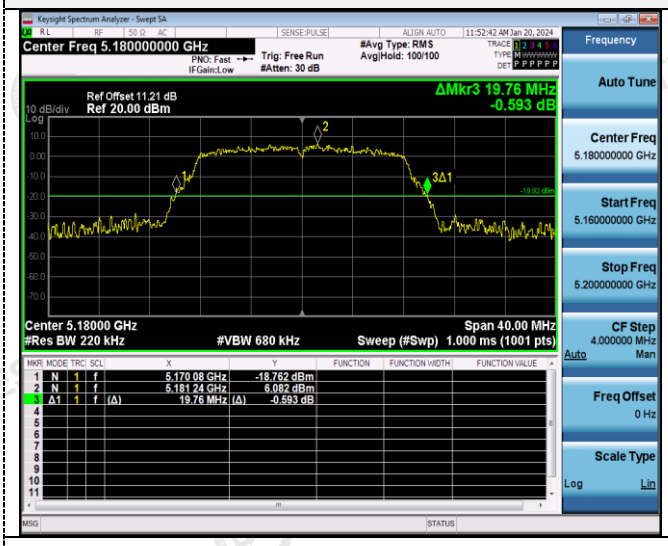
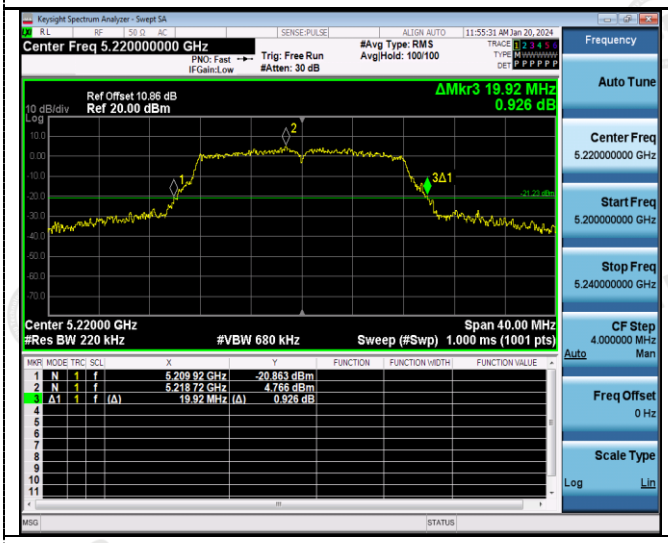
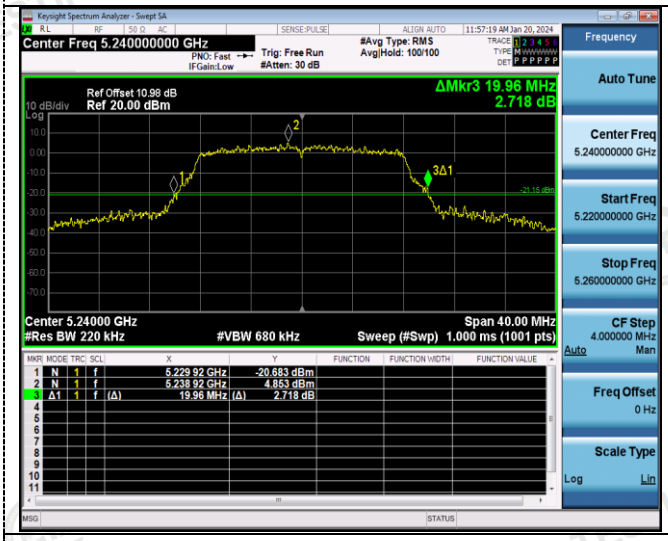
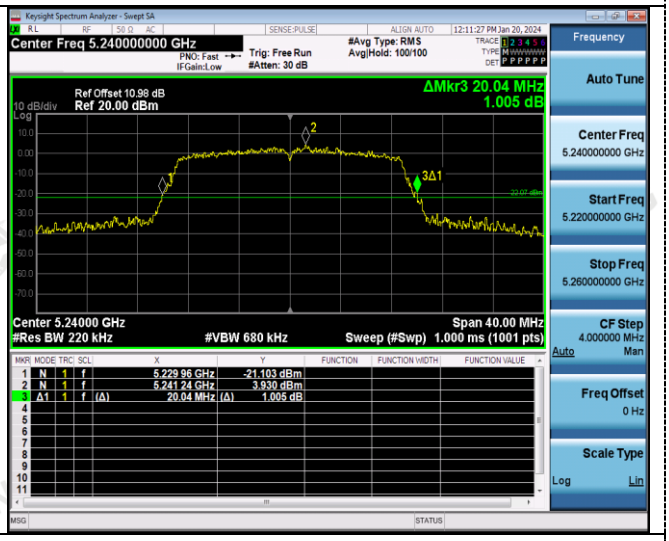
Type	Bands	Channel	26dB Bandwidth (MHz)	Limit (MHz)	Result
802.11a	U-NII 1	36	19.760	N/A	Pass
		44	19.920		
		48	19.960		
802.11n(HT20)	U-NII 1	36	20.120		
		44	19.960		
		48	20.040		
802.11n(HT40)	U-NII 1	38	40.080		
		46	40.400		
802.11ac(HT20)	U-NII 1	36	20.040		
		44	19.920		
		48	19.960		
802.11ac(HT40)	U-NII 1	38	40.000		
		46	40.560		
802.11ac(HT80)	U-NII 1	42	80.800		

ANT 2

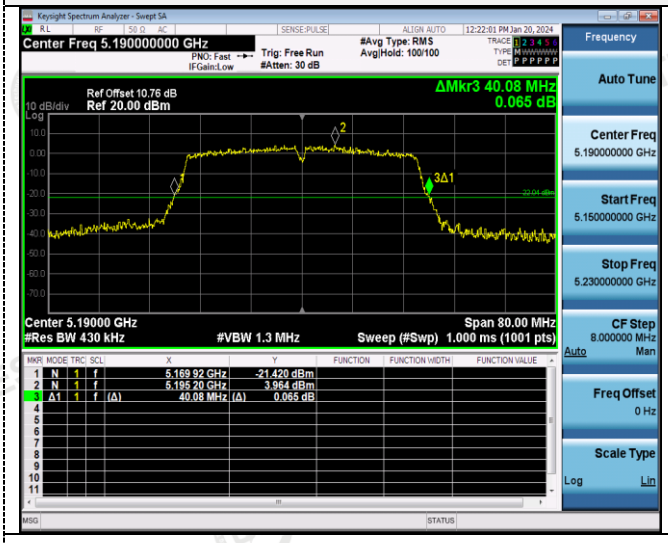
Type	Bands	Channel	26dB Bandwidth (MHz)	Limit (MHz)	Result
802.11a	U-NII 1	36	19.840	N/A	Pass
		44	20.080		
		48	19.880		
802.11n(HT20)	U-NII 1	36	20.080		
		44	20.080		
		48	20.240		
802.11n(HT40)	U-NII 1	38	40.160		
		46	40.240		
802.11ac(HT20)	U-NII 1	36	20.080		
		44	20.080		
		48	20.000		
802.11ac(HT40)	U-NII 1	38	40.160		
		46	40.240		
802.11ac(HT80)	U-NII 1	42	81.760		

Test plot as follows:

ANT 1

802.11a	802.11n(HT20)
	
CH36	CH36
	
CH40	CH40
	
CH48	CH48

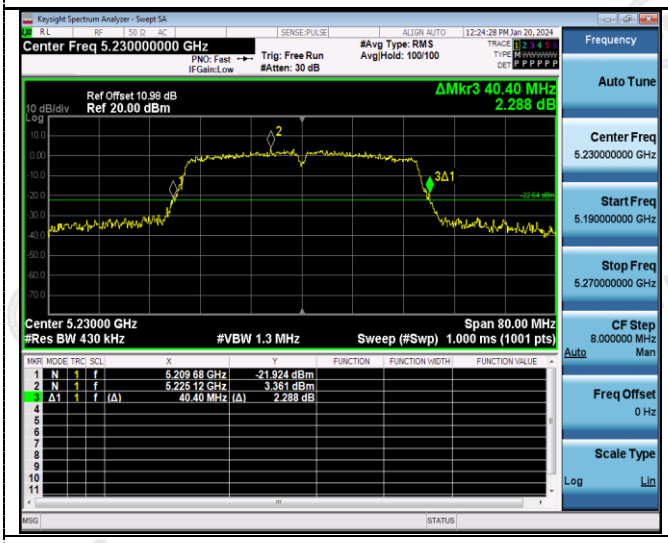
802.11n(HT40)



CH38

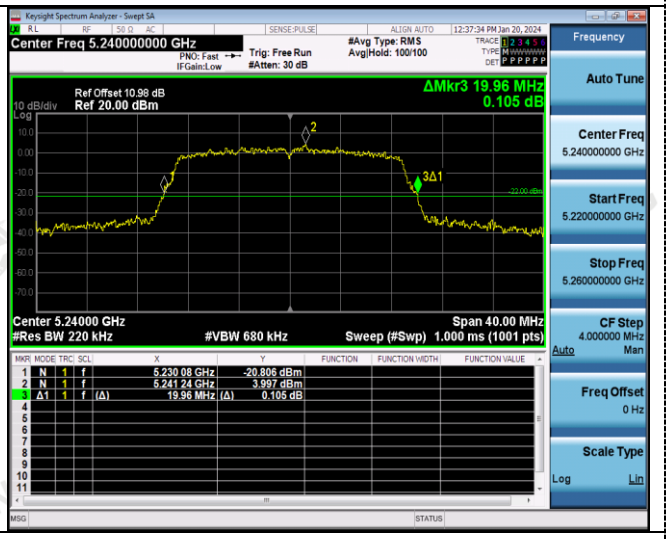
802.11ac(HT20)

CH36



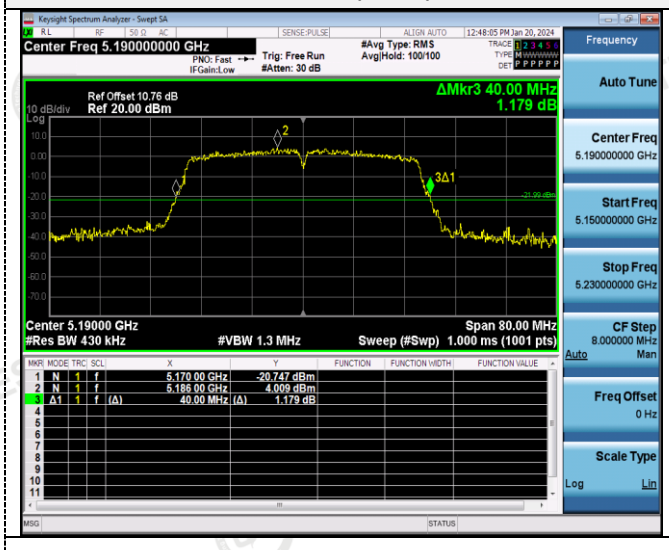
CH46

CH40



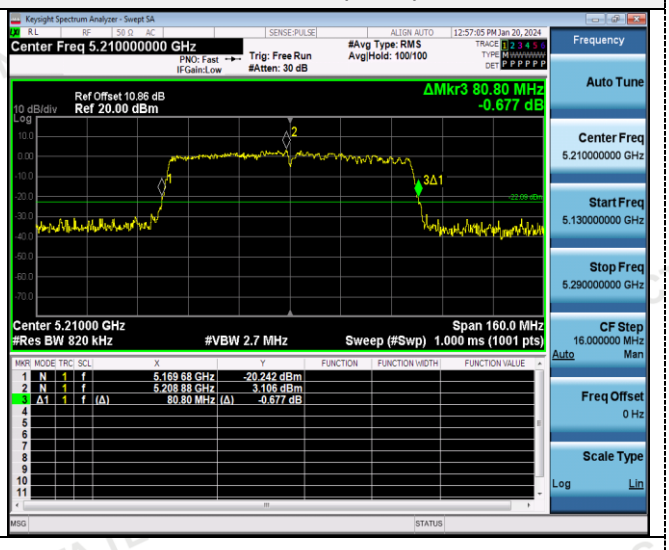
CH48

802.11ac(HT40)

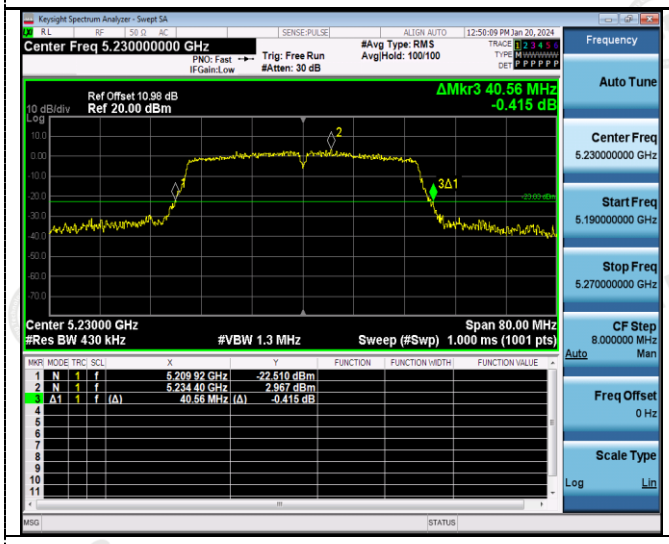


CH38

802.11ac(HT80)

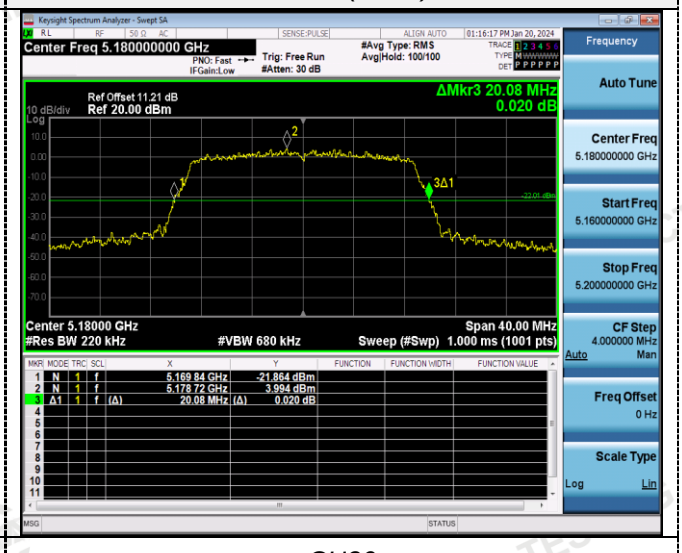
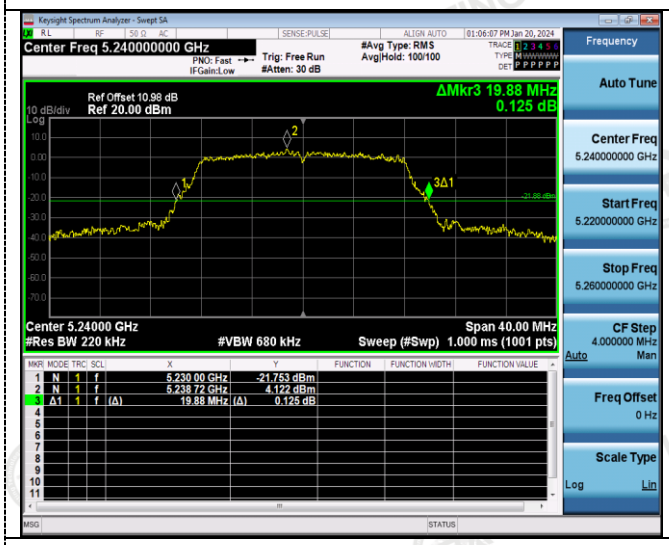
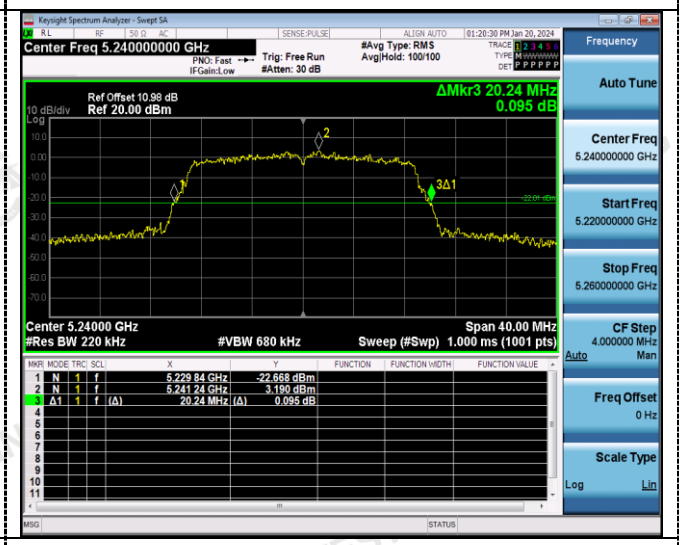


CH42

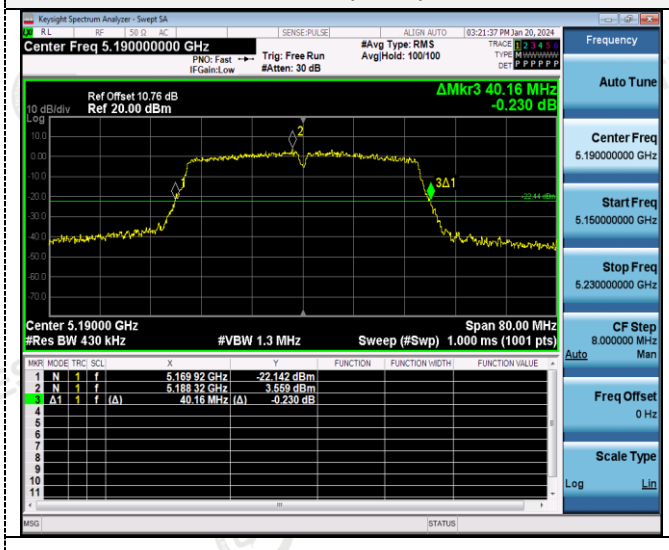


CH46

ANT 2

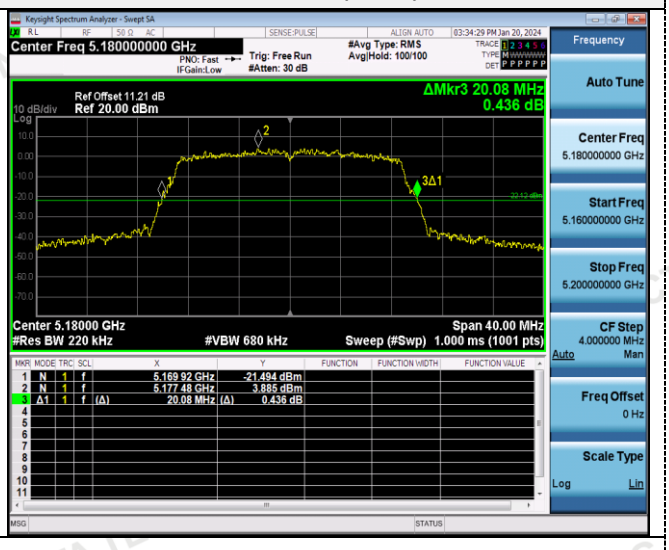
802.11a	802.11n(HT20)
	
CH36	CH36
CH40	CH40
	
CH48	CH48

802.11n(HT40)

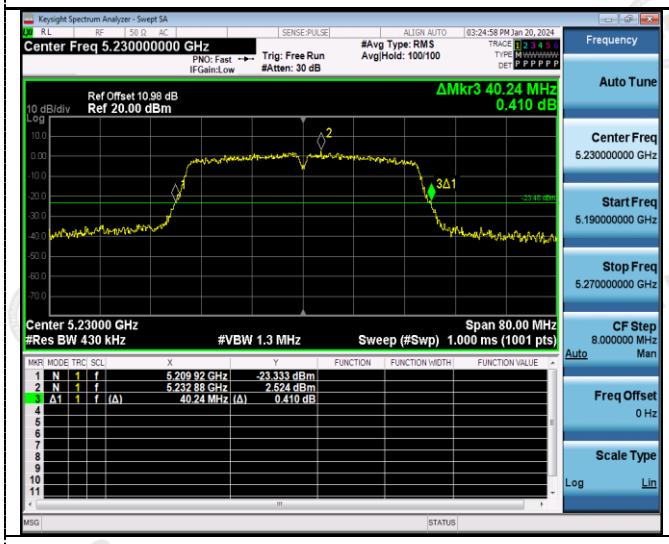


CH38

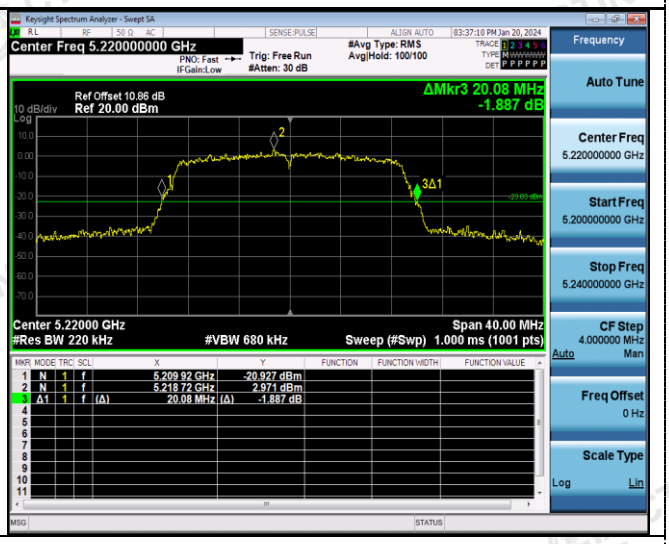
802.11ac(HT20)



CH36



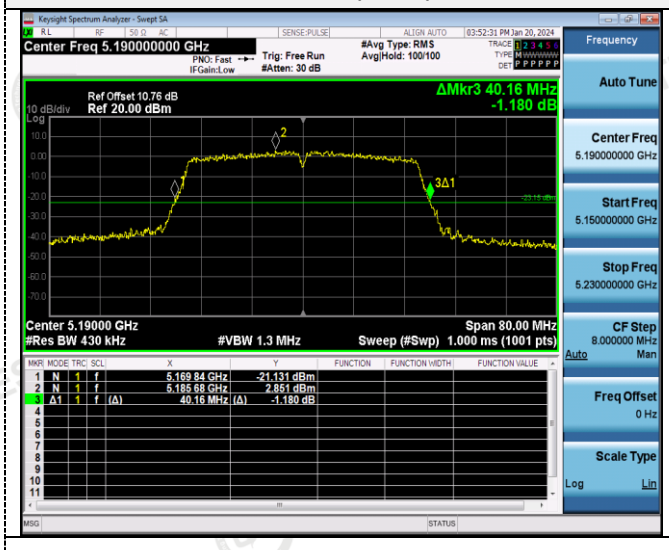
CH46



CH40

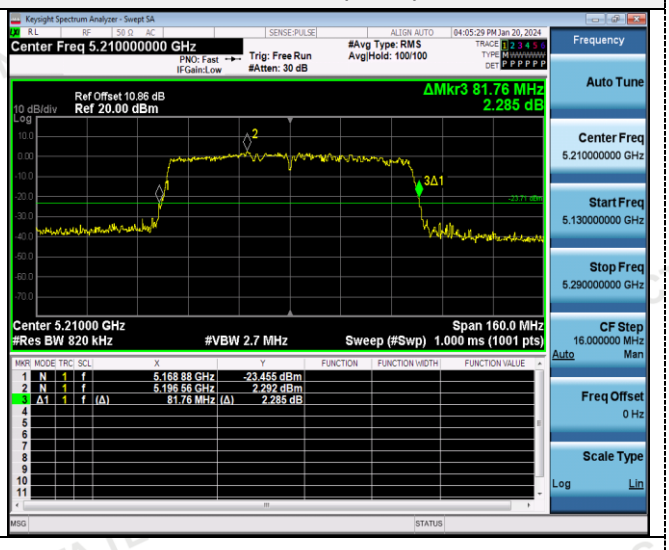
CH48

802.11ac(HT40)

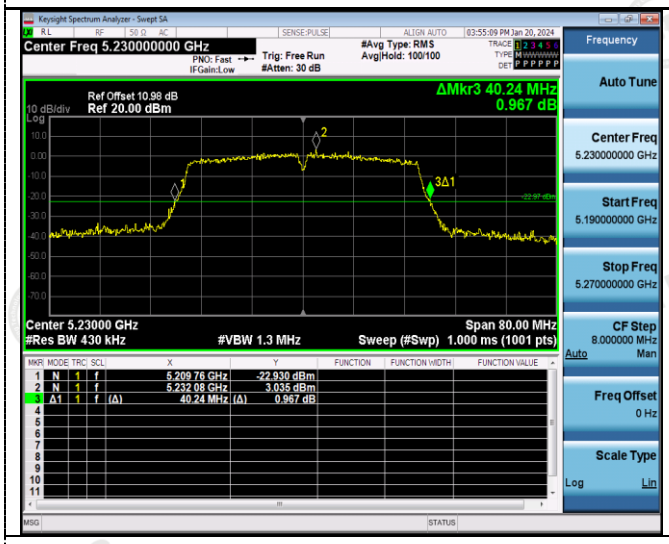


CH38

802.11ac(HT80)



CH42



CH46

4.6 Minimum Emission Bandwidth (6dB Bandwidth)

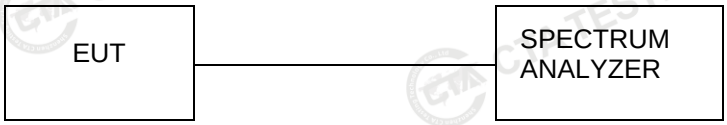
Limit

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz
2. Set the video bandwidth 3 x RBW.
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Configuration



Test Results

ANT 1

Type	Bands	Channel	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	U-NII 3	149	12.560	≥500KHz	Pass
		157	13.800		
		165	15.120		
802.11n(HT20)	U-NII 3	149	15.000		
		157	15.040		
		165	15.080		
802.11n(HT40)	U-NII 3	151	35.120		
		159	35.120		
802.11ac(HT20)	U-NII 3	149	15.000		
		157	14.960		
		165	15.040		
802.11ac(HT40)	U-NII 3	151	35.040		
		159	33.760		
802.11ac(HT80)	U-NII 3	155	75.040		

ANT 2

Type	Bands	Channel	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	U-NII 3	149	15.120	≥500KHz	Pass
		157	13.800		
		165	15.120		
802.11n(HT20)	U-NII 3	149	14.640		
		157	14.440		
		165	15.080		
802.11n(HT40)	U-NII 3	151	35.040		
		159	33.760		
802.11ac(HT20)	U-NII 3	149	15.080		
		157	15.120		
		165	15.080		
802.11ac(HT40)	U-NII 3	151	34.960		
		159	35.040		
802.11ac(HT80)	U-NII 3	155	73.760		

Test plot as follows: