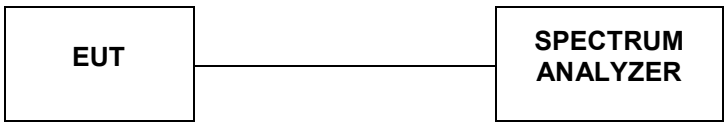
4.6. 6dB Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

According to KDB789033 D02 General U-NII Test Procedures New Rules v02r01 for one of the following procedures may be used for section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

a. Set RBW = 100 kHz.
b. Set the video bandwidth (VBW) ≥ 3 × RBW
c. Detector = Peak.
d. Trace mode = max hold.
e. Sweep = auto couple.
f. Allow the trace to stabilize
g. 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.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

LIMIT

For Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz

TEST RESULTS

Temperature	23.6℃	Humidity	55.7%
Test Engineer	Oliver Ou	Configurations	IEEE 802.11a/n/ac

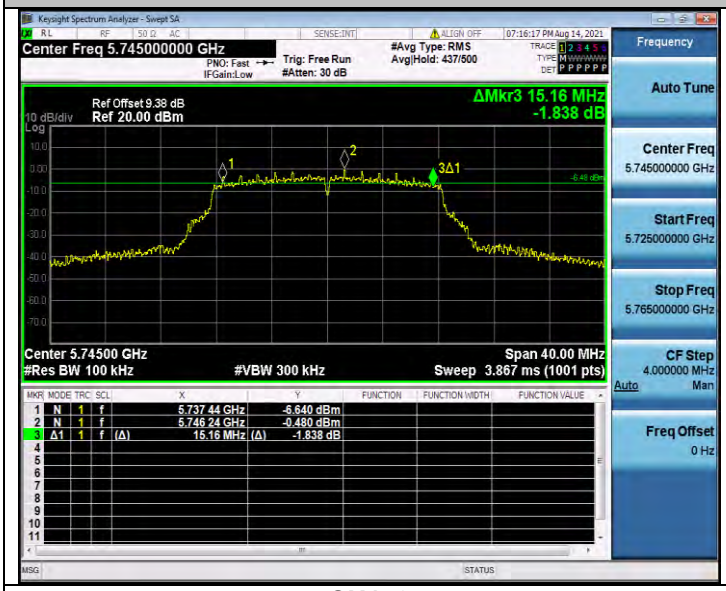
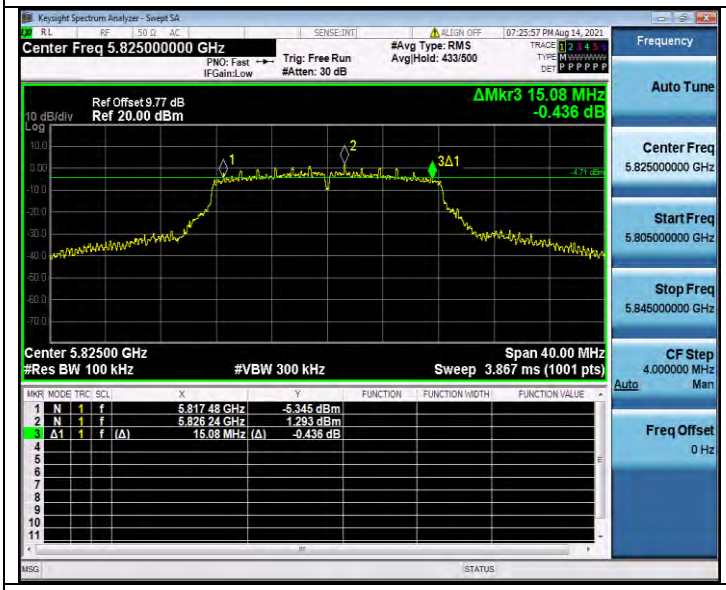
Antenna 0:

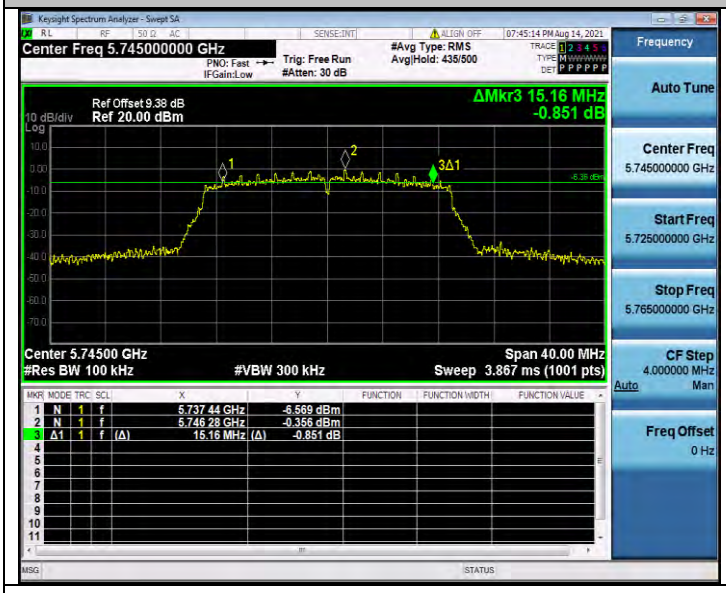
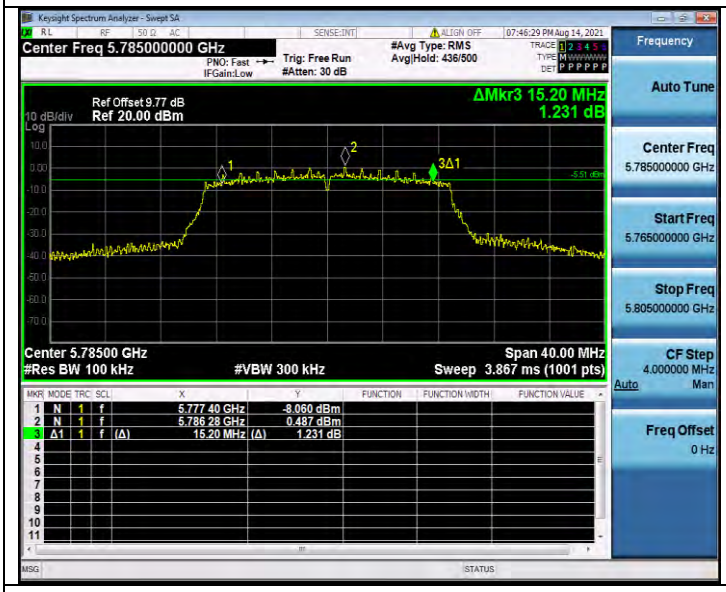
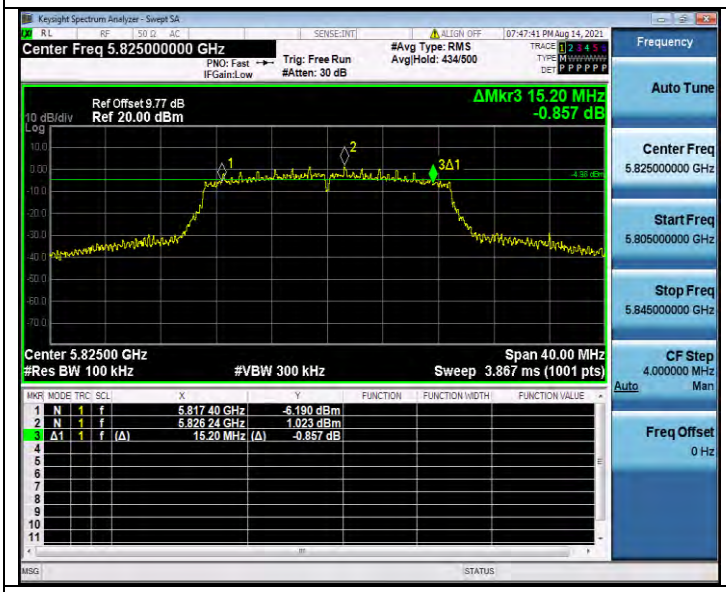
Type	Channel	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	149	15.160	>500	Pass
	157	15.200		
	165	15.080		
802.11nHT20	149	15.160	>500	Pass
	157	15.160		
	165	15.120		
802.11n40	151	35.200	>500	Pass
	159	35.200		
802.11ac20	149	15.160	>500	Pass
	157	15.200		
	165	15.200		
802.11ac40	151	35.280	>500	Pass
	159	35.280		
802.11ac80	155	75.360	>500	Pass

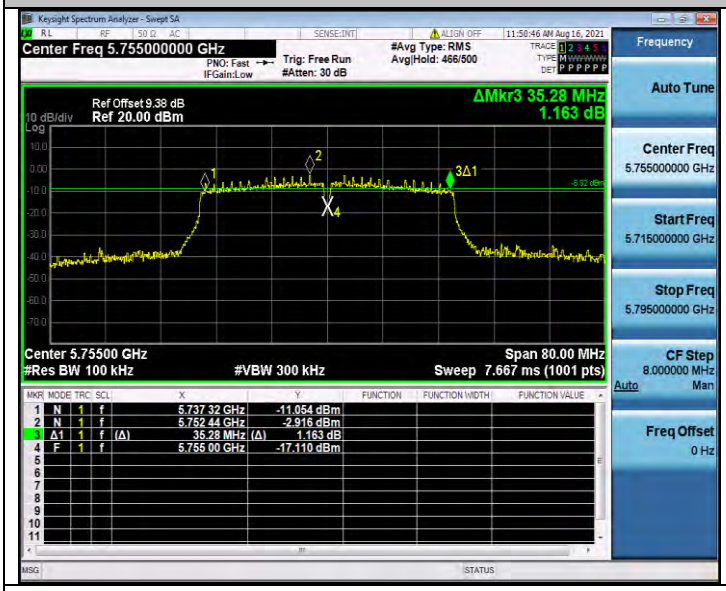
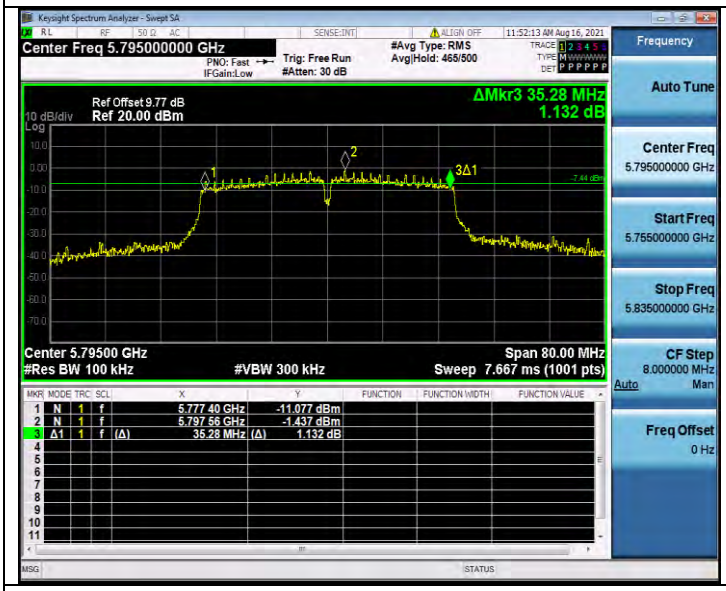
Antenna 1:

Type	Channel	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	149	15.160	>500	Pass
	157	15.160		
	165	13.960		
802.11nHT20	149	15.200	>500	Pass
	157	15.200		
	165	15.240		
802.11n40	151	35.280	>500	Pass
	159	35.280		
802.11ac20	149	15.200	>500	Pass
	157	15.200		
	165	15.760		
802.11ac40	151	35.280	>500	Pass
	159	35.280		
802.11ac80	155	75.520	>500	Pass

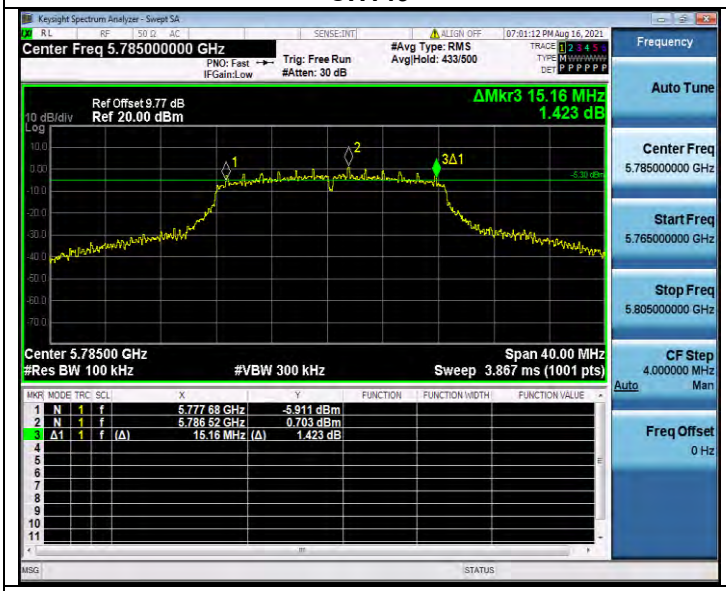
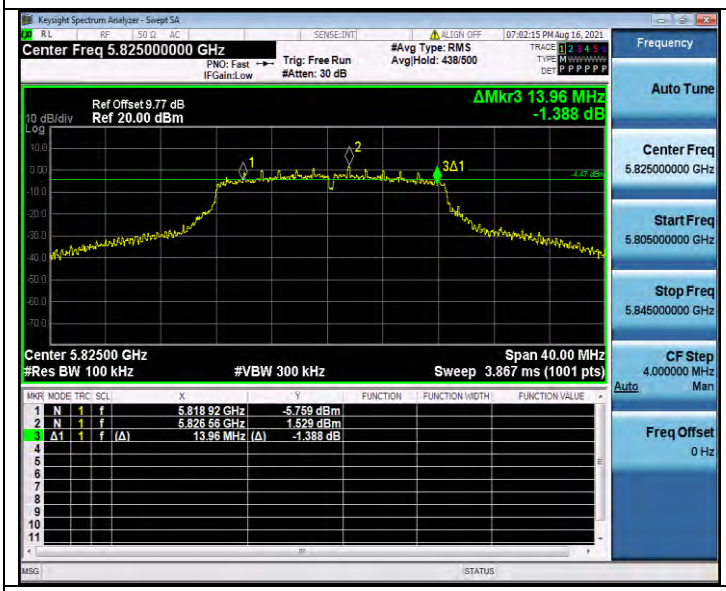
Antenna 0:

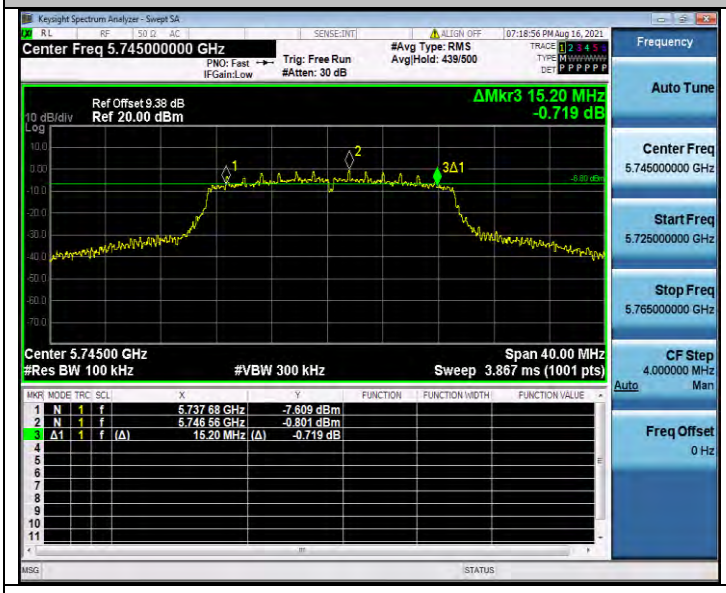
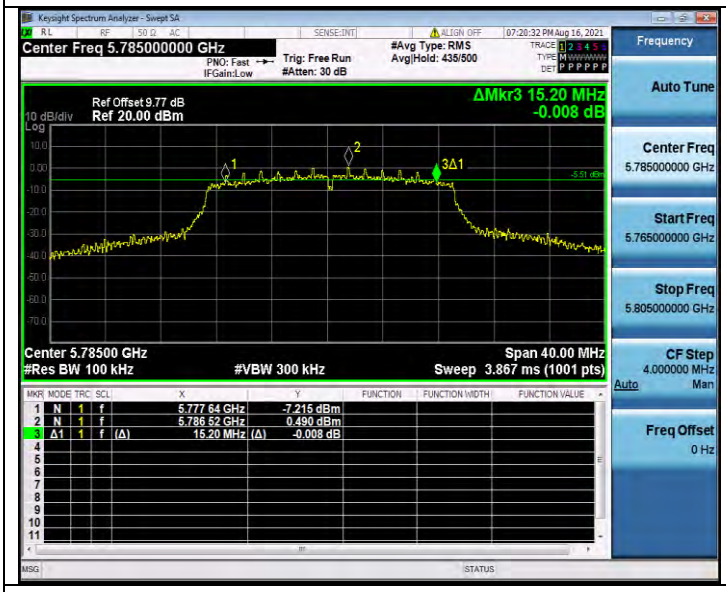
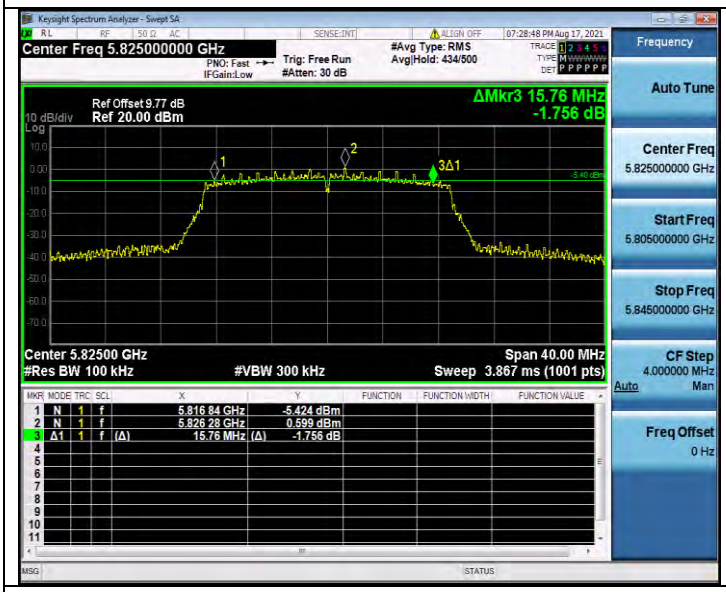
6dB Bandwidth	
802.11a	**802.11n HT20**
	
CH149	**CH149**
	
CH157	**CH157**
	
CH165	**CH165**

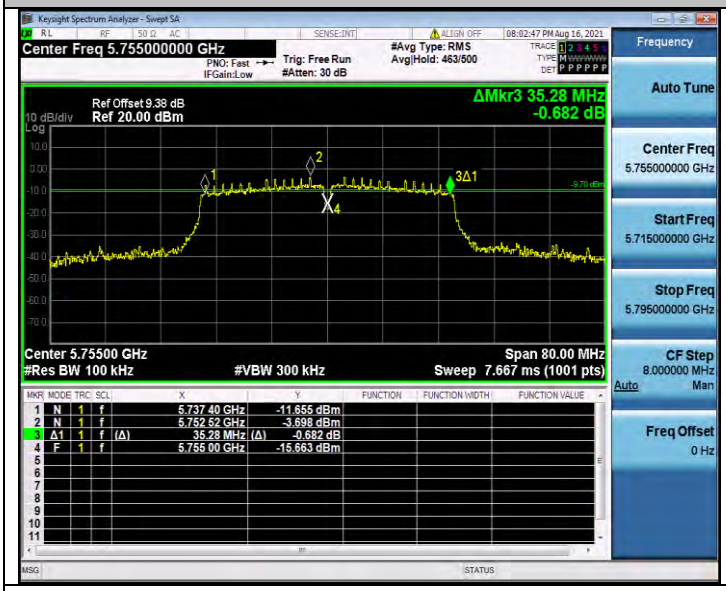
6dB Bandwidth	
802.11ac20	802.11n HT40
	
CH149	CH151
	
CH157	CH159
	
CH165	

6dB Bandwidth	
802.11ac40	802.11ac80
	
CH151	CH155
	
CH159	

Antenna 1:

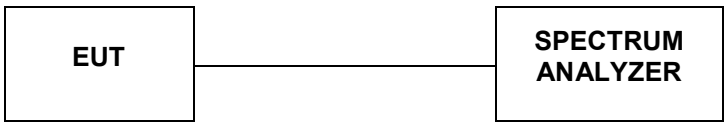
6dB Bandwidth	
802.11a	**802.11n HT20**
	
CH149	**CH149**
	
CH157	**CH157**
	
CH165	**CH165**

6dB Bandwidth	
802.11ac20	802.11n HT40
	
CH149	CH151
	
CH157	CH159
	
CH165	

6dB Bandwidth	
802.11ac40	802.11ac80
	
CH151	CH155
	
CH159	

4.7. 26dBc Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

According to KDB789033 D02 General U-NII Test Procedures New Rules v02r01 for one of the following procedures may be used for Emission Bandwidth (EBW) measurement:

a. Set RBW = 220 kHz/430 kHz /820 kHz (approximately 1% of the emission bandwidth).
b. Set the video bandwidth (VBW) = 3* RBW)
c. Detector = Peak.
d. Trace mode = max hold.
e. Sweep = auto couple.
f. Allow the trace to stabilize
g. Measure the maximum width of the emission that is 26 dB down from the maximum 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%.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

LIMIT

No Limits for 26dBc Bandwith

TEST RESULTS

Temperature	23.6℃	Humidity	55.7%
Test Engineer	Oliver Ou	Configurations	IEEE 802.11a/n/ac

Antenna 0:

Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	16.715	20.120	-	Pass
	40	16.838	20.240		
	48	16.741	20.400		
802.11nHT20	36	17.687	20.360	-	Pass
	40	17.793	20.480		
	48	17.775	20.280		
802.11n40	38	36.160	40.160	-	Pass
	46	36.149	40.560		
802.11ac20	36	17.750	20.240	-	Pass
	40	17.789	20.400		
	48	17.759	20.280		
802.11ac40	38	36.255	40.240	-	Pass
	46	36.286	40.160		
802.11ac80	42	75.219	80.320	-	Pass

Antenna 1:

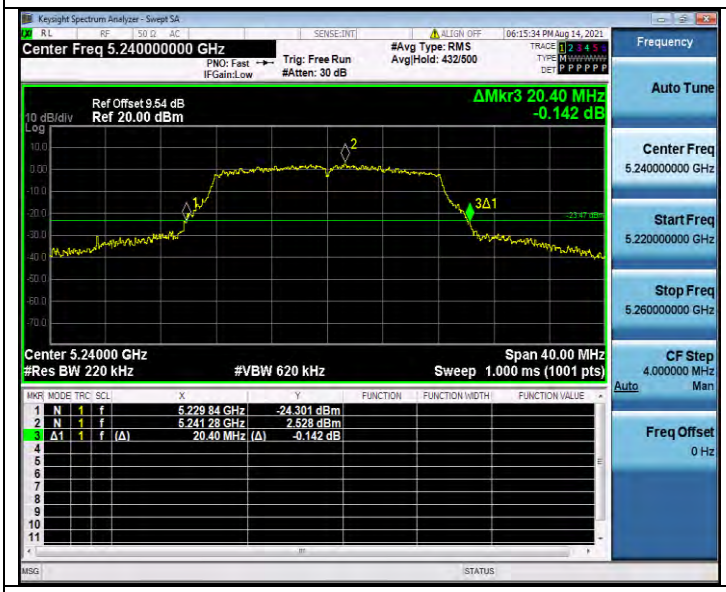
Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	16.920	20.320	-	Pass
	40	17.003	20.520		
	48	17.073	20.680		
802.11nHT20	36	17.820	20.200	-	Pass
	40	18.108	21.320		
	48	18.115	22.520		
802.11n40	38	36.424	41.040	-	Pass
	46	36.782	48.400		
802.11ac20	36	17.899	20.160	-	Pass
	40	18.004	20.480		
	48	18.018	20.720		
802.11ac40	38	36.374	41.040	-	Pass
	46	36.496	60.080		
802.11ac80	42	75.359	80.800	-	Pass

Antenna 0:

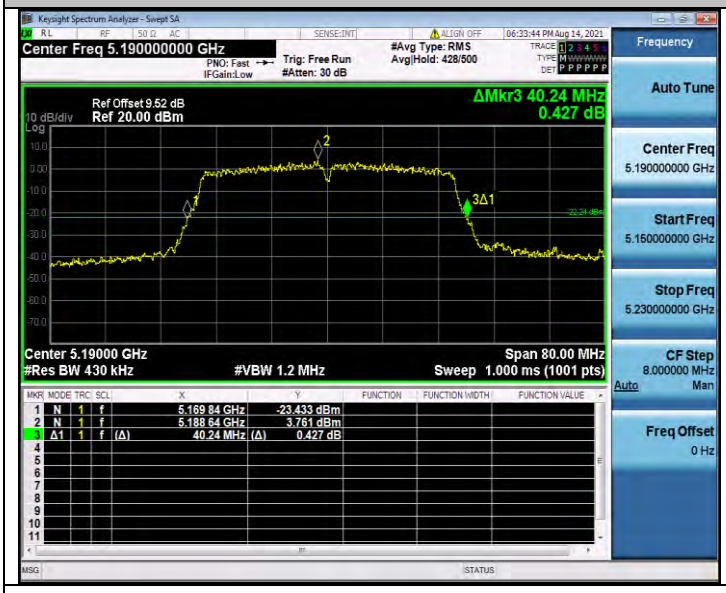
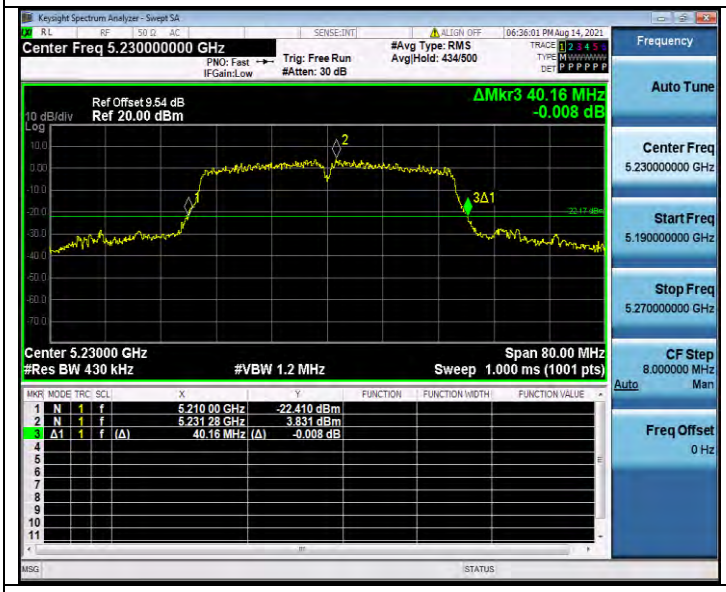
99%Bandwidth	
802.11a	802.11n HT20
	
CH36	CH36
	
CH40	CH40
	
CH48	CH48

99%Bandwidth	
802.11ac20	802.11n HT40
	
CH36	CH38
	
CH40	CH46
	
CH48	

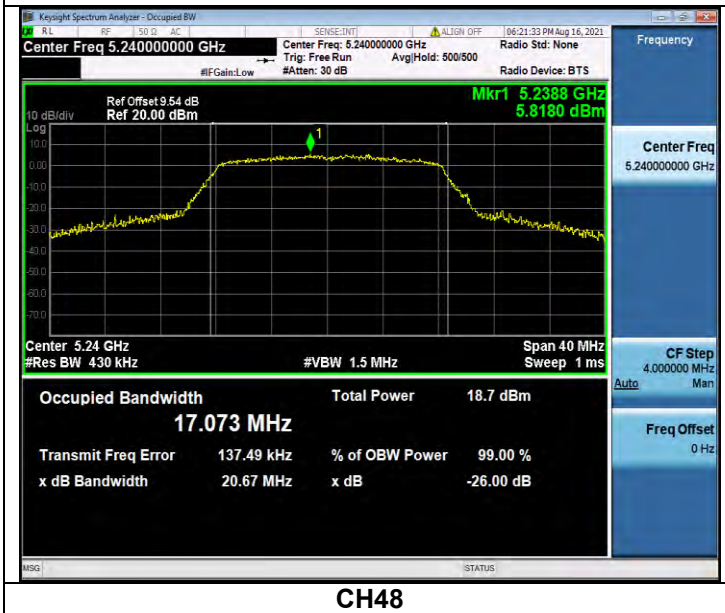
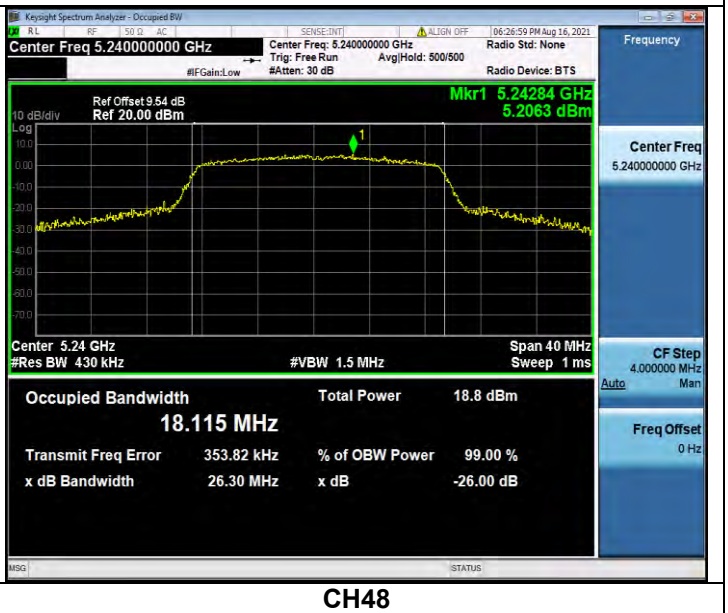
99%Bandwidth	
802.11ac40	802.11ac80
	
CH38	CH42
	
CH46	

26dB Bandwidth	
802.11a	802.11n HT20
	
CH36	CH36
	
CH40	CH40
	
CH48	CH48

26dB Bandwidth	
802.11ac20	802.11n HT40
	
CH36	CH38
	
CH40	CH46
	
CH48	

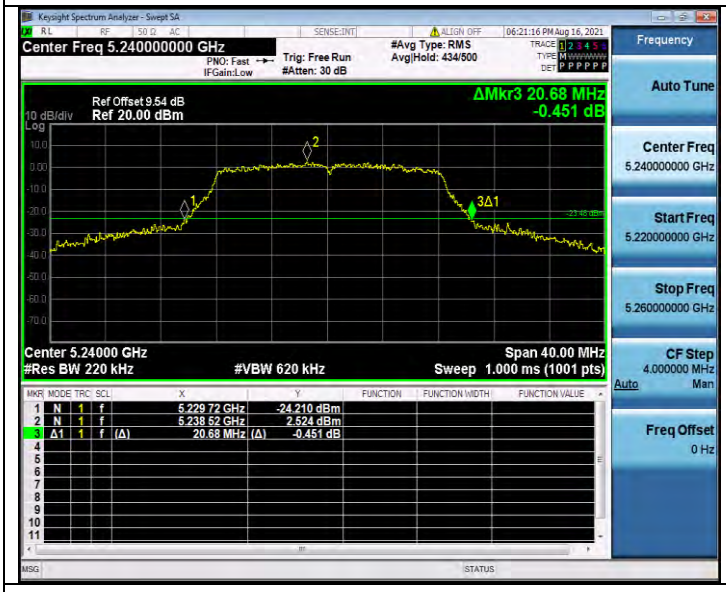
26dB Bandwidth	
802.11ac40	802.11ac80
	
CH38	CH42
	
CH46	

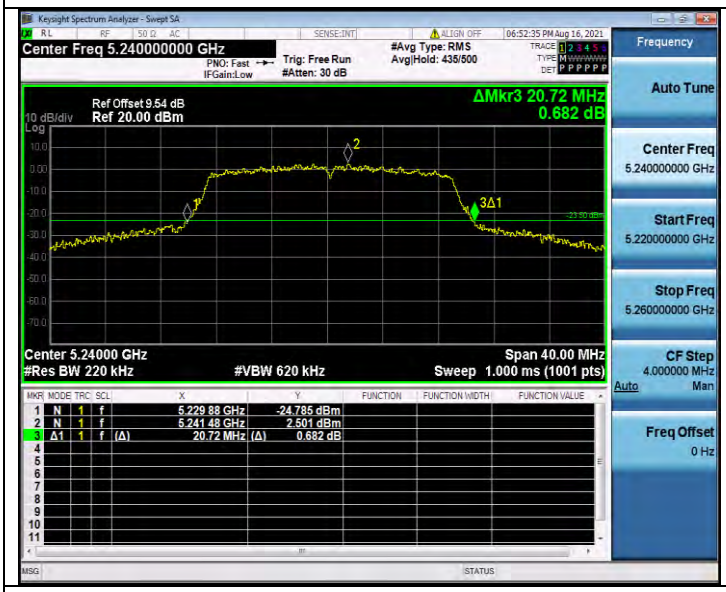
Antenna 1:

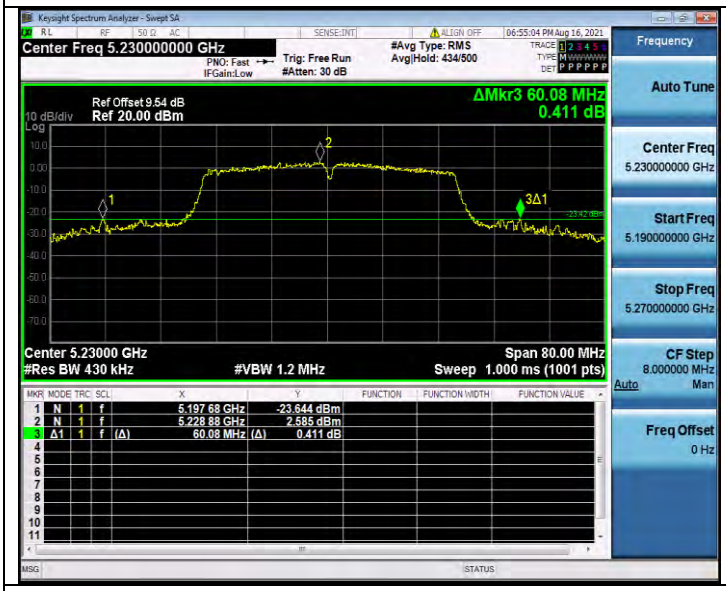
99%Bandwidth	
802.11a	802.11n HT20
	
CH36	CH36
	
CH40	CH40
	
CH48	CH48

99%Bandwidth	
802.11ac20	802.11n HT40
	
CH36	CH38
	
CH40	CH46
	
CH48	

99%Bandwidth	
802.11ac40	802.11ac80
	
CH38	CH42
	
CH46	

26dB Bandwidth	
802.11a	802.11n HT20
	
CH36	CH36
	
CH40	CH40
	
CH48	CH48

26dB Bandwidth	
802.11ac20	802.11n HT40
	
CH36	CH38
	
CH40	CH46
	
CH48	

26dB Bandwidth	
802.11ac40	802.11ac80
	
CH38	CH42
	
CH46	