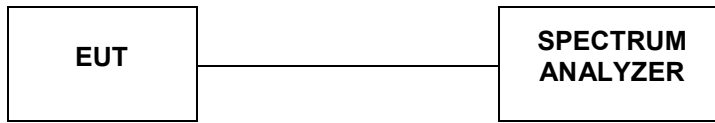


4.6. 6dB Bandwidth

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) $\geq 3 \times$ 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°C	Humidity	55.7%
Test Engineer	Moon Tan	Configurations	IEEE 802.11a/n/ac

Antenna 0:

Type	Channel	99%Bandwidth (MHz)	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	149	17.393	16.400	≥500	Pass
	157	17.410	16.400		
	165	17.403	16.400		
802.11nHT20	149	18.347	17.640	≥500	Pass
	157	18.443	17.640		
	165	18.464	17.680		
802.11ac20	149	18.318	17.680	≥500	Pass
	157	18.424	17.600		
	165	18.457	17.640		
802.11n40	151	36.805	36.480	≥500	Pass
	159	36.987	36.480		
802.11ac40	151	36.721	36.480	≥500	Pass
	159	36.799	36.480		
802.11ac80	155	74.971	75.360	≥500	Pass

Antenna 1:

Type	Channel	99%Bandwidth (MHz)	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	149	17.338	16.440	≥500	Pass
	157	17.618	16.400		
	165	17.560	16.400		
802.11nHT20	149	18.324	17.680	≥500	Pass
	157	18.548	17.640		
	165	18.367	17.680		
802.11ac20	149	18.413	17.680	≥500	Pass
	157	18.505	17.680		
	165	18.504	17.680		
802.11n40	151	36.822	36.480	≥500	Pass
	159	37.218	36.480		
802.11ac40	151	36.773	36.480	≥500	Pass
	159	37.237	36.480		
802.11ac80	155	75.030	75.520	≥500	Pass

Antenna 0:

99%Bandwidth

802.11a

802.11n HT20



CH149

CH149



CH157

CH157



CH165

CH165

99%Bandwidth

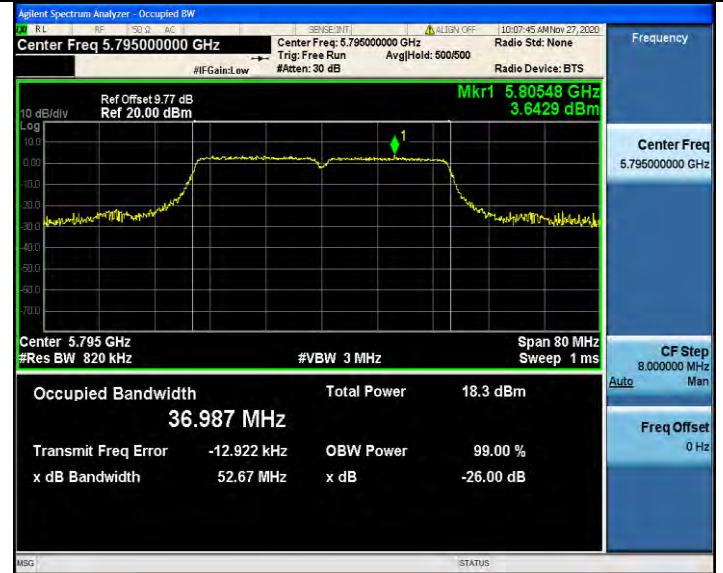
802.11ac20

802.11n HT40



CH149

CH151



CH157

CH159



CH165

99%Bandwidth

802.11ac40

802.11ac80

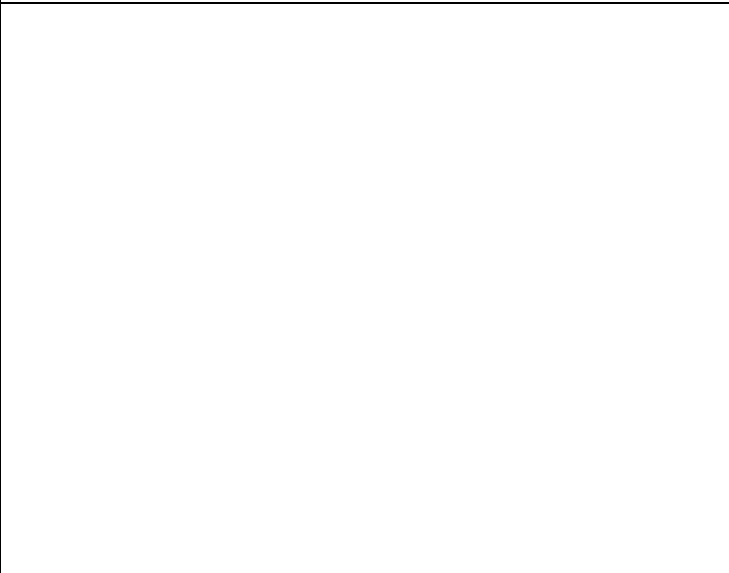


CH151

CH155



CH159



6dB Bandwidth

802.11a

802.11n HT20



CH149

CH149



CH157

CH157



CH165

CH165

6dB Bandwidth

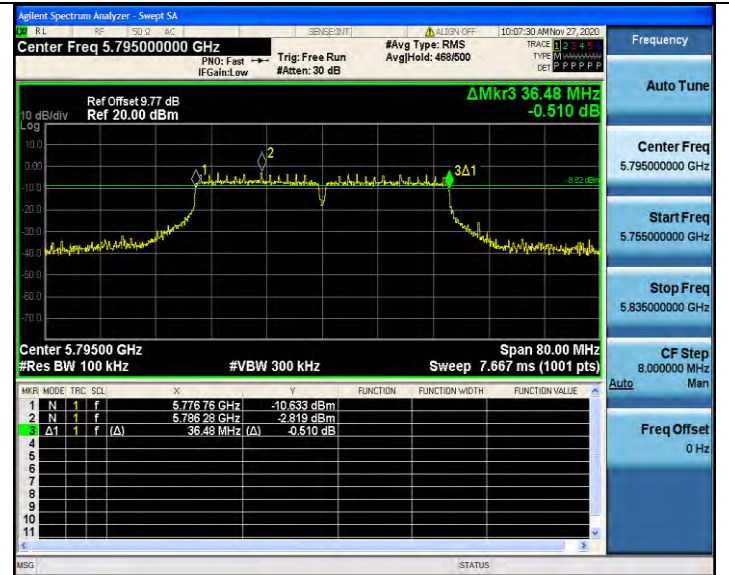
802.11ac20

802.11n HT40



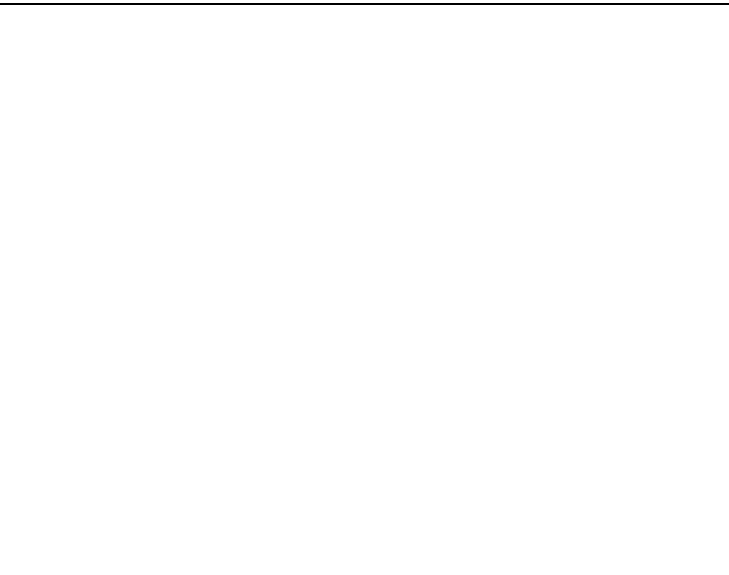
CH149

CH151



CH157

CH159



CH165

6dB Bandwidth

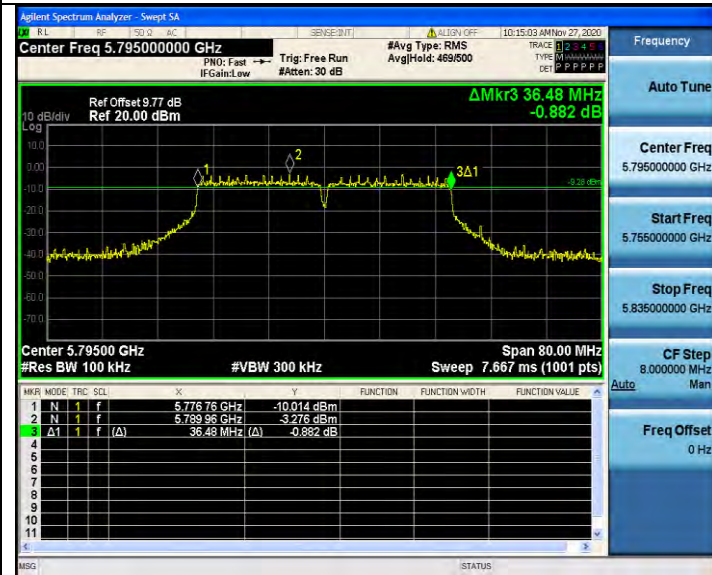
802.11ac40

802.11ac80

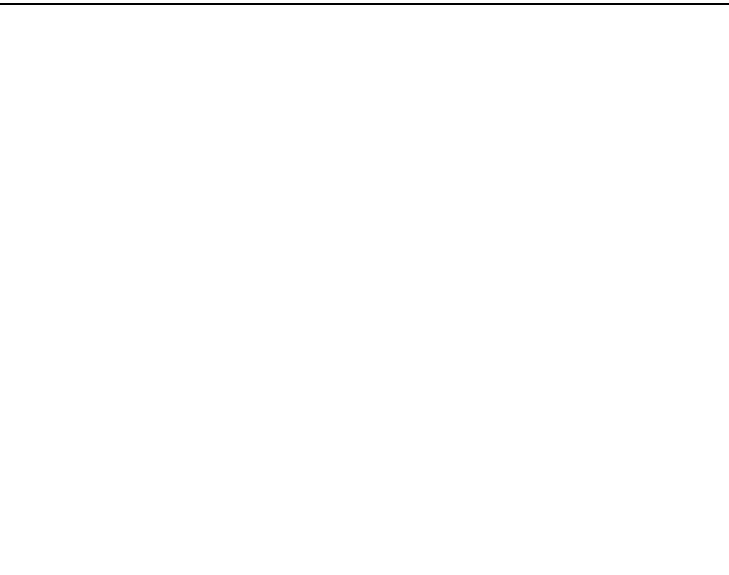


CH151

CH155



CH159



Antenna 1:

99%Bandwidth

802.11a

802.11n HT20



CH149

CH149



CH157

CH157



CH165

CH165

99%Bandwidth

802.11ac20

802.11n HT40



CH149

CH151



CH157

CH159



CH165



99%Bandwidth

802.11ac40

802.11ac80



CH151

CH155



CH159

6dB Bandwidth

802.11a

802.11n HT20



CH149

CH149



CH157

CH157



CH165

CH165

6dB Bandwidth

802.11ac20

802.11n HT40



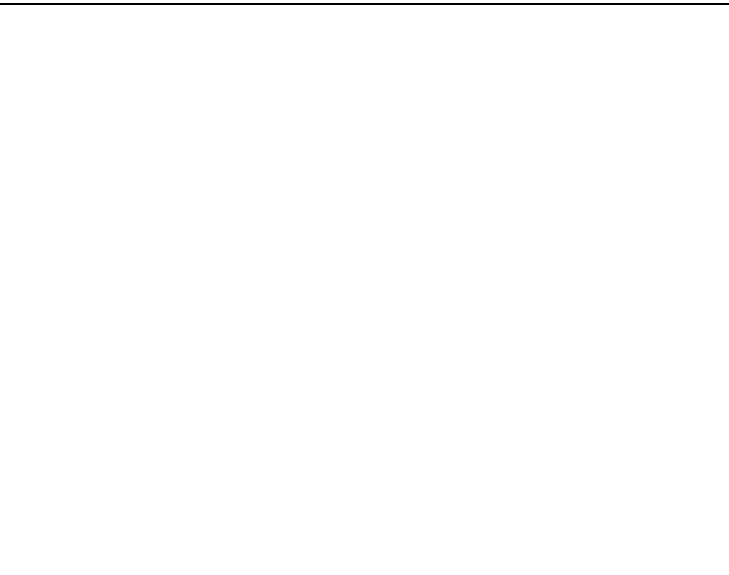
CH149

CH151



CH157

CH159



CH165

6dB Bandwidth

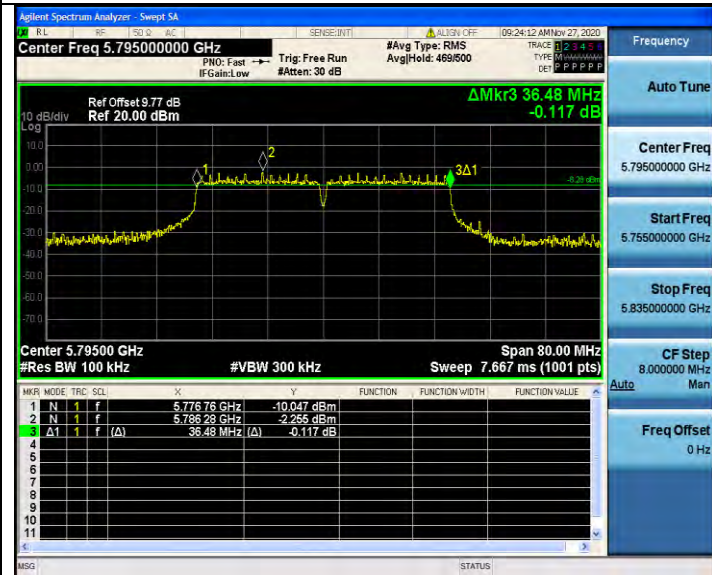
802.11ac40

802.11ac80

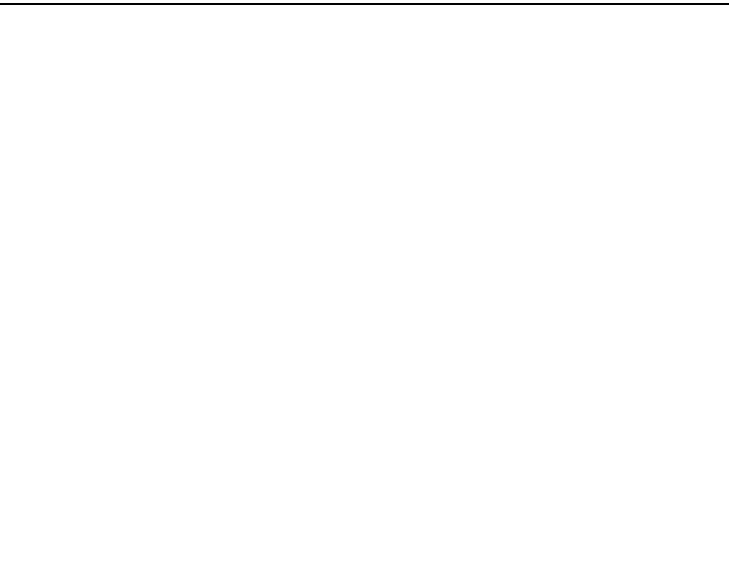


CH151

CH155

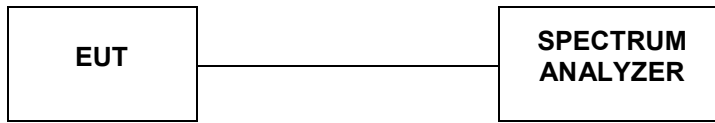


CH159



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 Bandwidth

TEST RESULTS

Temperature	23.6°C	Humidity	55.7%
Test Engineer	Moon Tan	Configurations	IEEE 802.11a/n/ac

Antenna 0:

Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	17.487	25.000	-	Pass
	40	17.467	24.400		
	48	17.387	23.640		
802.11nHT20	36	18.498	25.200	-	Pass
	40	18.408	24.880		
	48	18.396	24.440		
802.11ac20	36	18.481	24.320	-	Pass
	40	18.430	24.360		
	48	18.372	24.560		
802.11n40	38	36.795	46.160	-	Pass
	46	36.828	47.200		
802.11ac40	38	36.874	46.640	-	Pass
	46	36.838	45.680		
802.11ac80	42	75.026	84.160	-	Pass

Antenna 1:

Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	17.330	23.520	-	Pass
	40	17.296	23.160		
	48	17.259	23.520		
802.11nHT20	36	18.361	24.040	-	Pass
	40	18.380	23.480		
	48	18.300	23.120		
802.11ac20	36	18.347	23.800	-	Pass
	40	18.325	23.640		
	48	18.287	23.480		
802.11n40	38	36.688	44.400	-	Pass
	46	36.783	45.200		
802.11ac40	38	36.750	44.880	-	Pass
	46	36.788	43.760		
802.11ac80	42	75.149	82.880	-	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

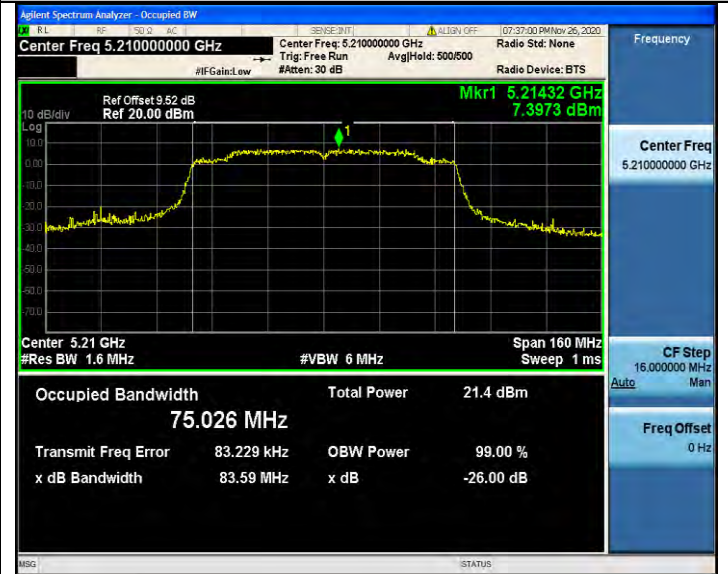


CH48

99%Bandwidth

802.11ac40

802.11ac80

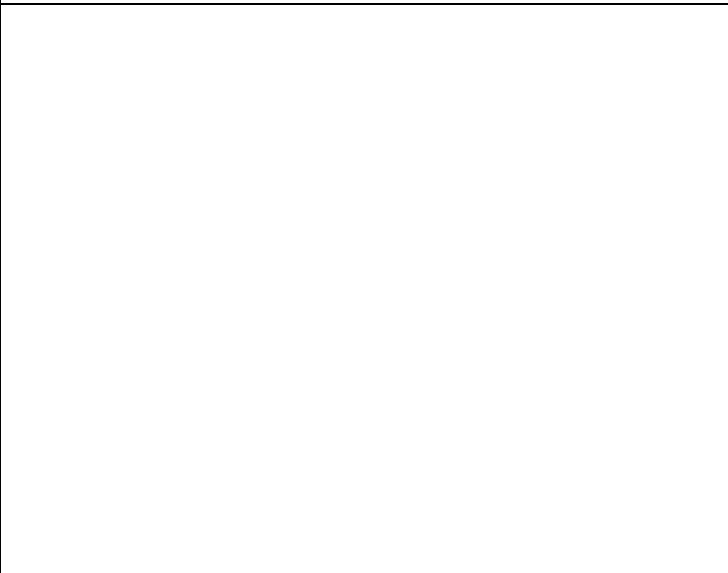


CH38

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

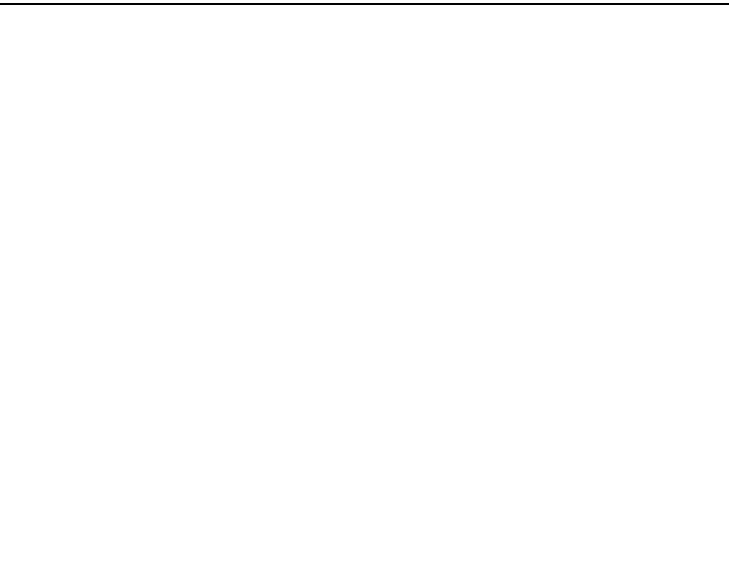


CH38

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

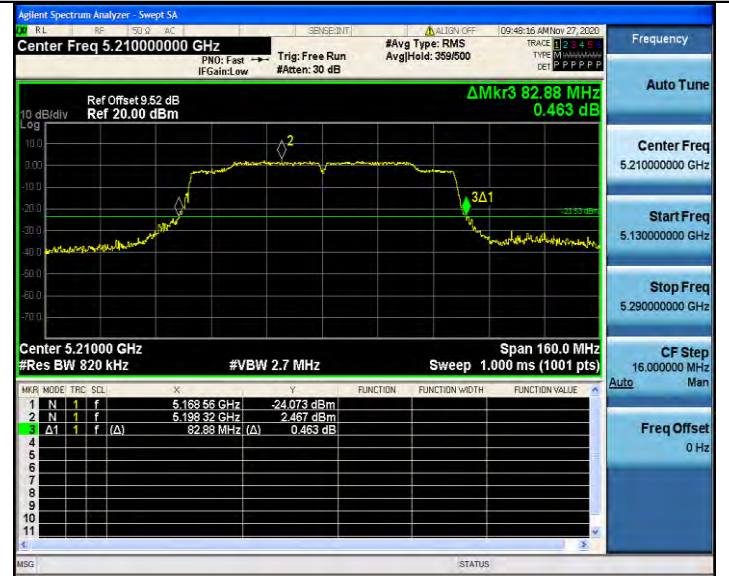


CH48

26dB Bandwidth

802.11ac40

802.11ac80



CH38

CH42



CH46

