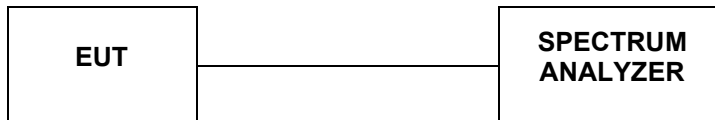


4.6. 6dB Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

According to KDB789033 D02 General UNII Test Procedures New Rules v01 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

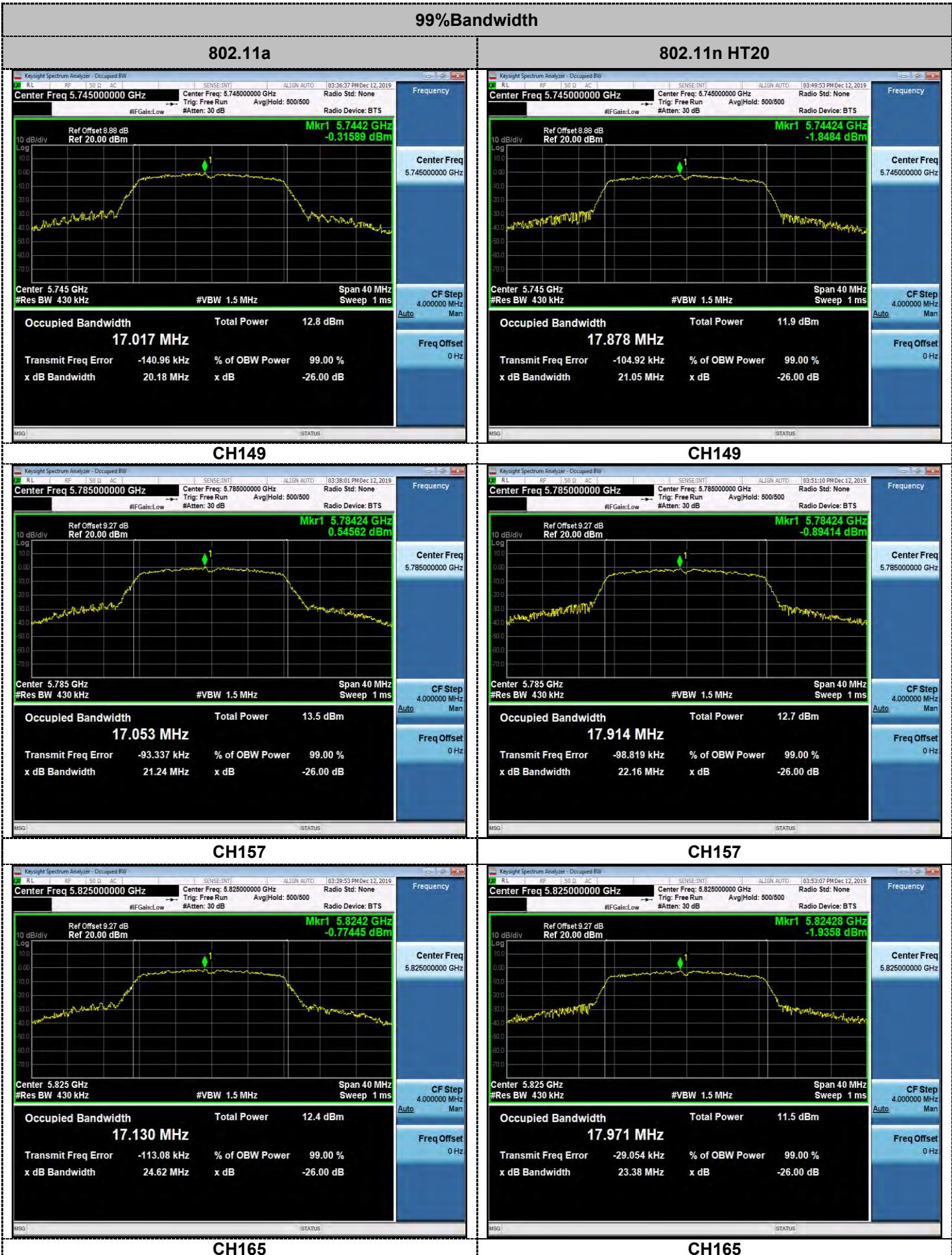
Antenna 0:

Type	Channel	99%Bandwidth (MHz)	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	149	17.017	15.160	≥500	Pass
	157	17.053	15.200		
	165	17.130	15.160		
802.11nHT20	149	17.878	15.200	≥500	Pass
	157	17.914	15.200		
	165	17.971	15.160		
802.11ac20	149	17.834	35.280	≥500	Pass
	157	17.846	35.600		
	165	17.888	15.200		
802.11n40	151	36.767	15.200	≥500	Pass
	159	36.758	15.200		
802.11ac40	151	36.889	35.440	≥500	Pass
	159	36.826	35.600		
802.11ac80	155	75.965	76.000	≥500	Pass

Antenna 1:

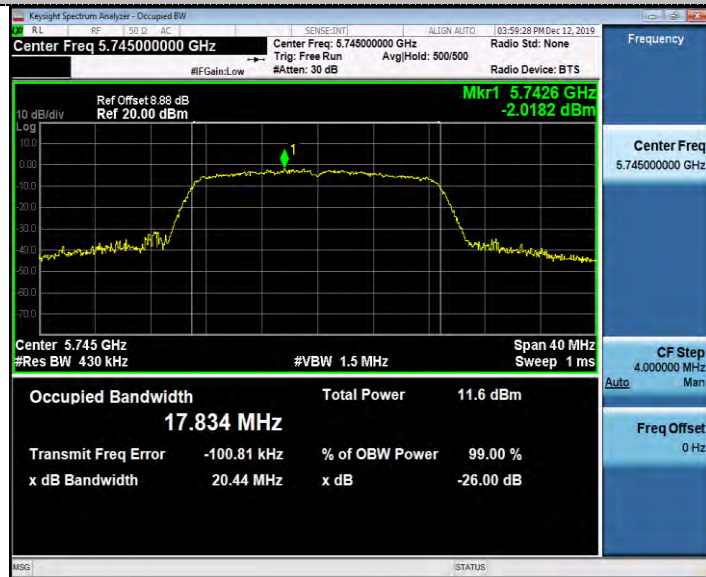
Type	Channel	99%Bandwidth (MHz)	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	149	17.038	15.200	≥500	Pass
	157	17.021	15.200		
	165	17.189	15.200		
802.11nHT20	149	17.900	15.200	≥500	Pass
	157	17.877	15.200		
	165	18.003	15.200		
802.11ac20	149	17.834	35.440	≥500	Pass
	157	17.815	35.600		
	165	17.858	15.200		
802.11n40	151	36.867	15.200	≥500	Pass
	159	36.750	15.200		
802.11ac40	151	36.794	35.280	≥500	Pass
	159	36.768	35.600		
802.11ac80	155	75.940	76.000	≥500	Pass

Antenna 0:

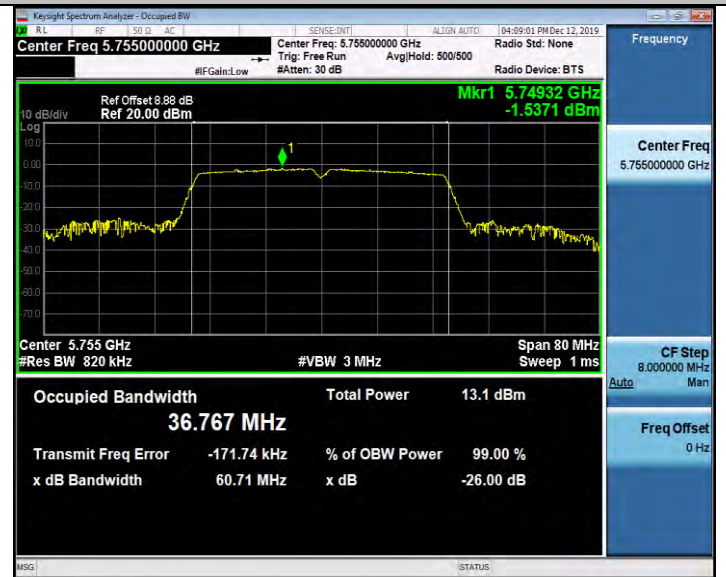


99%Bandwidth

802.11ac20



802.11n HT40



CH149



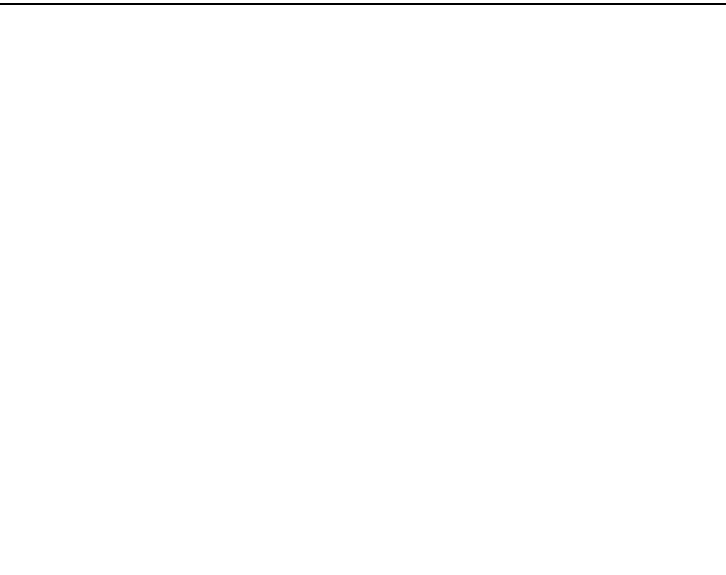
CH151



CH157



CH159

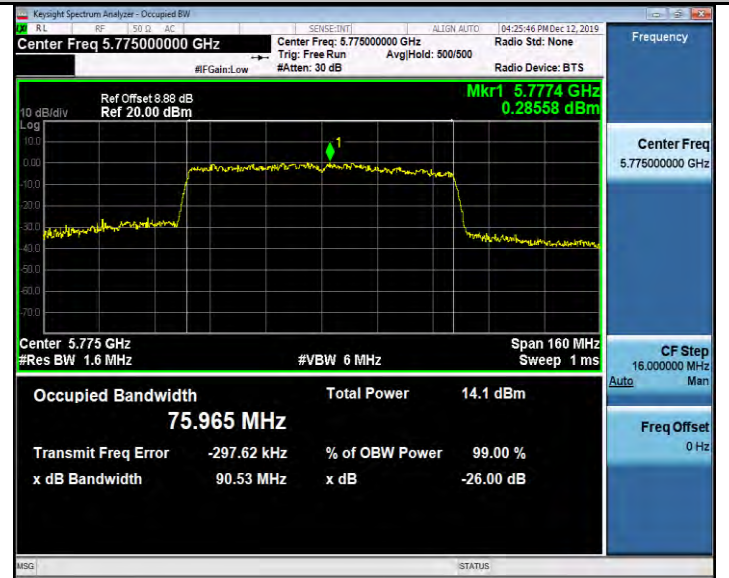


CH165

99%Bandwidth

802.11ac40

802.11ac80

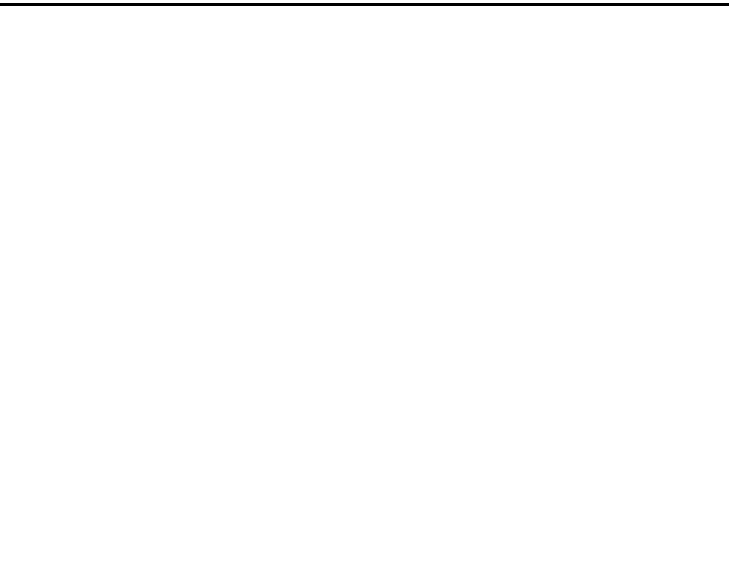


CH151

CH155



CH159



6dB Bandwidth

802.11a

802.11n HT20



CH149

CH149



CH157

CH157

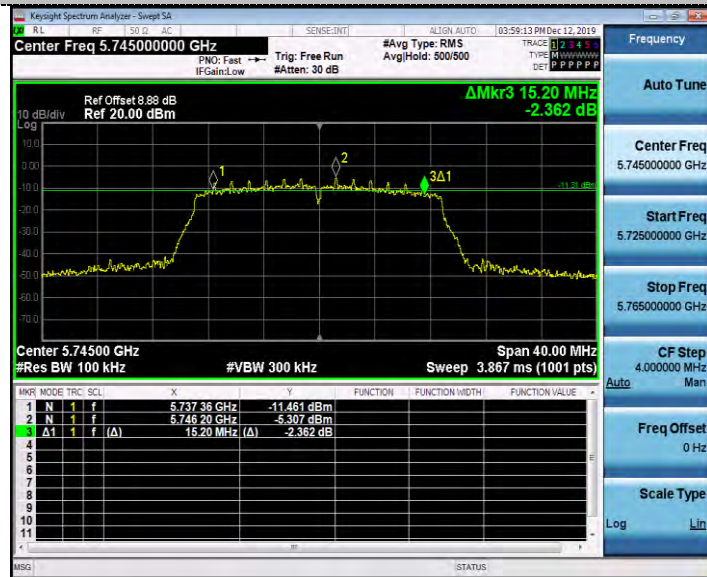


CH165

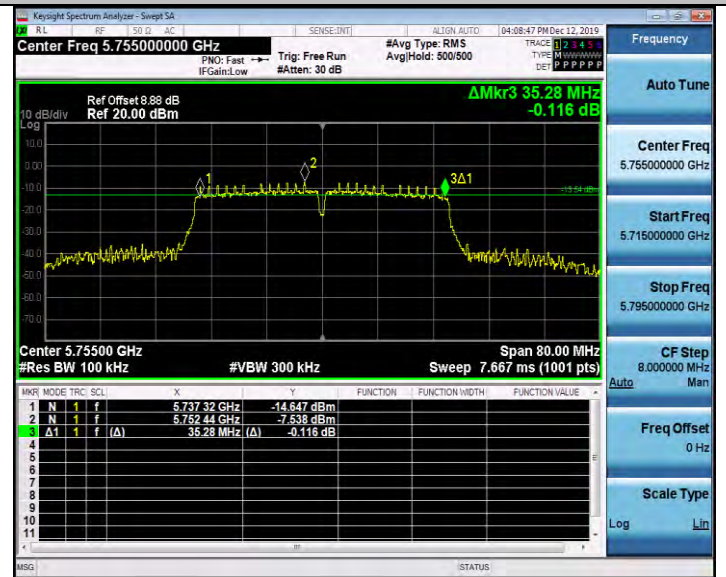
CH165

6dB Bandwidth

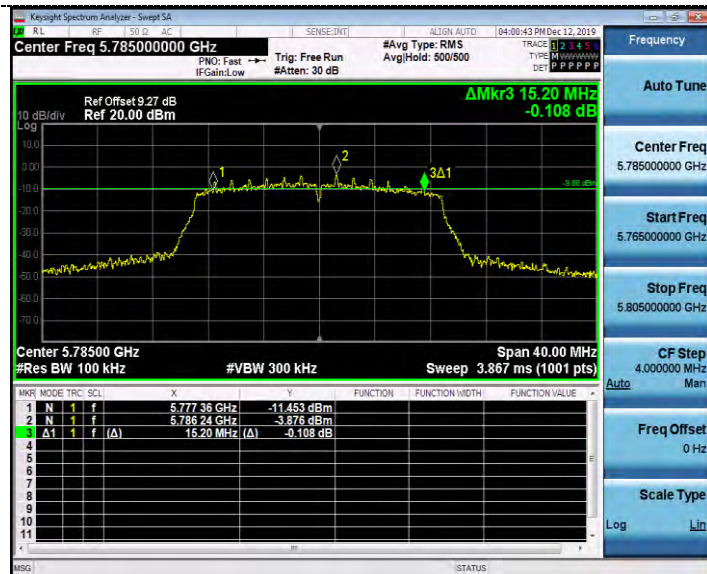
802.11ac20



802.11n HT40



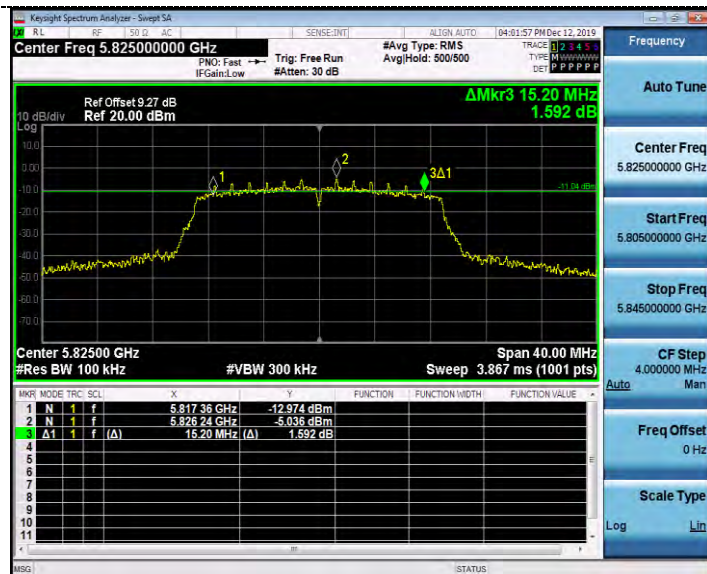
CH149



CH151



CH157



CH159

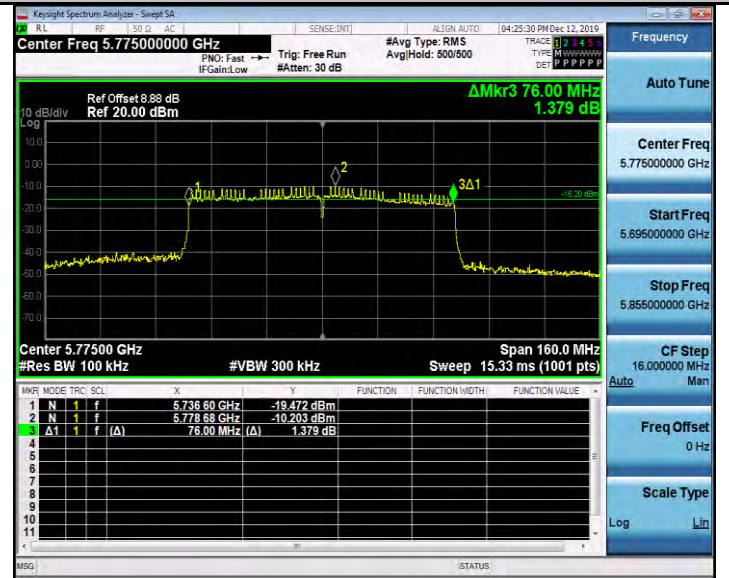
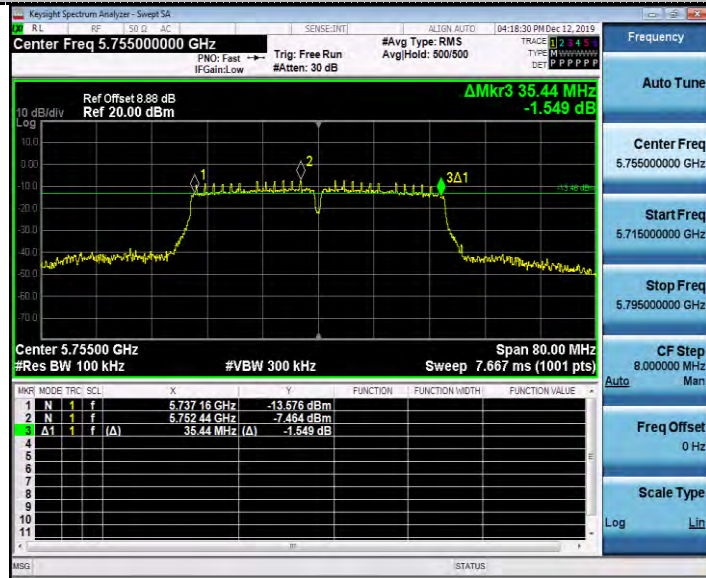


CH165

6dB Bandwidth

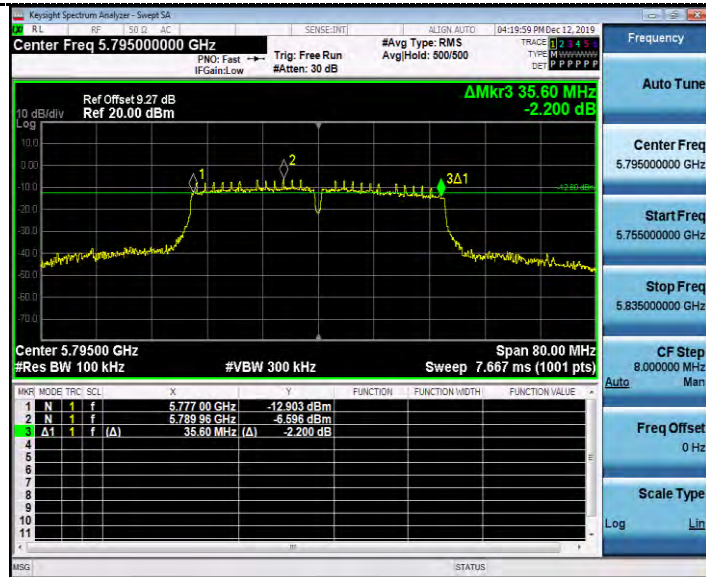
802.11ac40

802.11ac80



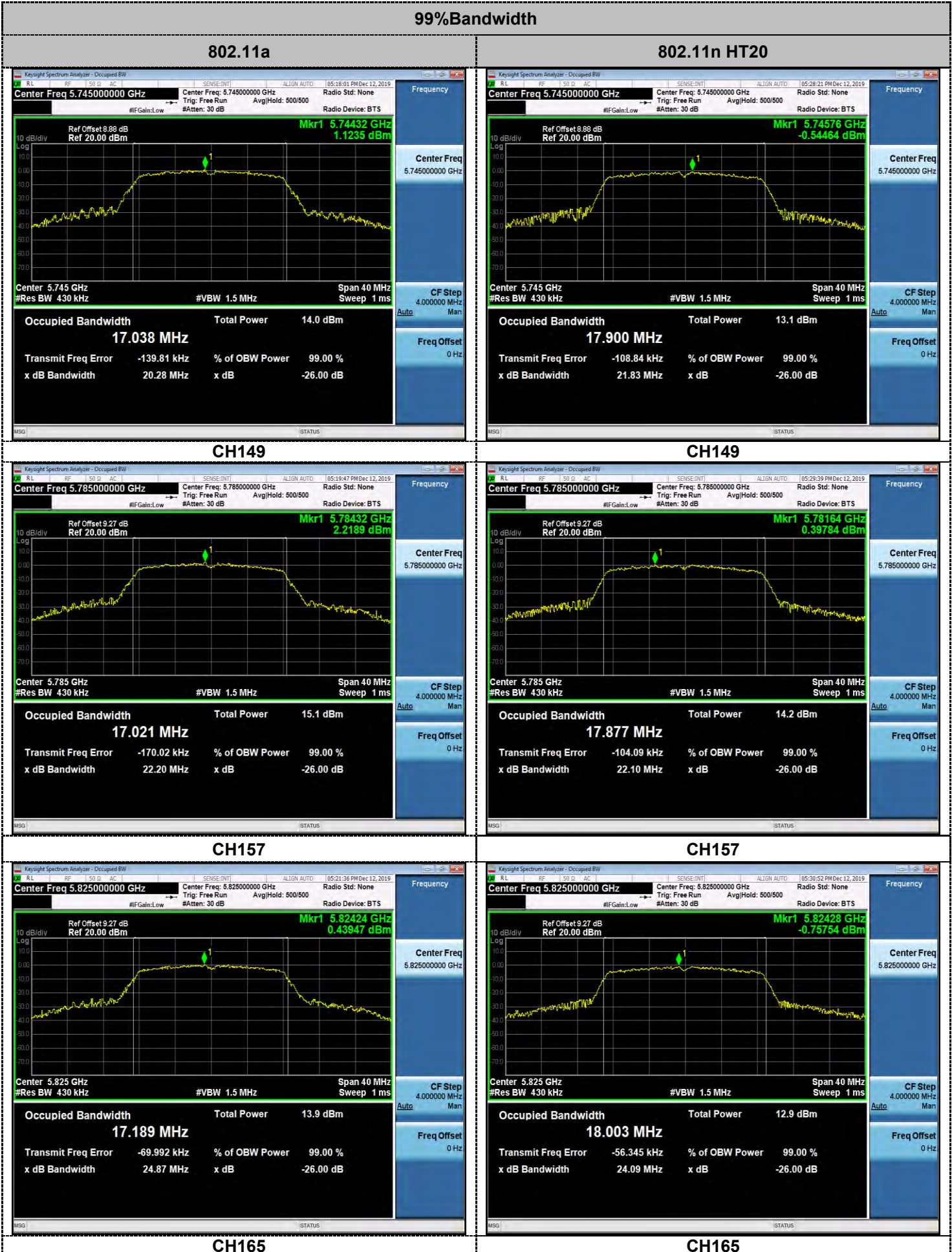
CH151

CH155



CH159

Antenna 1:



99%Bandwidth

802.11ac20



802.11n HT40



CH149



CH151



CH157



CH159



CH165



99%Bandwidth

802.11ac40

802.11ac80



CH151

CH155

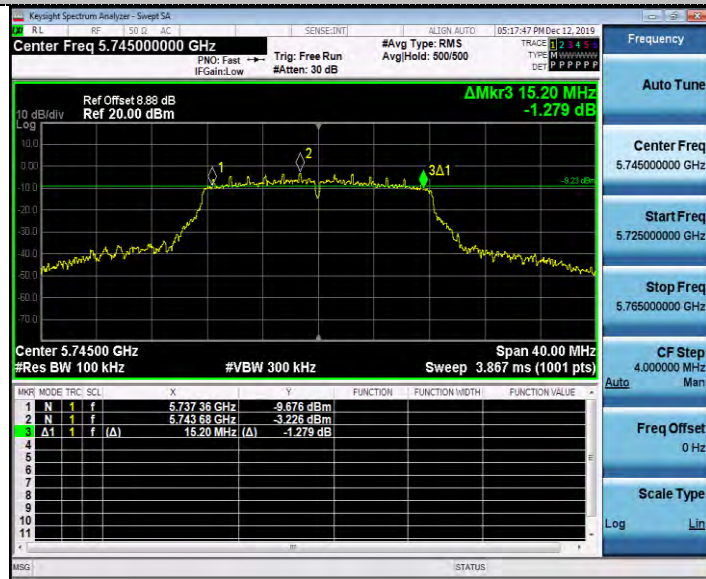


CH159

6dB Bandwidth

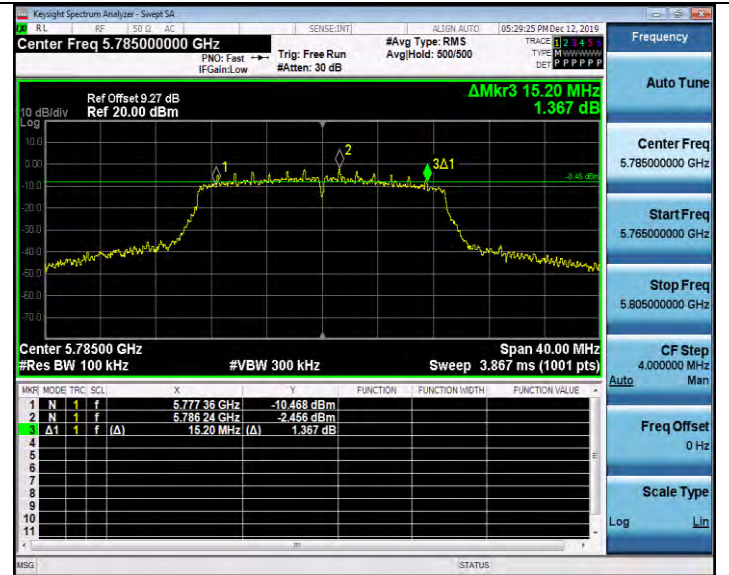
802.11a

802.11n HT20



CH149

CH149



CH157

CH157

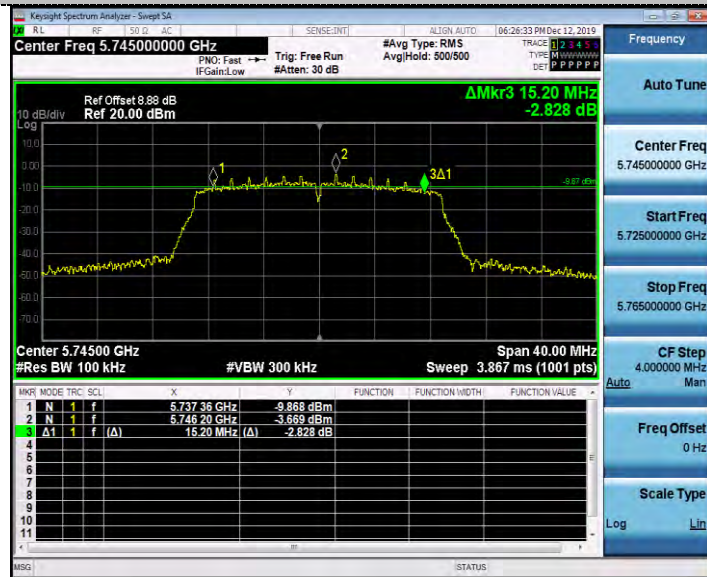


CH165

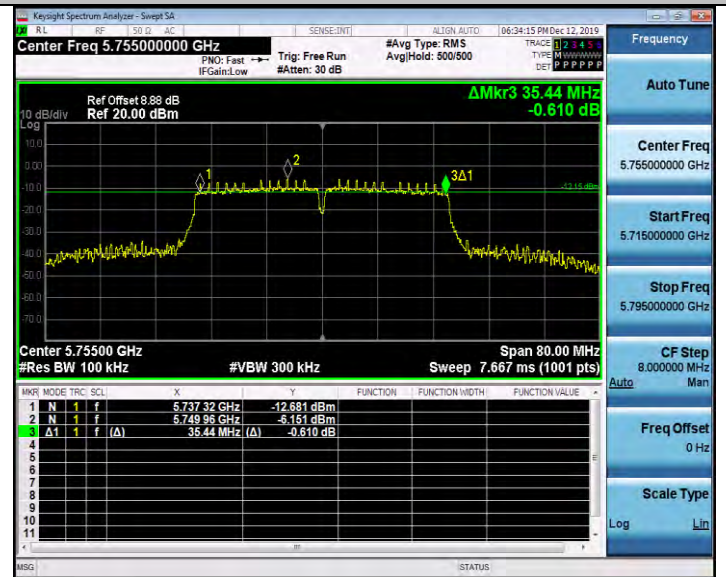
CH165

6dB Bandwidth

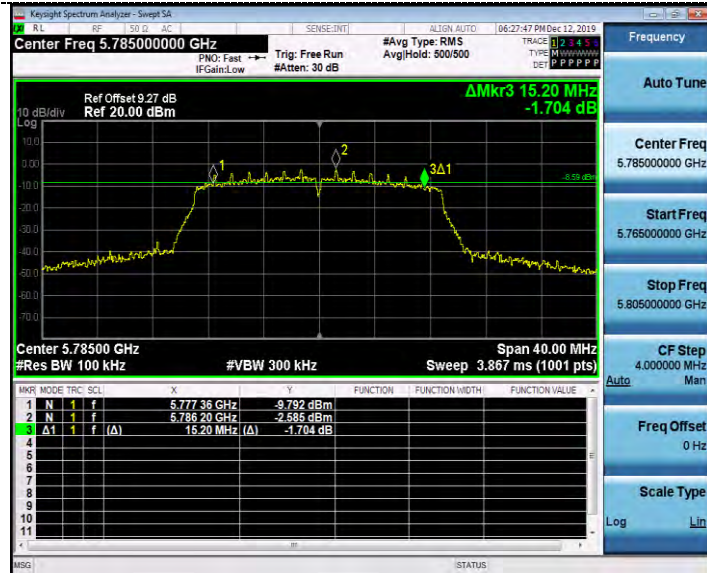
802.11ac20



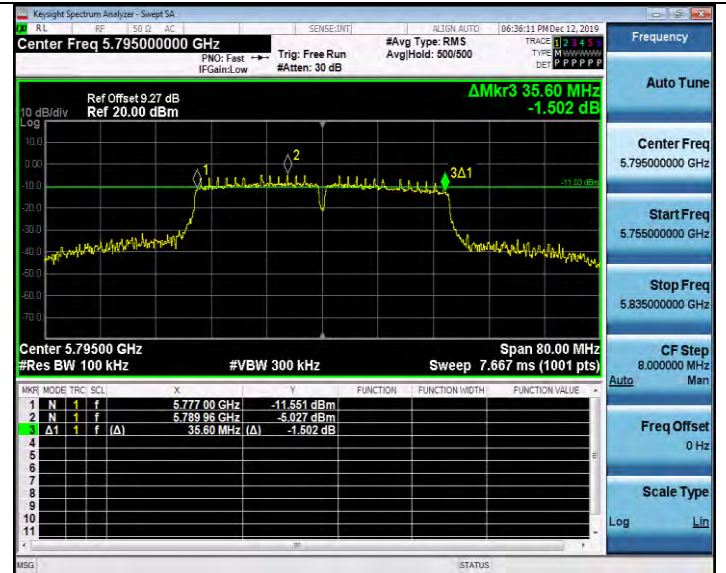
802.11n HT40



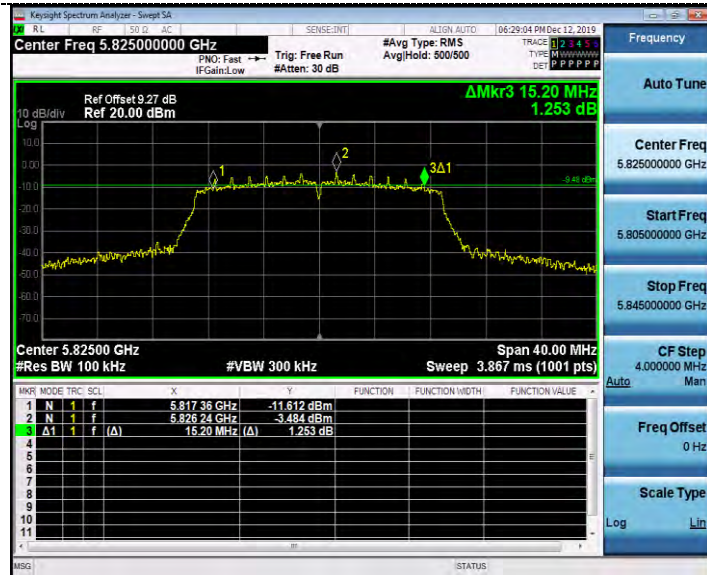
CH149



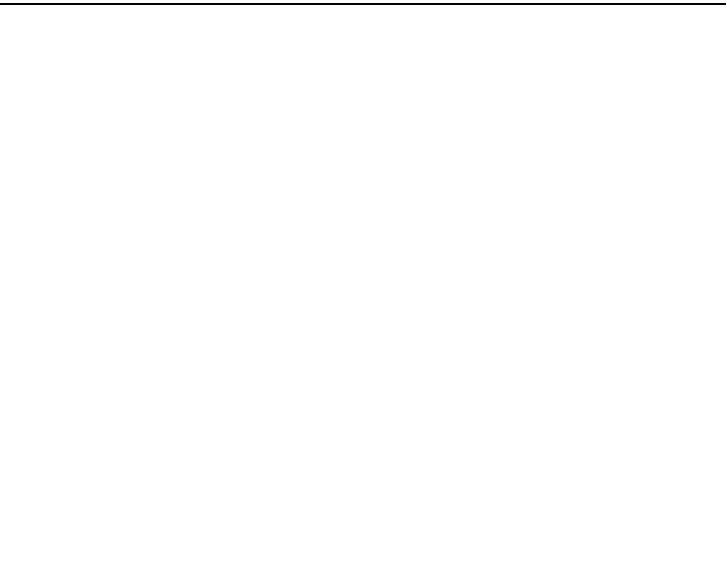
CH151



CH157



CH159

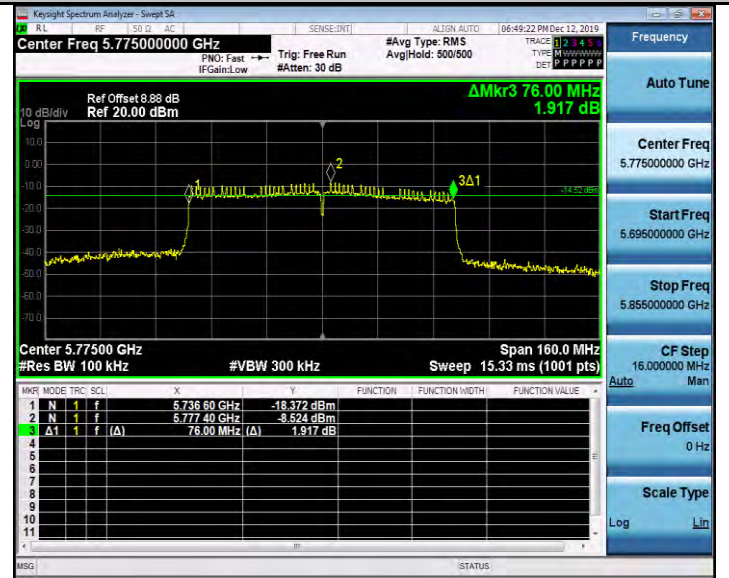
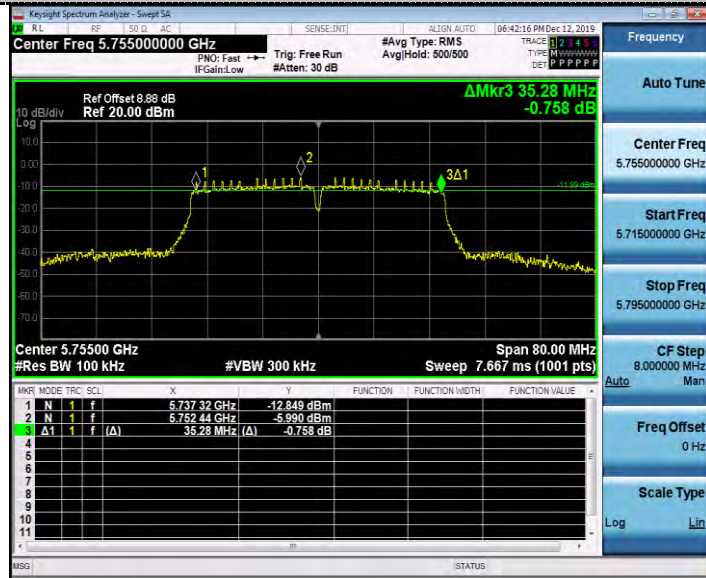


CH165

6dB Bandwidth

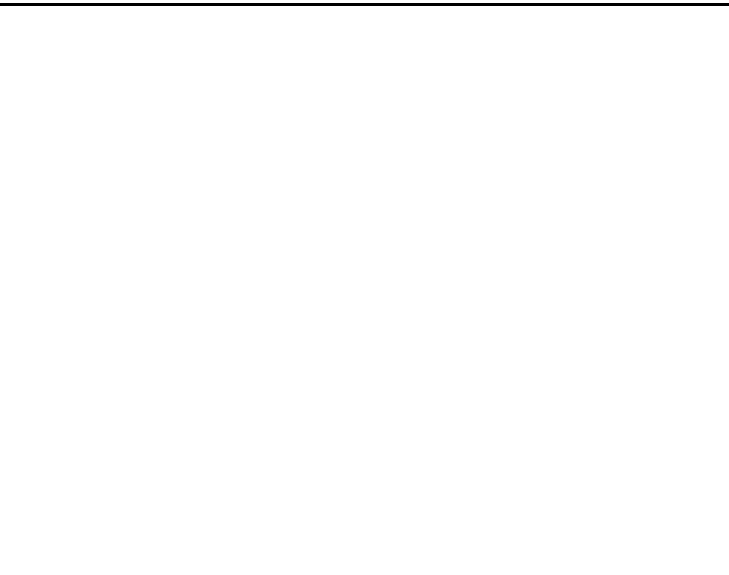
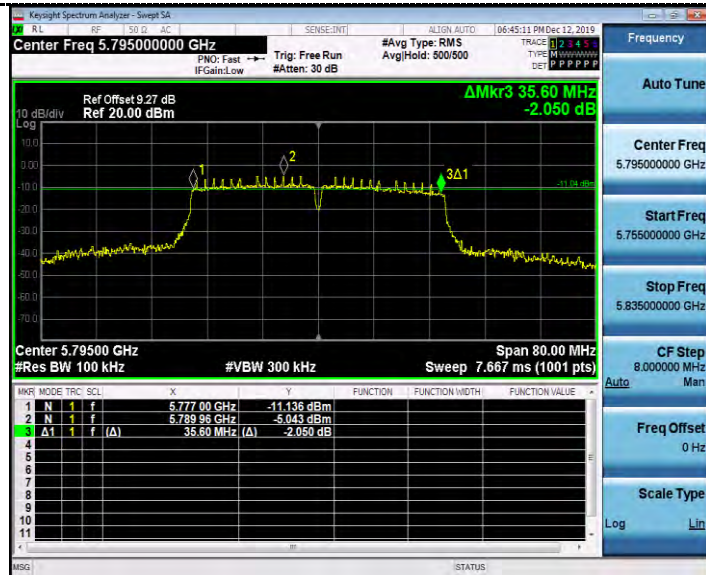
802.11ac40

802.11ac80



CH151

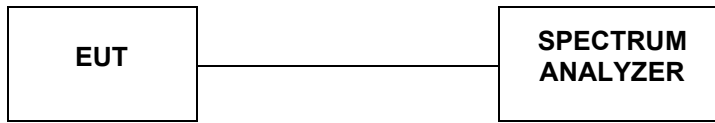
CH155



CH159

4.7. 26dBc Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

According to KDB789033 D02 General UNII Test Procedures New Rules v01 for one of the following procedures may be used for Emission Bandwidth (EBW) measurement:

- a. Set RBW = 300 kHz (approximately 1% of the emission bandwidth).
- b. Set the video bandwidth (VBW) = 1000 KHz (VBW > 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

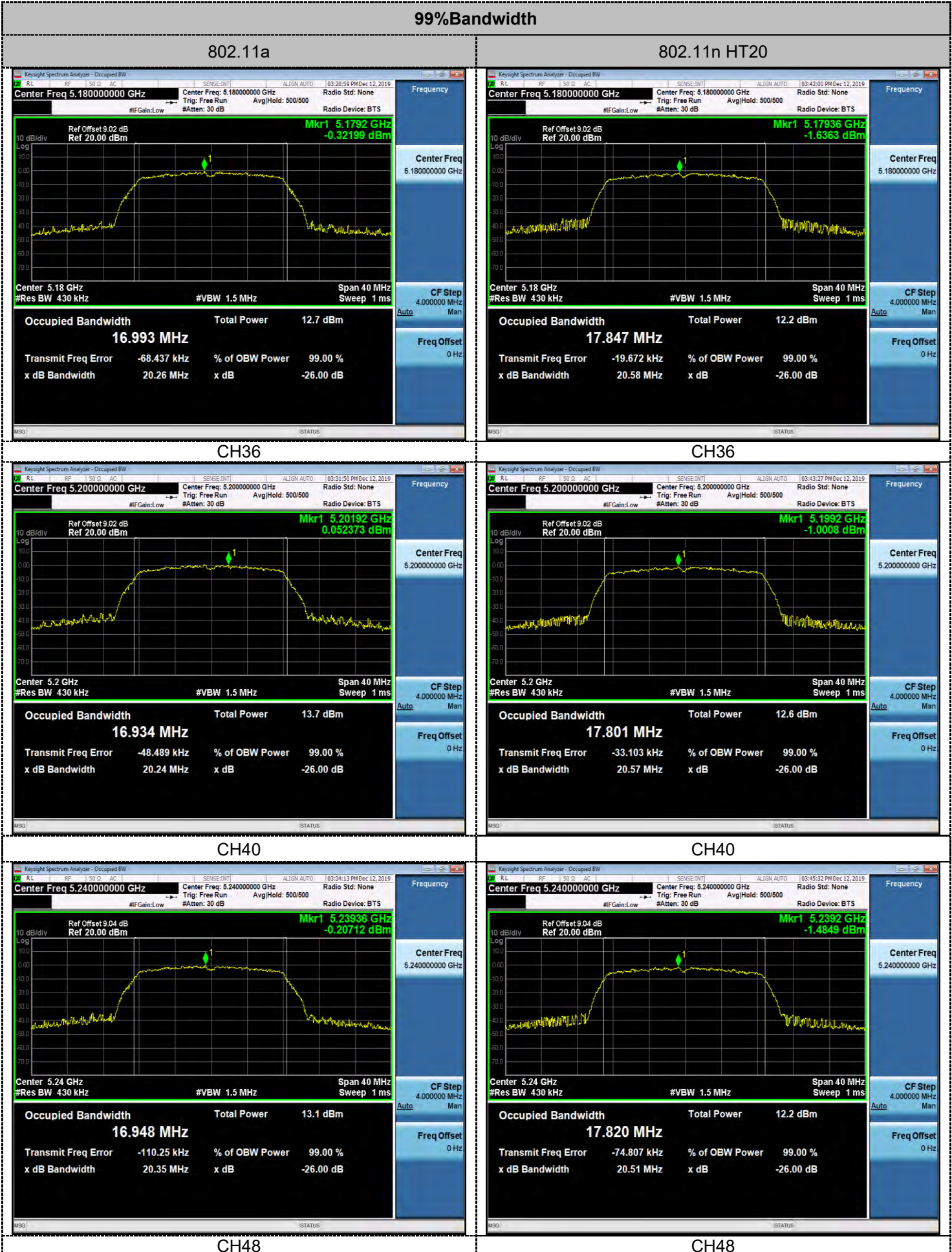
Antenna 0:

Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	16.993	19.840	-	Pass
	40	16.934	19.960		
	48	16.948	19.880		
802.11nHT20	36	17.847	20.240	-	Pass
	40	17.801	20.080		
	48	17.820	20.160		
802.11ac20	36	17.844	40.400	-	Pass
	40	17.803	40.320		
	48	17.845	20.160		
802.11n40	38	36.334	20.080	-	Pass
	46	36.385	20.120		
802.11ac40	38	36.411	40.880	-	Pass
	46	36.489	40.560		
802.11ac80	155	75.672	80.640	-	Pass

Antenna 1:

Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	16.983	19.920	-	Pass
	40	16.946	19.840		
	48	16.952	19.840		
802.11nHT20	36	17.826	20.240	-	Pass
	40	17.790	20.240		
	48	17.856	20.160		
802.11ac20	36	17.806	40.400	-	Pass
	40	17.804	40.400		
	48	17.859	20.200		
802.11n40	38	36.327	20.160	-	Pass
	46	36.353	20.200		
802.11ac40	38	36.395	41.040	-	Pass
	46	36.477	40.720		
802.11ac80	155	75.641	80.640	-	Pass

Antenna 0:



99%Bandwidth

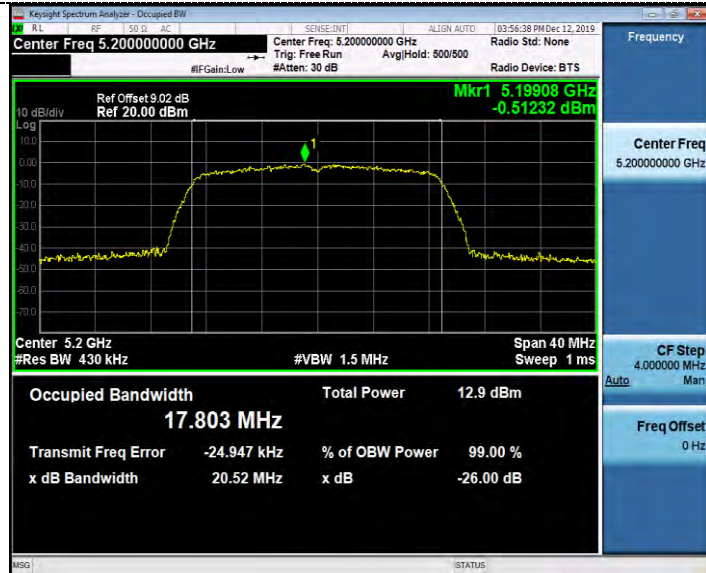
802.11ac20



802.11n HT40



CH36



CH38



CH40



CH46



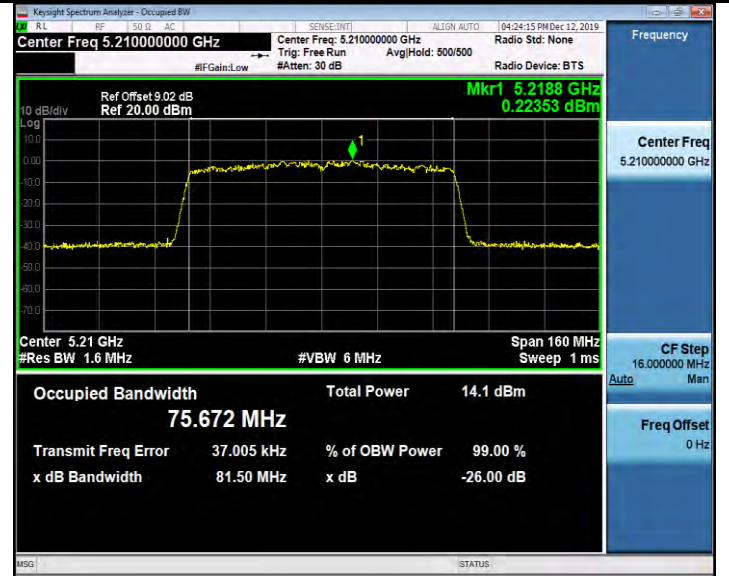
CH48



99%Bandwidth

802.11ac40

802.11ac80

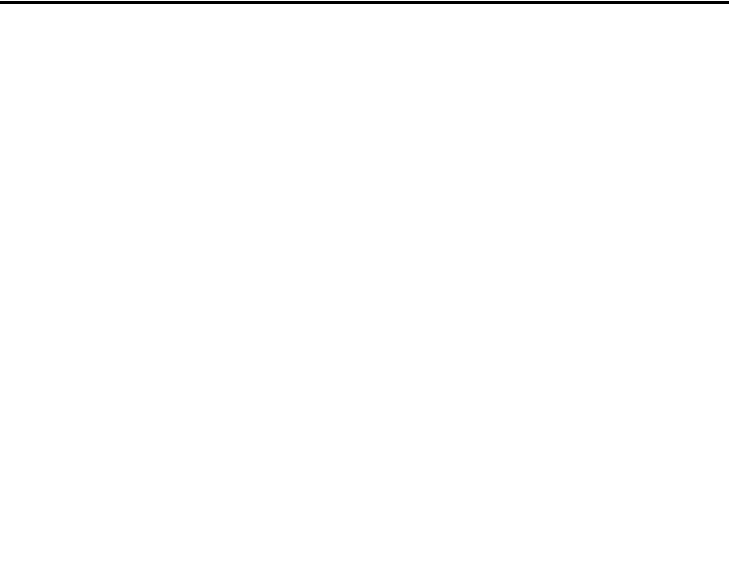


CH38

CH42

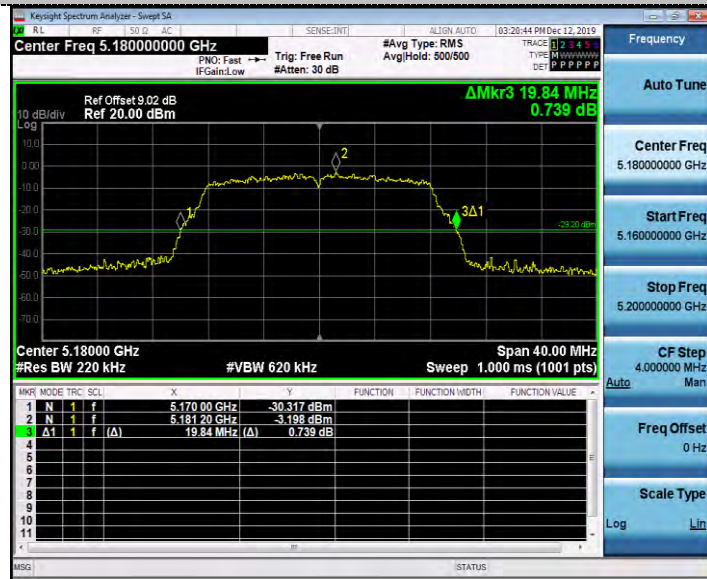


CH46



26dB Bandwidth

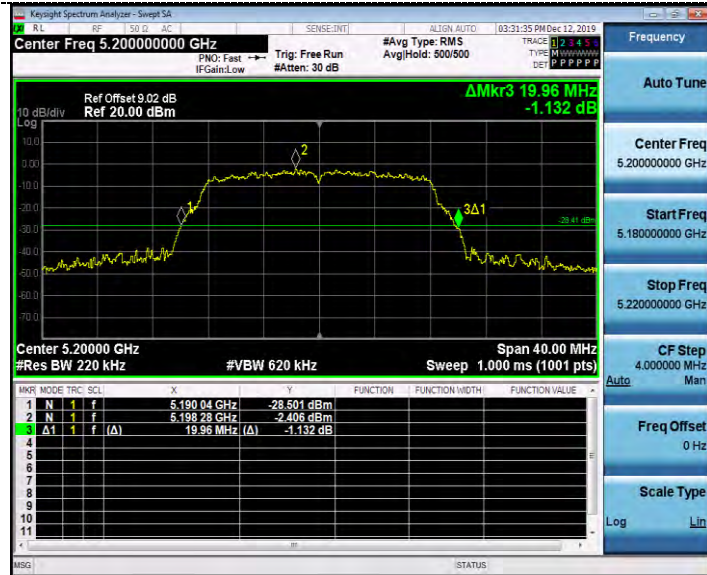
802.11a



802.11n HT20



CH36



CH36



CH40



CH40



CH48

CH48

26dB Bandwidth

802.11ac20



802.11n HT40



CH36



CH38



CH40



CH46

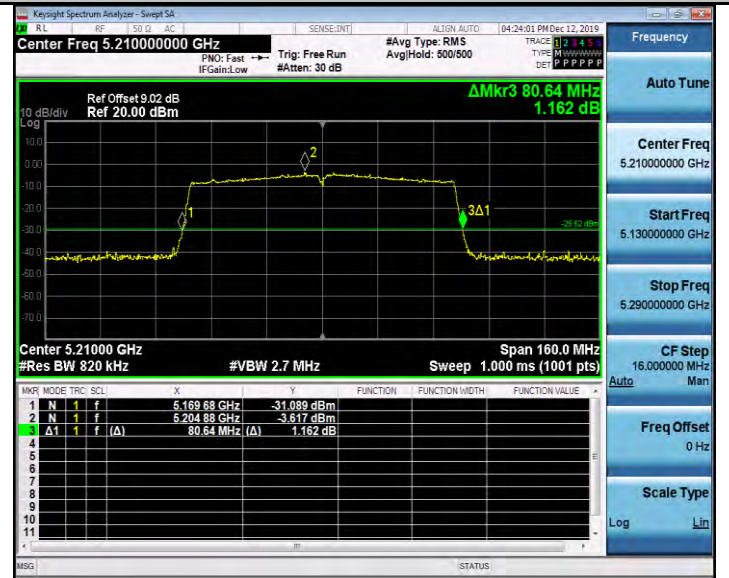


CH48

26dB Bandwidth

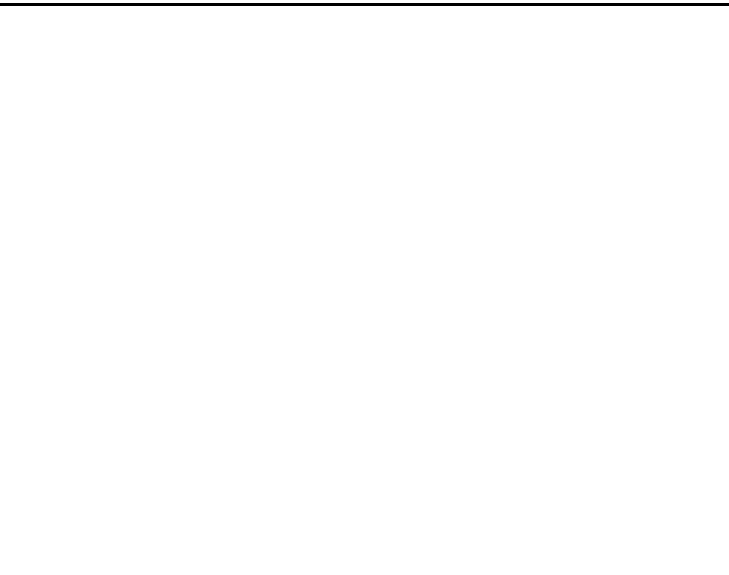
802.11ac40

802.11ac80



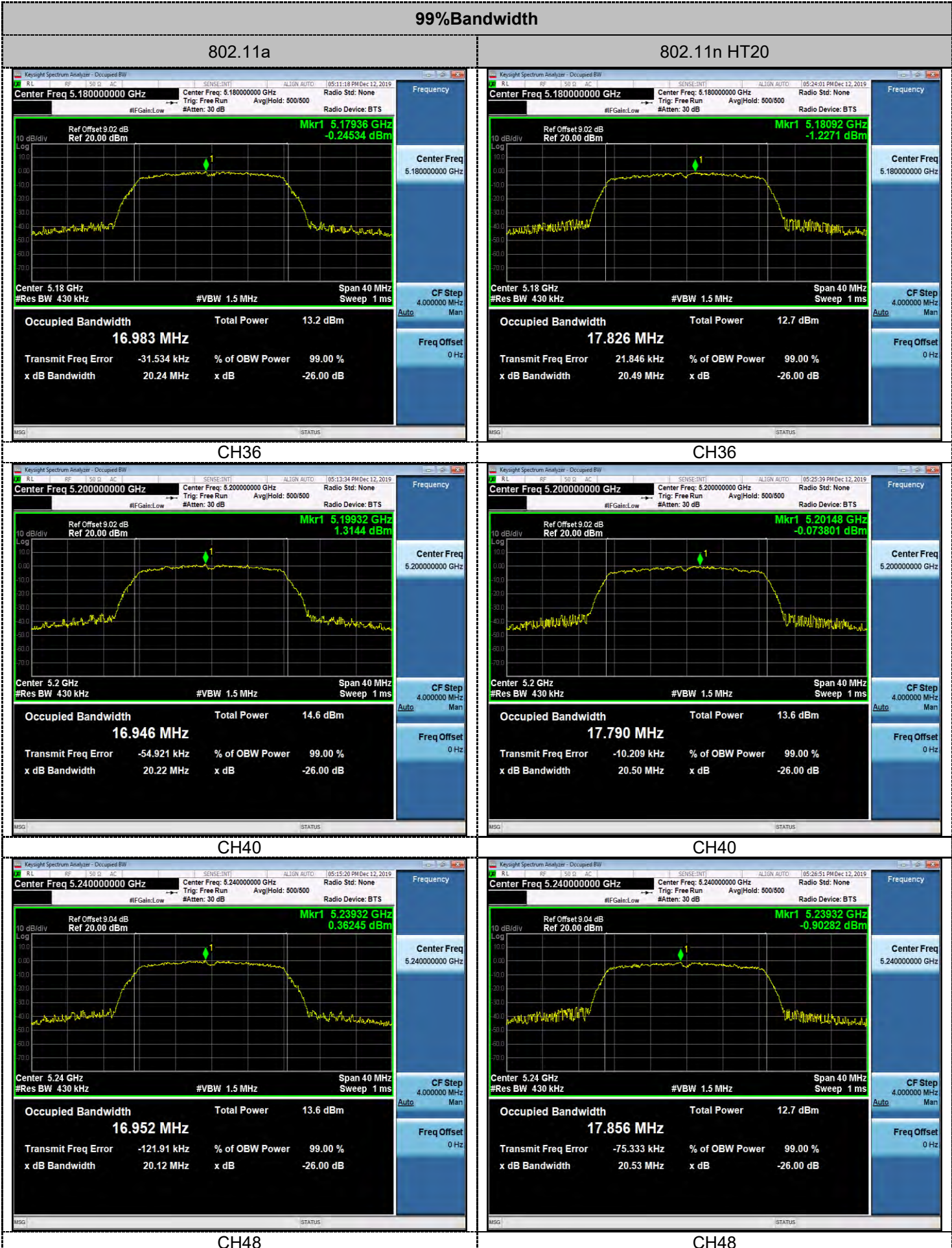
CH38

CH42



CH46

Antenna 1:

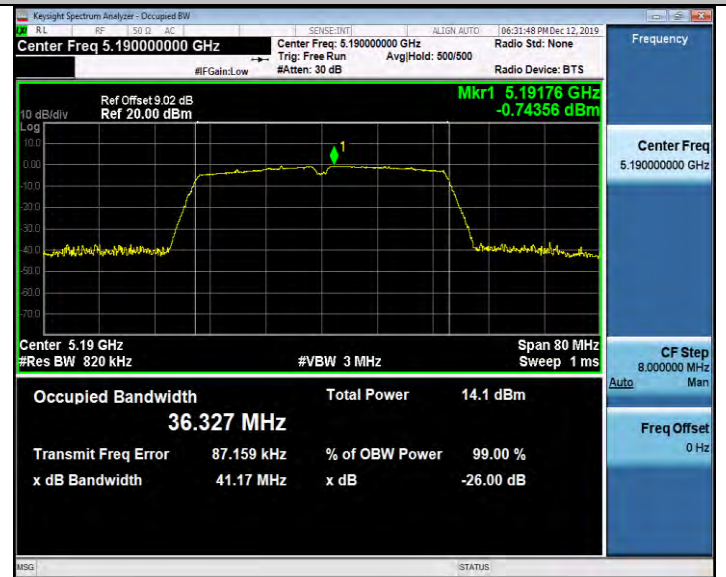


99%Bandwidth

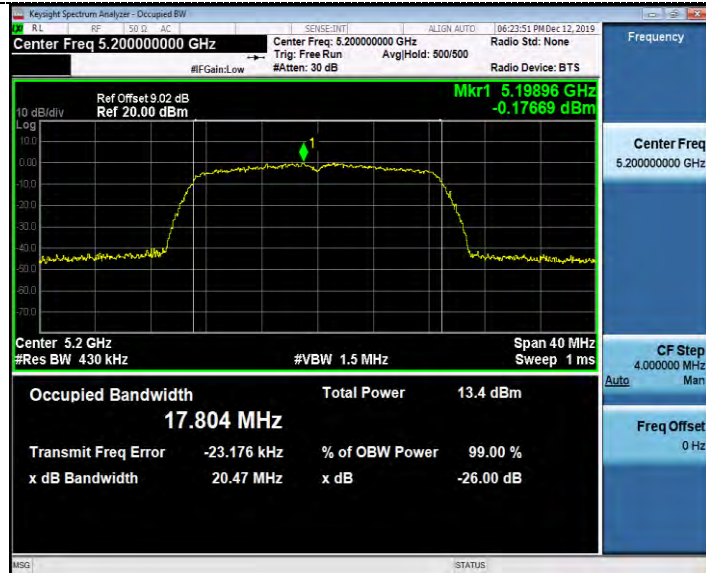
802.11ac20



802.11n HT40



CH36



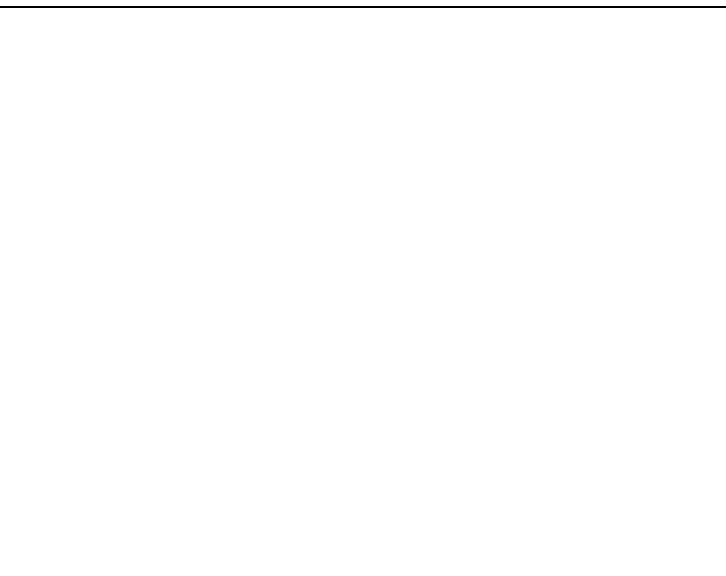
CH38



CH40



CH46

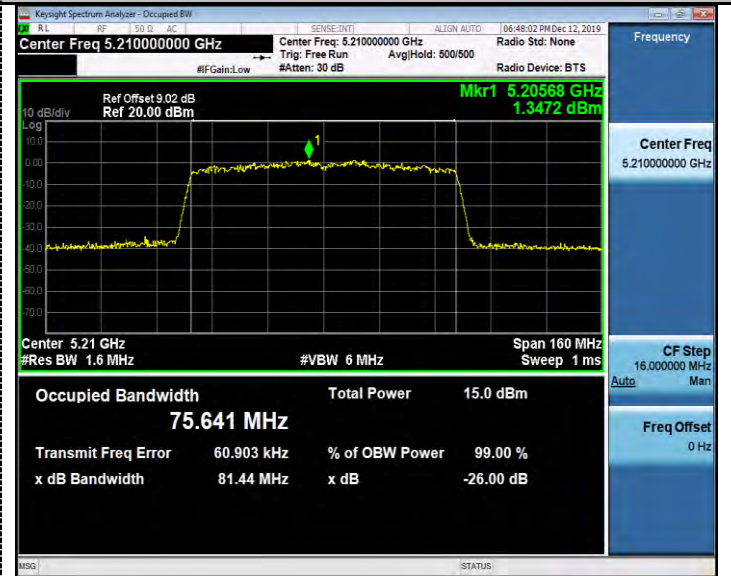


CH48

99%Bandwidth

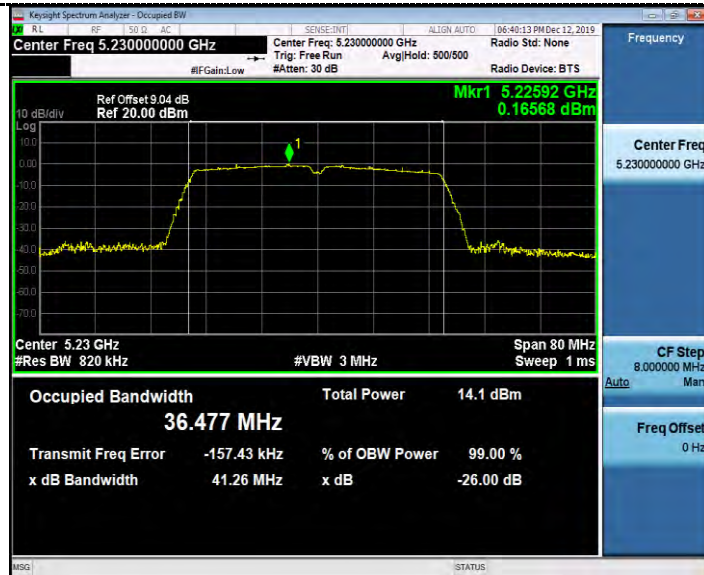
802.11ac40

802.11ac80



CH38

CH42



CH46

26dB Bandwidth

802.11a

802.11n HT20



CH36

CH36



CH40

CH40

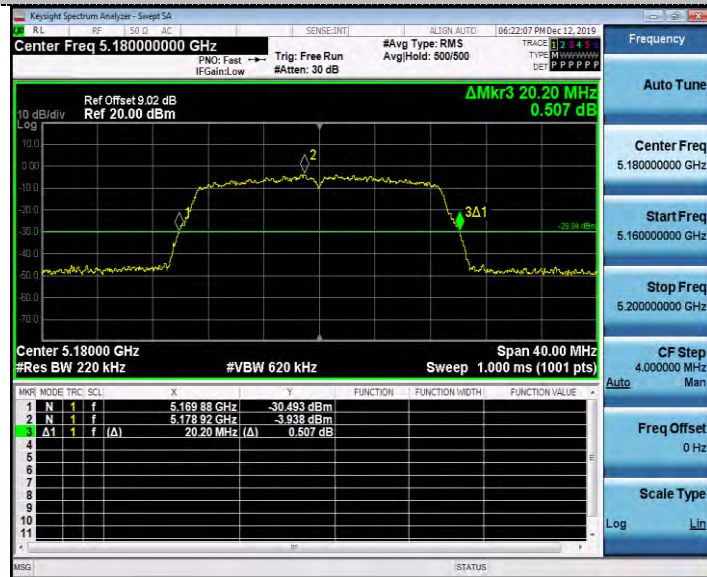


CH48

CH48

26dB Bandwidth

802.11ac20



802.11n HT40



CH36



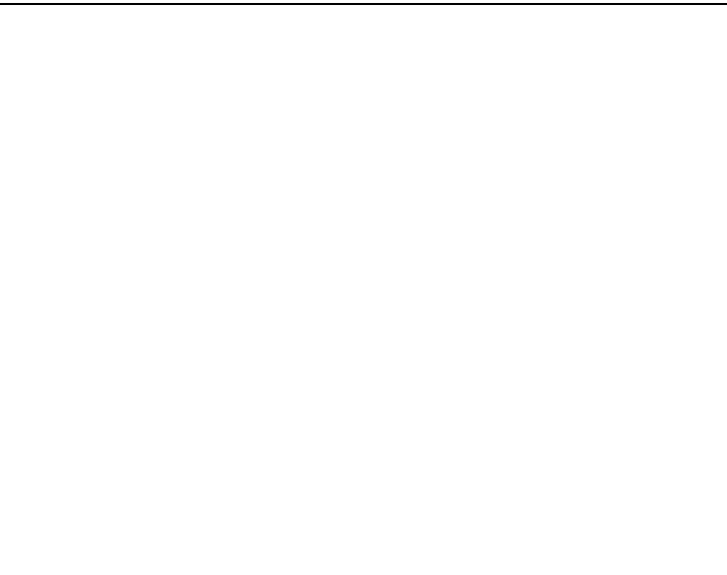
CH38



CH40



CH46

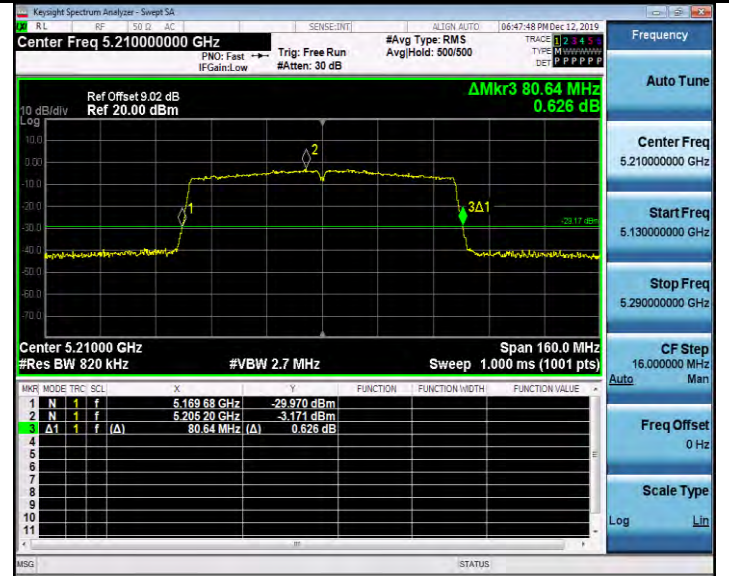


CH48

26dB Bandwidth

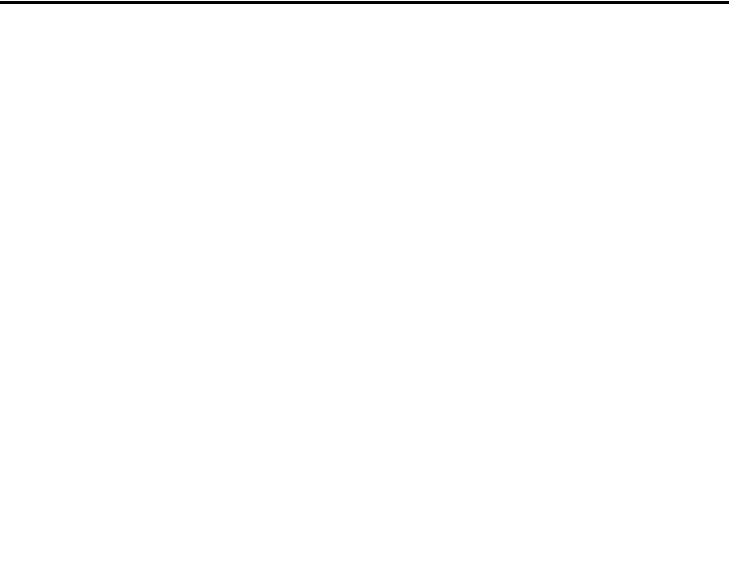
802.11ac40

802.11ac80



CH38

CH42



CH46