

802.11ac40

802.11ac80



CH 151

CH 155

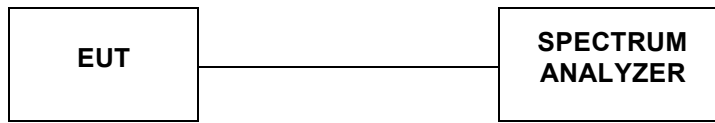


CH 159



#### 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	16.929	15.04	≥500	Pass
	157	16.907	15.16		
	165	16.864	15.16		
802.11nHT20	149	18.019	15.20	≥500	Pass
	157	18.025	15.08		
	165	18.000	15.20		
802.11nHT40	151	36.218	35.28	≥500	Pass
	159	36.347	36.48	≥500	Pass
802.11ac20	149	18.002	15.16	≥500	Pass
	157	18.075	15.16		
	165	17.998	15.16		
802.11ac40	151	36.199	35.28	≥500	Pass
	159	36.305	35.28		
802.11ac80	155	75.885	75.52	≥500	Pass

## Antenna 1:

Type	Channel	99%Bandwidth (MHz)	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	149	16.927	15.20	≥500	Pass
	157	16.887	15.16		
	165	16.888	15.16		
802.11nHT20	149	18.050	15.12	≥500	Pass
	157	17.987	15.20		
	165	18.000	15.16		
802.11nHT40	151	36.260	35.28	≥500	Pass
	159	36.308	35.20	≥500	Pass
802.11ac20	149	17.964	15.20	≥500	Pass
	157	18.008	15.16		
	165	18.003	15.16		
802.11ac40	151	36.228	35.28	≥500	Pass
	159	36.315	35.28		
802.11ac80	155	75.960	75.52	≥500	Pass

99%Bandwidth:  
Antenna 0:

802.11a

802.11n HT20



CH149

CH149



CH157

CH157



CH165

CH165

802.11ac20



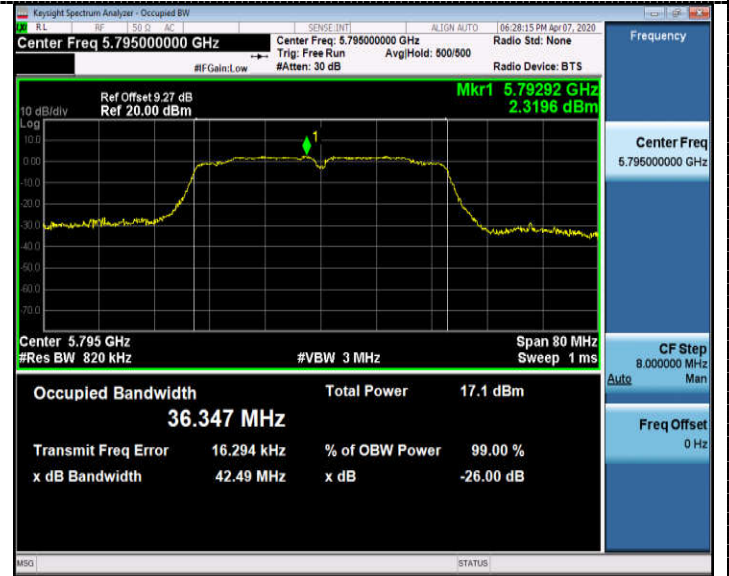
802.11n HT40



CH149



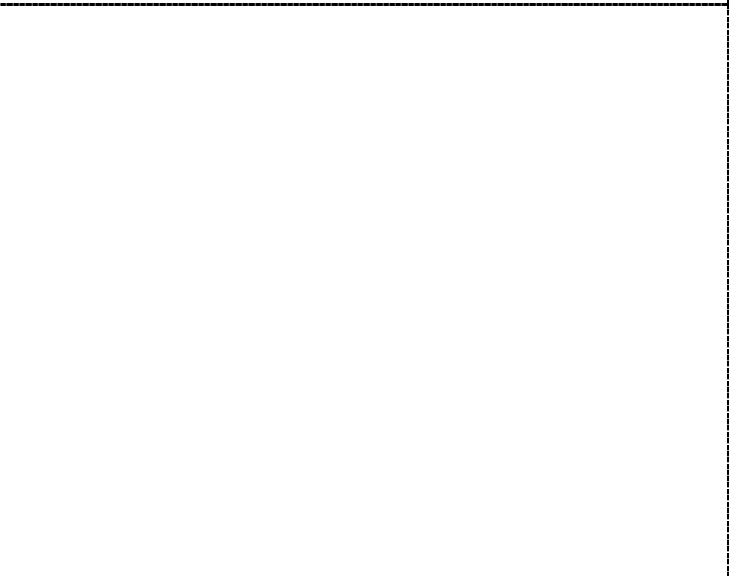
CH151



CH157



CH159



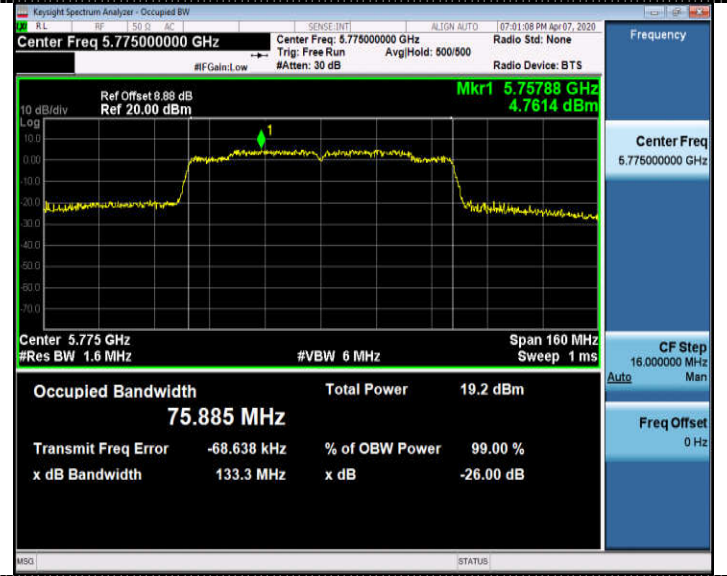
CH165



802.11ac40



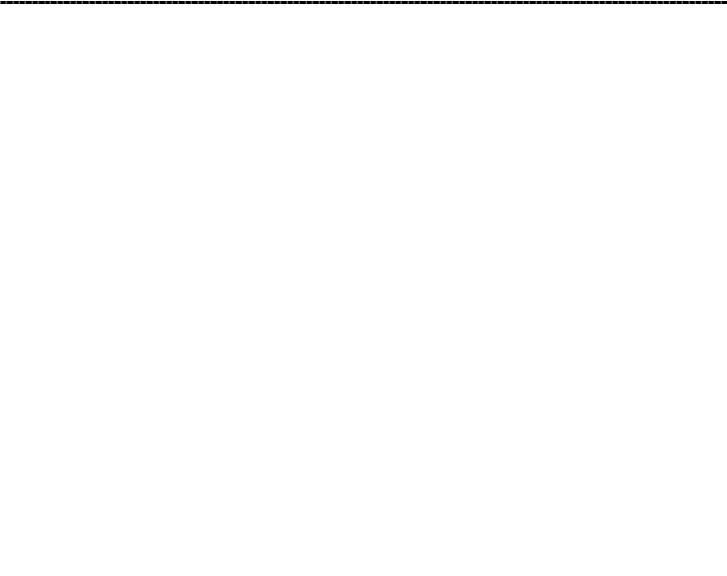
802.11ac80



CH151



CH155



CH159



Antenna 1:

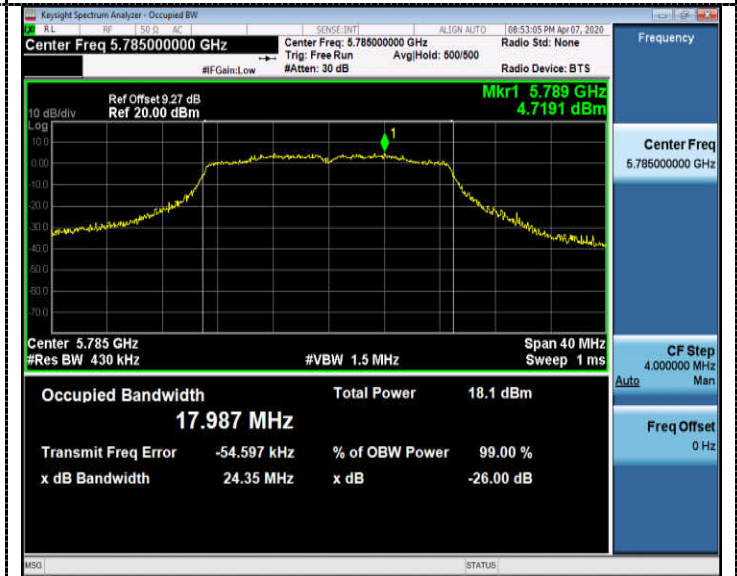
802.11a

802.11n HT20



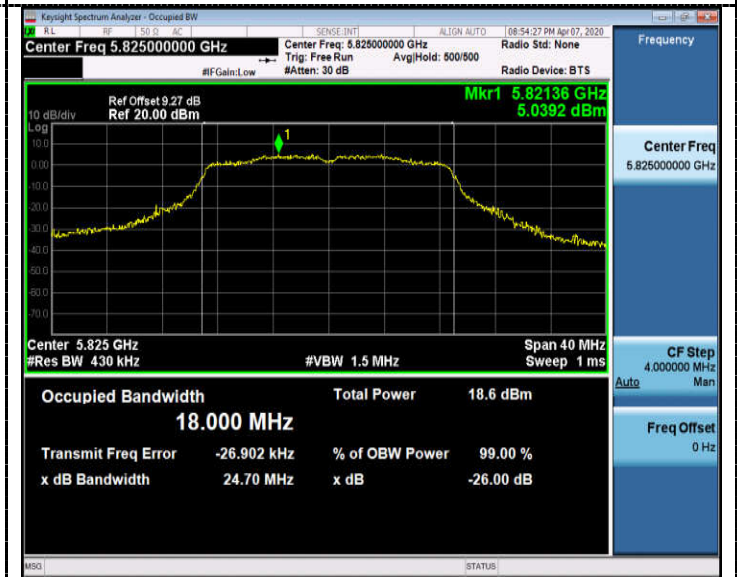
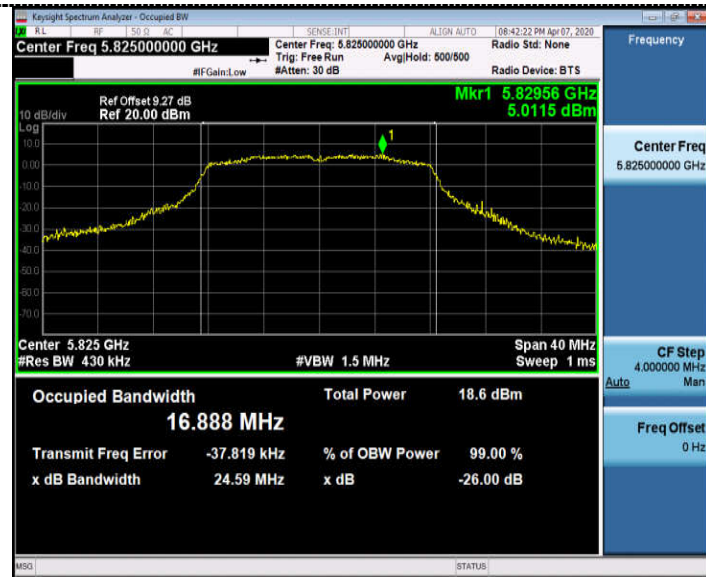
CH149

CH149



CH157

CH157



CH165

CH165

802.11ac20



802.11n HT40



CH149



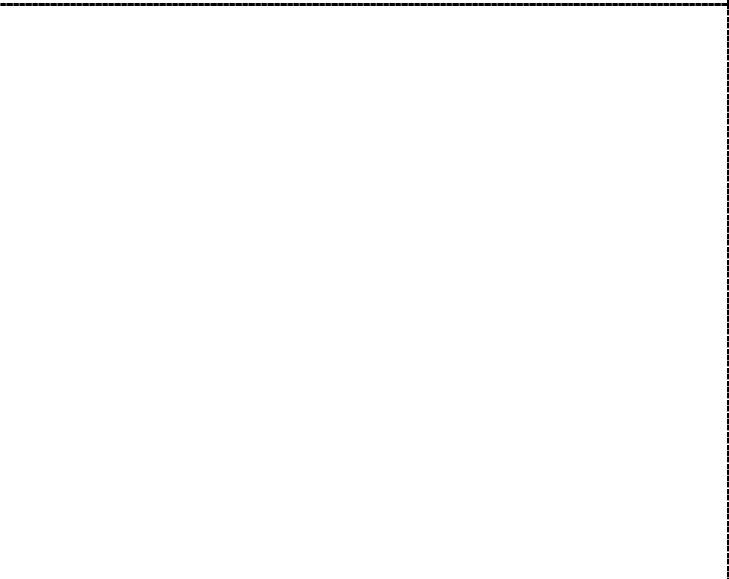
CH151



CH157



CH159

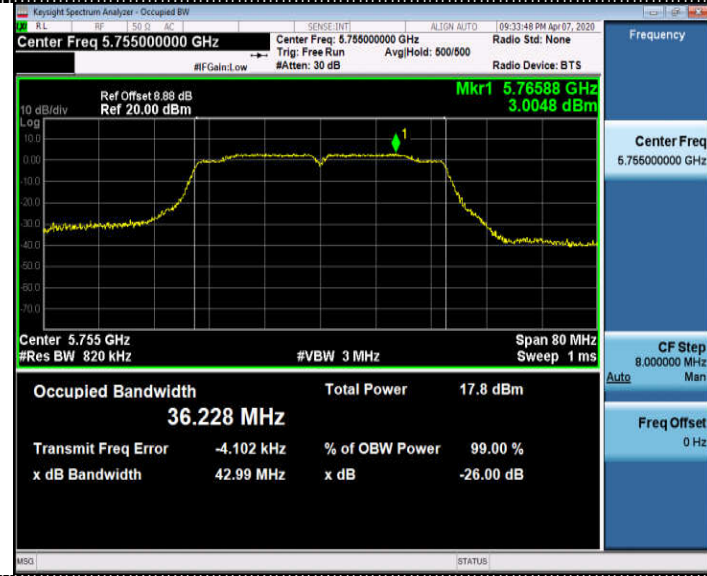


CH165

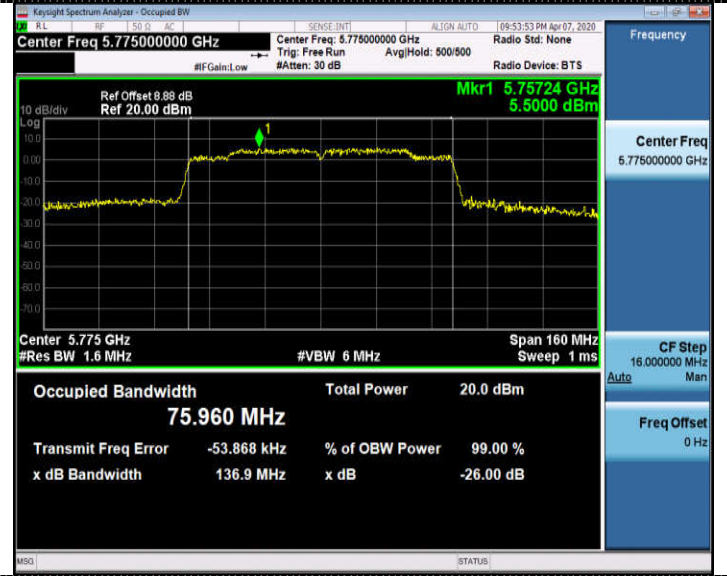




802.11ac40



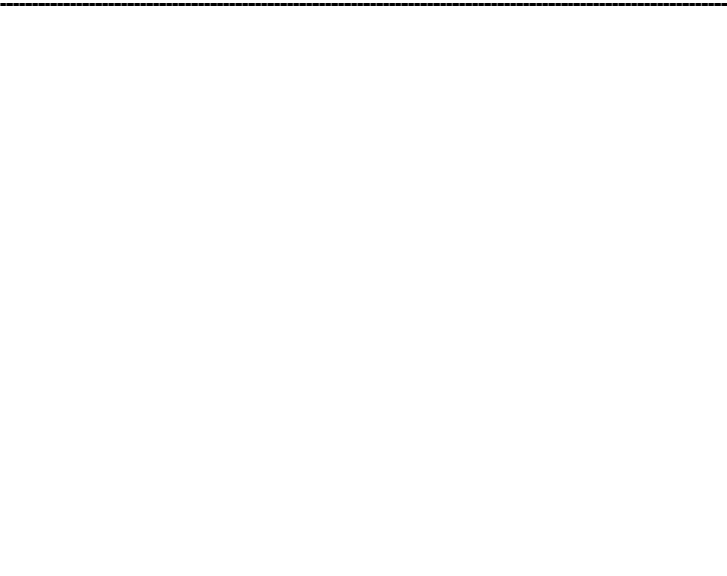
802.11ac80



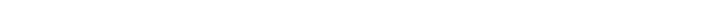
CH151



CH155



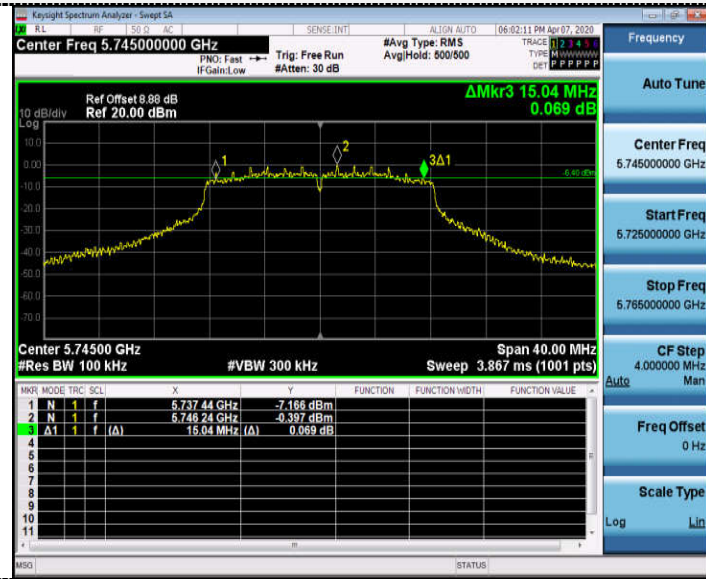
CH159



6dB Bandwidth:  
Antenna 0:

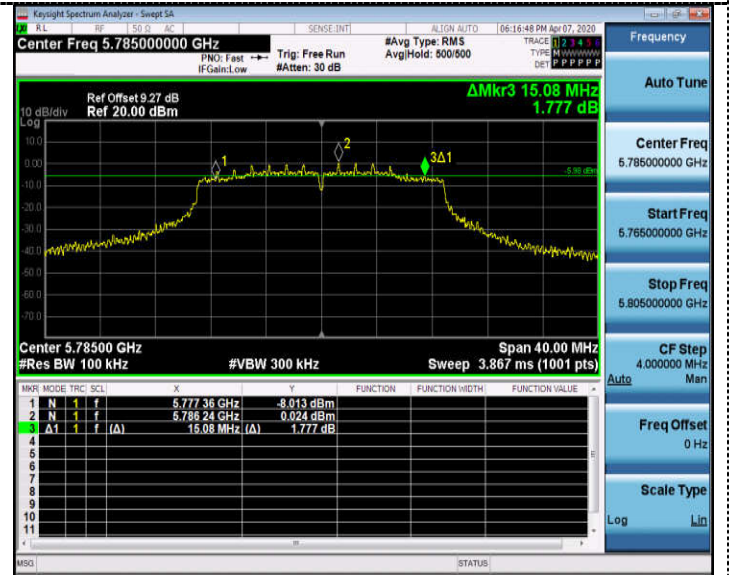
802.11a

802.11n HT20



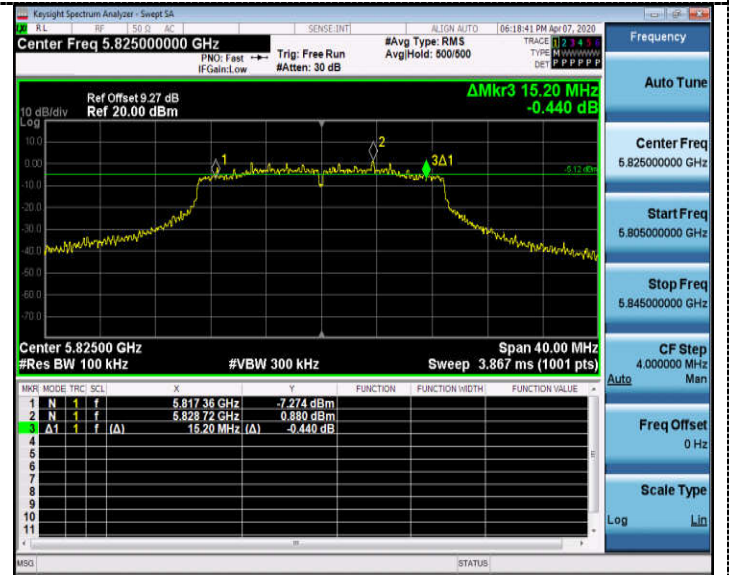
CH149

CH149



CH157

CH157

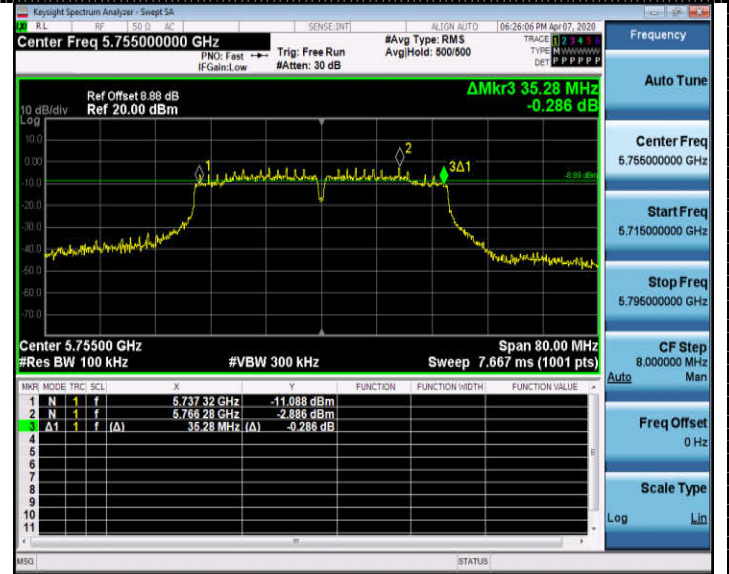
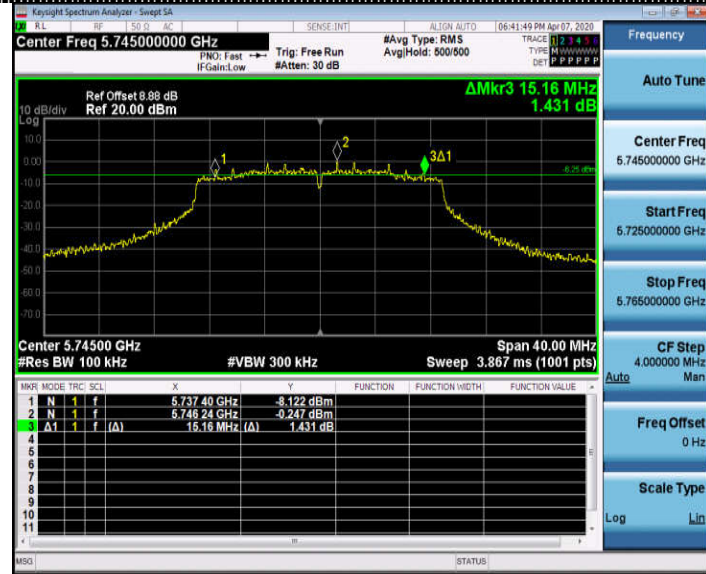


CH165

CH165

802.11ac20

802.11n HT40



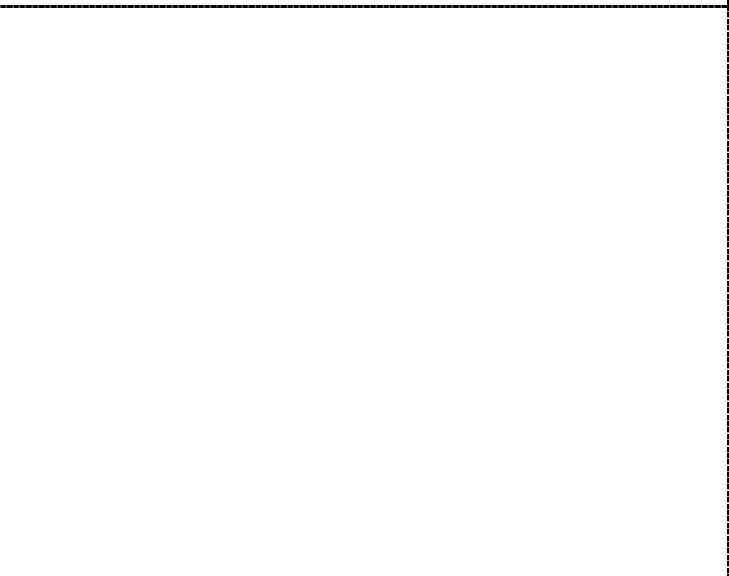
CH149

CH151



CH157

CH159

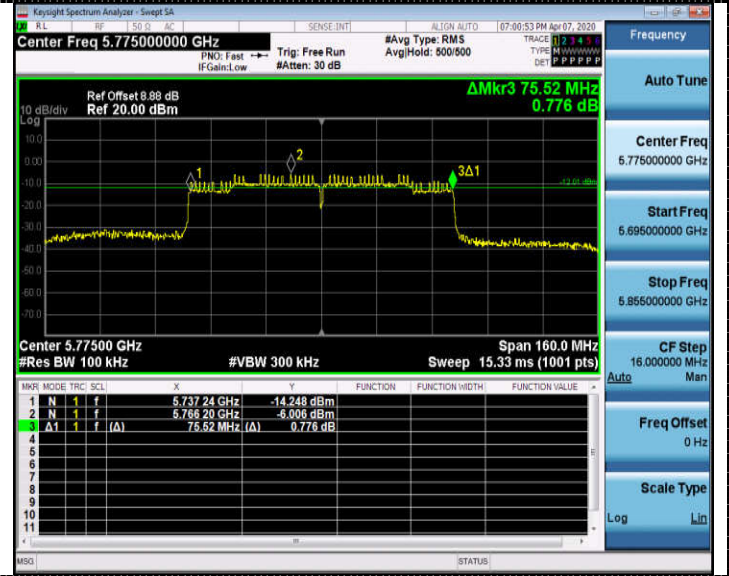
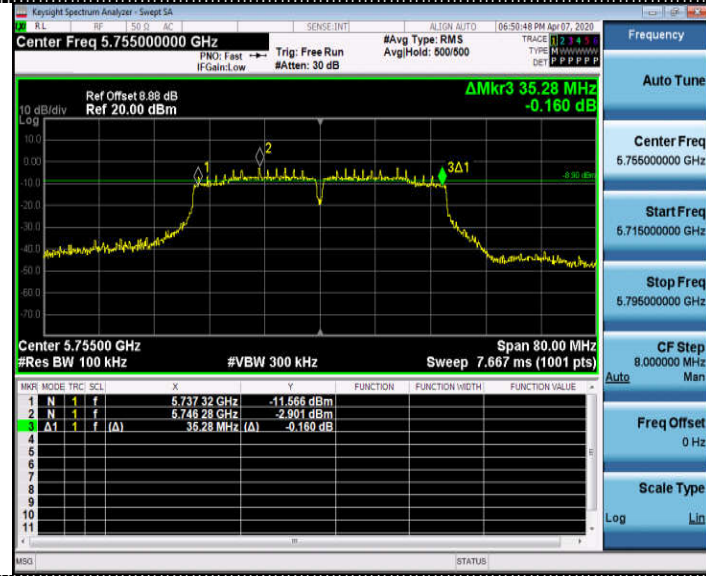


CH165

CH165

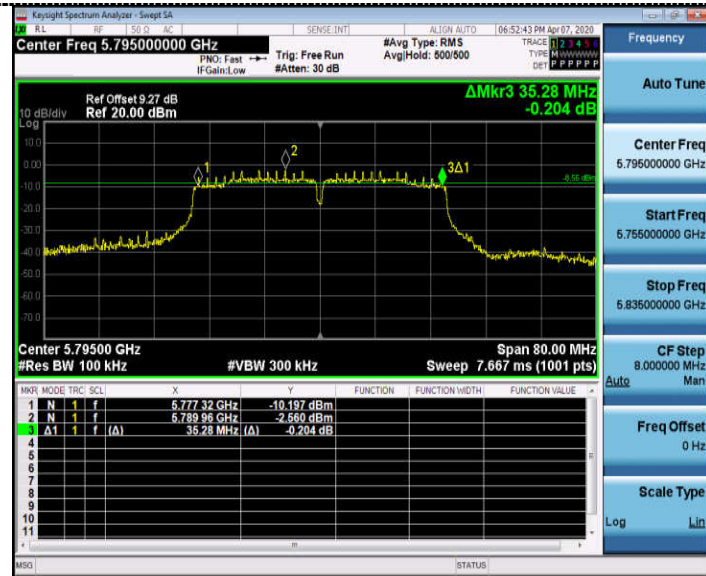
802.11ac40

802.11ac80

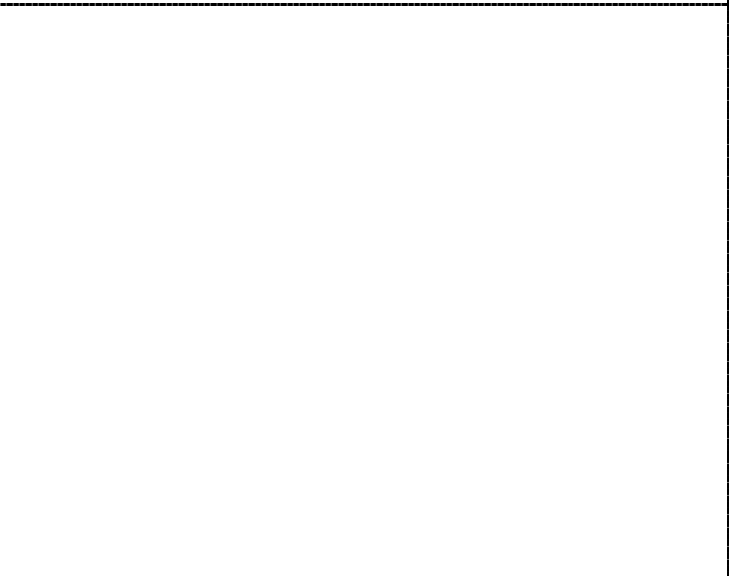


CH151

CH155



CH159



Antenna 1:

802.11a

802.11n HT20



CH149

CH149



CH157

CH157

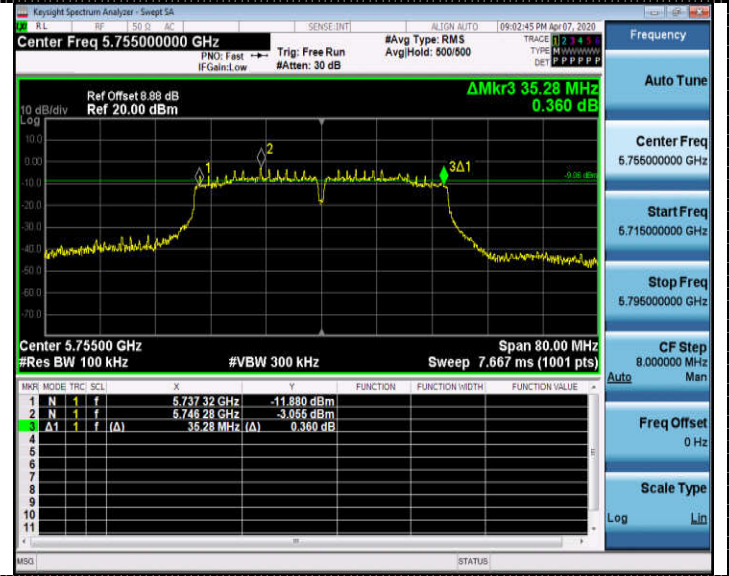
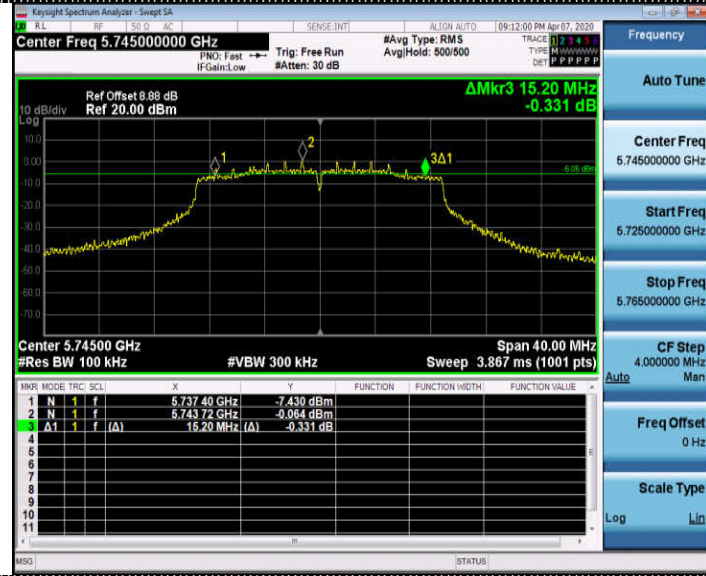


CH165

CH165

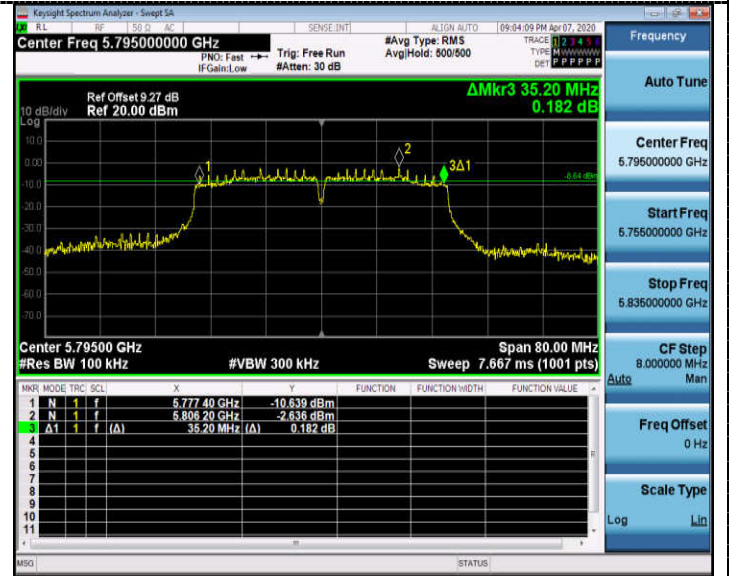
802.11ac20

802.11n HT40



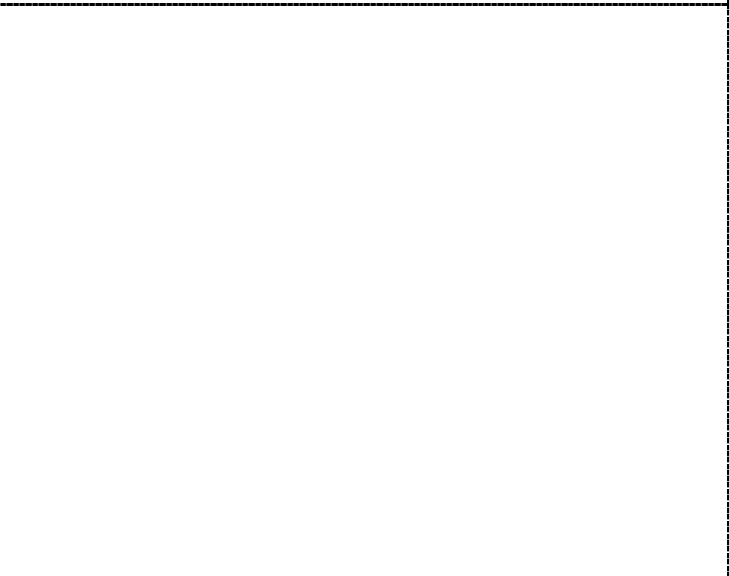
CH149

CH151



CH157

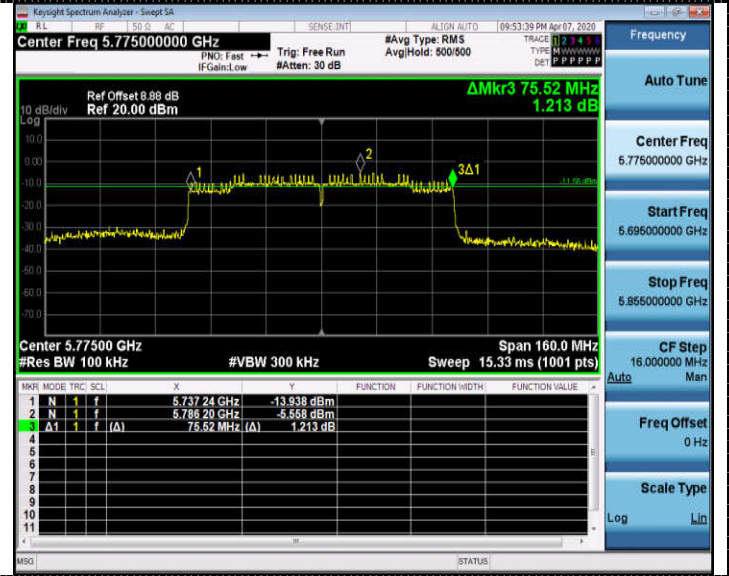
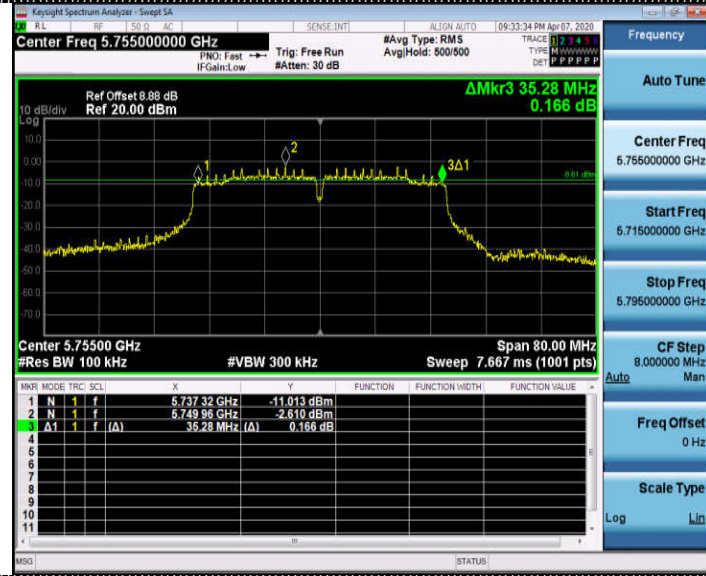
CH159



CH165

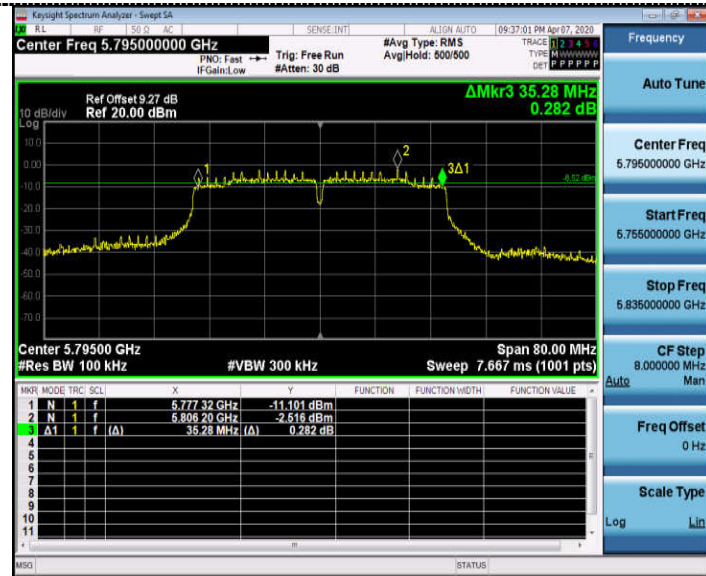
802.11ac40

802.11ac80

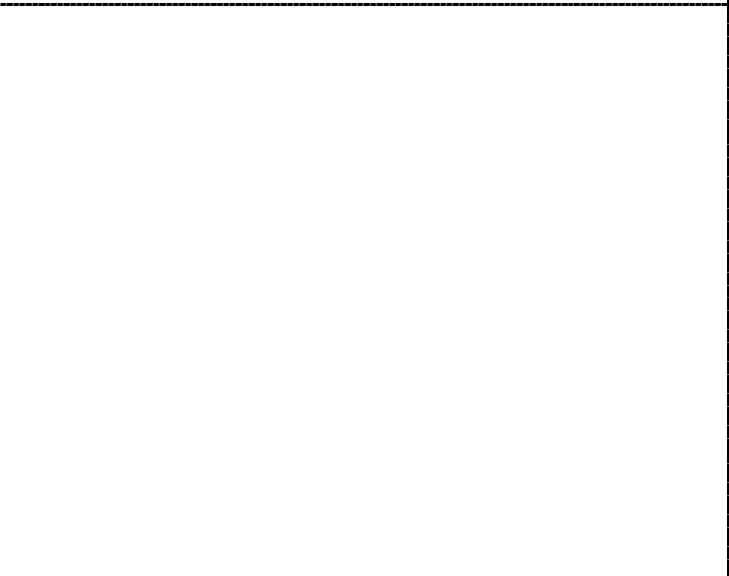


CH151

CH155

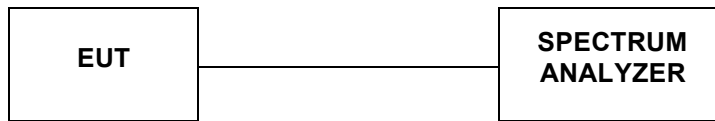


CH159



## 4.7. 26dB 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	17.264	25.08	-	Pass
	40	17.175	24.24		
	48	17.084	25.24		
802.11nHT20	36	18.180	23.80	-	Pass
	40	18.226	24.96		
	48	18.228	24.00		
802.11nHT40	38	36.430	44.08	-	Pass
	46	36.486	44.40	-	Pass
802.11ac20	36	18.245	24.64	-	Pass
	40	18.232	24.20		
	48	18.234	23.92		
802.11ac40	38	36.354	41.92	-	Pass
	46	36.352	44.80	-	Pass
802.11ac80	42	75.598	81.92	-	Pass

## Antenna 1:

Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	17.083	24.28	-	Pass
	40	17.195	23.96		
	48	17.141	23.20		
802.11nHT20	36	18.120	22.92	-	Pass
	40	18.253	24.32		
	48	18.245	25.48		
802.11nHT40	38	36.468	43.44	-	Pass
	46	36.496	46.00	-	Pass
802.11ac20	36	18.149	23.36	-	Pass
	40	18.221	22.76		
	48	18.267	23.92		
802.11ac40	38	36.306	45.12	-	Pass
	46	36.420	44.24	-	Pass
802.11ac80	42	75.596	83.20	-	Pass

99%Bandwidth:  
Antenna 0:

802.11a

802.11n HT20



CH36

CH36



CH40

CH40



CH48

CH48

802.11ac20



802.11n HT40



CH36



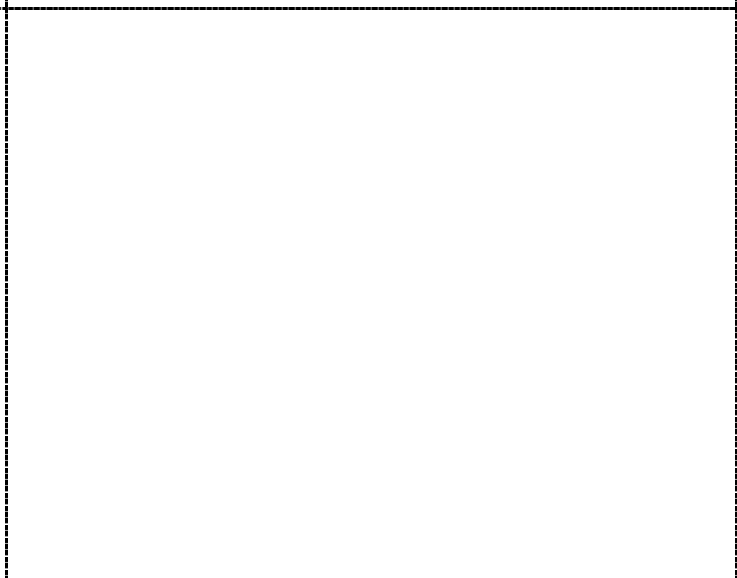
CH38



CH40



CH46

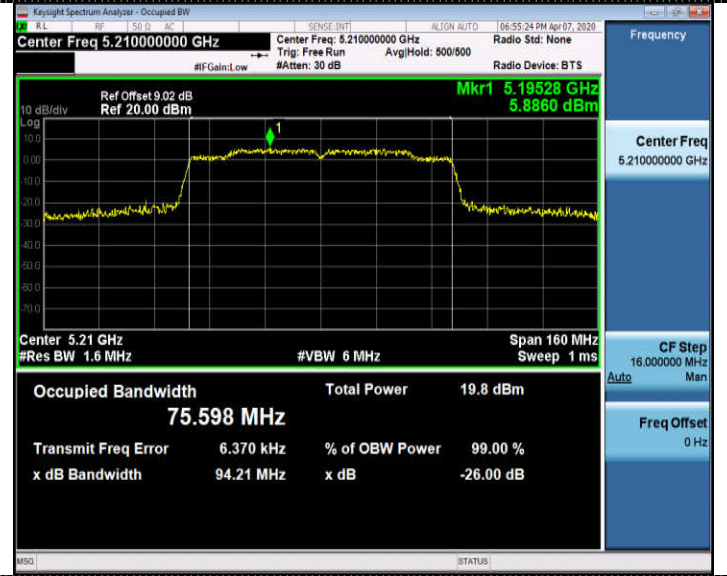


CH48

802.11ac40



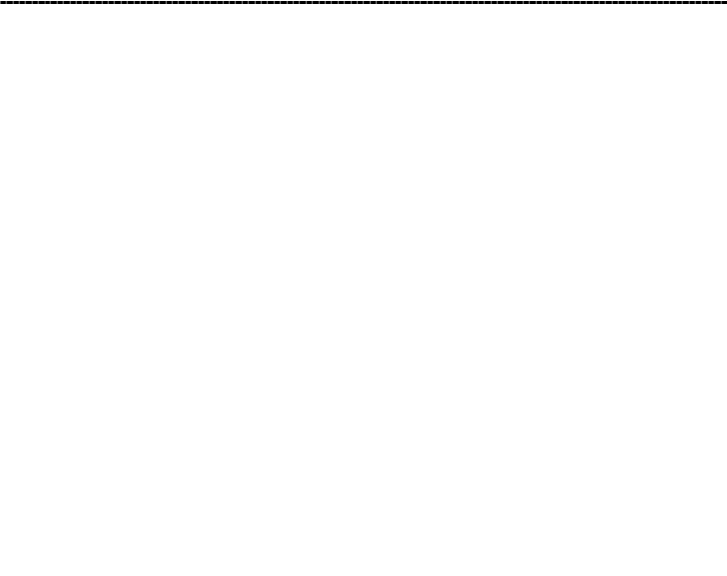
802.11ac80



CH38



CH42



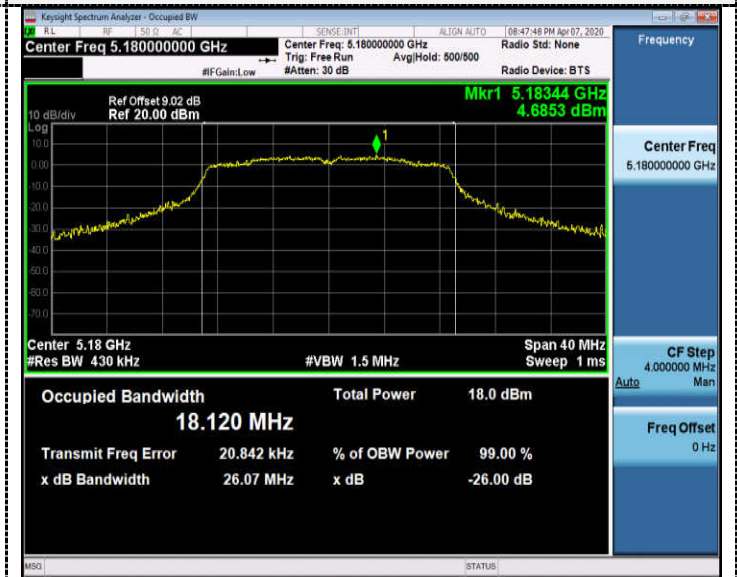
CH46



Antenna 1:

802.11a

802.11n HT20



CH36

CH36



CH40

CH40



CH48

CH48

802.11ac20



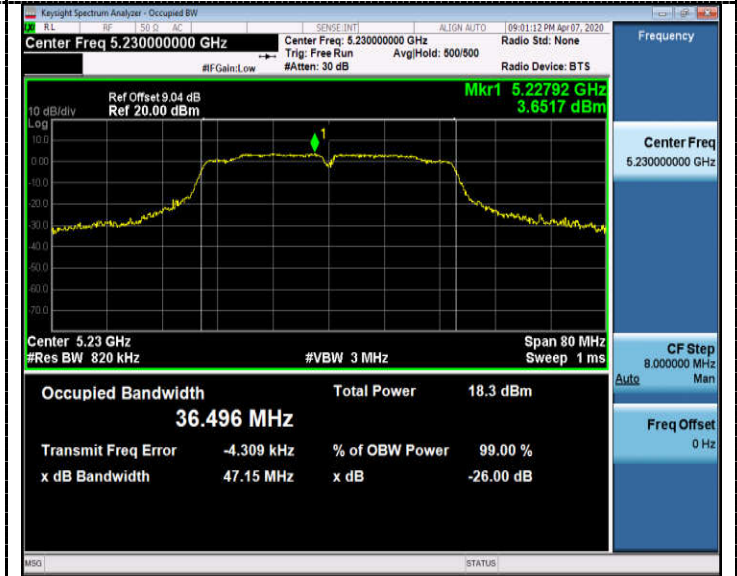
802.11n HT40



CH36



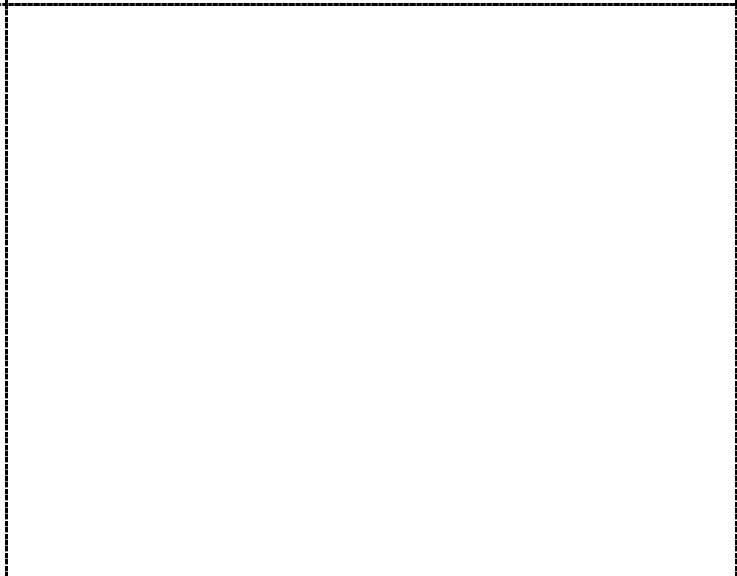
CH38



CH40



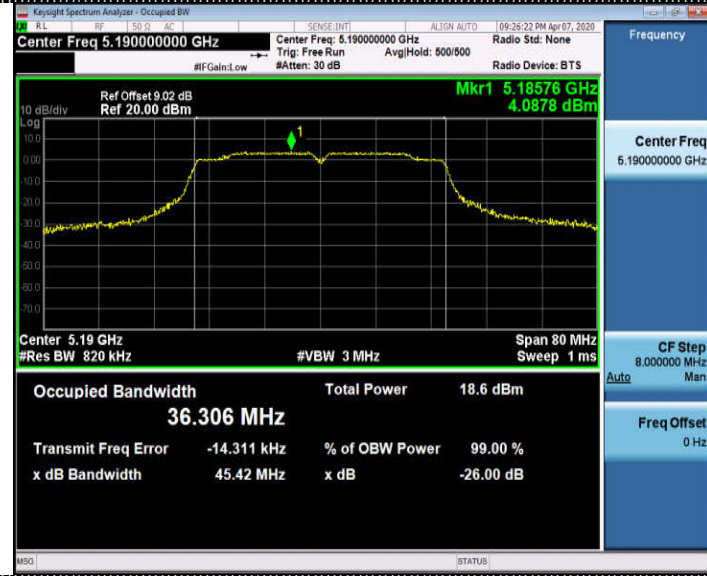
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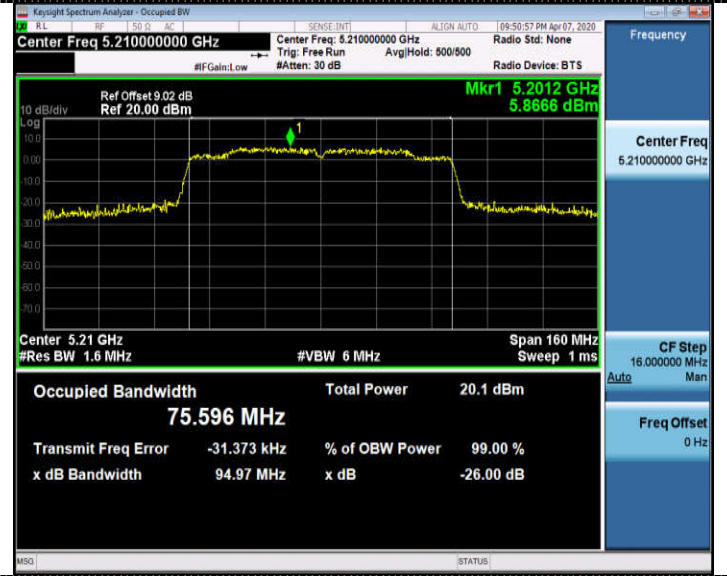
CH48



802.11ac40



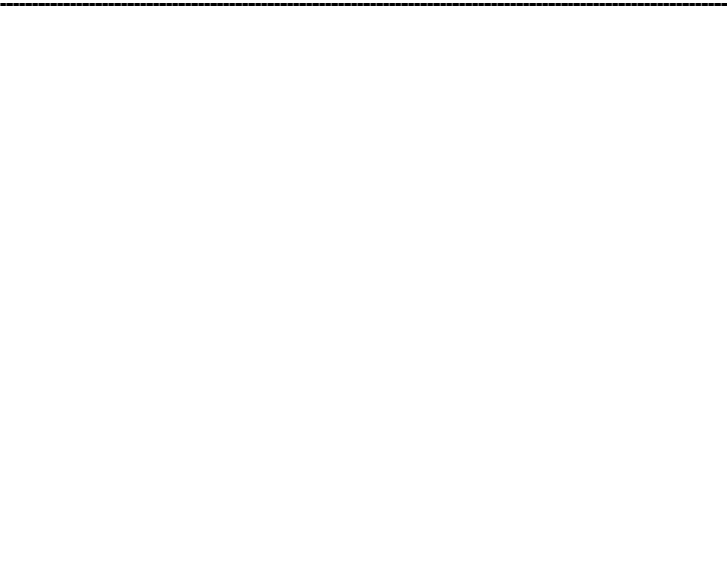
802.11ac80



CH38



CH42



CH46

