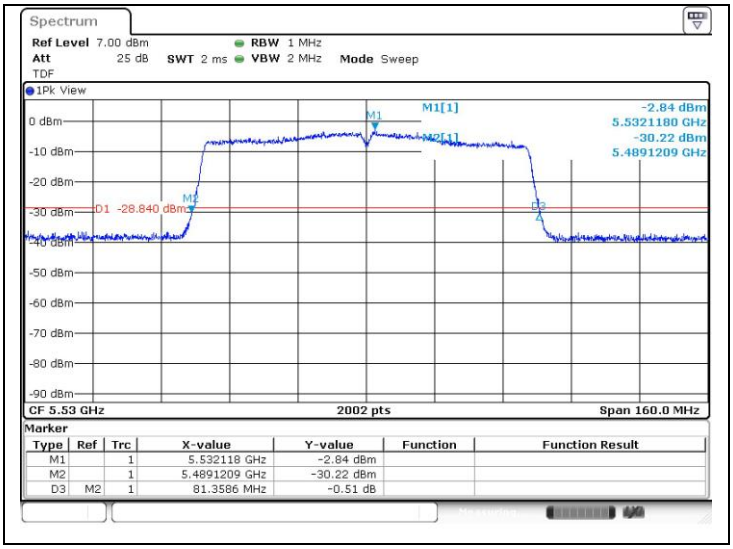
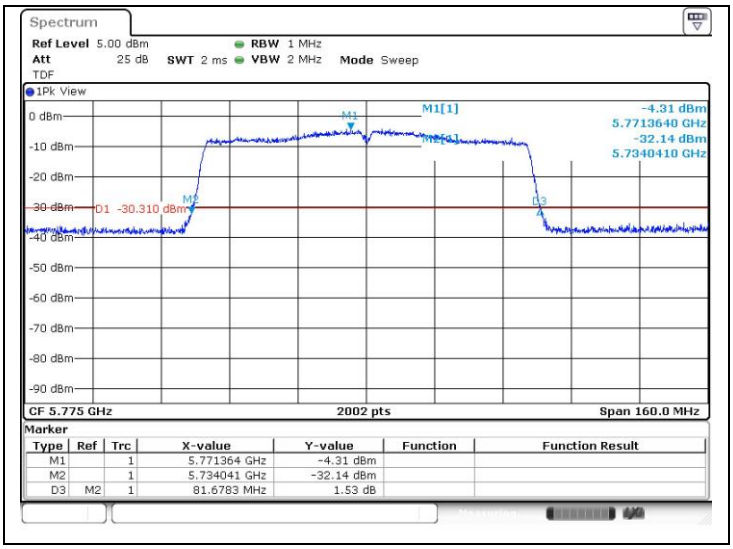
802.11ac_VHT80 (Band 2C)

Low Channel
(5 530 ㎒)



802.11ac_VHT80 (Band 3)

Middle Channel
(5 775 ㎒)

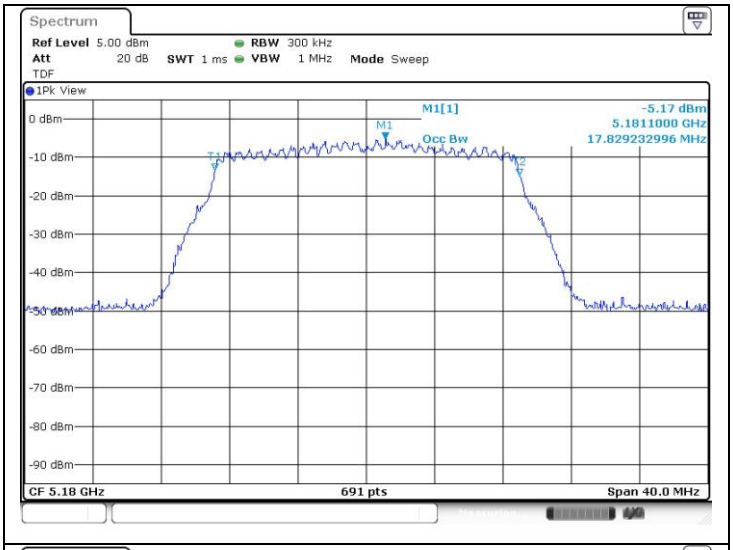


- MIMO_Ant.2

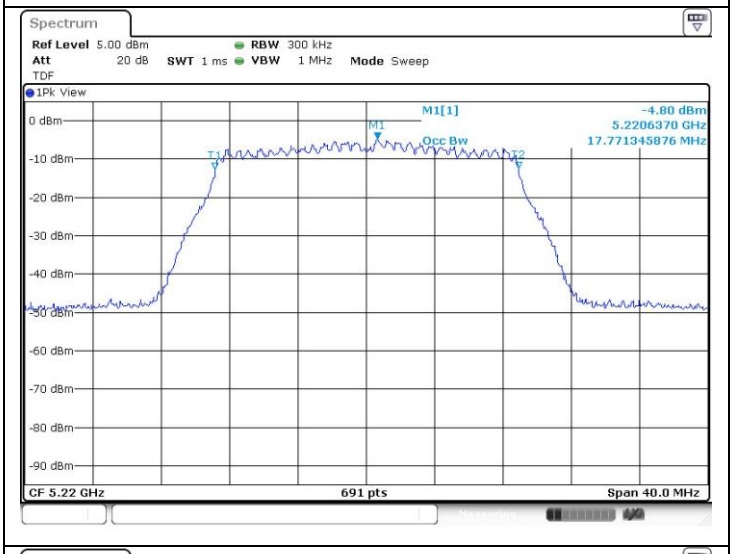
99 % Bandwidth

802.11ac_VHT20 (Band 1)

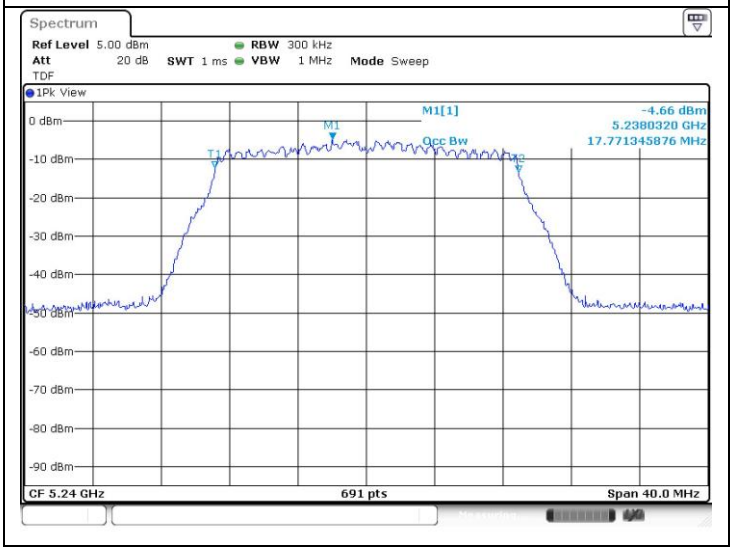
Low Channel
(5 180 ㎒)



Middle Channel
(5 220 ㎒)

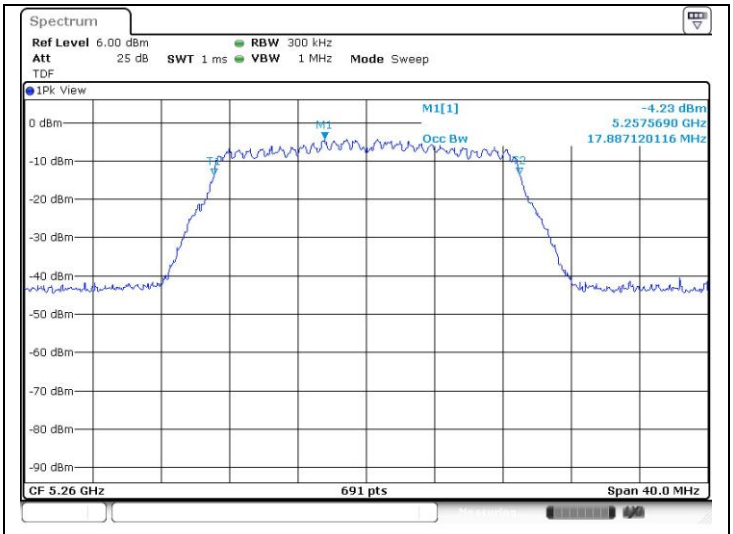


High Channel
(5 240 ㎒)

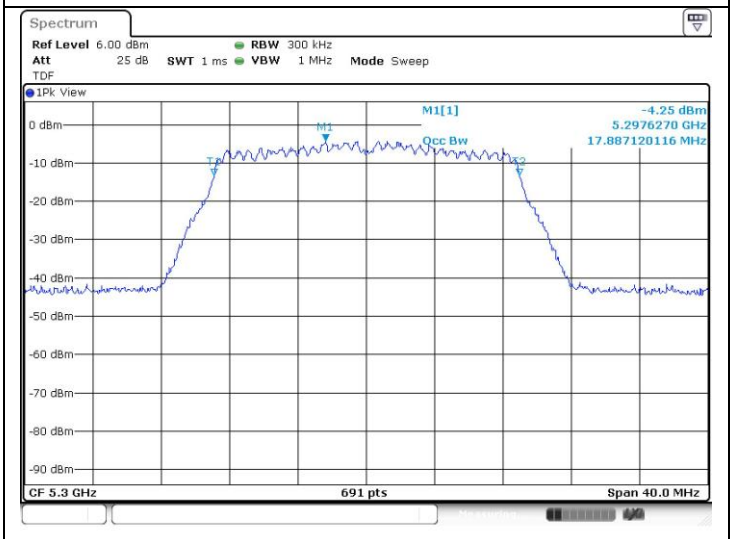


802.11ac_VHT20 (Band 2A)

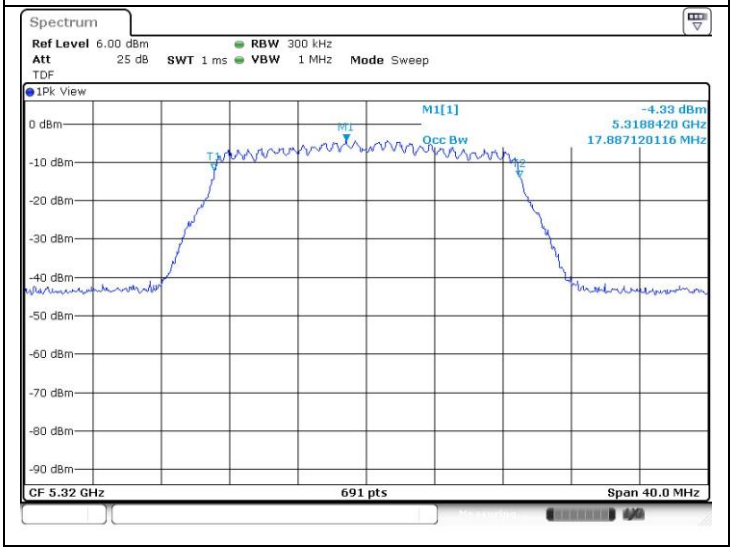
Low Channel
(5 260 ㎒)



Middle Channel
(5 300 ㎒)

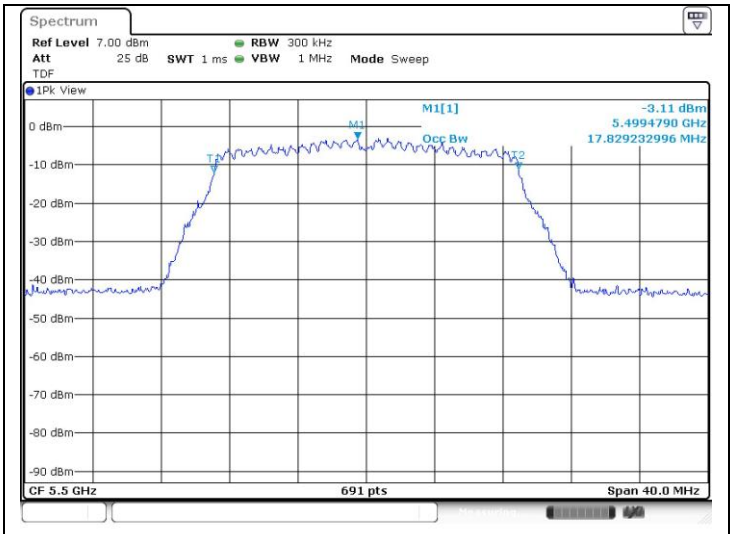


High Channel
(5 320 ㎒)

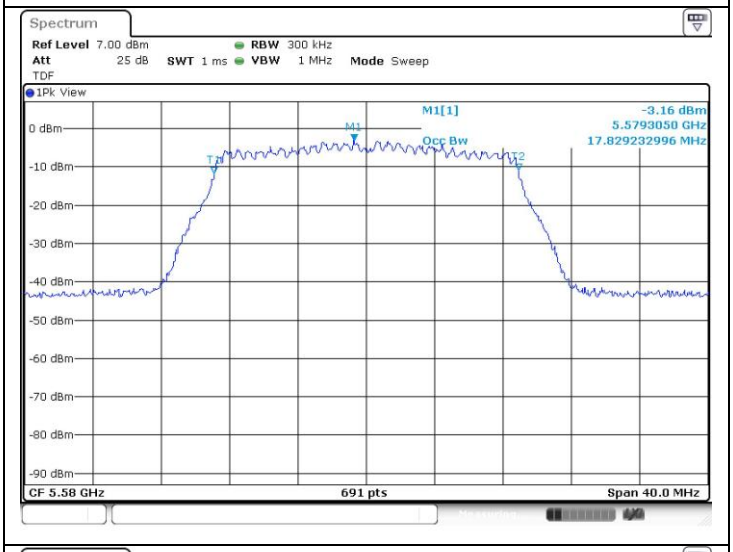


802.11ac_VHT20 (Band 2C)

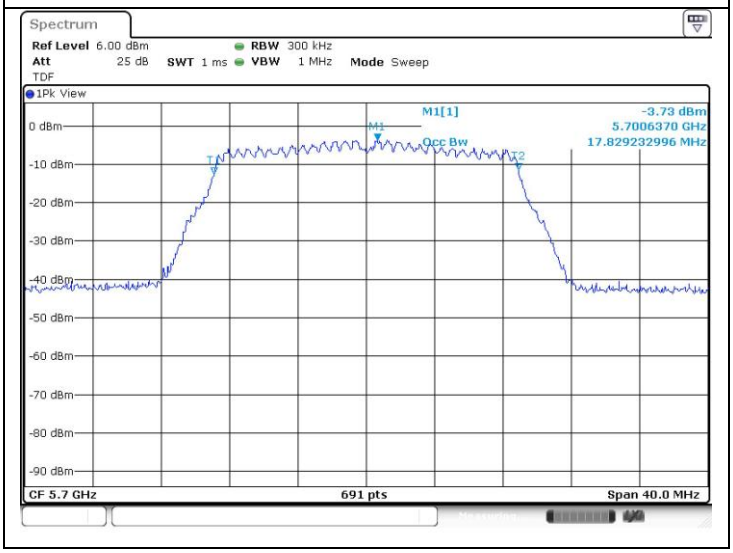
Low Channel
(5 500 ㎒)



Middle Channel
(5 580 ㎒)

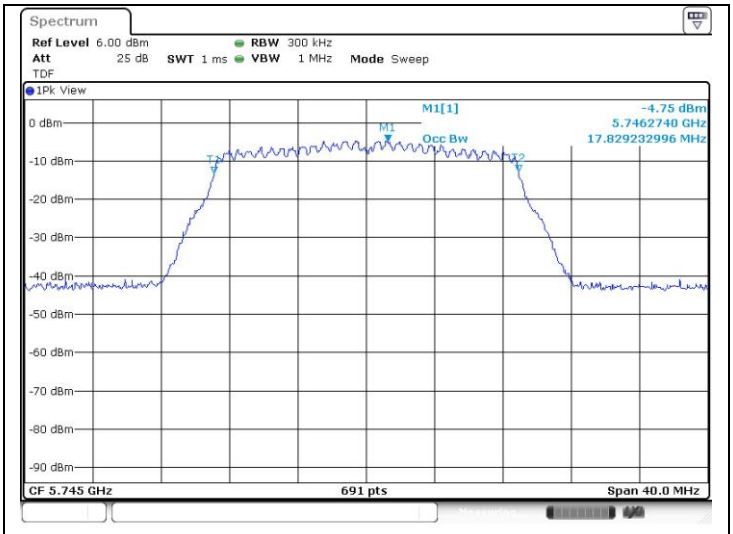


High Channel
(5 700 ㎒)

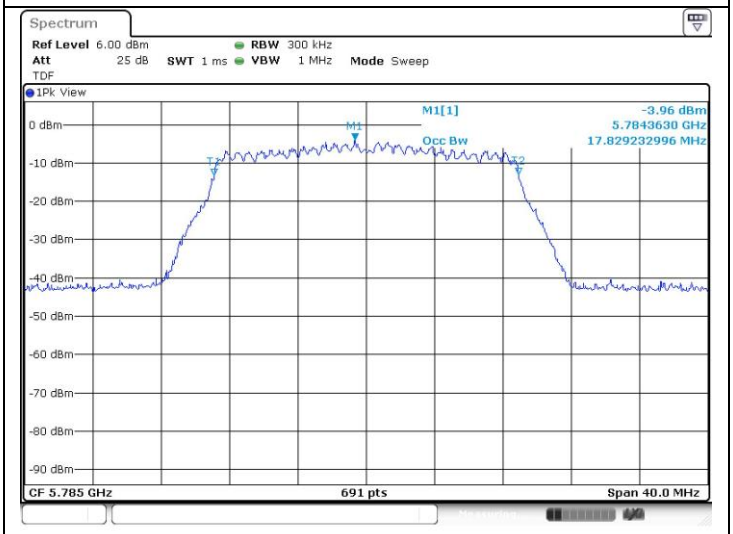


802.11ac_VHT20 (Band 3)

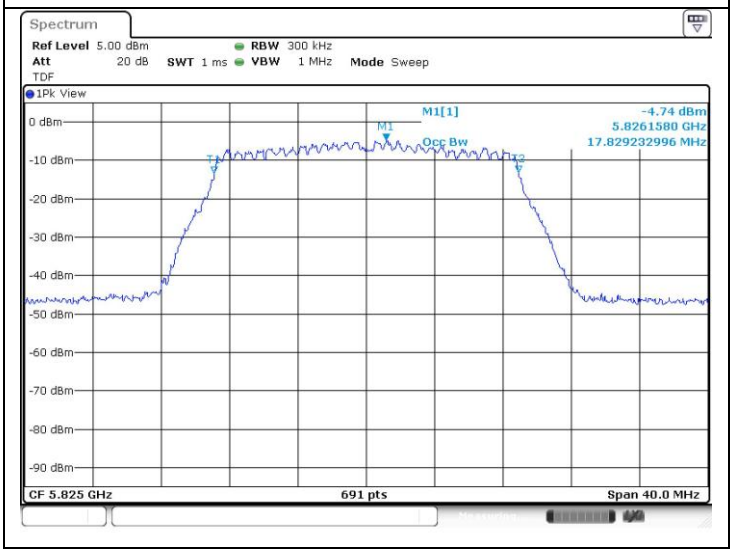
Low Channel
(5 745 ㎒)



Middle Channel
(5 785 ㎒)

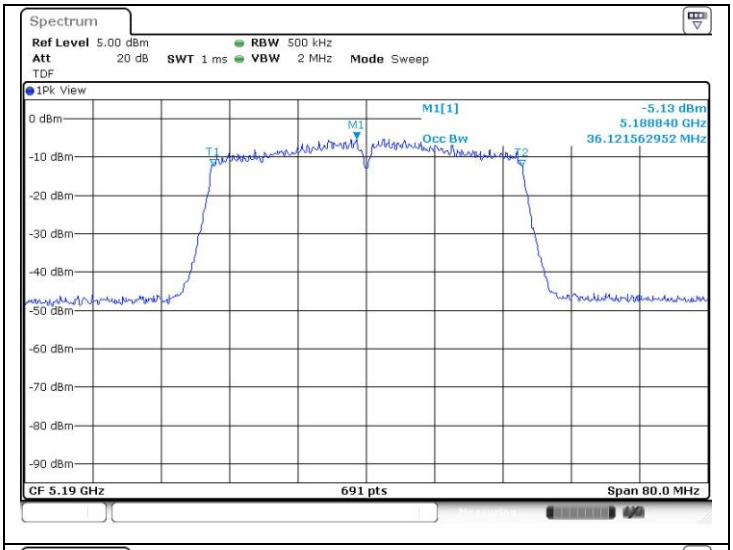


High Channel
(5 825 ㎒)

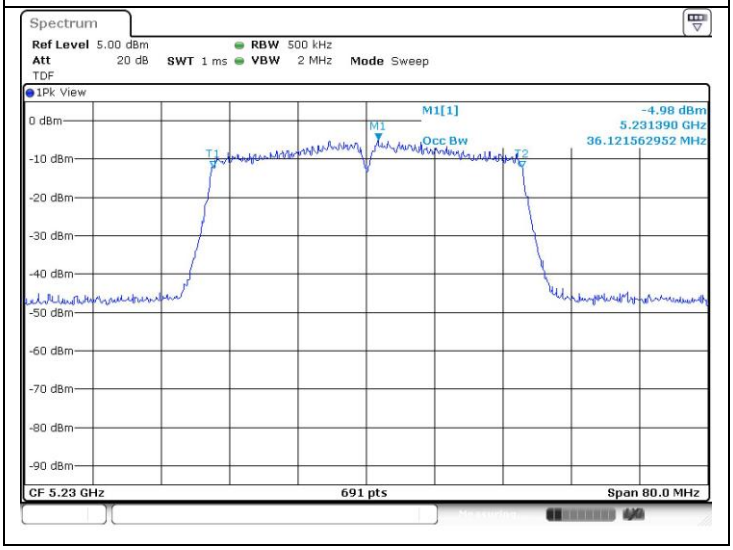


802.11ac_VHT40 (Band 1)

Low Channel
(5 190 ㎒)

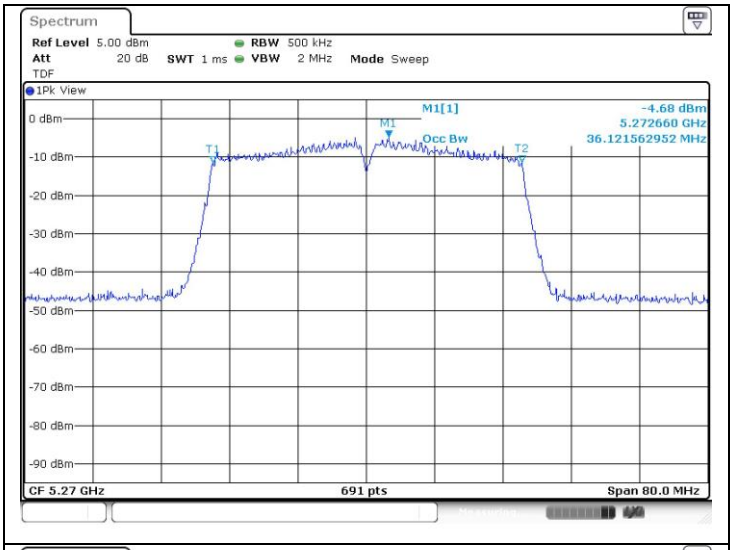


High Channel
(5 230 ㎒)

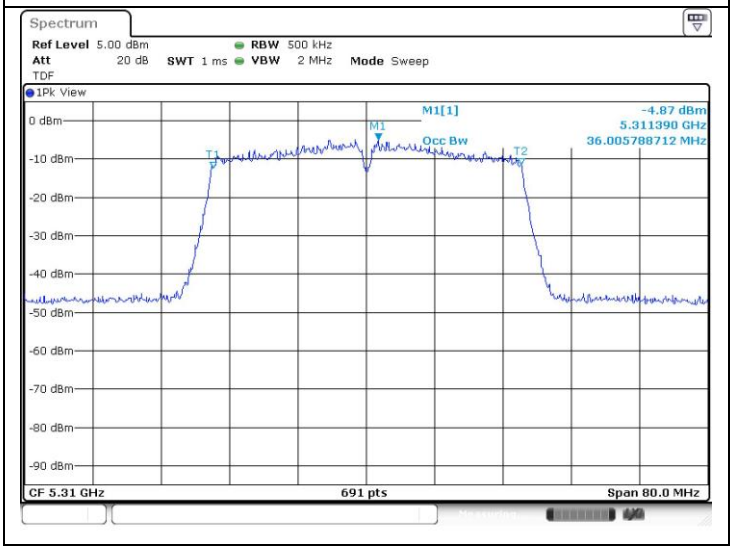


802.11ac_VHT40 (Band 2A)

Low Channel
(5 270 ㎒)

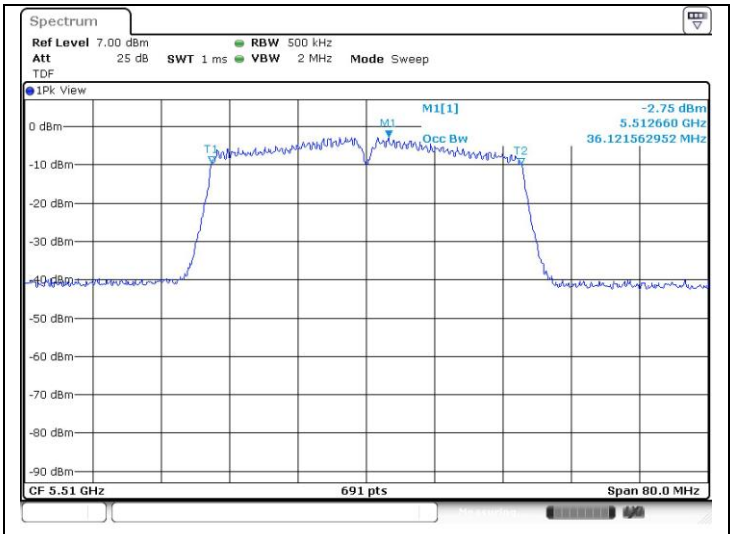


High Channel
(5 310 ㎒)

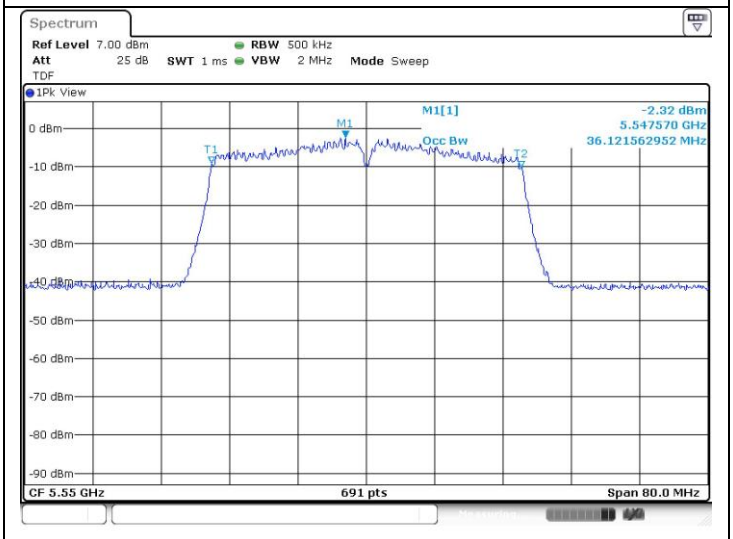


802.11ac_VHT40 (Band 2C)

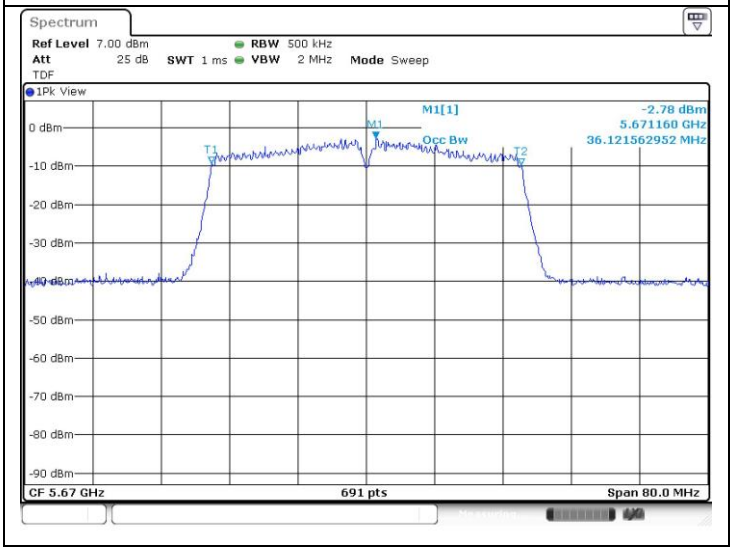
Low Channel
(5 510 ㎒)



Middle Channel
(5 550 ㎒)

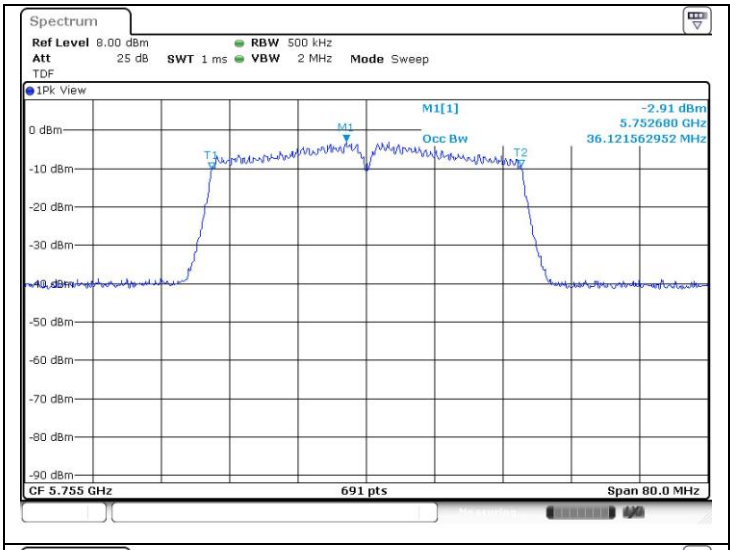


High Channel
(5 670 ㎒)

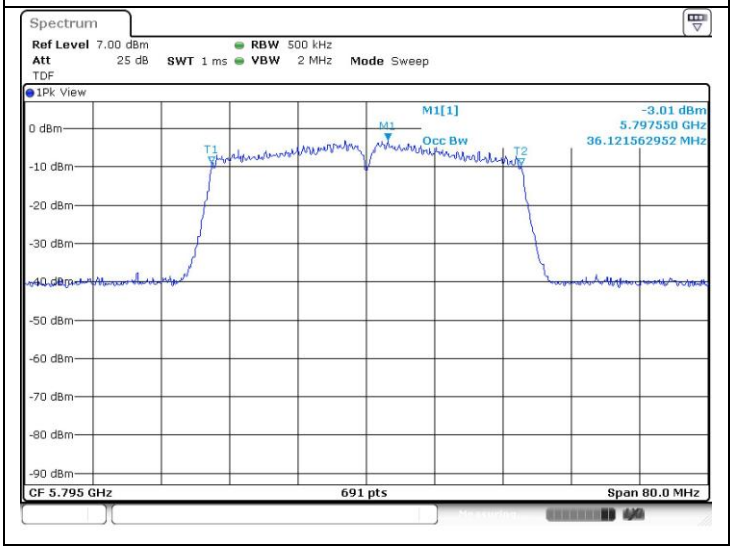


802.11ac_VHT40 (Band 3)

Low Channel
(5 755 ㎒)

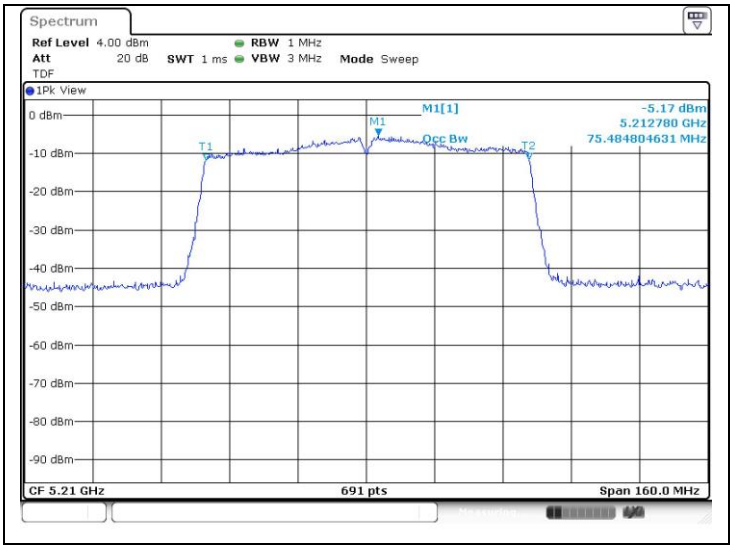


High Channel
(5 795 ㎒)



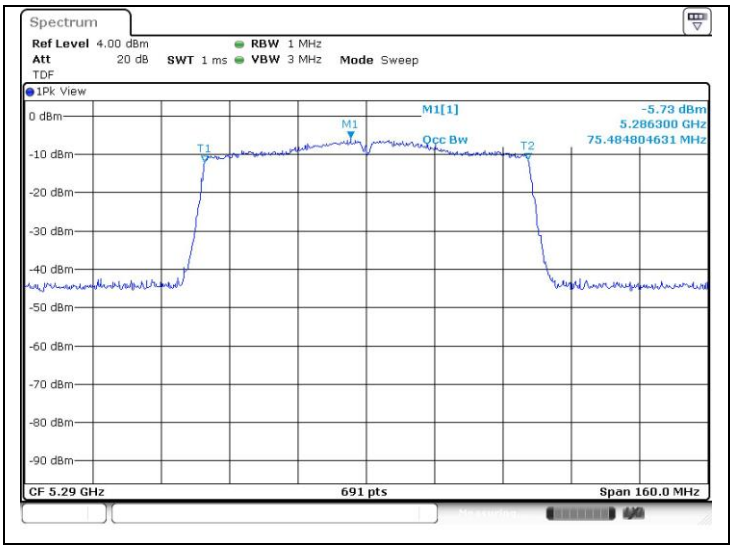
802.11ac_VHT80 (Band 1)

Middle Channel
(5 210 ㎒)



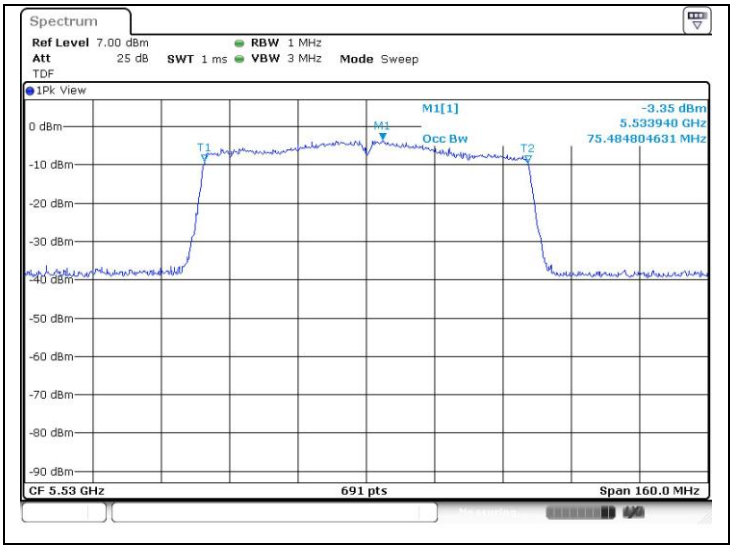
802.11ac_VHT80 (Band 2A)

Middle Channel
(5 290 ㎒)



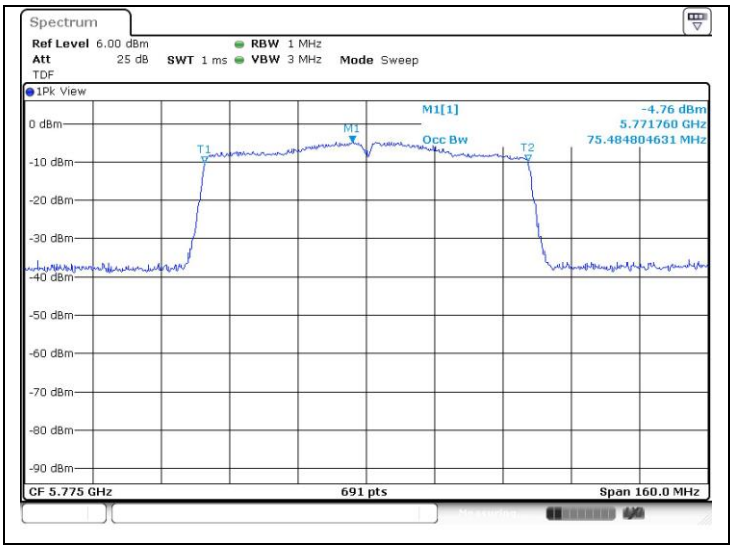
802.11ac_VHT80 (Band 2C)

Low Channel
(5 530 ㎒)



802.11ac_VHT80 (Band 3)

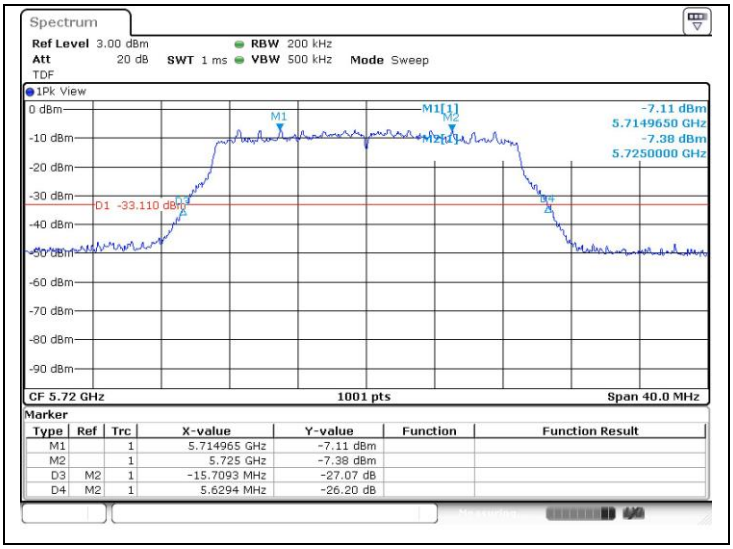
Middle Channel
(5 775 ㎒)



Band-crossing channels

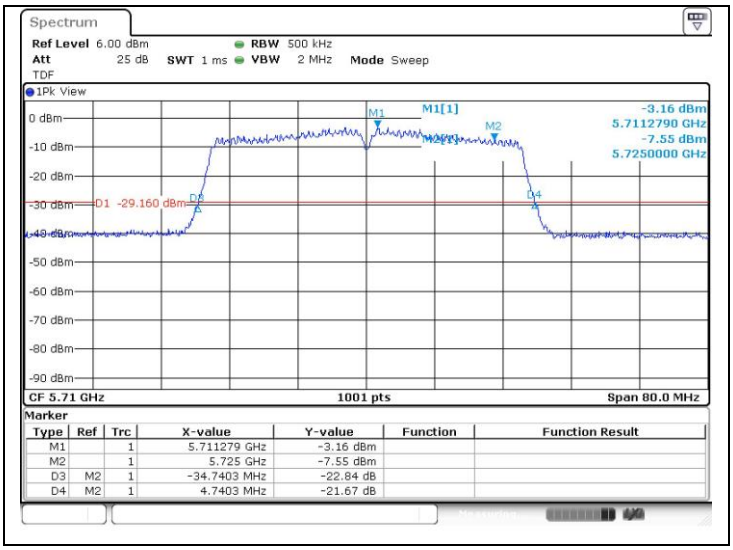
802.11ac_VHT20 (Band 2C)

High Channel
(5 720 ㎒)



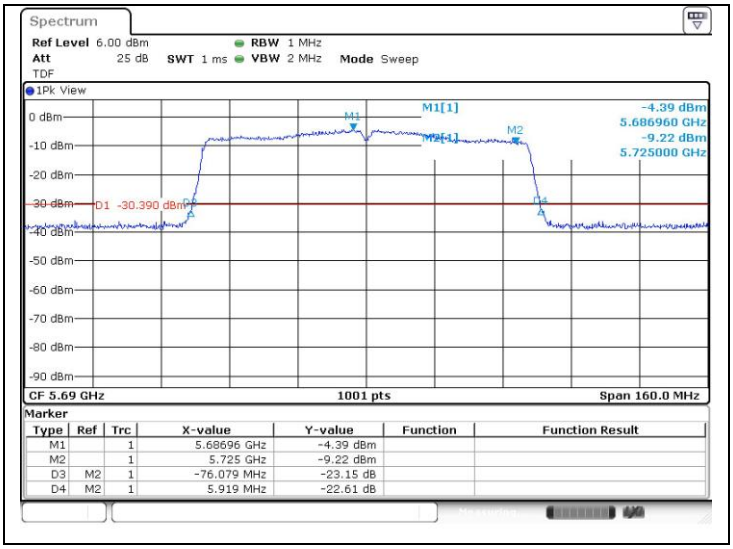
802.11ac_VHT40 (Band 2C)

High Channel
(5 710 ㎒)



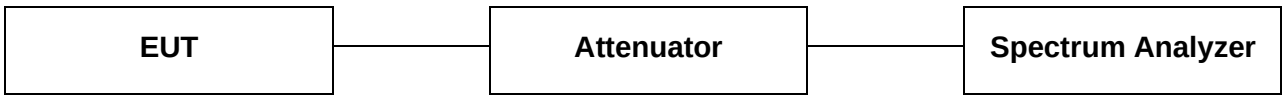
802.11ac_VHT80 (Band 2C)

High Channel
(5 690 ㎒)



4. 6 dB Bandwidth

4.1. Test Setup



4.2. Limit

4.2.1. FCC

According to §15.407(e), within the 5.725-5.85 ㎓ band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 ㎑.

4.2.2. IC

According to RSS-247 Issue 2, 6.2.4.1, the minimum 6 dB Bandwidth shall be at least 500 ㎑.

4.3. Test Procedure

1. This measurement settings are specified in section Ⅱ.C.2 of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = 100 ㎑.
3. Set the video bandwidth (VBW) ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. 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.

Remark;

In case of band crossing channels 138, 142 and 144, the measurement is complied with section Ⅲ.A of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

4.4. Test Result

Ambient temperature : (23 ± 1) ℃

Relative humidity : 47 % R.H.

- SISO_Ant.1

Band	Mode	Frequency (㎒)	Ch.	Data Rate (Mbps)	6 ㏈ Bandwidth (㎒)	Minimum Bandwidth (㎑)
U-NII 3	11a	5 745	149	6	16.344	500
		5 785	157		16.324	
		5 825	165		16.324	
	11ac_VHT20	5 745	149	MCS0	17.582	
		5 785	157		17.582	
		5 825	165		17.602	
	11ac_VHT40	5 755	151	MCS0	35.724	
		5 795	159		35.445	
	11ac_VHT80	5 775	155	MCS0	75.285	
U-NII 3 (Band-crossing channels)	11a	5 720	144	6	3.182	
	11ac_VHT20	5 720	144	MCS0	3.801	
	11ac_VHT40	5 710	142	MCS0	2.842	
	11ac_VHT80	5 690	138	MCS0	2.842	

- SISO_Ant.2

Band	Mode	Frequency (㎒)	Ch.	Data Rate (Mbps)	6 ㏈ Bandwidth (㎒)	Minimum Bandwidth (㎑)
U-NII 3	11a	5 745	149	6	16.344	500
		5 785	157		16.344	
		5 825	165		16.344	
	11ac_VHT20	5 745	149	MCS0	17.582	
		5 785	157		17.582	
		5 825	165		17.582	
	11ac_VHT40	5 755	151	MCS0	35.844	
		5 795	159		35.724	
	11ac_VHT80	5 775	155	MCS0	75.445	
U-NII 3 (Band-crossing channels)	11a	5 720	144	6	3.182	
	11ac_VHT20	5 720	144	MCS0	3.801	
	11ac_VHT40	5 710	142	MCS0	2.802	
	11ac_VHT80	5 690	138	MCS0	2.682	

- MIMO

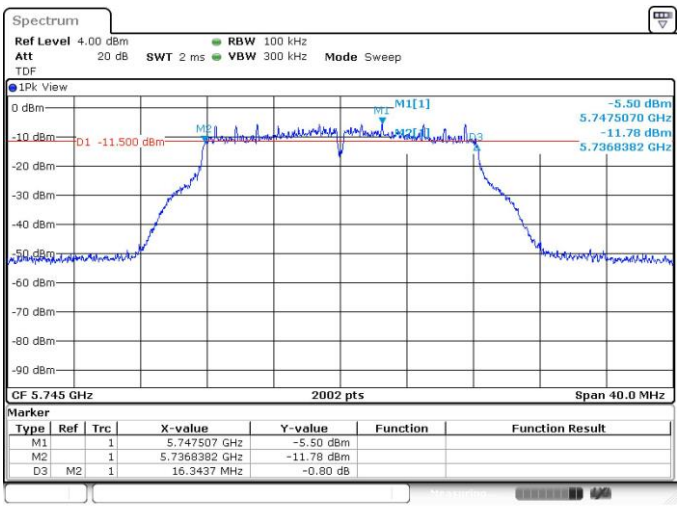
Band	Mode	Frequency (㎒)	Ch.	Data Rate (Mbps)	6 ㏈ Bandwidth (㎒)		Minimum Bandwidth (㎑)
					Ant. 1	Ant. 2	
U-NII 3	11ac_VHT20	5 745	149	MCS0	17.602	17.602	500
		5 785	157		17.582	17.602	
		5 825	165		17.602	17.602	
	11ac_VHT40	5 755	151	MCS0	35.604	35.564	
		5 795	159		35.804	35.325	
	11ac_VHT80	5 775	155	MCS0	75.525	75.764	
U-NII 3 (Band-crossing channels)	11ac_VHT20	5 720	144	MCS0	3.801	3.801	
	11ac_VHT40	5 710	142	MCS0	2.922	2.602	
	11ac_VHT80	5 690	138	MCS0	2.762	2.682	

- Test plots

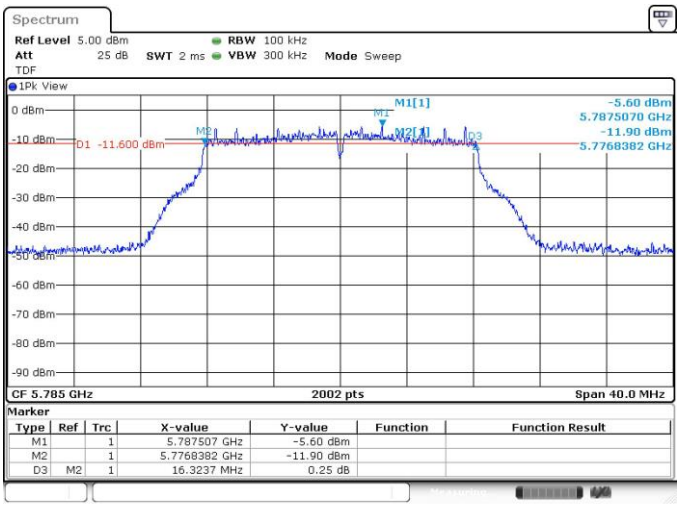
- SISO_Ant.1

802.11a (Band 3)

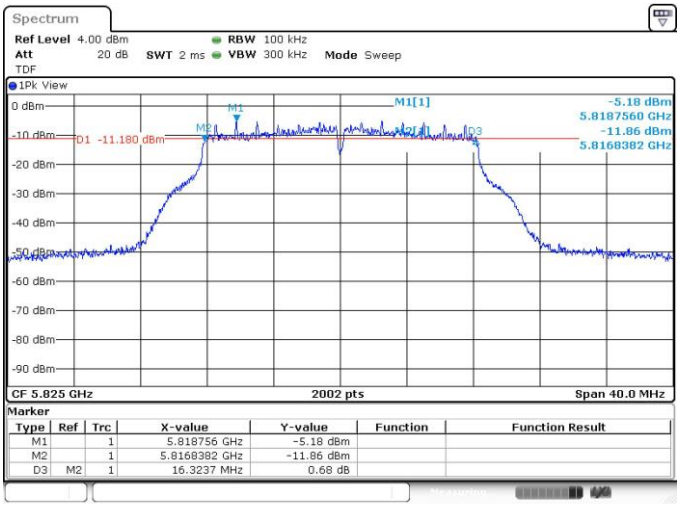
Low Channel
(5 745 ㎒)



Middle Channel
(5 785 ㎒)

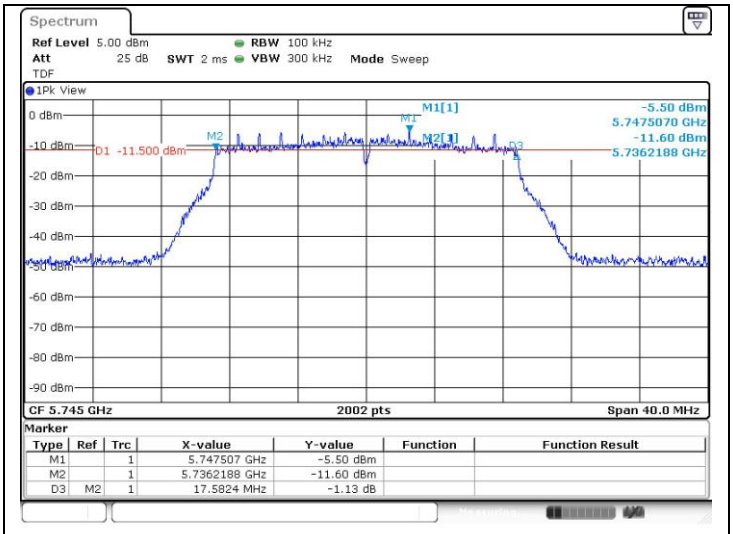


High Channel
(5 825 ㎒)

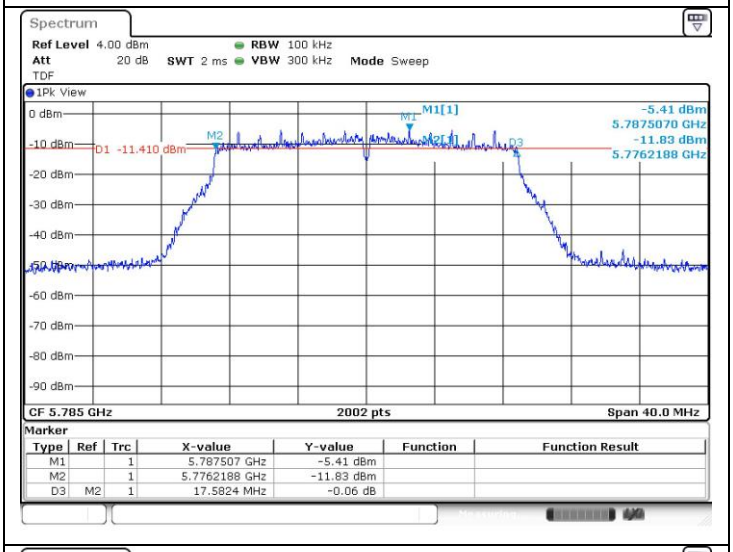


802.11ac_VHT20 (Band 3)

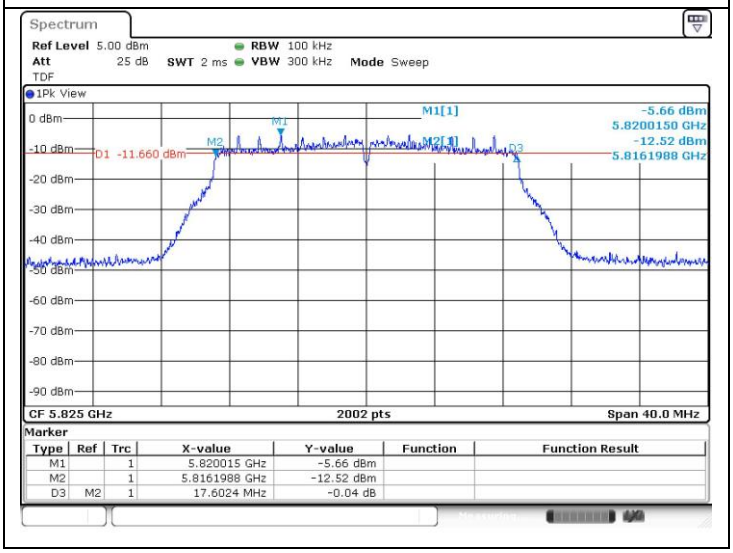
Low Channel
(5 745 ㎒)



Middle Channel
(5 785 ㎒)

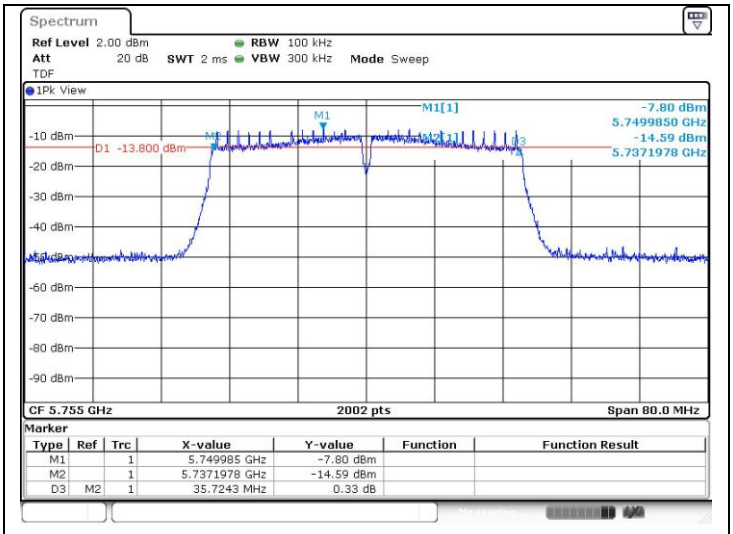


High Channel
(5 825 ㎒)

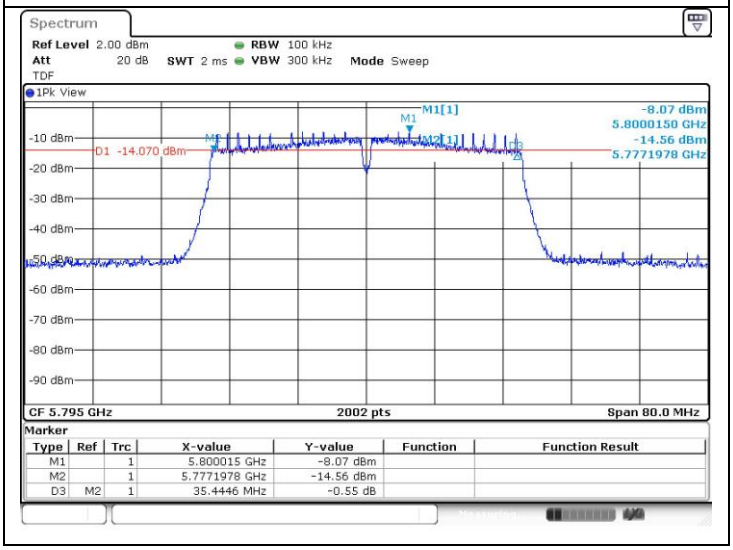


802.11ac_VHT40 (Band 3)

Low Channel
(5 755 ㎒)

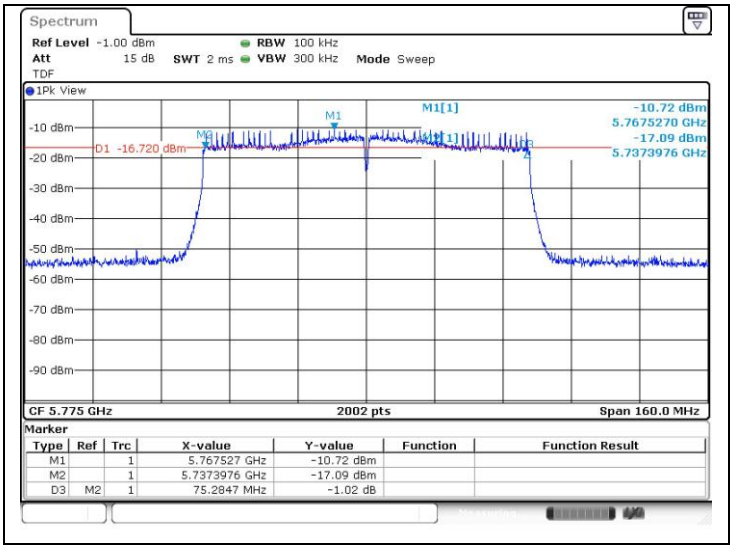


High Channel
(5 795 ㎒)



802.11ac_VHT80 (Band 3)

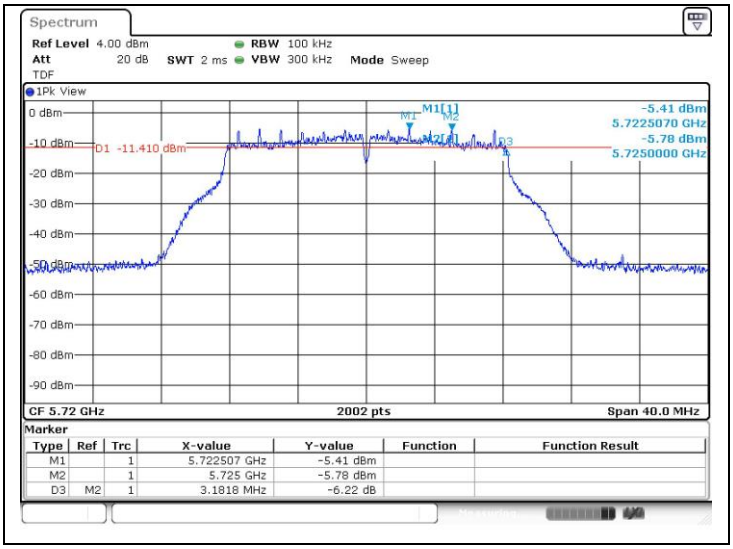
Middle Channel
(5 775 ㎒)



Band-crossing channels

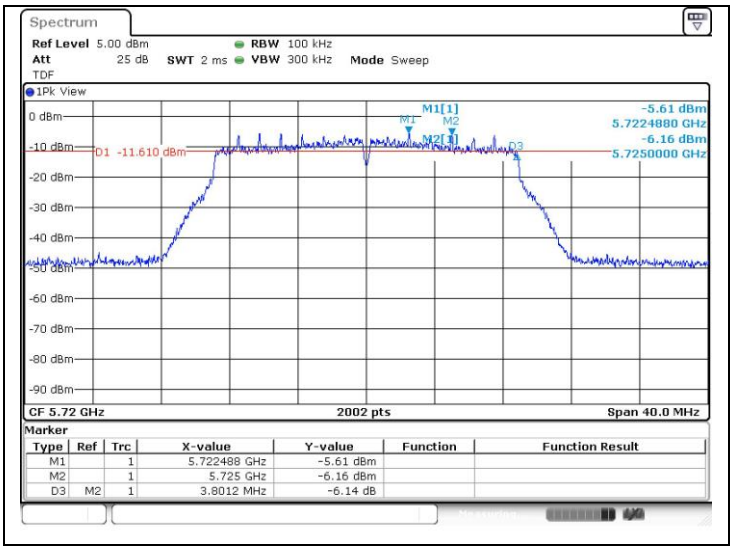
802.11a (Band 3)

High Channel
(5 720 ㎒)



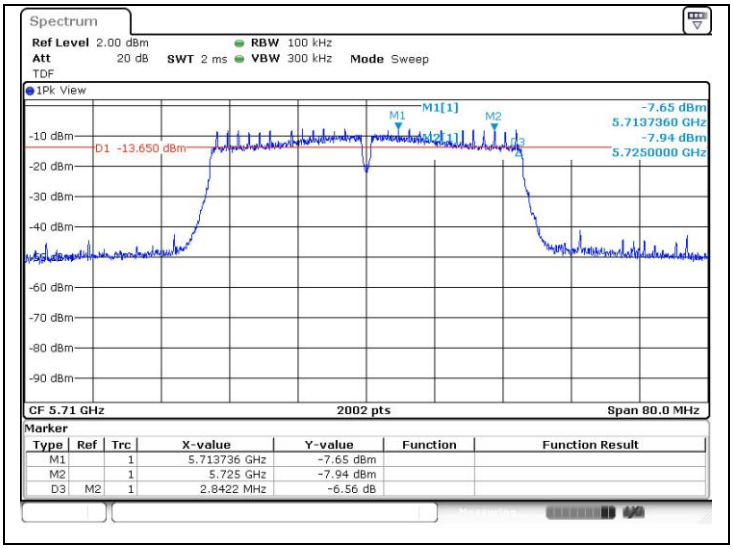
802.11ac_VHT20 (Band 3)

High Channel
(5 720 ㎒)



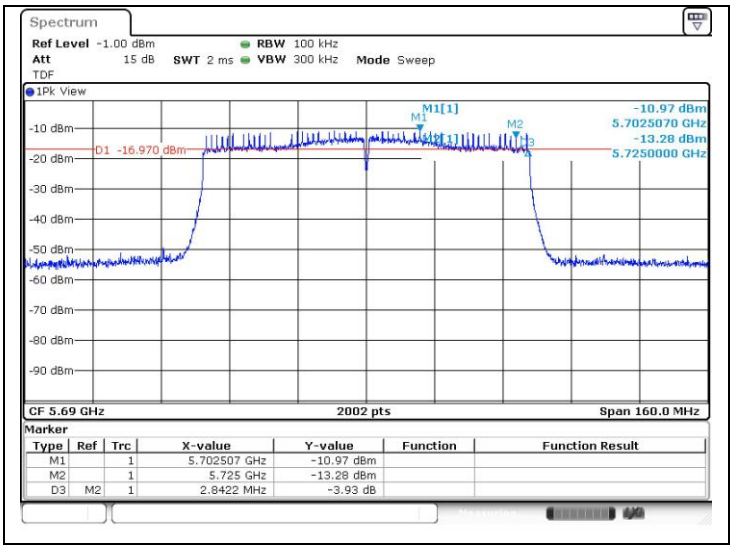
802.11ac_VHT40 (Band 3)

High Channel
(5 710 ㎒)



802.11ac_VHT80 (Band 3)

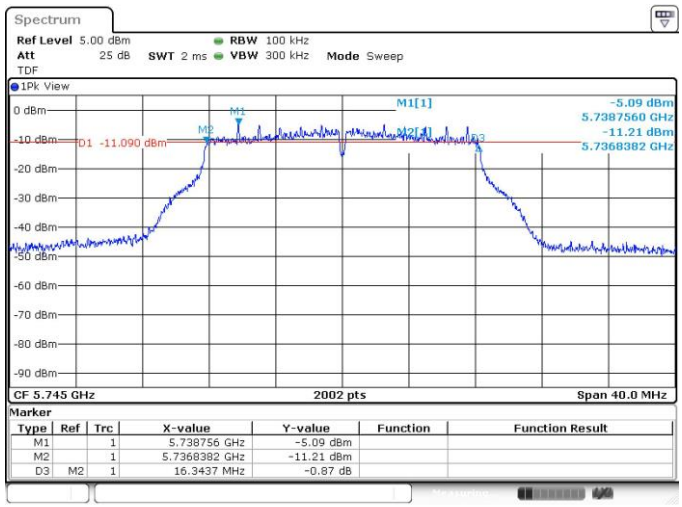
Middle Channel
(5 690 ㎒)



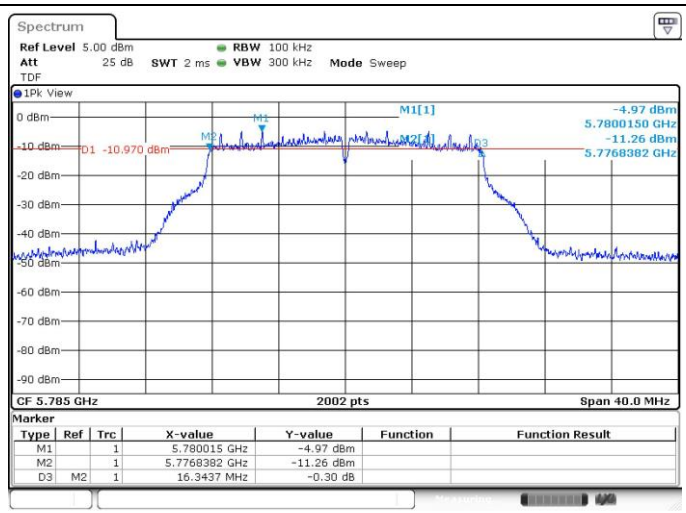
- SISO_Ant.2

802.11a (Band 3)

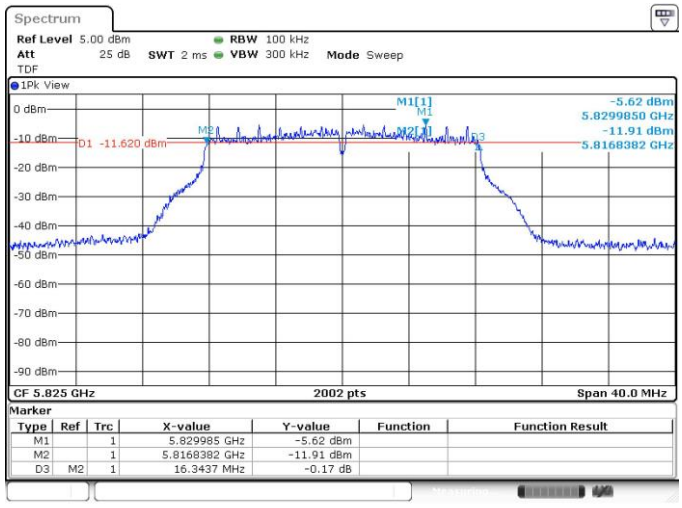
Low Channel
(5 745 ㎒)



Middle Channel
(5 785 ㎒)

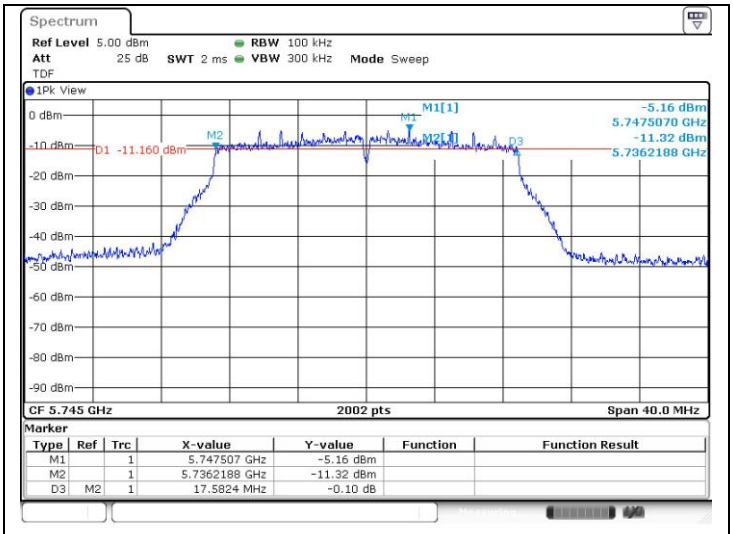


High Channel
(5 825 ㎒)

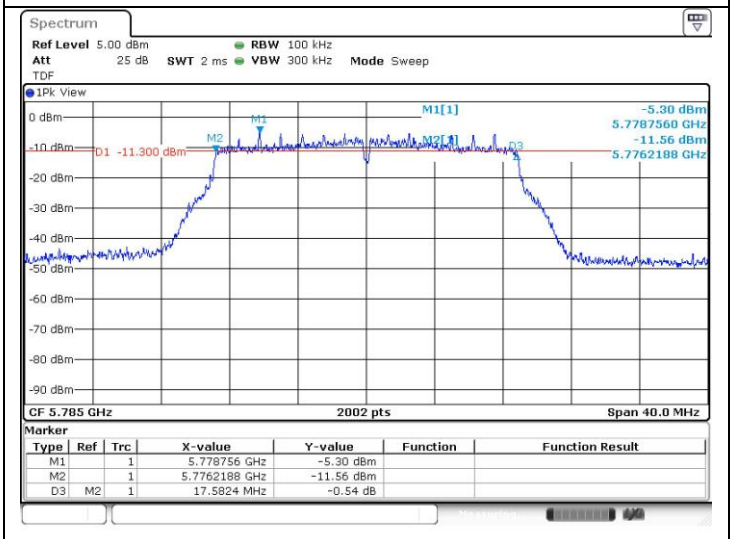


802.11ac_VHT20 (Band 3)

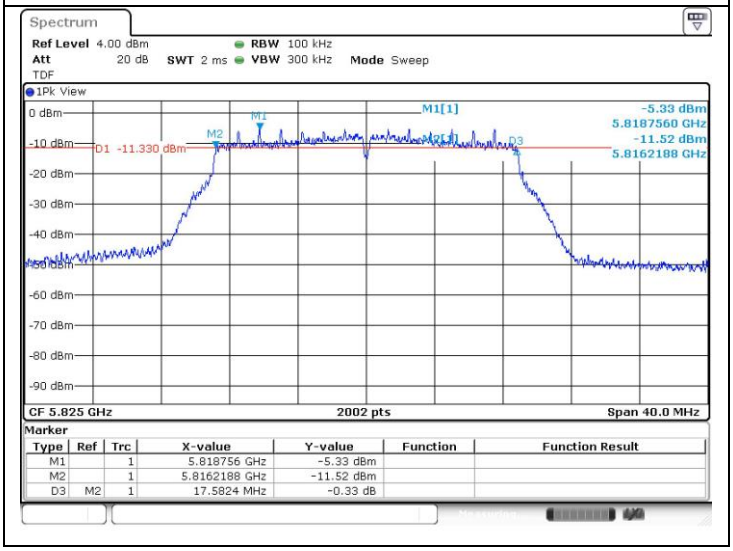
Low Channel
(5 745 ㎒)



Middle Channel
(5 785 ㎒)

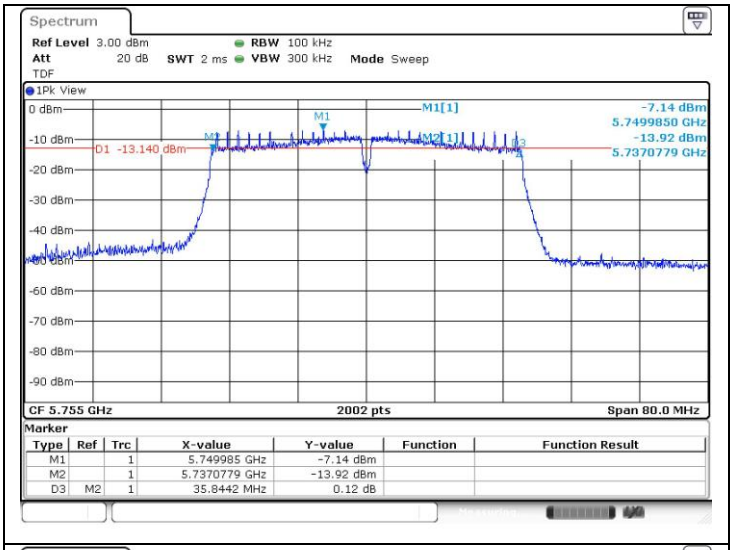


High Channel
(5 825 ㎒)

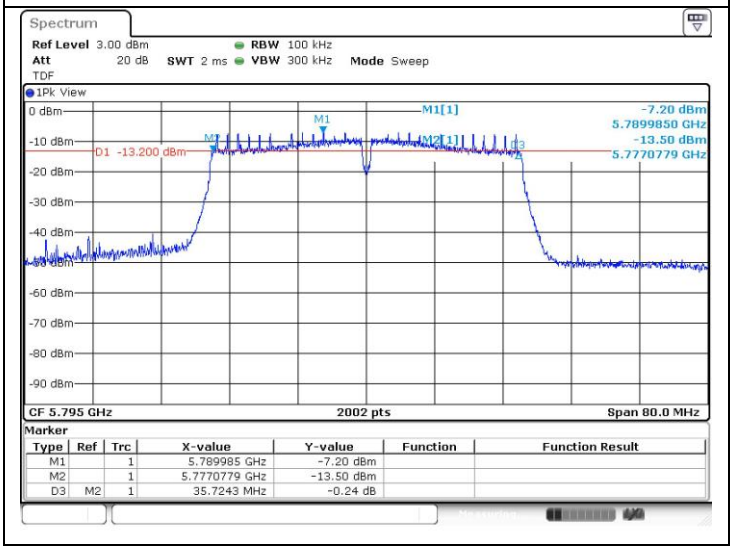


802.11ac_VHT40 (Band 3)

Low Channel
(5 755 ㎒)

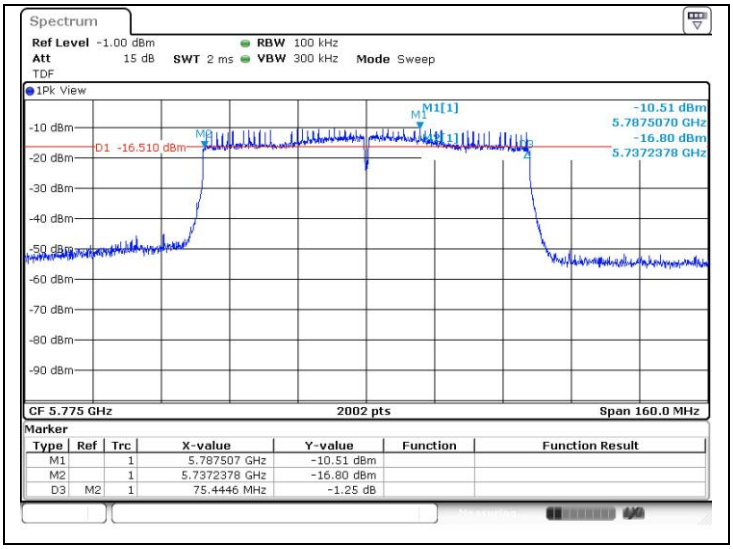


High Channel
(5 795 ㎒)



802.11ac_VHT80 (Band 3)

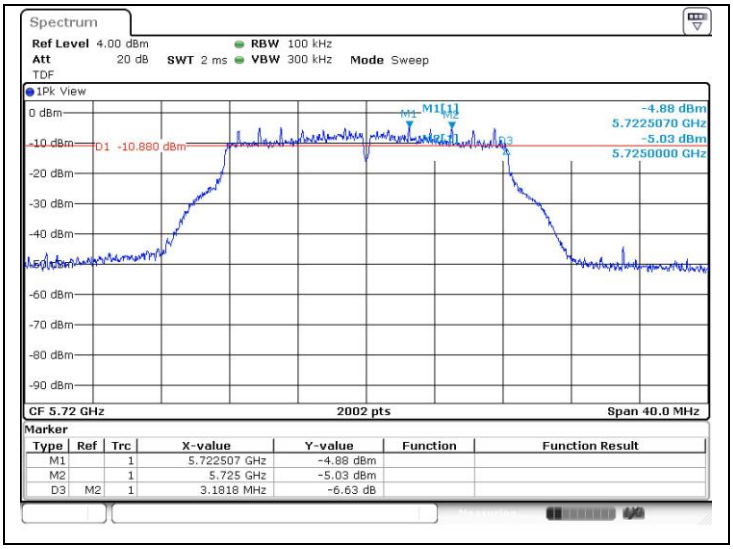
Middle Channel
(5 775 ㎒)



Band-crossing channels

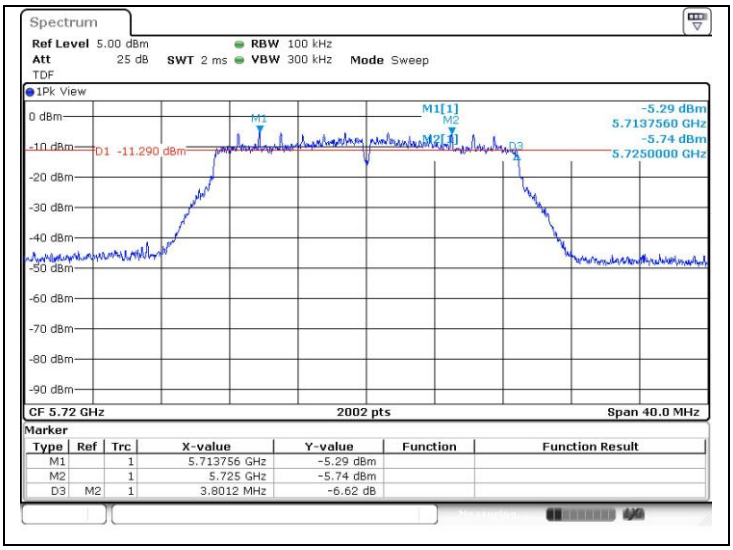
802.11a (Band 3)

High Channel
(5 720 ㎒)



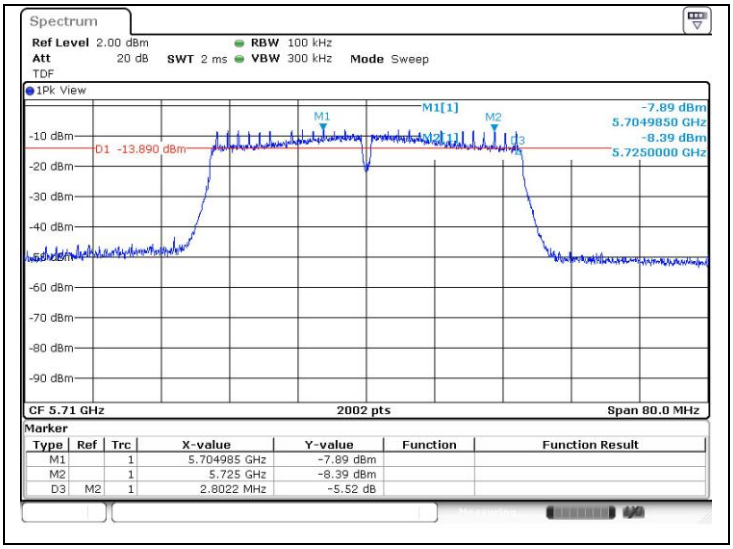
802.11ac_VHT20 (Band 3)

High Channel
(5 720 ㎒)



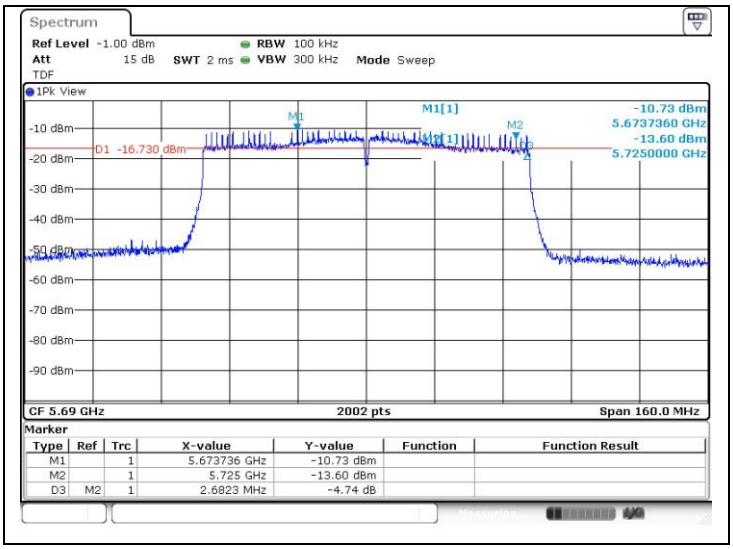
802.11ac_VHT40 (Band 3)

High Channel
(5 710 ㎒)



802.11ac_VHT80 (Band 3)

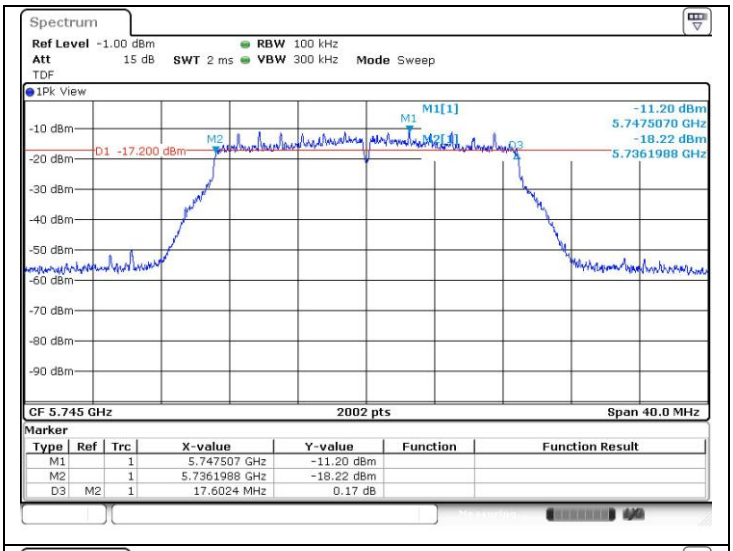
Middle Channel
(5 690 ㎒)



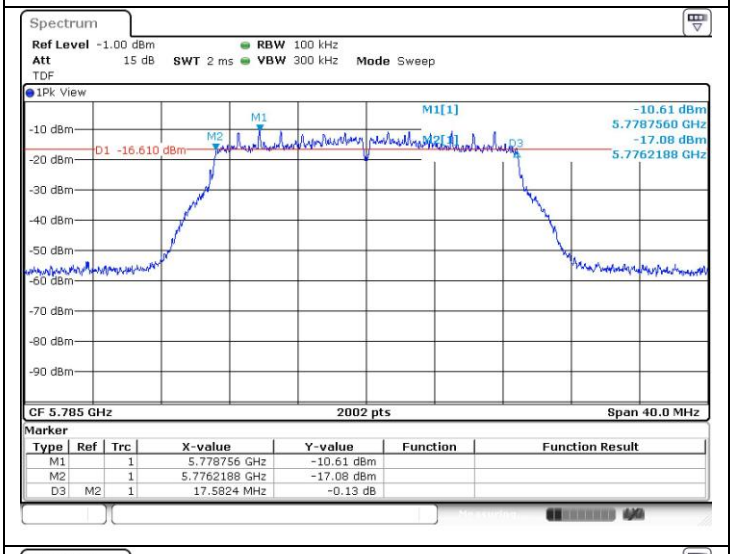
- MIMO_Ant.1

802.11ac_VHT20 (Band 3)

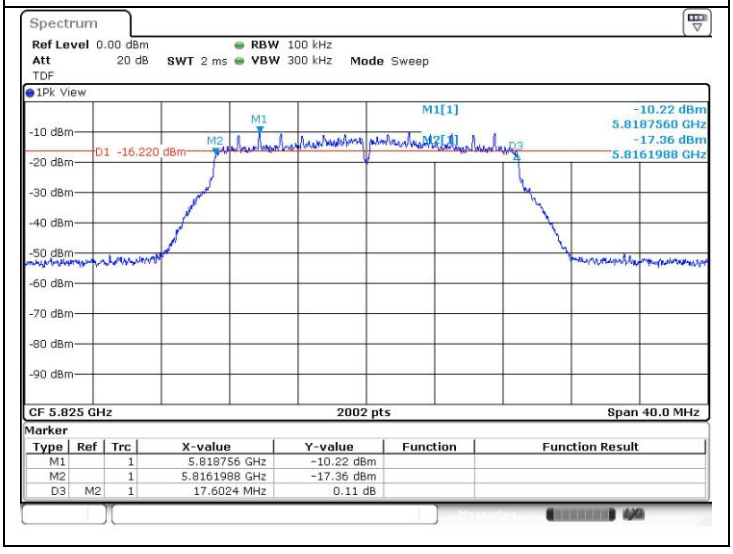
Low Channel
(5 745 ㎒)



Middle Channel
(5 785 ㎒)

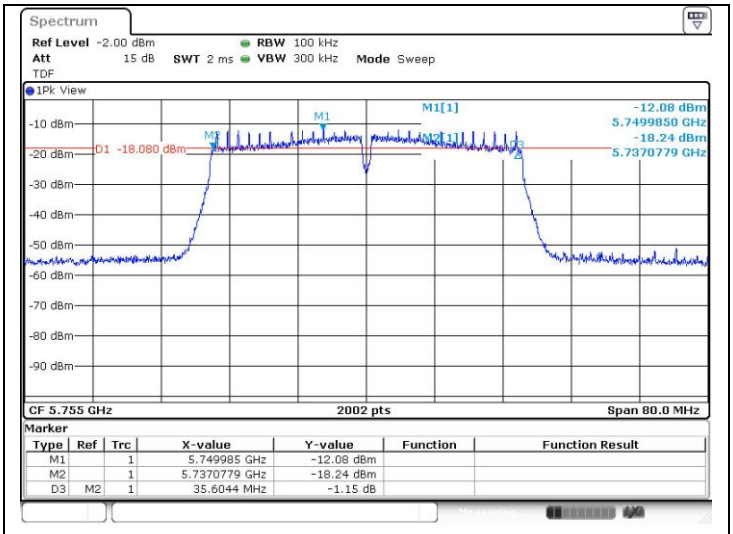


High Channel
(5 825 ㎒)

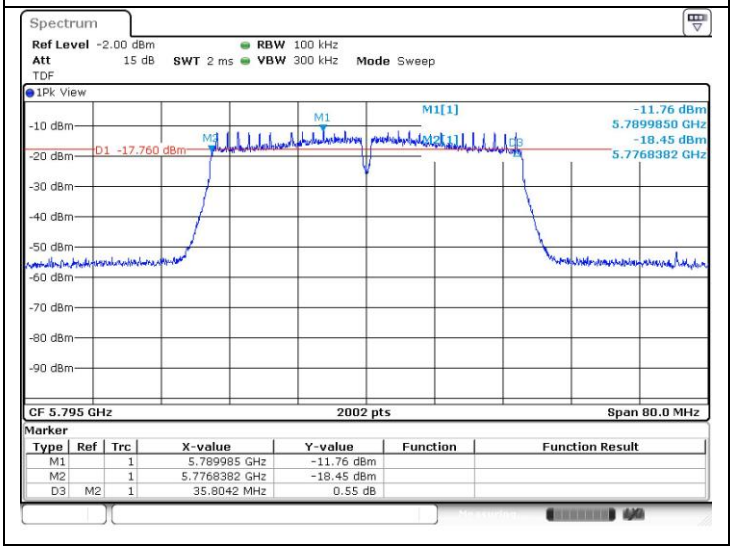


802.11ac_VHT40 (Band 3)

Low Channel
(5 755 ㎒)

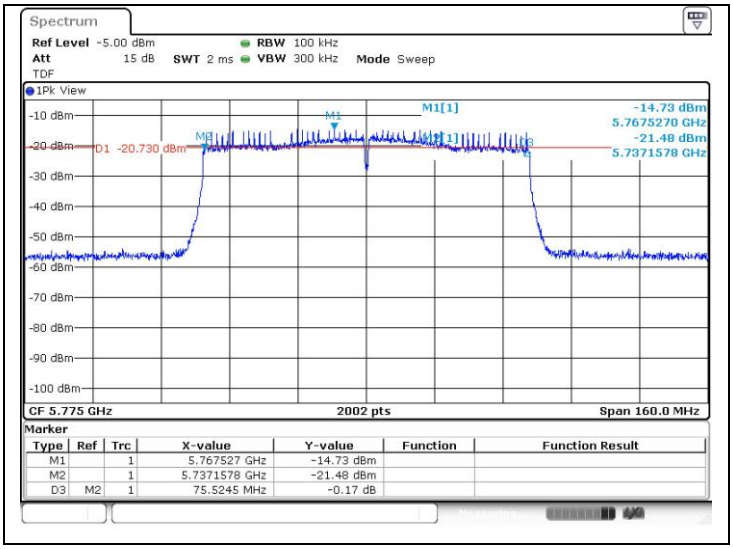


High Channel
(5 795 ㎒)



802.11ac_VHT80 (Band 3)

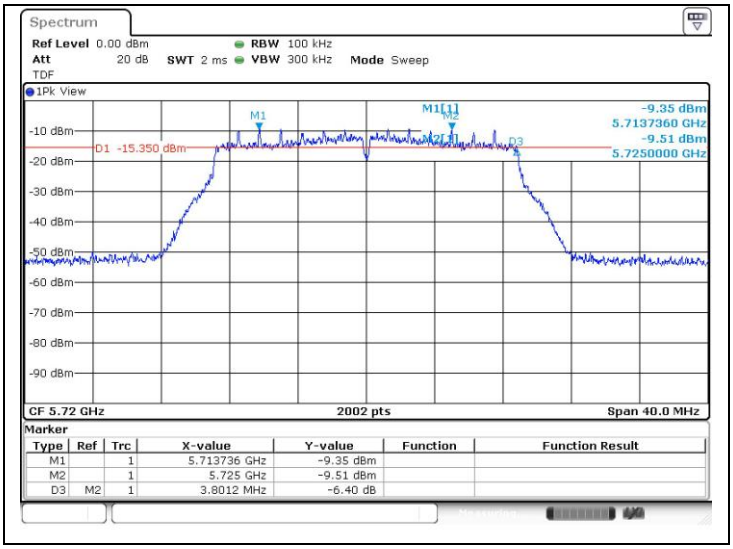
Middle Channel
(5 775 ㎒)



Band-crossing channels

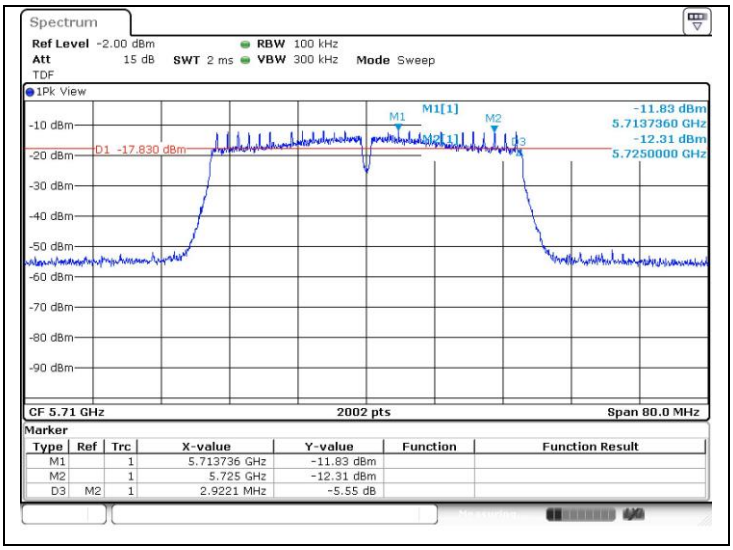
802.11ac_VHT20 (Band 3)

High Channel
(5 720 ㎒)



802.11ac_VHT40 (Band 3)

High Channel
(5 710 ㎒)



802.11ac_VHT80 (Band 3)

High Channel
(5 690 ㎒)