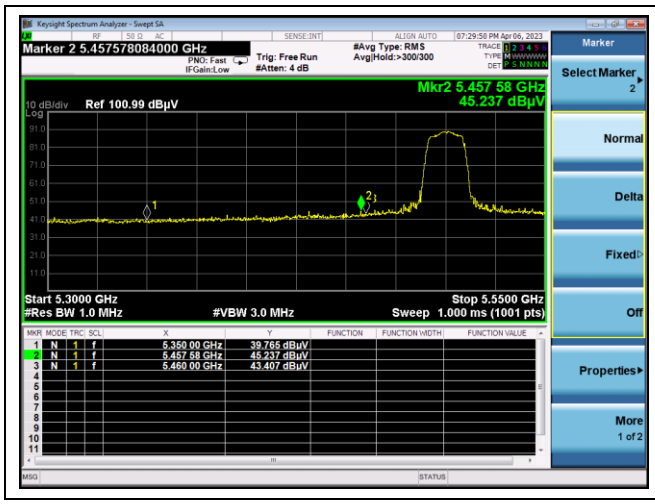
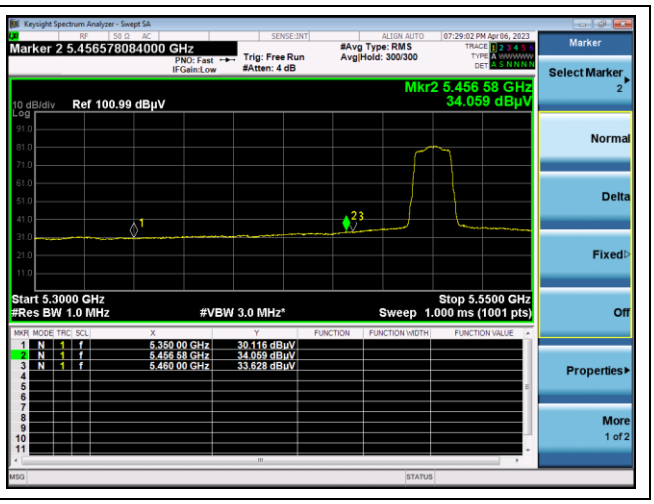
Low channel Band edge (Peak) - Band 2C

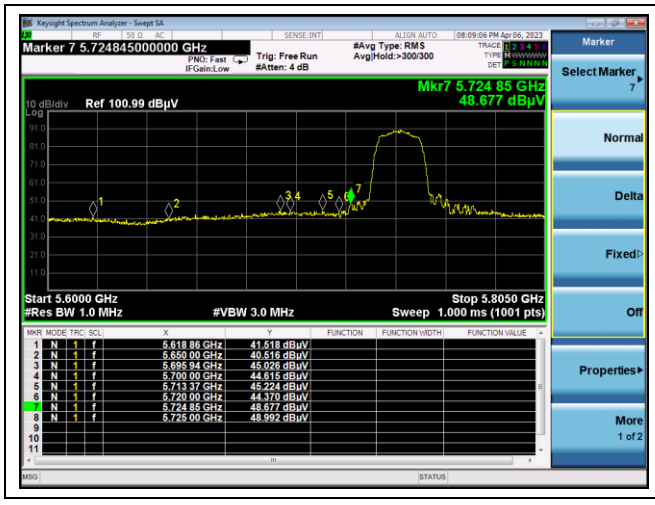


Low channel Band edge (Average) - Band 2C

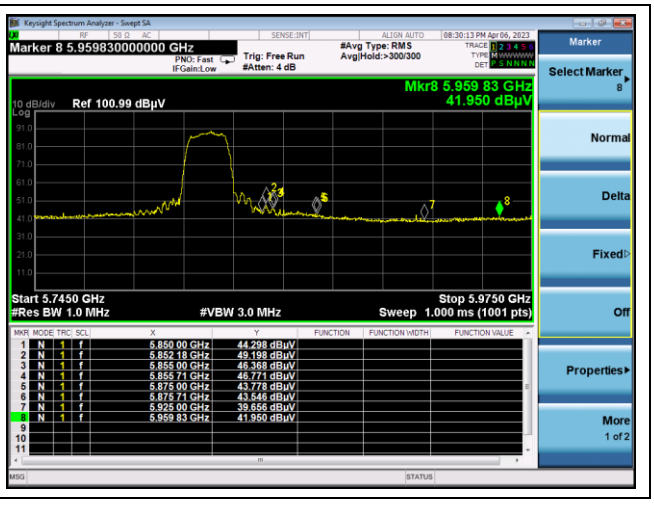


High channel Band edge (Peak) - Band 2C

Low channel Band edge (Peak) - Band 3

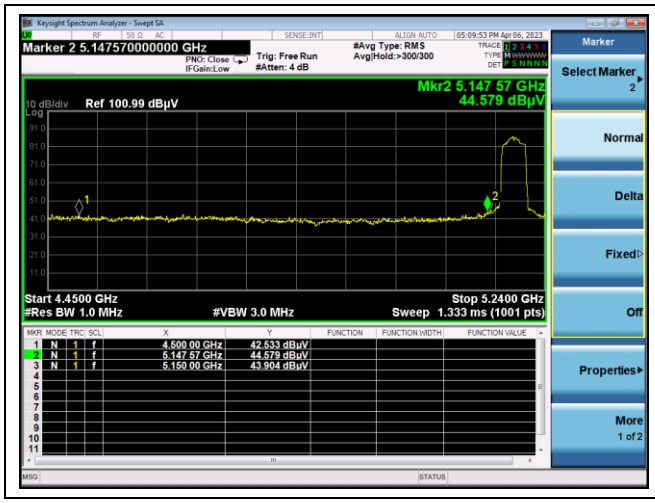


High channel Band edge (Peak) - Band 3

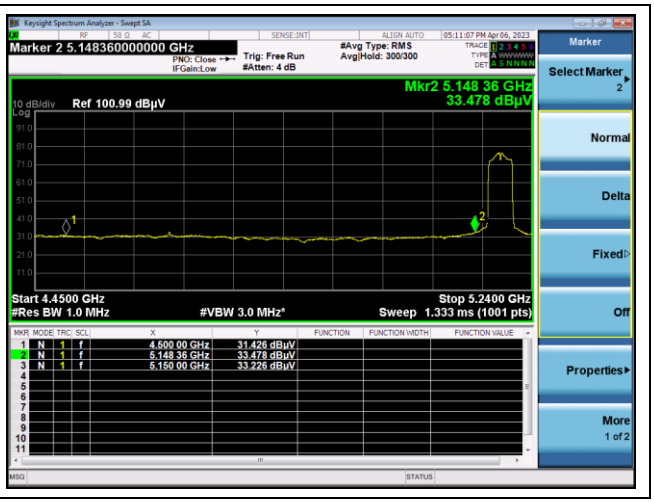


11ac_VHT40

Low channel Band edge (Peak) - Band 1



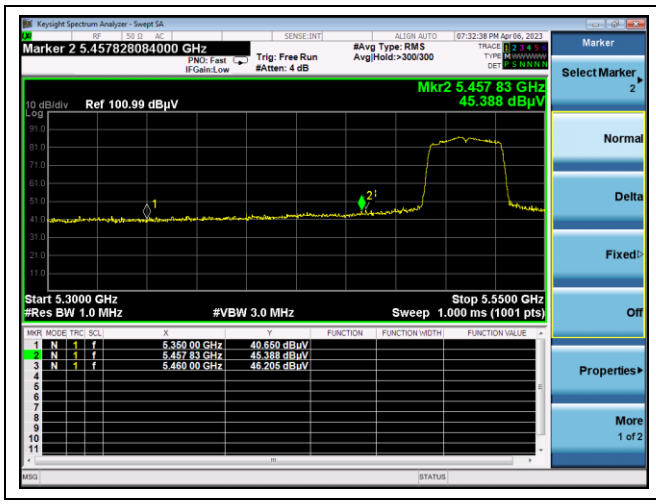
Low channel Band edge (Average) - Band 1



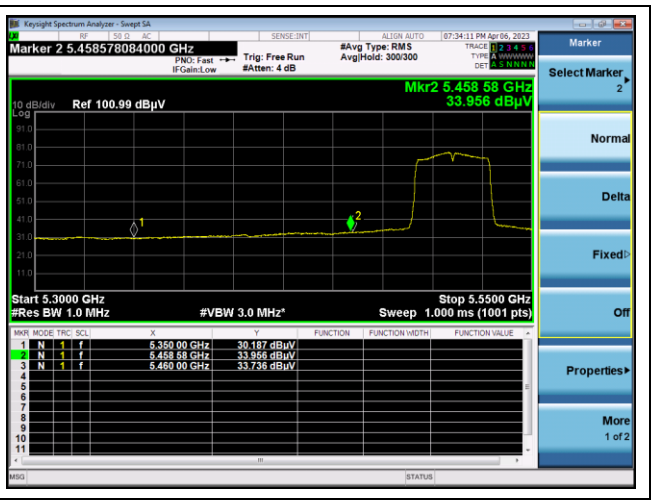
High channel Band edge (Peak) - Band 2A

High channel Band edge (Average) - Band 2A

Low channel Band edge (Peak) - Band 2C



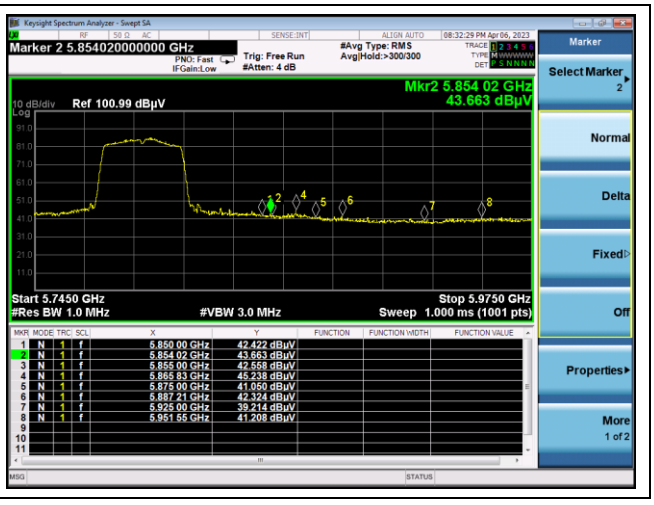
Low channel Band edge (Average) - Band 2C



High channel Band edge (Peak) - Band 2C

Low channel Band edge (Peak) - Band 3

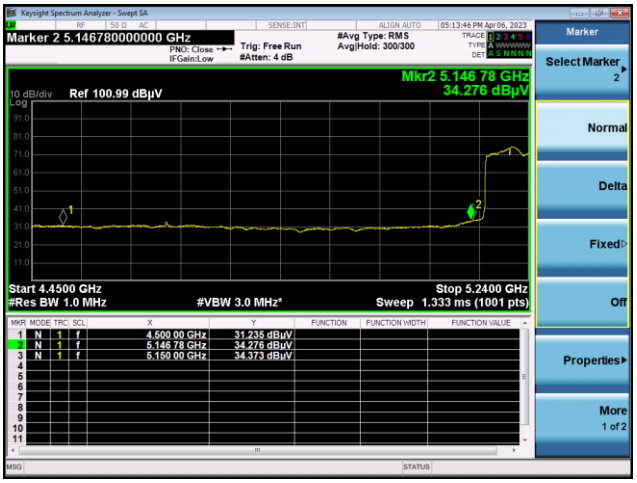
High channel Band edge (Peak) - Band 3



11ac_VHT80

Middle channel Band edge (Peak) - Band 1

Middle channel Band edge (Average) - Band 1

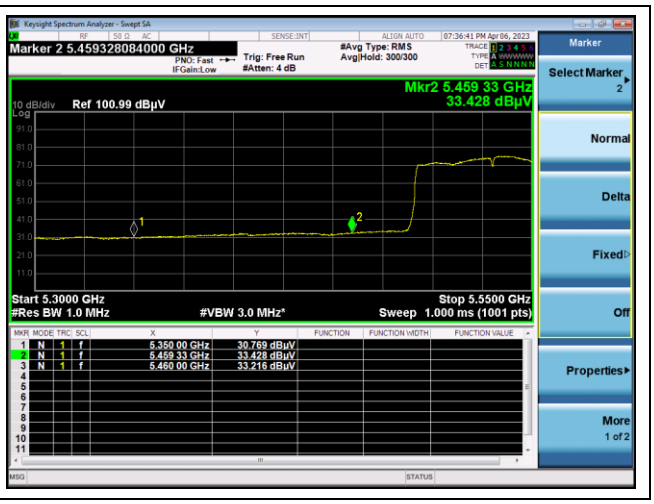


Middle channel Band edge (Peak) - Band 2A

Middle channel Band edge (Average) - Band 2A

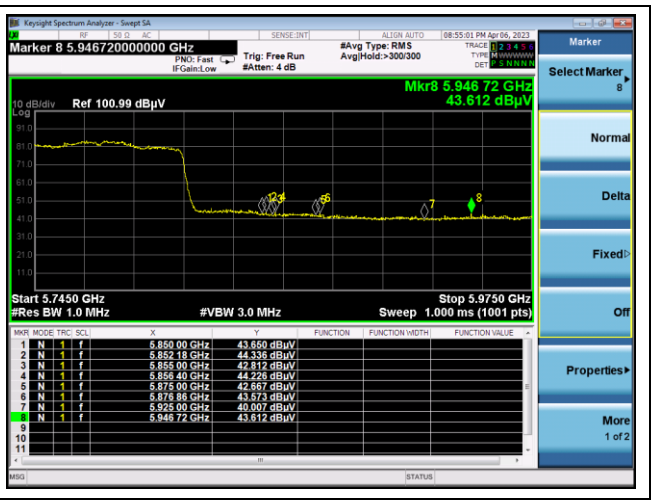
Low channel Band edge (Peak) - Band 2C

Low channel Band edge (Average) - Band 2C



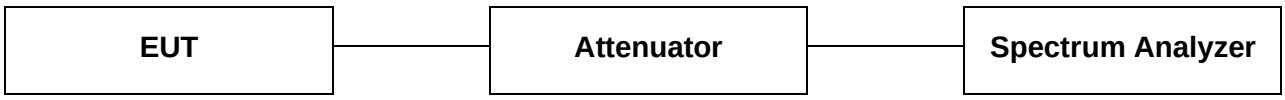
Middle channel Band edge (Peak) - Band 3

Middle channel Band edge (Peak) - Band 3



3. 26 ㏈ Bandwidth & 99 % Bandwidth

3.1. Test Setup



3.2. Limit

None; for reporting purpose only.

3.3. Test Procedure

3.3.1. 26 ㏈ Bandwidth

1. This measurement settings are specified in section Ⅱ.C.1 of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = approximately 1 % of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 ㏈ down from the peak 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 %.

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.

3.3.2. 99 % Bandwidth

1. This measurement settings are specified in section Ⅱ.D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set center frequency to the nominal EUT channel center frequency.
3. Set span = 1.5 times to 5.0 times the OBW.
4. Set RBW = 1 % to 5 % of the OBW.
5. Set VBW ≥ 3 x RBW.
6. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
7. Use the 99 % power bandwidth function of the instrument (if available).
8. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99 % occupied bandwidth is the difference between these two frequencies.

In the result,
- DFS requirements are not applicable in the 5 150 ㎒ ~ 5 250 ㎒.

3.4. Test Result

Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

Test mode: 11a

Band	Frequency (㎒)	Ch.	Data Rate (Mbps)	26 ㏈ Bandwidth (㎒)	99 % Bandwidth (㎒)
U-NII 1	5 180	36	6	21.099	
	5 220	44		20.979	
	5 240	48		20.899	17.063
U-NII 2A	5 260	52		20.979	
	5 300	60		21.099	
	5 320	64		21.099	
U-NII 2C	5 500	100		21.019	
	5 580	116		20.979	
	5 700	140		21.139	
U-NII 3	5 745	149		21.099	
	5 785	157		21.139	
	5 825	165		21.099	

Test mode: 11ac_VHT20

Band	Frequency (㎒)	Ch.	Data Rate (Mbps)	26 ㏈ Bandwidth (㎒)	99 % Bandwidth (㎒)
U-NII 1	5 180	36	MCS0	21.499	
	5 220	44		21.459	
	5 240	48		21.339	18.142
U-NII 2A	5 260	52		21.459	
	5 300	60		21.379	
	5 320	64		21.578	
U-NII 2C	5 500	100		21.459	
	5 580	116		21.459	
	5 700	140		21.618	
U-NII 3	5 745	149		21.459	
	5 785	157		21.419	
	5 825	165		21.499	

Test mode: 11ac_VHT40

Band	Frequency (㎒)	Ch.	Data Rate (Mbps)	26 ㏈ Bandwidth (㎒)	99 % Bandwidth (㎒)
U-NII 1	5 190	38	MCS0	40.080	
	5 230	46		40.160	36.284
U-NII 2A	5 270	54		40.120	
	5 310	62		40.080	
U-NII 2C	5 510	102		40.120	
	5 550	110		40.160	
	5 670	134		39.920	
U-NII 3	5 755	151		40.280	
	5 795	159		40.160	

Test mode: 11ac_VHT80

Band	Frequency (㎒)	Ch.	Data Rate (Mbps)	26 ㏈ Bandwidth (㎒)	99 % Bandwidth (㎒)
U-NII 1	5 210	42	MCS0	81.758	75.764
U-NII 2A	5 290	58		81.838	
U-NII 2C	5 530	106		81.678	
U-NII 3	5 775	155		81.838	

Band-crossing channel

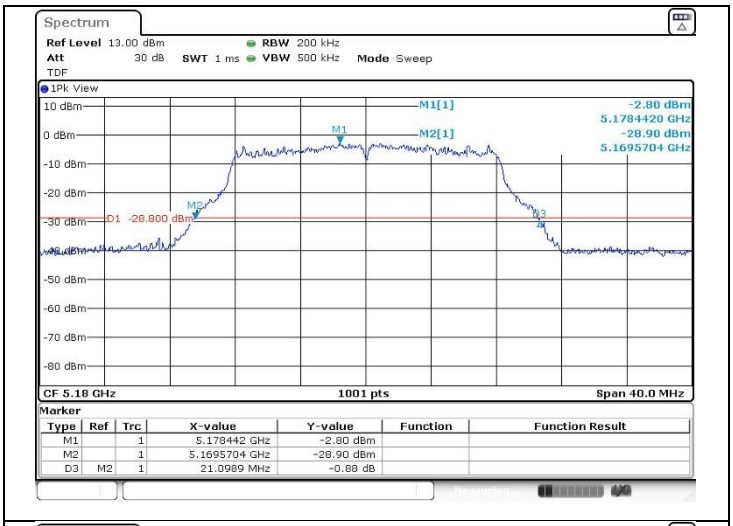
Band	Frequency (㎒)	Ch.	Data Rate (Mbps)	26 ㏈ Bandwidth (㎒)
11a	5 720	144	6	15.629
11ac_VHT20	5 720	144	MCS0	15.629
11ac_VHT40	5 710	142	MCS0	34.980
11ac_VHT80	5 690	138	MCS0	75.919

- Test plots

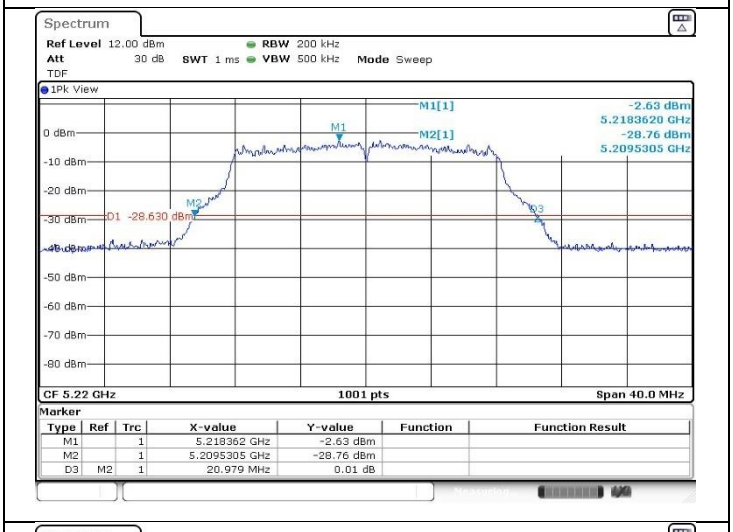
26 dB Bandwidth

11a (Band 1)

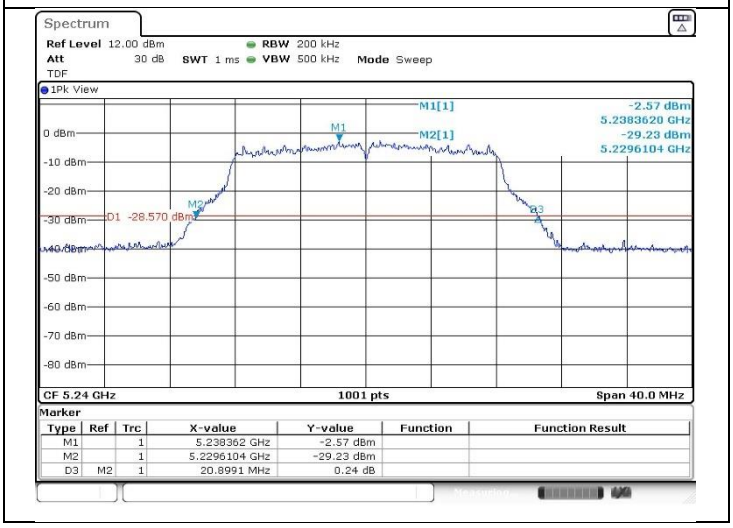
Low Channel
(5 180 ㎒)



Middle Channel
(5 220 ㎒)

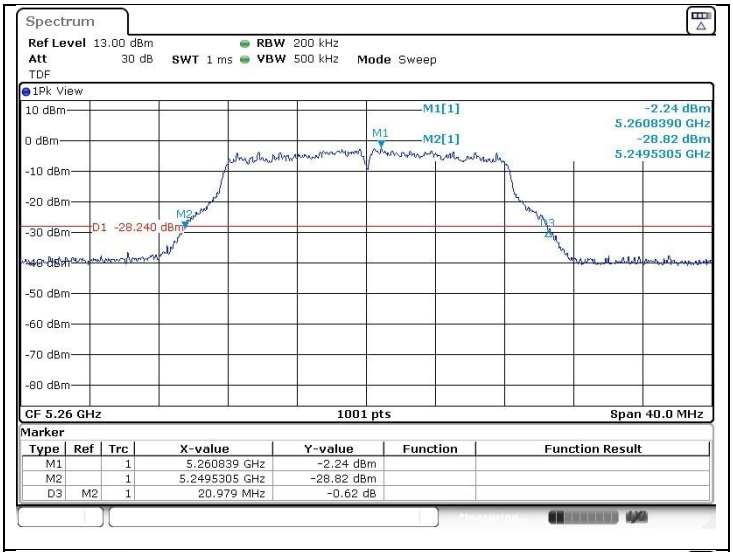


High Channel
(5 240 ㎒)

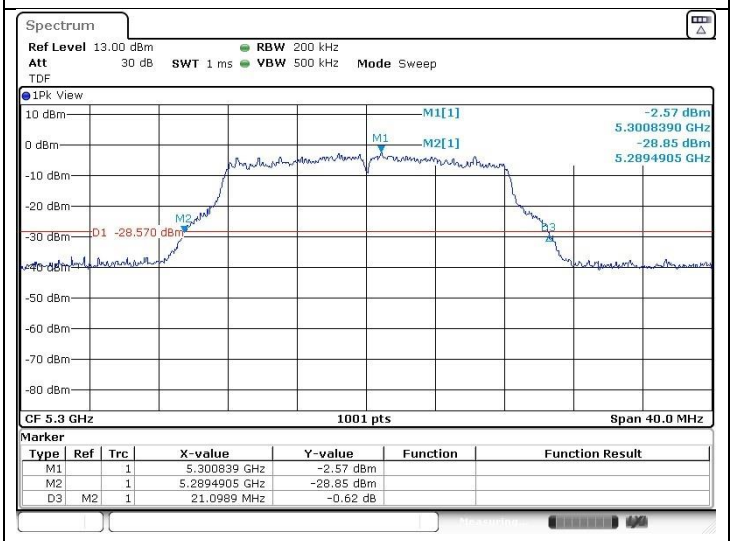


11a (Band 2A)

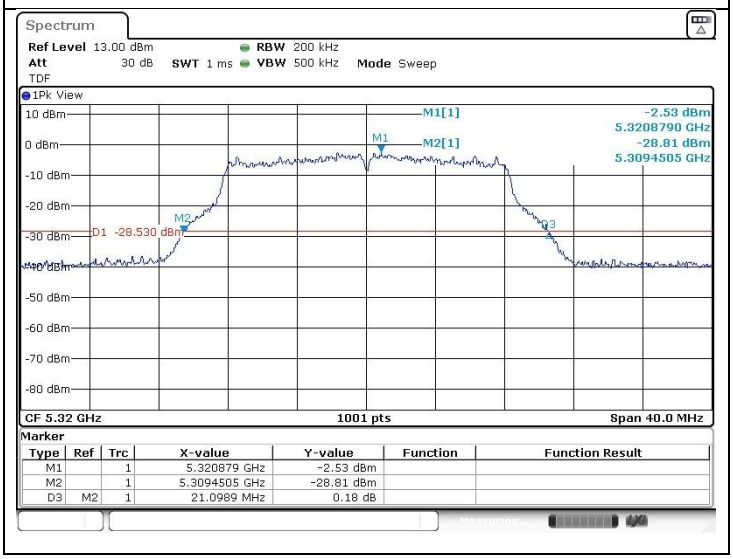
Low Channel
(5 260 ㎒)



Middle Channel
(5 300 ㎒)

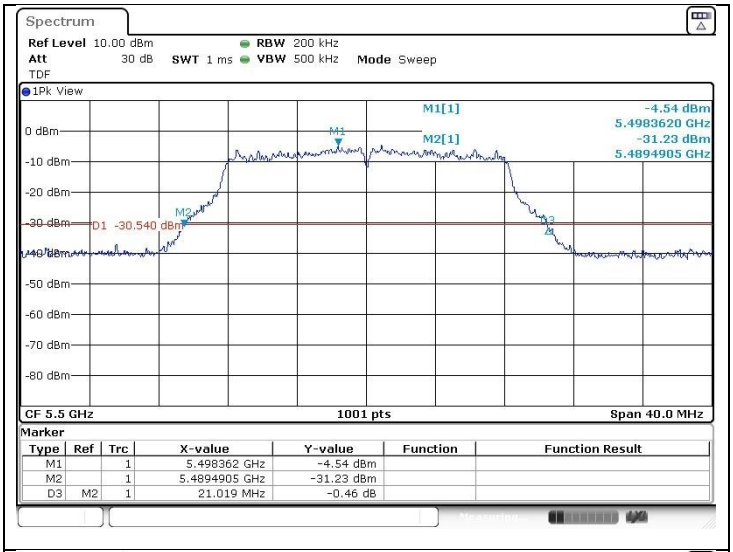


High Channel
(5 320 ㎒)

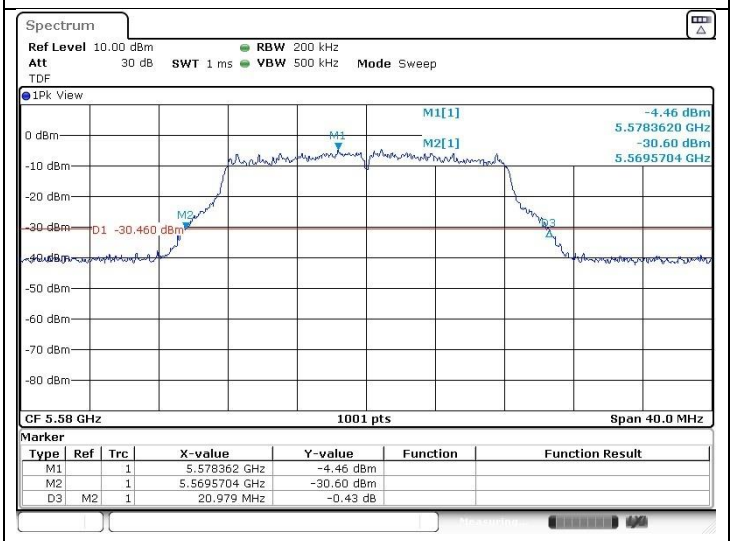


11a (Band 2C)

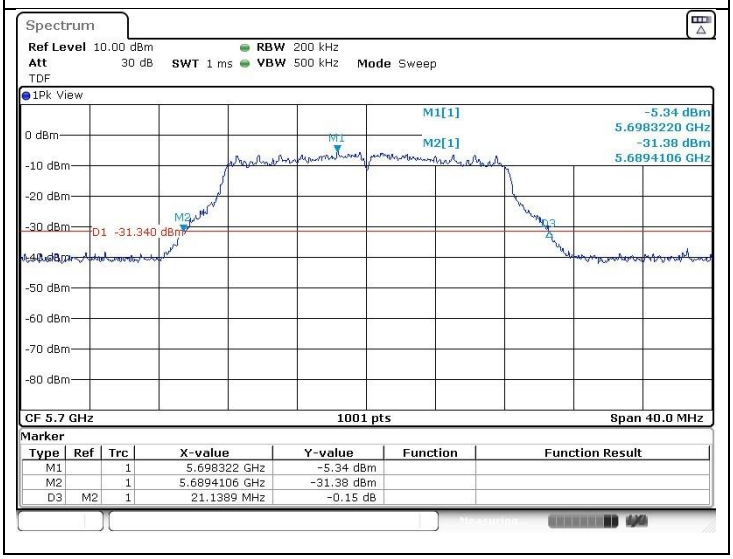
Low Channel
(5 500 ㎒)



Middle Channel
(5 580 ㎒)

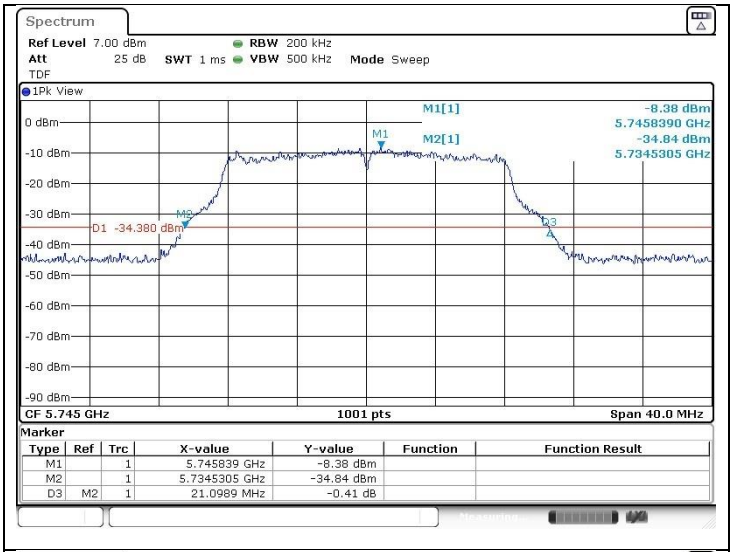


High Channel
(5 700 ㎒)

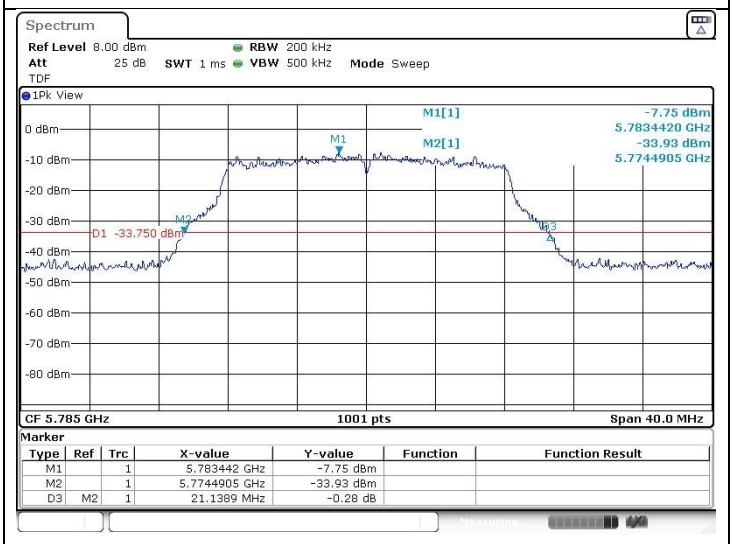


11a (Band 3)

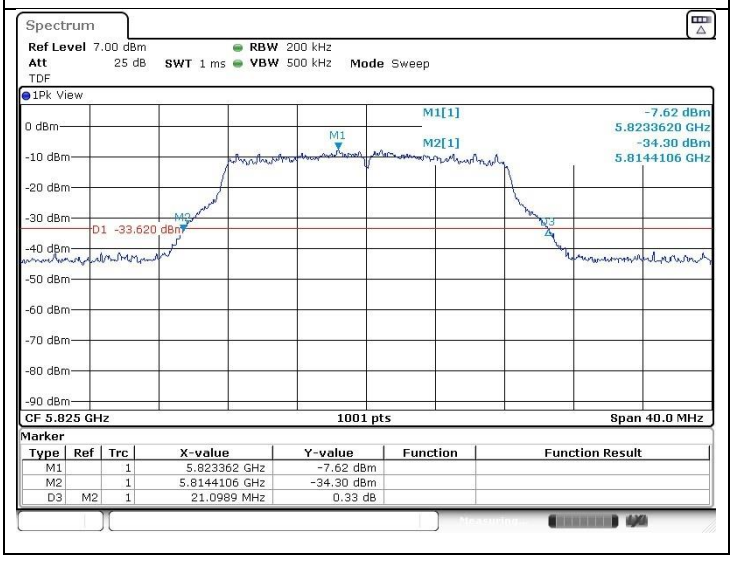
Low Channel
(5 745 ㎒)



Middle Channel
(5 785 ㎒)

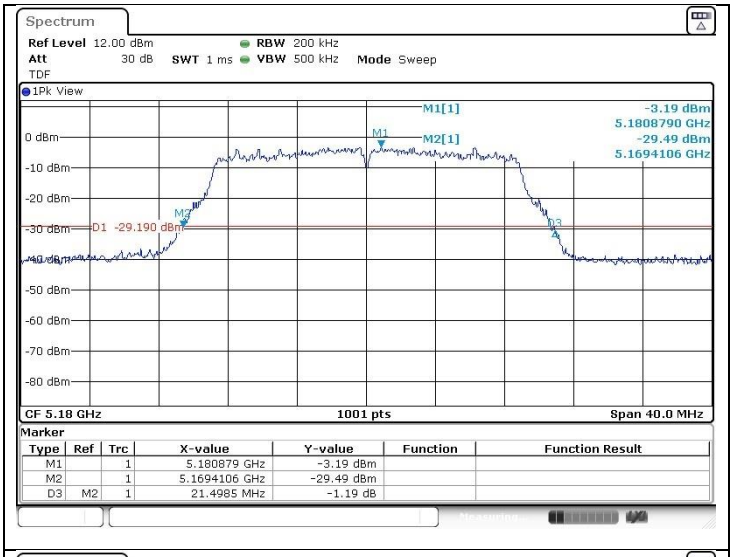


High Channel
(5 825 ㎒)

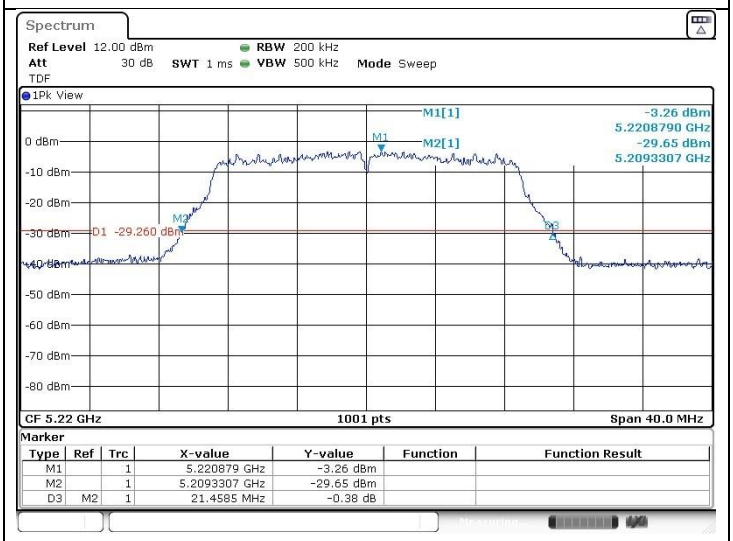


11ac_VHT20 (Band 1)

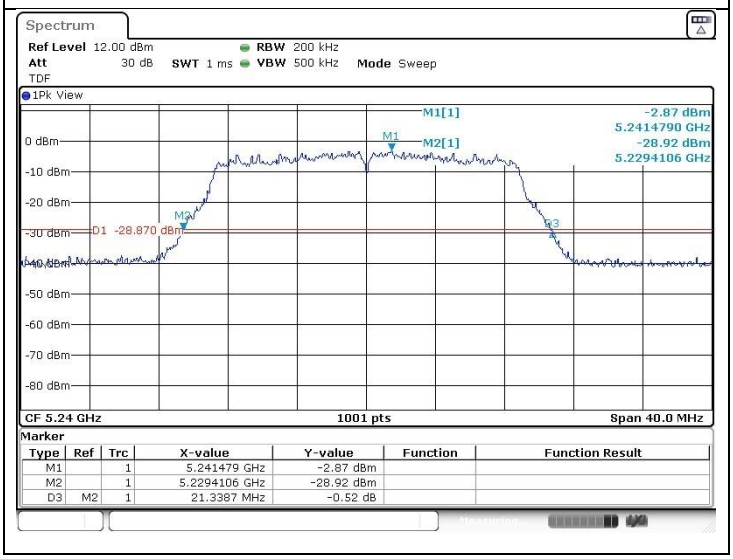
Low Channel
(5 180 ㎒)



Middle Channel
(5 220 ㎒)

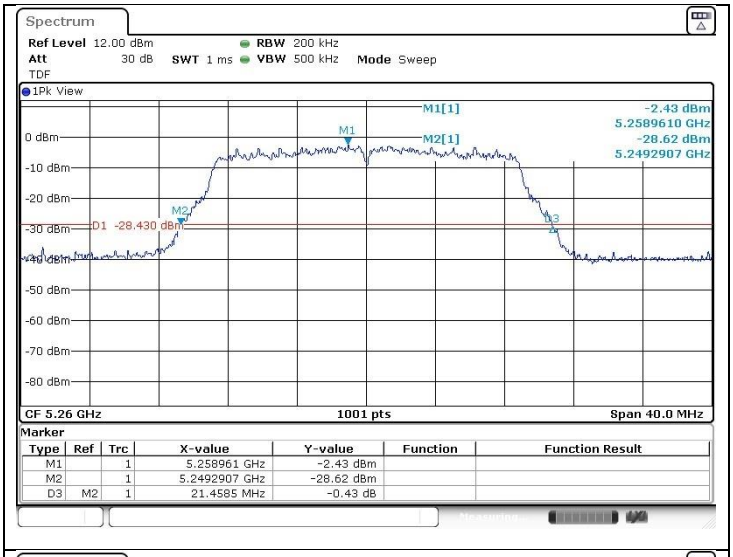


High Channel
(5 240 ㎒)

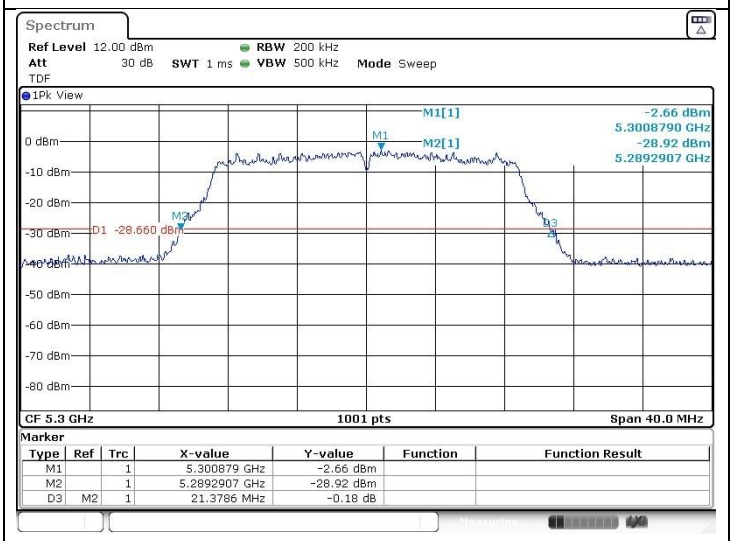


11ac_VHT20 (Band 2A)

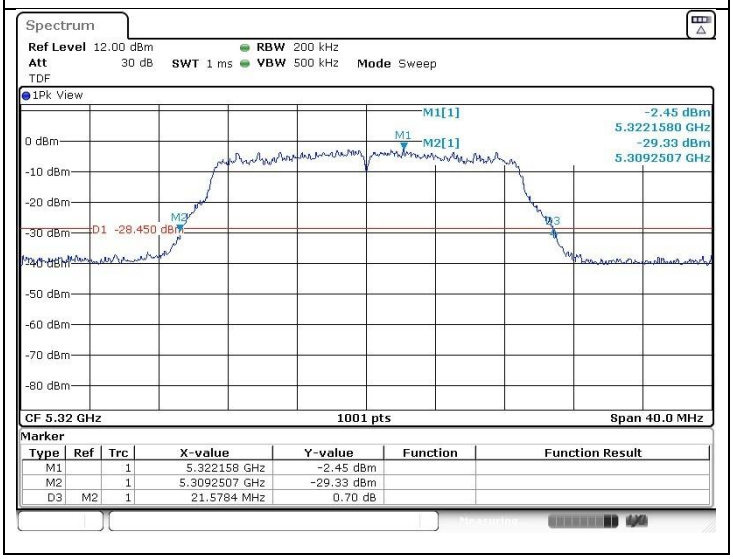
Low Channel
(5 260 ㎒)



Middle Channel
(5 300 ㎒)

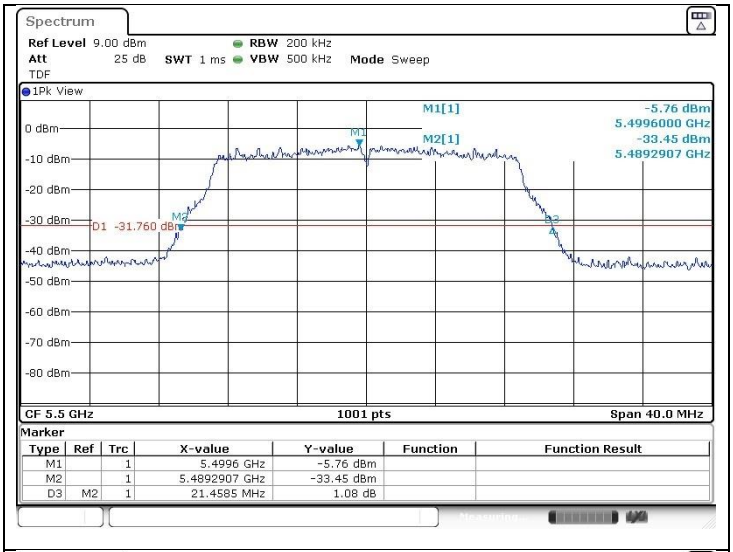


High Channel
(5 320 ㎒)

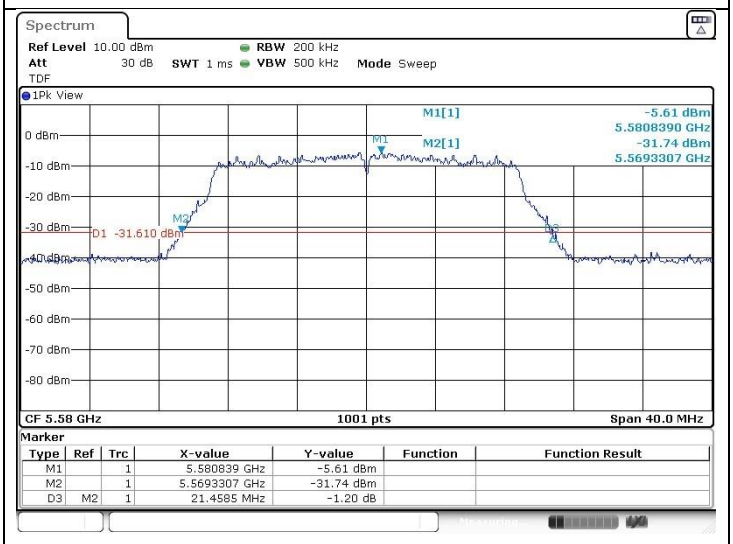


11ac_VHT20 (Band 2C)

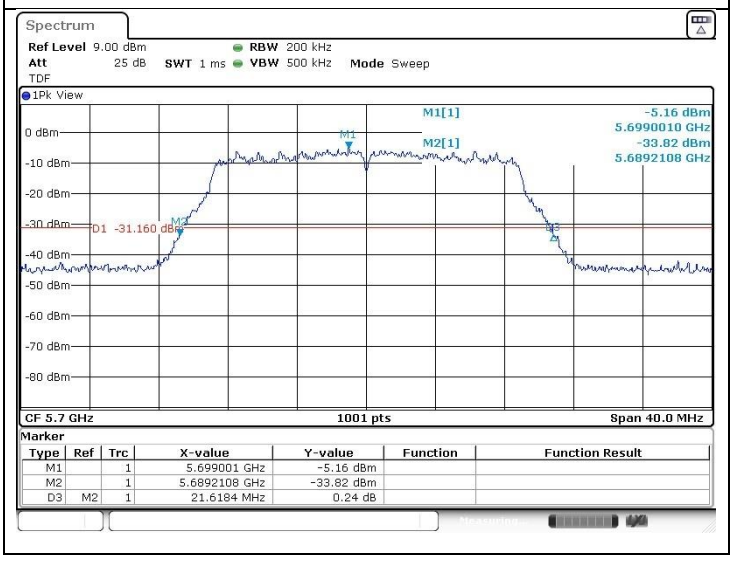
Low Channel
(5 500 ㎒)



Middle Channel
(5 580 ㎒)

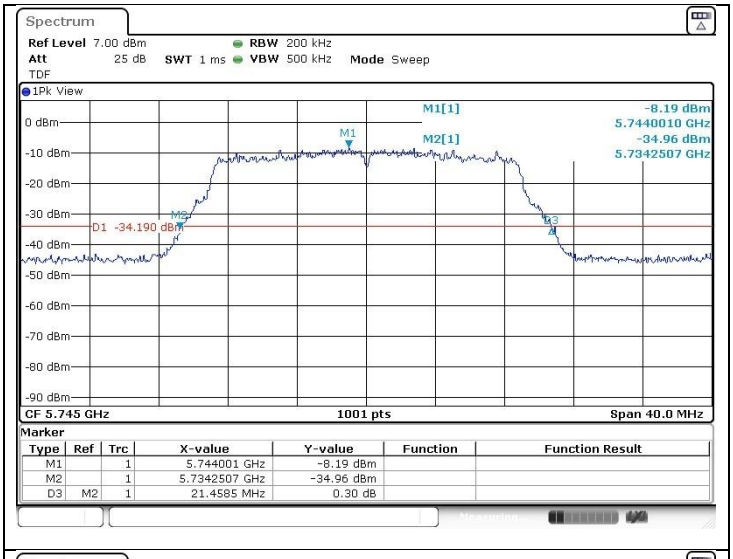


High Channel
(5 700 ㎒)

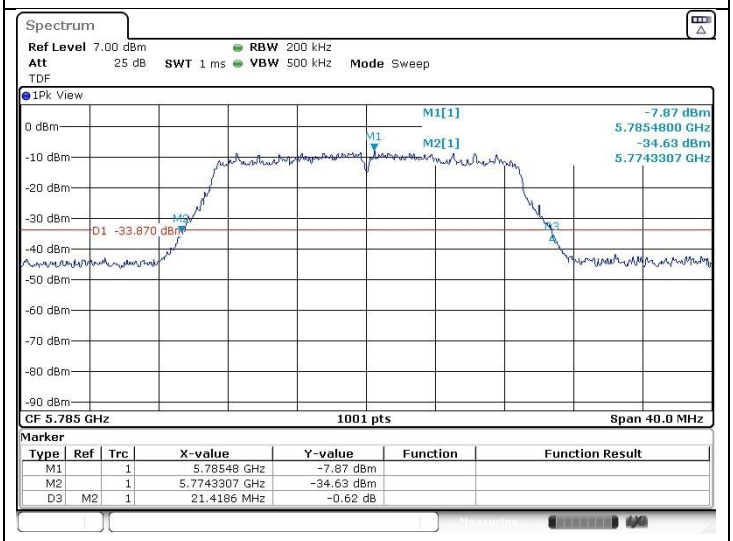


11ac_VHT20 (Band 3)

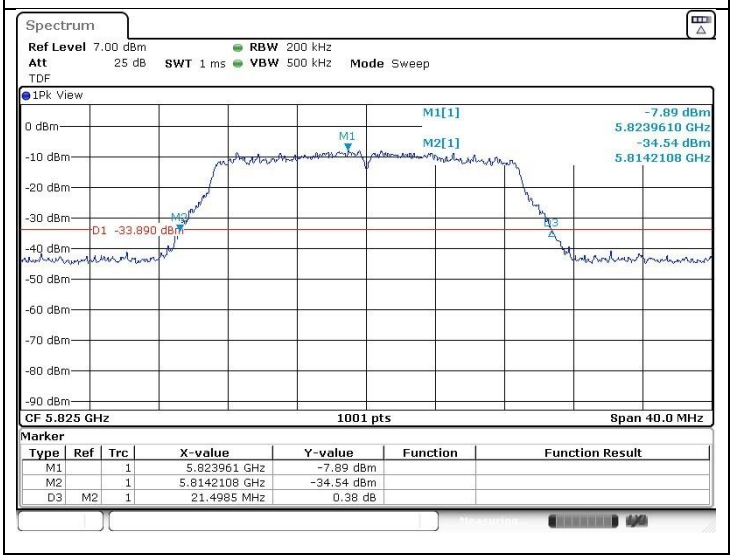
Low Channel
(5 745 ㎒)



Middle Channel
(5 785 ㎒)

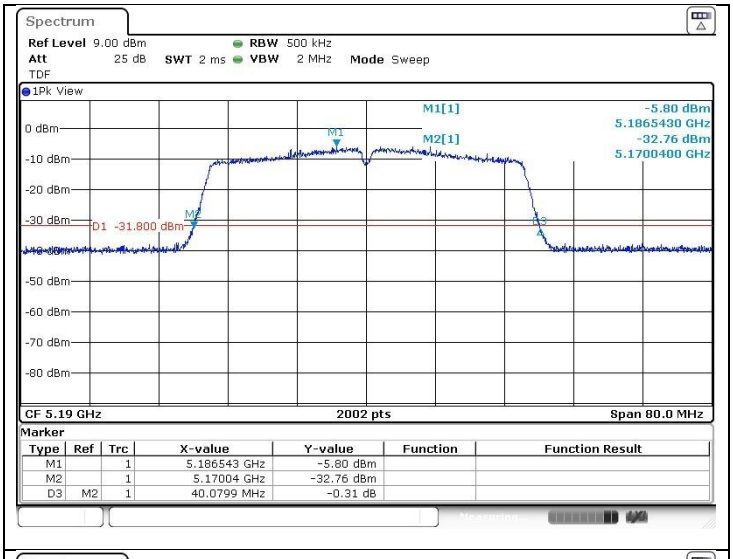


High Channel
(5 825 ㎒)

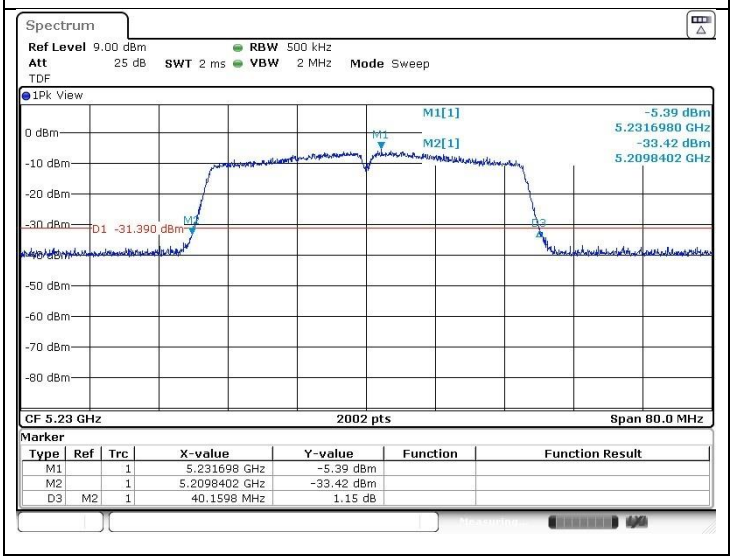


11ac_VHT40 (Band 1)

Low Channel
(5 190 ㎒)

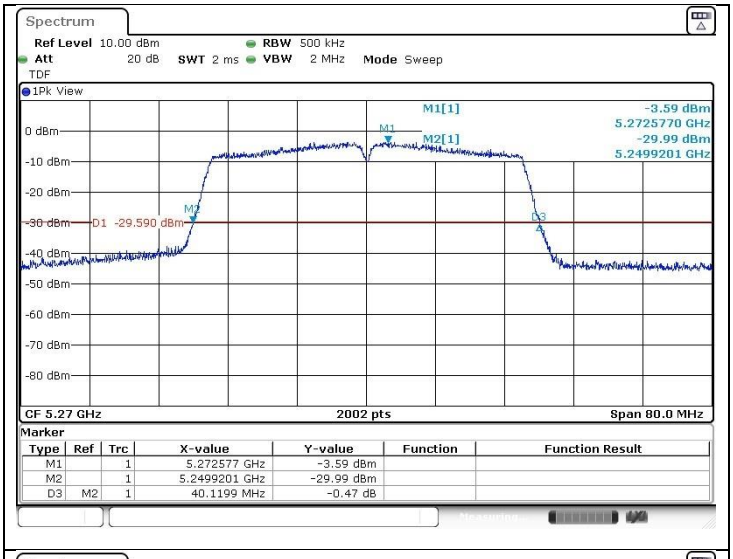


High Channel
(5 230 ㎒)

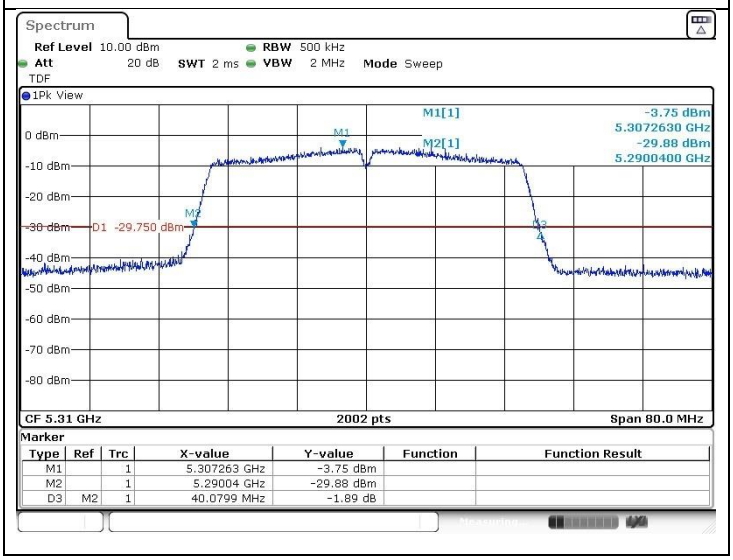


11ac_VHT40 (Band 2A)

Low Channel
(5 270 ㎒)

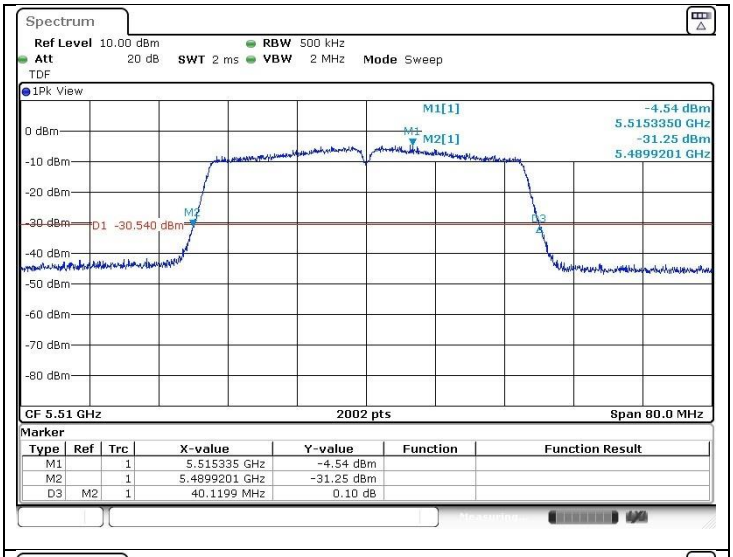


High Channel
(5 310 ㎒)

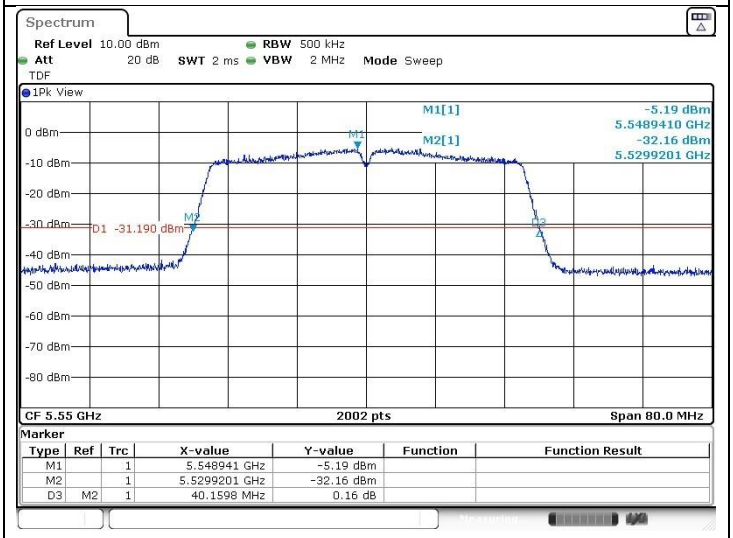


11ac_VHT40 (Band 2C)

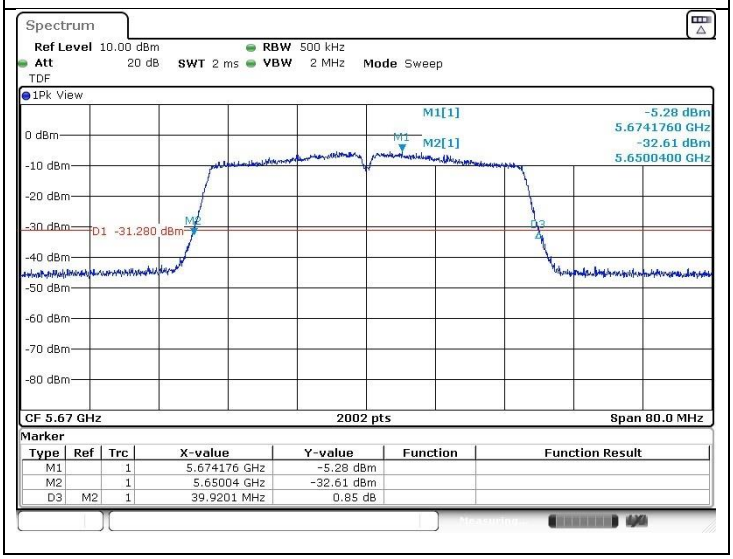
Low Channel
(5 510 ㎒)



Middle Channel
(5 550 ㎒)

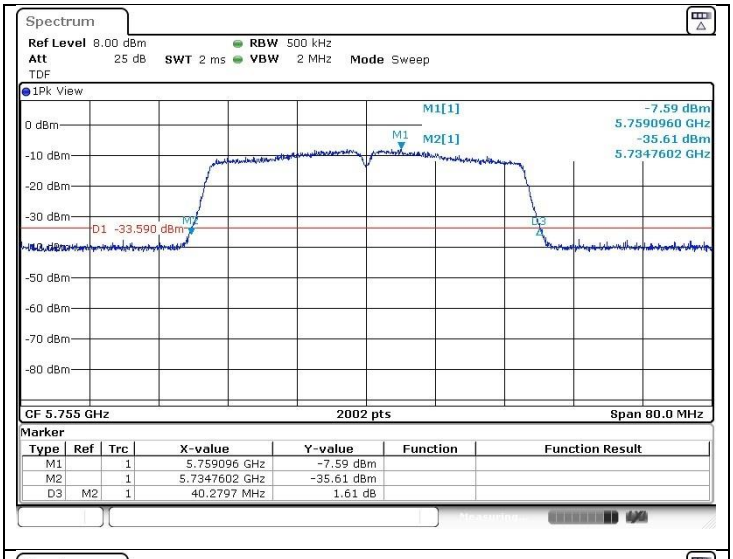


High Channel
(5 670 ㎒)

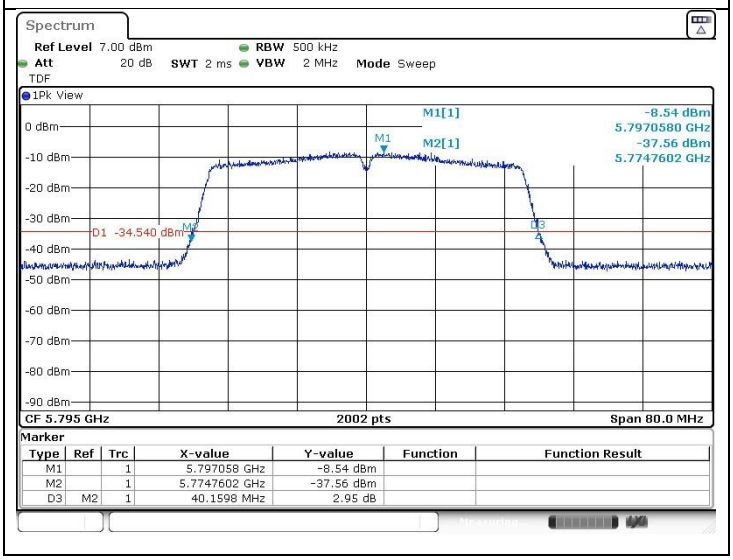


11ac_VHT40 (Band 3)

Low Channel
(5 755 ㎒)

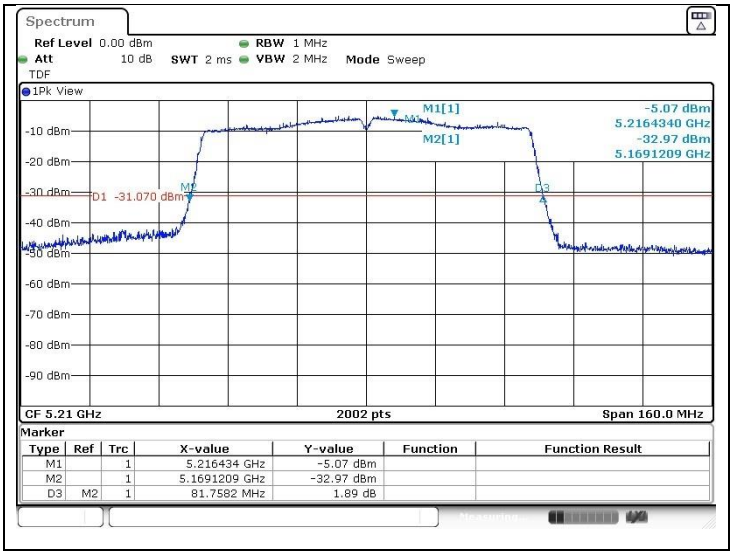


High Channel
(5 795 ㎒)



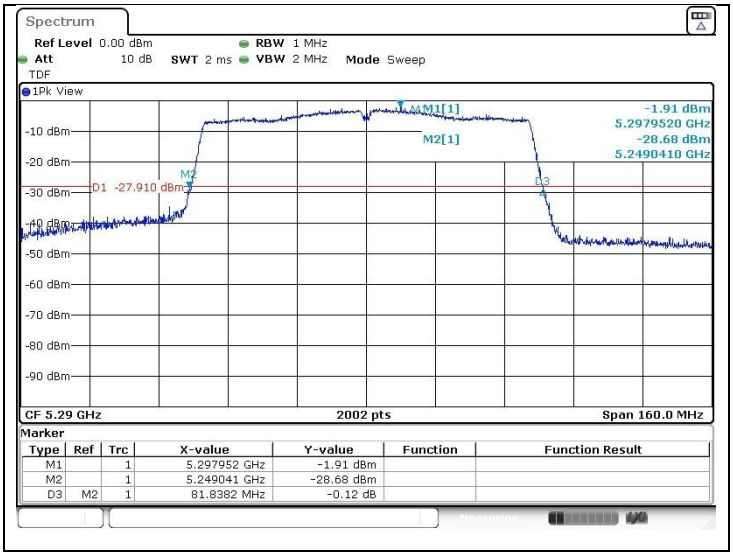
11ac_VHT80 (Band 1)

Middle Channel
(5 210 ㎒)



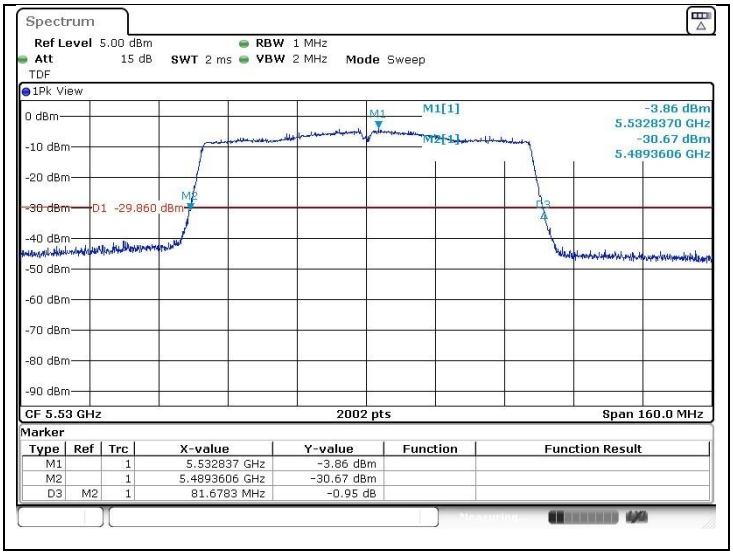
11ac_VHT80 (Band 2A)

Middle Channel
(5 290 ㎒)



11ac_VHT80 (Band 2C)

Low Channel
(5 530 ㎒)



11ac_VHT80 (Band 3)

Middle Channel
(5 775 ㎒)