

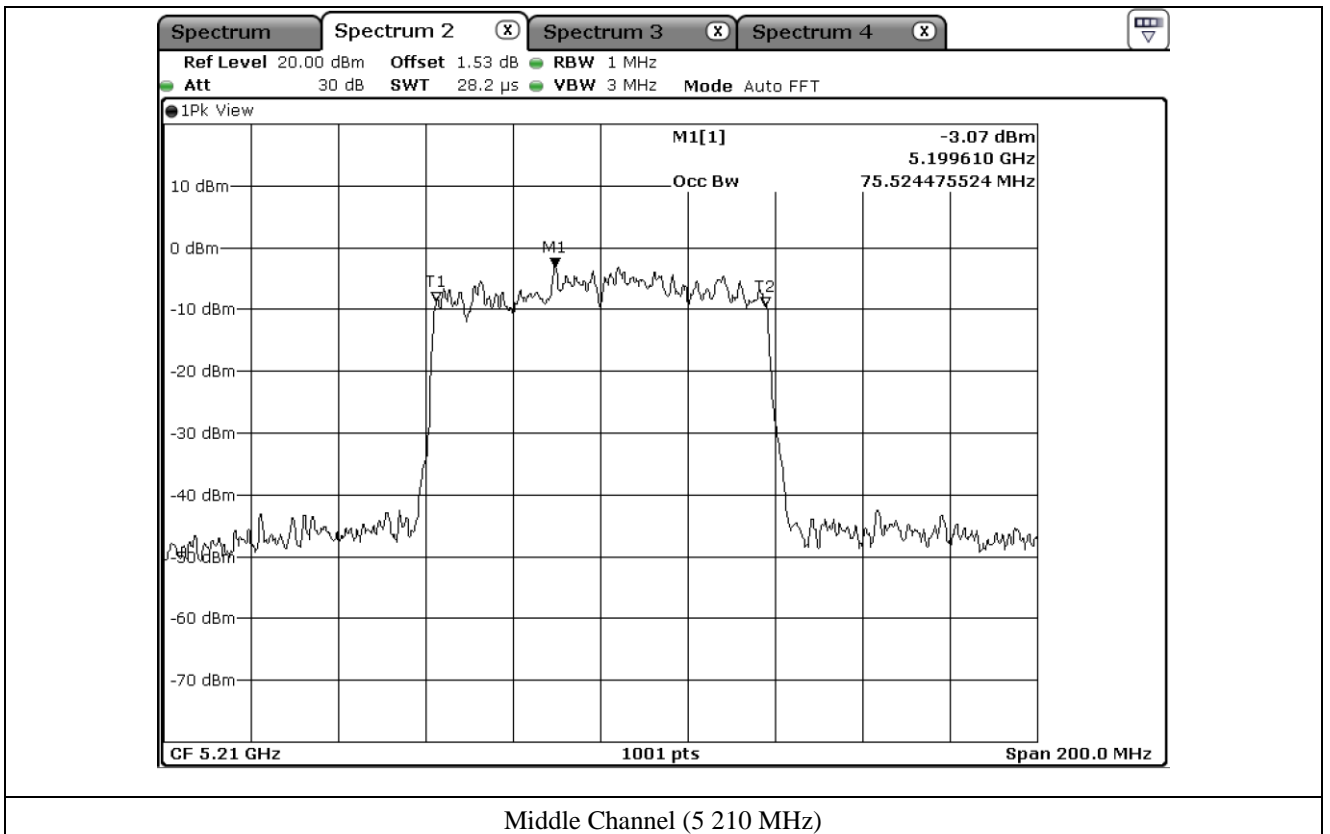
Middle Channel (5 775 MHz)

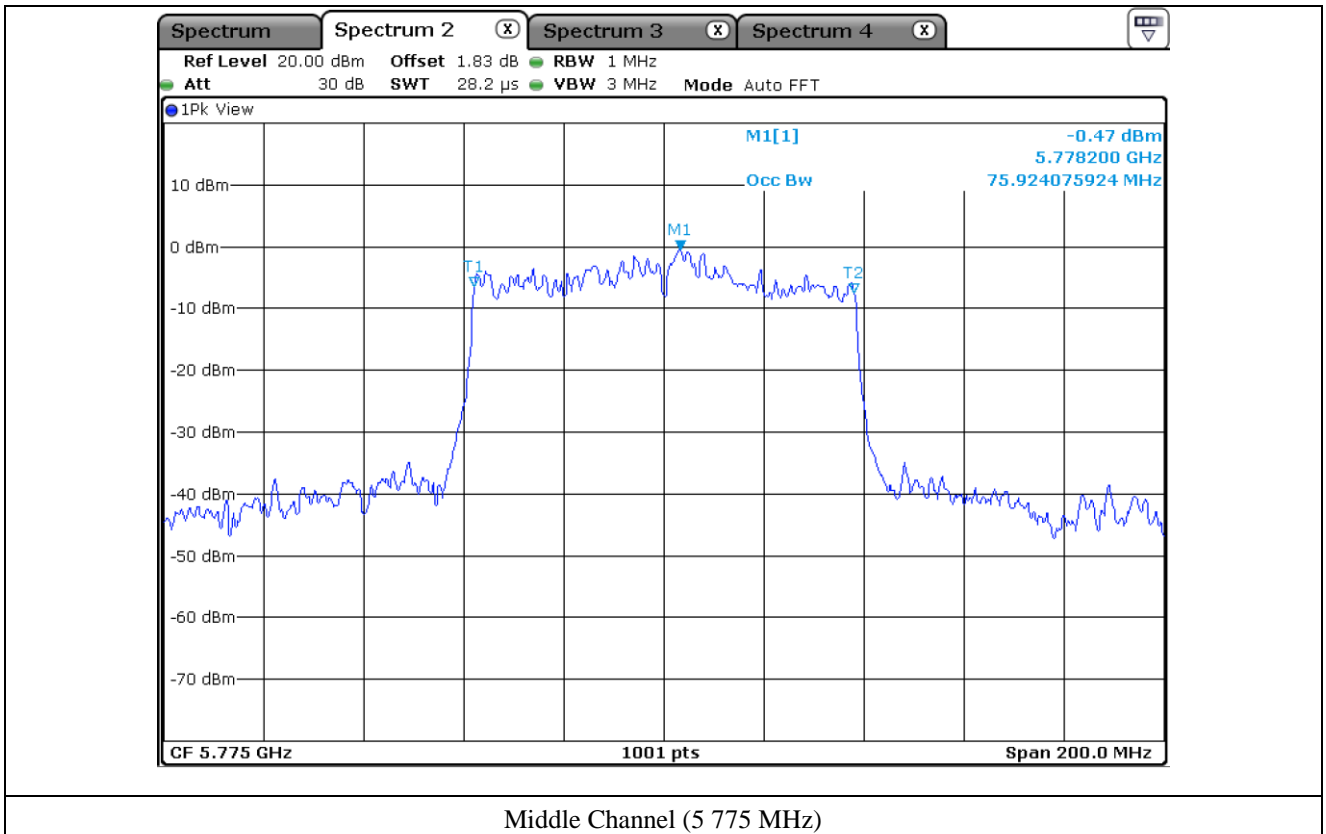
**7.9.2.2 99 % OCCUPIED BANDWIDTH**

- Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	99 % OCCUPIED BANDWIDTH (MHz)
5 150 ~ 5 250	Middle	5 210.00	75.52
5 725 ~ 5 850	Middle	5 775.00	75.92

Remark: See next page for measurement data.





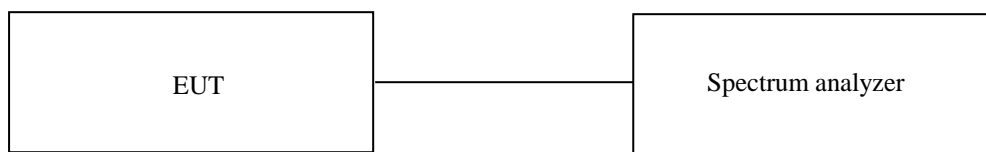
## 8. 6 dB BANDWIDTH

### 8.1 Operating environment

Temperature : 23 °C  
 Relative humidity : 45 % R.H.

### 8.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz, and peak detection was used. The 6 dB bandwidth is defined as the total spectrum over which the power is higher than the peak power minus 6 dB.



### 8.3 Test Date

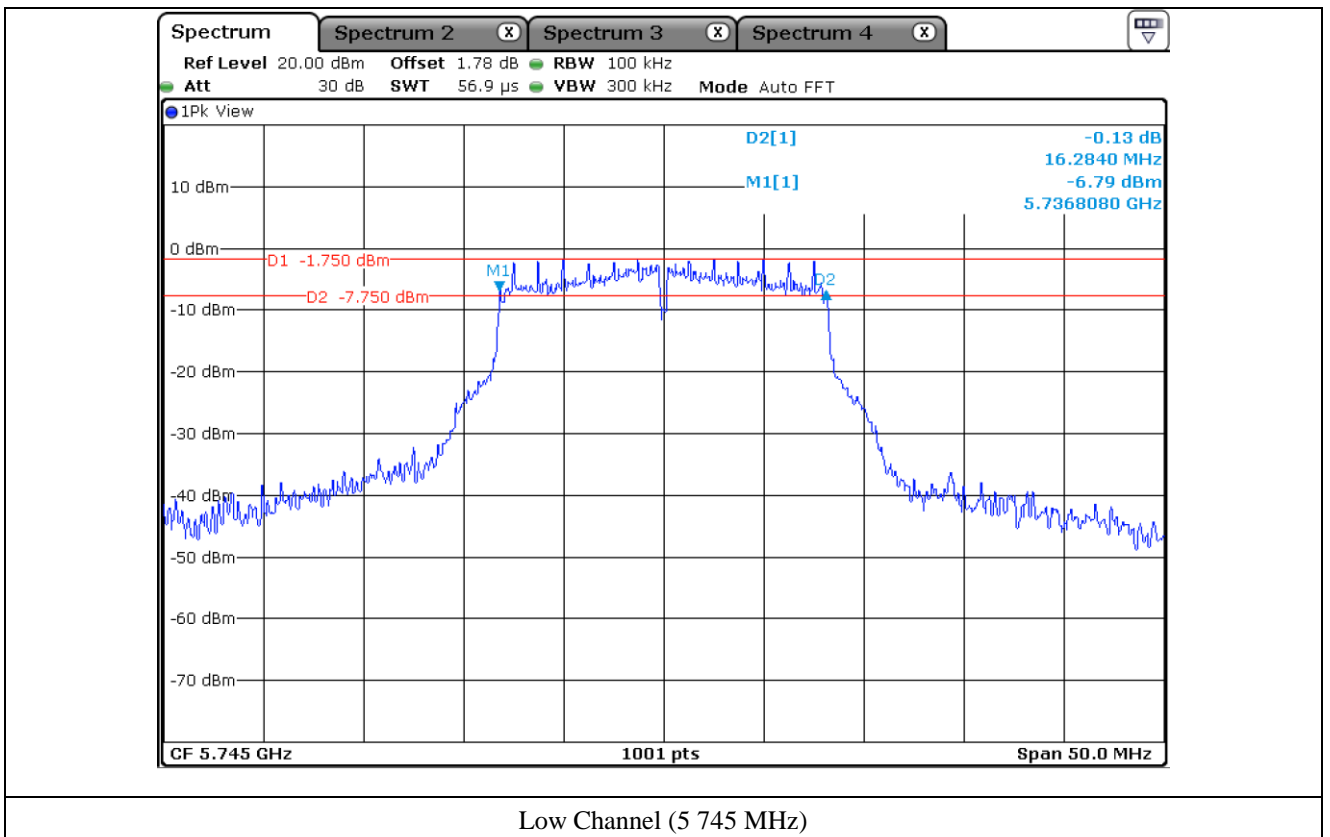
January 07, 2021 ~ January 28, 2021

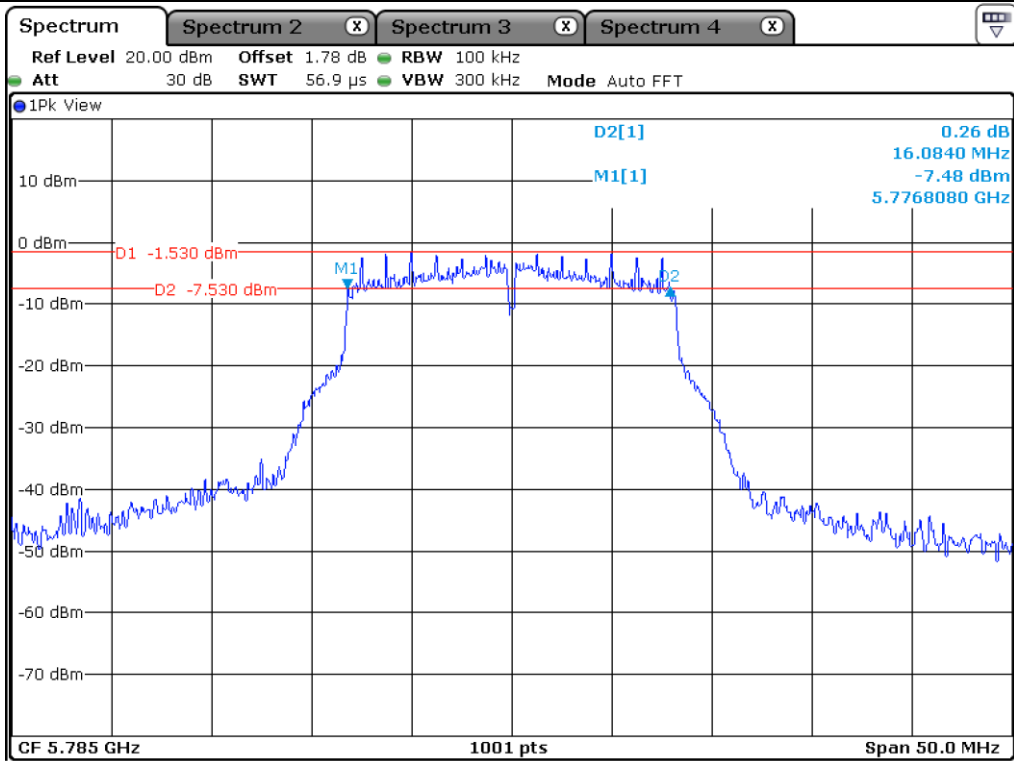
8.4 Test data for 802.11a RLAN Mode

8.4.1 Test data for Antenna 0

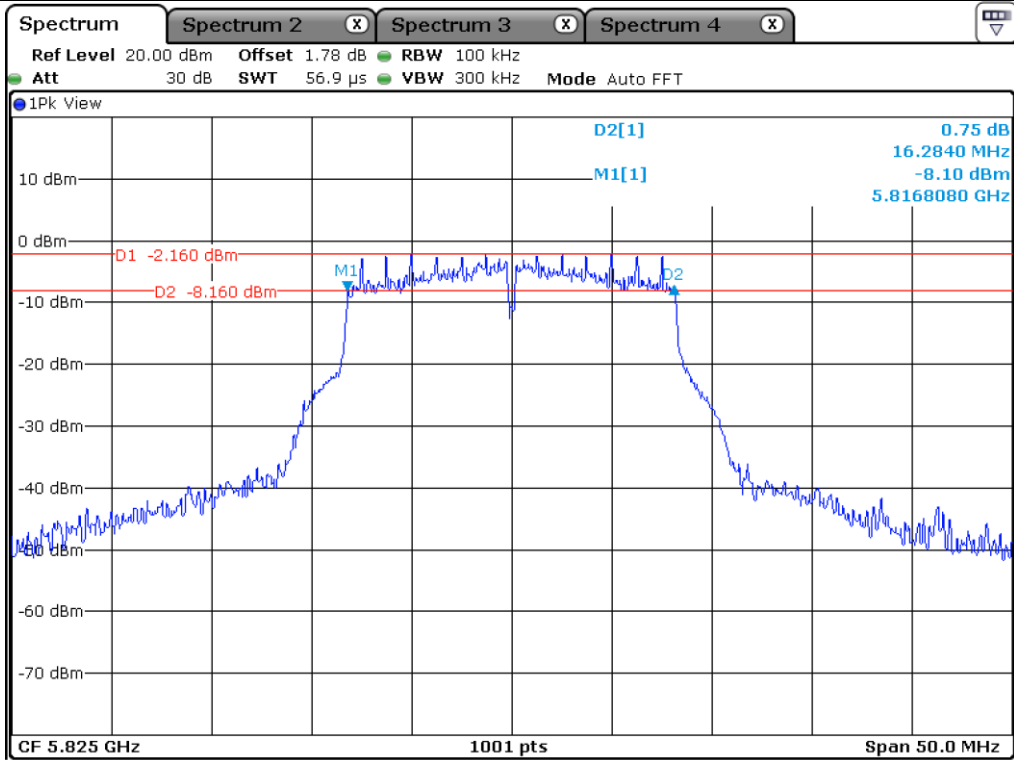
-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 745.00	16.28
	Middle	5 785.00	16.08
	High	5 825.00	16.28





Middle Channel (5 785 MHz)

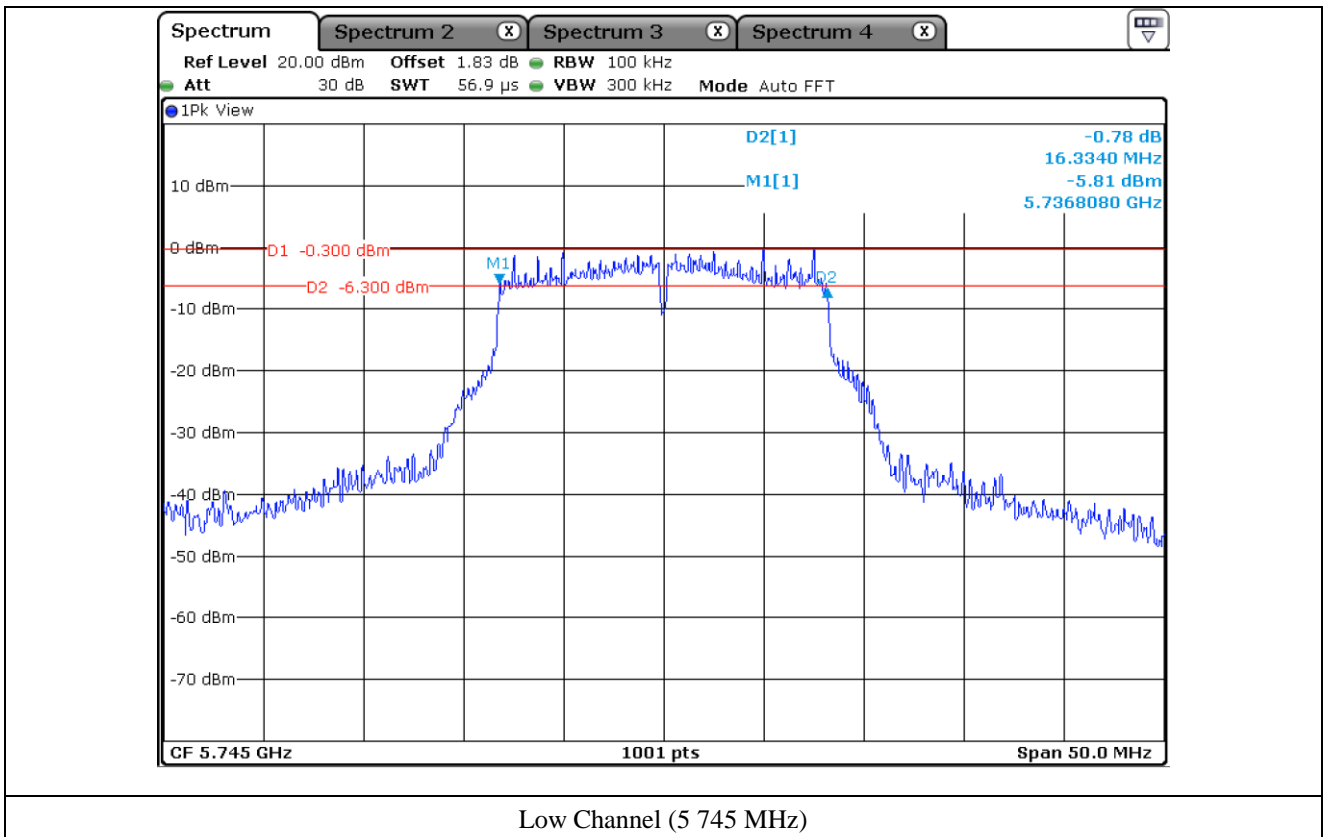


High Channel (5 825 MHz)

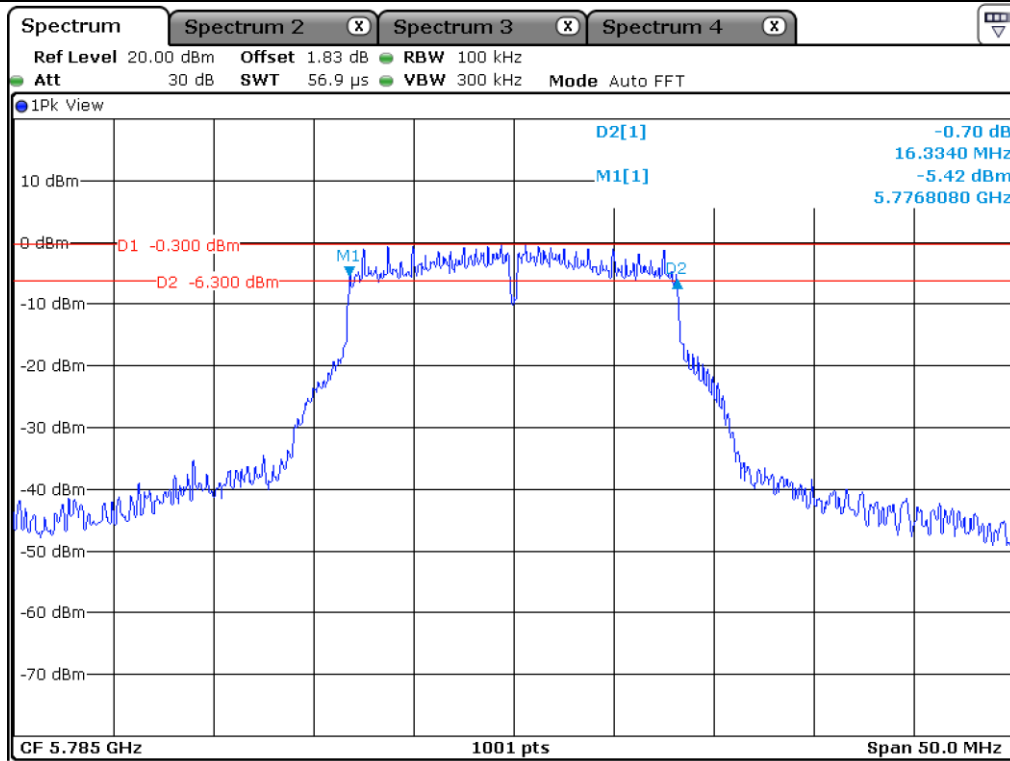
8.4.2 Test data for Antenna 1

-. Test Result : Pass

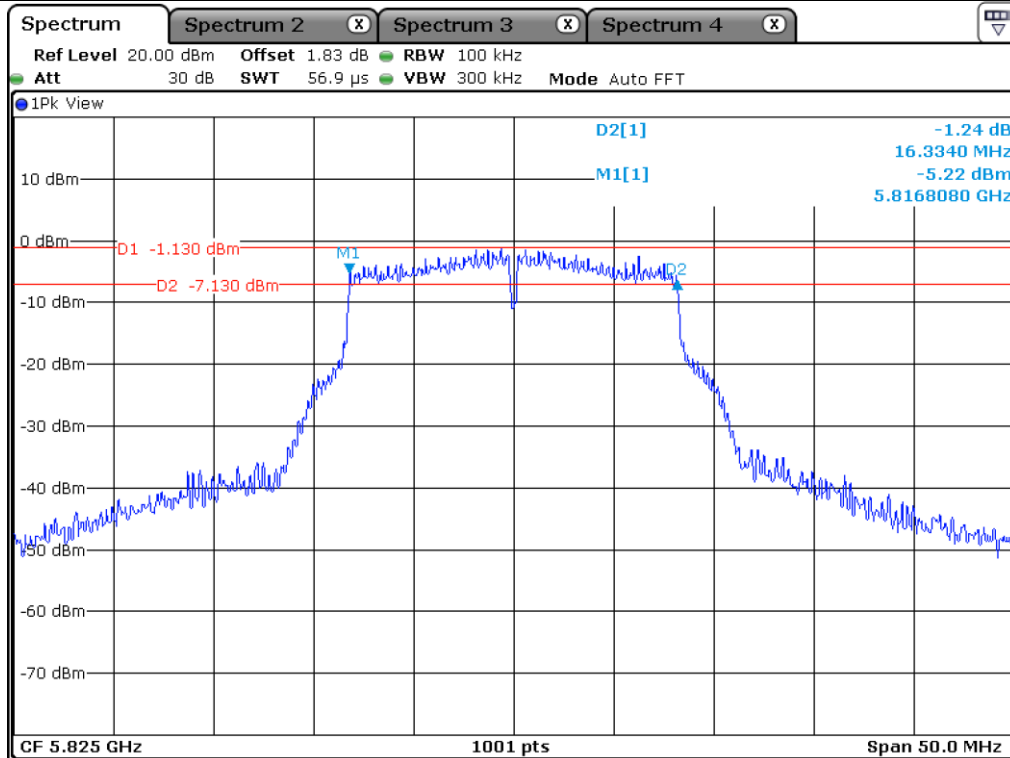
Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 745.00	16.33
	Middle	5 785.00	16.33
	High	5 825.00	16.33



Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)



High Channel (5 825 MHz)

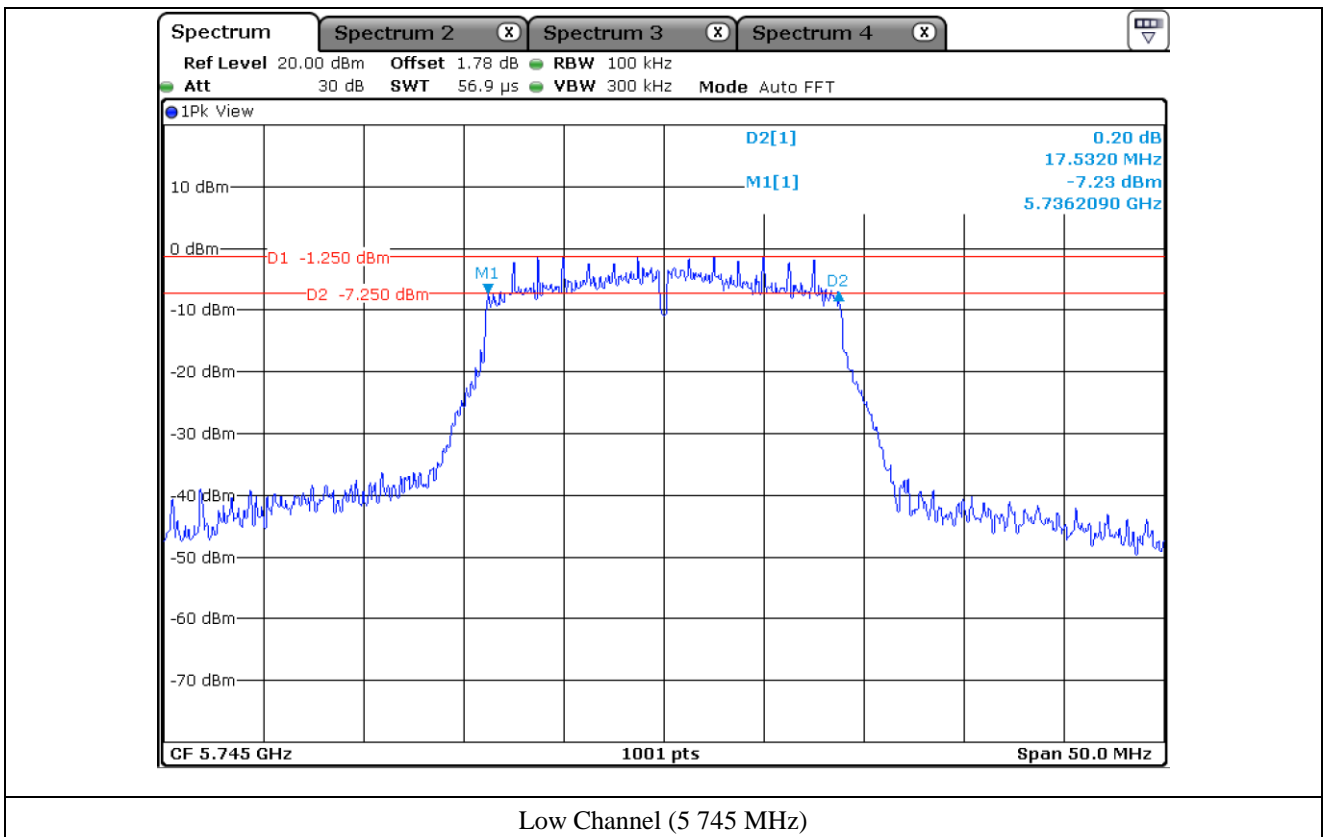


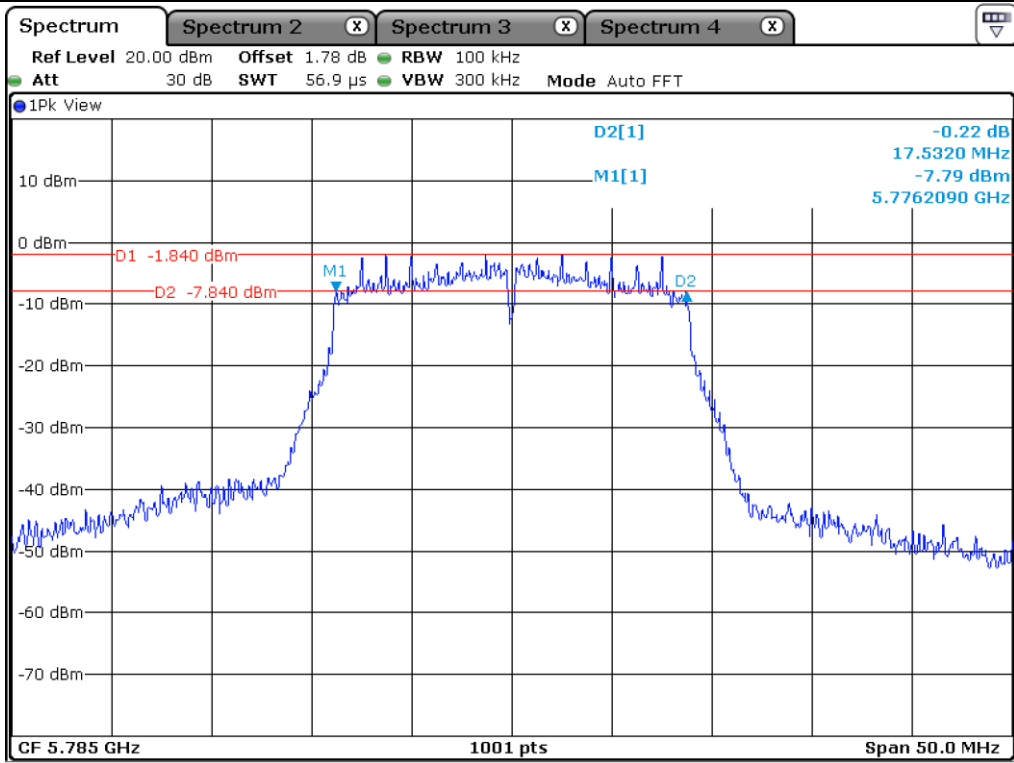
### 8.5 Test data for 802.11n\_HT20 RLAN Mode

#### 8.5.1 Test data for Antenna 0

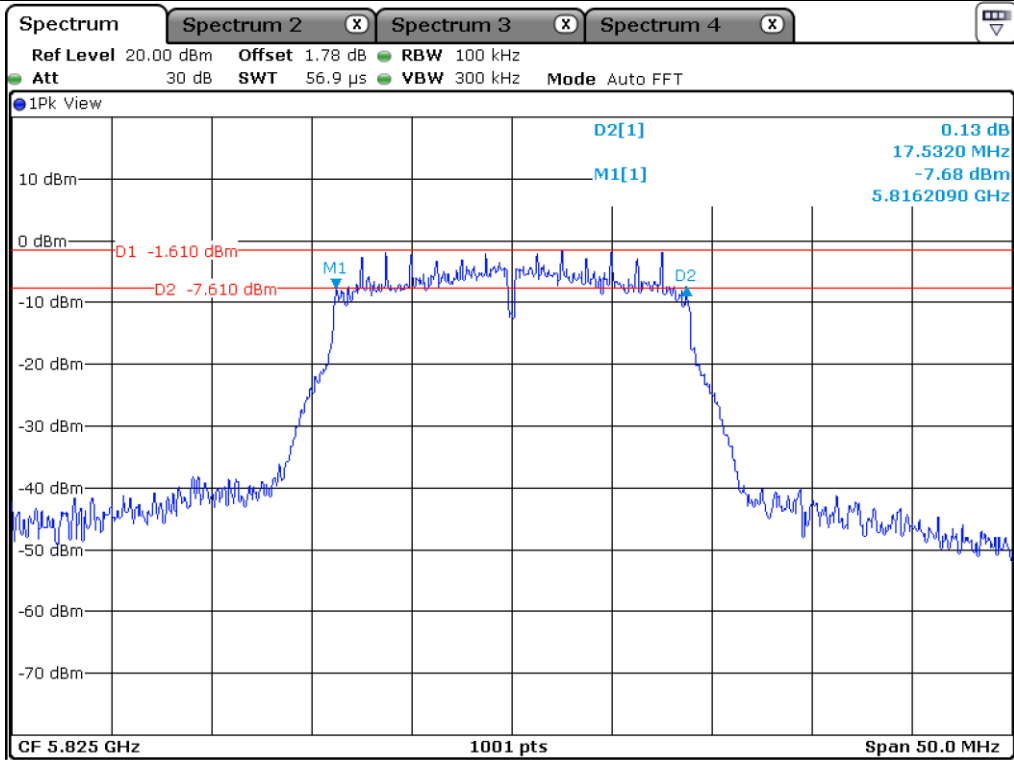
-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 745.00	17.53
	Middle	5 785.00	17.53
	High	5 825.00	17.53





Middle Channel (5 785 MHz)

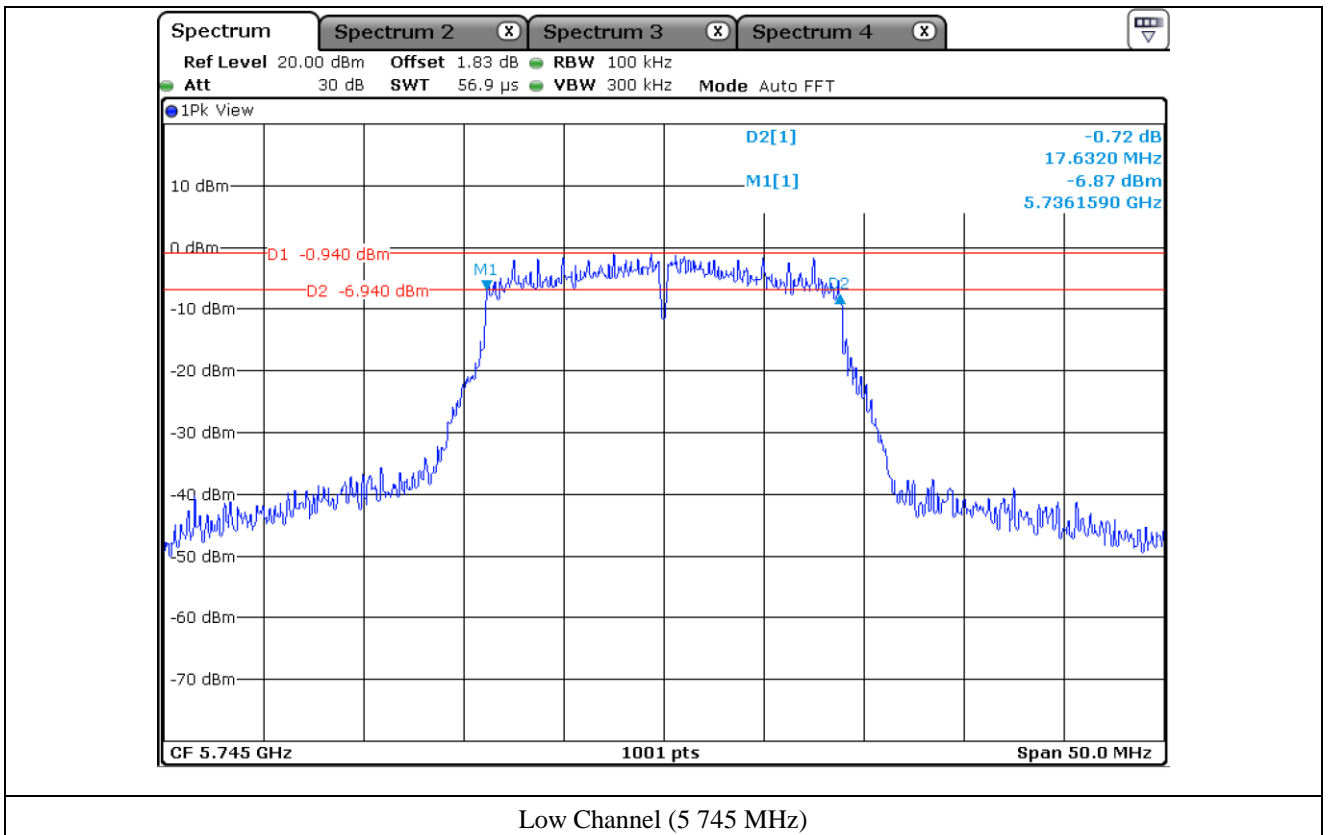


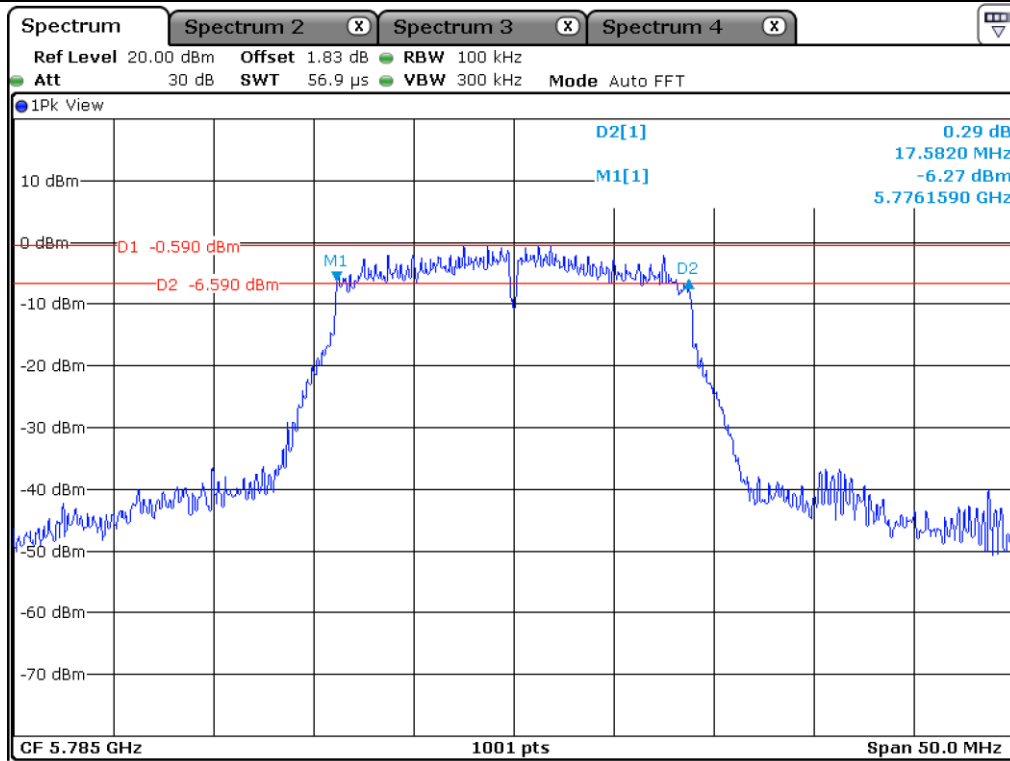
High Channel (5 825 MHz)

### 8.5.2 Test data for Antenna 1

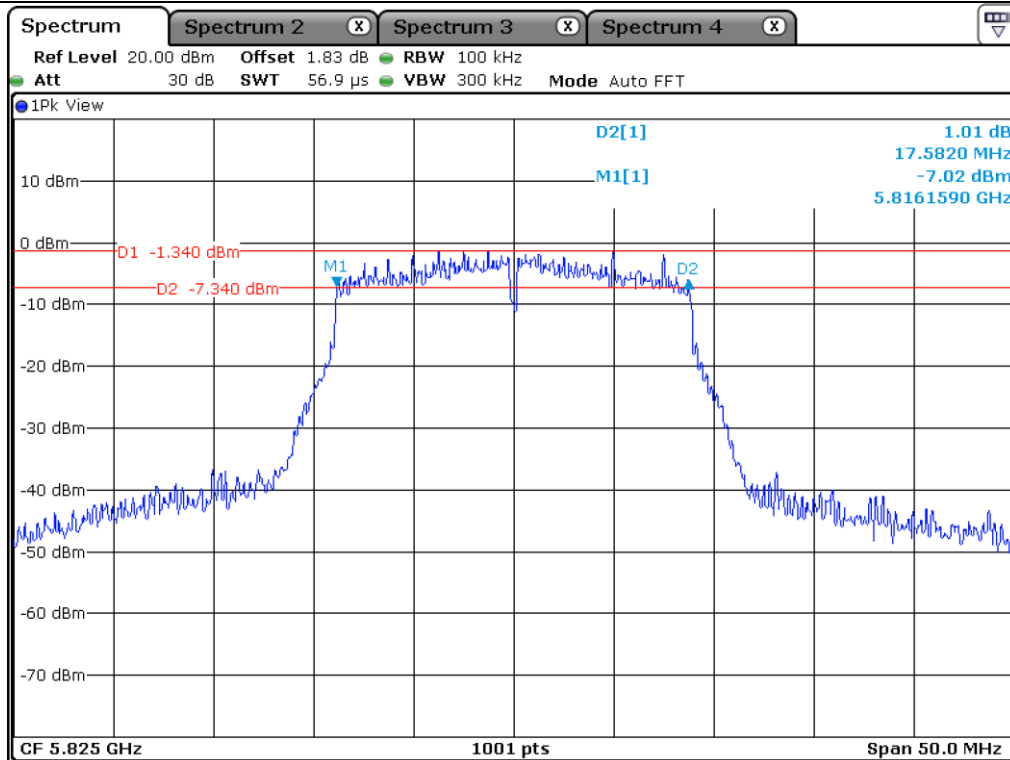
-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 745.00	17.63
	Middle	5 785.00	17.58
	High	5 825.00	17.58





Middle Channel (5 785 MHz)



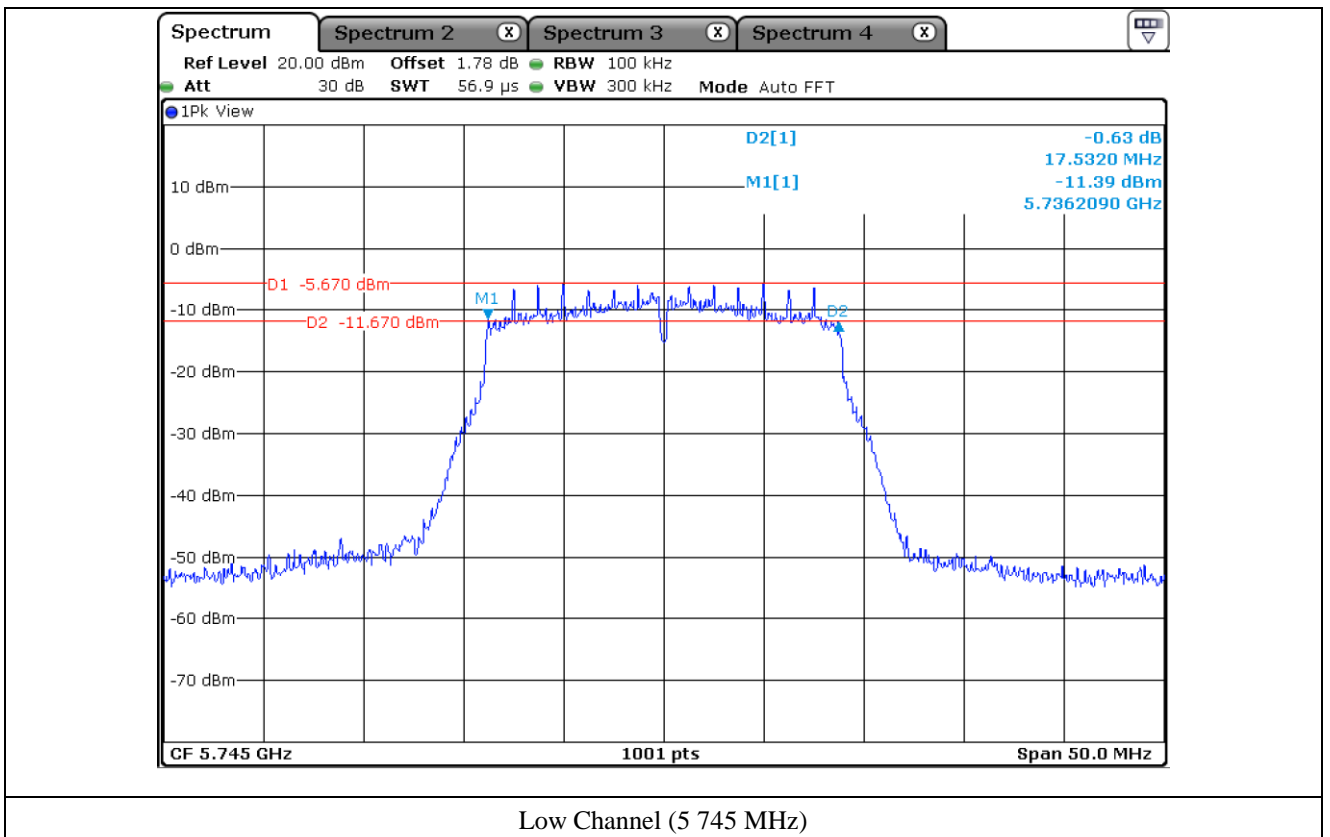
High Channel (5 825 MHz)

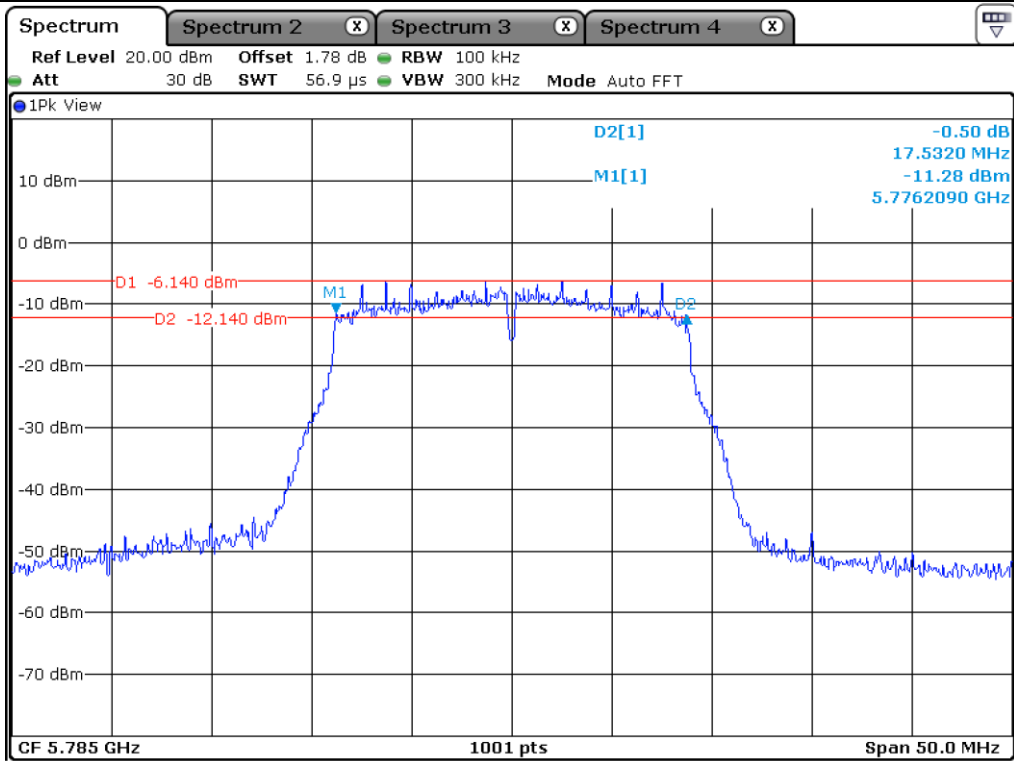
8.6 Test data for 802.11ac\_VHT20 RLAN Mode

8.6.1 Test data for Antenna 0

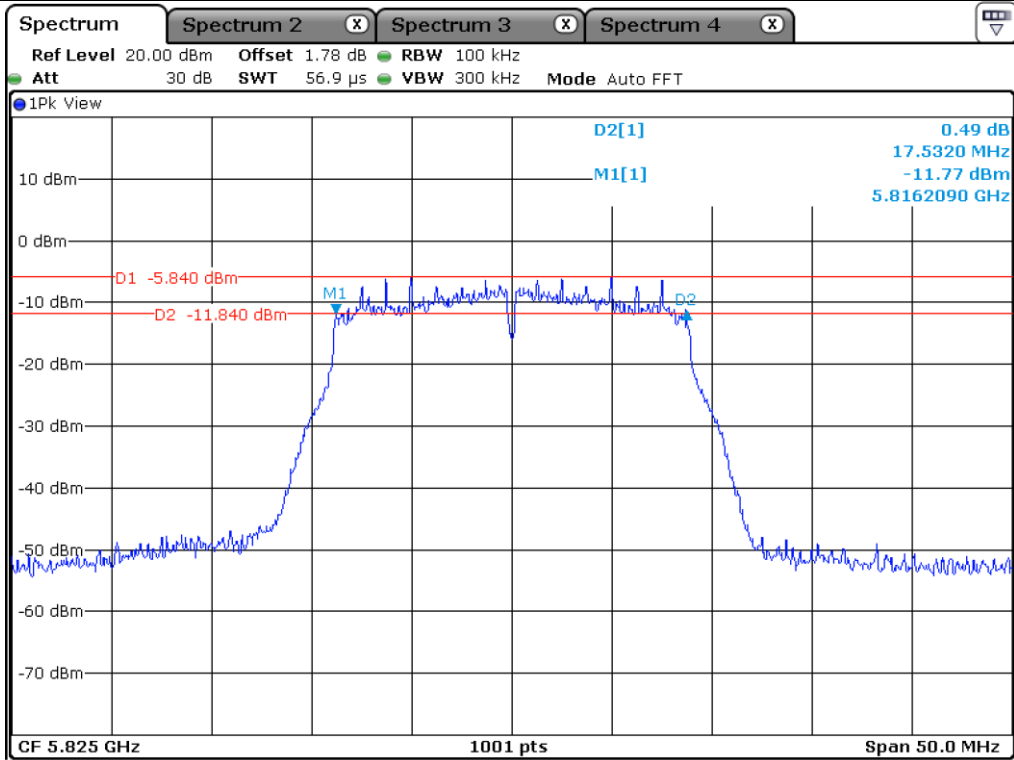
-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 745.00	17.53
	Middle	5 785.00	17.53
	High	5 825.00	17.53





Middle Channel (5 785 MHz)

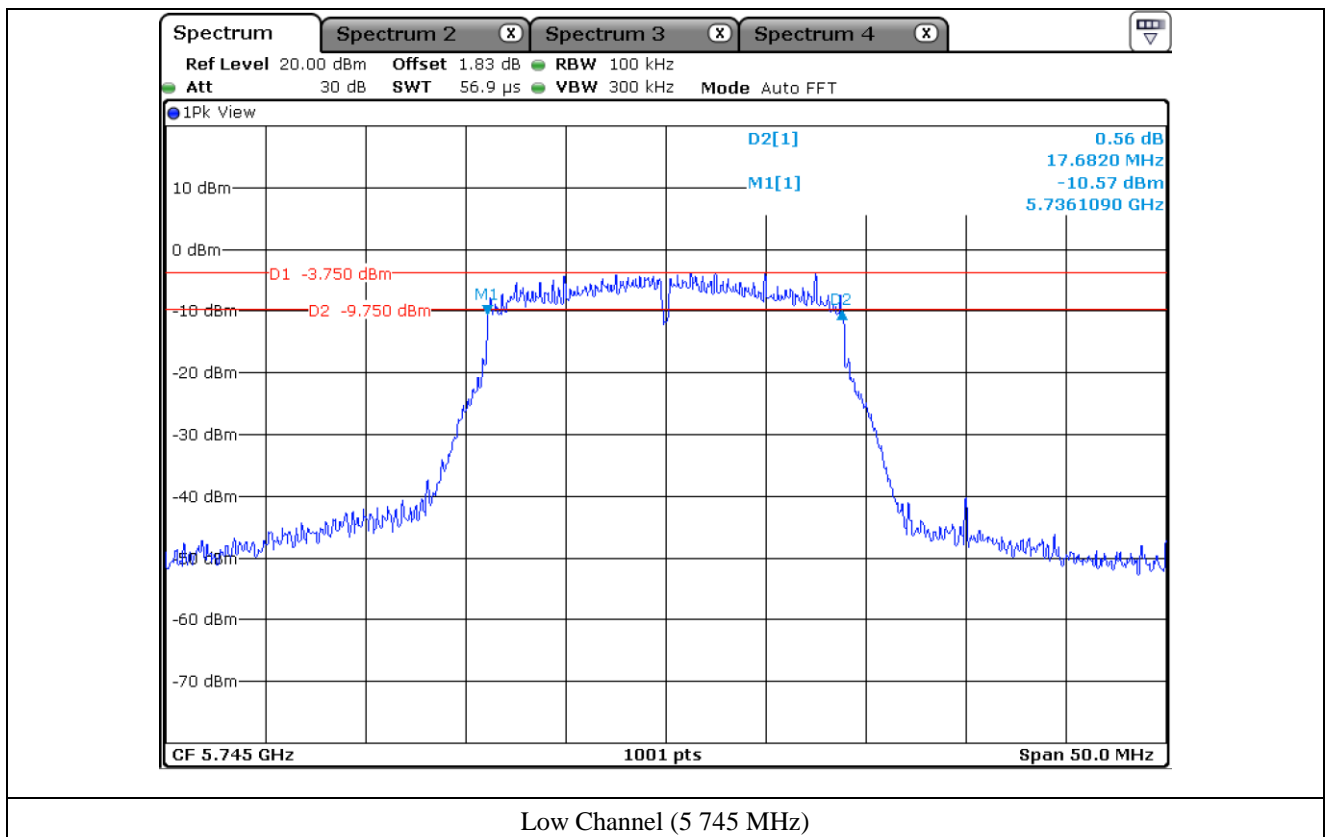


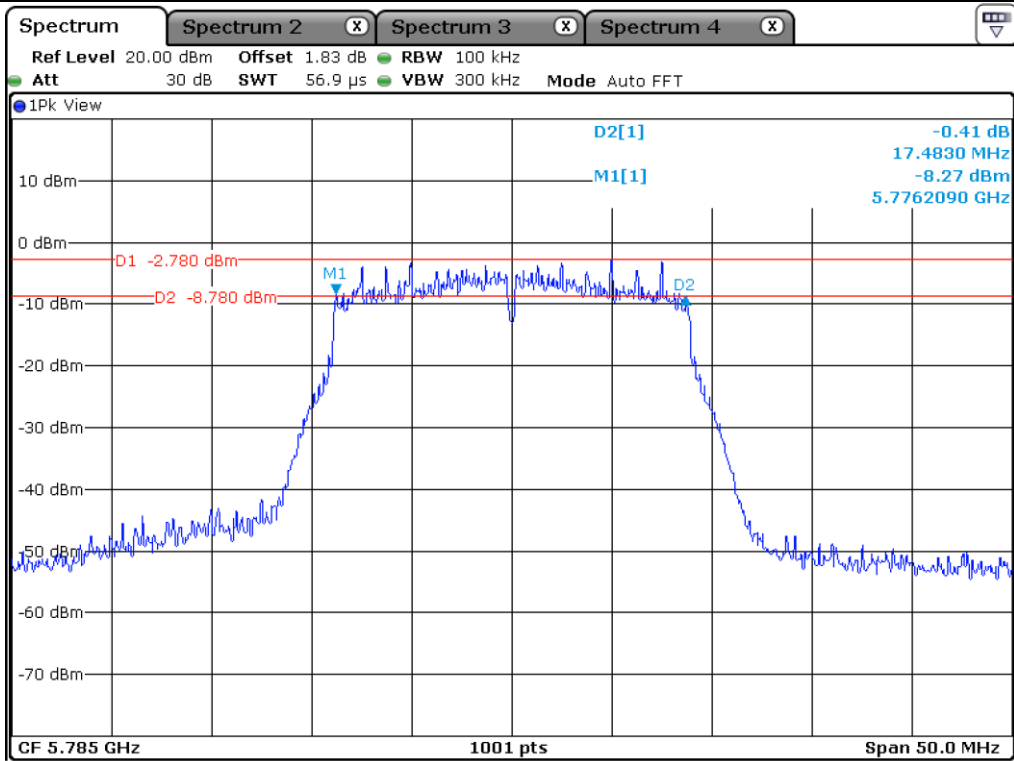
High Channel (5 825 MHz)

### 8.6.2 Test data for Antenna 1

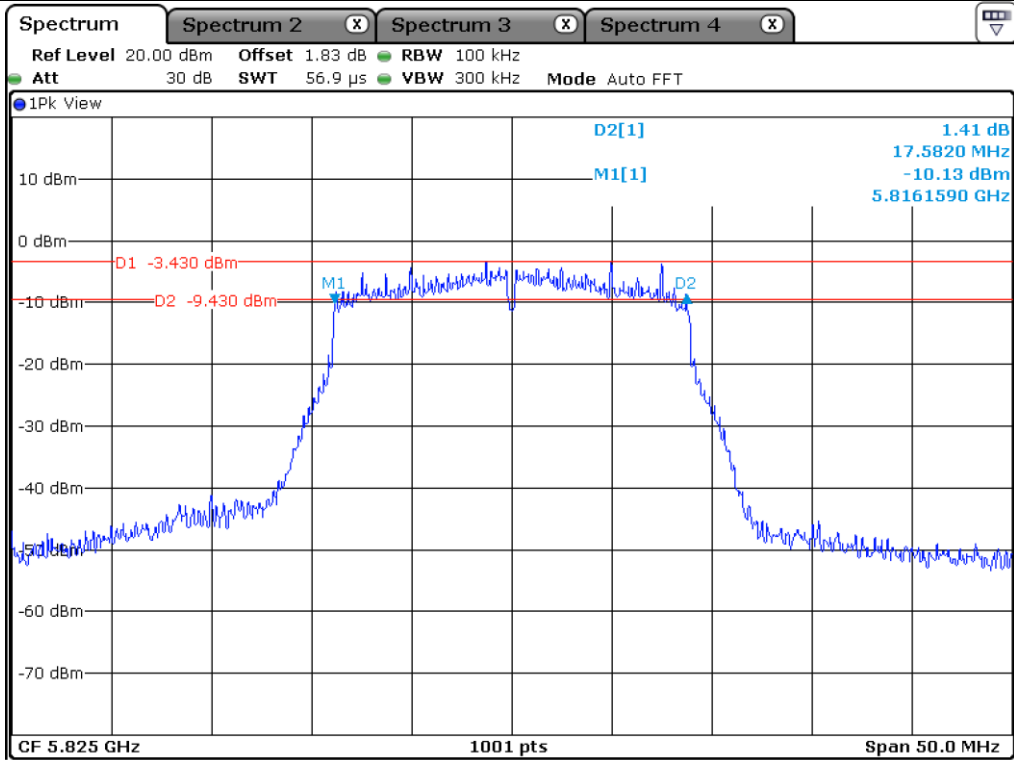
-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 745.00	17.68
	Middle	5 785.00	17.48
	High	5 825.00	17.58





Middle Channel (5 785 MHz)



High Channel (5 825 MHz)

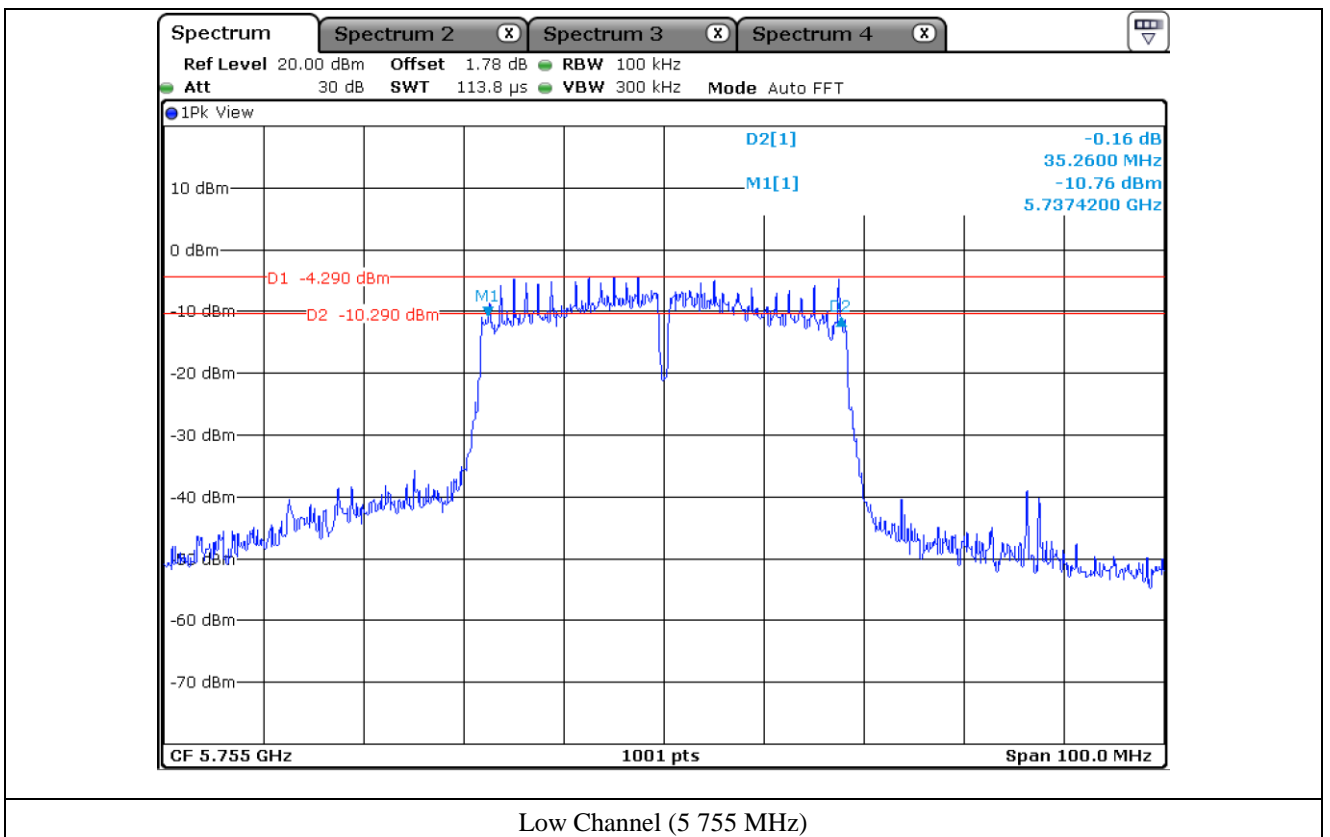


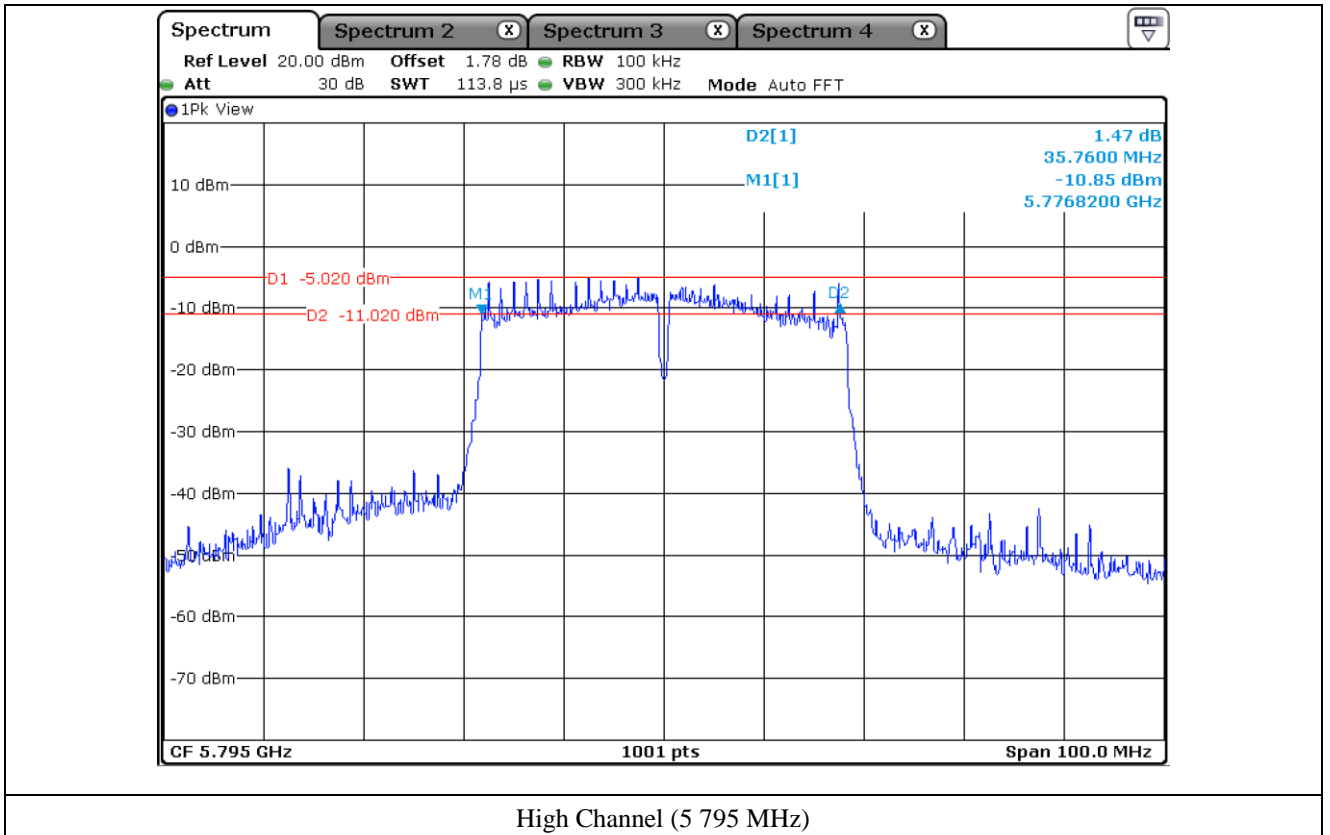
8.7 Test data for 802.11n\_HT40 RLAN Mode

8.7.1 Test data for Antenna 0

-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 755.00	35.26
	High	5 795.00	35.76





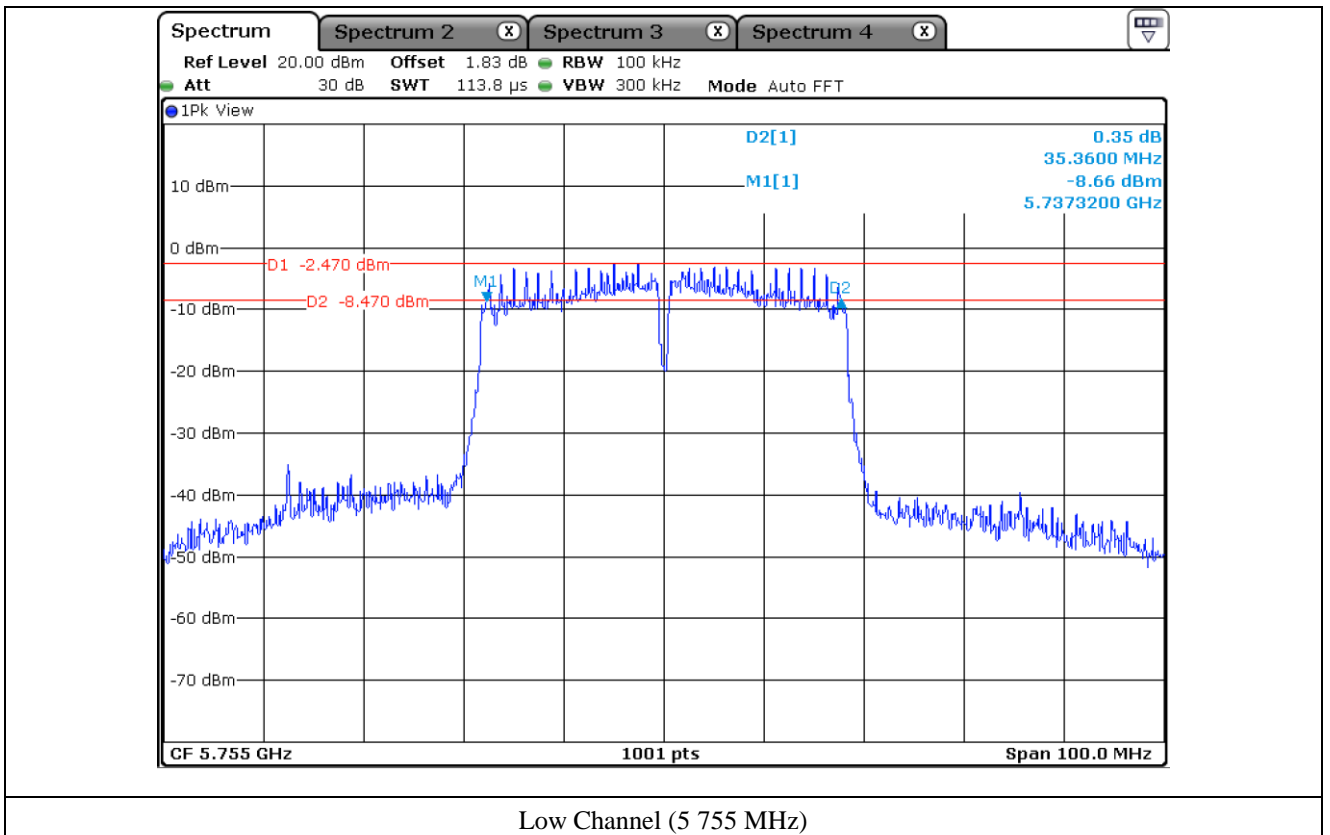
High Channel (5 795 MHz)

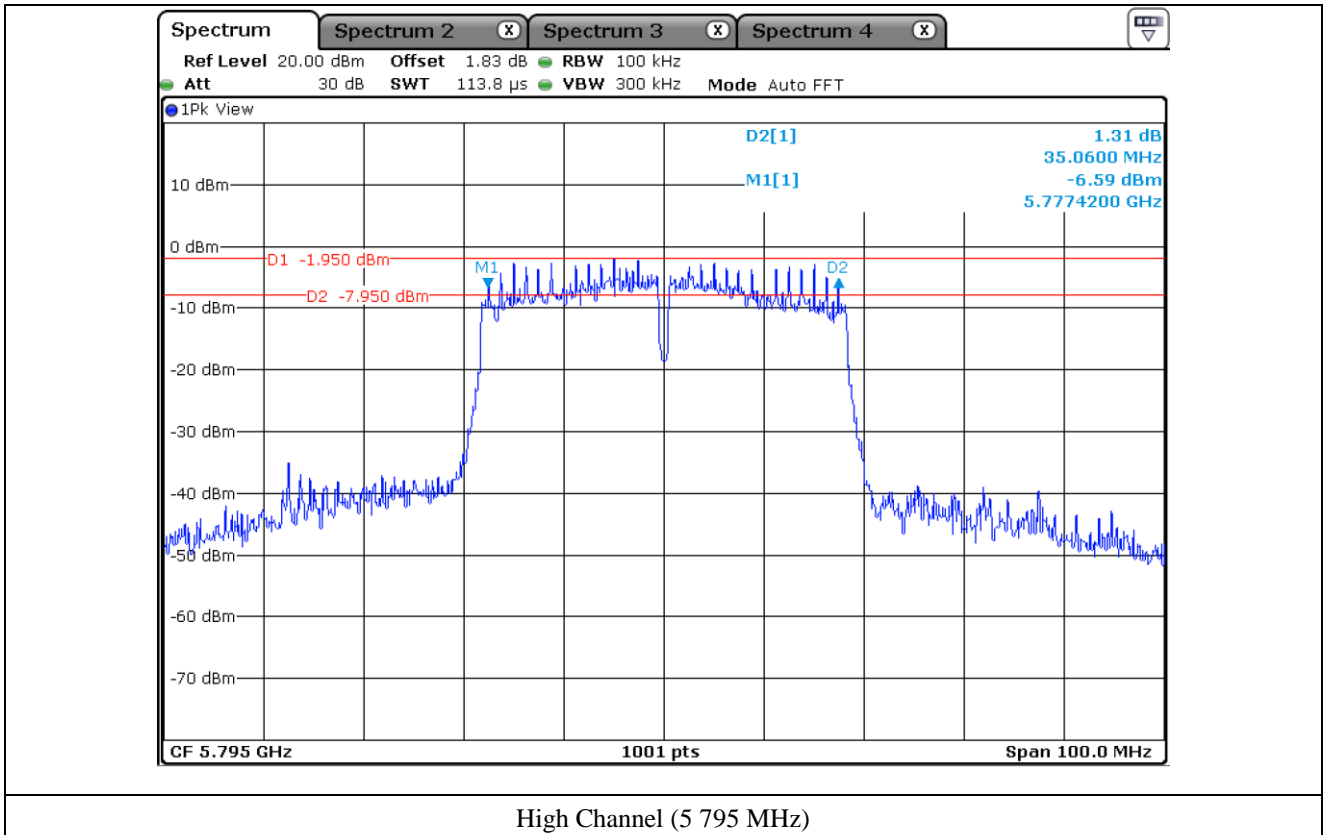
8.7.2 Test data for Antenna 1

-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 755.00	35.36
	High	5 795.00	35.06

Remark: See next page for measurement data.



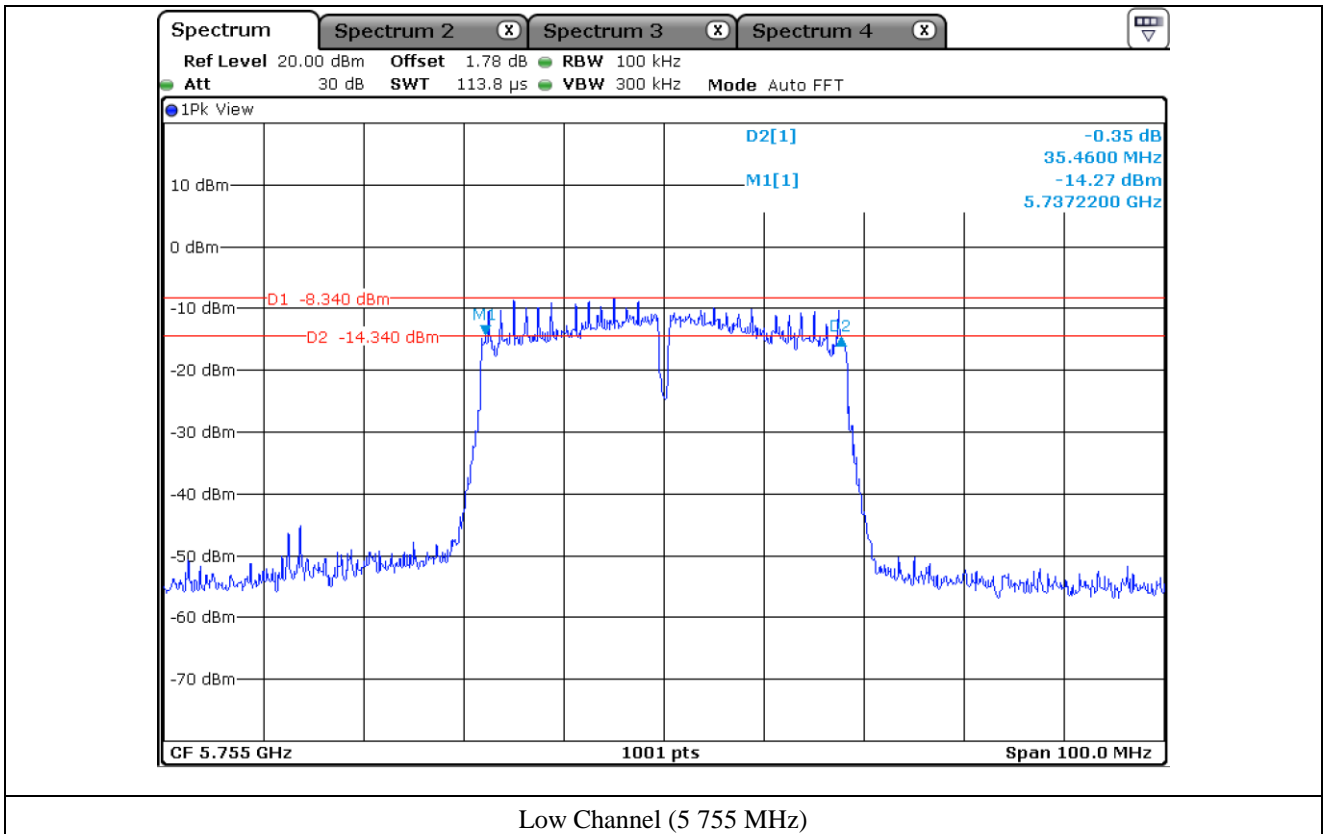


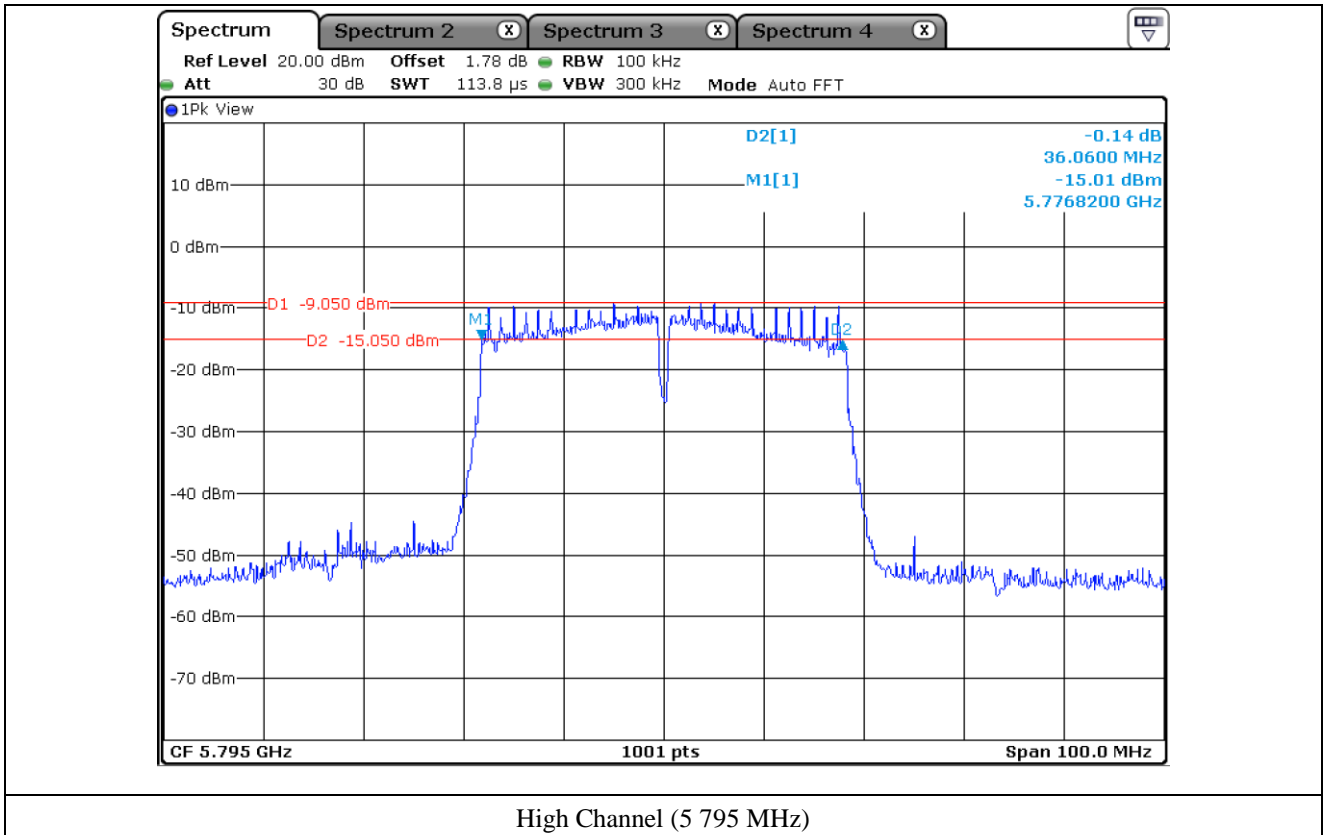
8.8 Test data for 802.11ac\_VHT40 RLAN Mode

8.8.1 Test data for Antenna 0

-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 755.00	35.46
	High	5 795.00	36.06



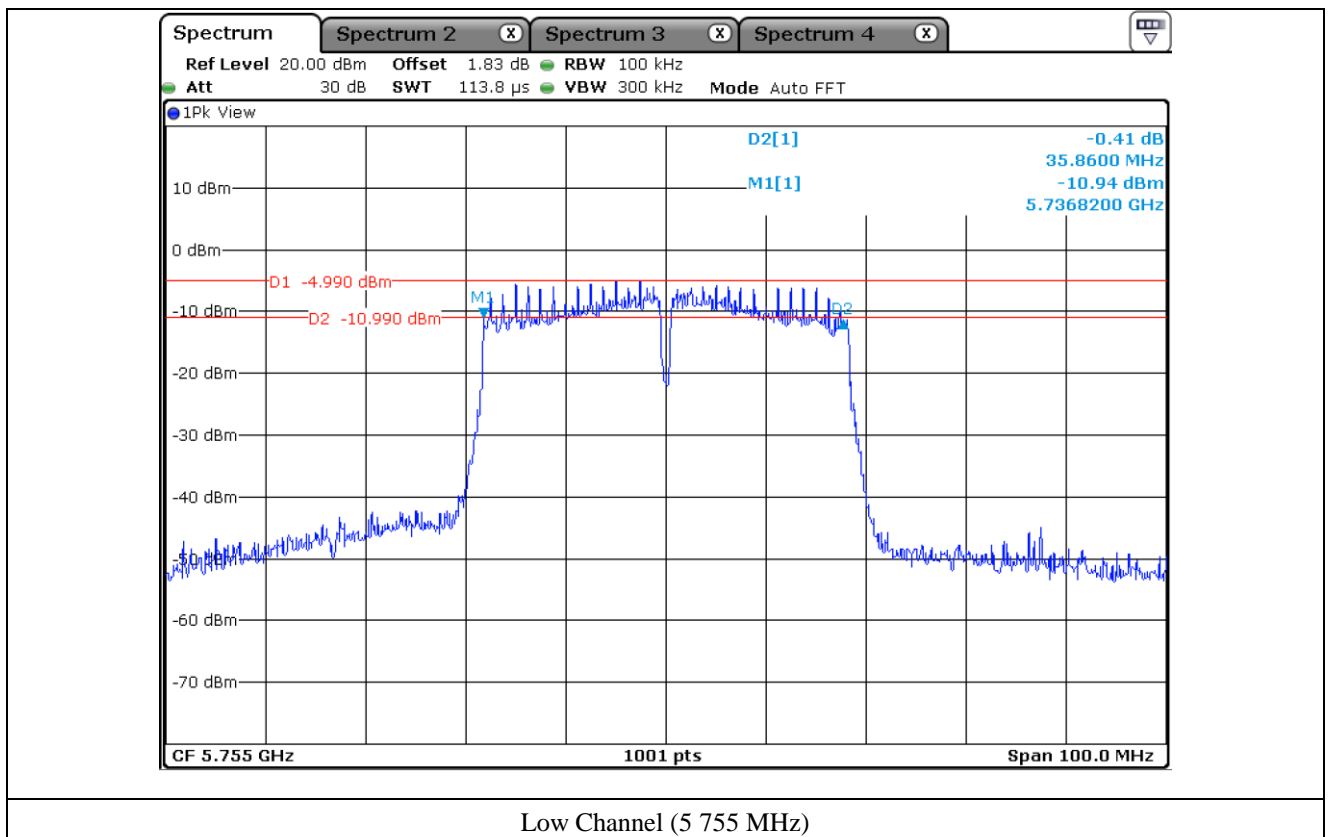


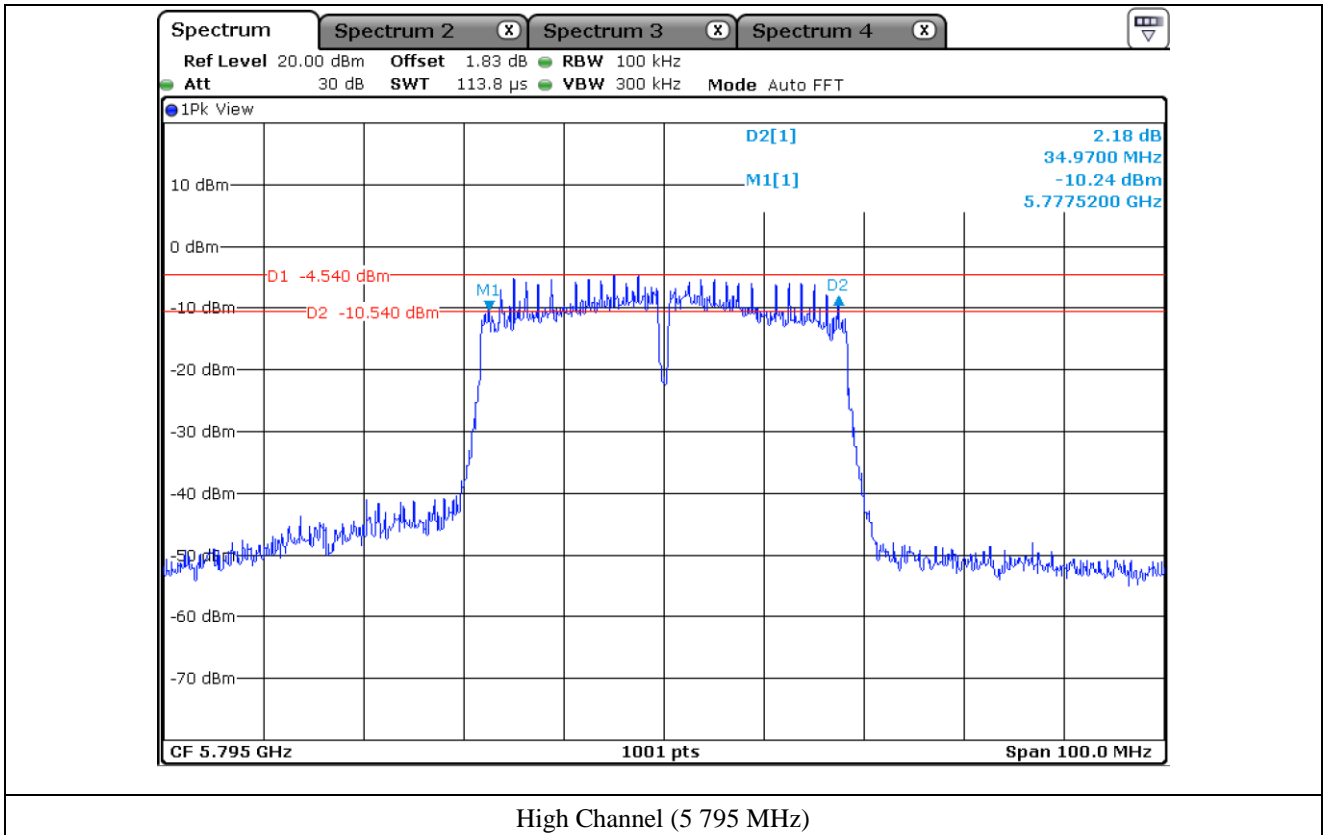
8.8.2 Test data for Antenna 1

-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 755.00	35.86
	High	5 795.00	34.97

Remark: See next page for measurement data.







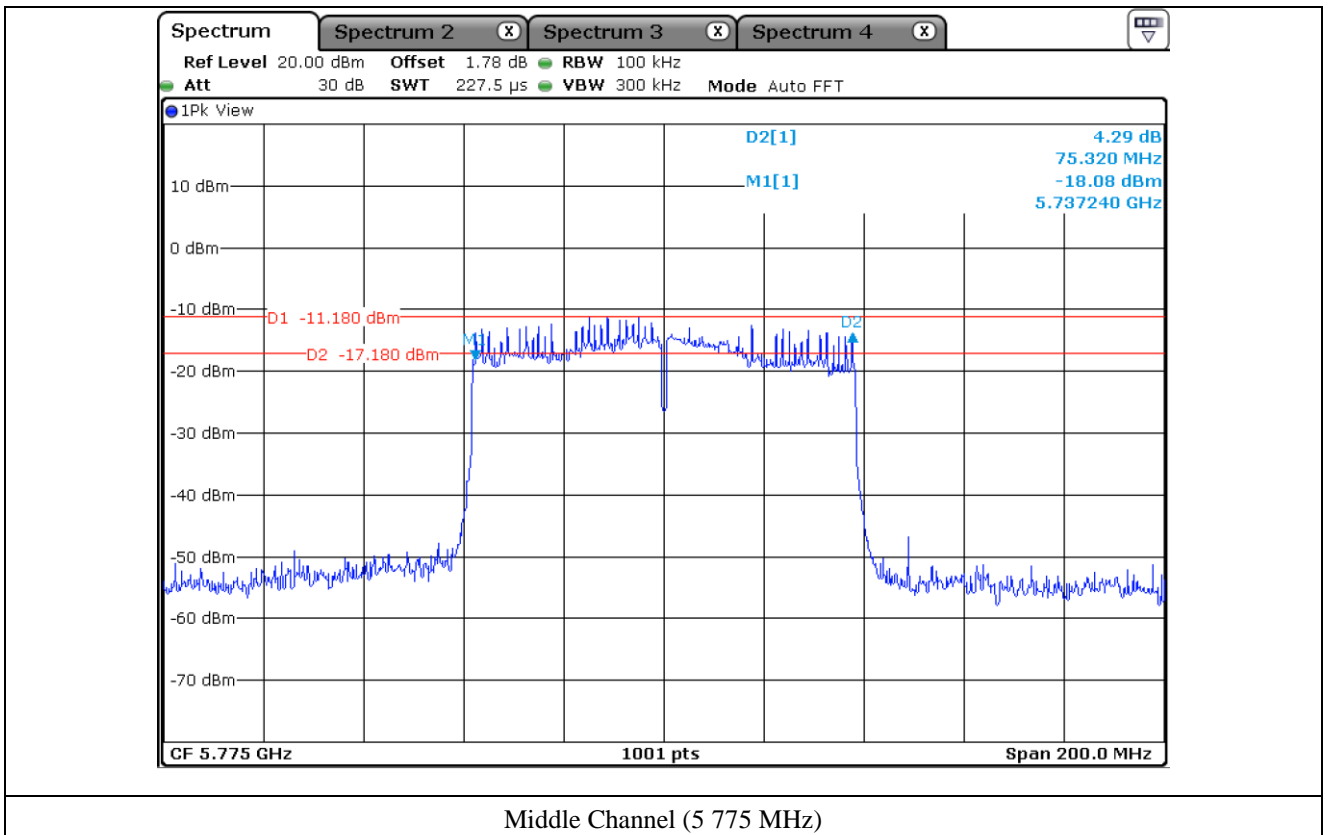
8.9 Test data for 802.11ac\_VHT80 RLAN Mode

8.9.1 Test data for Antenna 0

-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Middle	5 775.00	75.32

Remark: See next page for measurement data.



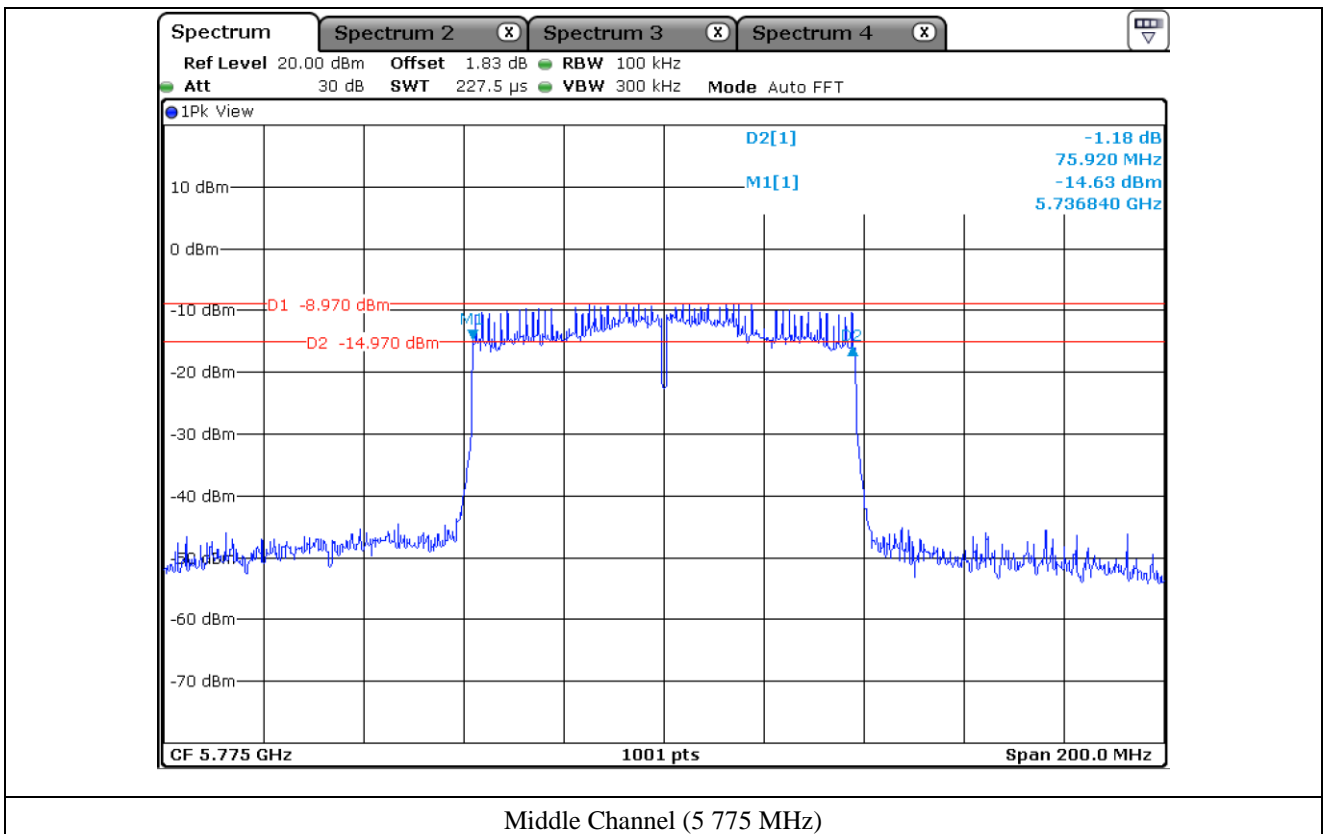
Middle Channel (5 775 MHz)

8.9.2 Test data for Antenna 1

-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Middle	5 775.00	75.92

Remark: See next page for measurement data.



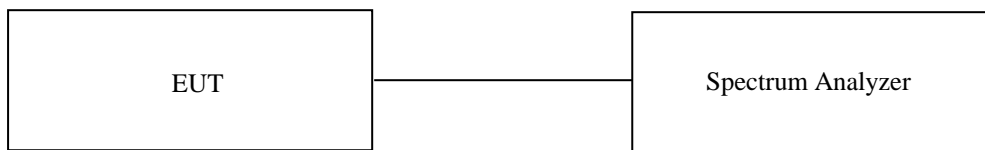
## 9. MAXIMUM PEAK OUTPUT POWER

### 9.1 Operating environment

Temperature : 23 °C  
 Relative humidity : 45 % R.H.

### 9.2 Test set-up

The maximum peak output power was measured with the spectrum analyzer connected to the antenna output of the EUT. The spectrum analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 26 dB & 6 dB bandwidth. The EUT was operating in transmit mode at the appropriate center frequency.



### 9.3 Test Date

January 07, 2021 ~ January 28, 2021

### 9.4 Test data for 802.11a RLAN Mode

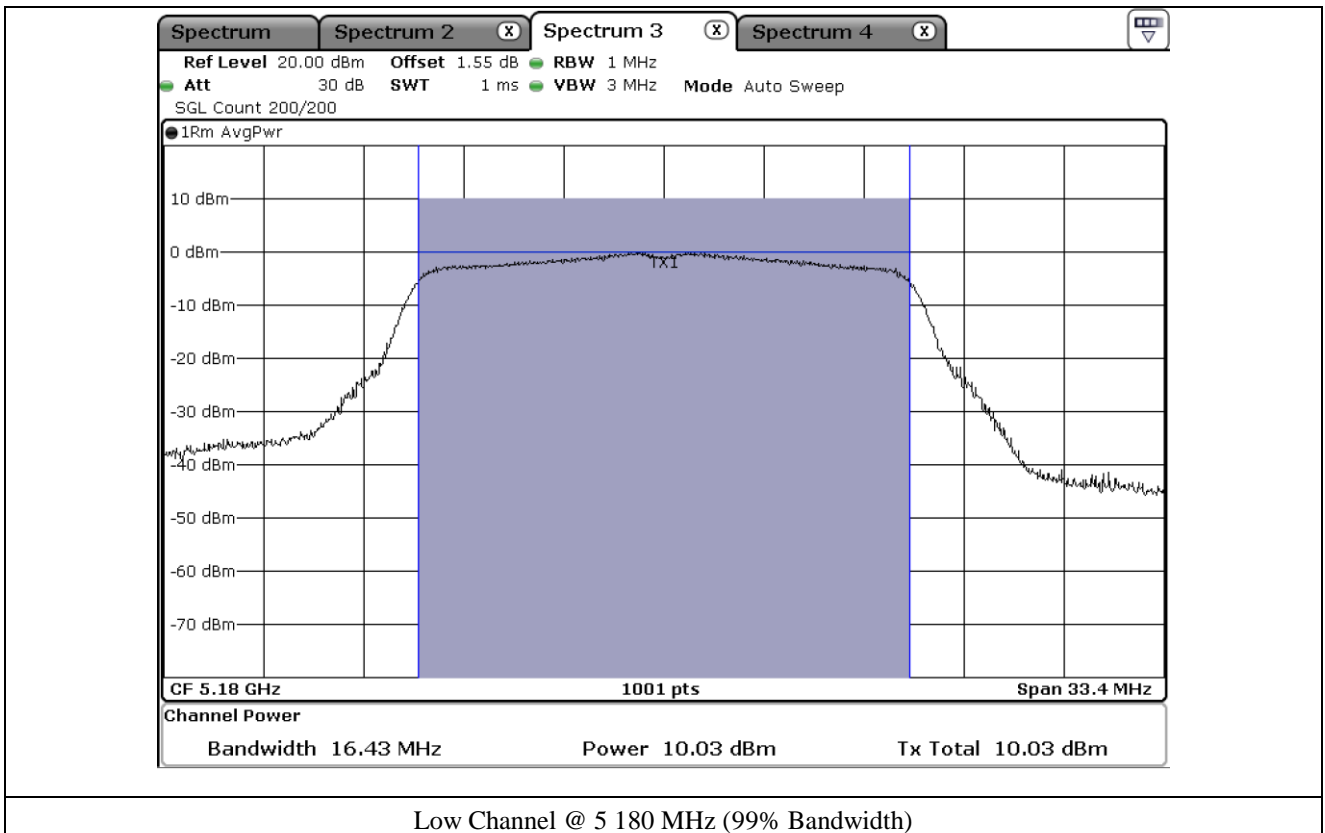
#### 9.4.1 Test data for Antenna 0

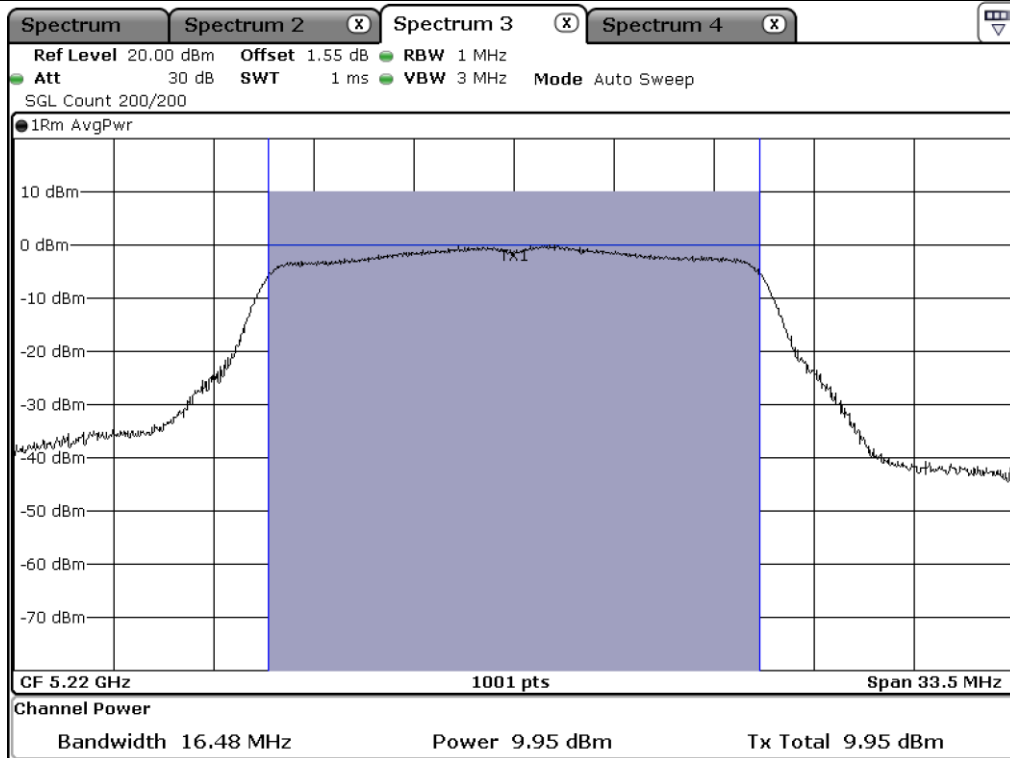
-. Test Result : Pass

-. Duty Cycle : 90.79 % (UNII 1) / 90.38 % (UNII 3)

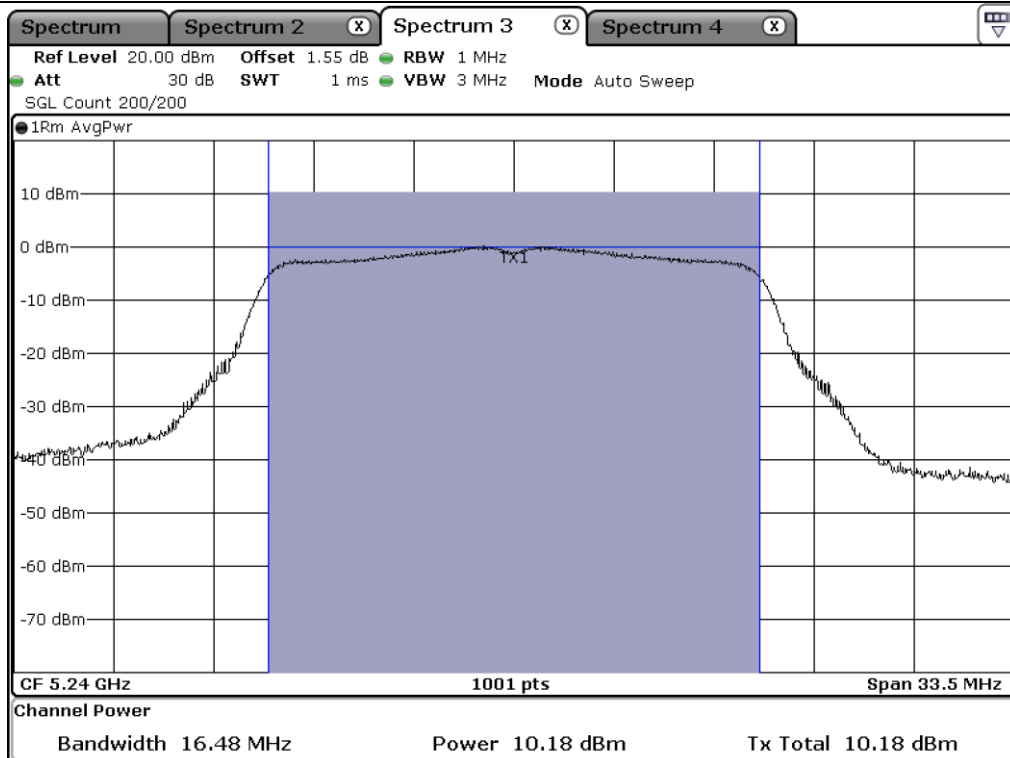
Frequency Range (MHz)	Channel	Frequency (MHz)	99% Band Width	Measured Value (dBm)	DUTY Factor (dB)	Result (dBm)	Linit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 180.00	16.43	10.03	0.42	10.45	23.97	13.52
	Middle	5 220.00	16.48	9.95	0.42	10.37	23.97	13.60
	High	5 240.00	16.48	10.18	0.42	10.60	23.97	13.37
5 725 ~ 5 850	Low	5 745.00	16.43	10.00	0.44	10.44	30.00	19.56
	Middle	5 785.00	16.48	9.58	0.44	10.02	30.00	19.98
	High	5 825.00	16.43	9.53	0.44	9.97	30.00	20.03

Remark : Margin = Limit – Result Value (Measured value + Duty Factor)

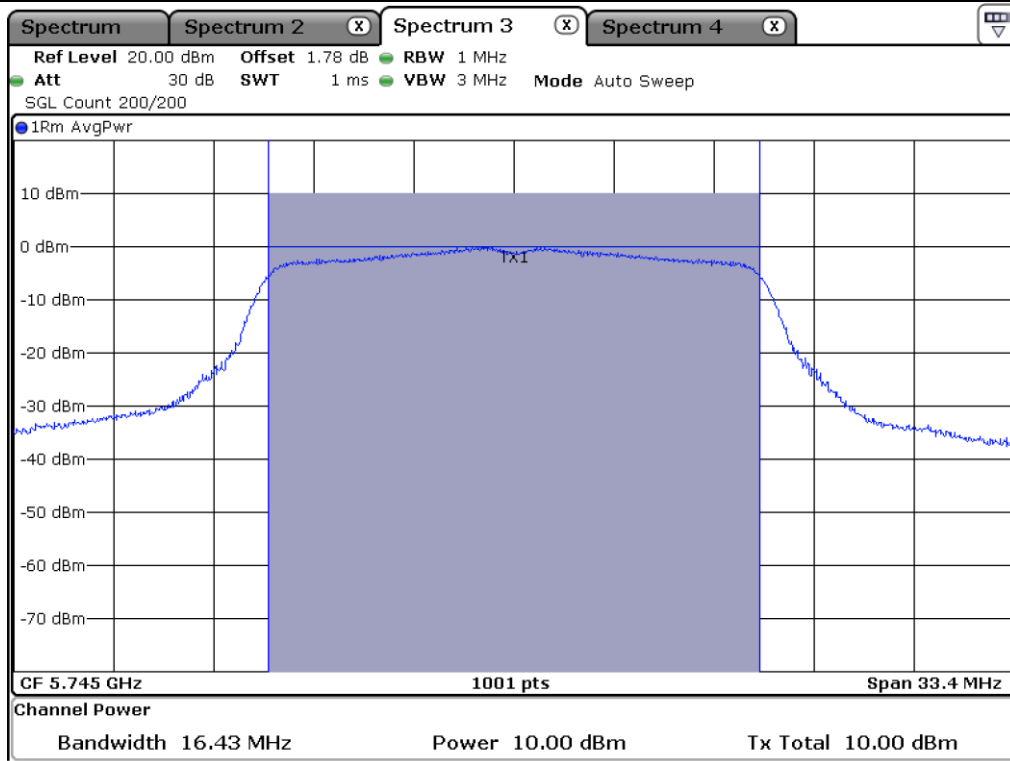




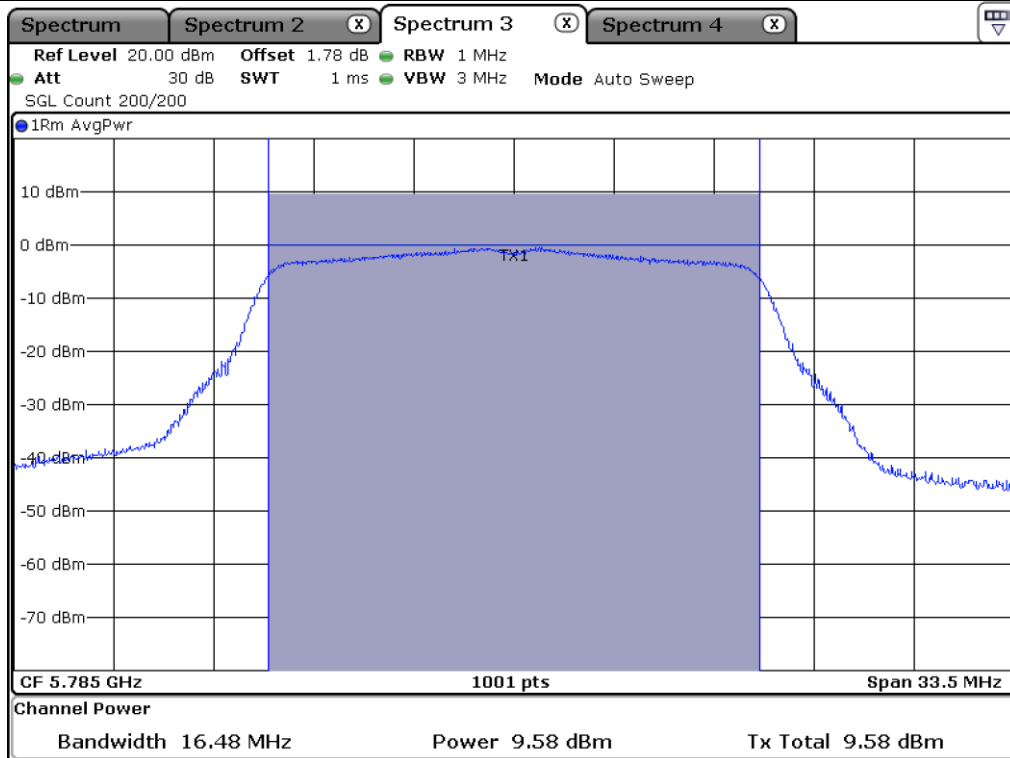
Middle Channel @ 5 220 MHz (99% Bandwidth)



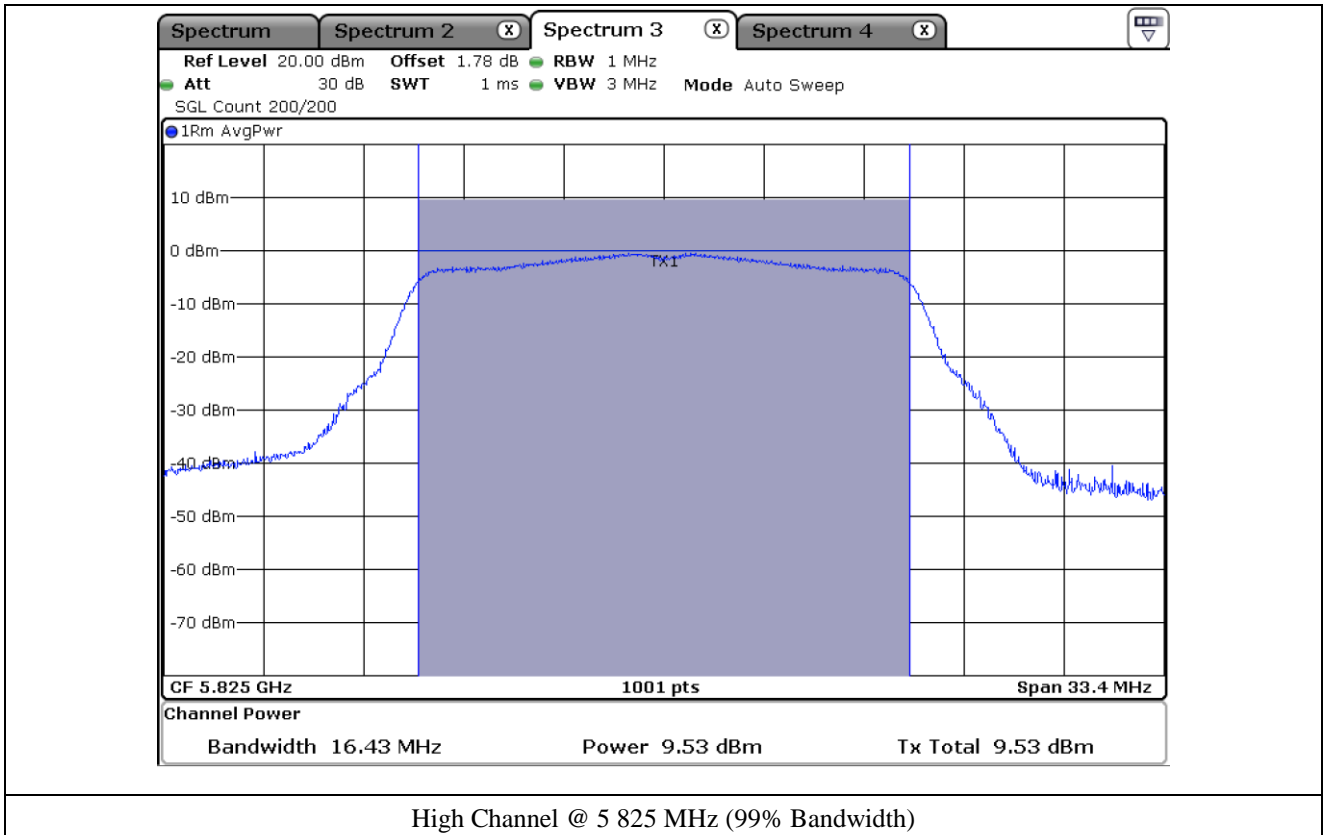
High Channel @ 5 240 MHz (99% Bandwidth)



Low Channel @ 5 745 MHz (99% Bandwidth)



Middle Channel @ 5 785 MHz (99% Bandwidth)

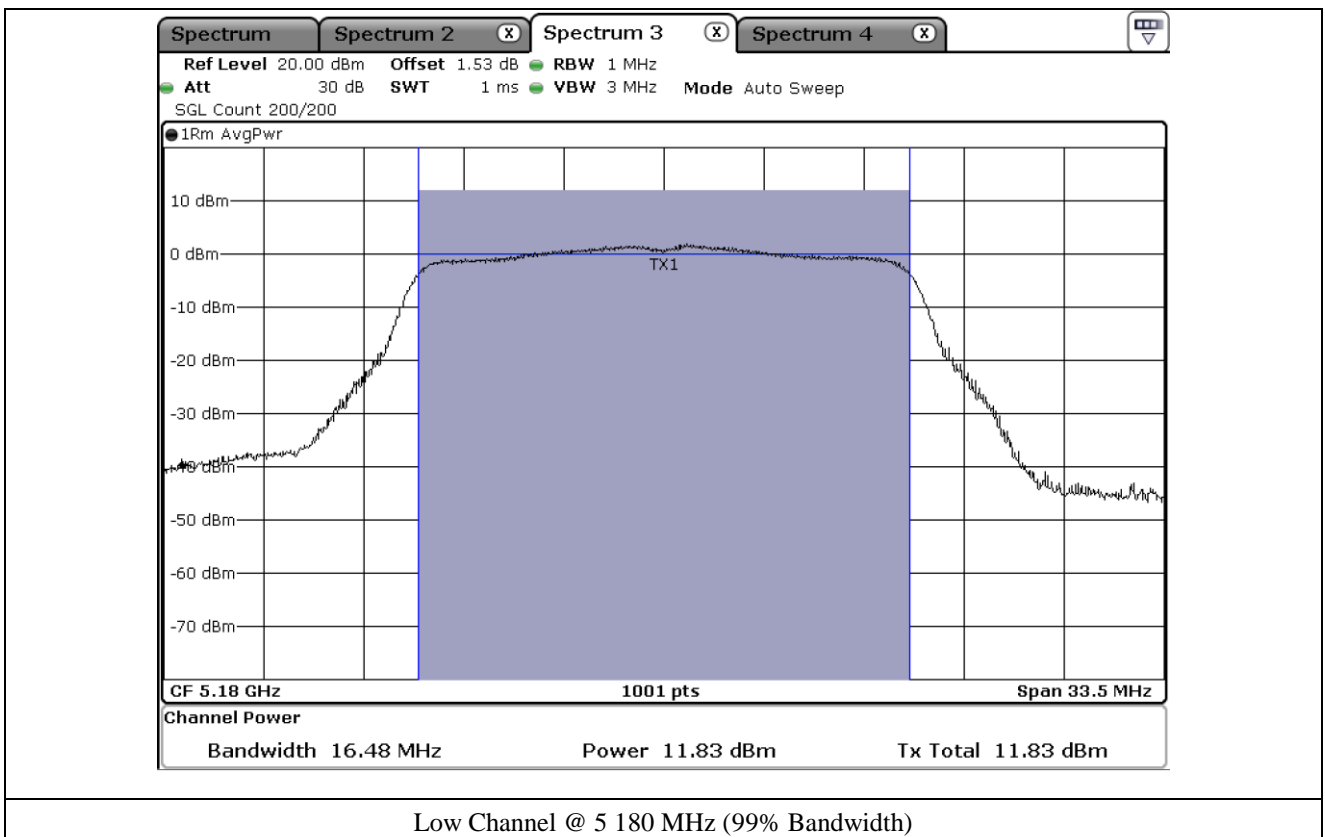


9.4.2 Test data for Antenna 1

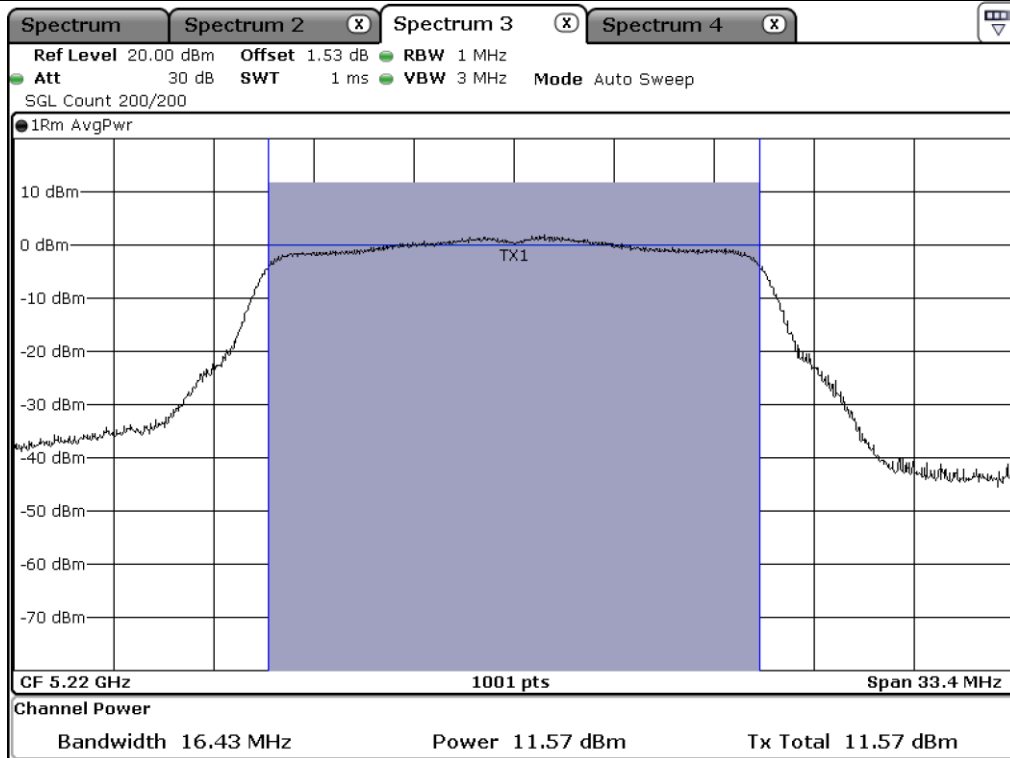
- Test Result : Pass
- Duty Cycle : 90.13 % (UNII 1) / 90.38 % (UNII 3)

Frequency Range (MHz)	Channel	Frequency (MHz)	99% Band Width	Measured Value (dBm)	DUTY Factor (dB)	Result (dBm)	Linit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 180.00	16.48	11.83	0.45	12.28	23.97	11.69
	Middle	5 220.00	16.43	11.57	0.45	12.02	23.97	11.95
	High	5 240.00	16.43	11.57	0.45	12.02	23.97	11.95
5 725 ~ 5 850	Low	5 745.00	16.43	11.27	0.44	11.71	30.00	18.29
	Middle	5 785.00	16.43	11.35	0.44	11.79	30.00	18.21
	High	5 825.00	16.43	11.44	0.44	11.88	30.00	18.12

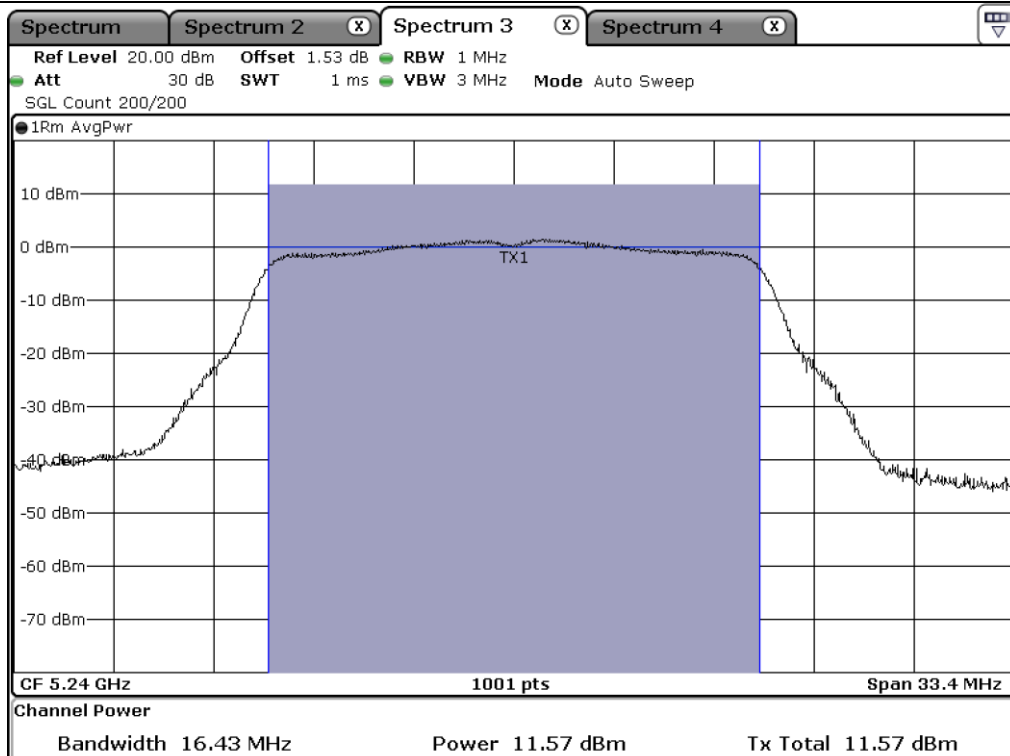
Remark : Margin = Limit – Result Value (Measured value + Duty Factor)



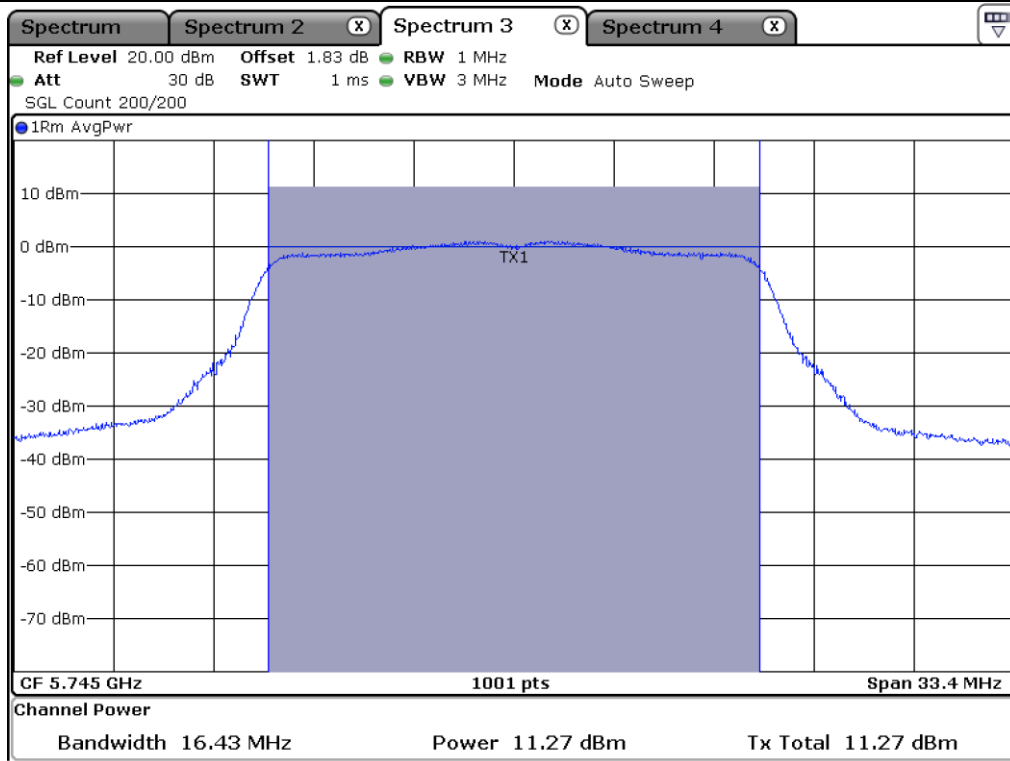




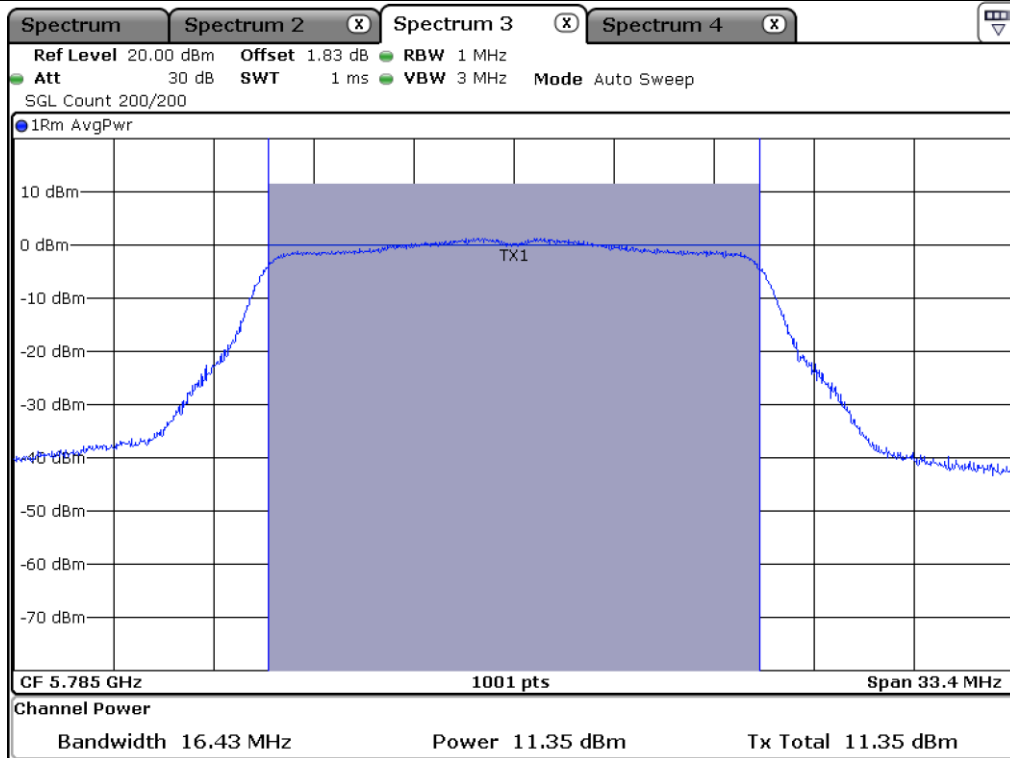
Middle Channel @ 5 220 MHz (99% Bandwidth)



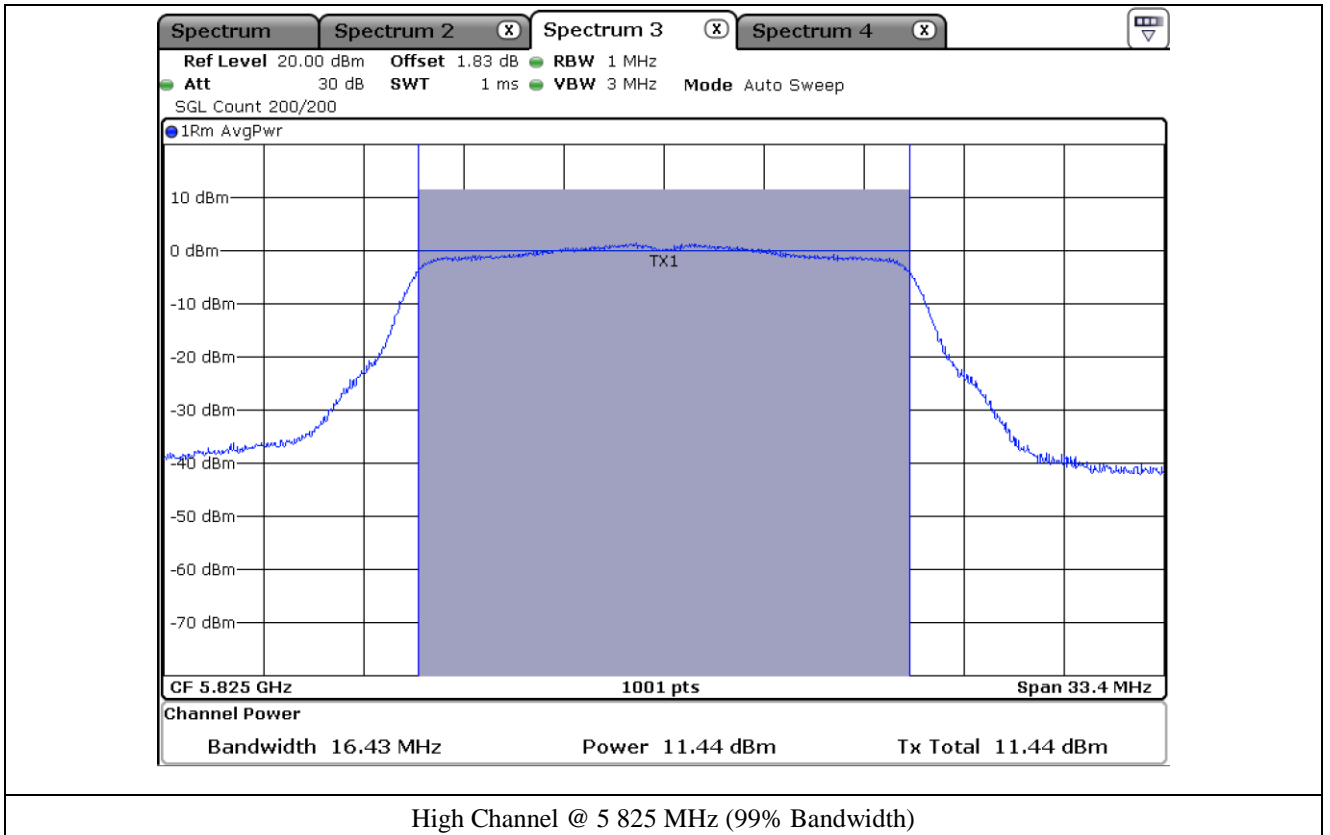
High Channel @ 5 240 MHz (99% Bandwidth)



Low Channel @ 5 745 MHz (99% Bandwidth)



Middle Channel @ 5 785 MHz (99% Bandwidth)



### 9.4.3 Test data for Multiple Transmit

-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 180.00	14.47	23.97	9.50
	Middle	5 220.00	14.28	23.97	9.69
	High	5 240.00	14.38	23.97	9.59
5 725 ~ 5 850	Low	5 745.00	14.13	30.00	15.87
	Middle	5 785.00	14.00	30.00	16.00
	High	5 825.00	14.04	30.00	15.96

Remark 1 : Margin = Limit – Result Value (Measured value + Duty Factor)

Remark 2: Calculated Output Power=  $10\log (10^{(\text{Antenna0 Output Power}/10)} + 10^{(\text{Antenna1 Output Power}/10)})$

### 9.5 Test data for 802.11n\_HT20 RLAN Mode

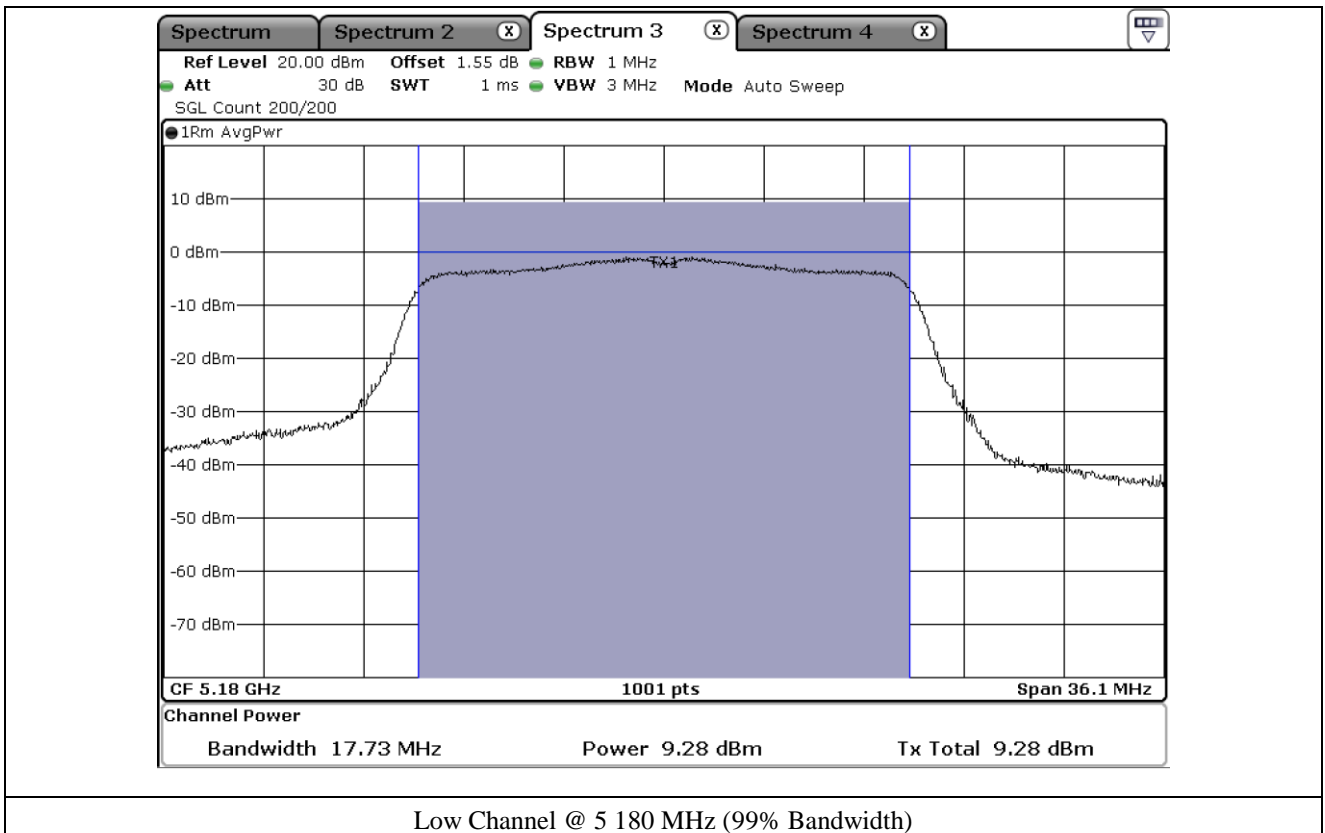
#### 9.5.1 Test data for Antenna 0

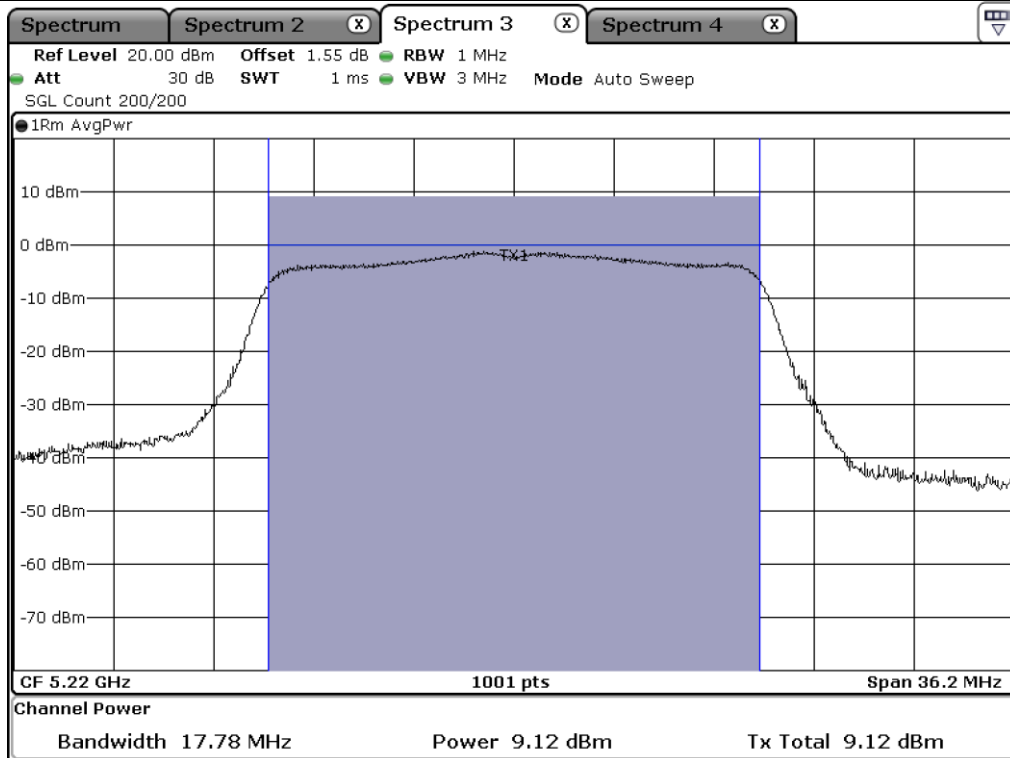
-. Test Result : Pass

-. Duty Cycle : 83.75 % (UNII 1) / 83.54 % (UNII 3)

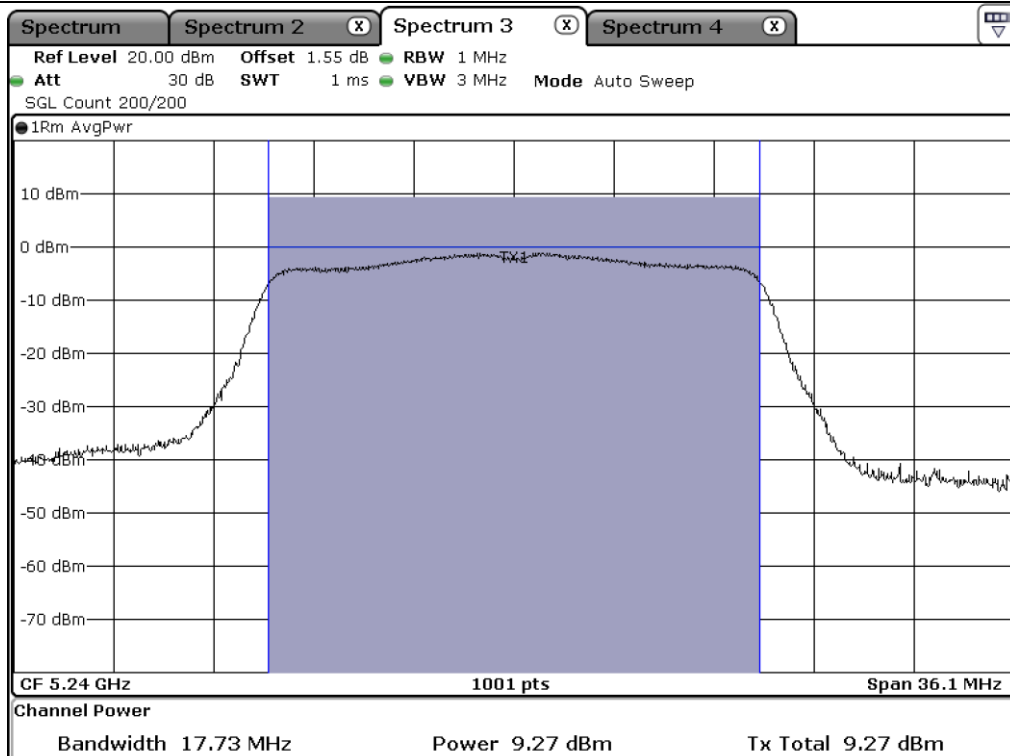
Frequency Range (MHz)	Channel	Frequency (MHz)	99% Band Width	Measured Value (dBm)	DUTY Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 180.00	17.73	9.28	0.77	10.05	23.97	13.92
	Middle	5 220.00	17.78	9.12	0.77	9.89	23.97	14.08
	High	5 240.00	17.73	9.27	0.77	10.04	23.97	13.93
5 725 ~ 5 850	Low	5 745.00	17.73	9.45	0.78	10.23	30.00	19.77
	Middle	5 785.00	17.78	9.17	0.78	9.95	30.00	20.05
	High	5 825.00	17.73	9.14	0.78	9.92	30.00	20.08

Remark : Margin = Limit – Result Value (Measured value +Duty Factor)

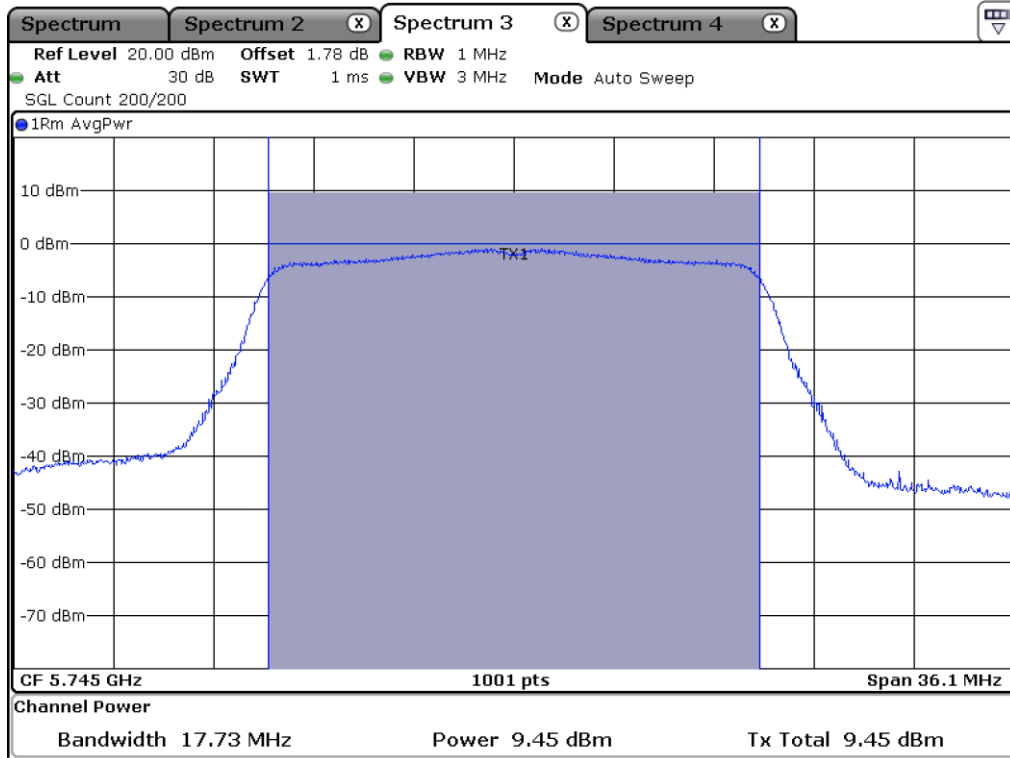




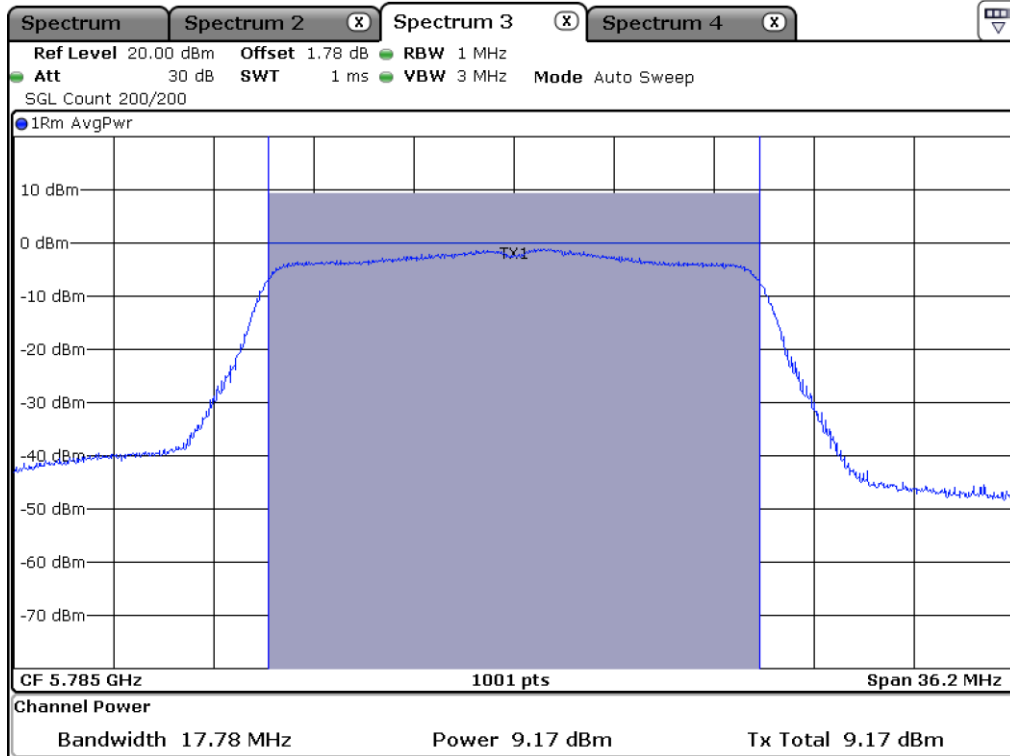
Middle Channel @ 5 220 MHz (99% Bandwidth)



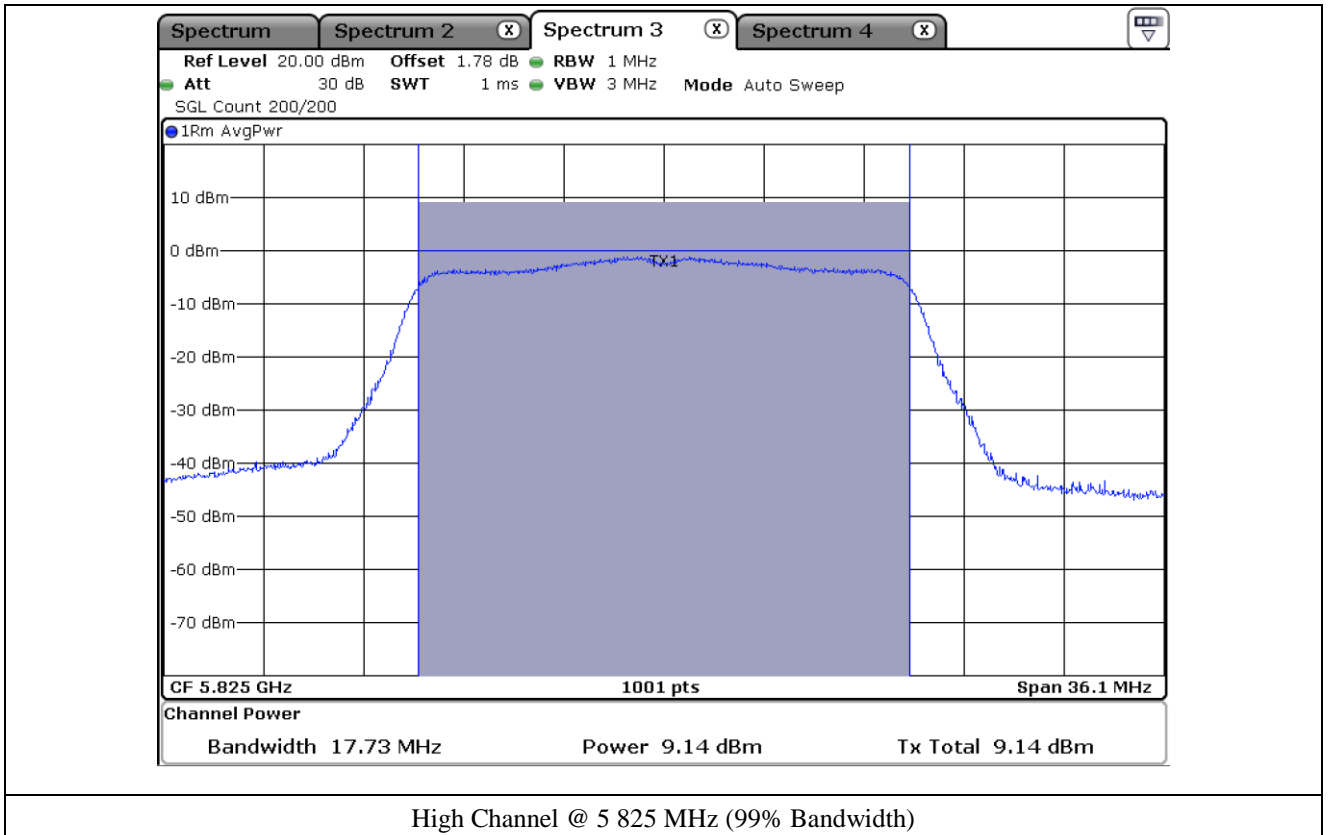
High Channel @ 5 240 MHz (99% Bandwidth)



Low Channel @ 5 745 MHz (99% Bandwidth)



Middle Channel @ 5 785 MHz (99% Bandwidth)



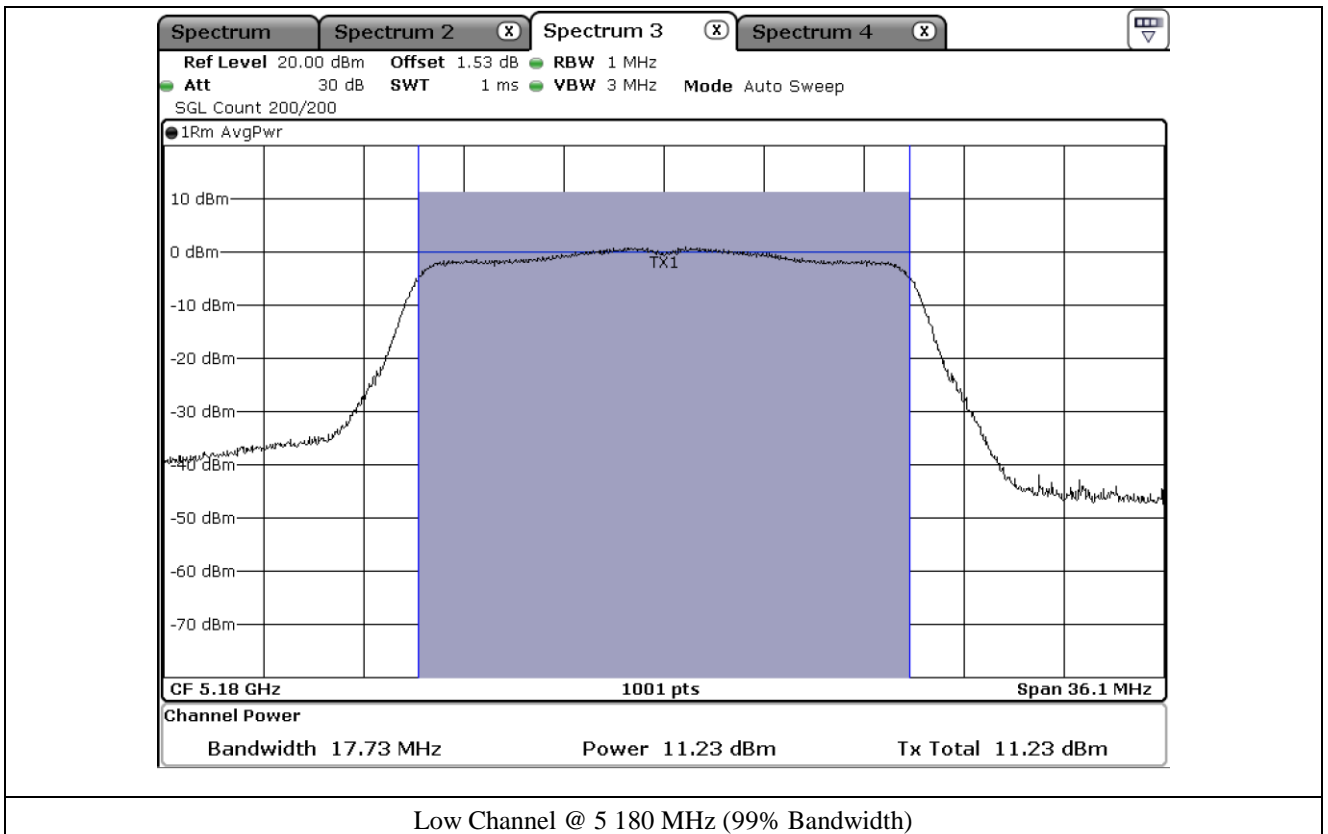


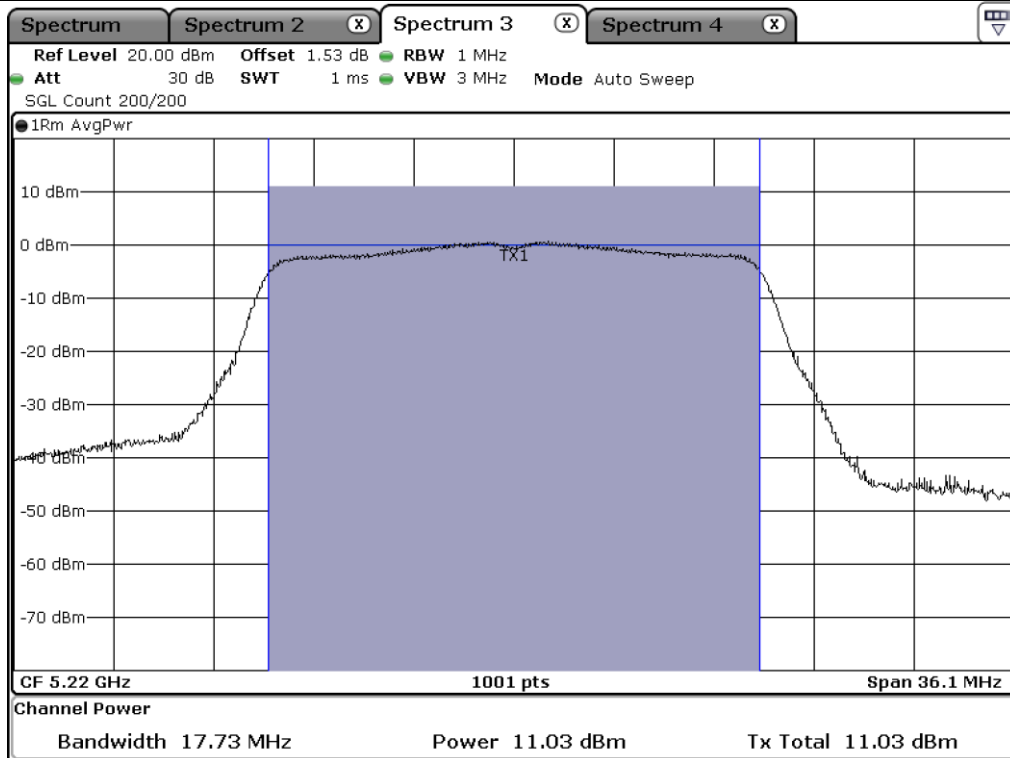
9.5.2 Test data for Antenna 1

- Test Result : Pass  
 - Duty Cycle : 83.54 % (UNII 1) / 83.54 % (UNII 3)

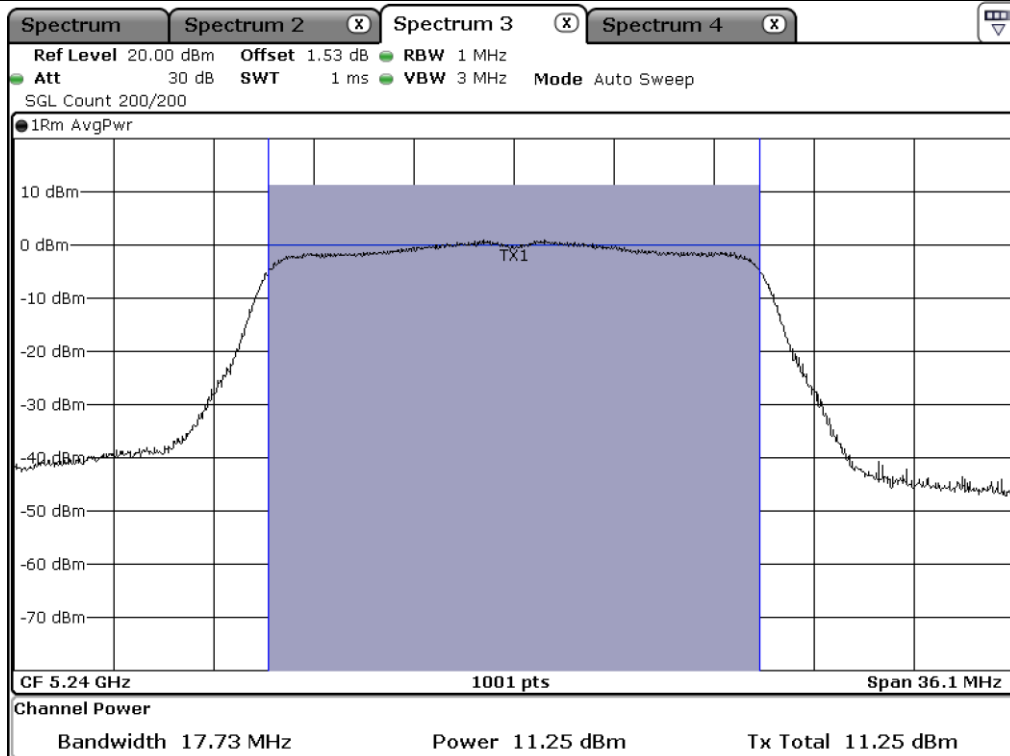
Frequency Range (MHz)	Channel	Frequency (MHz)	99% Band Width	Measured Value (dBm)	DUTY Factor (dB)	Result (dBm)	Linit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 180.00	17.73	11.23	0.78	12.01	23.97	11.96
	Middle	5 220.00	17.73	11.03	0.78	11.81	23.97	12.16
	High	5 240.00	17.73	11.25	0.78	12.03	23.97	11.94
5 725 ~ 5 850	Low	5 745.00	17.73	11.30	0.78	12.08	30.00	17.92
	Middle	5 785.00	17.73	11.36	0.78	12.14	30.00	17.86
	High	5 825.00	17.73	10.91	0.78	11.69	30.00	18.31

Remark : Margin = Limit – Result Value (Measured value + Duty Factor)

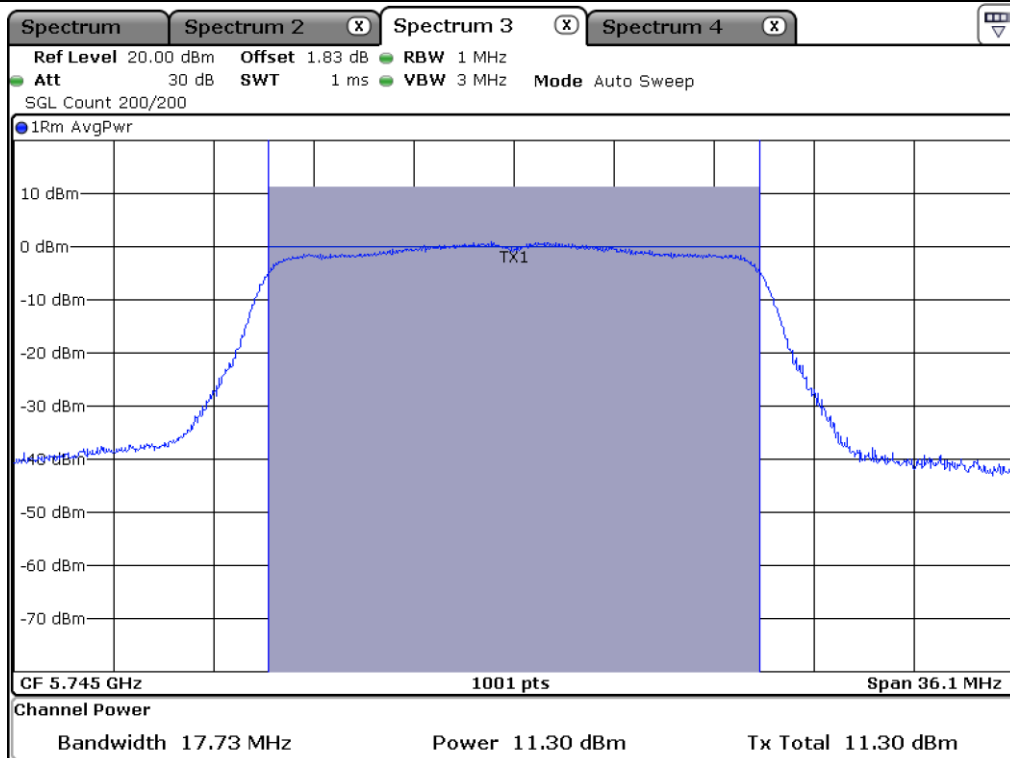




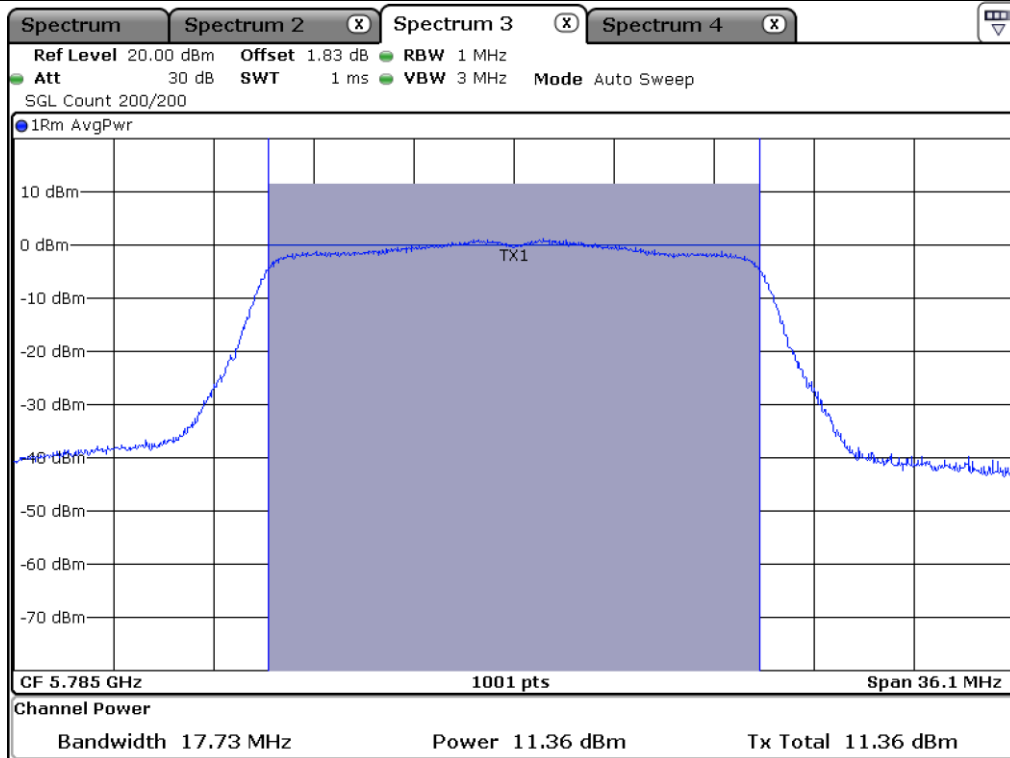
Middle Channel @ 5 220 MHz (99% Bandwidth)



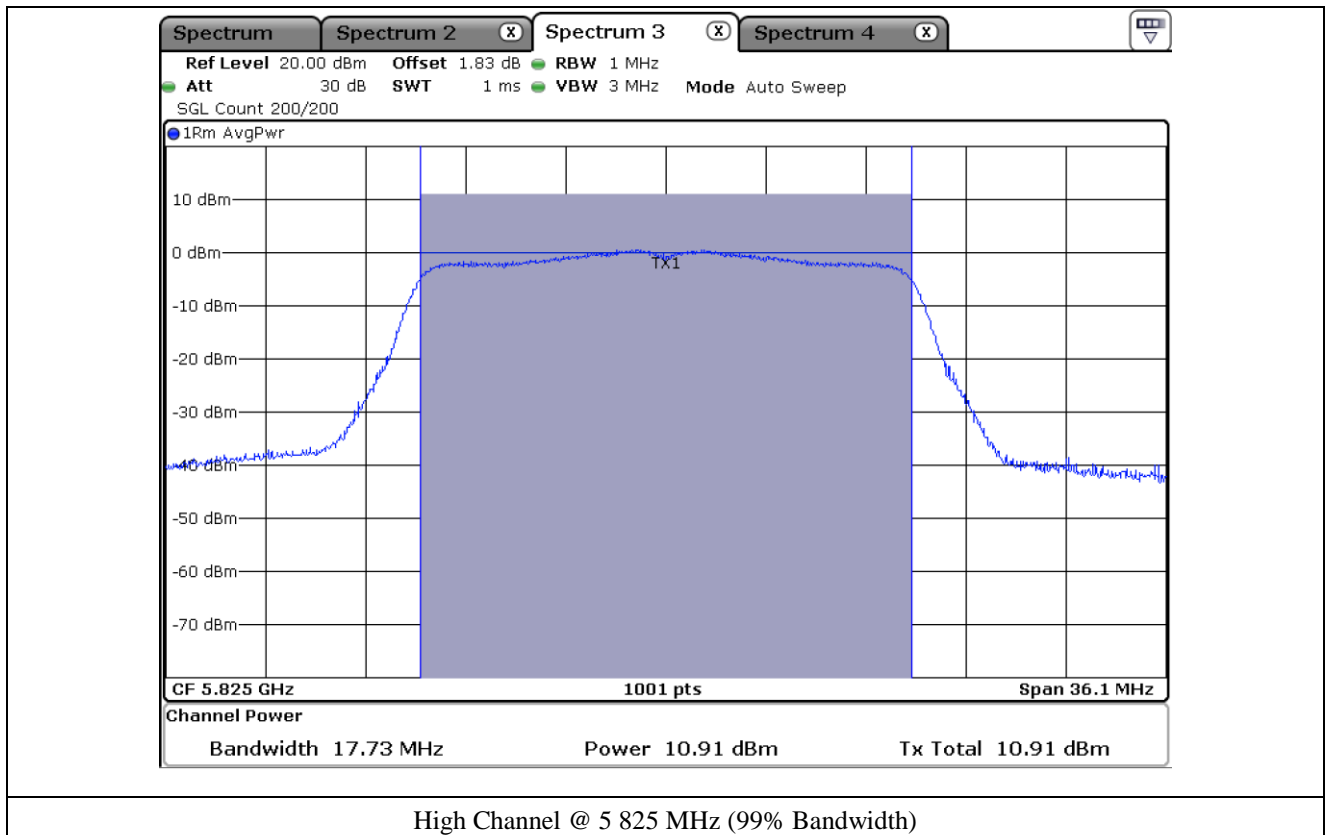
High Channel @ 5 240 MHz (99% Bandwidth)



Low Channel @ 5 745 MHz (99% Bandwidth)



Middle Channel @ 5 785 MHz (99% Bandwidth)



### 9.5.3 Test data for Multiple Transmit

-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 180.00	14.15	23.97	9.82
	Middle	5 220.00	13.97	23.97	10.00
	High	5 240.00	14.16	23.97	9.81
5 725 ~ 5 850	Low	5 745.00	14.26	30.00	15.74
	Middle	5 785.00	14.19	30.00	15.81
	High	5 825.00	13.90	30.00	16.10

Remark 1 : Margin = Limit – Result Value (Measured value + Duty Factor)

Remark 2: Calculated Output Power=  $10\log (10^{(\text{Antenna0 Output Power}/10)} + 10^{(\text{Antenna1 Output Power}/10)})$

### 9.6 Test data for 802.11ac\_VHT20 RLAN Mode

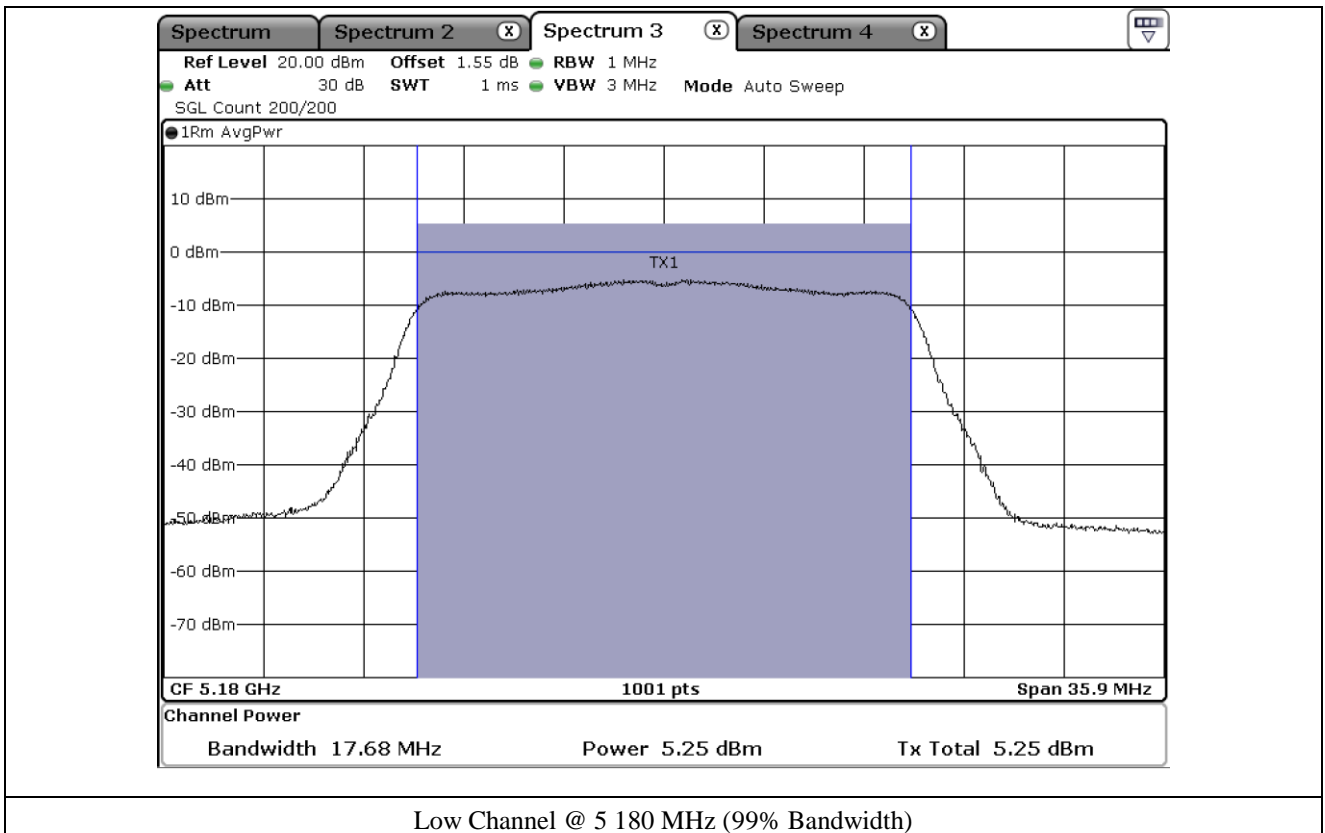
#### 9.6.1 Test data for Antenna 0

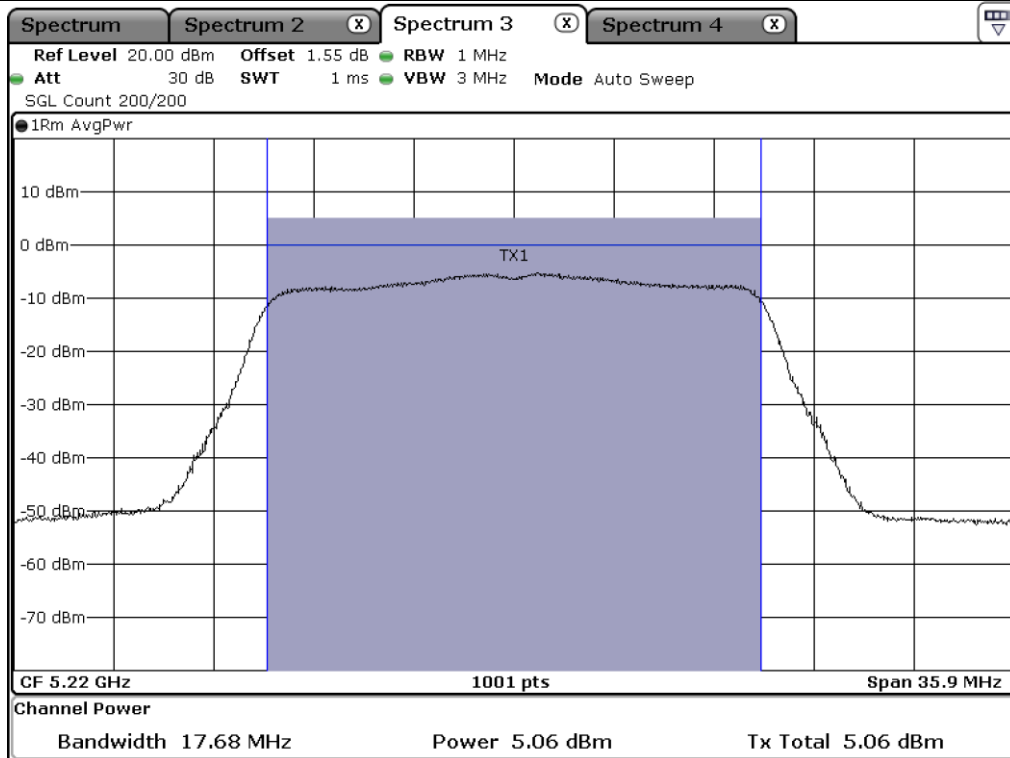
- Test Result : Pass

- Duty Cycle : 91.67 % (UNII 1) / 91.72 % (UNII 3)

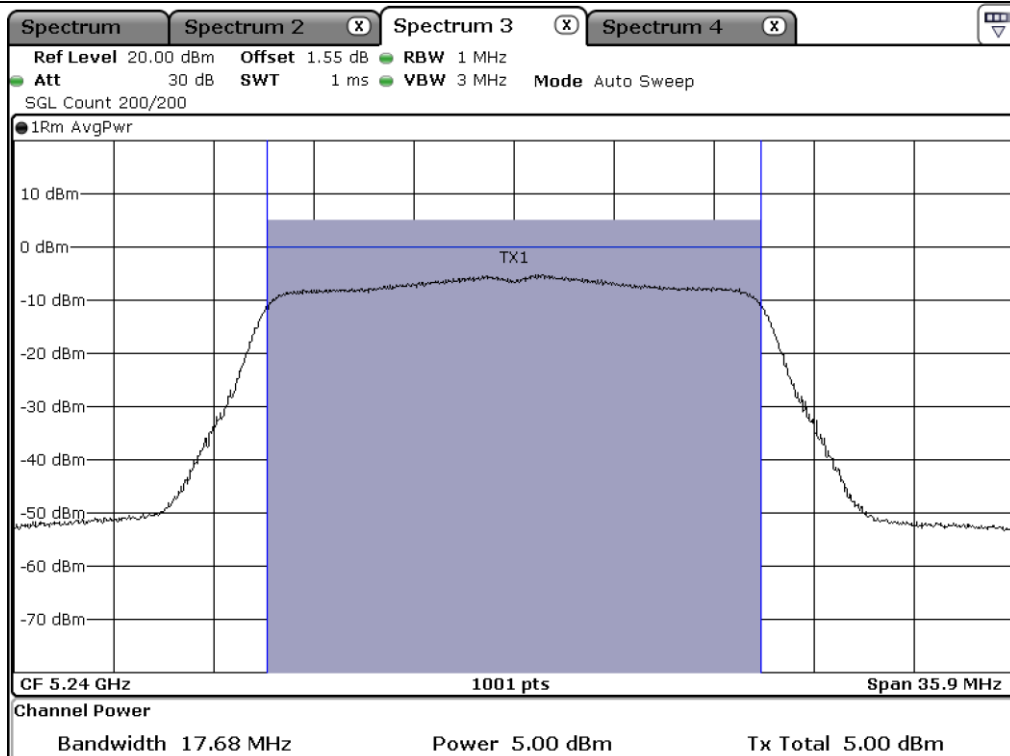
Frequency Range (MHz)	Channel	Frequency (MHz)	99% Band Width	Measured Value (dBm)	DUTY Factor (dB)	Result (dBm)	Linit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 180.00	17.68	5.25	0.38	5.63	23.97	18.34
	Middle	5 220.00	17.68	5.06	0.38	5.44	23.97	18.53
	High	5 240.00	17.68	5.00	0.38	5.38	23.97	18.59
5 725 ~ 5 850	Low	5 745.00	17.73	5.31	0.38	5.69	30.00	24.31
	Middle	5 785.00	17.73	5.22	0.38	5.60	30.00	24.40
	High	5 825.00	17.73	5.60	0.38	5.98	30.00	24.02

Remark : Margin = Limit – Result Value (Measured value + Duty Factor)

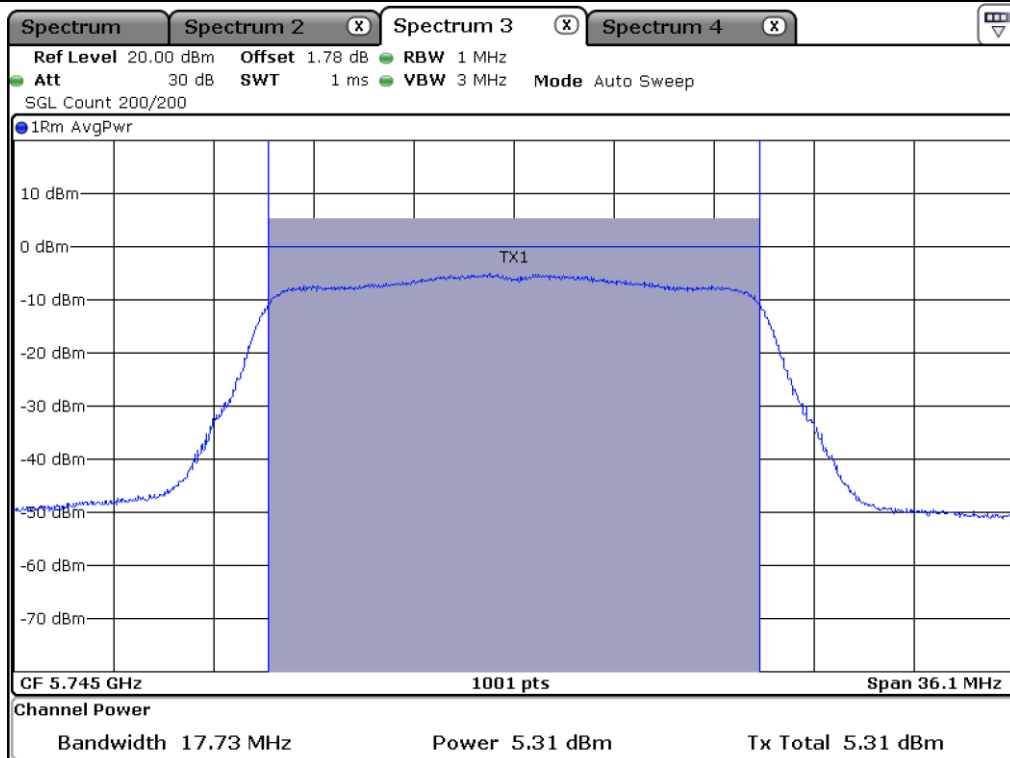




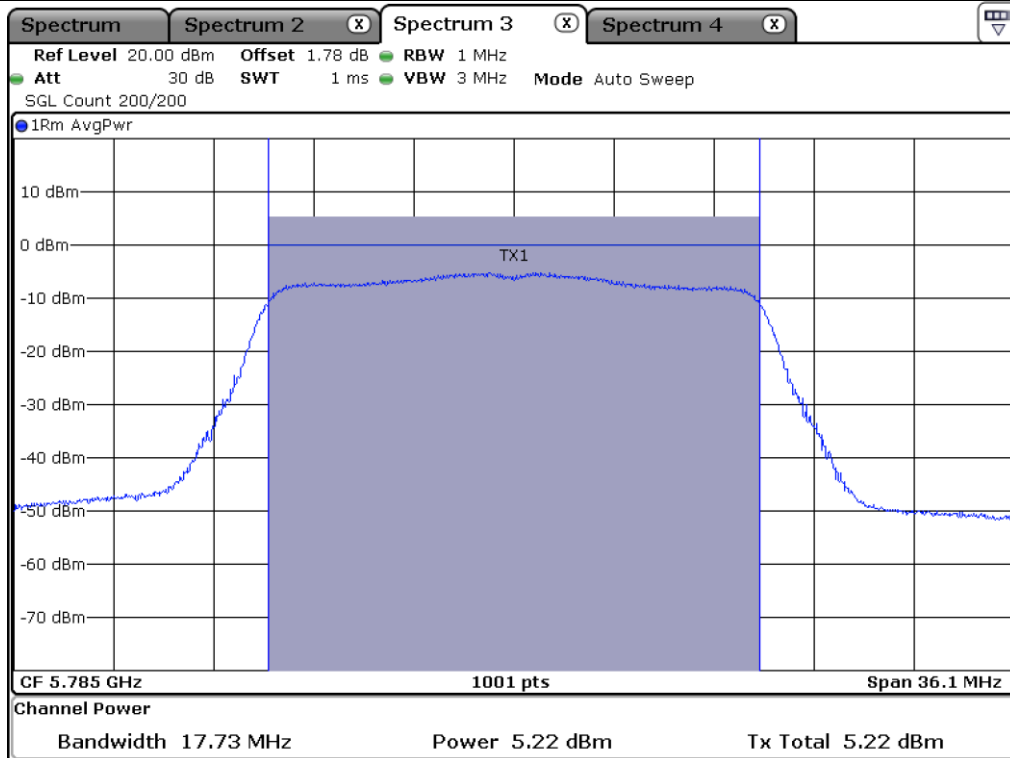
Middle Channel @ 5 220 MHz (99% Bandwidth)



High Channel @ 5 240 MHz (99% Bandwidth)

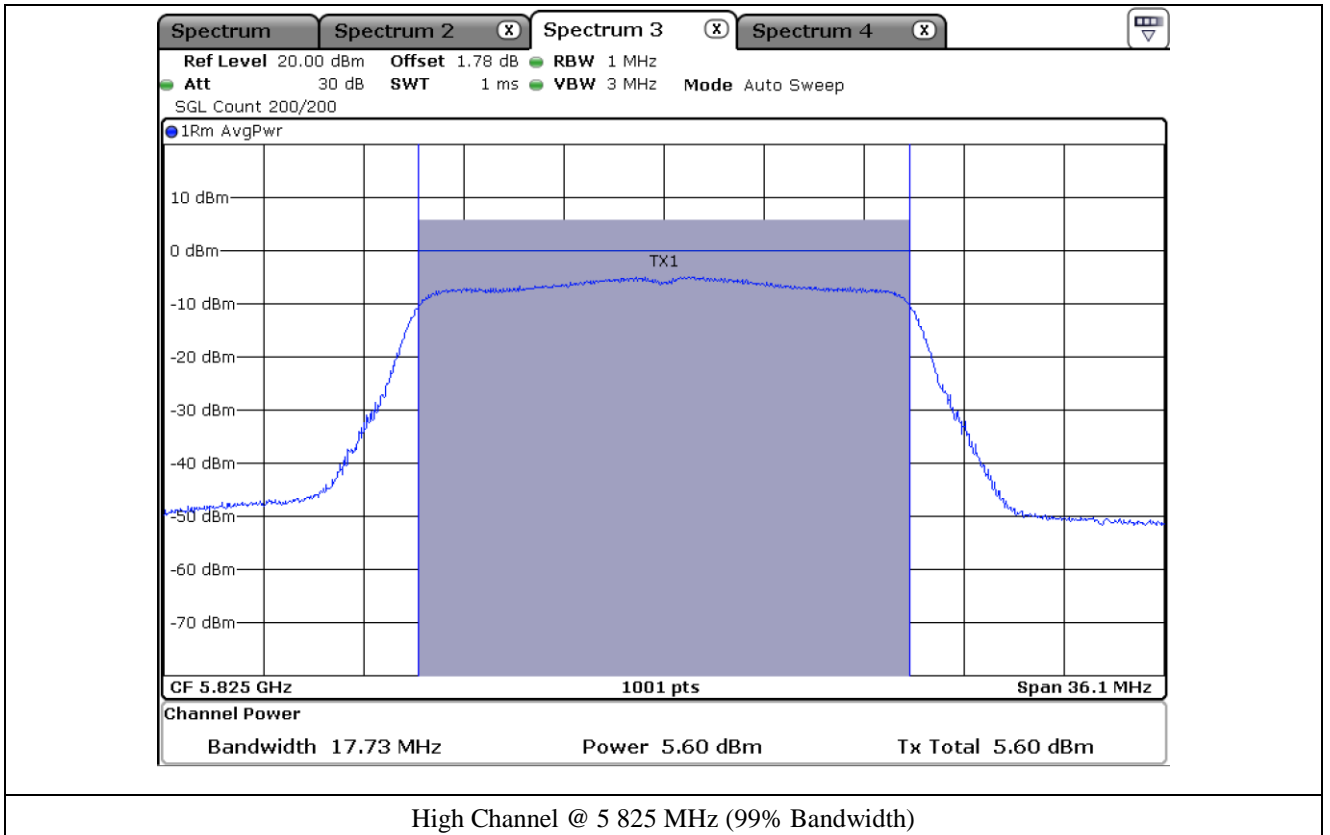


Low Channel @ 5 745 MHz (99% Bandwidth)



Middle Channel @ 5 785 MHz (99% Bandwidth)



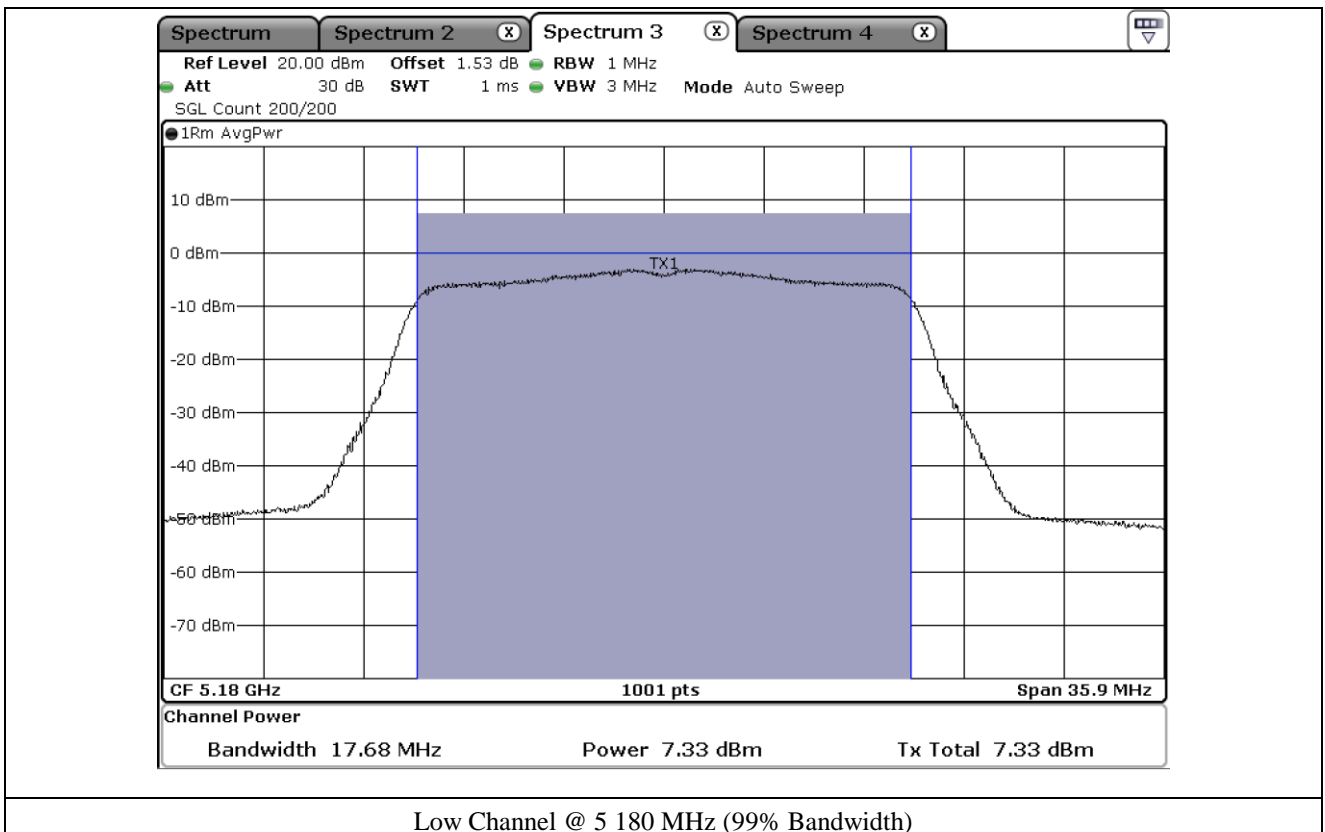


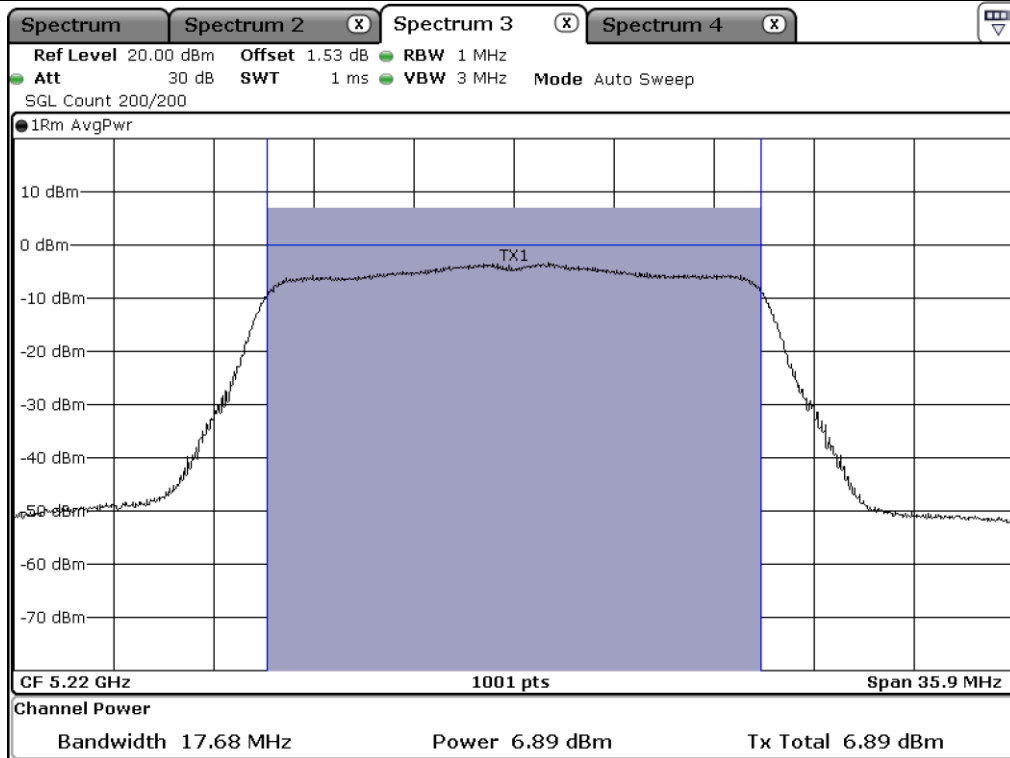
**9.6.2 Test data for Antenna 1**

- Test Result : Pass
- Duty Cycle : 90.34 % (UNII 1) / 91.67 % (UNII 3)

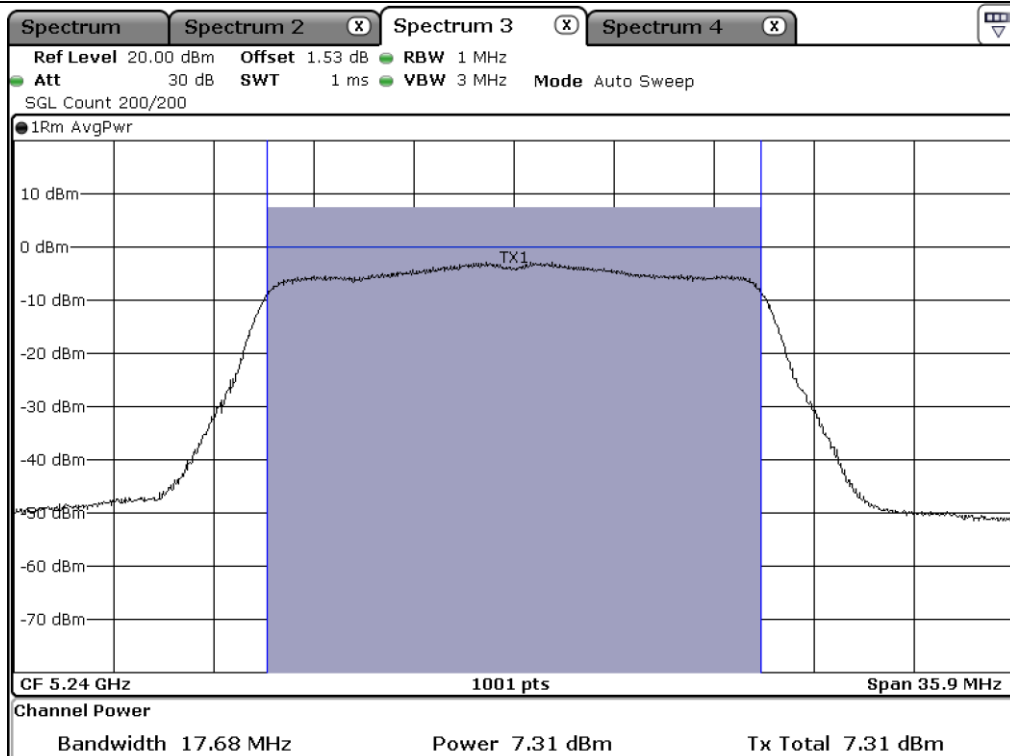
Frequency Range (MHz)	Channel	Frequency (MHz)	99% Band Width	Measured Value (dBm)	DUTY Factor (dB)	Result (dBm)	Linit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 180.00	17.68	7.33	0.44	7.77	23.97	16.20
	Middle	5 220.00	17.68	6.89	0.44	7.33	23.97	16.64
	High	5 240.00	17.68	7.31	0.44	7.75	23.97	16.22
5 725 ~ 5 850	Low	5 745.00	17.73	8.33	0.38	8.71	30.00	21.29
	Middle	5 785.00	17.73	8.53	0.38	8.91	30.00	21.09
	High	5 825.00	17.78	8.09	0.38	8.47	30.00	21.53

Remark : Margin = Limit – Result Value (Measured value + Duty Factor)

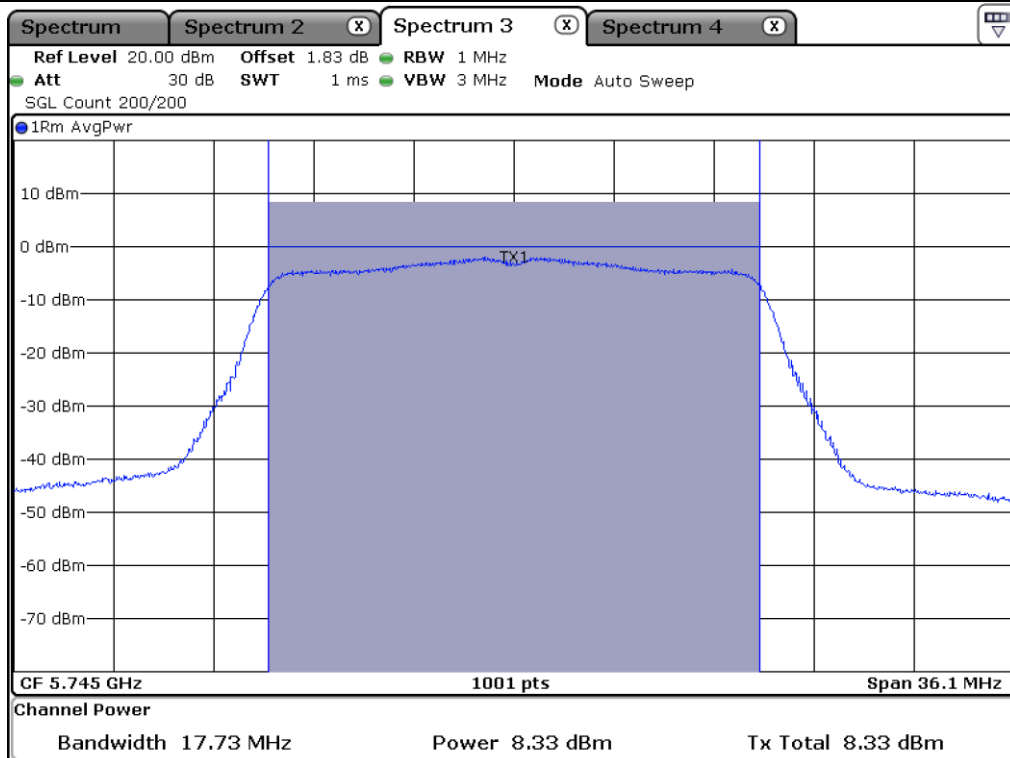




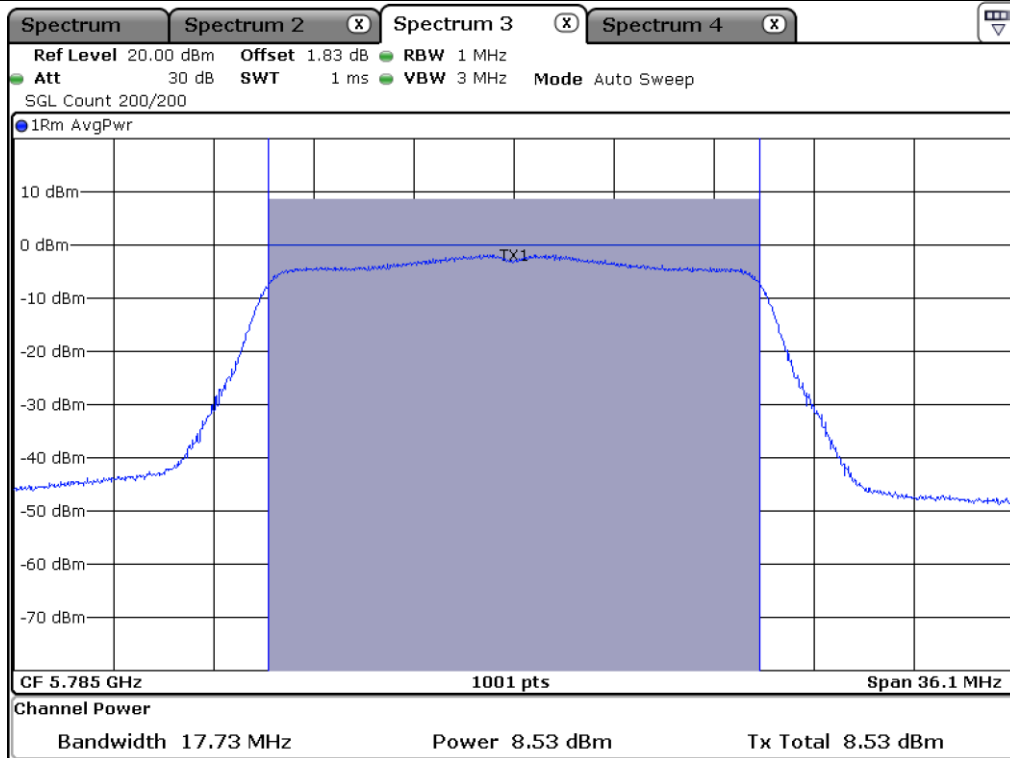
Middle Channel @ 5 220 MHz (99% Bandwidth)



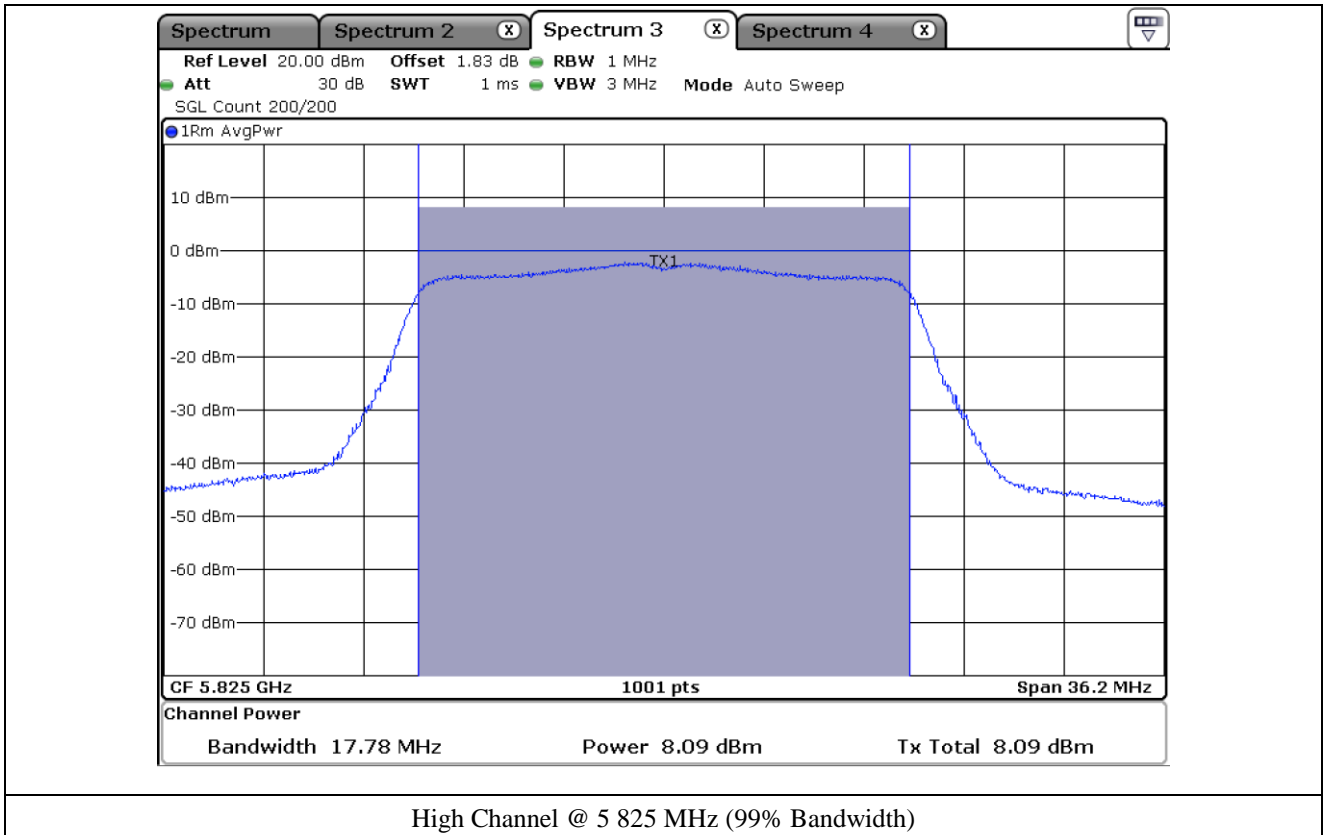
High Channel @ 5 240 MHz (99% Bandwidth)



Low Channel @ 5 745 MHz (99% Bandwidth)



Middle Channel @ 5 785 MHz (99% Bandwidth)



### 9.6.3 Test data for Multiple Transmit

-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 180.00	9.84	23.97	14.13
	Middle	5 220.00	9.50	23.97	14.47
	High	5 240.00	9.74	23.97	14.23
5 725 ~ 5 850	Low	5 745.00	10.47	30.00	19.53
	Middle	5 785.00	10.57	30.00	19.43
	High	5 825.00	10.41	30.00	19.59

Remark 1 : Margin = Limit – Result Value (Measured value + Duty Factor)

Remark 2: Calculated Output Power=  $10\log (10^{(\text{Antenna0 Output Power}/10)} + 10^{(\text{Antenna1 Output Power}/10)})$

**9.7 Test data for 802.11n\_HT40 RLAN Mode**

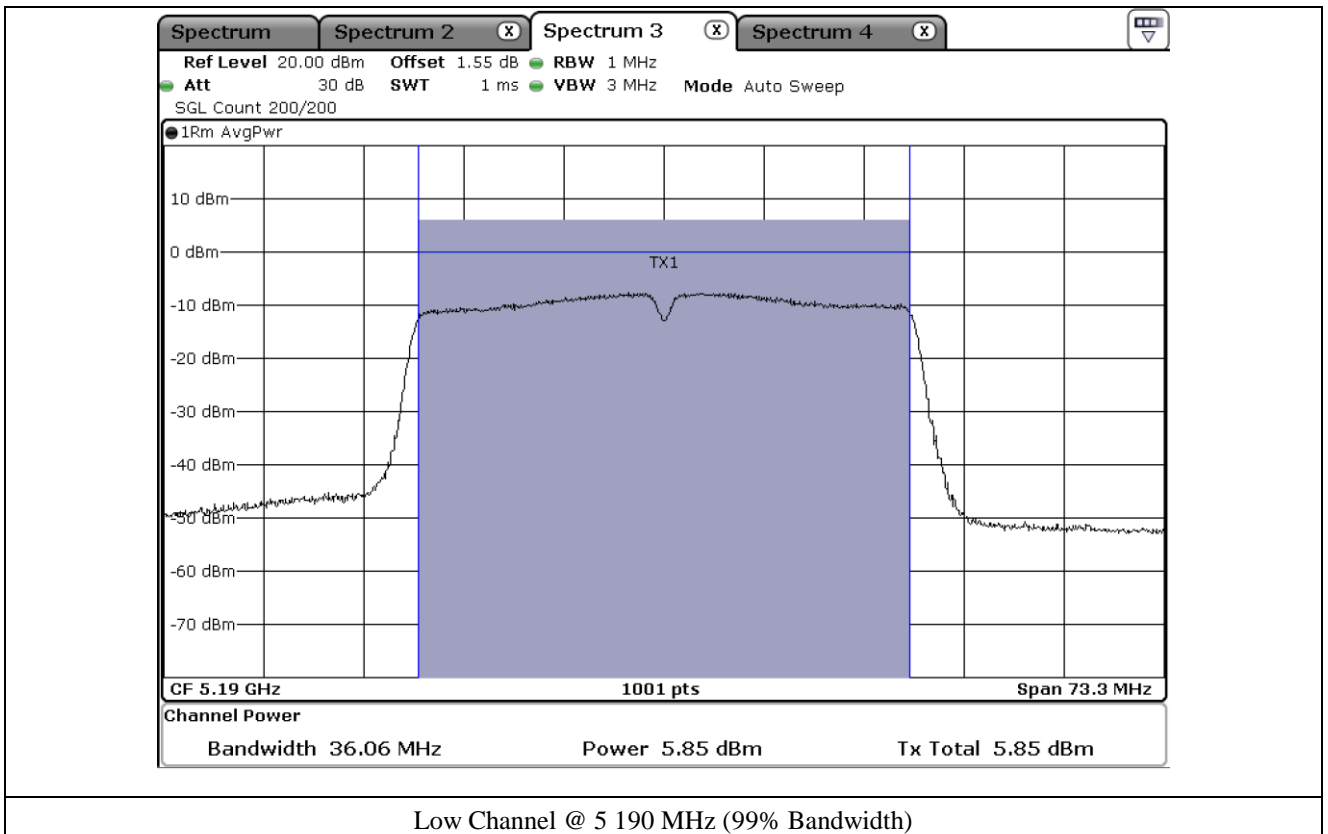
**9.7.1 Test data for Antenna 0**

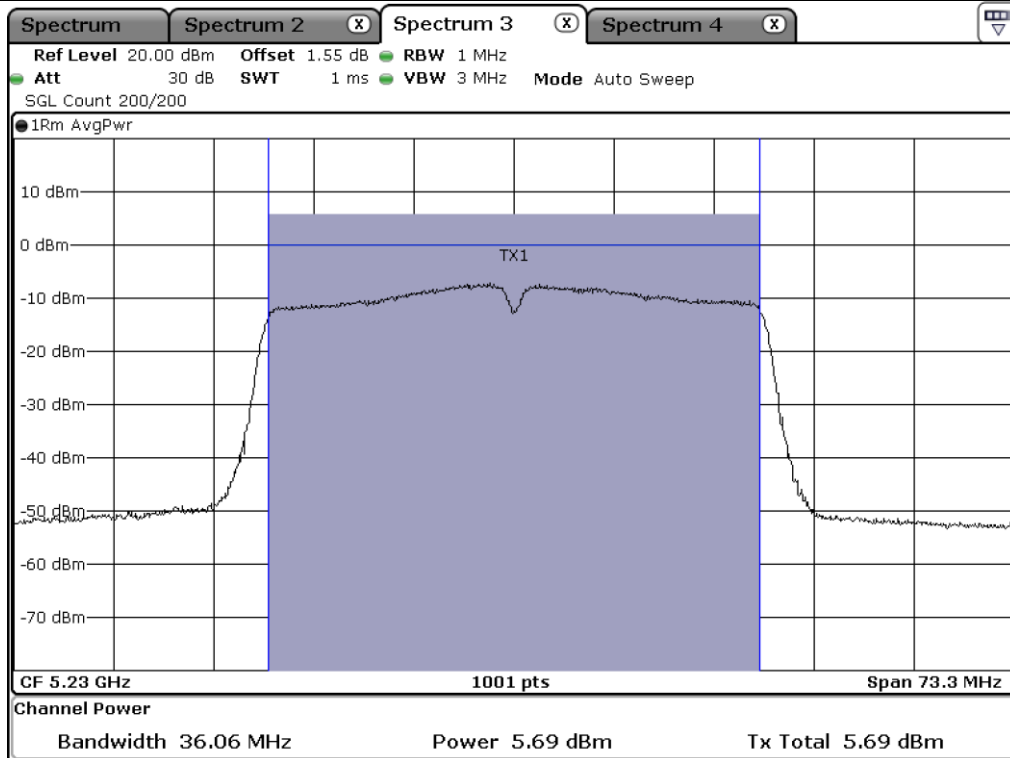
- Test Result : Pass

- Duty Cycle : 73.91 % (UNII 1) / 73.91 % (UNII 3)

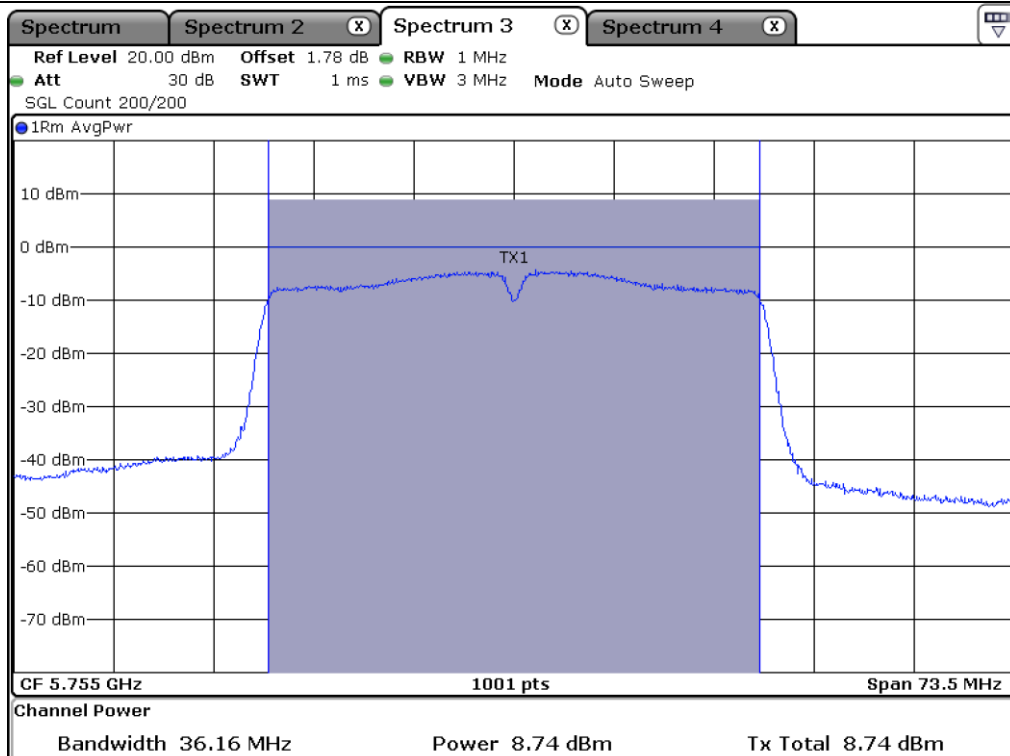
Frequency Range (MHz)	Channel	Frequency (MHz)	99% Band Width	Measured Value (dBm)	DUTY Factor (dB)	Result (dBm)	Linit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 190.00	36.06	5.85	1.31	7.16	23.97	16.81
	High	5 230.00	36.06	5.69	1.31	7.00	23.97	16.97
5 725 ~ 5 850	Low	5 755.00	36.16	8.74	1.31	10.05	30.00	19.95
	High	5 795.00	36.16	8.19	1.31	9.50	30.00	20.50

Remark : Margin = Limit – Result Value (Measured value + Duty Factor)



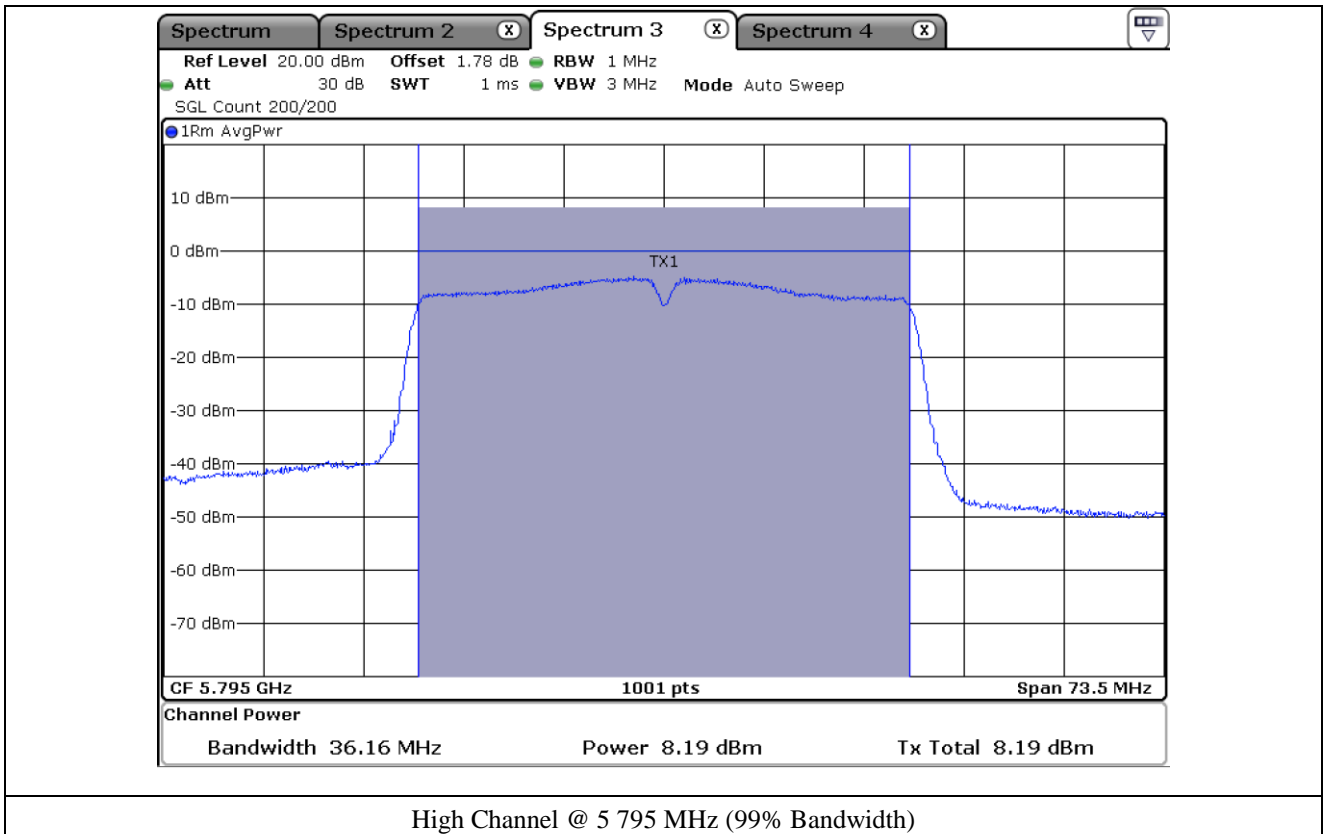


High Channel @ 5 230 MHz (99% Bandwidth)



Low Channel @ 5 755 MHz (99% Bandwidth)





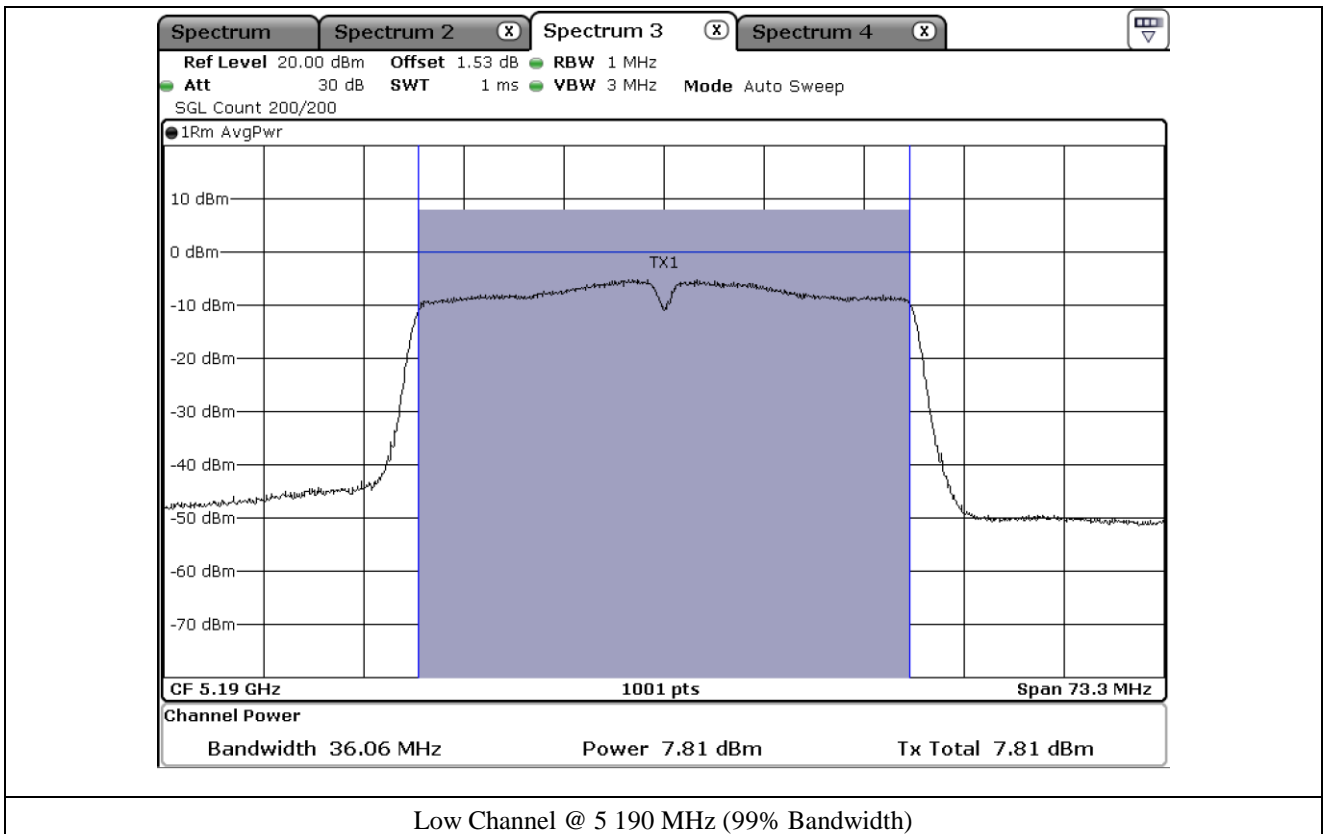
**9.7.2 Test data for Antenna 1**

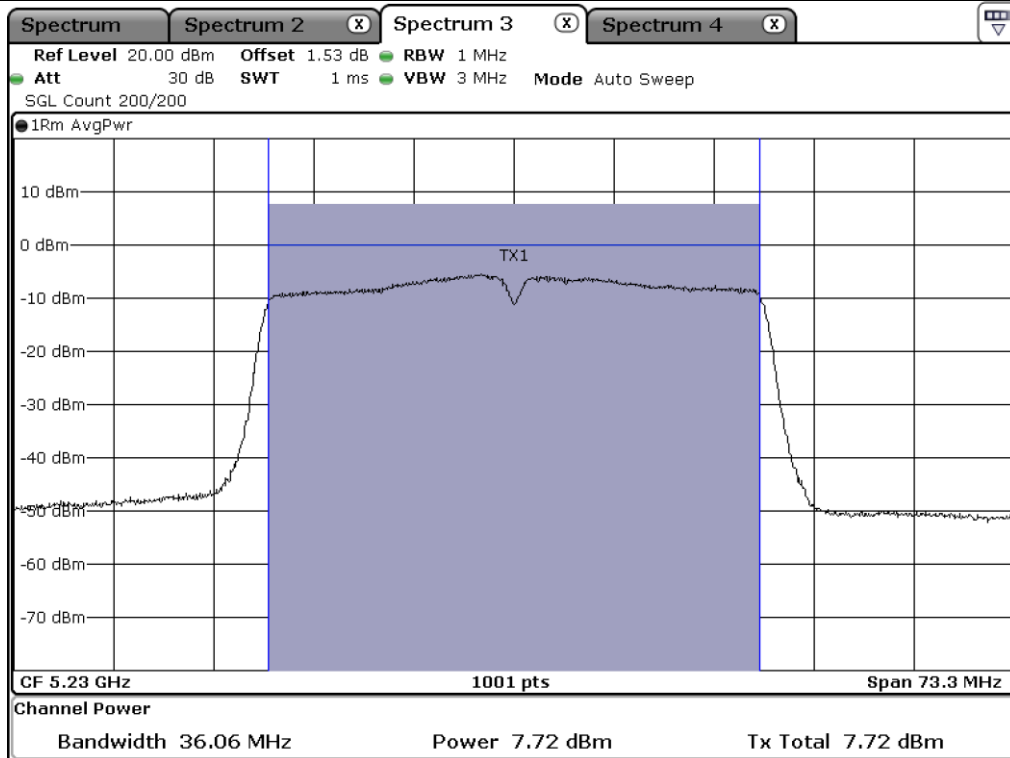
- Test Result : Pass

- Duty Cycle : 71.74 % (UNII 1) / 71.74 % (UNII 3)

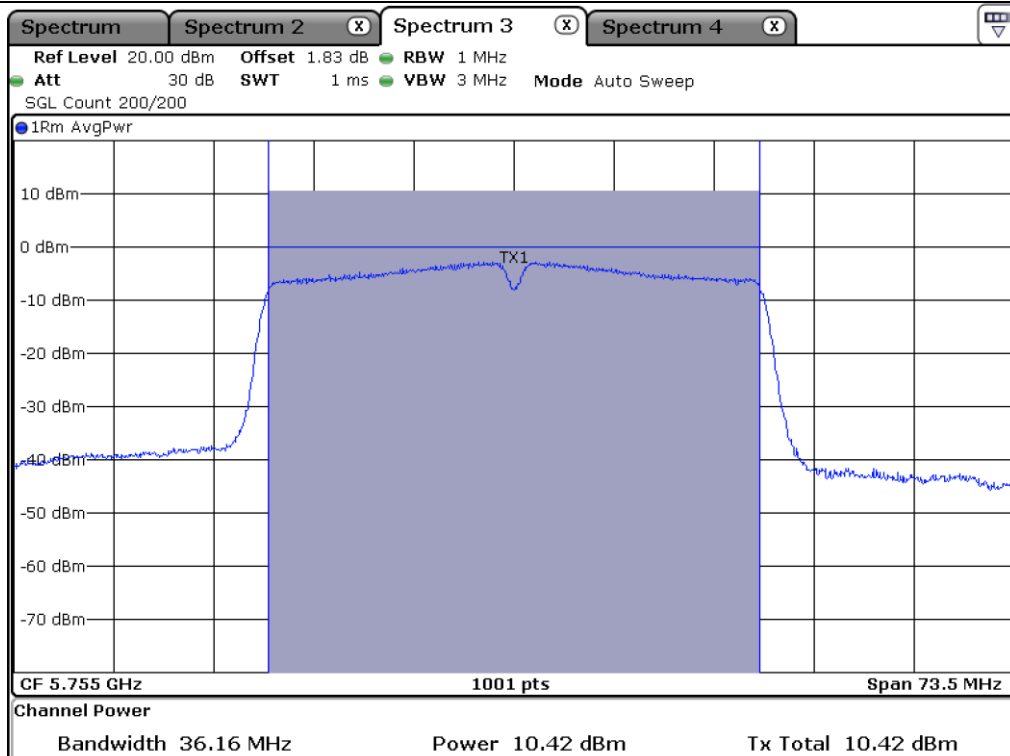
Frequency Range (MHz)	Channel	Frequency (MHz)	99% Band Width	Measured Value (dBm)	DUTY Factor (dB)	Result (dBm)	Linit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 190.00	36.06	7.81	1.44	9.25	23.97	14.72
	High	5 230.00	36.06	7.72	1.44	9.16	23.97	14.81
5 725 ~ 5 850	Low	5 755.00	36.16	10.42	1.44	11.86	30.00	18.14
	High	5 795.00	36.26	10.47	1.44	11.91	30.00	18.09

Remark : Margin = Limit – Result Value (Measured value + Duty Factor)

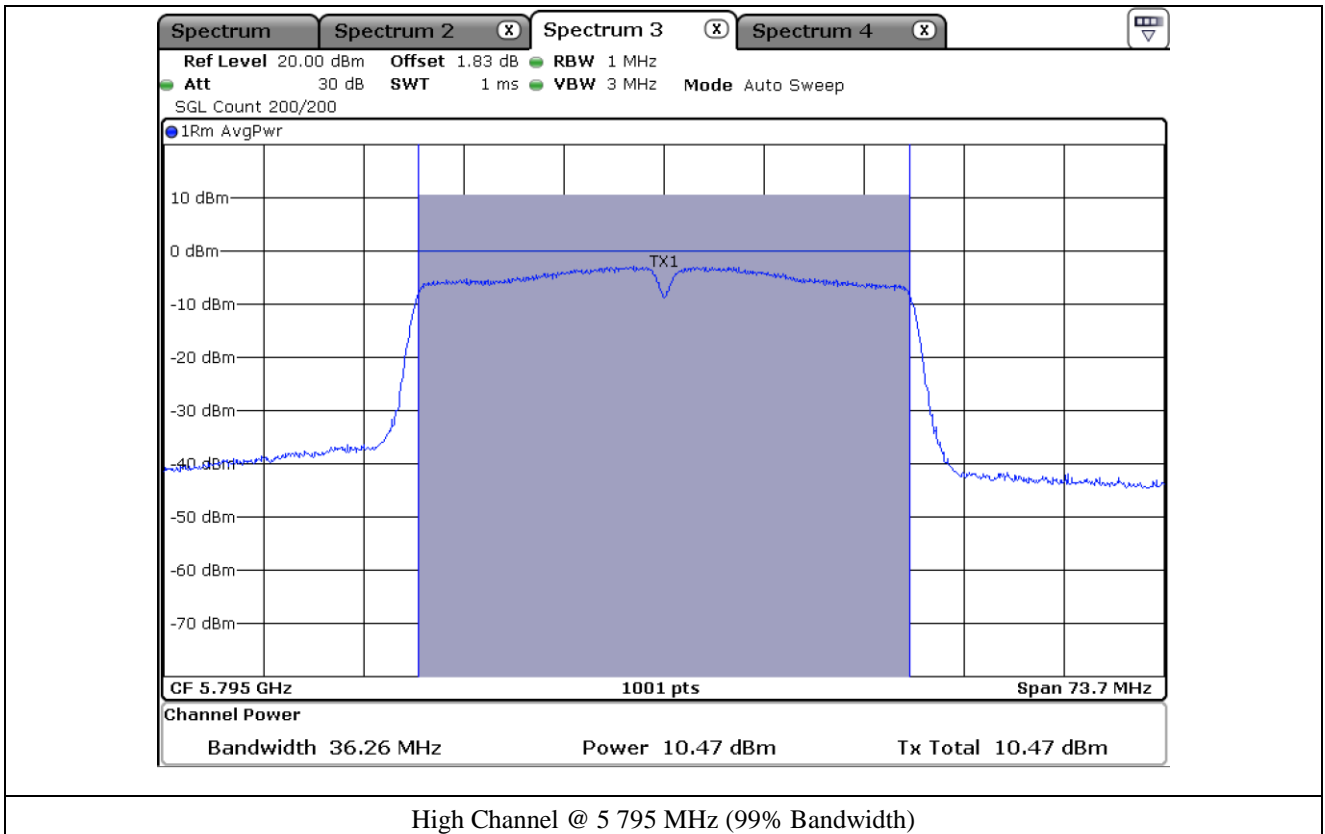




High Channel @ 5 230 MHz (99% Bandwidth)



Low Channel @ 5 755 MHz (99% Bandwidth)



9.7.3 Test data for Multiple Transmit

-. Test Result : Pass

Frequency Range (MHz)	Channel	Frequency (MHz)	Result (dBm)	Limit (dBm)	Margin (dB)
5 150 ~ 5 250	Low	5 190.00	11.34	23.97	12.63
	High	5 230.00	11.22	23.97	12.75
5 725 ~ 5 850	Low	5 755.00	14.06	30.00	15.94
	High	5 795.00	13.88	30.00	16.12

Remark 1 : Margin = Limit – Result Value (Measured value + Duty Factor)

Remark 2: Calculated Output Power=  $10\log (10^{(\text{Antenna0 Output Power}/10)} + 10^{(\text{Antenna1 Output Power}/10)})$