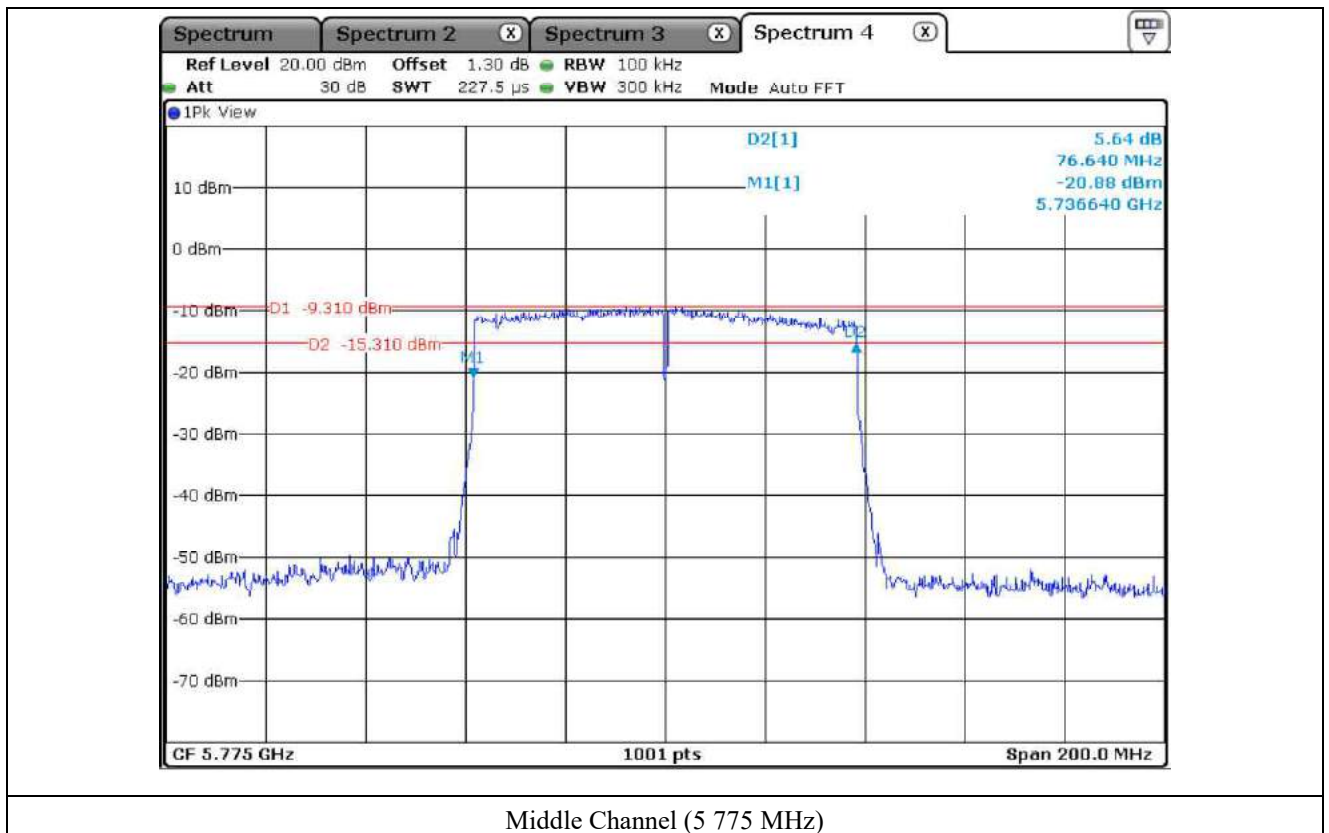


8.7.2 Test data for Antenna 1

-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Middle	5 775.00	76.64

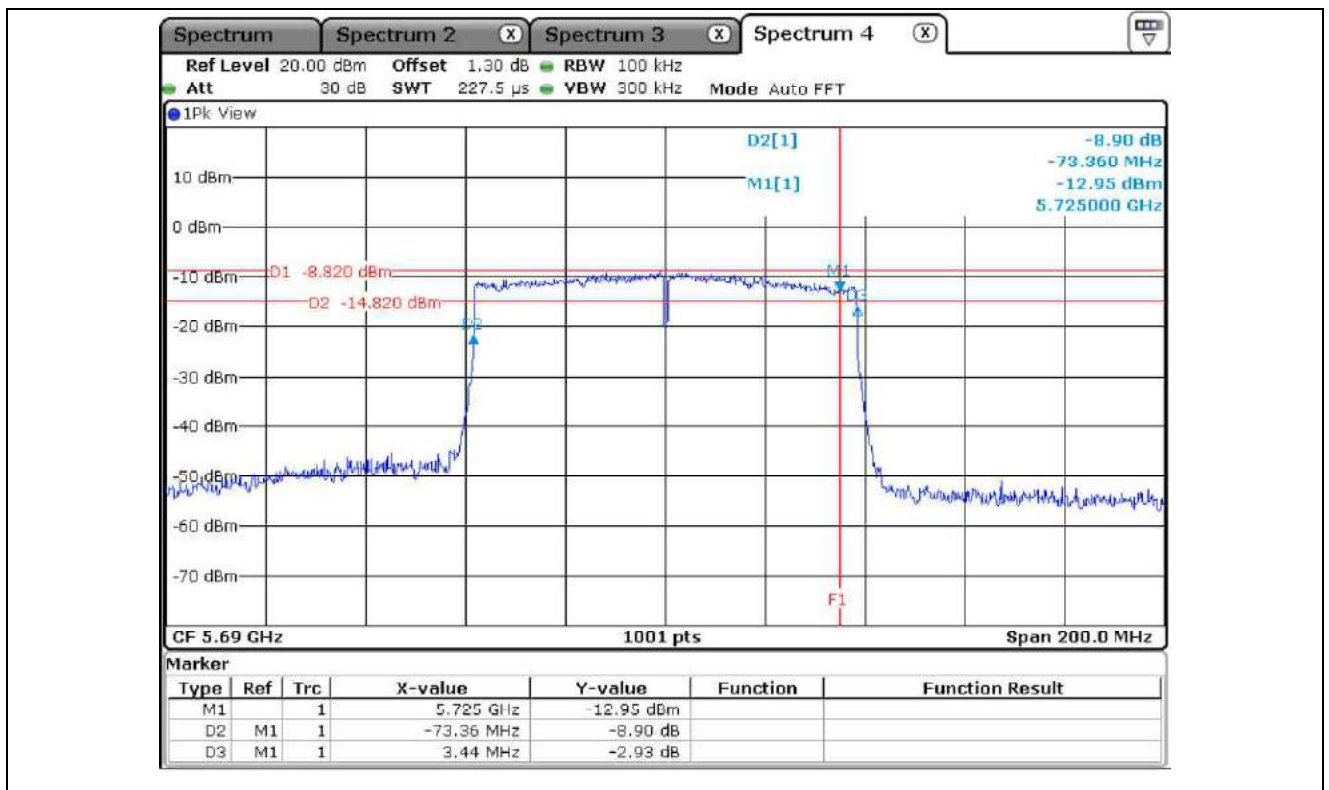
Remark: See next page for measurement data.



8.7.3 Test data for Staddle Channel_Antenna 0

-. Test Result : Pass

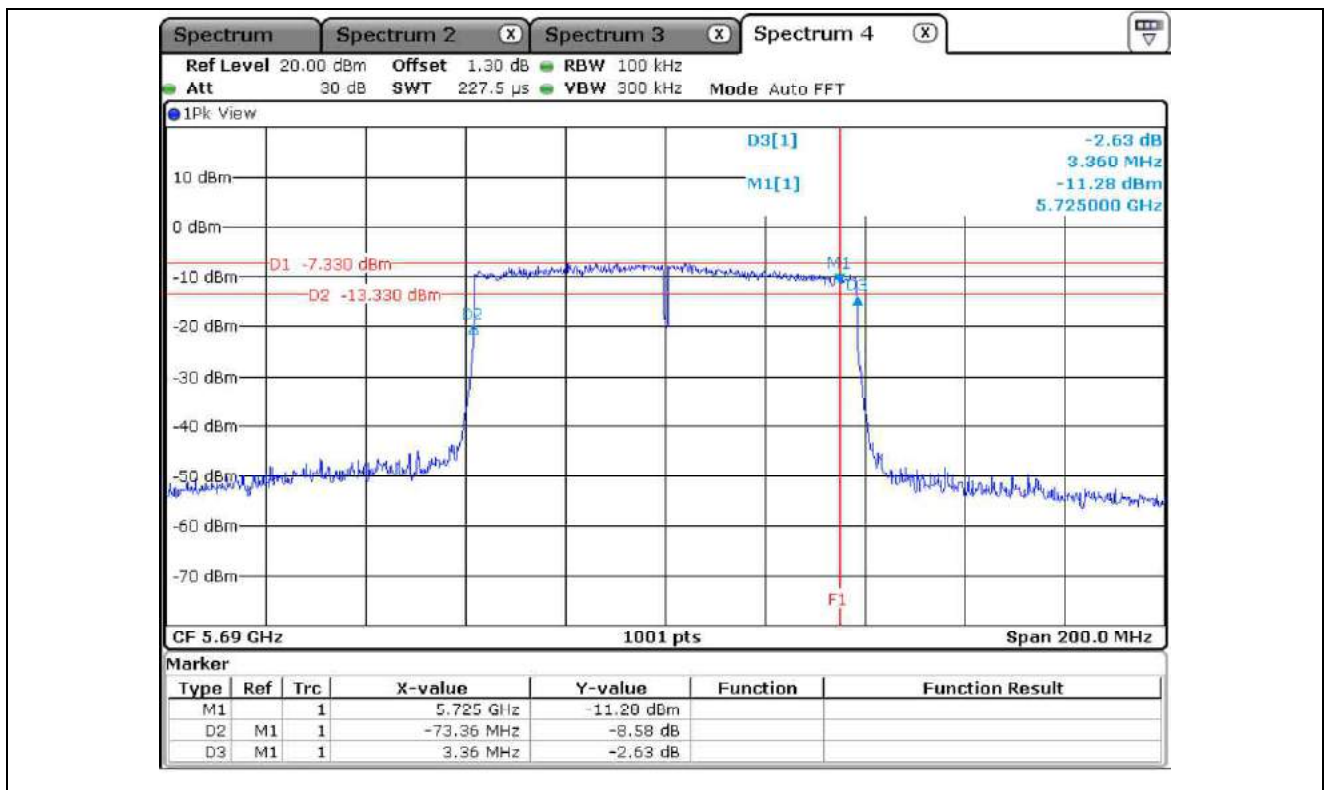
FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 470 ~ 5 725	5 690.00	73.36
5 725 ~ 5 850	5 690.00	3.44



8.7.4 Test data for Staddle Channel_Antenna 1

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 470 ~ 5 725	5 690.00	73.36
5 725 ~ 5 850	5 690.00	3.36



9. MAXIMUM CONDUCTED OUTPUT POWER

9.1 Operating environment

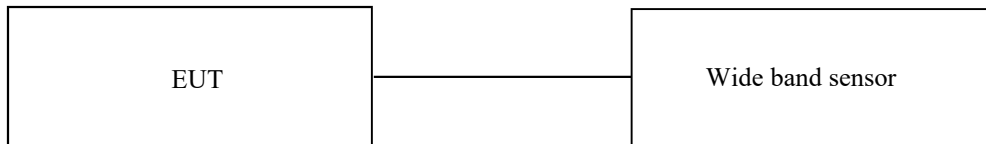
Temperature : 23 °C
Relative humidity : 45 % R.H.

9.2 Test set-up

The maximum peak output power was measured with the wide band sensor connected to the antenna output of the EUT.

The Wide Band Sensor is measured when the EUT is transmitting at the appropriate center frequency its maximum power control level as described in Section E. 3.(KDB 789033 D02 General UNII Test Procedures New Rules v02r01).

Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required.



9.3 Test Date

March 12, 2021 ~ March 22, 2021

9.4 Test data for 802.11a RLAN Mode

9.4.1 Test data for Antenna 0

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	12.12	24.00	11.88
	Middle	5 220.00	12.05	24.00	11.95
	High	5 240.00	12.25	24.00	11.75
5 250 ~ 5 350	Low	5 260.00	15.16	24.00	8.84
	Middle	5 300.00	15.11	24.00	8.89
	High	5 320.00	15.37	24.00	8.63
5 470 ~ 5 725	Low	5 500.00	14.81	24.00	9.19
	Middle	5 580.00	15.00	24.00	9.00
	High	5 700.00	14.85	24.00	9.15
5 725 ~ 5 850	Low	5 745.00	14.89	30.00	15.11
	Middle	5 785.00	15.00	30.00	15.00
	High	5 825.00	14.91	30.00	15.09

Remark : Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

9.4.2 Test data for Antenna 1

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	12.15	24.00	11.85
	Middle	5 220.00	12.27	24.00	11.73
	High	5 240.00	12.12	24.00	11.88
5 250 ~ 5 350	Low	5 260.00	14.55	24.00	9.45
	Middle	5 300.00	14.75	24.00	9.25
	High	5 320.00	14.82	24.00	9.18
5 470 ~ 5 725	Low	5 500.00	14.90	24.00	9.10
	Middle	5 580.00	15.02	24.00	8.98
	High	5 700.00	15.03	24.00	8.97
5 725 ~ 5 850	Low	5 745.00	15.20	30.00	14.80
	Middle	5 785.00	14.90	30.00	15.10
	High	5 825.00	15.18	30.00	14.82

Remark : Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

9.4.3 Test data for Multiple Transmit

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	15.15	24.00	8.85
	Middle	5 220.00	15.17	24.00	8.83
	High	5 240.00	15.20	24.00	8.80
5 250 ~ 5 350	Low	5 260.00	17.88	24.00	6.12
	Middle	5 300.00	17.94	24.00	6.06
	High	5 320.00	18.11	24.00	5.89
5 470 ~ 5 725	Low	5 500.00	17.87	24.00	6.13
	Middle	5 580.00	18.02	24.00	5.98
	High	5 700.00	17.95	24.00	6.05
5 725 ~ 5 850	Low	5 745.00	18.06	30.00	11.94
	Middle	5 785.00	17.96	30.00	12.04
	High	5 825.00	18.06	30.00	11.94

Remark 1: Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

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

9.4.4 Test data for Staddle Channel_Antenna 0

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	12.34	24.00	11.66
5 725 ~ 5 825	5 720.00	4.41	30.00	25.59

9.4.5 Test data for Staddle Channel_Antenna 1

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	13.32	24.00	10.68
5 725 ~ 5 825	5 720.00	5.60	30.00	24.40

9.4.6 Test data for Staddle Channel_Multiple Transmit

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	15.87	24.00	8.13
5 725 ~ 5 825	5 720.00	8.06	30.00	21.94

Remark 1 : Margin = Limit – Measured Value (=Receiver Reading + Cable Loss)

Remark 2 : Calculated Output Power= $10\log (10^{(\text{Antenna1 Output Power}/10)}+10^{(\text{Antenna2 Output Power}/10)})$

9.5 Test data for 802.11n_HT20 RLAN Mode

9.5.1 Test data for Antenna 0

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	12.15	24.00	11.85
	Middle	5 220.00	11.89	24.00	12.11
	High	5 240.00	11.98	24.00	12.02
5 250 ~ 5 350	Low	5 260.00	14.74	24.00	9.26
	Middle	5 300.00	14.72	24.00	9.28
	High	5 320.00	14.98	24.00	9.02
5 470 ~ 5 725	Low	5 500.00	14.25	24.00	9.75
	Middle	5 580.00	14.55	24.00	9.45
	High	5 700.00	14.62	24.00	9.38
5 725 ~ 5 850	Low	5 745.00	14.46	30.00	15.54
	Middle	5 785.00	14.55	30.00	15.45
	High	5 825.00	14.68	30.00	15.32

Remark : Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

9.5.2 Test data for Antenna 1

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	11.94	24.00	12.06
	Middle	5 220.00	11.85	24.00	12.15
	High	5 240.00	11.88	24.00	12.12
5 250 ~ 5 350	Low	5 260.00	14.43	24.00	9.57
	Middle	5 300.00	14.76	24.00	9.24
	High	5 320.00	14.90	24.00	9.10
5 470 ~ 5 725	Low	5 500.00	14.78	24.00	9.22
	Middle	5 580.00	14.90	24.00	9.10
	High	5 700.00	14.87	24.00	9.13
5 725 ~ 5 850	Low	5 745.00	14.48	30.00	15.52
	Middle	5 785.00	14.46	30.00	15.54
	High	5 825.00	14.76	30.00	15.24

Remark : Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

9.5.3 Test data for Multiple Transmit

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	15.06	24.00	8.94
	Middle	5 220.00	14.88	24.00	9.12
	High	5 240.00	14.94	24.00	9.06
5 250 ~ 5 350	Low	5 260.00	17.60	24.00	6.40
	Middle	5 300.00	17.75	24.00	6.25
	High	5 320.00	17.95	24.00	6.05
5 470 ~ 5 725	Low	5 500.00	17.53	24.00	6.47
	Middle	5 580.00	17.74	24.00	6.26
	High	5 700.00	17.76	24.00	6.24
5 725 ~ 5 850	Low	5 745.00	17.48	30.00	12.52
	Middle	5 785.00	17.52	30.00	12.48
	High	5 825.00	17.73	30.00	12.27

Remark 1: Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

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

9.5.4 Test data for Staddle Channel_Antenna 0

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	12.14	24.00	11.86
5 725 ~ 5 825	5 720.00	4.51	30.00	25.49

9.5.5 Test data for Staddle Channel_Antenna 1

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	13.27	24.00	10.73
5 725 ~ 5 825	5 720.00	5.94	30.00	24.06

9.5.6 Test data for Staddle Channel_Multiple Transmit

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	15.75	24.00	8.25
5 725 ~ 5 825	5 720.00	8.29	30.00	21.71

Remark 1 : Margin = Limit – Measured Value (=Receiver Reading + Cable Loss)

Remark 2 : Calculated Output Power= $10\log (10^{(\text{Antenna1 Output Power}/10)} + 10^{(\text{Antenna2 Output Power}/10)})$

9.6 Test data for 802.11n_HT40 RLAN Mode

9.6.1 Test data for Antenna 0

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	12.86	24.00	11.14
	High	5 230.00	12.91	24.00	11.09
5 250 ~ 5 350	Low	5 270.00	13.02	24.00	10.98
	High	5 310.00	13.01	24.00	10.99
5 470 ~ 5 725	Low	5 510.00	12.65	24.00	11.35
	Middle	5 550.00	12.84	24.00	11.16
	High	5 670.00	12.65	24.00	11.35
5 725 ~ 5 850	Low	5 755.00	12.74	30.00	17.26
	High	5 795.00	12.98	30.00	17.02

Remark : Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

9.6.2 Test data for Antenna 1

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	12.85	24.00	11.15
	High	5 230.00	12.95	24.00	11.05
5 250 ~ 5 350	Low	5 270.00	12.88	24.00	11.12
	High	5 310.00	13.02	24.00	10.98
5 470 ~ 5 725	Low	5 510.00	12.65	24.00	11.35
	Middle	5 550.00	12.82	24.00	11.18
	High	5 670.00	13.22	24.00	10.78
5 725 ~ 5 850	Low	5 755.00	12.55	30.00	17.45
	High	5 795.00	12.72	30.00	17.28

Remark : Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

9.6.3 Test data for Multiple Transmit

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	15.87	24.00	8.13
	High	5 230.00	15.94	24.00	8.06
5 250 ~ 5 350	Low	5 270.00	15.96	24.00	8.04
	High	5 310.00	16.03	24.00	7.97
5 470 ~ 5 725	Low	5 510.00	15.66	24.00	8.34
	Middle	5 550.00	15.84	24.00	8.16
	High	5 670.00	15.95	24.00	8.05
5 725 ~ 5 850	Low	5 755.00	15.66	30.00	14.34
	High	5 795.00	15.86	30.00	14.14

Remark 1: Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

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

9.6.4 Test data for Staddle Channel_Antenna 0

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 710.00	11.10	24.00	12.90
5 725 ~ 5 825	5 710.00	-1.21	30.00	31.21

9.6.5 Test data for Staddle Channel_Antenna 1

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 710.00	12.30	24.00	11.70
5 725 ~ 5 825	5 710.00	0.20	30.00	29.80

9.6.6 Test data for Staddle Channel_Multiple Transmit

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 710.00	14.75	24.00	9.25
5 725 ~ 5 825	5 710.00	2.56	30.00	27.44

Remark 1 : Margin = Limit – Measured Value (=Receiver Reading + Cable Loss)

Remark 2 : Calculated Output Power= $10\log (10^{(\text{Antenna1 Output Power}/10)} + 10^{(\text{Antenna2 Output Power}/10)})$

9.7 Test data for 802.11ac_HT80 RLAN Mode

9.7.1 Test data for Antenna 0

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	10.24	24.00	13.76
5 250 ~ 5 350	Low	5 290.00	11.59	24.00	12.41
5 470 ~ 5 725	Low	5 530.00	11.51	24.00	12.49
5 725 ~ 5 850	Low	5 775.00	12.67	30.00	17.33

Remark : Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

9.7.2 Test data for Antenna 1

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	10.80	24.00	13.20
5 250 ~ 5 350	Low	5 290.00	11.61	24.00	12.39
5 470 ~ 5 725	Low	5 530.00	11.79	24.00	12.21
5 725 ~ 5 850	Low	5 775.00	12.60	30.00	17.40

Remark : Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

9.7.3 Test data for Multiple Transmit

-. Test Result : Pass

-. Duty Cycle : > 98 %

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	13.54	24.00	10.46
5 250 ~ 5 350	Low	5 290.00	14.61	24.00	9.39
5 470 ~ 5 725	Low	5 530.00	14.66	24.00	9.34
5 725 ~ 5 850	Low	5 775.00	15.65	30.00	14.35

Remark 1: Margin = Limit – Measured Value (=Power Sensor Reading + Cable Loss)

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

9.7.4 Test data for Staddle Channel_Antenna 0

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	11.33	24.00	12.67
5 725 ~ 5 825	5 690.00	-3.73	30.00	33.73

9.7.5 Test data for Staddle Channel_Antenna 1

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	13.71	24.00	10.29
5 725 ~ 5 825	5 690.00	-1.59	30.00	31.59

9.7.6 Test data for Staddle Channel_Multiple Transmit

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	15.69	24.00	8.31
5 725 ~ 5 825	5 690.00	0.48	30.00	29.52

Remark 1 : Margin = Limit – Measured Value (=Receiver Reading + Cable Loss)

Remark 2 : Calculated Output Power= $10\log (10^{(\text{Antenna1 Output Power}/10)} + 10^{(\text{Antenna2 Output Power}/10)})$

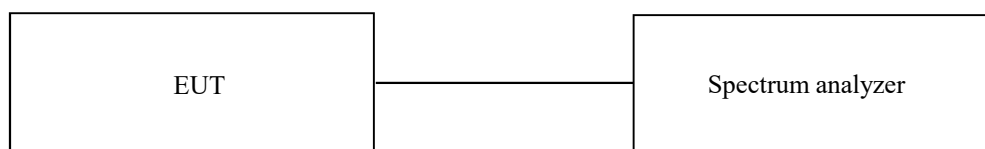
10. PEAK POWER SPECTRUL DENSITY

10.1 Operating environment

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

10.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz, the video bandwidth is set to 3 times the resolution bandwidth. The maximum level form the EUT in 1 MHz bandwidth was measured with above condition.



10.3 Test Date

March 12, 2021 ~ March 22, 2021

10.4 Test data for 802.11a RLAN Mode

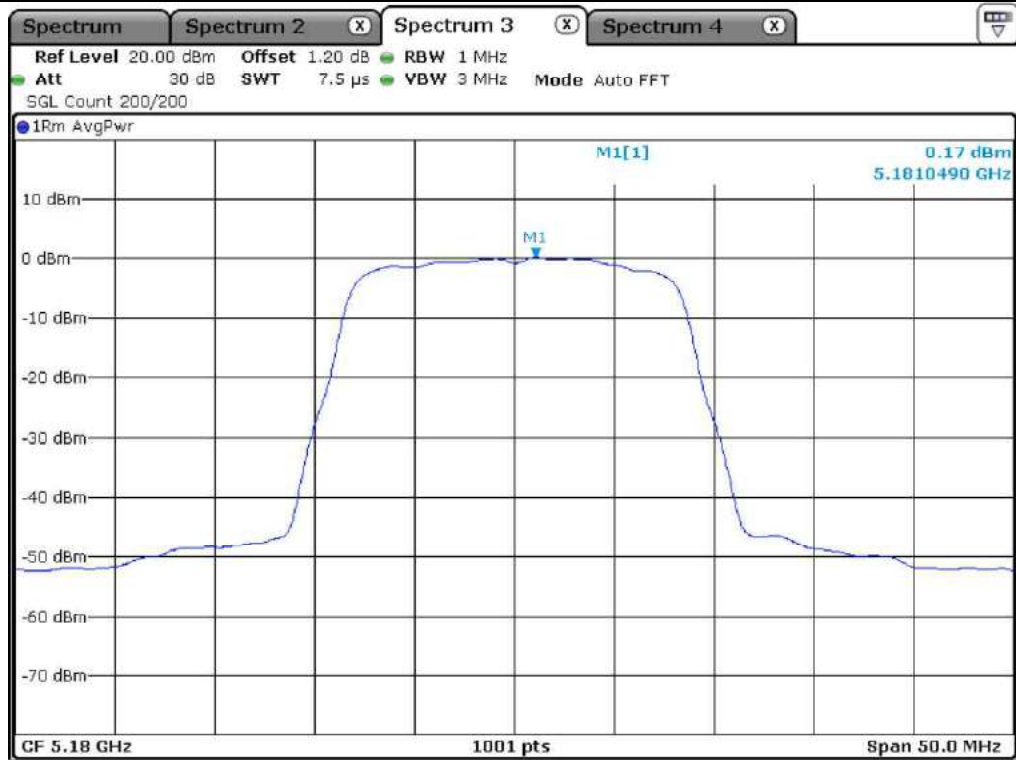
10.4.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	0.17	11.00	10.83
	Middle	5 220.00	-0.25	11.00	11.25
	High	5 240.00	0.47	11.00	10.53
5 250 ~ 5 350	Low	5 260.00	3.46	11.00	7.54
	Middle	5 300.00	3.40	11.00	7.60
	High	5 320.00	3.51	11.00	7.49
5 470 ~ 5 725	Low	5 500.00	2.90	11.00	8.10
	Middle	5 580.00	2.75	11.00	8.25
	High	5 700.00	2.48	11.00	8.52
5 725 ~ 5 850	Low	5 745.00	-0.62	30.00	30.62
	Middle	5 785.00	-0.24	30.00	30.24
	High	5 825.00	-1.23	30.00	31.23

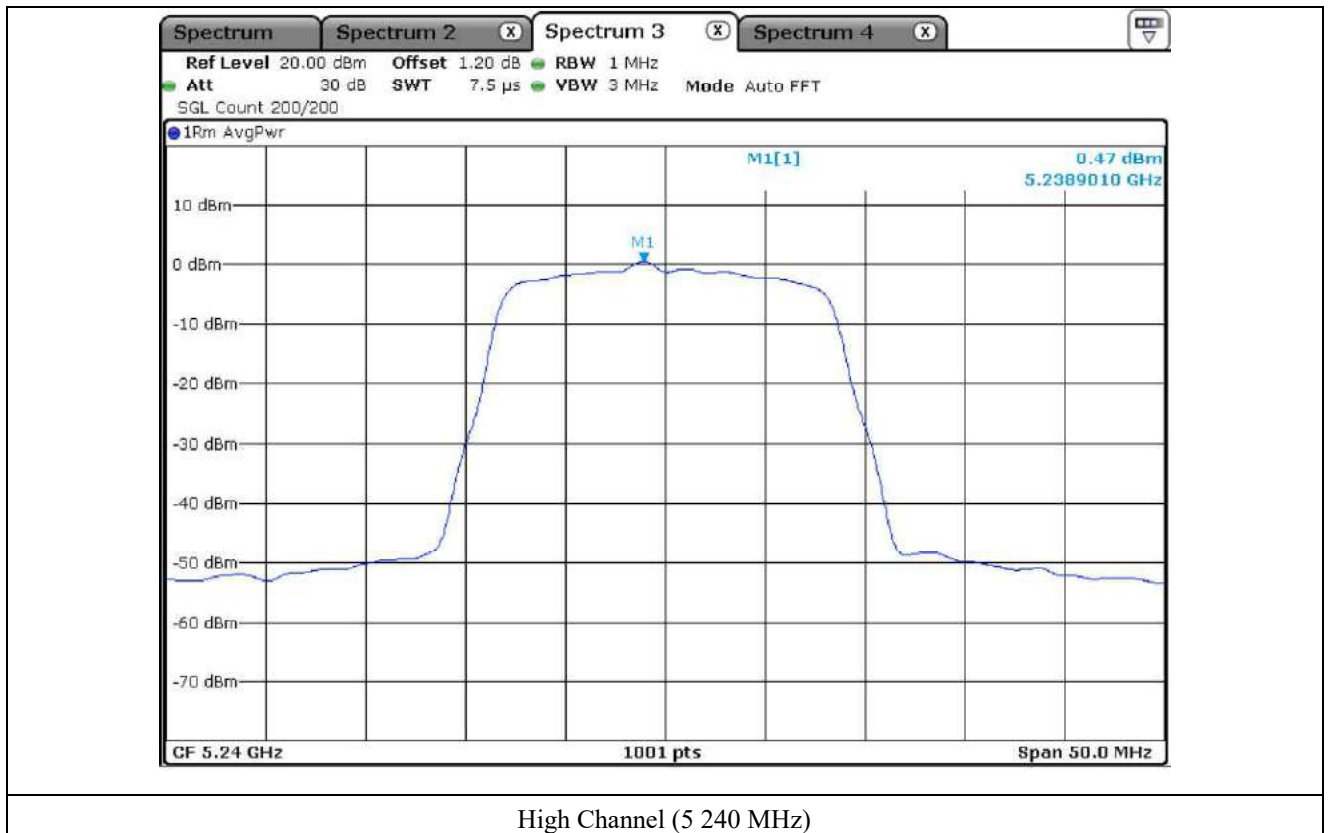
Remark: See next page for measurement data.

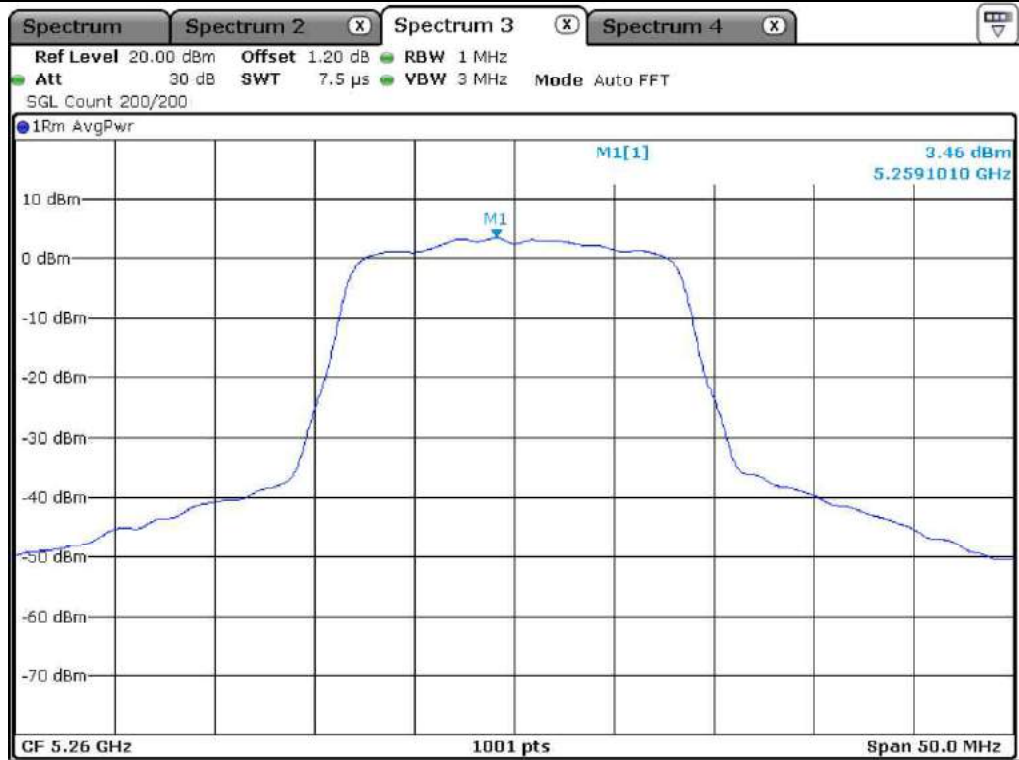


Low Channel (5 180 MHz)



Middle Channel (5 220 MHz)

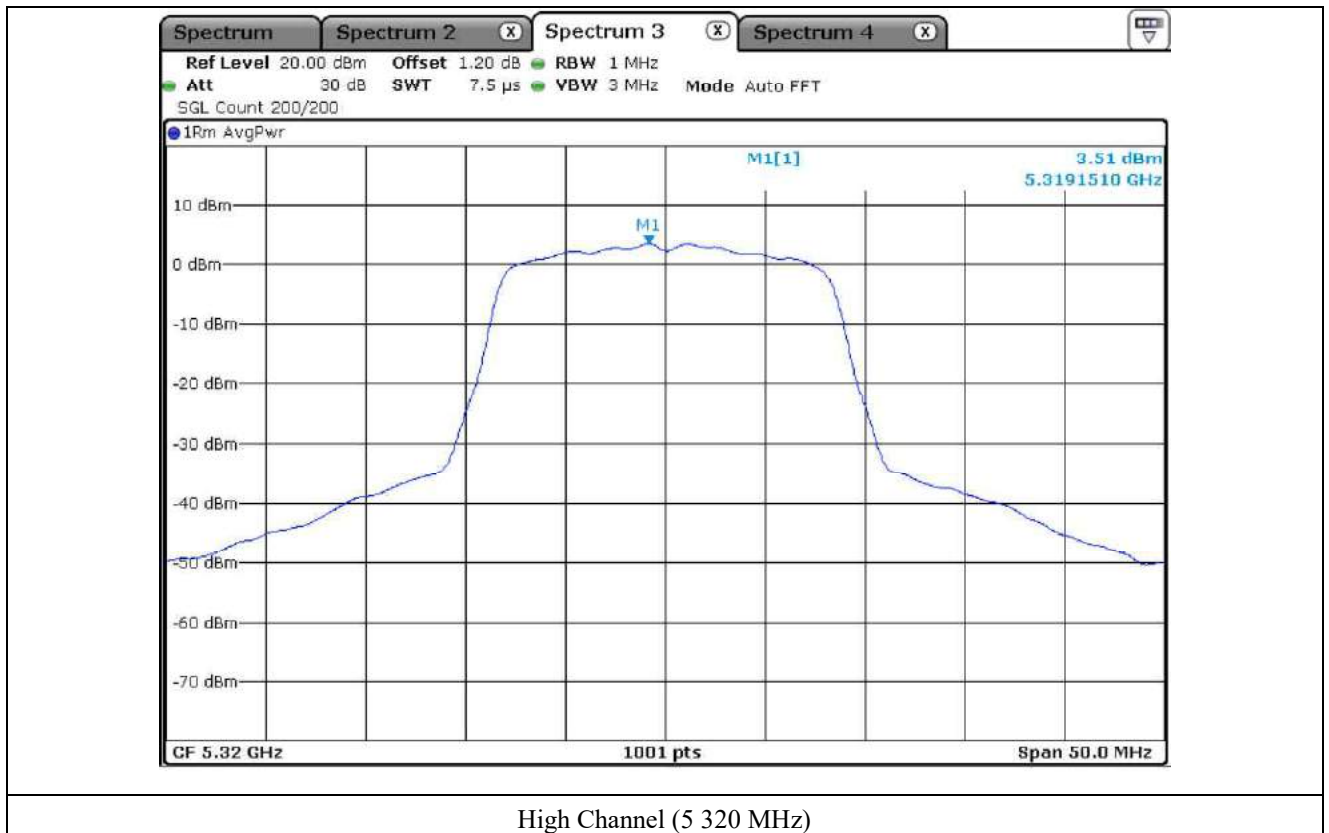




Low Channel (5 260 MHz)



Middle Channel (5 300 MHz)

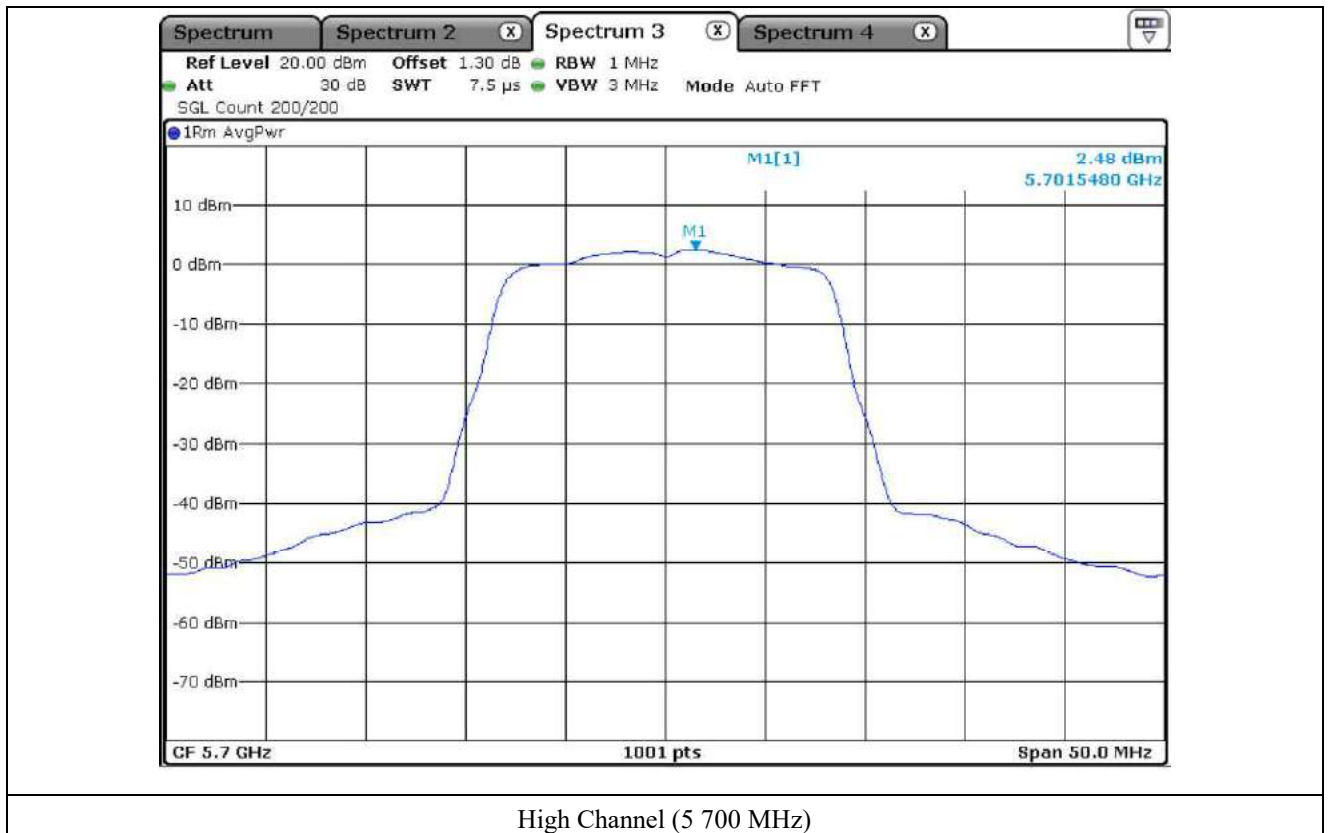


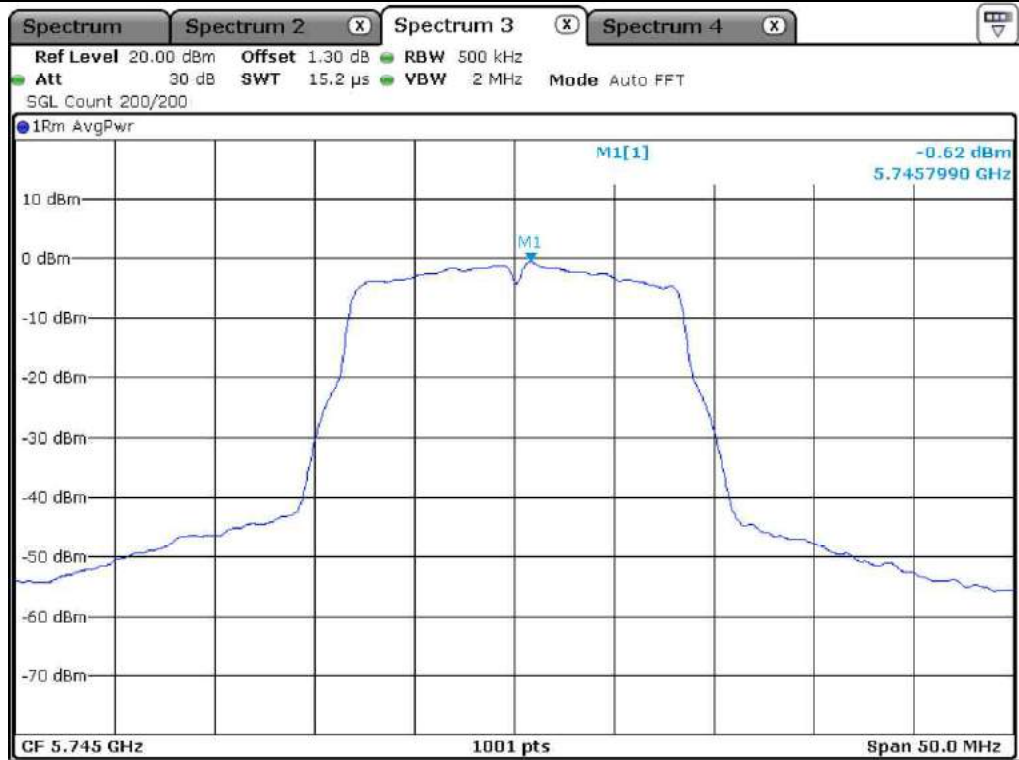


Low Channel (5 500 MHz)



Middle Channel (5 580 MHz)





Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)



10.4.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

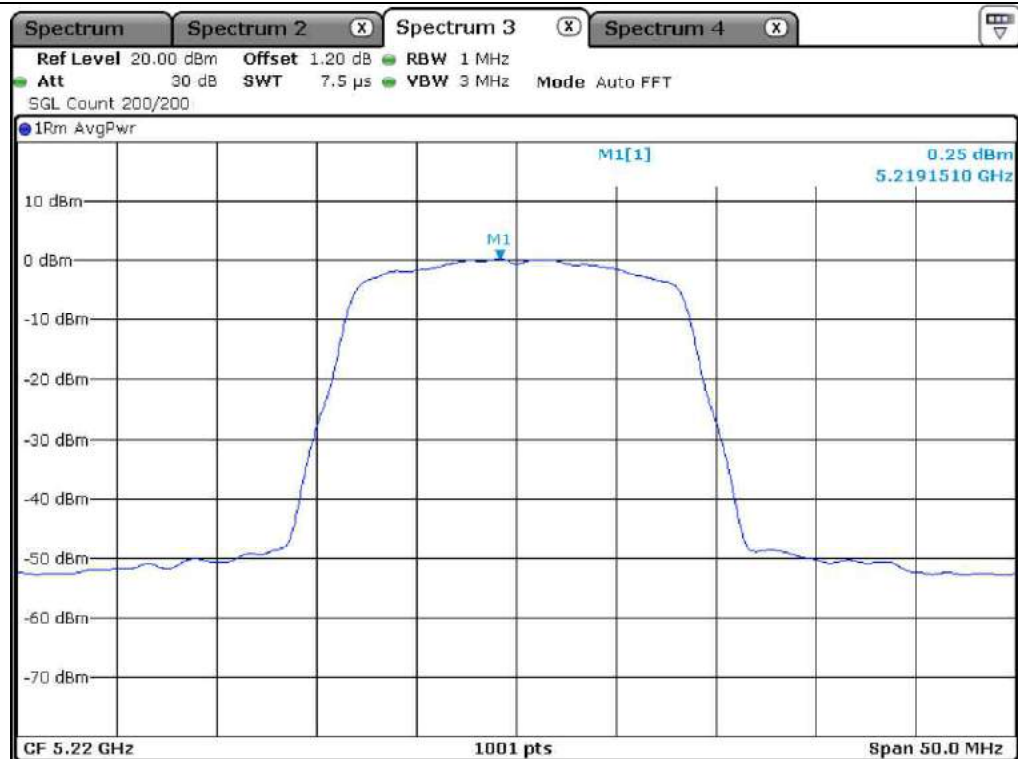
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	0.37	11.00	10.63
	Middle	5 220.00	0.25	11.00	10.75
	High	5 240.00	0.23	11.00	10.77
5 250 ~ 5 350	Low	5 260.00	2.77	11.00	8.23
	Middle	5 300.00	3.30	11.00	7.70
	High	5 320.00	3.94	11.00	7.06
5 470 ~ 5 725	Low	5 500.00	3.57	11.00	7.43
	Middle	5 580.00	3.72	11.00	7.28
	High	5 700.00	3.08	11.00	7.92
5 725 ~ 5 850	Low	5 745.00	-0.24	30.00	30.24
	Middle	5 785.00	-0.54	30.00	30.54
	High	5 825.00	-0.21	30.00	30.21

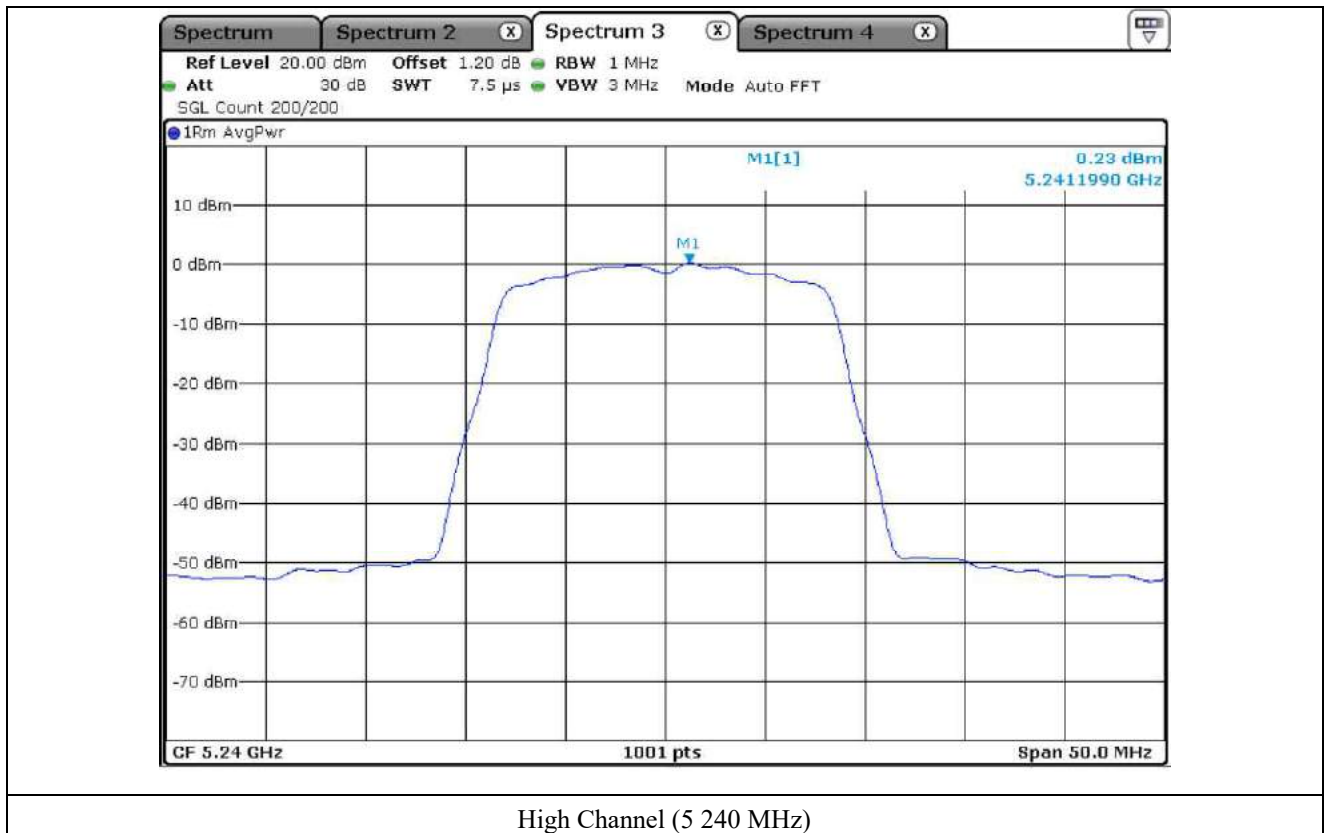
Remark: See next page for measurement data.



Low Channel (5 180 MHz)



Middle Channel (5 220 MHz)





Low Channel (5 260 MHz)



Middle Channel (5 300 MHz)

