

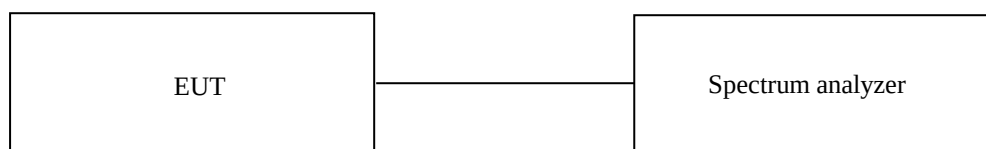
10. PEAK POWER SPECTRUL DENSITY

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

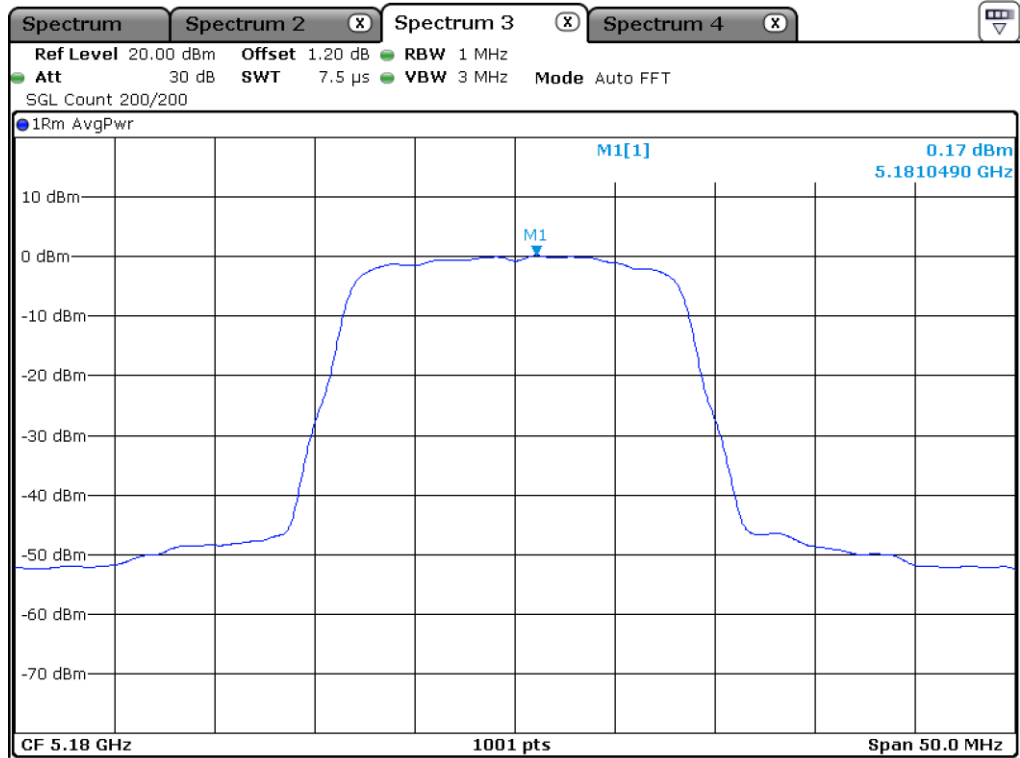
10.4.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

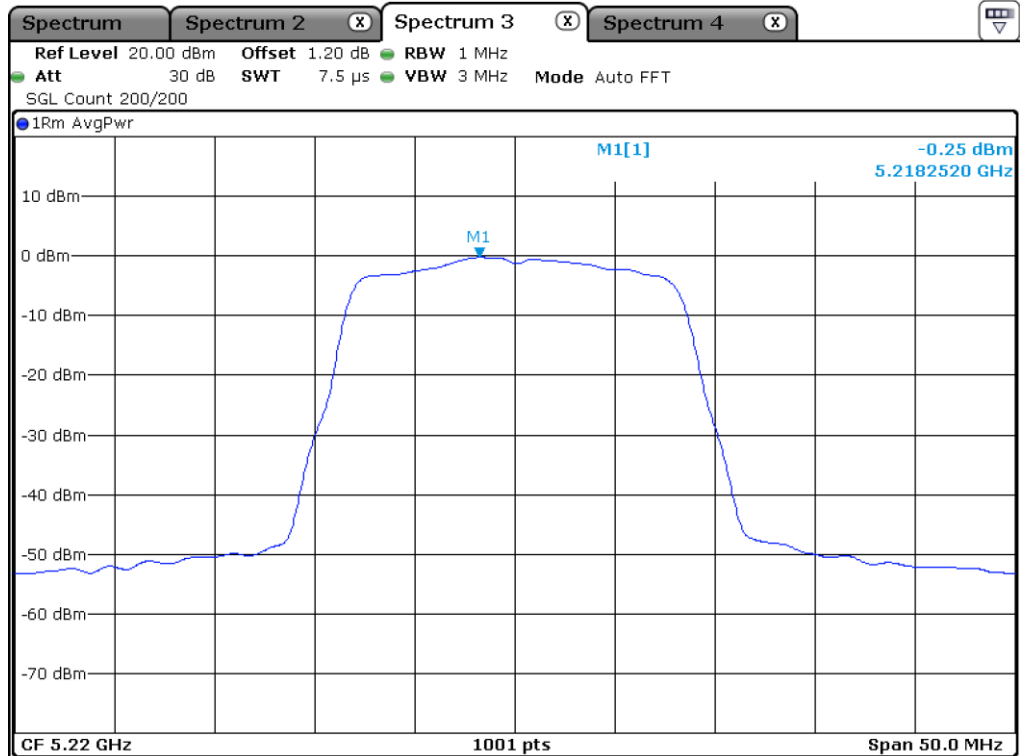
-. Test Result : Pass

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

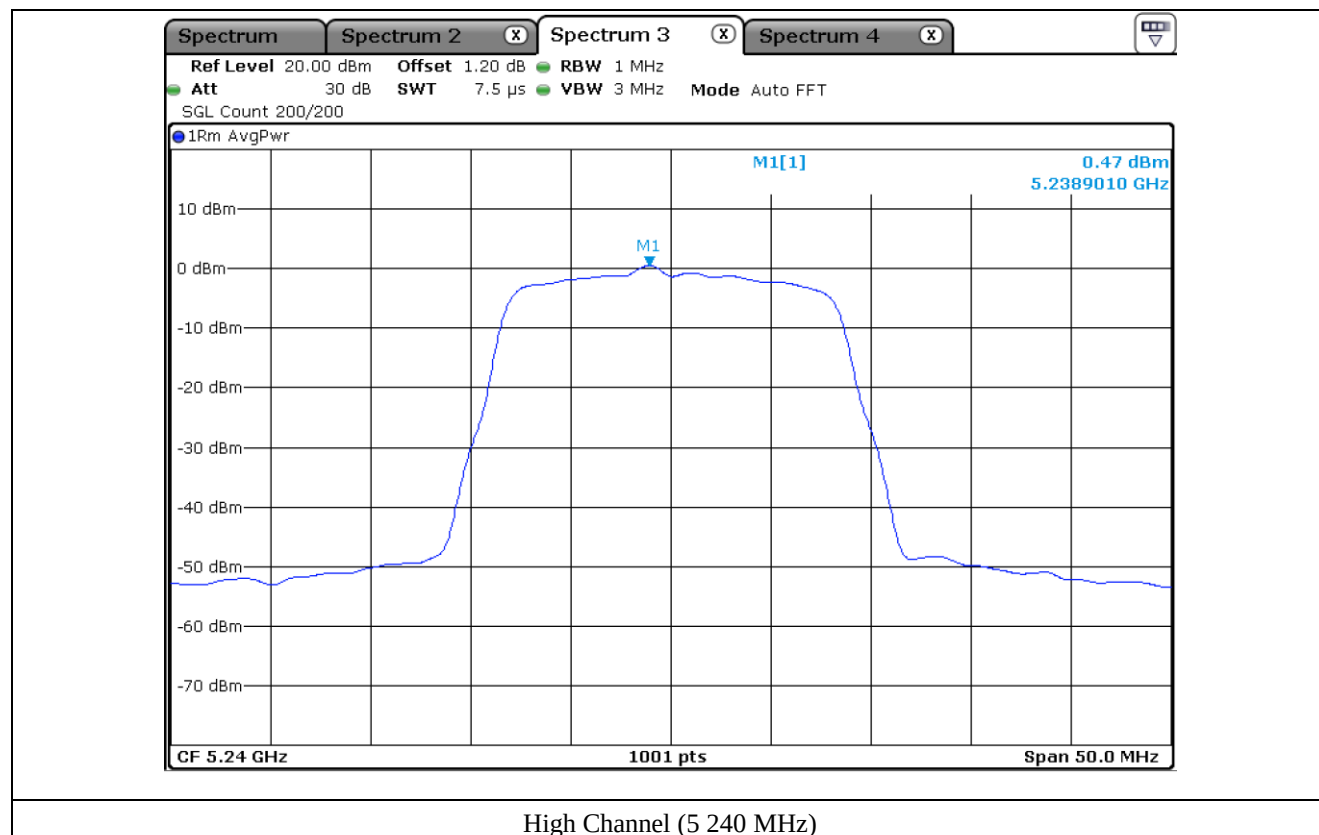
Remark: See next page for measurement data.

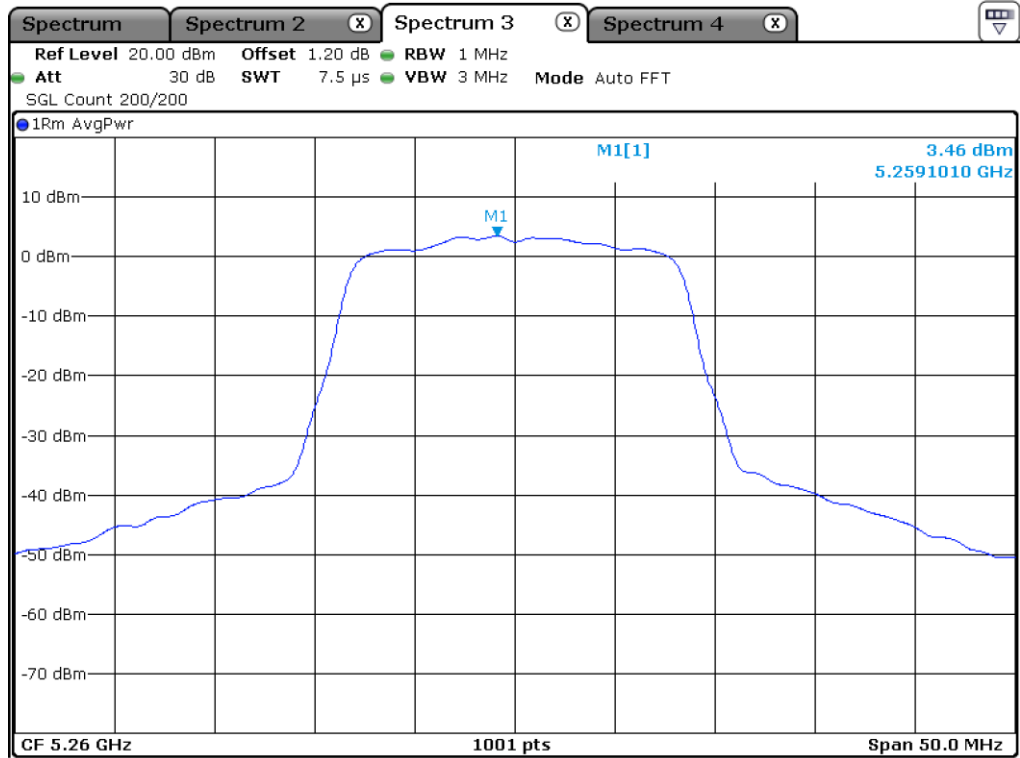


Low Channel (5 180 MHz)

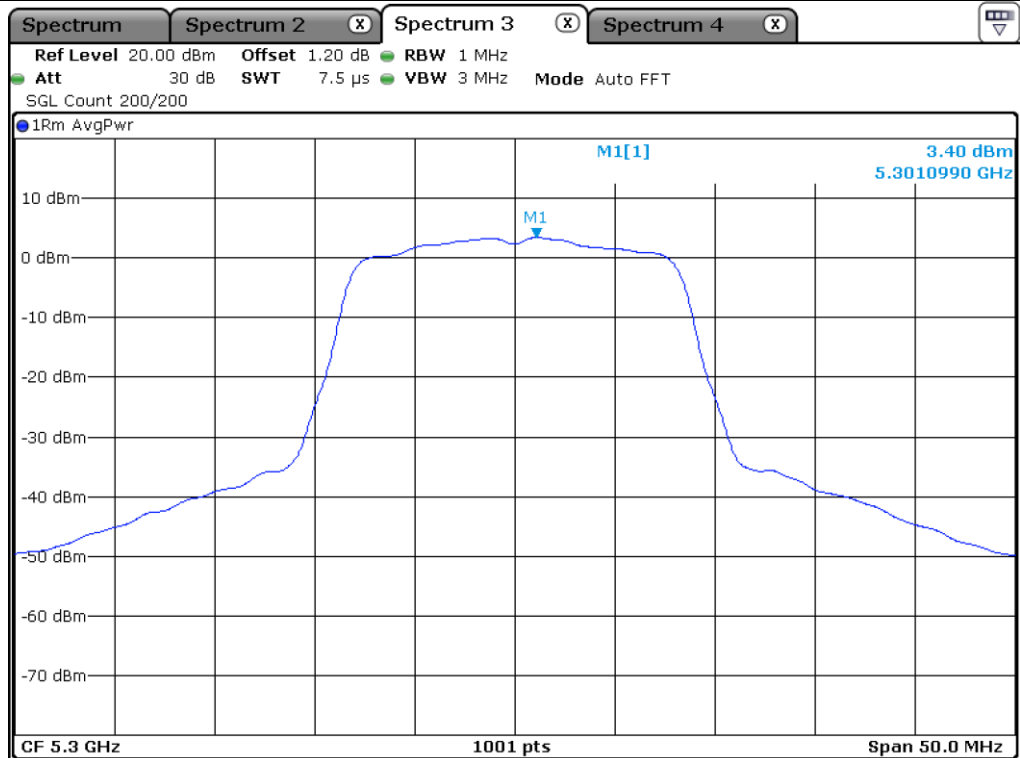


Middle Channel (5 220 MHz)

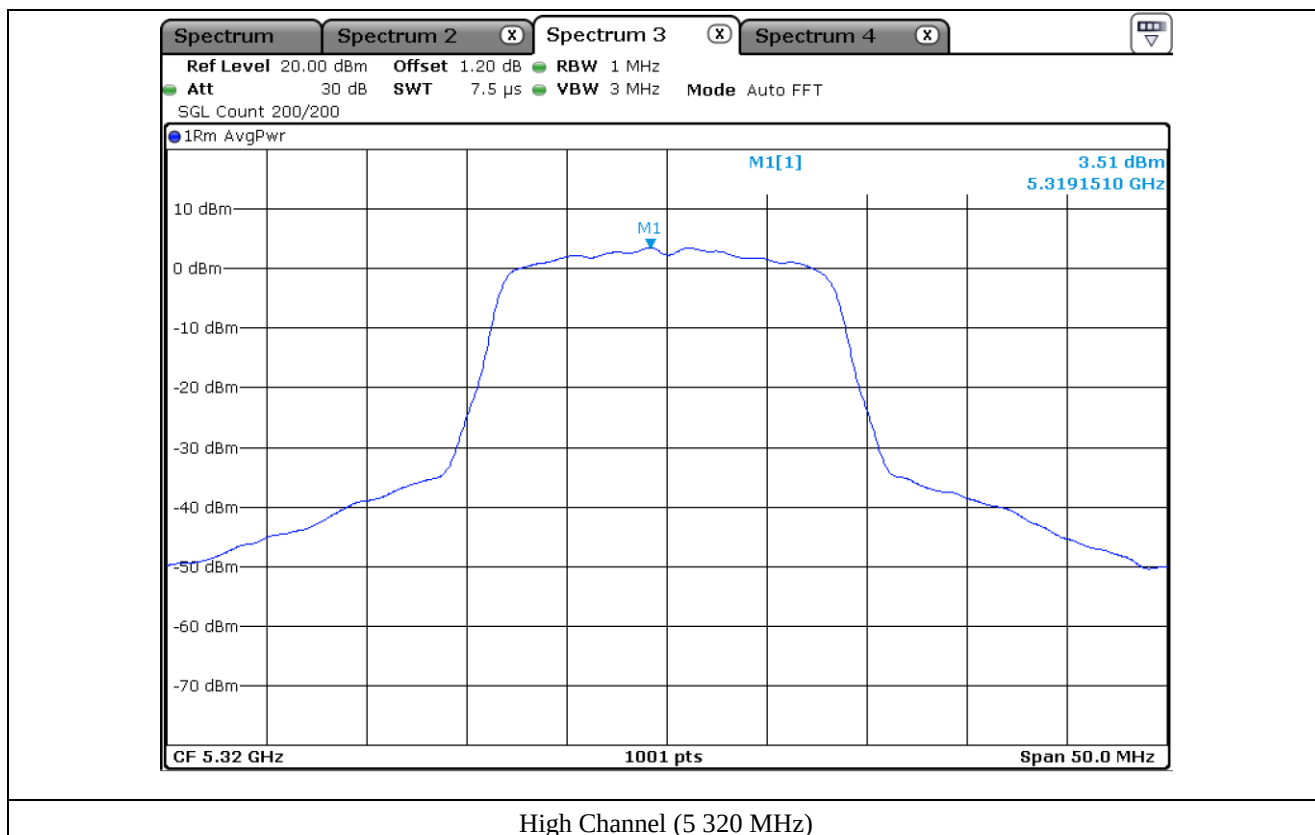


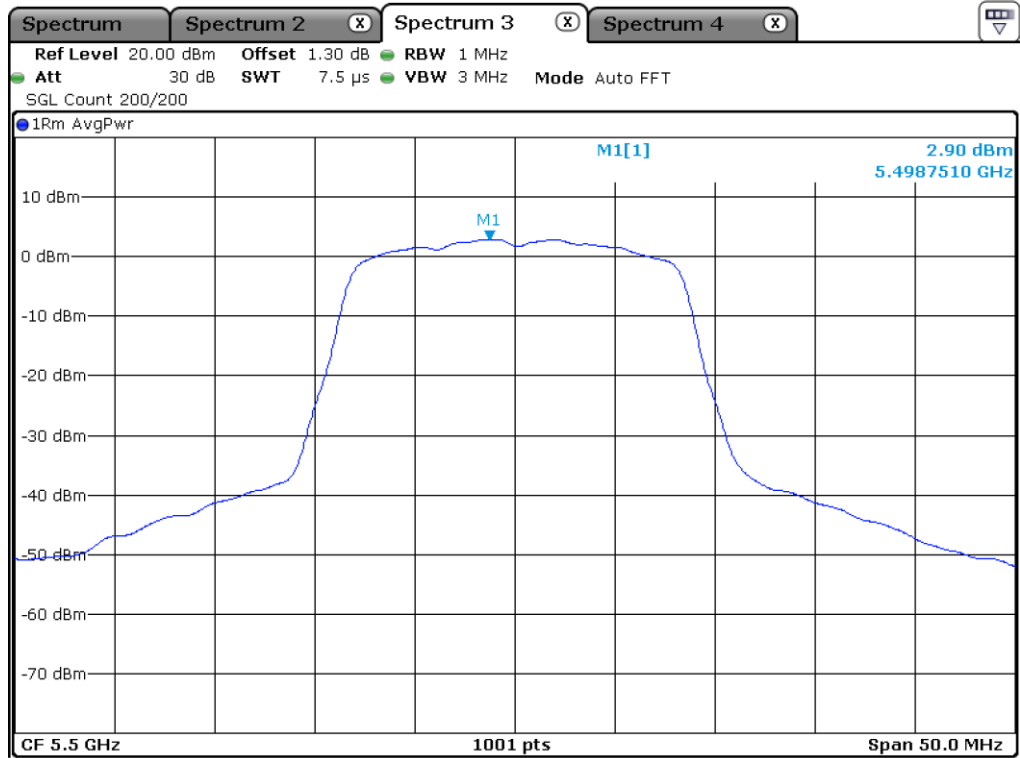


Low Channel (5 260 MHz)

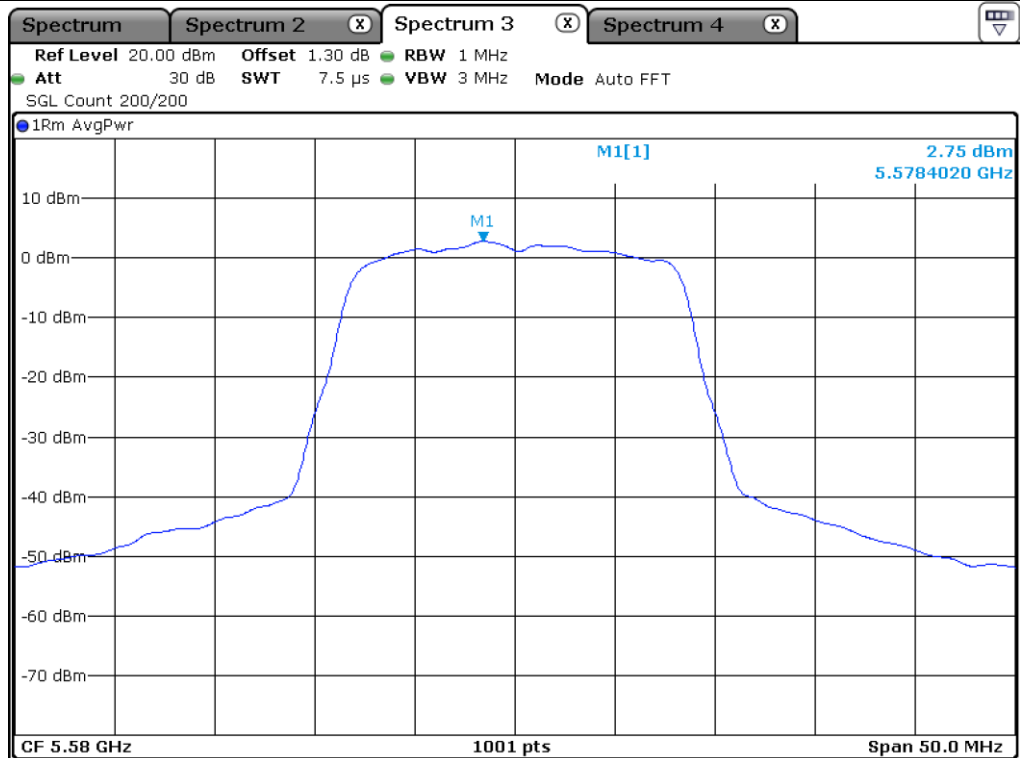


Middle Channel (5 300 MHz)

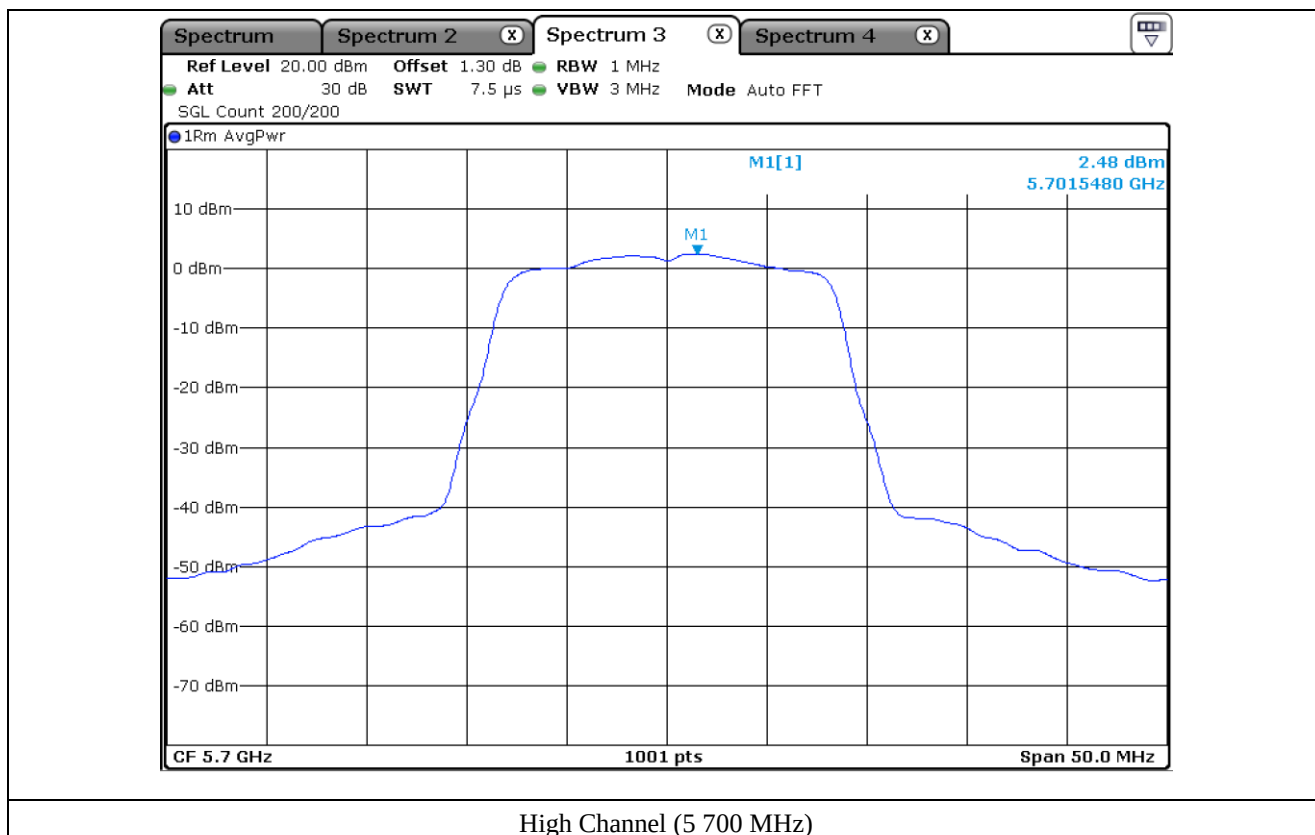


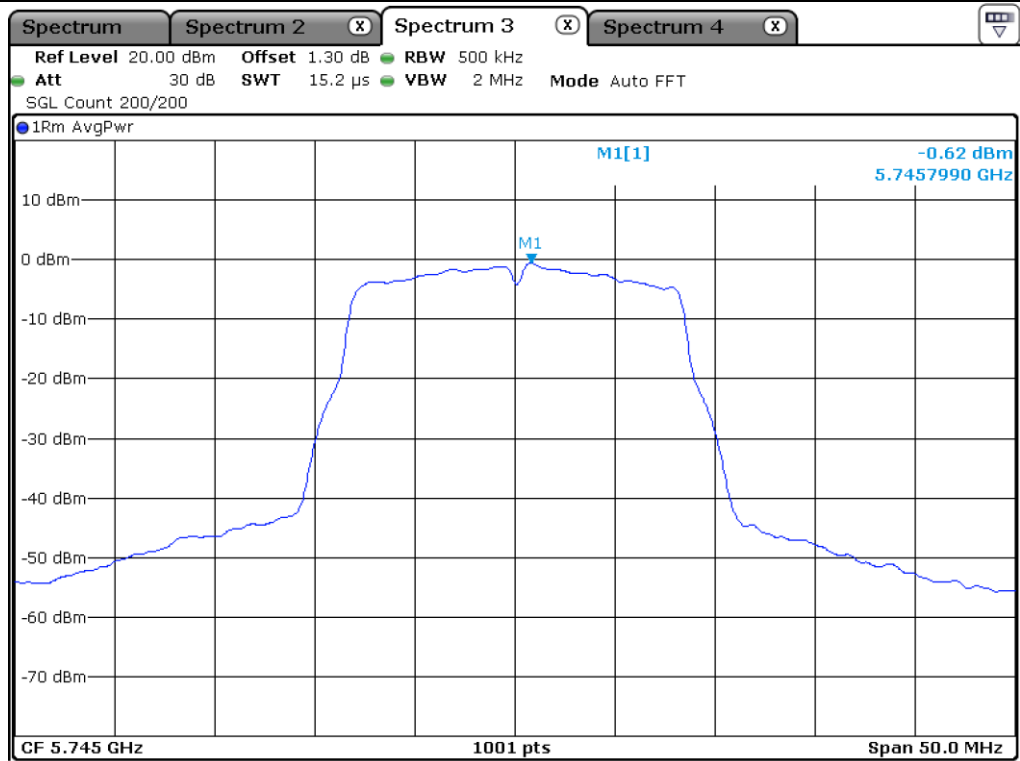


Low Channel (5 500 MHz)

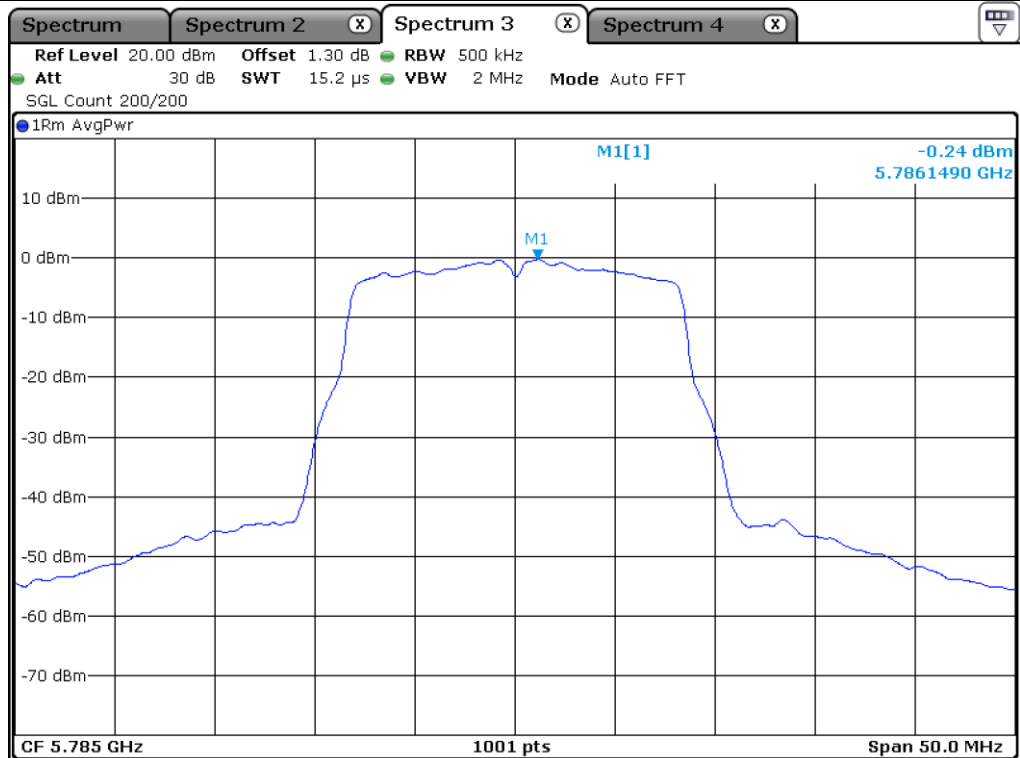


Middle Channel (5 580 MHz)

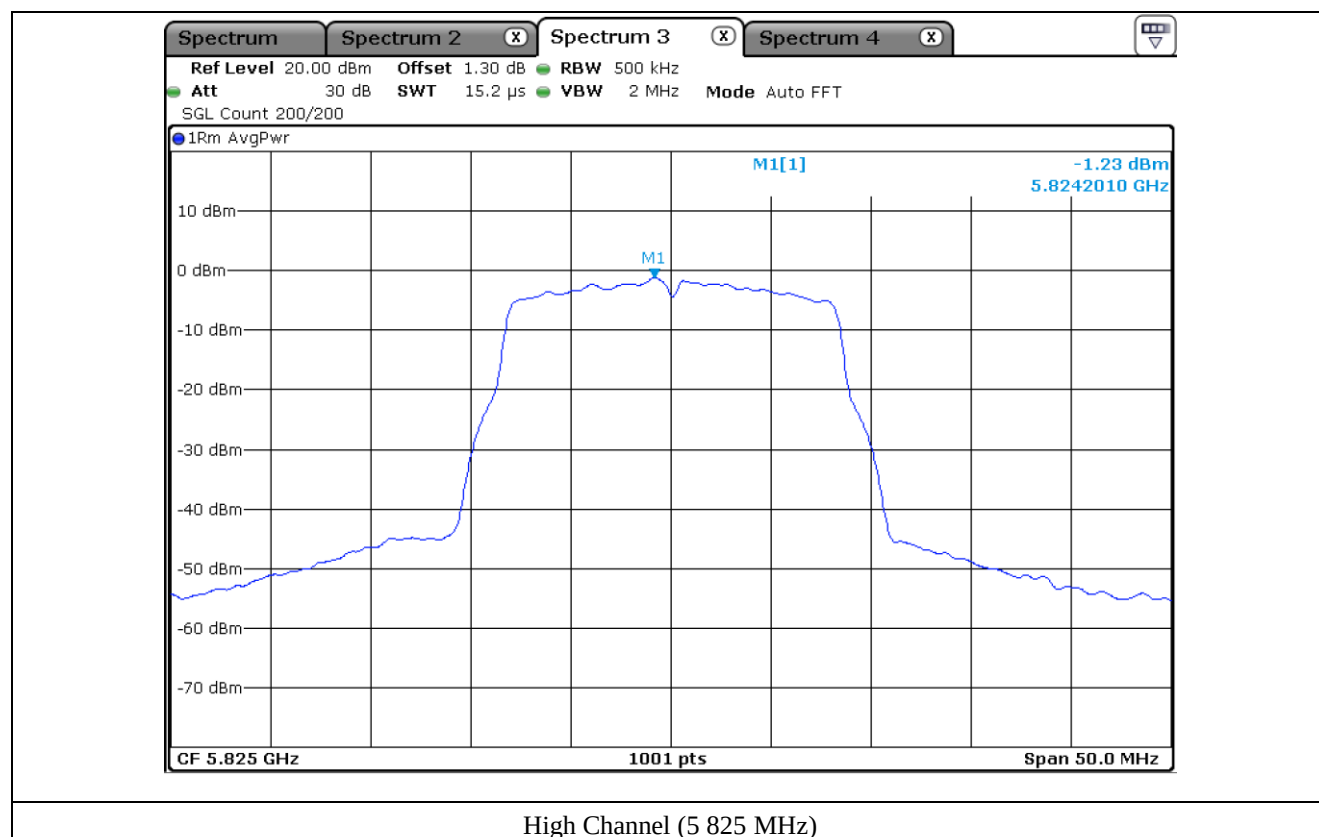




Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)



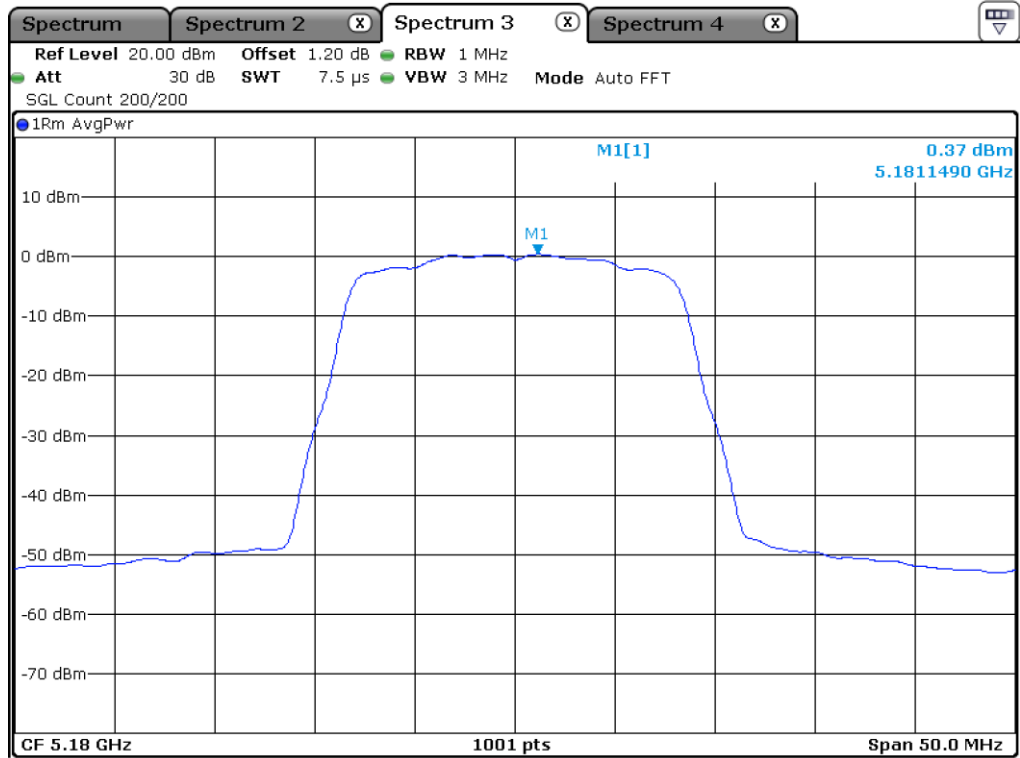
10.4.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

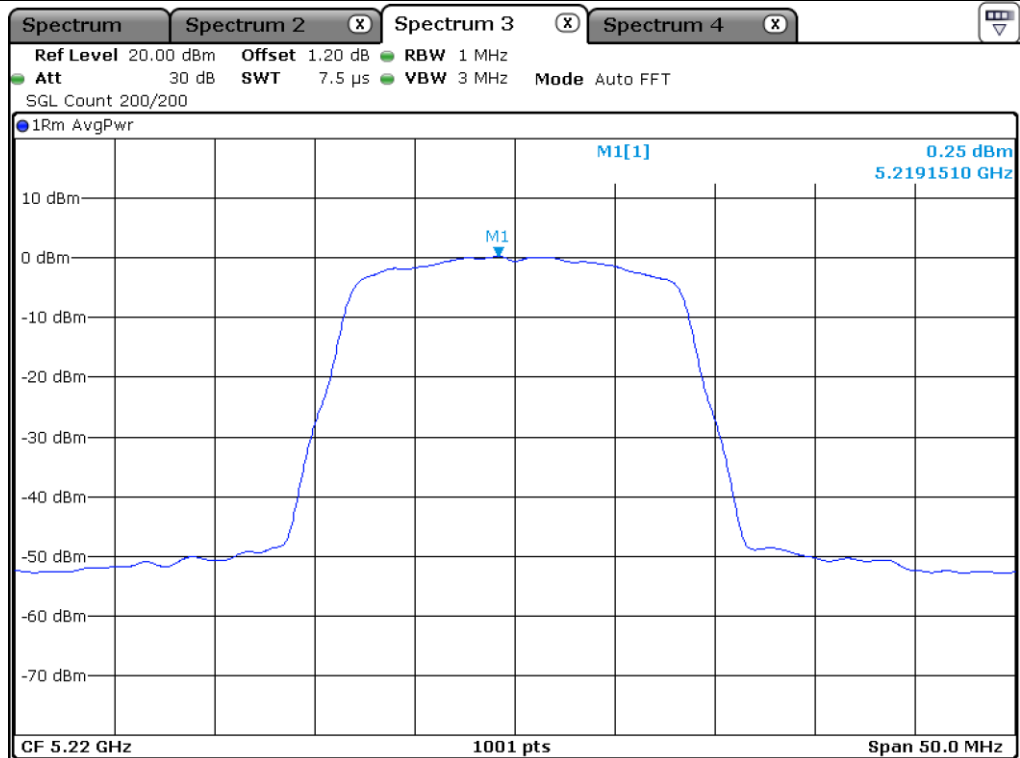
-. Test Result : Pass

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

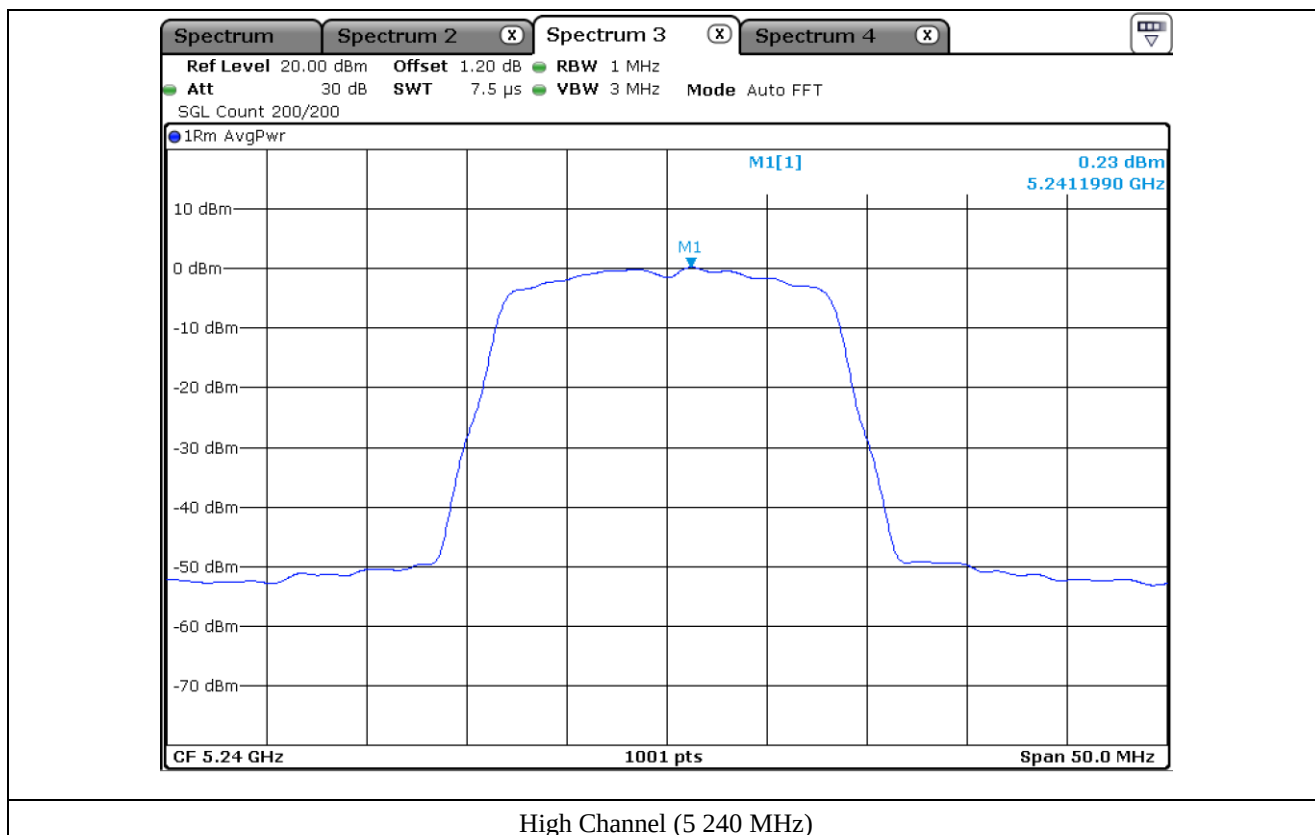
Remark: See next page for measurement data.

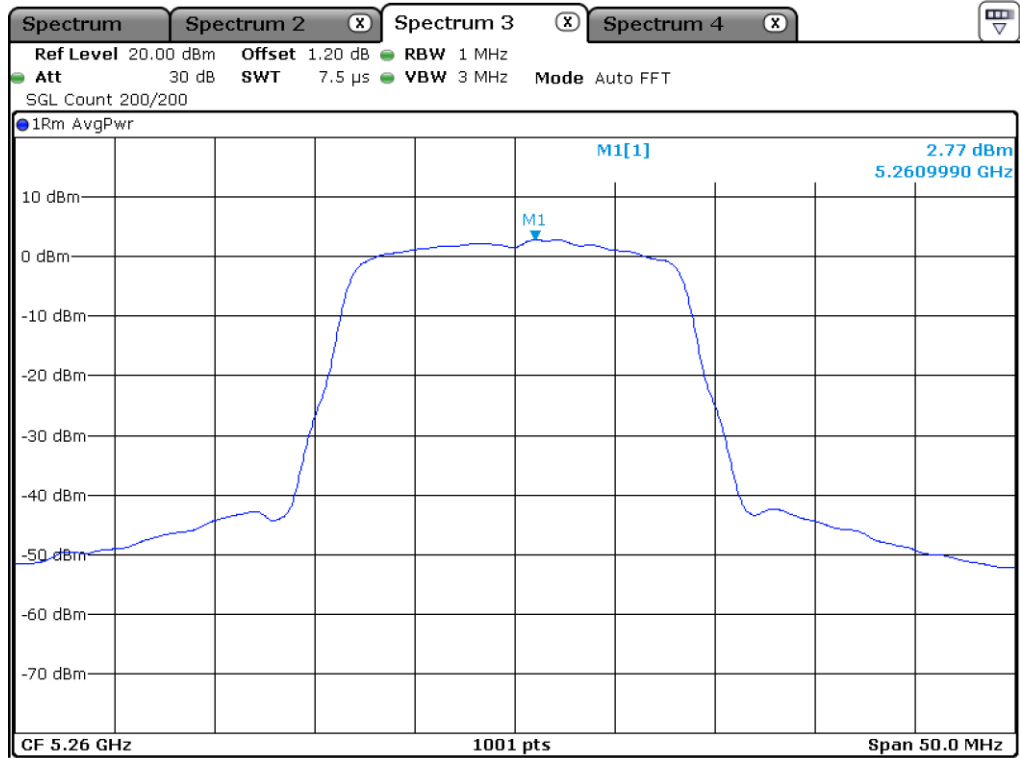


Low Channel (5 180 MHz)

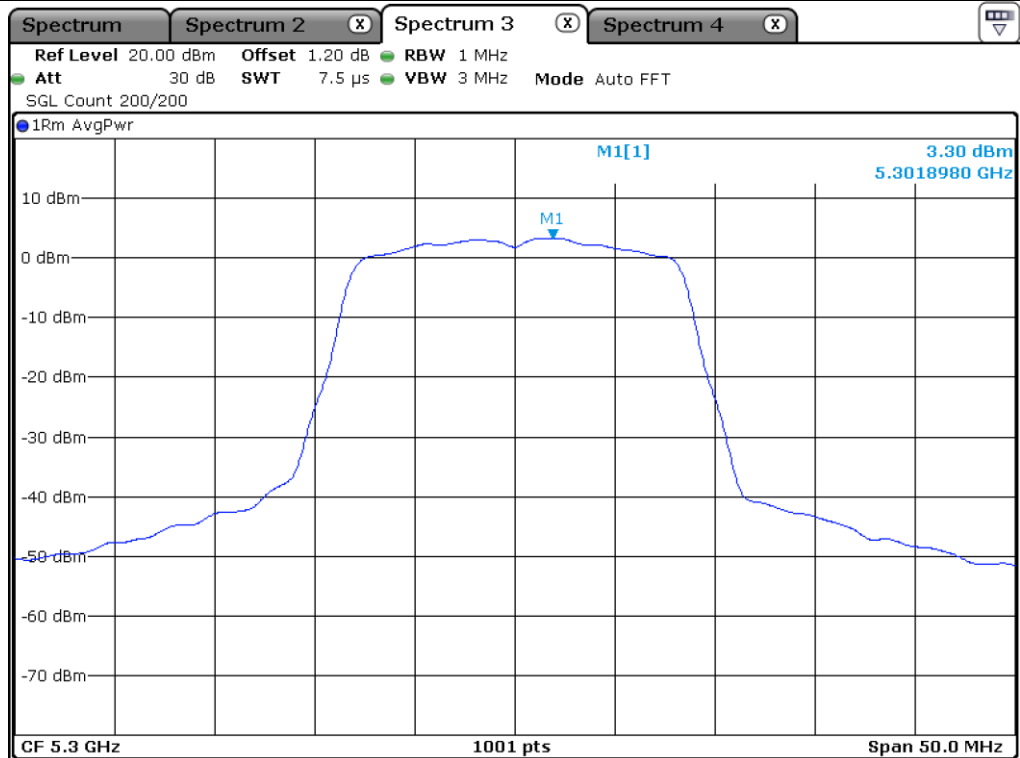


Middle Channel (5 220 MHz)

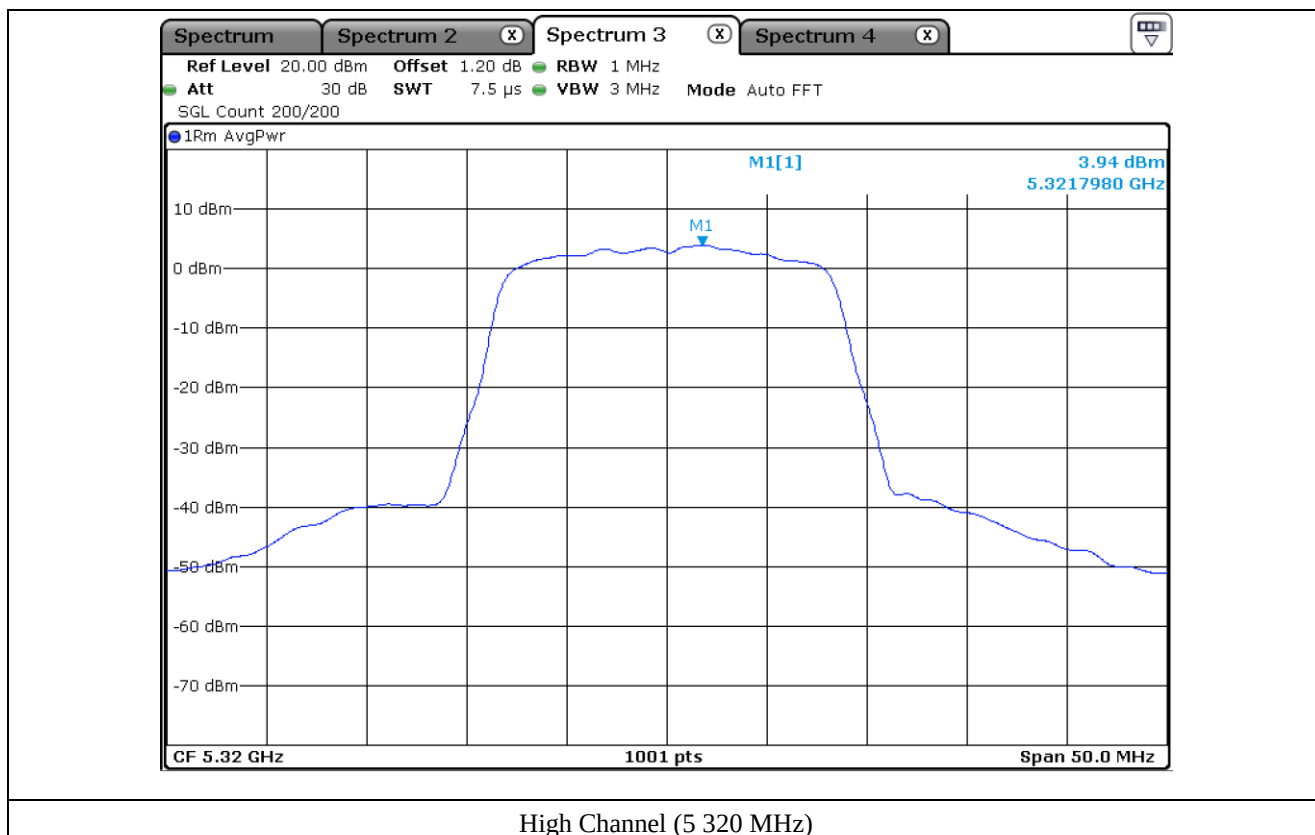


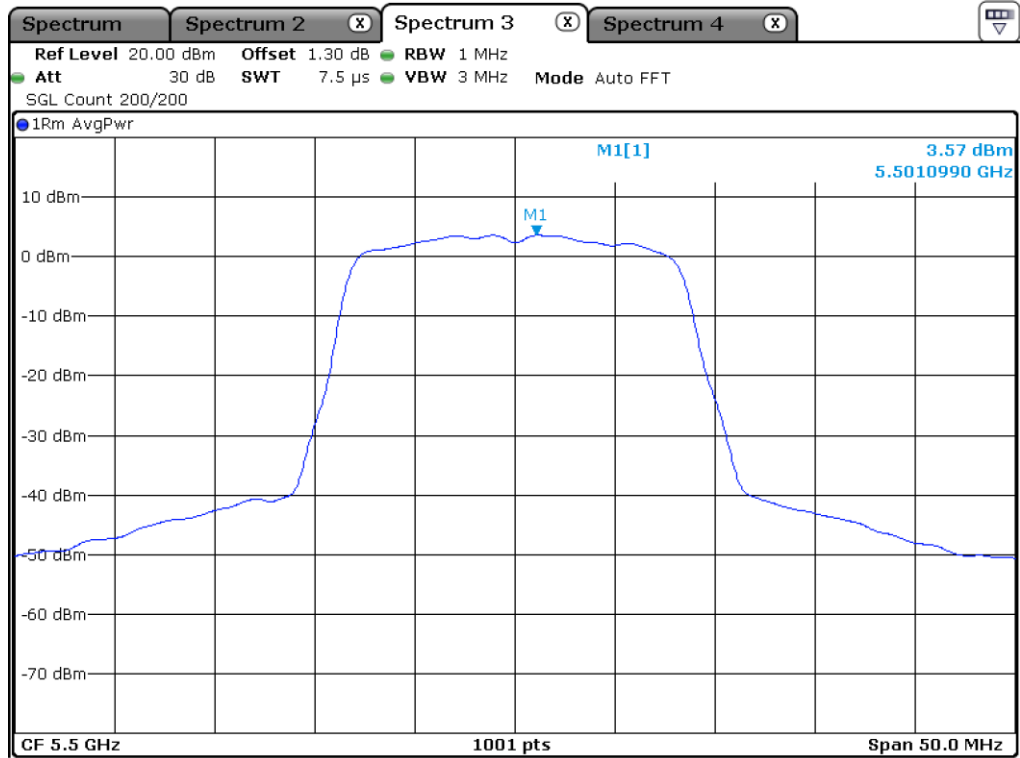


Low Channel (5 260 MHz)

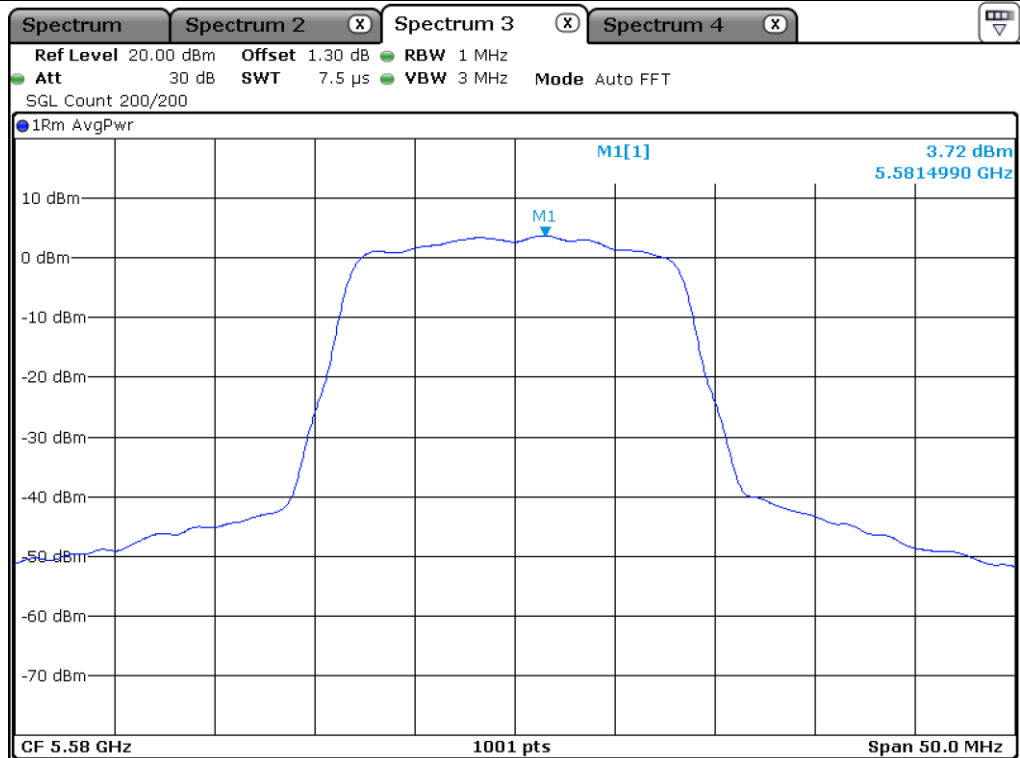


Middle Channel (5 300 MHz)

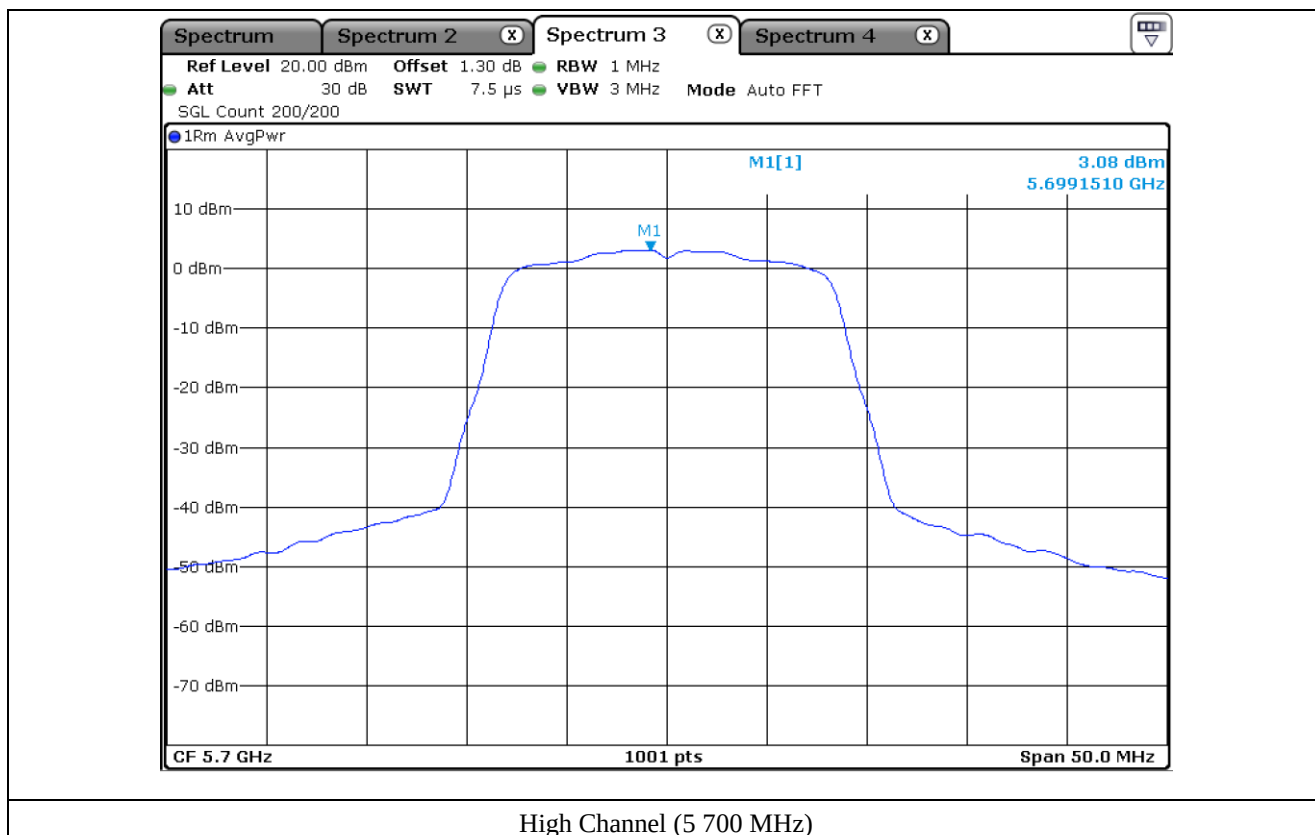


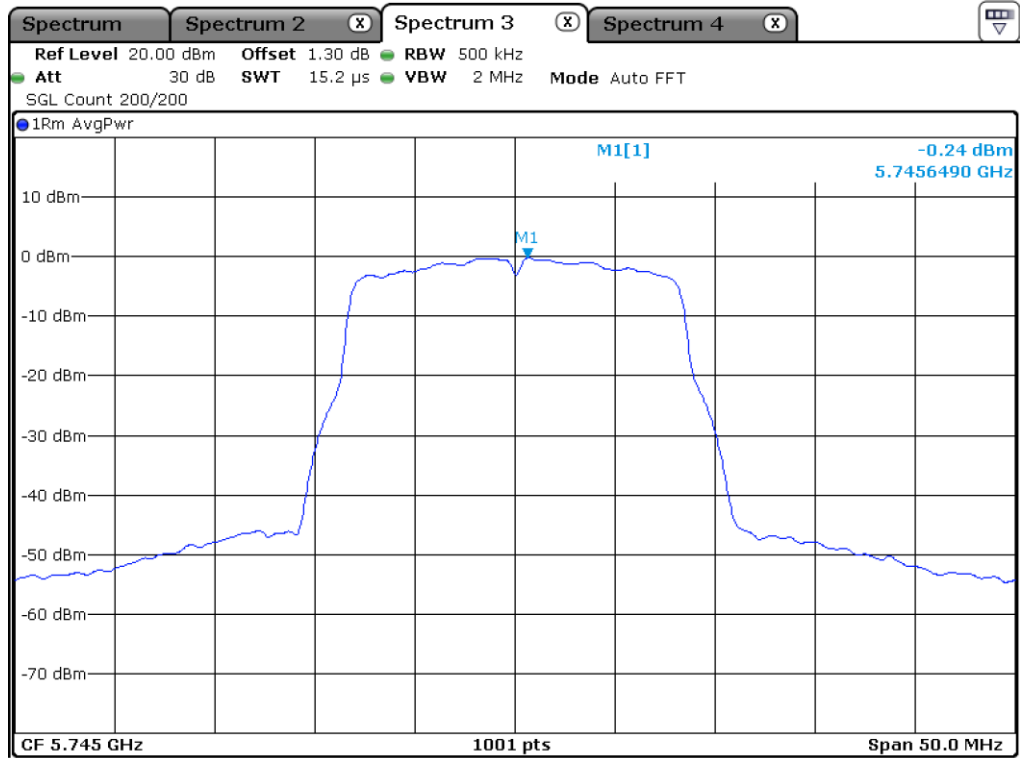


Low Channel (5 500 MHz)

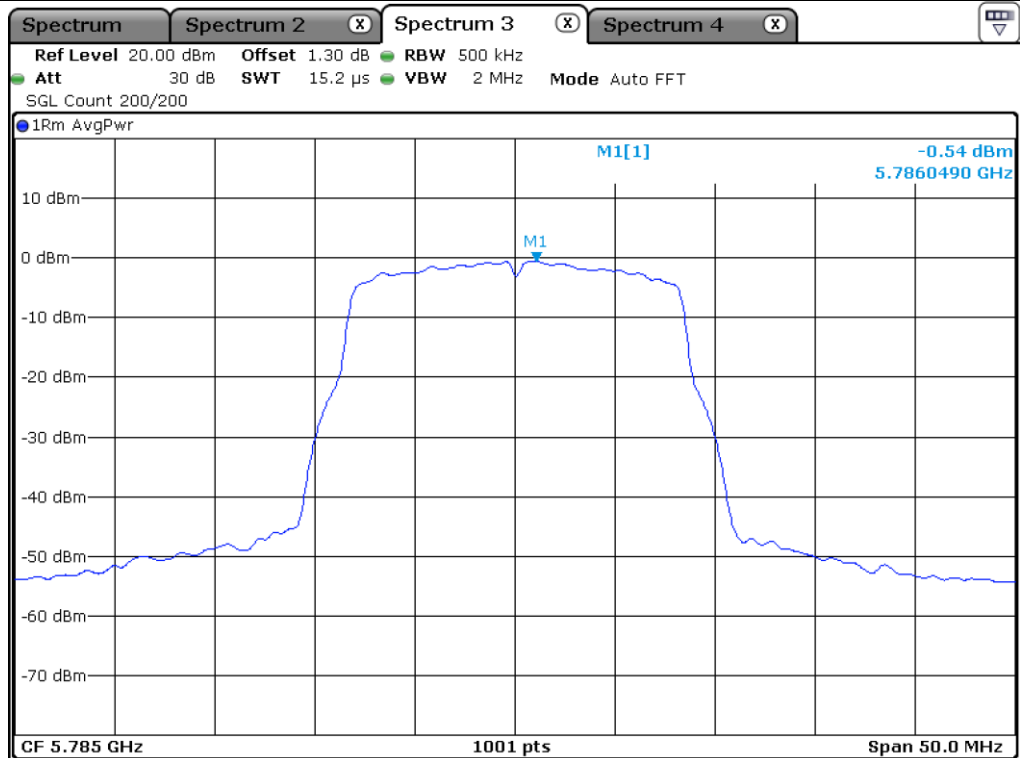


Middle Channel (5 580 MHz)

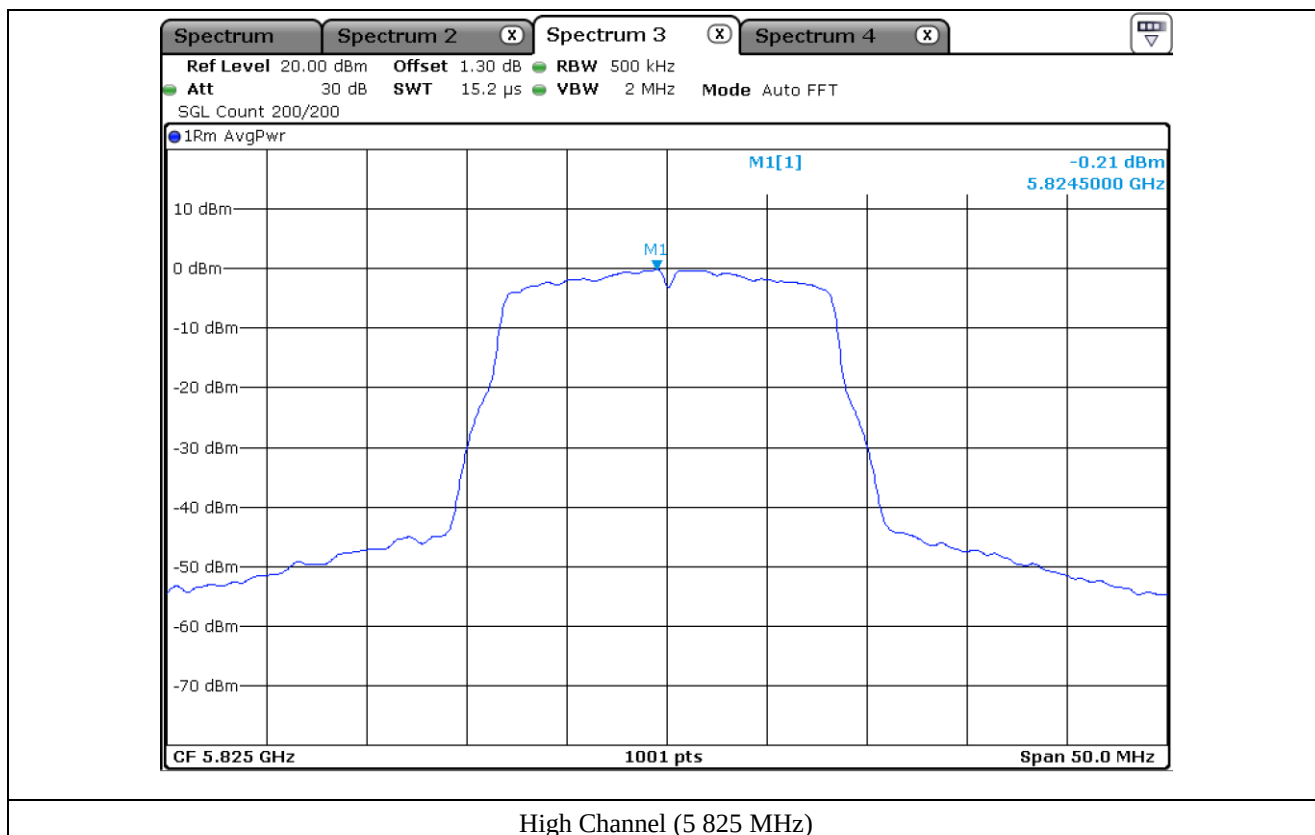




Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)



10.4.3 Test data for Multiple Transmit

-. 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	3.28	11.00	7.72
	Middle	5 220.00	3.02	11.00	7.98
	High	5 240.00	3.36	11.00	7.64
5 250 ~ 5 350	Low	5 260.00	6.14	11.00	4.86
	Middle	5 300.00	6.36	11.00	4.64
	High	5 320.00	6.74	11.00	4.26
5 470 ~ 5 725	Low	5 500.00	6.26	11.00	4.74
	Middle	5 580.00	6.27	11.00	4.73
	High	5 700.00	5.80	11.00	5.20
5 725 ~ 5 850	Low	5 745.00	2.58	30.00	27.42
	Middle	5 785.00	2.62	30.00	27.38
	High	5 825.00	2.32	30.00	27.68

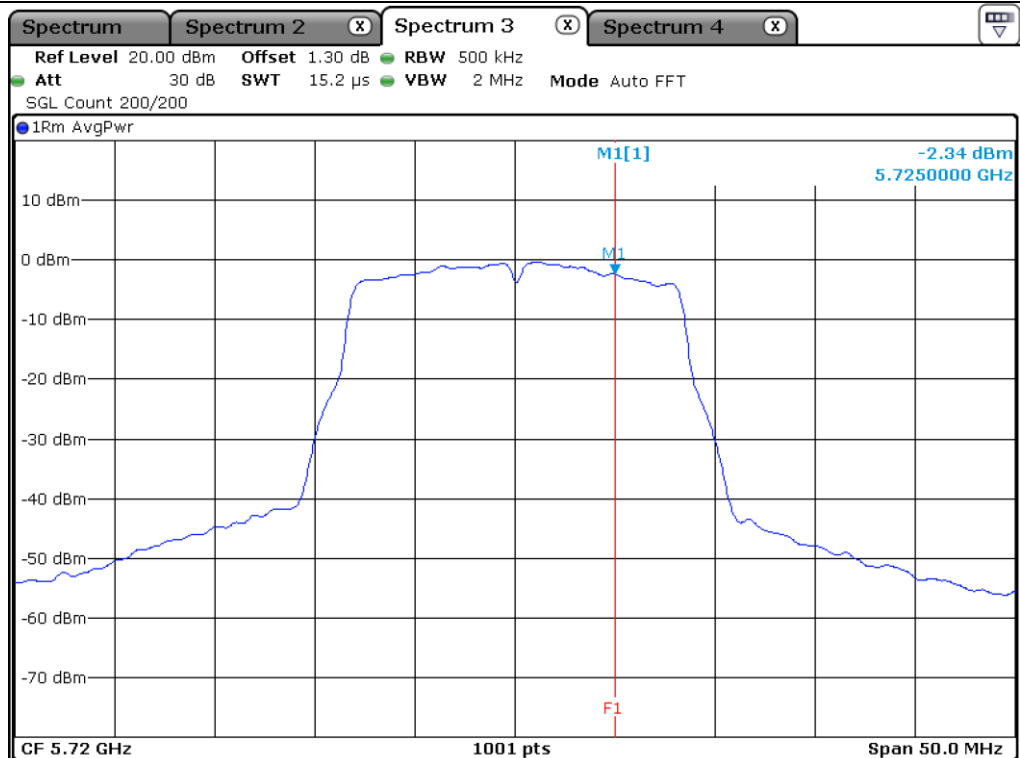
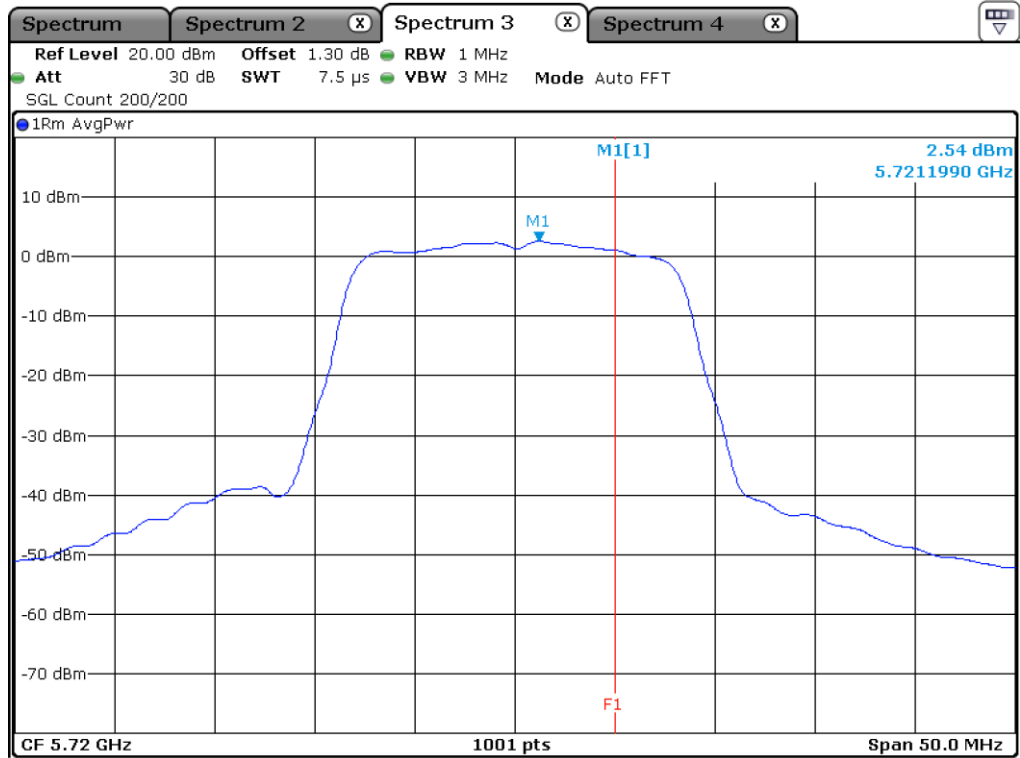
10.4.4 Test data for Staddle Channel_Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	2.54	11.00	8.46
5 725 ~ 5 850	5 720.00	-2.34	30.00	32.34

Remark: See next page for measurement data.



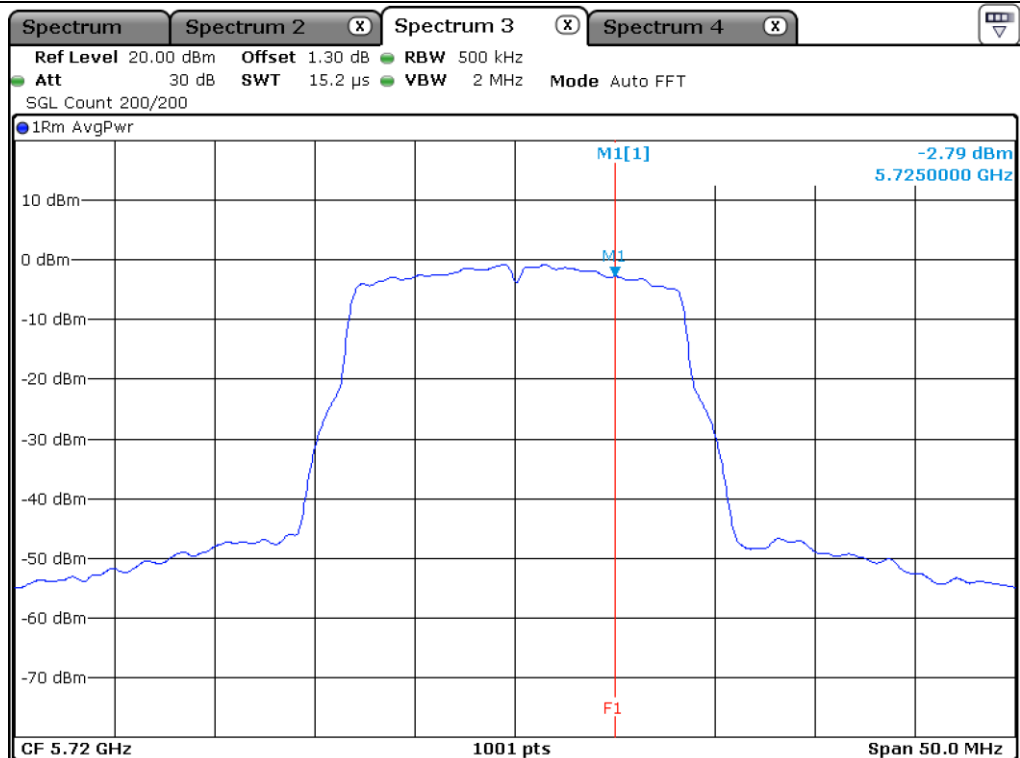
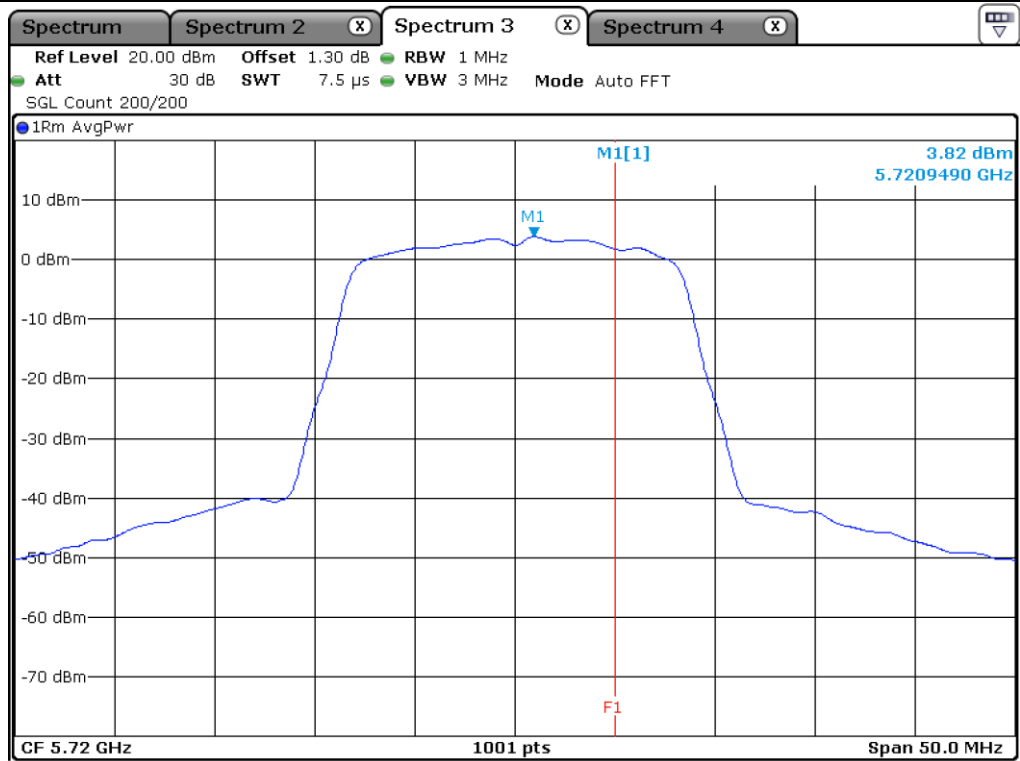
10.4.5 Test data for Staddle Channel_Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	3.82	11.00	7.18
5 725 ~ 5 850	5 720.00	-2.79	30.00	32.79

Remark: See next page for measurement data.



10.4.6 Test data for Staddle Channel_Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	6.24	11.00	4.76
5 725 ~ 5 850	5 720.00	0.45	30.00	29.55

10.5 Test data for 802.11n_HT20 RLAN Mode

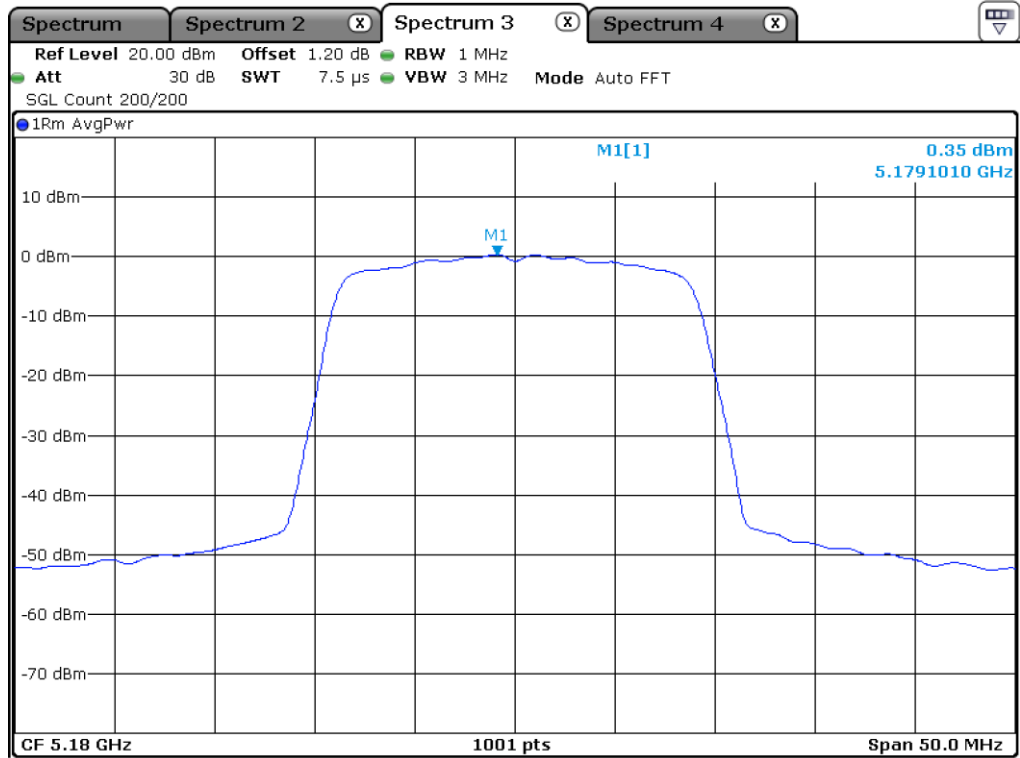
10.5.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

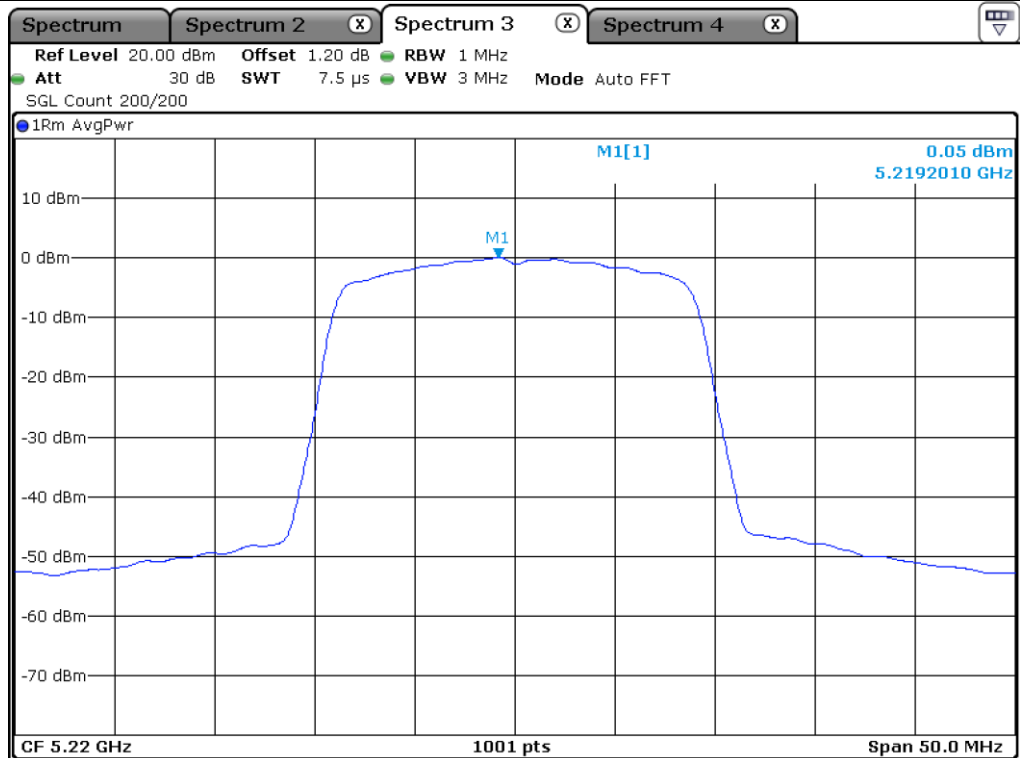
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	0.35	11.00	10.65
	Middle	5 220.00	0.05	11.00	10.95
	High	5 240.00	0.04	11.00	10.96
5 250 ~ 5 350	Low	5 260.00	4.17	11.00	6.83
	Middle	5 300.00	4.10	11.00	6.90
	High	5 320.00	4.15	11.00	6.85
5 470 ~ 5 725	Low	5 500.00	2.91	11.00	8.09
	Middle	5 580.00	2.76	11.00	8.24
	High	5 700.00	2.75	11.00	8.25
5 725 ~ 5 850	Low	5 745.00	-1.13	30.00	31.13
	Middle	5 785.00	-0.59	30.00	30.59
	High	5 825.00	-1.26	30.00	31.26

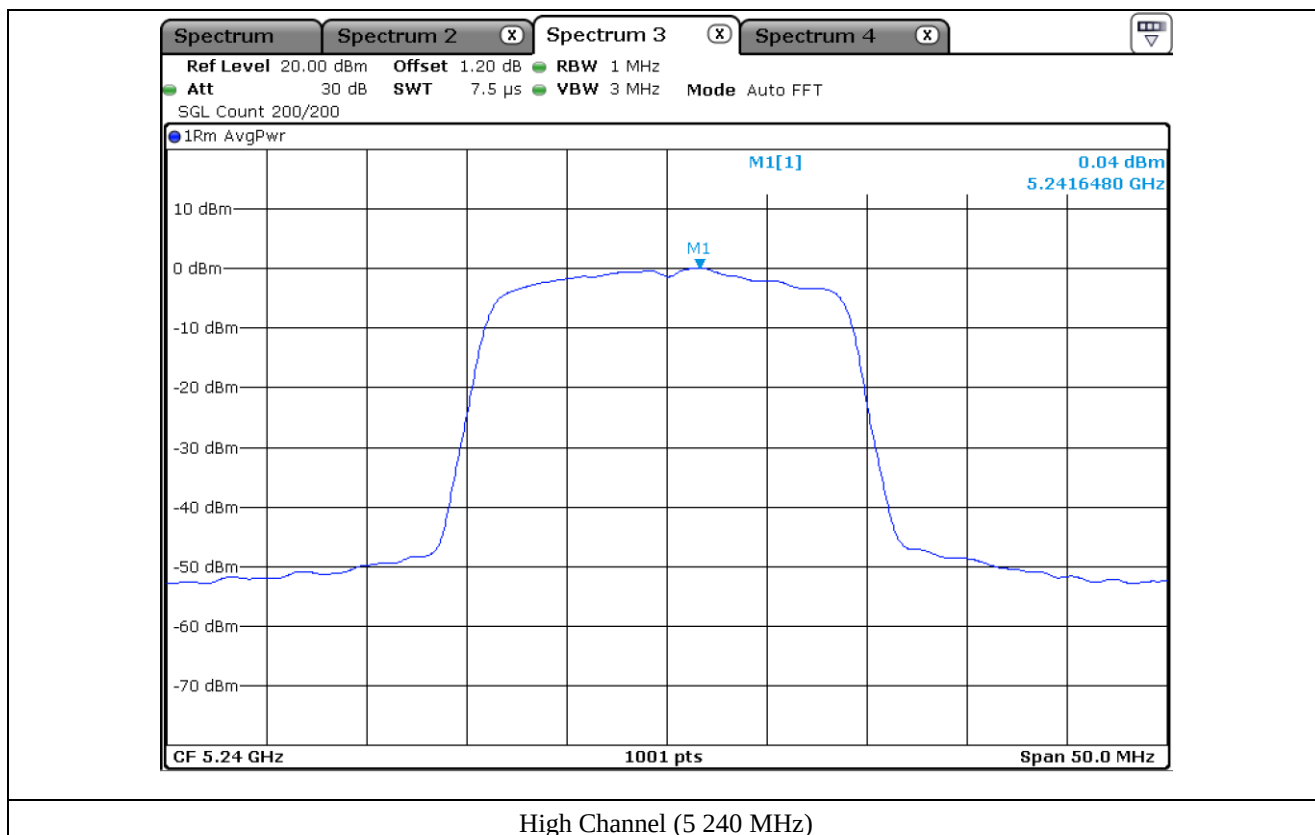
Remark: See next page for measurement data.

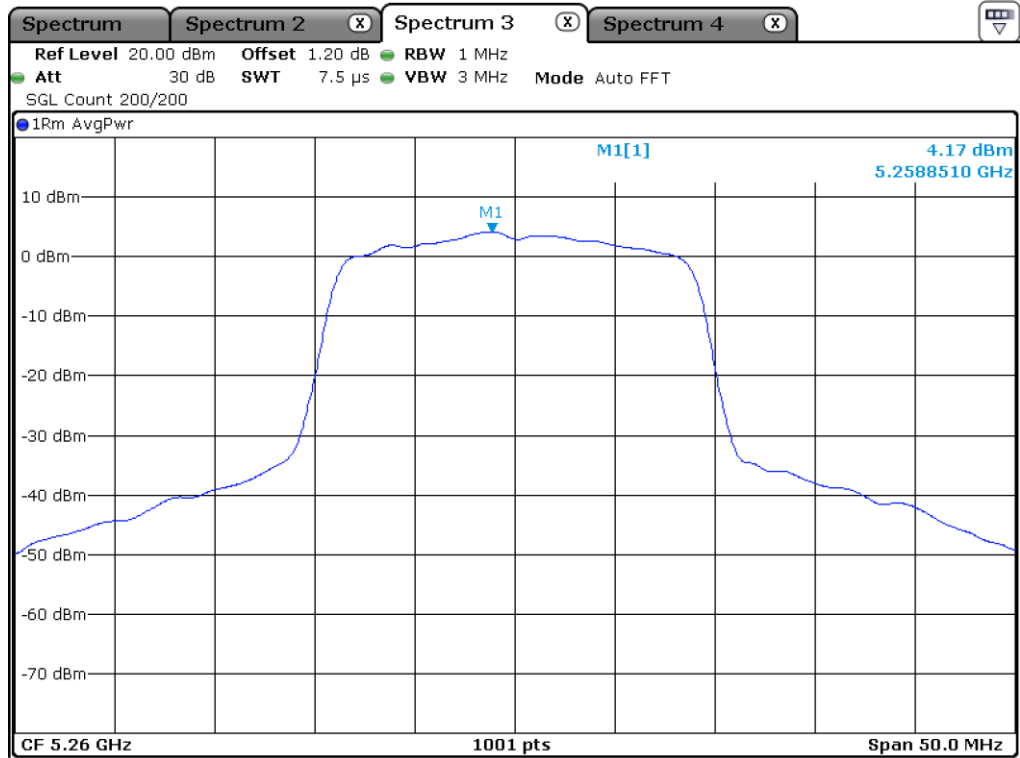


Low Channel (5 180 MHz)

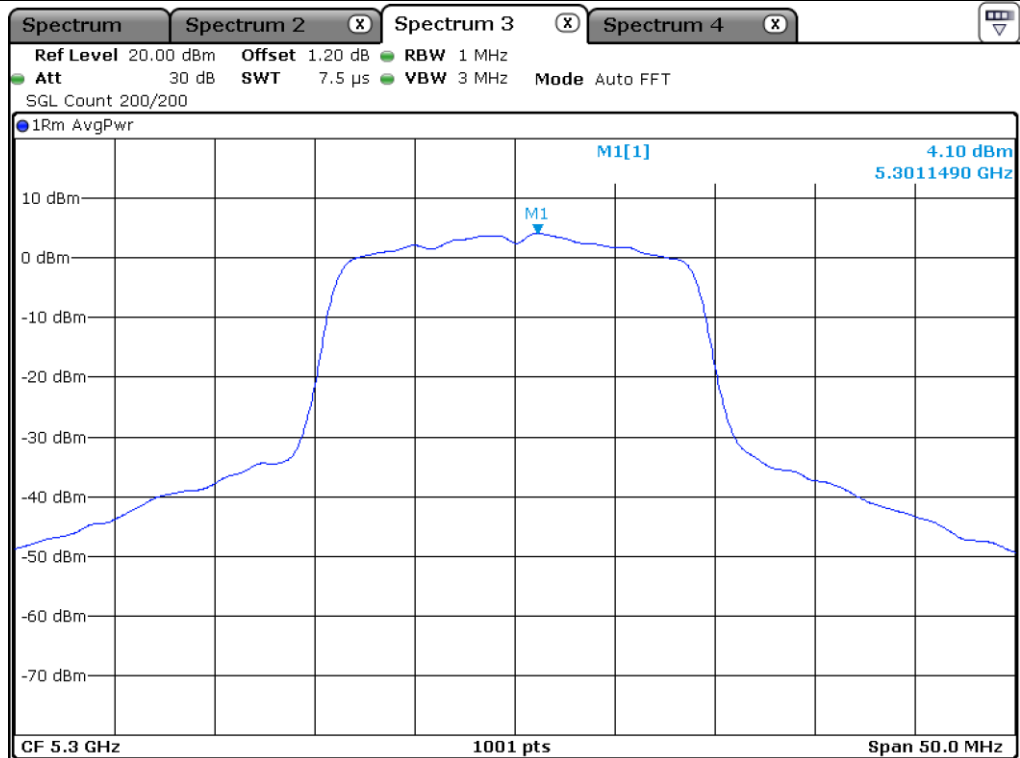


Middle Channel (5 220 MHz)

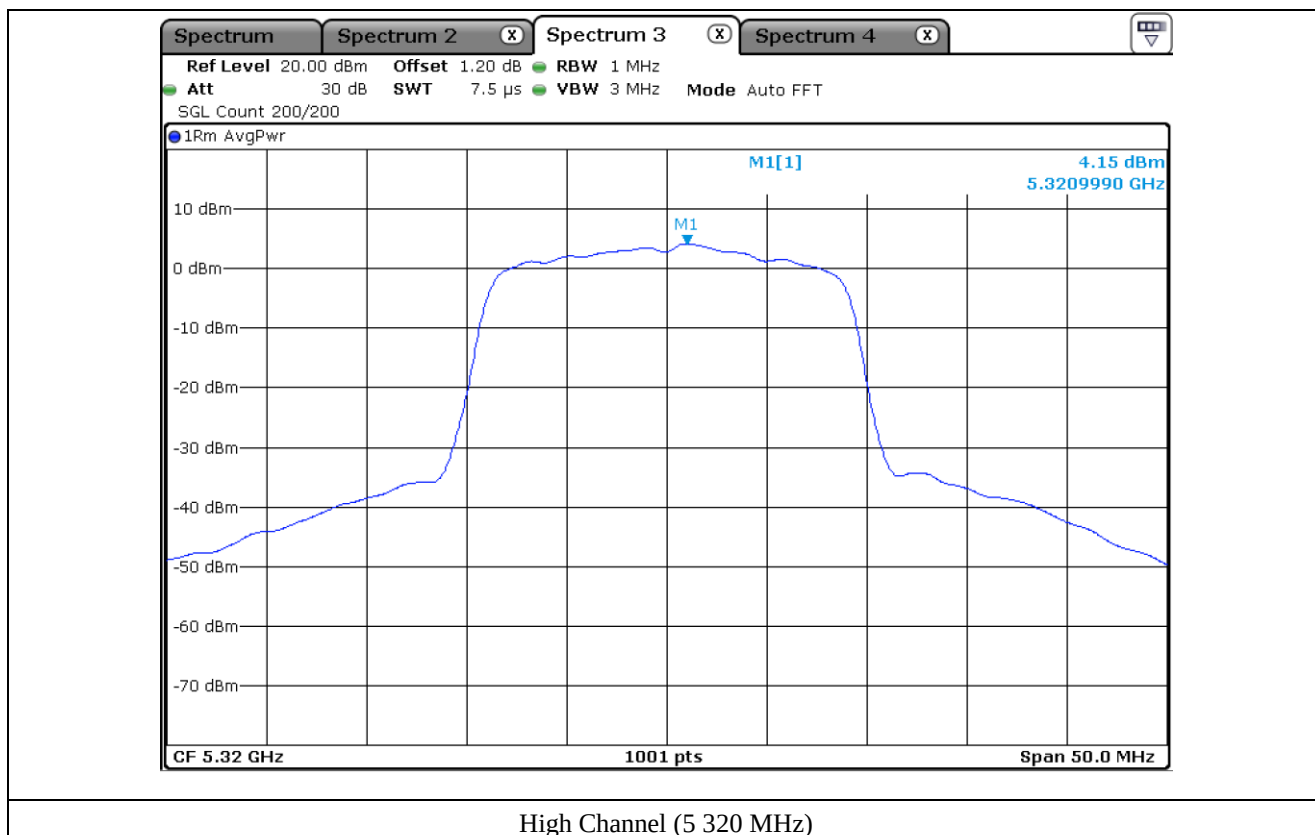


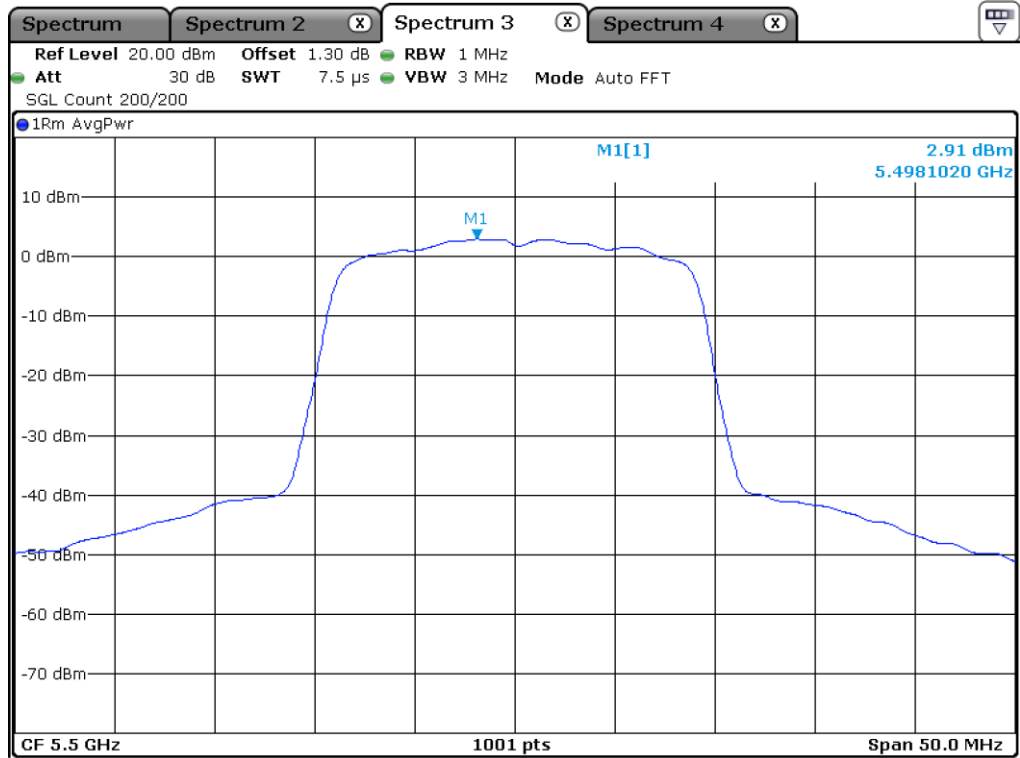


Low Channel (5 260 MHz)

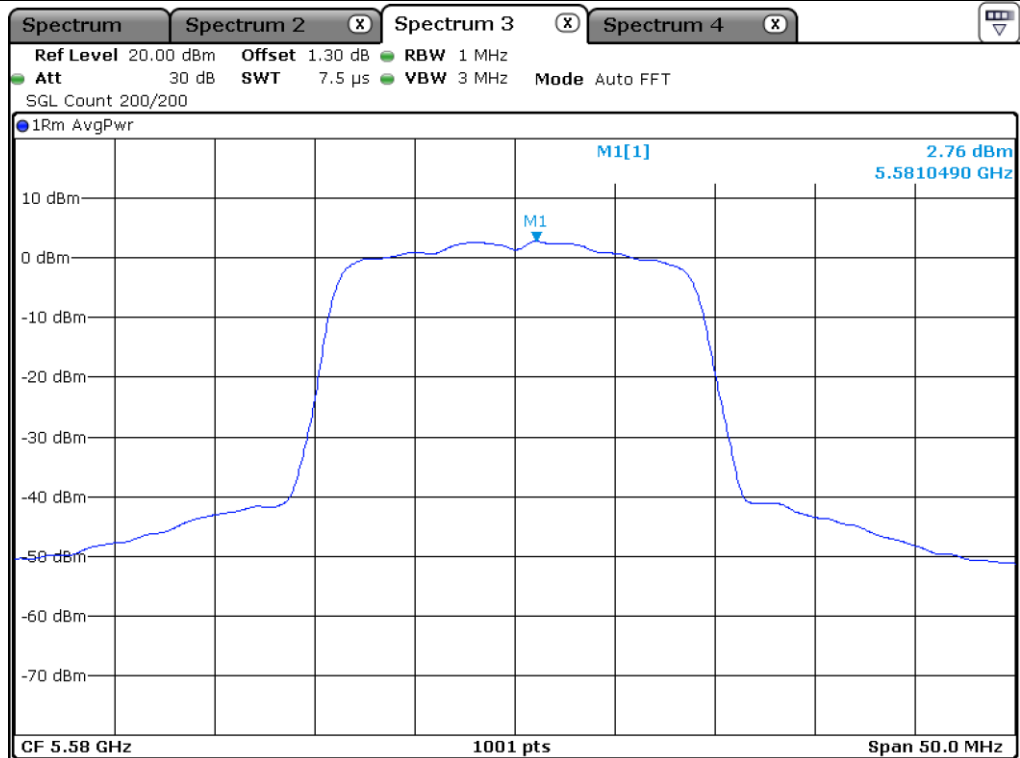


Middle Channel (5 300 MHz)

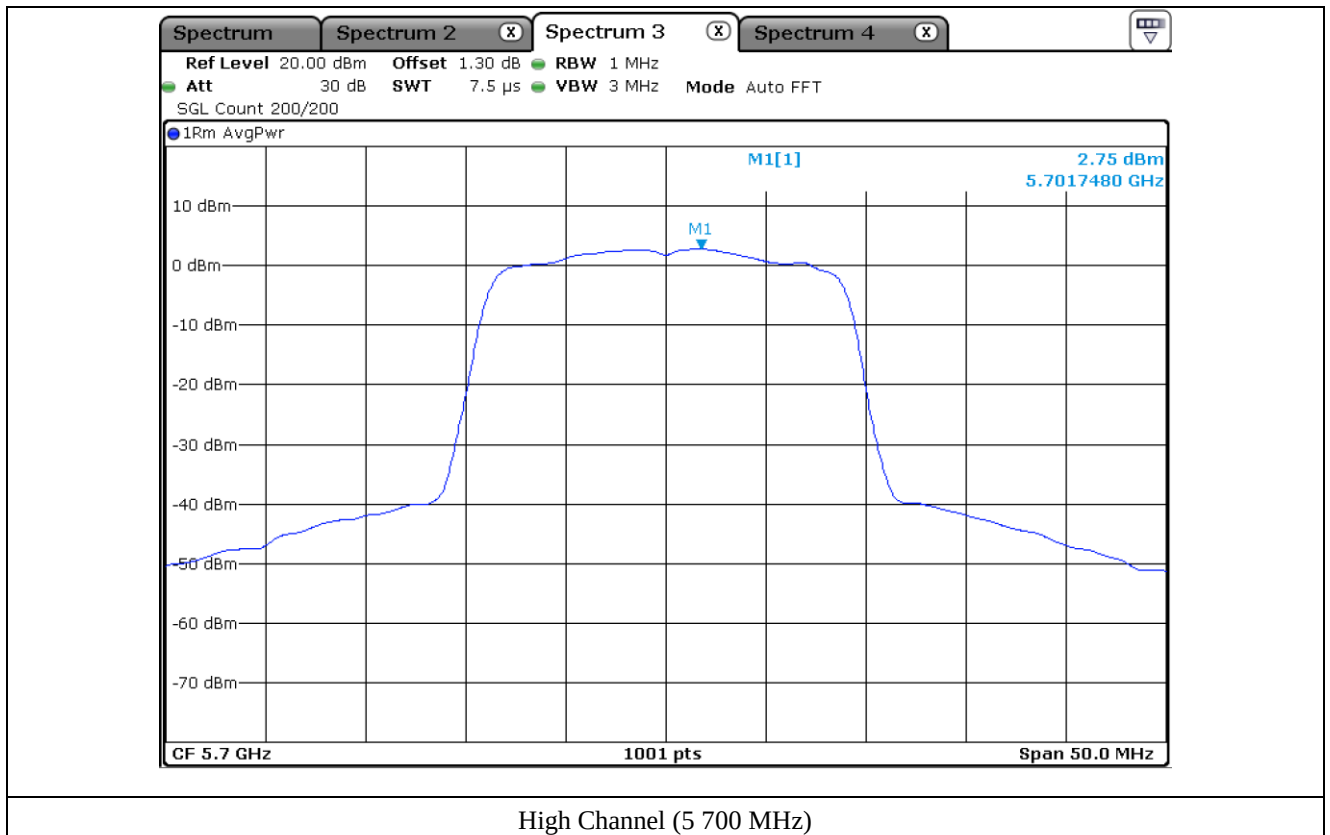


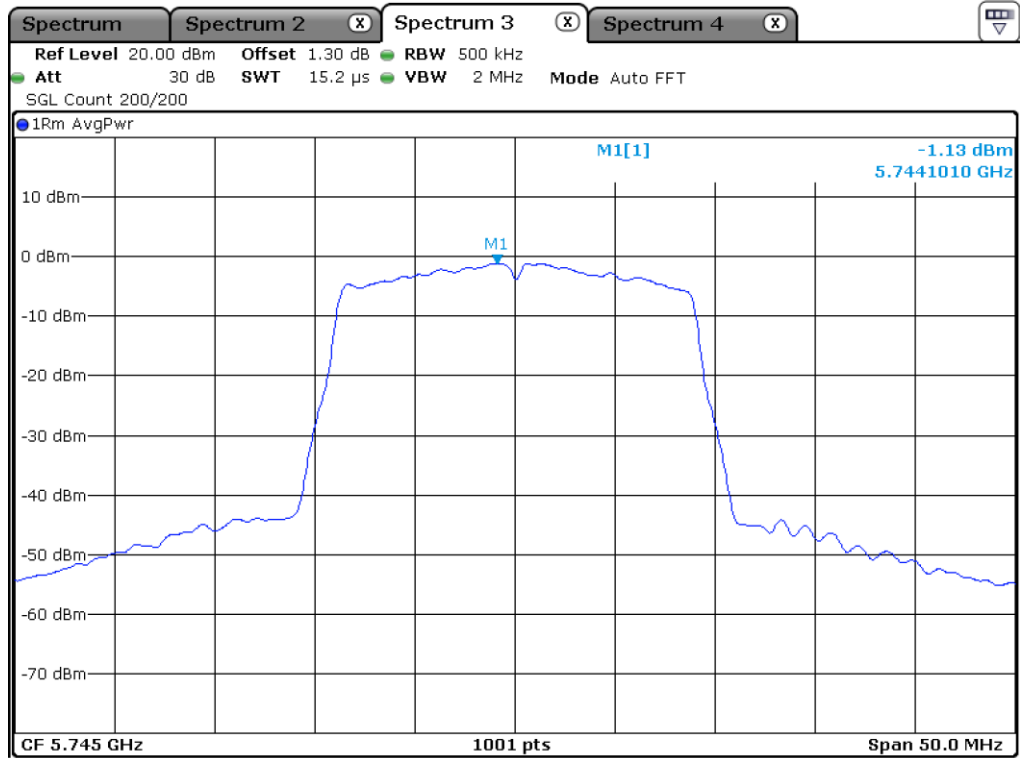


Low Channel (5 500 MHz)

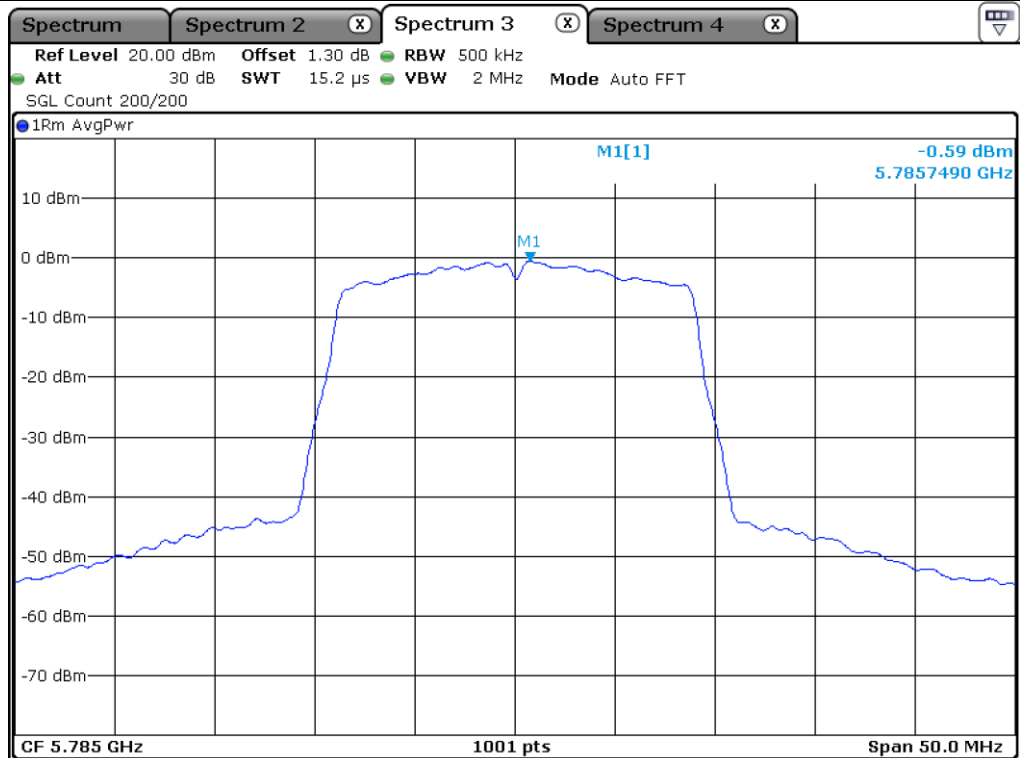


Middle Channel (5 580 MHz)

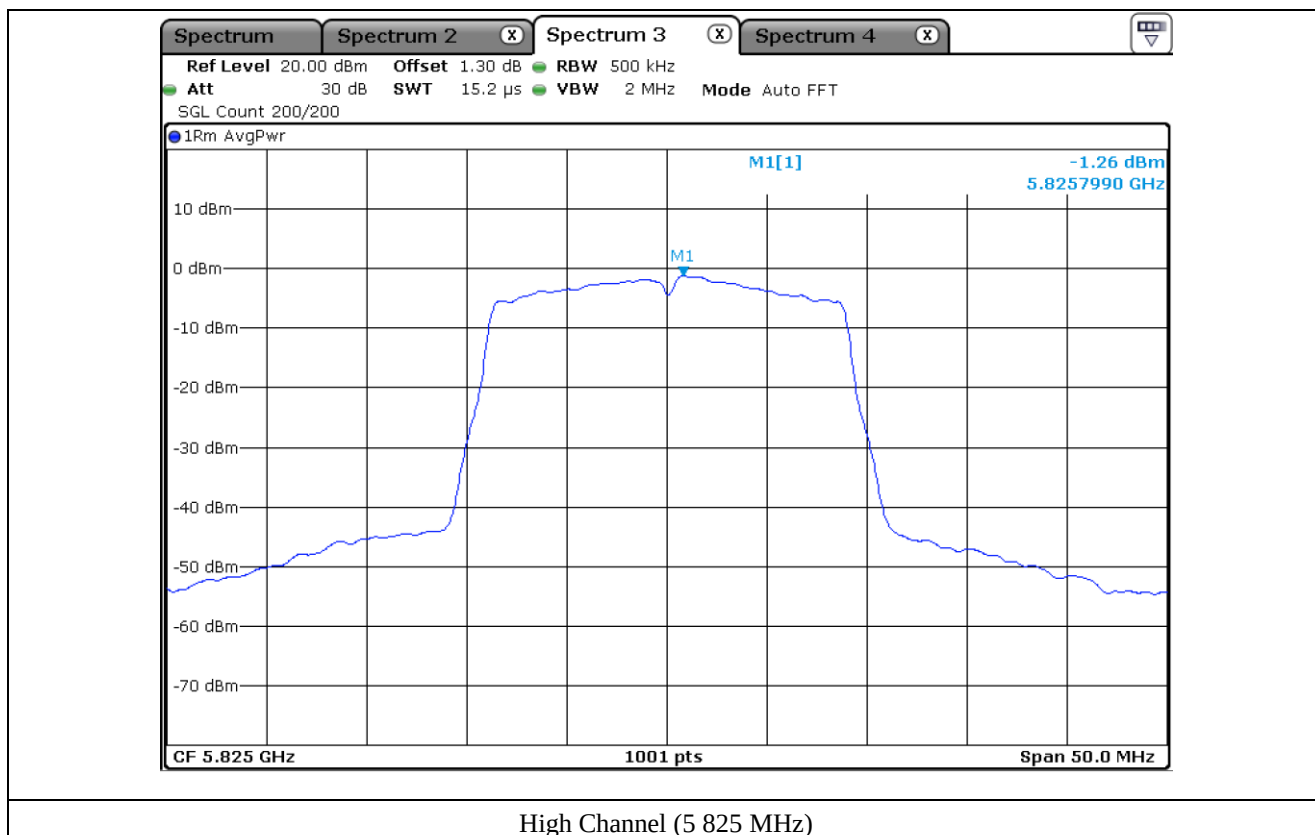




Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)



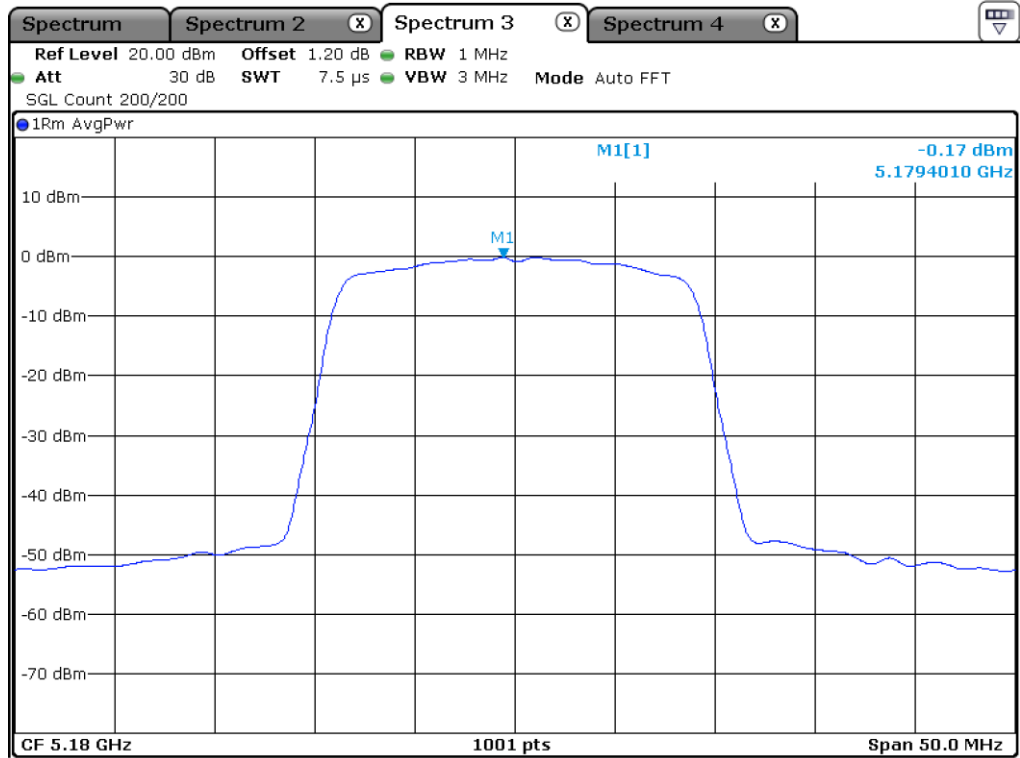
10.5.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

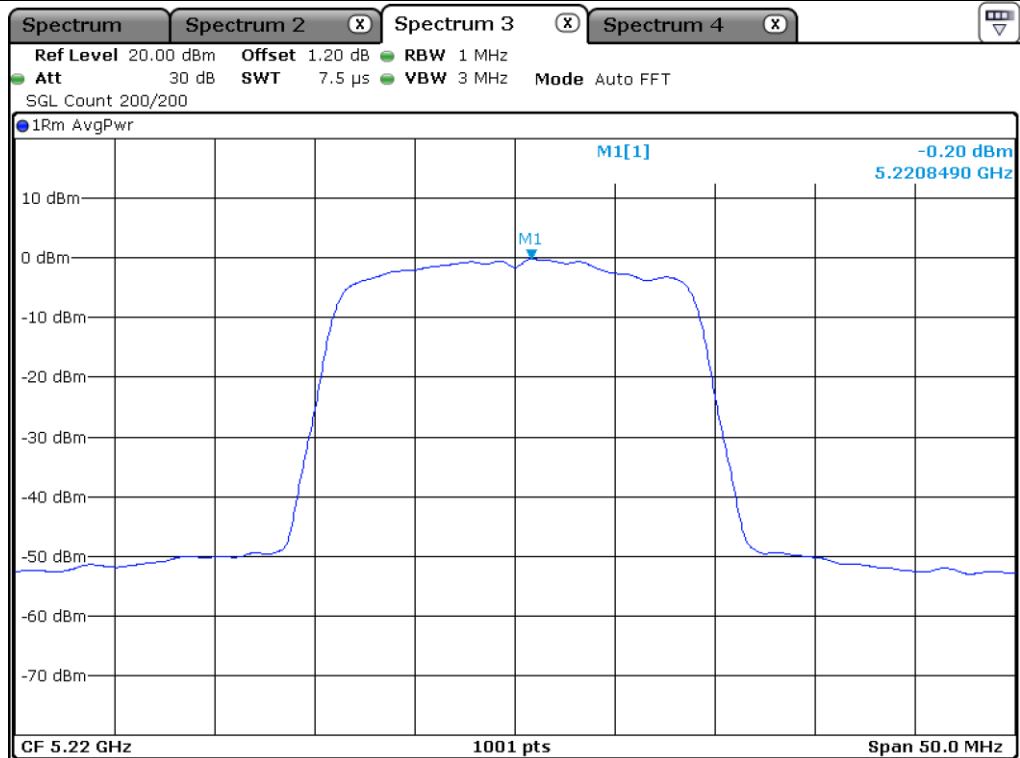
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	-0.17	11.00	11.17
	Middle	5 220.00	-0.20	11.00	11.20
	High	5 240.00	-0.71	11.00	11.71
5 250 ~ 5 350	Low	5 260.00	3.25	11.00	7.75
	Middle	5 300.00	3.98	11.00	7.02
	High	5 320.00	3.75	11.00	7.25
5 470 ~ 5 725	Low	5 500.00	3.34	11.00	7.66
	Middle	5 580.00	3.14	11.00	7.86
	High	5 700.00	3.23	11.00	7.77
5 725 ~ 5 850	Low	5 745.00	-0.68	30.00	30.68
	Middle	5 785.00	-0.94	30.00	30.94
	High	5 825.00	-0.45	30.00	30.45

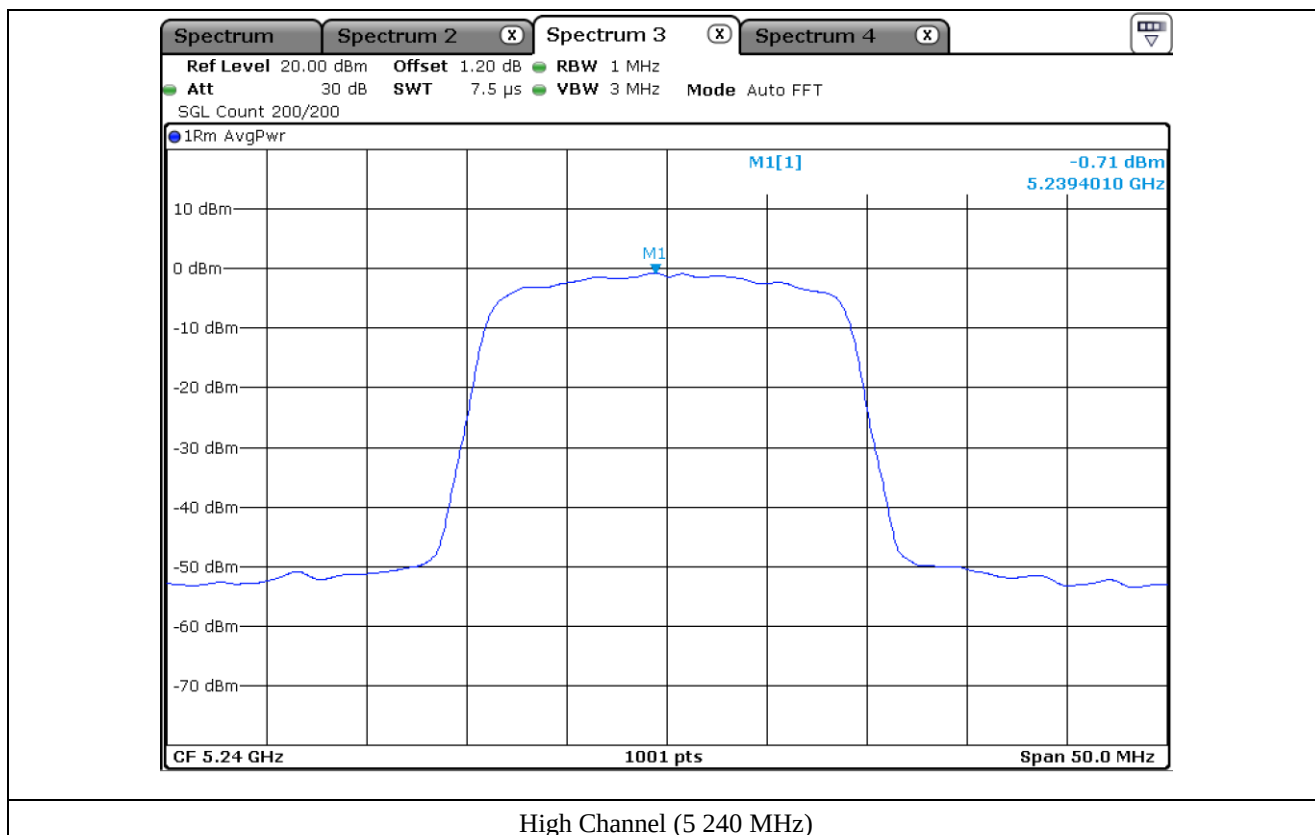
Remark: See next page for measurement data.

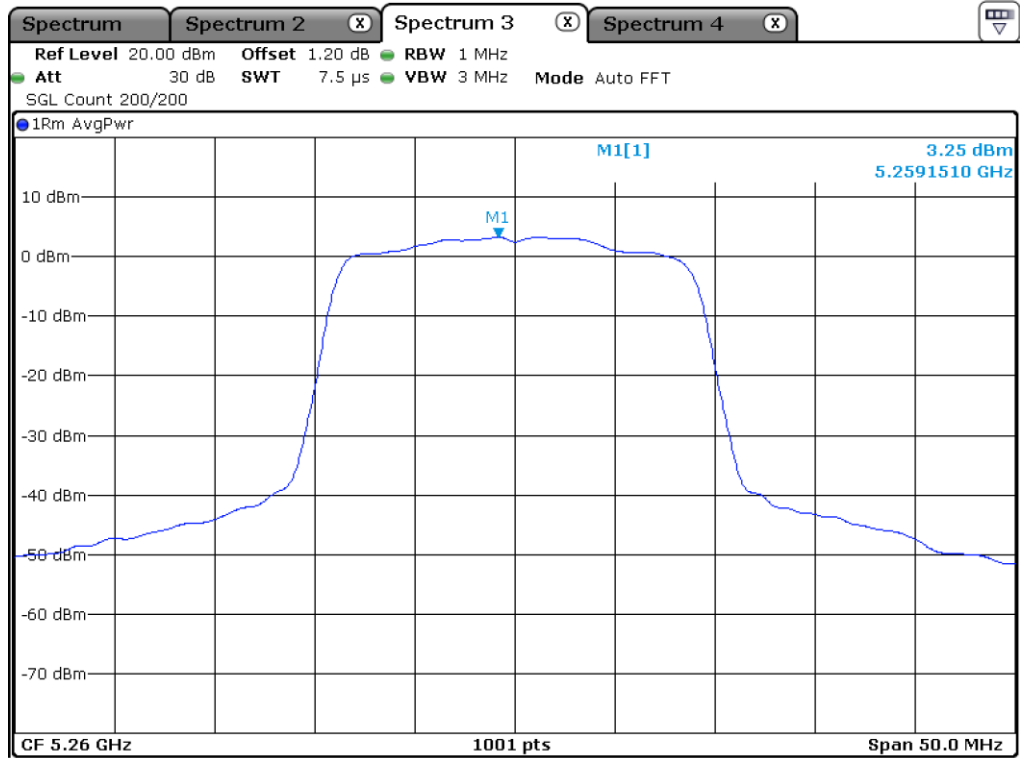


Low Channel (5 180 MHz)

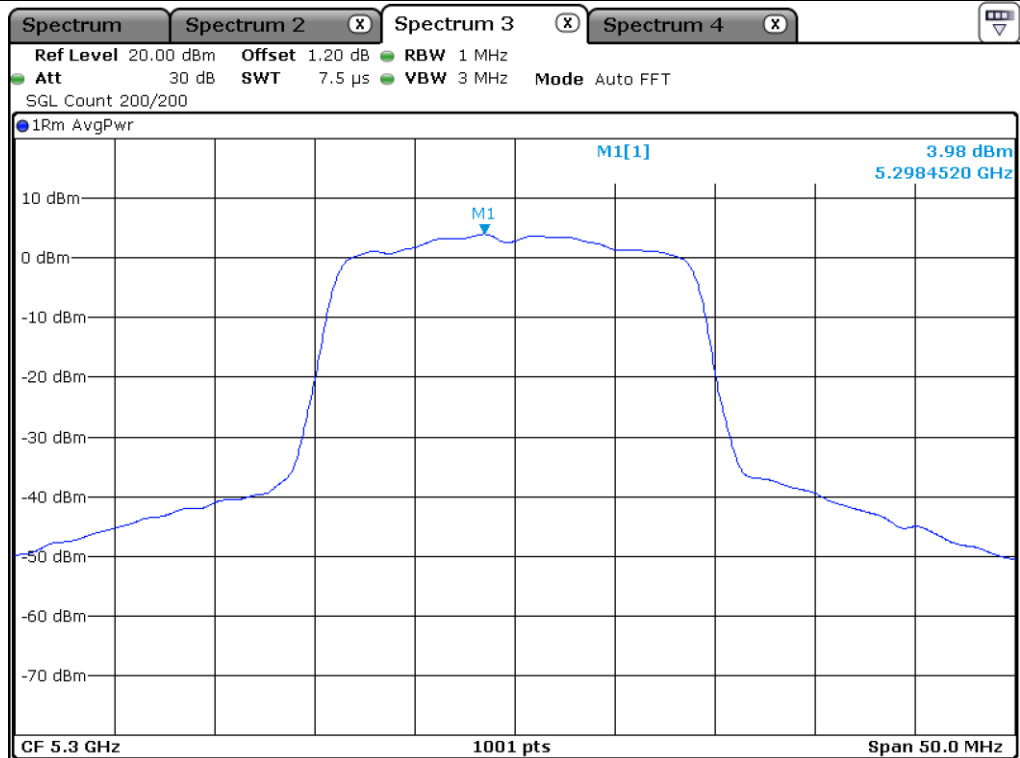


Middle Channel (5 220 MHz)

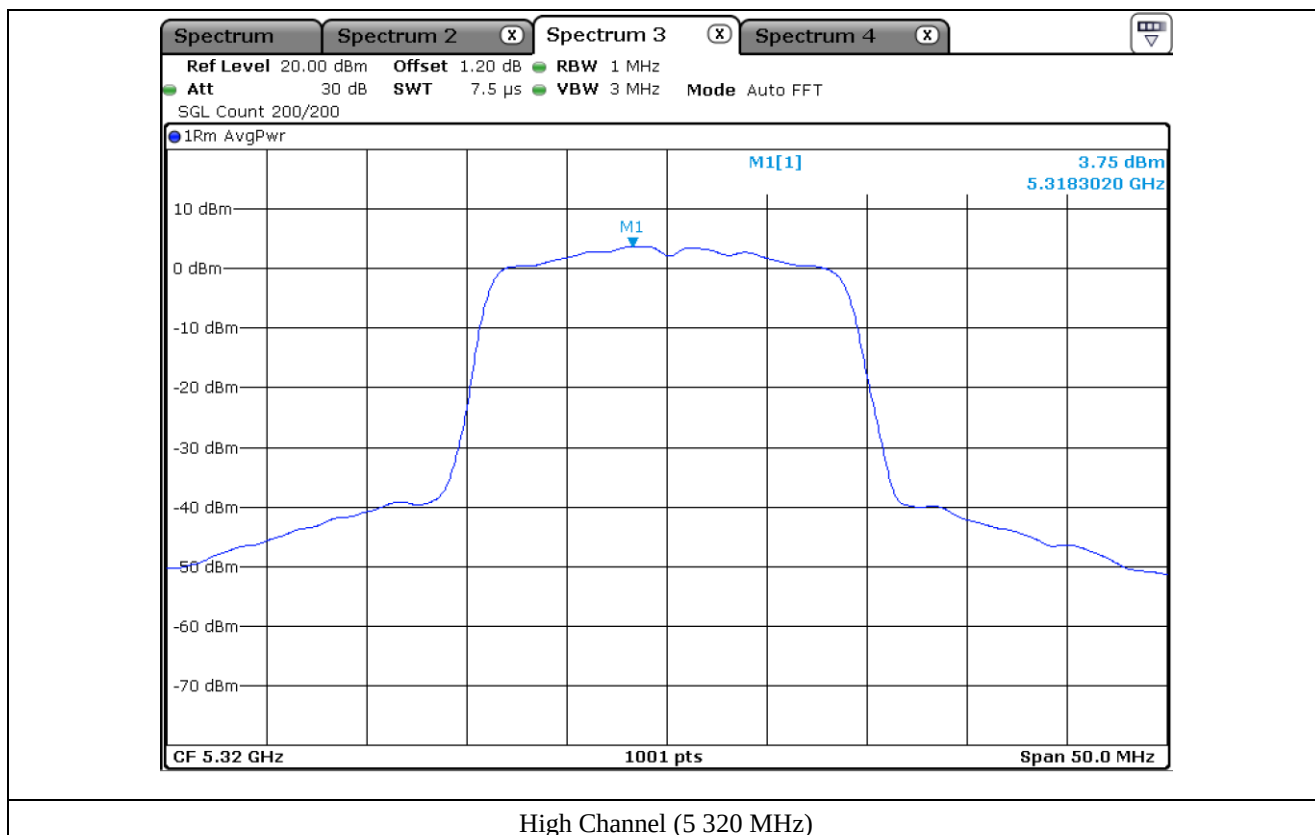


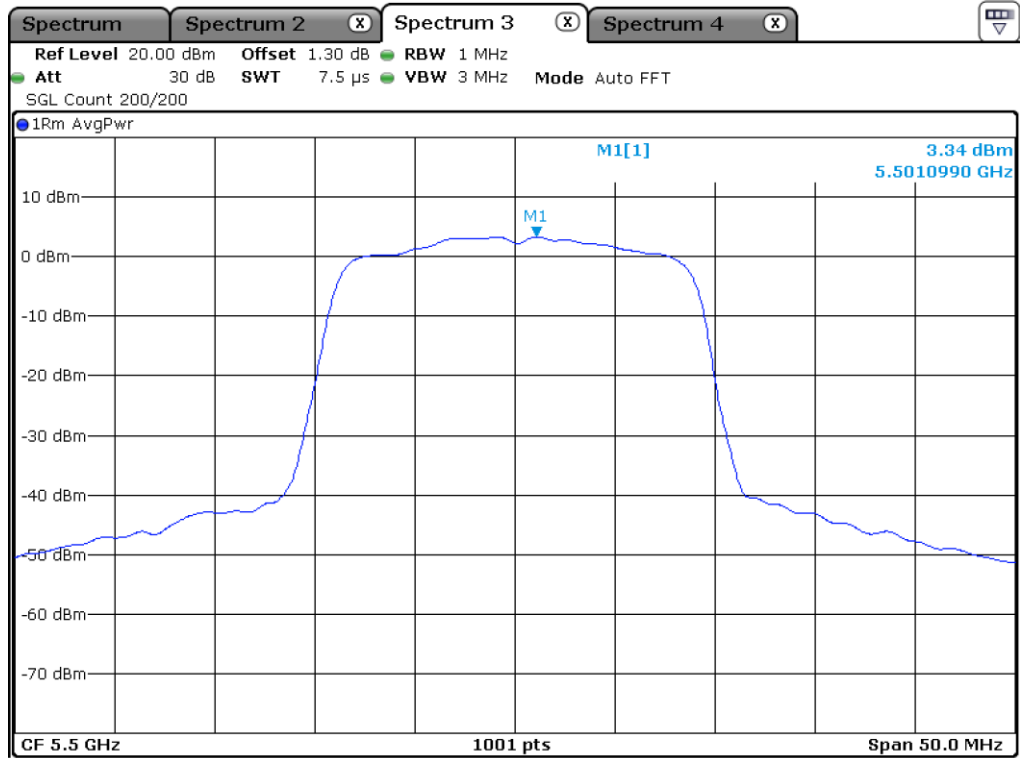


Low Channel (5 260 MHz)

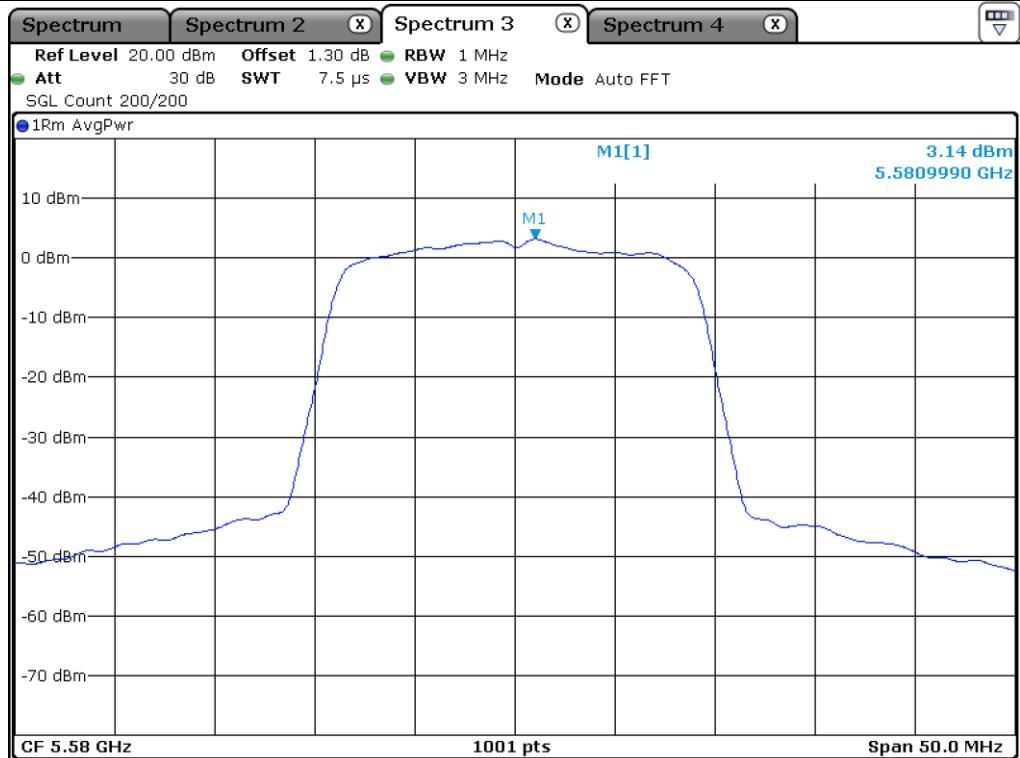


Middle Channel (5 300 MHz)

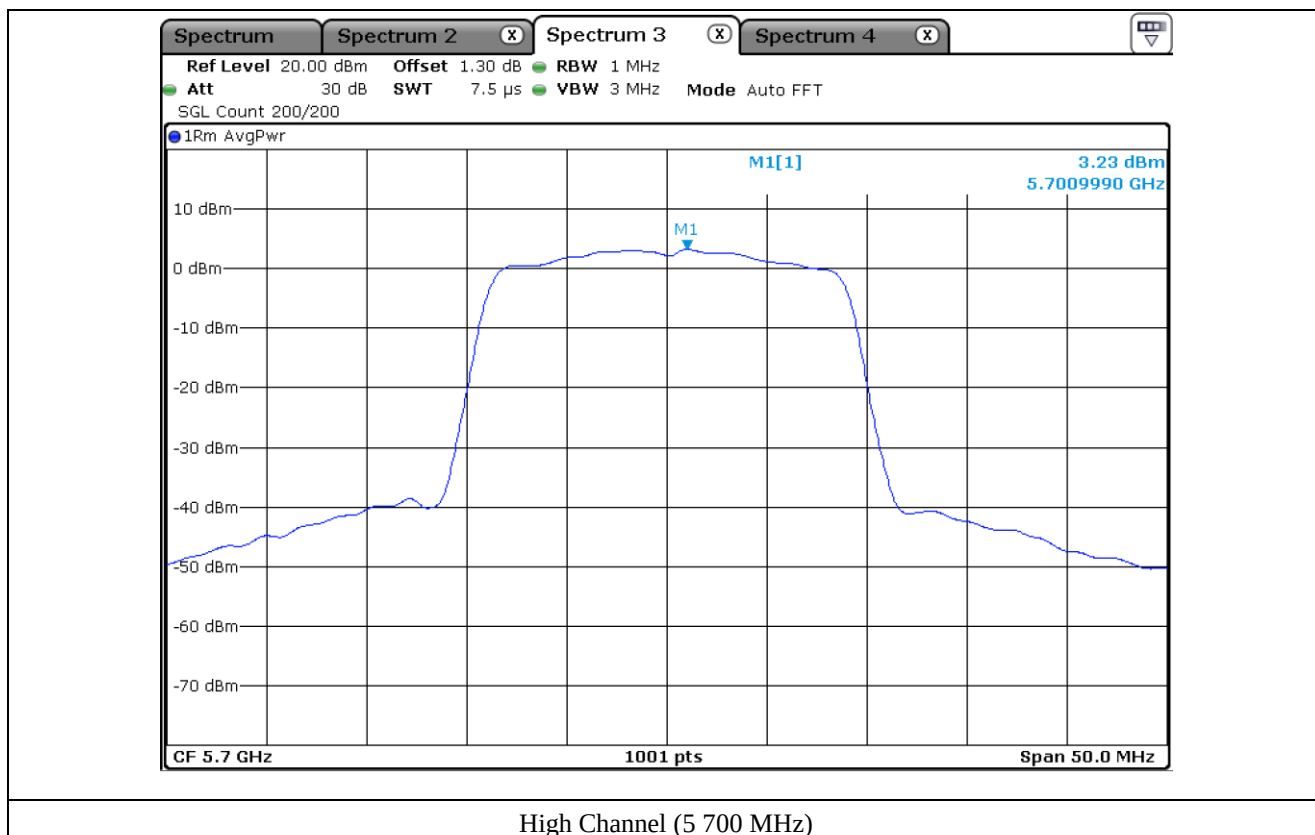


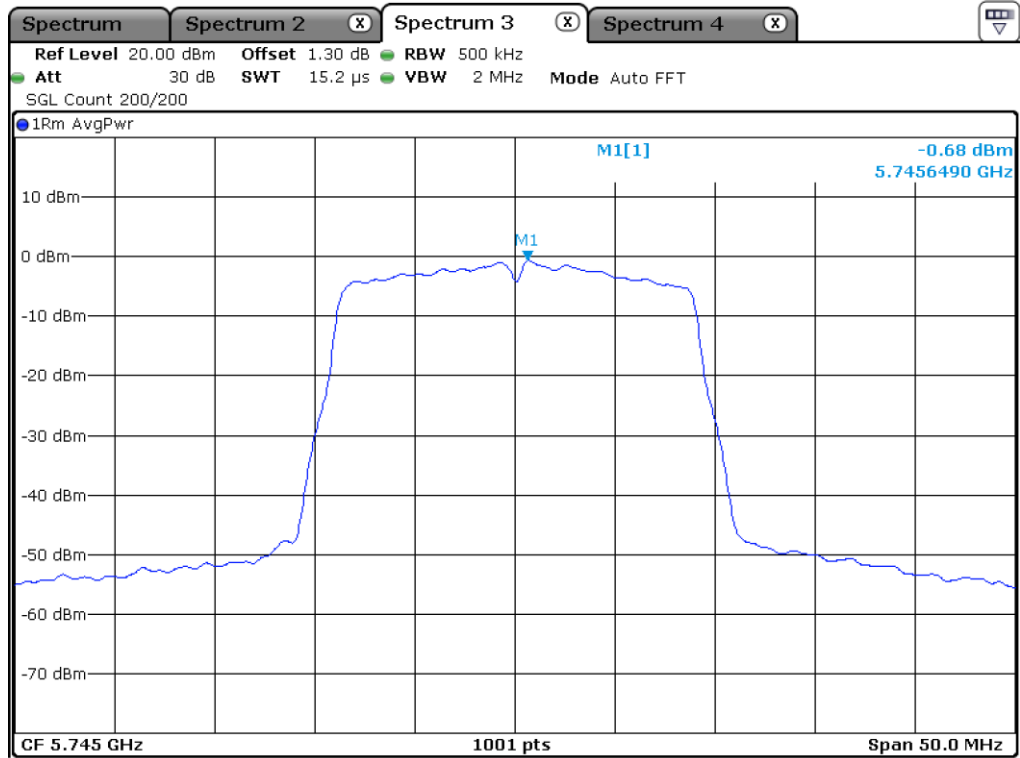


Low Channel (5 500 MHz)

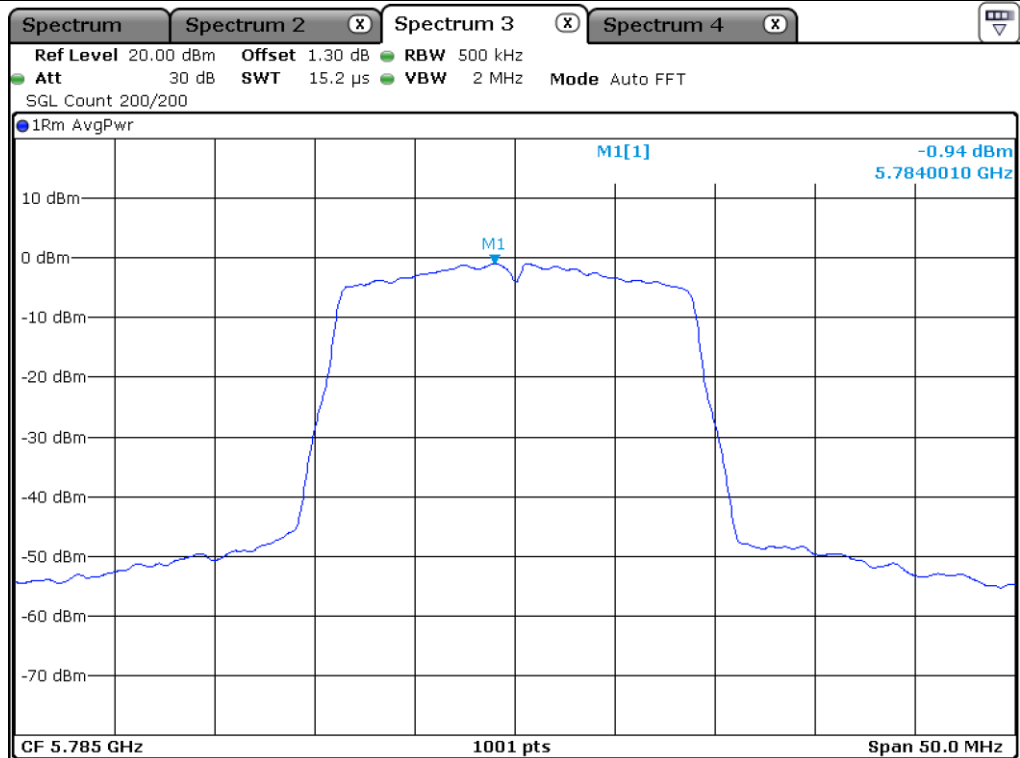


Middle Channel (5 580 MHz)

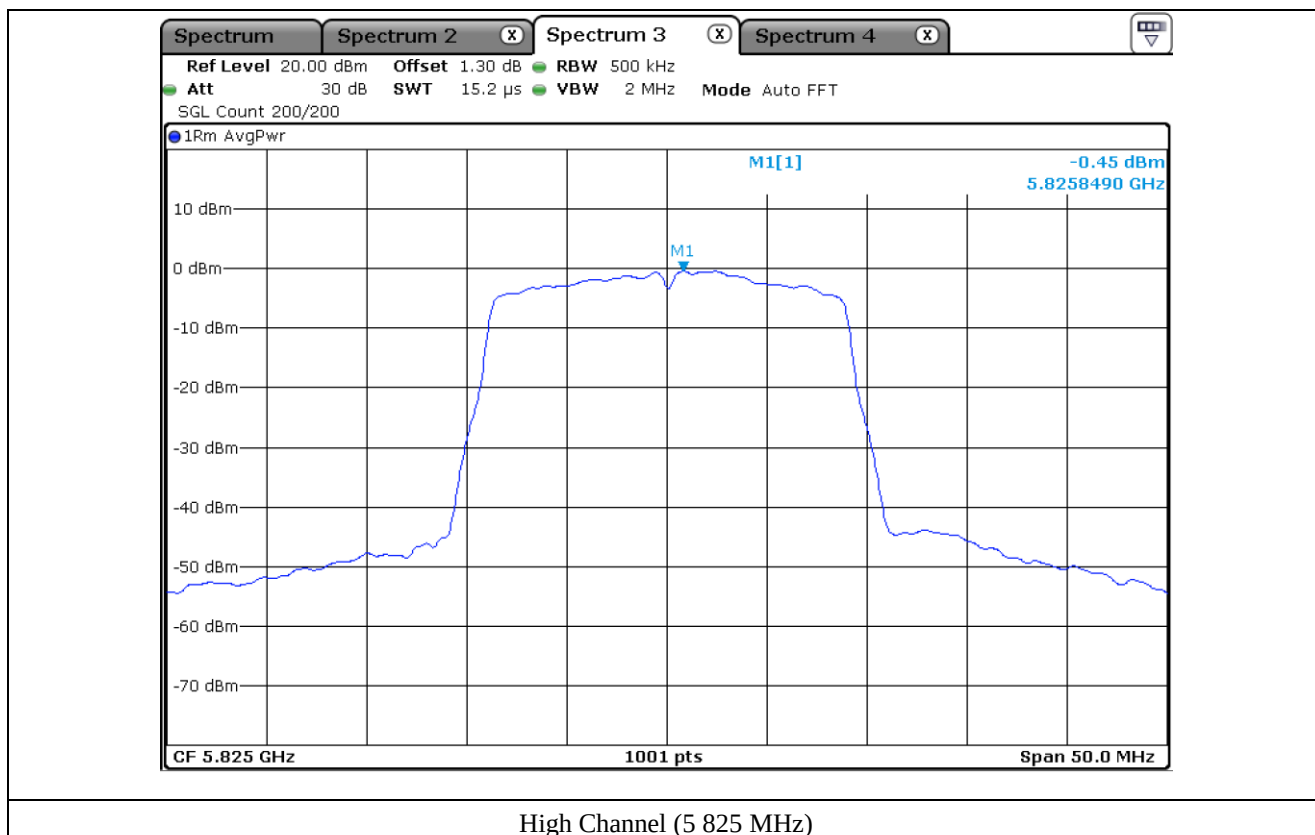




Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)



10.5.3 Test data for Multiple Transmit

-. 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	3.11	11.00	7.89
	Middle	5 220.00	2.94	11.00	8.06
	High	5 240.00	2.69	11.00	8.31
5 250 ~ 5 350	Low	5 260.00	6.74	11.00	4.26
	Middle	5 300.00	7.05	11.00	3.95
	High	5 320.00	6.96	11.00	4.04
5 470 ~ 5 725	Low	5 500.00	6.14	11.00	4.86
	Middle	5 550.00	5.96	11.00	5.04
	High	5 720.00	6.01	11.00	4.99
5 725 ~ 5 850	Low	5 745.00	2.11	30.00	27.89
	Middle	5 785.00	2.25	30.00	27.75
	High	5 825.00	2.17	30.00	27.83

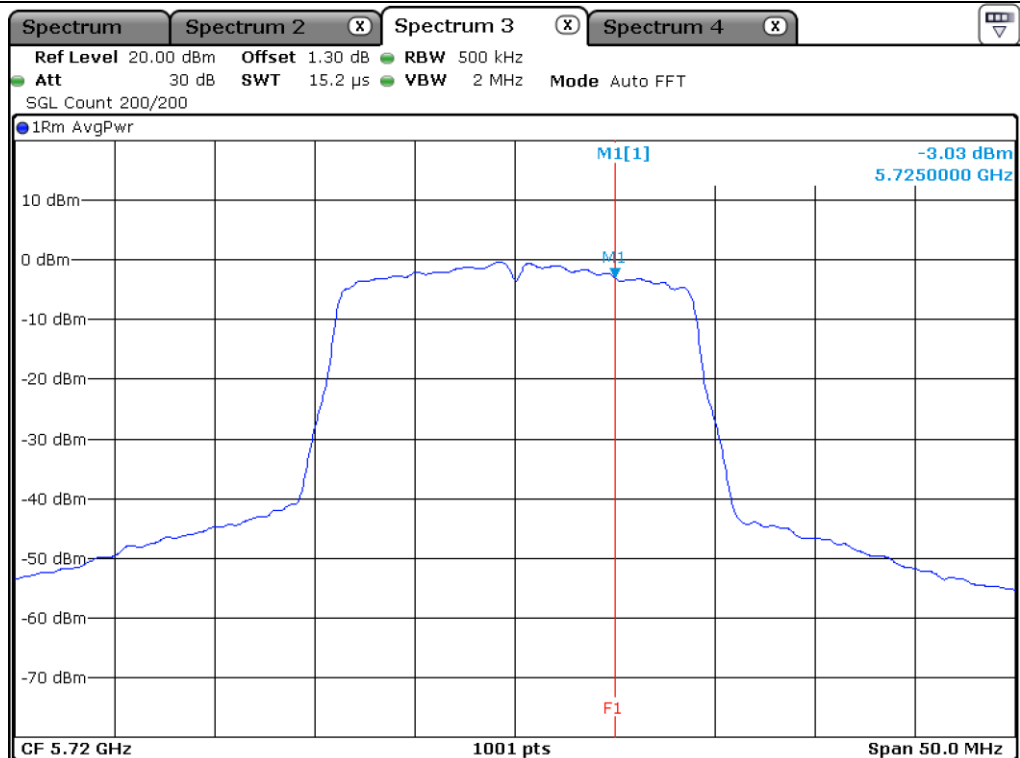
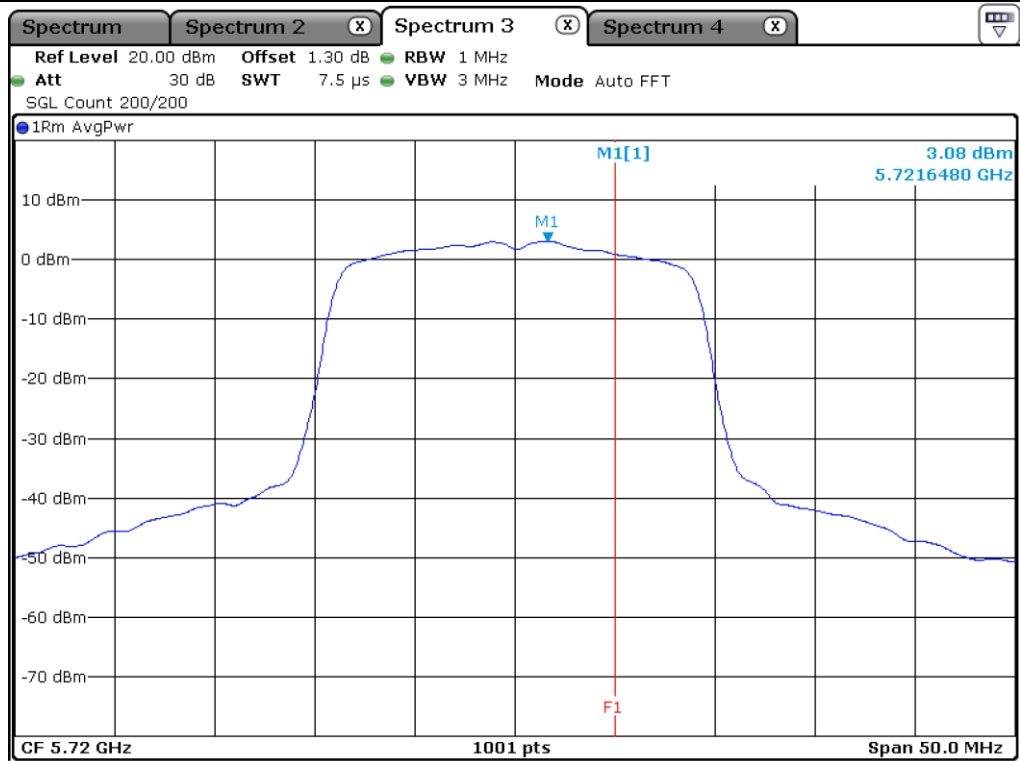
10.5.4 Test data for Staddle Channel_Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	3.08	11.00	7.92
5 725 ~ 5 850	5 720.00	-3.03	30.00	33.03

Remark: See next page for measurement data.



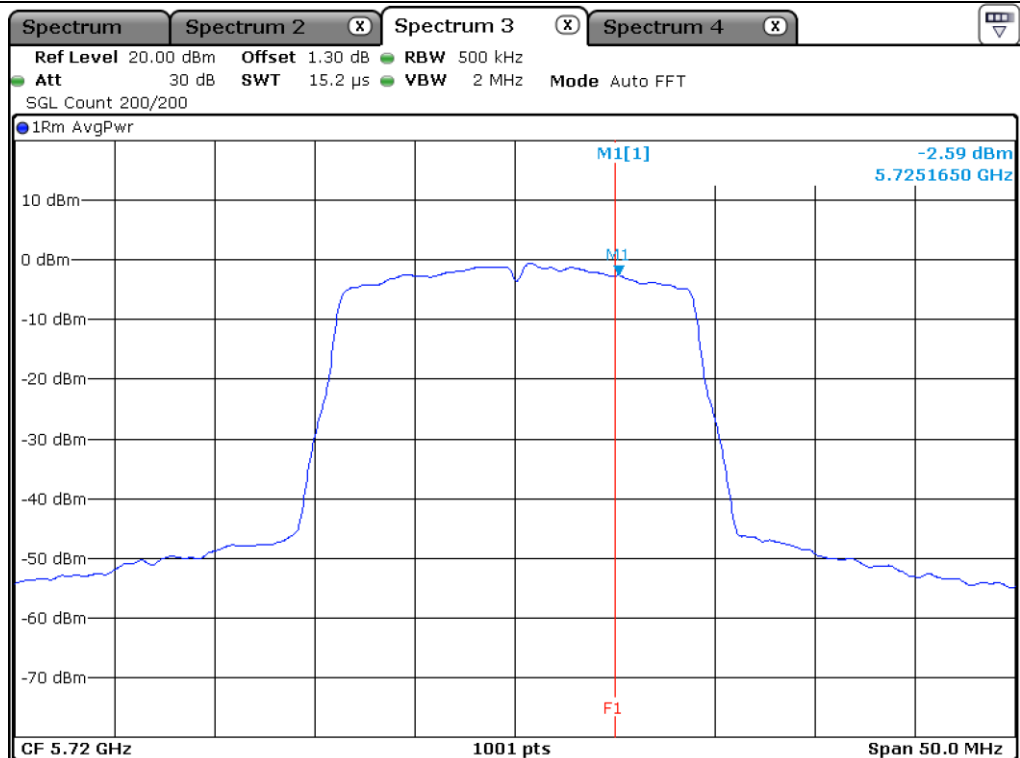
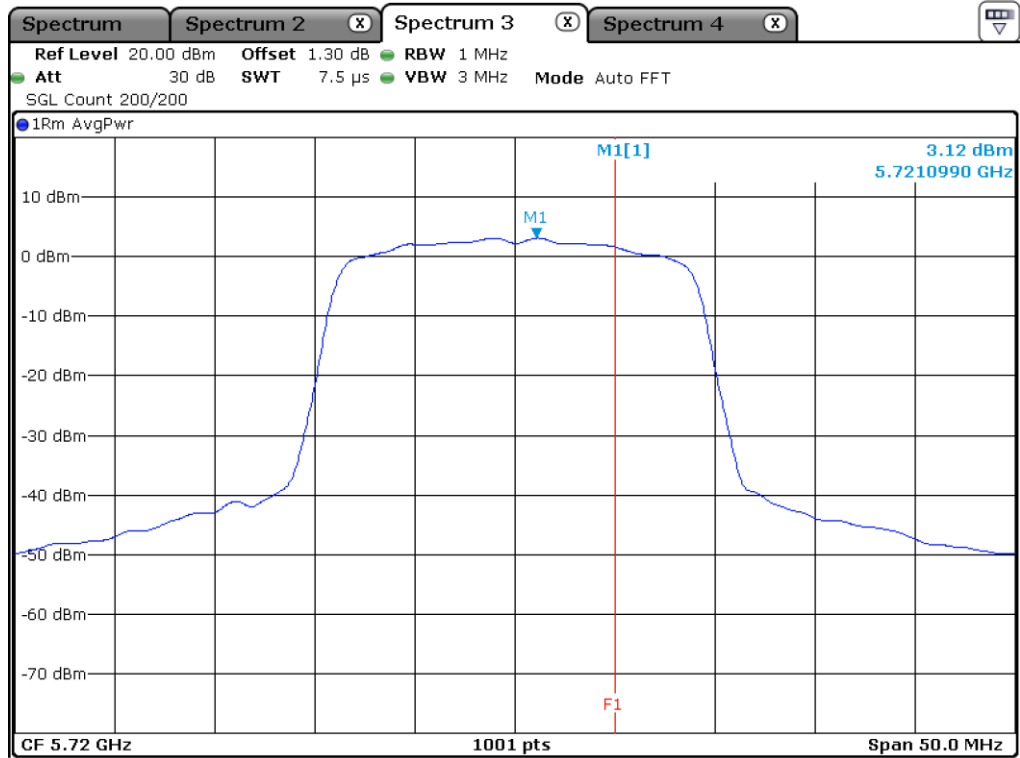
10.5.5 Test data for Staddle Channel_Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	3.12	11.00	7.88
5 725 ~ 5 850	5 720.00	-2.59	30.00	32.59

Remark: See next page for measurement data.



10.5.6 Test data for Staddle Channel_Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	6.11	11.00	4.89
5 725 ~ 5 850	5 720.00	0.21	30.00	29.79

10.6 Test data for 802.11n_HT40 RLAN Mode

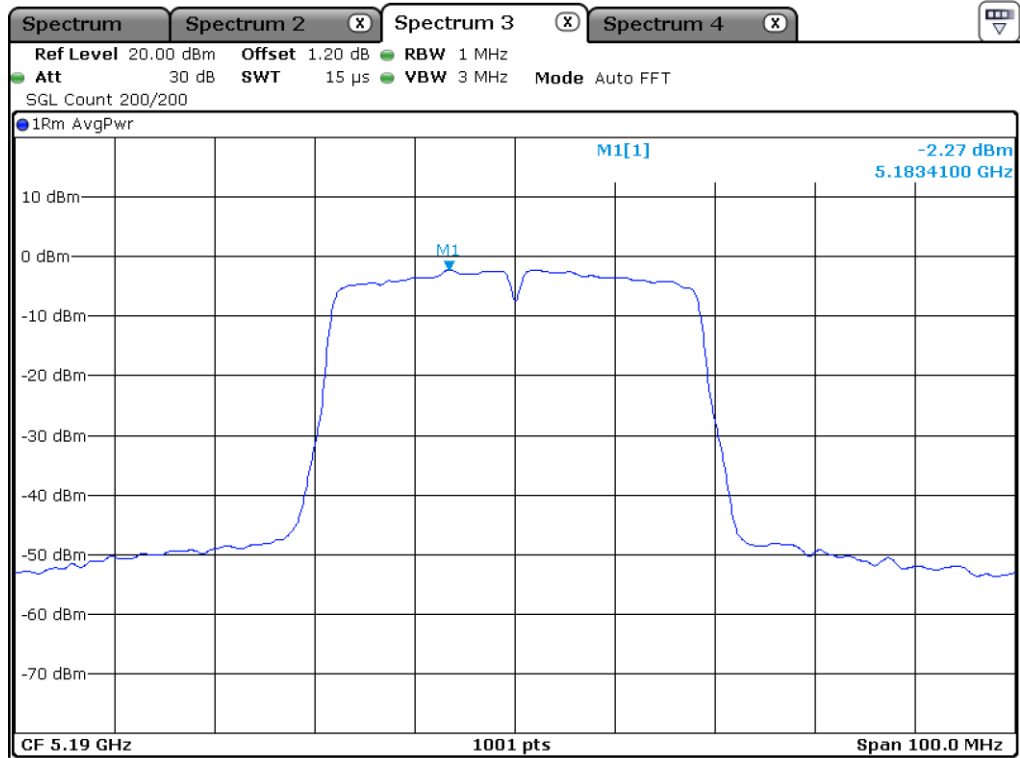
10.6.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

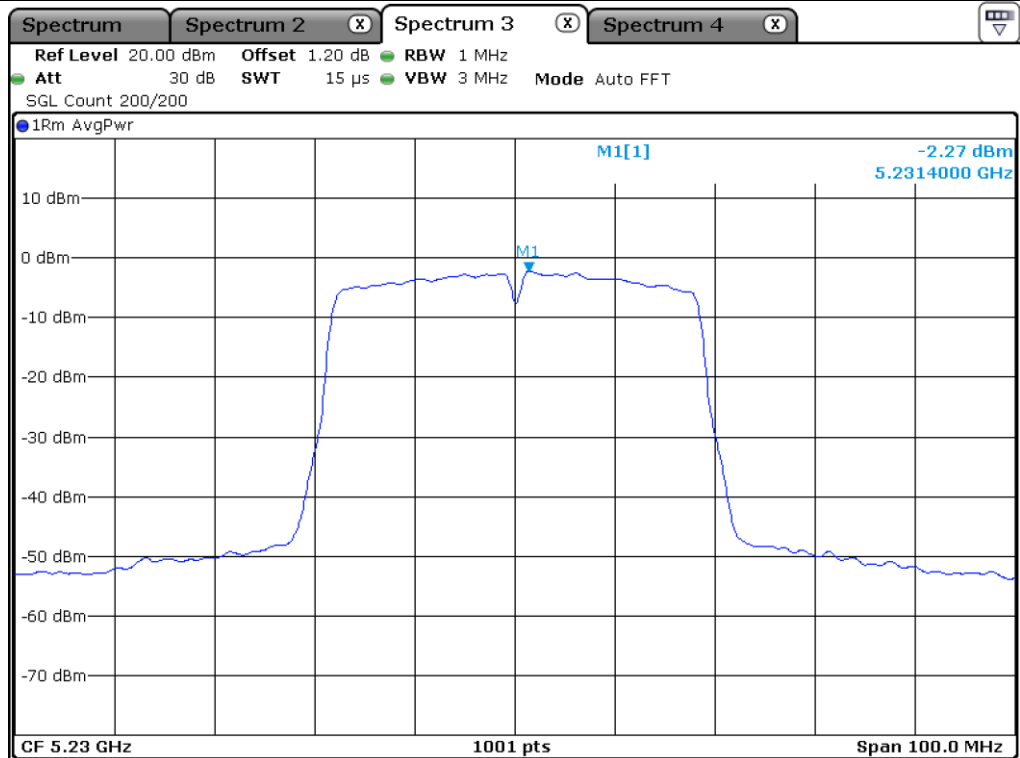
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	-2.27	11.00	13.27
	High	5 230.00	-2.27	11.00	13.27
5 250 ~ 5 350	Low	5 270.00	-1.28	11.00	12.28
	High	5 310.00	-0.95	11.00	11.95
5 470 ~ 5 725	Low	5 510.00	-2.16	11.00	13.16
	Middle	5 550.00	-2.07	11.00	13.07
	High	5 670.00	-2.39	11.00	13.39
5 725 ~ 5 850	Low	5 755.00	-6.33	30.00	36.33
	High	5 795.00	-6.01	30.00	36.01

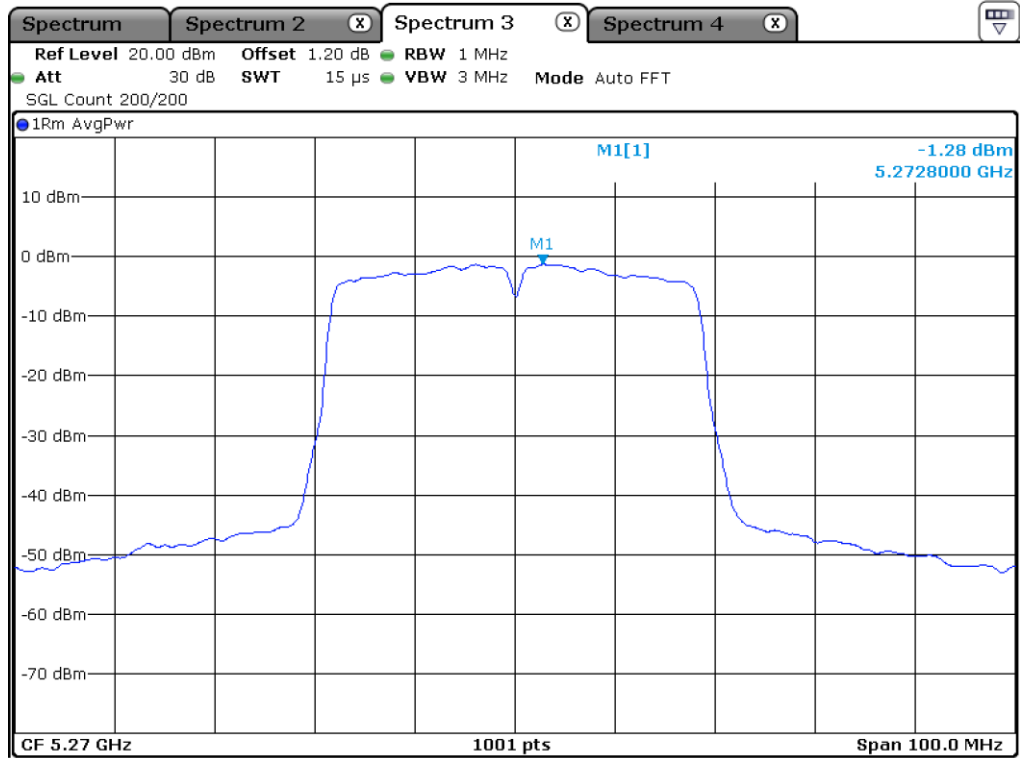
Remark: See next page for measurement data.



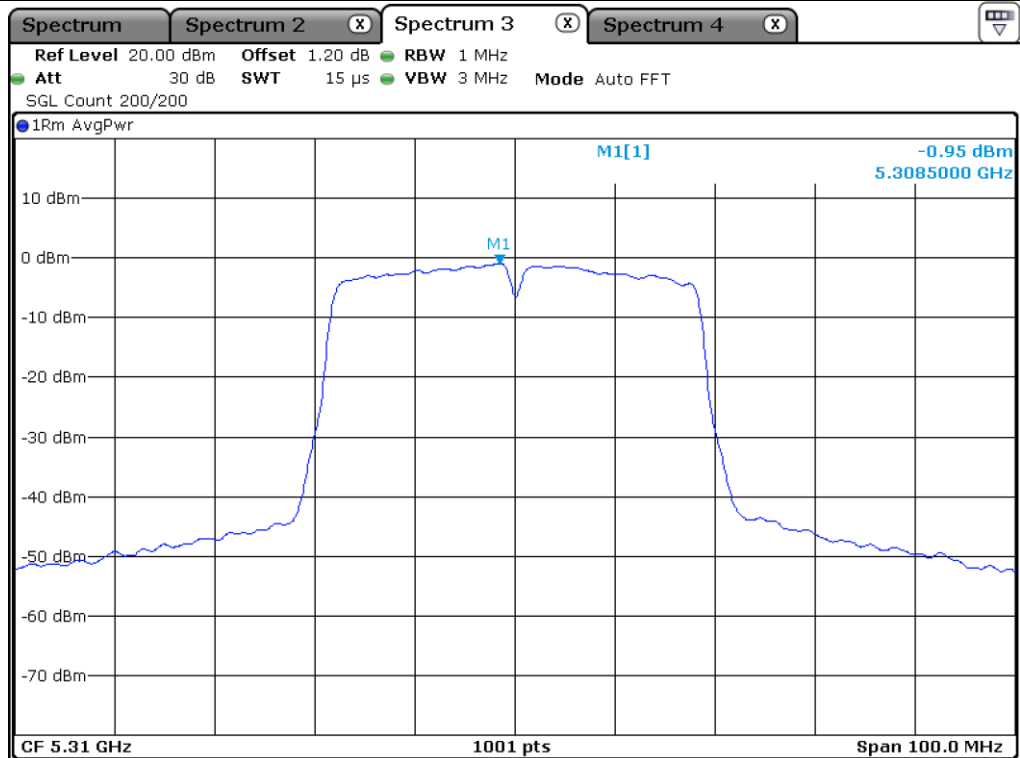
Low Channel (5 190 MHz)



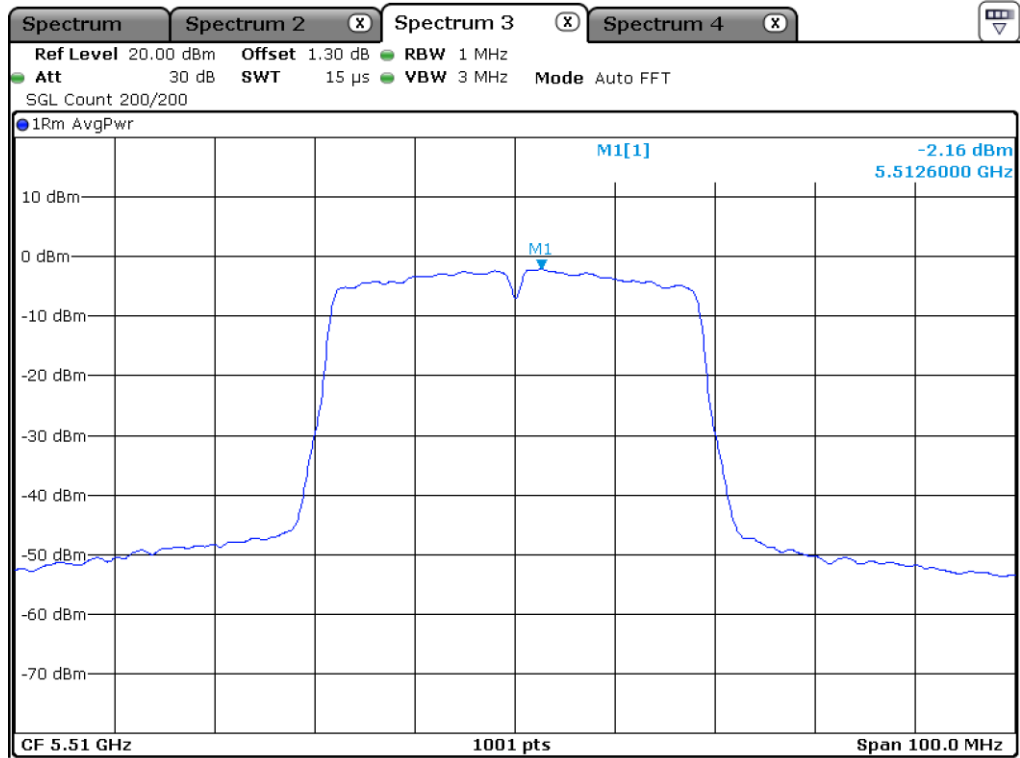
High Channel (5 230 MHz)



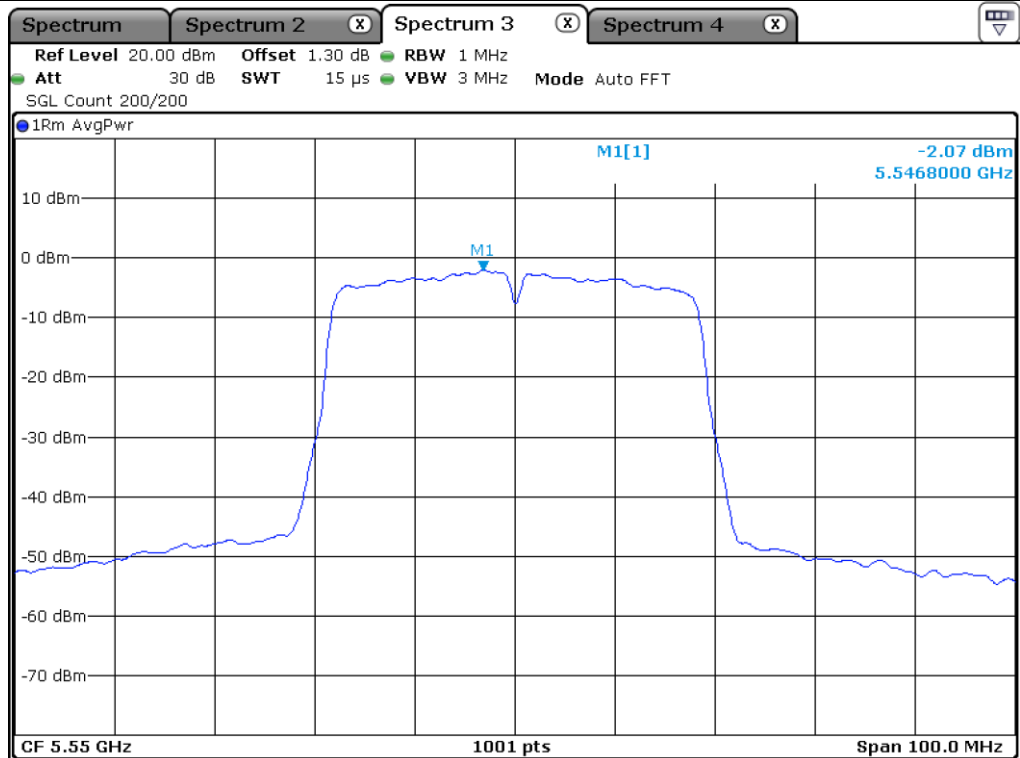
Low Channel (5 270 MHz)



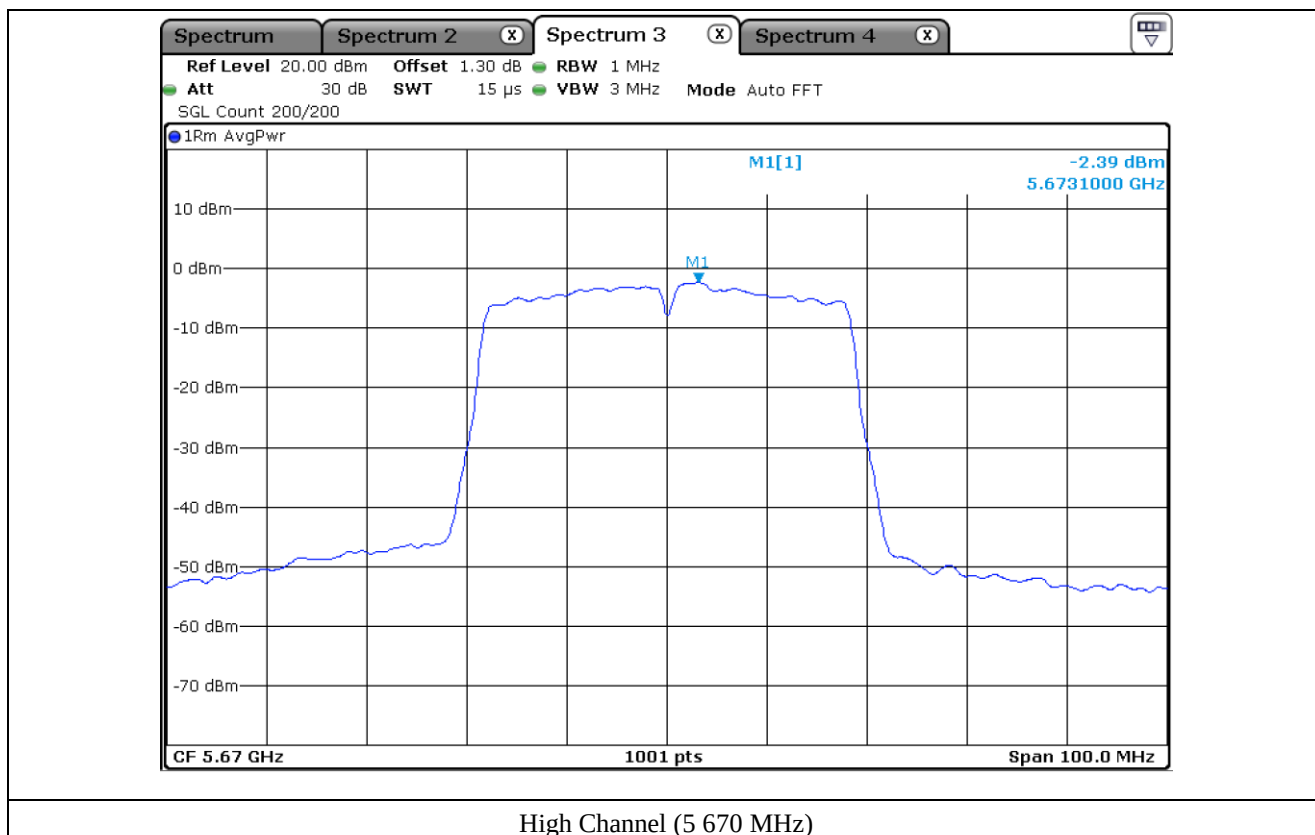
High Channel (5 310 MHz)

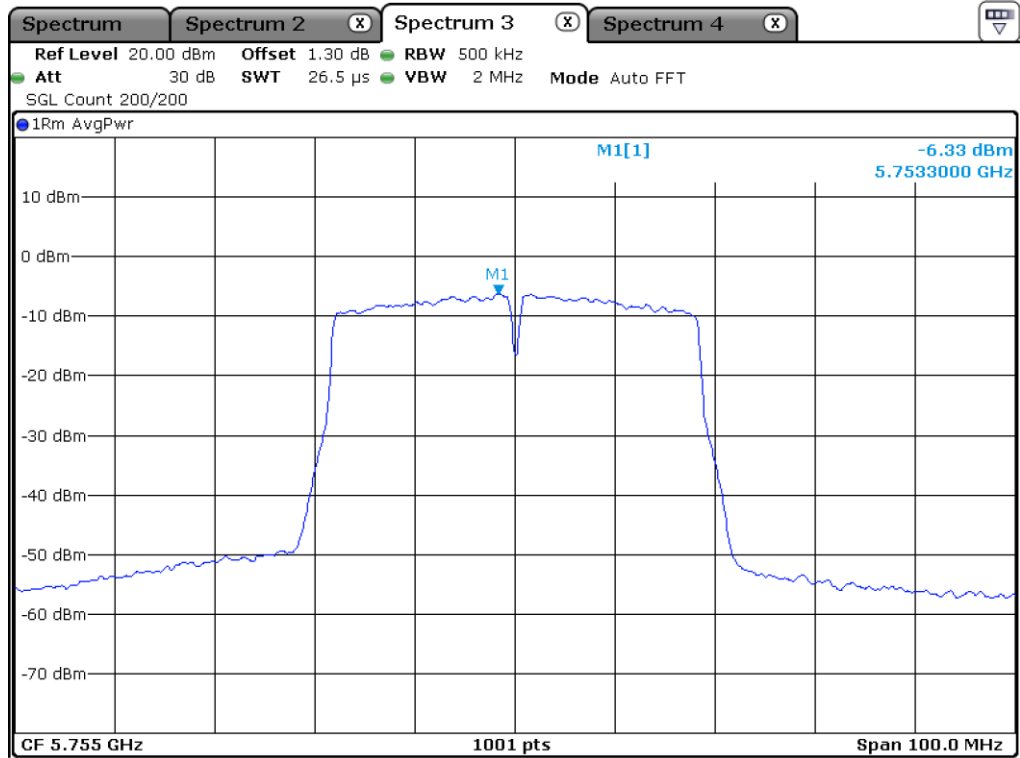


Low Channel (5 510 MHz)

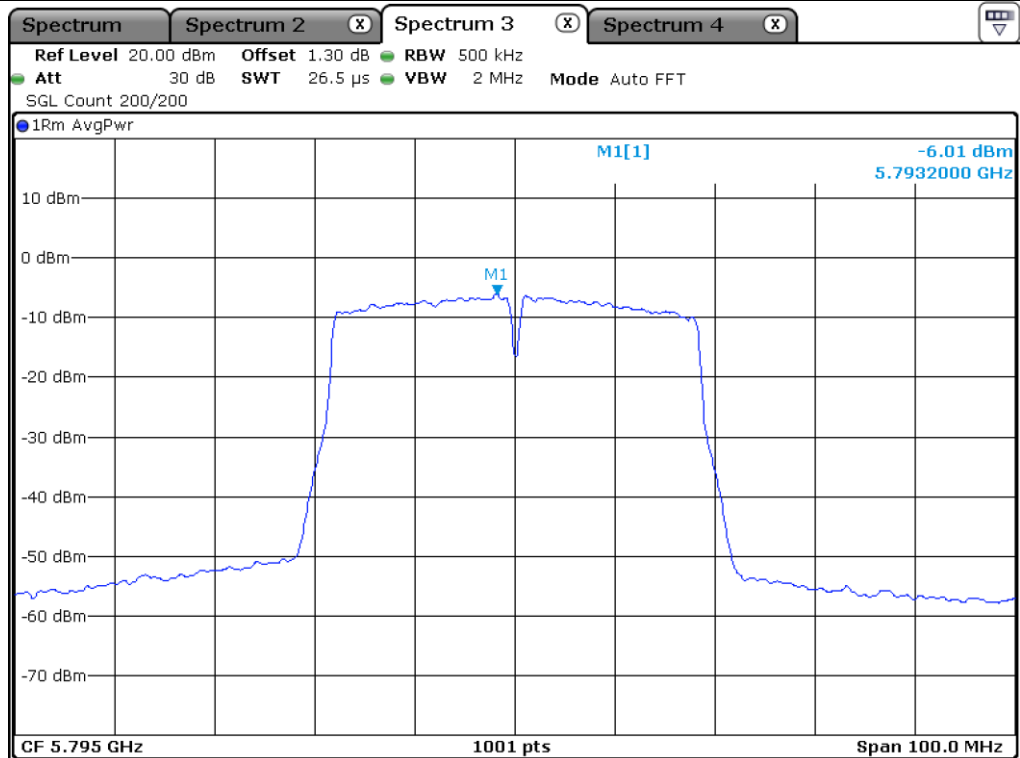


Middle Channel (5 550 MHz)





Low Channel (5 755 MHz)



High Channel (5 795 MHz)

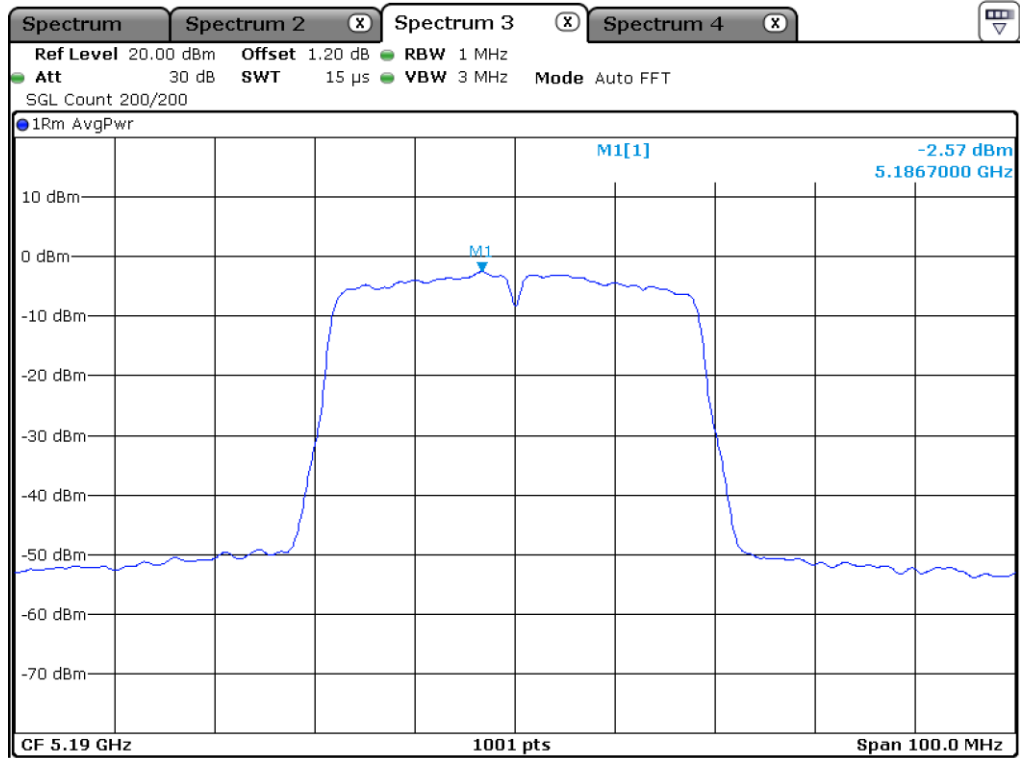
10.6.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

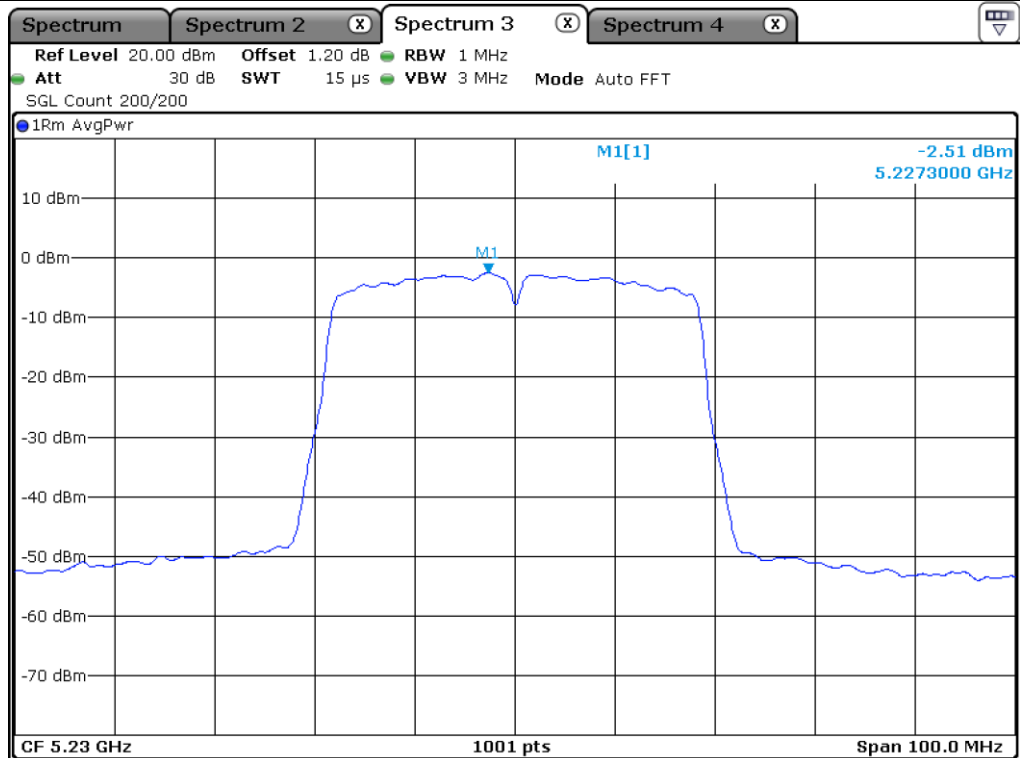
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	-2.57	11.00	13.57
	High	5 230.00	-2.51	11.00	13.51
5 250 ~ 5 350	Low	5 270.00	-2.06	11.00	13.06
	High	5 310.00	-1.35	11.00	12.35
5 470 ~ 5 725	Low	5 510.00	-1.30	11.00	12.30
	Middle	5 550.00	-1.67	11.00	12.67
	High	5 670.00	-0.86	11.00	11.86
5 725 ~ 5 850	Low	5 755.00	-5.81	30.00	35.81
	High	5 795.00	-6.72	30.00	36.72

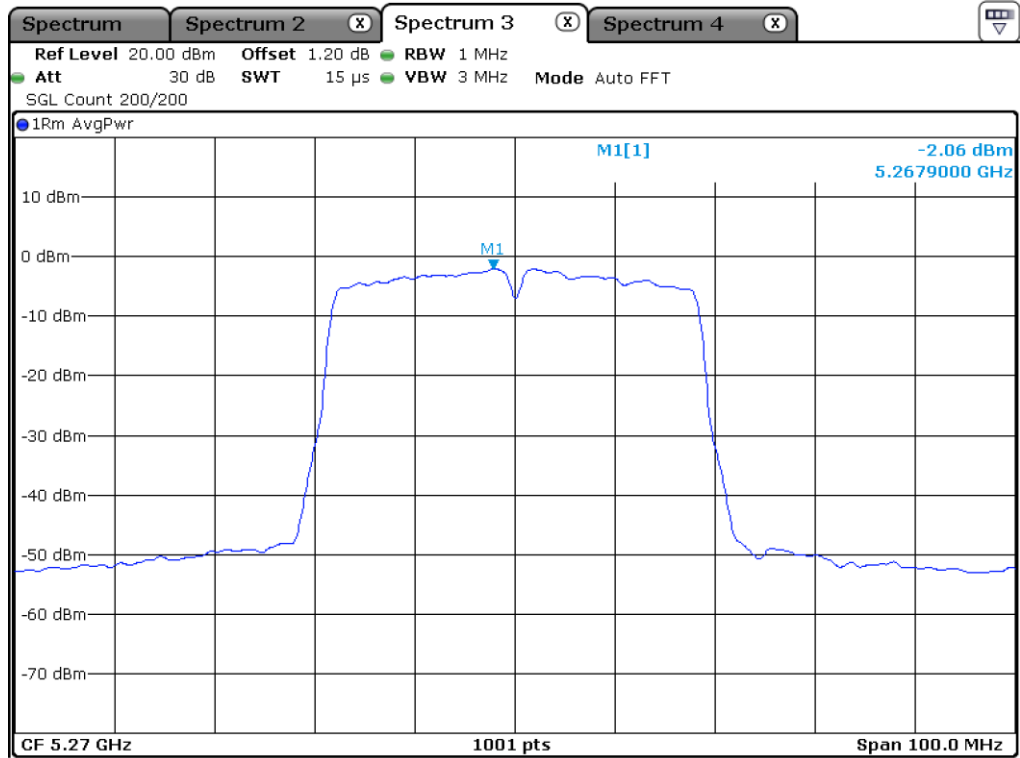
Remark: See next page for measurement data.



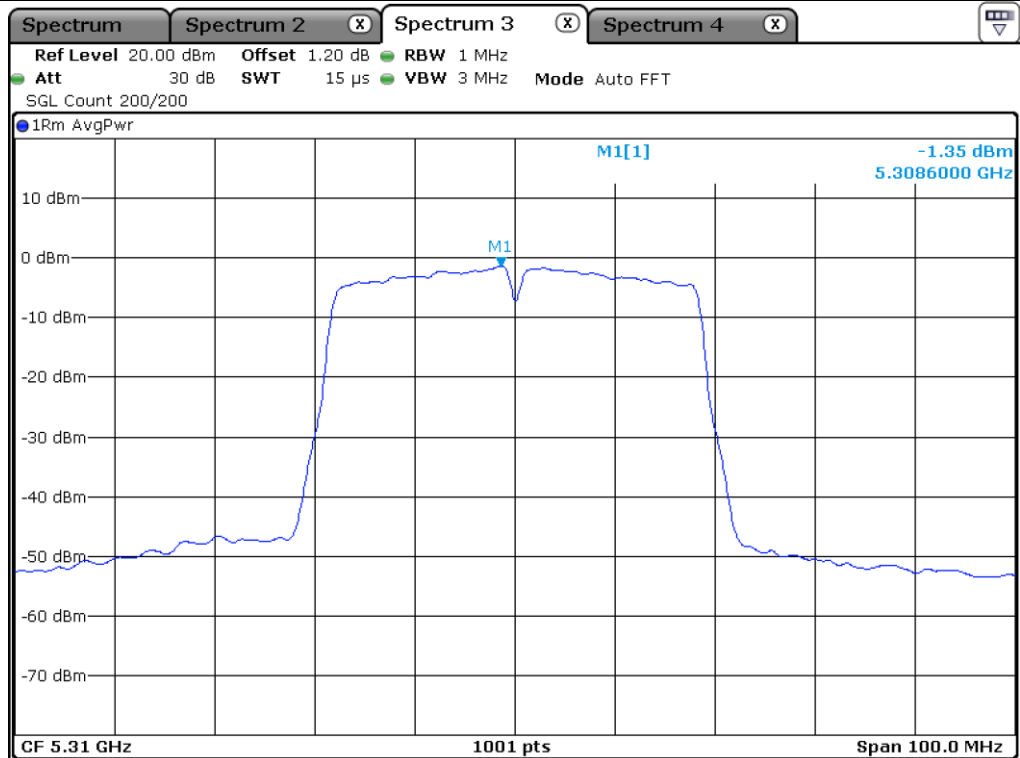
Low Channel (5 190 MHz)



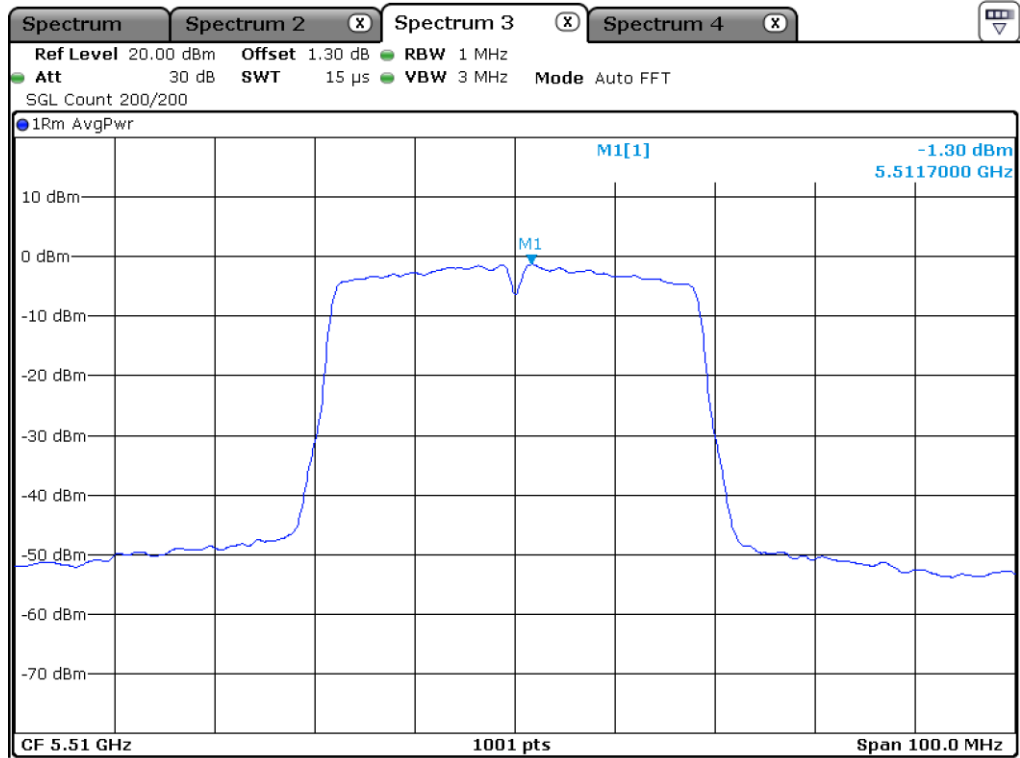
High Channel (5 230 MHz)



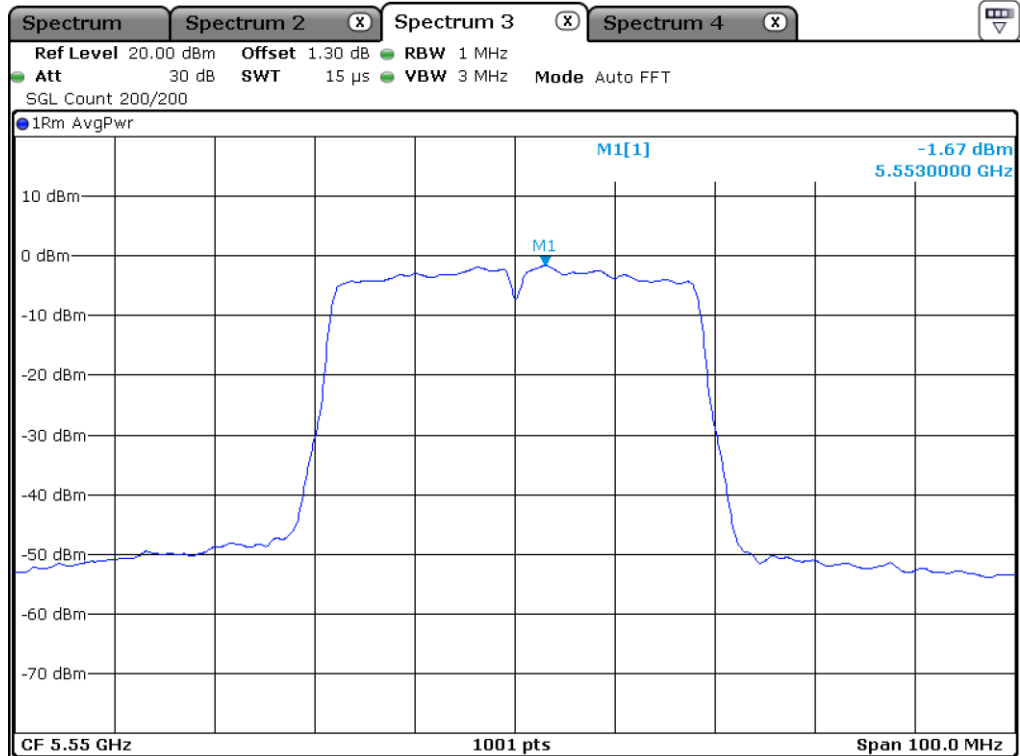
Low Channel (5 270 MHz)



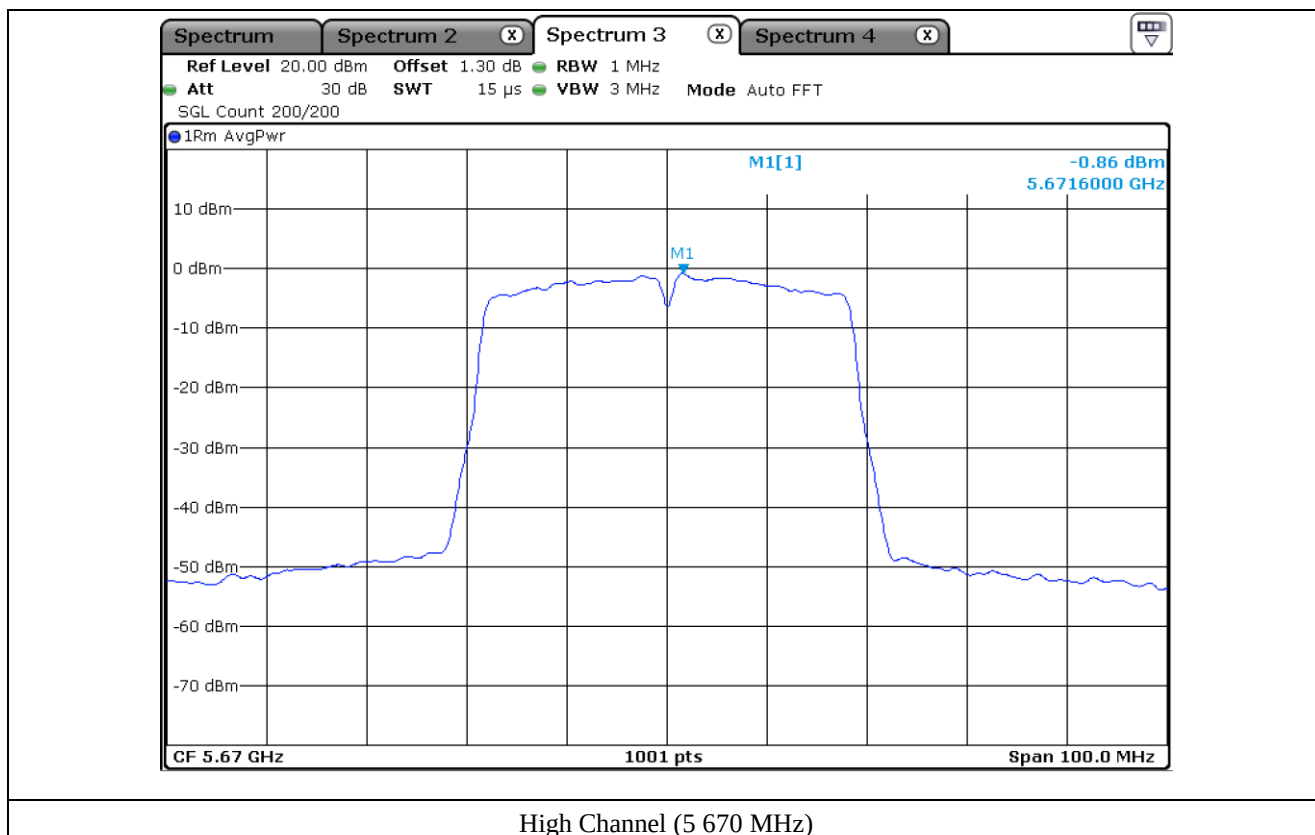
High Channel (5 310 MHz)

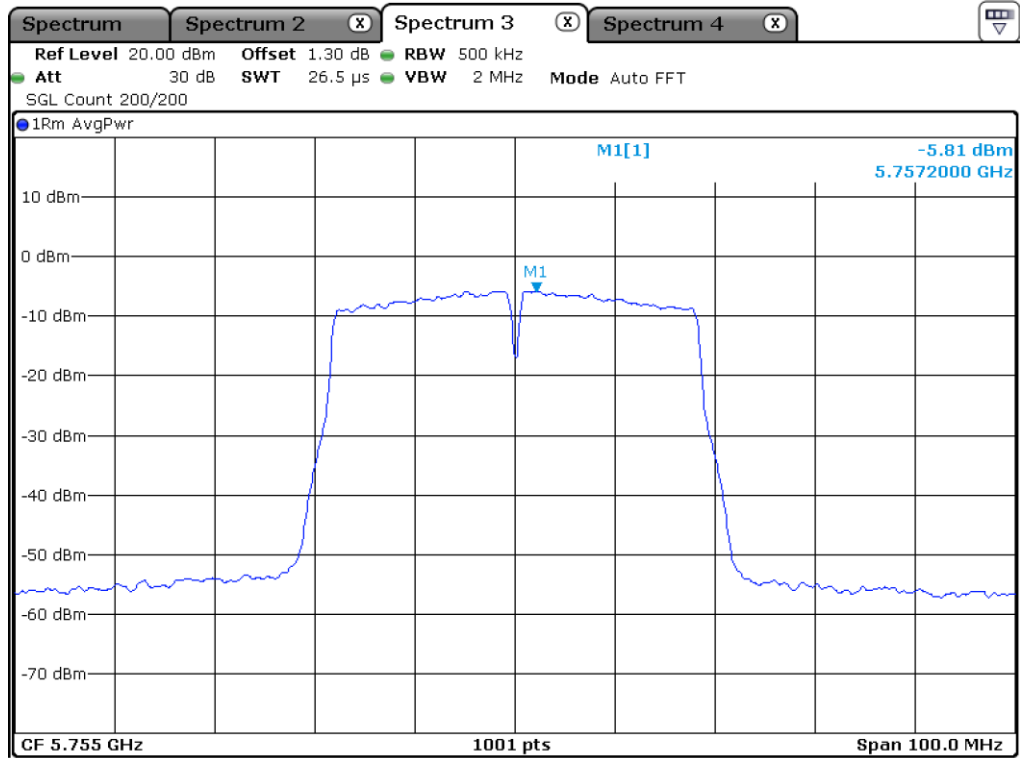


Low Channel (5 510 MHz)

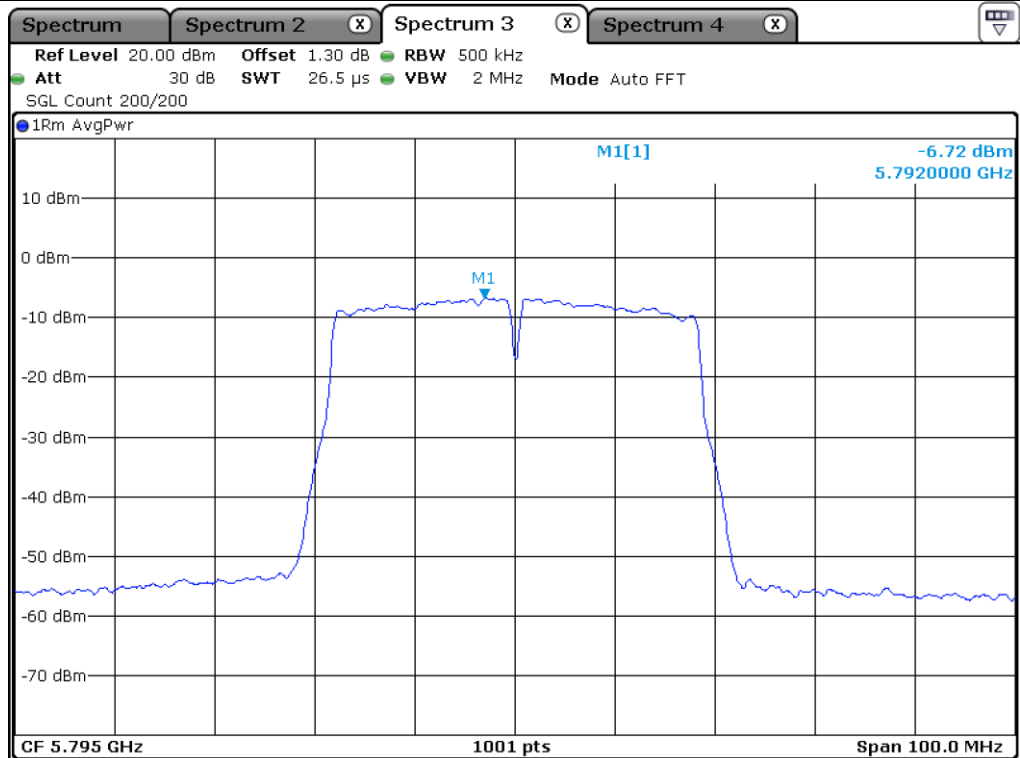


Middle Channel (5 550 MHz)





Low Channel (5 755 MHz)



High Channel (5 795 MHz)

10.6.3 Test data for Multiple Transmit

-. 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	5 190.00	0.59	11.00	10.41
	High	5 230.00	0.62	11.00	10.38
5 250 ~ 5 350	Low	5 270.00	1.36	11.00	9.64
	High	5 310.00	1.86	11.00	9.14
5 470 ~ 5 725	Low	5 510.00	1.30	11.00	9.70
	Middle	5 550.00	1.14	11.00	9.86
	High	5 670.00	1.45	11.00	9.55
5 725 ~ 5 850	Low	5 755.00	-3.05	30.00	33.05
	High	5 795.00	-3.34	30.00	33.34

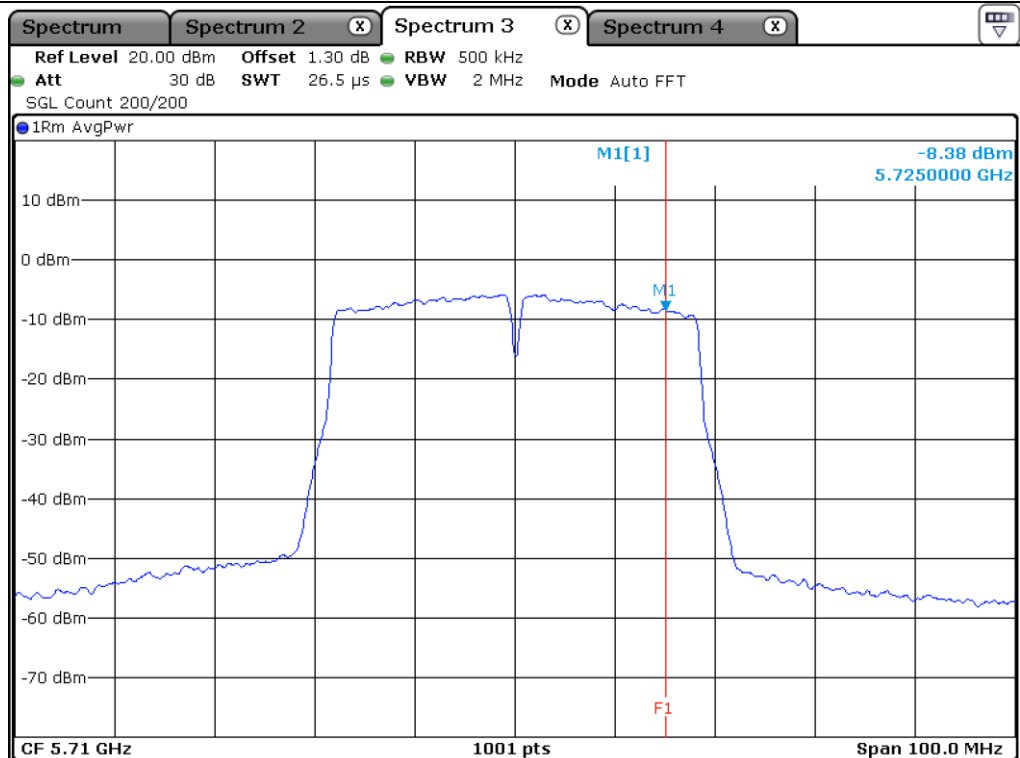
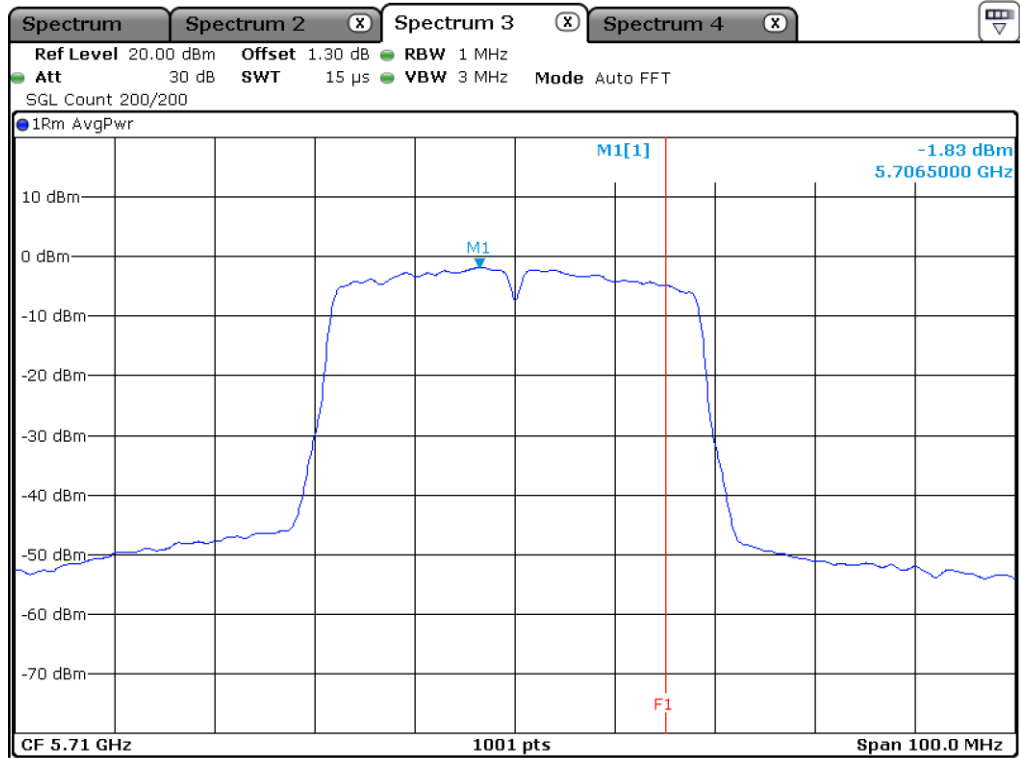
10.6.4 Test data for Staddle Channel_Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 710.00	-1.83	11.00	12.83
5 725 ~ 5 850	5 710.00	-8.38	30.00	38.38

Remark: See next page for measurement data.



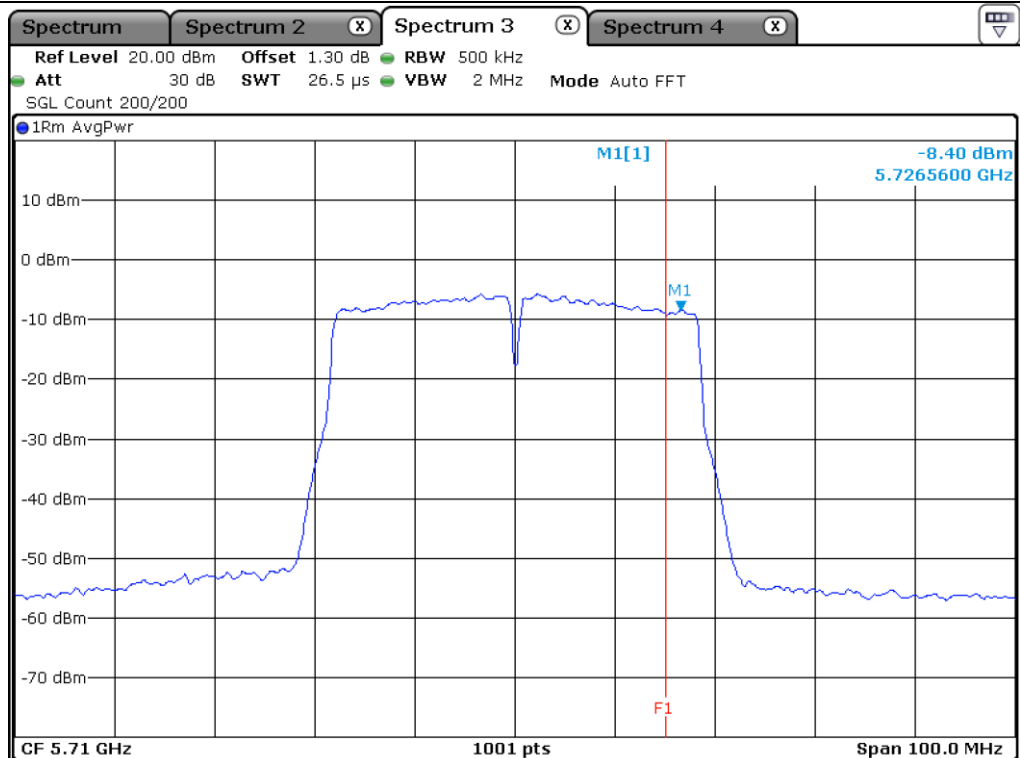
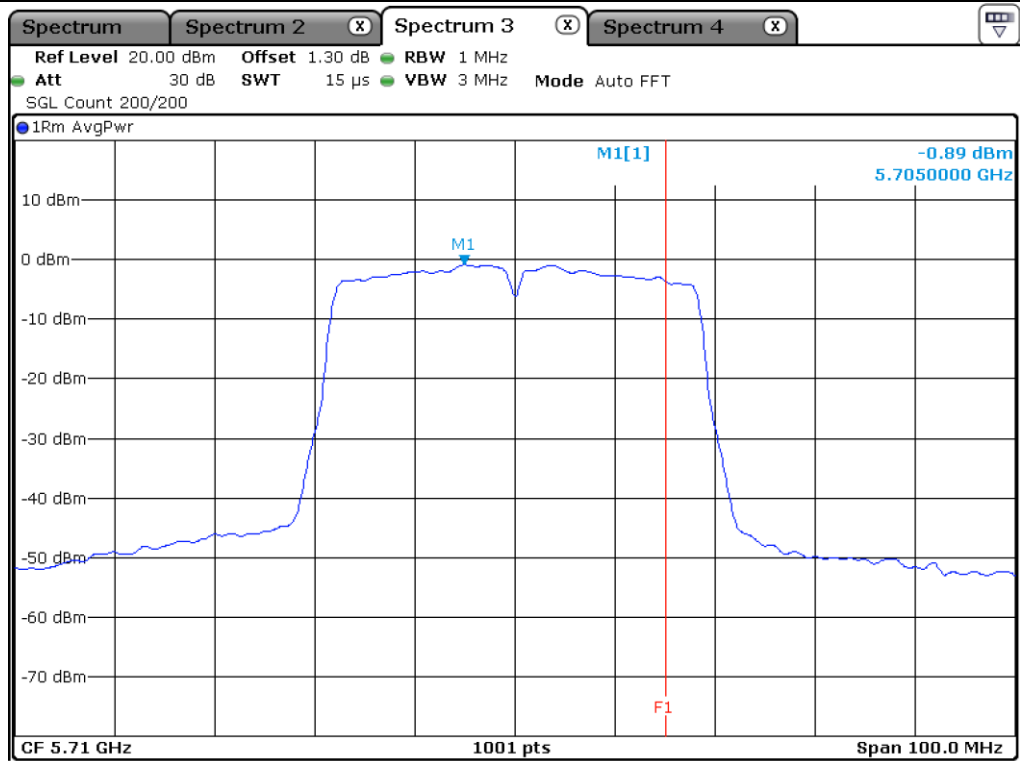
10.6.5 Test data for Staddle Channel_Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 710.00	-0.89	11.00	11.89
5 725 ~ 5 850	5 710.00	-8.40	30.00	38.40

Remark: See next page for measurement data.



10.6.6 Test data for Staddle Channel_Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 710.00	1.68	11.00	9.32
5 725 ~ 5 850	5 710.00	-5.38	30.00	35.38

10.7 Test data for 802.11ac_HT80 RLAN Mode

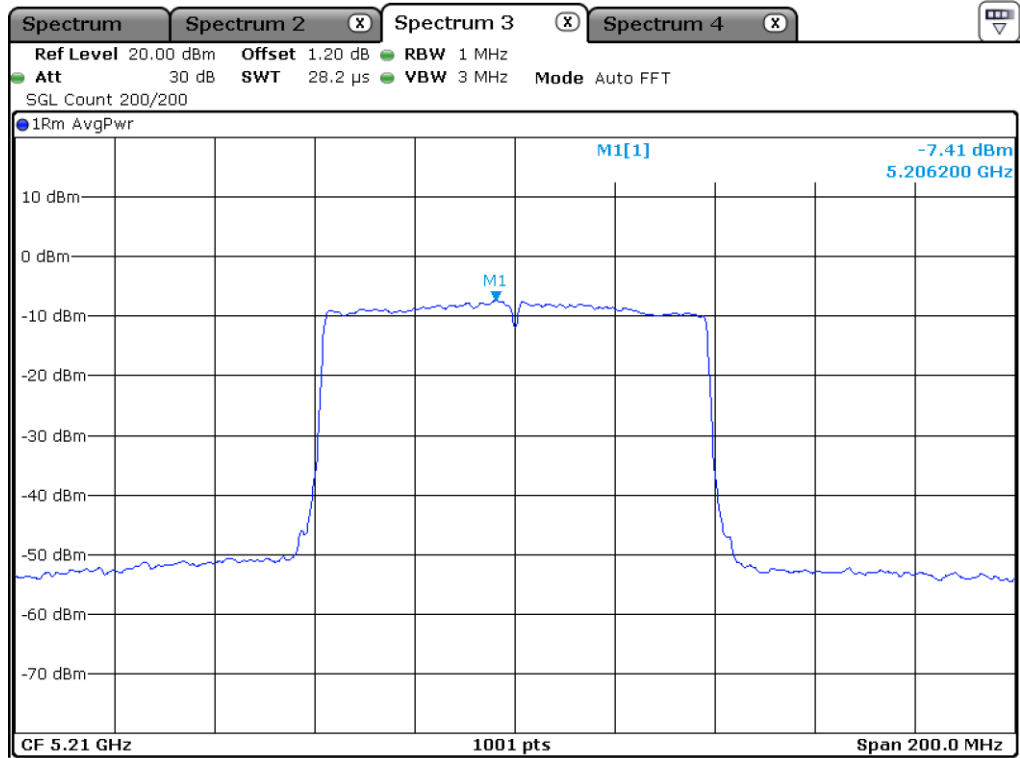
10.7.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

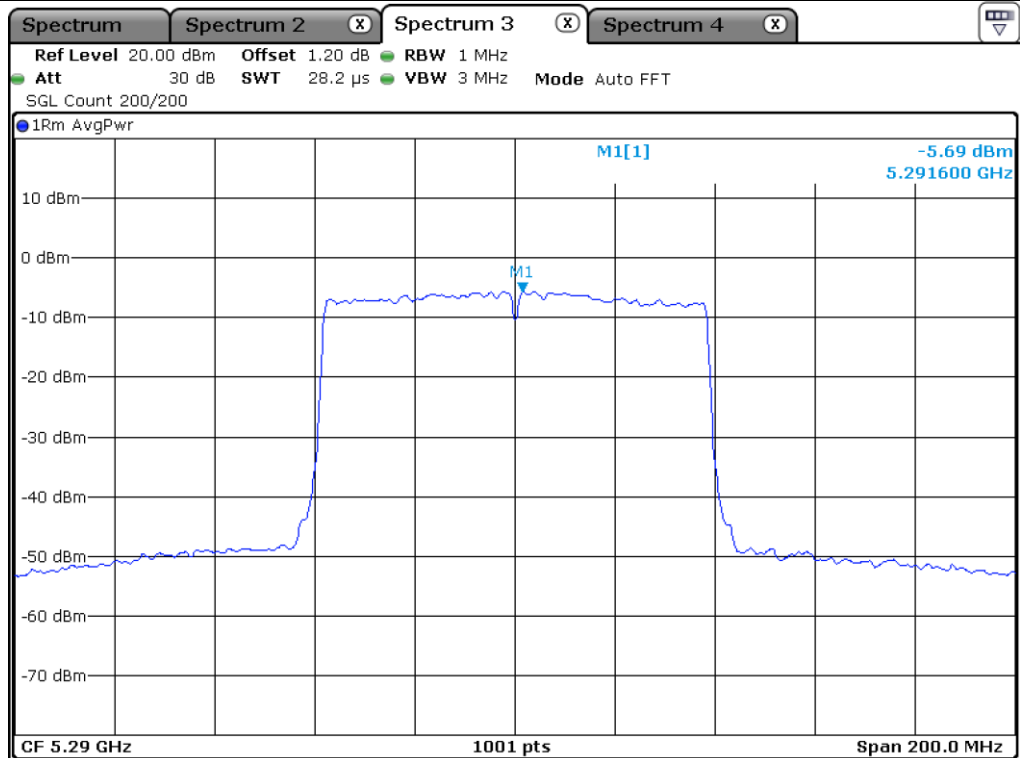
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	-7.41	11.00	18.41
5 250 ~ 5 350	Low	5 290.00	-5.69	11.00	16.69
5 470 ~ 5 725	Low	5 530.00	-6.72	11.00	17.72
5 725 ~ 5 850	Low	5 775.00	-9.26	30.00	39.26

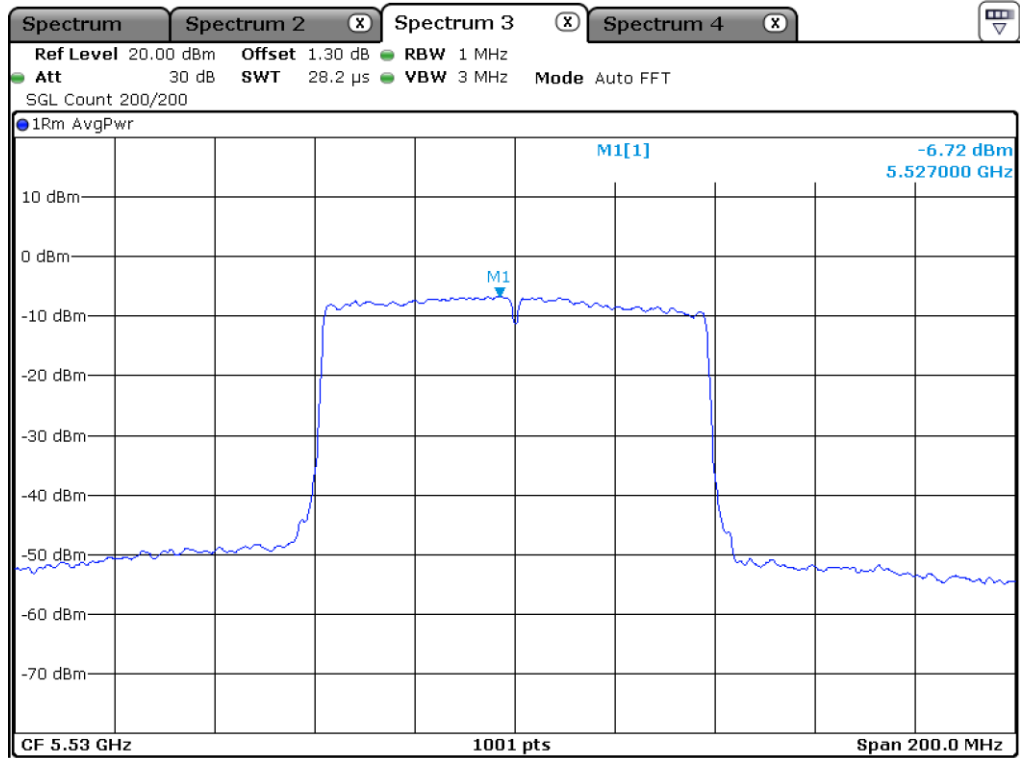
Remark: See next page for measurement data.



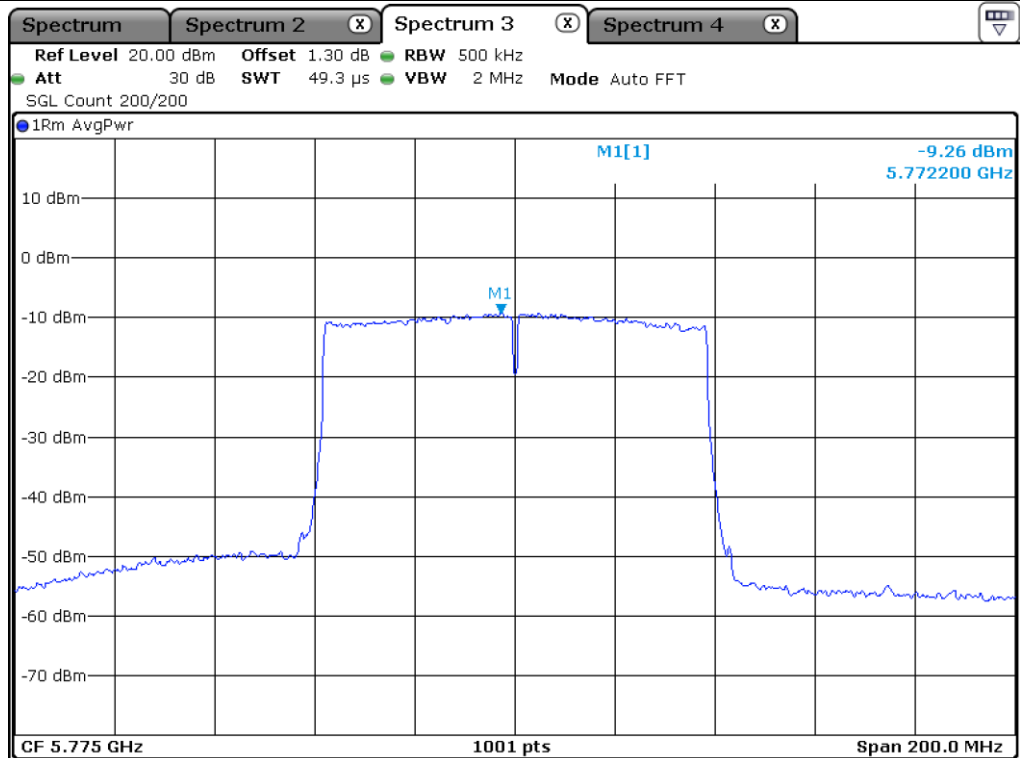
Middle Channel (5 210 MHz)



Middle Channel (5 290 MHz)



Middle Channel (5 530 MHz)



Middle Channel (5 775 MHz)

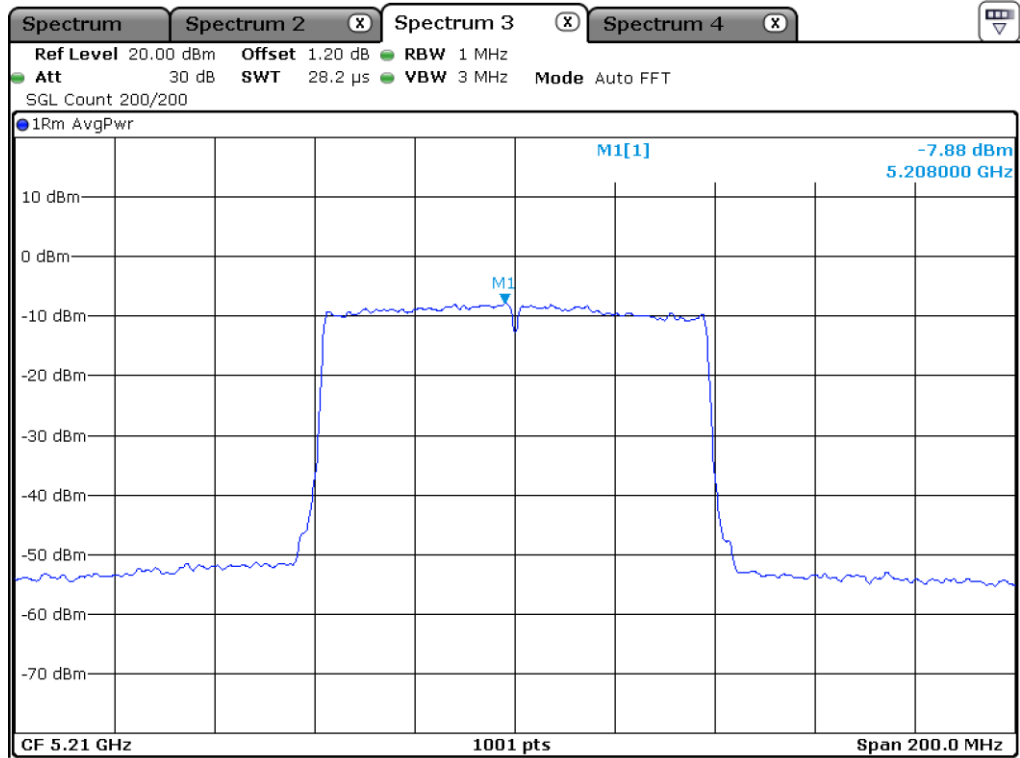
10.7.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

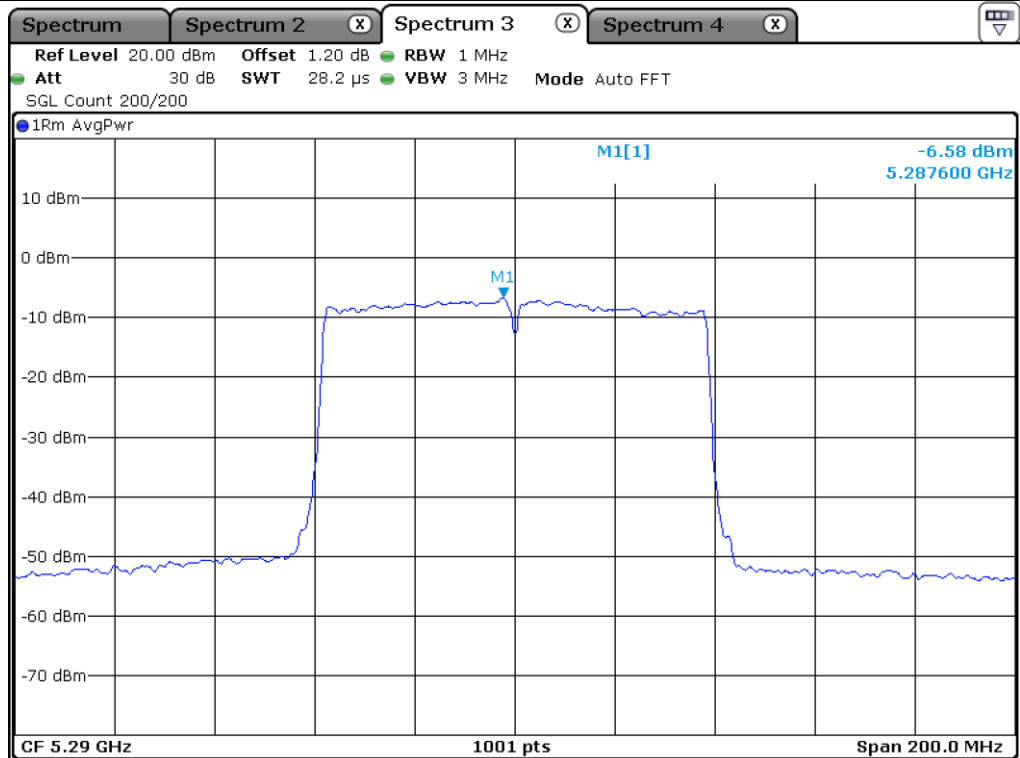
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	-7.88	11.00	18.88
5 250 ~ 5 350	Low	5 290.00	-6.58	11.00	17.58
5 470 ~ 5 725	Low	5 530.00	-6.04	11.00	17.04
5 725 ~ 5 850	Low	5 775.00	-8.99	30.00	38.99

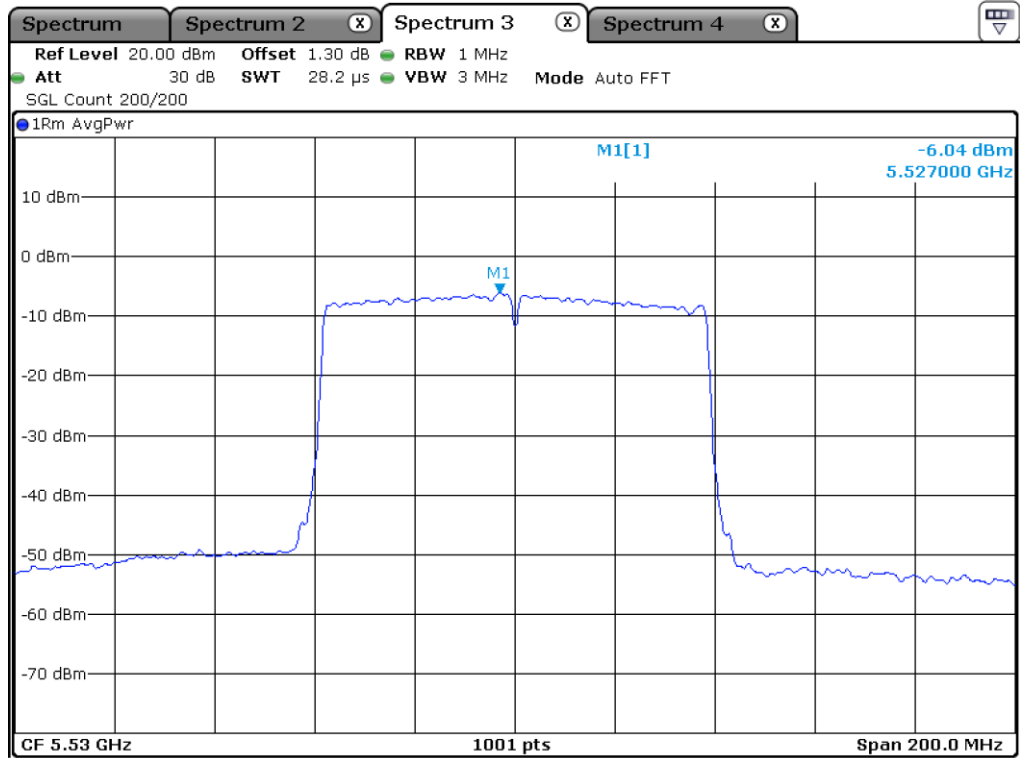
Remark: See next page for measurement data.



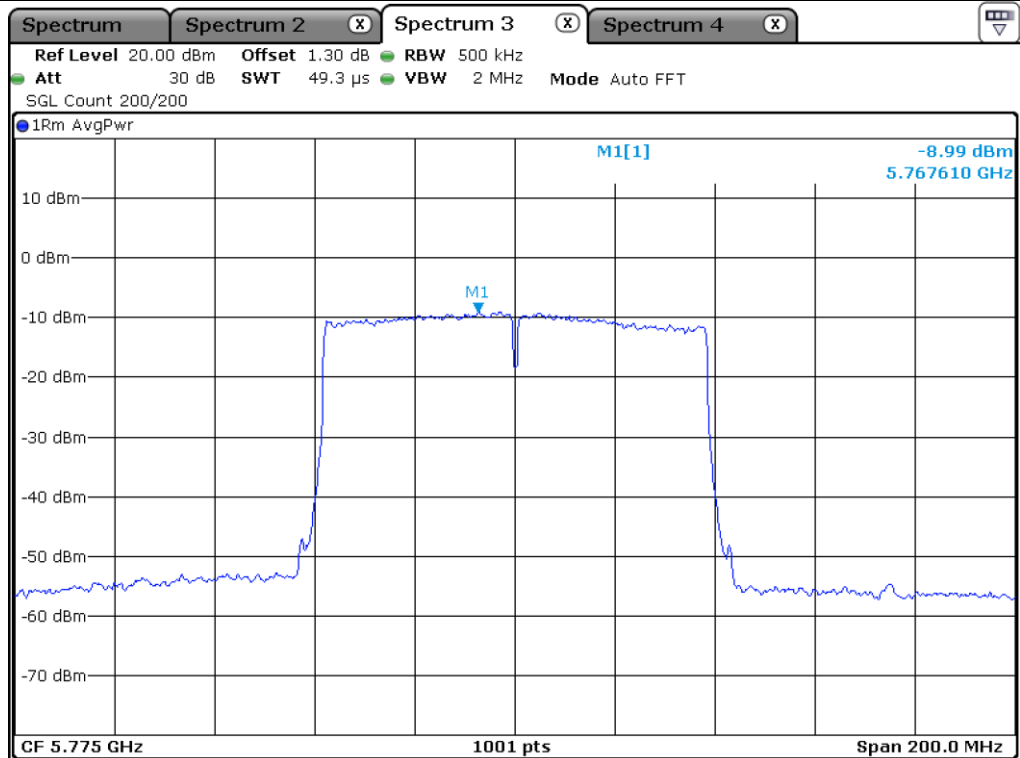
Middle Channel (5 210 MHz)



Middle Channel (5 290 MHz)



Middle Channel (5 530 MHz)



Middle Channel (5 775 MHz)

10.7.3 Test data for Multiple Transmit

-. 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	5 210.00	-4.63	11.00	15.63
5 250 ~ 5 350	Low	5 290.00	-3.10	11.00	14.10
5 470 ~ 5 725	Low	5 530.00	-3.36	11.00	14.36
5 725 ~ 5 850	Low	5 775.00	-6.11	30.00	36.11

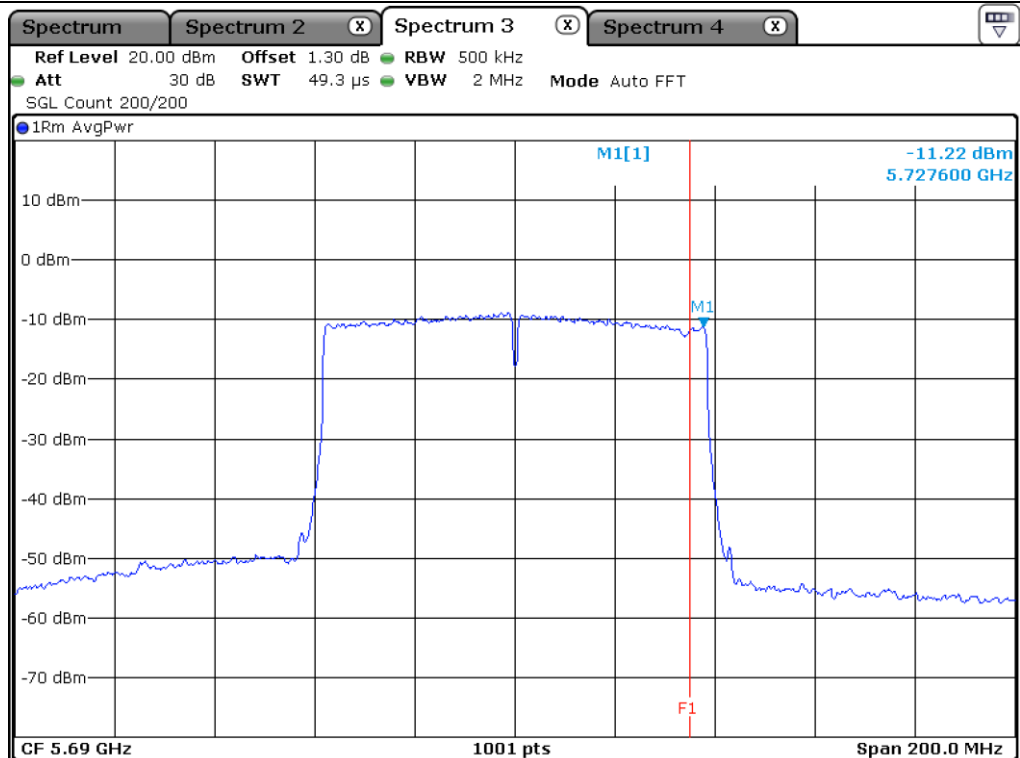
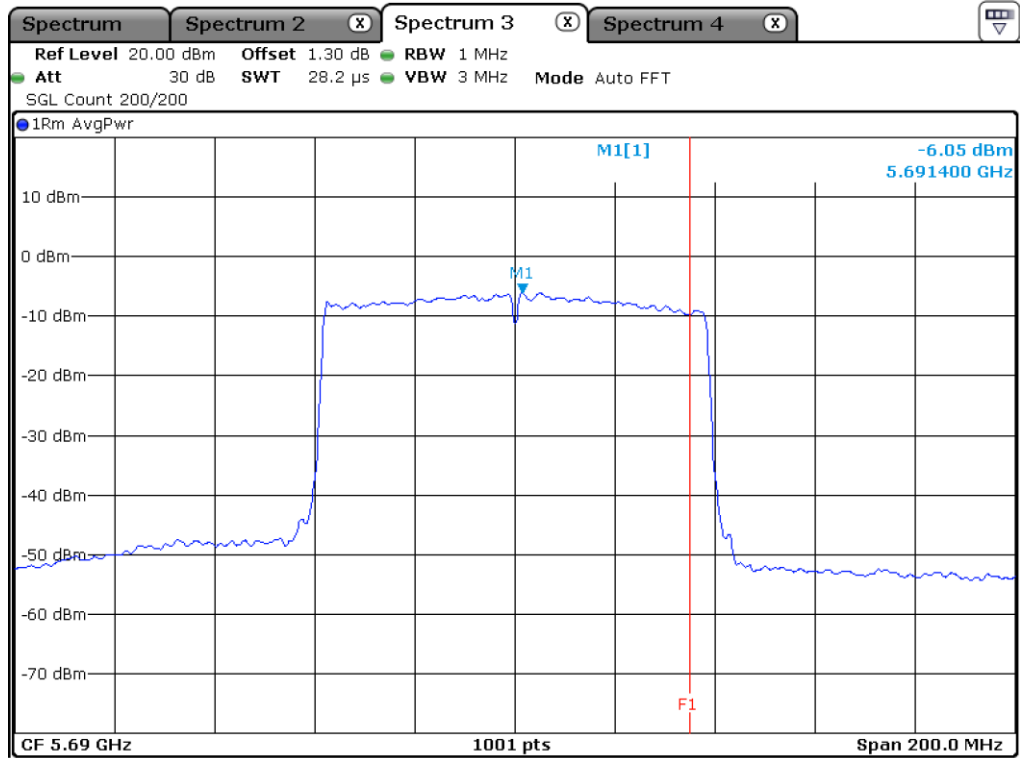
10.7.4 Test data for Staddle Channel_Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	-6.05	11.00	17.05
5 725 ~ 5 850	5 690.00	-11.22	30.00	41.22

Remark: See next page for measurement data.



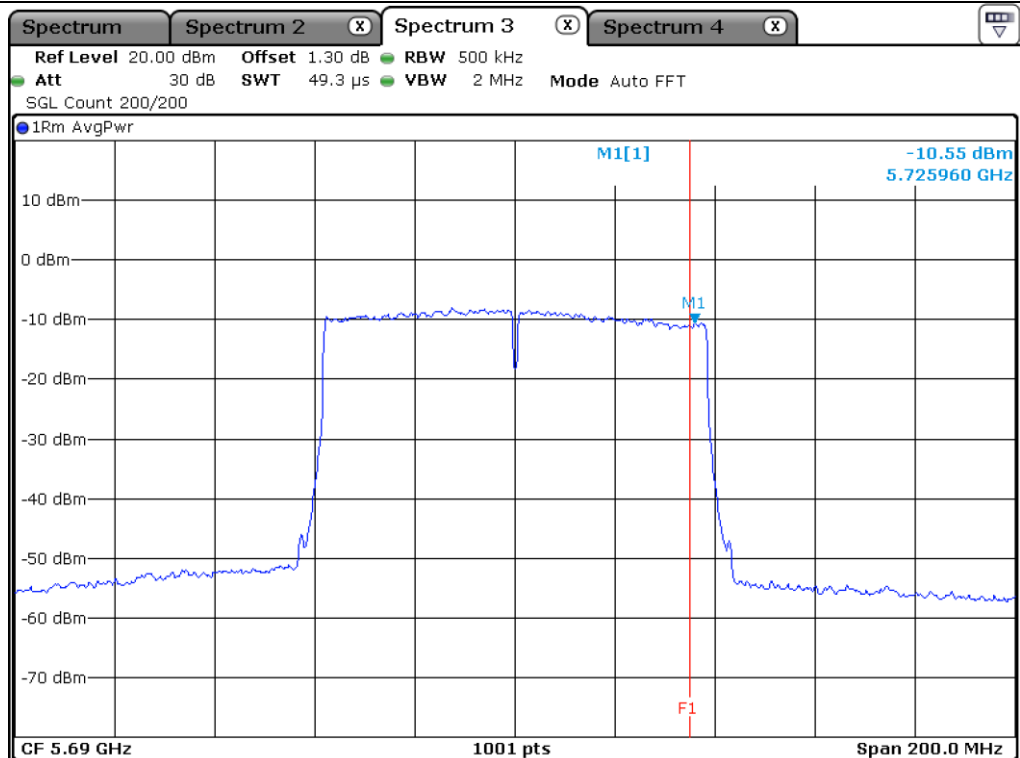
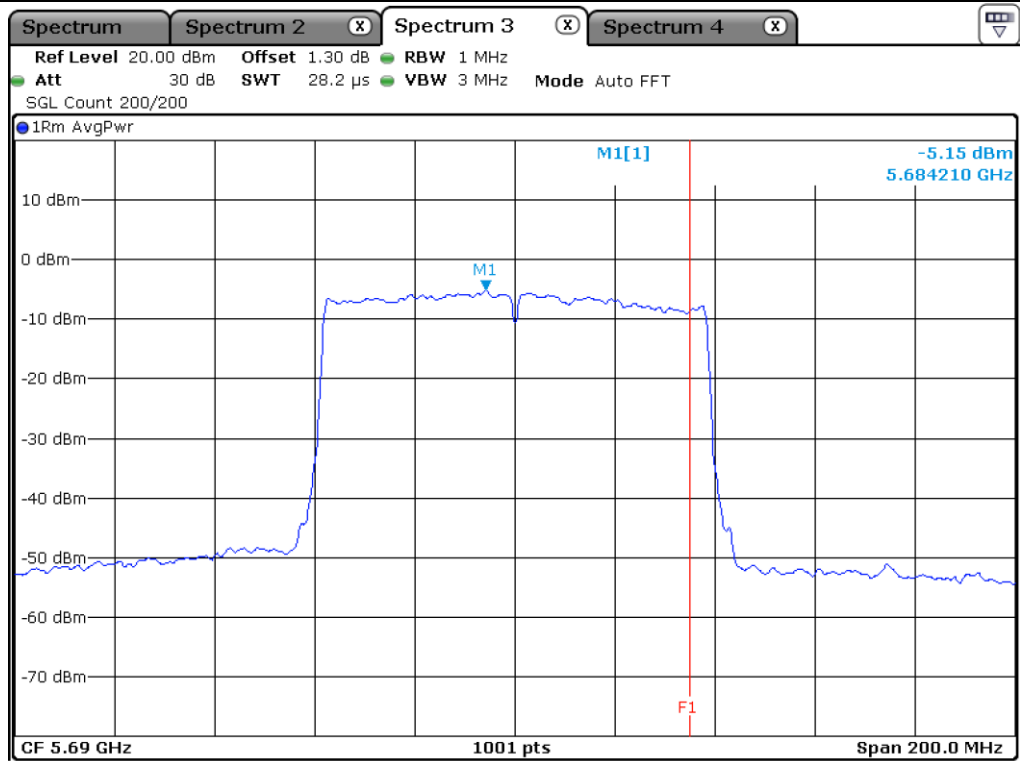
10.7.5 Test data for Staddle Channel_Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	-5.15	11.00	16.15
5 725 ~ 5 850	5 690.00	-10.55	30.00	40.55

Remark: See next page for measurement data.



10.7.6 Test data for Staddle Channel_Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	-2.57	11.00	13.57
5 725 ~ 5 850	5 690.00	-7.86	30.00	37.86

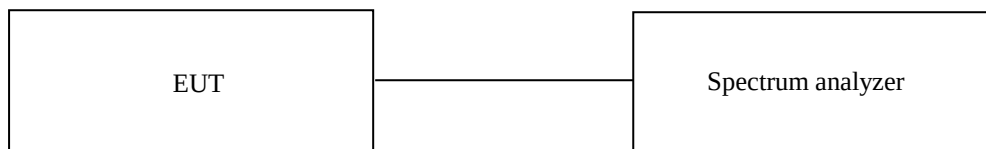
11. FREQUENCY STABILITY WITH TEMPERATURE VARIATION

11.1 Operating environment

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

11.2 Test set-up

Turn EUT off and set chamber temperature to -20 °C and then allow sufficient time (approximately 20 min to 30 min after chamber reach the assigned temperature) for EUT to stabilize. Turn on the EUT and measure the EUT operating frequency and then turn off the EUT after the measurement. The temperature in the chamber was raised 10 °C step from -20 °C to +80 °C. Repeat above method for frequency measurements every 10 °C step and then record all measured frequencies on each temperature step.



11.3 Test Date

March 12, 2021 ~ March 22, 2021

11.4 Test Data for U-NII-1

-. Result : Pass

Temperature (°C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
-20	5 180 000 000	5 180 027 904	27 904
-10		5 180 025 433	25 433
0		5 180 018 664	18 664
10		5 180 004 436	4 436
20		5 179 979 362	- 20 638
30		5 179 968 425	- 31 575
40		5 179 953 402	- 46 598
50		5 179 944 428	- 55 572
-20	5 220 000 000	5 220 028 421	28 421
-10		5 220 026 974	26 974
0		5 220 019 924	19 924
10		5 220 004 061	4 061
20		5 219 980 264	- 19 736
30		5 219 967 407	- 32 593
40		5 219 955 164	- 44 836
50		5 219 942 876	- 57 124
-20	5 240 000 000	5 240 029 023	29 023
-10		5 240 024 622	24 622
0		5 240 015 960	15 960
10		5 240 003 604	3 604
20		5 239 980 194	- 19 806
30		5 239 964 968	- 35 032
40		5 239 953 374	- 46 626
50		5 239 942 511	- 57 489

Note : While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized.

Four measurements in total are made.(ANSI C63.10-2013)

11.5 Test Data for U-NII-2A

-. Result : Pass

Temperature (°C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
-20	5 260 000 000	5 260 029 268	29 268
-10		5 260 024 604	24 604
0		5 260 014 006	14 006
10		5 259 993 603	- 6 397
20		5 259 979 763	- 20 237
30		5 259 964 233	- 35 767
40		5 259 951 630	- 48 370
50		5 259 941 324	- 58 676
-20	5 300 000 000	5 300 029 645	29 645
-10		5 300 024 462	24 462
0		5 300 013 503	13 503
10		5 299 994 004	- 5 996
20		5 299 978 164	- 21 836
30		5 299 961 640	- 38 360
40		5 299 949 364	- 50 636
50		5 299 940 531	- 59 469
-20	5 320 000 000	5 320 029 101	29 101
-10		5 320 023 974	23 974
0		5 320 012 634	12 634
10		5 319 994 188	- 5 812
20		5 319 977 790	- 22 210
30		5 319 961 639	- 38 361
40		5 319 948 827	- 51 173
50		5 319 939 976	- 60 024

Note : While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized.

Four measurements in total are made.(ANSI C63.10-2013)

11.6 Test Data for U-NII-2C

-. Result : Pass

Temperature (°C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
-20	5 500 000 000	5 500 030 688	30 688
-10		5 500 028 421	28 421
0		5 500 014 277	14 277
10		5 499 997 977	- 2 023
20		5 499 978 741	- 21 259
30		5 499 959 367	- 40 633
40		5 499 947 452	- 52 548
50		5 499 937 864	- 62 136
-20	5 580 000 000	5 580 031 111	31 111
-10		5 580 027 699	27 699
0		5 580 013 453	13 453
10		5 579 996 432	- 3 568
20		5 579 976 198	- 23 802
30		5 579 957 975	- 42 025
40		5 579 945 637	- 54 363
50		5 579 936 206	- 63 794
-20	5 700 000 000	5 700 030 154	30 154
-10		5 700 027 542	27 542
0		5 700 013 002	13 002
10		5 699 995 047	- 4 953
20		5 699 974 572	- 25 428
30		5 699 956 228	- 43 772
40		5 699 944 953	- 55 047
50		5 699 934 599	- 65 401

Note : While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized.

Four measurements in total are made.(ANSI C63.10-2013)

11.7 Test Data for U-NII-3

-. Result : Pass

Temperature (°C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
-20	5 745 000 000	5 745 031 001	31 001
-10		5 745 027 635	27 635
0		5 745 012 773	12 773
10		5 744 991 630	- 8 370
20		5 744 974 589	- 25 411
30		5 744 958 108	- 41 892
40		5 744 944 201	- 55 799
50		5 744 934 997	- 65 003
-20	5 785 000 000	5 785 032 495	32 495
-10		5 785 026 940	26 940
0		5 785 012 709	12 709
10		5 784 991 593	- 8 407
20		5 784 973 589	- 26 411
30		5 784 956 638	- 43 362
40		5 784 944 402	- 55 598
50		5 784 933 114	- 66 886
-20	5 825 000 000	5 825 032 436	32 436
-10		5 825 026 193	26 193
0		5 825 011 147	11 147
10		5 824 992 496	- 7 504
20		5 824 972 953	- 27 047
30		5 824 954 660	- 45 340
40		5 824 943 741	- 56 259
50		5 824 932 667	- 67 333

Note : While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized.

Four measurements in total are made.(ANSI C63.10-2013)

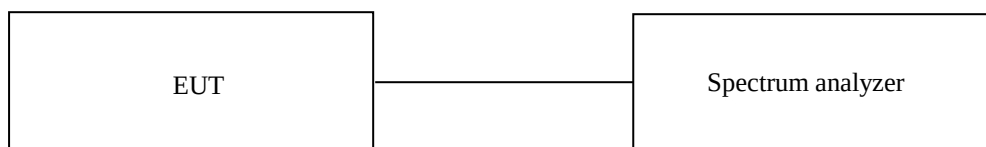
12. FREQUENCY STABILITY WITH VOLTAGE VARIATION

12.1 Operating environment

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

12.2 Test set-up

An external DC power supply was connected to the input of the EUT. The voltage of EUT set to 115.0 % of the nominal value and then was reduced to 85.0 % of nominal voltage. The output frequency was recorded at each step.



12.3 Test Date

March 12, 2021 ~ March 22, 2021

12.4 Test Data for U-NII-1

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
5.00	5 180 000 000	5 179 977 566	- 22 434
4.25		5 179 976 147	- 23 853
5.75		5 179 979 027	- 20 973
5.00	5 220 000 000	5 219 976 488	- 23 512
4.25		5 219 975 435	- 24 565
5.75		5 219 977 625	- 22 375
5.00	5 240 000 000	5 239 979 272	- 20 728
4.25		5 239 977 896	- 22 104
5.75		5 239 980 580	- 19 420

12.5 Test Data for U-NII-2A

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
5.00	5 260 000 000	5 259 977 272	- 22 728
4.25		5 259 976 372	- 23 628
5.75		5 259 979 078	- 20 922
5.00	5 300 000 000	5 299 978 878	- 21 122
4.25		5 299 977 620	- 22 380
5.75		5 299 979 973	- 20 027
5.00	5 320 000 000	5 319 977 175	- 22 825
4.25		5 319 975 749	- 24 251
5.75		5 319 978 387	- 21 613

12.6 Test Data for U-NII-2C

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
5.00	5 500 000 000	5 499 979 358	- 20 642
4.25		5 499 978 043	- 21 957
5.75		5 499 980 860	- 19 140
5.00	5 580 000 000	5 579 976 093	- 23 907
4.25		5 579 975 141	- 24 859
5.75		5 579 977 596	- 22 404
5.00	5 700 000 000	5 699 978 244	- 21 756
4.25		5 699 976 928	- 23 072
5.75		5 699 979 660	- 20 340

12.7 Test Data for U-NII-3

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
5.00	5 745 000 000	5 744 976 271	- 23 729
4.25		5 744 975 060	- 24 940
5.75		5 744 977 838	- 22 162
5.00	5 785 000 000	5 784 979 555	- 20 445
4.25		5 784 978 576	- 21 424
5.75		5 784 980 575	- 19 425
5.00	5 825 000 000	5 824 979 630	- 20 370
4.25		5 824 978 479	- 21 521
5.75		5 824 981 397	- 18 603