10. PEAK POWER SPECTRUL DENSITY

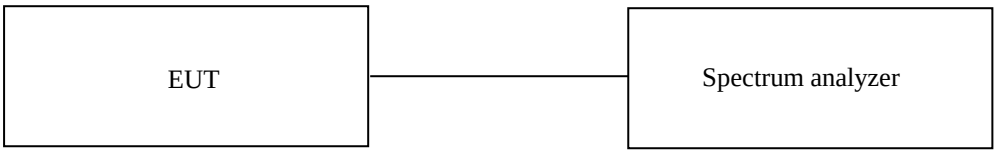
10.1 Operating environment

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

August 21, 2020 ~ September 08, 2020

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.4 Test data for 802.11a RLAN Mode

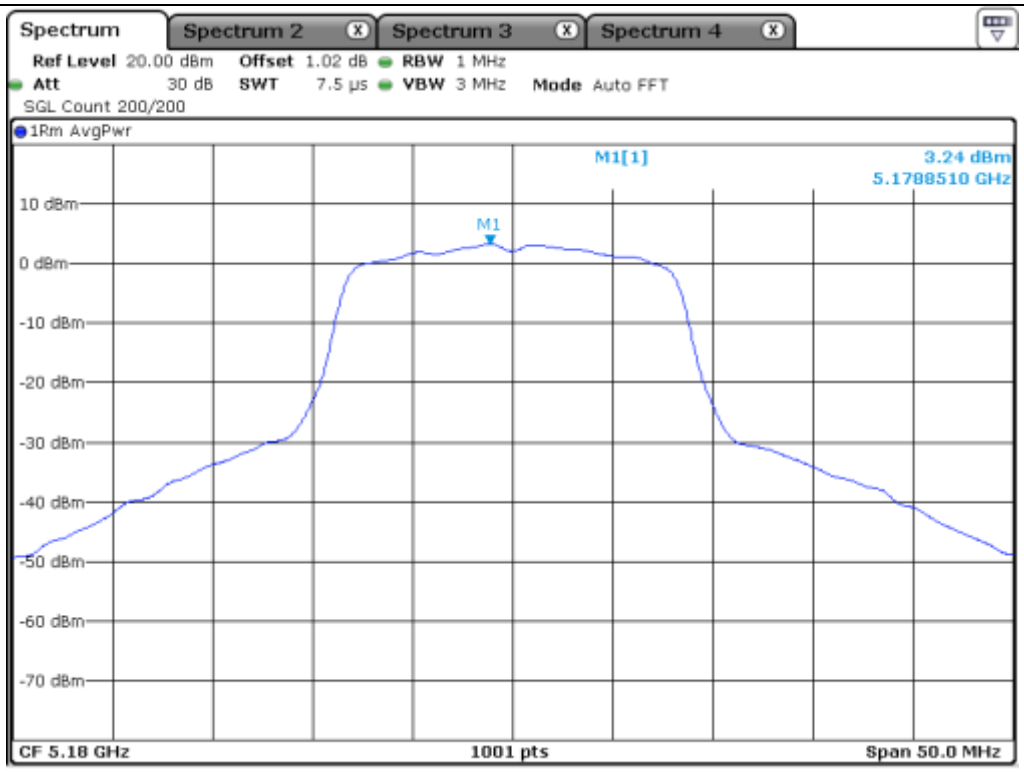
10.4.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

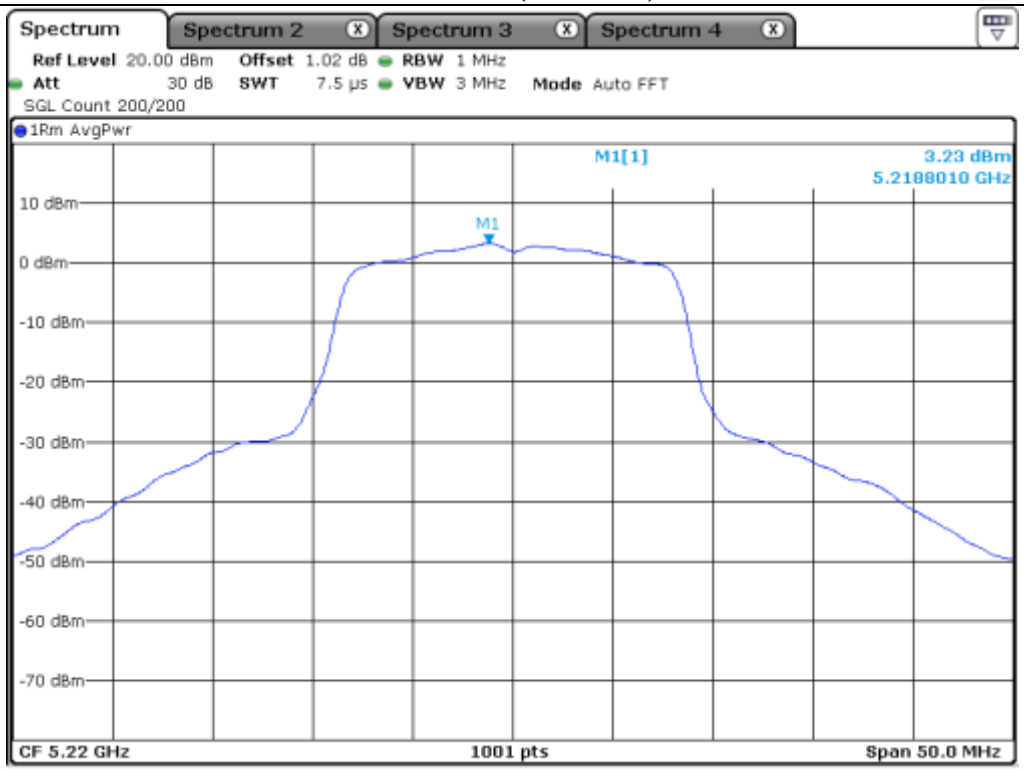
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	3.24	11.00	7.76
	Middle	5 220.00	3.23	11.00	7.77
	High	5 240.00	2.97	11.00	8.03
5 250 ~ 5 350	Low	5 260.00	3.25	11.00	7.75
	Middle	5 300.00	3.64	11.00	7.36
	High	5 320.00	3.42	11.00	7.58
5 470 ~ 5 725	Low	5 500.00	3.52	11.00	7.48
	Middle	5 580.00	3.01	11.00	7.99
	High	5 700.00	2.64	11.00	8.36
5 725 ~ 5 850	Low	5 745.00	-0.82	30.00	30.82
	Middle	5 785.00	-0.28	30.00	30.28
	High	5 825.00	-0.54	30.00	30.54

Remark: See next page for measurement data.

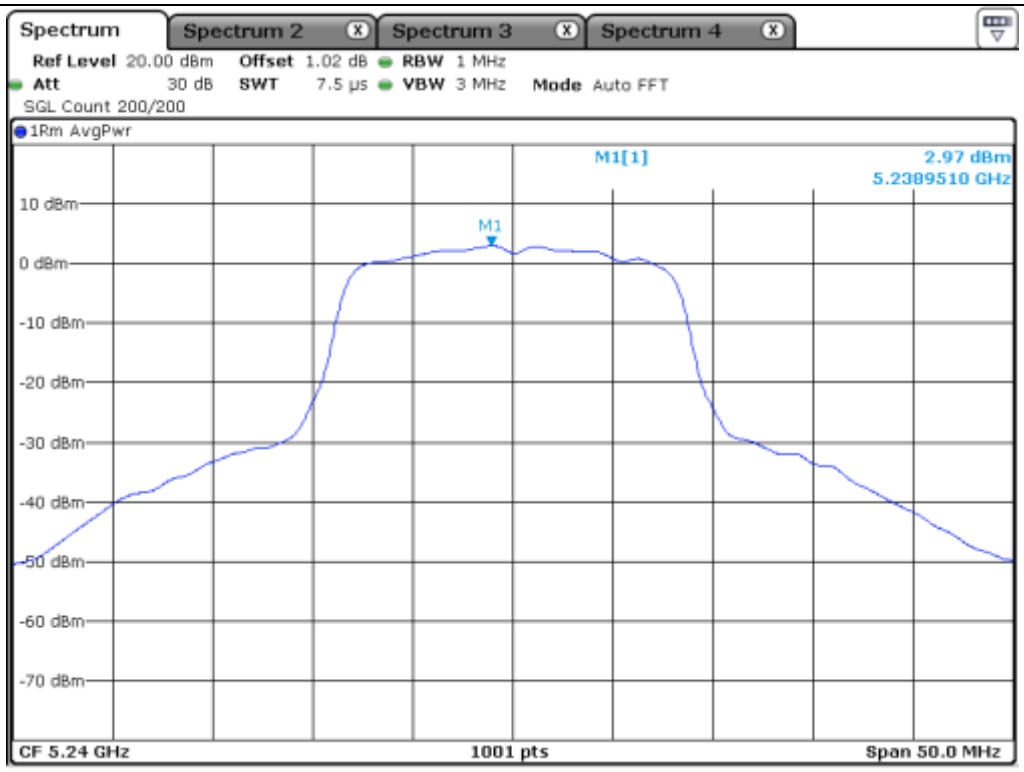


Low Channel (5 180 MHz)



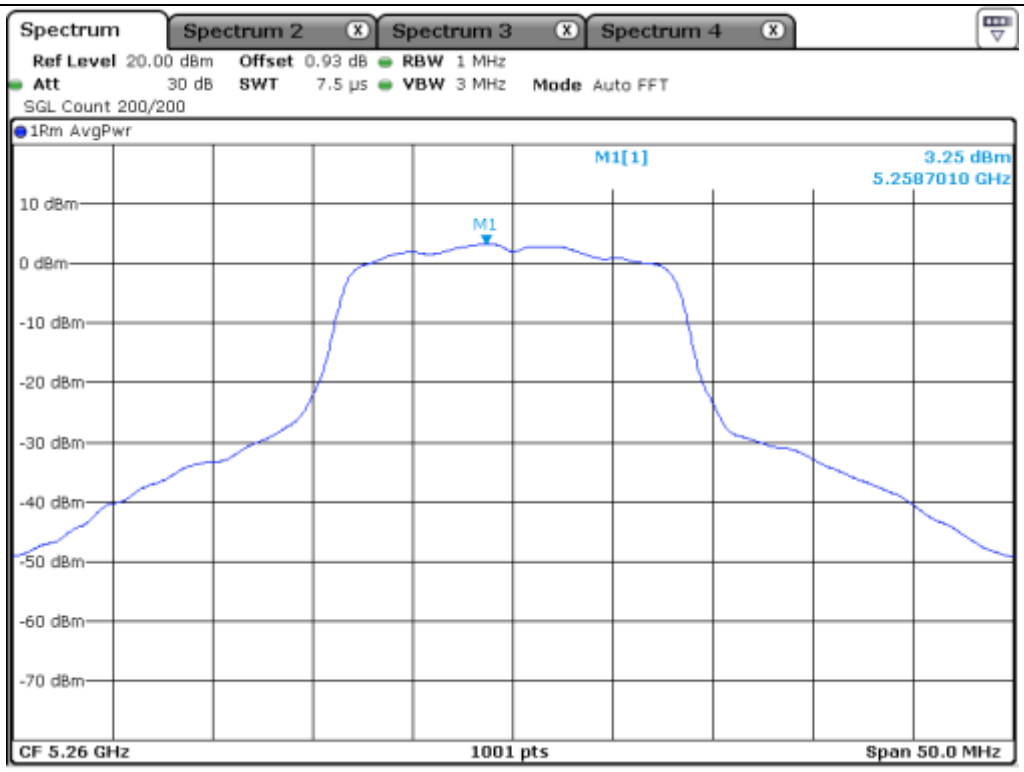
Middle Channel (5 220 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

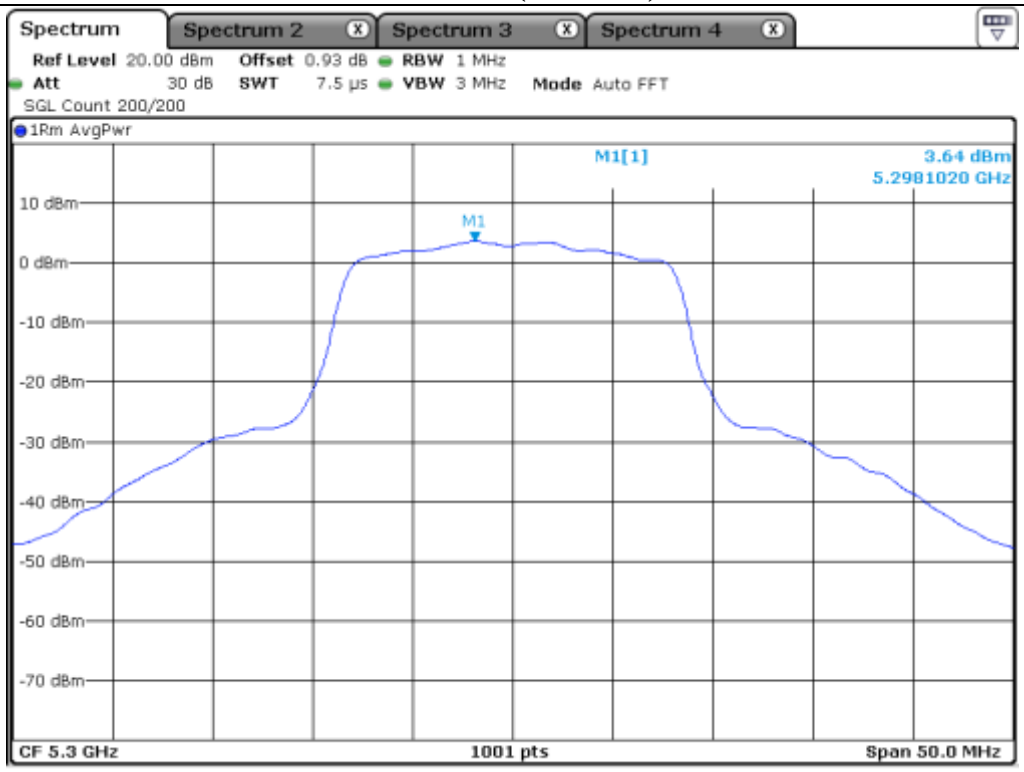


High Channel (5 240 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

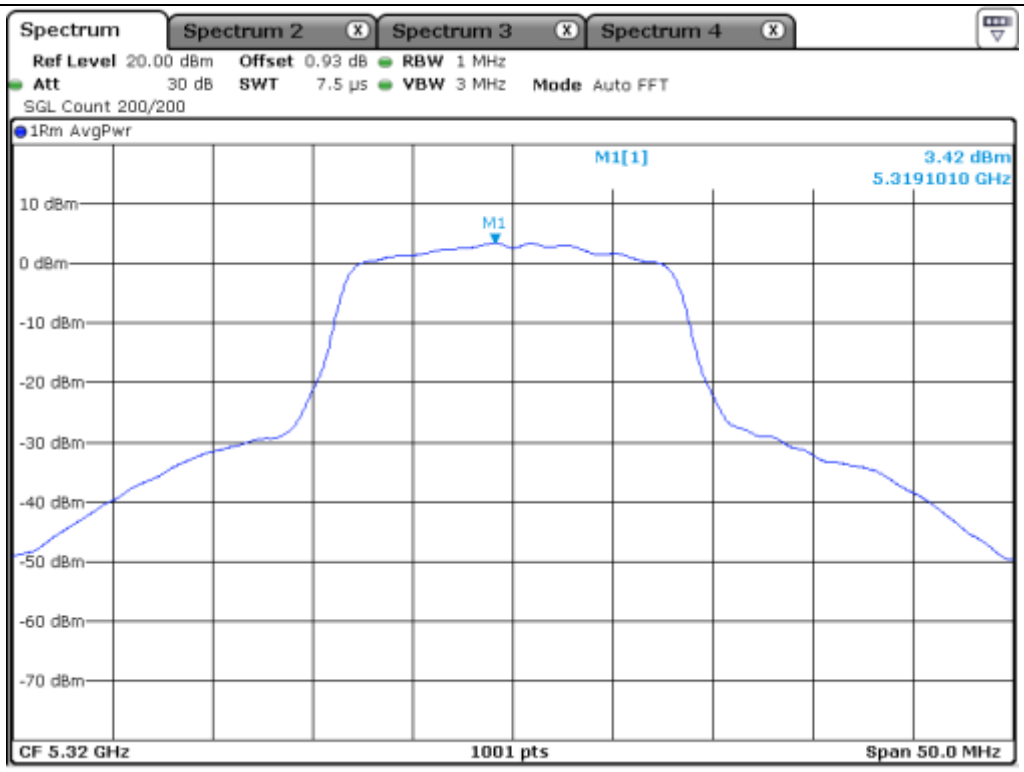


Low Channel (5 260 MHz)



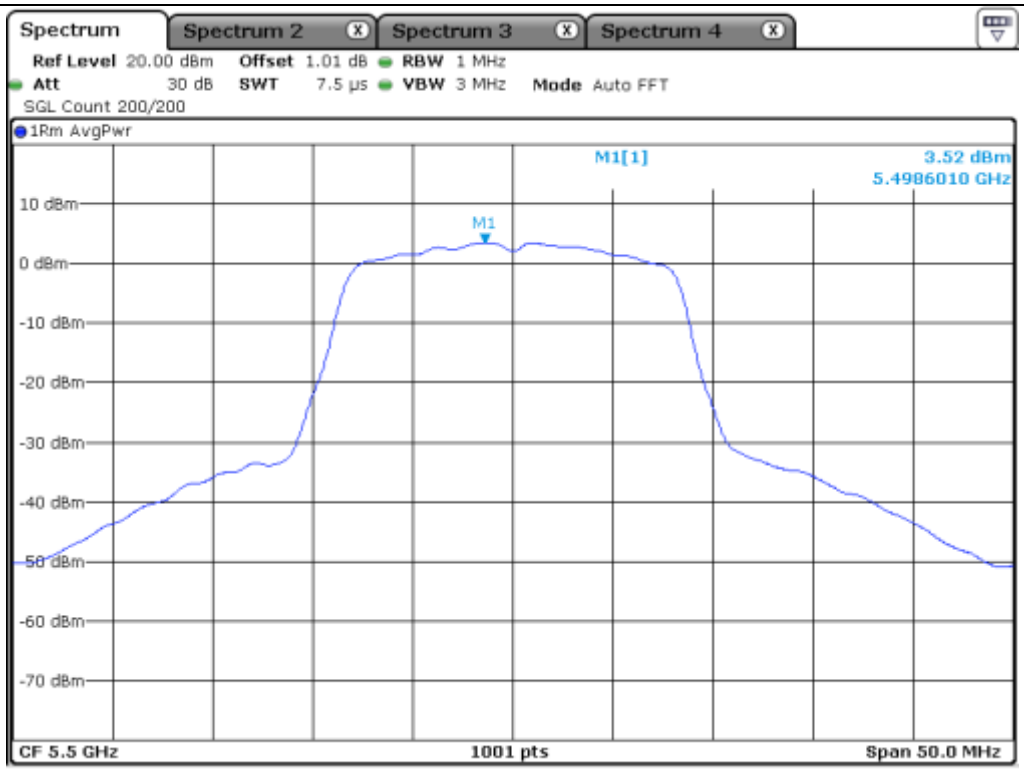
Middle Channel (5 300 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

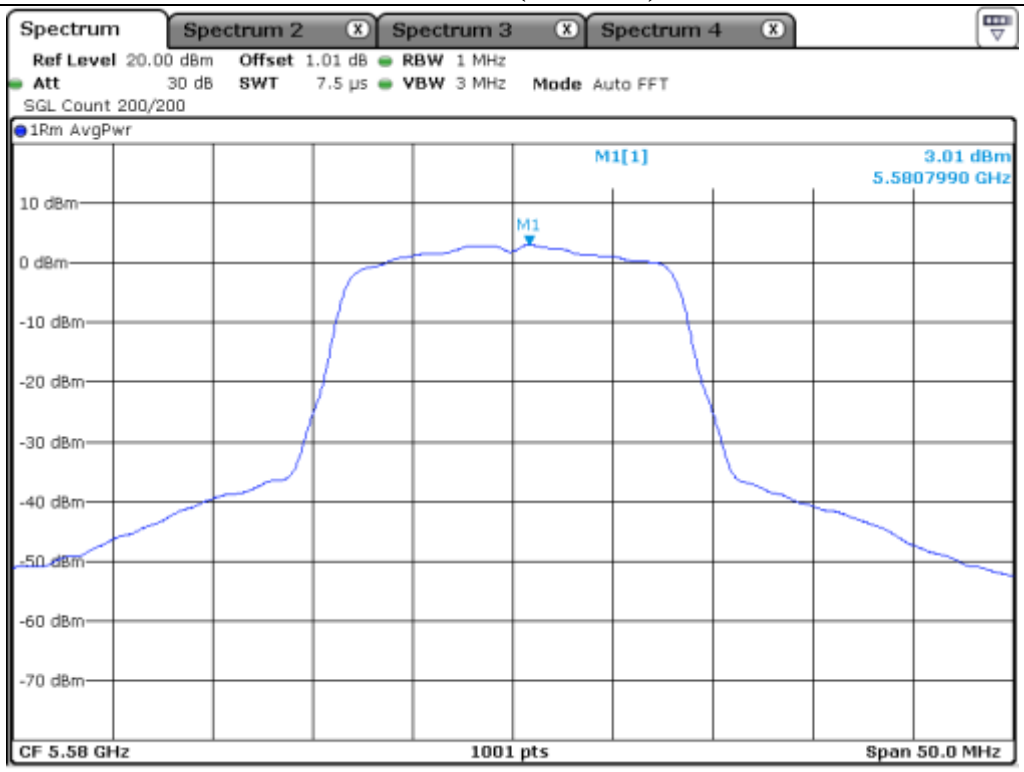


High Channel (5 320 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

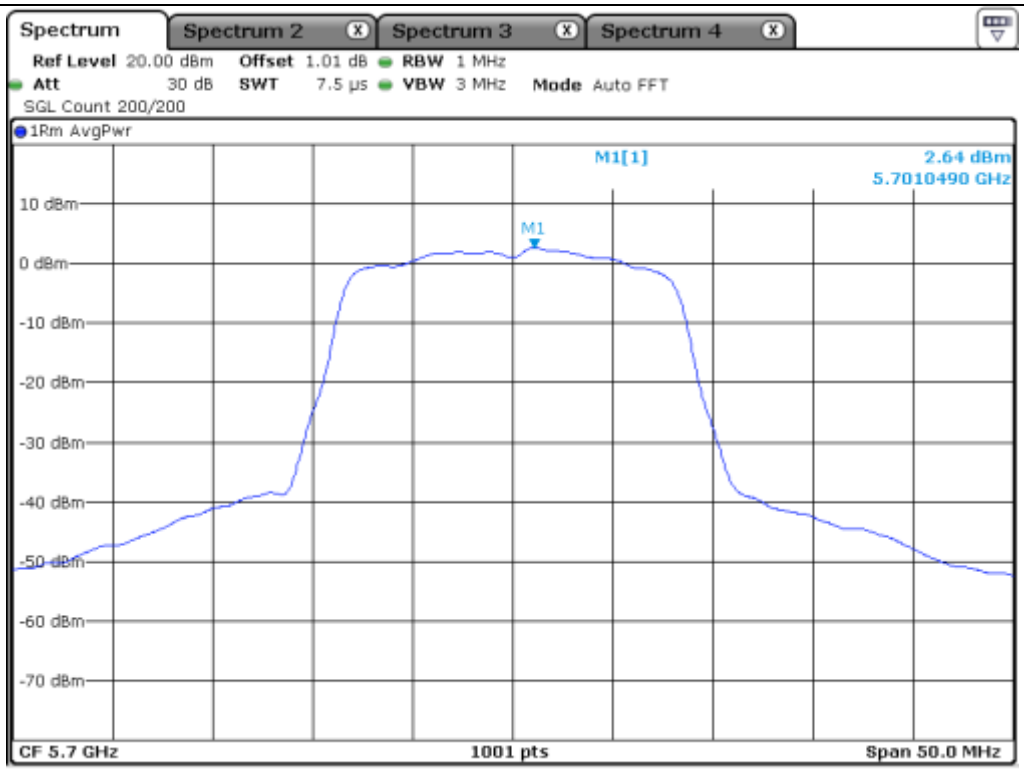


Low Channel (5 500 MHz)



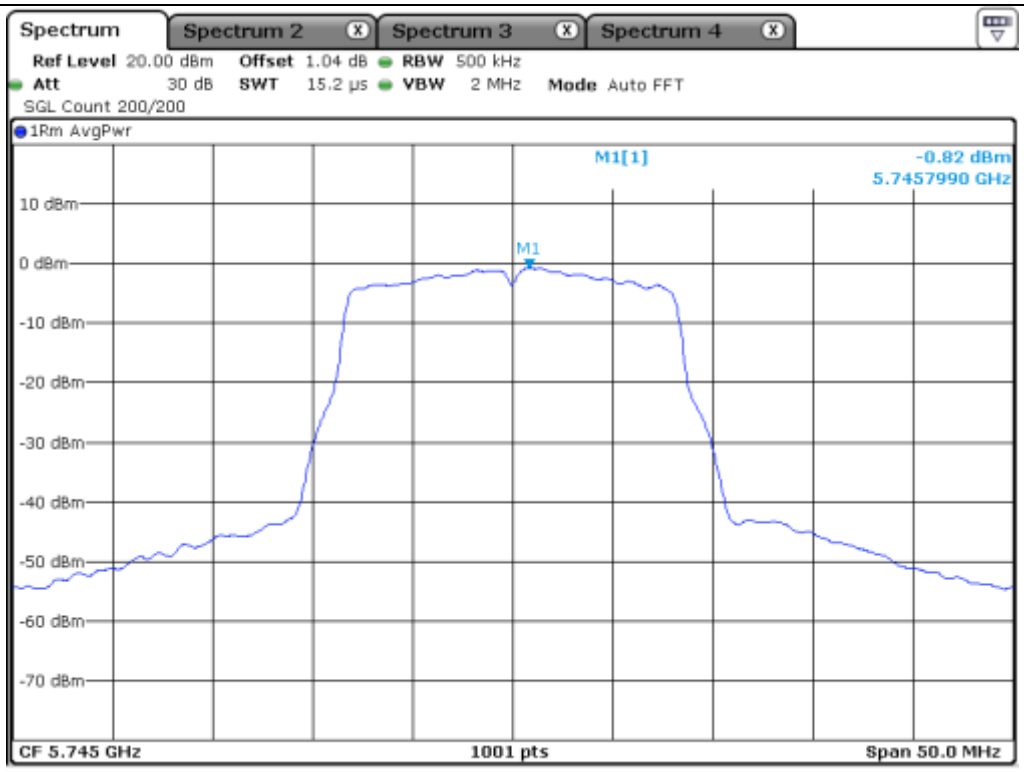
Middle Channel (5 580 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

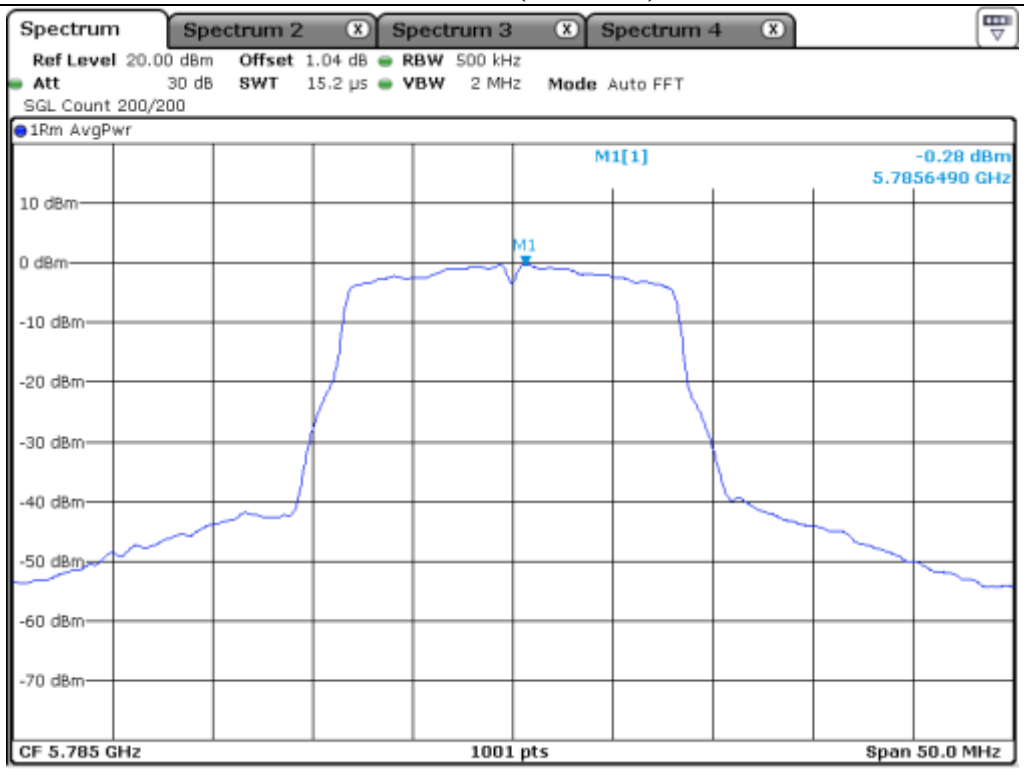


High Channel (5 700 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

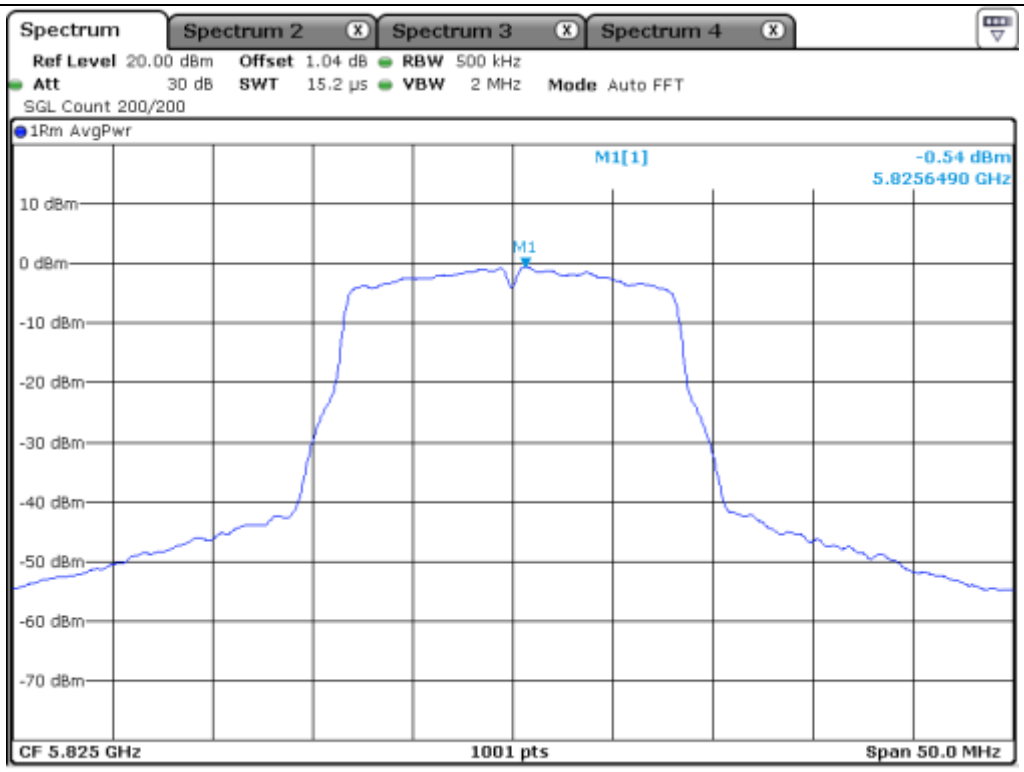


Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 825 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

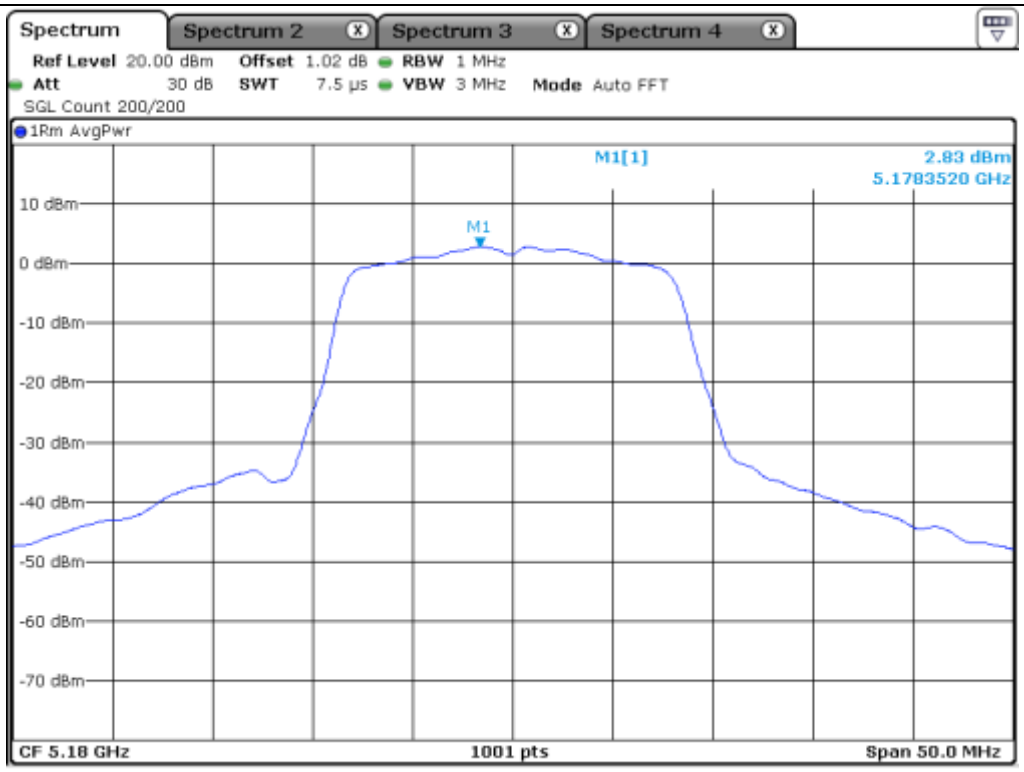
10.4.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

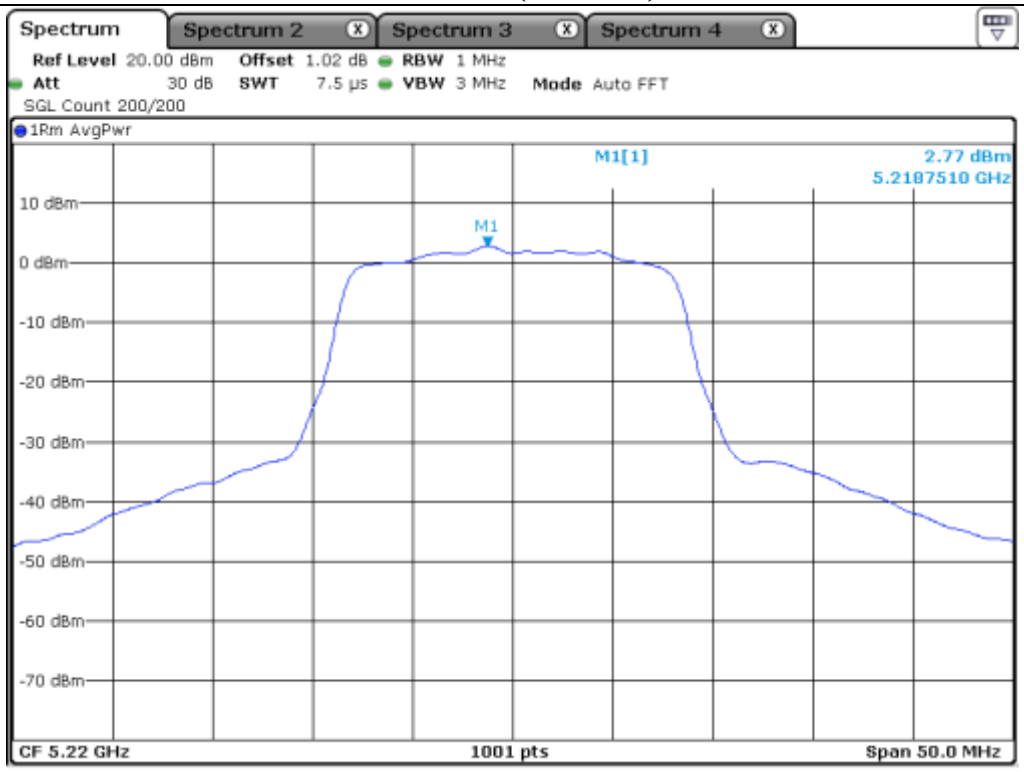
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	2.83	11.00	8.17
	Middle	5 220.00	2.77	11.00	8.23
	High	5 240.00	2.72	11.00	8.28
5 250 ~ 5 350	Low	5 260.00	3.13	11.00	7.87
	Middle	5 300.00	2.74	11.00	8.26
	High	5 320.00	2.60	11.00	8.40
5 470 ~ 5 725	Low	5 500.00	1.98	11.00	9.02
	Middle	5 580.00	1.91	11.00	9.09
	High	5 700.00	1.74	11.00	9.26
5 725 ~ 5 850	Low	5 745.00	-1.54	30.00	31.54
	Middle	5 785.00	-1.16	30.00	31.16
	High	5 825.00	-1.74	30.00	31.74

Remark: See next page for measurement data.

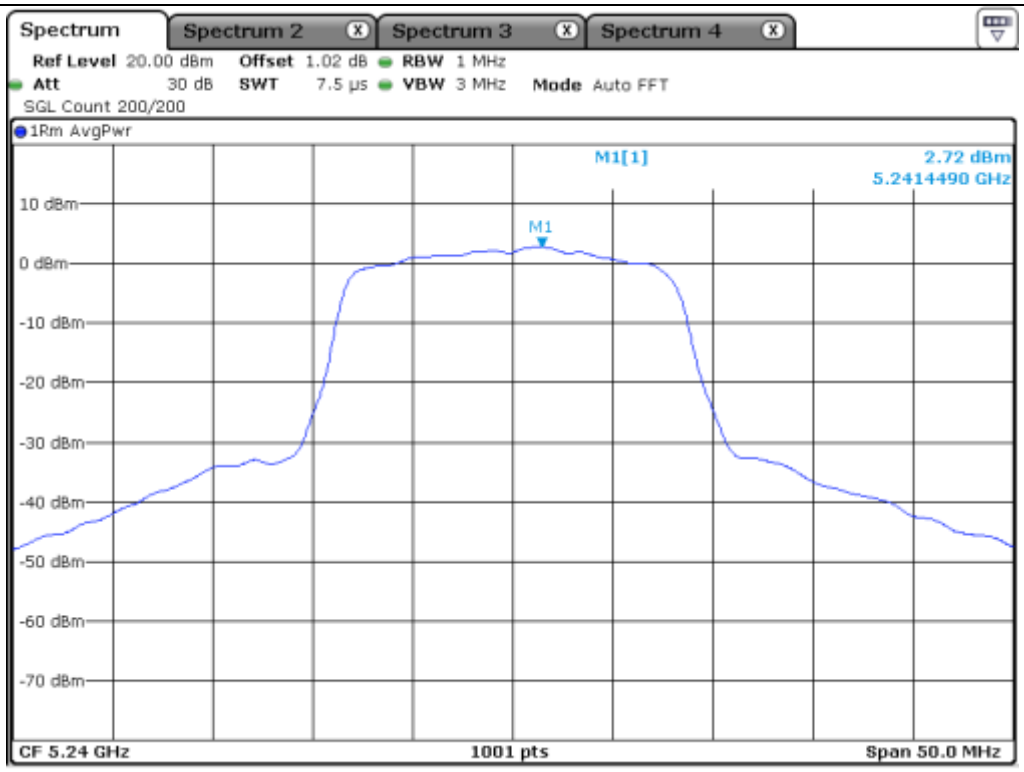


Low Channel (5 180 MHz)



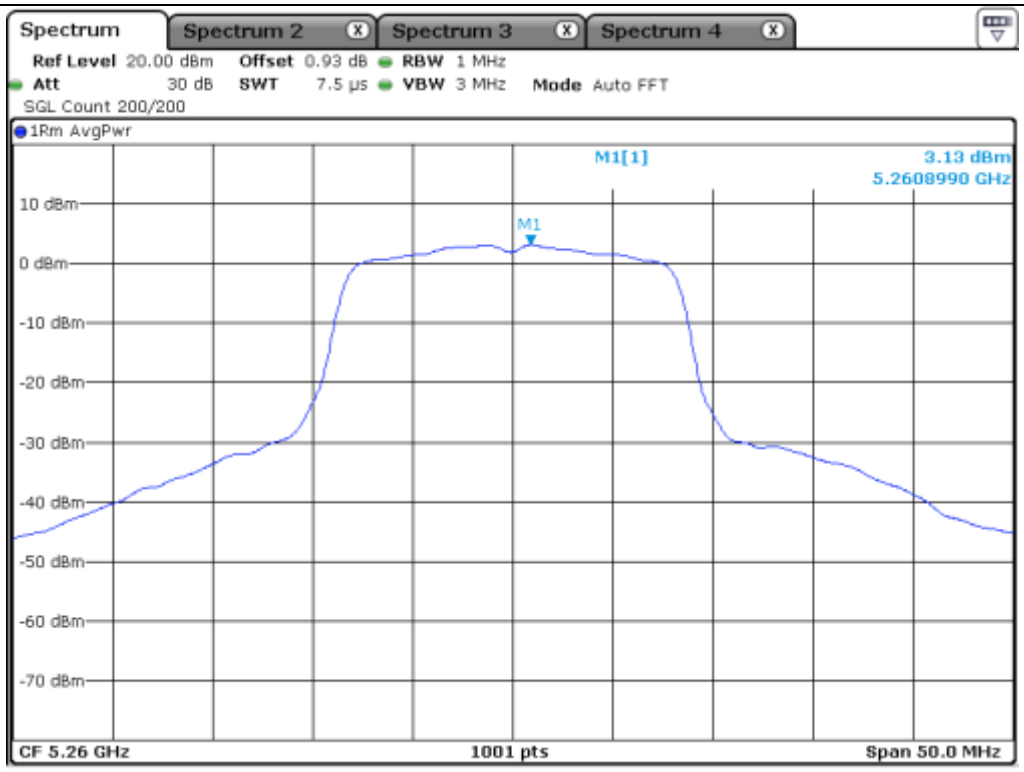
Middle Channel (5 220 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

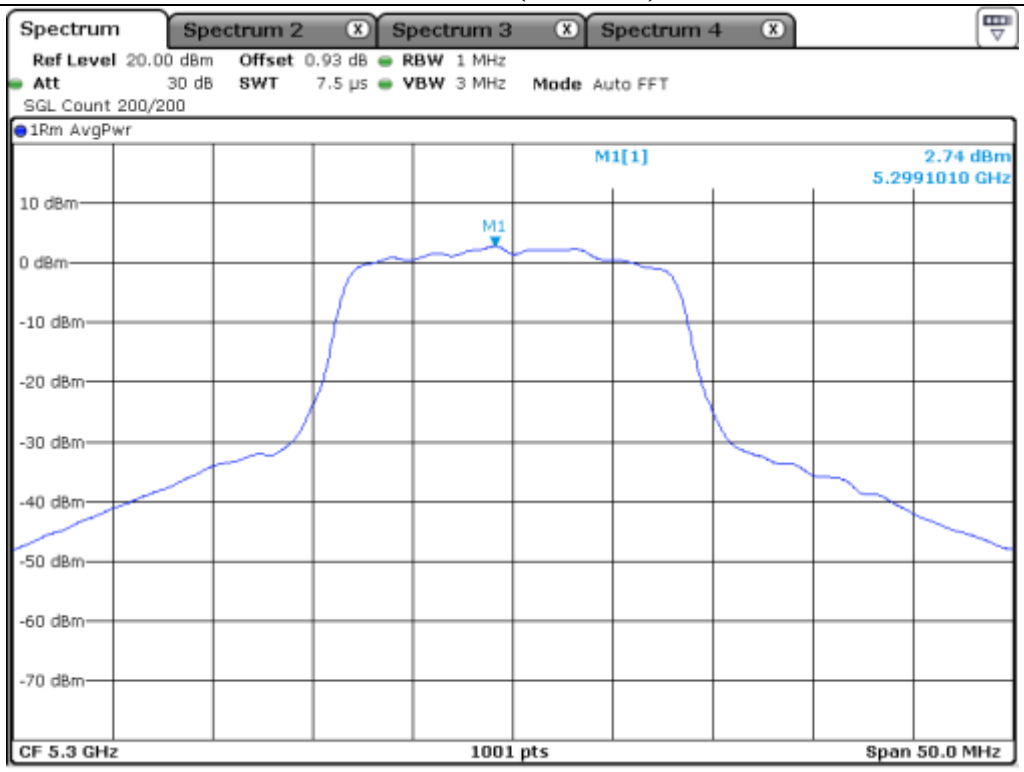


High Channel (5 240 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

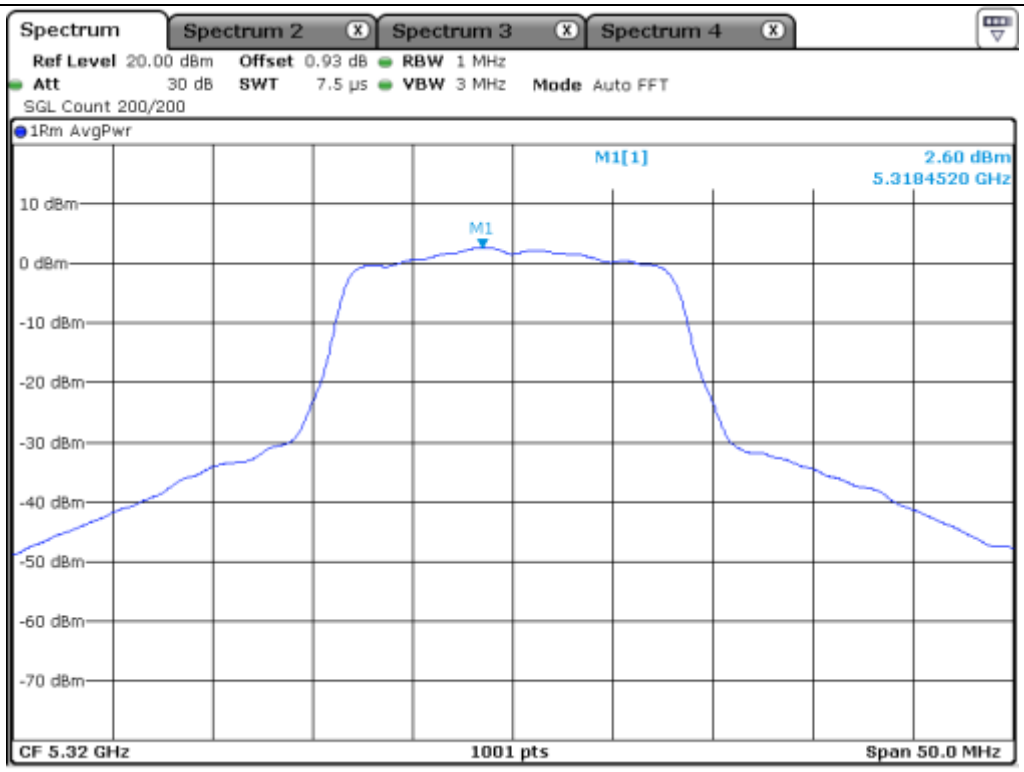


Low Channel (5 260 MHz)



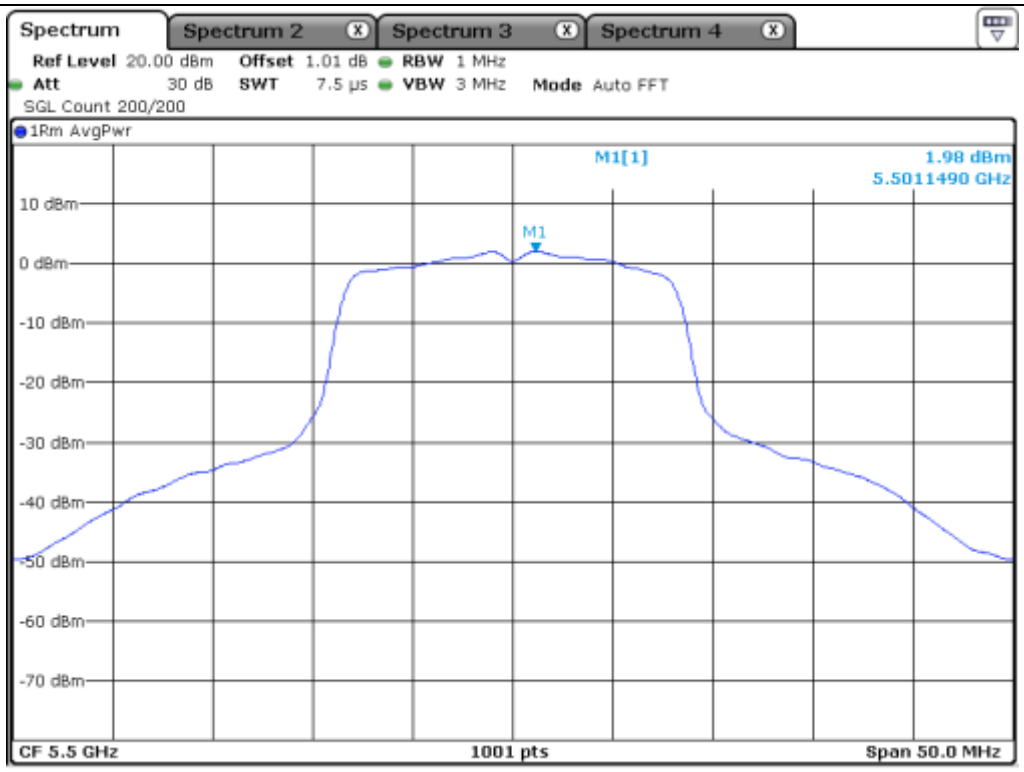
Middle Channel (5 300 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

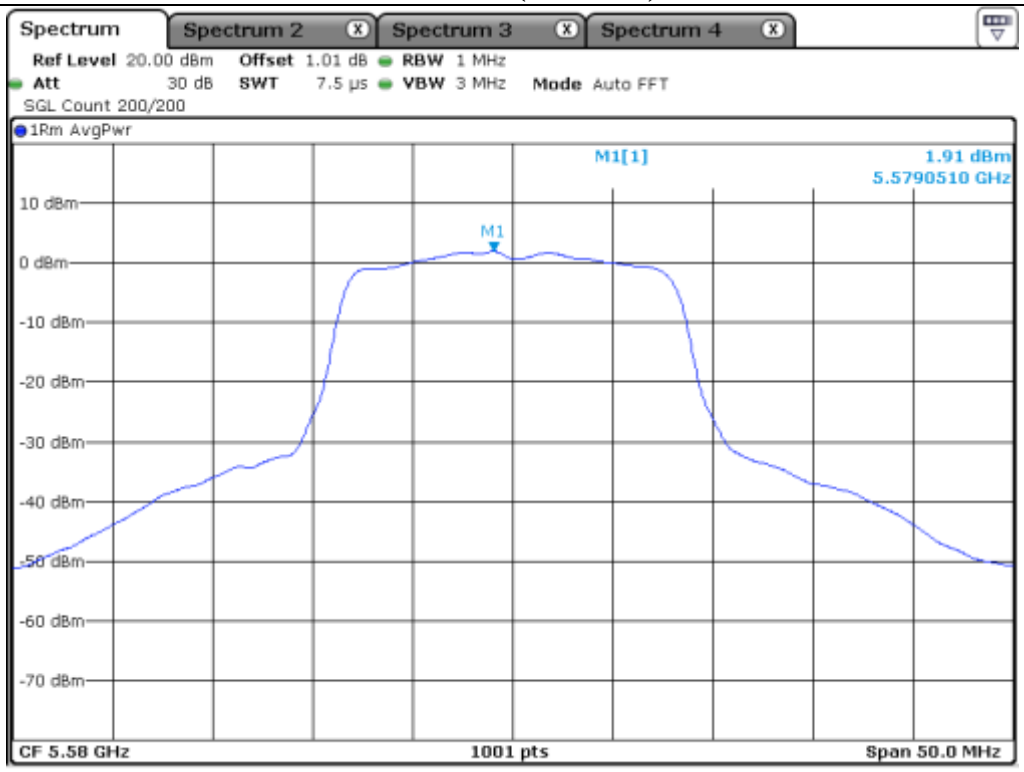


High Channel (5 320 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

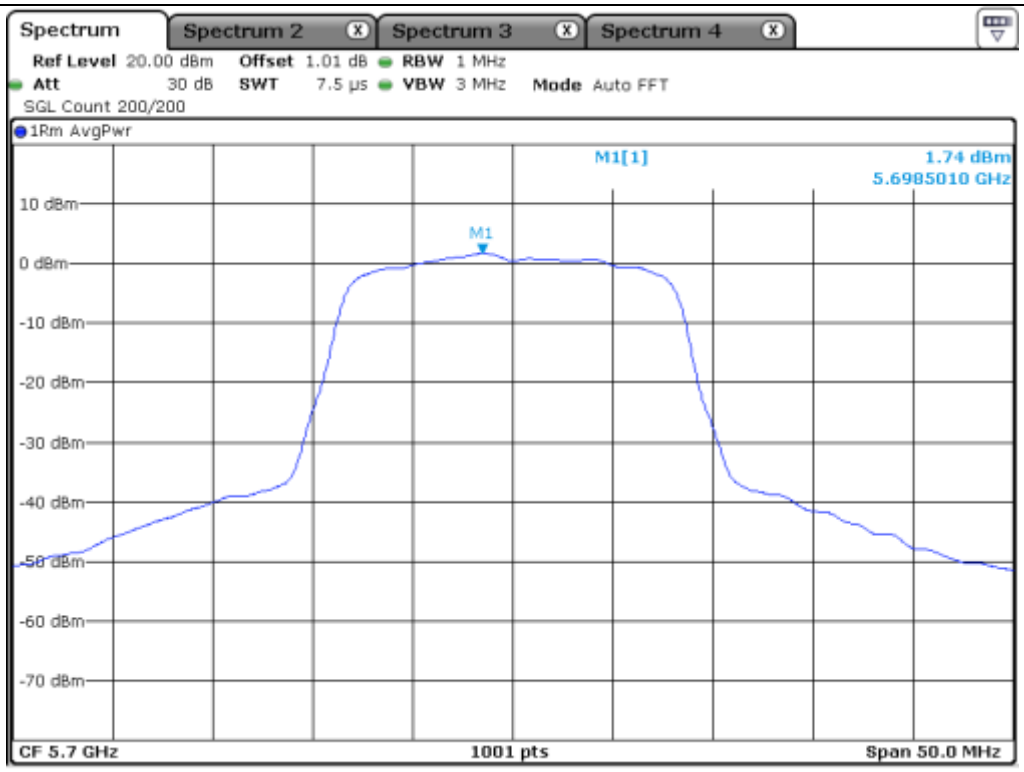


Low Channel (5 500 MHz)



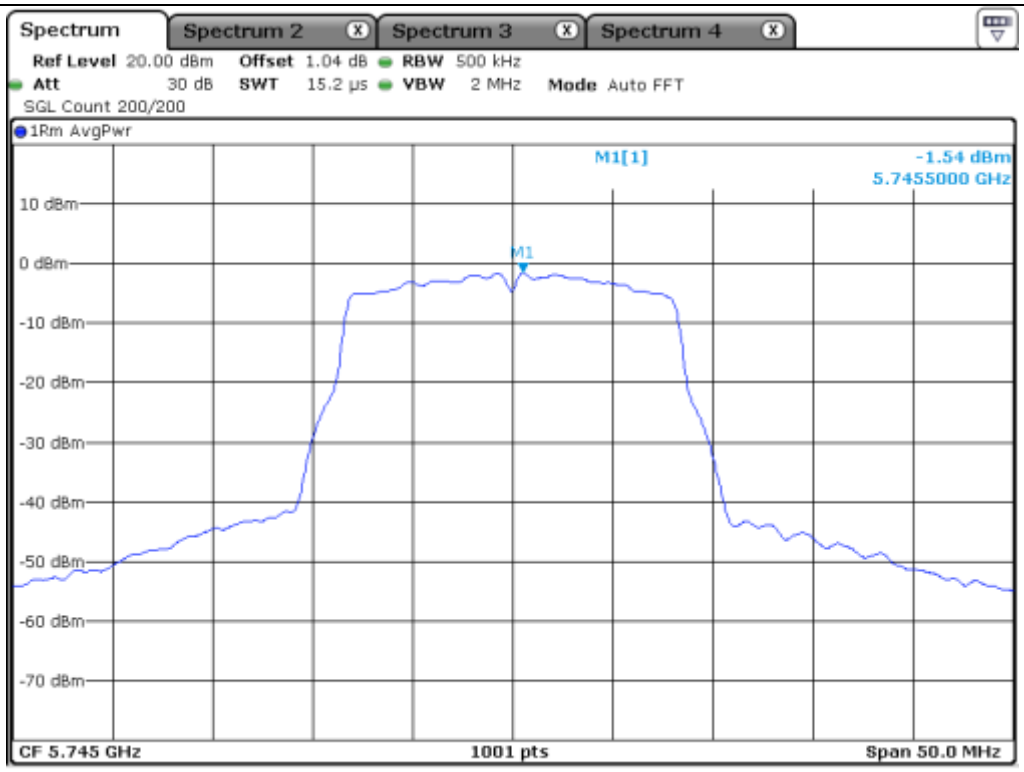
Middle Channel (5 580 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

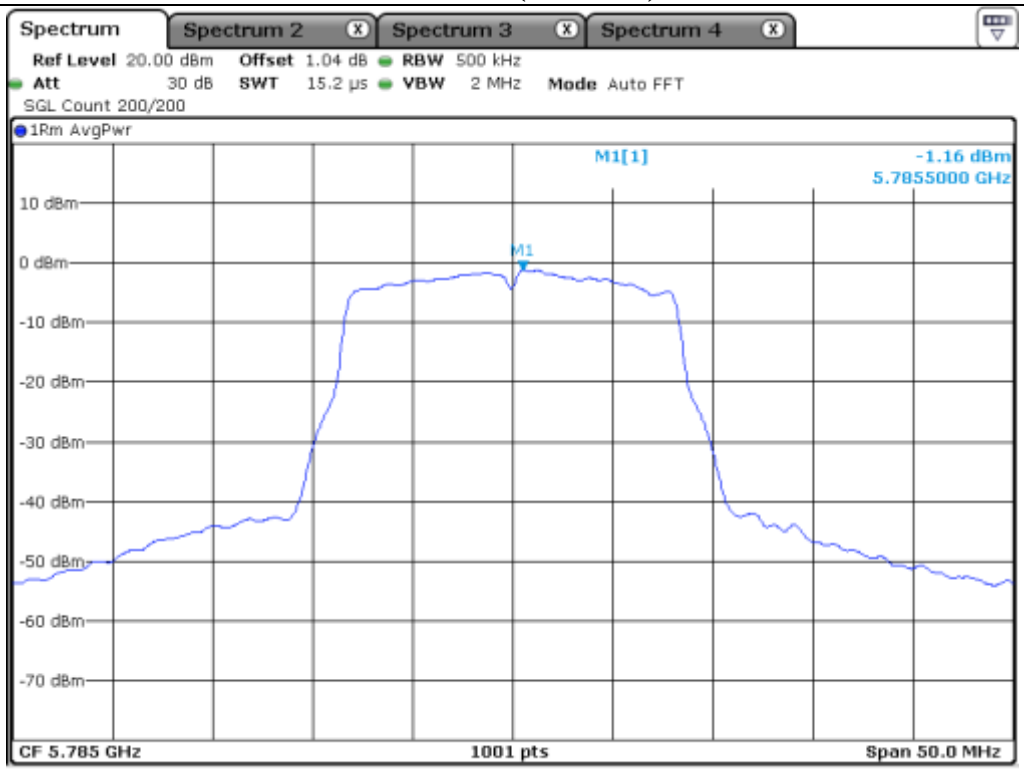


High Channel (5 700 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

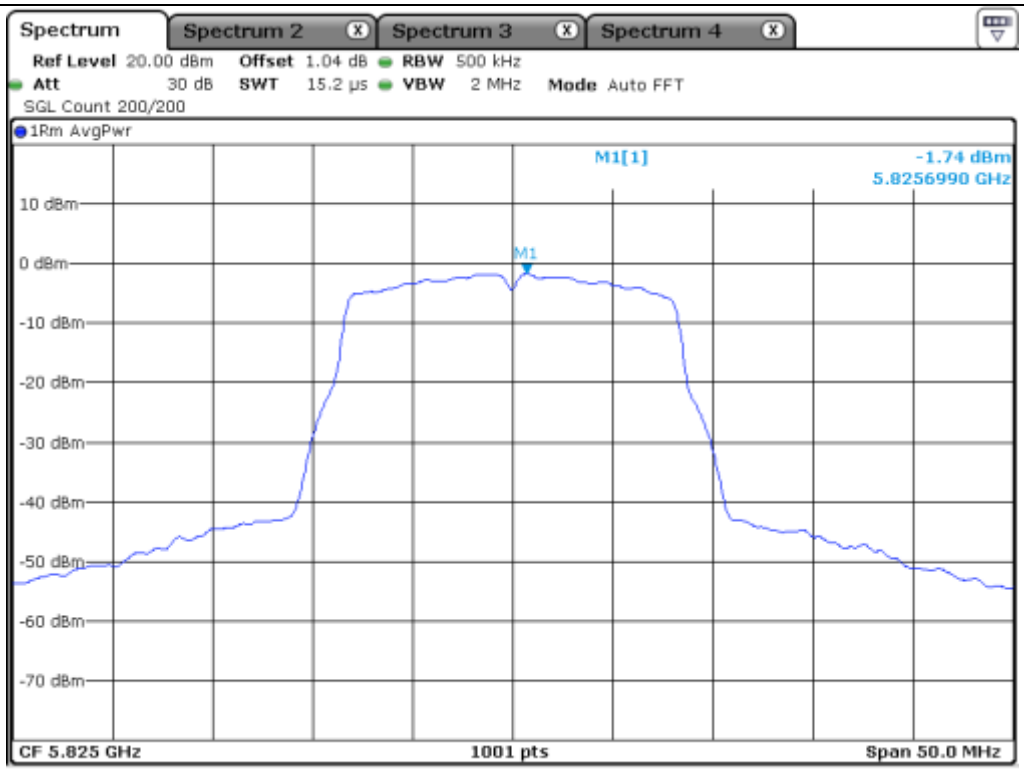


Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 825 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	6.05	11.00	4.95
	Middle	5 220.00	6.02	11.00	4.98
	High	5 240.00	5.86	11.00	5.14
5 250 ~ 5 350	Low	5 260.00	6.20	11.00	4.80
	Middle	5 300.00	6.22	11.00	4.78
	High	5 320.00	6.04	11.00	4.96
5 470 ~ 5 725	Low	5 500.00	5.83	11.00	5.17
	Middle	5 580.00	5.51	11.00	5.49
	High	5 700.00	5.22	11.00	5.78
5 725 ~ 5 850	Low	5 745.00	1.85	30.00	28.15
	Middle	5 785.00	2.31	30.00	27.69
	High	5 825.00	1.91	30.00	28.09

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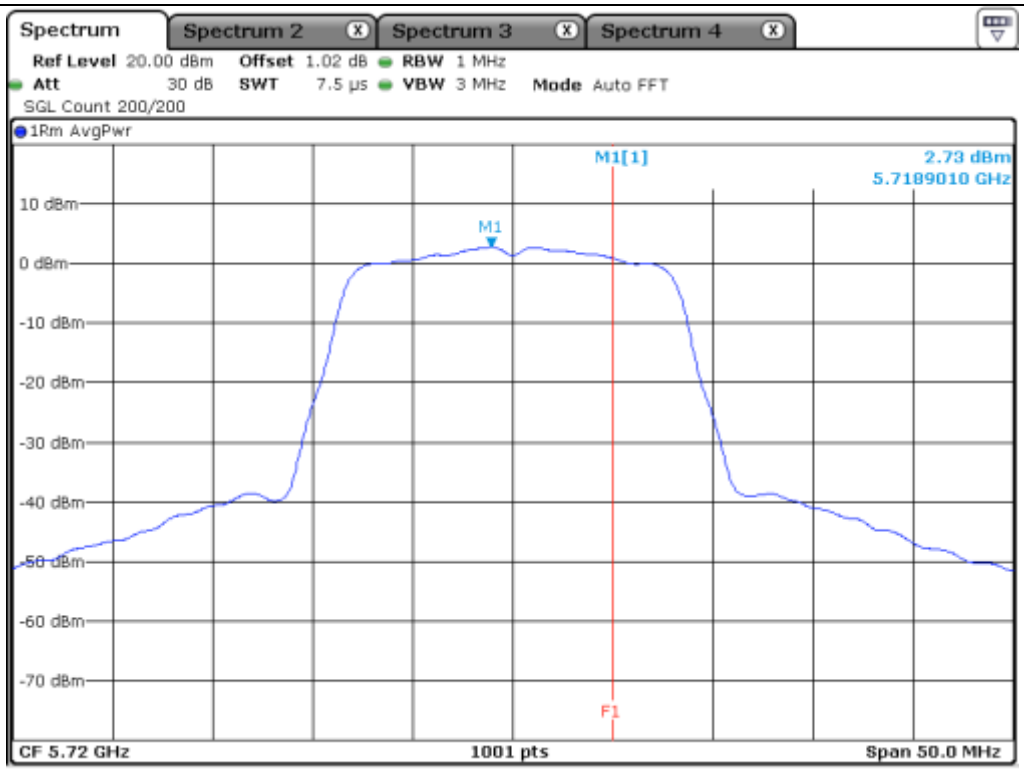
10.4.4 Test data for Staddle Channel_Antenna 0

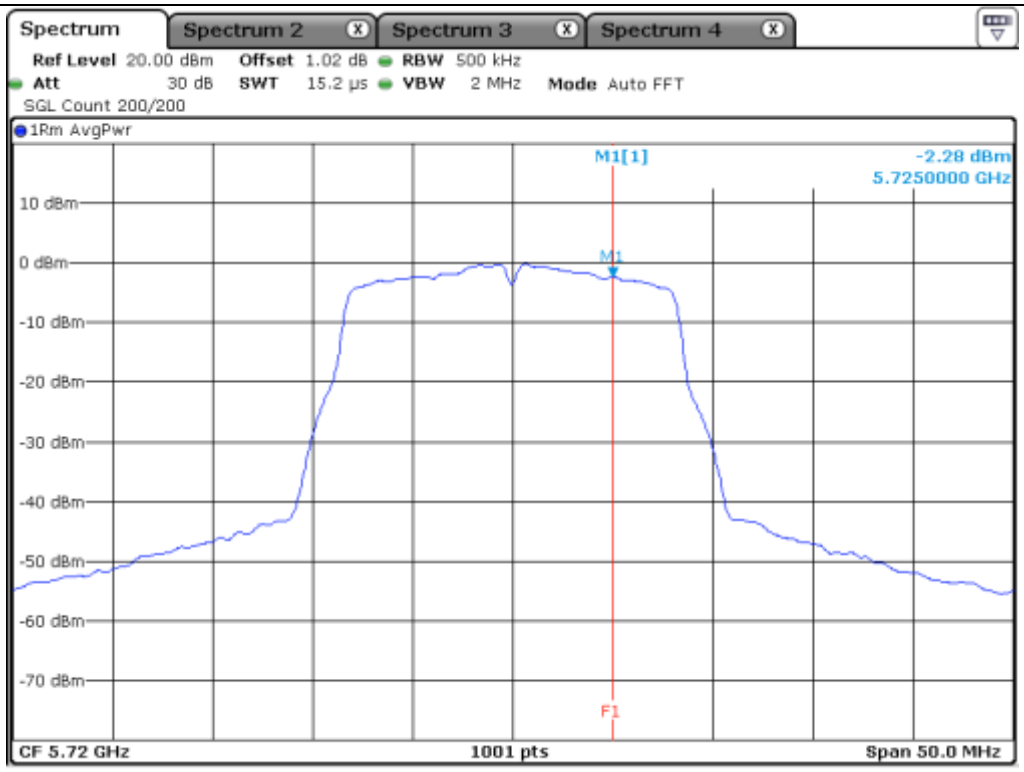
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	2.73	11.00	8.27
5 725 ~ 5 850	5 720.00	-2.28	30.00	32.28

Remark: See next page for measurement data.





ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.4.5 Test data for Staddle Channel_Antenna 1

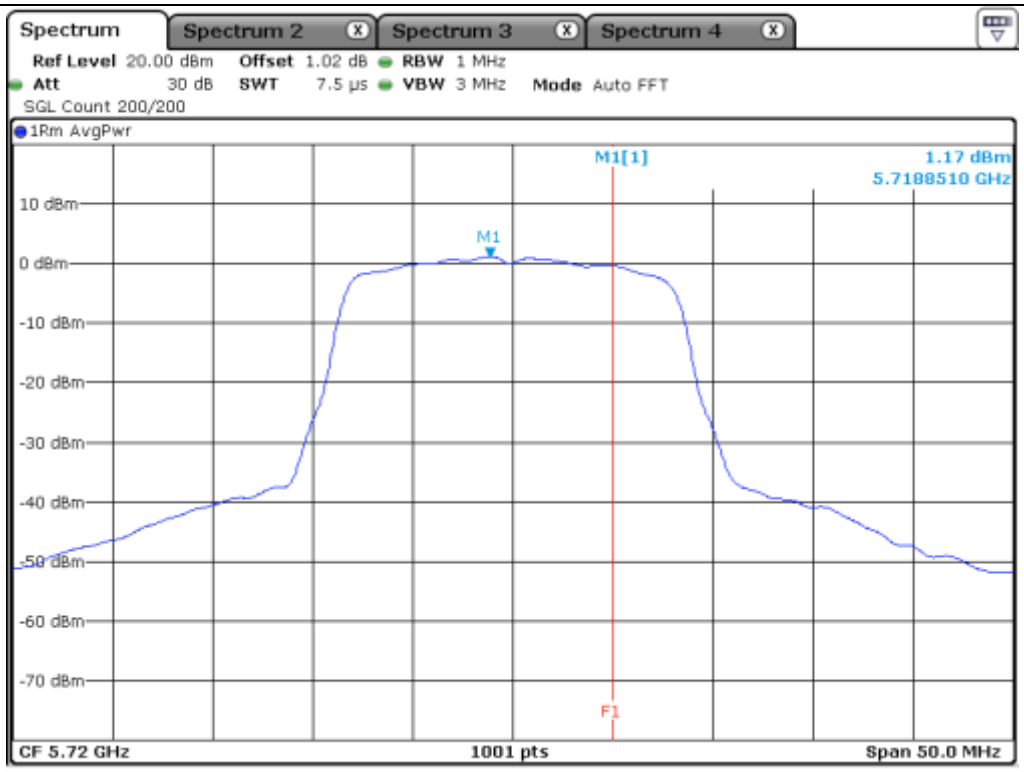
-. Operating condition : Highest Output Power Transmitting Mode

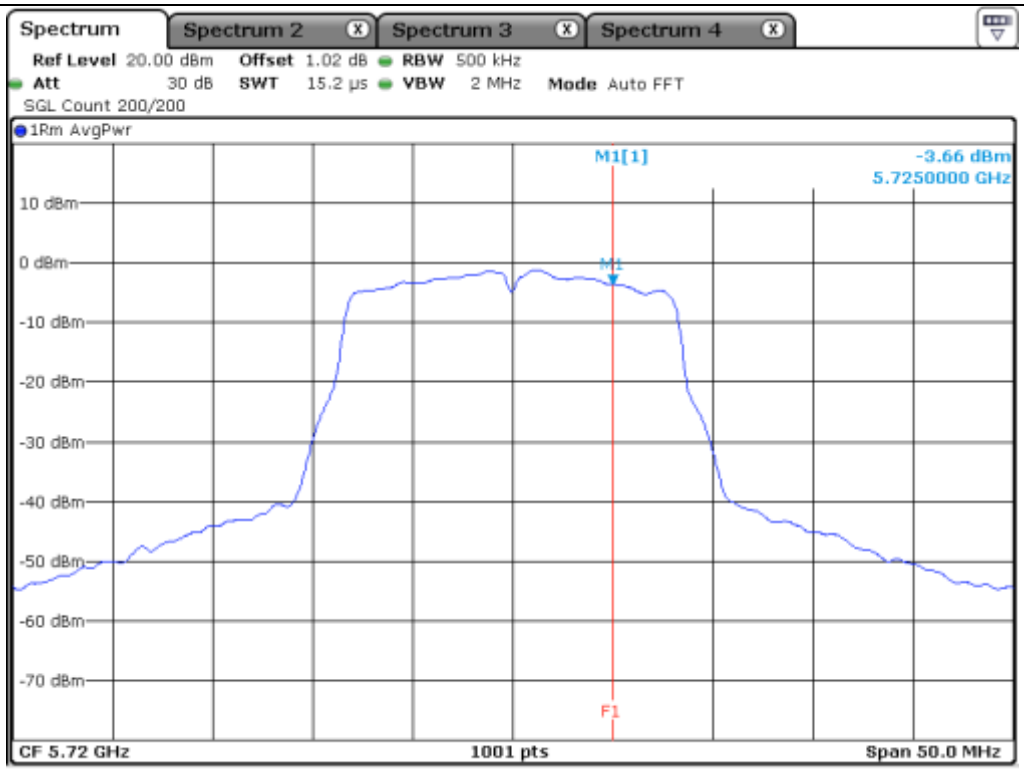
-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	1.17	11.00	9.83
5 725 ~ 5 850	5 720.00	-3.66	30.00	33.66

Remark: See next page for measurement data.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)





ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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	5.03	11.00	5.97
5 725 ~ 5 850	5 720.00	0.09	30.00	29.91

10.5 Test data for 802.11n_HT20 RLAN Mode

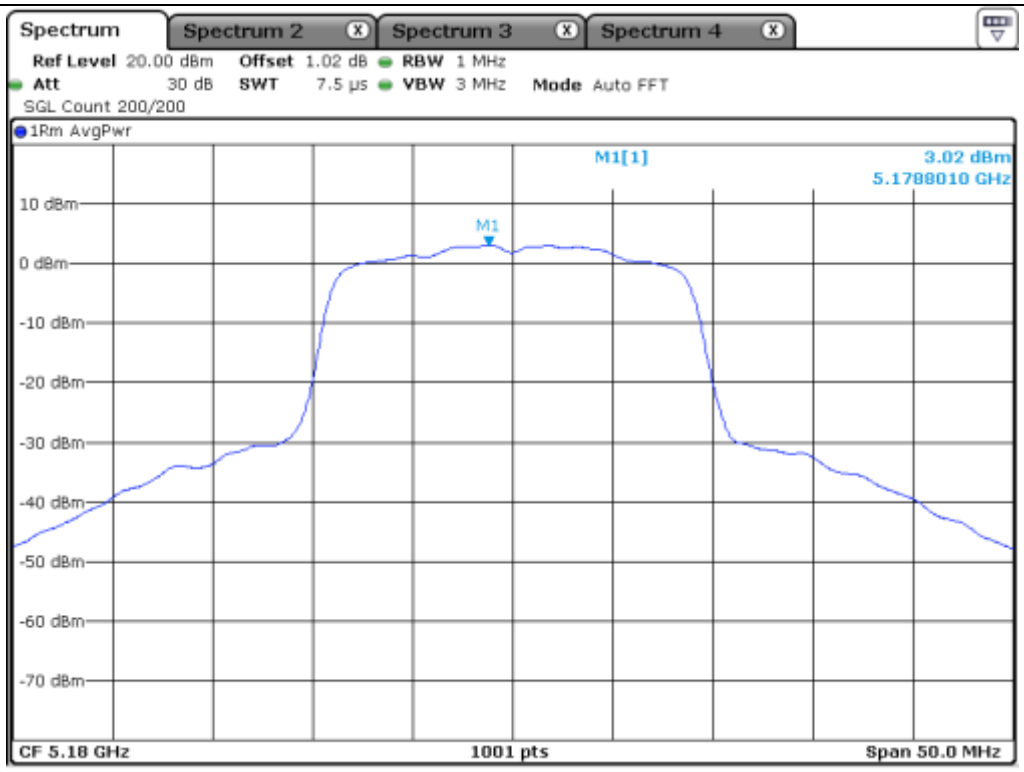
10.5.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

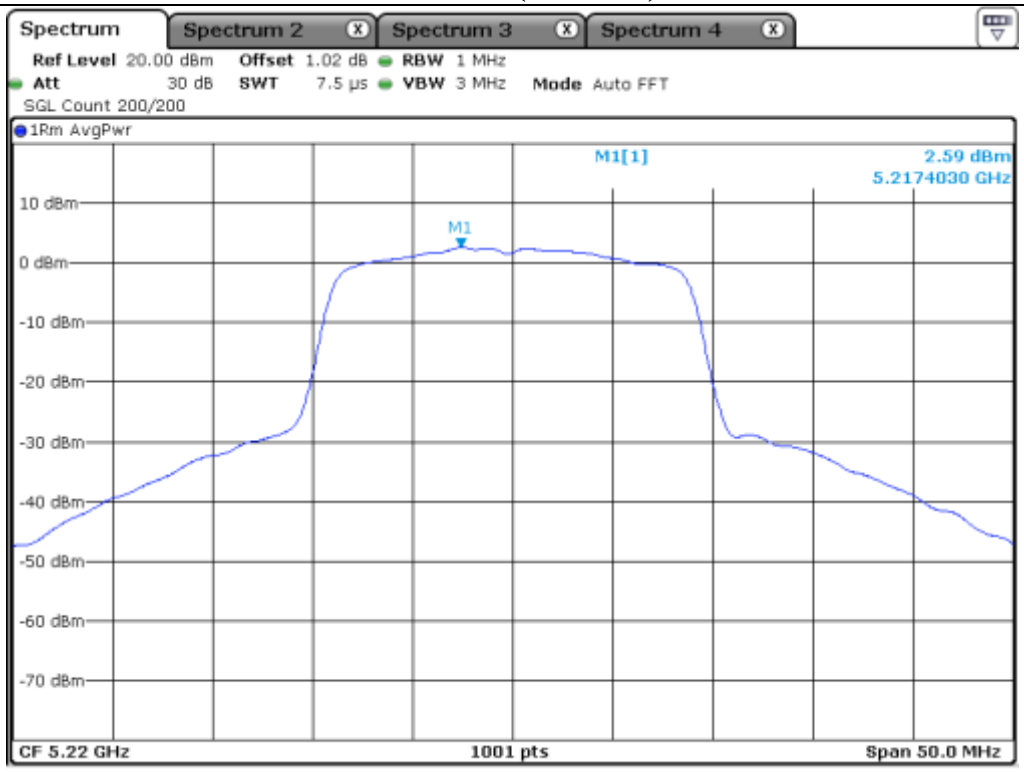
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	3.02	11.00	7.98
	Middle	5 220.00	2.59	11.00	8.41
	High	5 240.00	2.52	11.00	8.48
5 250 ~ 5 350	Low	5 260.00	2.78	11.00	8.22
	Middle	5 300.00	3.05	11.00	7.95
	High	5 320.00	2.97	11.00	8.03
5 470 ~ 5 725	Low	5 500.00	2.79	11.00	8.21
	Middle	5 580.00	2.54	11.00	8.46
	High	5 700.00	2.20	11.00	8.80
5 725 ~ 5 850	Low	5 745.00	-1.13	30.00	31.13
	Middle	5 785.00	-0.42	30.00	30.42
	High	5 825.00	-0.51	30.00	30.51

Remark: See next page for measurement data.

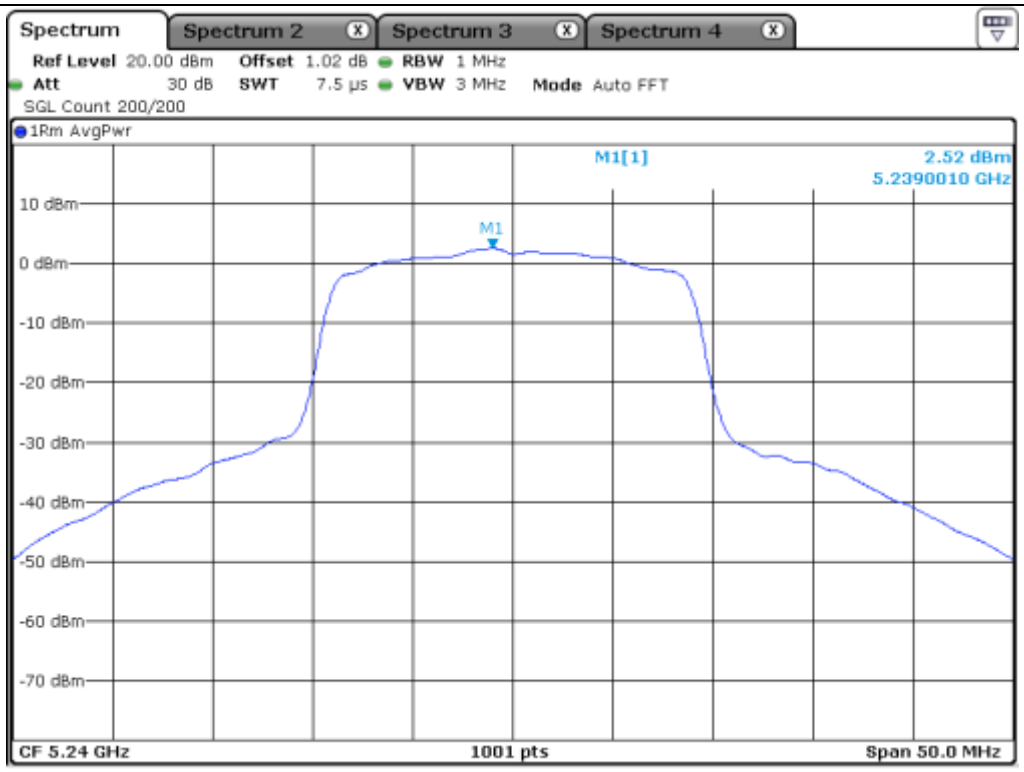


Low Channel (5 180 MHz)



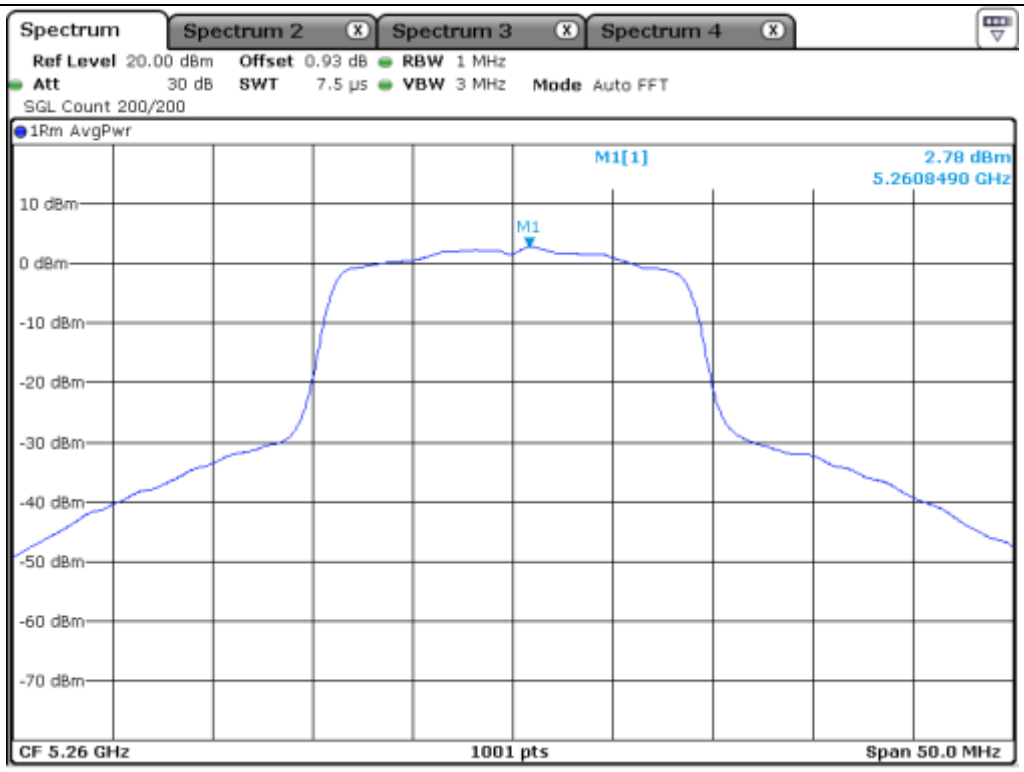
Middle Channel (5 220 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

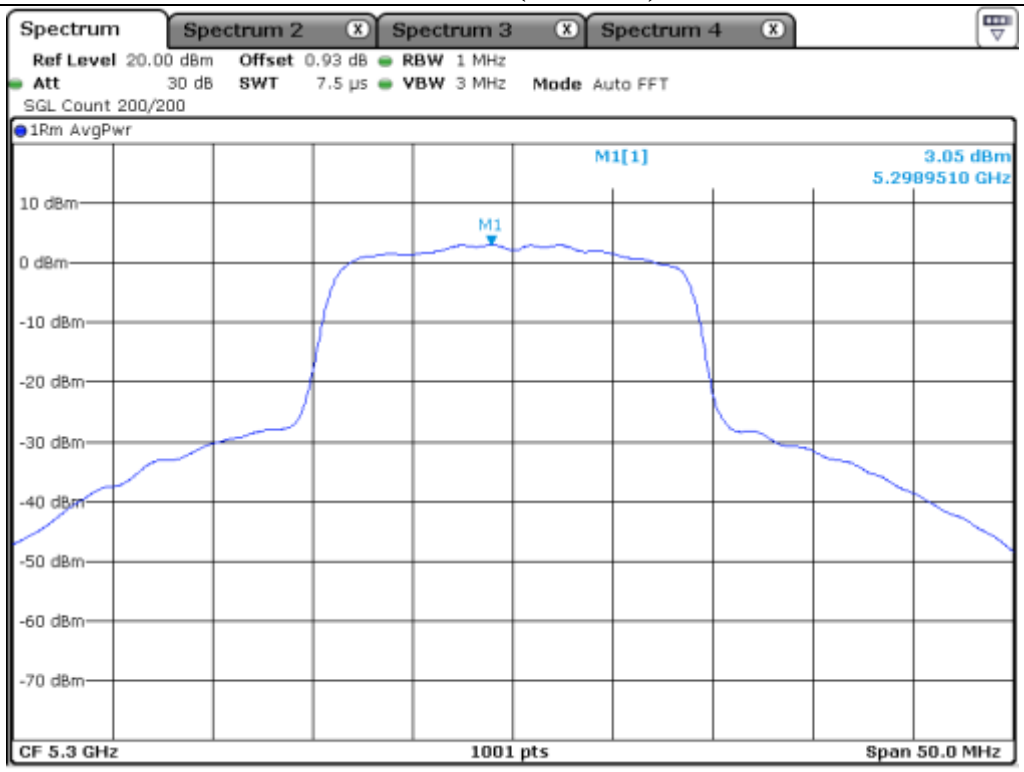


High Channel (5 240 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

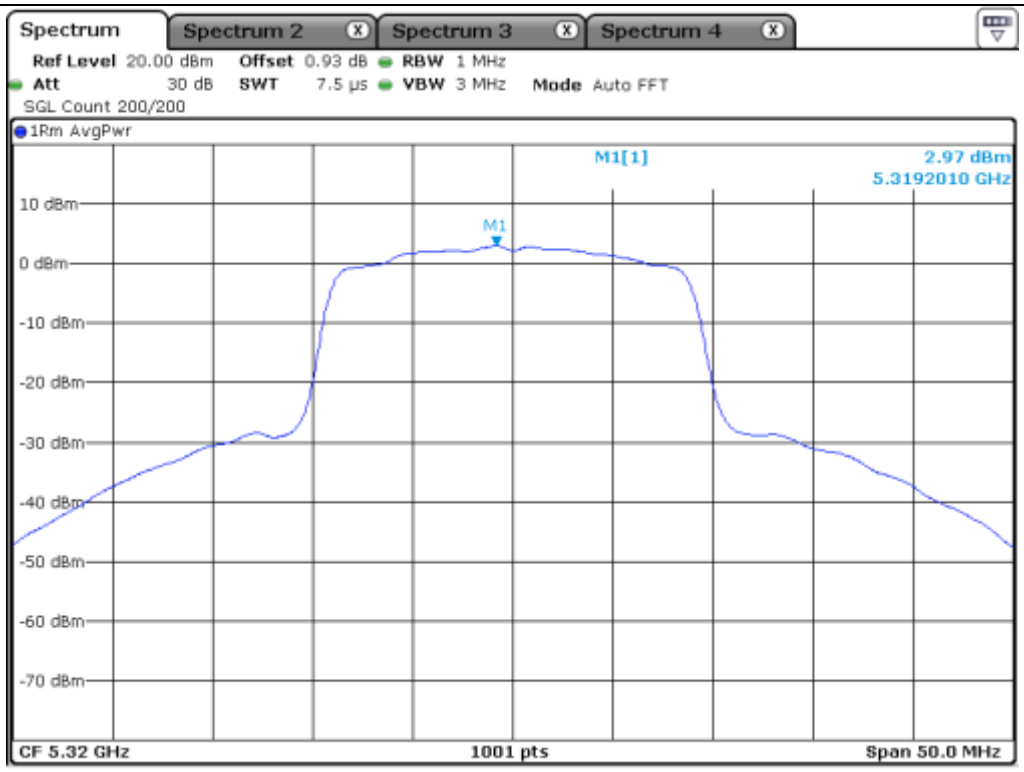


Low Channel (5 260 MHz)



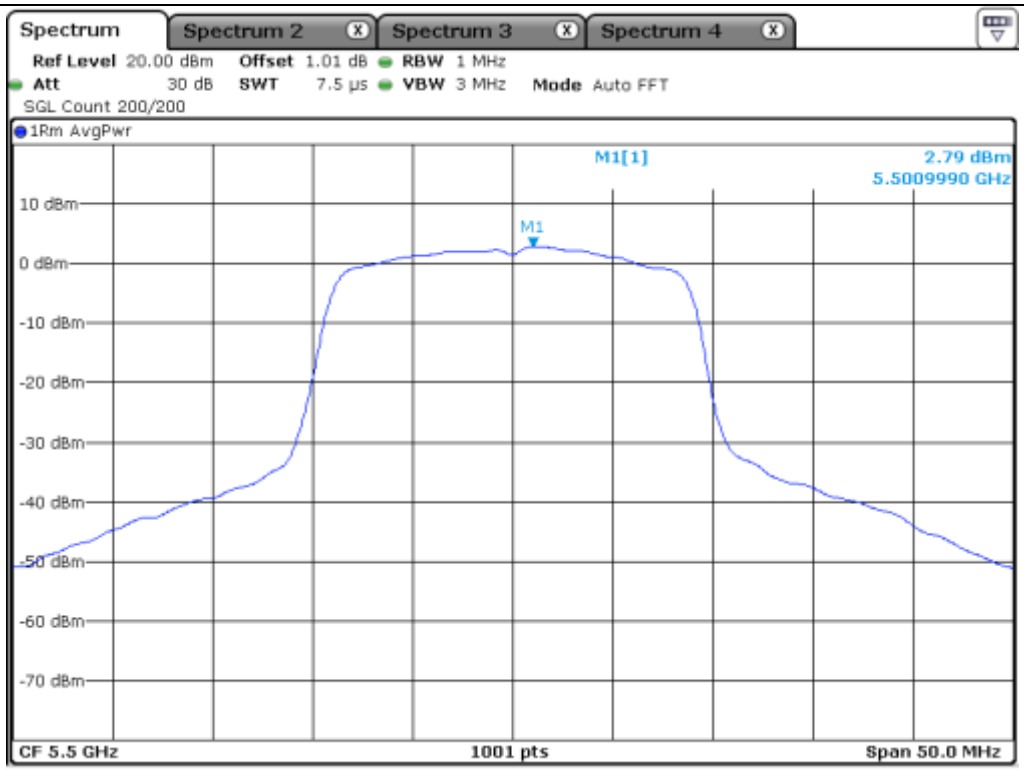
Middle Channel (5 300 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

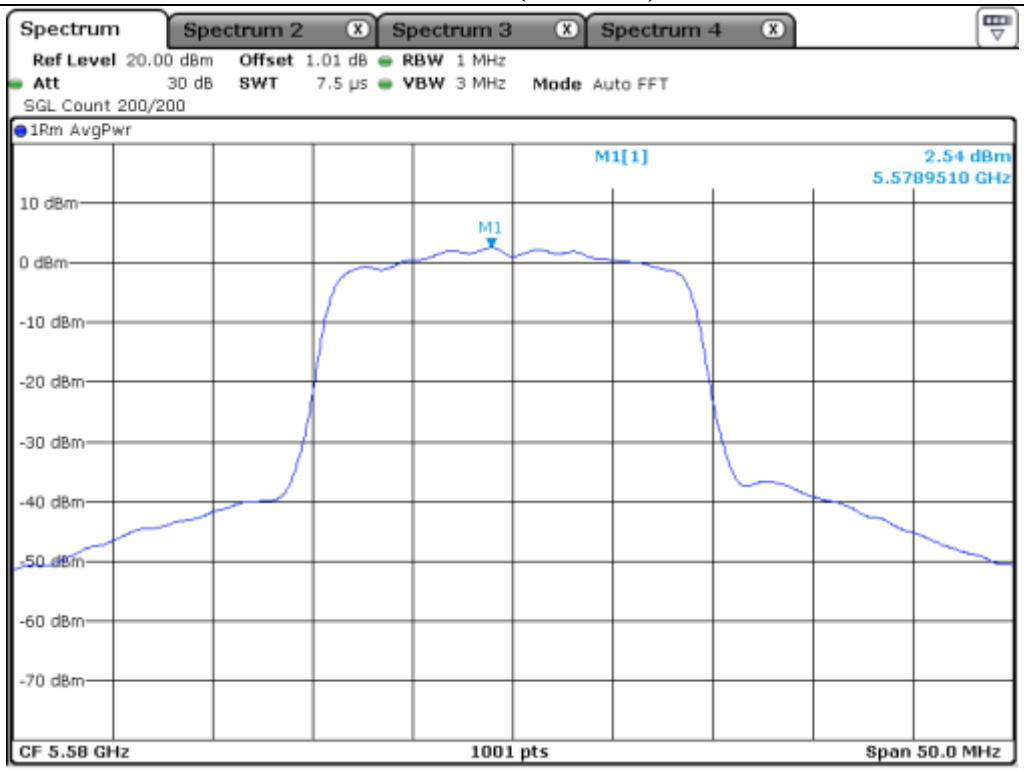


High Channel (5 320 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

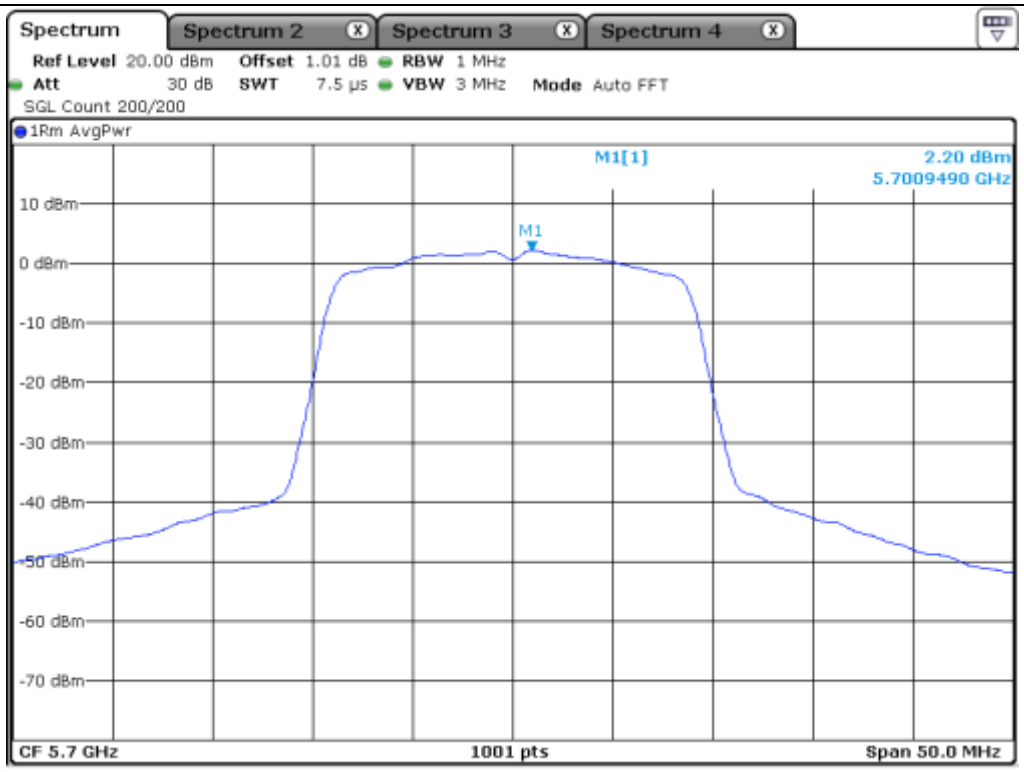


Low Channel (5 500 MHz)



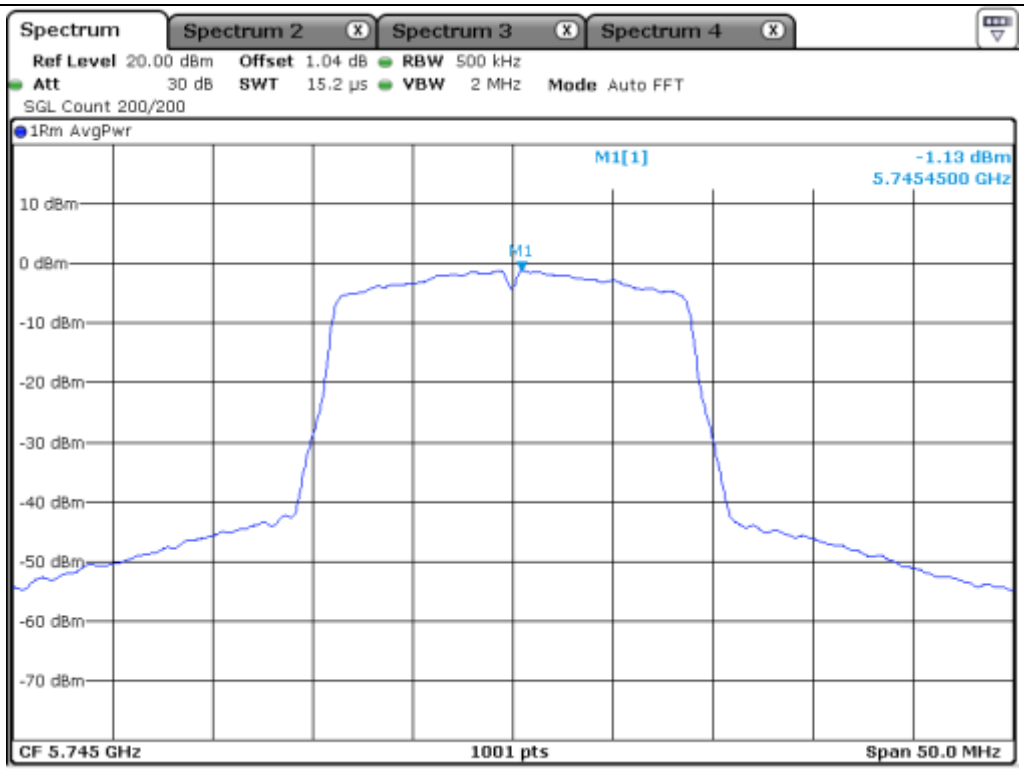
Middle Channel (5 580 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

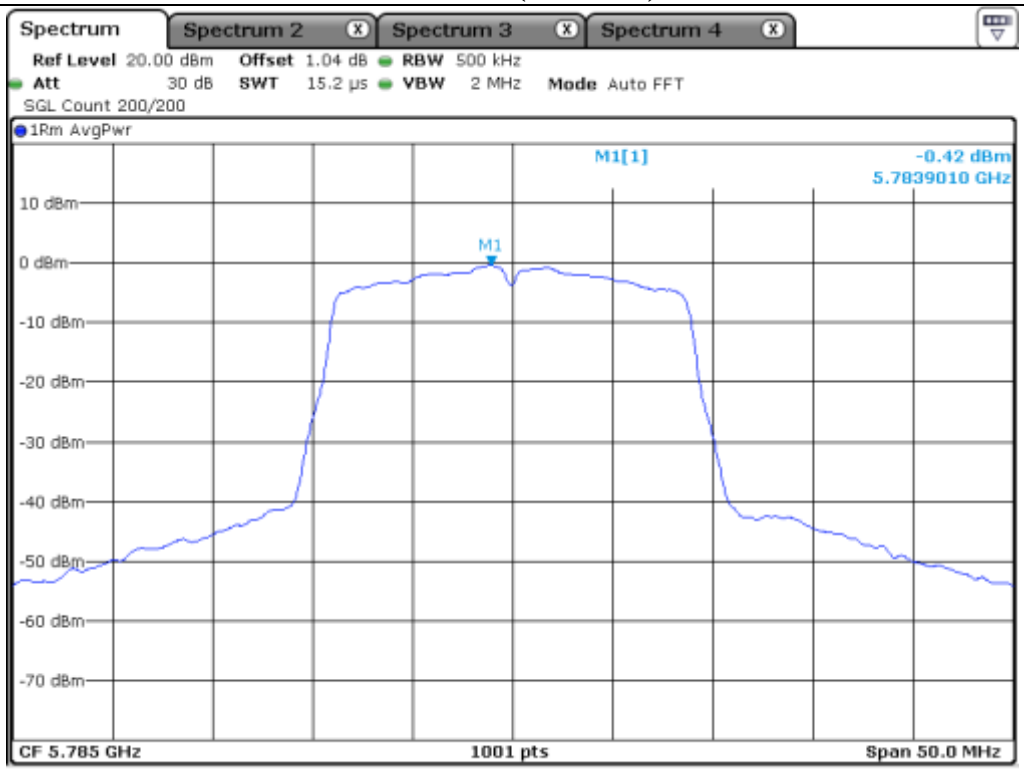


High Channel (5 700 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

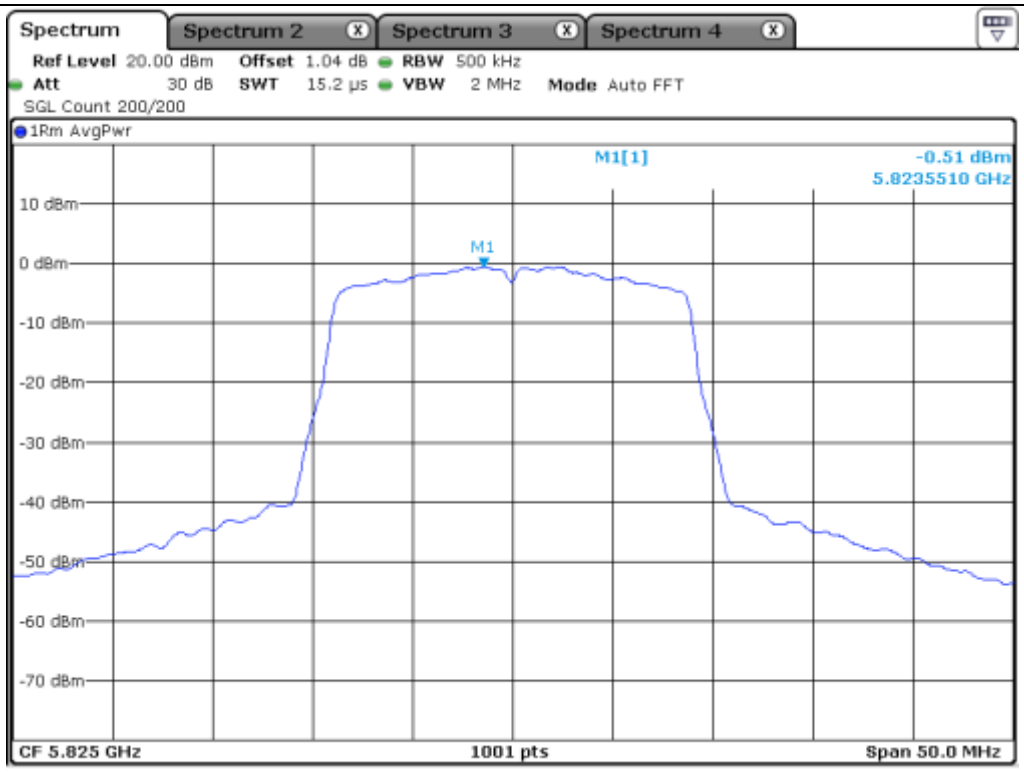


Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 825 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.5.2 Test data for Antenna 1

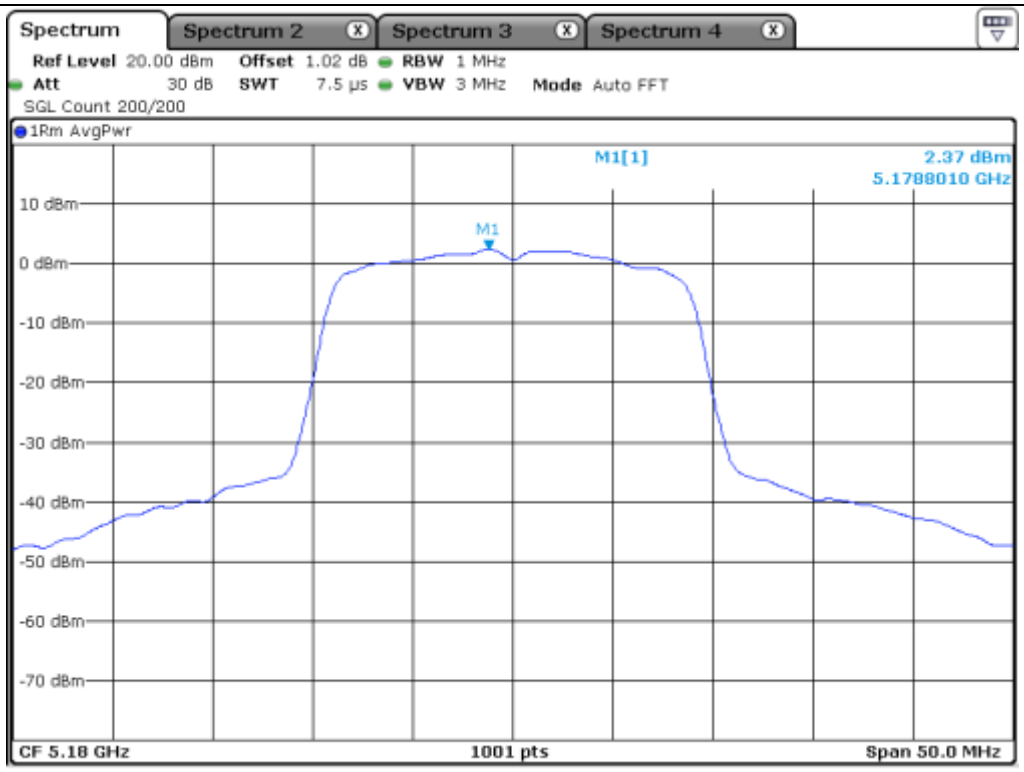
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

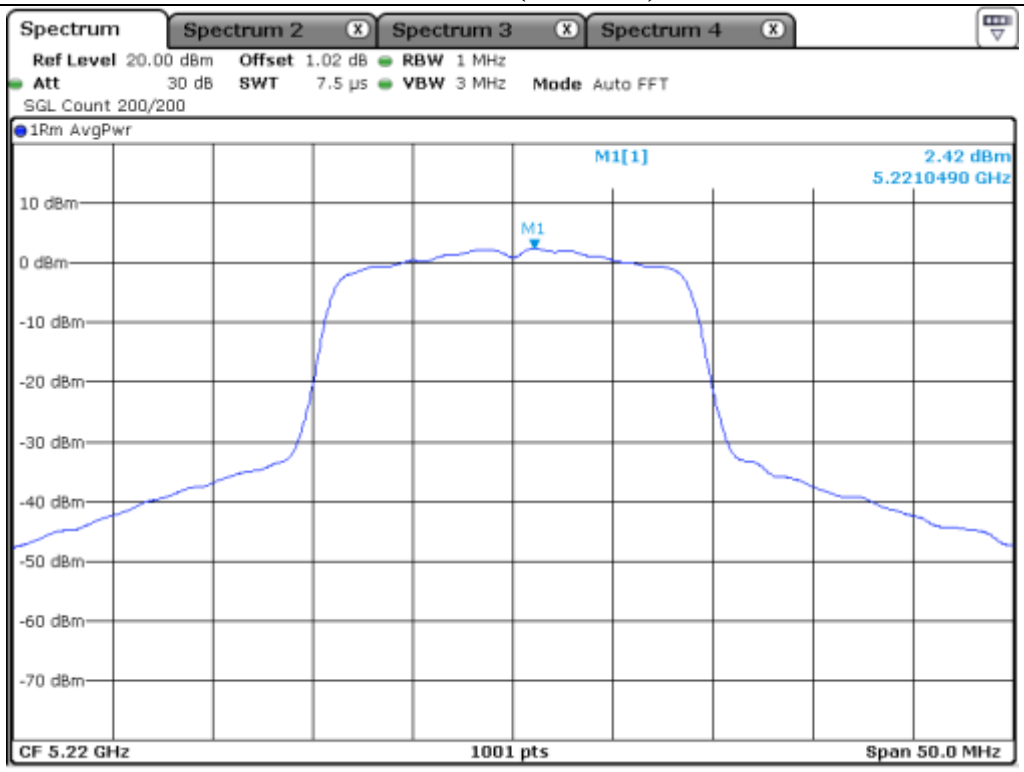
FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	2.37	11.00	8.63
	Middle	5 220.00	2.42	11.00	8.58
	High	5 240.00	2.50	11.00	8.50
5 250 ~ 5 350	Low	5 260.00	2.66	11.00	8.34
	Middle	5 300.00	2.40	11.00	8.60
	High	5 320.00	2.27	11.00	8.73
5 470 ~ 5 725	Low	5 500.00	1.83	11.00	9.17
	Middle	5 580.00	1.77	11.00	9.23
	High	5 700.00	1.50	11.00	9.50
5 725 ~ 5 850	Low	5 745.00	-1.84	30.00	31.84
	Middle	5 785.00	-1.85	30.00	31.85
	High	5 825.00	-2.05	30.00	32.05

Remark: See next page for measurement data.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

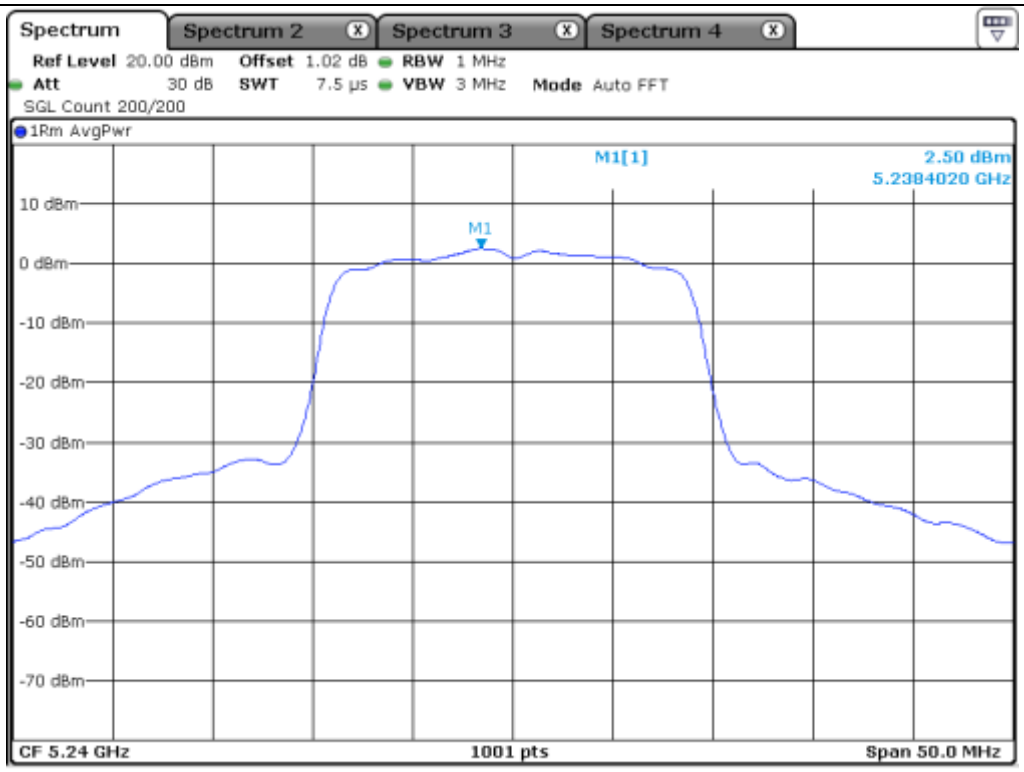


Low Channel (5 180 MHz)



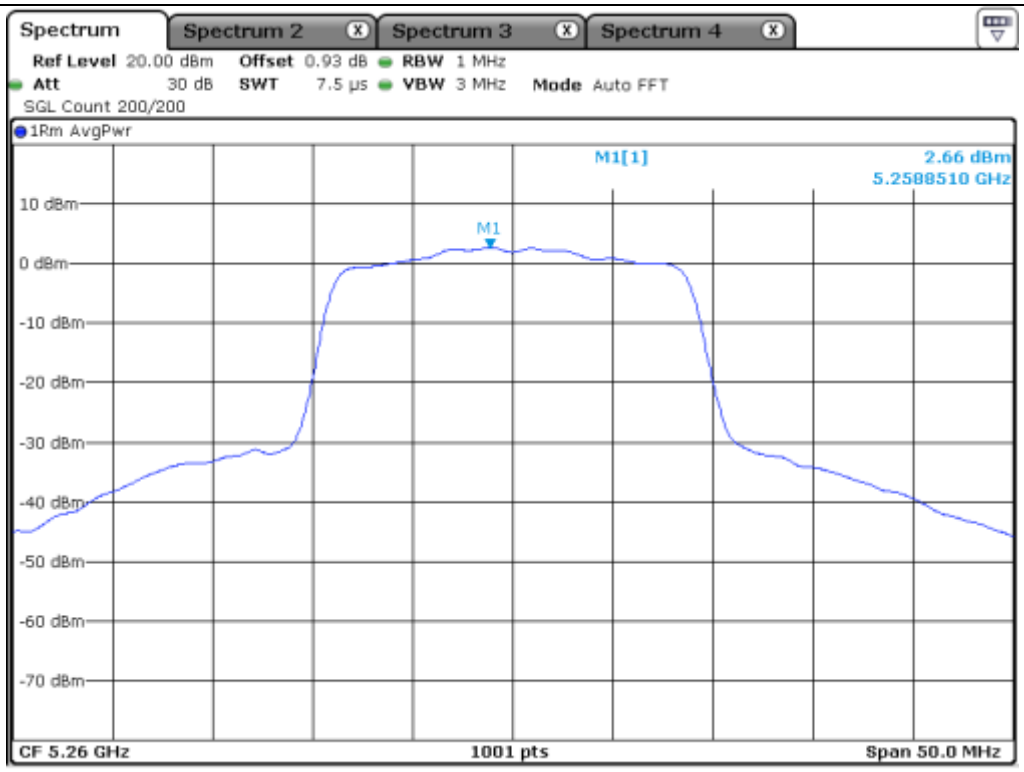
Middle Channel (5 220 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

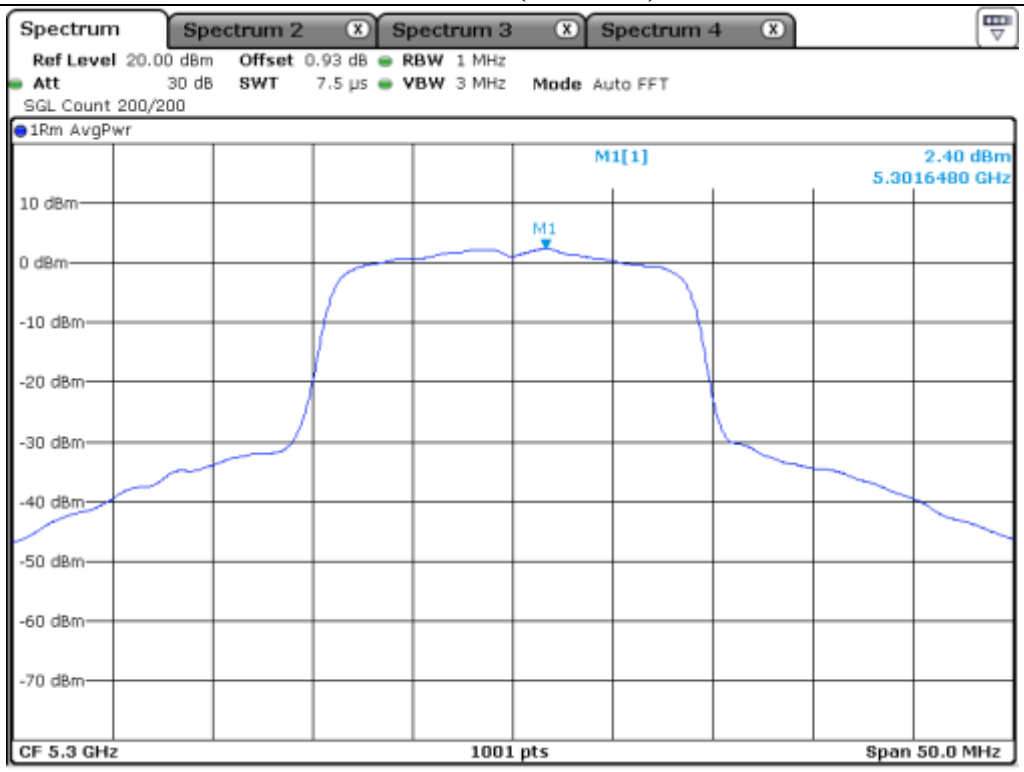


High Channel (5 240 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

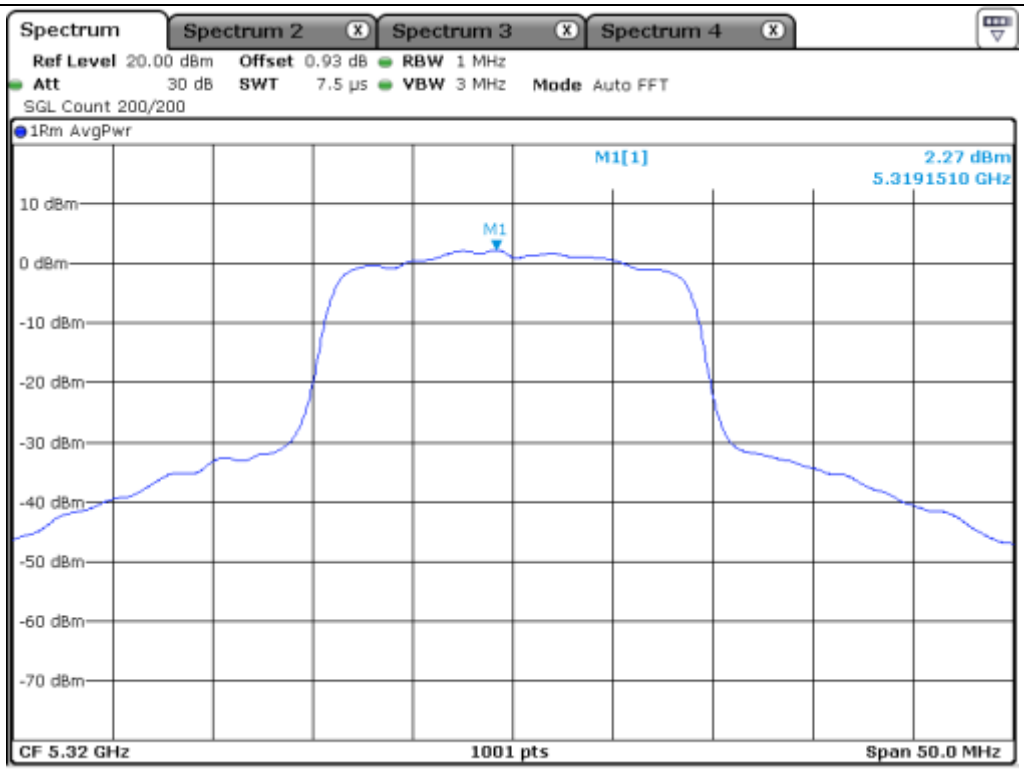


Low Channel (5 260 MHz)



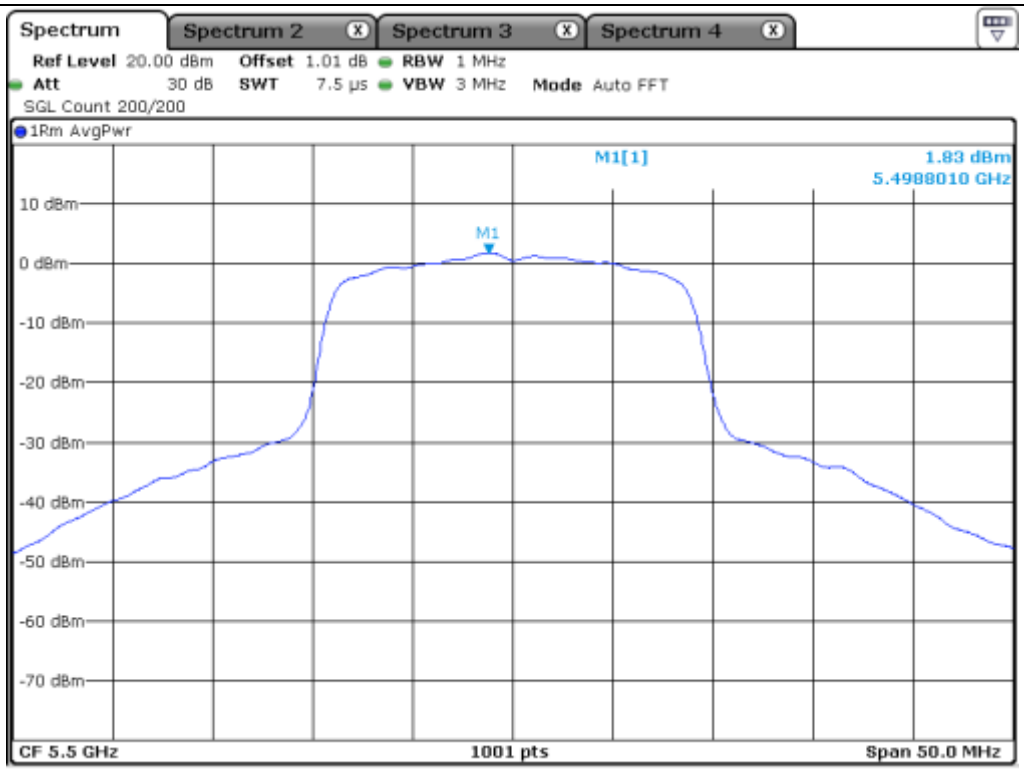
Middle Channel (5 300 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

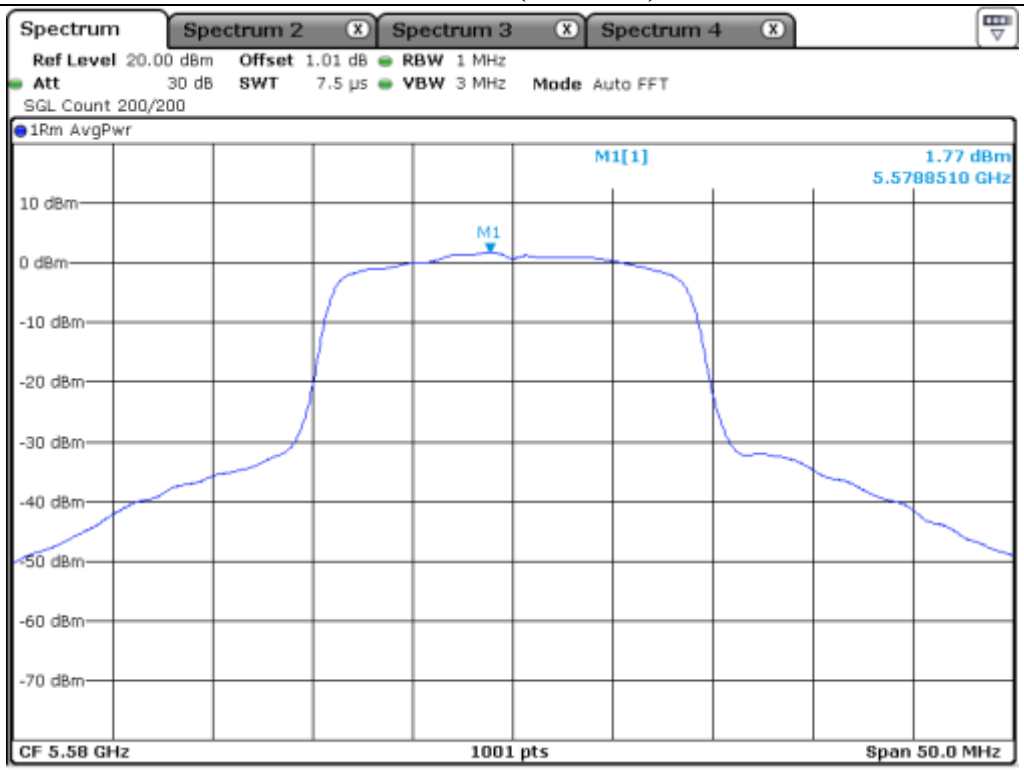


High Channel (5 320 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

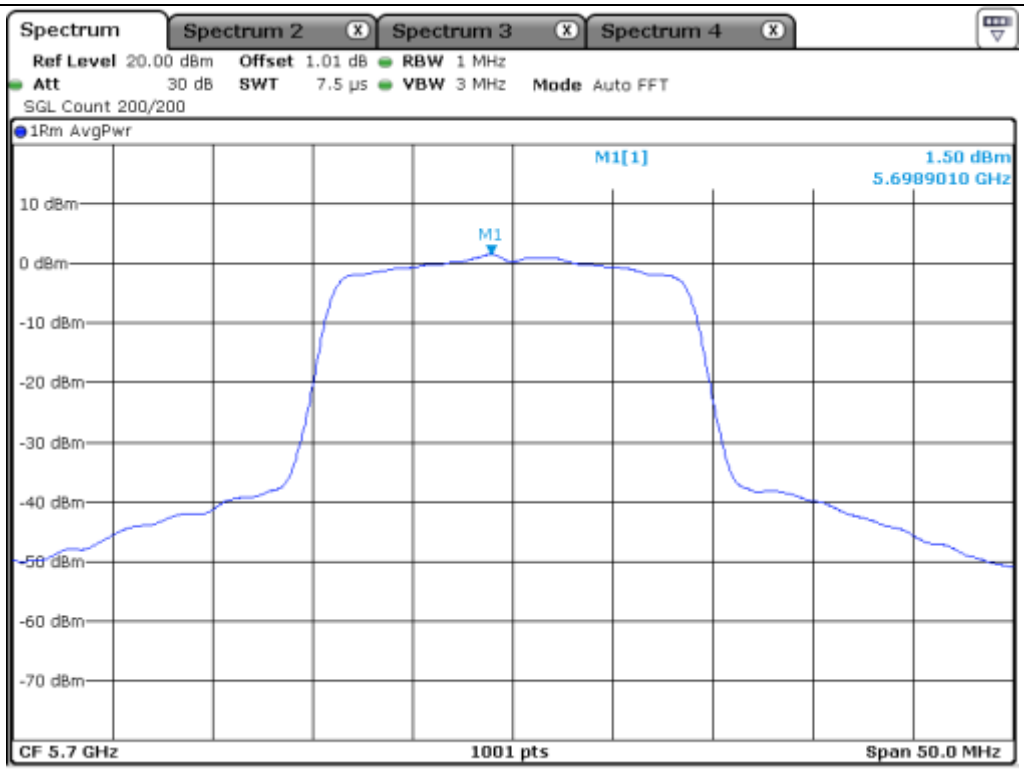


Low Channel (5 500 MHz)



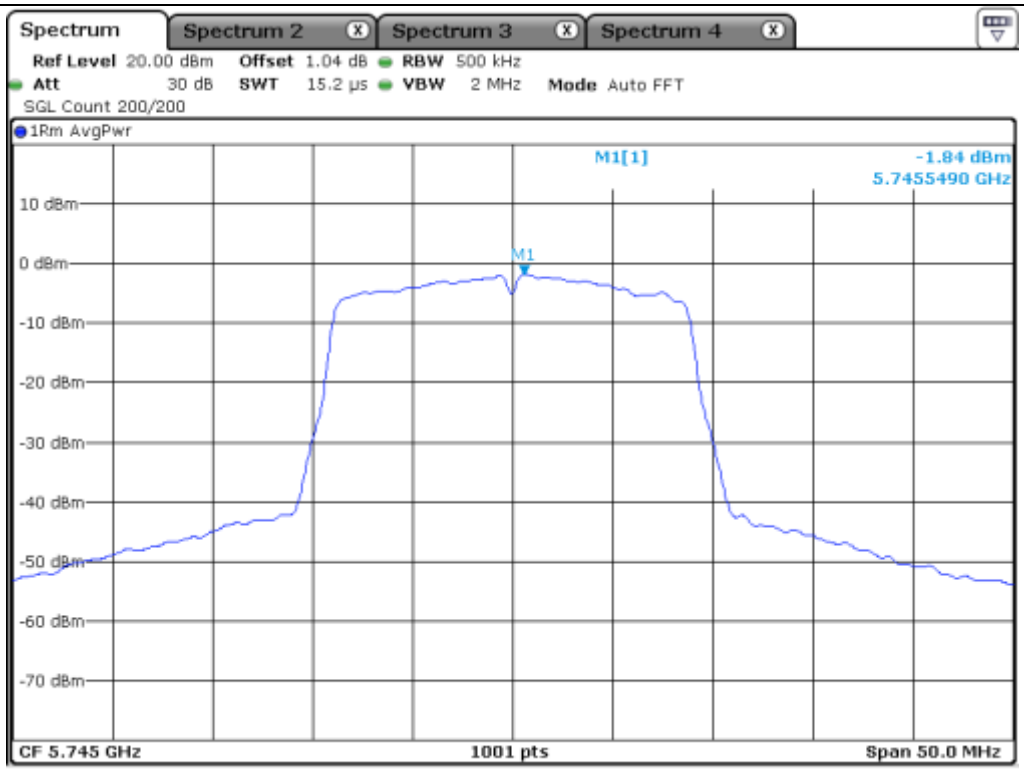
Middle Channel (5 580 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

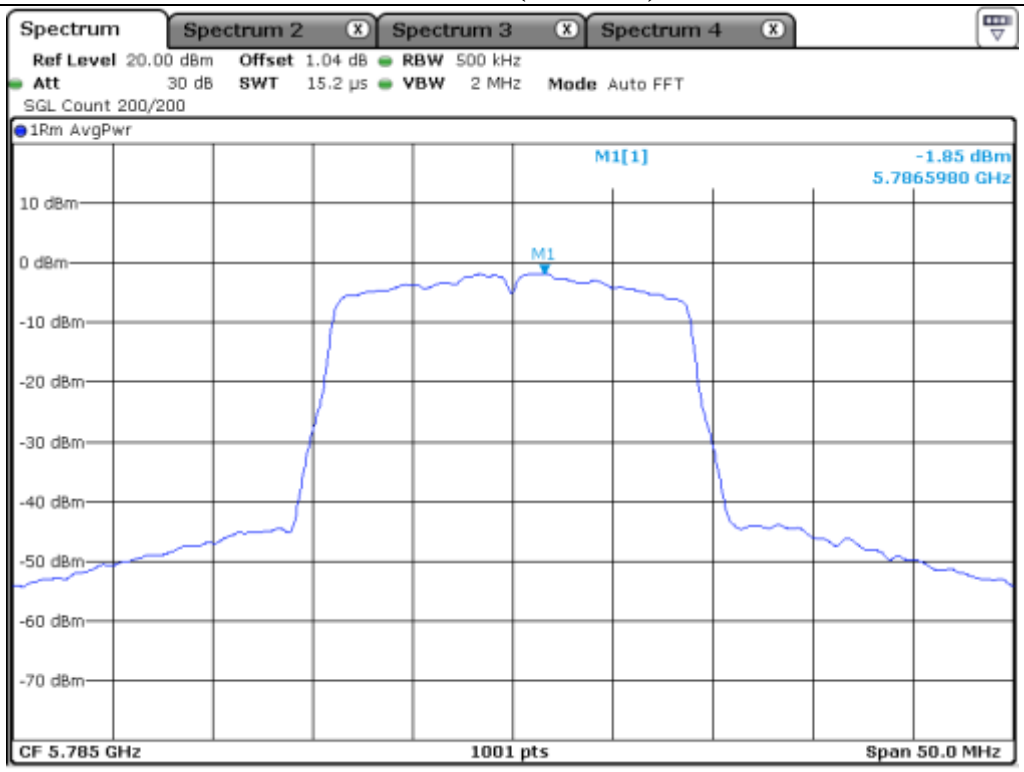


High Channel (5 700 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

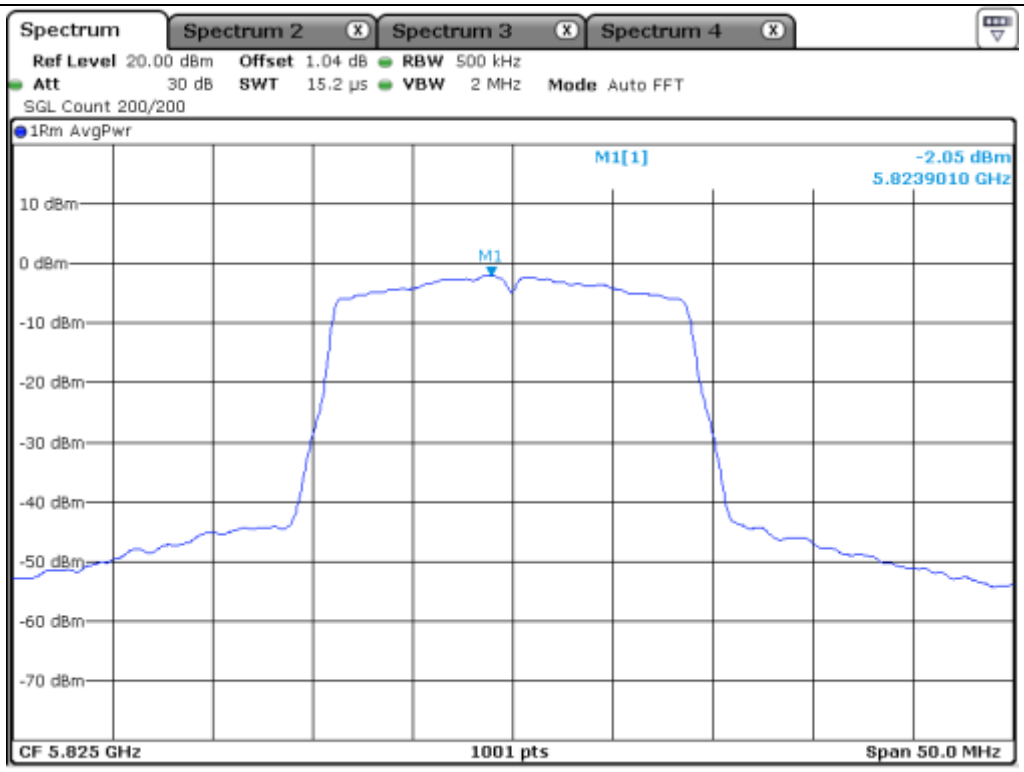


Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 825 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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	5.72	11.00	5.28
	Middle	5 220.00	5.52	11.00	5.48
	High	5 240.00	5.52	11.00	5.48
5 250 ~ 5 350	Low	5 260.00	5.73	11.00	5.27
	Middle	5 300.00	5.75	11.00	5.25
	High	5 320.00	5.64	11.00	5.36
5 470 ~ 5 725	Low	5 500.00	5.35	11.00	5.65
	Middle	5 580.00	5.18	11.00	5.82
	High	5 700.00	4.87	11.00	6.13
5 725 ~ 5 850	Low	5 745.00	1.54	30.00	28.46
	Middle	5 785.00	1.93	30.00	28.07
	High	5 825.00	1.80	30.00	28.20

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

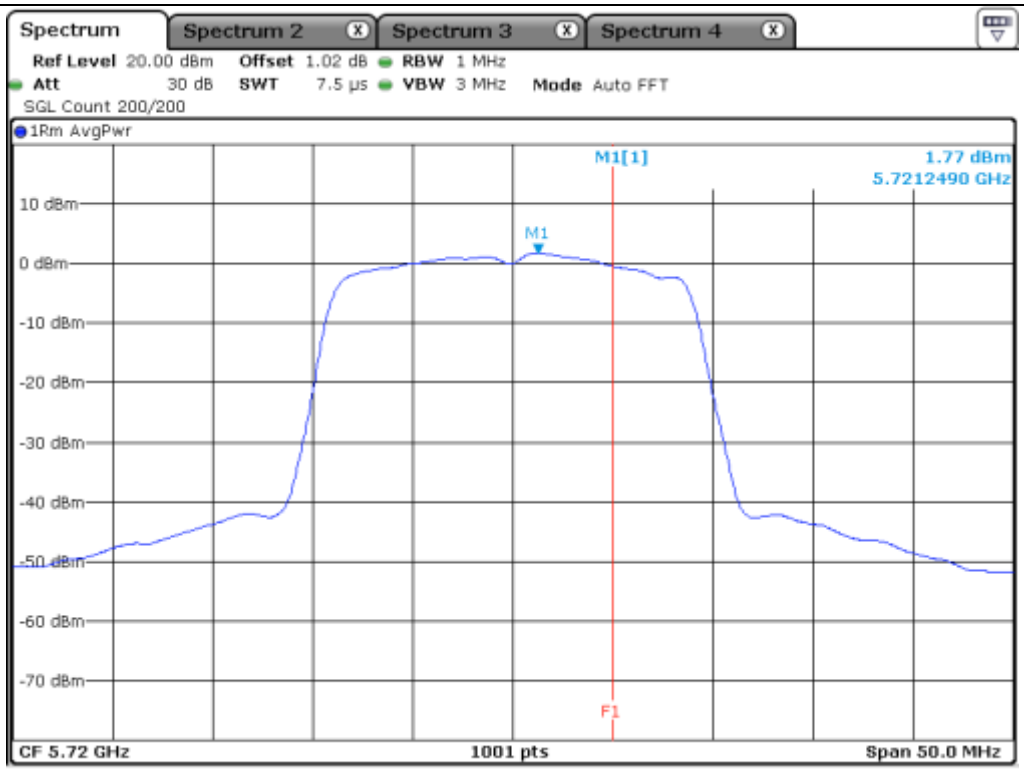
10.5.4 Test data for Staddle Channel_Antenna 0

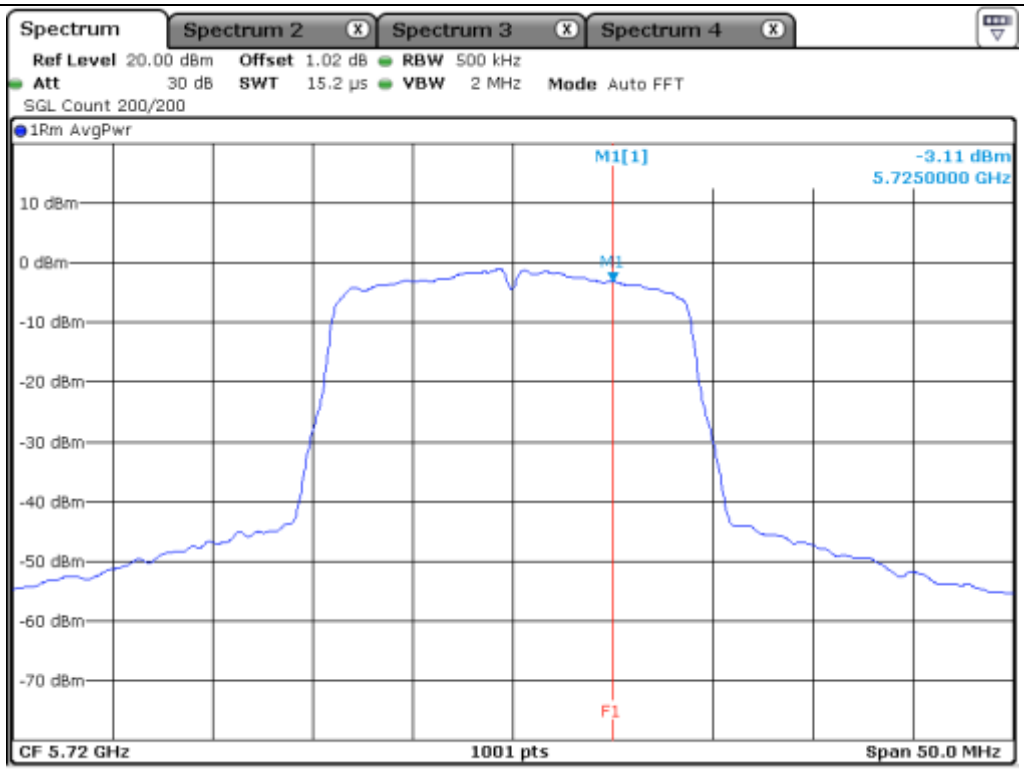
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	1.77	11.00	9.23
5 725 ~ 5 850	5 720.00	-3.11	30.00	33.11

Remark: See next page for measurement data.





ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.5.5 Test data for Staddle Channel_Antenna 1

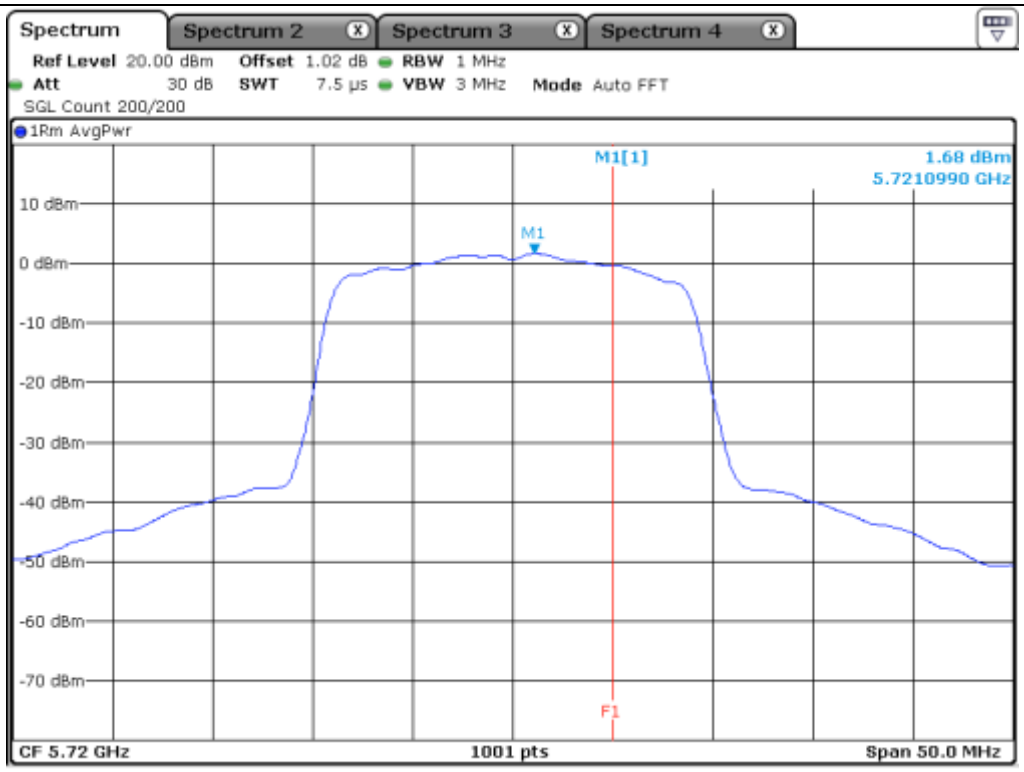
-. Operating condition : Highest Output Power Transmitting Mode

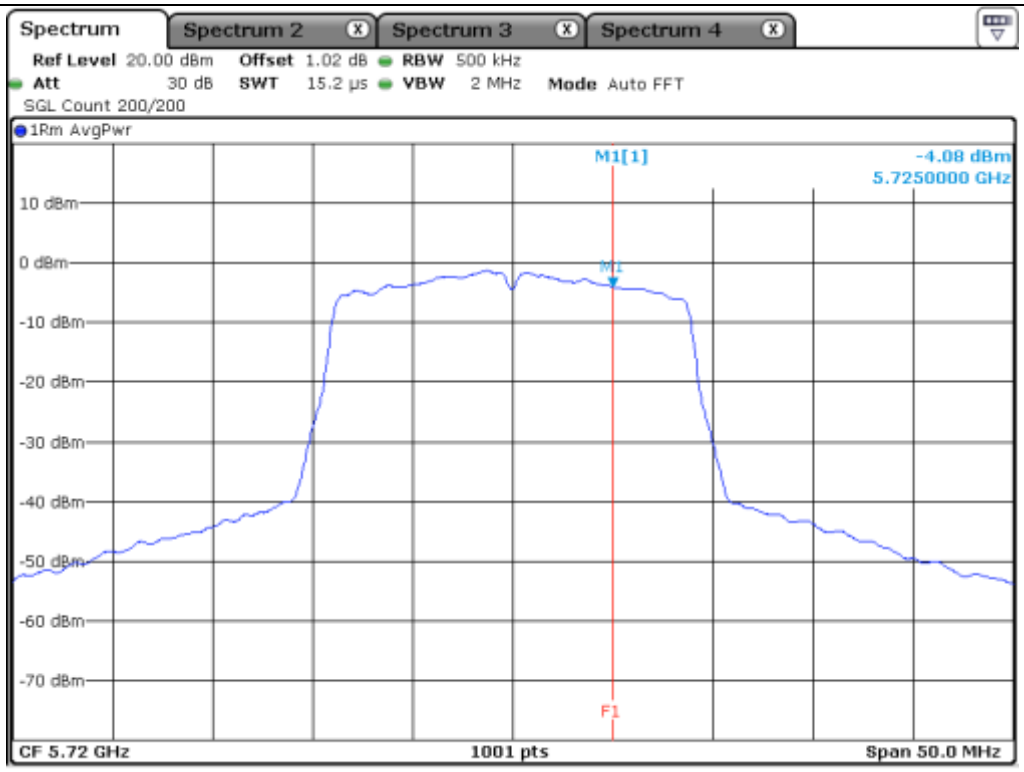
-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 720.00	1.68	11.00	9.32
5 725 ~ 5 850	5 720.00	-4.08	30.00	34.08

Remark: See next page for measurement data.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)





ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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	4.74	11.00	6.26
5 725 ~ 5 850	5 720.00	-0.56	30.00	30.56

10.6 Test data for 802.11n_HT40 RLAN Mode

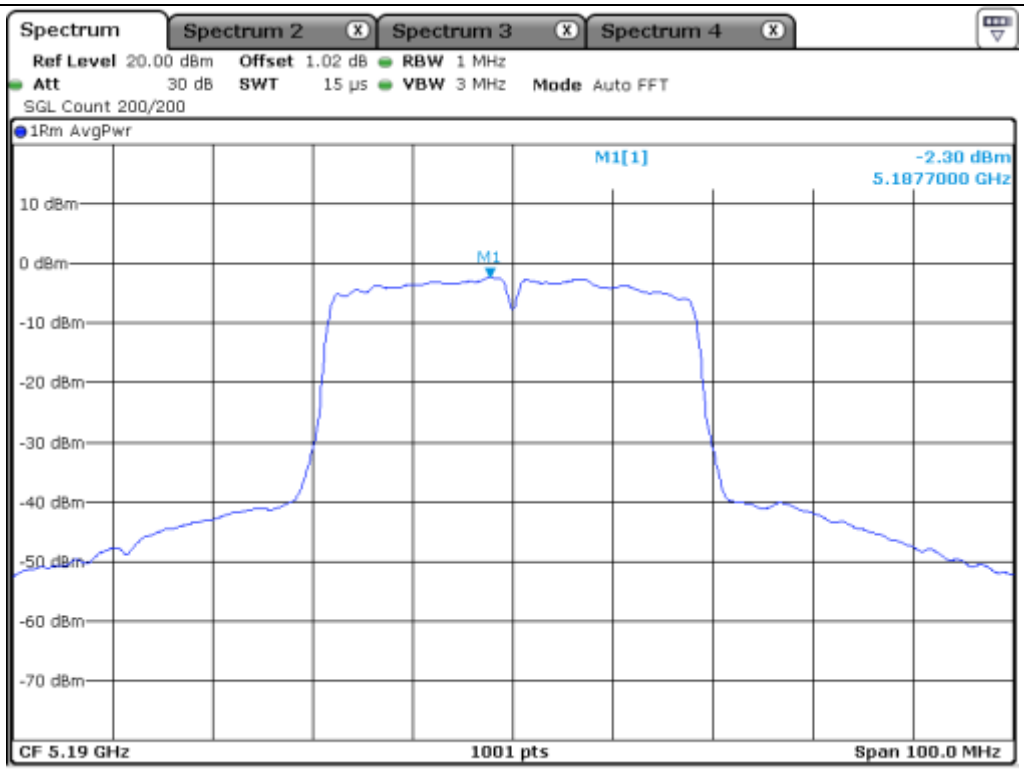
10.6.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

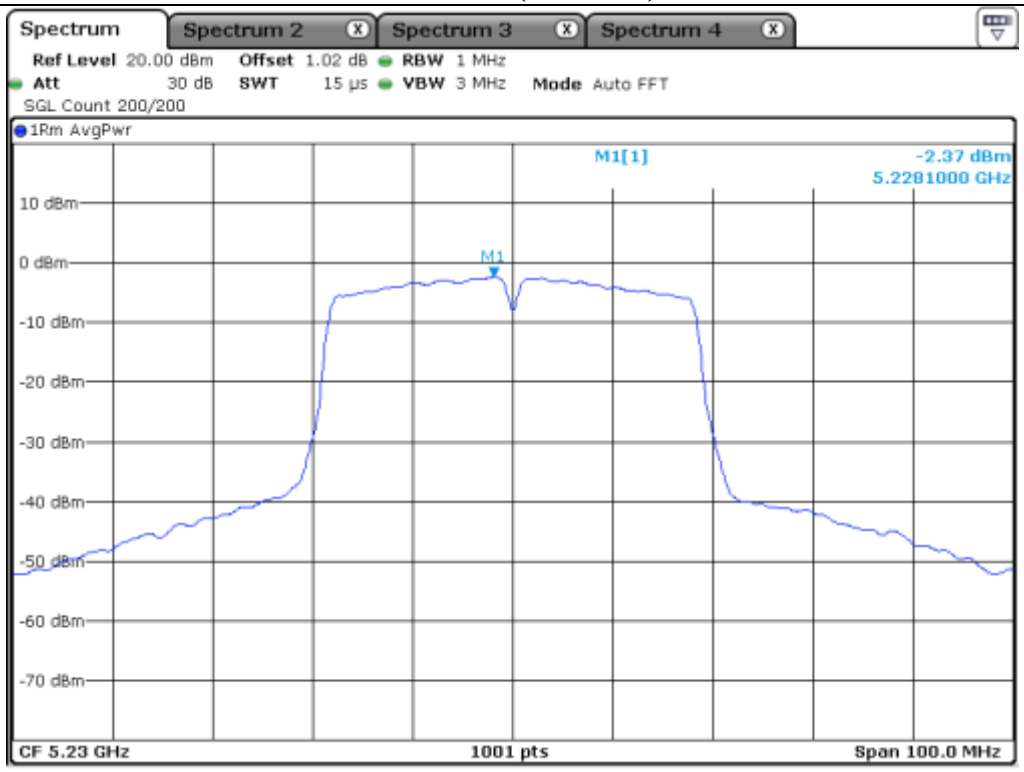
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	-2.30	11.00	13.30
	High	5 230.00	-2.37	11.00	13.37
5 250 ~ 5 350	Low	5 270.00	-2.11	11.00	13.11
	High	5 310.00	-1.95	11.00	12.95
5 470 ~ 5 725	Low	5 510.00	-1.15	11.00	12.15
	Middle	5 550.00	-1.90	11.00	12.90
	High	5 670.00	-2.21	11.00	13.21
5 725 ~ 5 850	Low	5 755.00	-4.72	30.00	34.72
	High	5 795.00	-5.32	30.00	35.32

Remark: See next page for measurement data.

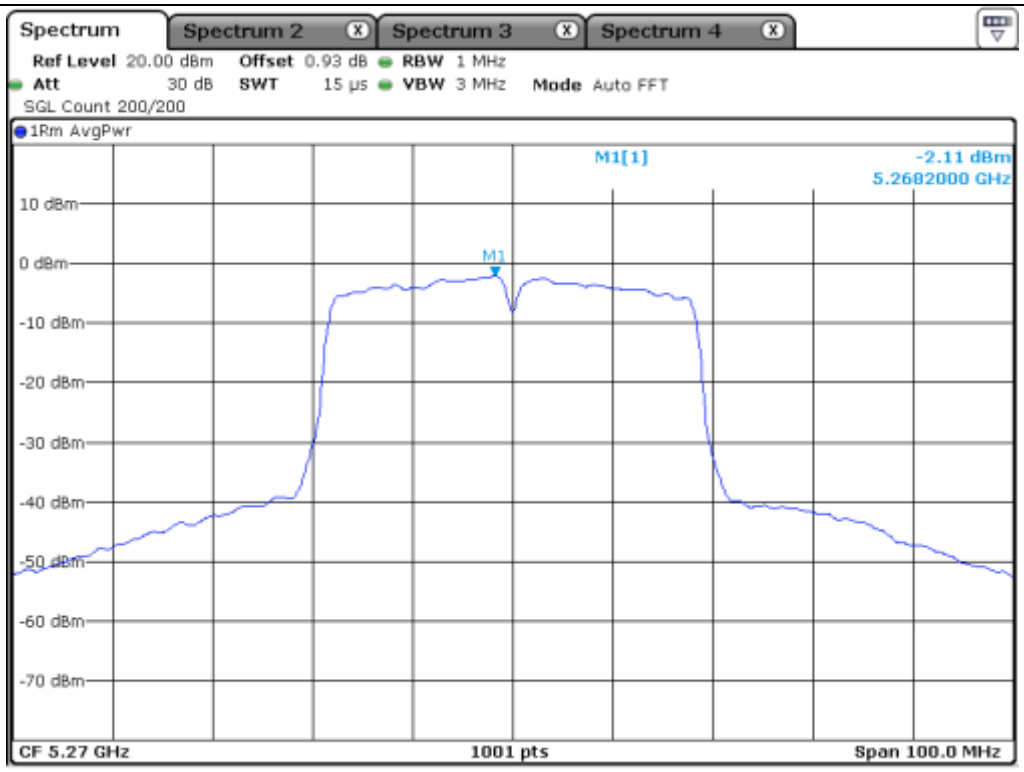


Low Channel (5 190 MHz)

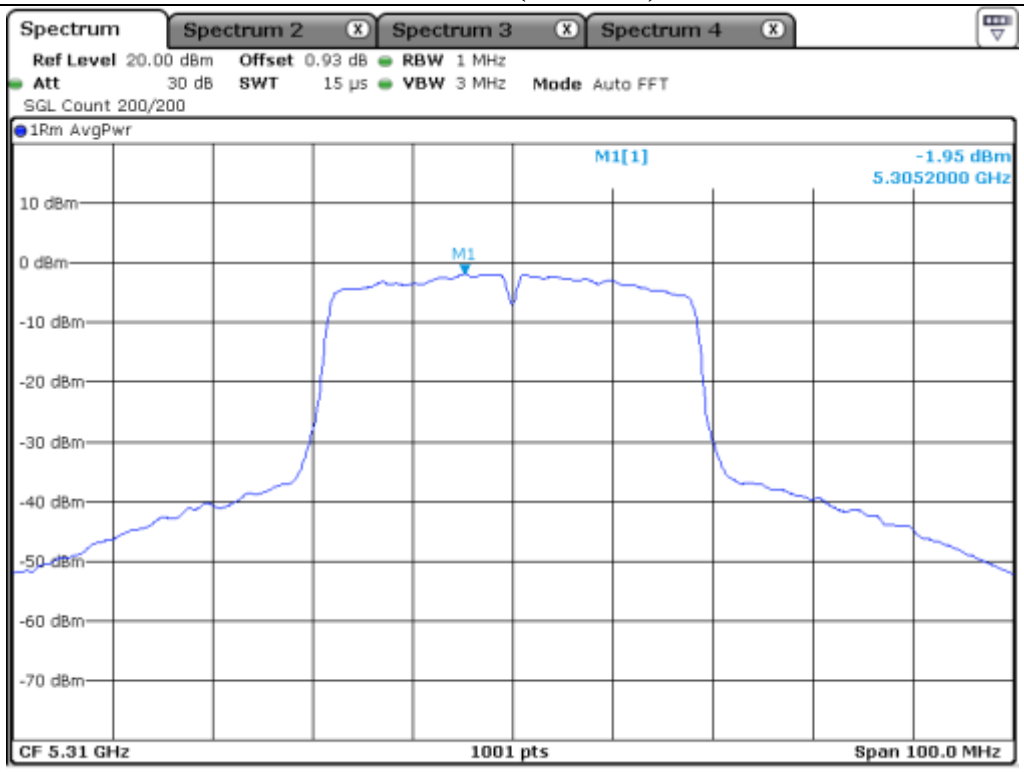


High Channel (5 230 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

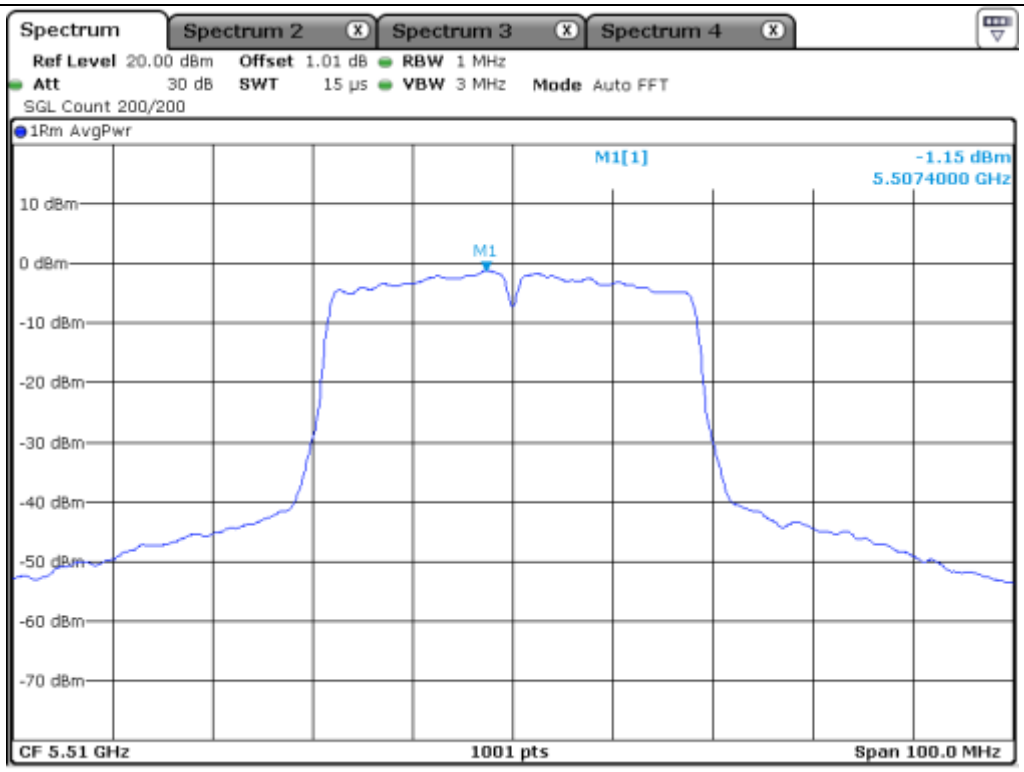


Low Channel (5 270 MHz)

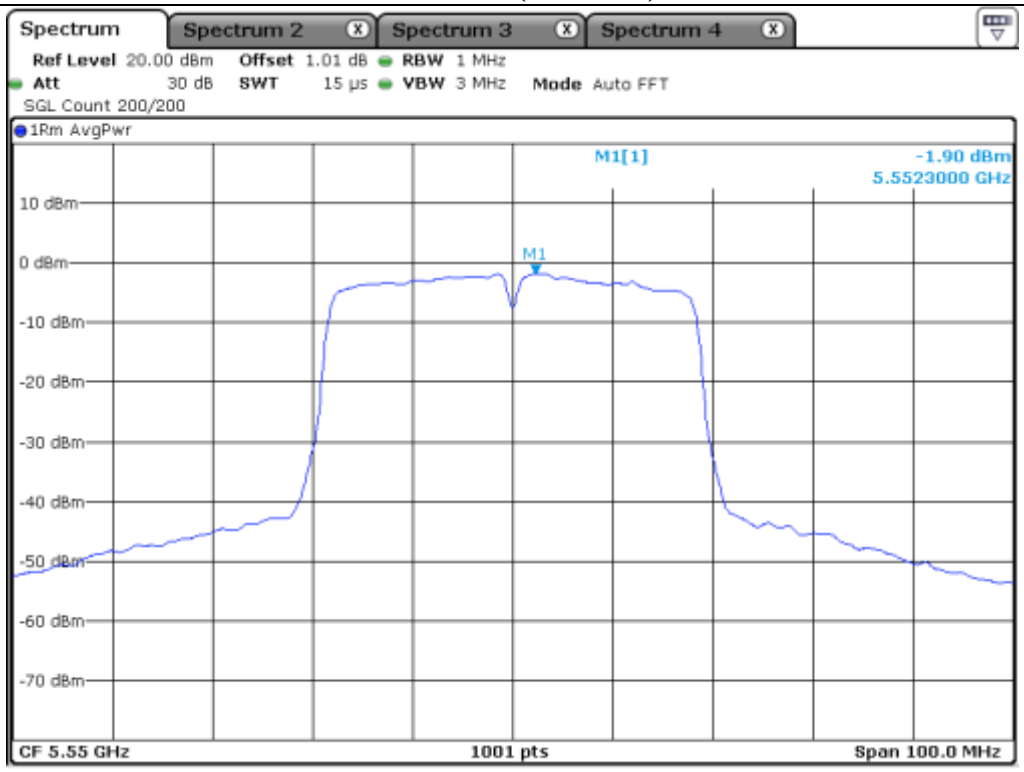


High Channel (5 310 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

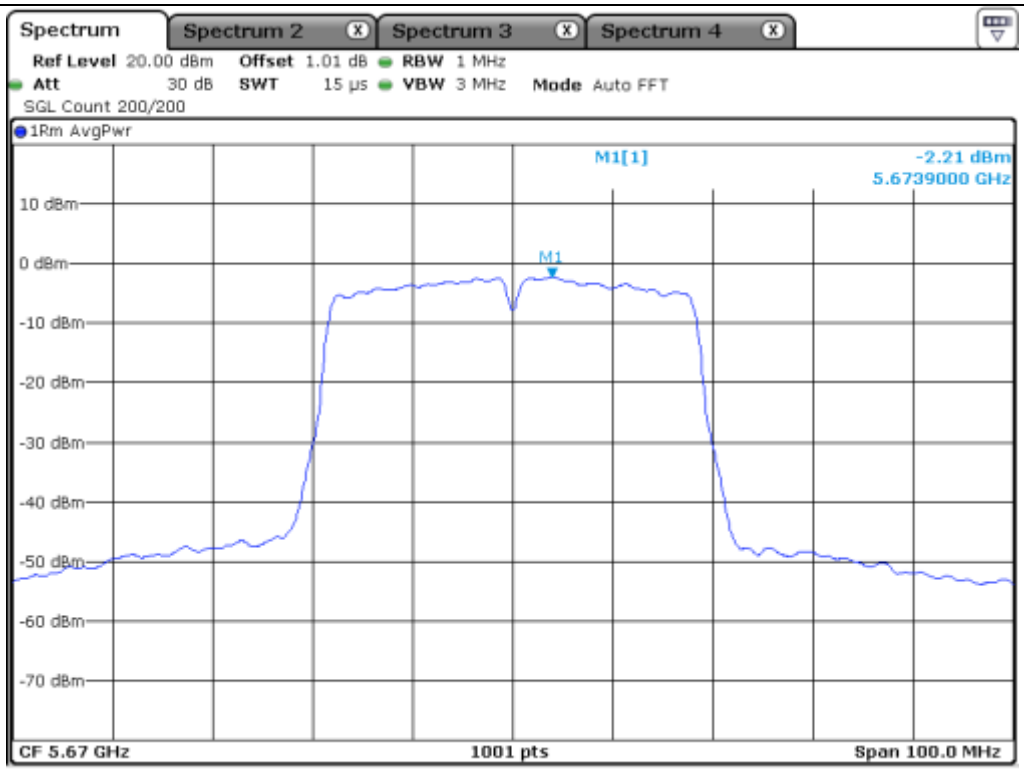


Low Channel (5 510 MHz)



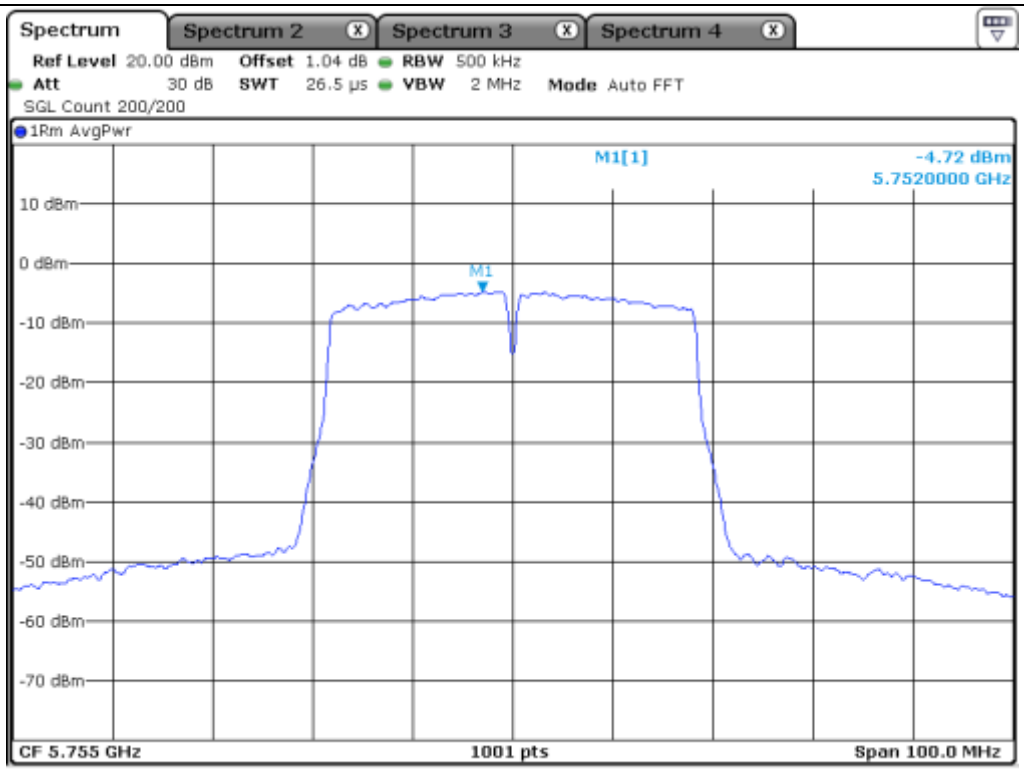
Middle Channel (5 550 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

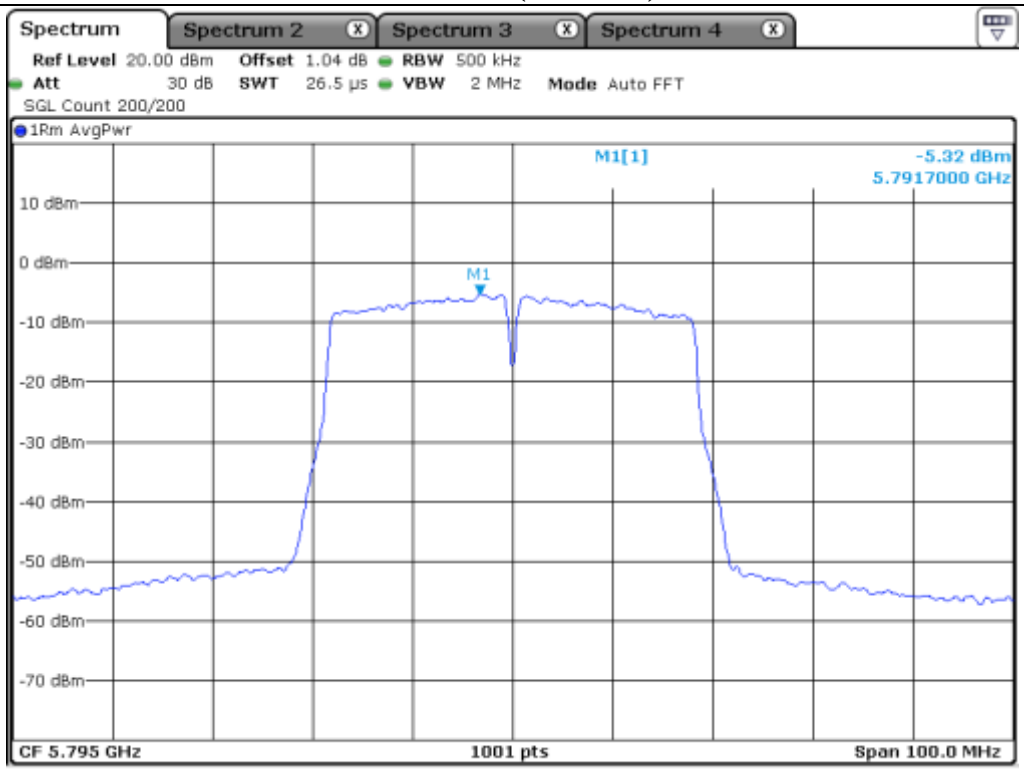


High Channel (5 670 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



Low Channel (5 755 MHz)



High Channel (5 795 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

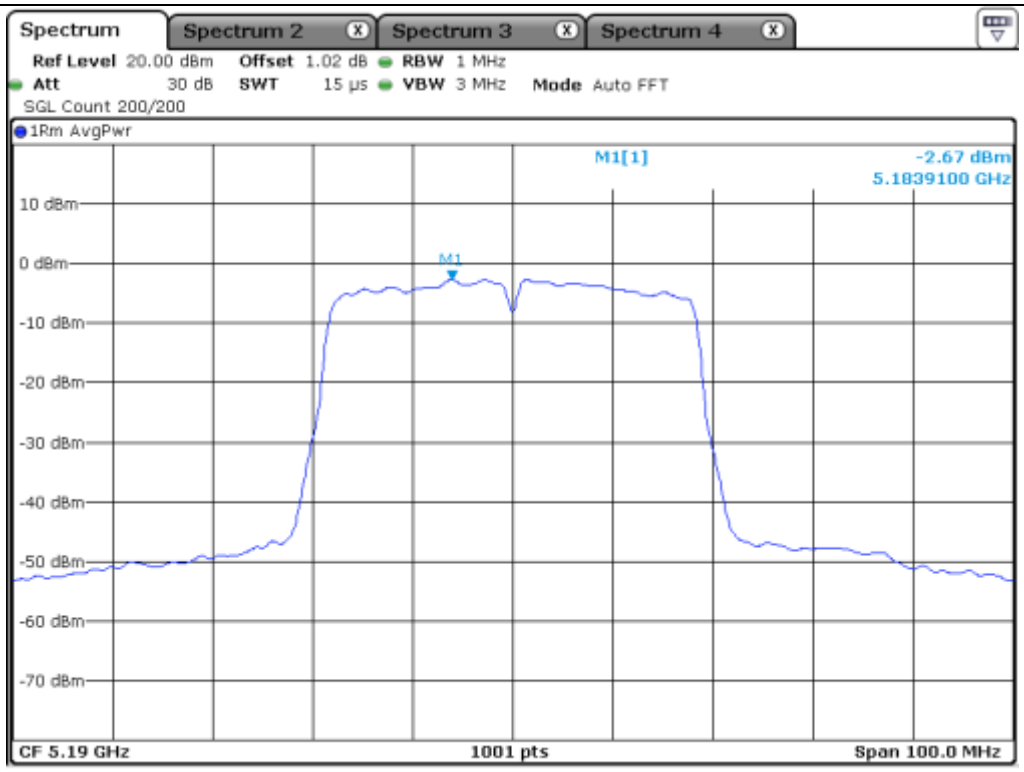
10.6.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

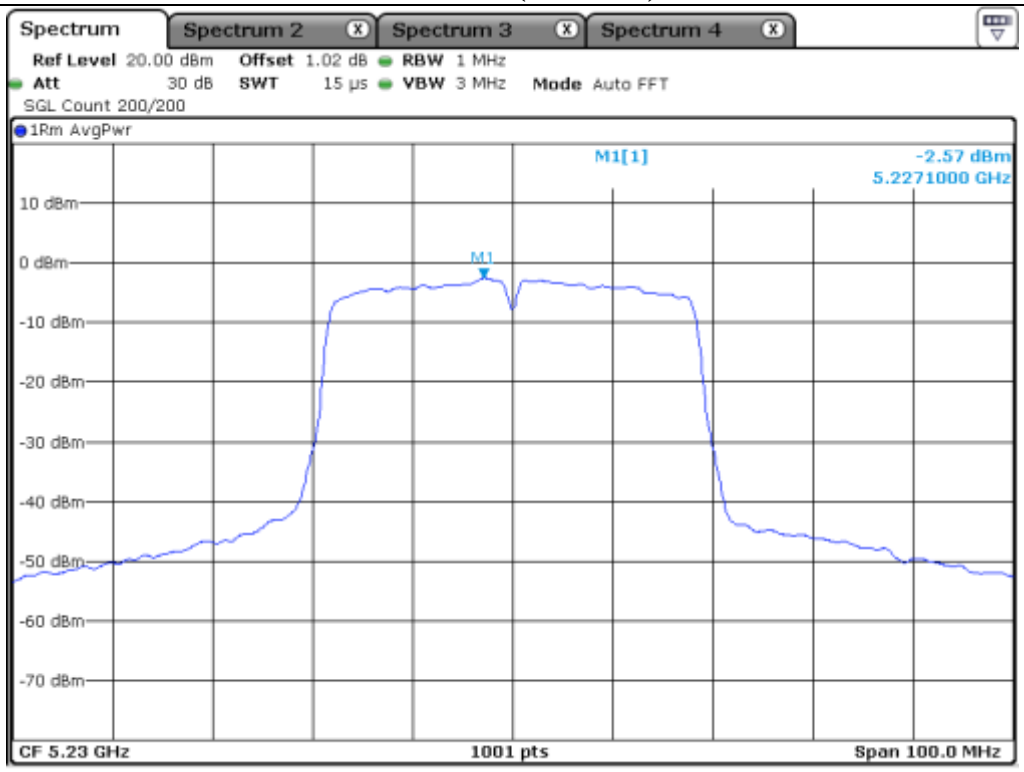
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	-2.67	11.00	13.67
	High	5 230.00	-2.57	11.00	13.57
5 250 ~ 5 350	Low	5 270.00	-1.96	11.00	12.96
	High	5 310.00	-2.43	11.00	13.43
5 470 ~ 5 725	Low	5 510.00	-2.01	11.00	13.01
	Middle	5 550.00	-2.13	11.00	13.13
	High	5 670.00	-3.12	11.00	14.12
5 725 ~ 5 850	Low	5 755.00	-5.80	30.00	35.80
	High	5 795.00	-6.67	30.00	36.67

Remark: See next page for measurement data.

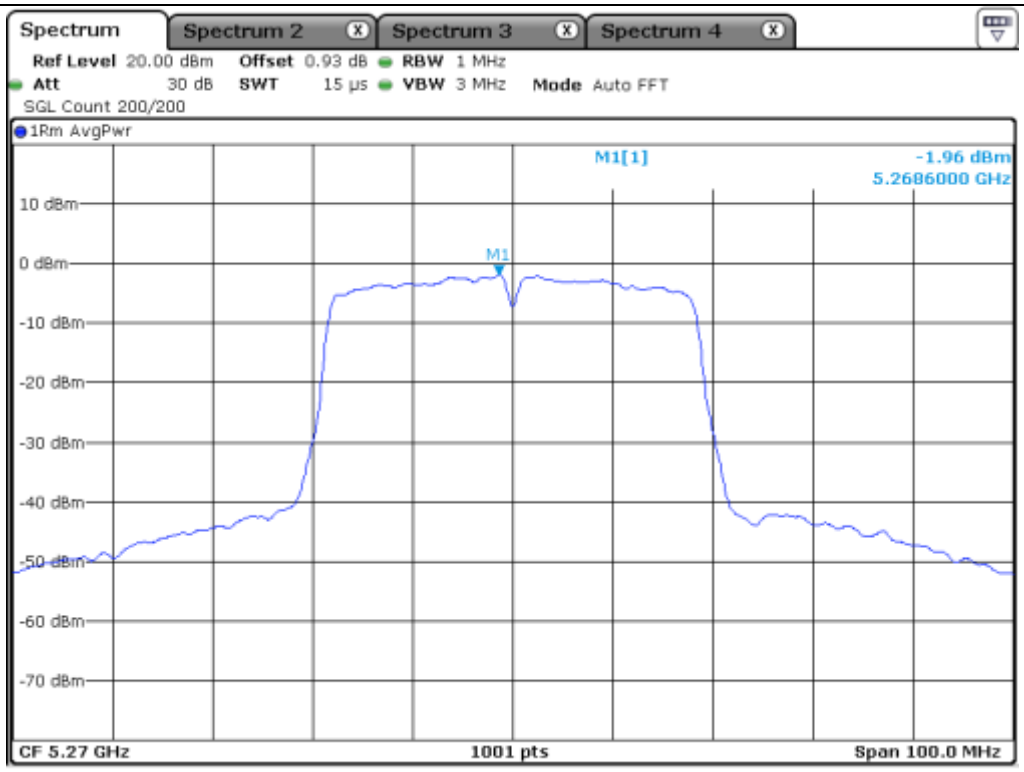


Low Channel (5 190 MHz)

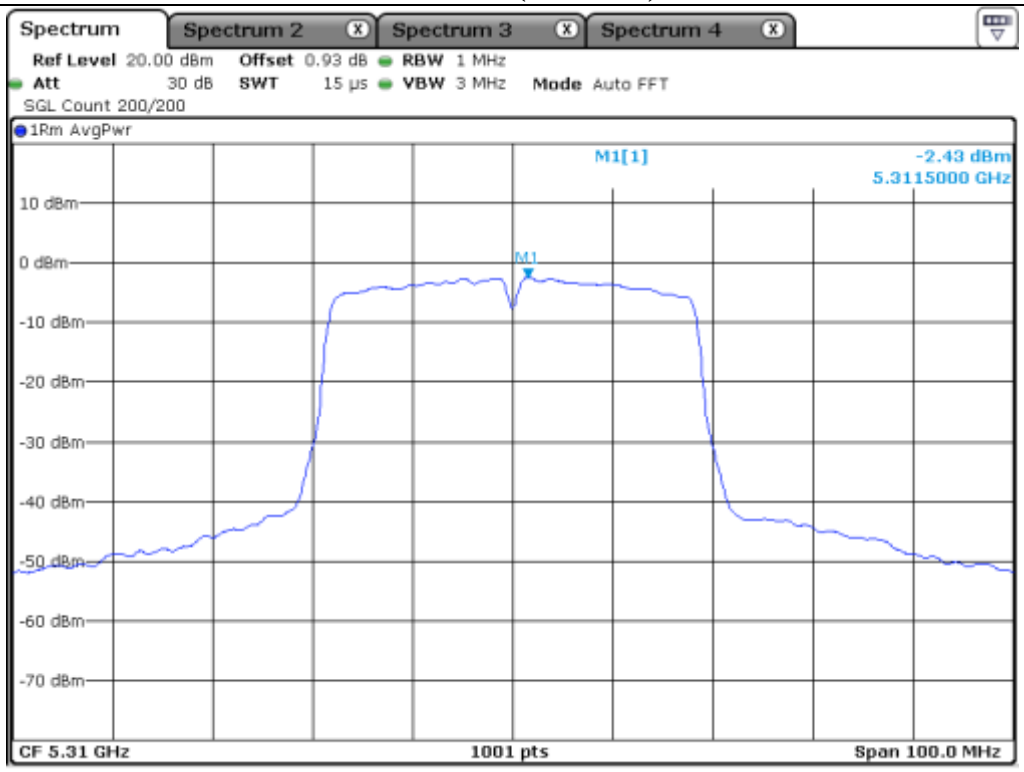


High Channel (5 230 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

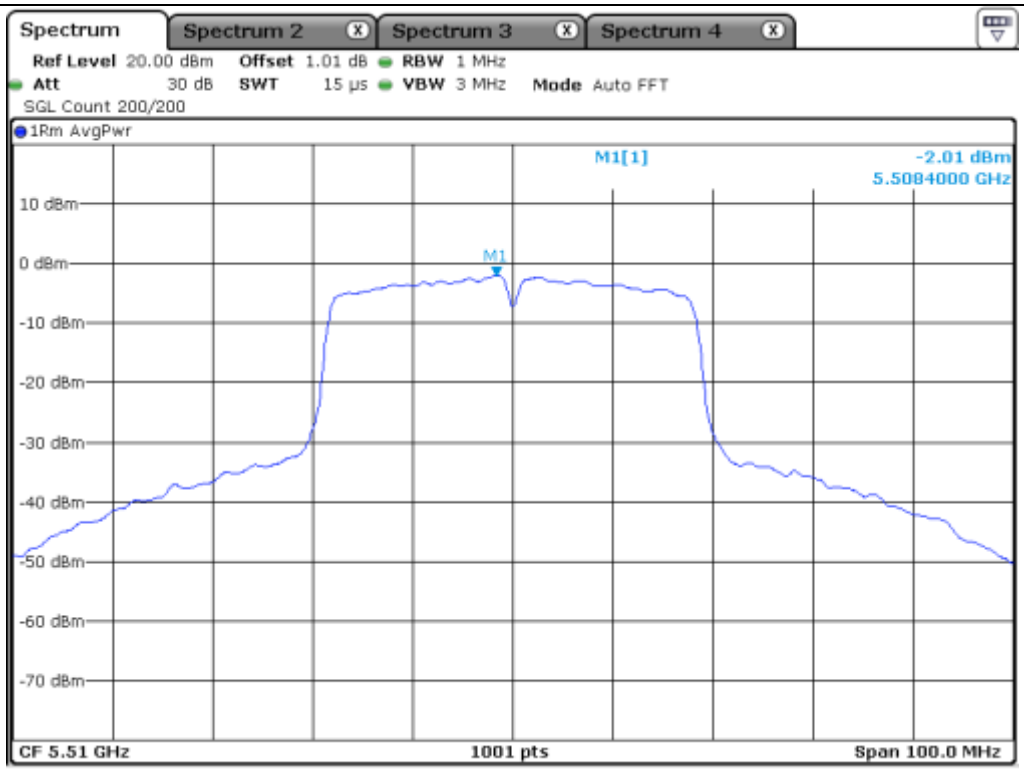


Low Channel (5 270 MHz)

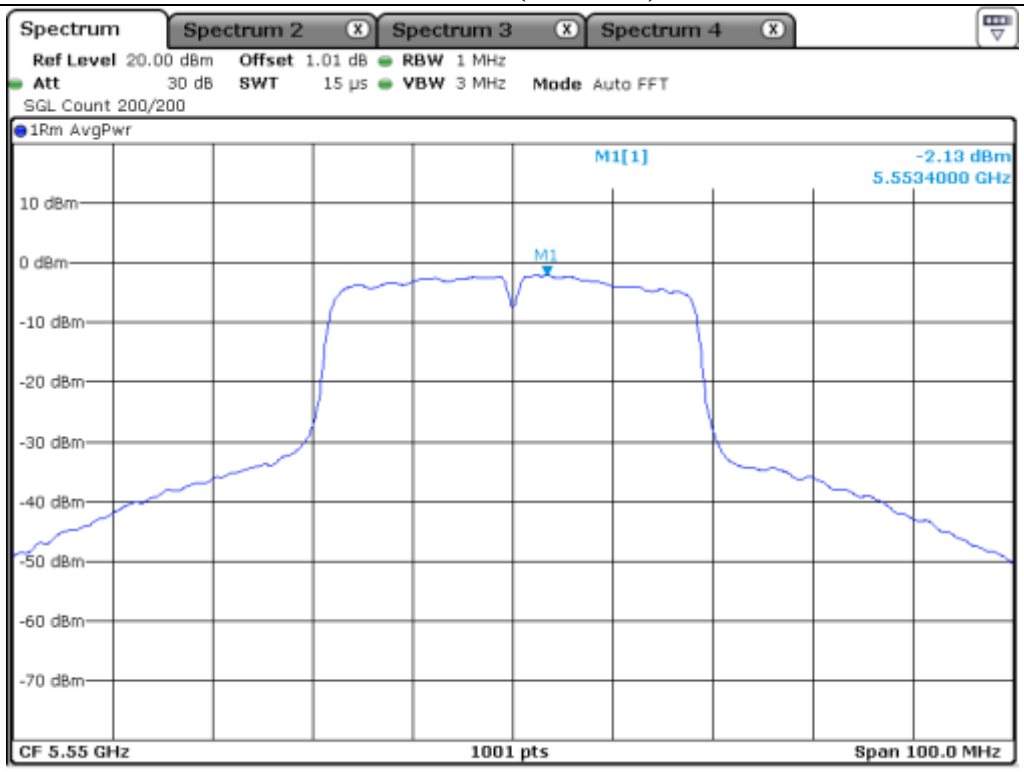


High Channel (5 310 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

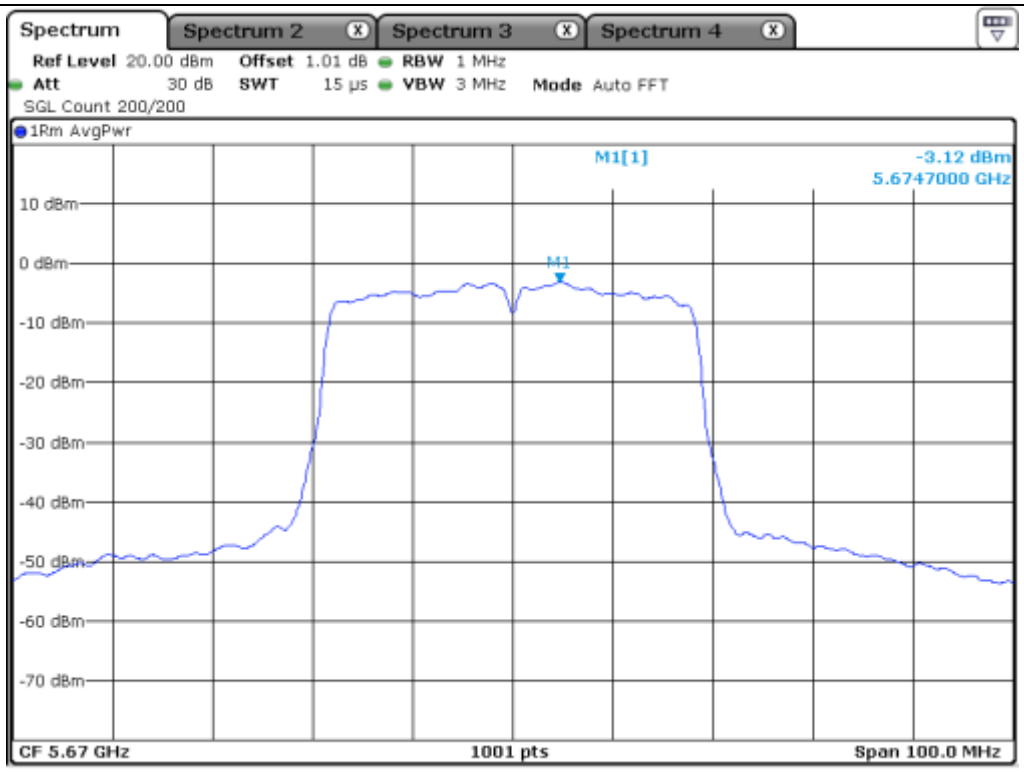


Low Channel (5 510 MHz)



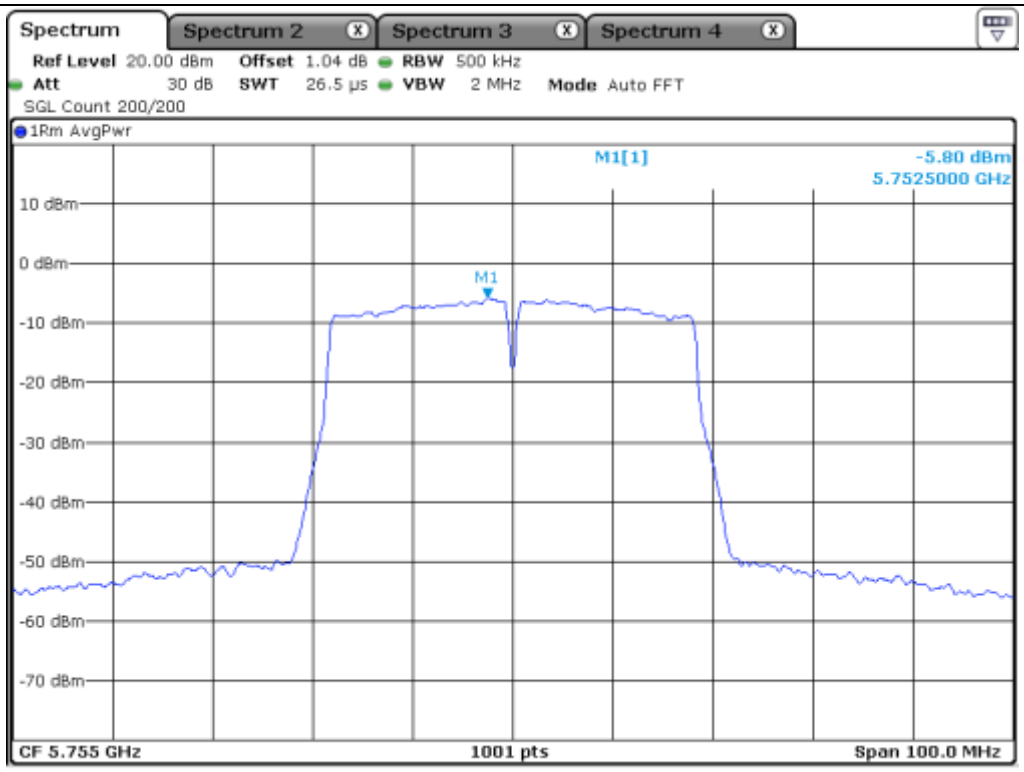
Middle Channel (5 550 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

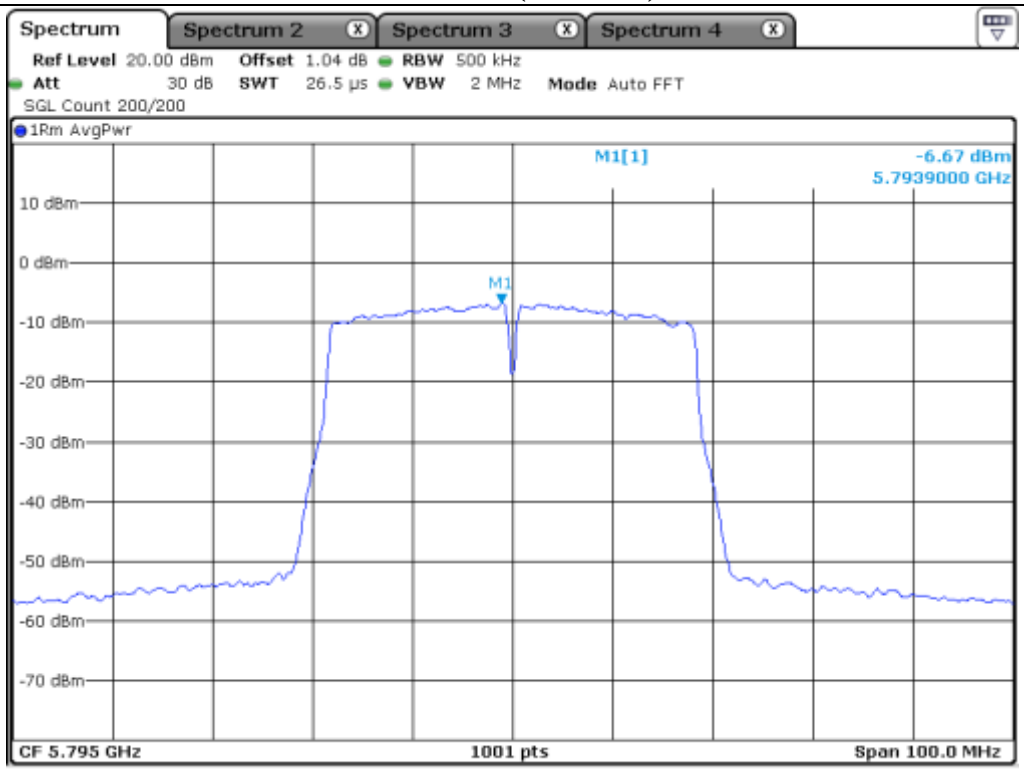


High Channel (5 670 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



Low Channel (5 755 MHz)



High Channel (5 795 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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	0.53	11.00	10.47
	High	5 230.00	0.54	11.00	10.46
5 250 ~ 5 350	Low	5 270.00	0.98	11.00	10.02
	High	5 310.00	0.83	11.00	10.17
5 470 ~ 5 725	Low	5 510.00	1.45	11.00	9.55
	Middle	5 550.00	1.00	11.00	10.00
	High	5 670.00	0.37	11.00	10.63
5 725 ~ 5 850	Low	5 755.00	-2.22	30.00	32.22
	High	5 795.00	-2.93	30.00	32.93

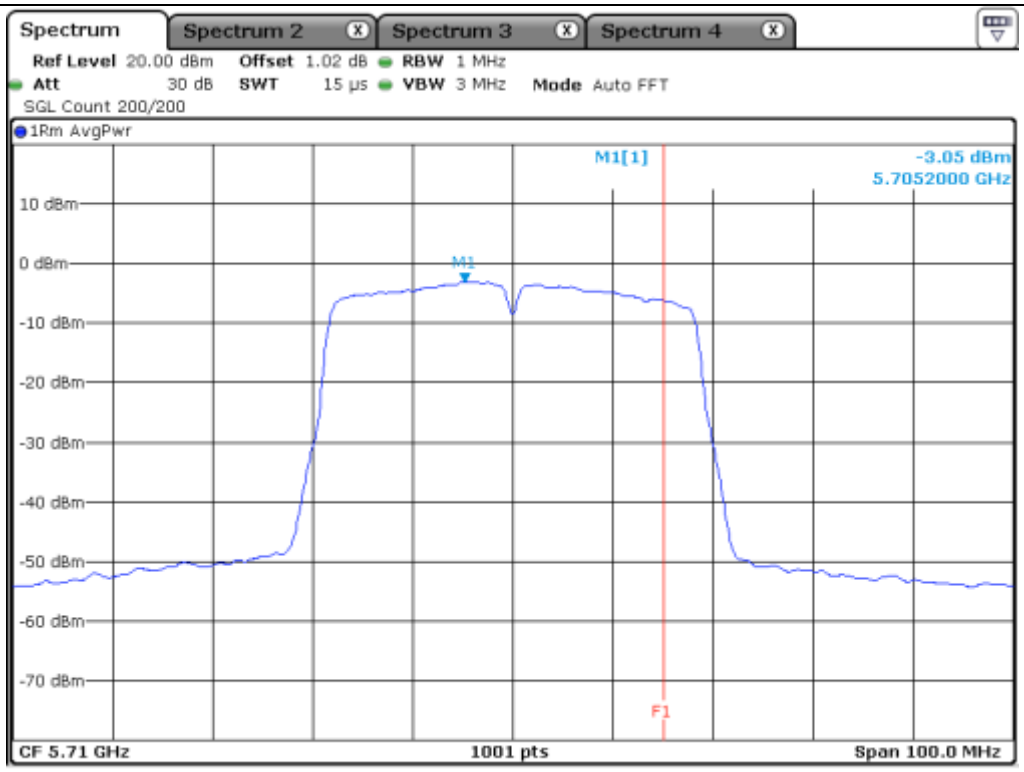
10.6.4 Test data for Staddle Channel_Antenna 0

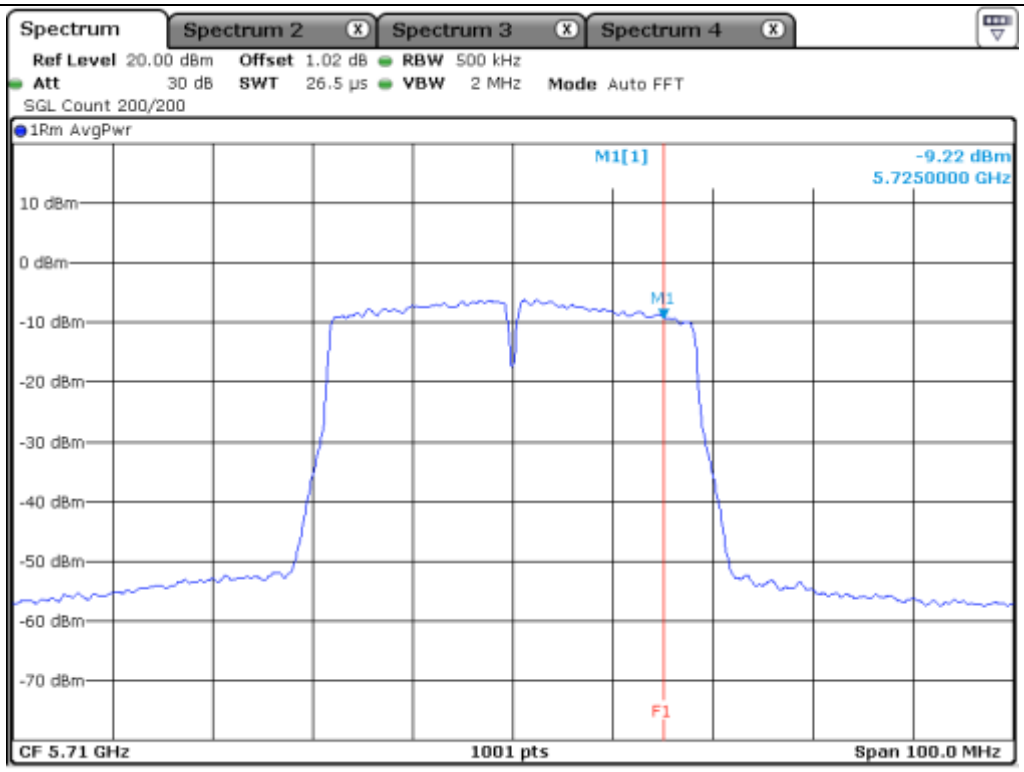
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 710.00	-3.05	11.00	14.05
5 725 ~ 5 850	5 710.00	-9.22	30.00	39.22

Remark: See next page for measurement data.





ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

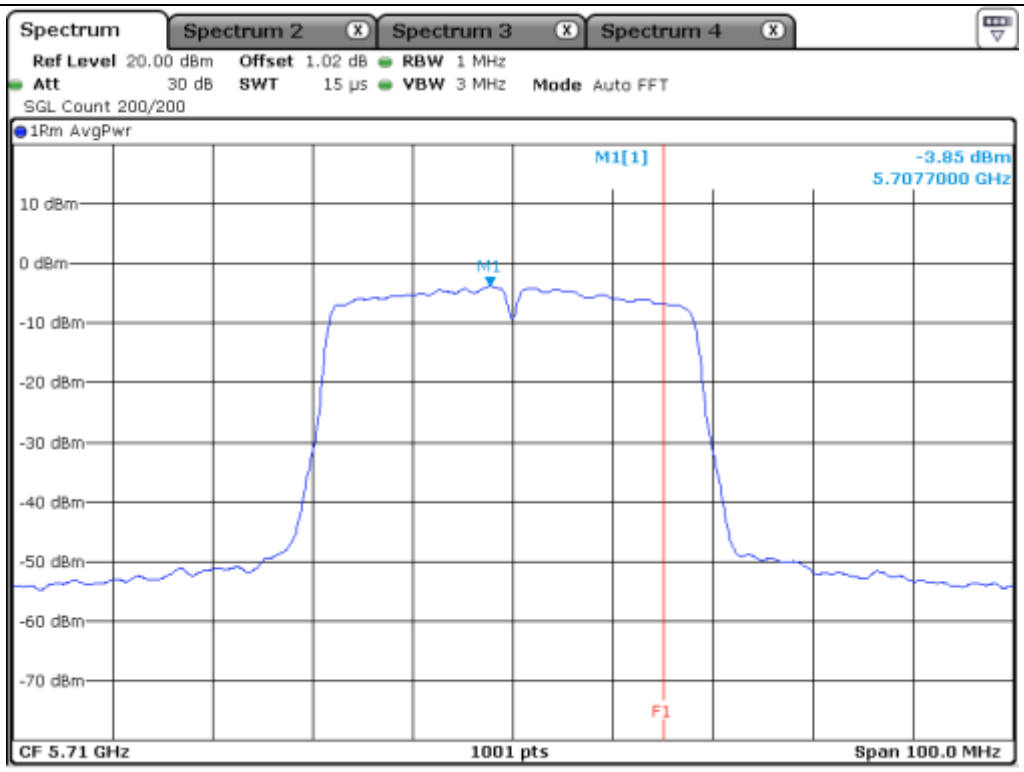
10.6.5 Test data for Staddle Channel_Antenna 1

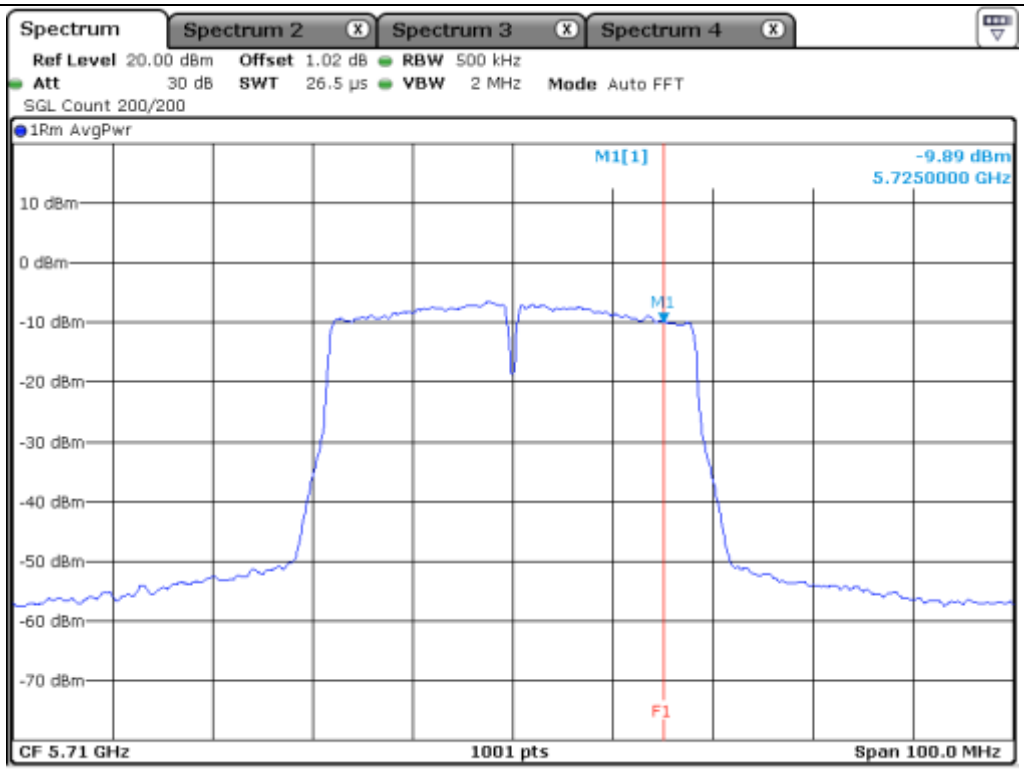
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 710.00	-3.85	11.00	14.85
5 725 ~ 5 850	5 710.00	-9.89	30.00	39.89

Remark: See next page for measurement data.





ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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	-0.42	11.00	11.42
5 725 ~ 5 850	5 710.00	-6.53	30.00	36.53

10.7 Test data for 802.11ac_HT80 RLAN Mode

10.7.1 Test data for Antenna 0

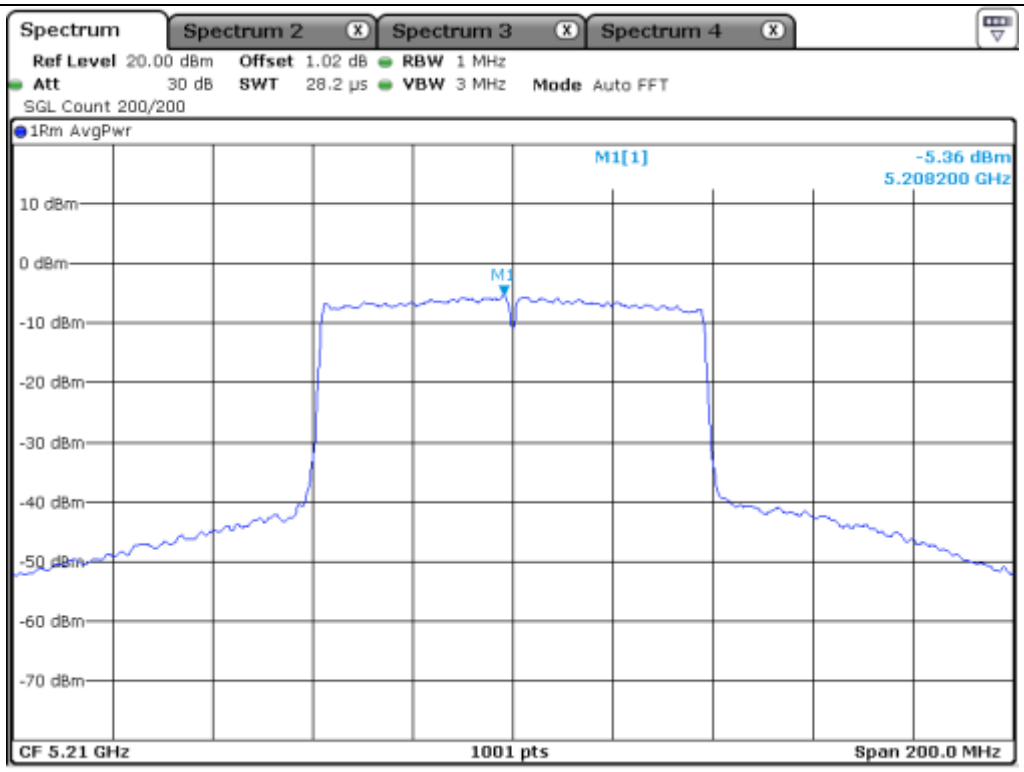
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

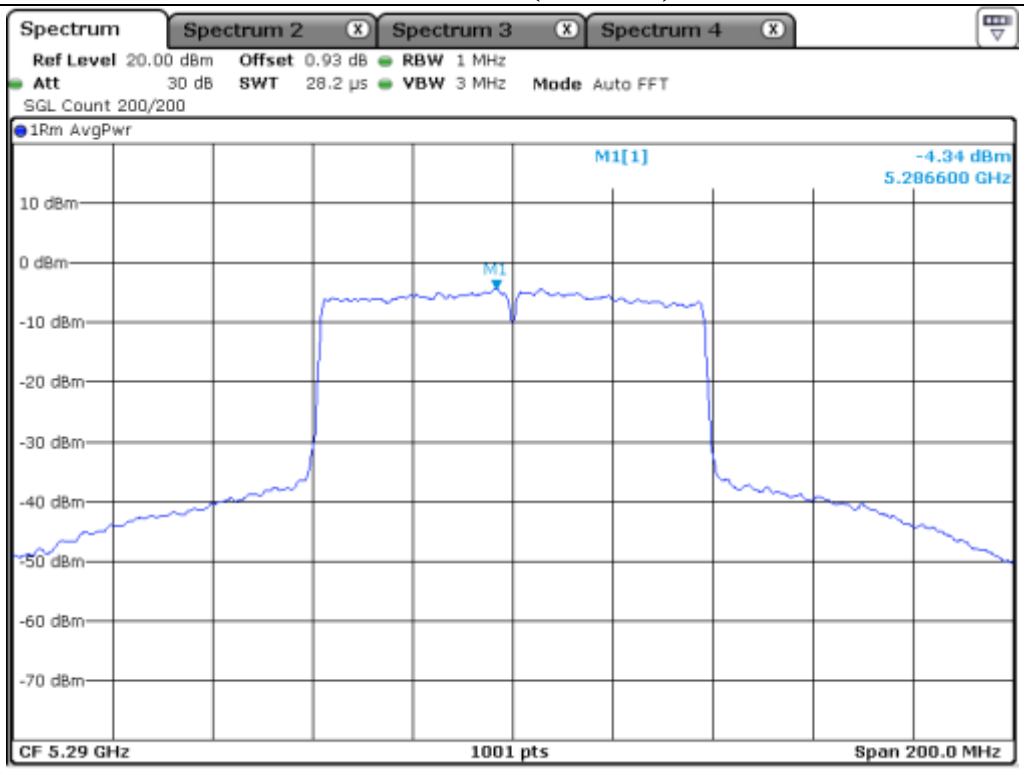
FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	-5.36	11.00	16.36
5 250 ~ 5 350	Low	5 290.00	-4.34	11.00	15.34
5 470 ~ 5 725	Low	5 530.00	-5.40	11.00	16.40
5 725 ~ 5 850	Low	5 775.00	-9.19	30.00	39.19

Remark: See next page for measurement data.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

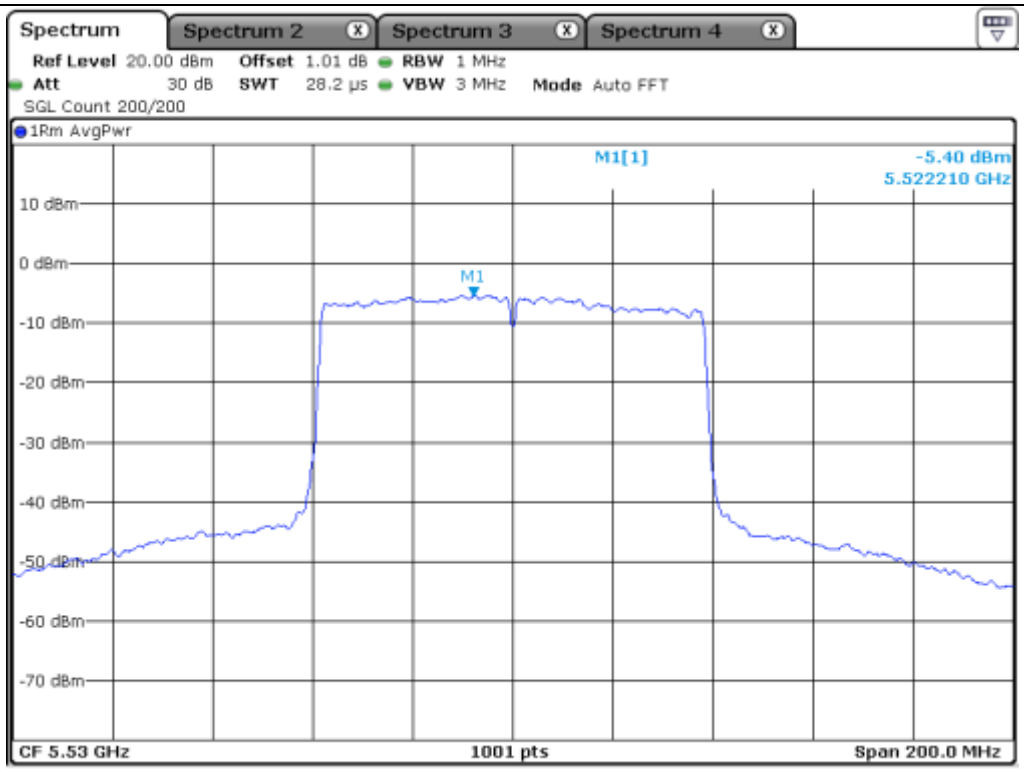


Middle Channel (5 210 MHz)

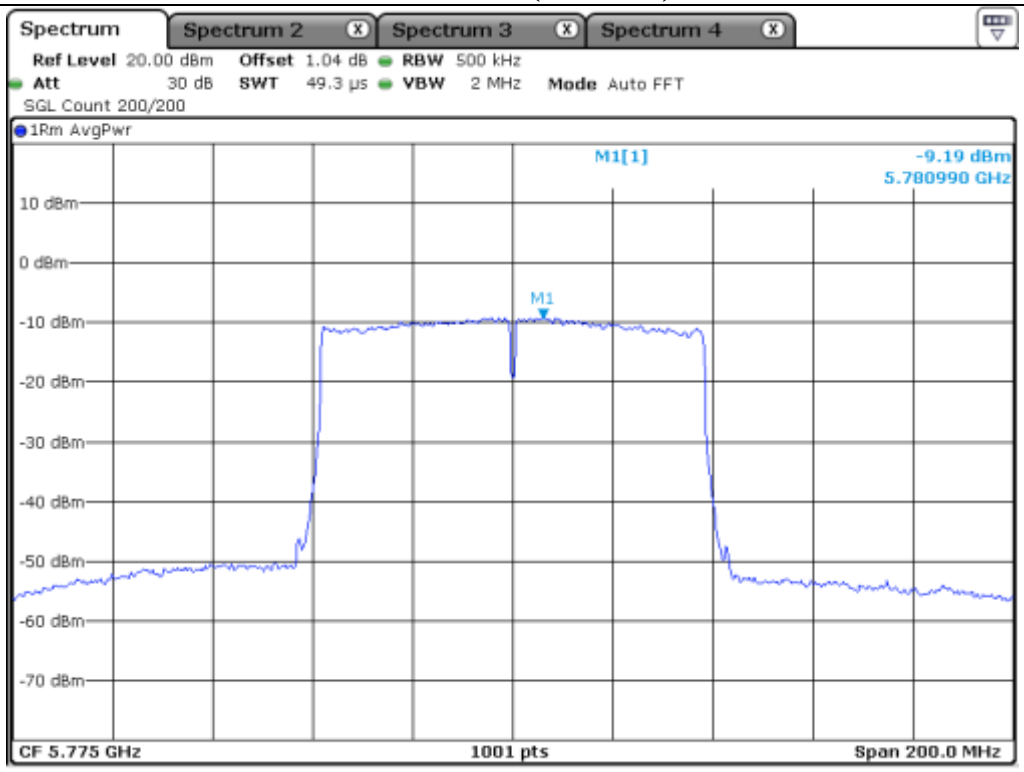


Middle Channel (5 290 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



Middle Channel (5 530 MHz)



Middle Channel (5 775 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

10.7.2 Test data for Antenna 1

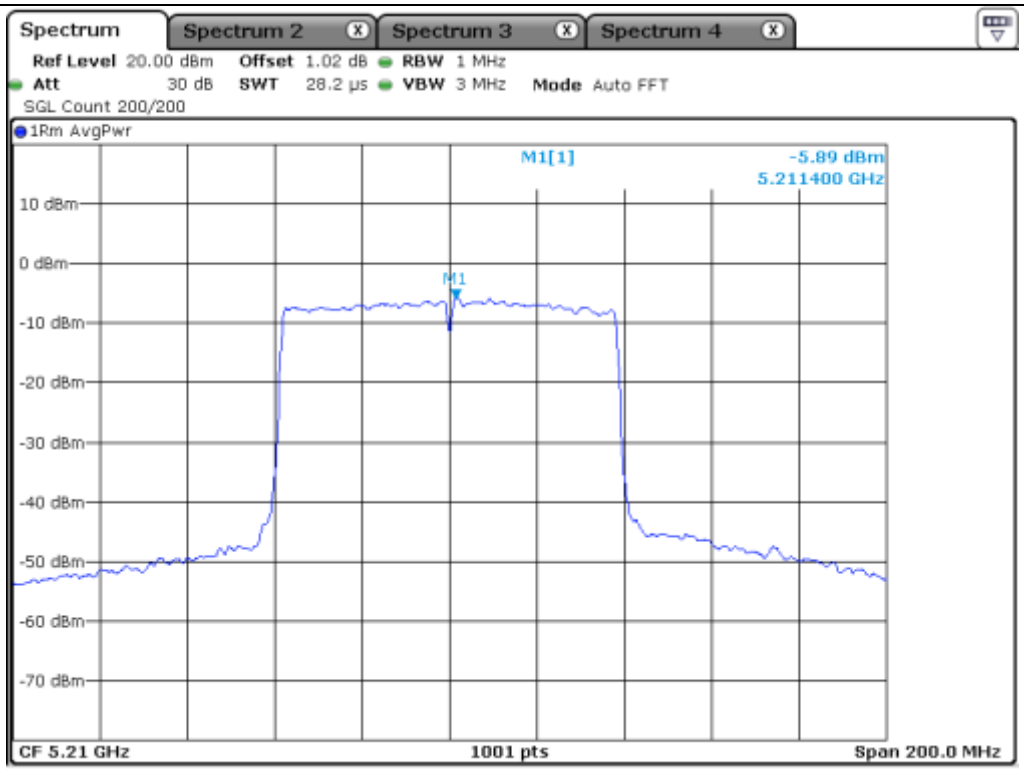
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

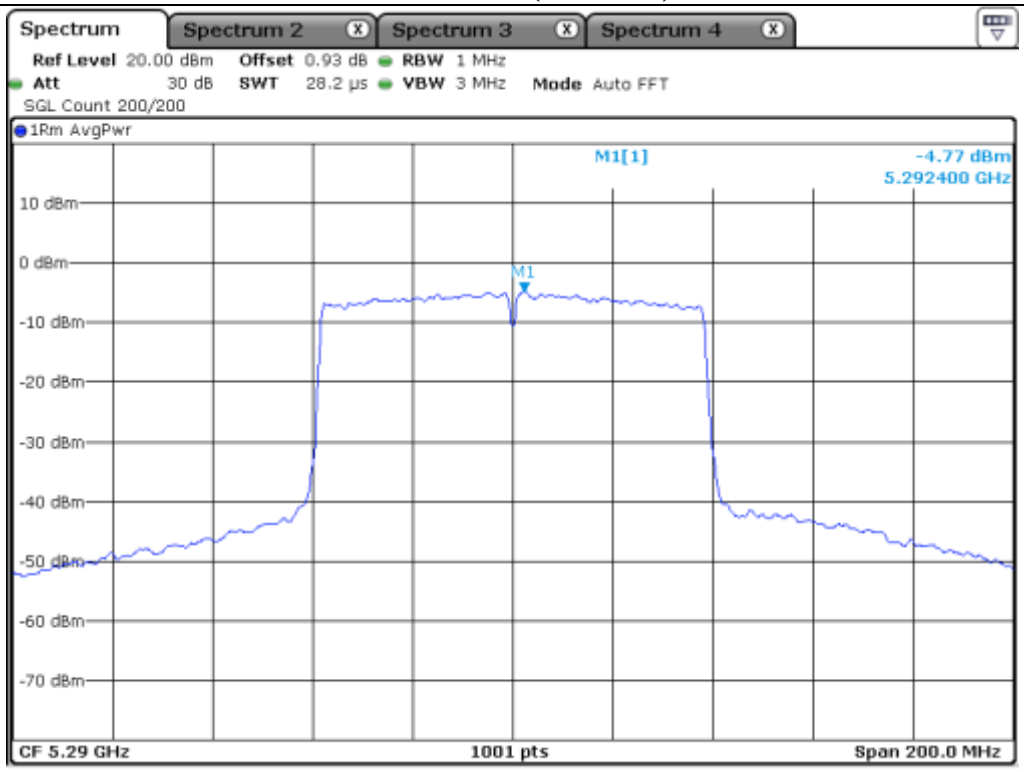
FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	-5.89	11.00	16.89
5 250 ~ 5 350	Low	5 290.00	-4.77	11.00	15.77
5 470 ~ 5 725	Low	5 530.00	-6.33	11.00	17.33
5 725 ~ 5 850	Low	5 775.00	-9.16	30.00	39.16

Remark: See next page for measurement data.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

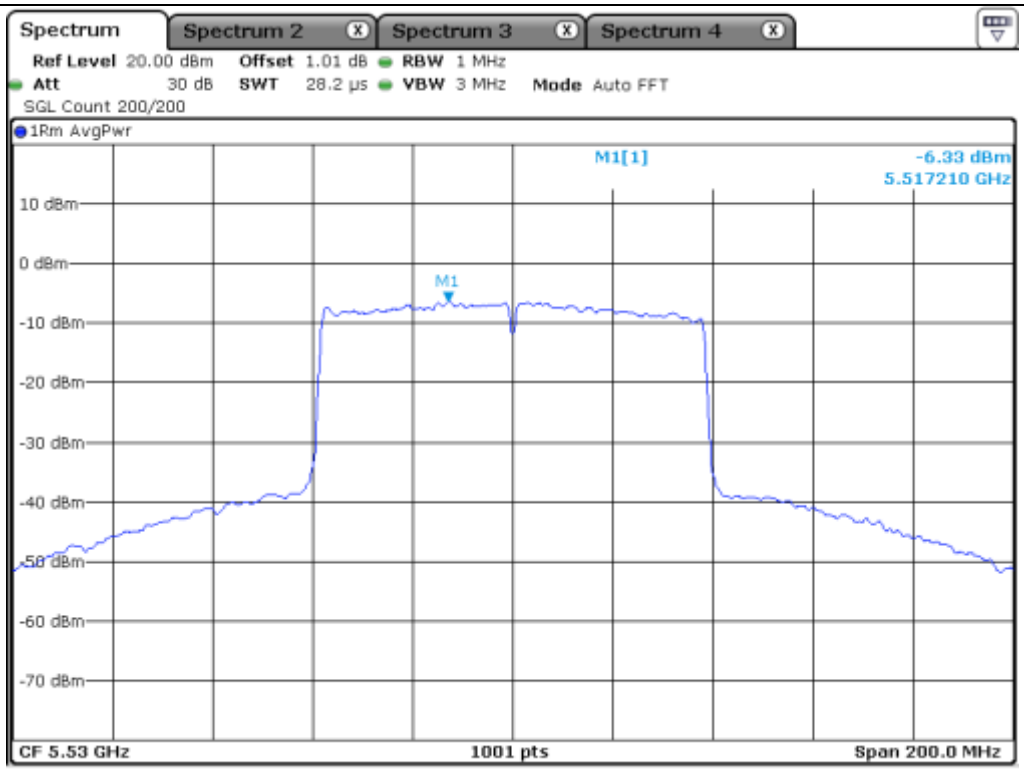


Middle Channel (5 210 MHz)

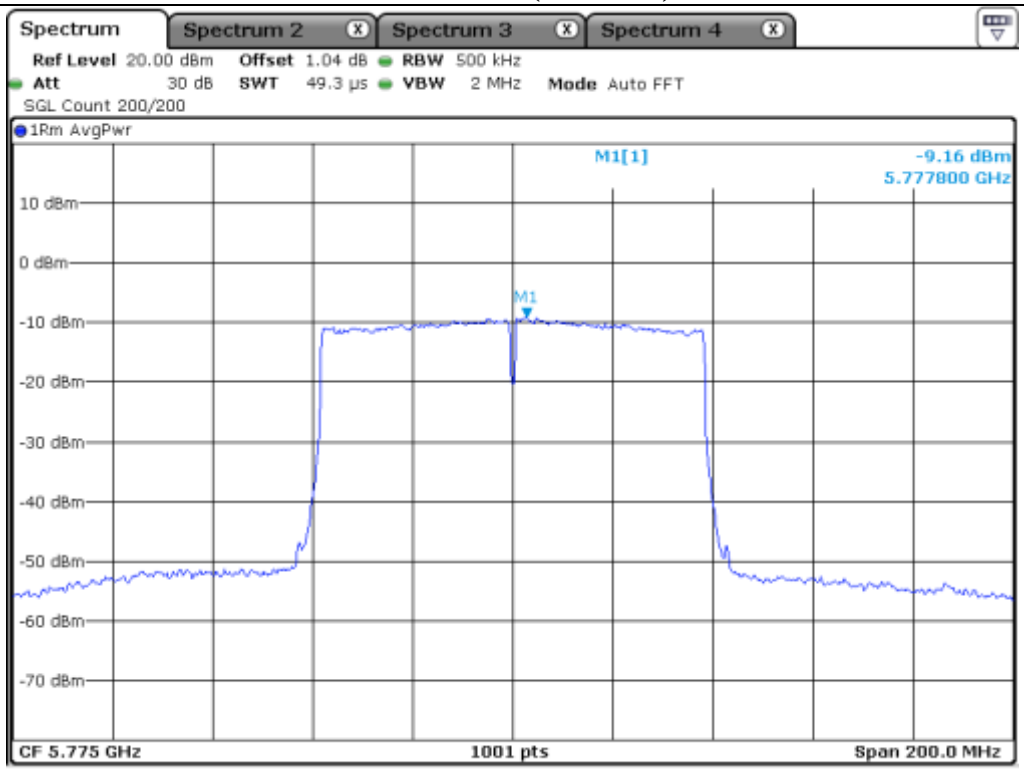


Middle Channel (5 290 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



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	-2.61	11.00	13.61
5 250 ~ 5 350	Low	5 290.00	-1.54	11.00	12.54
5 470 ~ 5 725	Low	5 530.00	-2.83	11.00	13.83
5 725 ~ 5 850	Low	5 775.00	-6.16	30.00	36.16

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

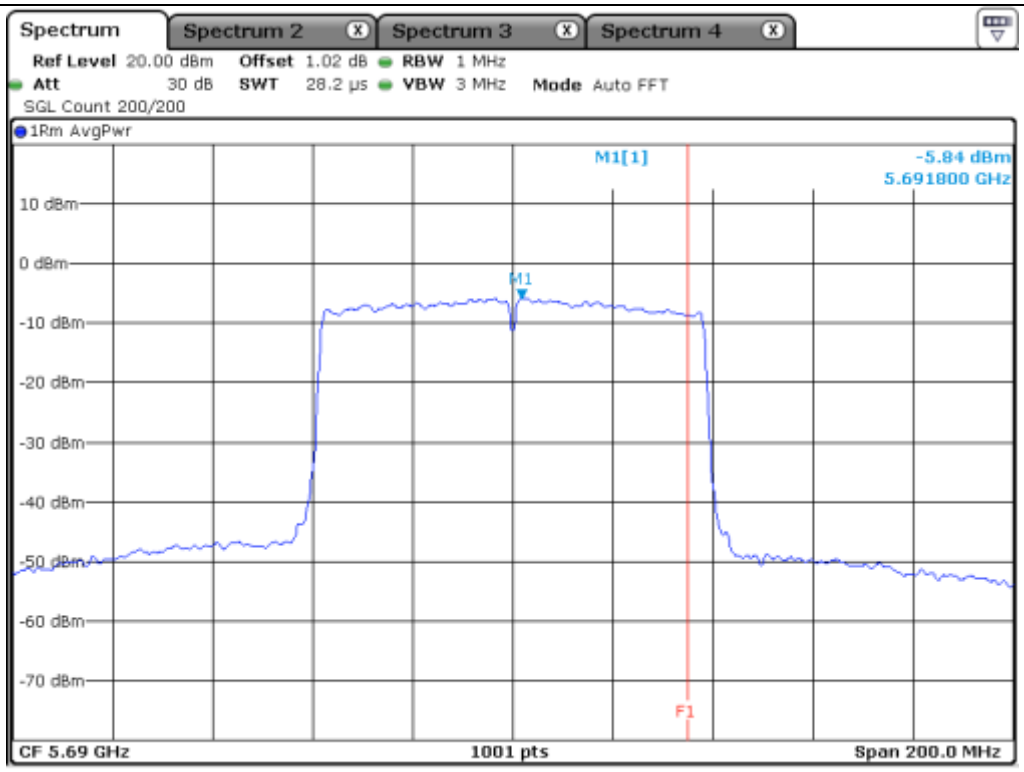
10.7.4 Test data for Staddle Channel_Antenna 0

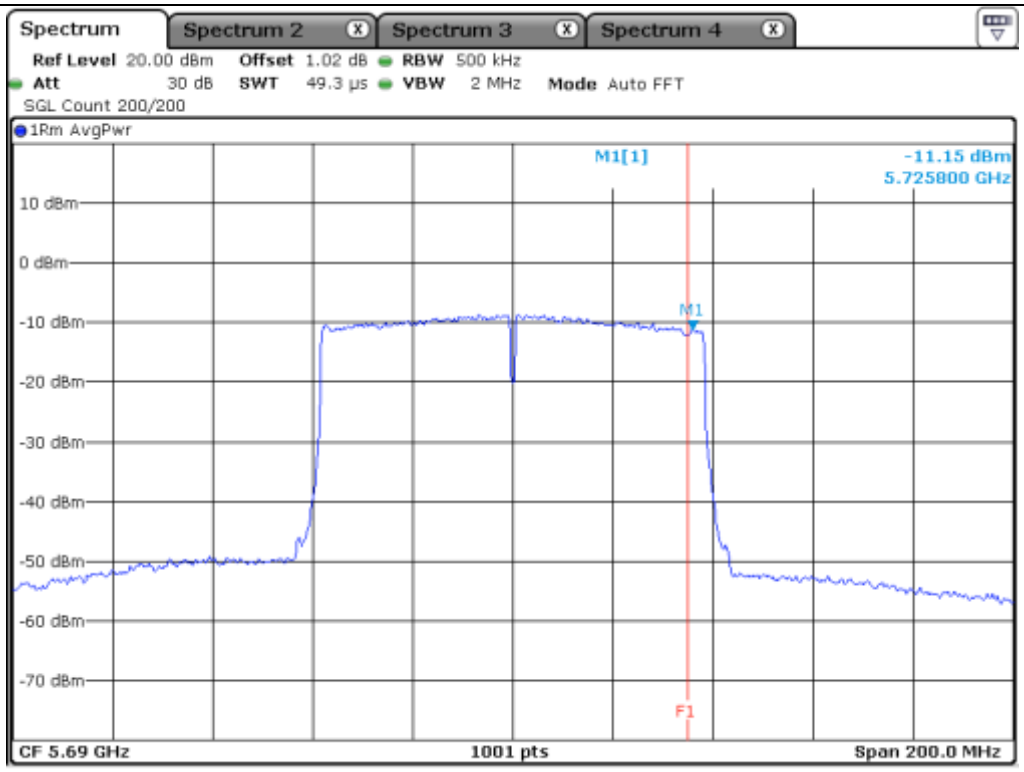
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	-5.84	11.00	16.84
5 725 ~ 5 850	5 690.00	-11.15	30.00	41.15

Remark: See next page for measurement data.





ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

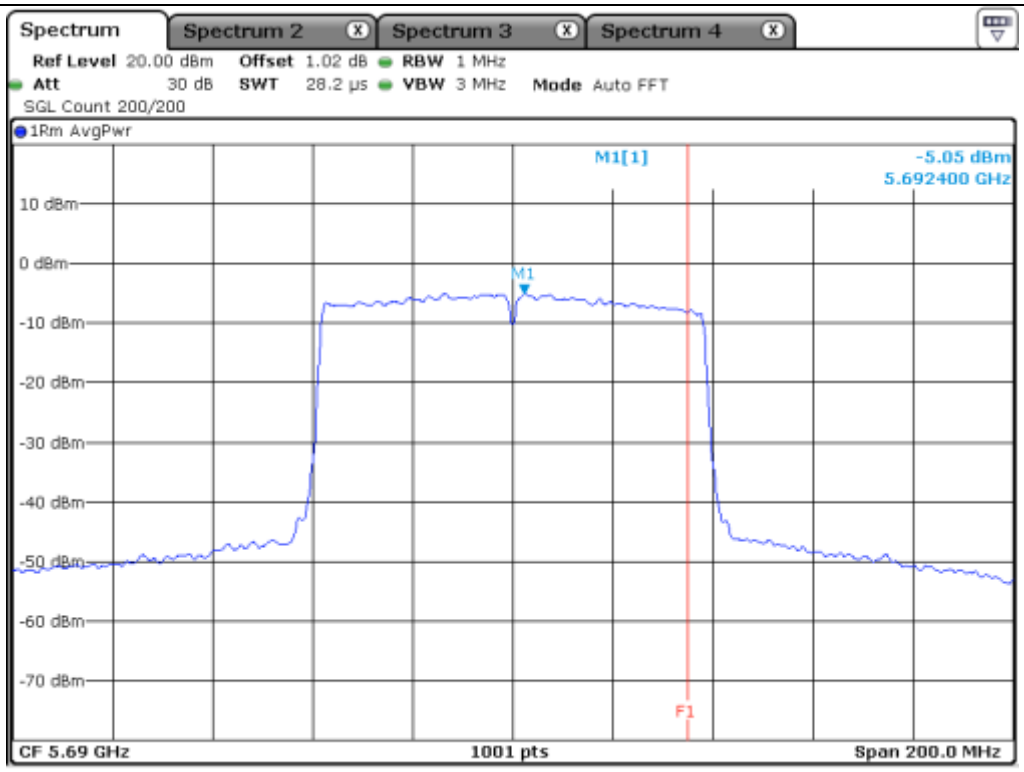
10.7.5 Test data for Staddle Channel_Antenna 1

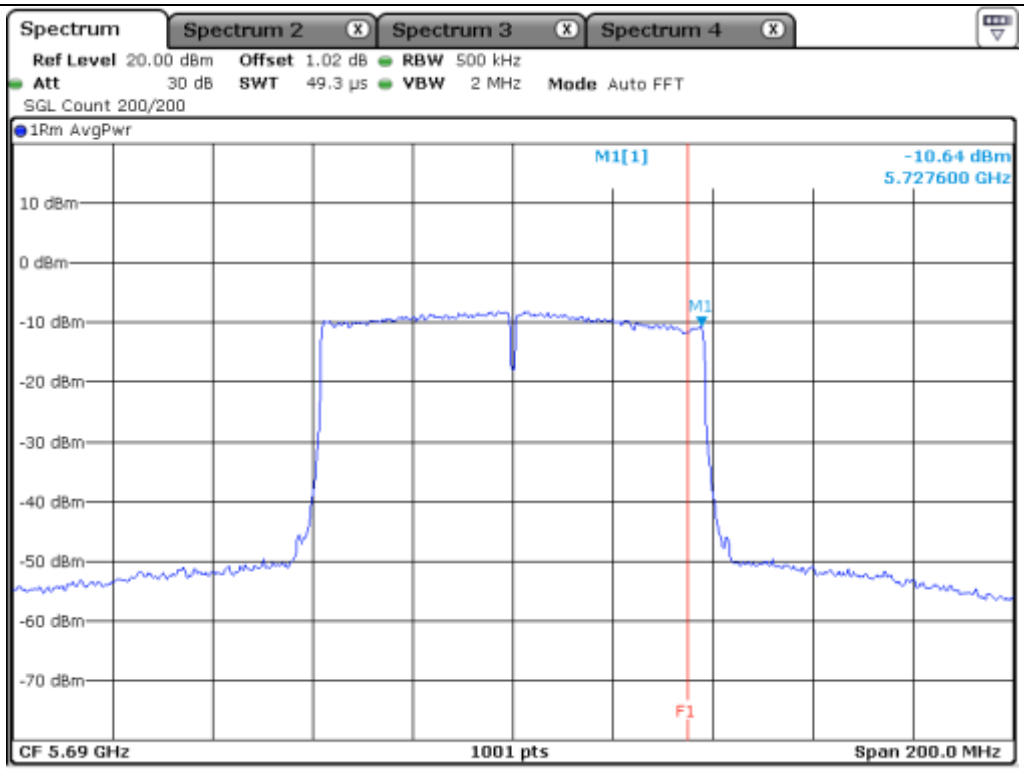
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	-5.05	11.00	16.05
5 725 ~ 5 850	5 690.00	-10.64	30.00	40.64

Remark: See next page for measurement data.





ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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	-2.42	11.00	13.42
5 725 ~ 5 850	5 690.00	-7.88	30.00	37.88

11. FREQUENCY STABILITY WITH TEMPERATURE VARIATION

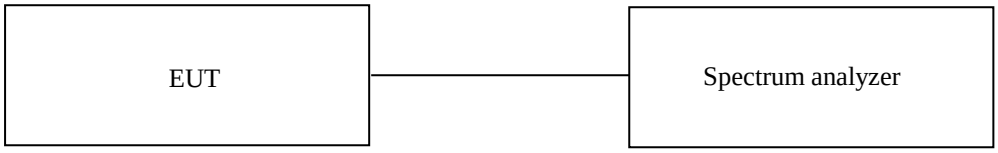
11.1 Operating environment

Temperature : 23 °C

Relative humidity : 41 % 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

August 21, 2020 ~ September 08, 2020

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

11.4 Test Data for U-NII-1

-. Result : Pass

Temperature (˚C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (kHz)
-20	5 180 000 000	5 179 972 418	-27 582
-10		5 179 965 474	-34 526
0		5 179 961 833	-38 167
10		5 179 951 494	-48 506
20		5 179 942 405	-57 595
30		5 179 941 402	-58 598
40		5 179 938 518	-61 482
50		5 179 936 419	-63 581
-20	5 220 000 000	5 219 973 412	-26 588
-10		5 219 964 759	-35 241
0		5 219 955 472	-44 528
10		5 219 952 448	-47 552
20		5 219 943 887	-56 113
30		5 219 940 118	-59 882
40		5 219 938 558	-61 442
50		5 219 936 448	-63 552
-20	5 240 000 000	5 239 970 467	-29 533
-10		5 239 963 545	-36 455
0		5 239 959 924	-40 076
10		5 239 949 546	-50 454
20		5 239 940 471	-59 529
30		5 239 939 489	-60 511
40		5 239 936 464	-63 536
50		5 239 934 467	-65 533

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)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

11.5 Test Data for U-NII-2A

-. Result : Pass

Temperature (˚C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (kHz)
-20	5 260 000 000	5 259 969 449	-30 551
-10		5 259 960 049	-39 951
0		5 259 956 415	-43 585
10		5 259 946 339	-53 661
20		5 259 941 148	-58 852
30		5 259 939 812	-60 188
40		5 259 936 335	-63 665
50		5 259 934 118	-65 882
-20	5 300 000 000	5 299 969 519	-30 481
-10		5 299 961 004	-38 996
0		5 299 956 775	-43 225
10		5 299 943 377	-56 623
20		5 299 940 337	-59 663
30		5 299 938 775	-61 225
40		5 299 936 552	-63 448
50		5 299 933 773	-66 227
-20	5 320 000 000	5 319 968 416	-31 584
-10		5 319 961 422	-38 578
0		5 319 957 776	-42 224
10		5 319 947 489	-52 511
20		5 319 938 466	-61 534
30		5 319 937 389	-62 611
40		5 319 934 457	-65 543
50		5 319 932 390	-67 610

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)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

11.6 Test Data for U-NII-2C

-. Result : Pass

Temperature (˚C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (kHz)
-20	5 500 000 000	5 549 965 415	-34 585
-10		5 549 958 437	-41 563
0		5 549 954 883	-45 117
10		5 549 944 471	-55 529
20		5 549 935 437	-64 563
30		5 549 934 445	-65 555
40		5 549 931 387	-68 613
50		5 549 929 480	-70 520
-20	5 580 000 000	5 579 966 014	-33 986
-10		5 579 959 094	-40 906
0		5 579 955 399	-44 601
10		5 579 945 087	-54 913
20		5 579 936 009	-63 991
30		5 579 935 068	-64 932
40		5 579 932 063	-67 937
50		5 579 930 011	-69 989
-20	5 700 000 000	5 699 965 655	-34 345
-10		5 699 958 732	-41 268
0		5 699 955 132	-44 868
10		5 699 944 626	-55 374
20		5 699 935 733	-64 267
30		5 699 934 629	-65 371
40		5 699 931 681	-68 319
50		5 699 929 739	-70 261

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)

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11.7 Test Data for U-NII-3

-. Result : Pass

Temperature (˚C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (kHz)
-20	5 745 000 000	5 744 960 225	-39 775
-10		5 744 953 196	-46 804
0		5 744 949 674	-50 326
10		5 744 939 223	-60 777
20		5 744 930 207	-69 793
30		5 744 929 215	-70 785
40		5 744 926 285	-73 715
50		5 744 924 202	-75 798
-20	5 785 000 000	5 784 961 005	-38 995
-10		5 784 954 085	-45 915
0		5 784 950 346	-49 654
10		5 784 940 104	-59 896
20		5 784 931 051	-68 949
30		5 784 929 988	-70 012
40		5 784 927 013	-72 987
50		5 784 925 064	-74 936
-20	5 825 000 000	5 824 962 115	-37 885
-10		5 824 955 186	-44 814
0		5 824 951 471	-48 529
10		5 824 941 180	-58 820
20		5 824 932 157	-67 843
30		5 824 931 129	-68 871
40		5 824 928 149	-71 851
50		5 824 926 089	-73 911

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

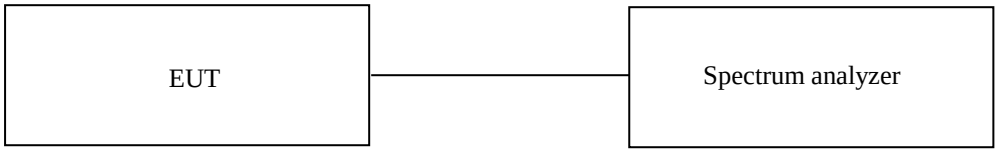
12.1 Operating environment

Temperature : 23 °C

Relative humidity : 41 % 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 110.0 % of the nominal value and then was reduced to 90.0 % of nominal voltage. The output frequency was recorded at each step.



12.3 Test Date

August 21, 2020 ~ September 08, 2020

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12.4 Test Data for U-NII-1

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (kHz)
5.0	5 180 000 000	5 179 942 405	-57 595
4.5		5 179 942 018	-57 982
5.5		5 179 942 398	-57 602
5.0	5 220 000 000	5 219 943 887	-56 113
4.5		5 219 943 538	-56462
5.5		5 219 943 897	-56103
5.0	5 240 000 000	5 239 940 471	-59 529
4.5		5 239 940 054	-59946
5.5		5 239 940 468	-59532

12.5 Test Data for U-NII-2A

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (kHz)
5.0	5 260 000 000	5 259 941 148	-58 852
4.5		5 259 940 757	-59 243
5.5		5 259 941 118	-58 882
5.0	5 300 000 000	5 299 940 337	-59 663
4.5		5 299 939 940	-60 060
5.5		5 299 940 415	-59 585
5.0	5 320 000 000	5 319 938 466	-61 534
4.5		5 319 938 068	-61 932
5.5		5 319 938 516	-61 484

12.6 Test Data for U-NII-2C

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (kHz)
5.0	5 500 000 000	5 549 935 437	-64 563
4.5		5 499 935 072	-64 928
5.5		5 499 935 513	-64 487
5.0	5 580 000 000	5 579 936 009	-63 991
4.5		5 579 935 601	-64 399
5.5		5 579 936 068	-63 932
5.0	5 700 000 000	5 699 935 733	-64 267
4.5		5 699 935 409	-64 591
5.5		5 699 935 818	-64 182

12.7 Test Data for U-NII-3

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (kHz)
5.0	5 745 000 000	5 744 930 207	-69 793
4.5		5 744 929 813	-70 187
5.5		5 744 930 197	-69 803
5.0	5 785 000 000	5 784 931 051	-68 949
4.5		5 784 930 648	-69 352
5.5		5 784 931 120	-68 880
5.0	5 825 000 000	5 824 932 157	-67 843
4.5		5 824 931 856	-68 144
5.5		5 824 932 247	-67 753

13. RADIATED SPURIOUS EMISSIONS

13.1 Operating environment

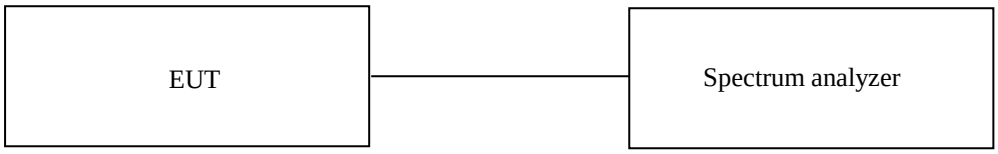
Temperature : 23 °C

Relative humidity : 41 % R.H.

13.2 Test set-up for conducted measurement

The radiated emissions measurements were on the 3 m semi anechoic chamber. The EUT and other support equipment were placed on a non-conductive turntable above the ground plane. The interconnecting cables from outside test site were inserted into ferrite clamps at the point where the cables reach the turntable.

The frequency spectrum from 30 MHz to 40 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.



13.3 Test Date

August 21, 2020 ~ September 08, 2020

13.4 Test data for Below 30 MHz

-. Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)

-. Frequency range : 9 kHz ~ 30 MHz

-. Measurement distance : 3 m

-.Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBµV)	Ant. Pol. (H/V)	Ant. Height (m)	Angle (°)	Ant. Factor (dB/m)	Cable Loss	Emission Level(dBµV/m)	Limits (dBµV/m)	Margin (dB)
It was not observed any emissions from the EUT.									

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13.5 Test data for 30 MHz ~ 960 MHz

13.5.1 Test data for WLAN 5 GHz

Humidity Level : 41 % R.H. Temperature: 23 °C

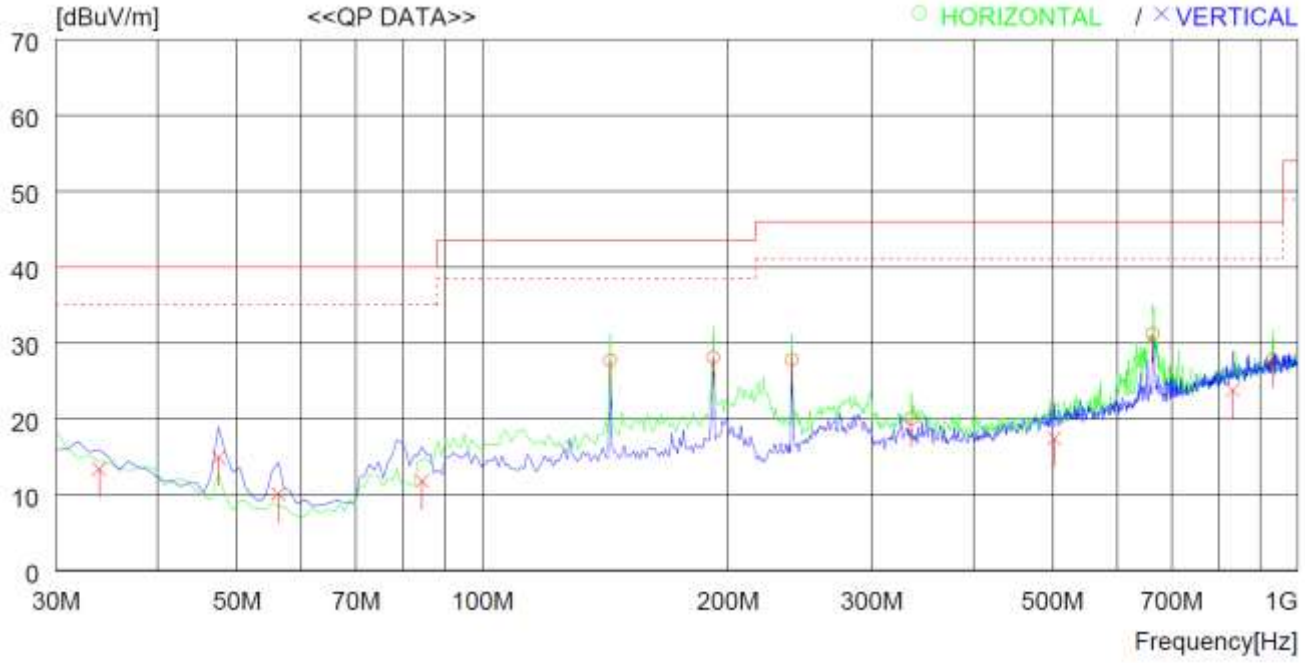
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Wi-Fi/BT Transceiver

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)

-.Antenna 0, Antenna 1 and Multiple transmit tested, but the worst data were recorded.



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	143.490	48.2	11.1	1.1	32.7	27.7	43.5	15.8	400	326
2	191.990	46.6	12.8	1.3	32.6	28.1	43.5	15.4	400	12
3	239.520	48.3	10.6	1.5	32.6	27.8	46.0	18.2	400	326
4	335.550	36.3	14.6	1.8	32.7	20.0	46.0	26.0	400	36
5	663.406	41.1	20.5	2.5	32.9	31.2	46.0	14.8	400	310
6	932.088	33.3	23.4	2.9	31.8	27.8	46.0	18.2	400	109
----- Vertical ------										
7	33.880	34.5	11.0	0.5	32.6	13.4	40.0	26.6	400	307
8	47.460	36.9	10.1	0.6	32.7	14.9	40.0	25.1	400	330
9	56.190	32.6	9.5	0.7	32.7	10.1	40.0	29.9	400	8
10	84.320	35.9	7.8	0.8	32.7	11.8	40.0	28.2	400	8
11	502.391	30.3	17.8	2.2	32.9	17.4	46.0	28.6	400	275
12	831.211	31.5	22.4	2.3	32.4	23.8	46.0	22.2	400	167

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13.5.2 Test data for Intermodulation Mode(Bluetooth LE + WLAN 2.4 GHz + WLAN 5 GHz)

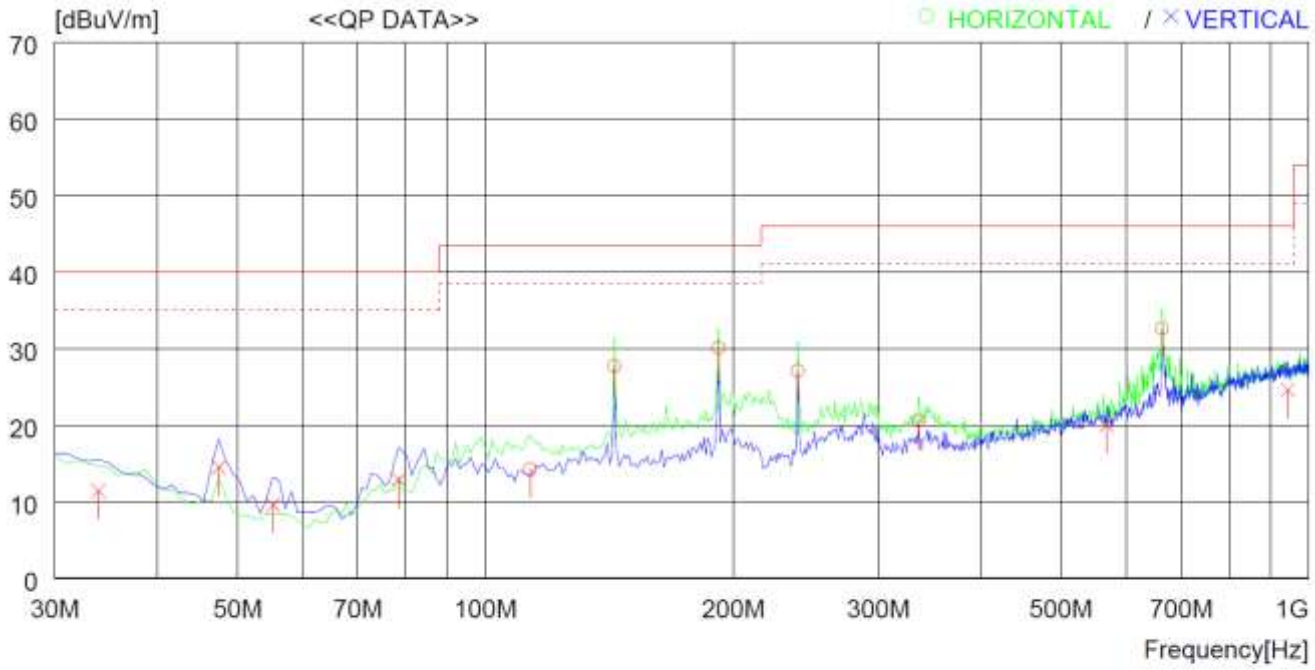
Humidity Level : 41 % R.H. Temperature: 23 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Wi-Fi/BT Transceiver

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	113.420	35.7	10.3	1.0	32.7	14.3	43.5	29.2	400	359
2	143.490	48.2	11.1	1.1	32.7	27.7	43.5	15.8	400	359
3	191.990	48.6	12.8	1.3	32.6	30.1	43.5	13.4	400	344
4	239.520	47.6	10.6	1.5	32.6	27.1	46.0	18.9	400	359
5	335.550	36.9	14.6	1.8	32.7	20.6	46.0	25.4	400	359
6	663.406	42.5	20.5	2.5	32.9	32.6	46.0	13.4	400	310
----- Vertical ------										
7	33.880	32.5	11.0	0.5	32.6	11.4	40.0	28.6	400	157
8	47.460	36.5	10.1	0.6	32.7	14.5	40.0	25.5	400	346
9	55.220	32.0	9.6	0.7	32.7	9.6	40.0	30.4	400	4
10	78.500	36.9	7.9	0.8	32.7	12.9	40.0	27.1	400	4
11	568.349	31.5	19.2	2.3	33.0	20.0	46.0	26.0	400	4
12	942.758	29.9	23.5	3.0	31.8	24.6	46.0	21.4	400	4

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13.5.3 Test data for Intermodulation Mode(Bluetooth + WLAN 2.4 GHz + WLAN 5 GHz)

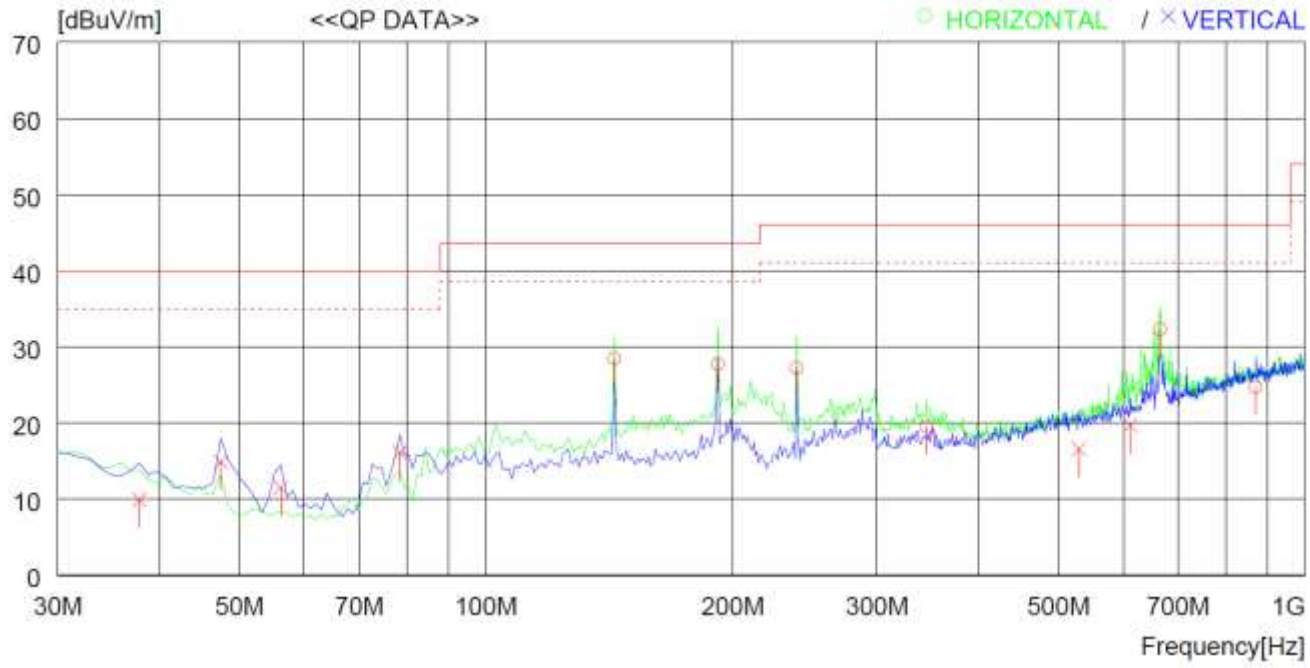
Humidity Level : 41 % R.H. Temperature: 23 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Wi-Fi/BT Transceiver

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	143.490	48.9	11.1	1.1	32.7	28.4	43.5	15.1	400	355
2	191.990	46.2	12.8	1.3	32.6	27.7	43.5	15.8	400	355
3	239.520	47.7	10.6	1.5	32.6	27.2	46.0	18.8	400	25
4	345.250	35.5	14.9	1.8	32.7	19.5	46.0	26.5	400	350
5	665.346	42.1	20.6	2.5	32.9	32.3	46.0	13.7	400	355
6	870.010	31.4	22.9	2.6	32.2	24.7	46.0	21.3	400	34
----- Vertical ------										
7	37.760	31.2	10.9	0.5	32.7	9.9	40.0	30.1	400	37
8	47.460	36.9	10.1	0.6	32.7	14.9	40.0	25.1	400	335
9	56.190	34.0	9.5	0.7	32.7	11.5	40.0	28.5	400	3
10	78.500	40.1	7.9	0.8	32.7	16.1	40.0	23.9	400	3
11	529.550	28.9	18.4	2.2	32.9	16.6	46.0	29.4	400	193
12	611.998	30.3	20.0	2.4	33.0	19.7	46.0	26.3	400	265

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13.6 Test data for Above 1 GHz

13.6.1 Test data for Frequency UNII I

13.6.1.1 Test data for 802.11a RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel								
10 360.00	14.83	Peak	H	36.70	7.84	59.37	68.20	8.83
10 360.00	13.36	Peak	V	36.70	7.84	57.90	68.20	10.30
Middle Channel								
10 440.00	14.03	Peak	H	36.80	7.78	58.61	68.20	9.59
10 440.00	13.64	Peak	V	36.80	7.78	58.22	68.20	9.98
High Channel								
10 480.00	14.34	Peak	H	36.90	7.93	59.17	68.20	9.03
10 480.00	13.57	Peak	V	36.90	7.93	58.40	68.20	9.80

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Emission Level (dBµV/m)

13.6.1.2 Test data for 802.11n_HT20 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
10 360.00	14.17	Peak	H	36.70	7.84	58.71	68.20	9.49
10 360.00	13.32	Peak	V	36.70	7.84	57.86	68.20	10.34
Middle Channel								
10 440.00	14.33	Peak	H	36.80	7.78	58.91	68.20	9.29
10 440.00	13.15	Peak	V	36.80	7.78	57.73	68.20	10.47
High Channel								
10 480.00	14.93	Peak	H	36.90	7.93	59.76	68.20	8.44
10 480.00	13.57	Peak	V	36.90	7.93	58.40	68.20	9.80

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

13.6.1.3 Test data for 802.11n_HT40 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
10 380.00	14.89	Peak	H	36.70	7.84	59.43	68.20	8.77
10 380.00	12.83	Peak	V	36.70	7.84	57.37	68.20	10.83
High Channel								
10 460.00	13.85	Peak	H	36.90	7.93	58.68	68.20	9.52
10 460.00	13.66	Peak	V	36.90	7.93	58.49	68.20	9.71

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

13.6.1.4 Test data for 802.11ac_HT80 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Middle Channel								
10 420.00	13.94	Peak	H	36.80	7.87	58.61	68.20	9.59
10 420.00	12.91	Peak	V	36.80	7.87	57.58	68.20	10.62

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

13.6.2 Test data for Frequency UNII 2A

13.6.2.1 Test data for 802.11a RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
10 520.00	14.72	Peak	H	36.90	7.93	59.55	68.20	8.65
10 520.00	13.50	Peak	V	36.90	7.93	58.33	68.20	9.87
Middle Channel								
10 600.00	15.26	Peak	H	36.90	7.75	59.91	74.00	14.09
10 600.00	3.70	Average	H	36.90	7.75	48.35	54.00	5.65
10 600.00	13.35	Peak	V	36.90	7.75	58.00	74.00	16.00
10 600.00	2.90	Average	V	36.90	7.75	47.55	54.00	6.45
High Channel								
10 640.00	14.73	Peak	H	36.90	7.77	59.40	74.00	14.60
10 640.00	2.74	Average	H	36.90	7.77	47.41	54.00	6.59
10 640.00	13.49	Peak	V	36.90	7.77	58.16	74.00	15.84
10 640.00	2.98	Average	V	36.90	7.77	47.65	54.00	6.35

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

13.6.2.2 Test data for 802.11n_HT20 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
10 520.00	15.95	Peak	H	36.90	7.93	60.78	68.20	7.42
10 520.00	13.53	Peak	V	36.90	7.93	58.36	68.20	9.84
Middle Channel								
10 600.00	13.90	Peak	H	36.90	7.75	58.55	74.00	15.45
10 600.00	3.07	Average	H	36.90	7.75	47.72	54.00	6.28
10 600.00	13.03	Peak	V	36.90	7.75	57.68	74.00	16.32
10 600.00	3.63	Average	V	36.90	7.75	48.28	54.00	5.72
High Channel								
10 640.00	14.67	Peak	H	36.90	7.77	59.34	74.00	14.66
10 640.00	5.07	Average	H	36.90	7.77	49.74	54.00	4.26
10 640.00	12.84	Peak	V	36.90	7.77	57.51	74.00	16.49
10 640.00	2.80	Average	V	36.90	7.77	47.47	54.00	6.53

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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13.6.2.3 Test data for 802.11n_HT40 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
10 540.00	14.64	Peak	H	36.90	7.97	59.51	68.20	8.69
10 540.00	12.27	Peak	V	36.90	7.97	57.14	68.20	11.06
High Channel								
10 620.00	14.64	Peak	H	36.90	7.77	59.31	74.00	14.69
10 620.00	3.92	Average	H	36.90	7.77	48.59	54.00	5.41
10 620.00	15.59	Peak	V	36.90	7.77	60.26	74.00	13.74
10 620.00	3.13	Average	V	36.90	7.77	47.80	54.00	6.20

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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13.6.2.4 Test data for 802.11ac_HT80 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Middle Channel								
10 580.00	14.48	Peak	H	36.90	7.84	59.22	68.20	8.98
10 580.00	13.78	Peak	V	36.90	7.84	58.52	68.20	9.68

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

13.6.3 Test data for Frequency UNII 2C

13.6.3.1 Test data for 802.11a RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
11 000.00	13.74	Peak	H	37.40	7.90	59.04	74.00	14.96
11 000.00	2.71	Average	H	37.40	7.90	48.01	54.00	5.99
11 000.00	14.38	Peak	V	37.40	7.90	59.68	74.00	14.32
11 000.00	3.74	Average	V	37.40	7.90	49.04	54.00	4.96
Middle Channel								
11 160.00	14.83	Peak	H	36.90	8.16	59.89	74.00	14.11
11 160.00	3.57	Average	H	36.90	8.16	48.63	54.00	5.37
11 160.00	14.42	Peak	V	36.90	8.16	59.48	74.00	14.52
11 160.00	3.66	Average	V	36.90	8.16	48.72	54.00	5.28
High Channel								
11 400.00	14.33	Peak	H	37.10	8.14	59.57	74.00	14.43
11 400.00	3.50	Average	H	37.10	8.14	48.74	54.00	5.26
11 400.00	12.77	Peak	V	37.10	8.14	58.01	74.00	15.99
11 400.00	3.03	Average	V	37.10	8.14	48.27	54.00	5.73

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

13.6.3.2 Test data for 802.11n_HT20 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
11 000.00	13.48	Peak	H	37.40	7.90	58.78	74.00	15.22
11 000.00	2.78	Average	H	37.40	7.90	48.08	54.00	5.92
11 000.00	13.39	Peak	V	37.40	7.90	58.69	74.00	15.31
11 000.00	4.09	Average	V	37.40	7.90	49.39	54.00	4.61
Middle Channel								
11 160.00	14.39	Peak	H	36.90	8.16	59.45	74.00	14.55
11 160.00	3.09	Average	H	36.90	8.16	48.15	54.00	5.85
11 160.00	15.15	Peak	V	36.90	8.16	60.21	74.00	13.79
11 160.00	3.90	Average	V	36.90	8.16	48.96	54.00	5.04
High Channel								
11 400.00	14.17	Peak	H	37.10	8.14	59.41	74.00	14.59
11 400.00	3.11	Average	H	37.10	8.14	48.35	54.00	5.65
11 400.00	14.48	Peak	V	37.10	8.14	59.72	74.00	14.28
11 400.00	4.20	Average	V	37.10	8.14	49.44	54.00	4.56

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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13.6.3.3 Test data for 802.11n_HT40 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
11 020.00	15.08	Peak	H	37.40	7.90	60.38	74.00	13.62
11 020.00	3.30	Average	H	37.40	7.90	48.60	54.00	5.40
11 020.00	15.08	Peak	V	37.40	7.90	60.38	74.00	13.62
11 020.00	3.09	Average	V	37.40	7.90	48.39	54.00	5.61
Middle Channel								
11 100.00	15.06	Peak	H	36.90	8.16	60.12	74.00	13.88
11 100.00	4.23	Average	H	36.90	8.16	49.29	54.00	4.71
11 100.00	14.53	Peak	V	36.90	8.16	59.59	74.00	14.41
11 100.00	3.65	Average	V	36.90	8.16	48.71	54.00	5.29
High Channel								
11 340.00	14.71	Peak	H	37.10	8.14	59.95	74.00	14.05
11 340.00	3.80	Average	H	37.10	8.14	49.04	54.00	4.96
11 340.00	12.66	Peak	V	37.10	8.14	57.90	74.00	16.10
11 340.00	3.15	Average	V	37.10	8.14	48.39	54.00	5.61

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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13.6.3.4 Test data for 802.11ac_HT80 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Middle Channel								
11 060.00	14.42	Peak	H	36.90	8.16	59.48	74.00	14.52
11 060.00	4.36	Average	H	36.90	8.16	49.42	54.00	4.58
11 060.00	15.19	Peak	V	36.90	8.16	60.25	74.00	13.75
11 060.00	4.41	Average	V	36.90	8.16	49.47	54.00	4.53

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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13.6.4 Test data for Frequency UNII 3

13.6.4.1 Test data for 802.11a RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
11 490.00	14.16	Peak	H	37.20	8.32	59.68	74.00	14.32
11 490.00	3.79	Average	H	37.20	8.32	49.31	54.00	4.69
11 490.00	14.41	Peak	V	37.20	8.32	59.93	74.00	14.07
11 490.00	2.22	Average	V	37.20	8.32	47.74	54.00	6.26
Middle Channel								
11 570.00	13.70	Peak	H	37.00	8.17	58.87	74.00	15.13
11 570.00	3.02	Average	H	37.00	8.17	48.19	54.00	5.81
11 570.00	14.73	Peak	V	37.00	8.17	59.90	74.00	14.10
11 570.00	2.64	Average	V	37.00	8.17	47.81	54.00	6.19
High Channel								
11 650.00	14.47	Peak	H	36.90	8.20	59.57	74.00	14.43
11 650.00	3.55	Average	H	36.90	8.20	48.65	54.00	5.35
11 650.00	13.70	Peak	V	36.90	8.20	58.80	74.00	15.20
11 650.00	3.39	Average	V	36.90	8.20	48.49	54.00	5.51

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

13.6.4.2 Test data for 802.11n_HT20 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
11 490.00	15.13	Peak	H	37.20	8.32	60.65	74.00	13.35
11 490.00	3.28	Average	H	37.20	8.32	48.80	54.00	5.20
11 490.00	14.04	Peak	V	37.20	8.32	59.56	74.00	14.44
11 490.00	3.02	Average	V	37.20	8.32	48.54	54.00	5.46
Middle Channel								
11 570.00	14.61	Peak	H	37.00	8.17	59.78	74.00	14.22
11 570.00	2.56	Average	H	37.00	8.17	47.73	54.00	6.27
11 570.00	14.15	Peak	V	37.00	8.17	59.32	74.00	14.68
11 570.00	2.48	Average	V	37.00	8.17	47.65	54.00	6.35
High Channel								
11 650.00	15.20	Peak	H	36.90	8.20	60.30	74.00	13.70
11 650.00	3.19	Average	H	36.90	8.20	48.29	54.00	5.71
11 650.00	15.29	Peak	V	36.90	8.20	60.39	74.00	13.61
11 650.00	3.02	Average	V	36.90	8.20	48.12	54.00	5.88

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

13.6.4.3 Test data for 802.11n_HT40 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Low Channel								
11 510.00	13.92	Peak	H	37.20	8.32	59.44	74.00	14.56
11 510.00	3.73	Average	H	37.20	8.32	49.25	54.00	4.75
11 510.00	13.22	Peak	V	37.20	8.32	58.74	74.00	15.26
11 510.00	4.78	Average	V	37.20	8.32	50.30	54.00	3.70
High Channel								
11 590.00	15.02	Peak	H	36.60	8.20	59.82	74.00	14.18
11 590.00	3.61	Average	H	36.60	8.20	48.41	54.00	5.59
11 590.00	14.40	Peak	V	36.60	8.20	59.20	74.00	14.80
11 590.00	4.19	Average	V	36.60	8.20	48.99	54.00	5.01

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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13.6.4.4 Test data for 802.11ac_HT80 RLAN Mode

13.6.4.4.1 Test data for Multiple Transmit

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Frequency range : 1 GHz ~ 40 GHz

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Middle Channel								
11 550.00	13.60	Peak	H	36.80	8.25	58.65	74.00	15.35
11 550.00	3.91	Peak	V	36.80	8.25	48.96	54.00	5.04
11 550.00	14.72	Peak	V	36.80	8.25	59.77	74.00	14.23
11 550.00	4.15	Peak	V	36.80	8.25	49.20	54.00	4.80

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBµV/m) - Emission Level (dBµV/m)

14. RADIATED RESTRICTED BAND EDGE MEASUREMENTS

14.1 Operating environment

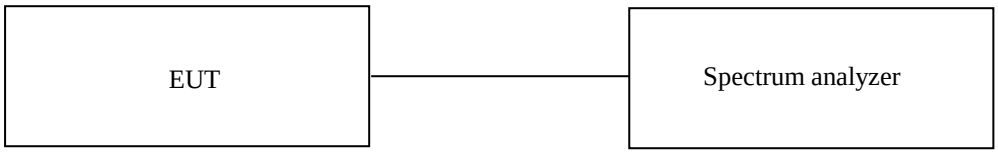
Temperature : 23 °C

Relative humidity : 41 % R.H.

14.2 Test set-up for conducted measurement

The radiated emissions measurements were performed on the 3 m, open-field test site. The EUT was placed on a non-conductive turntable above the ground plane.

The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.



14.3 Test Date

August 21, 2020 ~ September 08, 2020

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14.4 Test data for Frequency UNII I

14.4.1 Test data for 802.11a RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
4 899.322	19.37	Peak	H	28.90	4.98	53.25	74.00	20.75
4 970.521	11.76	Average	H	28.90	4.98	45.64	54.00	8.36
5 053.781	20.17	Peak	V	28.90	4.98	54.05	74.00	19.95
4 742.783	11.67	Average	V	28.90	4.98	45.55	54.00	8.45

Tabulated test data for Restricted Band

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

14.4.2 Test data for 802.11n_HT20 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
4 896.110	18.48	Peak	H	28.90	4.98	52.36	74.00	21.64
4 896.647	9.55	Average	H	28.90	4.98	43.43	54.00	10.57
5 118.750	20.73	Peak	V	28.90	4.98	54.61	74.00	19.39
4 976.350	10.84	Average	V	28.90	4.98	44.72	54.00	9.28

Tabulated test data for Restricted Band

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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14.4.3 Test data for 802.11n_HT40 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 026.109	17.39	Peak	H	28.90	4.98	51.27	74.00	22.73
5 081.898	8.18	Average	H	28.90	4.98	42.06	54.00	11.94
5 067.437	18.46	Peak	V	28.90	4.98	52.34	74.00	21.66
4 991.860	9.05	Average	V	28.90	4.98	42.93	54.00	11.07

Tabulated test data for Restricted Band

Remark - "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBµV/m) - Emission Level (dBµV/m)

14.4.4 Test data for 802.11ac_HT80 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
4 902.102	20.61	Peak	H	28.90	4.98	54.49	74.00	19.51
4 972.881	10.69	Average	H	28.90	4.98	44.57	54.00	9.43
5 038.704	19.79	Peak	V	28.90	4.98	53.67	74.00	20.33
4 970.245	10.23	Average	V	28.90	4.98	44.11	54.00	9.89

Tabulated test data for Restricted Band

Remark - "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBµV/m) - Emission Level (dBµV/m)

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14.5 Test data for Frequency UNII 2A

14.5.1 Test data for 802.11a RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
5 403.663	20.03	Peak	H	28.40	5.24	53.67	74.00	20.33
5 447.302	9.13	Average	H	28.40	5.24	42.77	54.00	11.23
5 454.829	19.04	Peak	V	28.40	5.24	52.68	74.00	21.32
5 448.866	8.82	Average	V	28.40	5.24	42.46	54.00	11.54

Tabulated test data for Restricted Band

Remark - "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

14.5.2 Test data for 802.11n_HT20 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
5 446.650	21.22	Peak	H	28.40	5.24	54.86	74.00	19.14
5 454.426	9.54	Average	H	28.40	5.24	43.18	54.00	10.82
5 452.874	20.66	Peak	V	28.40	5.24	54.30	74.00	19.70
5 449.684	10.72	Average	V	28.40	5.24	44.36	54.00	9.64

Tabulated test data for Restricted Band

Remark - "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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14.5.3 Test data for 802.11n_HT40 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 448.393	19.42	Peak	H	28.40	5.24	53.06	74.00	20.94
5 447.749	9.98	Average	H	28.40	5.24	43.62	54.00	10.38
5 365.916	20.02	Peak	V	28.40	5.24	53.66	74.00	20.34
5 450.982	9.63	Average	V	28.40	5.24	43.27	54.00	10.73

Tabulated test data for Restricted Band

Remark - "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBµV/m) - Emission Level (dBµV/m)

14.5.4 Test data for 802.11ac_HT80 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 450.759	21.31	Peak	H	28.40	5.24	54.95	74.00	19.05
5 448.600	9.79	Average	H	28.40	5.24	43.43	54.00	10.57
5 453.069	20.83	Peak	V	28.40	5.24	54.47	74.00	19.53
5 448.237	9.26	Average	V	28.40	5.24	42.90	54.00	11.10

Tabulated test data for Restricted Band

Remark - "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBµV/m) - Emission Level (dBµV/m)

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14.6 Test data for Frequency UNII 2C

14.6.1 Test data for 802.11a RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
5 447.703	21.28	Peak	H	28.40	5.24	54.92	74.00	19.08
5 447.927	10.03	Average	H	28.40	5.24	43.67	54.00	10.33
5 431.359	20.58	Peak	V	28.40	5.24	54.22	74.00	19.78
5 446.955	9.77	Average	V	28.40	5.24	43.41	54.00	10.59

Tabulated test data for Restricted Band

Remark - "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

14.6.2 Test data for 802.11n_HT20 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
5 451.899	20.18	Peak	H	28.40	5.24	53.82	74.00	20.18
5 450.394	9.33	Average	H	28.40	5.24	42.97	54.00	11.03
5 451.882	20.46	Peak	V	28.40	5.24	54.10	74.00	19.90
5 446.746	9.71	Average	V	28.40	5.24	43.35	54.00	10.65

Tabulated test data for Restricted Band

Remark - "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

14.6.3 Test data for 802.11n_HT40 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 447.183	20.08	Peak	H	28.40	5.24	53.72	74.00	20.28
5 453.388	9.05	Average	H	28.40	5.24	42.69	54.00	11.31
5 459.161	19.67	Peak	V	28.40	5.24	53.31	74.00	20.69
5 448.173	8.69	Average	V	28.40	5.24	42.33	54.00	11.67

Tabulated test data for Restricted Band

Remark - "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBµV/m) - Emission Level (dBµV/m)

14.6.4 Test data for 802.11ac_HT80 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 452.700	20.67	Peak	H	28.40	5.24	54.31	74.00	19.69
5 447.407	10.31	Average	H	28.40	5.24	43.95	54.00	10.05
5 450.724	20.40	Peak	V	28.40	5.24	54.04	74.00	19.96
5 450.331	10.06	Average	V	28.40	5.24	43.70	54.00	10.30

Tabulated test data for Restricted Band

Remark - "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBµV/m) - Emission Level (dBµV/m)

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14.7 Test data for Frequency U-NII-3

14.7.1 Test data for 802.11a RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel								
5 650.000	30.17	Peak	H	28.80	5.39	64.36	80.00	15.64
5 710.000	29.65	Peak	H	28.80	5.39	63.84	119.80	55.96
5 715.000	31.59	Peak	H	28.80	5.39	65.78	121.20	55.42
5 725.000	30.25	Peak	H	28.80	5.39	64.44	134.00	69.56
5 707.267	32.62	Peak	H	28.80	5.39	66.81	119.03	52.22
5 650.000	30.45	Peak	V	28.80	5.39	64.64	80.00	15.36
5 710.000	30.91	Peak	V	28.80	5.39	65.10	119.80	54.70
5 715.000	31.30	Peak	V	28.80	5.39	65.49	121.20	55.71
5 725.000	31.81	Peak	V	28.80	5.39	66.00	134.00	68.00
5 673.986	32.19	Peak	V	28.80	5.39	66.38	97.75	31.37

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High Channel								
5 850.000	31.56	Peak	H	29.30	5.55	66.41	134.00	67.59
5 855.000	31.32	Peak	H	29.30	5.55	66.17	122.60	56.43
5 875.000	31.19	Peak	H	29.30	5.55	66.04	117.00	50.96
5 925.000	31.59	Peak	H	29.30	5.55	66.44	80.00	13.56
5 883.969	32.80	Peak	H	29.30	5.55	67.65	110.37	42.72
5 850.000	32.00	Peak	V	29.30	5.55	66.85	134.00	67.15
5 855.000	31.93	Peak	V	29.30	5.55	66.78	122.60	55.82
5 875.000	31.14	Peak	V	29.30	5.55	65.99	117.00	51.01
5 925.000	32.21	Peak	V	29.30	5.55	67.06	80.00	12.94
5 900.398	32.83	Peak	V	29.30	5.55	67.68	98.21	30.53

Tabulated test data for Restricted Band

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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14.7.2 Test data for 802.11n_HT20 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel								
5 650.000	30.11	Peak	H	28.80	5.39	64.30	80.00	15.70
5 710.000	30.14	Peak	H	28.80	5.39	64.33	119.80	55.47
5 715.000	31.22	Peak	H	28.80	5.39	65.41	121.20	55.79
5 725.000	30.93	Peak	H	28.80	5.39	65.12	134.00	68.88
5 703.070	31.09	Peak	H	28.80	5.39	65.28	117.86	52.58
5 650.000	30.19	Peak	V	28.80	5.39	64.38	80.00	15.62
5 710.000	30.95	Peak	V	28.80	5.39	65.14	119.80	54.66
5 715.000	31.64	Peak	V	28.80	5.39	65.83	121.20	55.37
5 725.000	31.51	Peak	V	28.80	5.39	65.70	134.00	68.30
5 683.279	31.78	Peak	V	28.80	5.39	65.97	104.62	38.65

High Channel								
5 850.000	31.28	Peak	H	29.30	5.55	66.13	134.00	67.87
5 855.000	32.27	Peak	H	29.30	5.55	67.12	122.60	55.48
5 875.000	31.72	Peak	H	29.30	5.55	66.57	117.00	50.43
5 925.000	32.25	Peak	H	29.30	5.55	67.10	80.00	12.90
5 904.874	32.51	Peak	H	29.30	5.55	67.36	94.90	27.54
5 850.000	31.26	Peak	V	29.30	5.55	66.11	134.00	67.89
5 855.000	30.94	Peak	V	29.30	5.55	65.79	122.60	56.81
5 875.000	31.53	Peak	V	29.30	5.55	66.38	117.00	50.62
5 925.000	31.19	Peak	V	29.30	5.55	66.04	80.00	13.96
5 885.622	32.47	Peak	V	29.30	5.55	67.32	109.14	41.82

Tabulated test data for Restricted Band

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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14.7.3 Test data for 802.11n_HT40 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel								
5 650.000	30.10	Peak	H	28.80	5.39	64.29	80.00	15.71
5 710.000	30.56	Peak	H	28.80	5.39	64.75	119.80	55.05
5 715.000	30.40	Peak	H	28.80	5.39	64.59	121.20	56.61
5 725.000	30.76	Peak	H	28.80	5.39	64.95	134.00	69.05
5 677.051	31.67	Peak	H	28.80	5.39	65.86	100.02	34.16
5 650.000	30.69	Peak	V	28.80	5.39	64.88	80.00	15.12
5 710.000	30.44	Peak	V	28.80	5.39	64.63	119.80	55.17
5 715.000	31.37	Peak	V	28.80	5.39	65.56	121.20	55.64
5 725.000	31.34	Peak	V	28.80	5.39	65.53	134.00	68.47
5 692.909	32.87	Peak	V	28.80	5.39	67.06	111.75	44.69

High Channel								
5 850.000	32.46	Peak	H	29.30	5.55	67.31	134.00	66.69
5 855.000	32.25	Peak	H	29.30	5.55	67.10	122.60	55.50
5 875.000	31.29	Peak	H	29.30	5.55	66.14	117.00	50.86
5 925.000	31.19	Peak	H	29.30	5.55	66.04	80.00	13.96
5 906.570	33.20	Peak	H	29.30	5.55	68.05	93.64	25.59
5 850.000	31.80	Peak	V	29.30	5.55	66.65	134.00	67.35
5 855.000	32.31	Peak	V	29.30	5.55	67.16	122.60	55.44
5 875.000	32.19	Peak	V	29.30	5.55	67.04	117.00	49.96
5 925.000	31.94	Peak	V	29.30	5.55	66.79	80.00	13.21
5 877.340	33.06	Peak	V	29.30	5.55	67.91	115.27	47.36

Tabulated test data for Restricted Band

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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14.7.4 Test data for 802.11ac_HT80 RLAN Mode

-. Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode

-. Video bandwidth : 3 MHz for Peak and Average Mode

-. Measurement distance : 3 m

-. Duty Cycle : > 98 %

-. Result : Pass

Frequency (MHz)	Reading (dBµV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Middle Channel								
5 650.000	31.06	Peak	H	28.80	5.39	65.25	80.00	14.75
5 710.000	29.96	Peak	H	28.80	5.39	64.15	119.80	55.65
5 715.000	30.54	Peak	H	28.80	5.39	64.73	121.20	56.47
5 725.000	30.35	Peak	H	28.80	5.39	64.54	134.00	69.46
5 689.488	32.48	Peak	H	28.80	5.39	66.67	109.22	42.55
5 650.000	30.27	Peak	V	28.80	5.39	64.46	80.00	15.54
5 710.000	29.90	Peak	V	28.80	5.39	64.09	119.80	55.71
5 715.000	31.43	Peak	V	28.80	5.39	65.62	121.20	55.58
5 725.000	31.72	Peak	V	28.80	5.39	65.91	134.00	68.09
5 707.101	32.63	Peak	V	28.80	5.39	66.82	118.99	52.17

Middle Channel								
5 850.000	31.30	Peak	H	29.30	5.55	66.15	134.00	67.85
5 855.000	32.18	Peak	H	29.30	5.55	67.03	122.60	55.57
5 875.000	32.15	Peak	H	29.30	5.55	67.00	117.00	50.00
5 925.000	32.30	Peak	H	29.30	5.55	67.15	80.00	12.85
5 906.214	32.61	Peak	H	29.30	5.55	67.46	93.90	26.44
5 850.000	31.71	Peak	V	29.30	5.55	66.56	134.00	67.44
5 855.000	31.14	Peak	V	29.30	5.55	65.99	122.60	56.61
5 875.000	31.95	Peak	V	29.30	5.55	66.80	117.00	50.20
5 925.000	31.25	Peak	V	29.30	5.55	66.10	80.00	13.90
5 901.483	32.82	Peak	V	29.30	5.55	67.67	97.40	29.73

Tabulated test data for Restricted Band

Remark - “H”: Horizontal, “V”: Vertical

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m)

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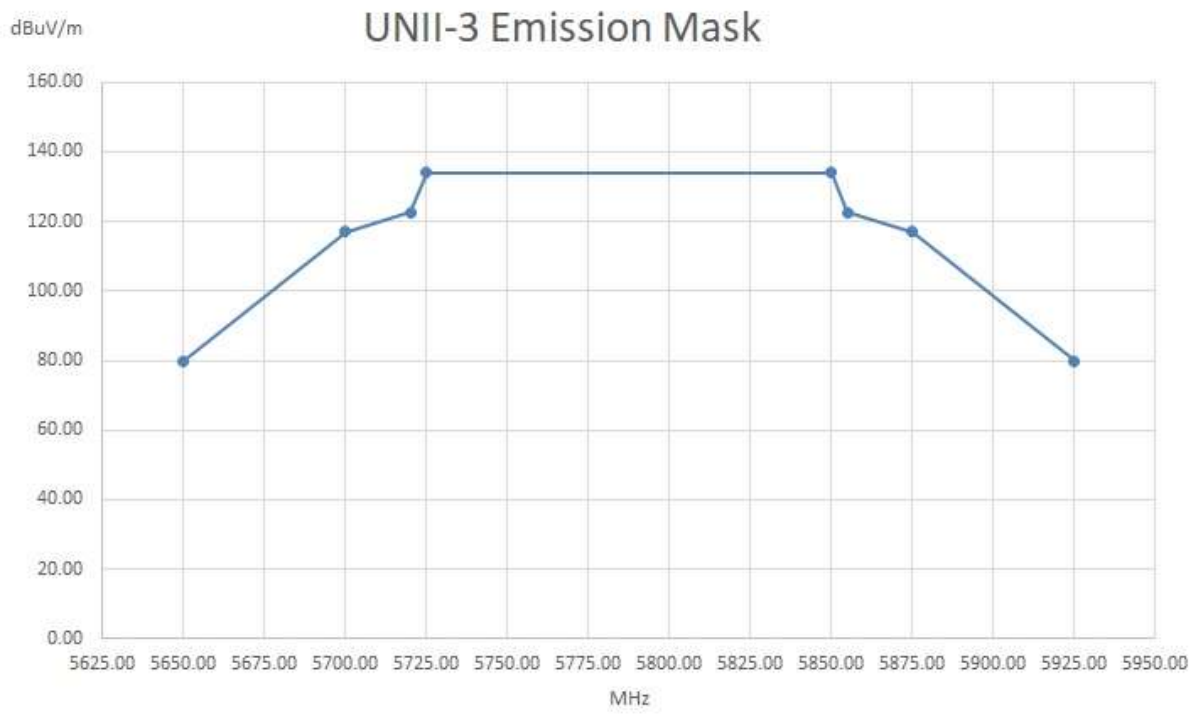
14.7.5 U-NII-3 Emission Limits

14.7.5.1 Emission Mask Plots



Remark.

-. Title 47 → Part 15 → Subpart E—UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE DEVICES

§ 15.407 General technical requirements.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

15. CONDUCTED EMISSION TEST

15.1 Operating environment

Temperature : 23 °C

Relative humidity : 41 % R.H.

15.2 Test set-up

The EUT was placed on a wooden table, 0.8 m height above the floor. Power was fed to the EUT through a 50 Ω / 50 μH + 5 Ω Artificial Mains Network (AMN). The ground plane was electrically bonded to the reference ground system and all power lines were filtered from ambient.

15.3 Test Date

August 21, 2020 ~ September 08, 2020

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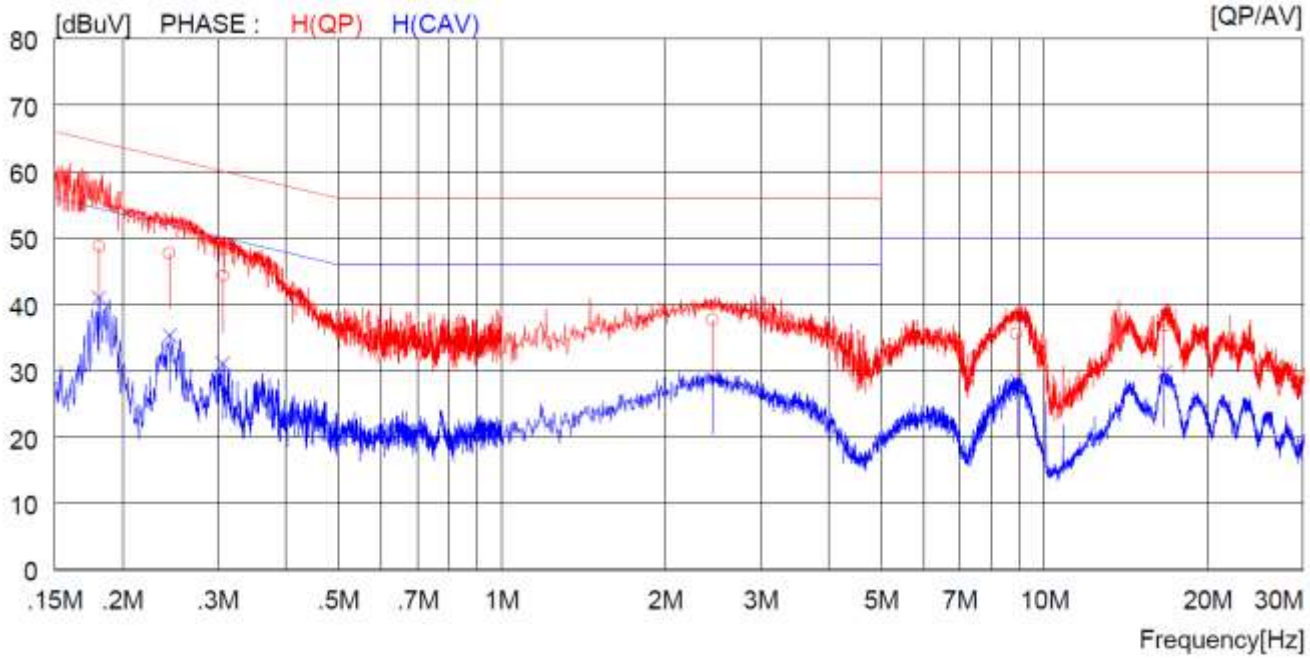
15.4 Test data for WLAN 5 GHz

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : HOT LINE

-. Antenna 0, Antenna 1 and Multiple transmit tested, but the worst data were recorded.



NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR QP [dB]	C.FACTOR AV [dBuV]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.18100	38.7	----	10.0		48.7	----	64.4	----	15.7	----	H(QP)
2	0.24400	37.8	----	9.9		47.7	----	62.0	----	14.3	----	H(QP)
3	0.30600	34.3	----	9.9		44.2	----	60.1	----	15.9	----	H(QP)
4	2.44400	27.6	----	10.1		37.7	----	56.0	----	18.3	----	H(QP)
5	8.88500	25.4	----	10.2		35.6	----	60.0	----	24.4	----	H(QP)
6	16.66000	26.5	----	10.3		36.8	----	60.0	----	23.2	----	H(QP)
7	0.18100	----	31.0	10.0		----	41.0	----	54.4	----	13.4	H(CAV)
8	0.24400	----	25.4	9.9		----	35.3	----	52.0	----	16.7	H(CAV)
9	0.30600	----	21.2	9.9		----	31.1	----	50.1	----	19.0	H(CAV)
10	2.44400	----	18.8	10.1		----	28.9	----	46.0	----	17.1	H(CAV)
11	8.88500	----	18.3	10.2		----	28.5	----	50.0	----	21.5	H(CAV)
12	16.66000	----	19.5	10.3		----	29.8	----	50.0	----	20.2	H(CAV)

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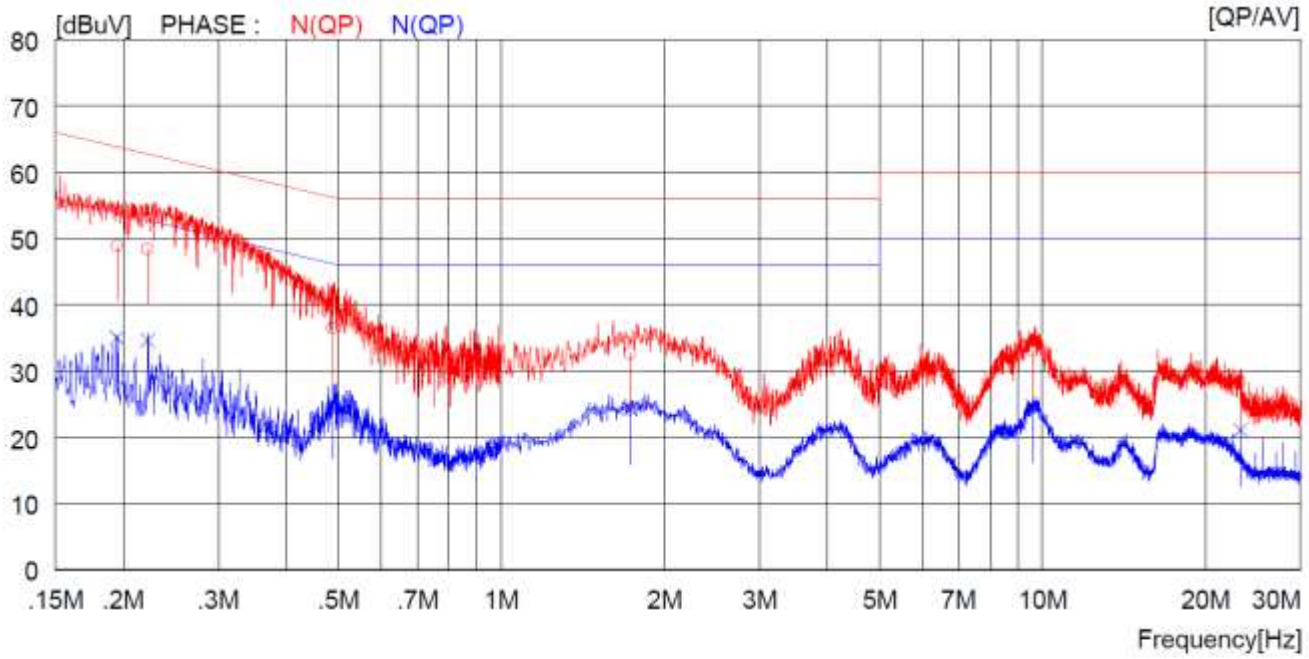
-. Tested Line : NEUTRAL LINE



NO	FREQ	READING QP	READING AV	C.FACTOR QP	C.FACTOR AV	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]			
1	0.19500	38.9	----	10.0		48.9	----	63.8	----	14.9	----	N(QP)
2	0.22200	38.5	----	9.9		48.4	----	62.7	----	14.3	----	N(QP)
3	0.48800	26.6	----	9.9		36.5	----	56.2	----	19.7	----	N(QP)
4	1.72800	22.5	----	10.1		32.6	----	56.0	----	23.4	----	N(QP)
5	9.58500	22.8	----	10.2		33.0	----	60.0	----	27.0	----	N(QP)
6	23.21000	17.8	----	10.5		28.3	----	60.0	----	31.7	----	N(QP)
7	0.19500	----	25.0	10.0		----	35.0	----	53.8	----	18.8	N(CAV)
8	0.22200	----	24.7	9.9		----	34.6	----	52.7	----	18.1	N(CAV)
9	0.48800	----	15.3	9.9		----	25.2	----	46.2	----	21.0	N(CAV)
10	1.72800	----	14.2	10.1		----	24.3	----	46.0	----	21.7	N(CAV)
11	9.58500	----	14.5	10.2		----	24.7	----	50.0	----	25.3	N(CAV)
12	23.21000	----	10.6	10.5		----	21.1	----	50.0	----	28.9	N(CAV)

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

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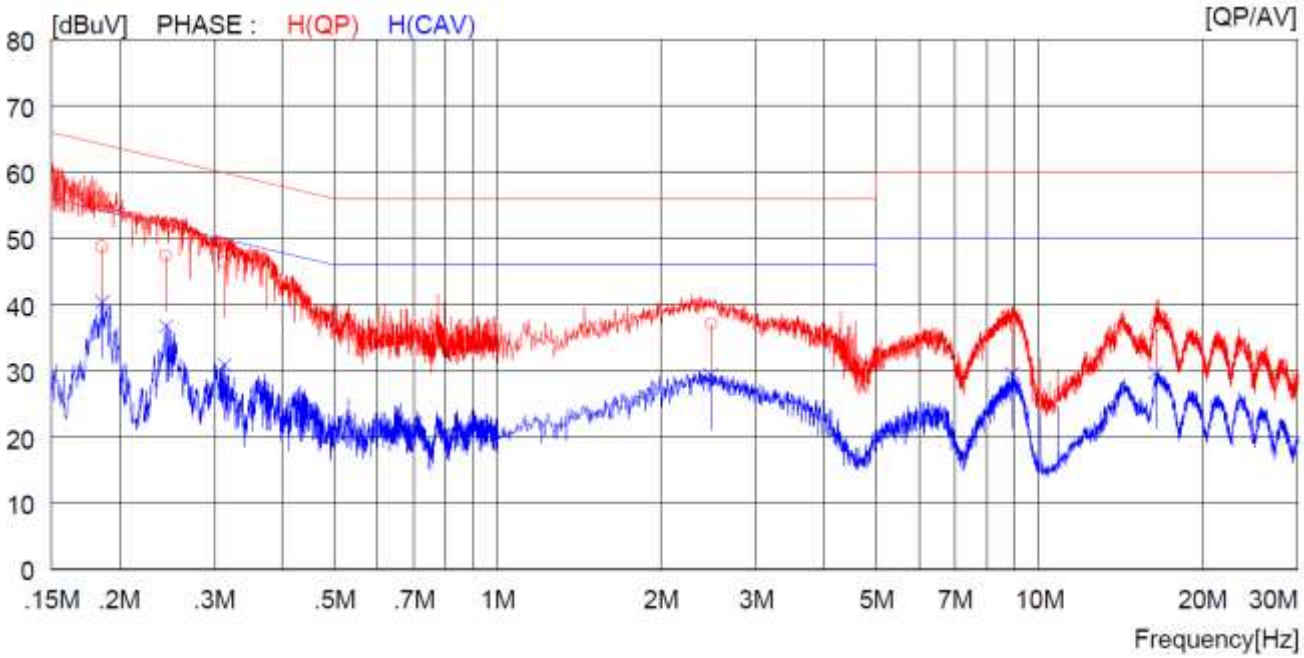
15.5 Test data for Intermodulation Mode(Bluetooth LE + WLAN 2.4 GHz + WLAN 5 GHz)

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : HOT LINE



NO	FREQ	READING QP	READING AV	C.FACTOR QP	C.FACTOR AV	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]			
1	0.18600	38.7	----	10.0		48.7	----	64.2	----	15.5	----	H(QP)
2	0.24400	37.5	----	9.9		47.4	----	62.0	----	14.6	----	H(QP)
3	0.31300	36.5	----	9.9		46.4	----	59.9	----	13.5	----	H(QP)
4	2.47600	27.0	----	10.1		37.1	----	56.0	----	18.9	----	H(QP)
5	8.90500	27.8	----	10.2		38.0	----	60.0	----	22.0	----	H(QP)
6	16.40000	26.6	----	10.3		36.9	----	60.0	----	23.1	----	H(QP)
7	0.18600	----	30.4	10.0		----	40.4	----	54.2	----	13.8	H(CAV)
8	0.24400	----	26.8	9.9		----	36.7	----	52.0	----	15.3	H(CAV)
9	0.31300	----	21.0	9.9		----	30.9	----	49.9	----	19.0	H(CAV)
10	2.47600	----	19.3	10.1		----	29.4	----	46.0	----	16.6	H(CAV)
11	8.90500	----	19.4	10.2		----	29.6	----	50.0	----	20.4	H(CAV)
12	16.40000	----	19.4	10.3		----	29.7	----	50.0	----	20.3	H(CAV)

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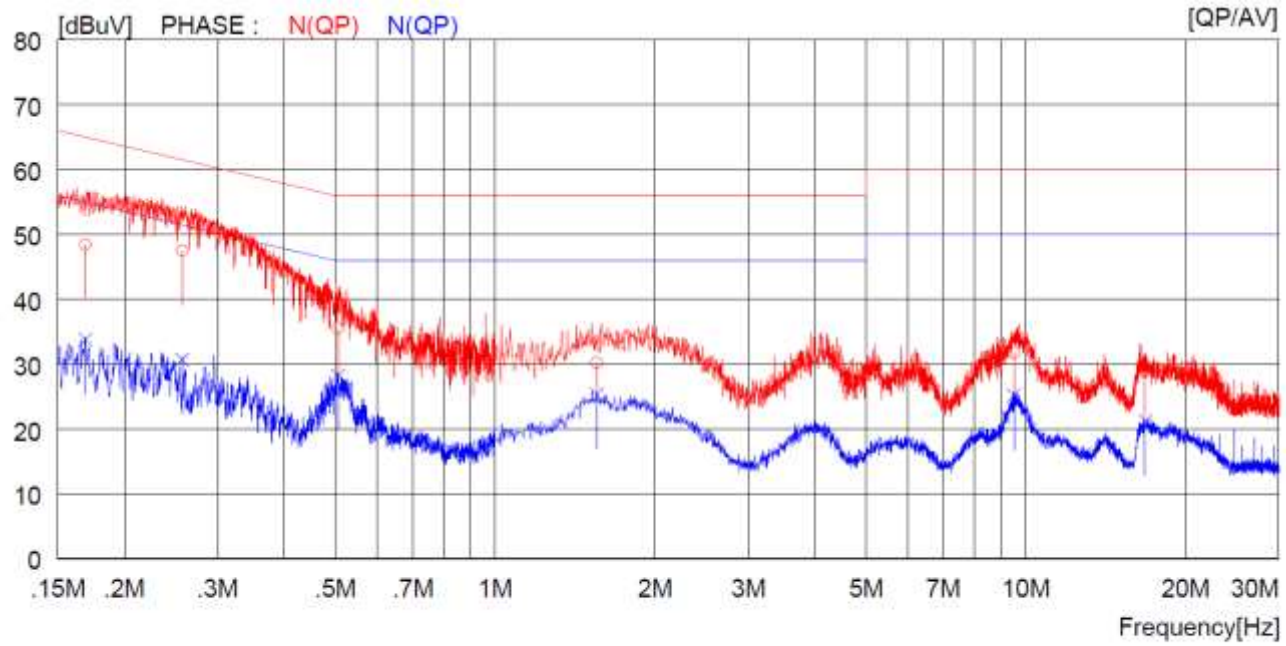
-. Tested Line : NEUTRAL LINE



NO	FREQ	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR QP [dB]	C.FACTOR AV [dBuV]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.16900	38.4	----	10.0		48.4	----	65.0	----	16.6	----	N(QP)
2	0.25700	37.6	----	9.9		47.5	----	61.5	----	14.0	----	N(QP)
3	0.50600	25.5	----	10.0		35.5	----	56.0	----	20.5	----	N(QP)
4	1.55600	20.1	----	10.1		30.2	----	56.0	----	25.8	----	N(QP)
5	9.50500	21.5	----	10.2		31.7	----	60.0	----	28.3	----	N(QP)
6	16.80000	18.6	----	10.3		28.9	----	60.0	----	31.1	----	N(QP)
7	0.16900	----	23.8	10.0		----	33.8	----	55.0	----	21.2	N(CAV)
8	0.25700	----	20.8	9.9		----	30.7	----	51.5	----	20.8	N(CAV)
9	0.50600	----	18.3	10.0		----	28.3	----	46.0	----	17.7	N(CAV)
10	1.55600	----	15.2	10.1		----	25.3	----	46.0	----	20.7	N(CAV)
11	9.50500	----	15.0	10.2		----	25.2	----	50.0	----	24.8	N(CAV)
12	16.80000	----	11.0	10.3		----	21.3	----	50.0	----	28.7	N(CAV)

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

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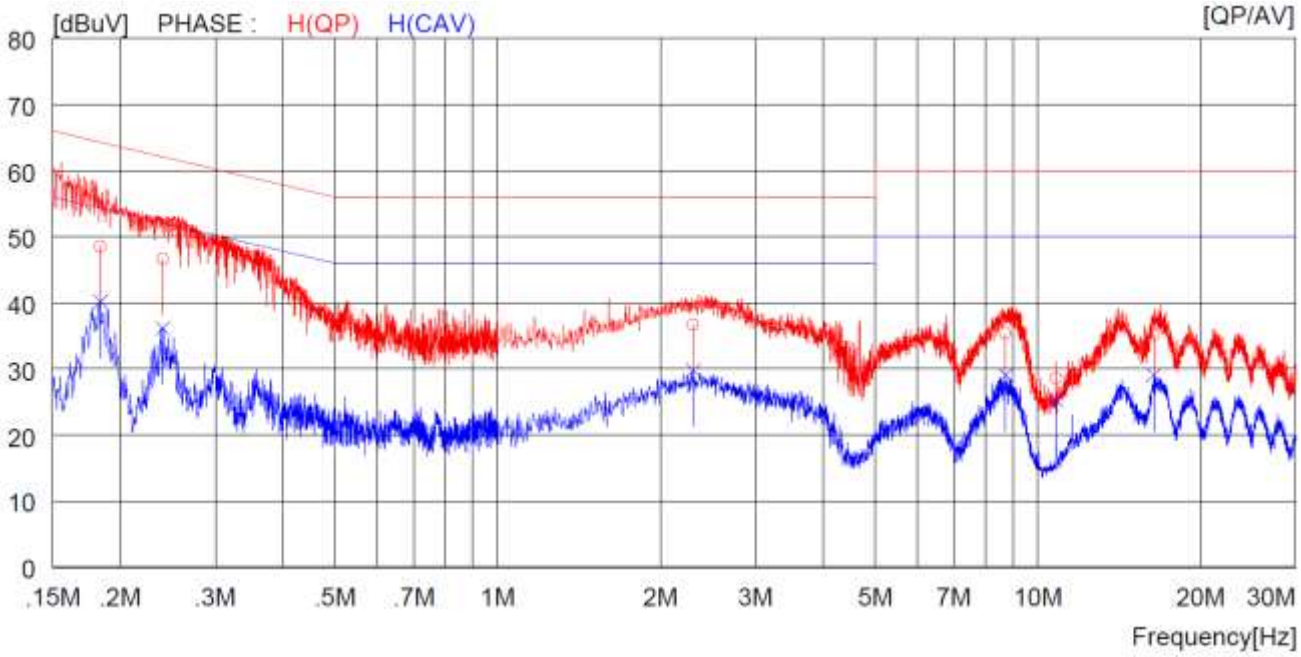
15.6 Test data for Intermodulation Mode(Bluetooth + WLAN 2.4 GHz + WLAN 5 GHz)

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : HOT LINE



NO	FREQ	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR QP [dB]	C.FACTOR AV [dBuV]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.18400	38.5	----	10.0		48.5	----	64.3	----	15.8	----	H(QP)
2	0.24000	36.7	----	9.9		46.6	----	62.1	----	15.5	----	H(QP)
3	2.30400	26.6	----	10.1		36.7	----	56.0	----	19.3	----	H(QP)
4	8.71000	25.2	----	10.2		35.4	----	60.0	----	24.6	----	H(QP)
5	10.82000	18.4	----	10.2		28.6	----	60.0	----	31.4	----	H(QP)
6	16.40000	24.8	----	10.3		35.1	----	60.0	----	24.9	----	H(QP)
7	0.18400	----	30.1	10.0		----	40.1	----	54.3	----	14.2	H(CAV)
8	0.24000	----	26.2	9.9		----	36.1	----	52.1	----	16.0	H(CAV)
9	2.30400	----	19.7	10.1		----	29.8	----	46.0	----	16.2	H(CAV)
10	8.71000	----	18.8	10.2		----	29.0	----	50.0	----	21.0	H(CAV)
11	10.82000	----	15.1	10.2		----	25.3	----	50.0	----	24.7	H(CAV)
12	16.40000	----	18.7	10.3		----	29.0	----	50.0	----	21.0	H(CAV)

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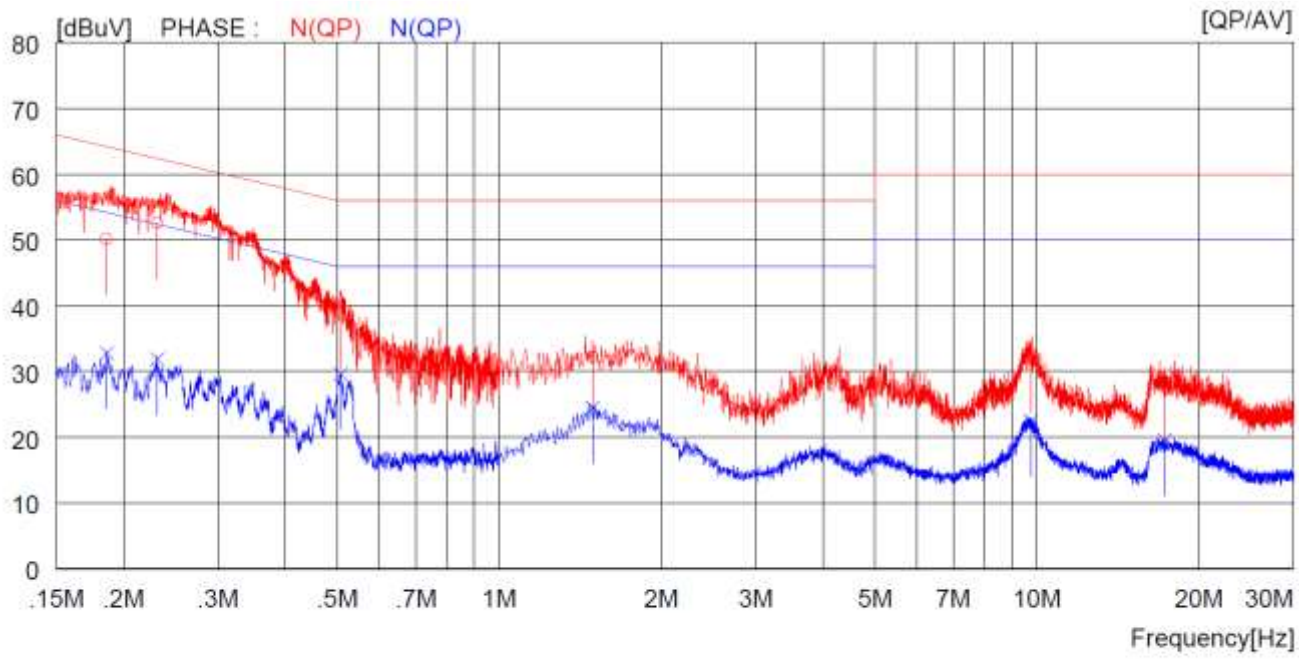
-. Tested Line : NEUTRAL LINE



NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.18600	40.1	----	10.0	50.1	----	64.2	----	14.1	----	N(QP)
2	0.23100	42.6	----	9.9	52.5	----	62.4	----	9.9	----	N(QP)
3	0.50700	28.8	----	10.0	38.8	----	56.0	----	17.2	----	N(QP)
4	1.49200	22.0	----	10.1	32.1	----	56.0	----	23.9	----	N(QP)
5	9.75500	21.9	----	10.2	32.1	----	60.0	----	27.9	----	N(QP)
6	17.32000	17.3	----	10.3	27.6	----	60.0	----	32.4	----	N(QP)
7	0.18600	----	22.8	10.0	----	32.8	----	54.2	----	21.4	N(CAV)
8	0.23100	----	22.0	9.9	----	31.9	----	52.4	----	20.5	N(CAV)
9	0.50700	----	19.6	10.0	----	29.6	----	46.0	----	16.4	N(CAV)
10	1.49200	----	14.4	10.1	----	24.5	----	46.0	----	21.5	N(CAV)
11	9.75500	----	12.3	10.2	----	22.5	----	50.0	----	27.5	N(CAV)
12	17.32000	----	9.3	10.3	----	19.6	----	50.0	----	30.4	N(CAV)

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

16. DYNAMIC FREQUENCY SELECTION (DFS)

16.1 Operating environment

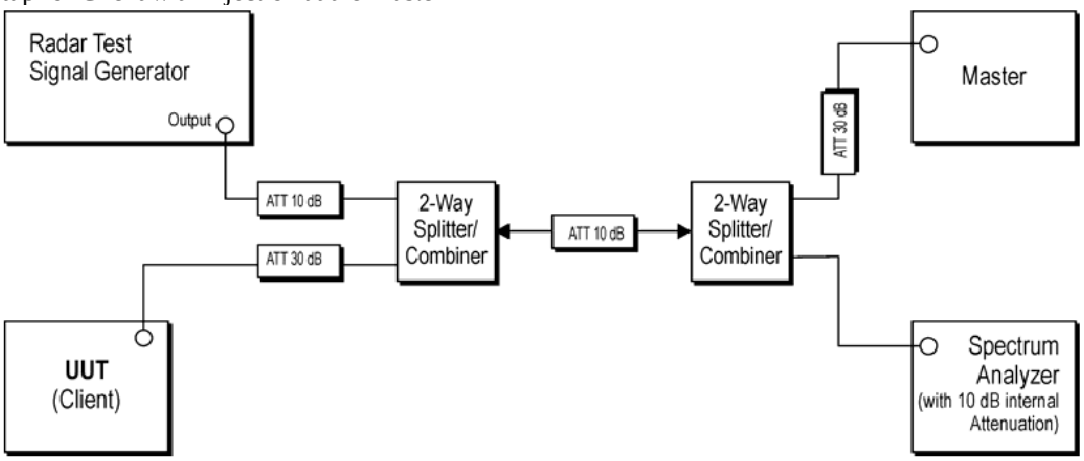
Temperature : 23 °C

Relative humidity : 41 % R.H.

16.2 Test set-ups

The FCC 06-96 and RSS-210 A9.3 describes a conducted test setup. A conducted test setup was user this testing. Figure 1 shows the typical test setup. Each one channel selected between 5 250 MHz and 5 350 MHz, 5 470 MHz and 5 725 MHz is chosen for the testing.

Figure 1. Setup for Client with injection at the Master



The operational behavior and individual DFS requirements that are associated with these modes are as follows:

<Master Devices>

a) The Master Device will use DFS in order to detect Radar Waveforms with received signal strength above the DFS Detection Threshold in the 5 250 – 5 350 MHz and 5 470 – 5 725 MHz bands. DFS is not required in the 5 150 – 5 250 MHz or 5 725 – 5 825 MHz bands.

b) Before initiating a network on a Channel, the Master Device will perform a Channel Availability Check for a specified time duration (Channel Availability Check Time) to ensure that there is no radar system operating on the Channel, using DFS described under subsection a) above.

c) The Master Device initiates a U-NII network by transmitting control signals that will enable other U-NII devices to Associate with the Master Device.

d) During normal operation, the Master Device will monitor the Channel (In-Service Monitoring) to ensure that there is no radar system operating on the Channel, using DFS described under a).

e) If the Master Device has detected a Radar Waveform during In-Service Monitoring as described under d), the Operating Channel of the U-NII network is no longer an Available Channel. The Master Device will instruct all associated Client Device(s) to stop transmitting on this Channel within the Channel Move Time. The transmissions during the Channel Move Time will be limited to the Channel Closing Transmission Time.

f) Once the Master Device has detected a Radar Waveform it will not utilize the Channel for the duration of the Non-Occupancy Period. 3

g) If the Master Device delegates the In-Service Monitoring to a Client Device, then the combination will be tested to the requirements described under d) through f) above.

<Client Devices>

a) A Client Device will not transmit before having received appropriate control signals from a Master Device.

b) A Client Device will stop all its transmissions whenever instructed by a Master Device to which it is associated and will meet the Channel Move Time and Channel Closing Transmission Time requirements. The Client Device will not resume any transmissions until it has again received control signals from a Master Device.

c) If a Client Device is performing In-Service Monitoring and detects a Radar Waveform above the DFS Detection Threshold, it will inform the Master Device. This is equivalent to the Master Device detecting the Radar Waveform and d) through f) of section 5.1.1 apply.

d) Irrespective of Client Device or Master Device detection the Channel Move Time and Channel Closing Transmission Time requirements remain the same.

e) The client test frequency must be monitored to ensure no transmission of any type has occurred for 30 minutes. Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear.

<Channel Connection Information>

a) Master Devices : RF-AX88U

b) Client(=EUT) Devices : WCT731

c) Connect to test channel : See next page for measurement data.

16.3 DFS Test Signals

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	Roundup $\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{PRI_{\mu sec}}\right)\right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μ sec, with a minimum increment of 1 μ sec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Table 6 – Long Pulse Radar Test Waveform

Radar Type	Pulse Width (μsec)	Chirp Width (MHz)	PRI (μsec)	Number of Pulses per *Burst*	Number of *Bursts*	Minimum Percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

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16.4 Technical Requirement Specification

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client (without DFS)	Client (with DFS)
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
Uniform Spreading	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode		
	Master	Client (without DFS)	Client (with DFS)
DFS Detection Threshold	Yes	Not required	Yes
Channel Closing Transmission Time	Yes	Yes	Yes
Channel Move Time	Yes	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required	Yes

16.5 Test Date

August 21, 2020 ~ September 08, 2020

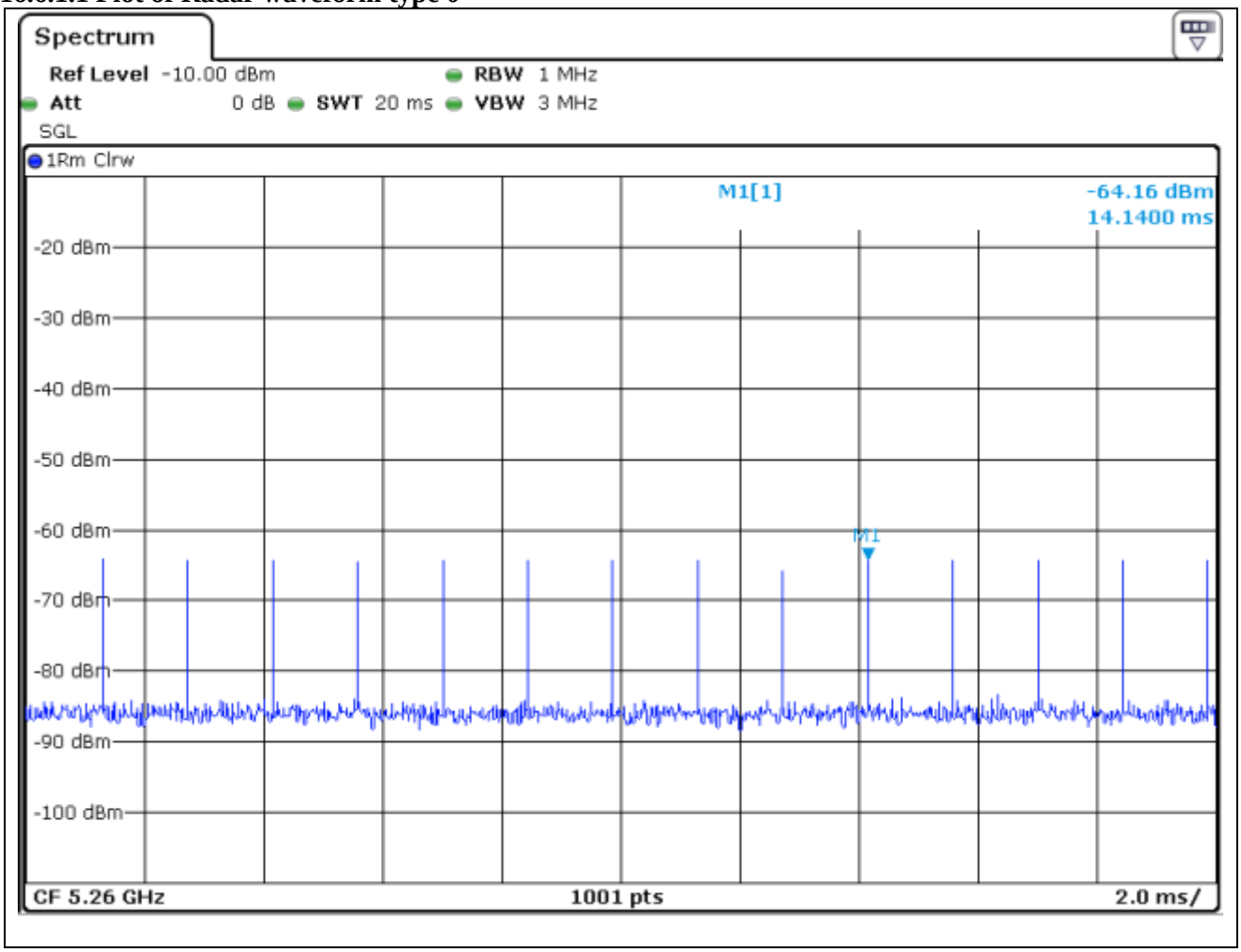
16.6 Test data

Band	Frequency (MHz)	Channel move time(s)		Channel closing transmission time(ms)	
		Measured	Limit	Measured	Limit
UNII 2A	5 260.00	1.80	10.00	2.00	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period.
UNII 2C	5 500.00	0.46		1.40	

Note. Channel closing transmission time: 10 * 0.2 ms = 2.00 ms, 7 * 0.2 ms = 1.40 ms

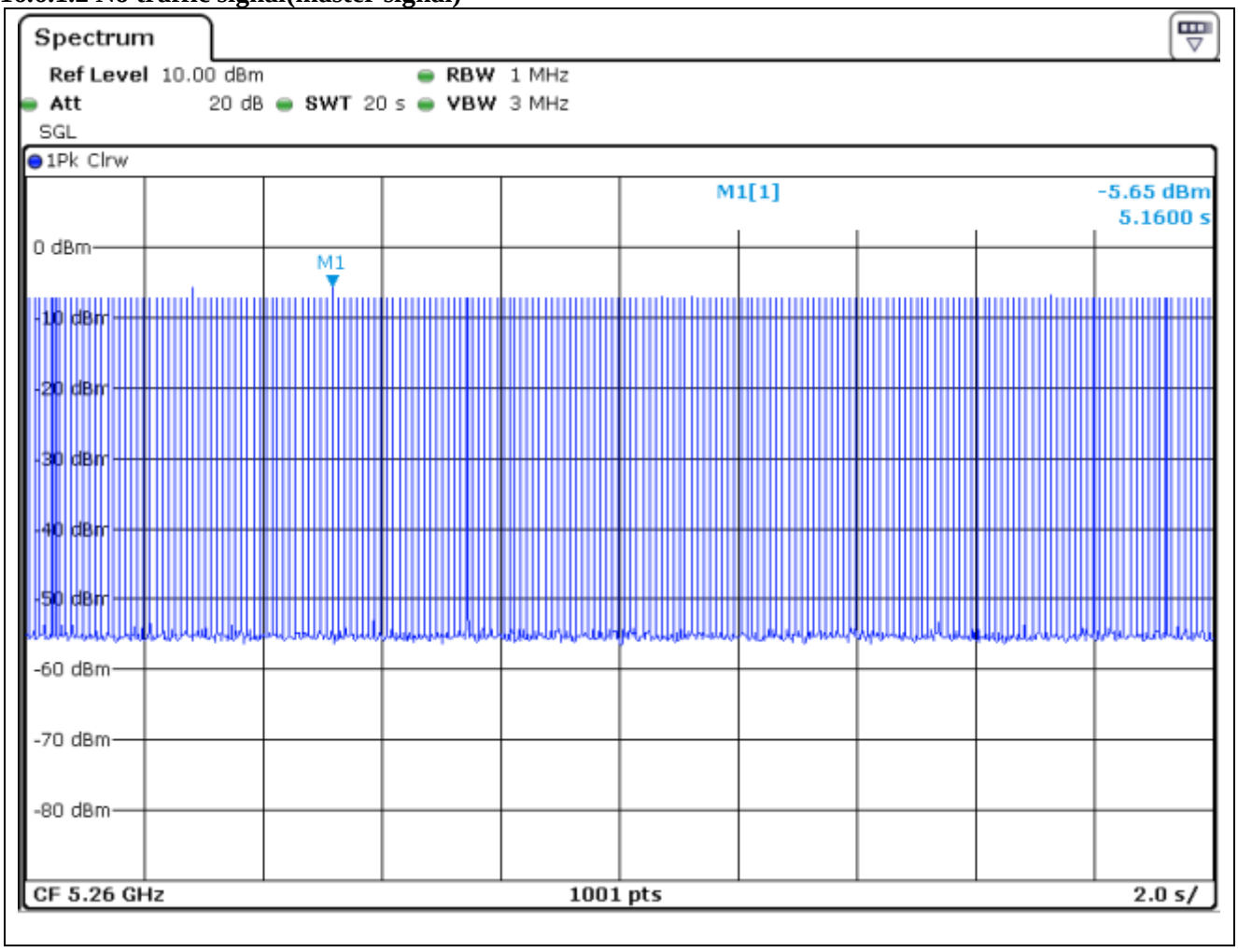
16.6.1 UNII 2A

16.6.1.1 Plot of Radar waveform type 0

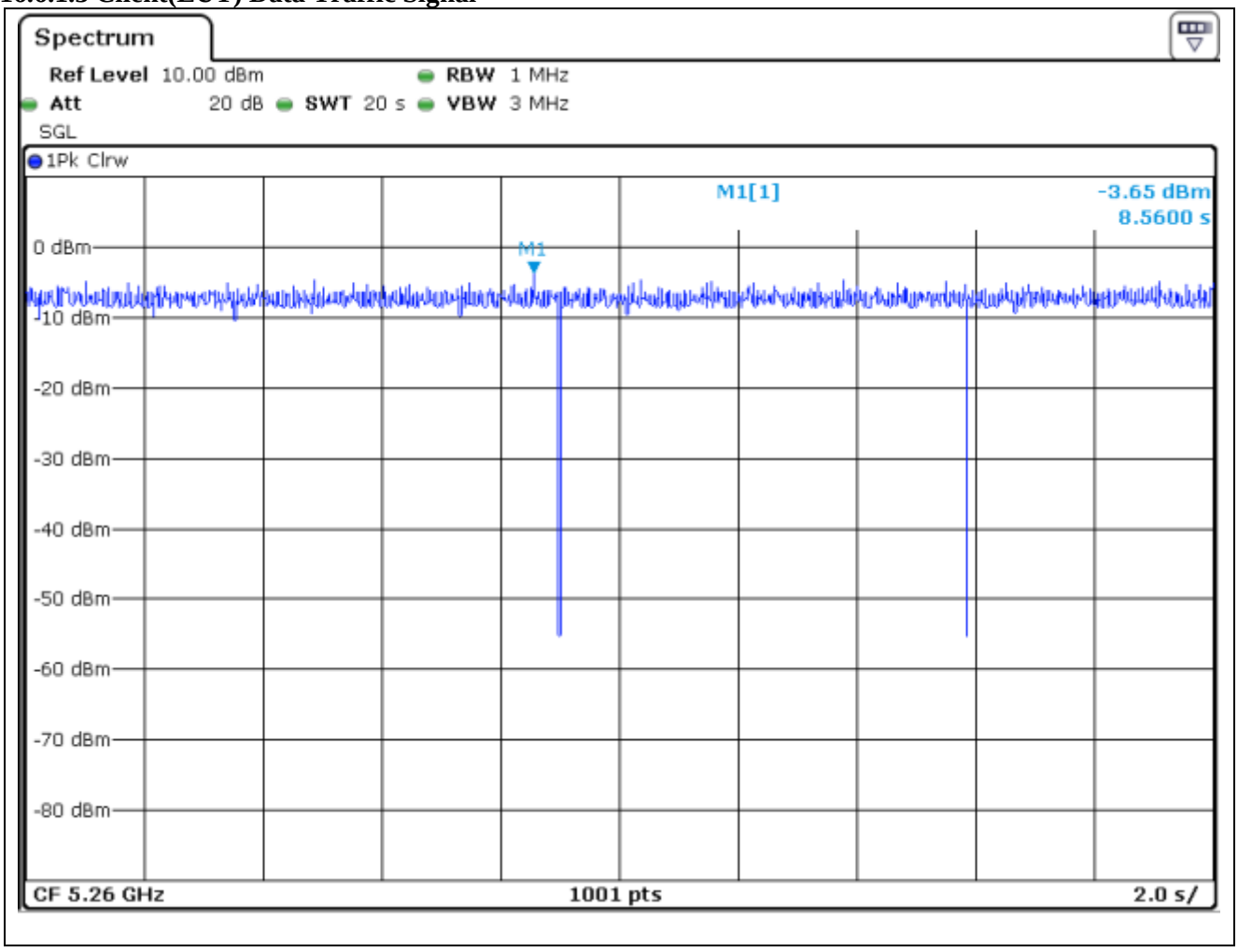


Note: The calibrated conducted DFS detection threshold level is set to -64.16 dBm (-62+1+0.00=-61.00 dBm)

16.6.1.2 No traffic signal(master signal)

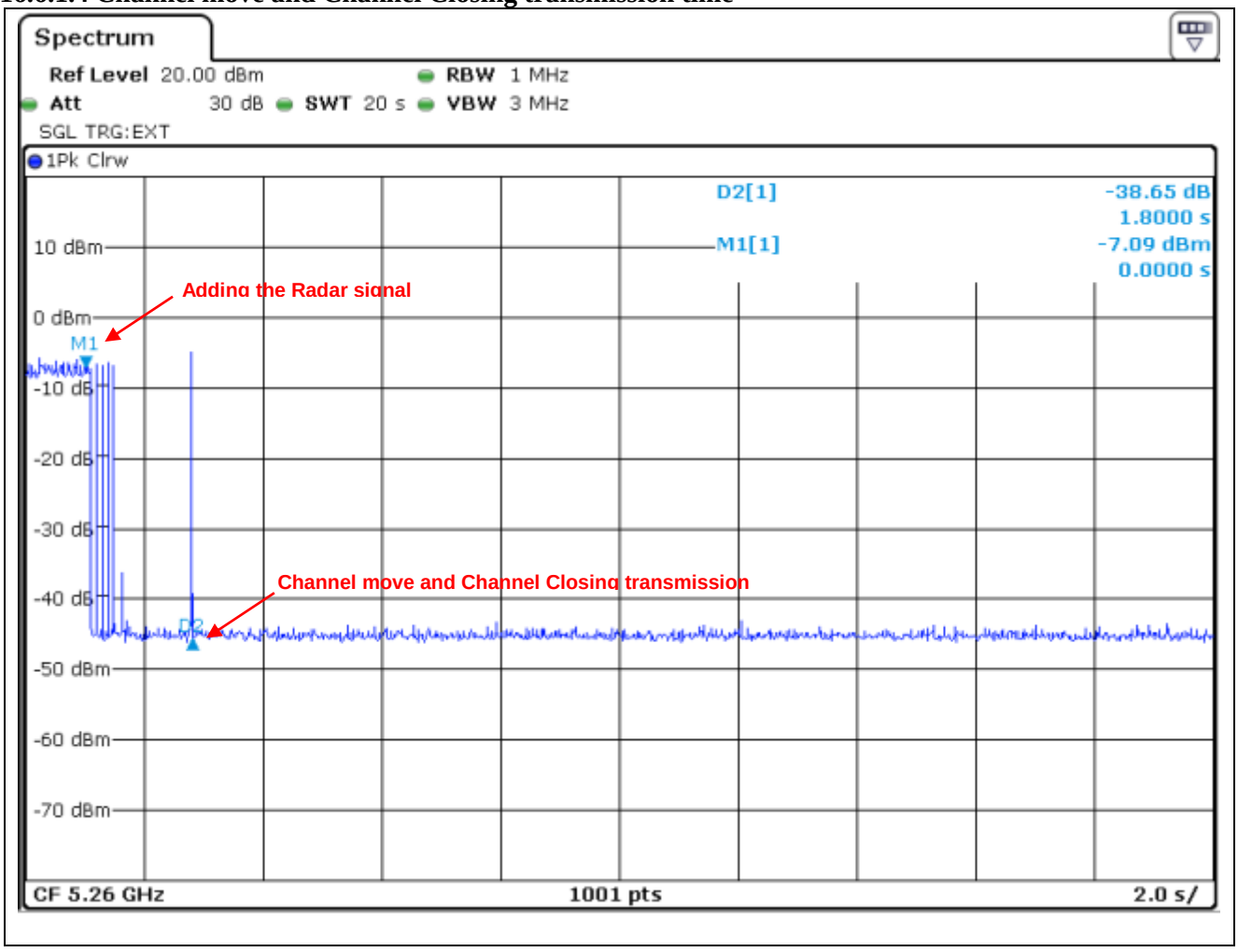


16.6.1.3 Client(EUT) Data Traffic Signal



ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

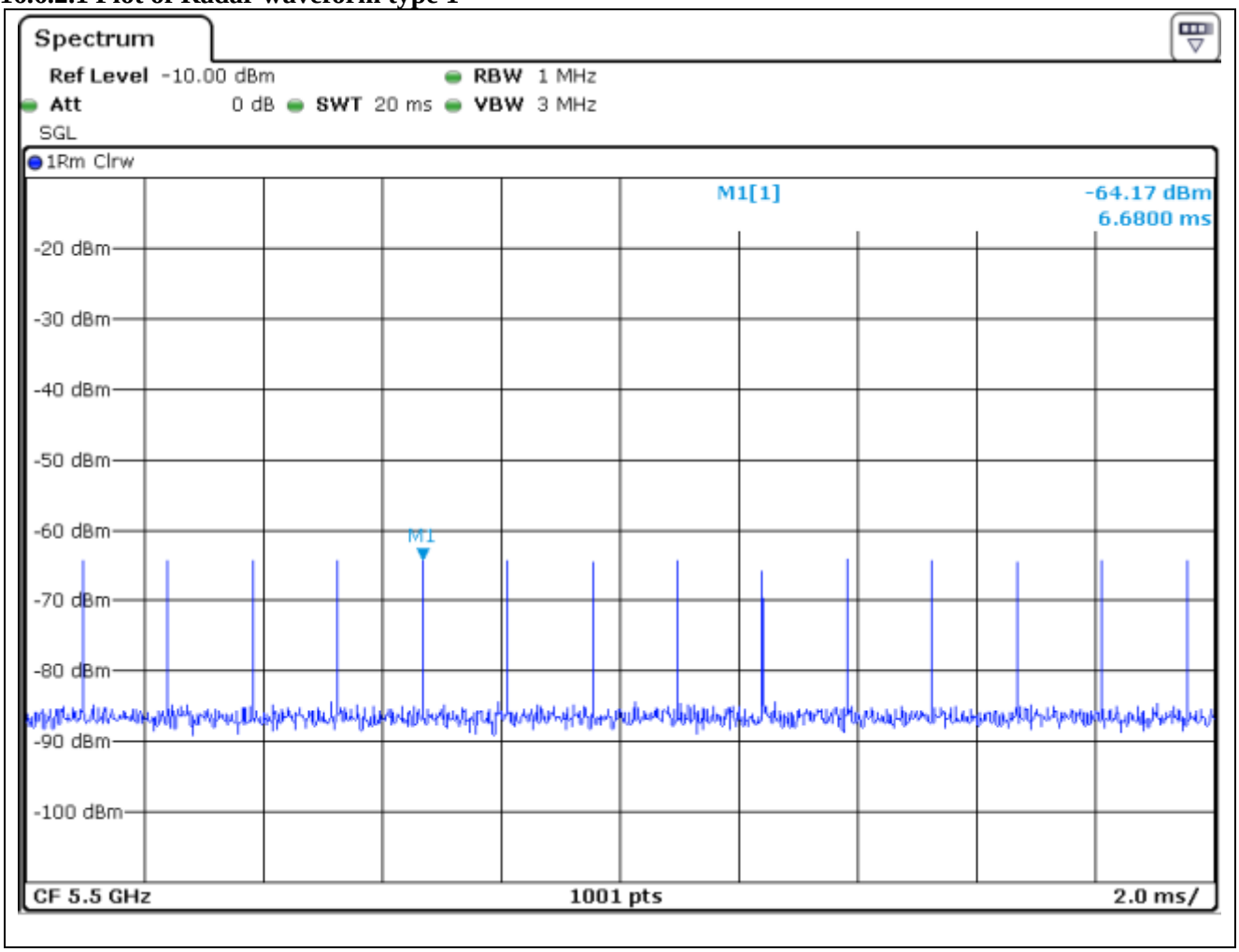
16.6.1.4 Channel move and Channel Closing transmission time



ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

16.6.2 UNII 3

16.6.2.1 Plot of Radar waveform type 1



Note: The calibrated conducted DFS detection threshold level is set to -64.17 dBm (-62+1+2.34=-58.66 dBm)

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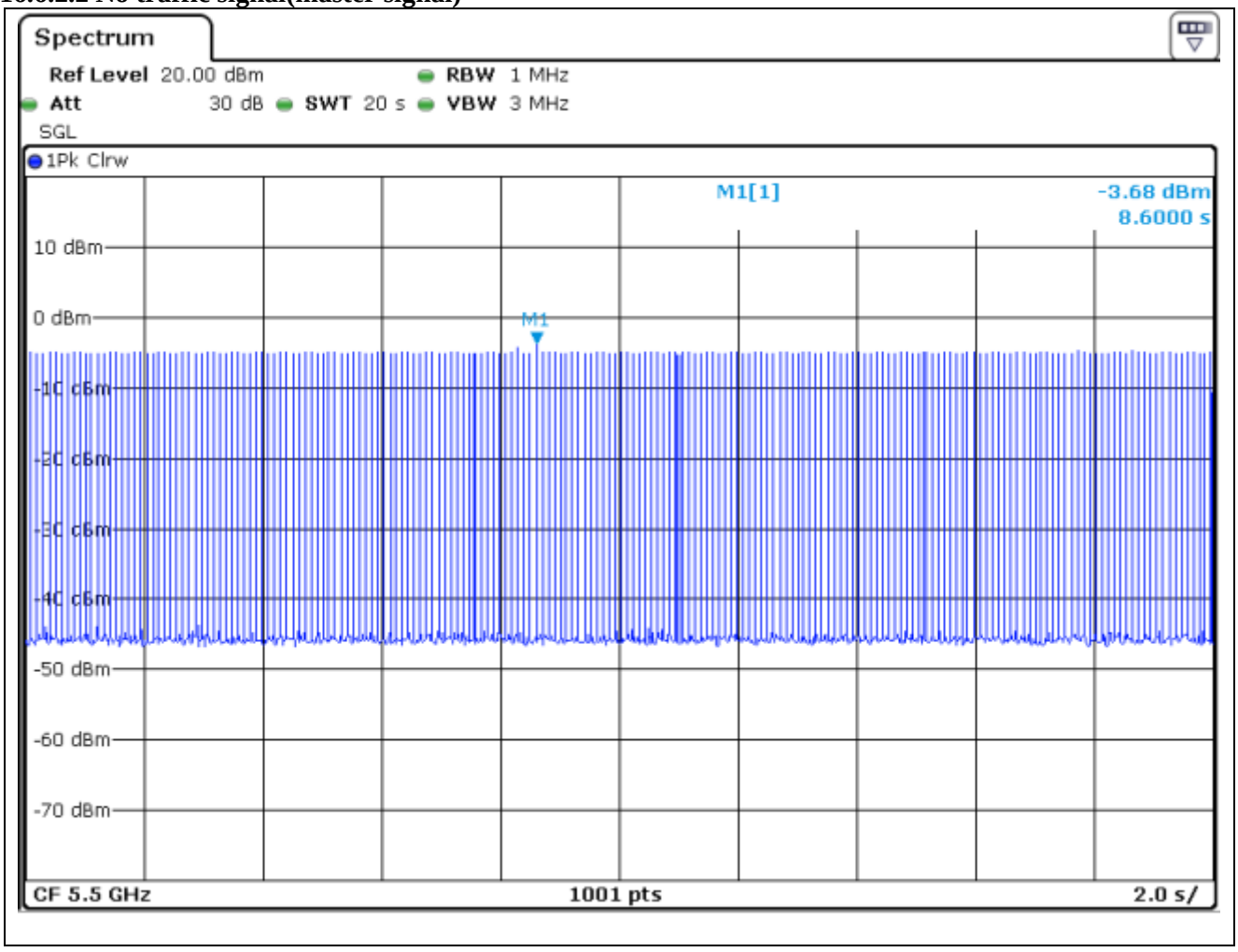
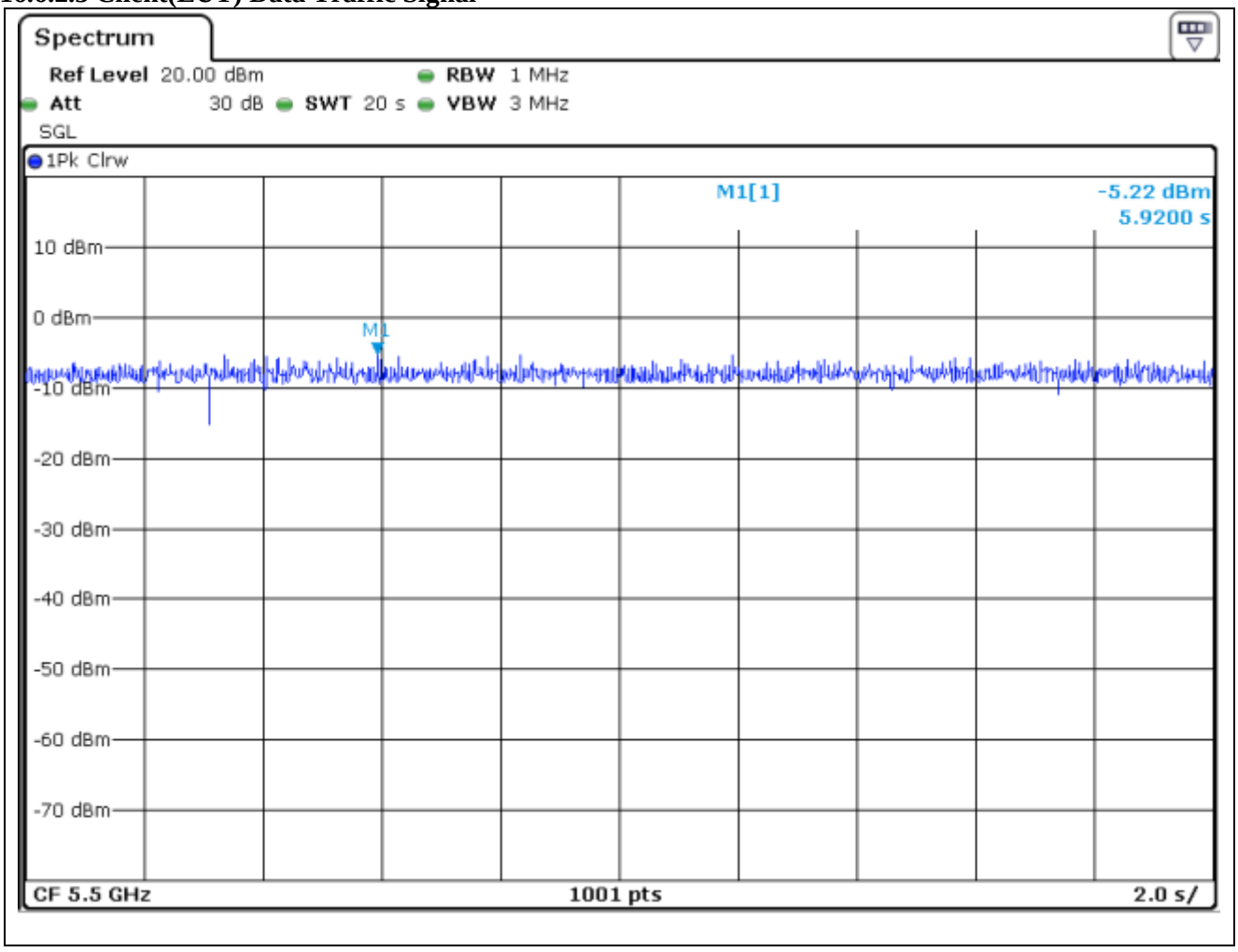
16.6.2.2 No traffic signal(master signal)



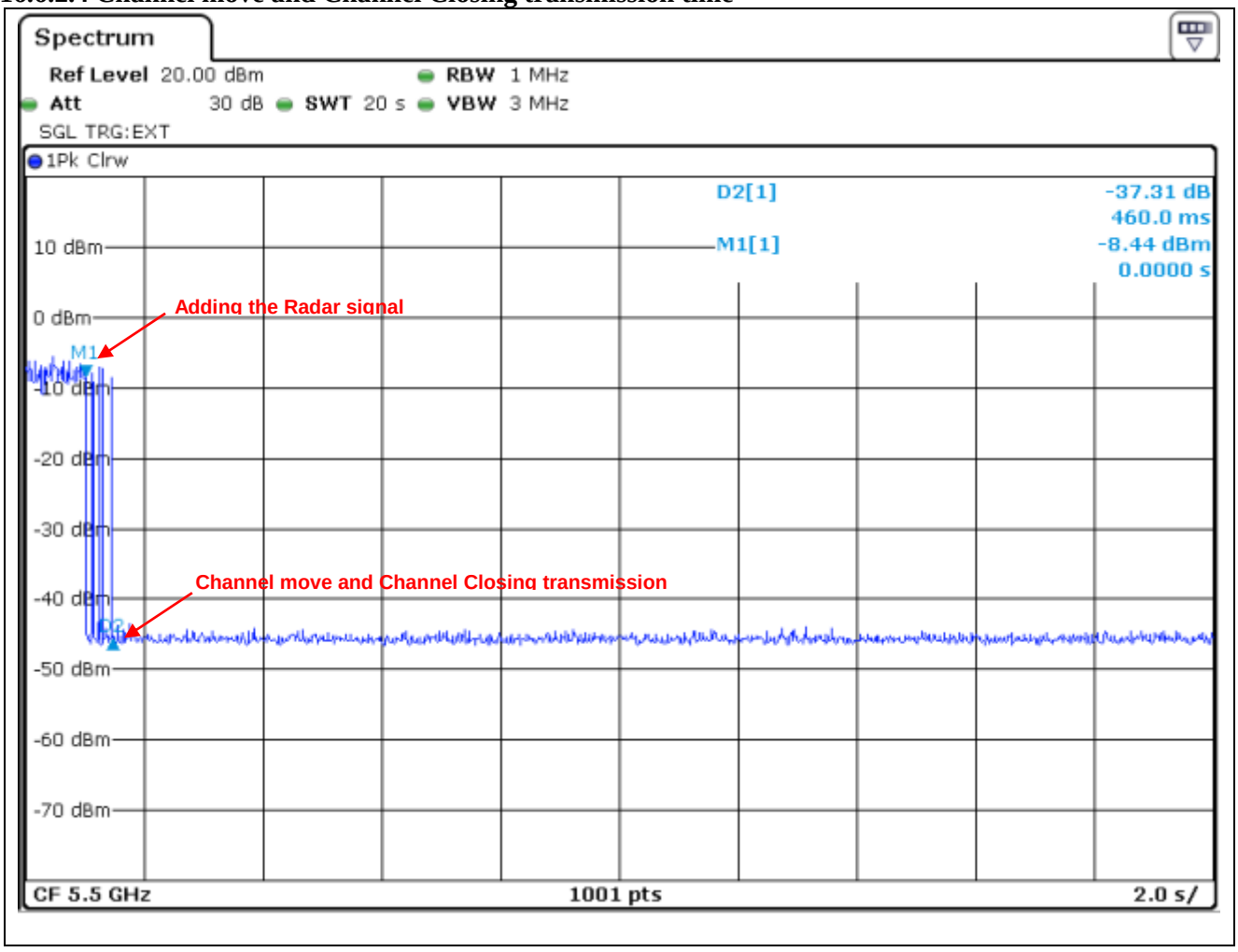
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

16.6.2.3 Client(EUT) Data Traffic Signal



ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

16.6.2.4 Channel move and Channel Closing transmission time



ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

17. LIST OF TEST EQUIPMENT

Model Number	Manufacturer	Description	Serial Number	Last Cal.(Interval)
FSV40-N	Rohde & Schwarz	Signal Analyzer	102177	Apr. 20, 2020 (1Y)
NRP-Z81	Rohde & Schwarz	Wide band Sensor	101975	Feb. 19, 2020 (1Y)
SSE-43CI-A	Samkun Tech	Humidity Chamber	60712	Feb. 21, 2020 (1Y)
E3632A	FinePower	DC Power supply	MY50370016	Feb. 19, 2020 (1Y)
ESW	Rohde & Schwarz	EMI Test Receiver	101851	Mar. 27, 2020 (1Y)
310N	Sonoma Instrument	Pre-Amplifier	312544	Mar. 16, 2020 (1Y)
BBV 9718 B	Schwarzbeck	Broadband Preamplifier	00009	Mar. 16, 2020 (1Y)
SCU40A	Rohde & Schwarz	Signal Conditioning unit	100436	Feb. 20, 2020 (1Y)
SCU18	Rohde & Schwarz	Signal Conditioning unit	102266	Jul. 15, 2020 (1Y)
DT3000-3t	Innco System	Turn Table	DT3000/093	N/A
MA-4000XPET	Innco System	Antenna Master	MA4000/509	N/A
VULB9163	Schwarzbeck	TRILOG Broadband Antenna	777	Apr. 08, 2020 (2Y)
BBHA 9120D	Schwarzbeck	Horn Antenna	9120D-1366	Jul. 23, 2020 (1Y)
BBHA9170	Schwarzbeck	Horn Antenna	BBHA9170178	Jan. 07, 2020(1Y)
ESCI	Rohde & Schwarz	Test Receiver	101012	Oct. 22, 2019 (1Y)
NSLK8126	Schwarzbeck	AMN	8126-404	Mar. 16, 2020 (1Y)
3825/2	EMCO	AMN	9109-1869	Mar. 16, 2020 (1Y)
D-05180-2	RLC Electronis Inc.	Combiner	0813	N/A
11636B	Hewlett Packard	Combiner	12268	N/A
SMBV100A	R/S	Signal Generator	260423	Feb. 21, 2020 (1Y)
RF-AX88U	ASUS	Dual Band Gigabit Router	NA	N/A

Note. Dual Band Gigabit Router(Model : RF-AX88U) Information.

; FCC ID : MSQ-RTAXHP00, IC ID : 3568A-RTAXHP00

Note. This Device not support TPC Function.

All test equipment used is calibrated on a regular basis.