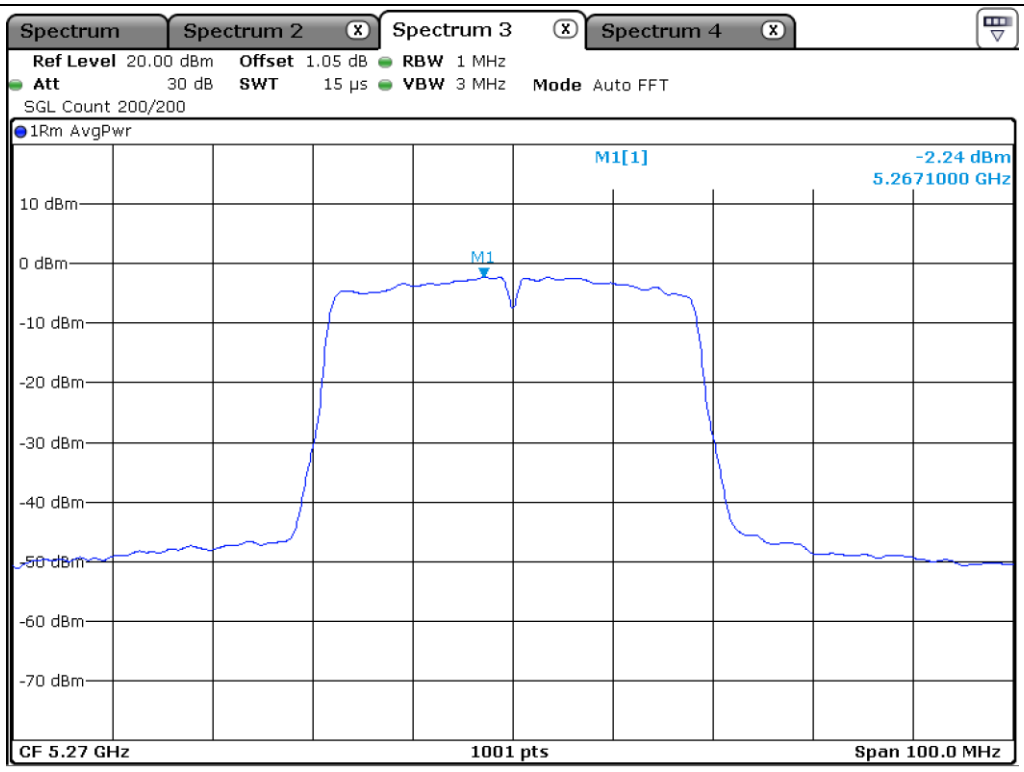
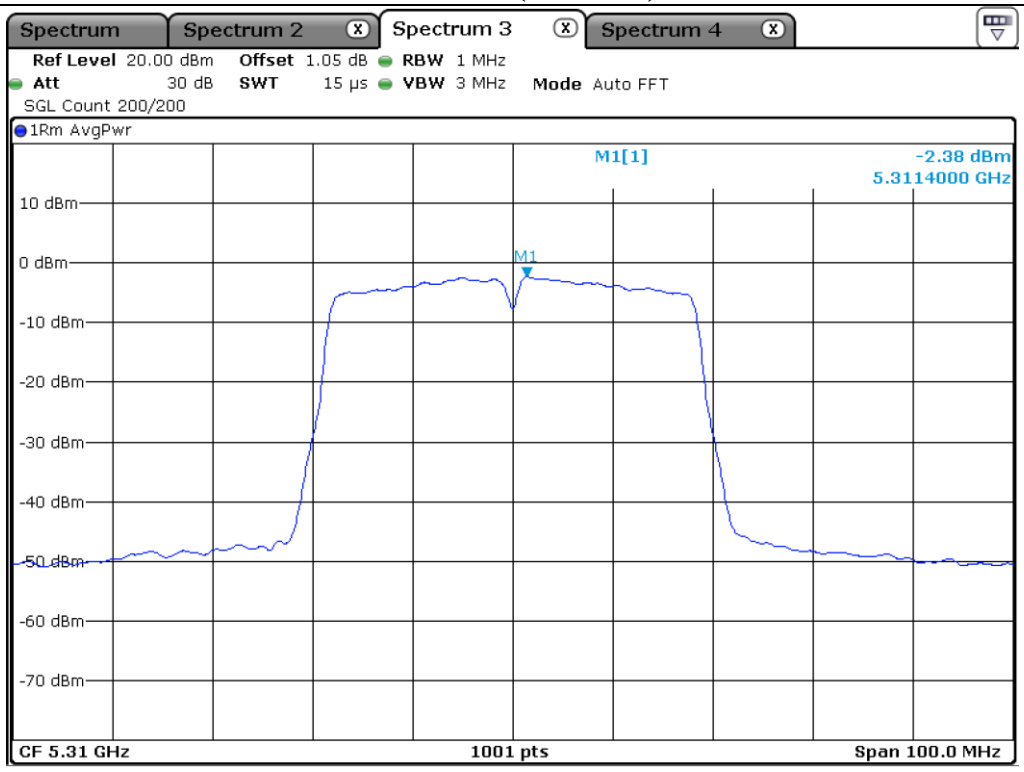
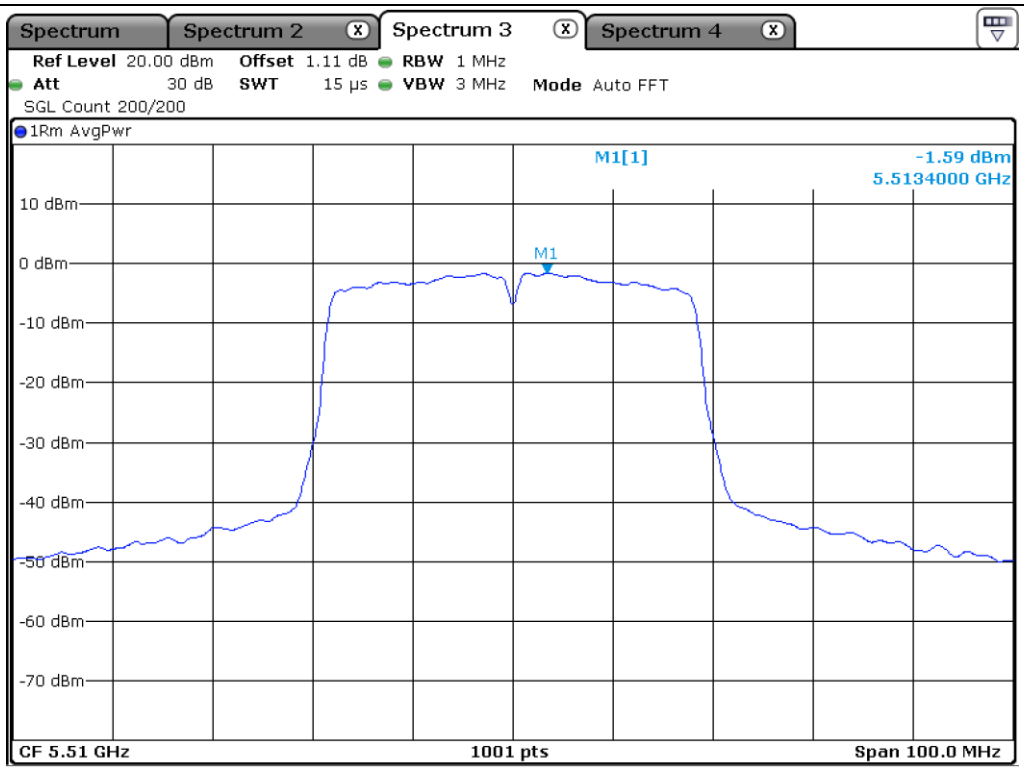


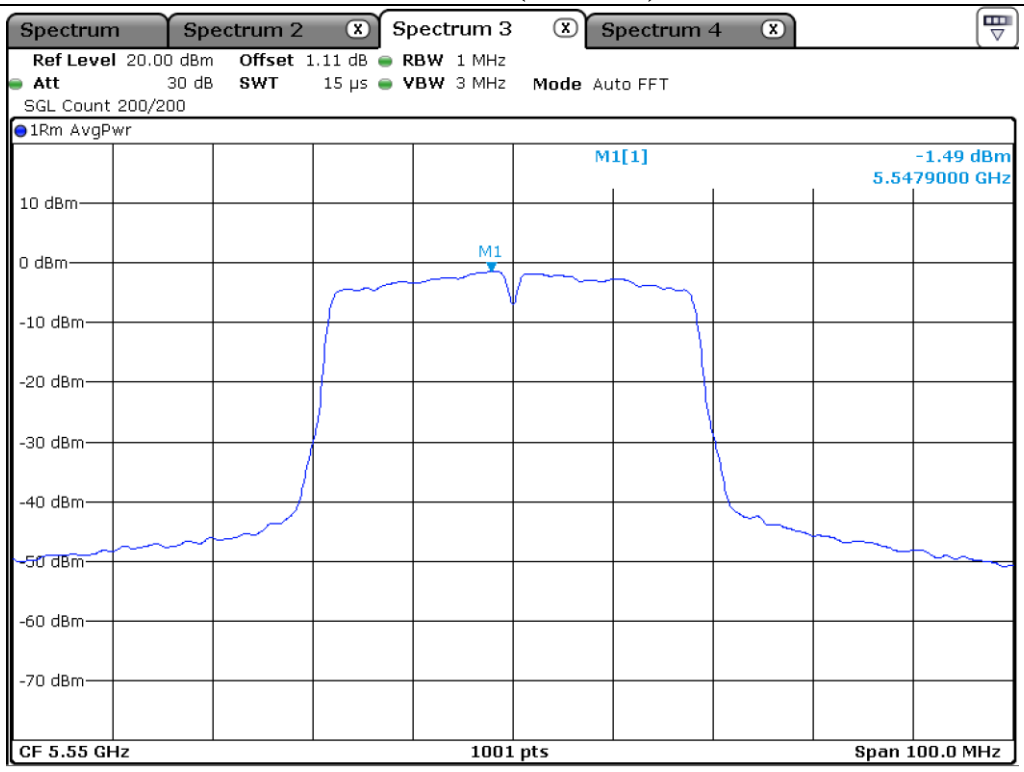
Low Channel (5 270 MHz)



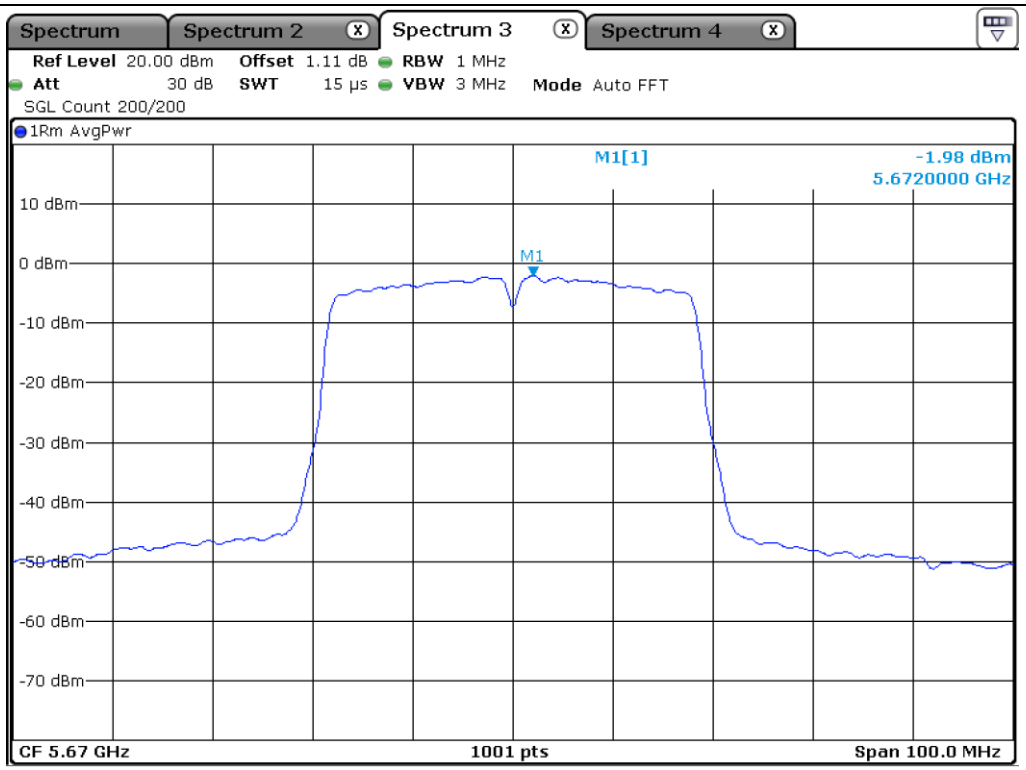
High Channel (5 310 MHz)



Low Channel (5 510 MHz)

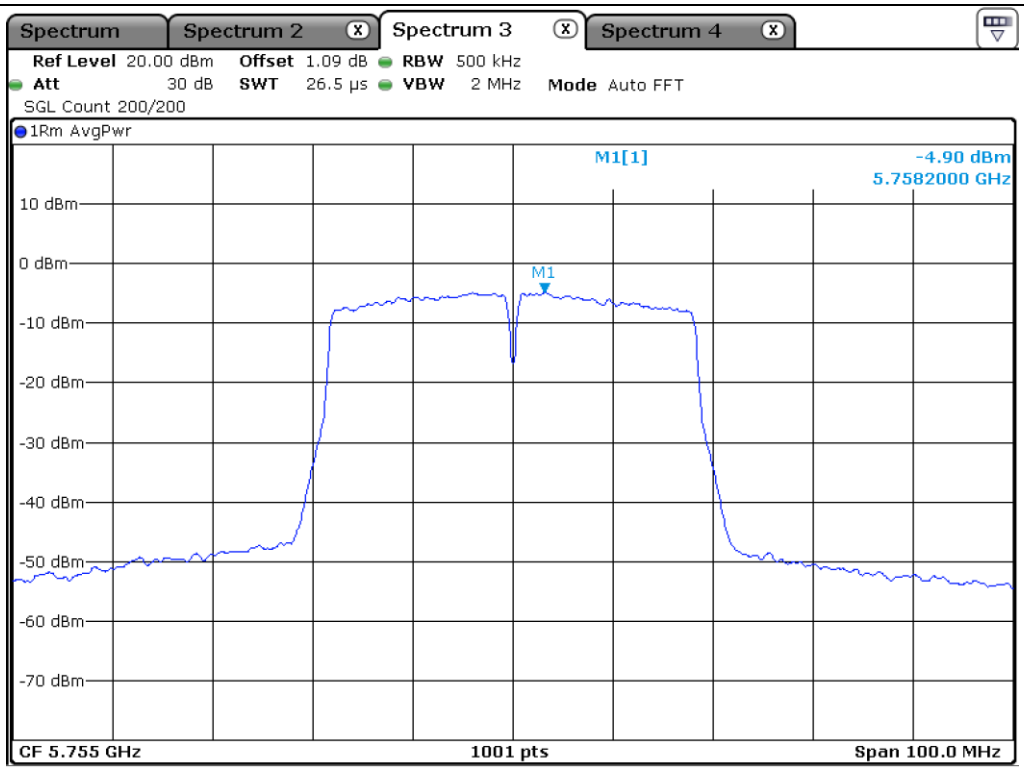


Middle Channel (5 550 MHz)

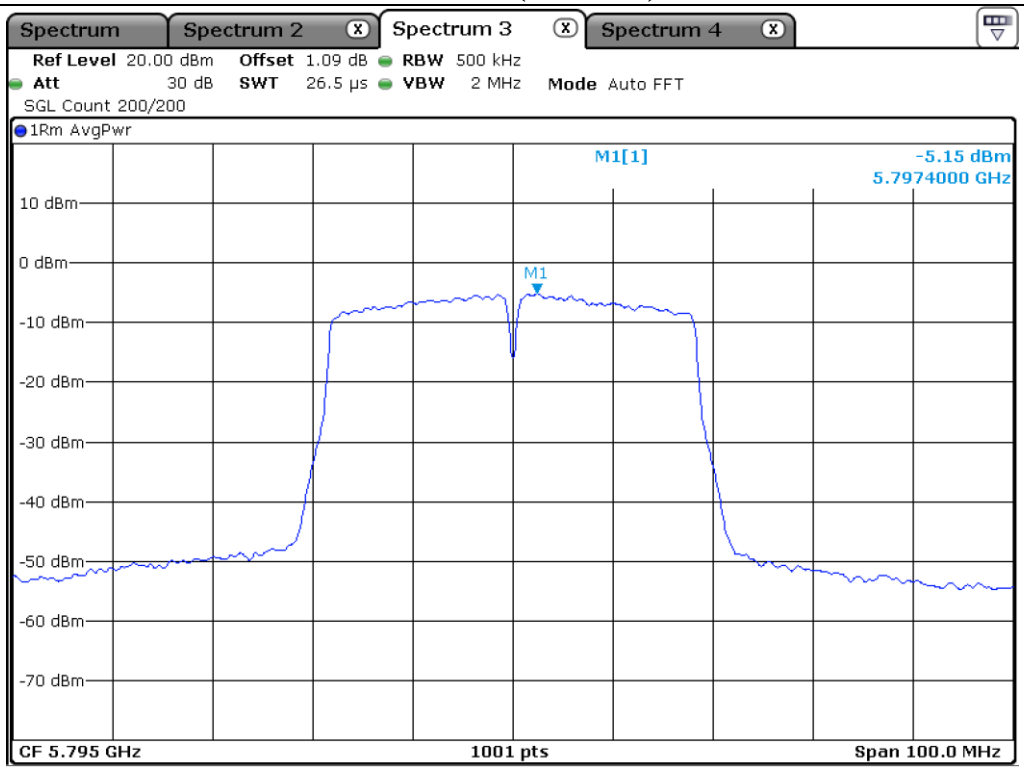


High Channel (5 670 MHz)

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)

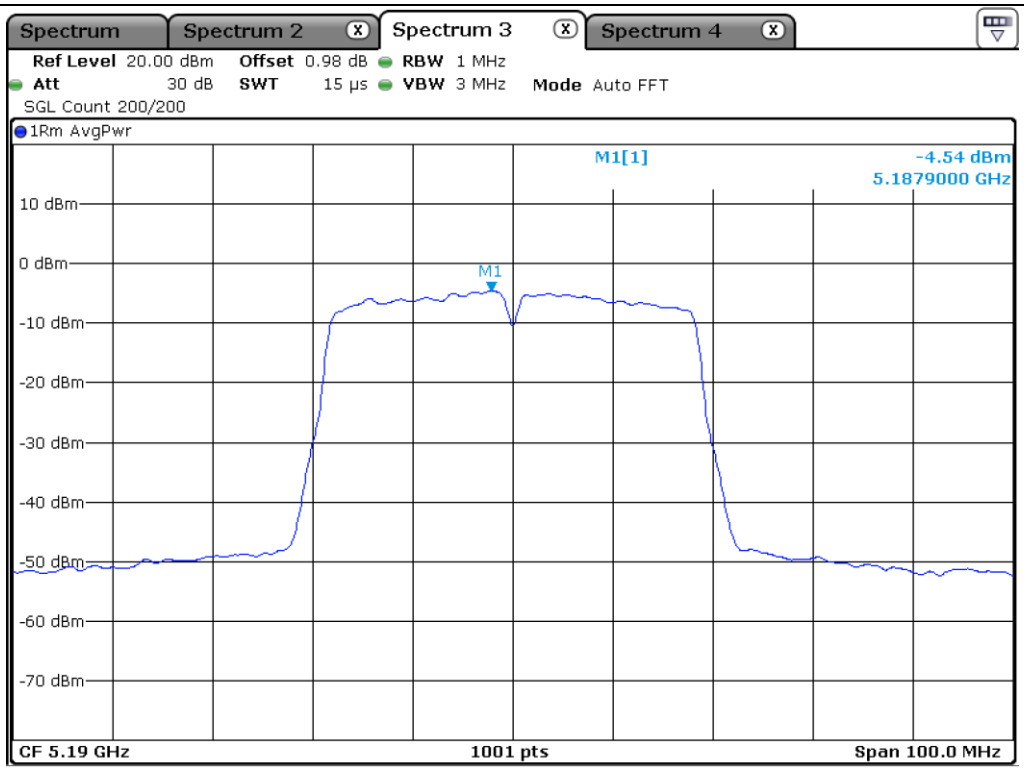
10.6.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

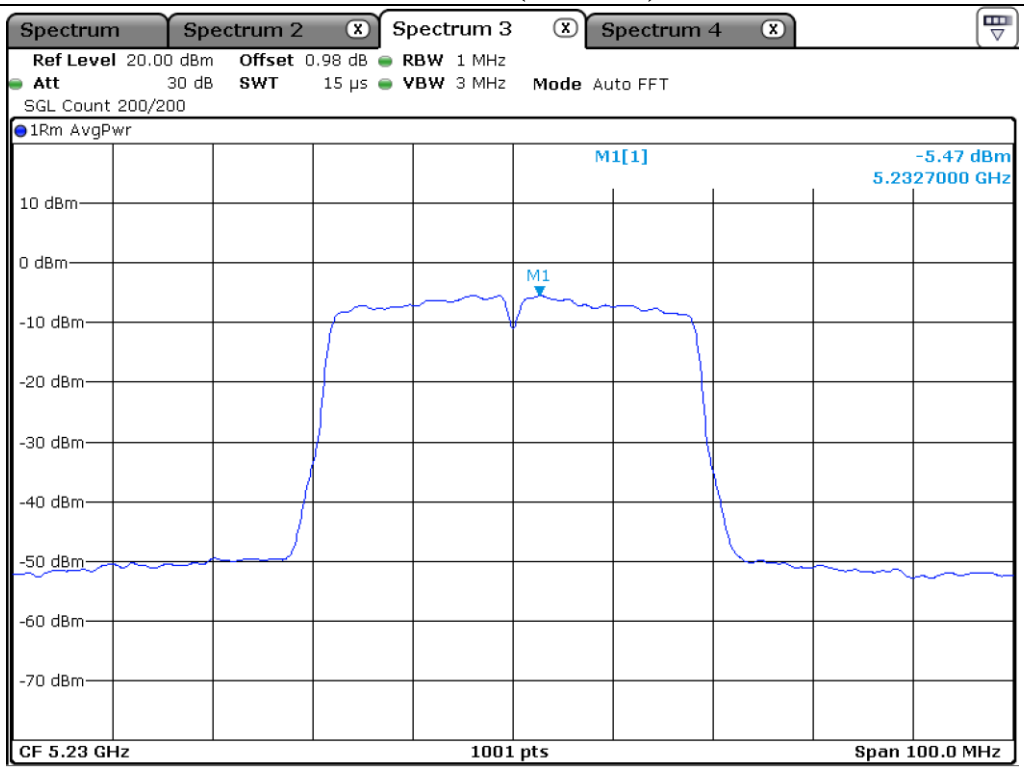
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	-4.54	11.00	15.54
	High	5 230.00	-5.47	11.00	16.47
5 250 ~ 5 350	Low	5 270.00	-2.76	11.00	13.76
	High	5 310.00	-3.51	11.00	14.51
5 470 ~ 5 725	Low	5 510.00	-2.31	11.00	13.31
	Middle	5 550.00	-1.93	11.00	12.93
	High	5 670.00	-2.69	11.00	13.69
5 725 ~ 5 850	Low	5 755.00	-4.45	30.00	34.45
	High	5 795.00	-4.56	30.00	34.56

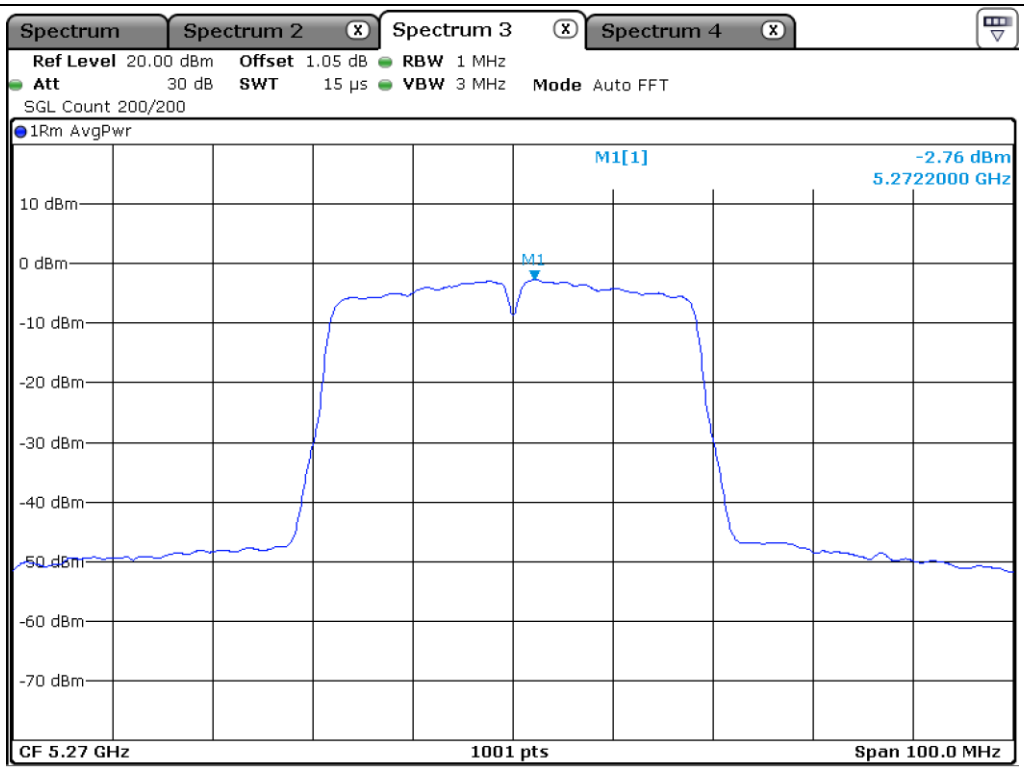
Remark: See next page for measurement data.



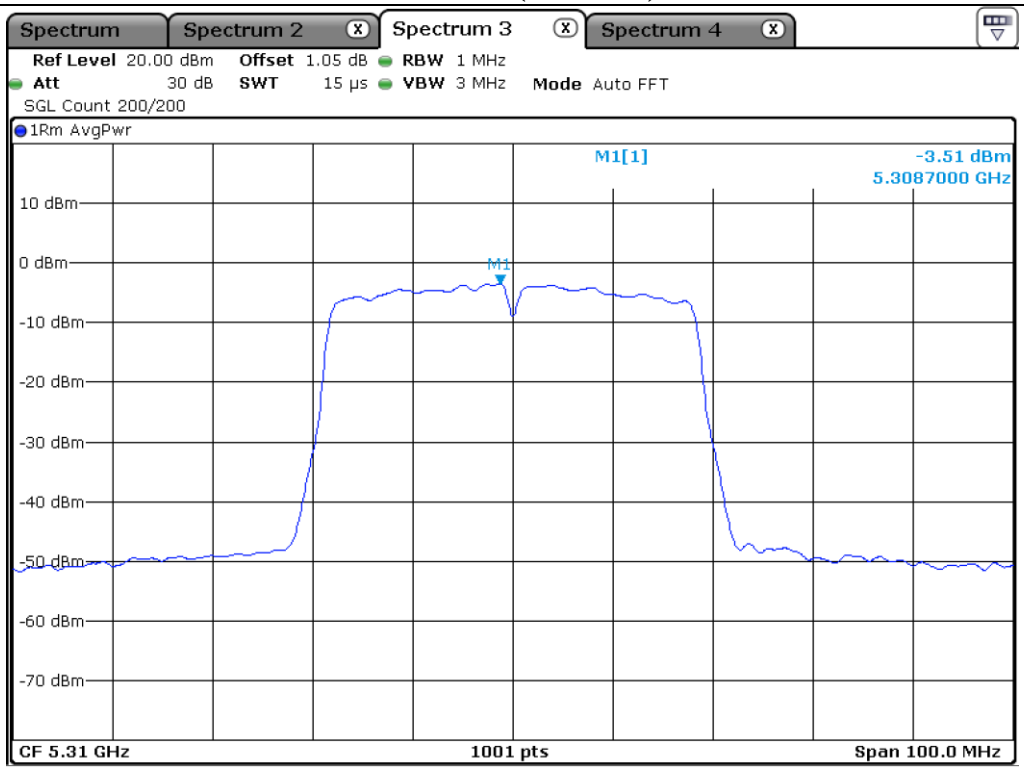
Low Channel (5 190 MHz)



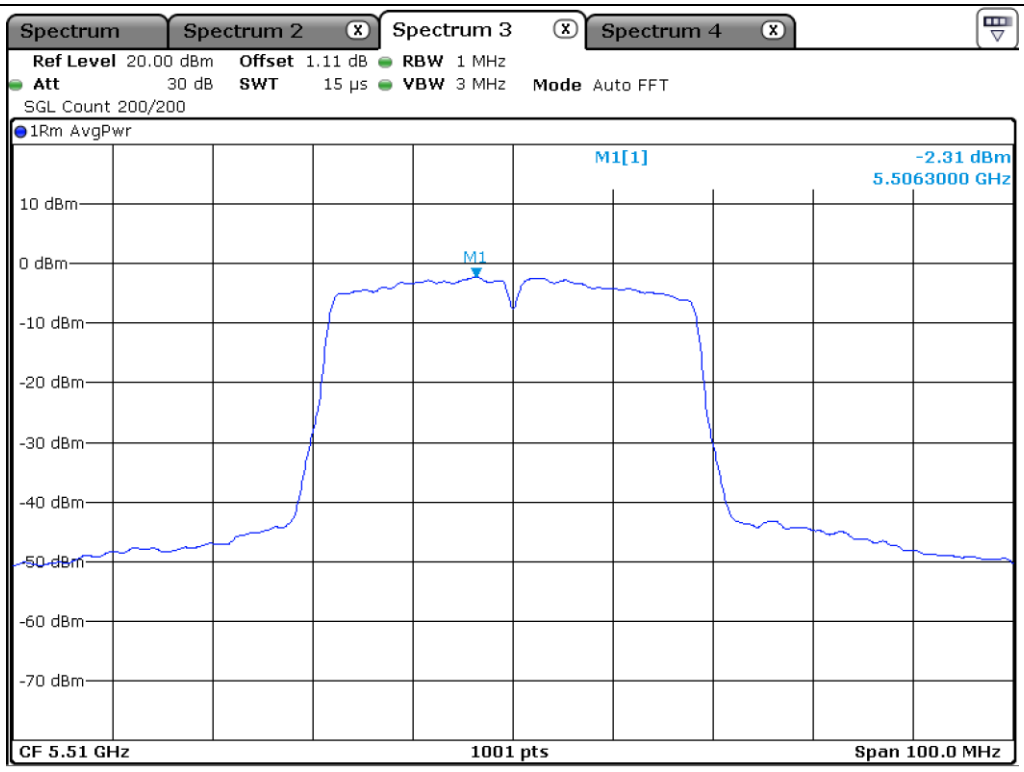
High Channel (5 230 MHz)



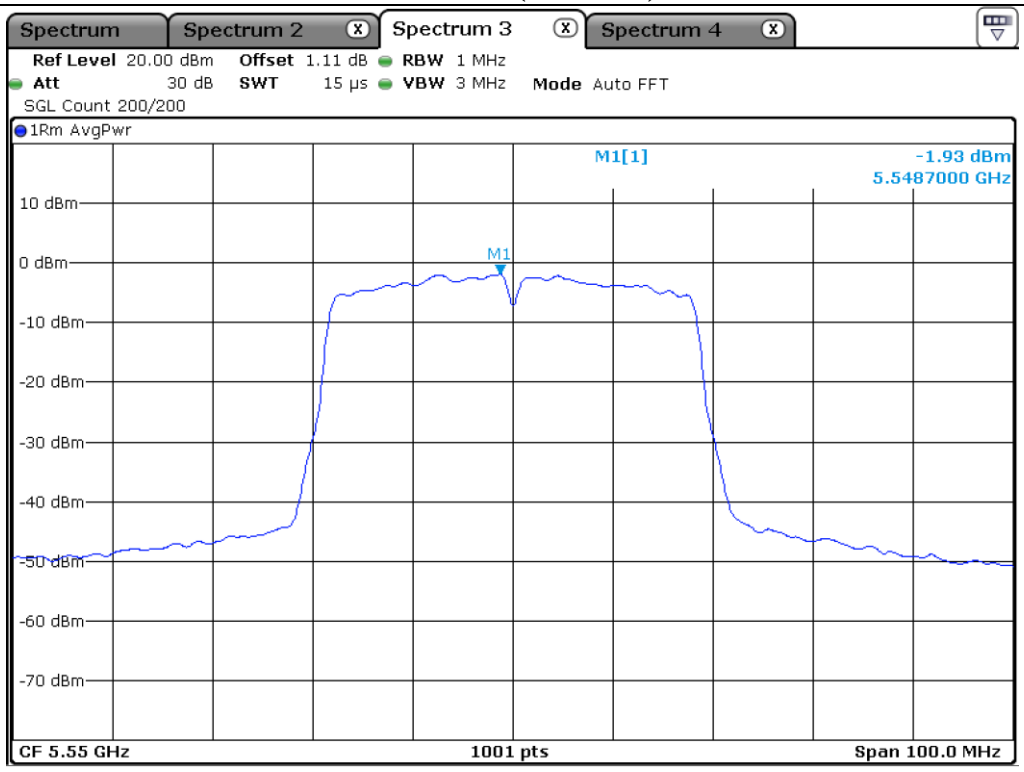
Low Channel (5 270 MHz)



High Channel (5 310 MHz)

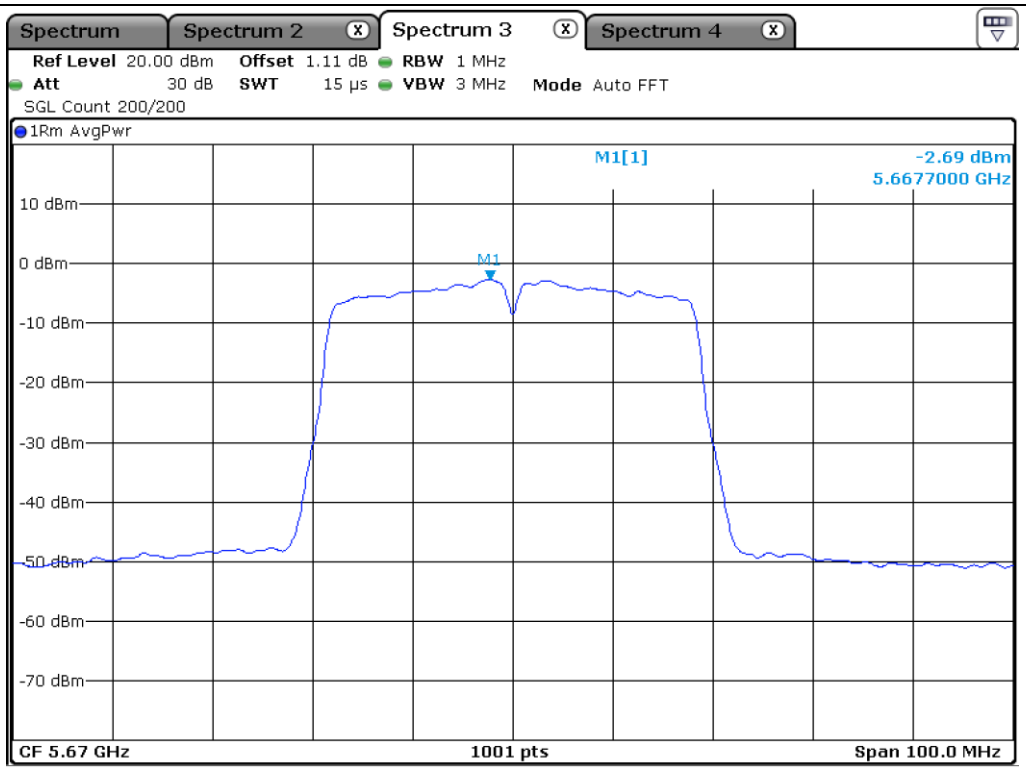


Low Channel (5 510 MHz)



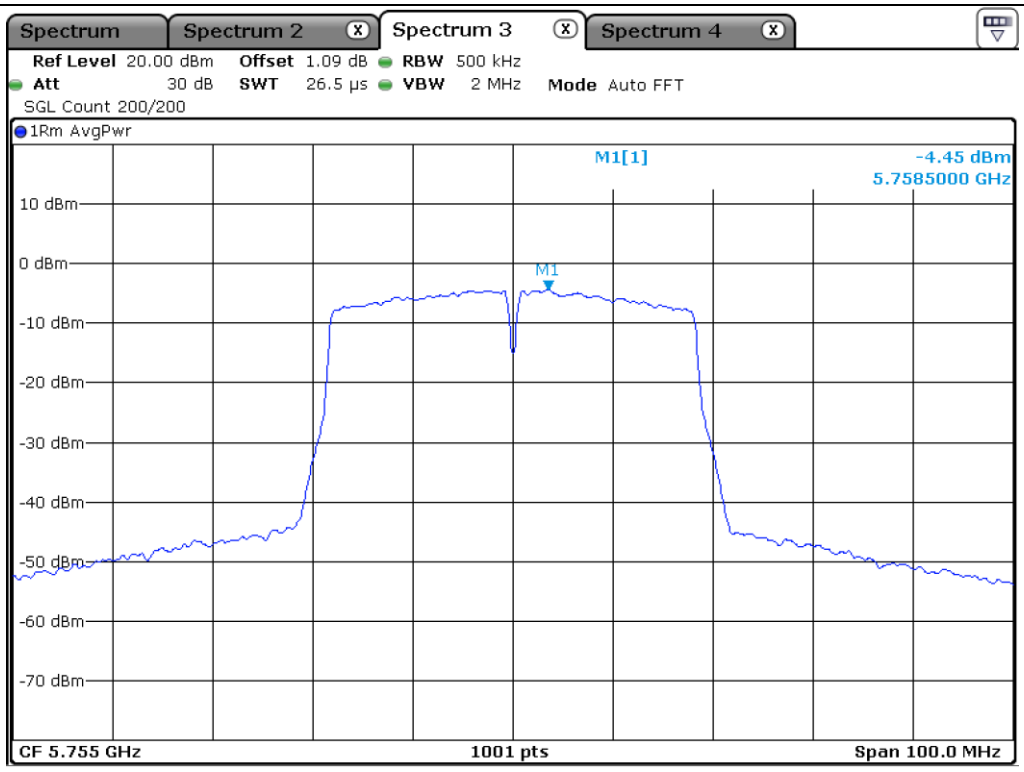
Middle Channel (5 550 MHz)

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

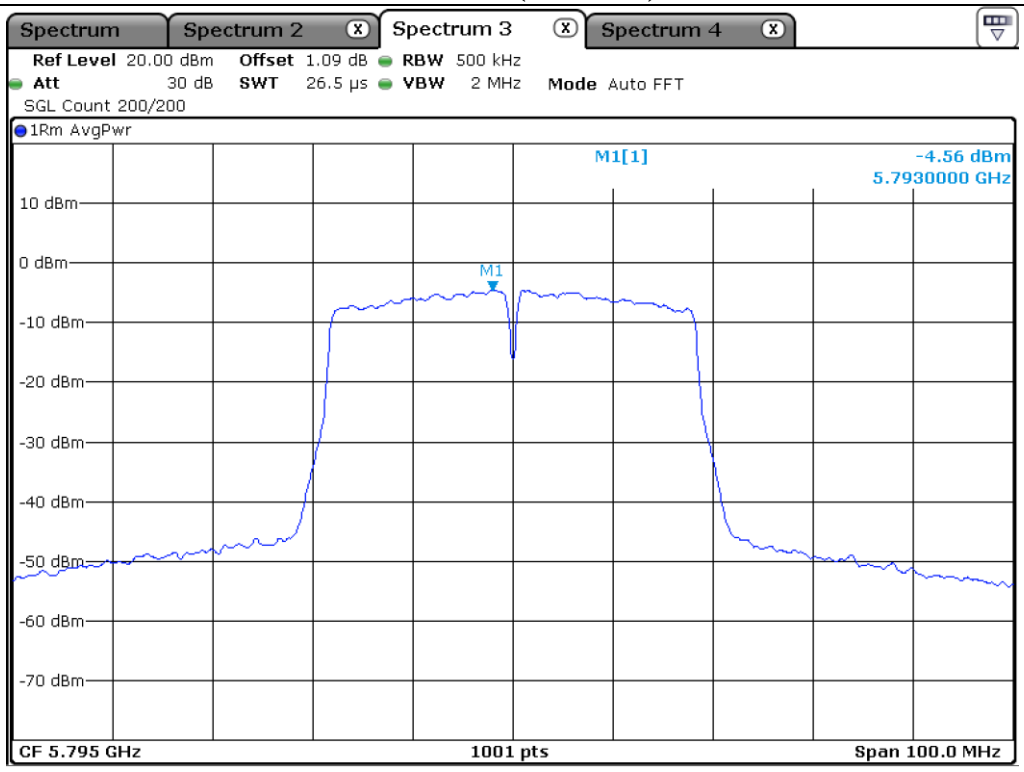


High Channel (5 670 MHz)

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)

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	-1.05	11.00	12.05
	High	5 230.00	-1.85	11.00	12.85
5 250 ~ 5 350	Low	5 270.00	0.52	11.00	10.48
	High	5 310.00	0.10	11.00	10.90
5 470 ~ 5 725	Low	5 510.00	1.08	11.00	9.92
	Middle	5 550.00	1.31	11.00	9.69
	High	5 670.00	0.69	11.00	10.31
5 725 ~ 5 850	Low	5 755.00	-1.66	30.00	31.66
	High	5 795.00	-1.83	30.00	31.83

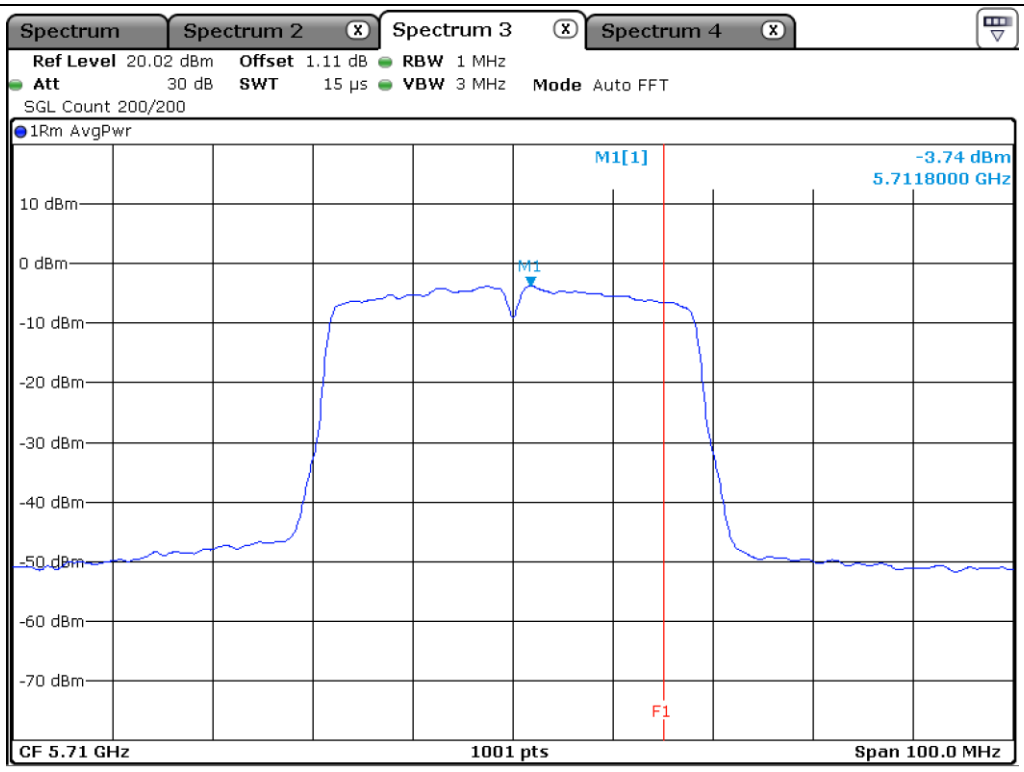
10.6.4 Test data for Staddle Channel_Antenna 0

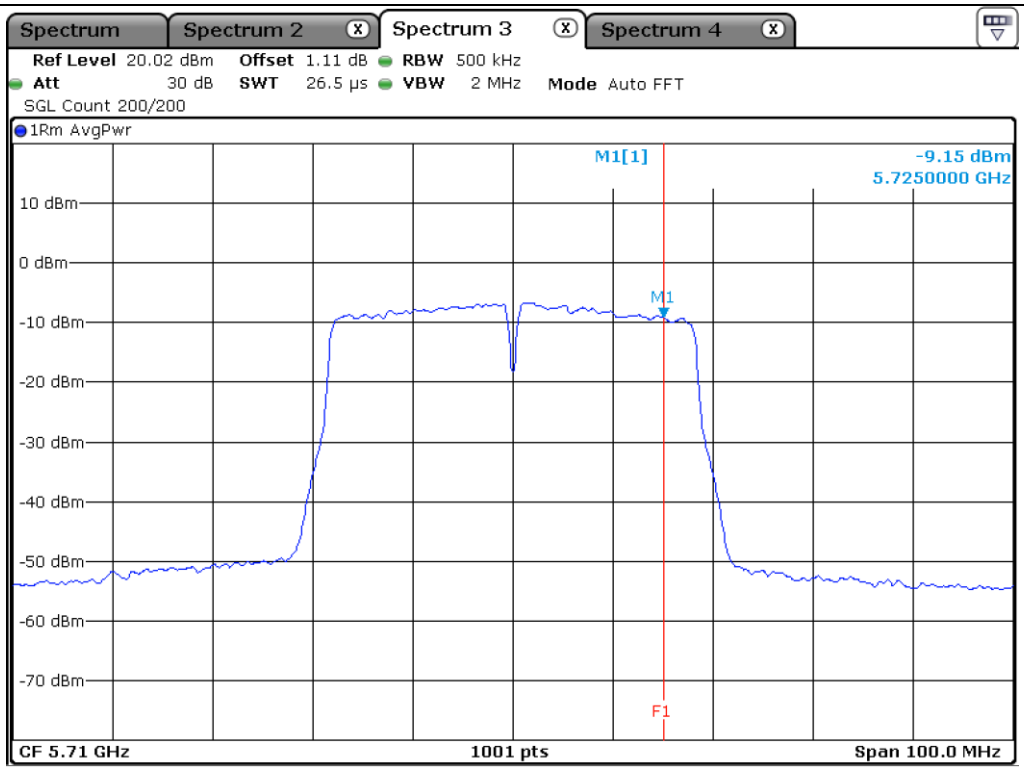
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 710.00	-3.74	11.00	14.74
5 725 ~ 5 850	5 710.00	-9.15	30.00	39.15

Remark: See next page for measurement data.





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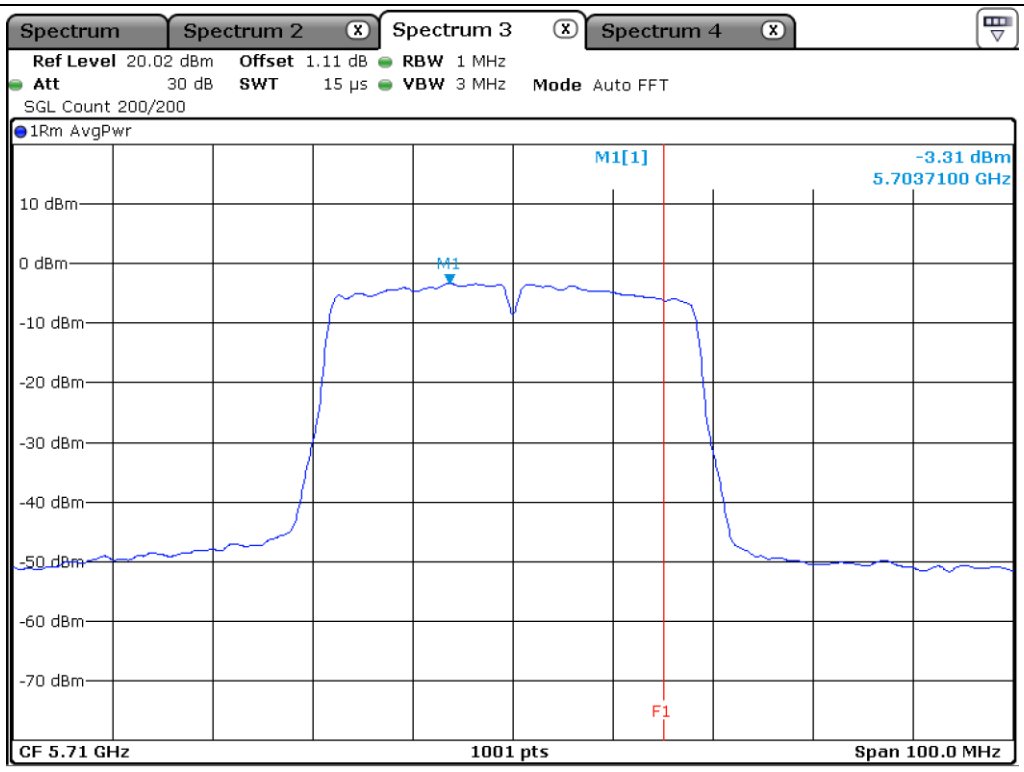
10.6.5 Test data for Staddle Channel_Antenna 1

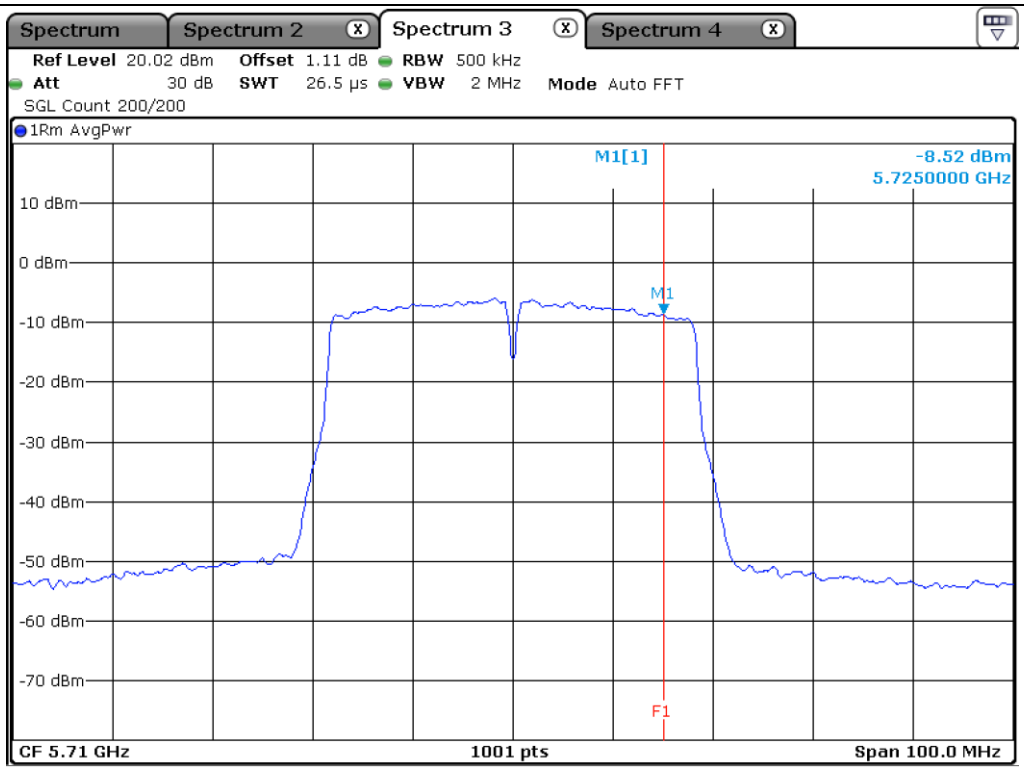
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 710.00	-3.31	11.00	14.31
5 725 ~ 5 850	5 710.00	-8.52	30.00	38.52

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	-0.51	11.00	11.51
5 725 ~ 5 850	5 710.00	-5.81	30.00	35.81

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10.7 Test data for 802.11ac_HT80 RLAN Mode

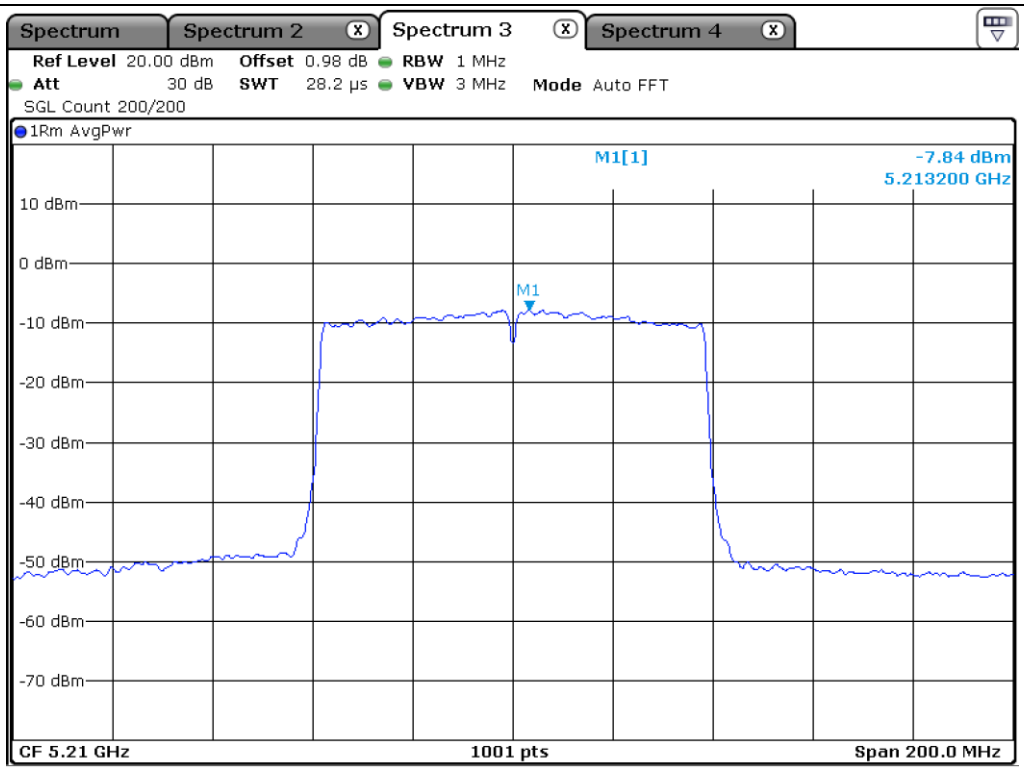
10.7.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

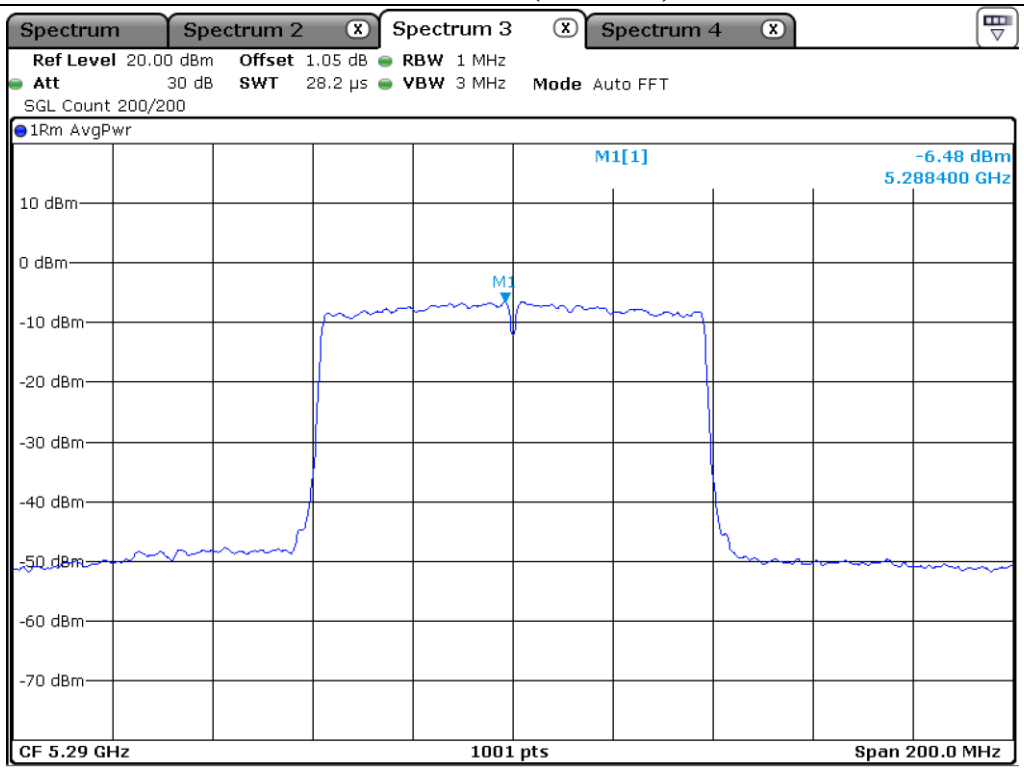
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	-7.84	11.00	18.84
5 250 ~ 5 350	Low	5 290.00	-6.48	11.00	17.48
5 470 ~ 5 725	Low	5 530.00	-5.05	11.00	16.05
5 725 ~ 5 850	Low	5 775.00	-8.59	30.00	38.59

Remark: See next page for measurement data.

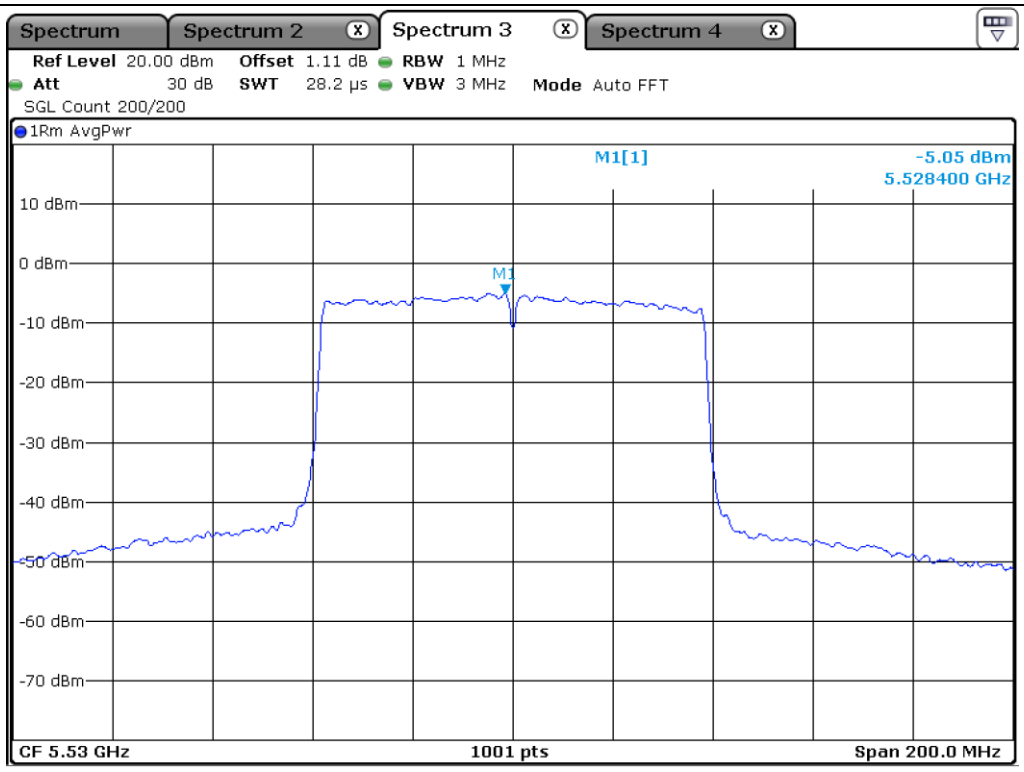


Middle Channel (5 210 MHz)

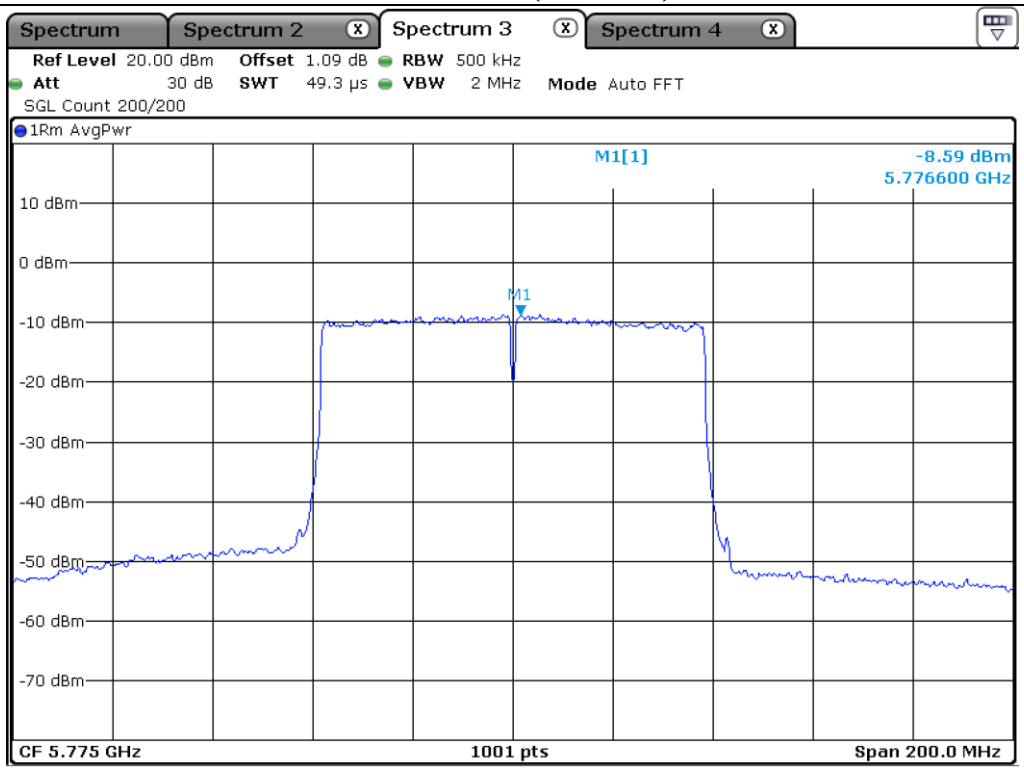


Middle Channel (5 290 MHz)

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)

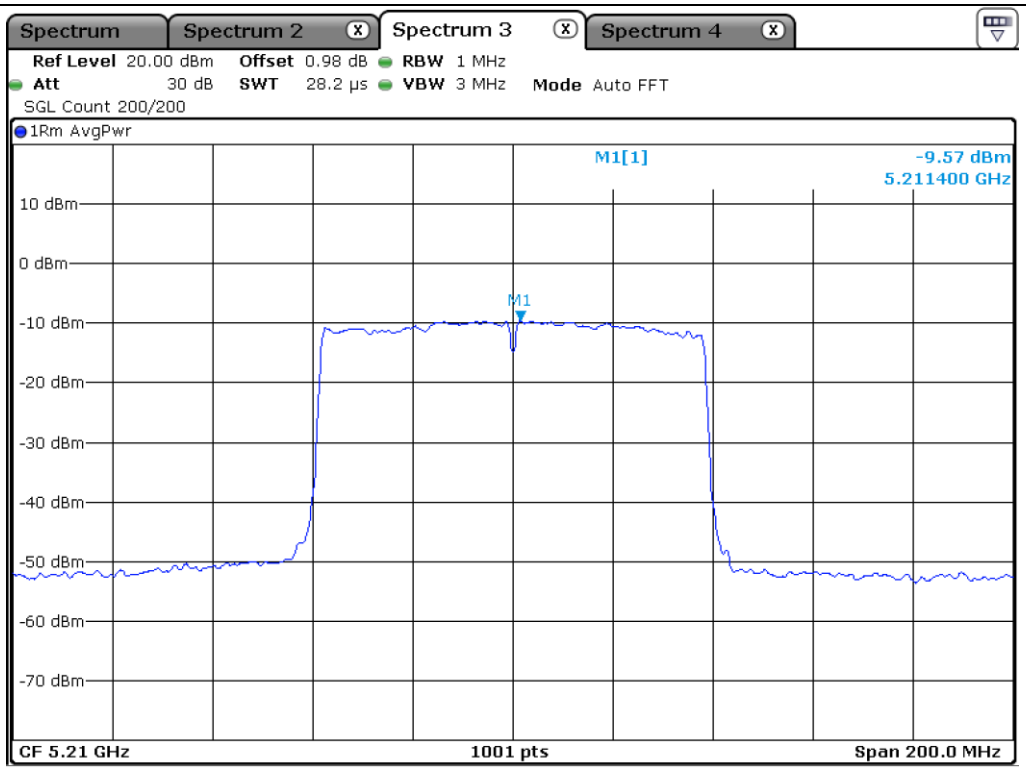
10.7.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

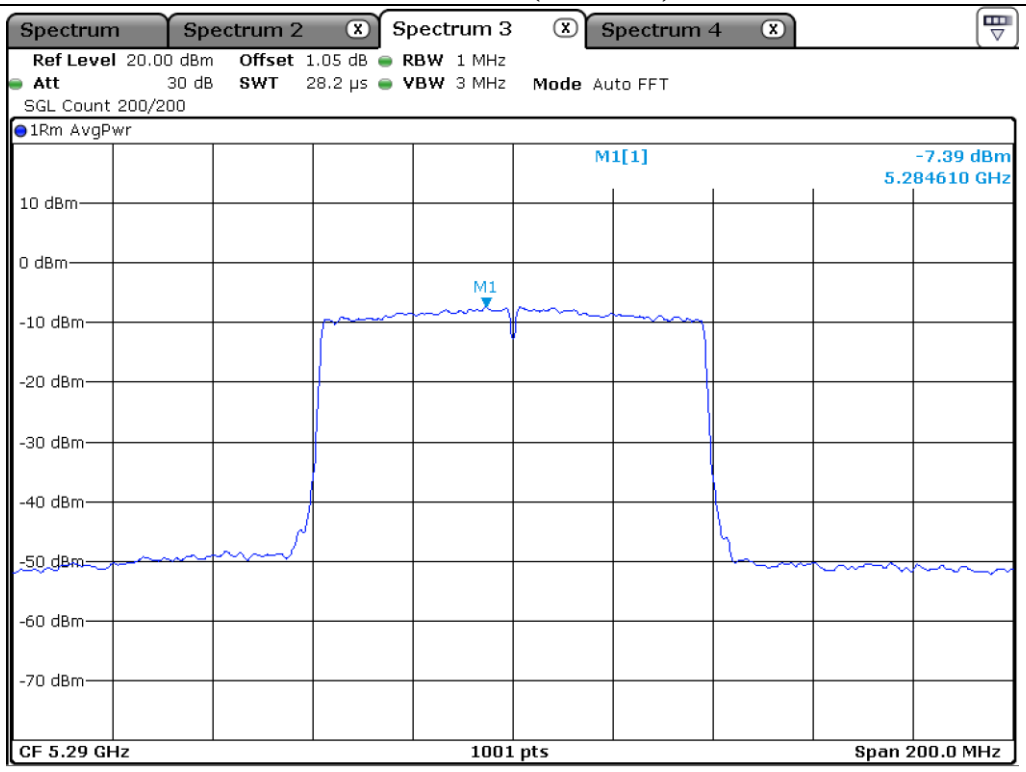
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	-9.57	11.00	20.57
5 250 ~ 5 350	Low	5 290.00	-7.39	11.00	18.39
5 470 ~ 5 725	Low	5 530.00	-5.83	11.00	16.83
5 725 ~ 5 850	Low	5 775.00	-8.13	30.00	38.13

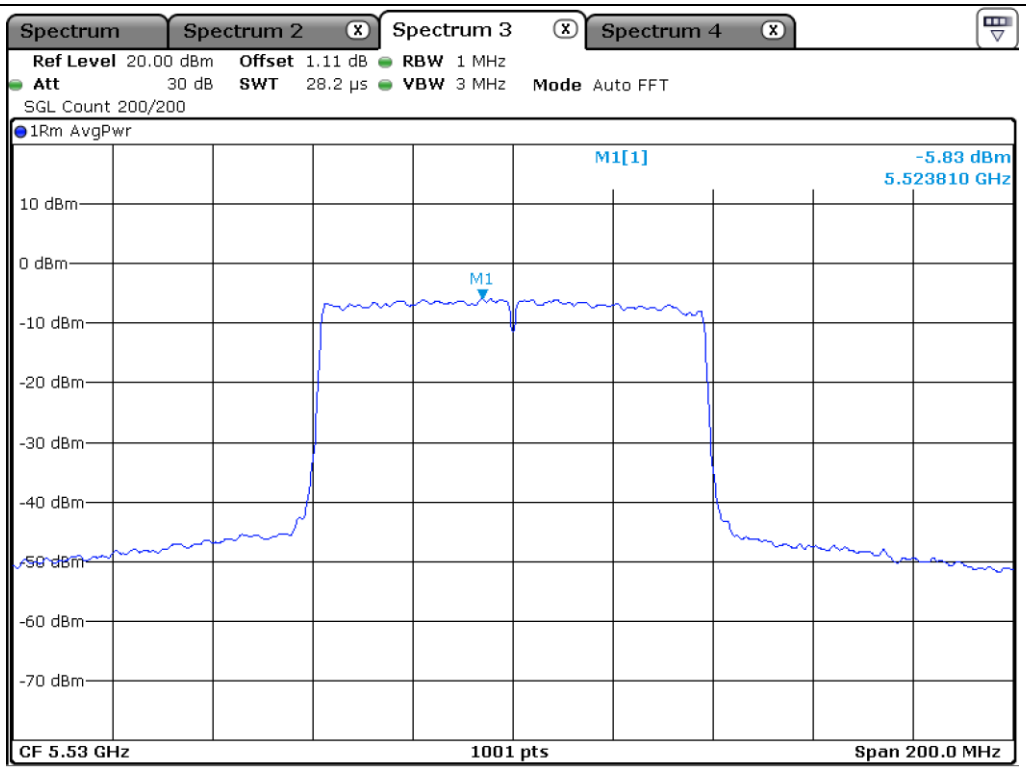
Remark: See next page for measurement data.



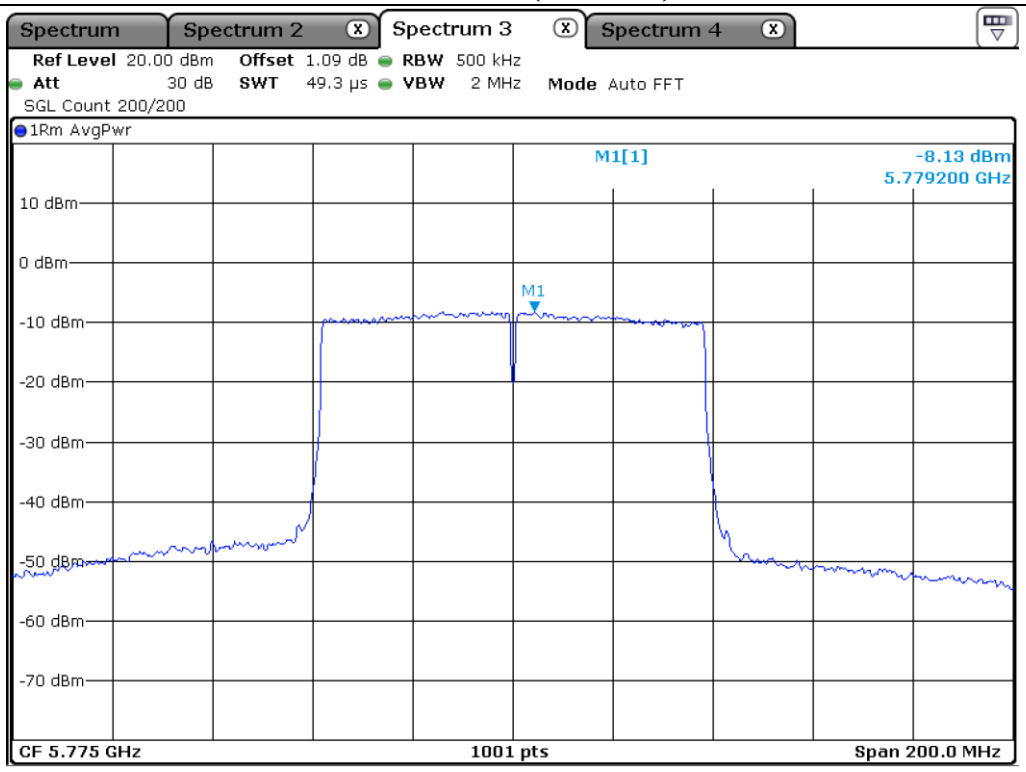
Middle Channel (5 210 MHz)



Middle Channel (5 290 MHz)



Middle Channel (5 530 MHz)



Middle Channel (5 775 MHz)

10.7.3 Test data for Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	-5.61	11.00	16.61
5 250 ~ 5 350	Low	5 290.00	-3.90	11.00	14.90
5 470 ~ 5 725	Low	5 530.00	-2.41	11.00	13.41
5 725 ~ 5 850	Low	5 775.00	-5.34	30.00	35.34

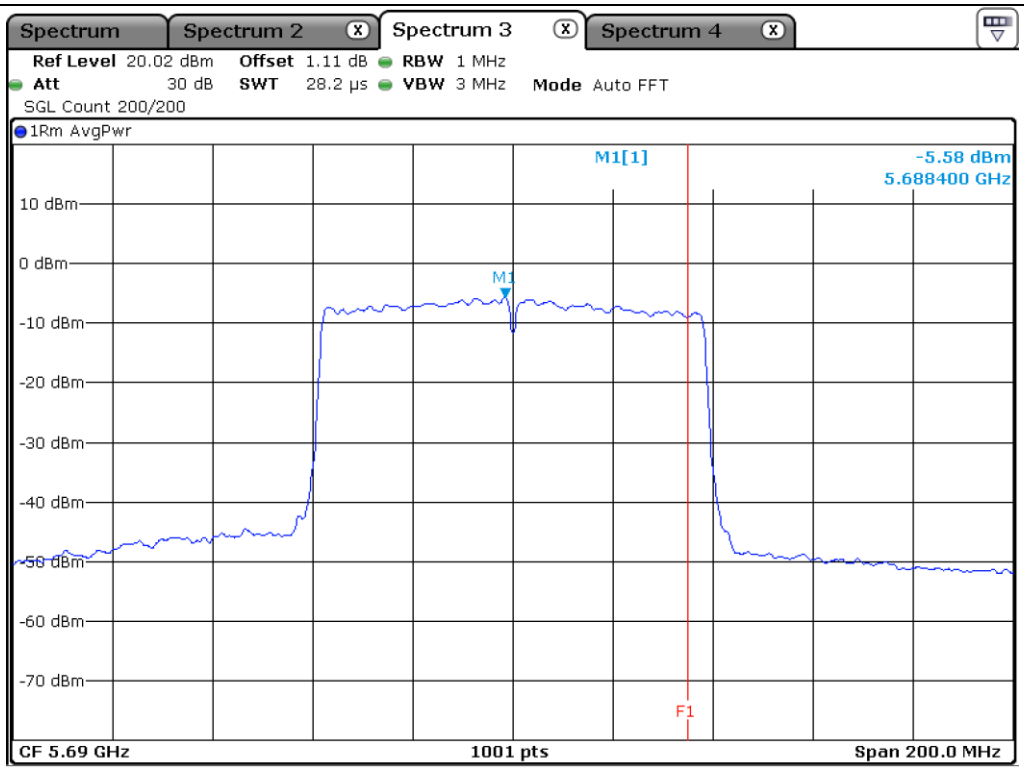
10.7.4 Test data for Staddle Channel_Antenna 0

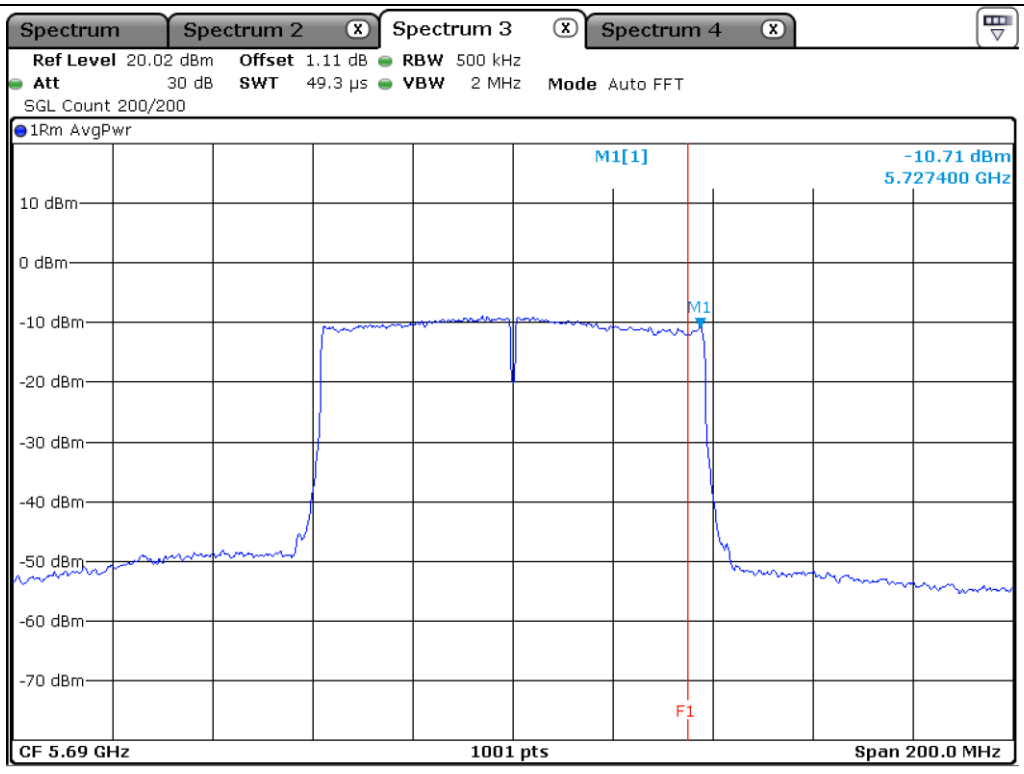
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	-5.58	11.00	16.58
5 725 ~ 5 850	5 690.00	-10.71	30.00	40.71

Remark: See next page for measurement data.





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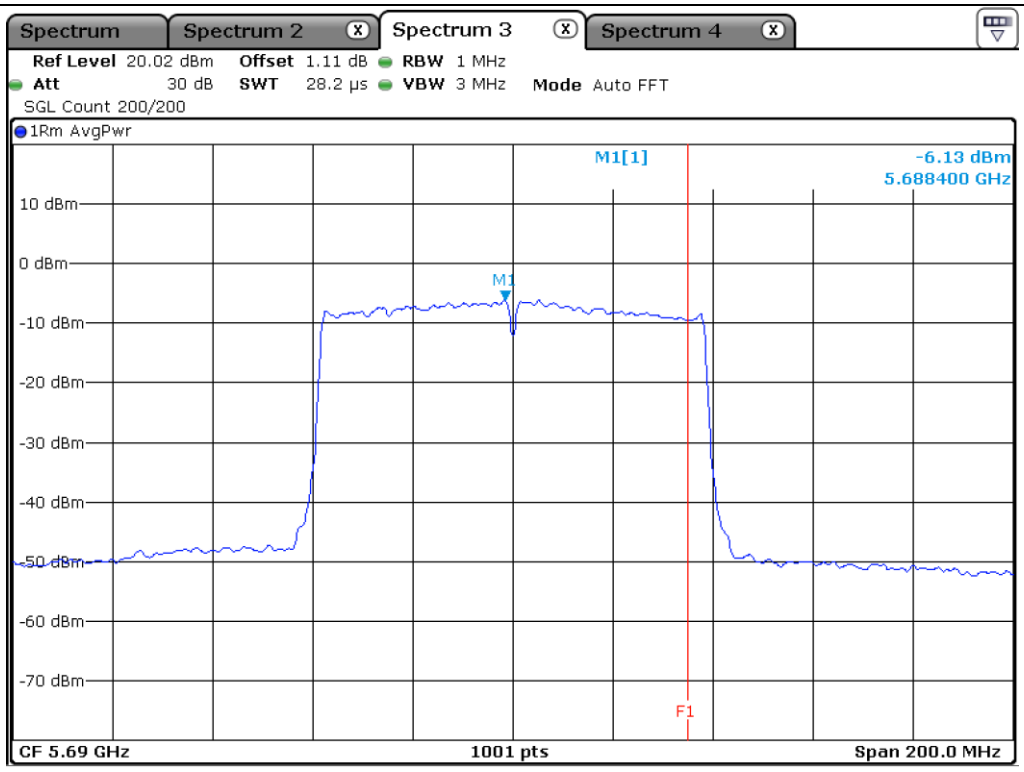
10.7.5 Test data for Staddle Channel_Antenna 1

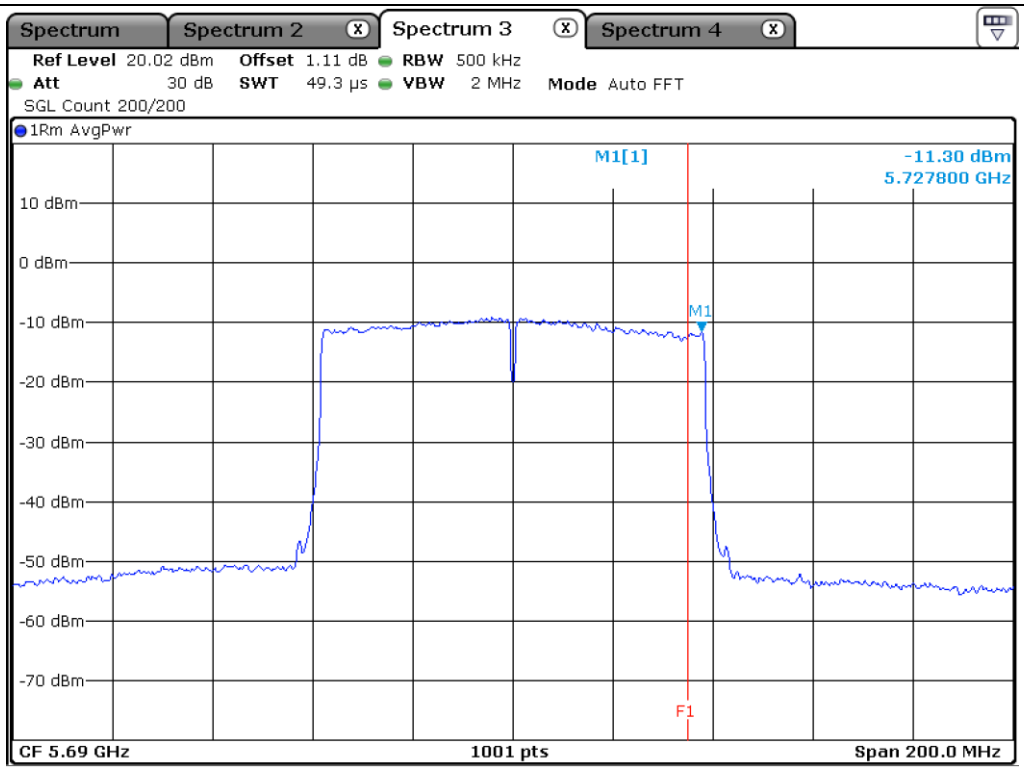
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	-6.13	11.00	17.13
5 725 ~ 5 850	5 690.00	-11.30	30.00	41.30

Remark: See next page for measurement data.





10.7.6 Test data for Staddle Channel_Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	-2.84	11.00	13.84
5 725 ~ 5 850	5 690.00	-7.98	30.00	37.98

11. FREQUENCY STABILITY WITH TEMPERATURE VARIATION

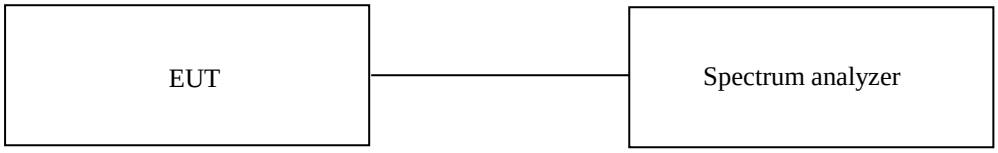
11.1 Operating environment

Temperature : 23 °C

Relative humidity : 44 % 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

October 07, 2021 ~ October 20, 2021

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 (Hz)
-20	5 180 000 000	5 179 984 357	-15 643
-10		5 179 985 682	-14 318
0		5 179 985 137	-14 863
10		5 179 987 172	-12 828
20		5 179 989 100	-10 900
30		5 179 985 163	-14 837
40		5 180 005 582	5 582
50		5 180 015 935	15 935
-20	5 220 000 000	5 219 983 347	-16 653
-10		5 219 984 586	-15 414
0		5 219 986 135	-13 865
10		5 219 987 280	-12 720
20		5 219 990 052	-9 948
30		5 219 988 528	-11 472
40		5 220 011 357	11 357
50		5 220 018 258	18 258
-20	5 240 000 000	5 239 984 857	-15 143
-10		5 239 984 913	-15 087
0		5 239 986 152	-13 848
10		5 239 986 782	-13 218
20		5 239 988 603	-11 397
30		5 239 985 176	-14 824
40		5 240 012 258	12 258
50		5 240 016 755	16 755

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: 2020)

11.5 Test Data for U-NII-2A

-. Result : Pass

Temperature (˚C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
-20	5 260 000 000	5 259 983 335	-16 665
-10		5 259 984 654	-15 346
0		5 259 985 185	-14 815
10		5 259 985 399	-14 601
20		5 259 989 634	-10 366
30		5 259 987 771	-12 229
40		5 260 015 456	15 456
50		5 260 020 158	20 158
-20	5 300 000 000	5 299 984 615	-15 385
-10		5 299 985 177	-14 823
0		5 299 986 327	-13 673
10		5 299 984 777	-15 223
20		5 299 988 153	-11 847
30		5 299 986 315	-13 685
40		5 300 019 519	19 519
50		5 300 024 516	24 516
-20	5 320 000 000	5 319 986 178	-13 822
-10		5 319 987 155	-12 845
0		5 319 988 434	-11 566
10		5 319 987 643	-12 357
20		5 319 990 513	-9 487
30		5 319 985 017	-14 983
40		5 320 021 135	21 135
50		5 320 024 475	24 475

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: 2020)

11.6 Test Data for U-NII-2C

-. Result : Pass

Temperature (˚C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
-20	5 500 000 000	5 499 982 121	-17 879
-10		5 499 983 475	-16 525
0		5 499 983 511	-16 489
10		5 499 984 837	-15 163
20		5 499 987 843	-12 157
30		5 499 985 567	-14 433
40		5 500 013 138	13 138
50		5 500 017 909	17 909
-20	5 580 000 000	5 579 981 919	-18 081
-10		5 579 982 513	-17 487
0		5 579 982 051	-17 949
10		5 579 985 495	-14 505
20		5 579 989 913	-10 087
30		5 579 983 357	-16 643
40		5 580 015 177	15 177
50		5 580 019 565	19 565
-20	5 700 000 000	5 699 981 966	-18 034
-10		5 699 982 415	-17 585
0		5 699 982 113	-17 887
10		5 699 986 073	-13 927
20		5 699 991 302	-8 698
30		5 699 985 785	-14 215
40		5 700 018 053	18 053
50		5 700 020 163	20 163

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: 2020)

11.7 Test Data for U-NII-3

-. Result : Pass

Temperature (˚C)	Carrier Freq. (Hz)	Measured Freq. (Hz)	**Frequency Error (Hz)**
-20	5 745 000 000	5 744 983 734	-16 266
-10		5 744 984 549	-15 451
0		5 744 983 631	-16 369
10		5 744 985 446	-14 554
20		5 744 986 135	-13 865
30		5 744 984 379	-15 621
40		5 745 020 386	20 386
50		5 745 023 255	23 255
-20	5 785 000 000	5 784 984 466	-15 534
-10		5 784 984 041	-15 959
0		5 784 984 156	-15 844
10		5 784 984 804	-15 196
20		5 784 987 813	-12 187
30		5 784 986 169	-13 831
40		5 785 023 467	23 467
50		5 785 026 485	26 485
-20	5 825 000 000	5 824 983 312	-16 688
-10		5 824 983 456	-16 544
0		5 824 983 211	-16 789
10		5 824 986 462	-13 538
20		5 824 987 668	-12 332
30		5 824 987 135	-12 865
40		5 825 020 025	20 025
50		5 825 023 885	23 885

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: 2020)

12. FREQUENCY STABILITY WITH VOLTAGE VARIATION

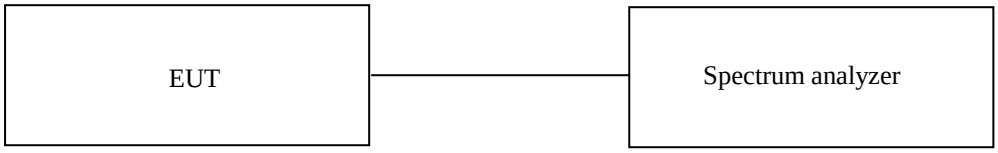
12.1 Operating environment

Temperature : 23 °C

Relative humidity : 44 % 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

October 07, 2021 ~ October 20, 2021

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12.4 Test Data for U-NII-1

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
5	5 180 000 000	5 179 989 100	-10 900
4.25		5 179 988 858	-11 142
5.75		5 179 989 319	-10 681
5	5 220 000 000	5 219 990 052	-9 948
4.25		5 219 989 967	-10 033
5.75		5 219 990 172	-9 828
5	5 240 000 000	5 239 988 603	-11 397
4.25		5 239 988 428	-11 572
5.75		5 239 988 783	-11 217

12.5 Test Data for U-NII-2A

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
5	5 260 000 000	5 259 989 634	-10 366
4.25		5 259 989 335	-10 665
5.75		5 259 990 055	-9 945
5	5 300 000 000	5 299 988 153	-11 847
4.25		5 299 987 898	-12 102
5.75		5 299 988 454	-11 546
5	5 320 000 000	5 319 990 513	-9 487
4.25		5 319 990 246	-9 754
5.75		5 319 990 914	-9 086

12.6 Test Data for U-NII-2C

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
5	5 500 000 000	5 499 987 843	-12 157
4.25		5 499 987 541	-12 459
5.75		5 499 988 112	-11 888
5	5 580 000 000	5 579 989 913	-10 087
4.25		5 579 989 664	-10 336
5.75		5 579 990 208	-9 792
5	5 700 000 000	5 699 991 302	-8 698
4.25		5 699 991 005	-8 995
5.75		5 699 991 646	-8 354

12.7 Test Data for U-NII-3

-. Result : Pass

Voltage (VDC)	Carrier Freq. (Hz)	Measured Freq. (Hz)	Frequency Error (Hz)
5	5 745 000 000	5 744 986 135	-13 865
4.25		5 744 985 769	-14 231
5.75		5 744 986 347	-13 653
5	5 785 000 000	5 784 987 813	-12 187
4.25		5 784 987 506	-12 494
5.75		5 784 988 111	-11 889
5	5 825 000 000	5 824 987 668	-12 332
4.25		5 824 987 258	-12 742
5.75		5 824 987 808	-12 192

13. RADIATED SPURIOUS EMISSIONS

13.1 Operating environment

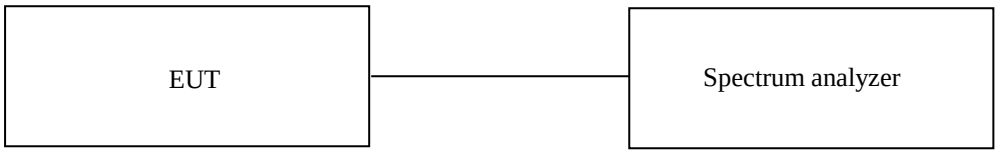
Temperature : 23 °C

Relative humidity : 44 % 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

October 07, 2021 ~ October 20, 2021

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)
Emission from the EUT more than 20 dB below the limit in each frequency range.									

13.5 Test data for 30 MHz ~ 1 000 MHz

13.5.1 Test data for WLAN 5 GHz

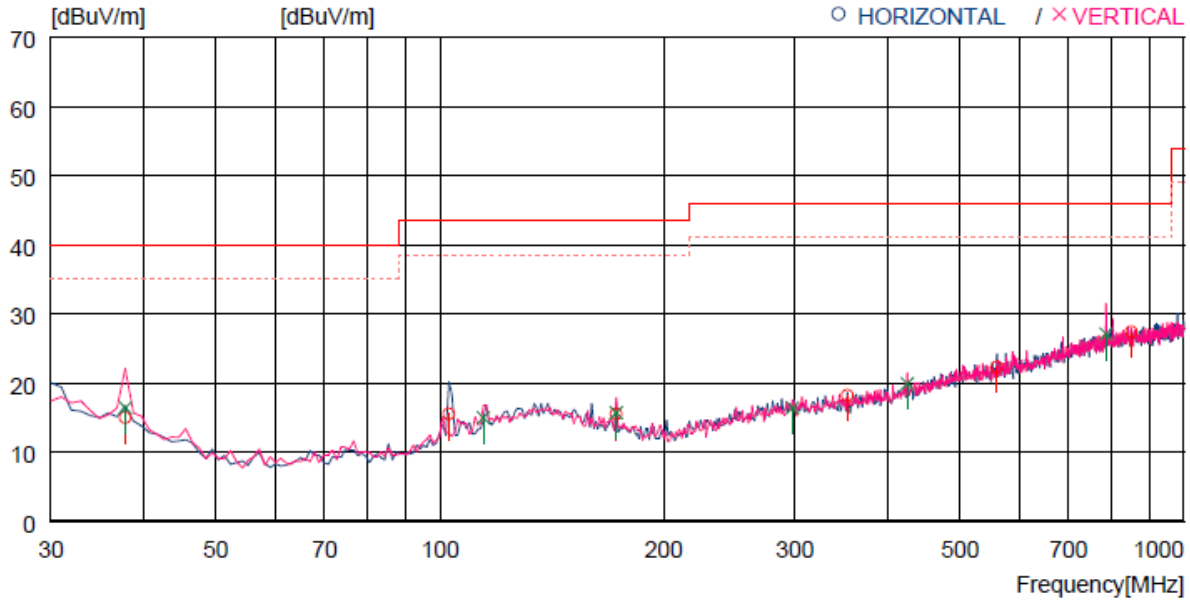
Humidity Level : 44 % R.H. Temperature: 23 ° C

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	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	[dBuV]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal ------										
1	37.760	27.6	**18.1**	1.3	32.0	15.0	40.0	25.0	100	88
2	102.750	29.9	**15.8**	1.8	32.0	15.5	43.5	28.0	100	304
3	172.590	28.1	**17.1**	2.3	32.0	15.5	43.5	28.0	100	304
4	353.010	27.0	**20.0**	3.3	32.1	18.2	46.0	27.8	100	237
5	560.589	26.8	**23.8**	4.1	32.4	22.3	46.0	23.7	100	136
6	849.640	26.9	**27.3**	5.1	31.9	27.4	46.0	18.6	100	304
----- Vertical ------										
7	37.760	29.0	**18.1**	1.3	32.0	16.4	40.0	23.6	100	95
8	114.390	27.4	**17.7**	1.9	32.0	15.0	43.5	28.5	100	95
9	172.590	28.3	**17.1**	2.3	32.0	15.7	43.5	27.8	100	95
10	297.720	26.3	**19.1**	3.0	32.0	16.4	46.0	29.6	100	95
11	424.791	27.1	**21.3**	3.6	32.1	19.9	46.0	26.1	100	144
12	785.622	27.3	**26.9**	4.9	32.0	27.1	46.0	18.9	100	354

-

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

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

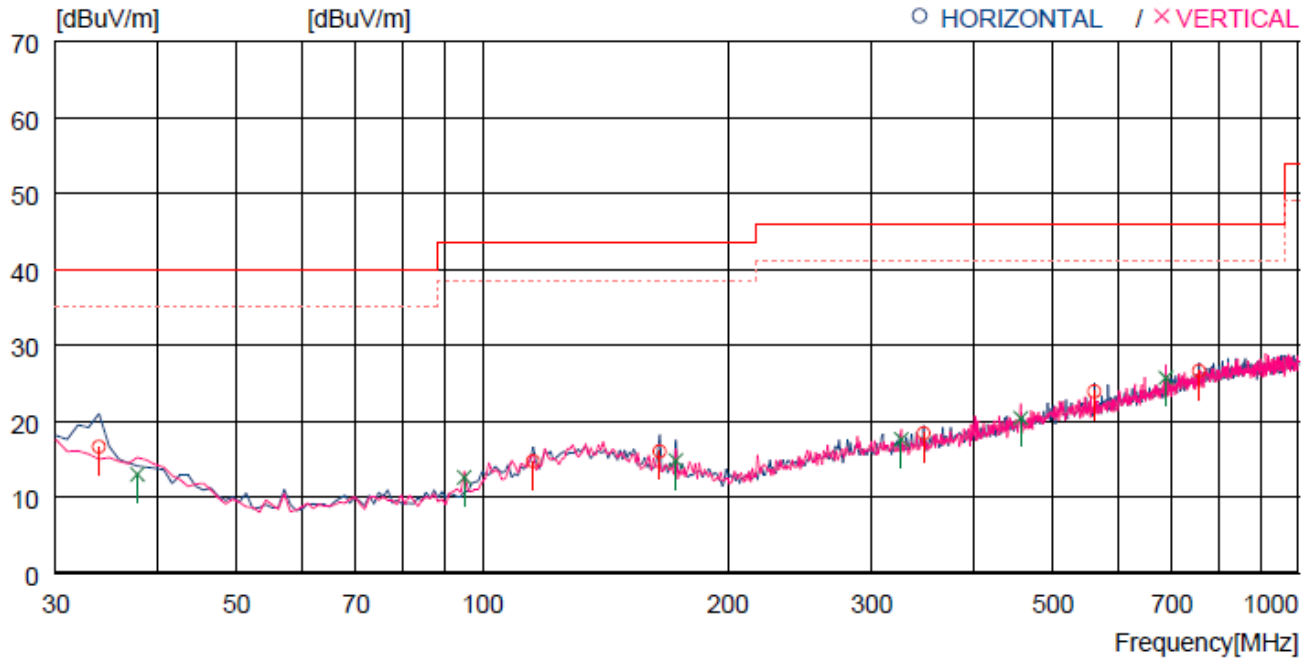
Humidity Level : 44 % R.H. Temperature: 23 °C

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 [dBuV]	ANT [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	33.880	27.9	19.5	1.2	32.0	16.6	40.0	23.4	100	17
2	115.360	27.0	17.8	1.9	32.0	14.7	43.5	28.8	100	17
3	164.830	28.1	17.6	2.3	32.0	16.0	43.5	27.5	100	17
4	347.190	27.3	19.9	3.2	32.0	18.4	46.0	27.6	100	17
5	562.529	28.4	23.8	4.1	32.4	23.9	46.0	22.1	100	92
6	755.553	27.5	26.4	4.8	32.1	26.6	46.0	19.4	100	17
----- Vertical ------										
7	37.760	25.6	18.1	1.3	32.0	13.0	40.0	27.0	100	333
8	94.990	28.4	14.4	1.8	32.0	12.6	43.5	30.9	100	124
9	172.590	27.4	17.1	2.3	32.0	14.8	43.5	28.7	100	333
10	325.850	26.9	19.6	3.1	32.0	17.6	46.0	28.4	100	84
11	456.801	26.8	22.1	3.7	32.2	20.4	46.0	25.6	100	198
12	687.655	28.0	25.4	4.6	32.3	25.7	46.0	20.3	100	333

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

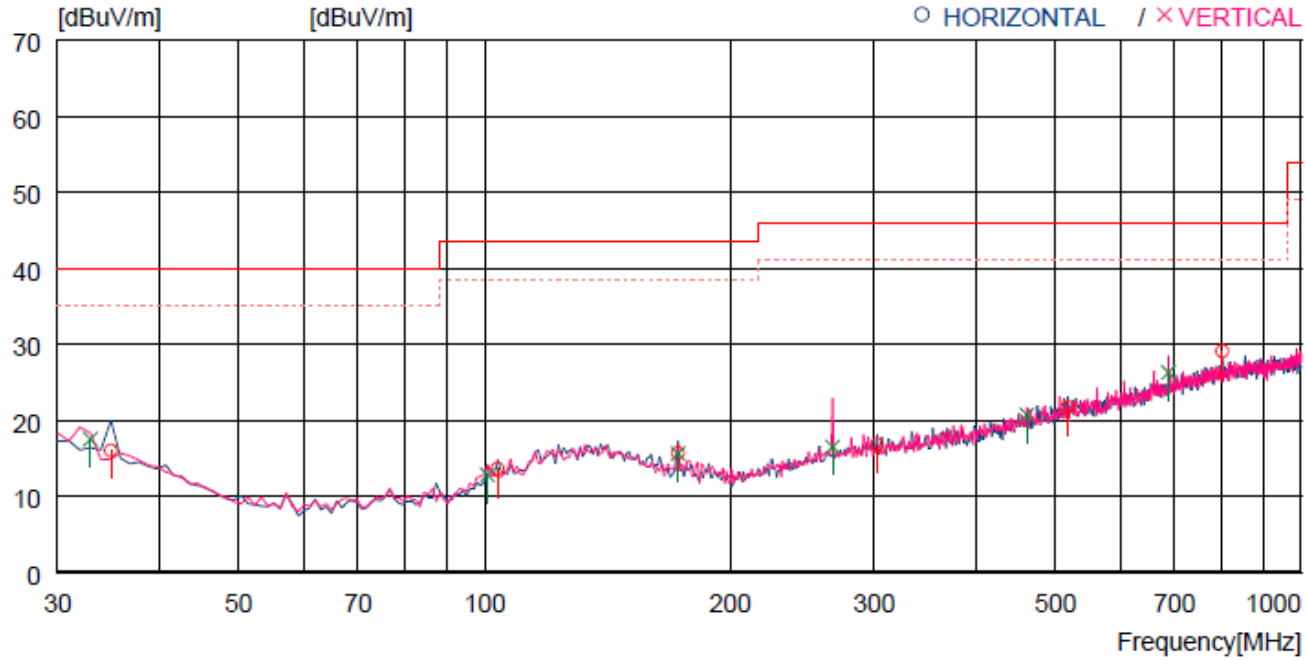
Humidity Level : 44 % R.H. Temperature: 23 °C

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	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	[dBuV]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal ------										
1	34.850	27.6	19.2	1.2	32.0	16.0	40.0	24.0	100	284
2	103.720	27.9	15.9	1.8	32.0	13.6	43.5	29.9	100	62
3	172.590	28.3	17.1	2.3	32.0	15.7	43.5	27.8	100	261
4	302.570	26.6	19.2	3.0	32.0	16.8	46.0	29.2	100	316
5	517.910	26.8	23.3	3.9	32.3	21.7	46.0	24.3	100	78
6	801.142	29.0	27.1	5.0	32.0	29.1	46.0	16.9	100	328
----- Vertical ------										
7	32.910	28.4	19.9	1.2	32.0	17.5	40.0	22.5	100	312
8	100.810	27.6	15.4	1.8	32.0	12.8	43.5	30.7	100	145
9	172.590	28.2	17.1	2.3	32.0	15.6	43.5	27.9	100	128
10	266.680	27.3	18.3	2.9	32.0	16.5	46.0	29.5	100	41
11	461.651	27.0	22.2	3.7	32.2	20.7	46.0	25.3	100	312
12	687.655	28.6	25.4	4.6	32.3	26.3	46.0	19.7	100	312

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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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
10 360.00	64.91	Peak	H	39.80	7.04	46.44	65.31	68.20	2.89
10 360.00	63.10	Peak	V	39.80	7.04	46.44	63.50	68.20	4.70
Middle Channel									
10 440.00	64.85	Peak	H	40.00	7.08	46.44	65.49	68.20	2.71
10 440.00	63.32	Peak	V	40.00	7.08	46.44	63.96	68.20	4.24
High Channel									
10 480.00	64.85	Peak	H	40.05	7.08	46.44	65.54	68.20	2.66
10 480.00	63.11	Peak	V	40.05	7.08	46.44	63.80	68.20	4.40

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
10 360.00	64.15	Peak	H	39.80	7.04	46.44	64.55	68.20	3.65
10 360.00	63.97	Peak	V	39.80	7.04	46.44	64.37	68.20	3.83
Middle Channel									
10 440.00	63.41	Peak	H	40.00	7.08	46.44	64.05	68.20	4.15
10 440.00	62.56	Peak	V	40.00	7.08	46.44	63.20	68.20	5.00
High Channel									
10 480.00	64.33	Peak	H	40.05	7.08	46.44	65.02	68.20	3.18
10 480.00	63.15	Peak	V	40.05	7.08	46.44	63.84	68.20	4.36

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
10 380.00	55.86	Peak	H	39.80	7.04	46.44	56.26	68.20	11.94
10 380.00	54.67	Peak	V	39.80	7.04	46.44	55.07	68.20	13.13
High Channel									
10 460.00	55.71	Peak	H	40.00	7.08	46.44	56.35	68.20	11.85
10 460.00	54.33	Peak	V	40.00	7.08	46.44	54.97	68.20	13.23

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Middle Channel									
10 420.00	58.85	Peak	H	40.00	7.08	46.44	59.49	68.20	8.71
10 420.00	57.99	Peak	V	40.00	7.08	46.44	58.63	68.20	9.57

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
10 520.00	53.51	Peak	H	40.05	7.07	46.44	54.19	68.20	14.01
10 520.00	52.66	Peak	V	40.05	7.07	46.44	53.34	68.20	14.86
Middle Channel									
10 600.00	51.33	Peak	H	40.08	7.11	46.31	52.21	74.00	21.79
10 600.00	41.05	Average	H	40.08	7.11	46.31	41.93	54.00	12.07
10 600.00	50.16	Peak	V	40.08	7.11	46.31	51.04	74.00	22.96
10 600.00	40.99	Average	V	40.08	7.11	46.31	41.87	54.00	12.13
High Channel									
10 640.00	51.88	Peak	H	40.08	7.11	46.31	52.76	74.00	21.24
10 640.00	41.29	Average	H	40.08	7.11	46.31	42.17	54.00	11.83
10 640.00	51.75	Peak	V	40.08	7.11	46.31	52.63	74.00	21.37
10 640.00	41.22	Average	V	40.08	7.11	46.31	42.10	54.00	11.90

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
10 520.00	51.98	Peak	H	40.05	7.07	46.44	52.66	68.20	15.54
10 520.00	51.66	Peak	V	40.05	7.07	46.44	52.34	68.20	15.86
Middle Channel									
10 600.00	51.41	Peak	H	40.08	7.11	46.31	52.29	74.00	21.71
10 600.00	41.38	Average	H	40.08	7.11	46.31	42.26	54.00	11.74
10 600.00	50.99	Peak	V	40.08	7.11	46.31	51.87	74.00	22.13
10 600.00	41.33	Average	V	40.08	7.11	46.31	42.21	54.00	11.79
High Channel									
10 640.00	52.52	Peak	H	40.08	7.11	46.31	53.40	74.00	20.60
10 640.00	41.20	Average	H	40.08	7.11	46.31	42.08	54.00	11.92
10 640.00	51.85	Peak	V	40.08	7.11	46.31	52.73	74.00	21.27
10 640.00	41.31	Average	V	40.08	7.11	46.31	42.19	54.00	11.81

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

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

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
10 540.00	51.97	Peak	H	40.05	7.07	46.44	52.65	68.20	15.55
10 540.00	51.09	Peak	V	40.05	7.07	46.44	51.77	68.20	16.43
High Channel									
10 620.00	51.06	Peak	H	40.08	7.11	46.31	51.94	74.00	22.06
10 620.00	40.46	Average	H	40.08	7.11	46.31	41.34	54.00	12.66
10 620.00	51.09	Peak	V	40.08	7.11	46.31	51.97	74.00	22.03
10 620.00	40.37	Average	V	40.08	7.11	46.31	41.25	54.00	12.75

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Middle Channel									
10 580.00	51.10	Peak	H	40.08	7.11	46.44	51.85	68.20	16.35
10 580.00	50.95	Peak	V	40.08	7.11	46.44	51.70	68.20	16.50

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
11 000.00	52.61	Peak	H	40.30	7.13	46.04	54.00	74.00	20.00
11 000.00	40.75	Average	H	40.30	7.13	46.04	42.14	54.00	11.86
11 000.00	51.88	Peak	V	40.30	7.13	46.04	53.27	74.00	20.73
11 000.00	40.57	Average	V	40.30	7.13	46.04	41.96	54.00	12.04
Middle Channel									
11 160.00	52.51	Peak	H	39.95	7.13	46.09	53.50	74.00	20.50
11 160.00	40.76	Average	H	39.95	7.13	46.09	41.75	54.00	12.25
11 160.00	51.91	Peak	V	39.95	7.13	46.09	52.90	74.00	21.10
11 160.00	40.59	Average	V	39.95	7.13	46.09	41.58	54.00	12.42
High Channel									
11 400.00	52.63	Peak	H	40.00	7.16	46.09	53.70	74.00	20.30
11 400.00	40.85	Average	H	40.00	7.16	46.09	41.92	54.00	12.08
11 400.00	52.22	Peak	V	40.00	7.16	46.09	53.29	74.00	20.71
11 400.00	40.68	Average	V	40.00	7.16	46.09	41.75	54.00	12.25

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
11 000.00	52.15	Peak	H	40.30	7.13	46.04	53.54	74.00	20.46
11 000.00	40.76	Average	H	40.30	7.13	46.04	42.15	54.00	11.85
11 000.00	51.85	Peak	V	40.30	7.13	46.04	53.24	74.00	20.76
11 000.00	40.65	Average	V	40.30	7.13	46.04	42.04	54.00	11.96
Middle Channel									
11 160.00	51.88	Peak	H	39.95	7.13	46.09	52.87	74.00	21.13
11 160.00	40.79	Average	H	39.95	7.13	46.09	41.78	54.00	12.22
11 160.00	51.61	Peak	V	39.95	7.13	46.09	52.60	74.00	21.40
11 160.00	40.83	Average	V	39.95	7.13	46.09	41.82	54.00	12.18
High Channel									
11 400.00	52.33	Peak	H	40.00	7.16	46.09	53.40	74.00	20.60
11 400.00	41.66	Average	H	40.00	7.16	46.09	42.73	54.00	11.27
11 400.00	52.15	Peak	V	40.00	7.16	46.09	53.22	74.00	20.78
11 400.00	41.63	Average	V	40.00	7.16	46.09	42.70	54.00	11.30

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
11 020.00	51.61	Peak	H	40.30	7.13	46.04	53.00	74.00	21.00
11 020.00	41.15	Average	H	40.30	7.13	46.04	42.54	54.00	11.46
11 020.00	51.22	Peak	V	40.30	7.13	46.04	52.61	74.00	21.39
11 020.00	40.95	Average	V	40.30	7.13	46.04	42.34	54.00	11.66
Middle Channel									
11 100.00	51.34	Peak	H	40.00	7.13	46.09	52.38	74.00	21.62
11 100.00	40.96	Average	H	40.00	7.13	46.09	42.00	54.00	12.00
11 100.00	51.11	Peak	V	40.00	7.13	46.09	52.15	74.00	21.85
11 100.00	40.65	Average	V	40.00	7.13	46.09	41.69	54.00	12.31
High Channel									
11 340.00	51.38	Peak	H	39.98	7.16	46.09	52.43	74.00	21.57
11 340.00	41.22	Average	H	39.98	7.16	46.09	42.27	54.00	11.73
11 340.00	50.98	Peak	V	39.98	7.16	46.09	52.03	74.00	21.97
11 340.00	40.98	Average	V	39.98	7.16	46.09	42.03	54.00	11.97

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Middle Channel									
11 060.00	52.15	Peak	H	40.30	7.13	46.04	53.54	74.00	20.46
11 060.00	41.11	Average	H	40.30	7.13	46.04	42.50	54.00	11.50
11 060.00	52.06	Peak	V	40.30	7.13	46.04	53.45	74.00	20.55
11 060.00	40.98	Average	V	40.30	7.13	46.04	42.37	54.00	11.63

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

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

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
11 490.00	52.61	Peak	H	40.00	7.27	46.09	53.79	74.00	20.21
11 490.00	42.50	Average	H	40.00	7.27	46.09	43.68	54.00	10.32
11 490.00	52.31	Peak	V	40.00	7.27	46.09	53.49	74.00	20.51
11 490.00	41.88	Average	V	40.00	7.27	46.09	43.06	54.00	10.94
Middle Channel									
11 570.00	52.31	Peak	H	39.90	7.31	46.09	53.43	74.00	20.57
11 570.00	42.66	Average	H	39.90	7.31	46.09	43.78	54.00	10.22
11 570.00	52.18	Peak	V	39.90	7.31	46.09	53.30	74.00	20.70
11 570.00	42.35	Average	V	39.90	7.31	46.09	43.47	54.00	10.53
High Channel									
11 650.00	51.99	Peak	H	39.30	7.31	46.21	52.39	74.00	21.61
11 650.00	41.85	Average	H	39.30	7.31	46.21	42.25	54.00	11.75
11 650.00	51.64	Peak	V	39.30	7.31	46.21	52.04	74.00	21.96
11 650.00	41.62	Average	V	39.30	7.31	46.21	42.02	54.00	11.98

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
11 490.00	52.61	Peak	H	40.00	7.27	46.09	53.79	74.00	20.21
11 490.00	41.04	Average	H	40.00	7.27	46.09	42.22	54.00	11.78
11 490.00	52.35	Peak	V	40.00	7.27	46.09	53.53	74.00	20.47
11 490.00	41.06	Average	V	40.00	7.27	46.09	42.24	54.00	11.76
Middle Channel									
11 570.00	52.33	Peak	H	39.90	7.31	46.09	53.45	74.00	20.55
11 570.00	41.08	Average	H	39.90	7.31	46.09	42.20	54.00	11.80
11 570.00	51.88	Peak	V	39.90	7.31	46.09	53.00	74.00	21.00
11 570.00	40.98	Average	V	39.90	7.31	46.09	42.10	54.00	11.90
High Channel									
11 650.00	51.68	Peak	H	39.30	7.31	46.21	52.08	74.00	21.92
11 650.00	40.33	Average	H	39.30	7.31	46.21	40.73	54.00	13.27
11 650.00	51.41	Peak	V	39.30	7.31	46.21	51.81	74.00	22.19
11 650.00	40.54	Average	V	39.30	7.31	46.21	40.94	54.00	13.06

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

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

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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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
11 510.00	51.66	Peak	H	40.00	7.27	46.09	52.84	74.00	21.16
11 510.00	40.88	Average	H	40.00	7.27	46.09	42.06	54.00	11.94
11 510.00	51.61	Peak	V	40.00	7.27	46.09	52.79	74.00	21.21
11 510.00	40.76	Average	V	40.00	7.27	46.09	41.94	54.00	12.06
High Channel									
11 590.00	51.87	Peak	H	39.90	7.31	46.09	52.99	74.00	21.01
11 590.00	41.22	Average	H	39.90	7.31	46.09	42.34	54.00	11.66
11 590.00	51.65	Peak	V	39.90	7.31	46.09	52.77	74.00	21.23
11 590.00	40.92	Average	V	39.90	7.31	46.09	42.04	54.00	11.96

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

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

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Middle Channel									
11 550.00	51.66	Peak	H	39.90	7.31	46.09	52.78	74.00	21.22
11 550.00	41.33	Average	H	39.90	7.31	46.09	42.45	54.00	11.55
11 550.00	51.65	Peak	V	39.90	7.31	46.09	52.77	74.00	21.23
11 550.00	40.98	Average	V	39.90	7.31	46.09	42.10	54.00	11.90

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

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

14. RADIATED RESTRICTED BAND EDGE MEASUREMENTS

14.1 Operating environment

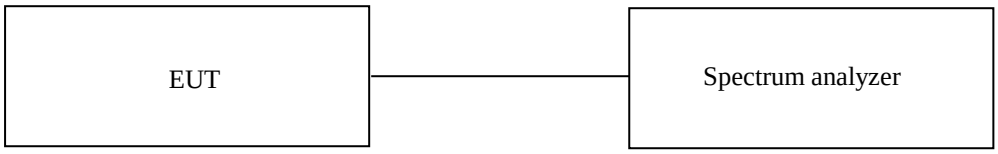
Temperature : 23 °C

Relative humidity : 44 % 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

October 07, 2021 ~ October 20, 2021

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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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 147.90	66.44	Peak	H	31.80	4.73	6.70	45.03	64.64	74.00	9.36
5 150.00	47.86	Average	H	31.80	4.73	6.70	45.03	46.06	54.00	7.94
5 148.60	57.10	Peak	V	31.80	4.73	6.70	45.03	55.30	74.00	18.70
5 146.50	45.08	Average	V	31.80	4.73	6.70	45.03	43.28	54.00	10.72

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 089.16	64.20	Peak	H	31.80	4.73	6.70	45.03	62.40	74.00	11.60
5 150.00	47.74	Average	H	31.80	4.73	6.70	45.03	45.94	54.00	8.06
5 150.00	61.87	Peak	V	31.80	4.73	6.70	45.03	60.07	74.00	13.93
5 147.90	45.51	Average	V	31.80	4.73	6.70	45.03	43.71	54.00	10.29

Tabulated test data for Restricted Band

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

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

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 147.20	65.88	Peak	H	31.80	4.73	6.70	45.03	64.08	74.00	9.92
5 150.00	50.94	Average	H	31.80	4.73	6.70	45.03	49.14	54.00	4.86
5 147.20	60.49	Peak	V	31.80	4.73	6.70	45.03	58.69	74.00	15.31
5 150.00	47.79	Average	V	31.80	4.73	6.70	45.03	45.99	54.00	8.01

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 149.30	64.64	Peak	H	31.80	4.73	6.70	45.03	62.84	74.00	11.16
5 147.20	51.78	Average	H	31.80	4.73	6.70	45.03	49.98	54.00	4.02
5 147.10	56.16	Peak	V	31.80	4.73	6.70	45.03	54.36	74.00	19.64
5 144.41	46.01	Average	V	31.80	4.73	6.70	45.03	44.21	54.00	9.79

Tabulated test data for Restricted Band

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

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

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 366.08	56.13	Peak	H	31.50	5.52	6.70	45.21	54.64	74.00	19.36
5 351.26	44.33	Average	H	31.50	5.52	6.70	45.21	42.84	54.00	11.16
5 350.84	54.59	Peak	V	31.50	5.52	6.70	45.21	53.10	74.00	20.90
5 350.00	42.84	Average	V	31.50	5.52	6.70	45.21	41.35	54.00	12.65

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 352.52	55.49	Peak	H	31.50	5.52	6.70	45.21	54.00	74.00	20.00
5 350.70	44.41	Average	H	31.50	5.52	6.70	45.21	42.92	54.00	11.08
5 355.31	53.68	Peak	V	31.50	5.52	6.70	45.21	52.19	74.00	21.81
5 351.26	43.05	Average	V	31.50	5.52	6.70	45.21	41.56	54.00	12.44

Tabulated test data for Restricted Band

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

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

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 352.10	64.96	Peak	H	31.50	5.52	6.70	45.21	63.47	74.00	10.53
5 350.42	50.17	Average	H	31.50	5.52	6.70	45.21	48.68	54.00	5.32
5 350.84	62.49	Peak	V	31.50	5.52	6.70	45.21	61.00	74.00	13.00
5 350.00	48.02	Average	V	31.50	5.52	6.70	45.21	46.53	54.00	7.47

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 355.31	66.58	Peak	H	31.50	5.52	6.70	45.21	65.09	74.00	8.91
5 350.00	50.80	Average	H	31.50	5.52	6.70	45.21	49.31	54.00	4.69
5 351.96	60.31	Peak	V	31.50	5.52	6.70	45.21	58.82	74.00	15.18
5 350.84	46.43	Average	V	31.50	5.52	6.70	45.21	44.94	54.00	9.06

Tabulated test data for Restricted Band

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

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

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 459.33	54.75	Peak	H	31.80	5.52	6.70	45.31	53.46	74.00	20.54
5 460.00	43.35	Average	H	31.80	5.52	6.70	45.31	42.06	54.00	11.94
5 444.20	53.65	Peak	V	31.80	5.52	6.70	45.31	52.36	74.00	21.64
5 456.55	42.97	Average	V	31.80	5.52	6.70	45.31	41.68	54.00	12.32

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 428.46	54.93	Peak	H	31.80	5.52	6.70	45.31	53.64	74.00	20.36
5 459.10	44.00	Average	H	31.80	5.52	6.70	45.31	42.71	54.00	11.29
5 427.26	53.39	Peak	V	31.80	5.52	6.70	45.31	52.10	74.00	21.90
5 458.80	42.81	Average	V	31.80	5.52	6.70	45.31	41.52	54.00	12.48

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 459.78	55.70	Peak	H	31.80	5.52	6.70	45.31	54.41	74.00	19.59
5 459.25	43.83	Average	H	31.80	5.52	6.70	45.31	42.54	54.00	11.46
5 388.90	54.37	Peak	V	31.80	5.52	6.70	45.31	53.08	74.00	20.92
5 458.95	42.73	Average	V	31.80	5.52	6.70	45.31	41.44	54.00	12.56

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
5 456.48	58.68	Peak	H	31.80	5.52	6.70	45.31	57.39	74.00	16.61
5 460.00	45.79	Average	H	31.80	5.52	6.70	45.31	44.50	54.00	9.50
5 459.18	54.77	Peak	V	31.80	5.52	6.70	45.31	53.48	74.00	20.52
5 458.35	44.04	Average	V	31.80	5.52	6.70	45.31	42.75	54.00	11.25

Tabulated test data for Restricted Band

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

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

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel										
5 694.03	53.61	Peak	H	31.80	5.63	6.70	45.31	52.43	100.78	48.35
5 719.17	62.25	Peak	H	31.80	5.63	6.70	45.31	61.07	110.57	49.50
5 724.57	73.16	Peak	H	31.80	5.63	6.70	45.31	71.98	121.22	49.24
5 852.91	51.90	Peak	H	32.30	5.71	6.70	45.19	51.42	115.57	64.15
5 866.04	52.31	Peak	H	32.30	5.71	6.70	45.19	51.83	107.71	55.88
5 876.52	51.44	Peak	H	32.30	5.71	6.70	45.19	50.96	104.08	53.12
5 658.12	52.19	Peak	V	31.80	5.63	6.70	45.31	51.01	74.21	23.20
5 719.89	55.45	Peak	V	31.80	5.63	6.70	45.31	54.27	110.77	56.50
5 724.86	66.08	Peak	V	31.80	5.63	6.70	45.31	64.90	121.88	56.98
5 850.14	51.47	Peak	V	32.30	5.71	6.70	45.19	50.99	121.88	70.89
5 855.69	51.82	Peak	V	32.30	5.71	6.70	45.19	51.34	110.61	59.27
5 892.31	51.57	Peak	V	32.30	5.71	6.70	45.19	51.09	92.39	41.30

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	ATT Loss	AMP FACTOR	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
High Channel										
5 667.66	52.60	Peak	H	31.80	5.63	6.70	45.31	51.42	81.27	29.85
5 701.57	52.60	Peak	H	31.80	5.63	6.70	45.31	51.42	105.64	54.22
5 722.31	52.85	Peak	H	31.80	5.63	6.70	45.31	51.67	116.07	64.40
5 854.83	52.91	Peak	H	32.30	5.71	6.70	45.19	52.43	111.19	58.76
5 856.17	52.50	Peak	H	32.30	5.71	6.70	45.19	52.02	110.47	58.45
5 892.46	51.89	Peak	H	32.30	5.71	6.70	45.19	51.41	92.28	40.87
5 673.90	51.52	Peak	V	31.80	5.63	6.70	45.31	50.34	85.89	35.55
5 701.59	52.59	Peak	V	31.80	5.63	6.70	45.31	51.41	105.65	54.24
5 722.94	52.40	Peak	V	31.80	5.63	6.70	45.31	51.22	117.50	66.28
5 850.07	52.50	Peak	V	32.30	5.71	6.70	45.19	52.02	122.04	70.02
5 866.18	52.37	Peak	V	32.30	5.71	6.70	45.19	51.89	107.67	55.78
5 920.13	51.63	Peak	V	32.30	5.71	6.70	45.19	51.15	71.80	20.65

Tabulated test data for Restricted Band

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

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

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel										
5 694.73	52.58	Peak	H	31.80	5.63	6.70	45.31	51.40	101.30	49.90
5 719.71	54.83	Peak	H	31.80	5.63	6.70	45.31	53.65	110.72	57.07
5 724.03	67.25	Peak	H	31.80	5.63	6.70	45.31	66.07	119.99	53.92
5 854.84	52.68	Peak	H	32.30	5.71	6.70	45.19	52.20	111.16	58.96
5 856.27	52.31	Peak	H	32.30	5.71	6.70	45.19	51.83	110.44	58.61
5 891.41	52.23	Peak	H	32.30	5.71	6.70	45.19	51.75	93.06	41.31
5 663.91	52.52	Peak	V	31.80	5.63	6.70	45.31	51.34	78.49	27.15
5 716.31	55.95	Peak	V	31.80	5.63	6.70	45.31	54.77	109.77	55.00
5 724.61	66.27	Peak	V	31.80	5.63	6.70	45.31	65.09	121.31	56.22
5 850.49	52.39	Peak	V	32.30	5.71	6.70	45.19	51.91	121.08	69.17
5 864.60	51.53	Peak	V	32.30	5.71	6.70	45.19	51.05	108.11	57.06
5 915.93	51.78	Peak	V	32.30	5.71	6.70	45.19	51.30	74.91	23.61

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	ATT Loss	AMP FACTOR	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
High Channel										
5 695.28	55.57	Peak	H	31.80	5.63	6.70	45.31	54.39	101.71	47.32
5 717.79	54.58	Peak	H	31.80	5.63	6.70	45.31	53.40	110.18	56.78
5 720.80	54.41	Peak	H	31.80	5.63	6.70	45.31	53.23	112.62	59.39
5 850.88	60.00	Peak	H	32.30	5.71	6.70	45.19	59.52	120.19	60.67
5 856.81	53.25	Peak	H	32.30	5.71	6.70	45.19	52.77	110.29	57.52
5 887.56	52.95	Peak	H	32.30	5.71	6.70	45.19	52.47	95.91	43.44
5 680.29	51.59	Peak	V	31.80	5.63	6.70	45.31	50.41	90.61	40.20
5 705.38	51.84	Peak	V	31.80	5.63	6.70	45.31	50.66	106.71	56.05
5 722.87	52.64	Peak	V	31.80	5.63	6.70	45.31	51.46	117.34	65.88
5 850.41	52.59	Peak	V	32.30	5.71	6.70	45.19	52.11	121.27	69.16
5 857.19	52.48	Peak	V	32.30	5.71	6.70	45.19	52.00	110.19	58.19
5 916.43	51.89	Peak	V	32.30	5.71	6.70	45.19	51.41	74.54	23.13

Tabulated test data for Restricted Band

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

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

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel										
5 694.78	56.82	Peak	H	31.80	5.63	6.70	45.31	55.64	101.34	45.70
5 719.35	72.86	Peak	H	31.80	5.63	6.70	45.31	71.68	110.62	38.94
5 724.71	76.93	Peak	H	31.80	5.63	6.70	45.31	75.75	121.54	45.79
5 850.36	52.22	Peak	H	32.30	5.71	6.70	45.19	51.74	121.38	69.64
5 872.93	52.73	Peak	H	32.30	5.71	6.70	45.19	52.25	105.78	53.53
5 882.42	52.46	Peak	H	32.30	5.71	6.70	45.19	51.98	99.71	47.73
5 679.85	52.82	Peak	V	31.80	5.63	6.70	45.31	51.64	90.29	38.65
5 718.47	63.85	Peak	V	31.80	5.63	6.70	45.31	62.67	110.37	47.70
5 722.68	67.92	Peak	V	31.80	5.63	6.70	45.31	66.74	116.91	50.17
5 852.74	52.18	Peak	V	32.30	5.71	6.70	45.19	51.70	115.95	64.25
5 865.56	51.91	Peak	V	32.30	5.71	6.70	45.19	51.43	107.84	56.41
5 881.42	51.69	Peak	V	32.30	5.71	6.70	45.19	51.21	100.45	49.24

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	ATT Loss	AMP FACTOR	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
High Channel										
5 679.10	52.62	Peak	H	31.80	5.63	6.70	45.31	51.44	89.73	38.29
5 716.55	52.90	Peak	H	31.80	5.63	6.70	45.31	51.72	109.83	58.11
5 724.16	53.18	Peak	H	31.80	5.63	6.70	45.31	52.00	120.28	68.28
5 851.96	52.55	Peak	H	32.30	5.71	6.70	45.19	52.07	117.73	65.66
5 856.55	52.40	Peak	H	32.30	5.71	6.70	45.19	51.92	110.37	58.45
5 875.42	52.00	Peak	H	32.30	5.71	6.70	45.19	51.52	104.89	53.37
5 654.02	52.17	Peak	V	31.80	5.63	6.70	45.31	50.99	71.17	20.18
5 710.56	52.77	Peak	V	31.80	5.63	6.70	45.31	51.59	108.16	56.57
5 721.45	52.27	Peak	V	31.80	5.63	6.70	45.31	51.09	114.11	63.02
5 853.09	52.28	Peak	V	32.30	5.71	6.70	45.19	51.80	115.15	63.35
5 863.32	51.90	Peak	V	32.30	5.71	6.70	45.19	51.42	108.47	57.05
5 877.87	51.65	Peak	V	32.30	5.71	6.70	45.19	51.17	103.08	51.91

Tabulated test data for Restricted Band

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

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

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	ATT Loss	AMP FACTOR	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel										
5 698.63	62.46	Peak	H	31.80	5.63	6.70	45.31	61.28	104.19	42.91
5 718.15	69.08	Peak	H	31.80	5.63	6.70	45.31	67.90	110.28	42.38
5 724.10	68.37	Peak	H	31.80	5.63	6.70	45.31	67.19	120.15	52.96
5 852.76	60.42	Peak	H	32.30	5.71	6.70	45.19	59.94	115.91	55.97
5 857.87	58.57	Peak	H	32.30	5.71	6.70	45.19	58.09	110.00	51.91
5 884.22	52.12	Peak	H	32.30	5.71	6.70	45.19	51.64	98.38	46.74
5 697.88	60.94	Peak	V	31.80	5.63	6.70	45.31	59.76	103.63	43.87
5 716.77	65.28	Peak	V	31.80	5.63	6.70	45.31	64.10	109.90	45.80
5 724.65	65.49	Peak	V	31.80	5.63	6.70	45.31	64.31	121.40	57.09
5 851.35	63.30	Peak	V	32.30	5.71	6.70	45.19	62.82	119.12	56.30
5 856.23	55.77	Peak	V	32.30	5.71	6.70	45.19	55.29	110.46	55.17
5 875.92	51.99	Peak	V	32.30	5.71	6.70	45.19	51.51	104.52	53.01

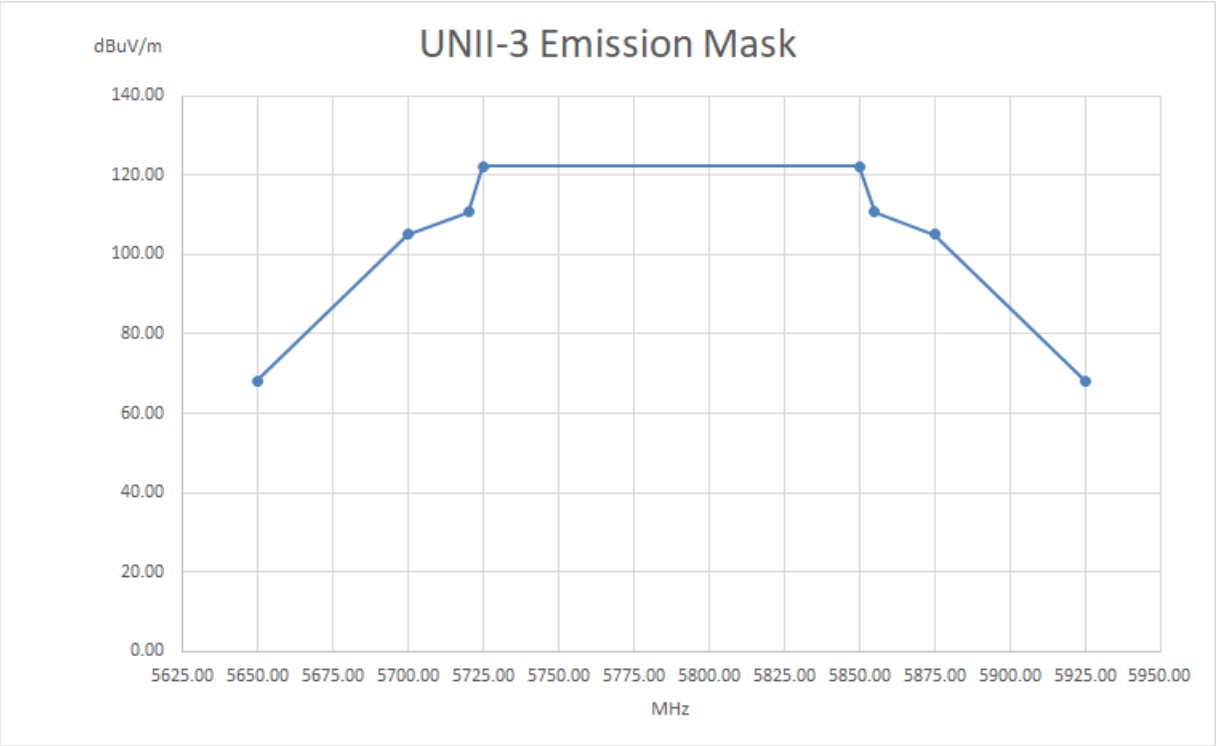
Tabulated test data for Restricted Band

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

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

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.

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

15. CONDUCTED EMISSION TEST

15.1 Operating environment

Temperature : 23 °C

Relative humidity : 44 % 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

October 07, 2021 ~ October 20, 2021

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15.4 Test data

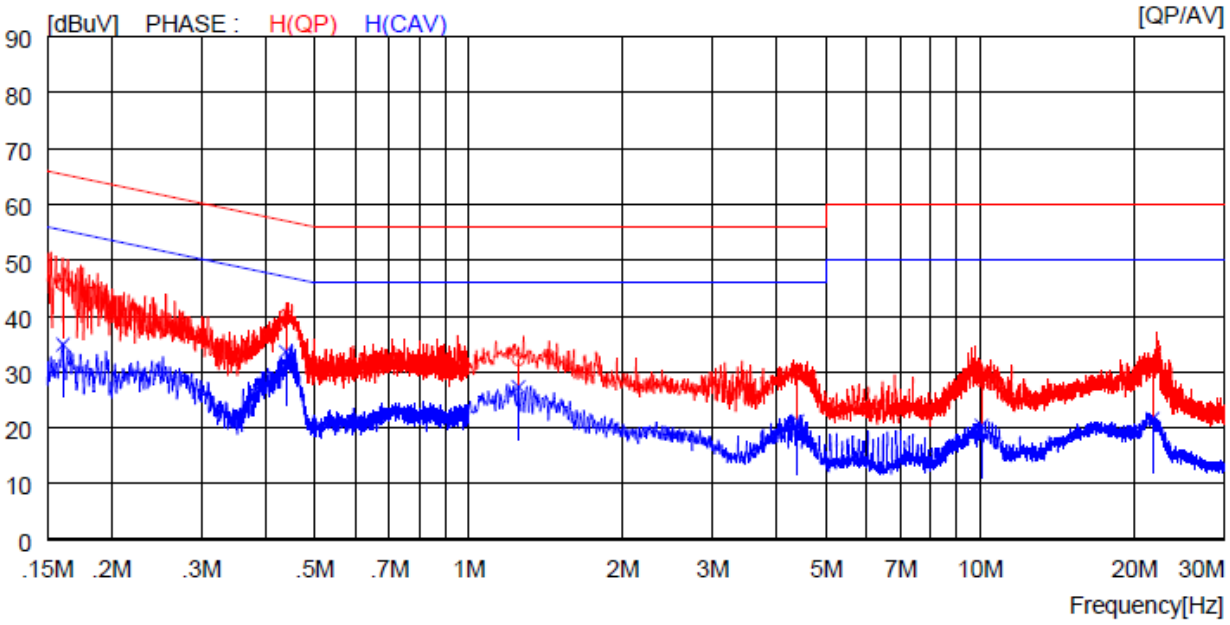
15.4.1 Test data for WLAN 5 GHz

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : LIVE LINE

LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)

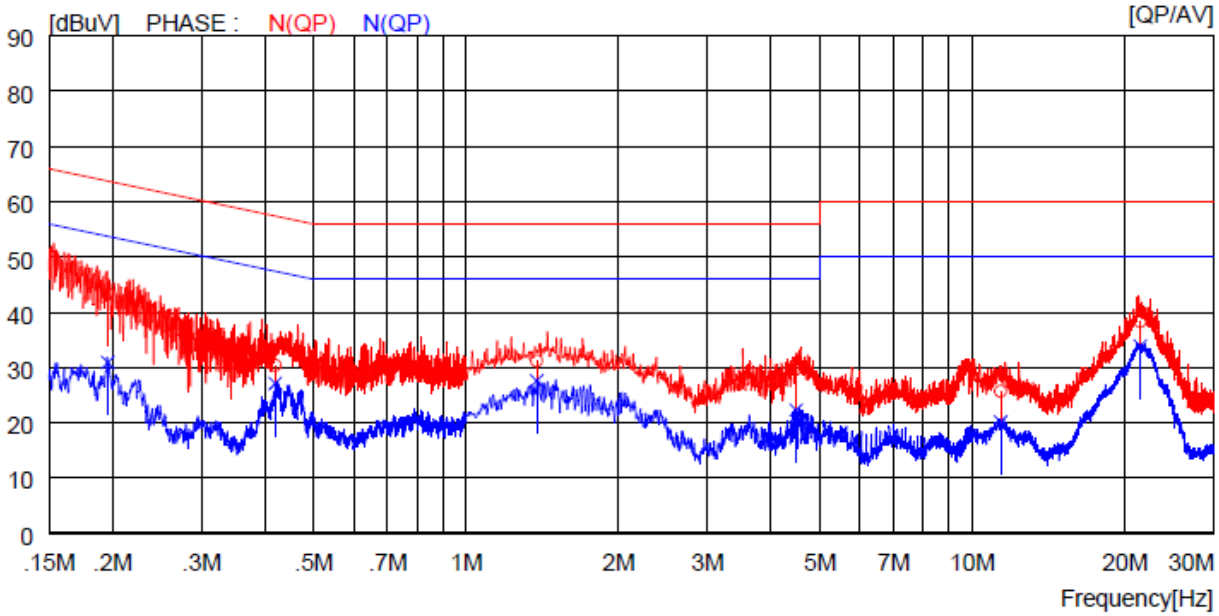


NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.16100	35.7	----	9.9	45.6	----	65.4	----	19.8	----	H(QP)
2	0.43900	30.2	----	9.9	40.1	----	57.1	----	17.0	----	H(QP)
3	1.25200	22.1	----	10.1	32.2	----	56.0	----	23.8	----	H(QP)
4	4.39200	19.7	----	10.1	29.8	----	56.0	----	26.2	----	H(QP)
5	10.06000	18.2	----	10.2	28.4	----	60.0	----	31.6	----	H(QP)
6	21.72000	20.0	----	10.4	30.4	----	60.0	----	29.6	----	H(QP)
7	0.16100	----	25.0	9.9	----	34.9	----	55.4	----	20.5	H(CAV)
8	0.43900	----	23.7	9.9	----	33.6	----	47.1	----	13.5	H(CAV)
9	1.25200	----	17.2	10.1	----	27.3	----	46.0	----	18.7	H(CAV)
10	4.39200	----	11.1	10.1	----	21.2	----	46.0	----	24.8	H(CAV)
11	10.06000	----	10.2	10.2	----	20.4	----	50.0	----	29.6	H(CAV)
12	21.72000	----	11.2	10.4	----	21.6	----	50.0	----	28.4	H(CAV)

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

-. Tested Line : NEUTRAL LINE

LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.19600	33.5	----	9.9	43.4	----	63.8	----	20.4	----	N(QP)
2	0.42000	20.5	----	9.9	30.4	----	57.4	----	27.0	----	N(QP)
3	1.38000	21.1	----	10.1	31.2	----	56.0	----	24.8	----	N(QP)
4	4.48800	19.6	----	10.1	29.7	----	56.0	----	26.3	----	N(QP)
5	11.38000	15.5	----	10.2	25.7	----	60.0	----	34.3	----	N(QP)
6	21.48000	27.9	----	10.4	38.3	----	60.0	----	21.7	----	N(QP)
7	0.19600	----	21.0	9.9	----	30.9	----	53.8	----	22.9	N(CAV)
8	0.42000	----	17.2	9.9	----	27.1	----	47.4	----	20.3	N(CAV)
9	1.38000	----	17.5	10.1	----	27.6	----	46.0	----	18.4	N(CAV)
10	4.48800	----	12.2	10.1	----	22.3	----	46.0	----	23.7	N(CAV)
11	11.38000	----	9.9	10.2	----	20.1	----	50.0	----	29.9	N(CAV)
12	21.48000	----	23.5	10.4	----	33.9	----	50.0	----	16.1	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.

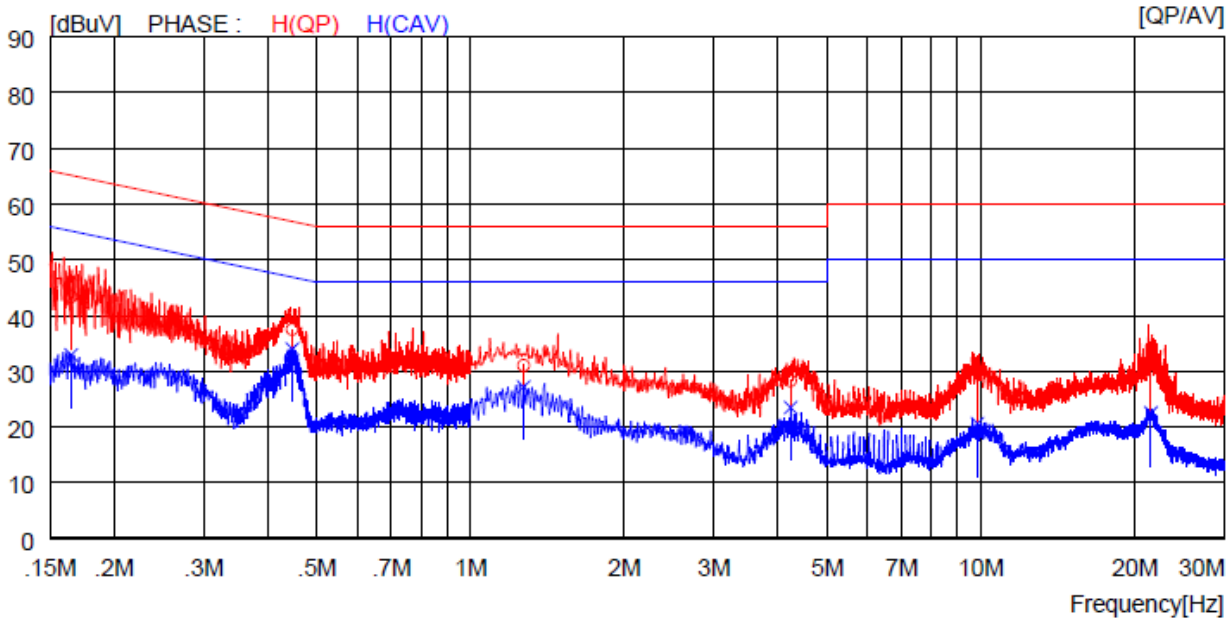
15.4.2 Test data for Intermodulation Mode(Bluetooth LE + WLAN 2.4 GHz + WLAN 5 GHz)

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : LIVE LINE

LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.16500	33.5	----	9.9	43.4	----	65.2	----	21.8	----	H(QP)
2	0.44800	27.6	----	9.9	37.5	----	56.9	----	19.4	----	H(QP)
3	1.27200	20.9	----	10.1	31.0	----	56.0	----	25.0	----	H(QP)
4	4.24000	18.2	----	10.1	28.3	----	56.0	----	27.7	----	H(QP)
5	9.84500	19.9	----	10.2	30.1	----	60.0	----	29.9	----	H(QP)
6	21.55000	21.1	----	10.4	31.5	----	60.0	----	28.5	----	H(QP)
7	0.16500	----	23.0	9.9	----	32.9	----	55.2	----	22.3	H(CAV)
8	0.44800	----	24.1	9.9	----	34.0	----	46.9	----	12.9	H(CAV)
9	1.27200	----	17.1	10.1	----	27.2	----	46.0	----	18.8	H(CAV)
10	4.24000	----	13.4	10.1	----	23.5	----	46.0	----	22.5	H(CAV)
11	9.84500	----	10.4	10.2	----	20.6	----	50.0	----	29.4	H(CAV)
12	21.55000	----	12.1	10.4	----	22.5	----	50.0	----	27.5	H(CAV)

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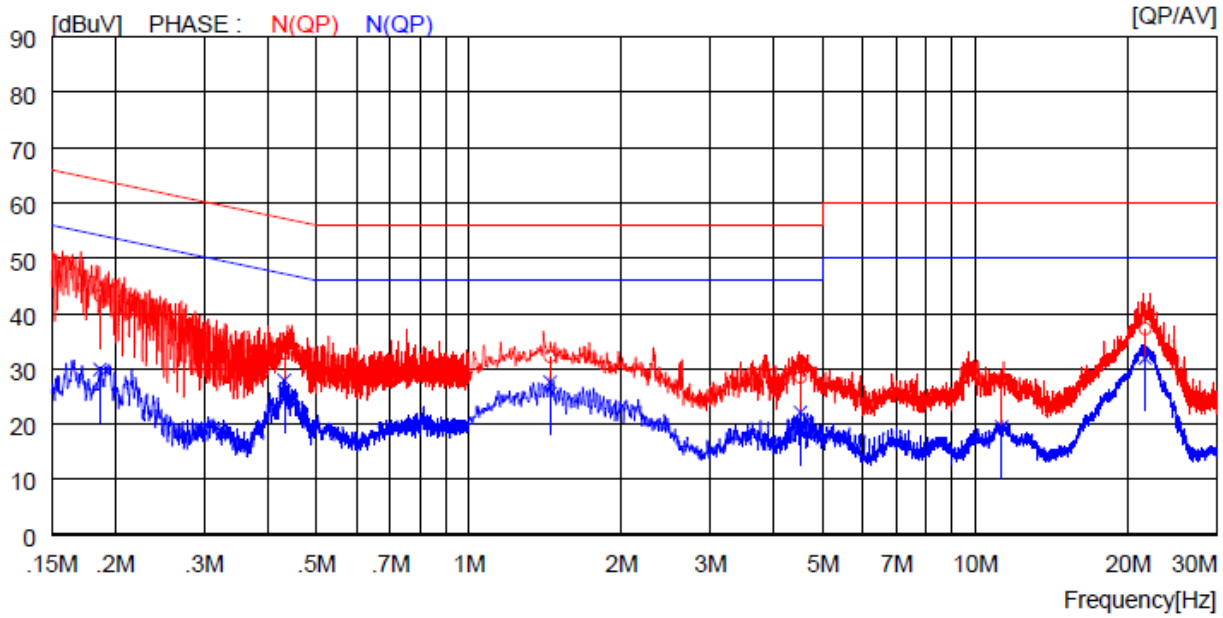
-. Tested Line : NEUTRAL LINE

LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.18700	33.3	----	9.9	43.2	----	64.2	----	21.0	----	N(QP)
2	0.43200	22.9	----	9.9	32.8	----	57.2	----	24.4	----	N(QP)
3	1.44800	22.1	----	10.1	32.2	----	56.0	----	23.8	----	N(QP)
4	4.51600	18.4	----	10.1	28.5	----	56.0	----	27.5	----	N(QP)
5	11.27000	17.6	----	10.2	27.8	----	60.0	----	32.2	----	N(QP)
6	21.65000	26.8	----	10.4	37.2	----	60.0	----	22.8	----	N(QP)
7	0.18700	----	20.0	9.9	----	29.9	----	54.2	----	24.3	N(CAV)
8	0.43200	----	18.0	9.9	----	27.9	----	47.2	----	19.3	N(CAV)
9	1.44800	----	17.5	10.1	----	27.6	----	46.0	----	18.4	N(CAV)
10	4.51600	----	12.0	10.1	----	22.1	----	46.0	----	23.9	N(CAV)
11	11.27000	----	9.3	10.2	----	19.5	----	50.0	----	30.5	N(CAV)
12	21.65000	----	21.5	10.4	----	31.9	----	50.0	----	18.1	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.

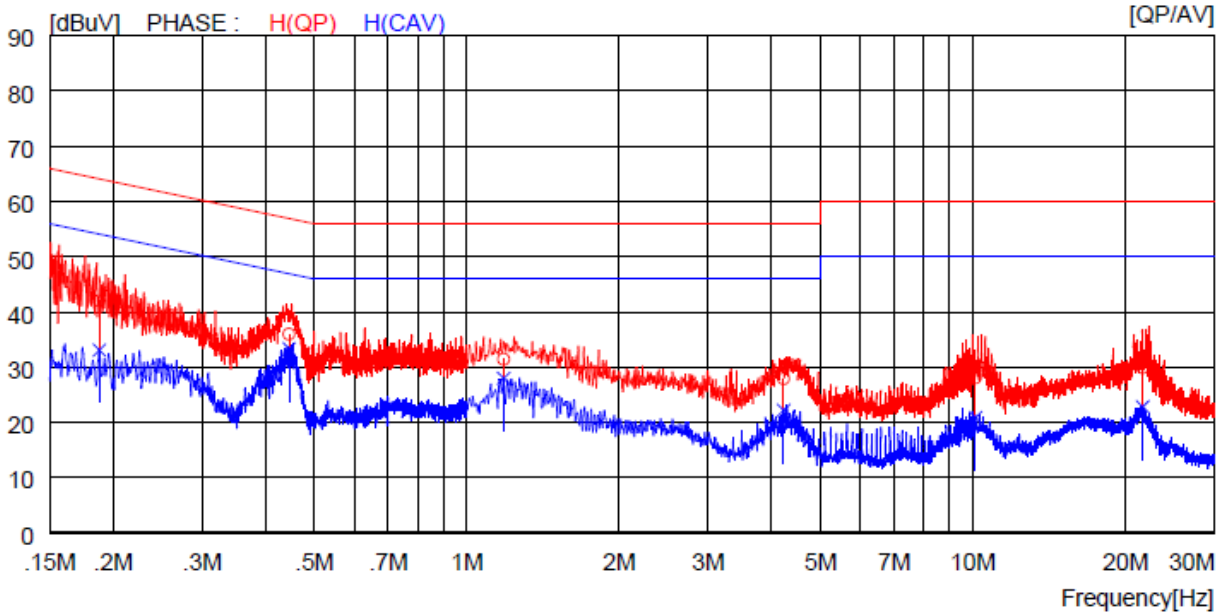
15.4.3 Test data for Intermodulation Mode(Bluetooth + WLAN 2.4 GHz + WLAN 5 GHz)

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : LIVE LINE

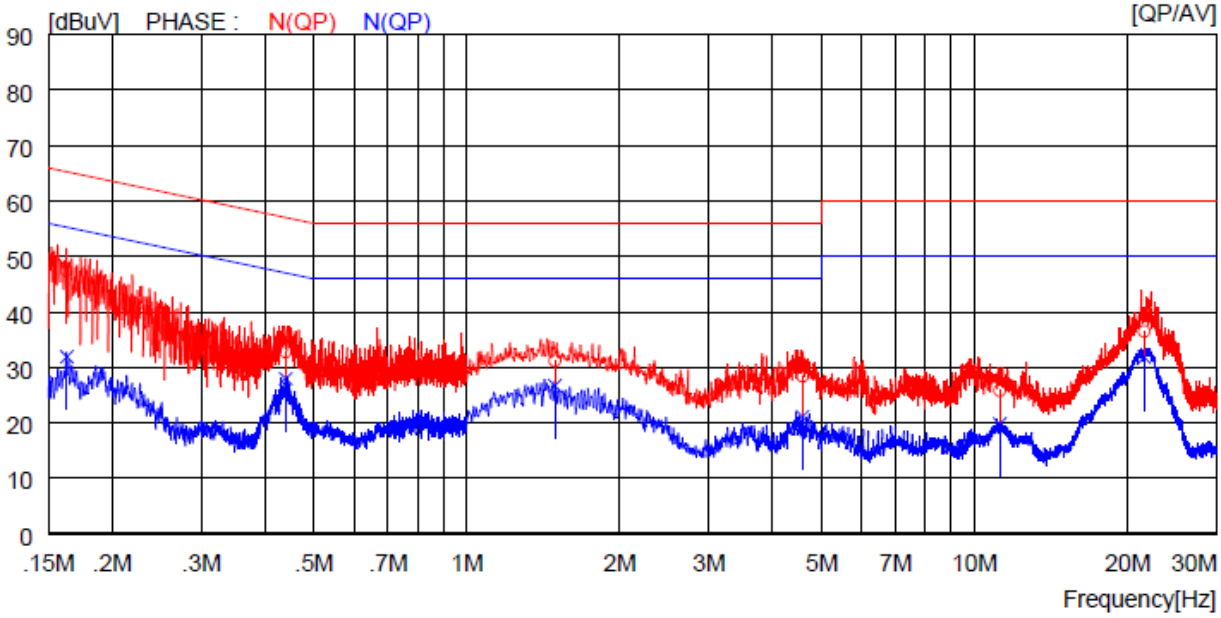
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



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	0.18800	32.1	----	9.9	42.0	----	64.1	----	22.1	----	H(QP)
2	0.44600	26.1	----	9.9	36.0	----	56.9	----	20.9	----	H(QP)
3	1.18400	21.4	----	10.0	31.4	----	56.0	----	24.6	----	H(QP)
4	4.23200	17.8	----	10.1	27.9	----	56.0	----	28.1	----	H(QP)
5	10.13000	17.9	----	10.2	28.1	----	60.0	----	31.9	----	H(QP)
6	21.66000	19.5	----	10.4	29.9	----	60.0	----	30.1	----	H(QP)
7	0.18800	----	23.2	9.9	----	33.1	----	54.1	----	21.0	H(CAV)
8	0.44600	----	23.4	9.9	----	33.3	----	46.9	----	13.6	H(CAV)
9	1.18400	----	18.0	10.0	----	28.0	----	46.0	----	18.0	H(CAV)
10	4.23200	----	12.1	10.1	----	22.2	----	46.0	----	23.8	H(CAV)
11	10.13000	----	10.7	10.2	----	20.9	----	50.0	----	29.1	H(CAV)
12	21.66000	----	12.4	10.4	----	22.8	----	50.0	----	27.2	H(CAV)

-. Tested Line : NEUTRAL LINE

LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.16300	37.5	----	9.9	47.4	----	65.3	----	17.9	----	N(QP)
2	0.44000	22.9	----	9.9	32.8	----	57.1	----	24.3	----	N(QP)
3	1.49200	21.1	----	10.1	31.2	----	56.0	----	24.8	----	N(QP)
4	4.59200	18.3	----	10.1	28.4	----	56.0	----	27.6	----	N(QP)
5	11.21000	15.6	----	10.2	25.8	----	60.0	----	34.2	----	N(QP)
6	21.61000	26.1	----	10.4	36.5	----	60.0	----	23.5	----	N(QP)
7	0.16300	----	22.0	9.9	----	31.9	----	55.3	----	23.4	N(CAV)
8	0.44000	----	18.1	9.9	----	28.0	----	47.1	----	19.1	N(CAV)
9	1.49200	----	16.6	10.1	----	26.7	----	46.0	----	19.3	N(CAV)
10	4.59200	----	11.0	10.1	----	21.1	----	46.0	----	24.9	N(CAV)
11	11.21000	----	9.6	10.2	----	19.8	----	50.0	----	30.2	N(CAV)
12	21.61000	----	21.4	10.4	----	31.8	----	50.0	----	18.2	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

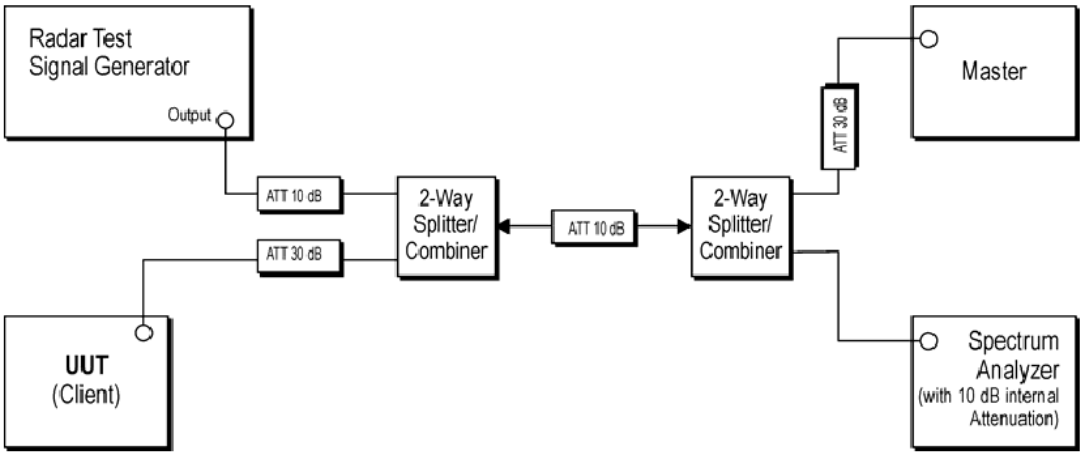
Temperature : 23 °C

Relative humidity : 44 % 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 : WCB734M

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

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

October 07, 2021 ~ October 20, 2021

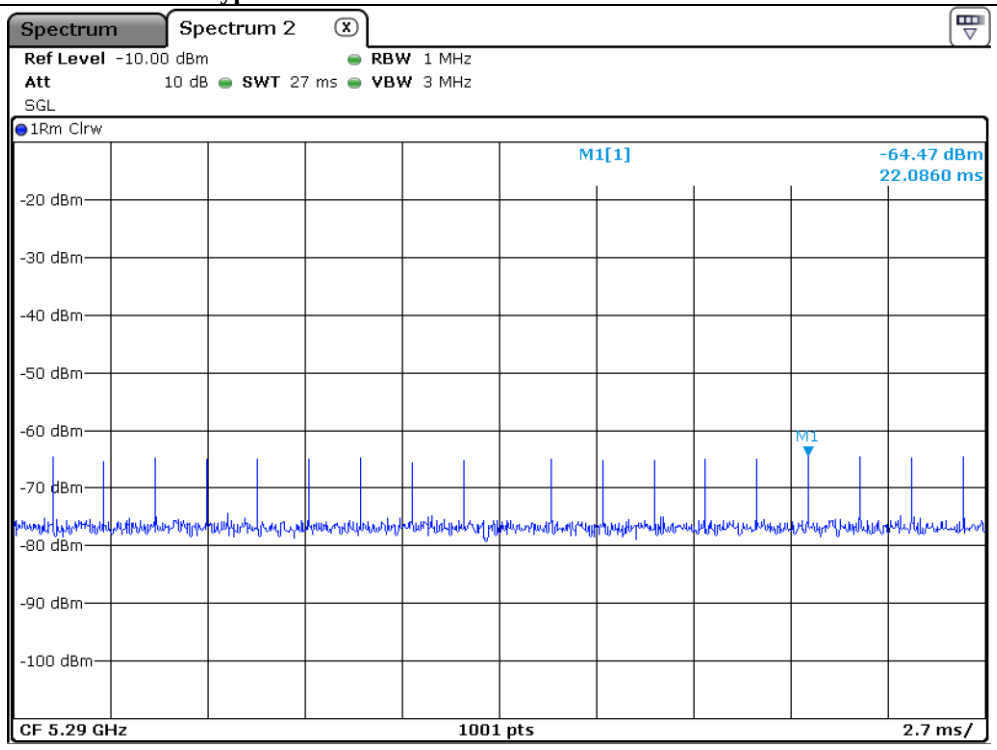
16.6 Test data

Band	Frequency (MHz)	Channel move time(s)		Channel closing transmission time(ms)	
		Measured	Limit	Measured	Limit
UNII 2A	5 290.00	0.94	10.00	6.4	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period.
UNII 2C	5 530.00	0.81		4.4	

Note. Channel closing transmission time: 16 * 0.4 ms = 6.4 ms, 11 * 0.4 ms = 4.4 ms

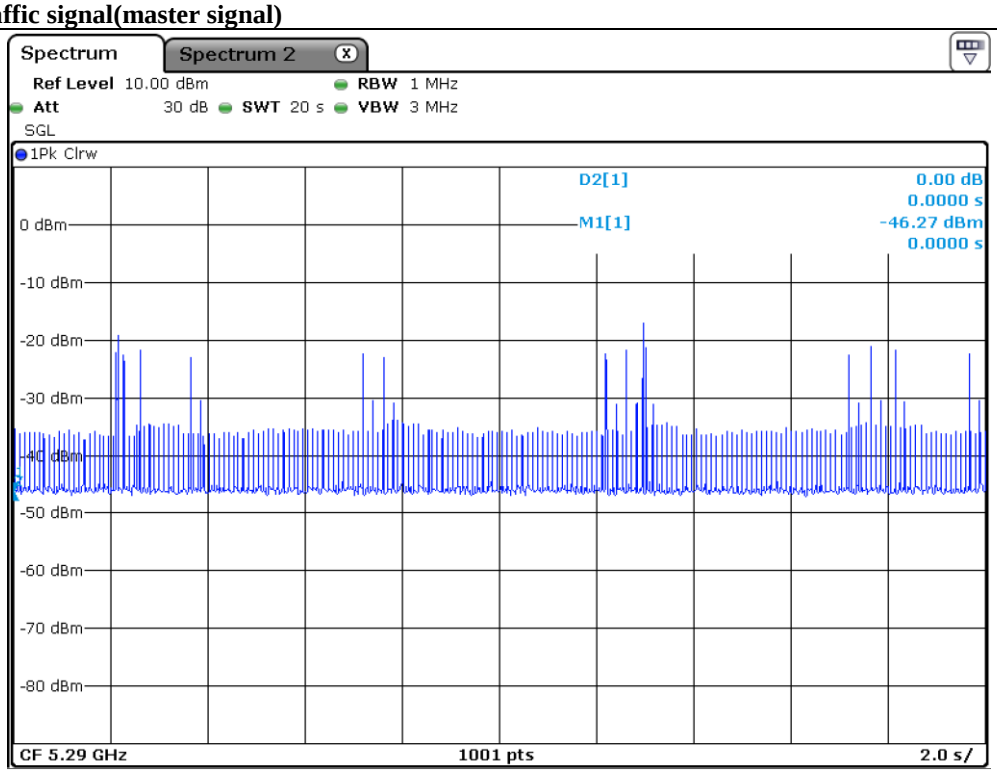
16.6.1 UNII 2A

16.6.1.1 Plot of Radar waveform type 0

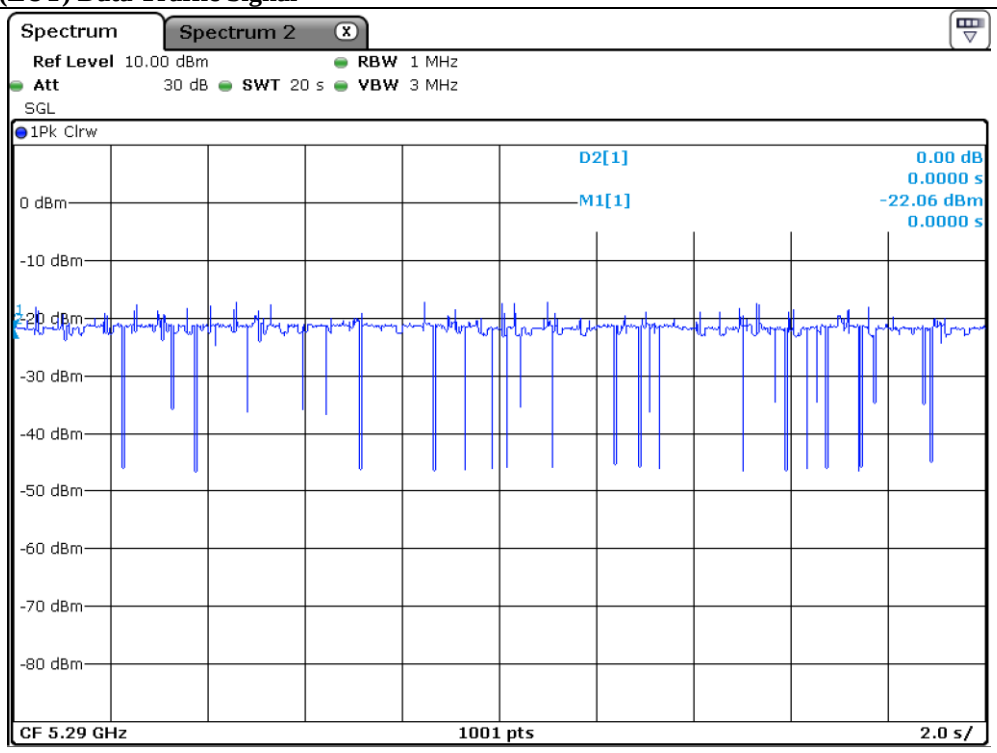


Note: The calibrated conducted DFS detection threshold level is set to -64.47 dBm (-62+1+1.80=-59.20 dBm)

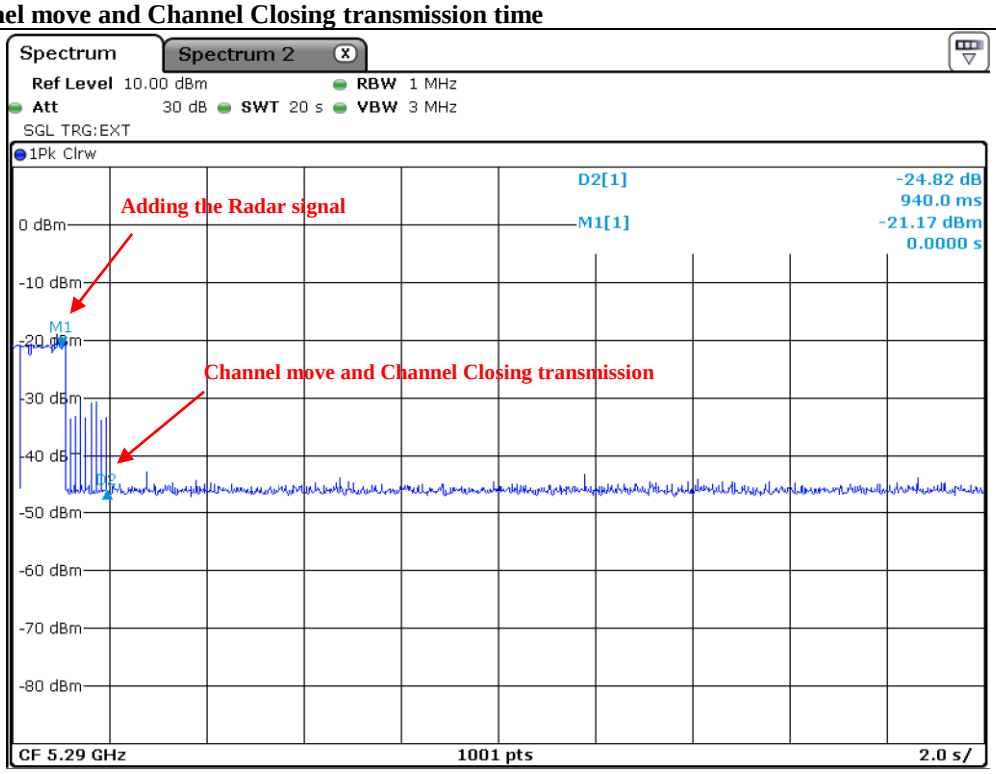
16.6.1.2 No traffic signal(master signal)



16.6.1.3 Client(EUT) Data Traffic Signal

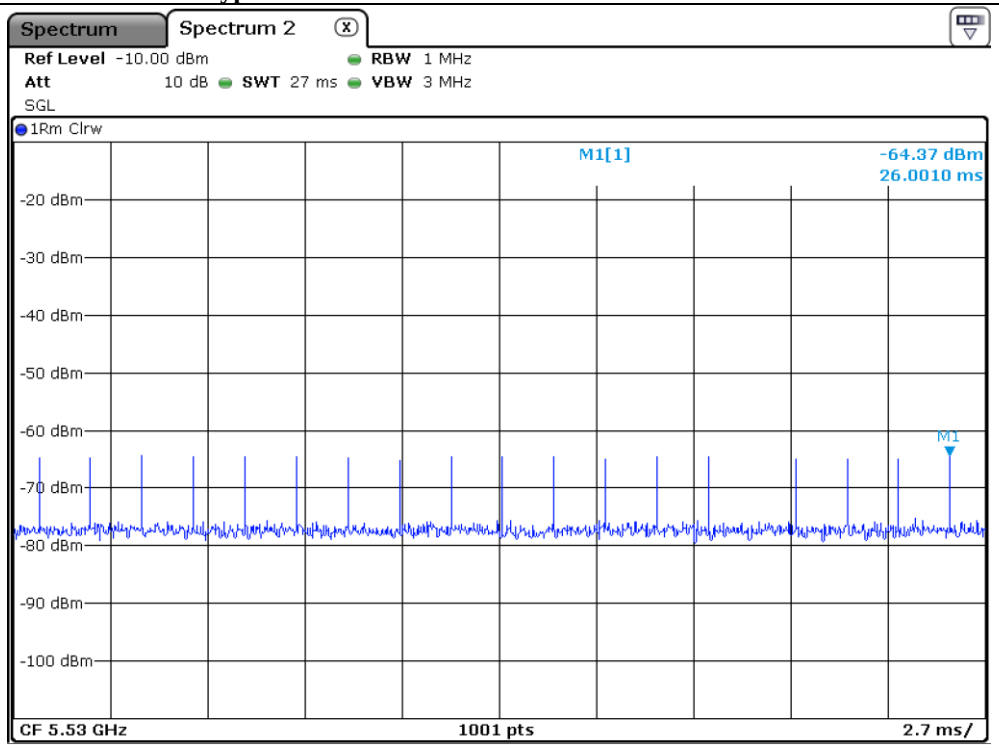


16.6.1.4 Channel move and Channel Closing transmission time



16.6.2 UNII 3

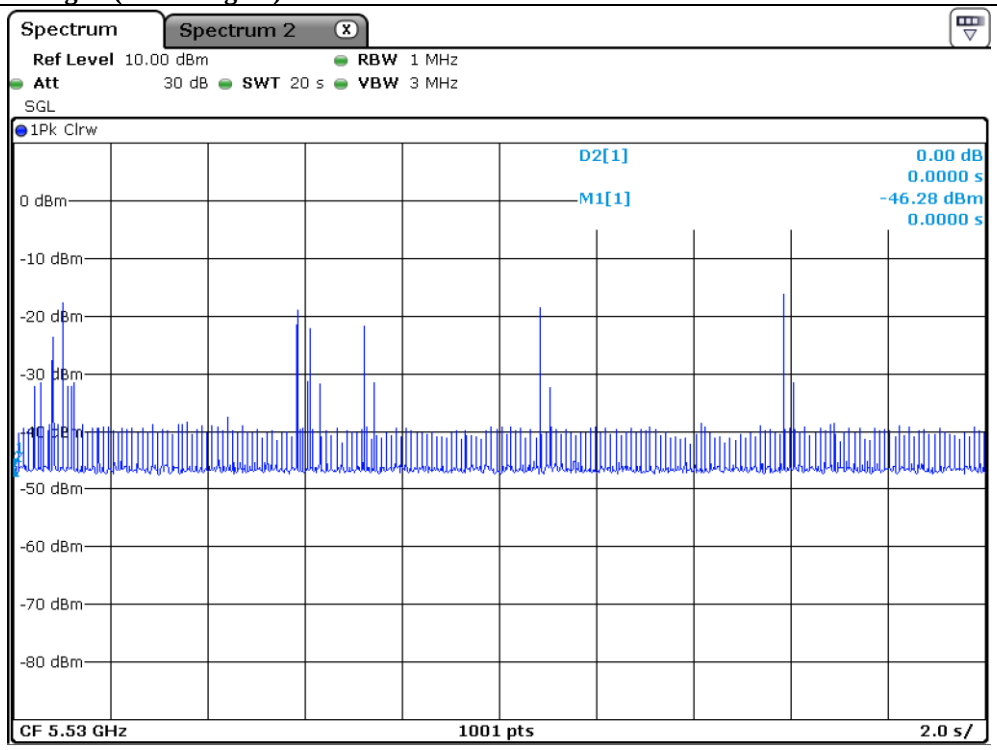
16.6.2.1 Plot of Radar waveform type 1



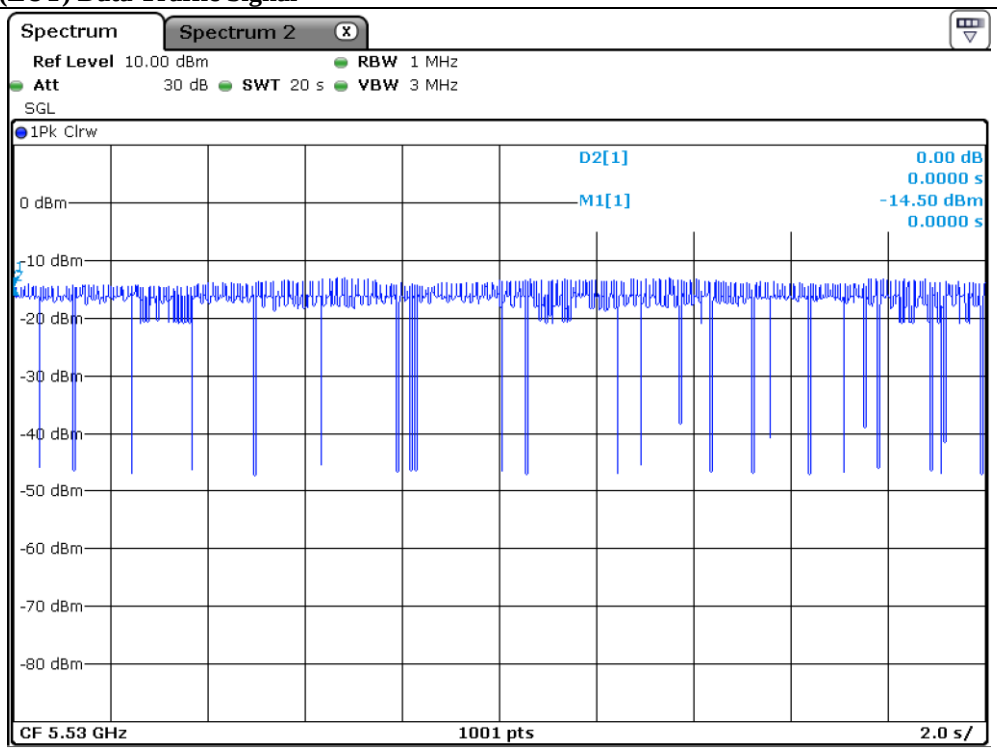
Note: The calibrated conducted DFS detection threshold level is set to -64.37 dBm (-62+1+1.66= -59.34 dBm)

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

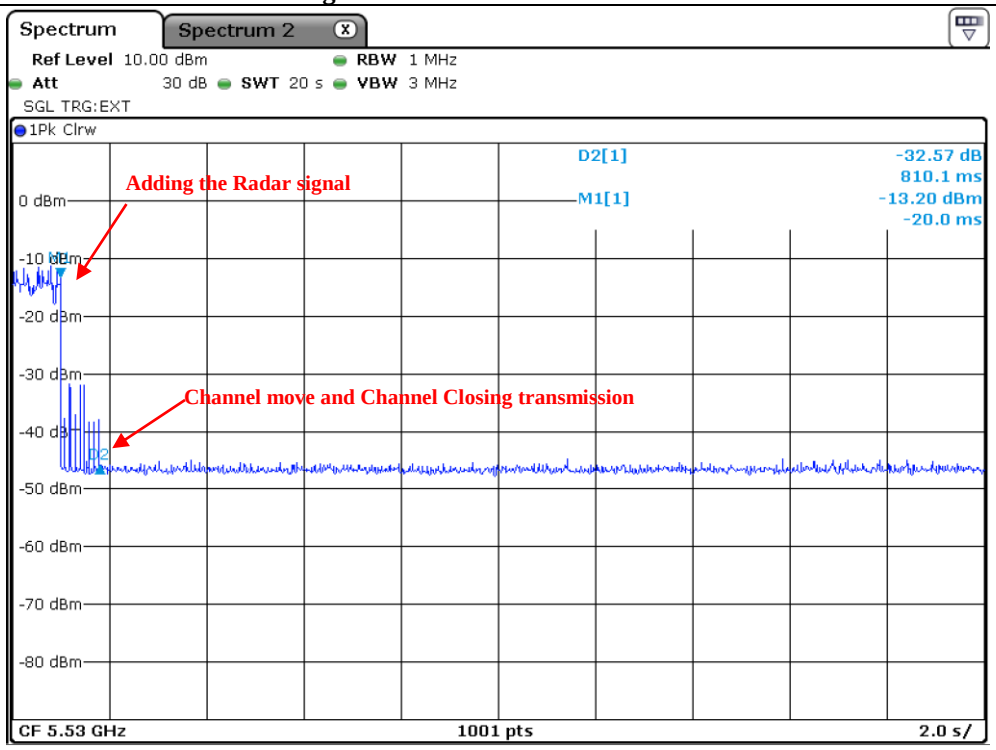
16.6.2.2 No traffic signal(master signal)



16.6.2.3 Client(EUT) Data Traffic Signal



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. 16, 2021 (1Y)
ESW 44	Rohde & Schwarz	EMI Test Receiver	101851	Mar. 23, 2021 (1Y)
FSW43	Rohde & Schwarz	Signal Analyzer	104544	Jul. 14, 2021 (1Y)
PSL-2KP	ESPEC	Environmental Test Chamber	14009407	Feb. 16, 2020 (1Y)
310N	Sonoma Instrument	Pre-Amplifier	392756	Oct. 14, 2021 (1Y)
SCU18	Rohde & Schwarz	Pre-Amplifer	102266	Jul. 14, 2021 (1Y)
PAM-840A	Com-Power	Pre-Amplifier	461339	Oct. 12, 2021 (1Y)
DT3000-3t	Innco System	Turn Table	DT3000/093	N/A
MA-4000XPET	Innco System	Antenna Master	MA4000/509	N/A
FMZB 1513	Schwarzbeck	Loop Antenna	1513-235	Mar. 24, 2020 (2Y)
HLP-2008	TDK	Hybrid Antenna	131316	Feb. 27, 2020 (2Y)
BBHA9120D	Schwarzbeck	Horn Antenna	9120D-1366	Jul. 20, 2021 (1Y)
BBHA9170	Schwarzbeck	Horn Antenna	BBHA9170178	Jan. 07, 2021(1Y)
F-40-10.0-RF	RLC Electronis	High Pass Filte	427	Feb. 08, 2020 (1Y)
NRP-Z81	Rohde & Schwarz	Wide band Sensor	101975	Feb. 09, 2021 (1Y)
8493C	HP	Coaxial Fixed Attenuator (6dB)	997	Jul. 15, 2021 (1Y)
E3632A	Agilent	DC Power supply	MY50370016	Feb. 08, 2021 (1Y)
ESCI	Rohde & Schwarz	EMI TEST RECEIVER	101012	Oct. 20, 2021 (1Y)
NSLK8126	Schwarzbeck	AMN	8126-404	Mar. 16, 2021 (1Y)
ESH3-Z2	Rohde & Schwarz	PULSE LIMITER	100655	Mar. 15, 2021 (1Y)
D-05180-2	RLC Electronis Inc.	Combiner	0813	N/A
11636B	Hewlett Packard	Combiner	12268	N/A
SMBV100A	R/S	Vector Signal Generator	260423	Feb. 21, 2021 (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.