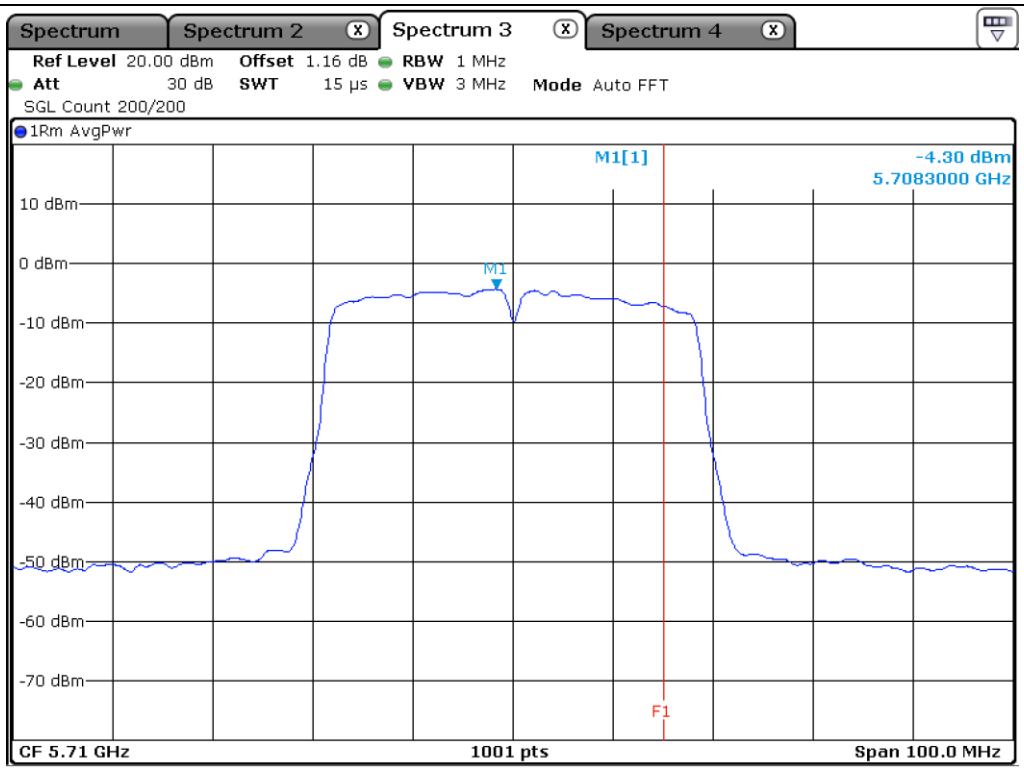
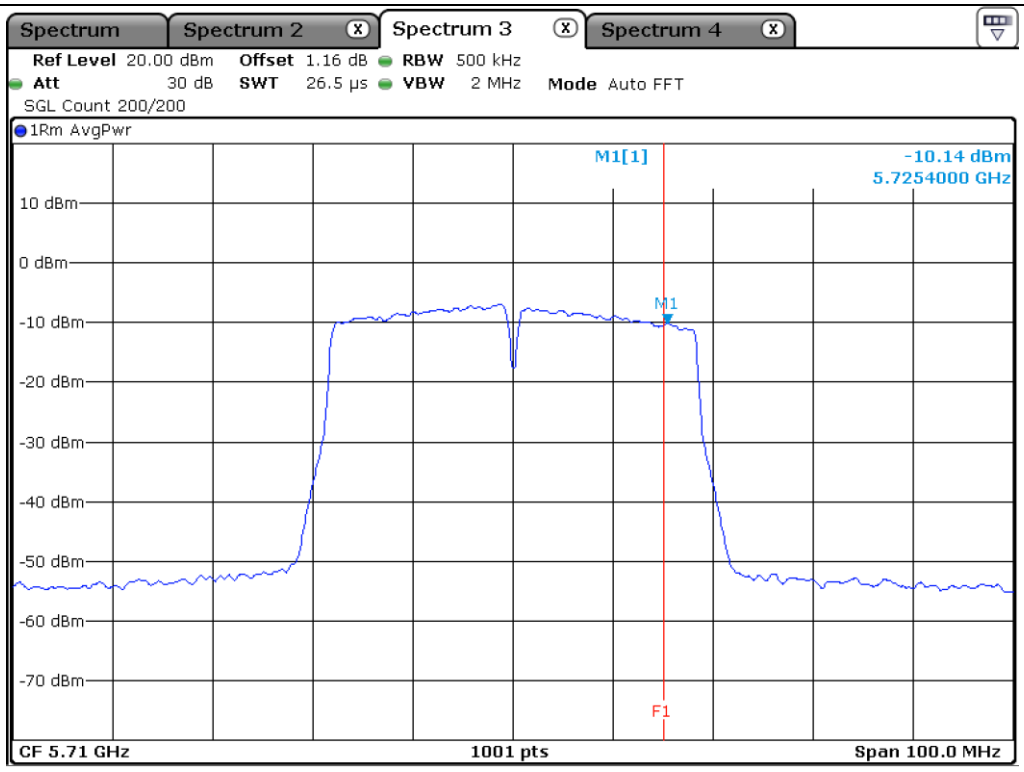




10.6.6 Test data for Staddle Channel_Multiple Transmit

-. 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	-2.43	11.00	13.43
5 725 ~ 5 850	5 710.00	-8.44	30.00	38.44

10.7 Test data for 802.11ac_HT80 RLAN Mode

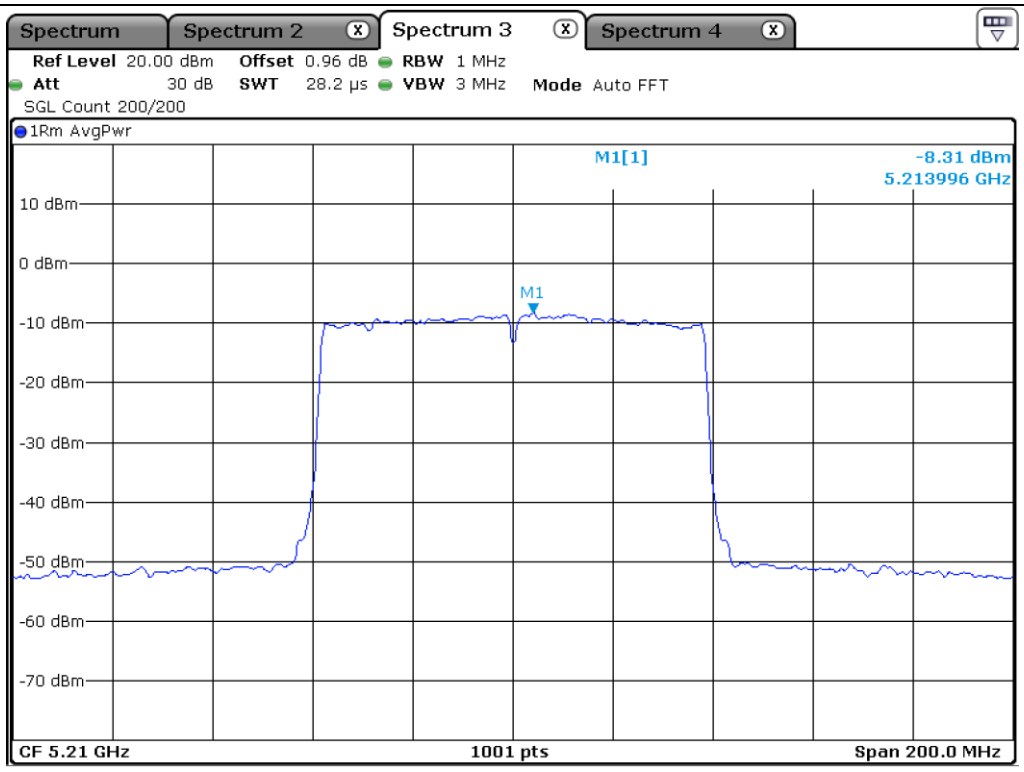
10.7.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

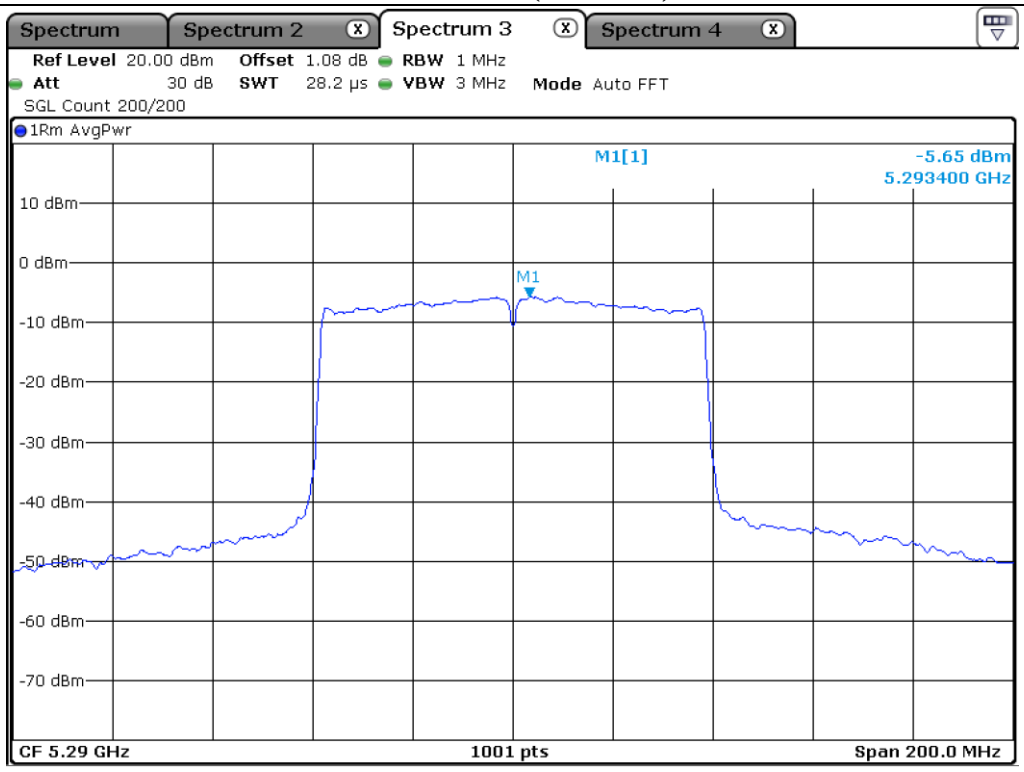
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	-8.31	11.00	19.31
5 250 ~ 5 350	Low	5 290.00	-5.65	11.00	16.65
5 470 ~ 5 725	Low	5 530.00	-6.99	11.00	17.99
5 725 ~ 5 850	Low	5 775.00	-12.27	30.00	42.27

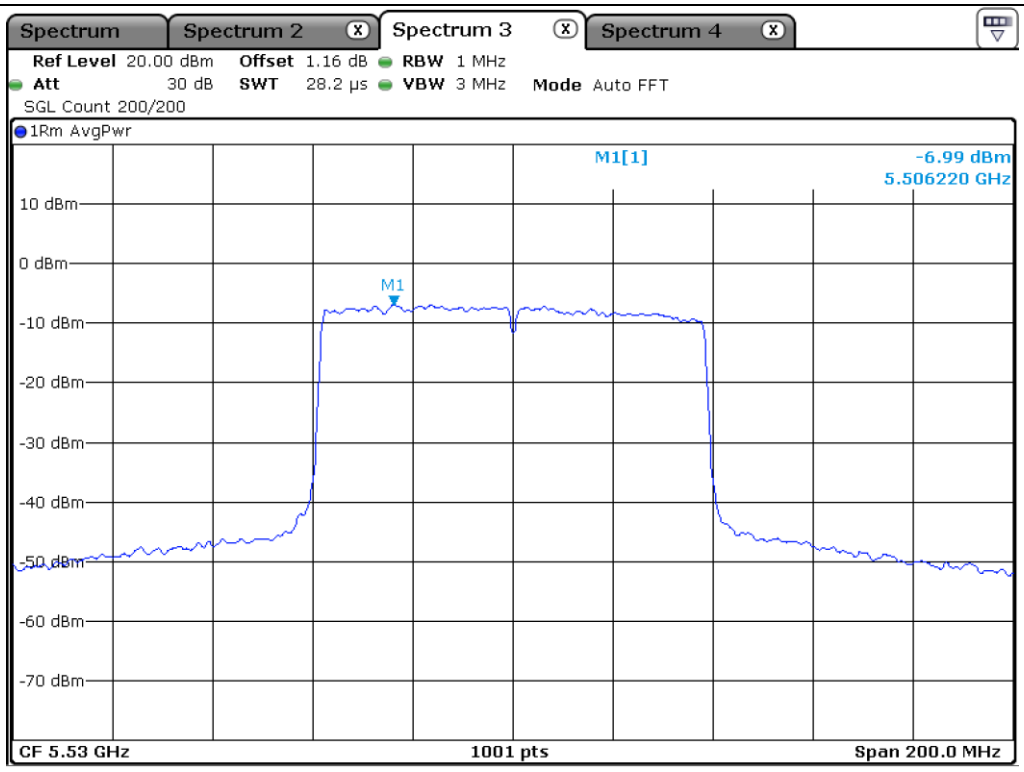
Remark: See next page for measurement data.



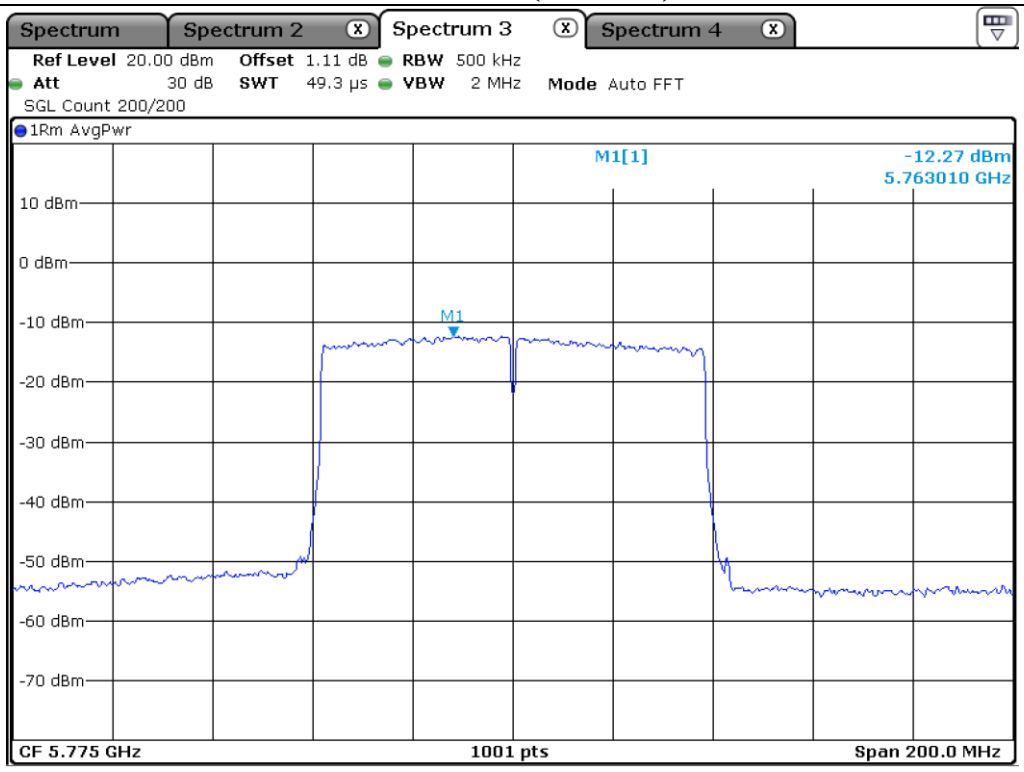
Middle Channel (5 210 MHz)



Middle Channel (5 290 MHz)



Middle Channel (5 530 MHz)



Middle Channel (5 775 MHz)

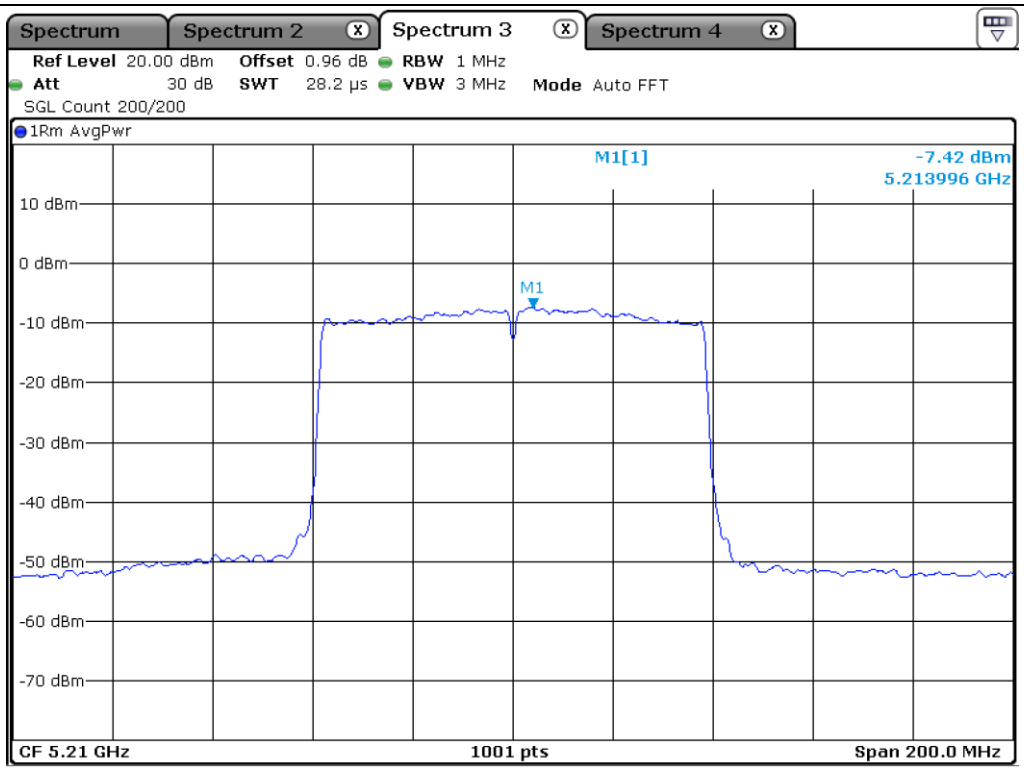
10.7.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

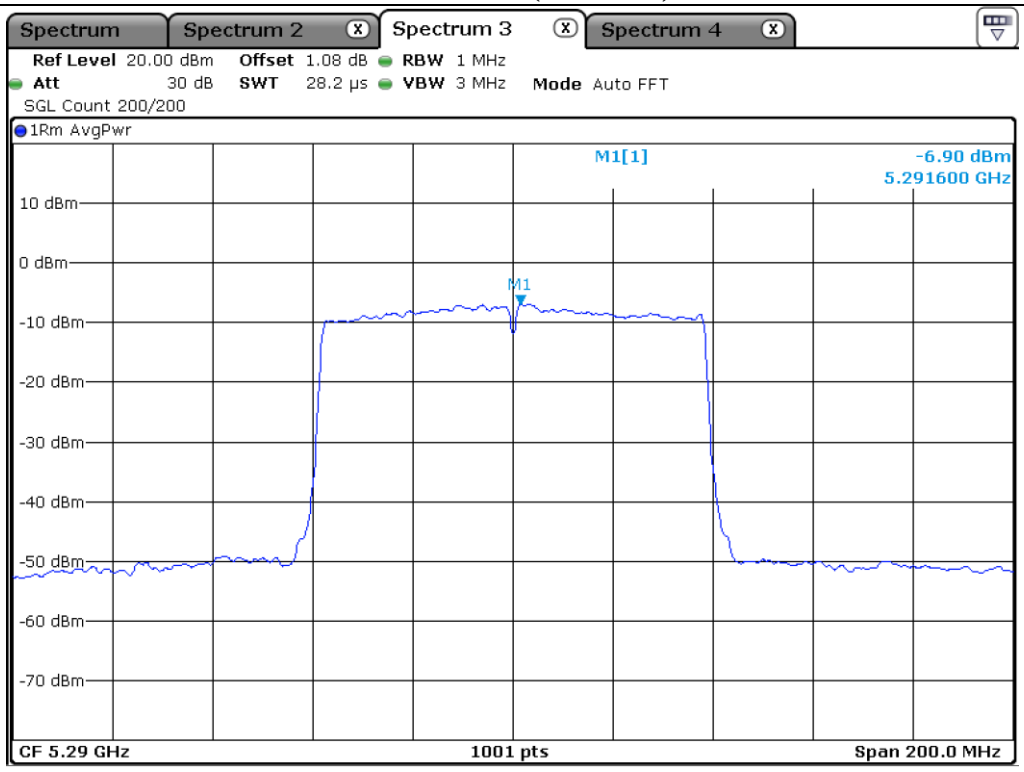
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	-7.42	11.00	18.42
5 250 ~ 5 350	Low	5 290.00	-6.90	11.00	17.90
5 470 ~ 5 725	Low	5 530.00	-4.71	11.00	15.71
5 725 ~ 5 850	Low	5 775.00	-10.19	30.00	40.19

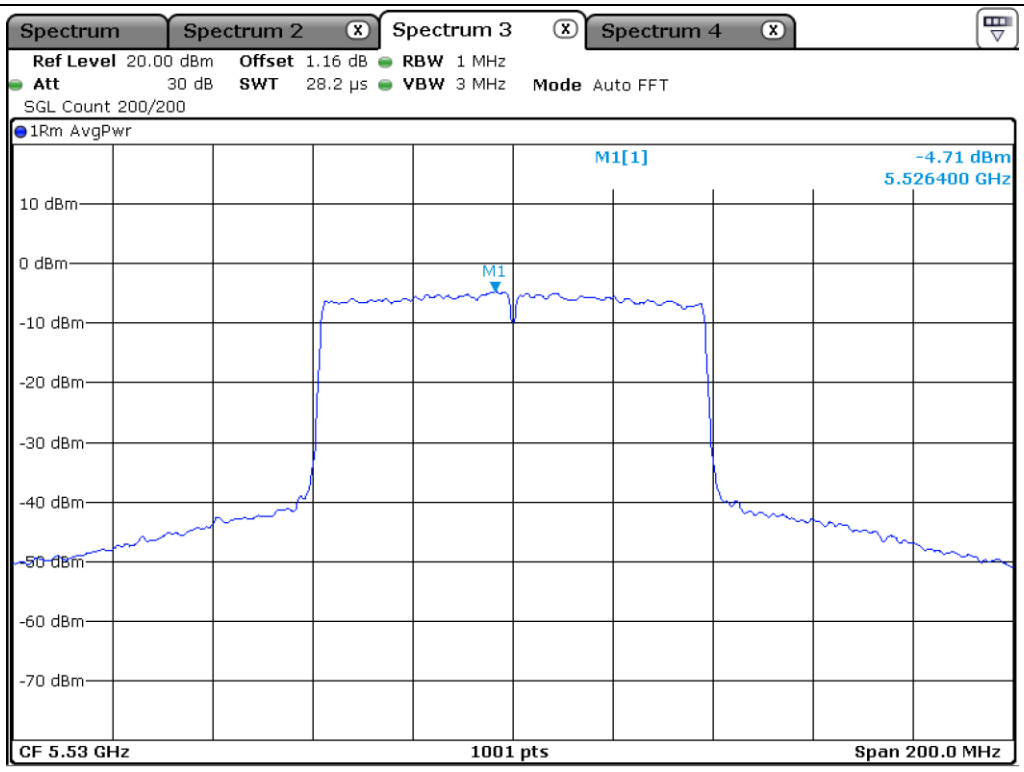
Remark: See next page for measurement data.



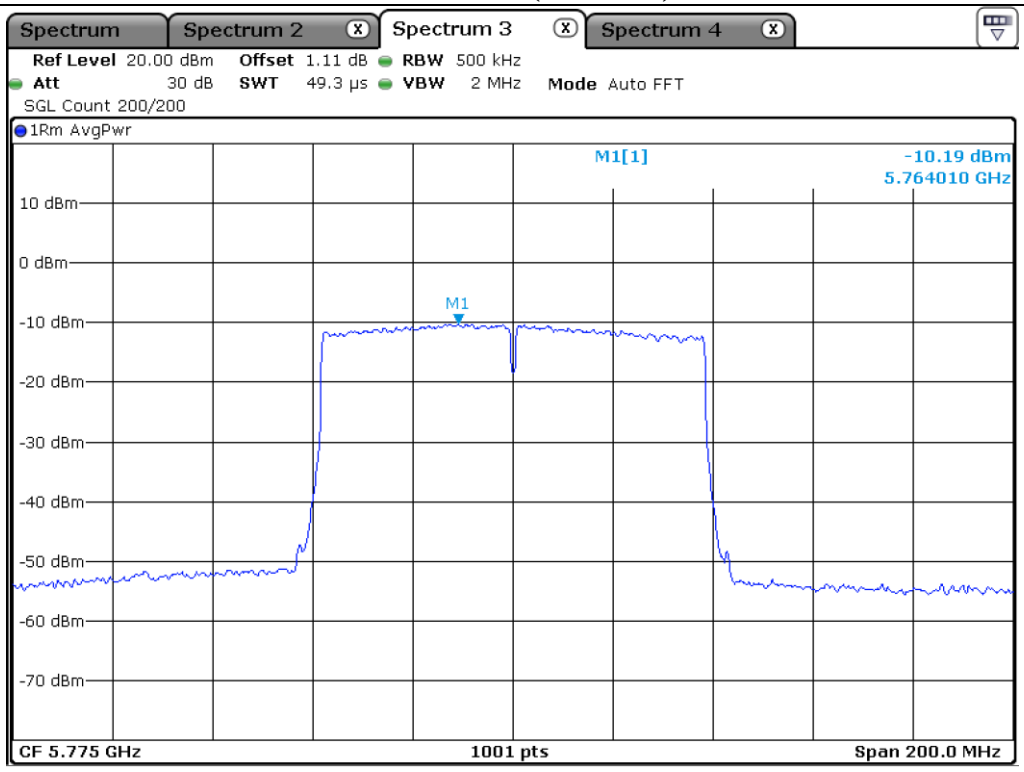
Middle Channel (5 210 MHz)



Middle Channel (5 290 MHz)



Middle Channel (5 530 MHz)



Middle Channel (5 775 MHz)

10.7.3 Test data for Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 210.00	-4.83	11.00	15.83
5 250 ~ 5 350	Low	5 290.00	-3.22	11.00	14.22
5 470 ~ 5 725	Low	5 530.00	-2.69	11.00	13.69
5 725 ~ 5 850	Low	5 775.00	-8.10	30.00	38.10

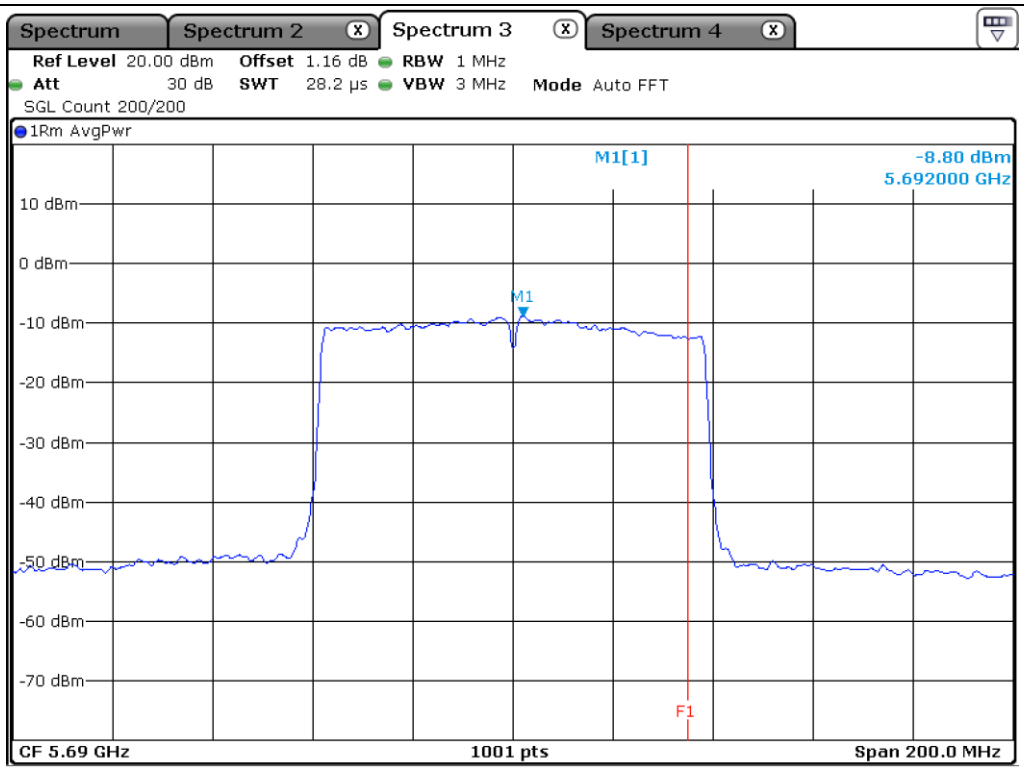
10.7.4 Test data for Staddle Channel_Antenna 0

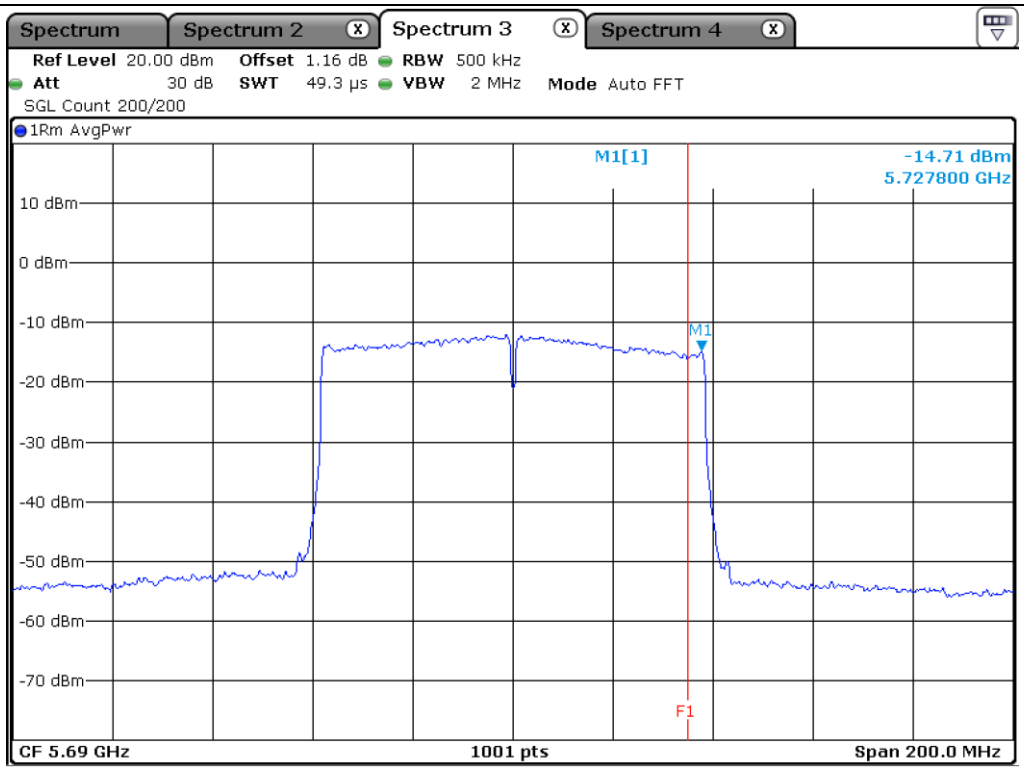
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	-8.80	11.00	19.80
5 725 ~ 5 850	5 690.00	-14.71	30.00	44.71

Remark: See next page for measurement data.





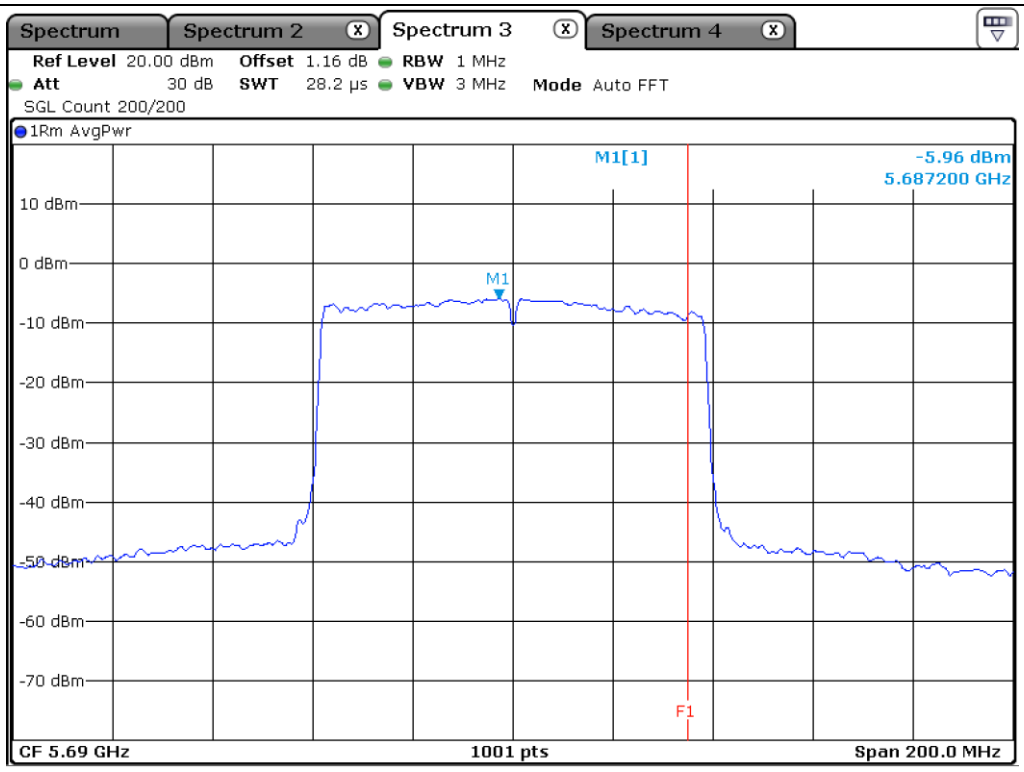
10.7.5 Test data for Staddle Channel_Antenna 1

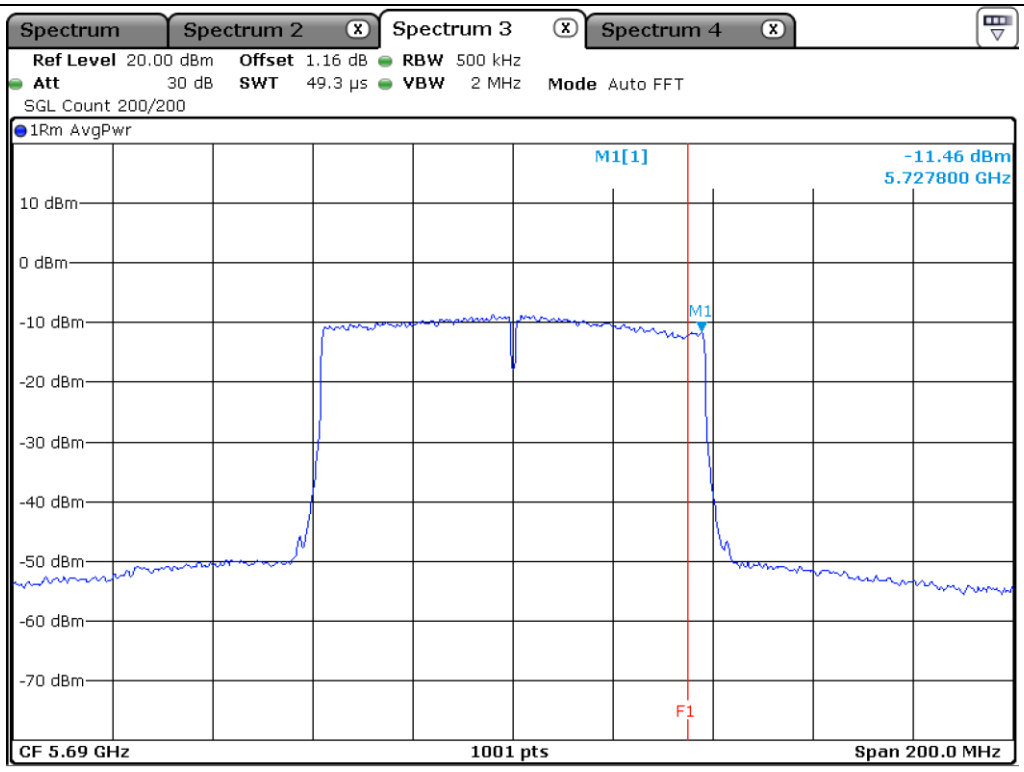
-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

FREQUENCY RANGE (MHz)	FREQUENCY (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 470 ~ 5 725	5 690.00	-5.96	11.00	16.96
5 725 ~ 5 850	5 690.00	-11.46	30.00	41.46

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	-4.14	11.00	15.14
5 725 ~ 5 850	5 690.00	-9.78	30.00	39.78

11. FREQUENCY STABILITY WITH TEMPERATURE VARIATION

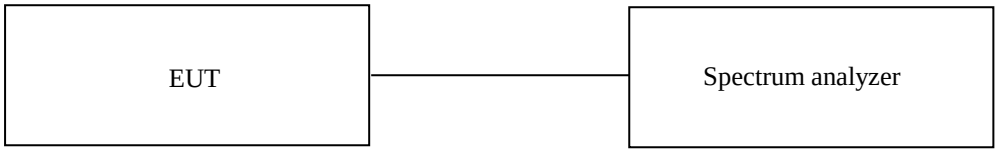
11.1 Operating environment

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

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	5 179 981 527	-18 473
-10		5 179 983 481	-16 519
0		5 179 985 743	-14 257
10		5 179 985 954	-14 046
20		5 179 987 746	-12 254
30		5 180 037 657	37 657
40		5 180 045 258	45 258
50		5 180 047 681	47 681
-20	5 220 000 000	5 219 981 456	-18 544
-10		5 219 983 867	-16 133
0		5 219 987 514	-12 486
10		5 219 983 379	-16 621
20		5 219 987 725	-12 275
30		5 220 035 512	35 512
40		5 220 040 077	40 077
50		5 220 044 519	44 519
-20	5 240 000 000	5 239 982 517	-17 483
-10		5 239 984 221	-15 779
0		5 239 986 622	-13 378
10		5 239 985 147	-14 853
20		5 239 988 252	-11 748
30		5 240 033 196	33 196
40		5 240 046 315	46 315
50		5 240 049 165	49 165

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	5 259 982 194	-17 806
-10		5 259 986 115	-13 885
0		5 259 982 047	-17 953
10		5 259 984 230	-15 770
20		5 259 987 608	-12 392
30		5 260 030 258	30 258
40		5 260 041 050	41 050
50		5 260 045 715	45 715
-20	5 300 000 000	5 299 980 457	-19 543
-10		5 299 985 455	-14 545
0		5 299 982 159	-17 841
10		5 299 981 337	-18 663
20		5 300 012 584	12 584
30		5 300 036 158	36 158
40		5 300 038 156	38 156
50		5 300 040 235	40 235
-20	5 320 000 000	5 319 978 357	-21 643
-10		5 319 977 135	-22 865
0		5 319 980 876	-19 124
10		5 319 981 528	-18 472
20		5 320 027 508	27 508
30		5 320 032 568	32 568
40		5 320 037 658	37 658
50		5 320 046 158	46 158

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	5 499 981 113	-18 887
-10		5 499 986 252	-13 748
0		5 499 980 239	-19 761
10		5 499 982 519	-17 481
20		5 500 022 387	22 387
30		5 500 041 358	41 358
40		5 500 042 225	42 225
50		5 500 044 635	44 635
-20	5 580 000 000	5 579 983 548	-16 452
-10		5 579 985 481	-14 519
0		5 579 981 039	-18 961
10		5 579 986 159	-13 841
20		5 580 023 746	23 746
30		5 580 046 352	46 352
40		5 580 045 193	45 193
50		5 580 047 334	47 334
-20	5 700 000 000	5 699 983 417	-16 583
-10		5 699 984 344	-15 656
0		5 699 980 433	-19 567
10		5 699 987 589	-12 411
20		5 700 030 678	30 678
30		5 700 044 784	44 784
40		5 700 045 813	45 813
50		5 700 048 565	48 565

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	5 744 981 518	-18 482
-10		5 744 983 637	-16 363
0		5 744 988 753	-11 247
10		5 744 986 377	-13 623
20		5 745 020 377	20 377
30		5 745 046 468	46 468
40		5 745 046 781	46 781
50		5 745 049 581	49 581
-20	5 785 000 000	5 784 982 582	-17 418
-10		5 784 983 526	-16 474
0		5 784 987 482	-12 518
10		5 784 987 244	-12 756
20		5 785 023 657	23 657
30		5 785 041 568	41 568
40		5 785 039 058	39 058
50		5 785 042 547	42 547
-20	5 825 000 000	5 824 981 567	-18 433
-10		5 824 982 534	-17 466
0		5 824 984 073	-15 927
10		5 824 980 771	-19 229
20		5 825 019 638	19 638
30		5 825 048 562	48 562
40		5 825 047 159	47 159
50		5 825 049 631	49 631

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)

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12. FREQUENCY STABILITY WITH VOLTAGE VARIATION

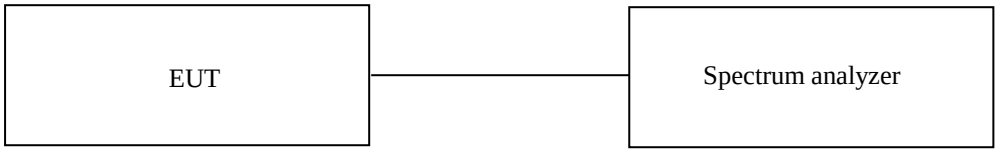
12.1 Operating environment

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	5 179 988 881	-11 119
4.25		5 179 987 746	-12 254
5.75		5 179 987 459	-12 541
5	5 220 000 000	5 219 987 946	-12 054
4.25		5 219 987 725	-12 275
5.75		5 219 987 474	-12 526
5	5 240 000 000	5 239 988 557	-11 443
4.25		5 239 988 252	-11 748
5.75		5 239 988 032	-11 968

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	5 259 987 881	-12 119
4.25		5 259 987 608	-12 392
5.75		5 259 987 512	-12 488
5	5 300 000 000	5 300 012 835	12 835
4.25		5 300 012 584	12 584
5.75		5 300 012 249	12 249
5	5 320 000 000	5 320 027 767	27 767
4.25		5 320 027 508	27 508
5.75		5 320 027 319	27 319

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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	5 500 022 593	22 593
4.25		5 500 022 387	22 387
5.75		5 500 022 251	22 251
5	5 580 000 000	5 580 023 991	23 991
4.25		5 580 023 746	23 746
5.75		5 580 023 540	23 540
5	5 700 000 000	5 700 030 818	30 818
4.25		5 700 030 678	30 678
5.75		5 700 030 437	30 437

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	5 745 020 601	20 601
4.25		5 745 020 377	20 377
5.75		5 745 020 155	20 155
5	5 785 000 000	5 785 023 811	23 811
4.25		5 785 023 657	23 657
5.75		5 785 023 494	23 494
5	5 825 000 000	5 825 019 768	19 768
4.25		5 825 019 638	19 638
5.75		5 825 019 522	19 522

13. RADIATED SPURIOUS EMISSIONS

13.1 Operating environment

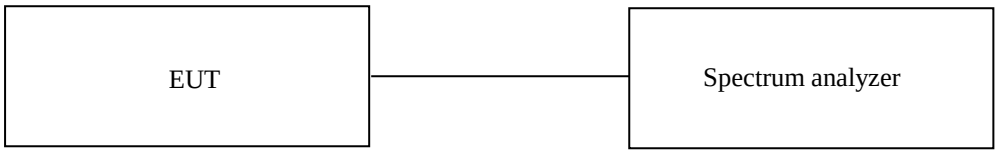
Temperature : 23 °C

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 the Basic model (WCB731M)

13.5.1.1 Test data for WLAN 5 GHz

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

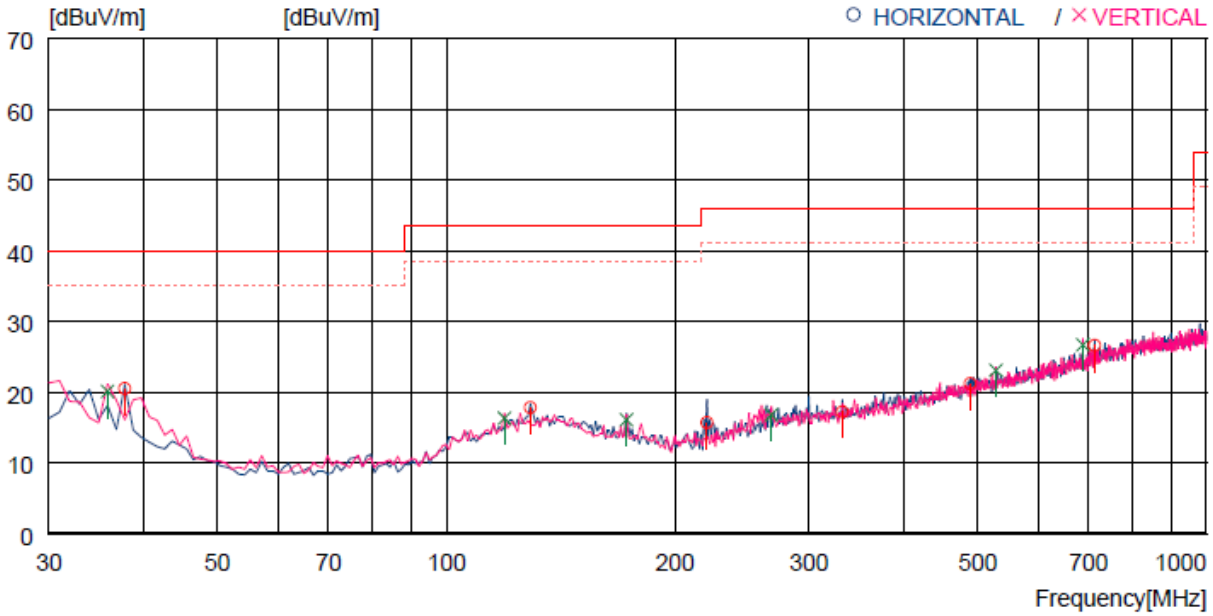
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Wi-Fi/BT Transceiver

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

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



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	37.760	33.1	18.1	1.3	32.0	20.5	40.0	19.5	100	324
2	128.940	28.8	19.0	2.0	32.0	17.8	43.5	25.7	100	324
3	220.120	28.6	16.5	2.6	32.0	15.7	46.0	30.3	100	99
4	331.670	26.3	19.7	3.2	32.0	17.2	46.0	28.8	100	324
5	488.811	26.9	22.8	3.8	32.3	21.2	46.0	24.8	100	183
6	712.875	28.4	25.8	4.7	32.3	26.6	46.0	19.4	100	225
----- Vertical -----										
7	35.820	32.0	18.8	1.3	32.0	20.1	40.0	19.9	100	310
8	119.240	27.8	18.5	2.0	32.0	16.3	43.5	27.2	100	148
9	172.590	28.7	17.1	2.3	32.0	16.1	43.5	27.4	100	74
10	267.650	27.6	18.3	2.9	32.0	16.8	46.0	29.2	100	74
11	528.580	28.0	23.4	4.0	32.3	23.1	46.0	22.9	100	252
12	687.655	29.0	25.4	4.6	32.3	26.7	46.0	19.3	100	139

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

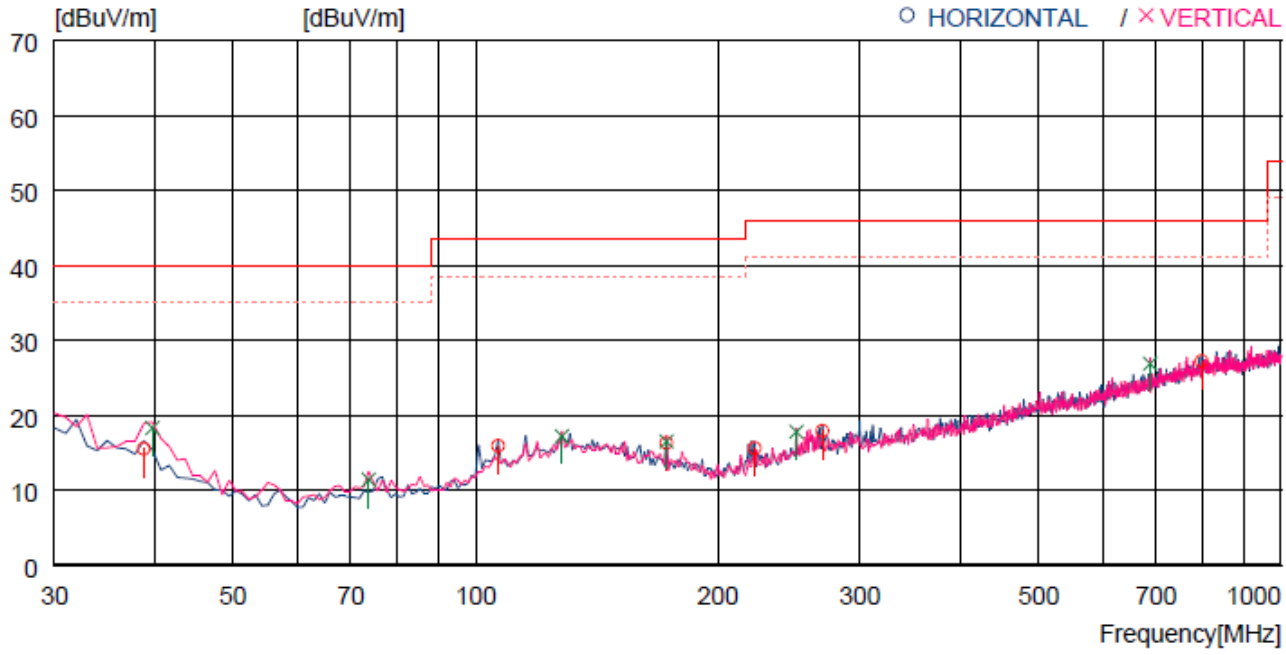
Humidity Level : 44 % R.H. Temperature: 23 °C

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	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	[dBuV]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal ------										
1	38.730	28.4	**17.8**	1.3	32.0	15.5	40.0	24.5	100	338
2	106.630	29.6	**16.4**	1.9	32.0	15.9	43.5	27.6	100	315
3	172.590	28.9	**17.1**	2.3	32.0	16.3	43.5	27.2	100	338
4	222.060	28.4	**16.6**	2.6	32.0	15.6	46.0	30.4	100	264
5	269.590	28.7	**18.3**	2.9	32.0	17.9	46.0	28.1	100	338
6	797.262	27.1	**27.1**	5.0	32.0	27.2	46.0	18.8	100	204
----- Vertical ------										
7	39.700	31.6	**17.4**	1.3	32.0	18.3	40.0	21.7	100	340
8	73.650	29.0	**12.9**	1.6	32.1	11.4	40.0	28.6	100	85
9	127.970	28.2	**19.0**	2.0	32.0	17.2	43.5	26.3	100	192
10	172.590	29.1	**17.1**	2.3	32.0	16.5	43.5	27.0	100	85
11	250.190	29.2	**17.8**	2.8	32.0	17.8	46.0	28.2	100	85
12	687.655	29.2	**25.4**	4.6	32.3	26.9	46.0	19.1	100	85

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

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

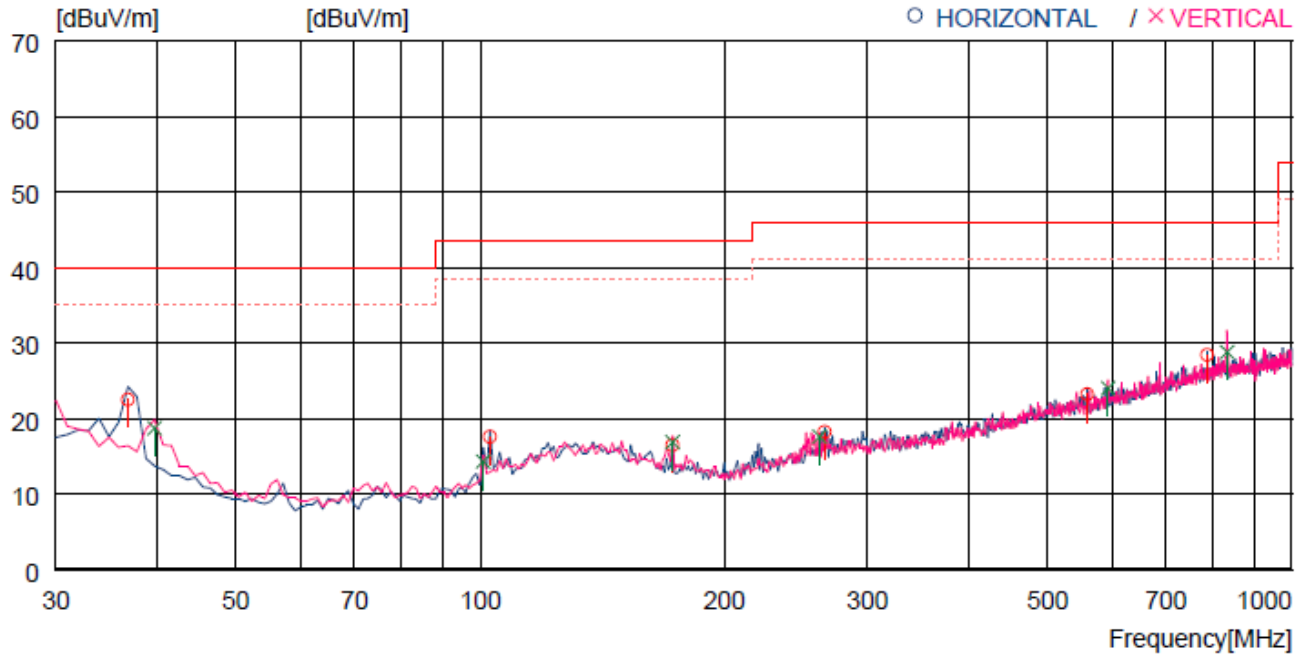
Humidity Level : 44 % R.H. Temperature: 23 °C

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 [MHz]	READING [dBuV]	ANT [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	36.790	34.7	18.5	1.3	32.0	22.5	40.0	17.5	100	303
2	102.750	32.0	15.8	1.8	32.0	17.6	43.5	25.9	100	303
3	172.590	29.1	17.1	2.3	32.0	16.5	43.5	27.0	100	354
4	265.710	29.1	18.2	2.9	32.0	18.2	46.0	27.8	100	354
5	559.619	27.7	23.8	4.1	32.4	23.2	46.0	22.8	100	354
6	786.592	28.6	26.9	4.9	32.0	28.4	46.0	17.6	100	354
----- Vertical -----										
7	39.700	32.0	17.4	1.3	32.0	18.7	40.0	21.3	100	210
8	100.810	29.1	15.4	1.8	32.0	14.3	43.5	29.2	100	357
9	172.590	29.5	17.1	2.3	32.0	16.9	43.5	26.6	100	357
10	261.830	28.7	18.1	2.8	32.0	17.6	46.0	28.4	100	203
11	593.568	28.1	24.1	4.2	32.4	24.0	46.0	22.0	100	235
12	832.181	28.4	27.2	5.1	31.9	28.8	46.0	17.2	100	318

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

13.5.2 Test data for the Multiple model (WCB730M)

13.5.2.1 Test data for WLAN 5 GHz

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

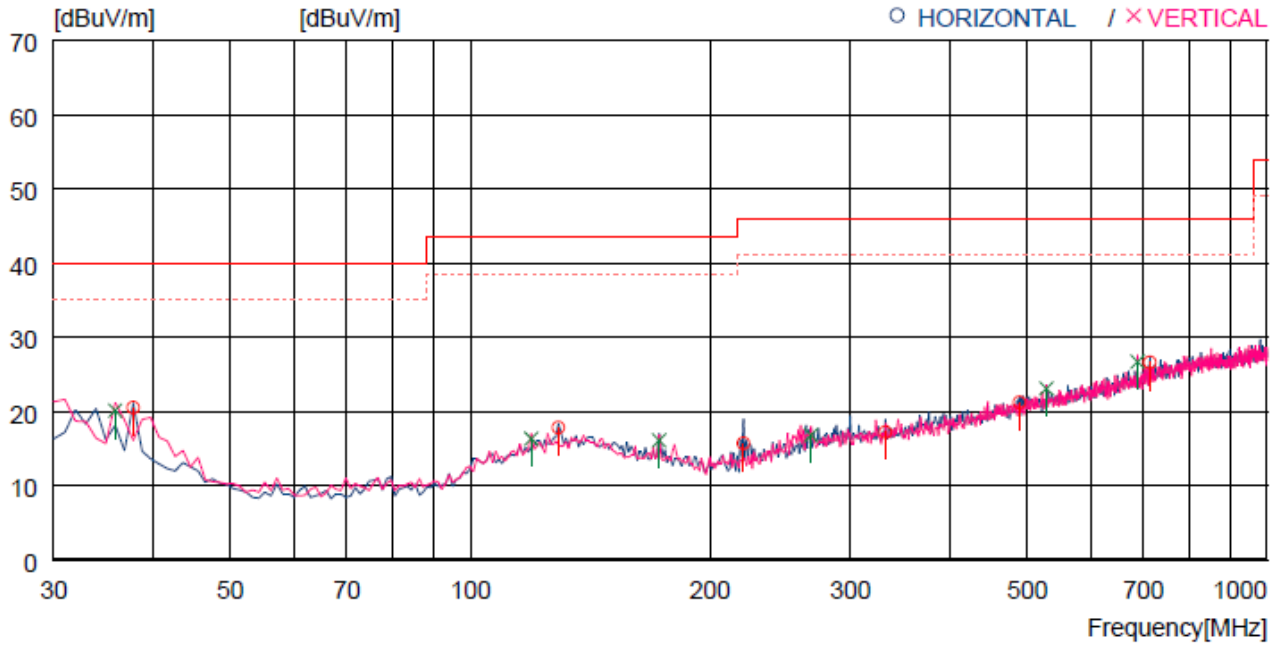
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Wi-Fi/BT Transceiver

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

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



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	33.1	18.1	1.3	32.0	20.5	40.0	19.5	100	324
2	128.940	28.8	19.0	2.0	32.0	17.8	43.5	25.7	100	324
3	220.120	28.6	16.5	2.6	32.0	15.7	46.0	30.3	100	99
4	331.670	26.3	19.7	3.2	32.0	17.2	46.0	28.8	100	324
5	488.811	26.9	22.8	3.8	32.3	21.2	46.0	24.8	100	183
6	712.875	28.4	25.8	4.7	32.3	26.6	46.0	19.4	100	225
----- Vertical -----										
7	35.820	32.0	18.8	1.3	32.0	20.1	40.0	19.9	100	310
8	119.240	27.8	18.5	2.0	32.0	16.3	43.5	27.2	100	148
9	172.590	28.7	17.1	2.3	32.0	16.1	43.5	27.4	100	74
10	267.650	27.6	18.3	2.9	32.0	16.8	46.0	29.2	100	74
11	528.580	28.0	23.4	4.0	32.3	23.1	46.0	22.9	100	252
12	687.655	29.0	25.4	4.6	32.3	26.7	46.0	19.3	100	139

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

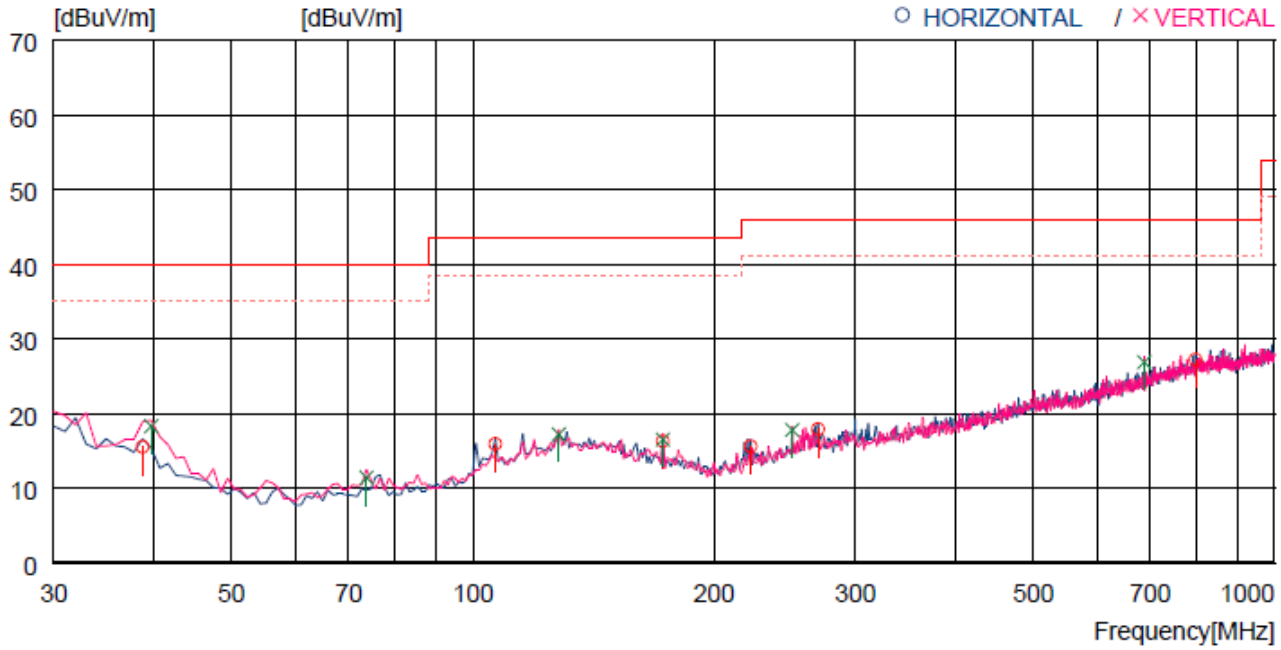
Humidity Level : 44 % R.H. Temperature: 23 °C

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	38.730	28.4	**17.8**	1.3	32.0	15.5	40.0	24.5	100	338
2	106.630	29.6	**16.4**	1.9	32.0	15.9	43.5	27.6	100	315
3	172.590	28.9	**17.1**	2.3	32.0	16.3	43.5	27.2	100	338
4	222.060	28.4	**16.6**	2.6	32.0	15.6	46.0	30.4	100	264
5	269.590	28.7	**18.3**	2.9	32.0	17.9	46.0	28.1	100	338
6	797.262	27.1	**27.1**	5.0	32.0	27.2	46.0	18.8	100	204
----- Vertical ------										
7	39.700	31.6	**17.4**	1.3	32.0	18.3	40.0	21.7	100	340
8	73.650	29.0	**12.9**	1.6	32.1	11.4	40.0	28.6	100	85
9	127.970	28.2	**19.0**	2.0	32.0	17.2	43.5	26.3	100	192
10	172.590	29.1	**17.1**	2.3	32.0	16.5	43.5	27.0	100	85
11	250.190	29.2	**17.8**	2.8	32.0	17.8	46.0	28.2	100	85
12	687.655	29.2	**25.4**	4.6	32.3	26.9	46.0	19.1	100	85

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

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

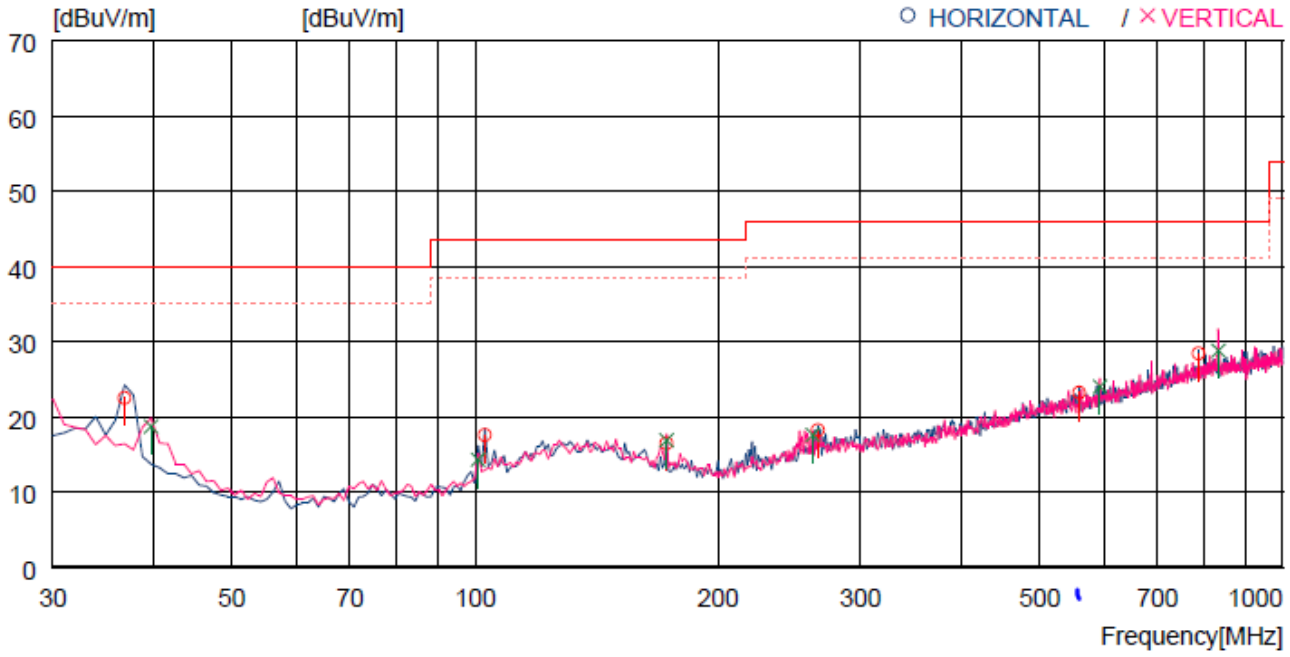
Humidity Level : 44 % R.H. Temperature: 23 °C

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 [MHz]	READING [dBuV]	ANT [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	36.790	34.7	18.5	1.3	32.0	22.5	40.0	17.5	100	303
2	102.750	32.0	15.8	1.8	32.0	17.6	43.5	25.9	100	303
3	172.590	29.1	17.1	2.3	32.0	16.5	43.5	27.0	100	354
4	265.710	29.1	18.2	2.9	32.0	18.2	46.0	27.8	100	354
5	559.619	27.7	23.8	4.1	32.4	23.2	46.0	22.8	100	354
6	786.592	28.6	26.9	4.9	32.0	28.4	46.0	17.6	100	354
----- Vertical ------										
7	39.700	32.0	17.4	1.3	32.0	18.7	40.0	21.3	100	210
8	100.810	29.1	15.4	1.8	32.0	14.3	43.5	29.2	100	357
9	172.590	29.5	17.1	2.3	32.0	16.9	43.5	26.6	100	357
10	261.830	28.7	18.1	2.8	32.0	17.6	46.0	28.4	100	203
11	593.568	28.1	24.1	4.2	32.4	24.0	46.0	22.0	100	235
12	832.181	28.4	27.2	5.1	31.9	28.8	46.0	17.2	100	318

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

13.5.3 Test data for the Multiple model (WCB737M)

13.5.3.1 Test data for WLAN 5 GHz

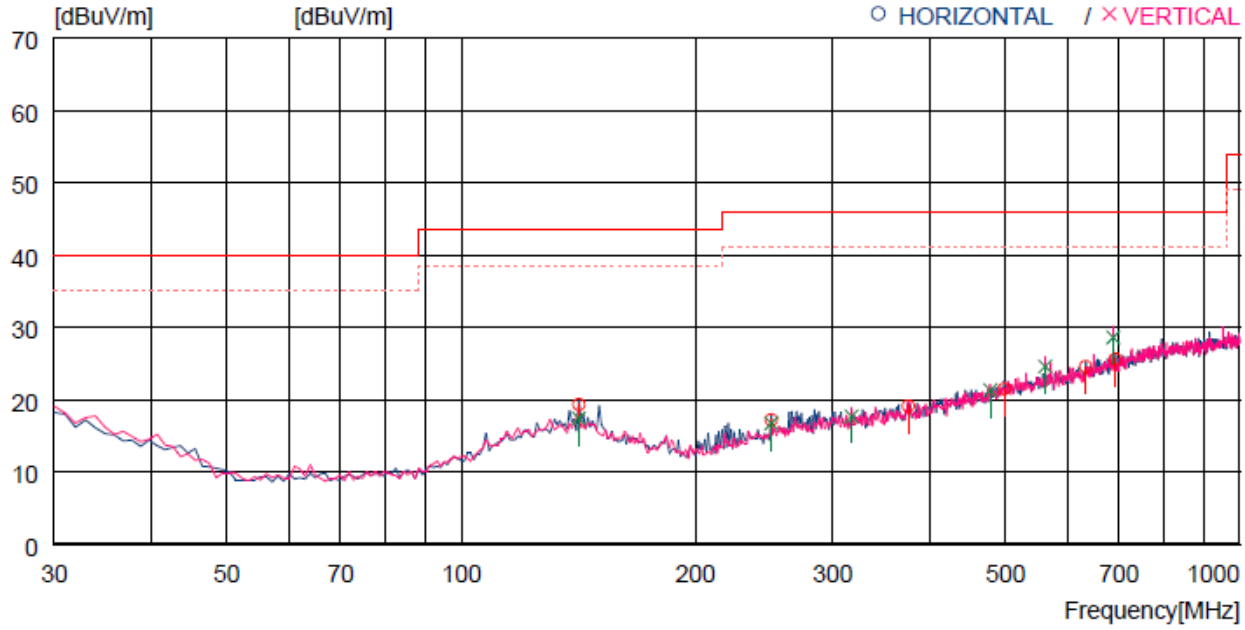
Humidity Level : 44 % R.H. Temperature: 23 ° C

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	141.550	29.8	19.4	2.1	32.0	19.3	43.5	24.2	200	356
2	250.190	28.6	17.8	2.8	32.0	17.2	46.0	28.8	100	114
3	375.320	27.5	20.3	3.4	32.1	19.1	46.0	26.9	200	135
4	498.511	26.8	23.1	3.9	32.3	21.5	46.0	24.5	200	221
5	634.307	27.9	24.7	4.4	32.4	24.6	46.0	21.4	200	356
6	692.505	27.8	25.5	4.6	32.3	25.6	46.0	20.4	200	76
----- Vertical ------										
7	141.550	27.9	19.4	2.1	32.0	17.4	43.5	26.1	100	0
8	250.190	28.1	17.8	2.8	32.0	16.7	46.0	29.3	100	323
9	317.120	27.1	19.5	3.1	32.0	17.7	46.0	28.3	100	0
10	478.141	27.2	22.6	3.8	32.3	21.3	46.0	24.7	200	42
11	562.529	29.1	23.8	4.1	32.4	24.6	46.0	21.4	100	0
12	687.655	30.9	25.4	4.6	32.3	28.6	46.0	17.4	200	233

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

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

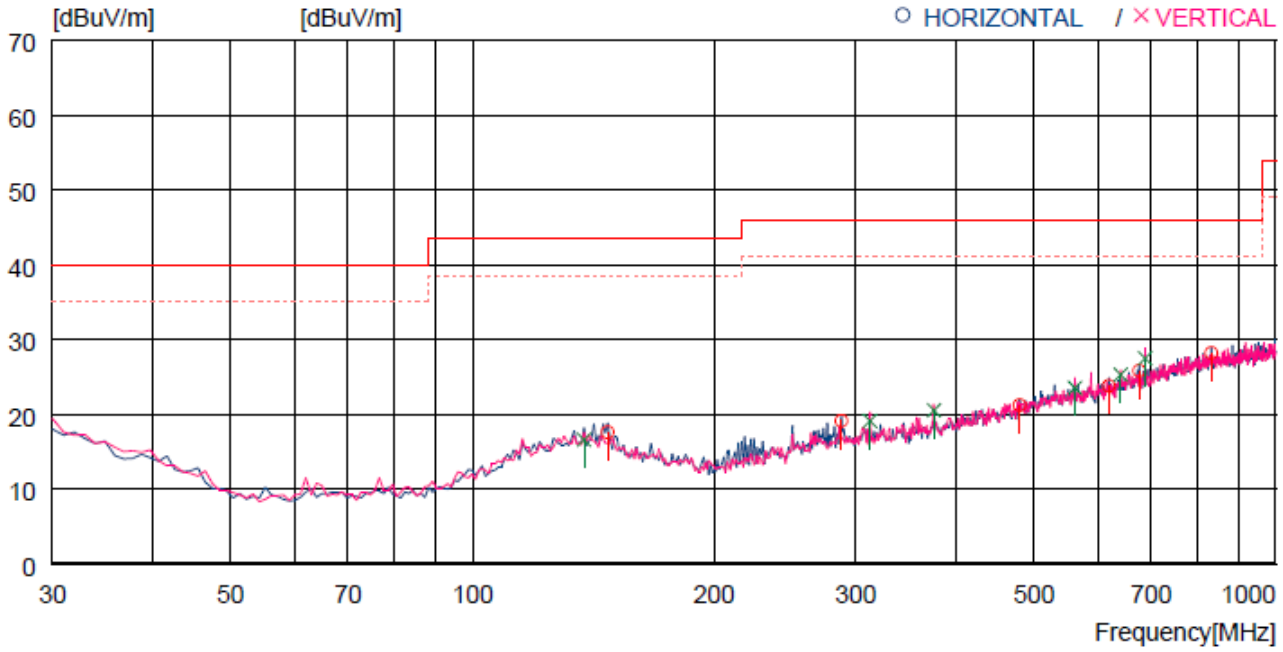
Humidity Level : 44 % R.H. Temperature: 23 °C

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	147.370	28.6	**18.9**	2.1	32.0	17.6	43.5	25.9	200	356
2	288.020	29.2	**18.9**	3.0	32.0	19.1	46.0	26.9	100	285
3	480.081	27.1	**22.6**	3.8	32.3	21.2	46.0	24.8	200	260
4	619.757	27.4	**24.5**	4.3	32.4	23.8	46.0	22.2	100	0
5	676.016	28.3	**25.3**	4.5	32.3	25.8	46.0	20.2	200	356
6	831.211	27.8	**27.2**	5.1	31.9	28.2	46.0	17.8	200	199
----- Vertical -----										
7	137.670	27.1	**19.4**	2.1	32.0	16.6	43.5	26.9	200	352
8	312.270	28.6	**19.4**	3.1	32.0	19.1	46.0	26.9	100	0
9	375.320	28.9	**20.3**	3.4	32.1	20.5	46.0	25.5	100	285
10	562.529	28.0	**23.8**	4.1	32.4	23.5	46.0	22.5	100	0
11	641.097	28.5	**24.8**	4.4	32.4	25.3	46.0	20.7	100	176
12	687.655	29.8	**25.4**	4.6	32.3	27.5	46.0	18.5	200	352

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

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

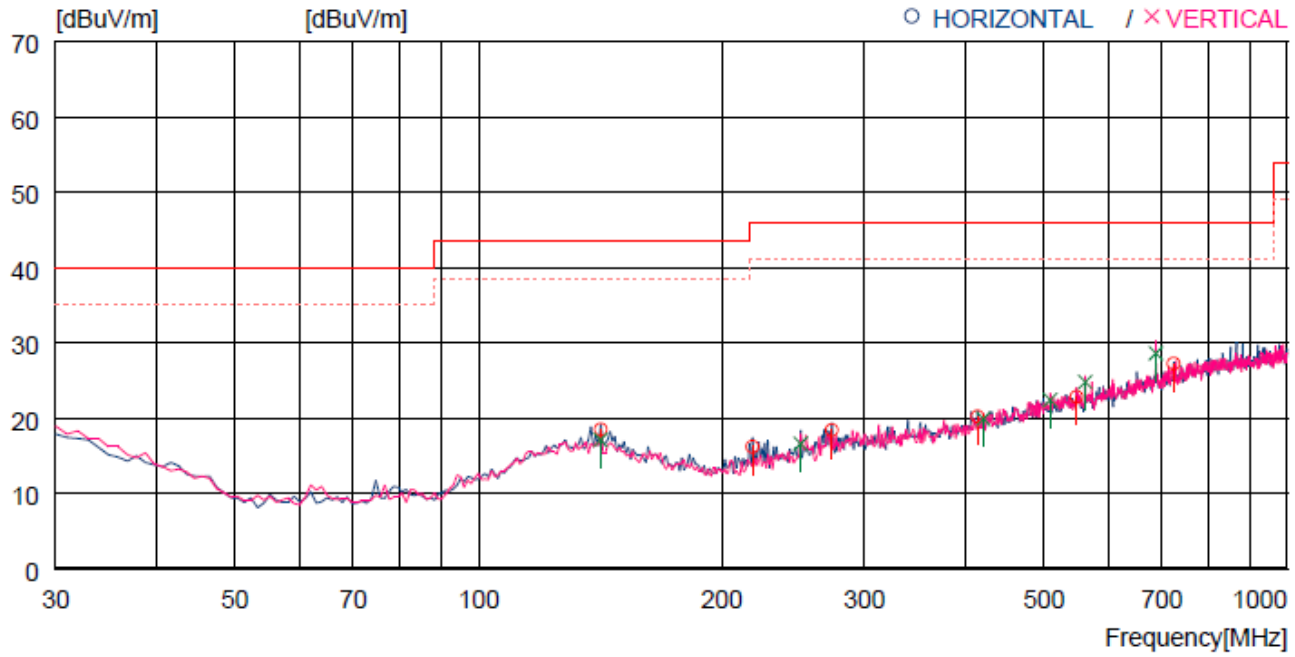
Humidity Level : 44 % R.H. Temperature: 23 °C

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 [MHz]	READING [dBuV]	ANT [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	141.550	29.0	19.4	2.1	32.0	18.5	43.5	25.0	200	358
2	218.180	29.2	16.4	2.6	32.0	16.2	46.0	29.8	200	221
3	273.470	29.0	18.5	2.9	32.0	18.4	46.0	27.6	100	309
4	414.121	27.8	21.0	3.5	32.1	20.2	46.0	25.8	200	5
5	548.950	27.5	23.6	4.0	32.3	22.8	46.0	23.2	200	257
6	723.544	28.7	26.0	4.7	32.2	27.2	46.0	18.8	100	36
----- Vertical ------										
7	141.550	27.6	19.4	2.1	32.0	17.1	43.5	26.4	200	358
8	250.190	28.0	17.8	2.8	32.0	16.6	46.0	29.4	100	321
9	420.911	27.2	21.2	3.6	32.1	19.9	46.0	26.1	200	358
10	509.181	27.6	23.2	3.9	32.3	22.4	46.0	23.6	100	321
11	562.529	29.3	23.8	4.1	32.4	24.8	46.0	21.2	200	358
12	687.655	30.9	25.4	4.6	32.3	28.6	46.0	17.4	200	358

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

13.5.4 Test data for the Multiple model (WCB736M)

13.5.4.1 Test data for WLAN 5 GHz

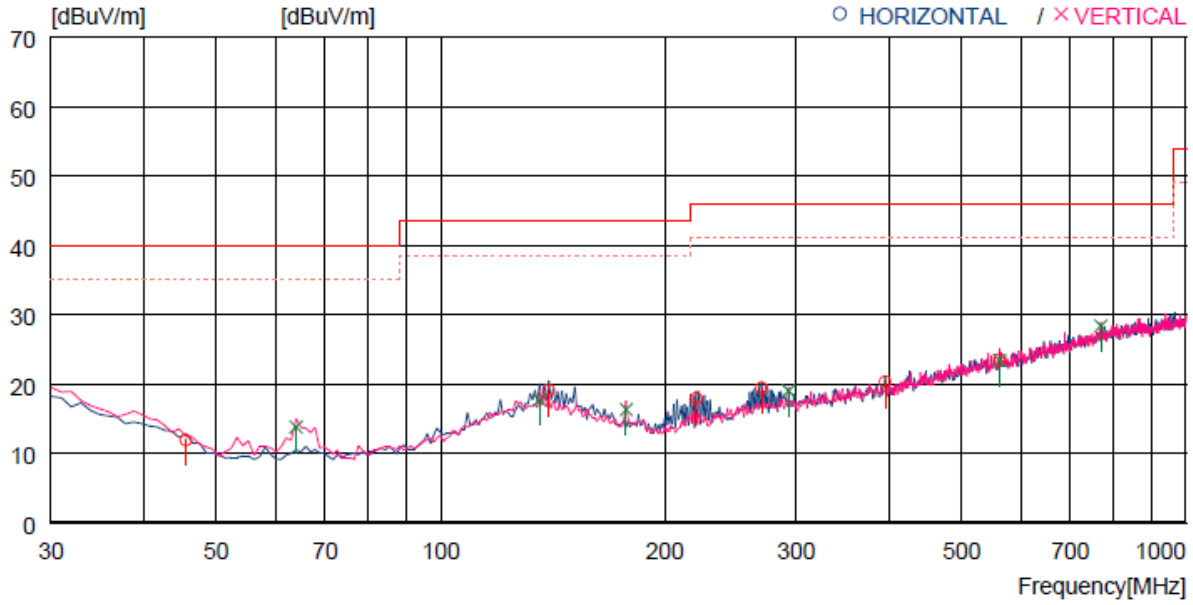
Humidity Level : 44 % R.H. Temperature: 23 ° C

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 [MHz]	READING [dBuV]	ANT [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	45.520	27.6	15.0	1.4	32.1	11.9	40.0	28.1	200	174
2	139.610	29.5	19.5	2.1	32.0	19.1	43.5	24.4	200	249
3	220.120	30.8	16.5	2.6	32.0	17.9	46.0	28.1	200	133
4	269.590	30.2	18.3	2.9	32.0	19.4	46.0	26.6	100	99
5	394.720	28.4	20.6	3.4	32.1	20.3	46.0	25.7	300	359
6	562.529	28.0	23.8	4.1	32.4	23.5	46.0	22.5	400	334
----- Vertical -----										
7	63.950	32.0	12.4	1.5	32.1	13.8	40.0	26.2	200	359
8	135.730	28.3	19.3	2.1	32.0	17.7	43.5	25.8	100	84
9	177.440	29.2	16.8	2.3	32.0	16.3	43.5	27.2	100	0
10	292.870	29.0	19.0	3.0	32.0	19.0	46.0	27.0	300	0
11	562.529	27.9	23.8	4.1	32.4	23.4	46.0	22.6	300	0
12	769.133	29.0	26.6	4.9	32.1	28.4	46.0	17.6	400	71

-

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

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

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

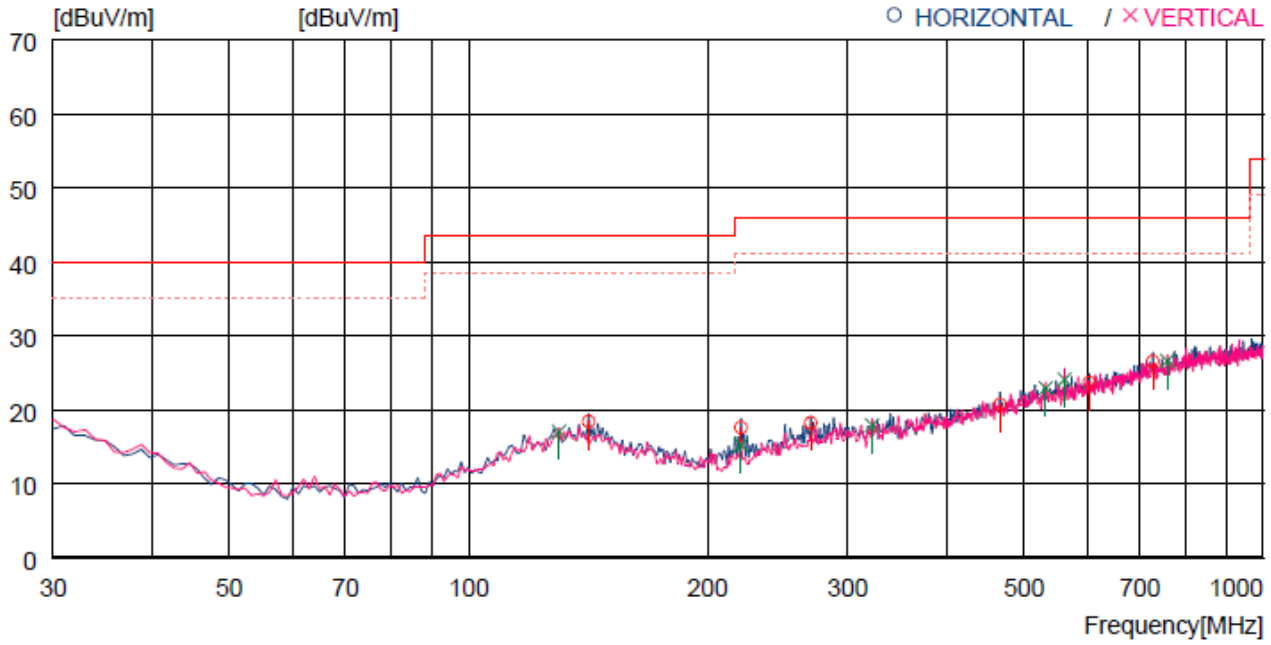
Humidity Level : 44 % R.H. Temperature: 23 °C

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	141.550	28.9	**19.4**	2.1	32.0	18.4	43.5	25.1	200	6
2	220.120	30.5	**16.5**	2.6	32.0	17.6	46.0	28.4	200	124
3	269.590	29.0	**18.3**	2.9	32.0	18.2	46.0	27.8	100	112
4	466.501	26.9	**22.3**	3.7	32.2	20.7	46.0	25.3	200	6
5	604.238	27.6	**24.3**	4.2	32.4	23.7	46.0	22.3	200	175
6	726.454	28.0	**26.0**	4.7	32.2	26.5	46.0	19.5	100	145
----- Vertical ------										
7	129.910	28.0	**19.0**	2.0	32.0	17.0	43.5	26.5	100	210
8	220.120	28.1	**16.5**	2.6	32.0	15.2	46.0	30.8	100	359
9	321.970	27.3	**19.5**	3.1	32.0	17.9	46.0	28.1	100	12
10	532.460	27.7	**23.5**	4.0	32.3	22.9	46.0	23.1	100	327
11	562.529	28.6	**23.8**	4.1	32.4	24.1	46.0	21.9	100	359
12	757.493	27.4	**26.5**	4.8	32.1	26.6	46.0	19.4	100	151

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

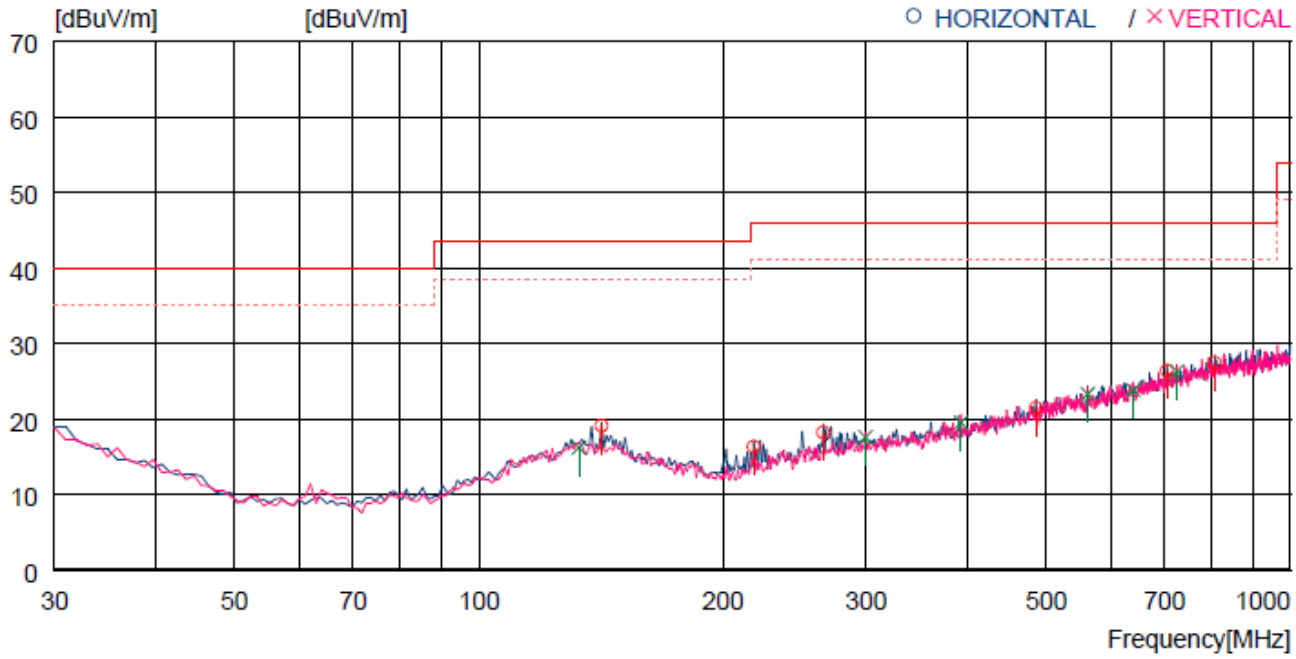
Humidity Level : 44 % R.H. Temperature: 23 °C

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 [MHz]	READING [dBuV]	ANT [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	141.550	29.6	**19.4**	2.1	32.0	19.1	43.5	24.4	200	249
2	218.180	29.3	**16.4**	2.6	32.0	16.3	46.0	29.7	200	123
3	265.710	29.1	**18.2**	2.9	32.0	18.2	46.0	27.8	100	90
4	485.901	27.2	**22.8**	3.8	32.3	21.5	46.0	24.5	200	342
5	704.145	28.3	**25.7**	4.7	32.3	26.4	46.0	19.6	100	355
6	806.962	27.3	**27.1**	5.0	32.0	27.4	46.0	18.6	100	32
----- Vertical ------										
7	132.820	26.9	**19.2**	2.1	32.0	16.2	43.5	27.3	100	0
8	299.660	27.4	**19.2**	3.0	32.0	17.6	46.0	28.4	100	235
9	392.780	27.6	**20.6**	3.4	32.1	19.5	46.0	26.5	100	118
10	562.529	27.8	**23.8**	4.1	32.4	23.3	46.0	22.7	100	0
11	640.127	27.0	**24.8**	4.4	32.4	23.8	46.0	22.2	100	1
12	724.514	27.8	**26.0**	4.7	32.2	26.3	46.0	19.7	100	0

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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	63.72	Peak	H	39.80	7.04	46.44	64.12	68.20	4.08
10 360.00	64.28	Peak	V	39.80	7.04	46.44	64.68	68.20	3.52
Middle Channel									
10 440.00	61.57	Peak	H	40.00	7.08	46.44	62.21	68.20	5.99
10 440.00	63.17	Peak	V	40.00	7.08	46.44	63.81	68.20	4.39
High Channel									
10 480.00	62.03	Peak	H	40.05	7.08	46.44	62.72	68.20	5.48
10 480.00	63.38	Peak	V	40.05	7.08	46.44	64.07	68.20	4.13

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	60.01	Peak	H	39.80	7.04	46.44	60.41	68.20	7.79
10 360.00	64.53	Peak	V	39.80	7.04	46.44	64.93	68.20	3.27
Middle Channel									
10 440.00	60.83	Peak	H	40.00	7.08	46.44	61.47	68.20	6.73
10 440.00	64.38	Peak	V	40.00	7.08	46.44	65.02	68.20	3.18
High Channel									
10 480.00	60.55	Peak	H	40.05	7.08	46.44	61.24	68.20	6.96
10 480.00	64.21	Peak	V	40.05	7.08	46.44	64.90	68.20	3.30

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	54.94	Peak	H	39.80	7.04	46.44	55.34	68.20	12.86
10 380.00	60.94	Peak	V	39.80	7.04	46.44	61.34	68.20	6.86
High Channel									
10 460.00	53.65	Peak	H	40.00	7.08	46.44	54.29	68.20	13.91
10 460.00	60.56	Peak	V	40.00	7.08	46.44	61.20	68.20	7.00

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

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

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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	53.21	Peak	H	40.00	7.08	46.44	53.85	68.20	14.35
10 420.00	52.11	Peak	V	40.00	7.08	46.44	52.75	68.20	15.45

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	61.22	Peak	H	40.05	7.07	46.44	61.90	68.20	6.30
10 520.00	64.18	Peak	V	40.05	7.07	46.44	64.86	68.20	3.34
Middle Channel									
10 600.00	61.52	Peak	H	40.08	7.11	46.31	62.40	74.00	11.60
10 600.00	47.08	Average	H	40.08	7.11	46.31	47.96	54.00	6.04
10 600.00	63.38	Peak	V	40.08	7.11	46.31	64.26	74.00	9.74
10 600.00	48.65	Average	V	40.08	7.11	46.31	49.53	54.00	4.47
High Channel									
10 640.00	61.21	Peak	H	40.08	7.11	46.31	62.09	74.00	11.91
10 640.00	46.51	Average	H	40.08	7.11	46.31	47.39	54.00	6.61
10 640.00	64.34	Peak	V	40.08	7.11	46.31	65.22	74.00	8.78
10 640.00	48.73	Average	V	40.08	7.11	46.31	49.61	54.00	4.39

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	58.11	Peak	H	40.05	7.07	46.44	58.79	68.20	9.41
10 520.00	60.42	Peak	V	40.05	7.07	46.44	61.10	68.20	7.10
Middle Channel									
10 600.00	57.99	Peak	H	40.08	7.11	46.31	58.87	74.00	15.13
10 600.00	46.33	Average	H	40.08	7.11	46.31	47.21	54.00	6.79
10 600.00	60.38	Peak	V	40.08	7.11	46.31	61.26	74.00	12.74
10 600.00	47.92	Average	V	40.08	7.11	46.31	48.80	54.00	5.20
High Channel									
10 640.00	57.55	Peak	H	40.08	7.11	46.31	58.43	74.00	15.57
10 640.00	46.12	Average	H	40.08	7.11	46.31	47.00	54.00	7.00
10 640.00	60.61	Peak	V	40.08	7.11	46.31	61.49	74.00	12.51
10 640.00	48.10	Average	V	40.08	7.11	46.31	48.98	54.00	5.02

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	AMP Factor	Total (dBµV/m)	Limits (dBµV/m)	Margin (dB)
Low Channel									
10 540.00	56.31	Peak	H	40.05	7.07	46.44	56.99	68.20	11.21
10 540.00	58.61	Peak	V	40.05	7.07	46.44	59.29	68.20	8.91
High Channel									
10 620.00	54.61	Peak	H	40.08	7.11	46.31	55.49	74.00	18.51
10 620.00	42.11	Average	H	40.08	7.11	46.31	42.99	54.00	11.01
10 620.00	58.50	Peak	V	40.08	7.11	46.31	59.38	74.00	14.62
10 620.00	45.36	Average	V	40.08	7.11	46.31	46.24	54.00	7.76

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

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

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	54.33	Peak	H	40.08	7.11	46.44	55.08	68.20	13.12
10 580.00	57.51	Peak	V	40.08	7.11	46.44	58.26	68.20	9.94

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

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

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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	59.86	Peak	H	40.30	7.13	46.04	61.25	74.00	12.75
11 000.00	46.57	Average	H	40.30	7.13	46.04	47.96	54.00	6.04
11 000.00	61.78	Peak	V	40.30	7.13	46.04	63.17	74.00	10.83
11 000.00	47.75	Average	V	40.30	7.13	46.04	49.14	54.00	4.86
Middle Channel									
11 160.00	59.26	Peak	H	39.95	7.13	46.09	60.25	74.00	13.75
11 160.00	46.91	Average	H	39.95	7.13	46.09	47.90	54.00	6.10
11 160.00	61.63	Peak	V	39.95	7.13	46.09	62.62	74.00	11.38
11 160.00	47.66	Average	V	39.95	7.13	46.09	48.65	54.00	5.35
High Channel									
11 400.00	59.88	Peak	H	40.00	7.16	46.09	60.95	74.00	13.05
11 400.00	46.67	Average	H	40.00	7.16	46.09	47.74	54.00	6.26
11 400.00	61.35	Peak	V	40.00	7.16	46.09	62.42	74.00	11.58
11 400.00	47.54	Average	V	40.00	7.16	46.09	48.61	54.00	5.39

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	56.76	Peak	H	40.30	7.13	46.04	58.15	74.00	15.85
11 000.00	44.58	Average	H	40.30	7.13	46.04	45.97	54.00	8.03
11 000.00	58.76	Peak	V	40.30	7.13	46.04	60.15	74.00	13.85
11 000.00	46.14	Average	V	40.30	7.13	46.04	47.53	54.00	6.47
Middle Channel									
11 160.00	56.55	Peak	H	39.95	7.13	46.09	57.54	74.00	16.46
11 160.00	44.36	Average	H	39.95	7.13	46.09	45.35	54.00	8.65
11 160.00	58.65	Peak	V	39.95	7.13	46.09	59.64	74.00	14.36
11 160.00	46.03	Average	V	39.95	7.13	46.09	47.02	54.00	6.98
High Channel									
11 400.00	57.11	Peak	H	40.00	7.16	46.09	58.18	74.00	15.82
11 400.00	45.16	Average	H	40.00	7.16	46.09	46.23	54.00	7.77
11 400.00	58.56	Peak	V	40.00	7.16	46.09	59.63	74.00	14.37
11 400.00	46.08	Average	V	40.00	7.16	46.09	47.15	54.00	6.85

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	56.15	Peak	H	40.30	7.13	46.04	57.54	74.00	16.46
11 020.00	41.99	Average	H	40.30	7.13	46.04	43.38	54.00	10.62
11 020.00	57.54	Peak	V	40.30	7.13	46.04	58.93	74.00	15.07
11 020.00	44.56	Average	V	40.30	7.13	46.04	45.95	54.00	8.05
Middle Channel									
11 100.00	56.33	Peak	H	40.00	7.13	46.09	57.37	74.00	16.63
11 100.00	42.15	Average	H	40.00	7.13	46.09	43.19	54.00	10.81
11 100.00	58.16	Peak	V	40.00	7.13	46.09	59.20	74.00	14.80
11 100.00	45.61	Average	V	40.00	7.13	46.09	46.65	54.00	7.35
High Channel									
11 340.00	56.85	Peak	H	39.98	7.16	46.09	57.90	74.00	16.10
11 340.00	42.61	Average	H	39.98	7.16	46.09	43.66	54.00	10.34
11 340.00	58.64	Peak	V	39.98	7.16	46.09	59.69	74.00	14.31
11 340.00	45.71	Average	V	39.98	7.16	46.09	46.76	54.00	7.24

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	54.11	Peak	H	40.30	7.13	46.04	55.50	74.00	18.50
11 060.00	42.31	Average	H	40.30	7.13	46.04	43.70	54.00	10.30
11 060.00	56.95	Peak	V	40.30	7.13	46.04	58.34	74.00	15.66
11 060.00	44.86	Average	V	40.30	7.13	46.04	46.25	54.00	7.75

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	55.88	Peak	H	40.00	7.27	46.09	57.06	74.00	16.94
11 490.00	44.54	Average	H	40.00	7.27	46.09	45.72	54.00	8.28
11 490.00	57.65	Peak	V	40.00	7.27	46.09	58.83	74.00	15.17
11 490.00	46.17	Average	V	40.00	7.27	46.09	47.35	54.00	6.65
Middle Channel									
11 570.00	54.63	Peak	H	39.90	7.31	46.09	55.75	74.00	18.25
11 570.00	43.65	Average	H	39.90	7.31	46.09	44.77	54.00	9.23
11 570.00	57.81	Peak	V	39.90	7.31	46.09	58.93	74.00	15.07
11 570.00	46.35	Average	V	39.90	7.31	46.09	47.47	54.00	6.53
High Channel									
11 650.00	55.66	Peak	H	39.30	7.31	46.21	56.06	74.00	17.94
11 650.00	44.58	Average	H	39.30	7.31	46.21	44.98	54.00	9.02
11 650.00	57.89	Peak	V	39.30	7.31	46.21	58.29	74.00	15.71
11 650.00	46.71	Average	V	39.30	7.31	46.21	47.11	54.00	6.89

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	55.83	Peak	H	40.00	7.27	46.09	57.01	74.00	16.99
11 490.00	44.56	Average	H	40.00	7.27	46.09	45.74	54.00	8.26
11 490.00	57.66	Peak	V	40.00	7.27	46.09	58.84	74.00	15.16
11 490.00	46.19	Average	V	40.00	7.27	46.09	47.37	54.00	6.63
Middle Channel									
11 570.00	55.75	Peak	H	39.90	7.31	46.09	56.87	74.00	17.13
11 570.00	43.65	Average	H	39.90	7.31	46.09	44.77	54.00	9.23
11 570.00	58.21	Peak	V	39.90	7.31	46.09	59.33	74.00	14.67
11 570.00	47.15	Average	V	39.90	7.31	46.09	48.27	54.00	5.73
High Channel									
11 650.00	55.30	Peak	H	39.30	7.31	46.21	55.70	74.00	18.30
11 650.00	44.11	Average	H	39.30	7.31	46.21	44.51	54.00	9.49
11 650.00	58.41	Peak	V	39.30	7.31	46.21	58.81	74.00	15.19
11 650.00	47.08	Average	V	39.30	7.31	46.21	47.48	54.00	6.52

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

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

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

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	54.60	Peak	H	40.00	7.27	46.09	55.78	74.00	18.22
11 510.00	42.55	Average	H	40.00	7.27	46.09	43.73	54.00	10.27
11 510.00	57.56	Peak	V	40.00	7.27	46.09	58.74	74.00	15.26
11 510.00	45.34	Average	V	40.00	7.27	46.09	46.52	54.00	7.48
High Channel									
11 590.00	54.38	Peak	H	39.90	7.31	46.09	55.50	74.00	18.50
11 590.00	42.63	Average	H	39.90	7.31	46.09	43.75	54.00	10.25
11 590.00	56.71	Peak	V	39.90	7.31	46.09	57.83	74.00	16.17
11 590.00	44.85	Average	V	39.90	7.31	46.09	45.97	54.00	8.03

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	53.21	Peak	H	39.90	7.31	46.09	54.33	74.00	19.67
11 550.00	41.58	Average	H	39.90	7.31	46.09	42.70	54.00	11.30
11 550.00	55.22	Peak	V	39.90	7.31	46.09	56.34	74.00	17.66
11 550.00	42.85	Average	V	39.90	7.31	46.09	43.97	54.00	10.03

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

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

14. RADIATED RESTRICTED BAND EDGE MEASUREMENTS

14.1 Operating environment

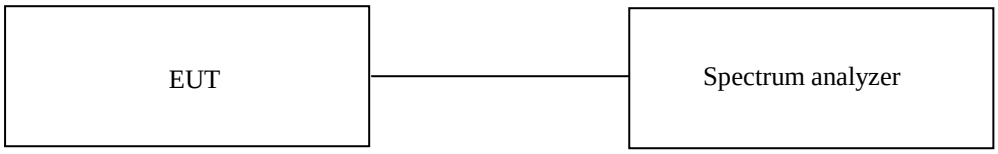
Temperature : 23 °C

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

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

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)
5 146.50	54.71	Peak	H	31.80	4.73	10.50	45.03	56.71	74.00	17.29
5 147.00	42.45	Average	H	31.80	4.73	10.50	45.03	44.45	54.00	9.55
5 050.00	54.29	Peak	V	31.80	4.73	10.50	45.03	56.29	74.00	17.71
5 139.00	41.37	Average	V	31.80	4.73	10.50	45.03	43.37	54.00	10.63

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)
5 125.52	54.49	Peak	H	31.80	4.73	10.50	45.03	56.49	74.00	17.51
5 140.00	42.44	Average	H	31.80	4.73	10.50	45.03	44.44	54.00	9.56
5 143.71	53.74	Peak	V	31.80	4.73	10.50	45.03	55.74	74.00	18.26
5 141.00	41.12	Average	V	31.80	4.73	10.50	45.03	43.12	54.00	10.88

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	59.21	Peak	H	31.80	4.73	10.50	45.03	61.21	74.00	12.79
5 150.00	46.34	Average	H	31.80	4.73	10.50	45.03	48.34	54.00	5.66
5 131.82	54.40	Peak	V	31.80	4.73	10.50	45.03	56.40	74.00	17.60
5 150.00	41.42	Average	V	31.80	4.73	10.50	45.03	43.42	54.00	10.58

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)
5 150.00	57.64	Peak	H	31.80	4.73	10.50	45.03	59.64	74.00	14.36
5 148.00	45.70	Average	H	31.80	4.73	10.50	45.03	47.70	54.00	6.30
5 147.20	55.51	Peak	V	31.80	4.73	10.50	45.03	57.51	74.00	16.49
5 144.00	42.63	Average	V	31.80	4.73	10.50	45.03	44.63	54.00	9.37

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)
5 350.84	54.17	Peak	H	31.50	5.52	10.50	45.21	56.48	74.00	17.52
5 350.28	43.14	Average	H	31.50	5.52	10.50	45.21	45.45	54.00	8.55
5 362.73	53.30	Peak	V	31.50	5.52	10.50	45.21	55.61	74.00	18.39
5 350.56	40.95	Average	V	31.50	5.52	10.50	45.21	43.26	54.00	10.74

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)
5 355.03	54.85	Peak	H	31.50	5.52	10.50	45.21	57.16	74.00	16.84
5 350.70	43.03	Average	H	31.50	5.52	10.50	45.21	45.34	54.00	8.66
5 412.24	54.29	Peak	V	31.50	5.52	10.50	45.21	56.60	74.00	17.40
5 350.70	41.08	Average	V	31.50	5.52	10.50	45.21	43.39	54.00	10.61

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)
5 350.00	56.65	Peak	H	31.50	5.52	10.50	45.21	58.96	74.00	15.04
5 350.84	45.21	Average	H	31.50	5.52	10.50	45.21	47.52	54.00	6.48
5 351.54	52.52	Peak	V	31.50	5.52	10.50	45.21	54.83	74.00	19.17
5 352.80	40.73	Average	V	31.50	5.52	10.50	45.21	43.04	54.00	10.96

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)
5 350.14	59.50	Peak	H	31.50	5.52	10.50	45.21	61.81	74.00	12.19
5 350.14	45.27	Average	H	31.50	5.52	10.50	45.21	47.58	54.00	6.42
5 350.84	53.49	Peak	V	31.50	5.52	10.50	45.21	55.80	74.00	18.20
5 350.70	40.76	Average	V	31.50	5.52	10.50	45.21	43.07	54.00	10.93

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)
5 438.25	55.44	Peak	H	31.80	5.52	10.50	45.31	57.95	74.00	16.05
5 451.71	43.10	Average	H	31.80	5.52	10.50	45.31	45.61	54.00	8.39
5 432.41	53.91	Peak	V	31.80	5.52	10.50	45.31	56.42	74.00	17.58
5 456.70	41.46	Average	V	31.80	5.52	10.50	45.31	43.97	54.00	10.03

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)
5 453.99	55.74	Peak	H	31.80	5.52	10.50	45.31	58.25	74.00	15.75
5 456.50	43.01	Average	H	31.80	5.52	10.50	45.31	45.52	54.00	8.48
5 445.14	53.48	Peak	V	31.80	5.52	10.50	45.31	55.99	74.00	18.01
5 456.40	41.45	Average	V	31.80	5.52	10.50	45.31	43.96	54.00	10.04

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)
5 449.34	54.78	Peak	H	31.80	5.52	10.50	45.31	57.29	74.00	16.71
5 455.30	42.74	Average	H	31.80	5.52	10.50	45.31	45.25	54.00	8.75
5 453.39	53.37	Peak	V	31.80	5.52	10.50	45.31	55.88	74.00	18.12
5 451.01	41.29	Average	V	31.80	5.52	10.50	45.31	43.80	54.00	10.20

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)
5 450.24	57.89	Peak	H	31.80	5.52	10.50	45.31	60.40	74.00	13.60
5 457.00	46.44	Average	H	31.80	5.52	10.50	45.31	48.95	54.00	5.05
5 456.98	54.44	Peak	V	31.80	5.52	10.50	45.31	56.95	74.00	17.05
5 455.65	41.80	Average	V	31.80	5.52	10.50	45.31	44.31	54.00	9.69

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										
5 665.36	52.25	Peak	H	31.80	5.63	10.50	45.31	54.87	79.57	24.70
5 704.71	53.85	Peak	H	31.80	5.63	10.50	45.31	56.47	106.52	50.05
5 724.04	53.39	Peak	H	31.80	5.63	10.50	45.31	56.01	120.01	64.00
5 853.16	52.09	Peak	H	32.30	5.71	10.50	45.19	55.41	115.00	59.59
5 868.26	52.33	Peak	H	32.30	5.71	10.50	45.19	55.65	107.09	51.44
5 884.22	51.92	Peak	H	32.30	5.71	10.50	45.19	55.24	98.38	43.14
5 654.77	52.62	Peak	V	31.80	5.63	10.50	45.31	55.24	71.73	16.49
5 714.62	52.05	Peak	V	31.80	5.63	10.50	45.31	54.67	109.29	54.62
5 721.71	51.99	Peak	V	31.80	5.63	10.50	45.31	54.61	114.70	60.09
5 851.94	52.58	Peak	V	32.30	5.71	10.50	45.19	55.90	117.78	61.88
5 864.64	52.57	Peak	V	32.30	5.71	10.50	45.19	55.89	108.10	52.21
5 917.73	52.02	Peak	V	32.30	5.71	10.50	45.19	55.34	73.58	18.24

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										
5 675.95	51.90	Peak	H	31.80	5.63	10.50	45.31	54.52	87.40	32.88
5 704.79	53.62	Peak	H	31.80	5.63	10.50	45.31	56.24	106.54	50.30
5 723.29	52.75	Peak	H	31.80	5.63	10.50	45.31	55.37	118.30	62.93
5 852.93	52.42	Peak	H	32.30	5.71	10.50	45.19	55.74	115.52	59.78
5 874.63	53.01	Peak	H	32.30	5.71	10.50	45.19	56.33	105.30	48.97
5 913.24	52.42	Peak	H	32.30	5.71	10.50	45.19	55.74	76.90	21.16
5 653.37	51.34	Peak	V	31.80	5.63	10.50	45.31	53.96	70.69	16.73
5 717.67	52.96	Peak	V	31.80	5.63	10.50	45.31	55.58	110.15	54.57
5 722.86	51.61	Peak	V	31.80	5.63	10.50	45.31	54.23	117.32	63.09
5 851.57	52.27	Peak	V	32.30	5.71	10.50	45.19	55.59	118.62	63.03
5 862.54	52.16	Peak	V	32.30	5.71	10.50	45.19	55.48	108.69	53.21
5 892.21	51.48	Peak	V	32.30	5.71	10.50	45.19	54.80	92.46	37.66

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										
5 662.51	52.54	Peak	H	31.80	5.63	10.50	45.31	55.16	77.46	22.30
5 704.83	53.01	Peak	H	31.80	5.63	10.50	45.31	55.63	106.55	50.92
5 722.74	55.79	Peak	H	31.80	5.63	10.50	45.31	58.41	117.05	58.64
5 850.17	51.95	Peak	H	32.30	5.71	10.50	45.19	55.27	121.81	66.54
5 858.51	52.57	Peak	H	32.30	5.71	10.50	45.19	55.89	109.82	53.93
5 913.59	52.20	Peak	H	32.30	5.71	10.50	45.19	55.52	76.64	21.12
5 655.52	52.29	Peak	V	31.80	5.63	10.50	45.31	54.91	72.28	17.37
5 706.86	52.15	Peak	V	31.80	5.63	10.50	45.31	54.77	107.12	52.35
5 724.31	52.24	Peak	V	31.80	5.63	10.50	45.31	54.86	120.63	65.77
5 853.36	52.23	Peak	V	32.30	5.71	10.50	45.19	55.55	114.54	58.99
5 857.35	52.89	Peak	V	32.30	5.71	10.50	45.19	56.21	110.14	53.93
5 923.48	52.04	Peak	V	32.30	5.71	10.50	45.19	55.36	69.32	13.96

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										
5 650.37	52.08	Peak	H	31.80	5.63	10.50	45.31	54.70	68.47	13.77
5 717.33	53.08	Peak	H	31.80	5.63	10.50	45.31	55.70	110.05	54.35
5 724.34	52.36	Peak	H	31.80	5.63	10.50	45.31	54.98	120.70	65.72
5 851.05	52.17	Peak	H	32.30	5.71	10.50	45.19	55.49	119.81	64.32
5 859.05	53.10	Peak	H	32.30	5.71	10.50	45.19	56.42	109.67	53.25
5 900.45	52.51	Peak	H	32.30	5.71	10.50	45.19	55.83	86.37	30.54
5 688.39	52.14	Peak	V	31.80	5.63	10.50	45.31	54.76	96.61	41.85
5 715.69	52.12	Peak	V	31.80	5.63	10.50	45.31	54.74	109.59	54.85
5 721.58	51.68	Peak	V	31.80	5.63	10.50	45.31	54.30	114.40	60.10
5 850.24	52.59	Peak	V	32.30	5.71	10.50	45.19	55.91	121.65	65.74
5 866.54	52.42	Peak	V	32.30	5.71	10.50	45.19	55.74	107.57	51.83
5 907.44	52.36	Peak	V	32.30	5.71	10.50	45.19	55.68	81.19	25.51

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										
5 698.63	53.32	Peak	H	31.80	5.63	10.50	45.31	55.94	104.19	48.25
5 719.57	58.71	Peak	H	31.80	5.63	10.50	45.31	61.33	110.68	49.35
5 721.41	61.33	Peak	H	31.80	5.63	10.50	45.31	63.95	114.01	50.06
5 853.79	52.27	Peak	H	32.30	5.71	10.50	45.19	55.59	113.56	57.97
5 859.77	52.17	Peak	H	32.30	5.71	10.50	45.19	55.49	109.46	53.97
5 900.90	52.19	Peak	H	32.30	5.71	10.50	45.19	55.51	86.03	30.52
5 686.54	51.79	Peak	V	31.80	5.63	10.50	45.31	54.41	95.24	40.83
5 718.03	53.24	Peak	V	31.80	5.63	10.50	45.31	55.86	110.25	54.39
5 720.35	54.26	Peak	V	31.80	5.63	10.50	45.31	56.88	111.60	54.72
5 853.50	52.02	Peak	V	32.30	5.71	10.50	45.19	55.34	114.22	58.88
5 856.73	52.21	Peak	V	32.30	5.71	10.50	45.19	55.53	110.32	54.79
5 875.92	51.76	Peak	V	32.30	5.71	10.50	45.19	55.08	104.52	49.44

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										
5 688.74	53.30	Peak	H	31.80	5.63	10.50	45.31	55.92	96.87	40.95
5 716.43	52.85	Peak	H	31.80	5.63	10.50	45.31	55.47	109.80	54.33
5 722.28	53.36	Peak	H	31.80	5.63	10.50	45.31	55.98	116.00	60.02
5 851.17	52.62	Peak	H	32.30	5.71	10.50	45.19	55.94	119.53	63.59
5 860.70	52.52	Peak	H	32.30	5.71	10.50	45.19	55.84	109.20	53.36
5 877.52	52.14	Peak	H	32.30	5.71	10.50	45.19	55.46	103.34	47.88
5 656.02	51.70	Peak	V	31.80	5.63	10.50	45.31	54.32	72.65	18.33
5 718.41	51.88	Peak	V	31.80	5.63	10.50	45.31	54.50	110.35	55.85
5 723.23	51.78	Peak	V	31.80	5.63	10.50	45.31	54.40	118.16	63.76
5 854.21	53.53	Peak	V	32.30	5.71	10.50	45.19	56.85	112.60	55.75
5 864.12	51.51	Peak	V	32.30	5.71	10.50	45.19	54.83	108.25	53.42
5 888.11	52.87	Peak	V	32.30	5.71	10.50	45.19	56.19	95.50	39.31

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										
5 697.88	62.56	Peak	H	31.80	5.63	10.50	45.31	65.18	103.63	38.45
5 706.68	65.84	Peak	H	31.80	5.63	10.50	45.31	68.46	107.07	38.61
5 721.63	67.47	Peak	H	31.80	5.63	10.50	45.31	70.09	114.52	44.43
5 850.63	63.08	Peak	H	32.30	5.71	10.50	45.19	66.40	120.76	54.36
5 860.70	59.29	Peak	H	32.30	5.71	10.50	45.19	62.61	109.20	46.59
5 876.72	53.67	Peak	H	32.30	5.71	10.50	45.19	56.99	103.93	46.94
5 699.28	54.15	Peak	V	31.80	5.63	10.50	45.31	56.77	104.67	47.90
5 714.90	56.09	Peak	V	31.80	5.63	10.50	45.31	58.71	109.37	50.66
5 723.36	55.98	Peak	V	31.80	5.63	10.50	45.31	58.60	118.46	59.86
5 850.33	54.45	Peak	V	32.30	5.71	10.50	45.19	57.77	121.45	63.68
5 858.59	52.42	Peak	V	32.30	5.71	10.50	45.19	55.74	109.79	54.05
5 876.07	52.17	Peak	V	32.30	5.71	10.50	45.19	55.49	104.41	48.92

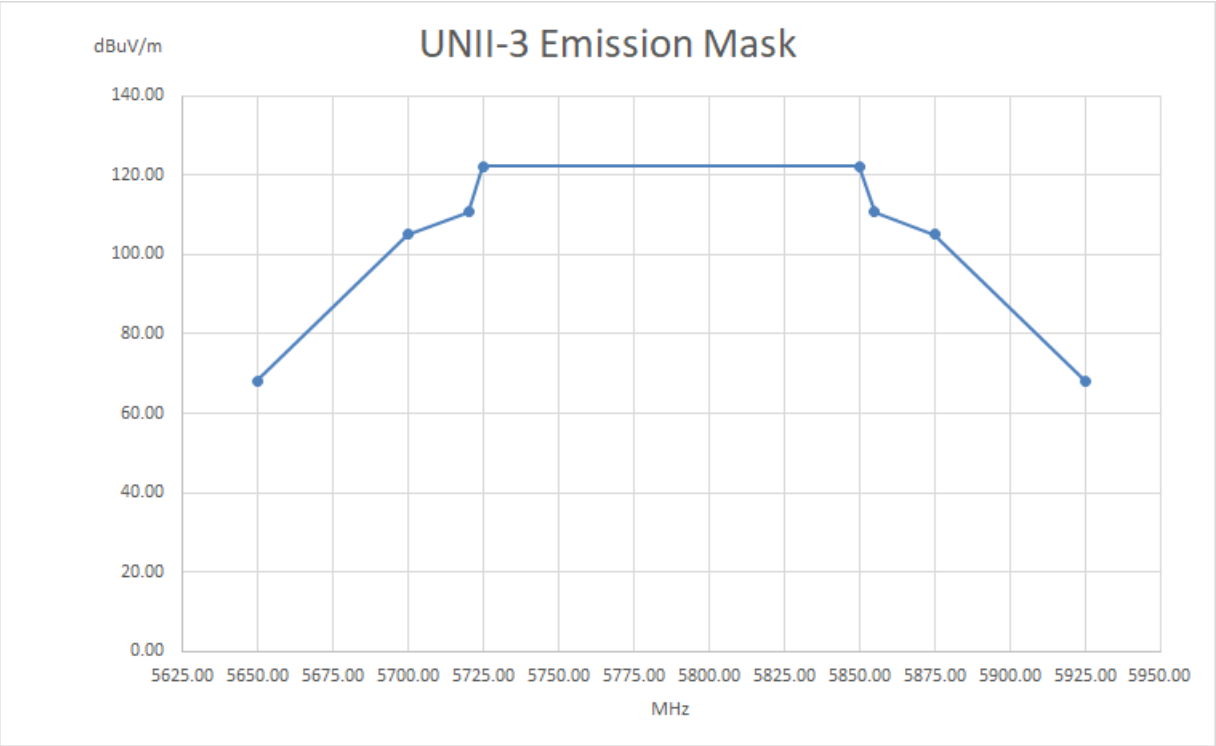
Tabulated test data for Restricted Band

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

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

15.4 Test data for the Basic model (WCB731M)

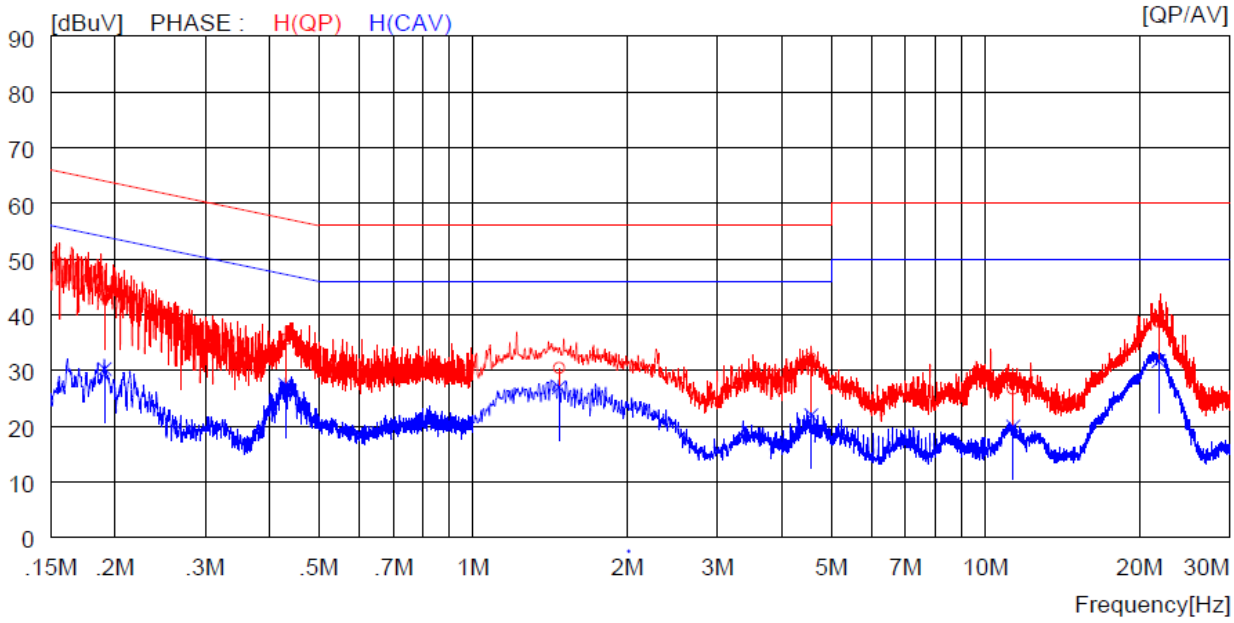
15.4.1 Test data for WLAN 5 GHz

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : LIVE LINE

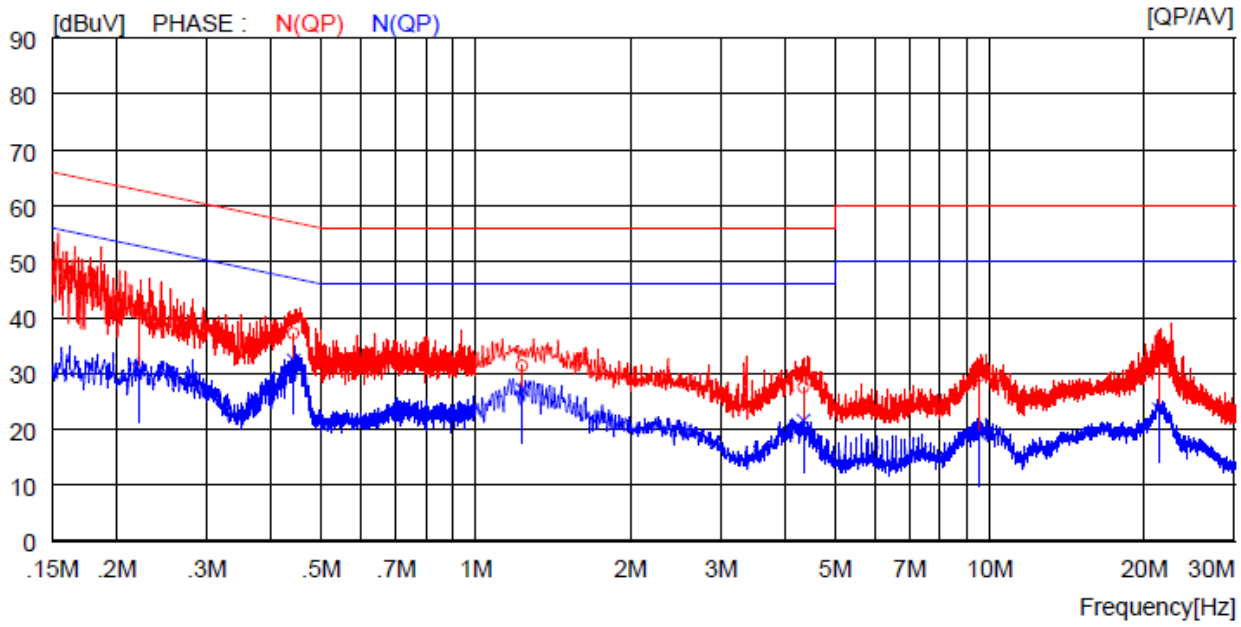
-. Antenna 0, Antenna 1 and Multiple transmit tested, but the worst data were recorded.



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	0.19100	33.4	----	10.0	43.4	----	64.0	----	20.6	----	H(QP)
2	0.43000	25.6	----	10.0	35.6	----	57.3	----	21.7	----	H(QP)
3	1.47200	20.4	----	10.1	30.5	----	56.0	----	25.5	----	H(QP)
4	4.57200	22.0	----	10.2	32.2	----	56.0	----	23.8	----	H(QP)
5	11.34000	16.5	----	10.2	26.7	----	60.0	----	33.3	----	H(QP)
6	21.80000	28.4	----	10.4	38.8	----	60.0	----	21.2	----	H(QP)
7	0.19100	----	20.3	10.0	----	30.3	----	54.0	----	23.7	H(CAV)
8	0.43000	----	17.4	10.0	----	27.4	----	47.3	----	19.9	H(CAV)
9	1.47200	----	16.9	10.1	----	27.0	----	46.0	----	19.0	H(CAV)
10	4.57200	----	11.8	10.2	----	22.0	----	46.0	----	24.0	H(CAV)
11	11.34000	----	9.8	10.2	----	20.0	----	50.0	----	30.0	H(CAV)
12	21.80000	----	21.4	10.4	----	31.8	----	50.0	----	18.2	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	0.22100	30.8	----	10.0	40.8	----	62.8	----	22.0	----	N(QP)
2	0.44200	27.2	----	10.0	37.2	----	57.0	----	19.8	----	N(QP)
3	1.23200	21.3	----	10.1	31.4	----	56.0	----	24.6	----	N(QP)
4	4.34800	17.4	----	10.1	27.5	----	56.0	----	28.5	----	N(QP)
5	9.56500	19.3	----	10.2	29.5	----	60.0	----	30.5	----	N(QP)
6	21.36000	23.7	----	10.4	34.1	----	60.0	----	25.9	----	N(QP)
7	0.22100	----	20.6	10.0	----	30.6	----	52.8	----	22.2	N(CAV)
8	0.44200	----	22.4	10.0	----	32.4	----	47.0	----	14.6	N(CAV)
9	1.23200	----	17.0	10.1	----	27.1	----	46.0	----	18.9	N(CAV)
10	4.34800	----	11.5	10.1	----	21.6	----	46.0	----	24.4	N(CAV)
11	9.56500	----	9.1	10.2	----	19.3	----	50.0	----	30.7	N(CAV)
12	21.36000	----	13.2	10.4	----	23.6	----	50.0	----	26.4	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.

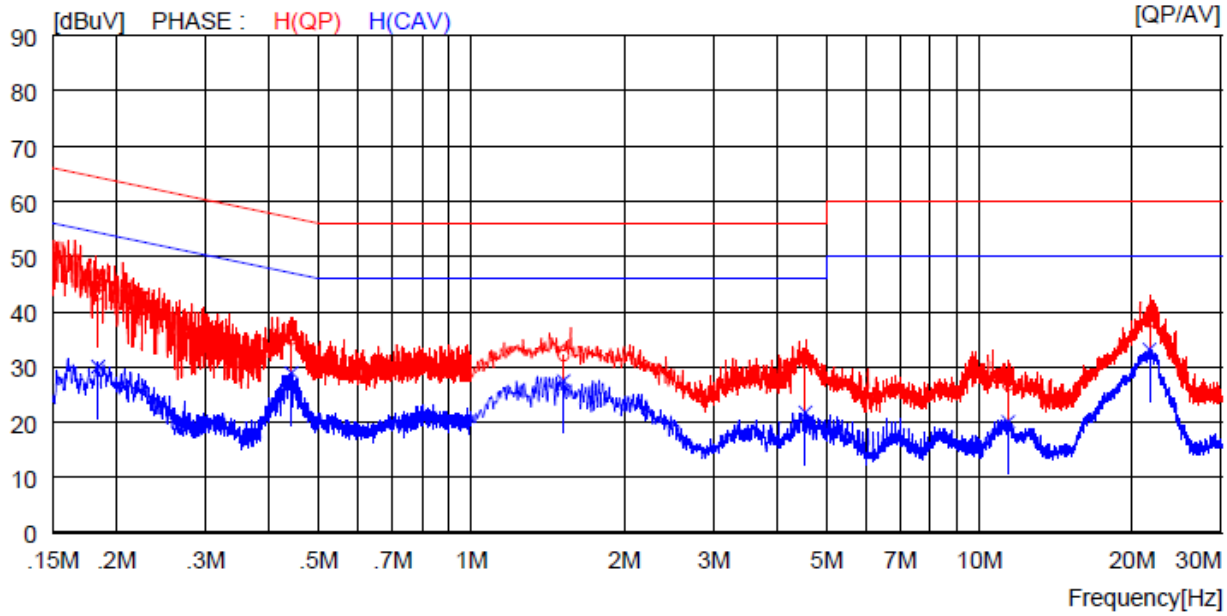
15.4.2 Test data for Intermodulation Mode(Bluetooth LE + WLAN 2.4 GHz + WLAN 5 GHz)

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : LIVE LINE

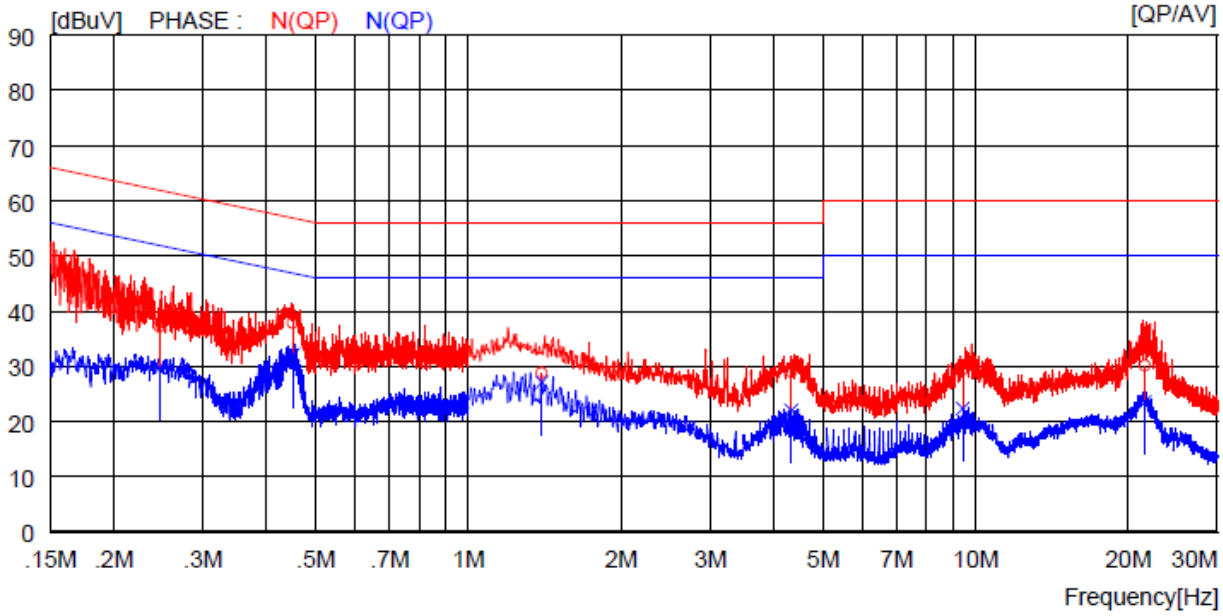
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ	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
	[MHz]										
1	0.18400	33.1	----	10.0	43.1	----	64.3	----	21.2	----	H(QP)
2	0.44200	25.0	----	10.0	35.0	----	57.0	----	22.0	----	H(QP)
3	1.52000	22.0	----	10.1	32.1	----	56.0	----	23.9	----	H(QP)
4	4.54400	21.4	----	10.2	31.6	----	56.0	----	24.4	----	H(QP)
5	11.42000	16.5	----	10.2	26.7	----	60.0	----	33.3	----	H(QP)
6	21.67000	27.8	----	10.4	38.2	----	60.0	----	21.8	----	H(QP)
7	0.18400	----	20.1	10.0	----	30.1	----	54.3	----	24.2	H(CAV)
8	0.44200	----	19.0	10.0	----	29.0	----	47.0	----	18.0	H(CAV)
9	1.52000	----	17.4	10.1	----	27.5	----	46.0	----	18.5	H(CAV)
10	4.54400	----	11.6	10.2	----	21.8	----	46.0	----	24.2	H(CAV)
11	11.42000	----	9.9	10.2	----	20.1	----	50.0	----	29.9	H(CAV)
12	21.67000	----	22.7	10.4	----	33.1	----	50.0	----	16.9	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	0.24600	27.2	----	10.0	37.2	----	61.9	----	24.7	----	N(QP)
2	0.45100	27.8	----	10.0	37.8	----	56.9	----	19.1	----	N(QP)
3	1.39600	18.7	----	10.1	28.8	----	56.0	----	27.2	----	N(QP)
4	4.33600	18.9	----	10.1	29.0	----	56.0	----	27.0	----	N(QP)
5	9.45500	19.2	----	10.2	29.4	----	60.0	----	30.6	----	N(QP)
6	21.60000	19.7	----	10.4	30.1	----	60.0	----	29.9	----	N(QP)
7	0.24600	----	19.7	10.0	----	29.7	----	51.9	----	22.2	N(CAV)
8	0.45100	----	22.1	10.0	----	32.1	----	46.9	----	14.8	N(CAV)
9	1.39600	----	17.0	10.1	----	27.1	----	46.0	----	18.9	N(CAV)
10	4.33600	----	11.9	10.1	----	22.0	----	46.0	----	24.0	N(CAV)
11	9.45500	----	12.1	10.2	----	22.3	----	50.0	----	27.7	N(CAV)
12	21.60000	----	13.2	10.4	----	23.6	----	50.0	----	26.4	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.

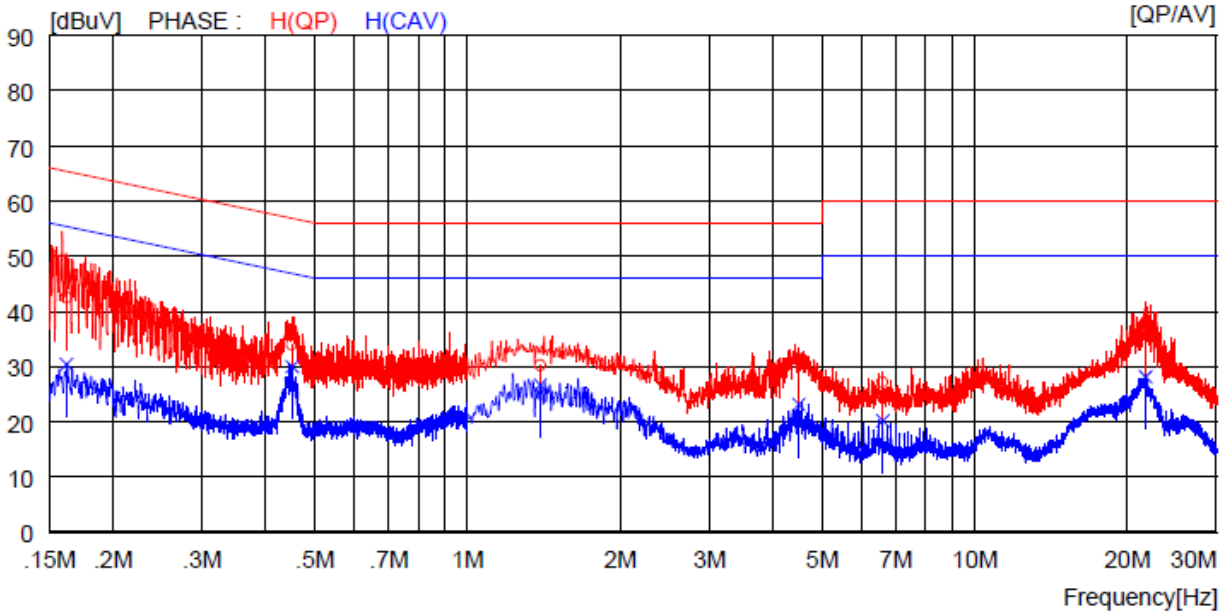
15.4.3 Test data for Intermodulation Mode(Bluetooth + WLAN 2.4 GHz + WLAN 5 GHz)

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : LIVE LINE

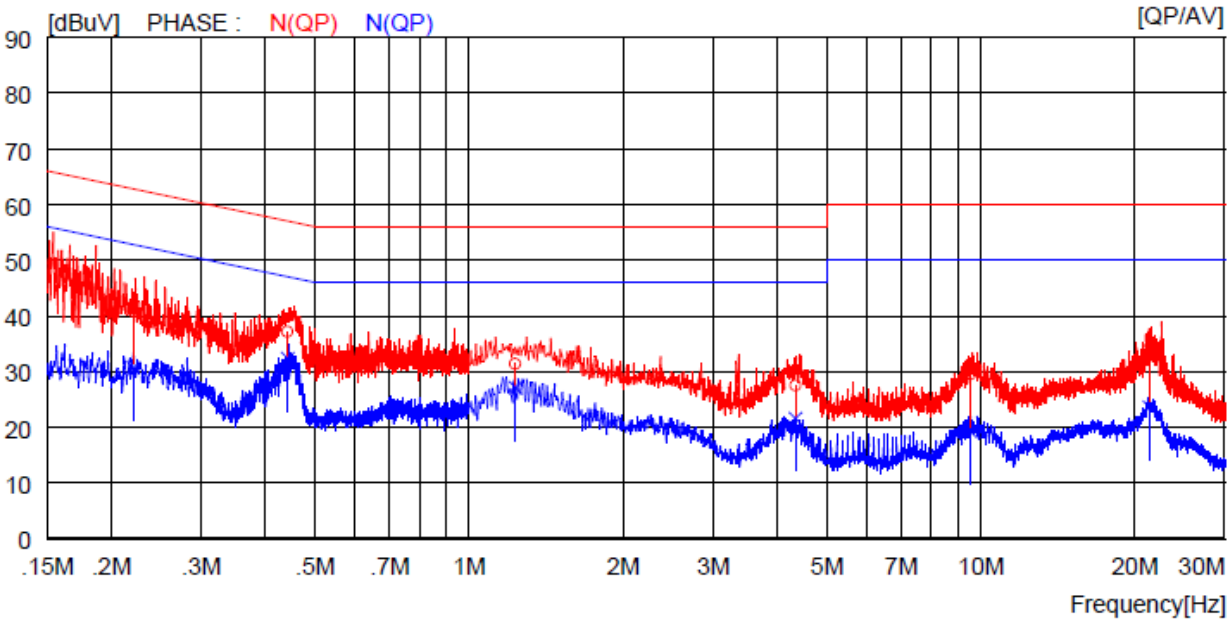
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



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	0.16200	32.5	----	10.0	42.5	----	65.4	----	22.9	----	H(QP)
2	0.45100	24.0	----	10.0	34.0	----	56.9	----	22.9	----	H(QP)
3	1.39200	20.1	----	10.1	30.2	----	56.0	----	25.8	----	H(QP)
4	4.50400	21.1	----	10.2	31.3	----	56.0	----	24.7	----	H(QP)
5	6.58500	17.0	----	10.2	27.2	----	60.0	----	32.8	----	H(QP)
6	21.75000	27.7	----	10.4	38.1	----	60.0	----	21.9	----	H(QP)
7	0.16200	----	20.4	10.0	----	30.4	----	55.4	----	25.0	H(CAV)
8	0.45100	----	20.0	10.0	----	30.0	----	46.9	----	16.9	H(CAV)
9	1.39200	----	16.6	10.1	----	26.7	----	46.0	----	19.3	H(CAV)
10	4.50400	----	12.9	10.2	----	23.1	----	46.0	----	22.9	H(CAV)
11	6.58500	----	10.0	10.2	----	20.2	----	50.0	----	29.8	H(CAV)
12	21.75000	----	17.7	10.4	----	28.1	----	50.0	----	21.9	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	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	0.22100	30.8	----	10.0	40.8	----	62.8	----	22.0	----	N(QP)
2	0.44200	27.2	----	10.0	37.2	----	57.0	----	19.8	----	N(QP)
3	1.23200	21.3	----	10.1	31.4	----	56.0	----	24.6	----	N(QP)
4	4.34800	17.4	----	10.1	27.5	----	56.0	----	28.5	----	N(QP)
5	9.56500	19.3	----	10.2	29.5	----	60.0	----	30.5	----	N(QP)
6	21.36000	23.7	----	10.4	34.1	----	60.0	----	25.9	----	N(QP)
7	0.22100	----	20.6	10.0	----	30.6	----	52.8	----	22.2	N(CAV)
8	0.44200	----	22.4	10.0	----	32.4	----	47.0	----	14.6	N(CAV)
9	1.23200	----	17.0	10.1	----	27.1	----	46.0	----	18.9	N(CAV)
10	4.34800	----	11.5	10.1	----	21.6	----	46.0	----	24.4	N(CAV)
11	9.56500	----	9.1	10.2	----	19.3	----	50.0	----	30.7	N(CAV)
12	21.36000	----	13.2	10.4	----	23.6	----	50.0	----	26.4	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.

15.5 Test data for the Multiple model (WCB730M)

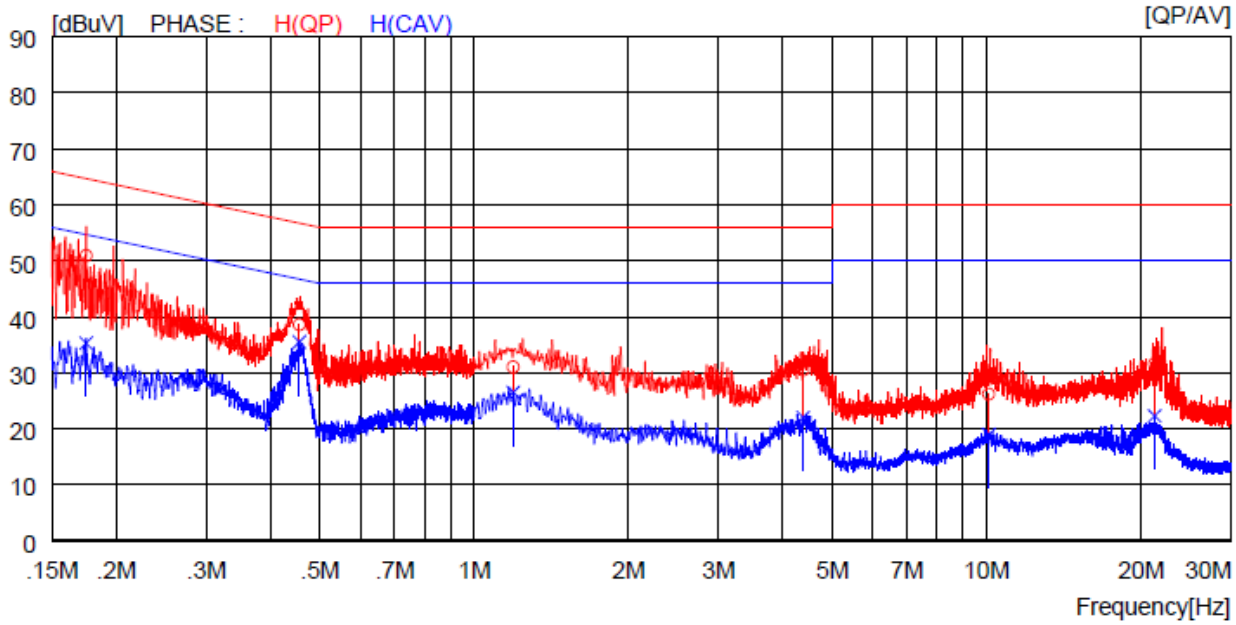
15.5.1 Test data for WLAN 5 GHz

-. 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)



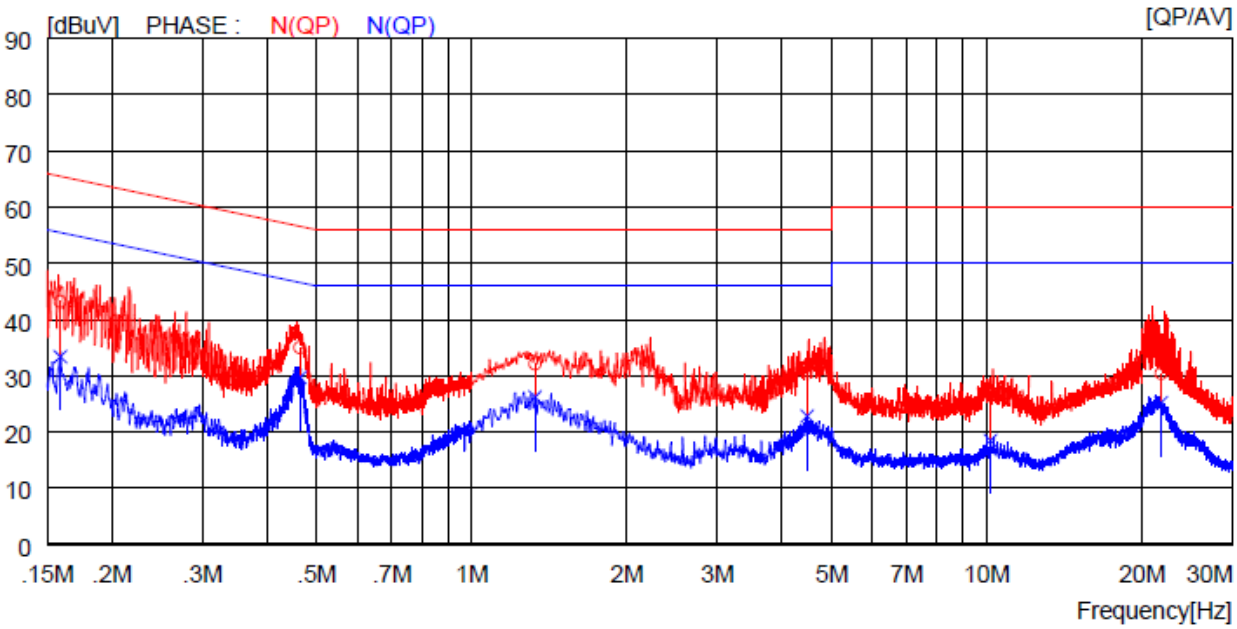
NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.17500	41.0	----	9.9	50.9	----	64.7	----	13.8	----	H(QP)
2	0.45600	28.7	----	9.9	38.6	----	56.8	----	18.2	----	H(QP)
3	1.19200	21.0	----	10.0	31.0	----	56.0	----	25.0	----	H(QP)
4	4.38800	20.4	----	10.1	30.5	----	56.0	----	25.5	----	H(QP)
5	10.11000	16.0	----	10.2	26.2	----	60.0	----	33.8	----	H(QP)
6	21.31000	21.2	----	10.4	31.6	----	60.0	----	28.4	----	H(QP)
7	0.17500	----	25.4	9.9	----	35.3	----	54.7	----	19.4	H(CAV)
8	0.45600	----	25.6	9.9	----	35.5	----	46.8	----	11.3	H(CAV)
9	1.19200	----	16.5	10.0	----	26.5	----	46.0	----	19.5	H(CAV)
10	4.38800	----	11.9	10.1	----	22.0	----	46.0	----	24.0	H(CAV)
11	10.11000	----	8.8	10.2	----	19.0	----	50.0	----	31.0	H(CAV)
12	21.31000	----	11.9	10.4	----	22.3	----	50.0	----	27.7	H(CAV)

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

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

-. 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	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	0.15900	33.3	----	9.9	43.2	----	65.5	----	22.3	----	N(QP)
2	0.46400	25.1	----	9.9	35.0	----	56.6	----	21.6	----	N(QP)
3	1.32800	22.0	----	10.1	32.1	----	56.0	----	23.9	----	N(QP)
4	4.48400	21.6	----	10.1	31.7	----	56.0	----	24.3	----	N(QP)
5	10.17000	16.9	----	10.2	27.1	----	60.0	----	32.9	----	N(QP)
6	21.82000	20.0	----	10.4	30.4	----	60.0	----	29.6	----	N(QP)
7	0.15900	----	23.5	9.9	----	33.4	----	55.5	----	22.1	N(CAV)
8	0.46400	----	19.8	9.9	----	29.7	----	46.6	----	16.9	N(CAV)
9	1.32800	----	16.1	10.1	----	26.2	----	46.0	----	19.8	N(CAV)
10	4.48400	----	12.7	10.1	----	22.8	----	46.0	----	23.2	N(CAV)
11	10.17000	----	8.3	10.2	----	18.5	----	50.0	----	31.5	N(CAV)
12	21.82000	----	14.8	10.4	----	25.2	----	50.0	----	24.8	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.

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

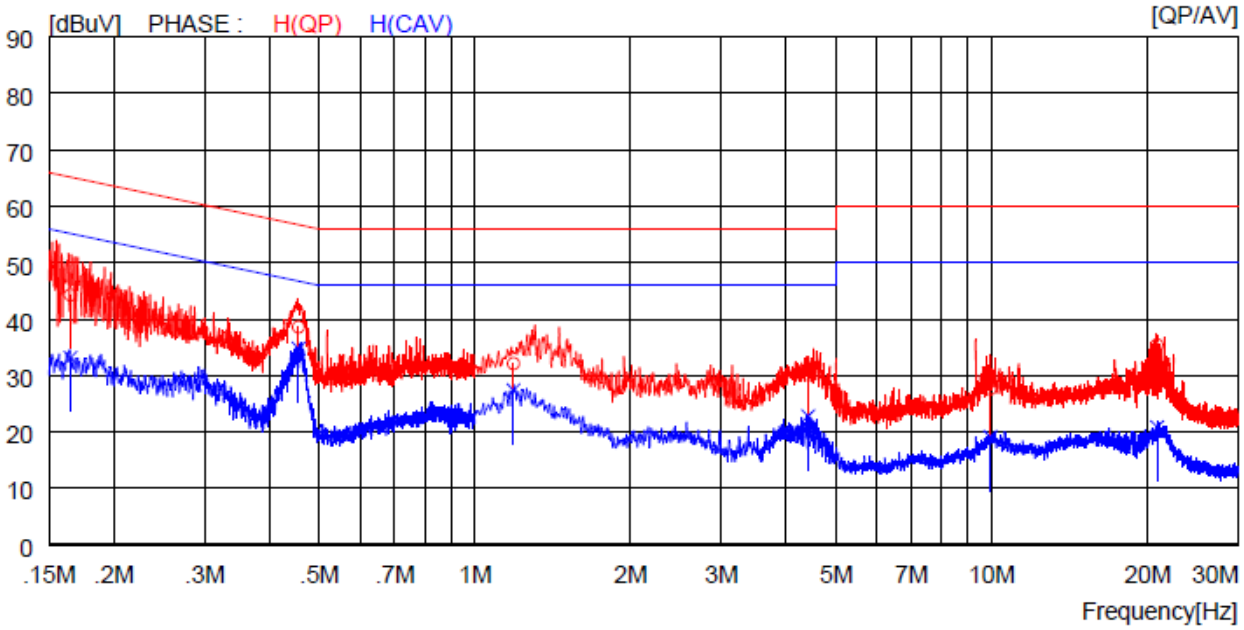
15.5.2 Test data for Intermodulation Mode(Bluetooth LE + WLAN 2.4 GHz + WLAN 5 GHz)

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : LIVE LINE

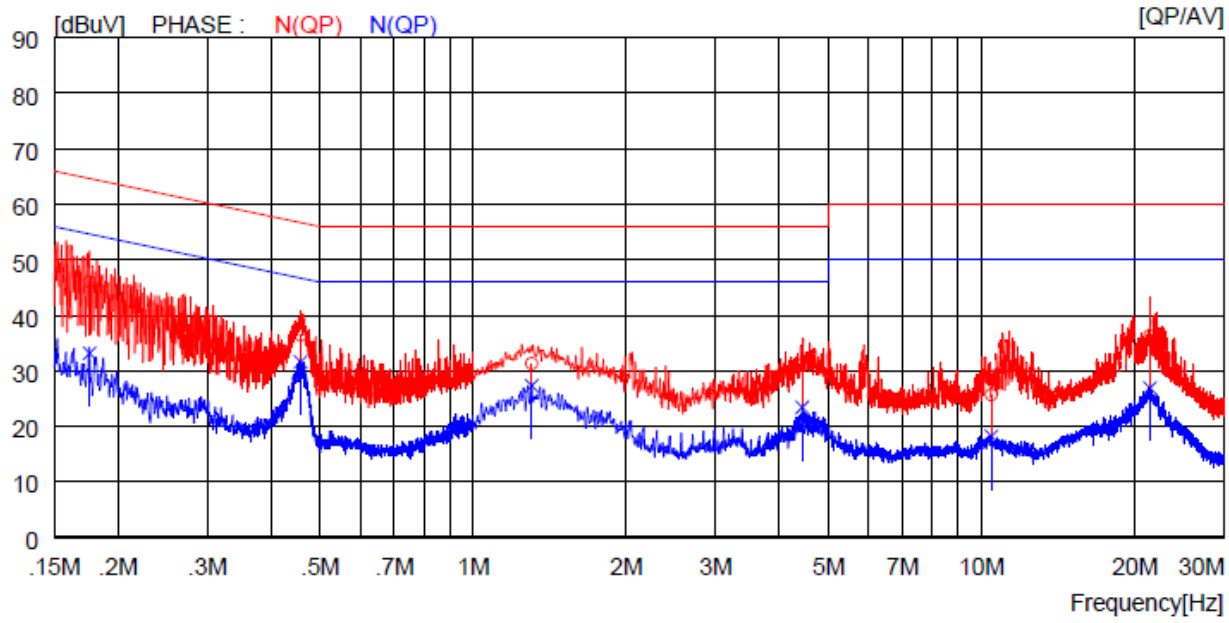
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ	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	0.16500	34.4	----	9.9	44.3	----	65.2	----	20.9	----	H(QP)
2	0.45600	28.7	----	9.9	38.6	----	56.8	----	18.2	----	H(QP)
3	1.18800	22.1	----	10.0	32.1	----	56.0	----	23.9	----	H(QP)
4	4.41600	20.1	----	10.1	30.2	----	56.0	----	25.8	----	H(QP)
5	9.95000	17.4	----	10.2	27.6	----	60.0	----	32.4	----	H(QP)
6	20.90000	25.0	----	10.4	35.4	----	60.0	----	24.6	----	H(QP)
7	0.16500	----	23.3	9.9	----	33.2	----	55.2	----	22.0	H(CAV)
8	0.45600	----	24.9	9.9	----	34.8	----	46.8	----	12.0	H(CAV)
9	1.18800	----	17.4	10.0	----	27.4	----	46.0	----	18.6	H(CAV)
10	4.41600	----	12.7	10.1	----	22.8	----	46.0	----	23.2	H(CAV)
11	9.95000	----	8.9	10.2	----	19.1	----	50.0	----	30.9	H(CAV)
12	20.90000	----	10.5	10.4	----	20.9	----	50.0	----	29.1	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	0.17600	36.2	----	9.9	46.1	----	64.7	----	18.6	----	N(QP)
2	0.45800	26.5	----	9.9	36.4	----	56.7	----	20.3	----	N(QP)
3	1.30400	21.2	----	10.1	31.3	----	56.0	----	24.7	----	N(QP)
4	4.44000	21.0	----	10.1	31.1	----	56.0	----	24.9	----	N(QP)
5	10.46000	15.5	----	10.2	25.7	----	60.0	----	34.3	----	N(QP)
6	21.46000	25.9	----	10.4	36.3	----	60.0	----	23.7	----	N(QP)
7	0.17600	----	23.3	9.9	----	33.2	----	54.7	----	21.5	N(CAV)
8	0.45800	----	21.7	9.9	----	31.6	----	46.7	----	15.1	N(CAV)
9	1.30400	----	17.2	10.1	----	27.3	----	46.0	----	18.7	N(CAV)
10	4.44000	----	13.3	10.1	----	23.4	----	46.0	----	22.6	N(CAV)
11	10.46000	----	8.0	10.2	----	18.2	----	50.0	----	31.8	N(CAV)
12	21.46000	----	16.5	10.4	----	26.9	----	50.0	----	23.1	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.

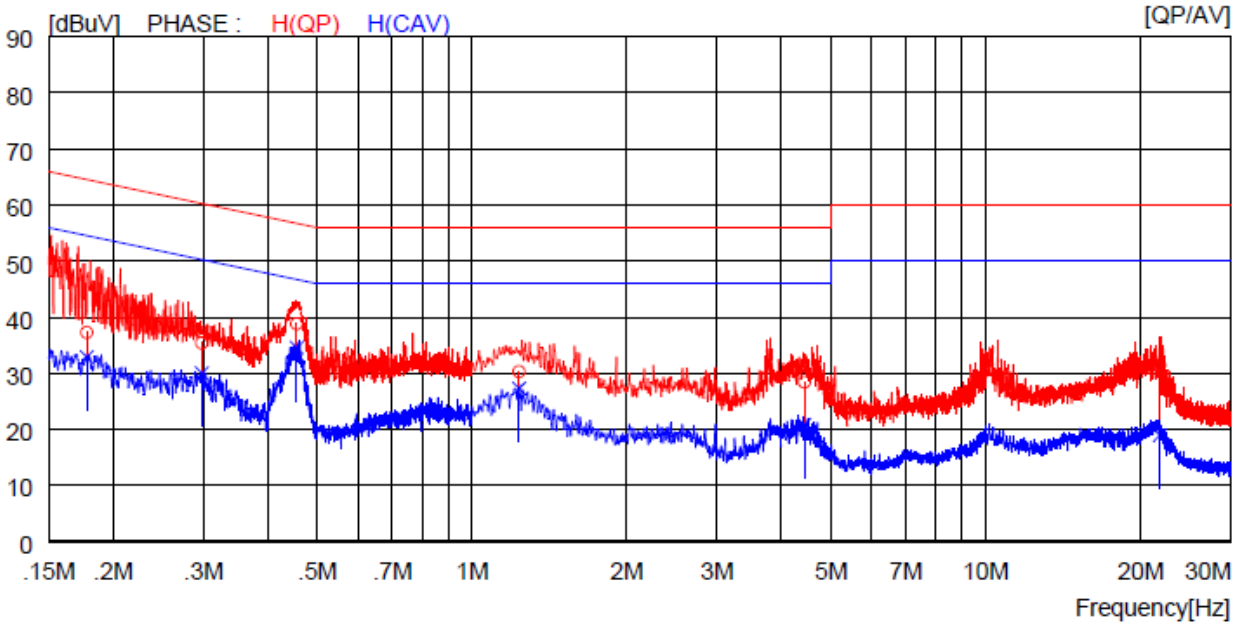
15.5.3 Test data for Intermodulation Mode(Bluetooth + WLAN 2.4 GHz + WLAN 5 GHz)

-. 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)

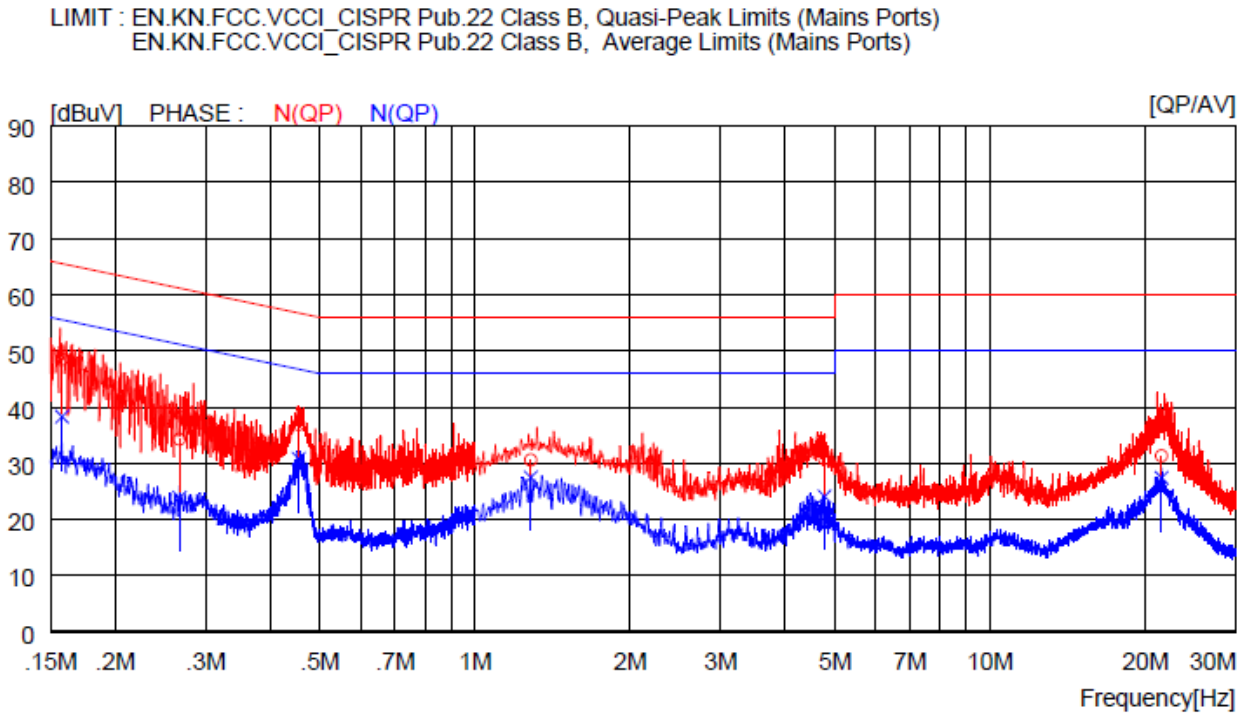


NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.17800	27.4	----	9.9	37.3	----	64.6	----	27.3	----	H(QP)
2	0.29800	25.5	----	9.9	35.4	----	60.3	----	24.9	----	H(QP)
3	0.45600	28.9	----	9.9	38.8	----	56.8	----	18.0	----	H(QP)
4	1.23600	20.2	----	10.1	30.3	----	56.0	----	25.7	----	H(QP)
5	4.44000	18.3	----	10.1	28.4	----	56.0	----	27.6	----	H(QP)
6	21.83000	21.1	----	10.4	31.5	----	60.0	----	28.5	----	H(QP)
7	0.17800	----	23.0	9.9	----	32.9	----	54.6	----	21.7	H(CAV)
8	0.29800	----	20.1	9.9	----	30.0	----	50.3	----	20.3	H(CAV)
9	0.45600	----	24.7	9.9	----	34.6	----	46.8	----	12.2	H(CAV)
10	1.23600	----	17.2	10.1	----	27.3	----	46.0	----	18.7	H(CAV)
11	4.44000	----	10.7	10.1	----	20.8	----	46.0	----	25.2	H(CAV)
12	21.83000	----	8.6	10.4	----	19.0	----	50.0	----	31.0	H(CAV)

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

-. Tested Line : NEUTRAL LINE

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



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	0.15800	38.6	----	9.9	48.5	----	65.6	----	17.1	----	N(QP)
2	0.26700	24.4	----	9.9	34.3	----	61.2	----	26.9	----	N(QP)
3	0.45500	27.0	----	9.9	36.9	----	56.8	----	19.9	----	N(QP)
4	1.28400	20.5	----	10.1	30.6	----	56.0	----	25.4	----	N(QP)
5	4.77200	20.7	----	10.1	30.8	----	56.0	----	25.2	----	N(QP)
6	21.55000	20.9	----	10.4	31.3	----	60.0	----	28.7	----	N(QP)
7	0.15800	----	28.4	9.9	----	38.3	----	55.6	----	17.3	N(CAV)
8	0.26700	----	14.0	9.9	----	23.9	----	51.2	----	27.3	N(CAV)
9	0.45500	----	20.9	9.9	----	30.8	----	46.8	----	16.0	N(CAV)
10	1.28400	----	17.4	10.1	----	27.5	----	46.0	----	18.5	N(CAV)
11	4.77200	----	14.0	10.1	----	24.1	----	46.0	----	21.9	N(CAV)
12	21.55000	----	17.0	10.4	----	27.4	----	50.0	----	22.6	N(CAV)

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

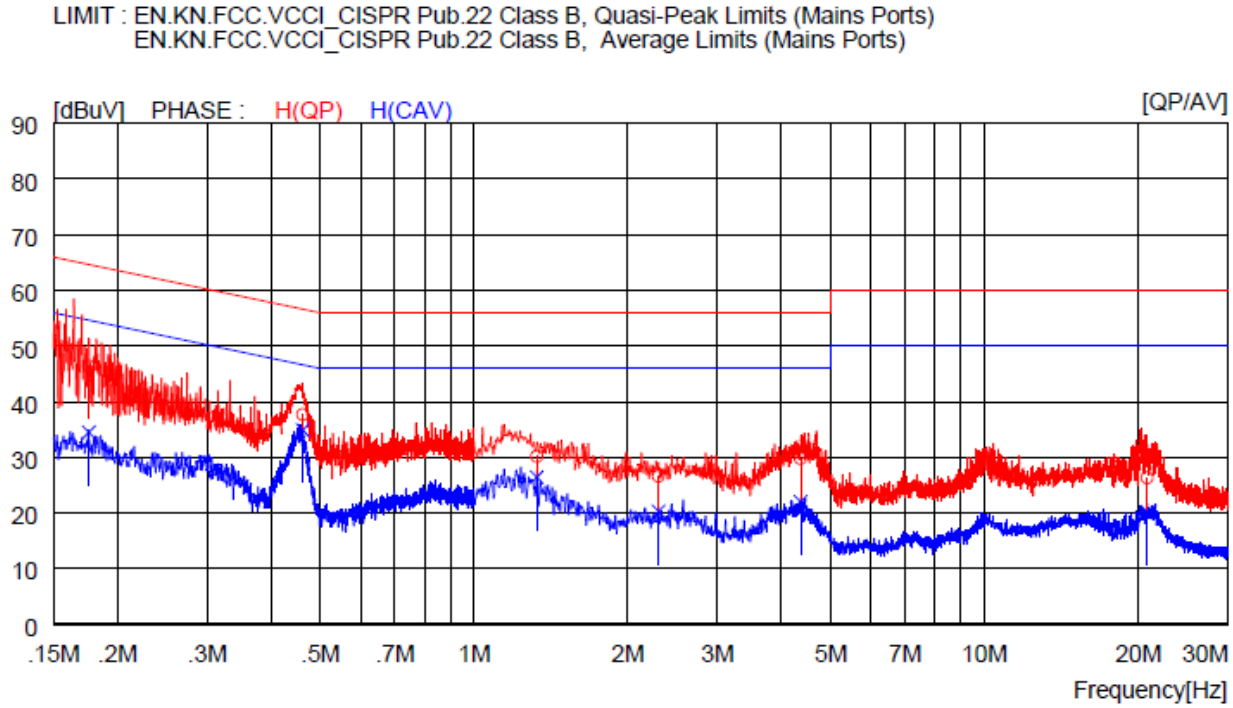
15.6 Test data for the Multiple model (WCB737M)

15.6.1 Test data for WLAN 5 GHz

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : LIVE LINE

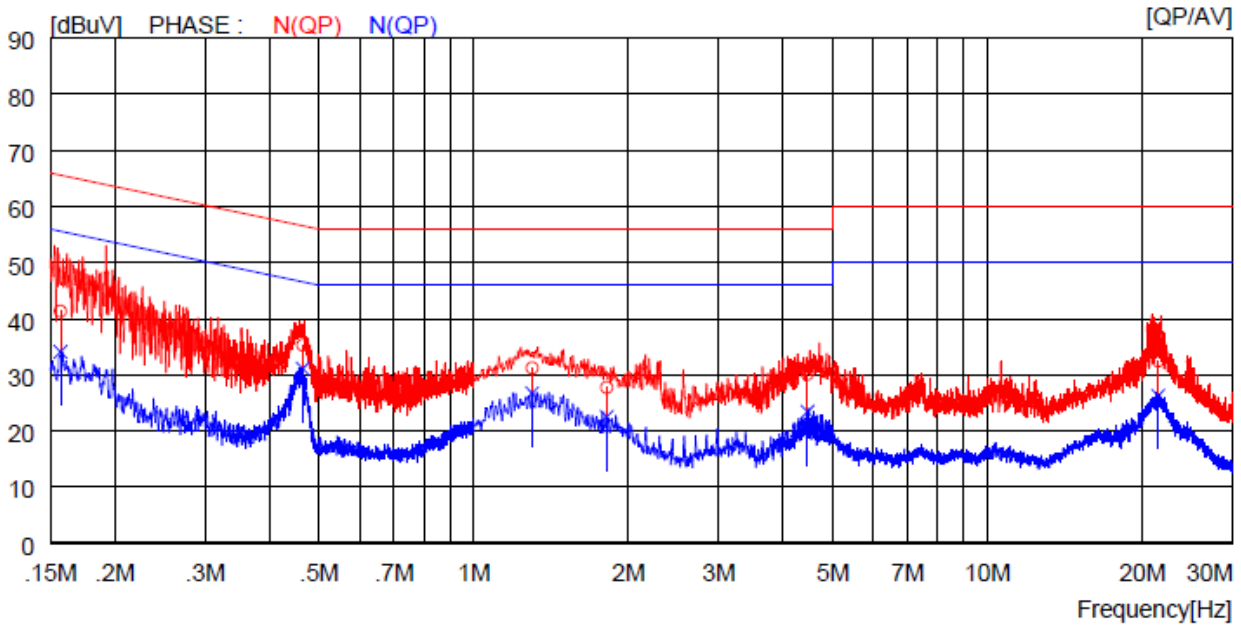


NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.17600	36.5	----	9.9	46.4	----	64.7	----	18.3	----	H(QP)
2	0.46200	27.8	----	9.9	37.7	----	56.7	----	19.0	----	H(QP)
3	1.32800	20.1	----	10.1	30.2	----	56.0	----	25.8	----	H(QP)
4	2.30000	16.5	----	10.1	26.6	----	56.0	----	29.4	----	H(QP)
5	4.36400	19.7	----	10.1	29.8	----	56.0	----	26.2	----	H(QP)
6	20.85000	15.9	----	10.4	26.3	----	60.0	----	33.7	----	H(QP)
7	0.17600	----	24.6	9.9	----	34.5	----	54.7	----	20.2	H(CAV)
8	0.46200	----	25.0	9.9	----	34.9	----	46.7	----	11.8	H(CAV)
9	1.32800	----	16.3	10.1	----	26.4	----	46.0	----	19.6	H(CAV)
10	2.30000	----	10.2	10.1	----	20.3	----	46.0	----	25.7	H(CAV)
11	4.36400	----	11.9	10.1	----	22.0	----	46.0	----	24.0	H(CAV)
12	20.85000	----	9.8	10.4	----	20.2	----	50.0	----	29.8	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	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	0.15700	31.4	----	9.9	41.3	----	65.6	----	24.3	----	N(QP)
2	0.46500	25.4	----	9.9	35.3	----	56.6	----	21.3	----	N(QP)
3	1.30000	21.1	----	10.1	31.2	----	56.0	----	24.8	----	N(QP)
4	1.81600	17.6	----	10.1	27.7	----	56.0	----	28.3	----	N(QP)
5	4.46400	20.0	----	10.1	30.1	----	56.0	----	25.9	----	N(QP)
6	21.51000	22.1	----	10.4	32.5	----	60.0	----	27.5	----	N(QP)
7	0.15700	----	24.2	9.9	----	34.1	----	55.6	----	21.5	N(CAV)
8	0.46500	----	21.2	9.9	----	31.1	----	46.6	----	15.5	N(CAV)
9	1.30000	----	16.6	10.1	----	26.7	----	46.0	----	19.3	N(CAV)
10	1.81600	----	12.4	10.1	----	22.5	----	46.0	----	23.5	N(CAV)
11	4.46400	----	13.3	10.1	----	23.4	----	46.0	----	22.6	N(CAV)
12	21.51000	----	15.9	10.4	----	26.3	----	50.0	----	23.7	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.

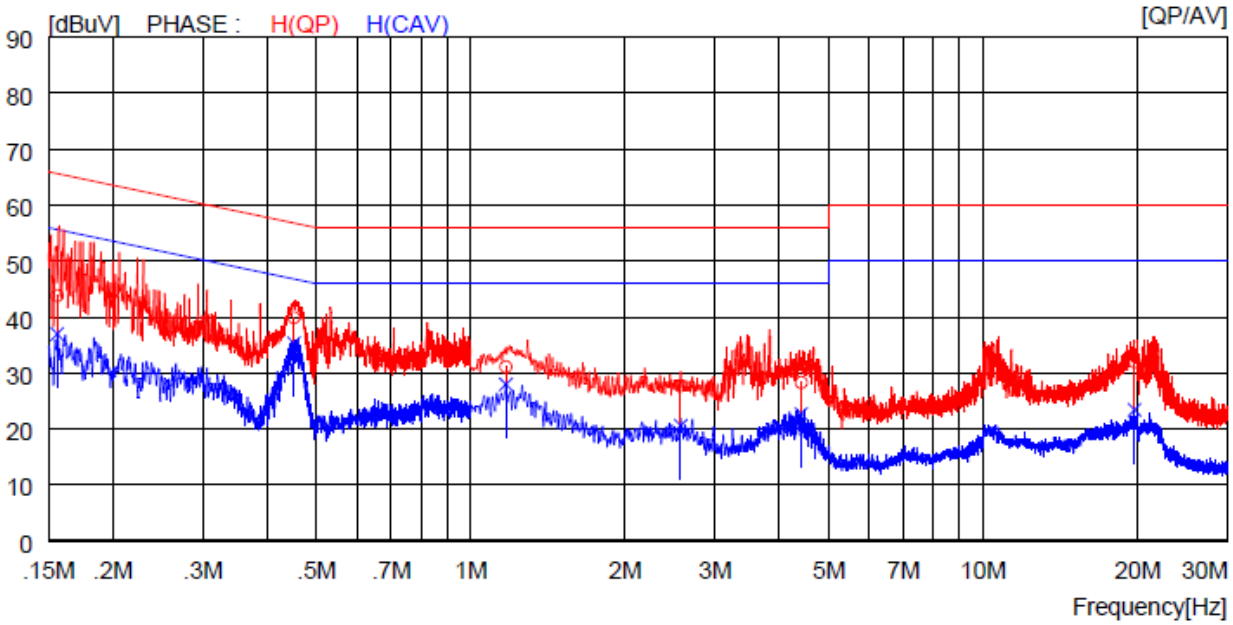
15.6.2 Test data for Intermodulation Mode(Bluetooth LE + WLAN 2.4 GHz + WLAN 5 GHz)

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : LIVE LINE

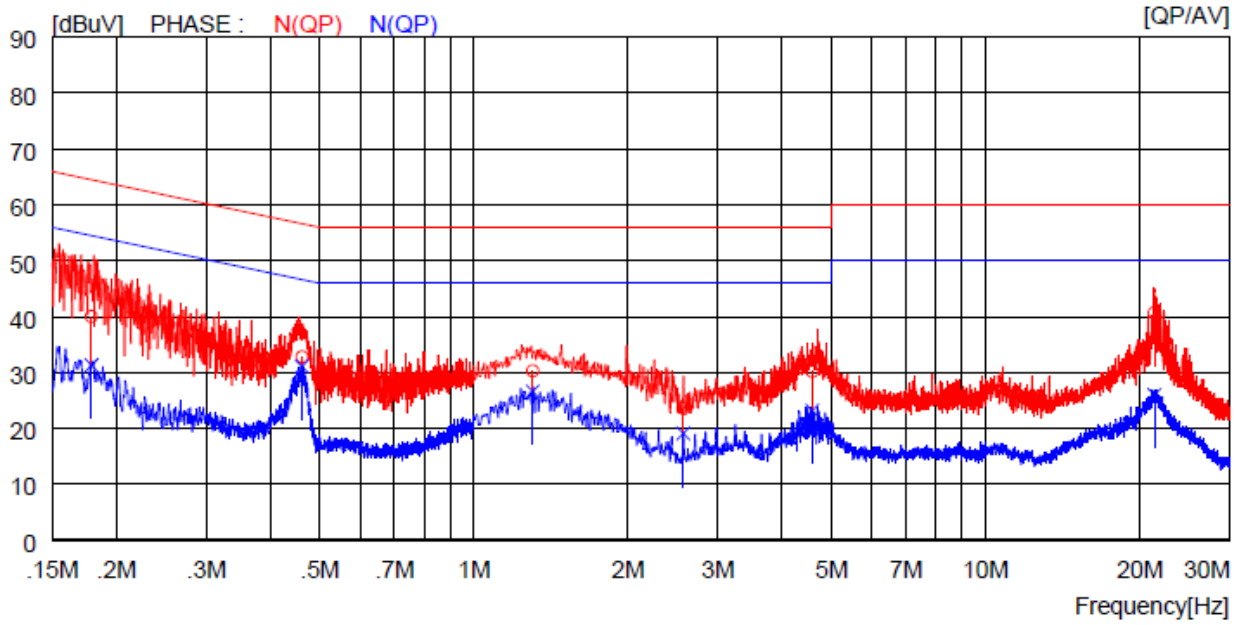
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ	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	0.15600	33.9	----	9.9	43.8	----	65.7	----	21.9	----	H(QP)
2	0.45200	30.0	----	9.9	39.9	----	56.8	----	16.9	----	H(QP)
3	1.17200	21.1	----	10.0	31.1	----	56.0	----	24.9	----	H(QP)
4	2.57200	17.6	----	10.1	27.7	----	56.0	----	28.3	----	H(QP)
5	4.42000	18.2	----	10.1	28.3	----	56.0	----	27.7	----	H(QP)
6	19.75000	21.6	----	10.4	32.0	----	60.0	----	28.0	----	H(QP)
7	0.15600	----	27.1	9.9	----	37.0	----	55.7	----	18.7	H(CAV)
8	0.45200	----	25.4	9.9	----	35.3	----	46.8	----	11.5	H(CAV)
9	1.17200	----	18.0	10.0	----	28.0	----	46.0	----	18.0	H(CAV)
10	2.57200	----	10.5	10.1	----	20.6	----	46.0	----	25.4	H(CAV)
11	4.42000	----	12.6	10.1	----	22.7	----	46.0	----	23.3	H(CAV)
12	19.75000	----	13.0	10.4	----	23.4	----	50.0	----	26.6	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	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]	[dBuV]	[dBuV]	
1	0.17900	30.1	----	9.9		40.0	----	64.5	----	24.5	----	N(QP)
2	0.46200	22.9	----	9.9		32.8	----	56.7	----	23.9	----	N(QP)
3	1.30400	20.2	----	10.1		30.3	----	56.0	----	25.7	----	N(QP)
4	2.56800	13.5	----	10.1		23.6	----	56.0	----	32.4	----	N(QP)
5	4.59200	20.1	----	10.1		30.2	----	56.0	----	25.8	----	N(QP)
6	21.38000	30.3	----	10.4		40.7	----	60.0	----	19.3	----	N(QP)
7	0.17900	----	21.4	9.9		----	31.3	----	54.5	----	23.2	N(CAV)
8	0.46200	----	21.2	9.9		----	31.1	----	46.7	----	15.6	N(CAV)
9	1.30400	----	16.5	10.1		----	26.6	----	46.0	----	19.4	N(CAV)
10	2.56800	----	9.0	10.1		----	19.1	----	46.0	----	26.9	N(CAV)
11	4.59200	----	13.1	10.1		----	23.2	----	46.0	----	22.8	N(CAV)
12	21.38000	----	15.6	10.4		----	26.0	----	50.0	----	24.0	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.

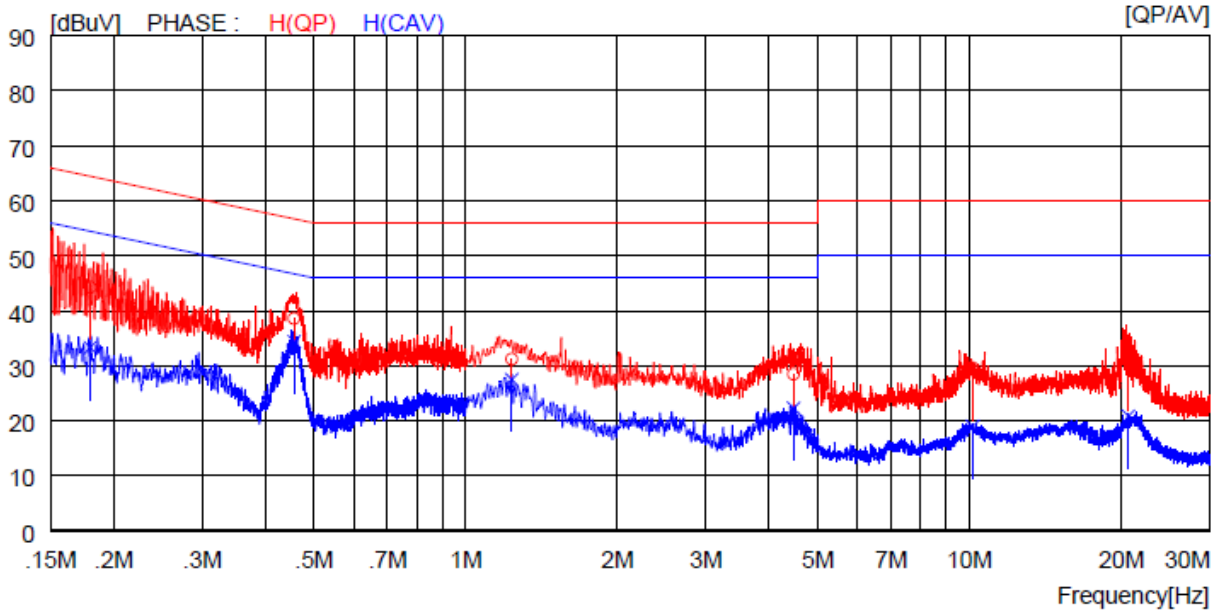
15.6.3 Test data for Intermodulation Mode(Bluetooth + WLAN 2.4 GHz + WLAN 5 GHz)

-. Resolution bandwidth : 9 kHz

-. Frequency range : 0.15 MHz ~ 30 MHz

-. Tested Line : LIVE LINE

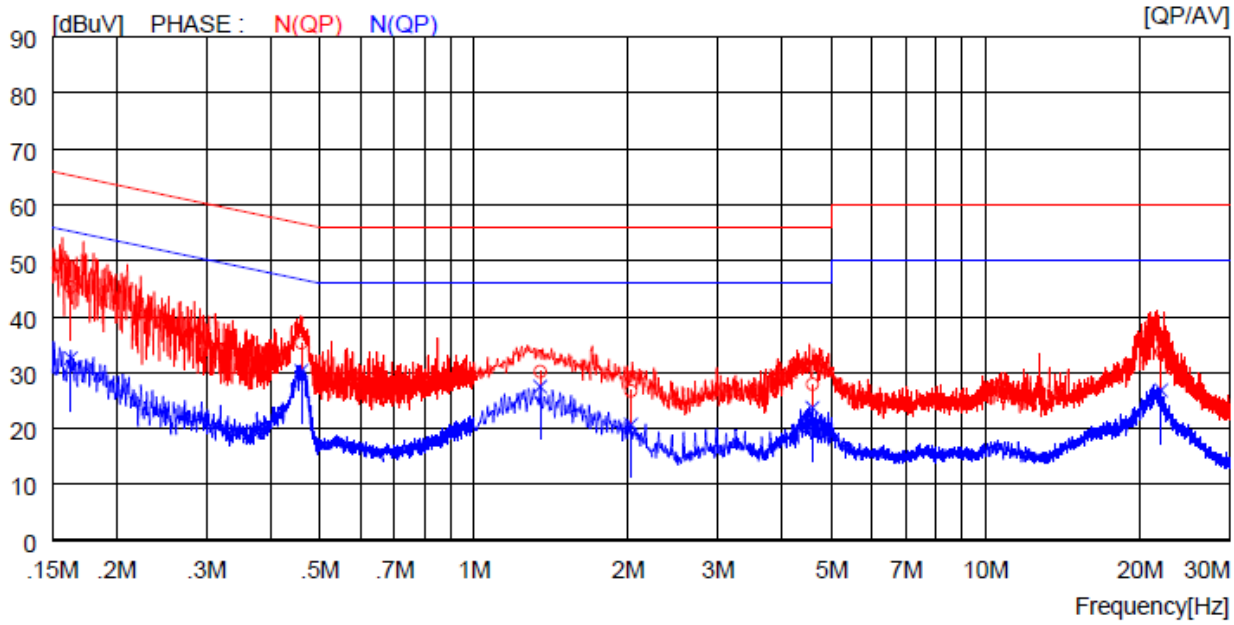
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [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	0.18000	34.4	----	9.9	44.3	----	64.5	----	20.2	----	H(QP)
2	0.45700	28.7	----	9.9	38.6	----	56.7	----	18.1	----	H(QP)
3	1.23600	21.1	----	10.1	31.2	----	56.0	----	24.8	----	H(QP)
4	4.48000	18.4	----	10.1	28.5	----	56.0	----	27.5	----	H(QP)
5	10.15000	19.4	----	10.2	29.6	----	60.0	----	30.4	----	H(QP)
6	20.68000	21.1	----	10.4	31.5	----	60.0	----	28.5	----	H(QP)
7	0.18000	----	23.4	9.9	----	33.3	----	54.5	----	21.2	H(CAV)
8	0.45700	----	24.5	9.9	----	34.4	----	46.7	----	12.3	H(CAV)
9	1.23600	----	17.4	10.1	----	27.5	----	46.0	----	18.5	H(CAV)
10	4.48000	----	12.2	10.1	----	22.3	----	46.0	----	23.7	H(CAV)
11	10.15000	----	8.8	10.2	----	19.0	----	50.0	----	31.0	H(CAV)
12	20.68000	----	10.4	10.4	----	20.8	----	50.0	----	29.2	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	35.4	----	9.9	45.3	----	65.3	----	20.0	----	N(QP)
2	0.46000	25.4	----	9.9	35.3	----	56.7	----	21.4	----	N(QP)
3	1.34800	20.1	----	10.1	30.2	----	56.0	----	25.8	----	N(QP)
4	2.02800	16.6	----	10.1	26.7	----	56.0	----	29.3	----	N(QP)
5	4.59200	17.8	----	10.1	27.9	----	56.0	----	28.1	----	N(QP)
6	22.02000	23.3	----	10.4	33.7	----	60.0	----	26.3	----	N(QP)
7	0.16300	----	22.7	9.9	----	32.6	----	55.3	----	22.7	N(CAV)
8	0.46000	----	20.4	9.9	----	30.3	----	46.7	----	16.4	N(CAV)
9	1.34800	----	17.4	10.1	----	27.5	----	46.0	----	18.5	N(CAV)
10	2.02800	----	10.6	10.1	----	20.7	----	46.0	----	25.3	N(CAV)
11	4.59200	----	13.6	10.1	----	23.7	----	46.0	----	22.3	N(CAV)
12	22.02000	----	16.4	10.4	----	26.8	----	50.0	----	23.2	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.

15.7 Test data for the Multiple model (WCB736M)

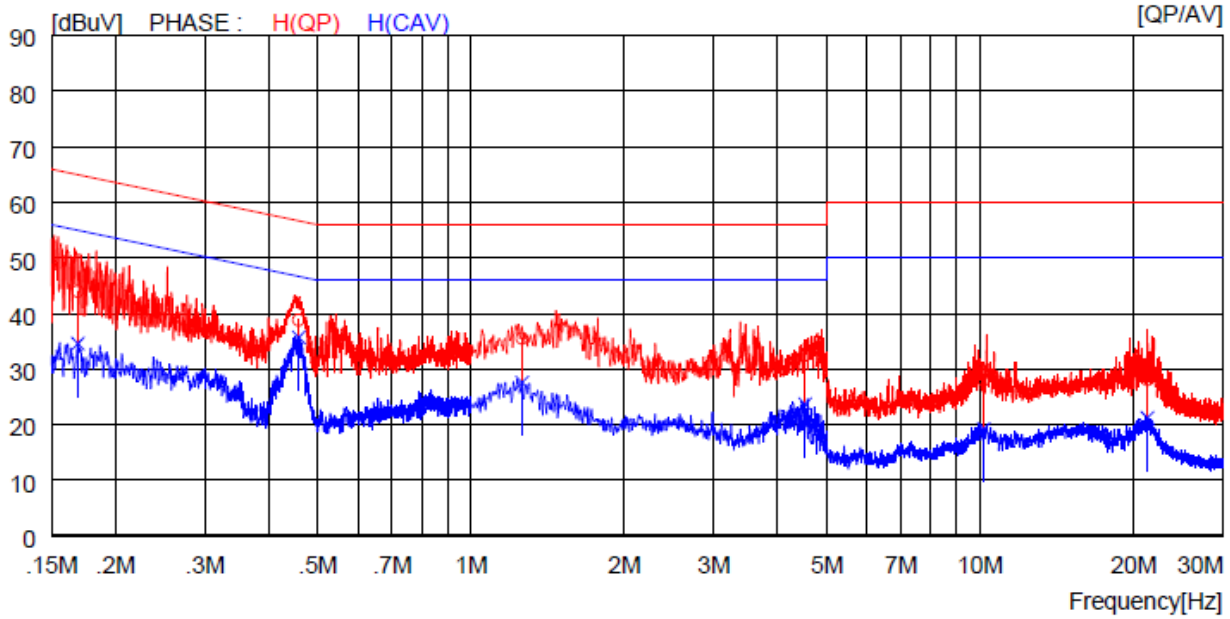
15.7.1 Test data for WLAN 5 GHz

-. 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)

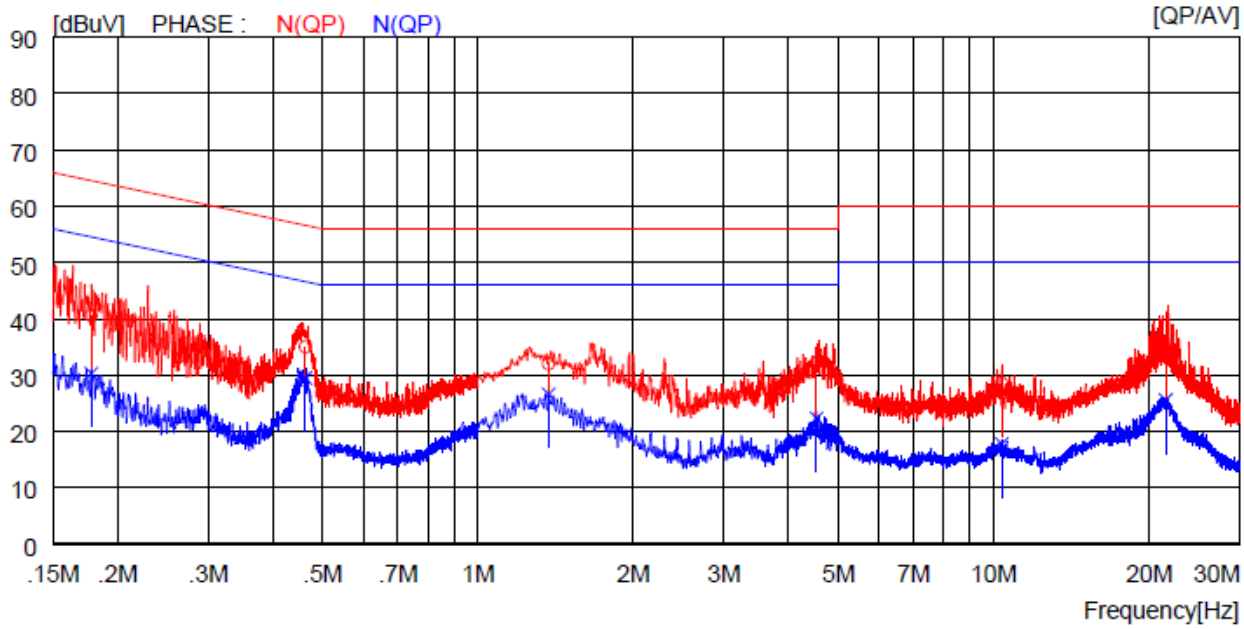


NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.16900	34.1	----	9.9	44.0	----	65.0	----	21.0	----	H(QP)
2	0.45900	28.9	----	9.9	38.8	----	56.7	----	17.9	----	H(QP)
3	1.26000	25.4	----	10.1	35.5	----	56.0	----	20.5	----	H(QP)
4	4.53600	22.4	----	10.1	32.5	----	56.0	----	23.5	----	H(QP)
5	10.17000	17.8	----	10.2	28.0	----	60.0	----	32.0	----	H(QP)
6	21.33000	17.7	----	10.4	28.1	----	60.0	----	31.9	----	H(QP)
7	0.16900	----	24.7	9.9	----	34.6	----	55.0	----	20.4	H(CAV)
8	0.45900	----	25.8	9.9	----	35.7	----	46.7	----	11.0	H(CAV)
9	1.26000	----	17.5	10.1	----	27.6	----	46.0	----	18.4	H(CAV)
10	4.53600	----	13.6	10.1	----	23.7	----	46.0	----	22.3	H(CAV)
11	10.17000	----	9.0	10.2	----	19.2	----	50.0	----	30.8	H(CAV)
12	21.33000	----	10.8	10.4	----	21.2	----	50.0	----	28.8	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	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	0.17800	30.7	----	9.9	40.6	----	64.6	----	24.0	----	N(QP)
2	0.46300	25.1	----	9.9	35.0	----	56.6	----	21.6	----	N(QP)
3	1.37200	21.9	----	10.1	32.0	----	56.0	----	24.0	----	N(QP)
4	4.54000	22.2	----	10.1	32.3	----	56.0	----	23.7	----	N(QP)
5	10.37000	18.4	----	10.2	28.6	----	60.0	----	31.4	----	N(QP)
6	21.57000	23.8	----	10.4	34.2	----	60.0	----	25.8	----	N(QP)
7	0.17800	----	20.4	9.9	----	30.3	----	54.6	----	24.3	N(CAV)
8	0.46300	----	19.6	9.9	----	29.5	----	46.6	----	17.1	N(CAV)
9	1.37200	----	16.5	10.1	----	26.6	----	46.0	----	19.4	N(CAV)
10	4.54000	----	12.2	10.1	----	22.3	----	46.0	----	23.7	N(CAV)
11	10.37000	----	7.6	10.2	----	17.8	----	50.0	----	32.2	N(CAV)
12	21.57000	----	15.2	10.4	----	25.6	----	50.0	----	24.4	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.

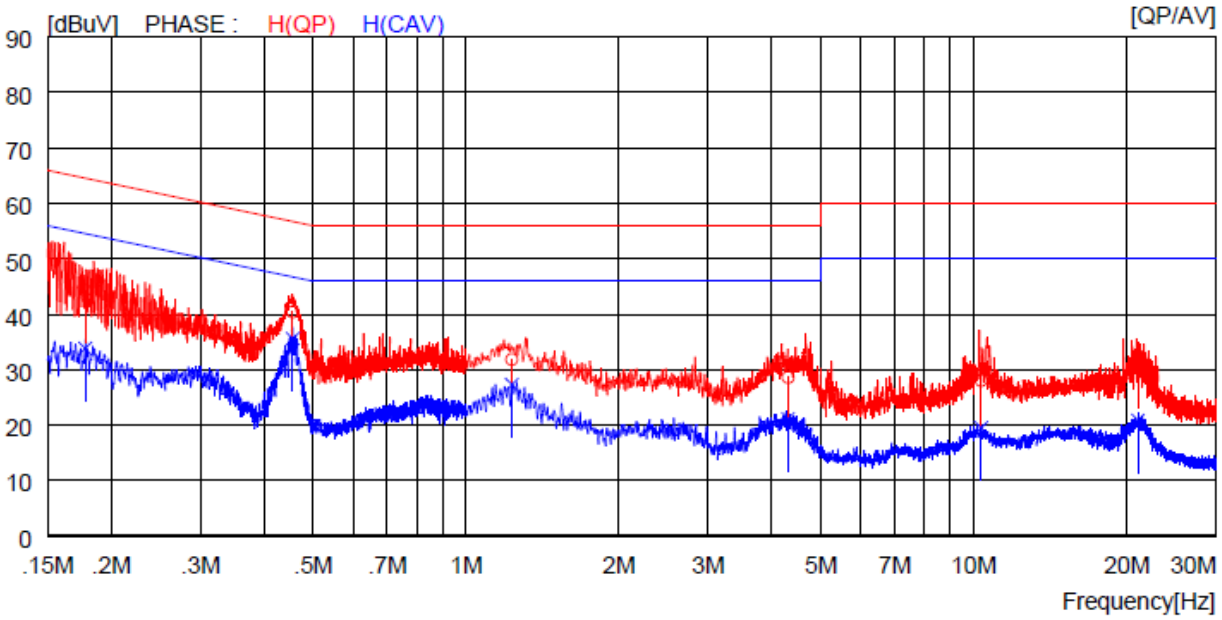
15.7.2 Test data for Intermodulation Mode(Bluetooth LE + WLAN 2.4 GHz + WLAN 5 GHz)

-. 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)

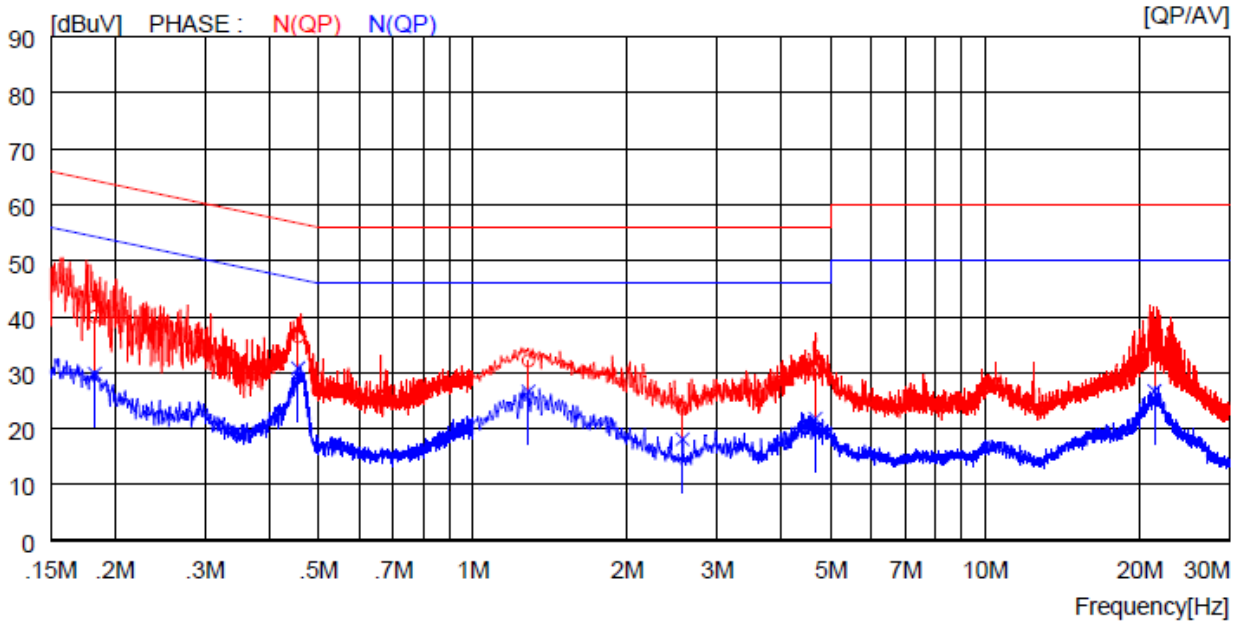


NO	FREQ [MHz]	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
1	0.17800	34.4	----	9.9	44.3	----	64.6	----	20.3	----	H(QP)
2	0.45600	30.5	----	9.9	40.4	----	56.8	----	16.4	----	H(QP)
3	1.23200	21.7	----	10.1	31.8	----	56.0	----	24.2	----	H(QP)
4	4.31200	18.5	----	10.1	28.6	----	56.0	----	27.4	----	H(QP)
5	10.36000	17.8	----	10.2	28.0	----	60.0	----	32.0	----	H(QP)
6	21.06000	22.2	----	10.4	32.6	----	60.0	----	27.4	----	H(QP)
7	0.17800	----	23.9	9.9	----	33.8	----	54.6	----	20.8	H(CAV)
8	0.45600	----	25.7	9.9	----	35.6	----	46.8	----	11.2	H(CAV)
9	1.23200	----	17.2	10.1	----	27.3	----	46.0	----	18.7	H(CAV)
10	4.31200	----	11.0	10.1	----	21.1	----	46.0	----	24.9	H(CAV)
11	10.36000	----	9.3	10.2	----	19.5	----	50.0	----	30.5	H(CAV)
12	21.06000	----	10.5	10.4	----	20.9	----	50.0	----	29.1	H(CAV)

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

-. 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	0.18300	30.1	----	9.9	40.0	----	64.3	----	24.3	----	N(QP)
2	0.45600	26.5	----	9.9	36.4	----	56.8	----	20.4	----	N(QP)
3	1.28400	22.0	----	10.1	32.1	----	56.0	----	23.9	----	N(QP)
4	2.56800	13.5	----	10.1	23.6	----	56.0	----	32.4	----	N(QP)
5	4.66000	20.5	----	10.1	30.6	----	56.0	----	25.4	----	N(QP)
6	21.38000	26.8	----	10.4	37.2	----	60.0	----	22.8	----	N(QP)
7	0.18300	----	19.9	9.9	----	29.8	----	54.3	----	24.5	N(CAV)
8	0.45600	----	20.9	9.9	----	30.8	----	46.8	----	16.0	N(CAV)
9	1.28400	----	16.5	10.1	----	26.6	----	46.0	----	19.4	N(CAV)
10	2.56800	----	8.0	10.1	----	18.1	----	46.0	----	27.9	N(CAV)
11	4.66000	----	11.7	10.1	----	21.8	----	46.0	----	24.2	N(CAV)
12	21.38000	----	16.3	10.4	----	26.7	----	50.0	----	23.3	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.

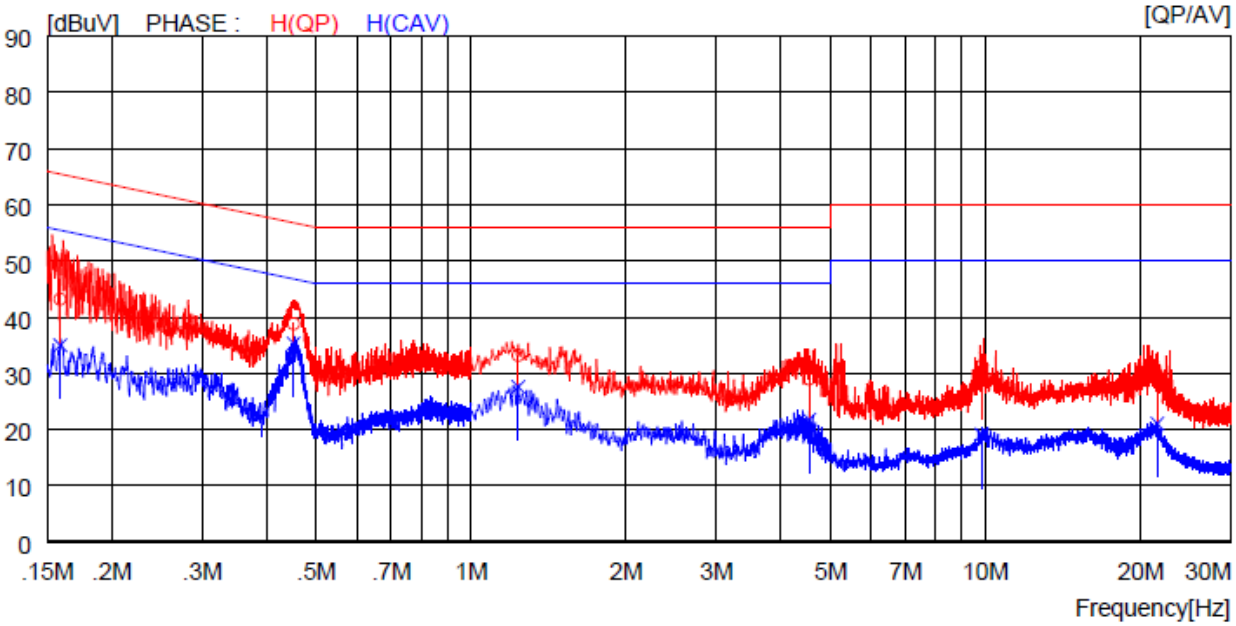
15.7.3 Test data for Intermodulation Mode(Bluetooth + WLAN 2.4 GHz + WLAN 5 GHz)

-. 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	0.15900	33.3	----	9.9	43.2	----	65.5	----	22.3	----	H(QP)
2	0.45200	28.9	----	9.9	38.8	----	56.8	----	18.0	----	H(QP)
3	1.23600	23.1	----	10.1	33.2	----	56.0	----	22.8	----	H(QP)
4	4.54400	18.9	----	10.1	29.0	----	56.0	----	27.0	----	H(QP)
5	9.83500	21.1	----	10.2	31.3	----	60.0	----	28.7	----	H(QP)
6	21.59000	19.4	----	10.4	29.8	----	60.0	----	30.2	----	H(QP)
7	0.15900	----	25.1	9.9	----	35.0	----	55.5	----	20.5	H(CAV)
8	0.45200	----	25.4	9.9	----	35.3	----	46.8	----	11.5	H(CAV)
9	1.23600	----	17.5	10.1	----	27.6	----	46.0	----	18.4	H(CAV)
10	4.54400	----	11.6	10.1	----	21.7	----	46.0	----	24.3	H(CAV)
11	9.83500	----	8.9	10.2	----	19.1	----	50.0	----	30.9	H(CAV)
12	21.59000	----	10.6	10.4	----	21.0	----	50.0	----	29.0	H(CAV)

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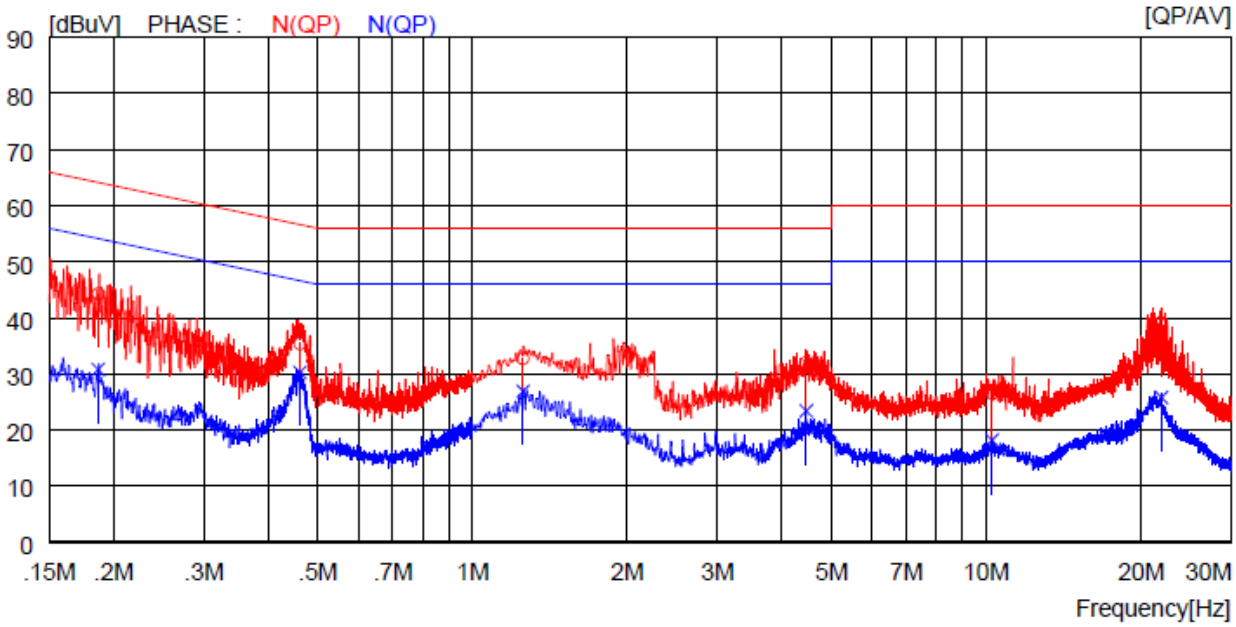
-. Tested Line : NEUTRAL LINE

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	34.4	----	9.9	44.3	----	64.2	----	19.9	----	N(QP)
2	0.46200	25.5	----	9.9	35.4	----	56.7	----	21.3	----	N(QP)
3	1.25600	22.6	----	10.1	32.7	----	56.0	----	23.3	----	N(QP)
4	4.46400	21.9	----	10.1	32.0	----	56.0	----	24.0	----	N(QP)
5	10.27000	16.3	----	10.2	26.5	----	60.0	----	33.5	----	N(QP)
6	21.94000	28.8	----	10.4	39.2	----	60.0	----	20.8	----	N(QP)
7	0.18700	----	20.9	9.9	----	30.8	----	54.2	----	23.4	N(CAV)
8	0.46200	----	20.4	9.9	----	30.3	----	46.7	----	16.4	N(CAV)
9	1.25600	----	16.8	10.1	----	26.9	----	46.0	----	19.1	N(CAV)
10	4.46400	----	13.3	10.1	----	23.4	----	46.0	----	22.6	N(CAV)
11	10.27000	----	8.0	10.2	----	18.2	----	50.0	----	31.8	N(CAV)
12	21.94000	----	15.4	10.4	----	25.8	----	50.0	----	24.2	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

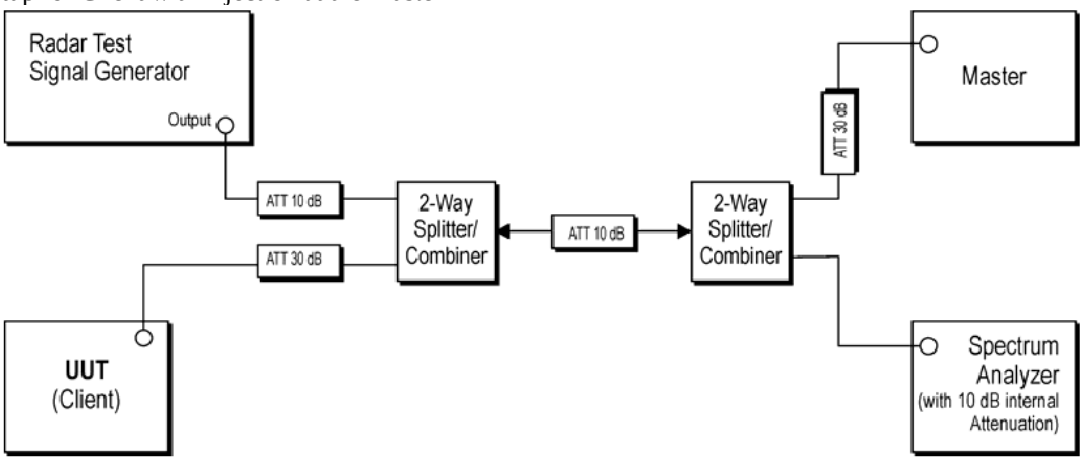
Temperature : 23 °C

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 : WCB731M

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

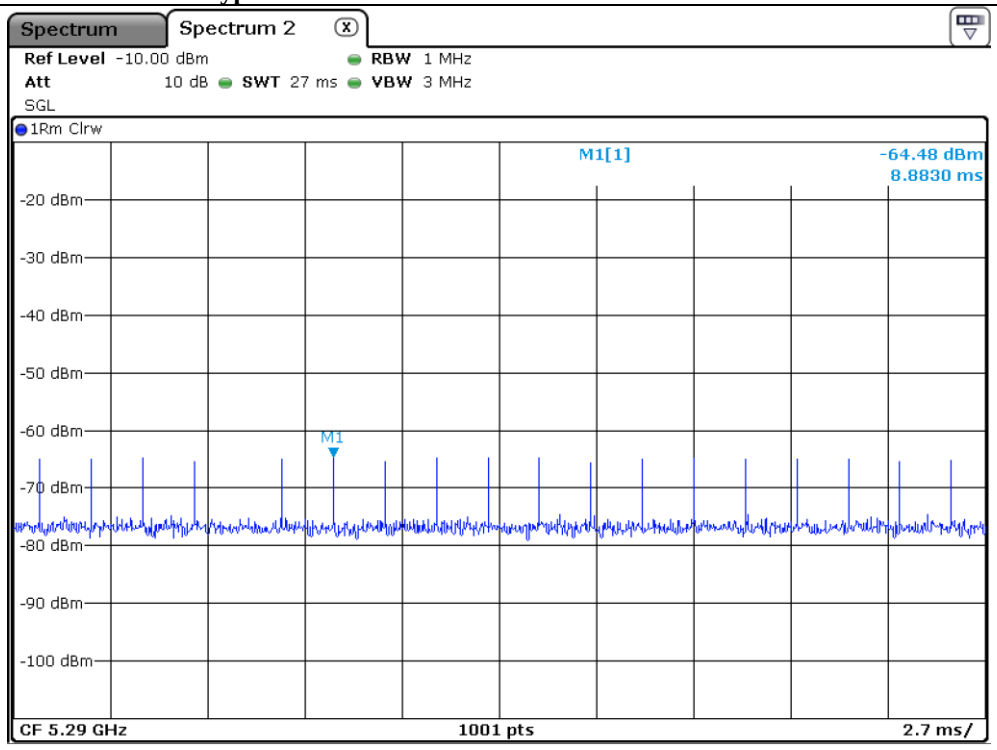
16.6 Test data

Band	Frequency (MHz)	Channel move time(s)		Channel closing transmission time(ms)	
		Measured	Limit	Measured	Limit
UNII 2A	5 290.00	0.95	10.00	5.2	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period.
UNII 2C	5 530.00	0.83		6.0	

Note. Channel closing transmission time: 13 * 0.4 ms = 5.2 ms, 15 * 0.4 ms = 6.0 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 -64.48 dBm (-62+1+1.53=-59.47 dBm)

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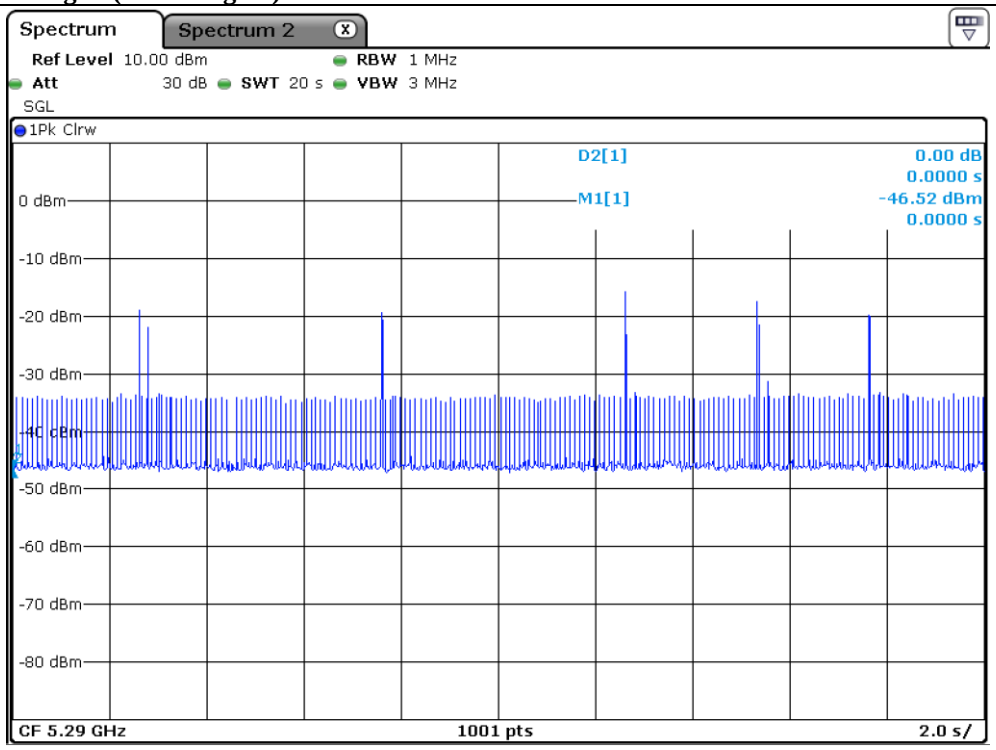
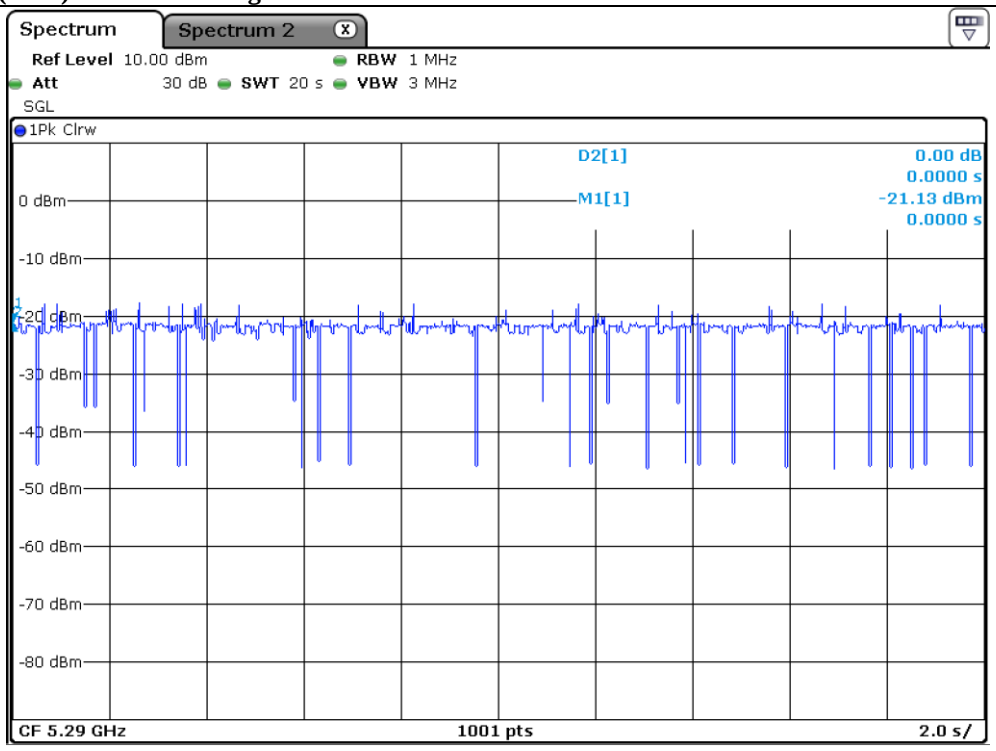
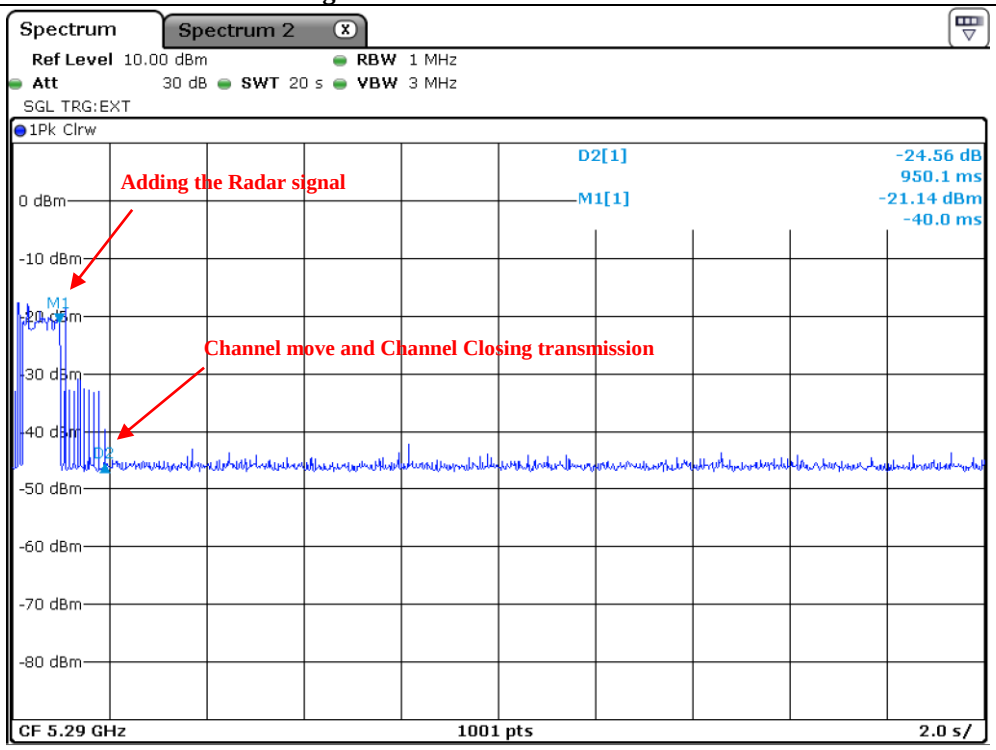
16.6.1.2 No traffic signal(master signal)



16.6.1.3 Client(EUT) Data Traffic Signal

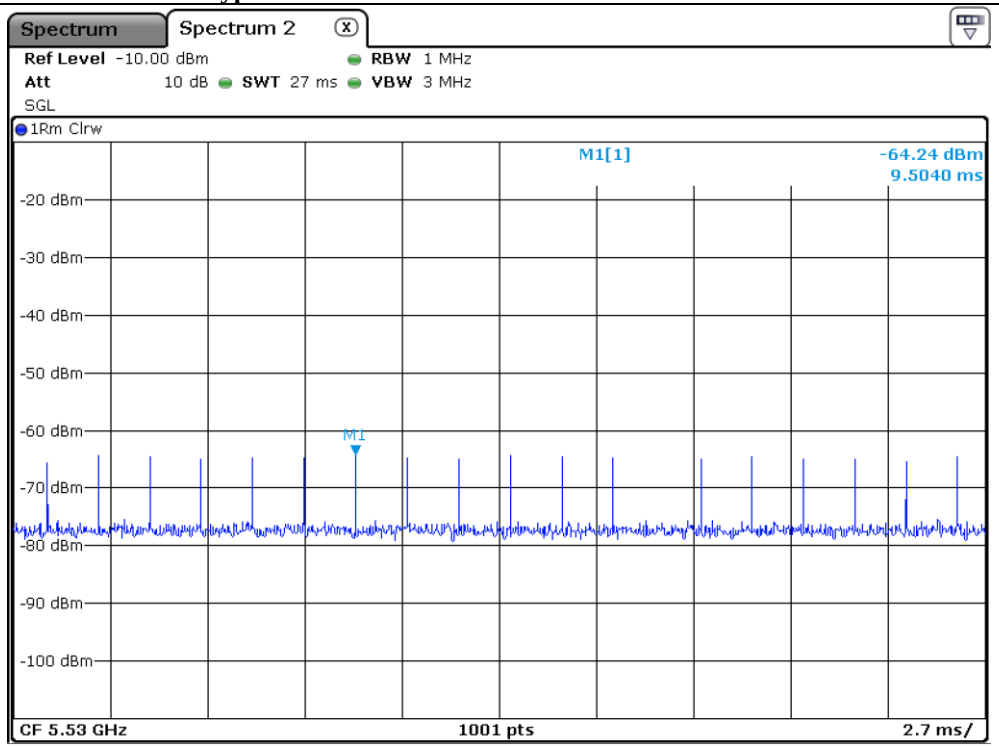


16.6.1.4 Channel move and Channel Closing transmission time



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 -64.24 dBm (-62+1+1.51= -59.49 dBm)

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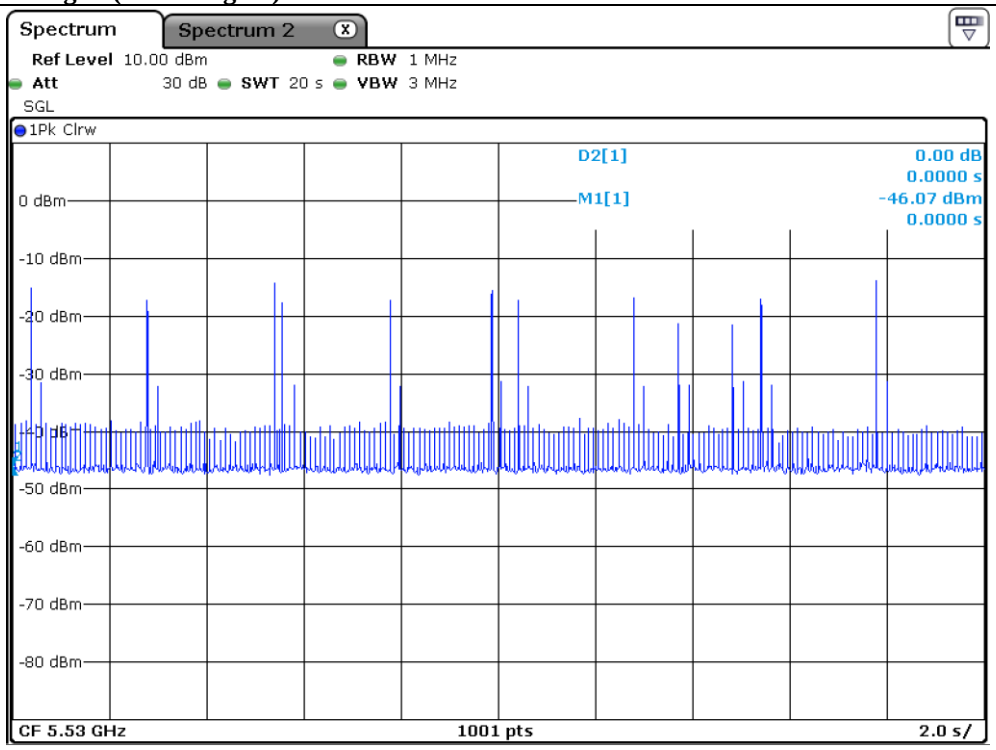
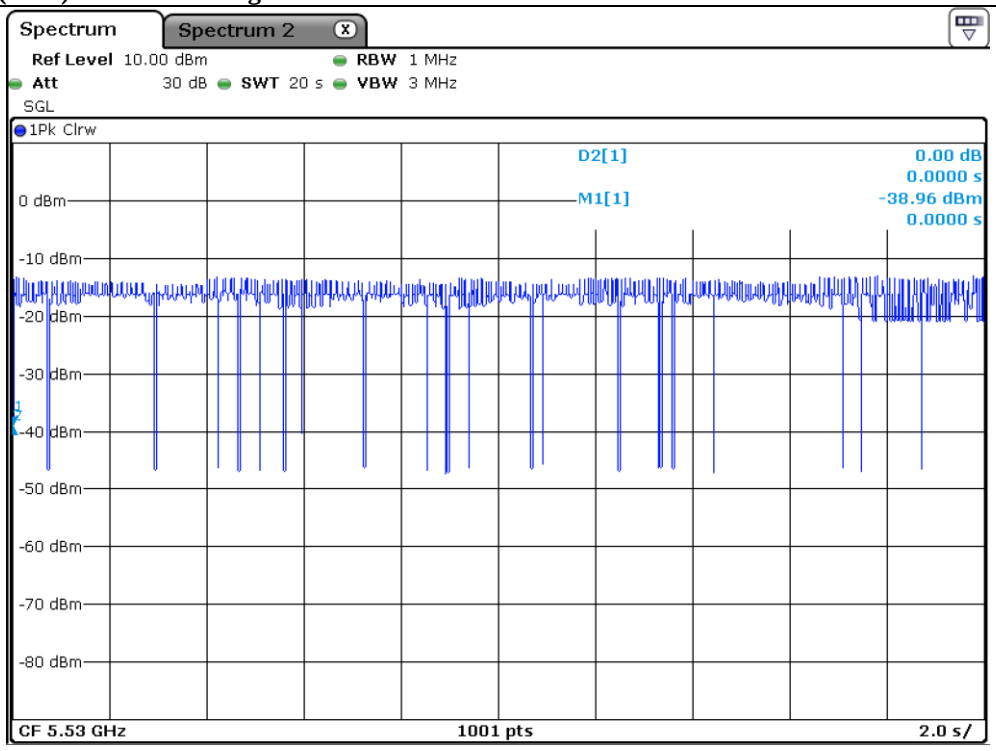
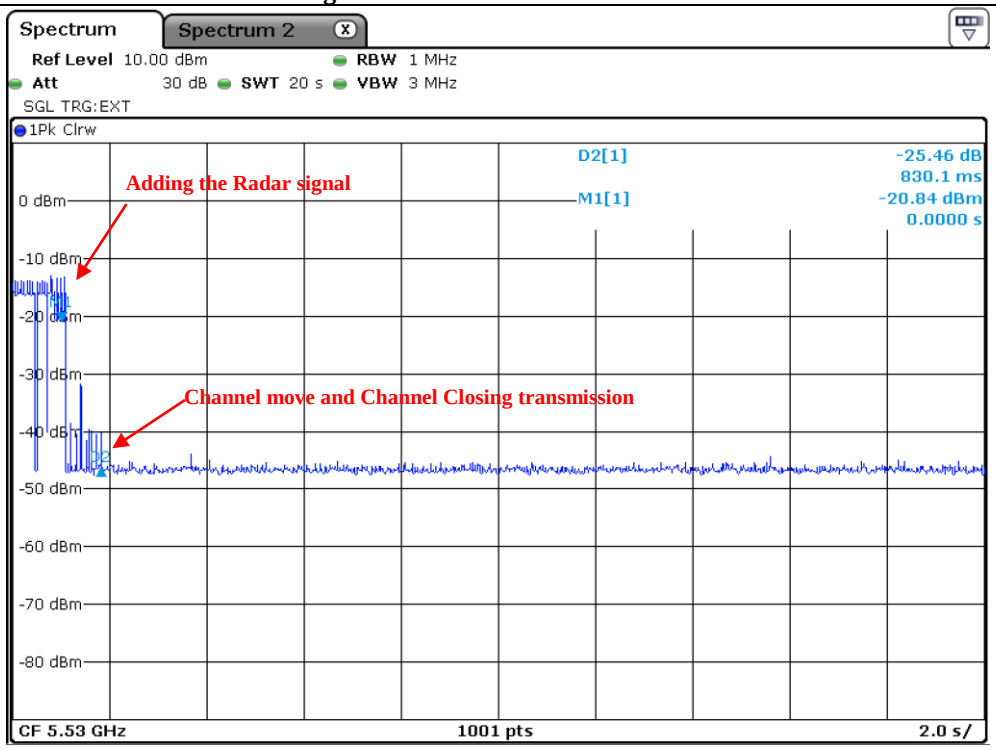
16.6.2.2 No traffic signal(master signal)



16.6.2.3 Client(EUT) Data Traffic Signal



16.6.2.4 Channel move and Channel Closing transmission time



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)
10 dB Attenuator	Rohde & Schwarz	10 dB Attenuator	14100882-3	Jul. 14, 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.