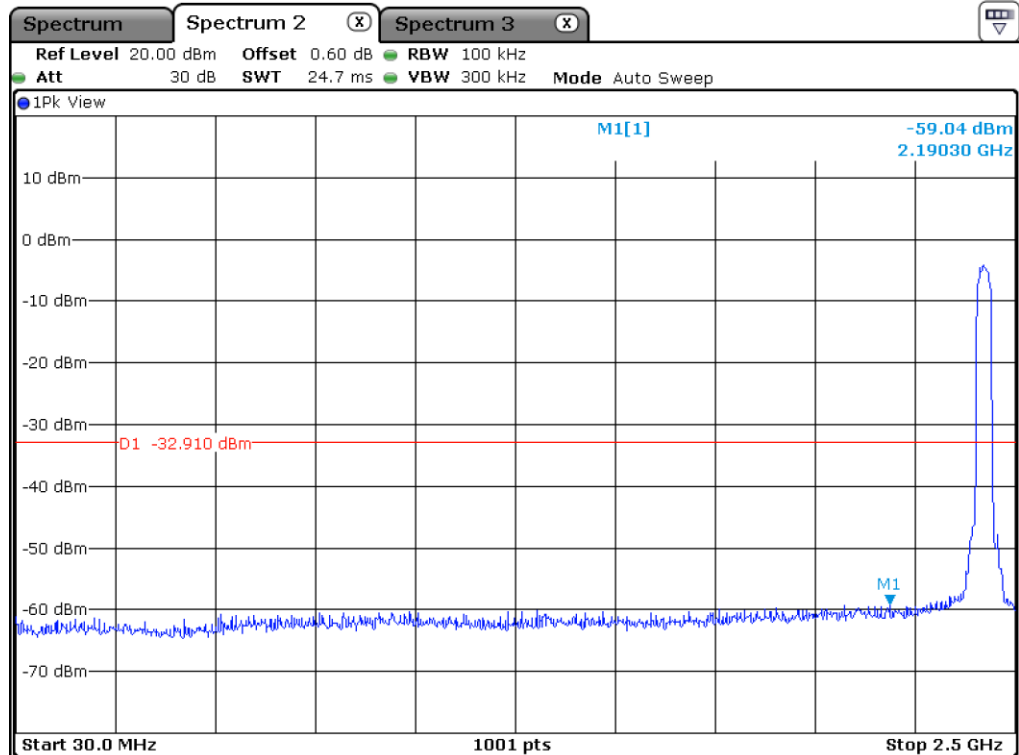
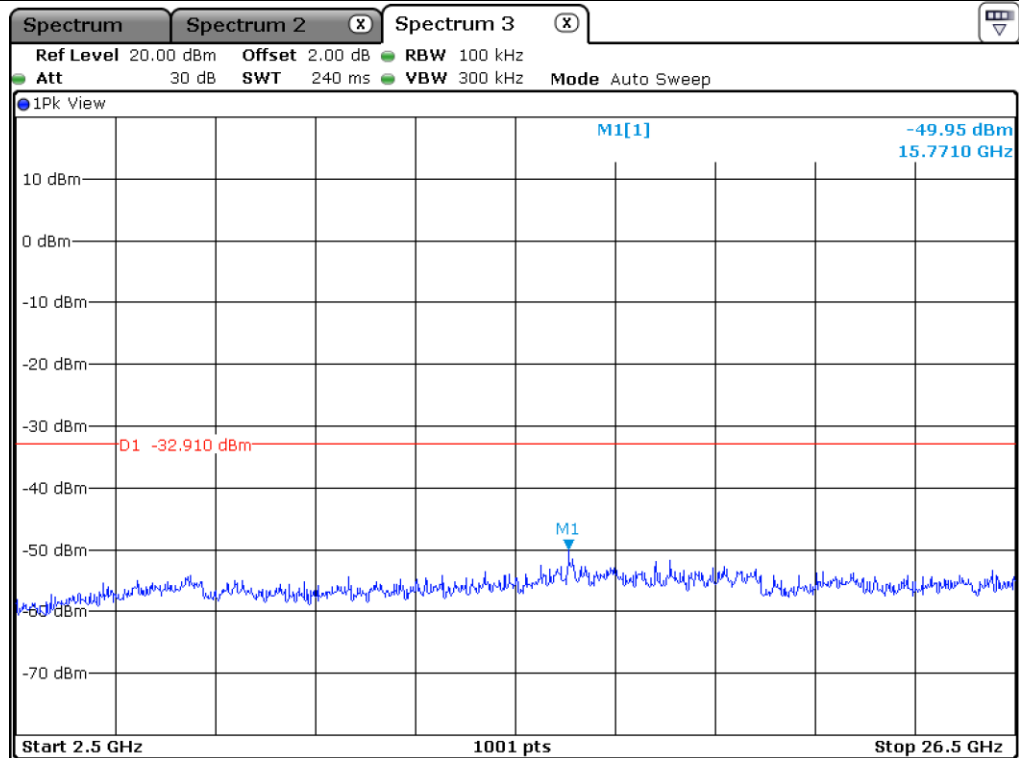




Low Channel



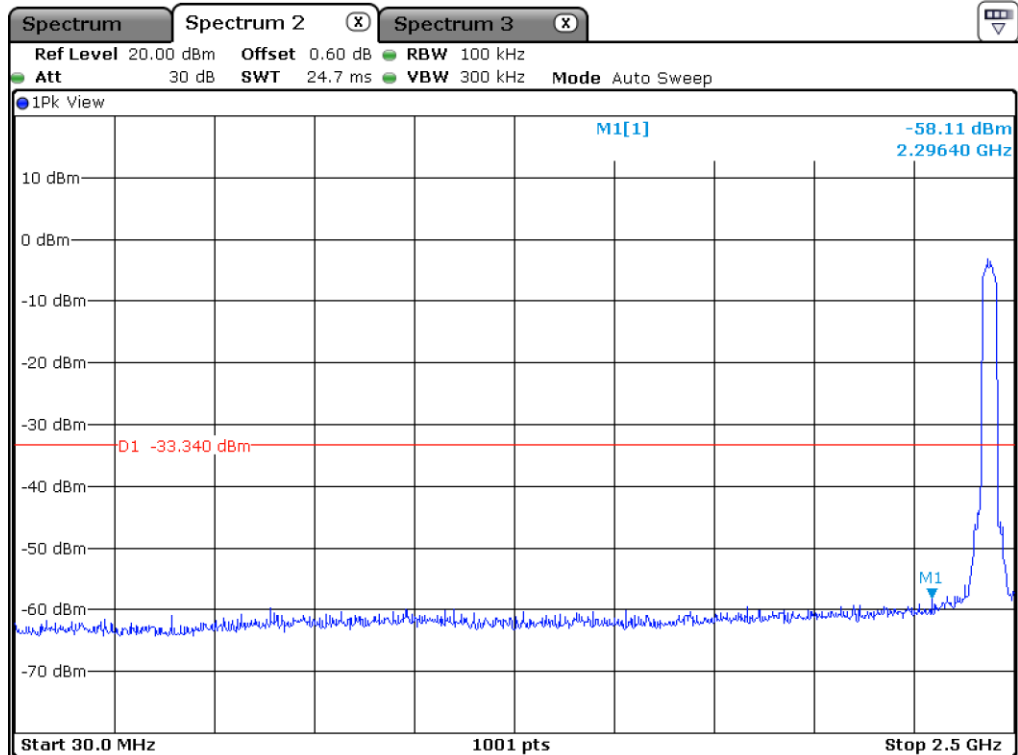
Low Channel

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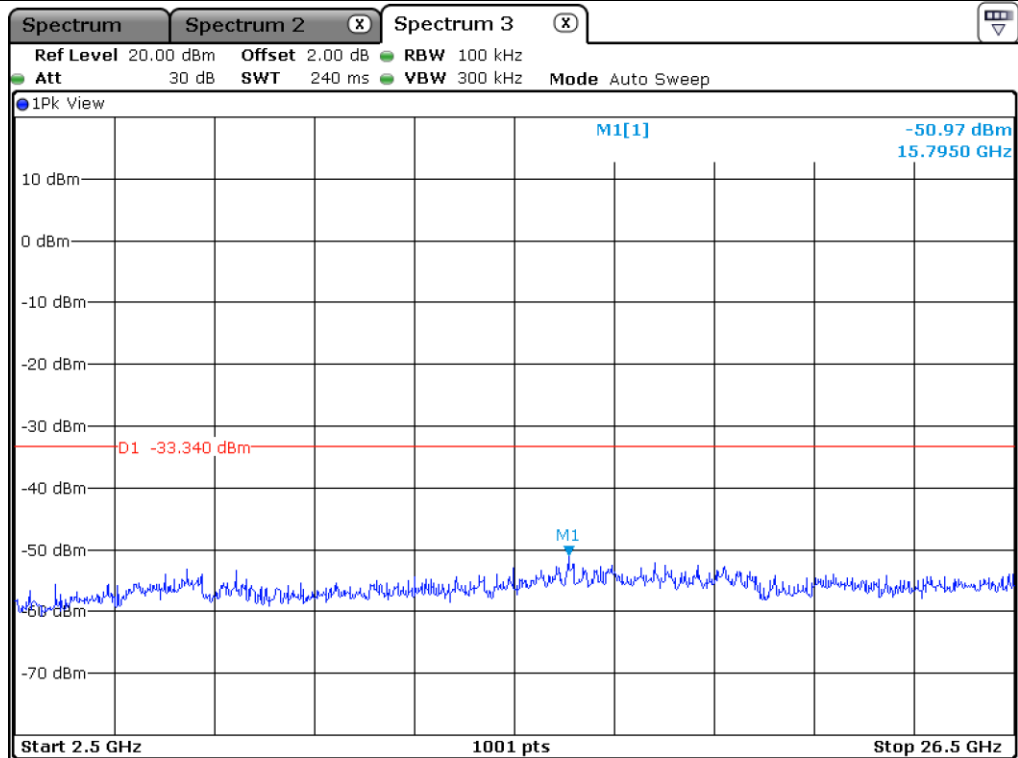
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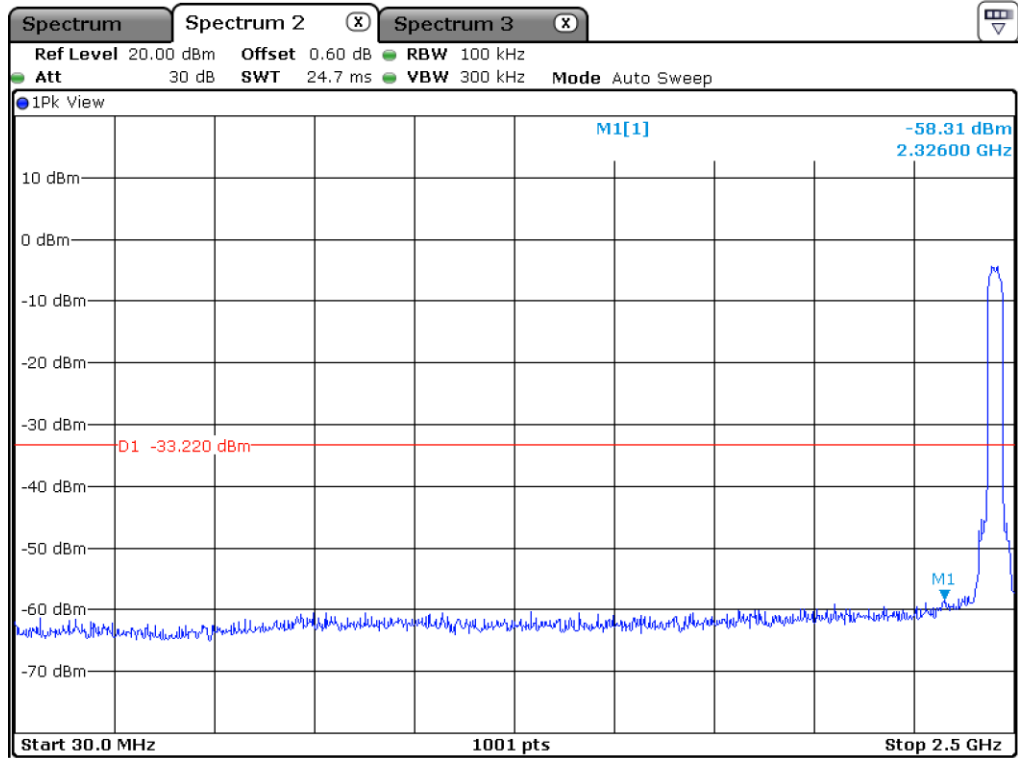
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



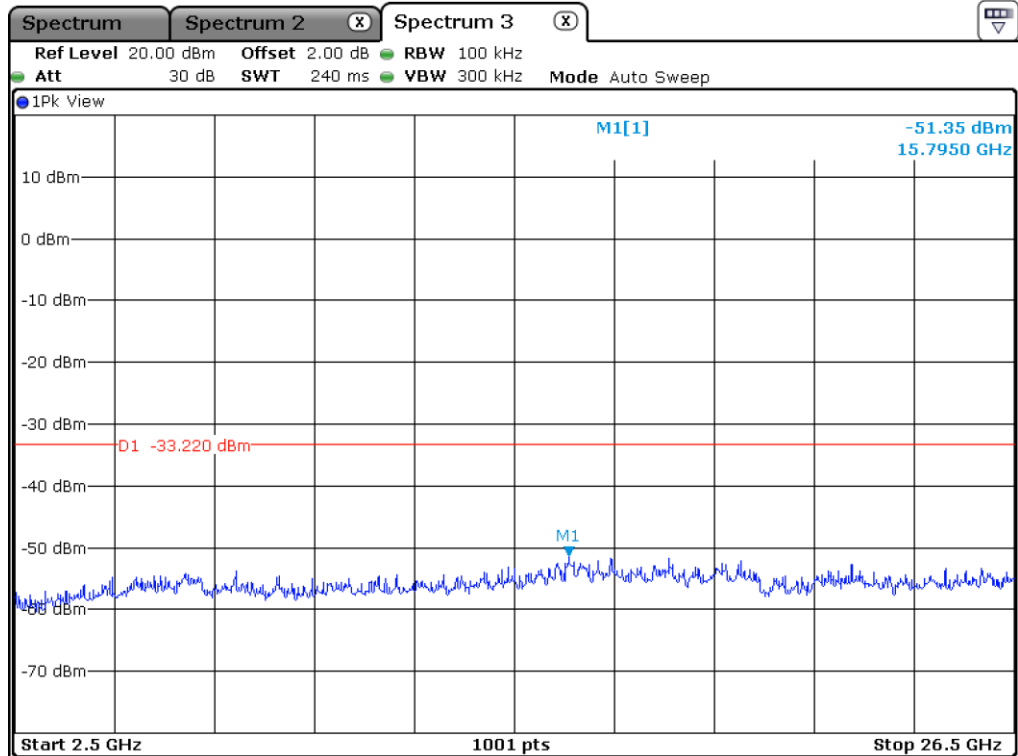
Middle Channel



Middle Channel



High Channel 9



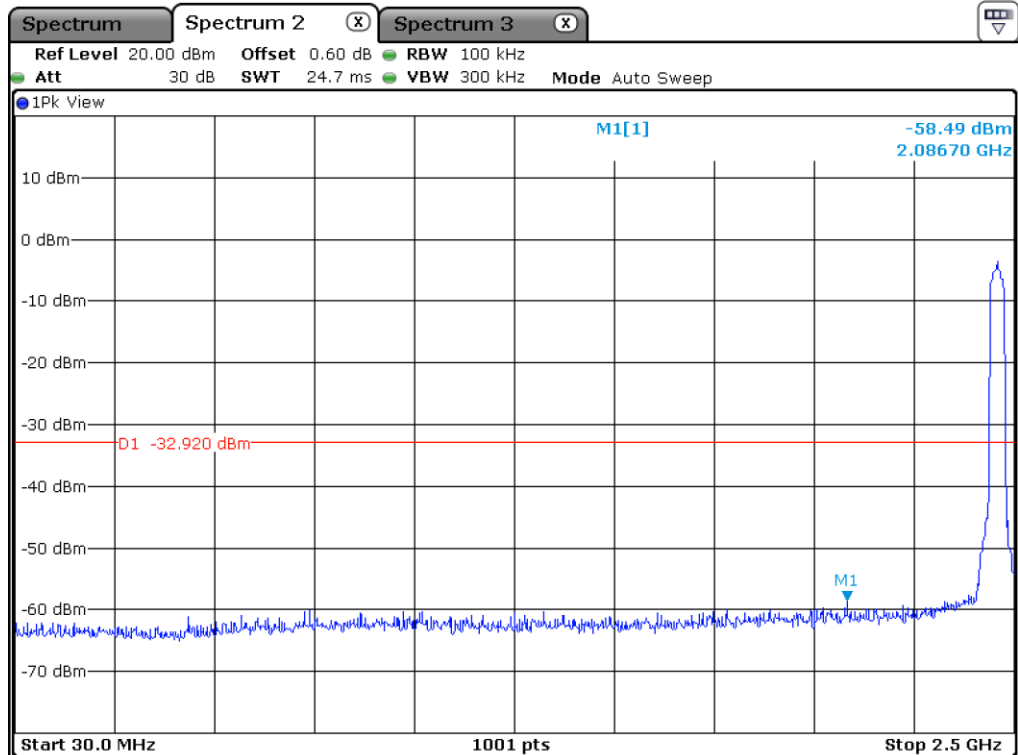
High Channel 9

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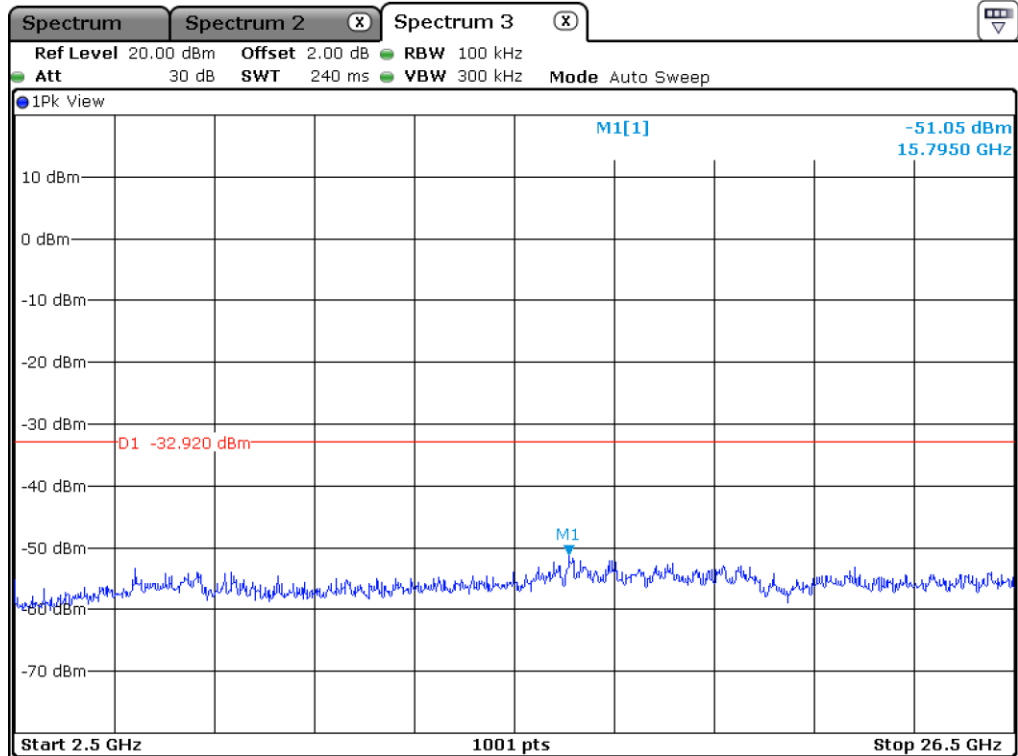
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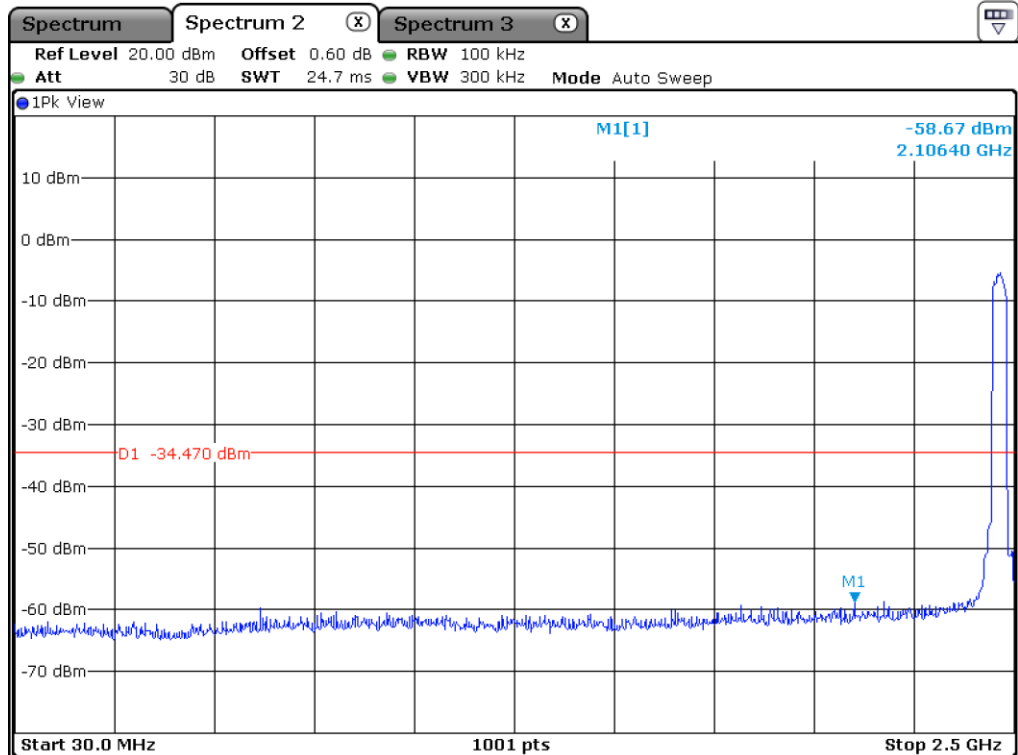
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



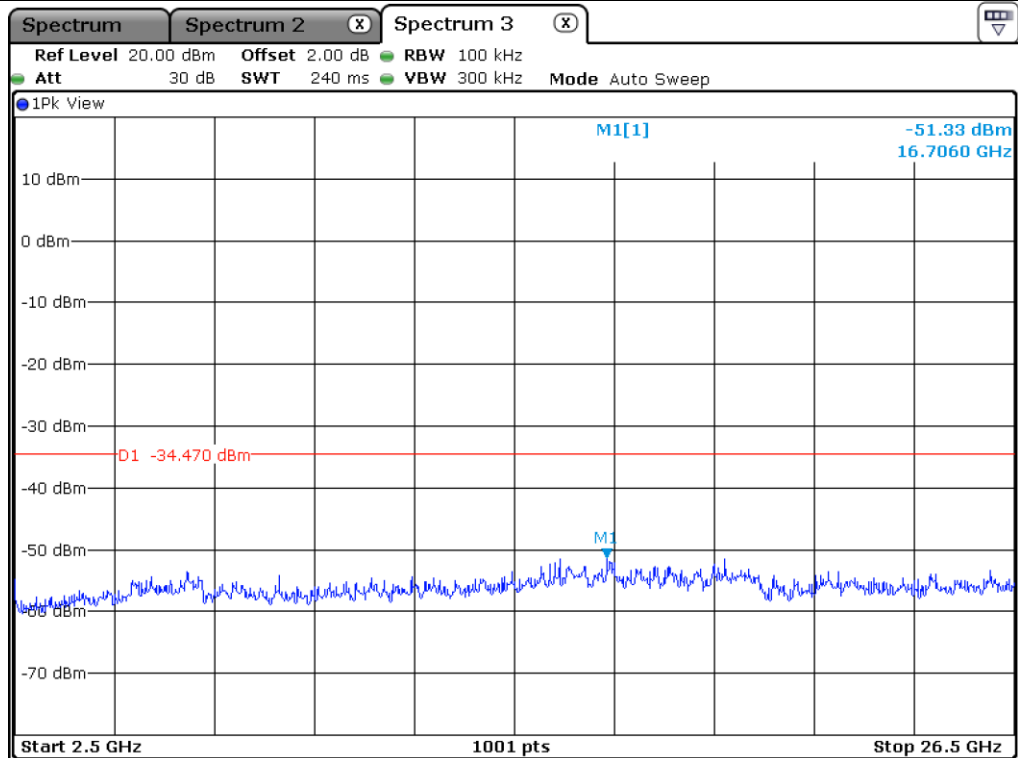
High Channel 10



High Channel 10



High Channel 11



High Channel 11

9.6 Test data for radiated emission

9.6.1 Radiated Emission which fall in the Restricted Band

9.6.1.1 Test data for 802.11b WLAN Mode

9.6.1.1.1 Test data for Antenna 0

- 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 : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	ATT Factor	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
2 362.013	51.64	Peak	H	27.50	8.20	9.93	45.79	51.48	74.00	22.52
2 386.199	42.05	Average	H	27.50	8.20	9.93	45.79	41.89	54.00	12.11
2 371.274	51.38	Peak	V	27.50	8.20	9.93	45.79	51.22	74.00	22.78
2 387.458	41.97	Average	V	27.50	8.20	9.93	45.79	41.81	54.00	12.19
Test Data for High 11 Channel										
2 489.580	51.93	Peak	H	27.30	8.33	9.95	45.79	51.72	74.00	22.28
2 489.660	42.53	Average	H	27.30	8.33	9.95	45.79	42.32	54.00	11.68
2 489.201	51.85	Peak	V	27.30	8.33	9.95	45.79	51.64	74.00	22.36
2 489.840	42.45	Average	V	27.30	8.33	9.95	45.79	42.24	54.00	11.76
Test Data for High 12 Channel										
2 483.500	57.10	Peak	H	27.30	8.33	9.95	45.79	56.89	74.00	17.11
2 483.500	49.27	Average	H	27.30	8.33	9.95	45.79	49.06	54.00	4.94
2 484.266	56.62	Peak	V	27.30	8.33	9.95	45.79	56.41	74.00	17.59
2 483.500	48.19	Average	V	27.30	8.33	9.95	45.79	47.98	54.00	6.02
Test Data for High 13 Channel										
2 484.519	56.96	Peak	H	27.30	8.33	9.95	45.79	56.75	74.00	17.25
2 484.679	50.55	Average	H	27.30	8.33	9.95	45.79	50.34	54.00	3.66
2 484.399	56.20	Peak	V	27.30	8.33	9.95	45.79	55.99	74.00	18.01
2 484.699	49.44	Average	V	27.30	8.33	9.95	45.79	49.23	54.00	4.77

Tabulated test data for Restricted Band

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

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

Total Level = Reading + Antenna Factor + Cable Loss+ATT Factor– AMP Factor

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9.6.1.1.2 Test data for Antenna 1

- 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 : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	ATT Factor	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
2 375.859	52.49	Peak	H	27.50	8.20	9.93	45.79	52.33	74.00	21.67
2 378.556	43.02	Average	H	27.50	8.20	9.93	45.79	42.86	54.00	11.14
2 387.907	52.20	Peak	V	27.50	8.20	9.93	45.79	52.04	74.00	21.96
2 388.986	43.05	Average	V	27.50	8.20	9.93	45.79	42.89	54.00	11.11
Test Data for High 11 Channel										
2 487.076	54.21	Peak	H	27.30	8.33	9.95	45.79	54.00	74.00	20.00
2 483.500	42.64	Average	H	27.30	8.33	9.95	45.79	42.43	54.00	11.57
2 486.977	52.01	Peak	V	27.30	8.33	9.95	45.79	51.80	74.00	22.20
2 483.500	42.36	Average	V	27.30	8.33	9.95	45.79	42.15	54.00	11.85
Test Data for High 12 Channel										
2 483.500	55.98	Peak	H	27.30	8.33	9.95	45.79	55.77	74.00	18.23
2 483.500	48.08	Average	H	27.30	8.33	9.95	45.79	47.87	54.00	6.13
2 483.500	55.52	Peak	V	27.30	8.33	9.95	45.79	55.31	74.00	18.69
2 483.500	47.23	Average	V	27.30	8.33	9.95	45.79	47.02	54.00	6.98
Test Data for High 13 Channel										
2 484.339	55.64	Peak	H	27.30	8.33	9.95	45.79	55.43	74.00	18.57
2 484.639	49.40	Average	H	27.30	8.33	9.95	45.79	49.19	54.00	4.81
2 484.539	55.20	Peak	V	27.30	8.33	9.95	45.79	54.99	74.00	19.01
2 484.319	48.70	Average	V	27.30	8.33	9.95	45.79	48.49	54.00	5.51

Tabulated test data for Restricted Band

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

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

Total Level = Reading + Antenna Factor + Cable Loss+ATT Factor– AMP Factor

9.6.1.2 Test data for 802.11g WLAN Mode

9.6.1.2.1 Test data for Multiple Transmit

- 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 : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	ATT Factor	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
2 388.921	53.10	Peak	H	27.50	8.20	9.93	45.79	52.94	74.00	21.06
2 390.000	43.58	Average	H	27.50	8.20	9.93	45.79	43.42	54.00	10.58
2 390.000	52.88	Peak	V	27.50	8.20	9.93	45.79	52.72	74.00	21.28
2 390.000	43.35	Average	V	27.50	8.20	9.93	45.79	43.19	54.00	10.81
Test Data for High 11 Channel										
2 491.858	53.57	Peak	H	27.30	8.33	9.95	45.79	53.36	74.00	20.64
2 484.645	43.38	Average	H	27.30	8.33	9.95	45.79	43.17	54.00	10.83
2 488.042	52.65	Peak	V	27.30	8.33	9.95	45.79	52.44	74.00	21.56
2 490.360	42.76	Average	V	27.30	8.33	9.95	45.79	42.55	54.00	11.45
Test Data for High 12 Channel										
2 483.500	58.77	Peak	H	27.30	8.33	9.95	45.79	58.56	74.00	15.44
2 483.500	47.68	Average	H	27.30	8.33	9.95	45.79	47.47	54.00	6.53
2 483.500	58.13	Peak	V	27.30	8.33	9.95	45.79	57.92	74.00	16.08
2 483.500	46.77	Average	V	27.30	8.33	9.95	45.79	46.56	54.00	7.44
Test Data for High 13 Channel										
2 483.500	60.14	Peak	H	27.30	8.33	9.95	45.79	59.93	74.00	14.07
2 485.398	48.75	Average	H	27.30	8.33	9.95	45.79	48.54	54.00	5.46
2 484.519	59.47	Peak	V	27.30	8.33	9.95	45.79	59.26	74.00	14.74
2 485.178	47.99	Average	V	27.30	8.33	9.95	45.79	47.78	54.00	6.22

Tabulated test data for Restricted Band

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

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

Total Level = Reading + Antenna Factor + Cable Loss+ATT Factor– AMP Factor

9.6.1.3 Test data for 802.11n_HT20 WLAN Mode

9.6.1.3.1 Test data for Multiple Transmit

- 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 : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	ATT Factor	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
2 390.000	54.30	Peak	H	27.50	8.20	9.93	45.79	54.14	74.00	19.86
2 390.000	44.40	Average	H	27.50	8.20	9.93	45.79	44.24	54.00	9.76
2 389.910	53.85	Peak	V	27.50	8.20	9.93	45.79	53.69	74.00	20.31
2 390.000	44.02	Average	V	27.50	8.20	9.93	45.79	43.86	54.00	10.14
Test Data for High 11 Channel										
2 483.500	55.27	Peak	H	27.30	8.33	9.95	45.79	55.06	74.00	18.94
2 483.500	45.18	Average	H	27.30	8.33	9.95	45.79	44.97	54.00	9.03
2 483.500	54.66	Peak	V	27.30	8.33	9.95	45.79	54.45	74.00	19.55
2 483.500	44.79	Average	V	27.30	8.33	9.95	45.79	44.58	54.00	9.42
Test Data for High 12 Channel										
2 484.000	60.45	Peak	H	27.30	8.33	9.95	45.79	60.24	74.00	13.76
2 483.500	49.58	Average	H	27.30	8.33	9.95	45.79	49.37	54.00	4.63
2 483.500	59.22	Peak	V	27.30	8.33	9.95	45.79	59.01	74.00	14.99
2 483.500	48.32	Average	V	27.30	8.33	9.95	45.79	48.11	54.00	5.89
Test Data for High 13 Channel										
2 483.500	62.82	Peak	H	27.30	8.33	9.95	45.79	62.61	74.00	11.39
2 483.500	49.39	Average	H	27.30	8.33	9.95	45.79	49.18	54.00	4.82
2 483.500	60.47	Peak	V	27.30	8.33	9.95	45.79	60.26	74.00	13.74
2 483.500	47.72	Average	V	27.30	8.33	9.95	45.79	47.51	54.00	6.49

Tabulated test data for Restricted Band

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

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

Total Level = Reading + Antenna Factor + Cable Loss+ATT Factor– AMP Factor

9.6.1.4 Test data for 802.11n_HT40 WLAN Mode

9.6.1.4.1 Test data for Multiple Transmit

- 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 : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	ATT Factor	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel										
2 390.000	56.02	Peak	H	27.50	8.20	9.93	45.79	55.86	74.00	18.14
2 390.000	47.11	Average	H	27.50	8.20	9.93	45.79	46.95	54.00	7.05
2 390.000	55.36	Peak	V	27.50	8.20	9.93	45.79	55.20	74.00	18.80
2 390.000	46.39	Average	V	27.50	8.20	9.93	45.79	46.23	54.00	7.77
Test Data for High 11 Channel										
2 483.766	58.34	Peak	H	27.30	8.33	9.95	45.79	58.13	74.00	15.87
2 485.178	46.51	Average	H	27.30	8.33	9.95	45.79	46.30	54.00	7.70
2 485.025	57.48	Peak	V	27.30	8.33	9.95	45.79	57.27	74.00	16.73
2 485.258	46.25	Average	V	27.30	8.33	9.95	45.79	46.04	54.00	7.96
Test Data for High 12 Channel										
2 483.926	59.18	Peak	H	27.30	8.33	9.95	45.79	58.97	74.00	15.03
2 483.500	48.09	Average	H	27.30	8.33	9.95	45.79	47.88	54.00	6.12
2 484.645	59.07	Peak	V	27.30	8.33	9.95	45.79	58.86	74.00	15.14
2 483.500	47.58	Average	V	27.30	8.33	9.95	45.79	47.37	54.00	6.63
Test Data for High 13 Channel										
2 483.500	61.17	Peak	H	27.30	8.33	9.95	45.79	60.96	74.00	13.04
2 483.500	49.71	Average	H	27.30	8.33	9.95	45.79	49.50	54.00	4.50
2 483.500	59.90	Peak	V	27.30	8.33	9.95	45.79	59.69	74.00	14.31
2 483.500	48.01	Average	V	27.30	8.33	9.95	45.79	47.80	54.00	6.20

Tabulated test data for Restricted Band

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

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

Total Level = Reading + Antenna Factor + Cable Loss+ATT Factor– AMP Factor

9.6.2 Spurious & Harmonic Radiated Emission

9.6.2.1 Test data for 802.11b WLAN Mode

9.6.2.1.1 Test data for Antenna 0

- 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 ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
4 824.00	51.68	Peak	H	31.10	11.21	45.03	48.96	74.00	25.04
4 824.00	46.52	Average	H	31.10	11.21	45.03	43.80	54.00	10.20
4 824.00	50.53	Peak	V	31.10	11.21	45.03	47.81	74.00	26.19
4 824.00	45.10	Average	V	31.10	11.21	45.03	42.38	54.00	11.62
Test Data for Middle Channel									
4 874.00	52.36	Peak	H	31.10	11.23	45.03	49.66	74.00	24.34
4 874.00	46.39	Average	H	31.10	11.23	45.03	43.69	54.00	10.31
4 874.00	51.10	Peak	V	31.10	11.23	45.03	48.40	74.00	25.60
4 874.00	45.14	Average	V	31.10	11.23	45.03	42.44	54.00	11.56

Test Data for High 11 Channel									
4 924.00	52.71	Peak	H	31.10	11.25	45.03	50.03	74.00	23.97
4 924.00	47.47	Average	H	31.10	11.25	45.03	44.79	54.00	9.21
4 924.00	50.95	Peak	V	31.10	11.25	45.03	48.27	74.00	25.73
4 924.00	46.04	Average	V	31.10	11.25	45.03	43.36	54.00	10.64
Test Data for High 12 Channel									
4 934.00	50.27	Peak	H	31.10	11.26	45.03	47.60	74.00	26.40
4 934.00	43.66	Average	H	31.10	11.26	45.03	40.99	54.00	13.01
4 934.00	49.89	Peak	V	31.10	11.26	45.03	47.22	74.00	26.78
4 934.00	42.74	Average	V	31.10	11.26	45.03	40.07	54.00	13.93
Test Data for High 13 Channel									
4 944.00	49.82	Peak	H	31.20	11.31	45.03	47.30	74.00	26.70
4 944.00	41.74	Average	H	31.20	11.31	45.03	39.22	54.00	14.78
4 944.00	49.68	Peak	V	31.20	11.31	45.03	47.16	74.00	26.84
4 944.00	40.94	Average	V	31.20	11.31	45.03	38.42	54.00	15.58

Tabulated test data for Restricted Band

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

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

Total Level = Reading + Antenna Factor – AMP Factor + Cable Loss

9.6.2.1.2 Test data for Antenna 1

- 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 ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
4 824.00	50.63	Peak	H	31.10	11.21	45.03	47.91	74.00	26.09
4 824.00	44.63	Average	H	31.10	11.21	45.03	41.91	54.00	12.09
4 824.00	49.61	Peak	V	31.10	11.21	45.03	46.89	74.00	27.11
4 824.00	42.98	Average	V	31.10	11.21	45.03	40.26	54.00	13.74
Test Data for Middle Channel									
4 874.00	50.20	Peak	H	31.10	11.23	45.03	47.50	74.00	26.50
4 874.00	43.50	Average	H	31.10	11.23	45.03	40.80	54.00	13.20
4 874.00	49.80	Peak	V	31.10	11.23	45.03	47.10	74.00	26.90
4 874.00	42.61	Average	V	31.10	11.23	45.03	39.91	54.00	14.09

Test Data for High 11 Channel									
4 924.00	50.47	Peak	H	31.10	11.25	45.03	47.79	74.00	26.21
4 924.00	44.09	Average	H	31.10	11.25	45.03	41.41	54.00	12.59
4 924.00	50.01	Peak	V	31.10	11.25	45.03	47.33	74.00	26.67
4 924.00	42.88	Average	V	31.10	11.25	45.03	40.20	54.00	13.80
Test Data for High 12 Channel									
4 934.00	49.07	Peak	H	31.10	11.26	45.03	46.40	74.00	27.60
4 934.00	40.69	Average	H	31.10	11.26	45.03	38.02	54.00	15.98
4 934.00	49.01	Peak	V	31.10	11.26	45.03	46.34	74.00	27.66
4 934.00	39.97	Average	V	31.10	11.26	45.03	37.30	54.00	16.70
Test Data for High 13 Channel									
4 944.00	49.61	Peak	H	31.20	11.31	45.03	47.09	74.00	26.91
4 944.00	40.14	Average	H	31.20	11.31	45.03	37.62	54.00	16.38
4 944.00	49.54	Peak	V	31.20	11.31	45.03	47.02	74.00	26.98
4 944.00	39.94	Average	V	31.20	11.31	45.03	37.42	54.00	16.58

Tabulated test data for Restricted Band

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

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

Total Level = Reading + Antenna Factor – AMP Factor + Cable Loss

9.6.2.2 Test data for 802.11g WLAN Mode

9.6.2.2.1 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 ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
4 824.00	49.68	Peak	H	31.10	11.21	45.03	46.96	74.00	27.04
4 824.00	40.31	Average	H	31.10	11.21	45.03	37.59	54.00	16.41
4 824.00	49.05	Peak	V	31.10	11.21	45.03	46.33	74.00	27.67
4 824.00	40.24	Average	V	31.10	11.21	45.03	37.52	54.00	16.48
Test Data for Middle Channel									
4 874.00	49.49	Peak	H	31.10	11.23	45.03	46.79	74.00	27.21
4 874.00	40.27	Average	H	31.10	11.23	45.03	37.57	54.00	16.43
4 874.00	49.24	Peak	V	31.10	11.23	45.03	46.54	74.00	27.46
4 874.00	40.24	Average	V	31.10	11.23	45.03	37.54	54.00	16.46

Test Data for High 11 Channel									
4 924.00	49.13	Peak	H	31.10	11.25	45.03	46.45	74.00	27.55
4 924.00	40.27	Average	H	31.10	11.25	45.03	37.59	54.00	16.41
4 924.00	49.77	Peak	V	31.10	11.25	45.03	47.09	74.00	26.91
4 924.00	40.26	Average	V	31.10	11.25	45.03	37.58	54.00	16.42
Test Data for High 12 Channel									
4 934.00	49.35	Peak	H	31.10	11.26	45.03	46.68	74.00	27.32
4 934.00	40.30	Average	H	31.10	11.26	45.03	37.63	54.00	16.37
4 934.00	49.44	Peak	V	31.10	11.26	45.03	46.77	74.00	27.23
4 934.00	40.18	Average	V	31.10	11.26	45.03	37.51	54.00	16.49
Test Data for High 13 Channel									
4 944.00	49.46	Peak	H	31.20	11.31	45.03	46.94	74.00	27.06
4 944.00	40.12	Average	H	31.20	11.31	45.03	37.60	54.00	16.40
4 944.00	49.49	Peak	V	31.20	11.31	45.03	46.97	74.00	27.03
4 944.00	40.24	Average	V	31.20	11.31	45.03	37.72	54.00	16.28

Tabulated test data for Restricted Band

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

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

Total Level = Reading + Antenna Factor – AMP Factor + Cable Loss

9.6.2.3 Test data for 802.11n_HT20 WLAN Mode

9.6.2.3.1 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 ~ 26.5 GHz
- . Measurement distance : 3 m
- . Duty Cycle : > 98 %
- . Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
4 824.00	49.67	Peak	H	31.10	11.21	45.03	46.95	74.00	27.05
4 824.00	40.23	Average	H	31.10	11.21	45.03	37.51	54.00	16.49
4 824.00	49.20	Peak	V	31.10	11.21	45.03	46.48	74.00	27.52
4 824.00	40.30	Average	V	31.10	11.21	45.03	37.58	54.00	16.42
Test Data for Middle Channel									
4 874.00	49.80	Peak	H	31.10	11.23	45.03	47.10	74.00	26.90
4 874.00	40.40	Average	H	31.10	11.23	45.03	37.70	54.00	16.30
4 874.00	49.47	Peak	V	31.10	11.23	45.03	46.77	74.00	27.23
4 874.00	40.16	Average	V	31.10	11.23	45.03	37.46	54.00	16.54

Test Data for High 11 Channel									
4 924.00	49.80	Peak	H	31.10	11.25	45.03	47.12	74.00	26.88
4 924.00	40.22	Average	H	31.10	11.25	45.03	37.54	54.00	16.46
4 924.00	49.12	Peak	V	31.10	11.25	45.03	46.44	74.00	27.56
4 924.00	40.29	Average	V	31.10	11.25	45.03	37.61	54.00	16.39
Test Data for High 12 Channel									
4 934.00	49.78	Peak	H	31.10	11.26	45.03	47.11	74.00	26.89
4 934.00	40.10	Average	H	31.10	11.26	45.03	37.43	54.00	16.57
4 934.00	49.63	Peak	V	31.10	11.26	45.03	46.96	74.00	27.04
4 934.00	40.25	Average	V	31.10	11.26	45.03	37.58	54.00	16.42
Test Data for High 13 Channel									
4 944.00	49.73	Peak	H	31.20	11.31	45.03	47.21	74.00	26.79
4 944.00	40.13	Average	H	31.20	11.31	45.03	37.61	54.00	16.39
4 944.00	49.24	Peak	V	31.20	11.31	45.03	46.72	74.00	27.28
4 944.00	40.12	Average	V	31.20	11.31	45.03	37.60	54.00	16.40

Tabulated test data for Restricted Band

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

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

Total Level = Reading + Antenna Factor -AMP Factor + Cable Loss

9.6.2.4 Test data for 802.11n_HT40 WLAN Mode

9.6.2.4.1 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 ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	AMP Factor	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
4 844.00	49.88	Peak	H	31.10	11.21	45.03	47.16	74.00	26.84
4 844.00	40.38	Average	H	31.10	11.21	45.03	37.66	54.00	16.34
4 844.00	49.91	Peak	V	31.10	11.21	45.03	47.19	74.00	26.81
4 844.00	40.39	Average	V	31.10	11.21	45.03	37.67	54.00	16.33
Test Data for Middle Channel									
4 874.00	49.78	Peak	H	31.10	11.23	45.03	47.08	74.00	26.92
4 874.00	40.38	Average	H	31.10	11.23	45.03	37.68	54.00	16.32
4 874.00	49.45	Peak	V	31.10	11.23	45.03	46.75	74.00	27.25
4 874.00	40.21	Average	V	31.10	11.23	45.03	37.51	54.00	16.49

Test Data for High 9 Channel									
4 904.00	49.56	Peak	H	31.10	11.25	45.03	46.88	74.00	27.12
4 904.00	40.28	Average	H	31.10	11.25	45.03	37.60	54.00	16.40
4 904.00	49.24	Peak	V	31.10	11.25	45.03	46.56	74.00	27.44
4 904.00	40.20	Average	V	31.10	11.25	45.03	37.52	54.00	16.48
Test Data for High 10 Channel									
4 914.00	49.64	Peak	H	31.10	11.26	45.03	46.97	74.00	27.03
4 914.00	40.09	Average	H	31.10	11.26	45.03	37.42	54.00	16.58
4 914.00	49.68	Peak	V	31.10	11.26	45.03	47.01	74.00	26.99
4 914.00	40.12	Average	V	31.10	11.26	45.03	37.45	54.00	16.55
Test Data for High 11 Channel									
4 924.00	49.18	Peak	H	31.20	11.31	45.03	46.66	74.00	27.34
4 924.00	40.23	Average	H	31.20	11.31	45.03	37.71	54.00	16.29
4 924.00	49.35	Peak	V	31.20	11.31	45.03	46.83	74.00	27.17
4 924.00	40.16	Average	V	31.20	11.31	45.03	37.64	54.00	16.36

Tabulated test data for Restricted Band

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

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

Total Level = Reading + Antenna Factor -AMP Factor + Cable Loss

10. PEAK POWER SPECTRUL DENSITY

10.1 Operating environment

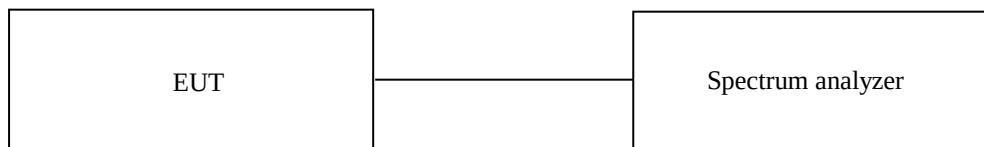
Temperature : 23 ° C

Relative humidity : 45 % R.H.

10.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer.

The resolution bandwidth is set to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$, the video bandwidth is set to 3 times the resolution bandwidth.



10.3 Test Date

October 07, 2021 ~ October 20, 2021

10.4 Test data for 802.11b WLAN Mode

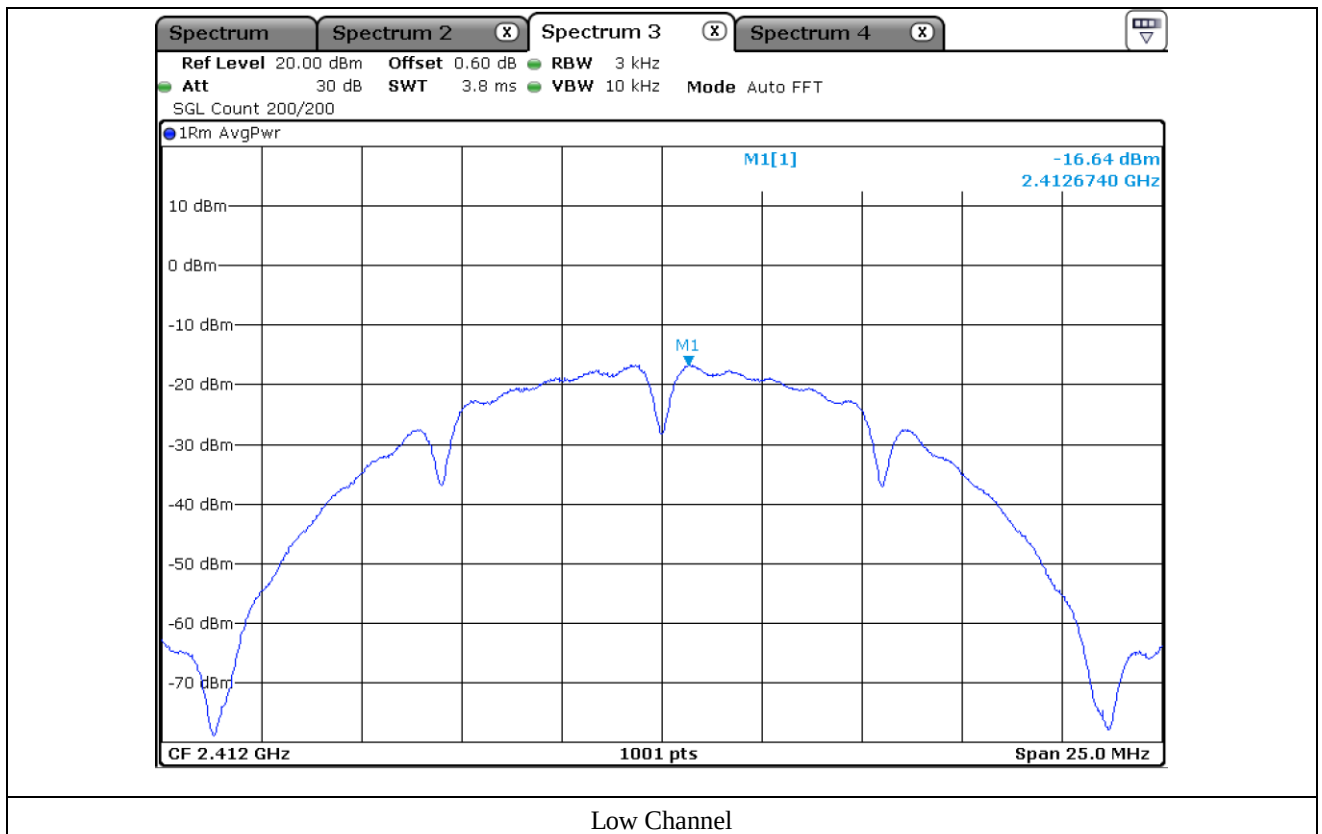
10.4.1 Test data for Antenna 0

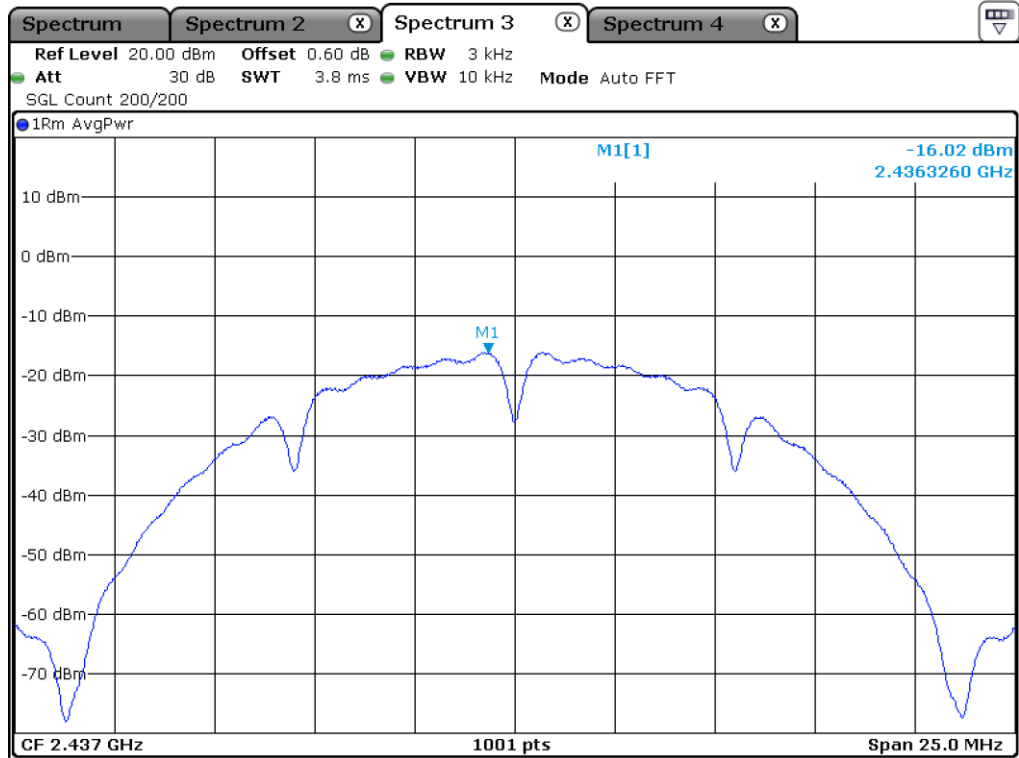
-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

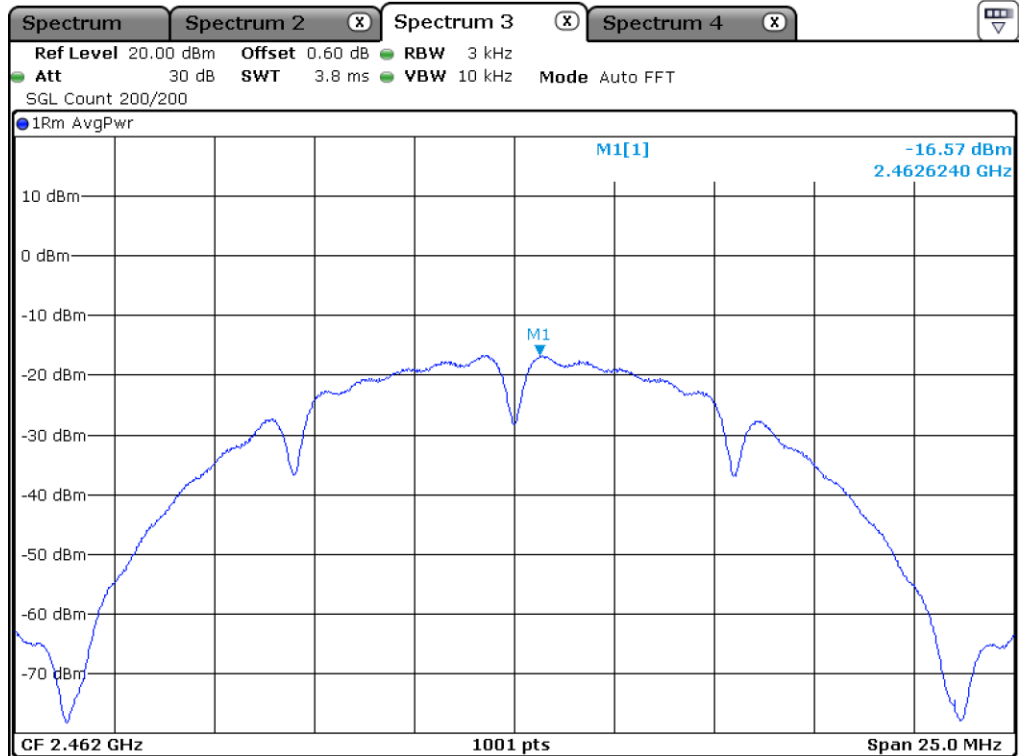
CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-16.64	8.00	24.64
Middle	2 437.00	-16.02	8.00	24.02
High 11	2 462.00	-16.57	8.00	24.57
High 12	2 467.00	-17.45	8.00	25.45
High 13	2 472.00	-19.48	8.00	27.48

Remark. Margin = Limit – Measured value

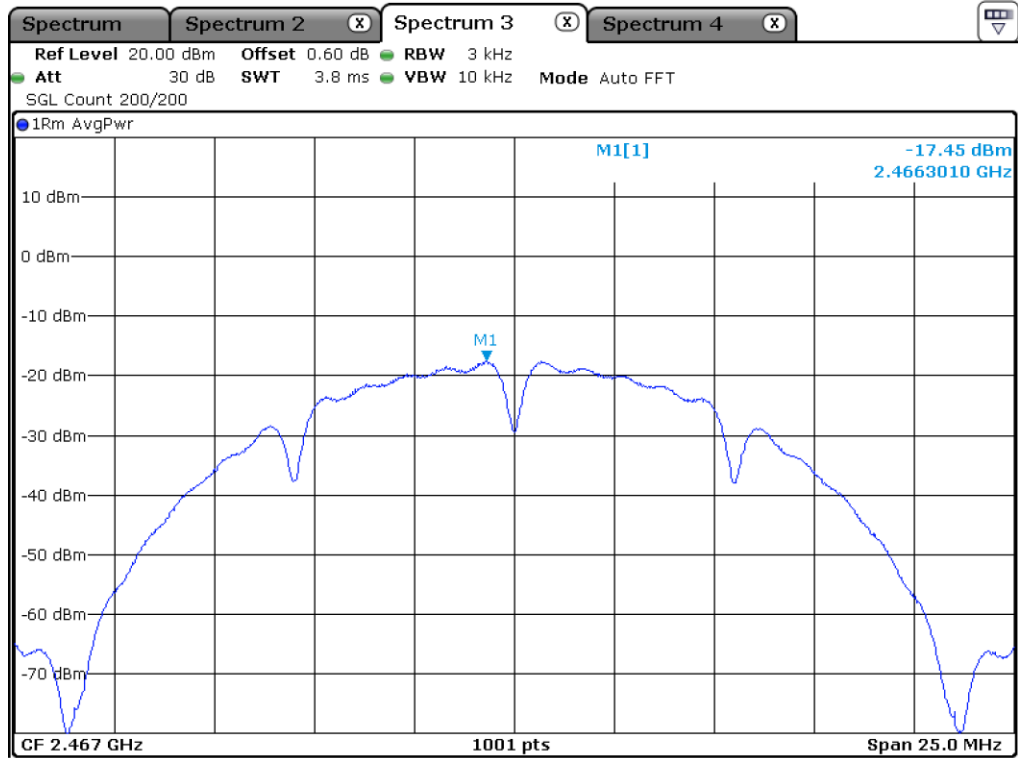




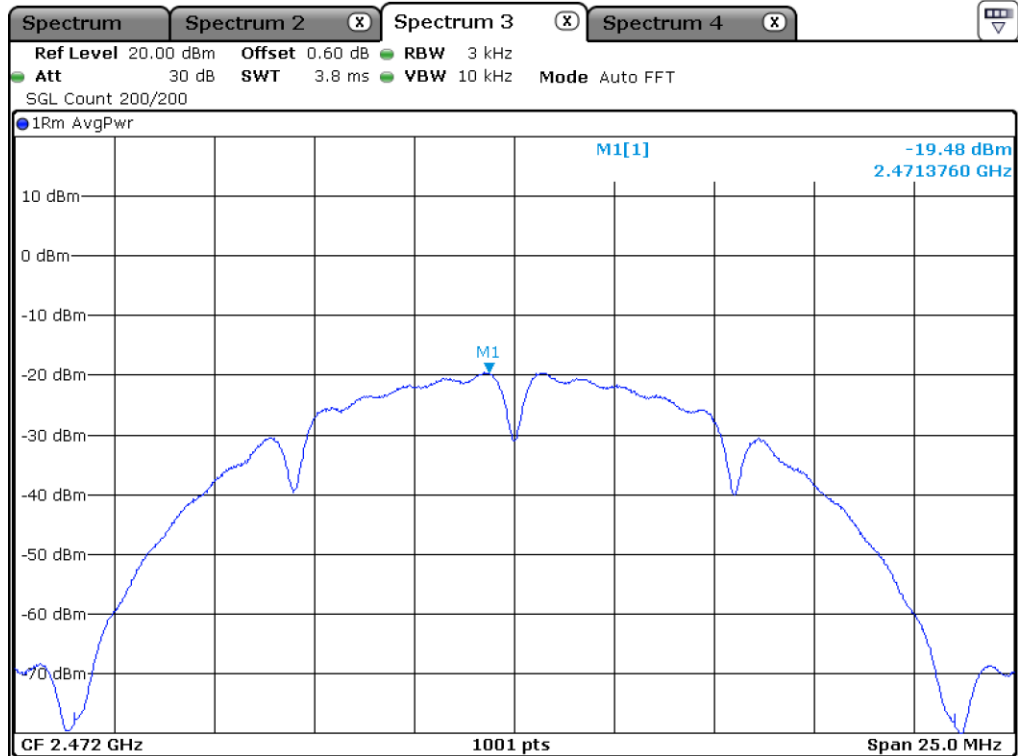
Middle Channel



High Channel 11



High Channel 12



High Channel 13

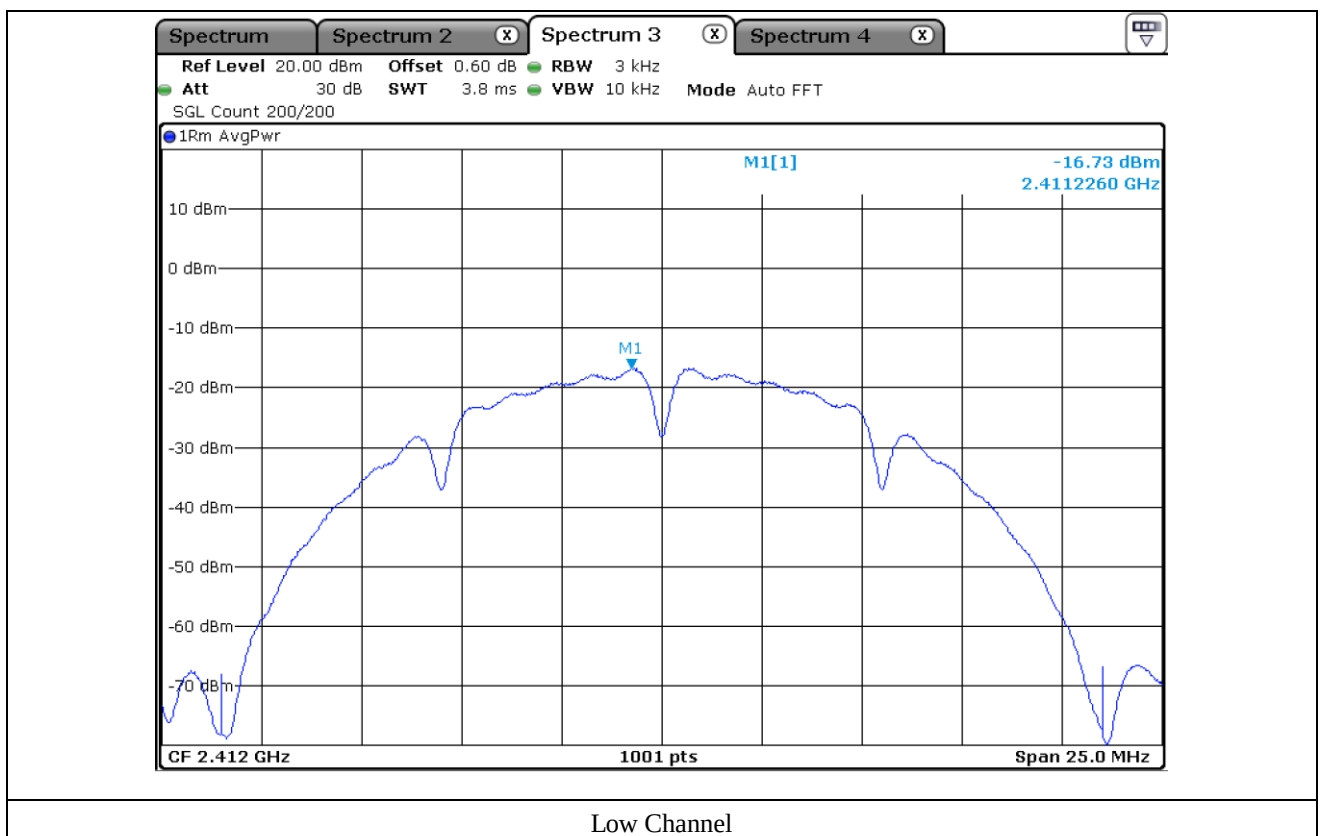
10.4.2 Test data for Antenna 1

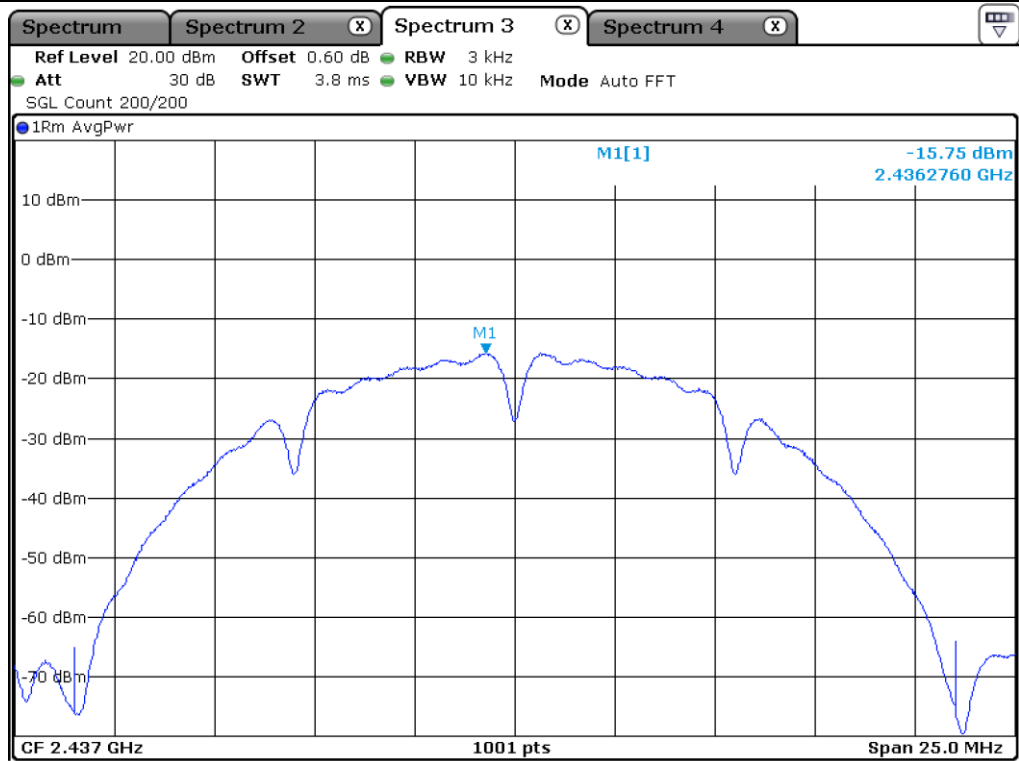
-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

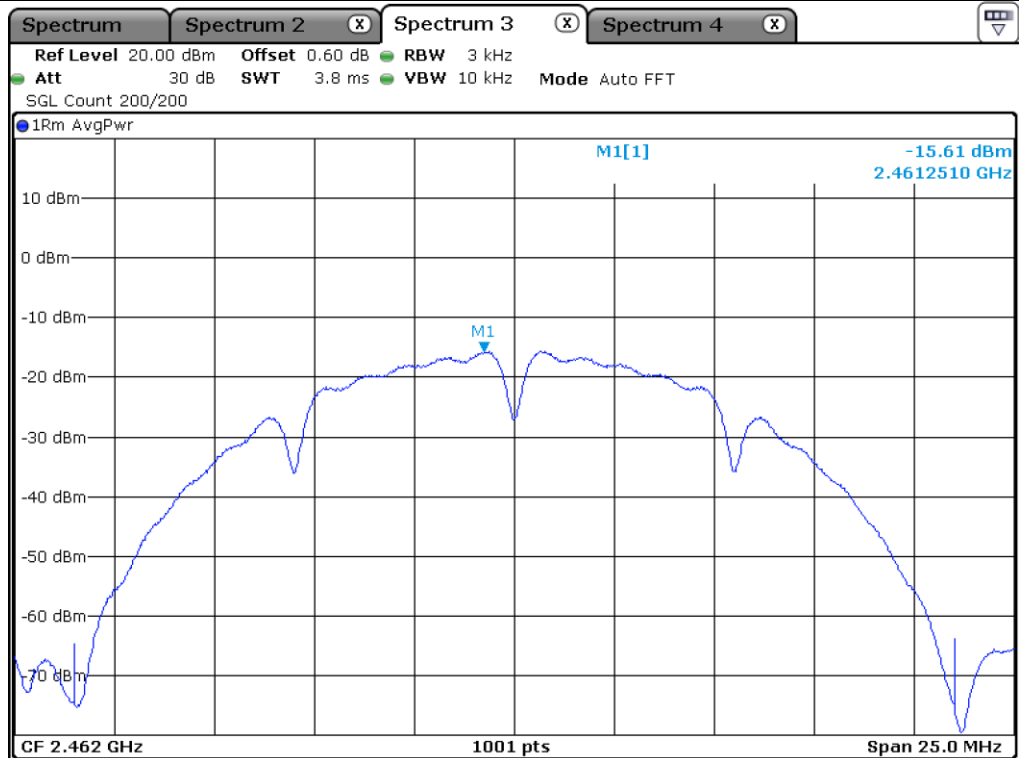
CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-16.73	8.00	24.73
Middle	2 437.00	-15.75	8.00	23.75
High 11	2 462.00	-15.61	8.00	23.61
High 12	2 467.00	-15.59	8.00	23.59
High 13	2 472.00	-18.35	8.00	26.35

Remark. Margin = Limit – Measured value

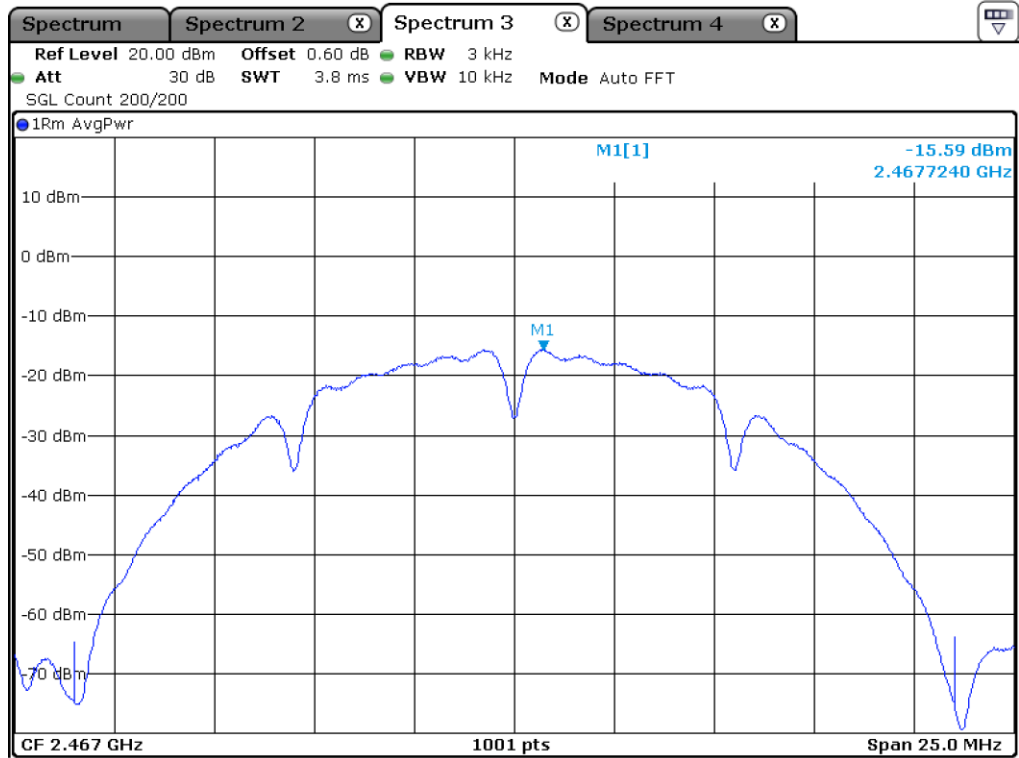




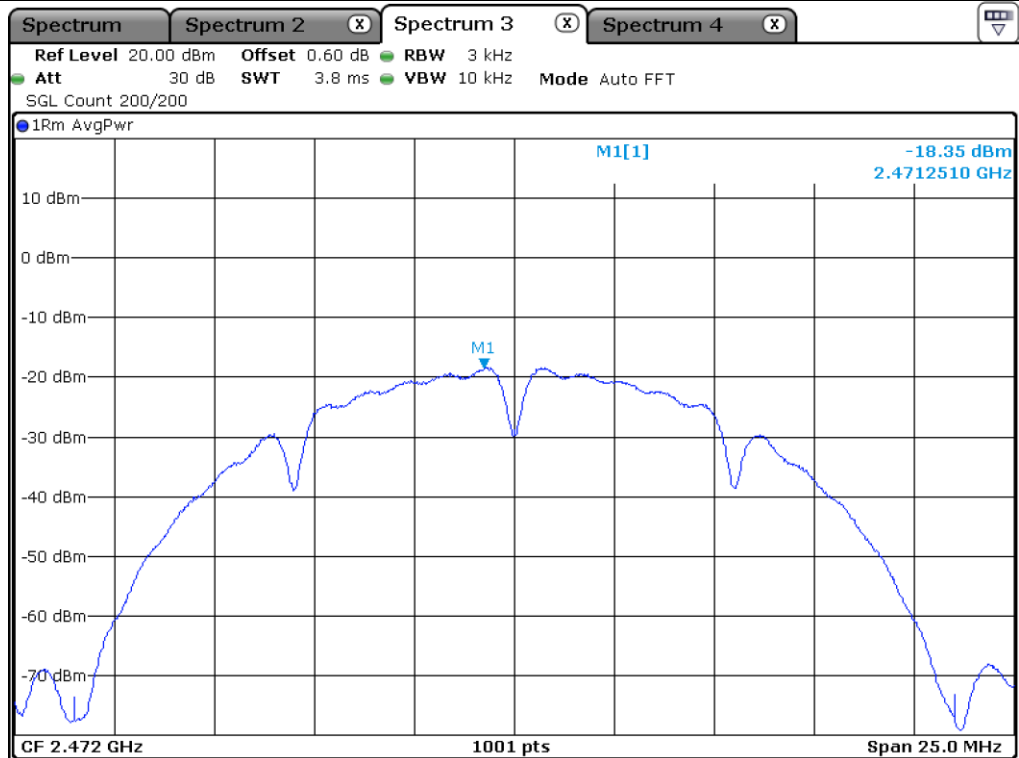
Middle Channel



High Channel 11



High Channel 12



High Channel 13

10.5 Test data for 802.11g WLAN Mode

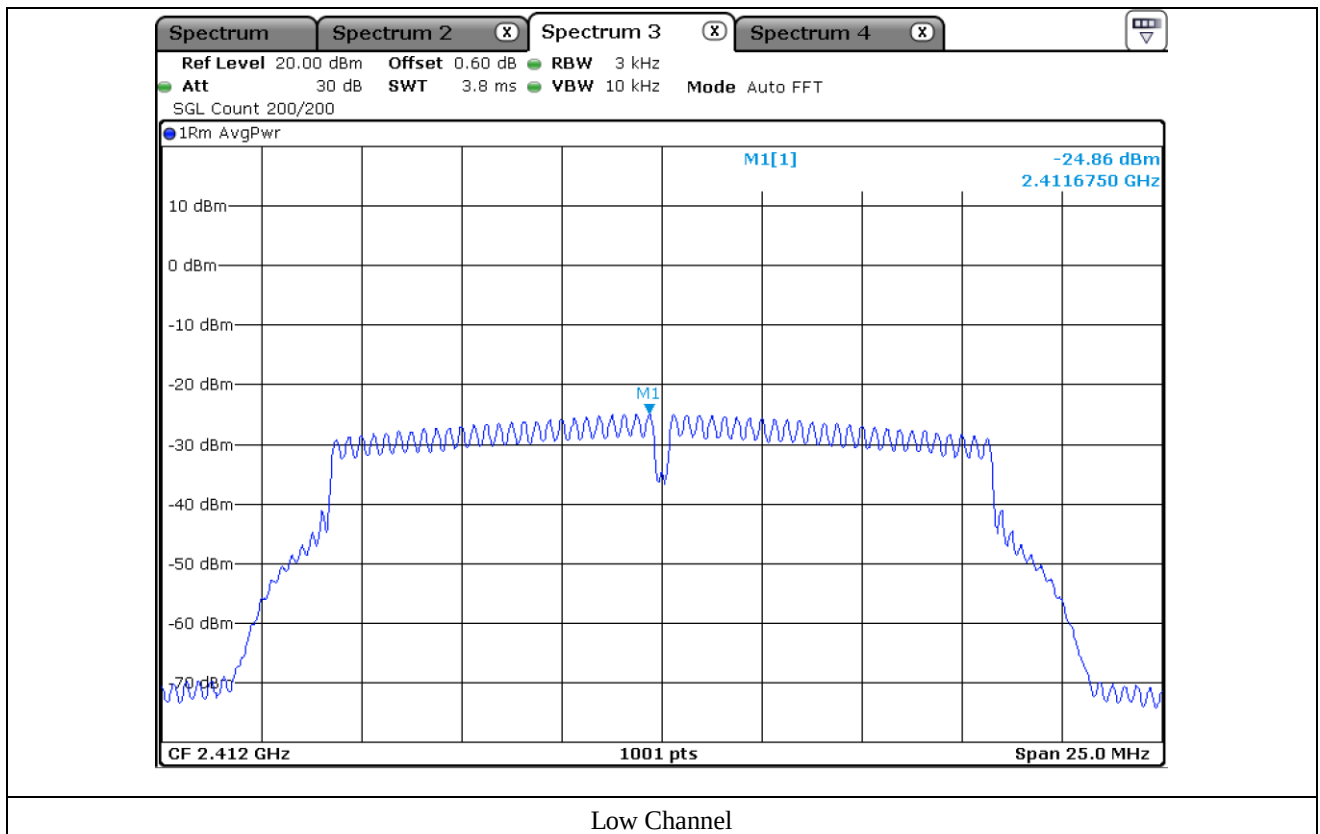
10.5.1 Test data for Antenna 0

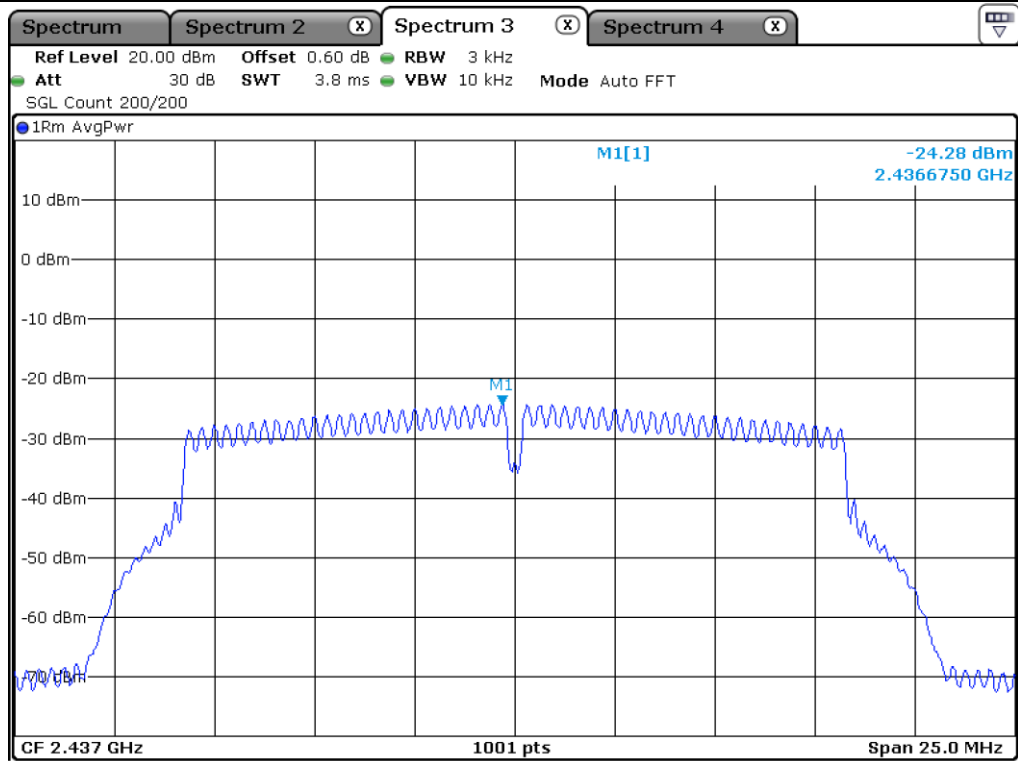
-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

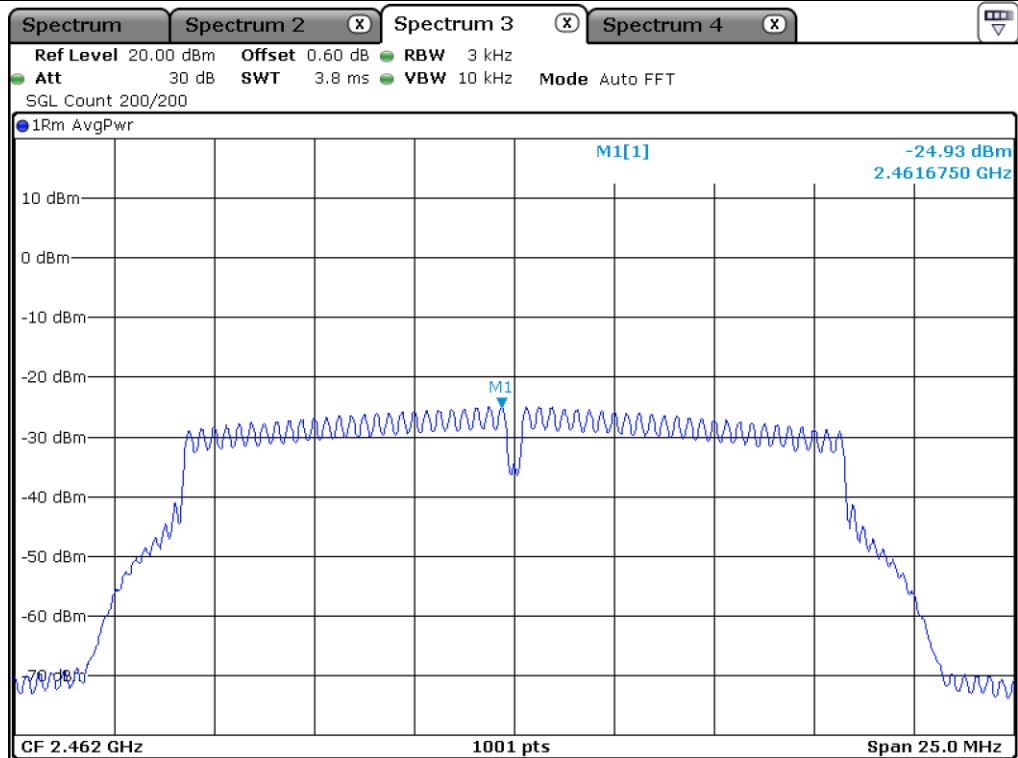
CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-24.86	8.00	32.86
Middle	2 437.00	-24.28	8.00	32.28
High 11	2 462.00	-24.93	8.00	32.93
High 12	2 467.00	-25.84	8.00	33.84
High 13	2 472.00	-26.97	8.00	34.97

Remark. Margin = Limit – Measured value

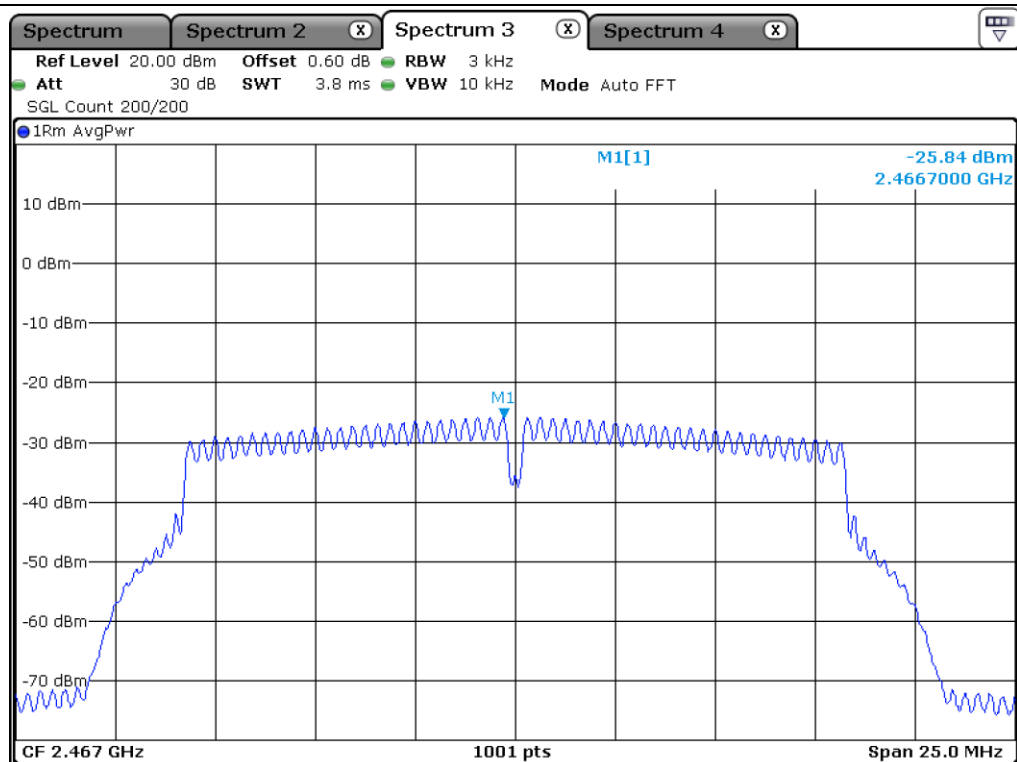




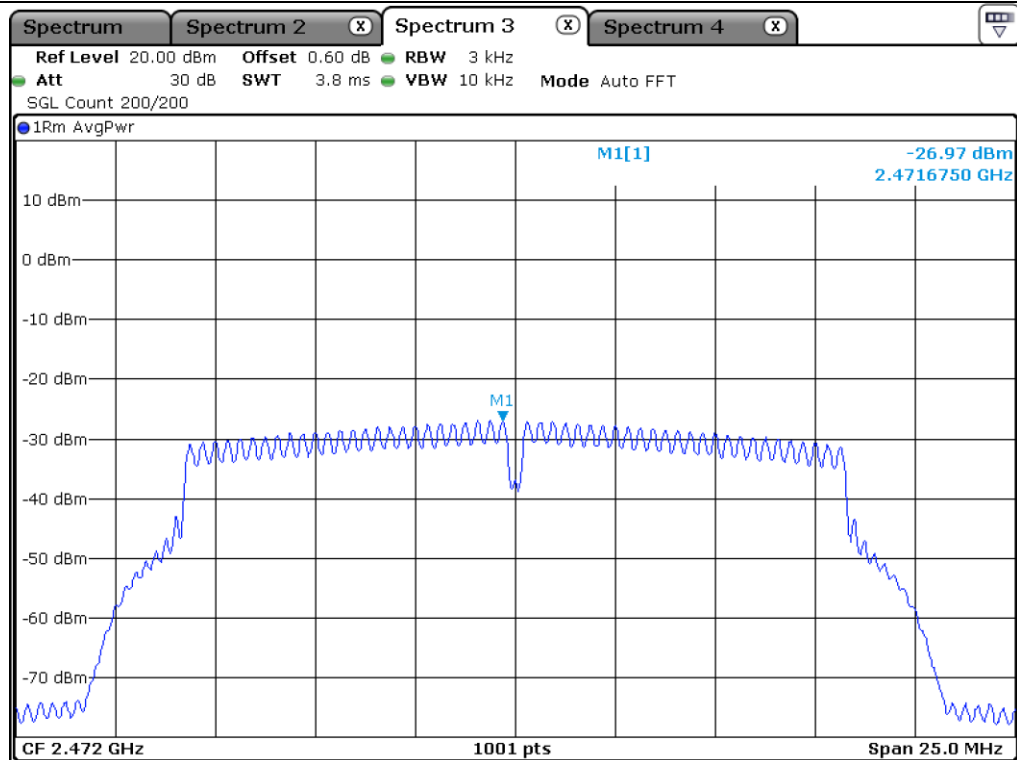
Middle Channel



High Channel 11



High Channel 12



High Channel 13

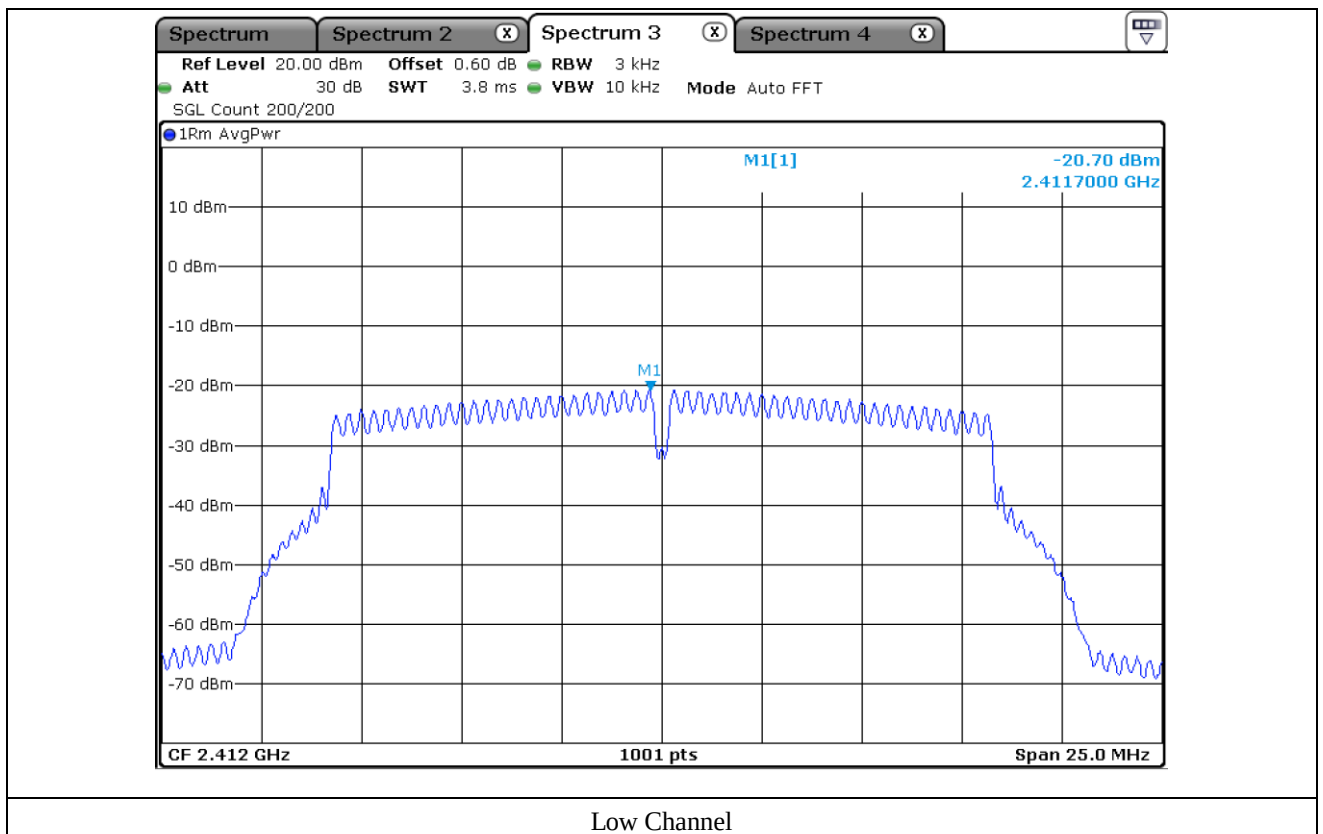
10.5.2 Test data for Antenna 1

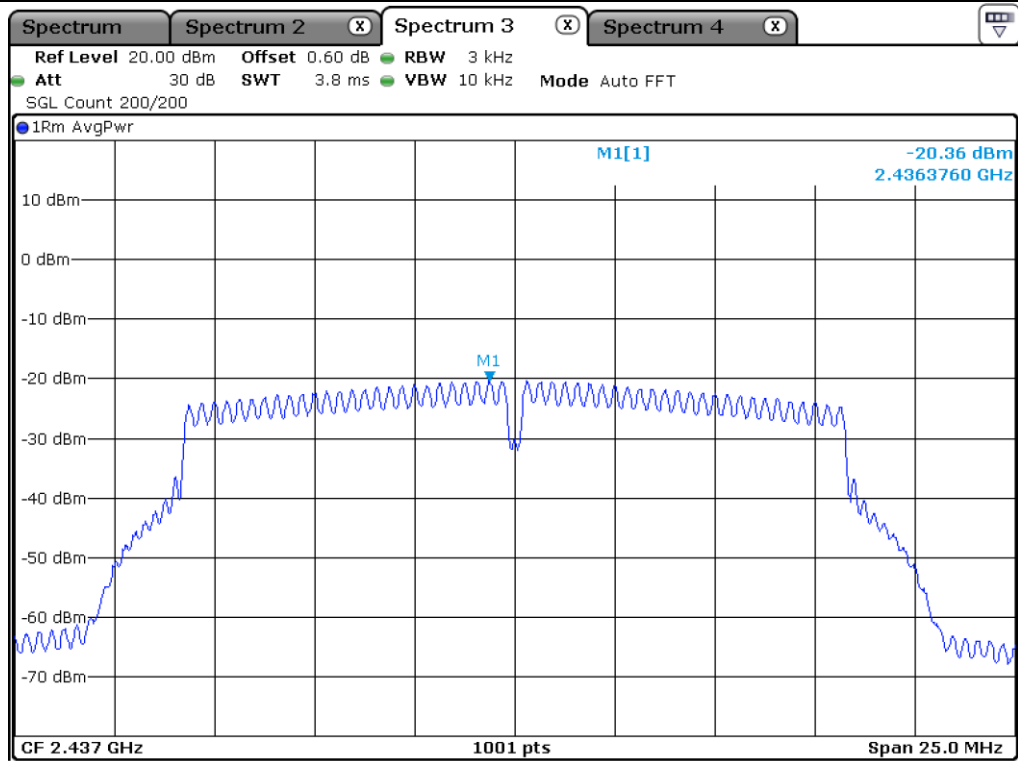
-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

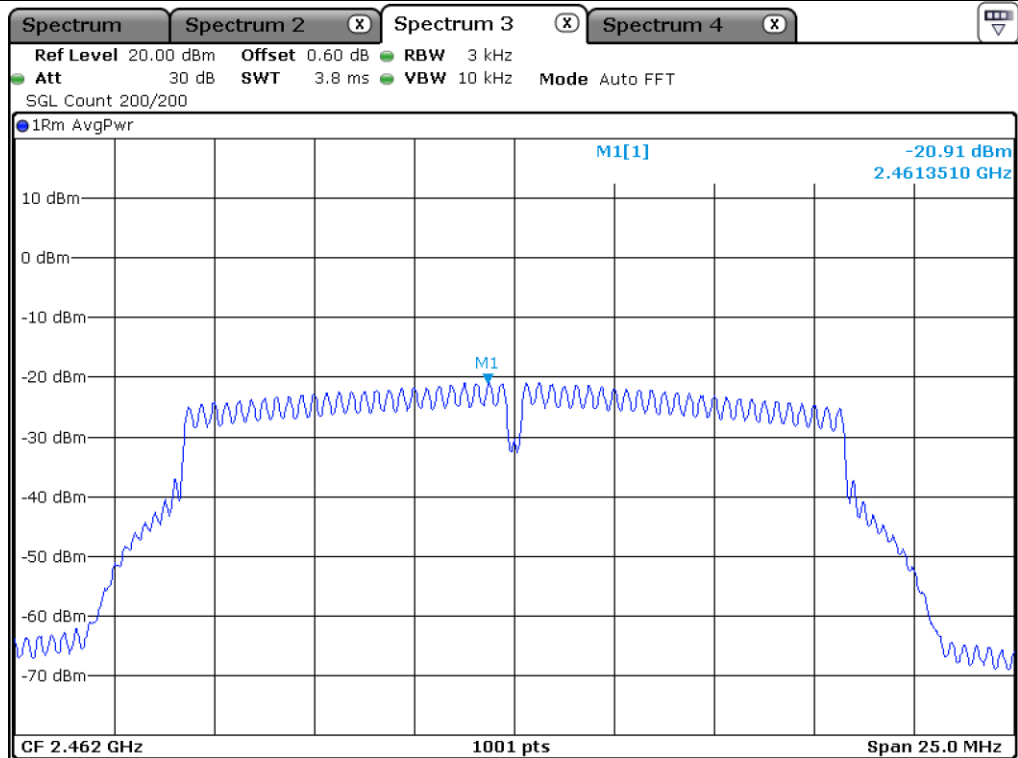
CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-20.70	8.00	28.70
Middle	2 437.00	-20.36	8.00	28.36
High 11	2 462.00	-20.91	8.00	28.91
High 12	2 467.00	-21.87	8.00	29.87
High 13	2 472.00	-22.82	8.00	30.82

Remark. Margin = Limit – Measured value

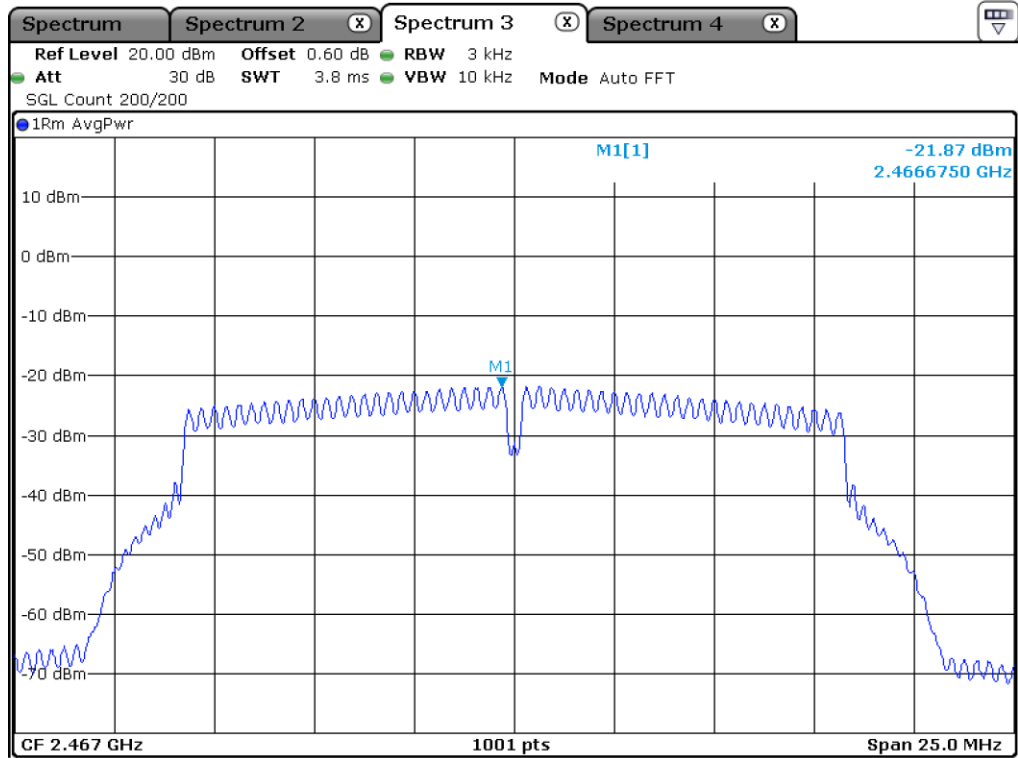




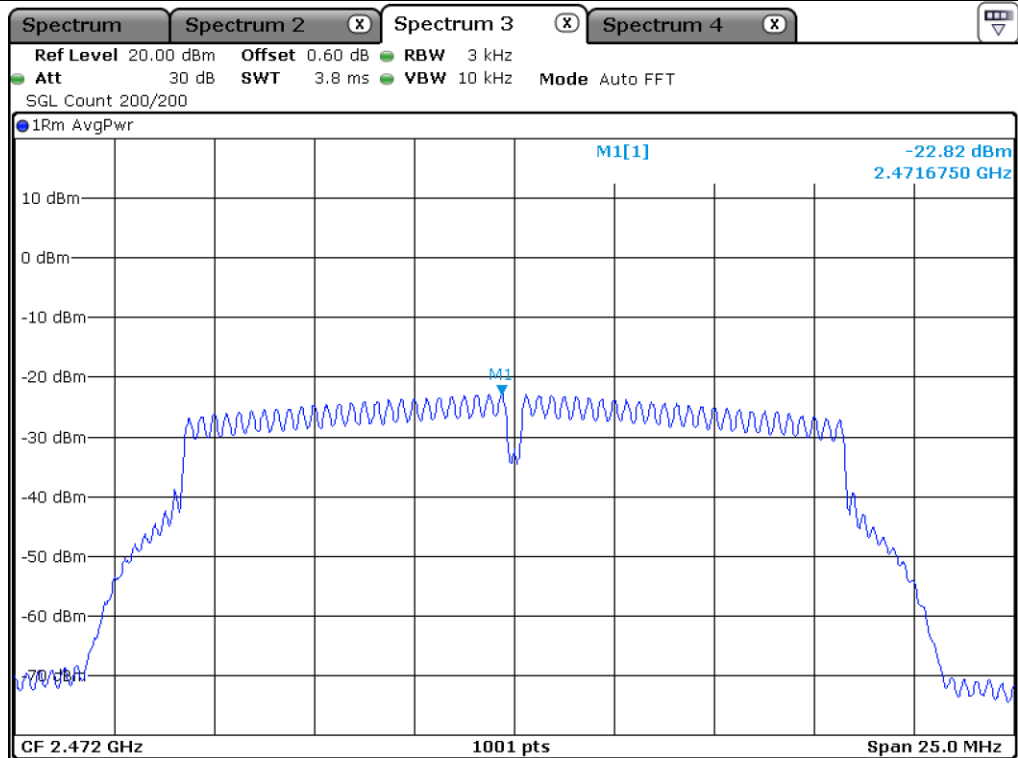
Middle Channel



High Channel 11



High Channel 12



High Channel 13

10.5.3 Test data for Multiple Transmit

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-19.29	8.00	27.29
Middle	2 437.00	-18.88	8.00	26.88
High 11	2 462.00	-19.46	8.00	27.46
High 12	2 467.00	-20.41	8.00	28.41
High 13	2 472.00	-21.41	8.00	29.41

Remark 1 : Margin = Limit – Measured value

Remark 2 : Calculated Power Density = $10\log (10^{(\text{Antenna 0 Power Density}/10)} + 10^{(\text{Antenna 1 Power Density}/10)})$

Remark 3 : Directional gain = $10*\log[(10^{G0/20} + 10^{G1/20})^2/N]$ dBi

10.6 Test data for 802.11n_HT20 WLAN Mode

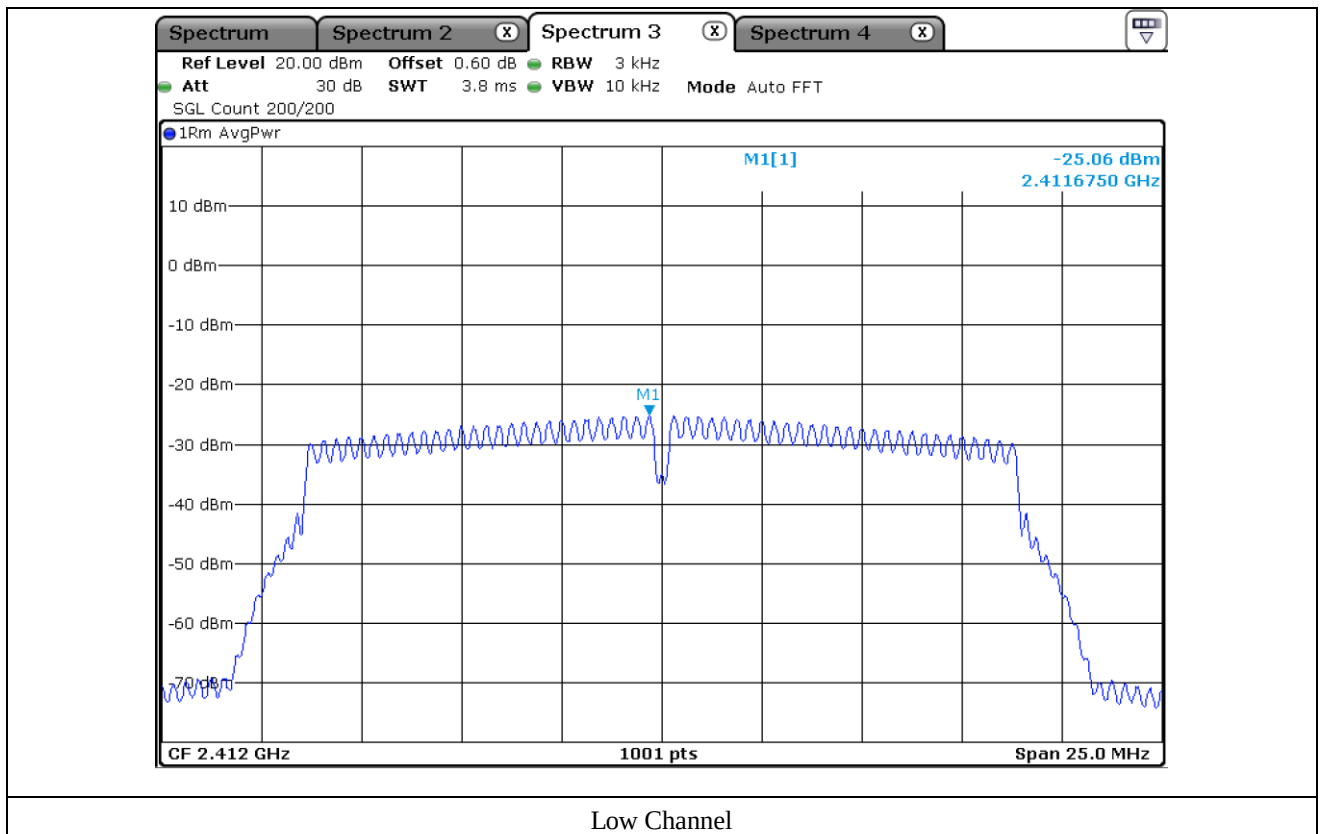
10.6.1 Test data for Antenna 0

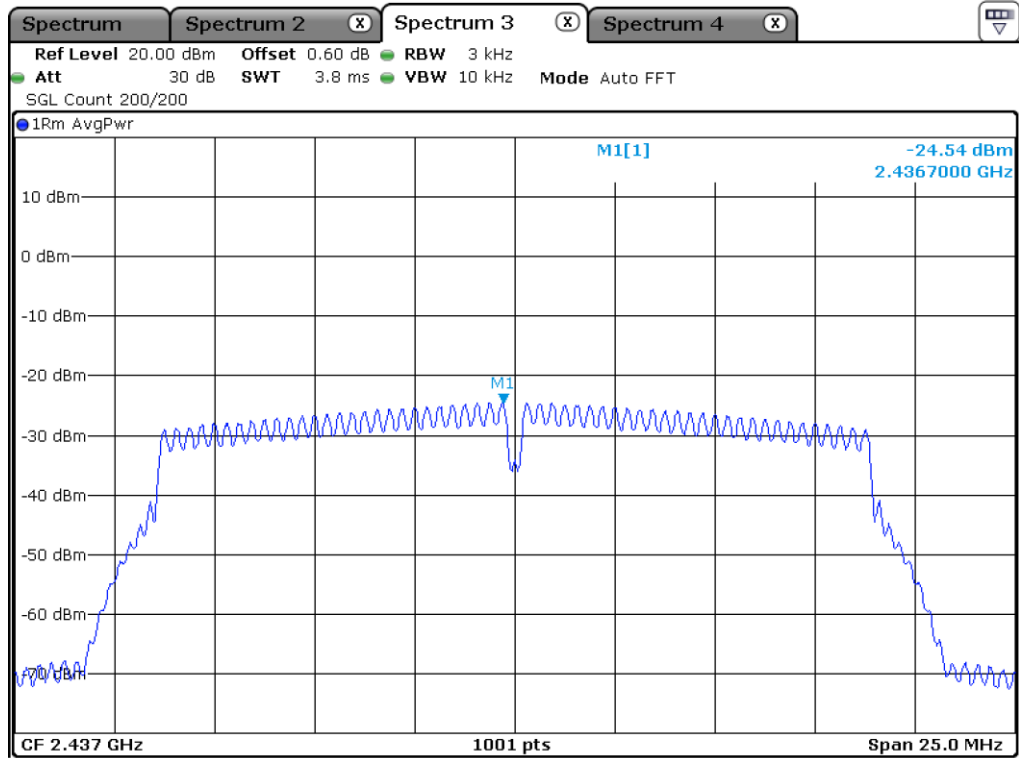
-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

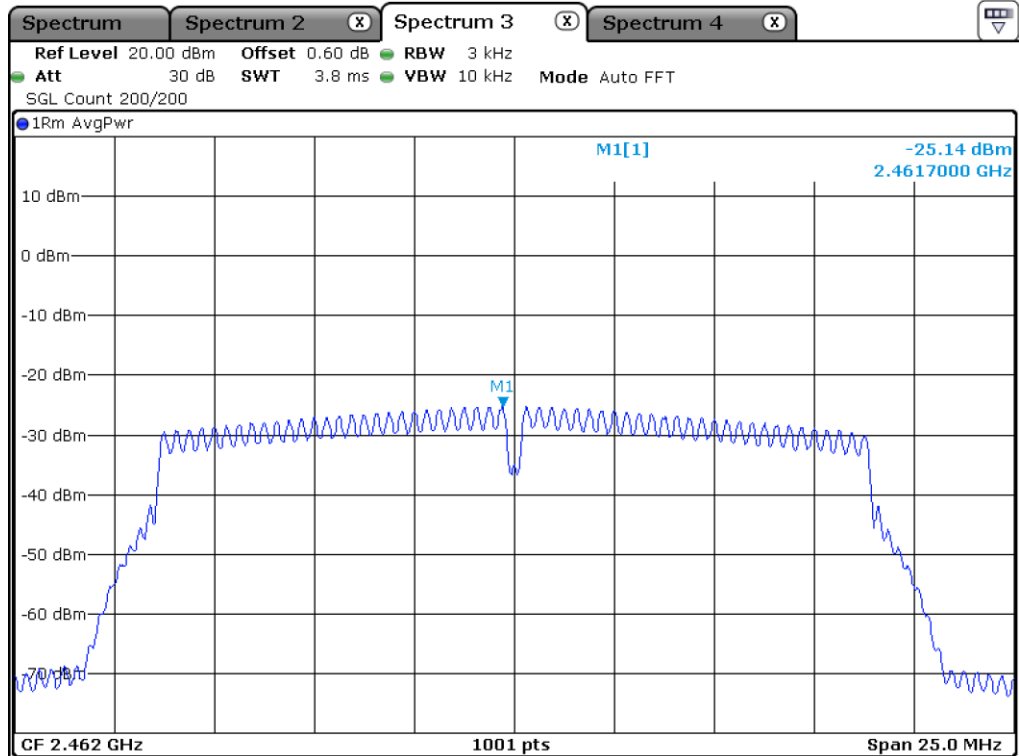
CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-25.06	8.00	33.06
Middle	2 437.00	-24.54	8.00	32.54
High 11	2 462.00	-25.14	8.00	33.14
High 12	2 467.00	-26.00	8.00	34.00
High 13	2 472.00	-28.22	8.00	36.22

Remark. Margin = Limit – Measured value

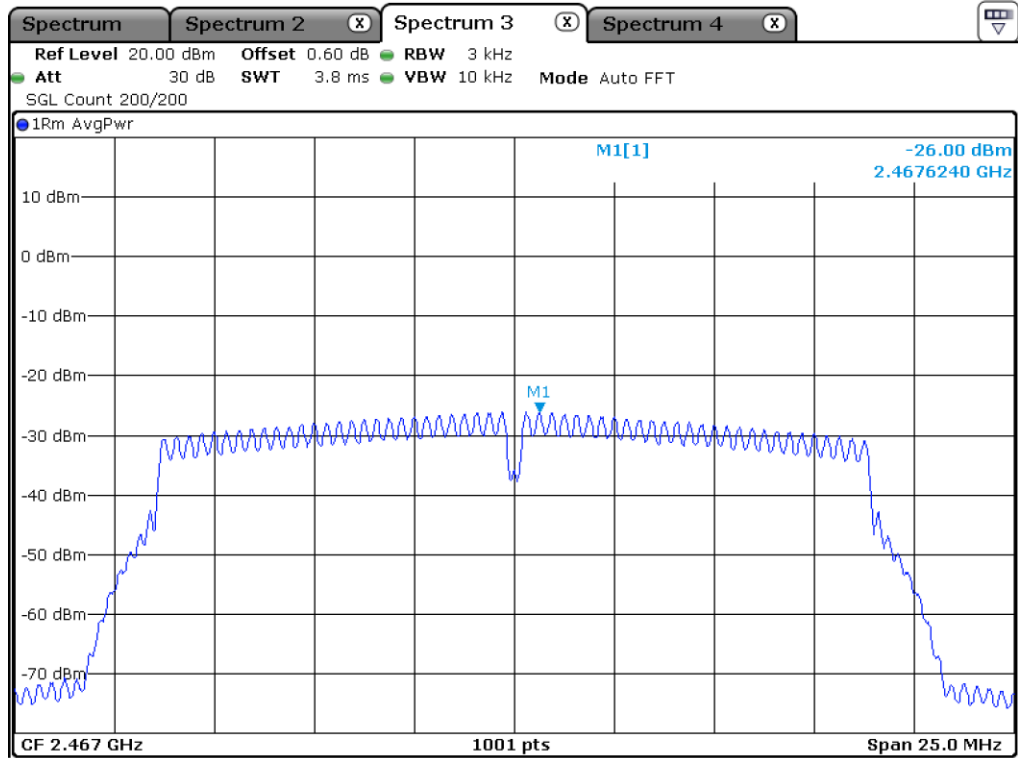




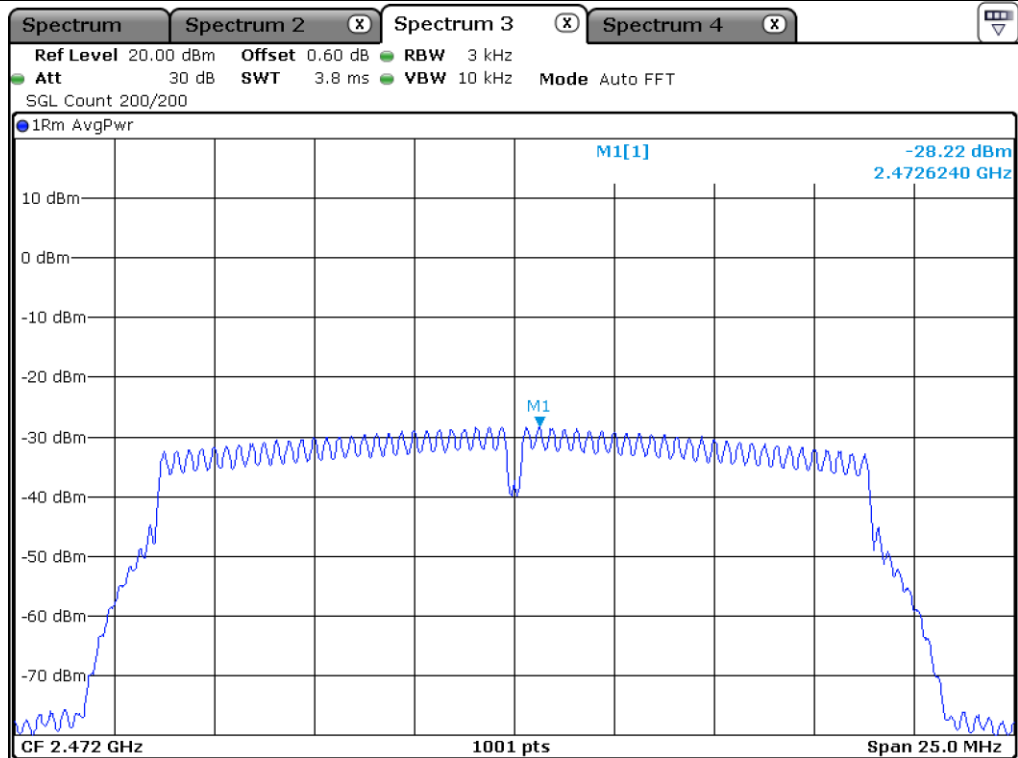
Middle Channel



High Channel 11



High Channel 12



High Channel 13

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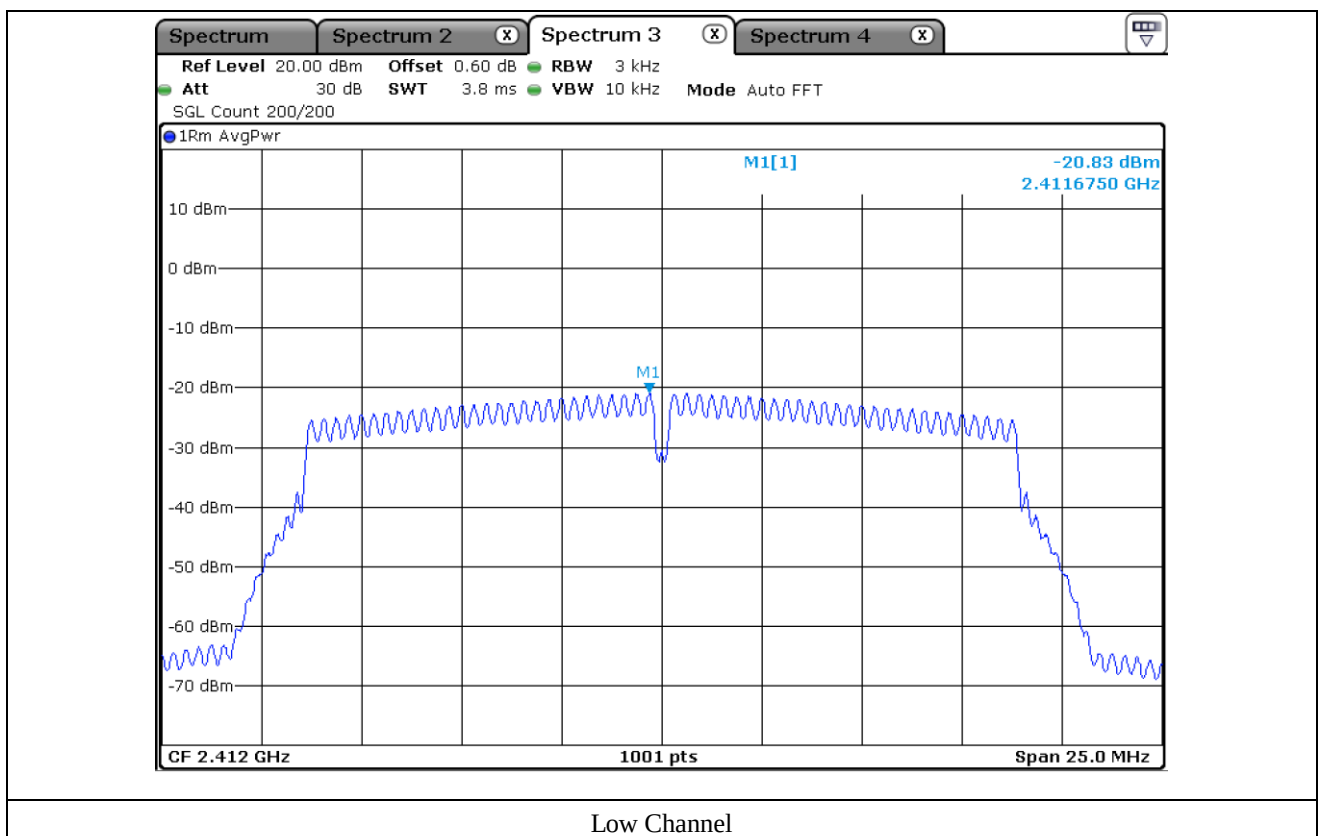
10.6.2 Test data for Antenna 1

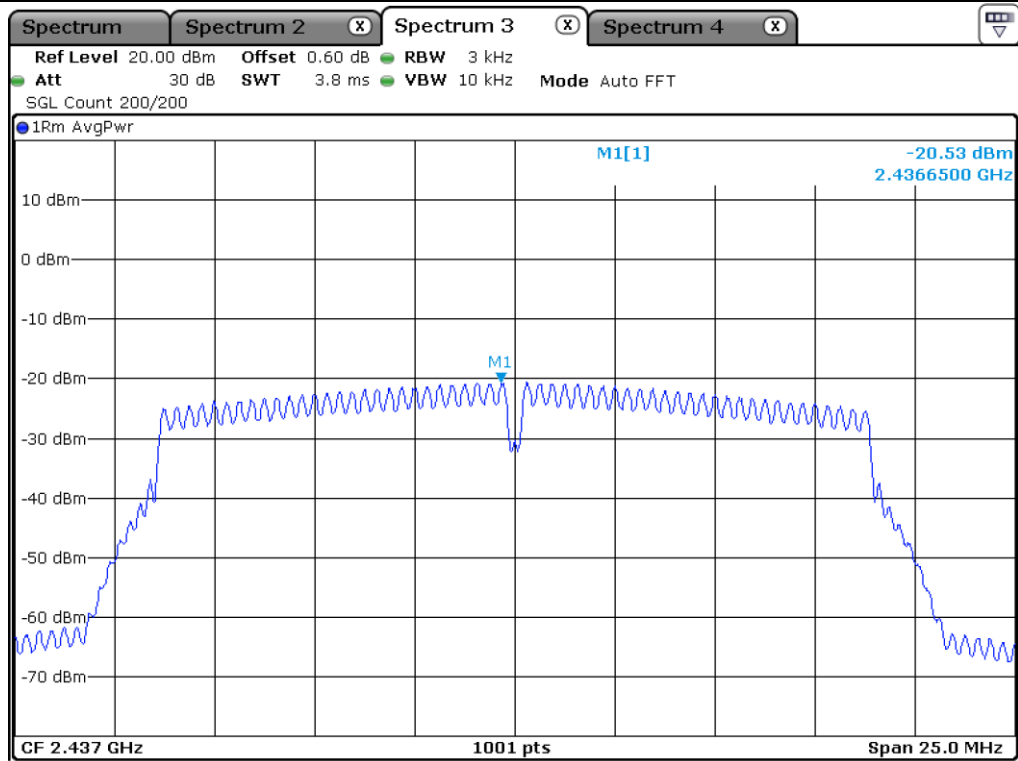
-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

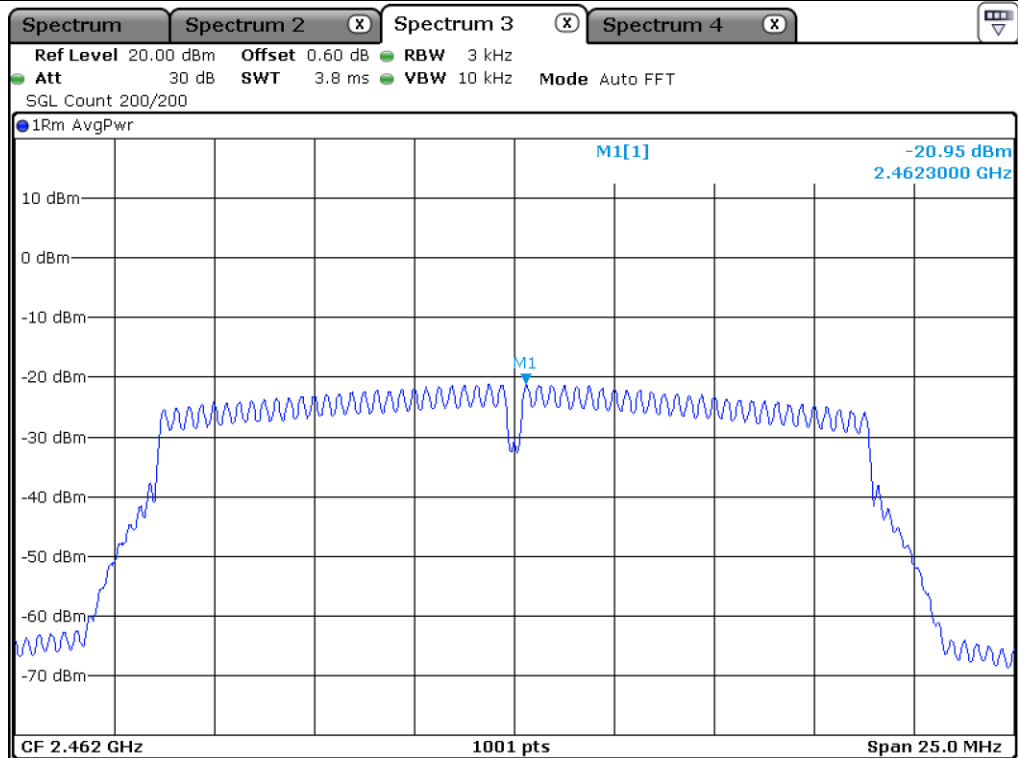
CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-20.83	8.00	28.83
Middle	2 437.00	-20.53	8.00	28.53
High 11	2 462.00	-20.95	8.00	28.95
High 12	2 467.00	-22.06	8.00	30.06
High 13	2 472.00	-24.22	8.00	32.22

Remark. Margin = Limit – Measured value

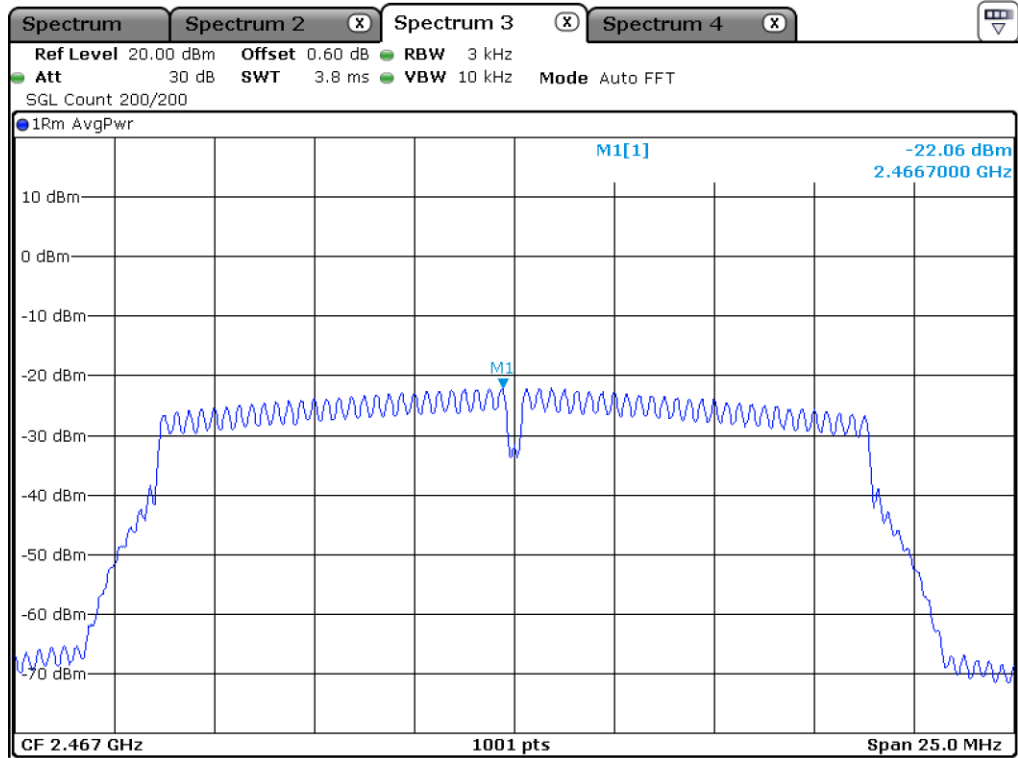




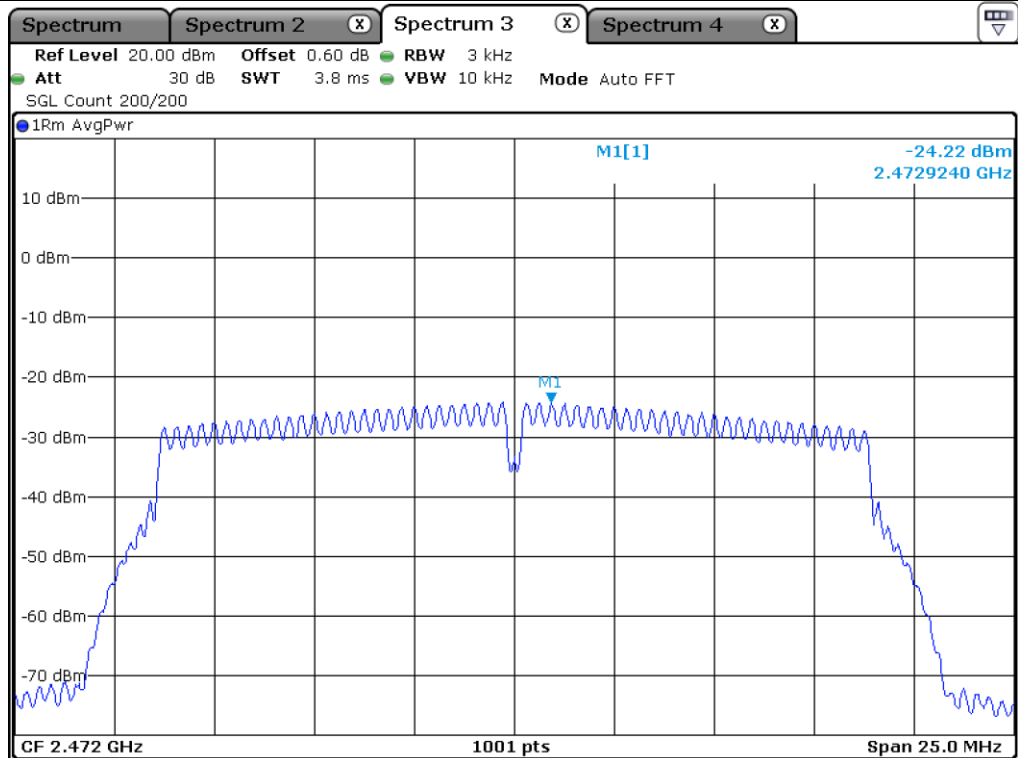
Middle Channel



High Channel 11



High Channel 12



High Channel 13

10.6.3 Test data for Multiple Transmit

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-19.44	8.00	27.44
Middle	2 437.00	-19.08	8.00	27.08
High 11	2 462.00	-19.55	8.00	27.55
High 12	2 467.00	-20.59	8.00	28.59
High 13	2 472.00	-22.76	8.00	30.76

Remark 1 : Margin = Limit – Measured value

Remark 2 : Calculated Power Density = $10\log (10^{(\text{Antenna 0 Power Density}/10)} + 10^{(\text{Antenna 1 Power Density}/10)})$

Remark 3 : Directional gain = $10*\log[(10^{G0/20} + 10^{G1/20})^2/N]$ dBi

10.7 Test data for 802.11n_HT40 WLAN Mode

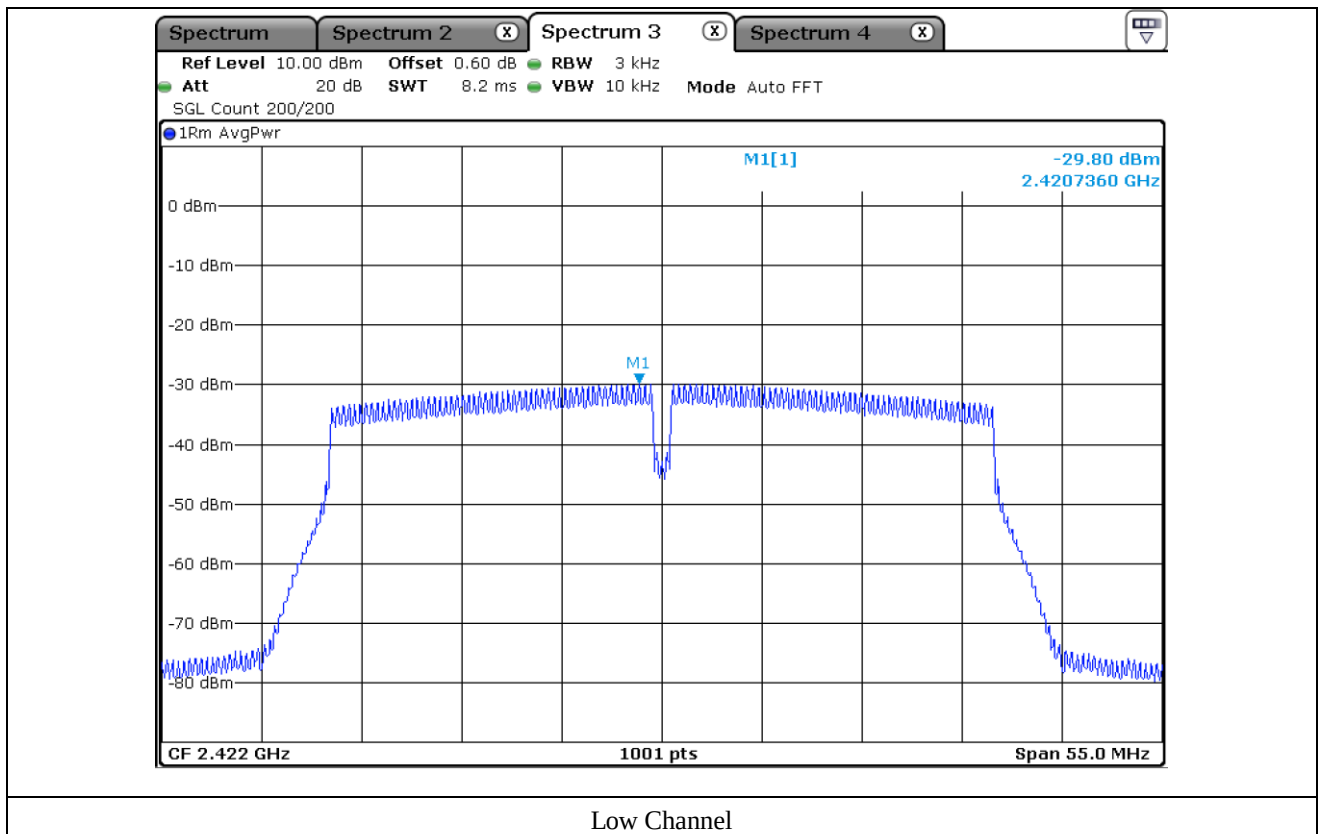
10.7.1 Test data for Antenna 0

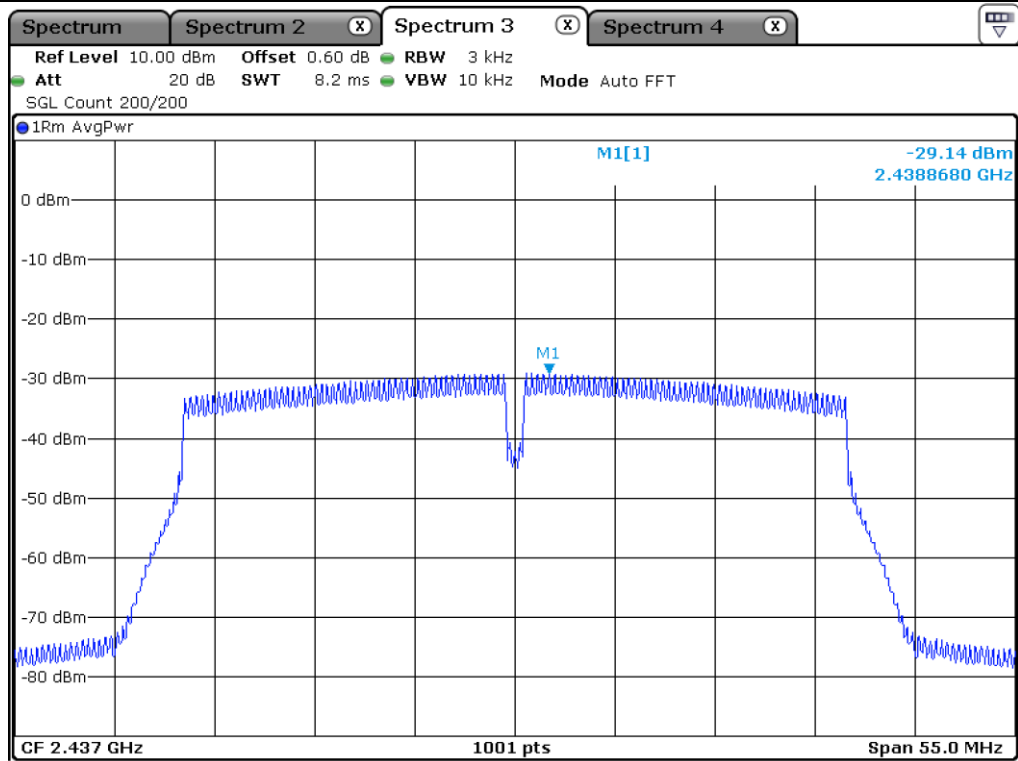
-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

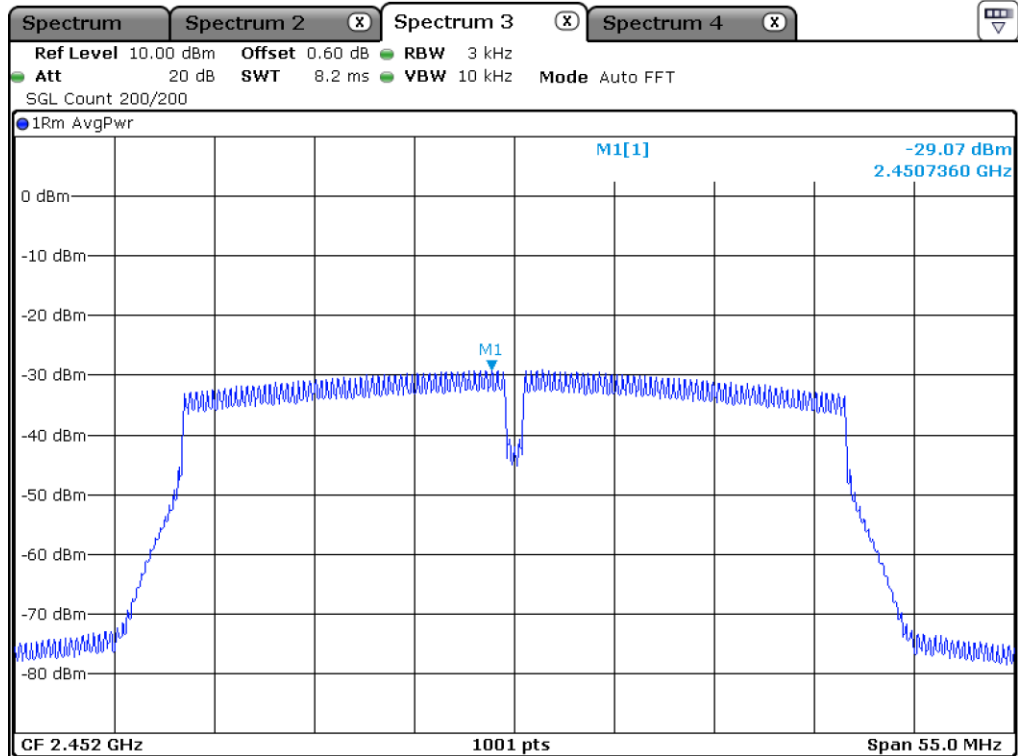
CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 422.00	-29.80	8.00	37.80
Middle	2 437.00	-29.14	8.00	37.14
High 9	2 452.00	-29.07	8.00	37.07
High 10	2 457.00	-29.19	8.00	37.19
High 11	2 462.00	-30.75	8.00	38.75

Remark. Margin = Limit – Measured value

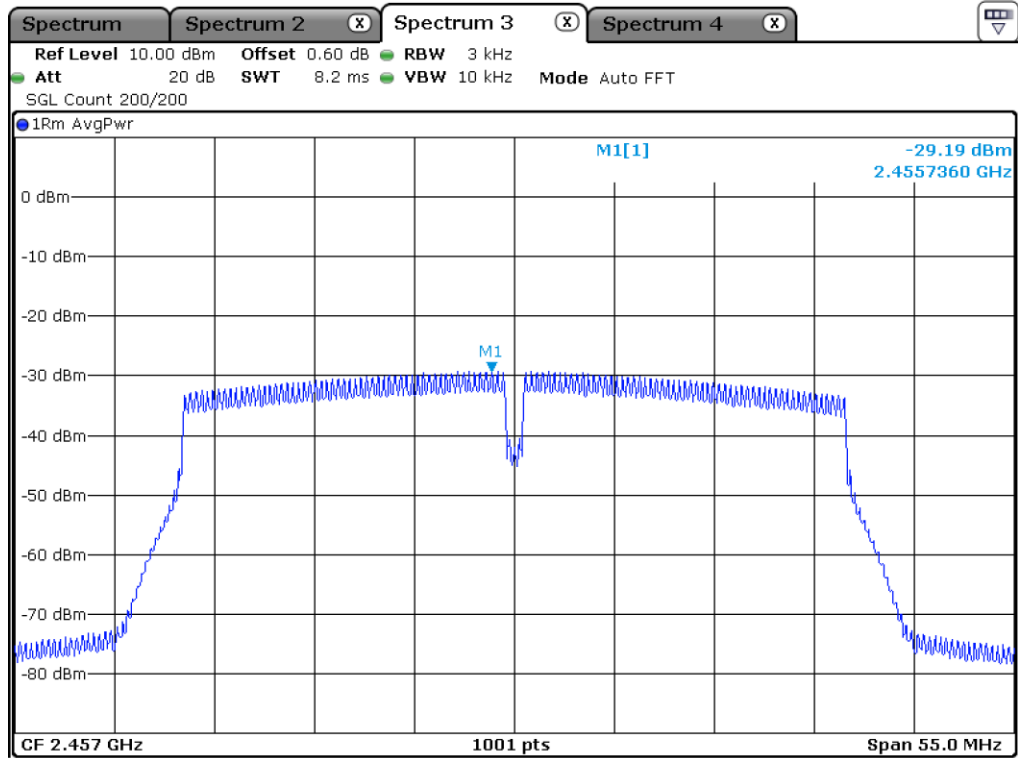




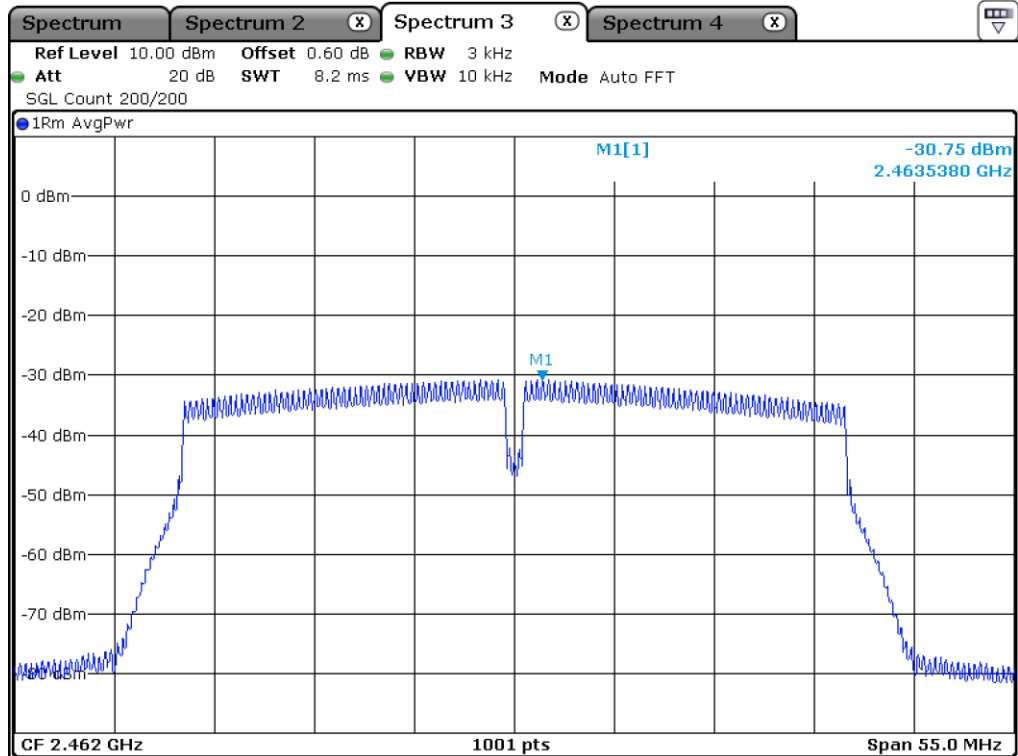
Middle Channel



High Channel 9



High Channel 10



High Channel 11

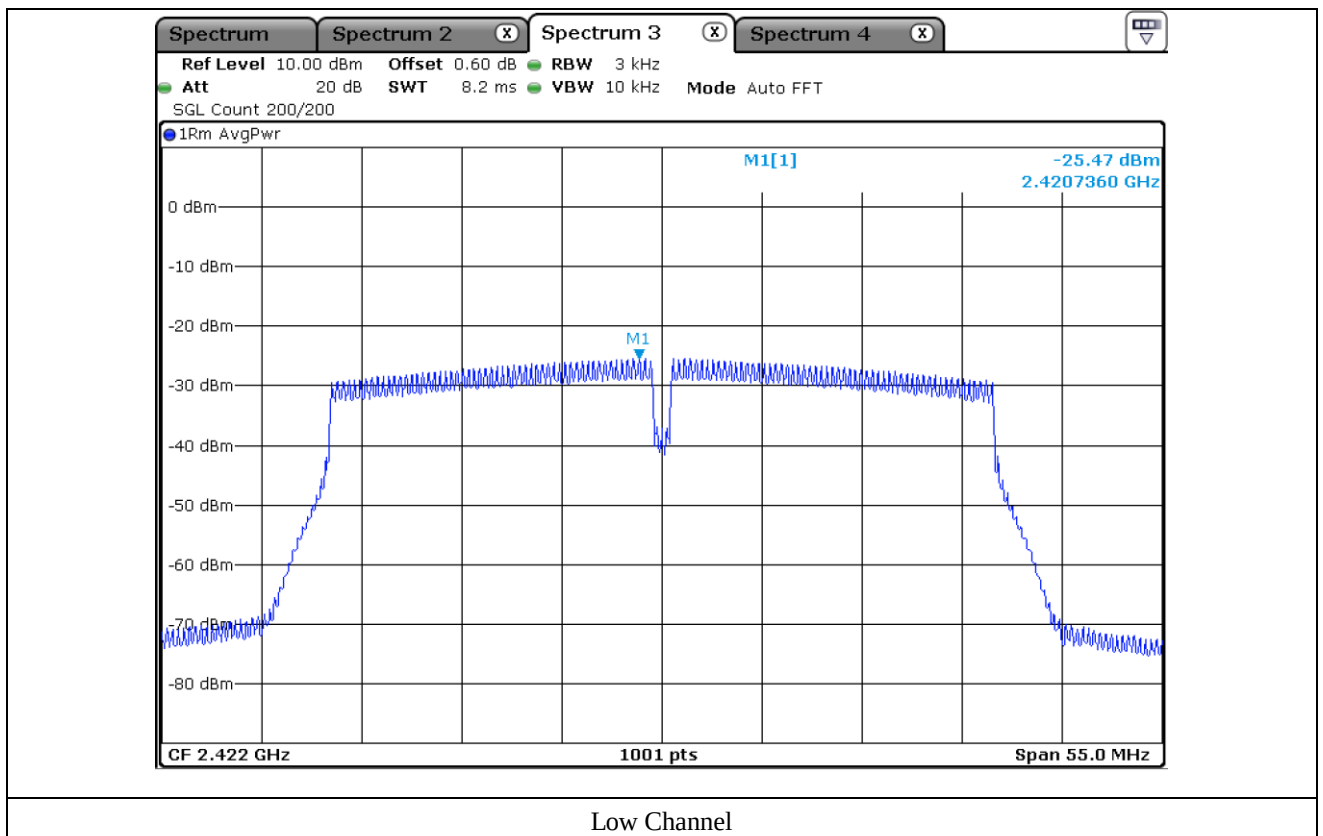
10.7.2 Test data for Antenna 1

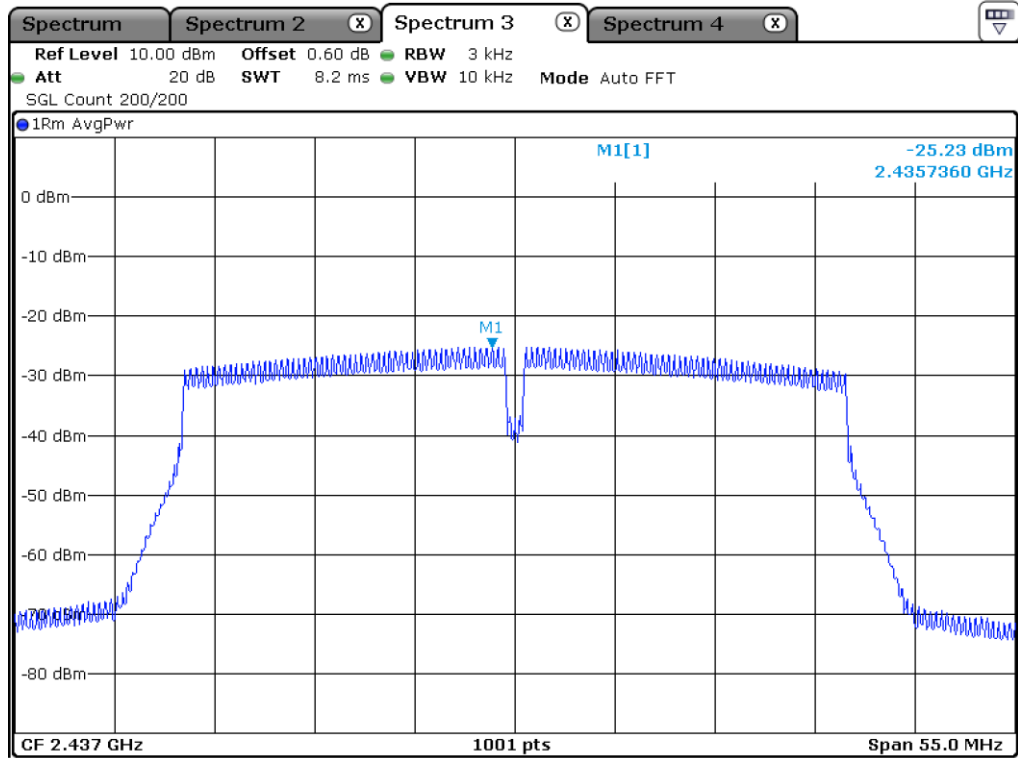
-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

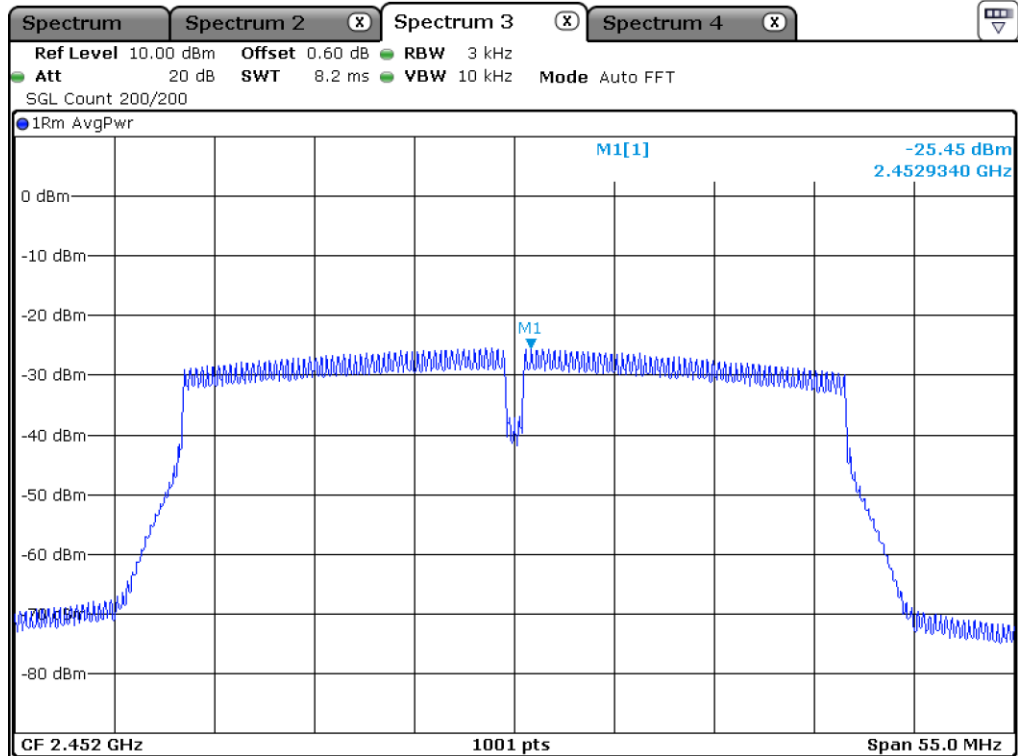
CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 422.00	-25.47	8.00	33.47
Middle	2 437.00	-25.23	8.00	33.23
High 9	2 452.00	-25.45	8.00	33.45
High 10	2 457.00	-25.74	8.00	33.74
High 11	2 462.00	-26.74	8.00	34.74

Remark. Margin = Limit – Measured value





Middle Channel



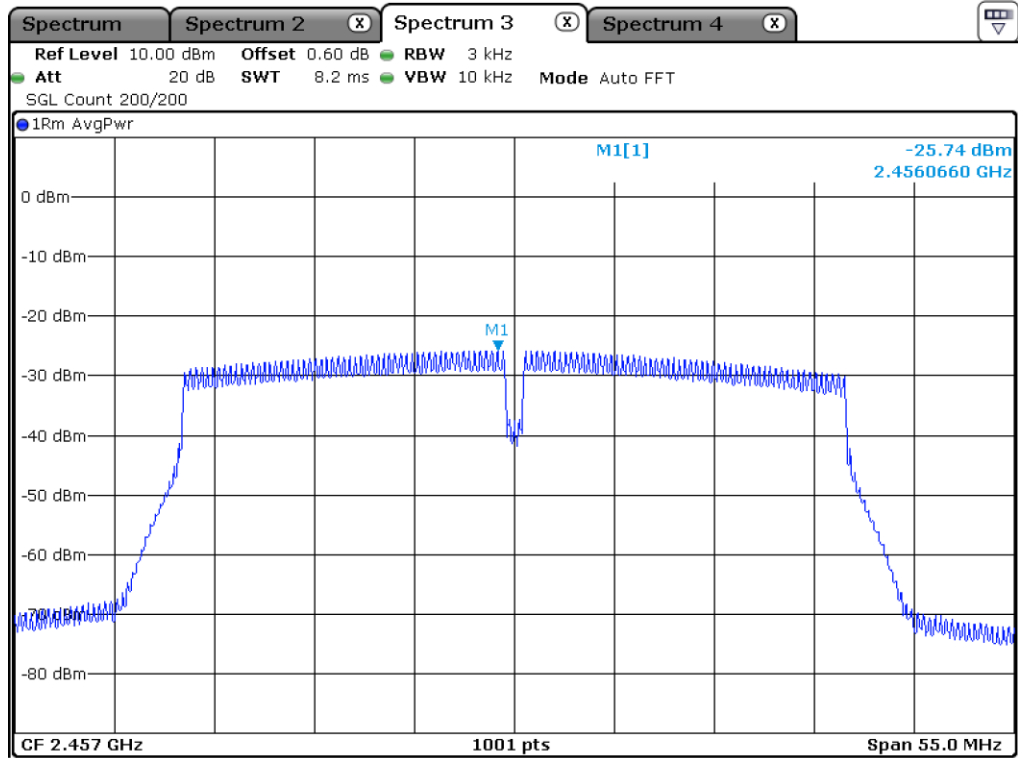
High Channel 9

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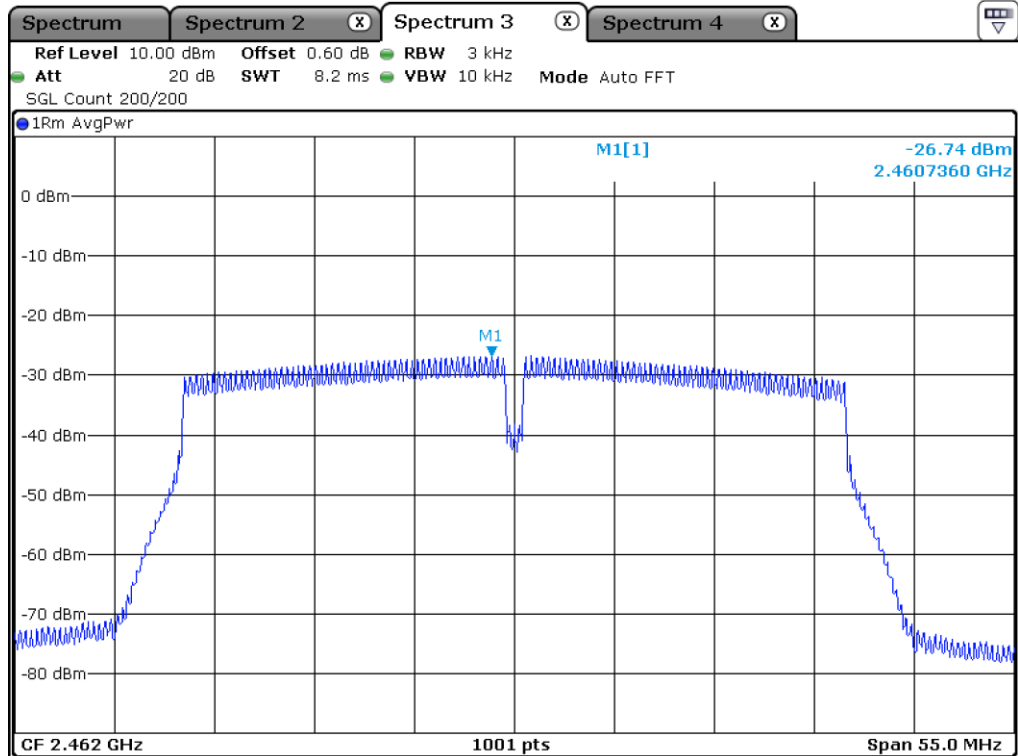
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High Channel 10



High Channel 11

10.7.3 Test data for Multiple Transmit

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 422.00	-24.11	8.00	32.11
Middle	2 437.00	-23.75	8.00	31.75
High 9	2 452.00	-23.88	8.00	31.88
High 10	2 457.00	-24.12	8.00	32.12
High 11	2 462.00	-25.29	8.00	33.29

Remark 1 : Margin = Limit – Measured value

Remark 2 : Calculated Power Density = $10\log (10^{(\text{Antenna 0 Power Density}/10)} + 10^{(\text{Antenna 1 Power Density}/10)})$

Remark 3 : Directional gain = $10*\log[(10^{G0/20} + 10^{G1/20})^2/N]$ dBi

11. RADIATED EMISSION TEST

11.1 Operating environment

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

11.2 Test set-up

The radiated emissions measurements were on the 3 m semi anechoic chamber. The EUT and other support equipment were placed on 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 26.5 GHz was scanned and emission levels maximized at each frequency recorded. The system was rotated 360°, and the antenna was varied in height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for both horizontal and vertical polarization of the receiving antenna.

11.3 Test Date

October 07, 2021 ~ October 20, 2021

11.4 Test data for the Basic model (WCB731M)

11.4.1 Test data for 30 MHz ~ 1 000 MHz

11.4.1.1 Test data for WLAN 2.4 GHz

Humidity Level : 45 % R.H.

Temperature: 23 ° C

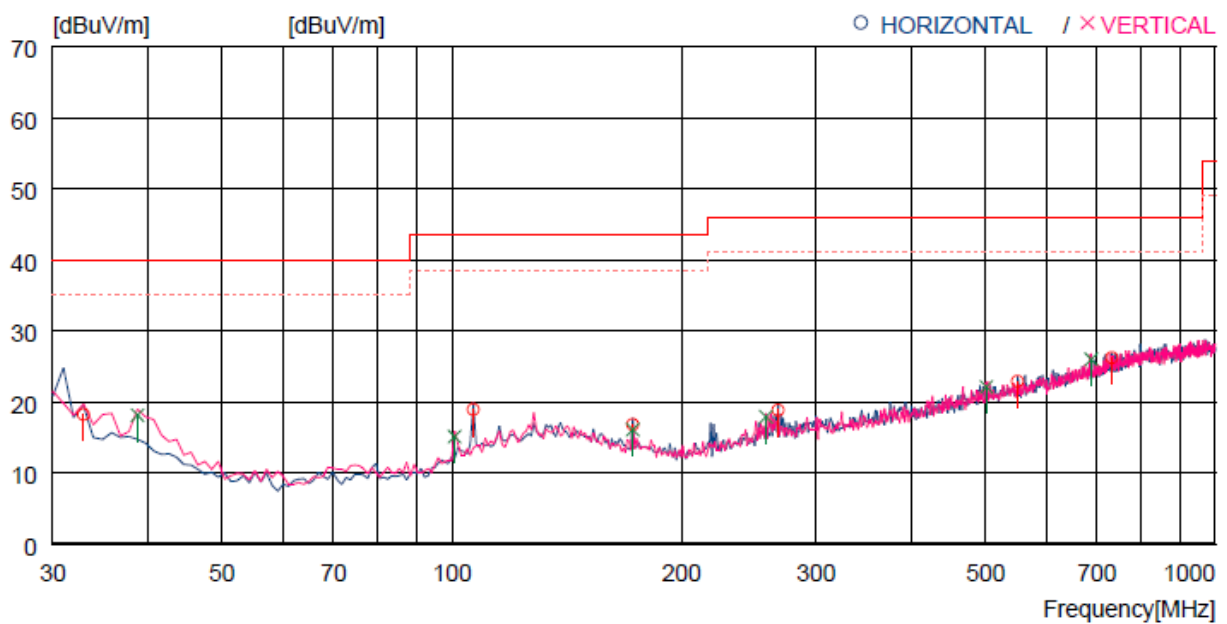
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

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	32.910	29.1	19.9	1.2	32.0	18.2	40.0	21.8	100	152
2	106.630	32.6	16.4	1.9	32.0	18.9	43.5	24.6	100	47
3	172.590	29.4	17.1	2.3	32.0	16.8	43.5	26.7	100	40
4	267.650	29.6	18.3	2.9	32.0	18.8	46.0	27.2	100	324
5	550.889	27.6	23.7	4.0	32.4	22.9	46.0	23.1	100	244
6	732.274	27.6	26.1	4.7	32.2	26.2	46.0	19.8	100	87
---- Vertical ----										
7	38.730	31.0	17.8	1.3	32.0	18.1	40.0	21.9	100	349
8	100.810	29.9	15.4	1.8	32.0	15.1	43.5	28.4	100	231
9	172.590	28.7	17.1	2.3	32.0	16.1	43.5	27.4	100	289
10	257.950	29.1	18.0	2.8	32.0	17.9	46.0	28.1	100	65
11	501.421	27.4	23.1	3.9	32.3	22.1	46.0	23.9	100	352
12	687.655	28.3	25.4	4.6	32.3	26.0	46.0	20.0	100	266

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

Humidity Level : 45 % R.H. Temperature: 23 ° C

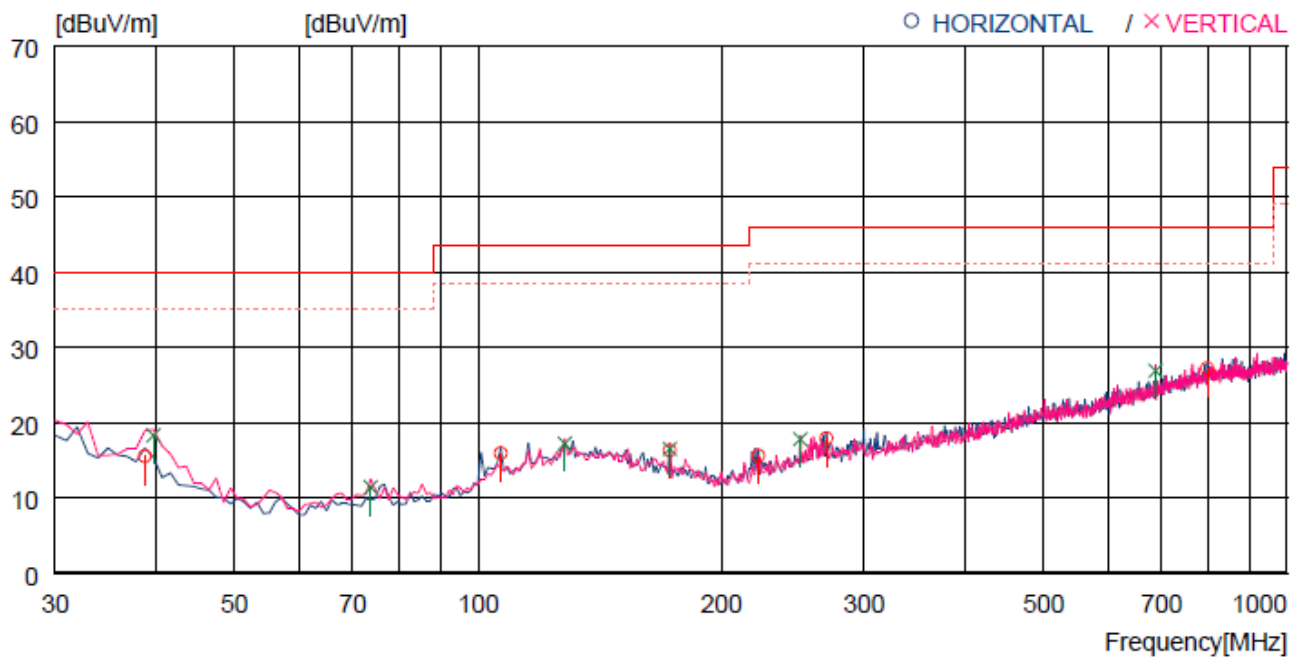
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

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	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

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

Humidity Level : 45 % R.H. Temperature: 23 ° C

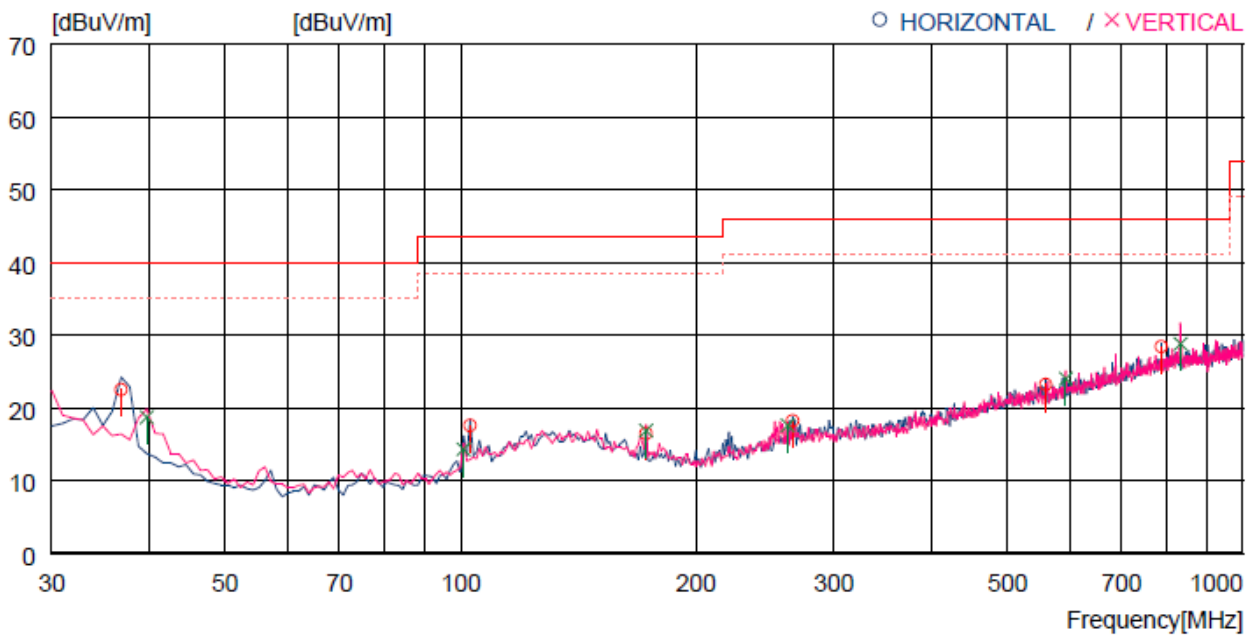
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

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	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

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11.5 Test data for the Multiple model (WCB730M)

11.5.1 Test data for 30 MHz ~ 1 000 MHz

11.5.1.1 Test data for WLAN 2.4 GHz

Humidity Level : 45 % R.H.

Temperature: 23 ° C

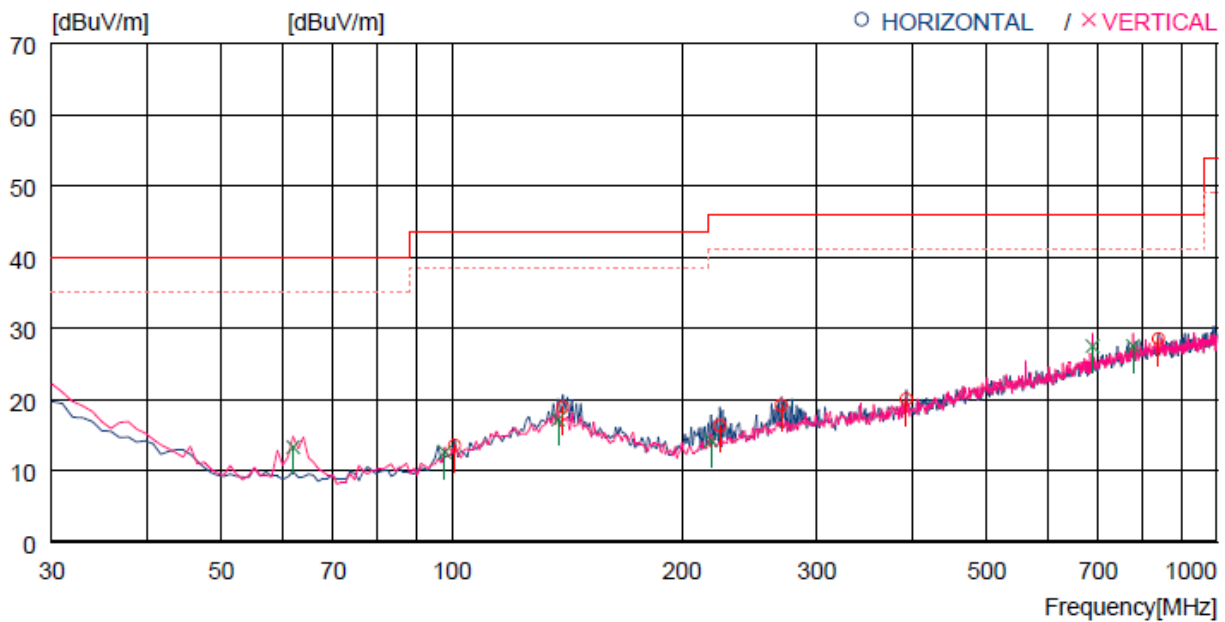
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

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	100.810	28.3	15.4	1.8	32.0	13.5	43.5	30.0	100	193
2	139.610	29.3	19.5	2.1	32.0	18.9	43.5	24.6	212	0
3	224.000	29.0	16.7	2.6	32.0	16.3	46.0	29.7	212	0
4	269.590	30.0	18.3	2.9	32.0	19.2	46.0	26.8	200	273
5	392.780	28.1	20.6	3.4	32.1	20.0	46.0	26.0	200	336
6	838.971	28.0	27.3	5.1	31.9	28.5	46.0	17.5	200	189
---- Vertical ----										
7	62.010	31.6	12.3	1.5	32.1	13.3	40.0	26.7	212	0
8	97.900	27.9	14.9	1.8	32.0	12.6	43.5	30.9	200	232
9	137.670	27.7	19.4	2.1	32.0	17.2	43.5	26.3	100	359
10	218.180	27.2	16.4	2.6	32.0	14.2	46.0	31.8	200	40
11	687.655	29.8	25.4	4.6	32.3	27.5	46.0	18.5	212	0
12	776.893	27.9	26.8	4.9	32.1	27.5	46.0	18.5	212	0

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

Humidity Level : 45 % R.H. Temperature: 23 ° C

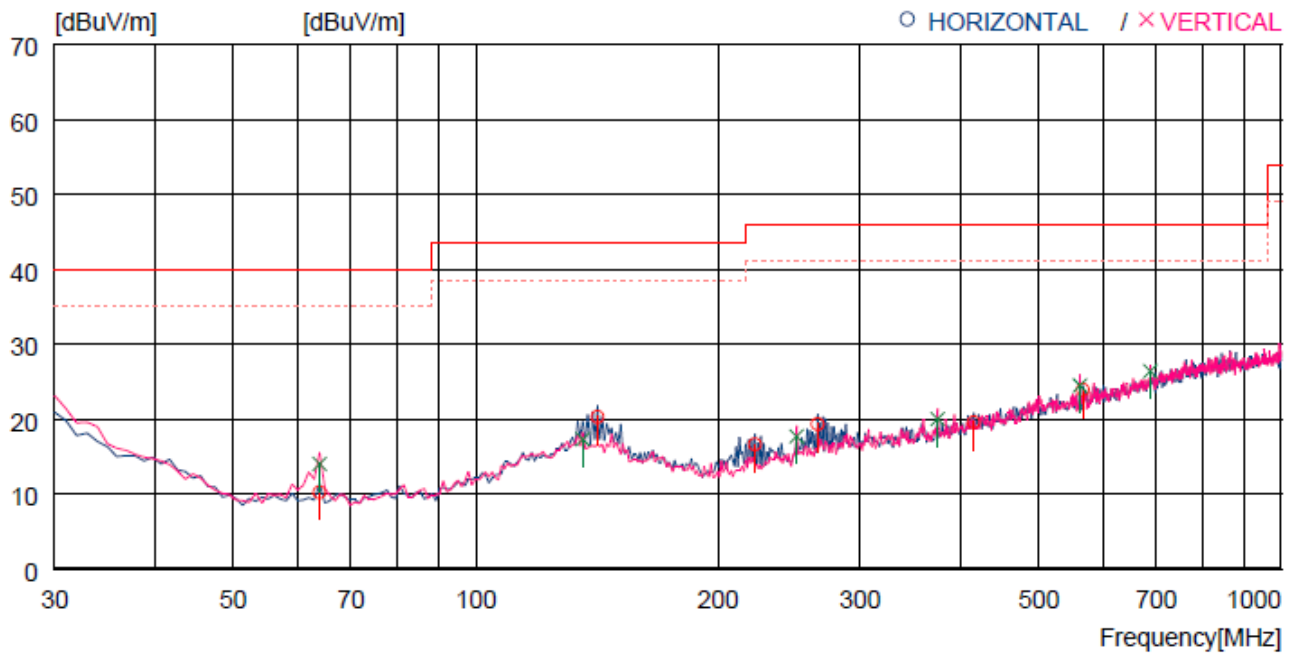
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

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	63.950	28.4	12.4	1.5	32.1	10.2	40.0	29.8	251	359
2	141.550	30.8	19.4	2.1	32.0	20.3	43.5	23.2	251	359
3	222.060	29.4	16.6	2.6	32.0	16.6	46.0	29.4	100	0
4	265.710	30.2	18.2	2.9	32.0	19.3	46.0	26.7	200	107
5	415.091	27.1	21.1	3.5	32.1	19.6	46.0	26.4	200	354
6	567.379	28.4	23.8	4.1	32.4	23.9	46.0	22.1	100	344
---- Vertical ----										
7	63.950	32.2	12.4	1.5	32.1	14.0	40.0	26.0	300	284
8	135.730	27.9	19.3	2.1	32.0	17.3	43.5	26.2	300	49
9	250.190	29.1	17.8	2.8	32.0	17.7	46.0	28.3	300	359
10	374.350	28.4	20.3	3.4	32.1	20.0	46.0	26.0	400	0
11	562.529	29.0	23.8	4.1	32.4	24.5	46.0	21.5	290	359
12	687.655	28.7	25.4	4.6	32.3	26.4	46.0	19.6	300	309

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

Humidity Level : 45 % R.H. Temperature: 23 ° C

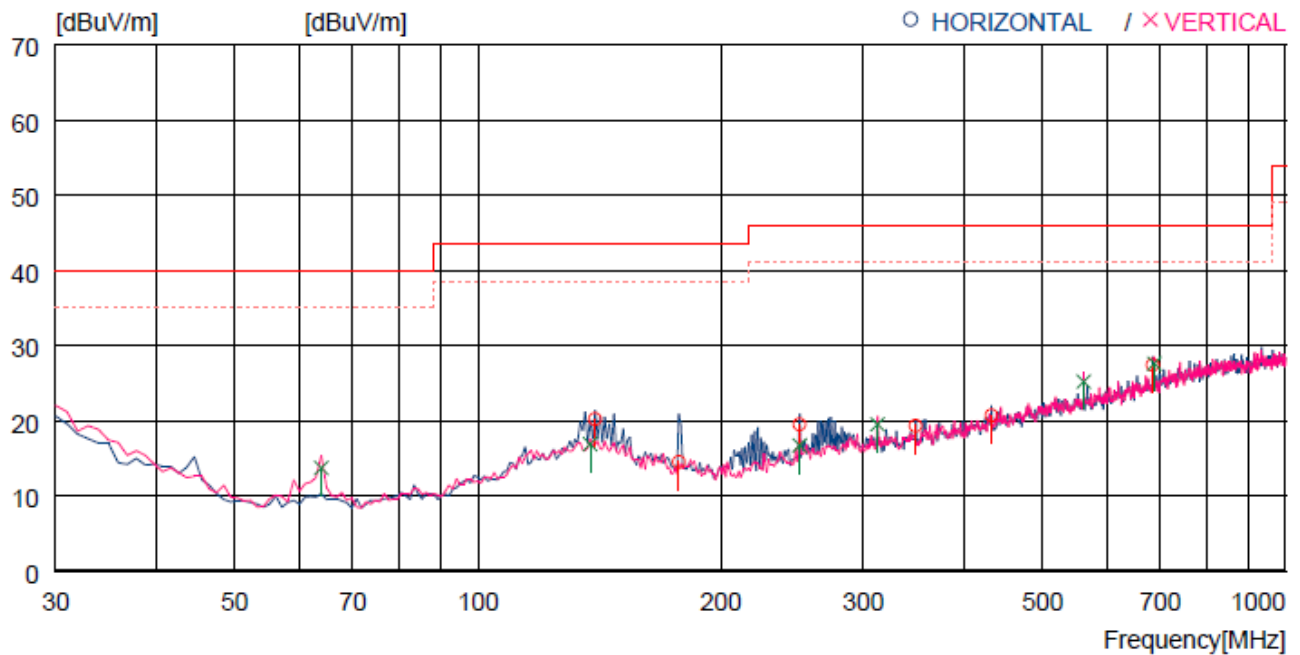
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

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	139.610	30.6	19.5	2.1	32.0	20.2	43.5	23.3	211	0
2	177.440	27.4	16.8	2.3	32.0	14.5	43.5	29.0	100	359
3	250.190	30.9	17.8	2.8	32.0	19.5	46.0	26.5	211	0
4	348.160	28.2	19.9	3.2	32.0	19.3	46.0	26.7	100	86
5	432.551	27.8	21.5	3.6	32.2	20.7	46.0	25.3	100	358
6	684.745	29.7	25.4	4.6	32.3	27.4	46.0	18.6	200	262
---- Vertical ----										
7	63.950	31.9	12.4	1.5	32.1	13.7	40.0	26.3	290	0
8	137.670	27.4	19.4	2.1	32.0	16.9	43.5	26.6	300	119
9	250.190	28.1	17.8	2.8	32.0	16.7	46.0	29.3	290	0
10	312.270	29.0	19.4	3.1	32.0	19.5	46.0	26.5	400	58
11	562.529	29.7	23.8	4.1	32.4	25.2	46.0	20.8	300	356
12	687.655	29.9	25.4	4.6	32.3	27.6	46.0	18.4	400	226

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11.6 Test data for the Multiple model (WCB737M)

11.6.1 Test data for 30 MHz ~ 1 000 MHz

11.6.1.1 Test data for WLAN 2.4 GHz

Humidity Level : 45 % R.H.

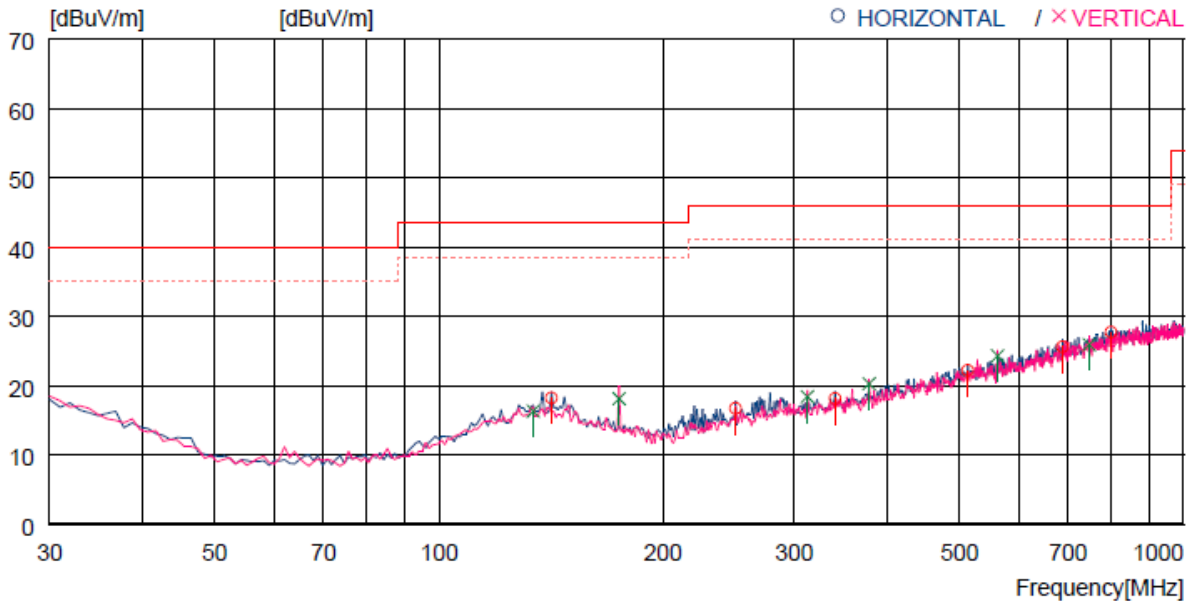
Temperature: 23 ° C

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	28.7	19.4	2.1	32.0	18.2	43.5	25.3	200	248
2	250.190	28.1	17.8	2.8	32.0	16.7	46.0	29.3	200	6
3	340.400	27.1	19.8	3.2	32.0	18.1	46.0	27.9	100	359
4	513.061	27.4	23.2	3.9	32.3	22.2	46.0	23.8	100	259
5	687.655	27.9	25.4	4.6	32.3	25.6	46.0	20.4	100	359
6	799.202	27.6	27.1	5.0	32.0	27.7	46.0	18.3	100	359
----- Vertical -----										
7	133.790	27.0	19.2	2.1	32.0	16.3	43.5	27.2	100	359
8	174.530	30.8	17.0	2.3	32.0	18.1	43.5	25.4	100	8
9	312.270	27.9	19.4	3.1	32.0	18.4	46.0	27.6	100	211
10	378.230	28.6	20.4	3.4	32.1	20.3	46.0	25.7	100	355
11	562.529	28.8	23.8	4.1	32.4	24.3	46.0	21.7	100	359
12	746.824	27.0	26.3	4.8	32.2	25.9	46.0	20.1	100	359

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

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

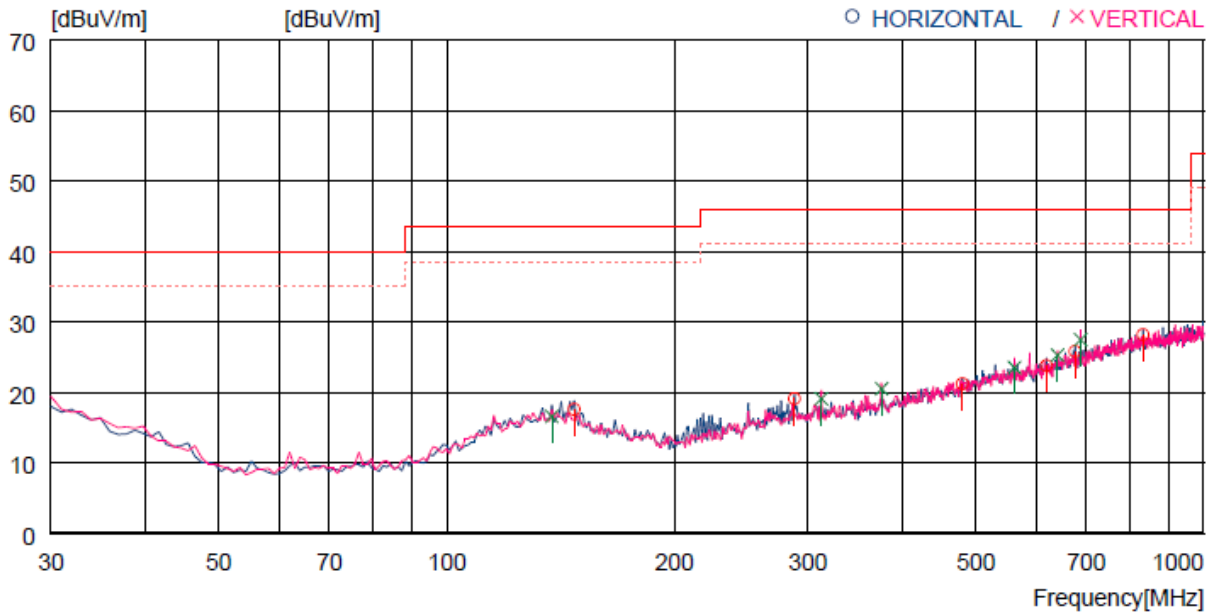
Humidity Level : 45 % R.H. Temperature: 23 ° C

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	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

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

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

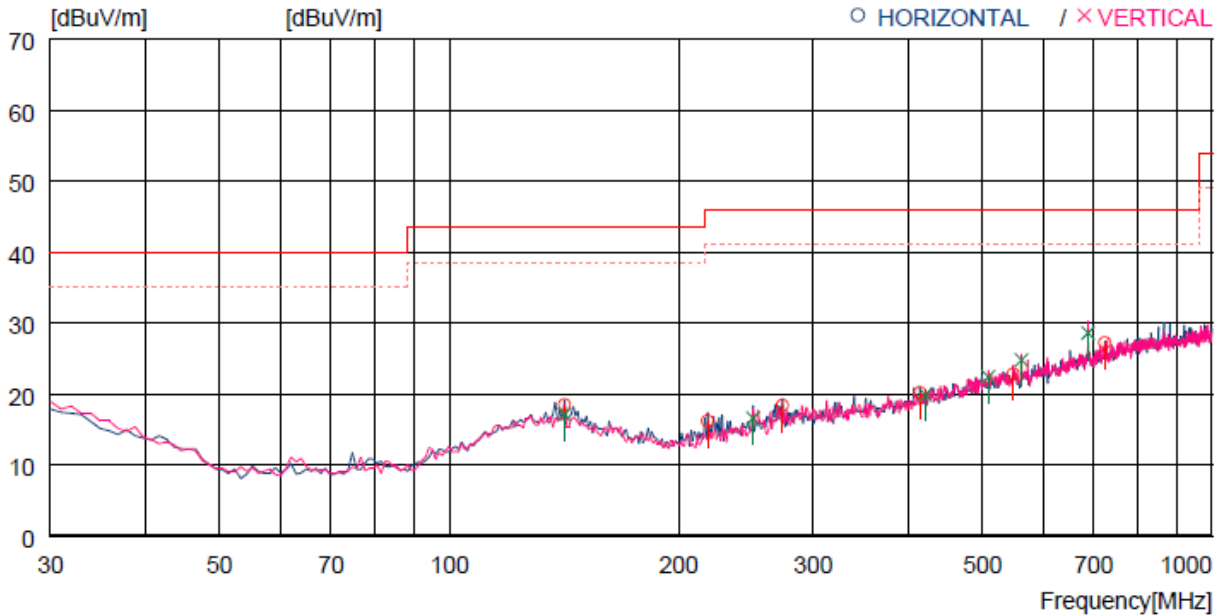
Humidity Level : 45 % R.H. Temperature: 23 ° C

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	29.0	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

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

11.7 Test data for the Multiple model (WCB736M)

11.7.1 Test data for 30 MHz ~ 1 000 MHz

11.7.1.1 Test data for WLAN 2.4 GHz

Humidity Level : 45 % R.H.

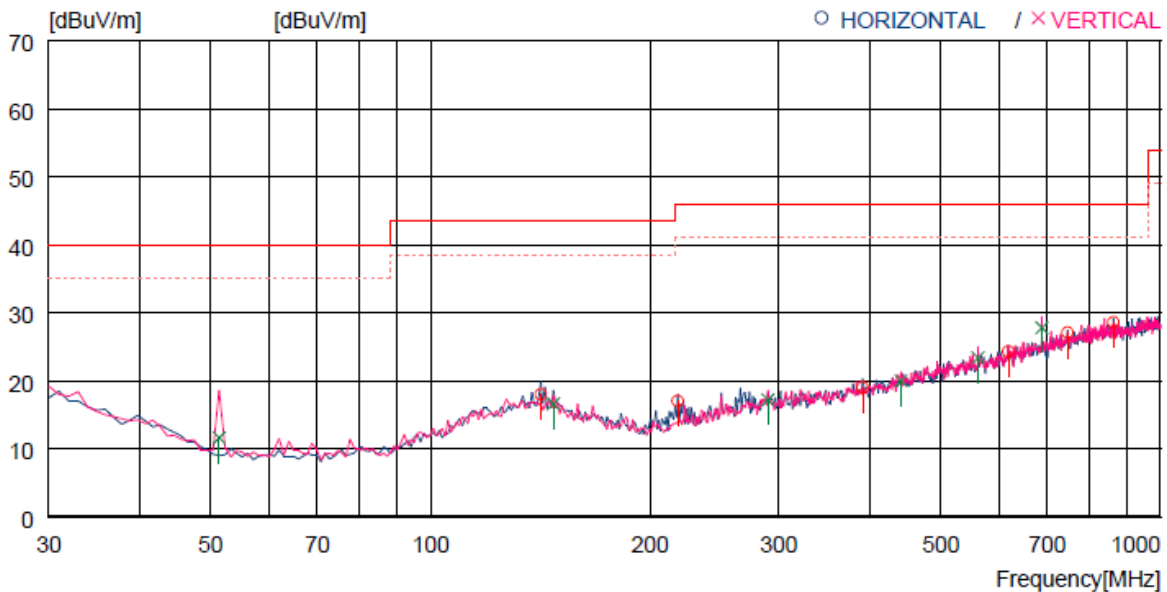
Temperature: 23 ° C

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	28.5	19.4	2.1	32.0	18.0	43.5	25.5	200	284
2	218.180	30.0	16.4	2.6	32.0	17.0	46.0	29.0	200	352
3	390.840	27.1	20.6	3.4	32.1	19.0	46.0	27.0	200	6
4	618.787	27.9	24.5	4.3	32.4	24.3	46.0	21.7	100	186
5	745.854	28.2	26.3	4.8	32.2	27.1	46.0	18.9	100	28
6	862.250	27.9	27.3	5.2	31.8	28.6	46.0	17.4	200	352
---- Vertical ----										
7	51.340	29.3	13.0	1.4	32.1	11.6	40.0	28.4	100	0
8	147.370	27.6	18.9	2.1	32.0	16.6	43.5	26.9	200	359
9	289.960	27.3	18.9	3.0	32.0	17.2	46.0	28.8	200	160
10	441.281	26.8	21.7	3.7	32.2	20.0	46.0	26.0	100	0
11	562.529	27.9	23.8	4.1	32.4	23.4	46.0	22.6	200	310
12	687.655	30.1	25.4	4.6	32.3	27.8	46.0	18.2	200	359

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

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

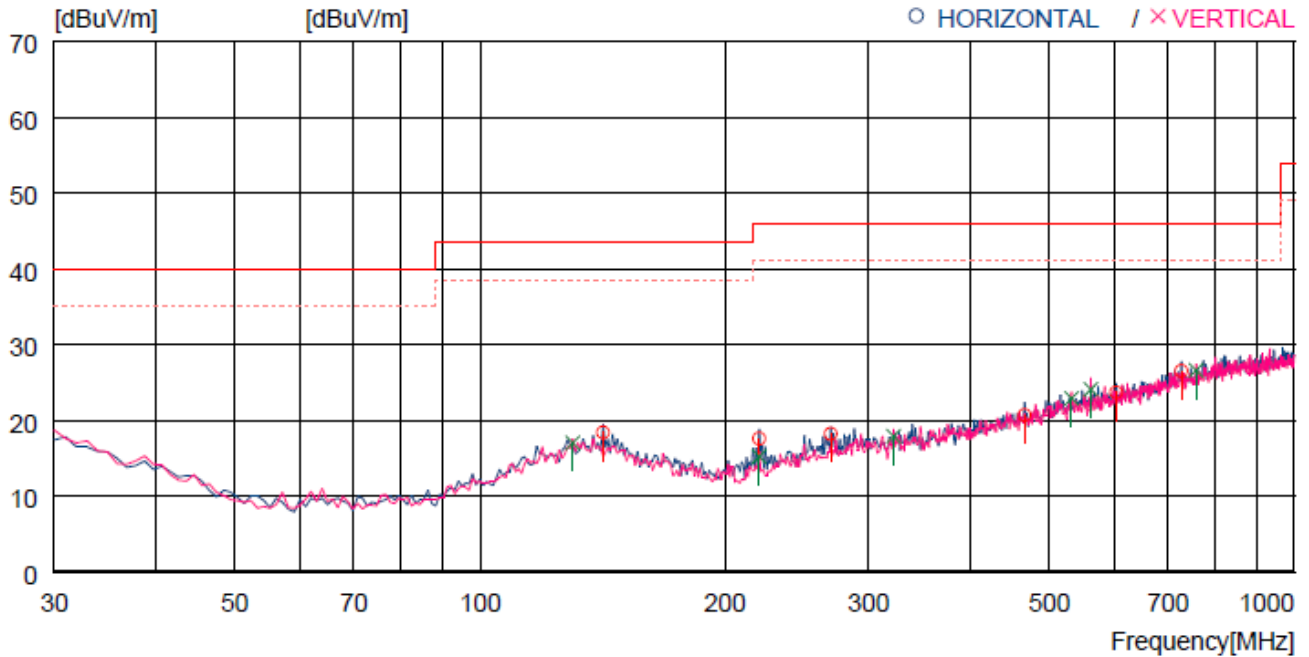
Humidity Level : 45 % R.H. Temperature: 23 ° C

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	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

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

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OTC-TRF-RF-001(0)

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

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

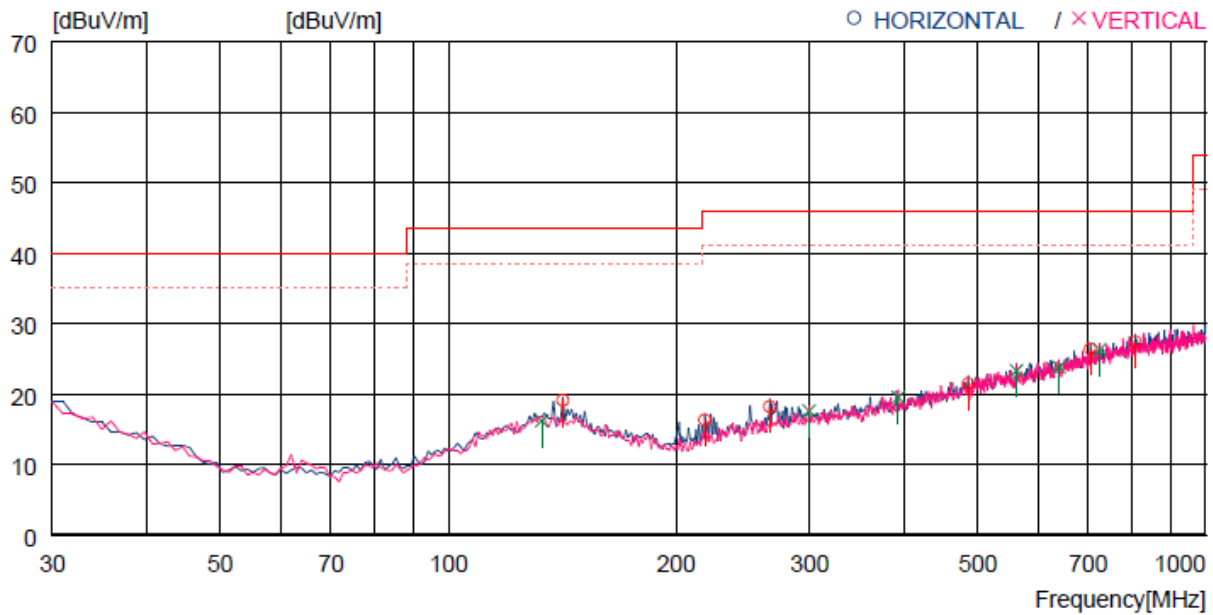
Humidity Level : 45 % R.H. Temperature: 23 ° C

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	29.6	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

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

11.8 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.									

11.9 Test data for above 1 GHz

- . 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
- . Frequency range : 1 GHz ~ 26.5 GHz
- . 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.									

12. CONDUCTED EMISSION TEST

12.1 Operating environment

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

12.2 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 μ H + 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.

12.3 Test Date

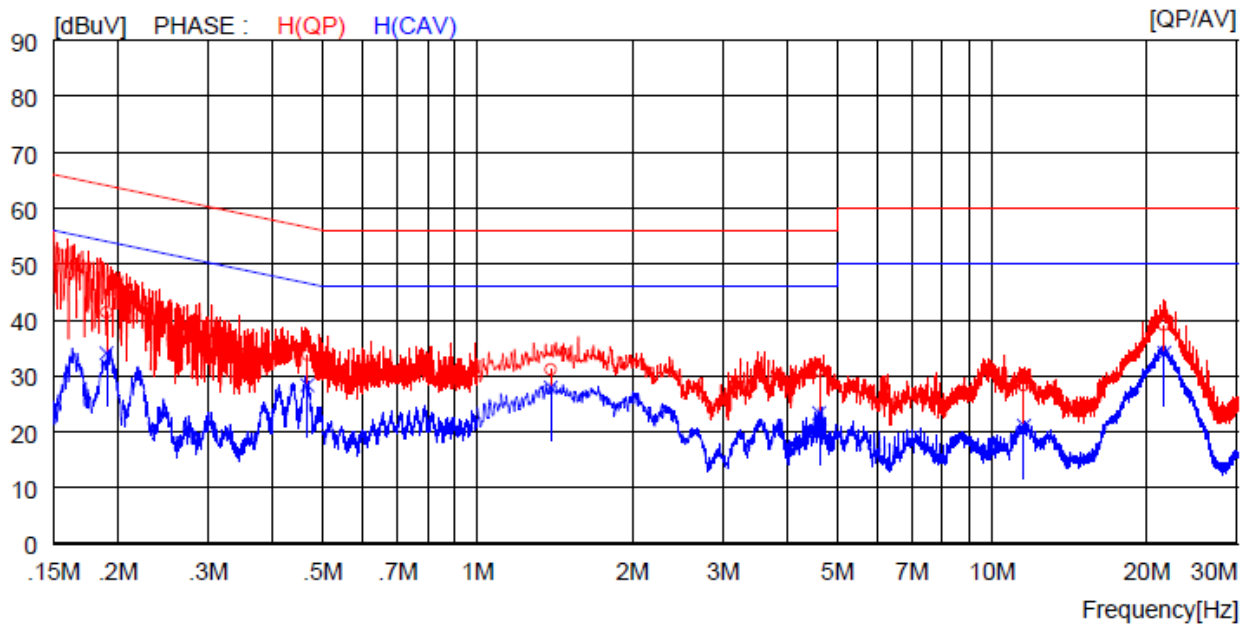
October 07, 2021 ~ October 20, 2021

12.4 Test data for the Basic model (WCB731M)

12.4.1 Test data for WLAN 2.4 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.

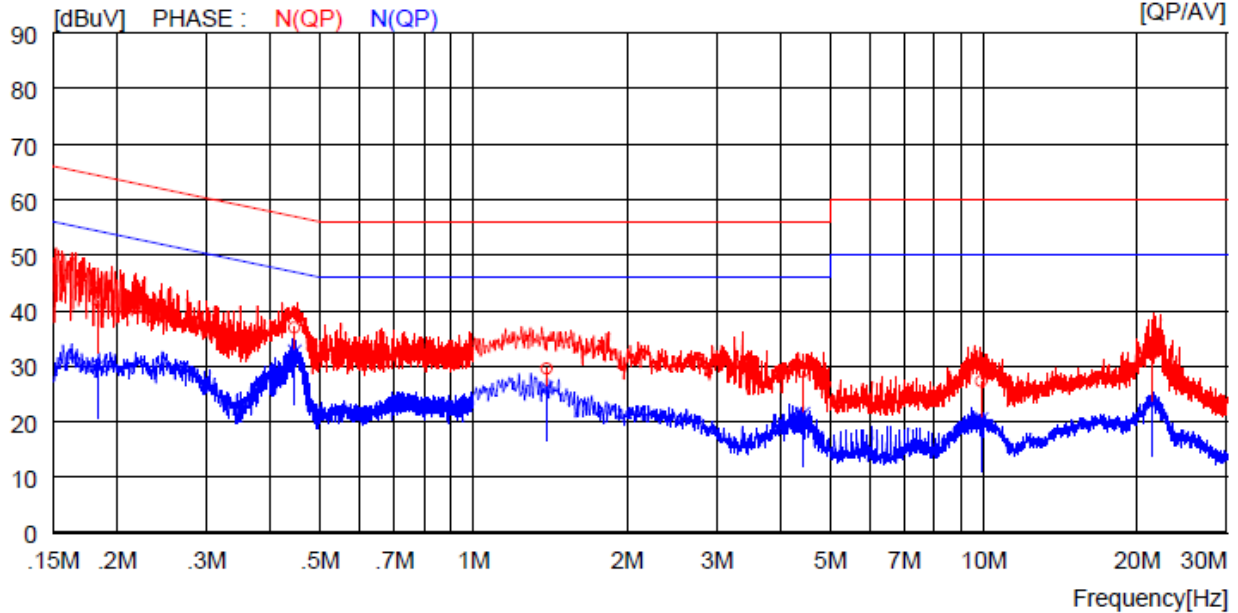
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.19000	31.4	----	10.0	41.4	----	64.0	----	22.6	----	H (QP)
2	0.46700	23.7	----	10.0	33.7	----	56.6	----	22.9	----	H (QP)
3	1.38800	21.1	----	10.1	31.2	----	56.0	----	24.8	----	H (QP)
4	4.61600	20.8	----	10.2	31.0	----	56.0	----	25.0	----	H (QP)
5	11.53000	18.1	----	10.2	28.3	----	60.0	----	31.7	----	H (QP)
6	21.63000	28.7	----	10.4	39.1	----	60.0	----	20.9	----	H (QP)
7	0.19000	----	24.0	10.0	----	34.0	----	54.0	----	20.0	H (CAV)
8	0.46700	----	18.4	10.0	----	28.4	----	46.6	----	18.2	H (CAV)
9	1.38800	----	17.8	10.1	----	27.9	----	46.0	----	18.1	H (CAV)
10	4.61600	----	13.2	10.2	----	23.4	----	46.0	----	22.6	H (CAV)
11	11.53000	----	10.9	10.2	----	21.1	----	50.0	----	28.9	H (CAV)
12	21.63000	----	23.8	10.4	----	34.2	----	50.0	----	15.8	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		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.18400	31.8	----	10.0	41.8	----	64.3	----	22.5	----	N (QP)
2	0.44600	27.0	----	10.0	37.0	----	56.9	----	19.9	----	N (QP)
3	1.39200	19.4	----	10.1	29.5	----	56.0	----	26.5	----	N (QP)
4	4.43200	18.9	----	10.1	29.0	----	56.0	----	27.0	----	N (QP)
5	9.90500	17.1	----	10.2	27.3	----	60.0	----	32.7	----	N (QP)
6	21.45000	21.9	----	10.4	32.3	----	60.0	----	27.7	----	N (QP)
7	0.18400	----	20.2	10.0	----	30.2	----	54.3	----	24.1	N (CAV)
8	0.44600	----	22.7	10.0	----	32.7	----	46.9	----	14.2	N (CAV)
9	1.39200	----	16.0	10.1	----	26.1	----	46.0	----	19.9	N (CAV)
10	4.43200	----	11.3	10.1	----	21.4	----	46.0	----	24.6	N (CAV)
11	9.90500	----	10.3	10.2	----	20.5	----	50.0	----	29.5	N (CAV)
12	21.45000	----	12.9	10.4	----	23.3	----	50.0	----	26.7	N (CAV)

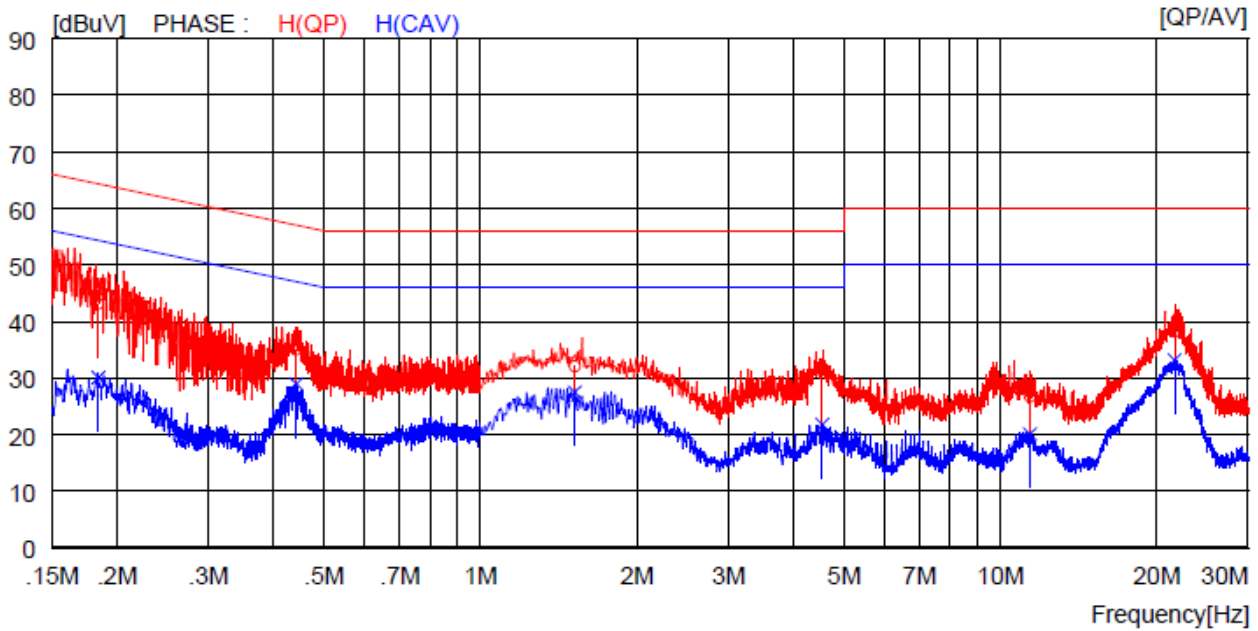
Remark: Margin (dB) = Limit – Level (Result)

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

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

- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : LIVE LINE

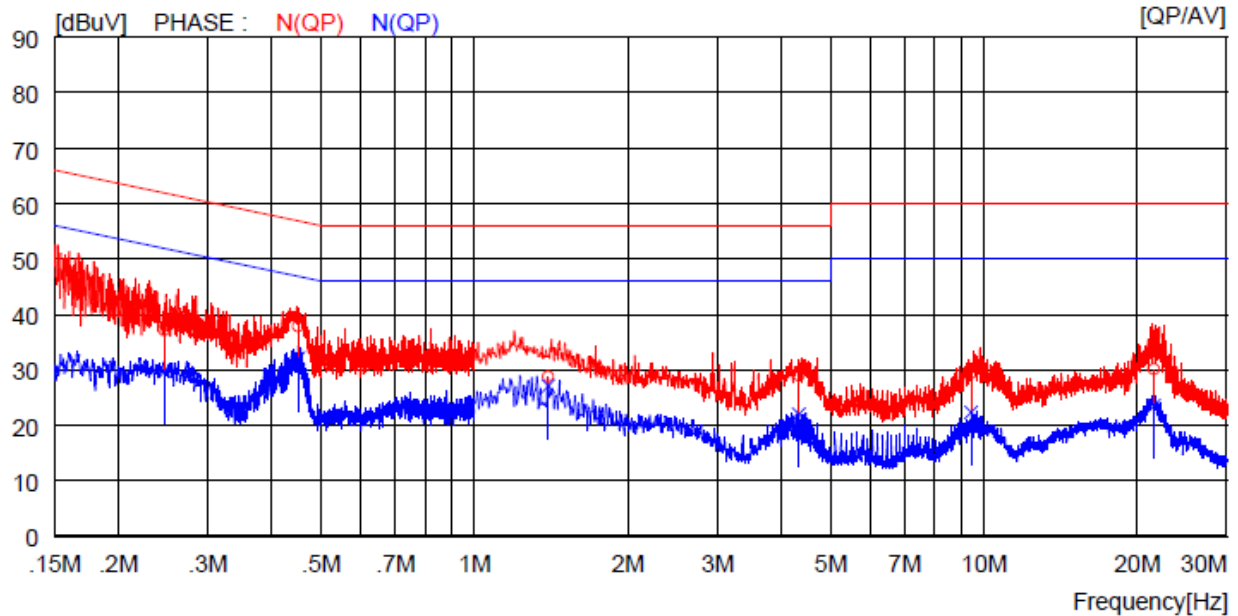
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
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		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
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)

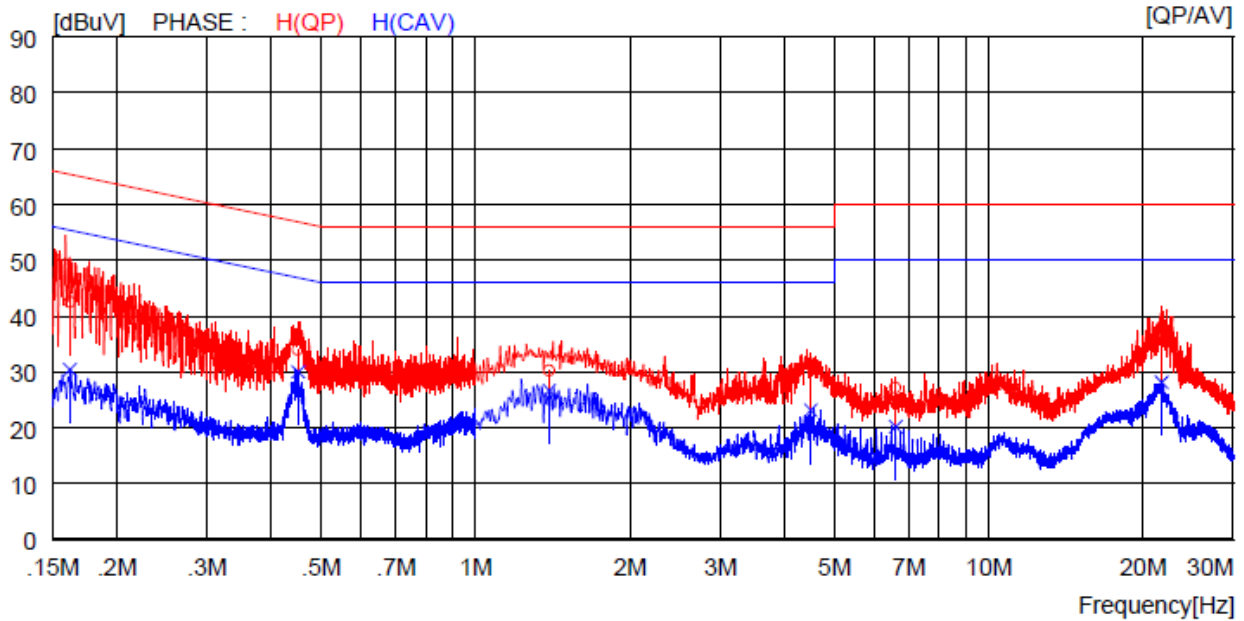
Remark: Margin (dB) = Limit – Level (Result)

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

12.4.3 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

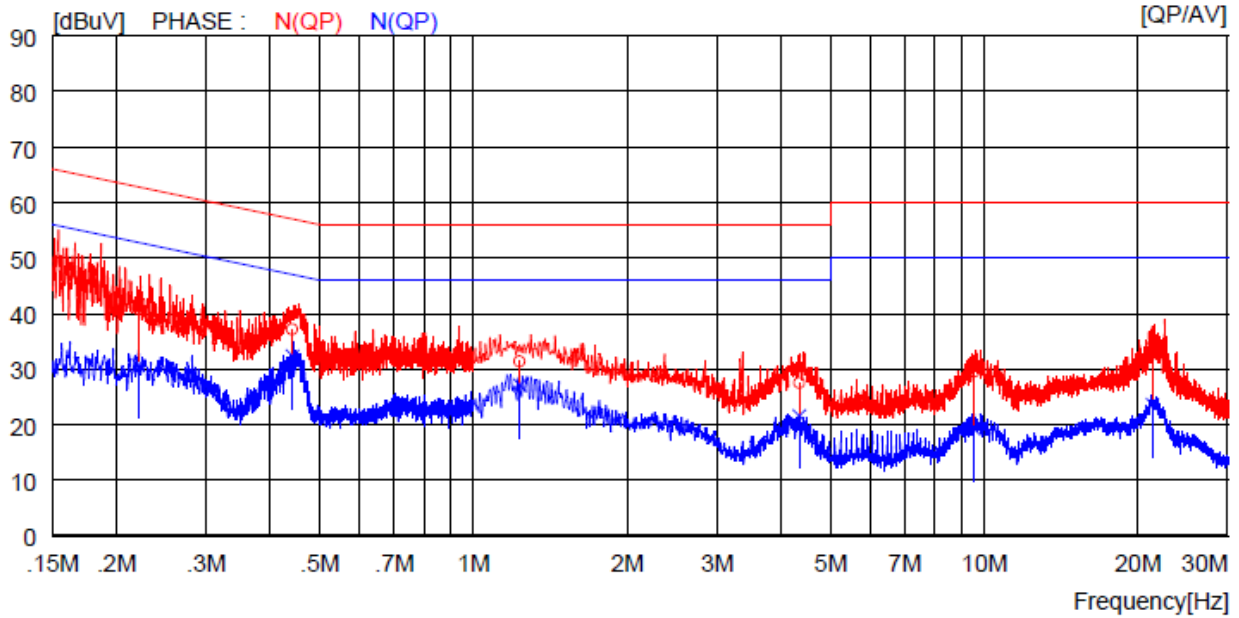
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [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 [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [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)

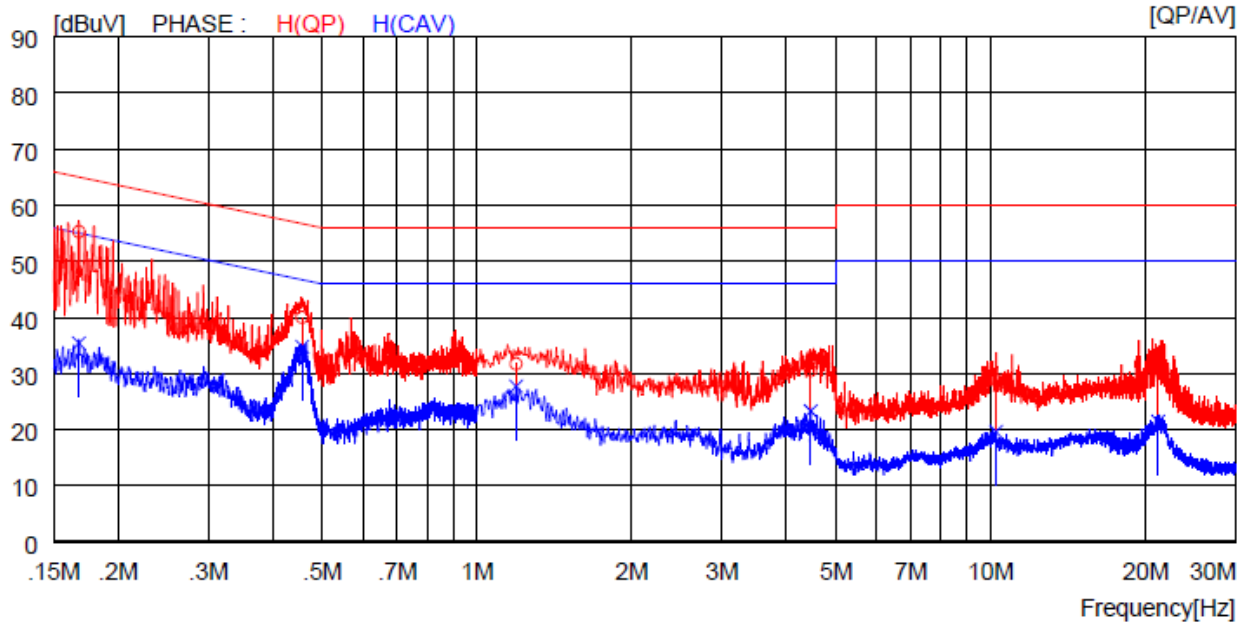
The emission level in above table is included the transducer factor that means insertion loss (LISN),
cable loss and attenuator.

12.5 Test data for the Multiple model (WCB730M)

12.5.1 Test data for WLAN 2.4 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)

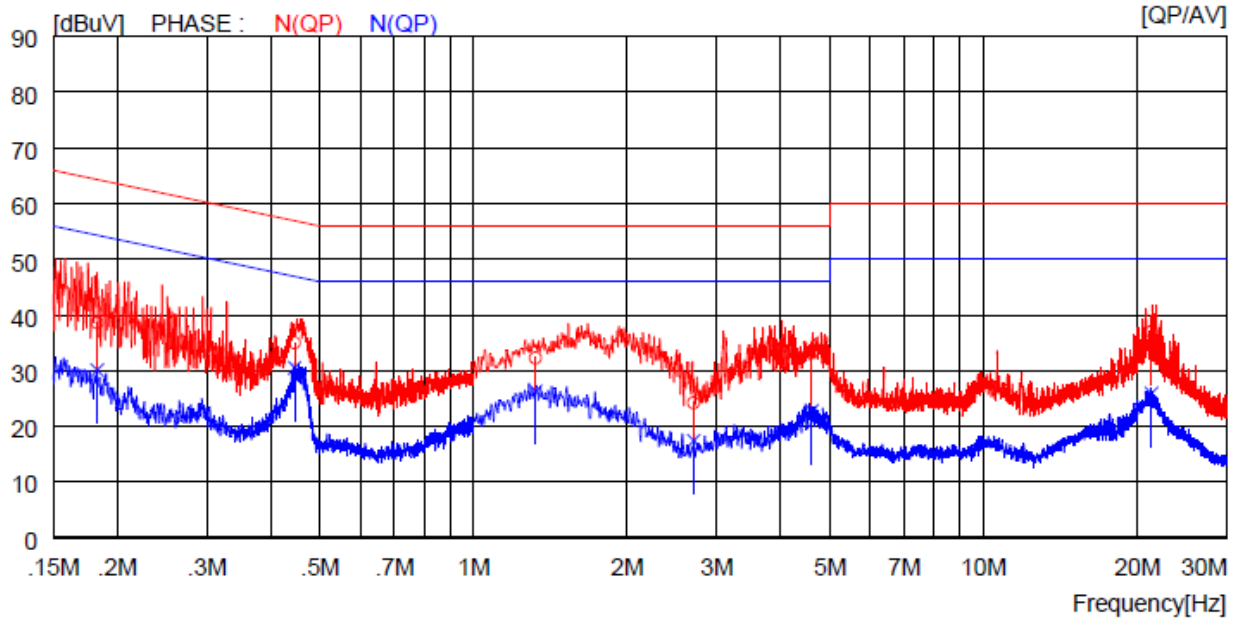


NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.16800	45.4	----	9.9	55.3	----	65.1	----	9.8	----	H (QP)
2	0.45700	30.1	----	9.9	40.0	----	56.7	----	16.7	----	H (QP)
3	1.19200	21.7	----	10.0	31.7	----	56.0	----	24.3	----	H (QP)
4	4.46400	20.4	----	10.1	30.5	----	56.0	----	25.5	----	H (QP)
5	10.24000	18.6	----	10.2	28.8	----	60.0	----	31.2	----	H (QP)
6	21.19000	21.9	----	10.4	32.3	----	60.0	----	27.7	----	H (QP)
7	0.16800	----	25.5	9.9	----	35.4	----	55.1	----	19.7	H (CAV)
8	0.45700	----	24.9	9.9	----	34.8	----	46.7	----	11.9	H (CAV)
9	1.19200	----	17.7	10.0	----	27.7	----	46.0	----	18.3	H (CAV)
10	4.46400	----	13.2	10.1	----	23.3	----	46.0	----	22.7	H (CAV)
11	10.24000	----	9.4	10.2	----	19.6	----	50.0	----	30.4	H (CAV)
12	21.19000	----	11.0	10.4	----	21.4	----	50.0	----	28.6	H (CAV)

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

-. Tested Line : NEUTRAL LINE

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



NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.18300	28.7	----	9.9	38.6	----	64.3	----	25.7	----	N (QP)
2	0.44600	25.1	----	9.9	35.0	----	56.9	----	21.9	----	N (QP)
3	1.32400	22.2	----	10.1	32.3	----	56.0	----	23.7	----	N (QP)
4	2.70400	14.1	----	10.1	24.2	----	56.0	----	31.8	----	N (QP)
5	4.60800	23.1	----	10.1	33.2	----	56.0	----	22.8	----	N (QP)
6	21.36000	26.6	----	10.4	37.0	----	60.0	----	23.0	----	N (QP)
7	0.18300	----	20.2	9.9	----	30.1	----	54.3	----	24.2	N (CAV)
8	0.44600	----	20.6	9.9	----	30.5	----	46.9	----	16.4	N (CAV)
9	1.32400	----	16.2	10.1	----	26.3	----	46.0	----	19.7	N (CAV)
10	2.70400	----	7.3	10.1	----	17.4	----	46.0	----	28.6	N (CAV)
11	4.60800	----	12.7	10.1	----	22.8	----	46.0	----	23.2	N (CAV)
12	21.36000	----	15.5	10.4	----	25.9	----	50.0	----	24.1	N (CAV)

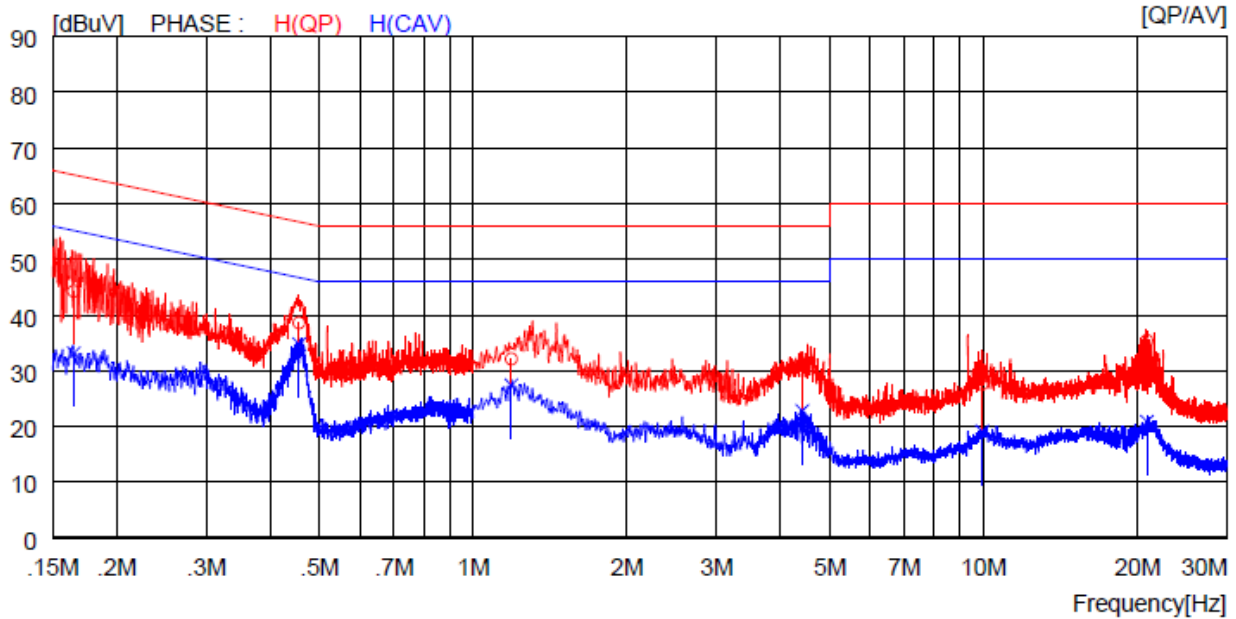
Remark: Margin (dB) = Limit – Level (Result)

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

12.5.2 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

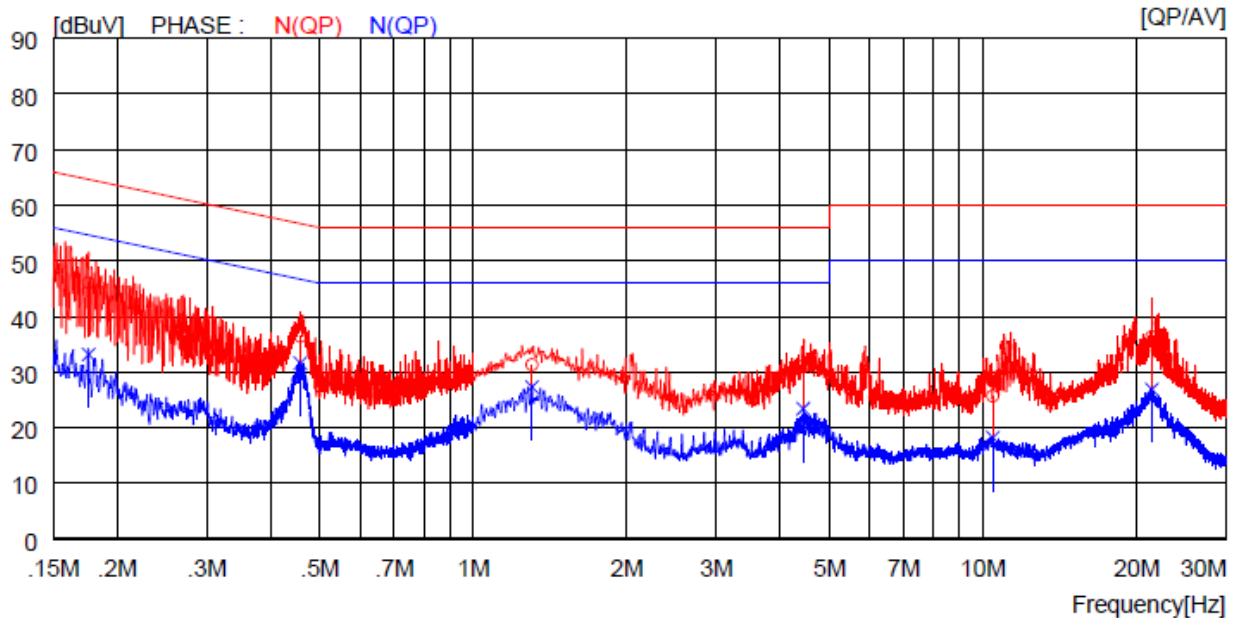
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [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		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
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)

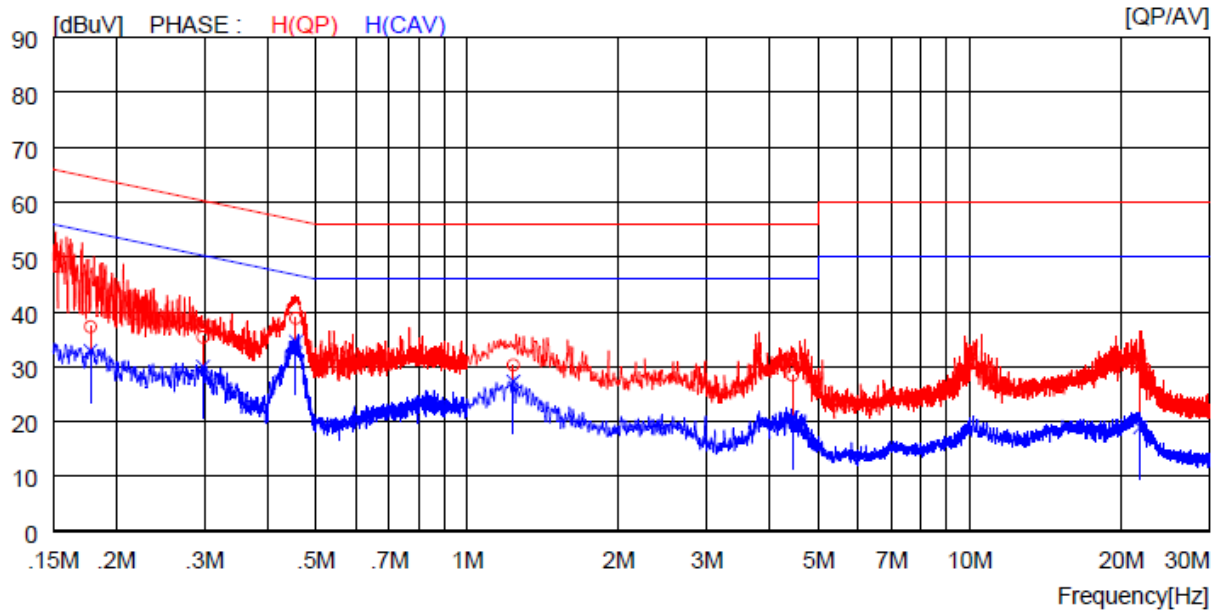
Remark: Margin (dB) = Limit – Level (Result)

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

12.5.3 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 [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [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)

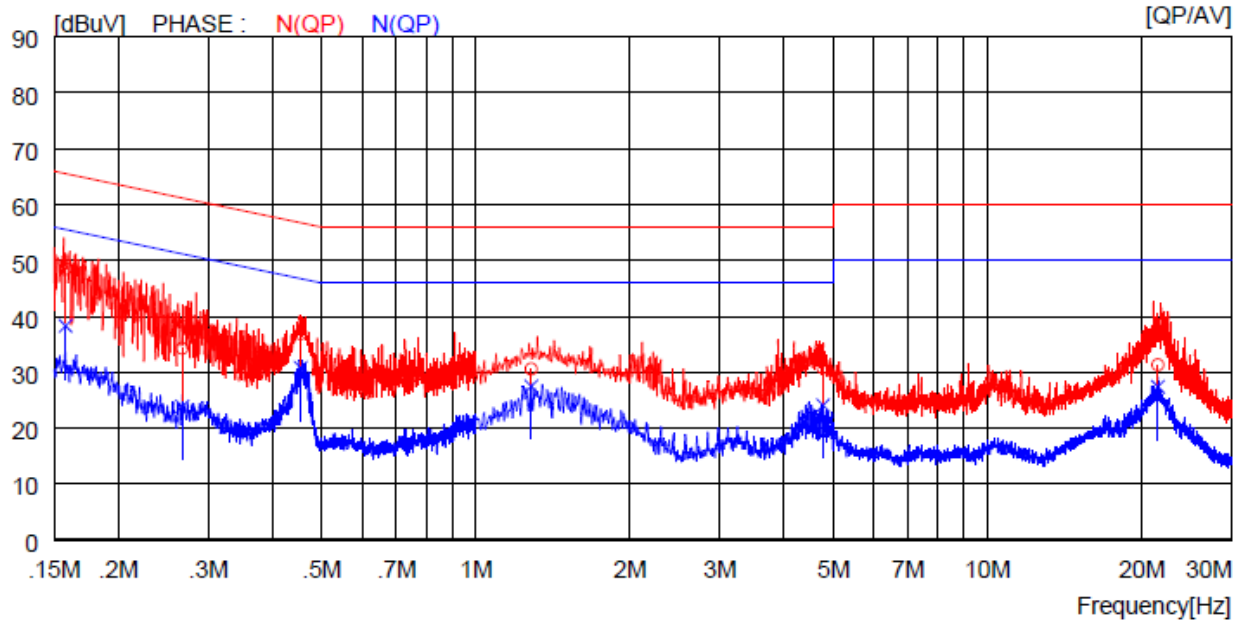
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OTC-TRF-RF-001(0)

-. 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		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
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)

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

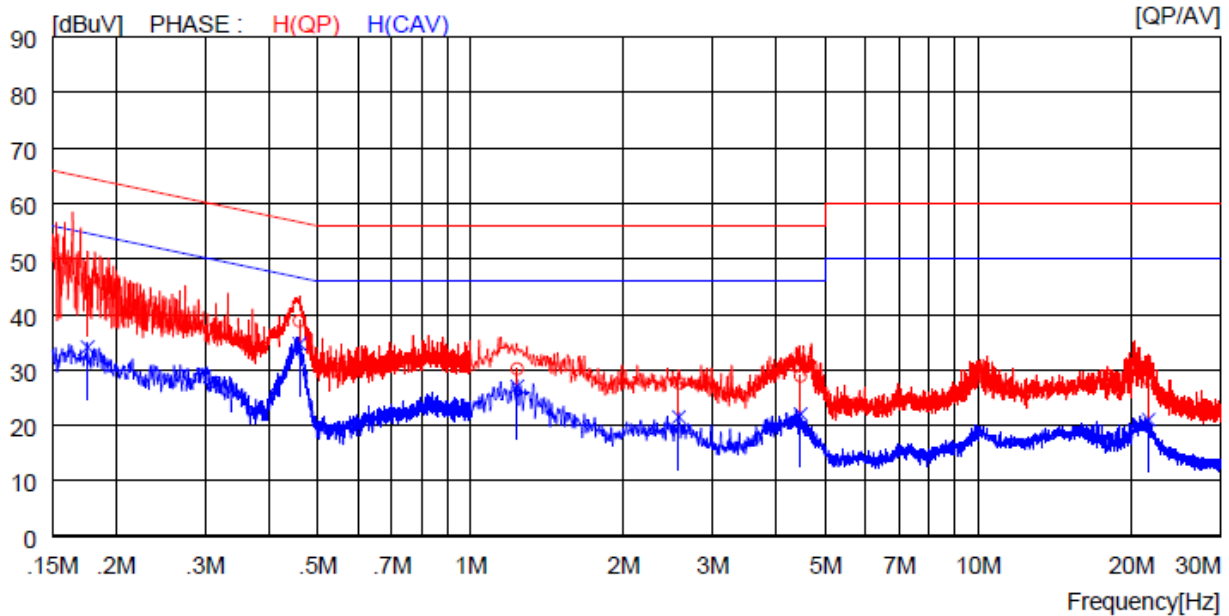
The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

12.6 Test data for the Multiple model (WCB737M)

12.6.1 Test data for WLAN 2.4 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)

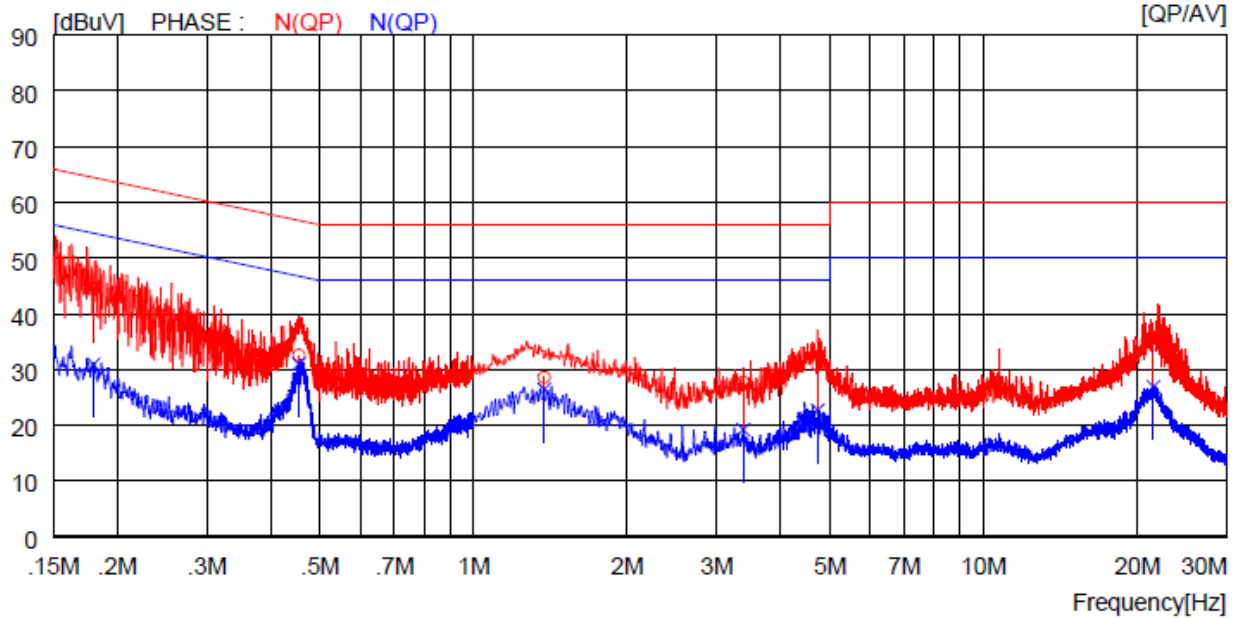


NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.17600	35.6	----	9.9	45.5	----	64.7	----	19.2	----	H (QP)
2	0.46000	28.9	----	9.9	38.8	----	56.7	----	17.9	----	H (QP)
3	1.23600	20.1	----	10.1	30.2	----	56.0	----	25.8	----	H (QP)
4	2.57200	17.5	----	10.1	27.6	----	56.0	----	28.4	----	H (QP)
5	4.46400	18.8	----	10.1	28.9	----	56.0	----	27.1	----	H (QP)
6	21.65000	17.9	----	10.4	28.3	----	60.0	----	31.7	----	H (QP)
7	0.17600	----	24.2	9.9	----	34.1	----	54.7	----	20.6	H (CAV)
8	0.46000	----	24.8	9.9	----	34.7	----	46.7	----	12.0	H (CAV)
9	1.23600	----	16.9	10.1	----	27.0	----	46.0	----	19.0	H (CAV)
10	2.57200	----	11.4	10.1	----	21.5	----	46.0	----	24.5	H (CAV)
11	4.46400	----	11.9	10.1	----	22.0	----	46.0	----	24.0	H (CAV)
12	21.65000	----	10.6	10.4	----	21.0	----	50.0	----	29.0	H (CAV)

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

-. Tested Line : NEUTRAL LINE

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



NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.18000	34.5	----	9.9	44.4	----	64.5	----	20.1	----	N (QP)
2	0.45500	22.7	----	9.9	32.6	----	56.8	----	24.2	----	N (QP)
3	1.37600	18.5	----	10.1	28.6	----	56.0	----	27.4	----	N (QP)
4	3.38000	17.6	----	10.1	27.7	----	56.0	----	28.3	----	N (QP)
5	4.73200	20.7	----	10.1	30.8	----	56.0	----	25.2	----	N (QP)
6	21.55000	24.1	----	10.4	34.5	----	60.0	----	25.5	----	N (QP)
7	0.18000	----	21.0	9.9	----	30.9	----	54.5	----	23.6	N (CAV)
8	0.45500	----	21.1	9.9	----	31.0	----	46.8	----	15.8	N (CAV)
9	1.37600	----	16.3	10.1	----	26.4	----	46.0	----	19.6	N (CAV)
10	3.38000	----	9.1	10.1	----	19.2	----	46.0	----	26.8	N (CAV)
11	4.73200	----	12.6	10.1	----	22.7	----	46.0	----	23.3	N (CAV)
12	21.55000	----	16.5	10.4	----	26.9	----	50.0	----	23.1	N (CAV)

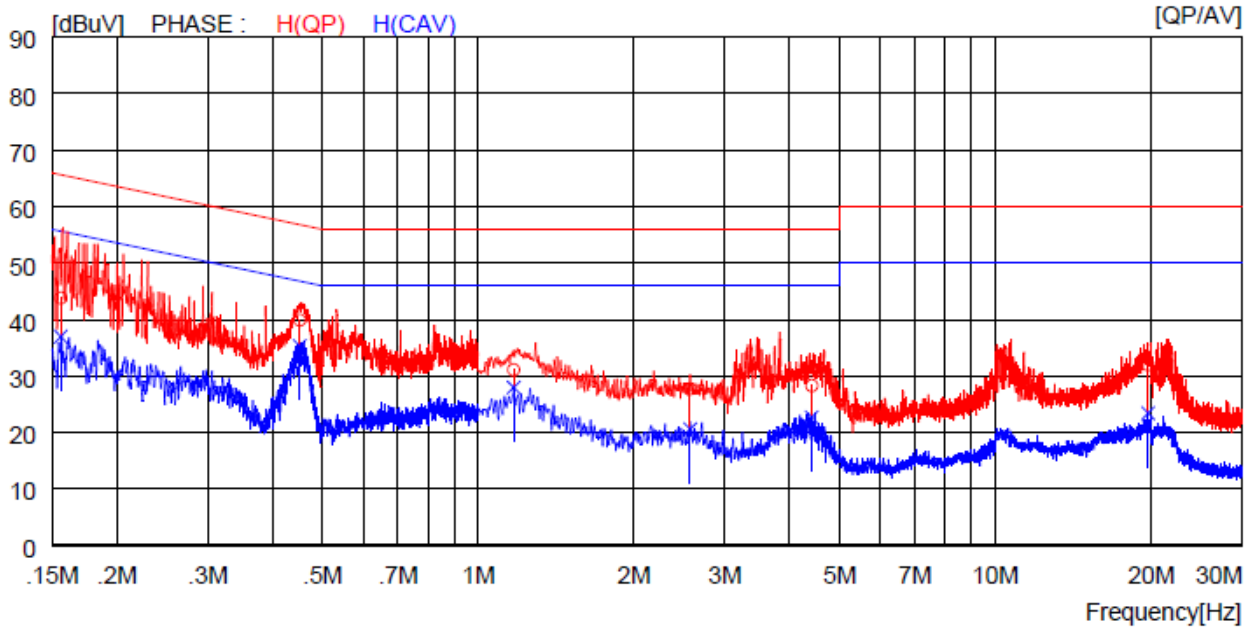
Remark: Margin (dB) = Limit – Level (Result)

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

12.6.2 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 [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [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)

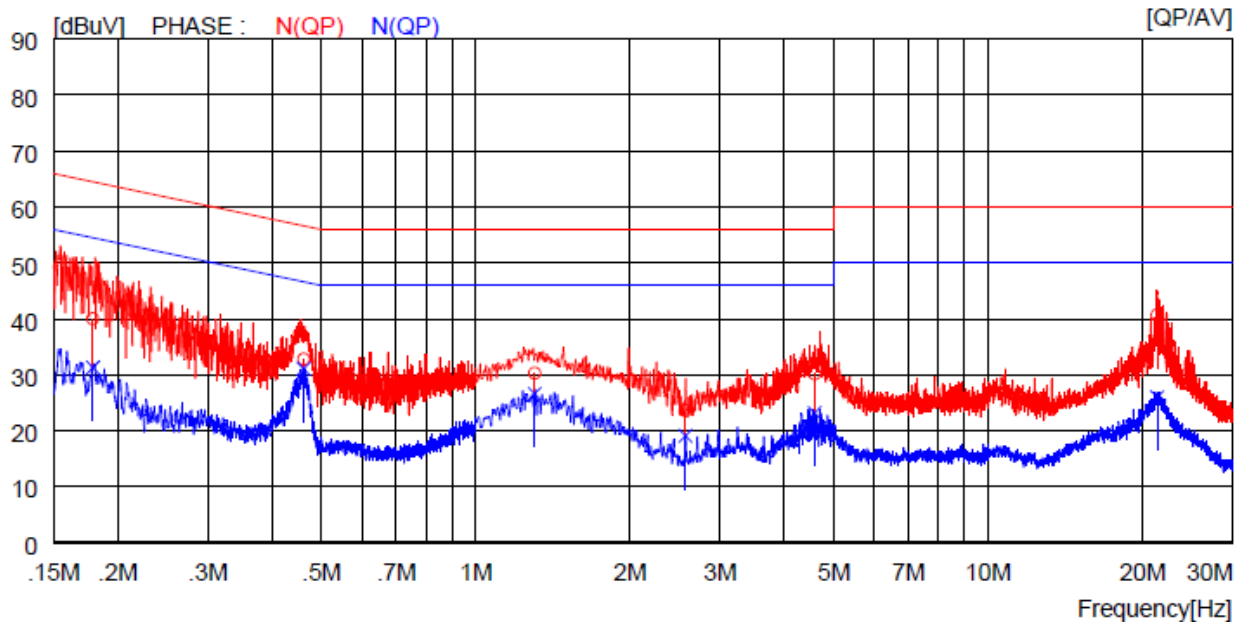
This Report is not correlated with the authentication of KOLAS

It should not be reproduced except in full, without the written approval of ONETECH Corp.

OTC-TRF-RF-001(0)

-. 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		C.FACTOR		RESULT		LIMIT		MARGIN	PHASE
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV		
	[MHz]	[dBuV]	[dBuV]	[dB]	[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)	

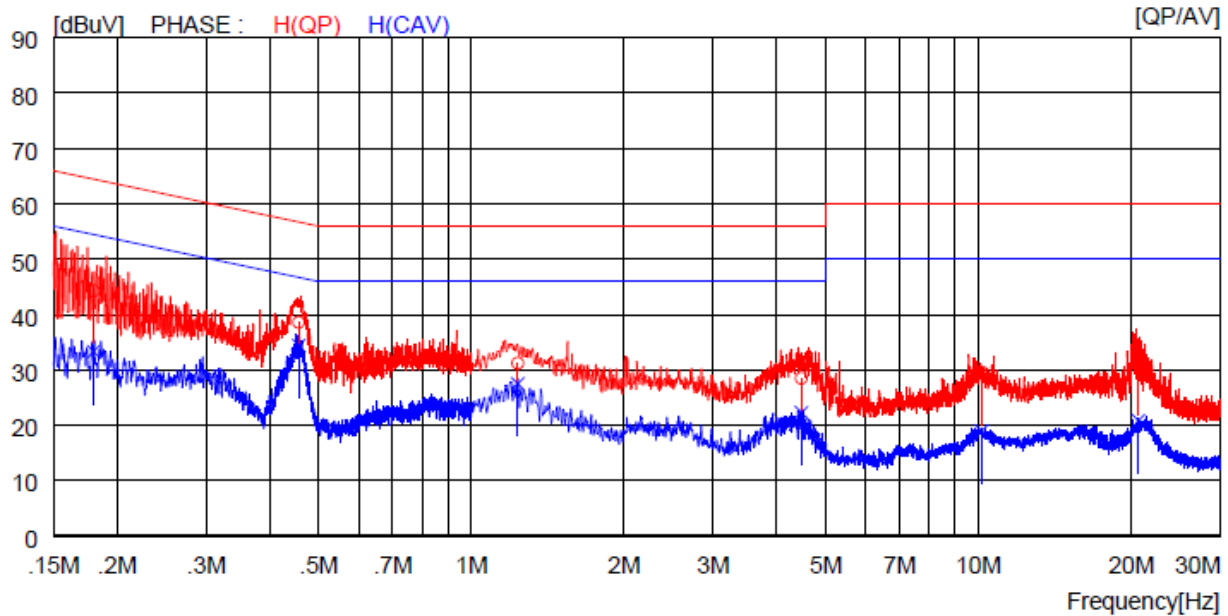
Remark: Margin (dB) = Limit – Level (Result)

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

12.6.3 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

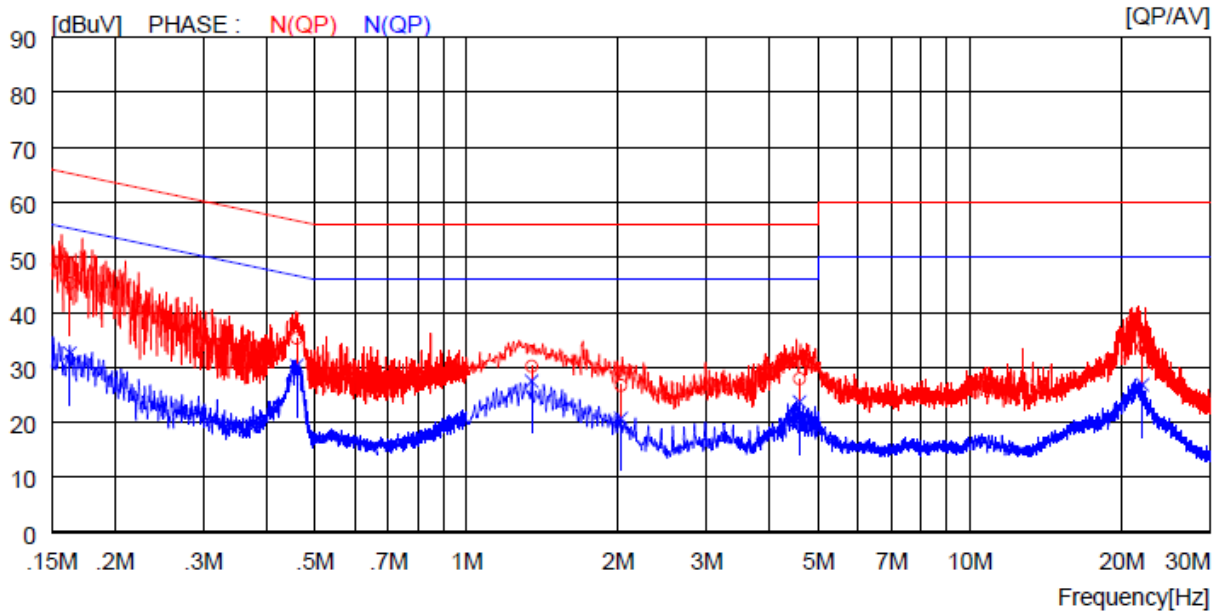
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
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		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
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)

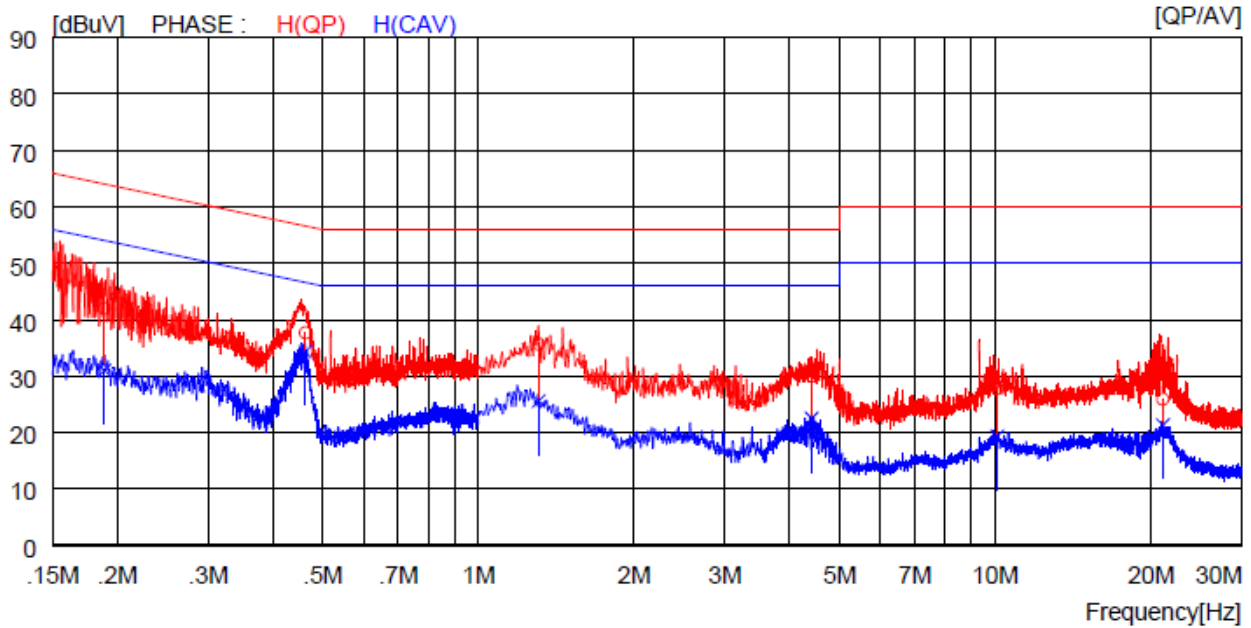
The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

12.7 Test data for the Multiple model (WCB736M)

12.7.1 Test data for WLAN 2.4 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)

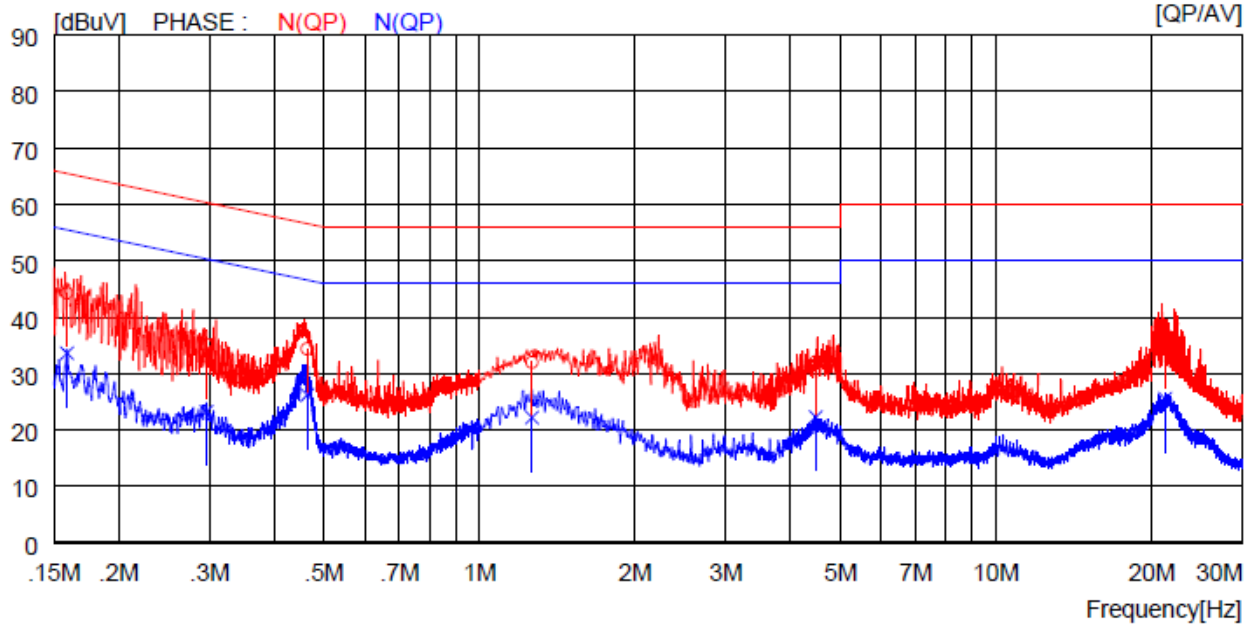


NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.18900	32.1	----	9.9	42.0	----	64.1	----	22.1	----	H (QP)
2	0.46300	27.8	----	9.9	37.7	----	56.6	----	18.9	----	H (QP)
3	1.30800	25.6	----	10.1	35.7	----	56.0	----	20.3	----	H (QP)
4	4.41600	19.9	----	10.1	30.0	----	56.0	----	26.0	----	H (QP)
5	10.09000	17.6	----	10.2	27.8	----	60.0	----	32.2	----	H (QP)
6	21.11000	15.5	----	10.4	25.9	----	60.0	----	34.1	----	H (QP)
7	0.18900	----	21.1	9.9	----	31.0	----	54.1	----	23.1	H (CAV)
8	0.46300	----	24.4	9.9	----	34.3	----	46.6	----	12.3	H (CAV)
9	1.30800	----	15.5	10.1	----	25.6	----	46.0	----	20.4	H (CAV)
10	4.41600	----	12.4	10.1	----	22.5	----	46.0	----	23.5	H (CAV)
11	10.09000	----	9.1	10.2	----	19.3	----	50.0	----	30.7	H (CAV)
12	21.11000	----	10.9	10.4	----	21.3	----	50.0	----	28.7	H (CAV)

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

-. Tested Line : NEUTRAL LINE

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



NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.15900	34.4	----	9.9	44.3	----	65.5	----	21.2	----	N (QP)
2	0.29600	25.3	----	9.9	35.2	----	60.4	----	25.2	----	N (QP)
3	0.46400	24.5	----	9.9	34.4	----	56.6	----	22.2	----	N (QP)
4	1.26400	21.9	----	10.1	32.0	----	56.0	----	24.0	----	N (QP)
5	4.48400	22.0	----	10.1	32.1	----	56.0	----	23.9	----	N (QP)
6	21.27000	26.5	----	10.4	36.9	----	60.0	----	23.1	----	N (QP)
7	0.15900	----	23.7	9.9	----	33.6	----	55.5	----	21.9	N (CAV)
8	0.29600	----	13.3	9.9	----	23.2	----	50.4	----	27.2	N (CAV)
9	0.46400	----	16.3	9.9	----	26.2	----	46.6	----	20.4	N (CAV)
10	1.26400	----	12.1	10.1	----	22.2	----	46.0	----	23.8	N (CAV)
11	4.48400	----	12.2	10.1	----	22.3	----	46.0	----	23.7	N (CAV)
12	21.27000	----	15.1	10.4	----	25.5	----	50.0	----	24.5	N (CAV)

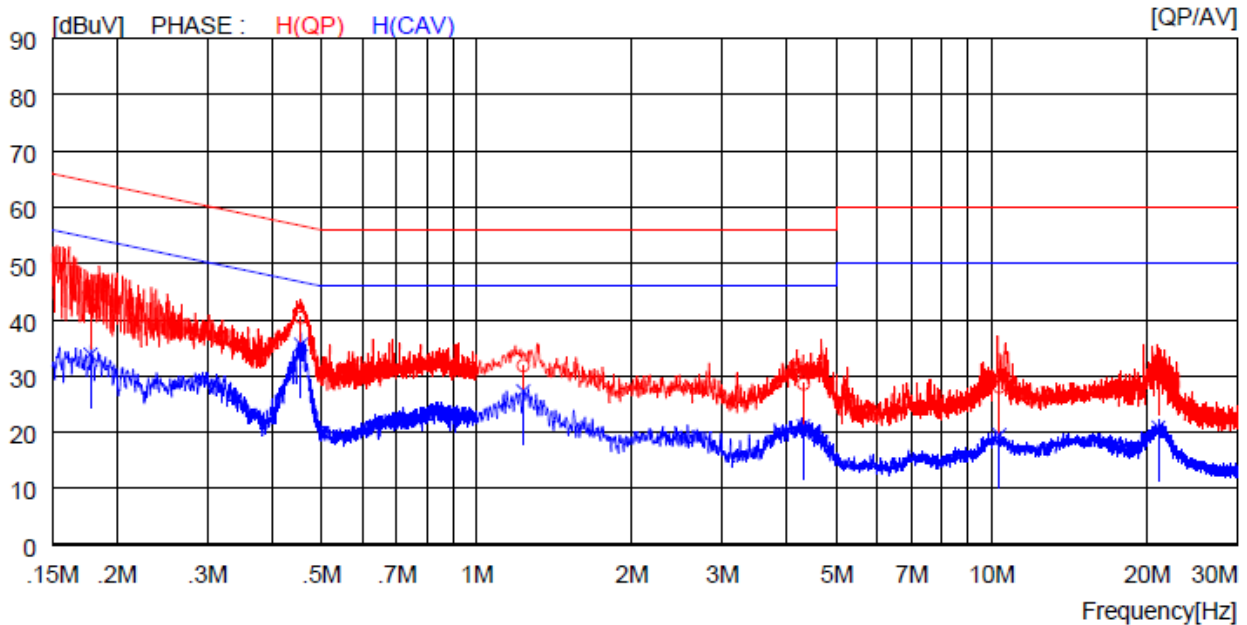
Remark: Margin (dB) = Limit – Level (Result)

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

12.7.2 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

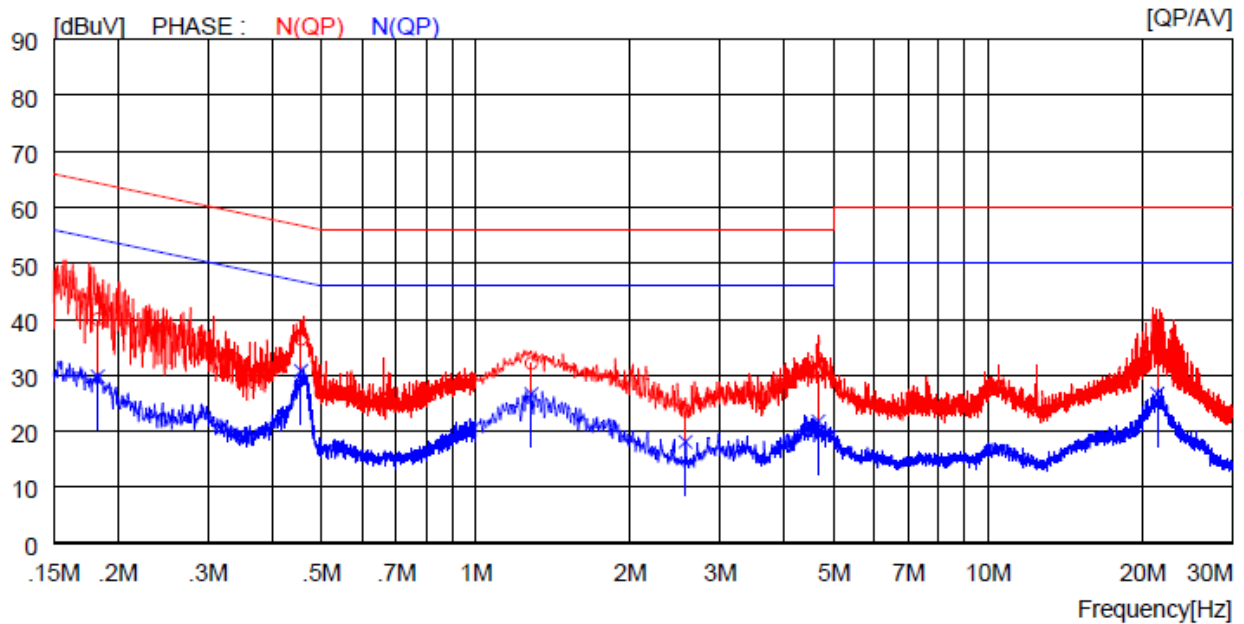
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
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)

-. 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		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
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)

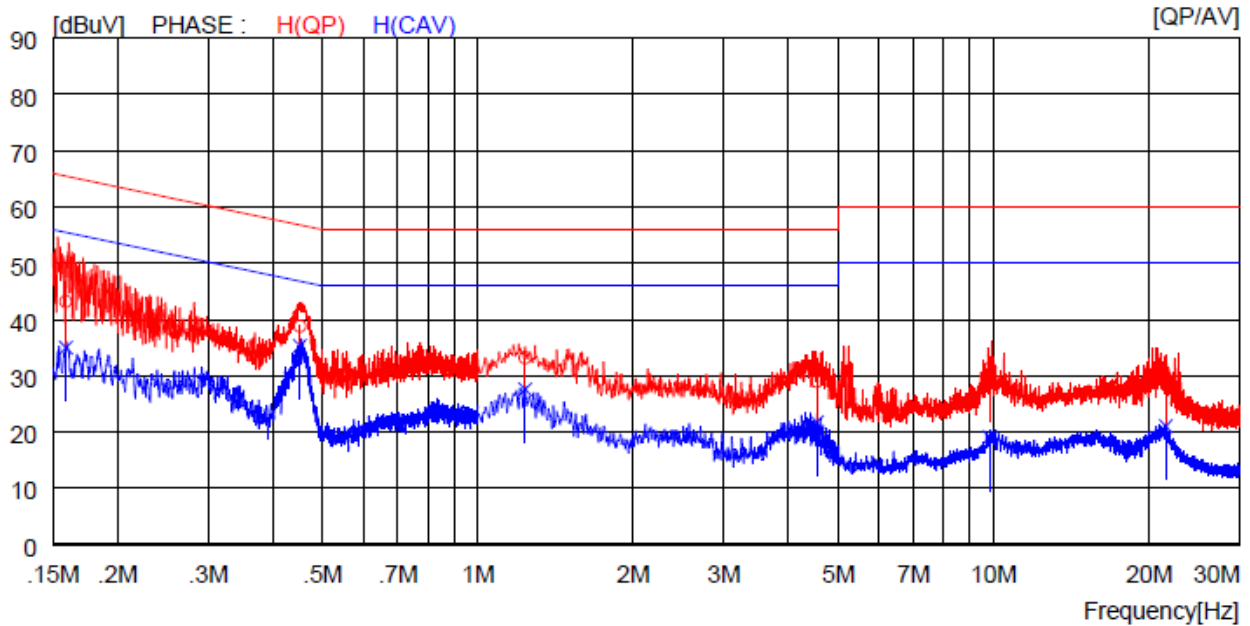
Remark: Margin (dB) = Limit – Level (Result)

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

12.7.3 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

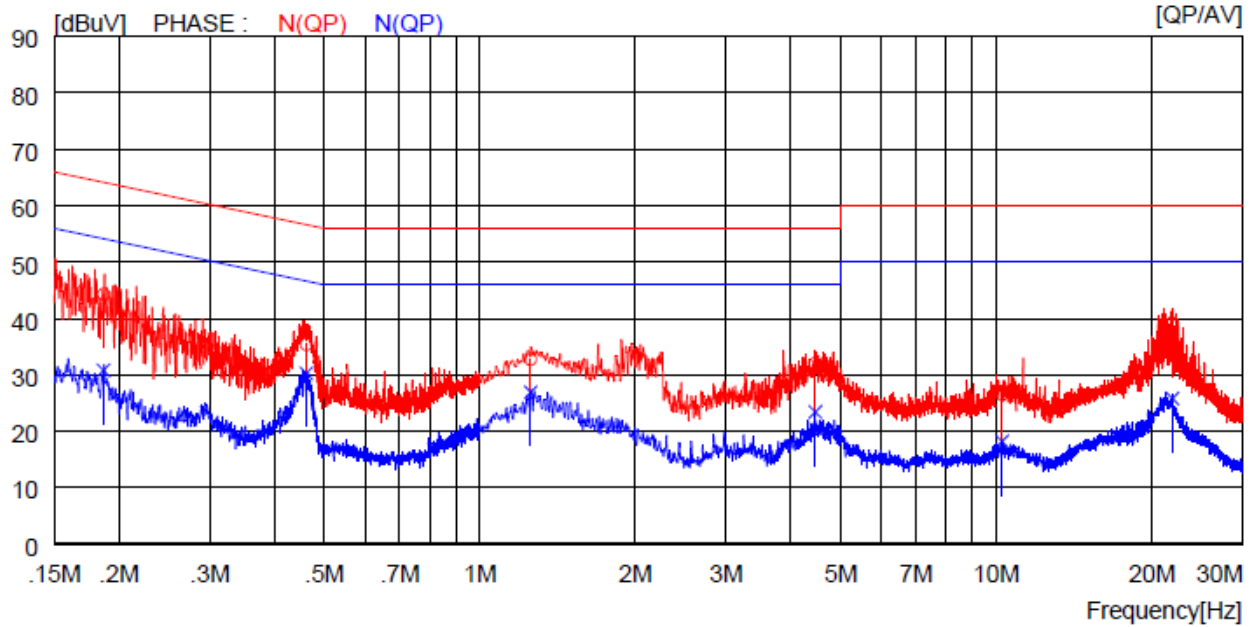
LIMIT : EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Quasi-Peak Limits (Mains Ports)
EN.KN.FCC.VCCI_CISPR Pub.22 Class B, Average Limits (Mains Ports)



NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [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)

-. 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		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
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.

13. 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)
310N	Sonoma Instrument	Pre-Amplifier	392756	Oct. 14, 2021 (1Y)
SCU18	Rohde & Schwarz	Pre-Amplifier	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)
10 dB Attenuator	Rohde & Schwarz	10 dB Attenuator	14100882-3	Jul. 14, 2021 (1Y)
NRP-Z81	Rohde & Schwarz	Wide band Sensor	101975	Feb. 09, 2021 (1Y)
HPF 3GHz	Rohde & Schwarz	High Pass Filter	N/A	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)