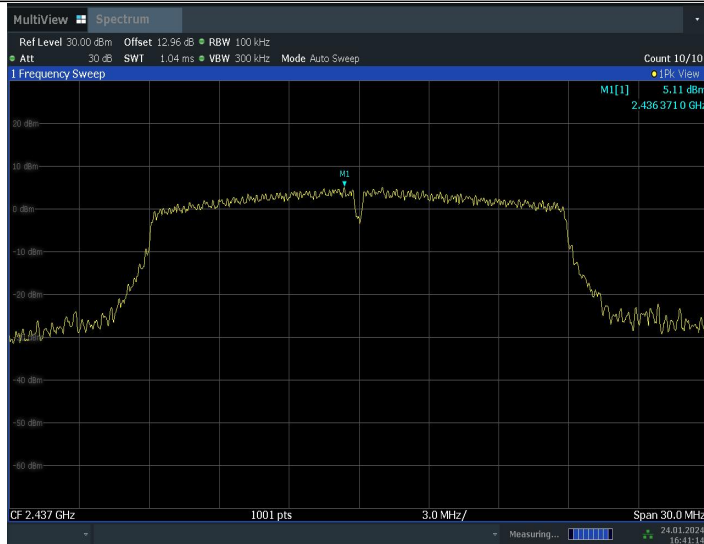


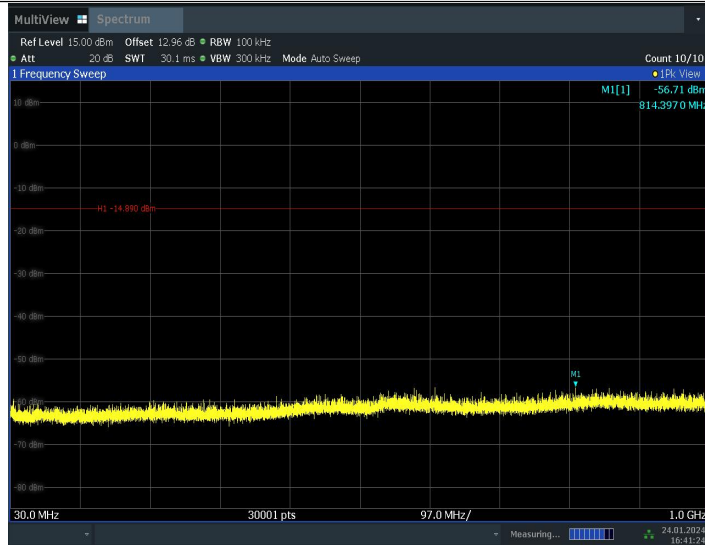
16:40:52 24.01.2024

11N20SISO_2437_0~Reference



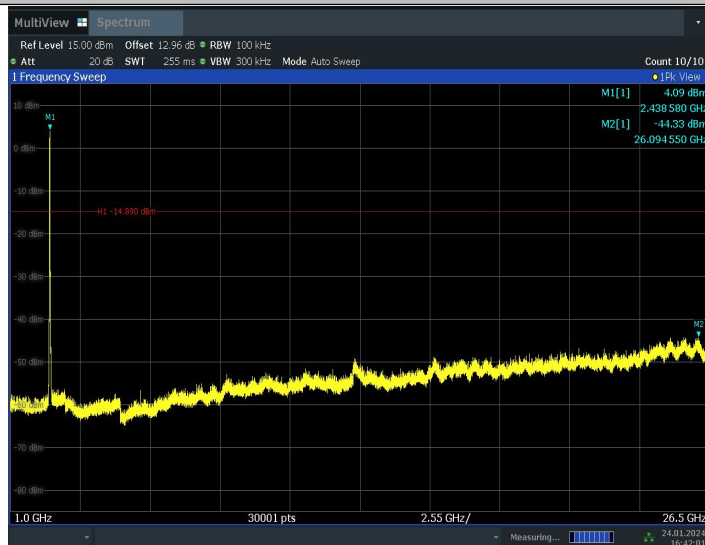
16:41:14 24.01.2024

11N20SISO_2437_30~1000



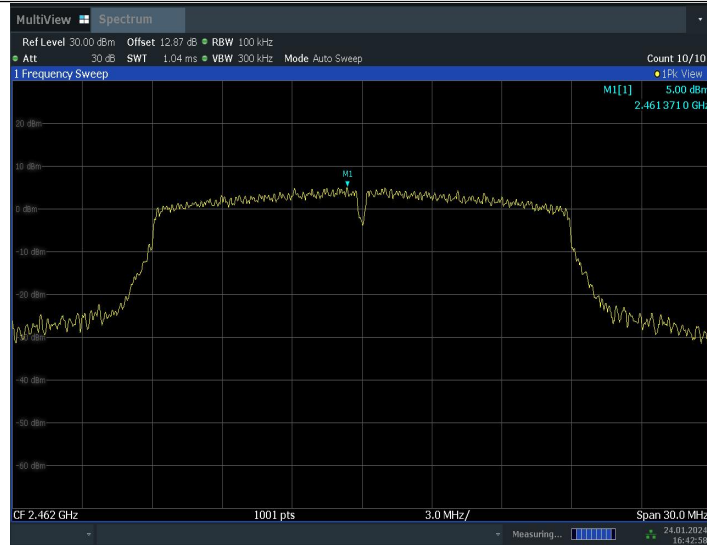
16:41:25 24.01.2024

11N20SISO_2437_1000~26500



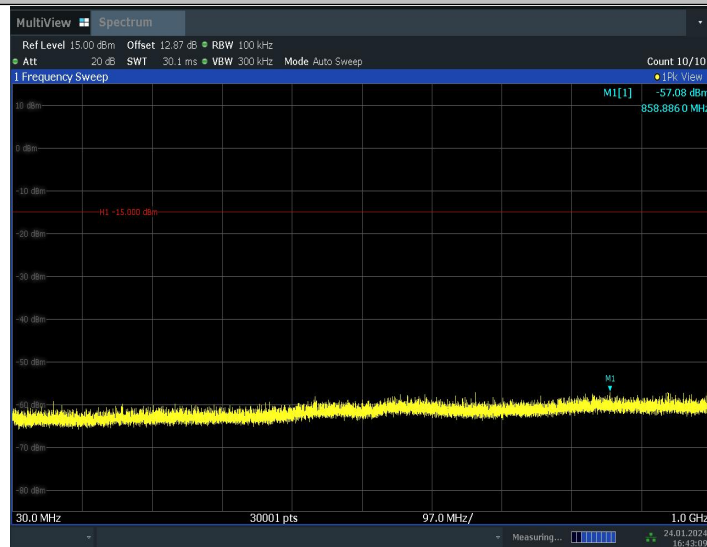
16:42:01 24.01.2024

11N20SISO_2462_0~Reference



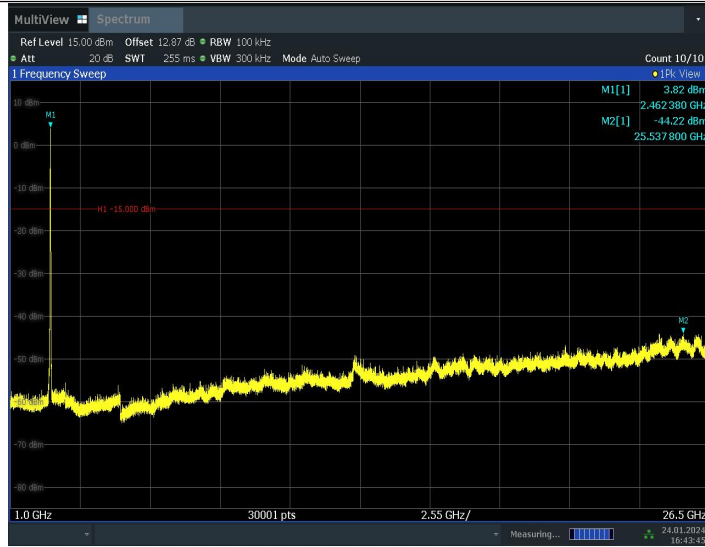
16:42:59 24.01.2024

11N20SISO_2462_30~1000



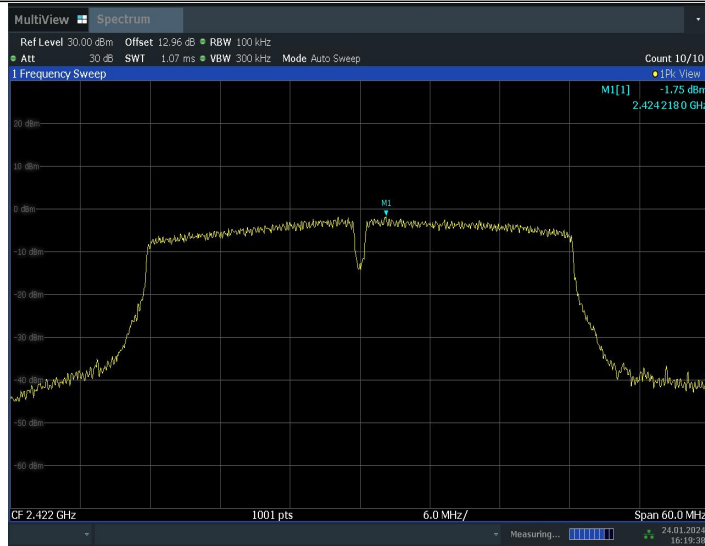
16:43:10 24.01.2024

11N20SISO_2462_1000~26500



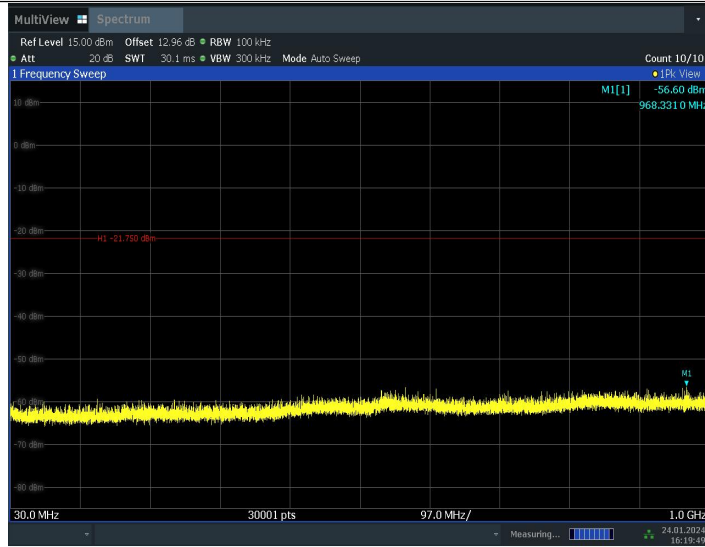
16:43:46 24.01.2024

11N40SISO_2422_0~Reference



16:19:38 24.01.2024

11N40SISO_2422_30~1000



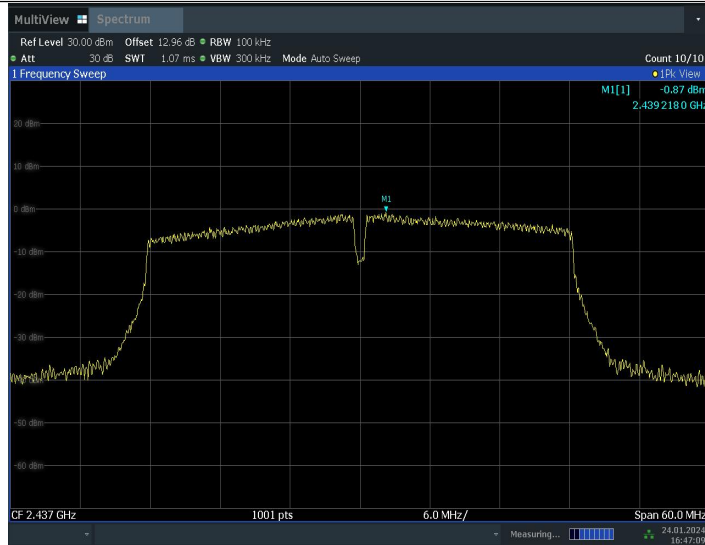
16:19:49 24.01.2024

11N40SISO_2422_1000~26500



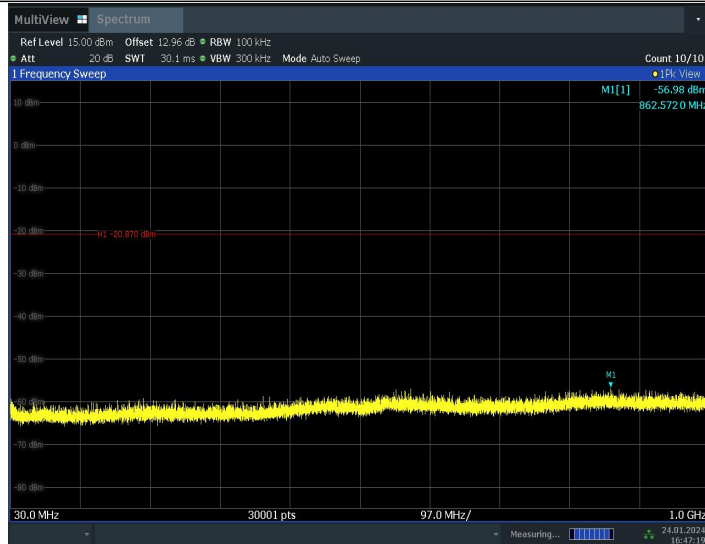
16:20:25 24.01.2024

11N40SISO_2437_0~Reference



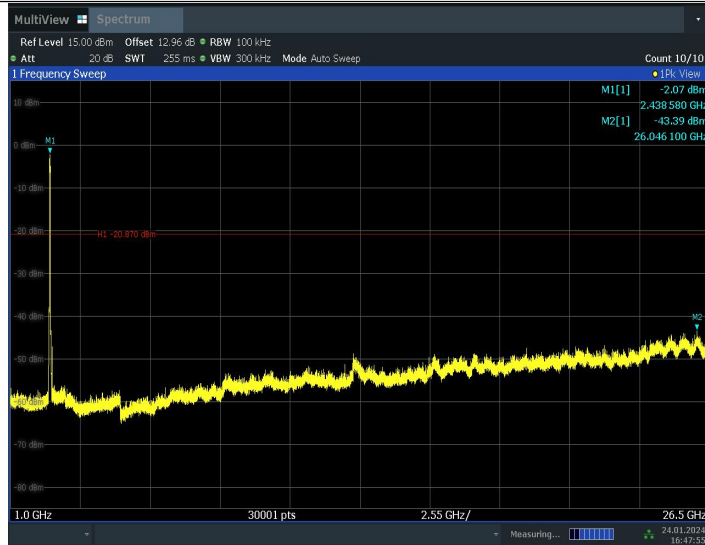
16:47:09 24.01.2024

11N40SISO_2437_30~1000

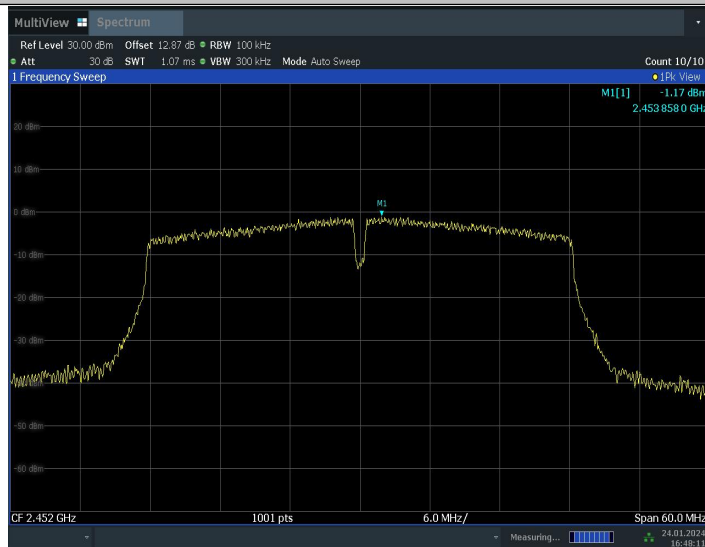


16:47:20 24.01.2024

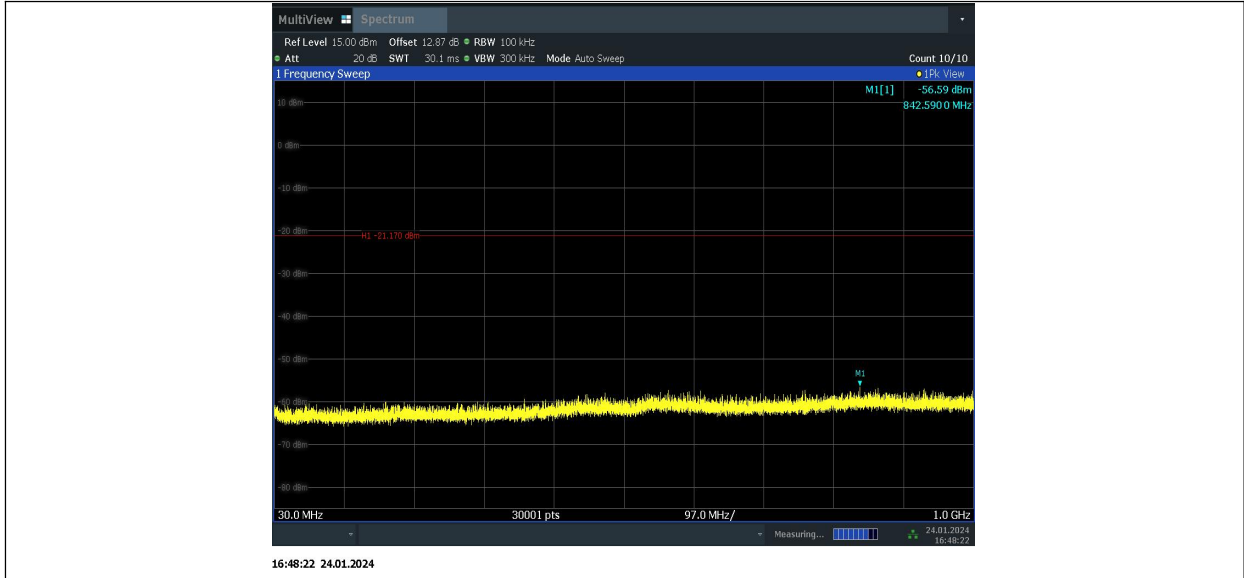
11N40SISO_2437_1000~26500



11N40SISO_2452_0~Reference



11N40SISO_2452_30~1000



11N40SISO_2452_1000~26500



Conclusion: Pass

A.7. Radiated Unwanted Emission

Limits

Measurement Limit

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

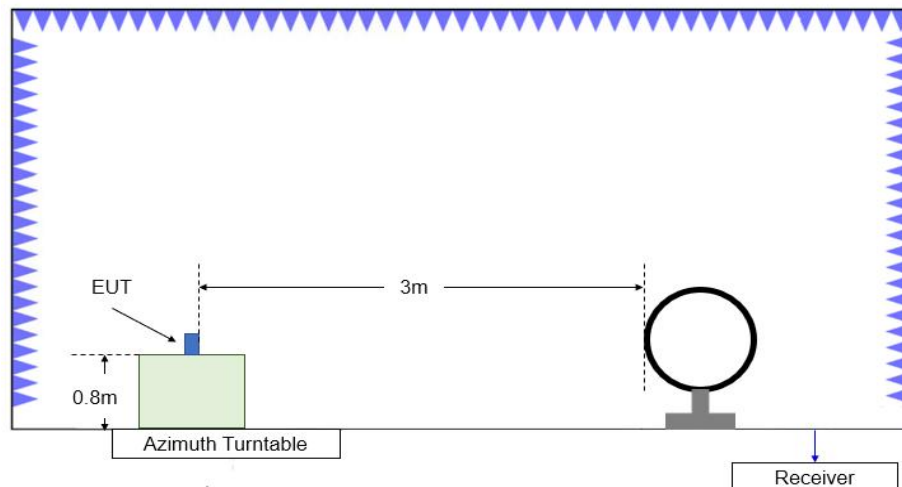
Limit in restricted band

Frequency (MHz)	Field strength($\mu\text{V}/\text{m}$)	Measurement distance (m)
0.009 - 0.490	$2400/F(\text{kHz})$	300
0.490 - 1.705	$24000/F(\text{kHz})$	30
1.705 – 30.0	30	30

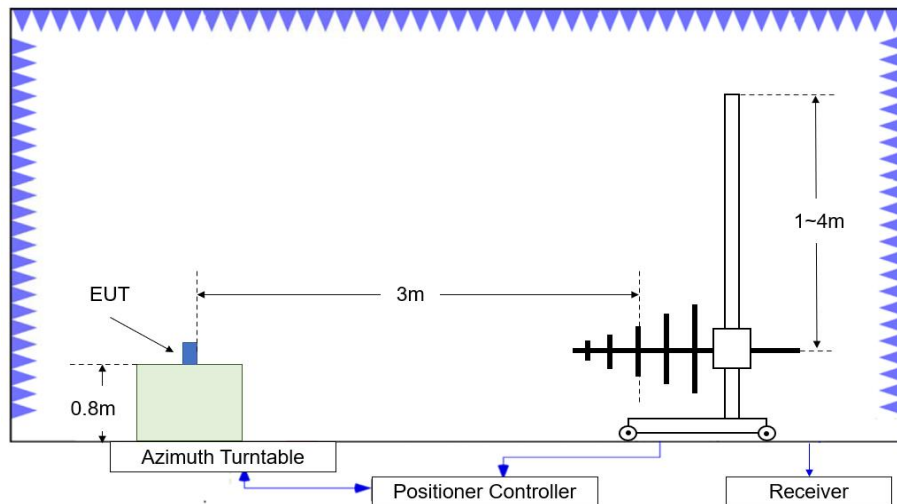
Frequency of emission (MHz)	Field strength ($\mu\text{V}/\text{m}$)	Field strength (dB $\mu\text{V}/\text{m}$)	Measurement distance (m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Note: When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor.

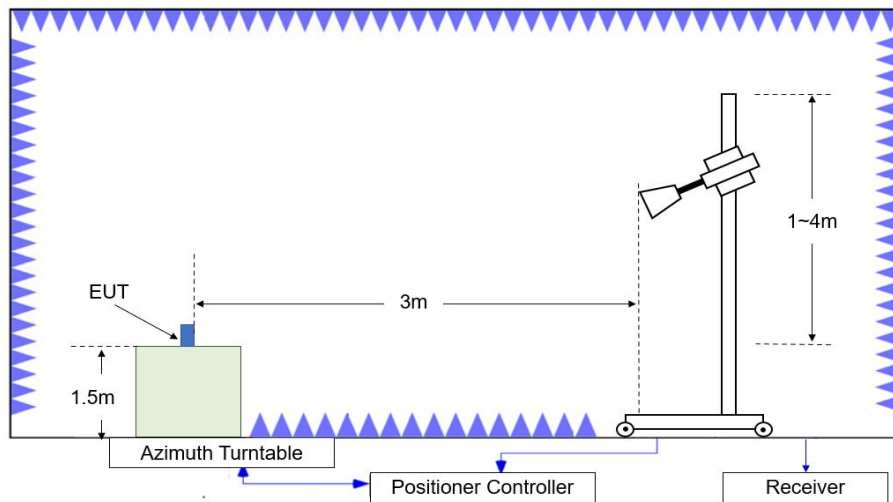
Test setup



Test Site Diagram (9kHz-30MHz)



Test Site Diagram (30MHz-1GHz)



Test Site Diagram (1GHz-40GHz)

Test Procedures

Radiated unwanted emissions from the EUT were measured according to ANSI C63.10.

Test setting

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100kHz/300kHz	5
1000-3000	1MHz/3MHz	15
3000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

Sample Calculation

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result= $P_{\text{Mea}}+A_{\text{Rpl}}= P_{\text{Mea}}+\text{Cable Loss}+\text{Antenna Factor}$

Test note

1. The EUT is operating at its maximum duty cycle and its maximum power control level.
2. Investigation has been done on all modes and modulations/data rates. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.
3. Spurious emissions for all channels were investigated and almost the same below 1GHz. According to FCC 47 CFR §15.31, emission levels are not report much lower than the limit by over 20dB
4. Measurement frequencies were performed from 9 kHz to the 10th harmonic of highest fundamental frequency or 40GHz, whichever is lower.

Peak
802.11b

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17946.000	51.26	-29.40	46.00	34.66	74.00	22.74	H
14527.500	47.38	-30.60	41.90	36.08	74.00	26.62	V
12583.000	47.31	-32.20	39.30	40.21	74.00	26.69	H
9763.500	42.71	-33.80	38.00	38.51	74.00	31.29	V
7982.500	41.49	-35.40	36.90	39.99	74.00	32.51	V
2388.400	58.60	-19.80	28.20	50.20	74.00	15.40	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17937.500	50.76	-29.40	46.00	34.16	74.00	23.24	V
12817.500	47.13	-31.50	39.80	38.83	74.00	26.87	H
14786.000	47.10	-30.40	41.20	36.30	74.00	26.90	V
8012.000	42.85	-35.40	36.90	41.35	74.00	31.15	H
7967.500	41.91	-35.40	36.80	40.51	74.00	32.09	H
4873.500	39.16	-37.50	33.40	43.26	74.00	34.84	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.500	51.06	-29.40	46.00	34.46	74.00	22.94	H
12562.500	49.11	-31.20	39.20	41.11	74.00	24.89	H
14764.000	47.42	-30.40	41.20	36.62	74.00	26.58	H
8495.000	43.57	-34.60	37.30	40.87	74.00	30.43	V
7444.500	41.58	-35.50	36.50	40.58	74.00	32.42	H
2485.300	59.24	-19.70	28.20	50.74	74.00	14.76	V

802.11g

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17939.500	50.76	-29.40	46.00	34.16	74.00	23.24	H
12837.500	47.15	-31.90	39.90	39.15	74.00	26.85	V
14761.000	47.11	-30.40	41.20	36.31	74.00	26.89	V
8503.000	42.75	-34.60	37.30	40.05	74.00	31.25	V
7437.000	41.16	-35.50	36.50	40.16	74.00	32.84	H
2389.300	62.34	-19.80	28.20	53.94	74.00	11.66	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17974.000	50.54	-29.40	46.00	33.94	74.00	23.46	H
12815.000	47.64	-31.50	39.80	39.34	74.00	26.36	V
14829.000	46.98	-30.00	41.00	35.98	74.00	27.02	H
8494.500	42.35	-34.60	37.30	39.65	74.00	31.65	H
7971.000	42.01	-35.40	36.90	40.51	74.00	31.99	H
4584.500	38.58	-37.50	32.50	43.58	74.00	35.42	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17908.000	51.06	-29.40	46.00	34.46	74.00	22.94	V
12818.000	47.40	-31.50	39.80	39.10	74.00	26.60	V
14771.500	46.84	-30.40	41.20	36.04	74.00	27.16	V
8487.500	42.76	-34.60	37.30	40.06	74.00	31.24	H
7968.500	41.28	-35.40	36.80	39.88	74.00	32.72	V
2485.500	61.25	-19.70	28.20	52.75	74.00	12.75	V

802.11n-HT20

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17988.000	50.69	-29.40	46.00	34.09	74.00	23.31	H
12815.500	46.70	-31.50	39.80	38.40	74.00	27.30	H
14882.000	46.60	-30.10	40.90	35.80	74.00	27.40	H
9137.500	43.09	-34.30	37.70	39.69	74.00	30.91	V
7457.000	41.27	-35.50	36.50	40.27	74.00	32.73	H
2389.400	65.28	-19.80	28.20	56.88	74.00	8.72	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17929.500	51.21	-29.40	46.00	34.61	74.00	22.79	V
14775.000	46.91	-30.40	41.20	36.11	74.00	27.09	V
12835.000	46.84	-31.90	39.90	38.84	74.00	27.16	H
8499.000	43.03	-34.60	37.30	40.33	74.00	30.97	H
7959.000	41.31	-35.40	36.80	39.91	74.00	32.69	V
3187.500	38.72	-38.00	31.30	45.42	74.00	35.28	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17951.000	50.89	-29.40	46.00	34.29	74.00	23.11	V
14815.000	47.34	-30.00	41.00	36.34	74.00	26.66	V
12798.000	46.84	-31.50	39.80	38.54	74.00	27.16	H
8495.500	42.95	-34.60	37.30	40.25	74.00	31.05	H
7996.500	41.34	-35.40	36.90	39.84	74.00	32.66	H
2485.000	62.41	-19.70	28.20	53.91	74.00	11.59	V

802.11n-HT40

Ch3

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17978.000	51.24	-29.40	46.00	34.64	74.00	22.76	V
14862.000	46.73	-30.10	40.90	35.93	74.00	27.27	H
12247.000	46.71	-32.50	39.00	40.21	74.00	27.29	V
8486.500	42.40	-34.60	37.30	39.70	74.00	31.60	V
7435.000	41.30	-35.50	36.50	40.30	74.00	32.70	H
2389.600	60.31	-19.80	28.20	51.91	74.00	13.69	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17902.000	50.68	-29.40	46.00	34.08	74.00	23.32	H
12537.500	46.76	-31.20	39.20	38.76	74.00	27.24	V
14825.500	46.60	-30.00	41.00	35.60	74.00	27.40	H
9662.000	42.55	-34.00	37.70	38.85	74.00	31.45	V
7990.500	41.24	-35.40	36.90	39.74	74.00	32.76	V
4587.000	38.97	-37.50	32.50	43.97	74.00	35.03	V

Ch9

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17937.500	50.13	-29.40	46.00	33.53	74.00	23.87	V
12585.000	48.05	-32.20	39.30	40.95	74.00	25.95	V
14783.500	46.95	-30.40	41.20	36.15	74.00	27.05	H
8656.000	43.08	-34.00	37.50	39.58	74.00	30.92	H
7458.500	41.28	-35.50	36.50	40.28	74.00	32.72	H
2485.900	58.86	-19.70	28.20	50.36	74.00	15.14	H

Average
802.11b

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17977.500	41.39	-29.40	46.00	24.79	54.00	12.61	V
14856.000	38.43	-30.10	40.90	27.63	54.00	15.57	H
12562.000	38.19	-31.20	39.20	30.19	54.00	15.81	H
4823.500	34.58	-37.70	33.00	39.28	54.00	19.42	H
8468.000	33.49	-34.60	37.30	30.79	54.00	20.51	H
2387.000	50.22	-19.80	28.20	41.82	54.00	3.78	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17947.000	41.42	-29.40	46.00	24.82	54.00	12.58	V
12563.500	38.20	-31.20	39.20	30.20	54.00	15.80	H
14787.500	37.94	-30.40	41.20	27.14	54.00	16.06	V
8510.500	33.20	-34.60	37.30	30.50	54.00	20.80	H
7999.000	32.34	-35.40	36.90	30.84	54.00	21.66	V
3187.500	31.83	-38.00	31.30	38.53	54.00	22.17	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17946.000	41.27	-29.40	46.00	24.67	54.00	12.73	H
12565.500	38.02	-31.20	39.20	30.02	54.00	15.98	V
14832.500	37.70	-30.00	41.00	26.70	54.00	16.30	V
4924.000	34.10	-37.60	33.30	38.40	54.00	19.90	V
8515.000	33.28	-34.30	37.40	30.18	54.00	20.72	V
2486.000	52.47	-19.70	28.20	43.97	54.00	1.53	V

802.11g

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.500	41.21	-29.40	46.00	24.61	54.00	12.79	H
12564.000	38.02	-31.20	39.20	30.02	54.00	15.98	H
14791.000	37.90	-30.40	41.20	27.10	54.00	16.10	H
8492.500	33.12	-34.60	37.30	30.42	54.00	20.88	V
8000.000	32.12	-35.40	36.90	30.62	54.00	21.88	V
2389.300	50.85	-19.80	28.20	42.45	54.00	3.15	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17949.000	41.06	-29.40	46.00	24.46	54.00	12.94	V
14996.000	38.39	-30.00	40.60	27.79	54.00	15.61	H
12562.500	37.75	-31.20	39.20	29.75	54.00	16.25	V
8498.000	33.16	-34.60	37.30	30.46	54.00	20.84	H
7552.500	31.98	-35.50	36.30	31.18	54.00	22.02	V
3187.500	31.91	-38.00	31.30	38.61	54.00	22.09	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17911.000	41.29	-29.40	46.00	24.69	54.00	12.71	V
12564.500	37.82	-31.20	39.20	29.82	54.00	16.18	V
14785.500	37.55	-30.40	41.20	26.75	54.00	16.45	V
8585.500	33.05	-35.00	37.50	30.55	54.00	20.95	V
7985.000	31.91	-35.40	36.90	30.41	54.00	22.09	H
2485.900	50.28	-19.70	28.20	41.78	54.00	3.72	V

802.11n-HT20

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.000	41.27	-29.40	46.00	24.67	54.00	12.73	V
14832.500	37.64	-30.00	41.00	26.64	54.00	16.36	V
12813.500	37.49	-31.50	39.80	29.19	54.00	16.51	V
8500.000	33.16	-34.60	37.30	30.46	54.00	20.84	V
8000.000	32.18	-35.40	36.90	30.68	54.00	21.82	V
2389.900	52.31	-19.80	28.20	43.91	54.00	1.69	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17949.500	41.13	-29.40	46.00	24.53	54.00	12.87	V
14863.000	37.57	-30.10	40.90	26.77	54.00	16.43	V
12560.500	37.56	-31.20	39.20	29.56	54.00	16.44	V
8513.000	33.15	-34.60	37.30	30.45	54.00	20.85	V
3187.500	31.90	-38.00	31.30	38.60	54.00	22.10	H
7968.500	31.79	-35.40	36.80	30.39	54.00	22.21	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17906.500	41.29	-29.40	46.00	24.69	54.00	12.71	V
12543.000	37.71	-31.20	39.20	29.71	54.00	16.29	H
14829.500	37.38	-30.00	41.00	26.38	54.00	16.62	V
8503.500	32.97	-34.60	37.30	30.27	54.00	21.03	V
3187.500	31.94	-38.00	31.30	38.64	54.00	22.06	V
2485.600	50.97	-19.70	28.20	42.47	54.00	3.03	H

802.11n-HT40

Ch3

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17950.500	41.04	-29.40	46.00	24.44	54.00	12.96	V
14806.000	37.59	-30.00	41.00	26.59	54.00	16.41	H
12566.000	37.42	-31.20	39.20	29.42	54.00	16.58	V
9606.500	33.06	-34.30	37.60	29.76	54.00	20.94	V
7986.000	32.12	-35.40	36.90	30.62	54.00	21.88	H
2389.500	50.51	-19.80	28.20	42.11	54.00	3.49	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17952.500	40.89	-29.40	46.00	24.29	54.00	13.11	V
12561.500	37.64	-31.20	39.20	29.64	54.00	16.36	H
14788.500	37.36	-30.40	41.20	26.56	54.00	16.64	H
8499.000	32.85	-34.60	37.30	30.15	54.00	21.15	V
3187.500	31.87	-38.00	31.30	38.57	54.00	22.13	V
8000.000	31.76	-35.40	36.90	30.26	54.00	22.24	V

Ch9

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17911.500	41.11	-29.40	46.00	24.51	54.00	12.89	V
12565.500	37.50	-31.20	39.20	29.50	54.00	16.50	H
14992.500	37.31	-30.00	40.60	26.71	54.00	16.69	V
8494.500	33.10	-34.60	37.30	30.40	54.00	20.90	H
7448.500	31.65	-35.50	36.50	30.65	54.00	22.35	V
2485.500	49.77	-19.70	28.20	41.27	54.00	4.23	H

Band edge compliance

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.31GHz~2.43GHz---L	Fig.A.7.1	P
	11	2.45GHz~2.50GHz---H	Fig.A.7.2	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	1	2.31GHz~2.43GHz---L	Fig.A.7.3	P
	11	2.45GHz~2.50GHz---H	Fig.A.7.4	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	1	2.31GHz~2.43GHz---L	Fig.A.7.5	P
	11	2.45GHz~2.50GHz---H	Fig.A.7.6	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	3	2.31GHz~2.43GHz---L	Fig.A.7.7	P
	9	2.45GHz~2.50GHz---H	Fig.A.7.8	P

Test graphs as below:

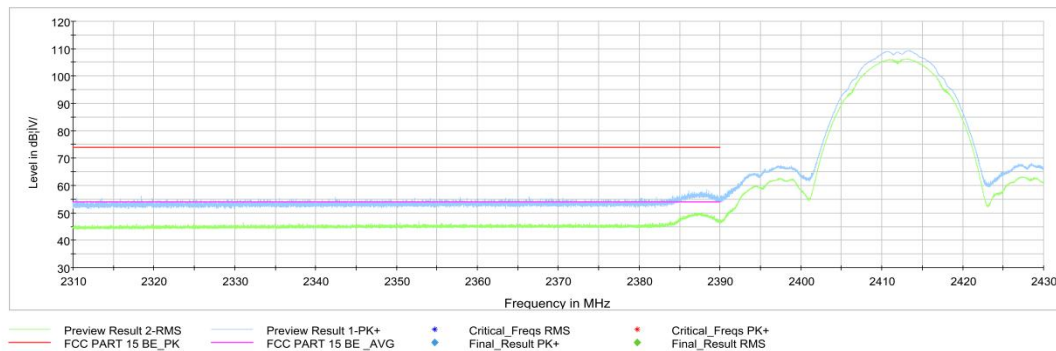


Fig.A.7.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.43GHz

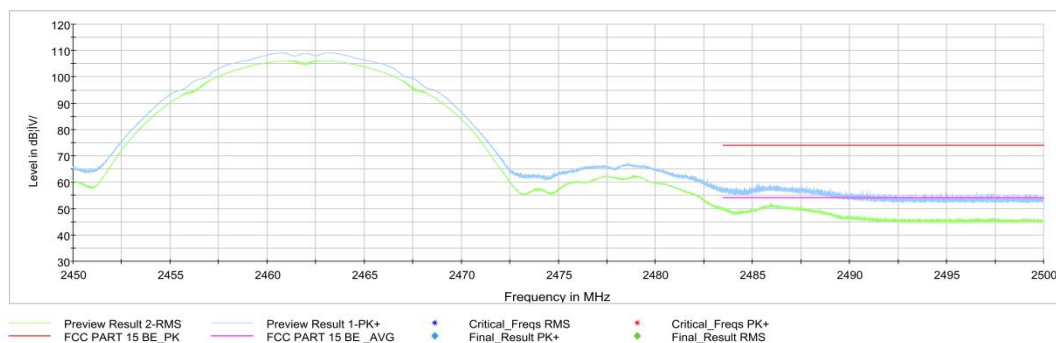


Fig.A.7.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

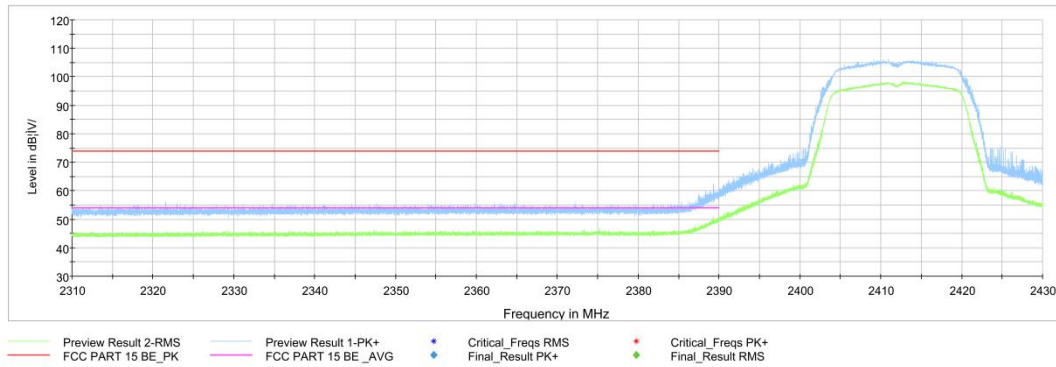


Fig.A.7.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.43GHz

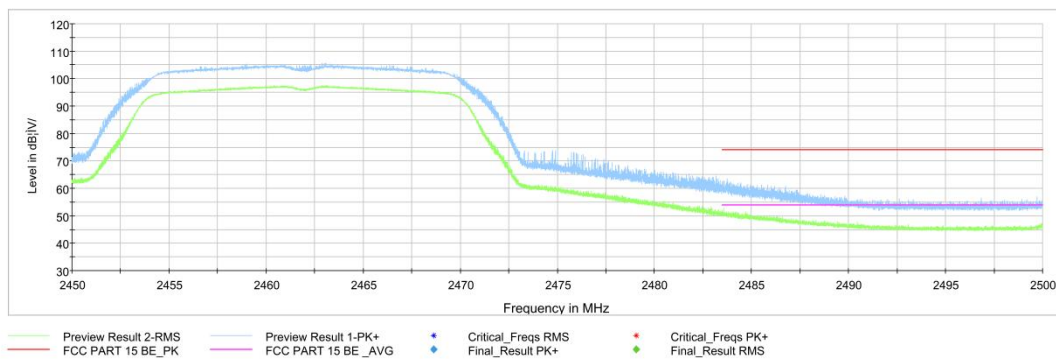


Fig.A.7.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

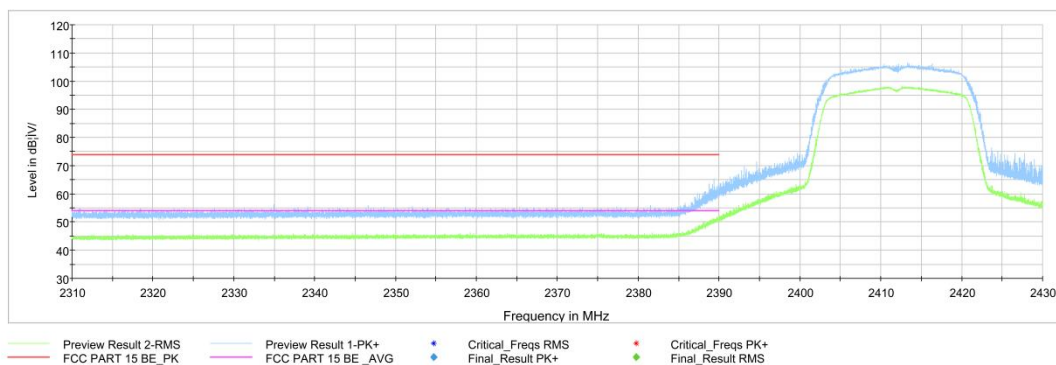


Fig.A.7.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31 GHz - 2.43GHz

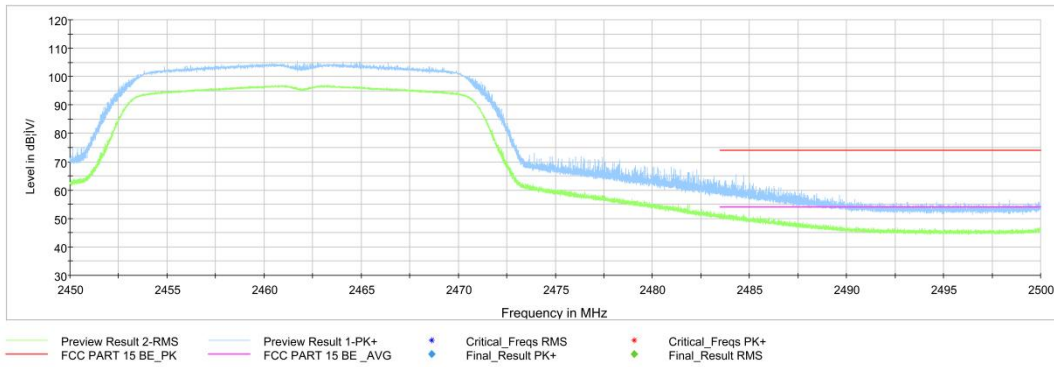


Fig.A.7.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

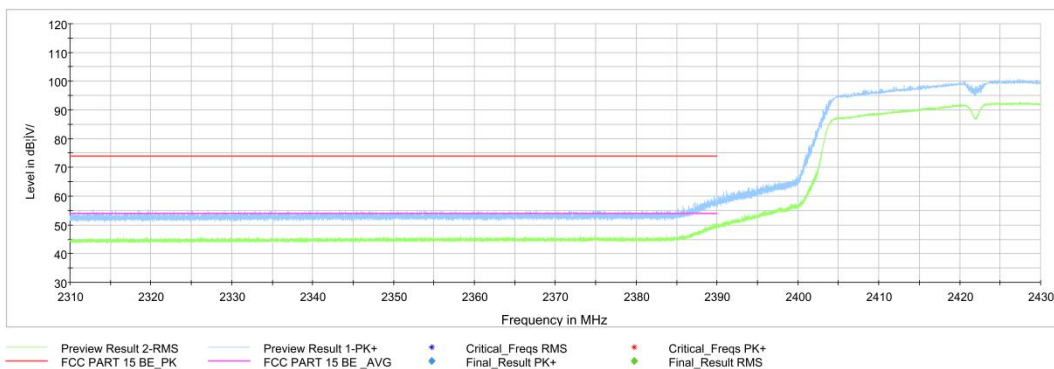


Fig.A.7.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31 GHz - 2.43GHz

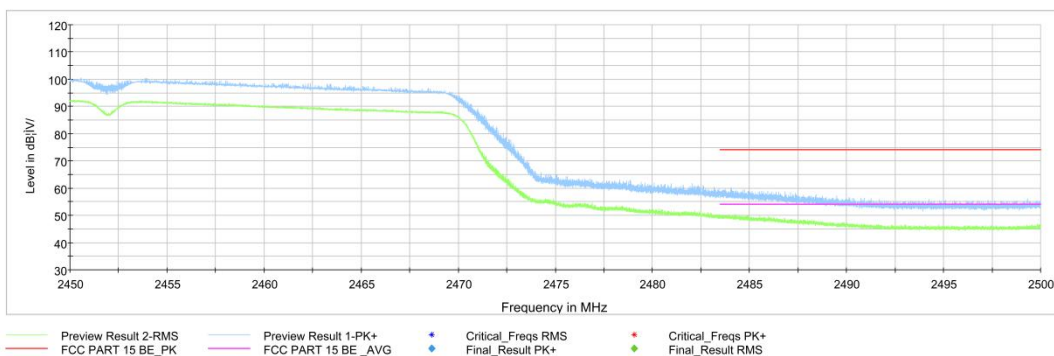


Fig.A.7.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

A.8. AC Power-line Conducted Emission

Summary

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section

Method of Measurement:

See Clause 6.2 of ANSI C63.10 specifically.

See Clause 4 and Clause 5 of ANSI C63.10 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver: Quasi-Peak / Average Detector.

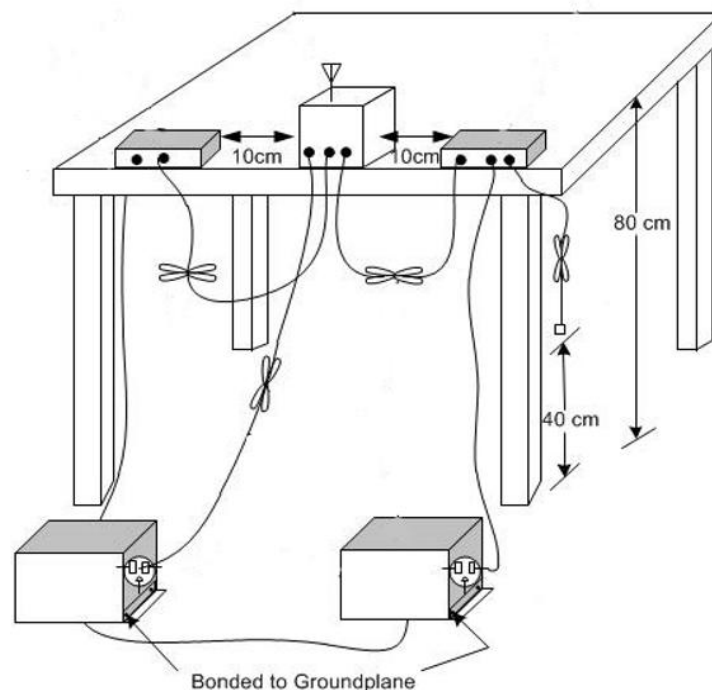
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
0.15-30	9kHz

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Test setup



Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.A.8.1	Fig.A.8.2	P
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.A.8.1	Fig.A.8.2	P
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Conclusion: Pass
Test graphs as below:

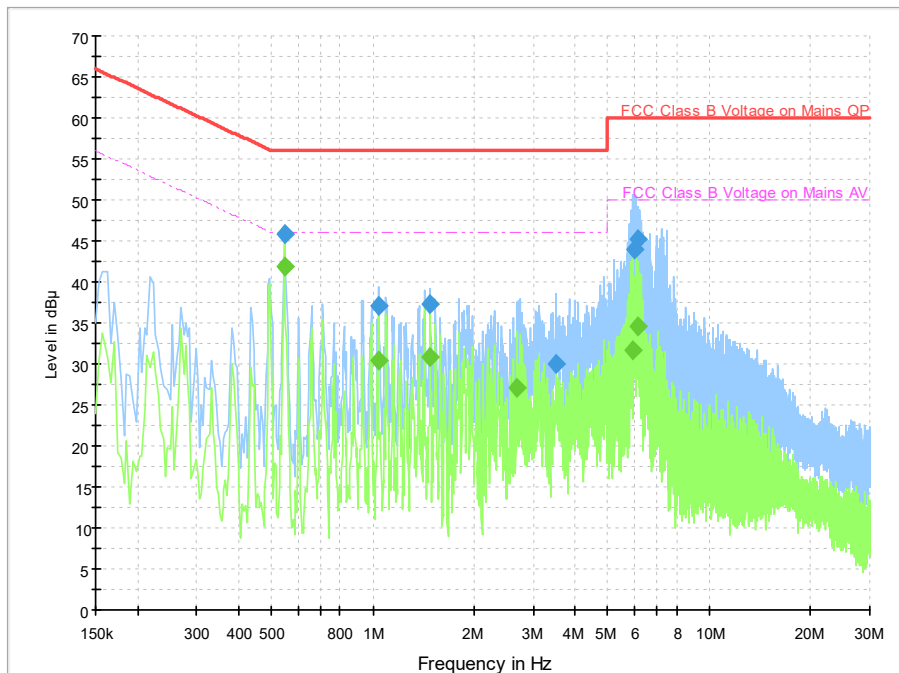


Fig.A.8.1 AC Powerline Conducted Emission-802.11b

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.546000	45.8	2000.0	9.000	On	L1	19.7	10.2	56.0	
1.042000	37.2	2000.0	9.000	On	L1	19.7	18.8	56.0	
1.478000	37.3	2000.0	9.000	On	L1	19.6	18.7	56.0	
3.518000	30.0	2000.0	9.000	On	N	19.6	26.0	56.0	
6.002000	43.9	2000.0	9.000	On	L1	19.6	16.1	60.0	
6.122000	45.2	2000.0	9.000	On	L1	19.6	14.8	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.546000	41.9	2000.0	9.000	On	L1	19.7	4.1	46.0	
1.042000	30.4	2000.0	9.000	On	L1	19.7	15.6	46.0	
1.478000	30.8	2000.0	9.000	On	L1	19.6	15.2	46.0	
2.682000	27.1	2000.0	9.000	On	L1	19.6	18.9	46.0	
5.946000	31.7	2000.0	9.000	On	L1	19.6	18.3	50.0	
6.150000	34.6	2000.0	9.000	On	L1	19.6	15.4	50.0	

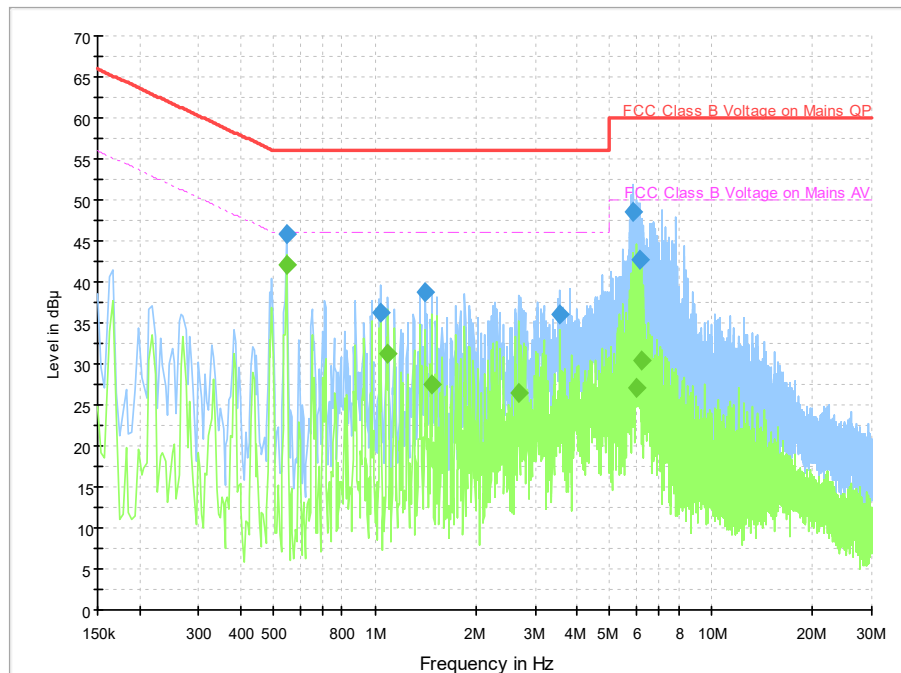


Fig.A.8.2 AC Powerline Conducted Emission-Idle

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.546000	45.8	2000.0	9.000	On	L1	19.7	10.2	56.0	
1.042000	36.3	2000.0	9.000	On	N	19.6	19.7	56.0	
1.418000	38.7	2000.0	9.000	On	L1	19.6	17.3	56.0	
3.558000	36.0	2000.0	9.000	On	N	19.6	20.0	56.0	
5.886000	48.5	2000.0	9.000	On	L1	19.6	11.5	60.0	
6.134000	42.7	2000.0	9.000	On	L1	19.6	17.3	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.546000	42.2	2000.0	9.000	On	L1	19.7	3.8	46.0	
1.094000	31.3	2000.0	9.000	On	L1	19.7	14.7	46.0	
1.478000	27.6	2000.0	9.000	On	L1	19.6	18.4	46.0	
2.678000	26.4	2000.0	9.000	On	L1	19.6	19.6	46.0	
5.974000	27.1	2000.0	9.000	On	L1	19.6	22.9	50.0	
6.238000	30.3	2000.0	9.000	On	L1	19.6	19.7	50.0	

ANNEX B: EUT parameters

Disclaimer: The antenna gain and worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX C: Accreditation Certificate



Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT
Beijing, People's Republic of China

for technical competence in the field of
Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 26th day of June 2023.



Mr. Trace McInturf, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2024

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

END OF REPORT