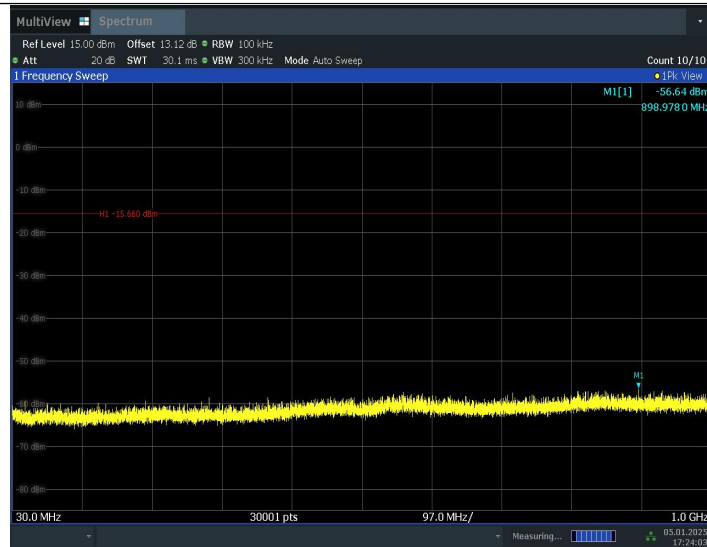
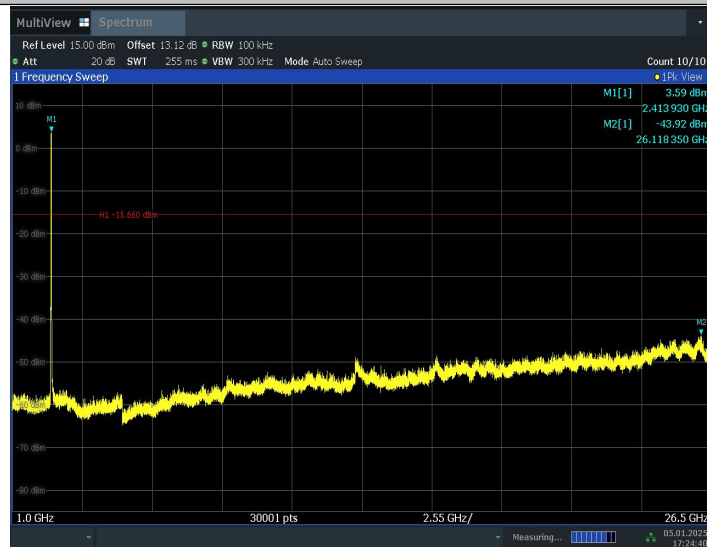




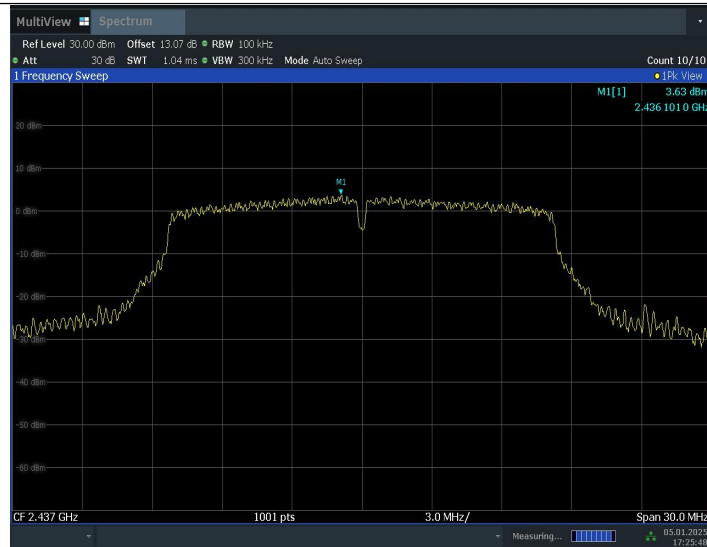
17:24:04 05.01.2025

11G_2412_1000~26500



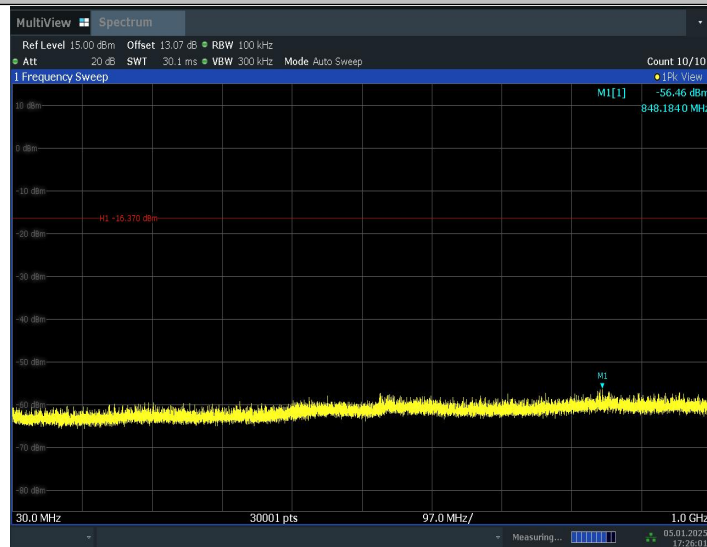
17:24:40 05.01.2025

11G_2437_0~Reference



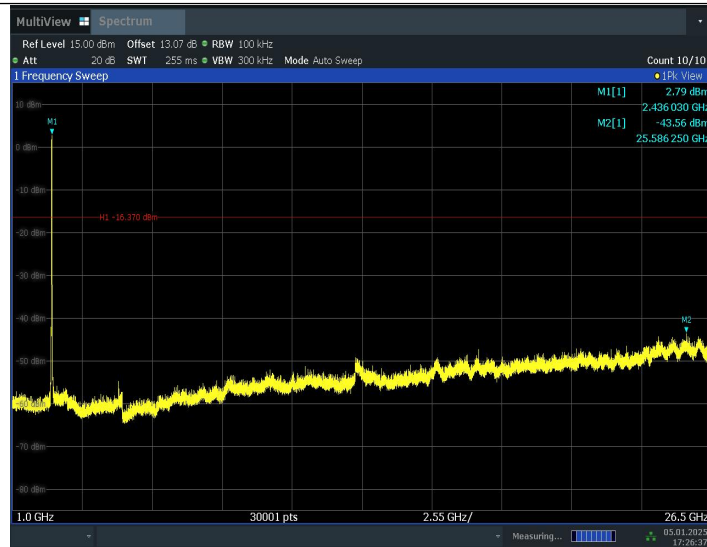
17:25:48 05.01.2025

11G_2437_30~1000



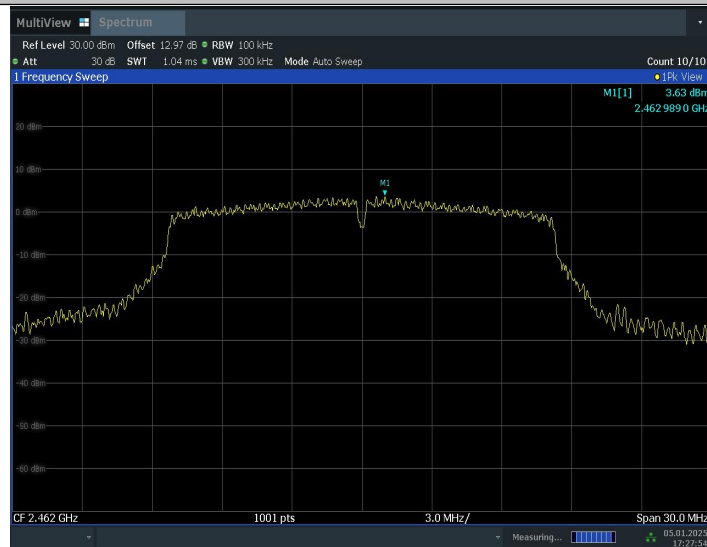
17:26:01 05.01.2025

11G_2437_1000~26500



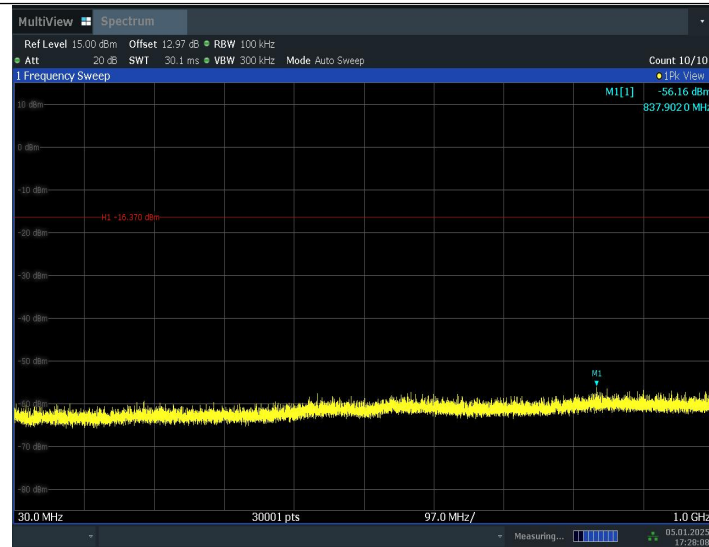
17:26:38 05.01.2025

11G_2462_0~Reference



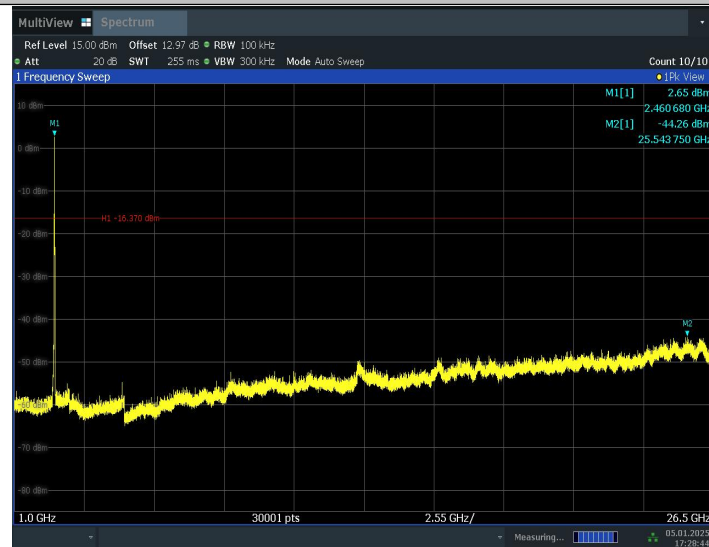
17:27:55 05.01.2025

11G_2462_30~1000



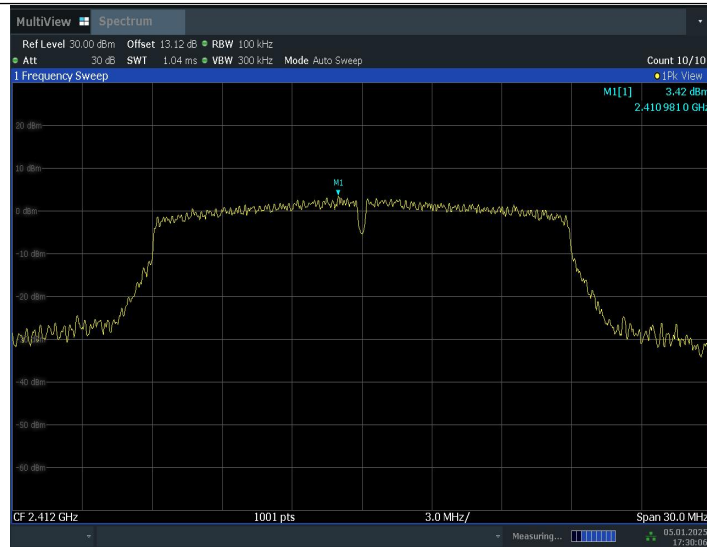
17:28:08 05.01.2025

11G_2462_1000~26500



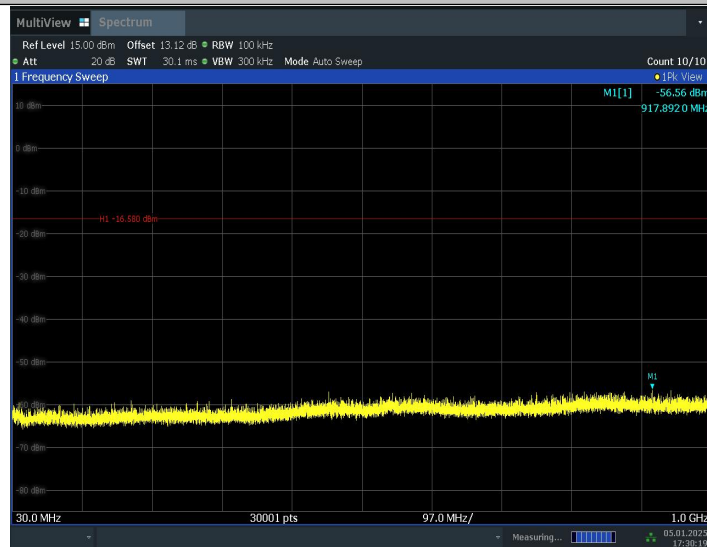
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11N20SISO_2412_0~Reference



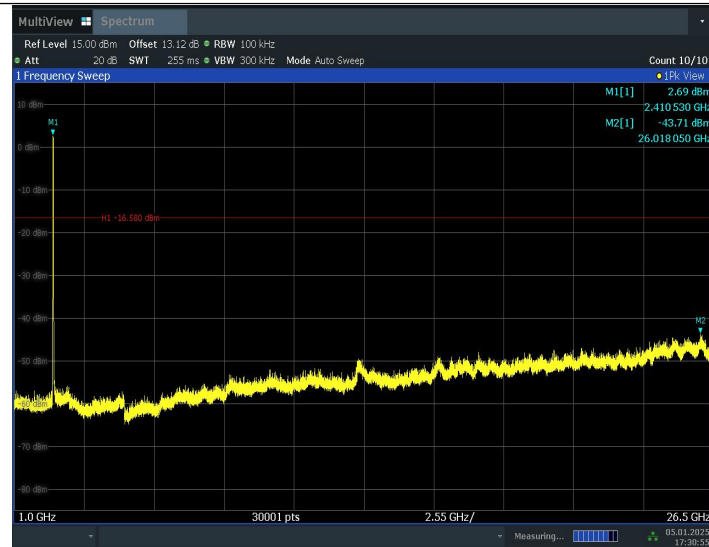
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11N20SISO_2412_30~1000



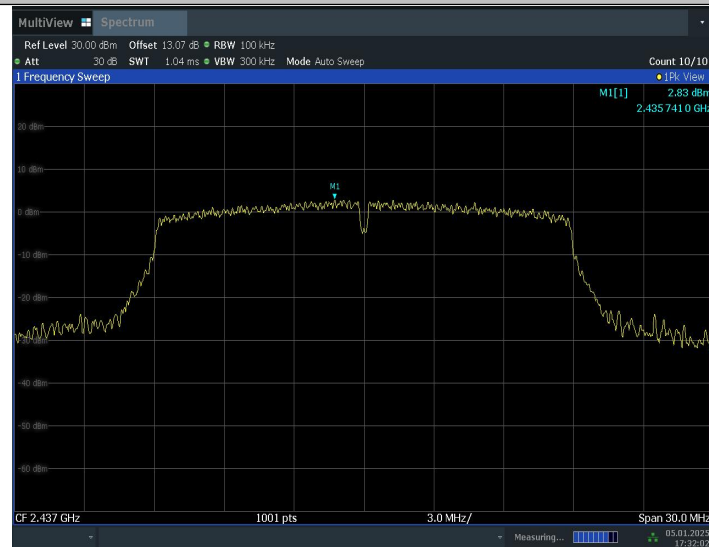
17:30:20 05.01.2025

11N20SISO_2412_1000~26500



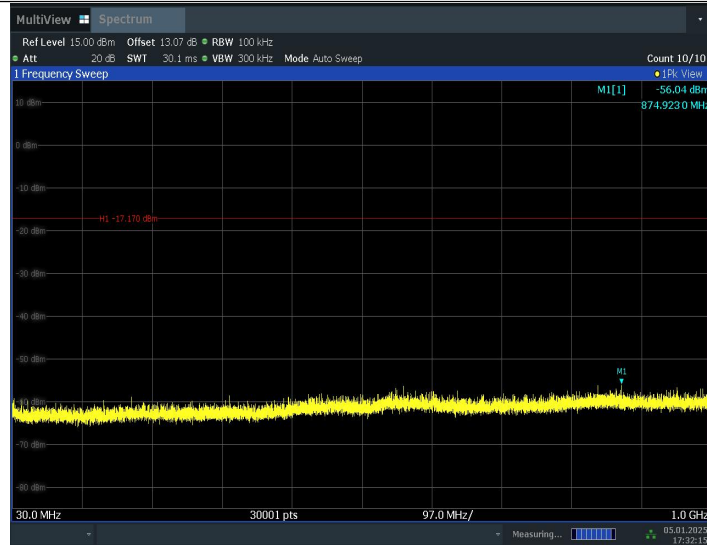
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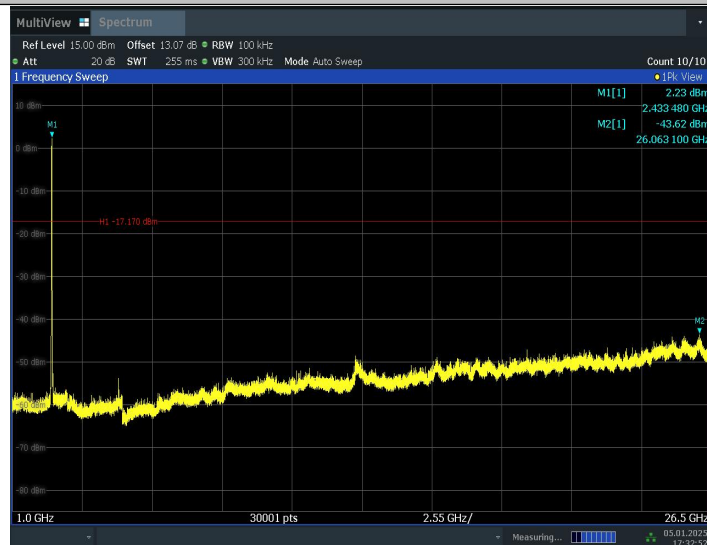
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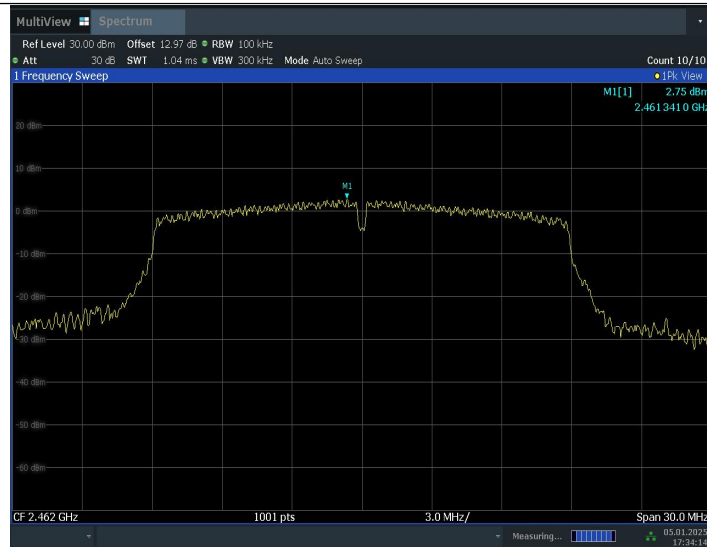
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11N20SISO_2437_1000~26500



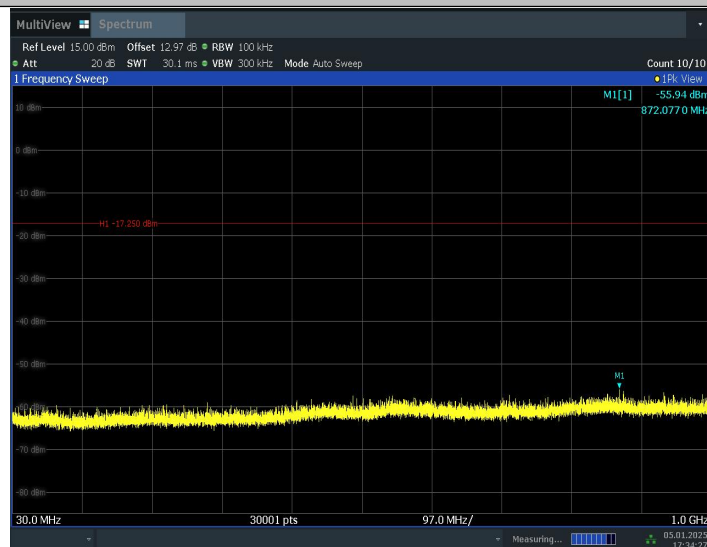
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11N20SISO_2462_0~Reference



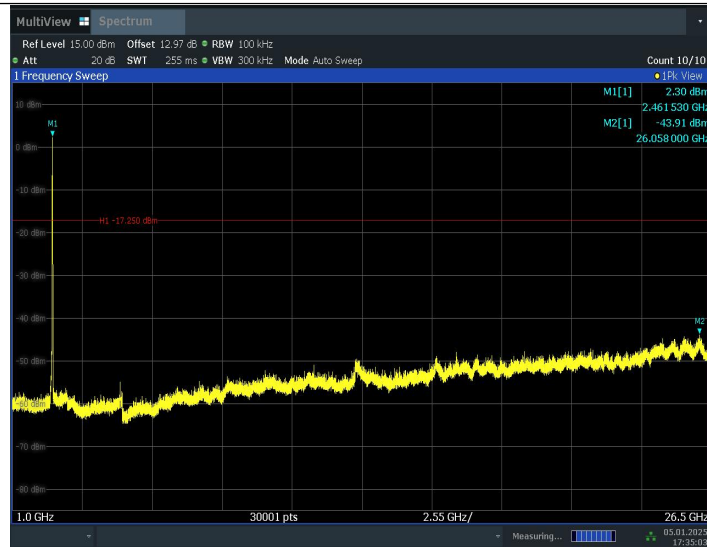
17:34:15 05.01.2025

11N20SISO_2462_30~1000



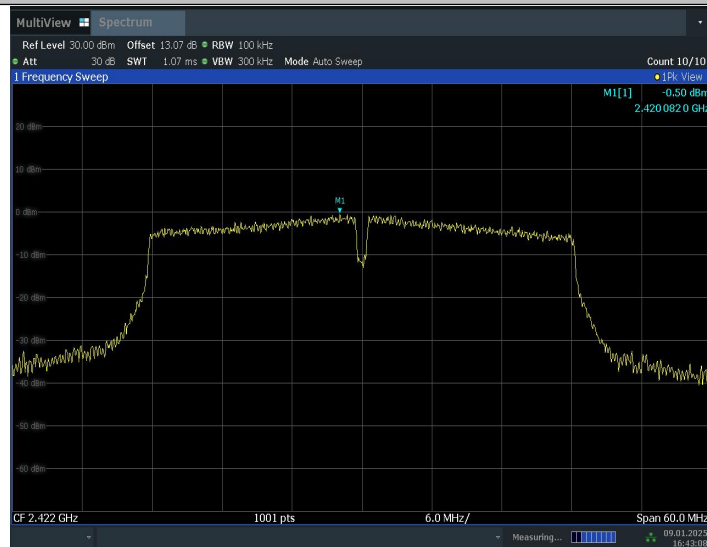
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11N20SISO_2462_1000~26500



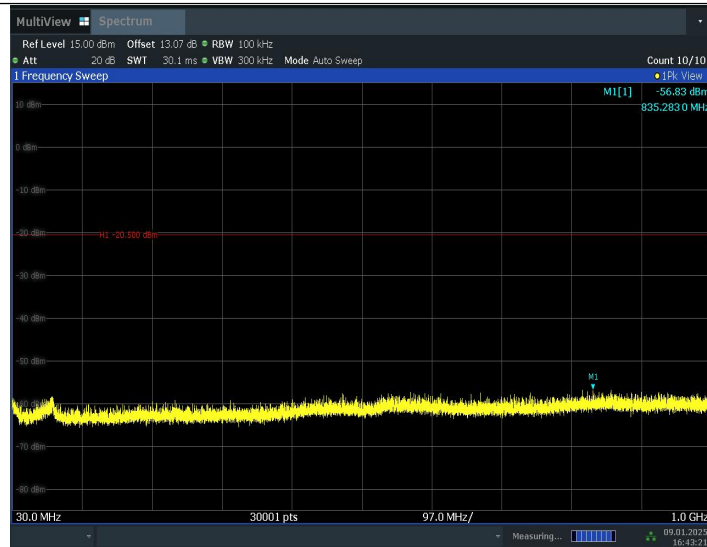
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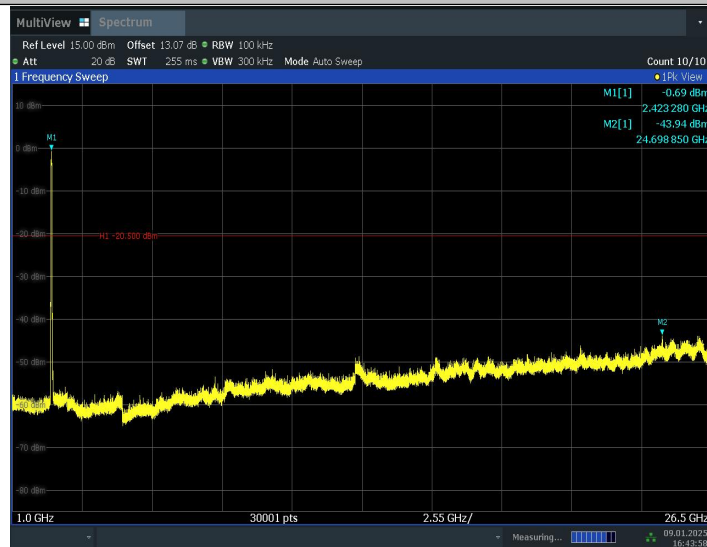
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11N40SISO_2422_30~1000



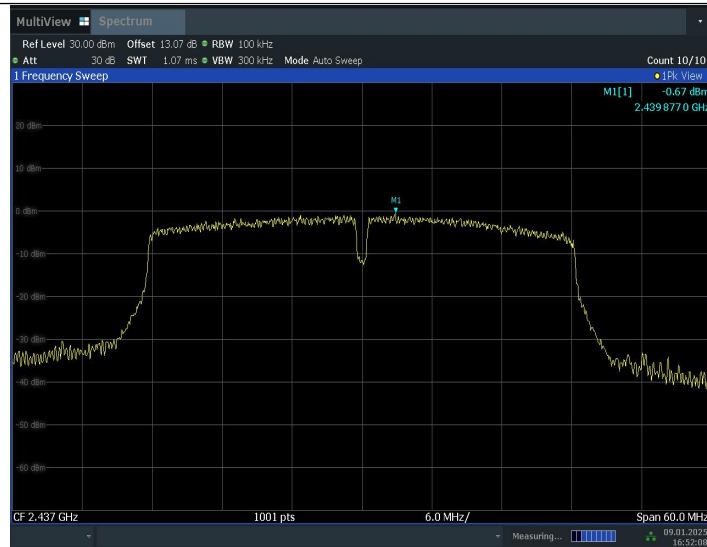
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11N40SISO_2422_1000~26500



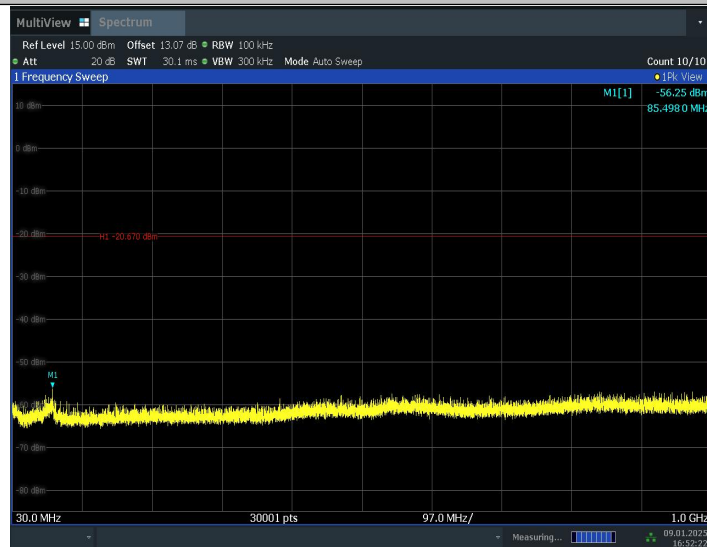
16:43:58 09.01.2025

11N40SISO_2437_0~Reference



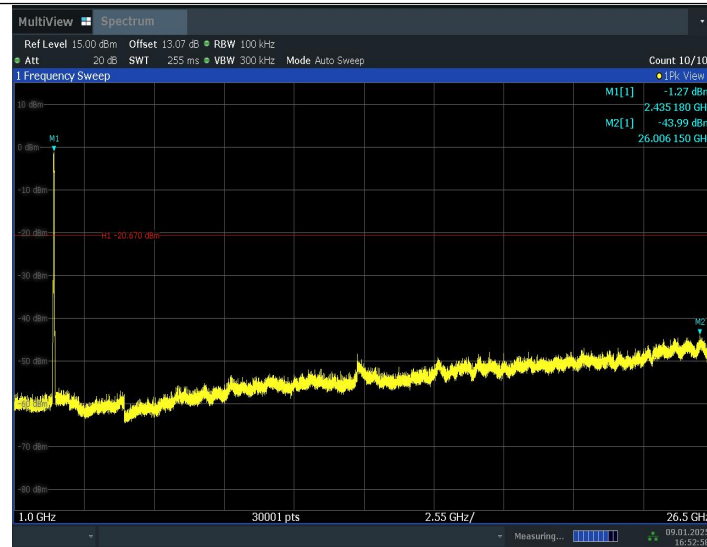
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11N40SISO_2437_30~1000



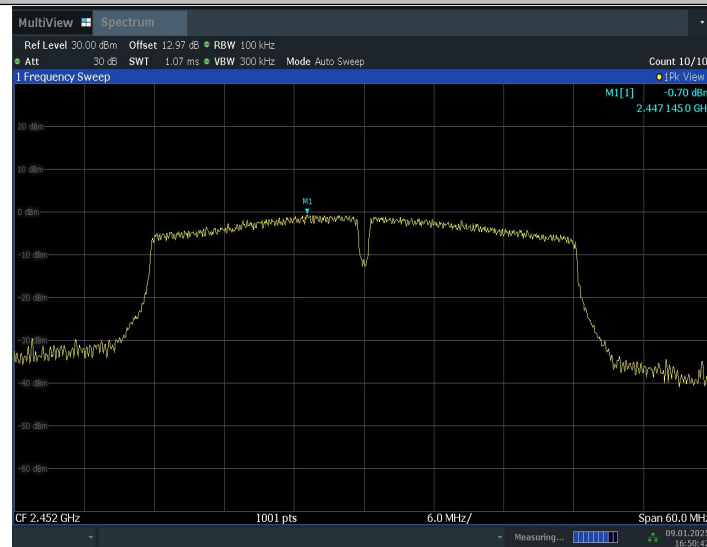
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11N40SISO_2437_1000~26500



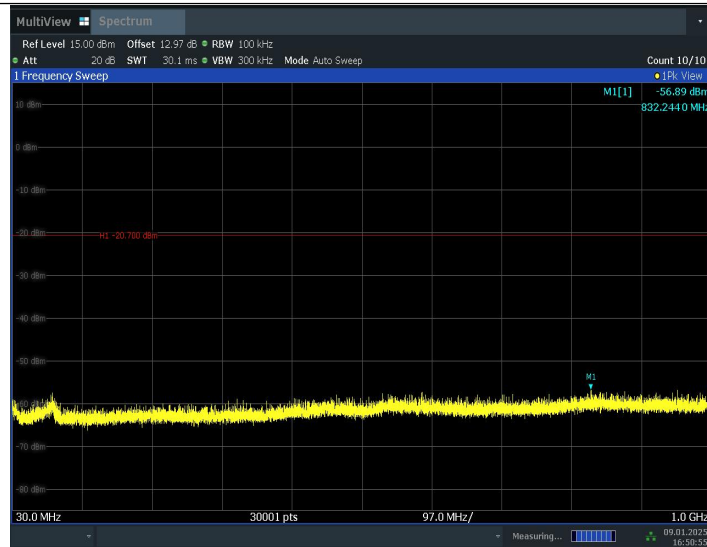
16:52:58 09.01.2025

11N40SISO_2452_0~Reference



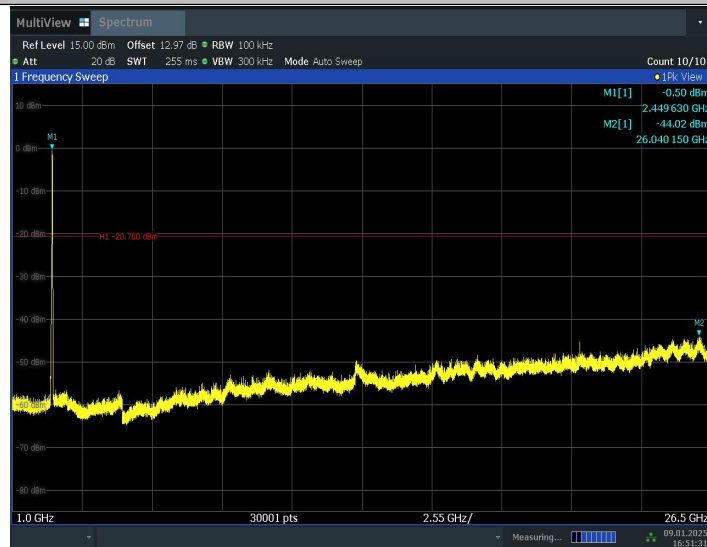
16:50:42 09.01.2025

11N40SISO_2452_30~1000



16:50:55 09.01.2025

11N40SISO_2452_1000~26500



16:51:32 09.01.2025

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($\mu\text{V/m}$)	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 ($\mu\text{V/m}$)	Field strength (dB $\mu\text{V/m}$)	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

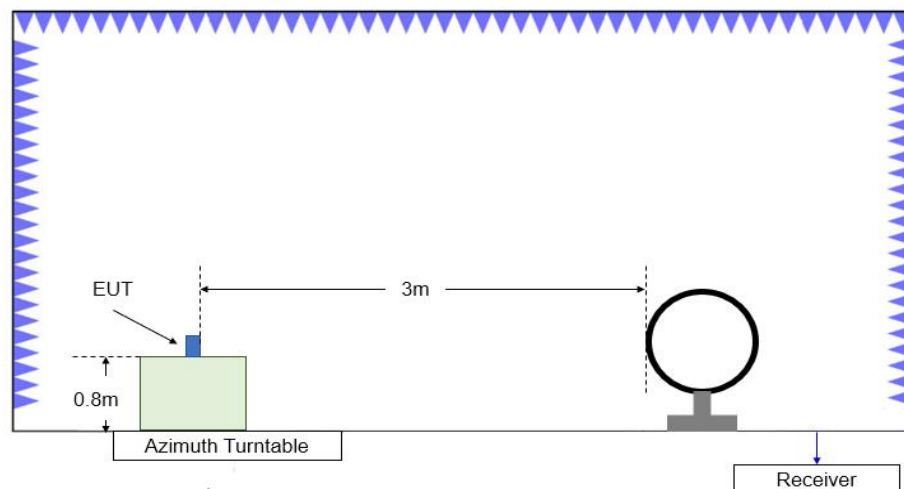


Figure A.2.1. Test Site Diagram (9kHz-30MHz)

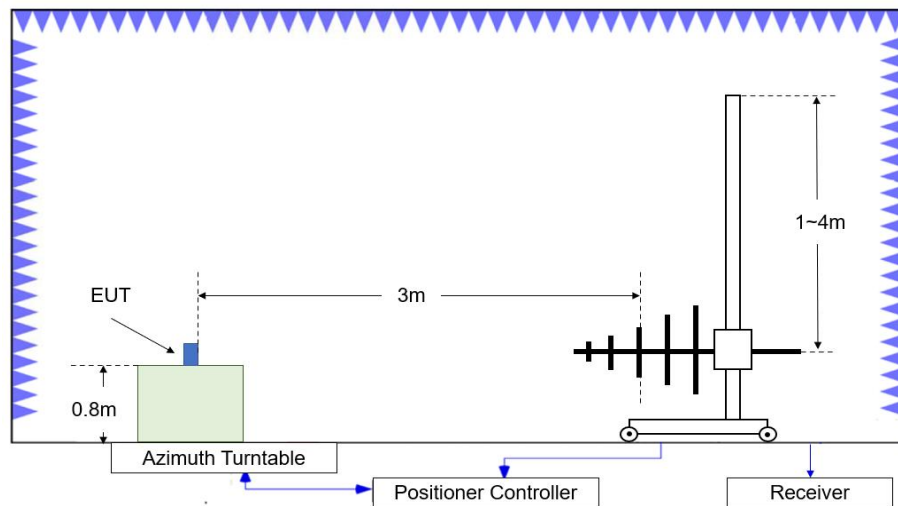


Figure A.2.2. Test Site Diagram (30MHz-1GHz)

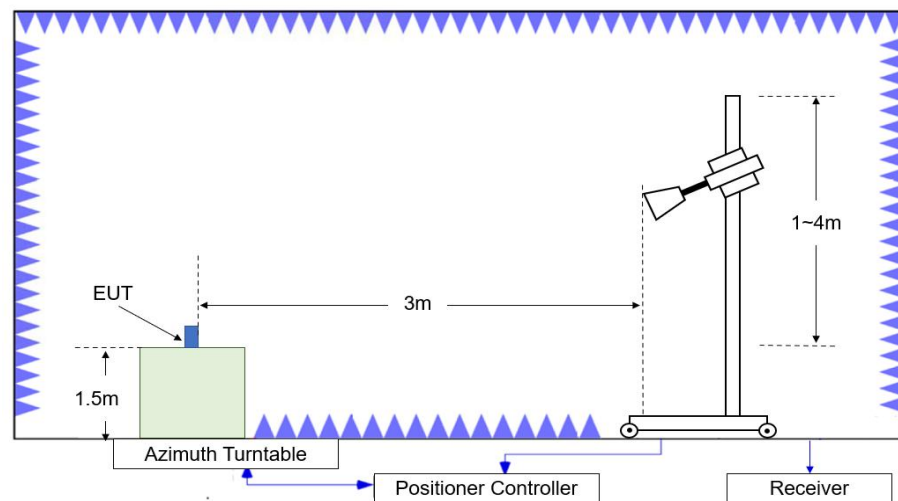


Figure A.2.3. Test Site Diagram (1GHz-40GHz)

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.

Test Result

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)
2389.422	61.32	4.61	31.90	24.80	74.00	12.68	H
2389.926	61.63	4.62	31.90	25.11	74.00	12.37	H
4824.000	48.17	-32.75	33.85	47.06	74.00	25.83	H
7235.500	44.40	-31.53	35.49	40.44	74.00	29.60	V
9647.500	46.67	-29.87	36.60	39.94	74.00	27.33	H
12059.000	49.22	-27.93	38.96	38.19	74.00	24.78	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)
2398.400	51.00	-35.07	31.90	54.17	74.00	23.00	H
2489.400	51.27	-35.19	32.10	54.36	74.00	22.73	V
4873.500	49.61	-32.98	33.85	48.75	74.00	24.39	V
7312.000	44.42	-31.42	35.55	40.29	74.00	29.58	V
9747.000	46.19	-29.87	36.78	39.27	74.00	27.82	V
12185.500	48.53	-27.86	38.83	37.56	74.00	25.47	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)
2484.215	61.75	4.65	32.10	25.00	74.00	12.25	V
2484.890	62.01	4.65	32.10	25.26	74.00	11.99	V
4923.500	50.69	-32.93	33.90	49.72	74.00	23.31	H
7386.500	44.84	-31.35	35.70	40.49	74.00	29.16	H
9847.000	46.83	-29.76	36.90	39.69	74.00	27.17	H
12310.500	48.10	-28.03	38.90	37.23	74.00	25.90	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)
2388.330	63.42	4.61	31.90	26.91	74.00	10.58	H
2389.996	64.52	4.62	31.90	28.00	74.00	9.48	H
4824.500	44.23	-32.73	33.85	43.11	74.00	29.77	H
7236.000	44.05	-31.52	35.48	40.08	74.00	29.96	H
9647.500	46.53	-29.87	36.60	39.79	74.00	27.48	V
12059.000	48.51	-27.93	38.96	37.48	74.00	25.49	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)
2384.600	51.23	-35.25	31.90	54.57	74.00	22.78	H
2505.800	51.90	-35.05	32.12	54.82	74.00	22.10	V
4874.000	43.91	-32.99	33.85	43.06	74.00	30.09	H
7310.000	44.04	-31.41	35.54	39.91	74.00	29.96	H
9748.000	45.89	-29.86	36.79	38.96	74.00	28.11	V
12183.500	47.42	-27.88	38.83	36.47	74.00	26.58	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)
2483.555	66.91	4.65	32.10	30.15	74.00	7.09	V
2483.655	68.28	4.65	32.10	31.53	74.00	5.72	V
4920.000	45.02	-32.85	33.90	43.97	74.00	28.98	V
7386.000	45.04	-31.36	35.70	40.70	74.00	28.96	H
9848.500	46.03	-29.76	36.90	38.89	74.00	27.97	V
12310.000	47.26	-28.06	38.90	36.42	74.00	26.74	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)
2388.652	64.66	4.61	31.90	28.15	74.00	9.34	V
2389.912	64.39	4.62	31.90	27.87	74.00	9.61	H
4825.000	45.31	-32.71	33.85	44.16	74.00	28.69	V
7235.000	44.51	-31.54	35.49	40.56	74.00	29.50	H
9648.500	45.60	-29.87	36.60	38.87	74.00	28.40	V
12061.000	47.46	-27.98	38.96	36.49	74.00	26.54	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)
2386.200	50.60	-35.24	31.90	53.93	74.00	23.41	V
2486.000	51.34	-35.26	32.10	54.50	74.00	22.66	H
4874.000	43.23	-32.99	33.85	42.38	74.00	30.77	V
7310.500	43.89	-31.41	35.54	39.76	74.00	30.11	H
9748.000	44.62	-29.86	36.79	37.70	74.00	29.38	H
12186.000	47.31	-27.85	38.83	36.33	74.00	26.69	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)
2483.655	70.47	4.65	32.10	33.72	74.00	3.53	V
2483.760	68.07	4.65	32.10	31.32	74.00	5.93	V
4924.000	43.25	-32.94	33.90	42.29	74.00	30.75	H
7385.500	43.63	-31.36	35.70	39.29	74.00	30.37	V
9850.000	45.74	-29.75	36.90	38.59	74.00	28.27	H
12310.000	47.83	-28.06	38.90	36.99	74.00	26.17	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)
2389.842	64.13	4.62	31.90	27.61	74.00	9.87	V
2389.954	64.40	4.62	31.90	27.88	74.00	9.60	V
4845.000	44.24	-33.02	33.81	43.45	74.00	29.76	H
7266.000	44.12	-31.41	35.43	40.10	74.00	29.88	H
9687.000	45.43	-30.04	36.53	38.95	74.00	28.57	H
12112.000	48.86	-27.56	38.98	37.44	74.00	25.14	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)
2349.600	51.32	-35.46	31.90	54.88	74.00	22.68	V
2518.000	51.28	-35.24	32.17	54.35	74.00	22.72	H
4873.000	42.76	-32.97	33.85	41.88	74.00	31.25	H
7310.000	43.67	-31.41	35.54	39.54	74.00	30.33	V
9748.000	45.33	-29.86	36.79	38.40	74.00	28.67	H
12184.500	47.40	-27.87	38.83	36.44	74.00	26.60	H

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)
2483.580	68.18	4.65	32.10	31.43	74.00	5.82	V
2483.710	68.47	4.65	32.10	31.72	74.00	5.53	V
4916.500	45.10	-32.76	33.90	43.96	74.00	28.90	H
7356.000	44.90	-31.14	35.70	40.34	74.00	29.10	H
9807.500	44.99	-29.95	36.90	38.04	74.00	29.01	V
12261.000	48.83	-27.91	38.86	37.88	74.00	25.17	V

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)
2379.990	48.20	4.59	31.90	11.71	54.00	5.80	V
2388.450	48.23	4.61	31.90	11.72	54.00	5.77	V
4823.667	38.36	-32.76	33.85	37.27	54.00	15.64	V
72360.000	31.11	0.00	0.00	31.11	54.00	22.89	V
9648.000	33.13	-29.87	36.60	26.40	54.00	20.87	V
12060.000	35.52	-27.97	38.96	24.53	54.00	18.48	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)
2388.270	48.24	4.61	31.90	11.73	54.00	5.76	V
2484.090	48.43	4.65	32.10	11.68	54.00	5.57	V
4873.667	45.29	-32.99	33.85	44.43	54.00	8.71	H
7311.000	31.61	-31.41	35.54	27.47	54.00	22.40	H
9748.000	33.34	-29.86	36.79	26.42	54.00	20.66	H
12185.000	35.72	-27.86	38.83	24.76	54.00	18.28	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)
2485.400	48.45	4.65	32.10	11.71	54.00	5.55	V
2486.220	48.55	4.65	32.10	11.81	54.00	5.45	V
4923.667	45.80	-32.94	33.90	44.84	54.00	8.20	V
7386.000	32.08	-31.36	35.70	27.73	54.00	21.92	V
9848.000	33.77	-29.76	36.90	26.63	54.00	20.24	H
12310.000	35.59	-28.06	38.90	24.75	54.00	18.41	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)
2389.950	49.17	4.62	31.90	12.65	54.00	4.83	V
2389.980	49.17	4.62	31.90	12.66	54.00	4.83	V
4830.333	31.94	-32.50	33.84	30.60	54.00	22.06	H
7236.000	31.29	-31.52	35.48	27.33	54.00	22.71	H
9648.000	33.37	-29.87	36.60	26.64	54.00	20.63	V
12060.000	35.83	-27.97	38.96	24.84	54.00	18.17	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)
2386.890	48.31	4.61	31.90	11.80	54.00	5.69	V
2487.780	48.43	4.64	32.10	11.69	54.00	5.57	V
4872.667	32.43	-32.96	33.85	31.54	54.00	21.57	V
7311.000	31.83	-31.41	35.54	27.70	54.00	22.17	V
9748.000	33.45	-29.86	36.79	26.53	54.00	20.55	H
12185.000	35.65	-27.86	38.83	24.68	54.00	18.35	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)
2483.520	50.72	4.65	32.10	13.97	54.00	3.28	V
2483.550	50.69	4.65	32.10	13.93	54.00	3.31	V
4920.000	32.68	-32.85	33.90	31.63	54.00	21.32	V
7386.000	31.97	-31.36	35.70	27.62	54.00	22.03	V
9848.000	33.73	-29.76	36.90	26.59	54.00	20.27	H
12310.000	35.46	-28.06	38.90	24.62	54.00	18.54	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)
2389.830	48.74	4.62	31.90	12.23	54.00	5.26	V
2389.950	48.76	4.62	31.90	12.25	54.00	5.24	V
4824.333	31.60	-32.74	33.85	30.48	54.00	22.40	V
7236.000	31.04	-31.52	35.48	27.08	54.00	22.96	V
9648.000	33.05	-29.87	36.60	26.32	54.00	20.95	V
12060.000	35.68	-27.97	38.96	24.69	54.00	18.32	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)
2387.010	48.14	4.61	31.90	11.63	54.00	5.86	V
2488.680	48.32	4.64	32.10	11.58	54.00	5.68	V
4871.667	31.74	-32.93	33.84	30.83	54.00	22.26	V
7311.000	31.75	-31.41	35.54	27.62	54.00	22.25	H
9748.000	33.44	-29.86	36.79	26.52	54.00	20.56	V
12185.000	35.72	-27.86	38.83	24.75	54.00	18.28	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)
2483.550	49.93	4.65	32.10	13.17	54.00	4.07	V
2483.580	49.89	4.65	32.10	13.13	54.00	4.11	V
4921.000	31.66	-32.87	33.90	30.64	54.00	22.34	V
7386.000	32.16	-31.36	35.70	27.82	54.00	21.84	H
9848.000	33.64	-29.76	36.90	26.50	54.00	20.36	H
12310.000	35.48	-28.06	38.90	24.64	54.00	18.52	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)
2389.920	51.12	4.62	31.90	14.61	54.00	2.88	V
2389.950	51.13	4.62	31.90	14.62	54.00	2.87	V
4844.000	30.39	-32.96	33.81	29.54	54.00	23.61	H
7266.000	31.96	-31.41	35.43	27.94	54.00	22.04	V
9688.000	33.29	-30.04	36.52	26.80	54.00	20.72	V
12110.000	36.18	-27.67	38.98	24.87	54.00	17.82	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)
2380.320	48.23	4.59	31.90	11.74	54.00	5.77	H
2490.090	48.59	4.64	32.10	11.86	54.00	5.41	V
4874.000	30.91	-32.99	33.85	30.06	54.00	23.09	H
7311.000	31.77	-31.41	35.54	27.64	54.00	22.23	H
9748.000	33.60	-29.86	36.79	26.67	54.00	20.40	H
12185.000	35.75	-27.86	38.83	24.79	54.00	18.25	H

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)
2483.670	51.92	4.65	32.10	15.17	54.00	2.08	H
2483.730	51.91	4.65	32.10	15.16	54.00	2.09	H
4911.667	32.19	-32.64	33.90	30.93	54.00	21.82	V
7356.000	32.74	-31.14	35.70	28.18	54.00	21.26	H
9808.000	33.55	-29.95	36.90	26.60	54.00	20.45	H
12260.000	35.92	-27.90	38.86	24.96	54.00	18.08	H

Band edge compliance

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.31GHz~2.43GHz---L	Fig.1	P
	11	2.45GHz~2.50GHz---H	Fig.2	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	1	2.31GHz~2.43GHz---L	Fig.3	P
	11	2.45GHz~2.50GHz---H	Fig.4	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	1	2.31GHz~2.43GHz---L	Fig.5	P
	11	2.45GHz~2.50GHz---H	Fig.6	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	3	2.31GHz~2.43GHz---L	Fig.7	P
	9	2.45GHz~2.50GHz---H	Fig.8	P

Test graphs as below:

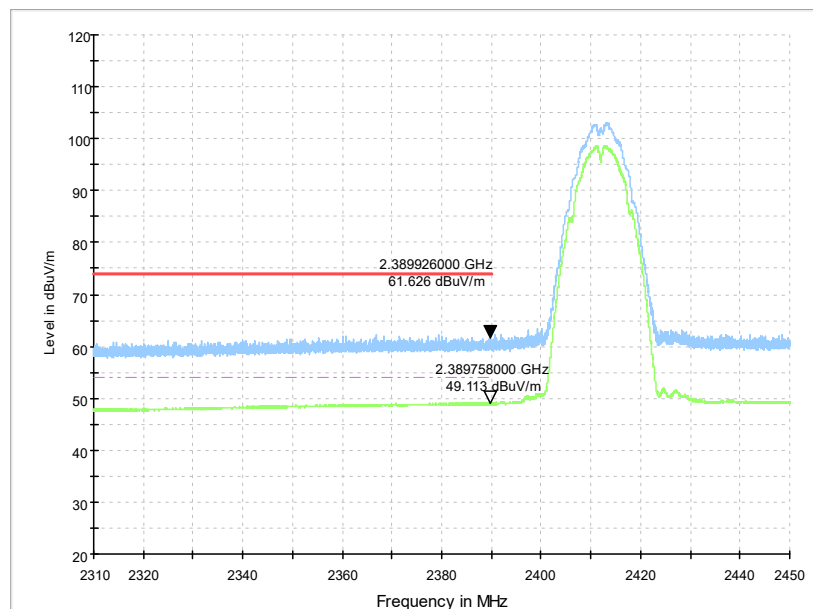


Fig.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.43GHz

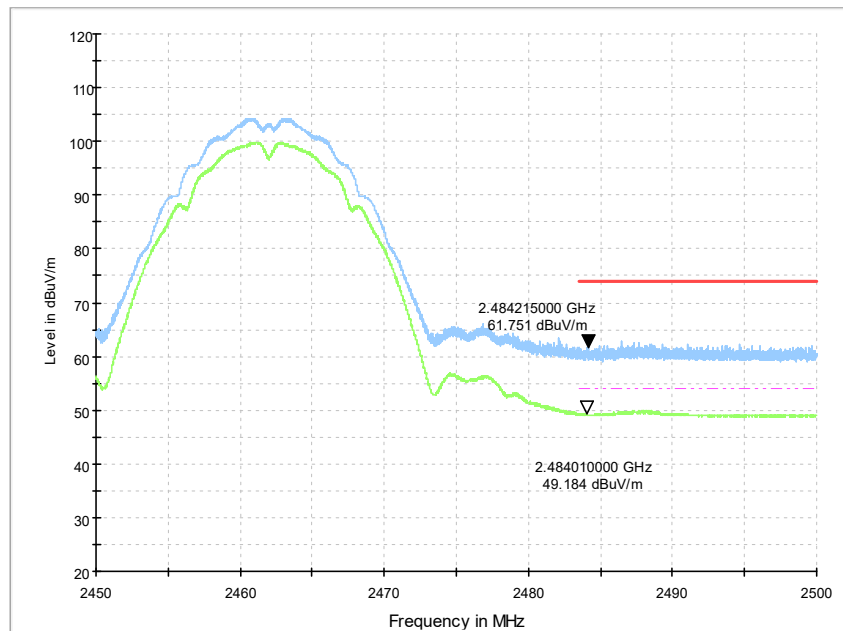


Fig.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

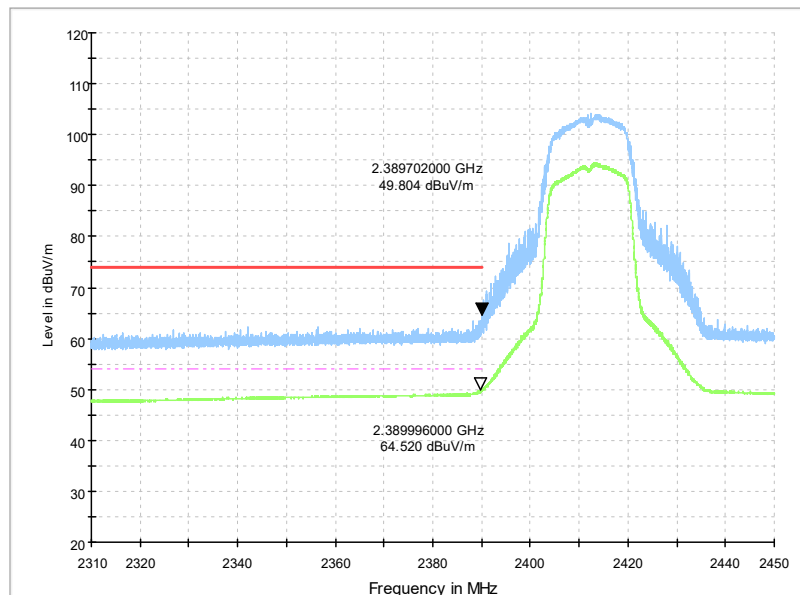


Fig.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.43GHz

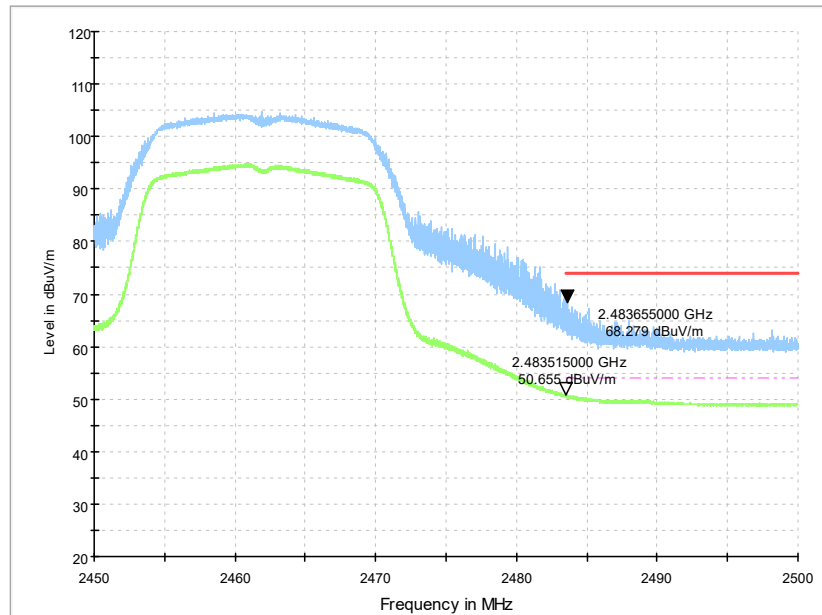


Fig.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

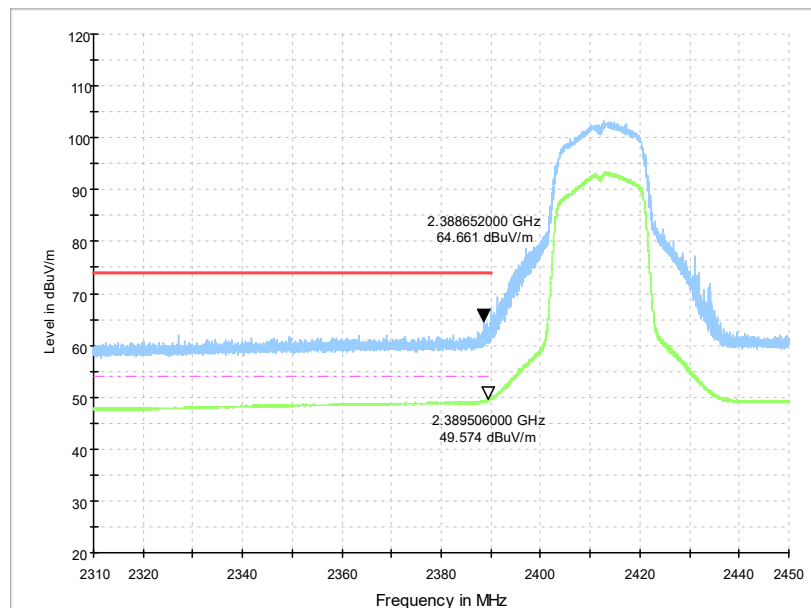


Fig.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31 GHz - 2.43GHz

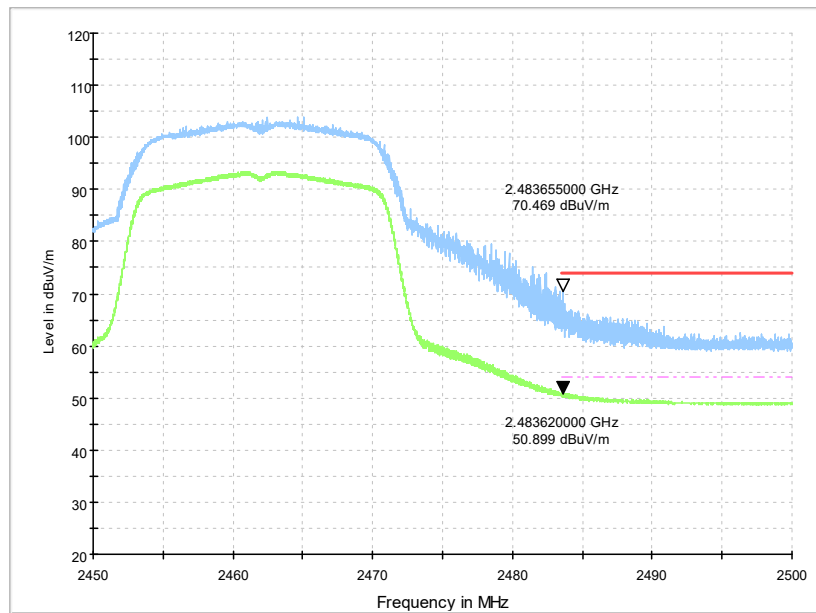


Fig.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

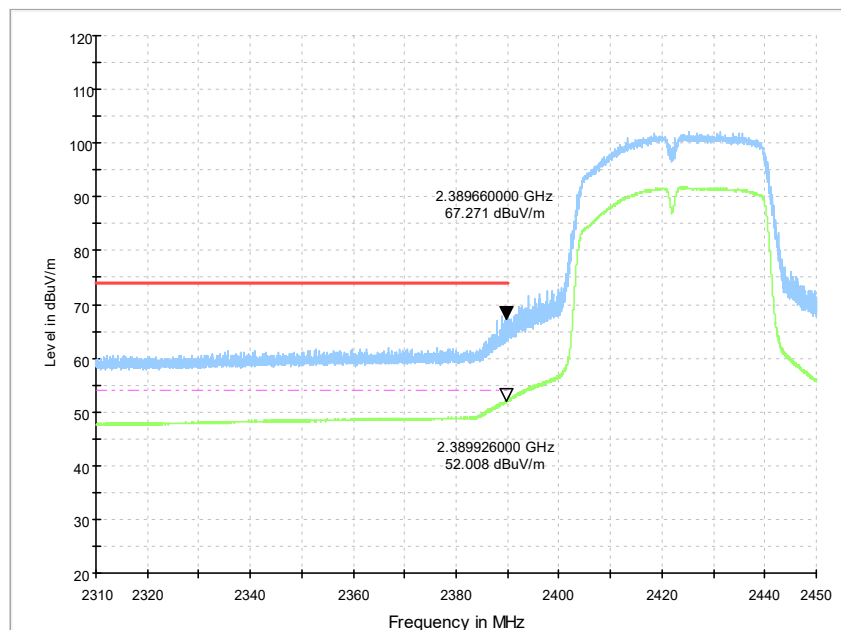


Fig.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31 GHz - 2.43GHz

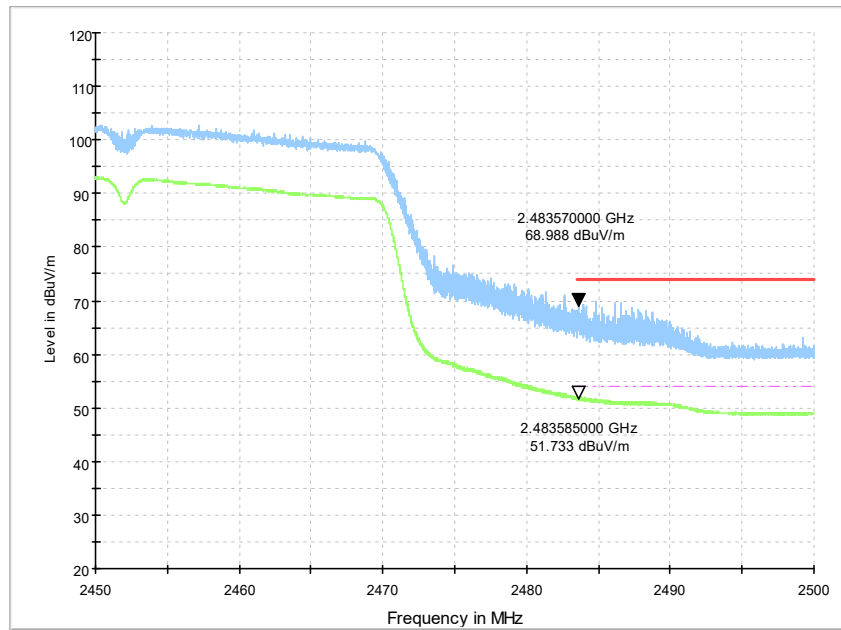


Fig.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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.

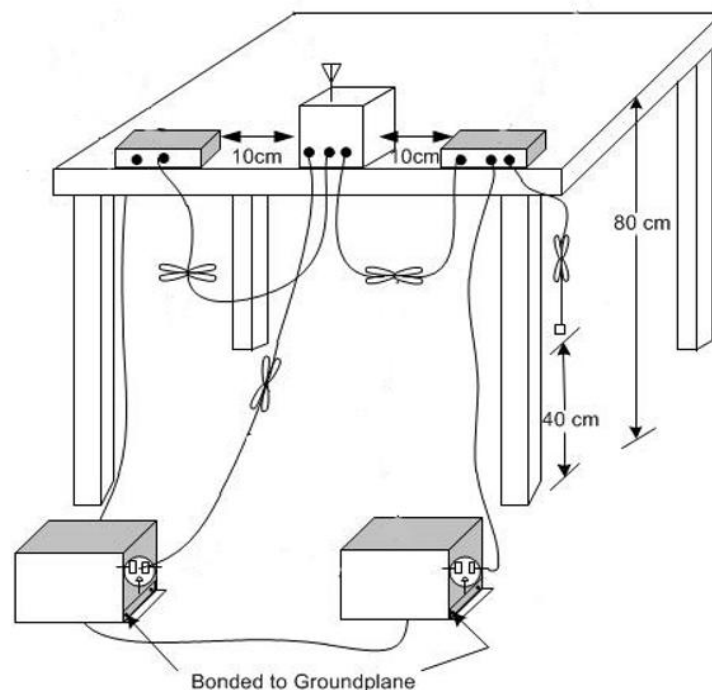
The measurement bandwidth is:

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 (dBμV)	Result (dBμV)		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 (dBμV)	Result (dBμV)		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:

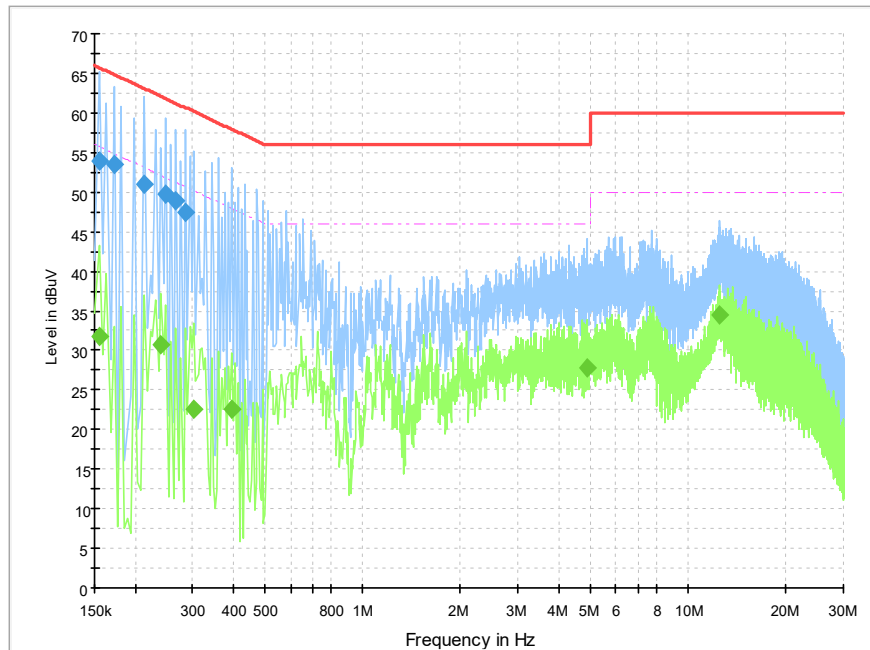


Fig.A.8.1 AC Powerline Conducted Emission-802.11b

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
0.154500	53.8	2000.0	9.000	On	N	20.2	11.9	65.8	
0.172500	53.5	2000.0	9.000	On	L1	20.0	11.4	64.8	
0.213000	50.9	2000.0	9.000	On	L1	20.0	12.2	63.1	
0.249000	49.8	2000.0	9.000	On	L1	20.0	12.0	61.8	
0.267000	48.9	2000.0	9.000	On	L1	20.0	12.3	61.2	
0.285000	47.3	2000.0	9.000	On	L1	20.0	13.3	60.7	

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.154500	31.9	2000.0	9.000	On	N	20.2	23.9	55.8	
0.240000	30.7	2000.0	9.000	On	L1	20.0	21.4	52.1	
0.303000	22.5	2000.0	9.000	On	N	20.1	27.7	50.2	
0.397500	22.6	2000.0	9.000	On	L1	20.0	25.3	47.9	
4.875000	27.8	2000.0	9.000	On	L1	19.9	18.2	46.0	
12.547500	34.4	2000.0	9.000	On	L1	20.0	15.6	50.0	

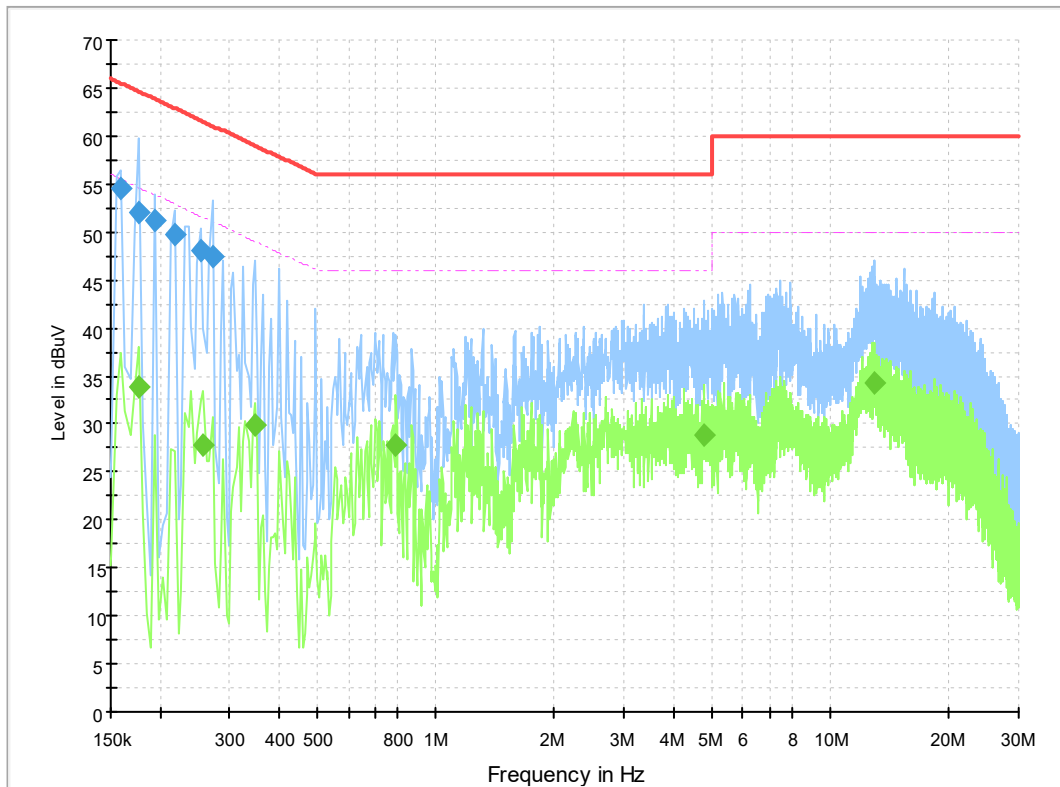


Fig.A.8.2 AC Powerline Conducted Emission-Idle

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
0.159000	54.4	2000.0	9.000	On	L1	20.1	11.1	65.5	
0.177000	52.1	2000.0	9.000	On	L1	20.0	12.5	64.6	
0.195000	51.2	2000.0	9.000	On	L1	20.0	12.6	63.8	
0.217500	49.6	2000.0	9.000	On	L1	20.0	13.3	62.9	
0.253500	48.1	2000.0	9.000	On	L1	20.0	13.5	61.6	
0.271500	47.5	2000.0	9.000	On	L1	20.0	13.6	61.1	

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.177000	33.9	2000.0	9.000	On	L1	20.0	20.8	54.6	
0.258000	27.9	2000.0	9.000	On	N	20.0	23.6	51.5	
0.348000	29.9	2000.0	9.000	On	L1	20.0	19.2	49.0	
0.793500	27.8	2000.0	9.000	On	L1	20.0	18.2	46.0	
4.794000	28.7	2000.0	9.000	On	L1	19.8	17.3	46.0	
12.871500	34.3	2000.0	9.000	On	L1	20.0	15.7	50.0	

A.9. Antenna Requirement

The antenna of the device is permanently attached. There are no provisions for connection to an external antenna.

The unit complies with the requirement of FCC Part 15.203.

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



*****END OF REPORT*****