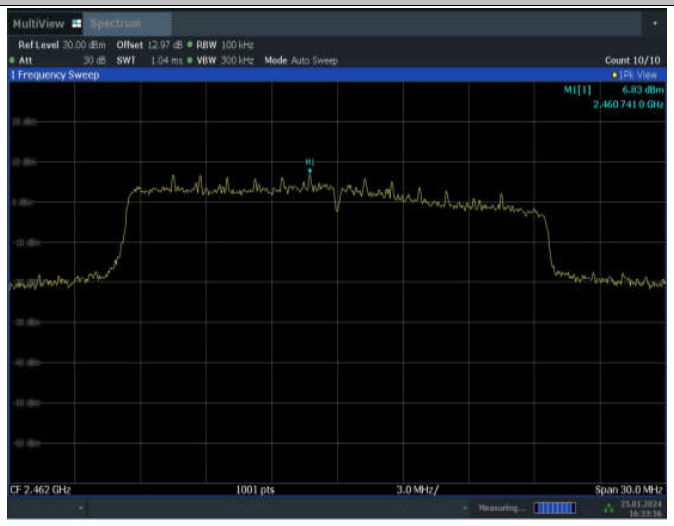
11AX20MIMO_ANT7_2462_0~Reference



11AX20MIMO_ANT7_2462_30~1000

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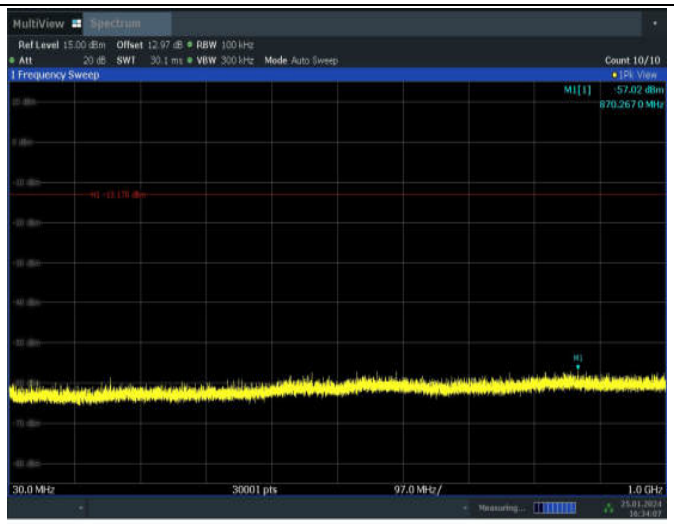

11AX20MIMO_ANT7_2462_1000~26500

11AX40MIMO_ANT5_2422_0~Reference

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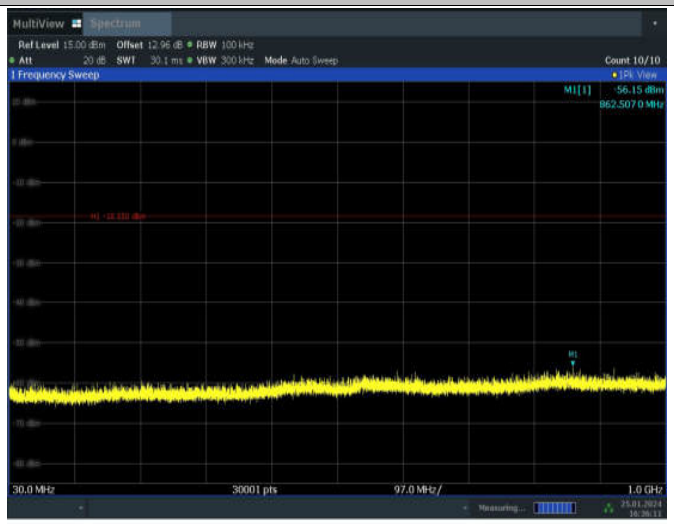
11AX40MIMO_ANT5_2422_30~1000



11AX40MIMO_ANT5_2422_1000~26500

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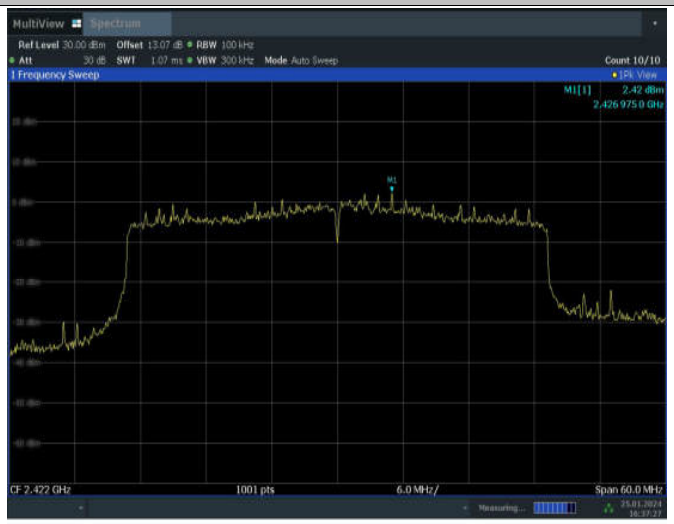
11AX40MIMO_ANT7_2422_0~Reference



11AX40MIMO_ANT7_2422_30~1000

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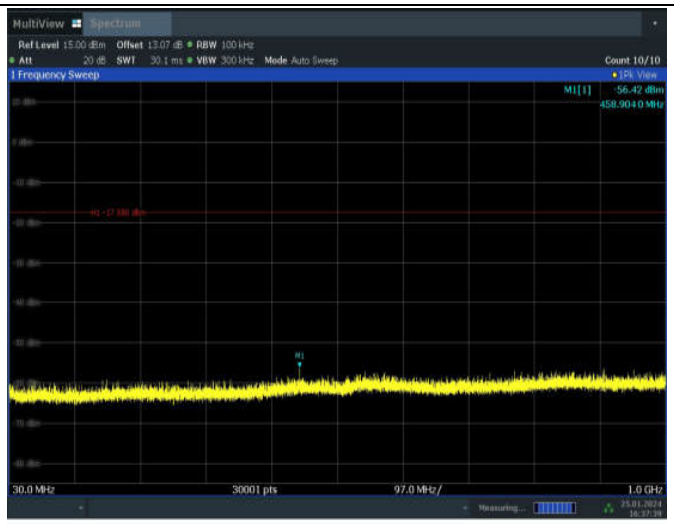

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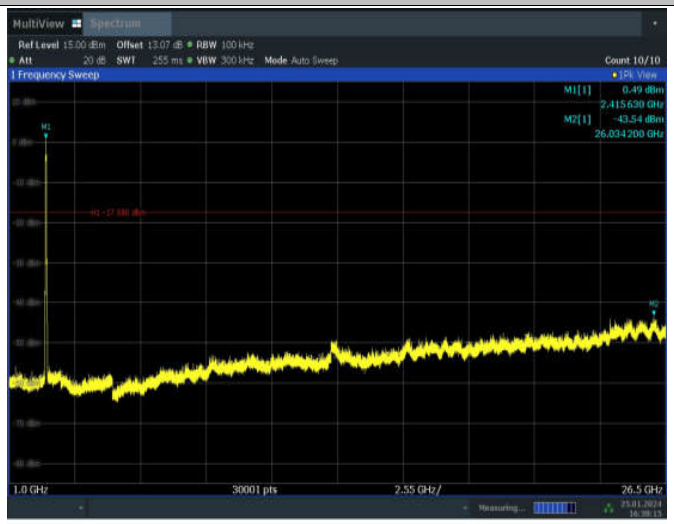

11AX40MIMO_ANT5_2437_0~Reference

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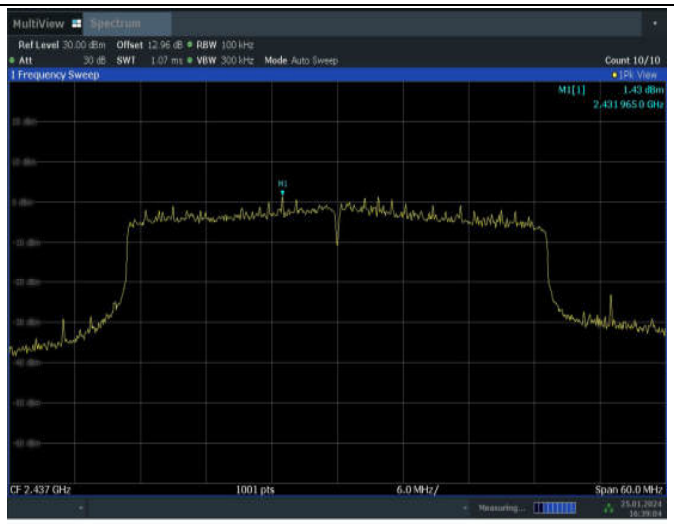

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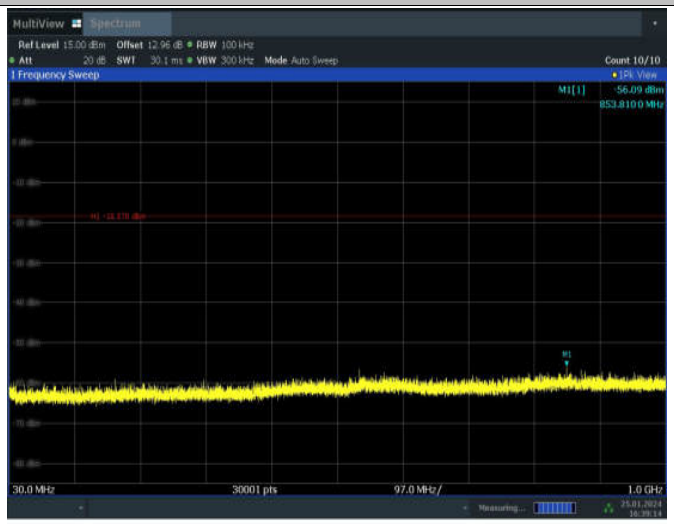

11AX40MIMO_ANT5_2437_1000~26500

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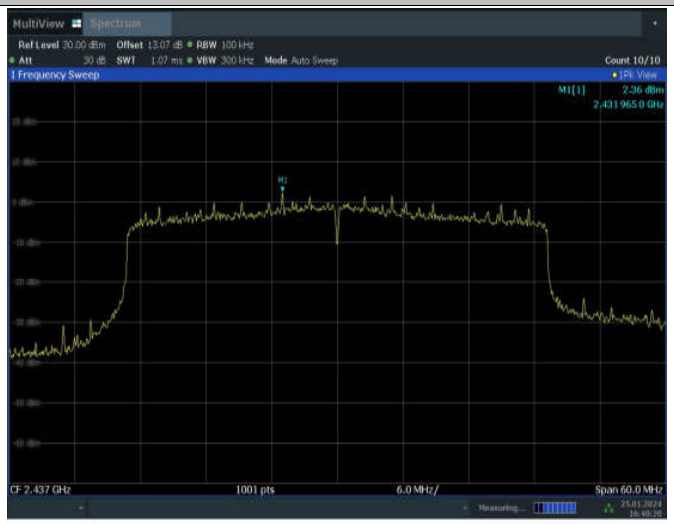
11AX40MIMO_ANT7_2437_0~Reference



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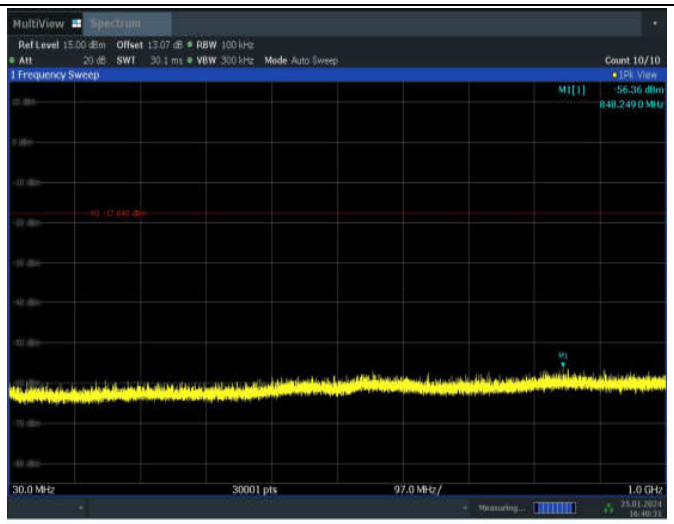

11AX40MIMO_ANT7_2437_1000~26500

11AX40MIMO_ANT5_2452_0~Reference

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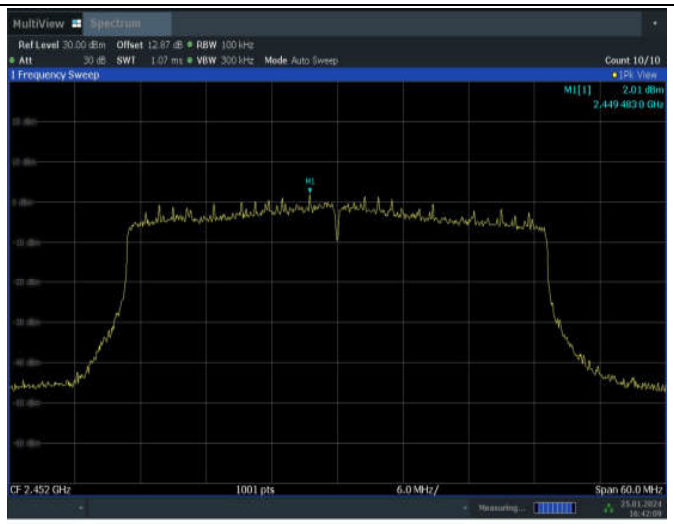

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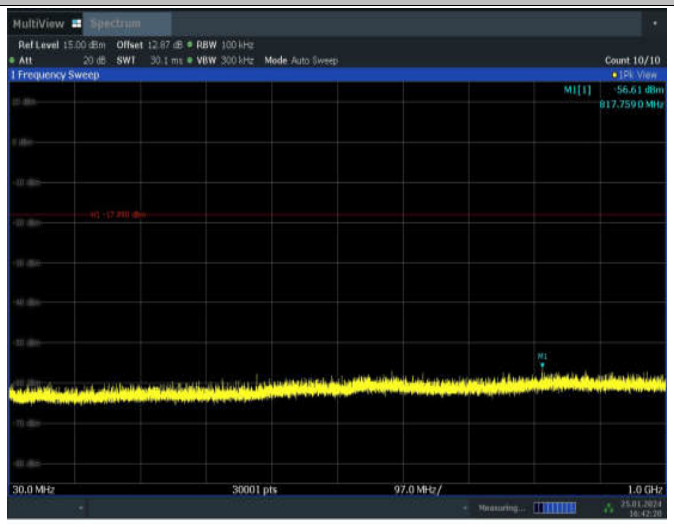

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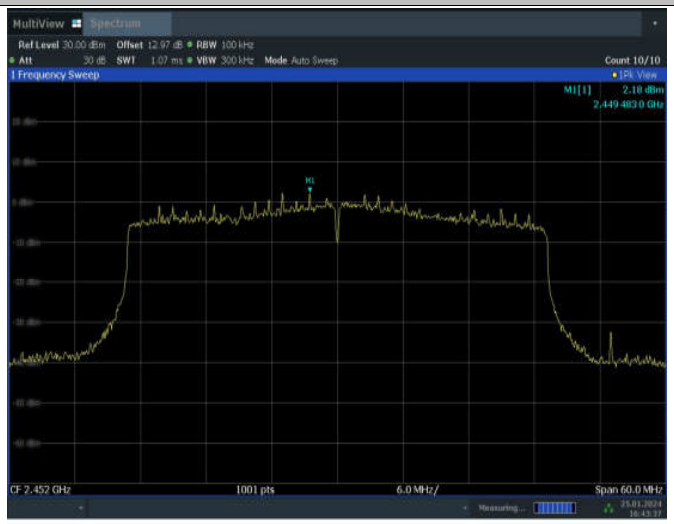
11AX40MIMO_ANT7_2452_0~Reference



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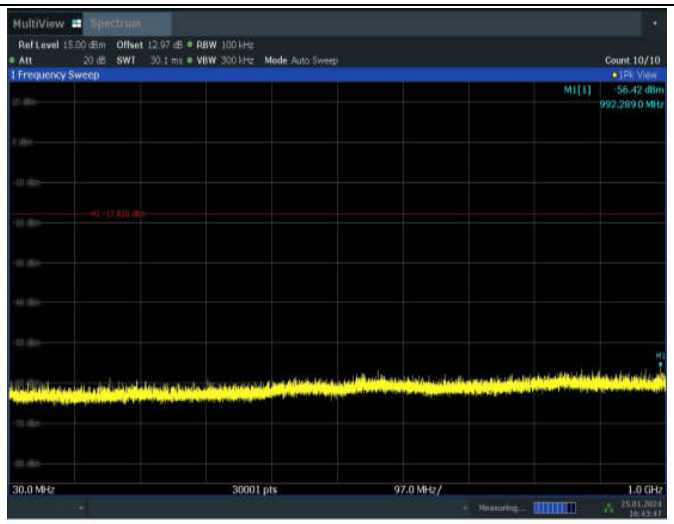

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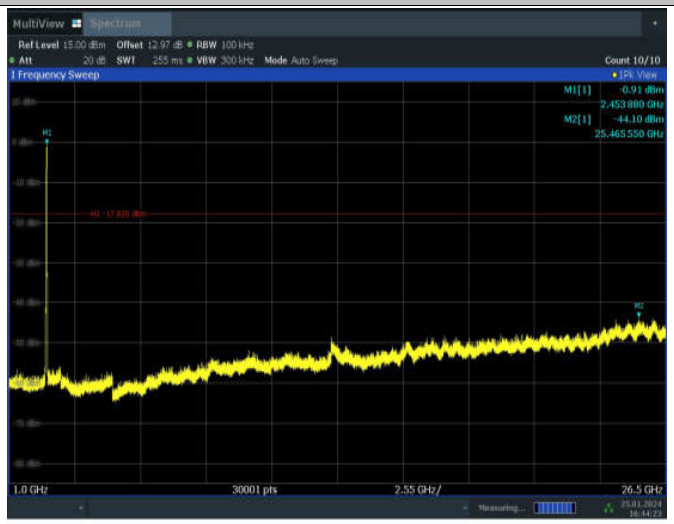

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11ax-RU

TestMode	Antenna	Frequency[MHz]	Ru Size	Ru Index	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11AX20MIMO	ANT5	2412	26Tone	RU0	Reference	2.42	2.42	---	PASS
				RU0	30~1000	2.42	-56.36	≤-17.58	PASS
				RU0	1000~26500	2.42	-43.23	≤-17.58	PASS
				RU8	Reference	2.01	2.01	---	PASS
				RU8	30~1000	2.01	-56.13	≤-17.99	PASS
				RU8	1000~26500	2.01	-43.44	≤-17.99	PASS
			52Tone	RU37	Reference	3.10	3.10	---	PASS
				RU37	30~1000	3.10	-55.59	≤-16.9	PASS
				RU37	1000~26500	3.10	-42.80	≤-16.9	PASS
				RU40	Reference	2.74	2.74	---	PASS
				RU40	30~1000	2.74	-56.96	≤-17.26	PASS
				RU40	1000~26500	2.74	-43.76	≤-17.26	PASS
			106Tone	RU53	Reference	2.06	2.06	---	PASS
				RU53	30~1000	2.06	-56.54	≤-17.94	PASS
				RU53	1000~26500	2.06	-43.58	≤-17.94	PASS
				RU54	Reference	2.04	2.04	---	PASS
				RU54	30~1000	2.04	-56.17	≤-17.96	PASS
				RU54	1000~26500	2.04	-43.82	≤-17.96	PASS
	ANT7	2412	26Tone	RU0	Reference	1.86	1.86	---	PASS
				RU0	30~1000	1.86	-56.10	≤-18.14	PASS
				RU0	1000~26500	1.86	-43.63	≤-18.14	PASS
				RU8	Reference	3.48	3.48	---	PASS
				RU8	30~1000	3.48	-55.83	≤-16.52	PASS
				RU8	1000~26500	3.48	-43.18	≤-16.52	PASS
			52Tone	RU37	Reference	1.03	1.03	---	PASS
				RU37	30~1000	1.03	-56.70	≤-18.97	PASS
				RU37	1000~26500	1.03	-43.17	≤-18.97	PASS
				RU40	Reference	3.27	3.27	---	PASS
				RU40	30~1000	3.27	-56.06	≤-16.73	PASS
				RU40	1000~26500	3.27	-43.23	≤-16.73	PASS
			106Tone	RU53	Reference	1.79	1.79	---	PASS
				RU53	30~1000	1.79	-56.72	≤-18.21	PASS
				RU53	1000~26500	1.79	-42.91	≤-18.21	PASS
				RU54	Reference	2.70	2.70	---	PASS
				RU54	30~1000	2.70	-56.13	≤-17.3	PASS
				RU54	1000~26500	2.70	-43.73	≤-17.3	PASS
	ANT5	2437	26Tone	RU0	Reference	1.32	1.32	---	PASS
				RU0	30~1000	1.32	-56.70	≤-18.68	PASS
				RU0	1000~26500	1.32	-43.70	≤-18.68	PASS

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				RU8	Reference	1.96	1.96	---	PASS
				RU8	30~1000	1.96	-56.64	≤-18.04	PASS
				RU8	1000~26500	1.96	-43.74	≤-18.04	PASS
			52Tone	RU37	Reference	1.10	1.10	---	PASS
				RU37	30~1000	1.10	-55.81	≤-18.9	PASS
				RU37	1000~26500	1.10	-44.46	≤-18.9	PASS
				RU40	Reference	2.29	2.29	---	PASS
				RU40	30~1000	2.29	-56.33	≤-17.71	PASS
				RU40	1000~26500	2.29	-43.90	≤-17.71	PASS
			106Tone	RU53	Reference	1.36	1.36	---	PASS
				RU53	30~1000	1.36	-56.40	≤-18.64	PASS
				RU53	1000~26500	1.36	-43.75	≤-18.64	PASS
				RU54	Reference	1.54	1.54	---	PASS
				RU54	30~1000	1.54	-56.70	≤-18.46	PASS
				RU54	1000~26500	1.54	-44.26	≤-18.46	PASS
	ANT7	2437	26Tone	RU0	Reference	2.77	2.77	---	PASS
				RU0	30~1000	2.77	-56.63	≤-17.23	PASS
				RU0	1000~26500	2.77	-43.74	≤-17.23	PASS
				RU8	Reference	1.82	1.82	---	PASS
				RU8	30~1000	1.82	-56.09	≤-18.18	PASS
				RU8	1000~26500	1.82	-43.69	≤-18.18	PASS
			52Tone	RU37	Reference	2.95	2.95	---	PASS
				RU37	30~1000	2.95	-56.68	≤-17.05	PASS
				RU37	1000~26500	2.95	-44.21	≤-17.05	PASS
				RU40	Reference	2.39	2.39	---	PASS
				RU40	30~1000	2.39	-55.83	≤-17.61	PASS
				RU40	1000~26500	2.39	-43.24	≤-17.61	PASS
			106Tone	RU53	Reference	1.98	1.98	---	PASS
				RU53	30~1000	1.98	-56.25	≤-18.02	PASS
				RU53	1000~26500	1.98	-44.24	≤-18.02	PASS
				RU54	Reference	2.25	2.25	---	PASS
				RU54	30~1000	2.25	-56.29	≤-17.75	PASS
				RU54	1000~26500	2.25	-43.74	≤-17.75	PASS
	ANT5	2462	26Tone	RU0	Reference	1.13	1.13	---	PASS
				RU0	30~1000	1.13	-56.81	≤-18.87	PASS
				RU0	1000~26500	1.13	-44.00	≤-18.87	PASS
				RU8	Reference	1.22	1.22	---	PASS
				RU8	30~1000	1.22	-56.71	≤-18.78	PASS
				RU8	1000~26500	1.22	-43.74	≤-18.78	PASS
			52Tone	RU37	Reference	1.50	1.50	---	PASS
				RU37	30~1000	1.50	-56.58	≤-18.5	PASS
				RU37	1000~26500	1.50	-43.68	≤-18.5	PASS

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				RU40	Reference	1.68	1.68	---	PASS
				RU40	30~1000	1.68	-57.06	≤-18.32	PASS
				RU40	1000~26500	1.68	-44.31	≤-18.32	PASS
			106Tone	RU53	Reference	1.63	1.63	---	PASS
				RU53	30~1000	1.63	-56.11	≤-18.37	PASS
				RU53	1000~26500	1.63	-44.11	≤-18.37	PASS
				RU54	Reference	2.16	2.16	---	PASS
				RU54	30~1000	2.16	-38.58	≤-17.84	PASS
				RU54	1000~26500	2.16	-43.97	≤-17.84	PASS
	ANT7	2462	26Tone	RU0	Reference	2.85	2.85	---	PASS
				RU0	30~1000	2.85	-56.45	≤-17.15	PASS
				RU0	1000~26500	2.85	-43.64	≤-17.15	PASS
				RU8	Reference	1.22	1.22	---	PASS
				RU8	30~1000	1.22	-56.26	≤-18.78	PASS
				RU8	1000~26500	1.22	-43.95	≤-18.78	PASS
			52Tone	RU37	Reference	2.04	2.04	---	PASS
				RU37	30~1000	2.04	-56.81	≤-17.96	PASS
				RU37	1000~26500	2.04	-43.72	≤-17.96	PASS
				RU40	Reference	1.85	1.85	---	PASS
				RU40	30~1000	1.85	-56.72	≤-18.15	PASS
				RU40	1000~26500	1.85	-43.79	≤-18.15	PASS
			106Tone	RU53	Reference	2.20	2.20	---	PASS
				RU53	30~1000	2.20	-57.11	≤-17.8	PASS
				RU53	1000~26500	2.20	-43.76	≤-17.8	PASS
				RU54	Reference	2.16	2.16	---	PASS
				RU54	30~1000	2.16	-55.90	≤-17.84	PASS
				RU54	1000~26500	2.16	-43.28	≤-17.84	PASS

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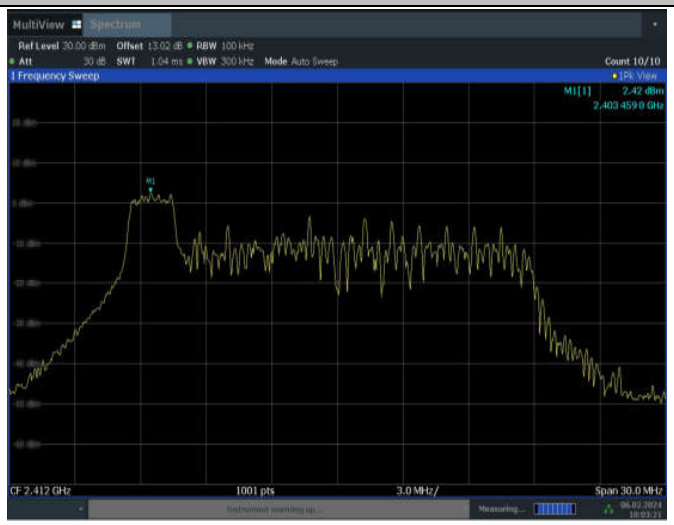
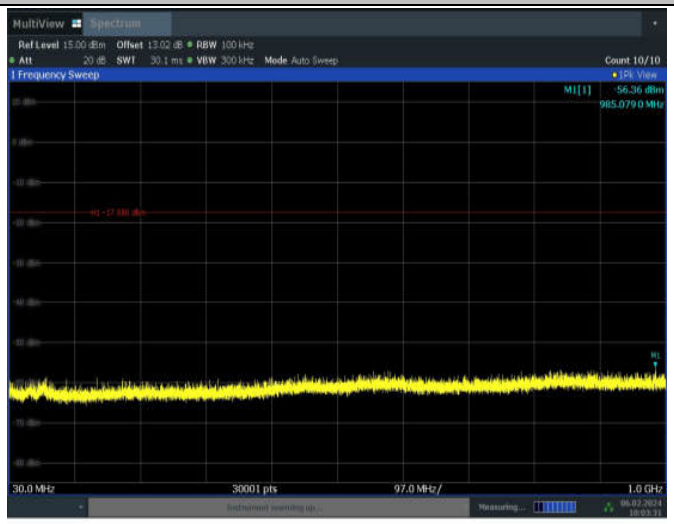
Test Graphs

11AX20MIMO_ANT5_2412_26Tone_RU0_0~Reference

11AX20MIMO_ANT5_2412_26Tone_RU0_30~1000

11AX20MIMO_ANT5_2412_26Tone_RU0_1000~26500

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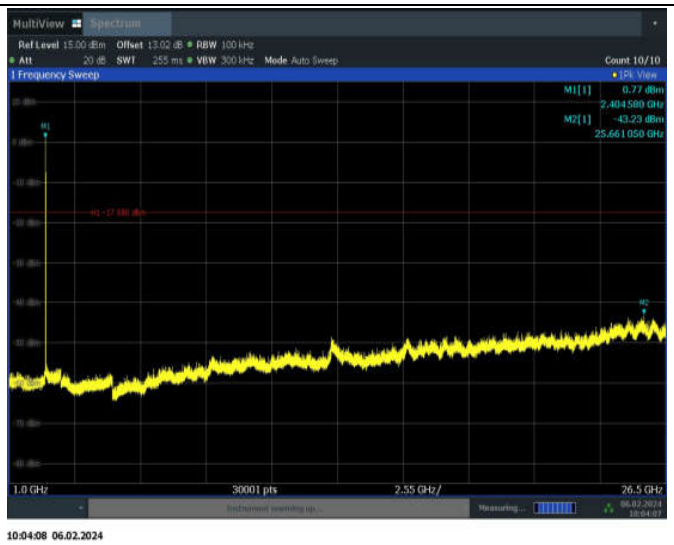

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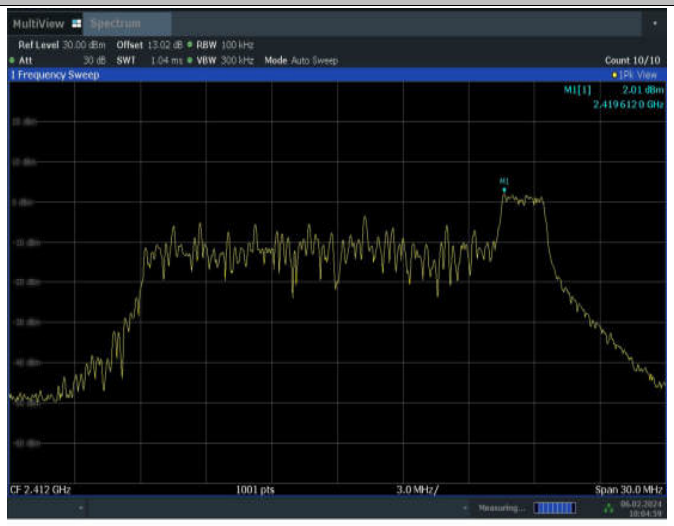

11AX20MIMO_ANT5_2412_26Tone_RU8_30~1000

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11AX20MIMO_ANT5_2412_26Tone_RU8_1000~26500

11AX20MIMO_ANT5_2412_52Tone_RU37_0~Reference

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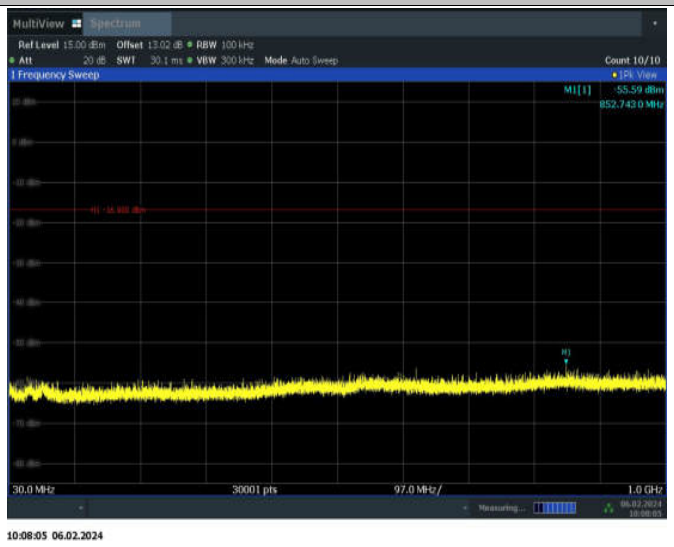
11AX20MIMO_ANT5_2412_52Tone_RU37_30~1000



11AX20MIMO_ANT5_2412_52Tone_RU37_1000~26500

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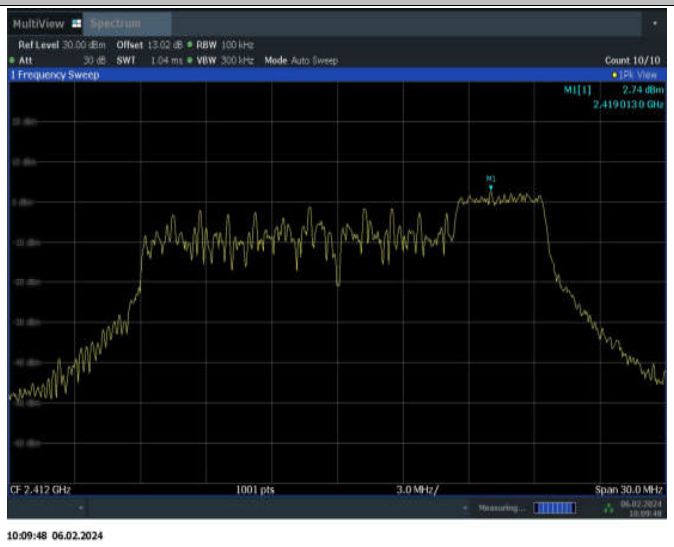
11AX20MIMO_ANT5_2412_52Tone_RU40_0~Reference



11AX20MIMO_ANT5_2412_52Tone_RU40_30~1000

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11AX20MIMO_ANT5_2412_52Tone_RU40_1000~26500

11AX20MIMO_ANT5_2412_106Tone_RU53_0~Reference

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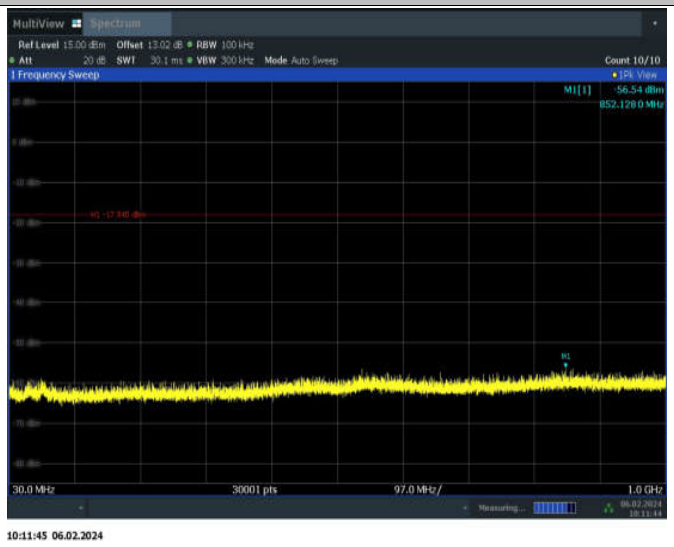
11AX20MIMO_ANT5_2412_106Tone_RU53_30~1000



11AX20MIMO_ANT5_2412_106Tone_RU53_1000~26500

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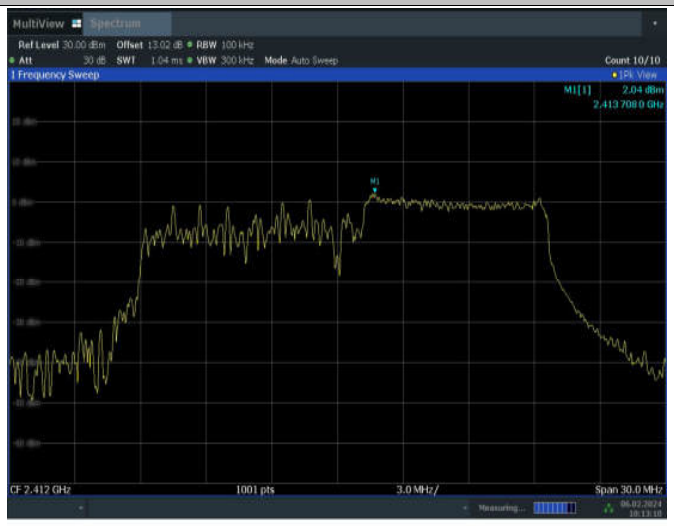
11AX20MIMO_ANT5_2412_106Tone_RU54_0~Reference



11AX20MIMO_ANT5_2412_106Tone_RU54_30~1000

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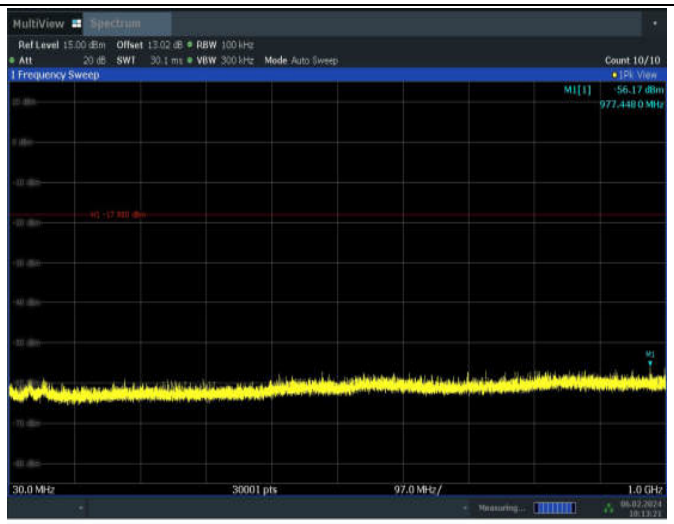
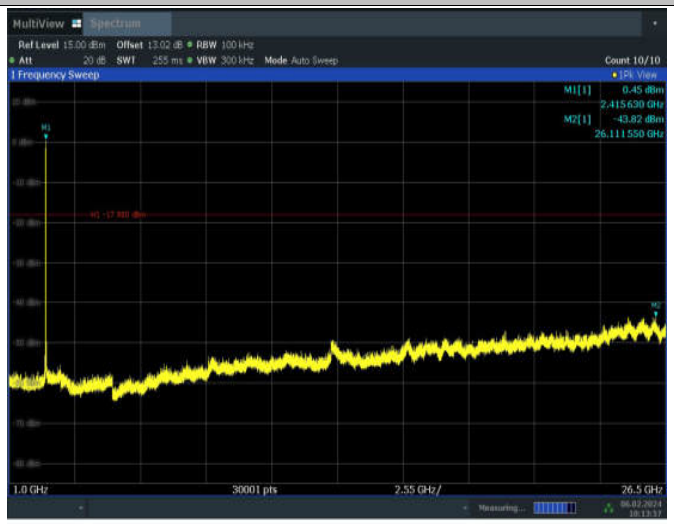


11AX20MIMO_ANT5_2412_106Tone_RU54_1000~26500



11AX20MIMO_ANT7_2412_26Tone_RU0_0~Reference

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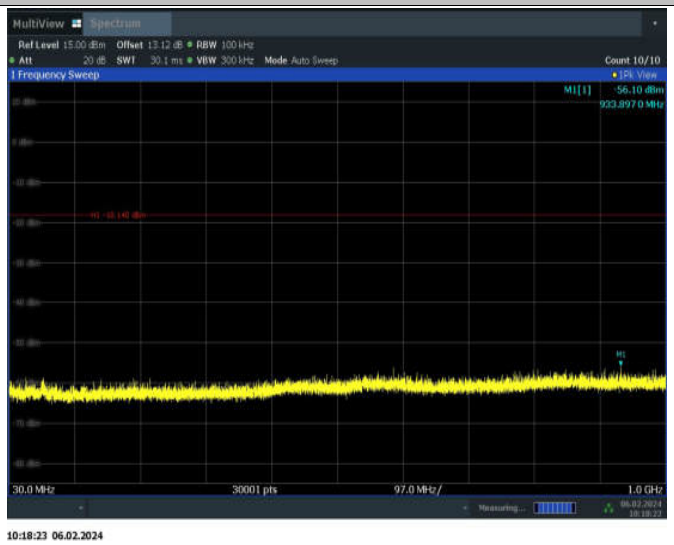
11AX20MIMO_ANT7_2412_26Tone_RU0_30~1000



11AX20MIMO_ANT7_2412_26Tone_RU0_1000~26500

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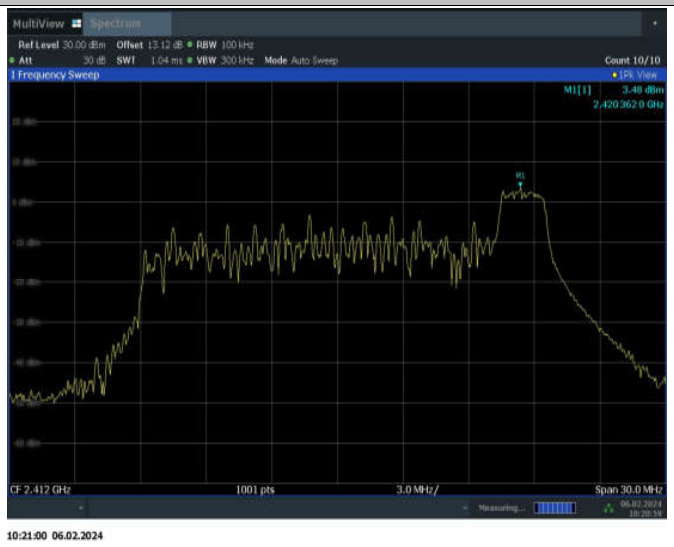
11AX20MIMO_ANT7_2412_26Tone_RU8_0~Reference



11AX20MIMO_ANT7_2412_26Tone_RU8_30~1000

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11AX20MIMO_ANT7_2412_26Tone_RU8_1000~26500

11AX20MIMO_ANT7_2412_52Tone_RU37_0~Reference

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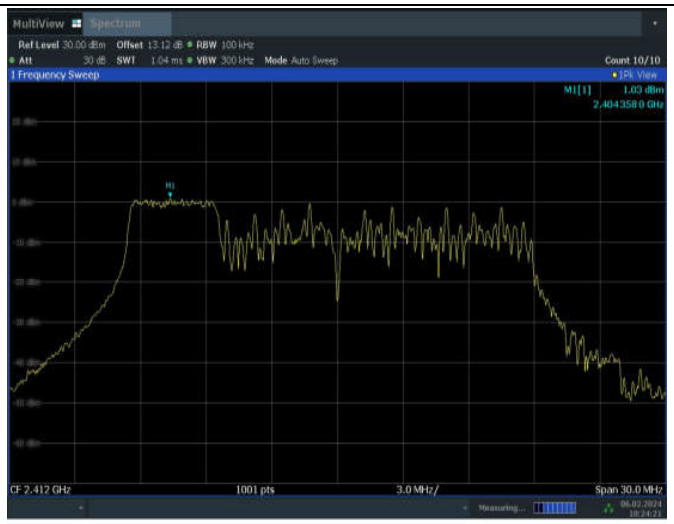

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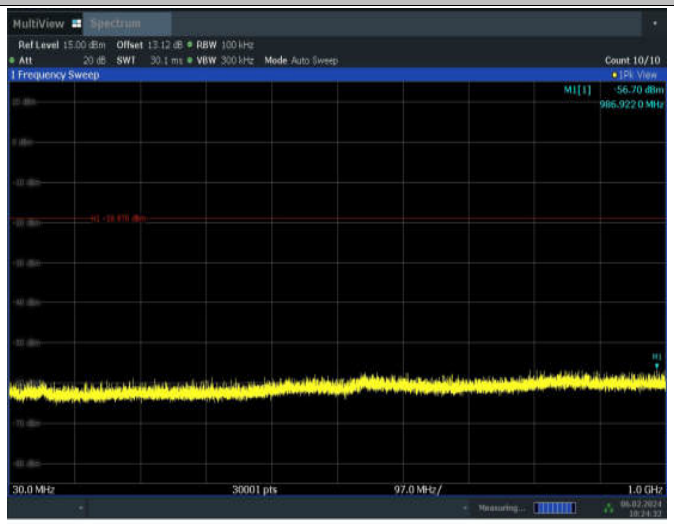

11AX20MIMO_ANT7_2412_52Tone_RU37_1000~26500

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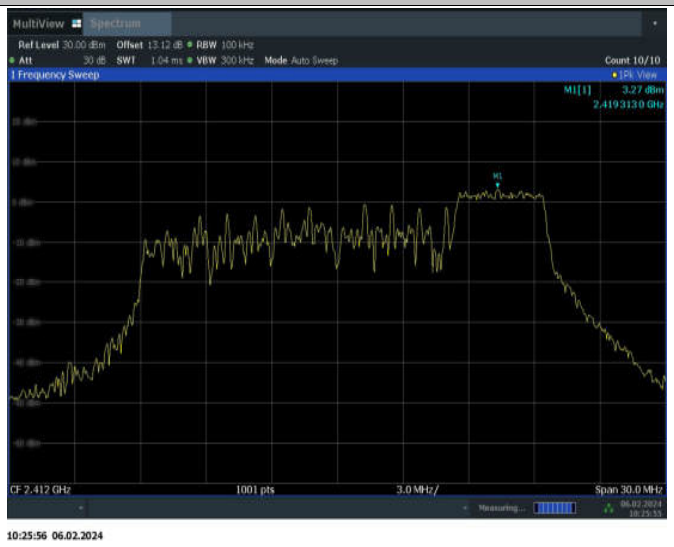
11AX20MIMO_ANT7_2412_52Tone_RU40_0~Reference



11AX20MIMO_ANT7_2412_52Tone_RU40_30~1000

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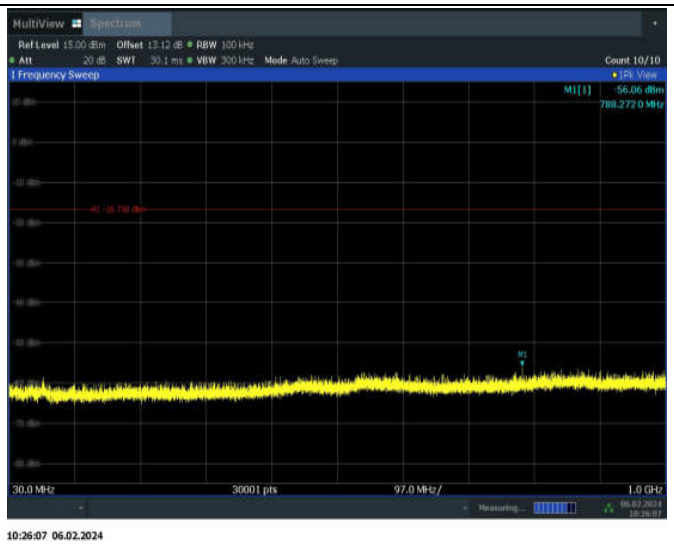

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11AX20MIMO_ANT7_2412_106Tone_RU53_0~Reference

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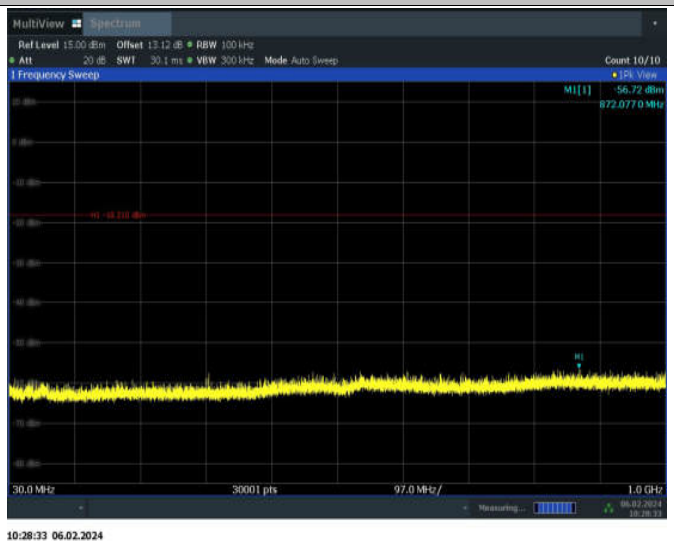

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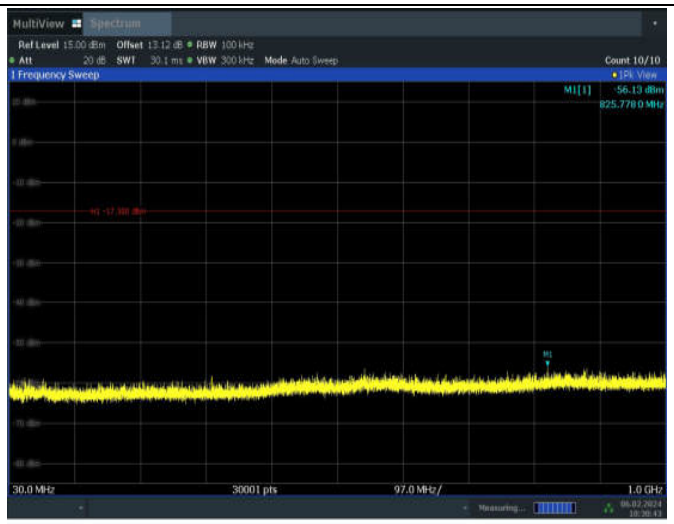

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11AX20MIMO_ANT5_2437_26Tone_RU0_0~Reference

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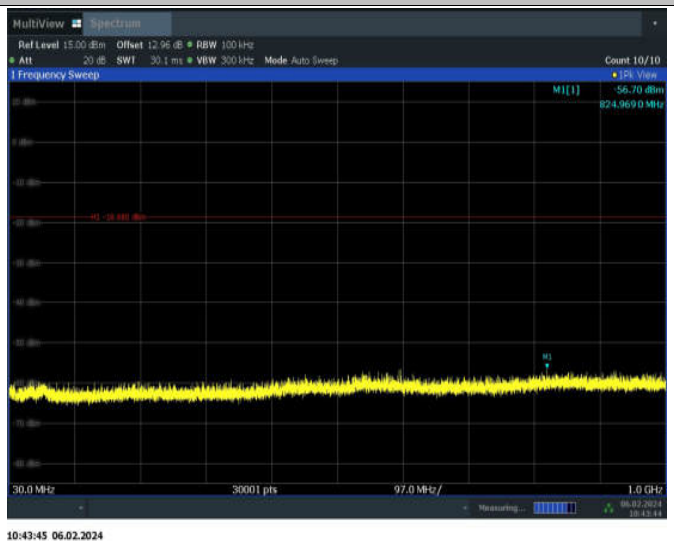

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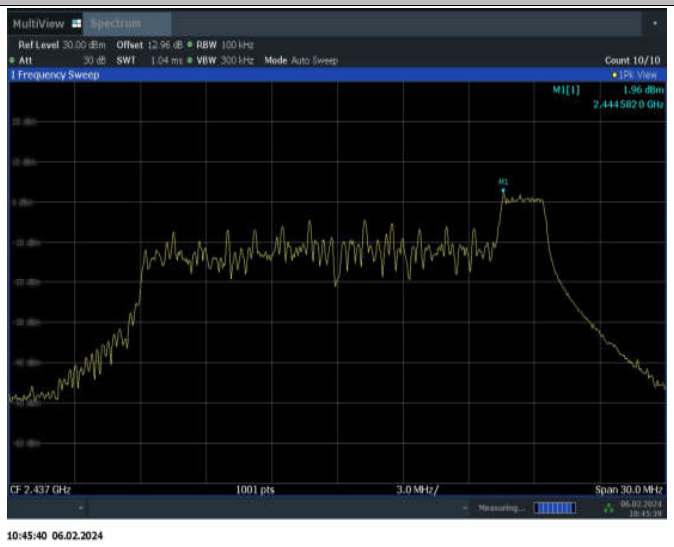

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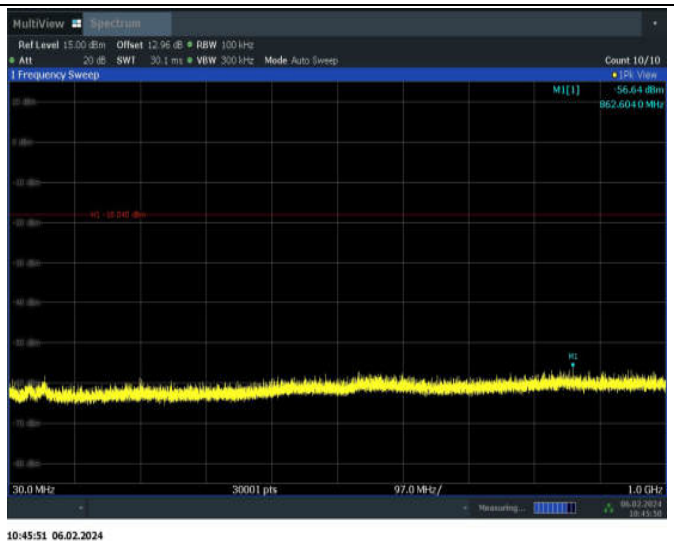

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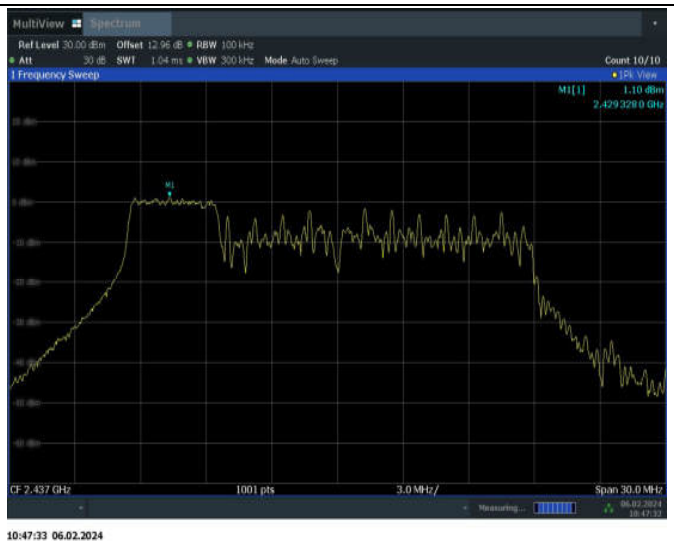

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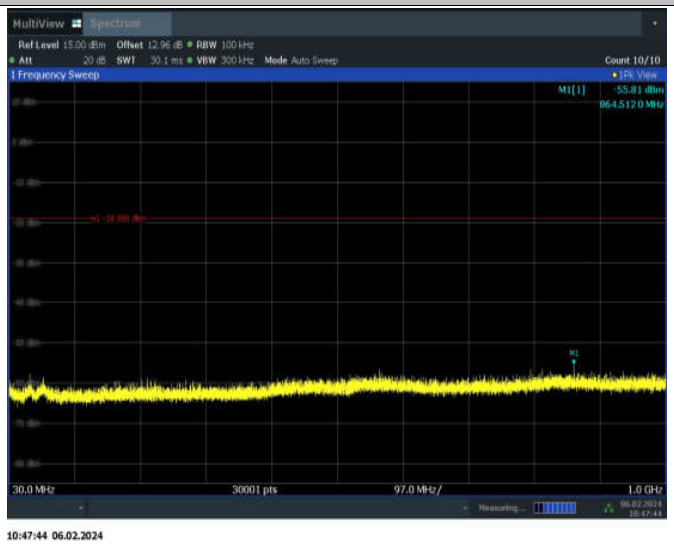

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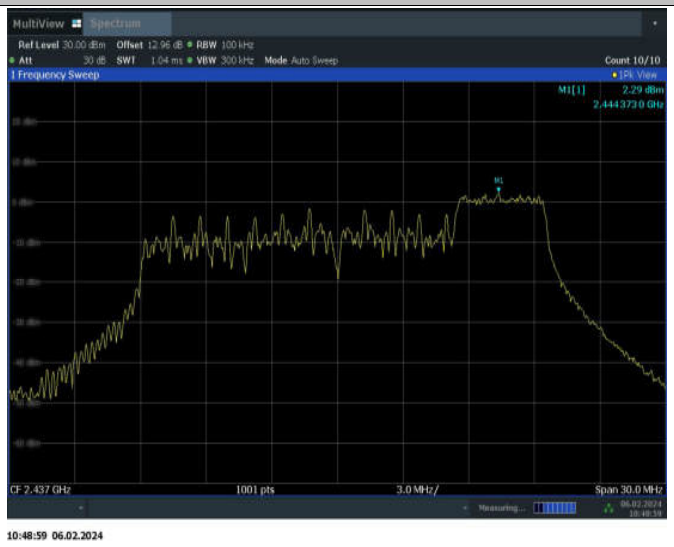

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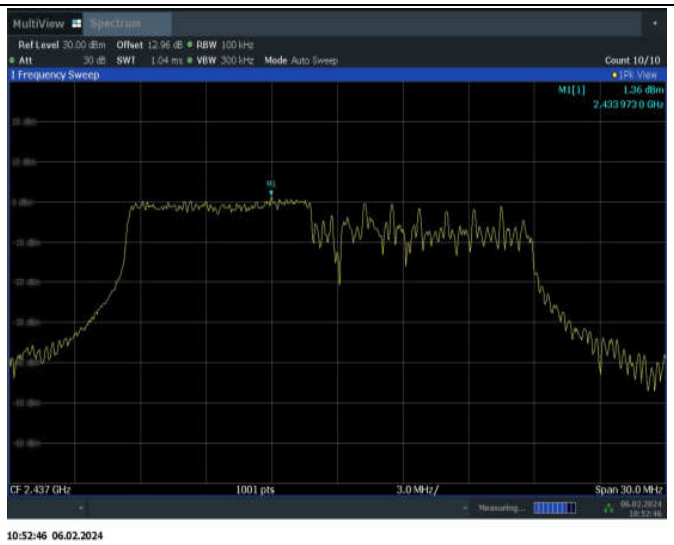

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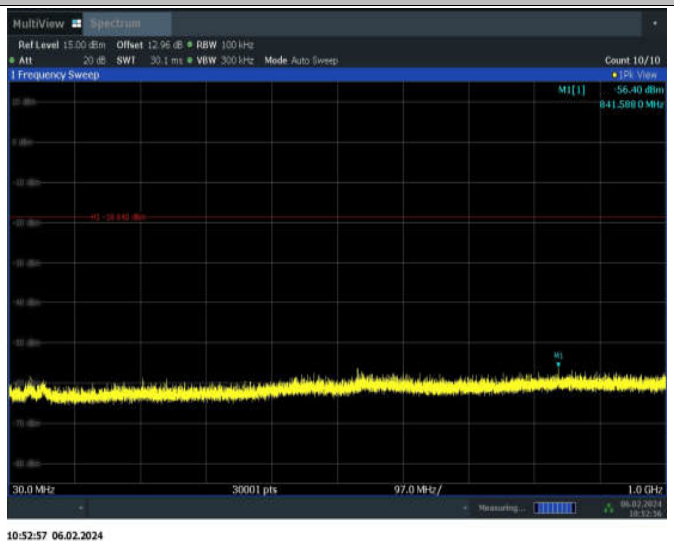

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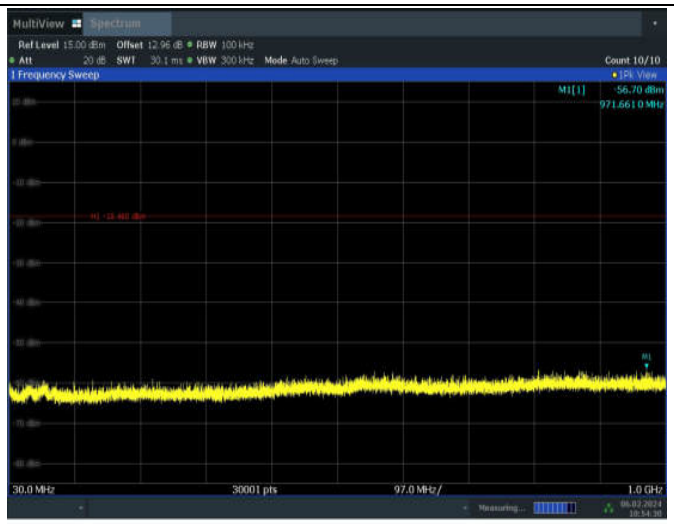

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11AX20MIMO_ANT7_2437_26Tone_RU0_0~Reference

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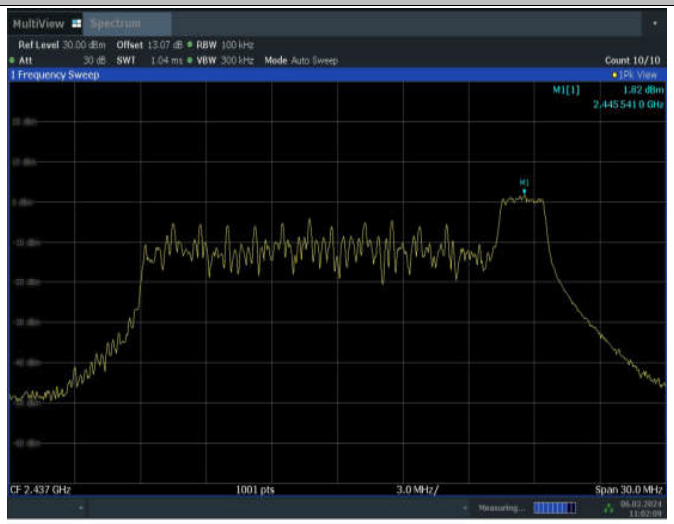

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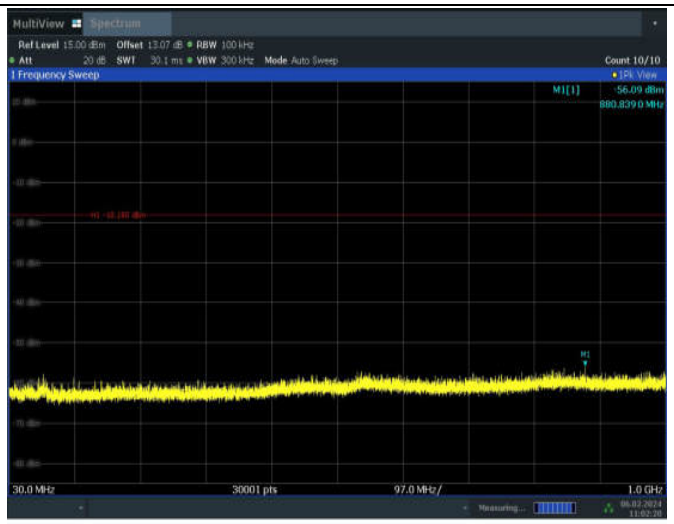

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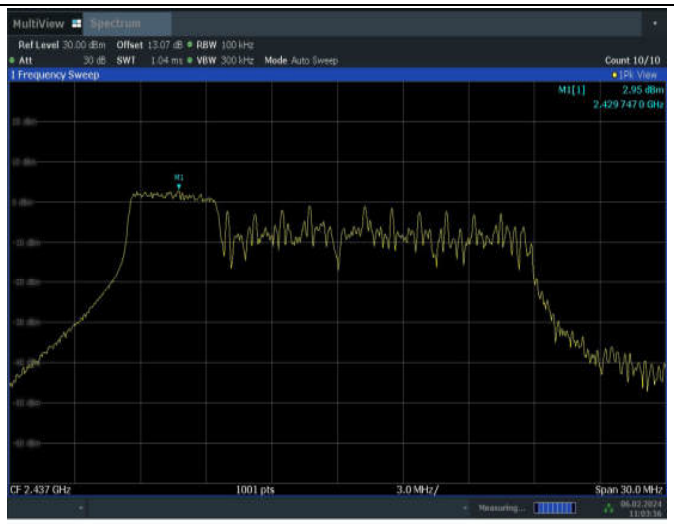

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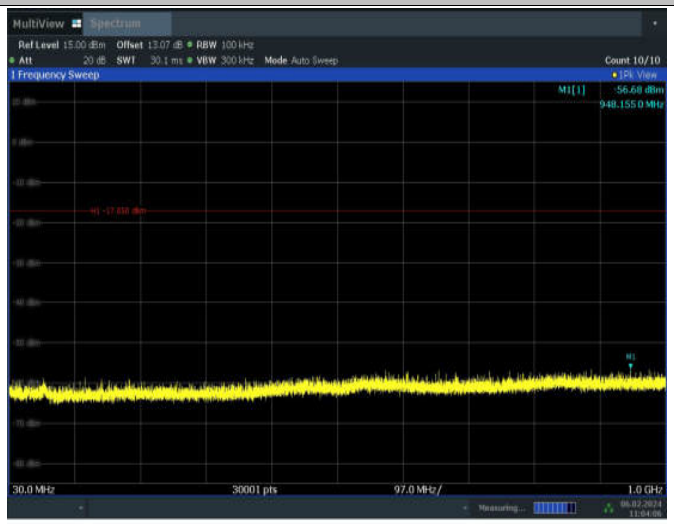

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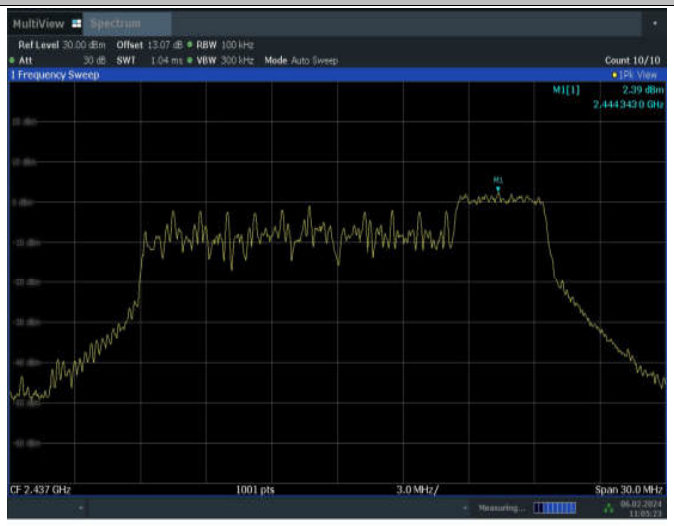

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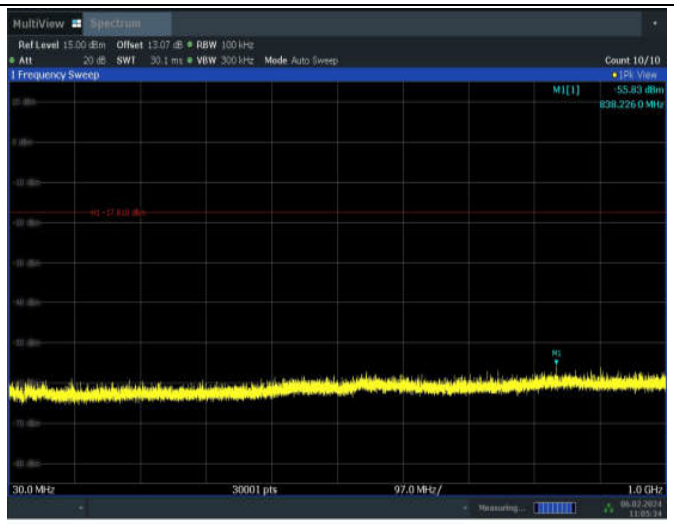

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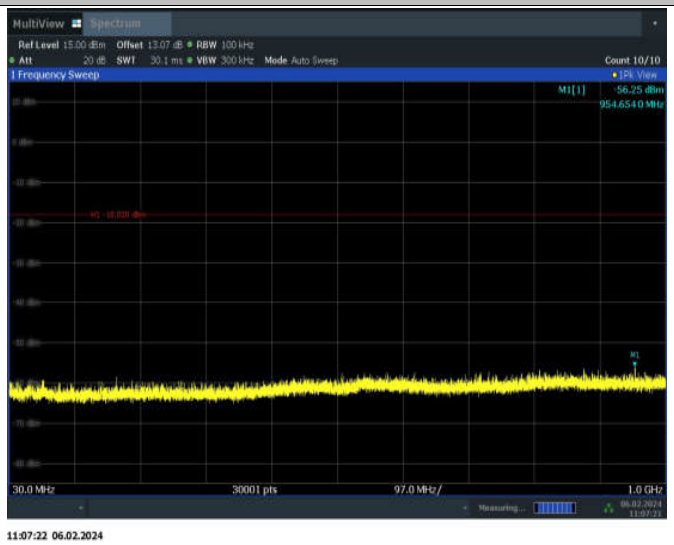

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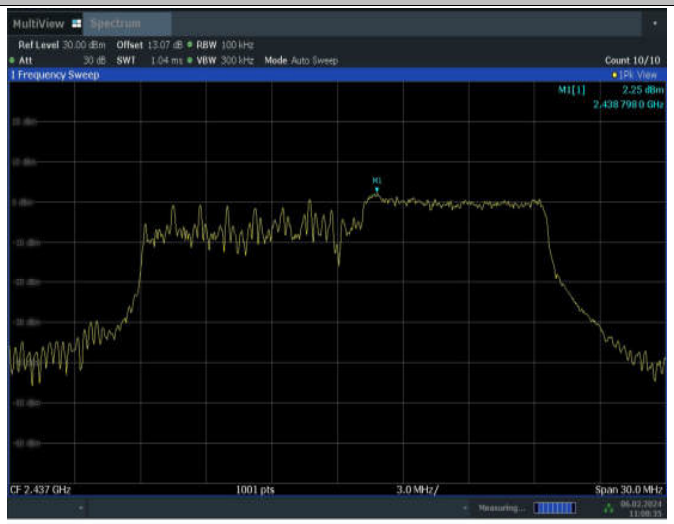

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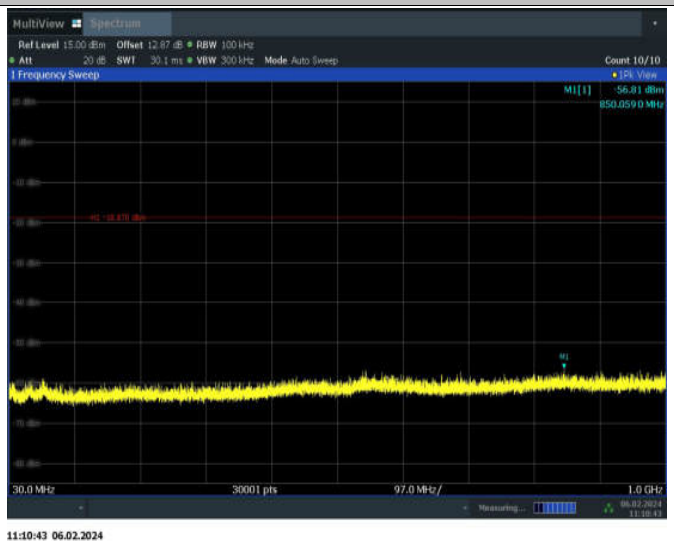

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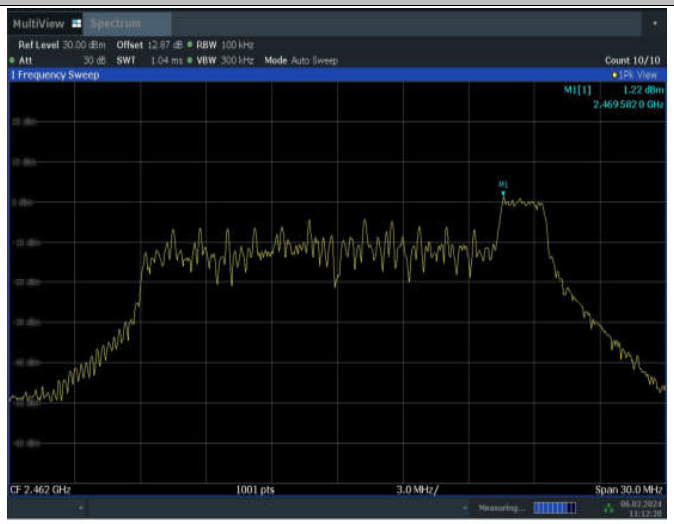

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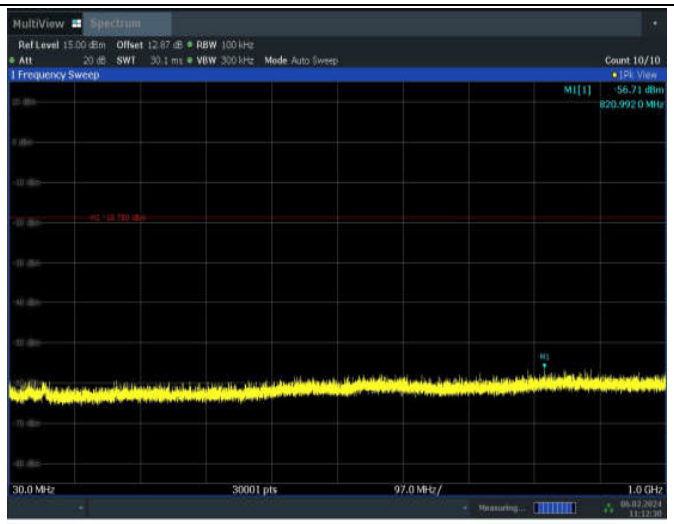

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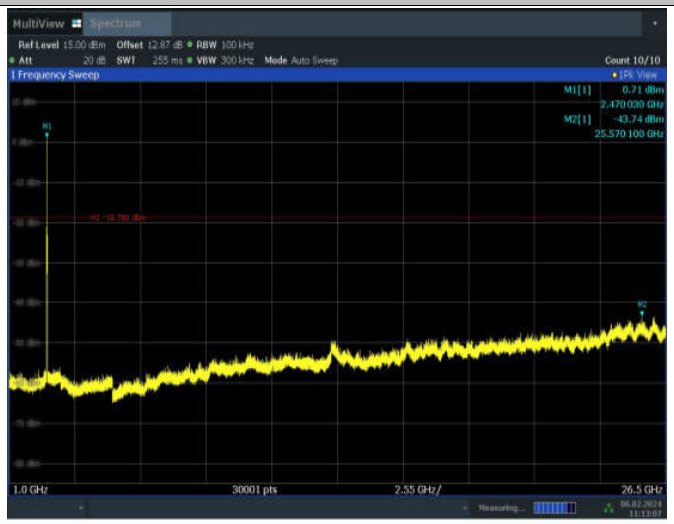

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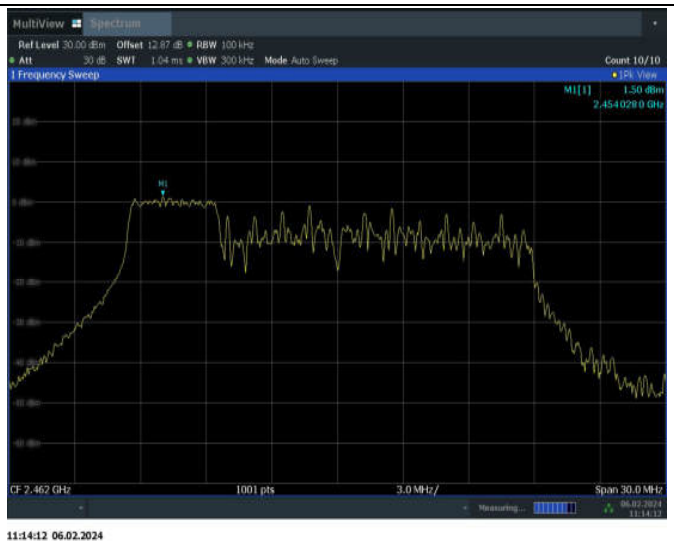

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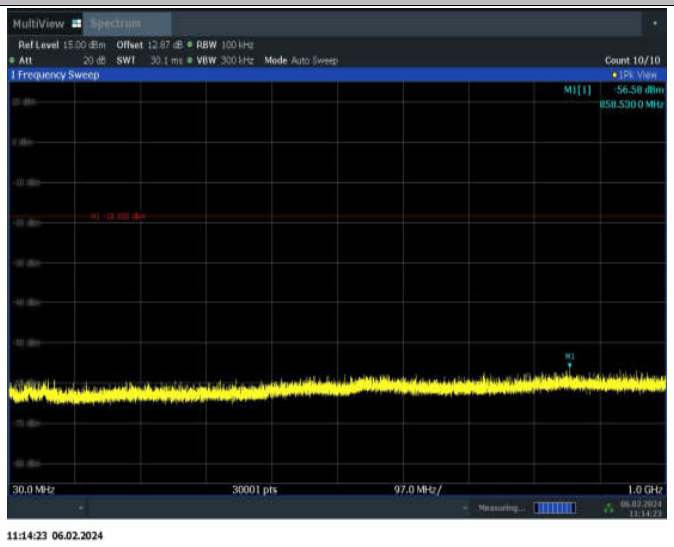

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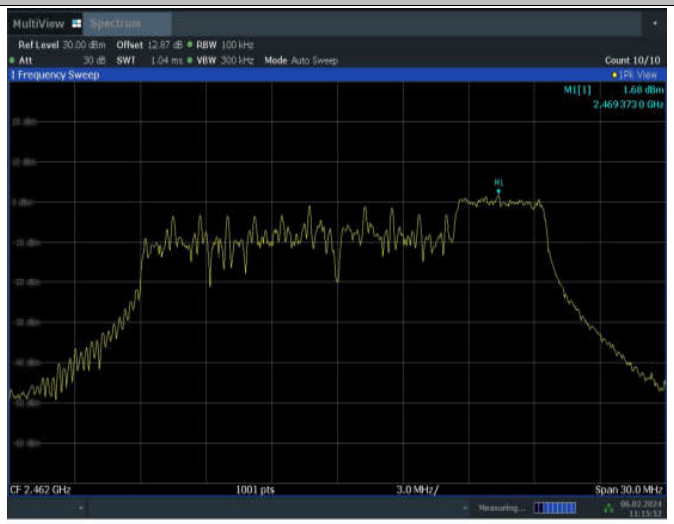

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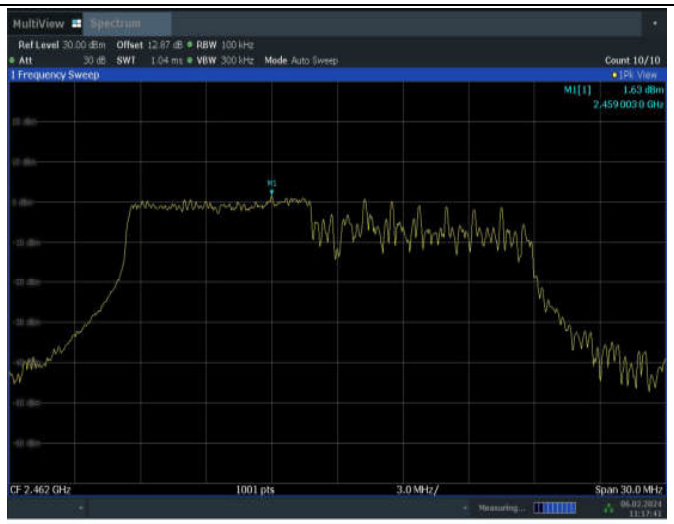

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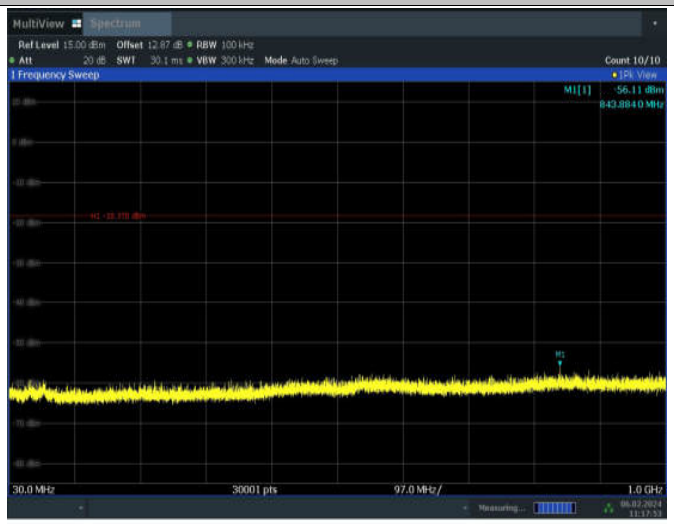

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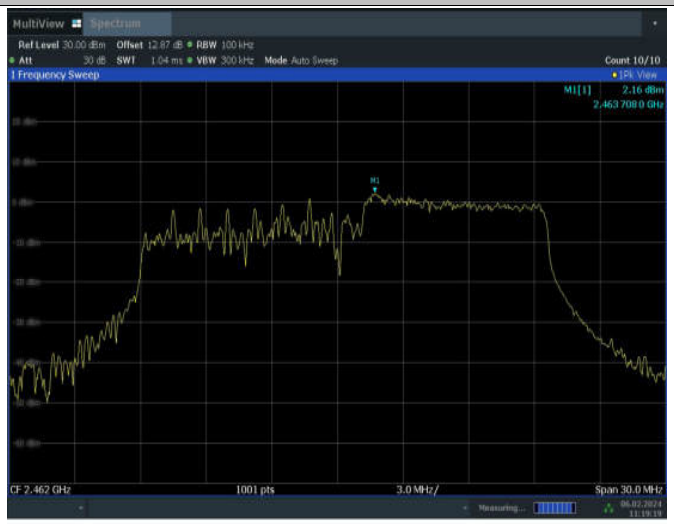

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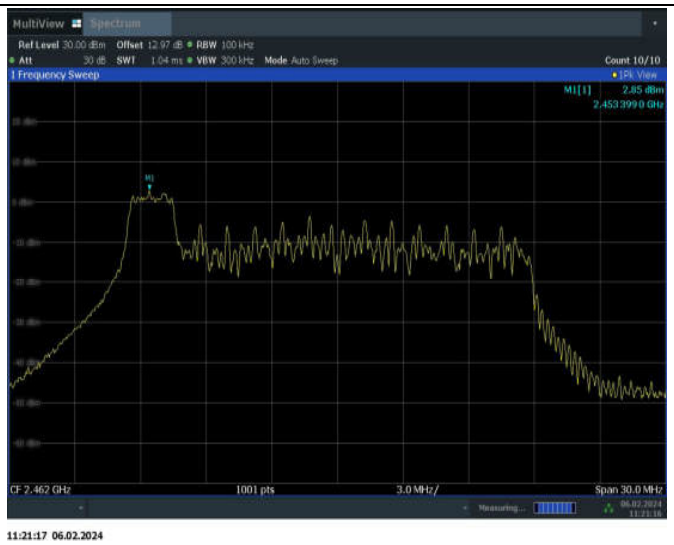

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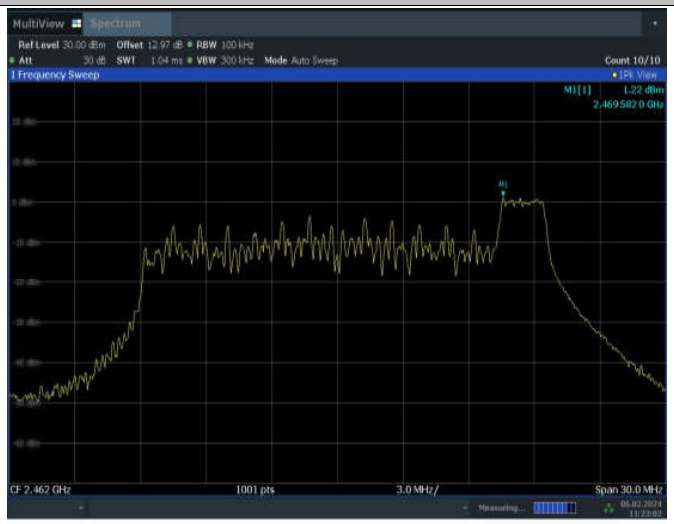

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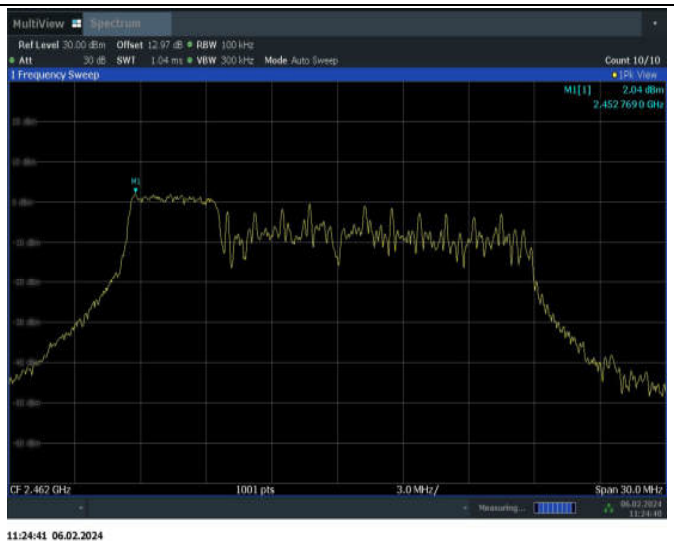

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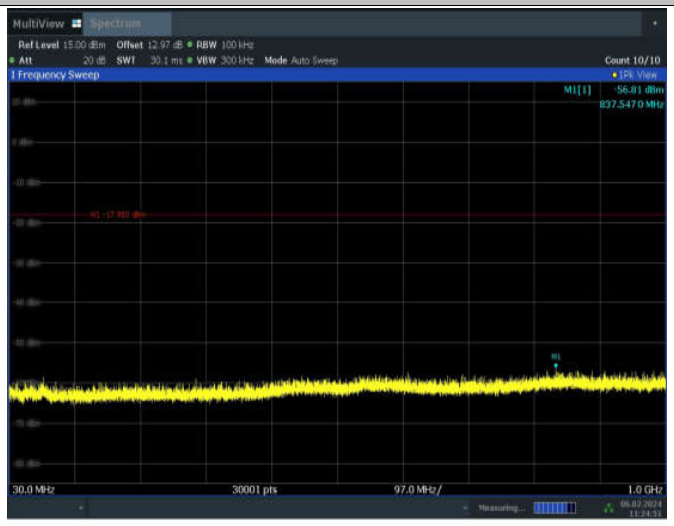

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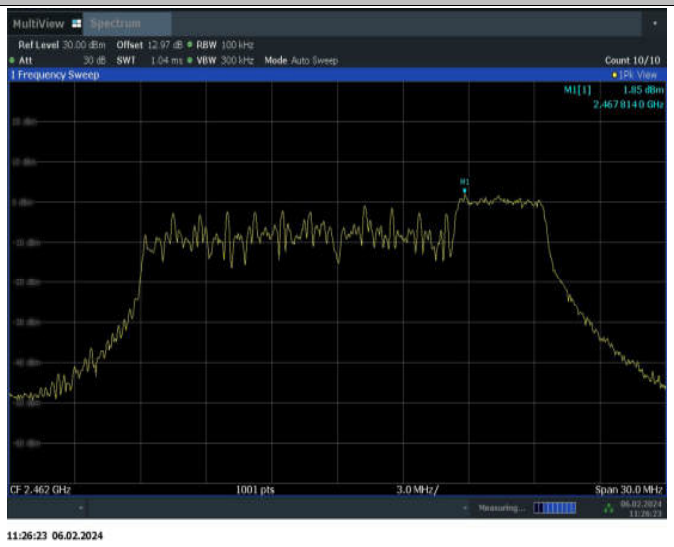

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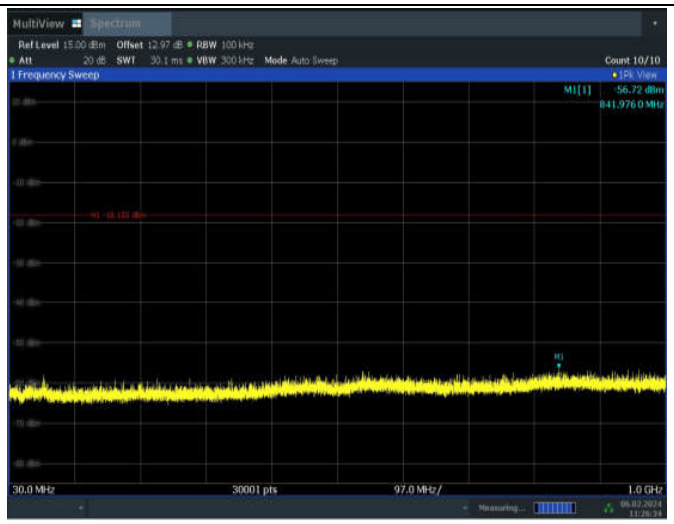

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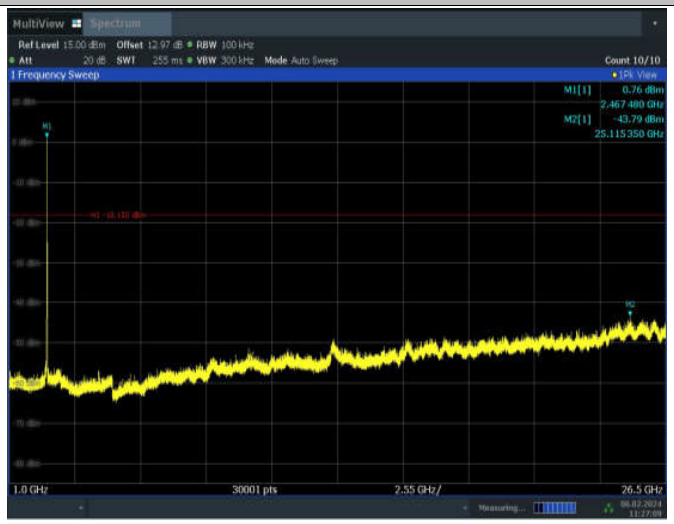

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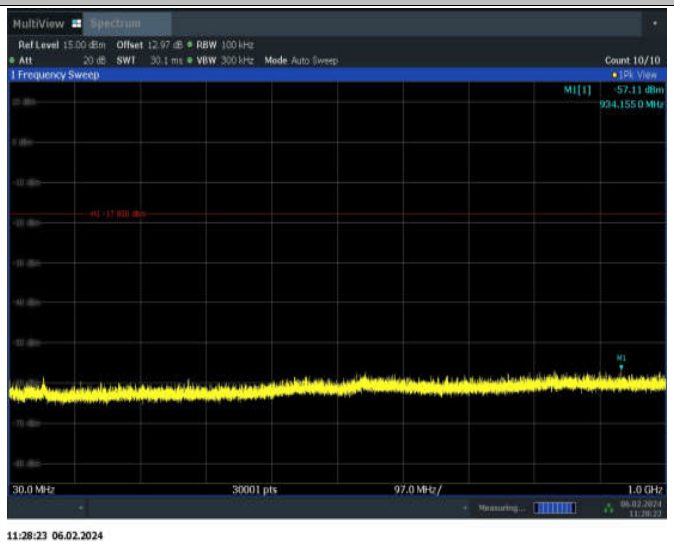

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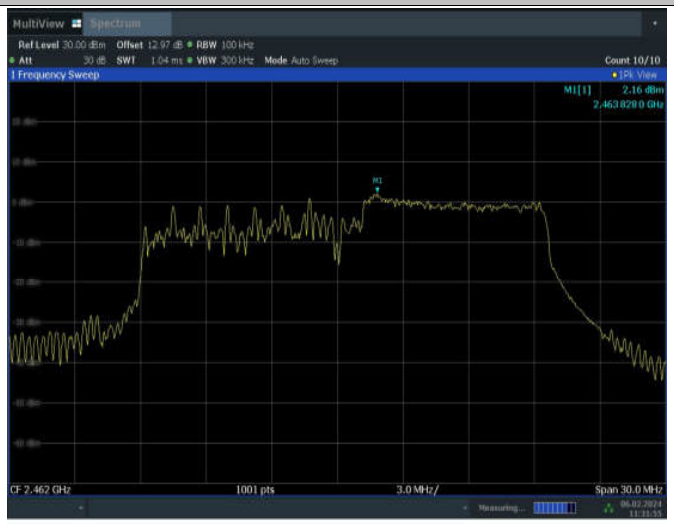

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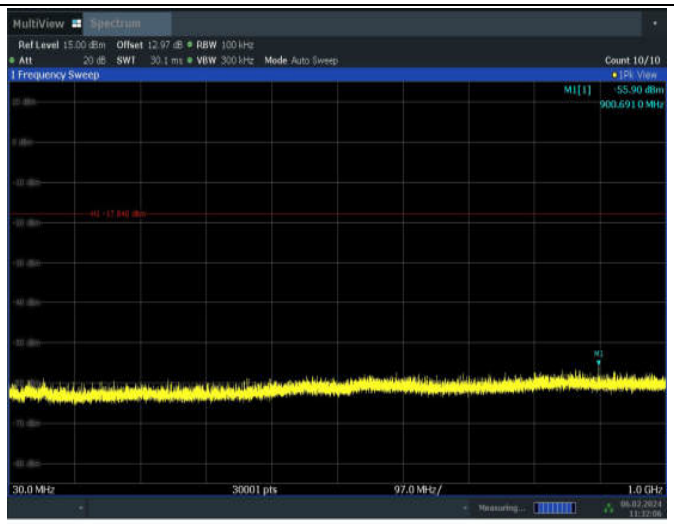

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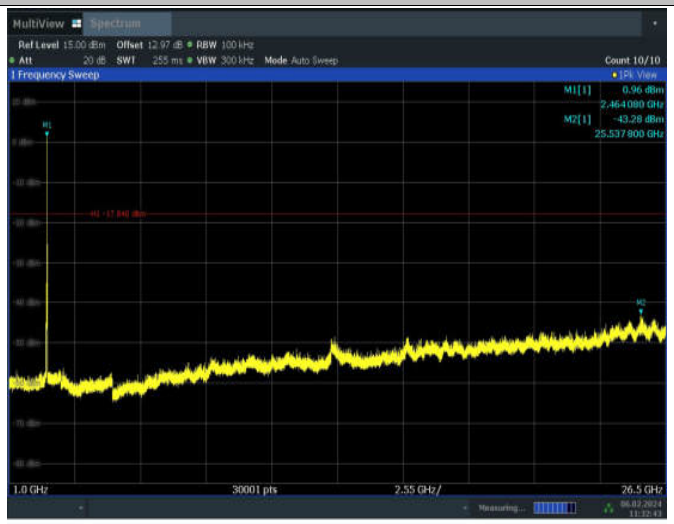

Conclusion: Pass

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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)).

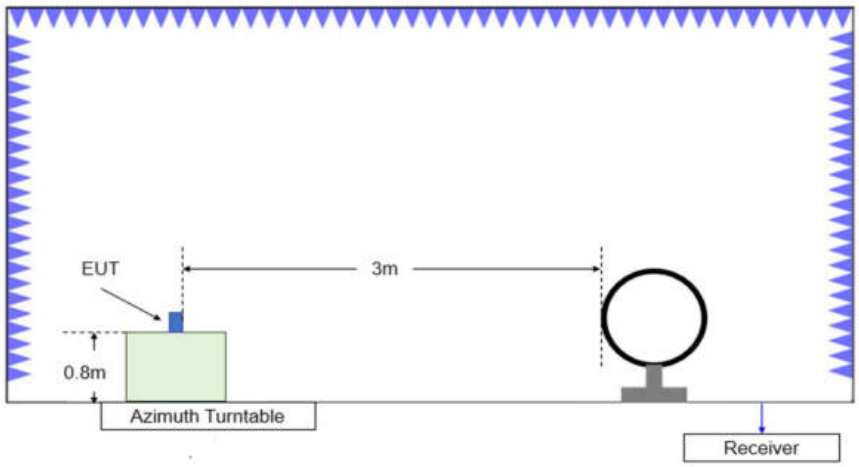
Limit in restricted band

Frequency (MHz)	Field strength(μV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Frequency of emission (MHz)	Field strength (uV/m)	Field strength (dBuV/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)

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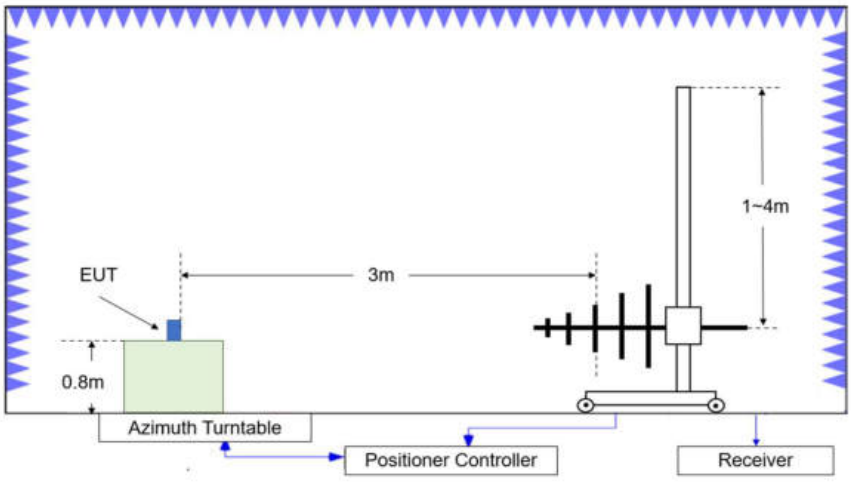
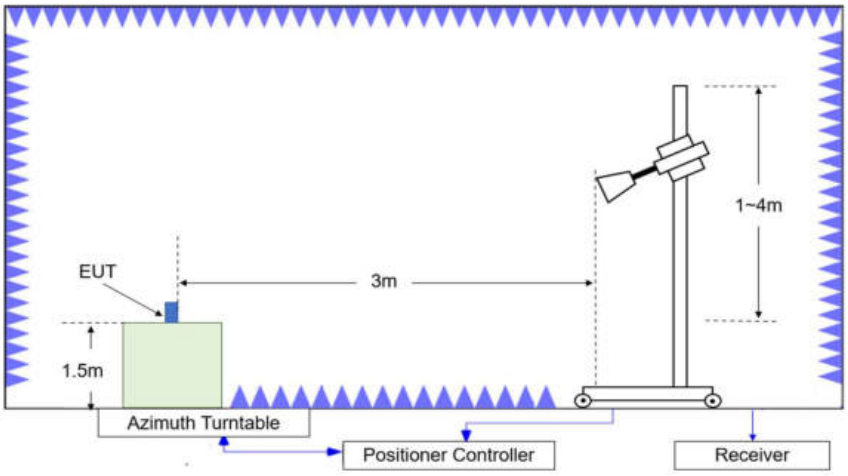


Test Site Diagram (30MHz-1GHz)



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.

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The measurement results are obtained as described below:

Result=P_{Mea}+$A_{Rpl=}$ P_{Mea}+Cable Loss+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 10^{th} harmonic of highest fundamental frequency or 40GHz, whichever is lower.

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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)
7209.000	49.97	-35.40	36.20	49.17	74.00	24.03	V
4806.000	49.01	-37.70	33.00	53.71	74.00	24.99	V
16998.500	44.51	-29.30	40.90	33.01	74.00	29.49	H
13739.000	42.32	-31.00	41.10	32.22	74.00	31.68	V
9614.000	40.73	-34.30	37.60	37.43	74.00	33.27	V
2389.500	56.53	-19.80	28.20	48.13	74.00	17.47	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)
17324.500	45.04	-29.50	42.90	31.64	74.00	28.96	V
7286.500	44.35	-35.40	36.60	43.15	74.00	29.65	V
14070.500	42.69	-30.20	41.70	31.19	74.00	31.31	V
12651.500	41.78	-31.80	39.40	34.18	74.00	32.22	V
9742.000	40.75	-34.50	37.80	37.45	74.00	33.25	V
4096.500	35.84	-38.00	32.20	41.64	74.00	38.16	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)
17257.000	44.94	-29.30	42.40	31.84	74.00	29.06	V
4907.500	44.75	-37.60	33.30	49.05	74.00	29.25	H
7361.000	44.54	-35.90	36.60	43.84	74.00	29.46	V
13632.000	43.22	-31.30	40.90	33.62	74.00	30.78	V
12763.500	43.09	-31.80	39.60	35.19	74.00	30.91	V
2489.000	52.27	-19.70	28.20	43.77	74.00	21.73	V

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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)
4807.000	49.02	-37.70	33.00	53.72	74.00	24.98	V
7210.500	48.54	-35.40	36.20	47.74	74.00	25.46	V
17047.500	45.42	-29.40	41.10	33.72	74.00	28.58	V
14110.500	43.54	-30.80	41.70	32.64	74.00	30.46	V
9614.000	42.07	-34.30	37.60	38.77	74.00	31.93	V
2389.900	64.51	-19.80	28.20	56.11	74.00	9.49	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)
16995.500	45.55	-29.30	40.90	34.05	74.00	28.45	H
13702.500	43.48	-31.00	41.00	33.48	74.00	30.52	V
7285.000	42.42	-35.40	36.60	41.22	74.00	31.58	V
12889.000	41.36	-31.50	40.00	32.86	74.00	32.64	V
9191.000	40.90	-34.70	37.70	37.90	74.00	33.10	V
4761.500	35.90	-37.50	33.10	40.30	74.00	38.10	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)
7360.500	45.66	-35.90	36.60	44.96	74.00	28.34	V
4907.500	45.45	-37.60	33.30	49.75	74.00	28.55	H
17050.000	45.28	-29.40	41.10	33.58	74.00	28.72	V
14673.000	42.78	-30.00	41.50	31.28	74.00	31.22	V
12378.500	41.64	-31.90	38.90	34.64	74.00	32.36	V
2485.800	58.79	-19.70	28.20	50.29	74.00	15.21	H

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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)
7212.500	48.89	-35.40	36.20	48.09	74.00	25.11	V
4808.000	47.99	-37.70	33.00	52.69	74.00	26.01	V
16945.500	44.65	-29.70	40.60	33.75	74.00	29.35	V
13926.000	43.09	-30.60	41.40	32.29	74.00	30.91	V
9613.000	41.47	-34.30	37.60	38.17	74.00	32.53	V
2390.000	64.46	-19.80	28.20	56.06	74.00	9.54	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)
16955.500	45.30	-29.70	40.60	34.40	74.00	28.70	V
13947.500	43.32	-30.60	41.40	32.52	74.00	30.68	V
7285.000	42.49	-35.40	36.60	41.29	74.00	31.51	V
12741.000	41.79	-31.80	39.60	33.89	74.00	32.21	V
9596.500	41.03	-34.30	37.50	37.83	74.00	32.97	V
4634.000	36.34	-37.70	32.60	41.44	74.00	37.66	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)
4906.000	46.32	-37.60	33.30	50.62	74.00	27.68	H
7361.500	45.35	-35.90	36.60	44.65	74.00	28.65	V
16941.500	45.07	-29.70	40.60	34.17	74.00	28.93	V
13908.000	43.40	-31.10	41.30	33.20	74.00	30.60	V
11889.500	43.30	-32.40	39.10	36.60	74.00	30.70	V
2485.200	69.36	-19.70	28.20	60.86	74.00	4.64	H

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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)
16925.000	46.24	-29.30	40.30	35.24	74.00	27.76	V
4809.000	45.25	-37.70	33.00	49.95	74.00	28.75	V
7211.500	44.80	-35.40	36.20	44.00	74.00	29.20	V
14079.500	43.19	-30.20	41.70	31.69	74.00	30.81	V
12714.500	41.70	-31.90	39.50	34.10	74.00	32.30	V
2389.700	49.95	-19.80	28.20	41.55	74.00	24.05	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)
17131.500	46.01	-29.30	41.70	33.61	74.00	27.99	V
13813.500	43.65	-30.00	41.20	32.35	74.00	30.35	V
11864.500	42.13	-32.80	39.10	35.73	74.00	31.87	V
7295.000	41.29	-35.40	36.60	40.09	74.00	32.71	H
9124.500	41.13	-34.30	37.70	37.73	74.00	32.87	V
4344.000	36.55	-37.80	32.20	42.15	74.00	37.45	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)
17052.000	46.78	-29.40	41.10	35.08	74.00	27.22	H
13799.000	43.56	-30.90	41.20	33.26	74.00	30.44	V
11891.000	41.99	-32.40	39.10	35.29	74.00	32.01	V
9619.500	40.94	-34.30	37.60	37.64	74.00	33.06	H
7219.500	40.41	-35.40	36.20	39.61	74.00	33.59	V
2486.400	63.40	-19.70	28.20	54.90	74.00	10.60	H

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802.11ac-VHT20

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)
17543.000	45.42	-29.20	44.90	29.72	74.00	28.58	V
13789.000	42.69	-30.90	41.20	32.39	74.00	31.31	V
11895.500	41.61	-32.40	39.10	34.91	74.00	32.39	V
8843.000	39.83	-34.50	37.80	36.53	74.00	34.17	H
4827.500	39.56	-37.70	33.00	44.26	74.00	34.44	H
2389.900	60.87	-19.80	28.20	52.47	74.00	13.13	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)
17032.500	45.51	-29.40	41.10	33.81	74.00	28.49	V
13895.500	43.22	-31.10	41.30	33.02	74.00	30.78	V
11306.000	41.82	-32.80	38.70	35.92	74.00	32.18	V
9632.000	41.20	-34.30	37.60	37.90	74.00	32.80	H
7498.500	39.66	-35.10	36.40	38.36	74.00	34.34	V
4409.000	35.56	-37.90	32.30	41.16	74.00	38.44	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)
17981.500	45.69	-29.40	46.00	29.09	74.00	28.31	H
13828.500	43.50	-30.00	41.20	32.20	74.00	30.50	H
10460.500	42.44	-34.10	38.20	38.34	74.00	31.56	V
9611.500	41.28	-34.30	37.60	37.98	74.00	32.72	H
7334.500	39.75	-35.90	36.60	39.05	74.00	34.25	V
2485.600	57.14	-19.70	28.20	48.64	74.00	16.86	H

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802.11ac-VHT40

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)
17334.500	44.73	-28.60	43.40	29.93	74.00	29.27	V
13953.000	43.66	-30.60	41.40	32.86	74.00	30.34	H
11864.500	40.93	-32.80	39.10	34.53	74.00	33.07	H
9288.500	40.33	-34.50	37.60	37.23	74.00	33.67	H
7205.000	39.91	-35.40	36.20	39.11	74.00	34.09	V
2389.500	63.25	-19.80	28.20	54.85	74.00	10.75	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)
16773.500	45.50	-29.70	39.70	35.50	74.00	28.50	V
13666.500	42.84	-31.00	41.00	32.84	74.00	31.16	H
10383.000	41.50	-33.80	38.10	37.20	74.00	32.50	V
8852.000	41.05	-34.50	37.80	37.75	74.00	32.95	V
7300.500	40.83	-35.40	36.60	39.63	74.00	33.17	V
4850.500	36.20	-37.70	33.00	40.90	74.00	37.80	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)
17428.000	45.14	-28.50	44.20	29.44	74.00	28.86	V
13862.000	42.45	-31.10	41.30	32.25	74.00	31.55	V
12788.500	41.33	-31.50	39.80	33.03	74.00	32.67	V
9619.500	40.68	-34.30	37.60	37.38	74.00	33.32	H
7221.500	39.47	-35.40	36.20	38.67	74.00	34.53	V
2485.300	59.85	-19.70	28.20	51.35	74.00	14.15	H

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802.11ax-HT20-full RU

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)
7210.500	51.14	-35.40	36.20	50.34	74.00	22.86	V
4806.500	47.71	-37.70	33.00	52.41	74.00	26.29	V
17965.500	45.24	-29.40	46.00	28.64	74.00	28.76	V
13823.000	42.68	-30.00	41.20	31.38	74.00	31.32	H
11869.500	41.11	-32.80	39.10	34.71	74.00	32.89	V
2390.000	66.07	-19.80	28.20	57.67	74.00	7.93	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)
17029.500	45.05	-29.30	40.90	33.55	74.00	28.95	V
13754.500	43.00	-31.00	41.10	32.90	74.00	31.00	H
7286.500	42.17	-35.40	36.60	40.97	74.00	31.83	V
11759.000	41.71	-32.90	39.20	35.41	74.00	32.29	V
8984.000	40.90	-34.70	37.70	37.90	74.00	33.10	V
3726.500	35.69	-37.70	32.30	41.09	74.00	38.31	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)
17451.500	45.46	-28.50	44.20	29.76	74.00	28.54	H
7360.000	45.35	-35.90	36.60	44.65	74.00	28.65	V
4906.500	45.33	-37.60	33.30	49.63	74.00	28.67	V
13951.500	43.53	-30.60	41.40	32.73	74.00	30.47	H
12748.000	41.93	-31.80	39.60	34.03	74.00	32.07	V
2485.500	64.02	-19.70	28.20	55.52	74.00	9.98	H

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802.11ax-HT40-full RU

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)
4808.000	46.08	-37.70	33.00	50.78	74.00	27.92	V
17115.000	45.42	-29.20	41.40	33.22	74.00	28.58	V
13649.000	43.01	-31.30	40.90	33.41	74.00	30.99	V
12289.000	41.73	-32.10	39.00	34.83	74.00	32.27	V
7212.500	41.30	-35.40	36.20	40.50	74.00	32.70	V
2388.900	51.53	-19.80	28.20	43.13	74.00	22.47	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)
17082.000	47.51	-29.20	41.40	35.31	74.00	26.49	H
14217.000	44.59	-30.60	41.80	33.49	74.00	29.41	H
12639.500	42.99	-31.80	39.40	35.39	74.00	31.01	H
9594.500	41.79	-34.30	37.50	38.59	74.00	32.21	H
7379.000	41.06	-35.10	36.60	39.56	74.00	32.94	H
4889.500	37.17	-37.50	33.40	41.27	74.00	36.83	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)
17121.000	45.67	-29.20	41.40	33.47	74.00	28.33	V
13955.500	44.21	-30.60	41.40	33.41	74.00	29.79	V
10458.500	41.64	-34.10	38.20	37.54	74.00	32.36	H
9203.500	41.56	-34.70	37.70	38.56	74.00	32.44	V
7522.500	40.19	-35.10	36.40	38.89	74.00	33.81	H
2485.500	63.25	-19.70	28.20	54.75	74.00	10.75	H

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802.11ax-HT20-partial RU

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)
16844.500	44.60	-29.60	40.00	34.20	74.00	29.40	H
13918.500	42.77	-30.60	41.40	31.97	74.00	31.23	V
12270.500	40.31	-32.50	39.00	33.81	74.00	33.69	H
9146.000	39.08	-34.30	37.70	35.68	74.00	34.92	V
7407.000	38.47	-35.10	36.60	36.97	74.00	35.53	H
2312.400	51.46	-19.90	28.10	43.26	74.00	22.54	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)
16971.000	45.04	-29.70	40.60	34.14	74.00	28.96	V
13853.000	42.56	-30.00	41.20	31.26	74.00	31.44	H
12768.500	40.64	-31.80	39.60	32.74	74.00	33.36	H
8428.000	39.43	-35.10	37.40	37.13	74.00	34.57	V
7313.500	39.14	-35.40	36.60	37.94	74.00	34.86	V
4946.000	35.16	-37.60	33.30	39.46	74.00	38.84	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)
16842.500	45.91	-29.60	40.00	35.51	74.00	28.09	H
13815.500	42.24	-30.00	41.20	30.94	74.00	31.76	V
11896.500	40.44	-32.40	39.10	33.74	74.00	33.56	V
8913.500	39.22	-33.90	37.70	35.42	74.00	34.78	V
7319.500	38.50	-35.40	36.60	37.30	74.00	35.50	H
2490.000	51.56	-19.70	28.20	43.06	74.00	22.44	H

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802.11ax-HT40-partial RU

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)
17344.500	44.64	-28.60	43.40	29.84	74.00	29.36	H
13942.500	43.22	-30.60	41.40	32.42	74.00	30.78	V
11897.500	40.44	-32.40	39.10	33.74	74.00	33.56	V
9212.500	39.03	-34.30	37.60	35.73	74.00	34.97	H
6754.500	38.22	-36.00	35.20	39.02	74.00	35.78	V
2382.500	50.96	-19.80	28.20	42.56	74.00	23.04	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)
17017.500	45.35	-29.30	40.90	33.85	74.00	28.65	V
13693.000	42.64	-31.00	41.00	32.64	74.00	31.36	V
12771.000	40.51	-31.80	39.60	32.61	74.00	33.49	H
7299.000	39.39	-35.40	36.60	38.19	74.00	34.61	V
9614.500	38.78	-34.30	37.60	35.48	74.00	35.22	V
4178.000	35.62	-37.80	32.30	41.12	74.00	38.38	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)
16610.500	45.62	-29.30	39.40	35.52	74.00	28.38	H
13865.000	42.61	-31.10	41.30	32.41	74.00	31.39	H
11895.500	41.04	-32.40	39.10	34.34	74.00	32.96	H
9850.000	40.46	-34.10	37.90	36.66	74.00	33.54	H
7311.500	39.13	-35.40	36.60	37.93	74.00	34.87	H
2485.600	51.74	-19.70	28.20	43.24	74.00	22.26	H

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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)
4807.500	40.30	-37.70	33.00	45.00	54.00	13.70	V
7210.000	37.82	-35.40	36.20	37.02	54.00	16.18	V
17042.000	35.92	-29.40	41.10	24.22	54.00	18.08	H
13946.000	34.10	-30.60	41.40	23.30	54.00	19.90	V
12267.000	31.87	-32.50	39.00	25.37	54.00	22.13	V
2389.400	50.89	-19.80	28.20	42.49	54.00	3.11	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)
16937.000	36.54	-29.70	40.60	25.64	54.00	17.46	H
13870.000	34.36	-31.10	41.30	24.16	54.00	19.64	H
7286.500	32.82	-35.40	36.60	31.62	54.00	21.18	V
10701.500	32.35	-33.70	38.40	27.65	54.00	21.65	V
9629.000	31.03	-34.30	37.60	27.73	54.00	22.97	V
4958.500	26.46	-37.40	33.60	30.26	54.00	27.54	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)
17359.500	36.43	-28.60	43.40	21.63	54.00	17.57	V
4906.500	35.27	-37.60	33.30	39.57	54.00	18.73	V
13868.500	34.65	-31.10	41.30	24.45	54.00	19.35	V
7361.000	33.50	-35.90	36.60	32.80	54.00	20.50	V
11895.000	32.87	-32.40	39.10	26.17	54.00	21.13	V
2485.100	41.96	-19.70	28.20	33.46	54.00	12.04	H

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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)
4807.000	40.09	-37.70	33.00	44.79	54.00	13.91	V
7210.500	37.53	-35.40	36.20	36.73	54.00	16.47	V
17329.000	36.58	-28.60	43.40	21.78	54.00	17.42	V
13869.500	33.57	-31.10	41.30	23.37	54.00	20.43	V
12740.500	32.42	-31.80	39.60	24.52	54.00	21.58	V
2389.500	53.87	-19.80	28.20	45.47	54.00	0.13	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)
16724.000	36.25	-29.20	39.60	25.85	54.00	17.75	H
13940.000	34.01	-30.60	41.40	23.21	54.00	19.99	V
12304.500	32.36	-32.10	39.00	25.46	54.00	21.64	H
7285.000	32.26	-35.40	36.60	31.06	54.00	21.74	V
9489.500	31.04	-34.60	37.70	27.94	54.00	22.96	V
4856.500	26.80	-37.50	33.40	30.90	54.00	27.20	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)
17225.500	36.44	-29.10	42.00	23.44	54.00	17.56	V
4906.500	35.75	-37.60	33.30	40.05	54.00	18.25	V
13947.500	34.21	-30.60	41.40	23.41	54.00	19.79	V
7361.000	32.94	-35.90	36.60	32.24	54.00	21.06	V
11883.500	32.70	-32.40	39.10	26.00	54.00	21.30	V
2485.200	47.11	-19.70	28.20	38.61	54.00	6.89	H

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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)
4806.500	39.70	-37.70	33.00	44.40	54.00	14.30	V
7211.500	37.46	-35.40	36.20	36.66	54.00	16.54	V
17049.500	36.00	-29.40	41.10	24.30	54.00	18.00	V
13798.500	33.71	-30.90	41.20	23.41	54.00	20.29	H
11877.500	32.04	-32.80	39.10	25.64	54.00	21.96	V
2390.000	52.06	-19.80	28.20	43.66	54.00	1.94	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)
17548.500	36.18	-29.20	44.90	20.48	54.00	17.82	H
14096.000	34.02	-30.20	41.70	22.52	54.00	19.98	V
11847.500	32.29	-32.80	39.10	25.89	54.00	21.71	V
9607.500	31.62	-34.30	37.60	28.32	54.00	22.38	V
7286.000	31.18	-35.40	36.60	29.98	54.00	22.82	V
4857.500	27.38	-37.50	33.40	31.48	54.00	26.62	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)
17550.500	36.38	-29.20	44.90	20.68	54.00	17.62	V
4907.000	35.37	-37.60	33.30	39.67	54.00	18.63	H
7360.500	34.71	-35.90	36.60	34.01	54.00	19.29	V
14089.500	34.43	-30.20	41.70	22.93	54.00	19.57	H
10444.500	32.82	-33.70	38.20	28.32	54.00	21.18	V
2485.200	50.53	-19.70	28.20	42.03	54.00	3.47	H

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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)
4807.500	37.28	-37.70	33.00	41.98	54.00	16.72	V
17973.000	36.94	-29.40	46.00	20.34	54.00	17.06	V
13914.000	34.30	-30.60	41.40	23.50	54.00	19.70	V
11871.000	32.86	-32.80	39.10	26.46	54.00	21.14	V
7212.000	31.92	-35.40	36.20	31.12	54.00	22.08	V
2353.400	38.68	-19.60	28.20	30.08	54.00	15.32	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)
16739.500	36.88	-29.70	39.70	26.88	54.00	17.12	H
13837.000	34.54	-30.00	41.20	23.24	54.00	19.46	V
11888.500	33.37	-32.40	39.10	26.67	54.00	20.63	V
9613.000	32.55	-34.30	37.60	29.25	54.00	21.45	V
7310.000	31.52	-35.40	36.60	30.32	54.00	22.48	V
4880.500	27.52	-37.50	33.40	31.62	54.00	26.48	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)
17106.000	36.88	-29.20	41.40	24.68	54.00	17.12	V
13922.000	34.63	-30.60	41.40	23.83	54.00	19.37	V
10483.000	33.43	-34.10	38.20	29.33	54.00	20.57	V
9631.500	31.95	-34.30	37.60	28.65	54.00	22.05	V
7310.000	31.22	-35.40	36.60	30.02	54.00	22.78	H
2485.200	43.97	-19.70	28.20	35.47	54.00	10.03	H

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802.11ac-VHT20

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)
17040.500	36.23	-29.40	41.10	24.53	54.00	17.77	V
13946.500	34.64	-30.60	41.40	23.84	54.00	19.36	V
12277.500	32.40	-32.10	39.00	25.50	54.00	21.60	V
9623.000	31.15	-34.30	37.60	27.85	54.00	22.85	H
7409.500	30.80	-35.10	36.60	29.30	54.00	23.20	V
2389.900	49.36	-19.80	28.20	40.96	54.00	4.64	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)
17986.500	36.57	-29.40	46.00	19.97	54.00	17.43	V
14071.500	34.06	-30.20	41.70	22.56	54.00	19.94	V
11884.500	32.89	-32.40	39.10	26.19	54.00	21.11	V
9197.000	31.47	-34.70	37.70	28.47	54.00	22.53	V
7304.000	30.73	-35.40	36.60	29.53	54.00	23.27	V
4940.000	26.87	-37.60	33.30	31.17	54.00	27.13	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)
17041.000	36.70	-29.40	41.10	25.00	54.00	17.30	V
13664.000	34.44	-31.00	41.00	24.44	54.00	19.56	V
11896.000	33.38	-32.40	39.10	26.68	54.00	20.62	V
9605.000	31.45	-34.30	37.60	28.15	54.00	22.55	V
7223.000	31.22	-35.40	36.20	30.42	54.00	22.78	V
2485.100	45.33	-19.70	28.20	36.83	54.00	8.67	H

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802.11ac-VHT40

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)
17147.500	35.60	-29.30	41.70	23.20	54.00	18.40	V
13812.500	34.41	-30.00	41.20	23.11	54.00	19.59	H
11798.000	32.67	-32.00	39.20	25.47	54.00	21.33	V
9611.500	31.81	-34.30	37.60	28.51	54.00	22.19	V
7613.500	30.12	-35.60	36.30	29.42	54.00	23.88	V
2389.100	53.85	-19.80	28.20	45.45	54.00	0.15	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)
17054.000	35.82	-29.40	41.10	24.12	54.00	18.18	V
13939.000	33.88	-30.60	41.40	23.08	54.00	20.12	H
10487.500	32.75	-34.10	38.20	28.65	54.00	21.25	H
9713.000	31.69	-34.50	37.80	28.39	54.00	22.31	V
7320.000	31.01	-35.40	36.60	29.81	54.00	22.99	V
4867.000	26.90	-37.50	33.40	31.00	54.00	27.10	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)
17540.500	36.72	-29.20	44.90	21.02	54.00	17.28	V
13862.000	34.13	-31.10	41.30	23.93	54.00	19.87	V
11903.000	32.56	-32.40	39.10	25.86	54.00	21.44	V
9630.500	31.45	-34.30	37.60	28.15	54.00	22.55	V
7503.500	30.18	-35.10	36.40	28.88	54.00	23.82	V
2485.000	48.03	-19.70	28.20	39.53	54.00	5.97	H

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802.11ax-HT20-full RU

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)
4807.000	40.11	-37.70	33.00	44.81	54.00	13.89	V
7209.500	38.17	-35.40	36.20	37.37	54.00	15.83	V
17974.000	35.95	-29.40	46.00	19.35	54.00	18.05	V
13659.500	33.76	-31.30	40.90	24.16	54.00	20.24	V
12375.500	31.98	-32.30	39.00	25.38	54.00	22.02	V
2390.000	53.13	-19.80	28.20	44.73	54.00	0.87	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)
16922.500	36.28	-29.30	40.30	25.28	54.00	17.72	V
14666.000	34.09	-30.00	41.50	22.59	54.00	19.91	V
12645.000	32.71	-31.80	39.40	25.11	54.00	21.29	V
7286.500	31.76	-35.40	36.60	30.56	54.00	22.24	V
9610.000	31.45	-34.30	37.60	28.15	54.00	22.55	V
4857.000	26.71	-37.50	33.40	30.81	54.00	27.29	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)
17021.500	36.80	-29.30	40.90	25.30	54.00	17.20	V
4906.500	34.78	-37.60	33.30	39.08	54.00	19.22	V
13925.000	33.97	-30.60	41.40	23.17	54.00	20.03	H
11888.500	32.94	-32.40	39.10	26.24	54.00	21.06	V
7360.000	32.74	-35.90	36.60	32.04	54.00	21.26	V
2485.100	47.49	-19.70	28.20	38.99	54.00	6.51	H

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802.11ax-HT40-full RU

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)
4808.500	36.67	-37.70	33.00	41.37	54.00	17.33	V
17040.500	36.51	-29.40	41.10	24.81	54.00	17.49	V
13951.000	34.13	-30.60	41.40	23.33	54.00	19.87	V
12759.000	32.83	-31.80	39.60	24.93	54.00	21.17	V
7212.000	32.19	-35.40	36.20	31.39	54.00	21.81	V
2389.600	39.48	-19.80	28.20	31.08	54.00	14.52	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)
17103.000	37.88	-29.20	41.40	25.68	54.00	16.12	H
13828.500	35.79	-30.00	41.20	24.49	54.00	18.21	H
11366.000	33.94	-33.40	38.90	28.54	54.00	20.06	H
9614.000	33.36	-34.30	37.60	30.06	54.00	20.64	H
7309.500	32.27	-35.40	36.60	31.07	54.00	21.73	H
4851.500	28.06	-37.50	33.40	32.16	54.00	25.94	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)
17044.000	37.35	-29.40	41.10	25.65	54.00	16.65	V
14680.500	34.45	-30.00	41.50	22.95	54.00	19.55	V
11885.500	33.09	-32.40	39.10	26.39	54.00	20.91	V
9109.500	31.93	-34.30	37.70	28.53	54.00	22.07	V
7501.000	31.49	-35.10	36.40	30.19	54.00	22.51	V
2485.000	43.50	-19.70	28.20	35.00	54.00	10.50	H

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802.11ax-HT20-Partial RU

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)
17170.000	35.88	-29.30	41.70	23.48	54.00	18.12	H
13888.000	33.70	-31.10	41.30	23.50	54.00	20.30	V
11931.500	31.84	-32.40	39.00	25.24	54.00	22.16	V
9614.000	30.29	-34.30	37.60	26.99	54.00	23.71	V
7219.000	29.56	-35.40	36.20	28.76	54.00	24.44	V
2383.100	40.50	-19.80	28.20	32.10	54.00	13.50	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)
17066.000	36.25	-29.40	41.10	24.55	54.00	17.75	V
13948.000	33.75	-30.60	41.40	22.95	54.00	20.25	V
12542.500	31.78	-31.20	39.20	23.78	54.00	22.22	H
9189.500	30.25	-34.70	37.70	27.25	54.00	23.75	V
7510.000	29.59	-35.10	36.40	28.29	54.00	24.41	H
4848.000	26.29	-37.70	33.00	30.99	54.00	27.71	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)
17282.500	36.12	-29.50	42.90	22.72	54.00	17.88	H
13931.000	33.93	-30.60	41.40	23.13	54.00	20.07	H
11880.000	31.73	-32.80	39.10	25.33	54.00	22.27	V
9613.500	30.56	-34.30	37.60	27.26	54.00	23.44	V
7591.500	29.51	-35.60	36.30	28.81	54.00	24.49	V
2489.600	40.07	-19.70	28.20	31.57	54.00	13.93	H

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802.11ax-HT40-Partial RU

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)
16944.000	36.25	-29.70	40.60	25.35	54.00	17.75	V
13834.500	33.42	-30.00	41.20	22.12	54.00	20.58	V
11881.500	31.69	-32.40	39.10	24.99	54.00	22.31	V
9641.500	30.24	-34.30	37.60	26.94	54.00	23.76	H
7204.000	29.66	-35.40	36.20	28.86	54.00	24.34	V
2345.500	40.02	-19.60	28.20	31.42	54.00	13.98	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)
17026.500	35.92	-29.30	40.90	24.42	54.00	18.08	H
13688.500	33.65	-31.00	41.00	23.65	54.00	20.35	V
12655.000	31.60	-31.80	39.40	24.00	54.00	22.40	H
9617.500	30.18	-34.30	37.60	26.88	54.00	23.82	V
7308.000	30.02	-35.40	36.60	28.82	54.00	23.98	V
4943.500	26.23	-37.60	33.30	30.53	54.00	27.77	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)
17326.500	36.52	-29.50	42.90	23.12	54.00	17.48	H
13876.500	34.02	-31.10	41.30	23.82	54.00	19.98	H
12652.500	32.37	-31.80	39.40	24.77	54.00	21.63	H
9603.500	31.20	-34.30	37.50	28.00	54.00	22.80	H
7605.000	30.62	-35.60	36.30	29.92	54.00	23.38	H
2485.000	40.56	-19.70	28.20	32.06	54.00	13.44	H

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Band edge compliance

802.11b mode

Mode	Channel	Test Results	Conclusion
802.11b	1	Fig. 7.1.1	P
	11	Fig. 7.1.2	P

802.11g mode

Mode	Channel	Test Results	Conclusion
802.11g	1	Fig. 7.1.3	P
	11	Fig. 7.1.4	P

802.11n-HT20 mode

Mode	Channel	Test Results	Conclusion
802.11n (HT20)	1	Fig. 7.1.5	P
	11	Fig. 7.1.6	P

802.11n-HT40 mode

Mode	Channel	Test Results	Conclusion
802.11n (HT40)	3	Fig. 7.1.7	P
	9	Fig. 7.1.8	P

802.11ac-HT20 mode

Mode	Channel	Test Results	Conclusion
802.11ac (HT20)	1	Fig. 7.1.9	P
	11	Fig. 7.1.10	P

802.11ac-HT40 mode

Mode	Channel	Test Results	Conclusion
802.11ac (HT40)	3	Fig. 7.1.11	P
	9	Fig. 7.1.12	P

802.11ax-HT20 mode full RU

Mode	Channel	Test Results	Conclusion
802.11ax (HT20)	1	Fig. 7.1.13	P
	11	Fig. 7.1.14	P

802.11ax-HT40 mode full RU

Mode	Channel	Test Results	Conclusion
802.11ax (HT40)	3	Fig. 7.1.15	P
	9	Fig. 7.1.16	P

802.11ax-HT20 mode partial RU

Mode	Channel	RU Configuration	Test Results	Conclusion
802.11ax (HT20)	1	26RU index 0	Fig. 7.1.17	P
	11	26RU index 8	Fig. 7.1.18	P

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802.11ax-HT40 mode partial RU

Mode	Channel	RU Configuration	Test Results	Conclusion
802.11ax (HT40)	3	26RU index 0	Fig. 7.1.19	**P**
	9	26RU index 17	Fig. 7.1.20	**P**

Conclusion: Pass

Test graphs as below:

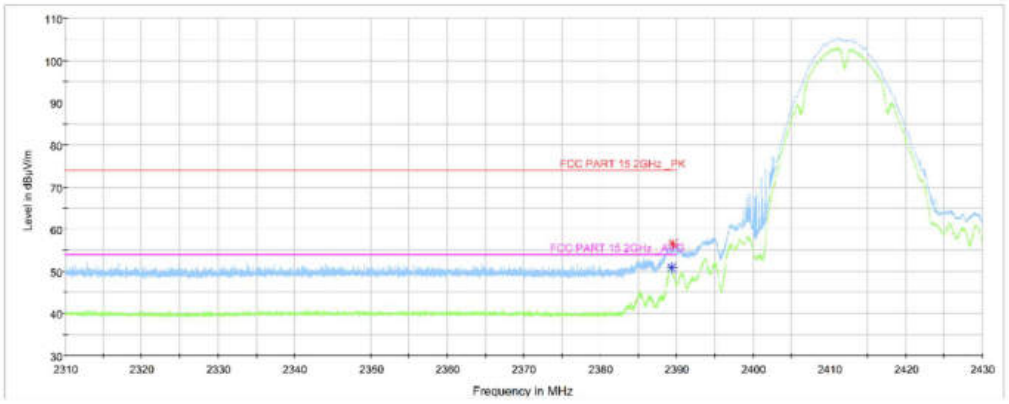

Fig. 7.1.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, Chain0, 2.31 GHz – 2.45GHz

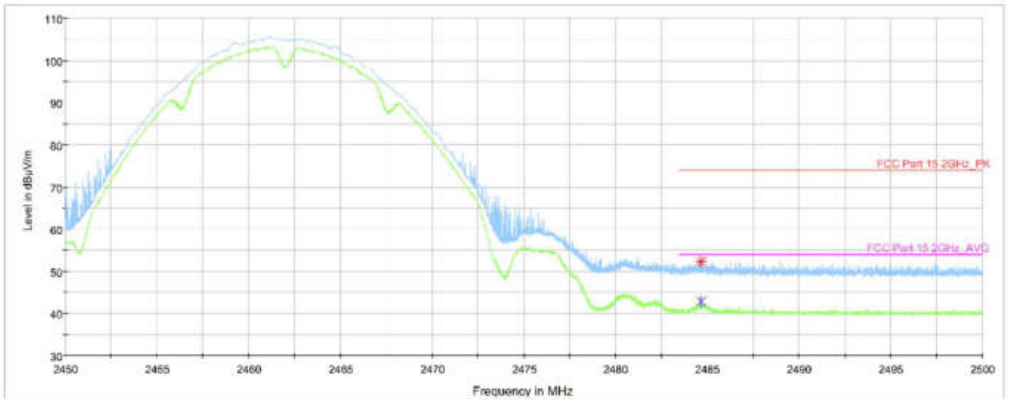

Fig. 7.1.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, Chain0, 2.45 GHz - 2.50GHz

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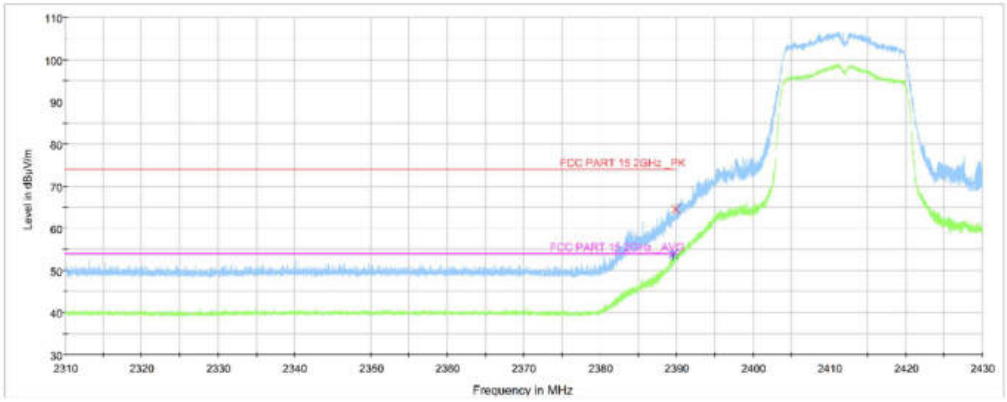

Fig. 7.1.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, Chain0, 2.31 GHz - 2.43GHz

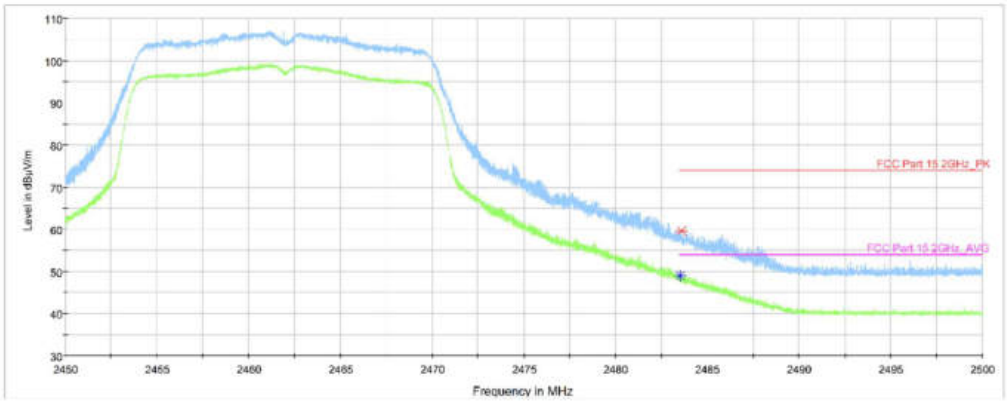

Fig. 7.1.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, Chain0, 2.45 GHz - 2.50GHz

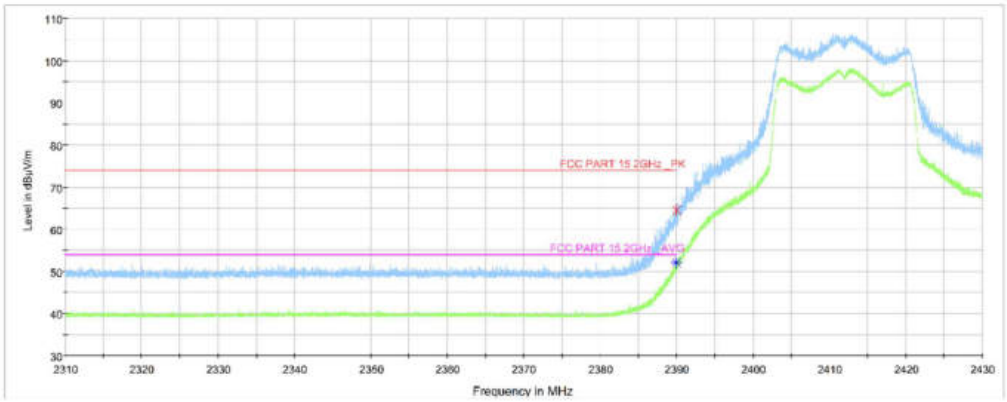

Fig. 7.1.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, MIMO,2.31 GHz - 2.43GHz

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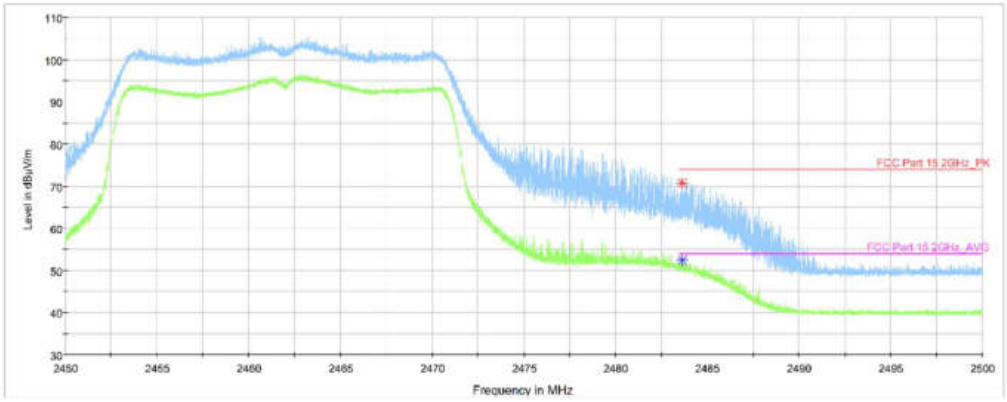

Fig. 7.1.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, MIMO,2.45 GHz - 2.50GHz

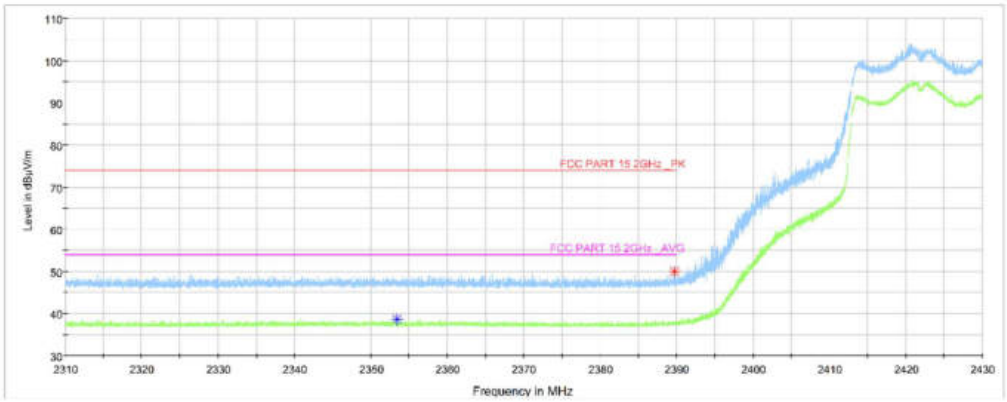

Fig. 7.1.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, MIMO,2.31 GHz - 2.43GHz

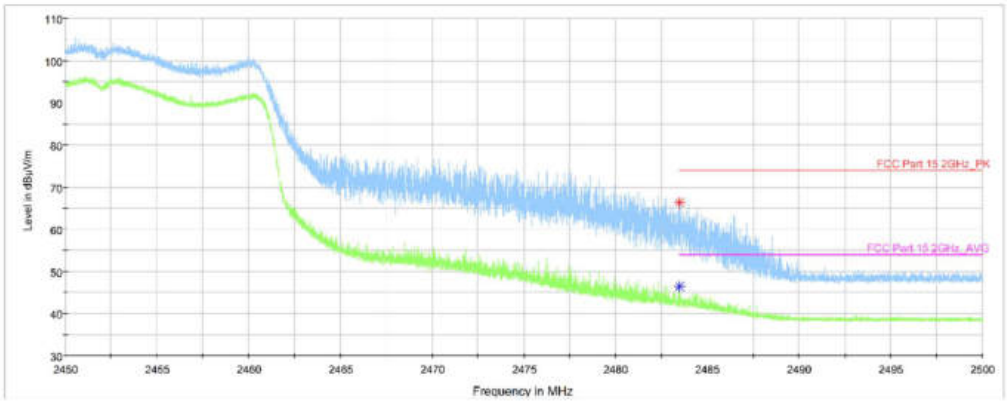

Fig. 7.1.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, MIMO,2.45 GHz - 2.50GHz

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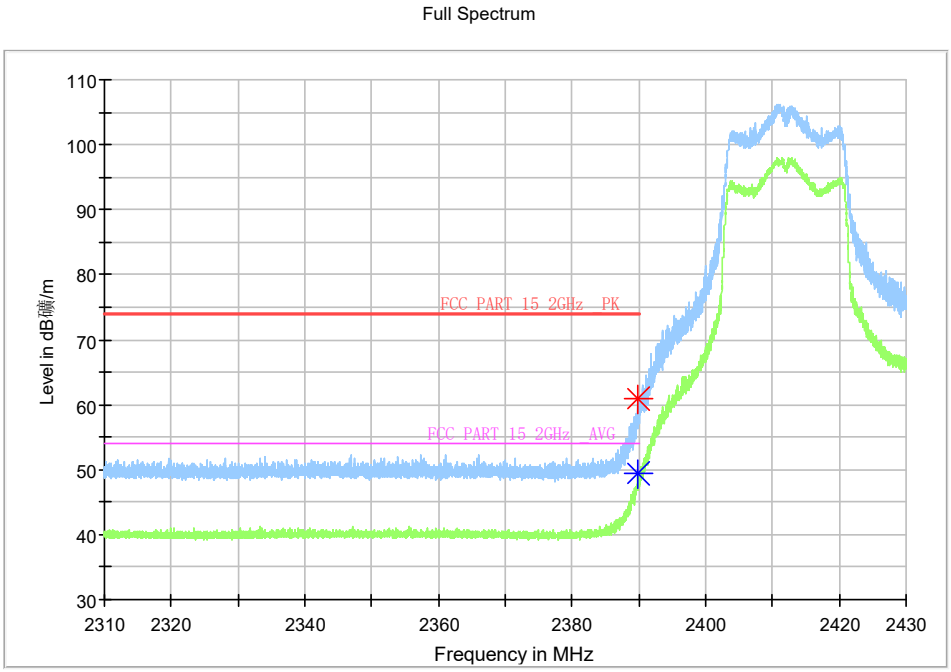

Fig. 7.1.9 Transmitter Spurious Emission - Radiated (Power): 802.11ac-HT20, ch1, MIMO,2.31 GHz - 2.43GHz

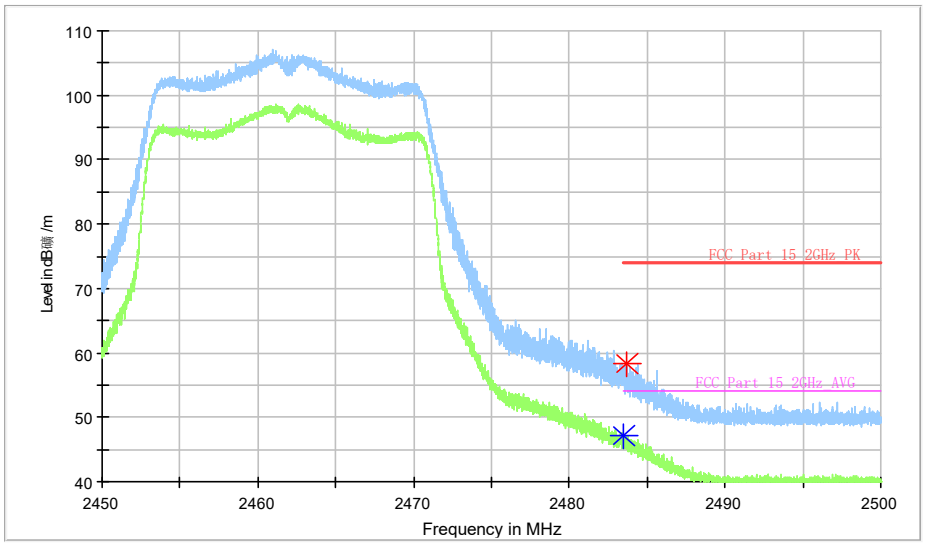

Fig. 7.1.10 Transmitter Spurious Emission - Radiated (Power): 802.11ac-HT20, ch11, MIMO,2.45 GHz - 2.50GHz

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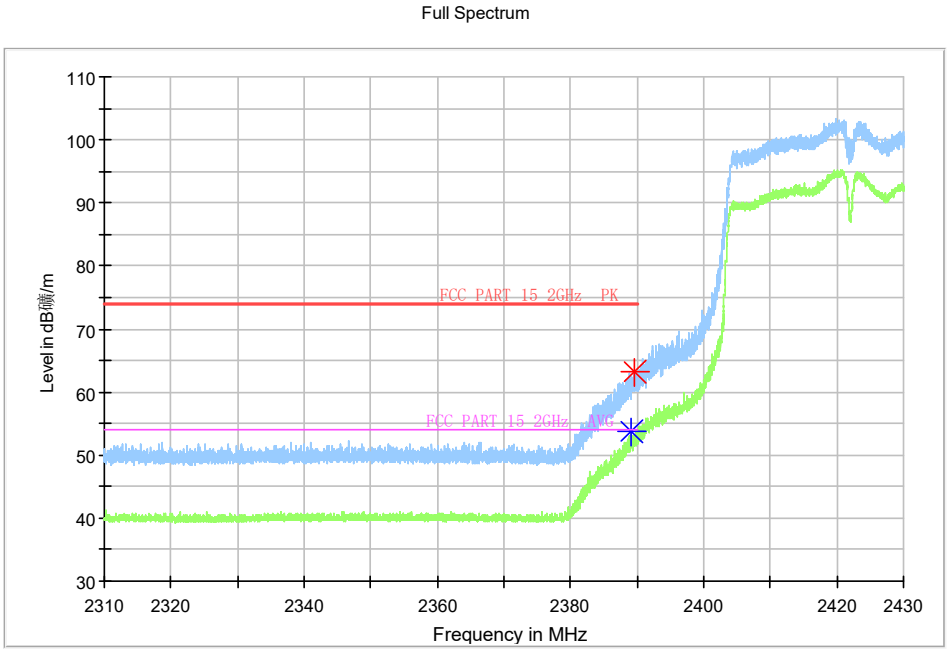

Fig. 7.1.11 Transmitter Spurious Emission - Radiated (Power): 802.11ac-HT40, ch3, MIMO,2.31 GHz - 2.43GHz

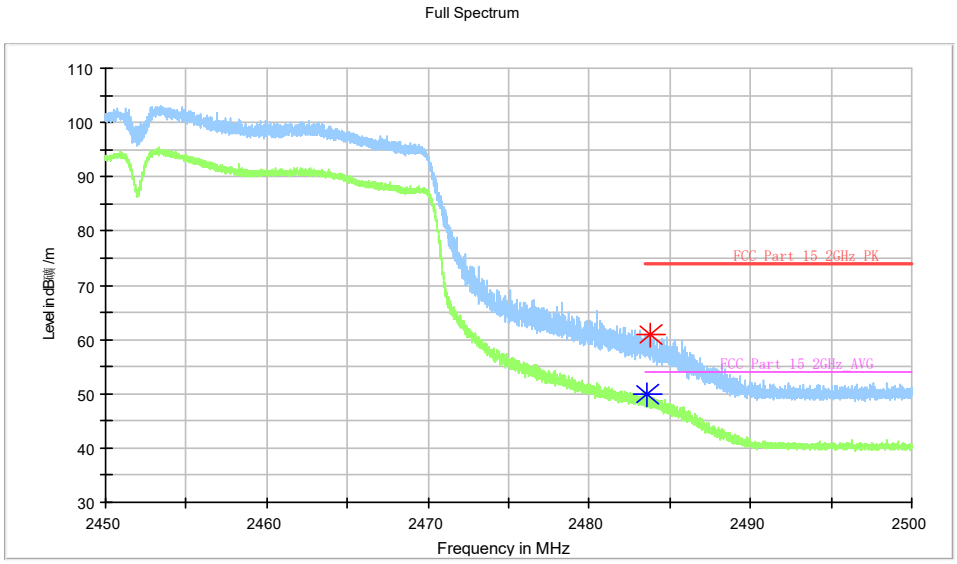

Fig. 7.1.12 Transmitter Spurious Emission - Radiated (Power): 802.11ac-HT40, ch9, MIMO,2.45 GHz - 2.50GHz

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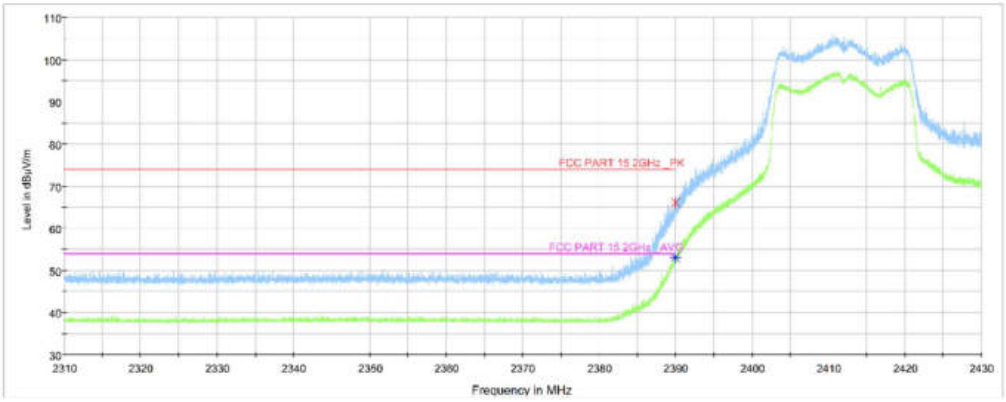

Fig. 7.1.13 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT20, ch1, MIMO,2.31 GHz - 2.43GHz

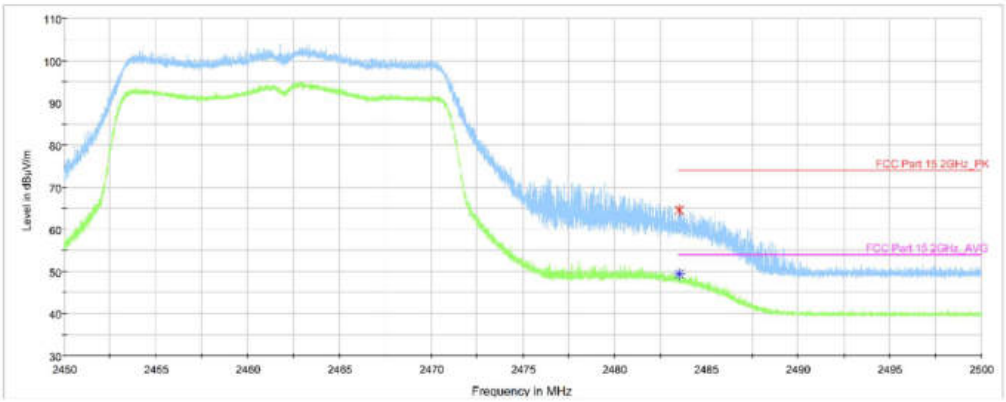

Fig. 7.1.14 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT20, ch11, MIMO,2.45 GHz - 2.50GHz

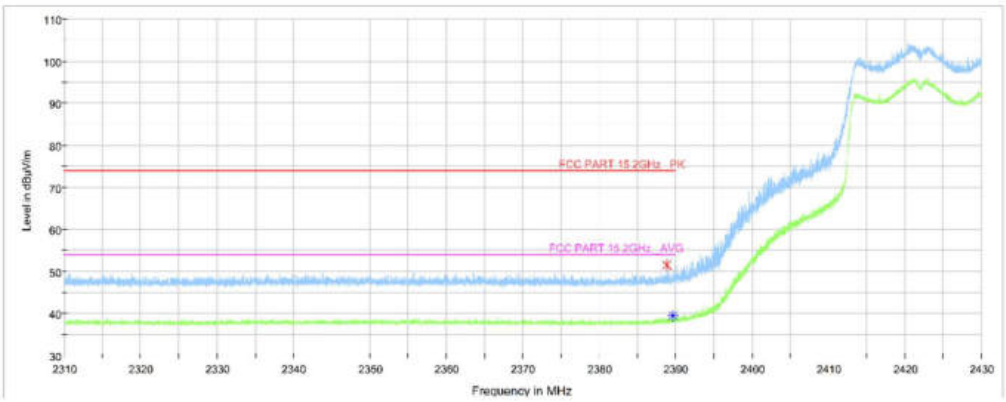

Fig. 7.1.15 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT40, ch3, MIMO,2.31 GHz - 2.43GHz

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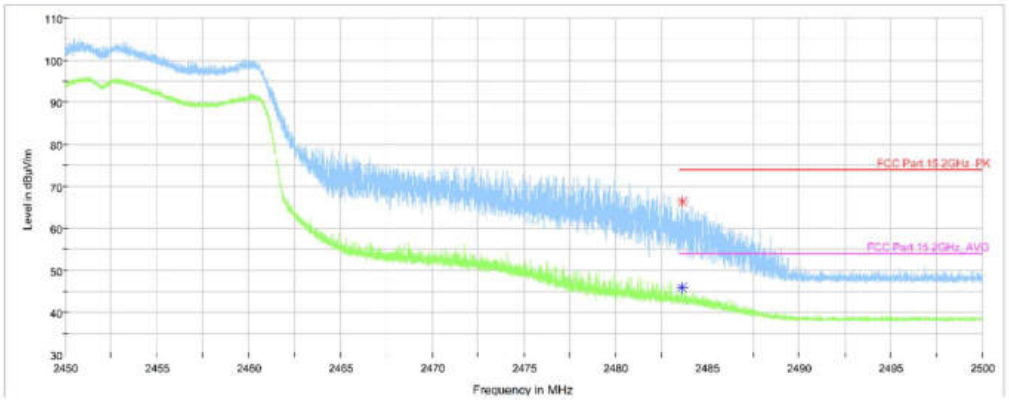

Fig. 7.1.16 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT40, ch9, MIMO,2.45 GHz - 2.50GHz

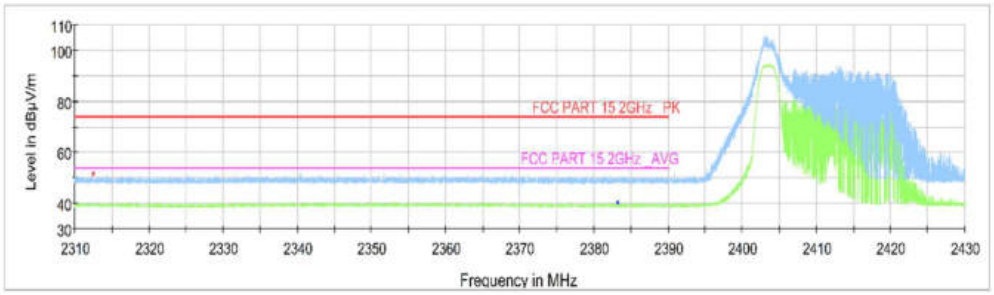

Fig. 7.1.17 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT20, ch1, MIMO, Partial RU, 2.31 GHz - 2.43GHz

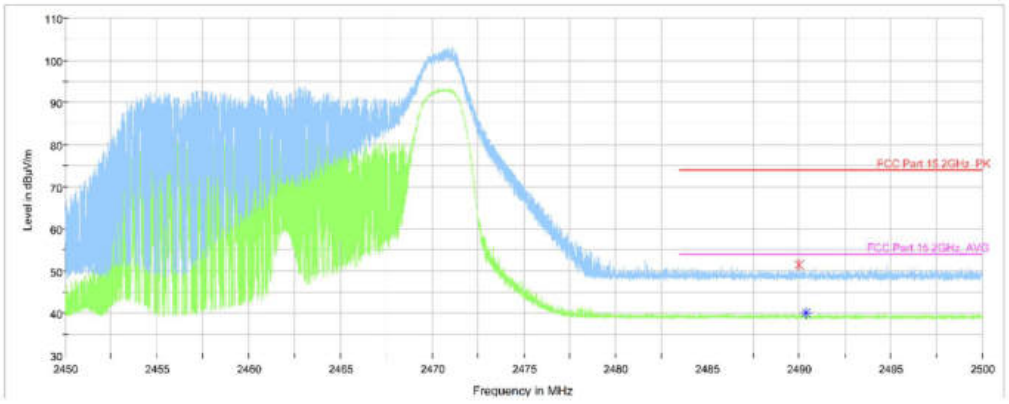

Fig. 7.1.18 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT20, ch11, MIMO, Partial RU,2.45 GHz - 2.50GHz

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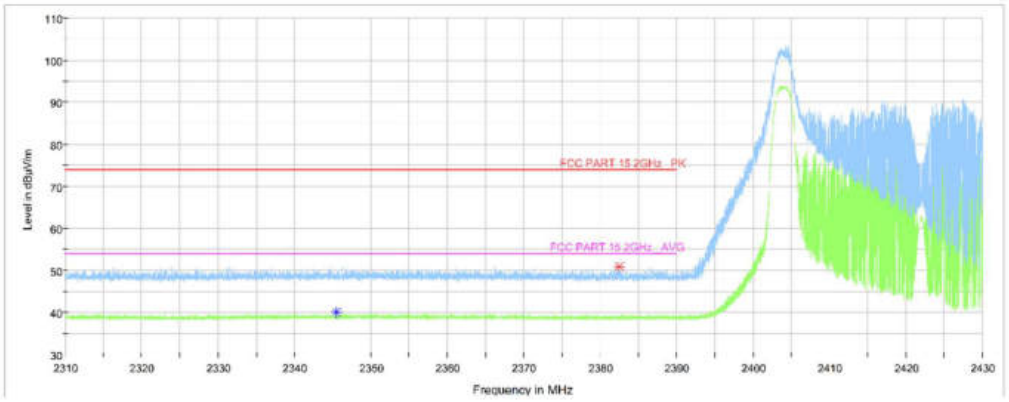

Fig. 7.1.19 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT40, ch3, MIMO, Partial RU,2.31 GHz - 2.43GHz

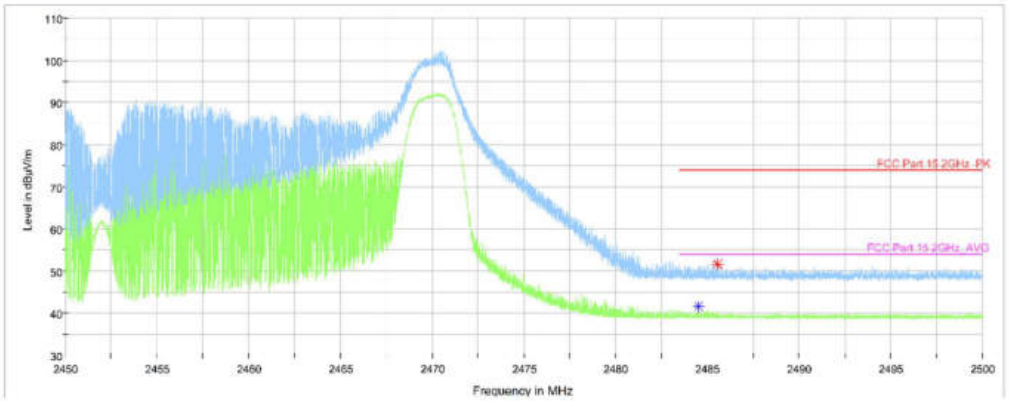

Fig. 7.1.20 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT40, ch9, MIMO, Partial RU,2.45 GHz - 2.50GHz

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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.

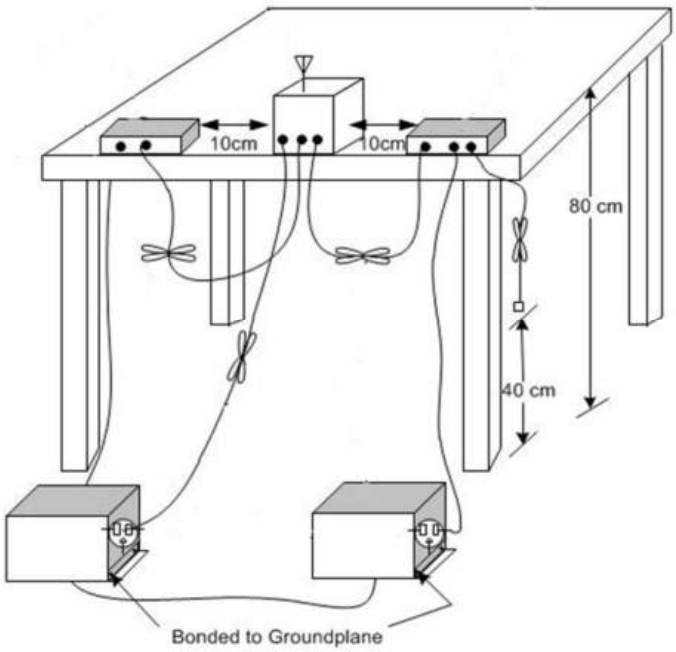
The measurement bandwidth is:

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

Test Condition:

Voltage（V）	Frequency（Hz）
120	60

Test setup



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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:

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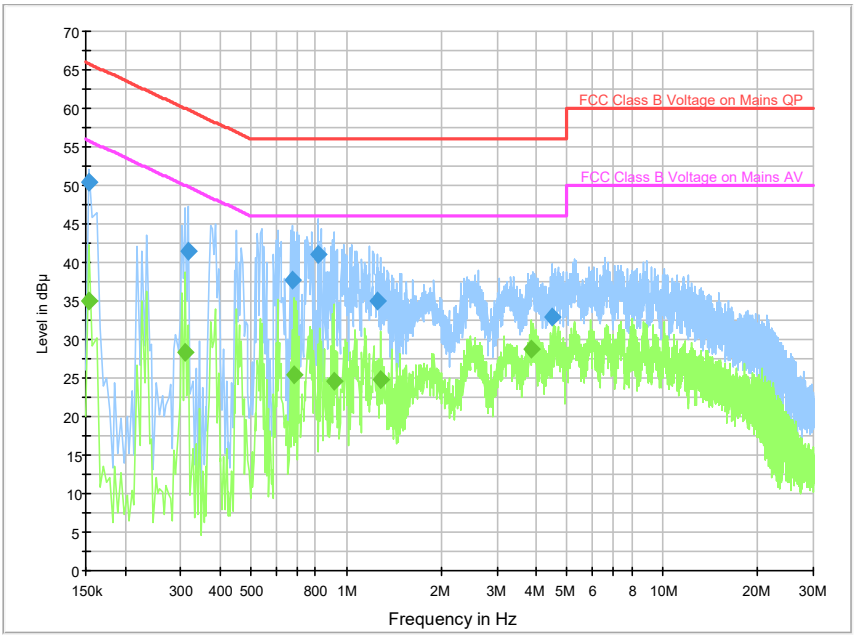

Fig.A.8.1 AC Powerline Conducted Emission-802.11b

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.154000	50.5	2000.0	9.000	On	L1	19.9	15.3	65.8	
0.318000	41.4	2000.0	9.000	On	L1	19.7	18.3	59.8	
0.674000	37.7	2000.0	9.000	On	N	19.7	18.3	56.0	
0.814000	41.0	2000.0	9.000	On	L1	19.7	15.0	56.0	
1.254000	35.0	2000.0	9.000	On	N	19.6	21.0	56.0	
4.490000	33.0	2000.0	9.000	On	N	19.6	23.0	56.0	

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.154000	34.9	2000.0	9.000	On	L1	19.9	20.9	55.8	
0.310000	28.4	2000.0	9.000	On	N	19.7	21.6	50.0	
0.682000	25.4	2000.0	9.000	On	L1	19.7	20.6	46.0	
0.914000	24.5	2000.0	9.000	On	L1	19.7	21.5	46.0	
1.286000	24.8	2000.0	9.000	On	N	19.6	21.2	46.0	
3.834000	28.7	2000.0	9.000	On	N	19.6	17.3	46.0	

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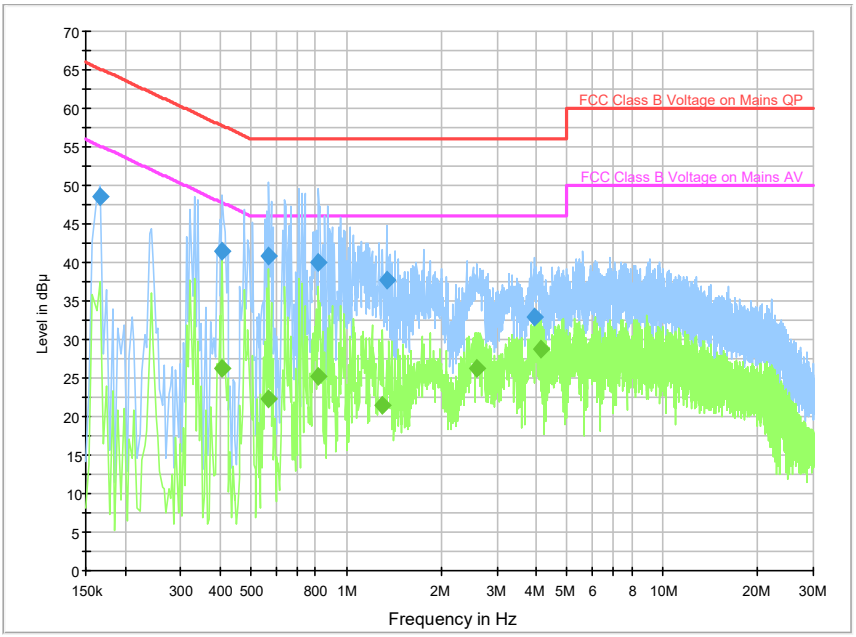

Fig.A.8.2 AC Powerline Conducted Emission-Idle

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.166000	48.5	2000.0	9.000	On	N	19.7	16.7	65.2	
0.406000	41.5	2000.0	9.000	On	L1	19.7	16.2	57.7	
0.570000	40.8	2000.0	9.000	On	L1	19.7	15.2	56.0	
0.818000	40.0	2000.0	9.000	On	L1	19.7	16.0	56.0	
1.338000	37.6	2000.0	9.000	On	N	19.6	18.4	56.0	
3.942000	33.0	2000.0	9.000	On	L1	19.6	23.0	56.0	

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.406000	26.2	2000.0	9.000	On	L1	19.7	21.6	47.7	
0.570000	22.2	2000.0	9.000	On	L1	19.7	23.8	46.0	
0.818000	25.2	2000.0	9.000	On	L1	19.7	20.8	46.0	
1.306000	21.4	2000.0	9.000	On	N	19.6	24.6	46.0	
2.590000	26.3	2000.0	9.000	On	N	19.6	19.7	46.0	
4.146000	28.8	2000.0	9.000	On	L1	19.6	17.2	46.0	

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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.

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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 McInturff, 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*****

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