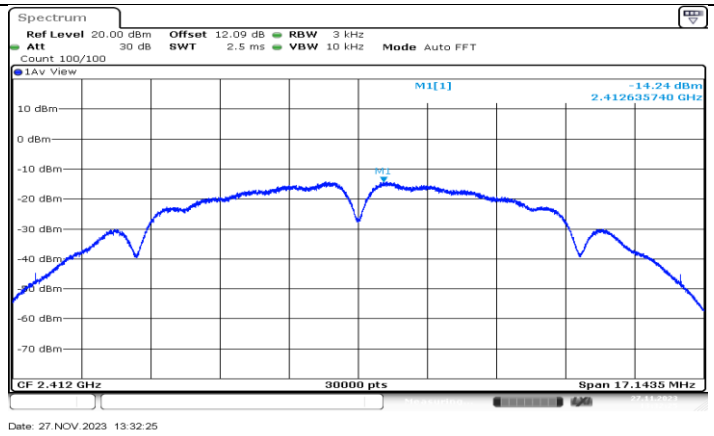
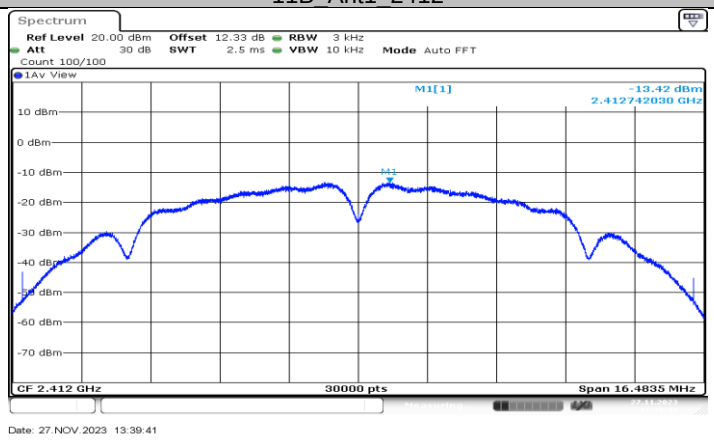
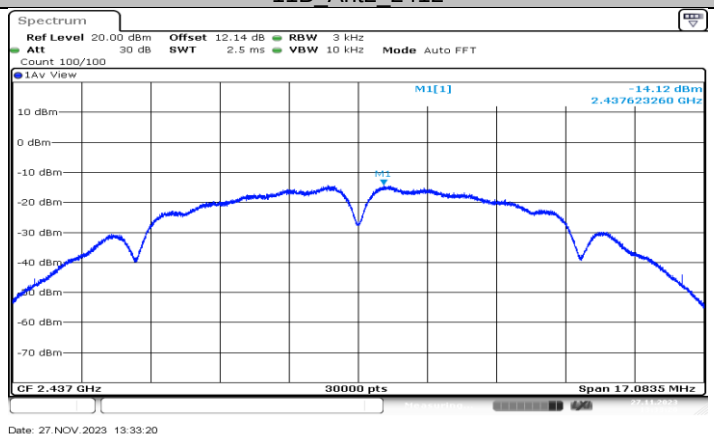
11.4.2. Test Graphs



11B_Ant1_2412

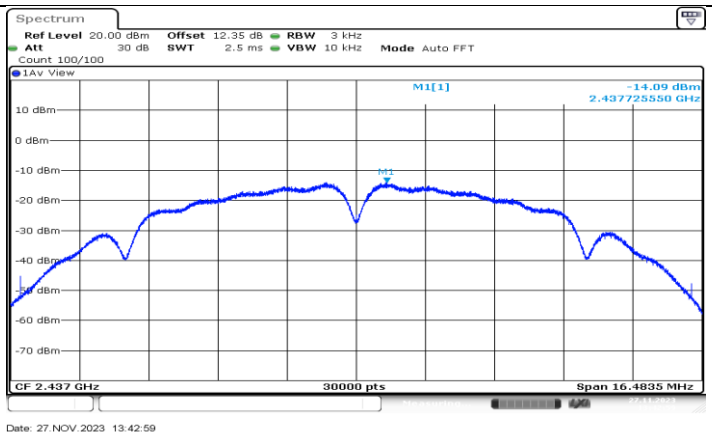


11B_Ant2_2412

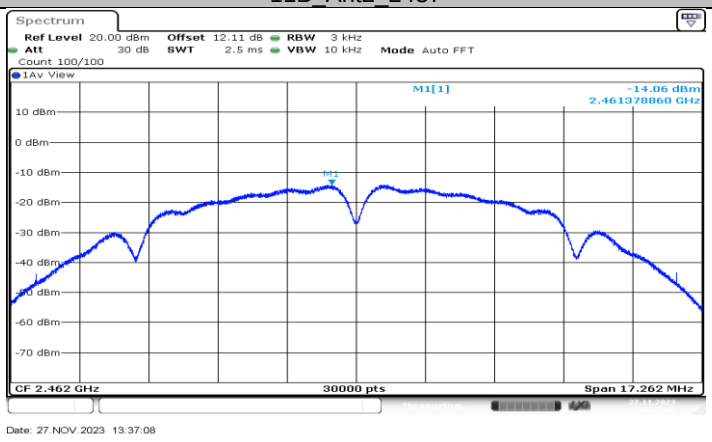


11B_Ant1_2437

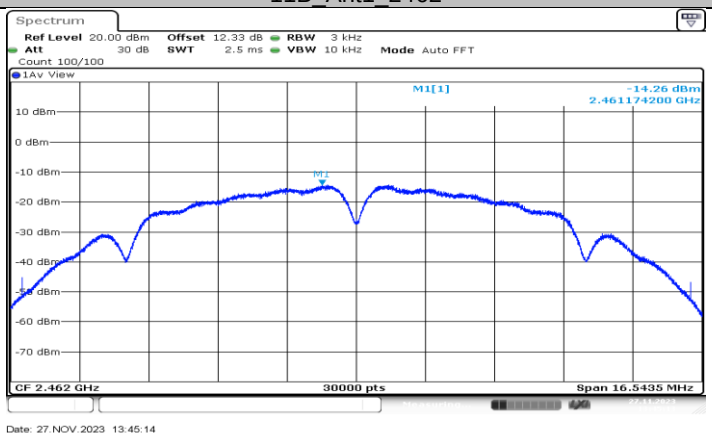
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



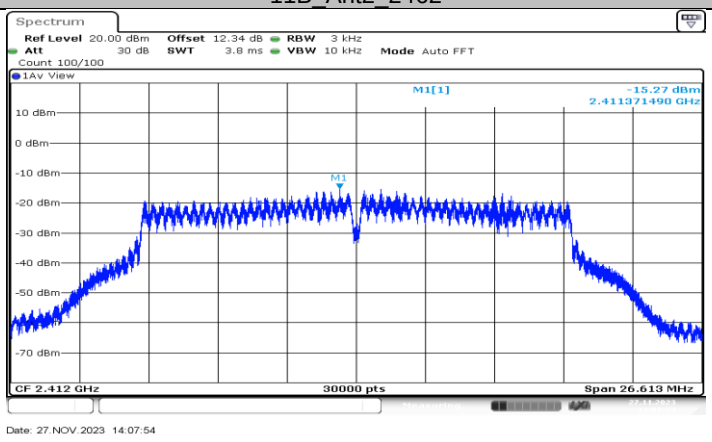
11B_Ant2_2437



11B_Ant1_2462

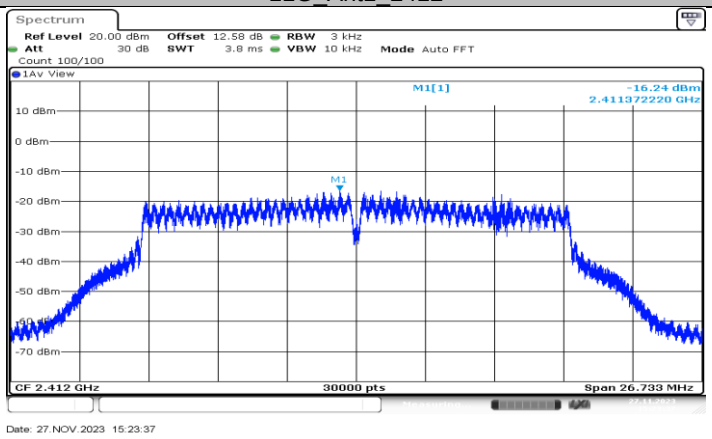


11B_Ant2_2462

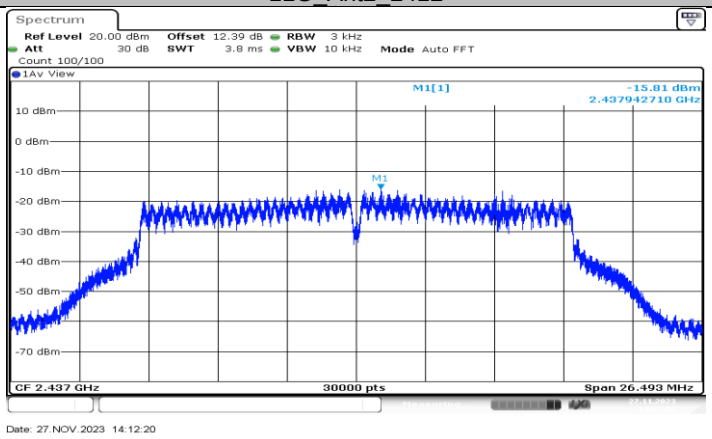


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

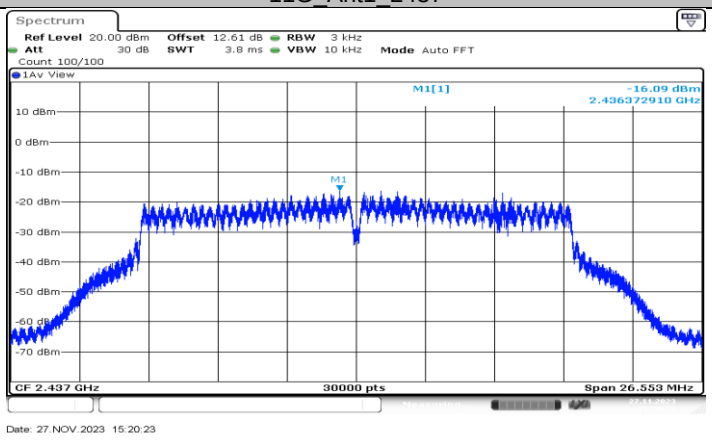
11G_Ant1_2412



11G_Ant2_2412

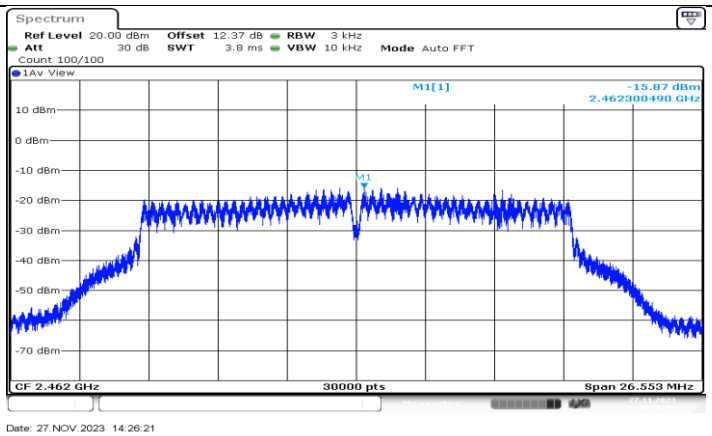


11G_Ant1_2437

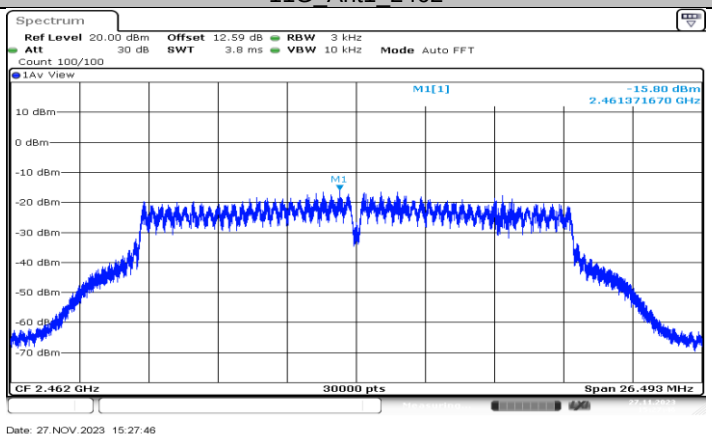


11G_Ant2_2437

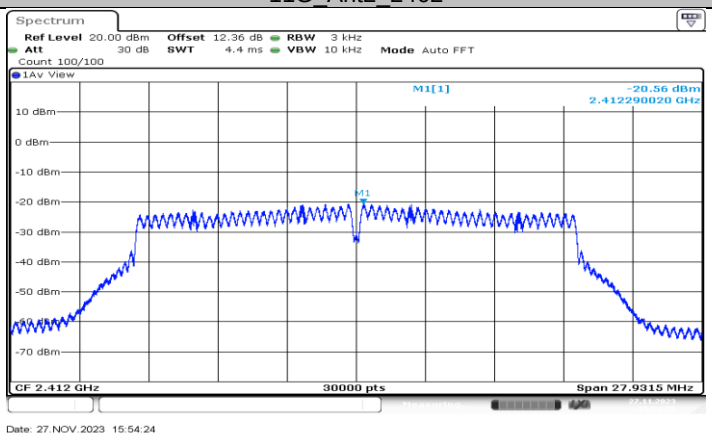
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



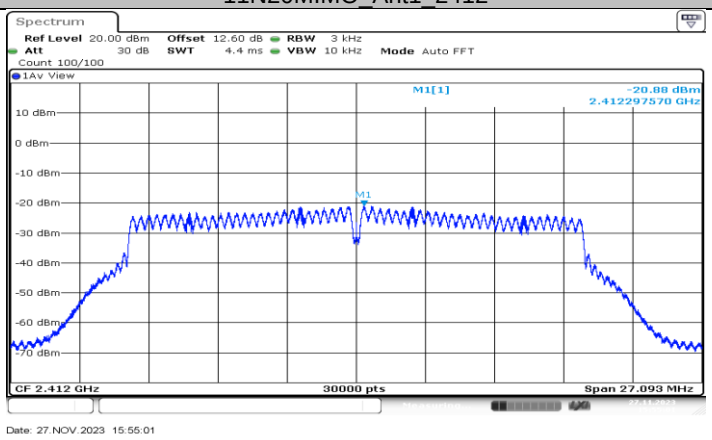
11G_Ant1_2462



11G_Ant2_2462

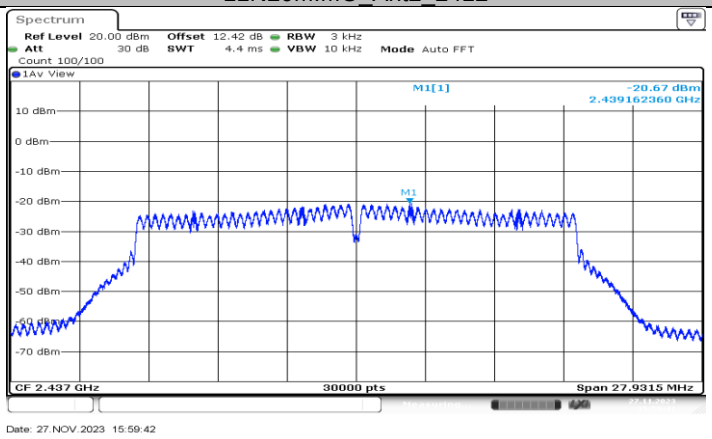


11N20MIMO_Ant1_2412

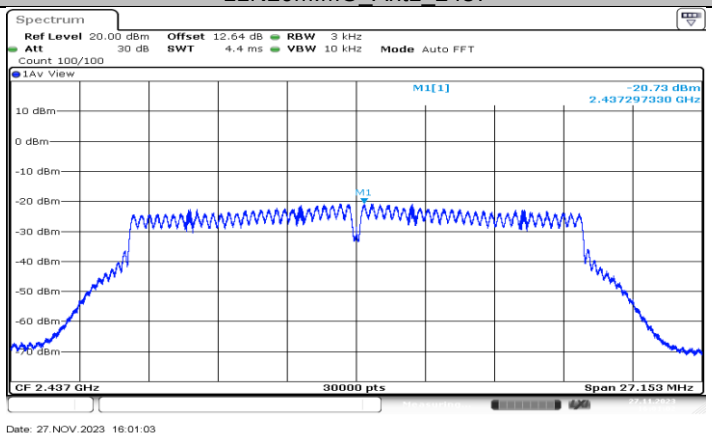


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

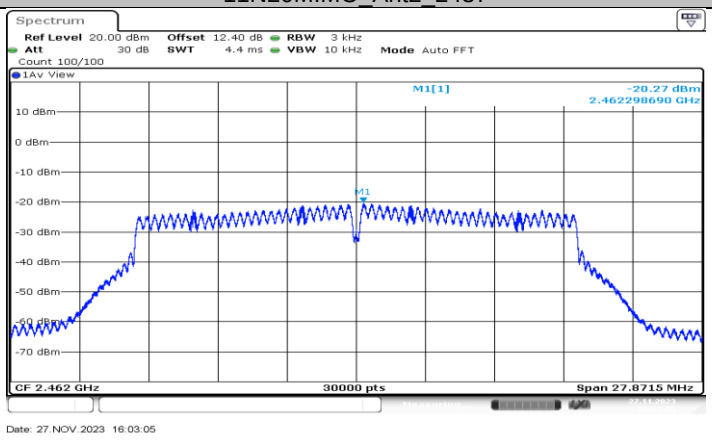
11N20MIMO_Ant2_2412



11N20MIMO_Ant1_2437

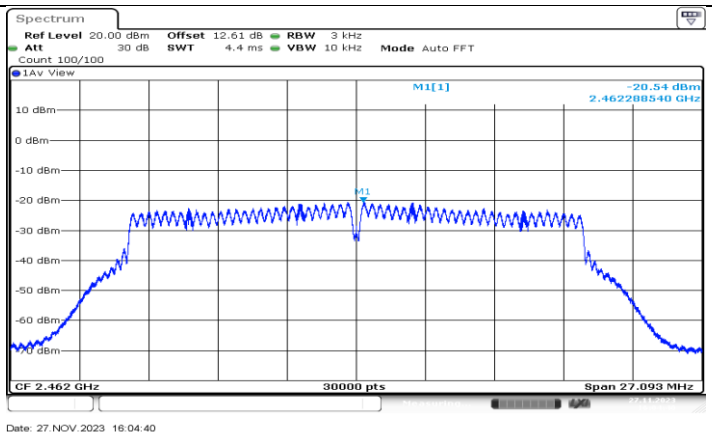


11N20MIMO_Ant2_2437

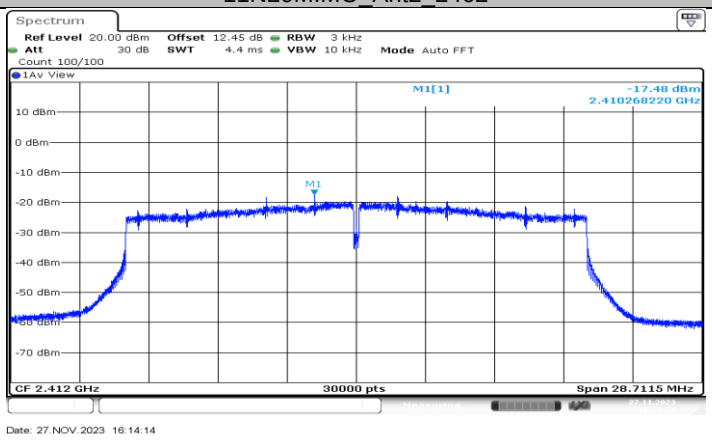


11N20MIMO_Ant1_2462

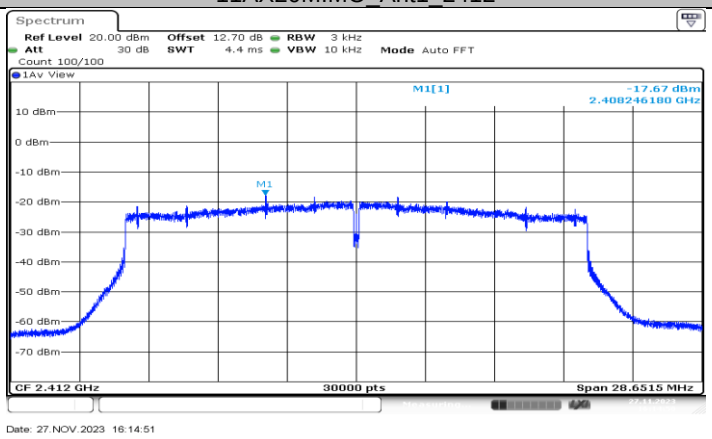
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



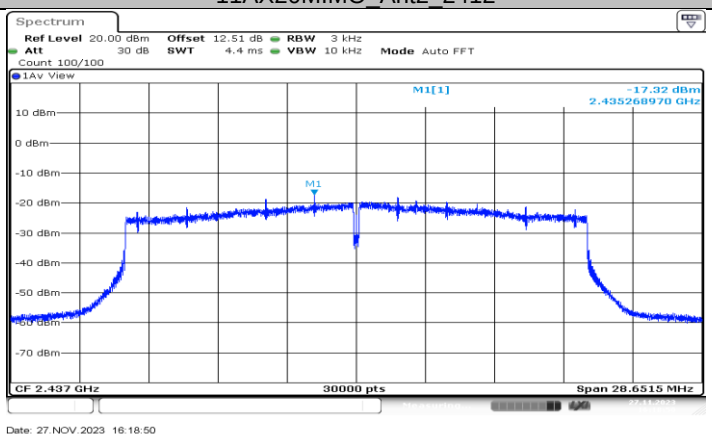
11N20MIMO_Ant2_2462



11AX20MIMO_Ant1_2412

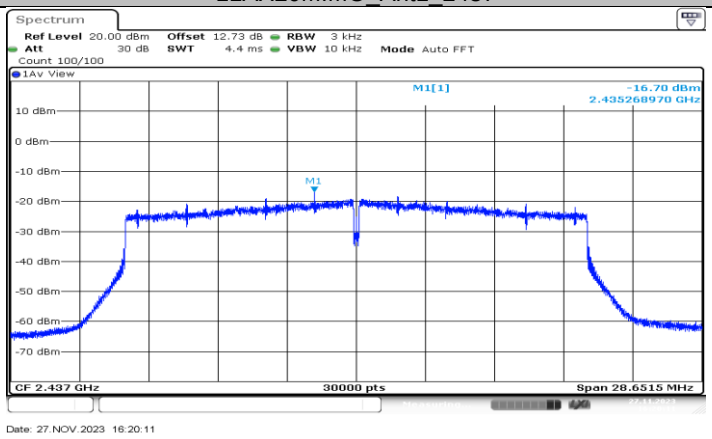


11AX20MIMO_Ant2_2412

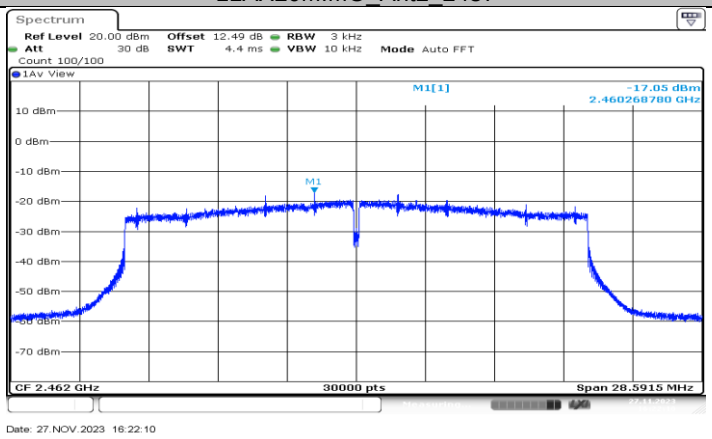


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

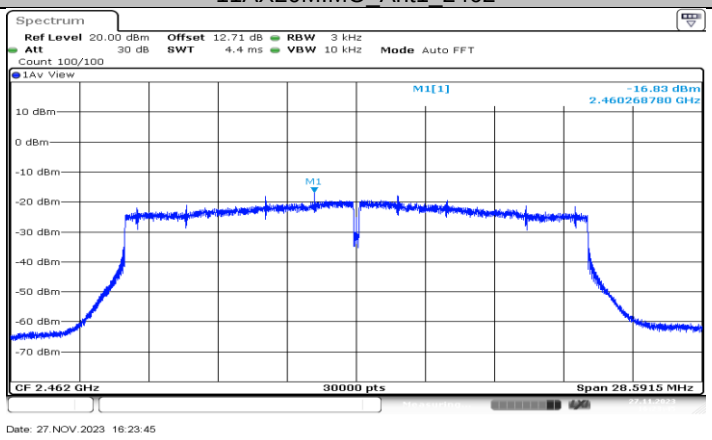
11AX20MIMO_Ant1_2437



11AX20MIMO_Ant2_2437



11AX20MIMO_Ant1_2462



11AX20MIMO_Ant2_2462

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

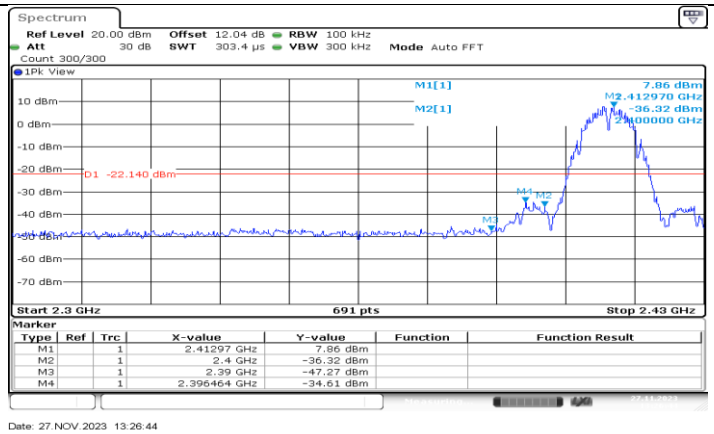
11.5. APPENDIX E: BAND EDGE MEASUREMENTS

11.5.1. Test Result

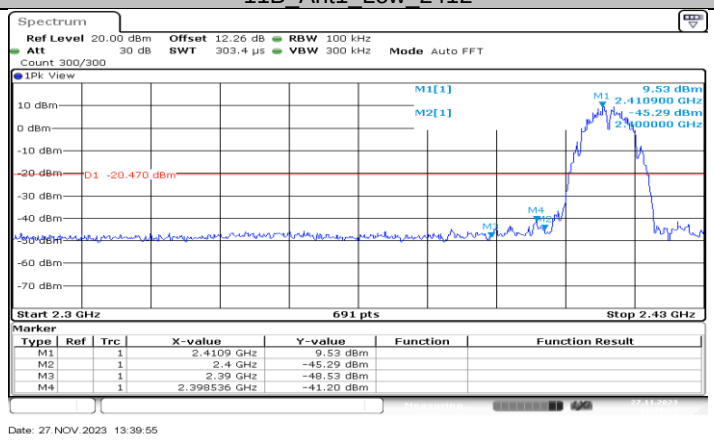
Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	7.86	-34.61	≤-22.14	PASS
	Ant2	Low	2412	9.53	-41.2	≤-20.47	PASS
	Ant1	High	2462	8.92	-46.14	≤-21.08	PASS
	Ant2	High	2462	8.54	-45.9	≤-21.46	PASS
11G	Ant1	Low	2412	2.09	-33.95	≤-27.91	PASS
	Ant2	Low	2412	2.36	-32.66	≤-27.64	PASS
	Ant1	High	2462	2.53	-44.66	≤-27.47	PASS
	Ant2	High	2462	1.85	-44.15	≤-28.15	PASS
11N20MIMO	Ant1	Low	2412	0.33	-35.04	≤-29.67	PASS
	Ant2	Low	2412	0.08	-40.31	≤-29.92	PASS
	Ant1	High	2462	0.28	-45.23	≤-29.72	PASS
	Ant2	High	2462	-0.07	-45.38	≤-30.07	PASS
11AX20MIMO	Ant1	Low	2412	2.18	-31.54	≤-27.82	PASS
	Ant2	Low	2412	1.80	-36.25	≤-28.2	PASS
	Ant1	High	2462	2.71	-39.24	≤-27.29	PASS
	Ant2	High	2462	2.09	-40.65	≤-27.91	PASS

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

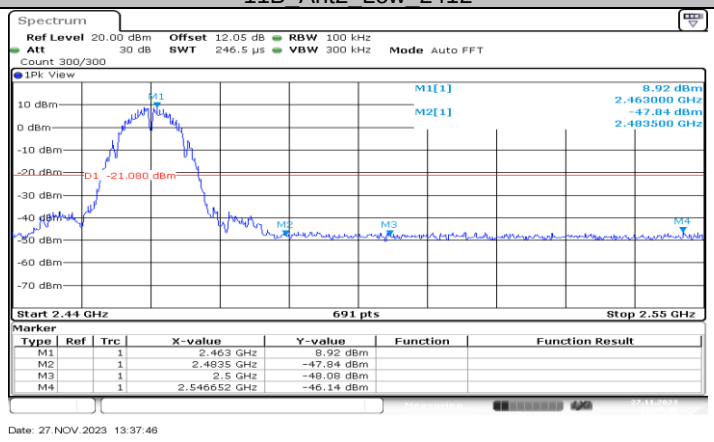
11.5.2. Test Graphs



11B_Ant1_Low_2412

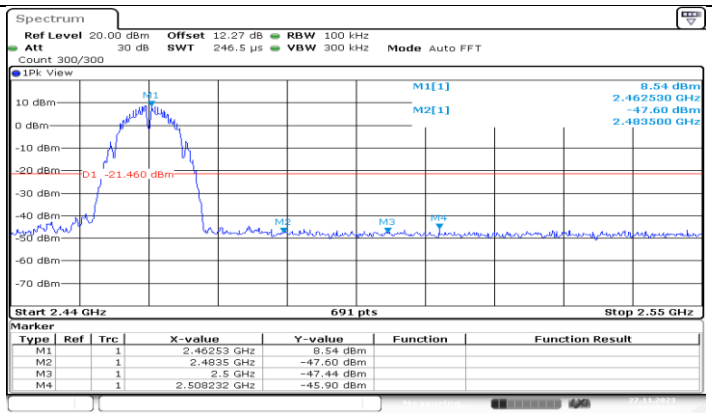


11B_Ant2_Low_2412

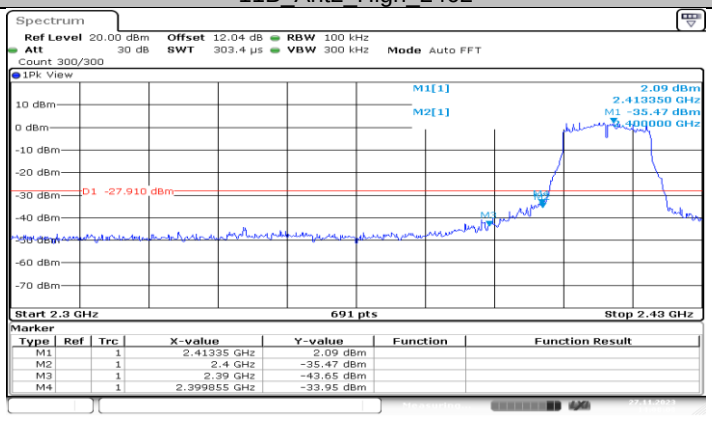


11B_Ant1_High_2462

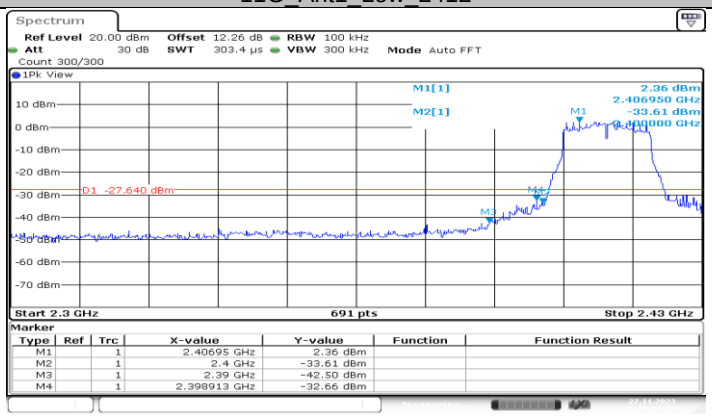
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



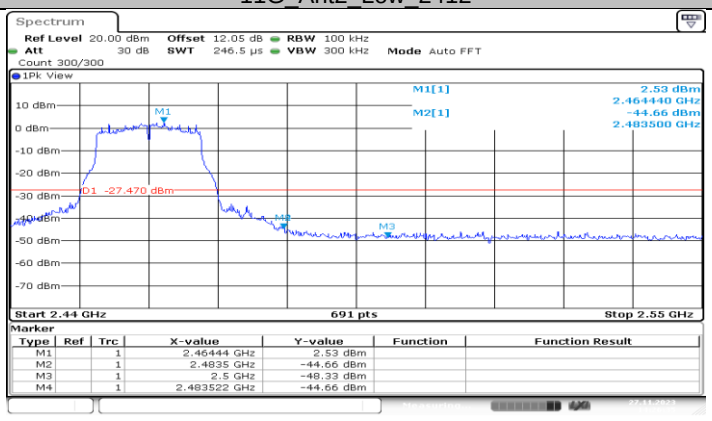
11B_Ant2_High_2462



11G_Ant1_Low_2412

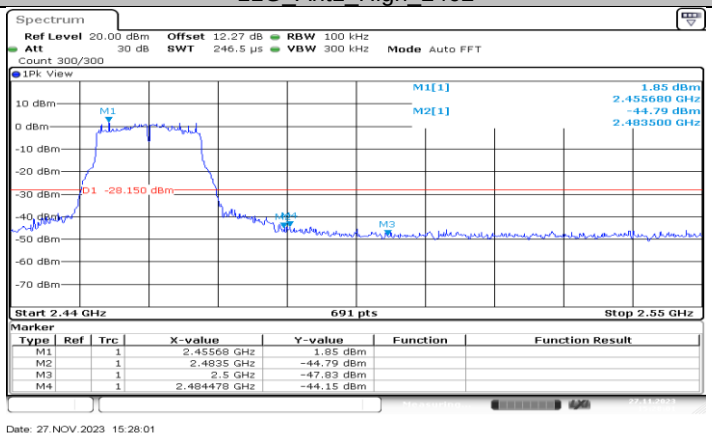


11G_Ant2_Low_2412

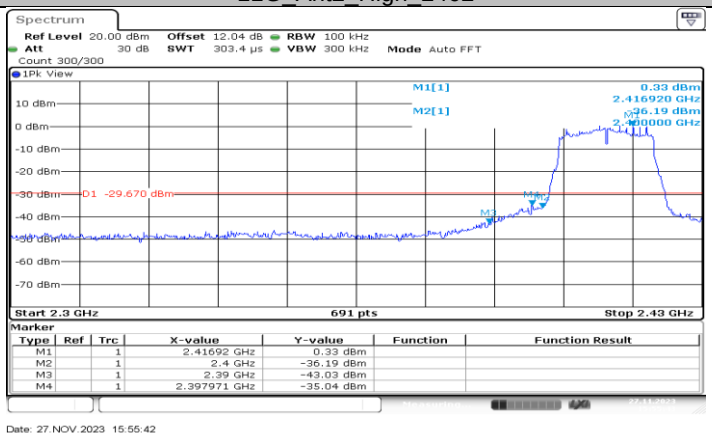


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

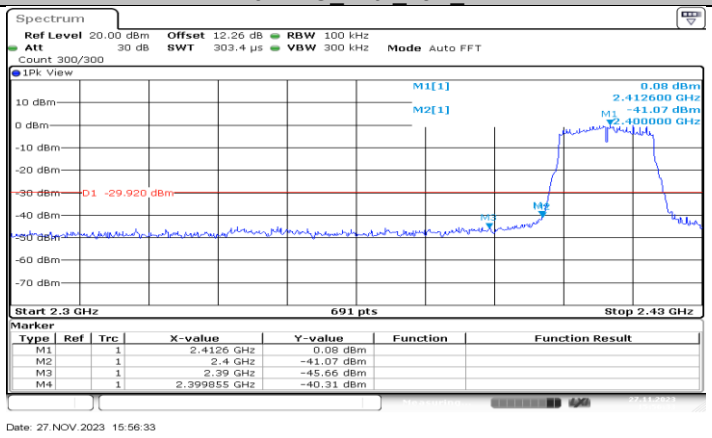
11G_Ant1_High_2462



11G_Ant2_High_2462

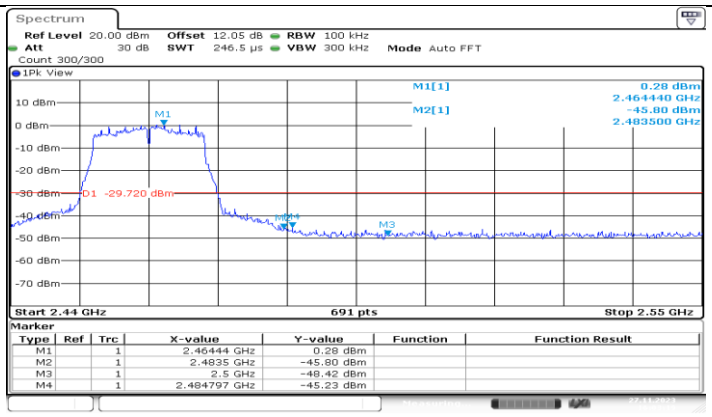


11N20MIMO_Ant1_Low_2412

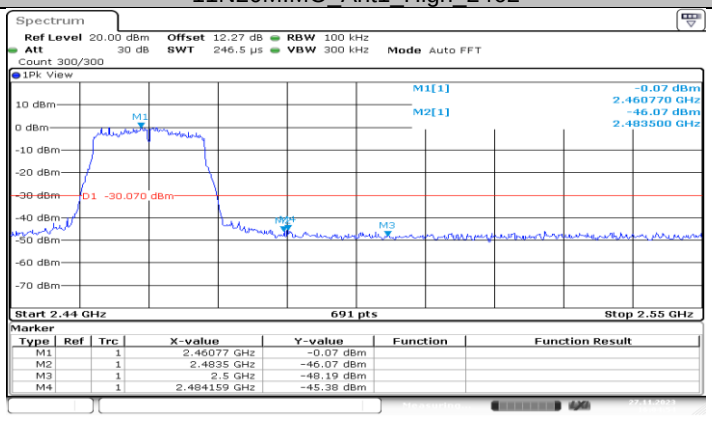


11N20MIMO_Ant2_Low_2412

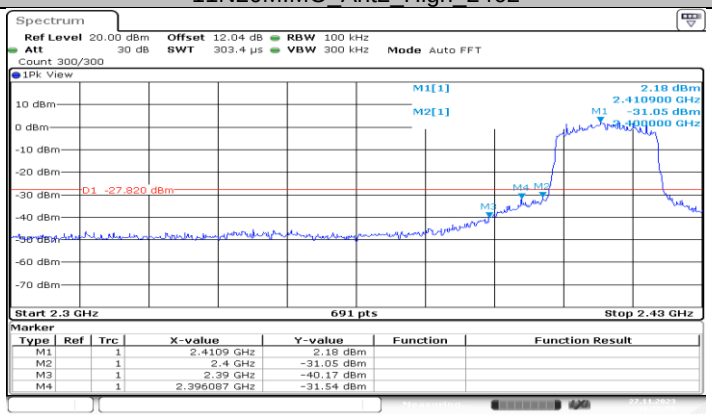
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



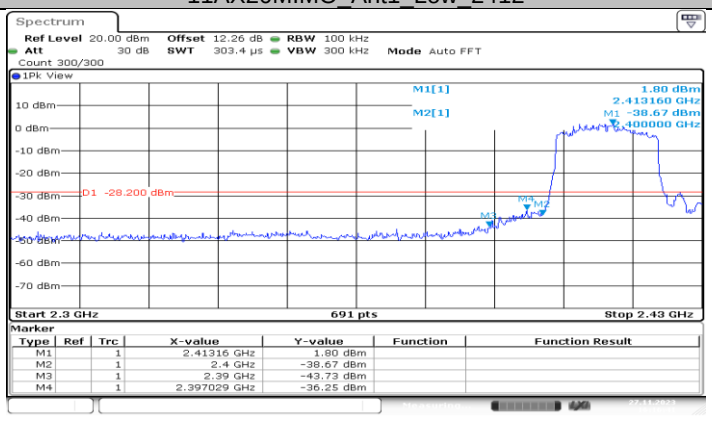
11N20MIMO_Ant1_High_2462



11N20MIMO_Ant2_High_2462

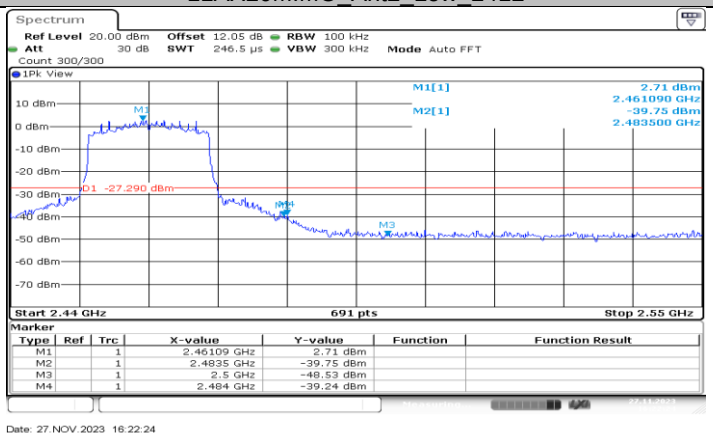


11AX20MIMO_Ant1_Low_2412

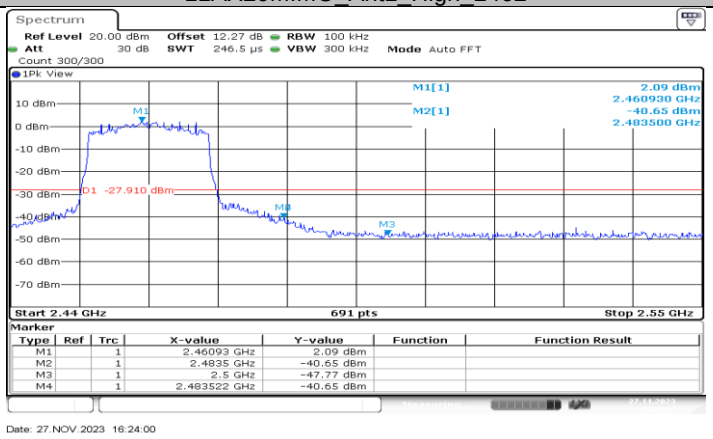


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

11AX20MIMO_Ant2_Low_2412



11AX20MIMO_Ant1_High_2462



11AX20MIMO_Ant2_High_2462

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

11.6. APPENDIX F: CONDUCTED SPURIOUS EMISSION

11.6.1. Test Result

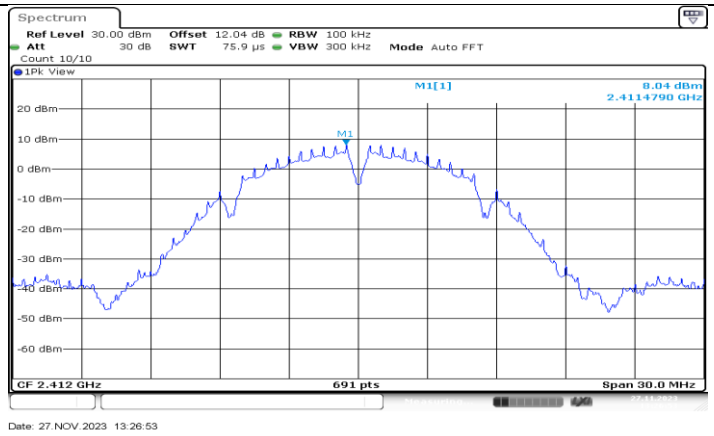
Test Mode	Antenna	Frequency[MHz]	FreqRange [Mhz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	8.04	---	PASS
			30~1000	-55.81	≤-21.96	PASS
			1000~26500	-54.25	≤-21.96	PASS
	Ant2	2412	Reference	10.00	---	PASS
			30~1000	-55.39	≤-20	PASS
			1000~26500	-53.57	≤-20	PASS
	Ant1	2437	Reference	7.96	---	PASS
			30~1000	-55.42	≤-22.04	PASS
			1000~26500	-54.07	≤-22.04	PASS
	Ant2	2437	Reference	8.69	---	PASS
			30~1000	-55.3	≤-21.31	PASS
			1000~26500	-53.85	≤-21.31	PASS
	Ant1	2462	Reference	9.20	---	PASS
			30~1000	-55.26	≤-20.8	PASS
			1000~26500	-53.91	≤-20.8	PASS
	Ant2	2462	Reference	9.23	---	PASS
			30~1000	-54.82	≤-20.77	PASS
			1000~26500	-53.4	≤-20.77	PASS
11G	Ant1	2412	Reference	2.18	---	PASS
			30~1000	-54.97	≤-27.82	PASS
			1000~26500	-53.9	≤-27.82	PASS
	Ant2	2412	Reference	1.88	---	PASS
			30~1000	-55.49	≤-28.12	PASS
			1000~26500	-53.65	≤-28.12	PASS
	Ant1	2437	Reference	2.15	---	PASS
			30~1000	-54.41	≤-27.85	PASS
			1000~26500	-53.4	≤-27.85	PASS
	Ant2	2437	Reference	1.44	---	PASS
			30~1000	-55.31	≤-28.56	PASS
			1000~26500	-54.06	≤-28.56	PASS
	Ant1	2462	Reference	2.65	---	PASS
			30~1000	-55.91	≤-27.35	PASS
			1000~26500	-54.47	≤-27.35	PASS
	Ant2	2462	Reference	1.61	---	PASS
			30~1000	-54.95	≤-28.39	PASS
			1000~26500	-52.71	≤-28.39	PASS
11N20MIMO	Ant1	2412	Reference	0.32	---	PASS
			30~1000	-55.05	≤-29.68	PASS
			1000~26500	-53.75	≤-29.68	PASS
	Ant2	2412	Reference	0.54	---	PASS
			30~1000	-54.99	≤-29.46	PASS
			1000~26500	-53.58	≤-29.46	PASS
	Ant1	2437	Reference	0.35	---	PASS
			30~1000	-54.82	≤-29.65	PASS
			1000~26500	-53.26	≤-29.65	PASS
	Ant2	2437	Reference	0.56	---	PASS
			30~1000	-55.21	≤-29.44	PASS
			1000~26500	-53.26	≤-29.44	PASS
	Ant1	2462	Reference	0.48	---	PASS
			30~1000	-55.34	≤-29.52	PASS
			1000~26500	-53.95	≤-29.52	PASS
	Ant2	2462	Reference	0.64	---	PASS
			30~1000	-54.48	≤-29.36	PASS
			1000~26500	-52.94	≤-29.36	PASS
11AX20MIMO	Ant1	2412	Reference	2.59	---	PASS
			30~1000	-55.27	≤-27.41	PASS
			1000~26500	-53.52	≤-27.41	PASS
	Ant2	2412	Reference	2.26	---	PASS

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

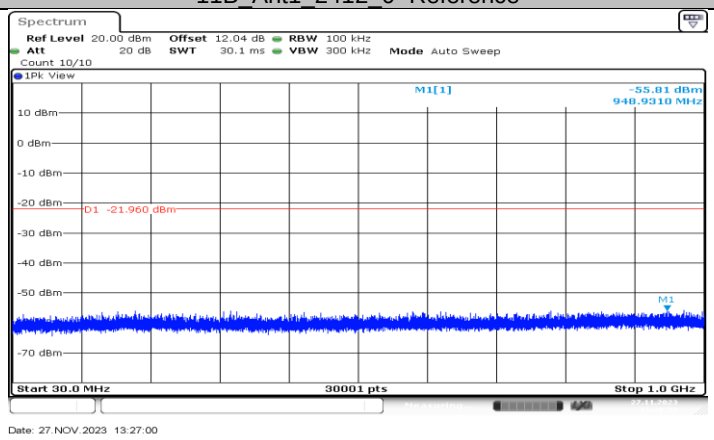
			30~1000	-55.35	≤-27.74	PASS
			1000~26500	-53.85	≤-27.74	PASS
	Ant1	2437	Reference	2.37	---	PASS
			30~1000	-55.2	≤-27.63	PASS
			1000~26500	-53.19	≤-27.63	PASS
	Ant2	2437	Reference	3.05	---	PASS
			30~1000	-53.89	≤-26.95	PASS
			1000~26500	-52.49	≤-26.95	PASS
	Ant1	2462	Reference	2.47	---	PASS
			30~1000	-54.84	≤-27.53	PASS
			1000~26500	-53.95	≤-27.53	PASS
	Ant2	2462	Reference	2.75	---	PASS
			30~1000	-54.42	≤-27.25	PASS
			1000~26500	-52.97	≤-27.25	PASS

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

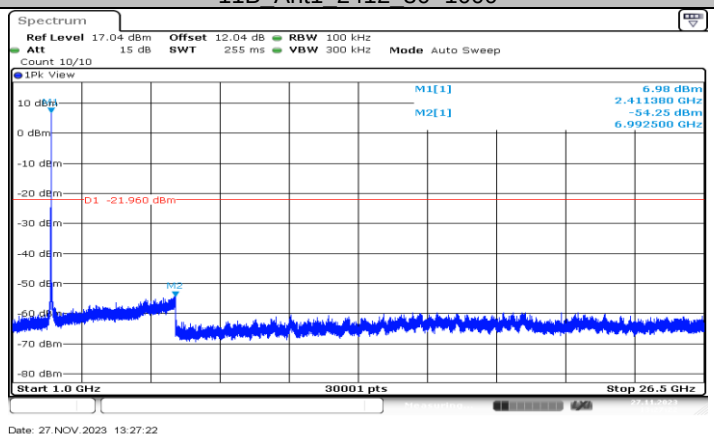
11.6.2. Test Graphs



11B_Ant1_2412_0~Reference

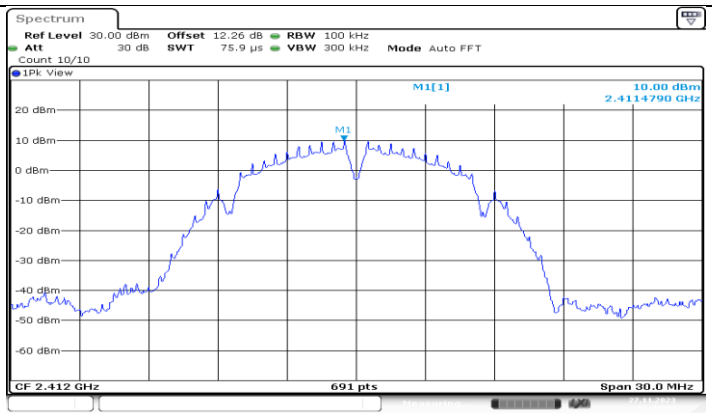


11B_Ant1_2412_30~1000



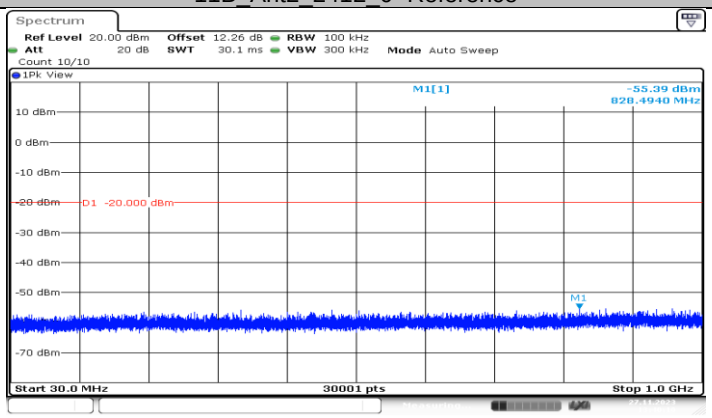
11B_Ant1_2412_1000~26500

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



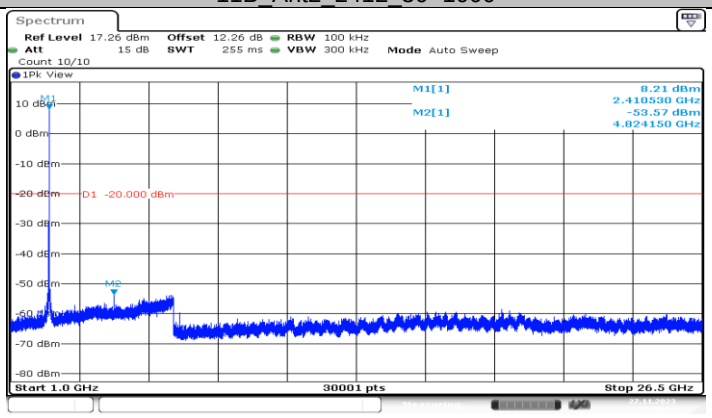
Date: 27.NOV.2023 13:40:04

11B_Ant2_2412_0~Reference



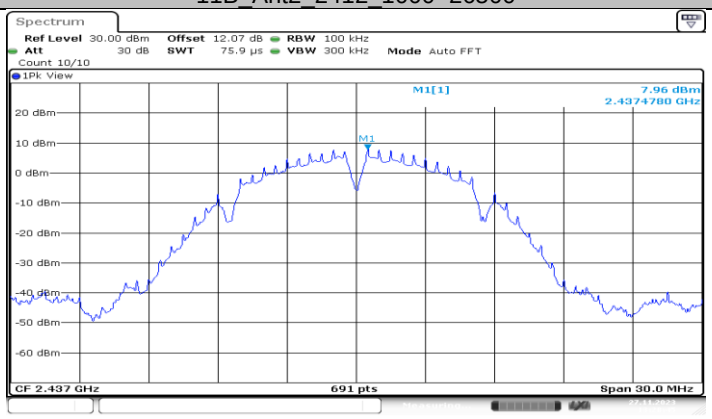
Date: 27.NOV.2023 13:40:11

11B_Ant2_2412_30~1000



Date: 27.NOV.2023 13:40:33

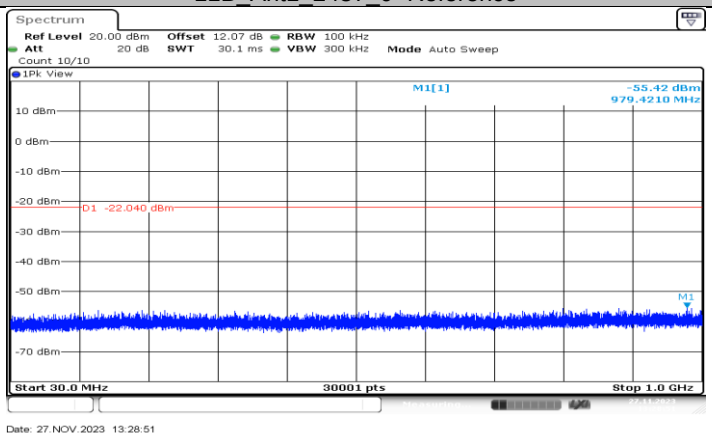
11B_Ant2_2412_1000~26500



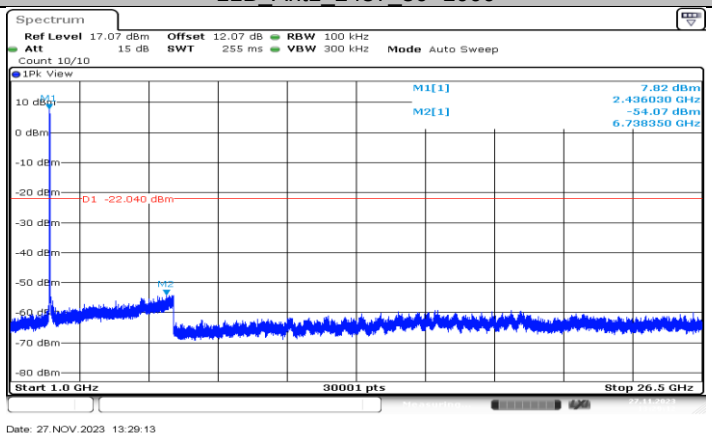
Date: 27.NOV.2023 13:28:45

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

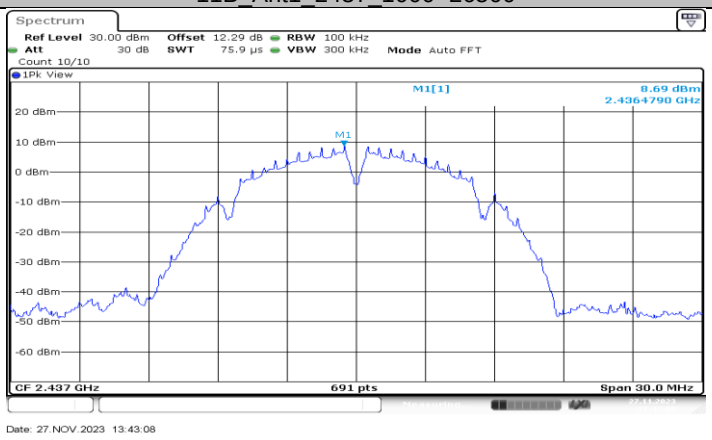
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000

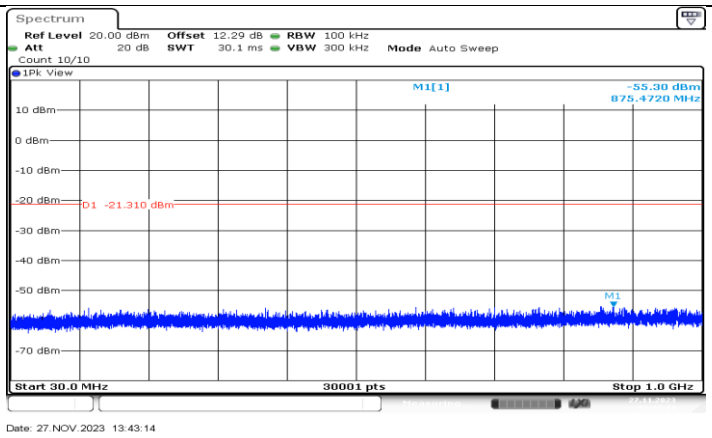


11B_Ant1_2437_1000~26500

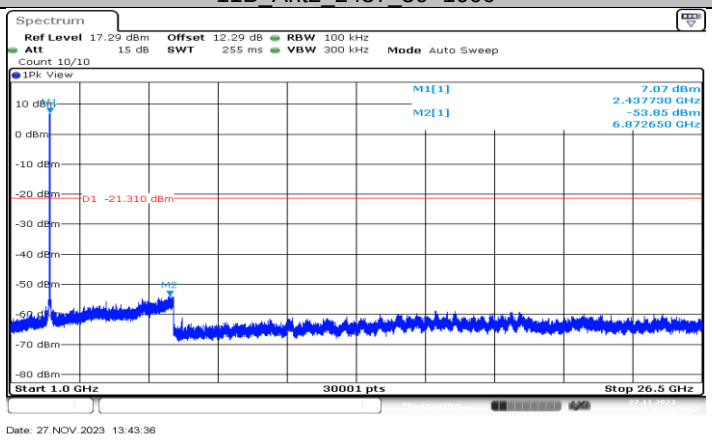


11B_Ant2_2437_0~Reference

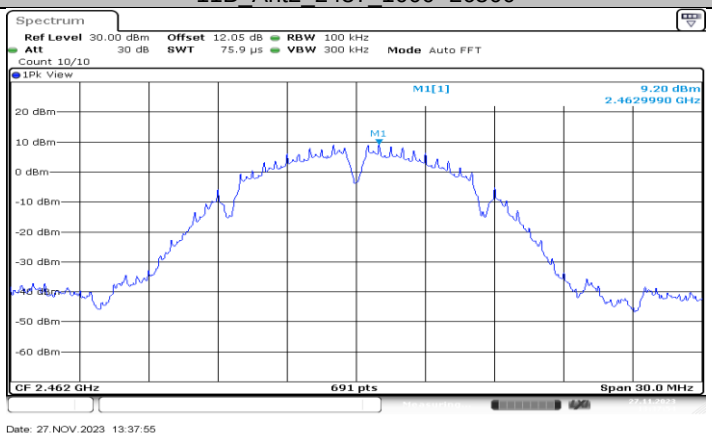
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



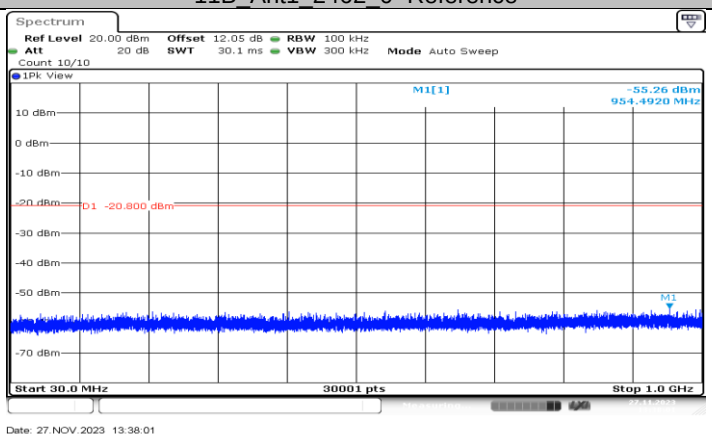
11B_Ant2_2437_30~1000



11B_Ant2_2437_1000~26500

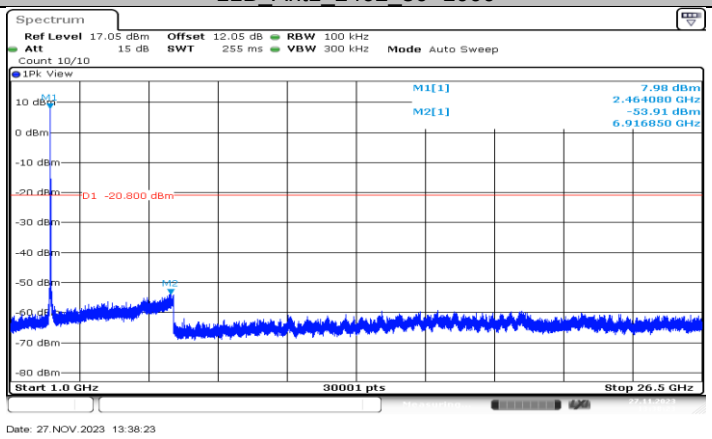


11B_Ant1_2462_0~Reference

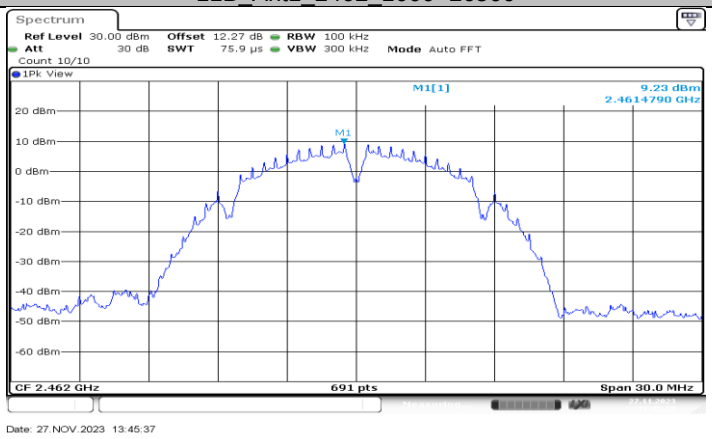


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

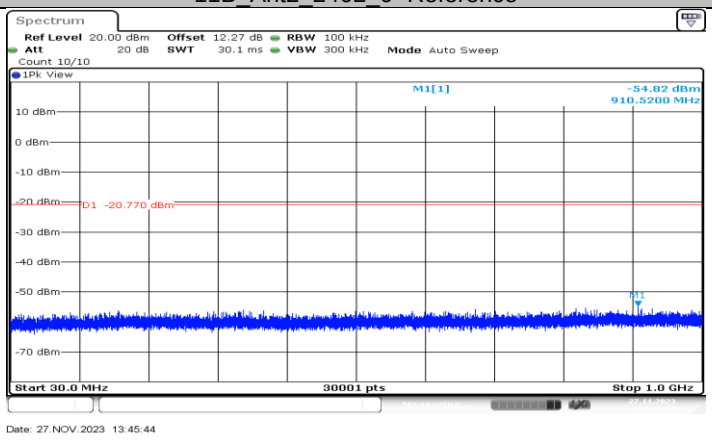
11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500

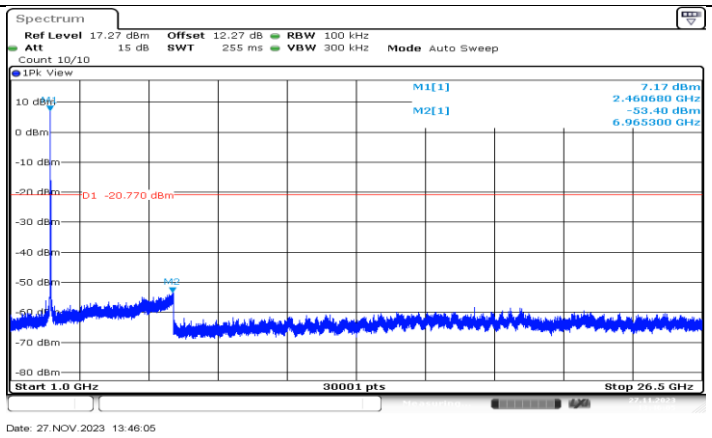


11B_Ant2_2462_0~Reference

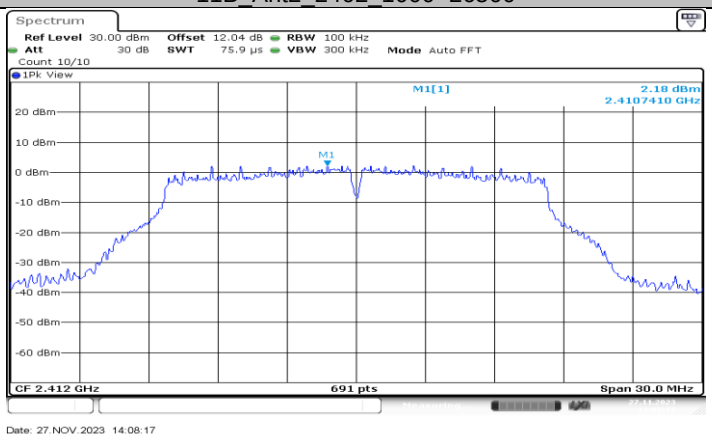


11B_Ant2_2462_30~1000

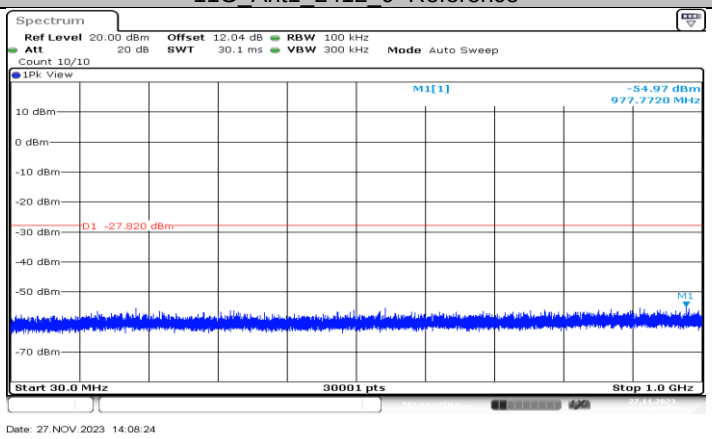
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



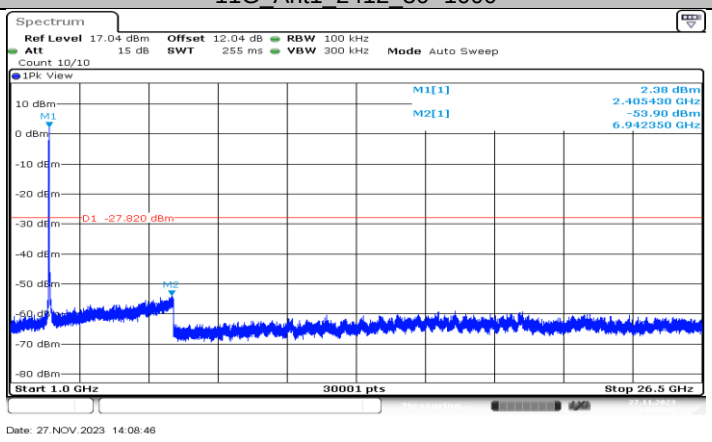
11B_Ant2_2462_1000~26500



11G_Ant1_2412_0~Reference

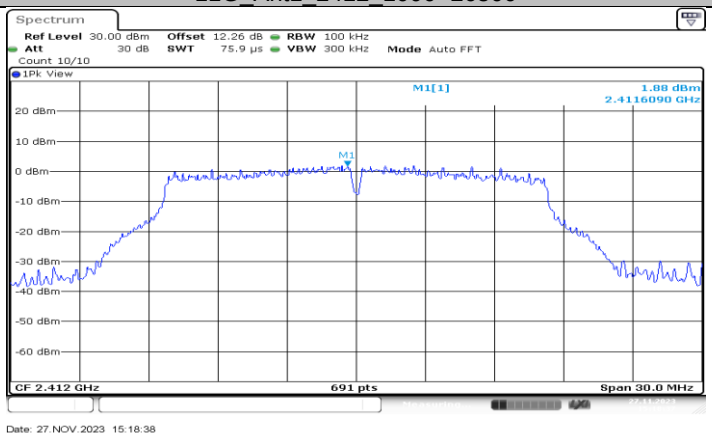


11G_Ant1_2412_30~1000

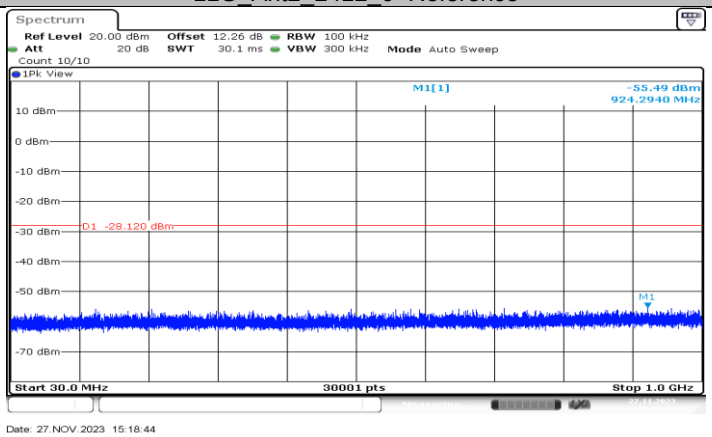


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

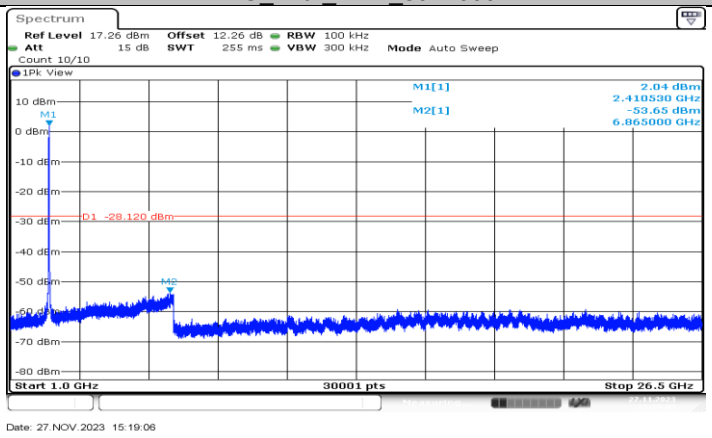
11G_Ant1_2412_1000~26500



11G_Ant2_2412_0~Reference

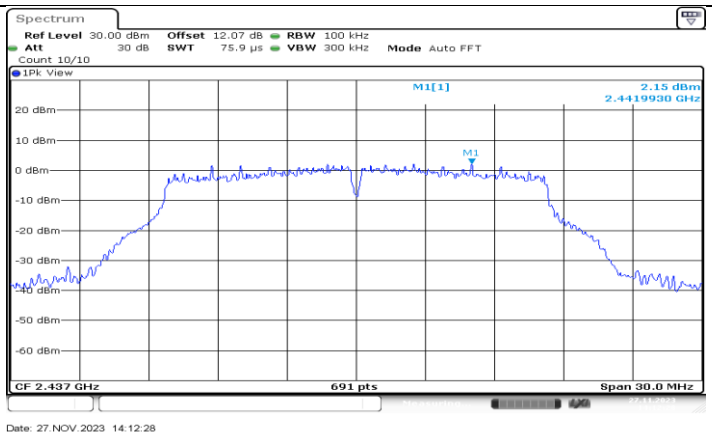


11G_Ant2_2412_30~1000

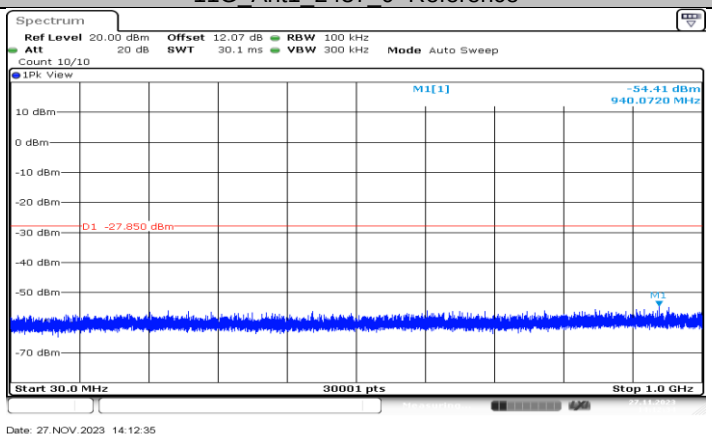


11G_Ant2_2412_1000~26500

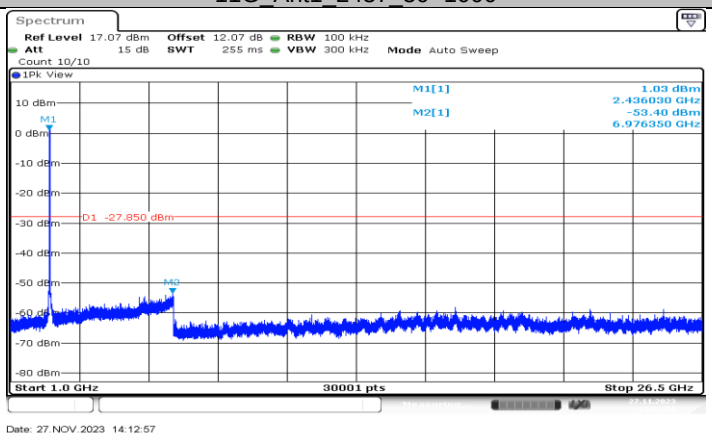
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



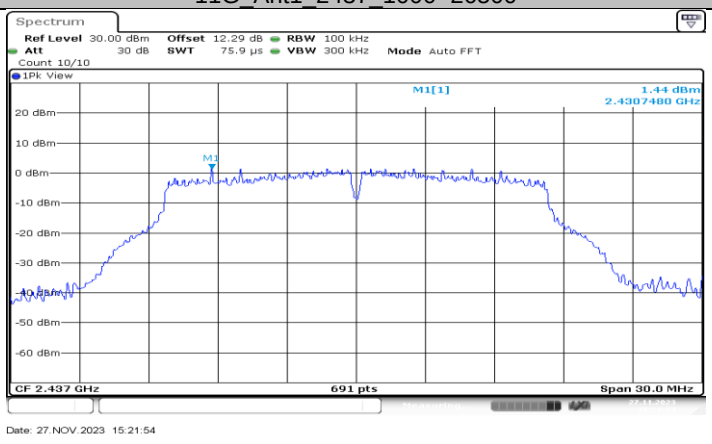
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000

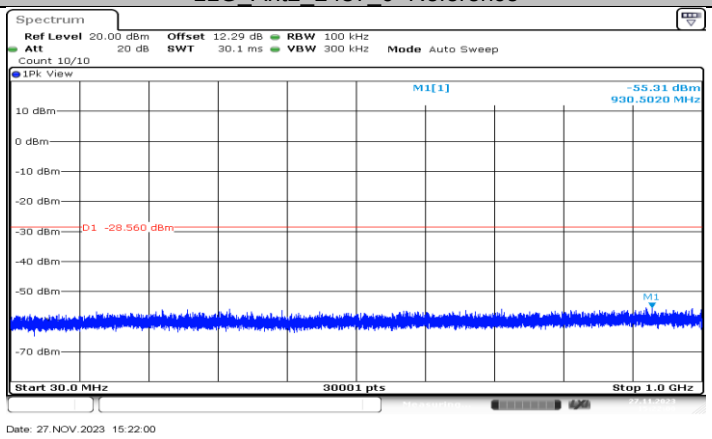


11G_Ant1_2437_1000~26500

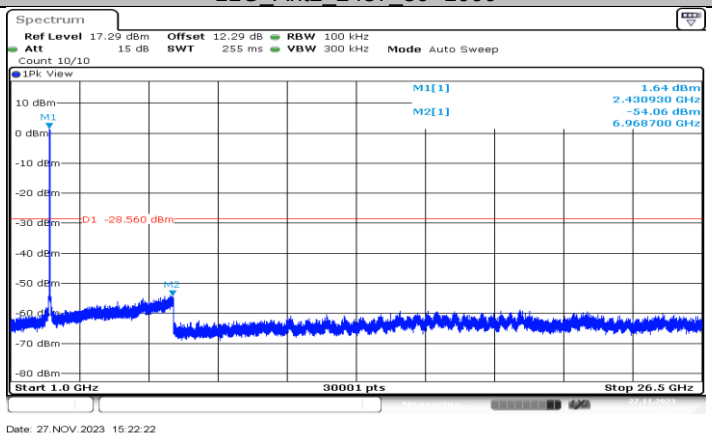


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

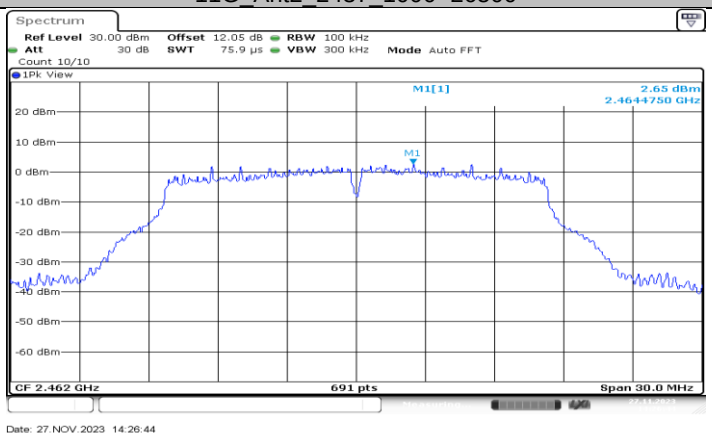
11G_Ant2_2437_0~Reference



11G_Ant2_2437_30~1000

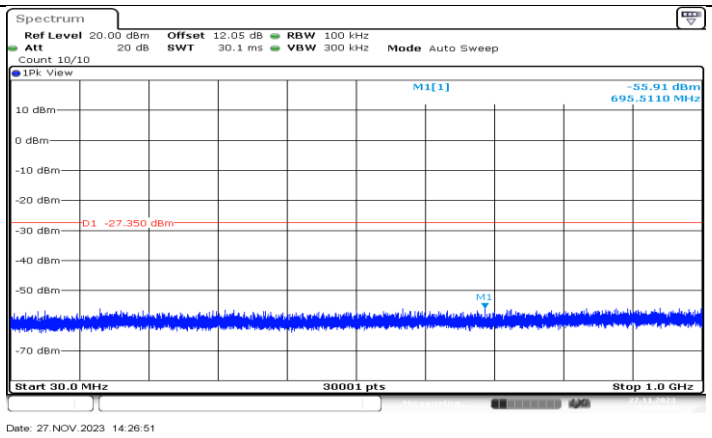


11G_Ant2_2437_1000~26500

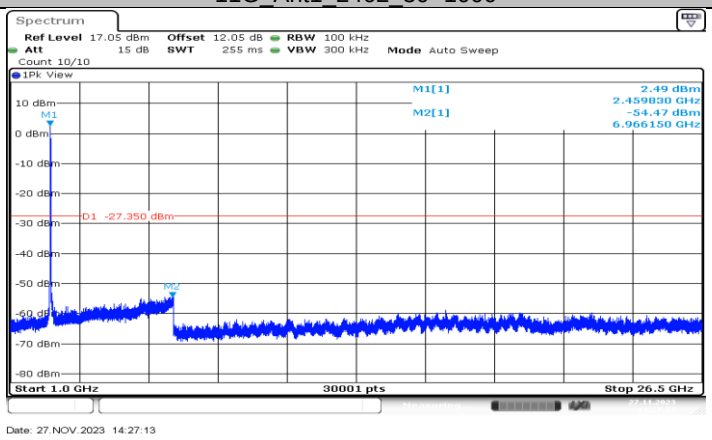


11G_Ant1_2462_0~Reference

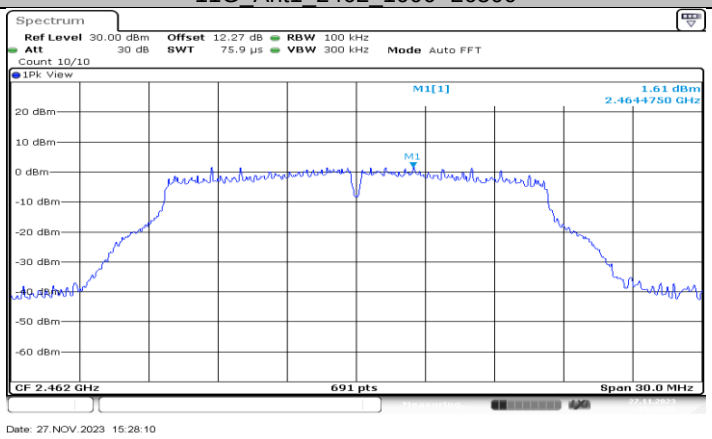
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



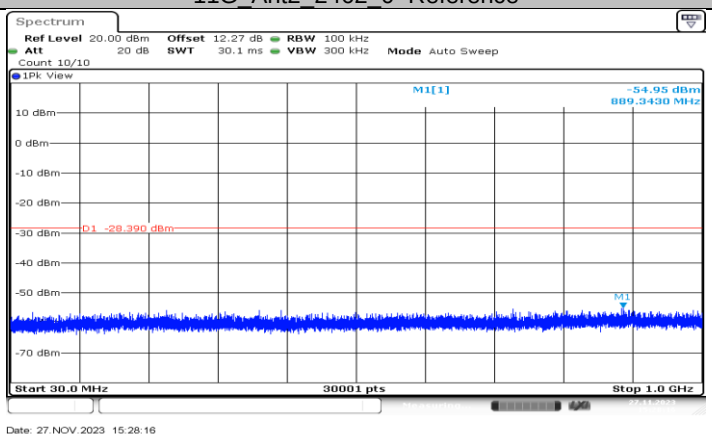
11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500

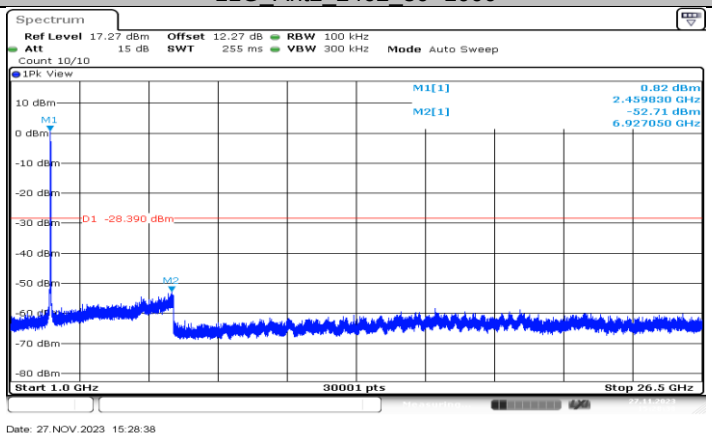


11G_Ant2_2462_0~Reference

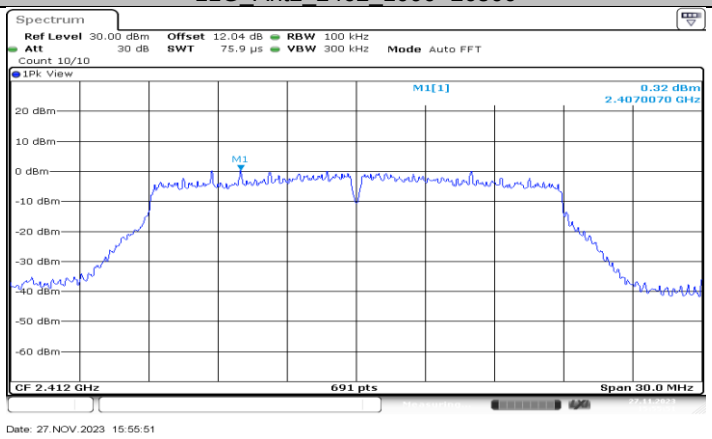


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

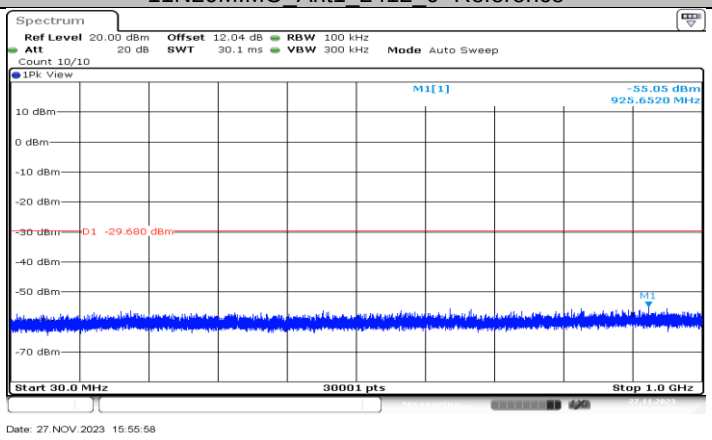
11G_Ant2_2462_30~1000



11G_Ant2_2462_1000~26500

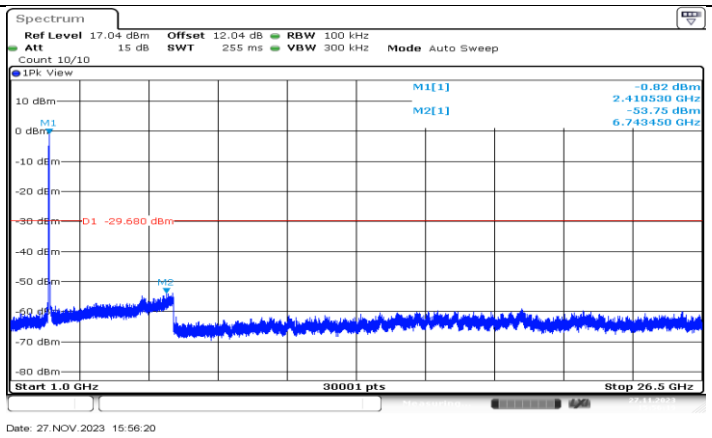


11N20MIMO_Ant1_2412_0~Reference

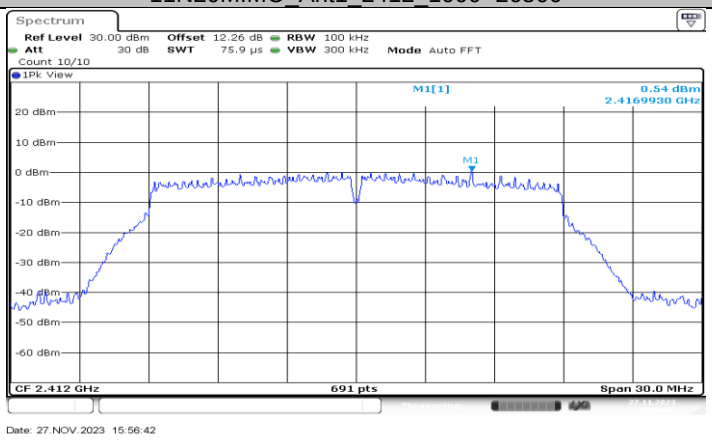


11N20MIMO_Ant1_2412_30~1000

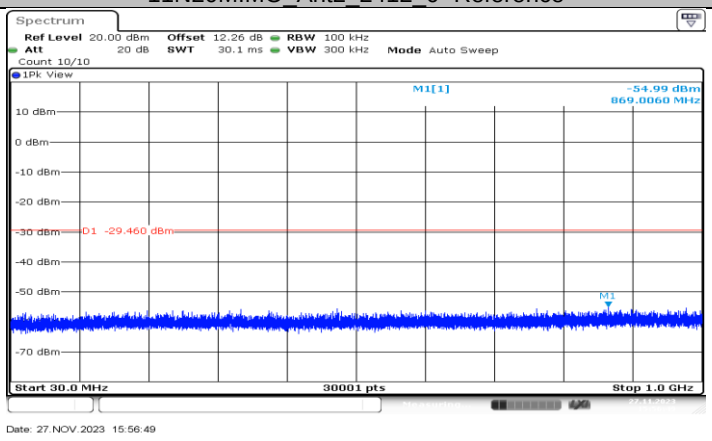
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



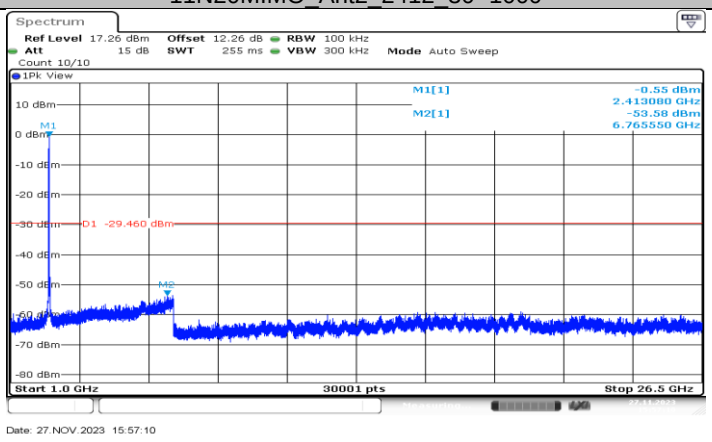
11N20MIMO_Ant1_2412_1000~26500



11N20MIMO_Ant2_2412_0~Reference

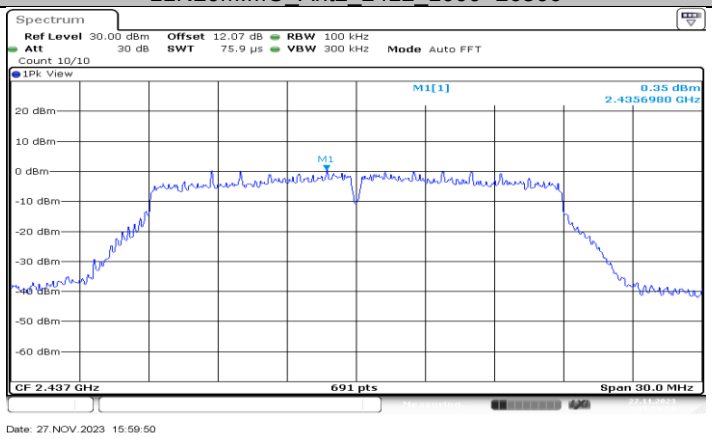


11N20MIMO_Ant2_2412_30~1000

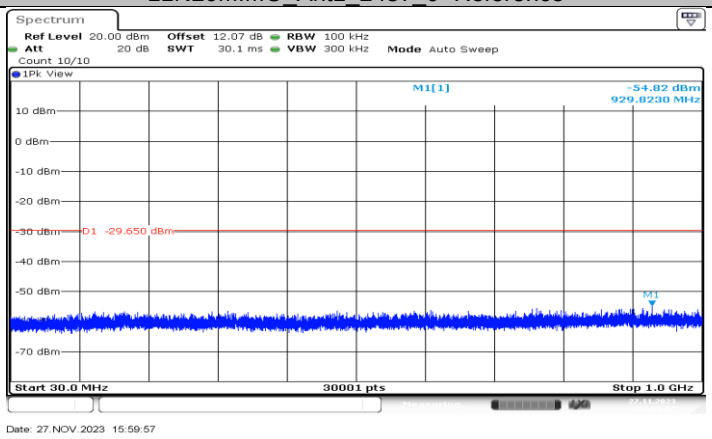


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

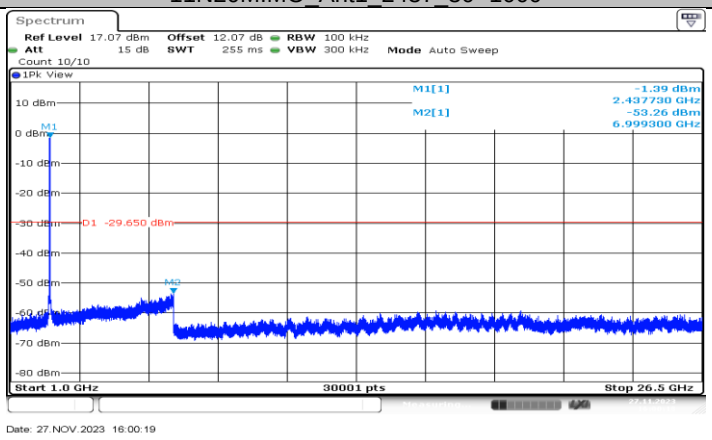
11N20MIMO_Ant2_2412_1000~26500



11N20MIMO_Ant1_2437_0~Reference

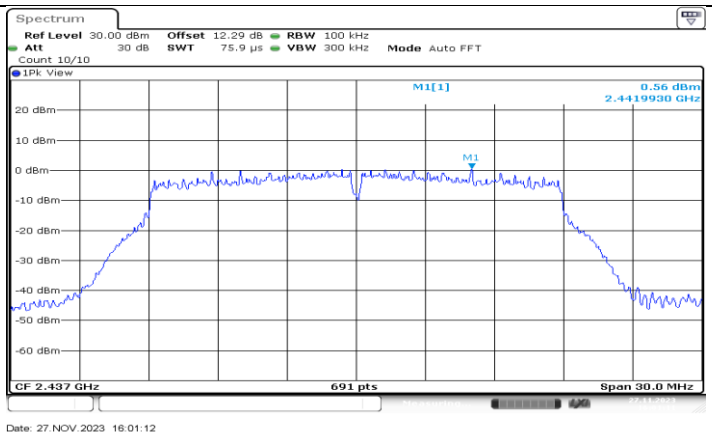


11N20MIMO_Ant1_2437_30~1000

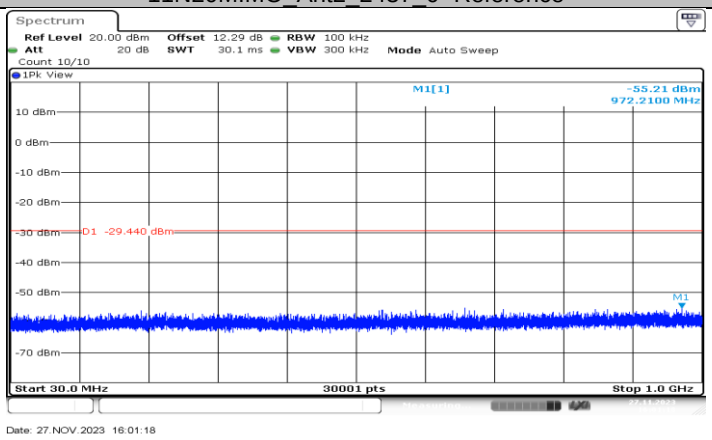


11N20MIMO_Ant1_2437_1000~26500

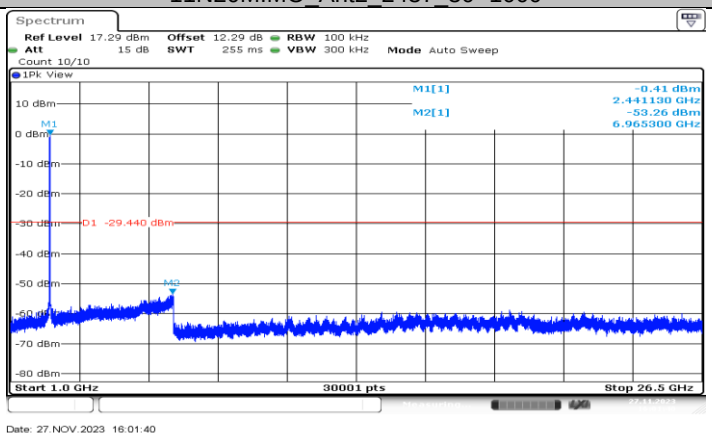
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



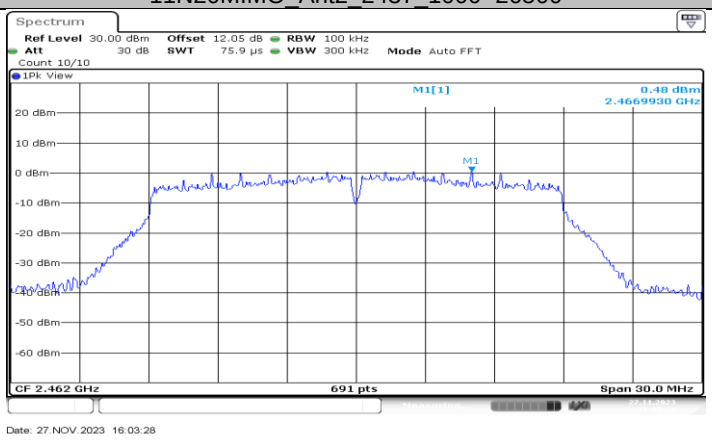
11N20MIMO_Ant2_2437_0~Reference



11N20MIMO_Ant2_2437_30~1000

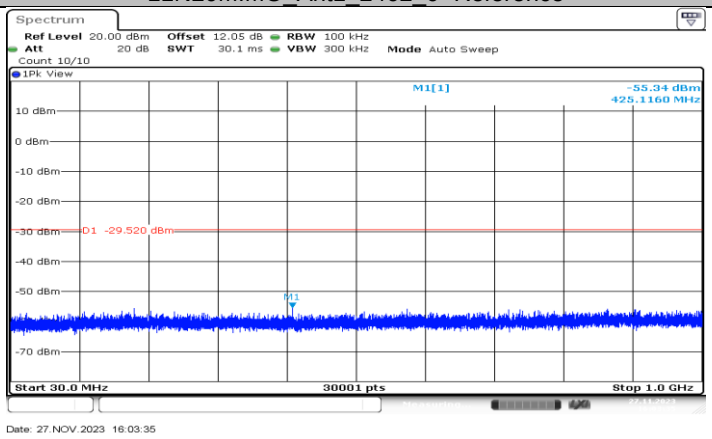


11N20MIMO_Ant2_2437_1000~26500

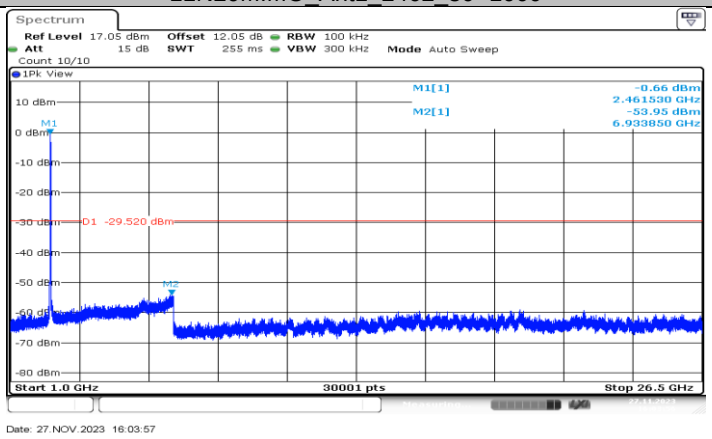


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

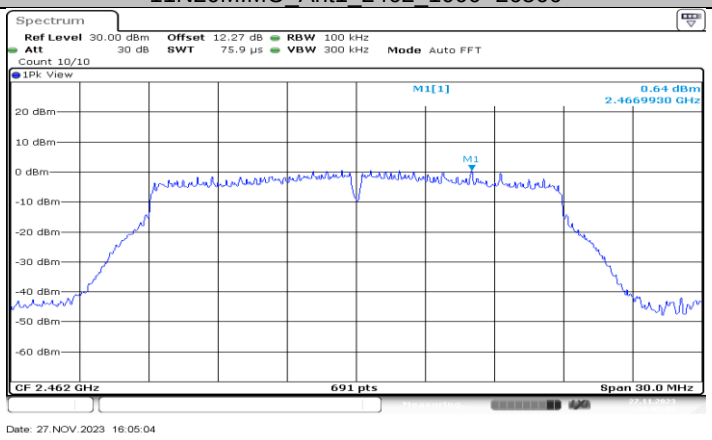
11N20MIMO_Ant1_2462_0~Reference



11N20MIMO_Ant1_2462_30~1000

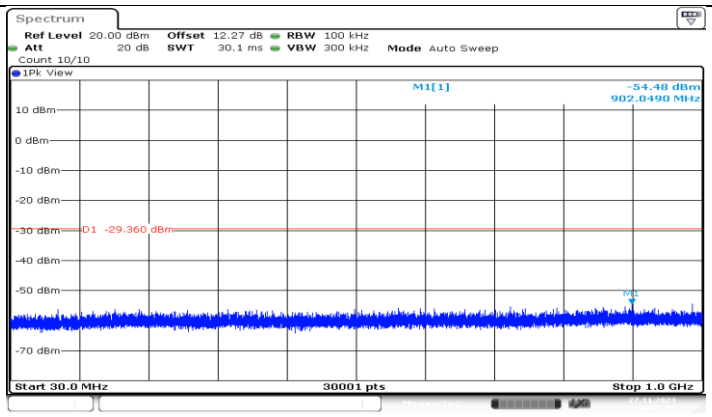


11N20MIMO_Ant1_2462_1000~26500



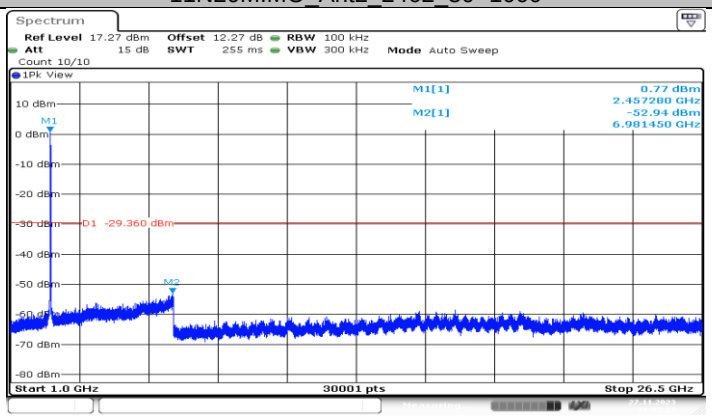
11N20MIMO_Ant2_2462_0~Reference

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



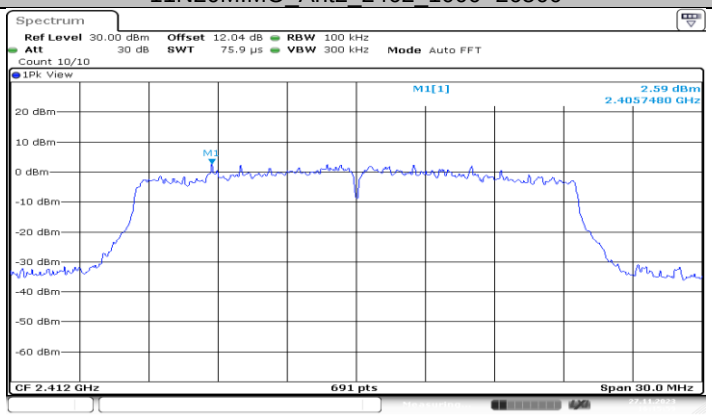
Date: 27.NOV.2023 16:05:10

11N20MIMO_Ant2_2462_30~1000



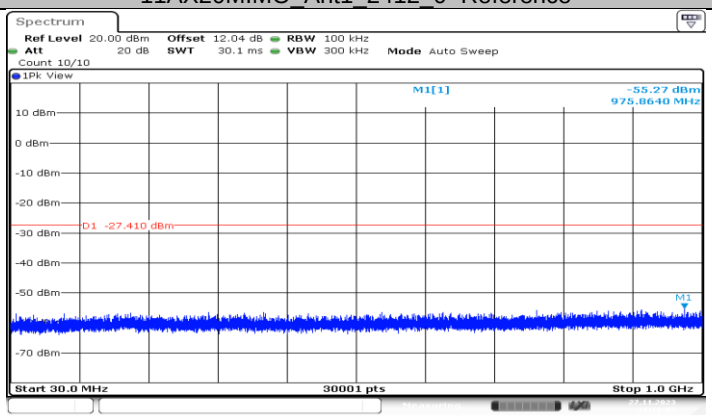
Date: 27.NOV.2023 16:05:32

11N20MIMO_Ant2_2462_1000~26500



Date: 27.NOV.2023 16:15:59

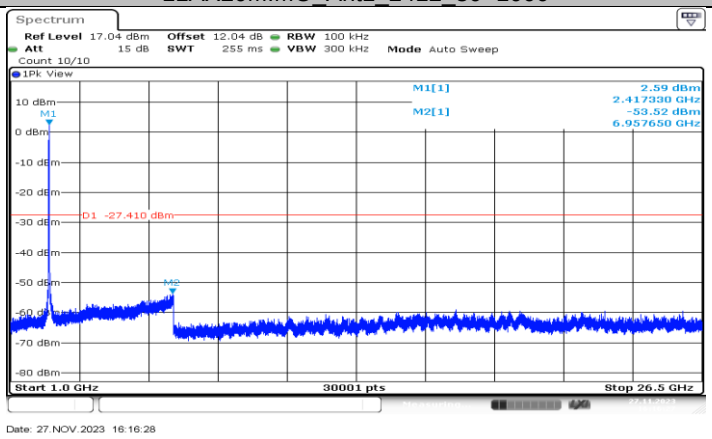
11AX20MIMO_Ant1_2412_0~Reference



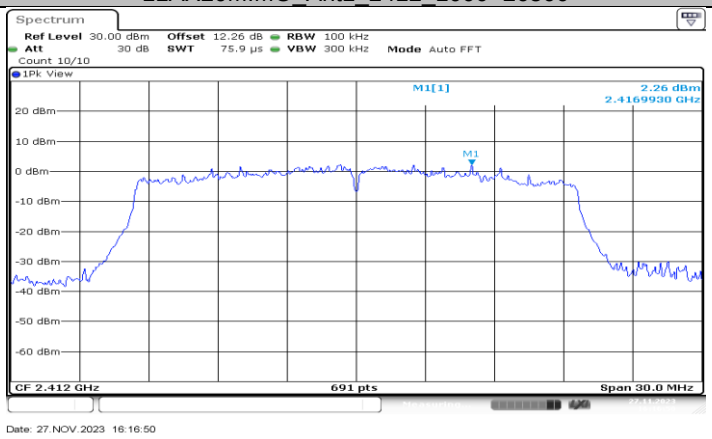
Date: 27.NOV.2023 16:16:06

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

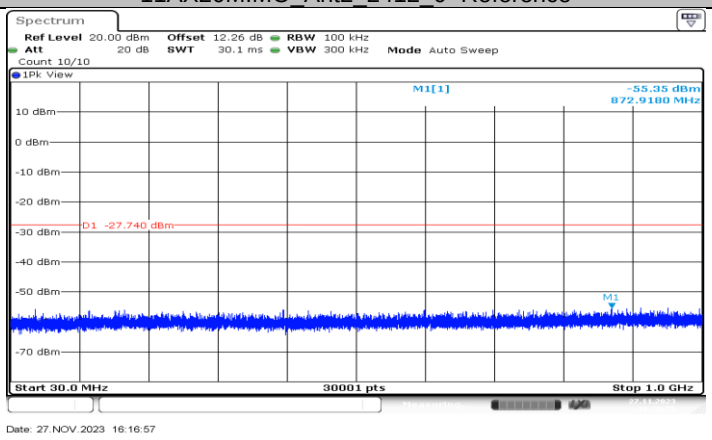
11AX20MIMO_Ant1_2412_30~1000



11AX20MIMO_Ant1_2412_1000~26500

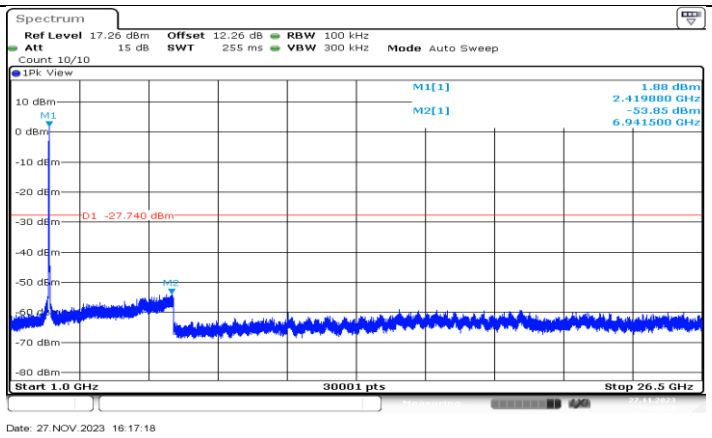


11AX20MIMO_Ant2_2412_0~Reference

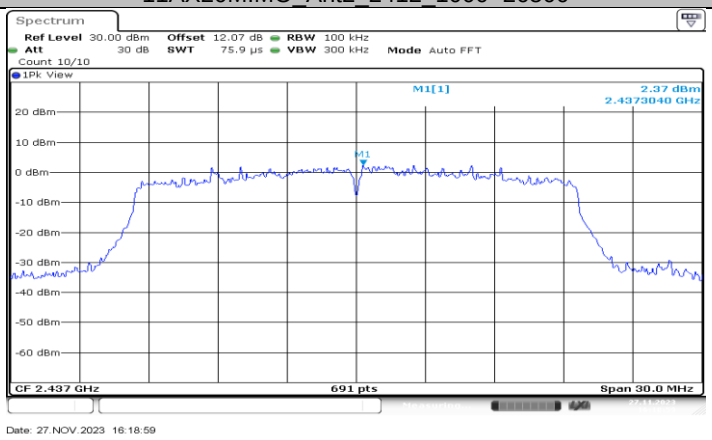


11AX20MIMO_Ant2_2412_30~1000

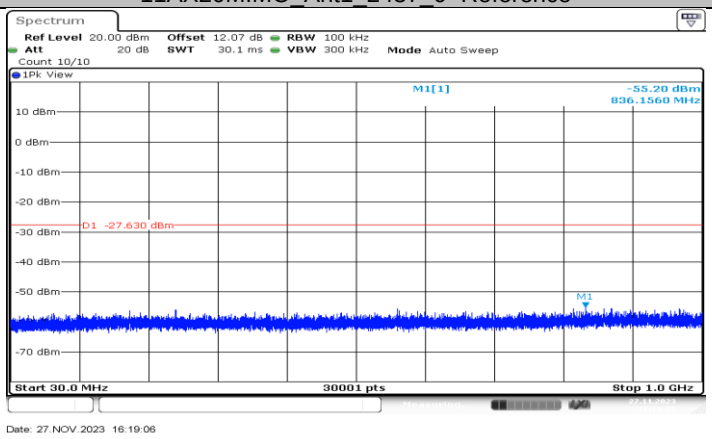
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



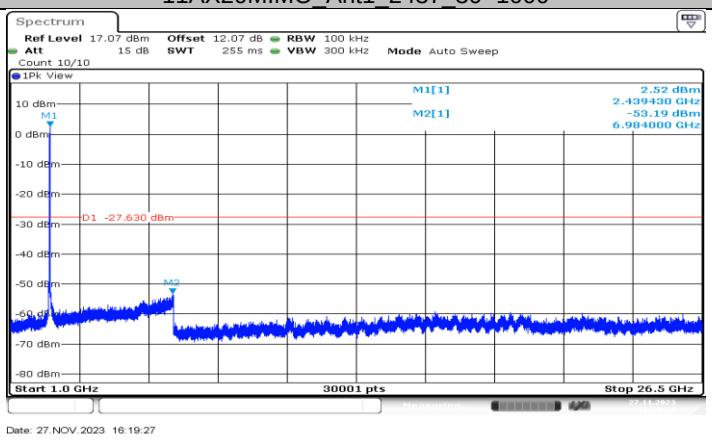
11AX20MIMO_Ant2_2412_1000~26500



11AX20MIMO_Ant1_2437_0~Reference

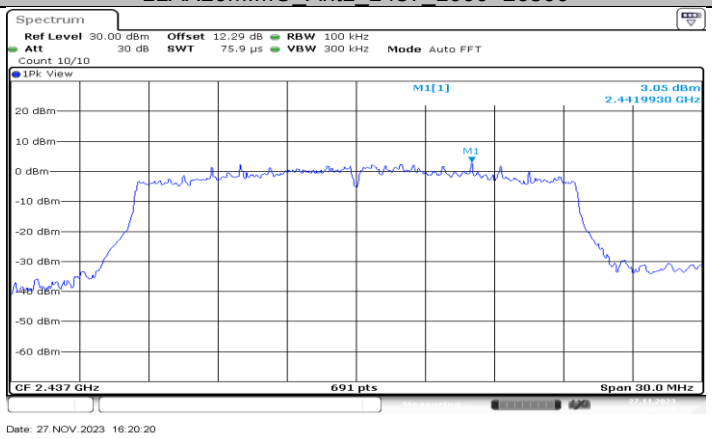


11AX20MIMO_Ant1_2437_30~1000

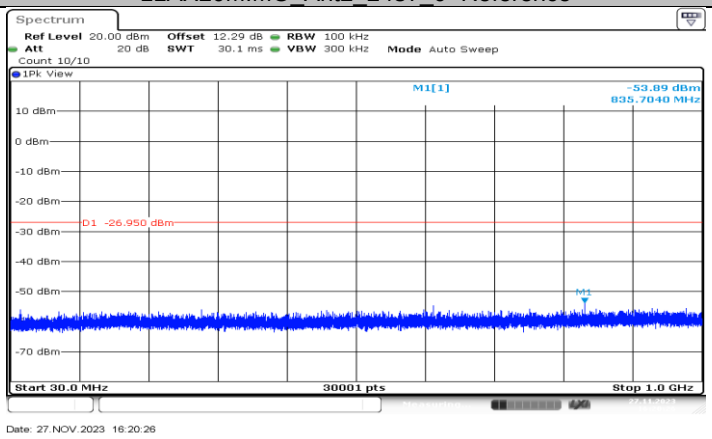


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

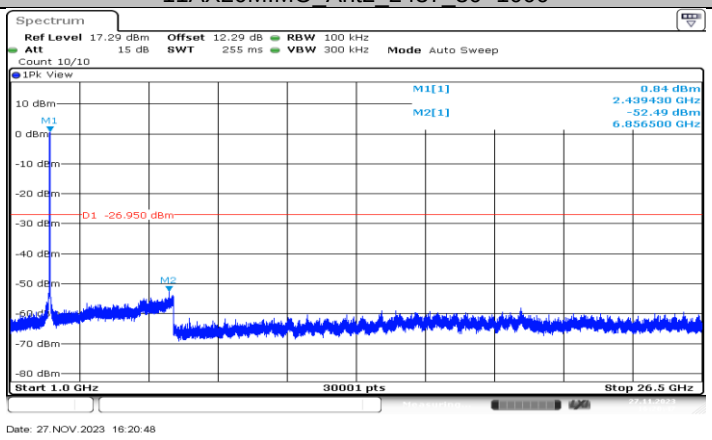
11AX20MIMO_Ant1_2437_1000~26500



11AX20MIMO_Ant2_2437_0~Reference

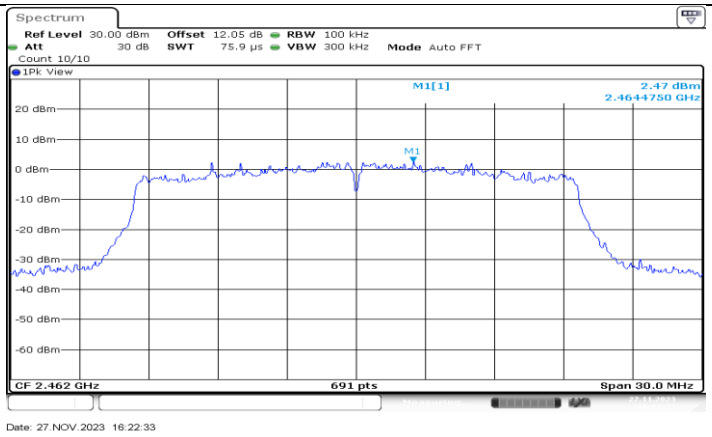


11AX20MIMO_Ant2_2437_30~1000

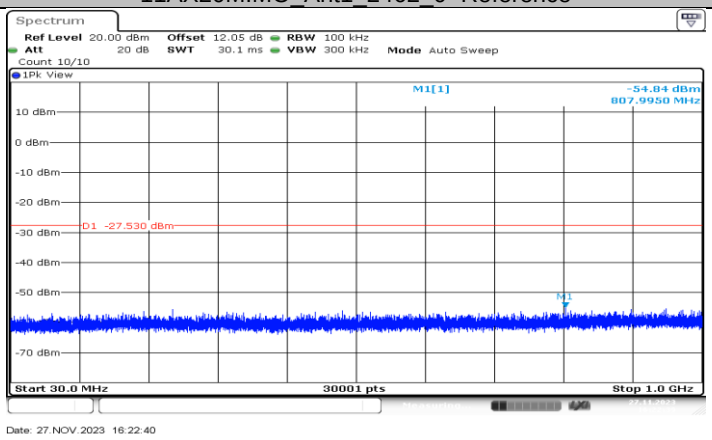


11AX20MIMO_Ant2_2437_1000~26500

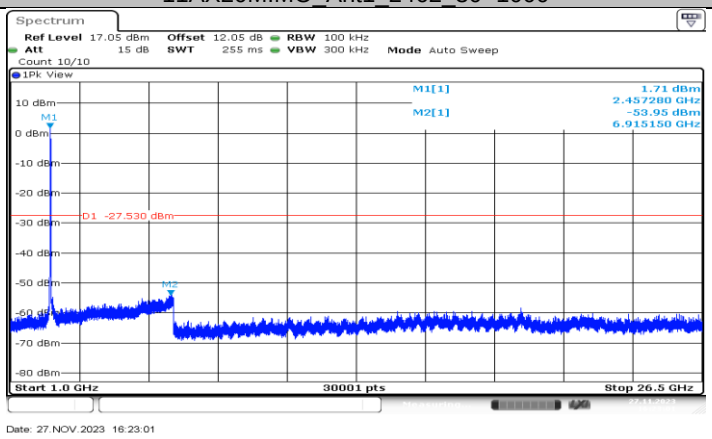
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



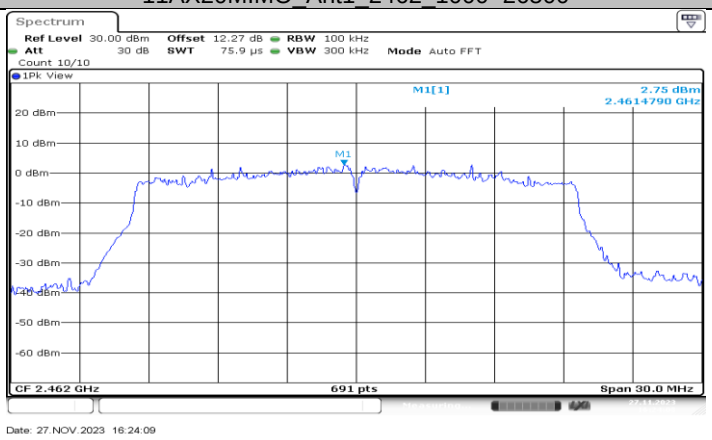
11AX20MIMO_Ant1_2462_0~Reference



11AX20MIMO_Ant1_2462_30~1000

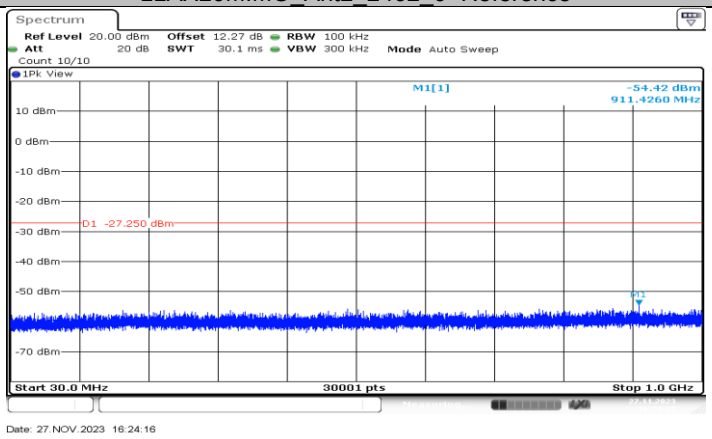


11AX20MIMO_Ant1_2462_1000~26500

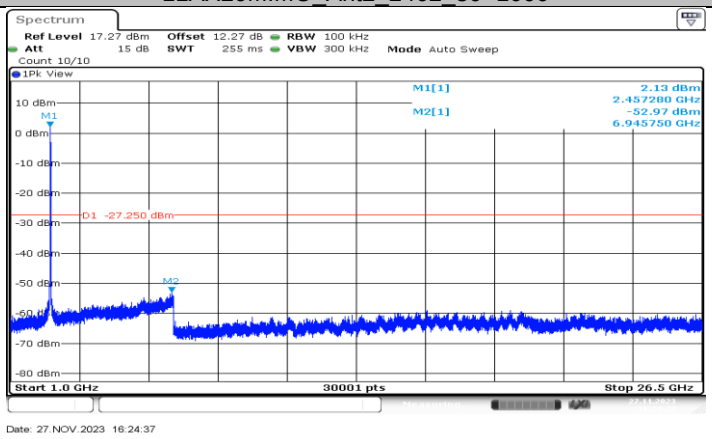


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

11AX20MIMO_Ant2_2462_0~Reference



11AX20MIMO_Ant2_2462_30~1000



11AX20MIMO_Ant2_2462_1000~26500

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

11.7. APPENDIX G: DUTY CYCLE

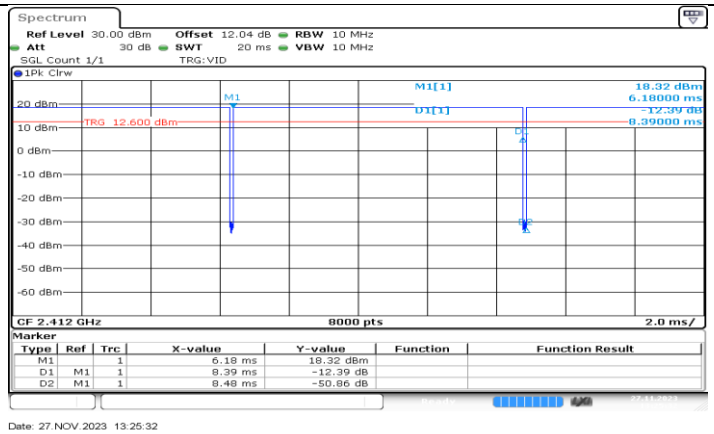
11.7.1. Test Result

Test Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
11B	8.39	8.48	0.9894	98.94	0.05	0.12	0.01
11G	1.39	1.49	0.9329	93.29	0.30	0.72	1
11N20MIMO	1.3	1.4	0.9286	92.86	0.32	0.77	1
11AX20MIMO	1.01	1.11	0.9099	90.99	0.41	0.99	1

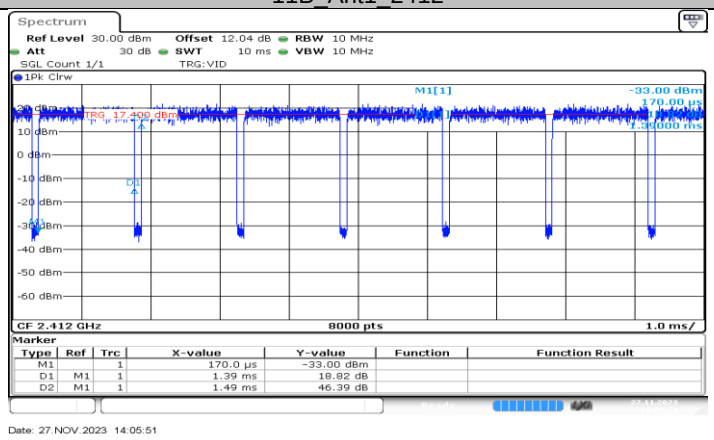
Note:
Duty Cycle Correction Factor=10log (1/x).
Where: x is Duty Cycle (Linear)
Where: T is On Time
If that calculated VBW is not available on the analyzer then the next higher value should be used.

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

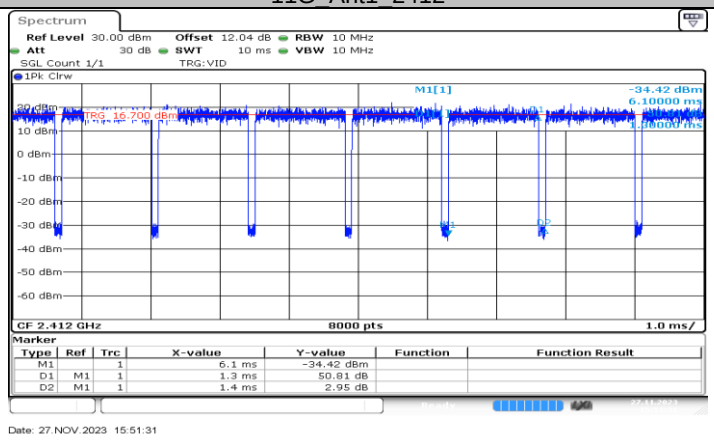
11.7.2. Test Graphs



11B_Ant1_2412

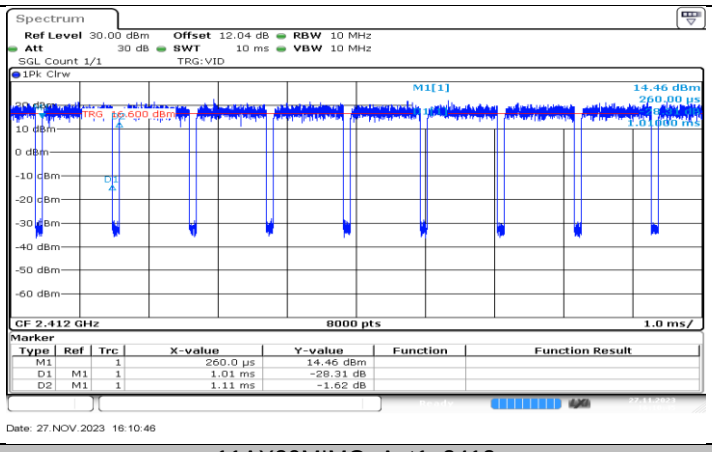


11G_Ant1_2412



11N20MIMO_Ant1_2412

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



11AX20MIMO_Ant1_2412

END OF REPORT

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.