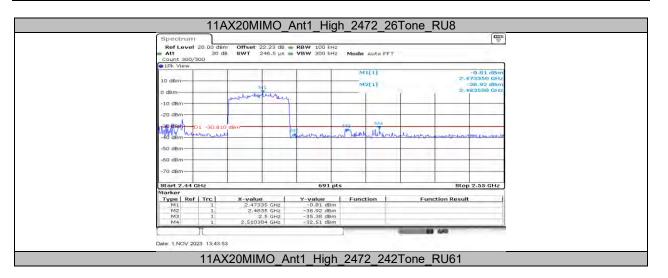


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## 11.11. APPENDIX F1: CONDUCTED SPURIOUS EMISSION 11.11.1. Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [Mhz]	Result [dBm]	Limit [dBm]	Verdict
			Reference	9.75	[ubin]	PASS
	Ant0	2412	30~1000	-55.61	≤-20.25	PASS
	Aiito	4 <del>4</del> 14	1000~26500	-44.09	≤-20.25 ≤-20.25	PASS
			Reference	10.87	3-20.23	PASS
	Ant1	2412	30~1000	-55.52	<u></u> ≤-19.13	PASS
	Anti	2412	1000~26500	-42.99	≤-19.13 ≤-19.13	PASS
			Reference	9.83	2-19.13	PASS
	Ant0	2437	30~1000	-55.65	<u></u> ≤-20.17	PASS
			1000~26500	-43.09	≤-20.17 ≤-20.17	PASS
	Ant1	2437	Reference	11.19	<u> </u>	PASS
			30~1000	-54.56	≤-18.81	PASS
			1000~26500	-43.27	≤-18.81	PASS
			Reference	9.74	10.01	PASS
	Ant0	2462	30~1000	-55.04	<u></u> ≤-20.26	PASS
	Anto	2402	1000~26500	-44.41	≤-20.26	PASS
11B			Reference	10.33	3-20.20	PASS
	Ant1	2462	30~1000	-54.73	<u></u> ≤-19.67	PASS
			1000~26500	-42.58	≤-19.67 ≤-19.67	PASS
			Reference	10.87	<u>≥-19.07</u>	PASS
	Ant0	2467	30~1000	-44.97	<u></u> ≤-19.13	PASS
	Aiito	4 <del>1</del> 01	1000~26500	-44.9 <i>1</i> -44.22	≤-19.13 ≤-19.13	PASS
			Reference	10.38		PASS
	Ant1	2467	30~1000	-45.11	≤-19.62	PASS
	Anti	2407	1000~26500	-43.41	≤-19.62	PASS
			Reference	7.70	3-19.02	PASS
	Ant0	2472	30~1000	-45.58	≤-22.3	PASS
	Anto		1000~26500	-43.38 -42.98	≤-22.3 ≤-22.3	PASS
	Ant1	2472	Reference	7.42	<u> </u>	PASS
			30~1000	-44.72	≤-22.58	PASS
			1000~26500	-43.98	≤-22.58	PASS
	Ant0		Reference	6.31		PASS
		2412	30~1000	-55.48	≤-23.69	PASS
	7 (110)	2412	1000~26500	-42.88	≤-23.69	PASS
			Reference	6.84		PASS
	Ant1	2412	30~1000	-55.22	≤-23.16	PASS
			1000~26500	-43.86	≤-23.16	PASS
	Ant0	2437	Reference	5.68		PASS
11G			30~1000	-55.31	≤-24.32	PASS
			1000~26500	-43.77	≤-24.32	PASS
	Ant1 2		Reference	6.53		PASS
		2437	30~1000	-55.57	≤-23.47	PASS
			1000~26500	-43.48	≤-23.47	PASS
	Ant0	2462	Reference	5.42		PASS
			30~1000	-55.65	≤-24.58	PASS
			1000~26500	-43.98	≤-24.58	PASS
	Ant1	2462	Reference	5.72		PASS
			30~1000	-54.69	≤-24.28	PASS
			1000~26500	-43.79	≤-24.28	PASS
	Ant0	2467	Reference	2.29		PASS
			30~1000	-45.08	≤-27.71	PASS
			1000~26500	-41.9	≤-27.71	PASS
	Ant1	2467	Reference	1.25		PASS
			30~1000	-45.3	≤-28.75	PASS
			1000~26500	-43.71	≤-28.75	PASS
	Ant0		Reference	2.45		PASS
		2472	30~1000	-44.82	≤-27.55	PASS
		· <del>-</del>	1000~26500	-43.62	≤-27.55	PASS
i	Ant1	2472	Reference	3.85		PASS



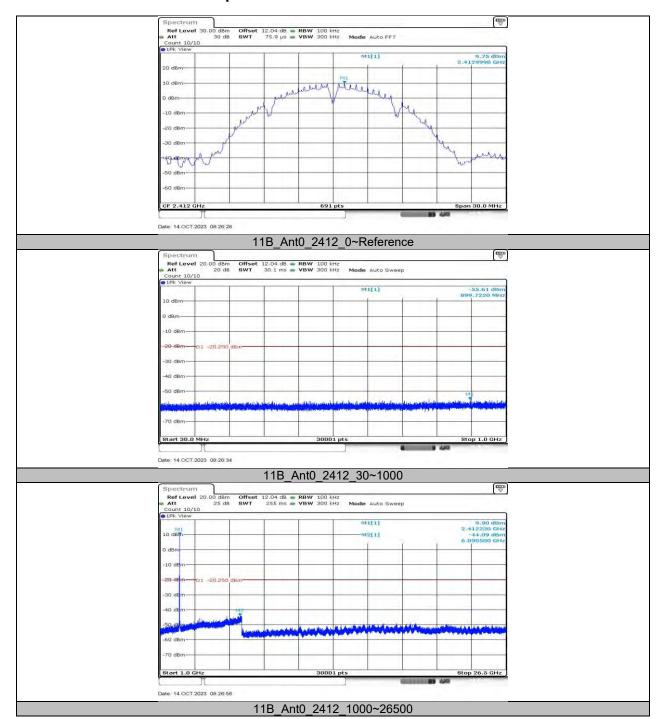
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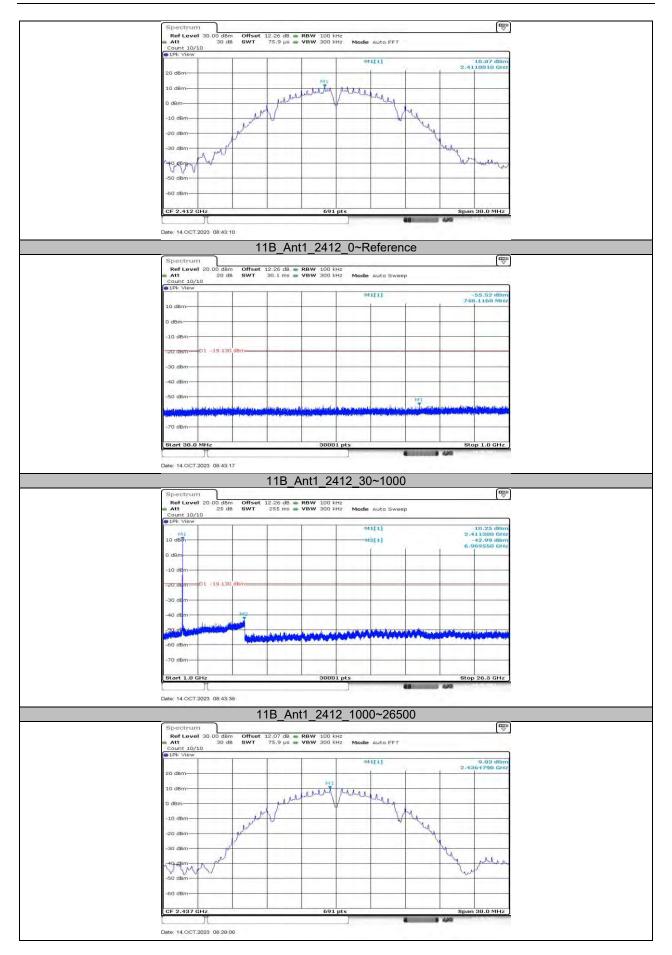
			30~1000	-45.16	≤-26.15	PASS
			1000~26500	-43.26	≤-26.15	PASS
		2412	Reference	6.10		PASS
	Ant0		30~1000	-55.74	≤-23.9	PASS
			1000~26500	-43.61	≤-23.9	PASS
		2412	Reference	6.89		PASS
	Ant1		30~1000	-54.98	≤-23.11	PASS
			1000~26500	-43.93	≤-23.11	PASS
		2437	Reference	5.72		PASS
	Ant0		30~1000	-54.97	≤-24.28	PASS
			1000~26500	-43.7	≤-24.28	PASS
			Reference	6.18		PASS
	Ant1	2437	30~1000	-54.71	≤-23.82	PASS
			1000~26500	-43.58	≤-23.82	PASS
		2462	Reference	5.32		PASS
	Ant0		30~1000	-55.71	≤-24.68	PASS
11N20MIMO			1000~26500	-43.45	≤-24.68	PASS
I TINZUIVIIIVIO		2462	Reference	5.88		PASS
	Ant1		30~1000	-54.36	≤-24.12	PASS
			1000~26500	-42.71	≤-24.12	PASS
			Reference	4.57		PASS
	Ant0 2467	2467	30~1000	-45.1	≤-25.43	PASS
		1000~26500	-43.08	≤-25.43	PASS	
	Ant1		Reference	3.78		PASS
		2467	30~1000	-45.31	≤-26.22	PASS
			1000~26500	-43.83	≤-26.22	PASS
	Ant0		Reference	-3.01		PASS
		2472	30~1000	-45.48	≤-33.01	PASS
			1000~26500	-44.42	≤-33.01	PASS
	Ant1	2472	Reference	-3.89		PASS
			30~1000	-45.09	≤-33.89	PASS
			1000~26500	-43.71	≤-33.89	PASS



## 11.11.2. Test Graphs

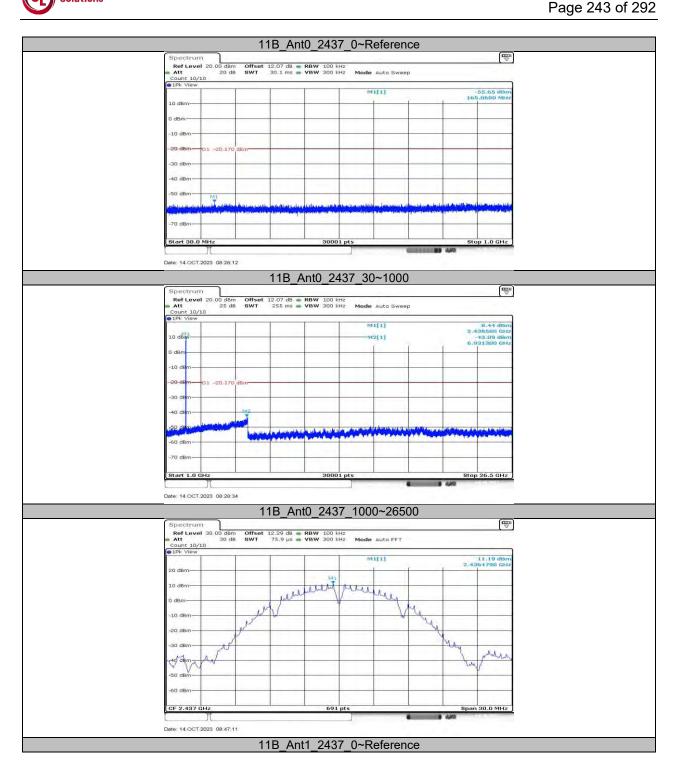




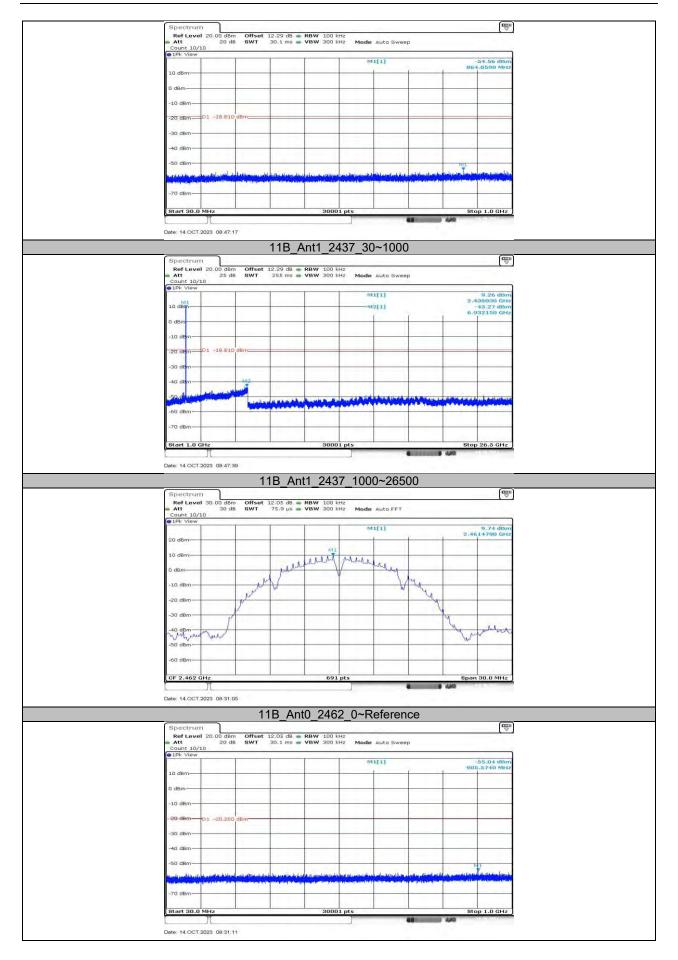




**Solutions** 







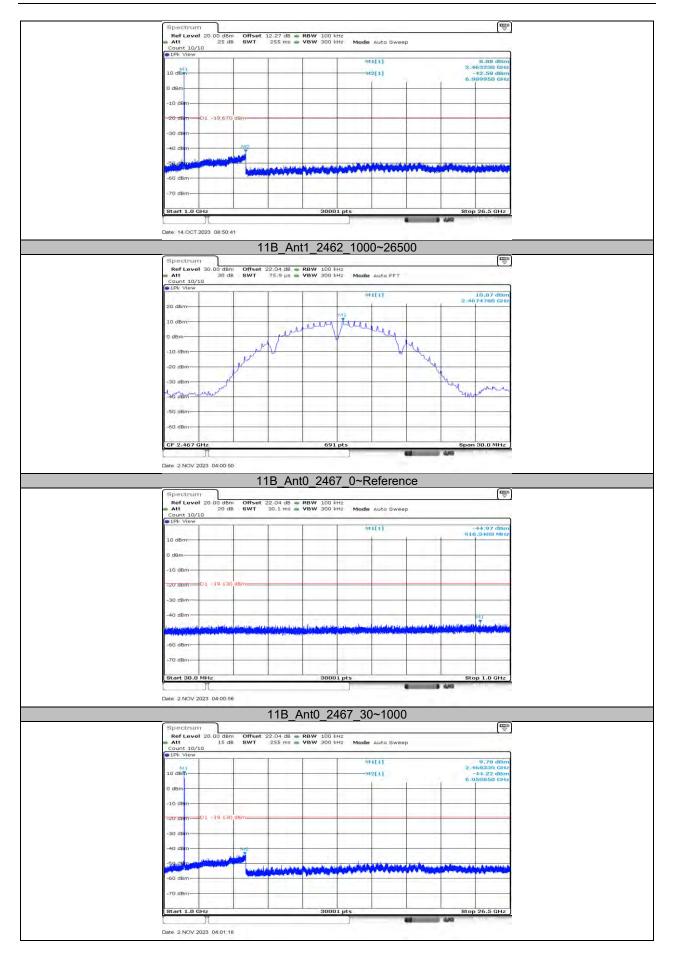


11B\_Ant0\_2462\_30~1000 Ref Level 20.00 d8m Att 25 d8 Offset 12.05 d8 RBW 100 kHz 8WT 255 ms VBW 300 kHz -44.41 dB 6.739200 C 12[1] Date: 14.OCT.2023 08:31:32 11B\_Ant0\_2462\_1000~26500 Spectrum

Ref Level 30.00 dBm

Att 30 dB 7 Offset 12.27 dB • RBW 100 kHz 8WT 75.9 µs • VBW 300 kHz Munum Date: 14.OCT.2023 08:50:13 11B\_Ant1\_2462\_0~Reference ₩ Ref Level 20.00 d8m Att 20 d8 Date: 14.OCT.2023 08:50:19 11B\_Ant1\_2462\_30~1000







11B\_Ant0\_2467\_1000~26500 Ref Level 30 00 dBm Att 30 dB Offset 22.25 dB • RBW 100 kHz 8WT 75.9 µs • VBW 300 kHz published they Date: 2 NOV 2023 05:26:44 11B\_Ant1\_2467\_0~Reference Spectrum

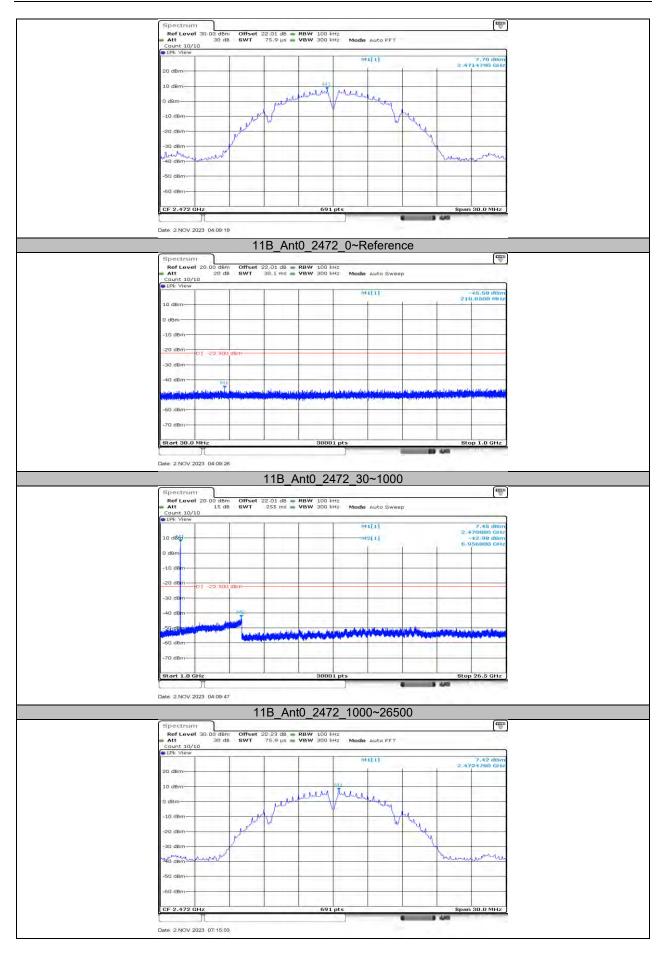
Ref Level 20.00 dBm

Att 20 dB - T Offset 22,25 dB • RBW 100 kHz 8WT 30.1 ms • VBW 300 kHz Mi[1] Date: 2.NOV.2023 05:26:50 11B\_Ant1\_2467\_30~1000 Ref Level 20.00 dBm Att 15 dB 10.08 dan 2.465780 GH -43.41 d8n 5.924500 GH

11B\_Ant1\_2467\_1000~26500

Date: 2.NOV.2023 05:27:12



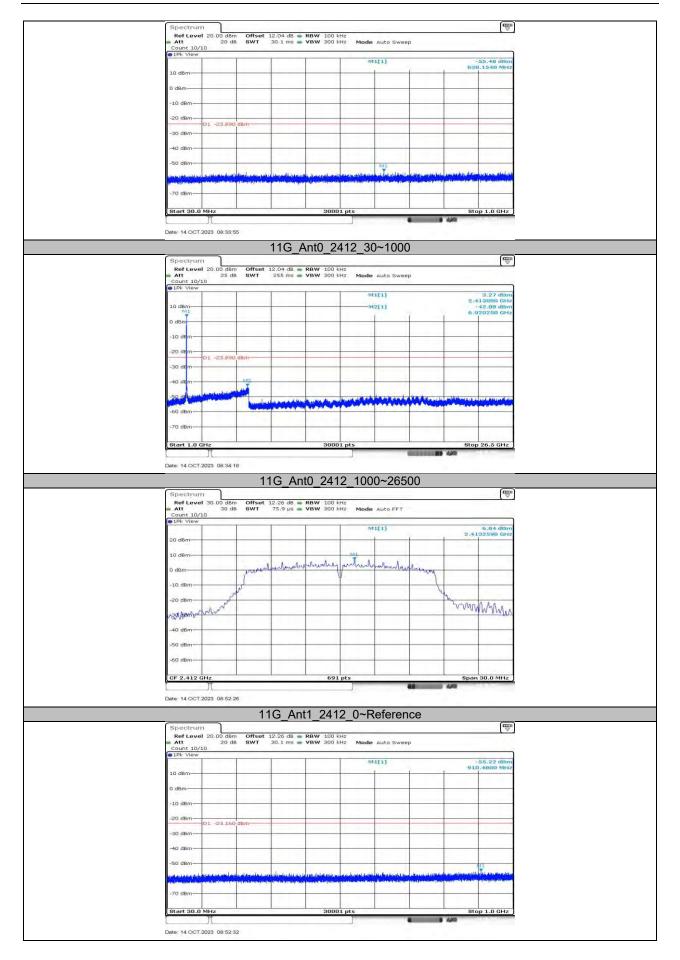




11B\_Ant1\_2472\_0~Reference Ref Level 20.00 dBm Att 20 dB Offset 22:23 dB • RBW 100 kHz 8WT 30.1 ms • VBW 300 kHz Date: 2 NOV 2023 07:15:10 11B\_Ant1\_2472\_30~1000 - T 22,23 dB • RBW 100 kHz 255 ms • VBW 300 kHz M1[1] Date: 2.NOV.2023 07:15:31 11B\_Ant1\_2472\_1000~26500 d □ Ref Level 30.00 d8m Att 30 d8 What what Date: 14.OCT.2023 08:33:48

11G\_Ant0\_2412\_0~Reference

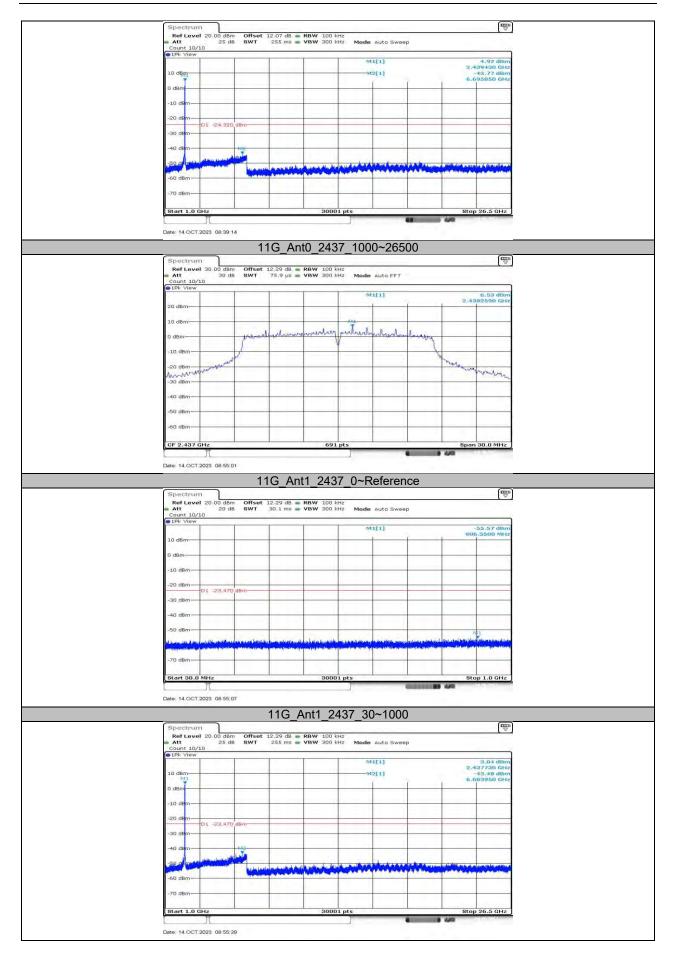






11G\_Ant1\_2412\_30~1000 Ref Level 20.00 d8m Att 25 d8 Offset 12.26 dB • RBW 100 kHz SWT 255 ms • VBW 300 kHz 12[1] Date: 14.OCT.2023 08:52:54 11G\_Ant1\_2412\_1000~26500 Spectrum
Ref Level 30.00 d8m
Att 30 d8 Offset 12.07 dB • RBW 100 kHz 8WT 75.9 µs • VBW 300 kHz MILIT Date: 14.OCT.2023 08:38:46 11G\_Ant0\_2437\_0~Reference ₩ Ref Level 20.00 d8m Att 20 d8 Offset 12.07 dB • RBW 100 kHz SWT 30.1 ms • VBW 300 kHz Date: 14.OCT.2023 08:38:53 11G\_Ant0\_2437\_30~1000

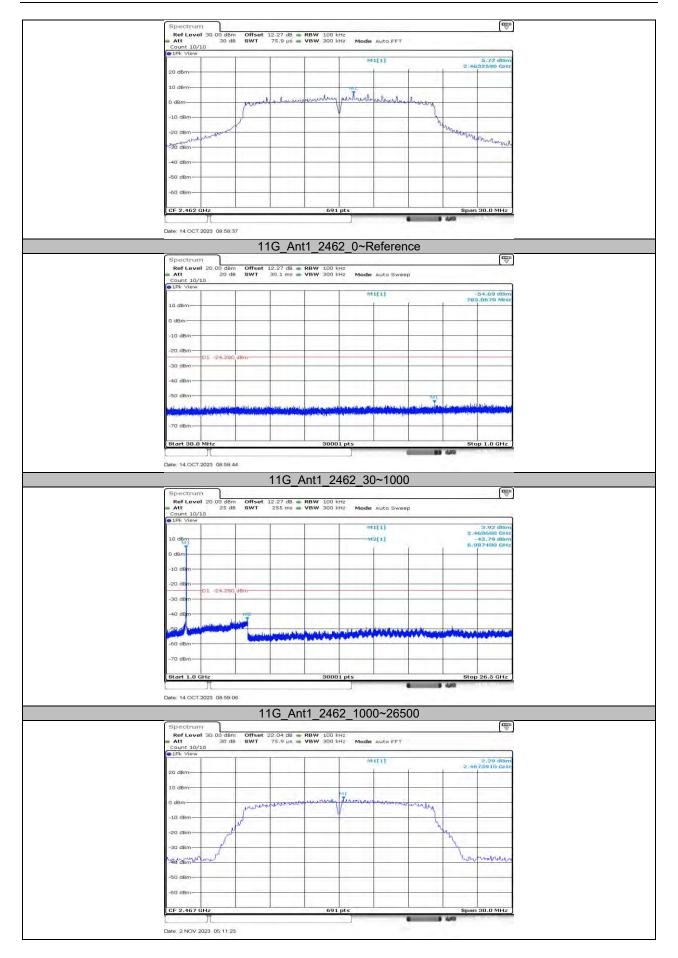




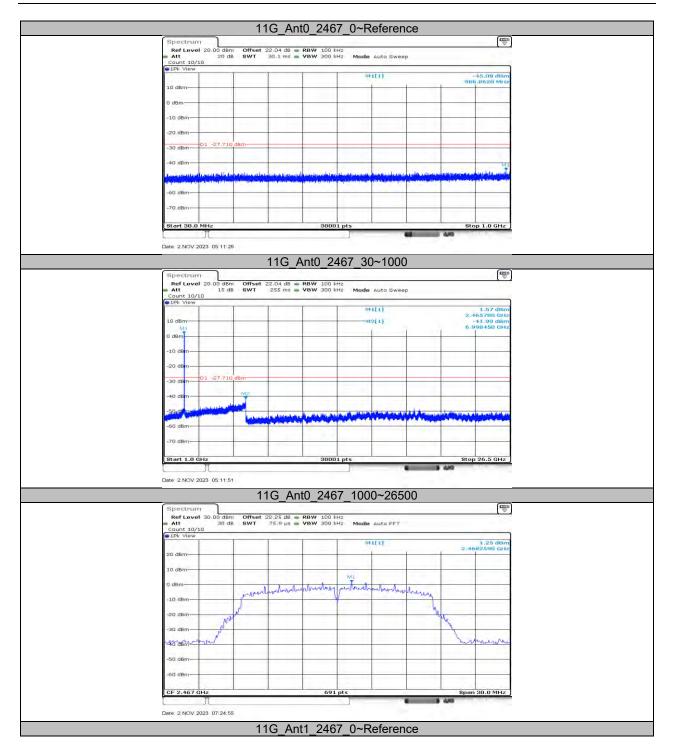


11G\_Ant1\_2437\_1000~26500 Ref Level 30.00 d8m Att 30 d8 Offset 12.05 dB • RBW 100 kHz 8WT 75.9 µs • VBW 300 kHz Date: 14.OCT.2023 08:41:07 11G\_Ant0\_2462\_0~Reference Spectrum
Ref Level 20.00 d8m
Att 20 d8 Offset 12.05 dB • RBW 100 kHz SWT 30.1 ms • VBW 300 kHz MILI Date: 14.OCT.2023 08:41:14 11G\_Ant0\_2462\_30~1000 Ref Level 20.00 d8m Att 25 d8 5.11 dg Date: 14.OCT.2023 08:41:35 11G\_Ant0\_2462\_1000~26500

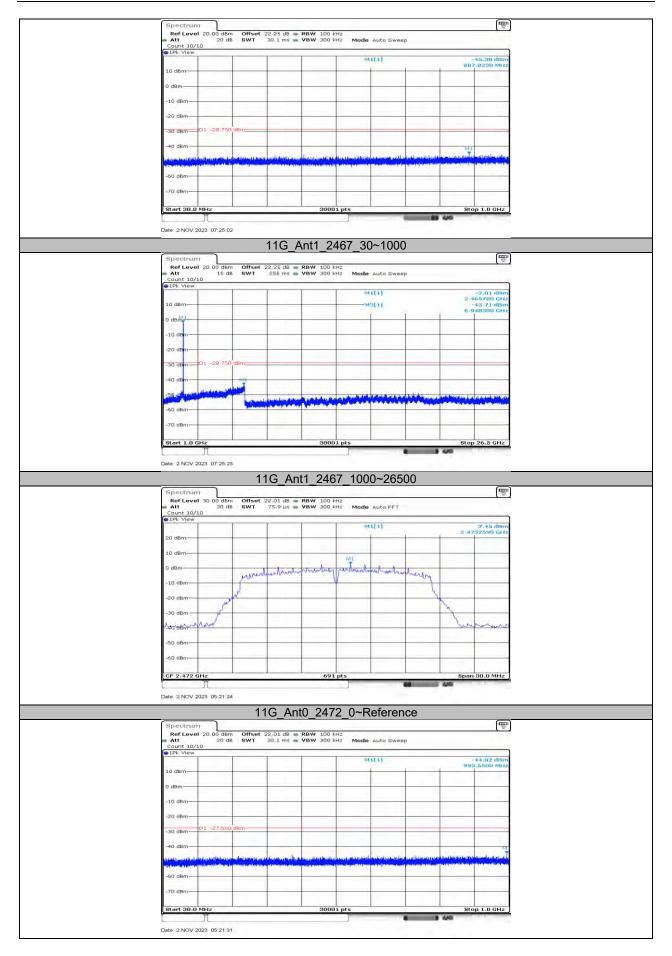












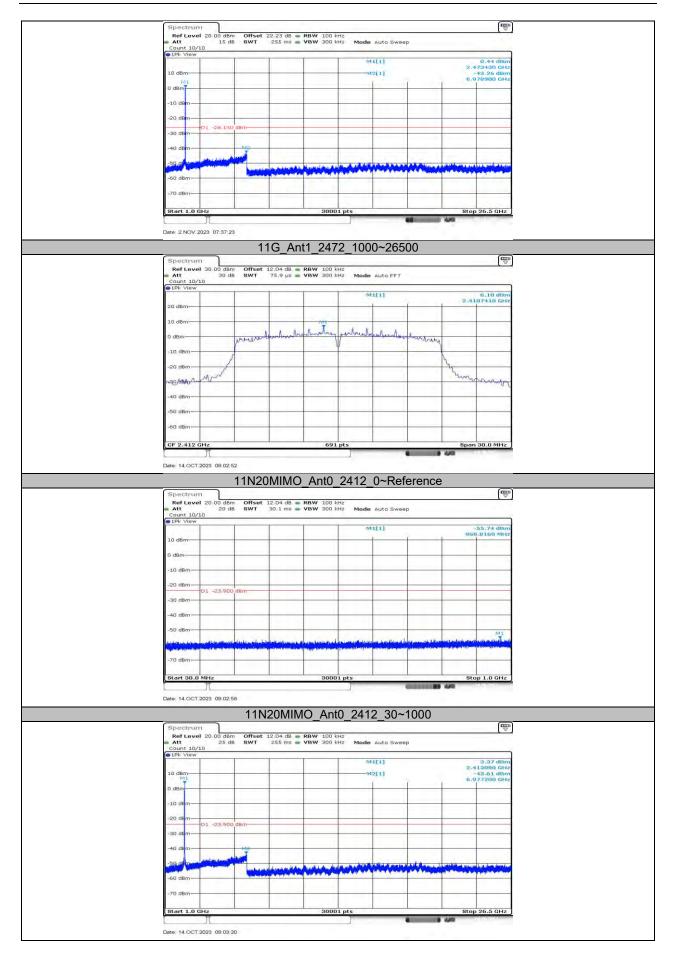


11G\_Ant0\_2472\_30~1000 Spectrum

Ref Level 20.00 dBm
Att 15 dB Offset 22.01 dB • RBW 100 kHz 8WT 255 ms • VBW 300 kHz 15 dB 12[1] Date: 2.NOV.2023 05:21:52 11G\_Ant0\_2472\_1000~26500 Ref Level 30.00 dBm Att 30 dB **P** Offset 22:23 dB • RBW 100 kHz 8WT 75.9 µs • VBW 300 kHz Date: 2.NOV.2023 07:36:55 11G\_Ant1\_2472\_0~Reference Ref Level 20.00 dBm Att 20 dB +45,16 dB 528,5800 M Date: 2.NOV.2023 07:37:02

11G\_Ant1\_2472\_30~1000

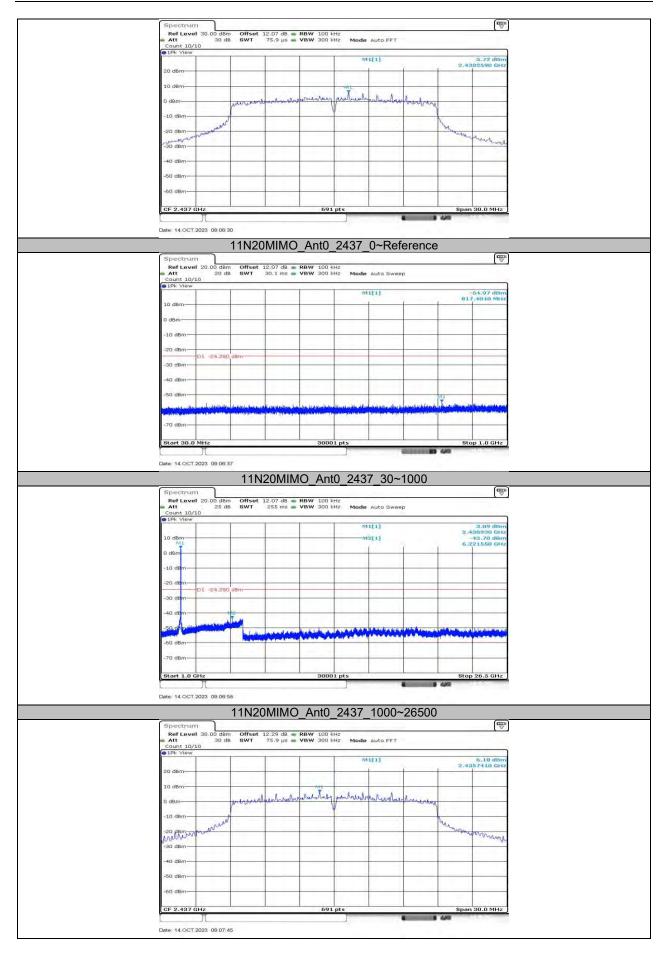






11N20MIMO\_Ant0\_2412\_1000~26500 Ref Level 30.00 d8m Att 30 d8 Offset 12.26 dB • RBW 100 kHz 8WT 75.9 µs • VBW 300 kHz mount Date: 14.OCT.2023 09:04:18 11N20MIMO\_Ant1\_2412\_0~Reference Offset 12.26 dB • RBW 100 kHz 8WT 30.1 ms • VBW 300 kHz MILI Date: 14.OCT.2023 09:04:24 11N20MIMO\_Ant1\_2412\_30~1000 d B B Ref Level 20.00 d8m Att 25 d8 M1[1] Date: 14.OCT.2023 09:04:46 11N20MIMO\_Ant1\_2412\_1000~26500

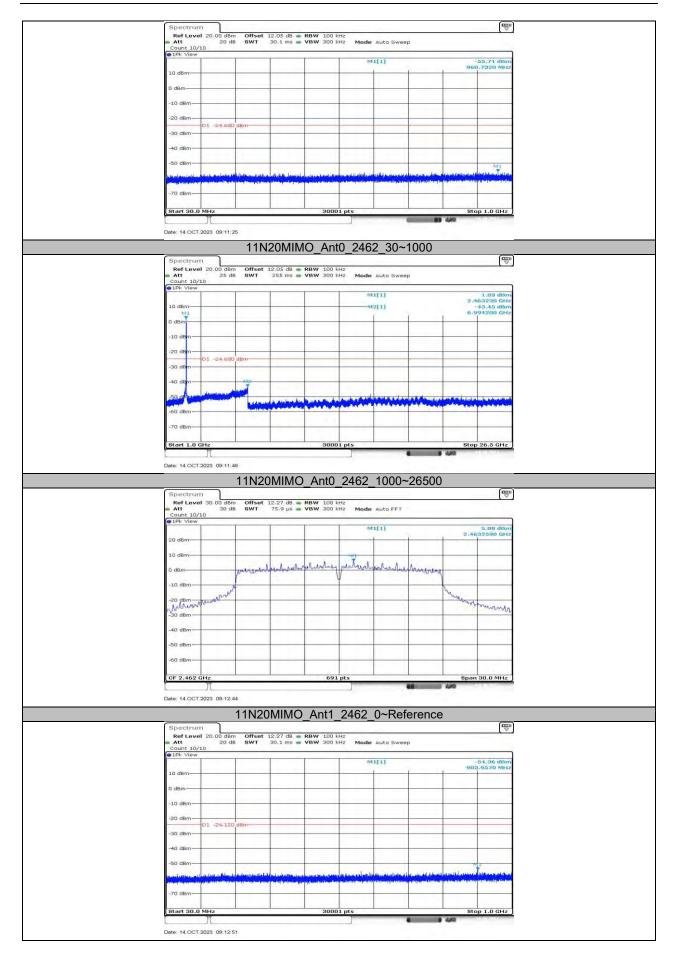






11N20MIMO\_Ant1\_2437\_0~Reference Ref Level 20.00 d8m Att 20 d8 Date: 14.OCT.2023 09:07:51 11N20MIMO\_Ant1\_2437\_30~1000 Offset 12,29 dB • RBW 100 kHz SWT 255 ms • VBW 300 kHz M1[1] Date: 14.OCT.2023 09:08:13 11N20MIMO\_Ant1\_2437\_1000~26500 d □ Ref Level 30.00 d8m Att 30 d8 Date: 14.OCT.2023 09:11:18 11N20MIMO\_Ant0\_2462\_0~Reference

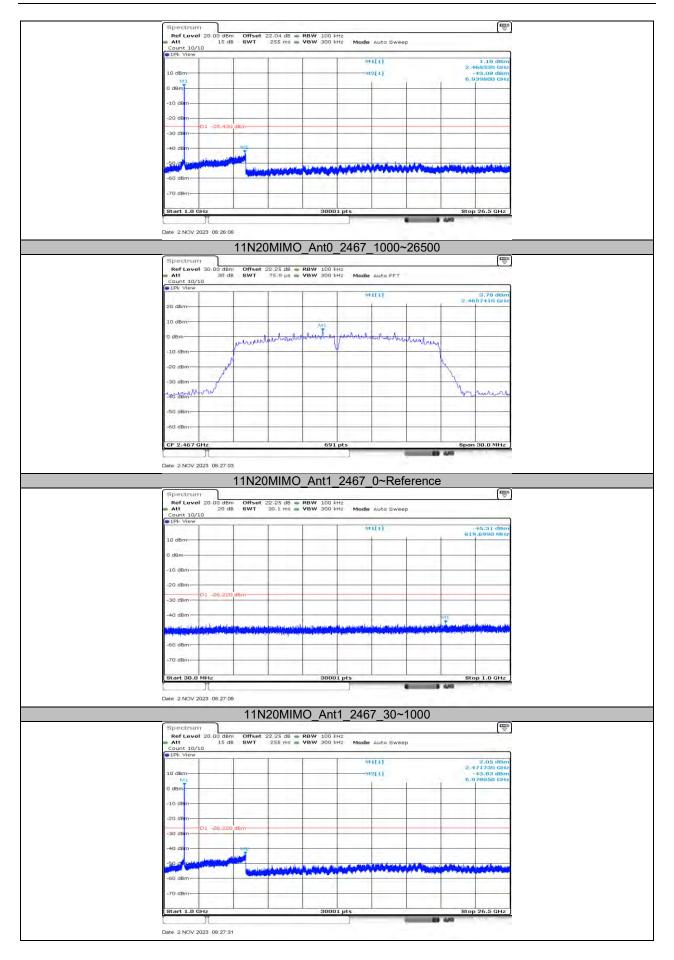




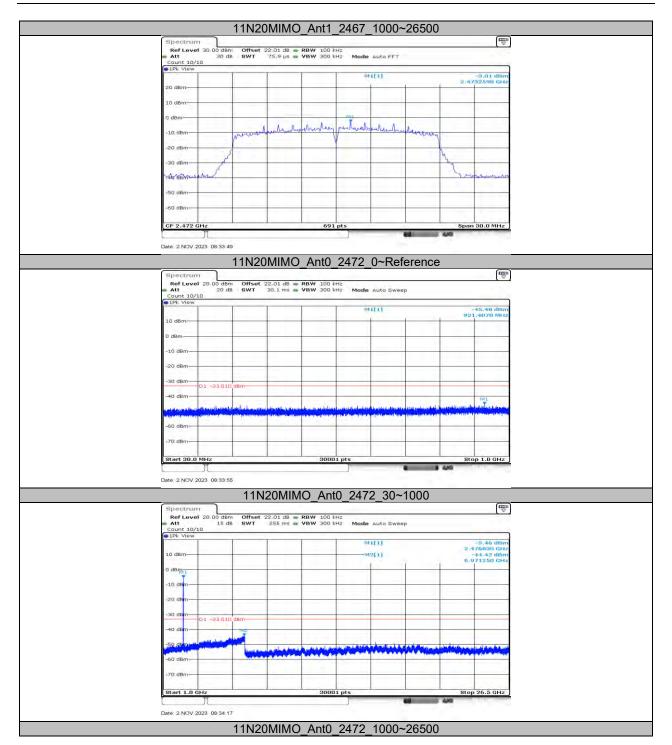


11N20MIMO\_Ant1\_2462\_30~1000 Ref Level 20.00 d8m Att 25 d8 Offset 12.27 dB • RBW 100 kHz SWT 255 ms • VBW 300 kHz 42.71 dB 12[1] Date: 14.OCT.2023 09:13:12 11N20MIMO\_Ant1\_2462\_1000~26500 **P** Offset 22:04 dB • RBW 100 kHz 8WT 75:9 µs • VBW 300 kHz malar Date: 2.NOV.2023 08:25:38 11N20MIMO\_Ant0\_2467\_0~Reference All I Ref Level 20.00 dBm Att 20 dB 45,10 dB 11N20MIMO\_Ant0\_2467\_30~1000

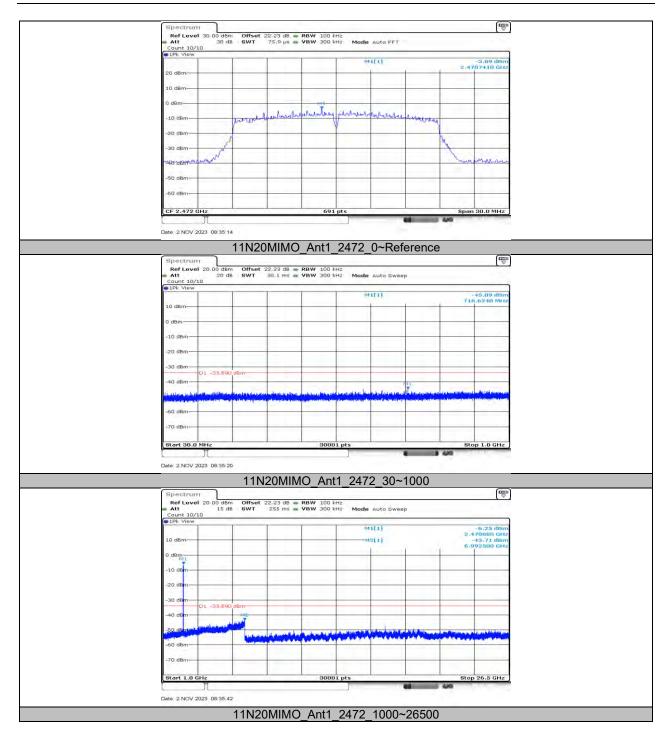














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## 11.12. APPENDIX F2: CONDUCTED SPURIOUS EMISSION OF OFDMA 11.12.1. Test Result

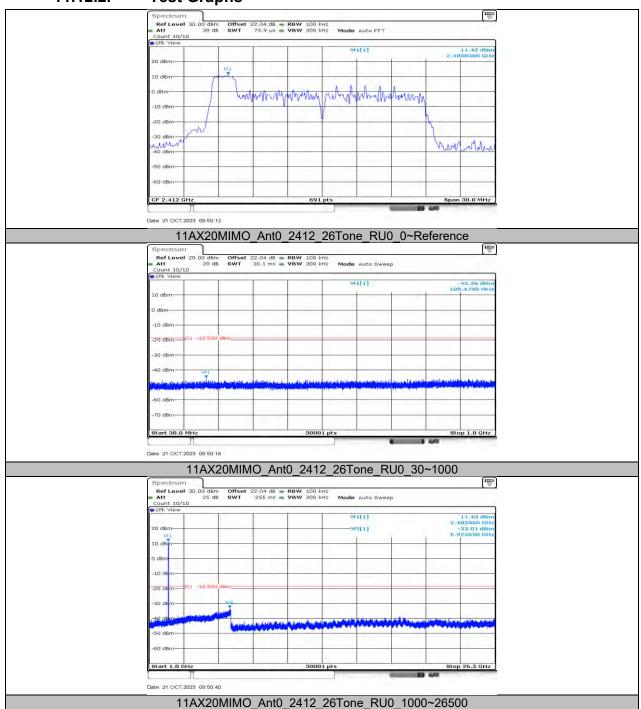
Test Mode	Antenna	Channel	Ru Size	Ru Index	FreqRange [Mhz]	Result [dBm]	Limit [dBm]	Verdict
			26Tone	RU0	Reference	11.42		PASS
	Ant0	2412		RU0	30~1000	-45.26	≤- 18.58	PASS
				RU0	1000~26500	-33.01	≤- 18.58	PASS
			106Tone	RU53	Reference	5.74		PASS
				RU53	30~1000	-45.70	≤- 24.26	PASS
				RU53	1000~26500	-33.96	≤- 24.26	PASS
			242Tone	RU61	Reference	4.96		PASS
				RU61	30~1000	-44.94	≤- 25.04	PASS
				RU61	1000~26500	-33.71	≤- 25.04	PASS
		2412	26Tone	RU0	Reference	12.57		PASS
				RU0	30~1000	-45.09	≤- 17.43	PASS
				RU0	1000~26500	-33.87	≤- 17.43	PASS
				RU53	Reference	7.03		PASS
11AX20MIMO	Ant1		106Tone	RU53	30~1000	-45.52	≤- 22.97	PASS
				RU53	1000~26500	-33.06	≤- 22.97	PASS
			242Tone	RU61	Reference	6.45		PASS
				RU61	30~1000	-44.86	≤- 23.55	PASS
				RU61	1000~26500	-33.41	≤- 23.55	PASS
	Ant0	2437	52Tone	RU38	Reference	8.85		PASS
				RU38	30~1000	-44.41	≤- 21.15	PASS
				RU38	1000~26500	-33.55	≤- 21.15	PASS
			242Tone	RU61	Reference	4.69		PASS
				RU61	30~1000	-45.78	≤- 25.31	PASS
				RU61	1000~26500	-34.18	≤- 25.31	PASS
	Ant1	2437	52Tone	RU38	Reference	10.07		PASS
				RU38	30~1000	-45.04	≤- 19.93	PASS
				RU38	1000~26500	-33.78	≤- 19.93	PASS
			242Tone	RU61	Reference	6.20		PASS
				RU61 RU61	30~1000 1000~26500	-44.86 -32.83	≤-23.8 ≤-23.8	PASS PASS
	Ant0	2462	26Tone	RU8	Reference	10.95		PASS
				RU8	30~1000	-45.05	≤- 19.05	PASS
				RU8	1000~26500	-32.68	≤- 19.05	PASS
				RU54	Reference	4.93		PASS
			106Tone	RU54	30~1000	-45.66	≤- 25.07	PASS



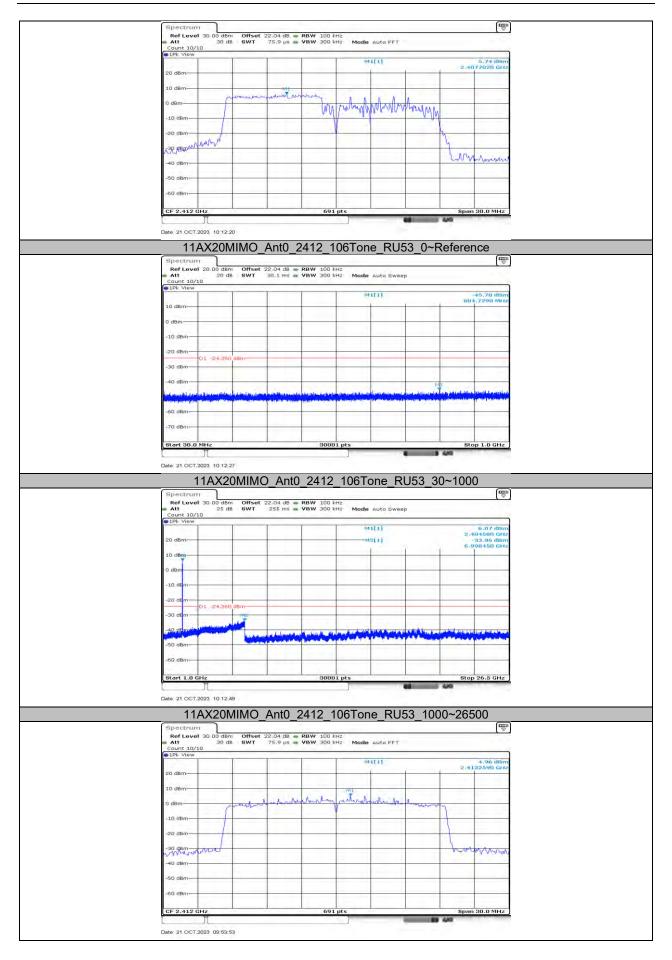
≤-RU54 1000~26500 -33.46 **PASS** <u> 25.</u>07 **RU61** 4.53 **PASS** Reference **RU61** 30~1000 -45.07**PASS** 242Tone 25.47 ≤-**RU61** 1000~26500 **PASS** -33.36 25.47 RU8 12.25 Reference ---**PASS** ≤-RU8 30~1000 -44.26**PASS** 26Tone 17.75 ≤-RU8 1000~26500 -33.53**PASS** 17.75 RU54 Reference 6.78 **PASS RU54** 30~1000 -44.61 **PASS** 23.22 Ant1 2462 106Tone ≤-RU54 1000~26500 -33.33 **PASS** 23.22 **RU61** Reference 5.79 **PASS** ≤-**RU61** 30~1000 -44.39**PASS** 242Tone 24.21 ≤-**RU61** 1000~26500 -33.67 **PASS** 24.21 RU8 11.13 **PASS** Reference ≤\_ RU8 30~1000 -45.31**PASS** 26Tone 18.87 ≤-RU8 1000~26500 -43.36 **PASS** 18.87 2467 Ant0 RU61 PASS 4.52 Reference **RU61** 30~1000 -45.31 **PASS** 242Tone 25.48 ≤-**RU61** 1000~26500 **PASS** -43.2625.48 RU8 Reference 10.10 **PASS** RU8 -44.63 ≤-19.9 **PASS** 26Tone 30~1000 RU8 1000~26500 -44.25 ≤-19.9 **PASS** RU61 Reference 3.71 **PASS** Ant1 2467 **RU61** 30~1000 -45.48**PASS** 242Tone 26.29 ≤-**RU61** 1000~26500 -43.69**PASS** 26.29 RU8 Reference -2.10 **PASS** RU8 30~1000 -45.22 ≤-32.1 26Tone **PASS** RU8 1000~26500 -43.59 ≤-32.1 **PASS** RU61 Reference 1.74 **PASS** Ant0 2472 ≤-**RU61** 30~1000 **PASS** -45.5128.26 242Tone ≤-**RU61** 1000~26500 -42.91 **PASS** 28.26 RU8 -2.96 **PASS** Reference ---≤-RU8 30~1000 -45.33 **PASS** 26Tone 32.96 ≤-RU8 1000~26500 -43.48 **PASS** 32.96 Ant1 2472 RU61 Reference 0.68 ---**PASS** ≤-**RU61** 30~1000 -44.92 **PASS** 29.32 242Tone **RU61** 1000~26500 -43.23**PASS** 29.32



11.12.2. Test Graphs



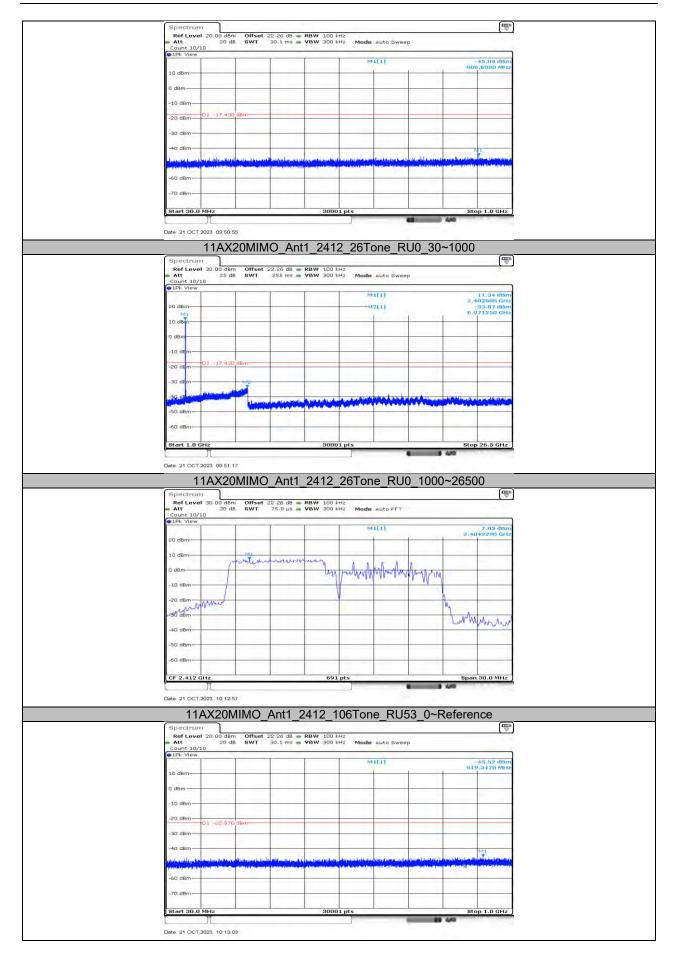






11AX20MIMO\_Ant0\_2412\_242Tone\_RU61\_0~Reference Date: 21.OCT.2023 09:54:00 11AX20MIMO\_Ant0\_2412\_242Tone\_RU61\_30~1000 ( W Offset 22,04 dB • RBW 100 kHz 8WT 255 ms • VBW 300 kHz MILLI Date: 21 OCT 2023 09:54:22 11AX20MIMO\_Ant0\_2412\_242Tone\_RU61\_1000~26500 11AX20MIMO\_Ant1\_2412\_26Tone\_RU0\_0~Reference



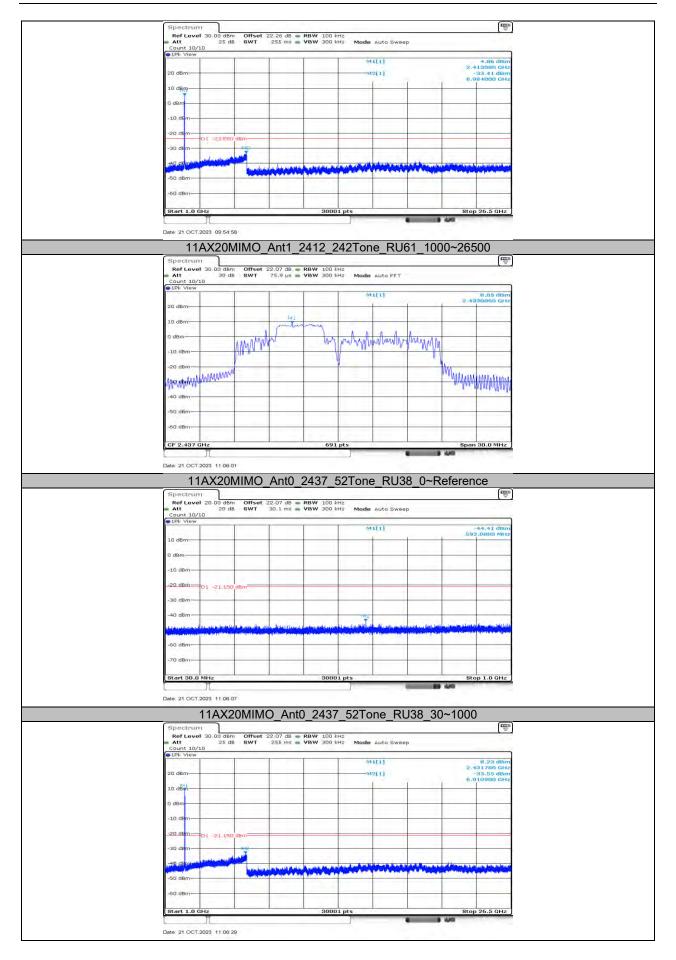


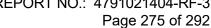


11AX20MIMO\_Ant1\_2412\_106Tone\_RU53\_30~1000 Spectrum
Ref Level 30.00 dBm 2[1] Date: 21 OCT 2023 10:13:25 11AX20MIMO\_Ant1\_2412\_106Tone\_RU53\_1000~26500 Offset 22:26 dB • RBW 100 kHz 8WT 75.9 µs • VBW 300 kHz mound white Date: 21 OCT 2023 09:54:30 11AX20MIMO\_Ant1\_2412\_242Tone\_RU61\_0~Reference

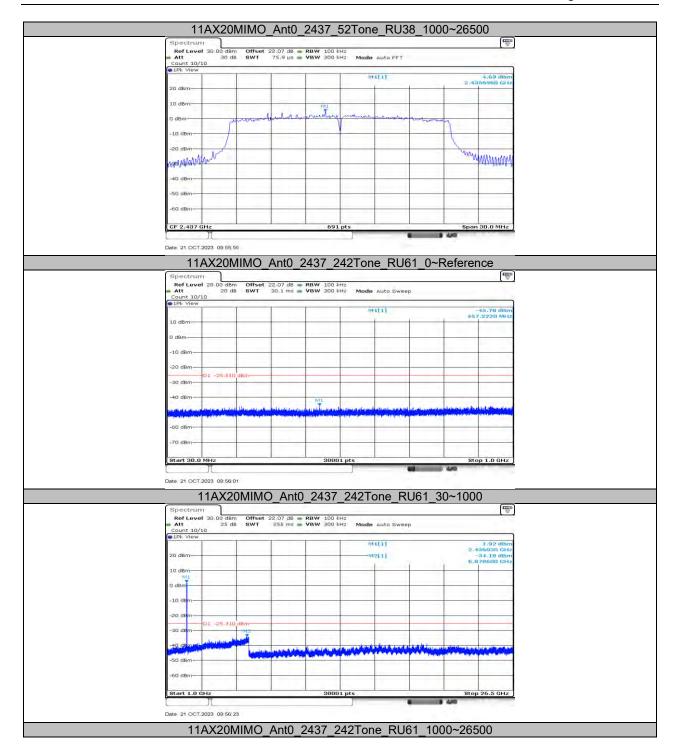
11AX20MIMO\_Ant1\_2412\_242Tone\_RU61\_30~1000



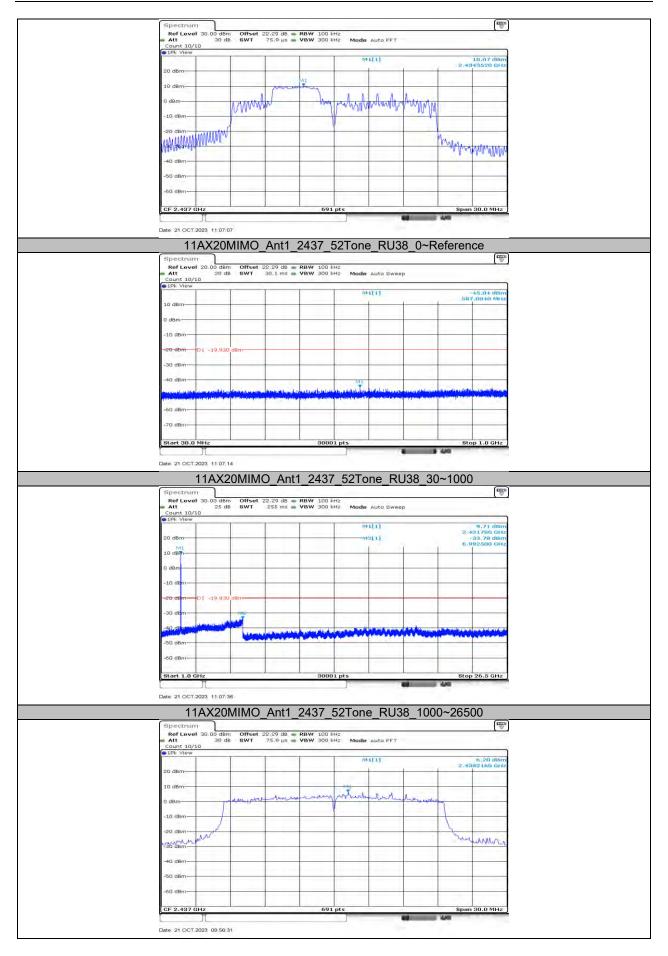








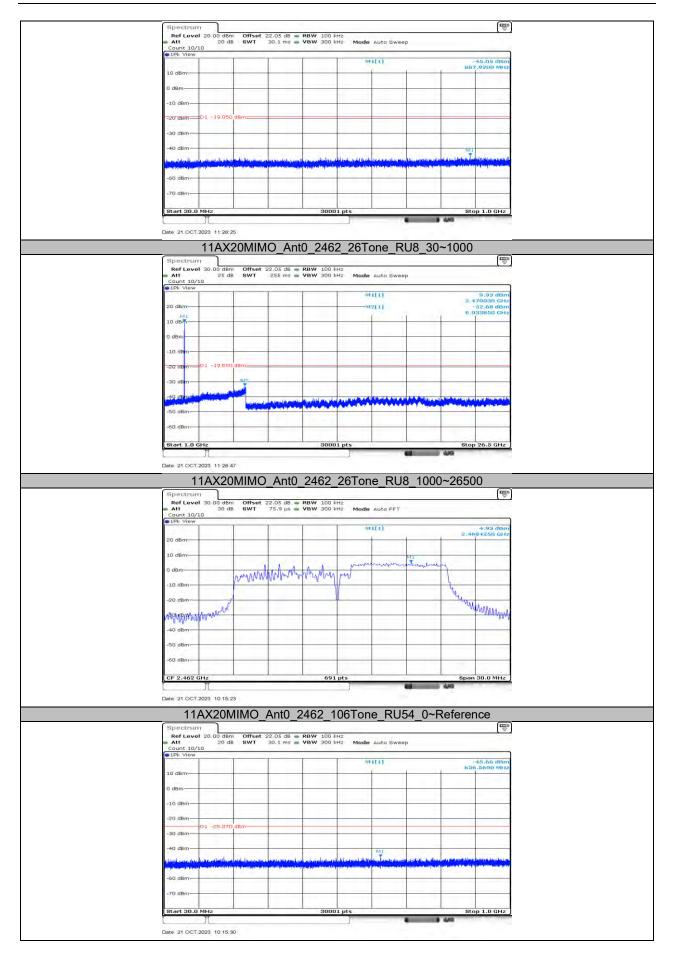






11AX20MIMO\_Ant1\_2437\_242Tone\_RU61\_0~Reference Spectrum
Ref Level 20.00 d8m
Att 20.d6 Date: 21.OCT.2023 09:56:38 11AX20MIMO\_Ant1\_2437\_242Tone\_RU61\_30~1000 (m) Offset 22,29 dB • RBW 100 kHz 8WT 255 ms • VBW 300 kHz MILLI Date: 21 OCT 2023 09:57:00 11AX20MIMO\_Ant1\_2437\_242Tone\_RU61\_1000~26500 produced by the boat of the 11AX20MIMO\_Ant0\_2462\_26Tone\_RU8\_0~Reference



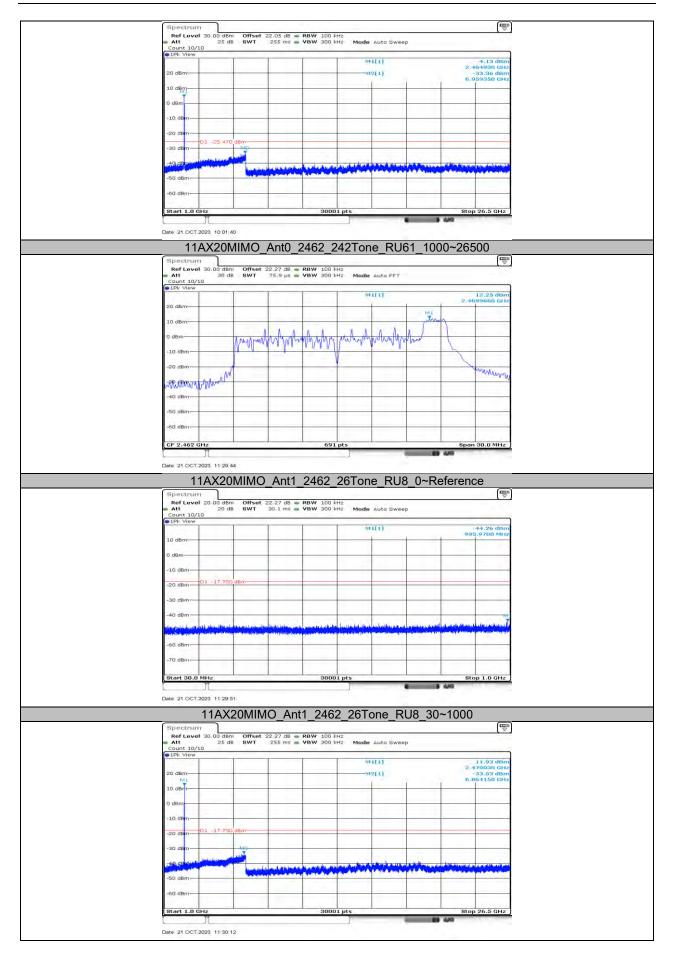




11AX20MIMO\_Ant0\_2462\_106Tone\_RU54\_30~1000 Ref Level 30.00 dBm 5.18 dBr 2[1] 11AX20MIMO\_Ant0\_2462\_106Tone\_RU54\_1000~26500 (W) Offset 22:05 dB • RBW 100 kHz 8WT 75:9 µs • VBW 300 kHz 11AX20MIMO\_Ant0\_2462\_242Tone\_RU61\_0~Reference

11AX20MIMO\_Ant0\_2462\_242Tone\_RU61\_30~1000

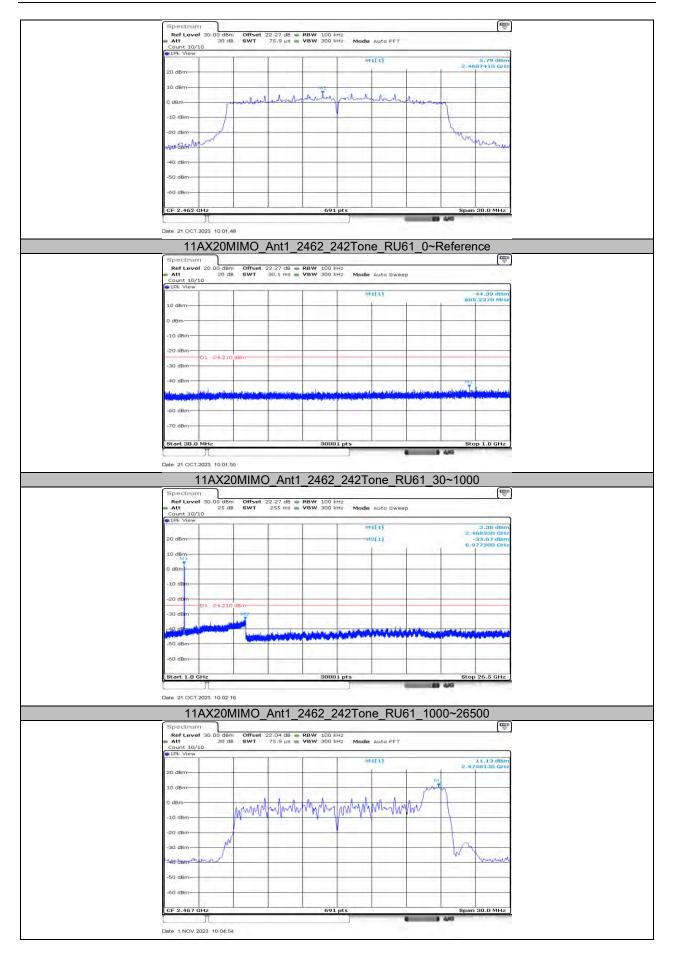






11AX20MIMO\_Ant1\_2462\_26Tone\_RU8\_1000~26500 Ref Level 30.00 dBm mulph RATIONALIMITANA Date: 21.OCT.2023 10:16:00 11AX20MIMO\_Ant1\_2462\_106Tone\_RU54\_0~Reference Offset 22,27 dB • RBW 100 kHz 8WT 30.1 ms • VBW 300 kHz Date: 21 OCT,2023 10:16:07 11AX20MIMO\_Ant1\_2462\_106Tone\_RU54\_30~1000 11AX20MIMO\_Ant1\_2462\_106Tone\_RU54\_1000~26500





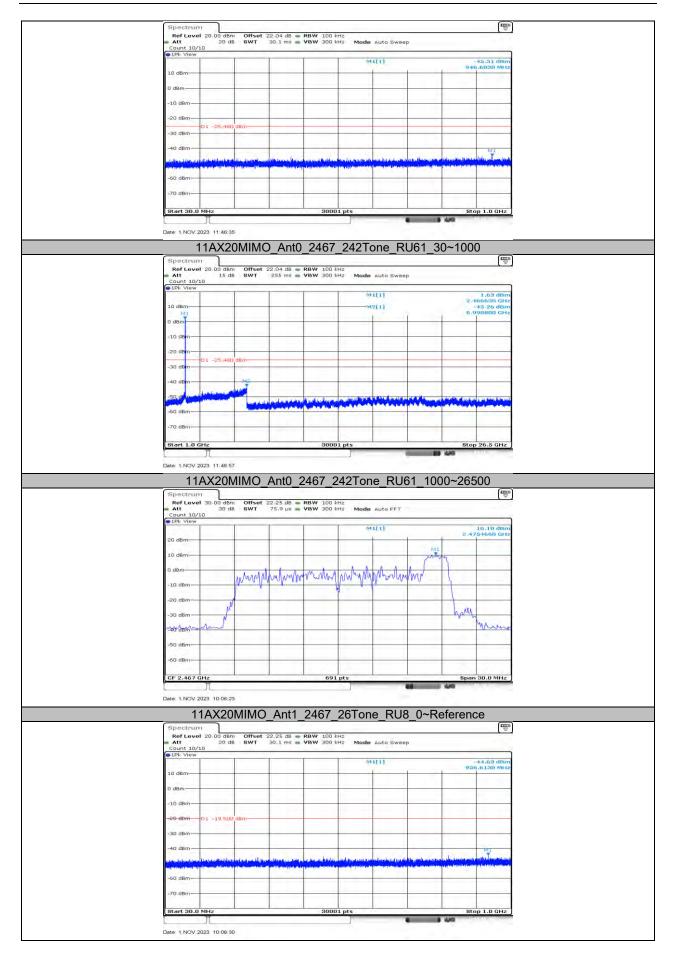


11AX20MIMO\_Ant0\_2467\_26Tone\_RU8\_0~Reference Spectrum

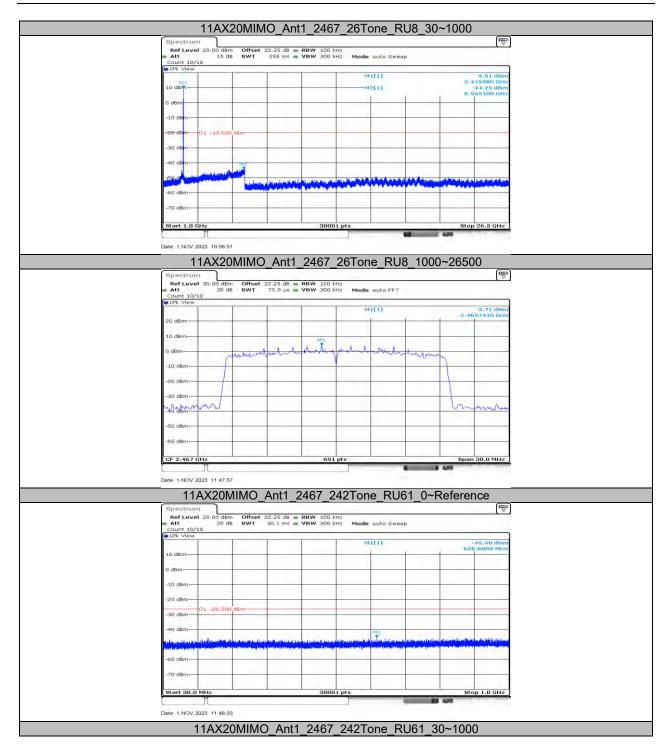
Ref Level 20.00 dBm
Att 20 dB -45.31 dB 993.6140 MI Date: 1.NOV.2023 10:05:01 11AX20MIMO\_Ant0\_2467\_26Tone\_RU8\_30~1000 **P** Offset 22,04 dB • RBW 100 kHz 8WT 255 ms • VBW 300 kHz M1[1] Date: 1.NOV.2023 10:05:23 11AX20MIMO\_Ant0\_2467\_26Tone\_RU8\_1000~26500

11AX20MIMO\_Ant0\_2467\_242Tone\_RU61\_0~Reference

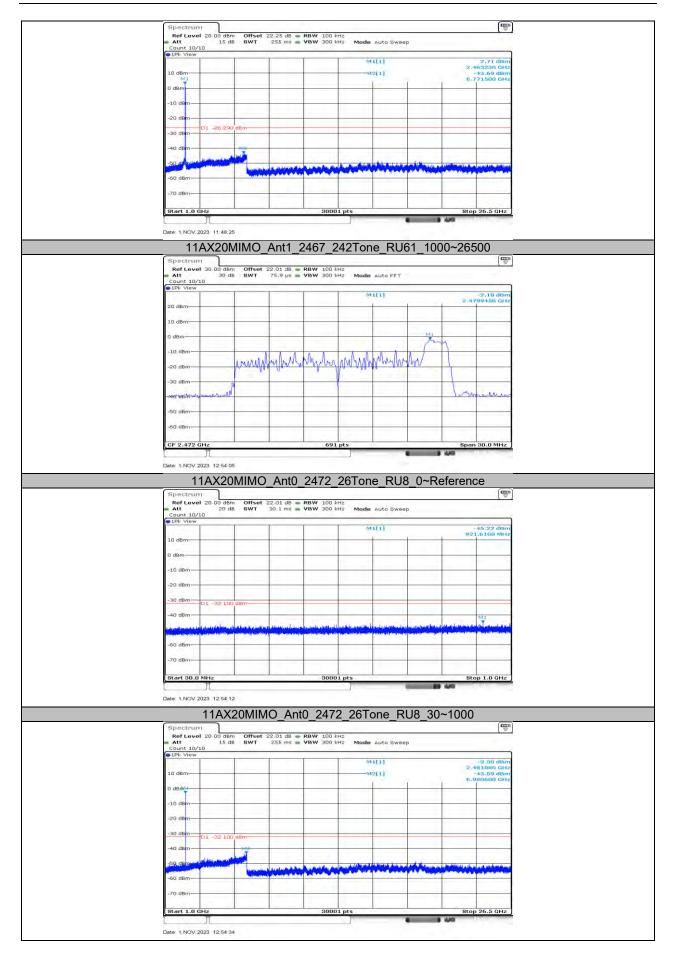


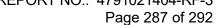




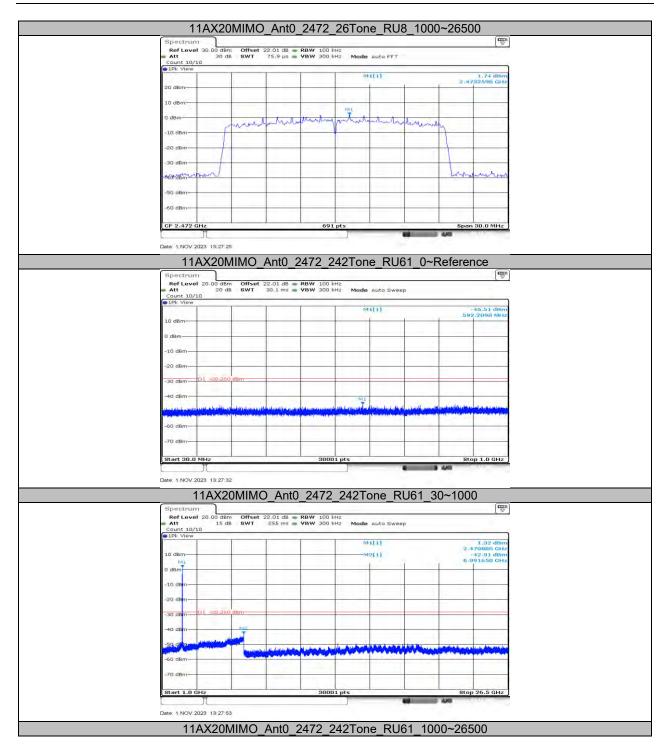




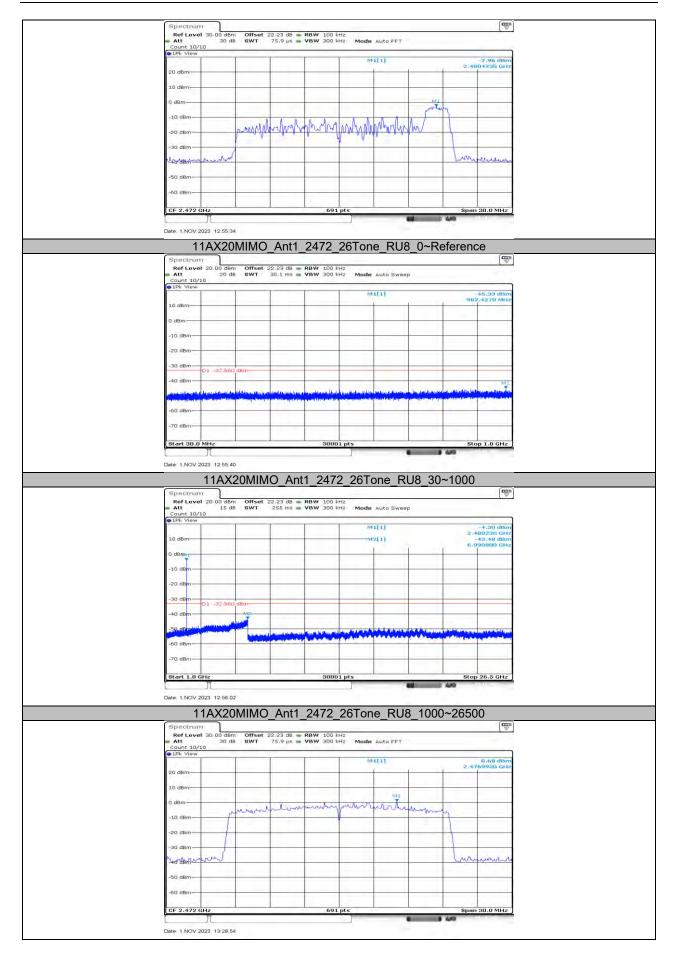
















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## 11.13. APPENDIX G: DUTY CYCLE 11.13.1. Test Result

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	8.36	8.80	0.9500	95.00	0.22	0.12	1
11G	1.39	1.83	0.7596	75.96	1.19	0.72	1
11N20MIMO	1.29	1.73	0.7457	74.57	1.27	0.78	1
11AX20MIMO	1.21	1.64	0.7378	73.78	1.32	0.83	1

Note:

Duty Cycle Correction Factor=10log (1/x).

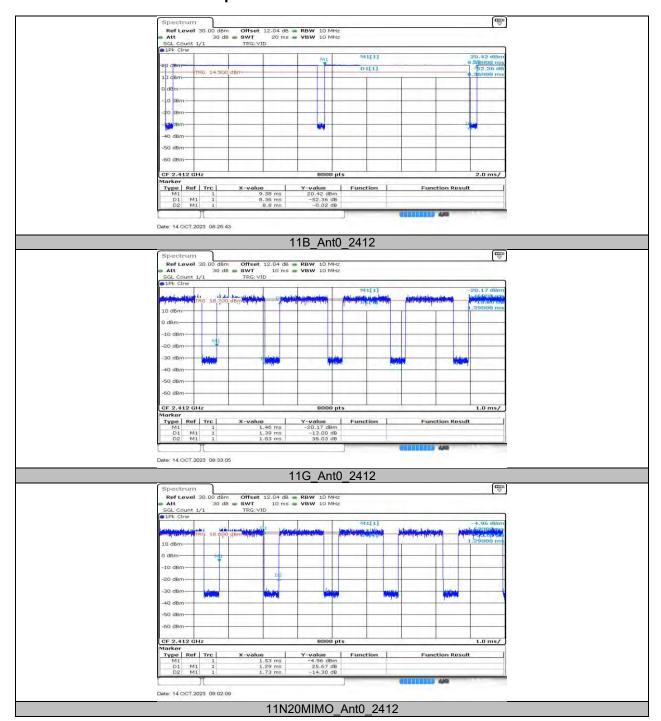
Where: x is Duty Cycle (Linear)

Where: T is On Time

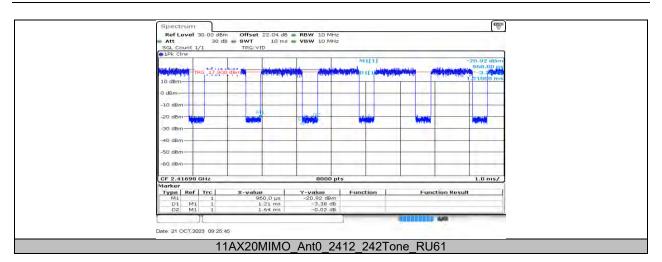
If that calculated VBW is not available on the analyzer then the next higher value should be used.



## 11.13.2. Test Graphs







**END OF REPORT**