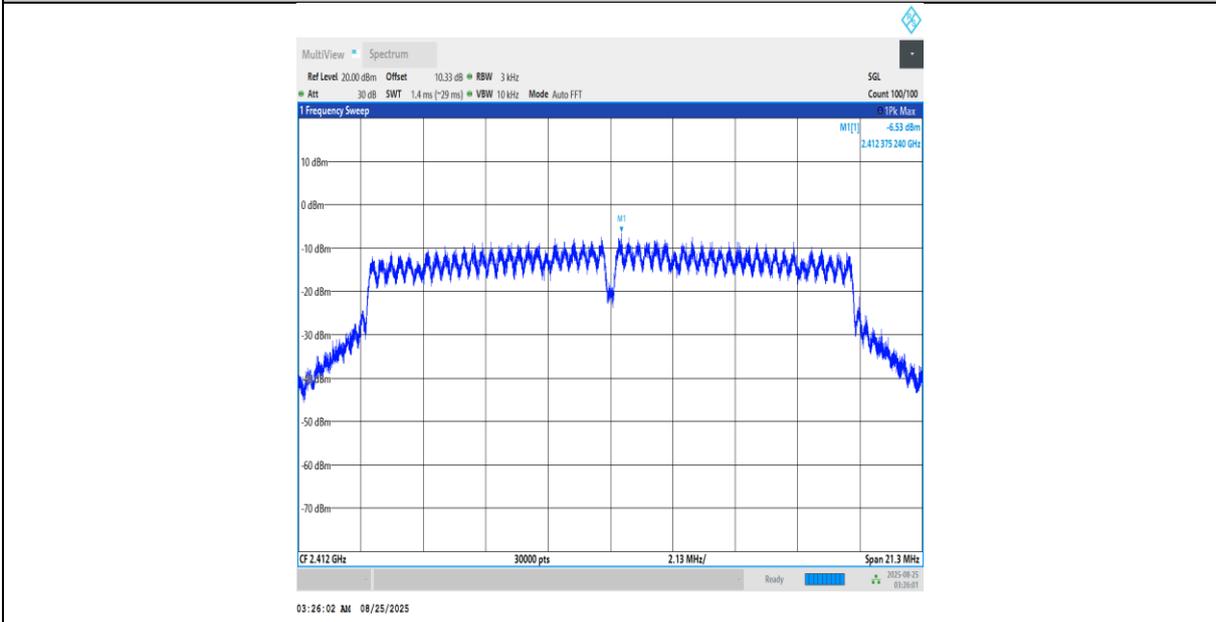
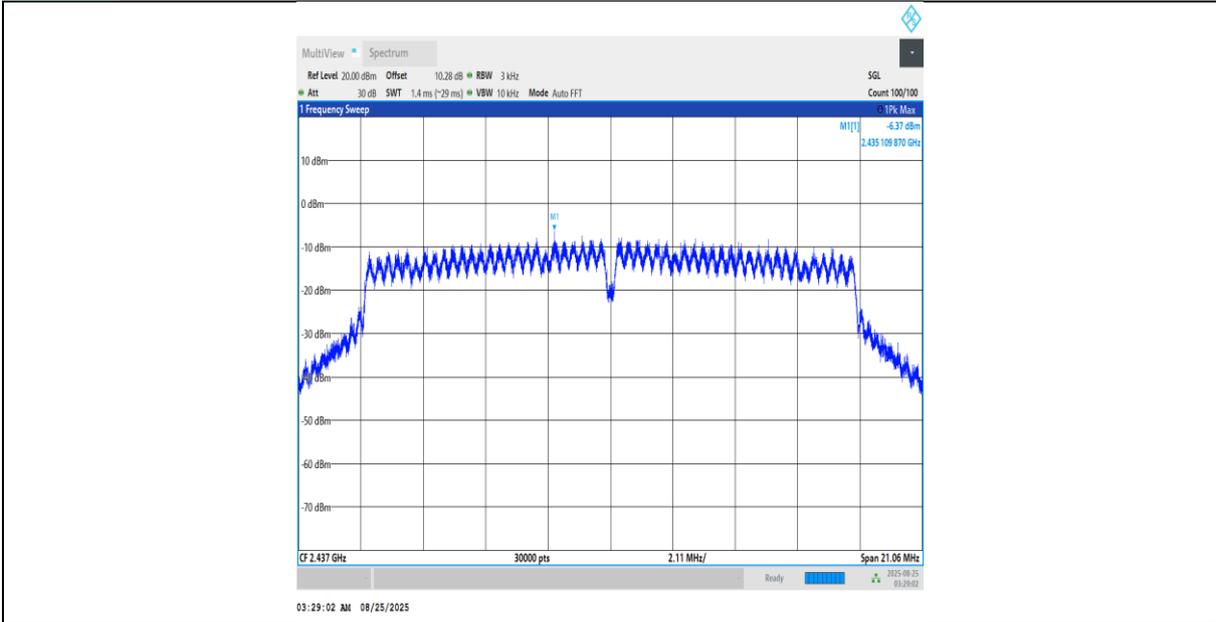


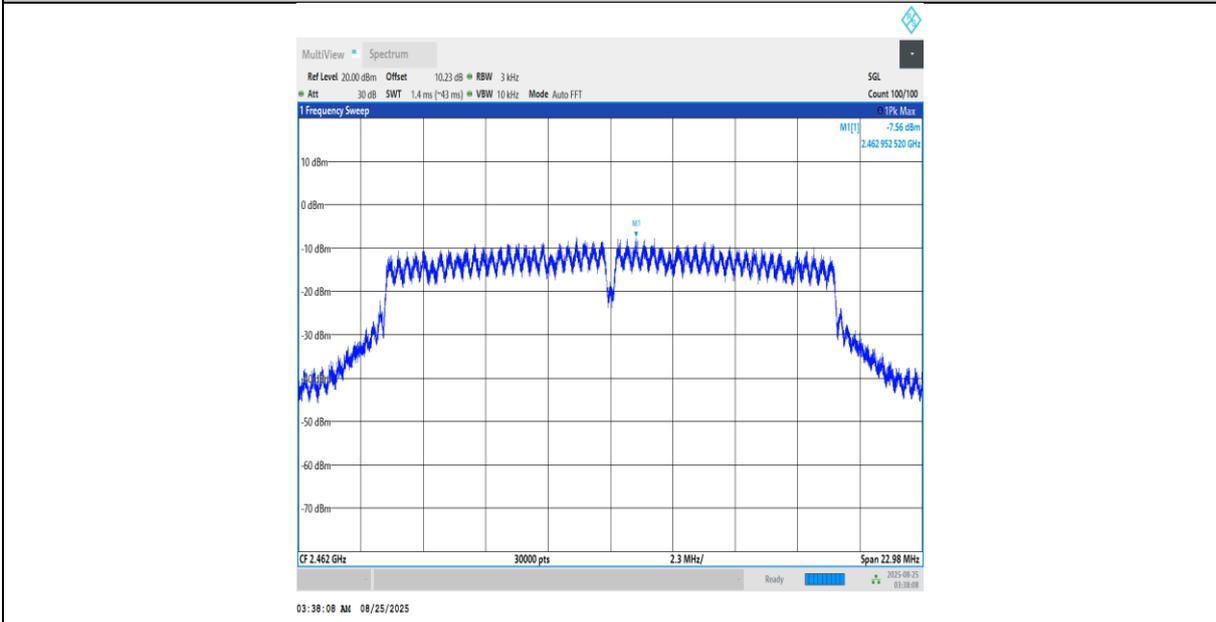
11B-Ant4-2462-PASS



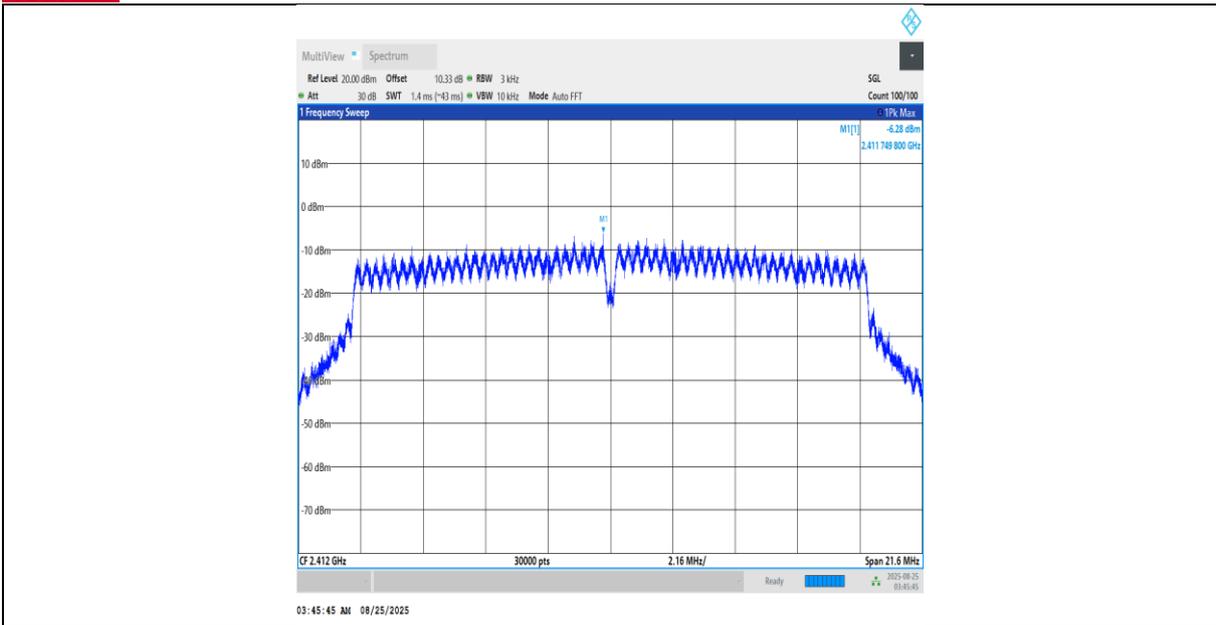
11G-Ant4-2412-PASS



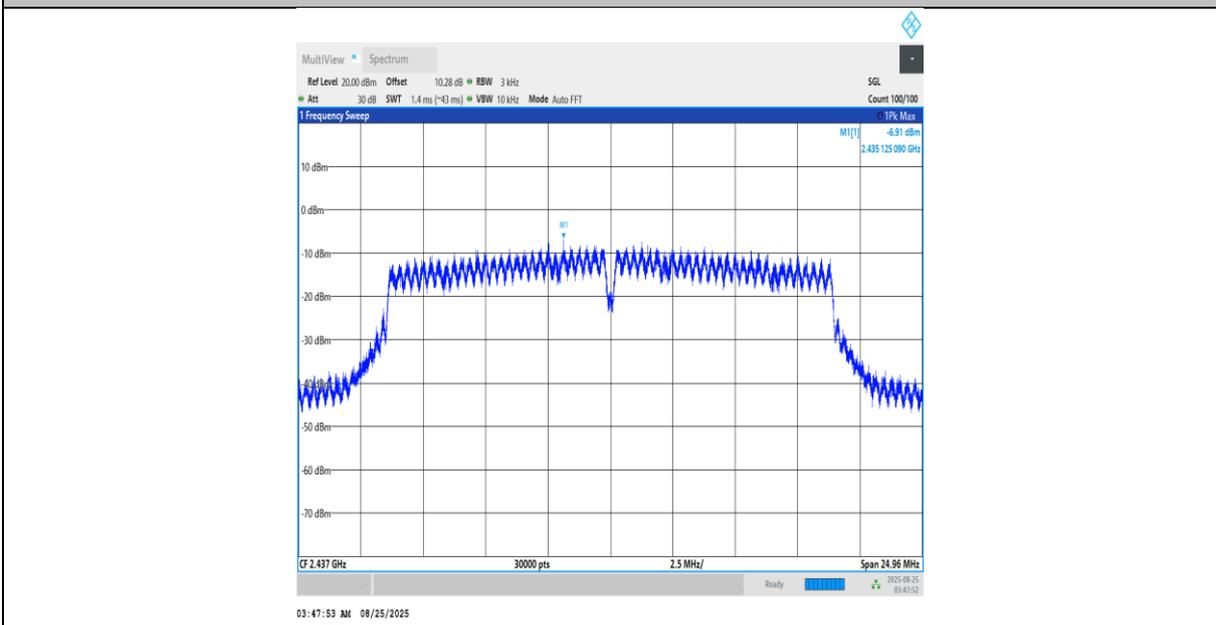
11G-Ant4-2437-PASS



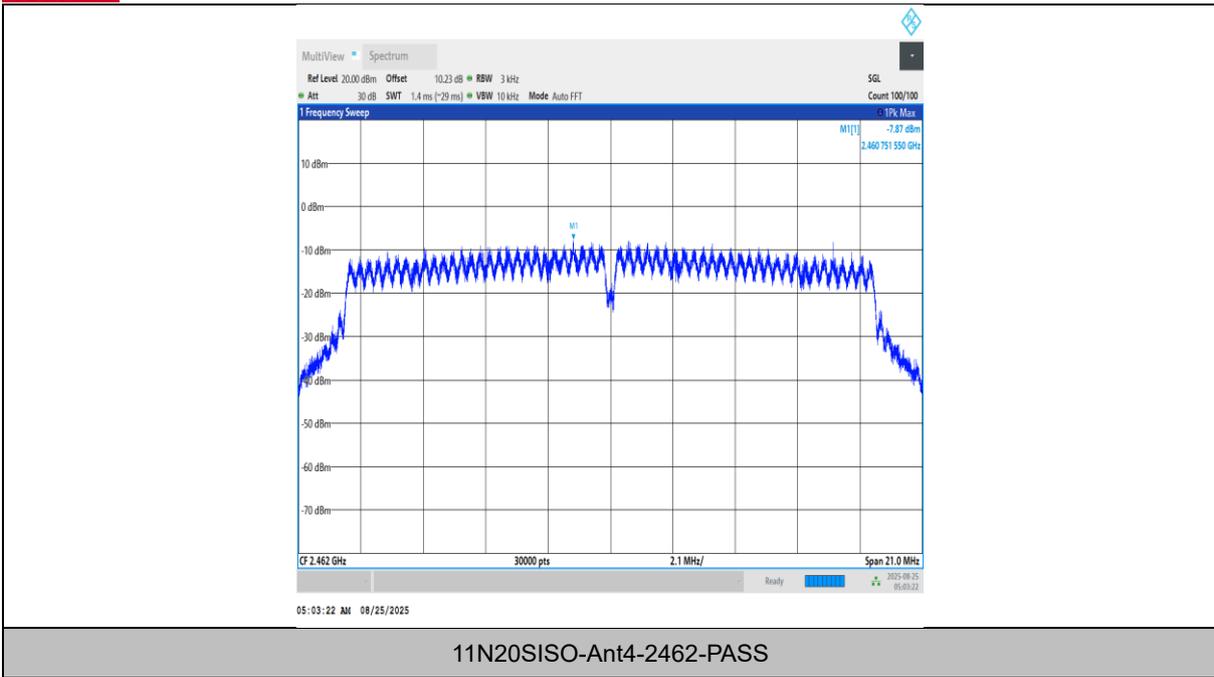
11G-Ant4-2462-PASS



11N20SISO-Ant4-2412-PASS



11N20SISO-Ant4-2437-PASS



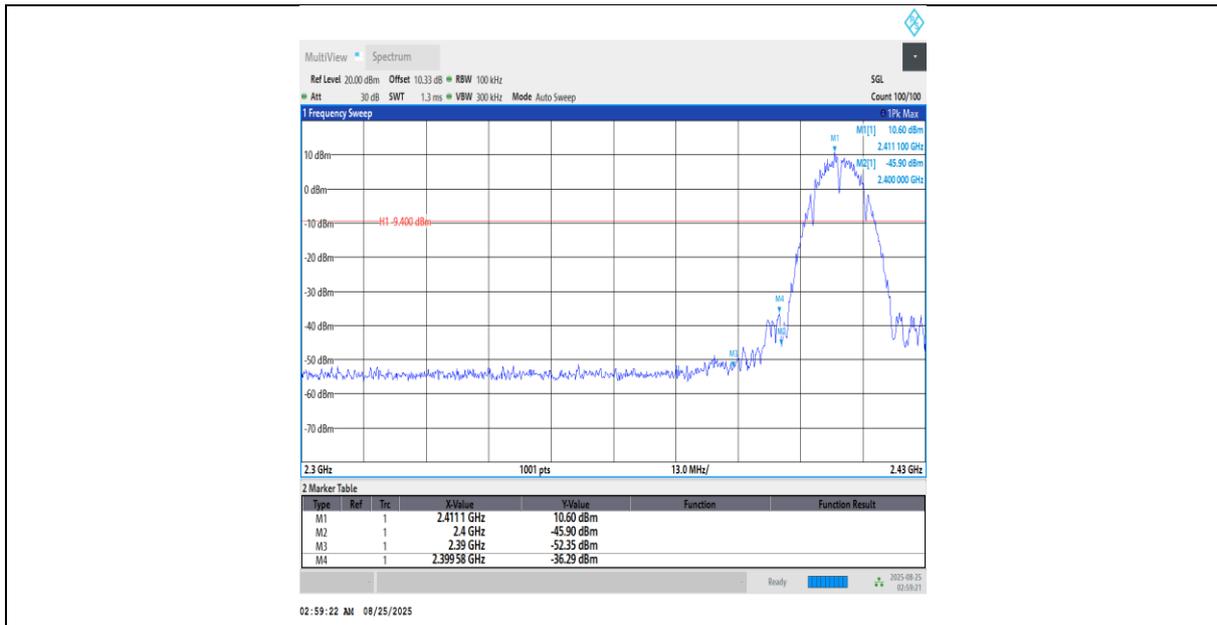
11N20SISO-Ant4-2462-PASS



BAND EDGE MEASUREMENTS

TEST RESULT

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant4	Low	2412	10.60	-36.29	≤-9.4	PASS
11B	Ant4	High	2462	10.12	-48.41	≤-9.88	PASS
11G	Ant4	Low	2412	6.80	-24.49	≤-13.2	PASS
11G	Ant4	High	2462	5.92	-41.67	≤-14.08	PASS
11N20SISO	Ant4	Low	2412	6.20	-24.66	≤-13.8	PASS
11N20SISO	Ant4	High	2462	6.65	-40.1	≤-13.35	PASS



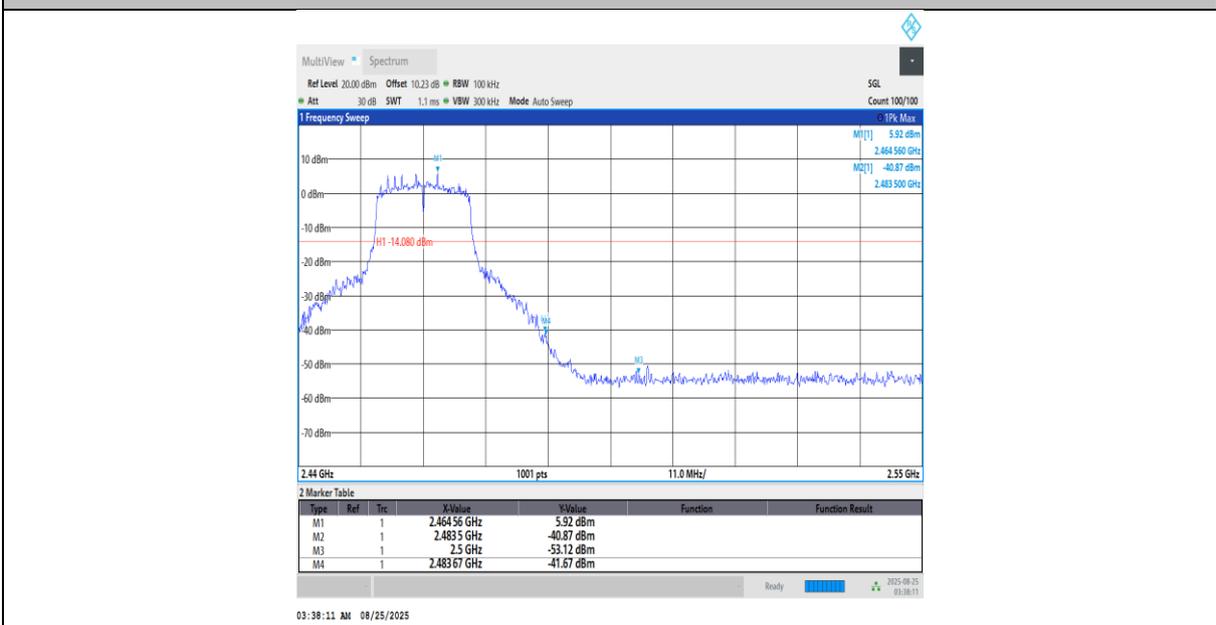
11B-Ant4-2412-PASS



11B-Ant4-2462-PASS



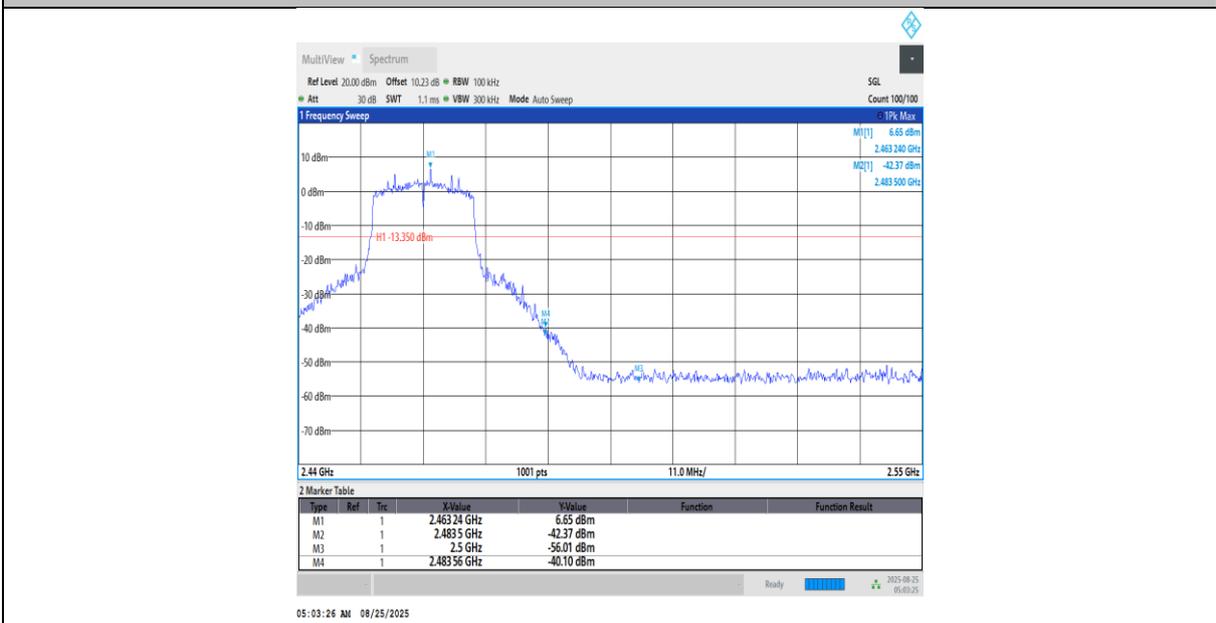
11G-Ant4-2412-PASS



11G-Ant4-2462-PASS



11N20SISO-Ant4-2412-PASS



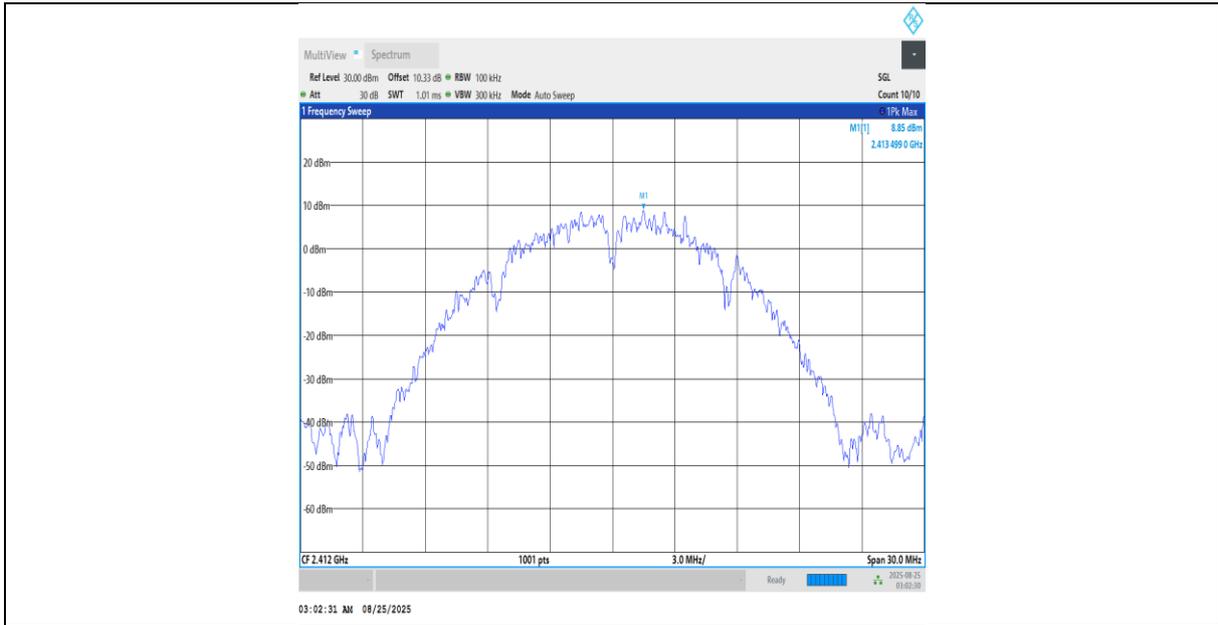
11N20SISO-Ant4-2462-PASS



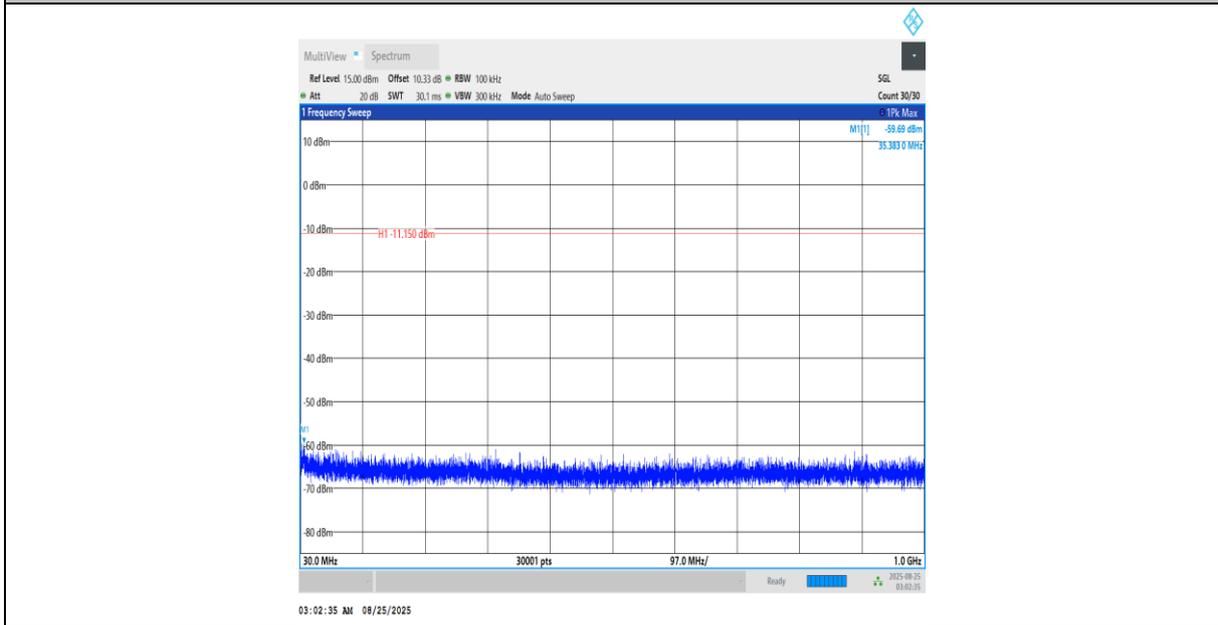
CONDUCTED SPURIOUS EMISSION

TEST RESULT

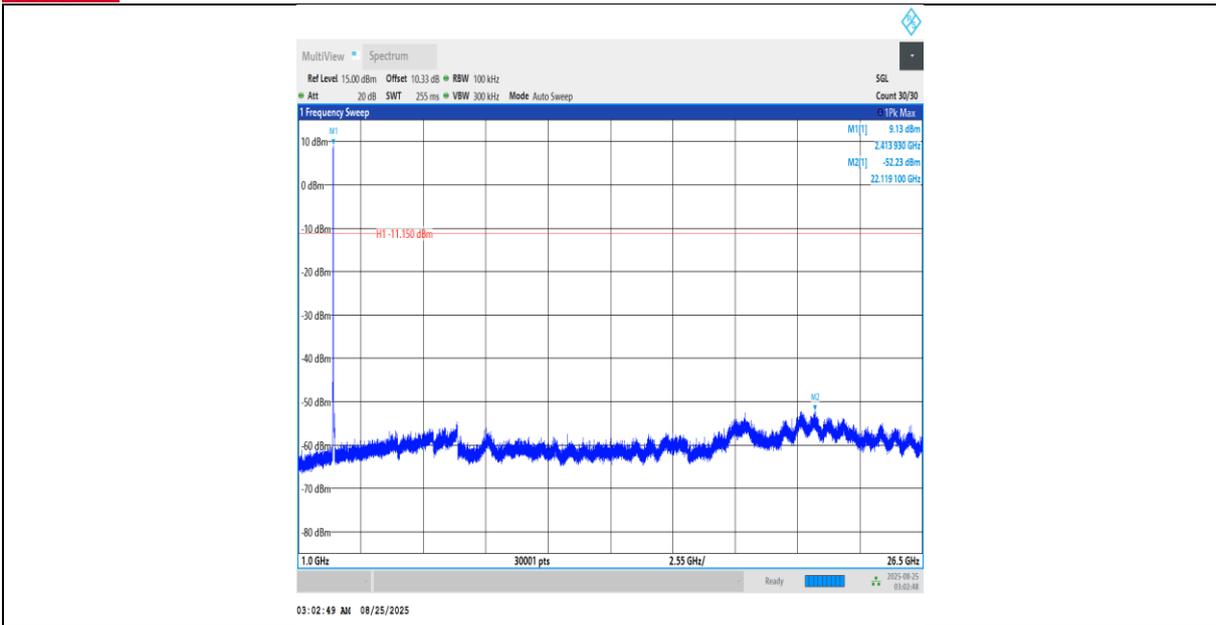
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant4	2412	0~Reference	8.85	8.85	---	PASS
11B	Ant4	2412	30~1000	8.85	-59.69	≤-11.15	PASS
11B	Ant4	2412	1000~26500	8.85	-52.23	≤-11.15	PASS
11B	Ant4	2437	0~Reference	8.65	8.65	---	PASS
11B	Ant4	2437	30~1000	8.65	-60.4	≤-11.35	PASS
11B	Ant4	2437	1000~26500	8.65	-51.58	≤-11.35	PASS
11B	Ant4	2462	0~Reference	8.17	8.17	---	PASS
11B	Ant4	2462	30~1000	8.17	-59.4	≤-11.83	PASS
11B	Ant4	2462	1000~26500	8.17	-51.9	≤-11.83	PASS
11G	Ant4	2412	0~Reference	5.64	5.64	---	PASS
11G	Ant4	2412	30~1000	5.64	-59.03	≤-14.36	PASS
11G	Ant4	2412	1000~26500	5.64	-51.24	≤-14.36	PASS
11G	Ant4	2437	0~Reference	2.33	2.33	---	PASS
11G	Ant4	2437	30~1000	2.33	-60.18	≤-17.67	PASS
11G	Ant4	2437	1000~26500	2.33	-50.98	≤-17.67	PASS
11G	Ant4	2462	0~Reference	2.82	2.82	---	PASS
11G	Ant4	2462	30~1000	2.82	-59.45	≤-17.18	PASS
11G	Ant4	2462	1000~26500	2.82	-51.97	≤-17.18	PASS
11N20SISO	Ant4	2412	0~Reference	6.00	6.00	---	PASS
11N20SISO	Ant4	2412	30~1000	6.00	-58.94	≤-14	PASS
11N20SISO	Ant4	2412	1000~26500	6.00	-51.93	≤-14	PASS
11N20SISO	Ant4	2437	0~Reference	6.77	6.77	---	PASS
11N20SISO	Ant4	2437	30~1000	6.77	-59.74	≤-13.23	PASS
11N20SISO	Ant4	2437	1000~26500	6.77	-51.85	≤-13.23	PASS
11N20SISO	Ant4	2462	0~Reference	5.31	5.31	---	PASS
11N20SISO	Ant4	2462	30~1000	5.31	-59.34	≤-14.69	PASS
11N20SISO	Ant4	2462	1000~26500	5.31	-51.64	≤-14.69	PASS



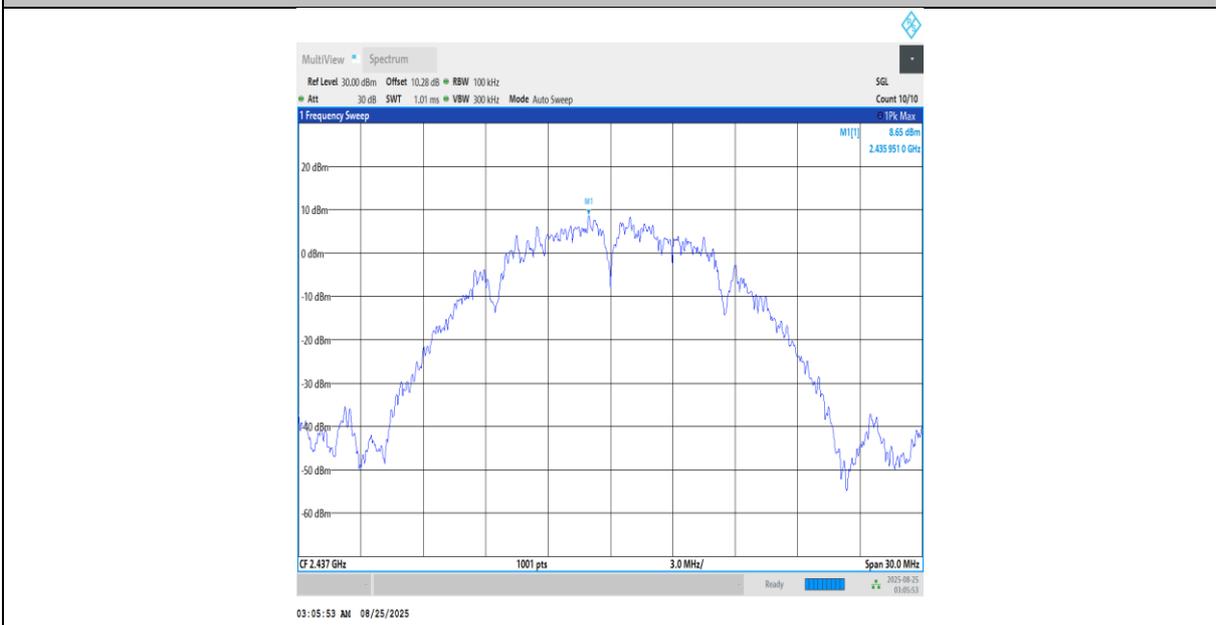
11B-Ant4-2412-0~Reference-PASS



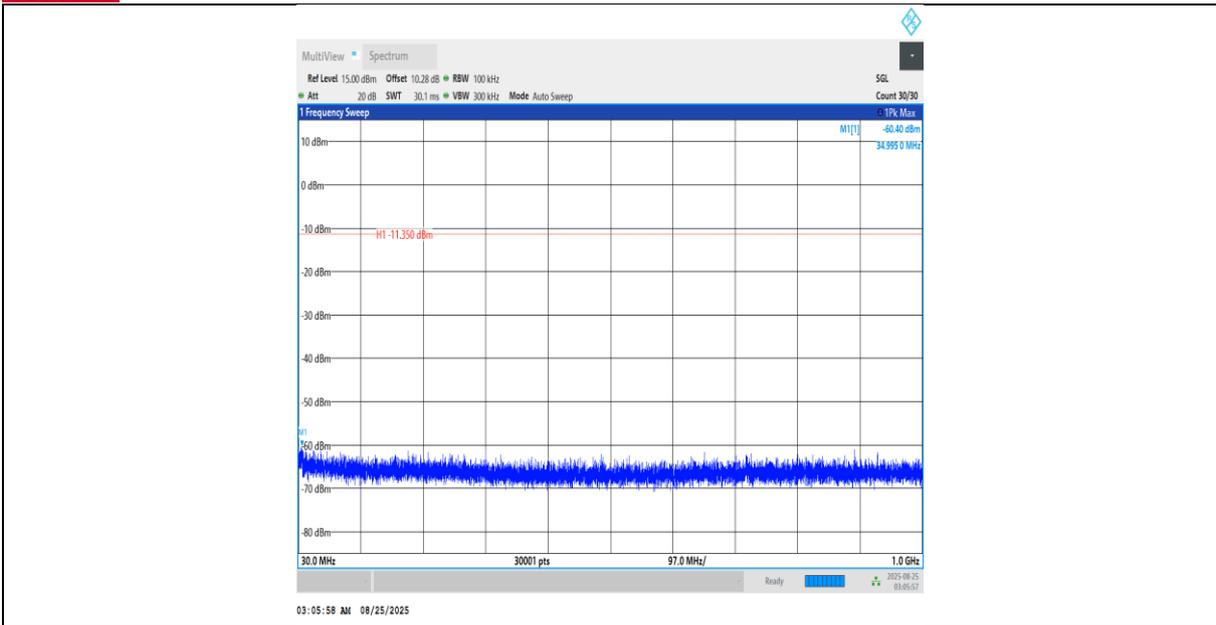
11B-Ant4-2412-30~1000-PASS



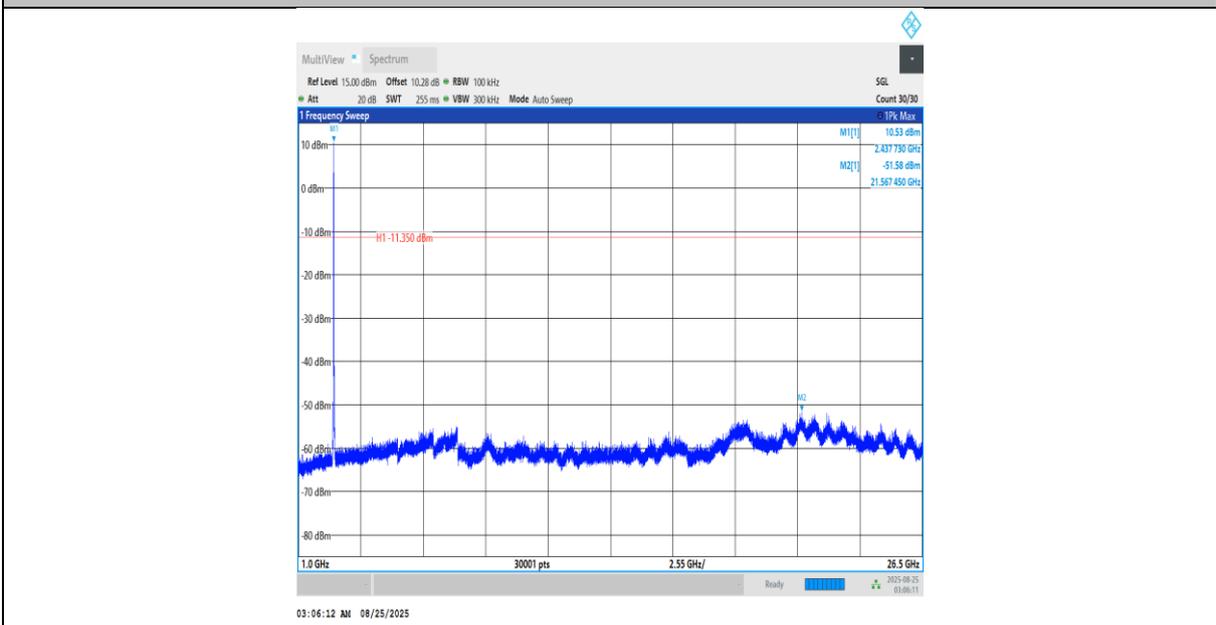
11B-Ant4-2412-1000~26500-PASS



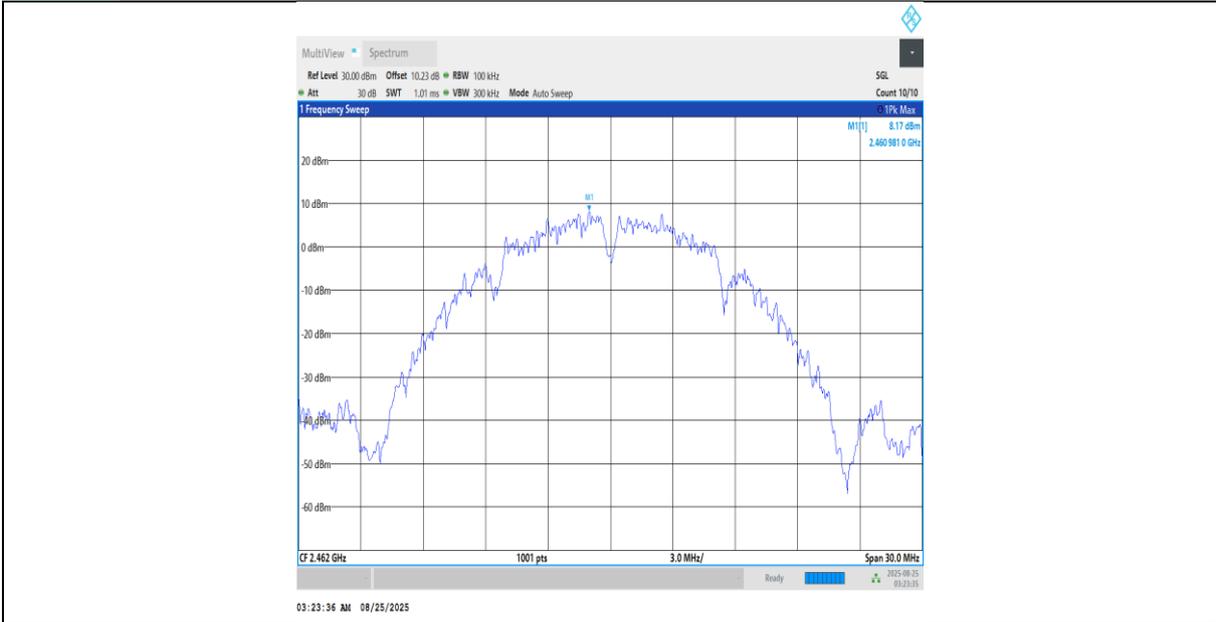
11B-Ant4-2437-0~Reference-PASS



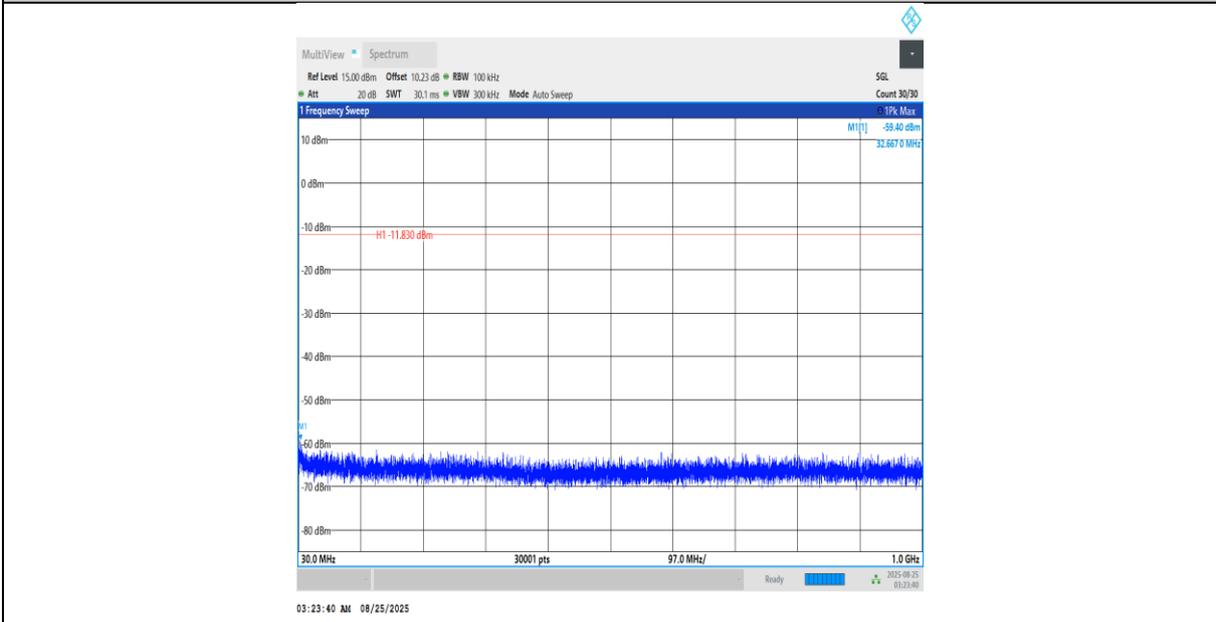
11B-Ant4-2437-30~1000-PASS



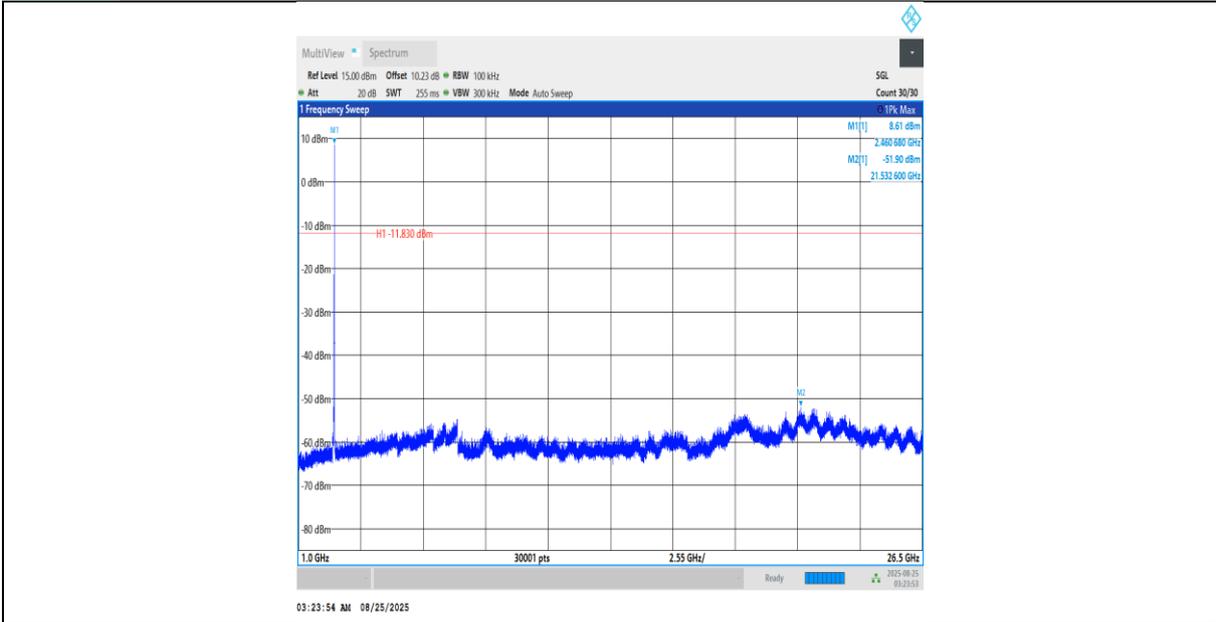
11B-Ant4-2437-1000~26500-PASS



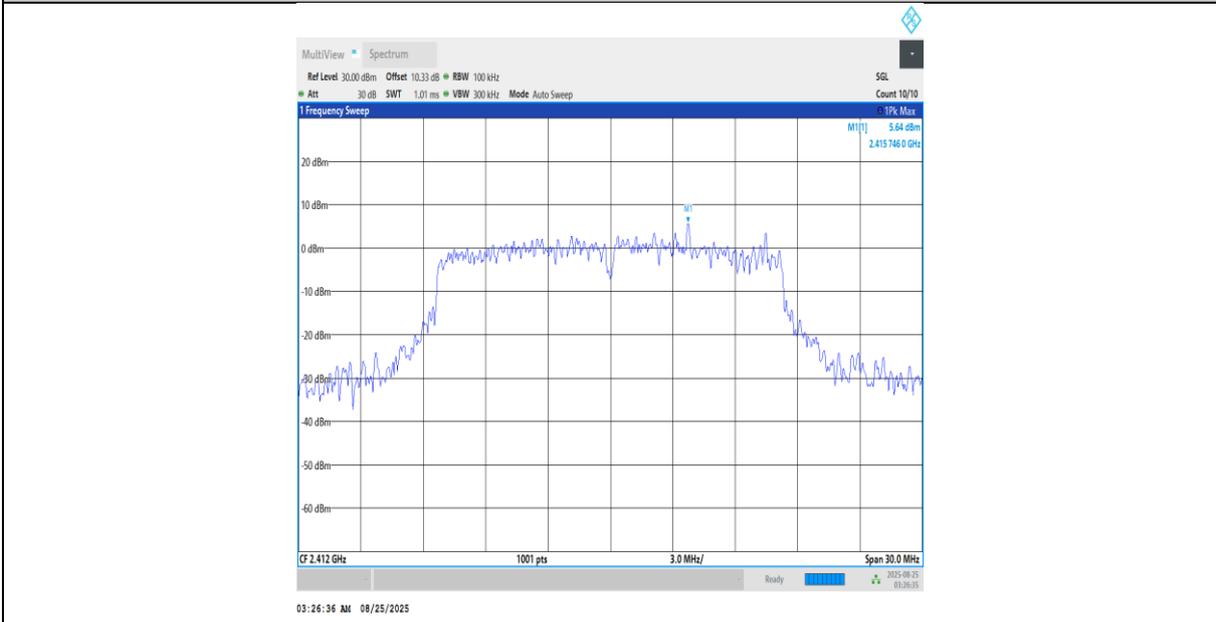
11B-Ant4-2462-0~Reference-PASS



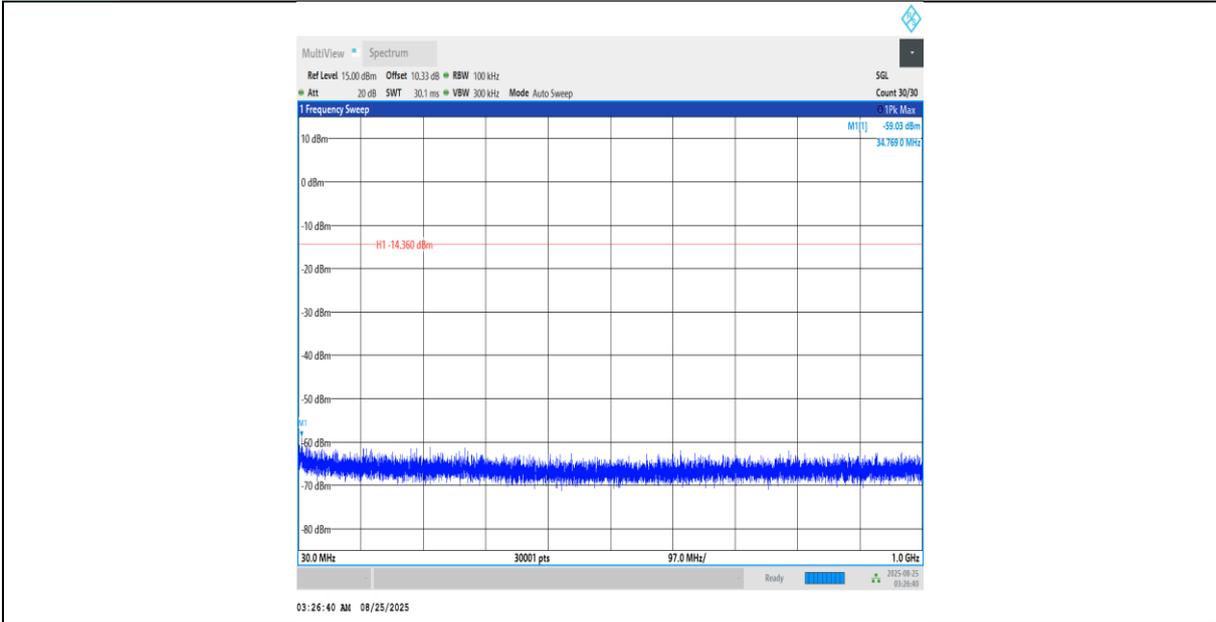
11B-Ant4-2462-30~1000-PASS



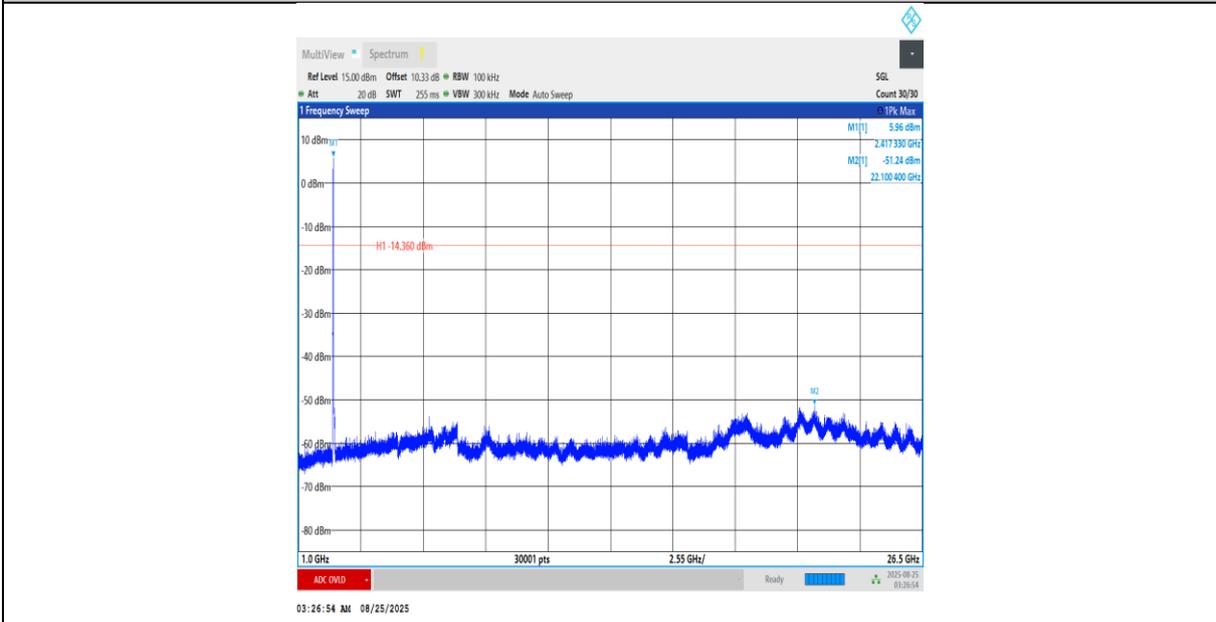
11B-Ant4-2462-1000~26500-PASS



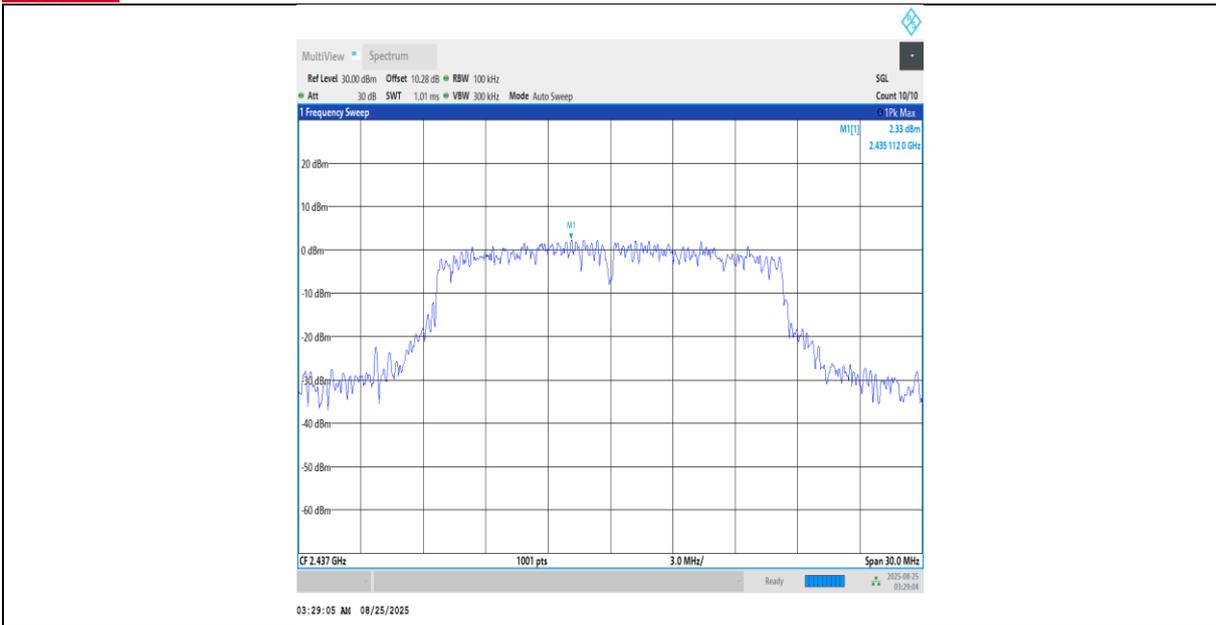
11G-Ant4-2412-0~Reference-PASS



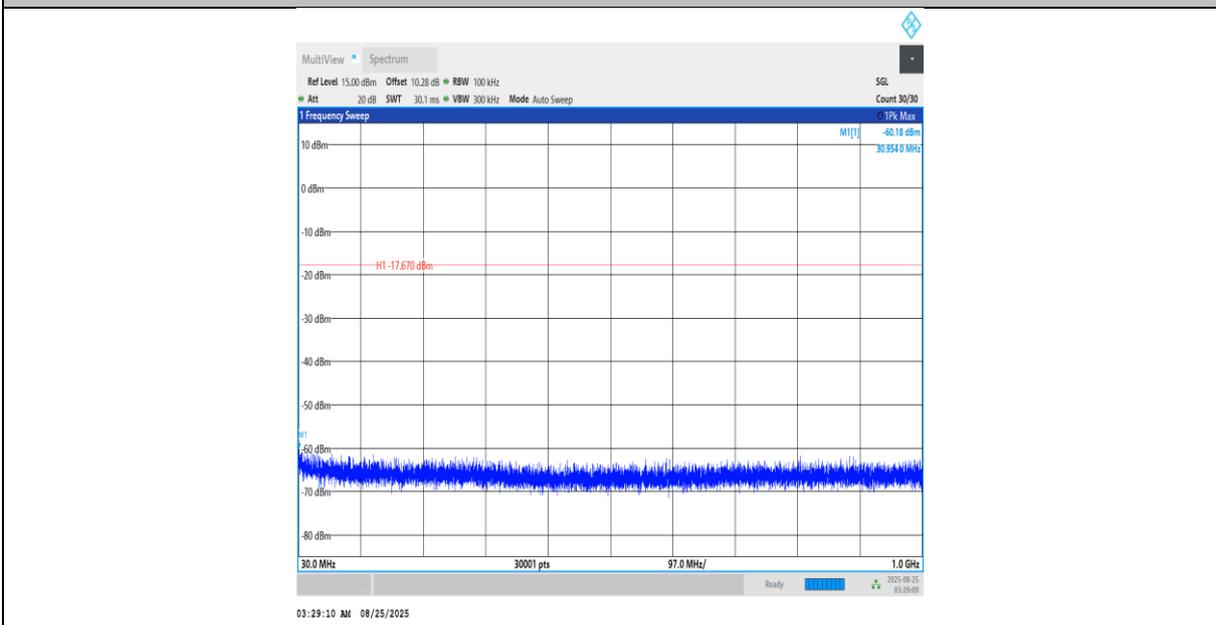
11G-Ant4-2412-30~1000-PASS



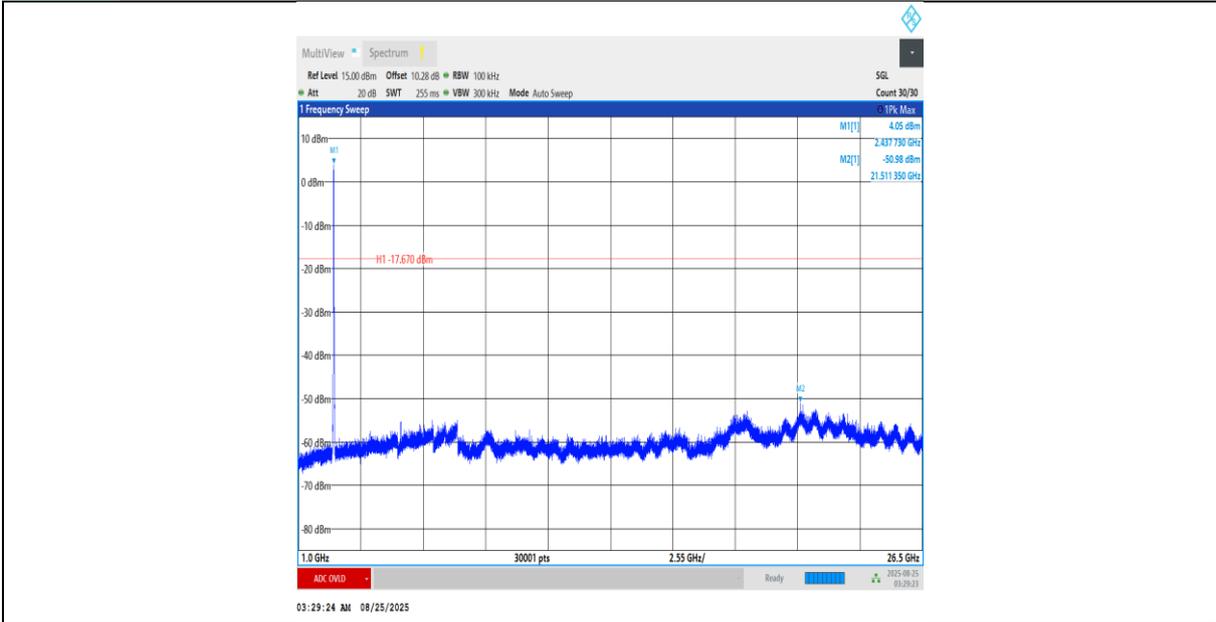
11G-Ant4-2412-1000~26500-PASS



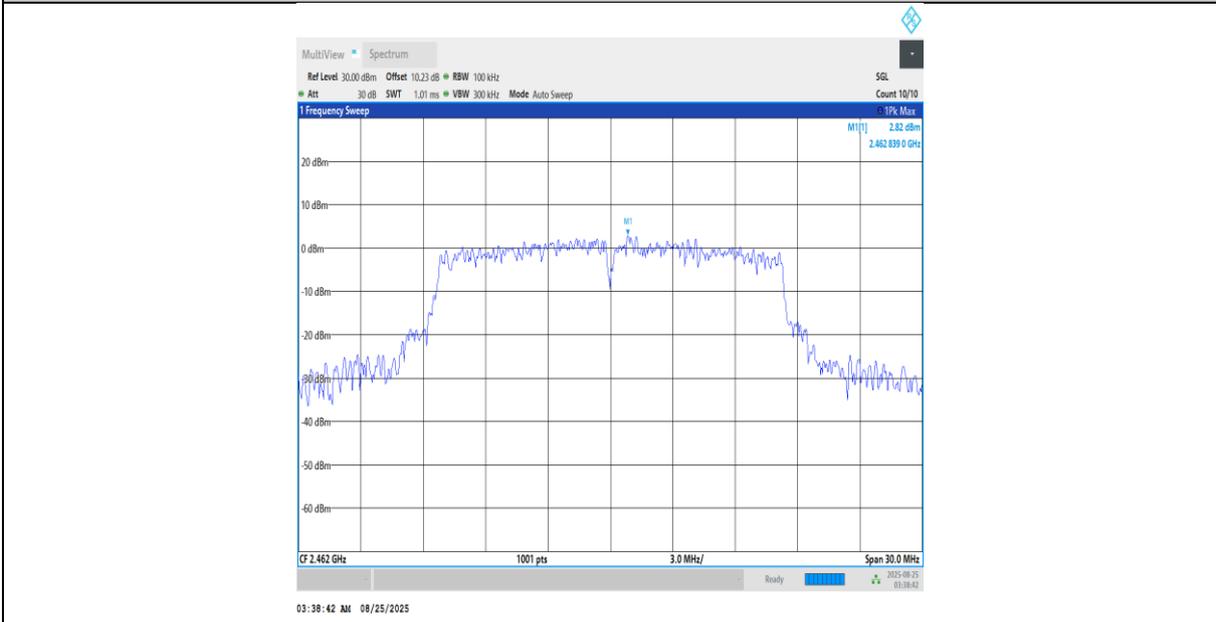
11G-Ant4-2437-0~Reference-PASS



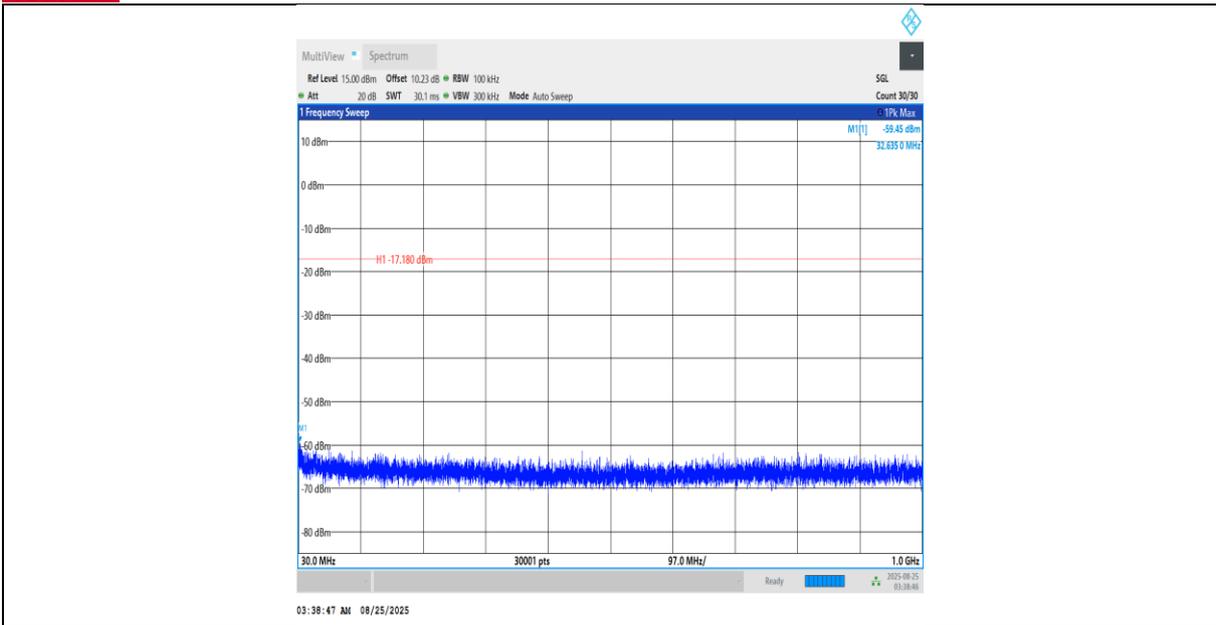
11G-Ant4-2437-30~1000-PASS



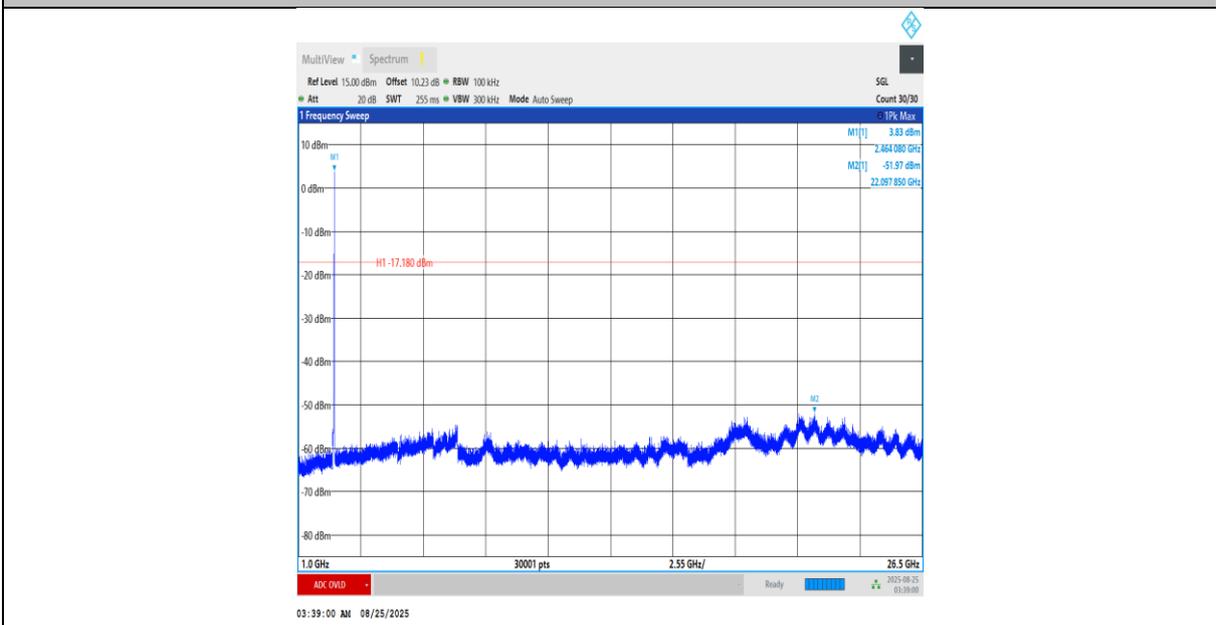
11G-Ant4-2437-1000~26500-PASS



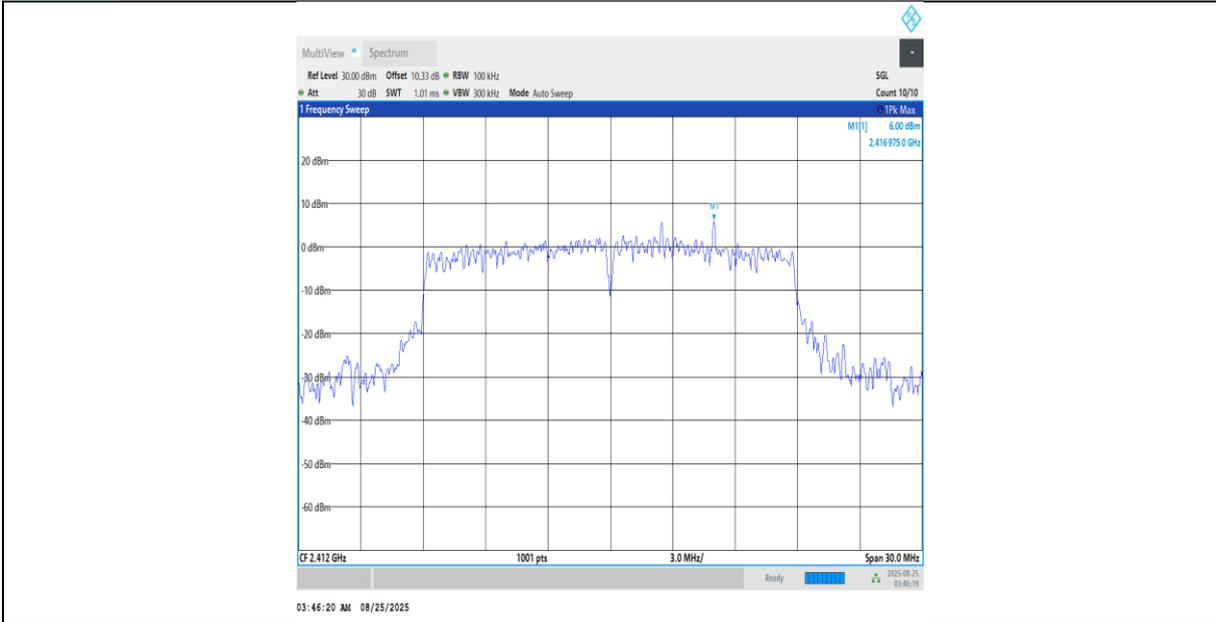
11G-Ant4-2462-0~Reference-PASS



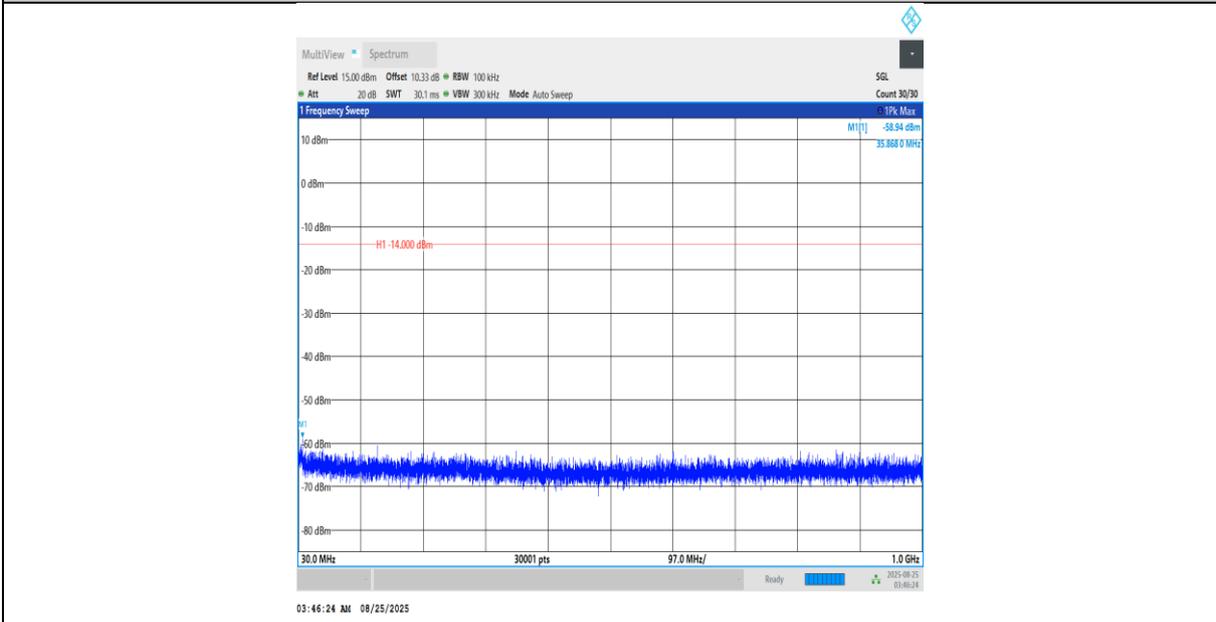
11G-Ant4-2462-30~1000-PASS



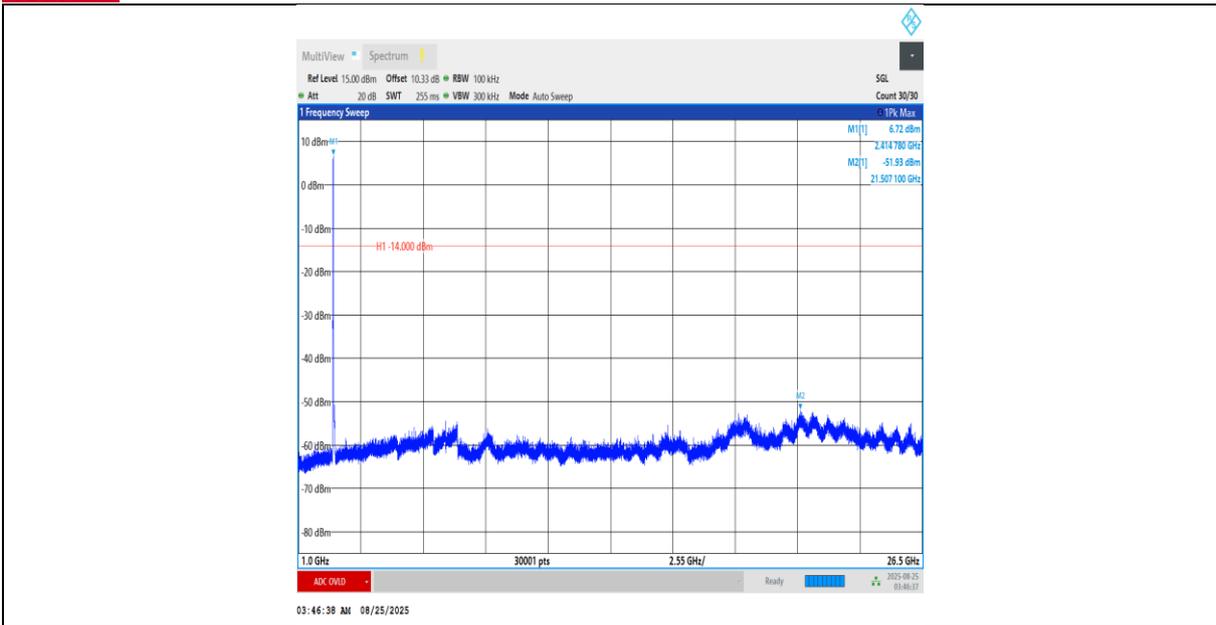
11G-Ant4-2462-1000~26500-PASS



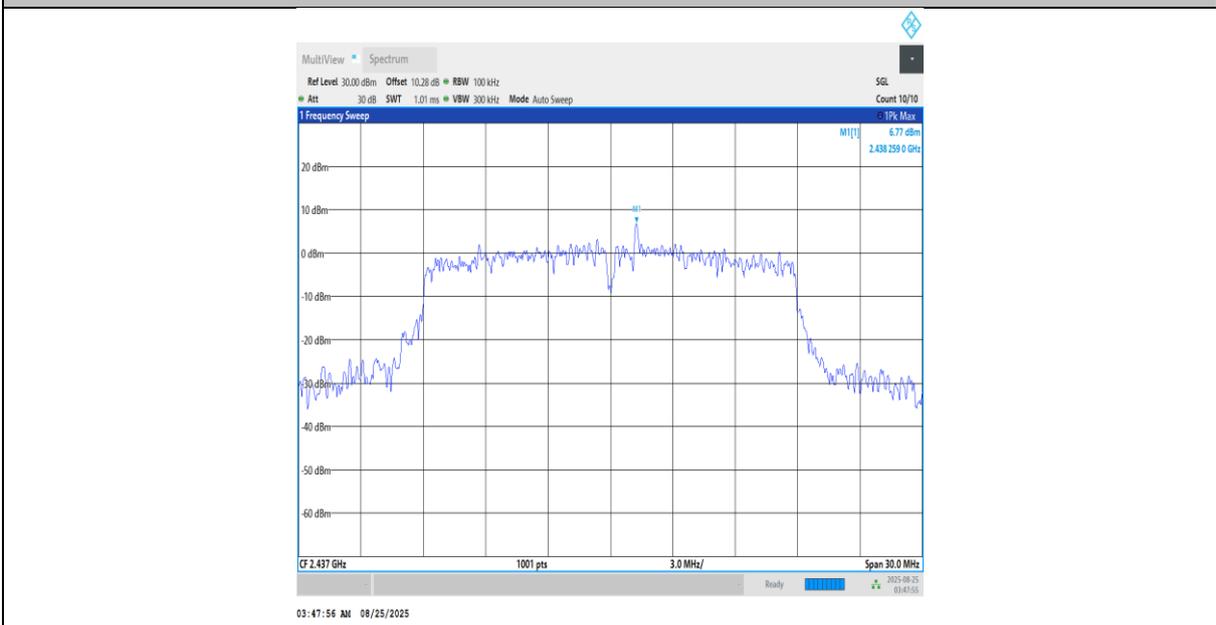
11N20SISO-Ant4-2412-0~Reference-PASS



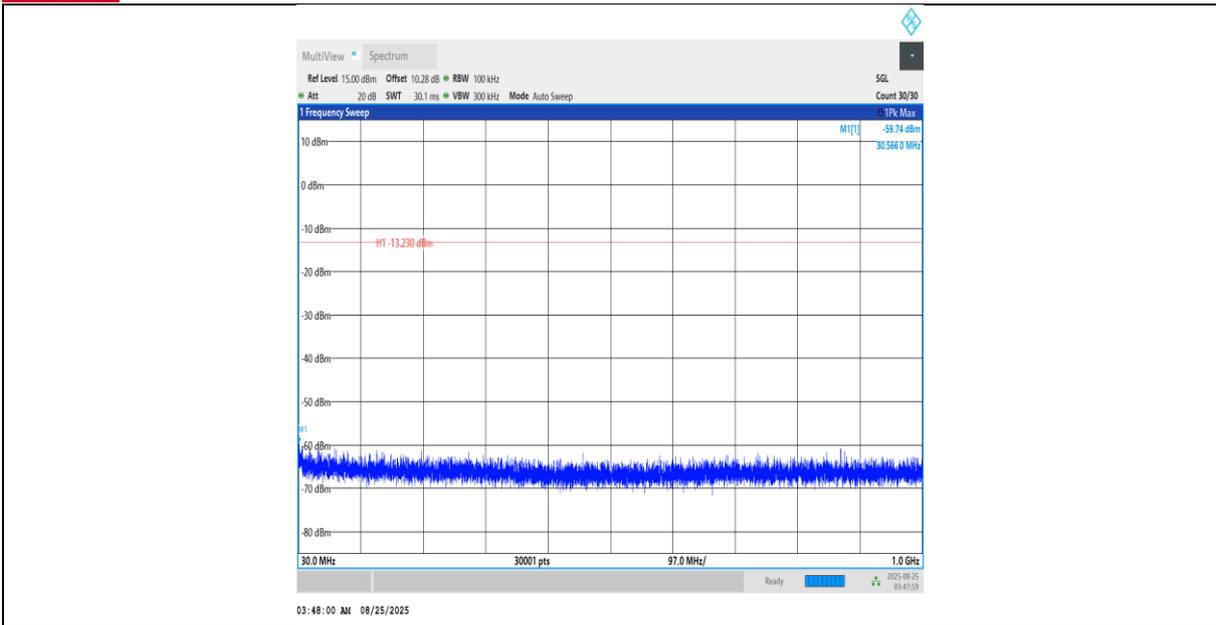
11N20SISO-Ant4-2412-30~1000-PASS



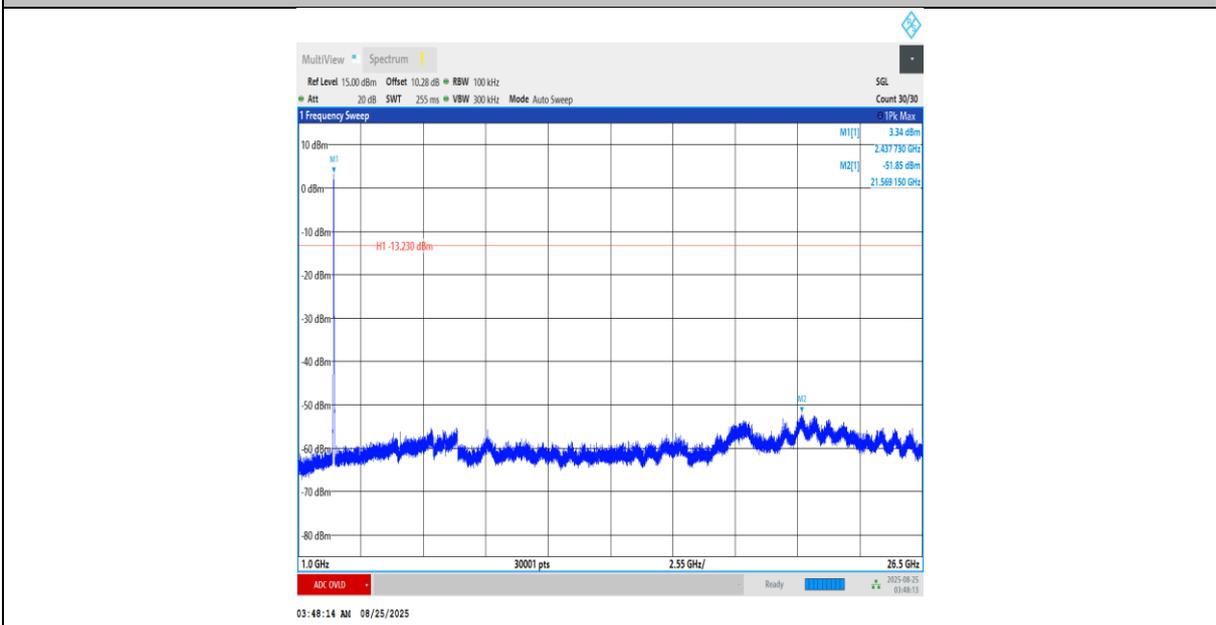
11N20SISO-Ant4-2412-1000~26500-PASS



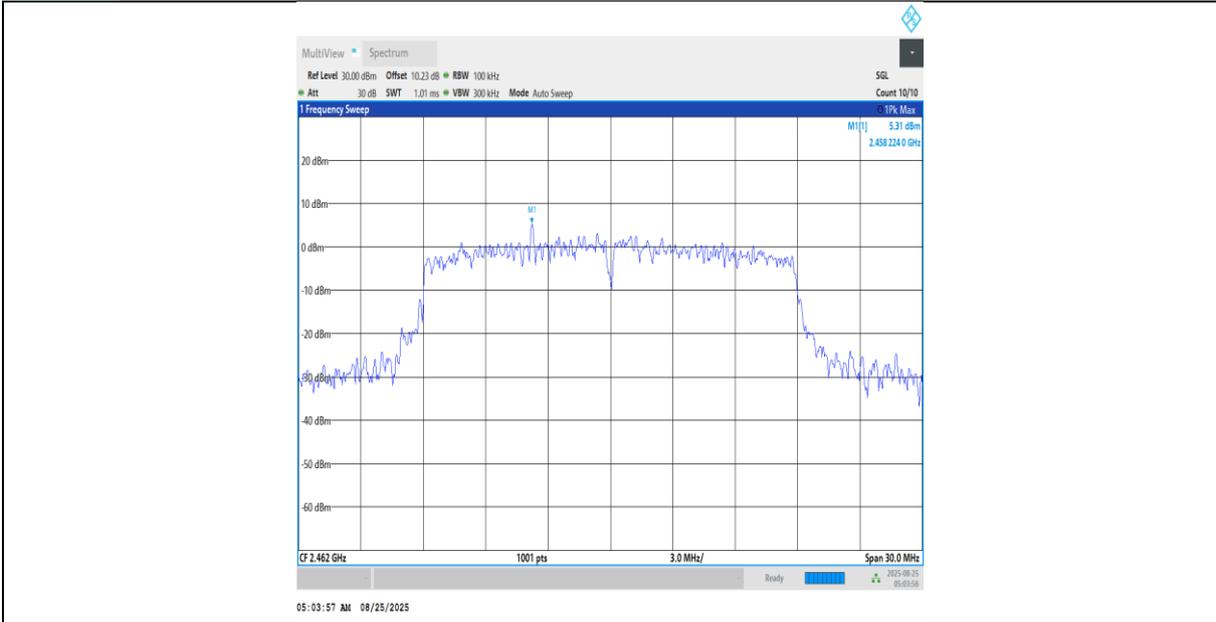
11N20SISO-Ant4-2437-0~Reference-PASS



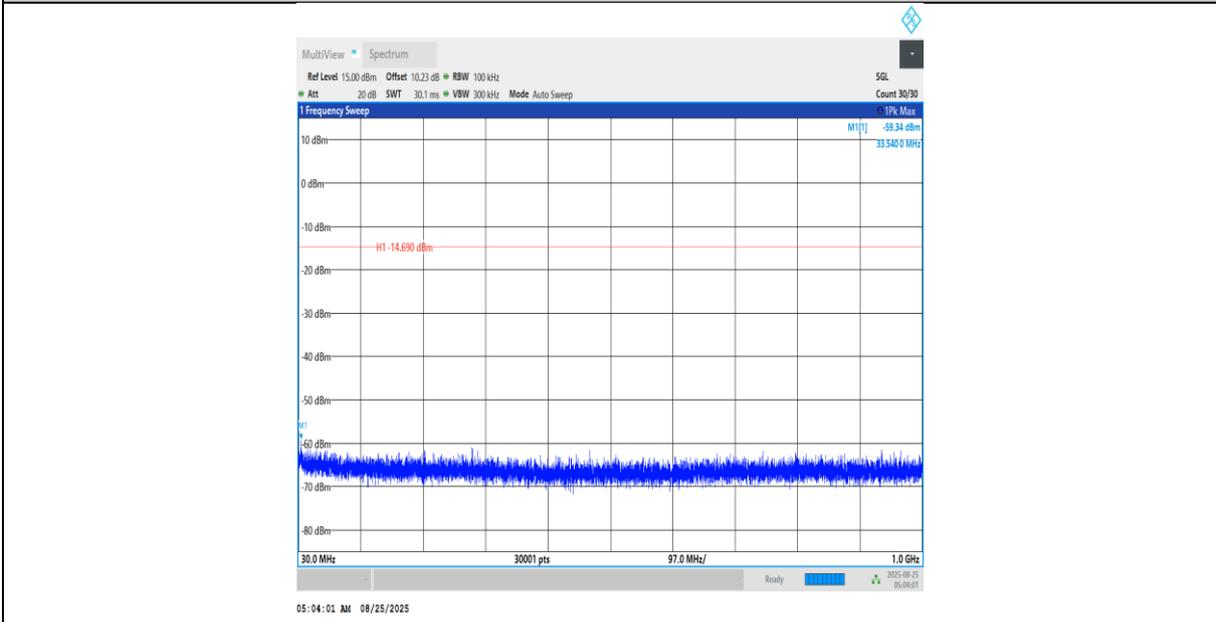
11N20SISO-Ant4-2437-30~1000-PASS



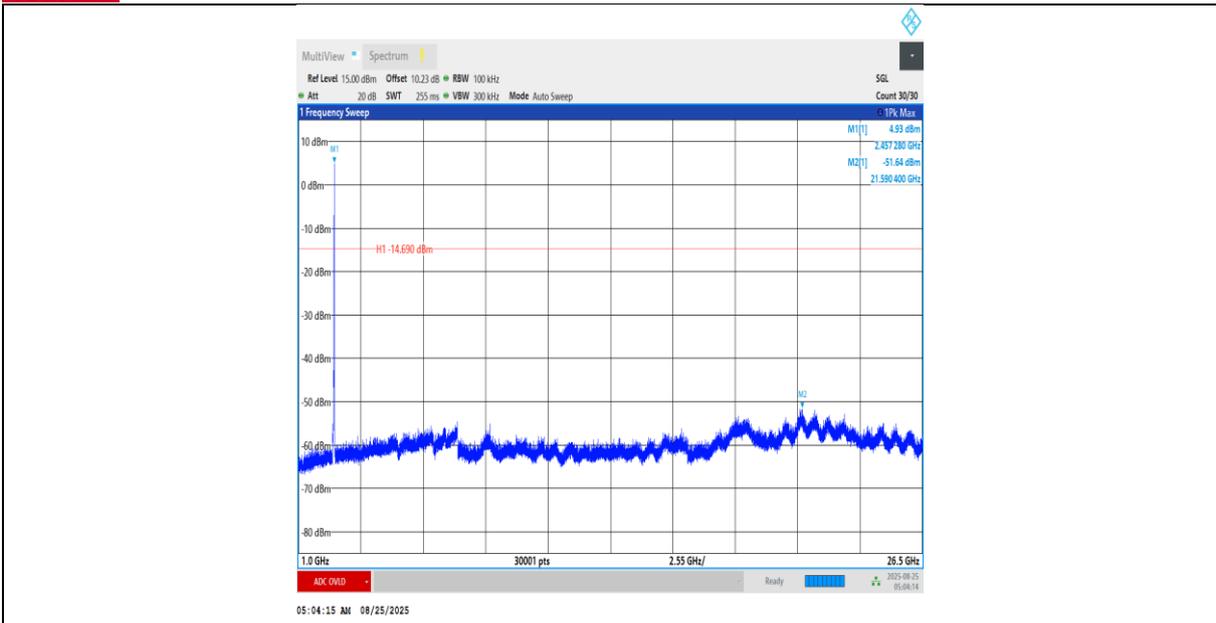
11N20SISO-Ant4-2437-1000~26500-PASS



11N20SISO-Ant4-2462-0~Reference-PASS



11N20SISO-Ant4-2462-30~1000-PASS



11N20SISO-Ant4-2462-1000~26500-PASS



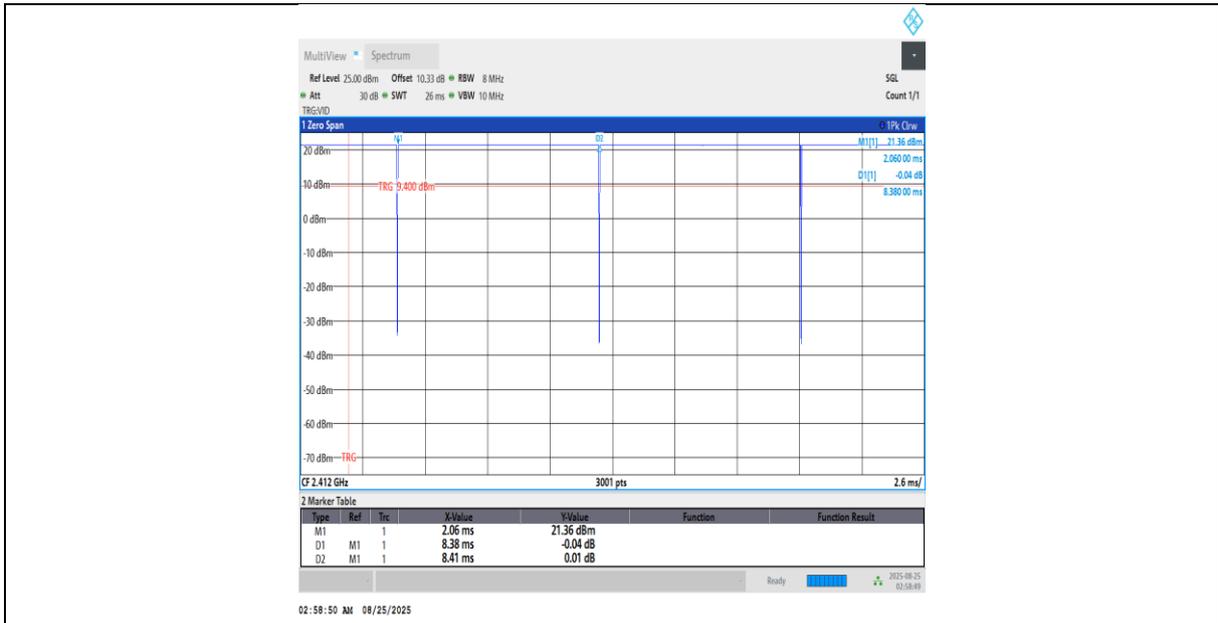
DUTY CYCLE

TEST RESULT

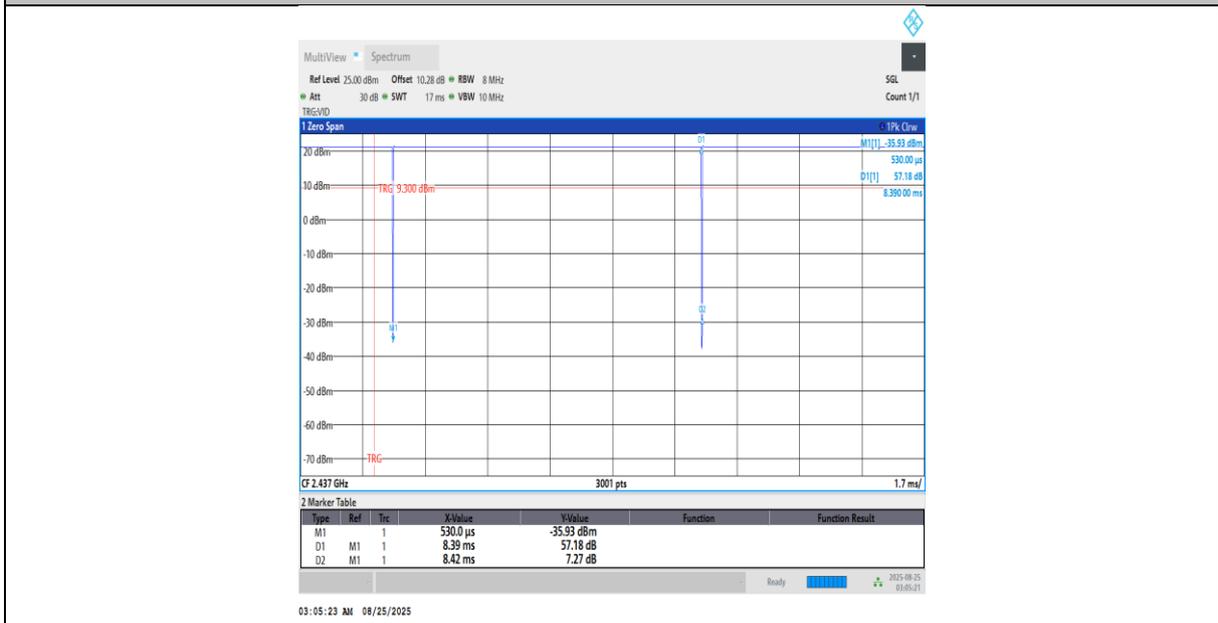
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor
11B	Ant4	2412	8.38	8.41	99.64	0.02
11B	Ant4	2437	8.39	8.42	99.64	0.02
11B	Ant4	2462	8.39	8.42	99.64	0.02
11G	Ant4	2412	1.39	1.42	97.89	0.09
11G	Ant4	2437	1.39	1.42	97.89	0.09
11G	Ant4	2462	1.39	1.42	97.89	0.09
11N20SISO	Ant4	2412	1.30	1.34	97.01	0.13
11N20SISO	Ant4	2437	1.30	1.34	97.01	0.13
11N20SISO	Ant4	2462	1.30	1.34	97.01	0.13
11N40SISO	Ant4	2422	0.64	0.68	94.12	0.26



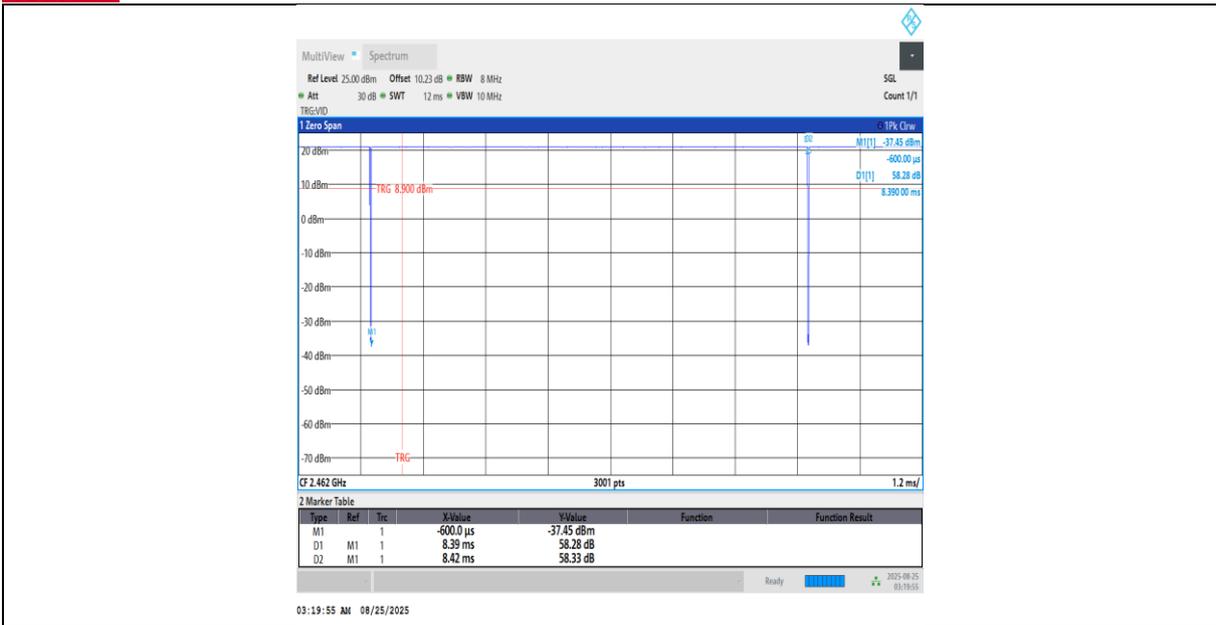
TEST GRAPHS



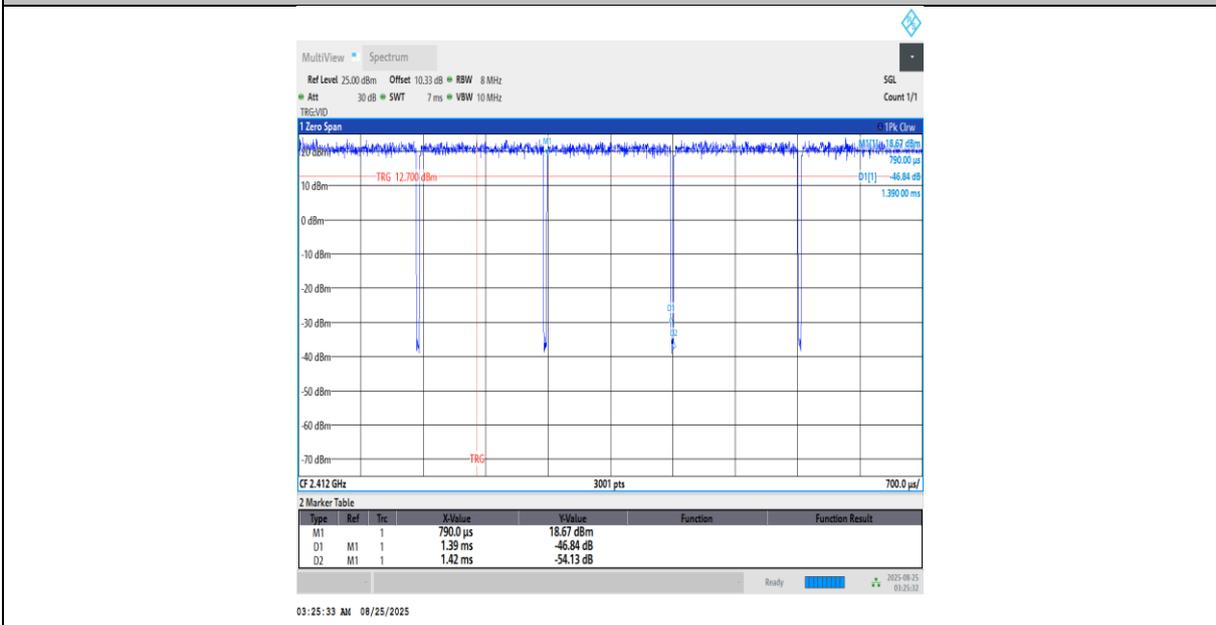
NTNV-11B-Ant4-2412



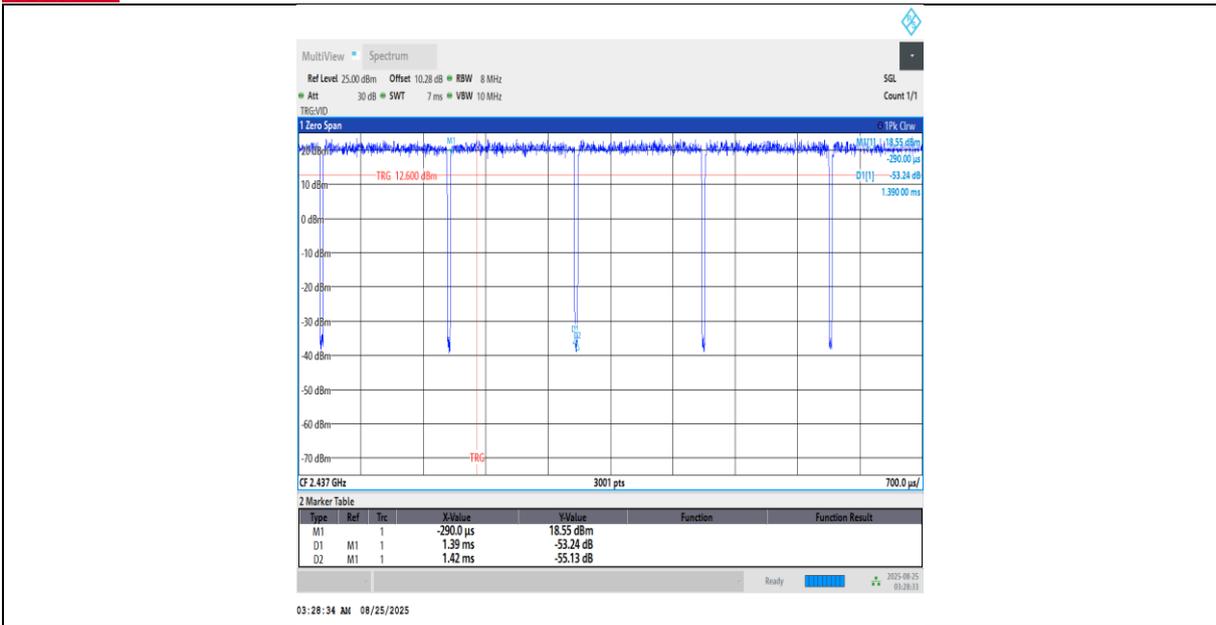
NTNV-11B-Ant4-2437



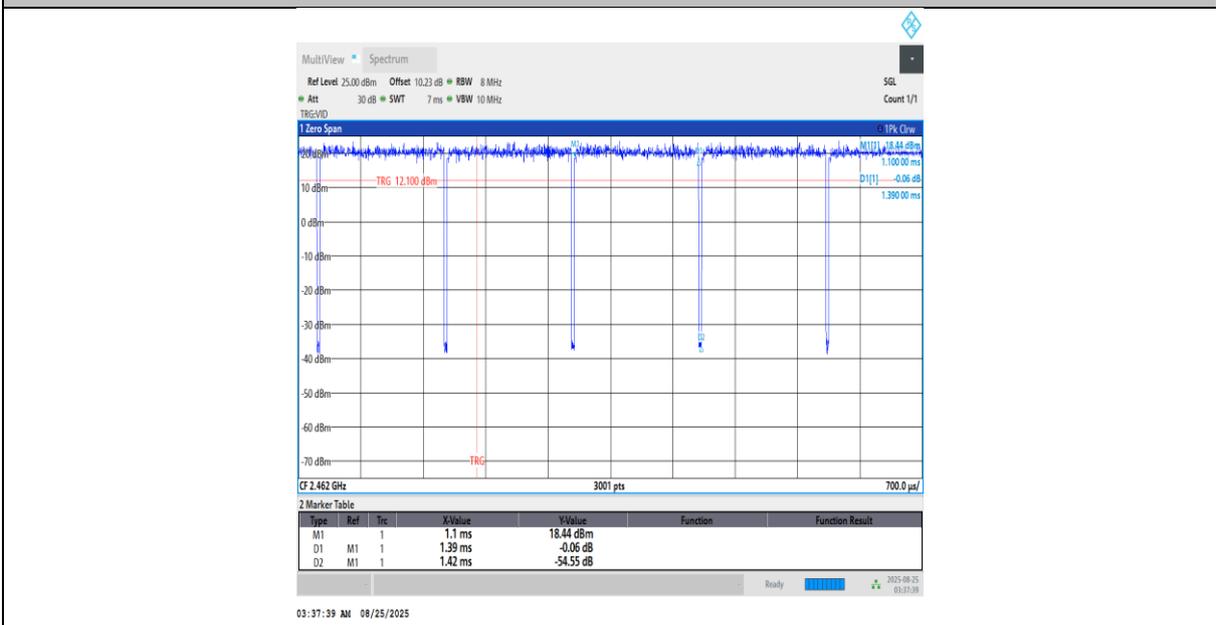
NTNV-11B-Ant4-2462



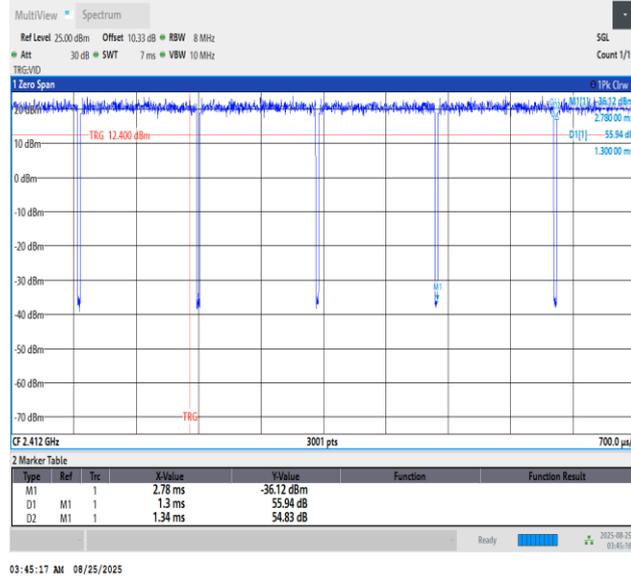
NTNV-11G-Ant4-2412



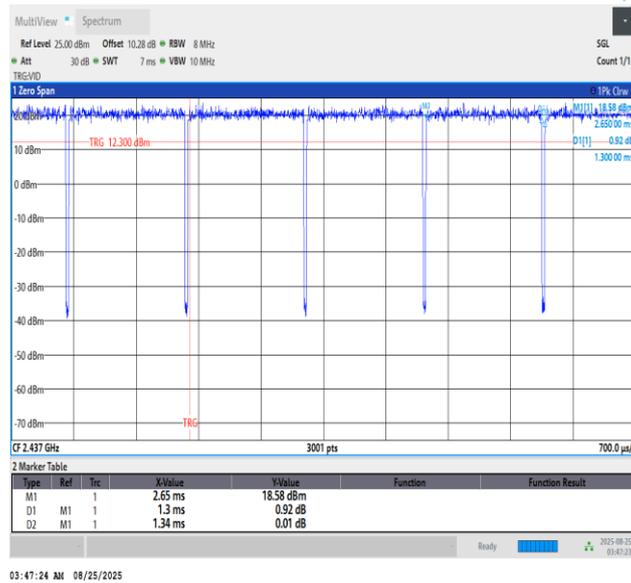
NTNV-11G-Ant4-2437



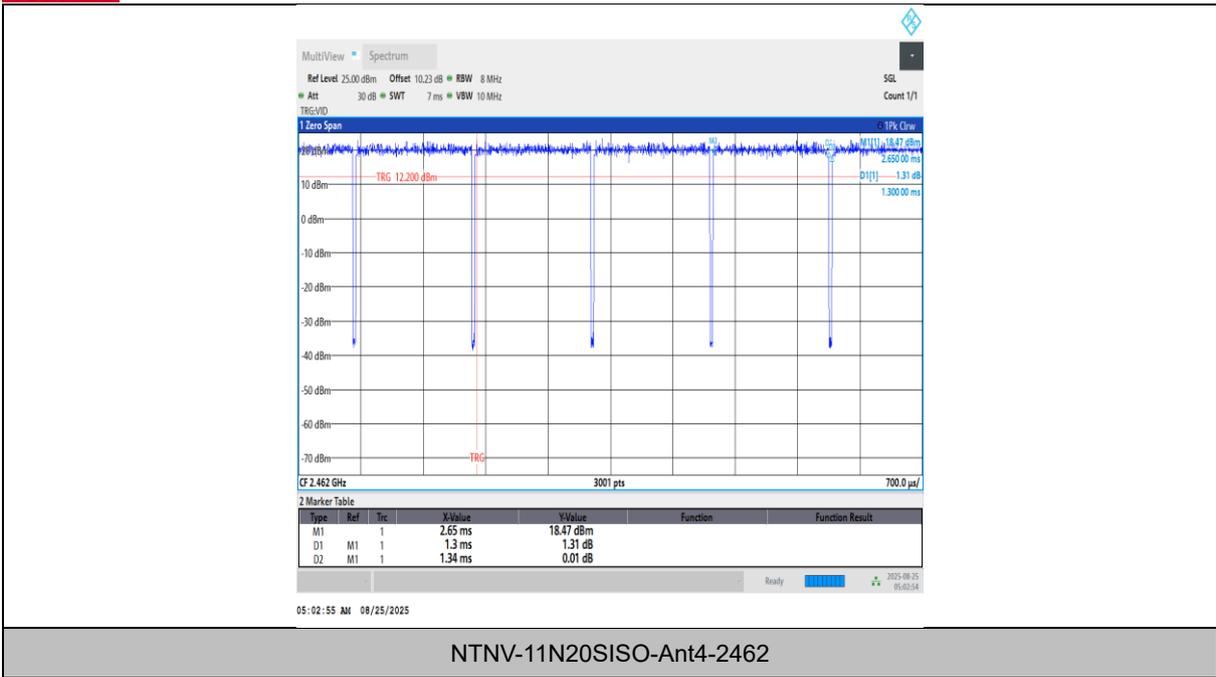
NTNV-11G-Ant4-2462



NTNV-11N20SISO-Ant4-2412



NTNV-11N20SISO-Ant4-2437





7 APPENDIX B:BLE DTS BANDWIDTH

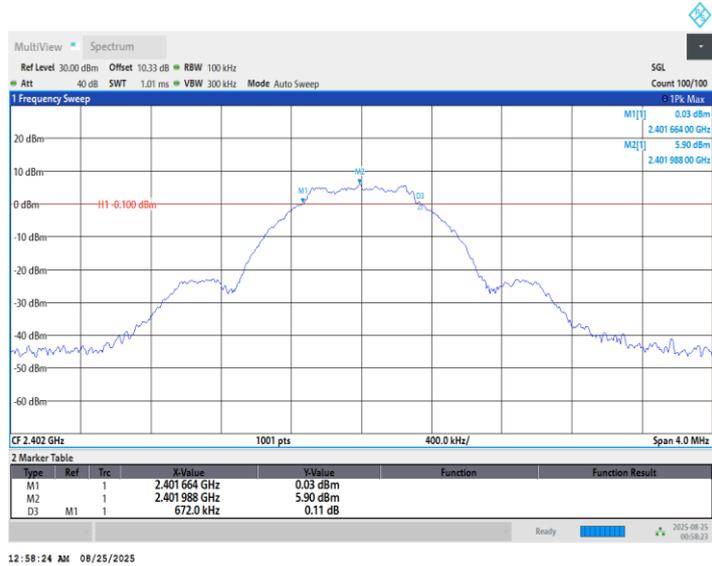
TEST RESULT

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant4	2402	0.67	2401.66	2402.34	0.5	PASS
		2440	0.71	2439.64	2440.35	0.5	PASS
		2480	0.68	2479.64	2480.33	0.5	PASS
BLE_2M	Ant4	2404	1.12	2403.44	2404.57	0.5	PASS
		2440	1.22	2439.37	2440.59	0.5	PASS
		2478	1.14	2477.44	2478.58	0.5	PASS
BLE_125K	Ant4	2402	0.70	2401.65	2402.35	0.5	PASS
		2440	0.69	2439.65	2440.34	0.5	PASS
		2480	0.69	2479.65	2480.34	0.5	PASS
BLE_500K	Ant4	2402	0.67	2401.67	2402.34	0.5	PASS
		2440	0.68	2439.66	2440.34	0.5	PASS
		2480	0.69	2479.66	2480.35	0.5	PASS

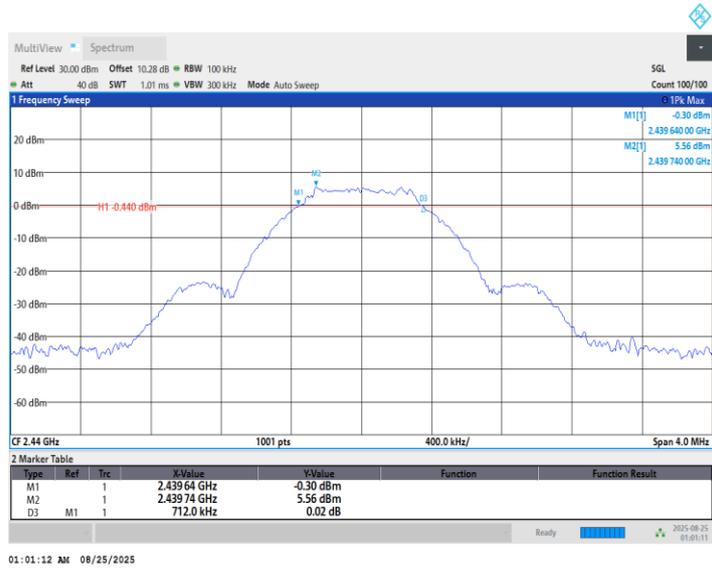


TEST GRAPHS

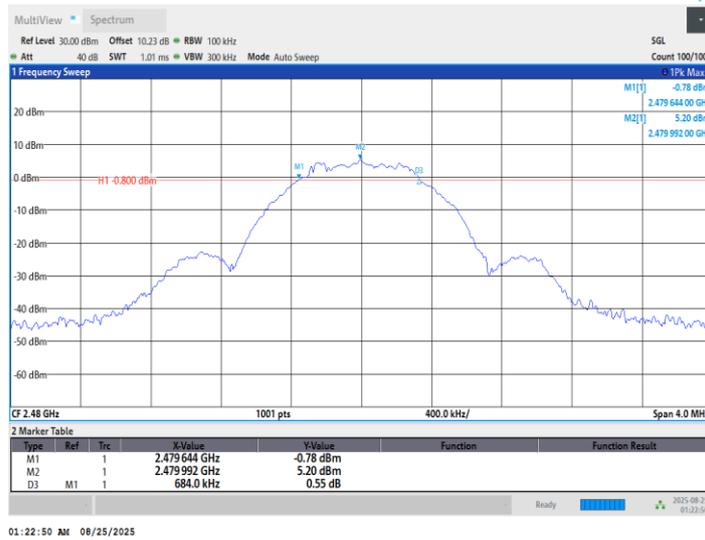
BLE_1M_Ant4_2402



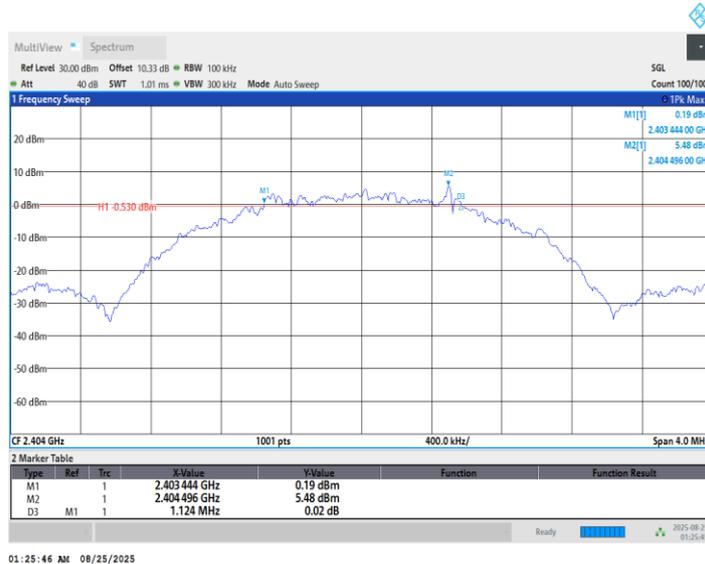
BLE_1M_Ant4_2440



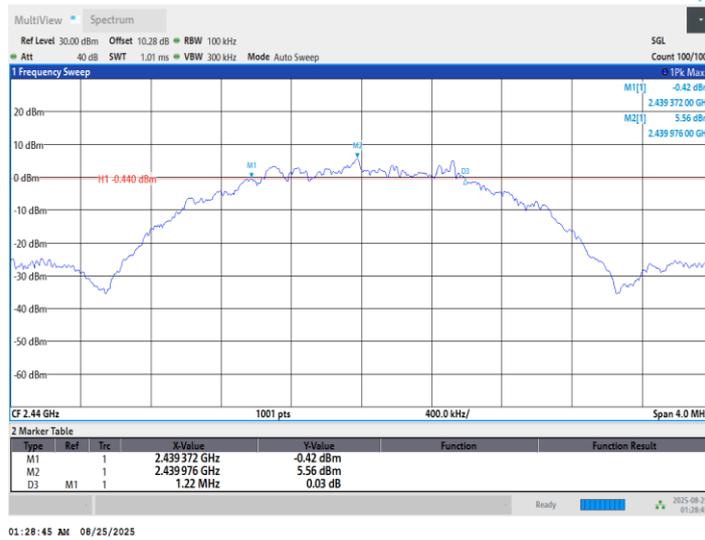
BLE_1M_Ant4_2480



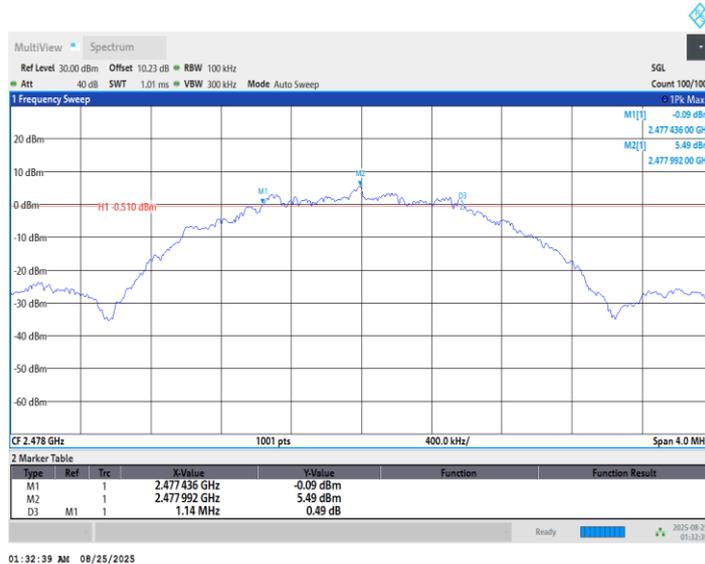
BLE_2M_Ant4_2404



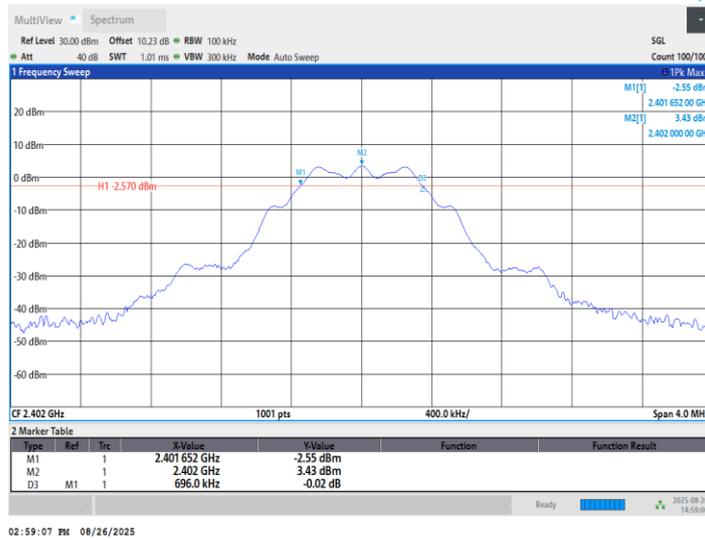
BLE_2M_Ant4_2440



BLE_2M_Ant4_2478



BLE_125K_Ant4_2402



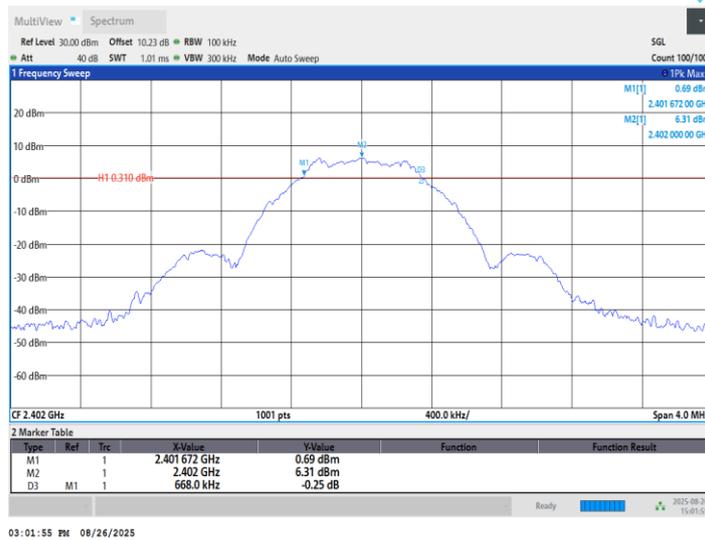
BLE_125K_Ant4_2440



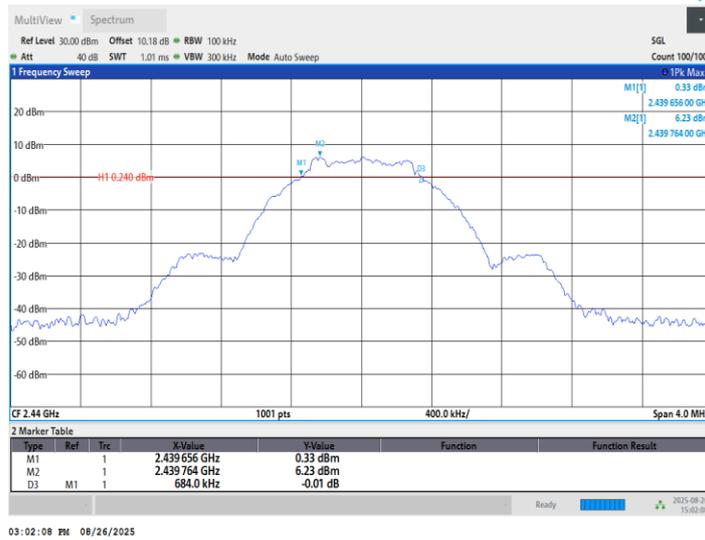
BLE_125K_Ant4_2480



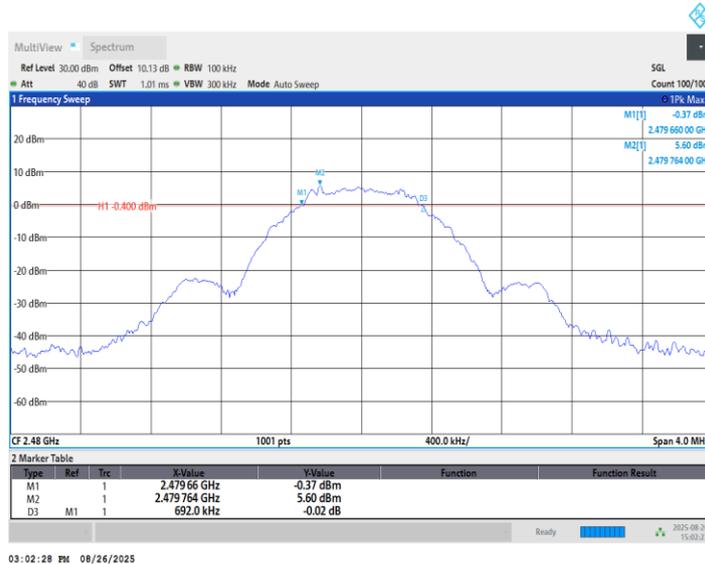
BLE_500K_Ant4_2402



BLE_500K_Ant4_2440



BLE_500K_Ant4_2480





OCCUPIED CHANNEL BANDWIDTH

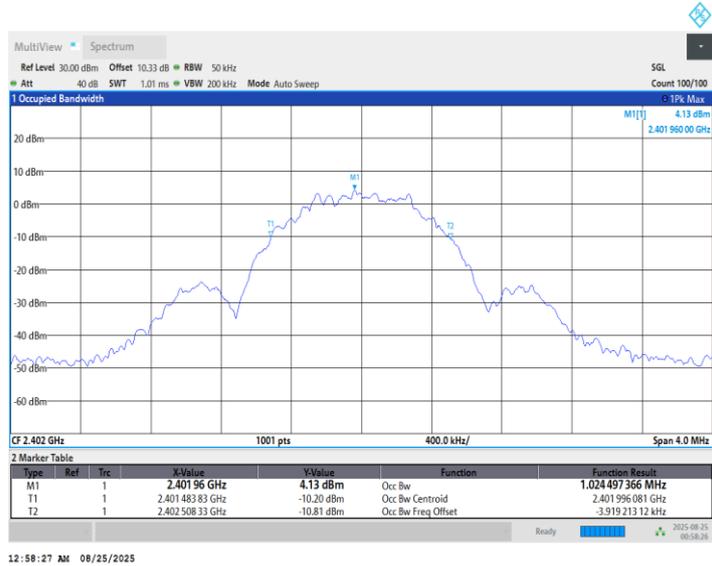
TEST RESULT

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant4	2402	1.0245	2401.4838	2402.5083	---	---
		2440	1.0277	2439.4823	2440.5101	---	---
		2480	1.0303	2479.4803	2480.5106	---	---
BLE_2M	Ant4	2404	2.0535	2402.9789	2405.0325	---	---
		2440	2.0658	2438.9811	2441.0470	---	---
		2478	2.0578	2476.9815	2479.0392	---	---
BLE_125K	Ant4	2402	1.0288	2401.4847	2402.5135	---	---
		2440	1.0438	2439.4803	2440.5241	---	---
		2480	1.0339	2479.4852	2480.5191	---	---
BLE_500K	Ant4	2402	1.0463	2401.4782	2402.5245	---	---
		2440	1.0478	2439.4783	2440.5261	---	---
		2480	1.0469	2479.4774	2480.5244	---	---

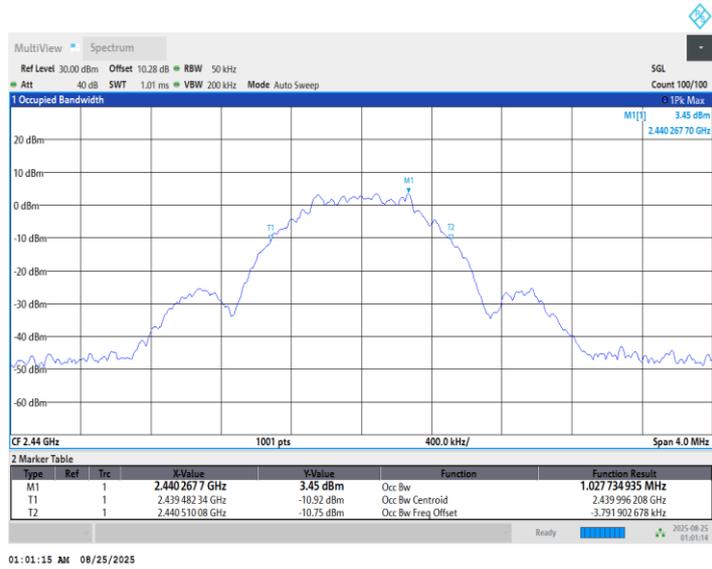


TEST GRAPHS

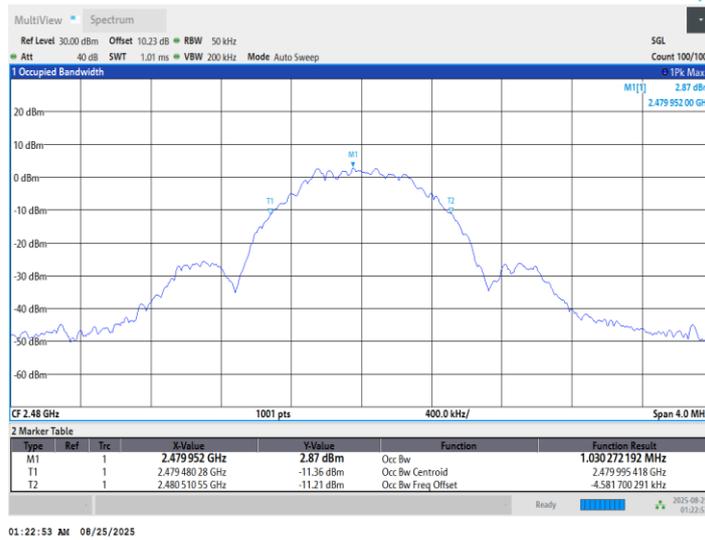
BLE_1M_Ant4_2402



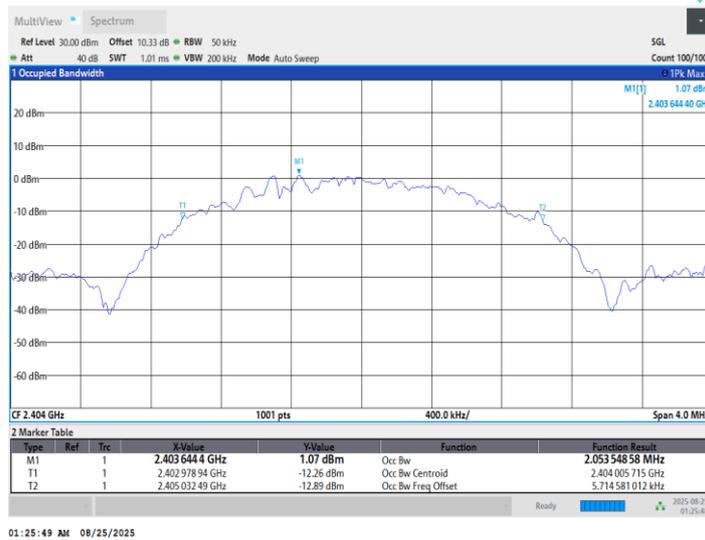
BLE_1M_Ant4_2440



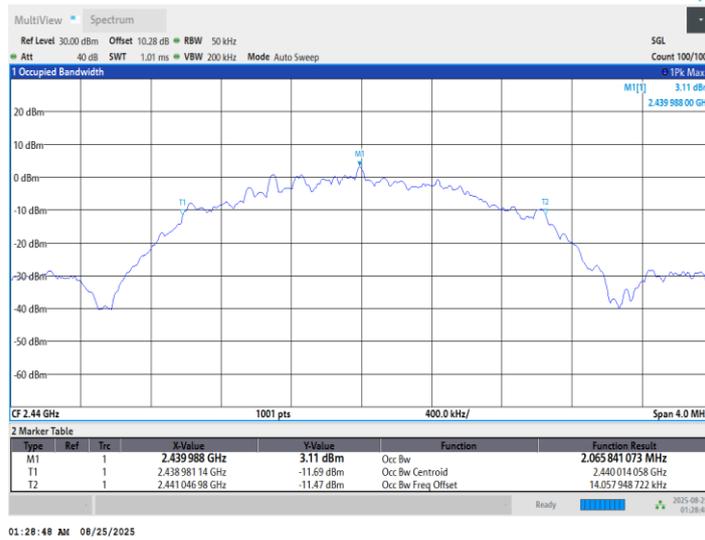
BLE_1M_Ant4_2480



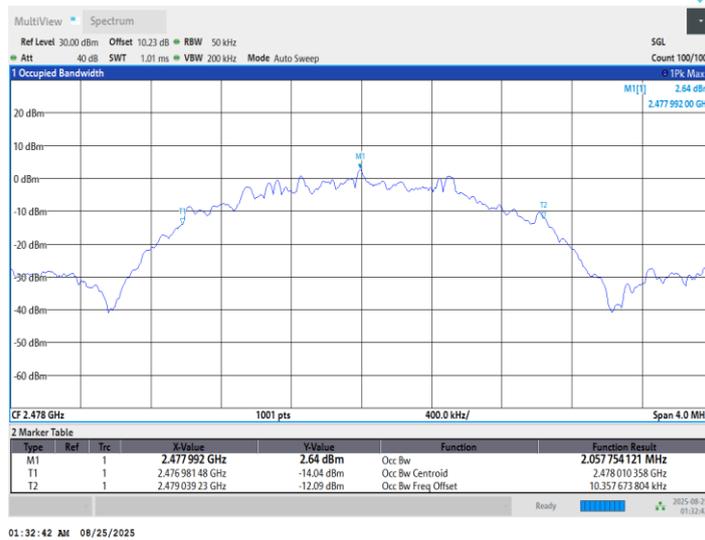
BLE_2M_Ant4_2404



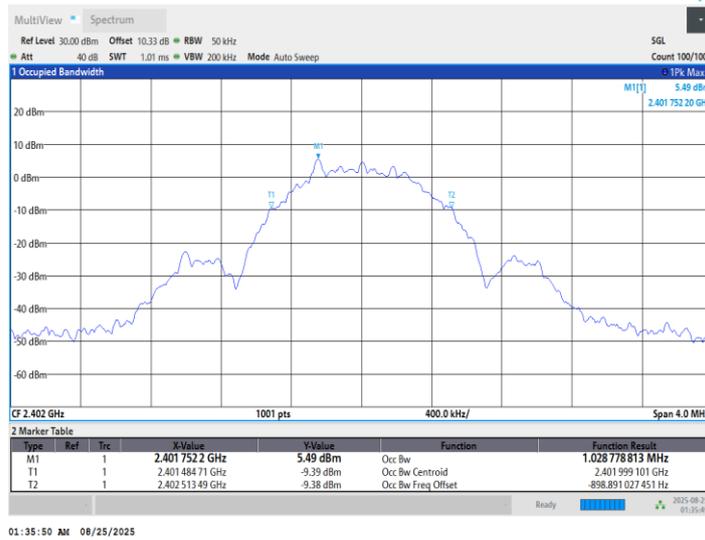
BLE_2M_Ant4_2440



BLE_2M_Ant4_2478

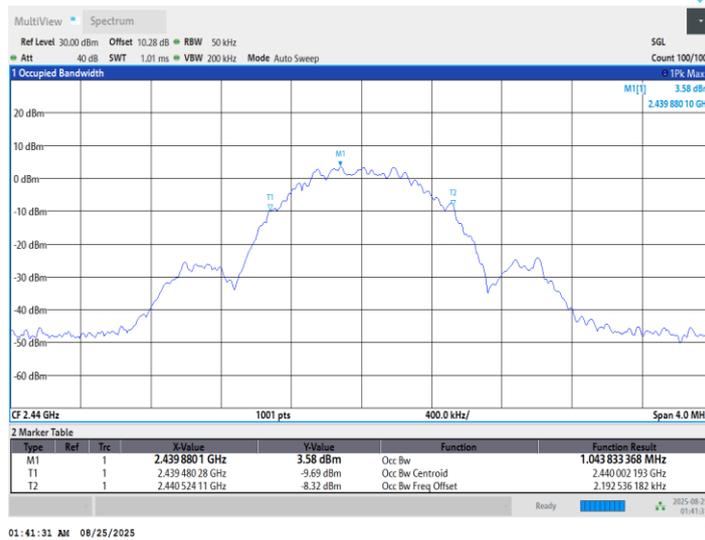


BLE_125K_Ant4_2402



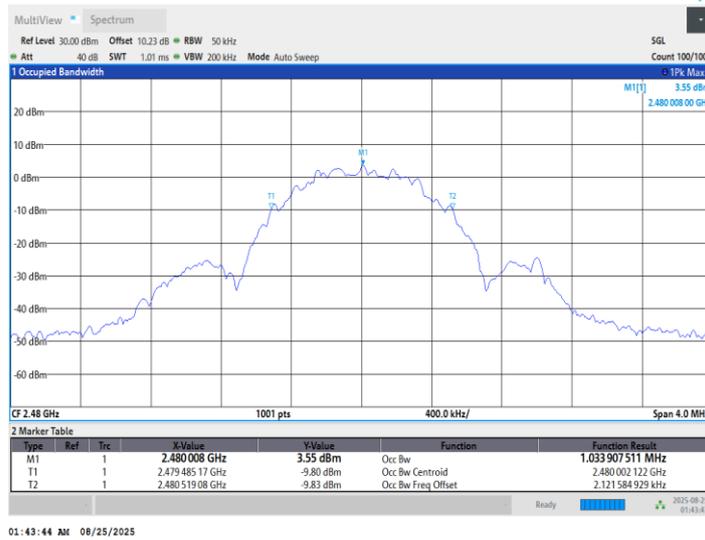
01:35:50 AM 08/25/2025

BLE_125K_Ant4_2440



01:41:31 AM 08/25/2025

BLE_125K_Ant4_2480



01:43:44 AM 08/25/2025

BLE_500K_Ant4_2402



01:47:21 AM 08/25/2025

BLE_500K_Ant4_2440



BLE_500K_Ant4_2480





MAXIMUM CONDUCTED OUTPUT POWER

TEST RESULT

TestMode	Antenna	Channel	Average power [dBm]	Peak power [dBm]	Peak power [mw]	Limit [dBm]	Verdict	Power Setting
BLE_1M	Ant4	2402	7.43	8.14	6.52	≤30	PASS	8
		2440	7.37	8.24	6.67	≤30	PASS	8
		2480	7.33	7.78	6.00	≤30	PASS	8
BLE_2M	Ant4	2404	7.6	8.74	7.48	≤30	PASS	8
		2440	7.38	8.97	7.89	≤30	PASS	8
		2478	7.62	8.66	7.35	≤30	PASS	8
BLE_125k	Ant4	2402	7.5	8.06	6.40	≤30	PASS	8
		2440	7.68	8.22	6.64	≤30	PASS	8
		2480	7.52	7.75	5.96	≤30	PASS	8
BLE_500K	Ant4	2402	7.34	8.09	6.44	≤30	PASS	8
		2440	7.46	8.18	6.58	≤30	PASS	8
		2480	7.3	7.83	6.07	≤30	PASS	8



MAXIMUM POWER SPECTRAL DENSITY

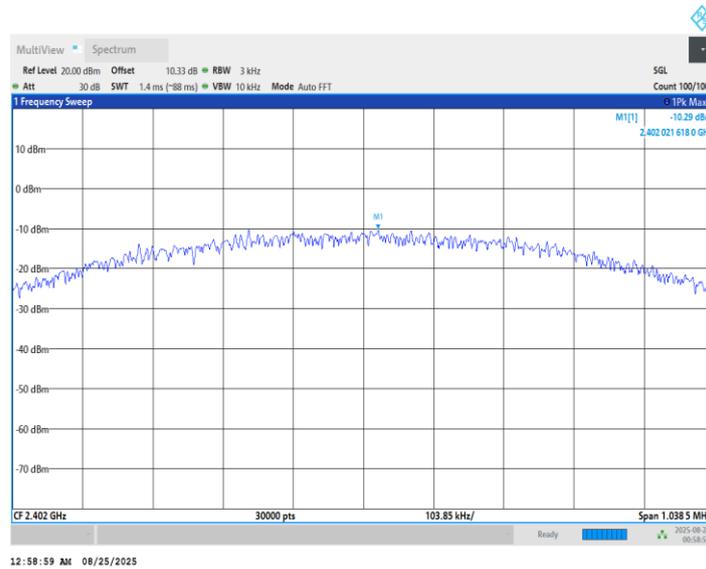
TEST RESULT

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant4	2402	-10.29	≤8.00	PASS
		2440	-10.33	≤8.00	PASS
		2480	-10.94	≤8.00	PASS
BLE_2M	Ant4	2404	-12.30	≤8.00	PASS
		2440	-12.31	≤8.00	PASS
		2478	-12.67	≤8.00	PASS
BLE_125K	Ant4	2402	-7.96	≤8.00	PASS
		2440	-2.49	≤8.00	PASS
		2480	-2.40	≤8.00	PASS
BLE_500K	Ant4	2402	0.46	≤8.00	PASS
		2440	0.44	≤8.00	PASS
		2480	-0.12	≤8.00	PASS

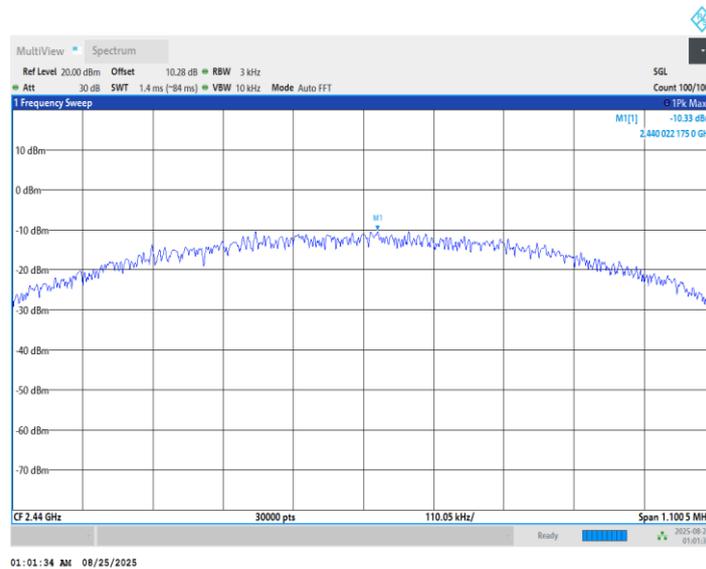


TEST GRAPHS

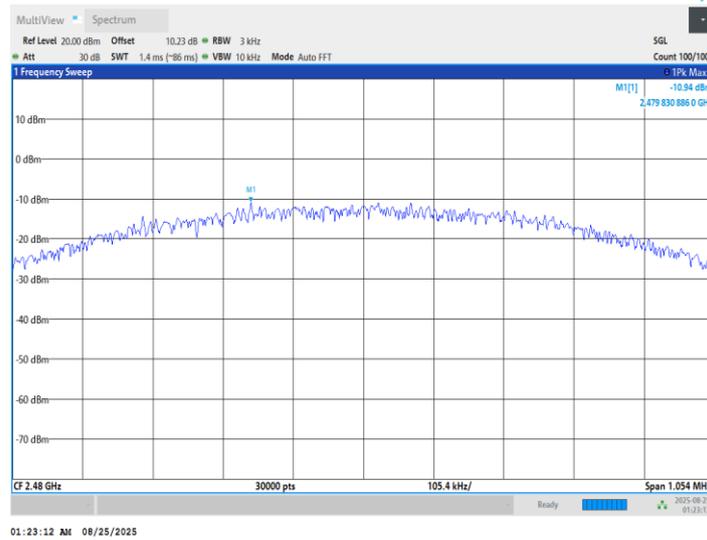
BLE_1M_Ant4_2402



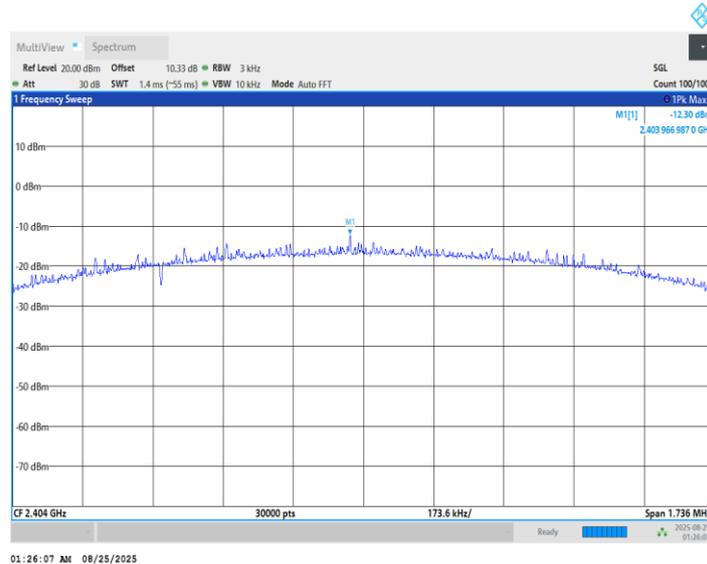
BLE_1M_Ant4_2440



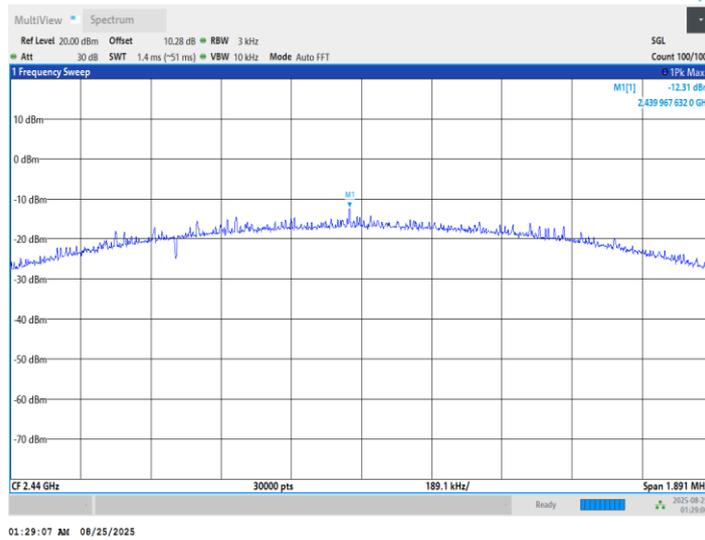
BLE_1M_Ant4_2480



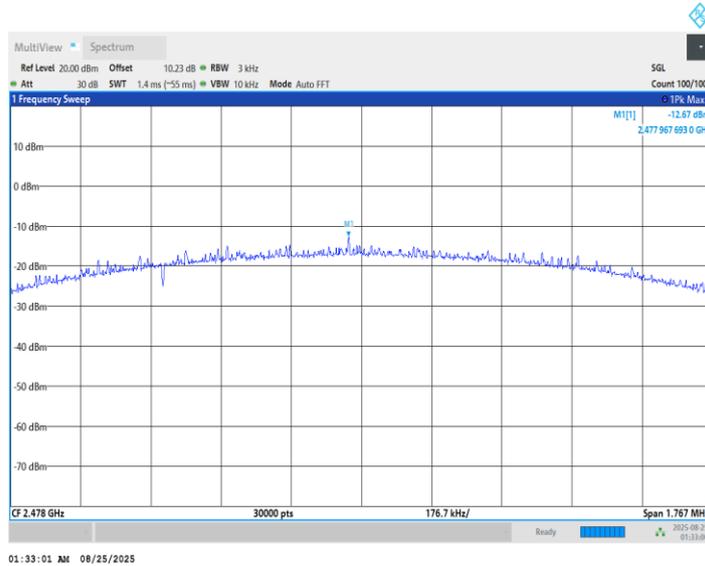
BLE_2M_Ant4_2404



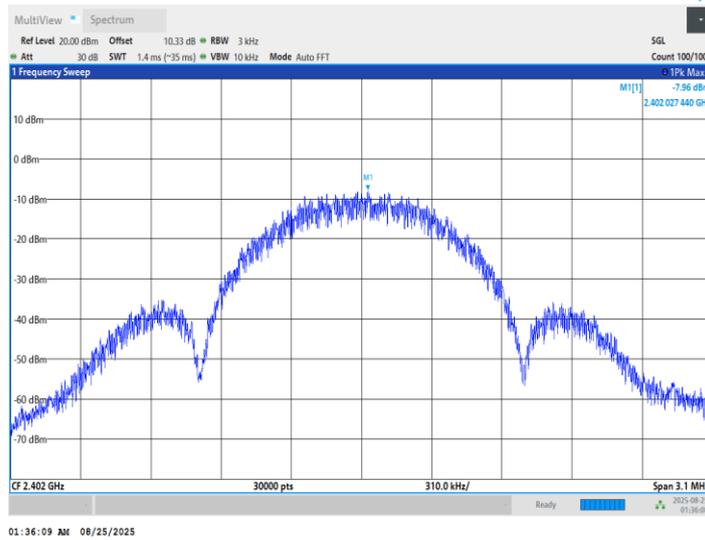
BLE_2M_Ant4_2440



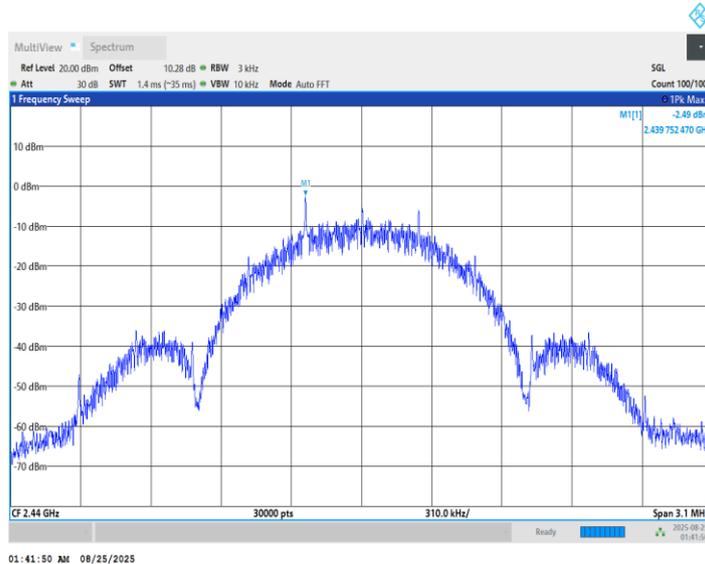
BLE_2M_Ant4_2478



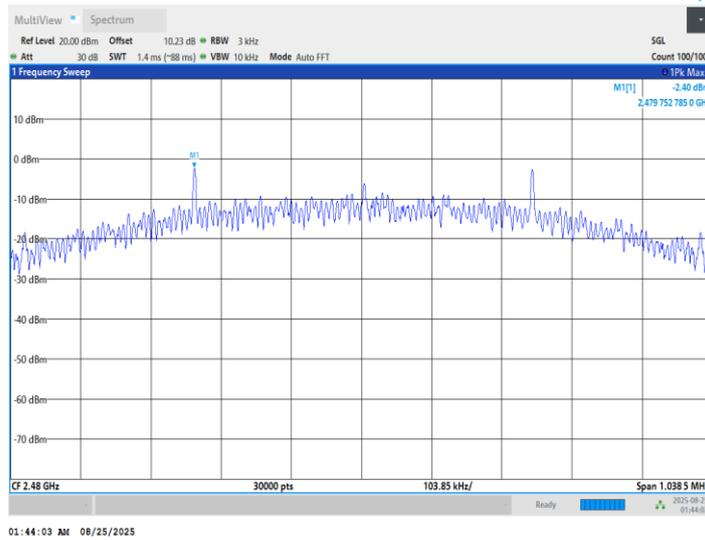
BLE_125K_Ant4_2402



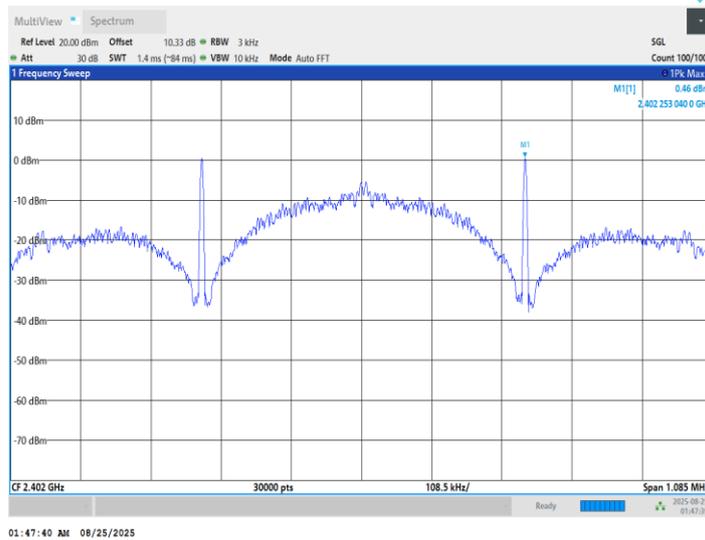
BLE_125K_Ant4_2440



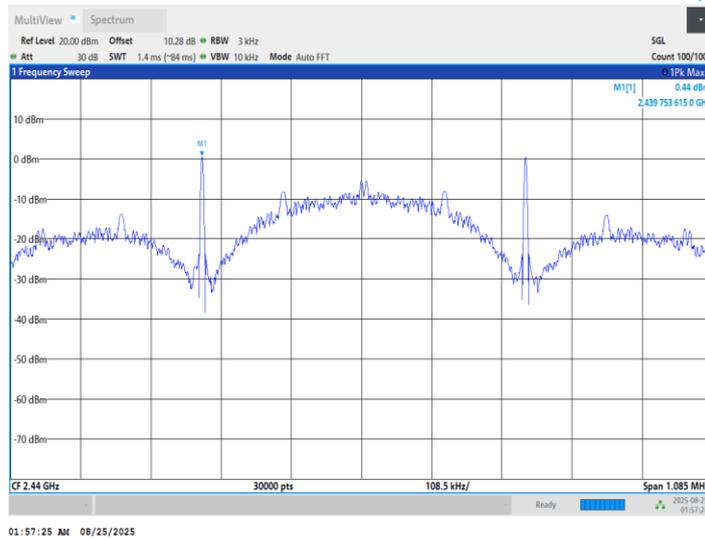
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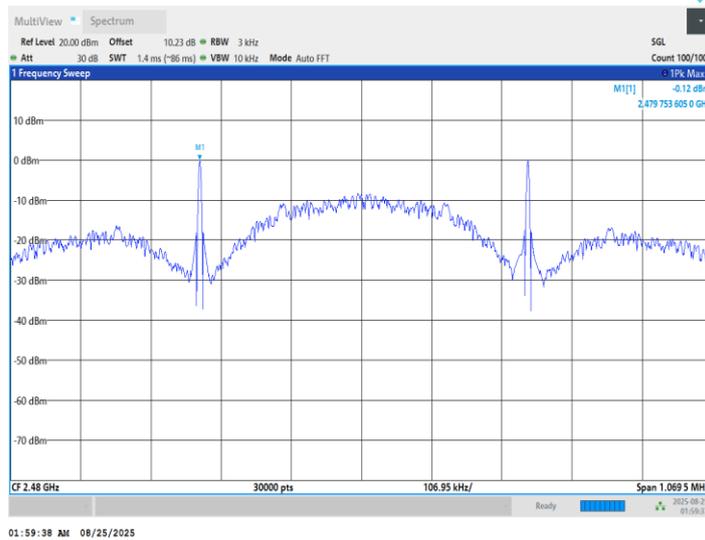
BLE_500K_Ant4_2402



BLE_500K_Ant4_2440



BLE_500K_Ant4_2480





BAND EDGE MEASUREMENTS

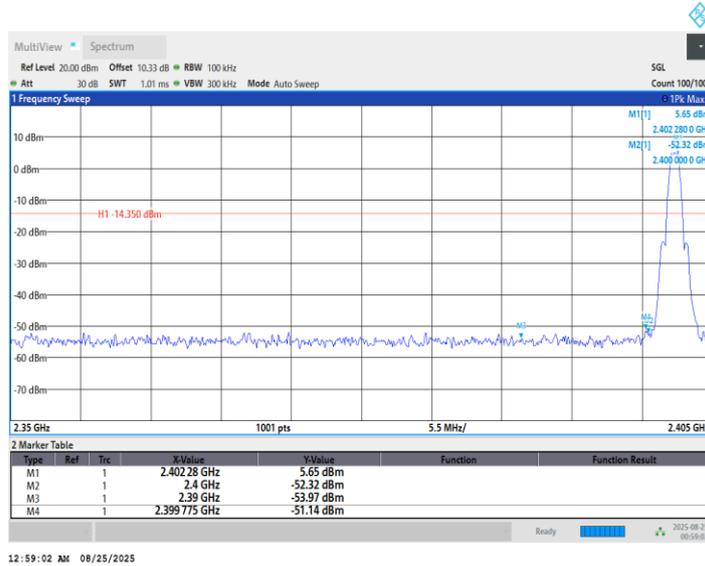
TEST RESULT

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant4	Low	2402	5.65	-51.14	≤-14.35	PASS
		High	2480	4.59	-51.97	≤-15.41	PASS
BLE_2M	Ant4	Low	2404	4.96	-51.9	≤-15.04	PASS
		High	2478	5.20	-50.89	≤-14.8	PASS
BLE_125K	Ant4	Low	2402	5.99	-50.35	≤-14.01	PASS
		High	2480	5.44	-50.57	≤-14.56	PASS
BLE_500K	Ant4	Low	2402	3.25	-51.09	≤-16.75	PASS
		High	2480	2.59	-51.45	≤-17.41	PASS

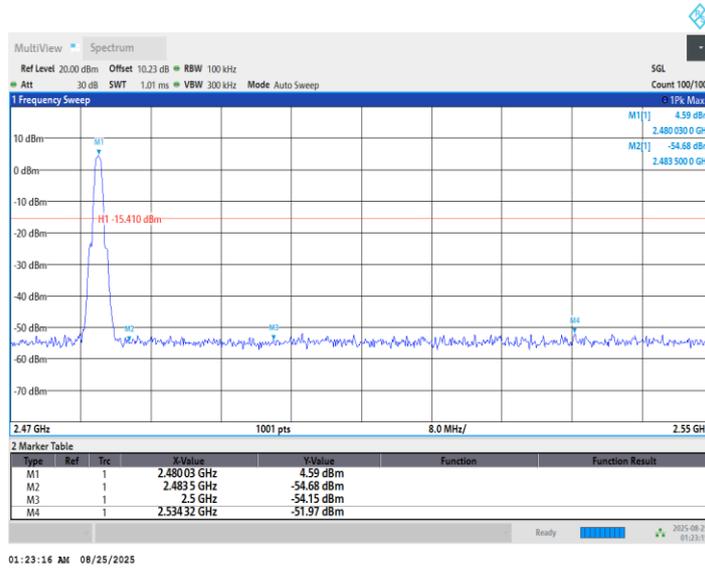


TEST GRAPHS

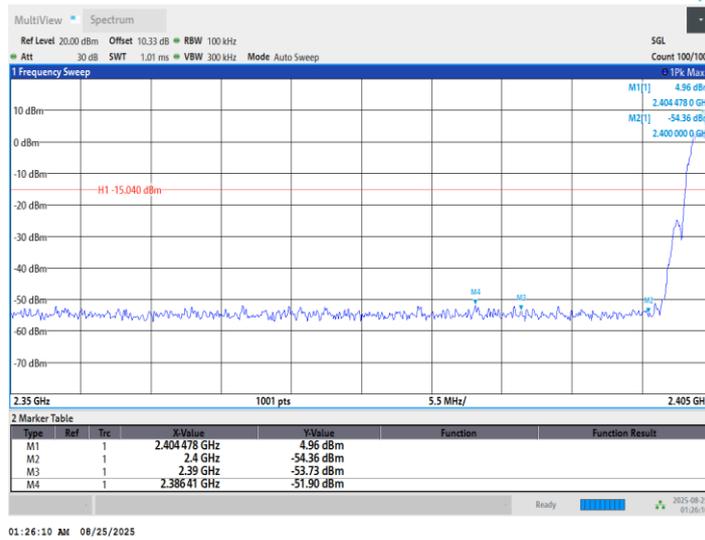
BLE_1M_Ant4_Low_2402



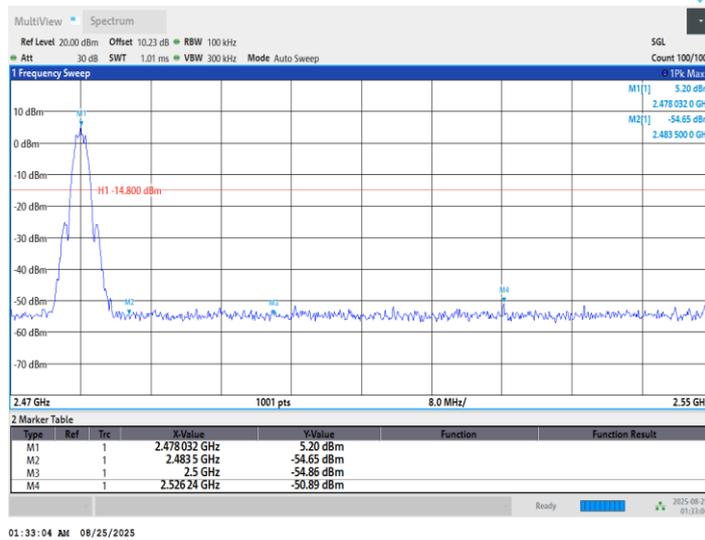
BLE_1M_Ant4_High_2480



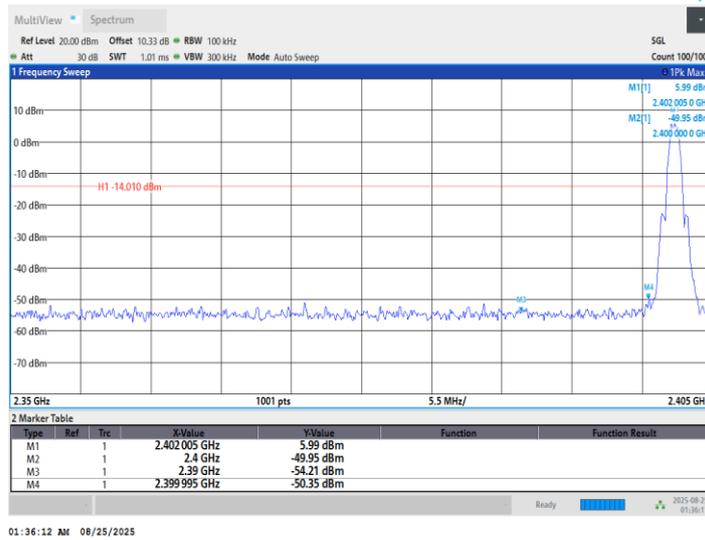
BLE_2M_Ant4_Low_2404



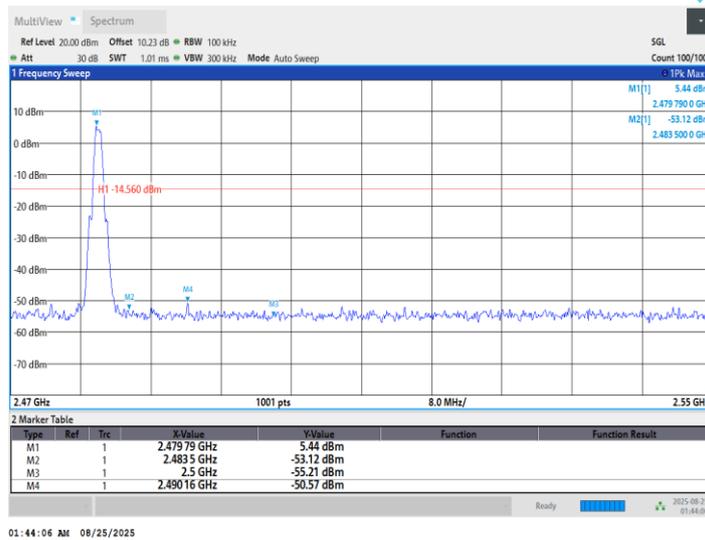
BLE_2M_Ant4_High_2478



BLE_125K_Ant4_Low_2402



BLE_125K_Ant4_High_2480



BLE_500K_Ant4_Low_2402