Appendix Test Data

Report No.:	18220WC40038202	Test Sample No.:	1-2-2
Start Test Date:	2024.3.15	Finish Test Date:	2024.3.15
Test Engineer:	Joker Huang	Auditor:	Justin Feng
Temperature:	25℃	Relative Humidity:	48%
Pressure:	101kPa		

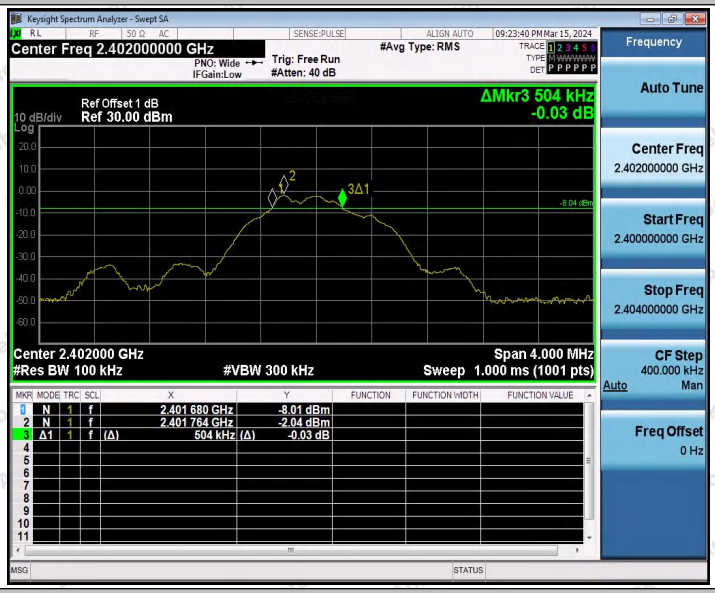
Appendix A: 6dB Bandwidth

Test Result

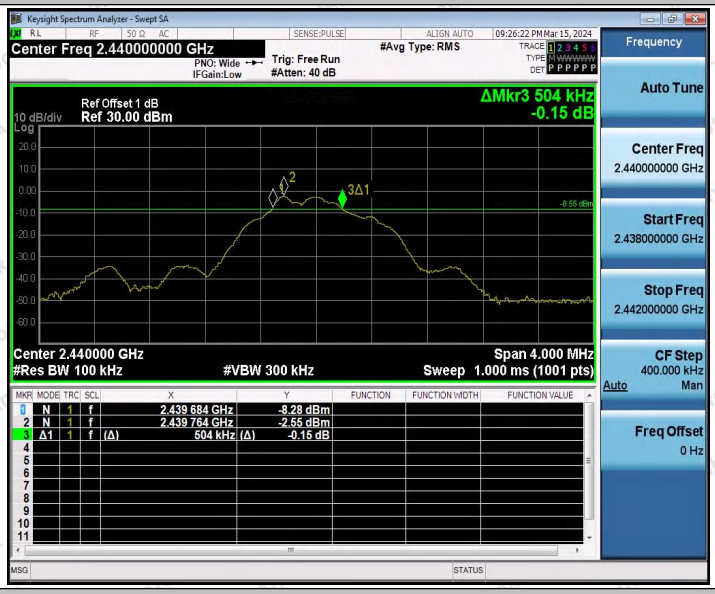
Test Mode	Antenna	Frequency[MHz]	6dB BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.504	2401.680	2402.184	0.5	PASS
		2440	0.504	2439.684	2440.188	0.5	PASS
		2480	0.504	2479.684	2480.188	0.5	PASS
BLE_2M	Ant1	2402	0.860	2401.424	2402.284	0.5	PASS
		2440	0.852	2439.428	2440.280	0.5	PASS
		2480	0.856	2479.424	2480.280	0.5	PASS

Test Graphs

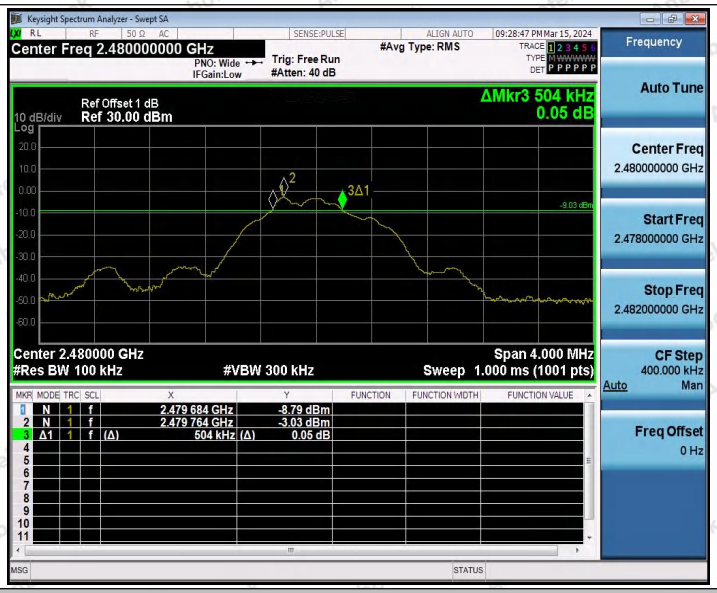
BLE_1M_Ant1_2402



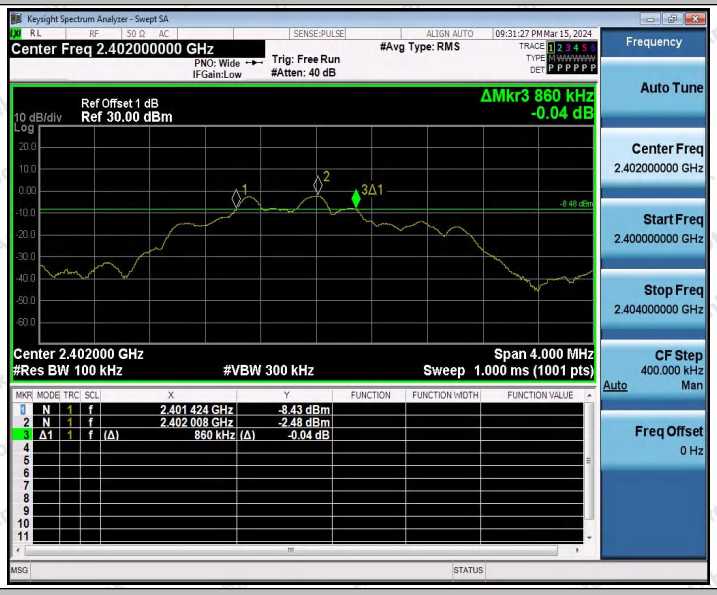
BLE_1M_Ant1_2440



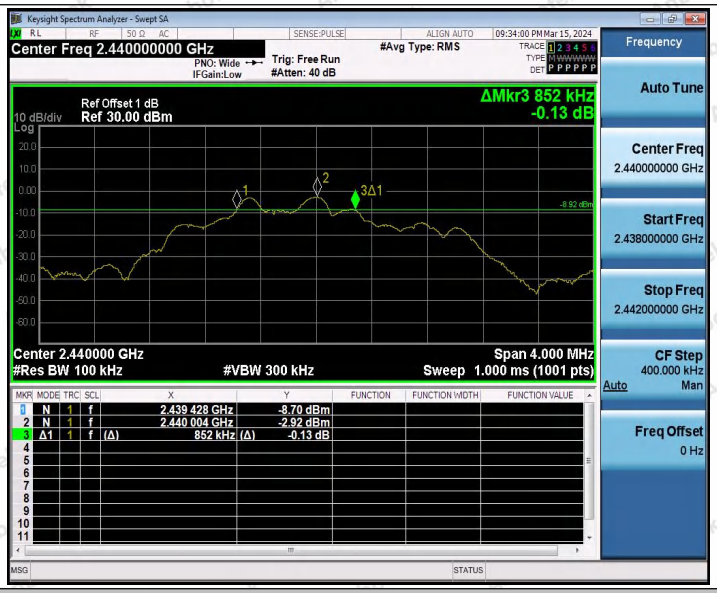
BLE_1M_Ant1_2480



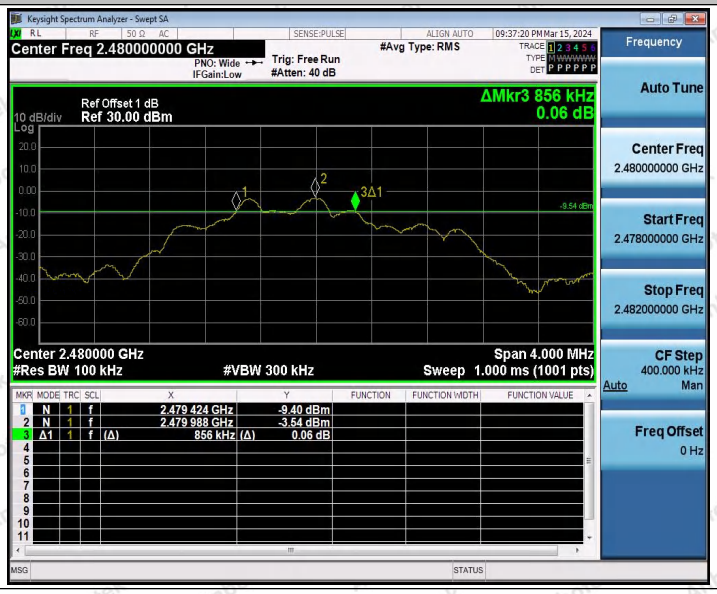
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



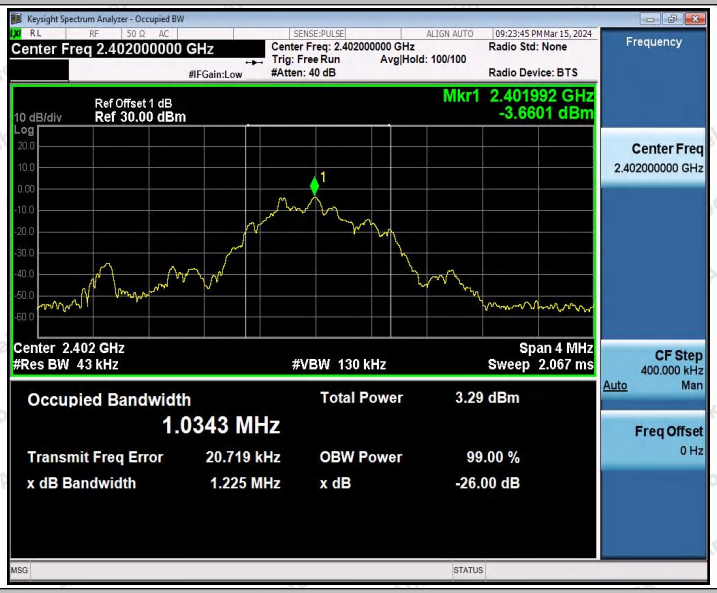
Appendix B: 99% Occupied Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0343	2401.5036	2402.5379	---	---
		2440	1.0165	2439.5030	2440.5195	---	---
		2480	1.0394	2479.5010	2480.5404	---	---
BLE_2M	Ant1	2402	2.0509	2400.9995	2403.0504	---	---
		2440	2.0371	2438.9985	2441.0356	---	---
		2480	2.0339	2479.0022	2481.0361	---	---

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440

BLE_1M_Ant1_2480

BLE_2M_Ant1_2402

BLE_2M_Ant1_2440

BLE_2M_Ant1_2480

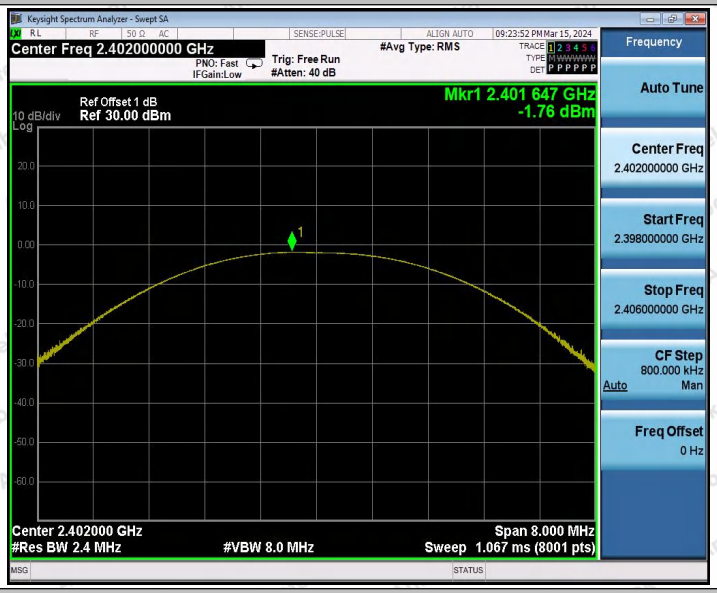
Appendix C: Maximum Conducted Output Power

Test Result Peak

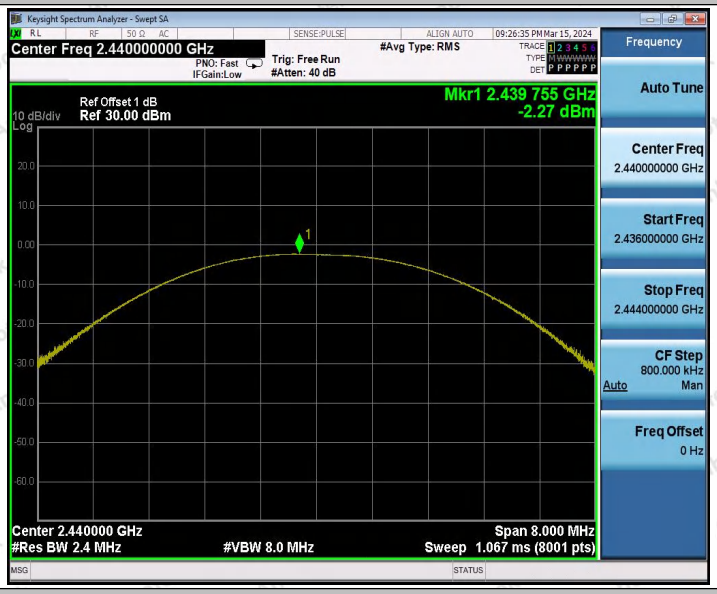
Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.76	≤30	PASS
		2440	-2.27	≤30	PASS
		2480	-2.73	≤30	PASS
BLE_2M	Ant1	2402	-1.60	≤30	PASS
		2440	-2.12	≤30	PASS
		2480	-2.59	≤30	PASS

Test Graphs Peak

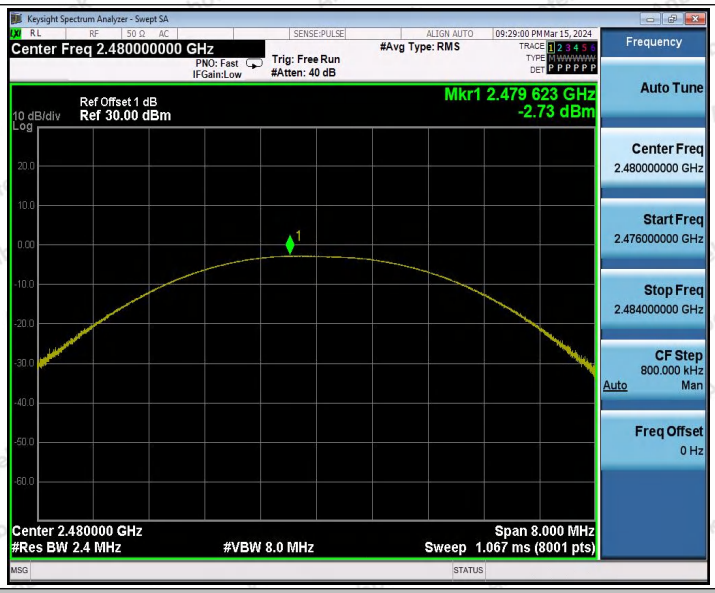
BLE_1M_Ant1_2402



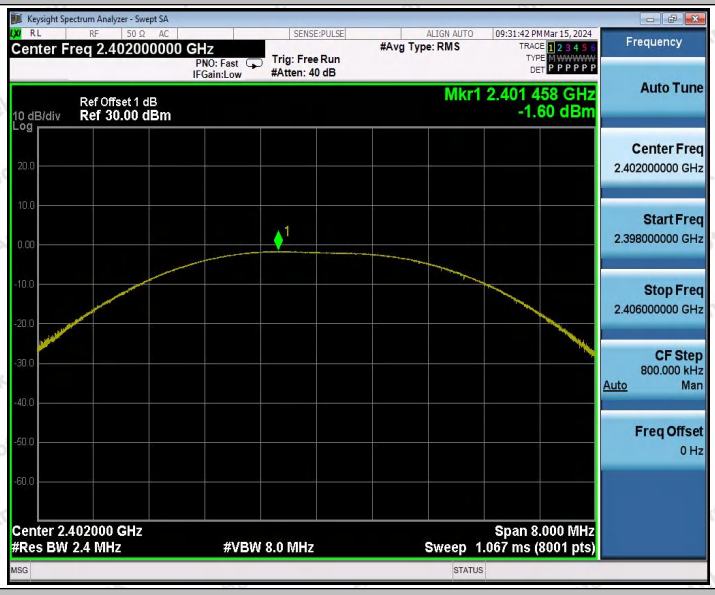
BLE_1M_Ant1_2440



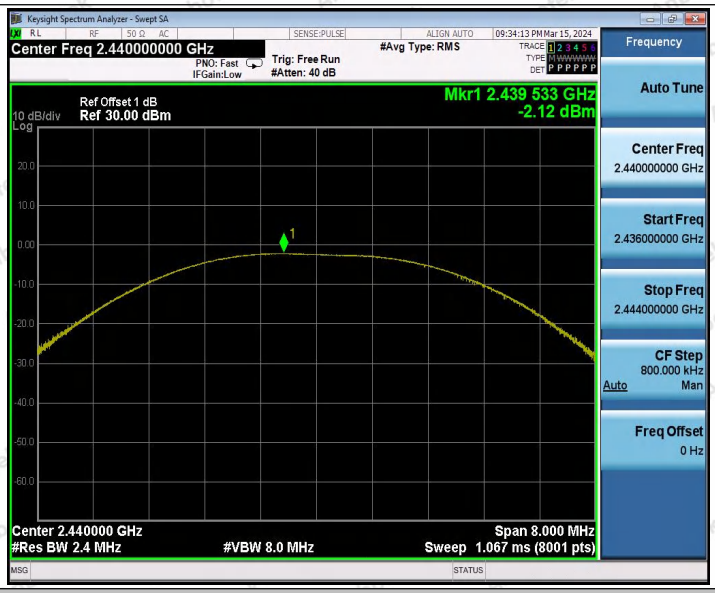
BLE_1M_Ant1_2480



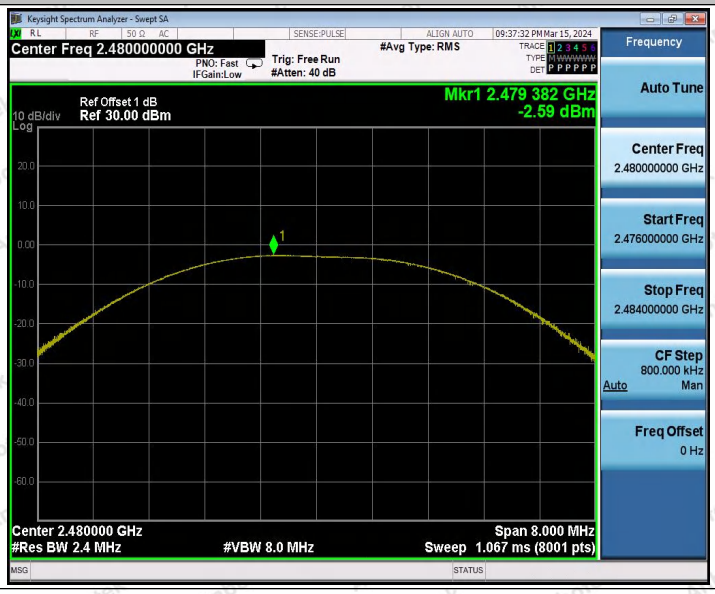
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



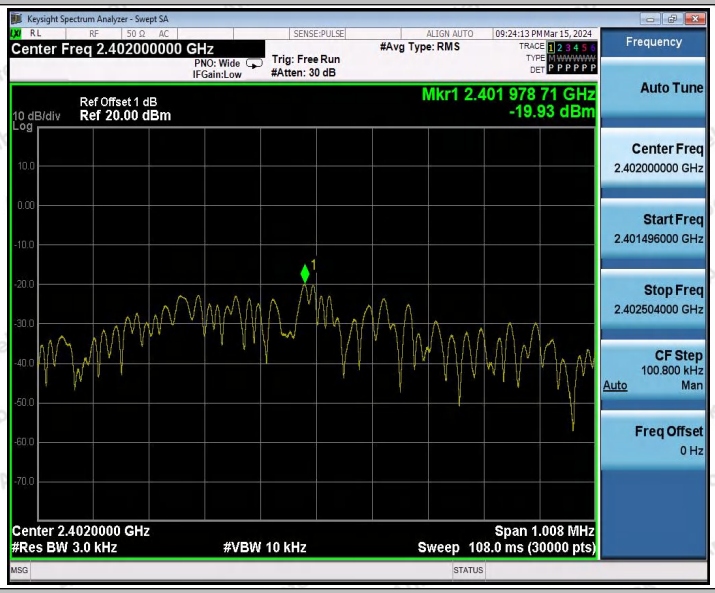
Appendix D: Maximum Power Spectral Density

Test Result

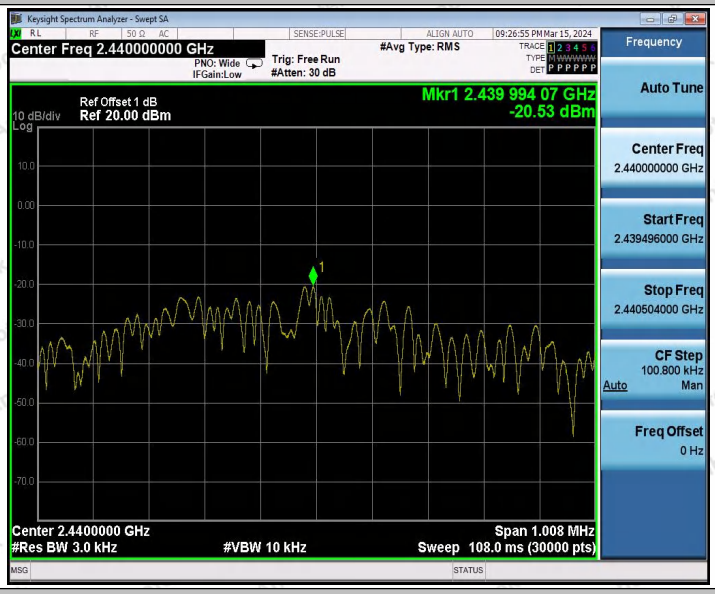
Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.93	≤8.00	PASS
		2440	-20.53	≤8.00	PASS
		2480	-20.88	≤8.00	PASS
BLE_2M	Ant1	2402	-22.25	≤8.00	PASS
		2440	-22.66	≤8.00	PASS
		2480	-23.2	≤8.00	PASS

Test Graphs

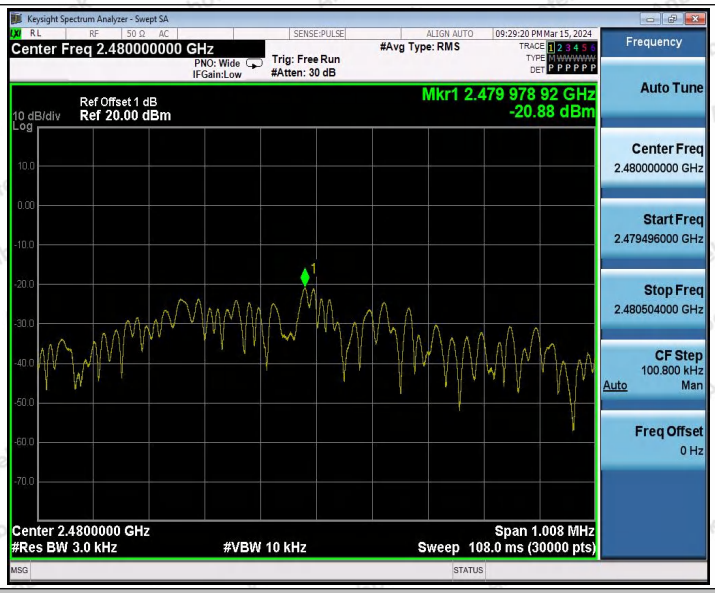
BLE_1M_Ant1_2402



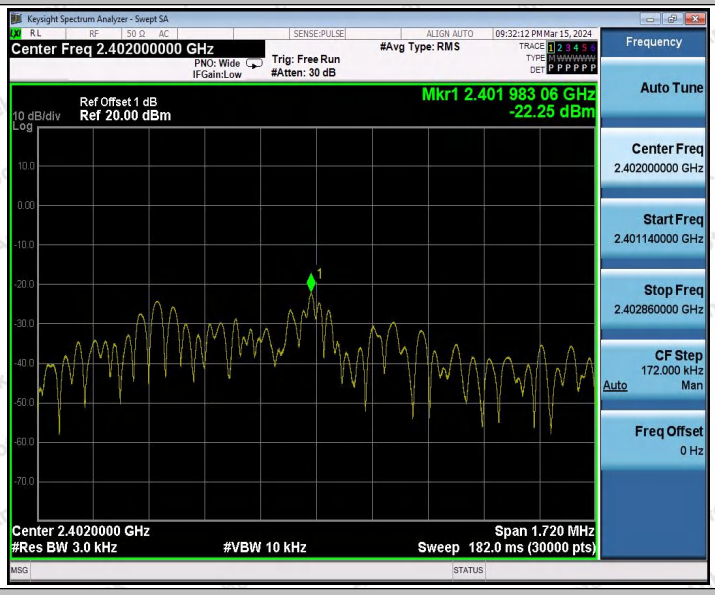
BLE_1M_Ant1_2440



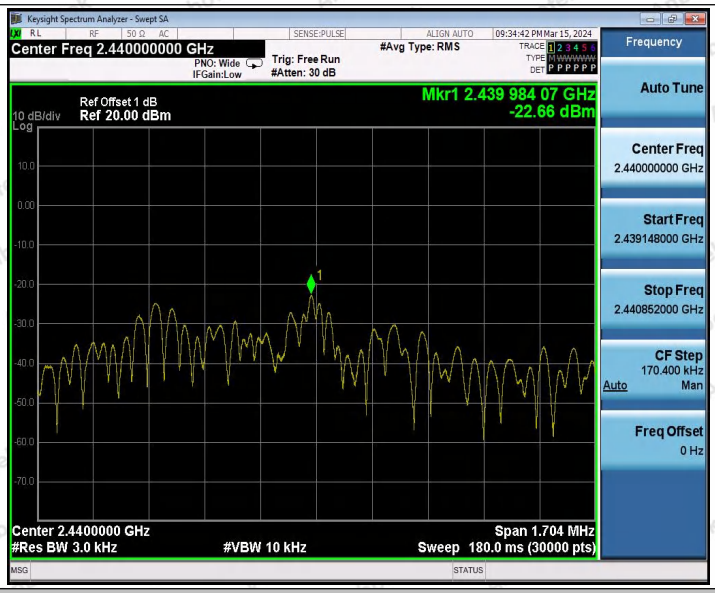
BLE_1M_Ant1_2480



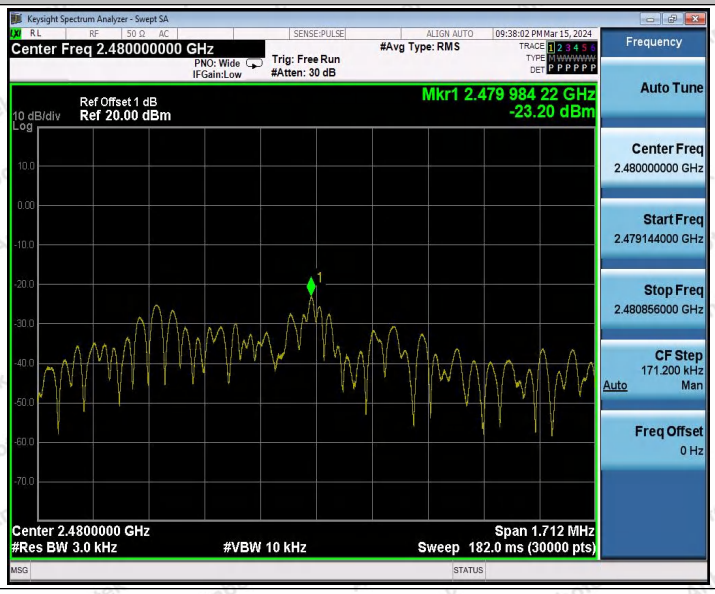
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



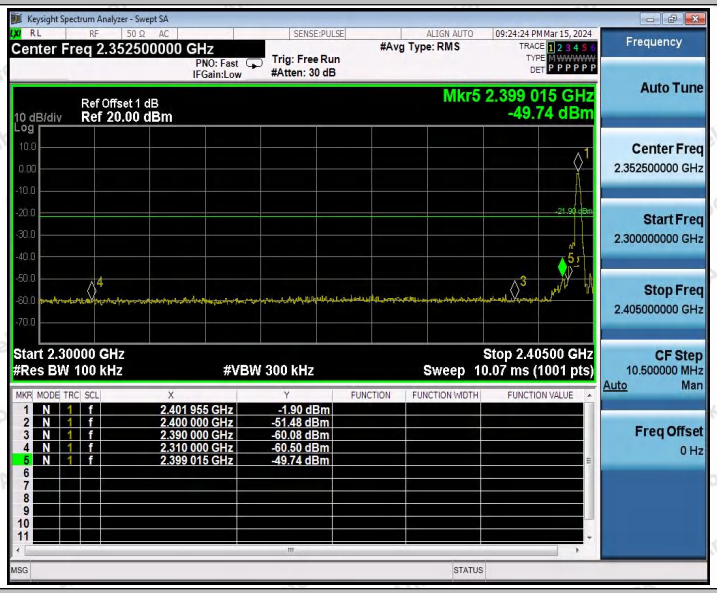
Appendix E: Conducted Band edge

Test Result

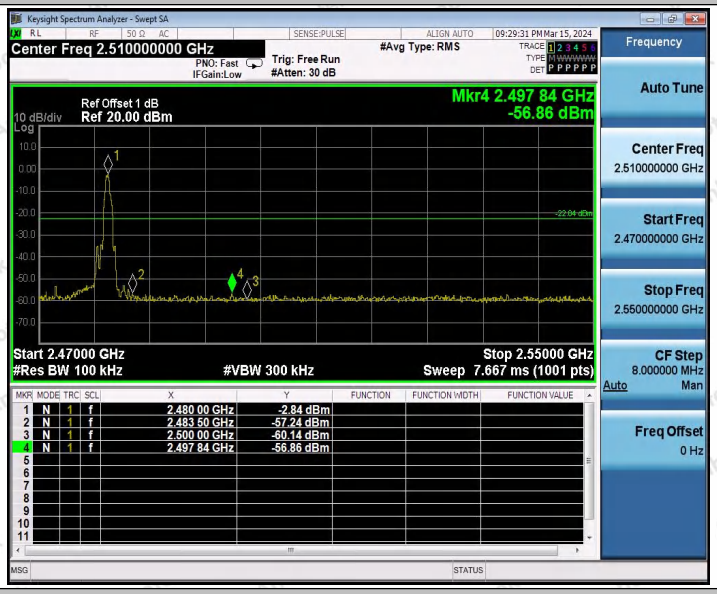
Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.90	-49.74	≤-21.9	PASS
		High	2480	-2.84	-56.86	≤-22.84	PASS
BLE_2M	Ant1	Low	2402	-2.41	-34.6	≤-22.41	PASS
		High	2480	-3.35	-57.14	≤-23.35	PASS

Test Graphs

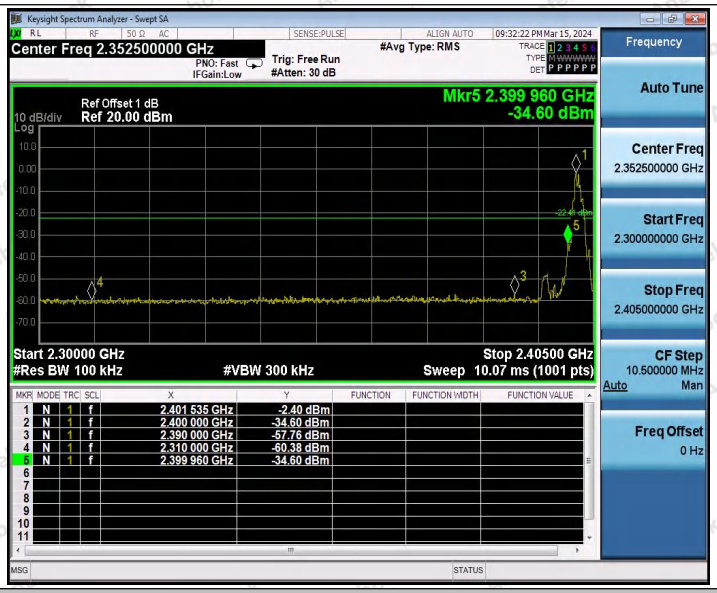
BLE_1M_Ant1_Low_2402



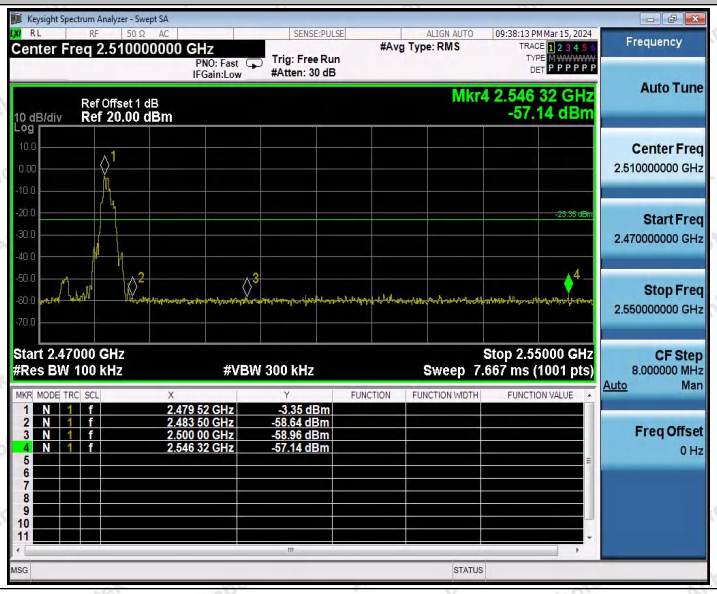
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480



Appendix F: Conducted Spurious Emission

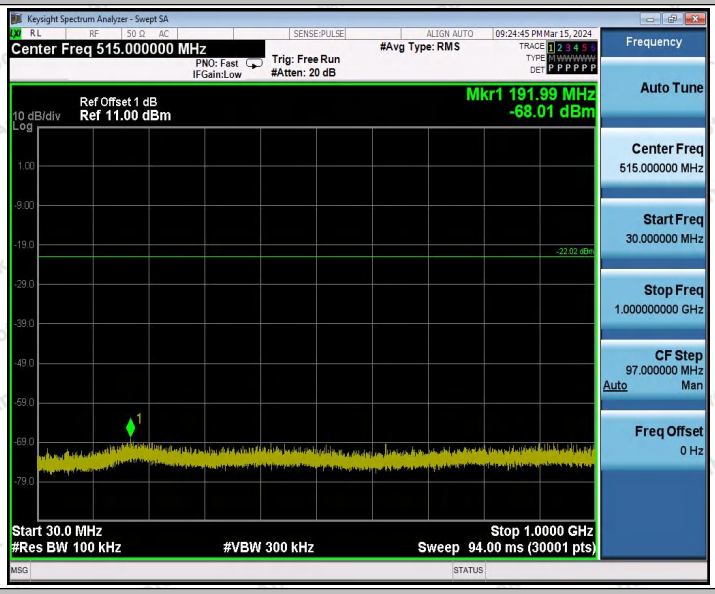
Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-2.02	-2.02	---	PASS
			30~1000	-2.02	-68.01	≤-22.02	PASS
			1000~26500	-2.02	-28.27	≤-22.02	PASS
		2440	Reference	-2.55	-2.55	---	PASS
			30~1000	-2.55	-68.25	≤-22.55	PASS
			1000~26500	-2.55	-29.82	≤-22.55	PASS
		2480	Reference	-2.99	-2.99	---	PASS
			30~1000	-2.99	-67.85	≤-22.99	PASS
			1000~26500	-2.99	-30.8	≤-22.99	PASS
BLE_2M	Ant1	2402	Reference	-2.56	-2.56	---	PASS
			30~1000	-2.56	-68.7	≤-22.56	PASS
			1000~26500	-2.56	-28.32	≤-22.56	PASS
		2440	Reference	-2.99	-2.99	---	PASS
			30~1000	-2.99	-68.66	≤-22.99	PASS
			1000~26500	-2.99	-29.97	≤-22.99	PASS
		2480	Reference	-3.53	-3.53	---	PASS
			30~1000	-3.53	-67.65	≤-23.53	PASS
			1000~26500	-3.53	-46.51	≤-23.53	PASS

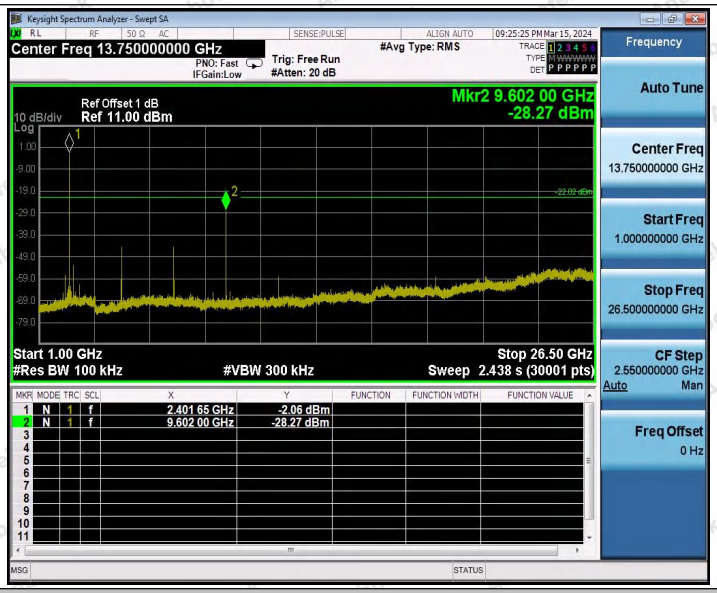
Test Graphs

BLE_1M_Ant1_2402_0~Reference

BLE_1M_Ant1_2402_30~1000

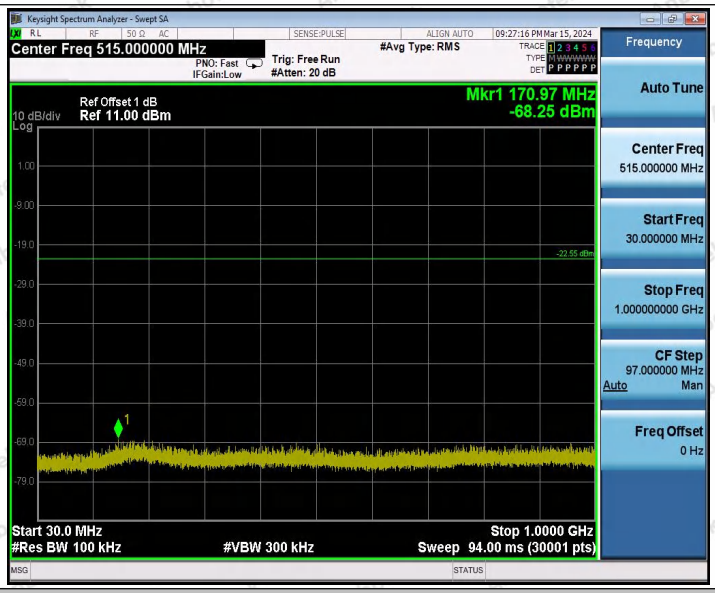


BLE_1M_Ant1_2402_1000~26500

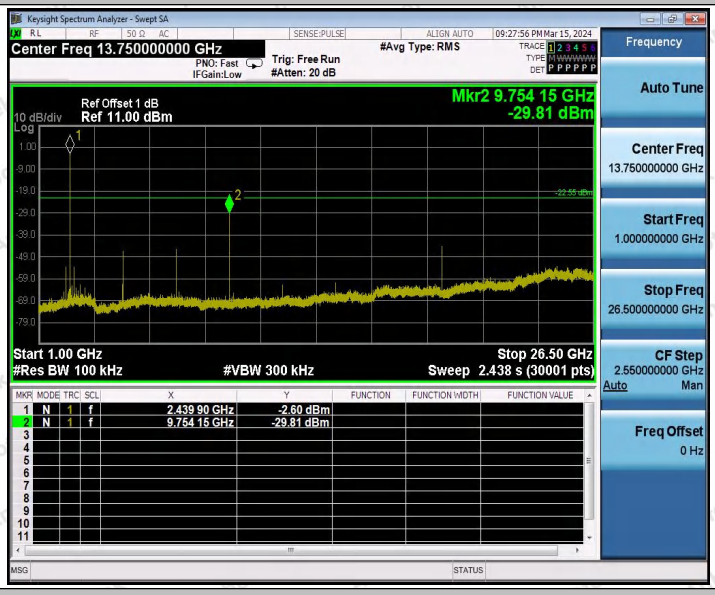


BLE_1M_Ant1_2440_0~Reference

BLE_1M_Ant1_2440_30~1000

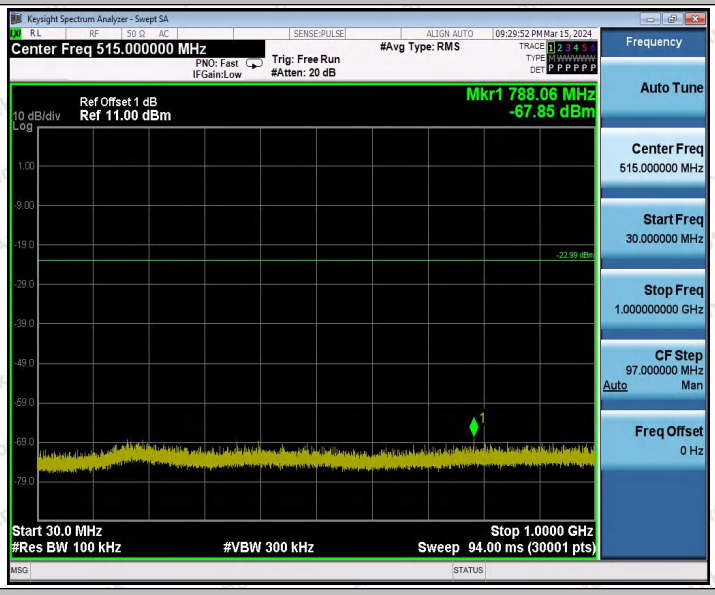


BLE_1M_Ant1_2440_1000~26500

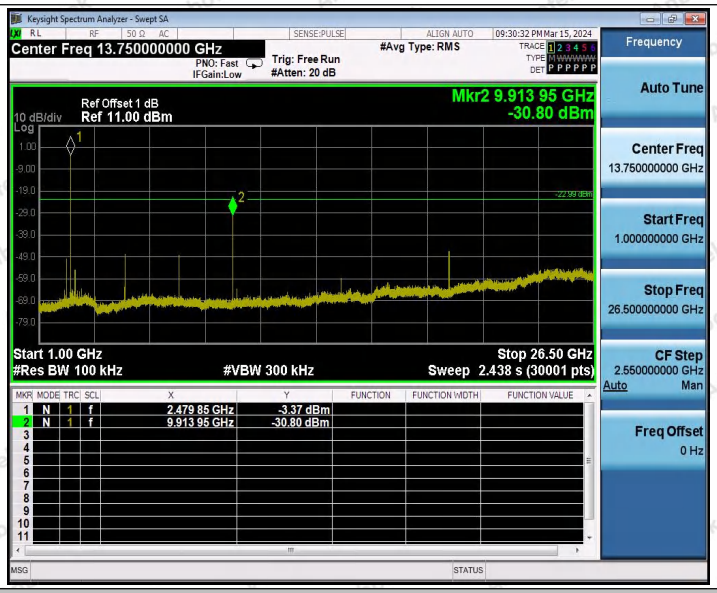


BLE_1M_Ant1_2480_0~Reference

BLE_1M_Ant1_2480_30~1000

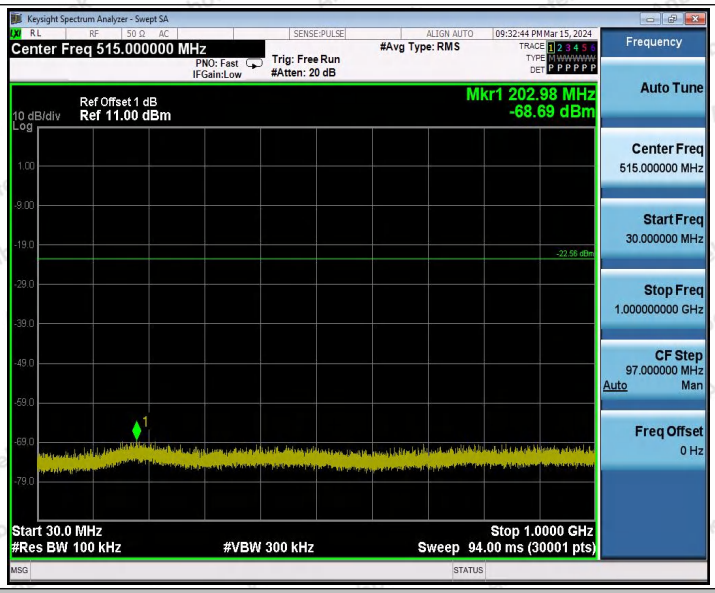


BLE_1M_Ant1_2480_1000~26500

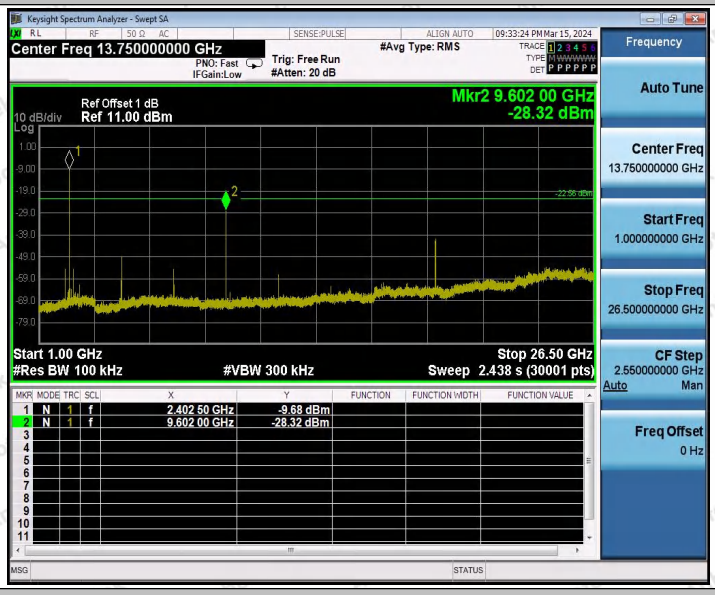


BLE_2M_Ant1_2402_0~Reference

BLE_2M_Ant1_2402_30~1000

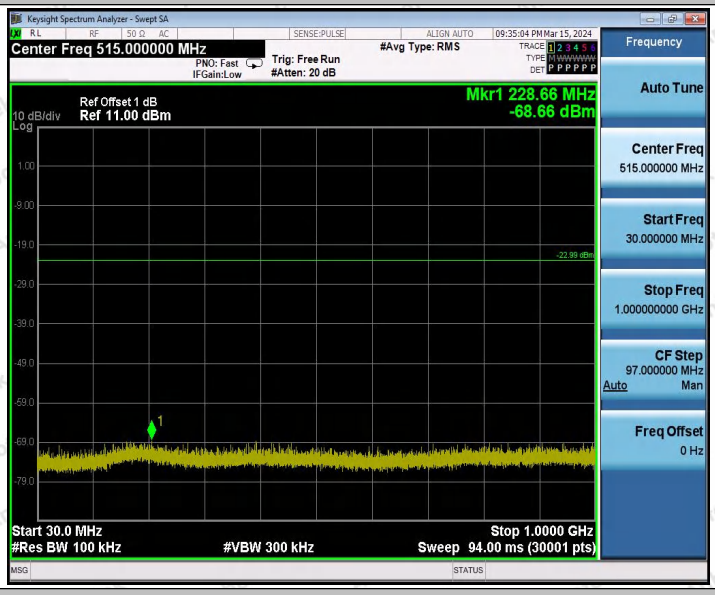


BLE_2M_Ant1_2402_1000~26500

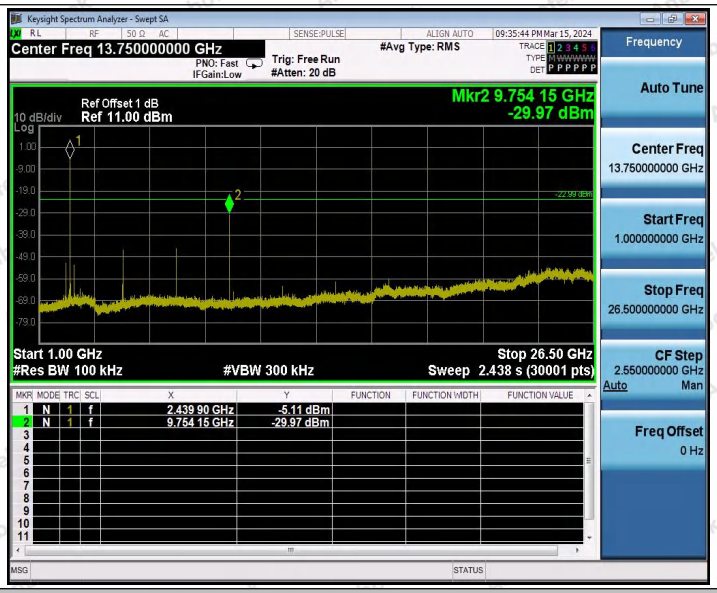


BLE_2M_Ant1_2440_0~Reference

BLE_2M_Ant1_2440_30~1000

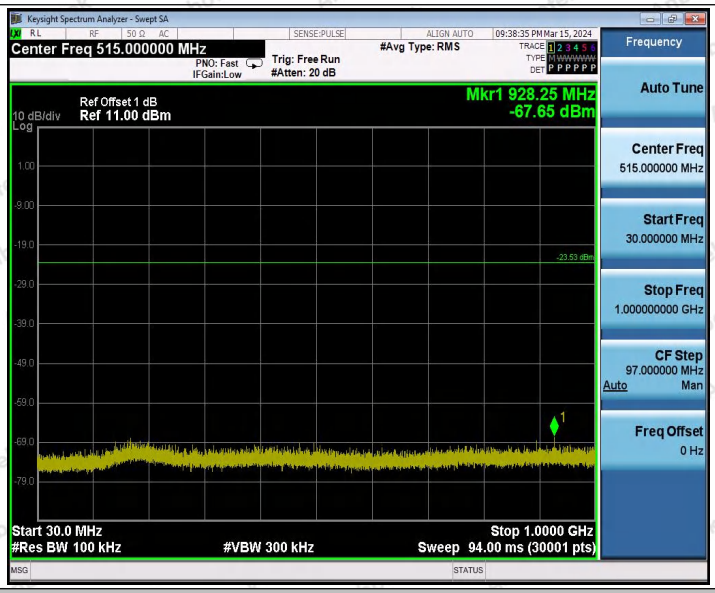


BLE_2M_Ant1_2440_1000~26500

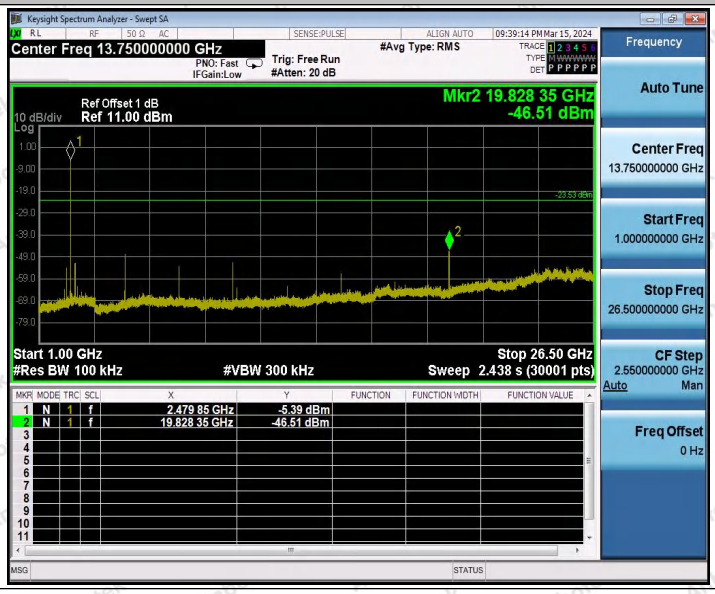


BLE_2M_Ant1_2480_0~Reference

BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



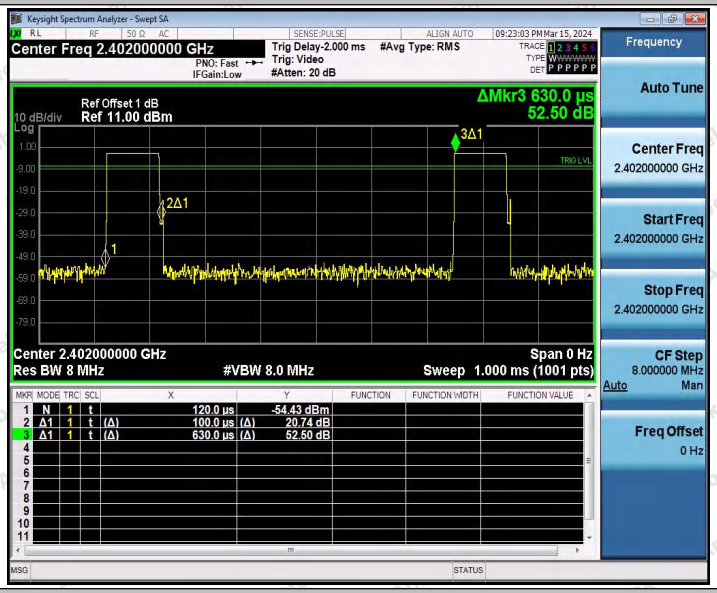
Appendix G: Duty Cycle

Test Result

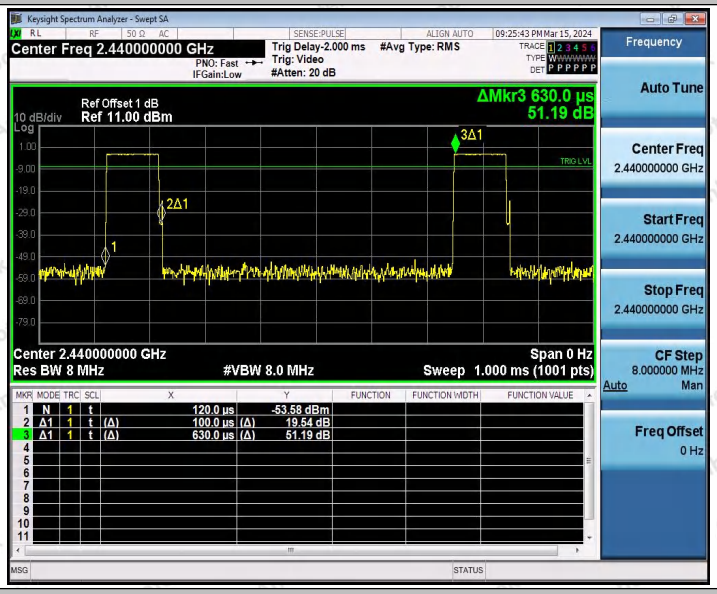
Test Mode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.10	0.63	15.87	7.99
		2440	0.10	0.63	15.87	7.99
		2480	0.10	0.63	15.87	7.99
BLE_2M	Ant1	2402	0.07	0.63	11.11	9.54
		2440	0.07	0.63	11.11	9.54
		2480	0.07	0.63	11.11	9.54

Test Graphs

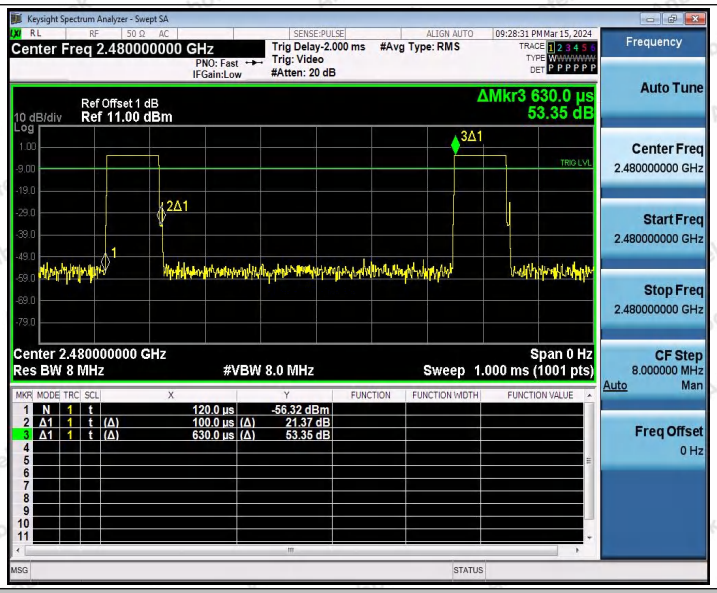
BLE_1M_Ant1_2402



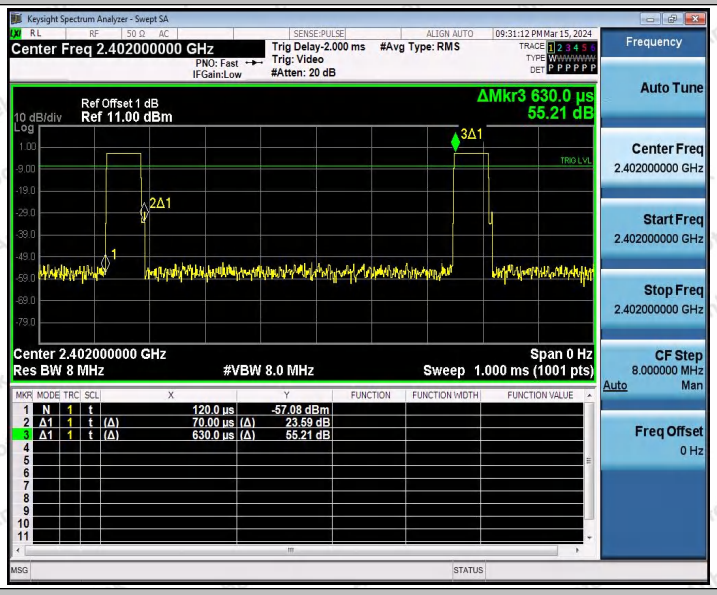
BLE_1M_Ant1_2440



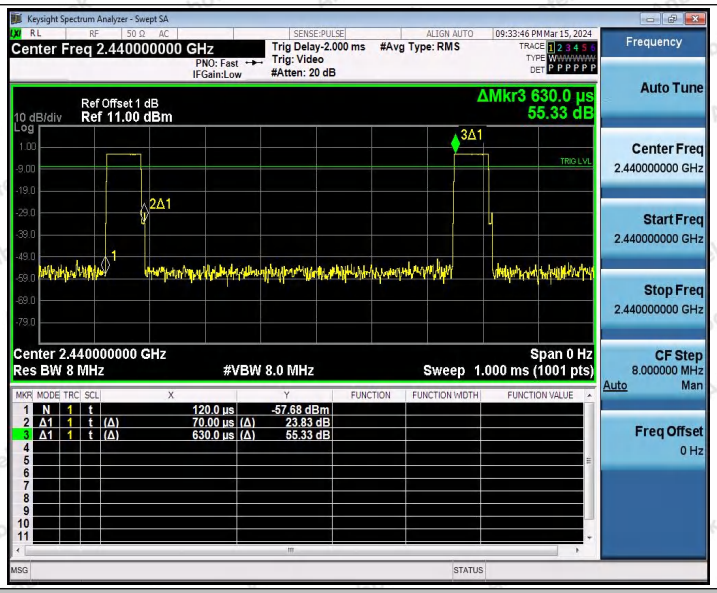
BLE_1M_Ant1_2480



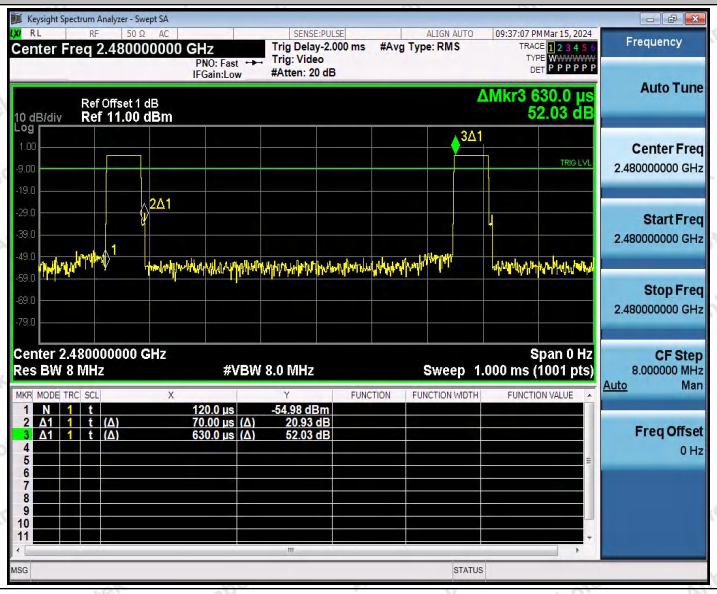
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



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