Appendix Test Data

Report No.:	18220WC30268101	Test Sample No.:	1-2-2
Start Test Date:	2023.12.20	Finish Test Date:	2023.12.22
Test Engineer:	Hayman Chen	Auditor:	Rick Luo
Temperature:	24.3℃	Relative Humidity:	45%
Pressure:	101kPa		

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.604	2401.676	2402.280	0.5	PASS
		2440	0.600	2439.680	2440.280	0.5	PASS
		2480	0.568	2479.704	2480.272	0.5	PASS
BLE_2M	Ant1	2402	0.844	2401.492	2402.336	0.5	PASS
		2440	0.824	2439.512	2440.336	0.5	PASS
		2480	0.832	2479.508	2480.340	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: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
BLE_1M	Ant1	2402	1.0436	2401.4827	2402.5263
		2440	1.0419	2439.4833	2440.5252
		2480	1.0447	2479.4823	2480.5270
BLE_2M	Ant1	2402	2.0522	2400.9775	2403.0297
		2440	2.0530	2438.9768	2441.0298
		2480	2.0560	2478.9757	2481.0317

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

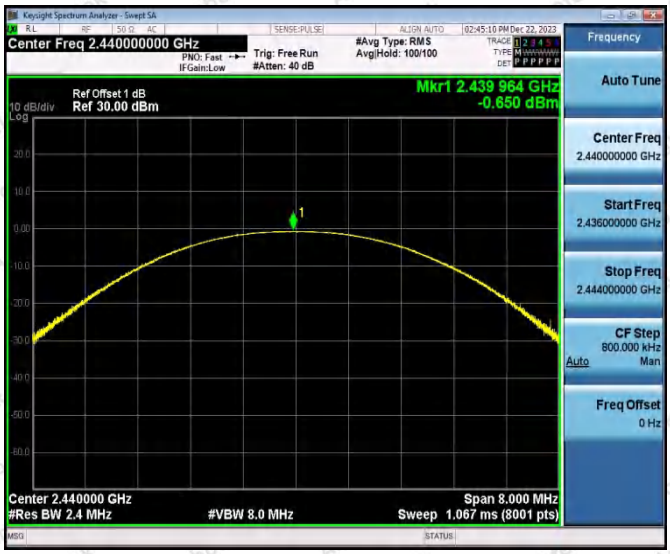
Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.02	≤30	PASS
		2440	-0.65	≤30	PASS
		2480	-1.00	≤30	PASS
BLE_2M	Ant1	2402	0.25	≤30	PASS
		2440	-0.44	≤30	PASS
		2480	-0.83	≤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

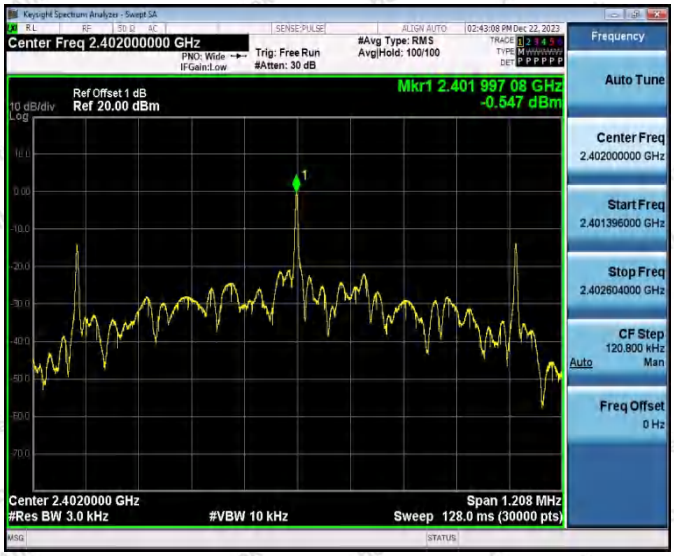
Appendix D: Maximum power spectral density

Test Result

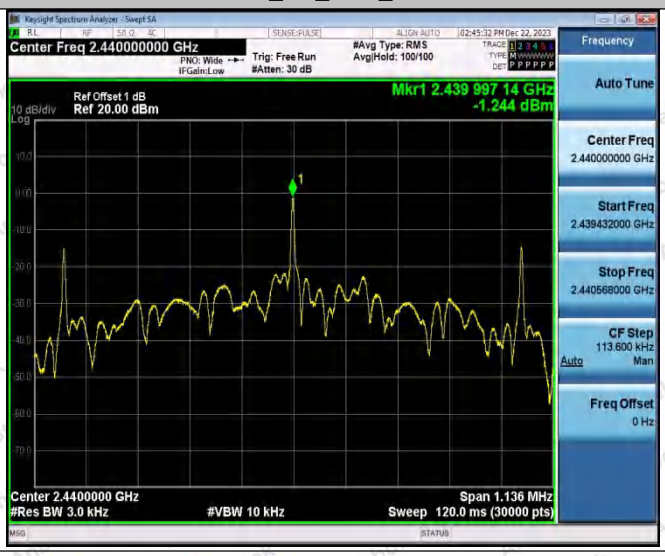
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-0.55	≤8.00	PASS
		2440	-1.24	≤8.00	PASS
		2480	-1.66	≤8.00	PASS
BLE_2M	Ant1	2402	-0.28	≤8.00	PASS
		2440	-0.98	≤8.00	PASS
		2480	-1.39	≤8.00	PASS

Test Graphs

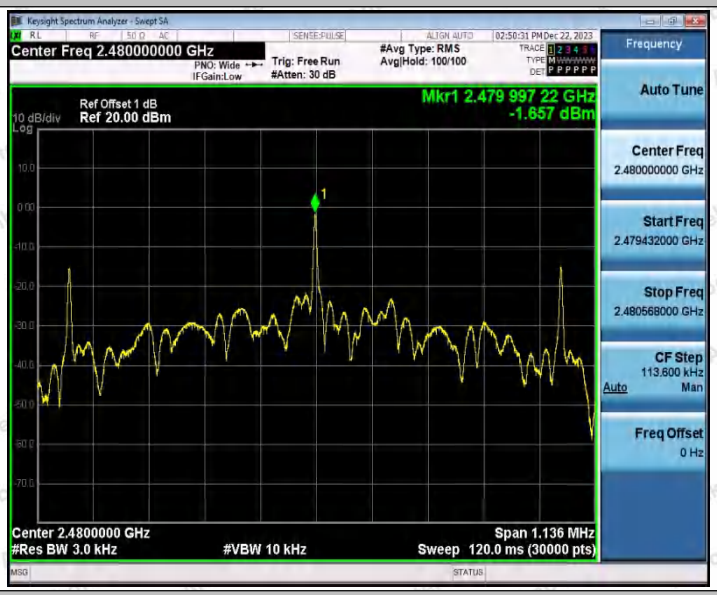
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440

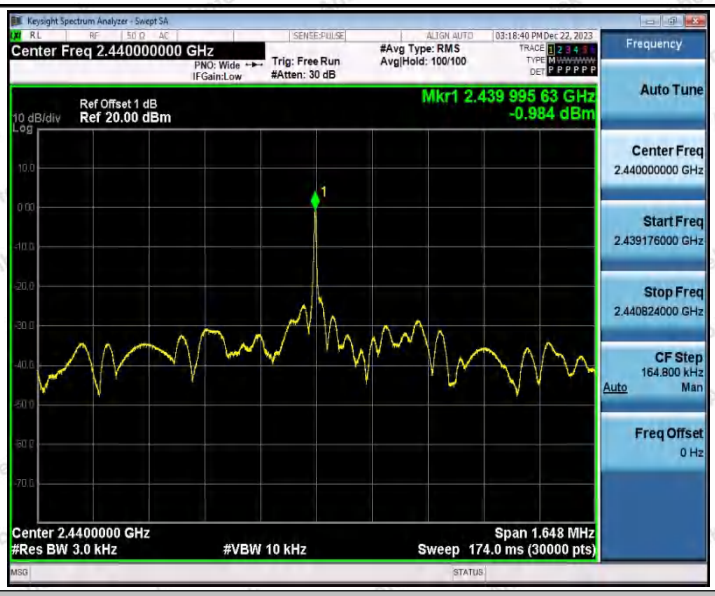


BLE_1M_Ant1_2480



BLE_2M_Ant1_2402

BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

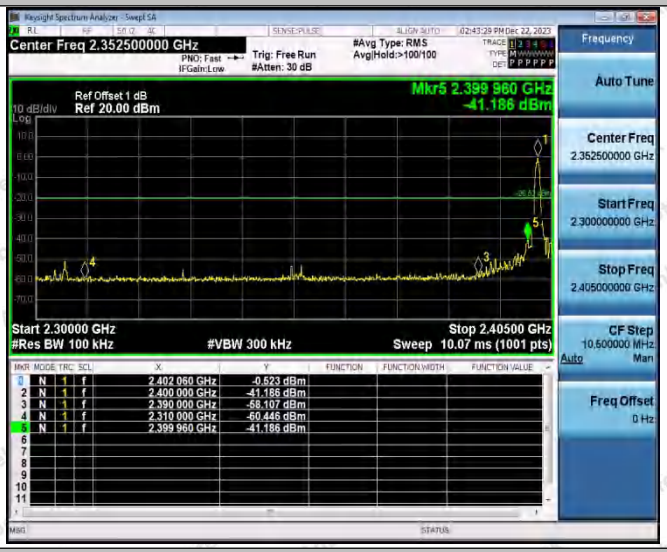
Appendix E: Band edge measurements

Test Result

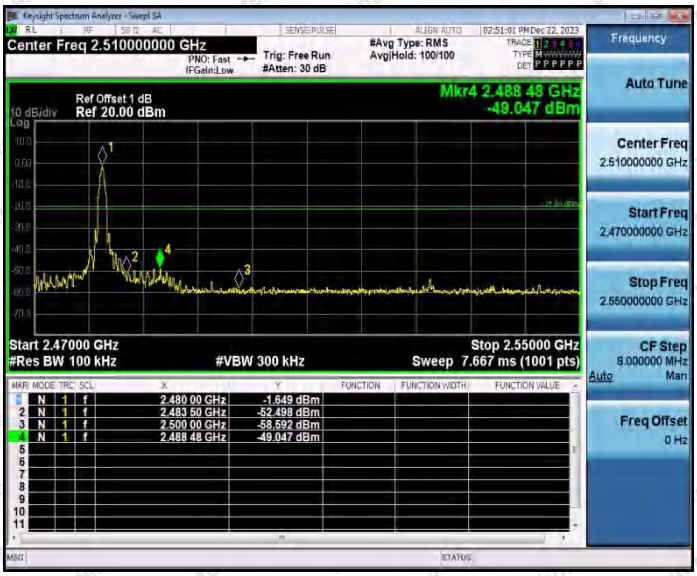
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.52	-41.19	≤-20.52	PASS
		High	2480	-1.65	-49.05	≤-21.65	PASS
BLE_2M	Ant1	Low	2402	-0.24	-31.12	≤-20.24	PASS
		High	2480	-1.34	-45.85	≤-21.34	PASS

Test Graphs

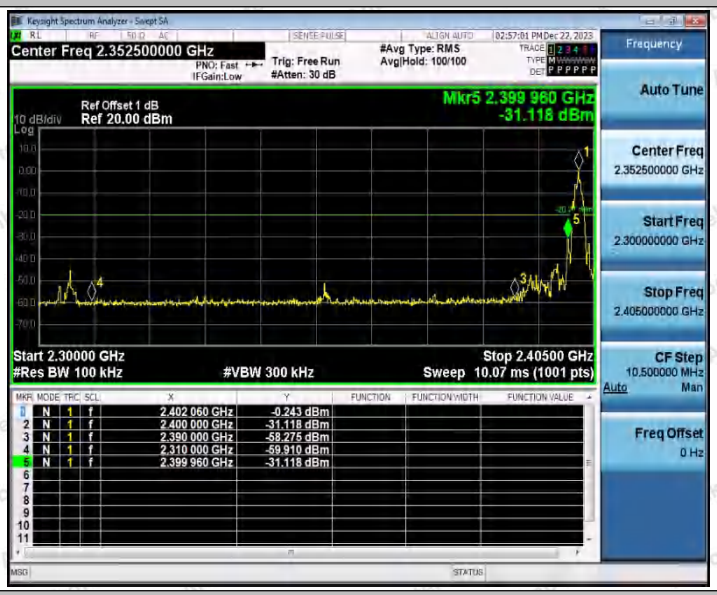
BLE_1M_Ant1_Low_2402



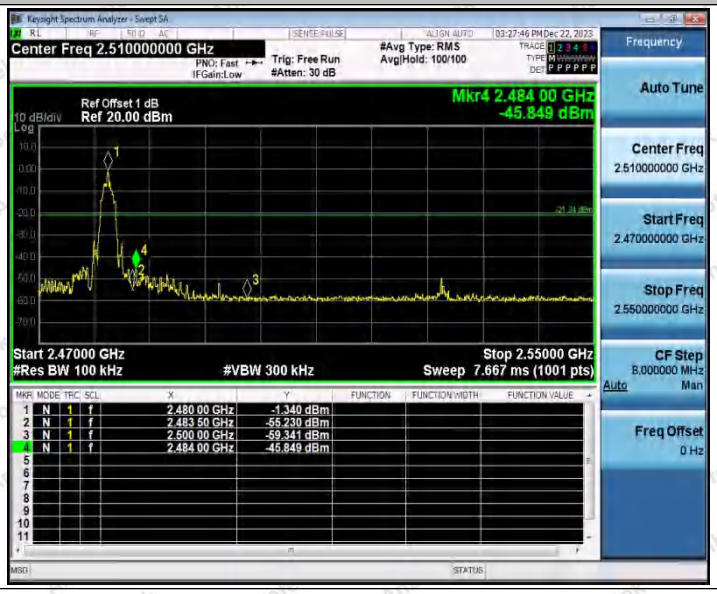
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480



Appendix F: Conducted Spurious Emission

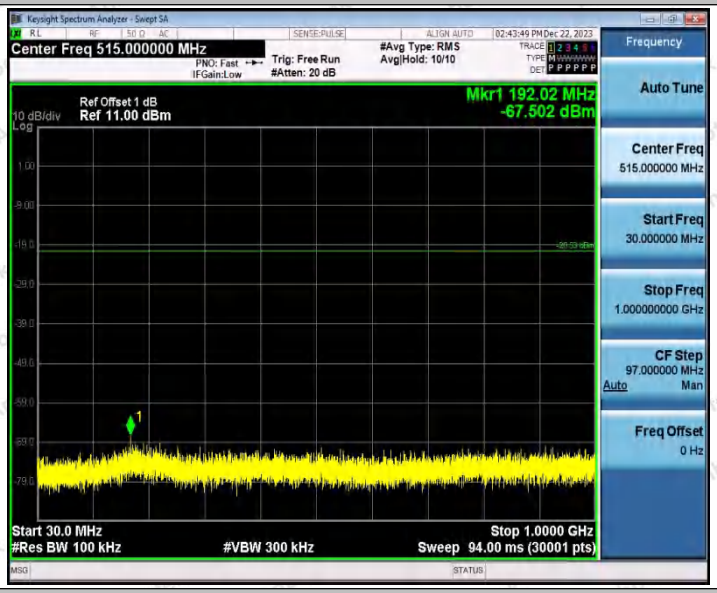
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.53	-0.53	---	PASS
			30~1000	-0.53	-67.5	≤-20.53	PASS
			1000~26500	-0.53	-44.58	≤-20.53	PASS
		2440	Reference	-1.20	-1.20	---	PASS
			30~1000	-1.20	-69.32	≤-21.2	PASS
			1000~26500	-1.20	-45.32	≤-21.2	PASS
		2480	Reference	-1.62	-1.62	---	PASS
			30~1000	-1.62	-69.19	≤-21.62	PASS
			1000~26500	-1.62	-46.05	≤-21.62	PASS
BLE_2M	Ant1	2402	Reference	-0.26	-0.26	---	PASS
			30~1000	-0.26	-69.33	≤-20.26	PASS
			1000~26500	-0.26	-42.12	≤-20.26	PASS
		2440	Reference	-0.94	-0.94	---	PASS
			30~1000	-0.94	-69.44	≤-20.94	PASS
			1000~26500	-0.94	-42.74	≤-20.94	PASS
		2480	Reference	-1.34	-1.34	---	PASS
			30~1000	-1.34	-69.23	≤-21.34	PASS
			1000~26500	-1.34	-43.57	≤-21.34	PASS

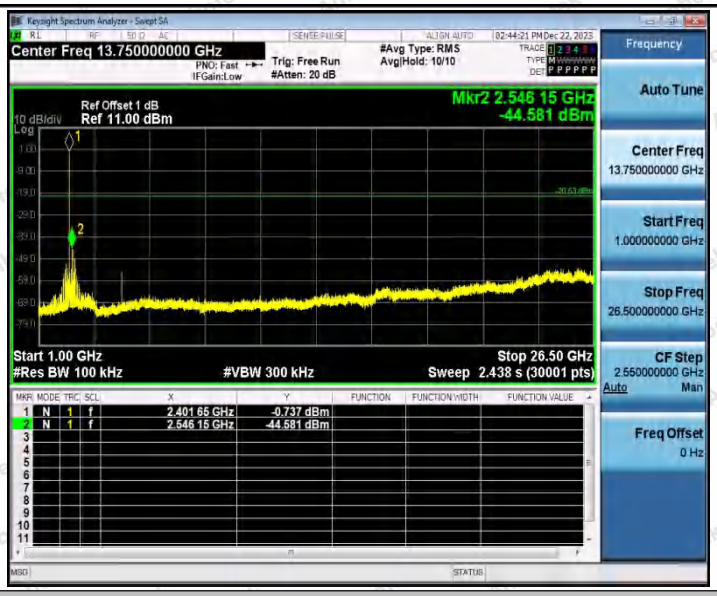
Test Graphs

BLE_1M_Ant1_2402_0~Reference

BLE_1M_Ant1_2402_30~1000

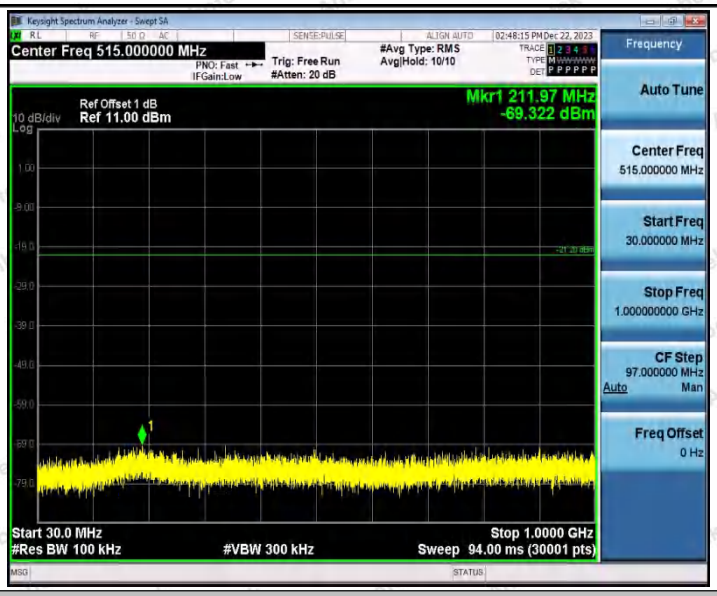


BLE_1M_Ant1_2402_1000~26500

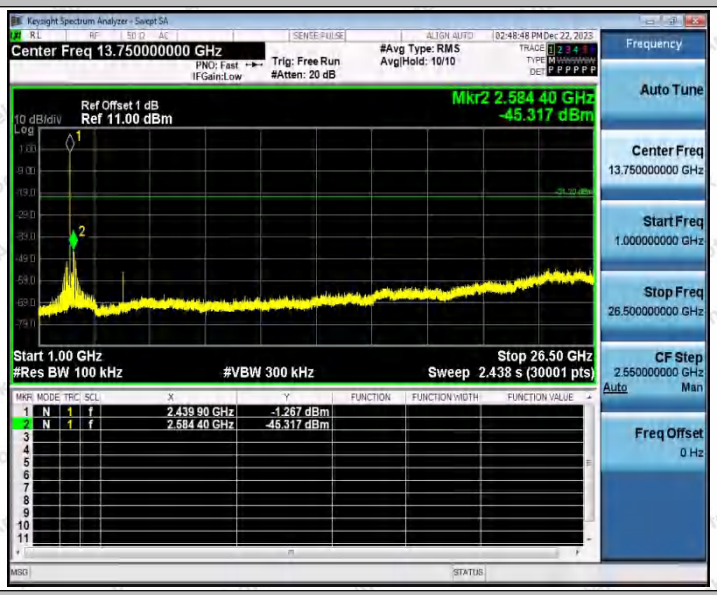


BLE_1M_Ant1_2440_0~Reference

BLE_1M_Ant1_2440_30~1000

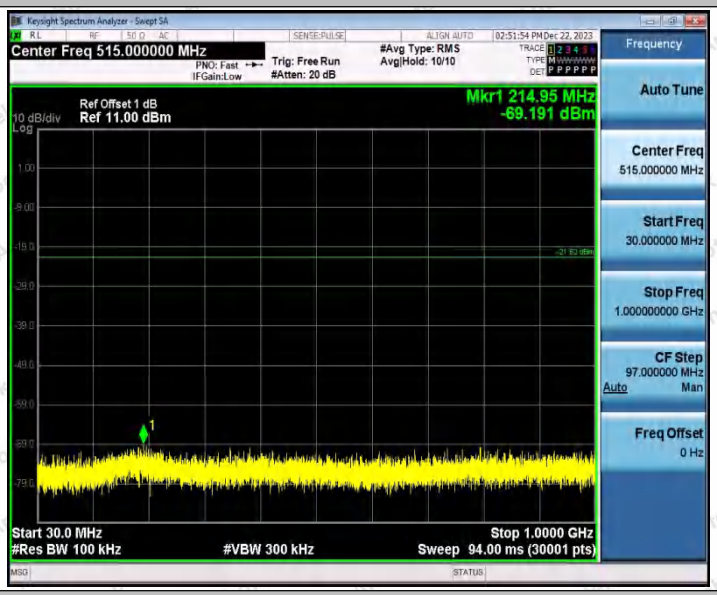


BLE_1M_Ant1_2440_1000~26500

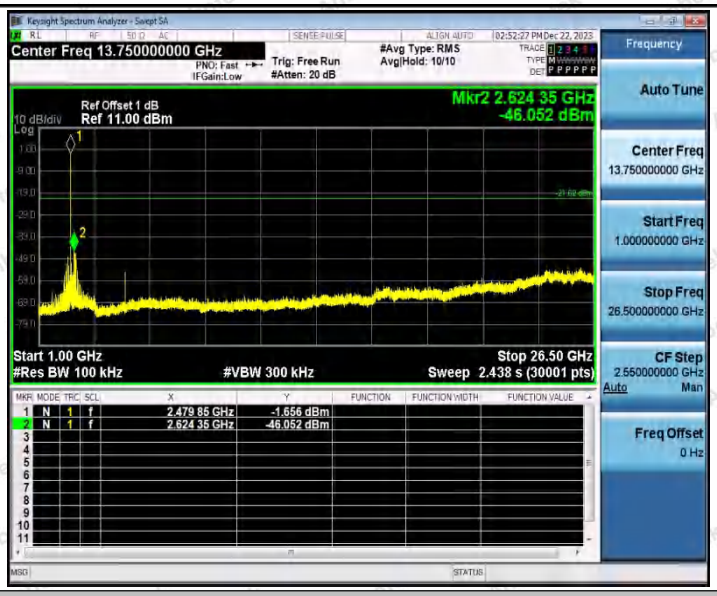


BLE_1M_Ant1_2480_0~Reference

BLE_1M_Ant1_2480_30~1000

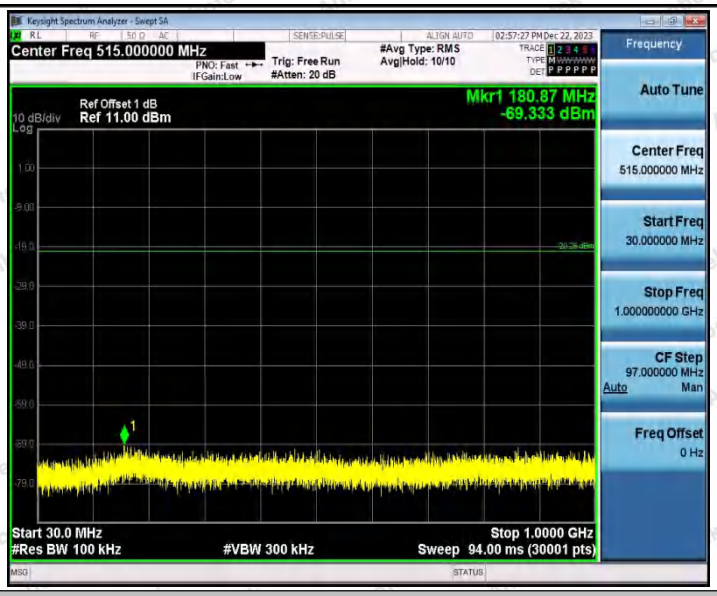


BLE_1M_Ant1_2480_1000~26500

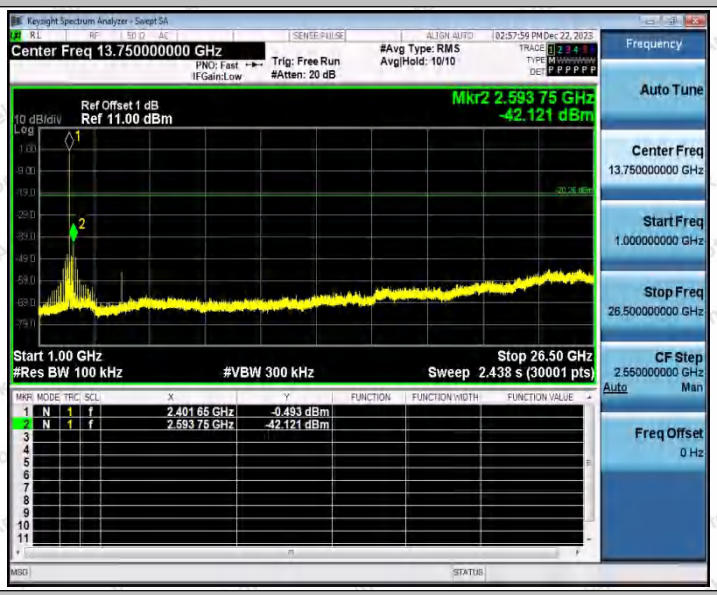


BLE_2M_Ant1_2402_0~Reference

BLE_2M_Ant1_2402_30~1000

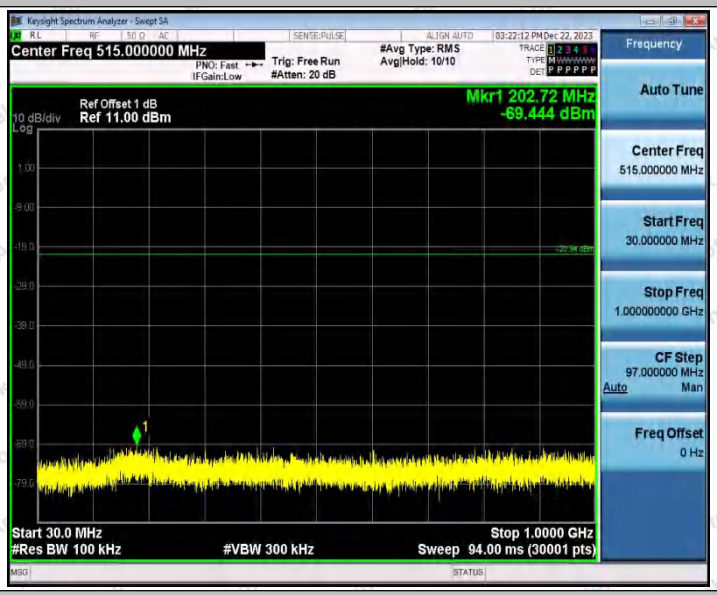


BLE_2M_Ant1_2402_1000~26500

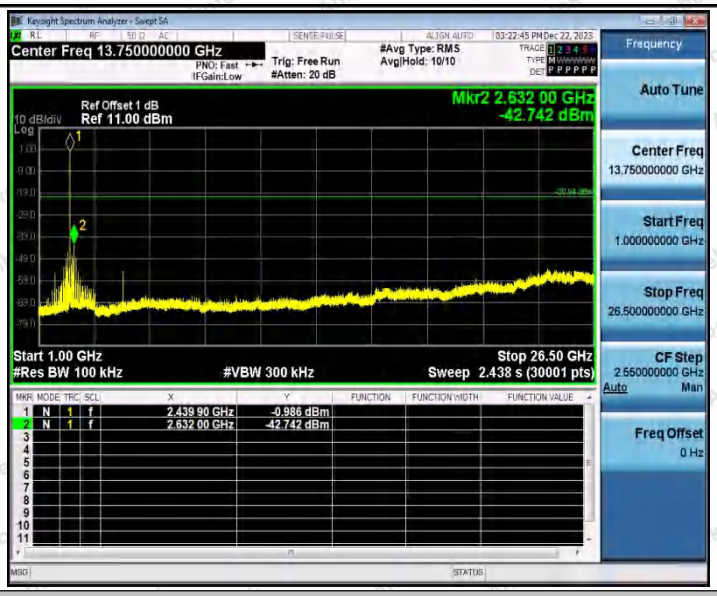


BLE_2M_Ant1_2440_0~Reference

BLE_2M_Ant1_2440_30~1000

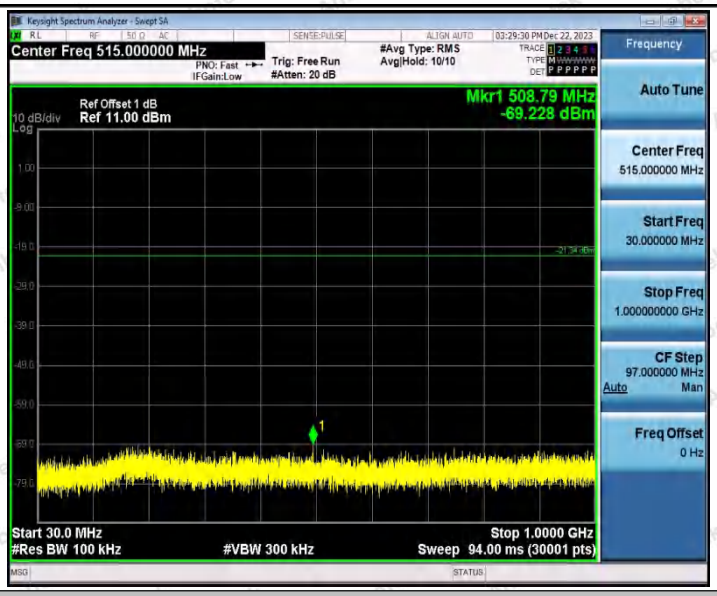


BLE_2M_Ant1_2440_1000~26500

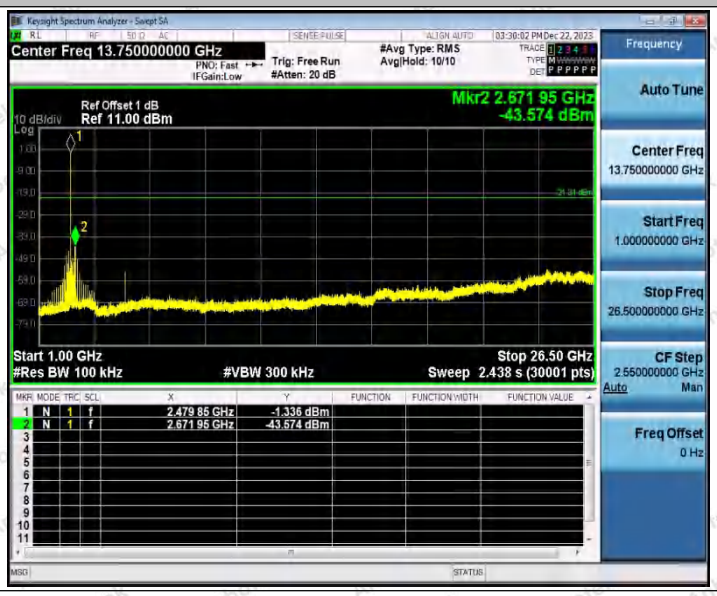


BLE_2M_Ant1_2480_0~Reference

BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



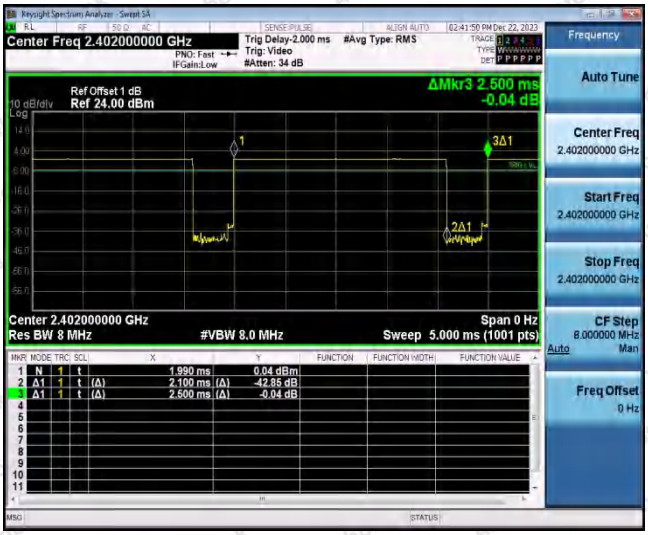
Appendix G: Duty Cycle

Test Result

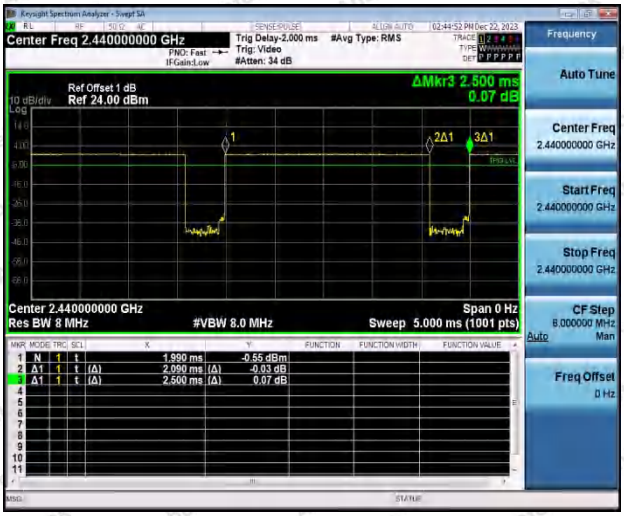
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	2.10	2.50	84.00	0.76
		2440	2.09	2.50	83.60	0.78
		2480	2.10	2.50	84.00	0.76
BLE_2M	Ant1	2402	1.05	1.87	56.15	2.51
		2440	1.05	1.87	56.15	2.51
		2480	1.05	1.87	56.15	2.51

Test Graphs

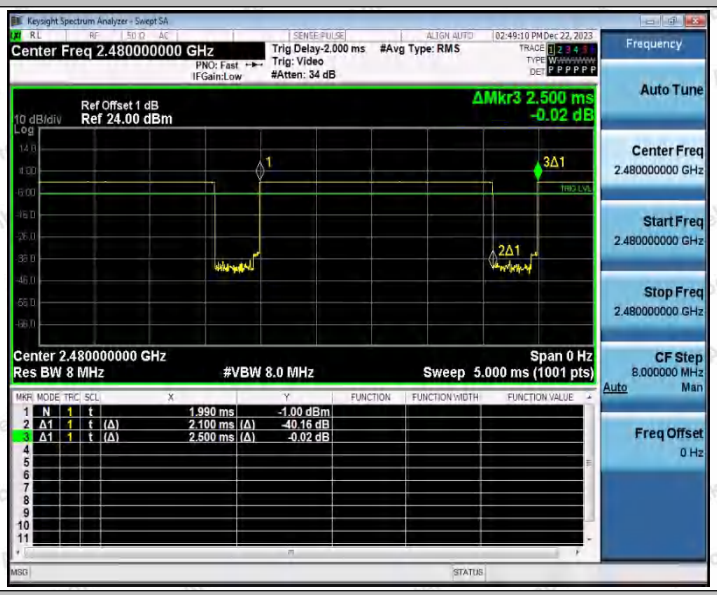
BLE_1M_Ant1_2402



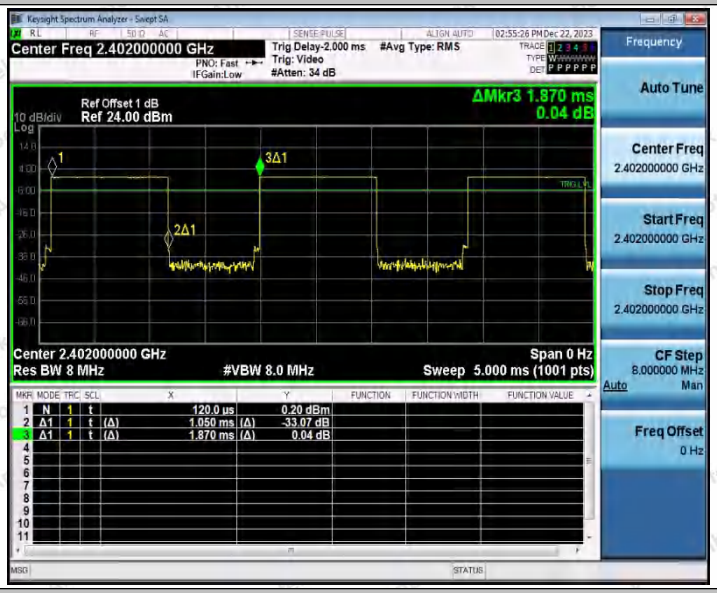
BLE_1M_Ant1_2440



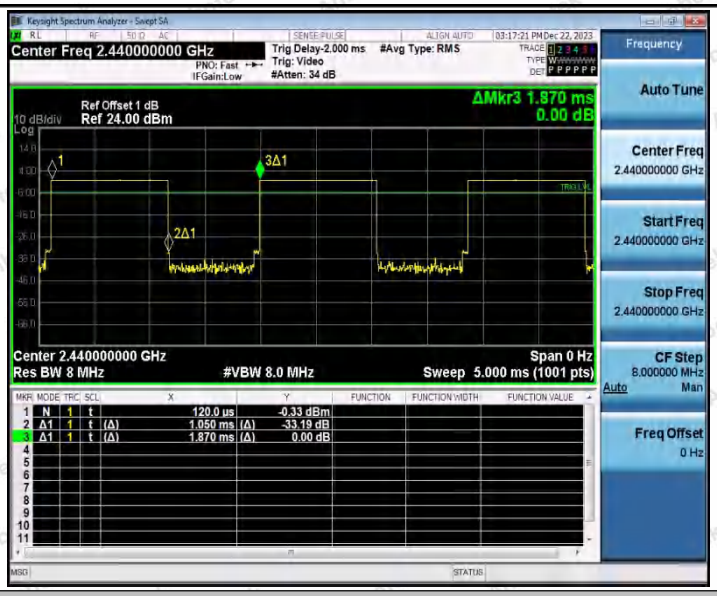
BLE_1M_Ant1_2480



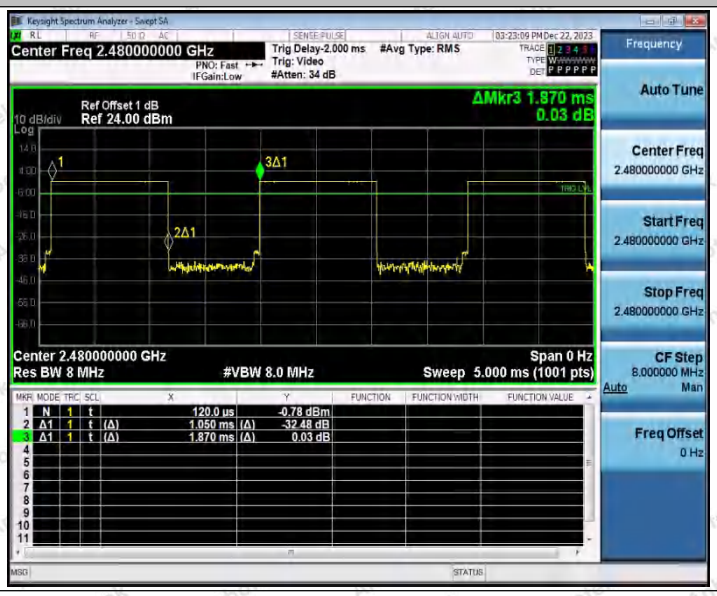
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



---End---