

FCC Appendix RF Test Data

FCC ID : 2BPMC-WS-WYD-30

Company: : Shenzhen Weisen Electronics Co., Ltd.

EUT : Versatile Magic Color Lights

Model Number : WS-WYD-30

Report No. : CTA25042700501

Reviewed By : Eric Wang

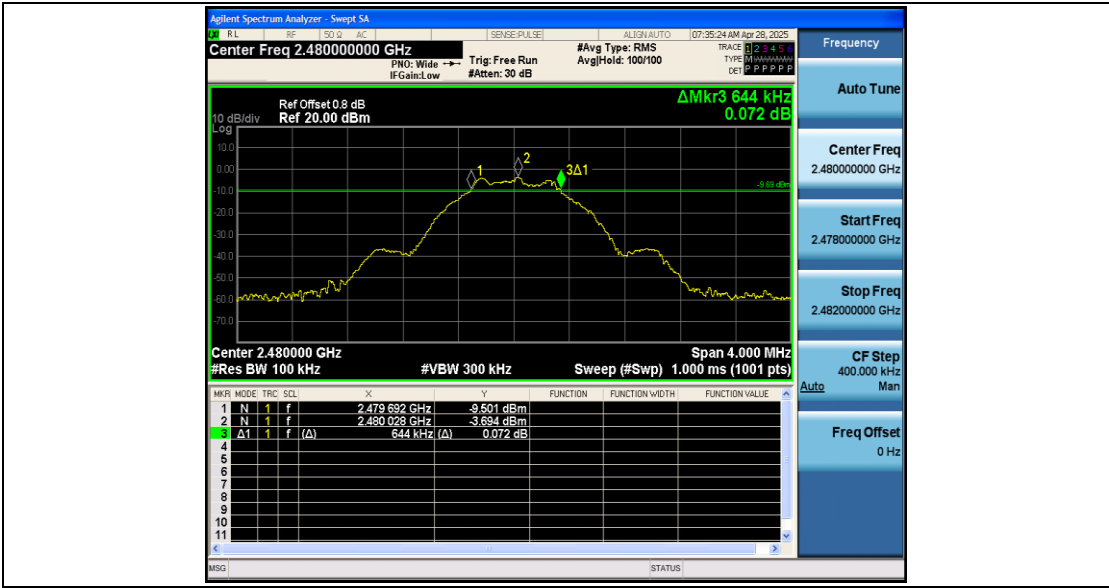
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.636	2401.692	2402.328	0.5	PASS
		2440	0.628	2439.704	2440.332	0.5	PASS
		2480	0.644	2479.692	2480.336	0.5	PASS

Test Graphs





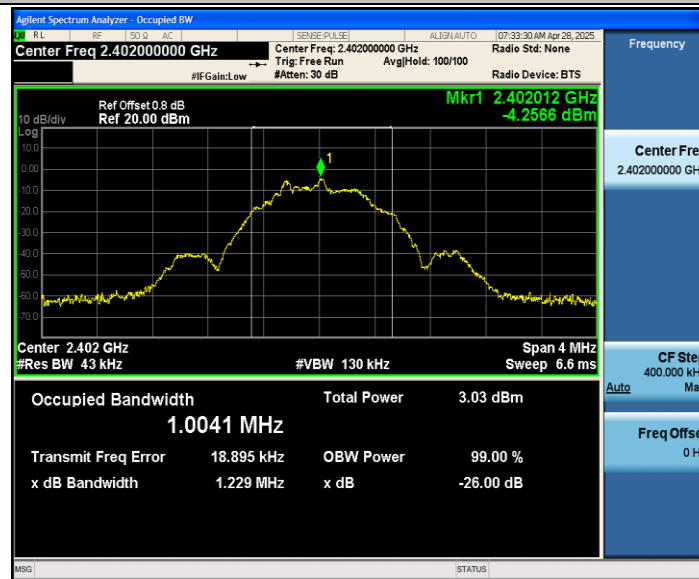
Appendix B: Occupied Channel Bandwidth

Test Result

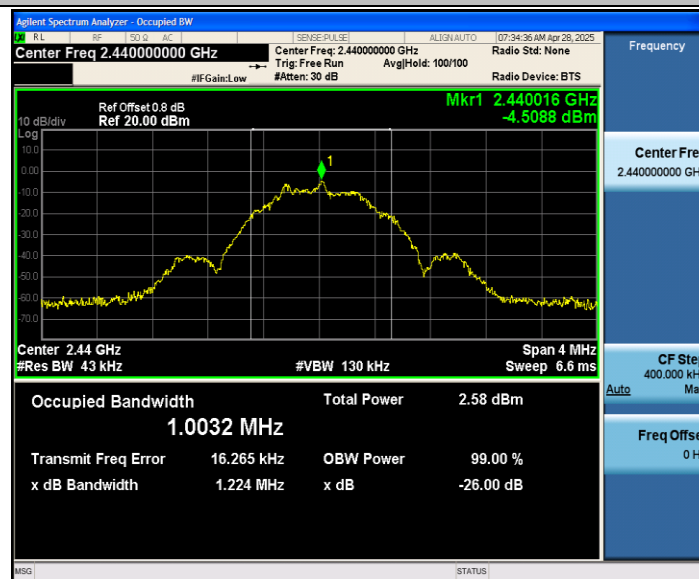
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0041	2401.5168	2402.5209	---	---
		2440	1.0032	2439.5147	2440.5179	---	---
		2480	0.99675	2479.5236	2480.5203	---	---

Test Graphs

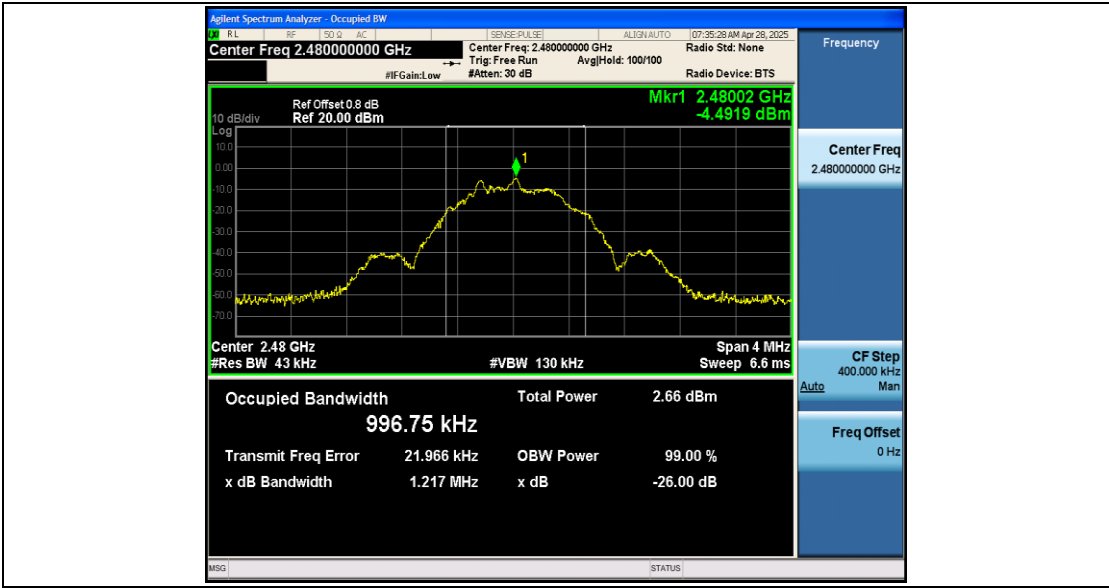
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.13	≤30	PASS
		2440	-3.45	≤30	PASS
		2480	-3.50	≤30	PASS

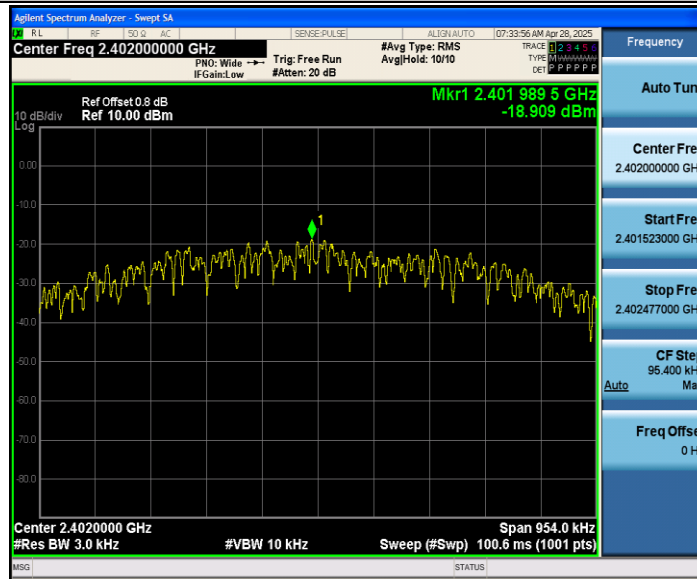
Appendix D: Maximum power spectral density

Test Result

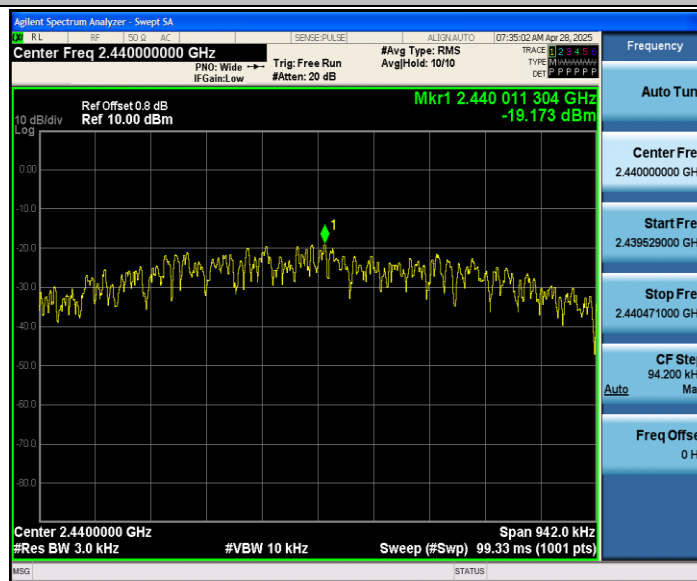
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.91	≤8.00	PASS
		2440	-19.17	≤8.00	PASS
		2480	-19.36	≤8.00	PASS

Test Graphs

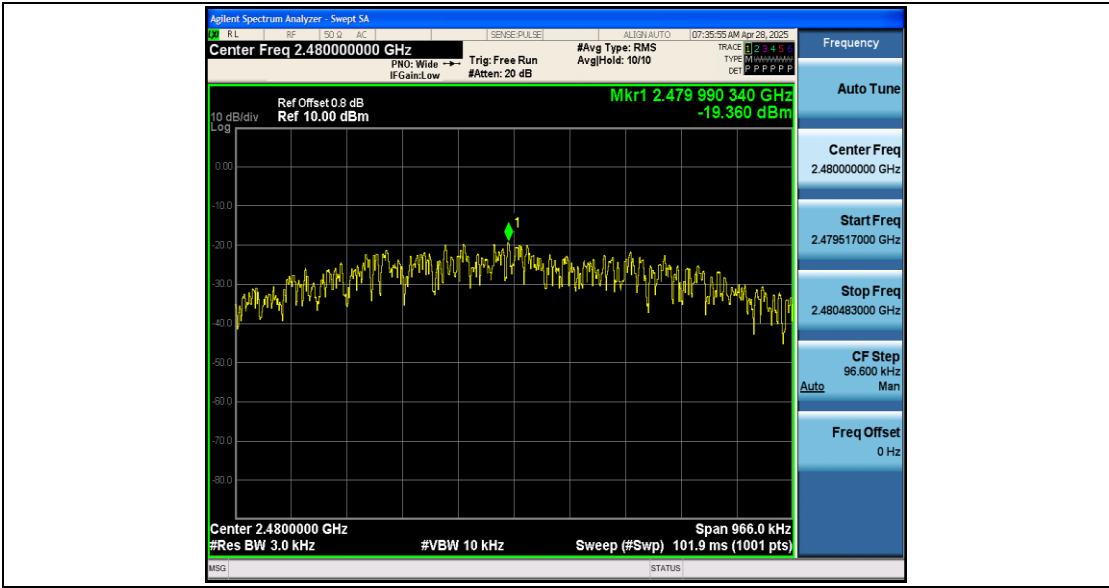
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

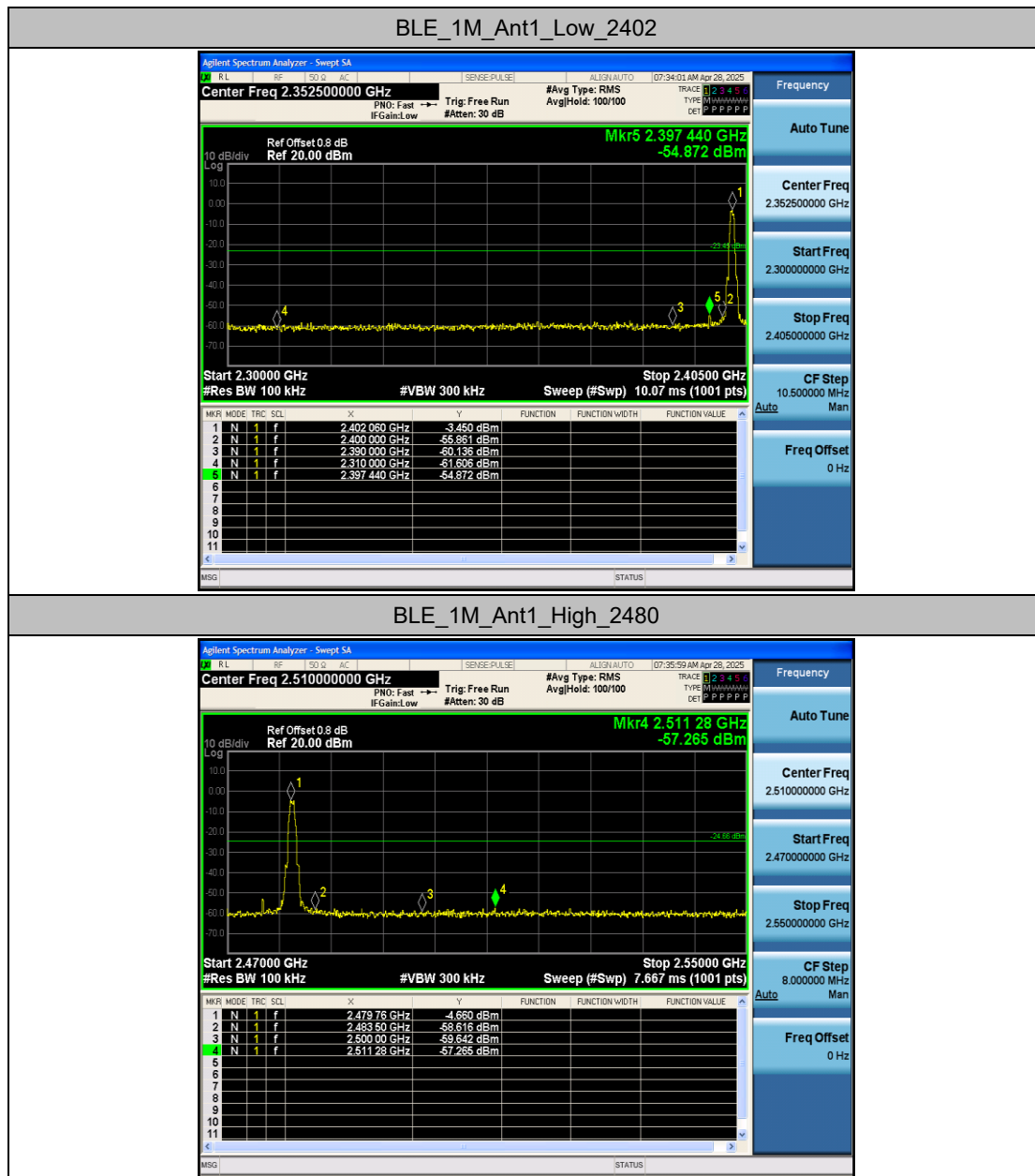


Appendix E: Band edge measurements

Test Result

TestMod e	Antenn a	ChNam e	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdic t
BLE_1M	Ant1	Low	2402	-3.45	-54.87	≤-23.45	PASS
		High	2480	-4.66	-57.27	≤-24.66	PASS

Test Graphs

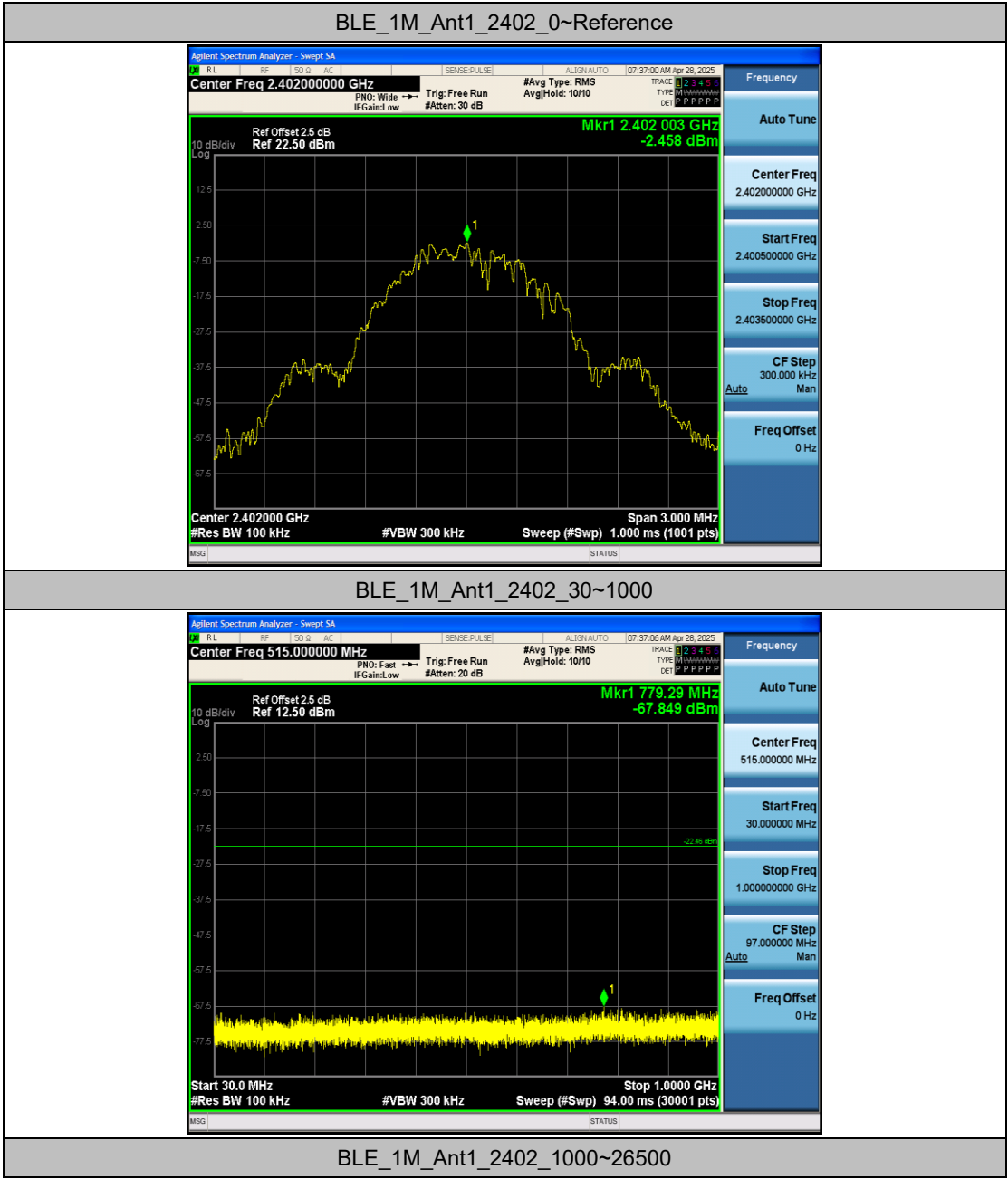


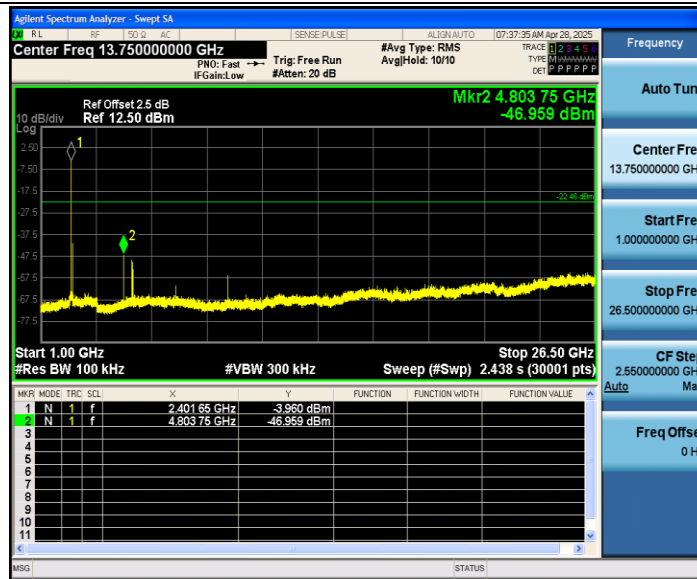
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-2.46	-2.46	---	PASS
			30~1000	-2.46	-67.85	≤-22.46	PASS
			1000~26500	-2.46	-46.96	≤-22.46	PASS
		2440	Reference	-1.87	-1.87	---	PASS
			30~1000	-1.87	-67.07	≤-21.87	PASS
			1000~26500	-1.87	-48.52	≤-21.87	PASS
		2480	Reference	-2.41	-2.41	---	PASS
			30~1000	-2.41	-66.98	≤-22.41	PASS
			1000~26500	-2.41	-48.3	≤-22.41	PASS

Test Graphs

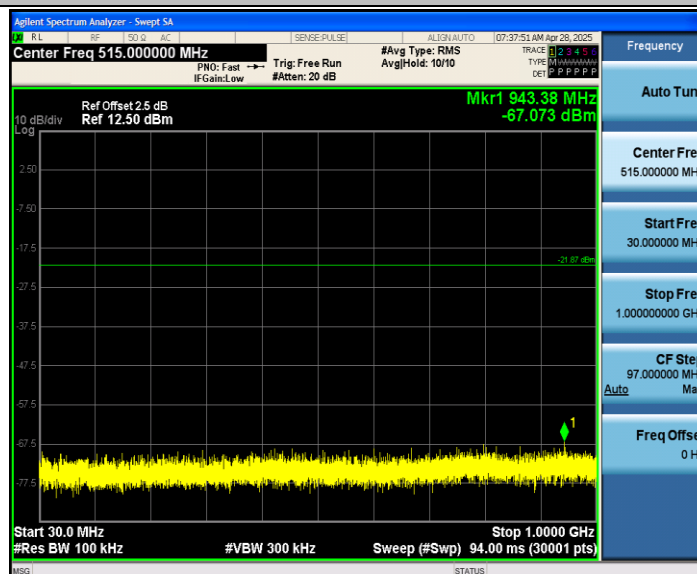




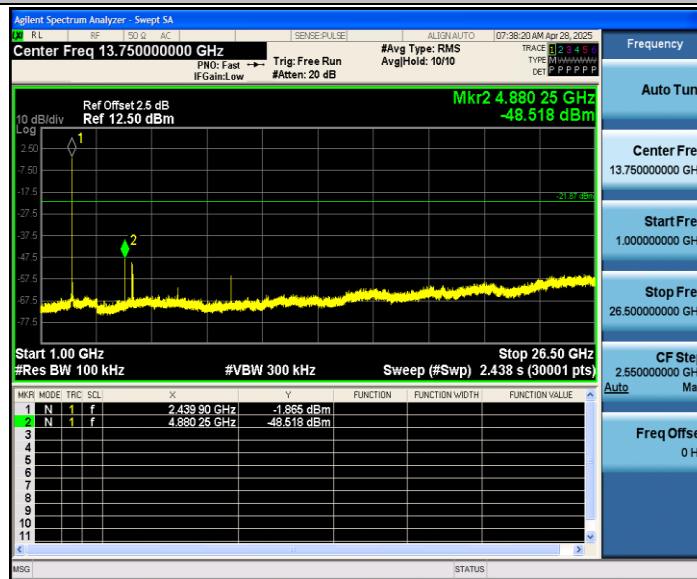
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



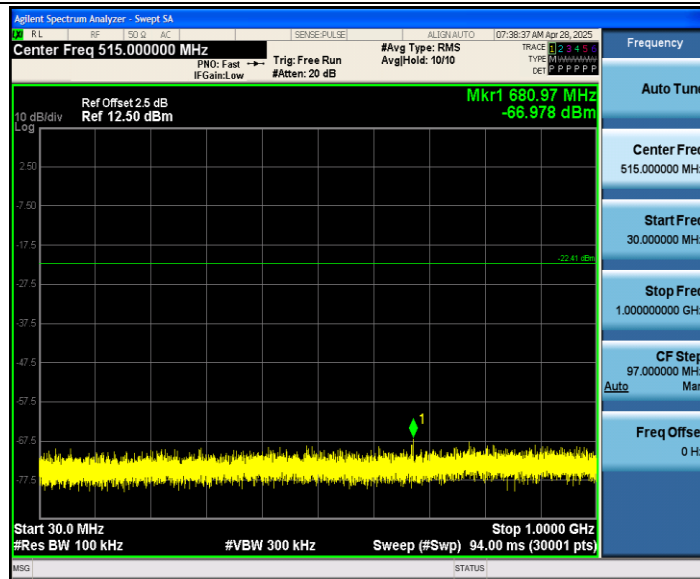
BLE_1M_Ant1_2440_1000~26500



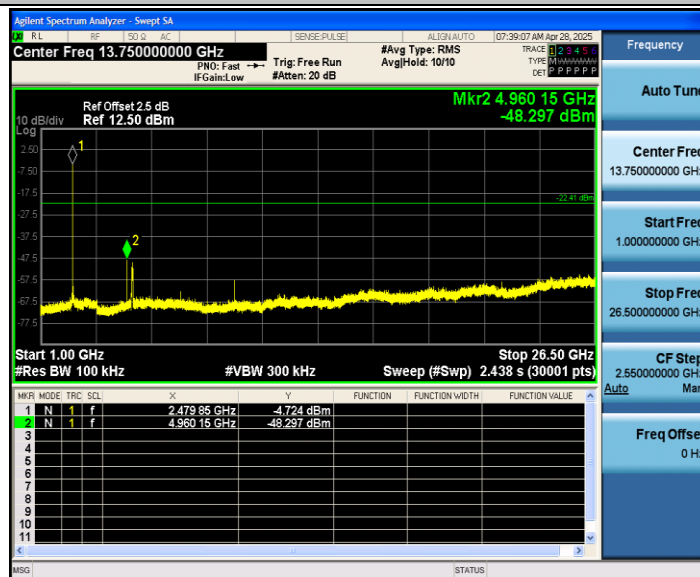
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.41	0.63	0.6508	65.08	1.87	---	---
		2440	0.41	0.63	0.6508	65.08	1.87	---	---
		2480	0.41	0.63	0.6508	65.08	1.87	---	---

Test Graphs

