Appendix: Bluetooth LE

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Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.708	2401.656	2402.364	0.5	PASS
		2440	0.684	2439.668	2440.352	0.5	PASS
		2480	0.708	2479.644	2480.352	0.5	PASS
BLE_2M	Ant1	2402	1.200	2401.416	2402.616	0.5	PASS
		2440	1.220	2439.396	2440.616	0.5	PASS
		2480	1.248	2479.360	2480.608	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	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0572	2401.493	2402.550	---	PASS
		2440	1.0470	2439.489	2440.536	---	PASS
		2480	1.0549	2479.483	2480.537	---	PASS
BLE_2M	Ant1	2402	2.0569	2401.004	2403.061	---	PASS
		2440	2.0520	2438.998	2441.050	---	PASS
		2480	2.0517	2478.992	2481.043	---	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

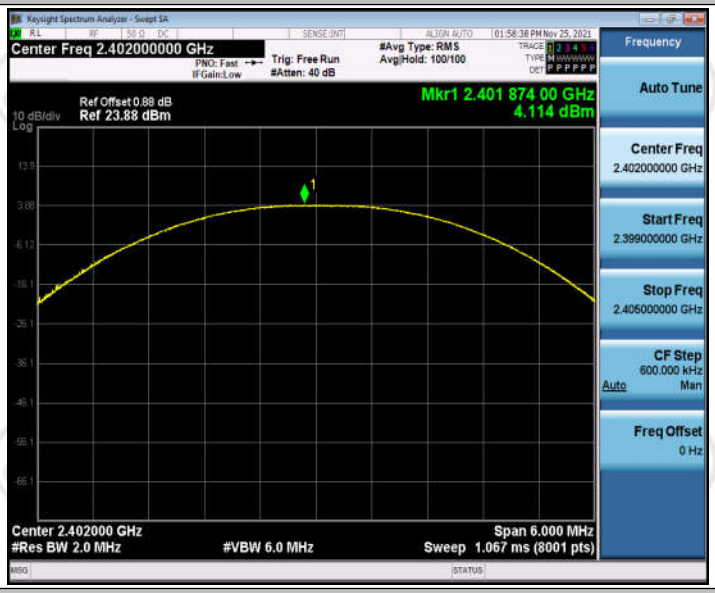
Appendix C: Maximum conducted output power

Test Result

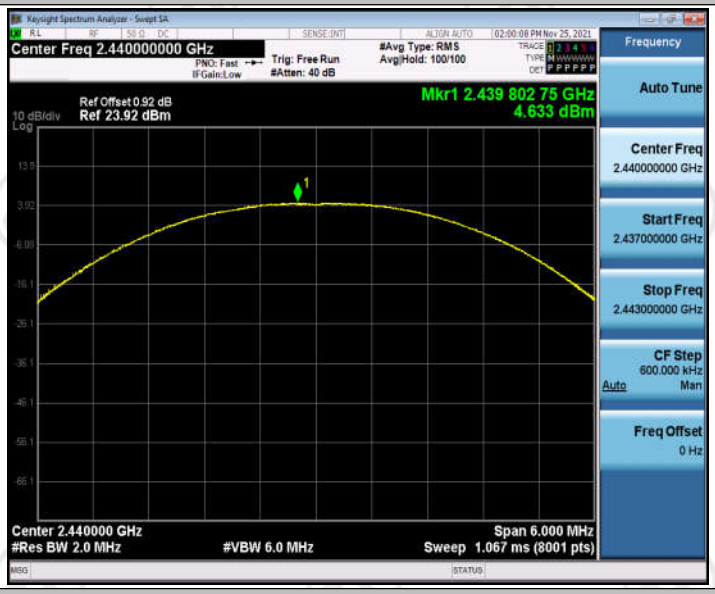
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	4.11	<=30	PASS
		2440	4.63	<=30	PASS
		2480	4.32	<=30	PASS
BLE_2M	Ant1	2402	4.42	<=30	PASS
		2440	5.08	<=30	PASS
		2480	4.64	<=30	PASS

Test Graphs

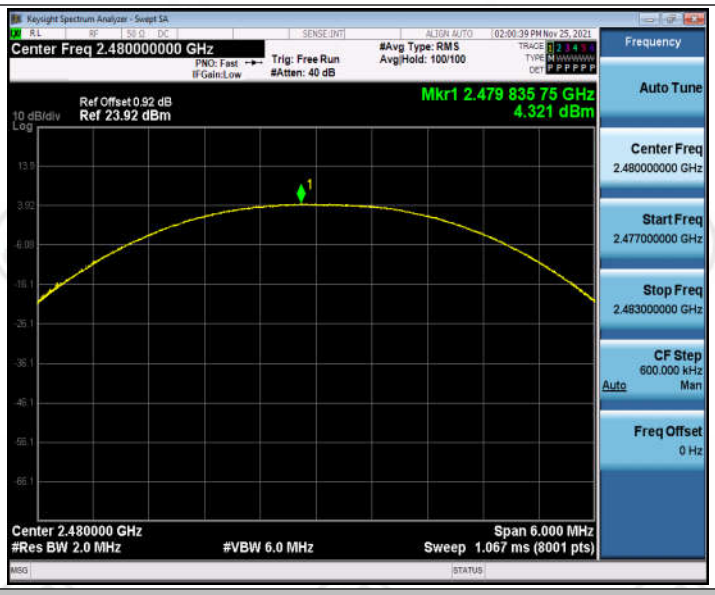
BLE_1M_Ant1_2402



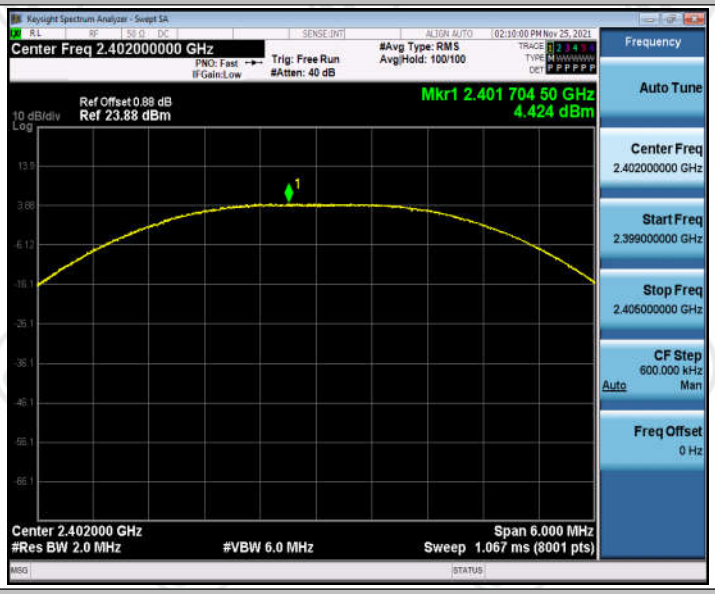
BLE_1M_Ant1_2440



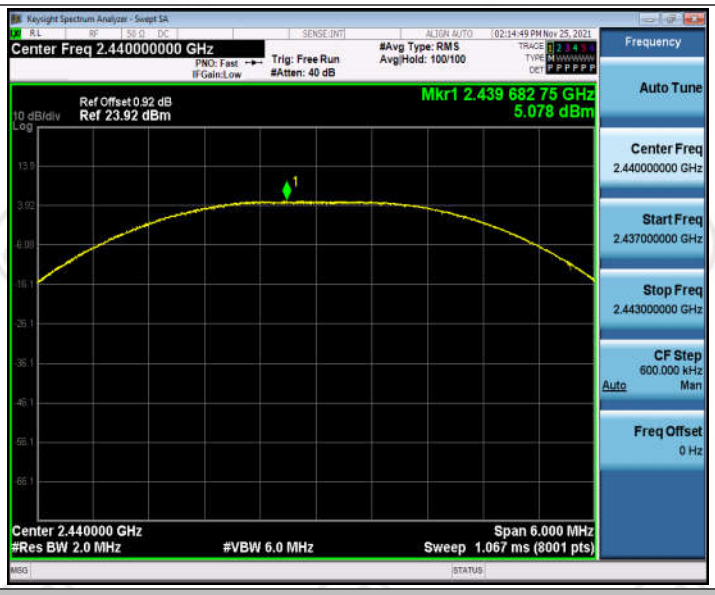
BLE_1M_Ant1_2480



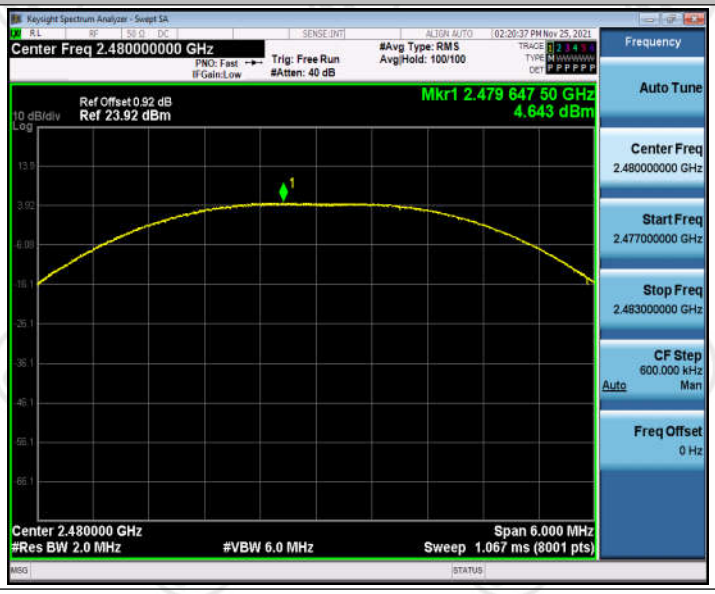
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



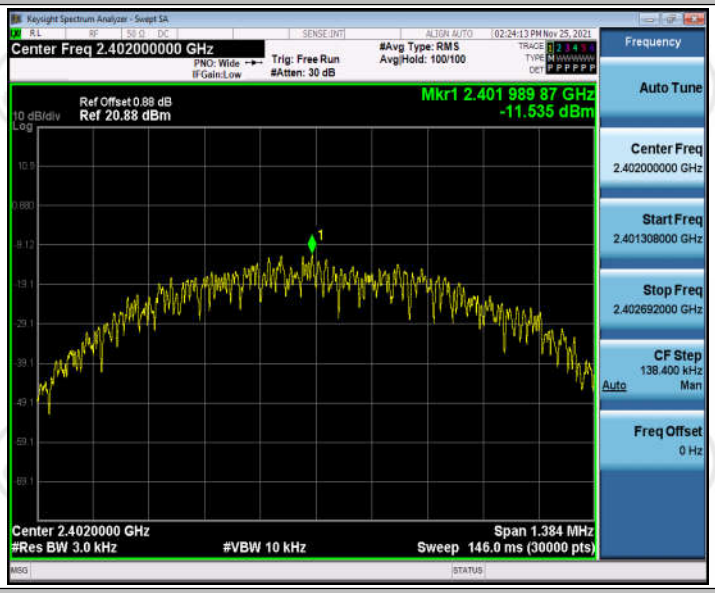
Appendix D: Maximum power spectral density

Test Result

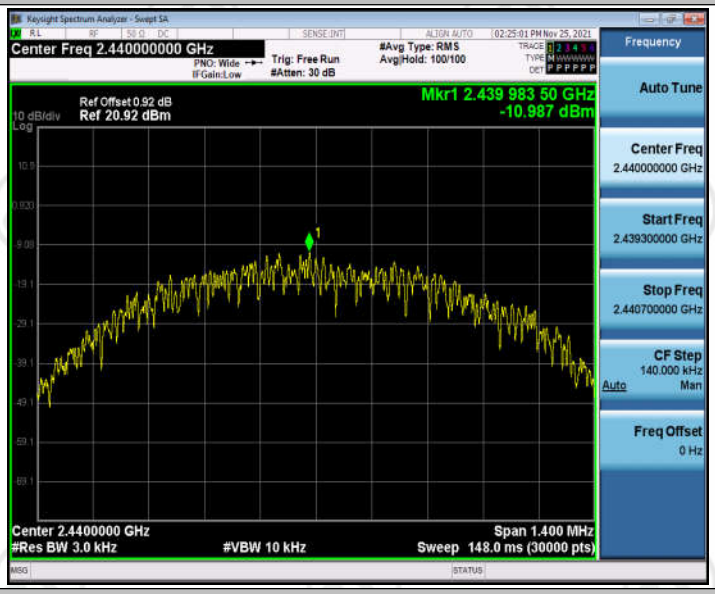
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-11.54	<=8	PASS
		2440	-10.99	<=8	PASS
		2480	-11.48	<=8	PASS
BLE_2M	Ant1	2402	-13.9	<=8	PASS
		2440	-13.12	<=8	PASS
		2480	-13.57	<=8	PASS

Test Graphs

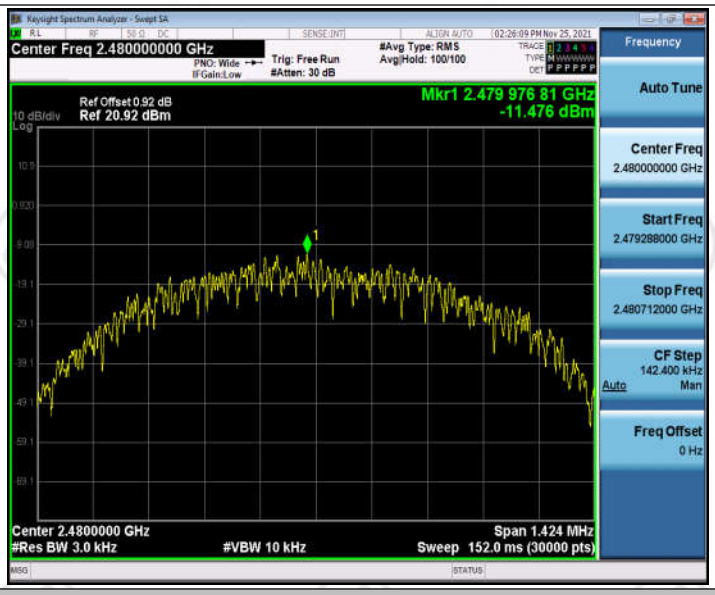
BLE_1M_Ant1_2402



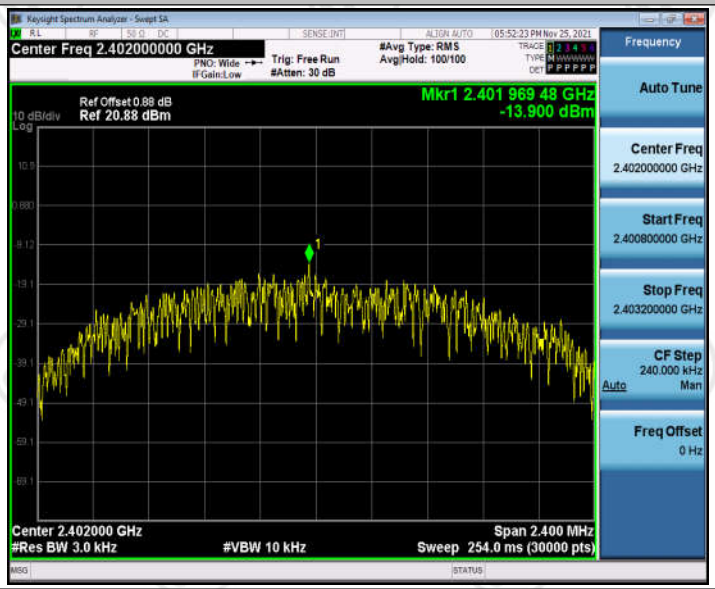
BLE_1M_Ant1_2440



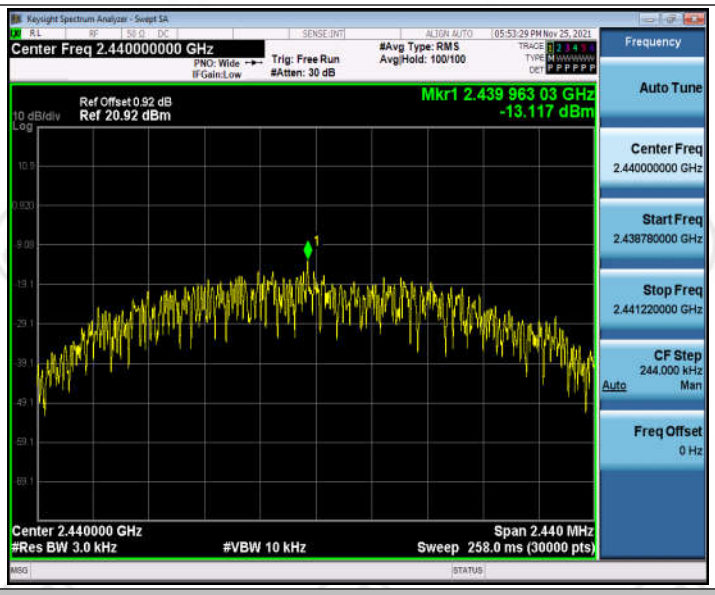
BLE_1M_Ant1_2480



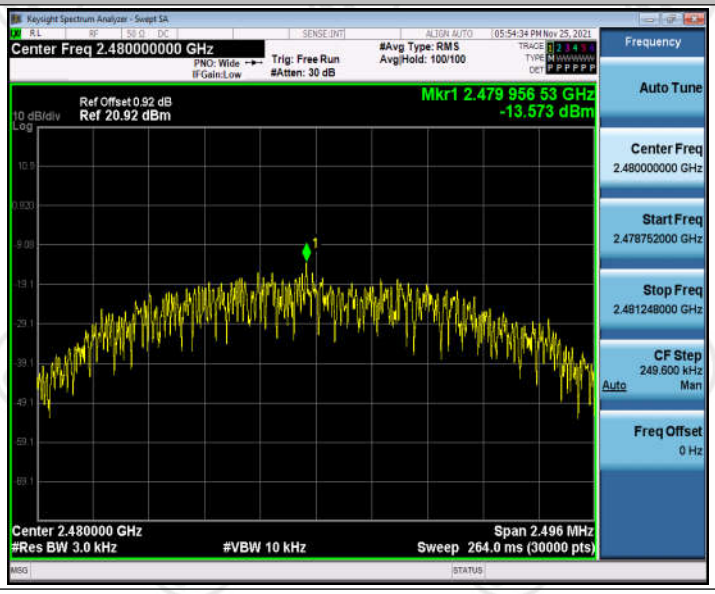
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



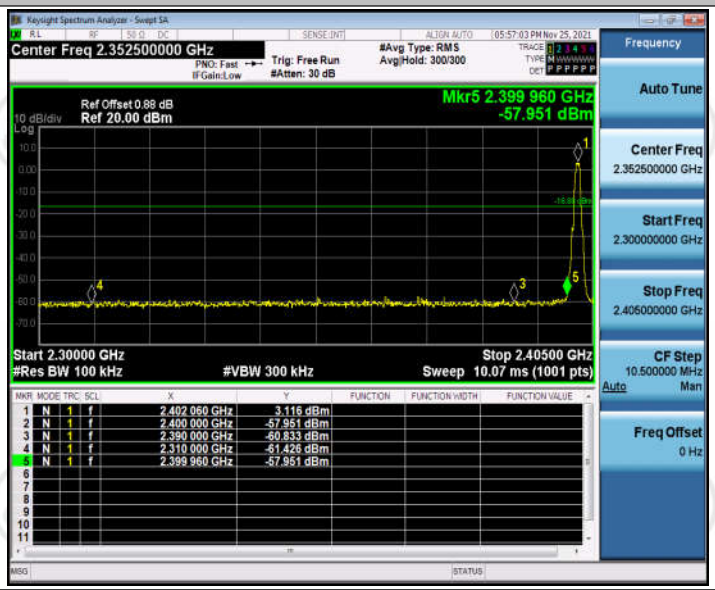
Appendix E: Band edge measurements

Test Result

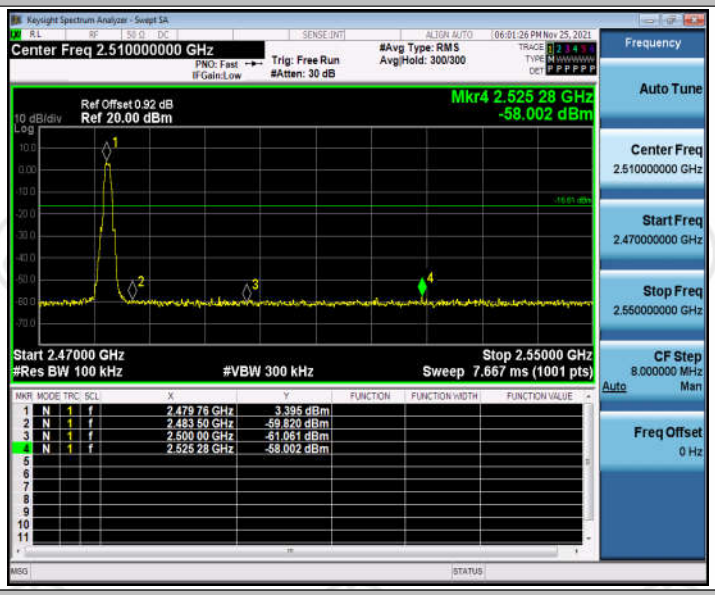
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	3.12	-57.95	<=-16.88	PASS
		High	2480	3.40	-58	<=-16.61	PASS
BLE_2M	Ant1	Low	2402	2.61	-39.38	<=-17.39	PASS
		High	2480	2.79	-58.4	<=-17.21	PASS

Test Graphs

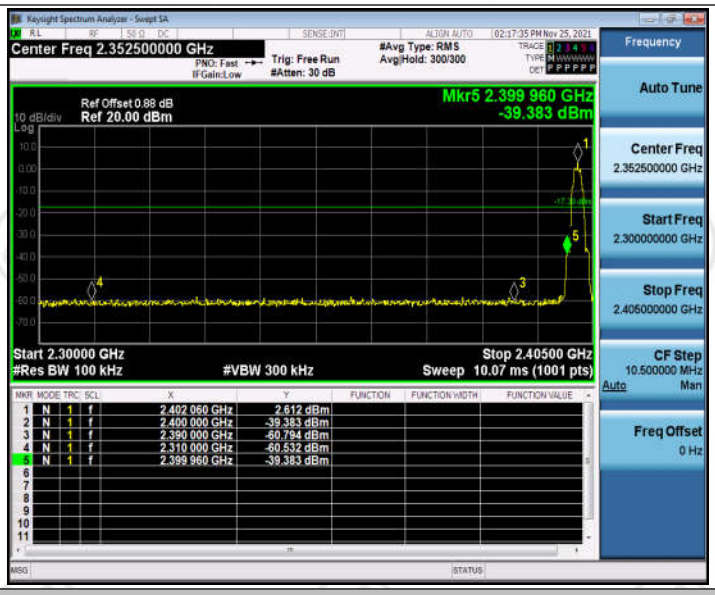
BLE_1M_Ant1_Low_2402



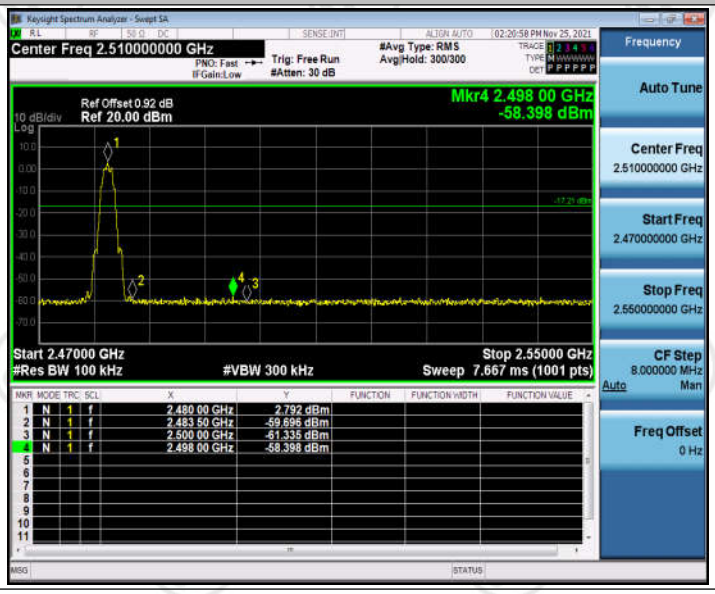
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480



Appendix F: Conducted Spurious Emission

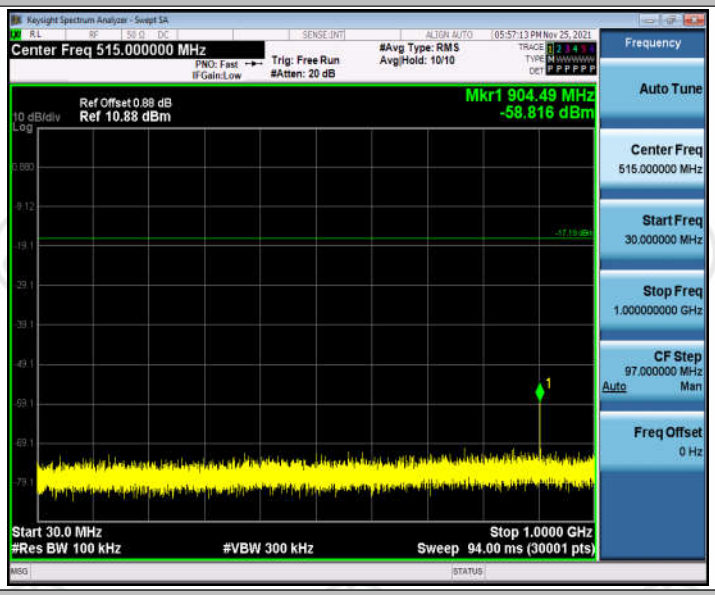
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.81	2.81	---	PASS
			30~1000	30~1000	-58.816	<=-17.193	PASS
			1000~26500	1000~26500	-51.646	<=-17.193	PASS
		2440	Reference	3.58	3.58	---	PASS
			30~1000	30~1000	-63.103	<=-16.423	PASS
			1000~26500	1000~26500	-54.016	<=-16.423	PASS
		2480	Reference	3.23	3.23	---	PASS
			30~1000	30~1000	-70.105	<=-16.775	PASS
			1000~26500	1000~26500	-56.827	<=-16.775	PASS
BLE_2M	Ant1	2402	Reference	2.66	2.66	---	PASS
			30~1000	30~1000	-63.749	<=-17.339	PASS
			1000~26500	1000~26500	-51.243	<=-17.339	PASS
		2440	Reference	2.93	2.93	---	PASS
			30~1000	30~1000	-63.041	<=-17.07	PASS
			1000~26500	1000~26500	-54.124	<=-17.07	PASS
		2480	Reference	2.65	2.65	---	PASS
			30~1000	30~1000	-63.41	<=-17.355	PASS
			1000~26500	1000~26500	-56.337	<=-17.355	PASS

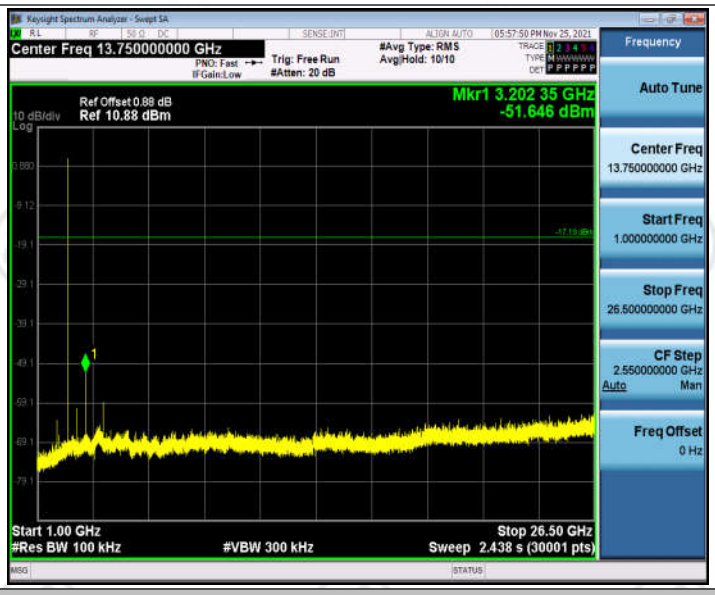
Test Graphs

BLE_1M_Ant1_2402_0~Reference

BLE_1M_Ant1_2402_30~1000

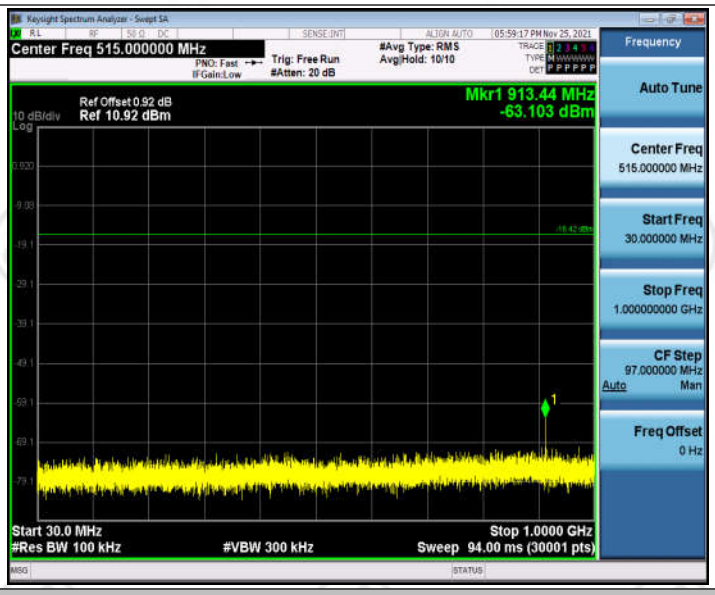


BLE_1M_Ant1_2402_1000~26500

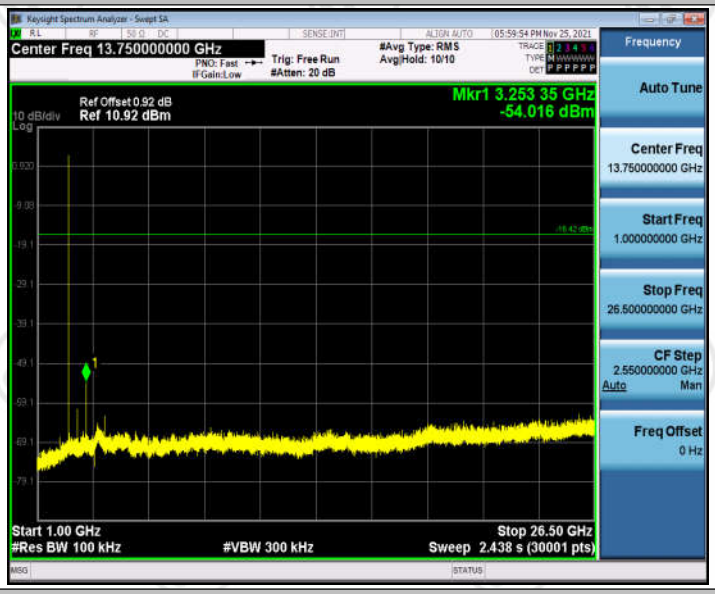


BLE_1M_Ant1_2440_0~Reference

BLE_1M_Ant1_2440_30~1000

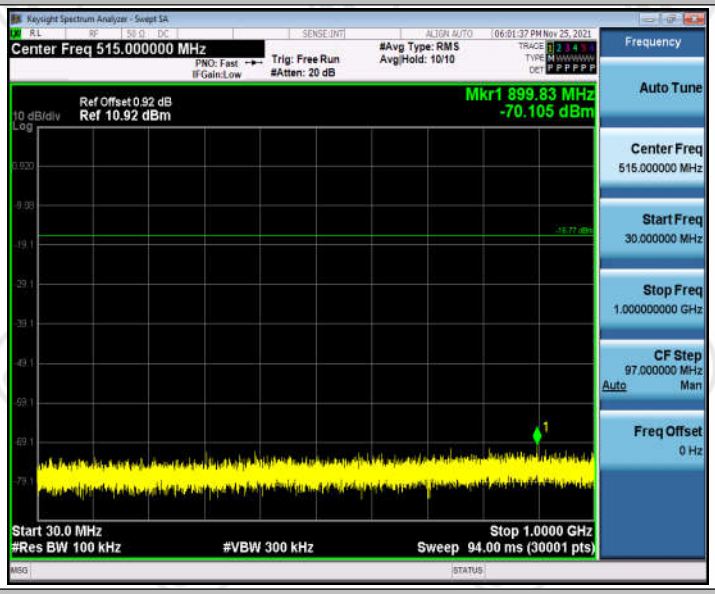


BLE_1M_Ant1_2440_1000~26500

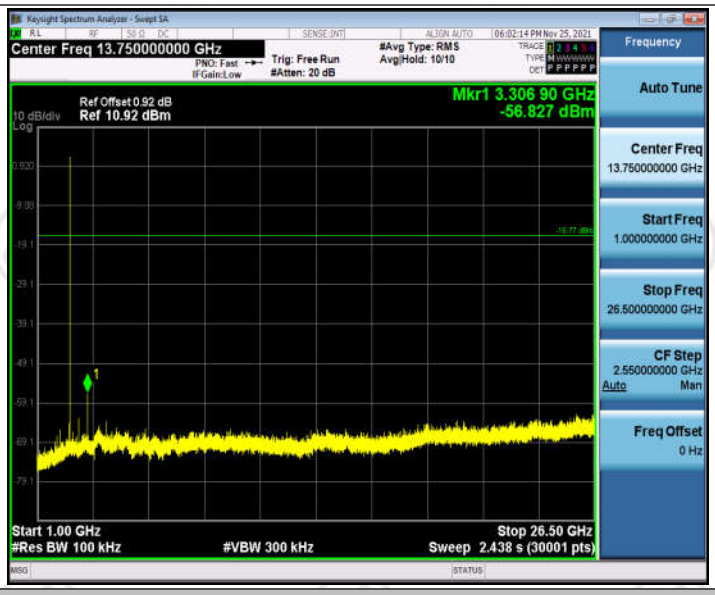


BLE_1M_Ant1_2480_0~Reference

BLE_1M_Ant1_2480_30~1000

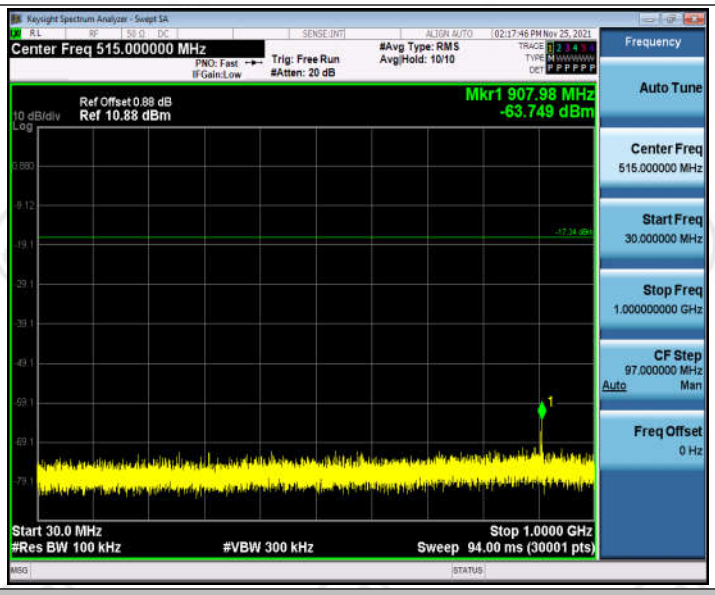


BLE_1M_Ant1_2480_1000~26500

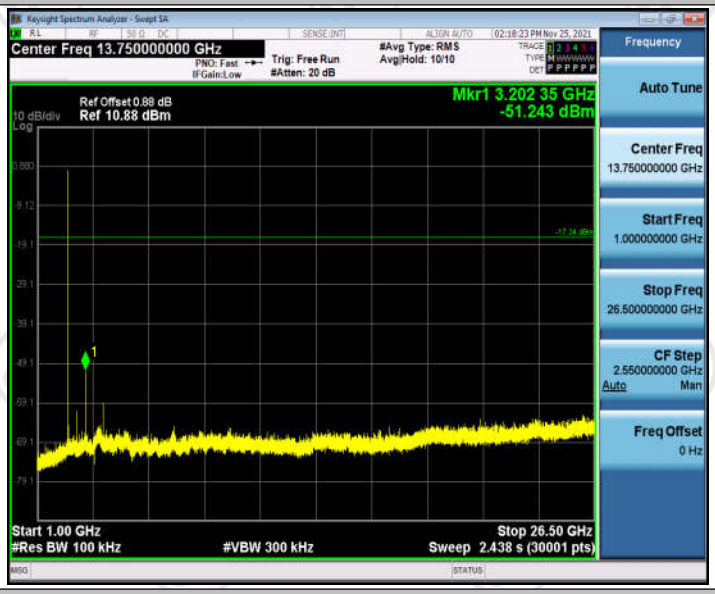


BLE_2M_Ant1_2402_0~Reference

BLE_2M_Ant1_2402_30~1000

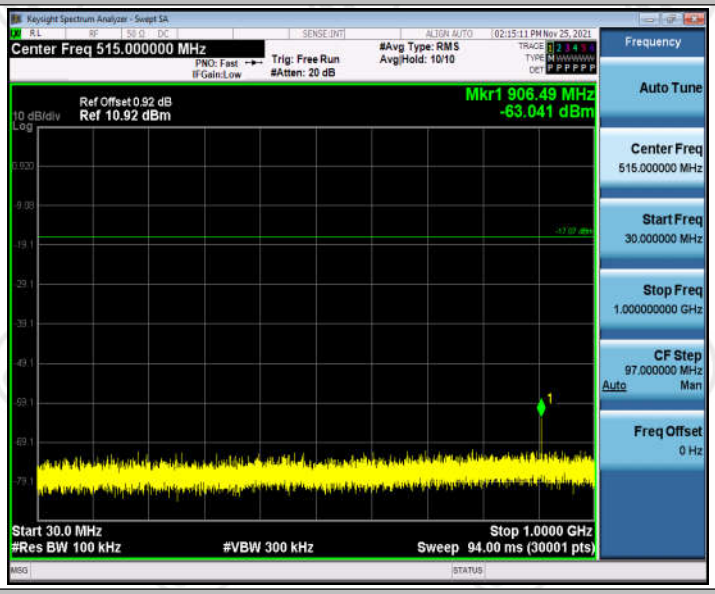


BLE_2M_Ant1_2402_1000~26500

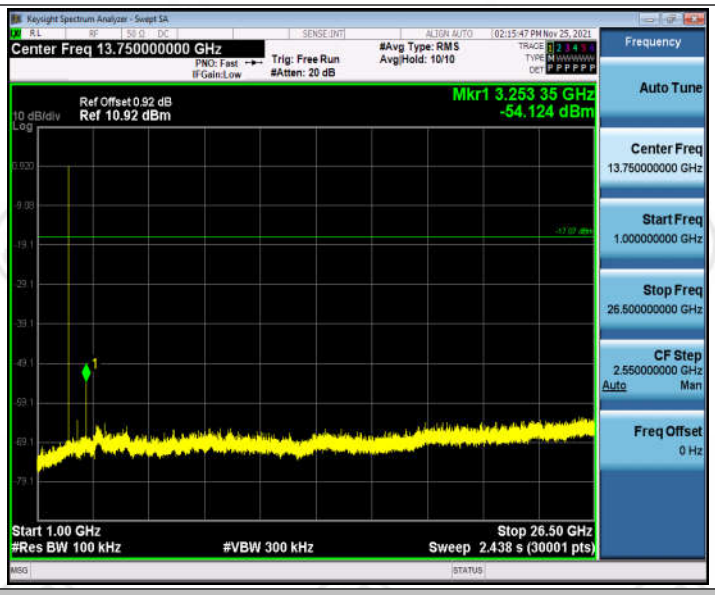


BLE_2M_Ant1_2440_0~Reference

BLE_2M_Ant1_2440_30~1000

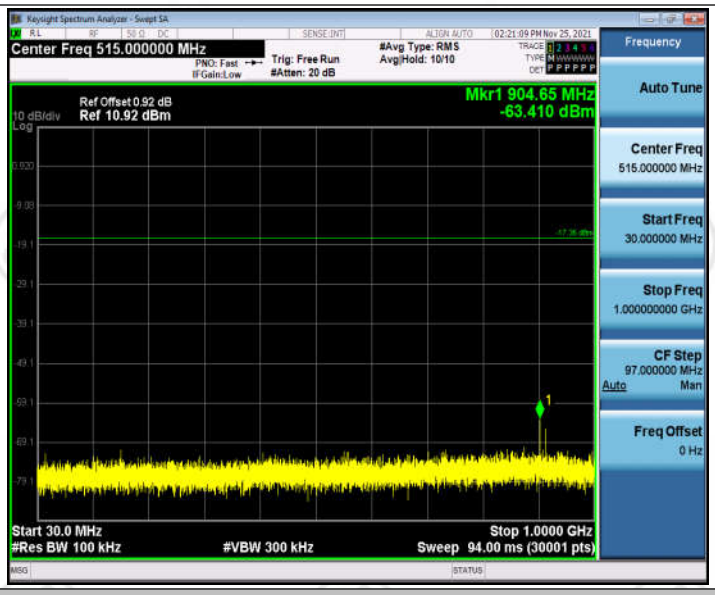


BLE_2M_Ant1_2440_1000~26500

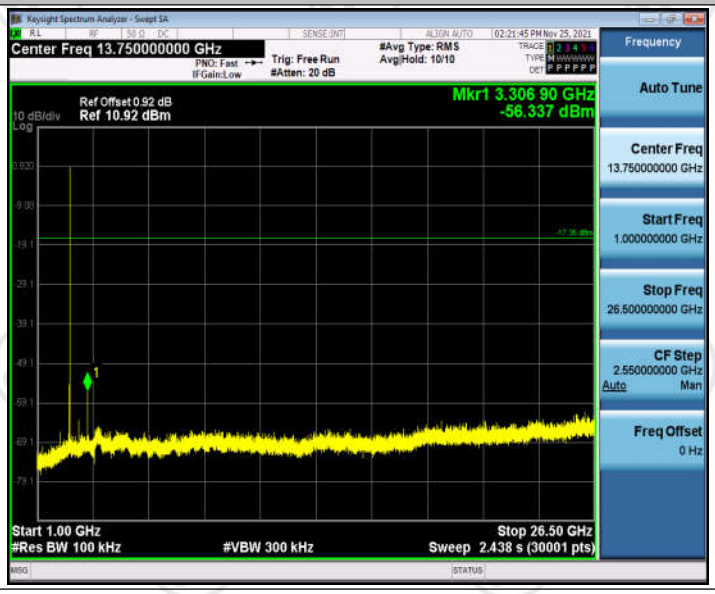


BLE_2M_Ant1_2480_0~Reference

BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



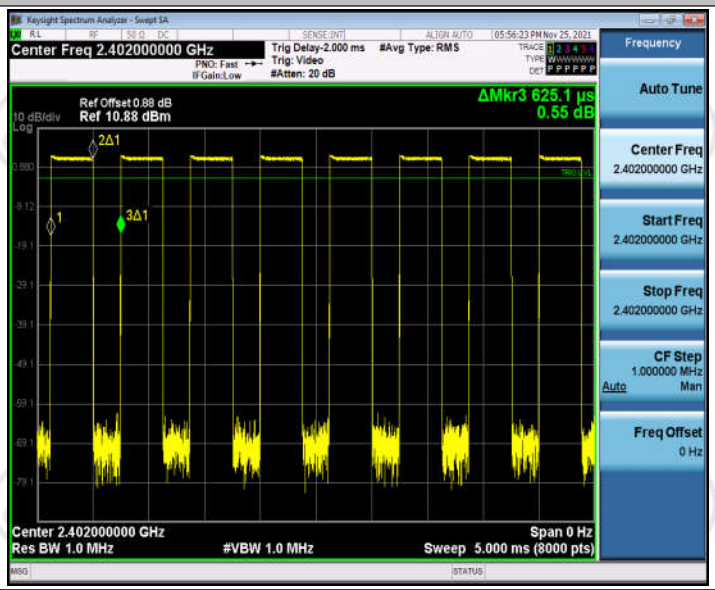
Appendix G: Duty Cycle

Test Result

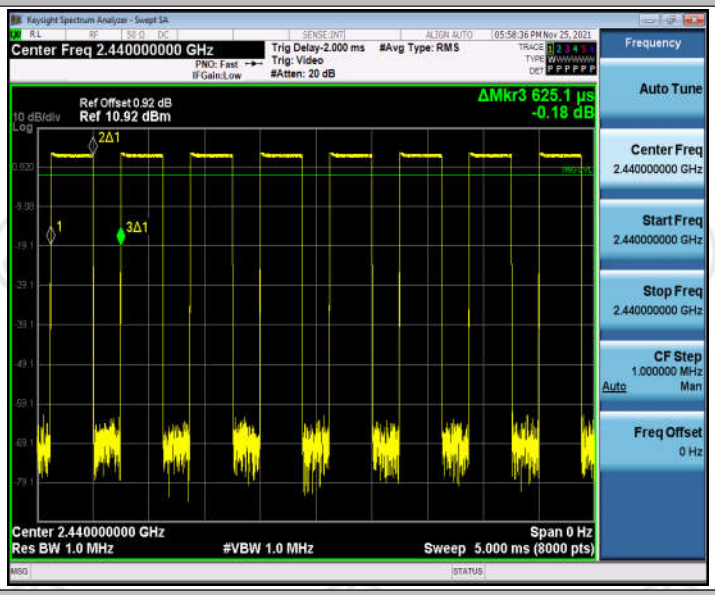
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.63	60.50	---	PASS
		2440	0.38	0.63	60.50	---	PASS
		2480	0.38	0.63	60.50	---	PASS
BLE_2M	Ant1	2402	0.19	0.63	30.90	---	PASS
		2440	0.19	0.63	31.00	---	PASS
		2480	0.19	0.63	30.90	---	PASS

Test Graphs

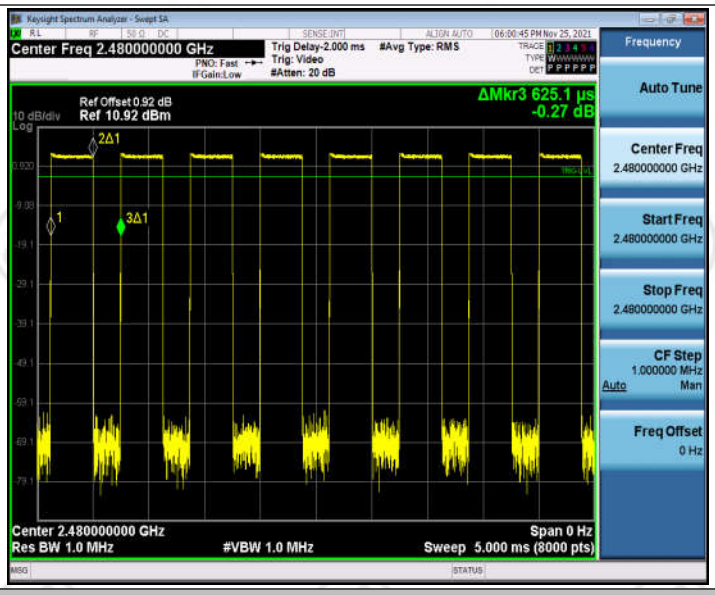
BLE_1M_Ant1_2402



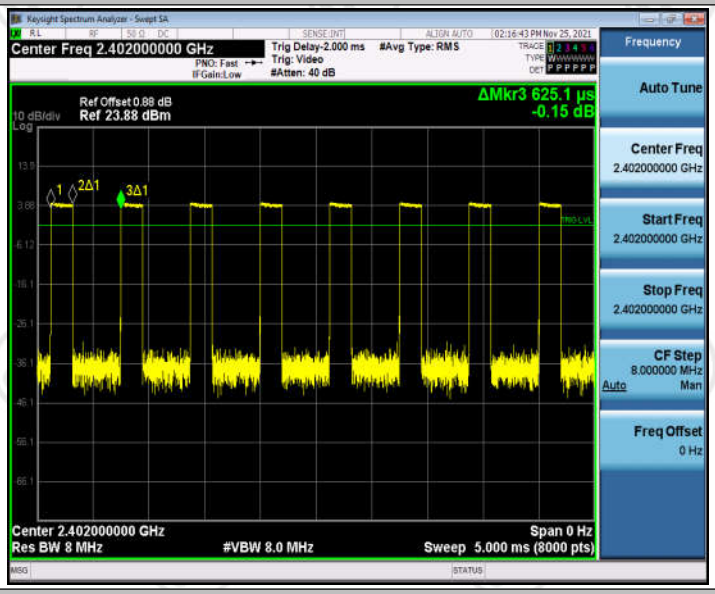
BLE_1M_Ant1_2440



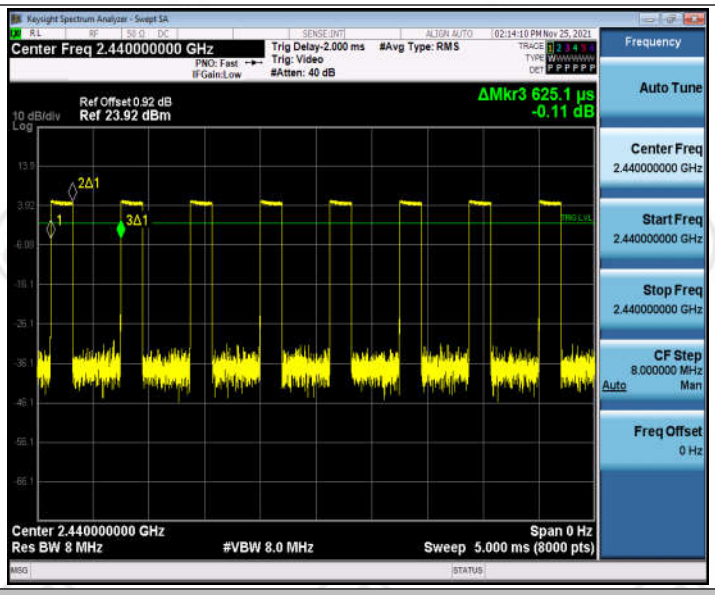
BLE_1M_Ant1_2480



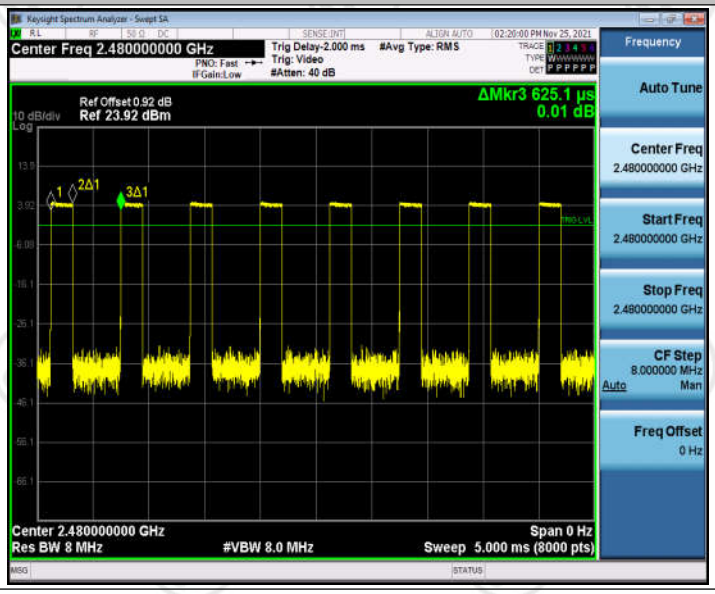
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



*** End of Report ***