Appendix Test Data

Report No.:	18220WC20188002	Test Sample No.:	1-2-2
Start Test Date:	2022.8.16	Finish Test Date:	2022.11.10
Test Engineer:	Tony.He	Auditor:	Edward.Pan
Temperature:	27.3℃	Relative Humidity:	47 %
Pressure:	1012 hPa		

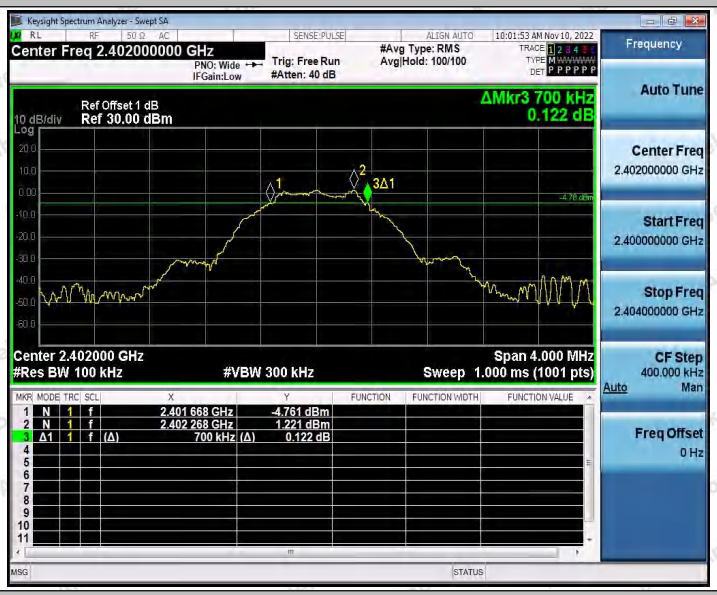
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.700	2401.668	2402.368	0.5	PASS
		2440	0.684	2439.676	2440.360	0.5	PASS
		2480	0.696	2479.656	2480.352	0.5	PASS
BLE_2M	Ant1	2402	1.172	2401.420	2402.592	0.5	PASS
		2440	1.144	2439.448	2440.592	0.5	PASS
		2480	1.148	2479.428	2480.576	0.5	PASS

Test Graphs

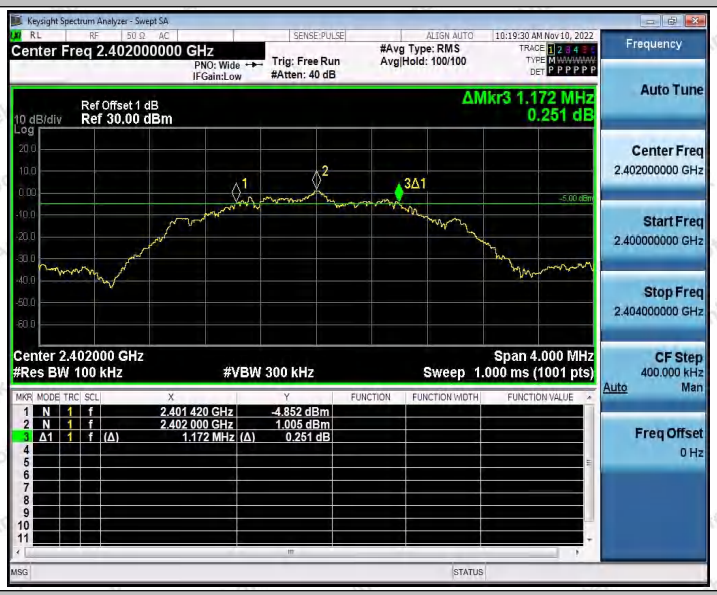
BLE_1M_Ant1_2402



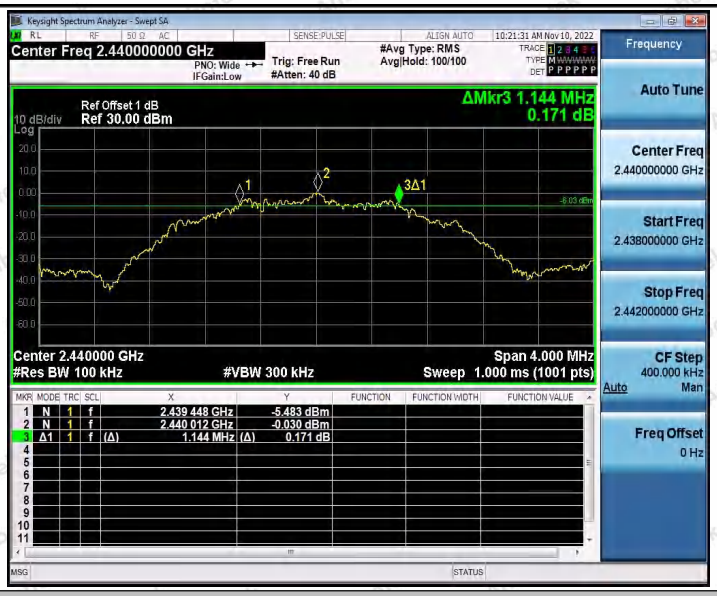
BLE_1M_Ant1_2440

BLE_1M_Ant1_2480

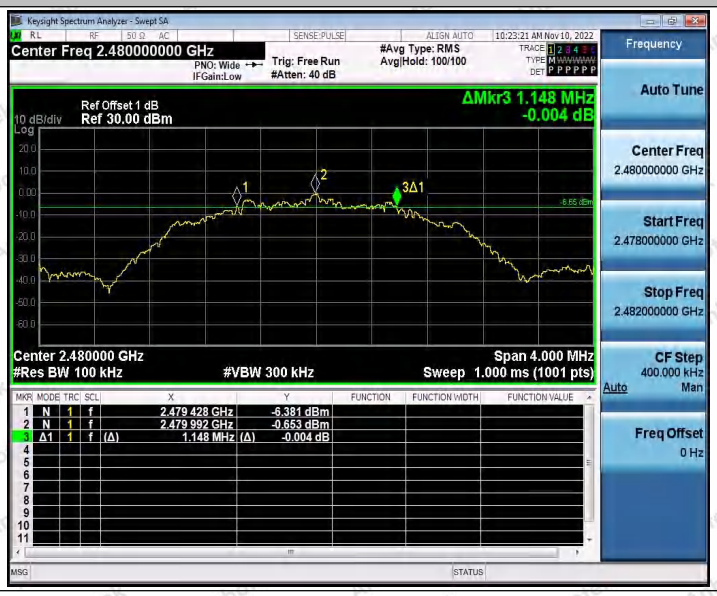
BLE_2M_Ant1_2402



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	1.0460	2401.4882	2402.5342
		2440	1.0494	2439.4884	2440.5378
		2480	1.0578	2479.4857	2480.5435
BLE_2M	Ant1	2402	2.0697	2400.9845	2403.0542
		2440	2.0682	2438.9900	2441.0582
		2480	2.0710	2478.9890	2481.0600

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

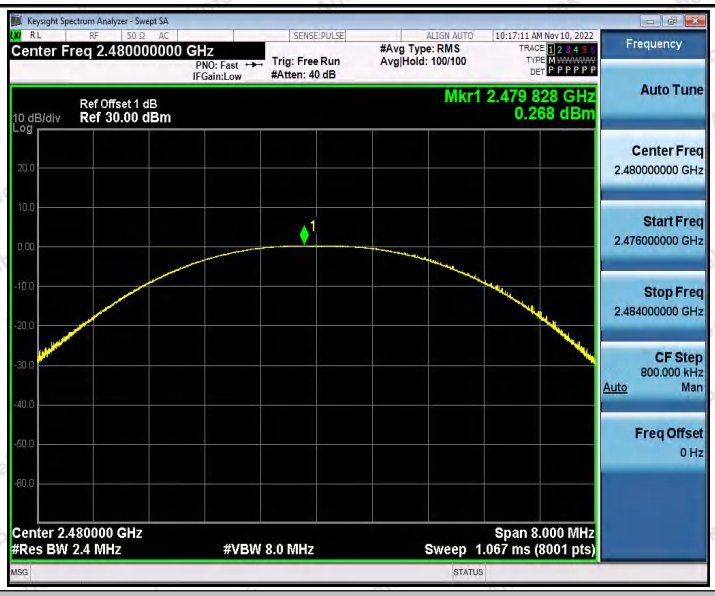
TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.65	≤30	PASS
		2440	0.89	≤30	PASS
		2480	0.27	≤30	PASS
BLE_2M	Ant1	2402	1.62	≤30	PASS
		2440	0.91	≤30	PASS
		2480	0.22	≤30	PASS

Test Graphs Peak

BLE_1M_Ant1_2402

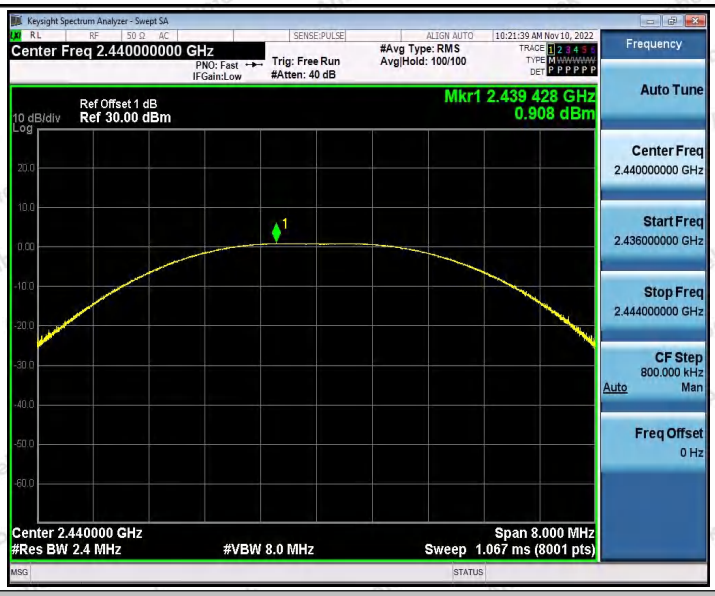
BLE_1M_Ant1_2440

BLE_1M_Ant1_2480

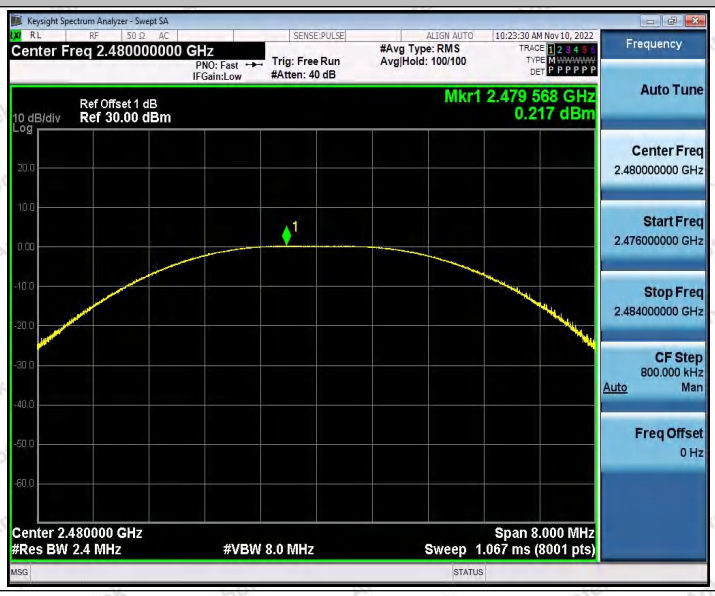


BLE_2M_Ant1_2402

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	-12.76	≤8.00	PASS
		2440	-14.40	≤8.00	PASS
		2480	-14.91	≤8.00	PASS
BLE_2M	Ant1	2402	-15.67	≤8.00	PASS
		2440	-16.49	≤8.00	PASS
		2480	-16.69	≤8.00	PASS

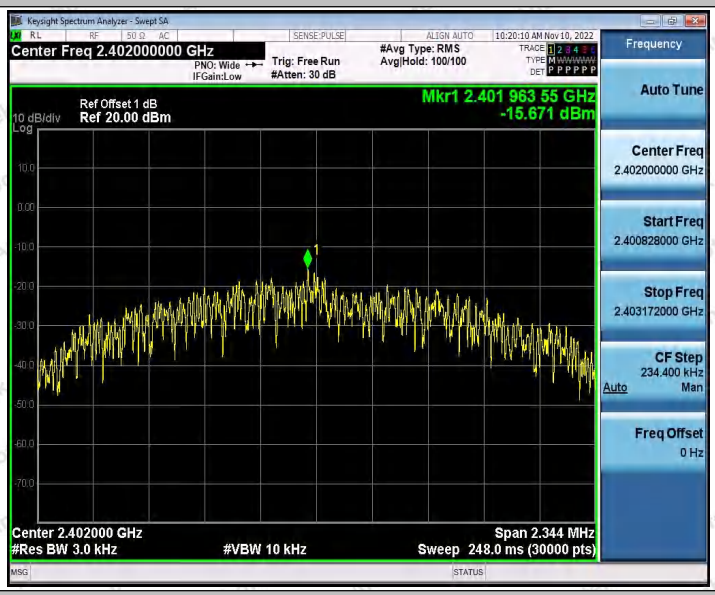
Test Graphs

BLE_1M_Ant1_2402

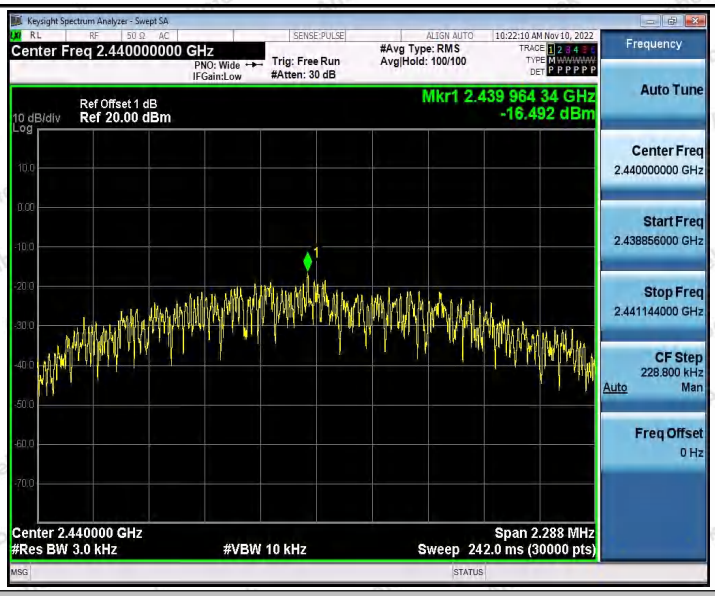
BLE_1M_Ant1_2440

BLE_1M_Ant1_2480

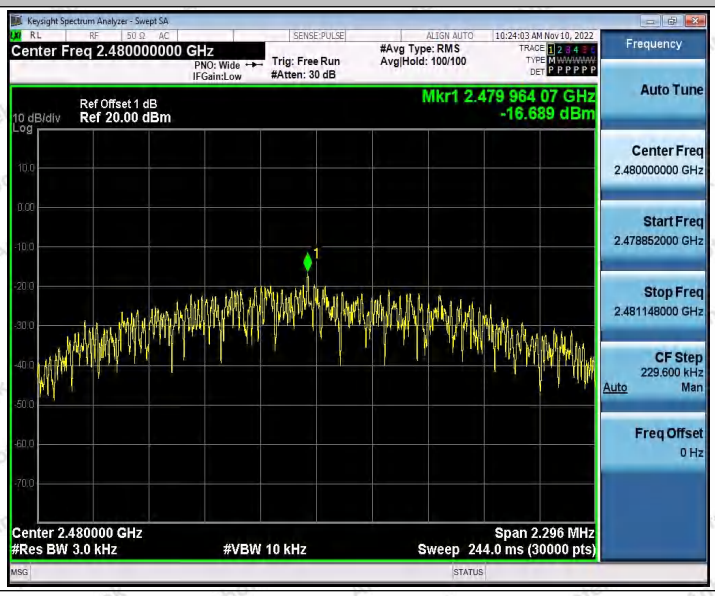
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



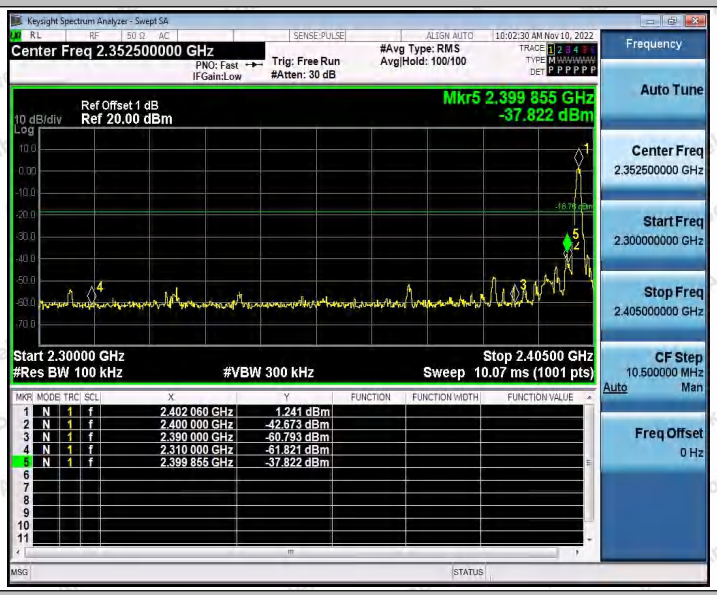
Appendix E: Band edge measurements

Test Result

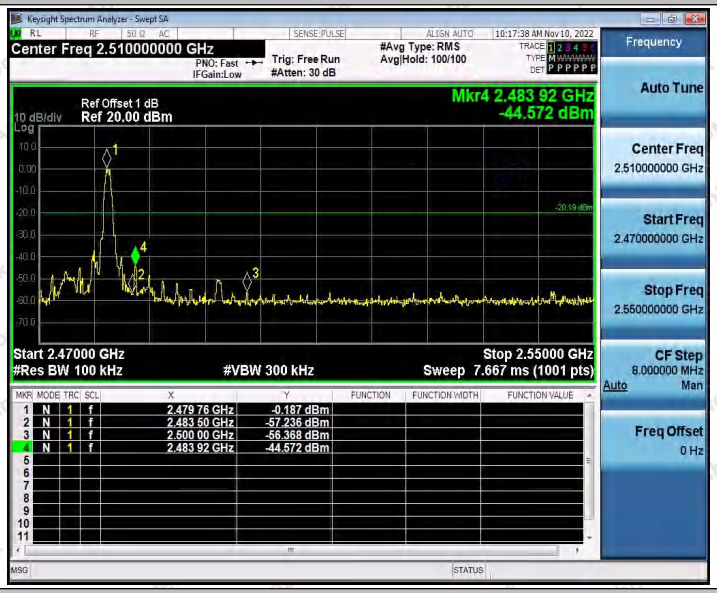
Test Mode	Antenna	Ch Name	Frequency[MHz]	Ref Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.24	-37.82	≤-18.76	PASS
		High	2480	-0.19	-44.57	≤-20.19	PASS
BLE_2M	Ant1	Low	2402	-0.74	-33.17	≤-20.74	PASS
		High	2480	-1.35	-47.36	≤-21.35	PASS

Test Graphs

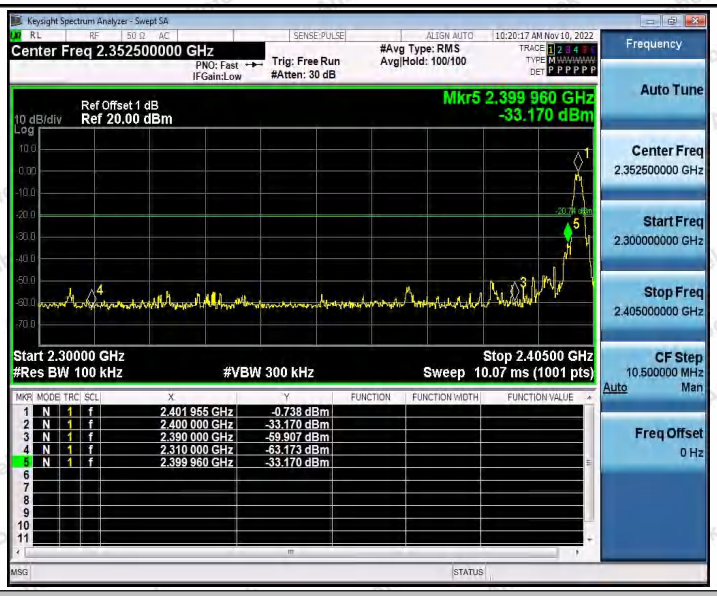
BLE_1M_Ant1_Low_2402



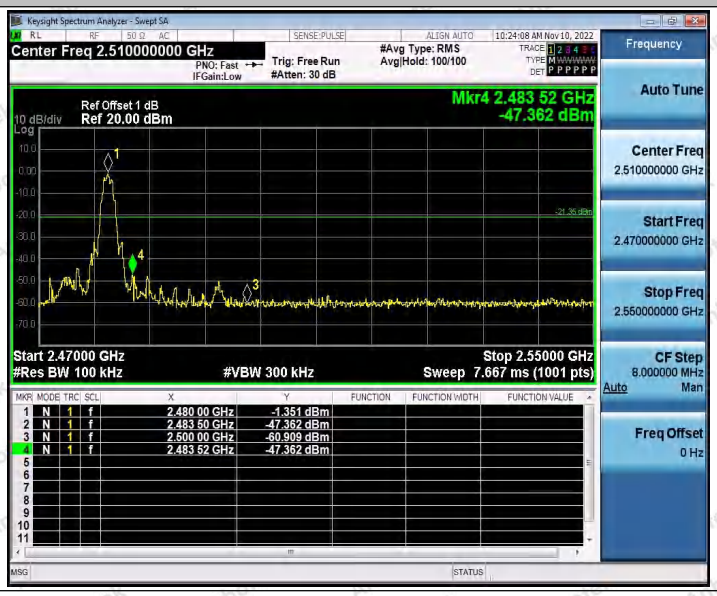
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480



Appendix F: Conducted Spurious Emission

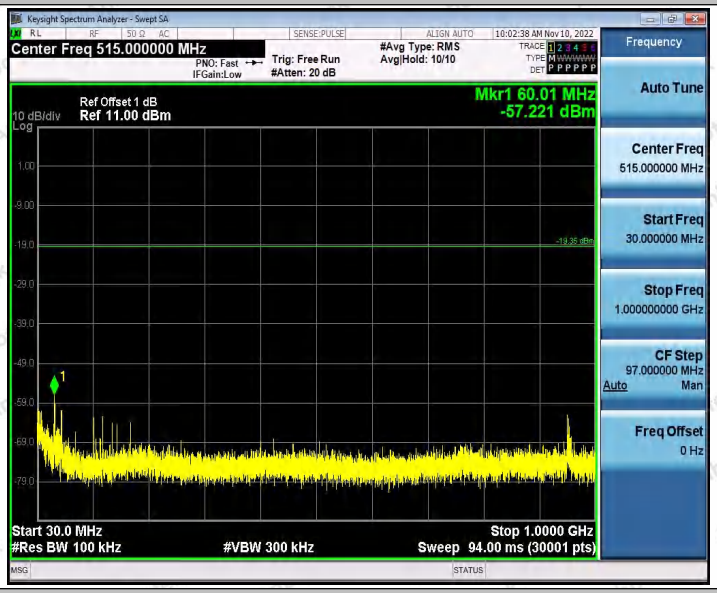
Test Result

TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.65	0.65	---	PASS
			30~1000	0.65	-57.22	≤-19.35	PASS
			1000~26500	0.65	-40.35	≤-19.35	PASS
		2440	Reference	-0.28	-0.28	---	PASS
			30~1000	-0.28	-59.09	≤-20.28	PASS
			1000~26500	-0.28	-41.34	≤-20.28	PASS
		2480	Reference	-0.66	-0.66	---	PASS
			30~1000	-0.66	-58.5	≤-20.66	PASS
			1000~26500	-0.66	-39.77	≤-20.66	PASS
BLE_2M	Ant1	2402	Reference	-2.10	-2.10	---	PASS
			30~1000	-2.10	-59.14	≤-22.1	PASS
			1000~26500	-2.10	-40.28	≤-22.1	PASS
		2440	Reference	0.15	0.15	---	PASS
			30~1000	0.15	-58.76	≤-19.85	PASS
			1000~26500	0.15	-39.37	≤-19.85	PASS
		2480	Reference	-1.57	-1.57	---	PASS
			30~1000	-1.57	-60.14	≤-21.57	PASS
			1000~26500	-1.57	-40.83	≤-21.57	PASS

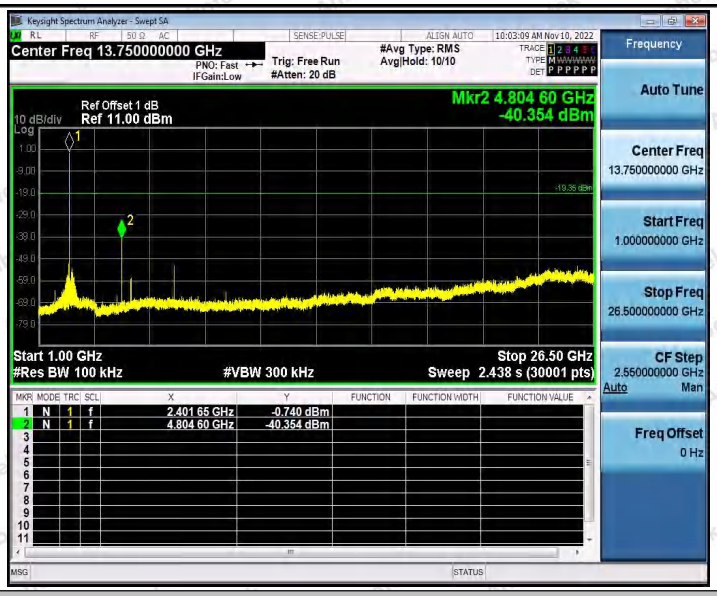
Test Graphs

BLE_1M_Ant1_2402_0~Reference

BLE_1M_Ant1_2402_30~1000

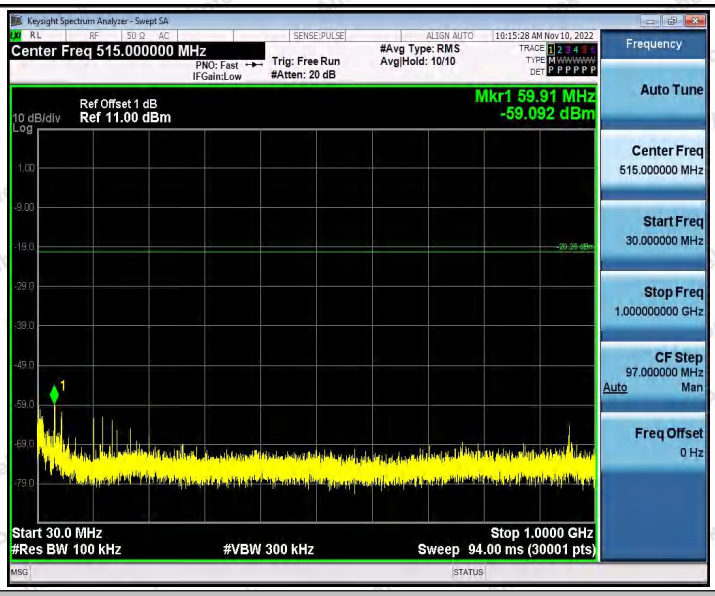


BLE_1M_Ant1_2402_1000~26500

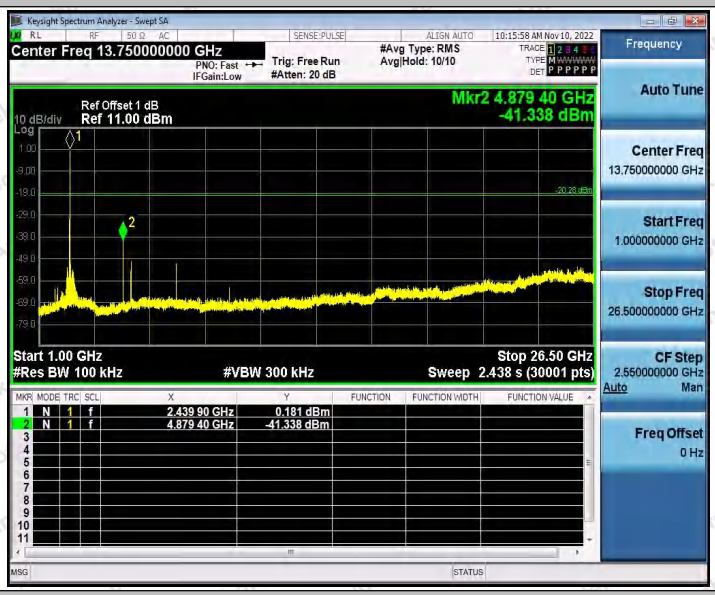


BLE_1M_Ant1_2440_0~Reference

BLE_1M_Ant1_2440_30~1000

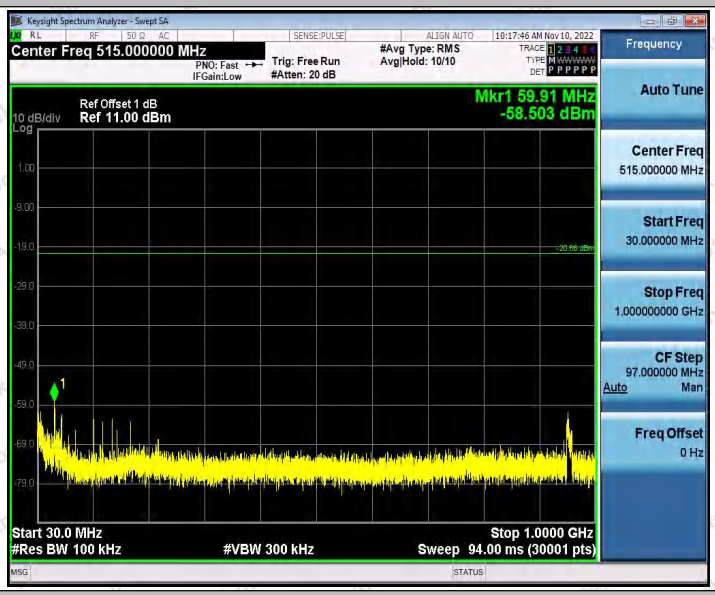


BLE_1M_Ant1_2440_1000~26500

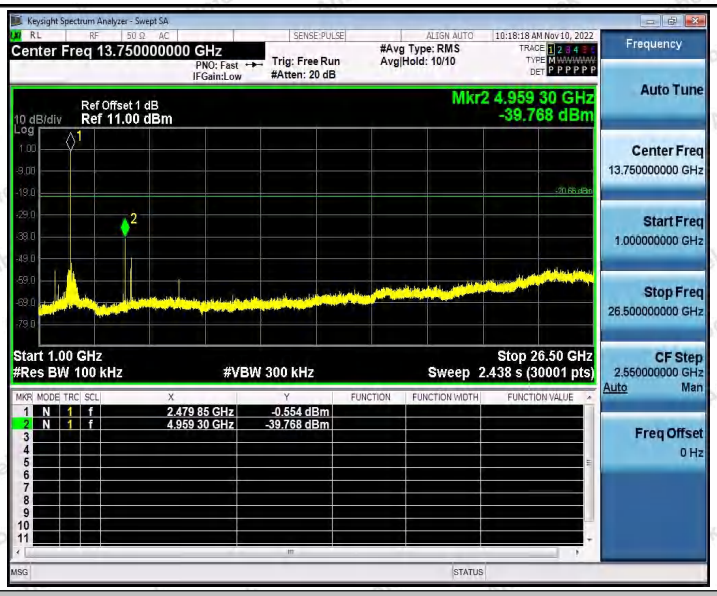


BLE_1M_Ant1_2480_0~Reference

BLE_1M_Ant1_2480_30~1000

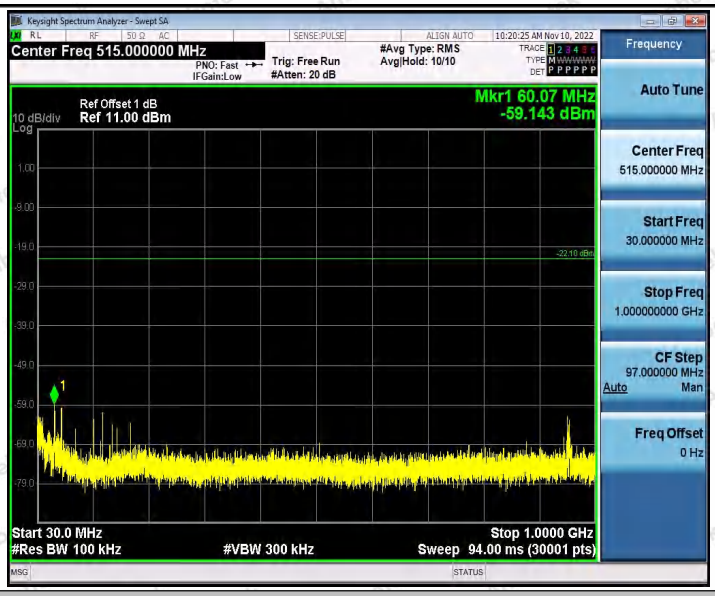


BLE_1M_Ant1_2480_1000~26500

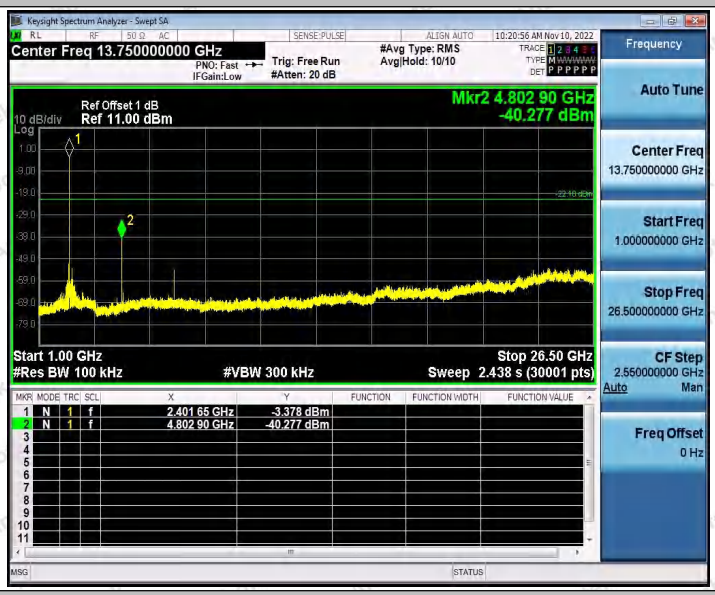


BLE_2M_Ant1_2402_0~Reference

BLE_2M_Ant1_2402_30~1000

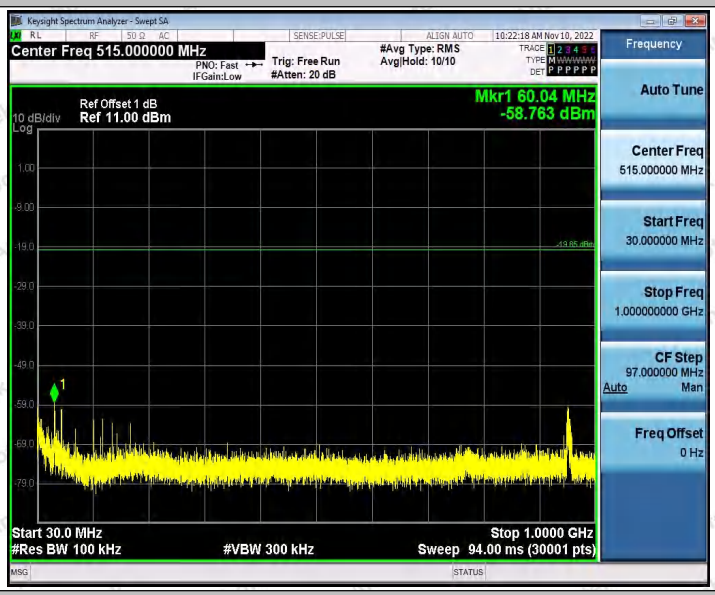


BLE_2M_Ant1_2402_1000~26500

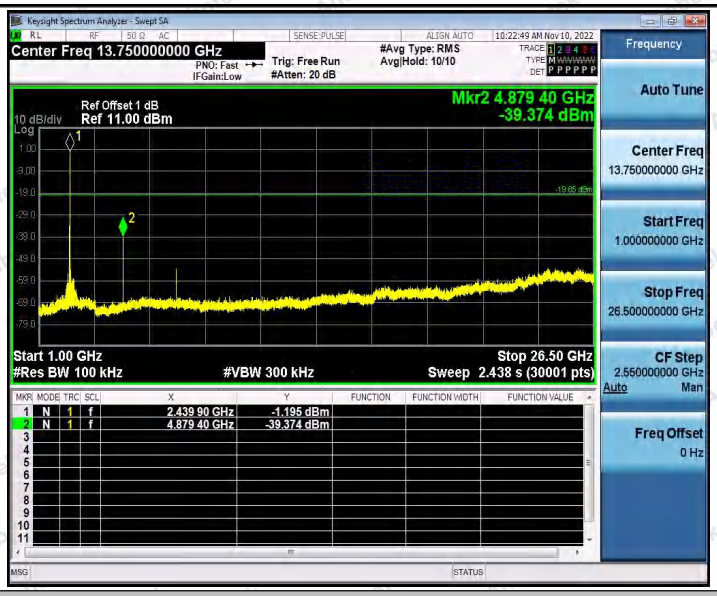


BLE_2M_Ant1_2440_0~Reference

BLE_2M_Ant1_2440_30~1000

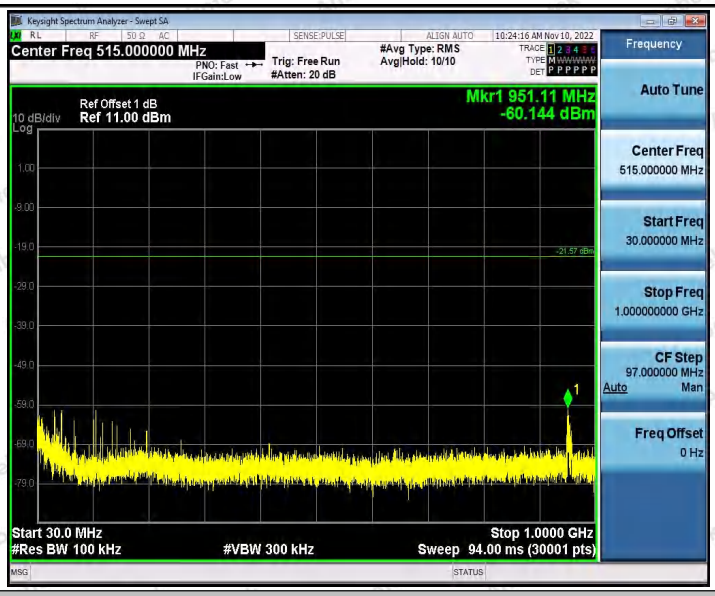


BLE_2M_Ant1_2440_1000~26500

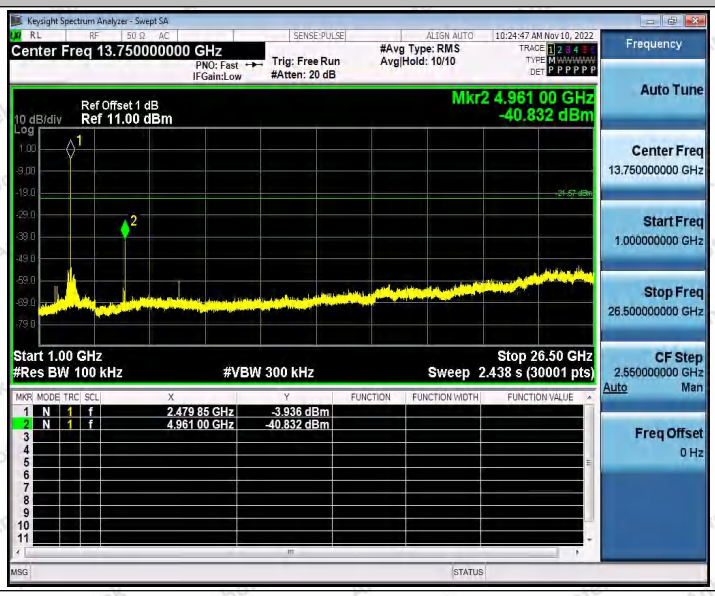


BLE_2M_Ant1_2480_0~Reference

BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



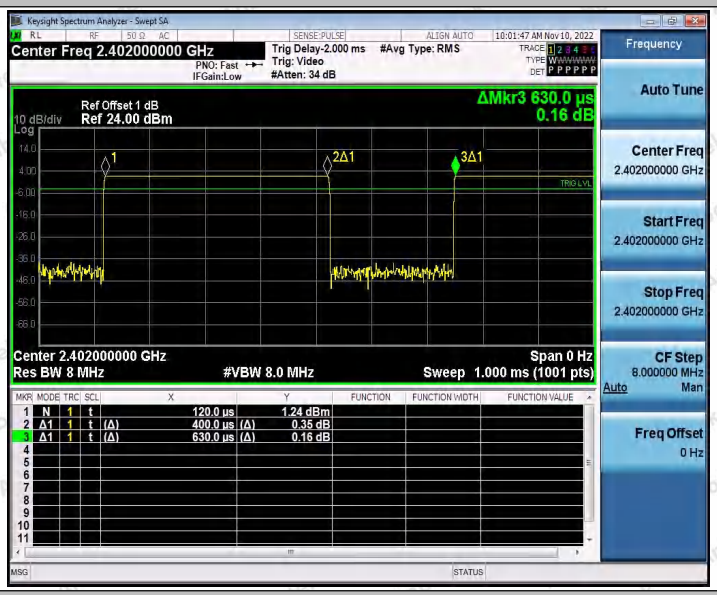
Appendix G: Duty Cycle

Test Result

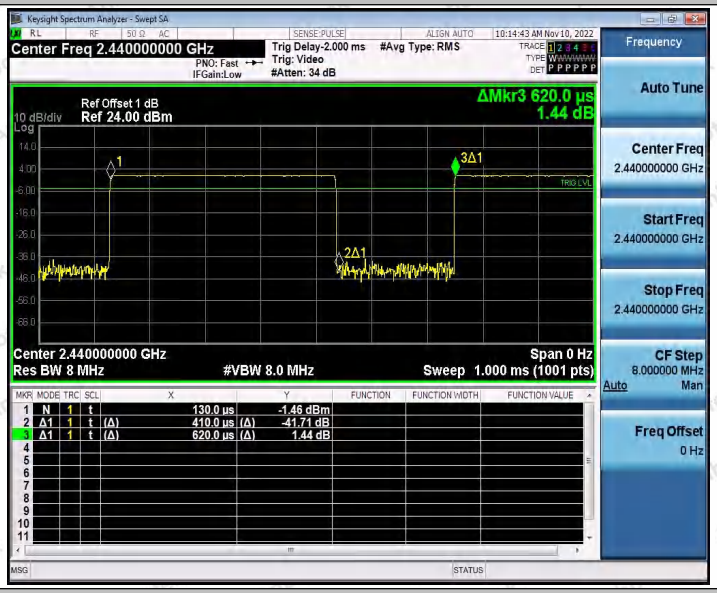
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.40	0.63	63.49	1.97
		2440	0.41	0.62	66.13	1.80
		2480	0.41	0.62	66.13	1.80
BLE_2M	Ant1	2402	0.21	0.63	33.33	4.77
		2440	0.21	0.63	33.33	4.77
		2480	0.21	0.63	33.33	4.77

Test Graphs

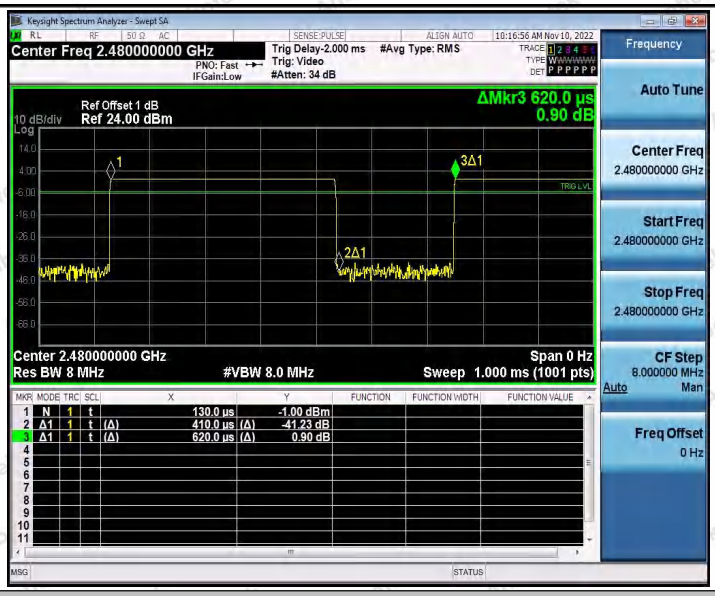
BLE_1M_Ant1_2402



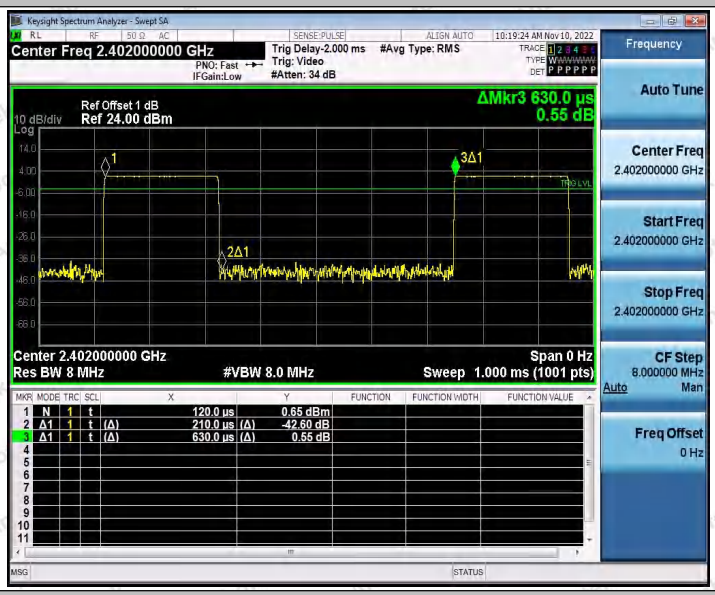
BLE_1M_Ant1_2440



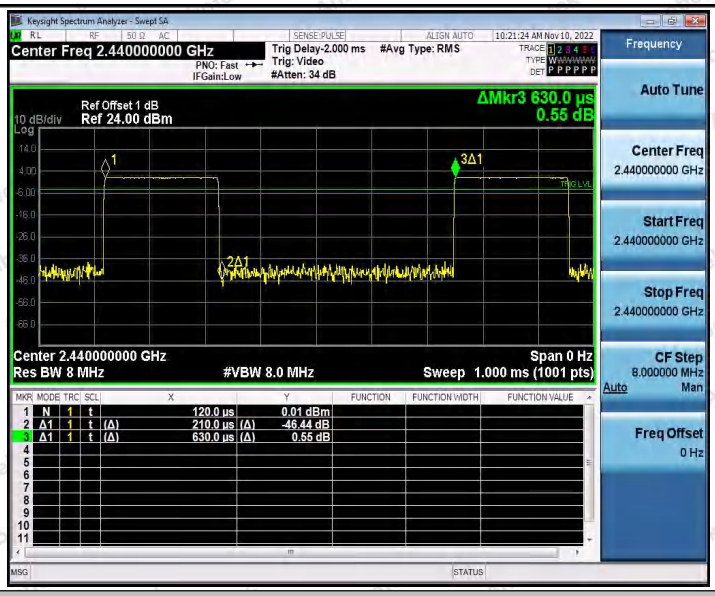
BLE_1M_Ant1_2480



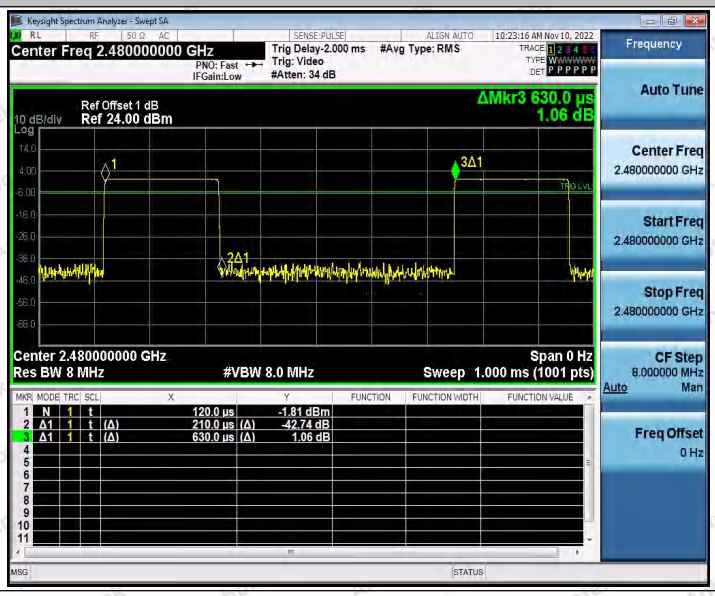
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



---End---