Appendix Test Data

Report No.:	18220WC30127401	Test Sample No.:	1-2-2
Start Test Date:	2023.11.16	Finish Test Date:	2023.11.17
Test Engineer:	Hayman Chen	Auditor:	Rick Luo
Temperature:	25.8℃	Relative Humidity:	43%
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	0.504	2401.696	2402.200	0.5	PASS
		2440	0.504	2439.696	2440.200	0.5	PASS
		2480	0.508	2479.696	2480.204	0.5	PASS
BLE_2M	Ant1	2402	0.844	2401.436	2402.280	0.5	PASS
		2440	0.852	2439.436	2440.288	0.5	PASS
		2480	0.852	2479.436	2480.288	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	1.0201	2401.5269	2402.5470
		2440	1.0183	2439.5279	2440.5462
		2480	1.0208	2479.5279	2480.5487
BLE_2M	Ant1	2402	2.0262	2401.0278	2403.0540
		2440	2.0201	2439.0299	2441.0500
		2480	2.0271	2479.0281	2481.0552

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	8.67	≤30	PASS
		2440	8.65	≤30	PASS
		2480	8.35	≤30	PASS
BLE_2M	Ant1	2402	8.69	≤30	PASS
		2440	8.71	≤30	PASS
		2480	8.44	≤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

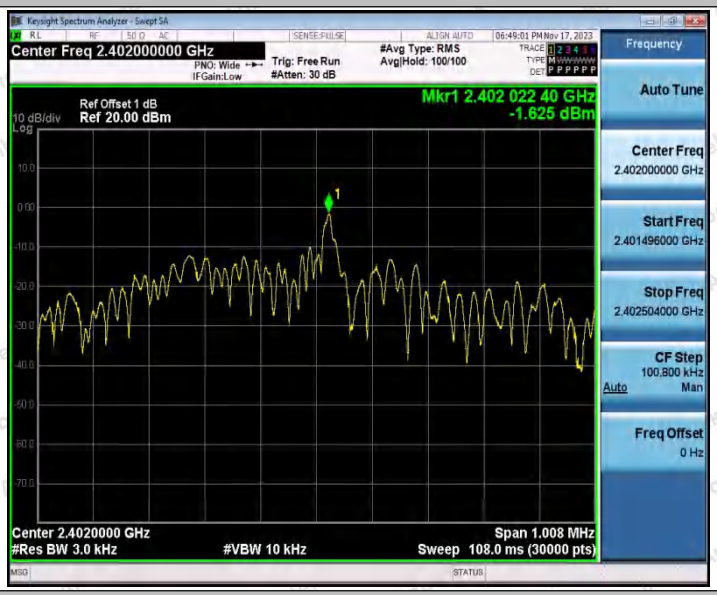
Appendix D: Maximum power spectral density

Test Result

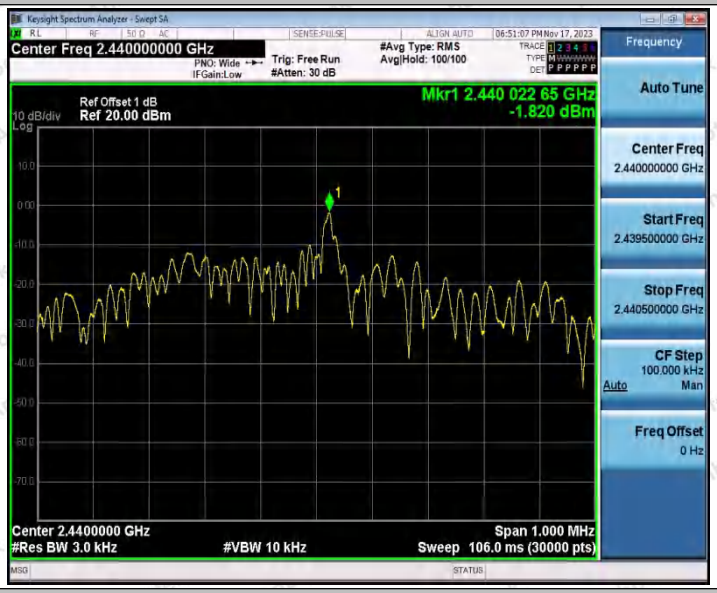
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-1.63	≤8.00	PASS
		2440	-1.82	≤8.00	PASS
		2480	-1.6	≤8.00	PASS
BLE_2M	Ant1	2402	-1.99	≤8.00	PASS
		2440	-2.22	≤8.00	PASS
		2480	-1.98	≤8.00	PASS

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

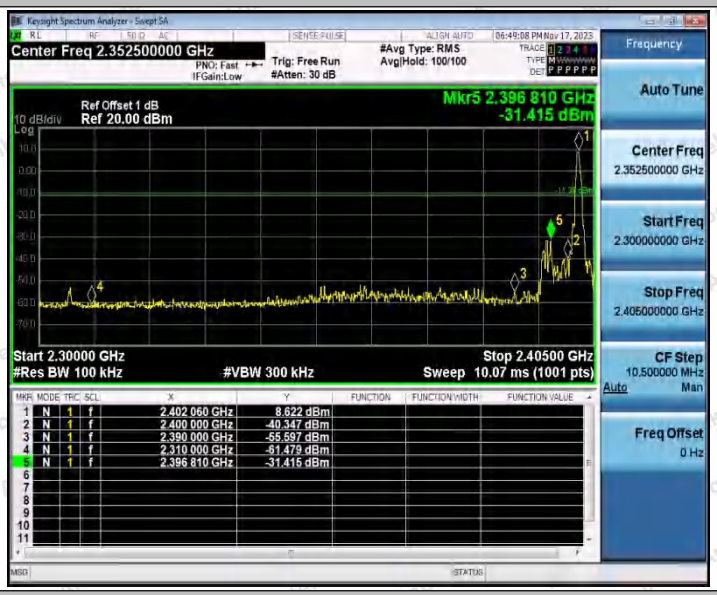
Appendix E: Band edge measurements

Test Result

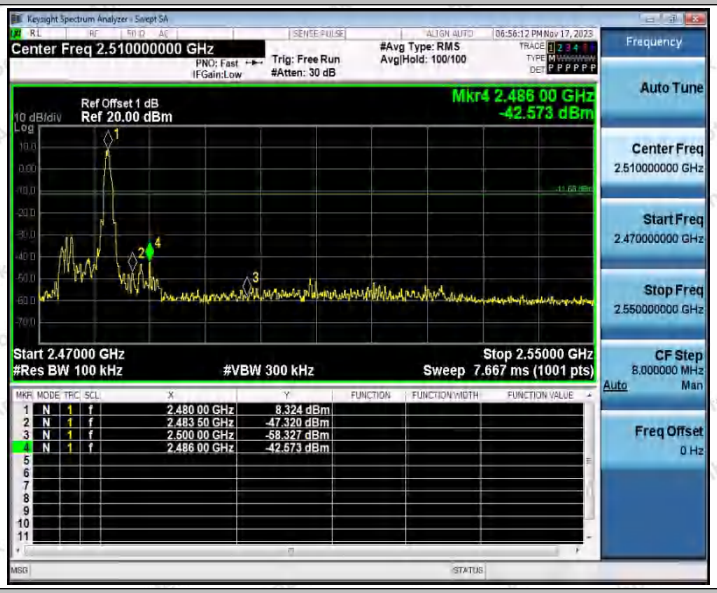
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	8.62	-31.42	≤-11.38	PASS
		High	2480	8.32	-42.57	≤-11.68	PASS
BLE_2M	Ant1	Low	2402	8.75	-29.37	≤-11.25	PASS
		High	2480	8.47	-43.98	≤-11.53	PASS

Test Graphs

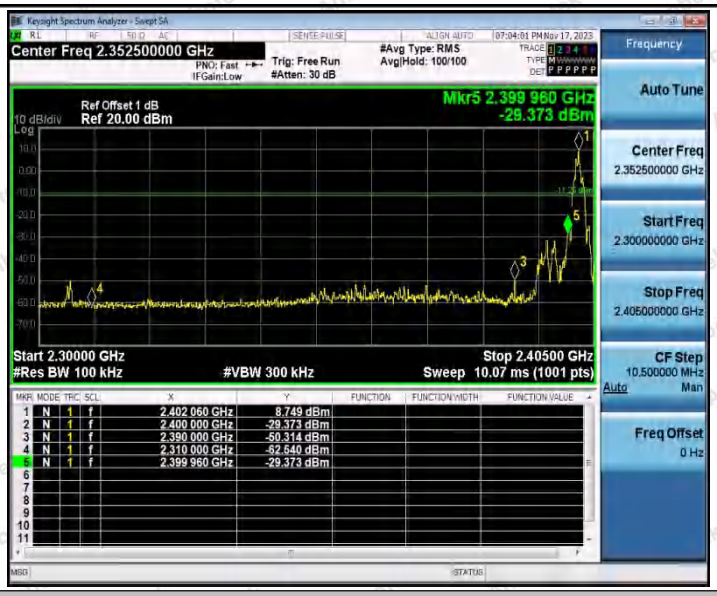
BLE_1M_Ant1_Low_2402



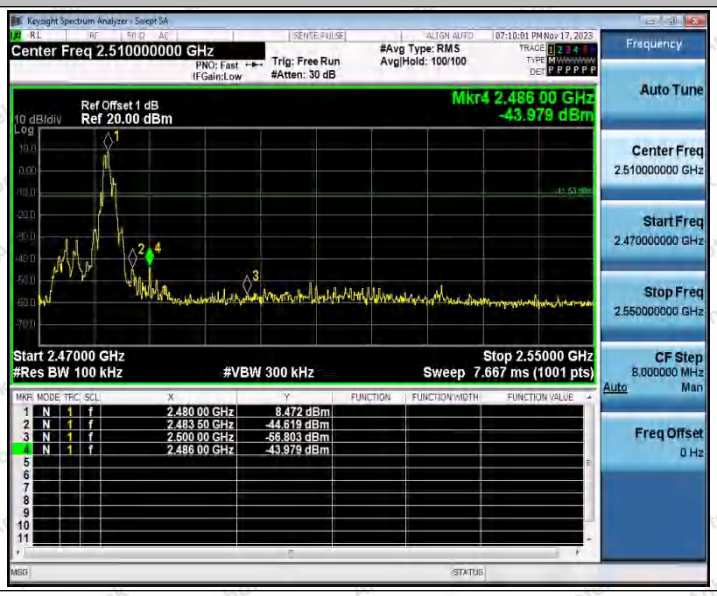
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480



Appendix F: Conducted Spurious Emission

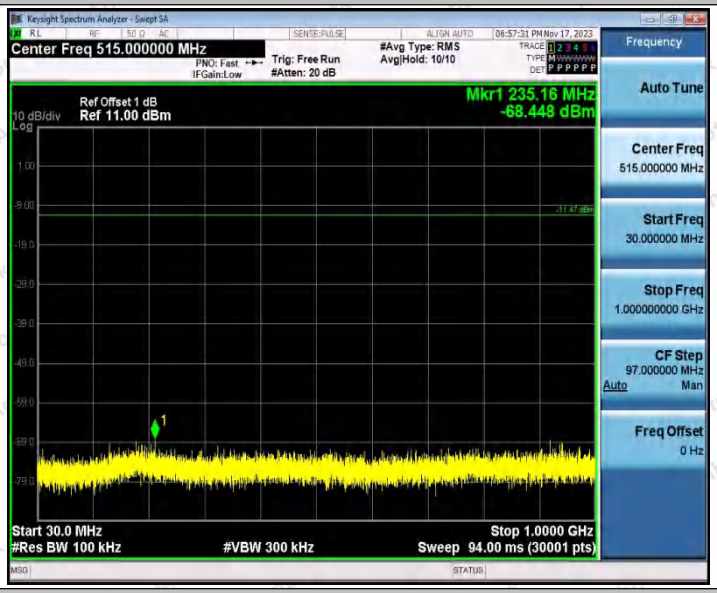
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	8.53	8.53	---	PASS
			30~1000	8.53	-68.45	≤-11.47	PASS
			1000~26500	8.53	-29.83	≤-11.47	PASS
		2440	Reference	8.55	8.55	---	PASS
			30~1000	8.55	-69.06	≤-11.45	PASS
			1000~26500	8.55	-29.61	≤-11.45	PASS
		2480	Reference	8.30	8.30	---	PASS
			30~1000	8.30	-65.42	≤-11.7	PASS
			1000~26500	8.30	-30.39	≤-11.7	PASS
BLE_2M	Ant1	2402	Reference	8.52	8.52	---	PASS
			30~1000	8.52	-69.2	≤-11.48	PASS
			1000~26500	8.52	-29.61	≤-11.48	PASS
		2440	Reference	8.54	8.54	---	PASS
			30~1000	8.54	-69.11	≤-11.46	PASS
			1000~26500	8.54	-28.15	≤-11.46	PASS
		2480	Reference	8.28	8.28	---	PASS
			30~1000	8.28	-69.05	≤-11.72	PASS
			1000~26500	8.28	-30.4	≤-11.72	PASS

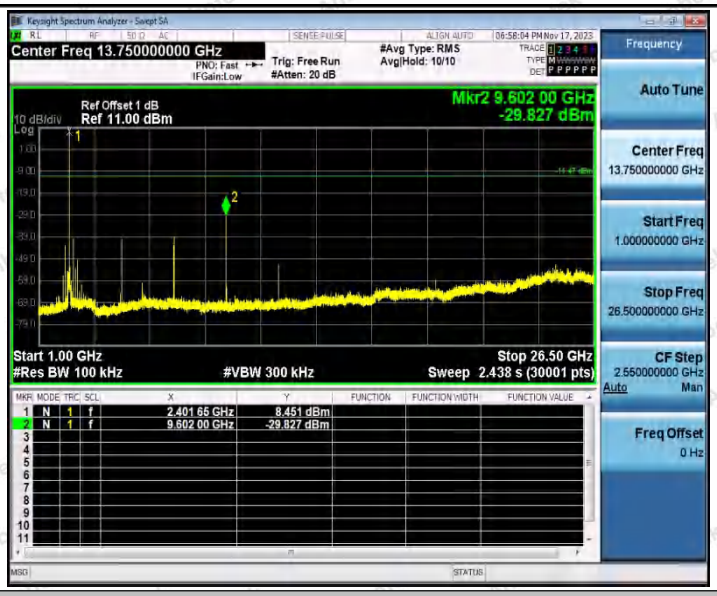
Test Graphs

BLE_1M_Ant1_2402_0~Reference

BLE_1M_Ant1_2402_30~1000

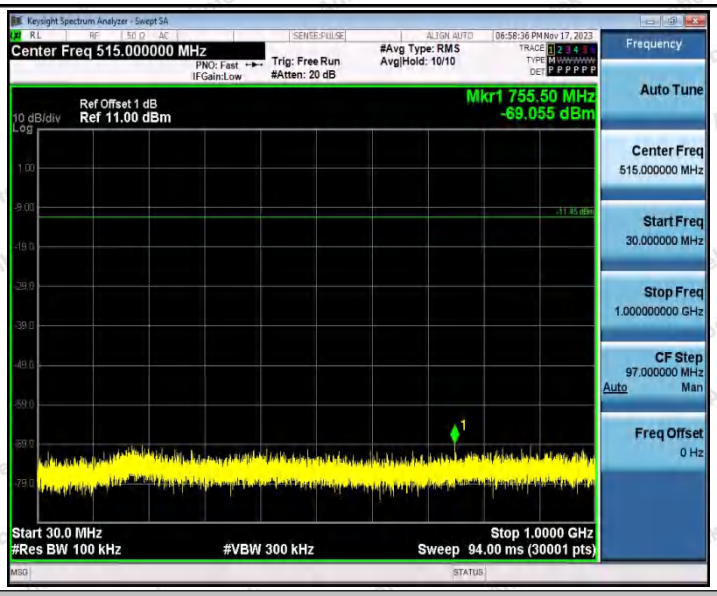


BLE_1M_Ant1_2402_1000~26500

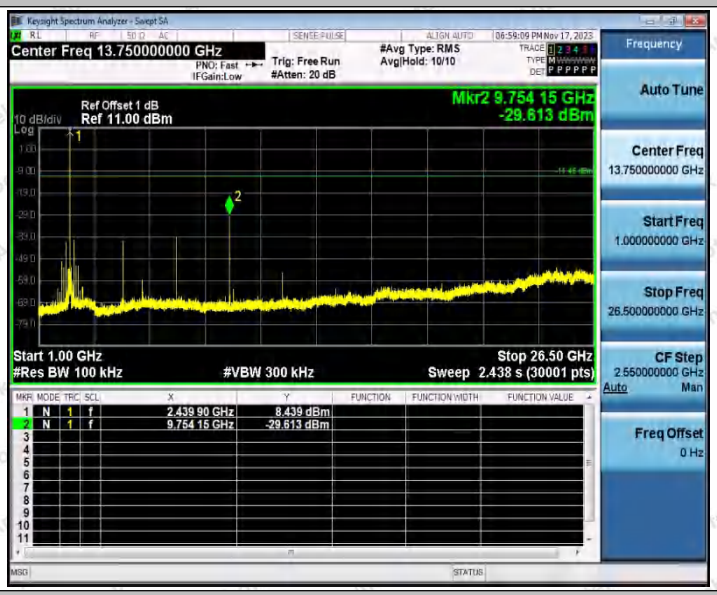


BLE_1M_Ant1_2440_0~Reference

BLE_1M_Ant1_2440_30~1000

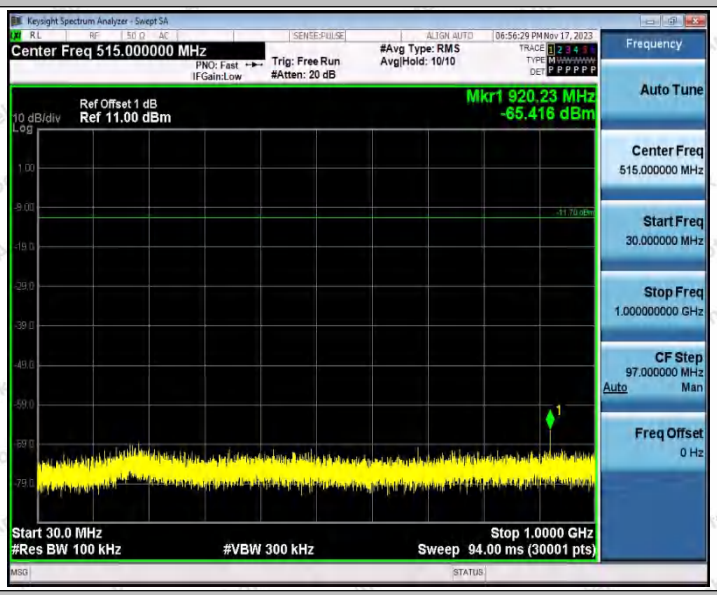


BLE_1M_Ant1_2440_1000~26500

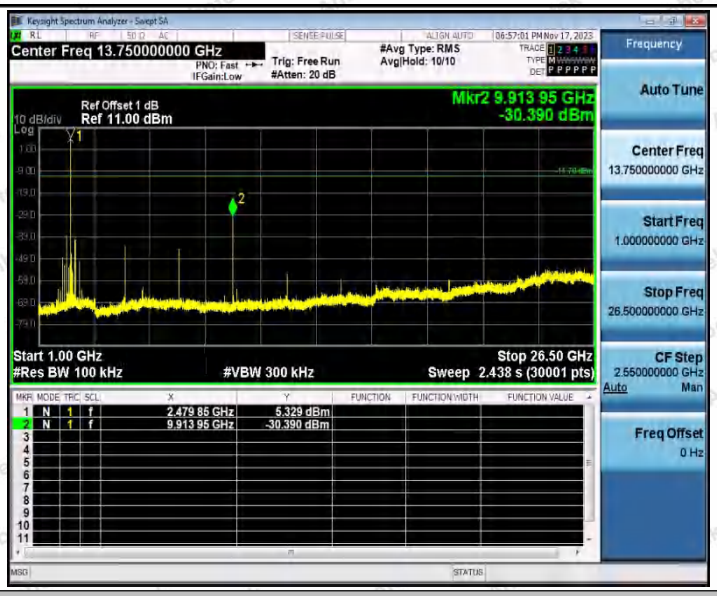


BLE_1M_Ant1_2480_0~Reference

BLE_1M_Ant1_2480_30~1000

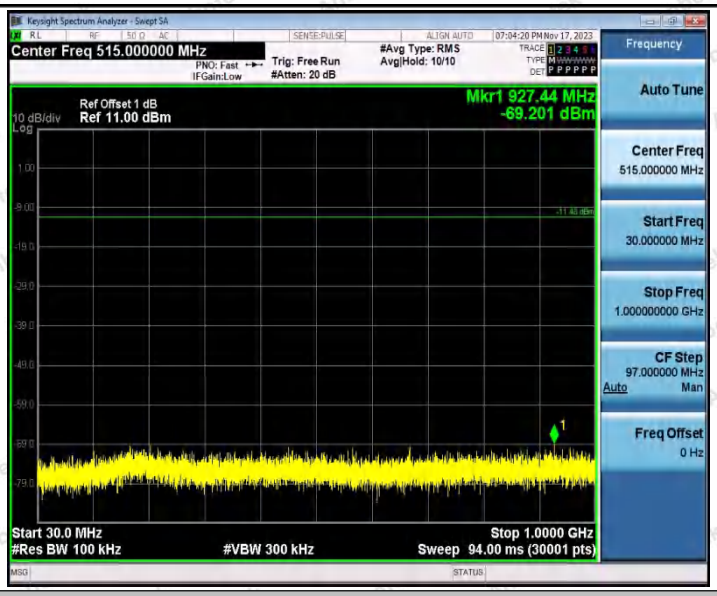


BLE_1M_Ant1_2480_1000~26500

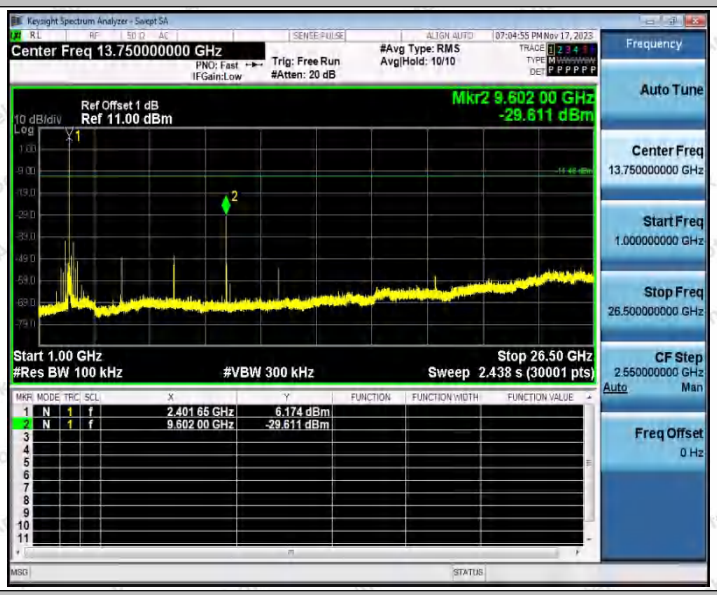


BLE_2M_Ant1_2402_0~Reference

BLE_2M_Ant1_2402_30~1000

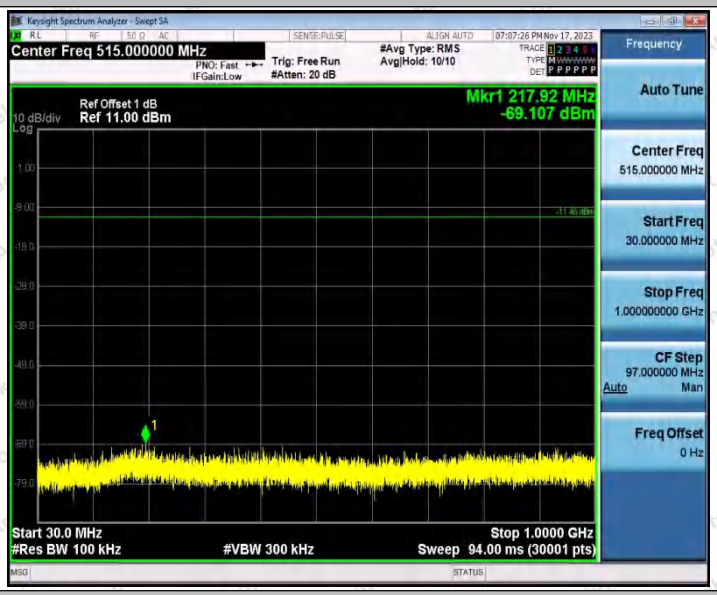


BLE_2M_Ant1_2402_1000~26500

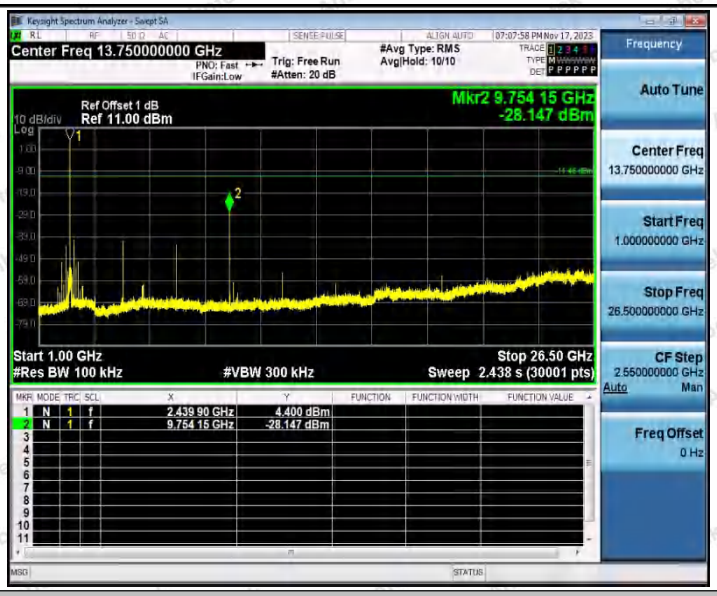


BLE_2M_Ant1_2440_0~Reference

BLE_2M_Ant1_2440_30~1000

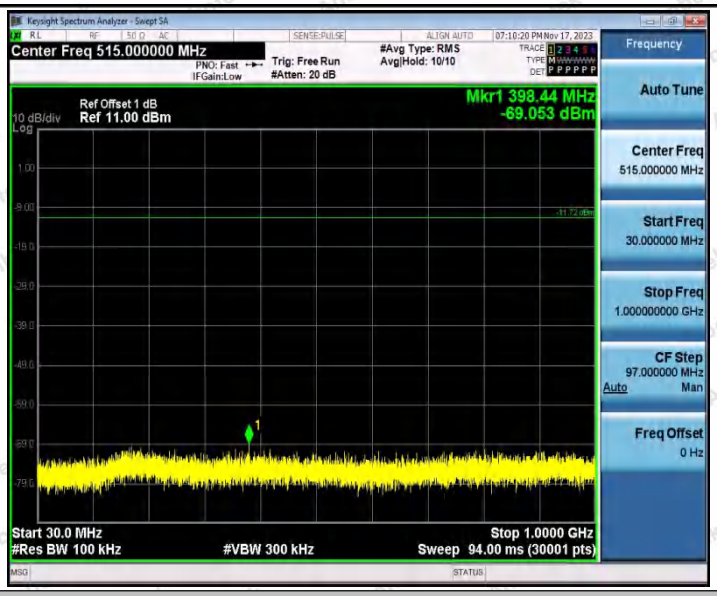


BLE_2M_Ant1_2440_1000~26500

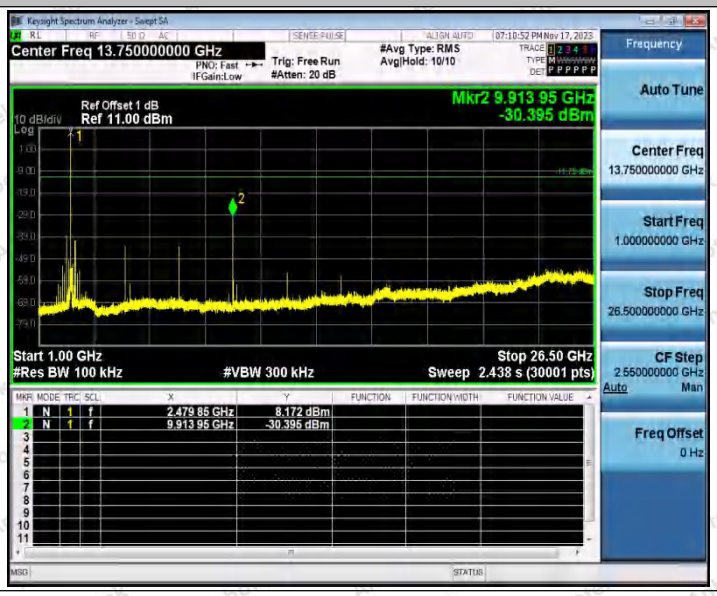


BLE_2M_Ant1_2480_0~Reference

BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



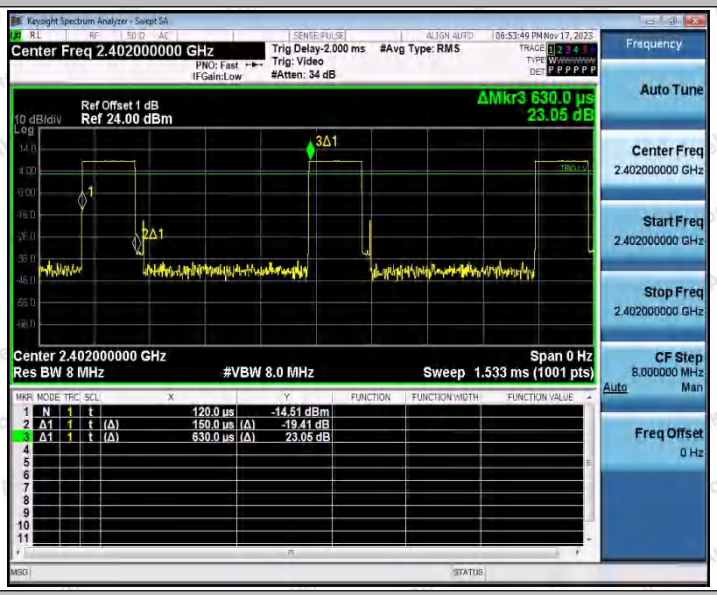
Appendix G: Duty Cycle

Test Result

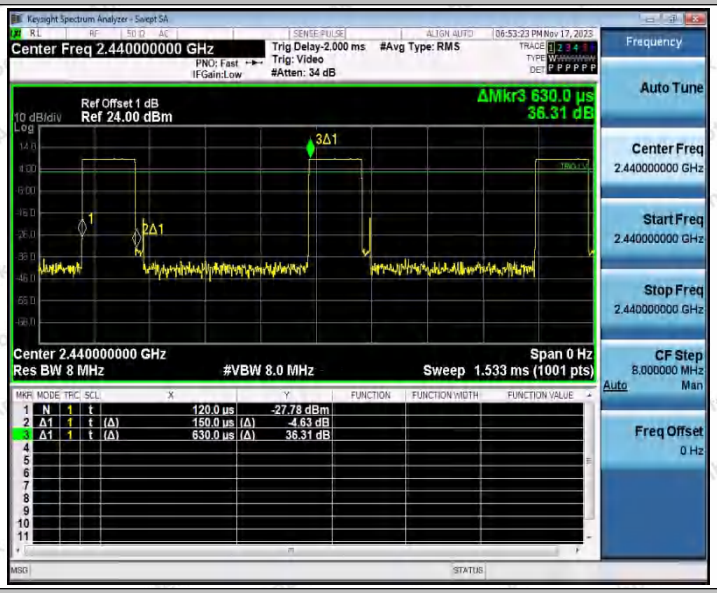
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.15	0.63	23.81	6.23
		2440	0.15	0.63	23.81	6.23
		2480	0.15	0.63	23.81	6.23
BLE_2M	Ant1	2402	0.11	0.63	17.46	7.58
		2440	0.11	0.63	17.46	7.58
		2480	0.11	0.62	17.74	7.51

Test Graphs

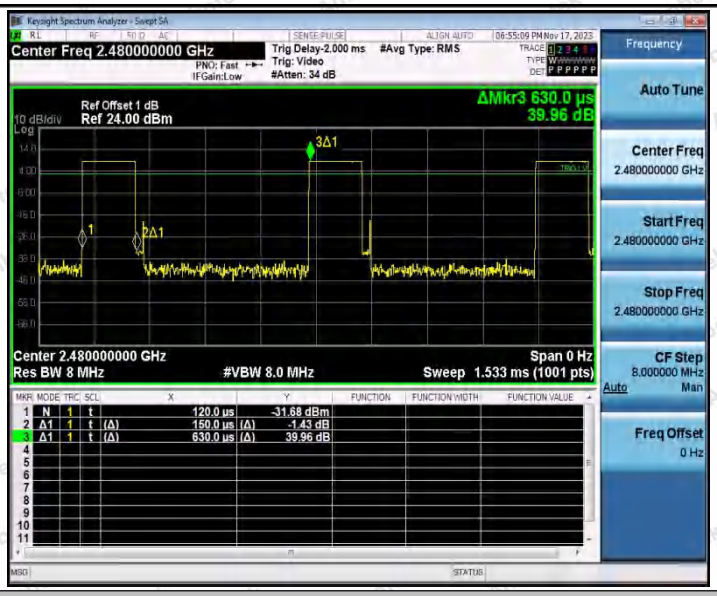
BLE_1M_Ant1_2402



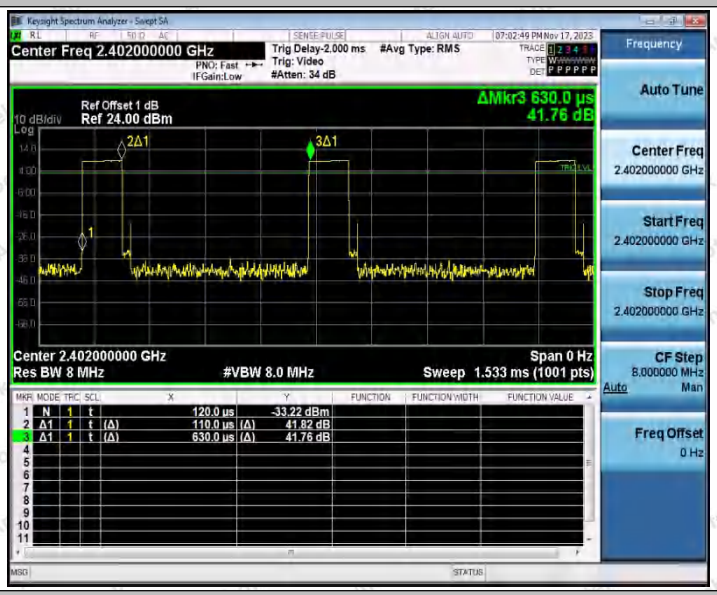
BLE_1M_Ant1_2440



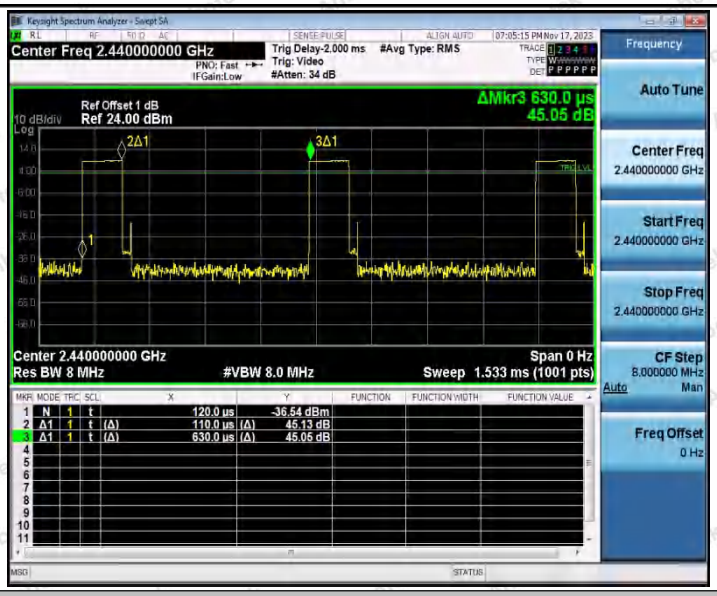
BLE_1M_Ant1_2480



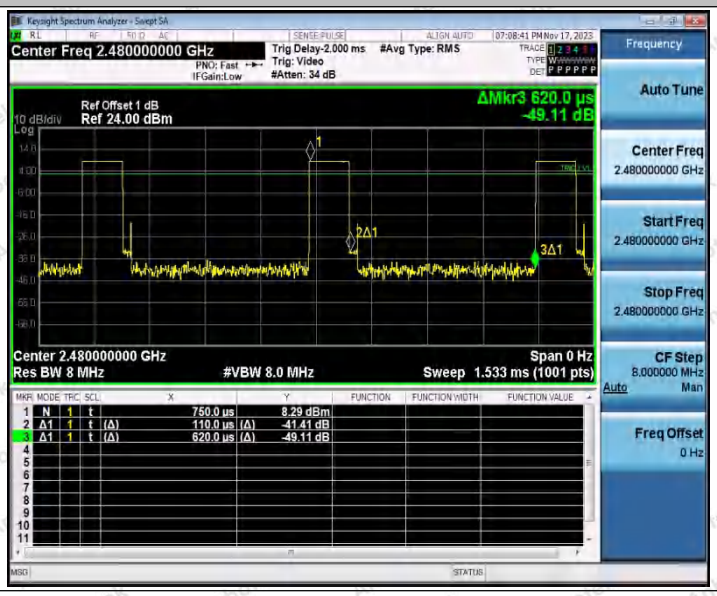
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



---End---