

Appendix Test Data for BT(BLE) (Conducted Measurement)

Product Name: K61 Mechanical keyboard

Trade Mark: DUSTSILVER

Test Model: K61

FCC ID: 2A7D6-K61

Environmental Conditions

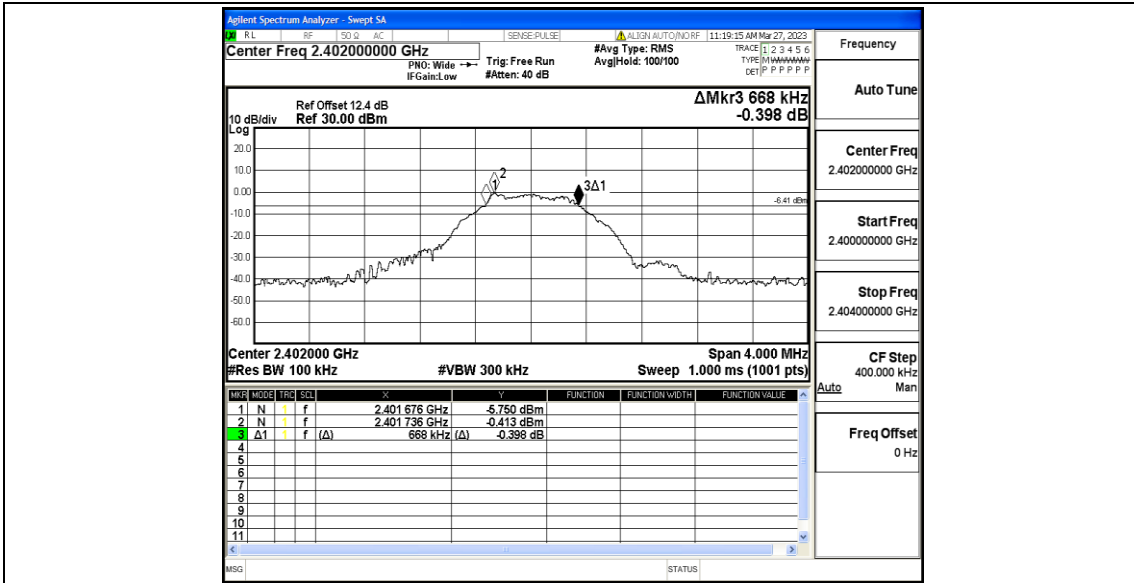
Temperature:	22.7°C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

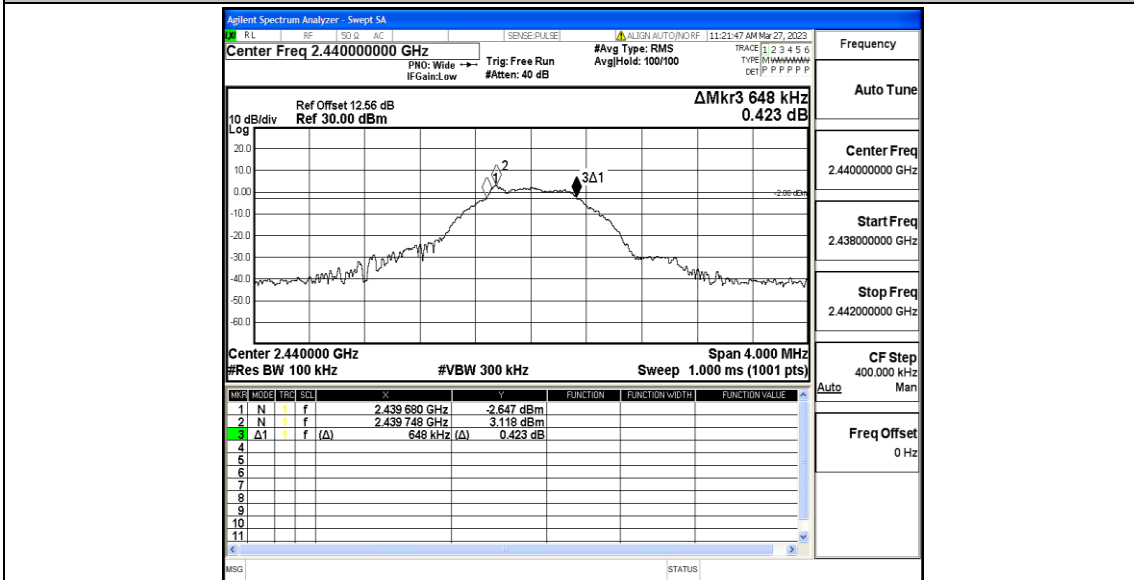
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.668	2401.676	2402.344	0.5	PASS
		2440	0.648	2439.680	2440.328	0.5	PASS
		2480	0.704	2479.652	2480.356	0.5	PASS

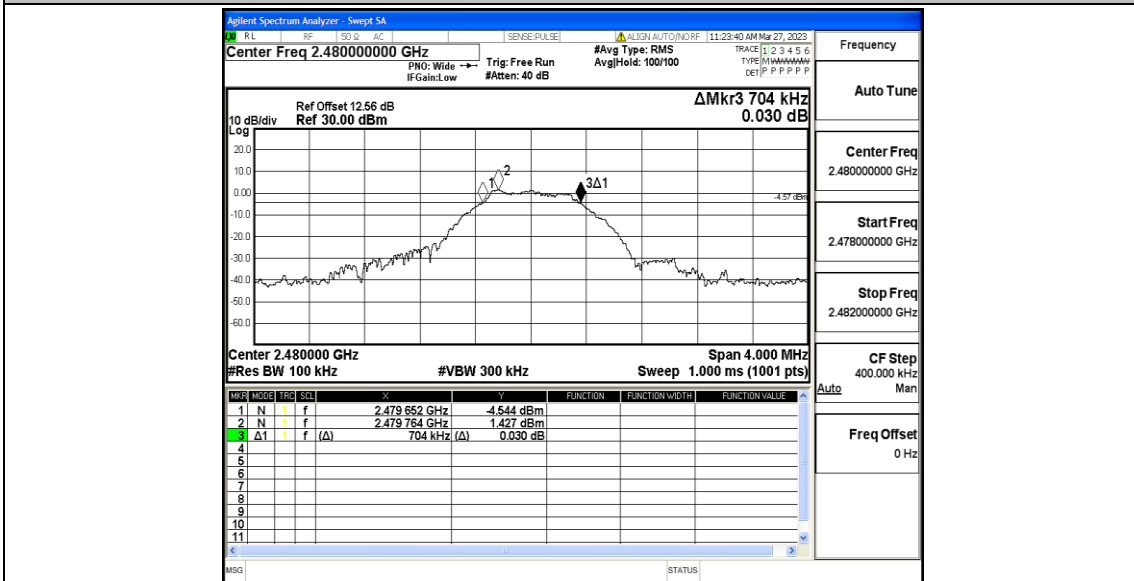
Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



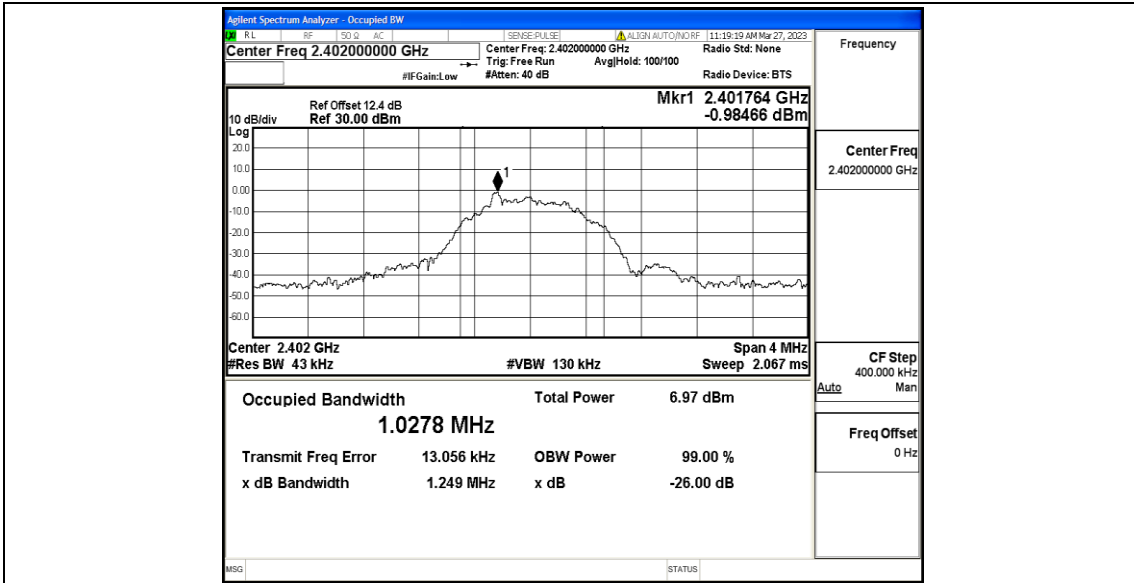
BLE_1M_Ant1_2480

Appendix B: Occupied Channel Bandwidth

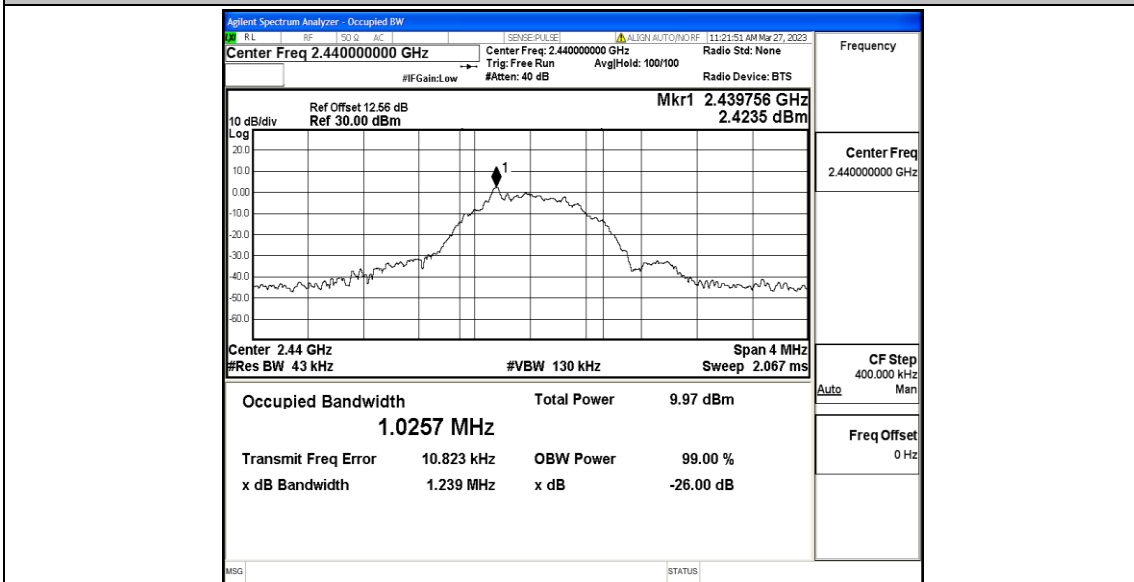
Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0278	2401.4992	2402.5270	---	---
		2440	1.0257	2439.4980	2440.5237	---	---
		2480	1.0289	2479.4973	2480.5262	---	---

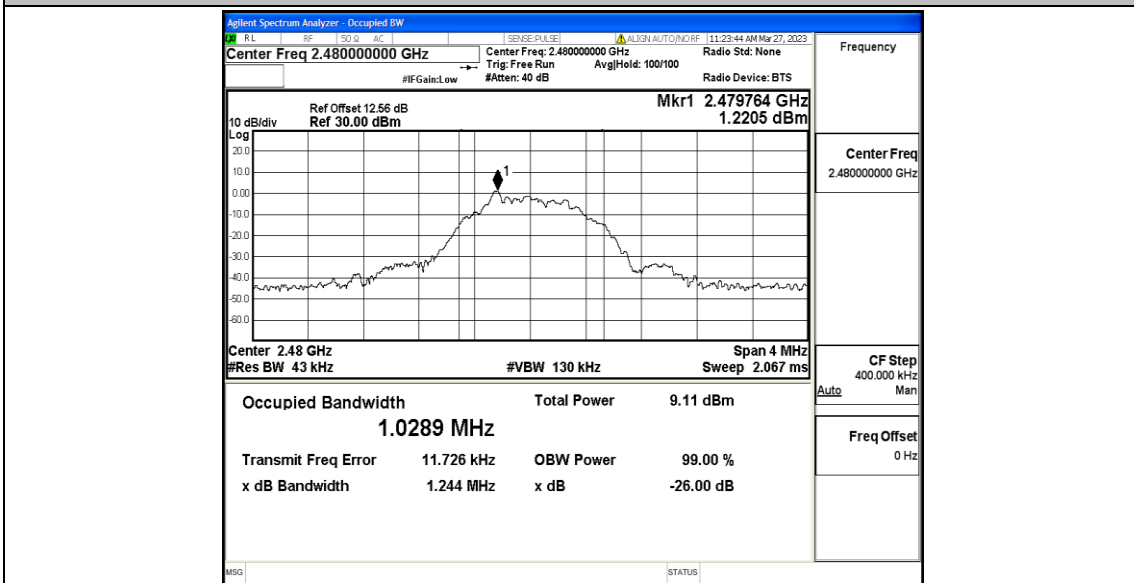
Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



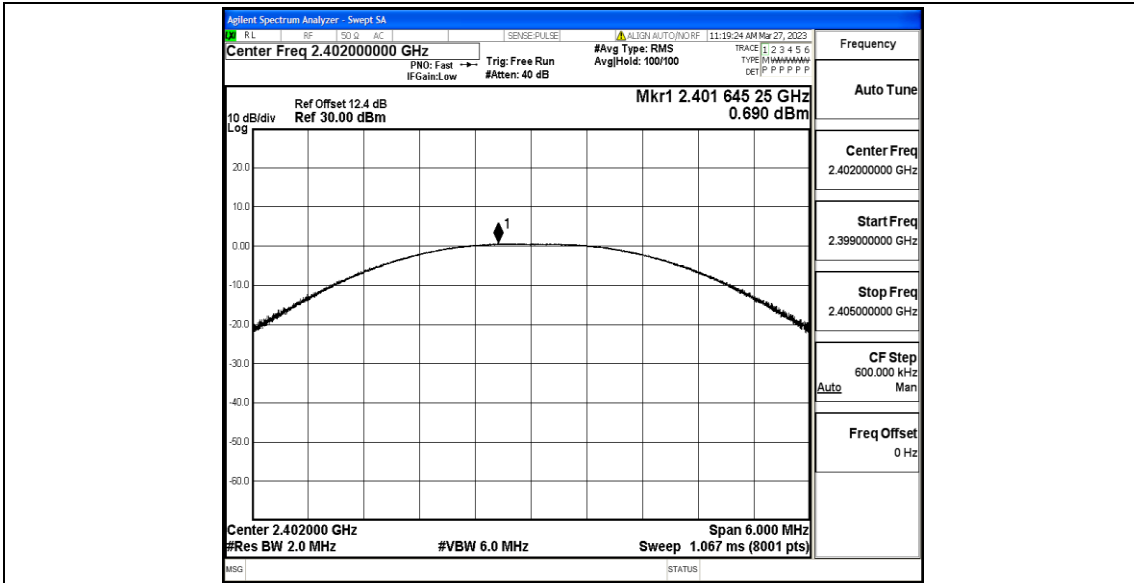
BLE_1M_Ant1_2480

Appendix C: Maximum Peak conducted output power

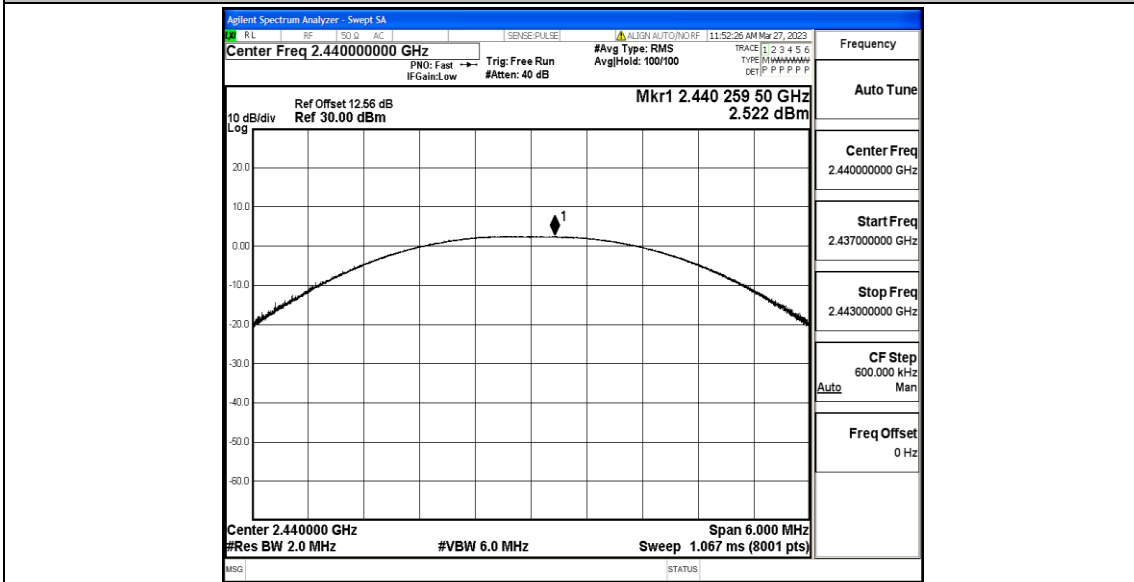
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.69	≤30	PASS
		2440	2.52	≤30	PASS
		2480	1.87	≤30	PASS

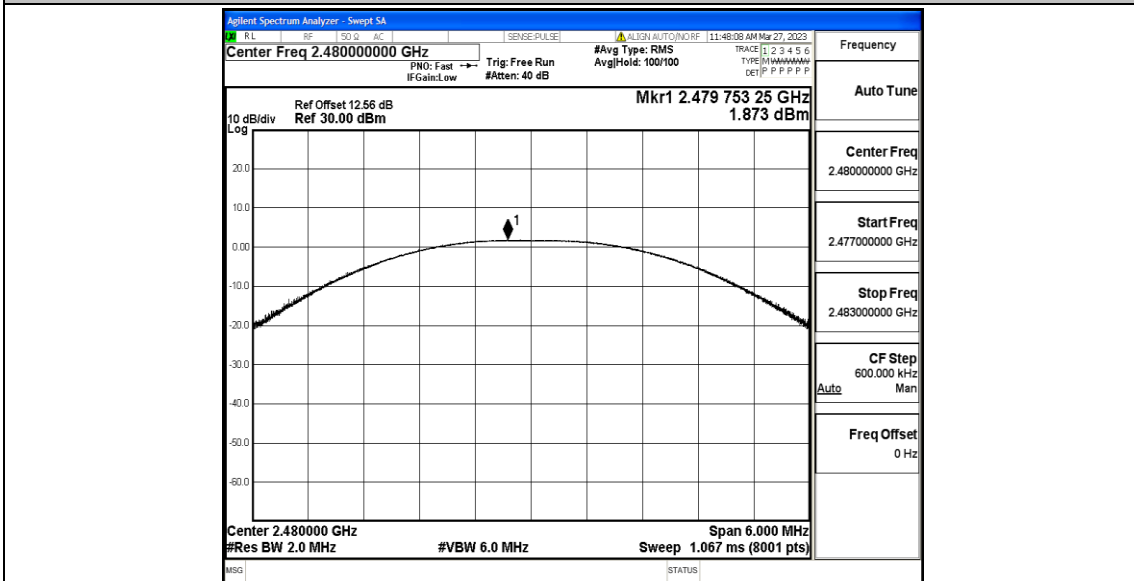
Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



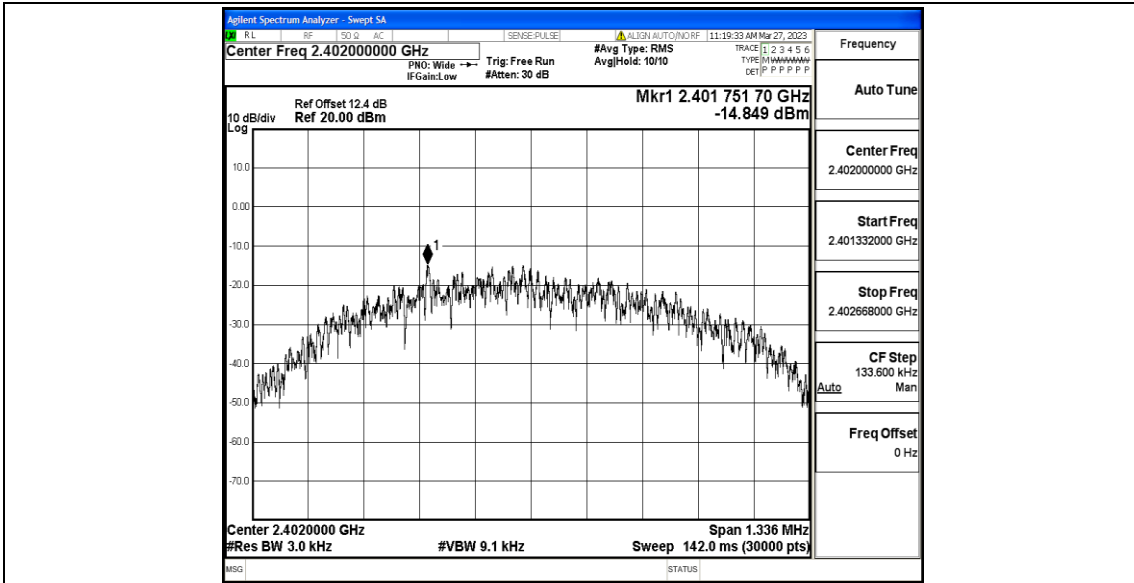
BLE_1M_Ant1_2480

Appendix D: Maximum power spectral density

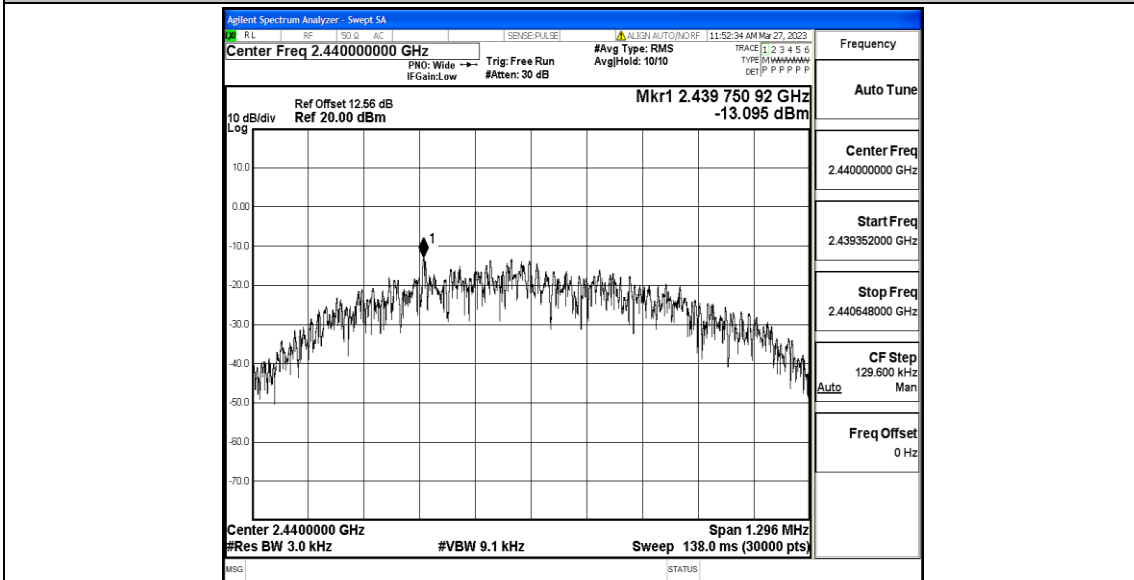
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.85	≤8.00	PASS
		2440	-13.1	≤8.00	PASS
		2480	-13.54	≤8.00	PASS

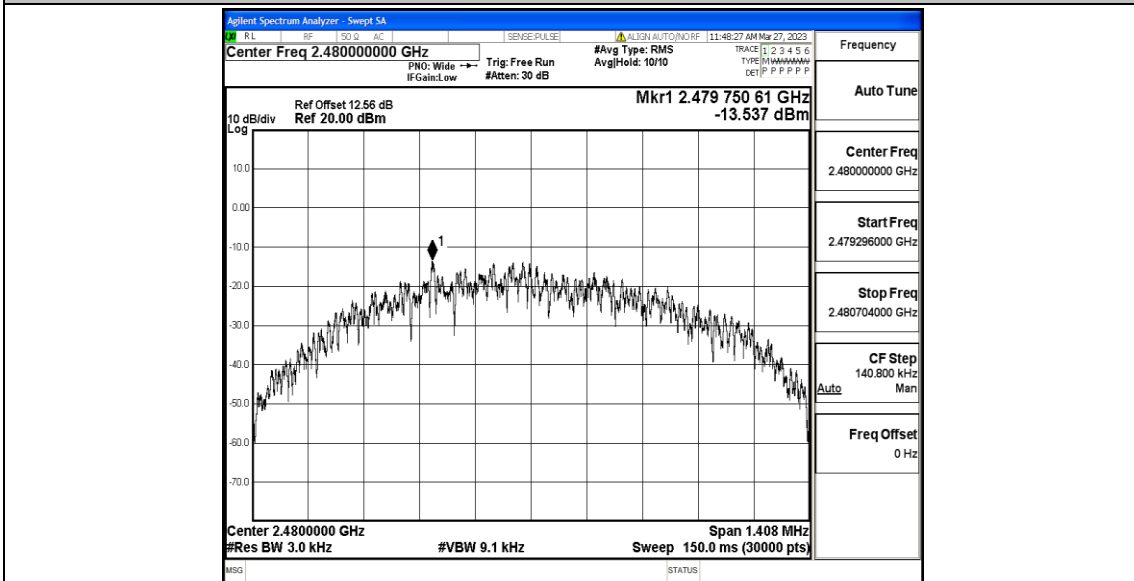
Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



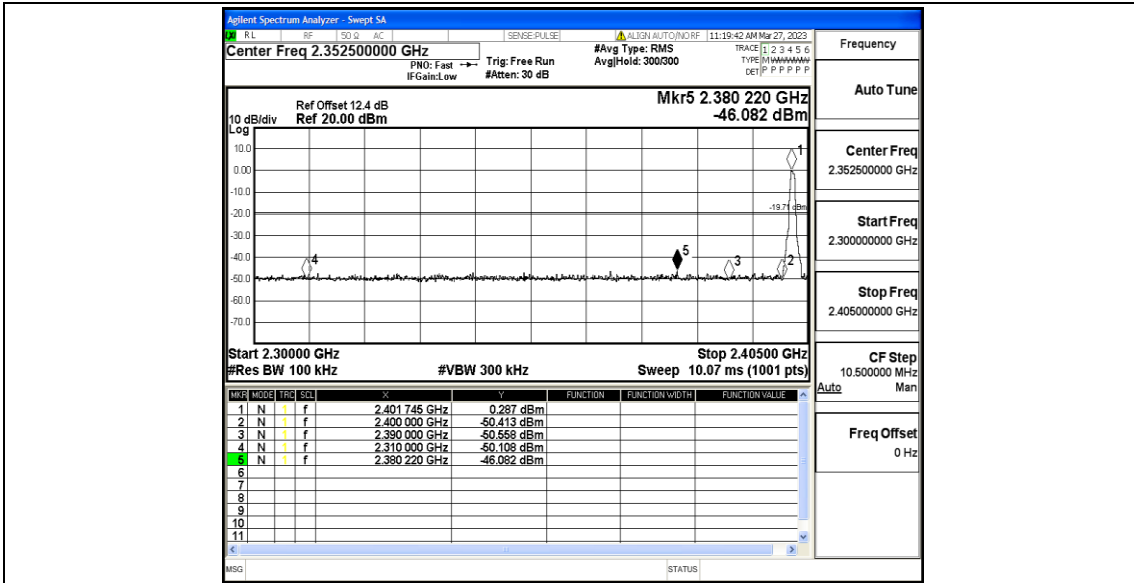
BLE_1M_Ant1_2480

Appendix E: Band edge measurements

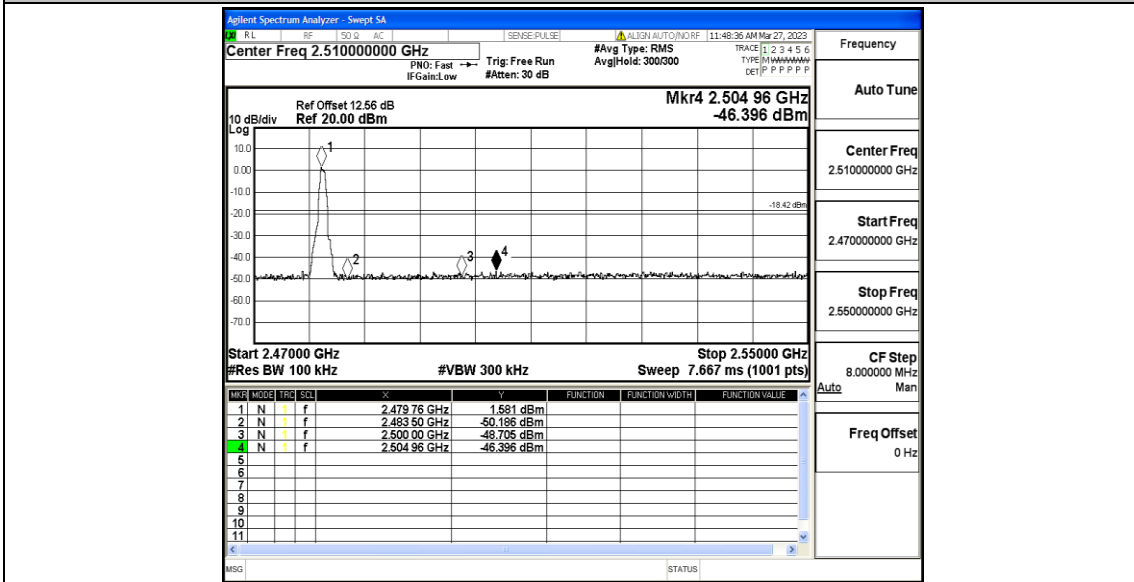
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.29	-46.08	≤-19.71	PASS
		High	2480	1.58	-46.4	≤-18.42	PASS

Test Graphs



BLE_1M_Ant1_Low_2402



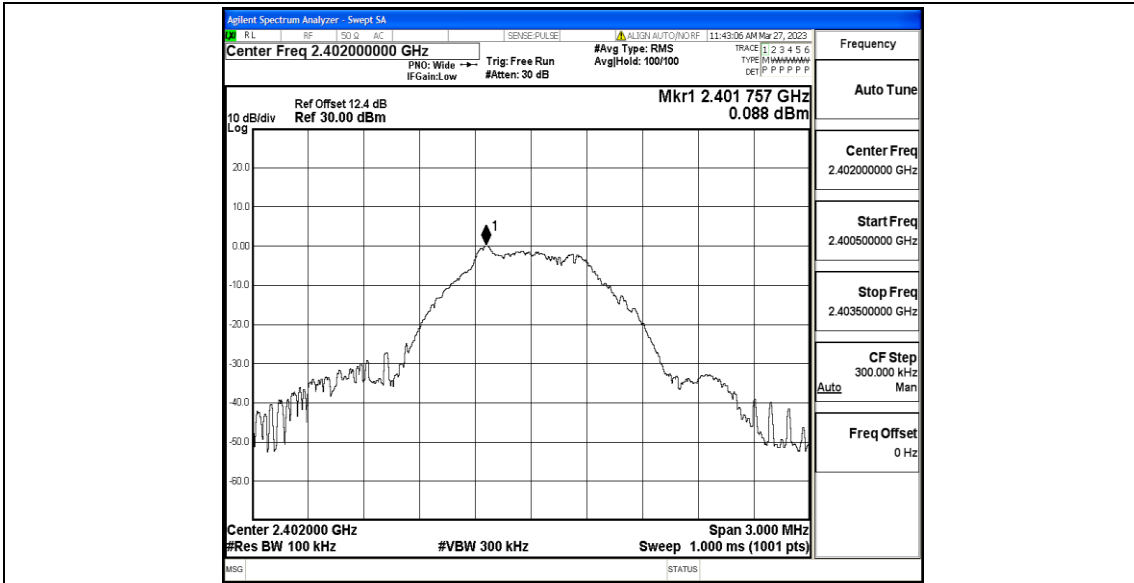
BLE_1M_Ant1_High_2480

Appendix F: Conducted Spurious Emission

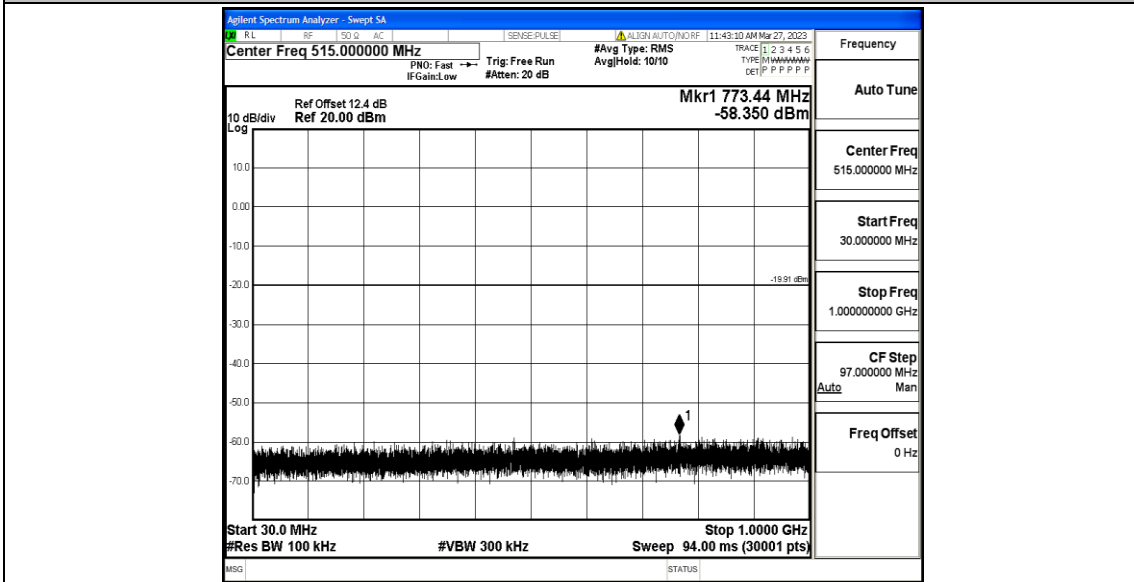
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.09	0.09	---	PASS
			30~1000	0.09	-58.35	≤-19.91	PASS
			1000~26500	0.09	-47.29	≤-19.91	PASS
		2440	Reference	1.99	1.99	---	PASS
			30~1000	1.99	-57.81	≤-18.01	PASS
			1000~26500	1.99	-48.65	≤-18.01	PASS
		2480	Reference	1.56	1.56	---	PASS
			30~1000	1.56	-58.08	≤-18.44	PASS
			1000~26500	1.56	-48.25	≤-18.44	PASS

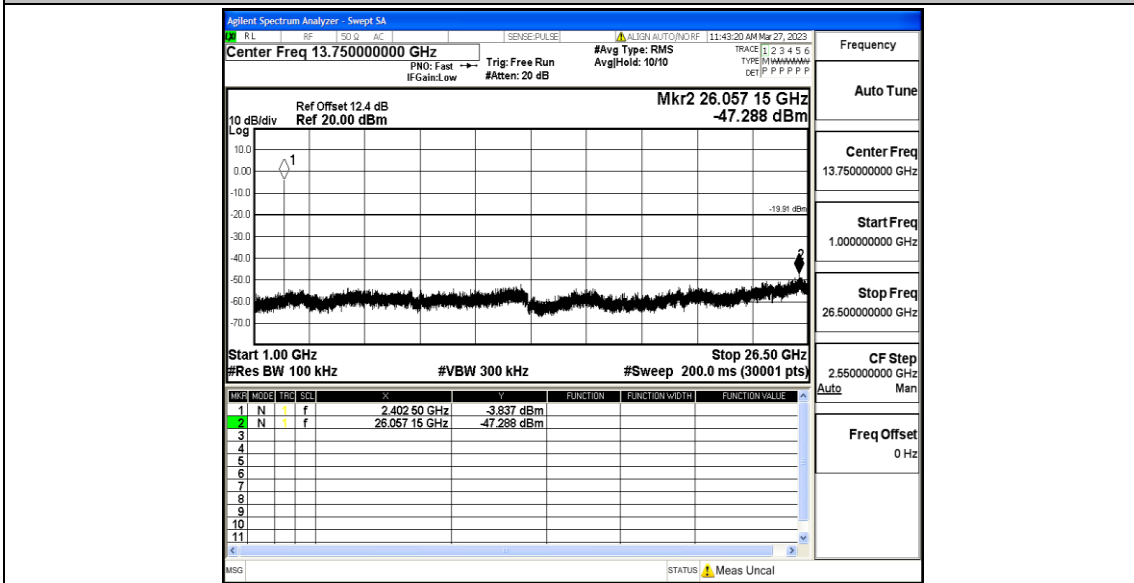
Test Graphs



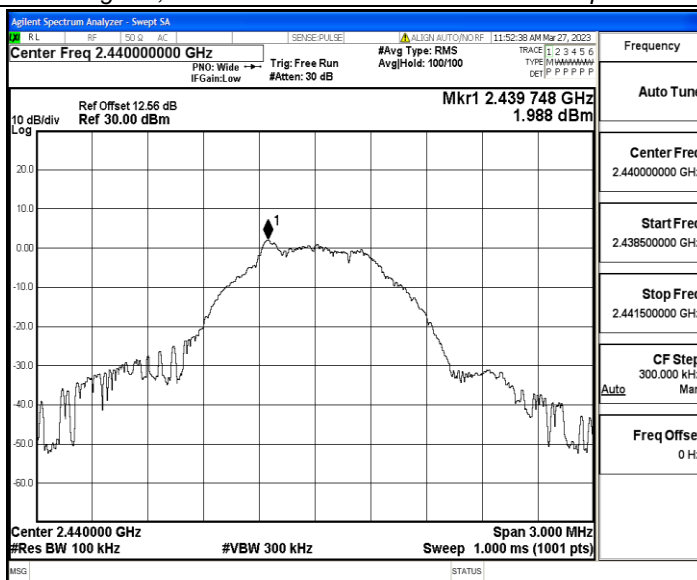
BLE_1M_Ant1_2402_0~Reference



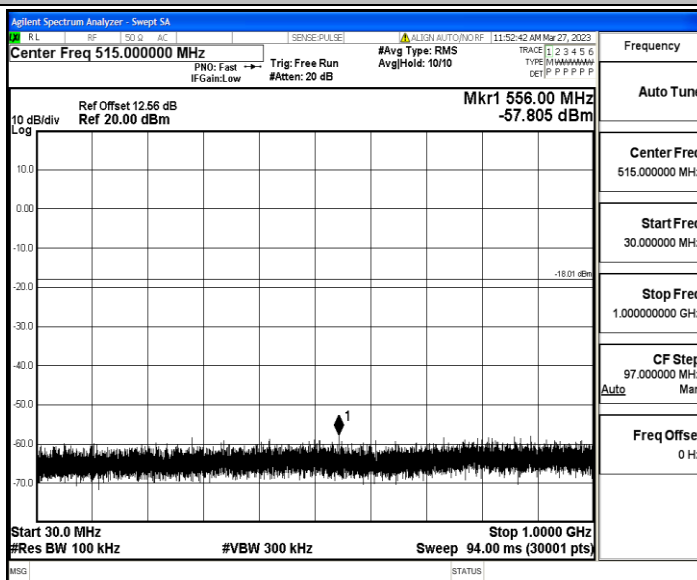
BLE_1M_Ant1_2402_30~1000



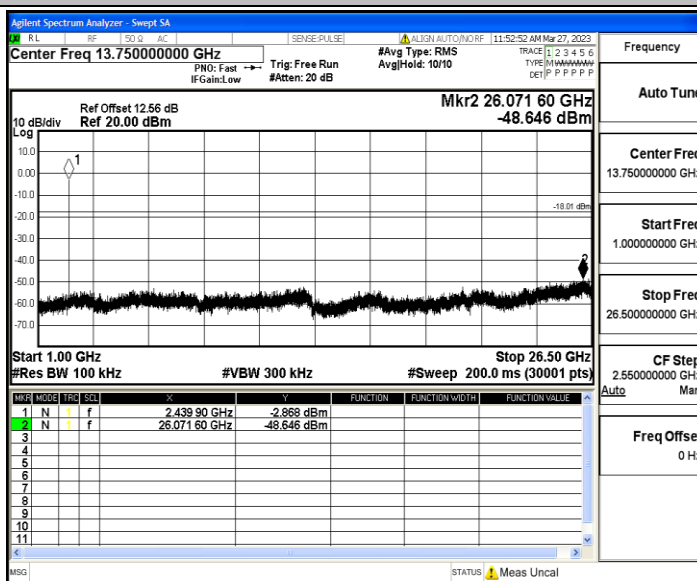
BLE_1M_Ant1_2402_1000~26500



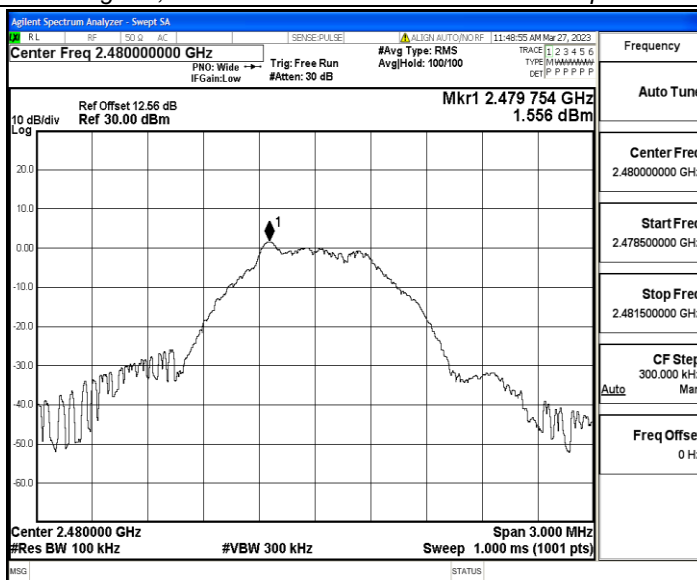
BLE_1M_Ant1_2440_0~Reference



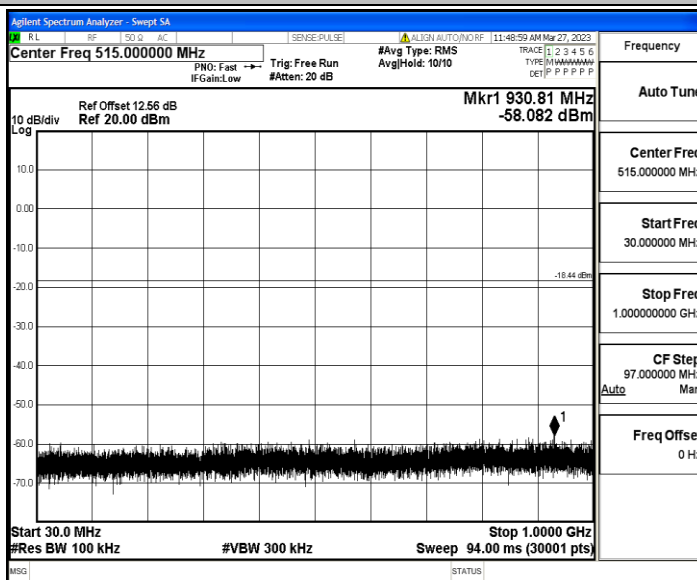
BLE_1M_Ant1_2440_30~1000



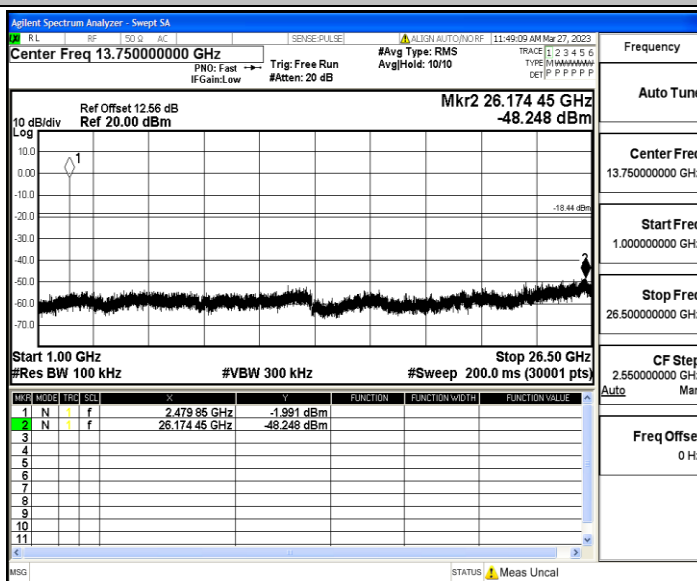
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



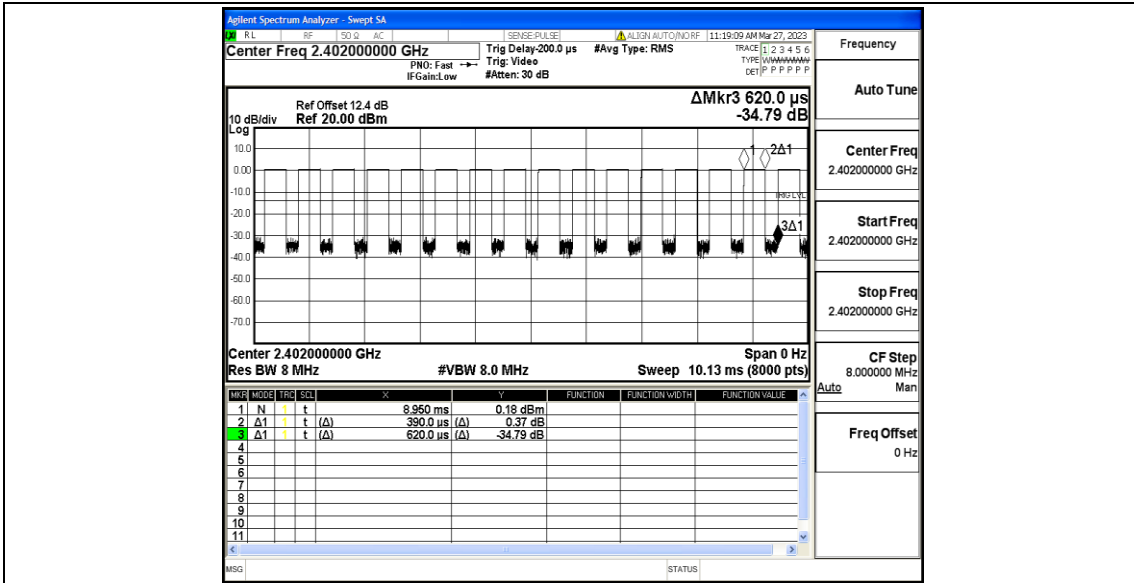
BLE_1M_Ant1_2480_1000~26500

Appendix G: Duty Cycle

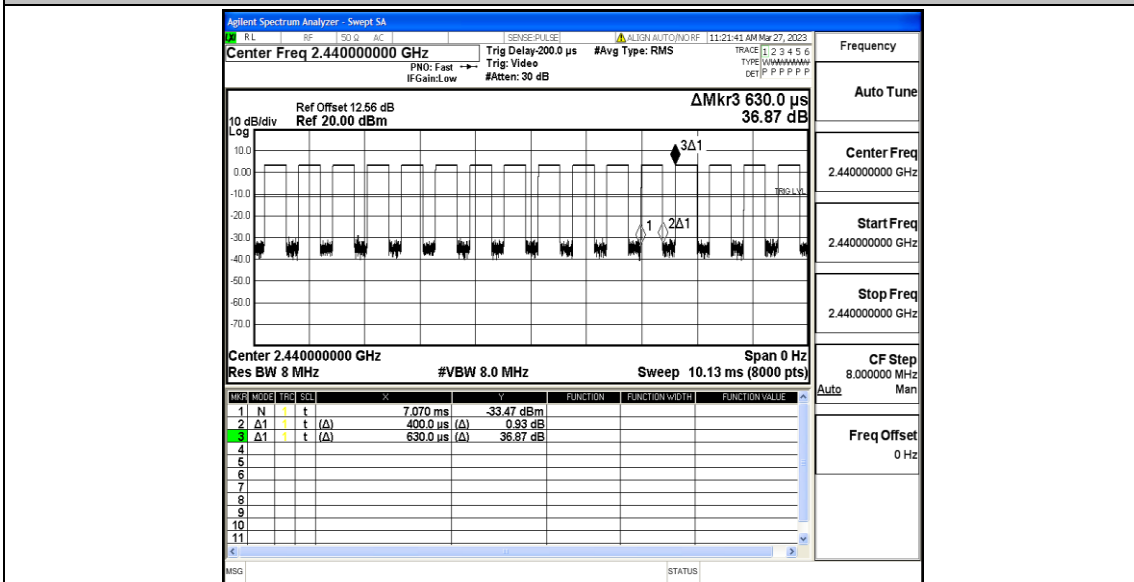
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.39	0.62	62.90	2.56
		2440	0.40	0.63	63.49	2.50
		2480	0.39	0.62	62.90	2.56

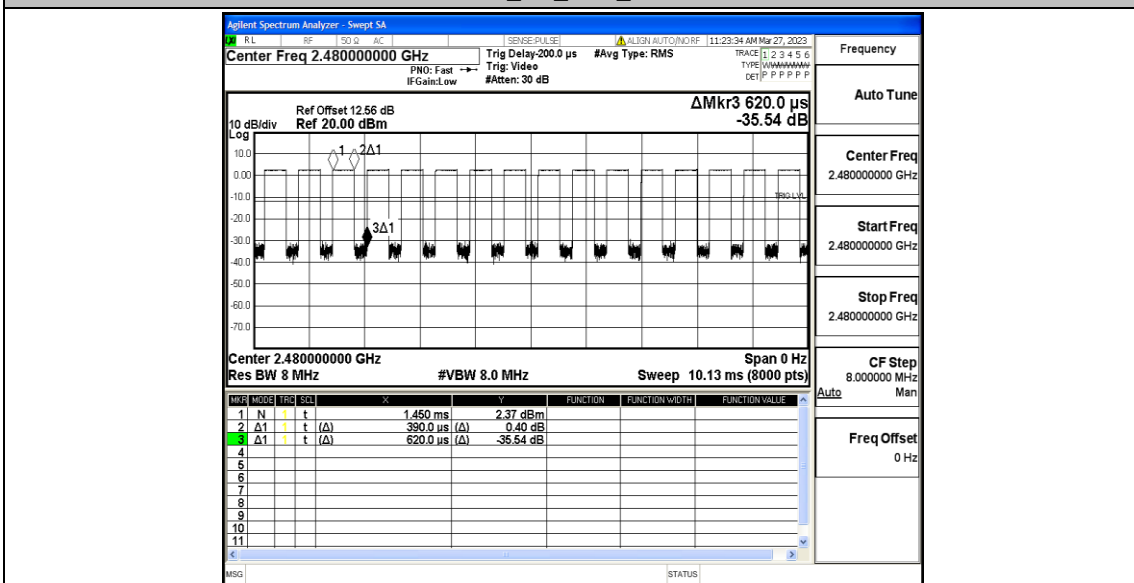
Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

Appendix H: Emissions in Restricted Bands

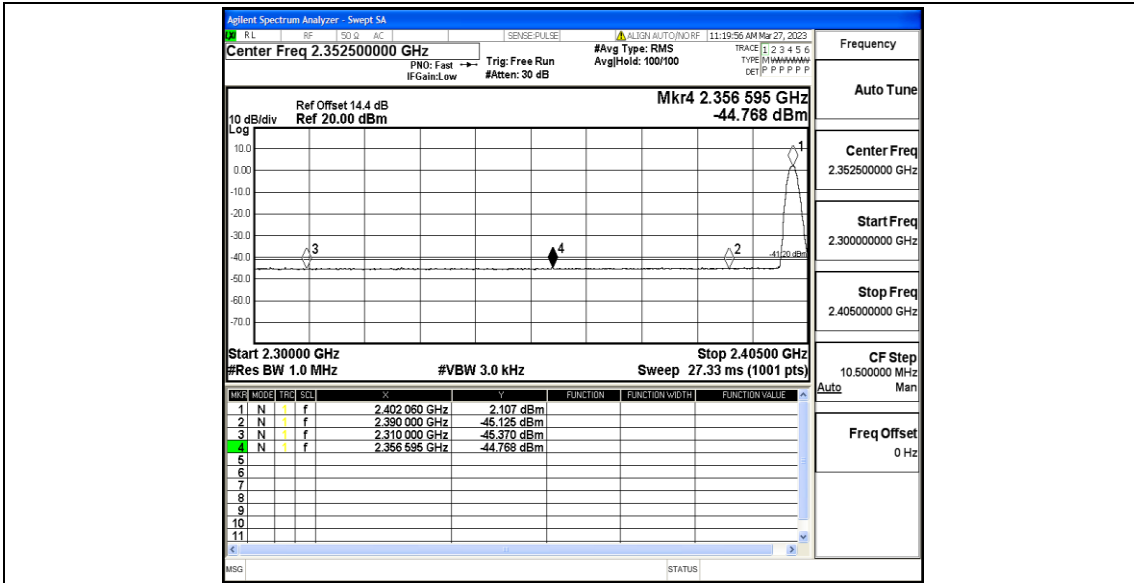
Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-45.37	≤-41.20	PASS
				AV	2356.595	-44.77	≤-41.20	PASS
				AV	2390.000	-45.13	≤-41.20	PASS
				Peak	2310.000	-38.39	≤-21.20	PASS
				Peak	2344.730	-35.43	≤-21.20	PASS
				Peak	2390.000	-39.85	≤-21.20	PASS
		High	2480	AV	2483.500	-44.51	≤-41.20	PASS
				AV	2496.320	-44.09	≤-41.20	PASS
				AV	2500.000	-44.75	≤-41.20	PASS
				Peak	2483.500	-37.68	≤-21.20	PASS
				Peak	2491.200	-35.46	≤-21.20	PASS
				Peak	2500.000	-38.48	≤-21.20	PASS

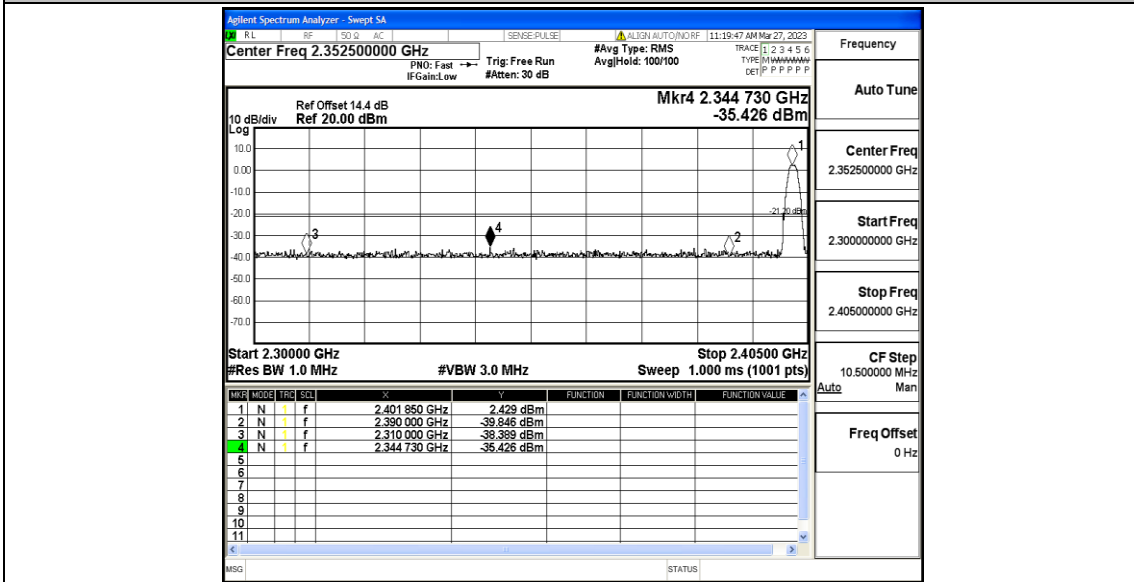
Note:

1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

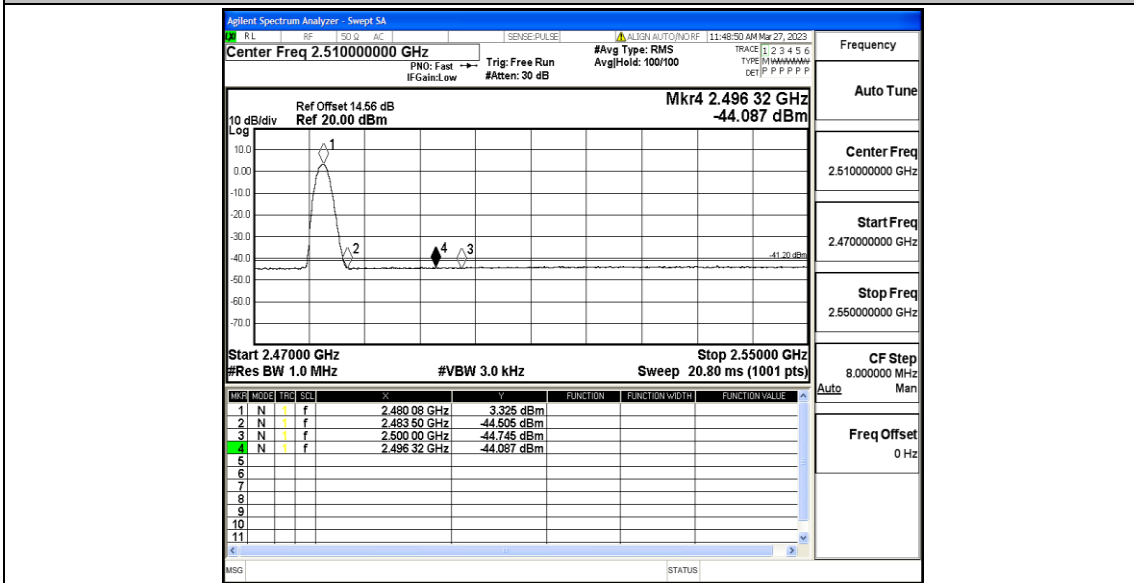
Test Graphs



BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV

