

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

Product Name: Wireless Mechanical Keyboard

Trade Mark: Lemokey

Test Model: L3

FCC ID: 2ASF4-L3

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

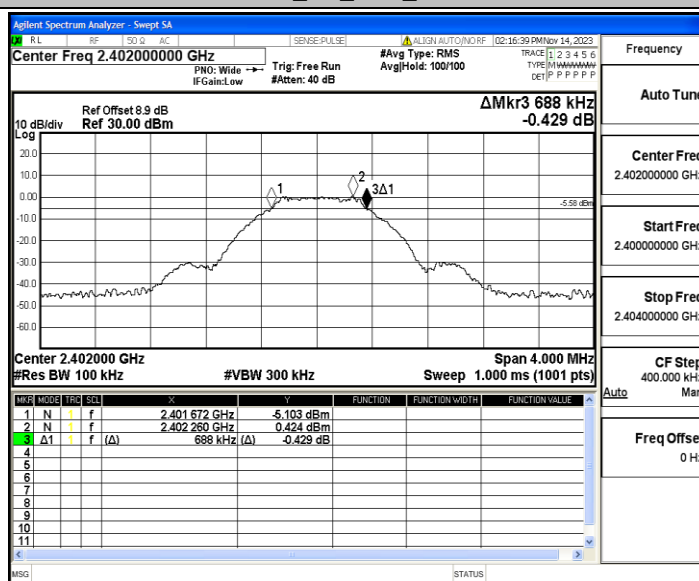
Appendix A: DTS Bandwidth

Test Result

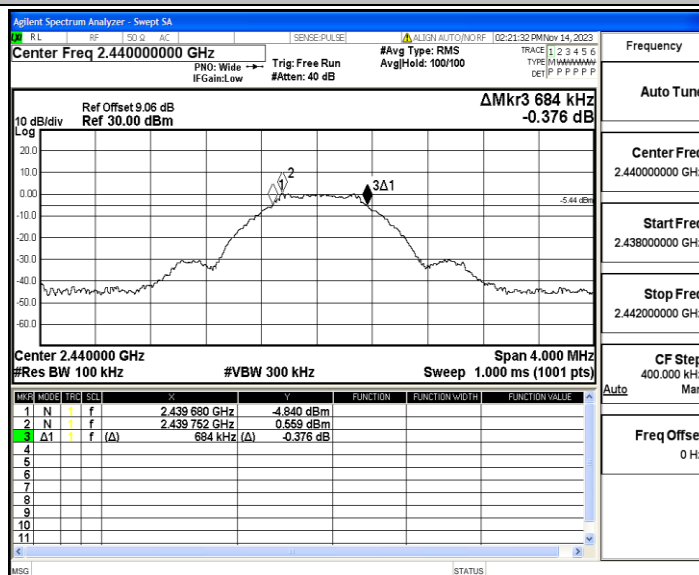
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.688	2401.672	2402.360	0.5	PASS
		2440	0.684	2439.680	2440.364	0.5	PASS
		2480	0.672	2479.688	2480.360	0.5	PASS

Test Graphs

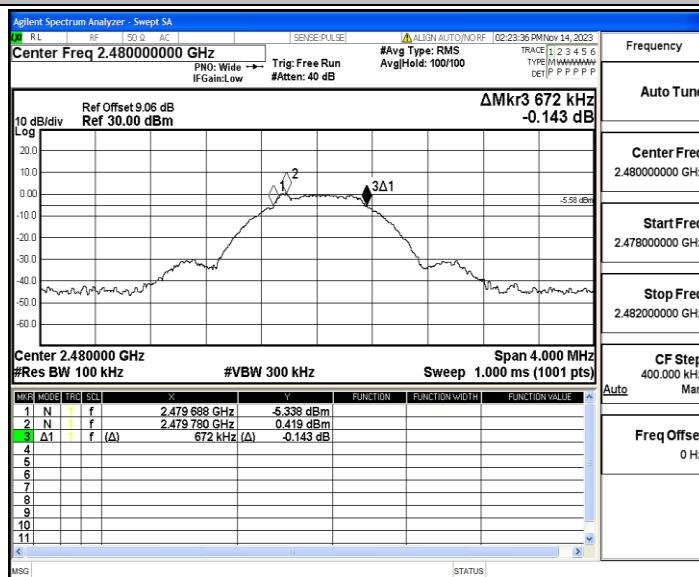
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



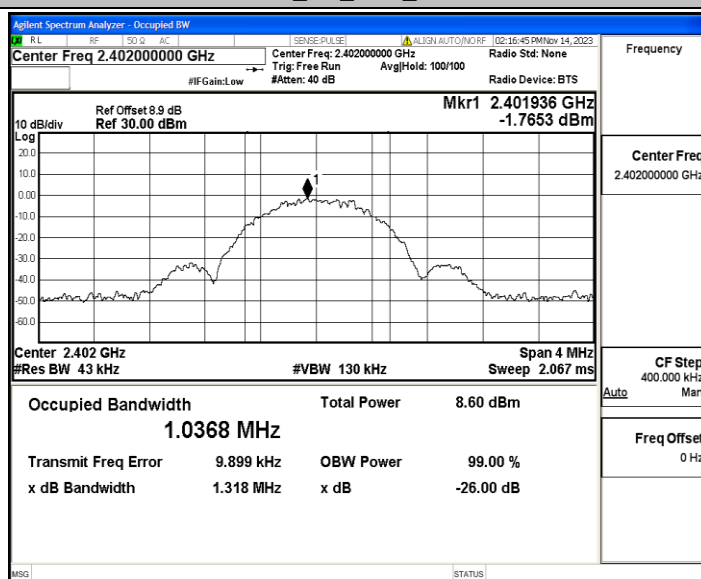
Appendix B: Occupied Channel Bandwidth

Test Result

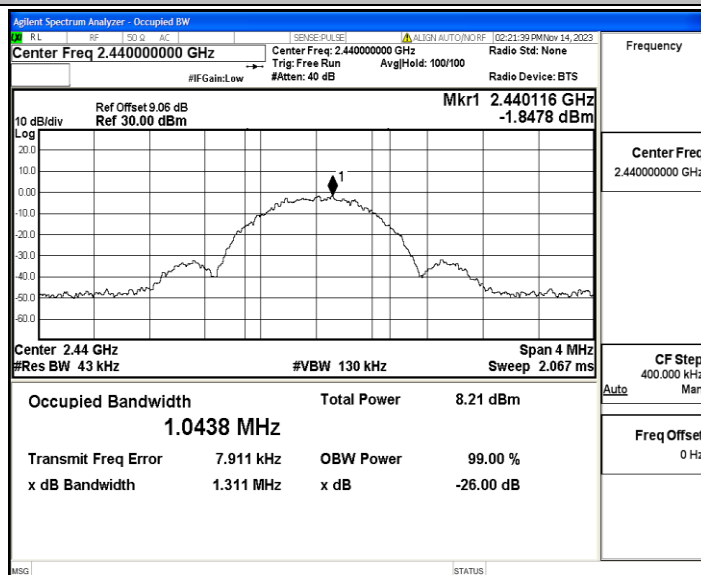
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0368	2401.4915	2402.5283	---	---
		2440	1.0438	2439.4860	2440.5298	---	---
		2480	1.0134	2479.5006	2480.5140	---	---

Test Graphs

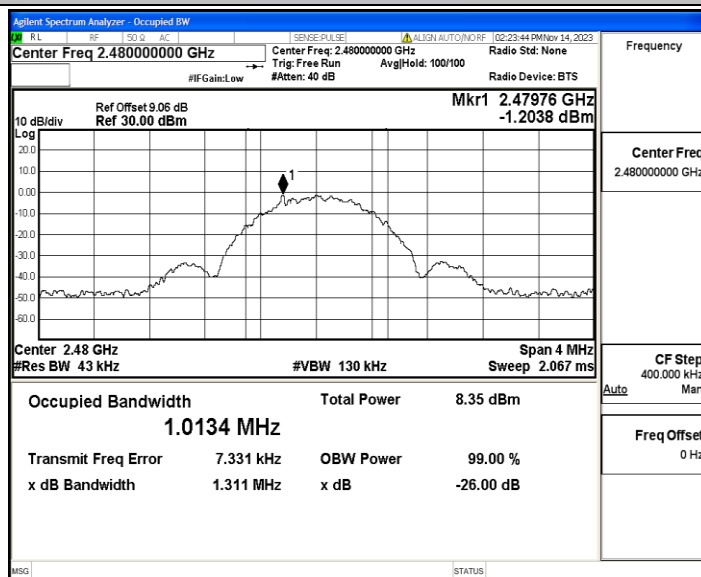
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



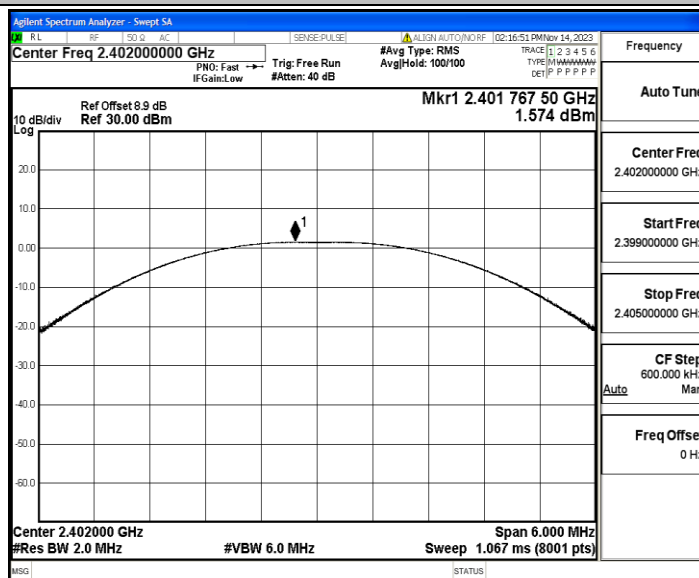
Appendix C: Maximum Peak conducted output power

Test Result

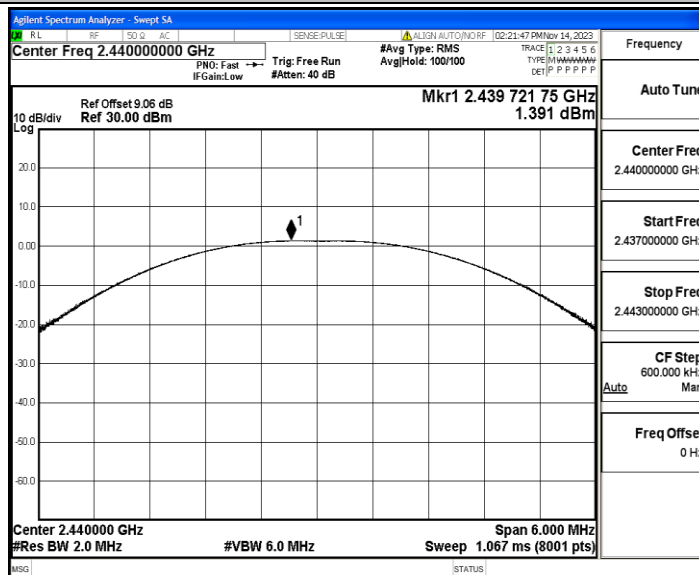
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.57	≤30	PASS
		2440	1.39	≤30	PASS
		2480	1.28	≤30	PASS

Test Graphs

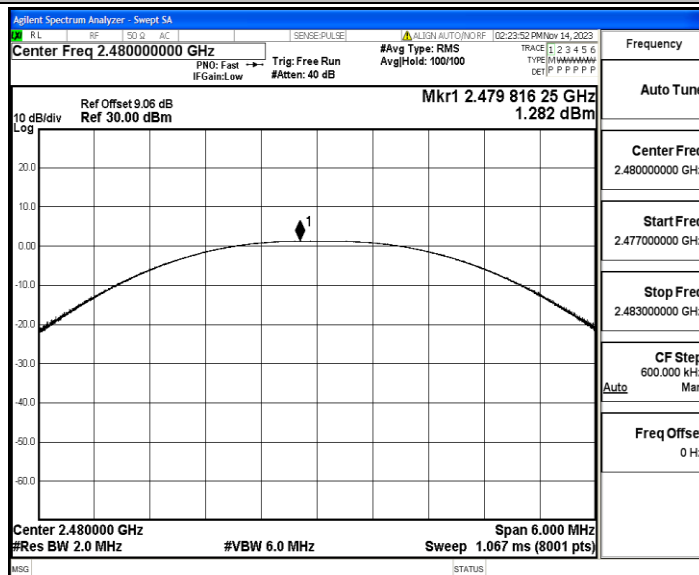
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



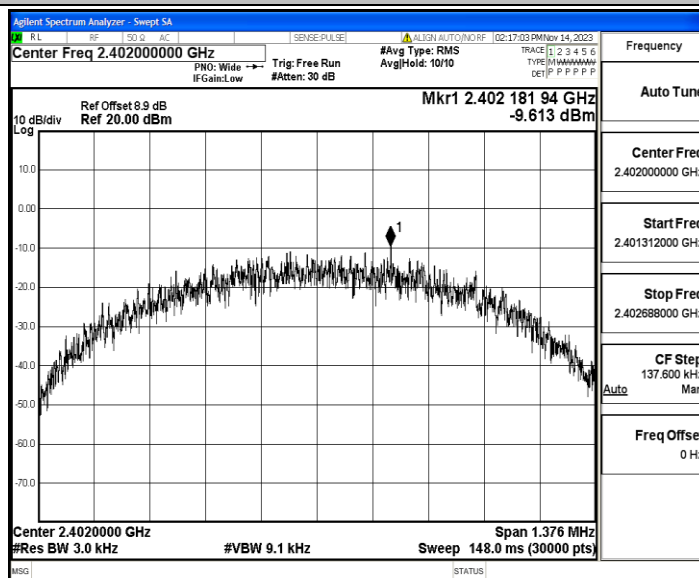
Appendix D: Maximum power spectral density

Test Result

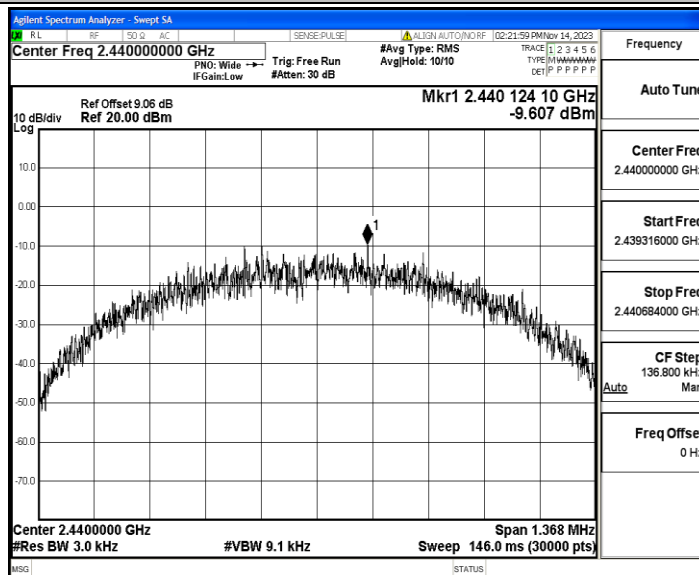
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.61	≤8.00	PASS
		2440	-9.61	≤8.00	PASS
		2480	-8.93	≤8.00	PASS

Test Graphs

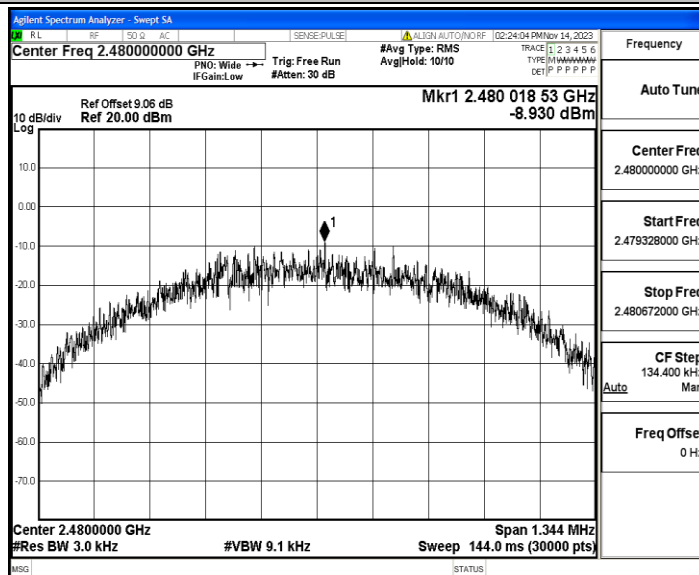
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



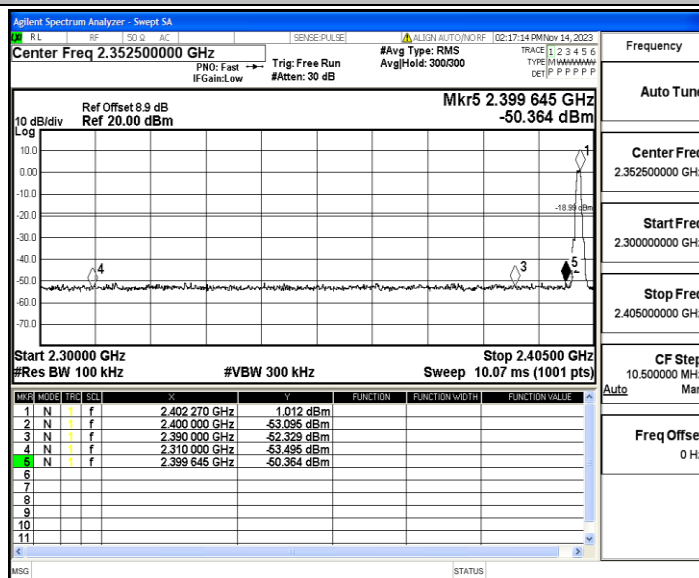
Appendix E: Band edge measurements

Test Result

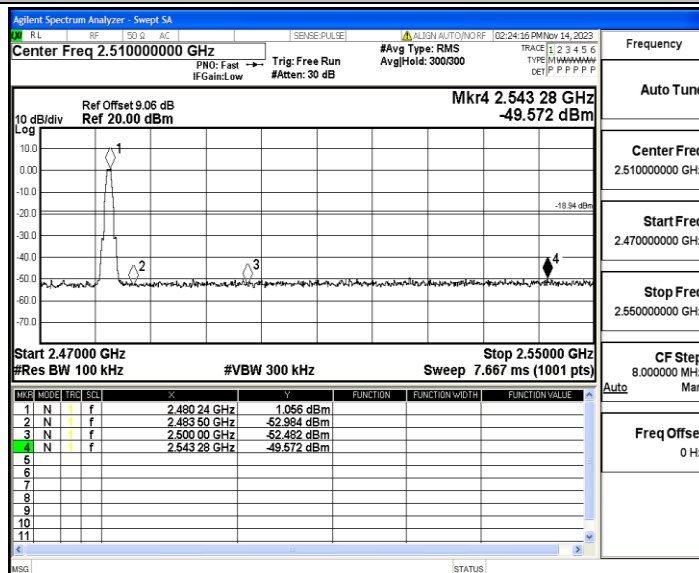
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.01	-50.36	≤-18.99	PASS
		High	2480	1.06	-49.57	≤-18.94	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



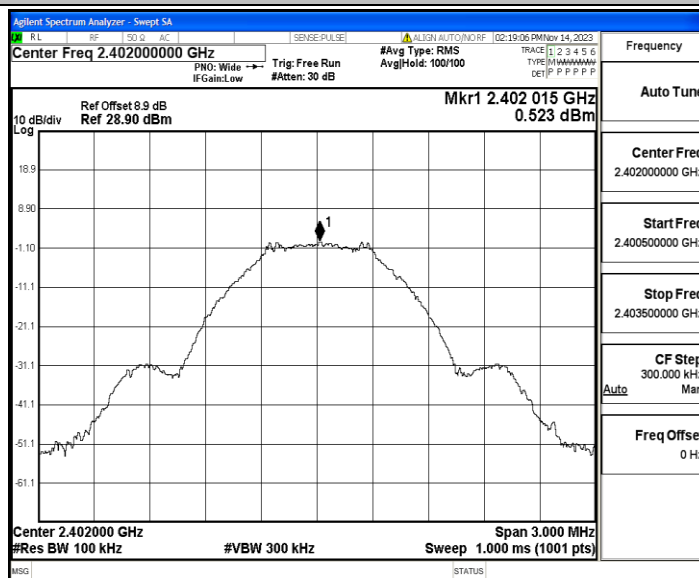
Appendix F: Conducted Spurious Emission

Test Result

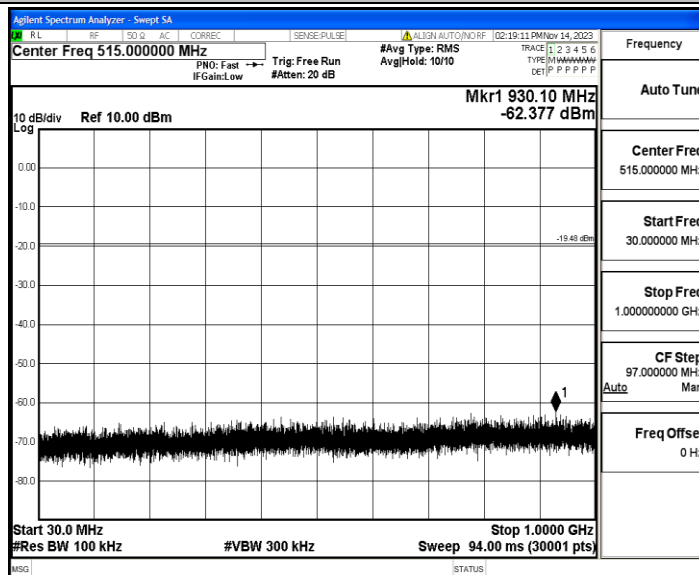
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.52	0.52	---	PASS
			30~1000	0.52	-62.38	≤-19.48	PASS
			1000~26500	0.52	-43.28	≤-19.48	PASS
		2440	Reference	0.96	0.96	---	PASS
			30~1000	0.96	-62.83	≤-19.04	PASS
			1000~26500	0.96	-42.6	≤-19.04	PASS
		2480	Reference	1.11	1.11	---	PASS
			30~1000	1.11	-61.77	≤-18.89	PASS
			1000~26500	1.11	-43.49	≤-18.89	PASS

Test Graphs

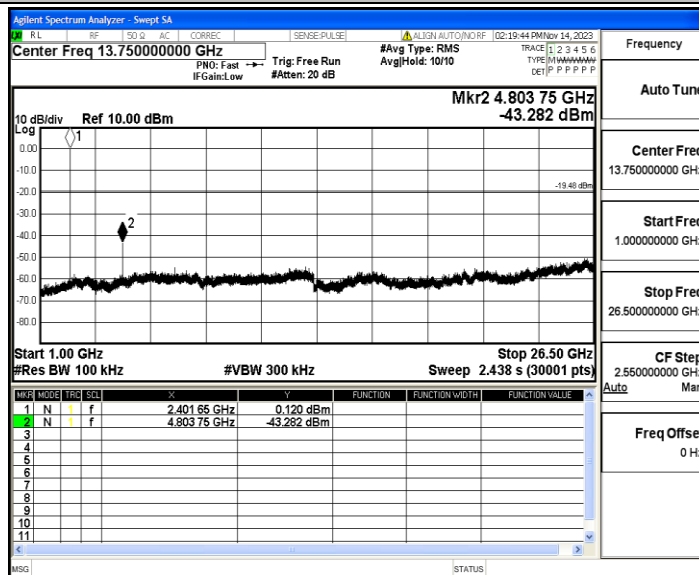
BLE_1M_Ant1_2402_0~Reference



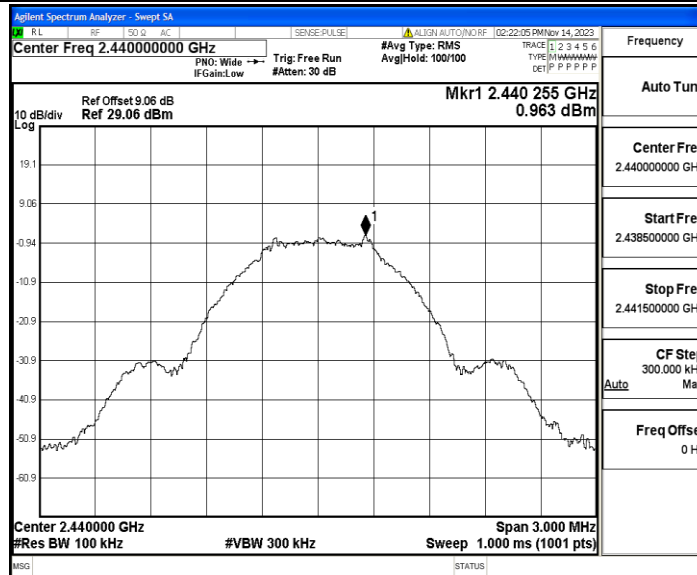
BLE_1M_Ant1_2402_30~1000



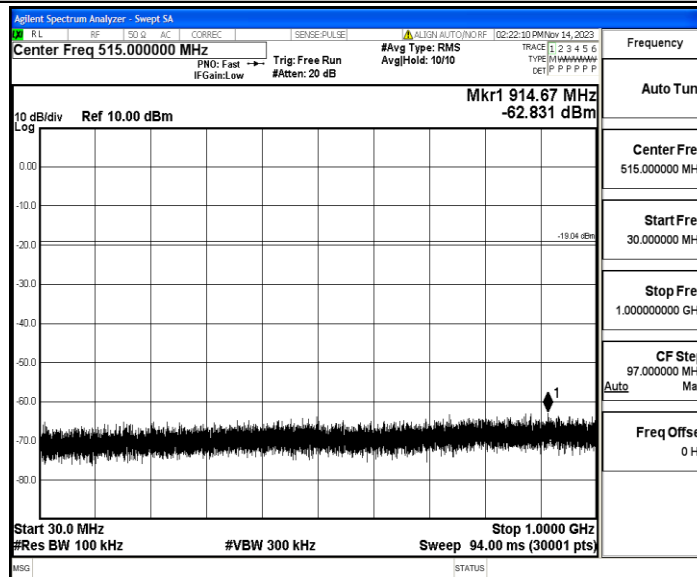
BLE_1M_Ant1_2402_1000~26500



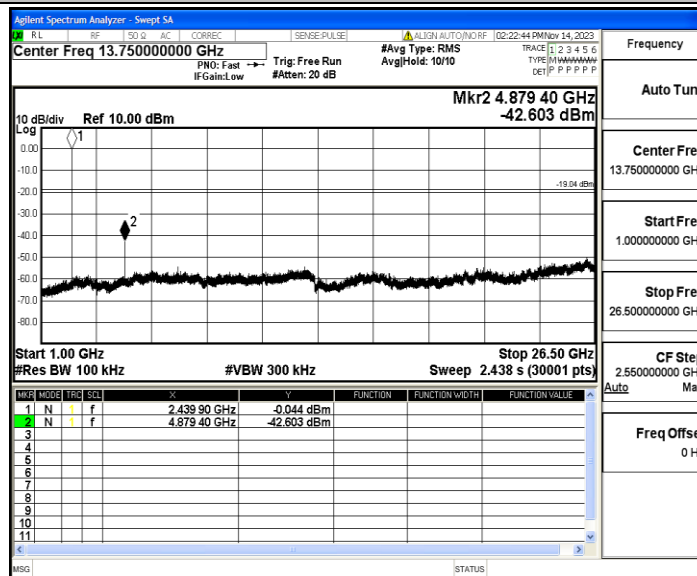
BLE_1M_Ant1_2440_0~Reference



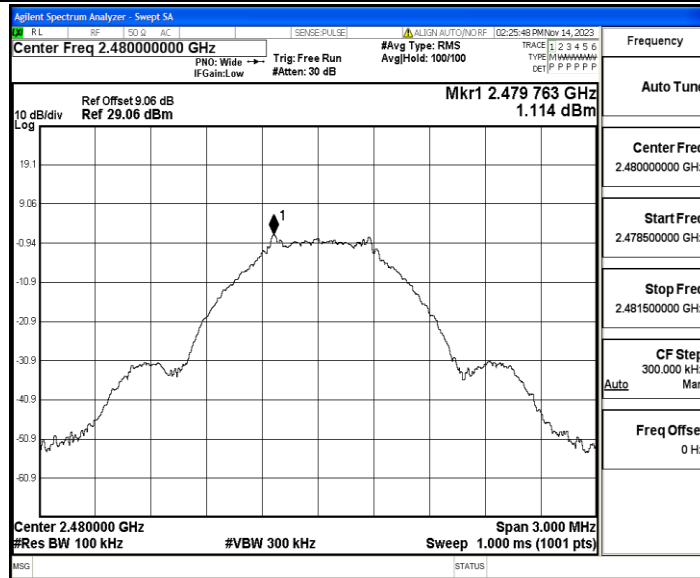
BLE_1M_Ant1_2440_30~1000



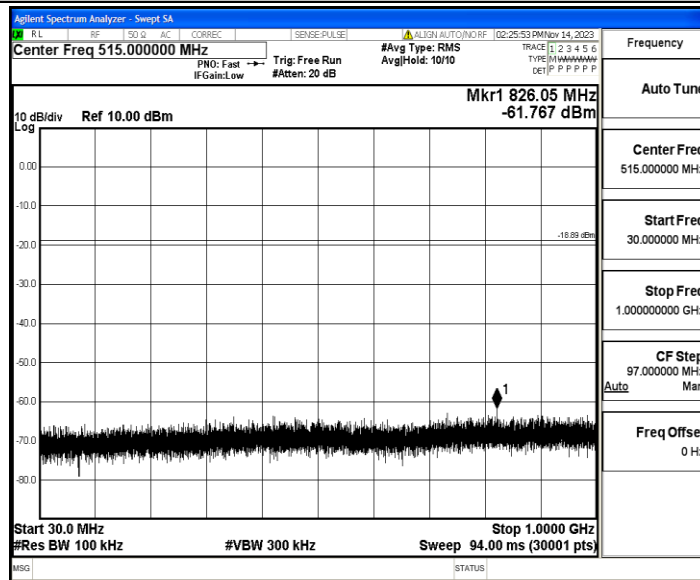
BLE_1M_Ant1_2440_1000~26500



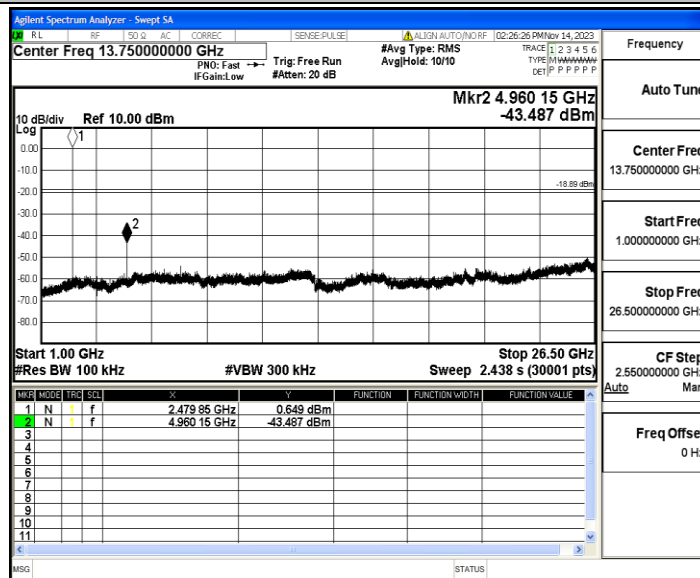
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



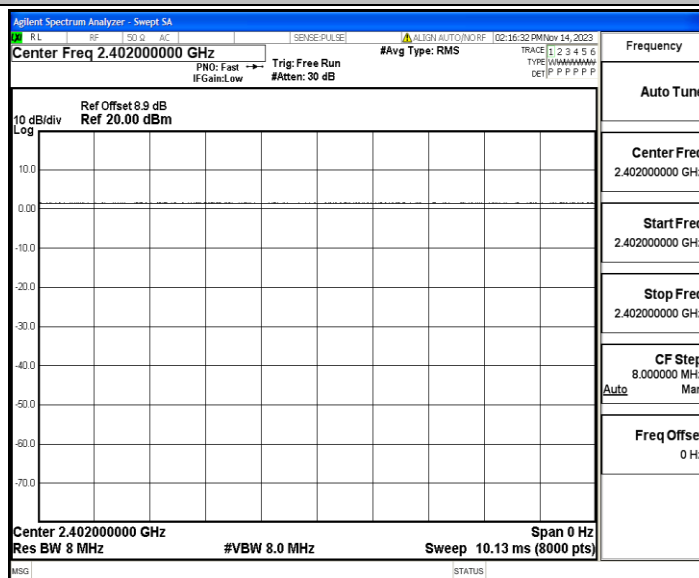
Appendix G: Duty Cycle

Test Result

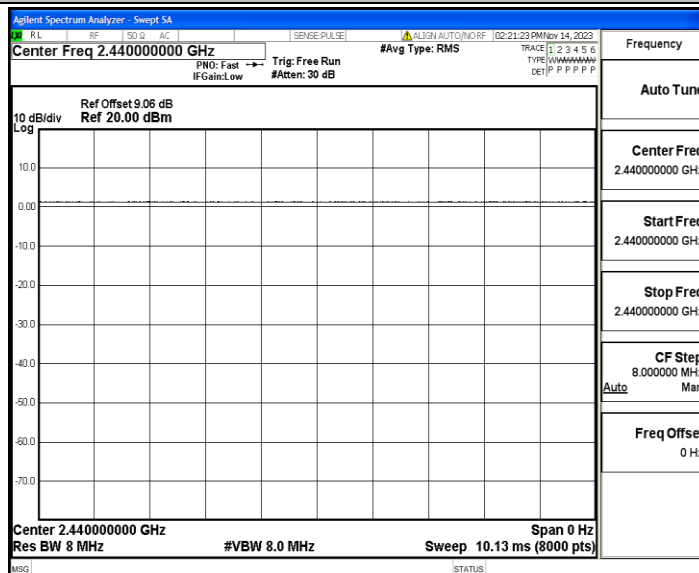
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	10	10	100	0.01
		2440	10	10	100	0.01
		2480	10	10	100	0.01

Test Graphs

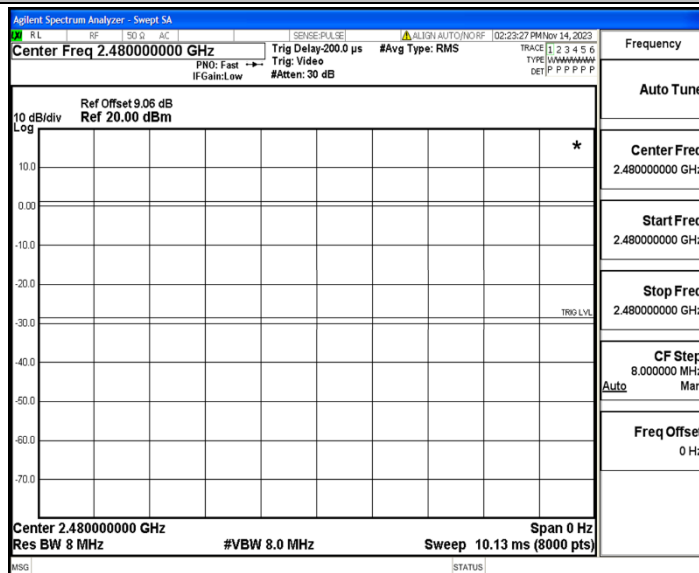
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix H: Emissions in Restricted Bands

Test Result

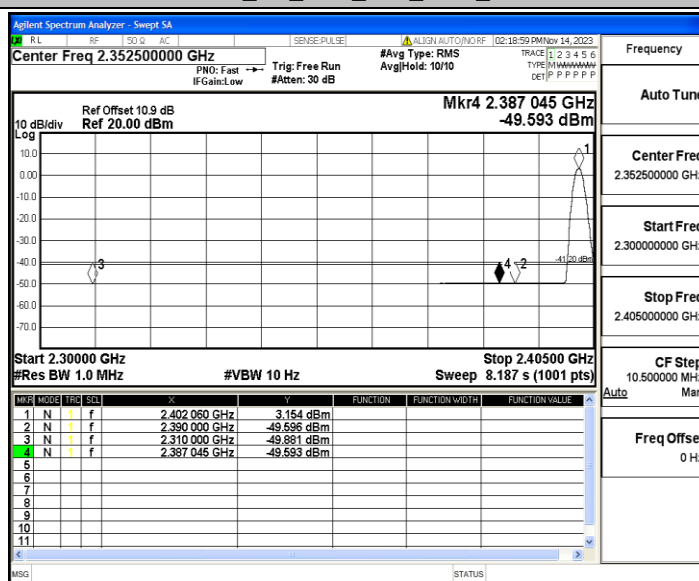
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.88	≤-41.20	PASS
				AV	2387.045	-49.59	≤-41.20	PASS
				AV	2390.000	-49.6	≤-41.20	PASS
				Peak	2310.000	-42.64	≤-21.20	PASS
				Peak	2365.100	-40.55	≤-21.20	PASS
				Peak	2390.000	-45.31	≤-21.20	PASS
		High	2480	AV	2483.500	-48.44	≤-41.20	PASS
				AV	2483.520	-48.44	≤-41.20	PASS
				AV	2500.000	-48.93	≤-41.20	PASS
				Peak	2483.500	-44.3	≤-21.20	PASS
				Peak	2491.840	-40.23	≤-21.20	PASS
				Peak	2500.000	-42.42	≤-21.20	PASS

Note:

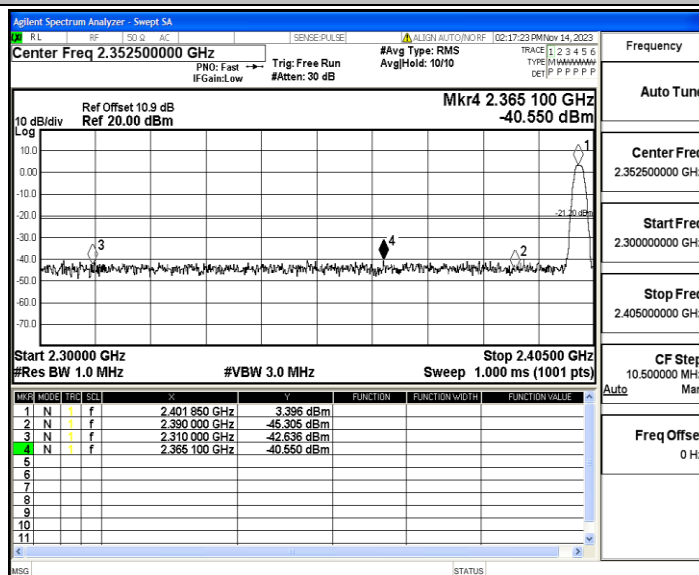
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

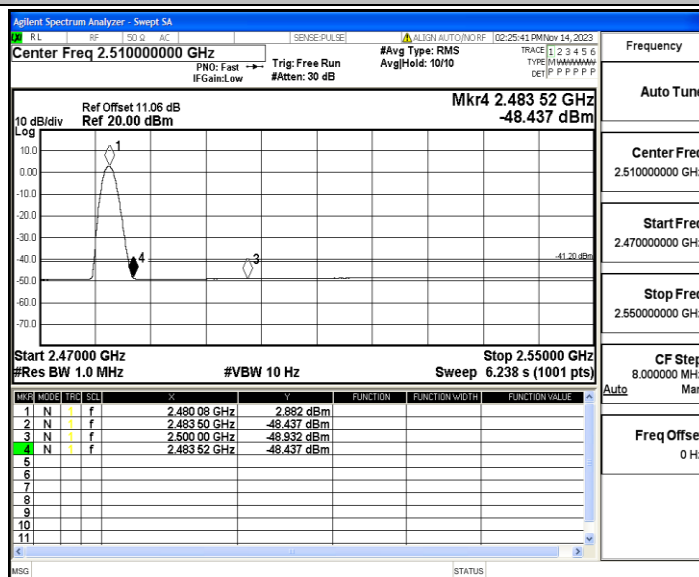
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

