

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

Product Name: Space Automatic Pet Feeder

Trade Mark: PETLIBRO

Test Model: PLAF107

FCC ID: 2A3DE-PLAF107

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

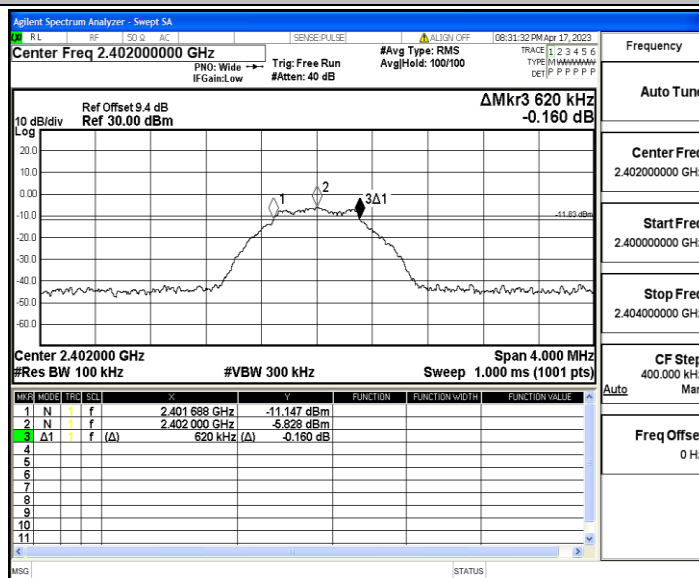
Appendix A: DTS Bandwidth

Test Result

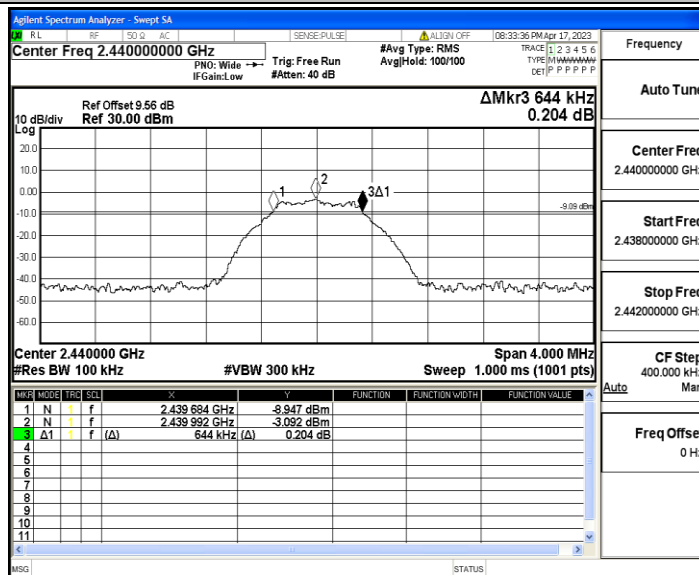
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.620	2401.688	2402.308	0.5	PASS
		2440	0.644	2439.684	2440.328	0.5	PASS
		2480	0.612	2479.708	2480.320	0.5	PASS

Test Graphs

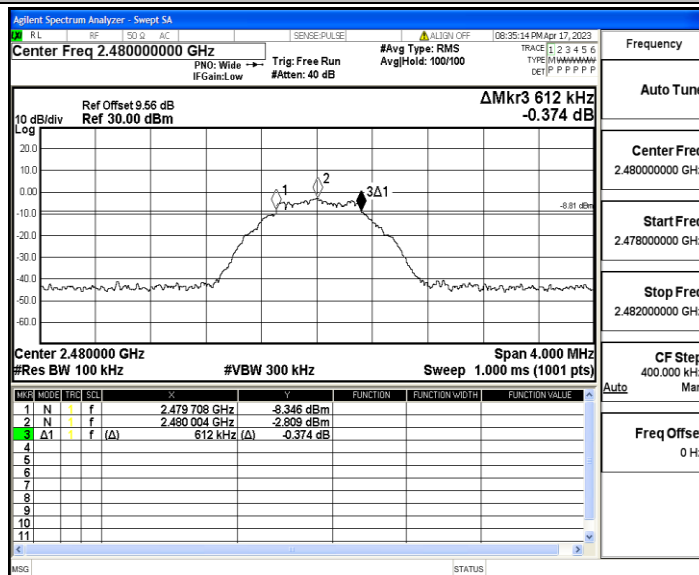
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



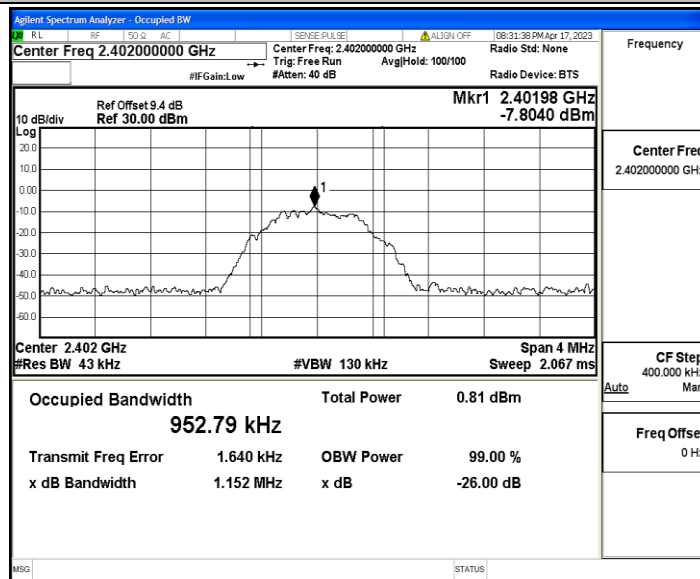
Appendix B: Occupied Channel Bandwidth

Test Result

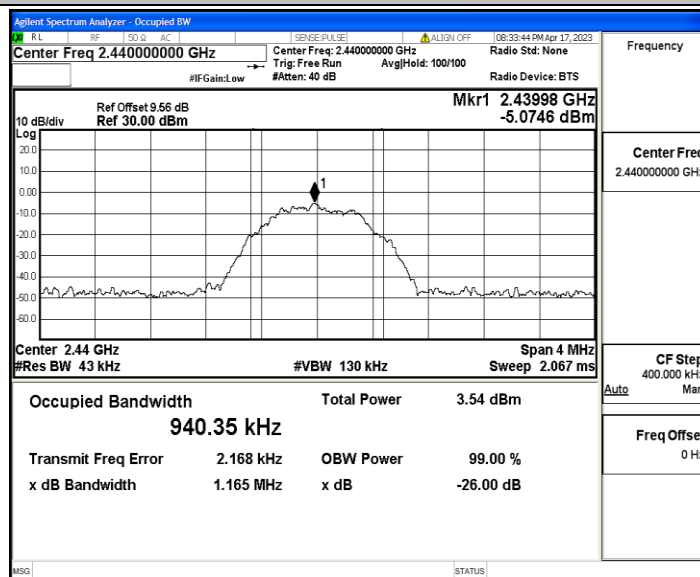
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.95279	2401.5252	2402.4780	---	---
		2440	0.94035	2439.5320	2440.4723	---	---
		2480	0.94360	2479.5356	2480.4792	---	---

Test Graphs

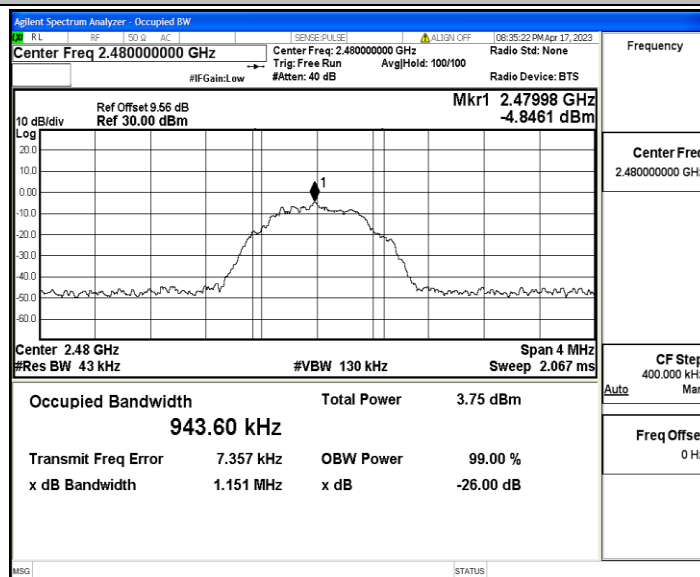
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

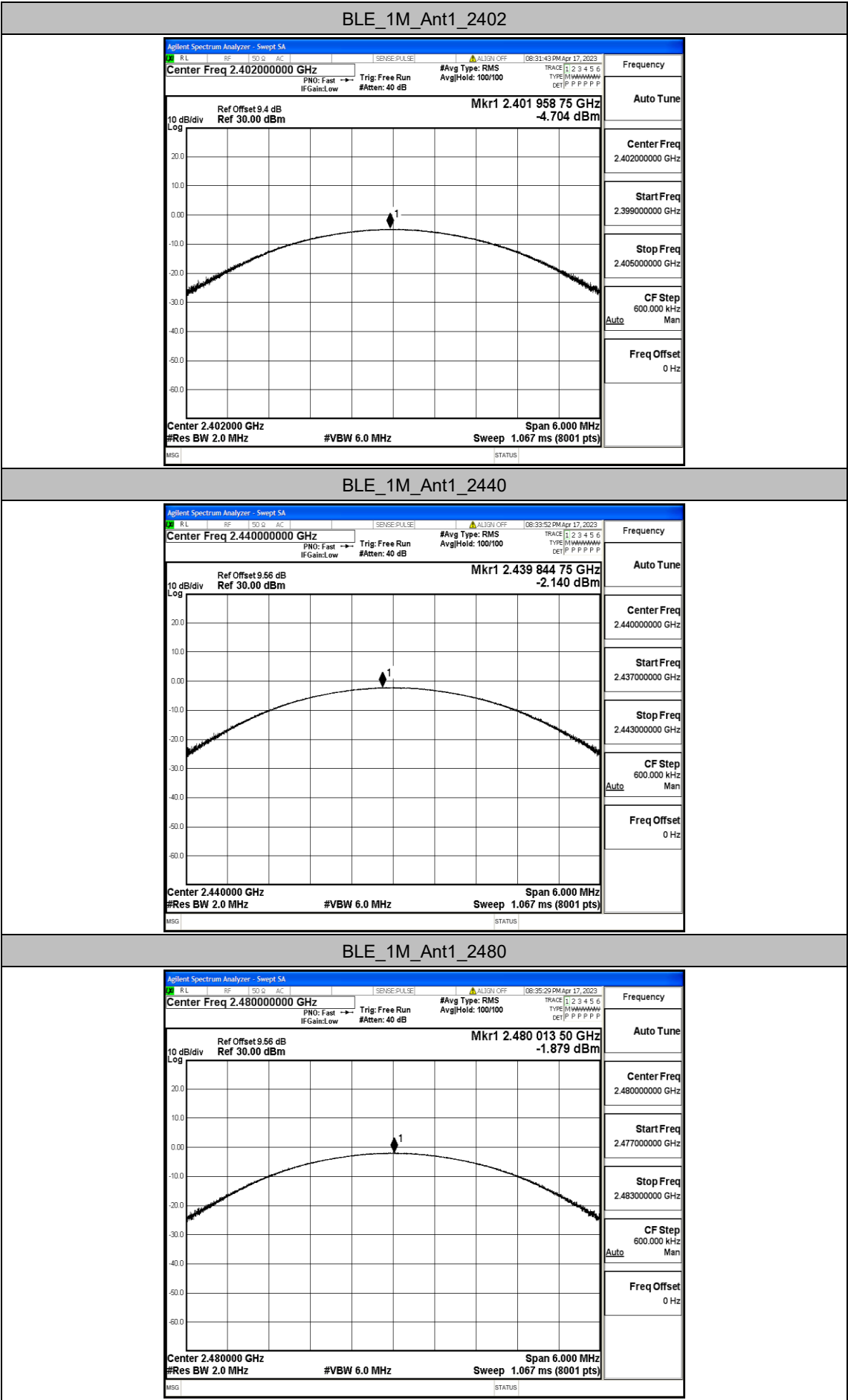


Appendix C: Maximum Peak conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-4.7	≤30	PASS
		2440	-2.14	≤30	PASS
		2480	-1.88	≤30	PASS

Test Graphs



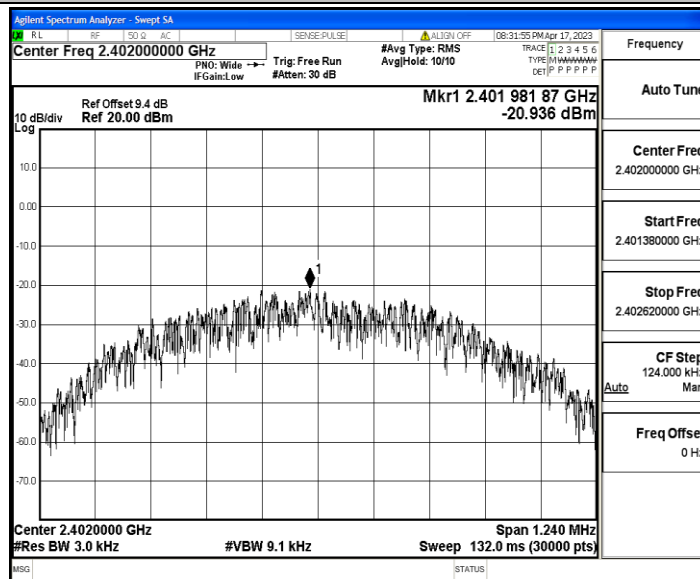
Appendix D: Maximum power spectral density

Test Result

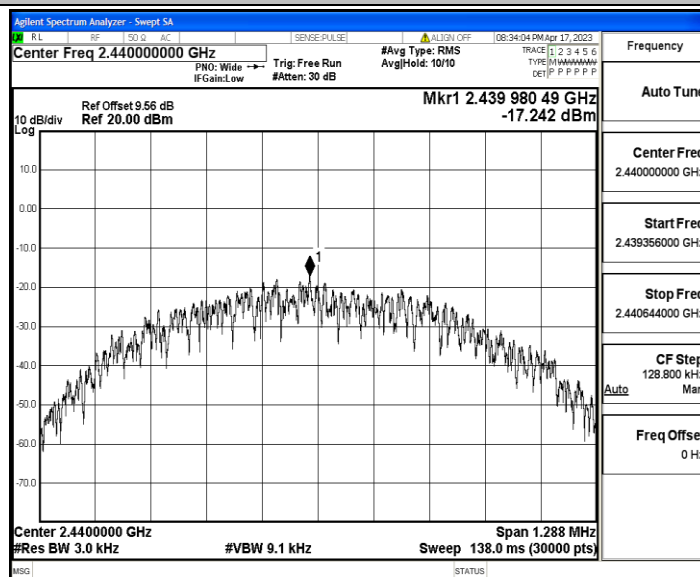
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-20.94	≤8.00	PASS
		2440	-17.24	≤8.00	PASS
		2480	-16.95	≤8.00	PASS

Test Graphs

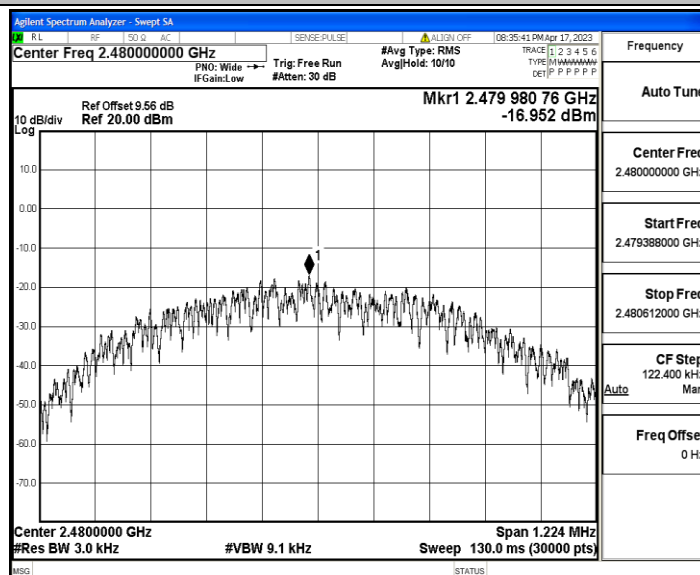
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

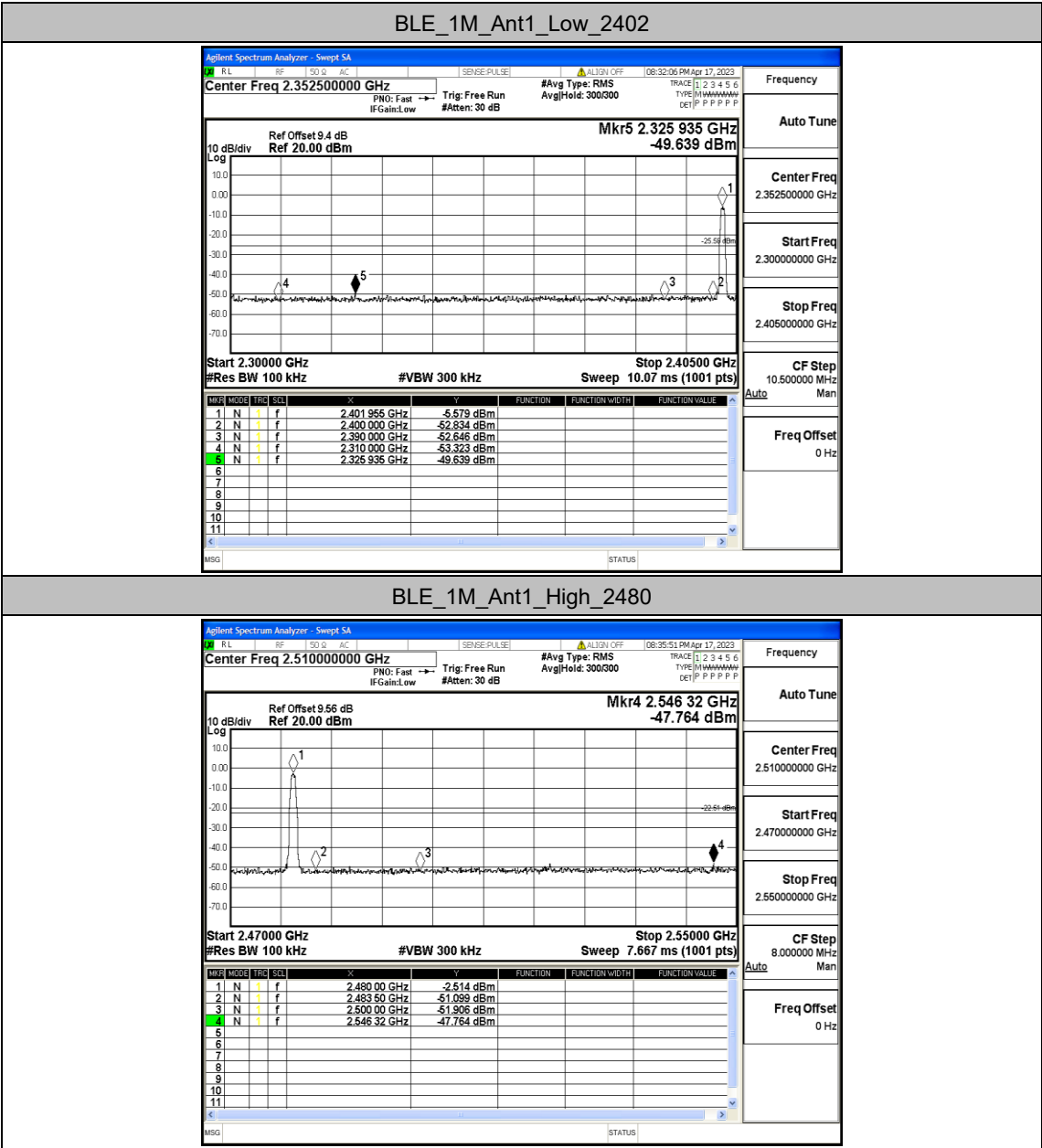


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-5.58	-49.64	≤-25.58	PASS
		High	2480	-2.51	-47.76	≤-22.51	PASS

Test Graphs



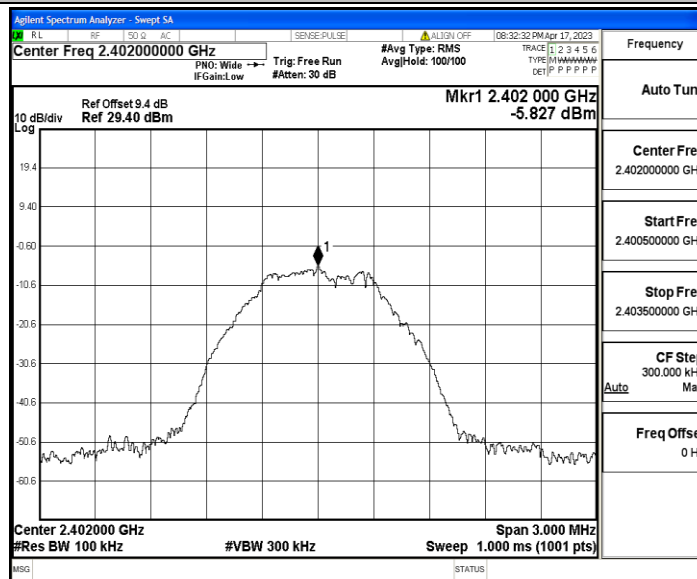
Appendix F: Conducted Spurious Emission

Test Result

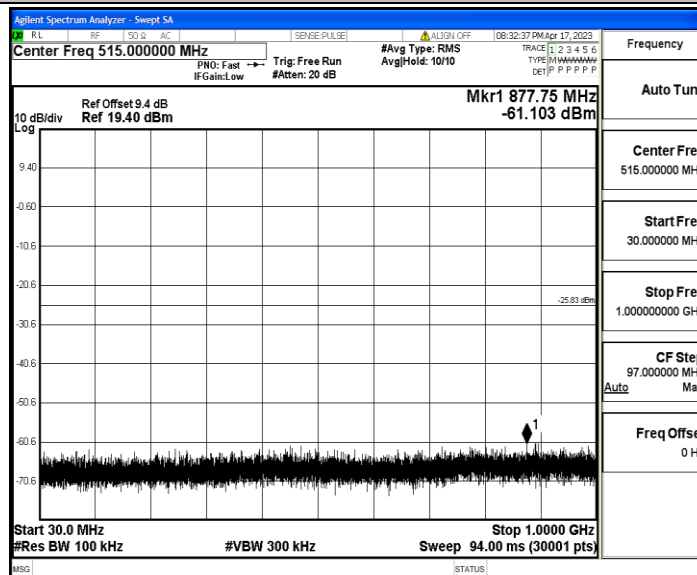
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-5.83	-5.83	---	PASS
			30~1000	-5.83	-61.1	≤-25.83	PASS
			1000~26500	-5.83	-52.21	≤-25.83	PASS
		2440	Reference	-3.07	-3.07	---	PASS
			30~1000	-3.07	-60.18	≤-23.07	PASS
			1000~26500	-3.07	-50.46	≤-23.07	PASS
		2480	Reference	-2.84	-2.84	---	PASS
			30~1000	-2.84	-60.28	≤-22.84	PASS
			1000~26500	-2.84	-52.5	≤-22.84	PASS

Test Graphs

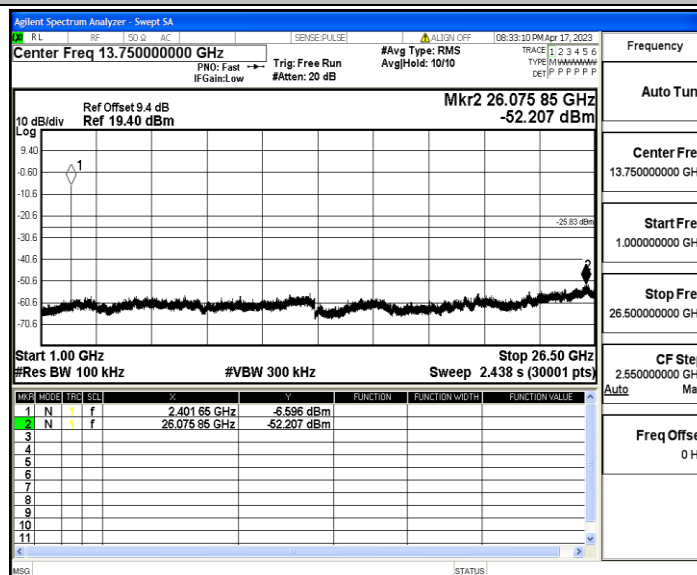
BLE_1M_Ant1_2402_0~Reference



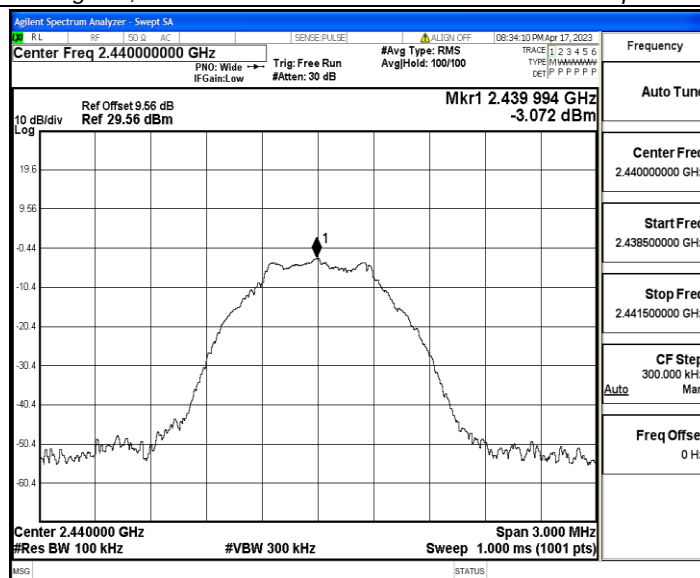
BLE_1M_Ant1_2402_30~1000



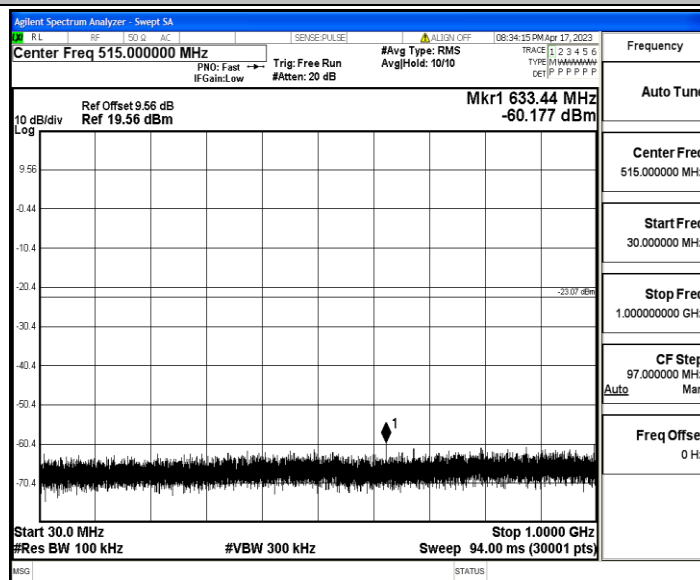
BLE_1M_Ant1_2402_1000~26500



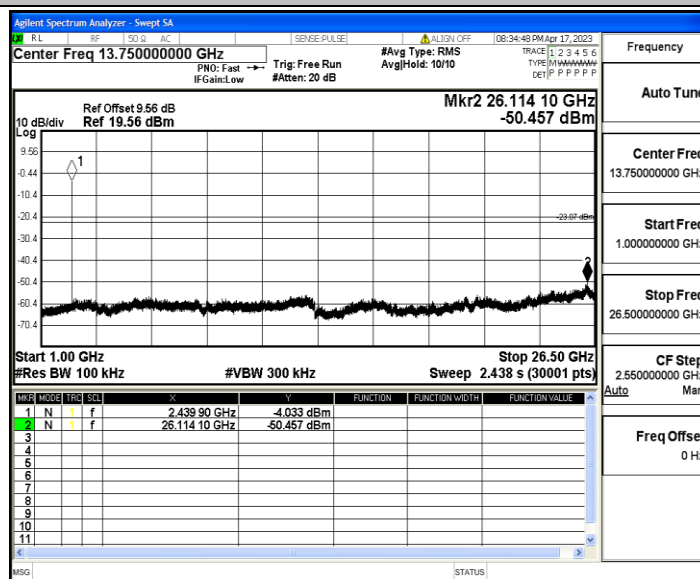
BLE_1M_Ant1_2440_0~Reference



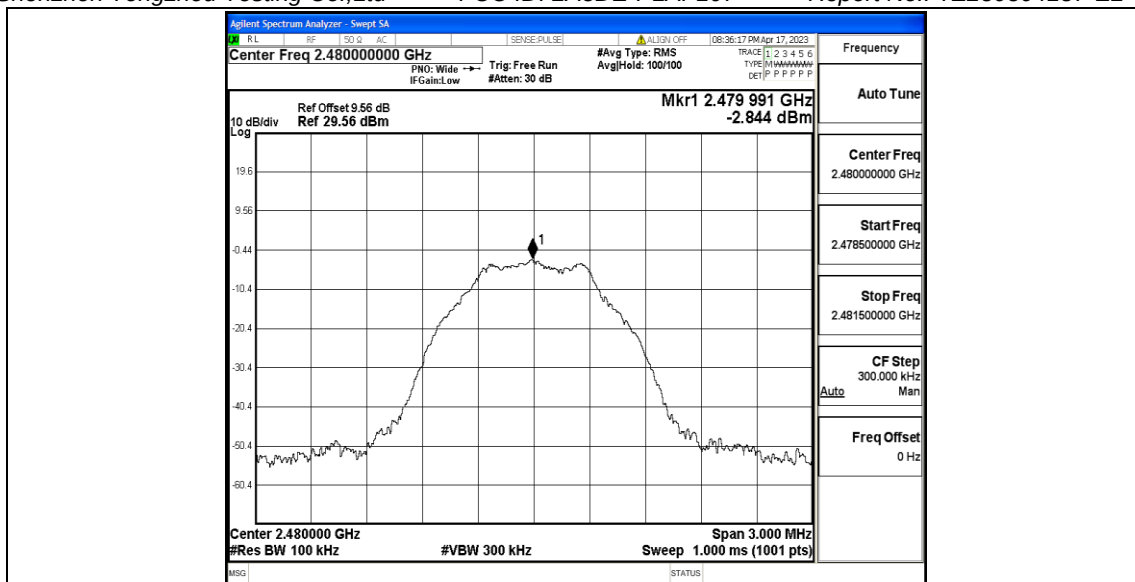
BLE_1M_Ant1_2440_30~1000



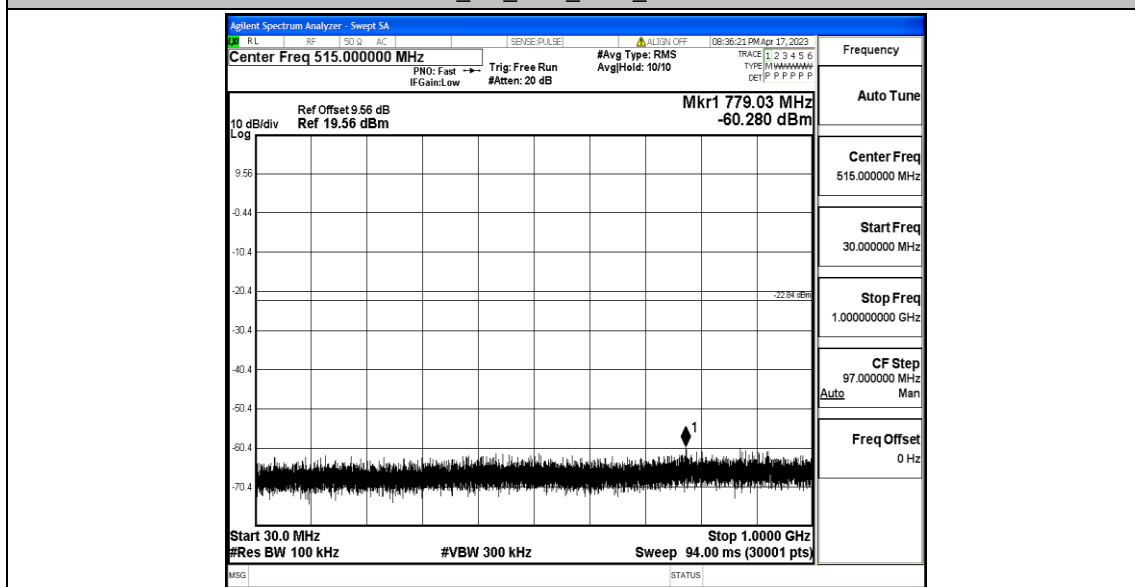
BLE_1M_Ant1_2440_1000~26500



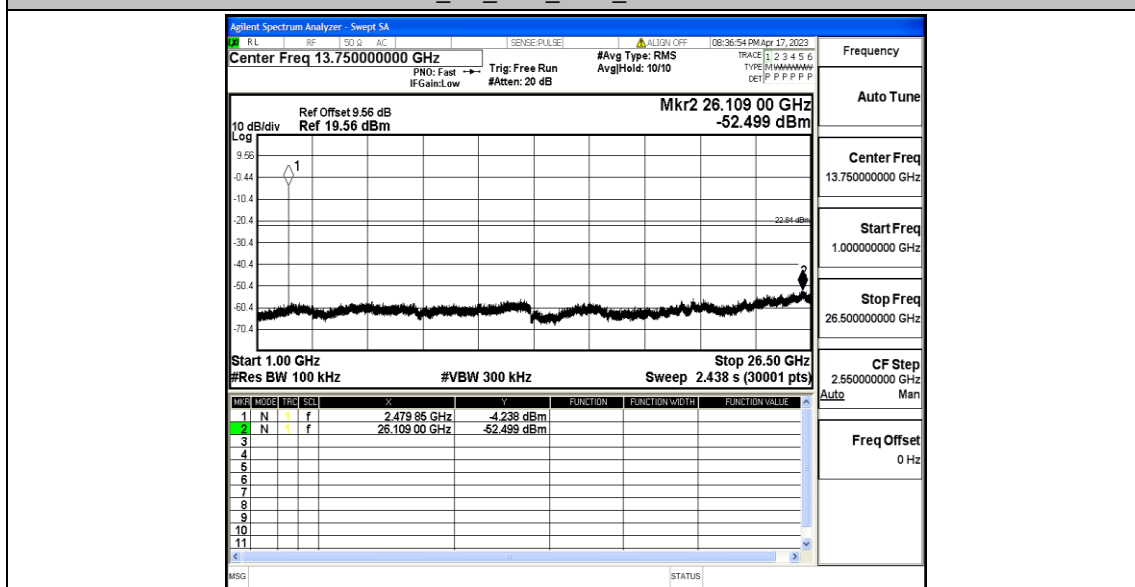
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

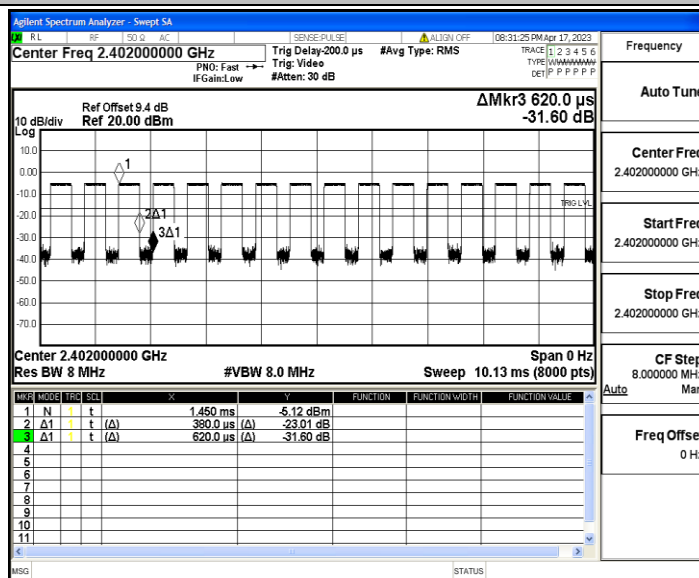


Appendix G: Duty Cycle

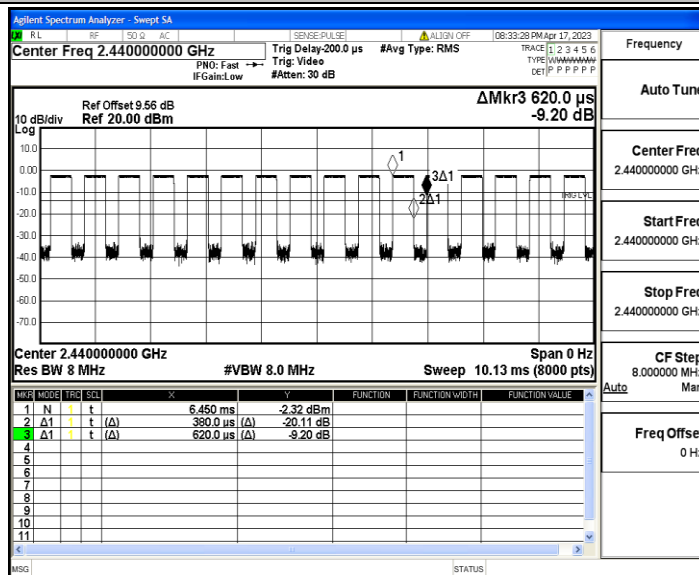
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.38	0.62	61.29	2.63
		2440	0.38	0.62	61.29	2.63
		2480	0.38	0.63	60.32	2.63

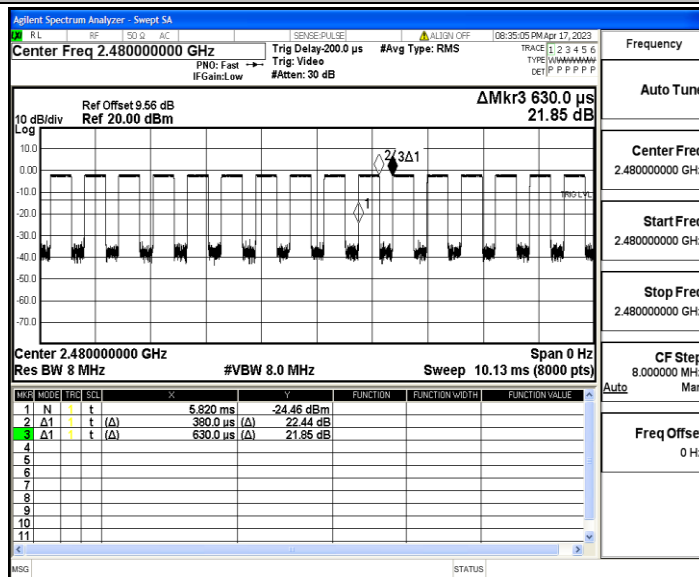
BLE 1M Ant1 2402



BLE 1M Ant1 2440



BLE 1M Ant1 2480



Appendix H: Emissions in Restricted Bands

Test Result

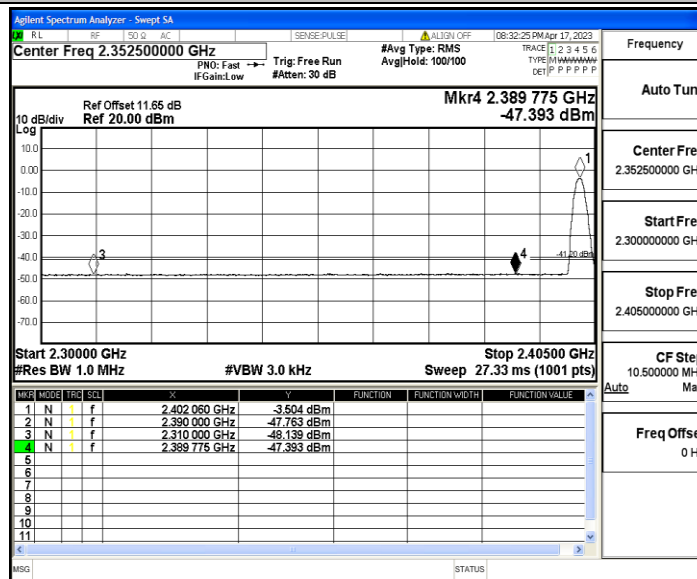
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.14	≤-41.20	PASS
				AV	2389.775	-47.39	≤-41.20	PASS
				AV	2390.000	-47.76	≤-41.20	PASS
				Peak	2310.000	-41.35	≤-21.20	PASS
				Peak	2357.750	-38.77	≤-21.20	PASS
				Peak	2390.000	-41.65	≤-21.20	PASS
		High	2480	AV	2483.500	-47.26	≤-41.20	PASS
				AV	2498.000	-46.63	≤-41.20	PASS
				AV	2500.000	-47.12	≤-41.20	PASS
				Peak	2483.500	-39.35	≤-21.20	PASS
				Peak	2494.400	-38.39	≤-21.20	PASS
				Peak	2500.000	-40.31	≤-21.20	PASS

Note:

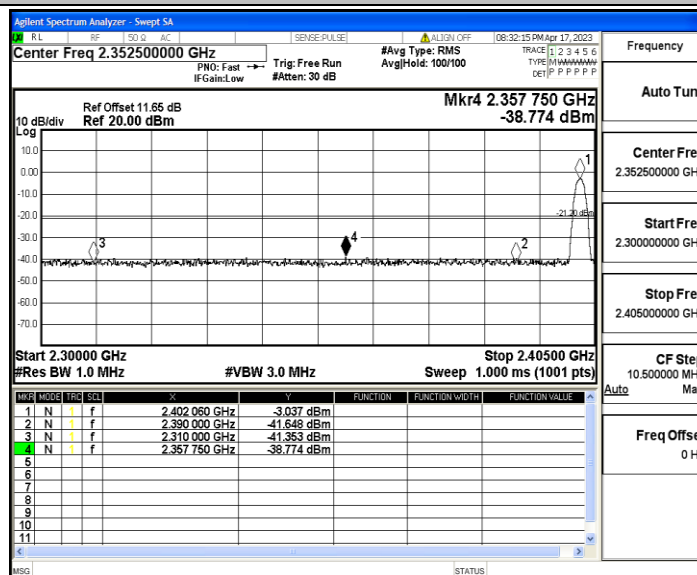
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

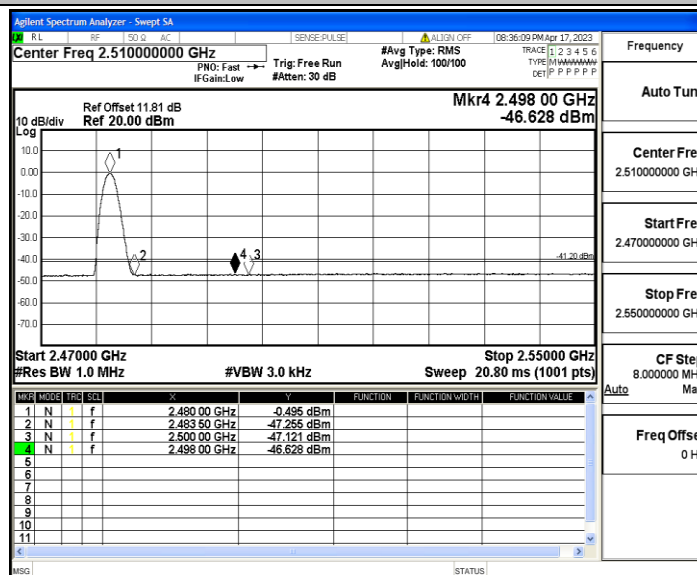
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

