

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

Product Name: Air WiFi Feeder

Trade Mark: PETLIBRO

Test Model: PLAF108

FCC ID: 2A3DE-PLAF108

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

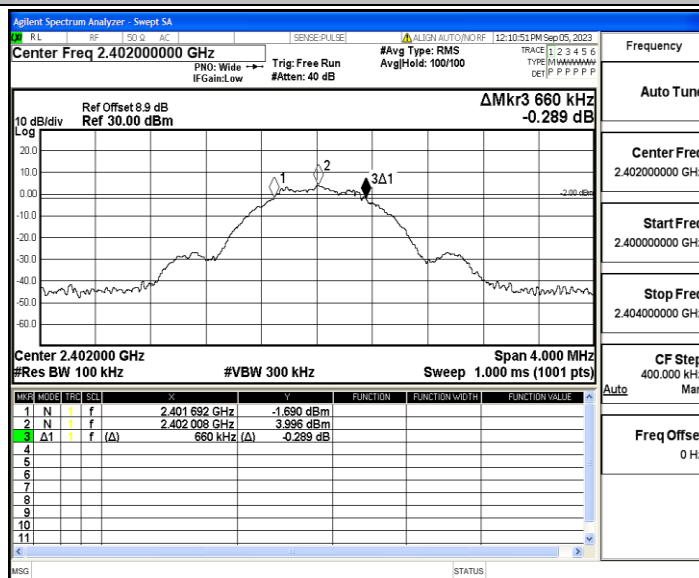
Appendix A: DTS Bandwidth

Test Result

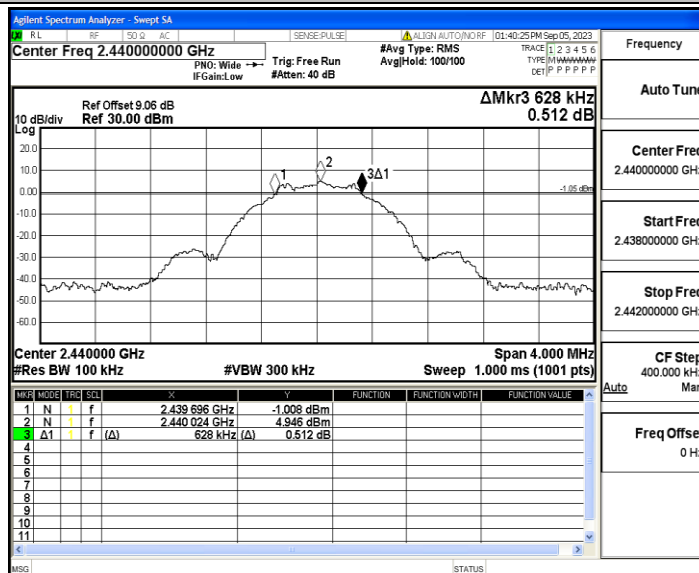
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.692	2402.352	0.5	PASS
		2440	0.628	2439.696	2440.324	0.5	PASS
		2480	0.640	2479.704	2480.344	0.5	PASS
BLE_2M	Ant1	2402	1.064	2401.472	2402.536	0.5	PASS
		2440	1.128	2439.464	2440.592	0.5	PASS
		2480	0.880	2479.480	2480.360	0.5	PASS

Test Graphs

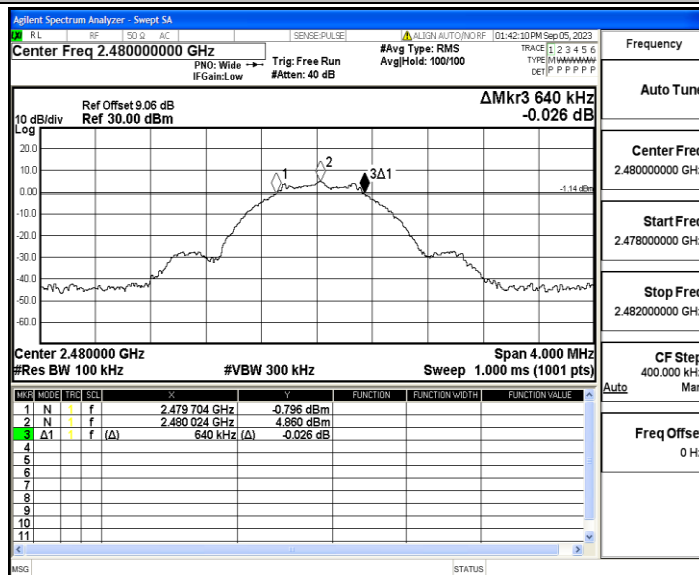
BLE_1M_Ant1_2402



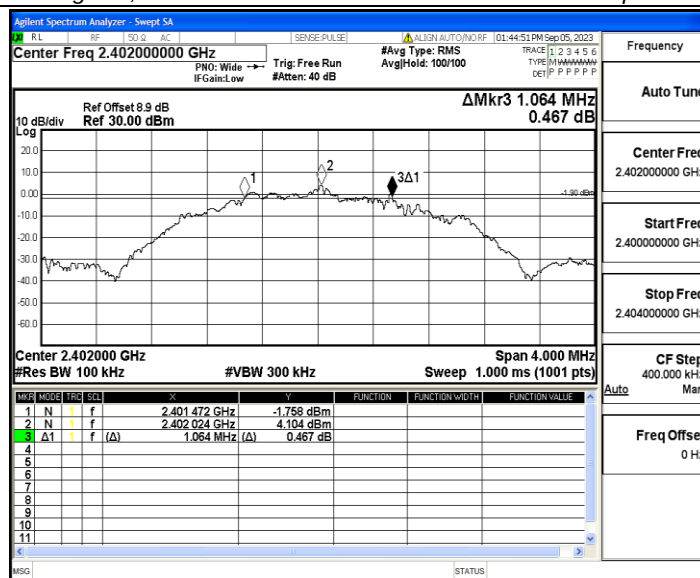
BLE_1M_Ant1_2440



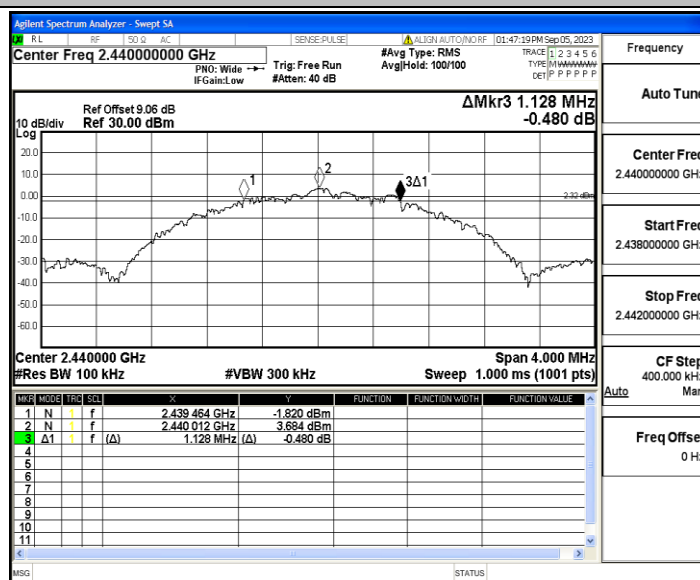
BLE_1M_Ant1_2480



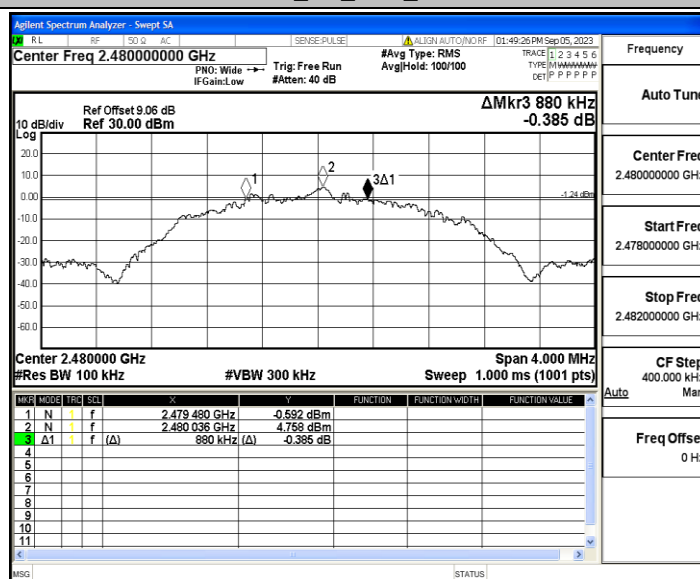
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



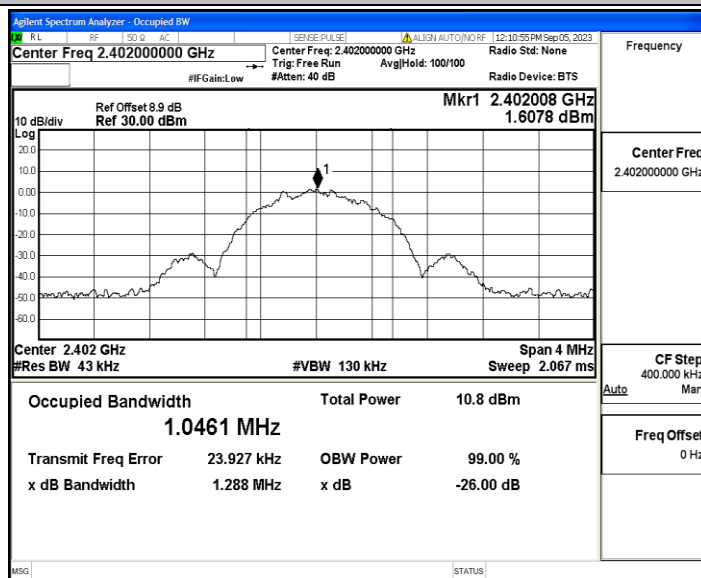
Appendix B: Occupied Channel Bandwidth

Test Result

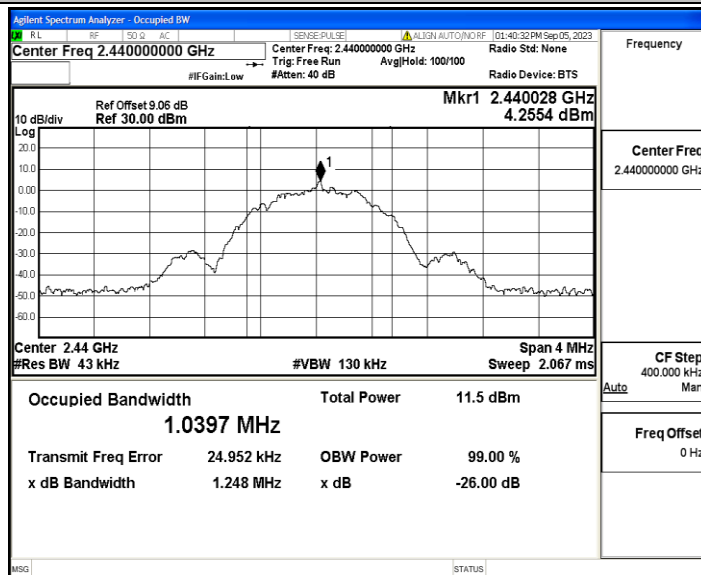
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0461	2401.5009	2402.5470	---	---
		2440	1.0397	2439.5051	2440.5448	---	---
		2480	1.0291	2479.5105	2480.5396	---	---
BLE_2M	Ant1	2402	2.0549	2401.0169	2403.0718	---	---
		2440	2.0648	2439.0078	2441.0726	---	---
		2480	2.0647	2479.0179	2481.0826	---	---

Test Graphs

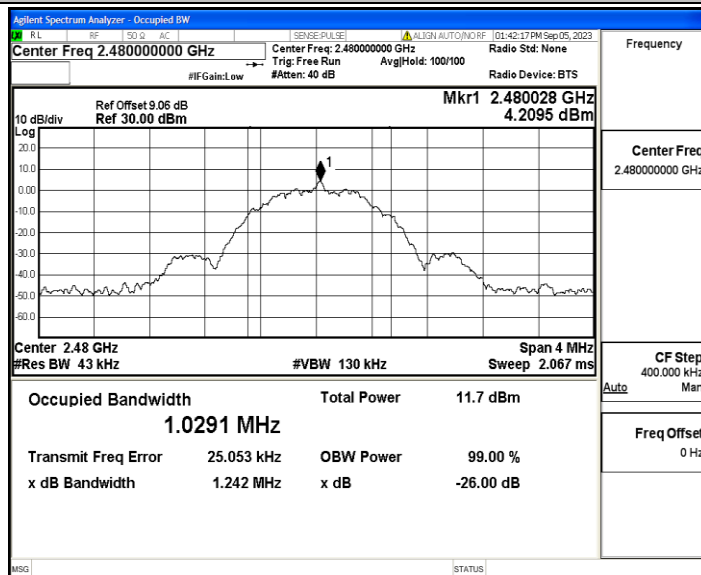
BLE_1M_Ant1_2402



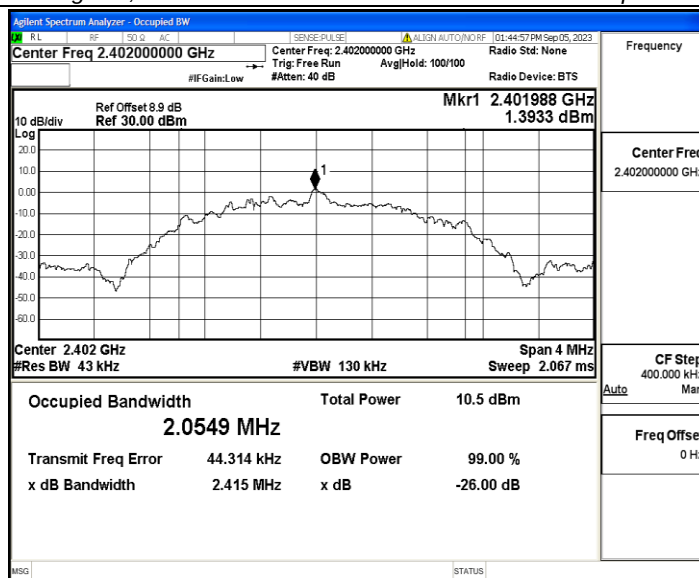
BLE_1M_Ant1_2440



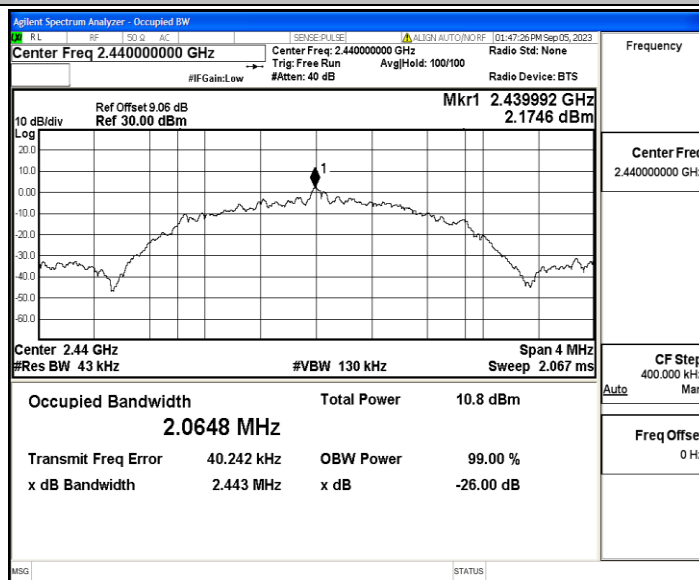
BLE_1M_Ant1_2480



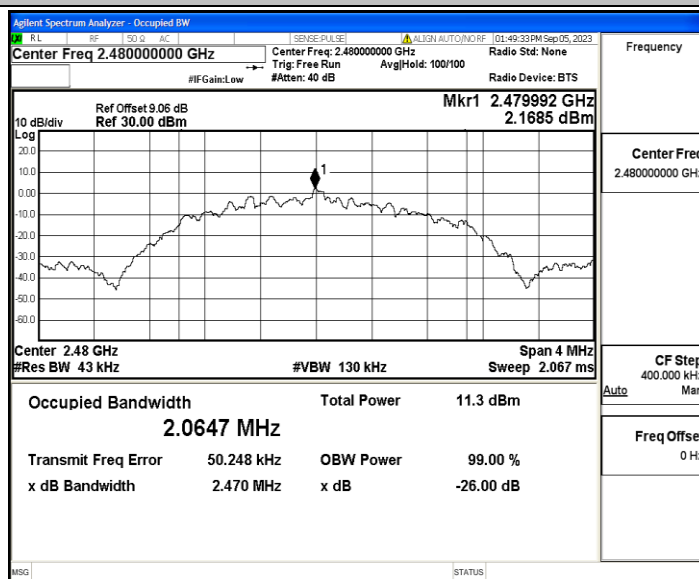
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



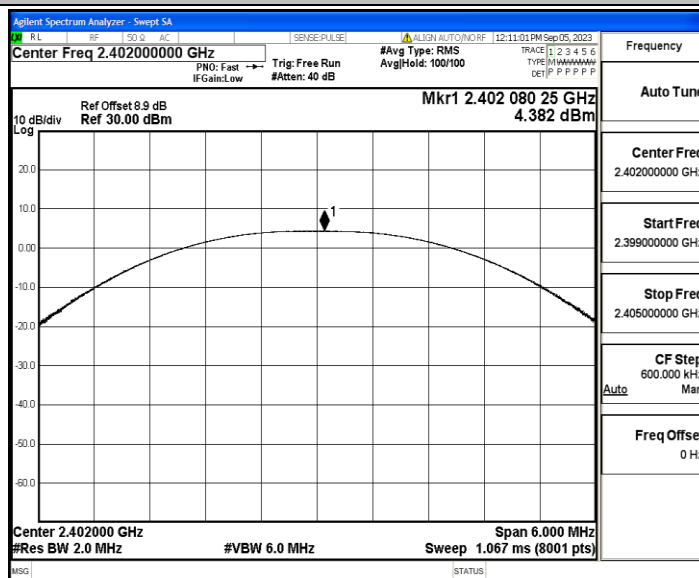
Appendix C: Maximum Peak conducted output power

Test Result

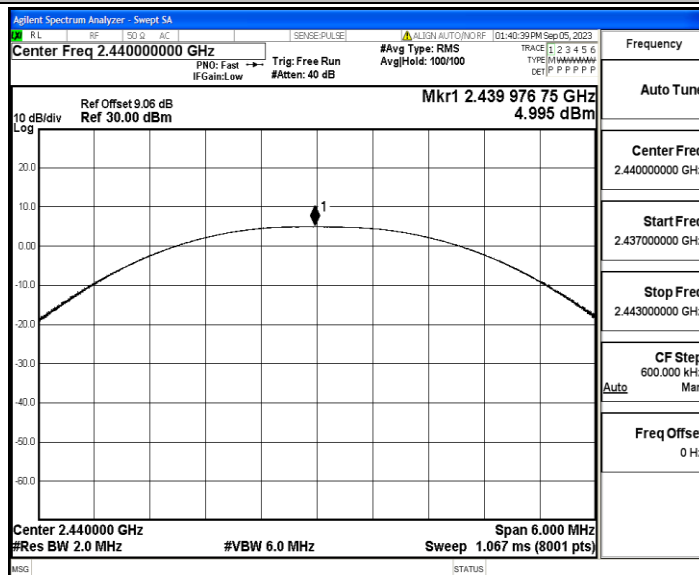
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	4.38	≤30	PASS
		2440	5.0	≤30	PASS
		2480	5.03	≤30	PASS
BLE_2M	Ant1	2402	4.5	≤30	PASS
		2440	5.06	≤30	PASS
		2480	5.18	≤30	PASS

Test Graphs

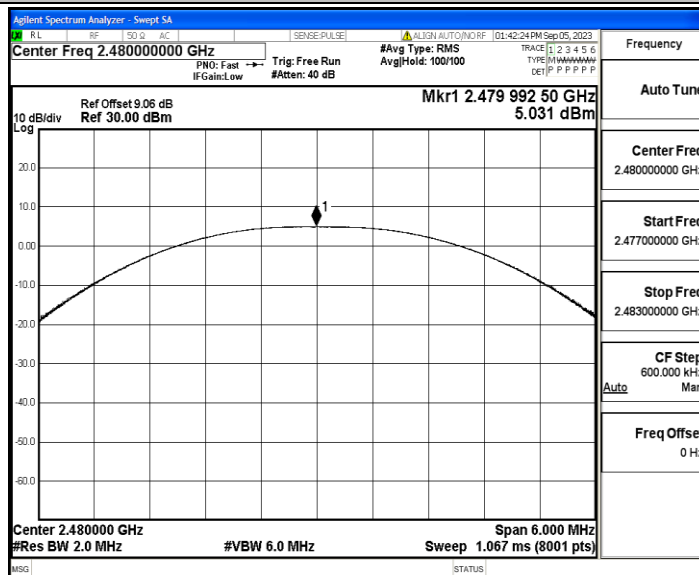
BLE_1M_Ant1_2402



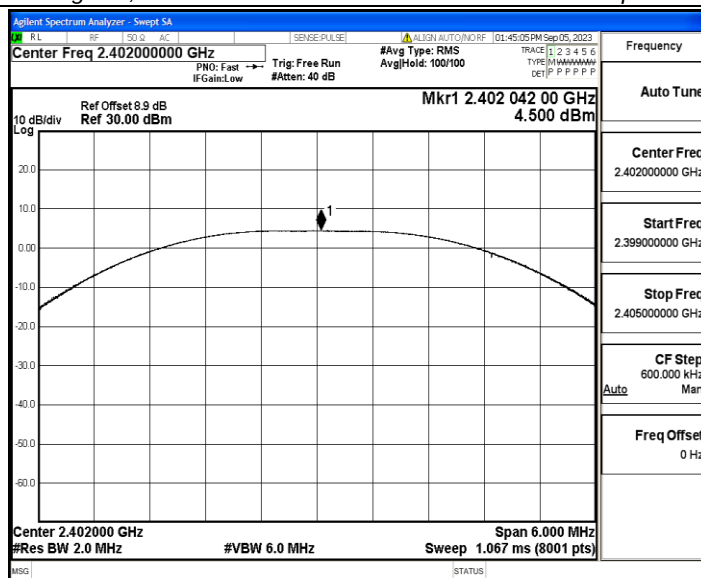
BLE_1M_Ant1_2440



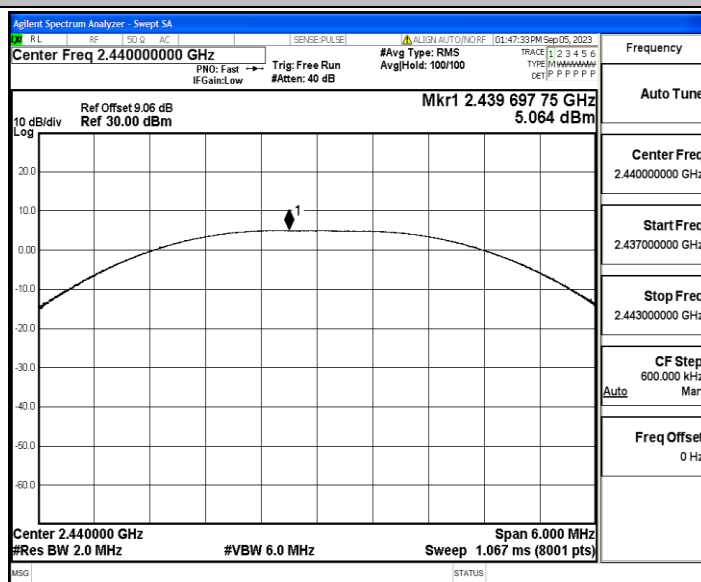
BLE_1M_Ant1_2480



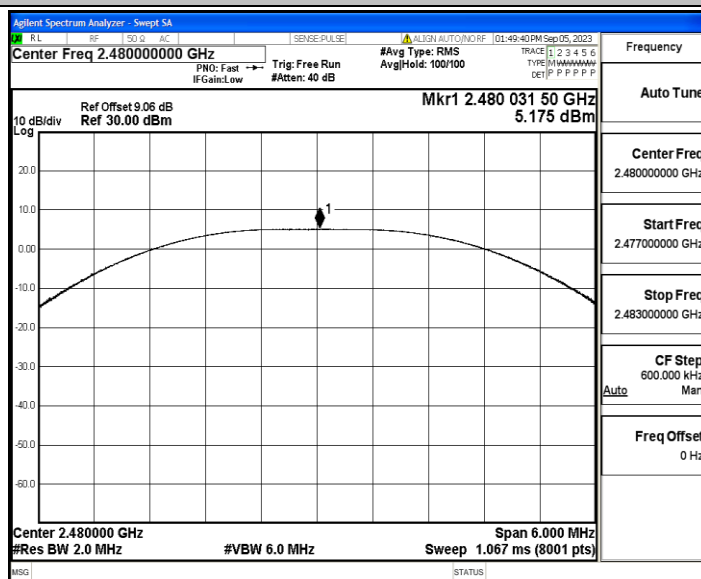
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



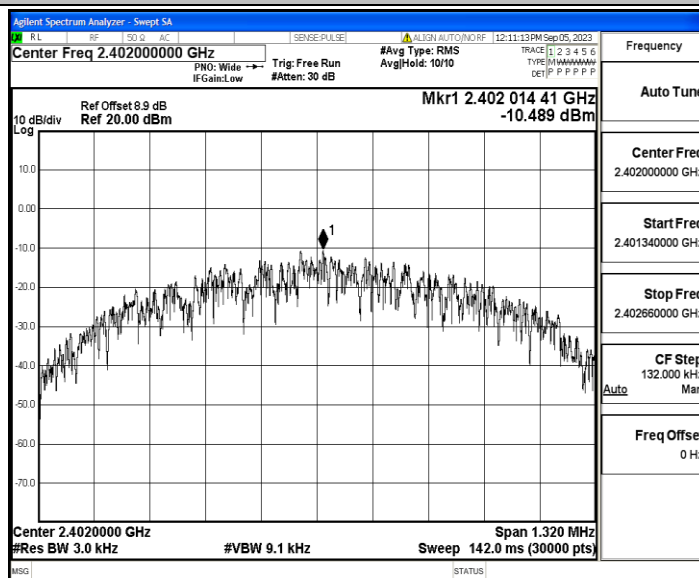
Appendix D: Maximum power spectral density

Test Result

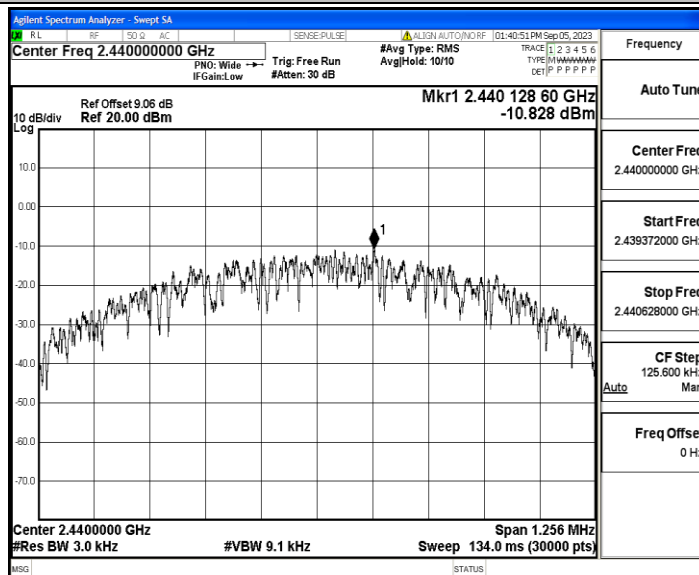
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-10.49	≤8.00	PASS
		2440	-10.83	≤8.00	PASS
		2480	-10.8	≤8.00	PASS
BLE_2M	Ant1	2402	-13.32	≤8.00	PASS
		2440	-13.35	≤8.00	PASS
		2480	-12.68	≤8.00	PASS

Test Graphs

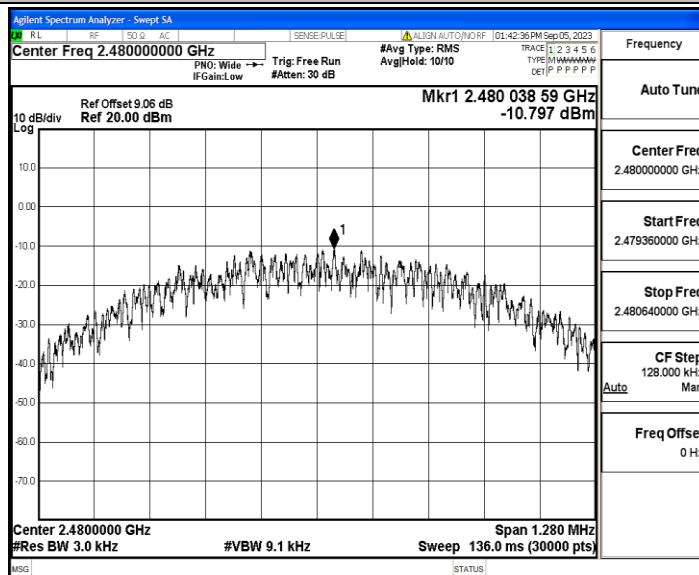
BLE_1M_Ant1_2402



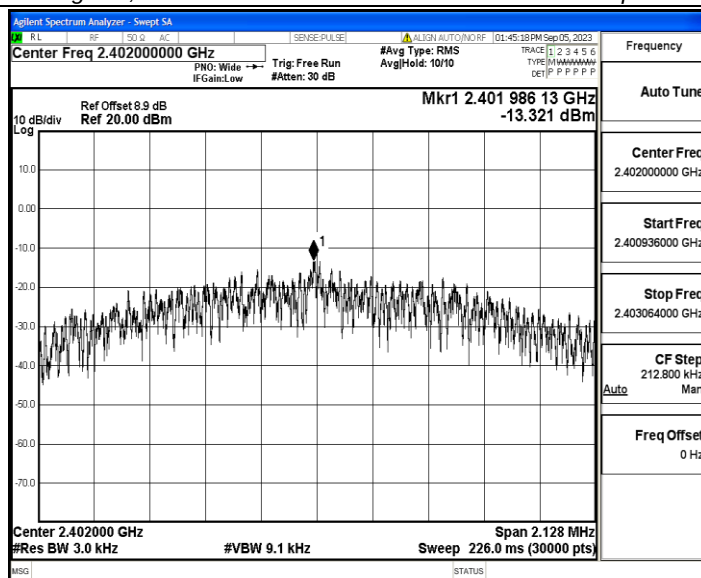
BLE_1M_Ant1_2440



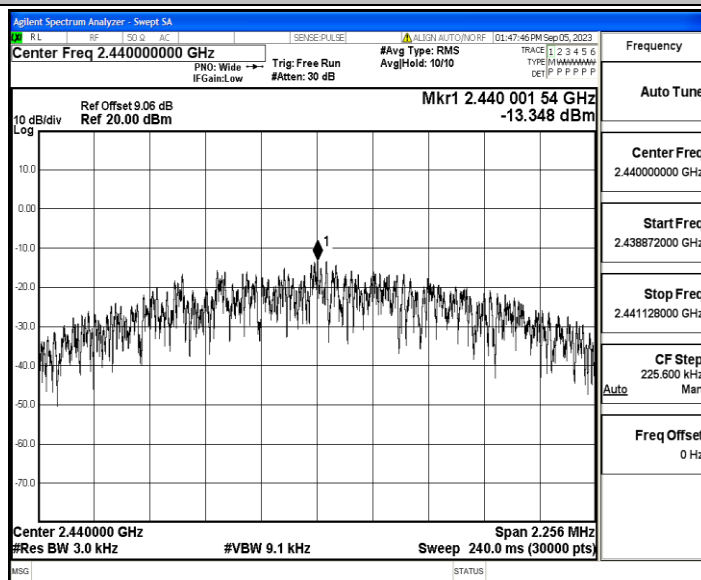
BLE_1M_Ant1_2480



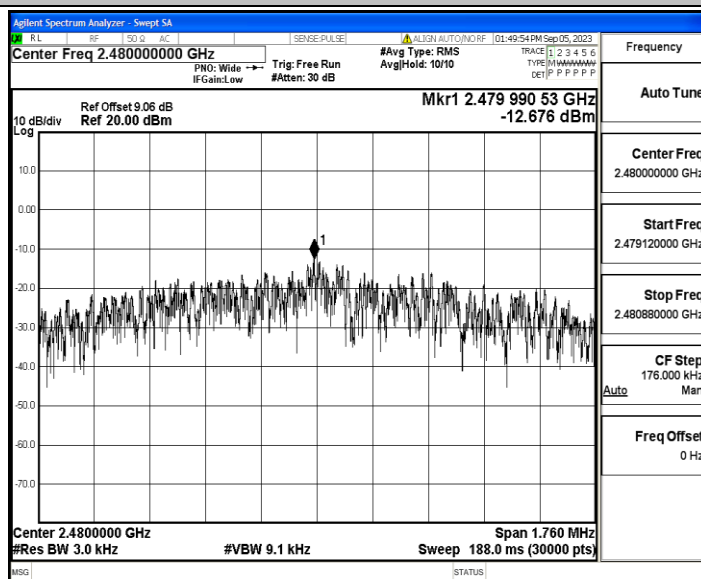
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



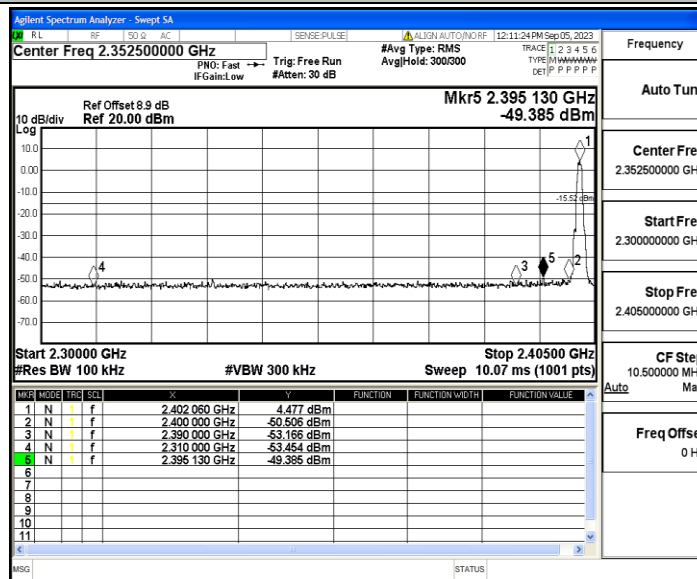
Appendix E: Band edge measurements

Test Result

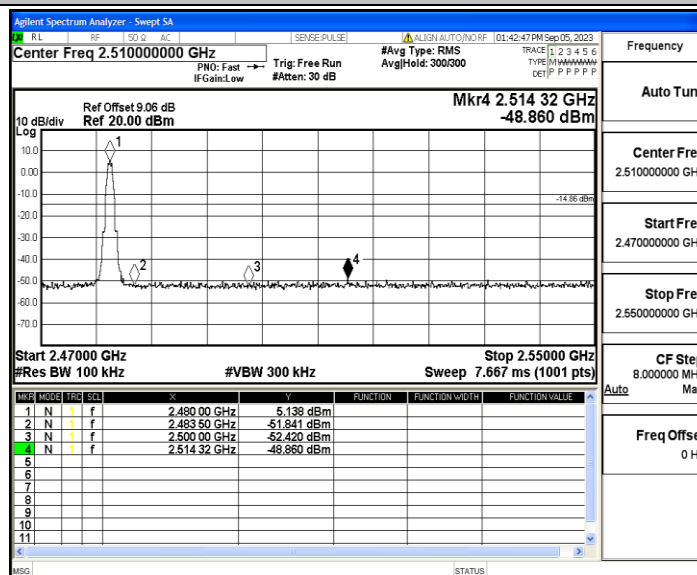
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	4.48	-49.39	≤-15.52	PASS
		High	2480	5.14	-48.86	≤-14.86	PASS
BLE_2M	Ant1	Low	2402	3.88	-29.11	≤-16.13	PASS
		High	2480	4.60	-48.51	≤-15.41	PASS

Test Graphs

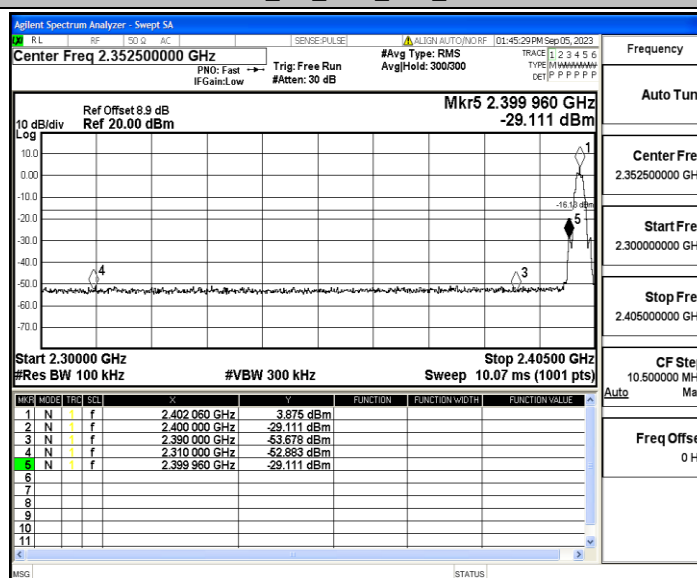
BLE_1M_Ant1_Low_2402



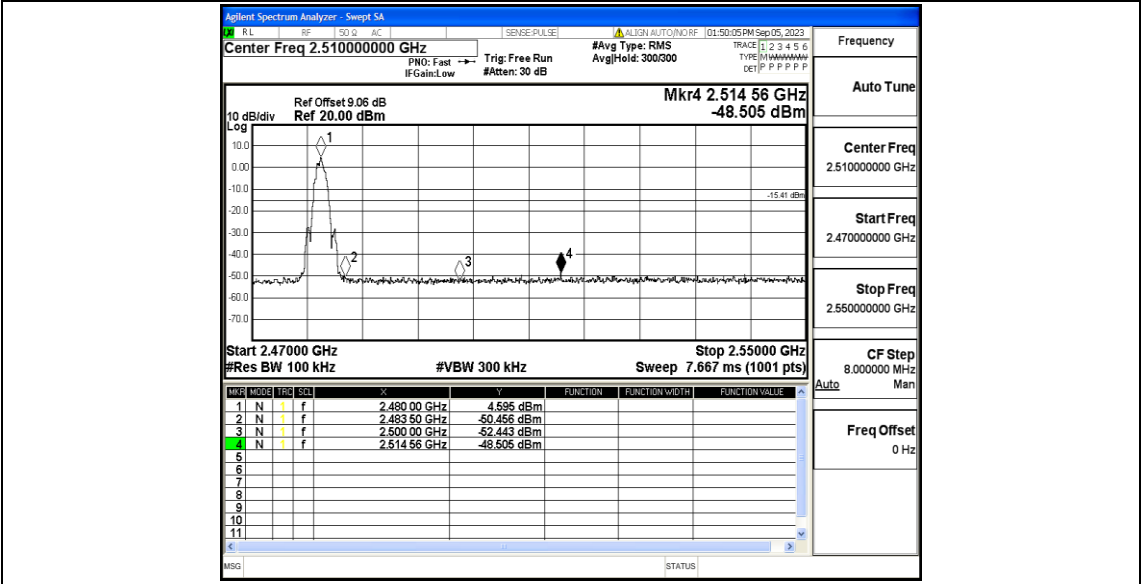
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480



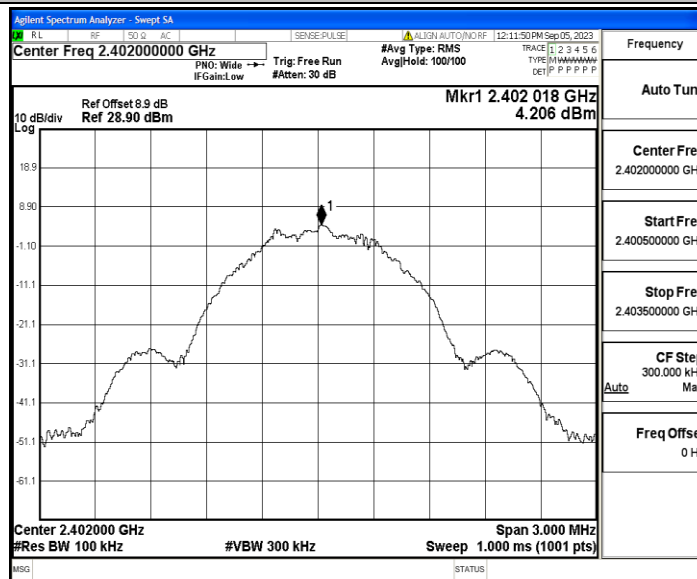
Appendix F: Conducted Spurious Emission

Test Result

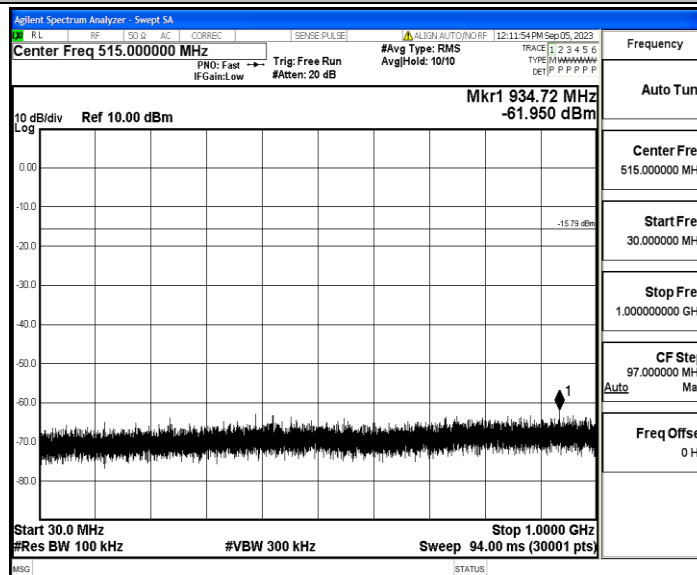
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	4.21	4.21	---	PASS
			30~1000	4.21	-61.95	≤-15.79	PASS
			1000~26500	4.21	-49.23	≤-15.79	PASS
		2440	Reference	4.35	4.35	---	PASS
			30~1000	4.35	-61.93	≤-15.65	PASS
			1000~26500	4.35	-49.62	≤-15.65	PASS
		2480	Reference	4.91	4.91	---	PASS
			30~1000	4.91	-62.51	≤-15.09	PASS
			1000~26500	4.91	-49.82	≤-15.09	PASS
BLE_2M	Ant1	2402	Reference	4.13	4.13	---	PASS
			30~1000	4.13	-62.72	≤-15.87	PASS
			1000~26500	4.13	-49.89	≤-15.87	PASS
		2440	Reference	3.58	3.58	---	PASS
			30~1000	3.58	-62.96	≤-16.42	PASS
			1000~26500	3.58	-49.97	≤-16.42	PASS
		2480	Reference	4.83	4.83	---	PASS
			30~1000	4.83	-60.96	≤-15.17	PASS
			1000~26500	4.83	-49.56	≤-15.17	PASS

Test Graphs

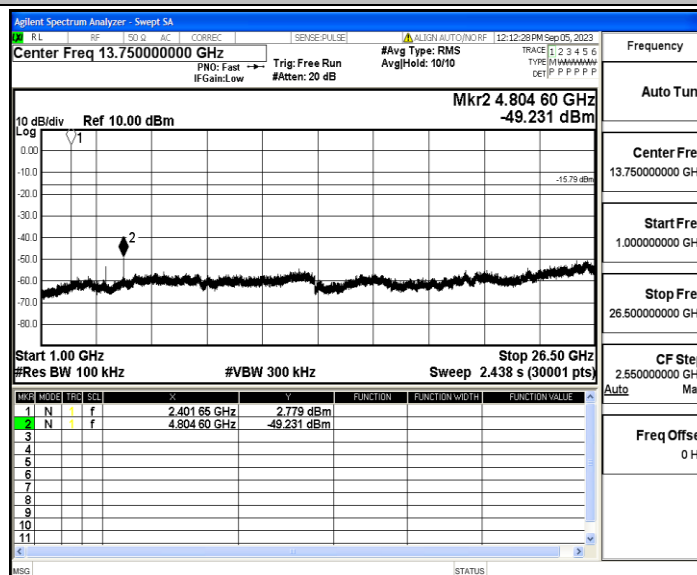
BLE_1M_Ant1_2402_0~Reference



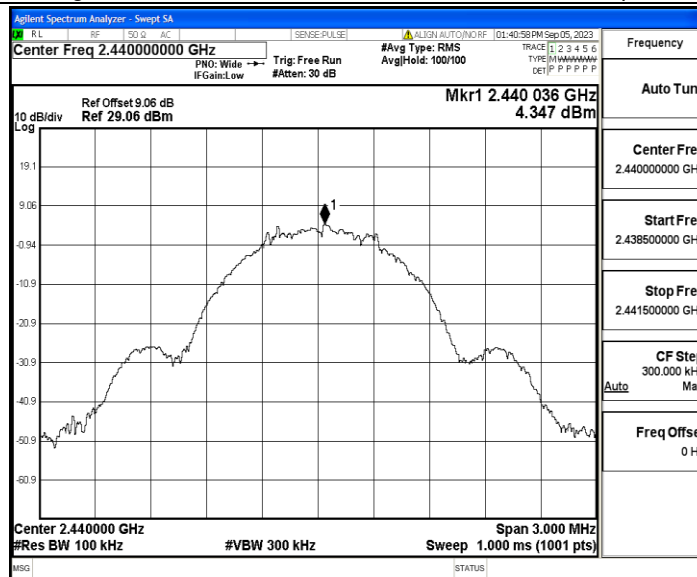
BLE_1M_Ant1_2402_30~1000



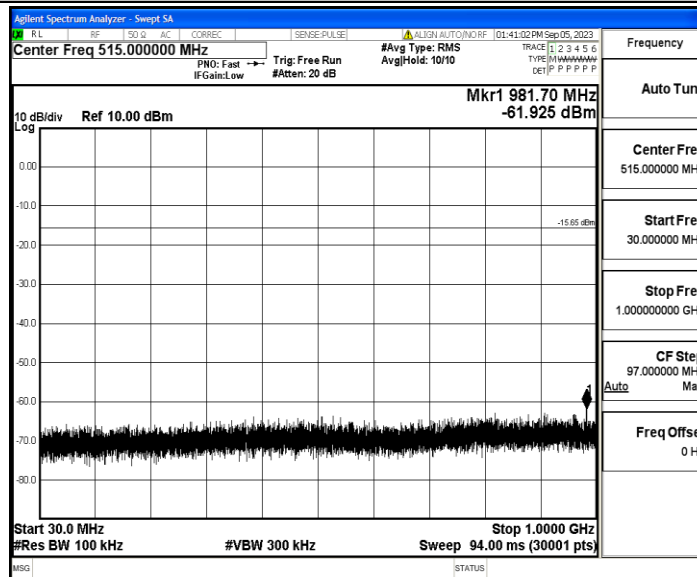
BLE_1M_Ant1_2402_1000~26500



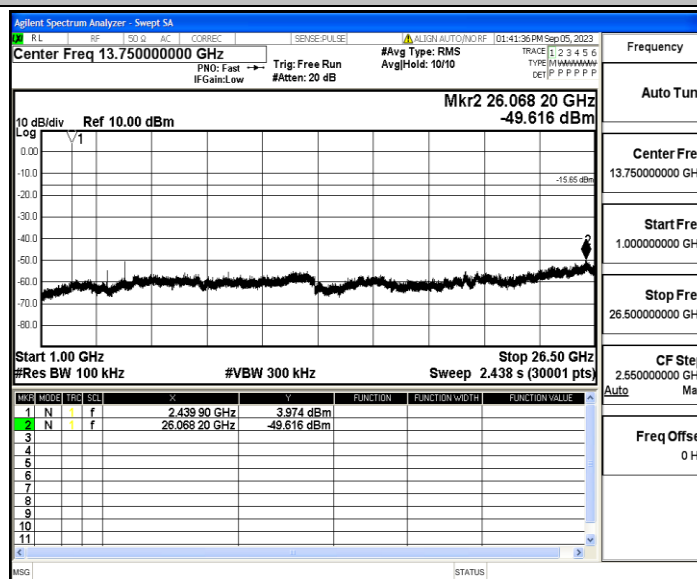
BLE_1M_Ant1_2440_0~Reference



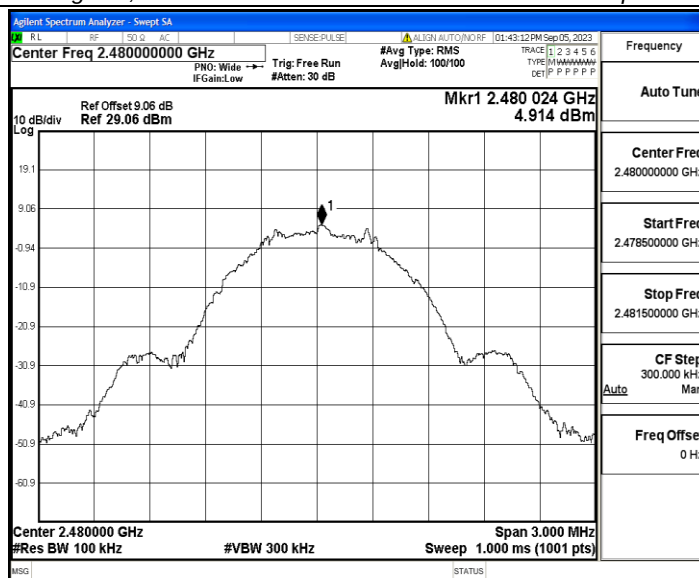
BLE_1M_Ant1_2440_30~1000



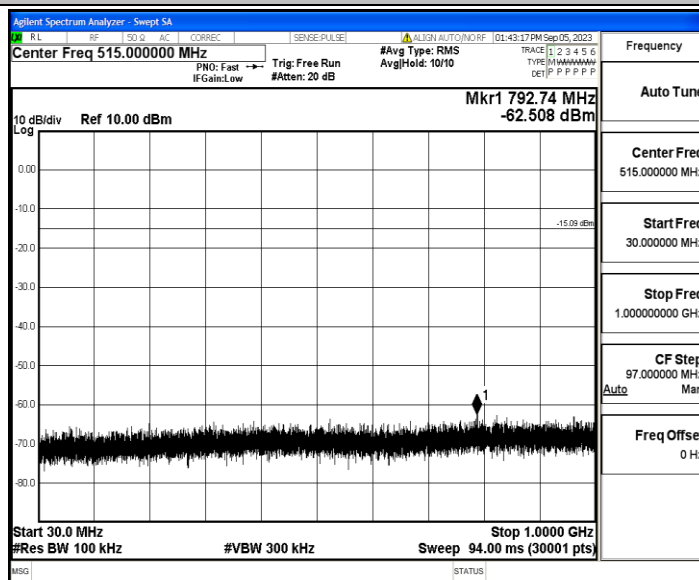
BLE_1M_Ant1_2440_1000~26500



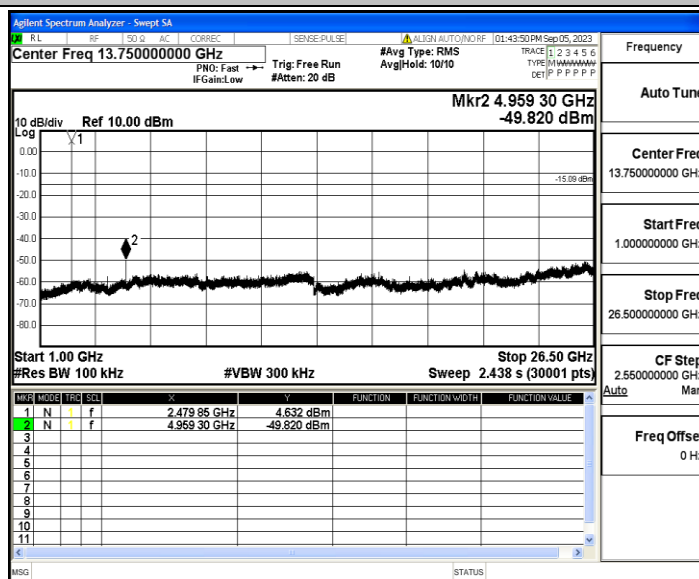
BLE_1M_Ant1_2480_0~Reference



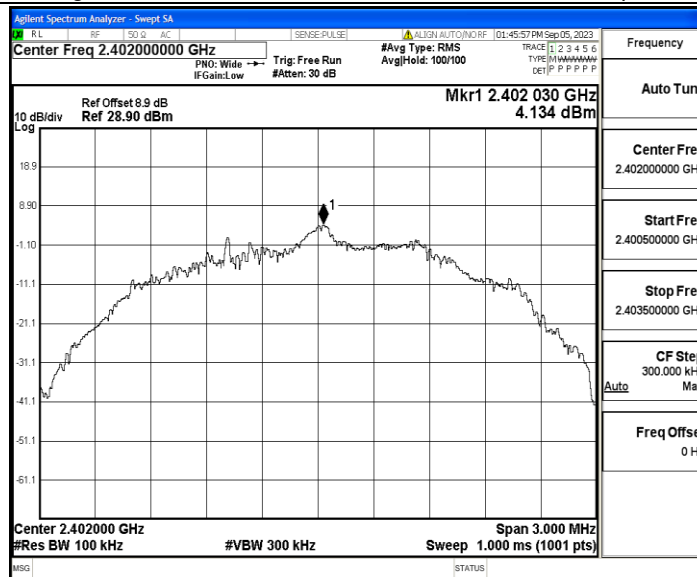
BLE_1M_Ant1_2480_30~1000



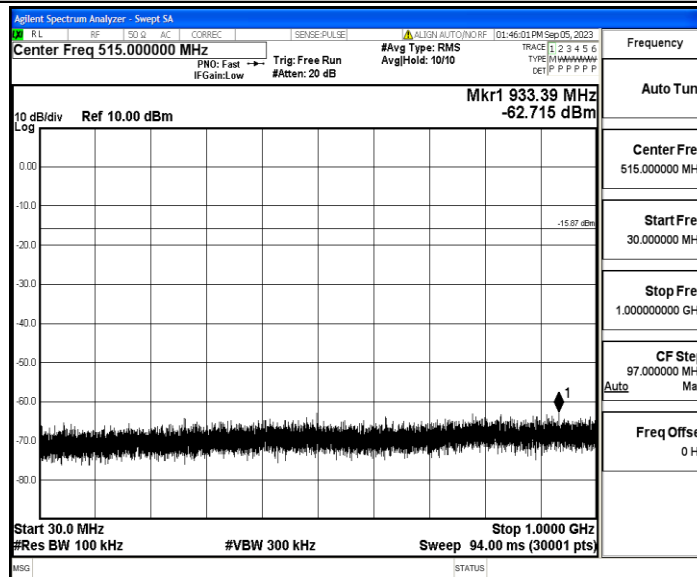
BLE_1M_Ant1_2480_1000~26500



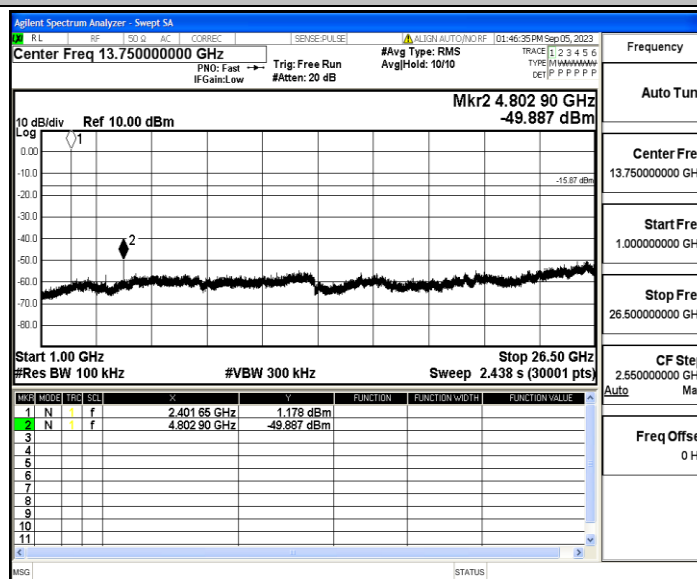
BLE_2M_Ant1_2402_0~Reference



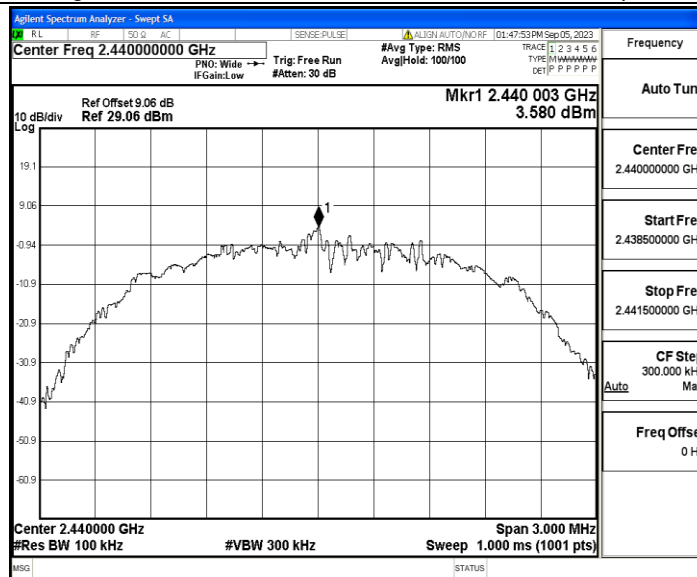
BLE_2M_Ant1_2402_30~1000



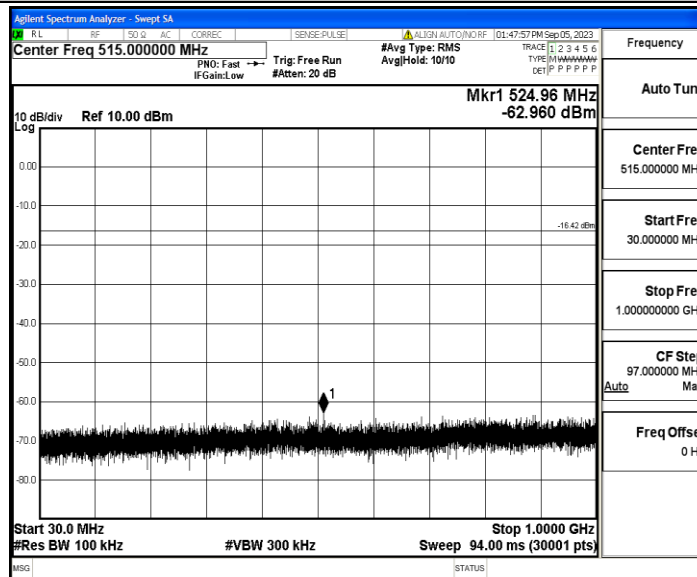
BLE_2M_Ant1_2402_1000~26500



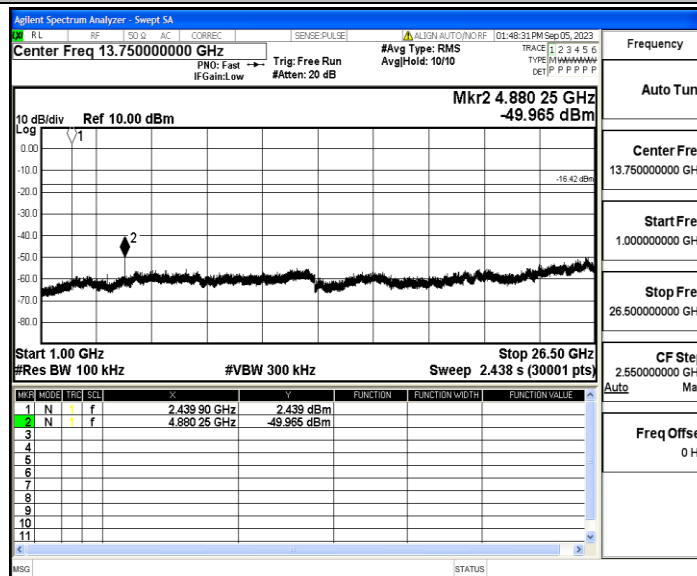
BLE_2M_Ant1_2440_0~Reference



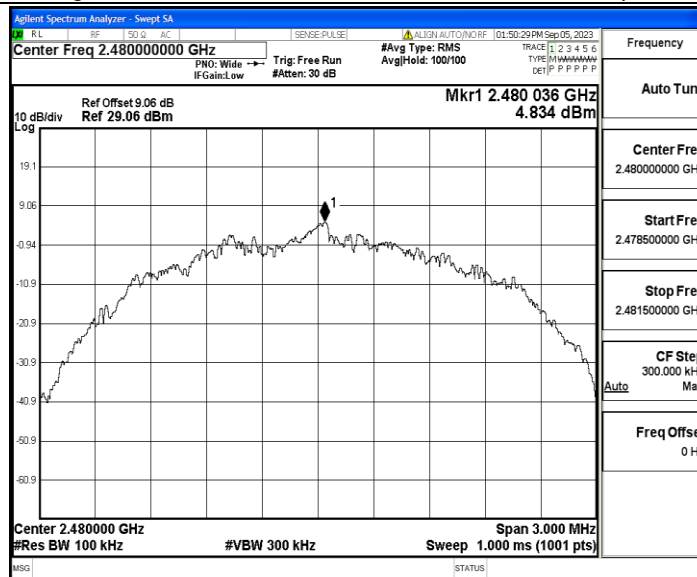
BLE_2M_Ant1_2440_30~1000



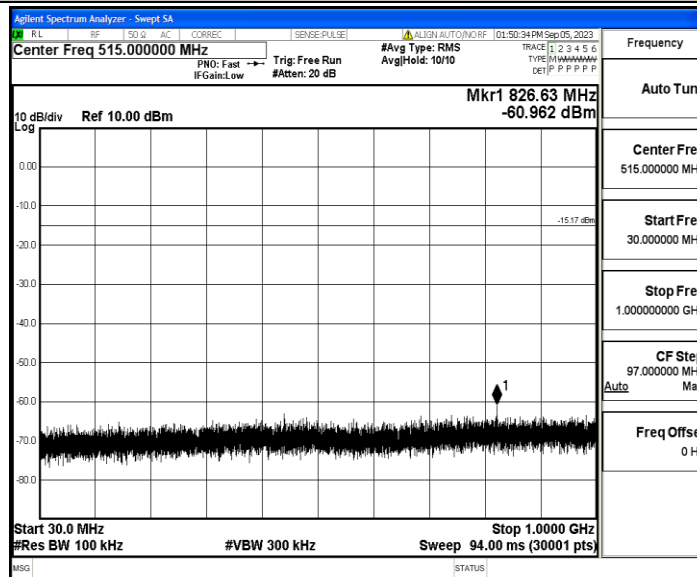
BLE_2M_Ant1_2440_1000~26500



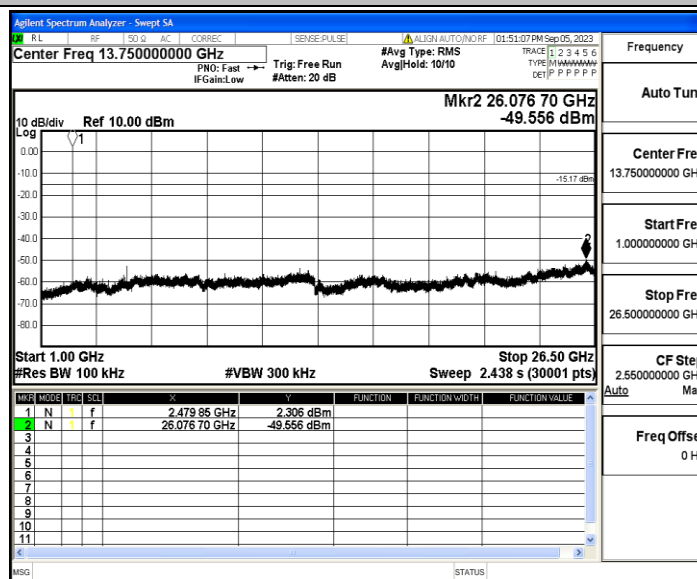
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



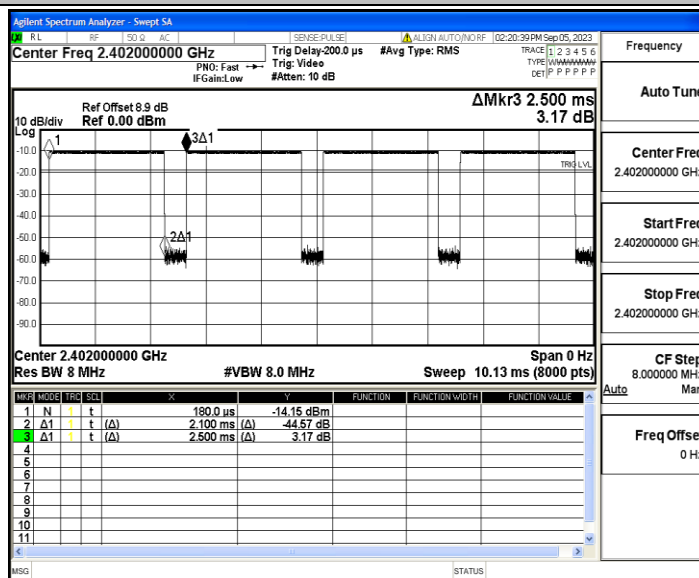
Appendix G: Duty Cycle

Test Result

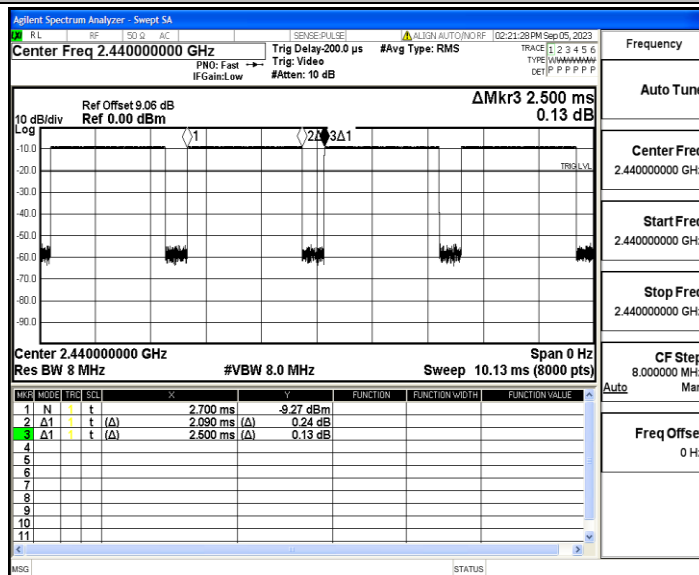
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	2.10	2.50	84.00	0.48
		2440	2.09	2.50	83.60	0.48
		2480	2.10	2.50	84.00	0.48
BLE_2M	Ant1	2402	1.06	1.87	56.68	0.94
		2440	1.06	1.88	56.38	0.94
		2480	1.06	1.87	56.68	0.94

Test Graphs

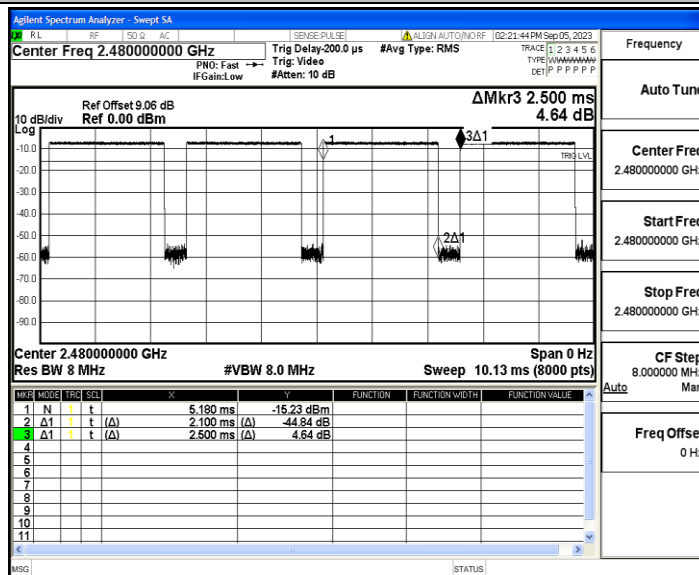
BLE_1M_Ant1_2402



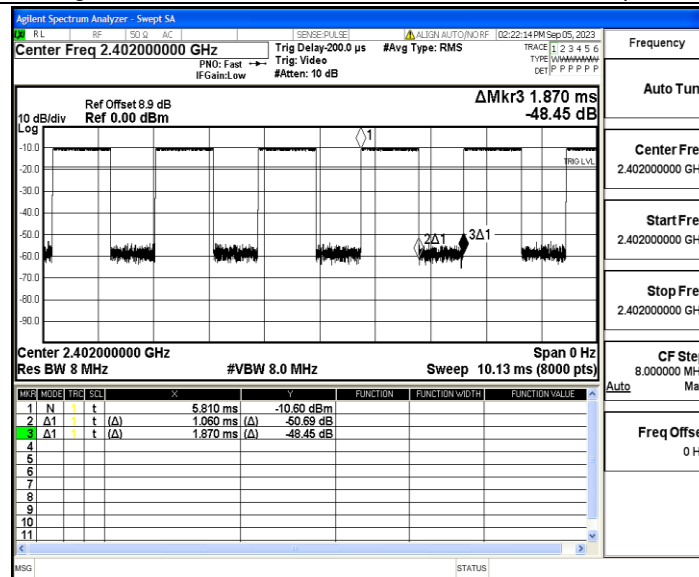
BLE_1M_Ant1_2440



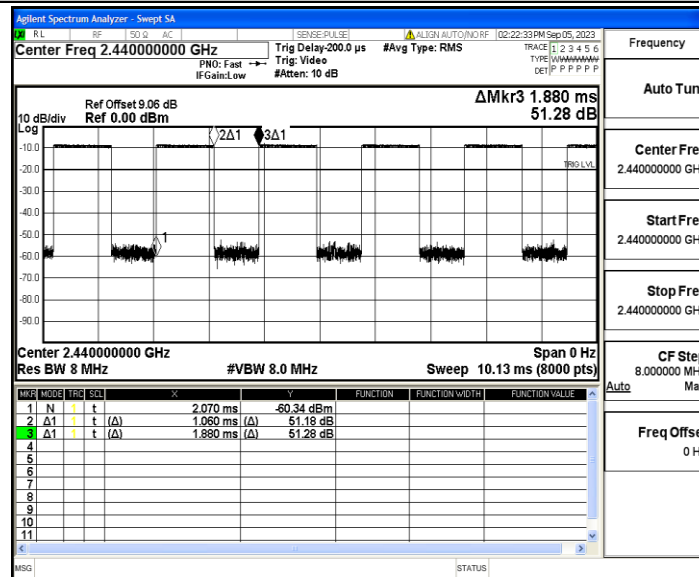
BLE_1M_Ant1_2480



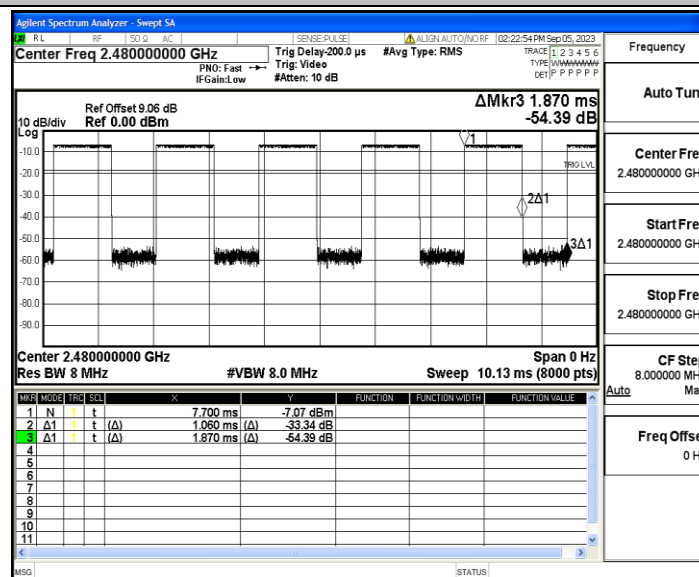
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



Appendix H: Emissions in Restricted Bands

Test Result

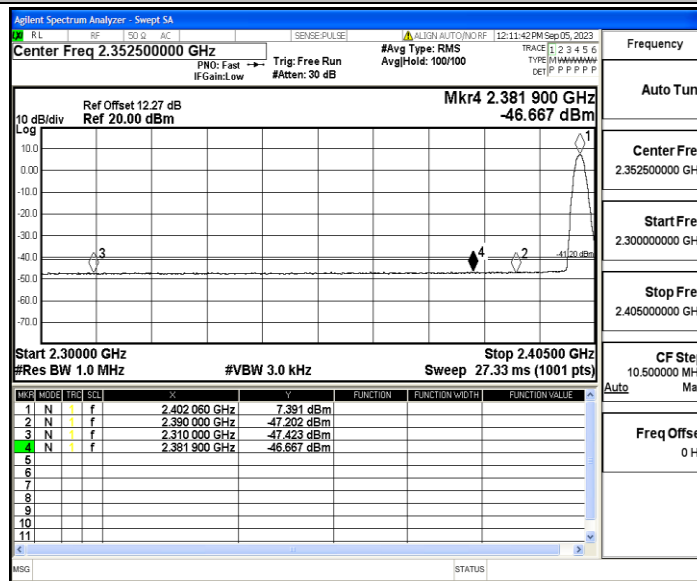
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-47.42	≤-41.20	PASS
				AV	2381.900	-46.67	≤-41.20	PASS
				AV	2390.000	-47.2	≤-41.20	PASS
				Peak	2310.000	-39.81	≤-21.20	PASS
				Peak	2362.265	-38.01	≤-21.20	PASS
				Peak	2390.000	-39.66	≤-21.20	PASS
		High	2480	AV	2483.500	-44.44	≤-41.20	PASS
				AV	2483.520	-44.44	≤-41.20	PASS
				AV	2500.000	-46.48	≤-41.20	PASS
				Peak	2483.500	-39.96	≤-21.20	PASS
				Peak	2498.000	-37.43	≤-21.20	PASS
				Peak	2500.000	-38.64	≤-21.20	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-47.08	≤-41.20	PASS
				AV	2386.835	-46.16	≤-41.20	PASS
				AV	2390.000	-46.82	≤-41.20	PASS
				Peak	2310.000	-41.36	≤-21.20	PASS
				Peak	2374.445	-38.2	≤-21.20	PASS
				Peak	2390.000	-40.25	≤-21.20	PASS
		High	2480	AV	2483.500	-42.19	≤-41.20	PASS
				AV	2483.520	-42.19	≤-41.20	PASS
				AV	2500.000	-46.14	≤-41.20	PASS
				Peak	2483.500	-37.45	≤-21.20	PASS
				Peak	2492.480	-36.5	≤-21.20	PASS
				Peak	2500.000	-39.95	≤-21.20	PASS

Note:

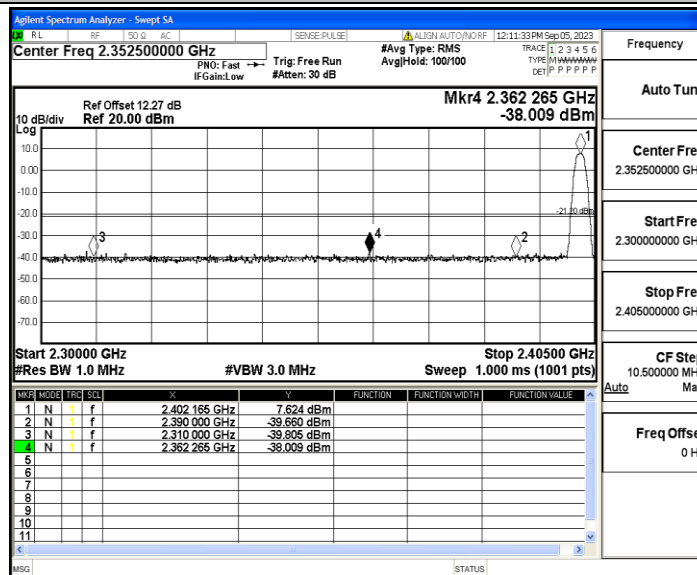
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

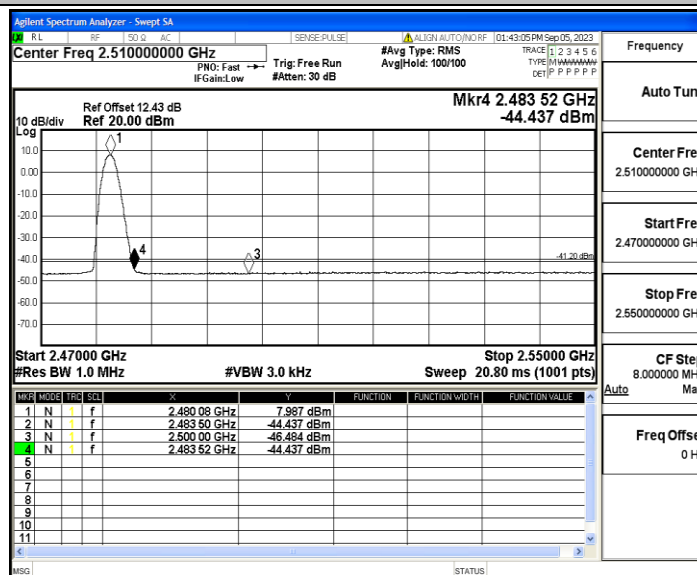
BLE_1M_Ant1_Low_2402_AV



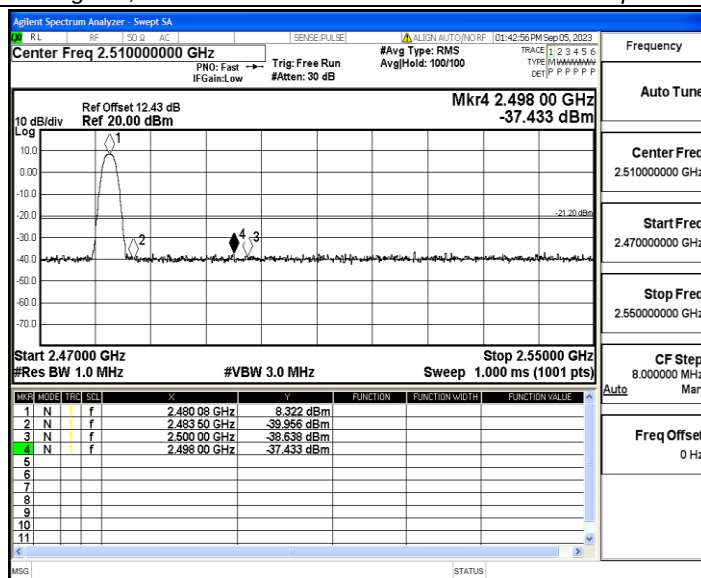
BLE_1M_Ant1_Low_2402_Peak



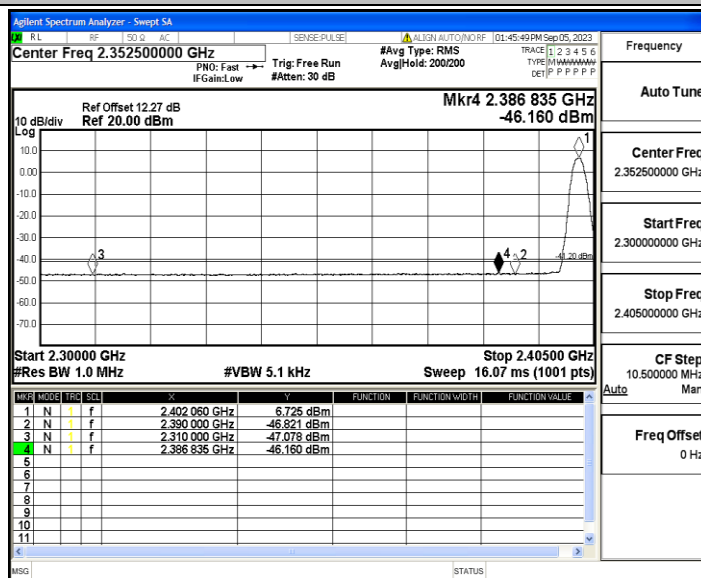
BLE_1M_Ant1_High_2480_AV



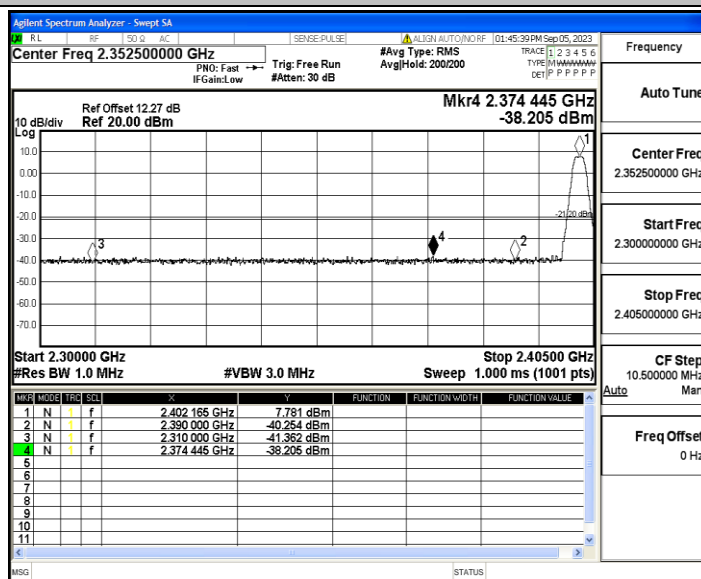
BLE_1M_Ant1_High_2480_Peak



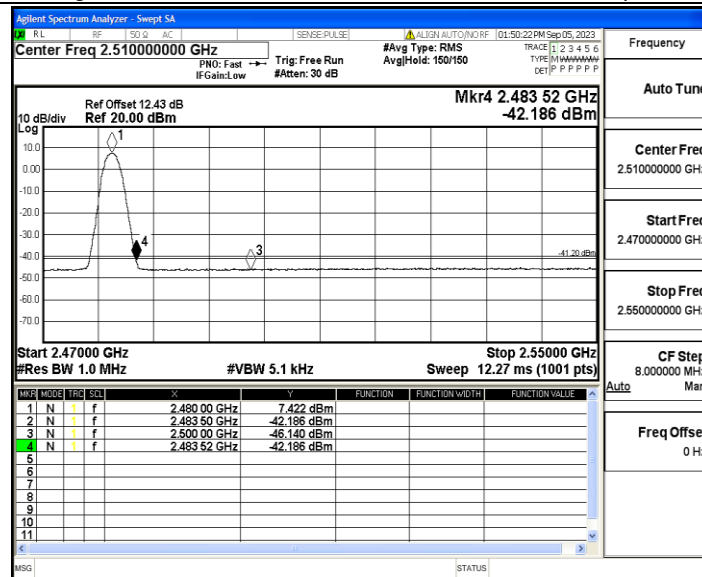
BLE_2M_Ant1_Low_2402_AV



BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak

