

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

Product Name: Granary Automatic Pet Feeder-WiFi Control

Trade Mark: PETLIBRO

Test Model: PLAF103

FCC ID: 2A3DEPLAF103S

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

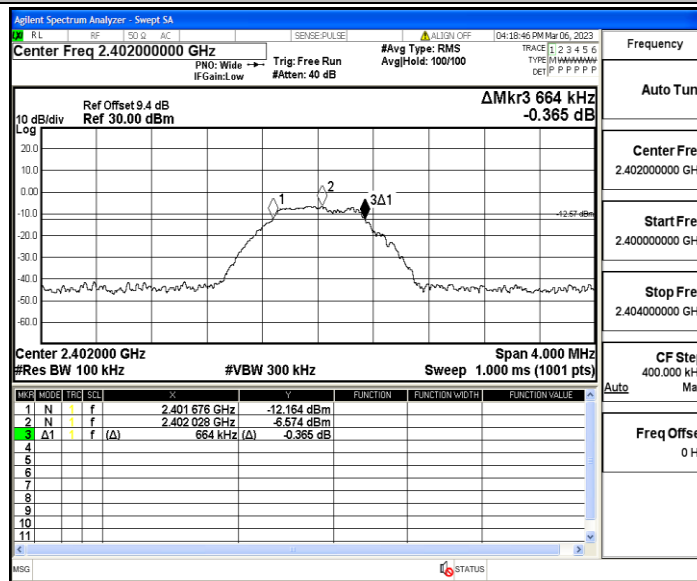
Appendix A: DTS Bandwidth

Test Result

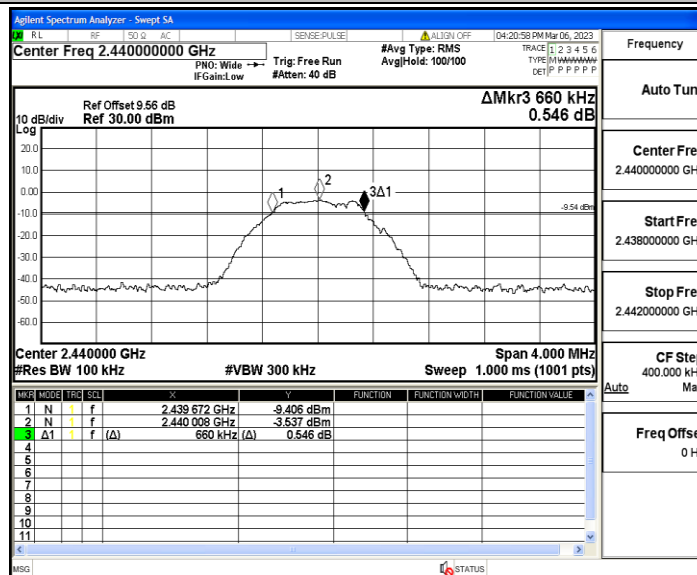
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.676	2402.340	0.5	PASS
		2440	0.660	2439.672	2440.332	0.5	PASS
		2480	0.624	2479.692	2480.316	0.5	PASS

Test Graphs

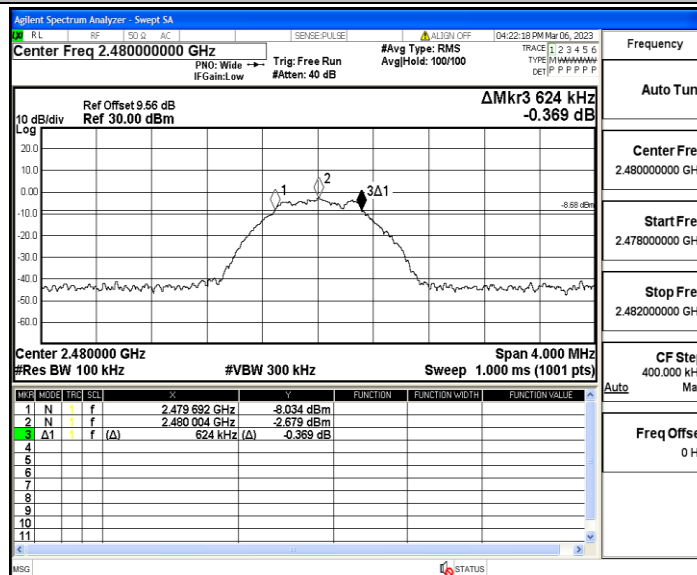
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



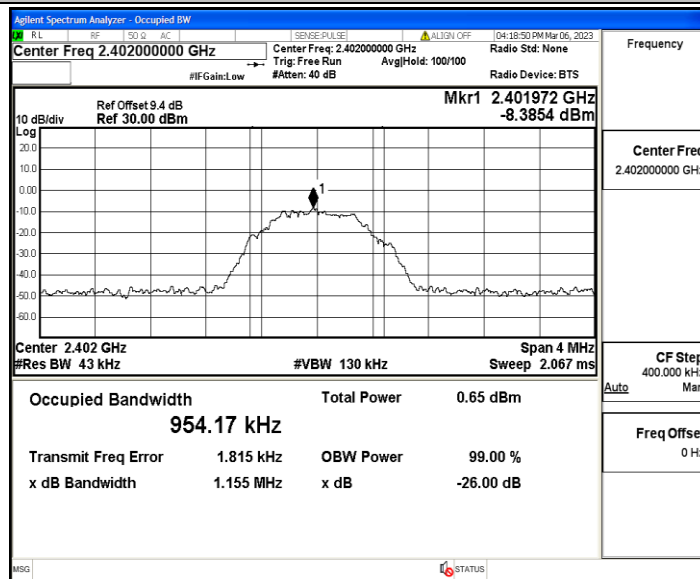
Appendix B: Occupied Channel Bandwidth

Test Result

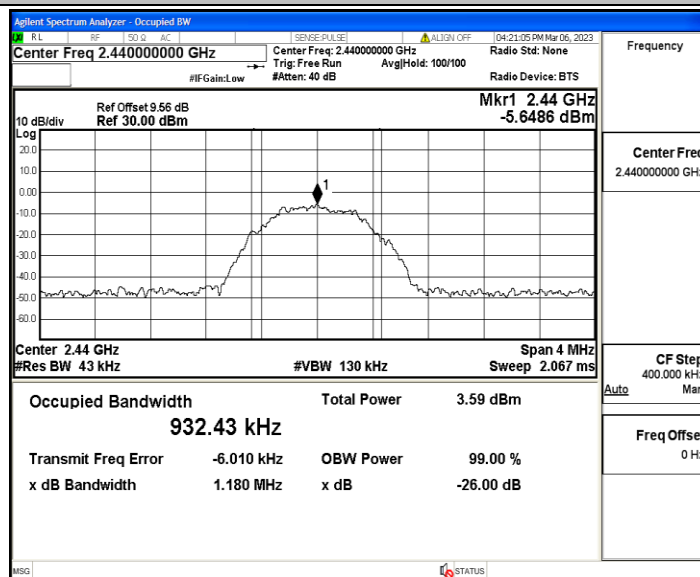
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.95417	2401.5247	2402.4789	---	---
		2440	0.93243	2439.5278	2440.4602	---	---
		2480	0.94523	2479.5281	2480.4733	---	---

Test Graphs

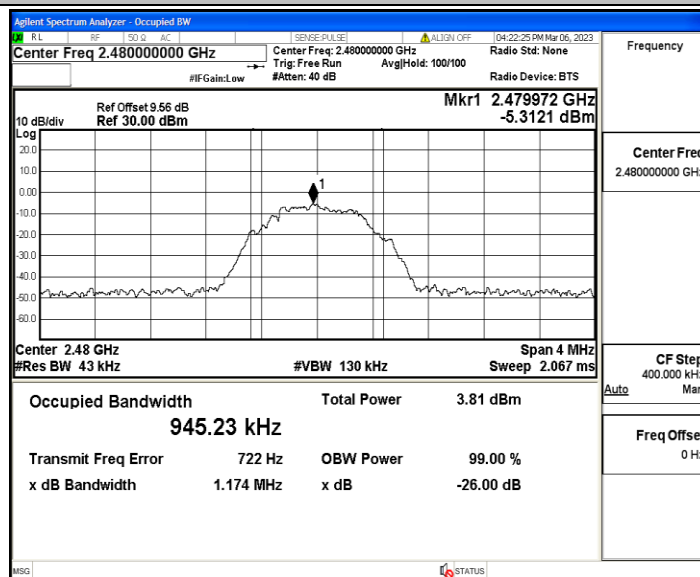
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



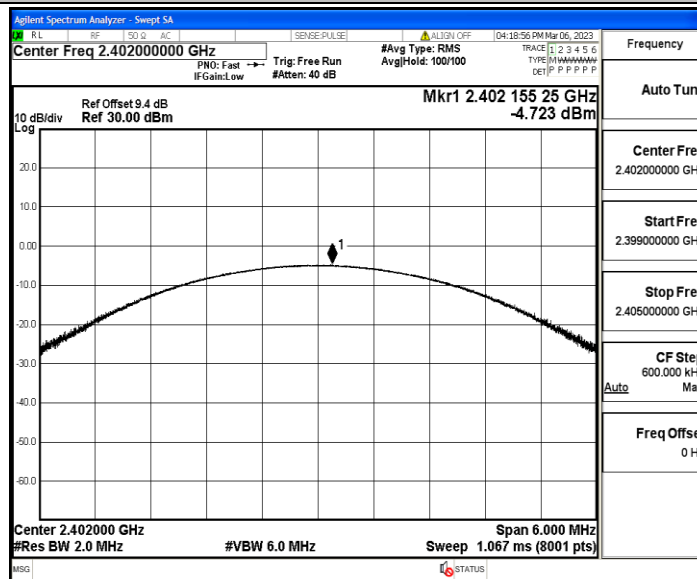
Appendix C: Maximum Peak conducted output power

Test Result

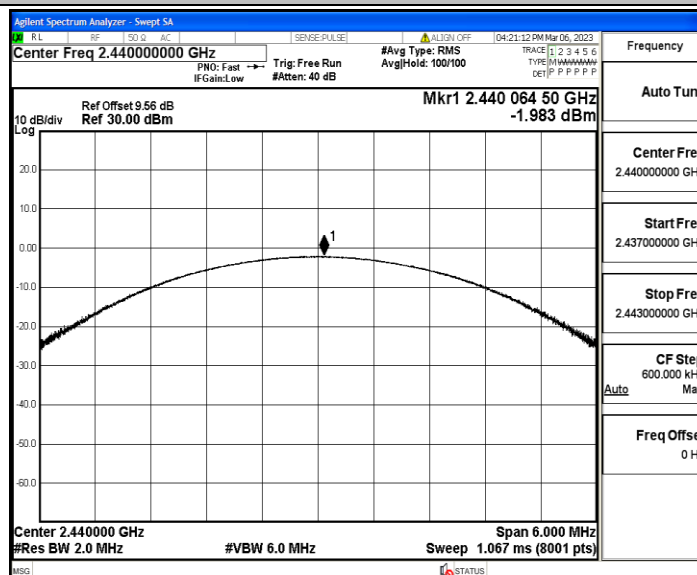
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-4.72	≤30	PASS
		2440	-1.98	≤30	PASS
		2480	-1.76	≤30	PASS

Test Graphs

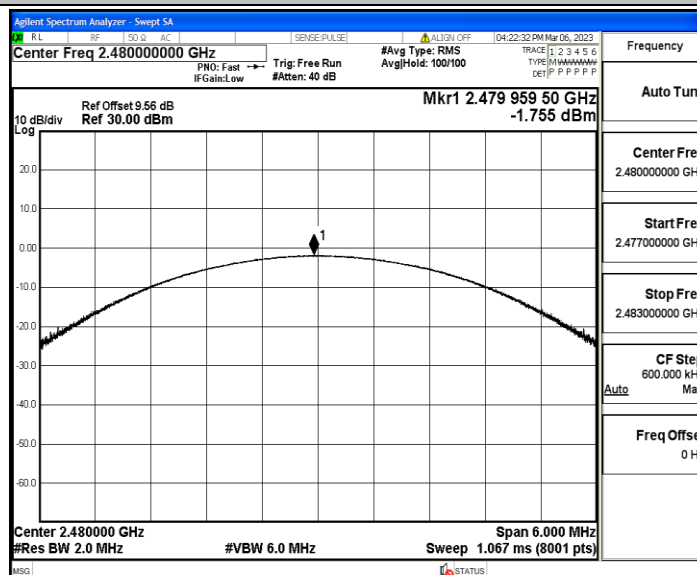
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



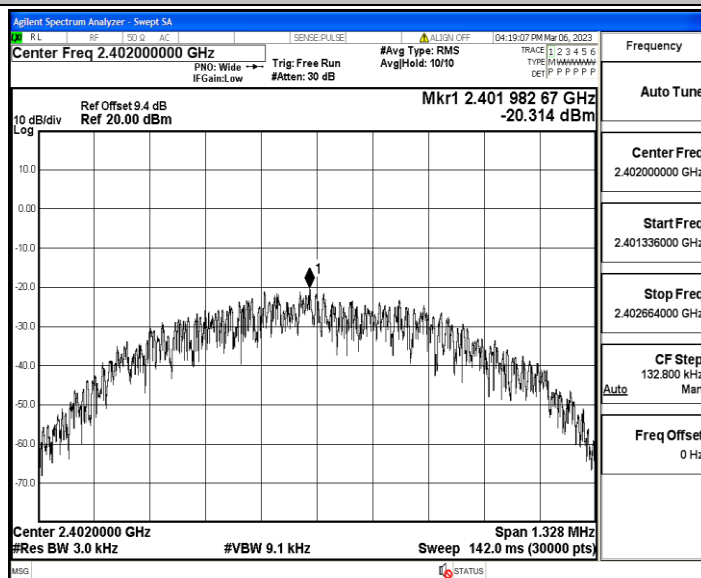
Appendix D: Maximum power spectral density

Test Result

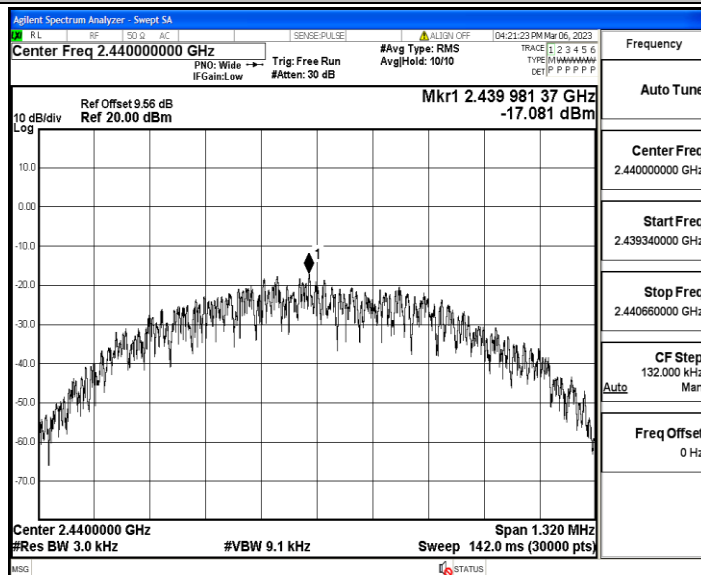
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-20.31	≤8.00	PASS
		2440	-17.08	≤8.00	PASS
		2480	-16.81	≤8.00	PASS

Test Graphs

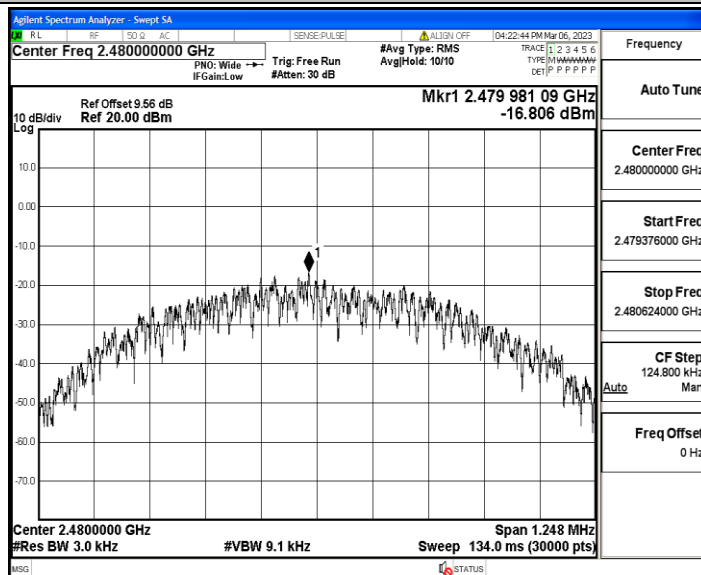
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

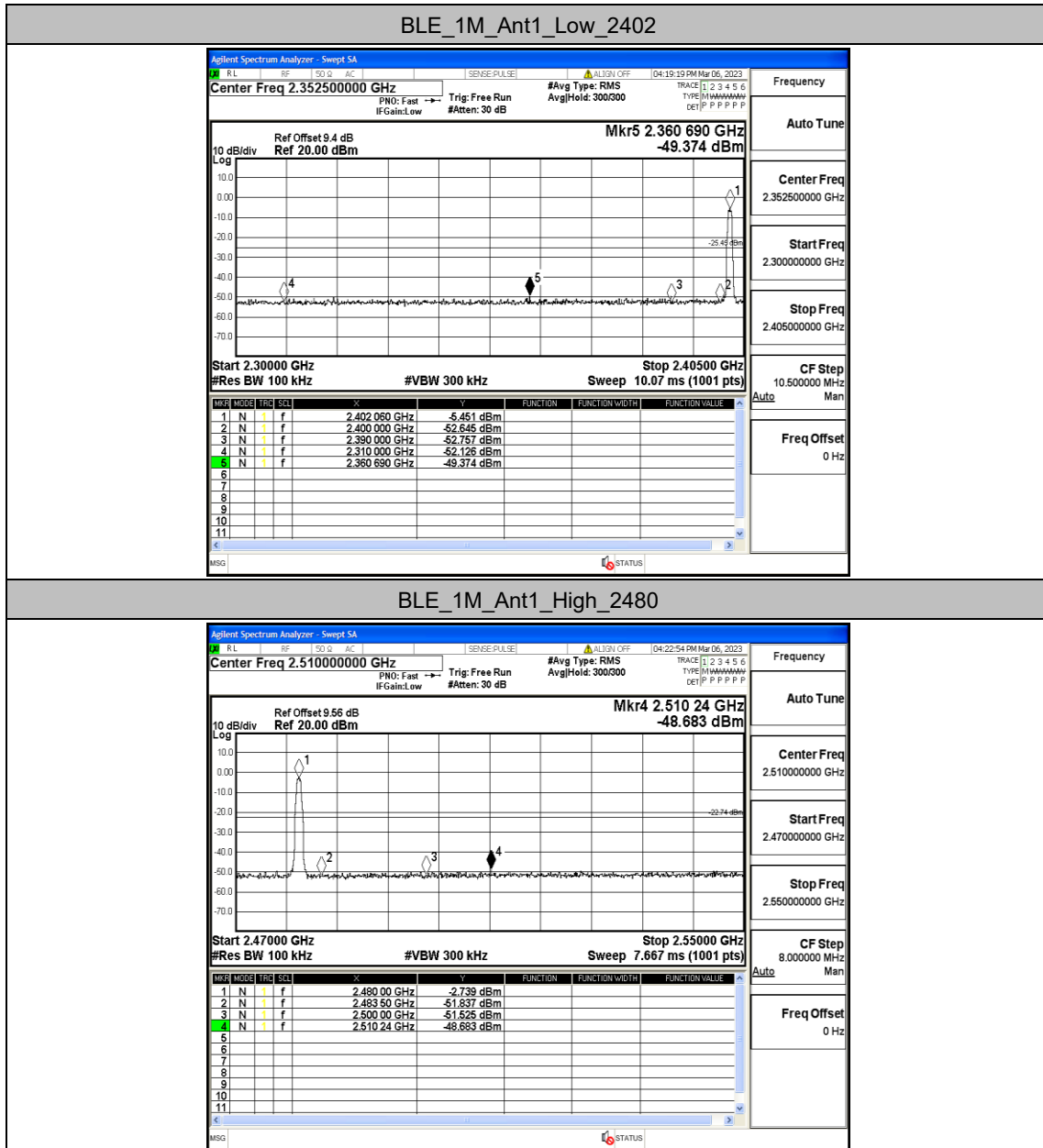


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-5.45	-49.37	≤-25.45	PASS
		High	2480	-2.74	-48.68	≤-22.74	PASS

Test Graphs

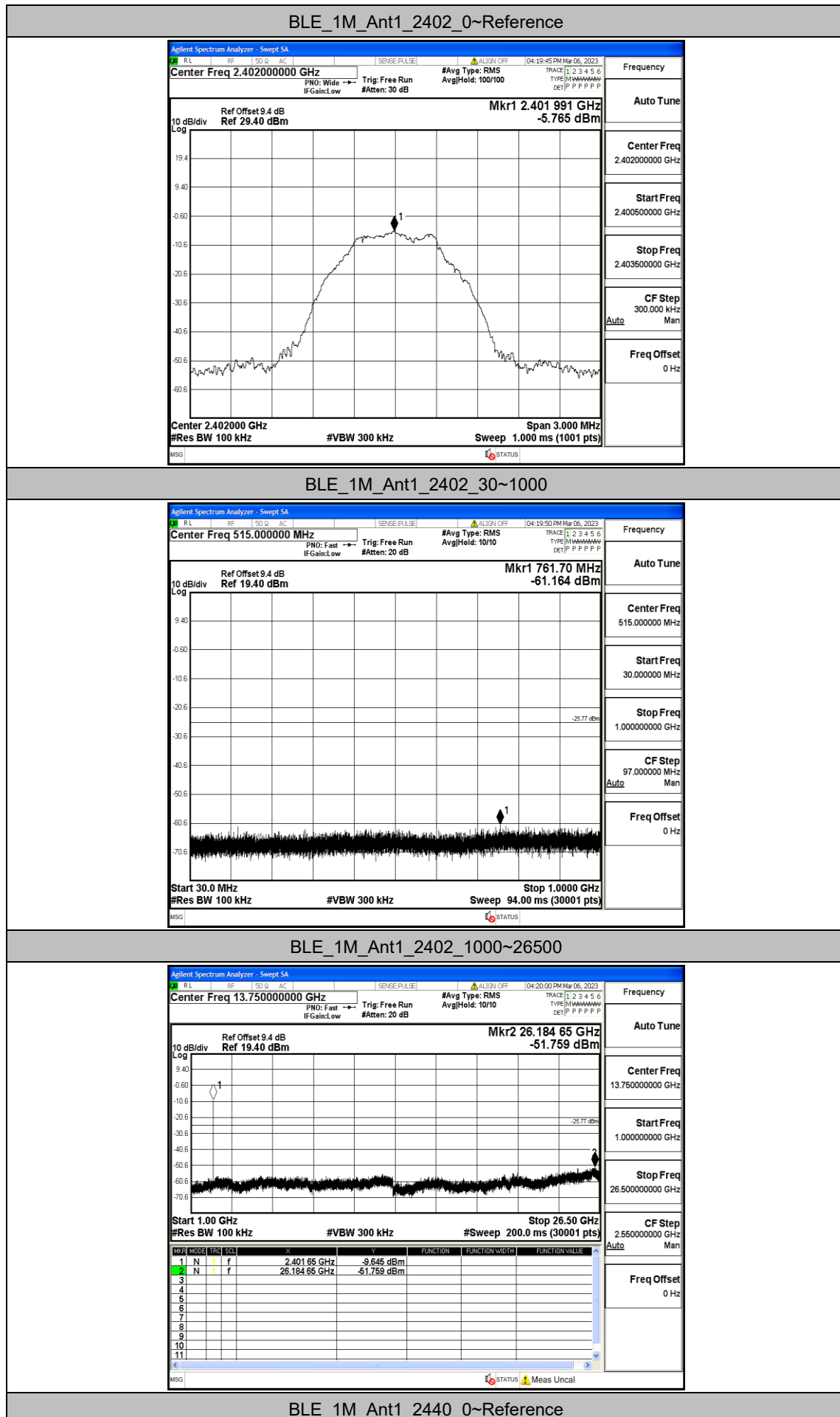


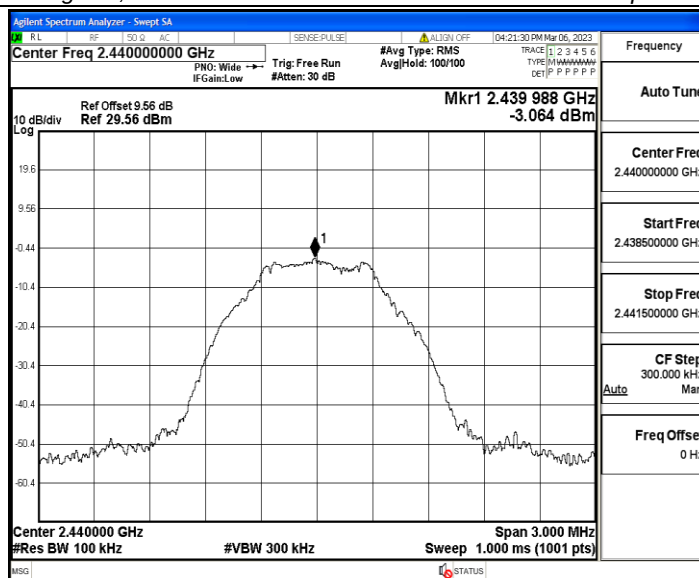
Appendix F: Conducted Spurious Emission

Test Result

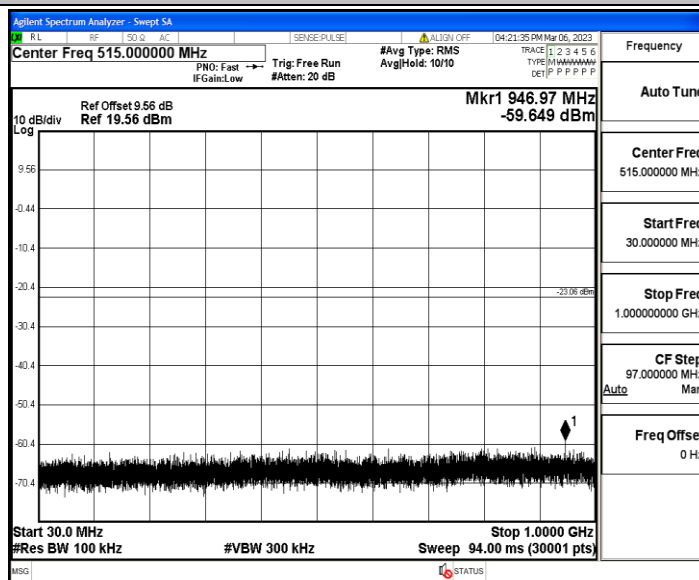
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-5.77	-5.77	---	PASS
			30~1000	-5.77	-61.16	≤ -25.77	PASS
			1000~26500	-5.77	-51.76	≤ -25.77	PASS
		2440	Reference	-3.06	-3.06	---	PASS
			30~1000	-3.06	-59.65	≤ -23.06	PASS
			1000~26500	-3.06	-50.97	≤ -23.06	PASS
		2480	Reference	-2.61	-2.61	---	PASS
			30~1000	-2.61	-60.58	≤ -22.61	PASS
			1000~26500	-2.61	-50.41	≤ -22.61	PASS

Test Graphs

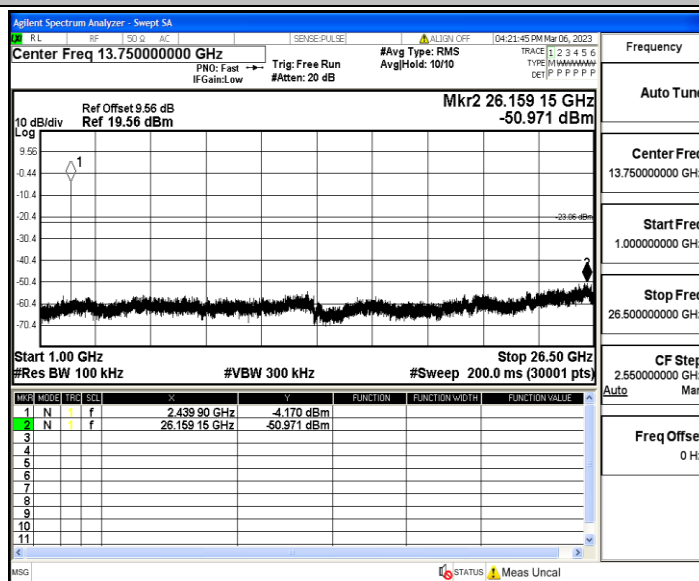




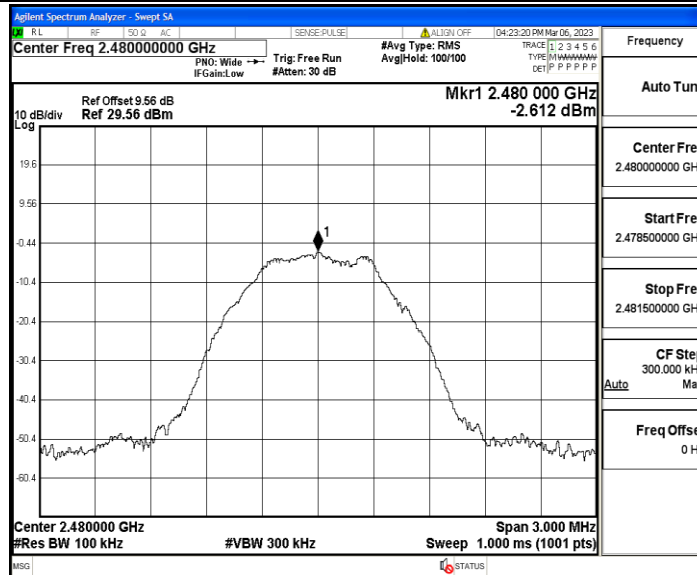
BLE_1M_Ant1_2440_30~1000



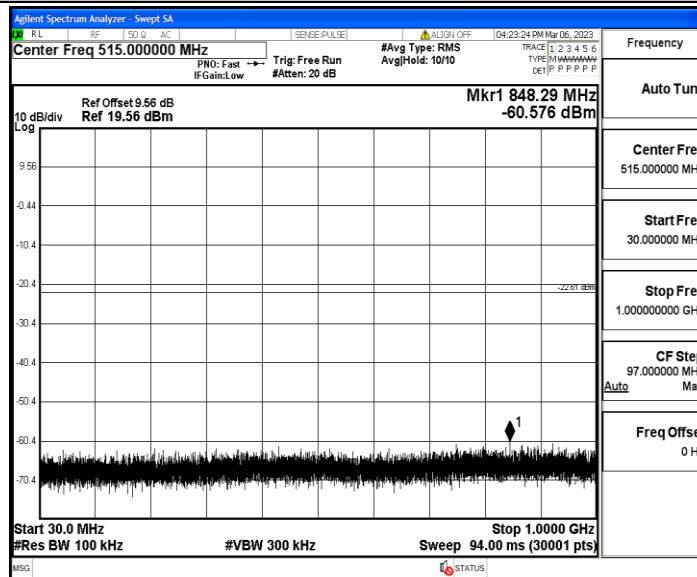
BLE_1M_Ant1_2440_1000~26500



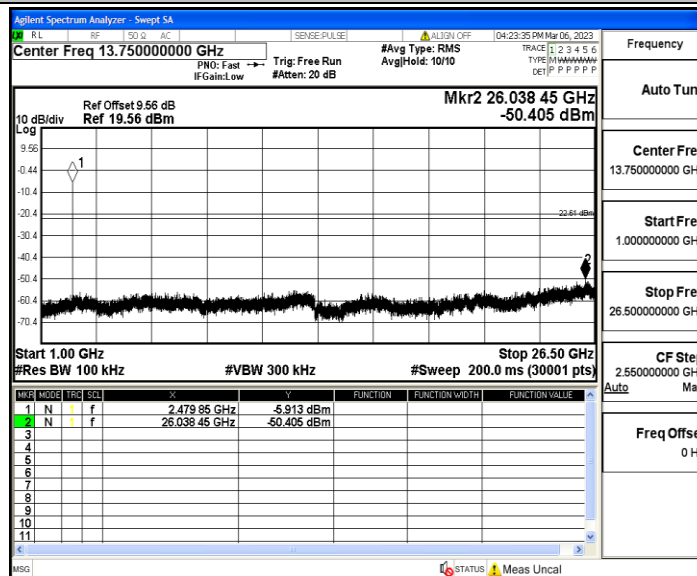
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

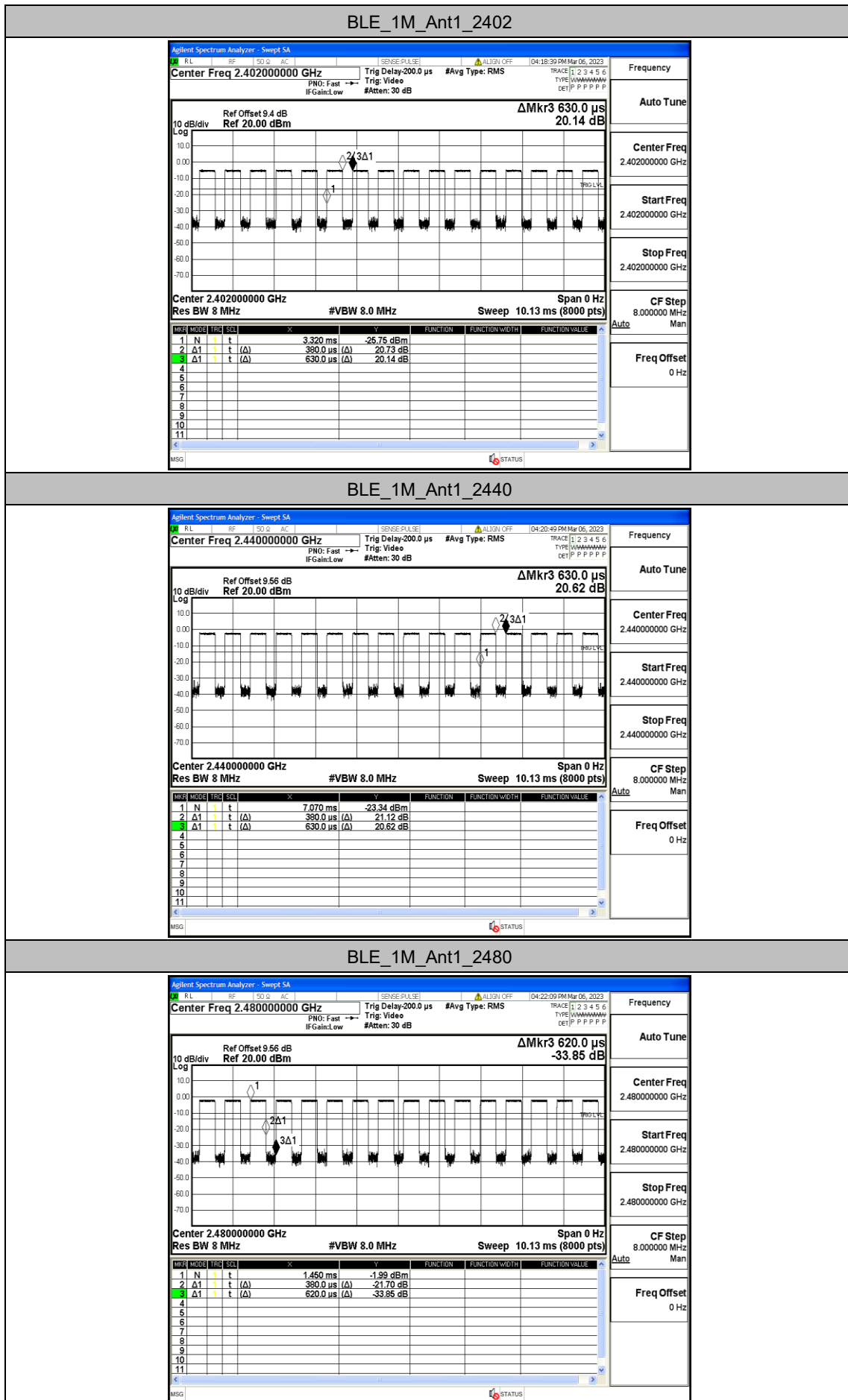


Appendix G: Duty Cycle

Test Result

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

Test Graphs



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	-48.31	≤-41.20	PASS
				AV	2389.880	-47.5	≤-41.20	PASS
				AV	2390.000	-47.84	≤-41.20	PASS
				Peak	2310.000	-42.21	≤-21.20	PASS
				Peak	2368.355	-38.5	≤-21.20	PASS
				Peak	2390.000	-41.33	≤-21.20	PASS
		High	2480	AV	2483.500	-47.31	≤-41.20	PASS
				AV	2494.240	-46.98	≤-41.20	PASS
				AV	2500.000	-47.28	≤-41.20	PASS
				Peak	2483.500	-41.07	≤-21.20	PASS
				Peak	2486.800	-38.03	≤-21.20	PASS
				Peak	2500.000	-40.94	≤-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

