Appendix Test Data for BLE (Conducted Measurement)

Product Name: Kids Karaoke Machine Toy

Trade Mark: /

Test Model: VC6137

FCC ID: 2BXX9VC61301

Environmental Conditions

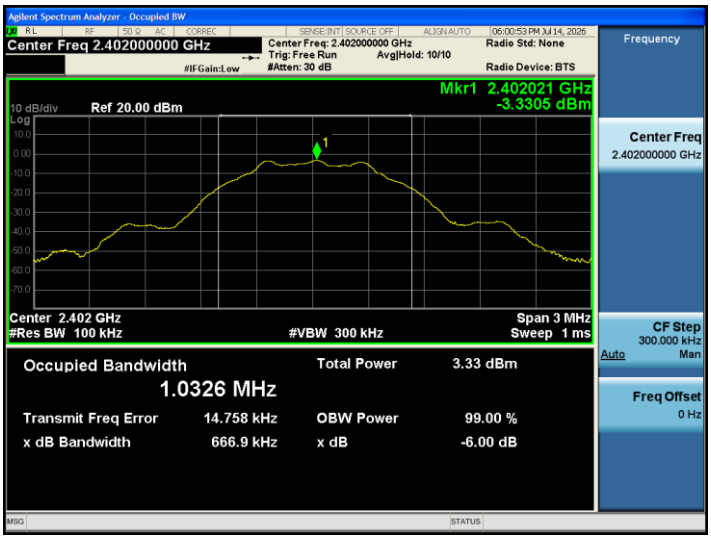
Temperature:	23.5℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Max Zhang
NOTE	N/A

Appendix A: DTS Bandwidth

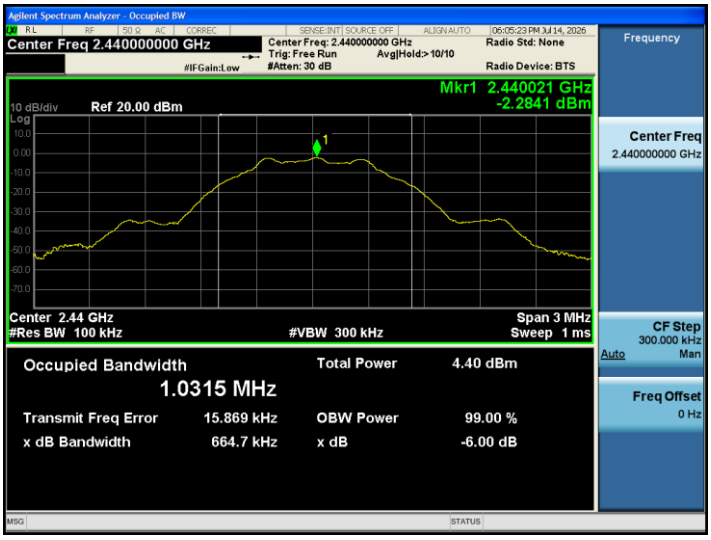
Test Result

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.667	≥0.500	PASS
	Ant1	2440	0.665	≥0.500	PASS
	Ant1	2480	0.666	≥0.500	PASS
BLE_2M	Ant1	2402	1.150	≥0.500	PASS
	Ant1	2440	1.149	≥0.500	PASS
	Ant1	2480	1.154	≥0.500	PASS

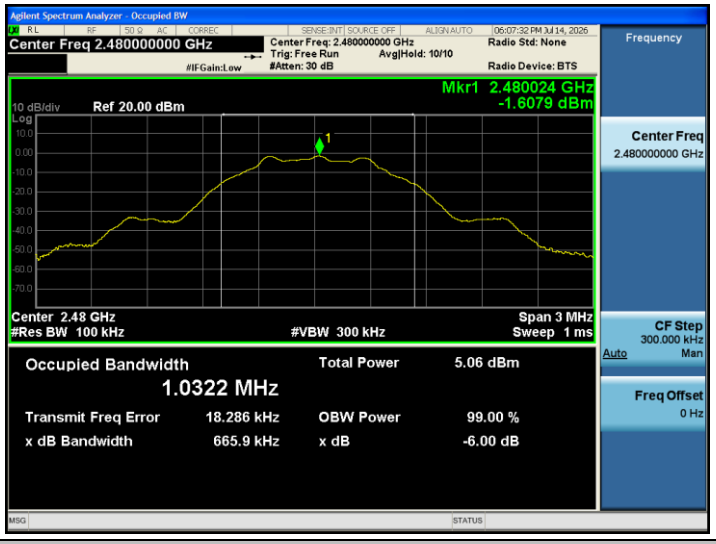
Test Graphs



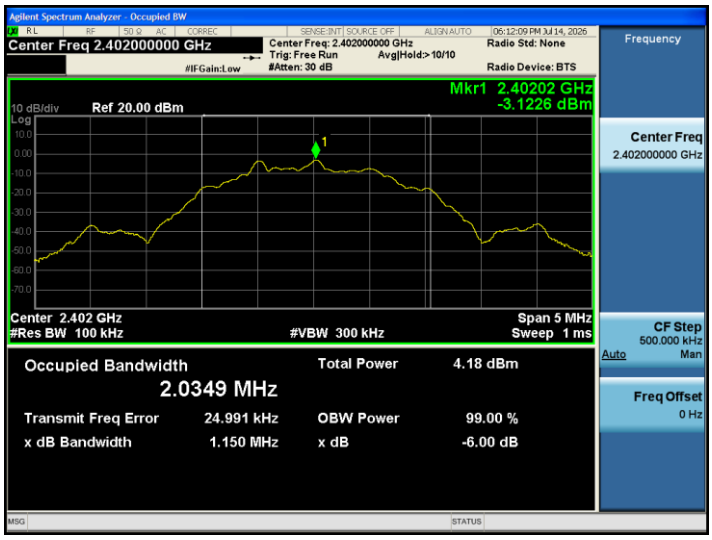
BLE_1M_Ant1_2402



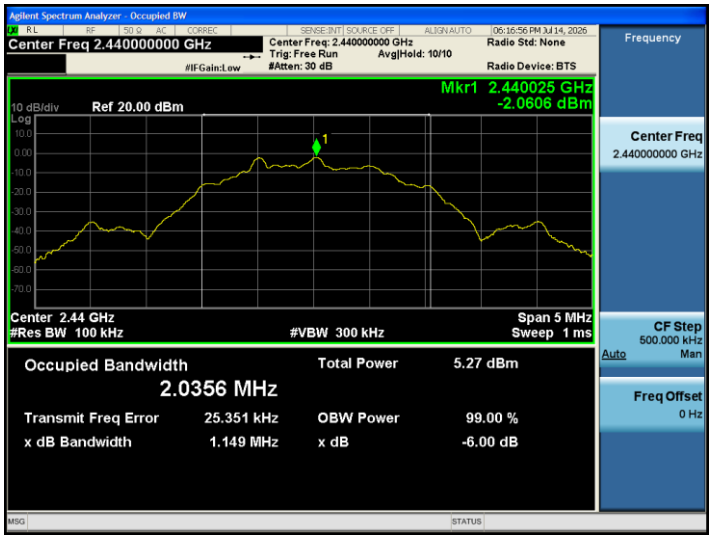
BLE_1M_Ant1_2440



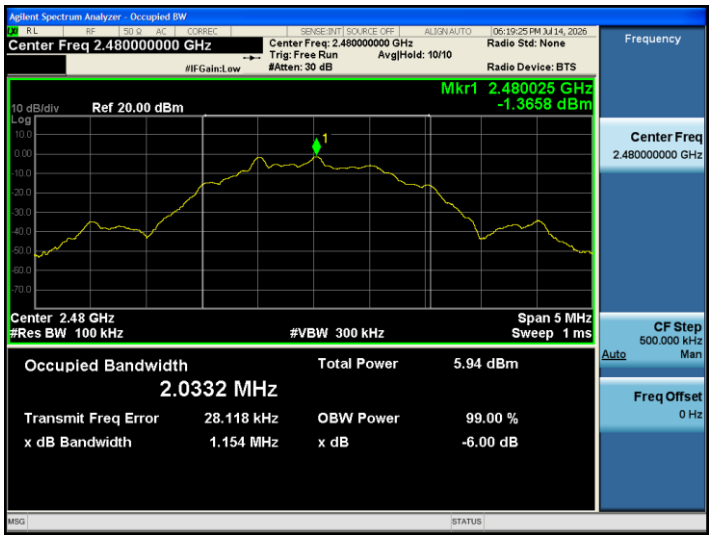
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



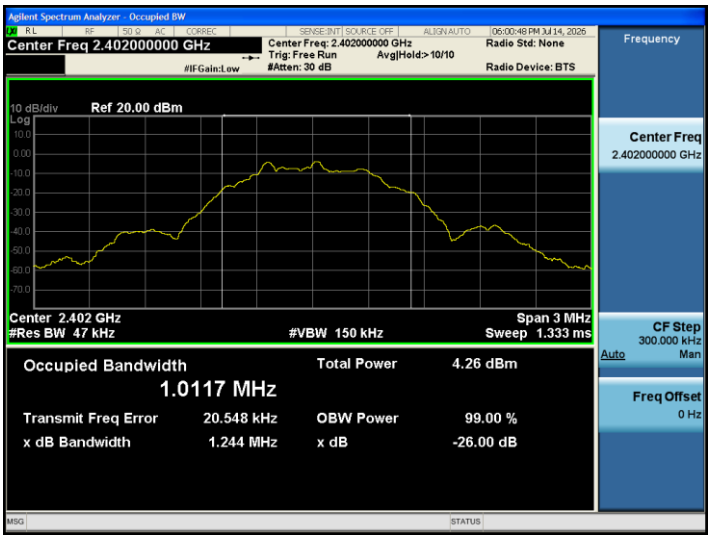
BLE_2M_Ant1_2480

Appendix B: Occupied Channel Bandwidth

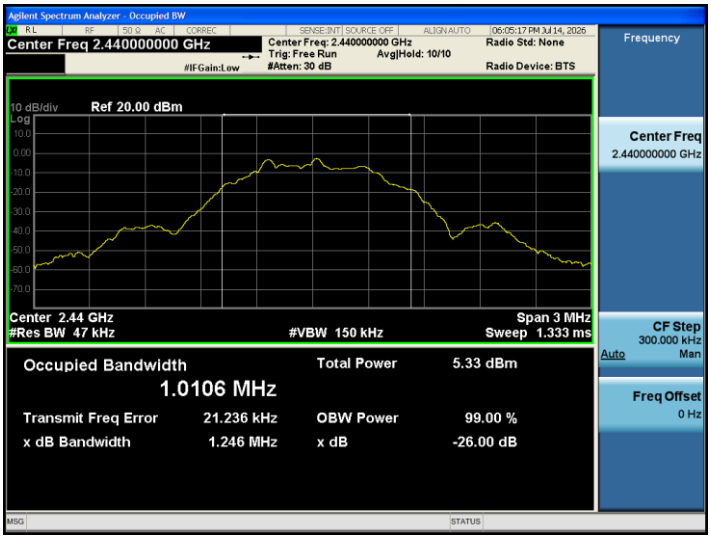
Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	1.012	---	---
	Ant1	2440	1.011	---	---
	Ant1	2480	1.012	---	---
BLE_2M	Ant1	2402	2.015	---	---
	Ant1	2440	2.016	---	---
	Ant1	2480	2.015	---	---

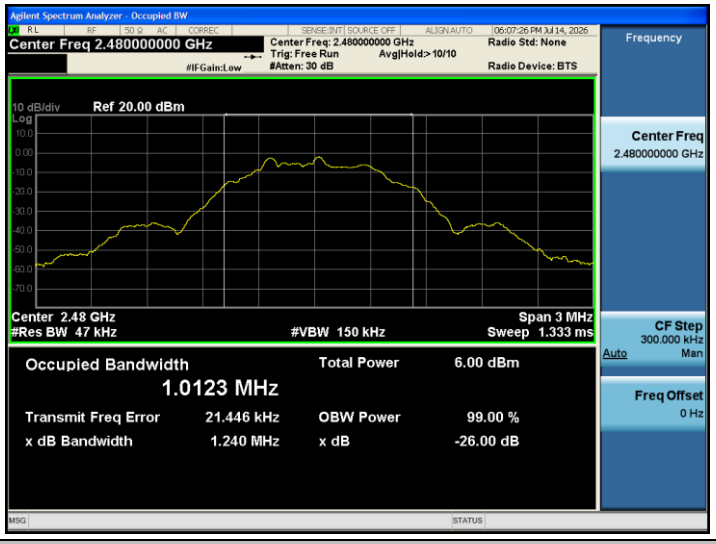
Test Graphs



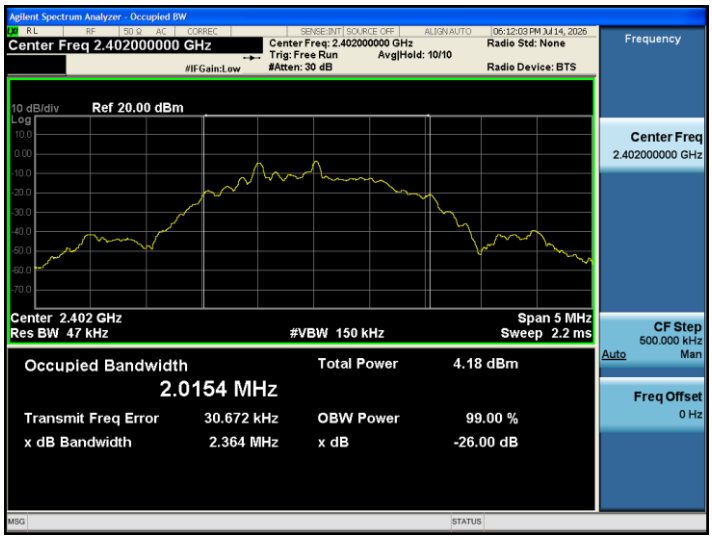
BLE_1M_Ant1_2402



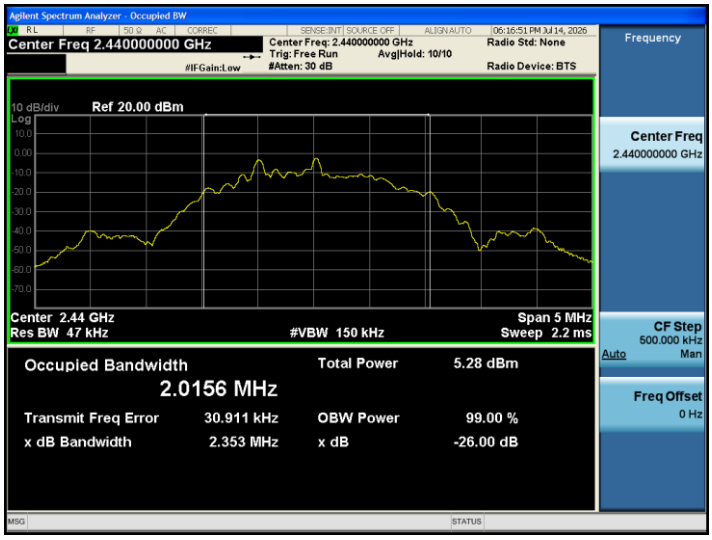
BLE_1M_Ant1_2440



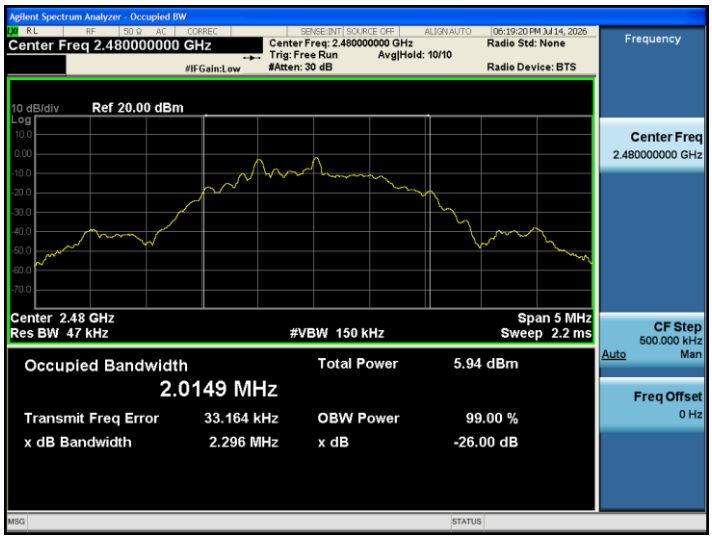
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

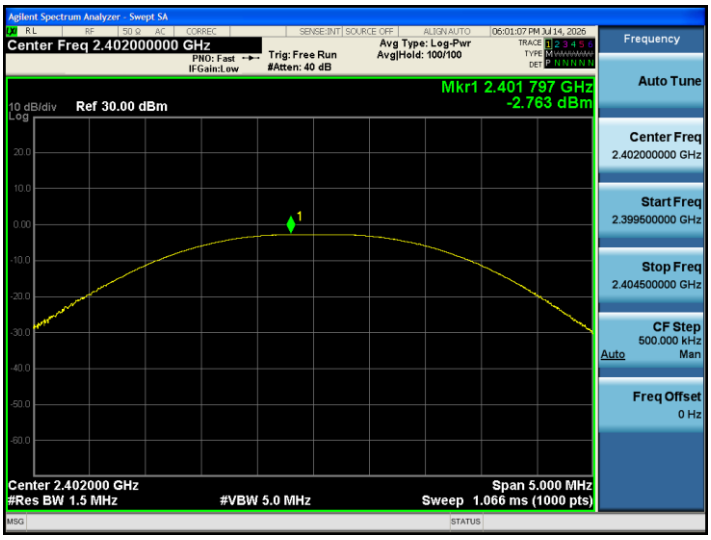
Appendix C: Maximum peak conducted output power

Test Result Peak

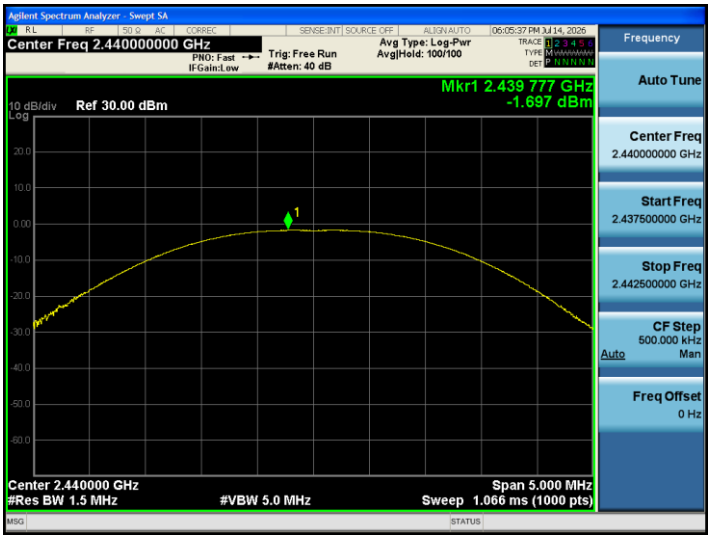
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
BLE_1M	Ant1	2402	-2.763	≤30.00	PASS
	Ant1	2440	-1.697	≤30.00	PASS
	Ant1	2480	-1.001	≤30.00	PASS
BLE_2M	Ant1	2402	-2.669	≤30.00	PASS
	Ant1	2440	-1.621	≤30.00	PASS
	Ant1	2480	-0.917	≤30.00	PASS

Note: The cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

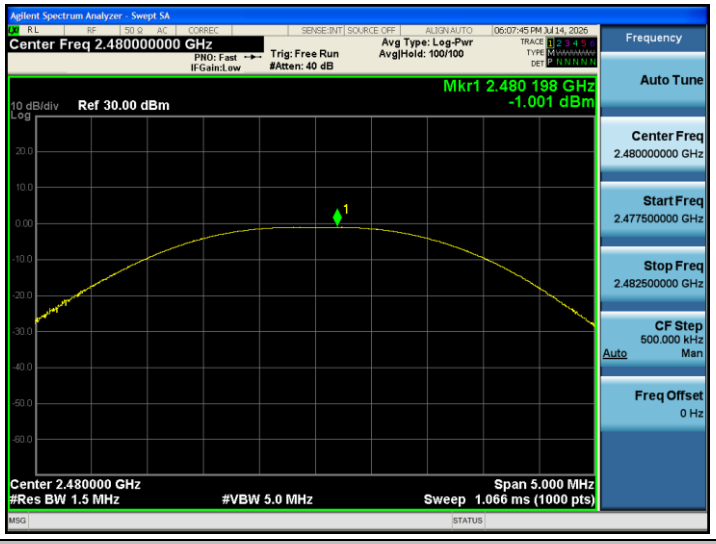
Test Graphs Peak



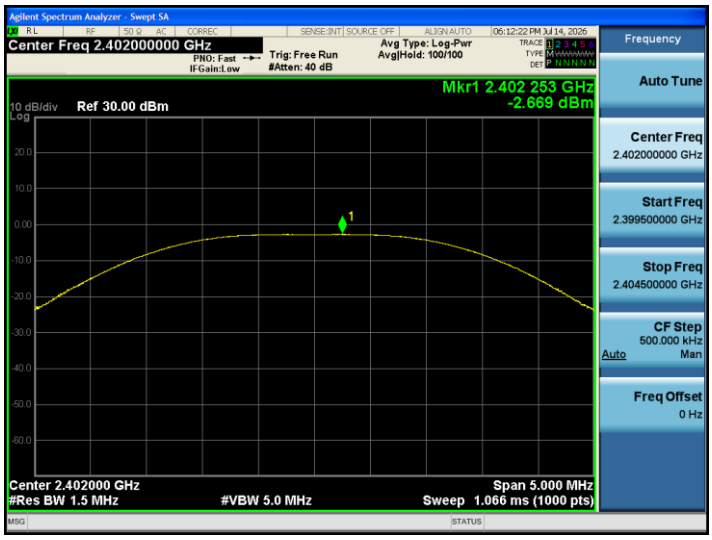
BLE_1M_Ant1_2402



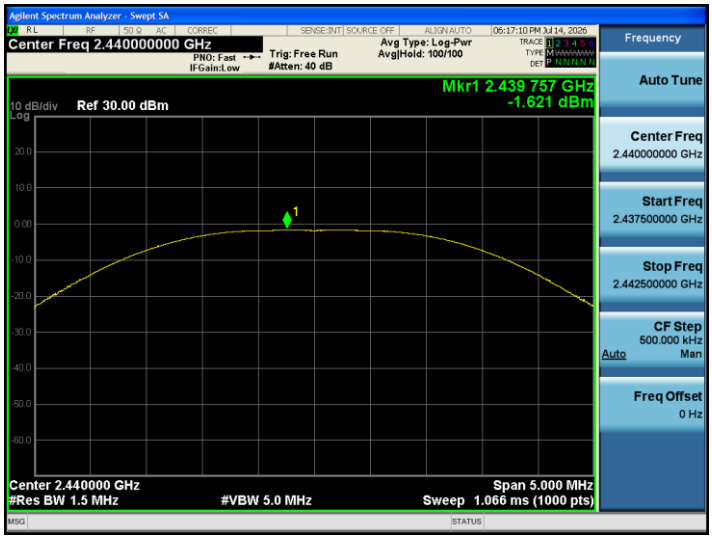
BLE_1M_Ant1_2440



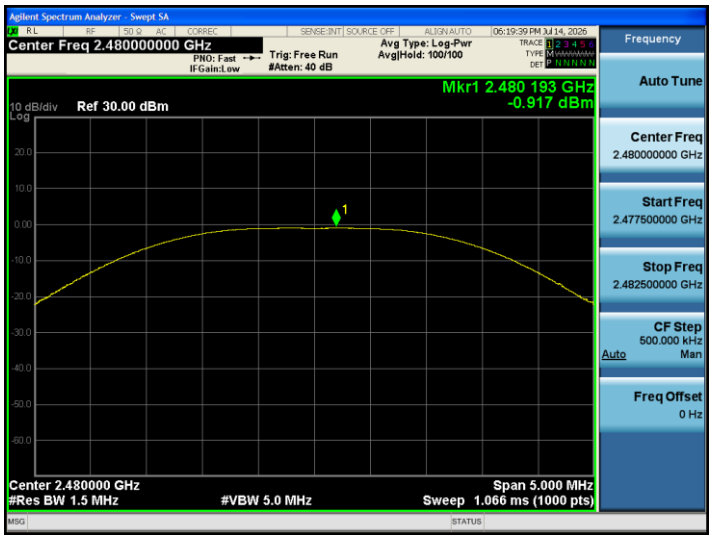
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

Appendix D: Maximum peak power spectral density

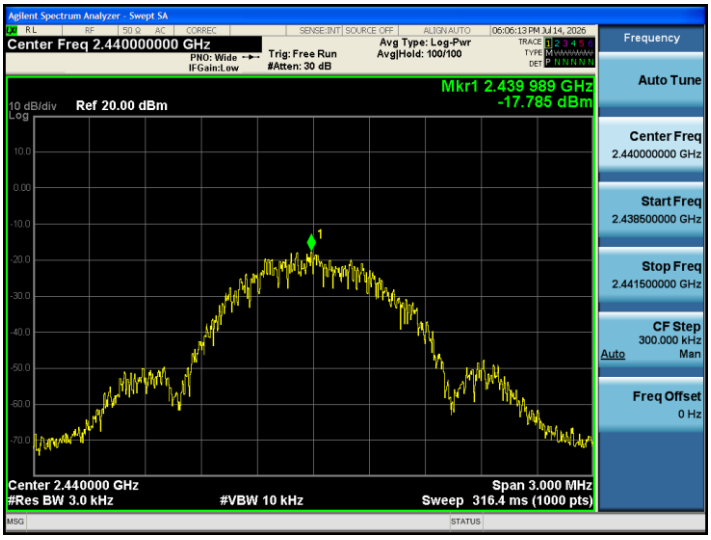
Test Result

Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.866	≤8.000	PASS
	Ant1	2440	-17.785	≤8.000	PASS
	Ant1	2480	-17.067	≤8.000	PASS
BLE_2M	Ant1	2402	-20.615	≤8.000	PASS
	Ant1	2440	-19.492	≤8.000	PASS
	Ant1	2480	-18.769	≤8.000	PASS

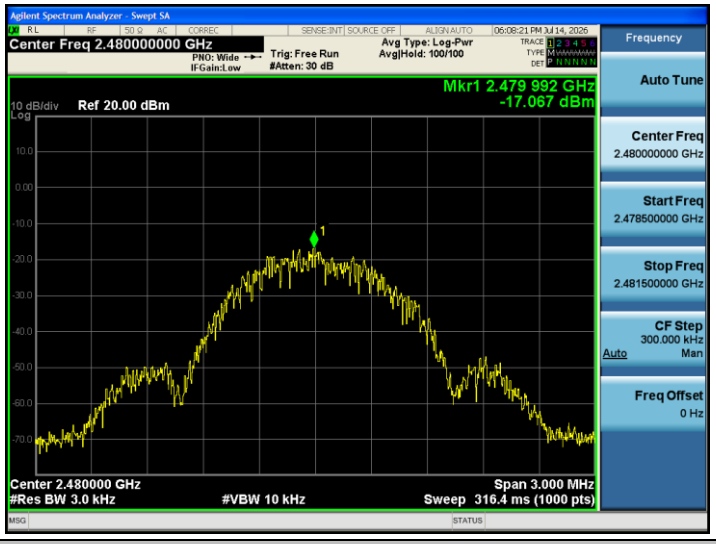
Note: The cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

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

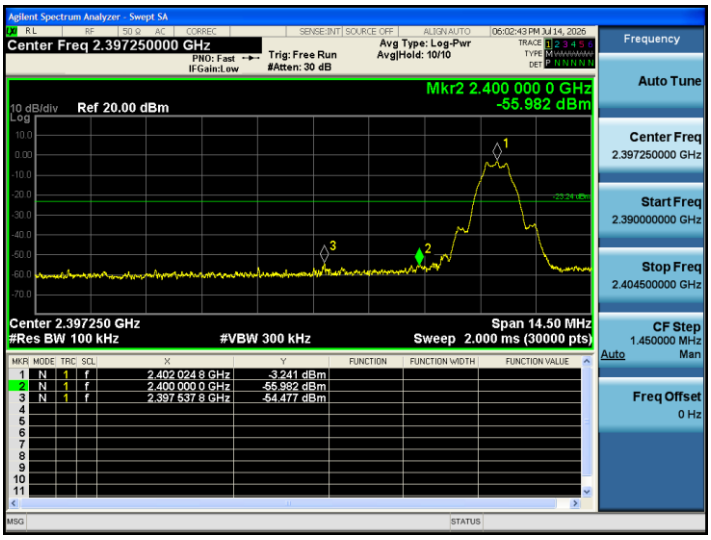
Appendix E: Band edge measurements

Test Result

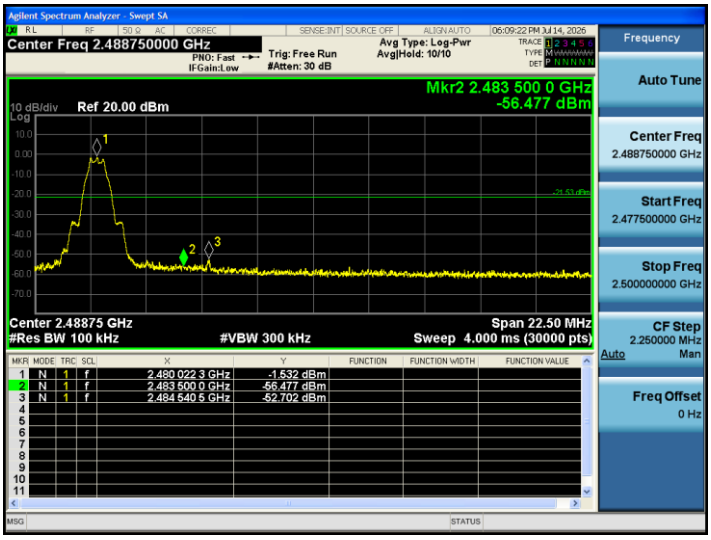
Test Mode	Antenna	Ch. Name	Frequency [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.24	-54.48	≤-23.24	PASS
BLE_2M	Ant1	Low	2402	-3.04	-37.80	≤-23.04	PASS
BLE_1M	Ant1	High	2480	-1.53	-52.70	≤-21.53	PASS
BLE_2M	Ant1	High	2480	-1.35	-52.48	≤-21.35	PASS

Note: The cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

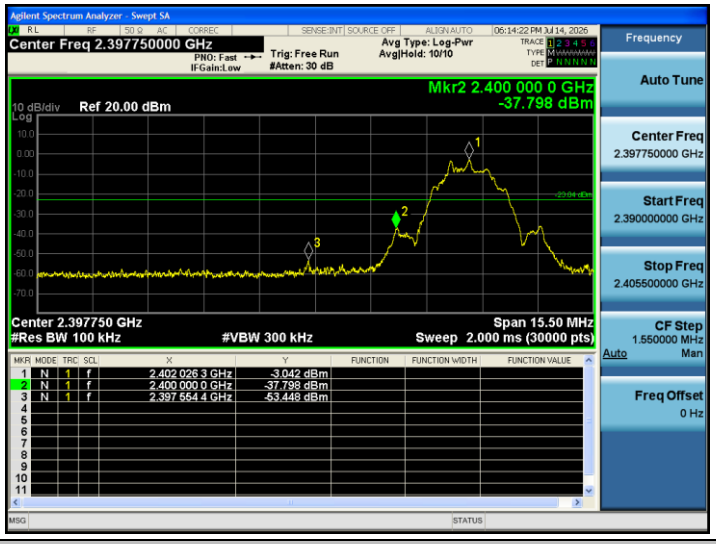
Test Graphs



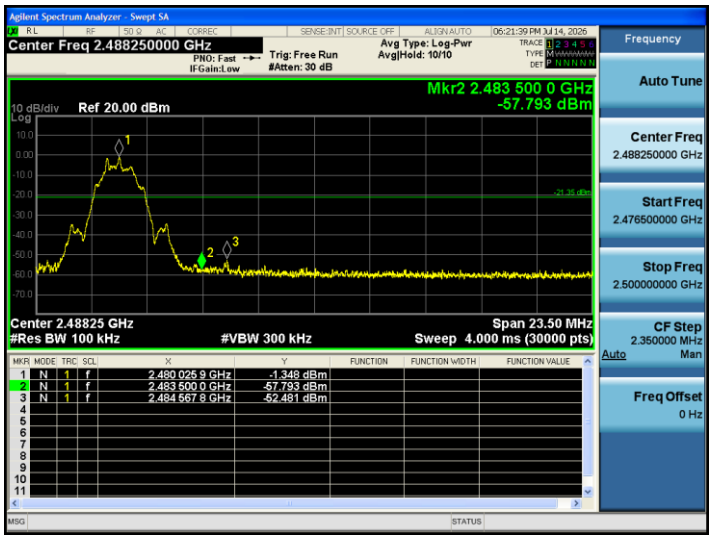
BLE_1M_Ant1_2402_Low



BLE_1M_Ant1_2480_High



BLE_2M_Ant1_2402_Low



BLE_2M_Ant1_2480_High

Appendix F: Conducted Spurious Emission

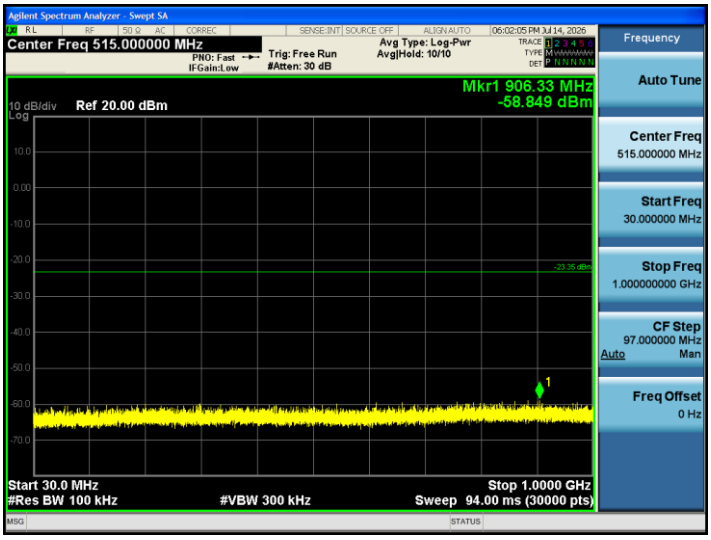
Test Result

Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-3.35	-3.35	---	PASS
	Ant1	2402	30~1000	-3.35	-58.85	≤-23.35	PASS
	Ant1	2402	1000~26500	-3.35	-44.55	≤-23.35	PASS
	Ant1	2440	0~Reference	-2.31	-2.31	---	PASS
	Ant1	2440	30~1000	-2.31	-58.68	≤-22.31	PASS
	Ant1	2440	1000~26500	-2.31	-46.31	≤-22.31	PASS
	Ant1	2480	0~Reference	-1.61	-1.61	---	PASS
	Ant1	2480	30~1000	-1.61	-58.73	≤-21.61	PASS
	Ant1	2480	1000~26500	-1.61	-40.56	≤-21.61	PASS
BLE_2M	Ant1	2402	0~Reference	-3.13	-3.13	---	PASS
	Ant1	2402	30~1000	-3.13	-58.40	≤-23.13	PASS
	Ant1	2402	1000~26500	-3.13	-42.79	≤-23.13	PASS
	Ant1	2440	0~Reference	-2.11	-2.11	---	PASS
	Ant1	2440	30~1000	-2.11	-59.19	≤-22.11	PASS
	Ant1	2440	1000~26500	-2.11	-45.66	≤-22.11	PASS
	Ant1	2480	0~Reference	-1.39	-1.39	---	PASS
	Ant1	2480	30~1000	-1.39	-58.28	≤-21.39	PASS
	Ant1	2480	1000~26500	-1.39	-42.88	≤-21.39	PASS

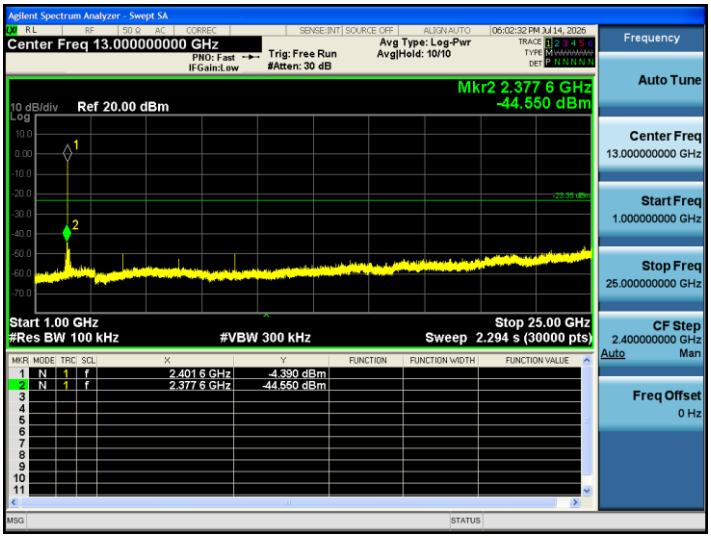
Note: The cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

Test Graphs

BLE_1M_Ant1_2402

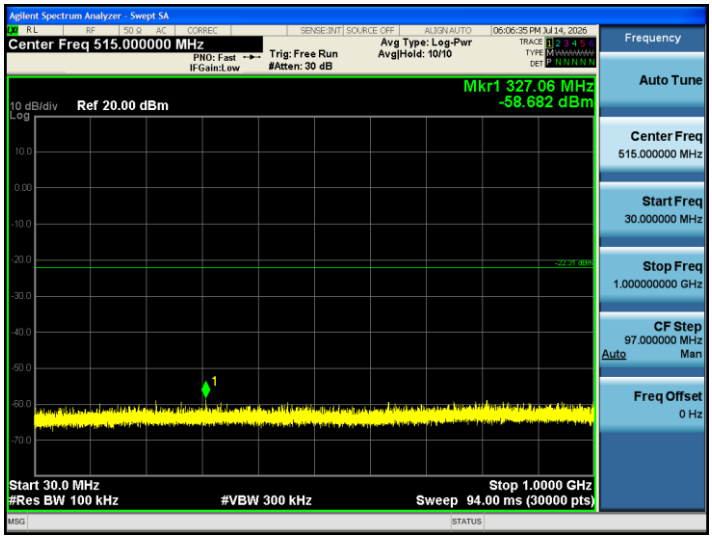


BLE_1M_Ant1_2402

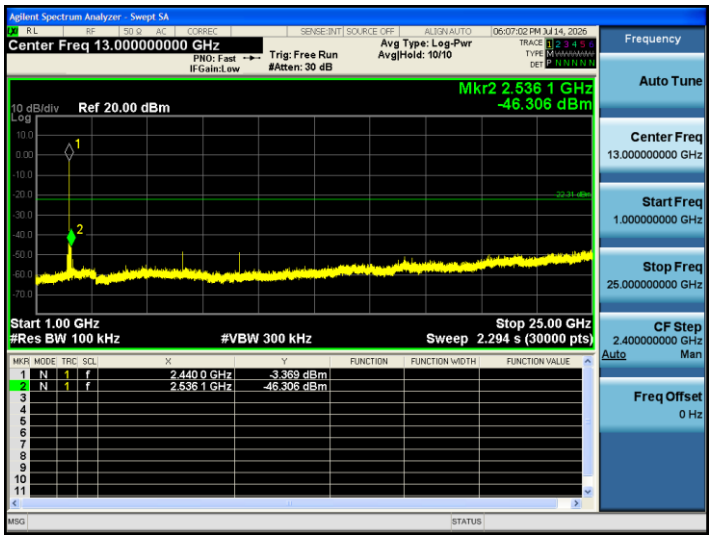


BLE_1M_Ant1_2402

BLE_1M_Ant1_2440

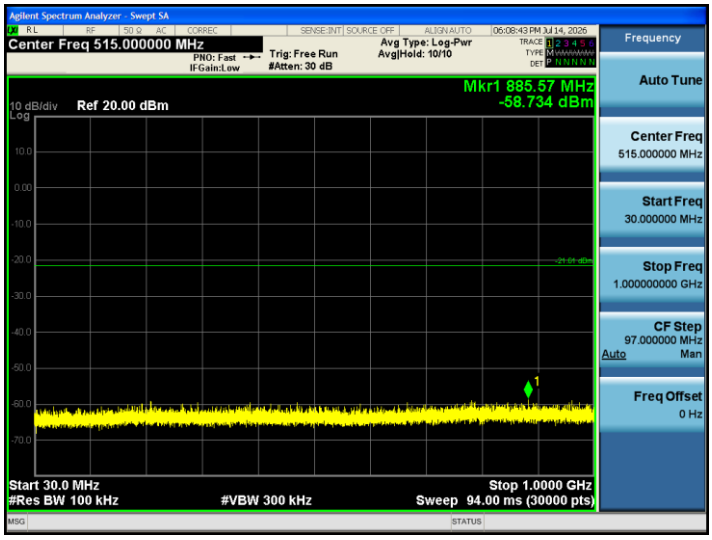


BLE_1M_Ant1_2440

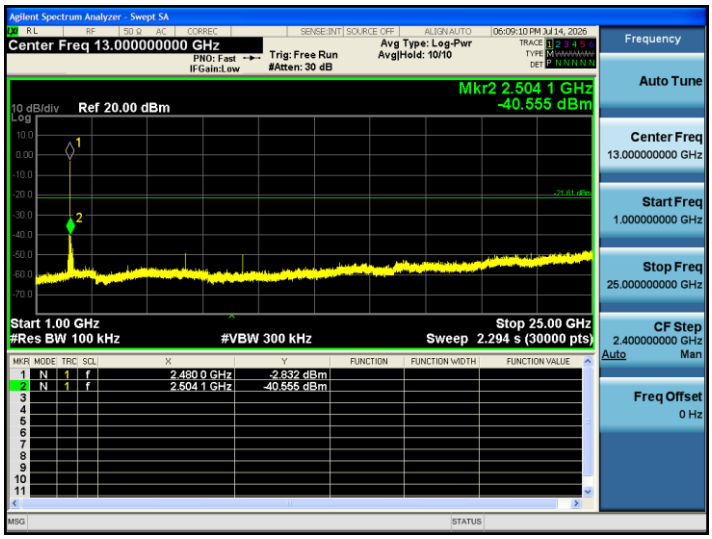


BLE_1M_Ant1_2440

BLE_1M_Ant1_2480

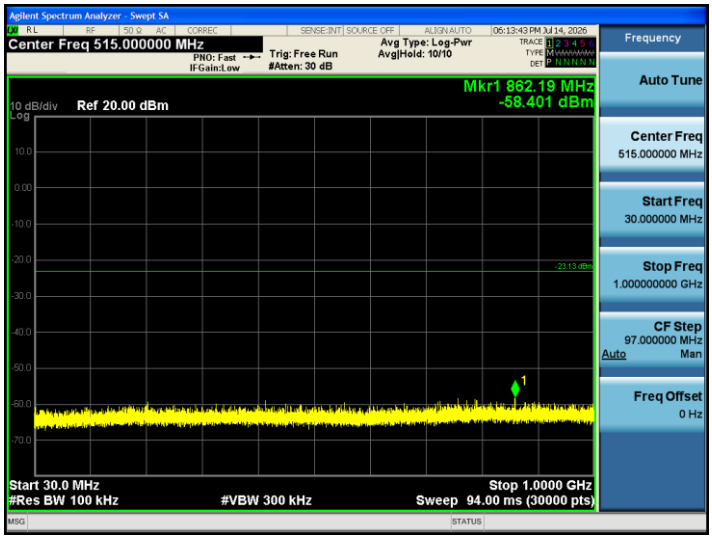


BLE_1M_Ant1_2480

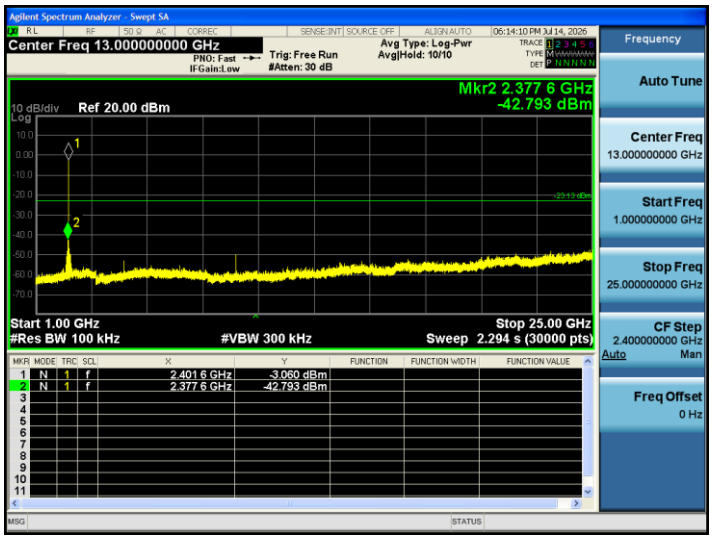


BLE_1M_Ant1_2480

BLE_2M_Ant1_2402

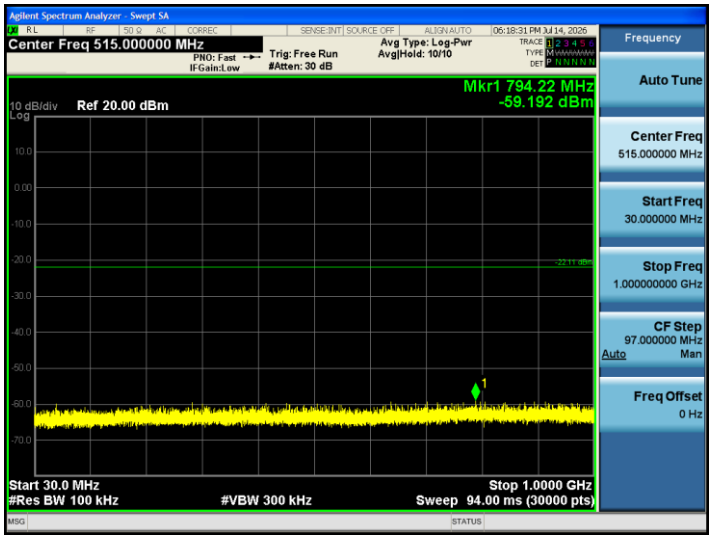


BLE_2M_Ant1_2402

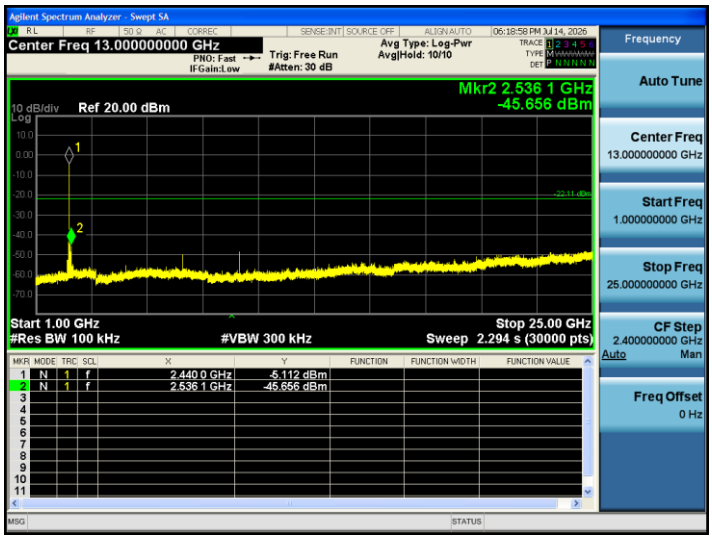


BLE_2M_Ant1_2402

BLE_2M_Ant1_2440

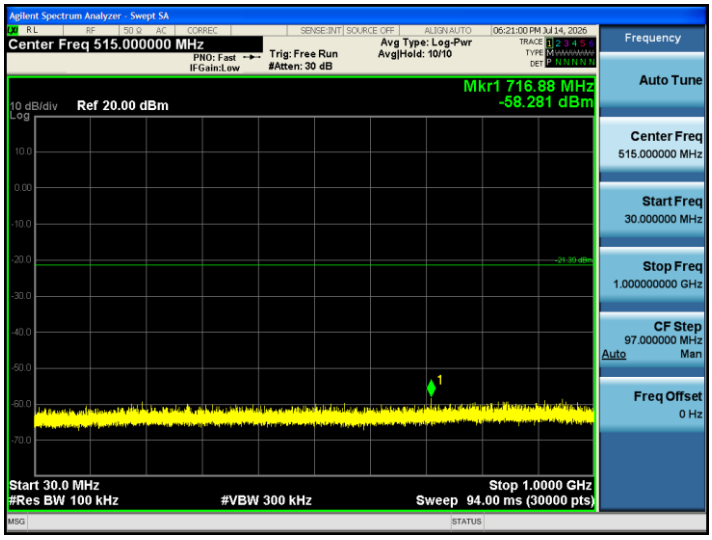


BLE_2M_Ant1_2440

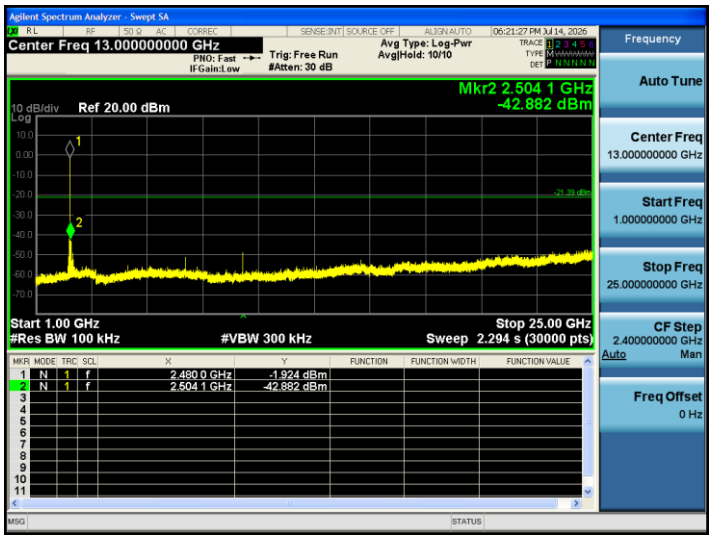


BLE_2M_Ant1_2440

BLE_2M_Ant1_2480



BLE_2M_Ant1_2480



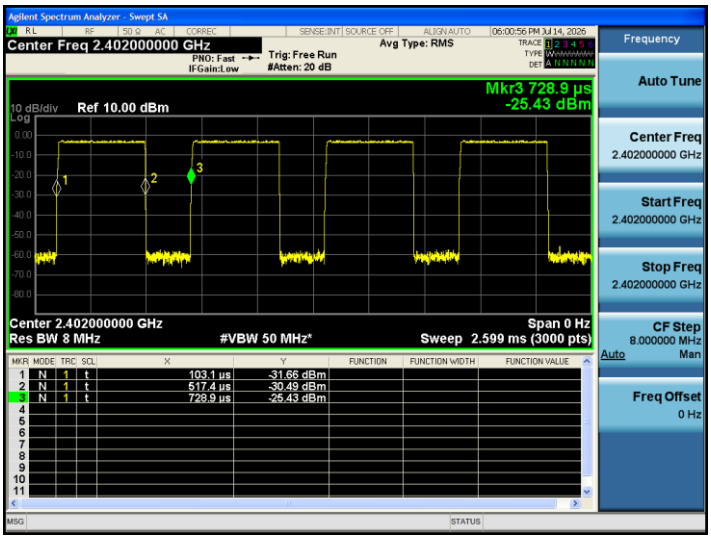
BLE_2M_Ant1_2480

Appendix G: Duty Cycle

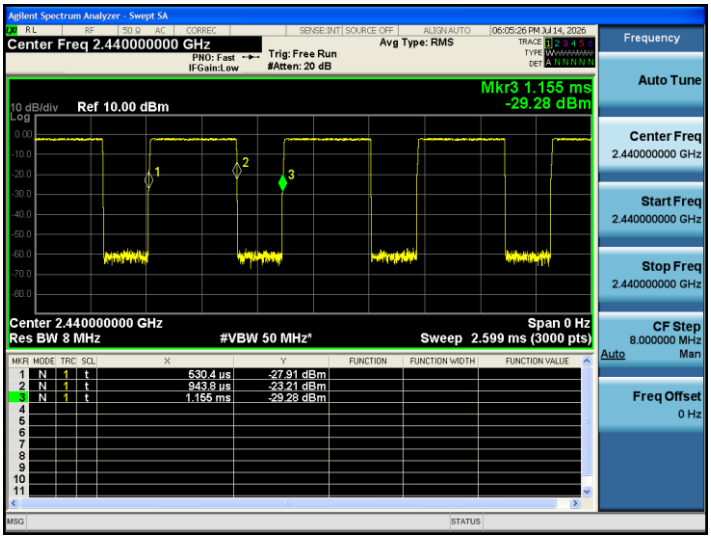
Test Result

Test Mode	Antenna	Frequency [MHz]	Duty Cycle [%]	Duty Cycle Factor [dB]
BLE_1M	Ant1	2402	66.00	1.80
	Ant1	2440	66.00	1.80
	Ant1	2480	66.00	1.80
BLE_2M	Ant1	2402	37.00	4.32
	Ant1	2440	37.00	4.32
	Ant1	2480	37.00	4.32

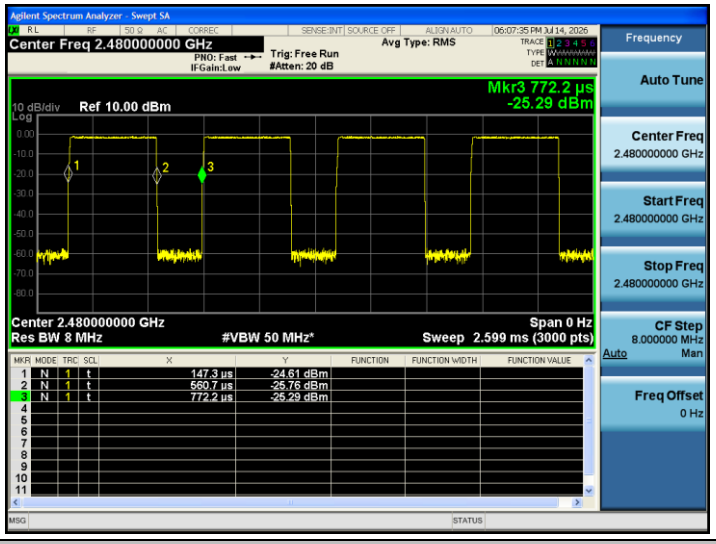
Test Graphs



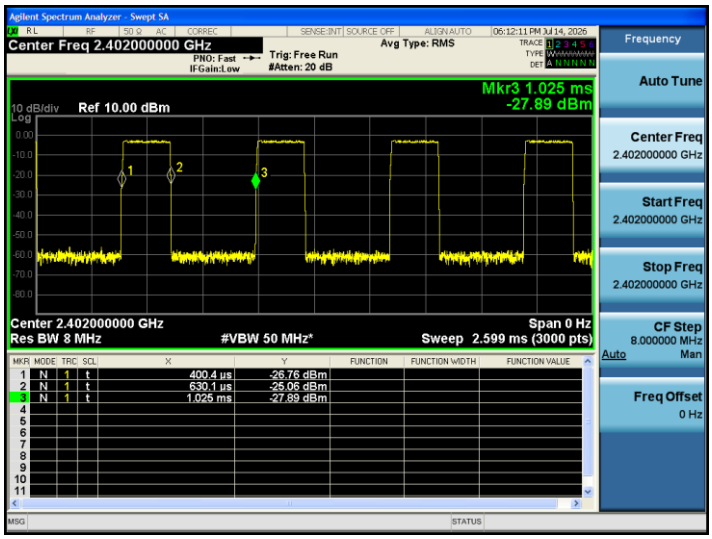
BLE_1M_Ant1_2402



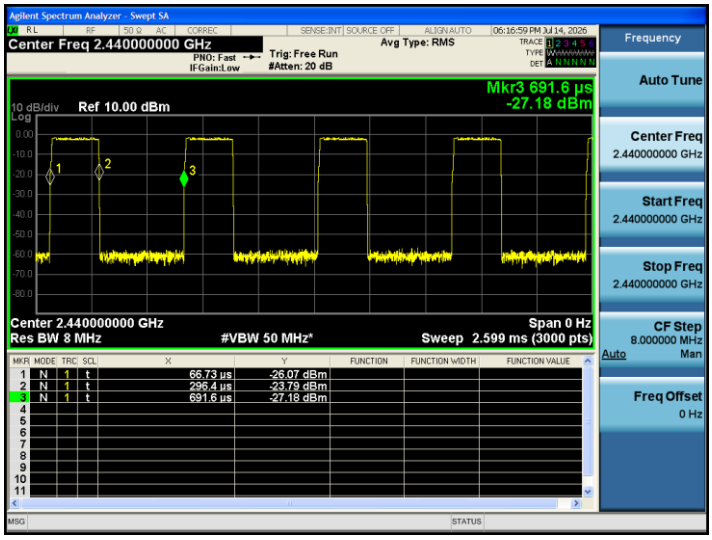
BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



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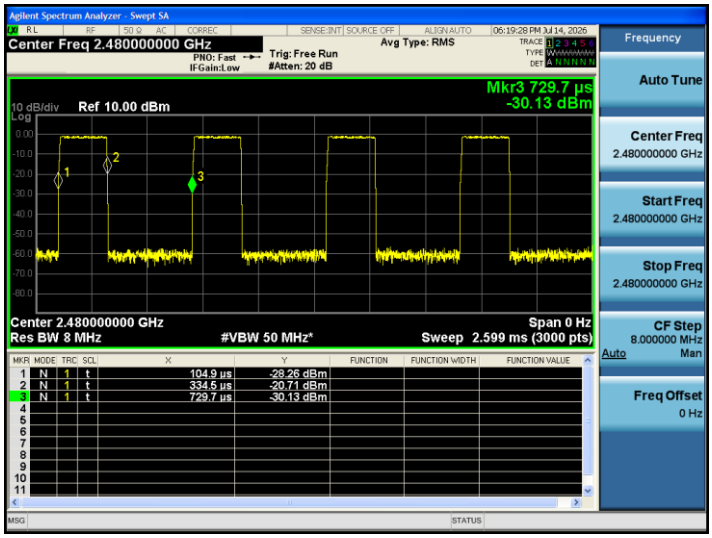

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