

Appendix Test Data for BLE (Conducted Measurement)

Product Name: TGAone Air conduction Bluetooth headset

Trade Mark: N/A

Test Model: TGAone

FCC ID: 2BF9J-TGAONE

Environmental Conditions

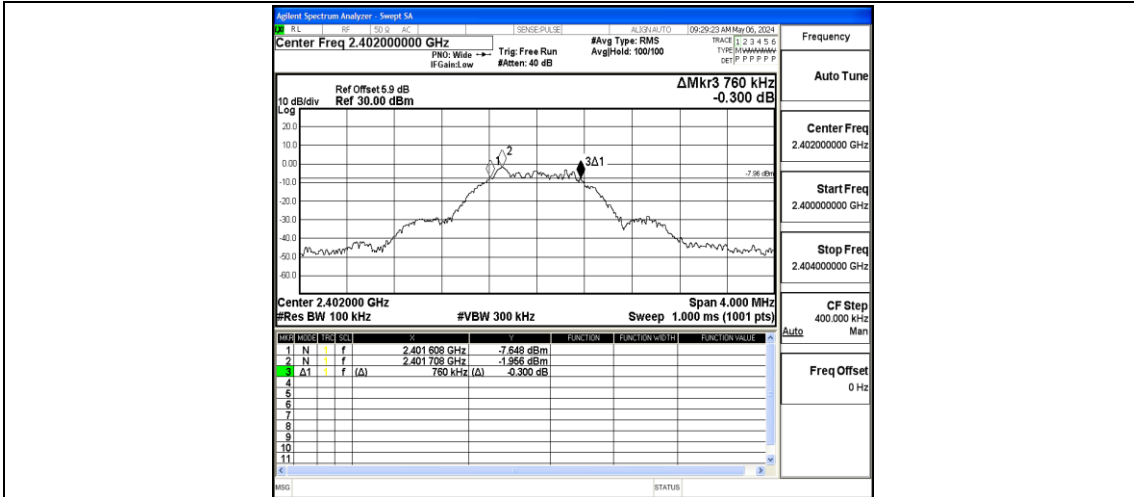
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

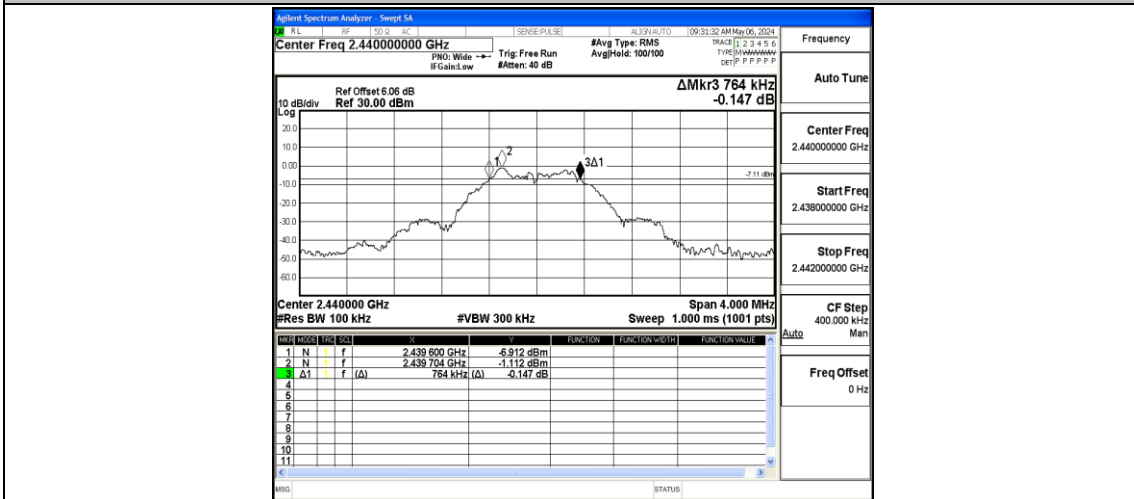
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.760	2401.608	2402.368	0.5	PASS
BLE_1M	Ant1	2440	0.764	2439.600	2440.364	0.5	PASS
BLE_1M	Ant1	2480	0.764	2479.600	2480.364	0.5	PASS

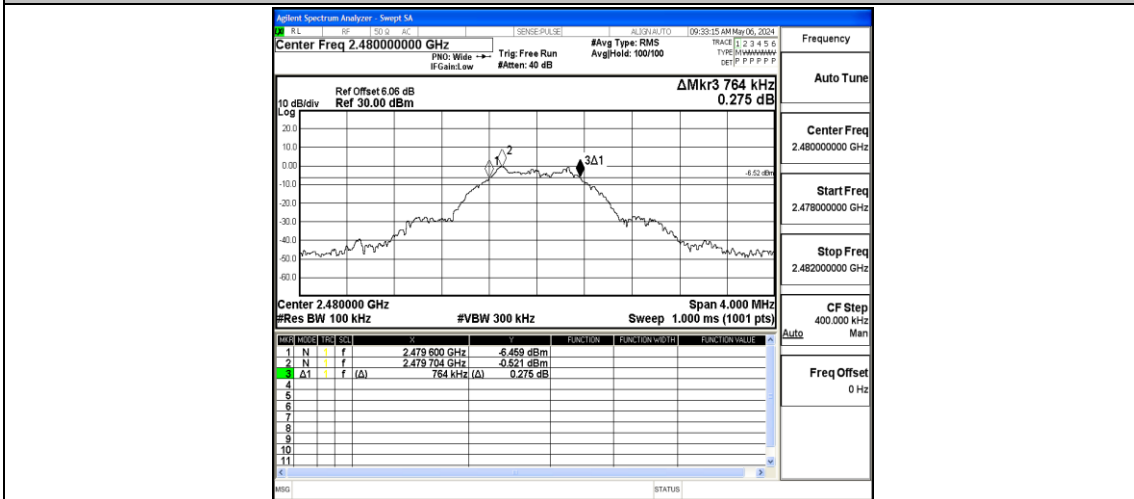
Test Graphs



BLE_1M-Ant1-240-PASS



BLE_1M-Ant1-2440-PASS



BLE_1M-Ant1-2480-PASS

Appendix B: Occupied Channel Bandwidth

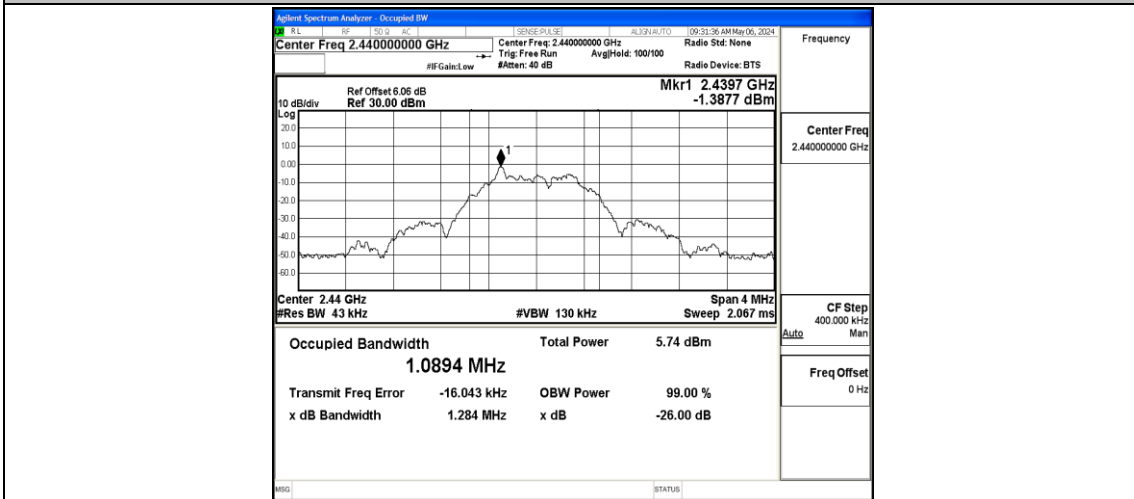
Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0957	2401.4412	2402.5369	---	---
BLE_1M	Ant1	2440	1.0894	2439.4393	2440.5287	---	---
BLE_1M	Ant1	2480	1.0866	2479.4403	2480.5269	---	---

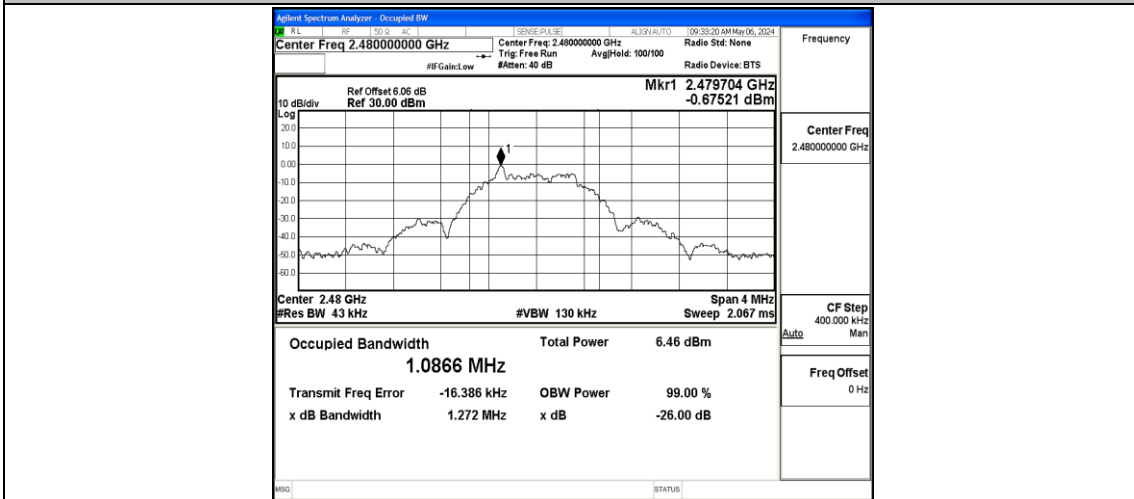
Test Graphs



BLE_1M-Ant1-2402



BLE_1M-Ant1-2440



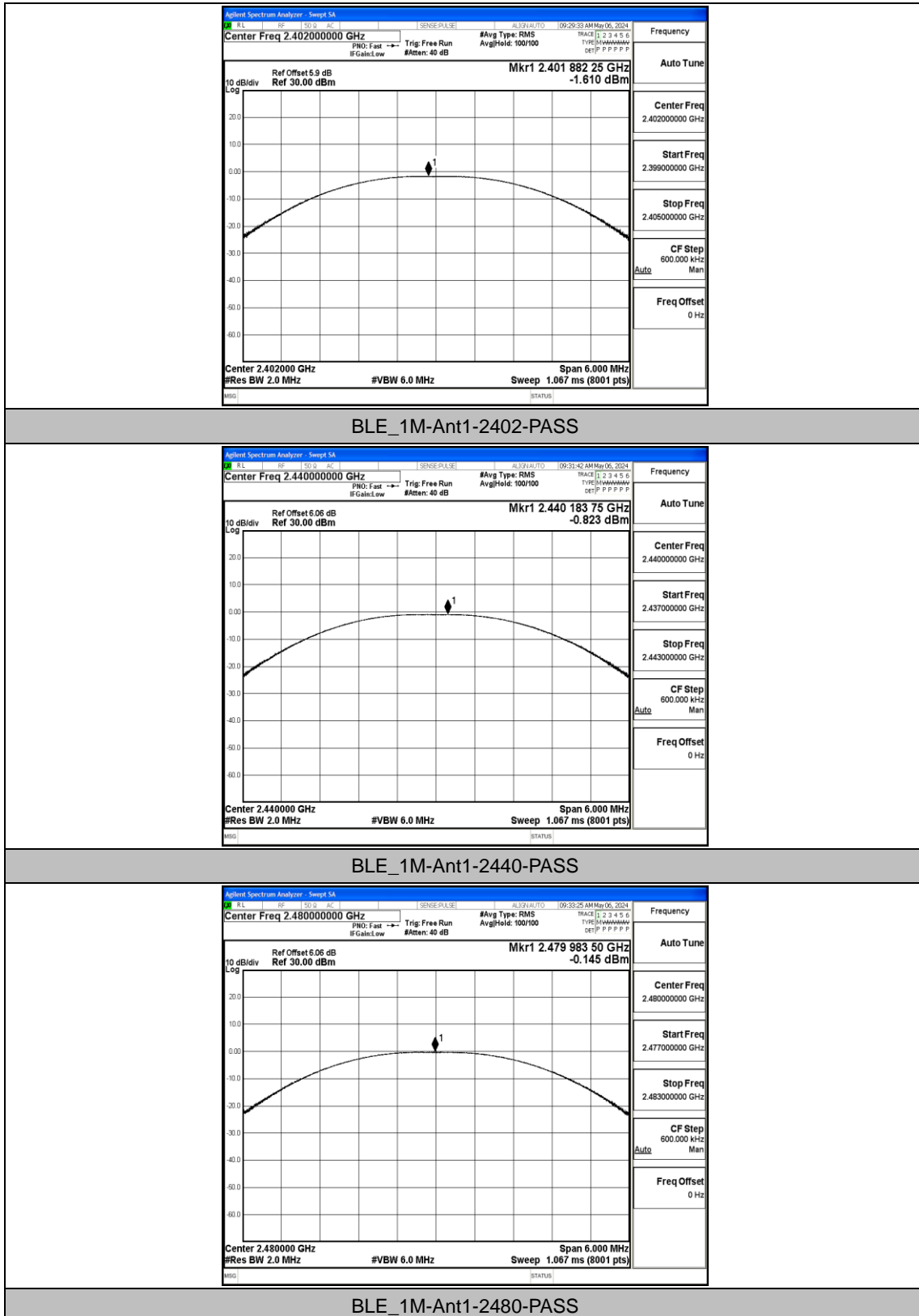
BLE_1M-Ant1-2480

Appendix C: Maximum peak conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.61	≤30	PASS
BLE_1M	Ant1	2440	-0.82	≤30	PASS
BLE_1M	Ant1	2480	-0.15	≤30	PASS

Test Graphs Peak

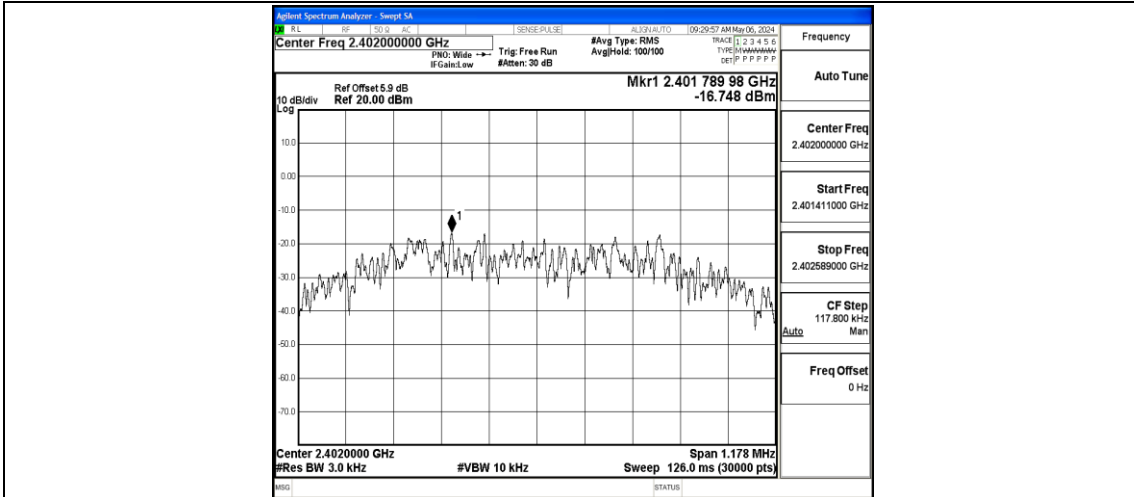


Appendix D: Maximum peak power spectral density

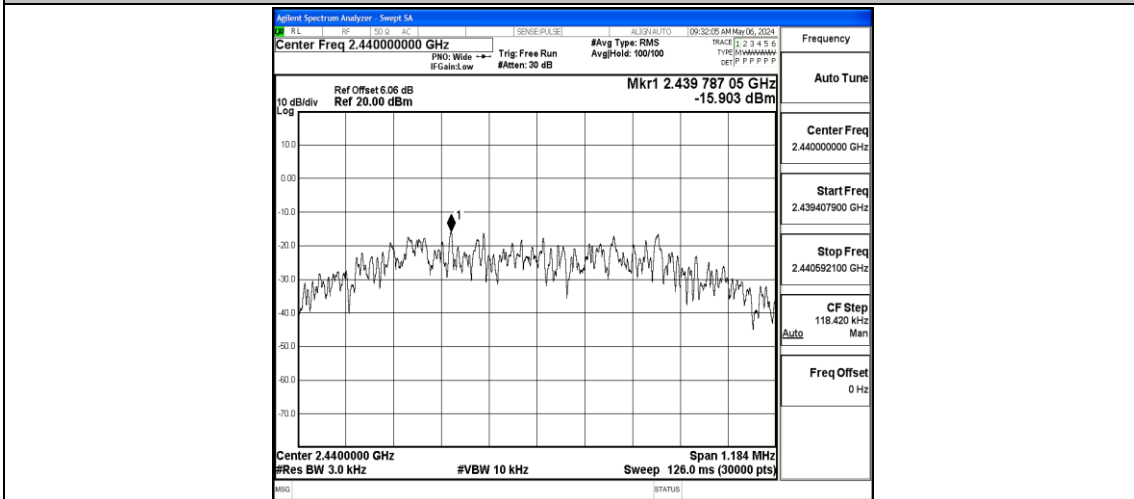
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.75	≤8.00	PASS
BLE_1M	Ant1	2440	-15.90	≤8.00	PASS
BLE_1M	Ant1	2480	-15.34	≤8.00	PASS

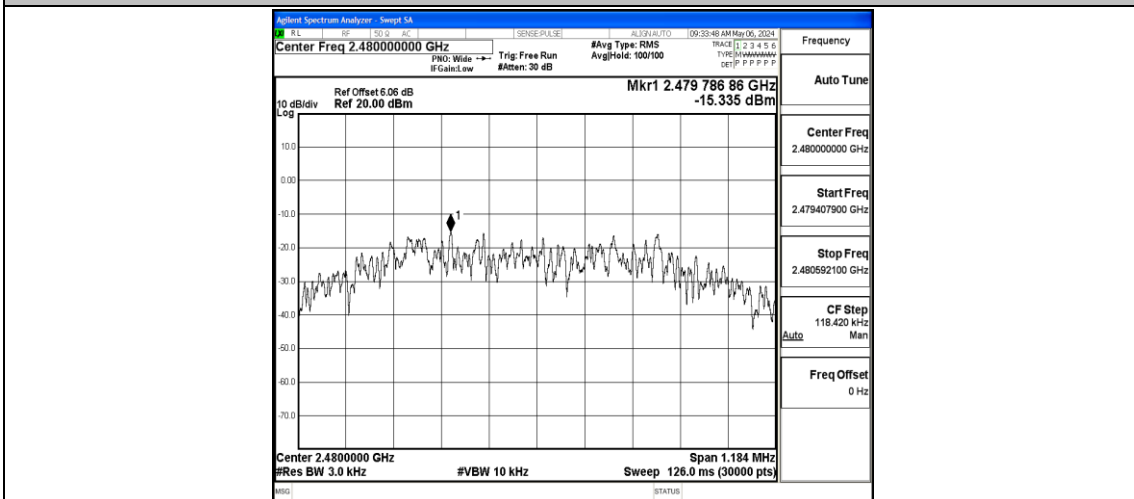
Test Graphs



BLE_1M-Ant1-240-PASS



BLE_1M-Ant1-2440-PASS



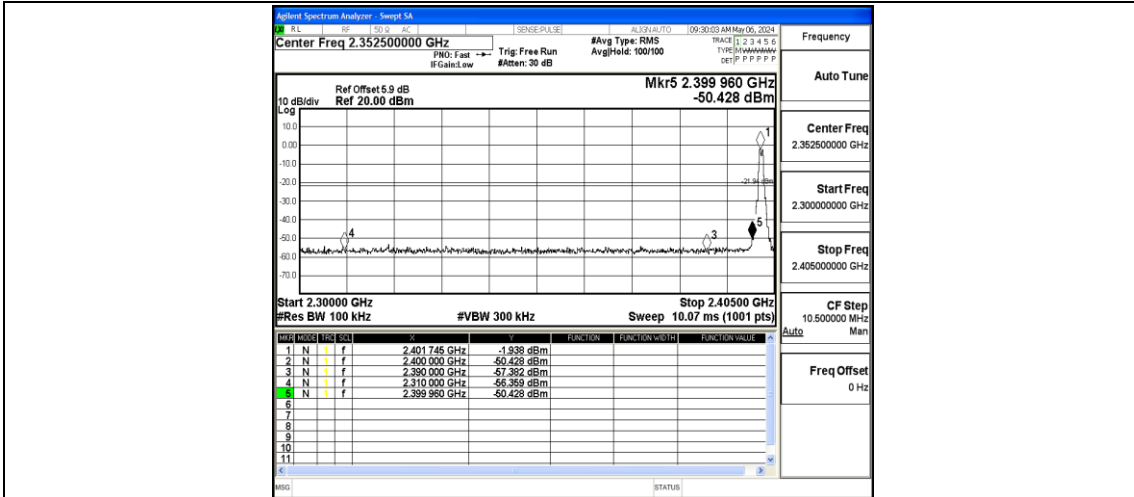
BLE_1M-Ant1-2480-PASS

Appendix E: Band edge measurements

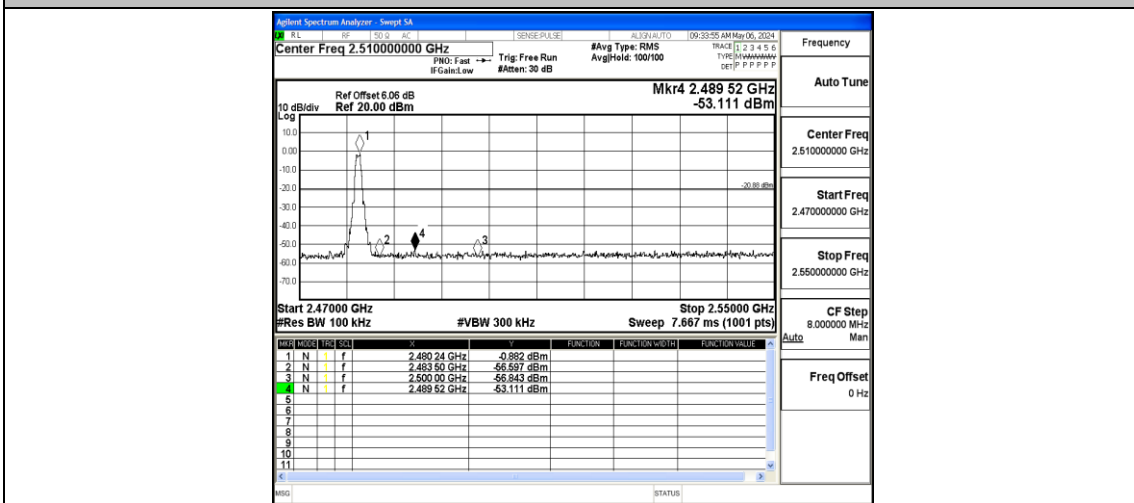
Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.94	-50.43	≤-21.94	PASS
BLE_1M	Ant1	High	2480	-0.88	-53.11	≤-20.88	PASS

Test Graphs



BLE_1M-Ant1-240-PASS



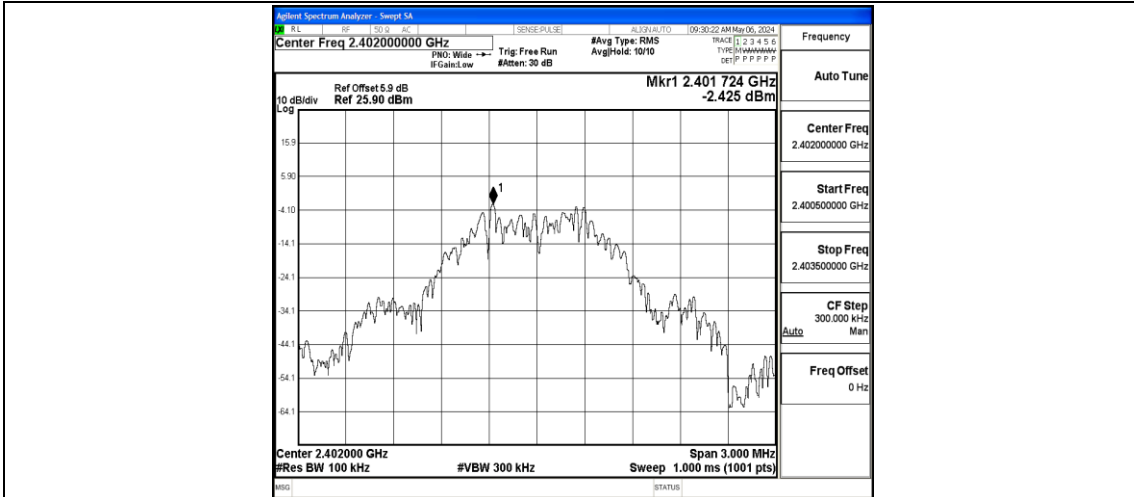
BLE_1M-Ant1-2480-PASS

Appendix F: Conducted Spurious Emission

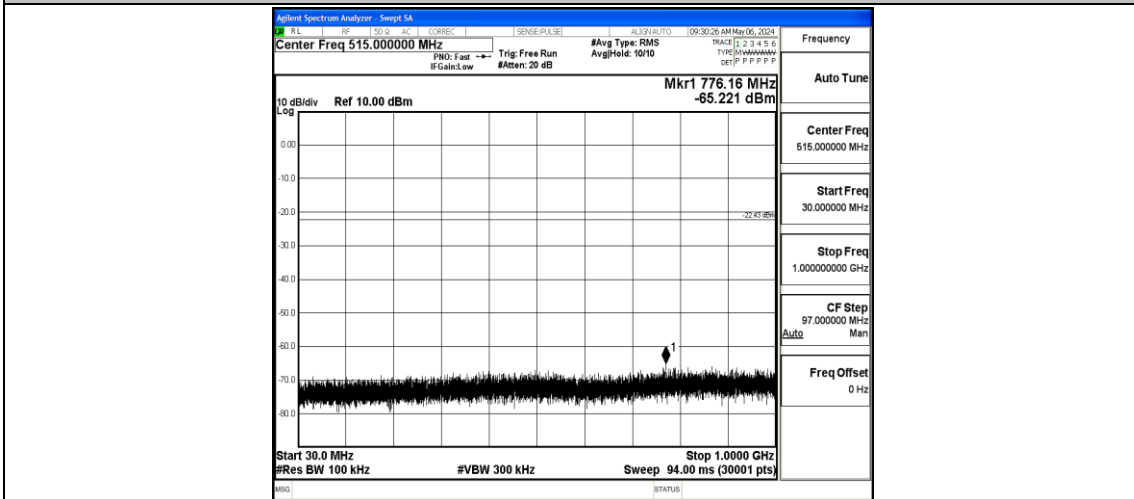
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-2.43	-2.43	---	PASS
BLE_1M	Ant1	2402	30~1000	-2.43	-65.22	≤-22.43	PASS
BLE_1M	Ant1	2402	1000~26500	-2.43	-53.17	≤-22.43	PASS
BLE_1M	Ant1	2440	0~Reference	-1.59	-1.59	---	PASS
BLE_1M	Ant1	2440	30~1000	-1.59	-65.79	≤-21.59	PASS
BLE_1M	Ant1	2440	1000~26500	-1.59	-52.68	≤-21.59	PASS
BLE_1M	Ant1	2480	0~Reference	-1.48	-1.48	---	PASS
BLE_1M	Ant1	2480	30~1000	-1.48	-65.59	≤-21.48	PASS
BLE_1M	Ant1	2480	1000~26500	-1.48	-53.59	≤-21.48	PASS

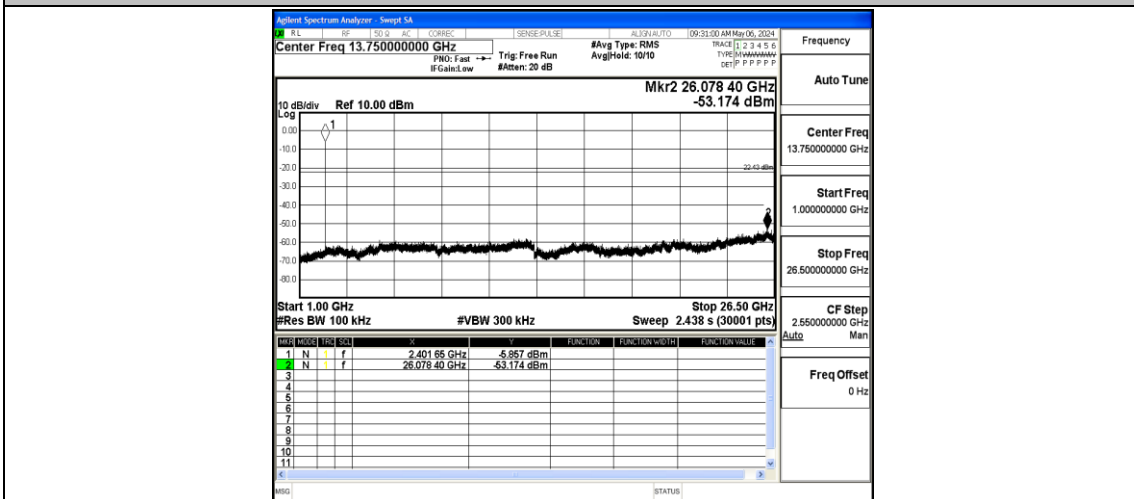
Test Graphs



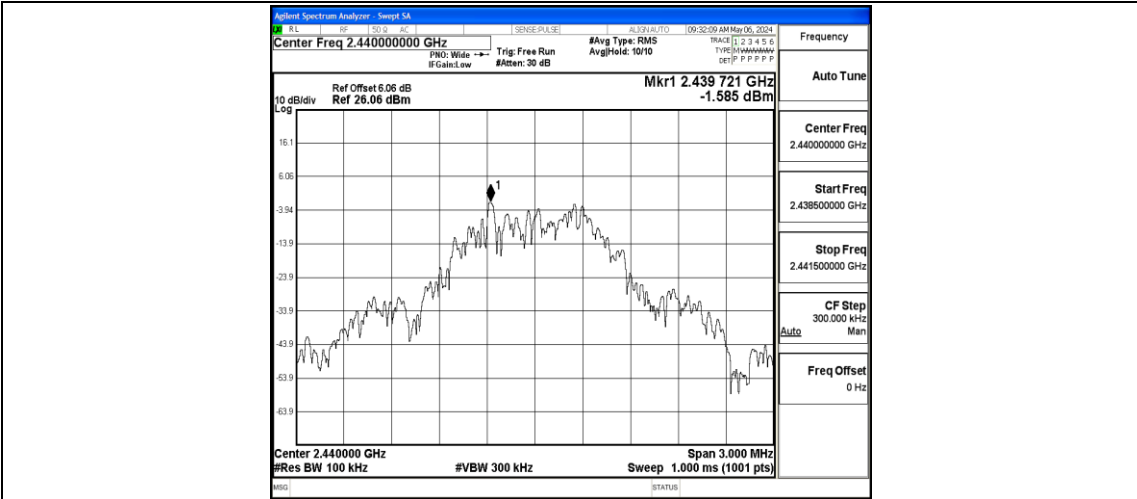
BLE_1M-Ant1-2402-0~Reference-PASS



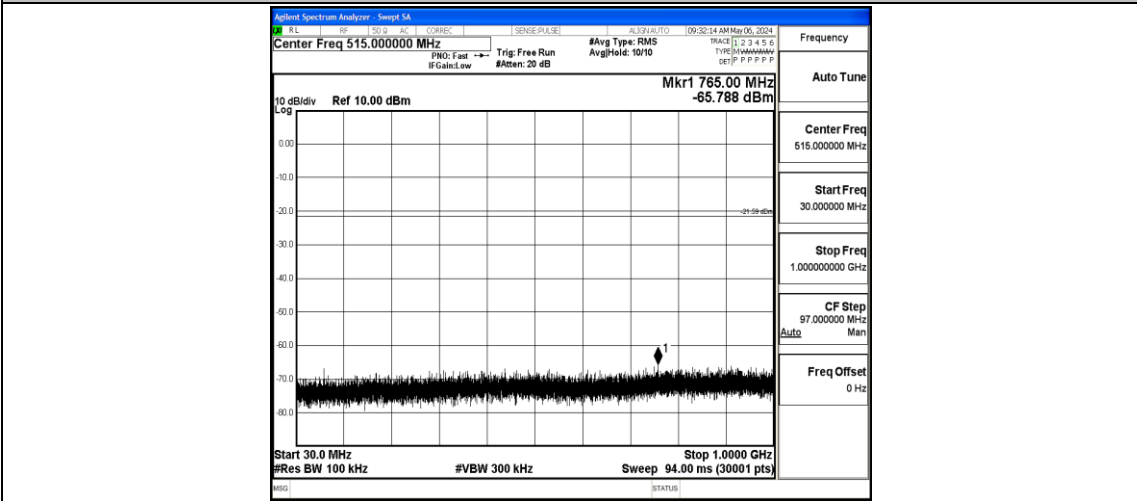
BLE_1M-Ant1-2402-30~1000-PASS



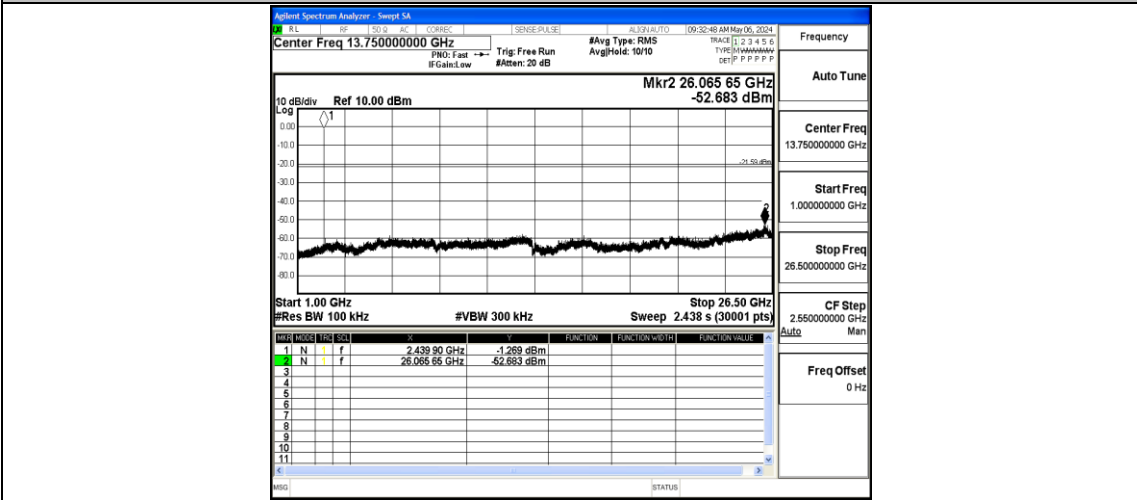
BLE_1M-Ant1-2402-1000~26500-PASS



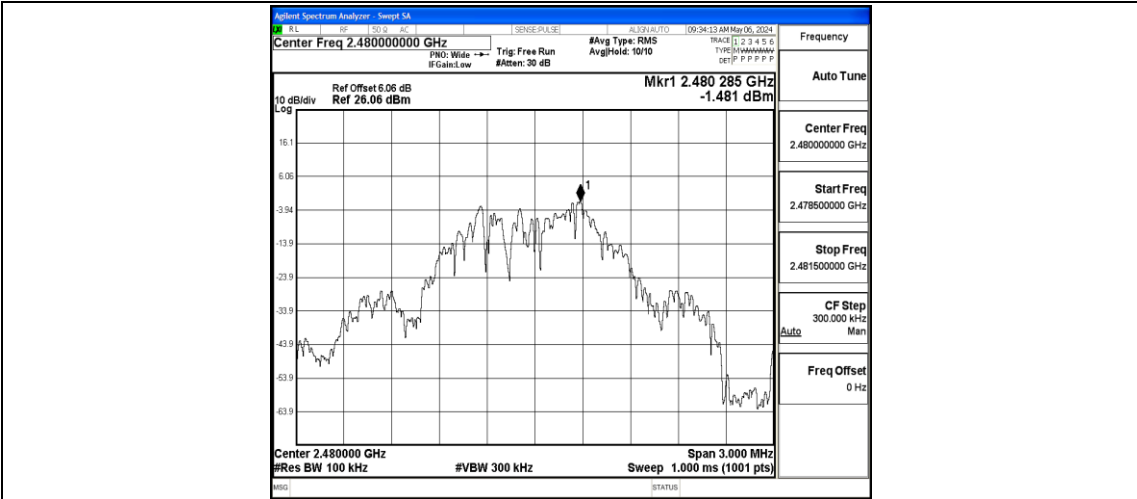
BLE_1M-Ant1-2440-0~Reference-PASS



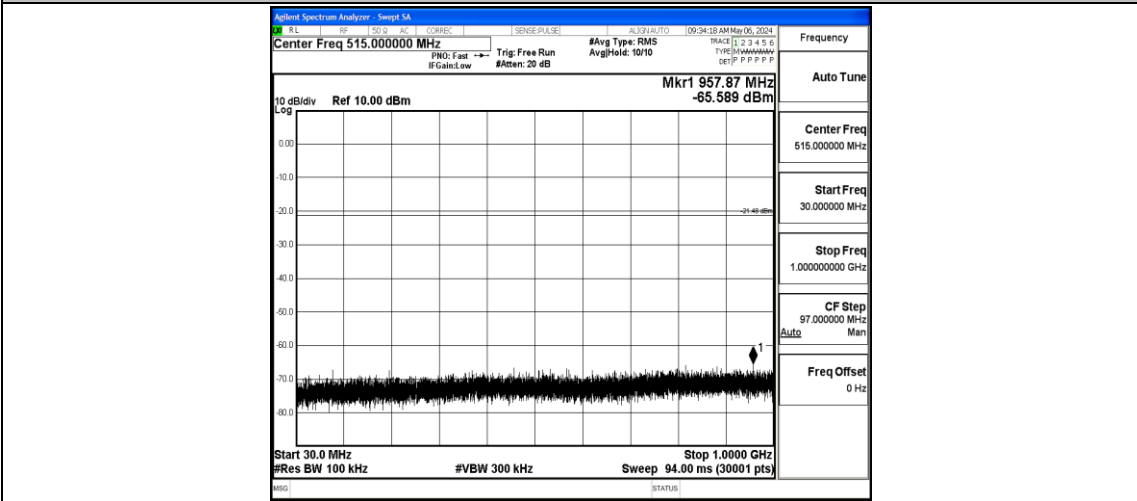
BLE_1M-Ant1-2440-30~1000-PASS



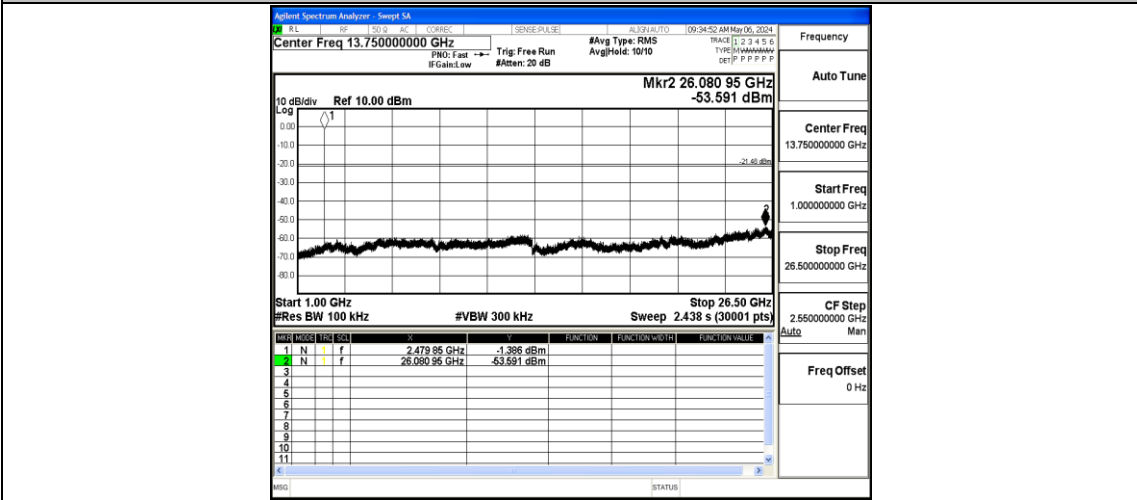
BLE_1M-Ant1-2440-1000~26500-PASS



BLE_1M-Ant1-2480-0~Reference-PASS



BLE_1M-Ant1-2480-30~1000-PASS



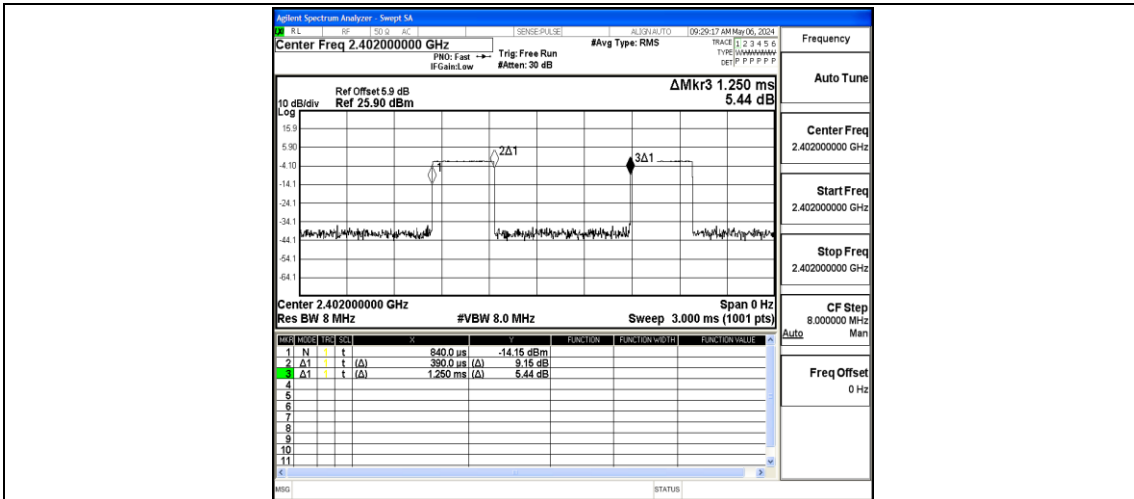
BLE_1M-Ant1-2480-1000~26500-PASS

Appendix G: Duty Cycle

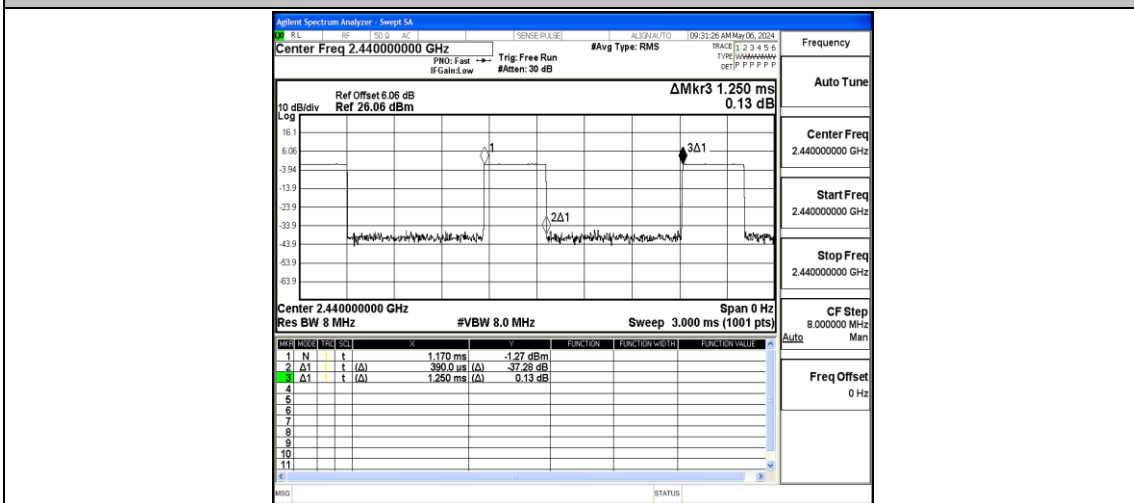
Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.39	1.25	31.20	5.06
BLE_1M	Ant1	2440	0.39	1.25	31.20	5.06
BLE_1M	Ant1	2480	0.39	1.26	30.95	5.09

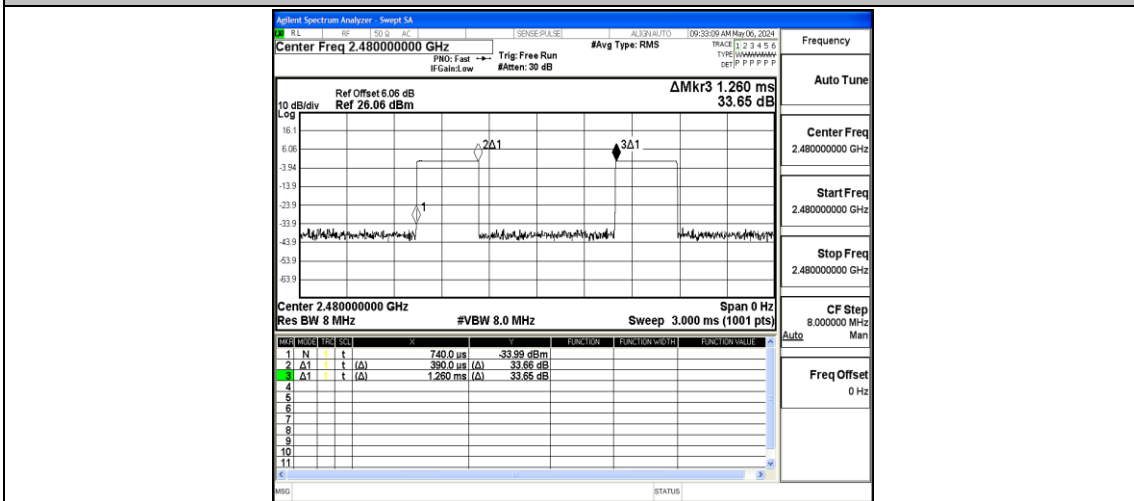
Test Graphs



NTNV-BLE_1M-Ant1-2402



NTNV-BLE_1M-Ant1-2440



NTNV-BLE_1M-Ant1-2480

Appendix H: Emissions in Restricted Bands

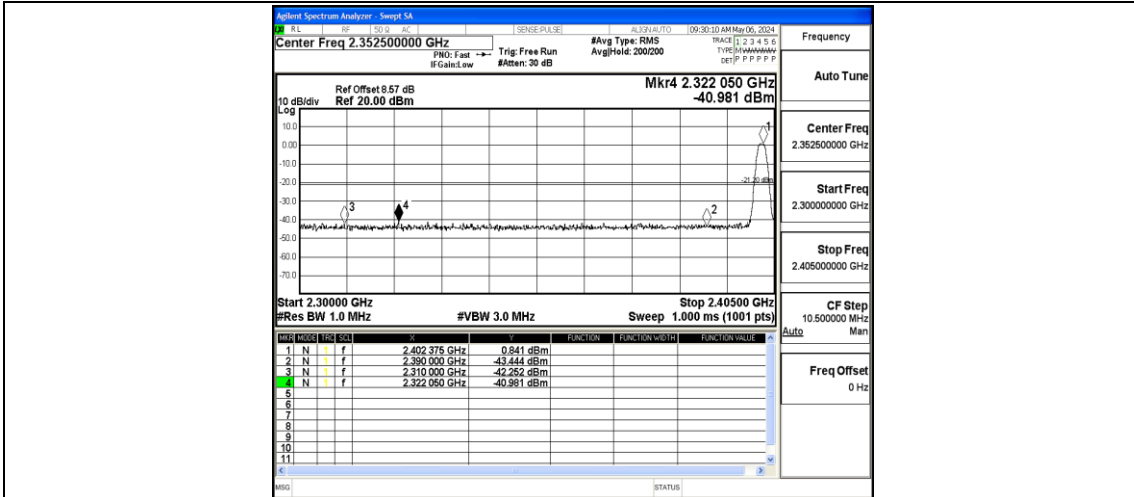
Test Result

TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	Peak	2390.000	-43.44	≤-21.20	51.76	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-42.25	≤-21.20	52.95	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2322.050	-40.98	≤-21.20	54.22	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-47.12	≤-41.20	48.08	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.45	≤-41.20	46.75	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2386.730	-46.74	≤-41.20	48.46	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-42.77	≤-21.20	52.43	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-42.44	≤-21.20	52.76	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2499.520	-40.91	≤-21.20	54.29	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-46.32	≤-41.20	48.88	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-47.17	≤-41.20	48.03	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2498.080	-45.81	≤-41.20	49.39	≤54	PASS

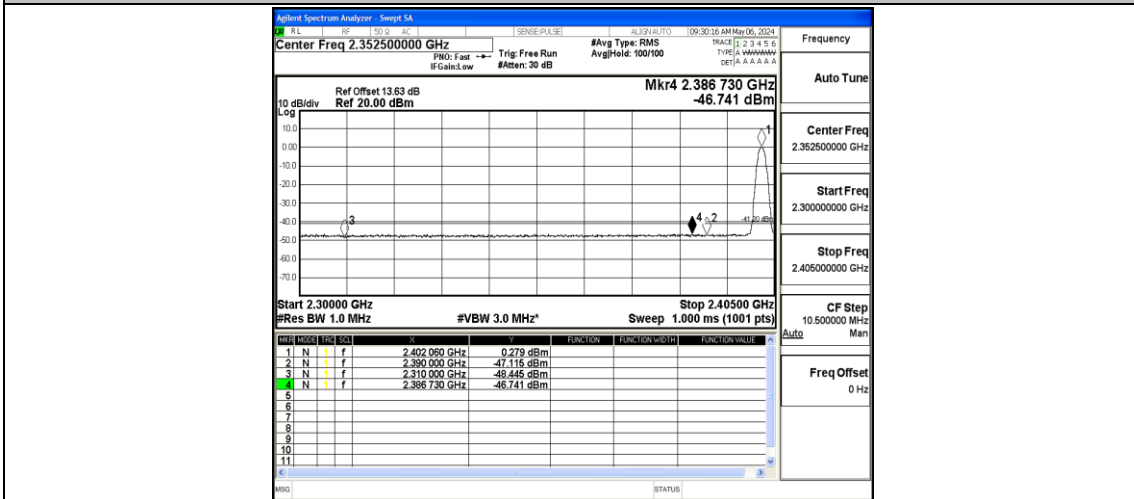
Note:

1. The Antenna Gain is compensated in the graph.
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.

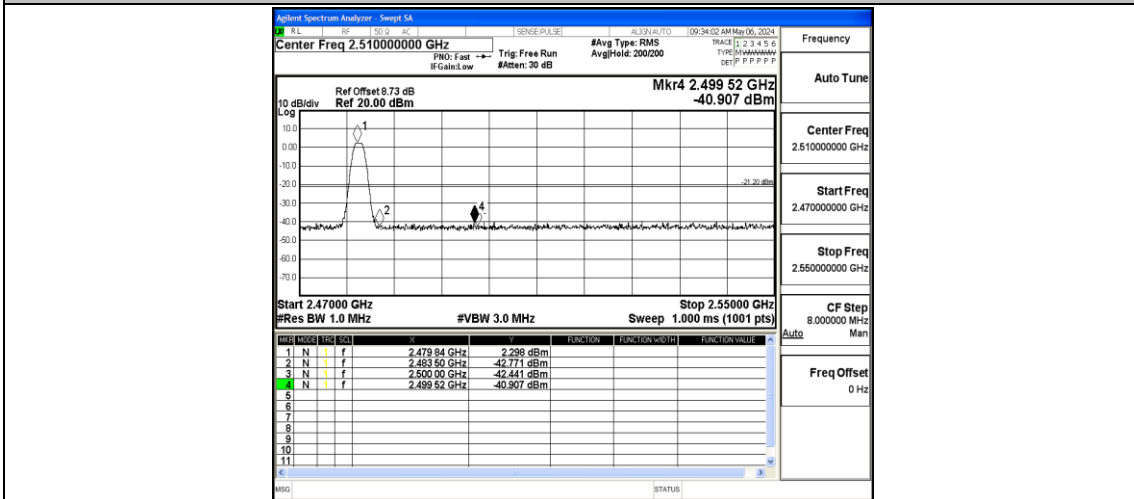
Test Graphs



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2480-PASS

