Appendix Test Data for BLE (Conducted Measurement)

Product Name: TGpor Air conduction Bluetooth headset

Trade Mark: N/A

Test Model: Tgpro

FCC ID: 2BF9J-TGPOR

Environmental Conditions

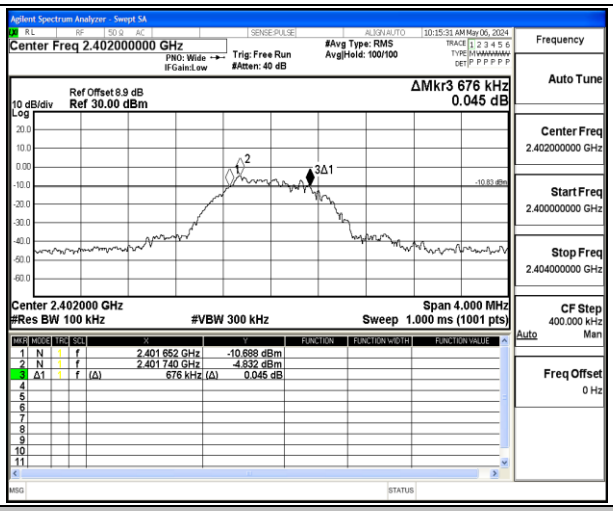
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

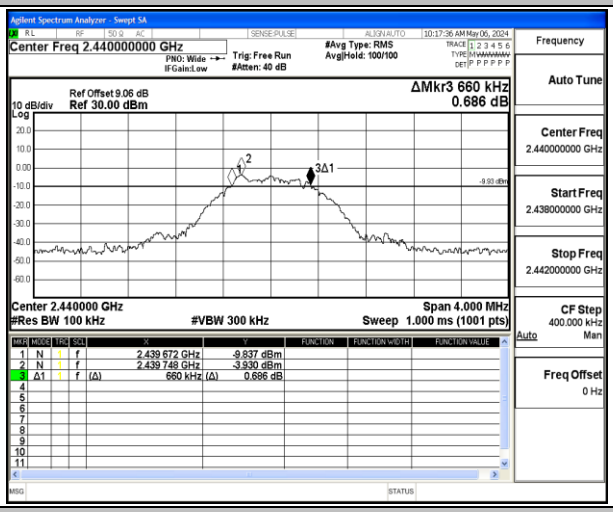
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.676	2401.652	2402.328	0.5	PASS
BLE_1M	Ant1	2440	0.660	2439.672	2440.332	0.5	PASS
BLE_1M	Ant1	2480	0.704	2479.652	2480.356	0.5	PASS

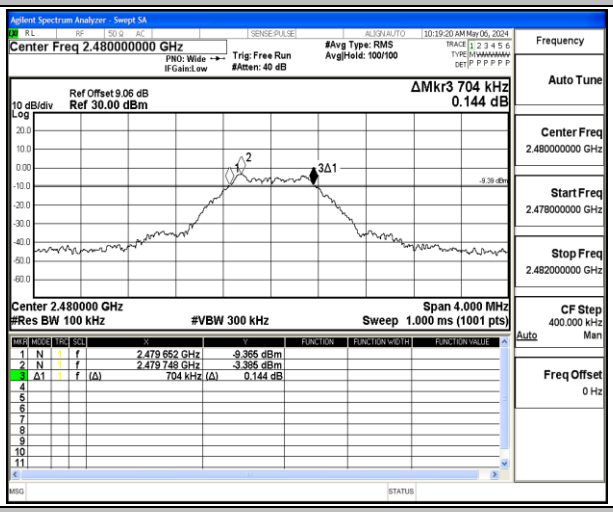
Test Graphs



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2440-PASS



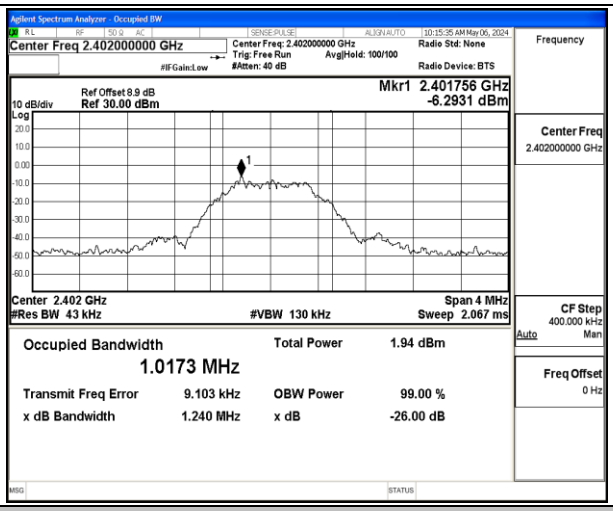
BLE_1M-Ant1-2480-PASS

Appendix B: Occupied Channel Bandwidth

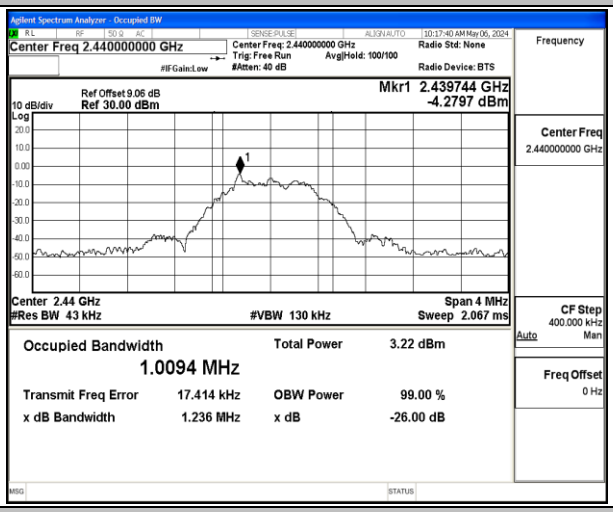
Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0173	2401.5005	2402.5178	---	---
BLE_1M	Ant1	2440	1.0094	2439.5127	2440.5221	---	---
BLE_1M	Ant1	2480	1.0164	2479.5018	2480.5182	---	---

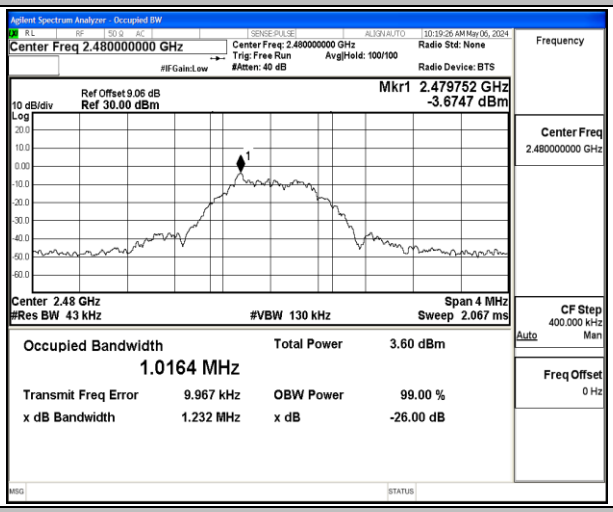
Test Graphs



BLE_1M-Ant1-2402



BLE_1M-Ant1-2440



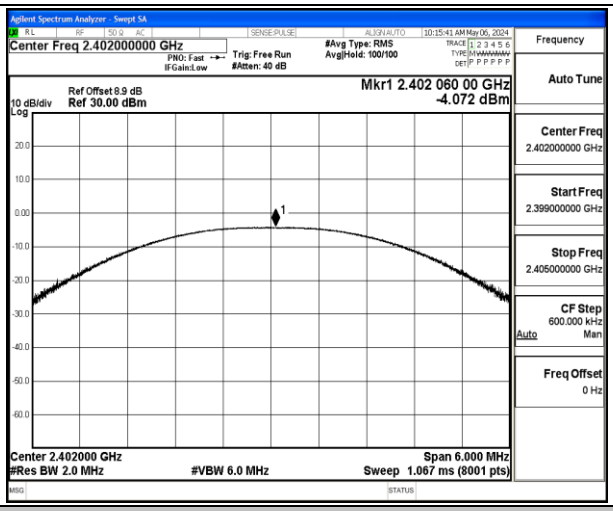
BLE_1M-Ant1-2480

Appendix C: Maximum peak conducted output power

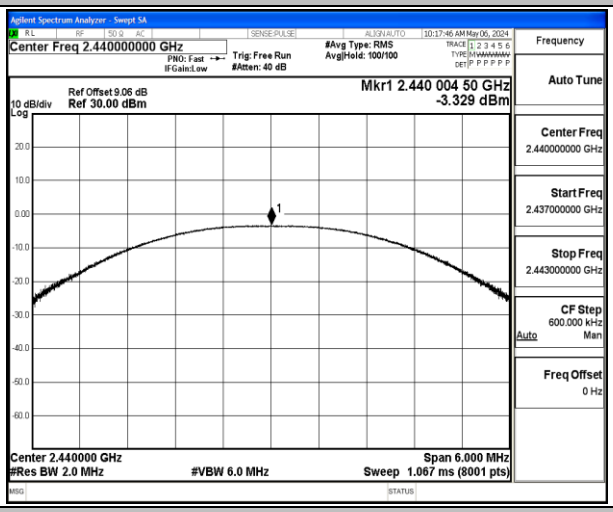
Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-4.07	≤30	PASS
BLE_1M	Ant1	2440	-3.33	≤30	PASS
BLE_1M	Ant1	2480	-2.80	≤30	PASS

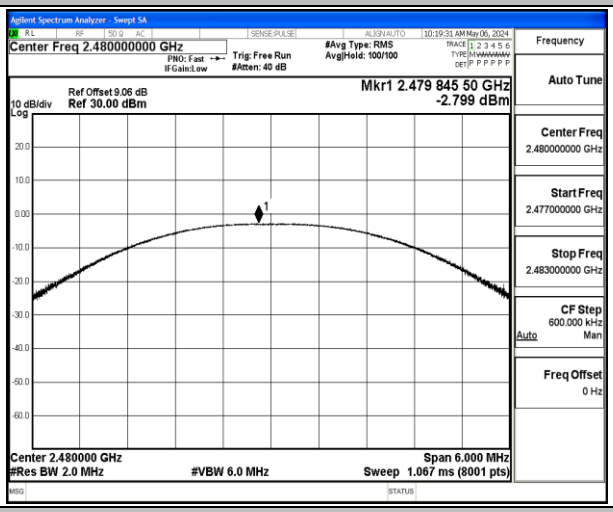
Test Graphs Peak



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2440-PASS



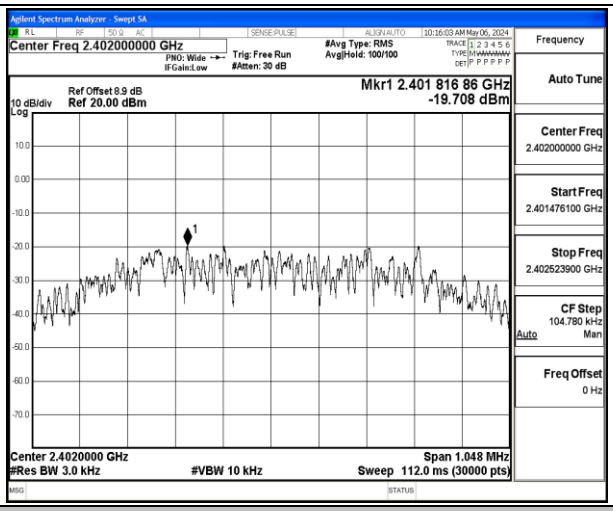
BLE_1M-Ant1-2480-PASS

Appendix D: Maximum peak power spectral density

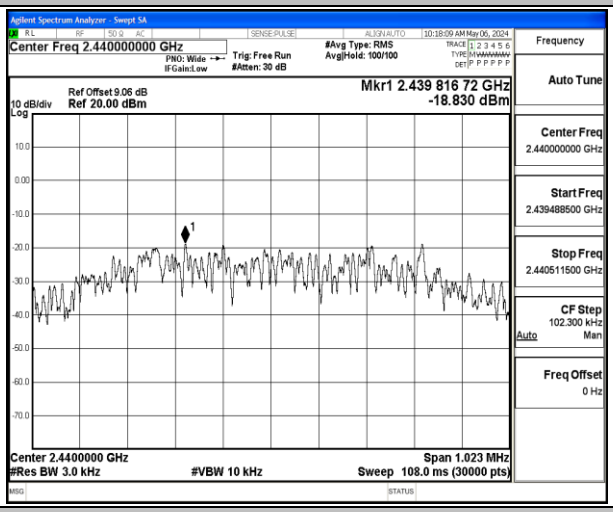
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.71	≤8.00	PASS
BLE_1M	Ant1	2440	-18.83	≤8.00	PASS
BLE_1M	Ant1	2480	-18.21	≤8.00	PASS

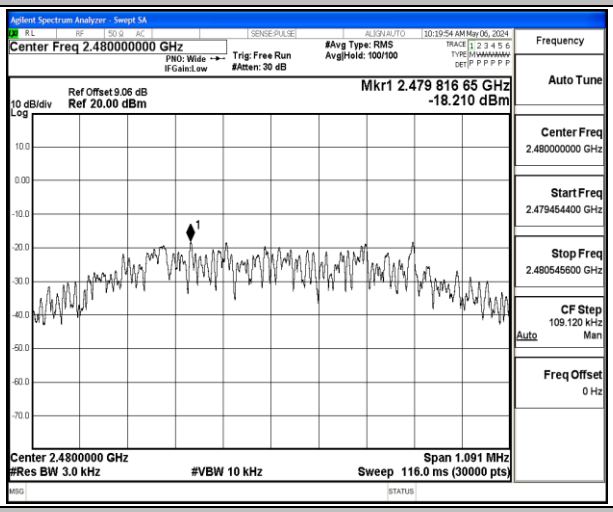
Test Graphs



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2440-PASS



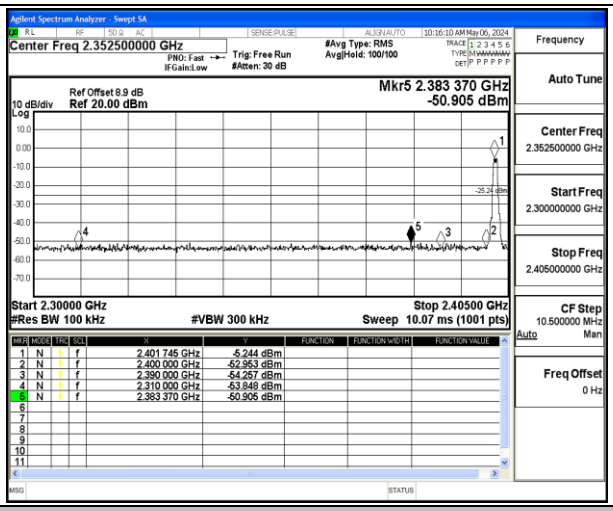
BLE_1M-Ant1-2480-PASS

Appendix E: Band edge measurements

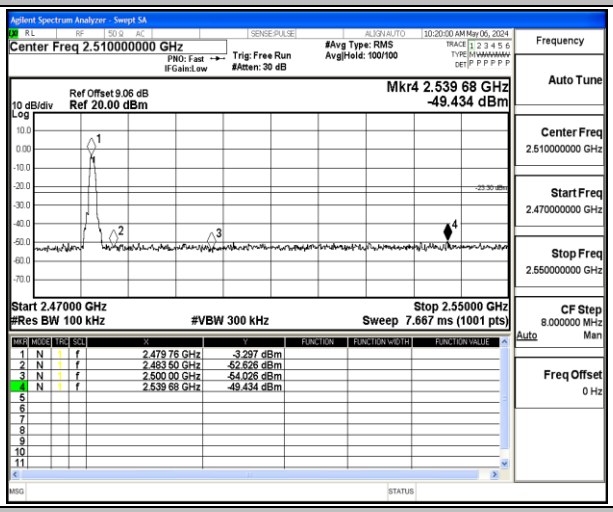
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-5.24	-50.91	≤-25.24	PASS
BLE_1M	Ant1	High	2480	-3.30	-49.43	≤-23.3	PASS

Test Graphs



BLE_1M-Ant1-2402-PASS



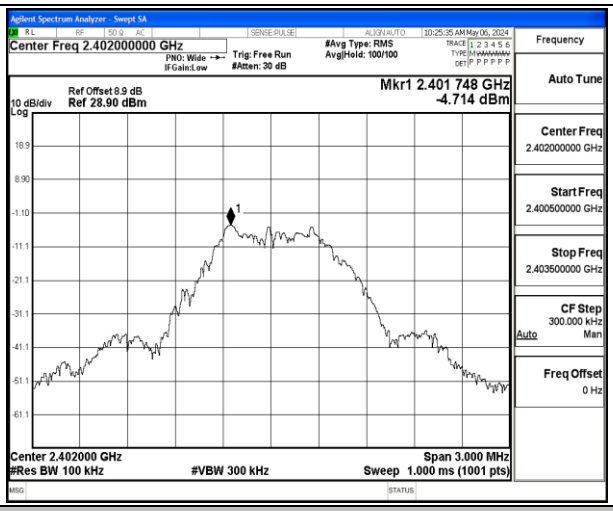
BLE_1M-Ant1-2480-PASS

Appendix F: Conducted Spurious Emission

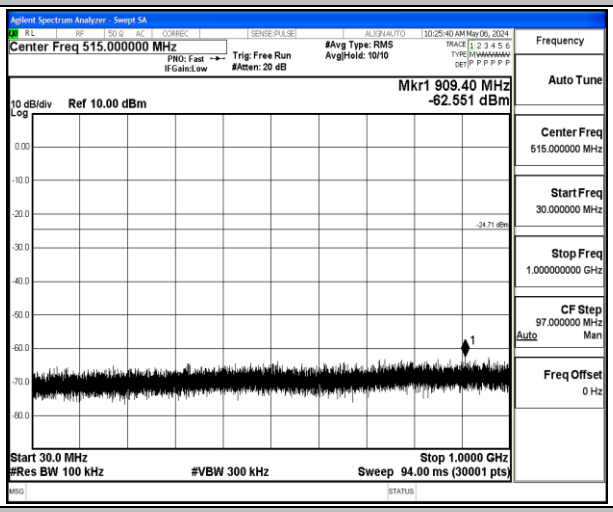
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-4.71	-4.71	---	PASS
BLE_1M	Ant1	2402	30~1000	-4.71	-62.55	≤-24.71	PASS
BLE_1M	Ant1	2402	1000~26500	-4.71	-40.32	≤-24.71	PASS
BLE_1M	Ant1	2440	0~Reference	-3.90	-3.90	---	PASS
BLE_1M	Ant1	2440	30~1000	-3.90	-62.59	≤-23.9	PASS
BLE_1M	Ant1	2440	1000~26500	-3.90	-39.82	≤-23.9	PASS
BLE_1M	Ant1	2480	0~Reference	-3.29	-3.29	---	PASS
BLE_1M	Ant1	2480	30~1000	-3.29	-62.96	≤-23.29	PASS
BLE_1M	Ant1	2480	1000~26500	-3.29	-41.54	≤-23.29	PASS

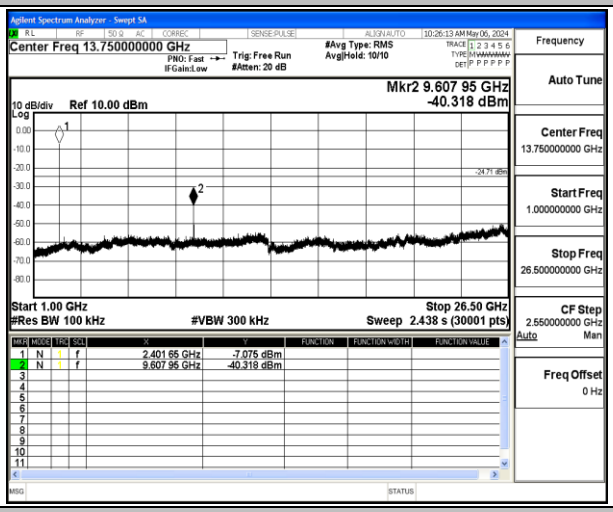
Test Graphs



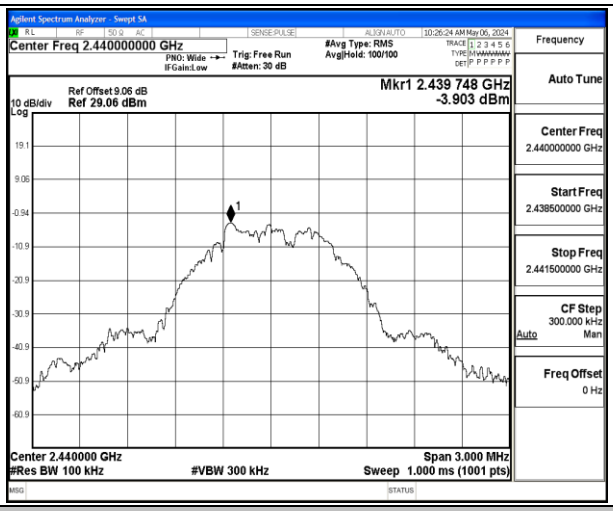
BLE_1M-Ant1-2402-0~Reference-PASS



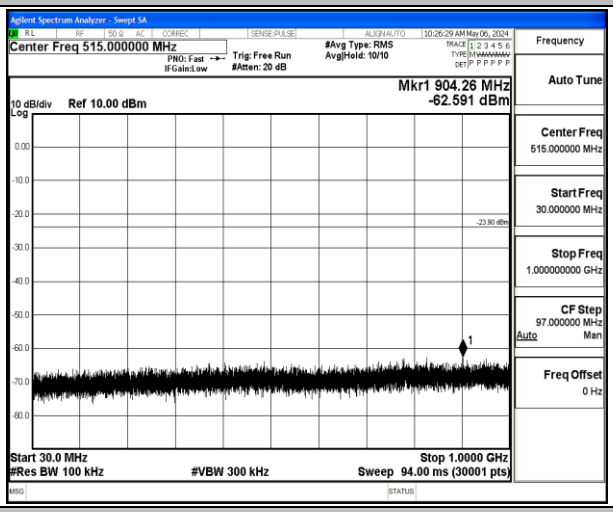
BLE_1M-Ant1-2402-30~1000-PASS



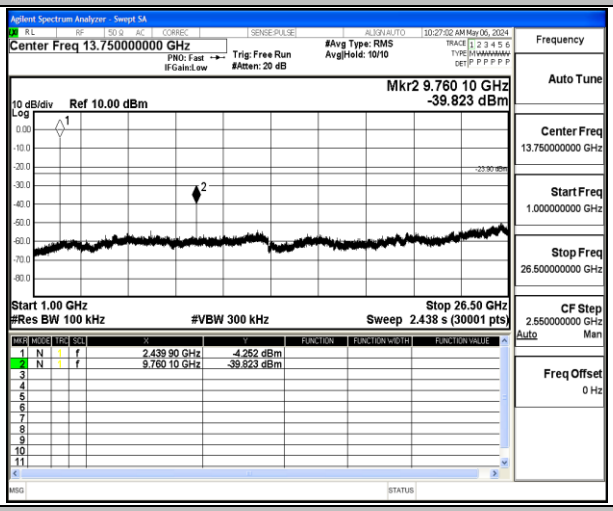
BLE_1M-Ant1-2402-1000~26500-PASS



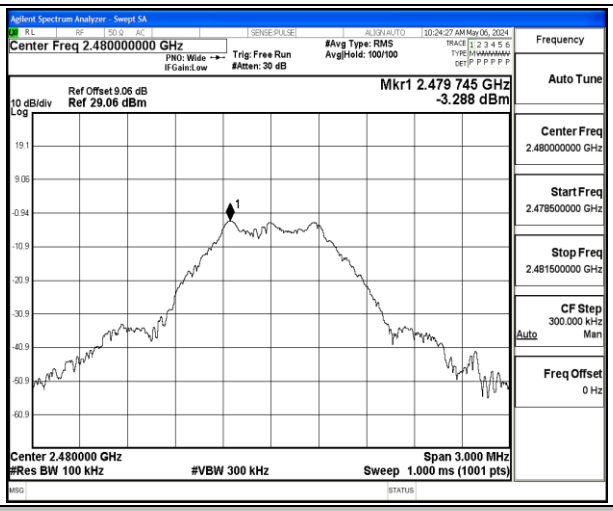
BLE_1M-Ant1-2440-0~Reference-PASS



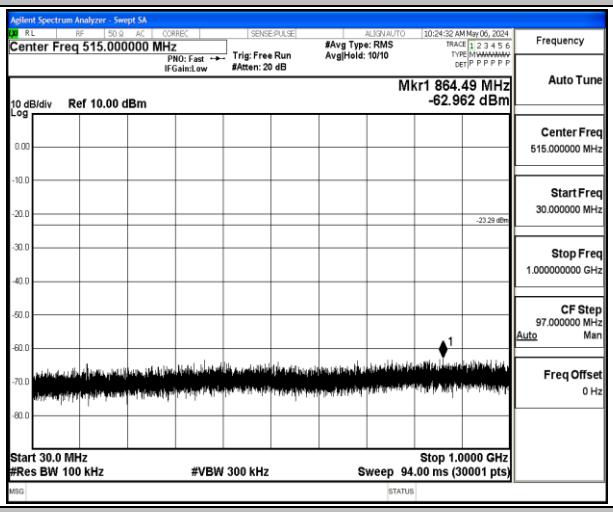
BLE_1M-Ant1-2440-30~1000-PASS



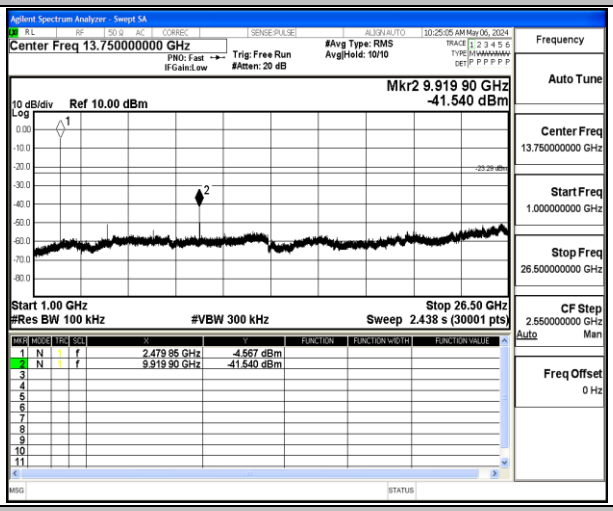
BLE_1M-Ant1-2440-1000~26500-PASS



BLE_1M-Ant1-2480-0~Reference-PASS



BLE_1M-Ant1-2480-30~1000-PASS



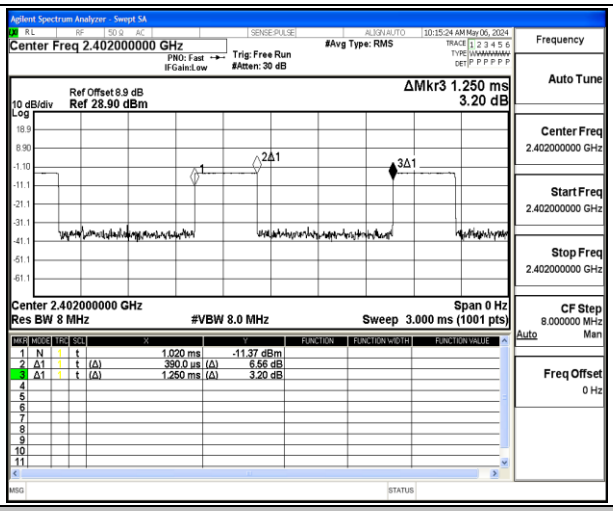
BLE_1M-Ant1-2480-1000~26500-PASS

Appendix G: Duty Cycle

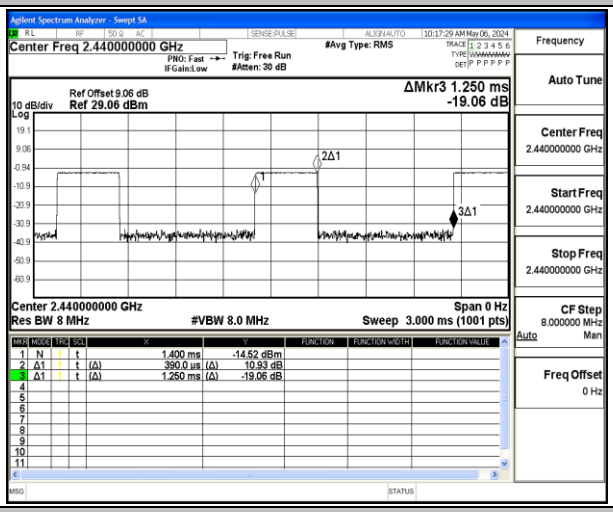
Test Result

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	1.25	31.20	5.06

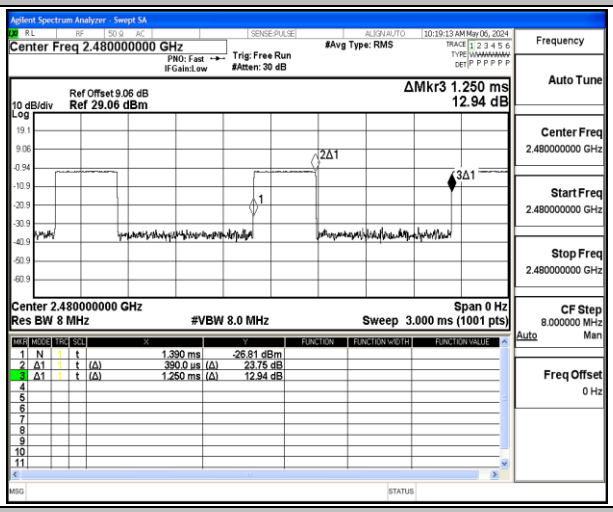
Test Graphs



NTNV-BLE_1M-Ant1-2402



NTNV-BLE_1M-Ant1-2440



NTNV-BLE_1M-Ant1-2480

Appendix H: Emissions in Restricted Bands

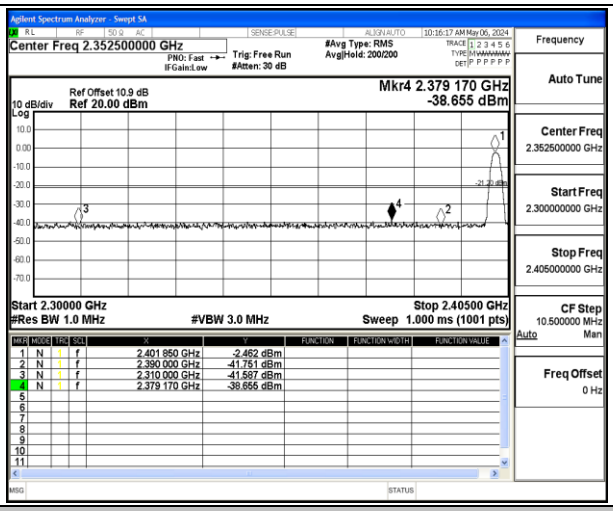
Test Result

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	-41.75	≤-21.20	53.45	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-41.59	≤-21.20	53.61	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2379.170	-38.65	≤-21.20	56.55	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-44.63	≤-41.20	50.57	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-45.13	≤-41.20	50.07	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2347.670	-44.18	≤-41.20	51.02	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-41.24	≤-21.20	53.96	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-40.7	≤-21.20	54.50	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2492.080	-38.11	≤-21.20	57.09	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-44.62	≤-41.20	50.58	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-44.28	≤-41.20	50.92	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2499.920	-43.66	≤-41.20	51.54	≤54	PASS

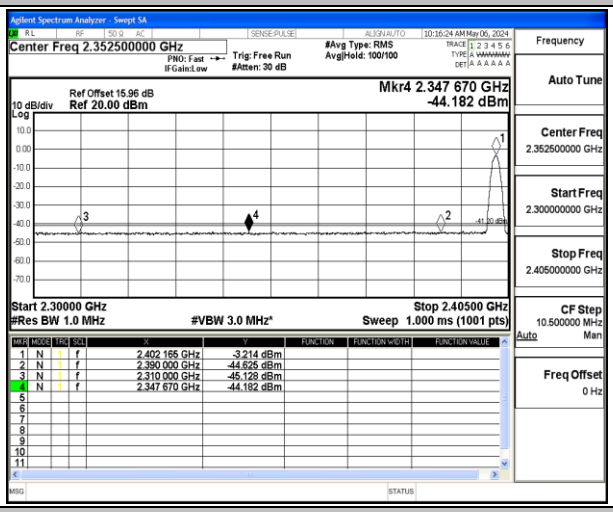
Note：

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.

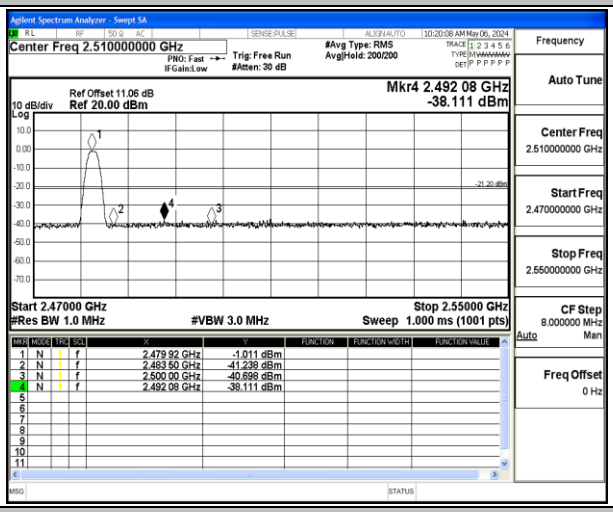
Test Graphs



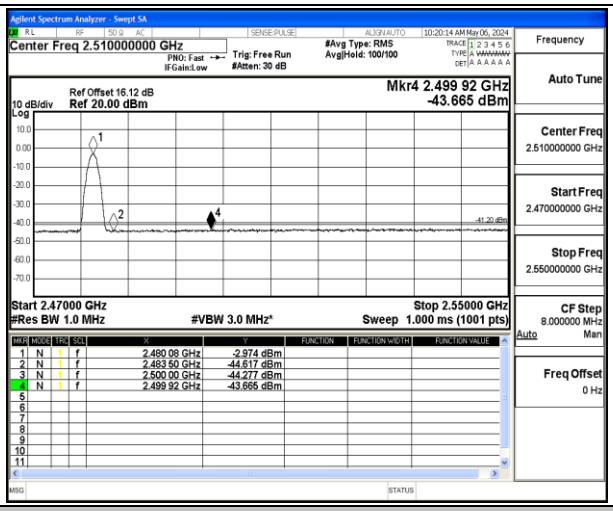
BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2480-PASS



BLE_1M-Ant1-2480-PASS