

Appendix Test Data for BLE (Conducted Measurement)

Product Name: Projector

Trade Mark: N/A

Test Model: T11-Dpro

FCC ID: 2BF78T11-DPRO

Environmental Conditions

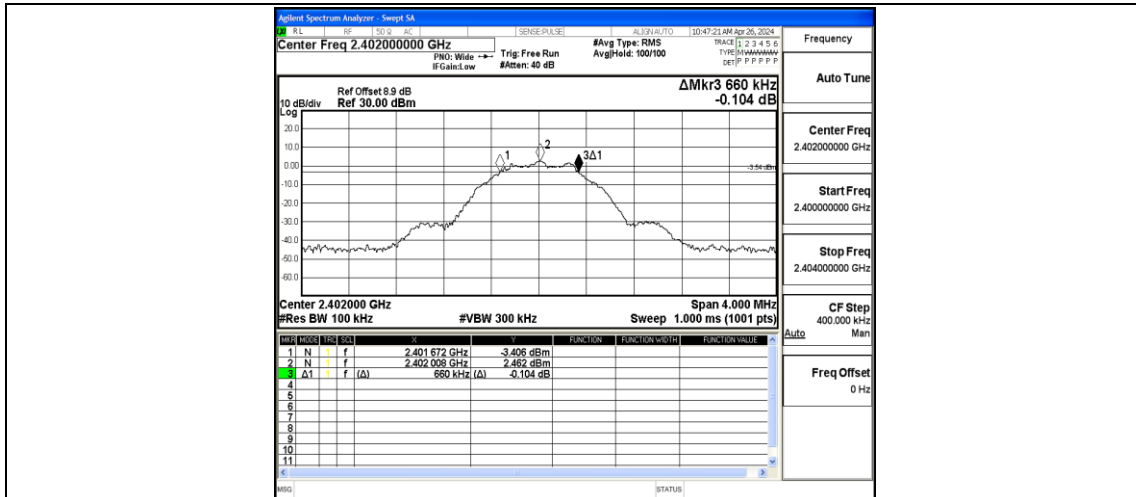
Temperature:	23.8°C
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

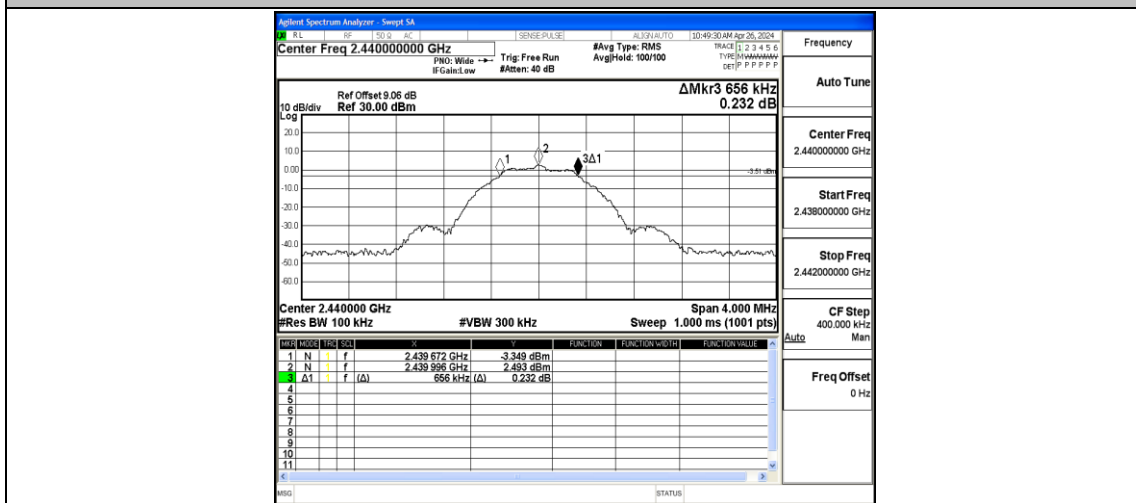
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.672	2402.332	0.5	PASS
BLE_1M	Ant1	2440	0.656	2439.672	2440.328	0.5	PASS
BLE_1M	Ant1	2480	0.656	2479.680	2480.336	0.5	PASS

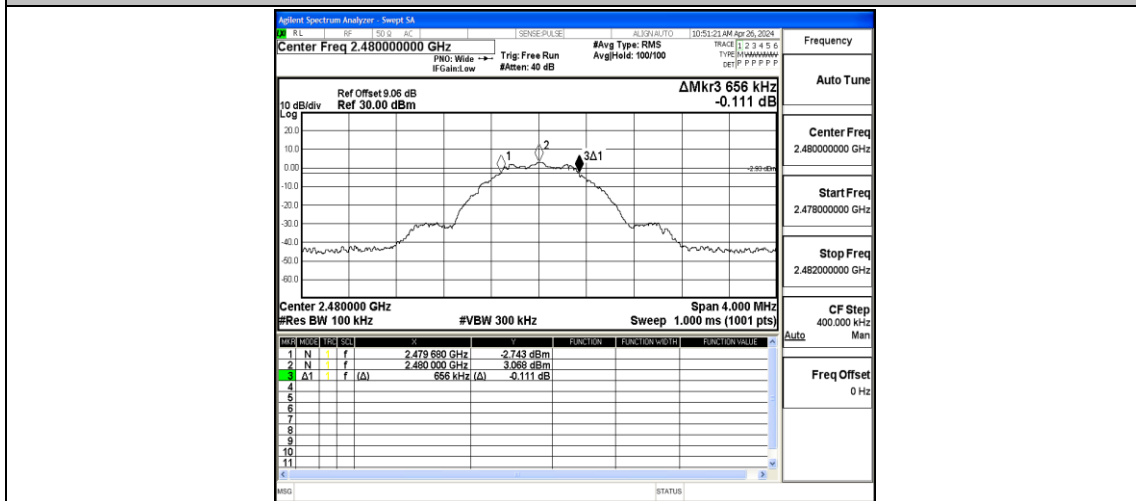
Test Graphs



BLE_1M-Ant1-240-PASS



BLE_1M-Ant1-244-PASS



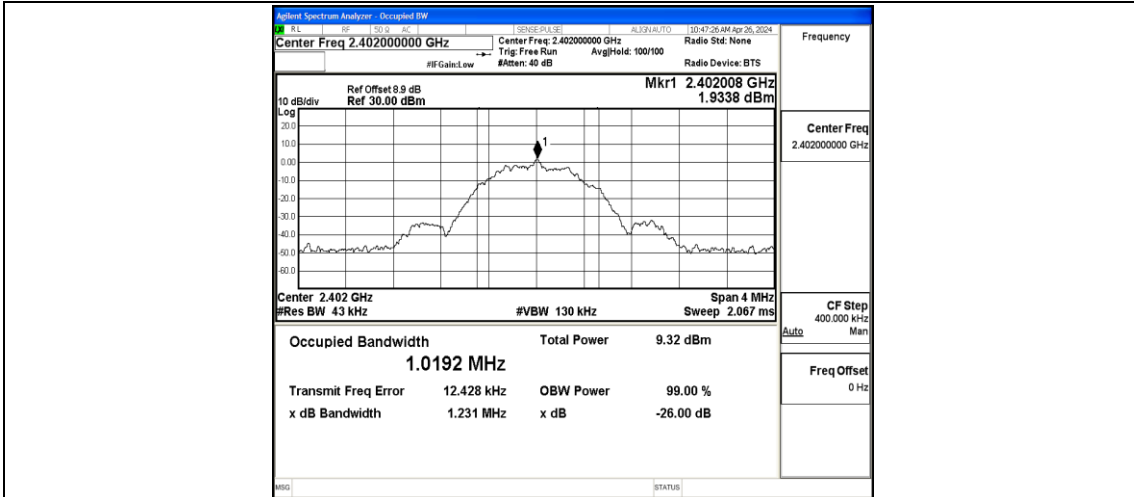
BLE_1M-Ant1-2480-PASS

Appendix B: Occupied Channel Bandwidth

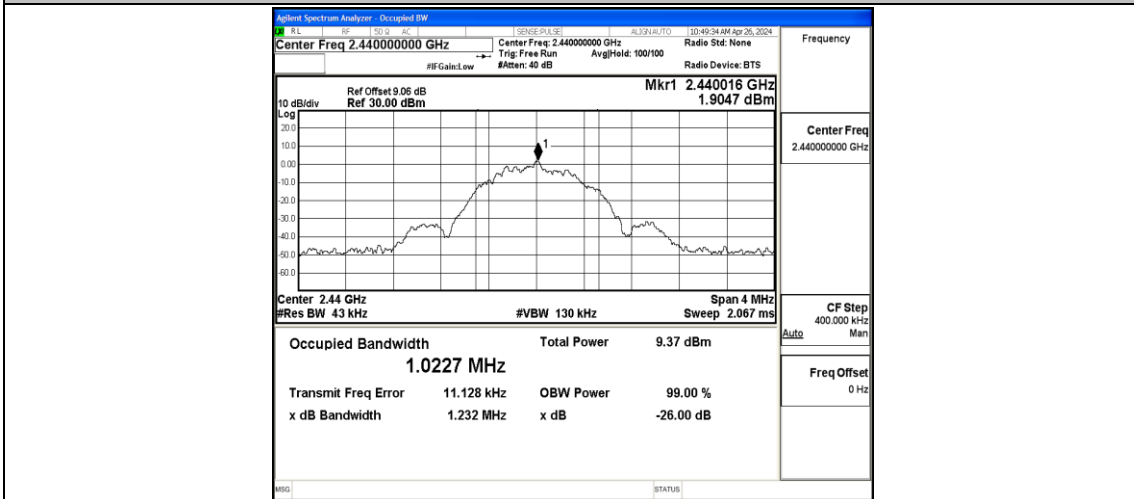
Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0192	2401.5028	2402.5220	---	---
BLE_1M	Ant1	2440	1.0227	2439.4998	2440.5225	---	---
BLE_1M	Ant1	2480	1.0265	2479.4975	2480.5240	---	---

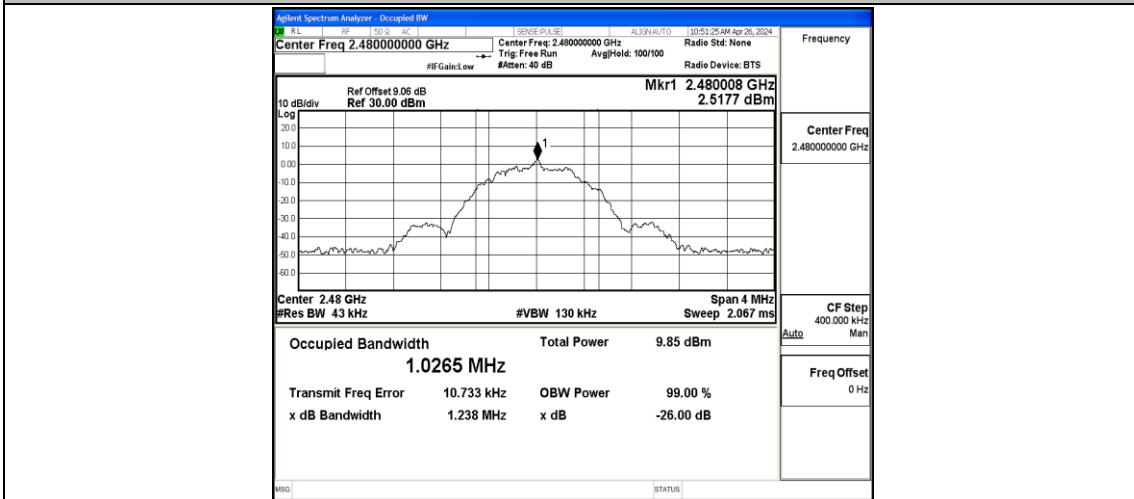
Test Graphs



BLE_1M-Ant1-2402



BLE_1M-Ant1-2440



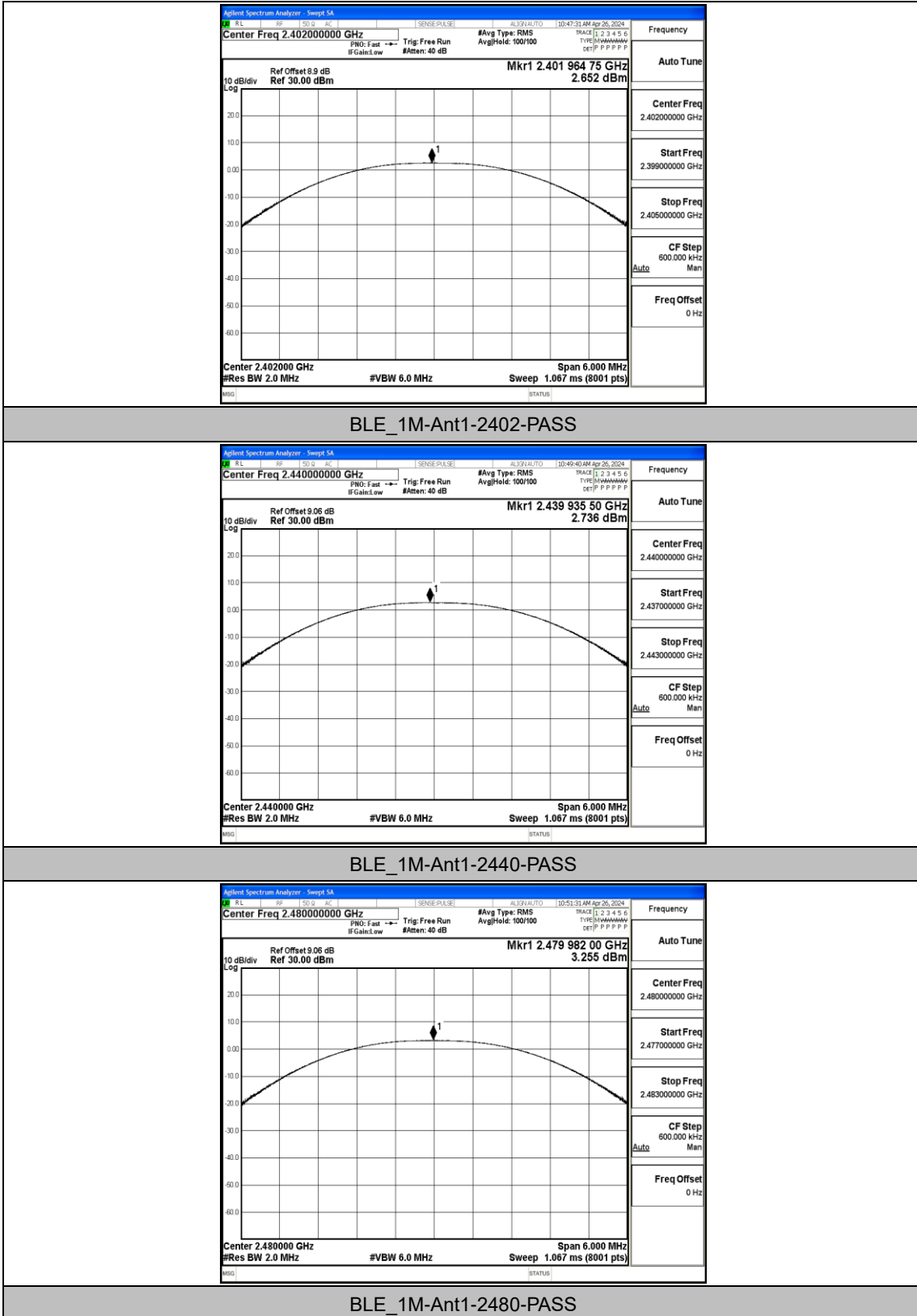
BLE_1M-Ant1-2480

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	2.65	≤30	PASS
BLE_1M	Ant1	2440	2.74	≤30	PASS
BLE_1M	Ant1	2480	3.26	≤30	PASS

Test Graphs Peak

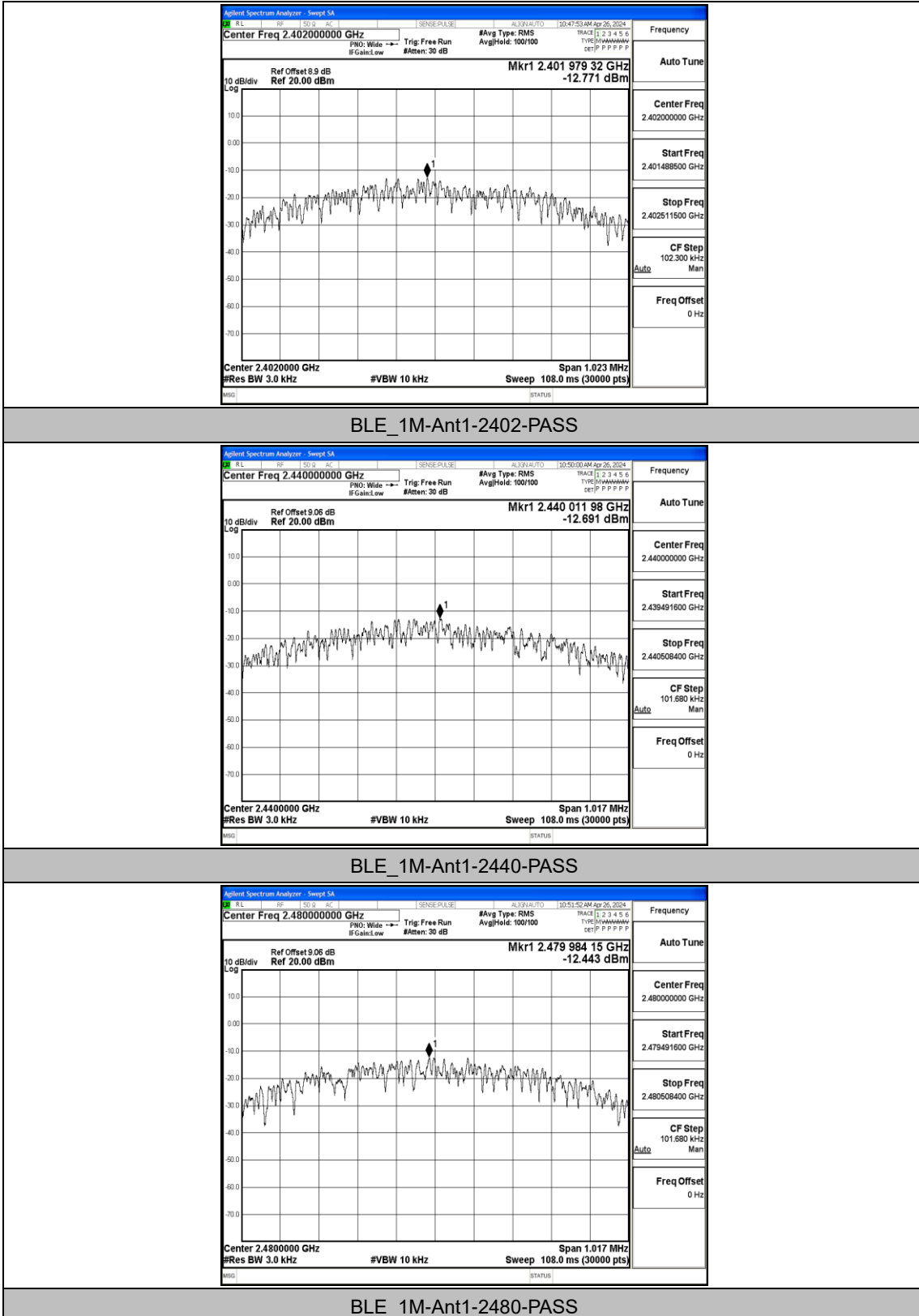


Appendix D: Maximum peak power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.77	≤8.00	PASS
BLE_1M	Ant1	2440	-12.69	≤8.00	PASS
BLE_1M	Ant1	2480	-12.44	≤8.00	PASS

Test Graphs

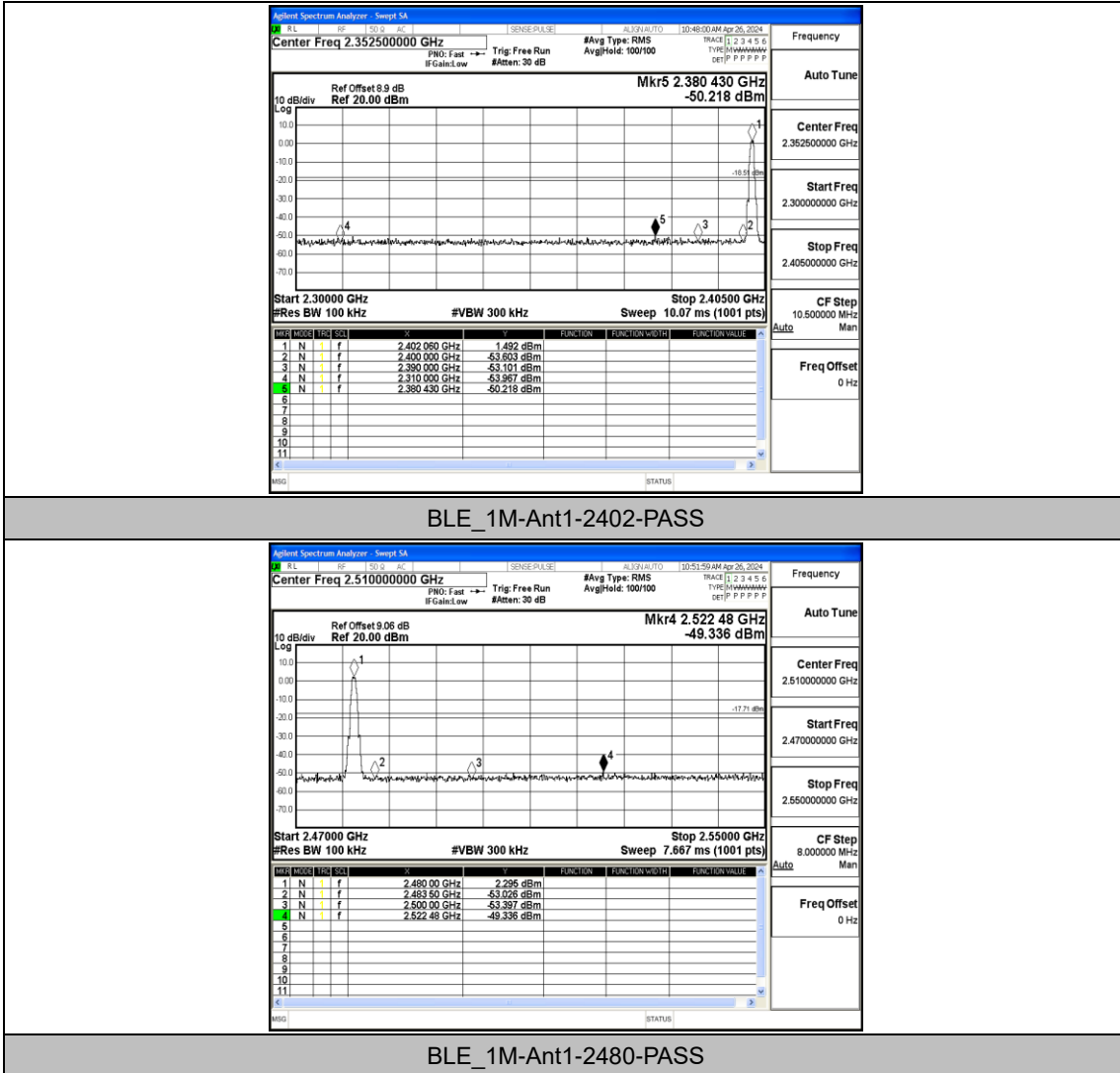


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.49	-50.22	≤-18.51	PASS
BLE_1M	Ant1	High	2480	2.30	-49.34	≤-17.71	PASS

Test Graphs

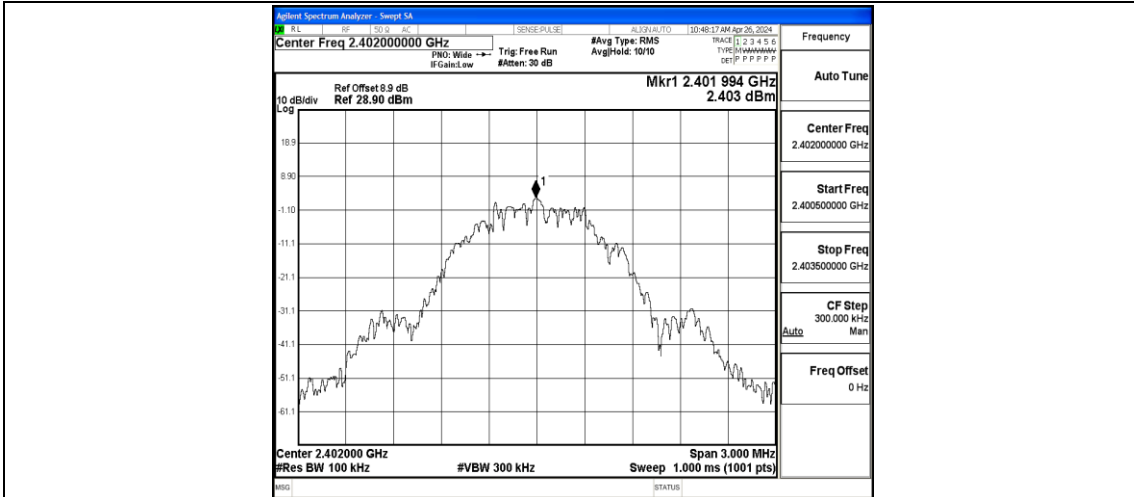


Appendix F: Conducted Spurious Emission

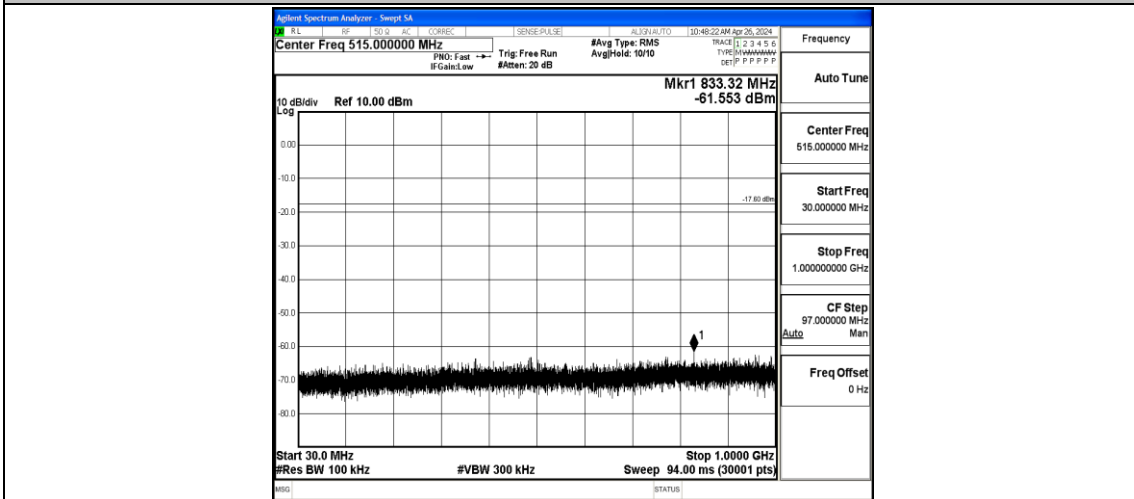
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	2.40	2.40	---	PASS
BLE_1M	Ant1	2402	30~1000	2.40	-61.55	≤-17.6	PASS
BLE_1M	Ant1	2402	1000~26500	2.40	-50.57	≤-17.6	PASS
BLE_1M	Ant1	2440	0~Reference	2.28	2.28	---	PASS
BLE_1M	Ant1	2440	30~1000	2.28	-61.47	≤-17.72	PASS
BLE_1M	Ant1	2440	1000~26500	2.28	-50.05	≤-17.72	PASS
BLE_1M	Ant1	2480	0~Reference	2.24	2.24	---	PASS
BLE_1M	Ant1	2480	30~1000	2.24	-60.33	≤-17.76	PASS
BLE_1M	Ant1	2480	1000~26500	2.24	-44.97	≤-17.76	PASS

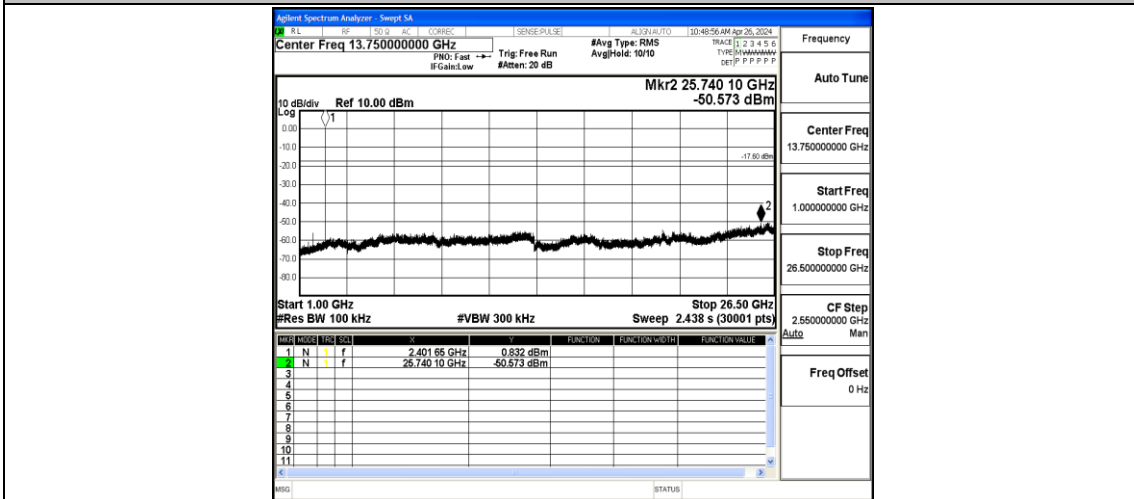
Test Graphs



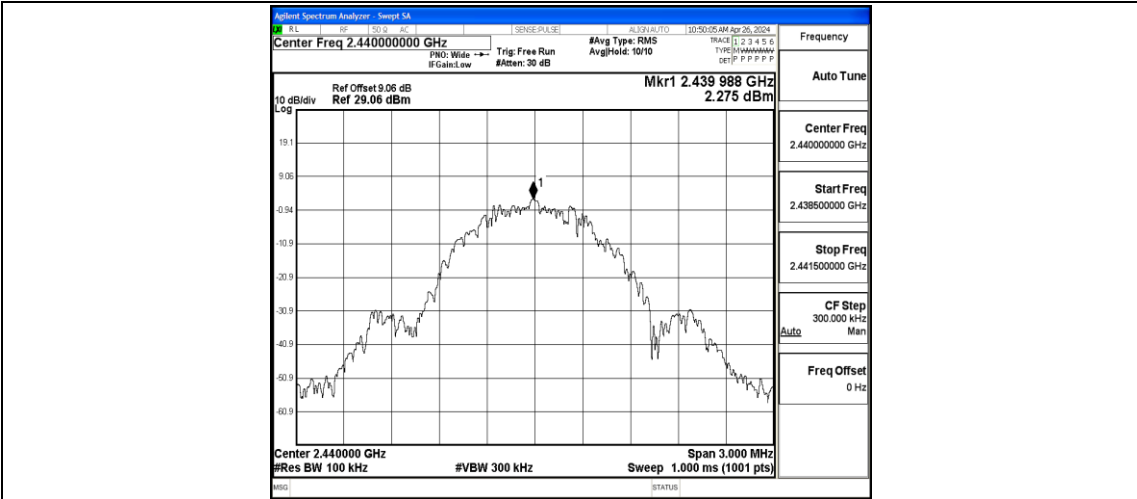
BLE_1M-Ant1-2402-0~Reference-PASS



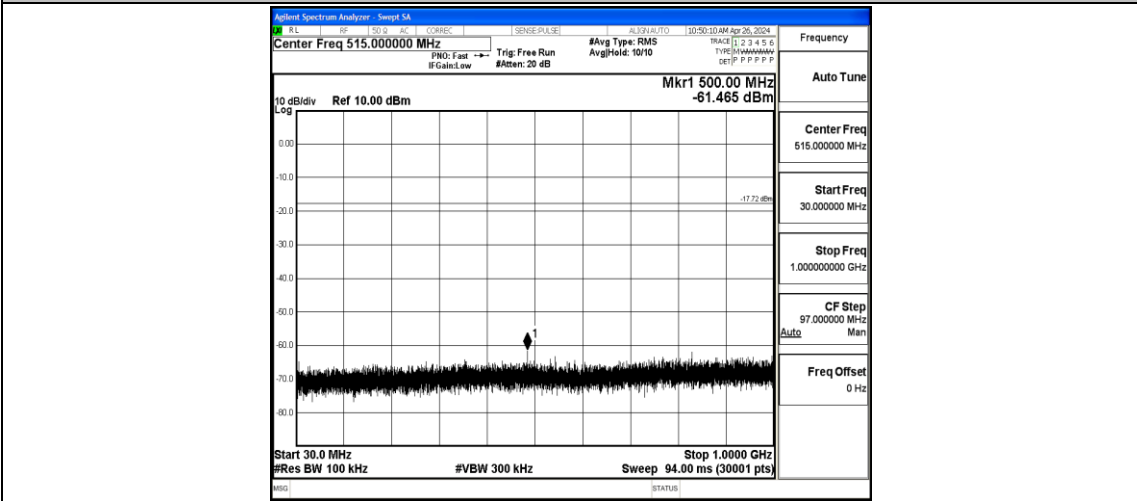
BLE_1M-Ant1-2402-30~1000-PASS



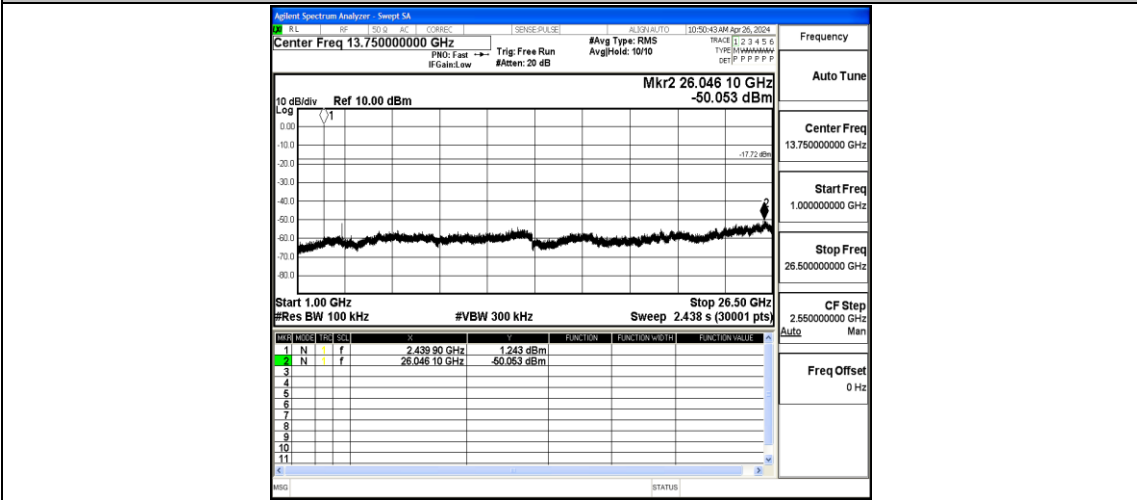
BLE_1M-Ant1-2402-1000~26500-PASS



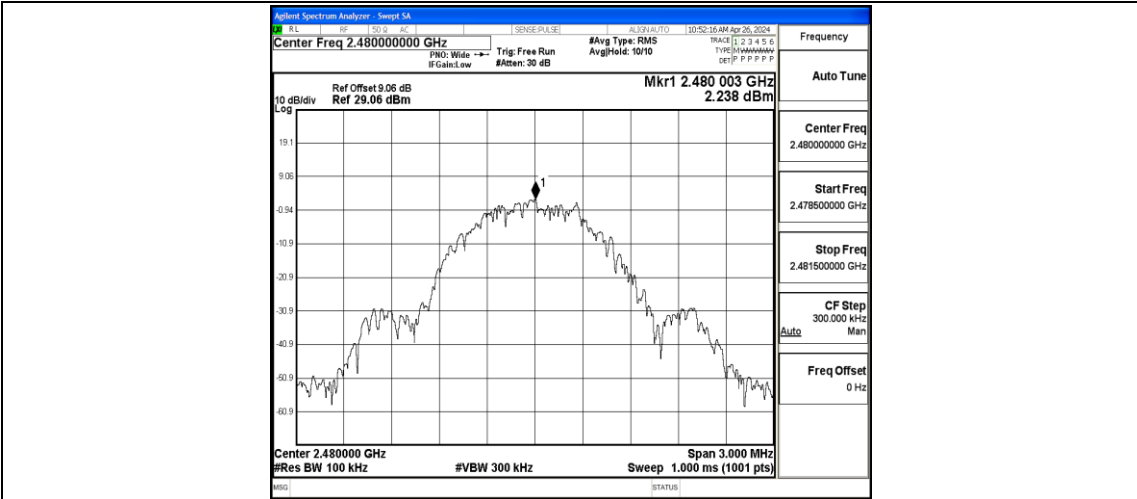
BLE_1M-Ant1-2440-0~Reference-PASS



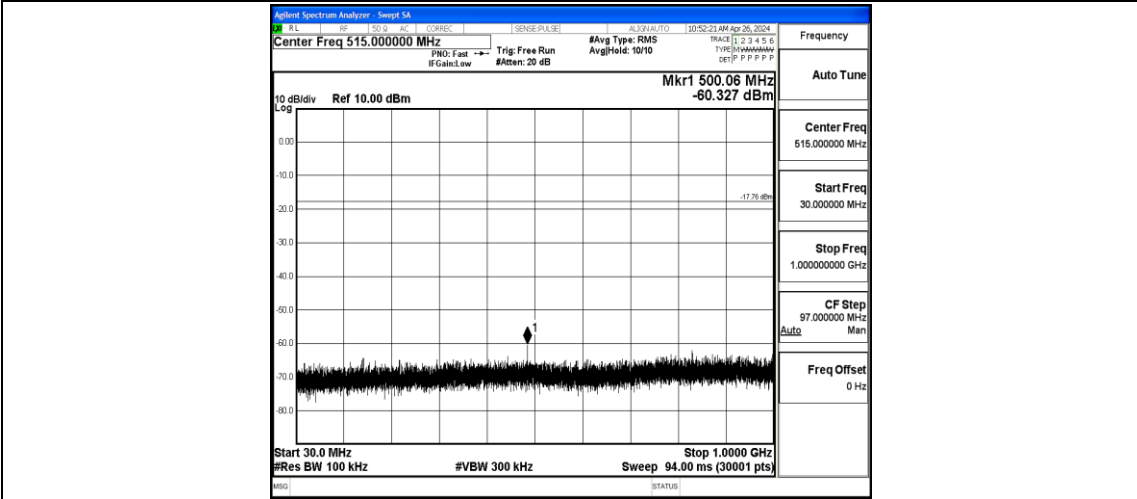
BLE_1M-Ant1-2440-30~1000-PASS



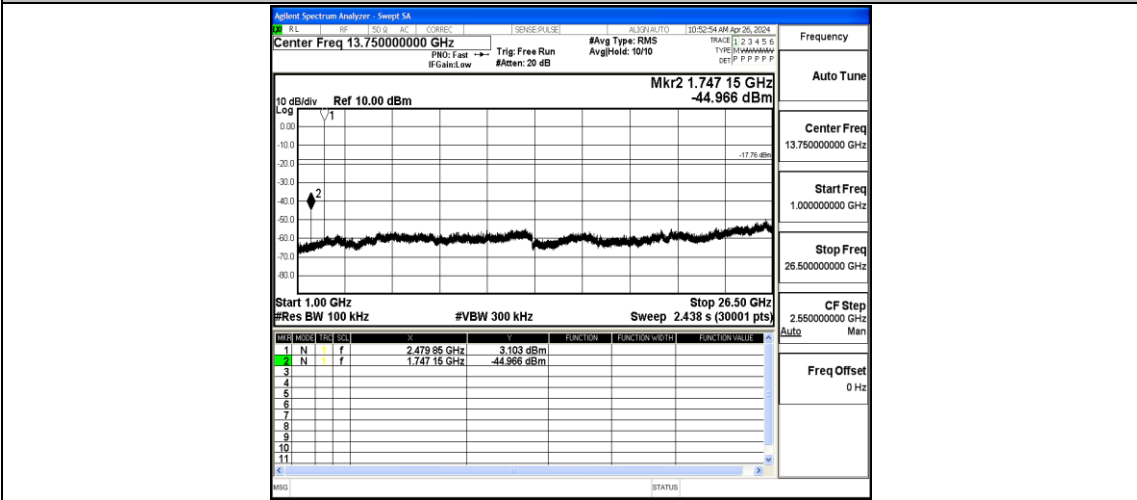
BLE_1M-Ant1-2440-1000~26500-PASS



BLE_1M-Ant1-2480-0~Reference-PASS



BLE_1M-Ant1-2480-30~1000-PASS



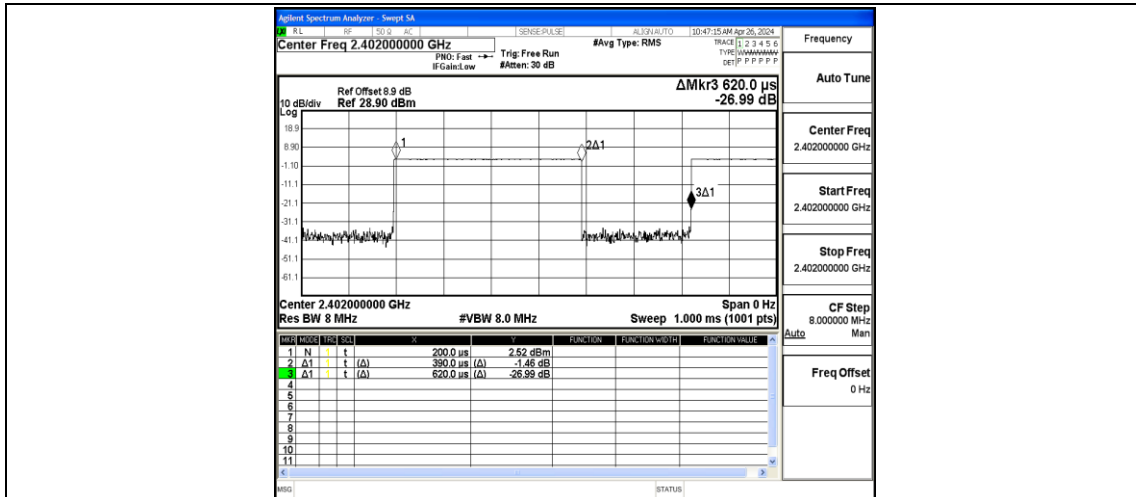
BLE_1M-Ant1-2480-1000~26500-PASS

Appendix G: Duty Cycle

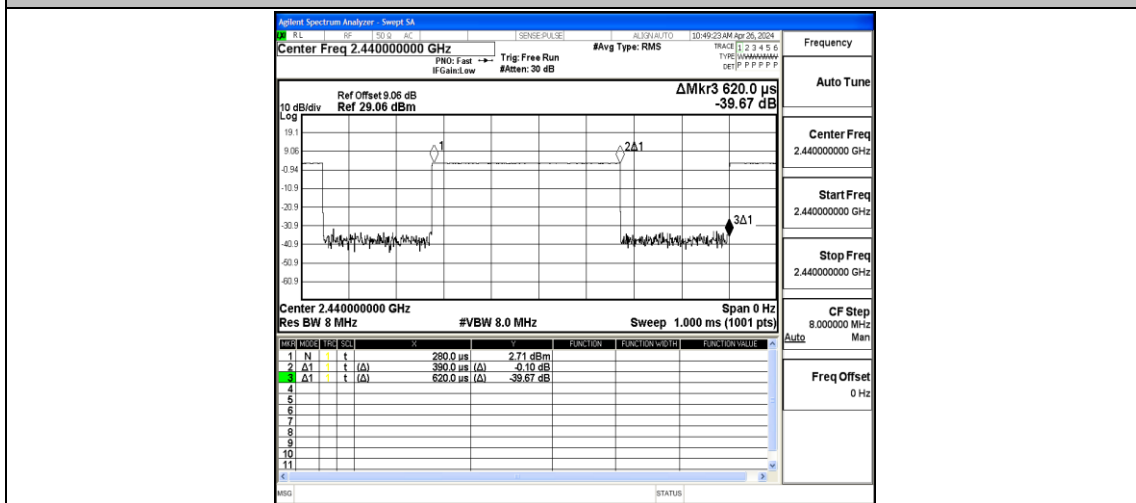
Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.39	0.62	62.90	2.01
BLE_1M	Ant1	2440	0.39	0.62	62.90	2.01
BLE_1M	Ant1	2480	0.40	0.63	63.49	1.97

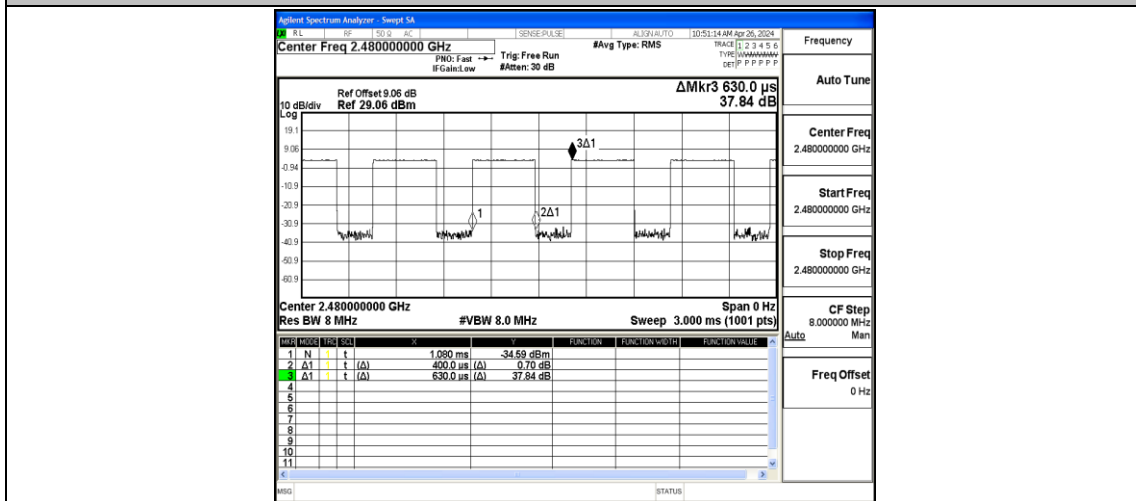
Test Graphs



NTNV-BLE_1M-Ant1-2402



NTNV-BLE_1M-Ant1-2440



NTNV-BLE_1M-Ant1-2480

Appendix H: Emissions in Restricted Bands

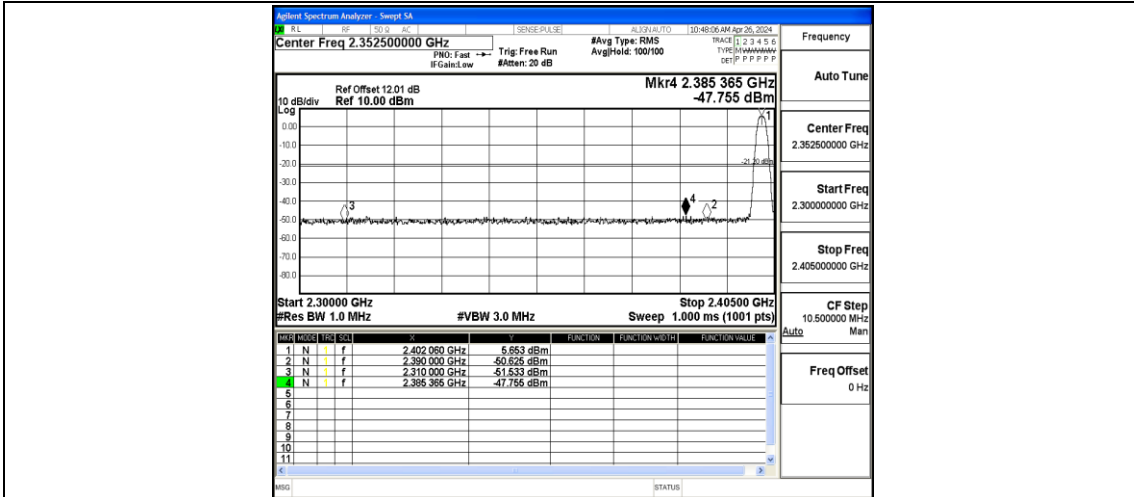
Test Result

TestMode	Antenna	ChName	Frequenc y[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	Peak	2390.000	-50.63	≤-21.20	44.57	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-51.53	≤-21.20	43.67	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2385.365	-47.75	≤-21.20	47.45	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-56.78	≤-41.20	38.42	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-57.17	≤-41.20	38.03	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2382.950	-55.87	≤-41.20	39.33	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-48.67	≤-21.20	46.53	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-51.1	≤-21.20	44.10	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2499.760	-47.28	≤-21.20	47.92	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-54.56	≤-41.20	40.64	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-56.22	≤-41.20	38.98	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2483.760	-54.48	≤-41.20	40.72	≤54	PASS

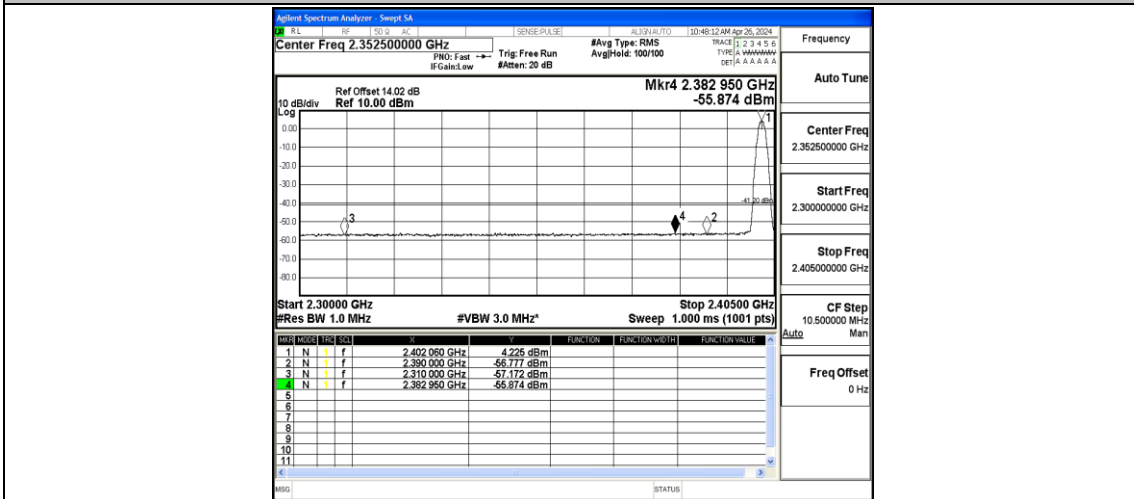
Note:

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.

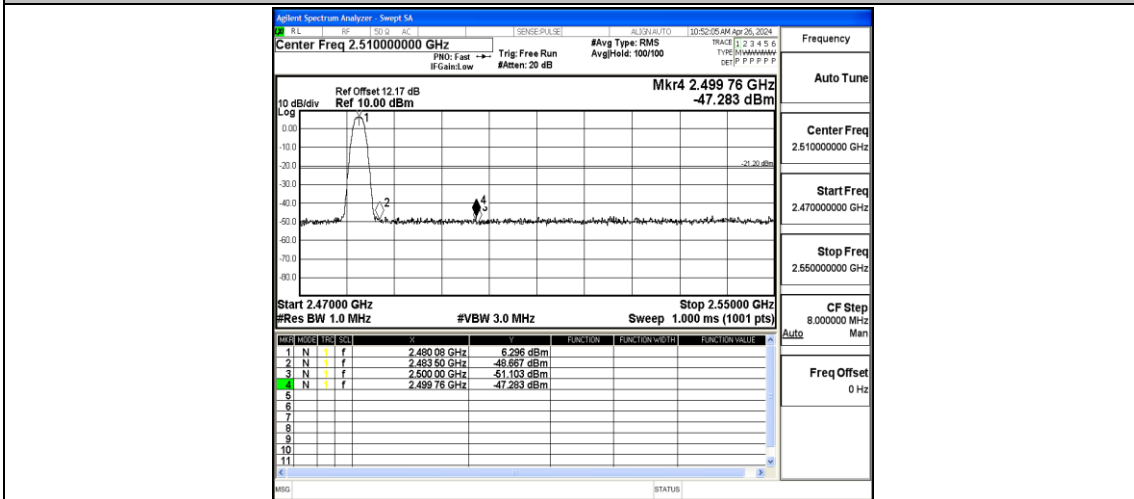
Test Graphs



BLE_1M-Ant1-240-PASS



BLE_1M-Ant1-240-PASS



BLE_1M-Ant1-2480-PASS

