

Appendix Test Data for BLE (Conducted Measurement)

Product Name: XDINARY HEROES OFFICIAL LIGHT STICK

Trade Mark: /

Test Model: XDV1

FCC ID: 2BO6B-XDV1

Environmental Conditions

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

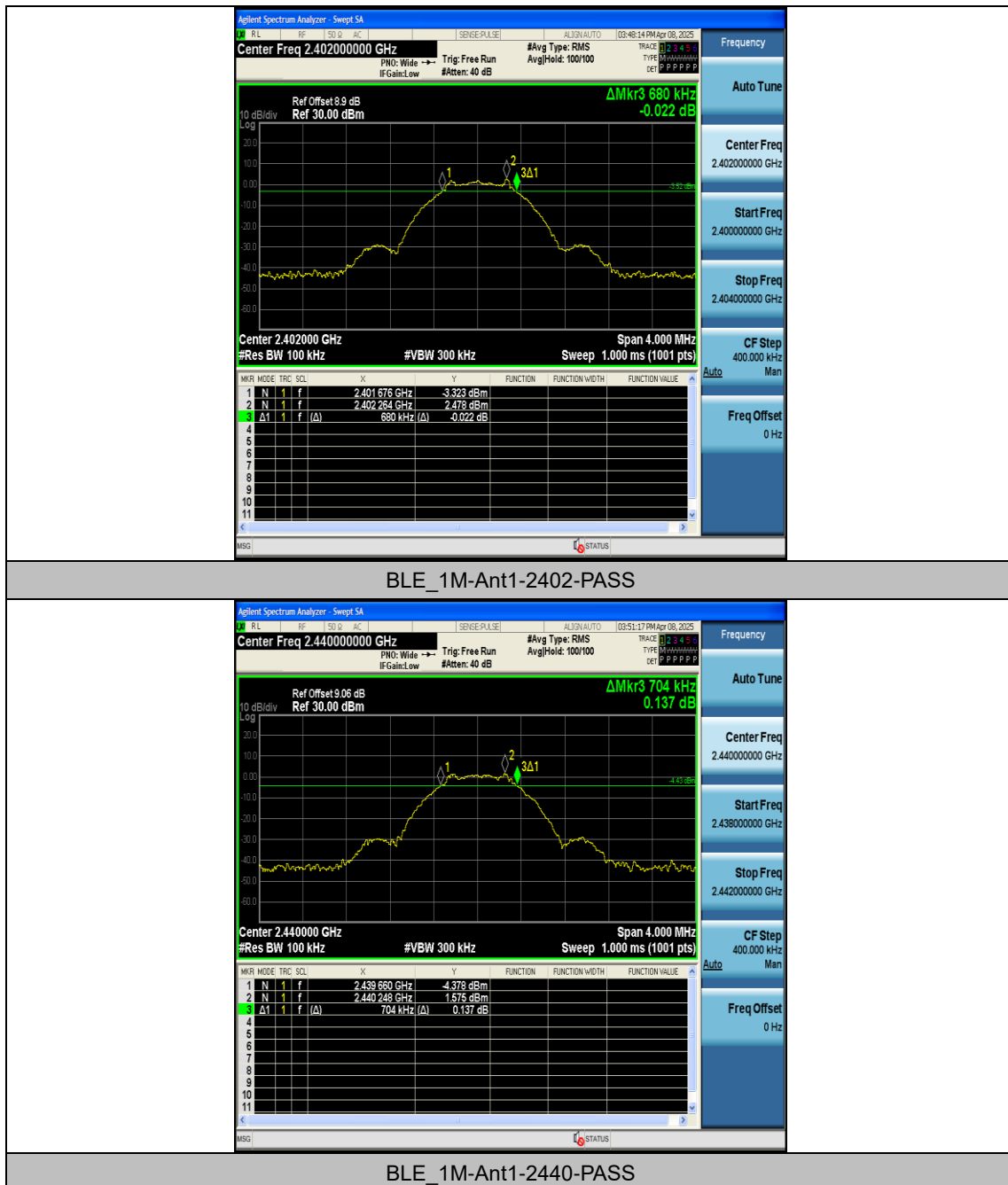
Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.680	2401.676	2402.356	0.5	PASS
BLE_1M	Ant1	2440	0.704	2439.660	2440.364	0.5	PASS
BLE_1M	Ant1	2480	0.672	2479.672	2480.344	0.5	PASS
BLE_2M	Ant1	2402	1.252	2401.320	2402.572	0.5	PASS
BLE_2M	Ant1	2440	1.336	2439.364	2440.700	0.5	PASS
BLE_2M	Ant1	2480	1.300	2479.360	2480.660	0.5	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



Appendix B: Occupied Channel Bandwidth

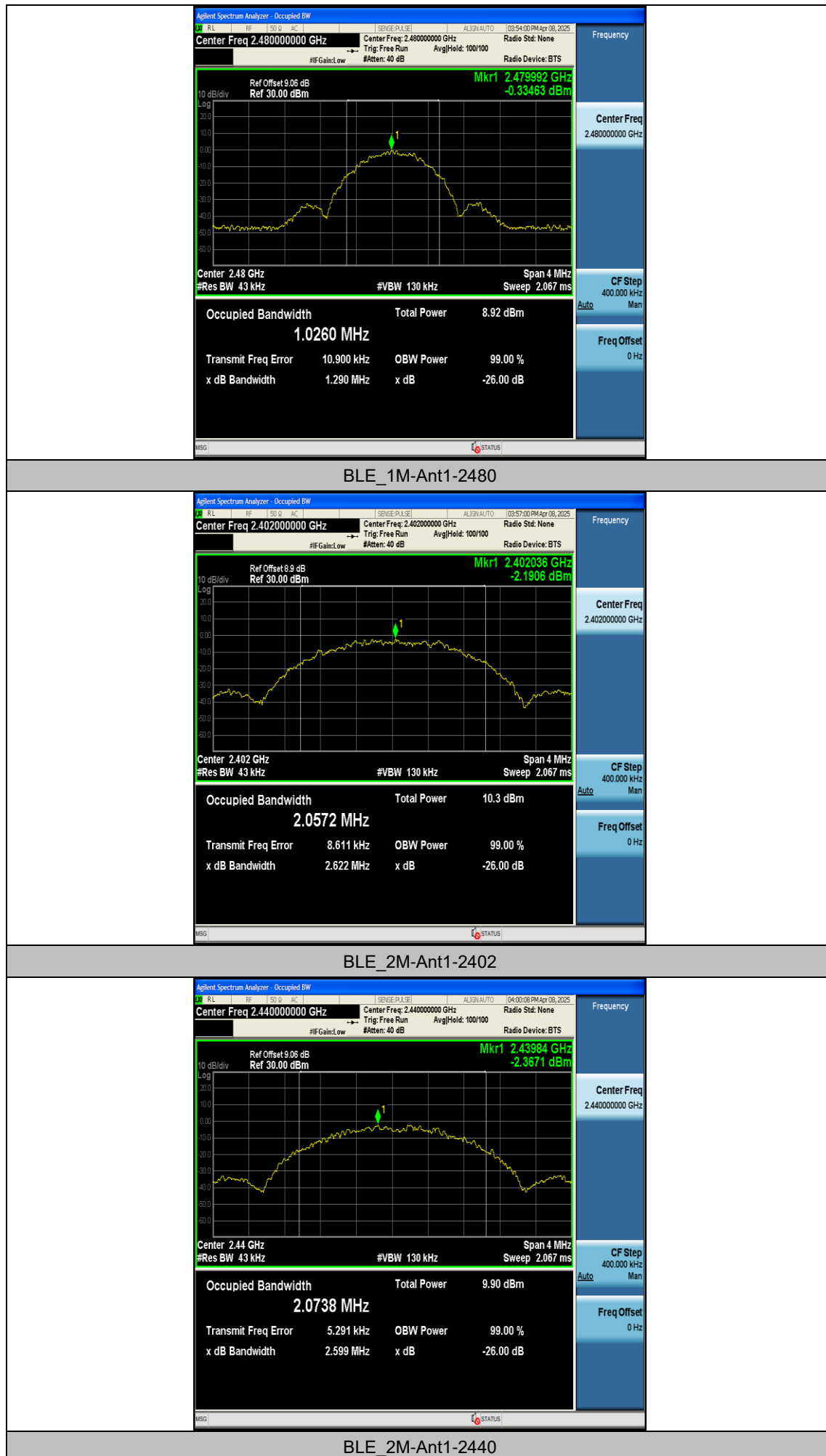
Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	1.0232	2401.4960	2402.5192	---	---
BLE_1M	Ant1	2440	1.0356	2439.4864	2440.5220	---	---
BLE_1M	Ant1	2480	1.0260	2479.4979	2480.5239	---	---
BLE_2M	Ant1	2402	2.0572	2400.9800	2403.0372	---	---
BLE_2M	Ant1	2440	2.0738	2438.9684	2441.0422	---	---
BLE_2M	Ant1	2480	2.0376	2478.9773	2481.0149	---	---

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs







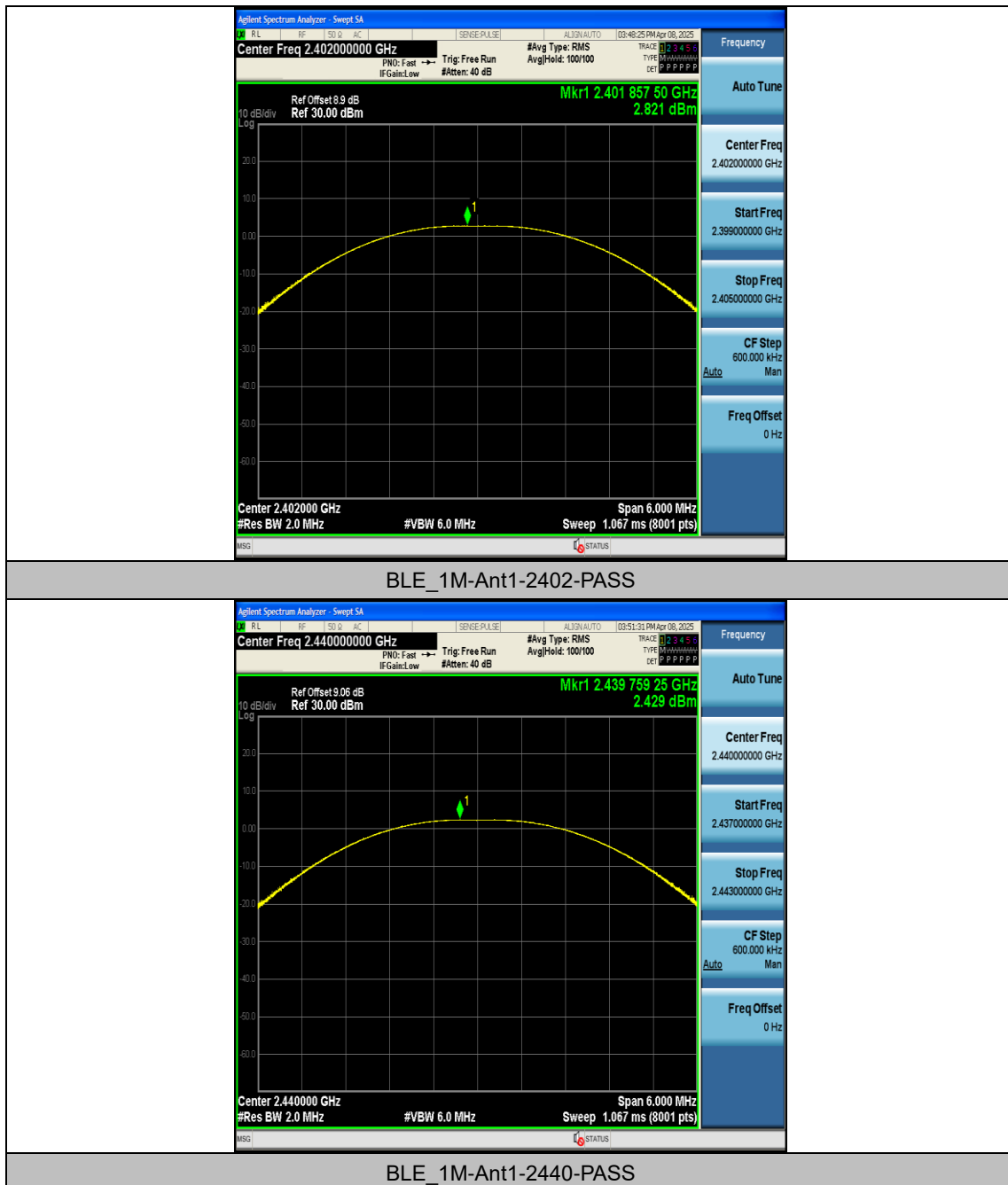
Appendix C: Maximum peak conducted output power

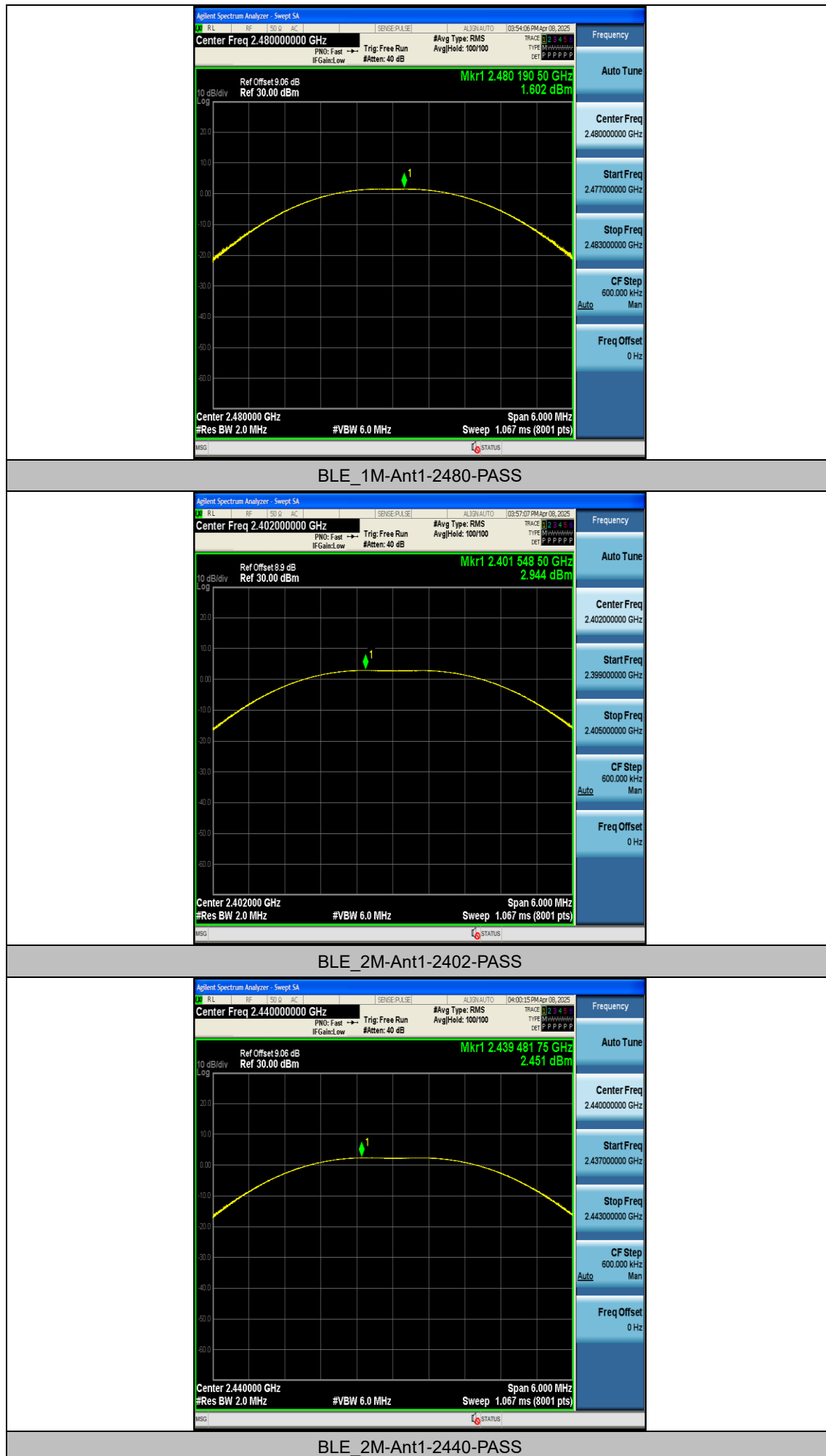
Test Result Peak

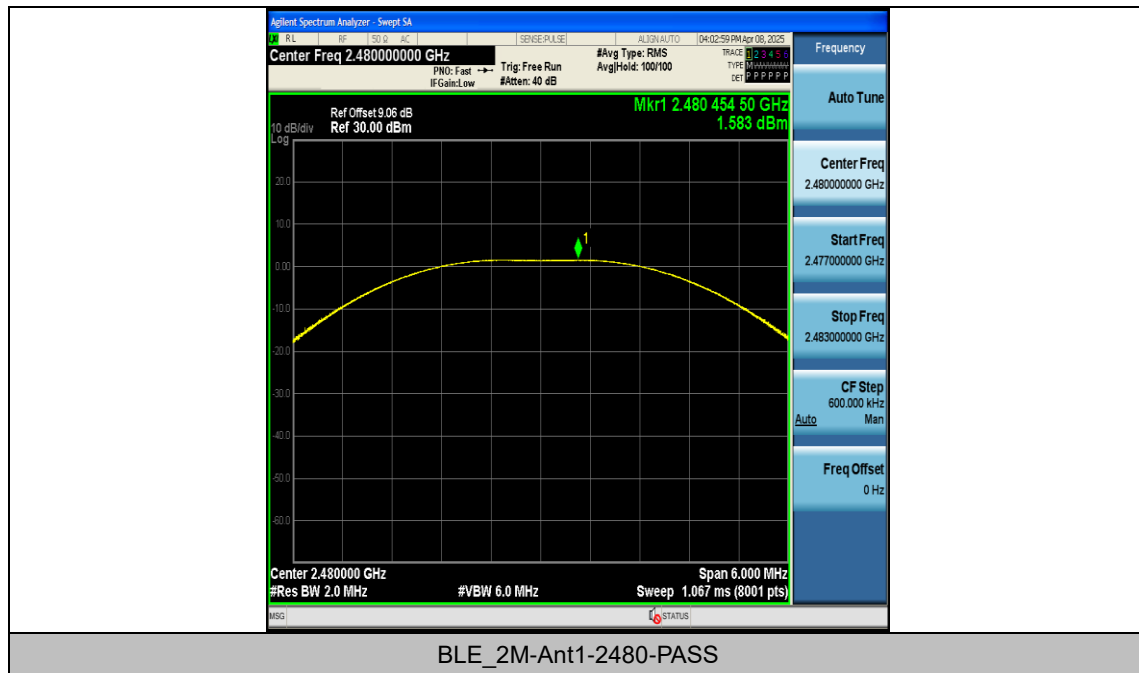
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
BLE_1M	Ant1	2402	2.82	≤30	PASS
BLE_1M	Ant1	2440	2.43	≤30	PASS
BLE_1M	Ant1	2480	1.60	≤30	PASS
BLE_2M	Ant1	2402	2.94	≤30	PASS
BLE_2M	Ant1	2440	2.45	≤30	PASS
BLE_2M	Ant1	2480	1.58	≤30	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs Peak







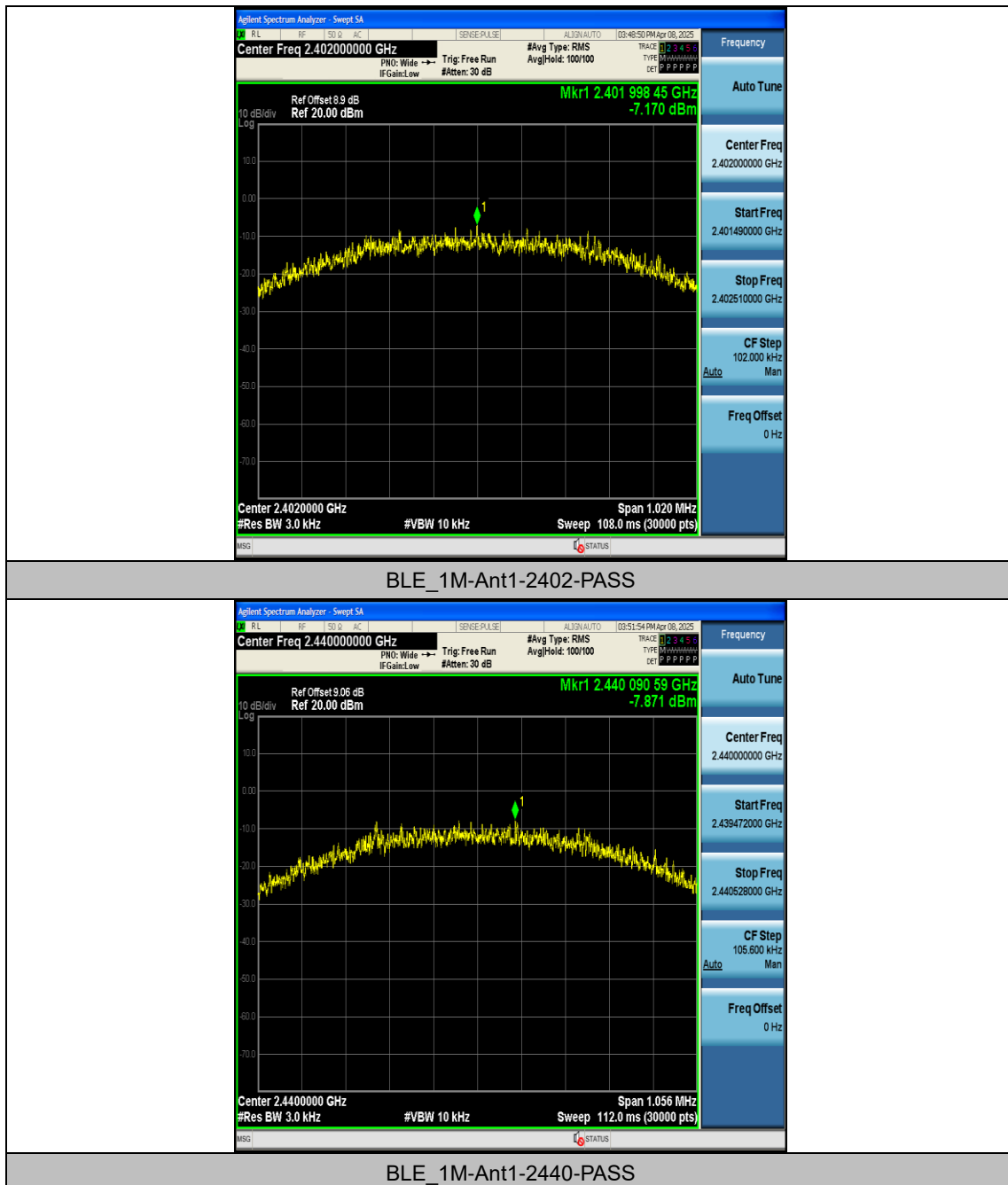
Appendix D: Maximum peak power spectral density

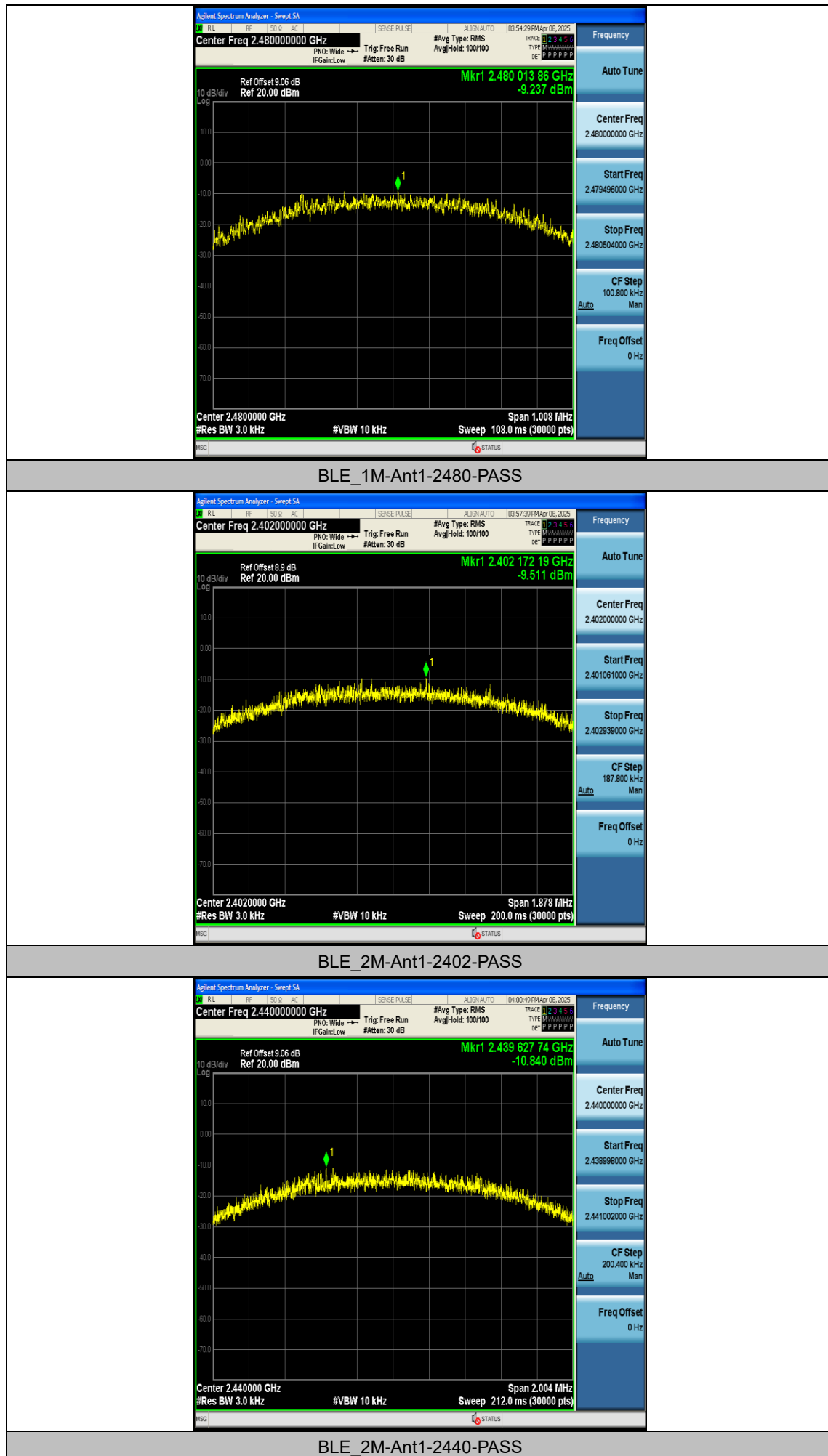
Test Result

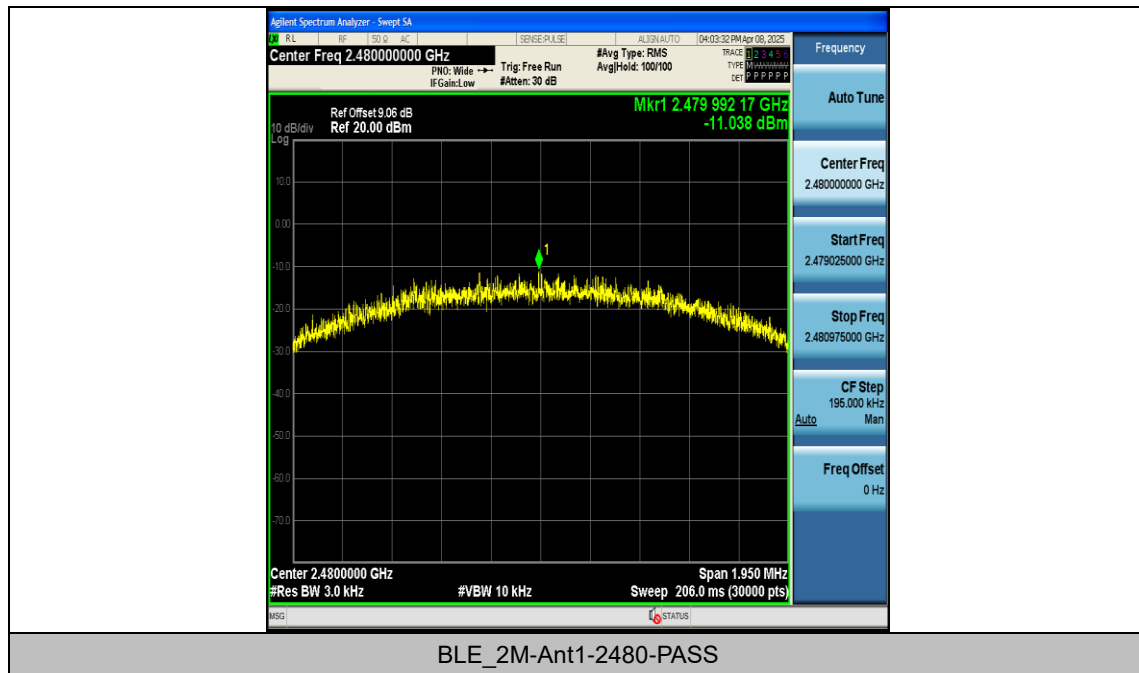
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-7.17	≤8.00	PASS
BLE_1M	Ant1	2440	-7.87	≤8.00	PASS
BLE_1M	Ant1	2480	-9.24	≤8.00	PASS
BLE_2M	Ant1	2402	-9.51	≤8.00	PASS
BLE_2M	Ant1	2440	-10.84	≤8.00	PASS
BLE_2M	Ant1	2480	-11.04	≤8.00	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs







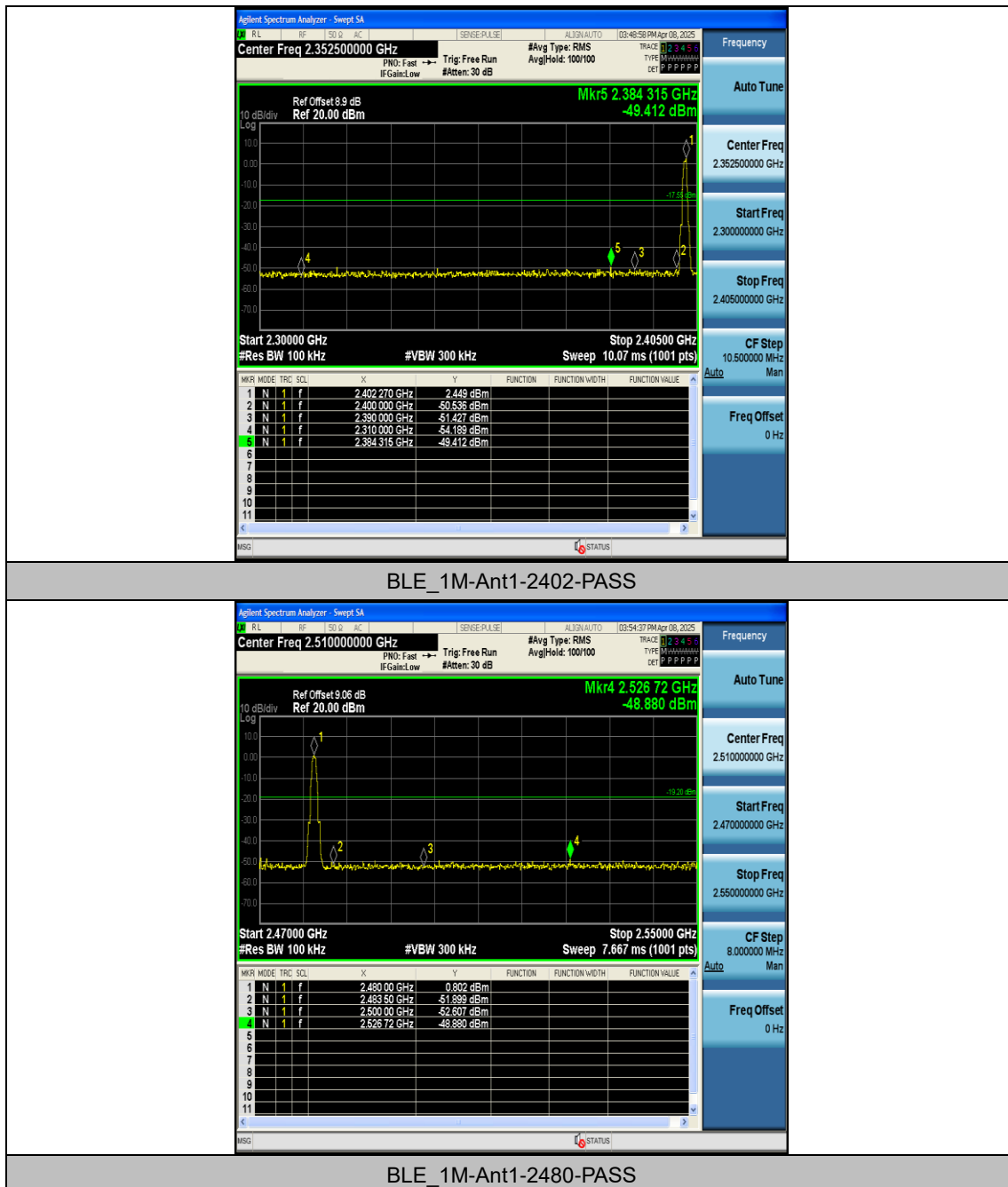
Appendix E: Band edge measurements

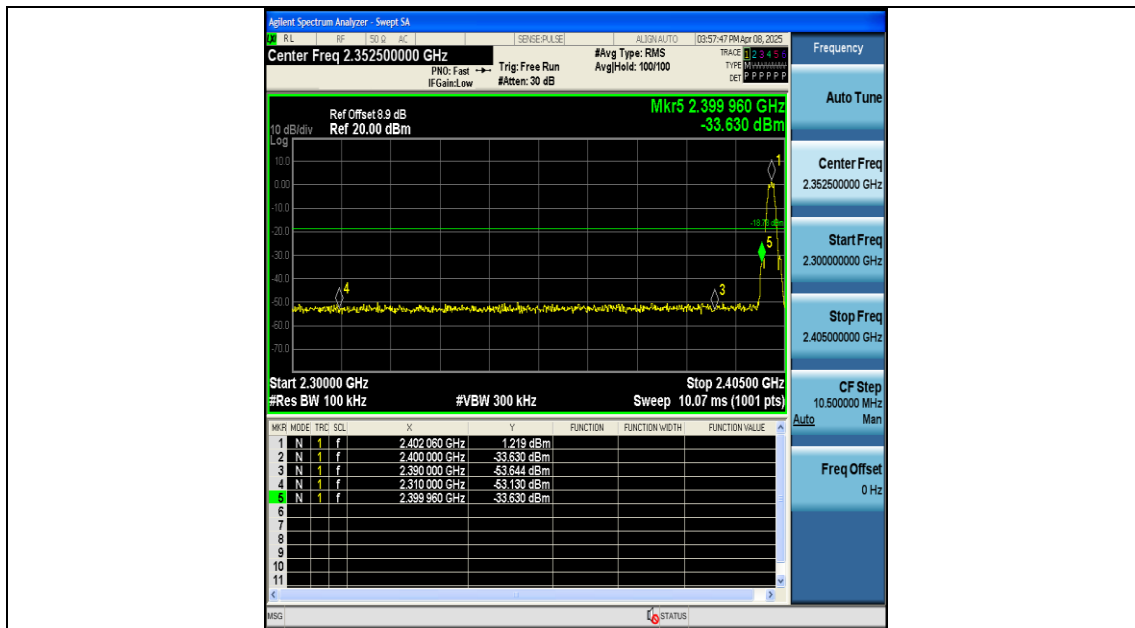
Test Result

Test Mode	Antenna	Ch. Name	Frequency [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.45	-49.41	≤-17.55	PASS
BLE_1M	Ant1	High	2480	0.80	-48.88	≤-19.2	PASS
BLE_2M	Ant1	Low	2402	1.22	-33.63	≤-18.78	PASS
BLE_2M	Ant1	High	2480	-0.62	-48.07	≤-20.62	PASS

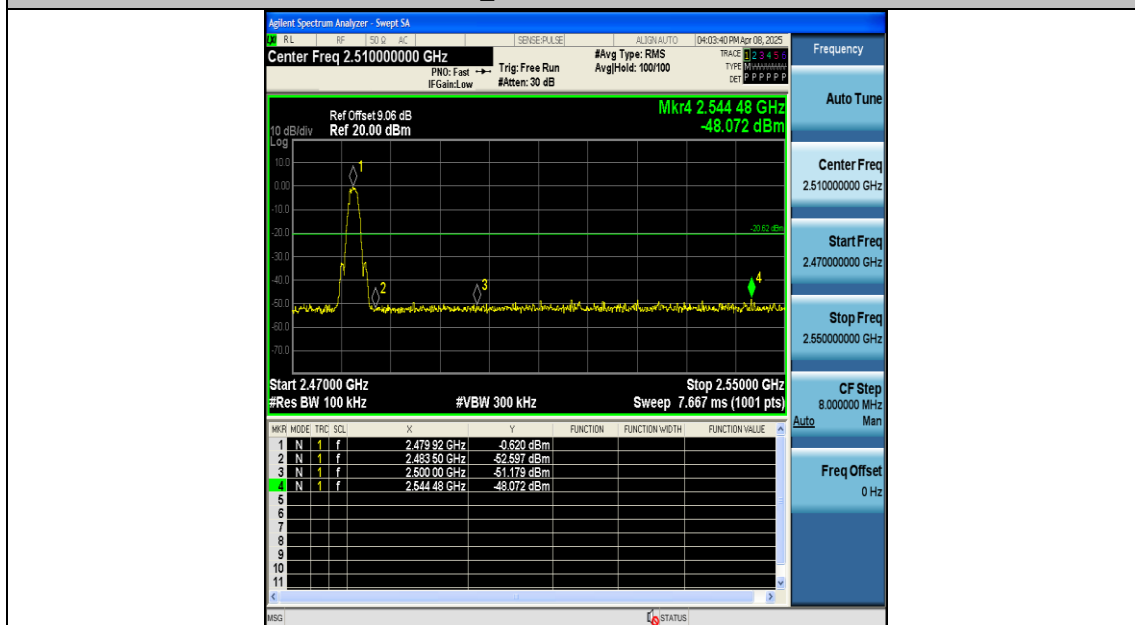
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2480-PASS

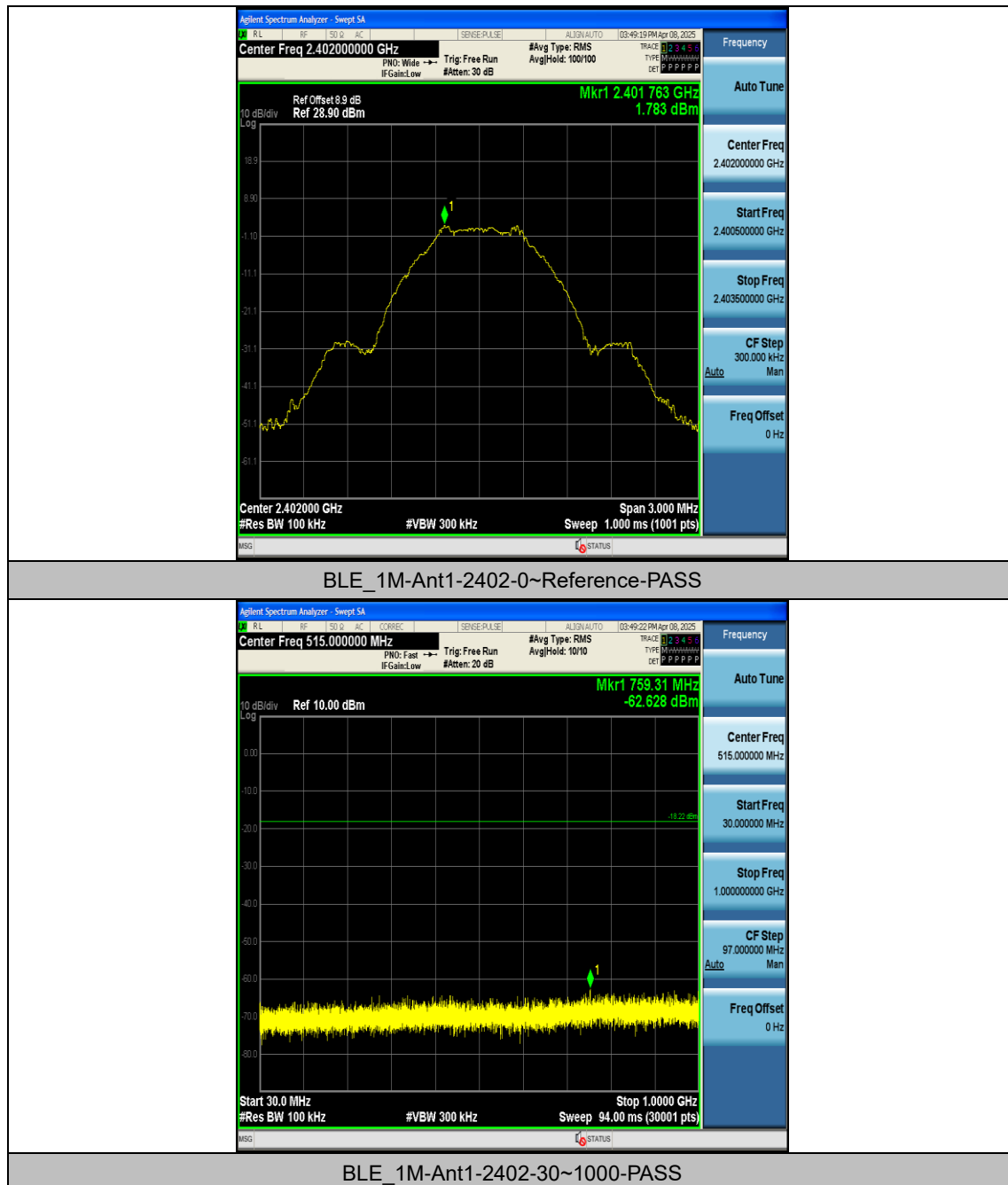
Appendix F: Conducted Spurious Emission

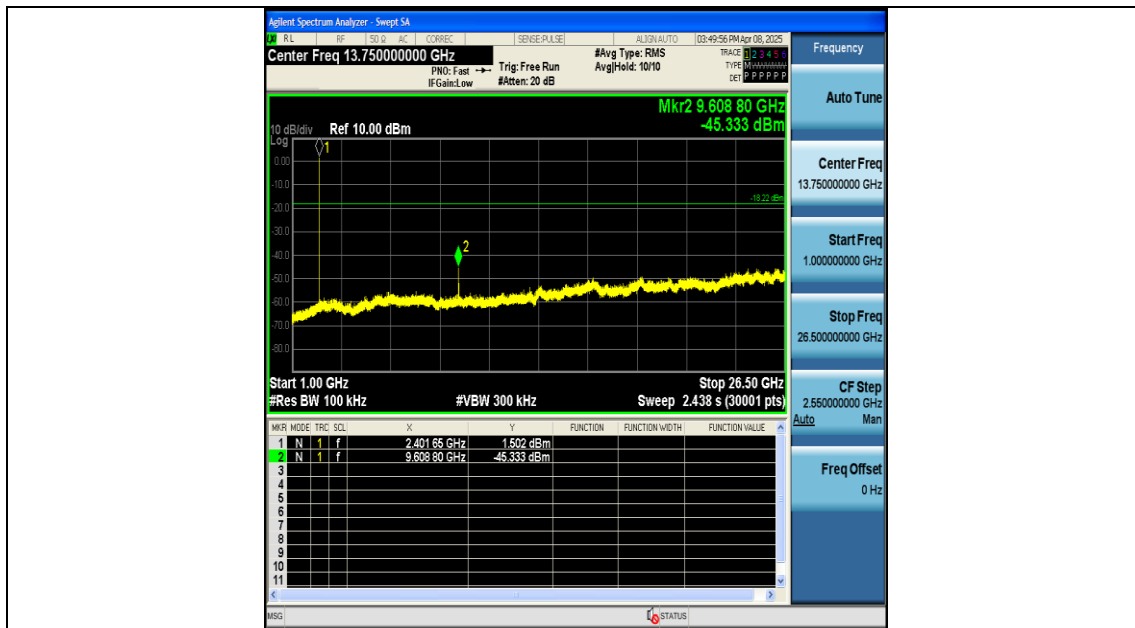
Test Result

Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	1.78	1.78	---	PASS
BLE_1M	Ant1	2402	30~1000	1.78	-62.63	≤-18.22	PASS
BLE_1M	Ant1	2402	1000~26500	1.78	-45.33	≤-18.22	PASS
BLE_1M	Ant1	2440	0~Reference	1.11	1.11	---	PASS
BLE_1M	Ant1	2440	30~1000	1.11	-63.39	≤-18.89	PASS
BLE_1M	Ant1	2440	1000~26500	1.11	-44.35	≤-18.89	PASS
BLE_1M	Ant1	2480	0~Reference	0.78	0.78	---	PASS
BLE_1M	Ant1	2480	30~1000	0.78	-63.35	≤-19.22	PASS
BLE_1M	Ant1	2480	1000~26500	0.78	-44.78	≤-19.22	PASS
BLE_2M	Ant1	2402	0~Reference	0.73	0.73	---	PASS
BLE_2M	Ant1	2402	30~1000	0.73	-62.7	≤-19.27	PASS
BLE_2M	Ant1	2402	1000~26500	0.73	-45.69	≤-19.27	PASS
BLE_2M	Ant1	2440	0~Reference	-0.38	-0.38	---	PASS
BLE_2M	Ant1	2440	30~1000	-0.38	-63.1	≤-20.38	PASS
BLE_2M	Ant1	2440	1000~26500	-0.38	-44.55	≤-20.38	PASS
BLE_2M	Ant1	2480	0~Reference	-0.39	-0.39	---	PASS
BLE_2M	Ant1	2480	30~1000	-0.39	-62.85	≤-20.39	PASS
BLE_2M	Ant1	2480	1000~26500	-0.39	-45.53	≤-20.39	PASS

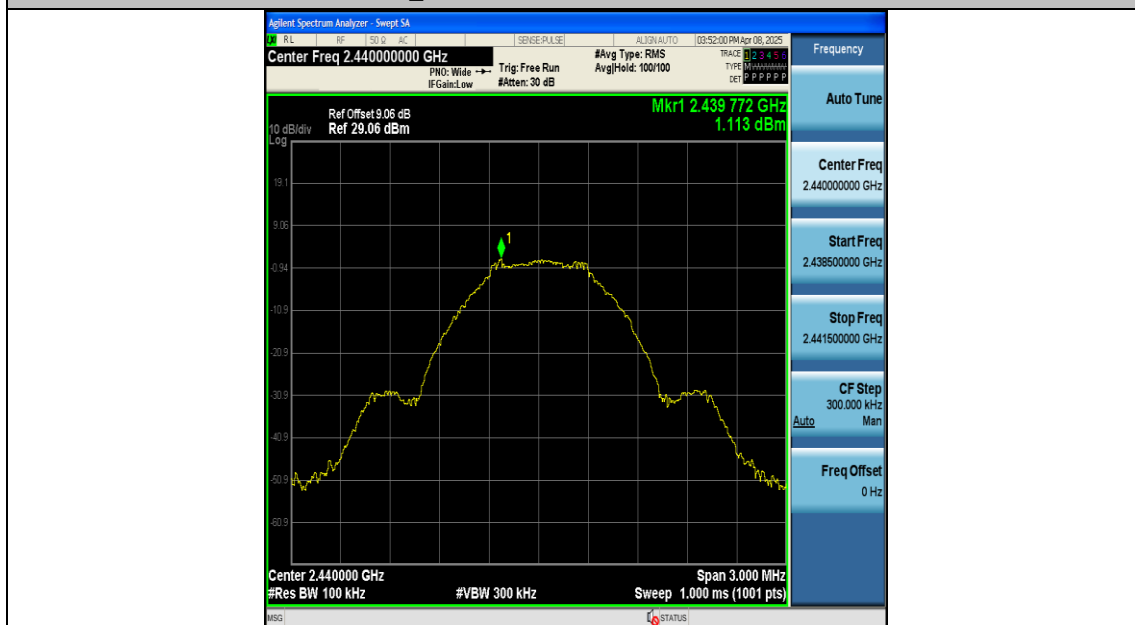
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

Test Graphs

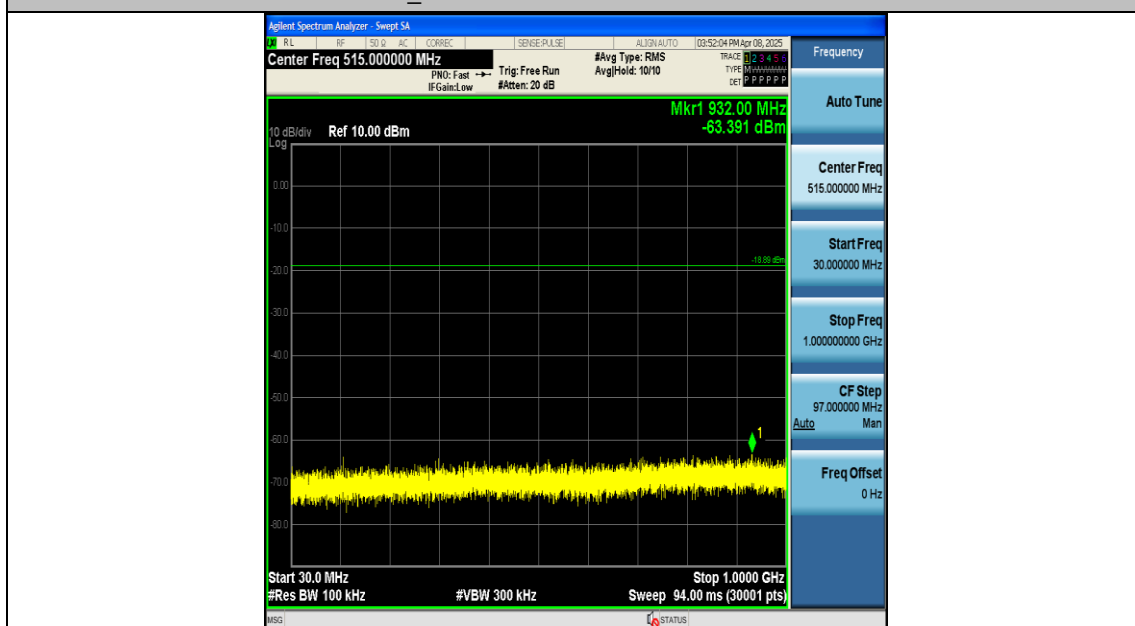




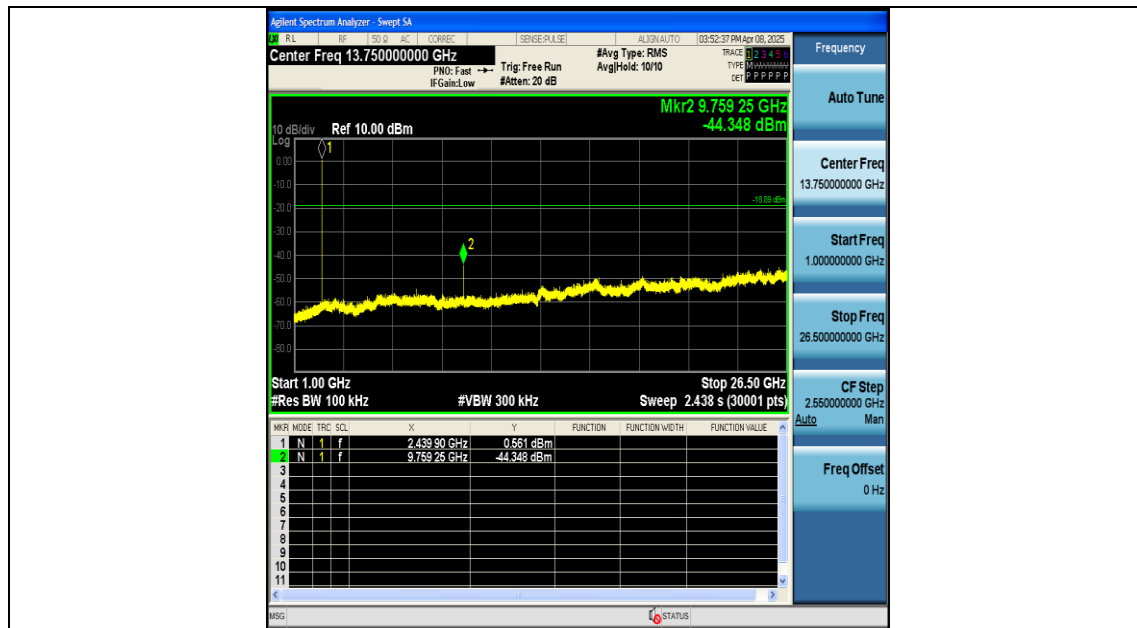
BLE_1M-Ant1-2402-1000~26500-PASS



BLE_1M-Ant1-2440-0~Reference-PASS



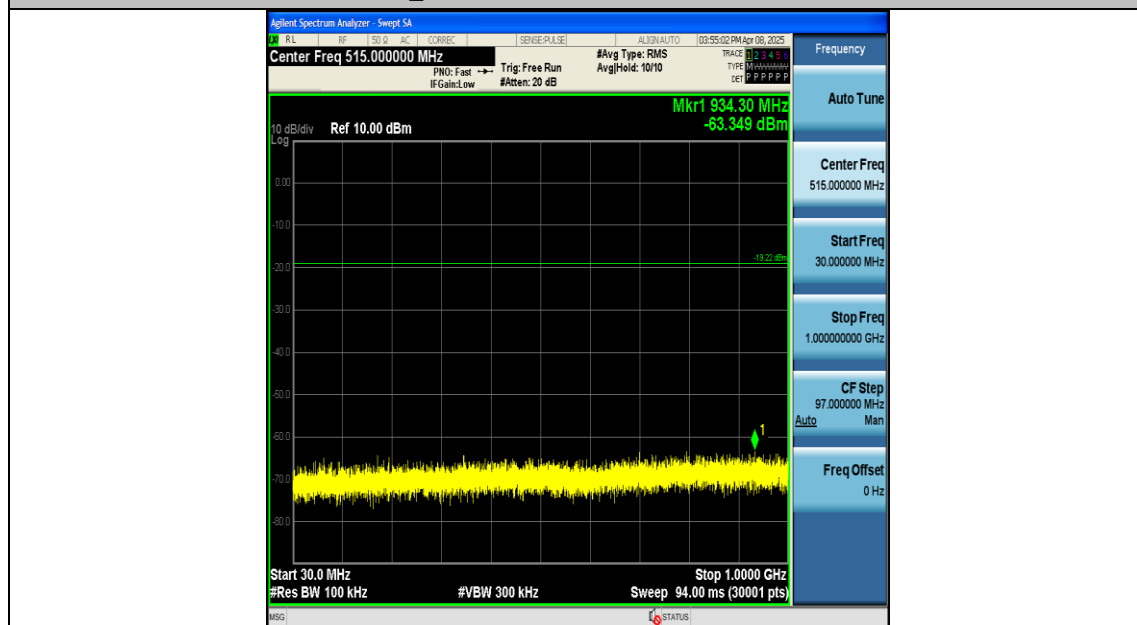
BLE_1M-Ant1-2440-30~1000-PASS



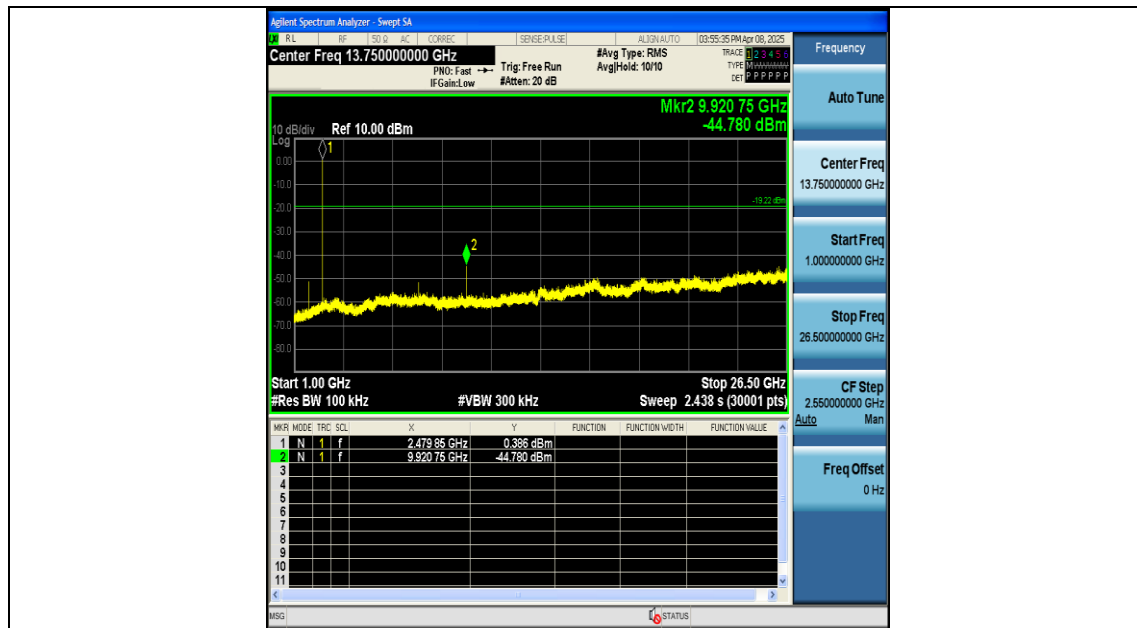
BLE_1M-Ant1-2440-1000~26500-PASS



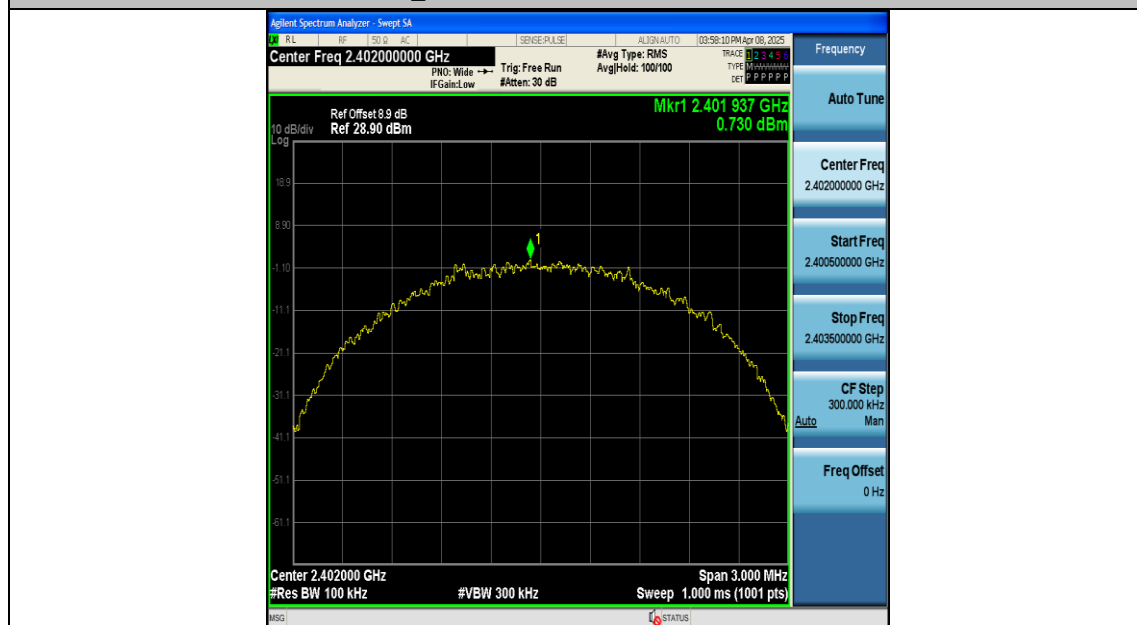
BLE_1M-Ant1-2480-0~Reference-PASS



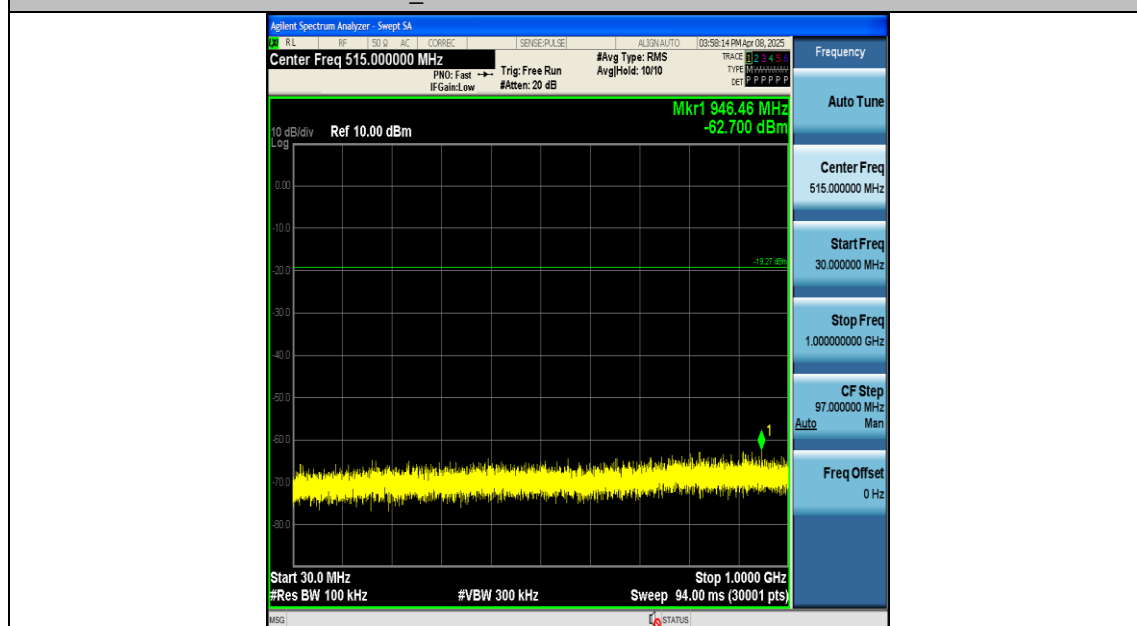
BLE_1M-Ant1-2480-30~1000-PASS



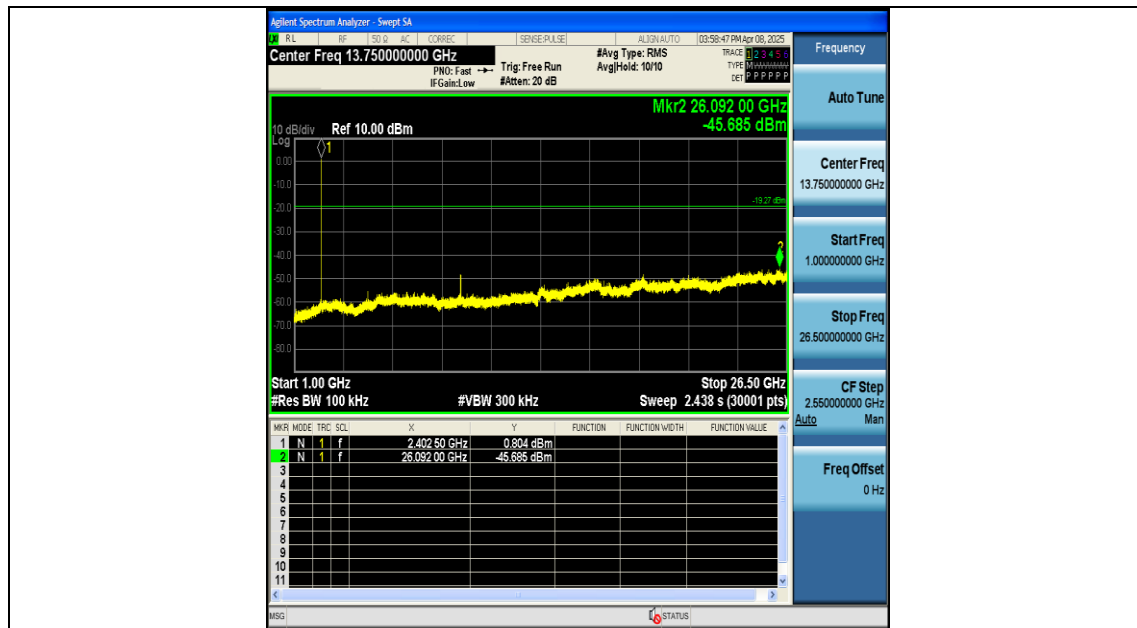
BLE_1M-Ant1-2480-1000~26500-PASS



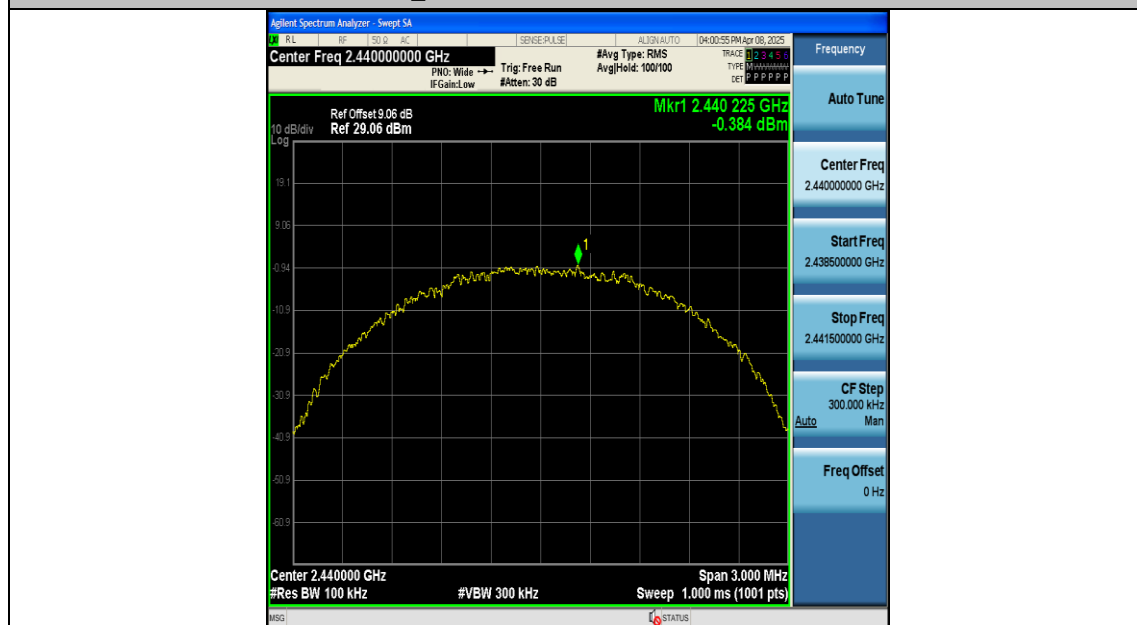
BLE_2M-Ant1-2402-0~Reference-PASS



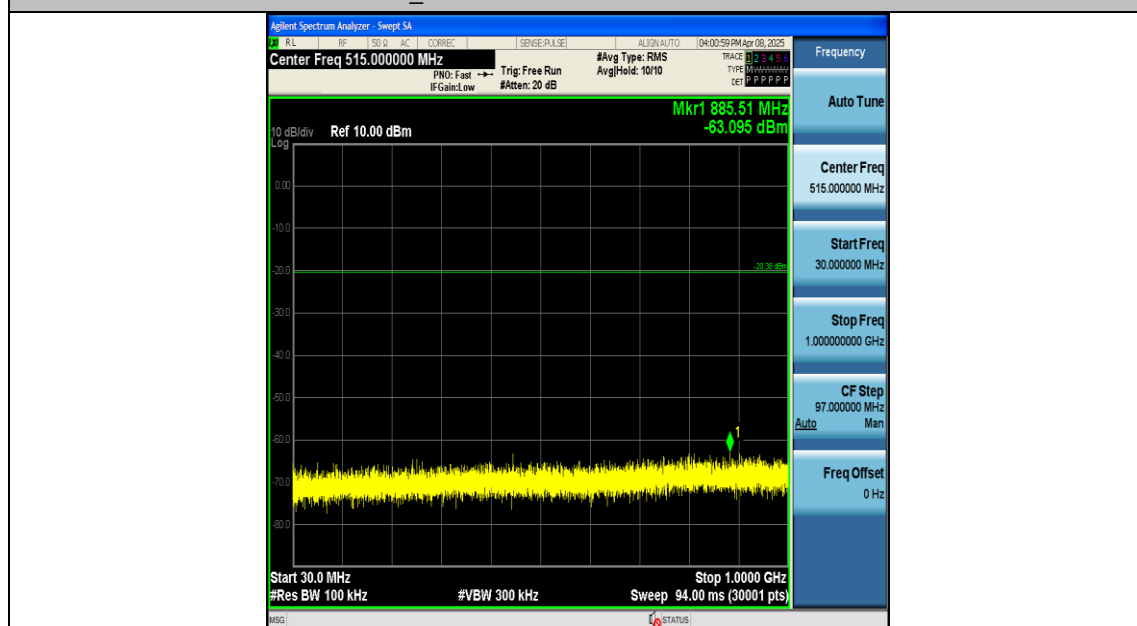
BLE_2M-Ant1-2402-30~1000-PASS



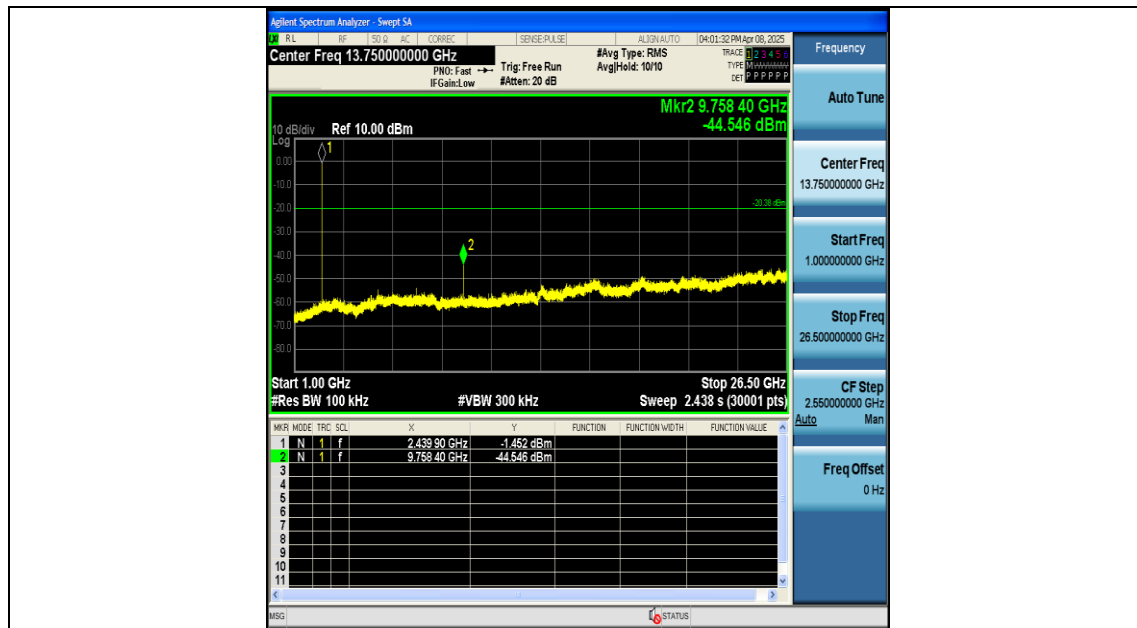
BLE_2M-Ant1-2402-1000~26500-PASS



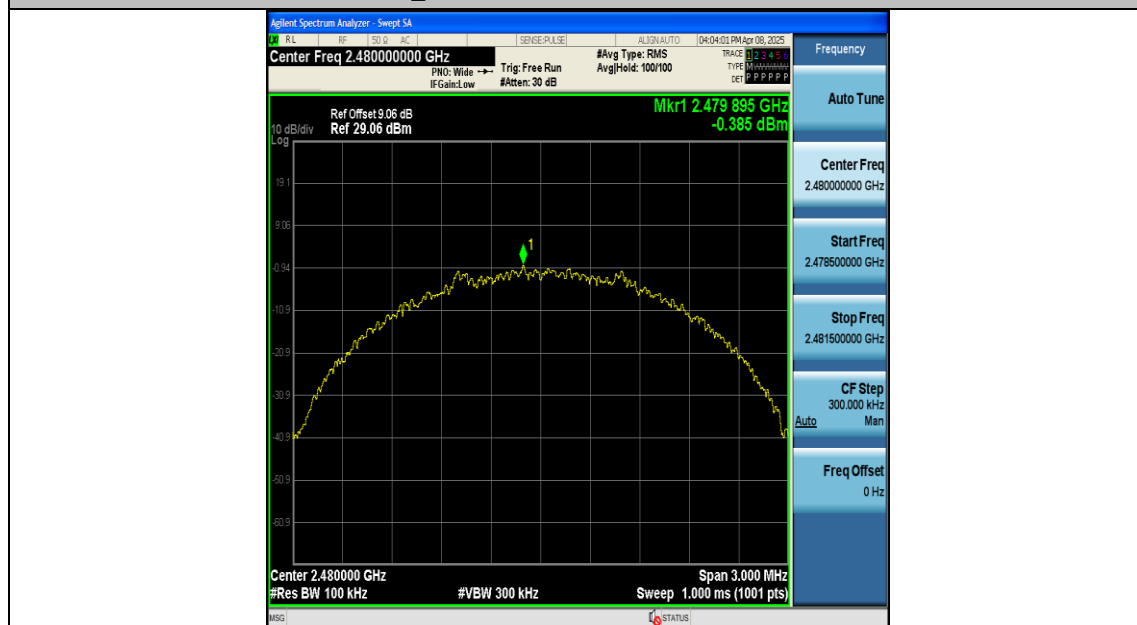
BLE_2M-Ant1-2440-0~Reference-PASS



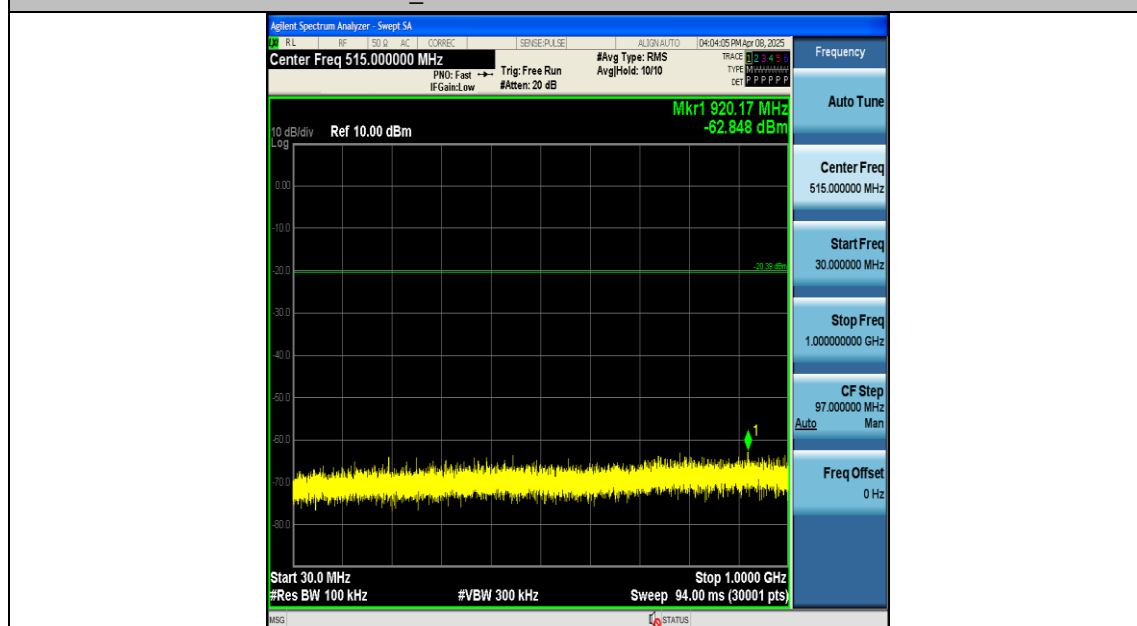
BLE_2M-Ant1-2440-30~1000-PASS



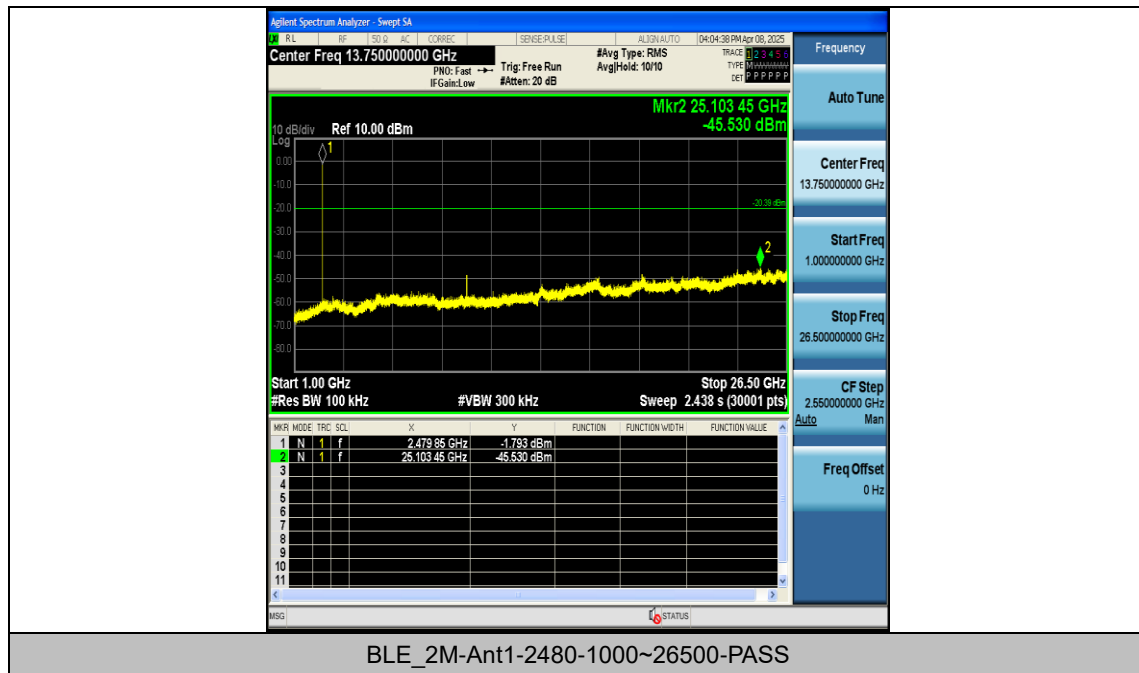
BLE_2M-Ant1-2440-1000~26500-PASS



BLE_2M-Ant1-2480-0~Reference-PASS



BLE_2M-Ant1-2480-30~1000-PASS



Appendix G: Duty Cycle

Test Result

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
BLE_1M	Ant1	2402	19.00	19.00	100.00	0.00
BLE_1M	Ant1	2440	19.00	19.00	100.00	0.00
BLE_1M	Ant1	2480	19.00	19.00	100.00	0.00
BLE_2M	Ant1	2402	19.00	19.00	100.00	0.00
BLE_2M	Ant1	2440	19.00	19.00	100.00	0.00
BLE_2M	Ant1	2480	19.00	19.00	100.00	0.00

Note: offset(dB) = cable loss(dB) + attenuator factor(Db)

Test Graphs

