

Appendix Test Data for BLE (Conducted Measurement)

Product Name: Smart Watch

Trade Mark: /

Test Model: W09

FCC ID: 2AQYK-W09

Environmental Conditions

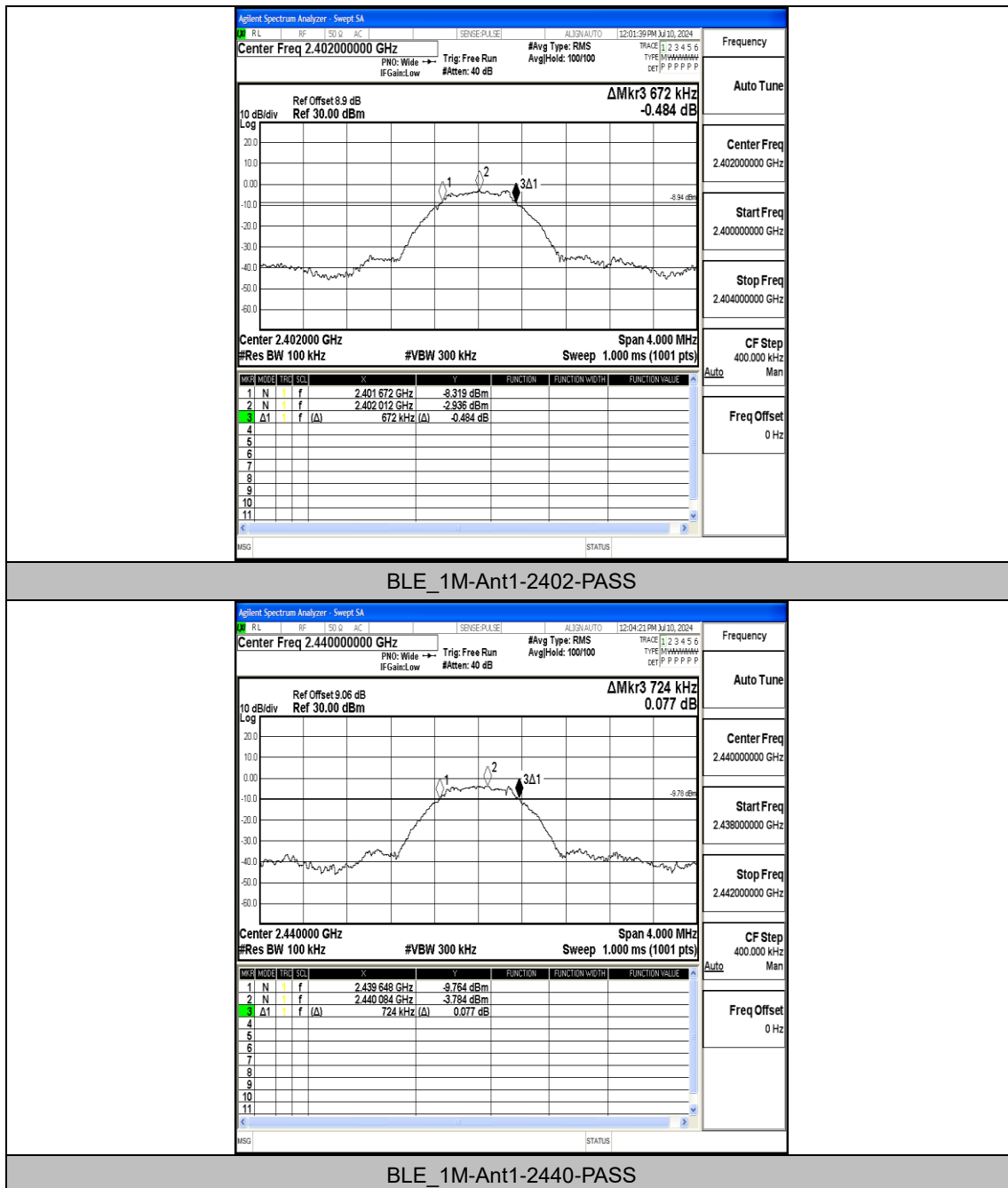
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

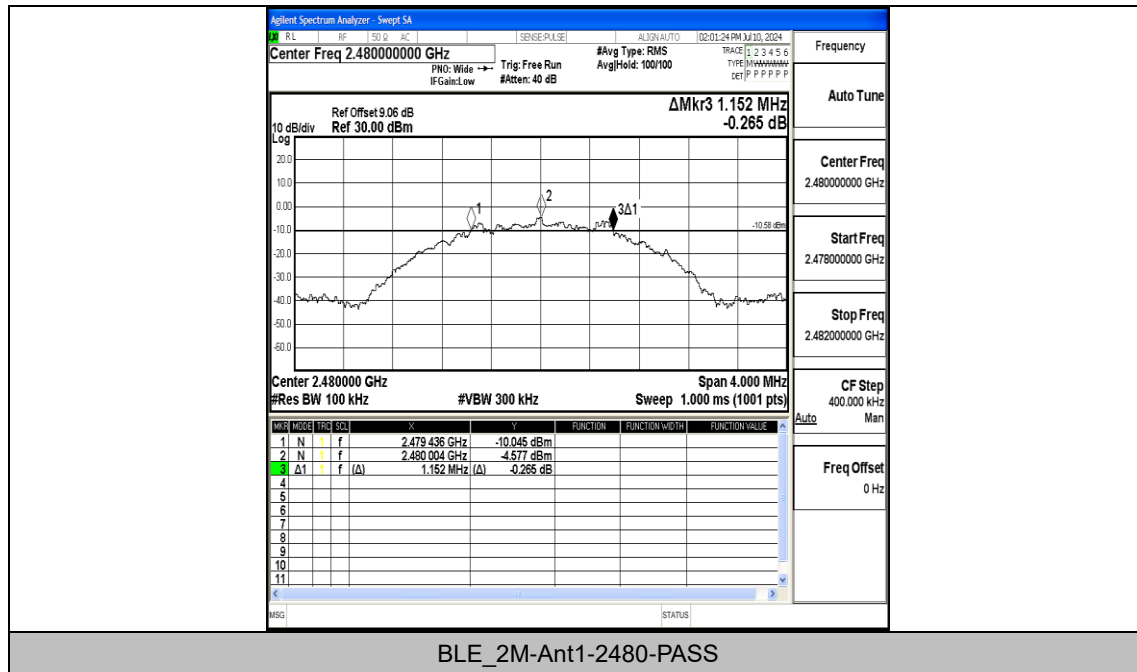
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.672	2401.672	2402.344	0.5	PASS
BLE_1M	Ant1	2440	0.724	2439.648	2440.372	0.5	PASS
BLE_1M	Ant1	2480	0.676	2479.672	2480.348	0.5	PASS
BLE_2M	Ant1	2402	1.144	2401.432	2402.576	0.5	PASS
BLE_2M	Ant1	2440	1.160	2439.440	2440.600	0.5	PASS
BLE_2M	Ant1	2480	1.152	2479.436	2480.588	0.5	PASS

Test Graphs





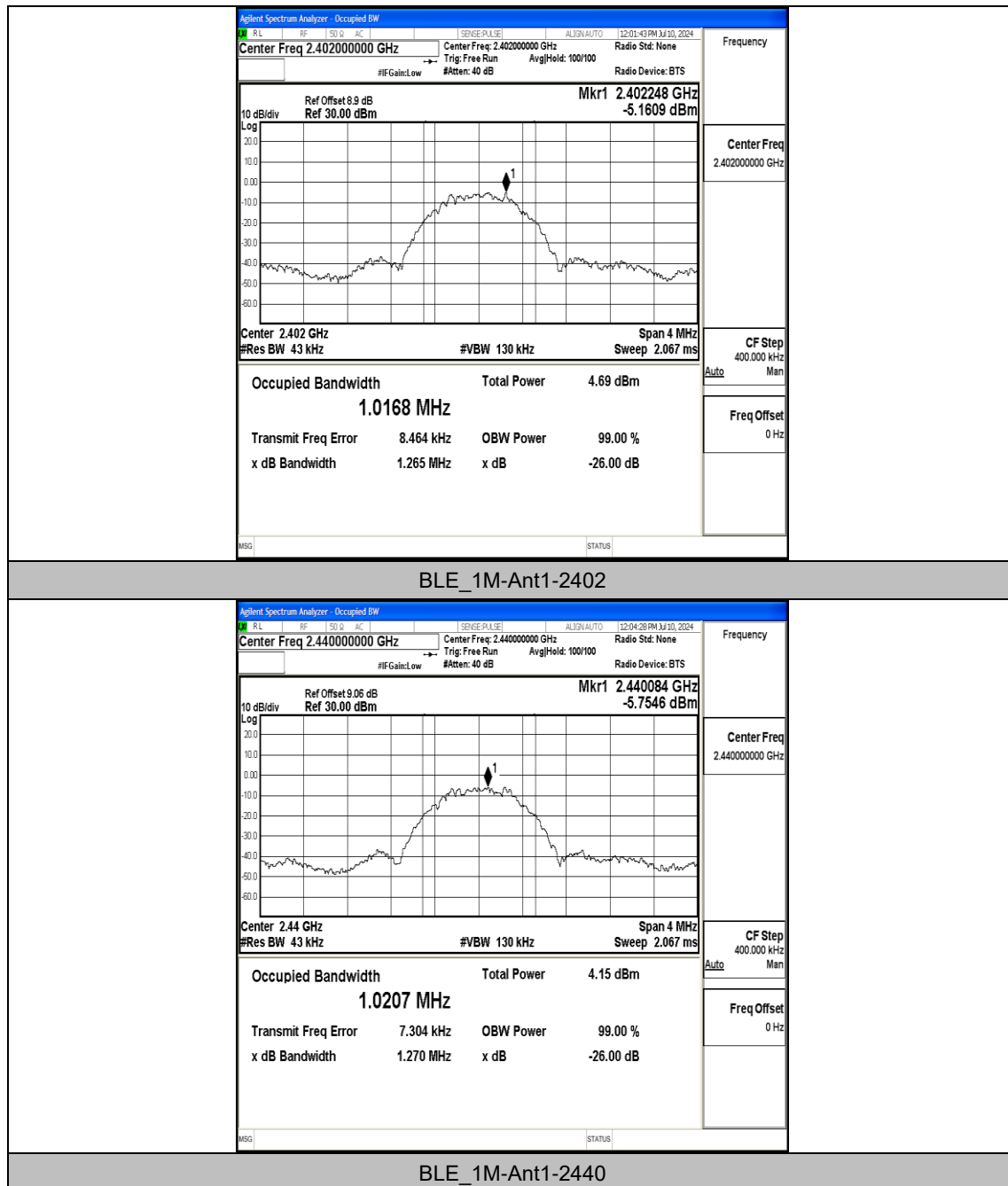


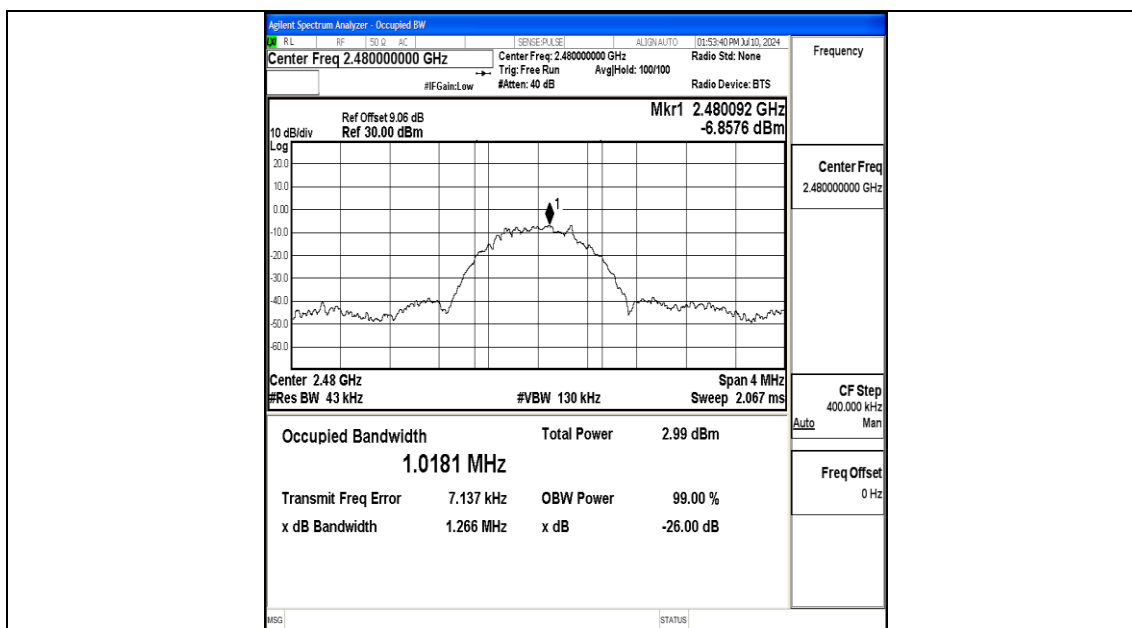
Appendix B: Occupied Channel Bandwidth

Test Result

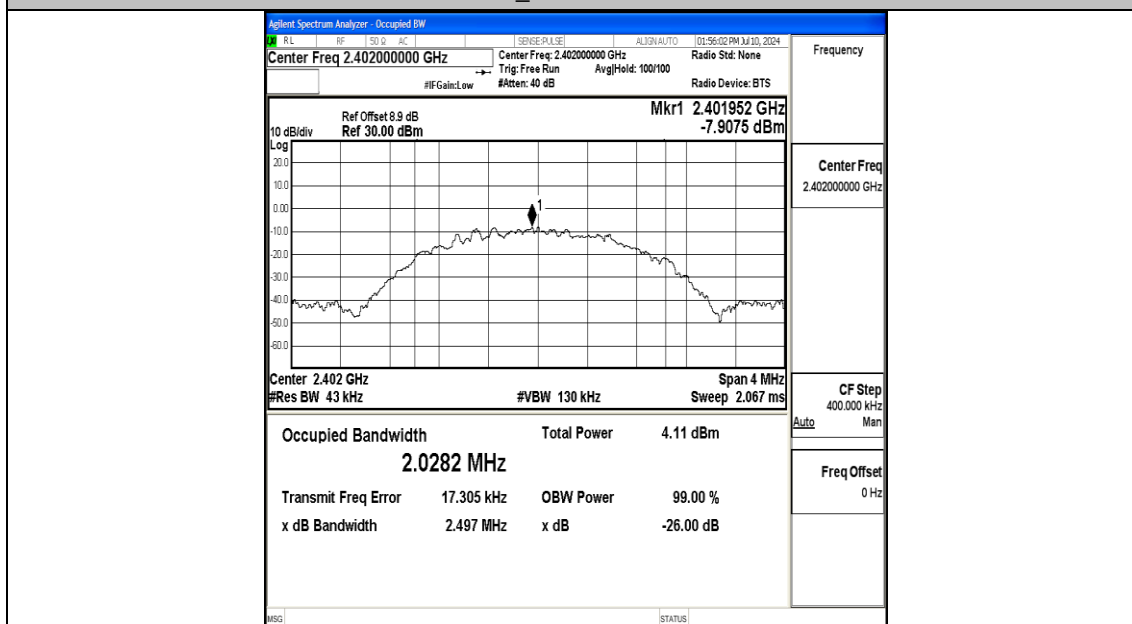
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0168	2401.5001	2402.5169	---	---
BLE_1M	Ant1	2440	1.0207	2439.4970	2440.5177	---	---
BLE_1M	Ant1	2480	1.0181	2479.4981	2480.5162	---	---
BLE_2M	Ant1	2402	2.0282	2401.0032	2403.0314	---	---
BLE_2M	Ant1	2440	2.0437	2439.0000	2441.0437	---	---
BLE_2M	Ant1	2480	2.0357	2479.0005	2481.0362	---	---

Test Graphs

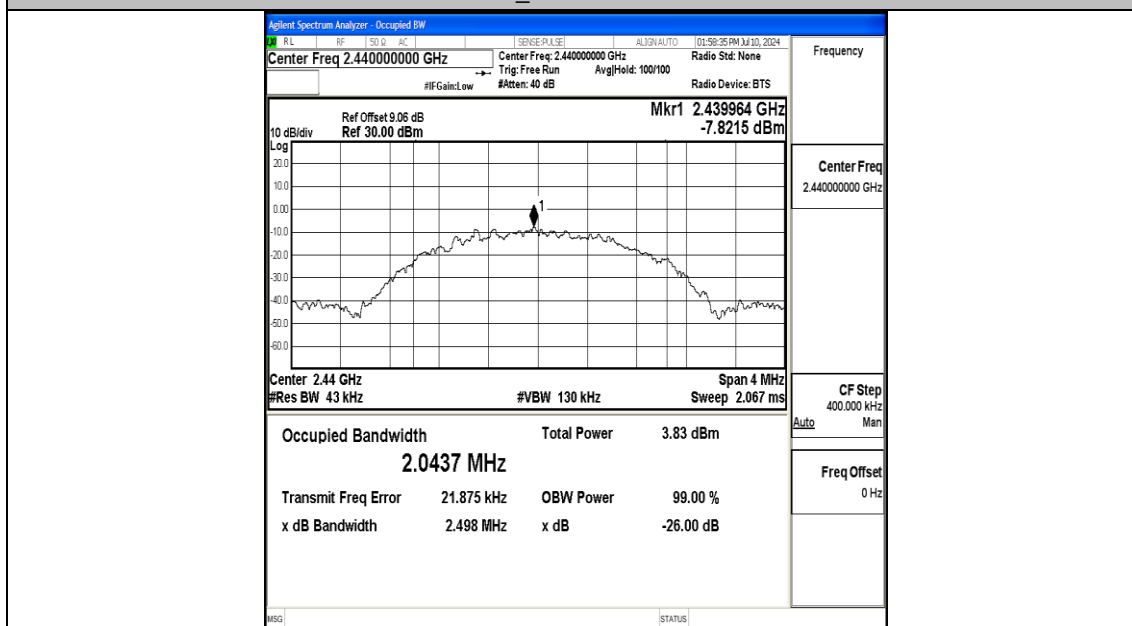




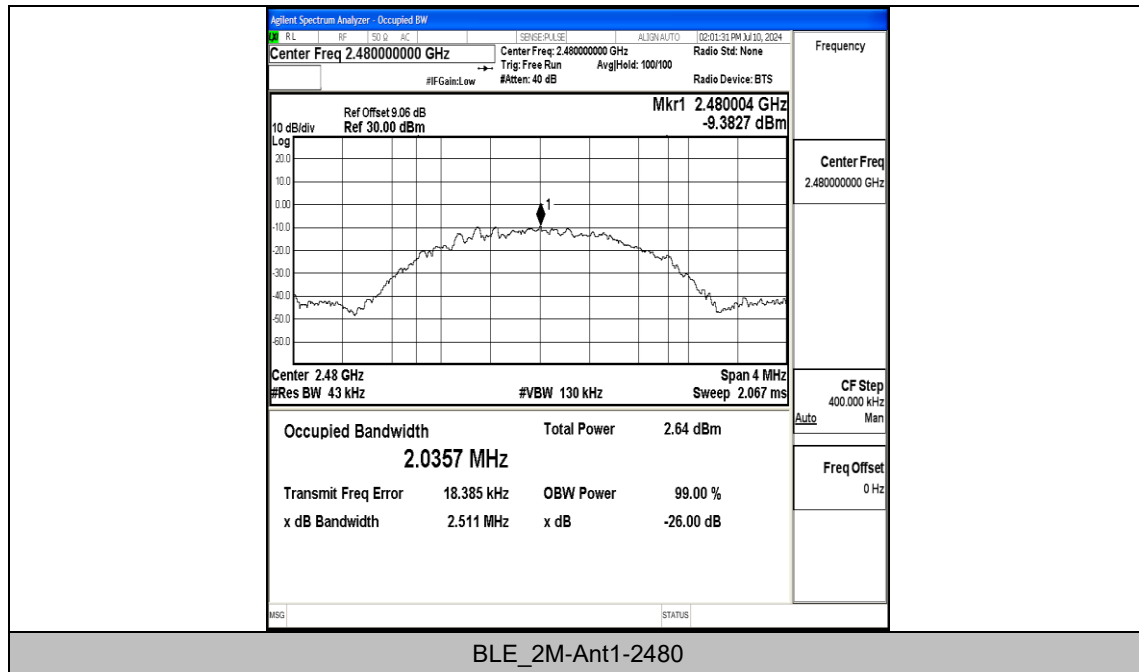
BLE_1M-Ant1-2480



BLE_2M-Ant1-2402



BLE_2M-Ant1-2440

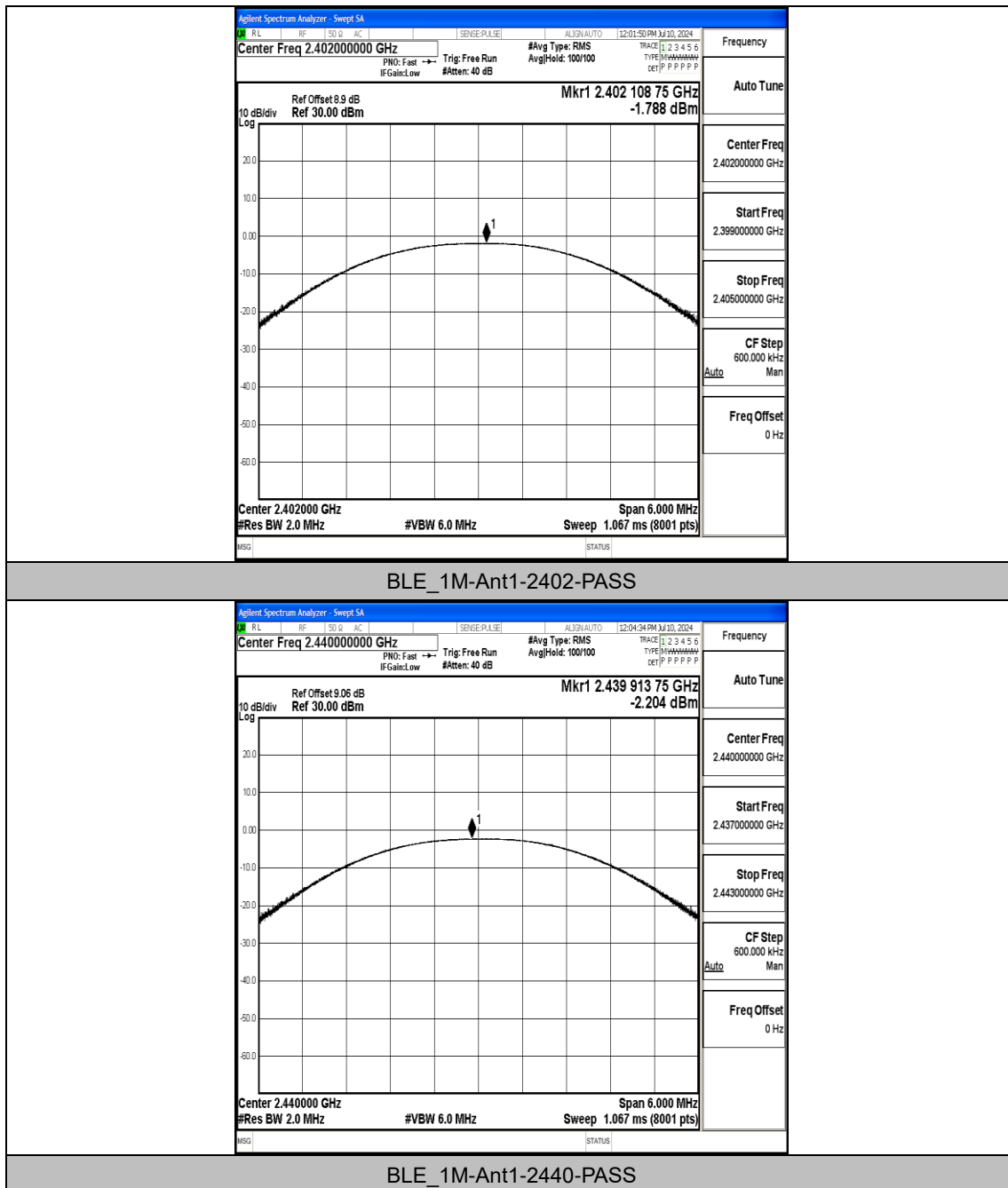


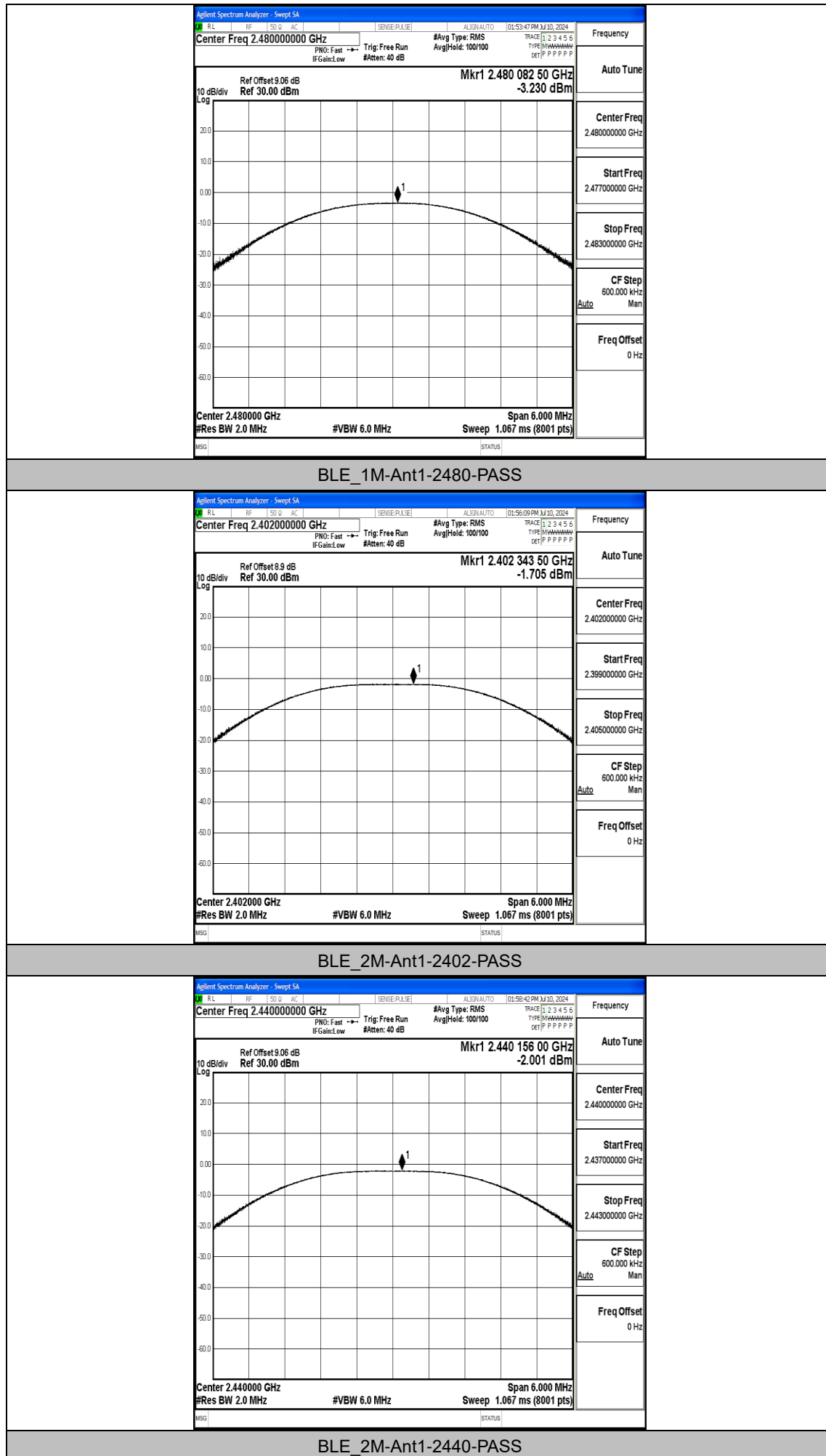
Appendix C: Maximum peak conducted output power

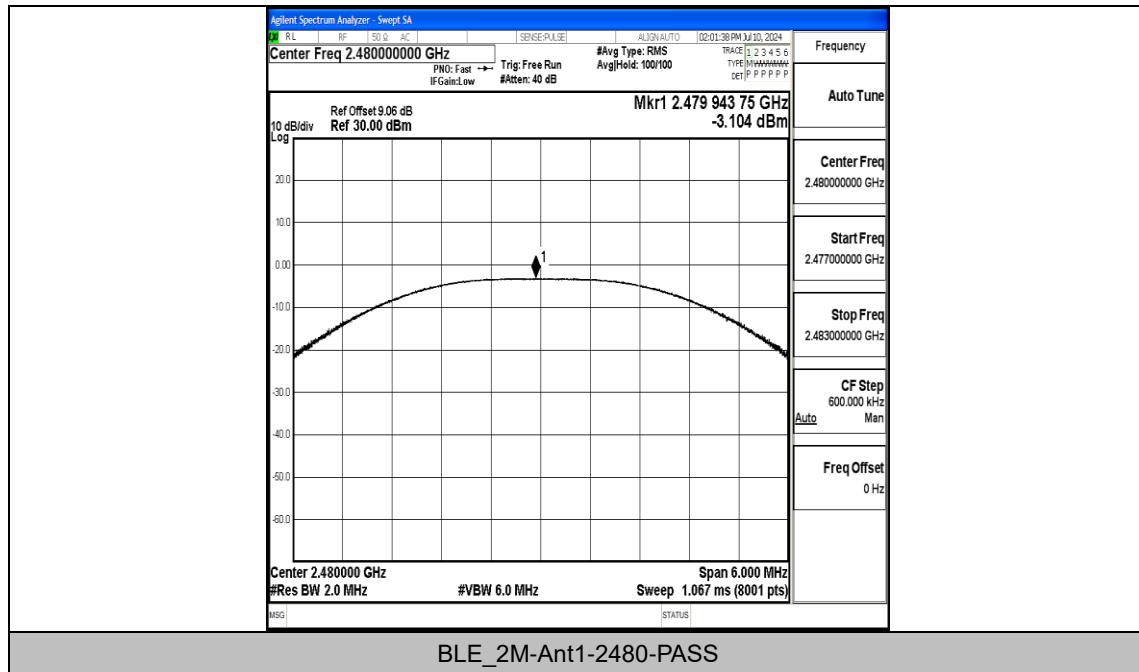
Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.79	≤30	PASS
BLE_1M	Ant1	2440	-2.20	≤30	PASS
BLE_1M	Ant1	2480	-3.23	≤30	PASS
BLE_2M	Ant1	2402	-1.71	≤30	PASS
BLE_2M	Ant1	2440	-2.00	≤30	PASS
BLE_2M	Ant1	2480	-3.10	≤30	PASS

Test Graphs Peak





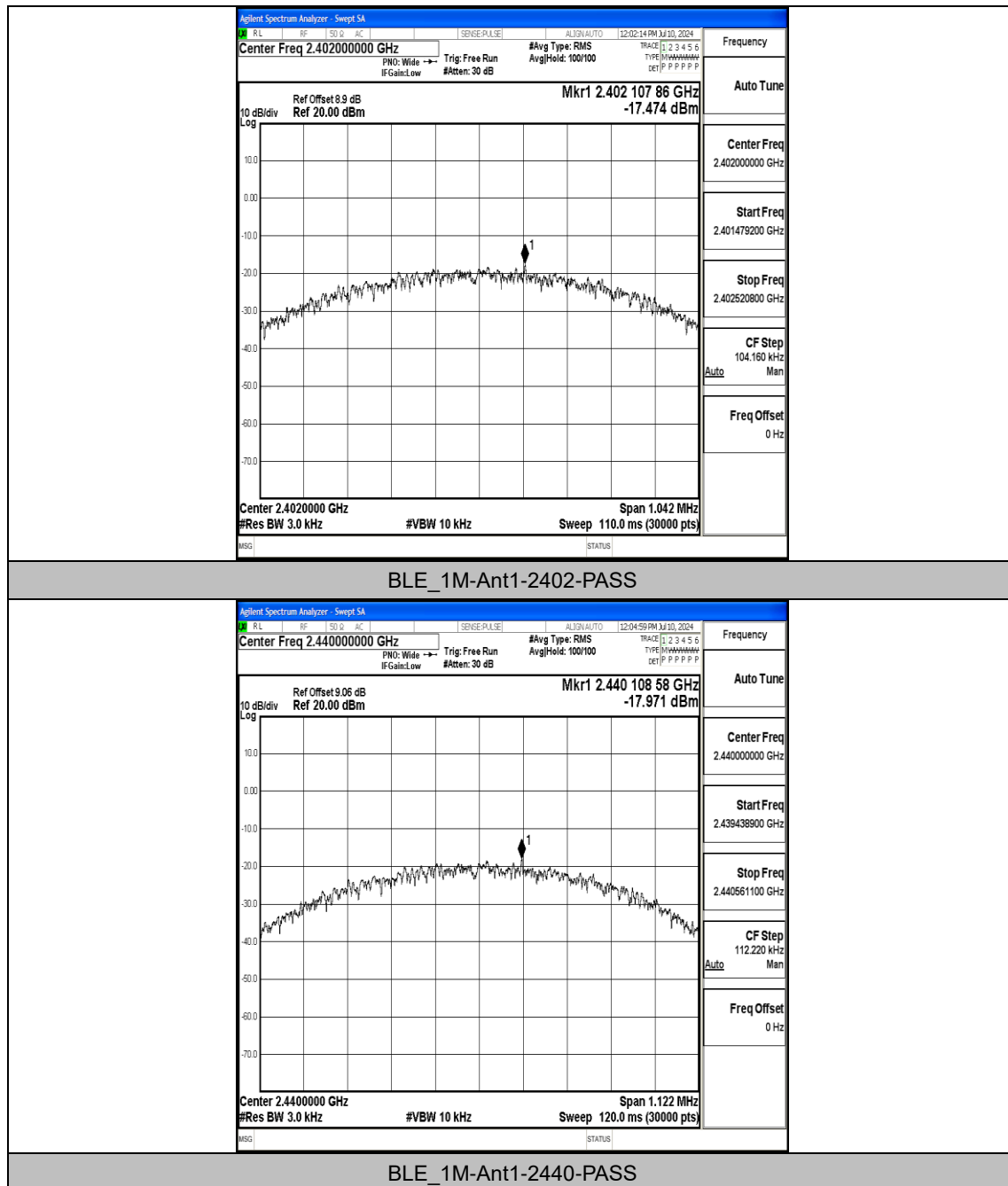


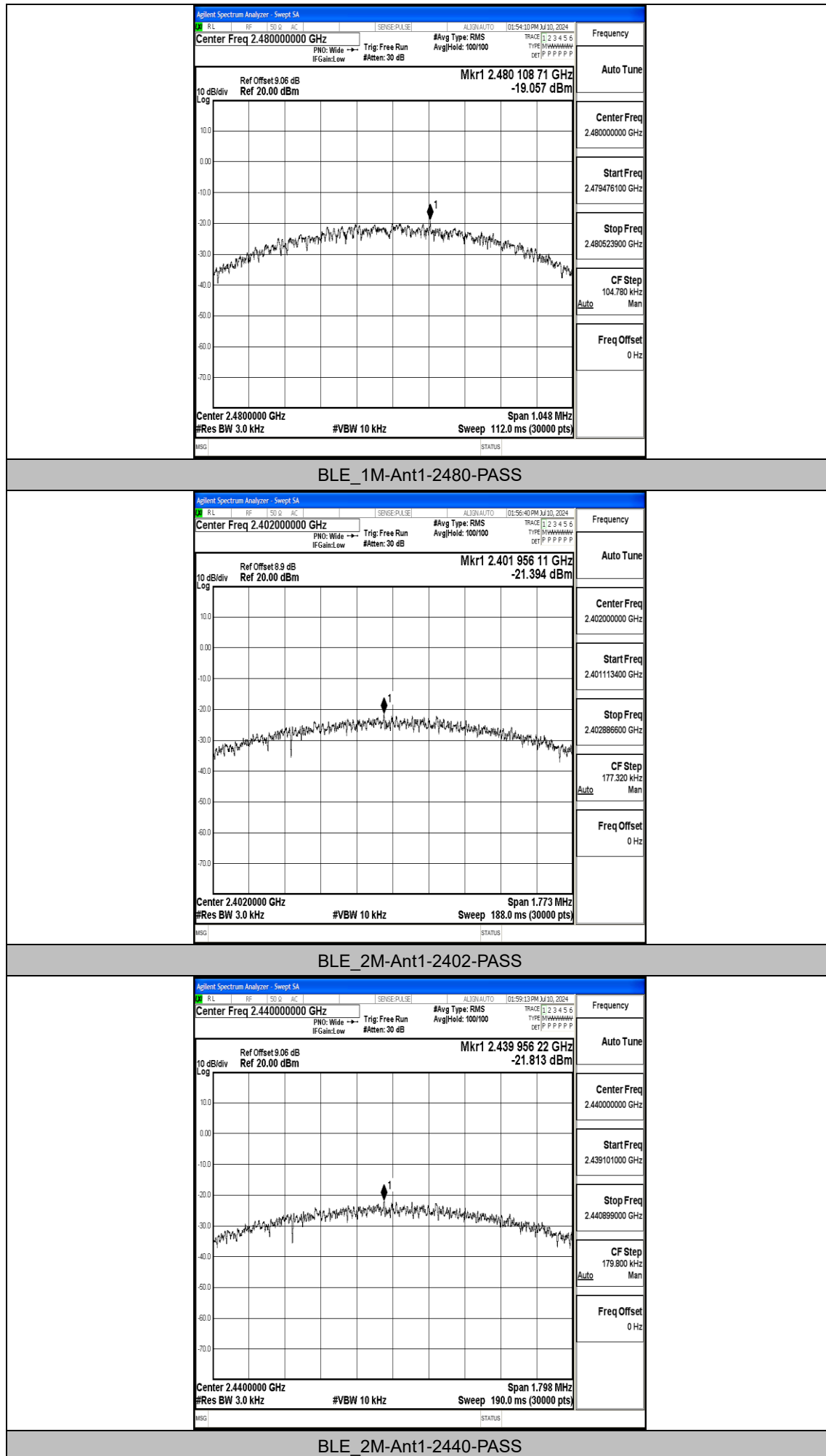
Appendix D: Maximum peak power spectral density

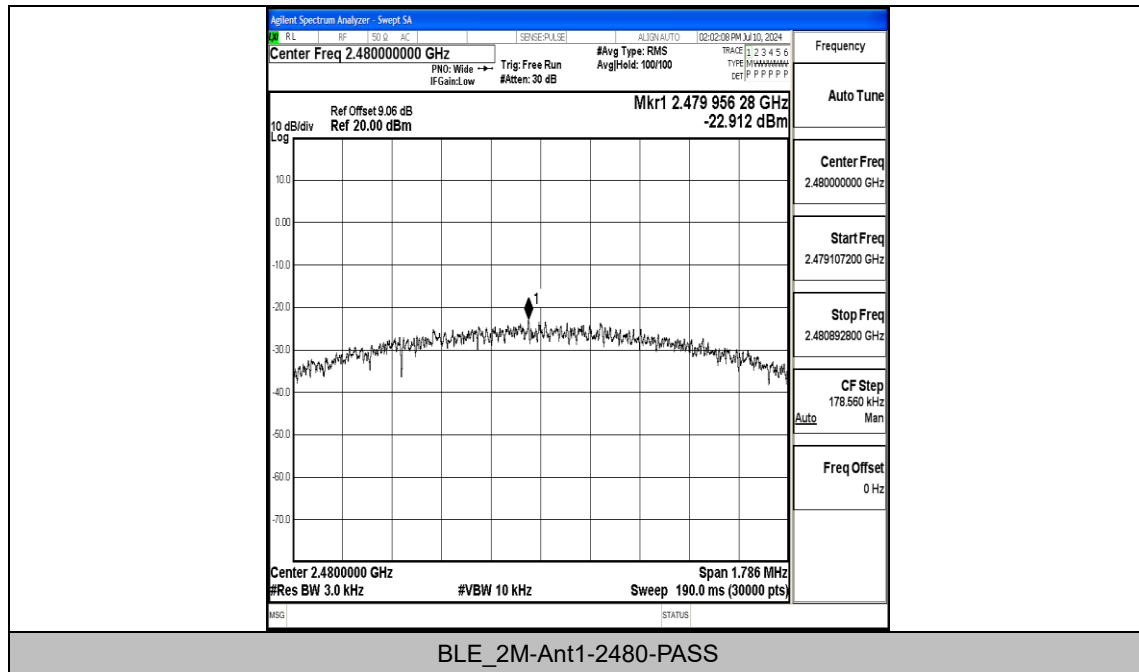
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-17.47	≤8.00	PASS
BLE_1M	Ant1	2440	-17.97	≤8.00	PASS
BLE_1M	Ant1	2480	-19.06	≤8.00	PASS
BLE_2M	Ant1	2402	-21.39	≤8.00	PASS
BLE_2M	Ant1	2440	-21.81	≤8.00	PASS
BLE_2M	Ant1	2480	-22.91	≤8.00	PASS

Test Graphs





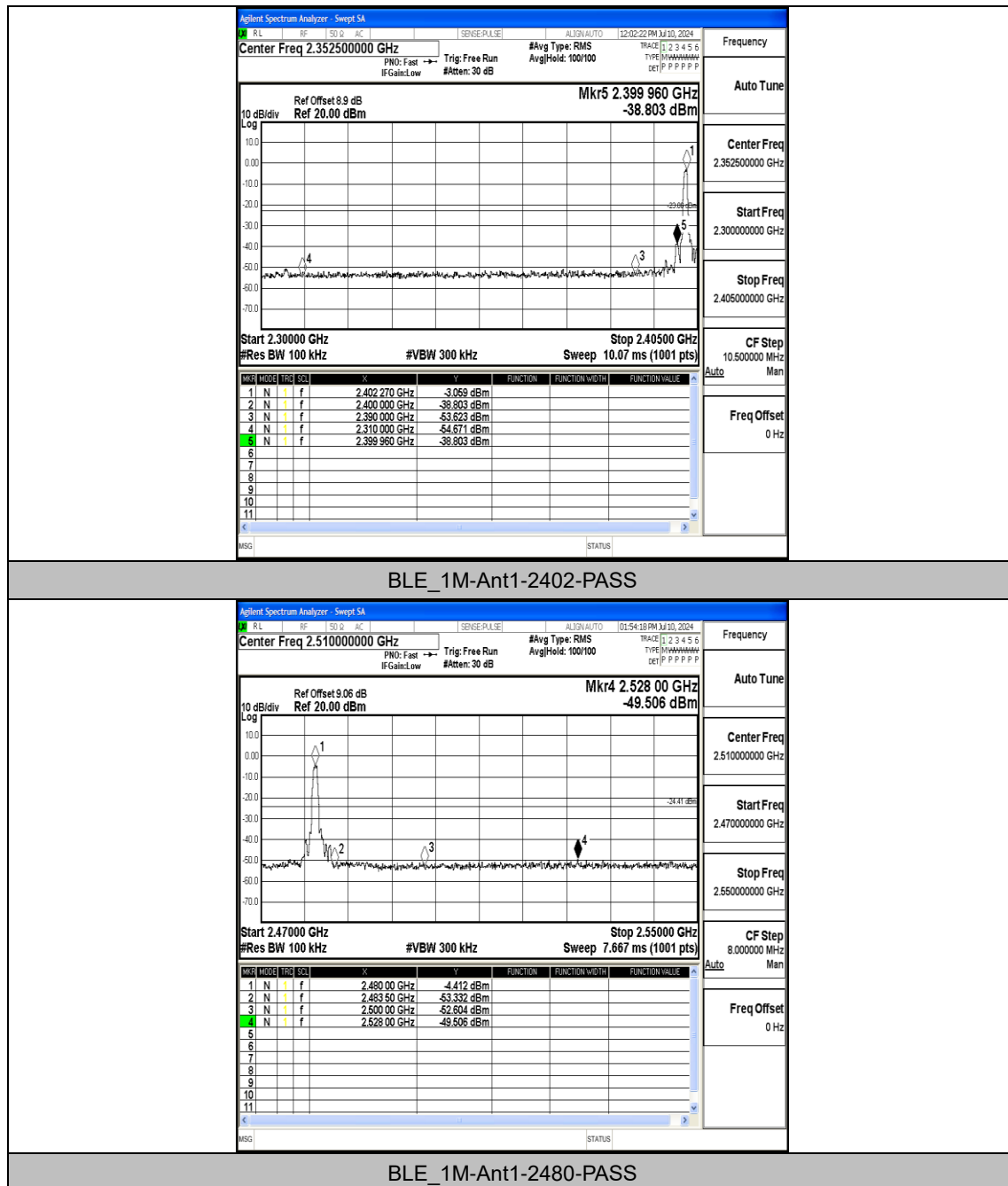


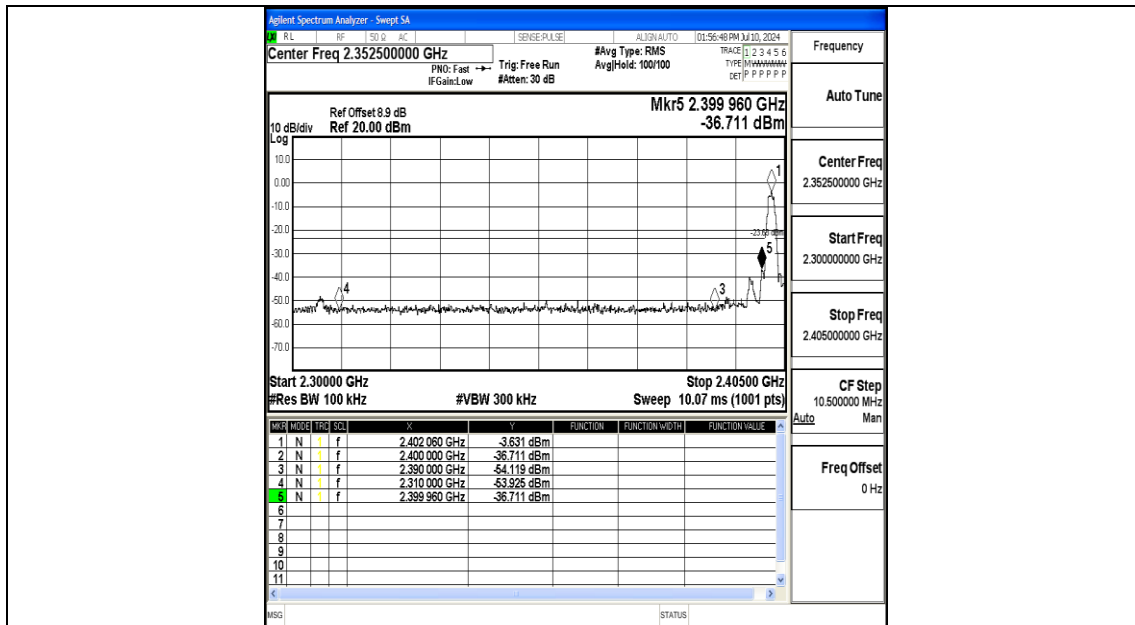
Appendix E: Band edge measurements

Test Result

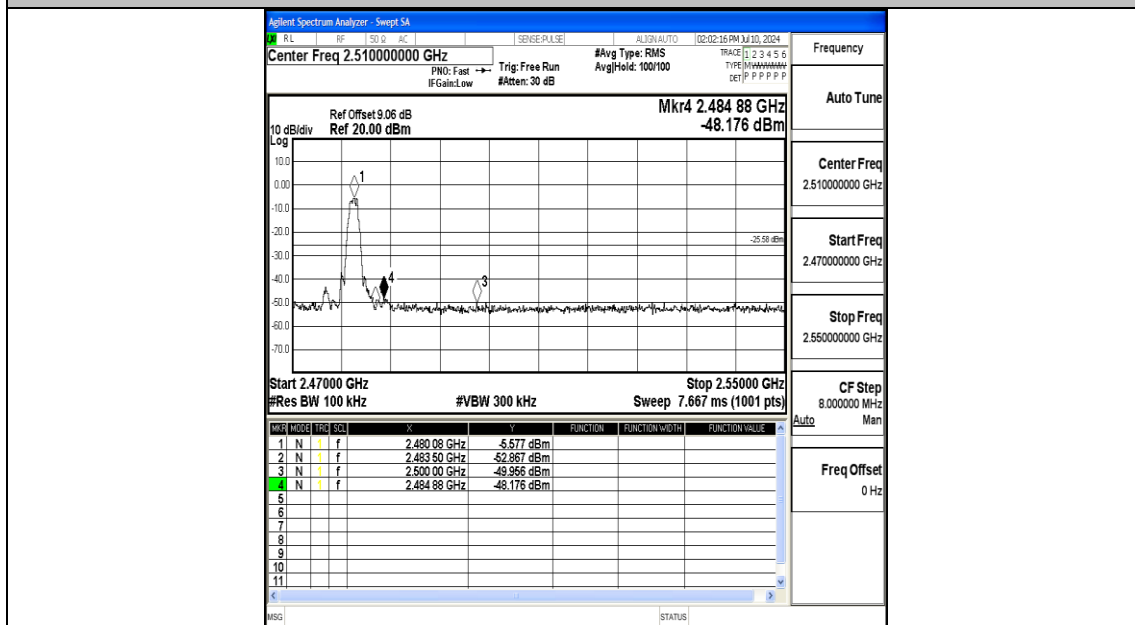
TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.06	-38.8	≤-23.06	PASS
BLE_1M	Ant1	High	2480	-4.41	-49.51	≤-24.41	PASS
BLE_2M	Ant1	Low	2402	-3.63	-36.71	≤-23.63	PASS
BLE_2M	Ant1	High	2480	-5.58	-48.18	≤-25.58	PASS

Test Graphs





BLE_2M-Ant1-2402-PASS



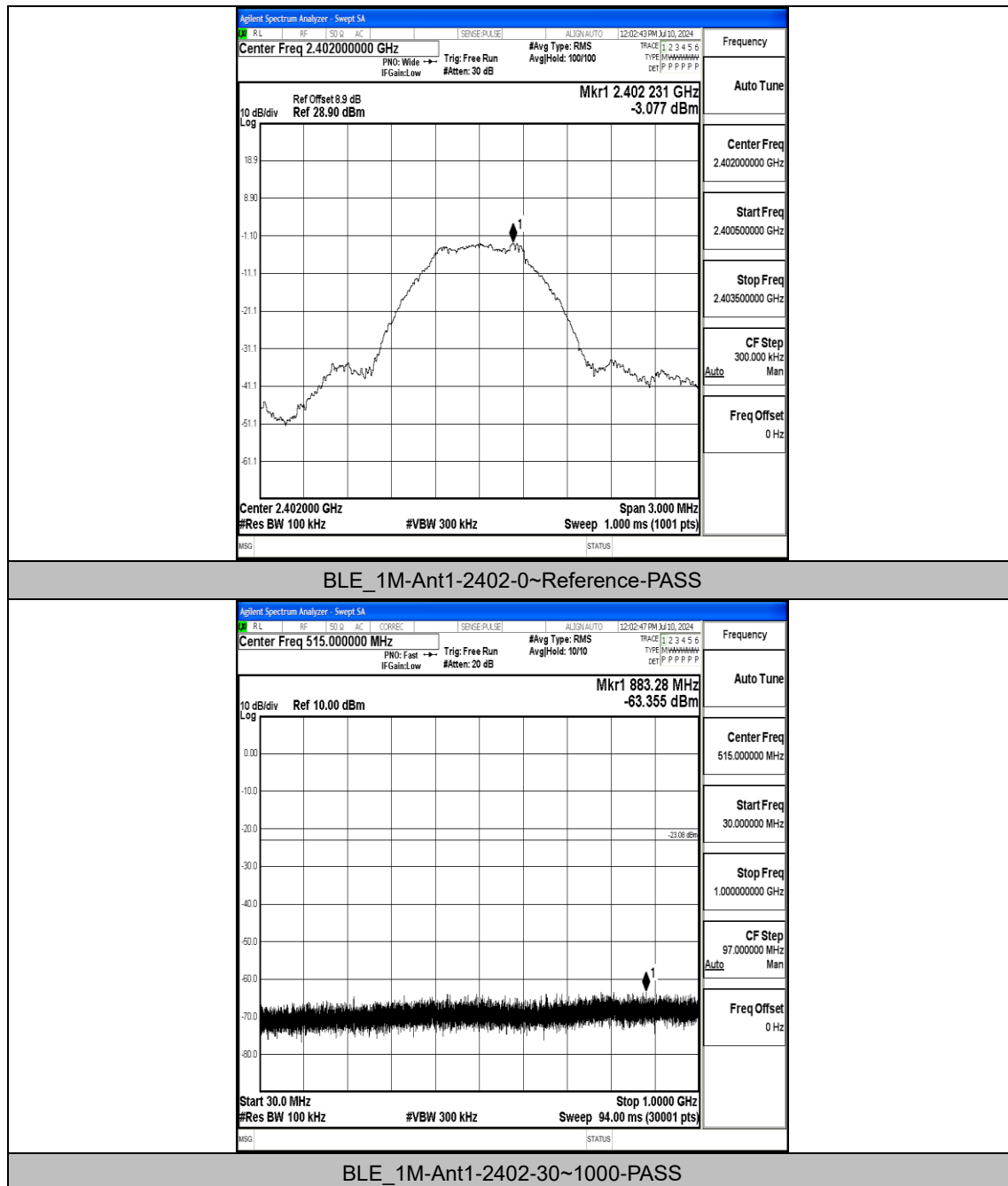
BLE_2M-Ant1-2480-PASS

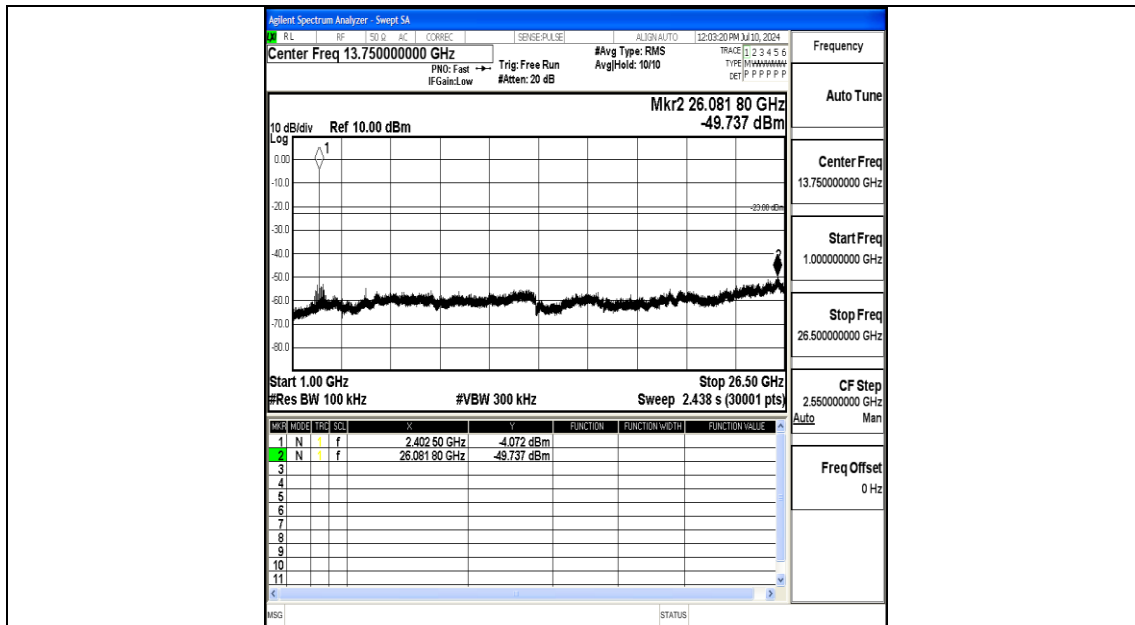
Appendix F: Conducted Spurious Emission

Test Result

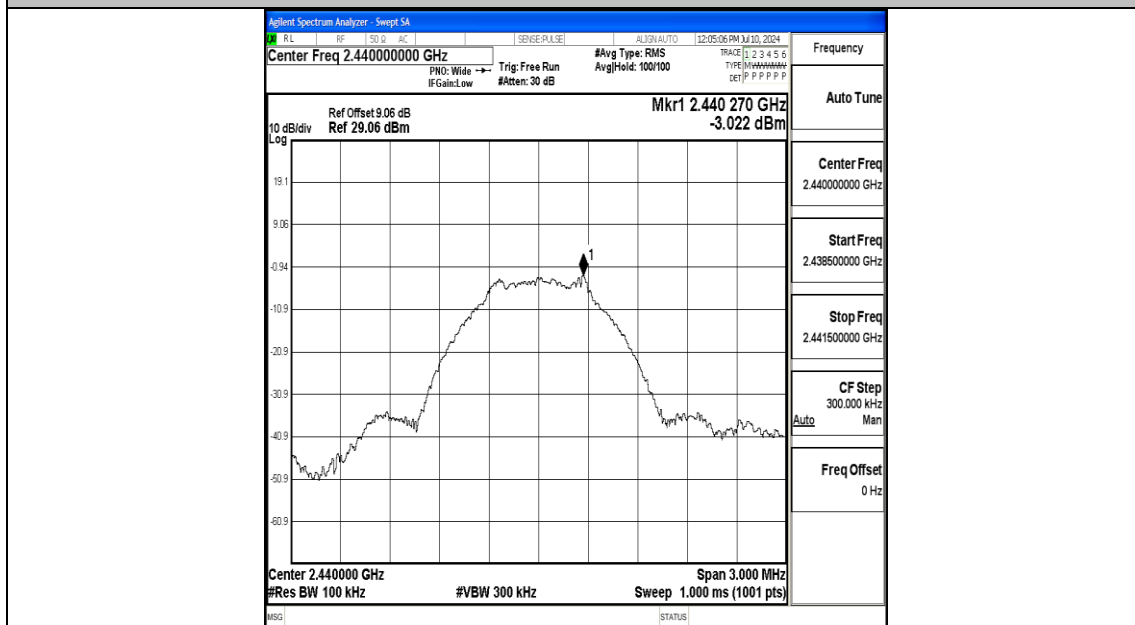
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-3.08	-3.08	---	PASS
BLE_1M	Ant1	2402	30~1000	-3.08	-63.36	≤-23.08	PASS
BLE_1M	Ant1	2402	1000~26500	-3.08	-49.74	≤-23.08	PASS
BLE_1M	Ant1	2440	0~Reference	-3.02	-3.02	---	PASS
BLE_1M	Ant1	2440	30~1000	-3.02	-63.18	≤-23.02	PASS
BLE_1M	Ant1	2440	1000~26500	-3.02	-50.27	≤-23.02	PASS
BLE_1M	Ant1	2480	0~Reference	-4.53	-4.53	---	PASS
BLE_1M	Ant1	2480	30~1000	-4.53	-63.05	≤-24.53	PASS
BLE_1M	Ant1	2480	1000~26500	-4.53	-50.26	≤-24.53	PASS
BLE_2M	Ant1	2402	0~Reference	-3.06	-3.06	---	PASS
BLE_2M	Ant1	2402	30~1000	-3.06	-63.28	≤-23.06	PASS
BLE_2M	Ant1	2402	1000~26500	-3.06	-49.85	≤-23.06	PASS
BLE_2M	Ant1	2440	0~Reference	-3.42	-3.42	---	PASS
BLE_2M	Ant1	2440	30~1000	-3.42	-63.04	≤-23.42	PASS
BLE_2M	Ant1	2440	1000~26500	-3.42	-49.8	≤-23.42	PASS
BLE_2M	Ant1	2480	0~Reference	-5.50	-5.50	---	PASS
BLE_2M	Ant1	2480	30~1000	-5.50	-62.7	≤-25.5	PASS
BLE_2M	Ant1	2480	1000~26500	-5.50	-48.88	≤-25.5	PASS

Test Graphs

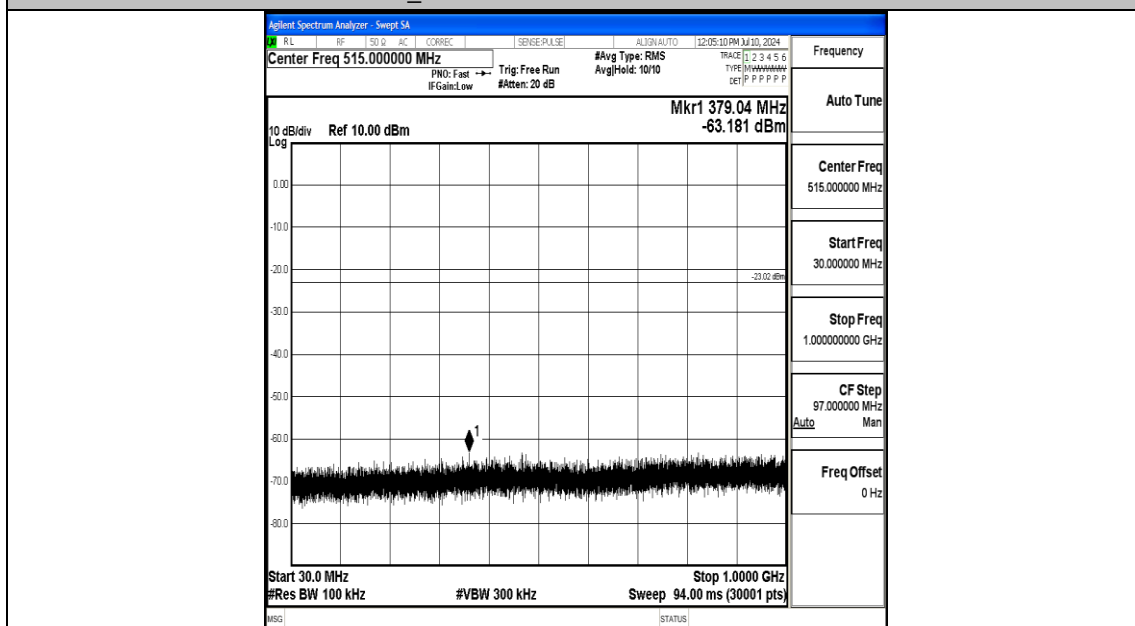




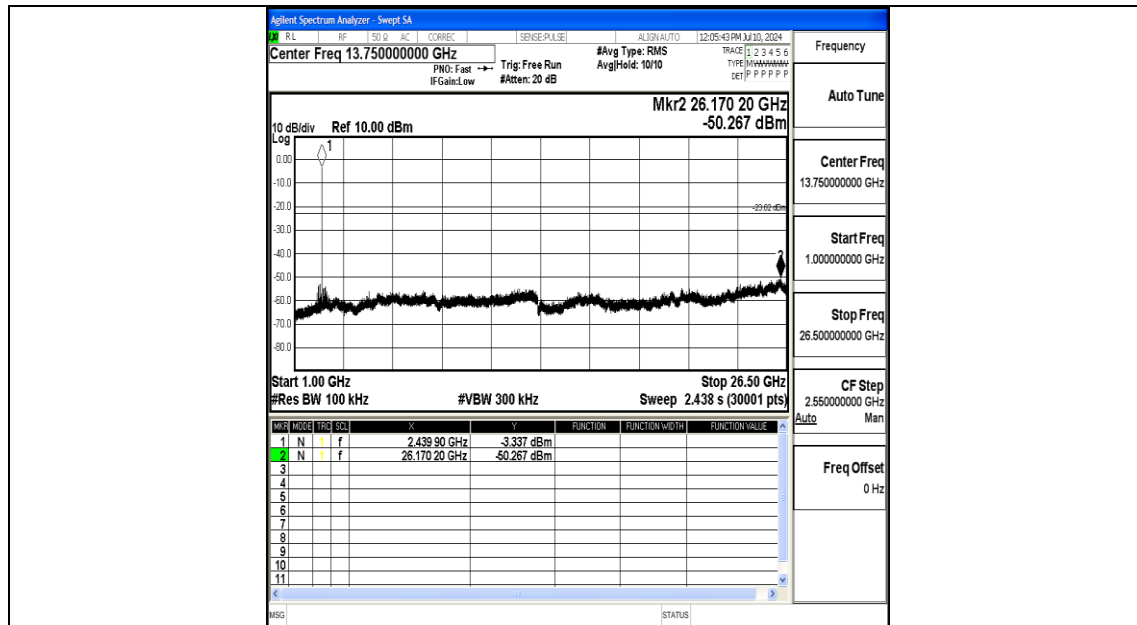
BLE_1M-Ant1-2402-1000~26500-PASS



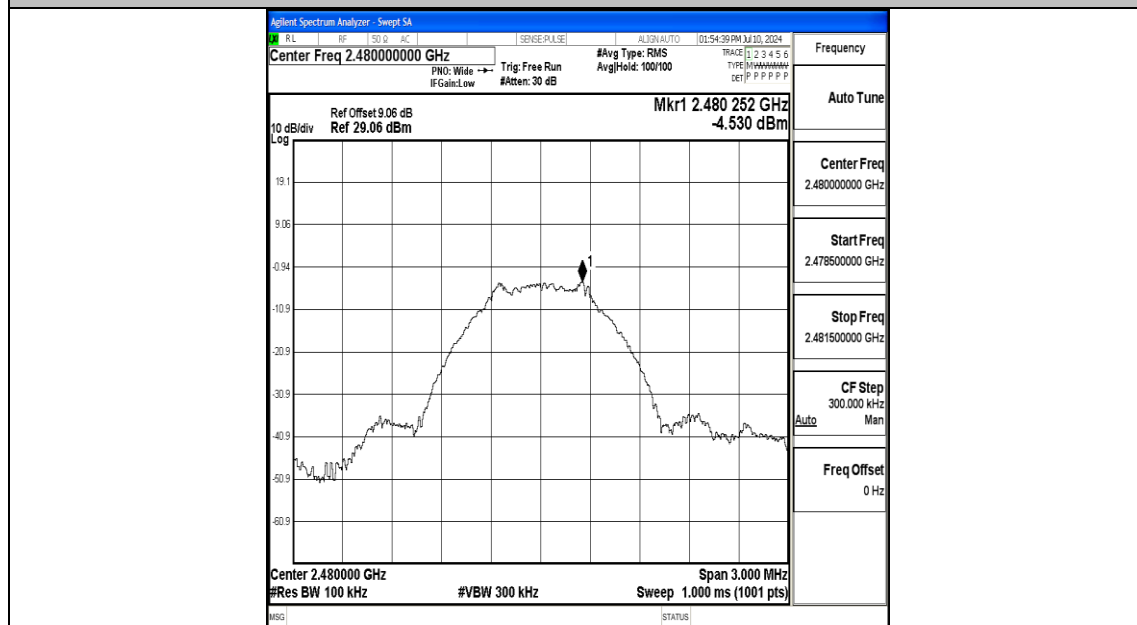
BLE_1M-Ant1-2440-0~Reference-PASS



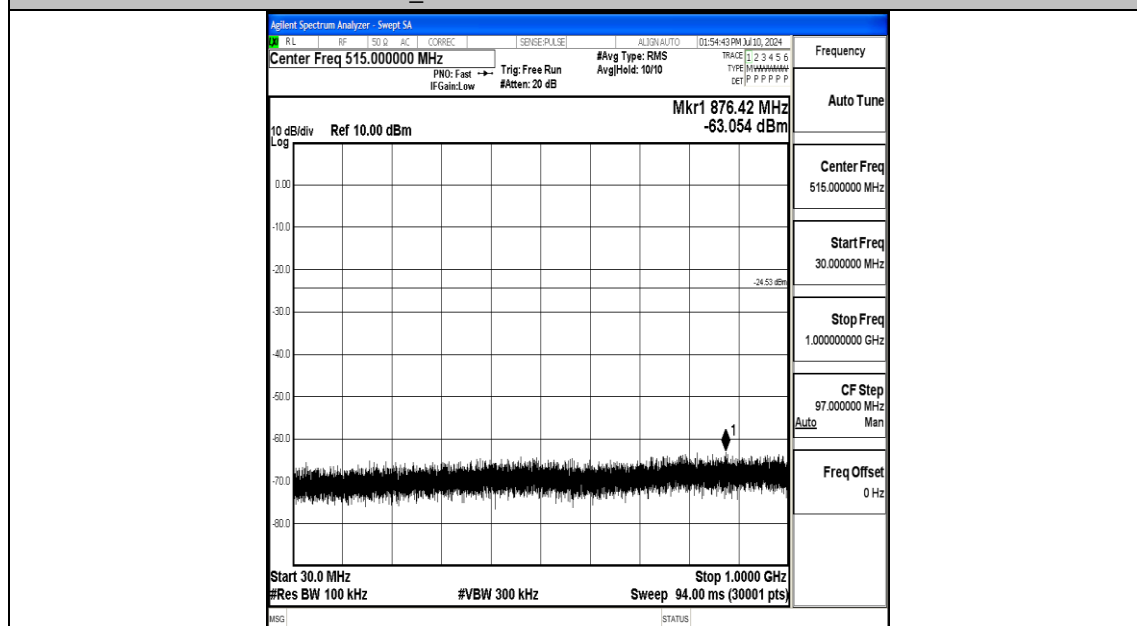
BLE_1M-Ant1-2440-30~1000-PASS



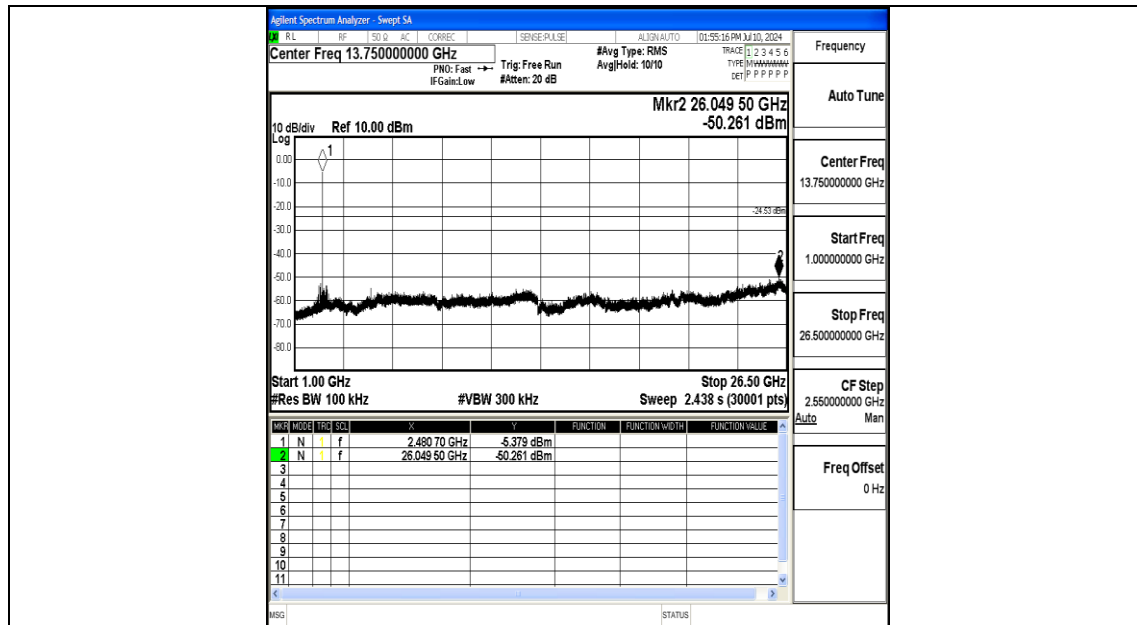
BLE_1M-Ant1-2440-1000~26500-PASS



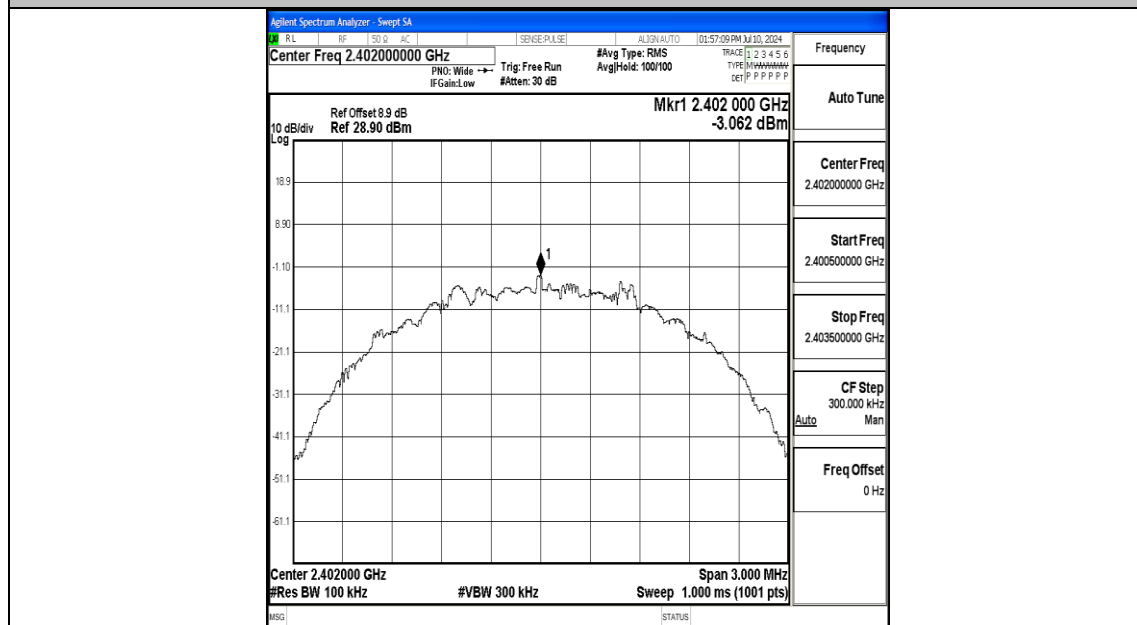
BLE_1M-Ant1-2480-0~Reference-PASS



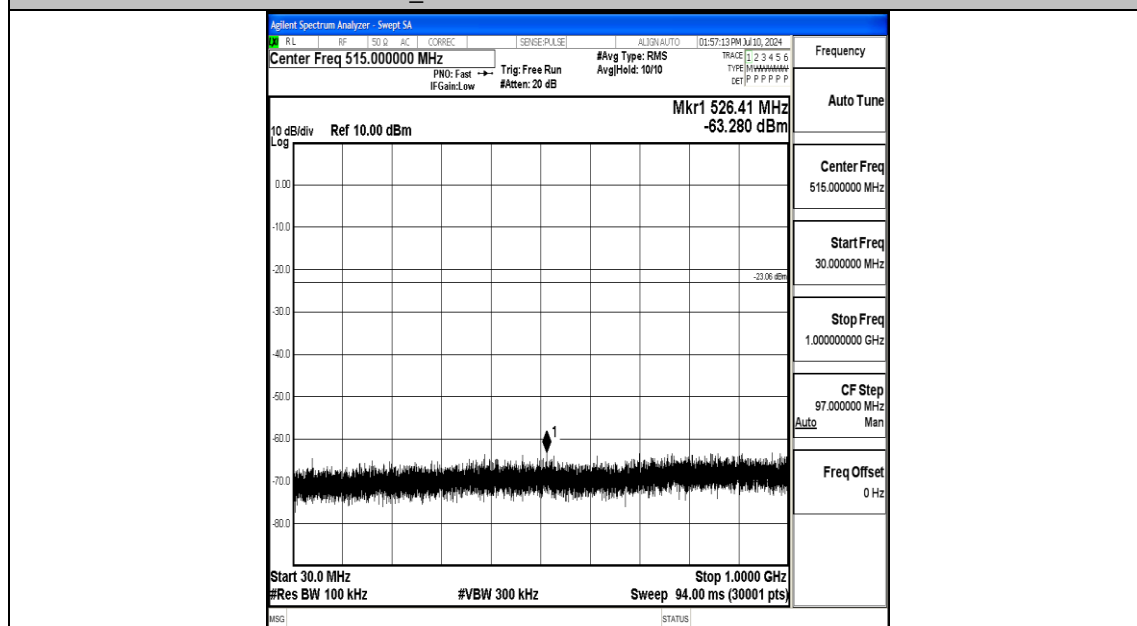
BLE_1M-Ant1-2480-30~1000-PASS



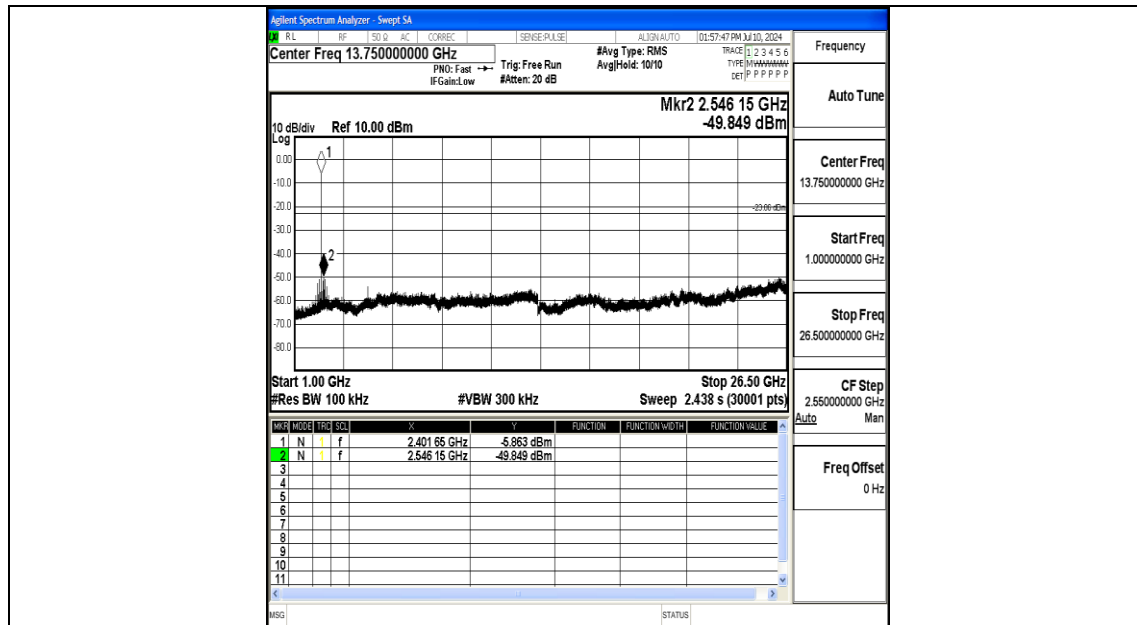
BLE_1M-Ant1-2480-1000~26500-PASS



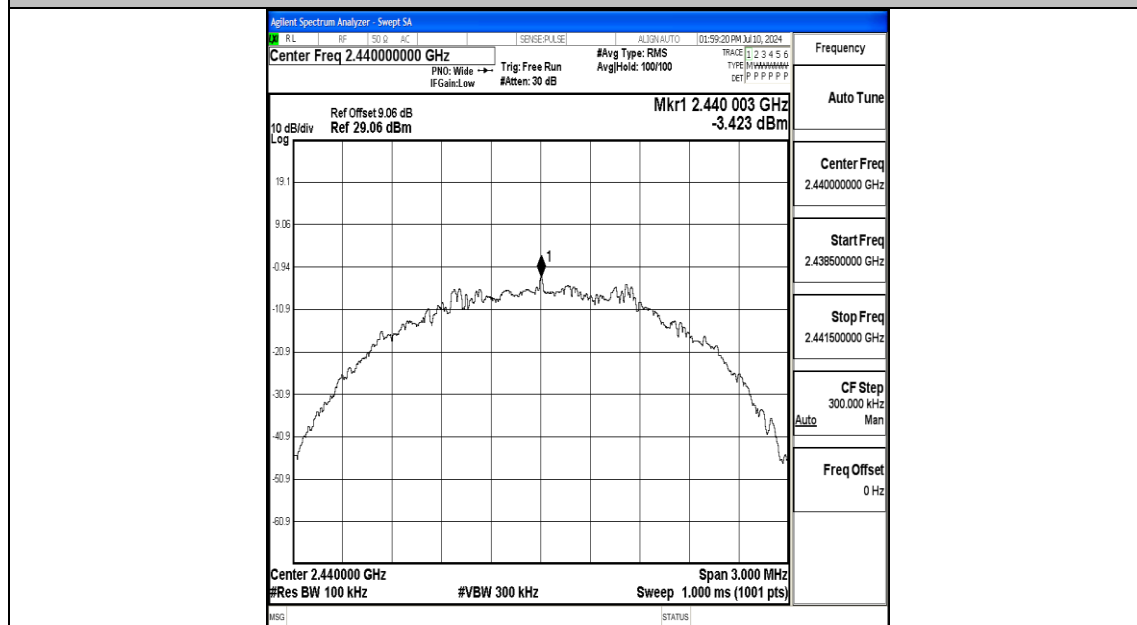
BLE_2M-Ant1-2402-0~Reference-PASS



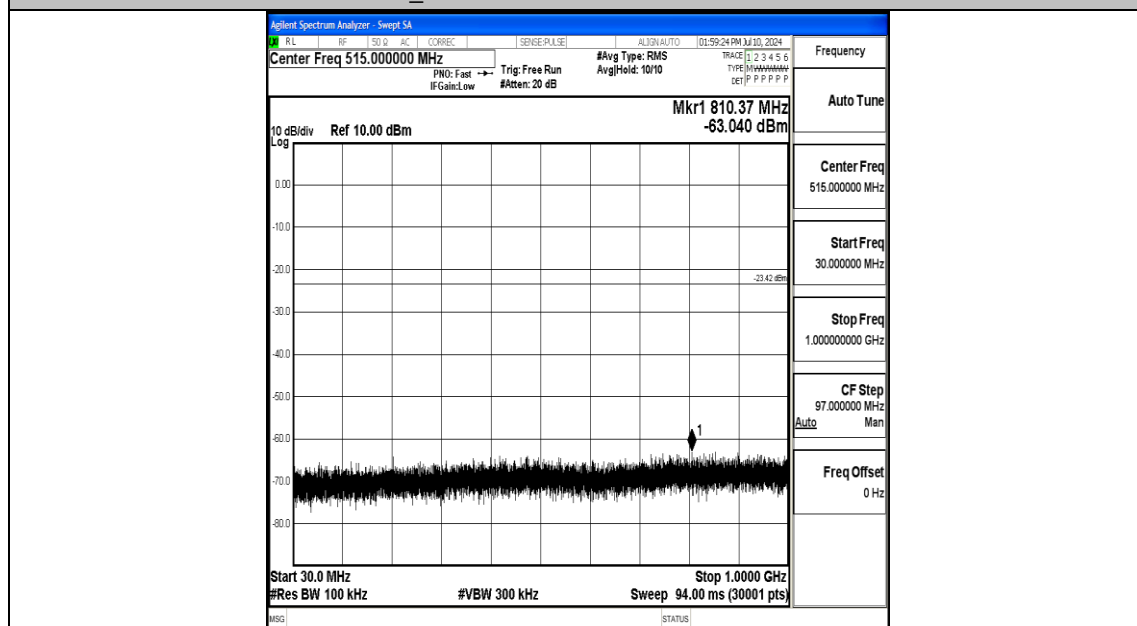
BLE_2M-Ant1-2402-30~1000-PASS



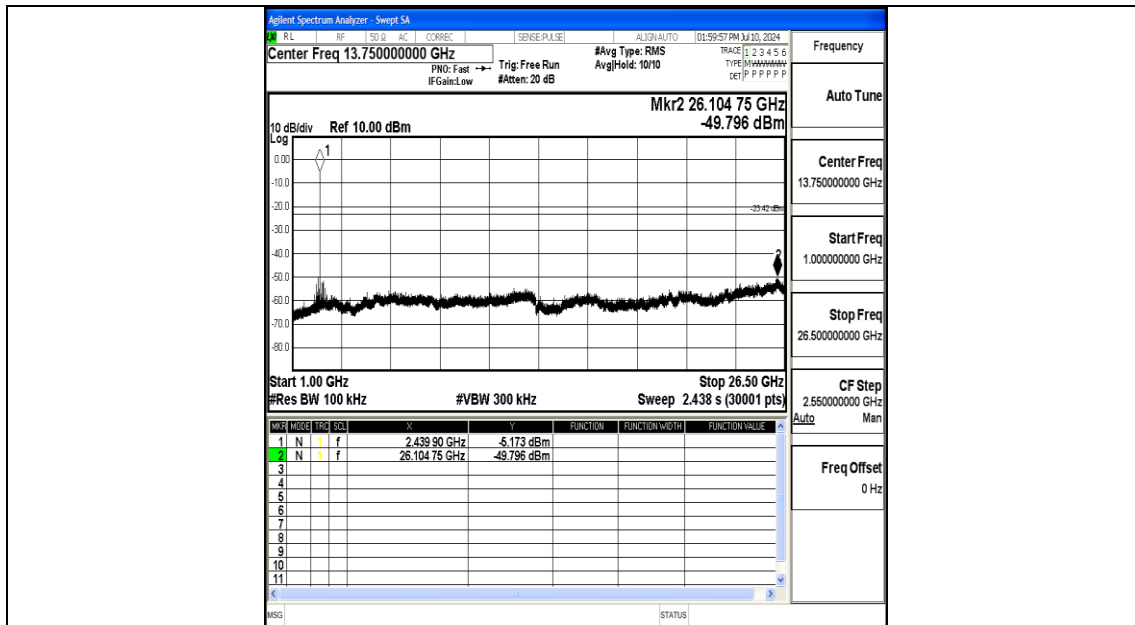
BLE_2M-Ant1-2402-1000~26500-PASS



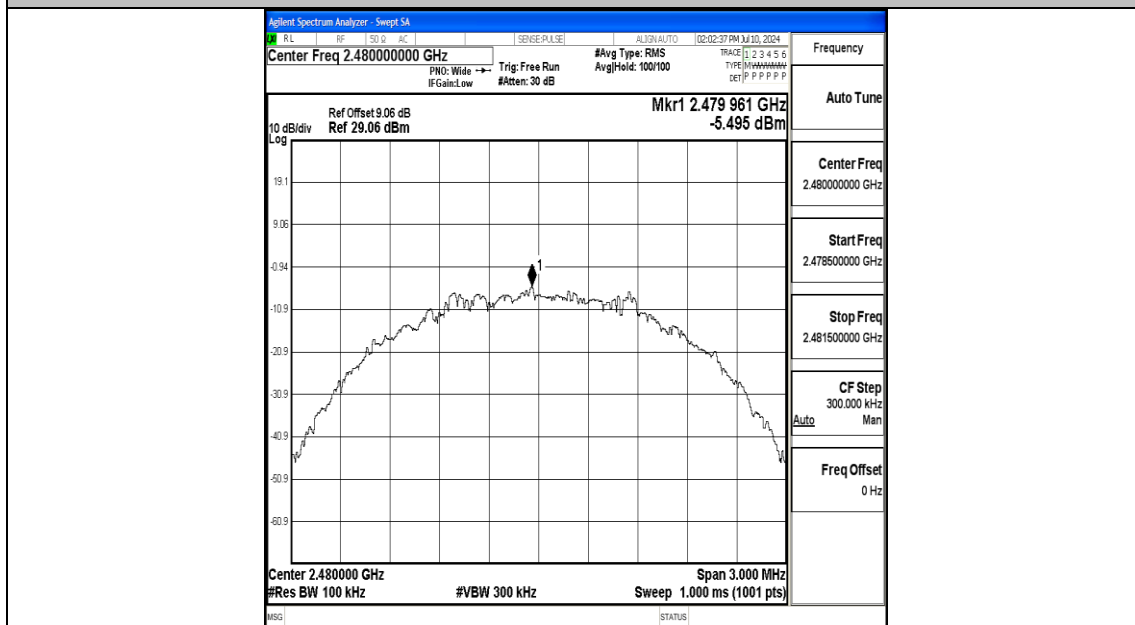
BLE_2M-Ant1-2440-0~Reference-PASS



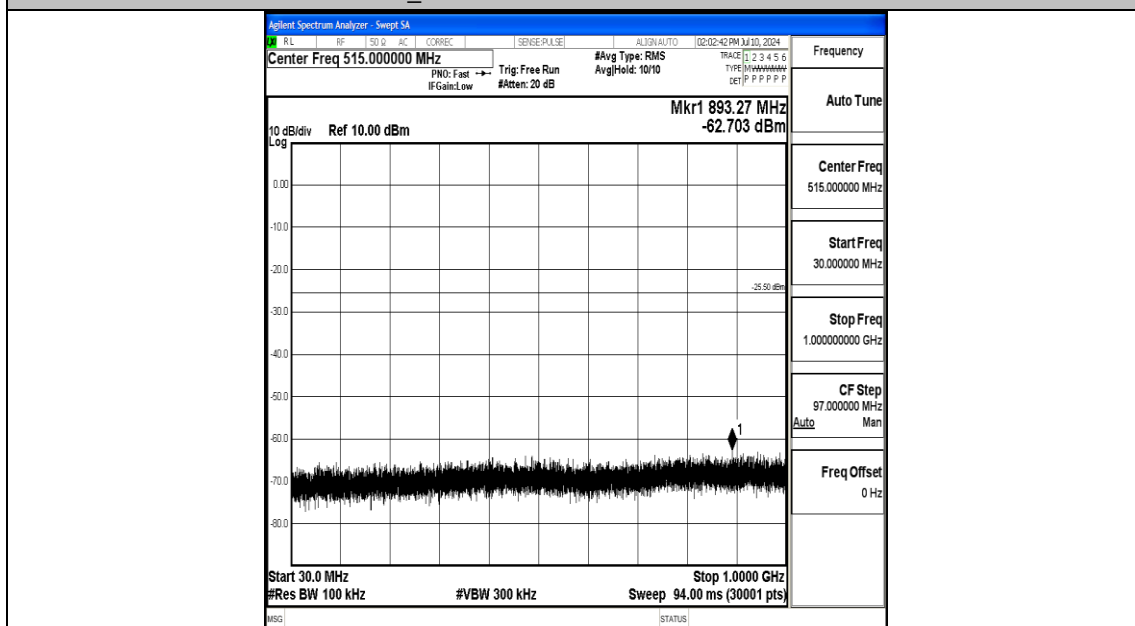
BLE_2M-Ant1-2440-30~1000-PASS



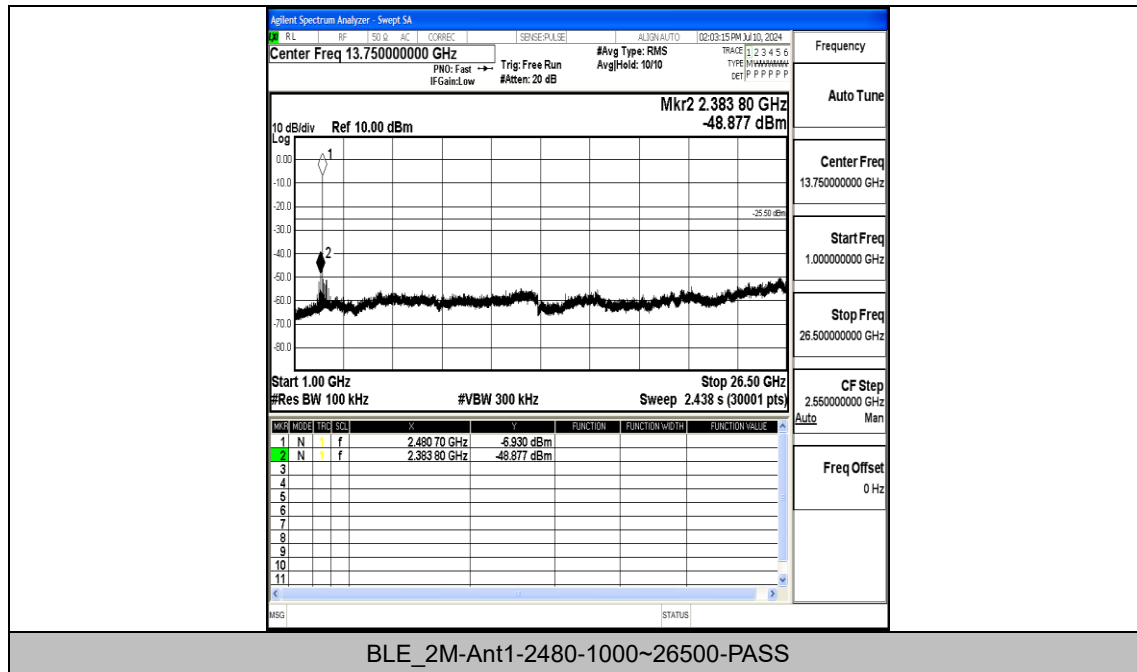
BLE_2M-Ant1-2440-1000~26500-PASS



BLE_2M-Ant1-2480-0~Reference-PASS



BLE_2M-Ant1-2480-30~1000-PASS



Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	2.09	2.50	83.60	0.78
BLE_1M	Ant1	2440	2.09	2.49	83.94	0.76
BLE_1M	Ant1	2480	2.09	2.50	83.60	0.78
BLE_2M	Ant1	2402	1.05	1.87	56.15	2.51
BLE_2M	Ant1	2440	1.05	1.87	56.15	2.51
BLE_2M	Ant1	2480	1.05	1.87	56.15	2.51

Test Graphs

