

Appendix Test Data for BLE (Conducted Measurement)

Product Name: NCT OFFICIAL FANLIGHT ver.2

Trade Mark: N/A

Test Model: SME-NCT-OFL02

FCC ID: 2AS3Z-SME-NCT02

Environmental Conditions

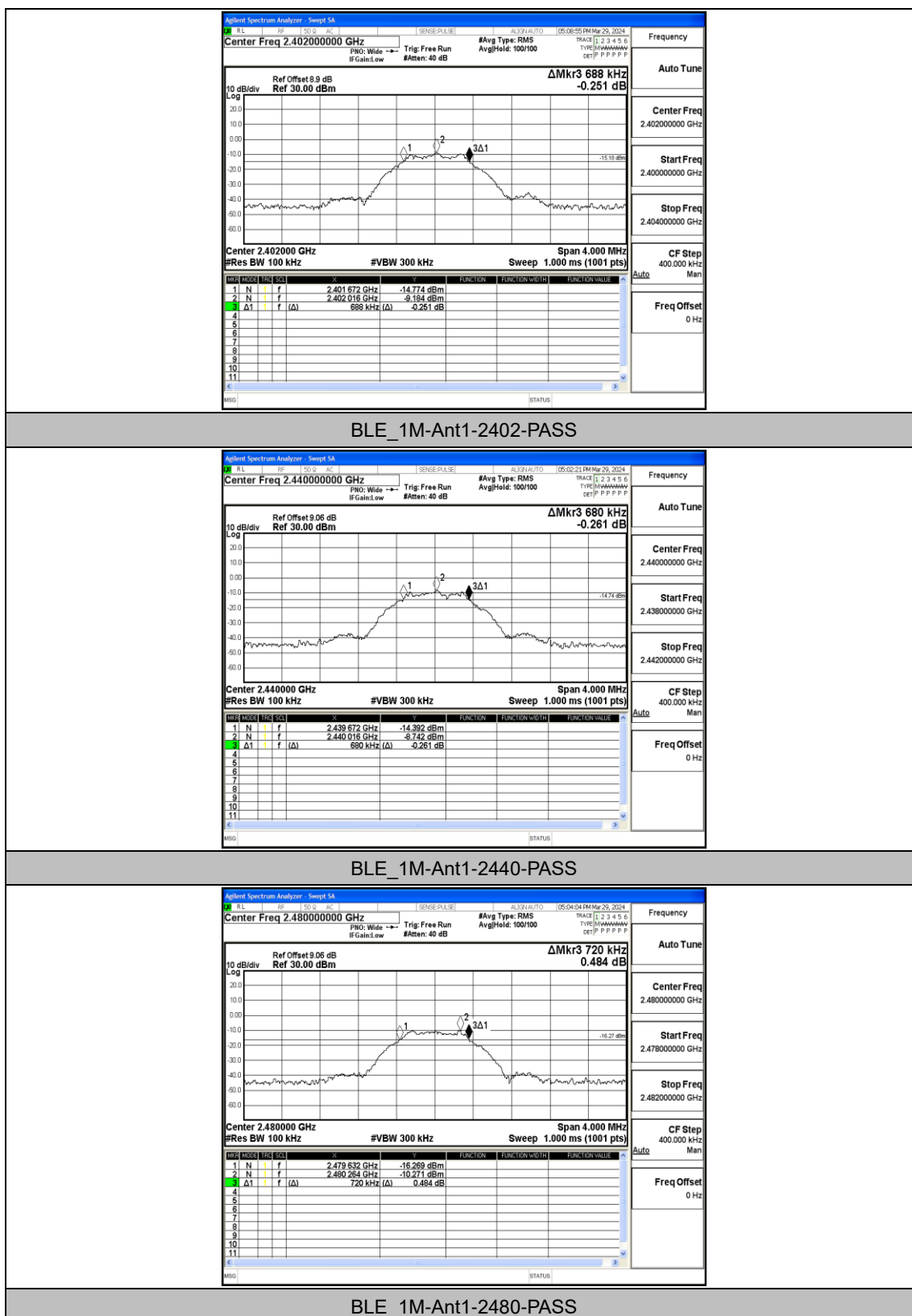
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.688	2401.672	2402.360	0.5	PASS
BLE_1M	Ant1	2440	0.680	2439.672	2440.352	0.5	PASS
BLE_1M	Ant1	2480	0.720	2479.632	2480.352	0.5	PASS

Test Graphs

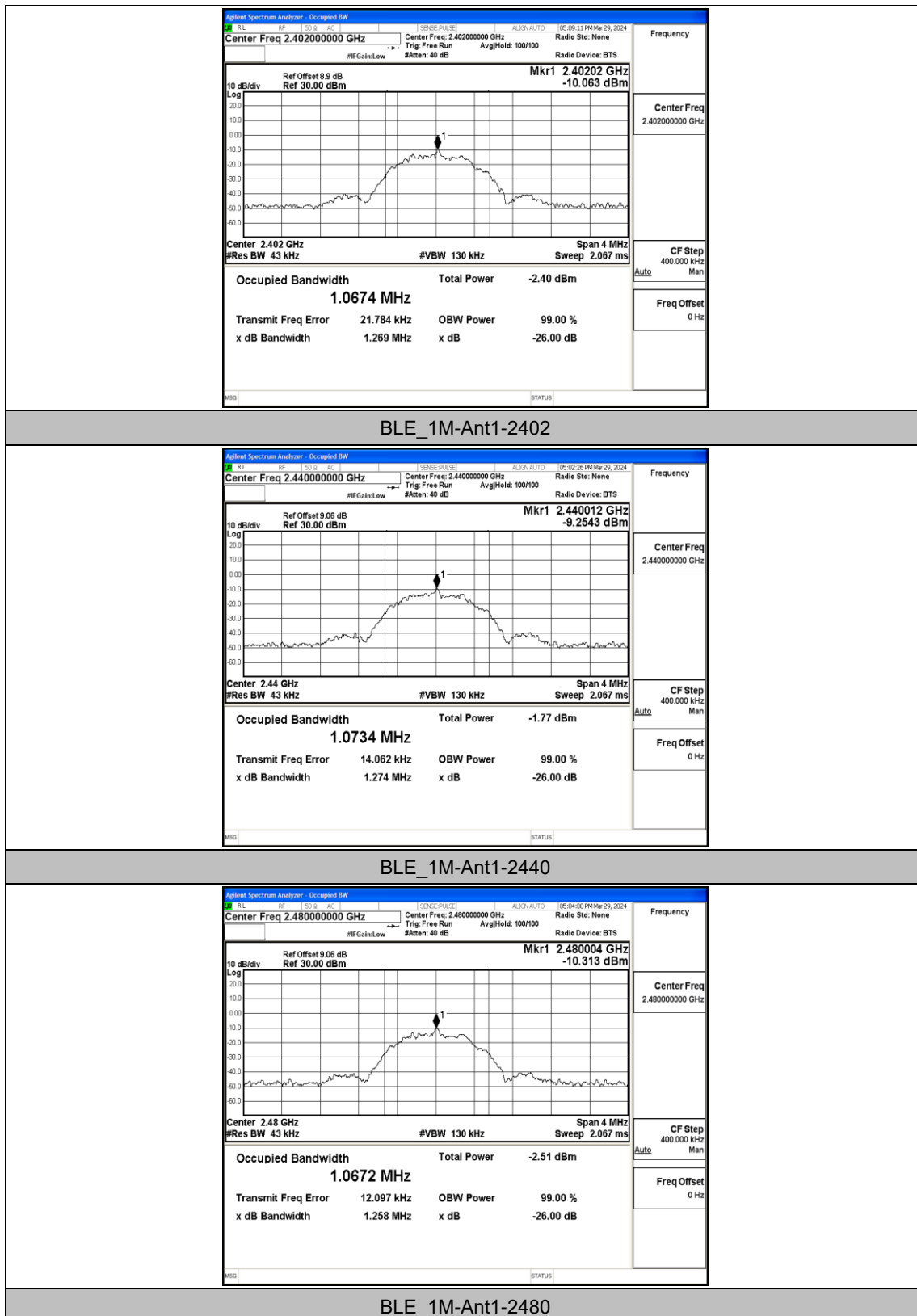


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0674	2401.4881	2402.5555	---	---
BLE_1M	Ant1	2440	1.0734	2439.4774	2440.5508	---	---
BLE_1M	Ant1	2480	1.0672	2479.4785	2480.5457	---	---

Test Graphs

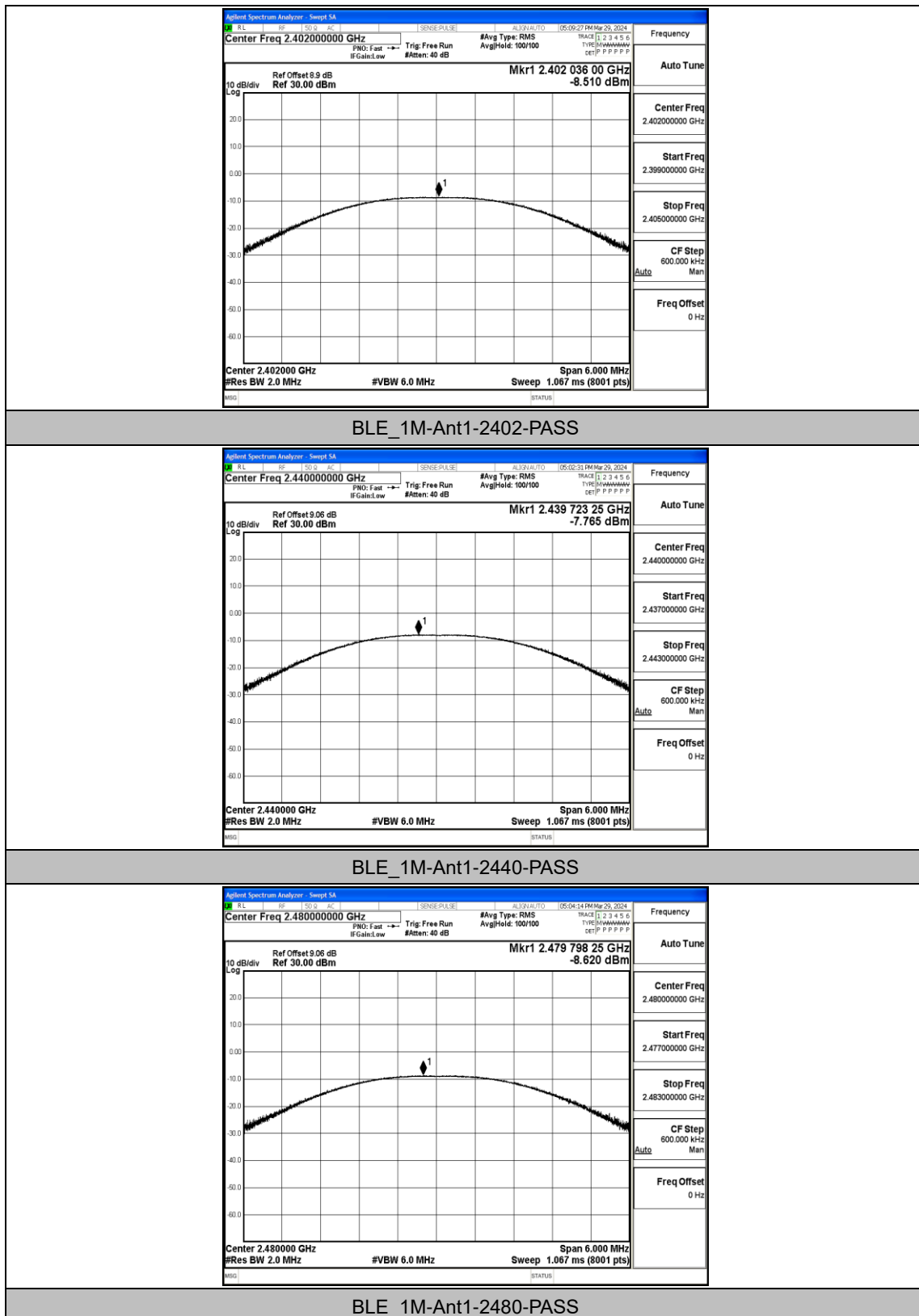


Appendix C: Maximum peak conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-8.51	≤30	PASS
BLE_1M	Ant1	2440	-7.77	≤30	PASS
BLE_1M	Ant1	2480	-8.62	≤30	PASS

Test Graphs Peak

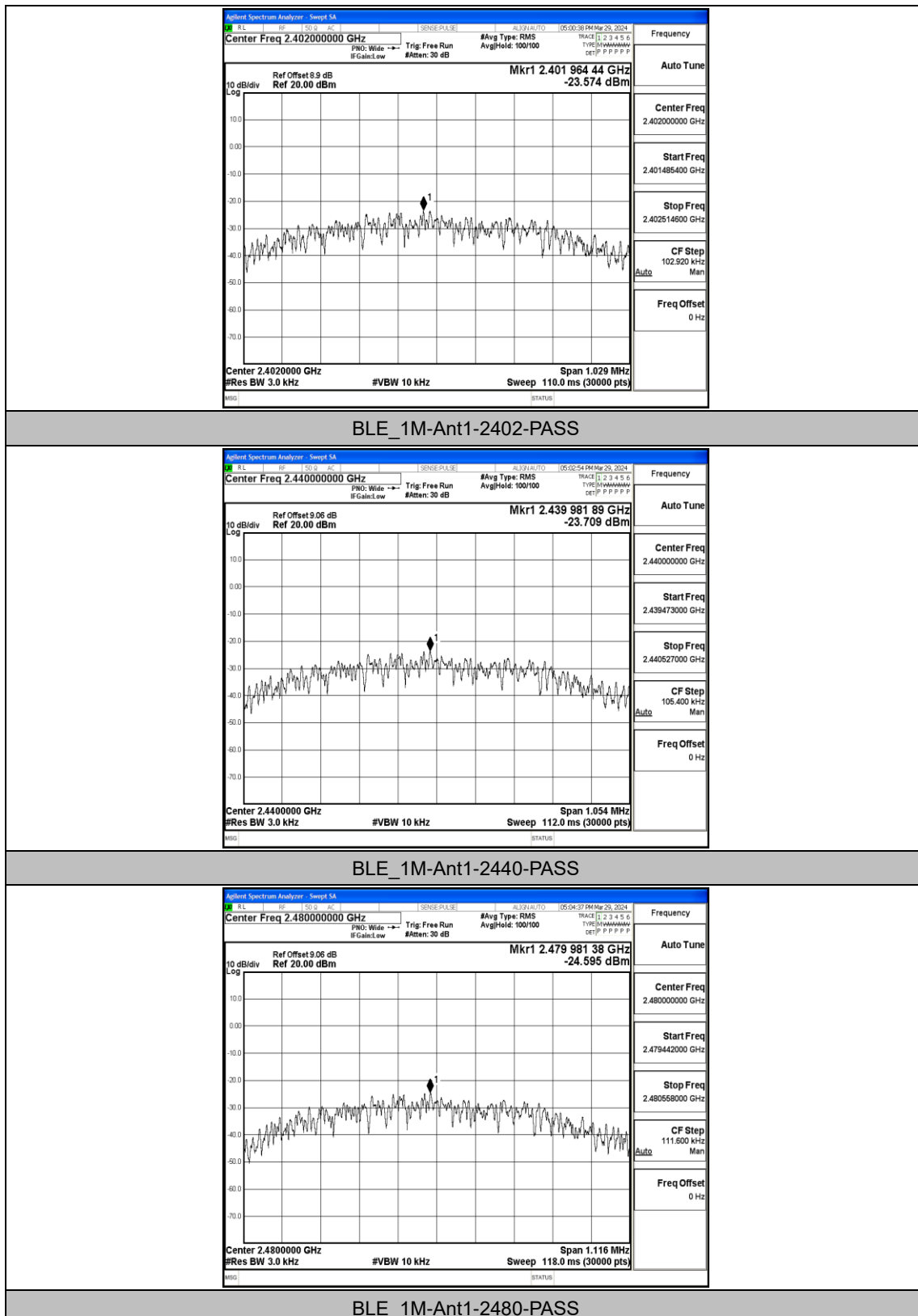


Appendix D: Maximum peak power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-23.57	≤8.00	PASS
BLE_1M	Ant1	2440	-23.71	≤8.00	PASS
BLE_1M	Ant1	2480	-24.60	≤8.00	PASS

Test Graphs

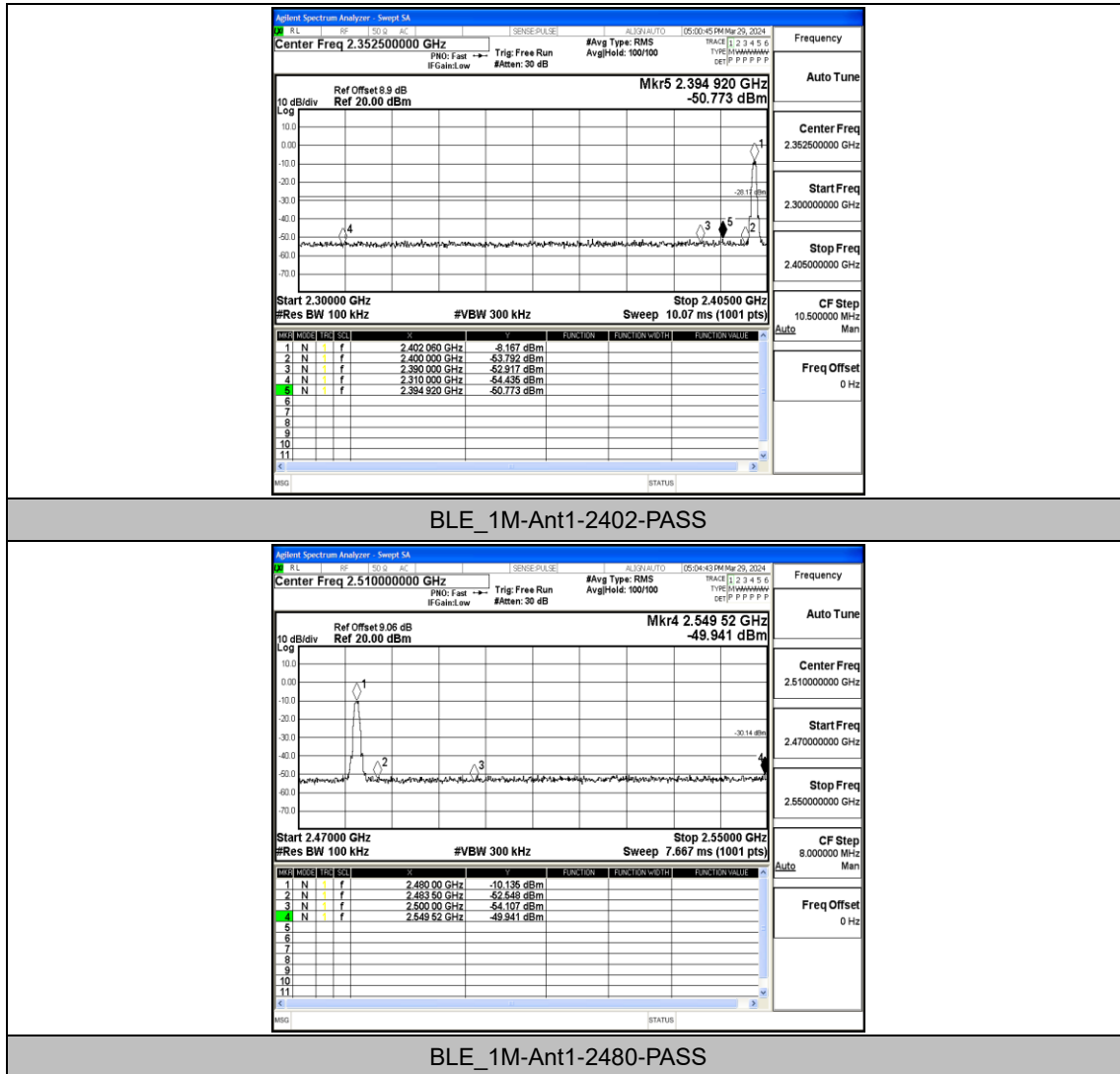


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-8.17	-50.77	≤-28.17	PASS
BLE_1M	Ant1	High	2480	-10.14	-49.94	≤-30.14	PASS

Test Graphs

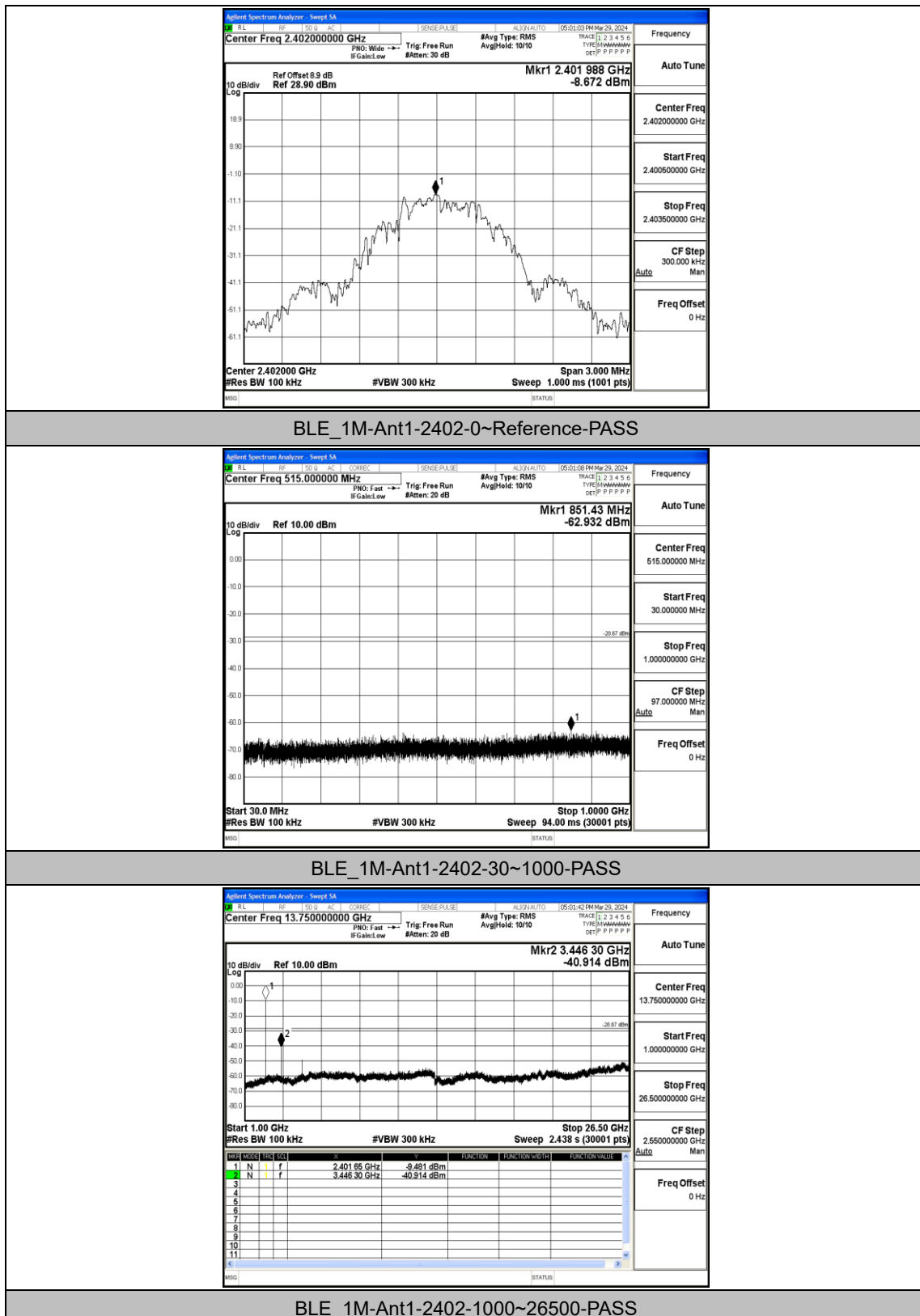


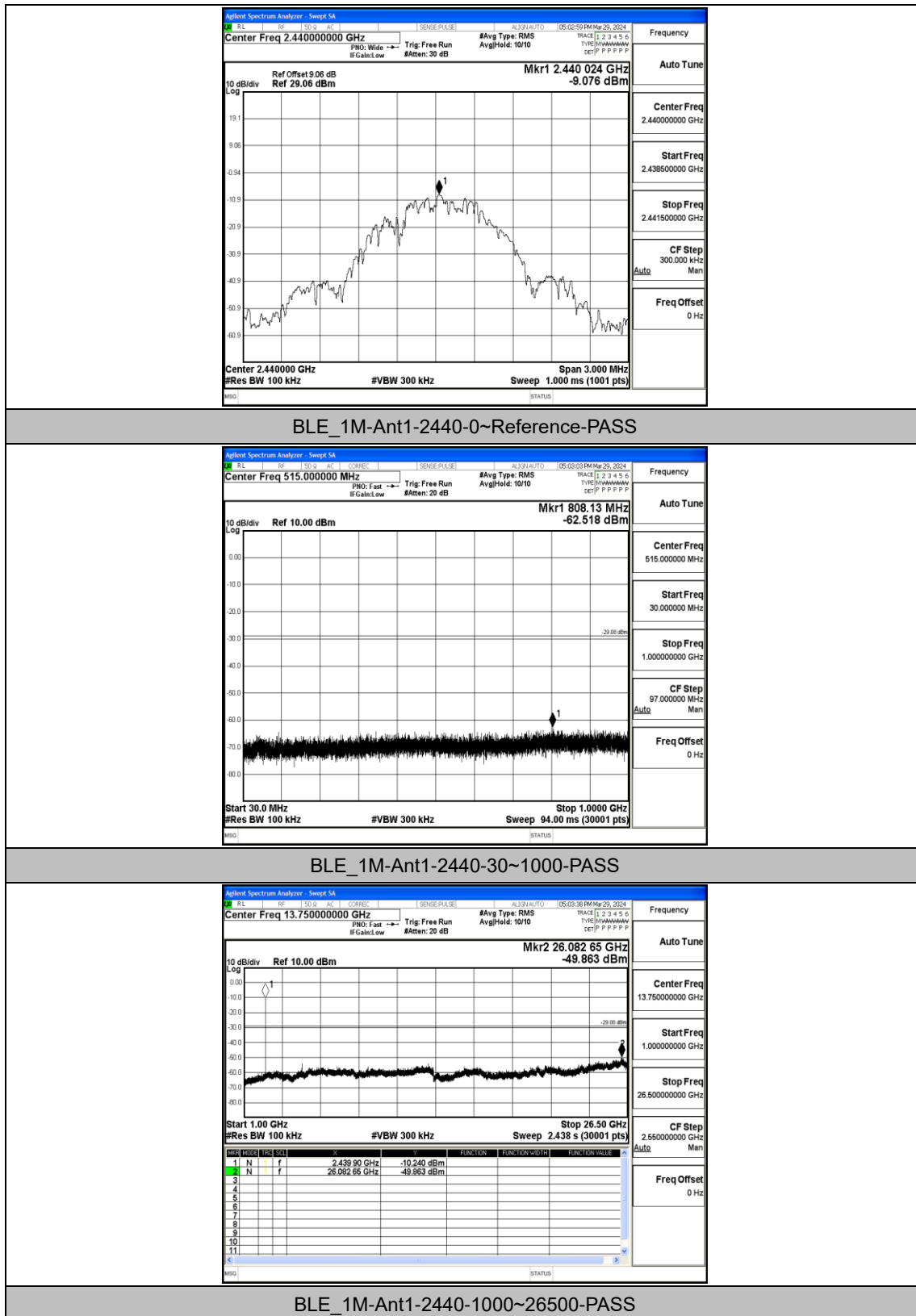
Appendix F: Conducted Spurious Emission

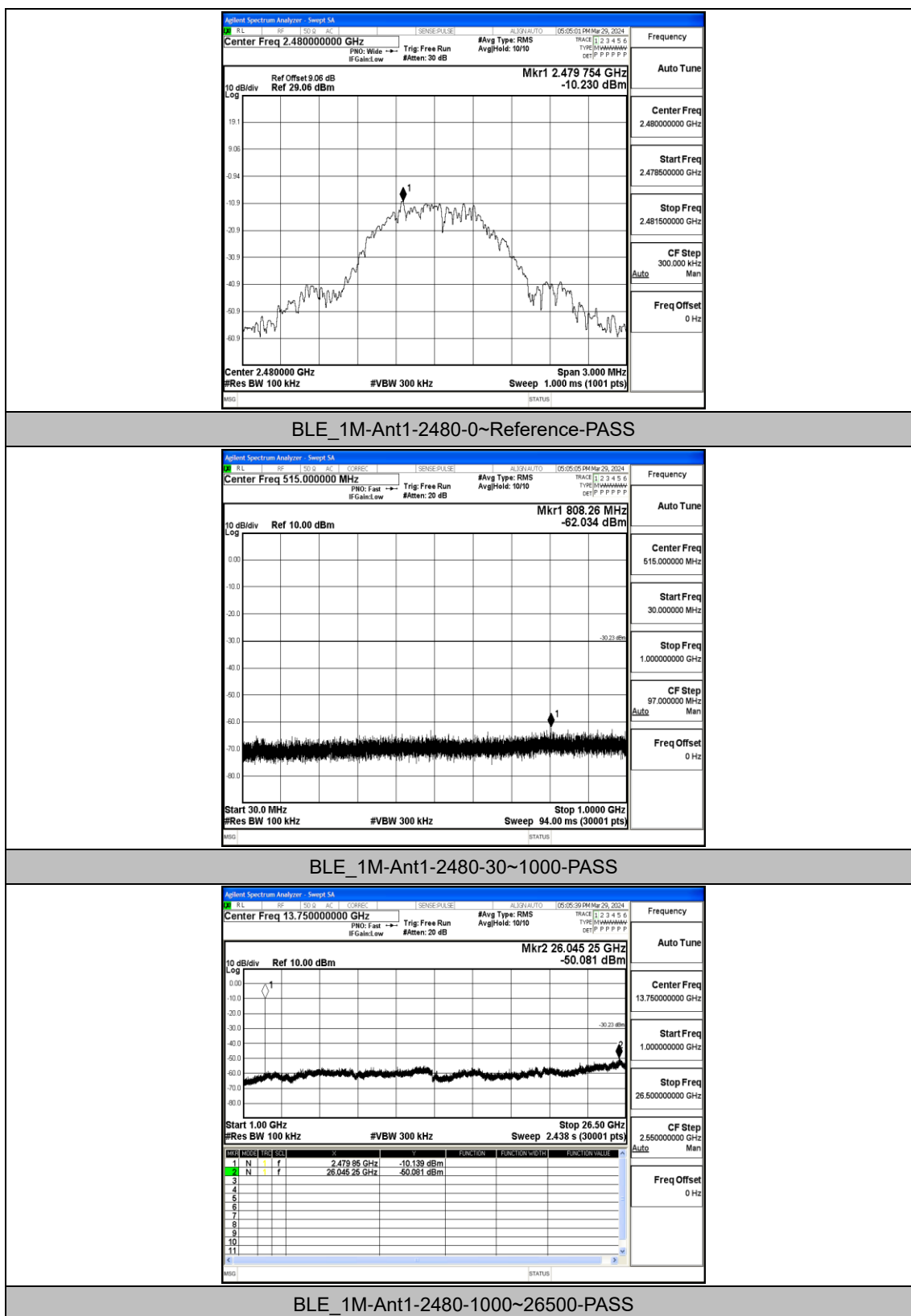
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-8.67	-8.67	---	PASS
BLE_1M	Ant1	2402	30~1000	-8.67	-62.93	≤-28.67	PASS
BLE_1M	Ant1	2402	1000~26500	-8.67	-40.91	≤-28.67	PASS
BLE_1M	Ant1	2440	0~Reference	-9.08	-9.08	---	PASS
BLE_1M	Ant1	2440	30~1000	-9.08	-62.52	≤-29.08	PASS
BLE_1M	Ant1	2440	1000~26500	-9.08	-49.86	≤-29.08	PASS
BLE_1M	Ant1	2480	0~Reference	-10.23	-10.23	---	PASS
BLE_1M	Ant1	2480	30~1000	-10.23	-62.03	≤-30.23	PASS
BLE_1M	Ant1	2480	1000~26500	-10.23	-50.08	≤-30.23	PASS

Test Graphs





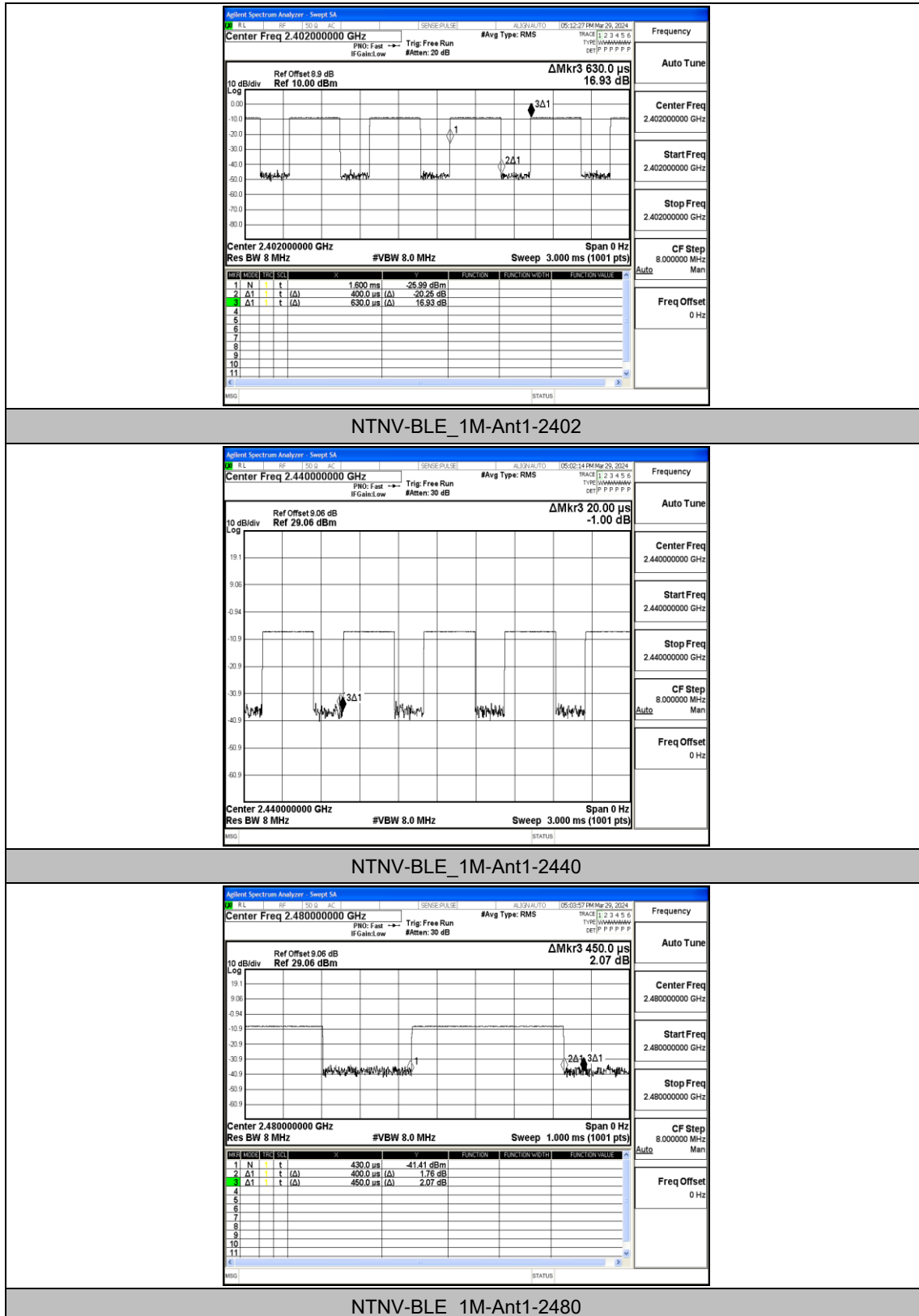


Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.40	0.63	63.49	1.97
BLE_1M	Ant1	2440	0.00	0.02	100	∞
BLE_1M	Ant1	2480	0.40	0.45	88.89	0.51

Test Graphs



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	-42.79	≤-21.20	52.41	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-39.97	≤-21.20	55.23	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2372.240	-39.54	≤-21.20	55.66	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-48.47	≤-41.20	46.73	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.17	≤-41.20	46.03	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2383.790	-47.43	≤-41.20	47.77	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-41.86	≤-21.20	53.34	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-41.77	≤-21.20	53.43	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2495.440	-38.89	≤-21.20	56.31	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-49.21	≤-41.20	45.99	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-48.95	≤-41.20	46.25	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2498.320	-48.26	≤-41.20	46.94	≤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

