

Appendix Test Data for BLE (Conducted Measurement)

Product Name: ALPINE SMART AROMA AIR PURIFIER

Trade Mark: ALPINE STYLE

Test Model: KTX-ARO1

FCC ID: 2BFB2-KTX-ARO1

Environmental Conditions

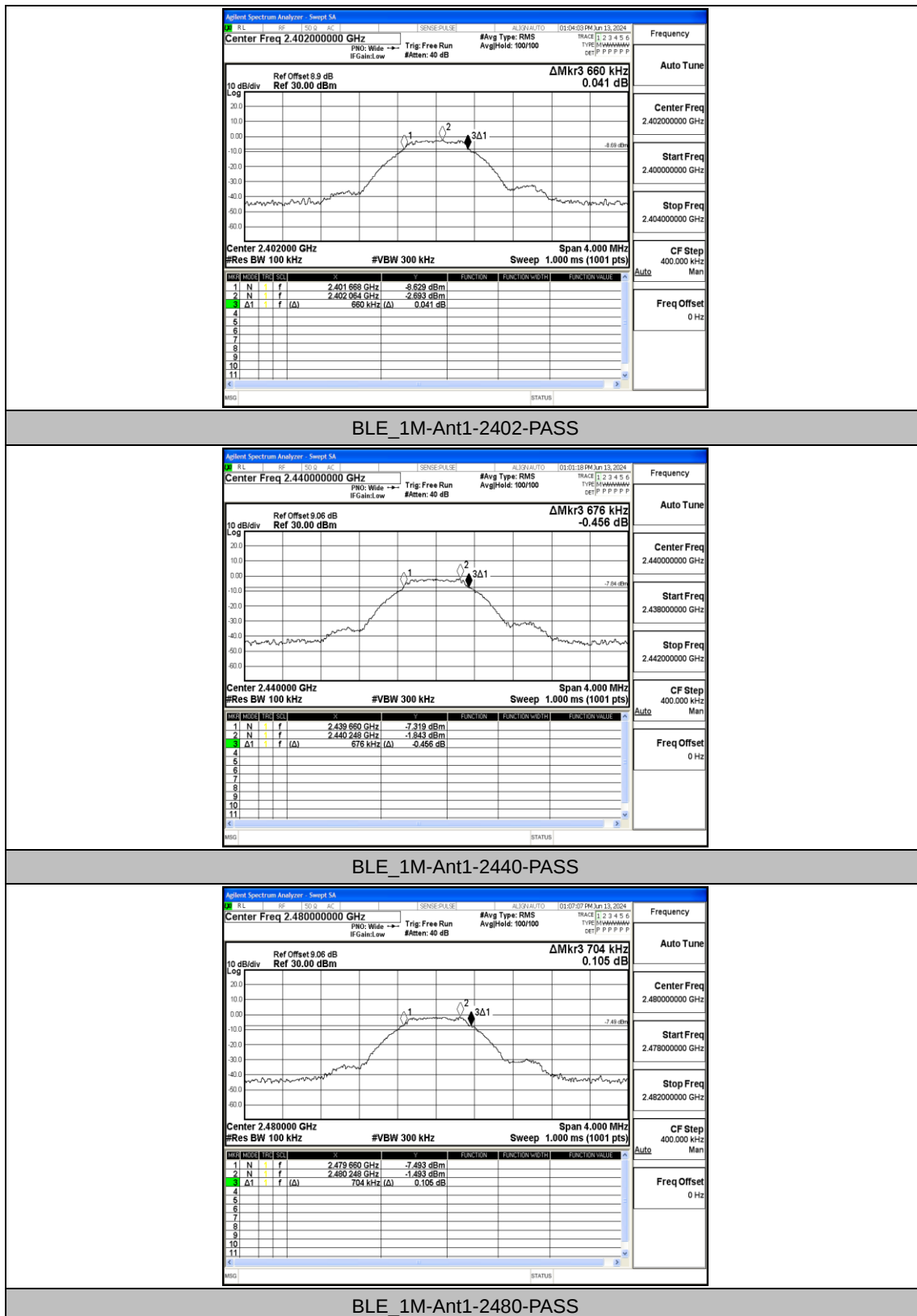
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

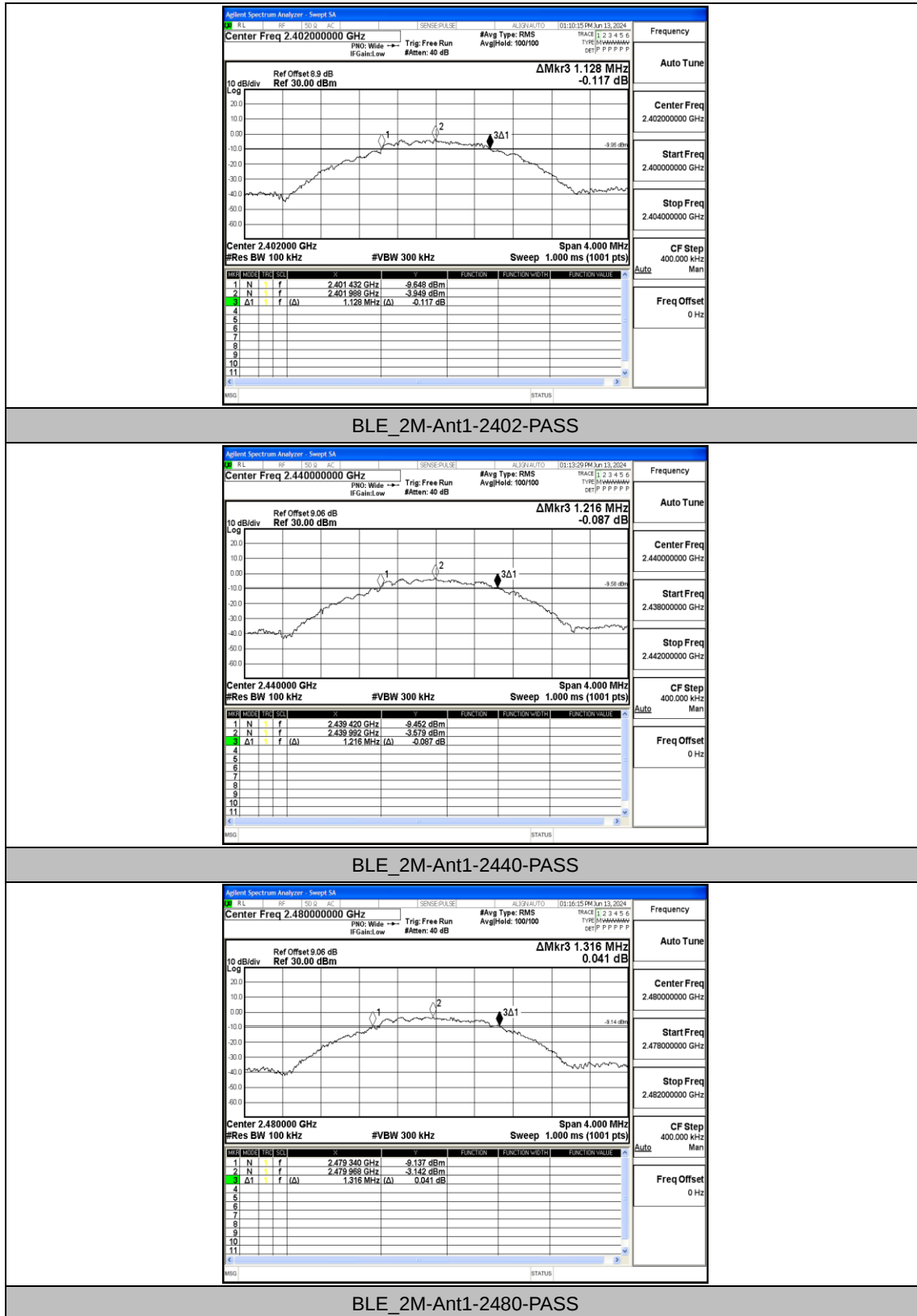
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.668	2402.328	0.5	PASS
BLE_1M	Ant1	2440	0.676	2439.660	2440.336	0.5	PASS
BLE_1M	Ant1	2480	0.704	2479.660	2480.364	0.5	PASS
BLE_2M	Ant1	2402	1.128	2401.432	2402.560	0.5	PASS
BLE_2M	Ant1	2440	1.216	2439.420	2440.636	0.5	PASS
BLE_2M	Ant1	2480	1.316	2479.340	2480.656	0.5	PASS

Test Graphs



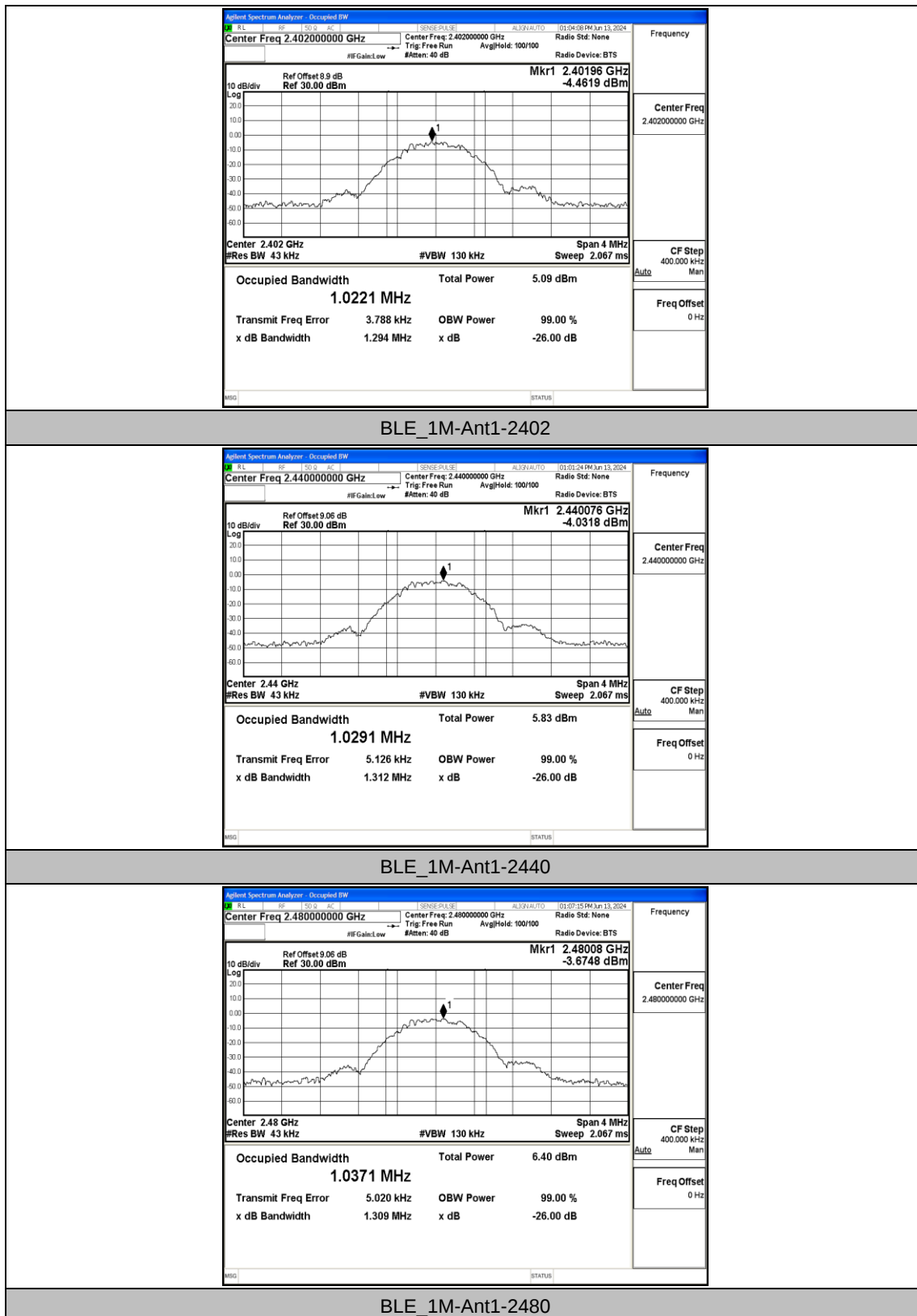


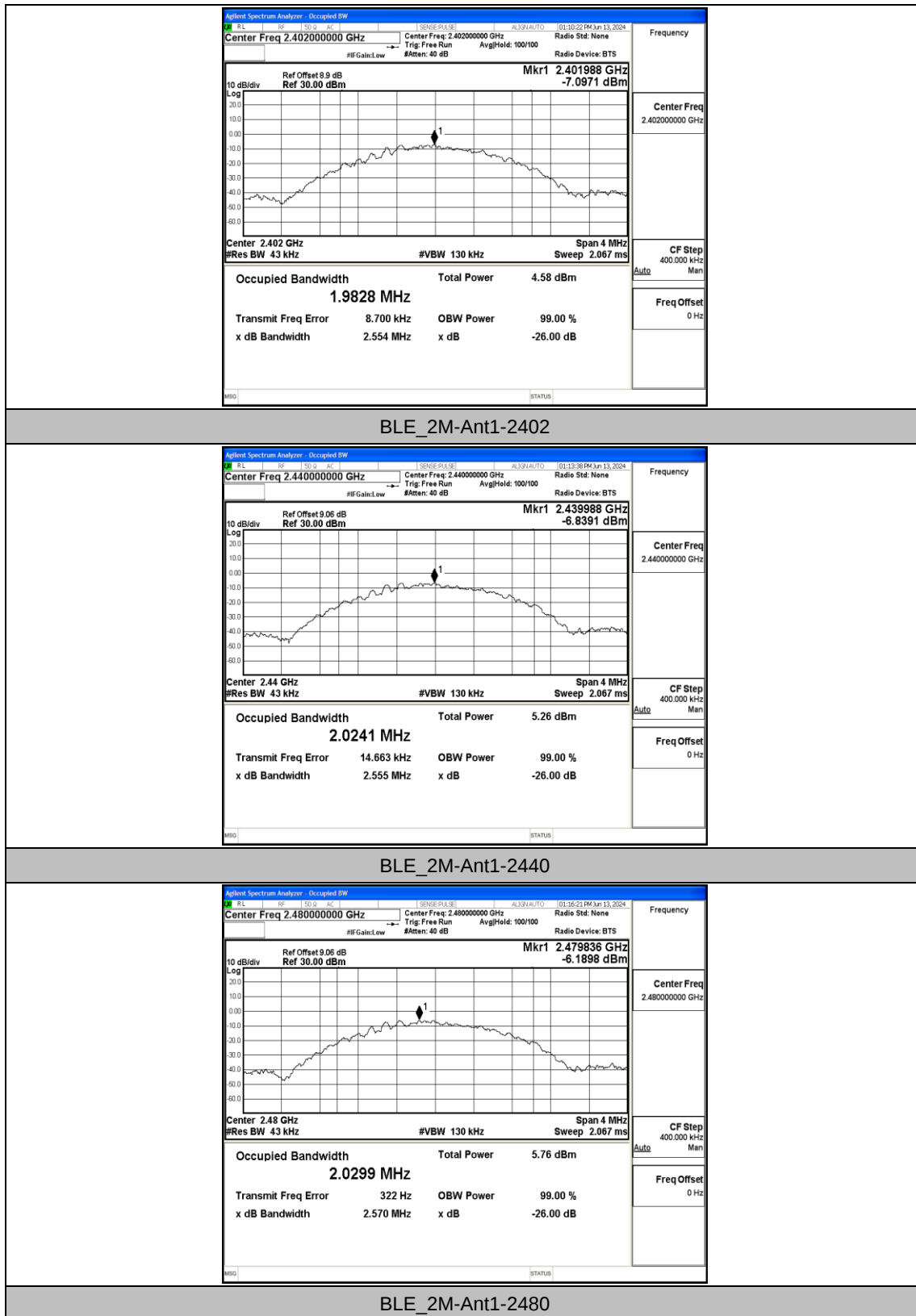
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0221	2401.4927	2402.5148	---	---
BLE_1M	Ant1	2440	1.0291	2439.4906	2440.5197	---	---
BLE_1M	Ant1	2480	1.0371	2479.4865	2480.5236	---	---
BLE_2M	Ant1	2402	1.9828	2401.0173	2403.0001	---	---
BLE_2M	Ant1	2440	2.0241	2439.0026	2441.0267	---	---
BLE_2M	Ant1	2480	2.0299	2478.9854	2481.0153	---	---

Test Graphs



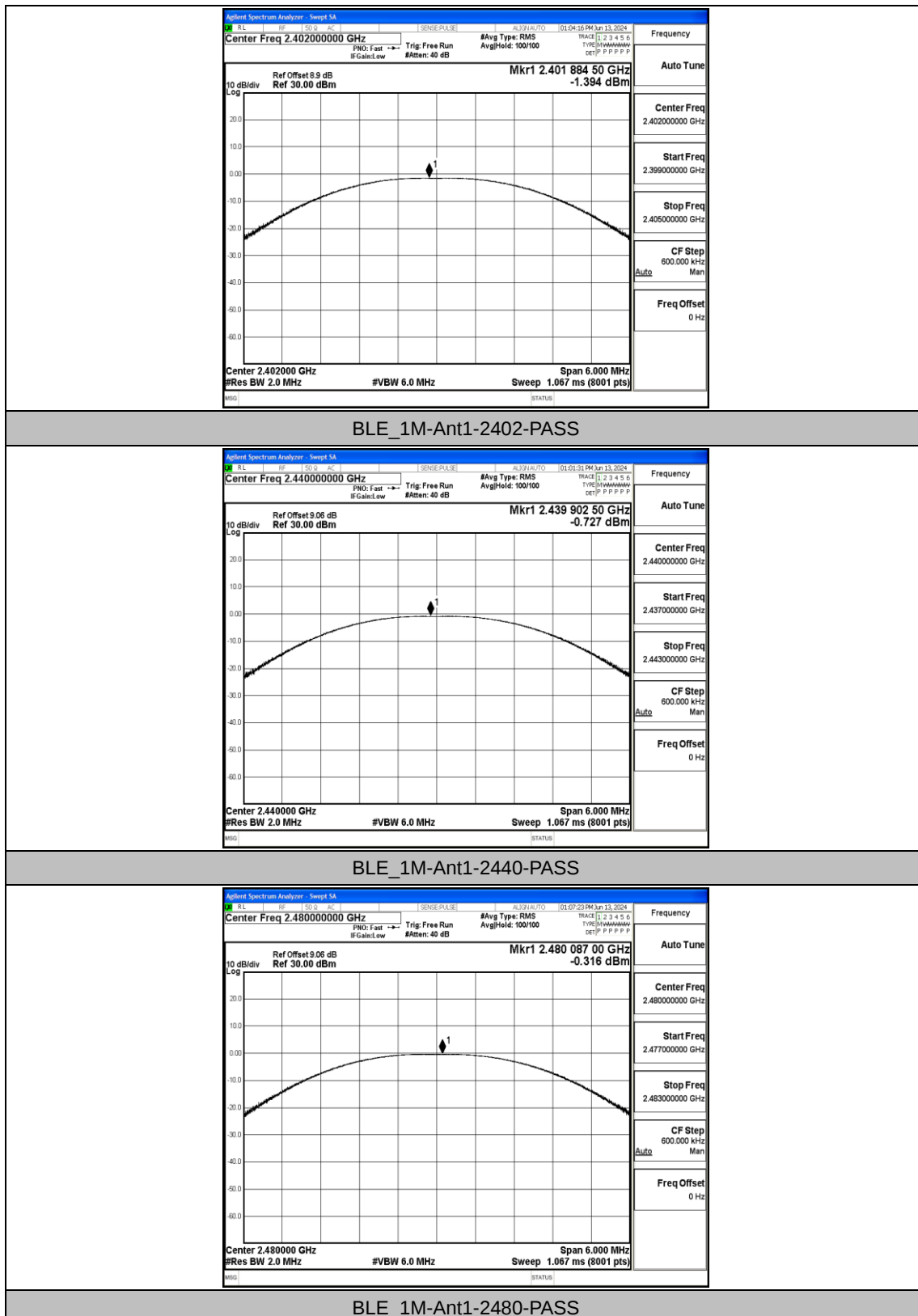


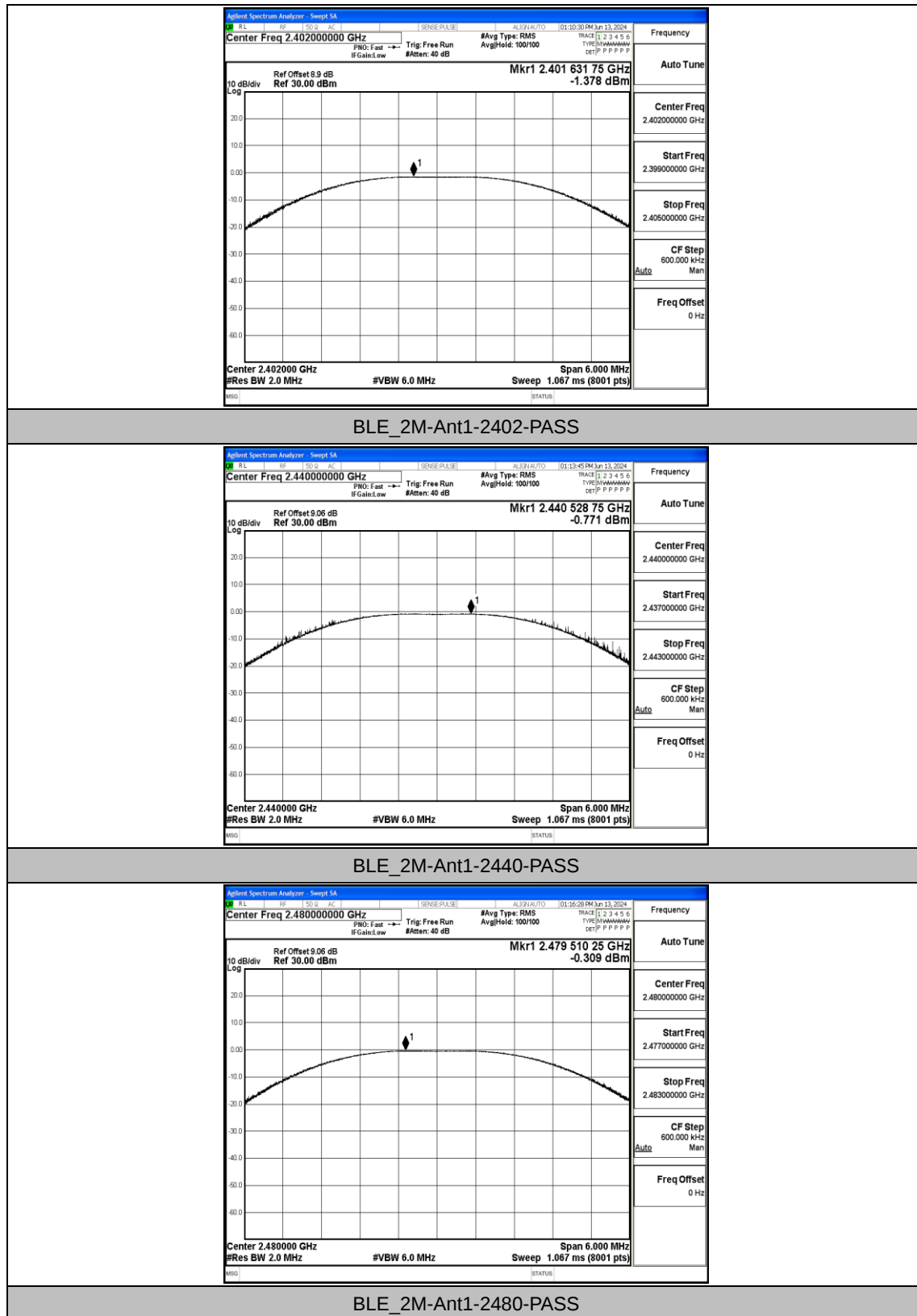
Appendix C: Maximum peak conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.39	≤30	PASS
BLE_1M	Ant1	2440	-0.73	≤30	PASS
BLE_1M	Ant1	2480	-0.32	≤30	PASS
BLE_2M	Ant1	2402	-1.38	≤30	PASS
BLE_2M	Ant1	2440	-0.77	≤30	PASS
BLE_2M	Ant1	2480	-0.31	≤30	PASS

Test Graphs Peak



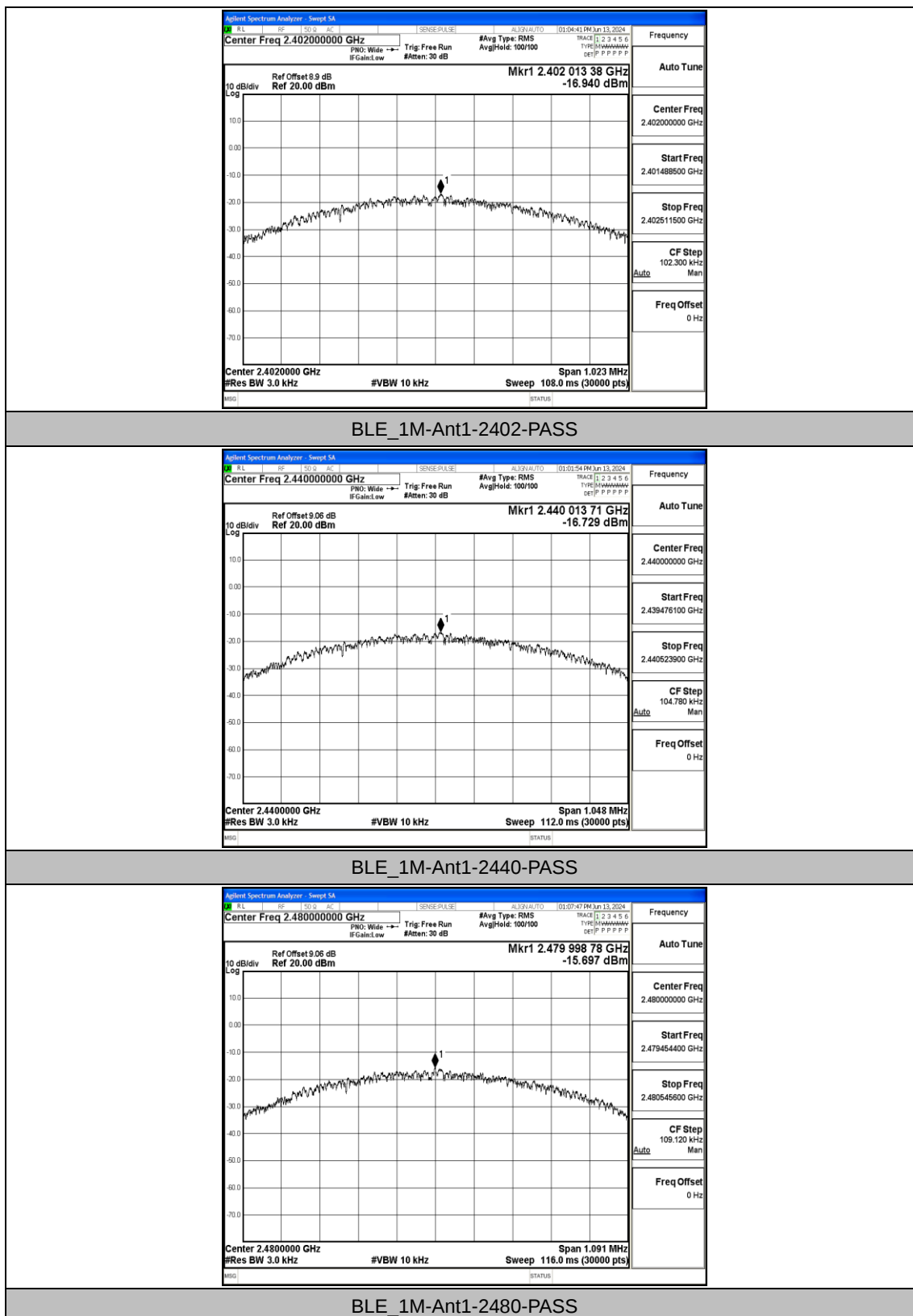


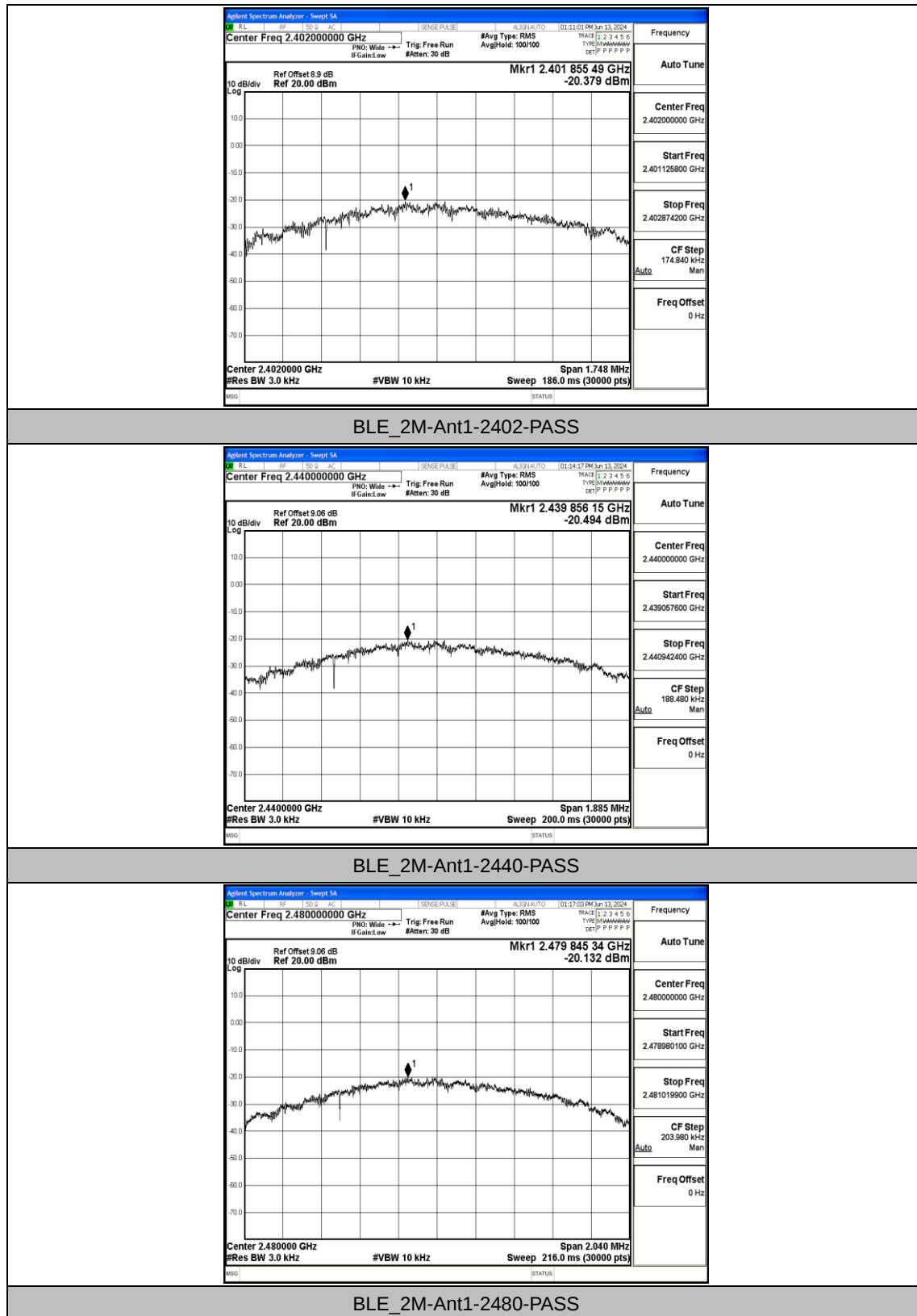
Appendix D: Maximum peak power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.94	≤8.00	PASS
BLE_1M	Ant1	2440	-16.73	≤8.00	PASS
BLE_1M	Ant1	2480	-15.70	≤8.00	PASS
BLE_2M	Ant1	2402	-20.38	≤8.00	PASS
BLE_2M	Ant1	2440	-20.49	≤8.00	PASS
BLE_2M	Ant1	2480	-20.13	≤8.00	PASS

Test Graphs



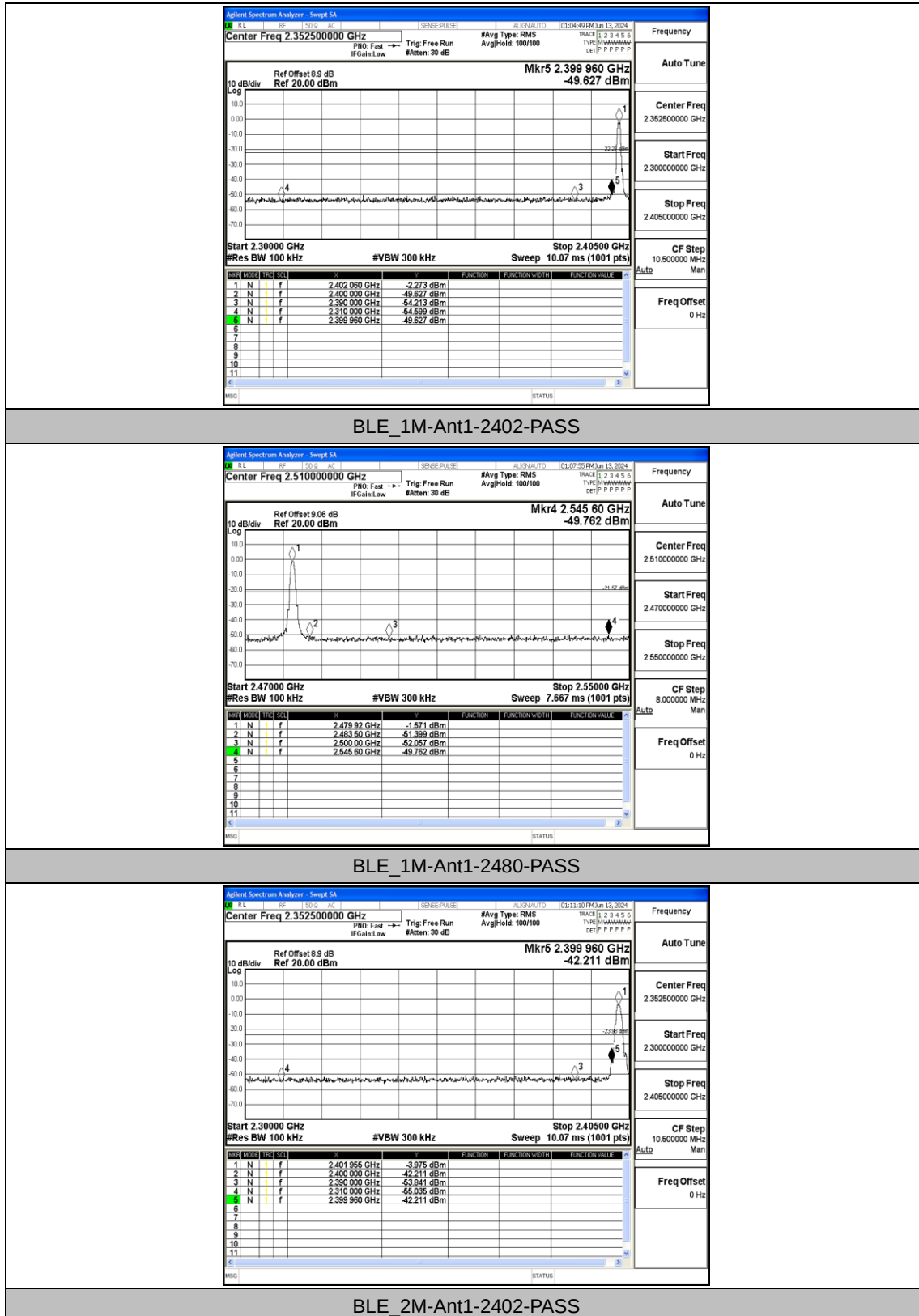


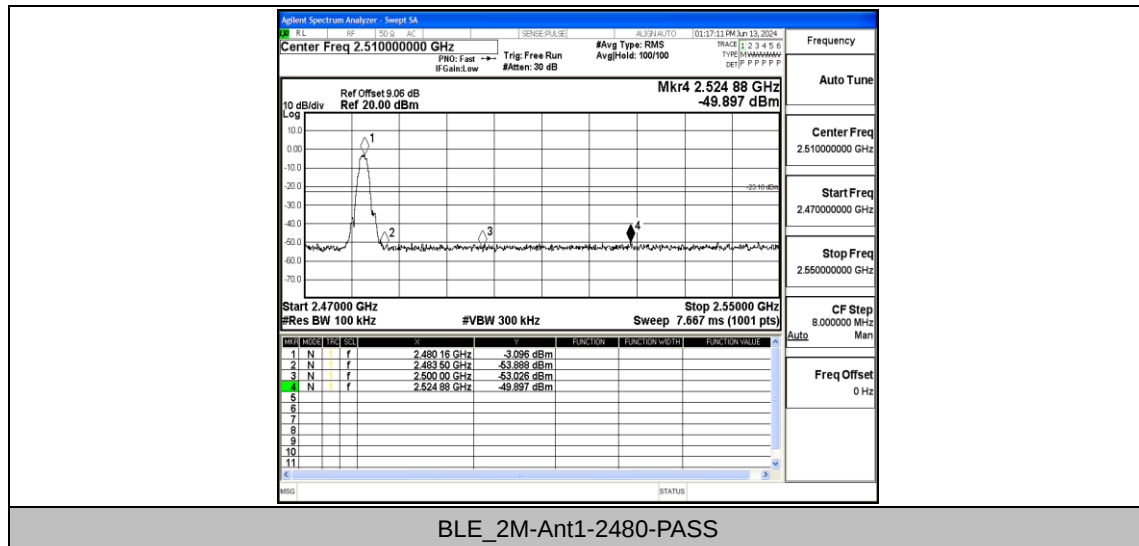
Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-2.27	-49.63	≤-22.27	PASS
BLE_1M	Ant1	High	2480	-1.57	-49.76	≤-21.57	PASS
BLE_2M	Ant1	Low	2402	-3.98	-42.21	≤-23.98	PASS
BLE_2M	Ant1	High	2480	-3.10	-49.9	≤-23.1	PASS

Test Graphs



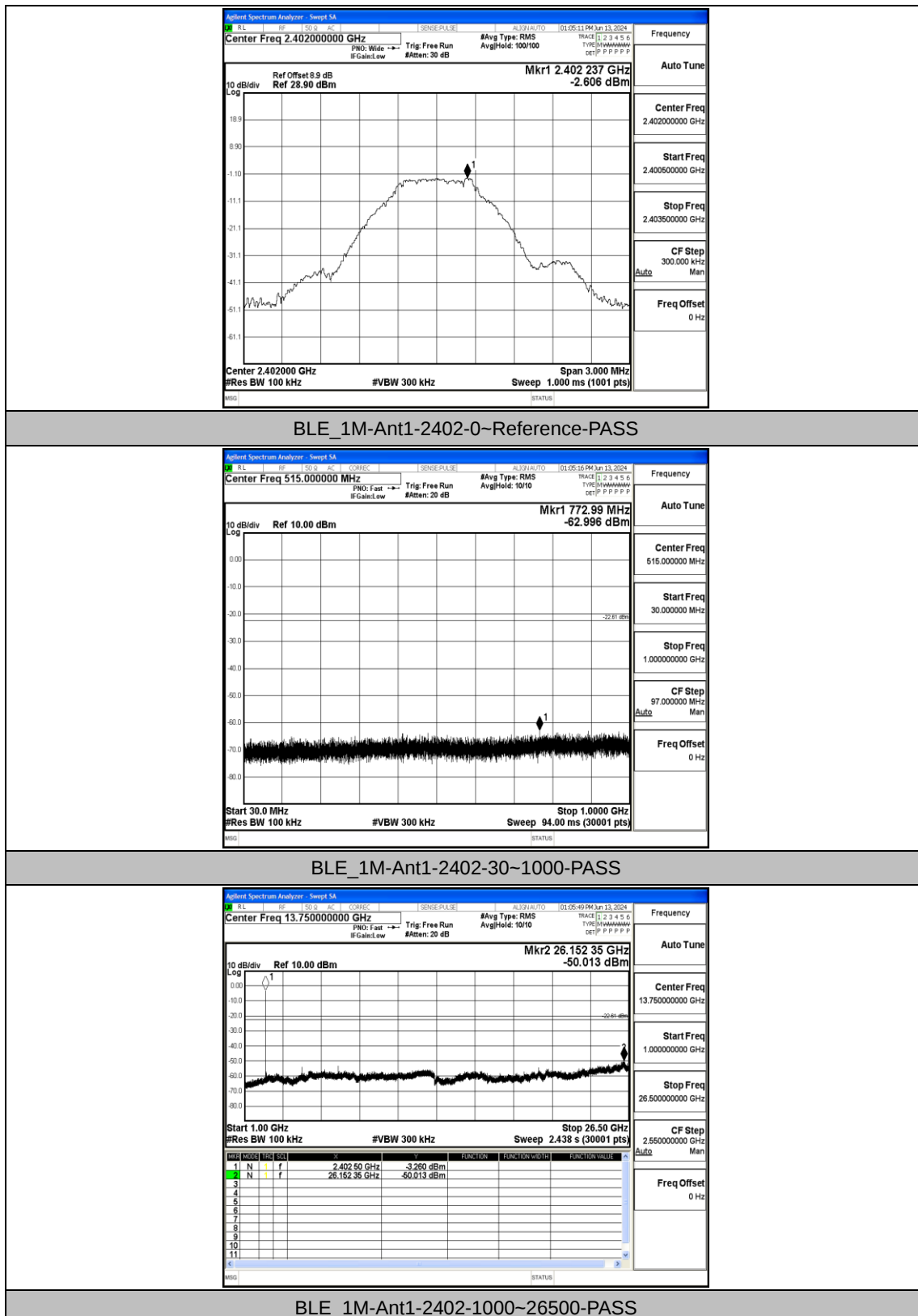


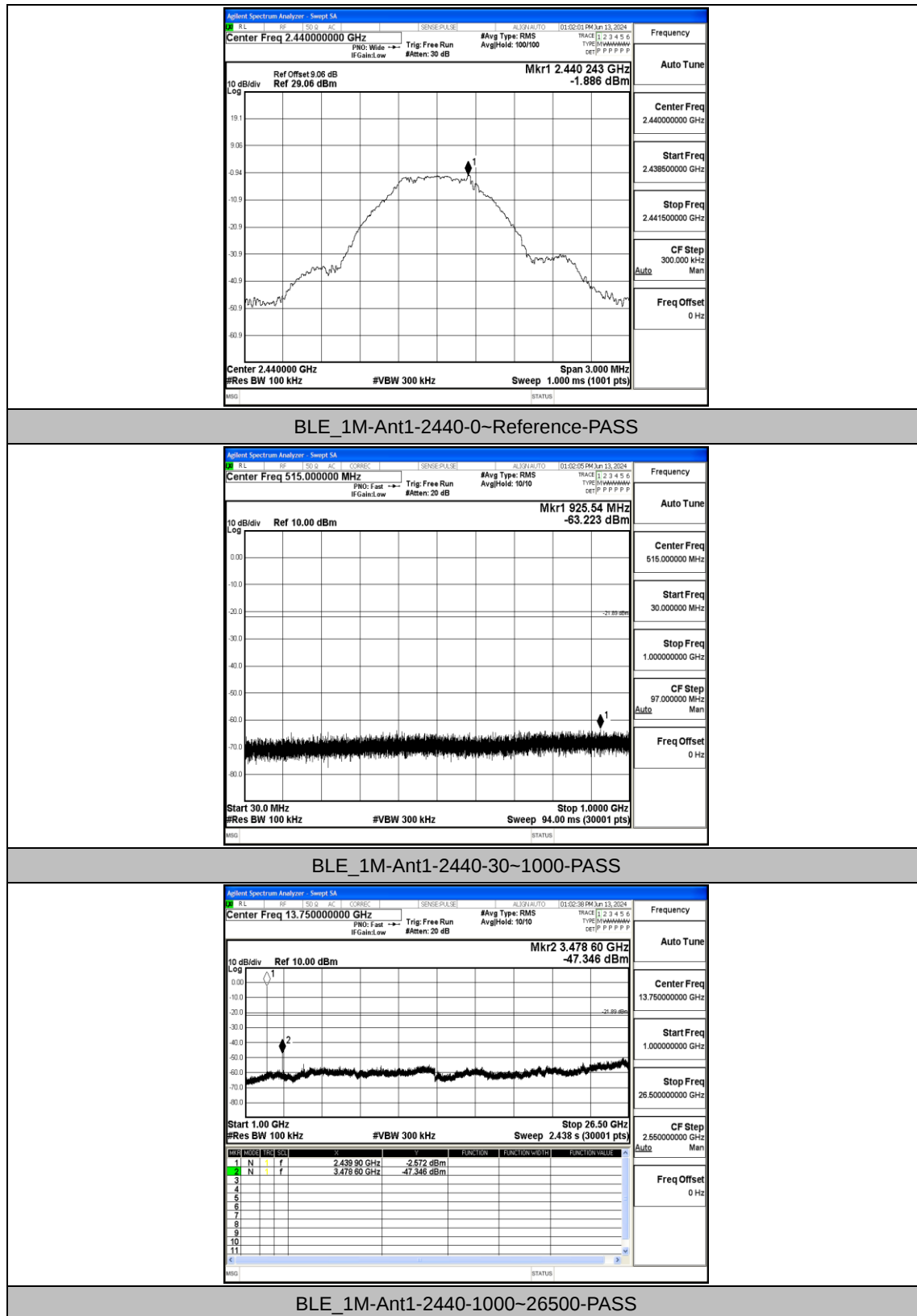
Appendix F: Conducted Spurious Emission

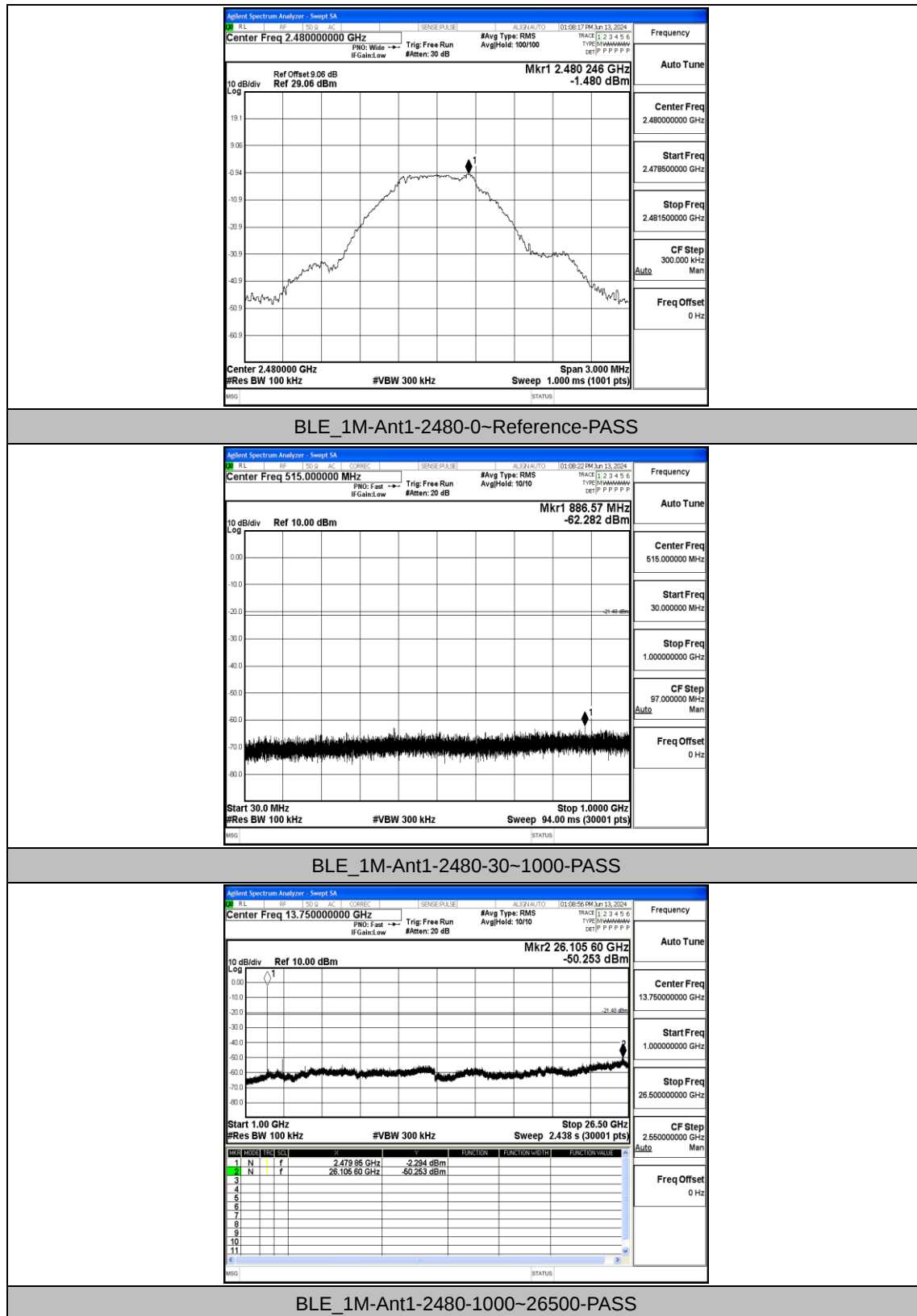
Test Result

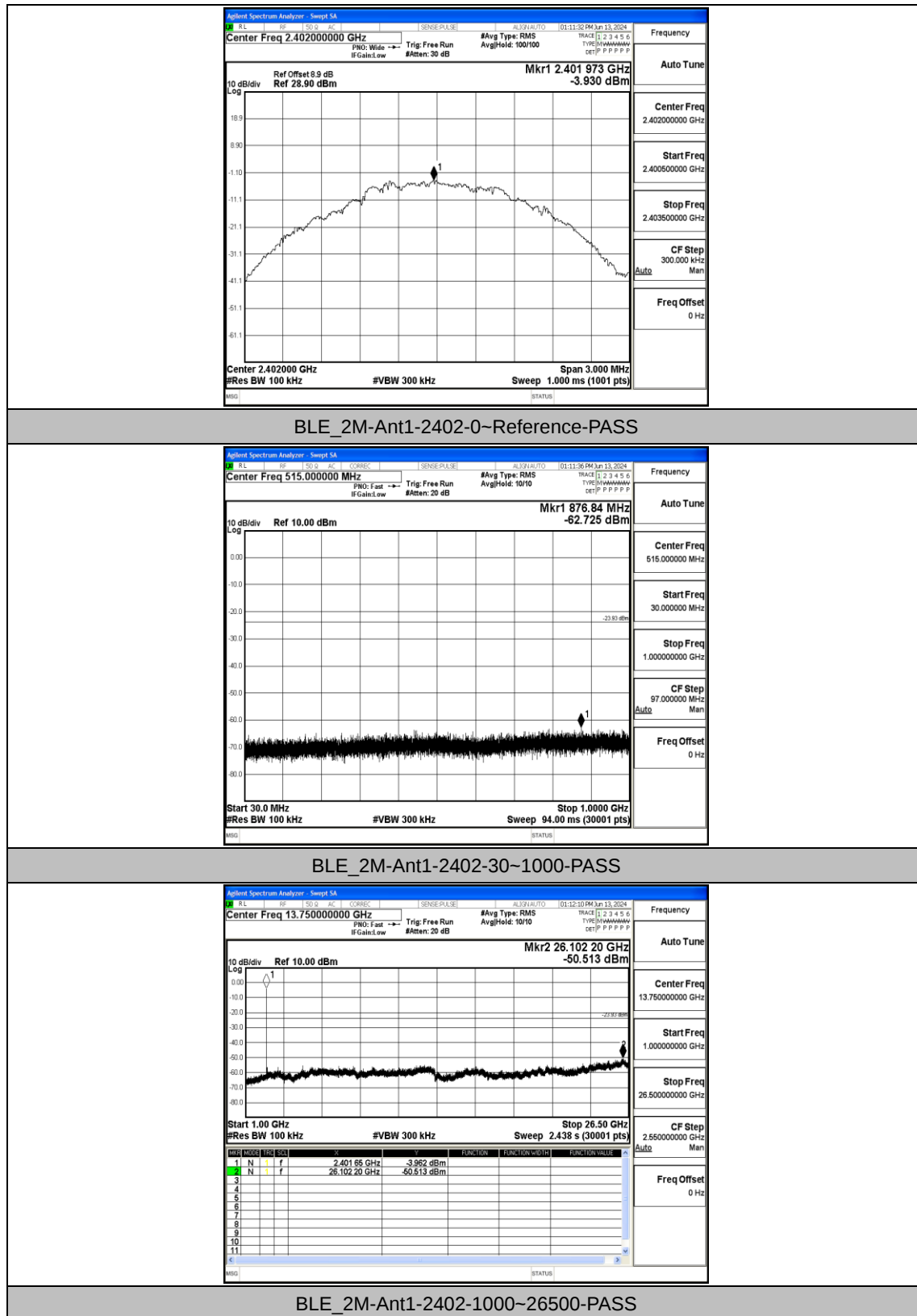
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-2.61	-2.61	---	PASS
BLE_1M	Ant1	2402	30~1000	-2.61	-63	≤-22.61	PASS
BLE_1M	Ant1	2402	1000~26500	-2.61	-50.01	≤-22.61	PASS
BLE_1M	Ant1	2440	0~Reference	-1.89	-1.89	---	PASS
BLE_1M	Ant1	2440	30~1000	-1.89	-63.22	≤-21.89	PASS
BLE_1M	Ant1	2440	1000~26500	-1.89	-47.35	≤-21.89	PASS
BLE_1M	Ant1	2480	0~Reference	-1.48	-1.48	---	PASS
BLE_1M	Ant1	2480	30~1000	-1.48	-62.28	≤-21.48	PASS
BLE_1M	Ant1	2480	1000~26500	-1.48	-50.25	≤-21.48	PASS
BLE_2M	Ant1	2402	0~Reference	-3.93	-3.93	---	PASS
BLE_2M	Ant1	2402	30~1000	-3.93	-62.73	≤-23.93	PASS
BLE_2M	Ant1	2402	1000~26500	-3.93	-50.51	≤-23.93	PASS
BLE_2M	Ant1	2440	0~Reference	-3.77	-3.77	---	PASS
BLE_2M	Ant1	2440	30~1000	-3.77	-62.55	≤-23.77	PASS
BLE_2M	Ant1	2440	1000~26500	-3.77	-49.95	≤-23.77	PASS
BLE_2M	Ant1	2480	0~Reference	-3.20	-3.20	---	PASS
BLE_2M	Ant1	2480	30~1000	-3.20	-62.5	≤-23.2	PASS
BLE_2M	Ant1	2480	1000~26500	-3.20	-50.35	≤-23.2	PASS

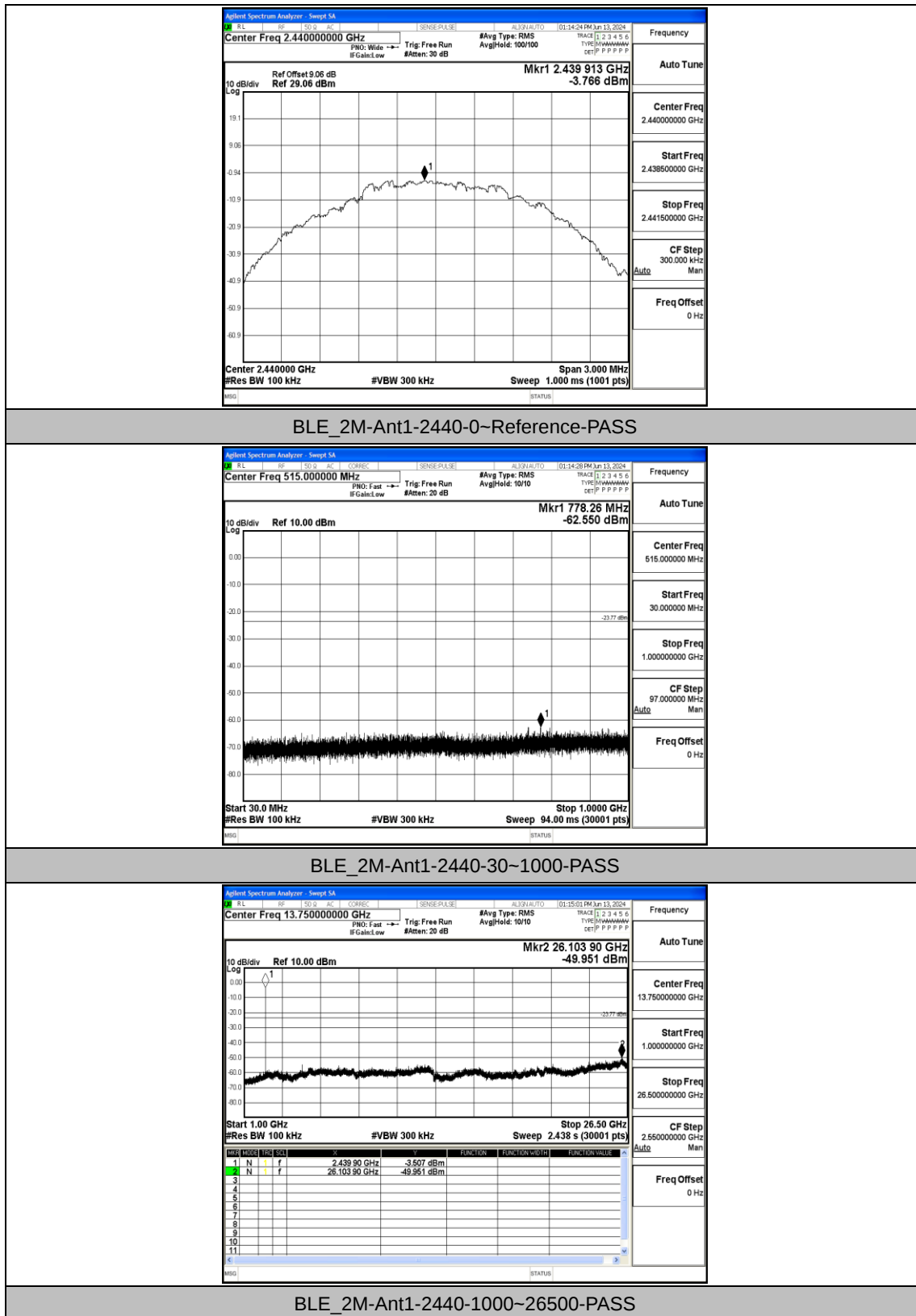
Test Graphs

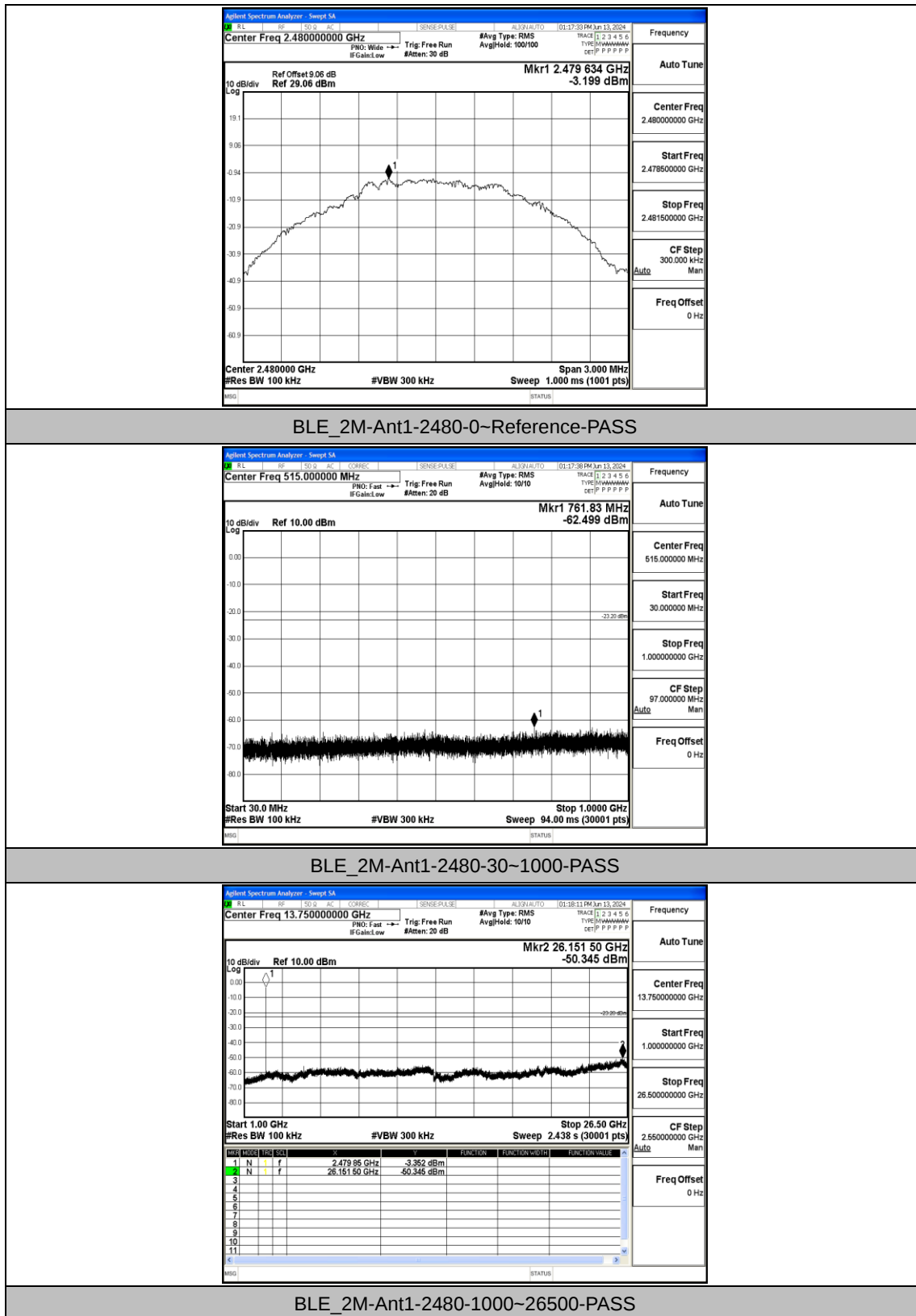










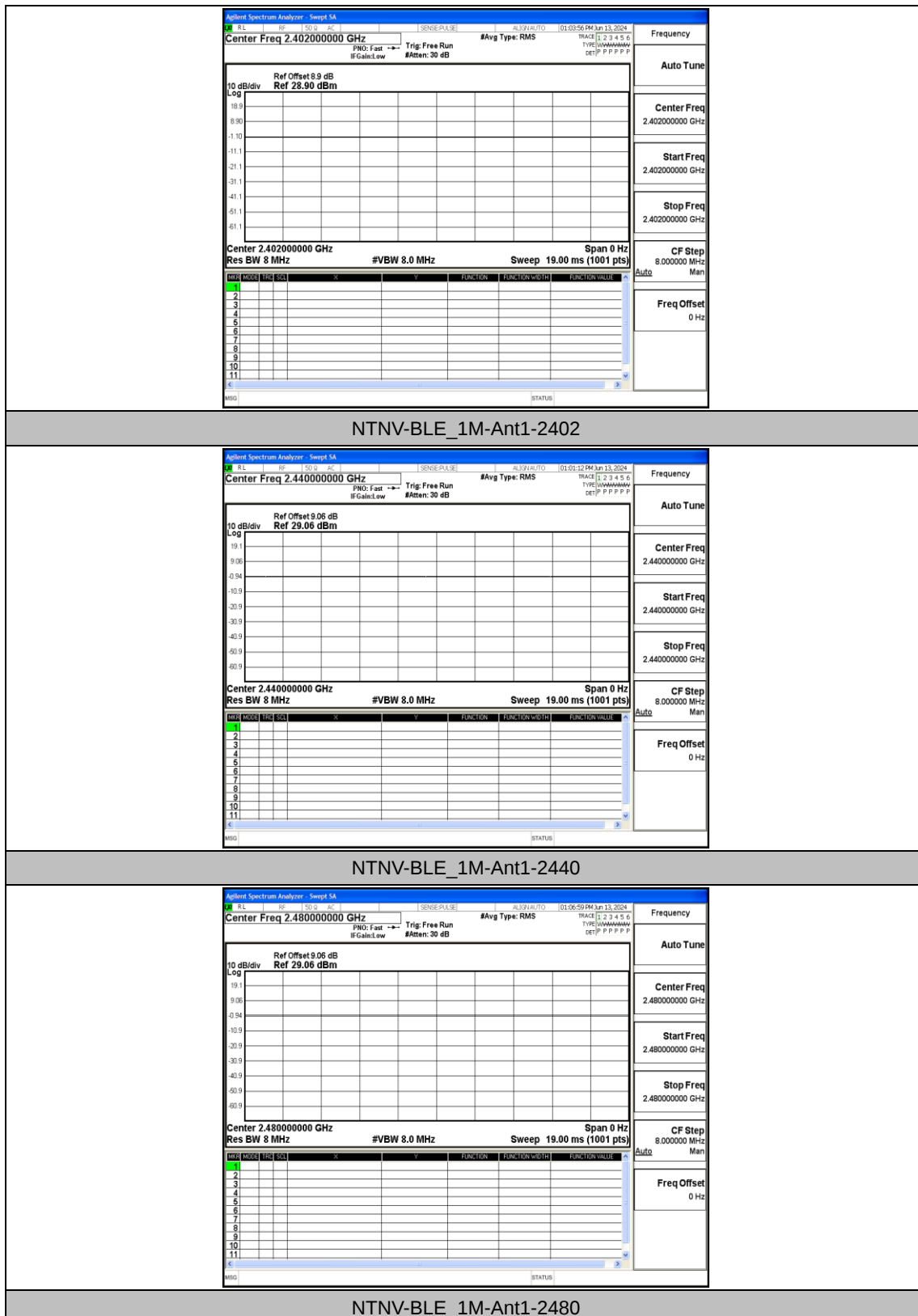


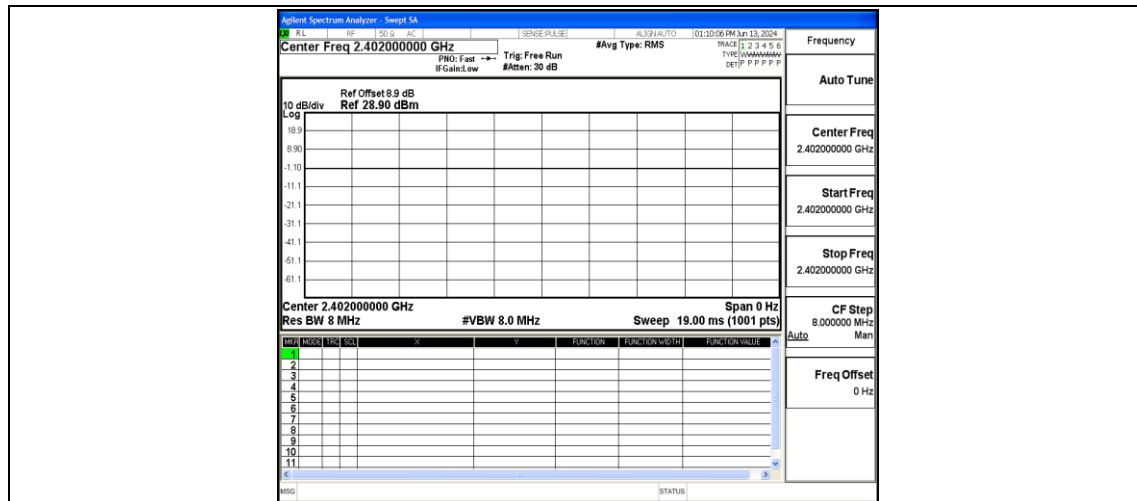
Appendix G: Duty Cycle

Test Result

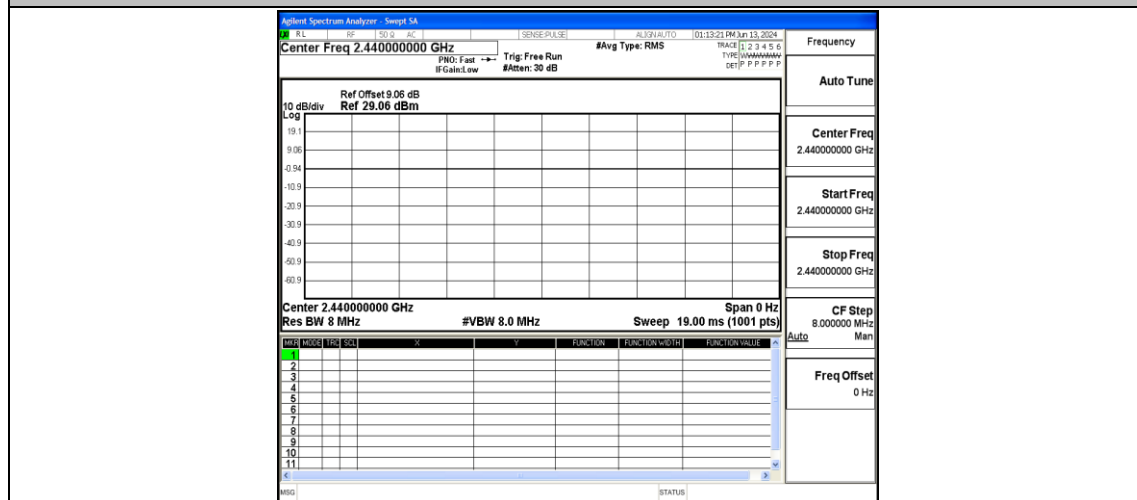
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	19.00	19.00	100.00	0.00
BLE_1M	Ant1	2440	19.00	19.00	100.00	0.00
BLE_1M	Ant1	2480	19.00	19.00	100.00	0.00
BLE_2M	Ant1	2402	19.00	19.00	100.00	0.00
BLE_2M	Ant1	2440	19.00	19.00	100.00	0.00
BLE_2M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

Test Graphs

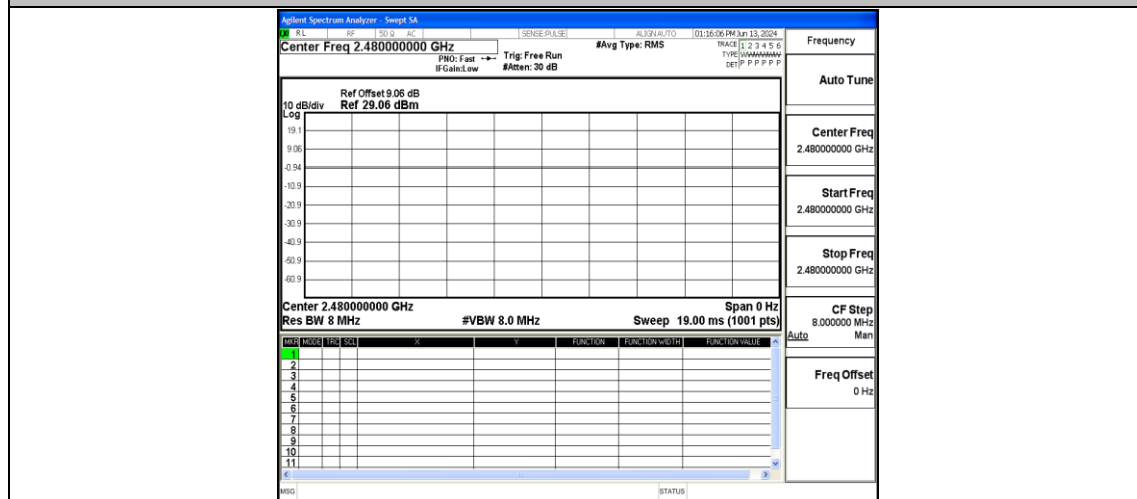




NTNV-BLE_2M-Ant1-2402



NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2480