

Appendix Test Data for BLE (Conducted Measurement)

Product Name: Wireless Mechanical Keyboard

Trade Mark: Keychron

Test Model: Q0 Max

FCC ID: 2BGKB-Q0MAX

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

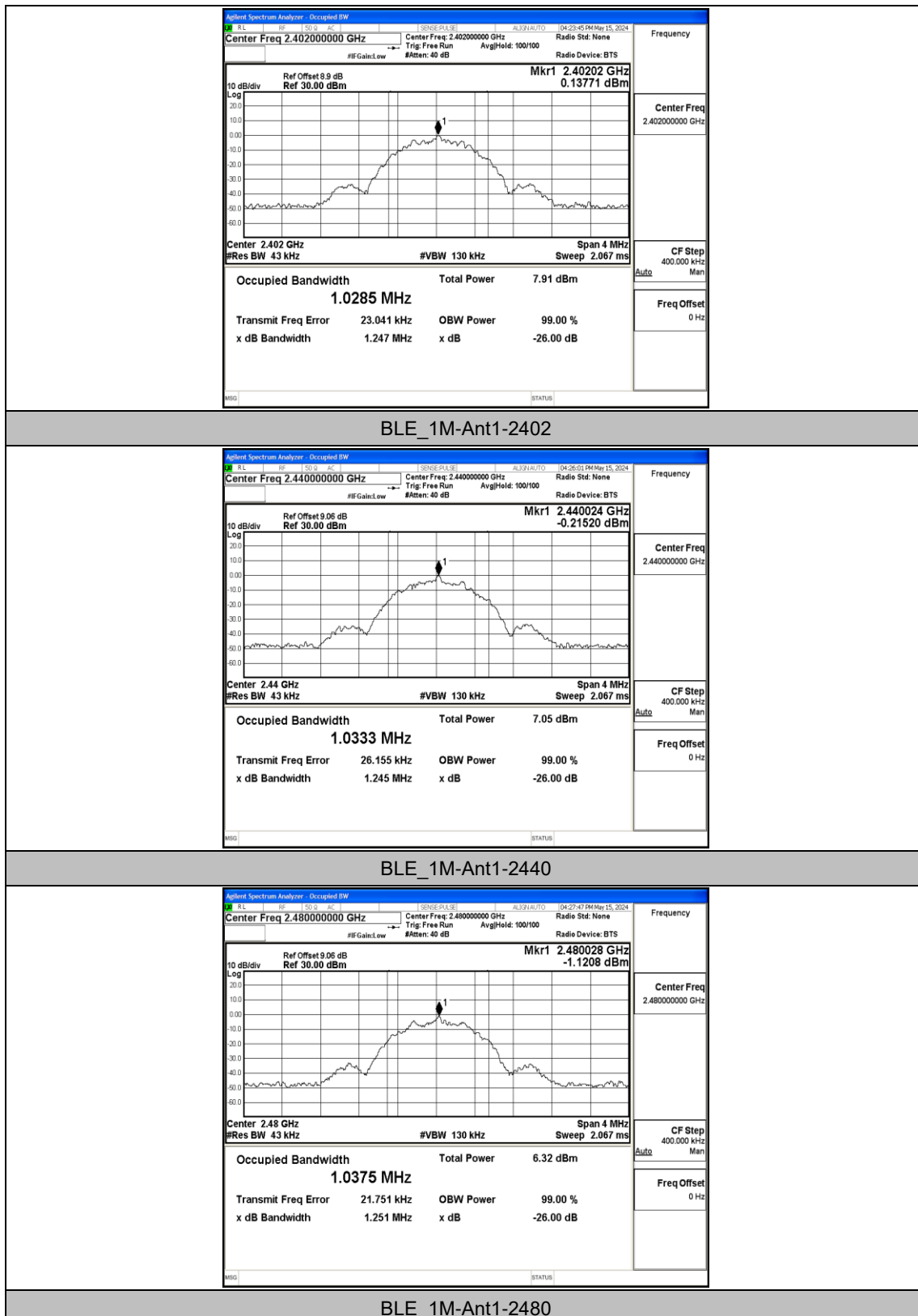
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.652	2401.692	2402.344	0.5	PASS
BLE_1M	Ant1	2440	0.656	2439.688	2440.344	0.5	PASS
BLE_1M	Ant1	2480	0.652	2479.688	2480.340	0.5	PASS

Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0285	2401.5088	2402.5373	---	---
BLE_1M	Ant1	2440	1.0333	2439.5095	2440.5428	---	---
BLE_1M	Ant1	2480	1.0375	2479.5030	2480.5405	---	---

Test Graphs

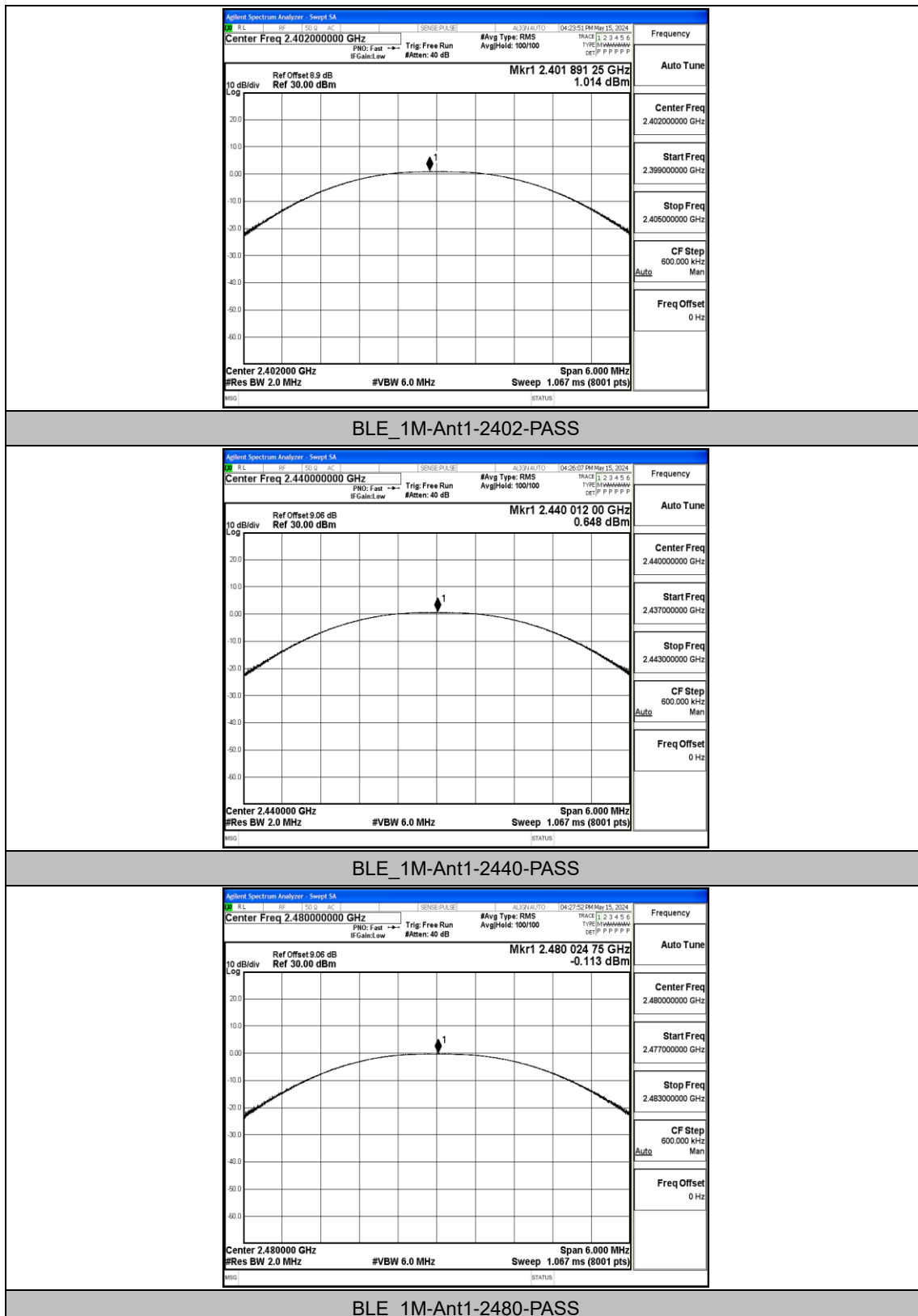


Appendix C: Maximum peak conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Perk Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.01	≤30	PASS
BLE_1M	Ant1	2440	0.65	≤30	PASS
BLE_1M	Ant1	2480	-0.11	≤30	PASS

Test Graphs Peak

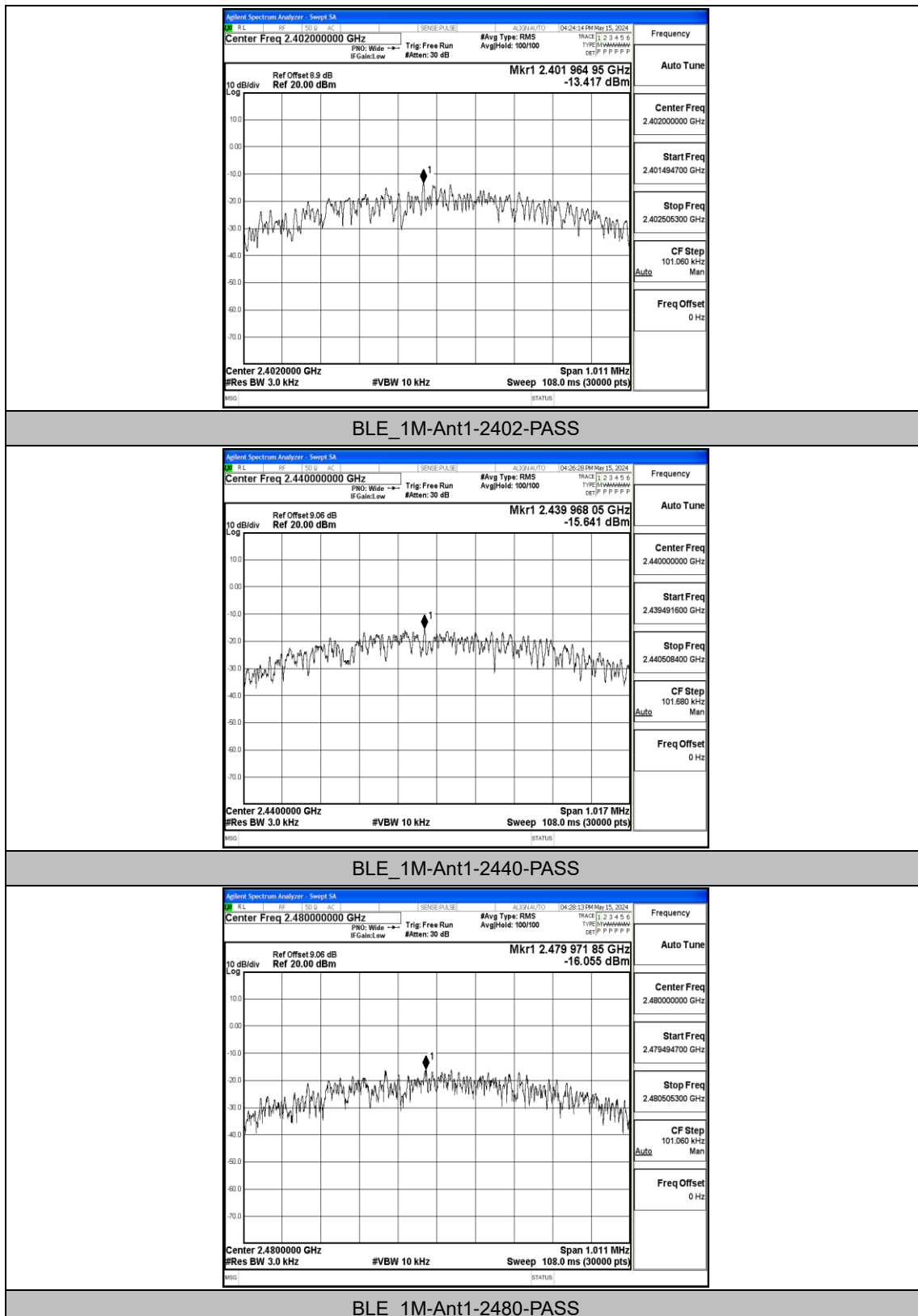


Appendix D: Maximum peak power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.42	≤8.00	PASS
BLE_1M	Ant1	2440	-15.64	≤8.00	PASS
BLE_1M	Ant1	2480	-16.06	≤8.00	PASS

Test Graphs

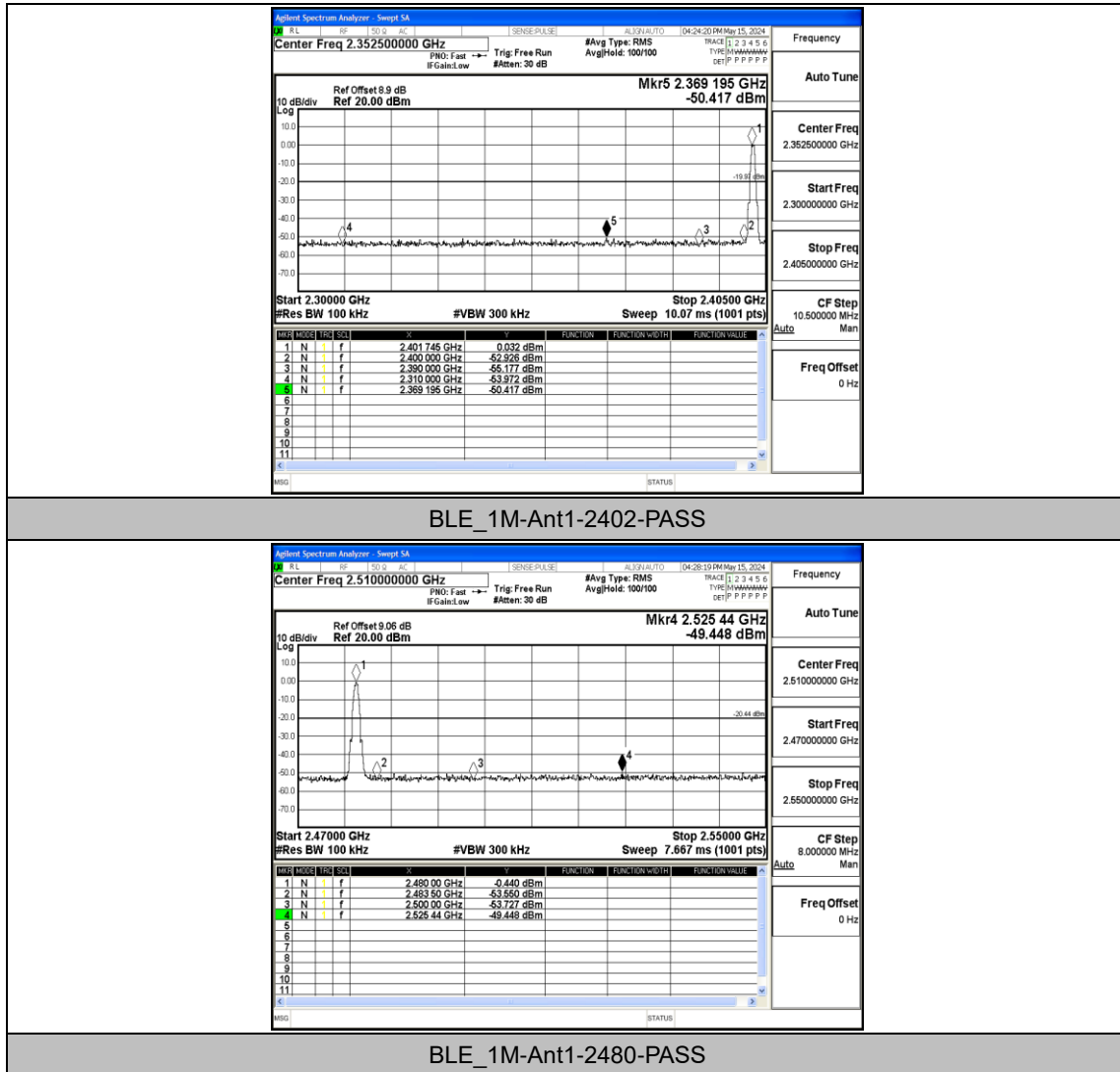


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.03	-50.42	≤-19.97	PASS
BLE_1M	Ant1	High	2480	-0.44	-49.45	≤-20.44	PASS

Test Graphs

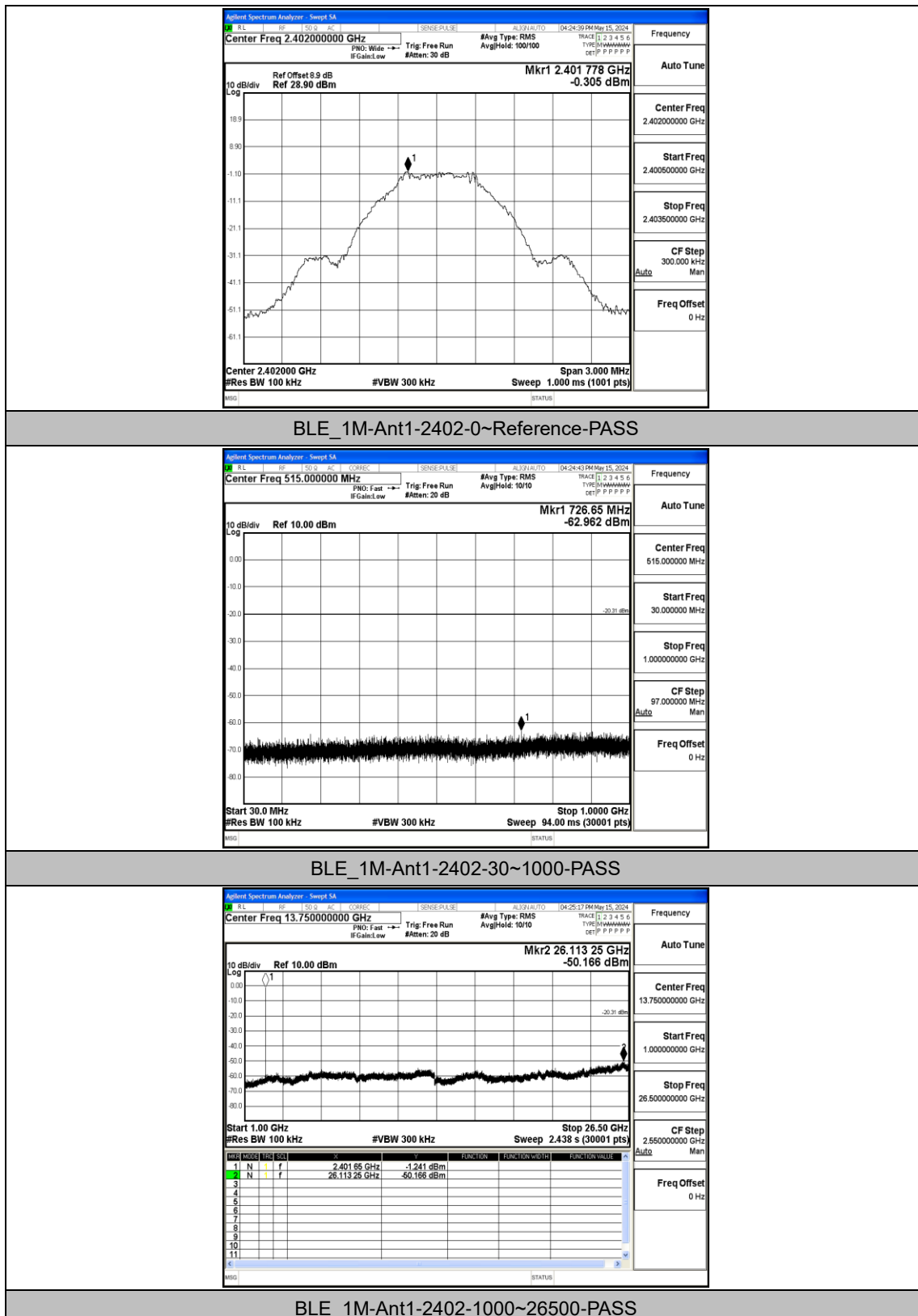


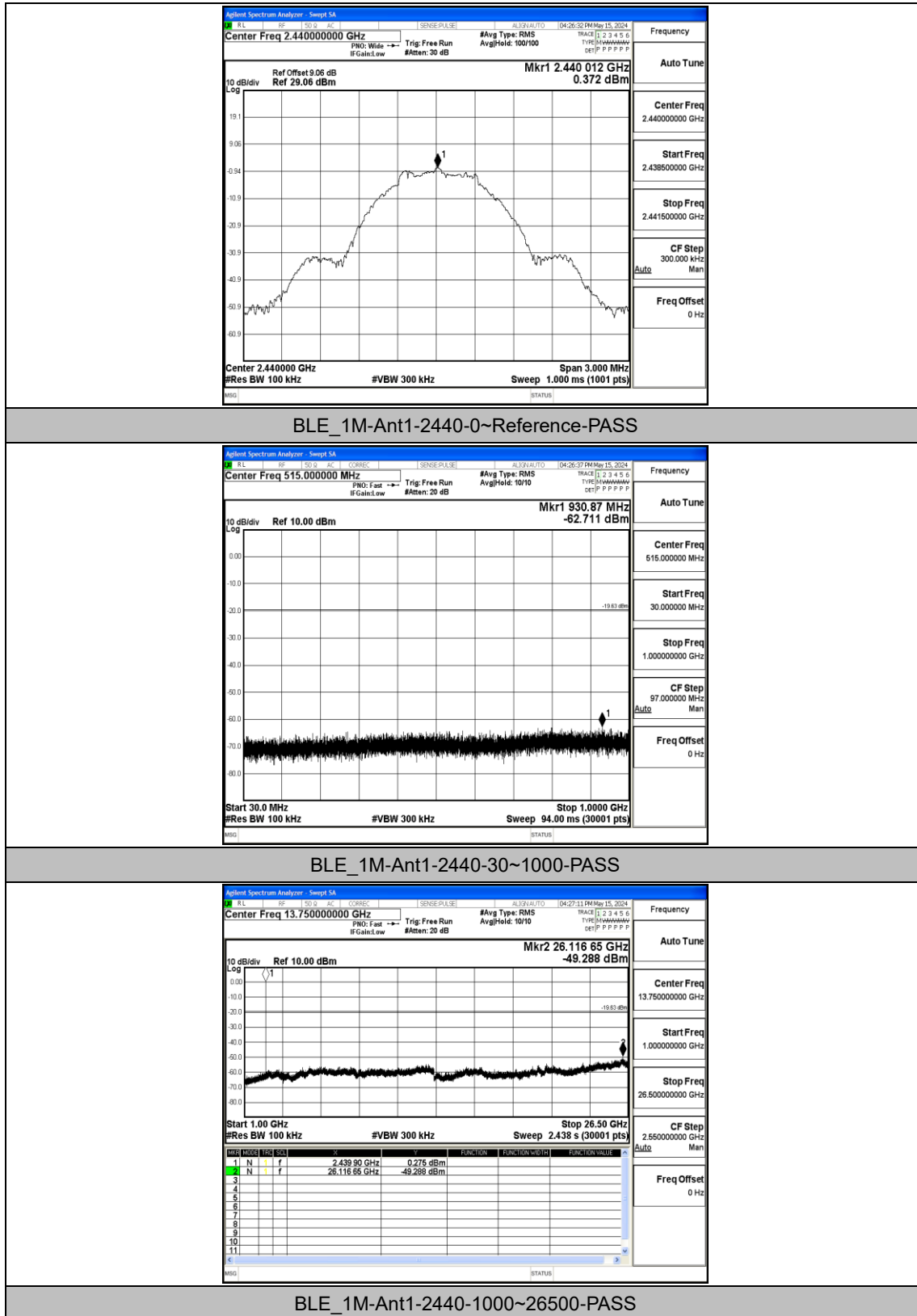
Appendix F: Conducted Spurious Emission

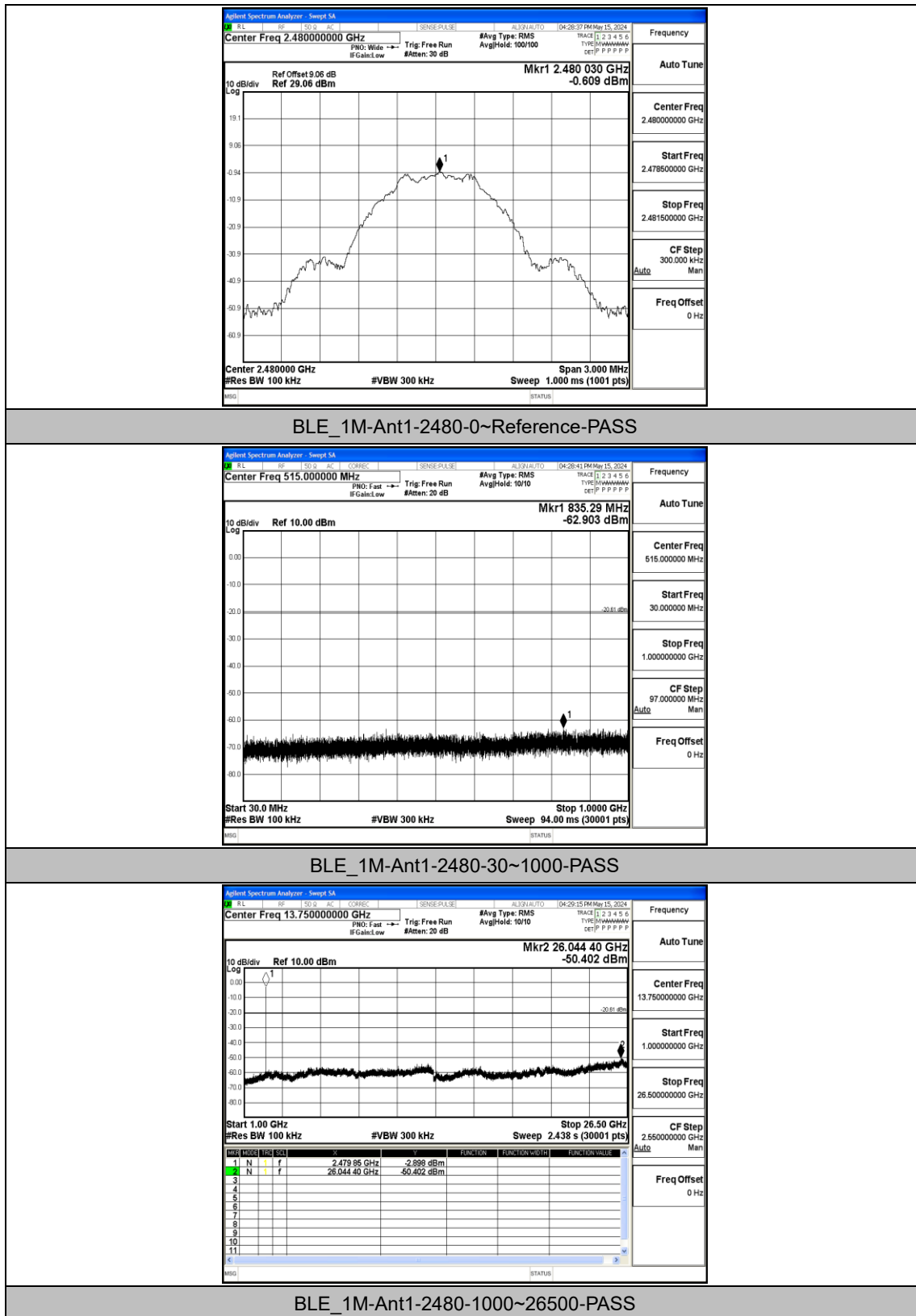
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-0.31	-0.31	---	PASS
BLE_1M	Ant1	2402	30~1000	-0.31	-62.96	≤-20.31	PASS
BLE_1M	Ant1	2402	1000~26500	-0.31	-50.17	≤-20.31	PASS
BLE_1M	Ant1	2440	0~Reference	0.37	0.37	---	PASS
BLE_1M	Ant1	2440	30~1000	0.37	-62.71	≤-19.63	PASS
BLE_1M	Ant1	2440	1000~26500	0.37	-49.29	≤-19.63	PASS
BLE_1M	Ant1	2480	0~Reference	-0.61	-0.61	---	PASS
BLE_1M	Ant1	2480	30~1000	-0.61	-62.9	≤-20.61	PASS
BLE_1M	Ant1	2480	1000~26500	-0.61	-50.4	≤-20.61	PASS

Test Graphs





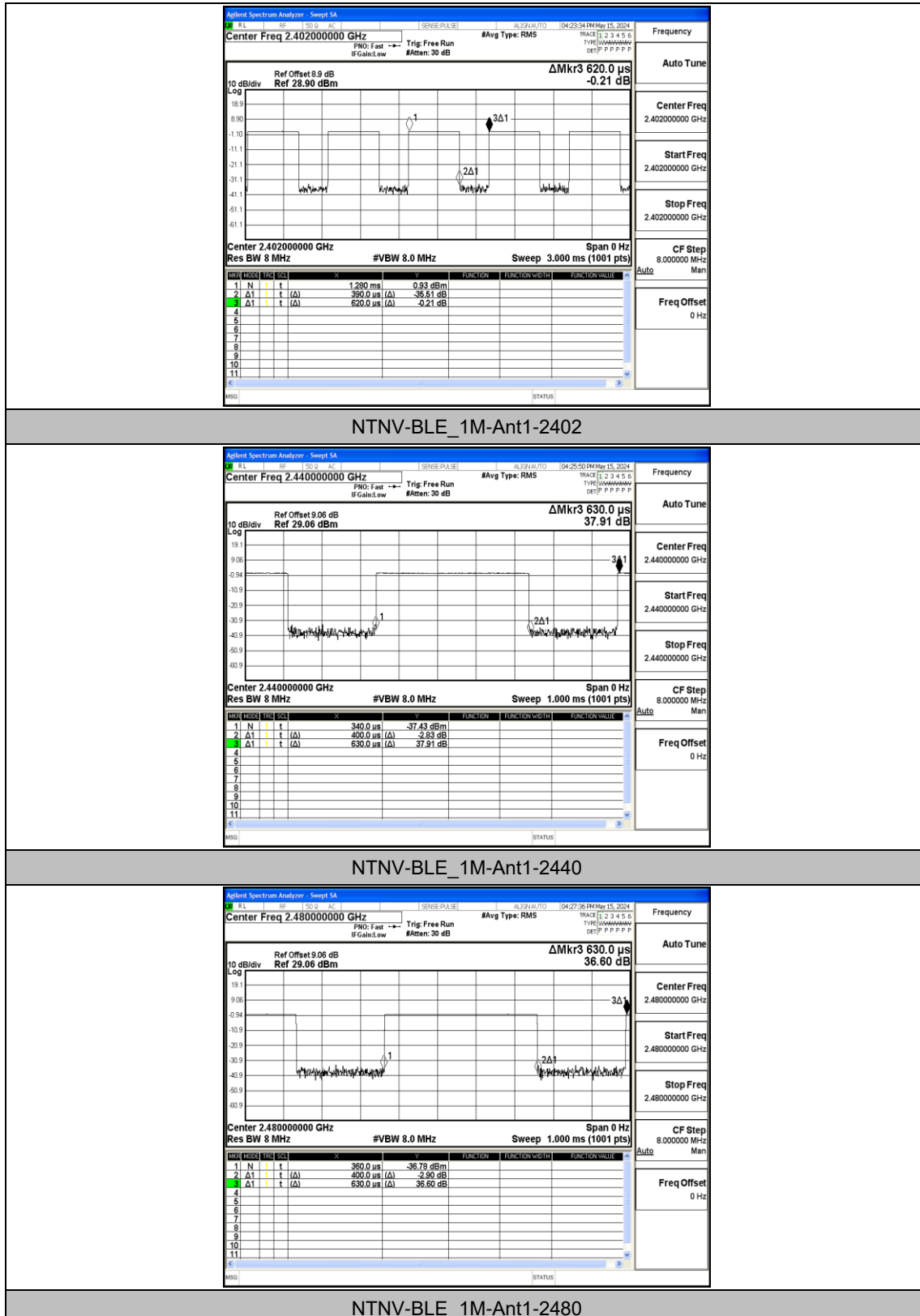


Appendix G: Duty Cycle

Test Result

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

Test Graphs



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	-51.27	≤-21.20	43.93	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-52.73	≤-21.20	42.47	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2380.220	-47.71	≤-21.20	47.49	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-57.94	≤-41.20	37.26	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-58.48	≤-41.20	36.72	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2386.835	-56.96	≤-41.20	38.24	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-50.21	≤-21.20	44.99	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-51.12	≤-21.20	44.08	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2493.680	-47.49	≤-21.20	47.71	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-56.07	≤-41.20	39.13	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-57.35	≤-41.20	37.85	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2483.520	-56.07	≤-41.20	39.13	≤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

