

RF Test Data for BT(BLE) (Conducted Measurement)

Product Name: Smart phone



Test Model: K50

FCC ID: 2APX7K50

Environmental Conditions

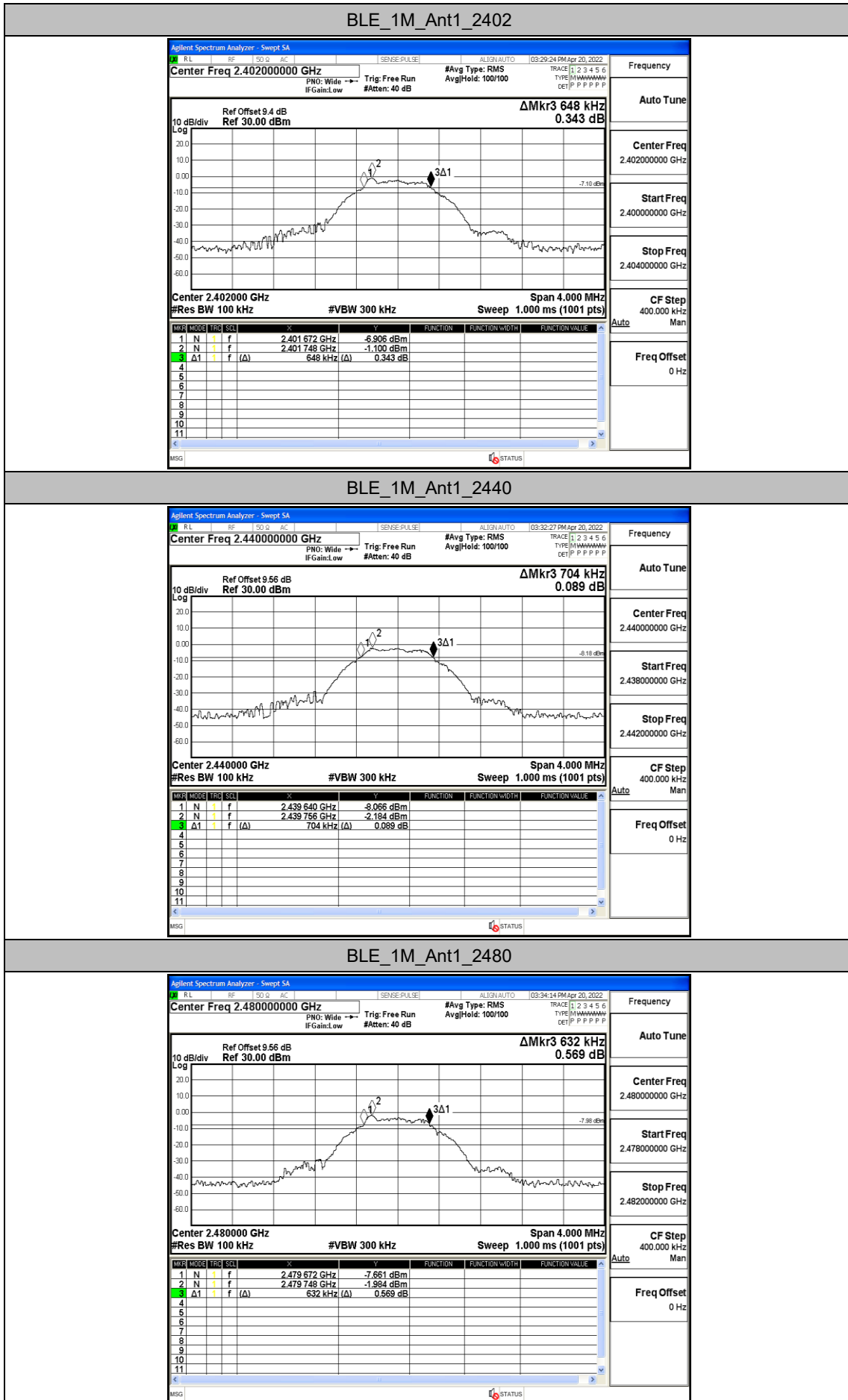
Temperature:	25.5°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.648	2401.672	2402.320	0.5	PASS
		2440	0.704	2439.640	2440.344	0.5	PASS
		2480	0.632	2479.672	2480.304	0.5	PASS

Test Graphs

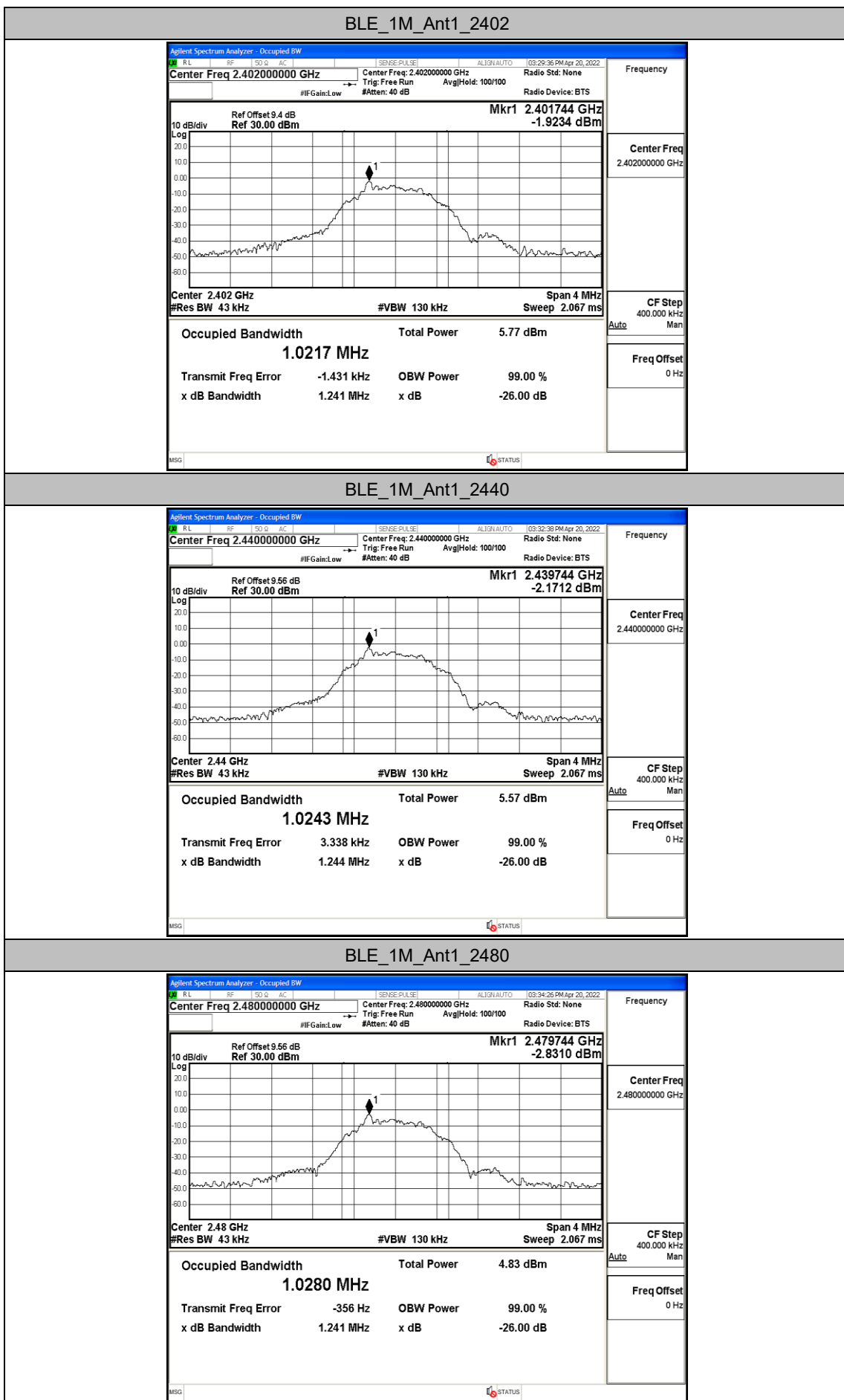


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0217	2401.488	2402.509	---	---
		2440	1.0243	2439.491	2440.515	---	---
		2480	1.0280	2479.486	2480.514	---	---

Test Graphs

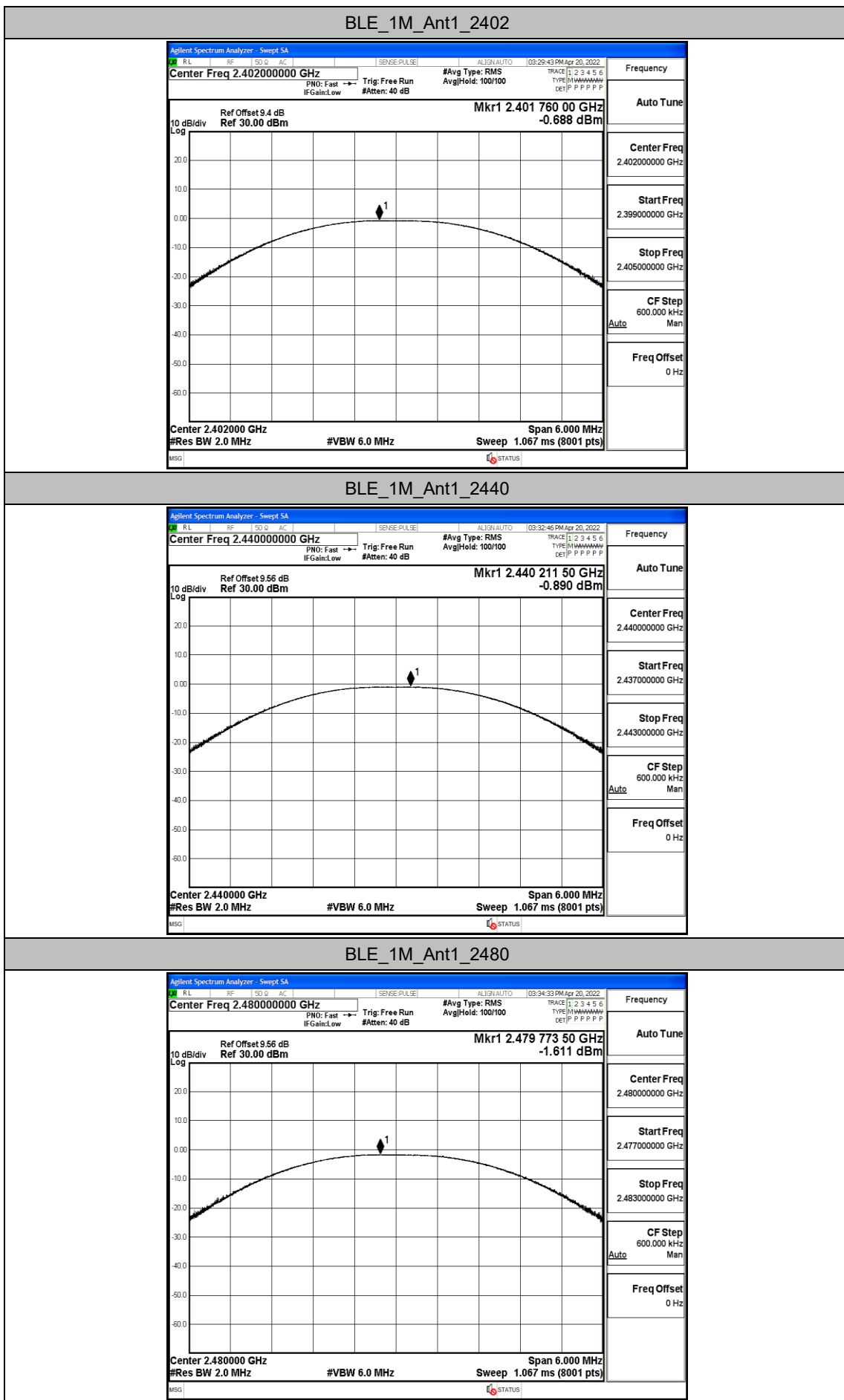


Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.69	≤30	PASS
		2440	-0.89	≤30	PASS
		2480	-1.61	≤30	PASS

Test Graphs

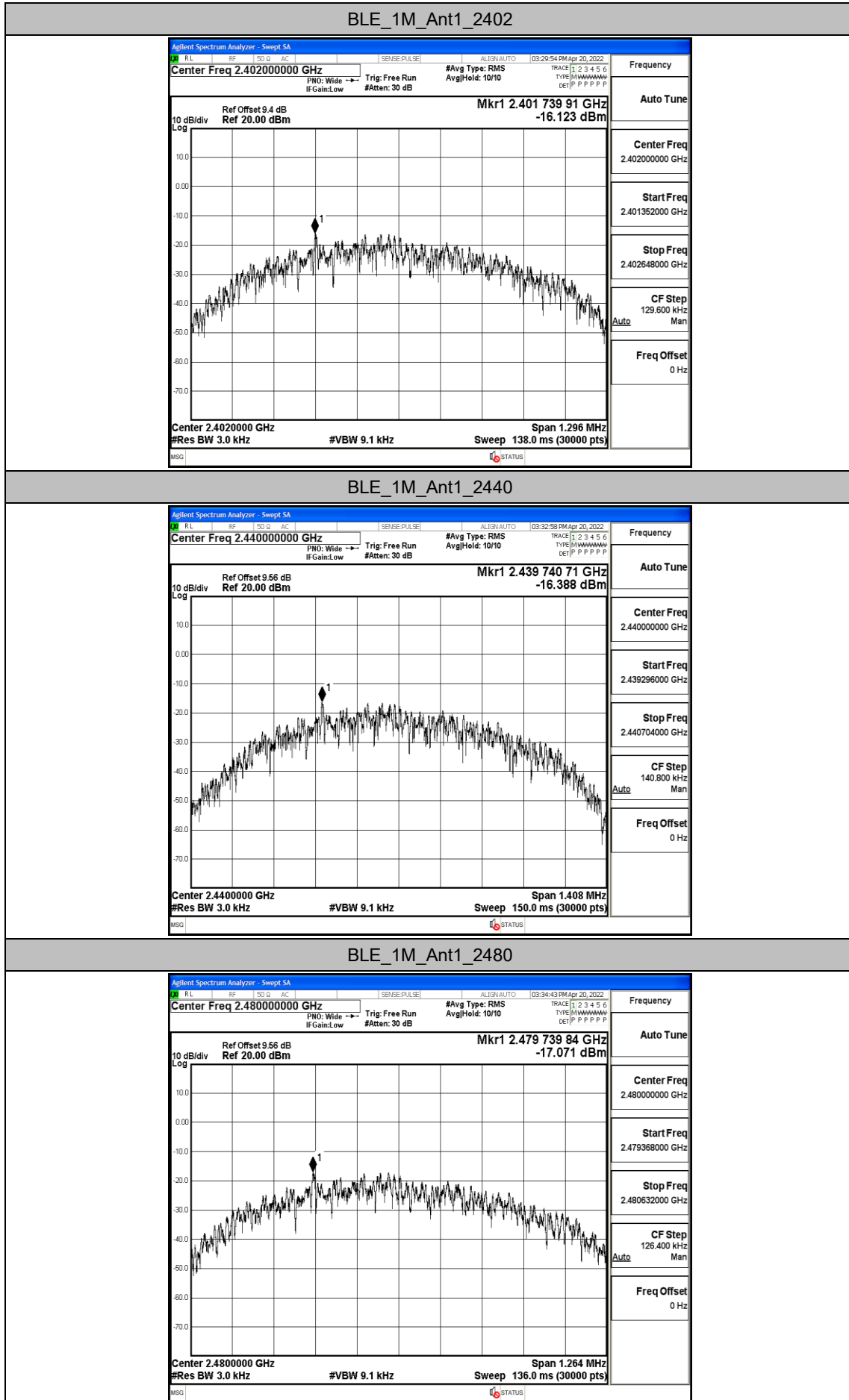


Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.12	≤8.00	PASS
		2440	-16.39	≤8.00	PASS
		2480	-17.07	≤8.00	PASS

Test Graphs

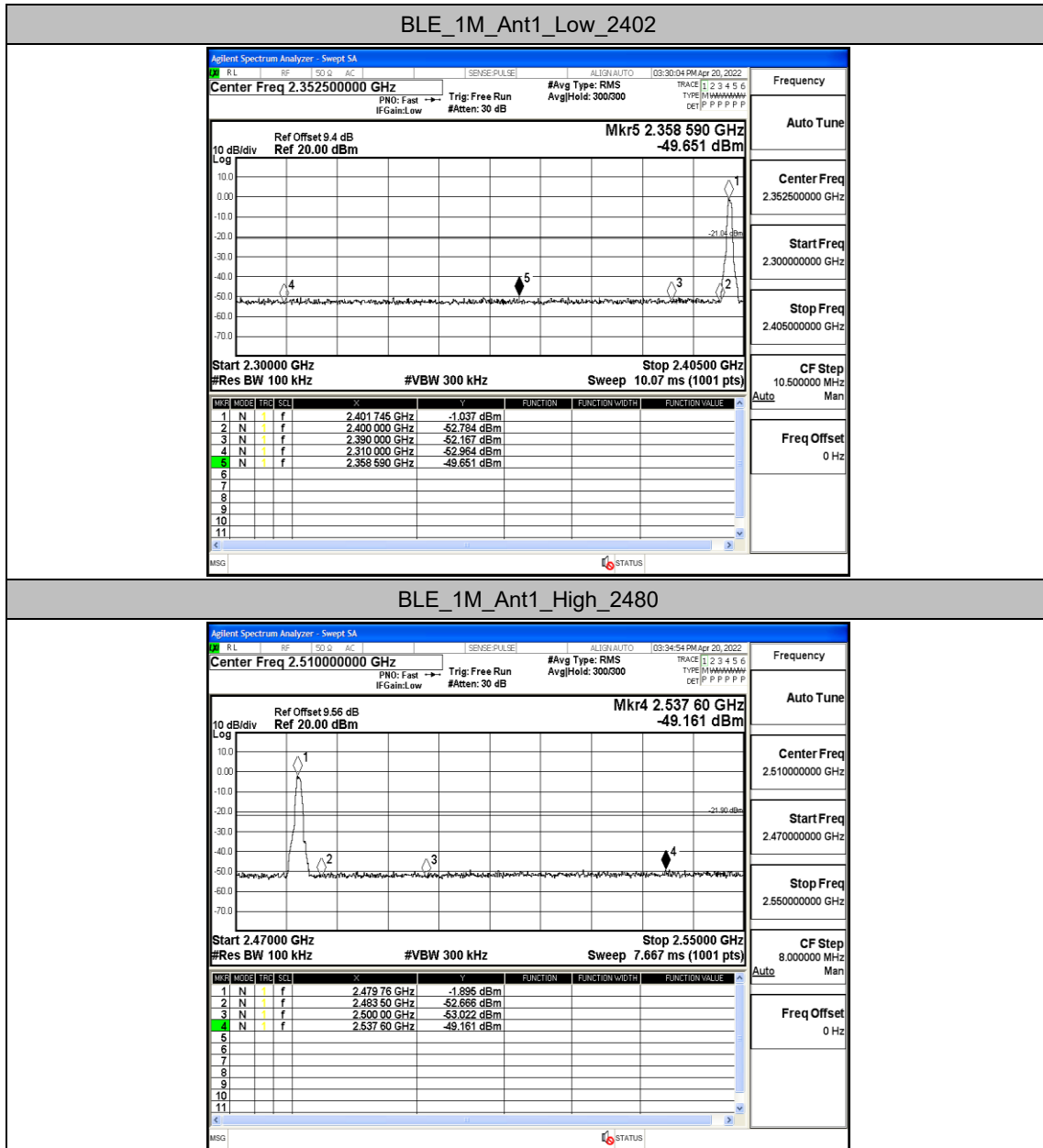


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.04	-49.65	≤-21.04	PASS
		High	2480	-1.90	-49.16	≤-21.9	PASS

Test Graphs

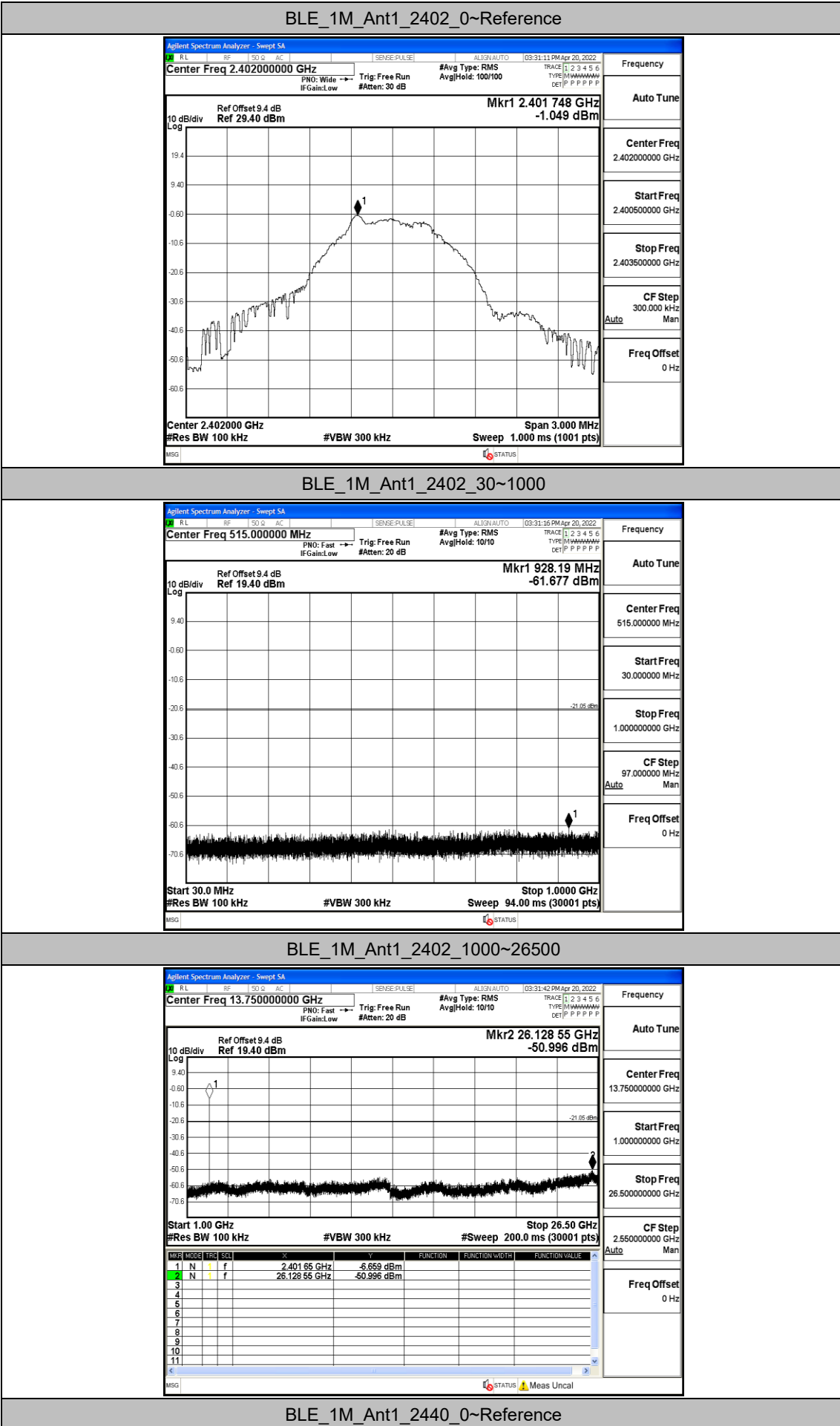


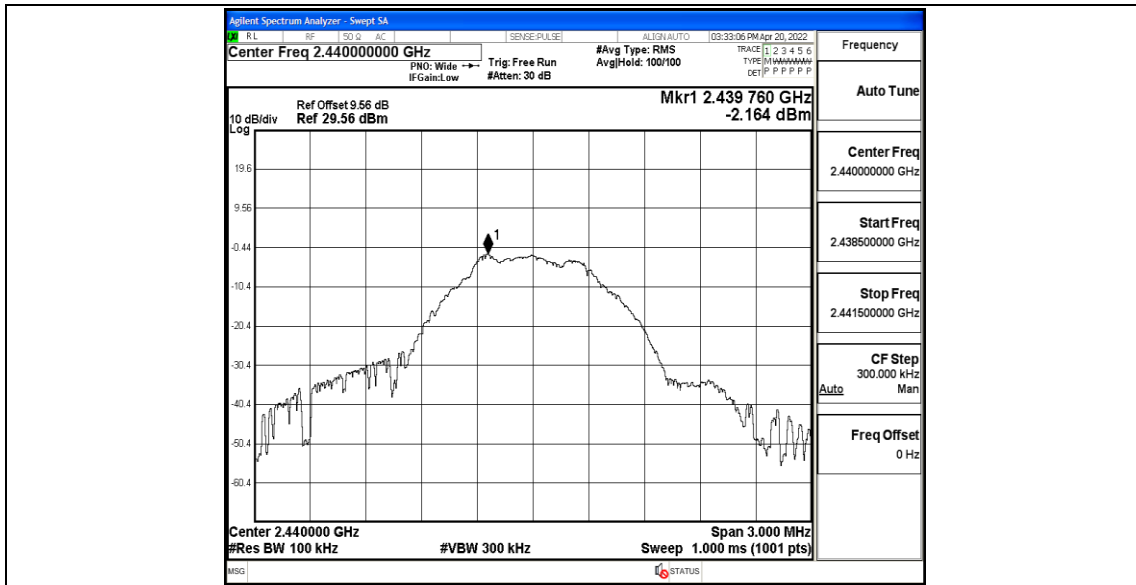
Appendix F: Conducted Spurious Emission

Test Result

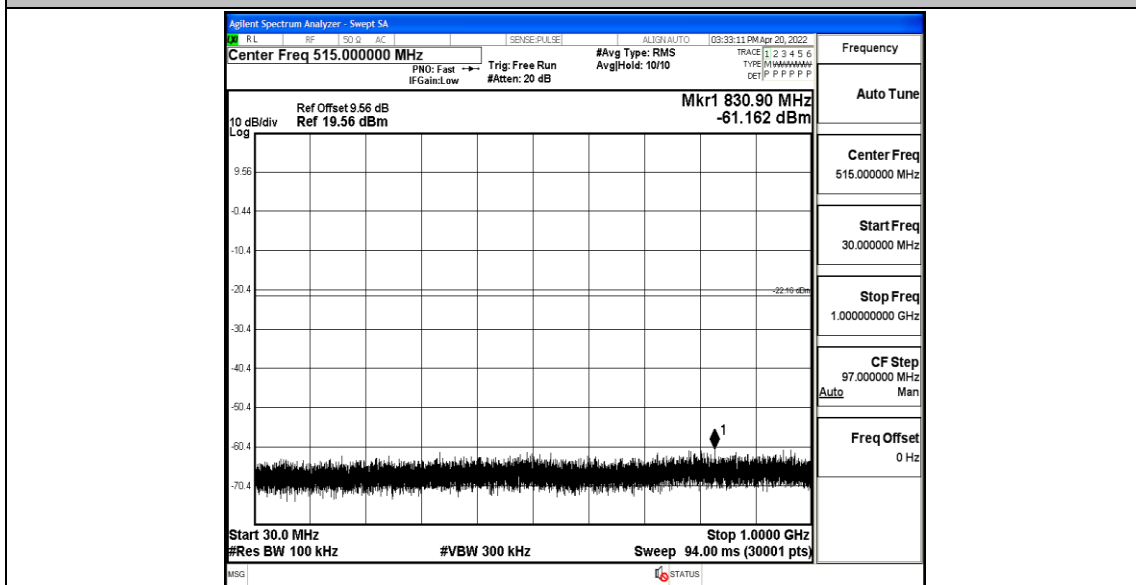
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.05	-1.05	---	PASS
			30~1000	-1.05	-61.68	≤-21.05	PASS
			1000~26500	-1.05	-51	≤-21.05	PASS
		2440	Reference	-2.16	-2.16	---	PASS
			30~1000	-2.16	-61.16	≤-22.16	PASS
			1000~26500	-2.16	-50.17	≤-22.16	PASS
		2480	Reference	-1.90	-1.90	---	PASS
			30~1000	-1.90	-60.39	≤-21.9	PASS
			1000~26500	-1.90	-45.92	≤-21.9	PASS

Test Graphs

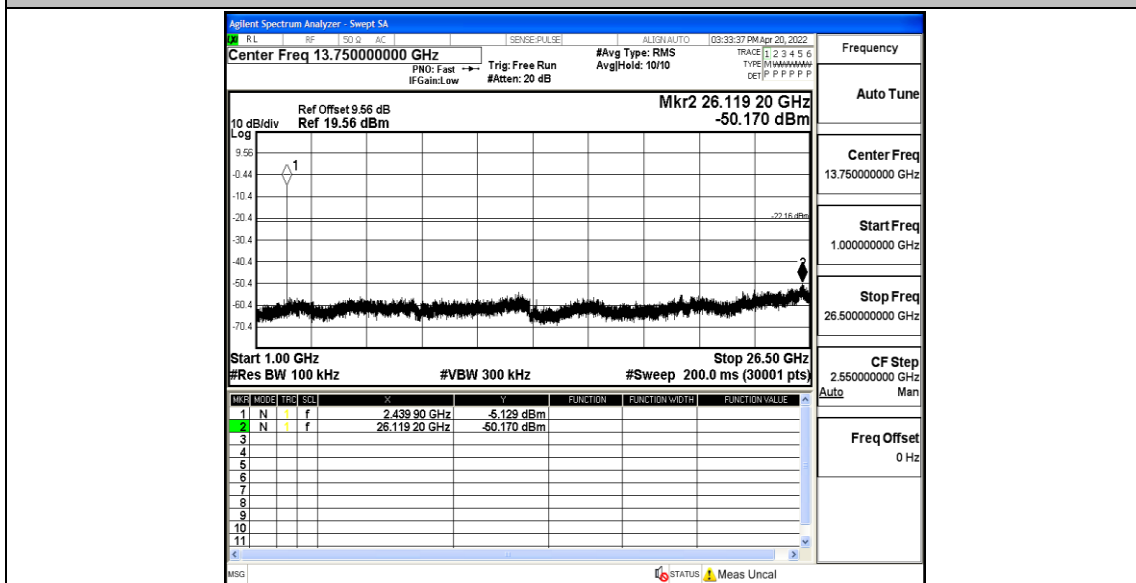




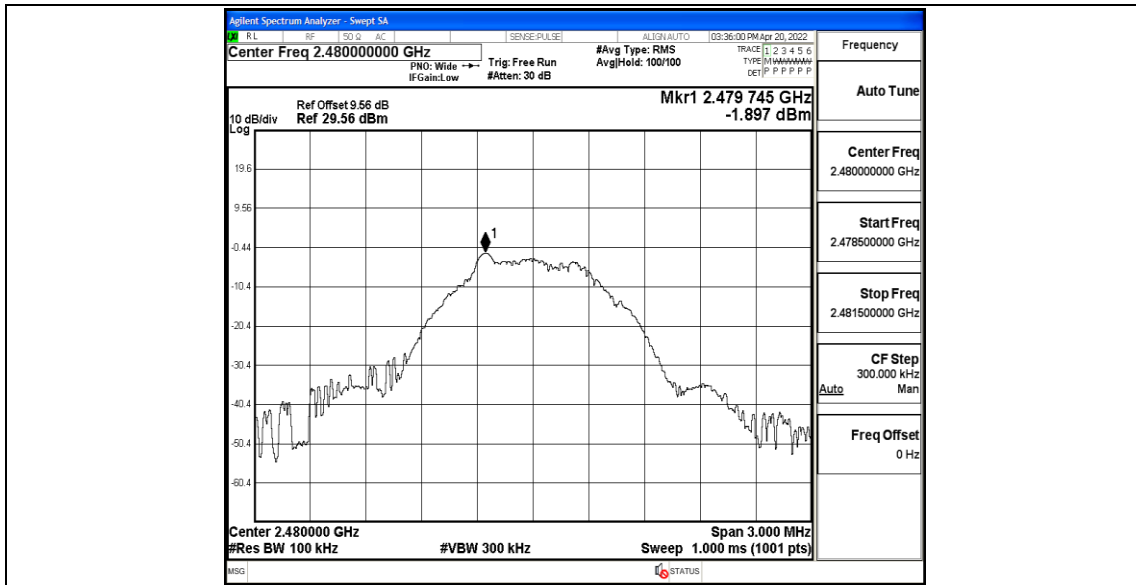
BLE_1M_Ant1_2440_30~1000



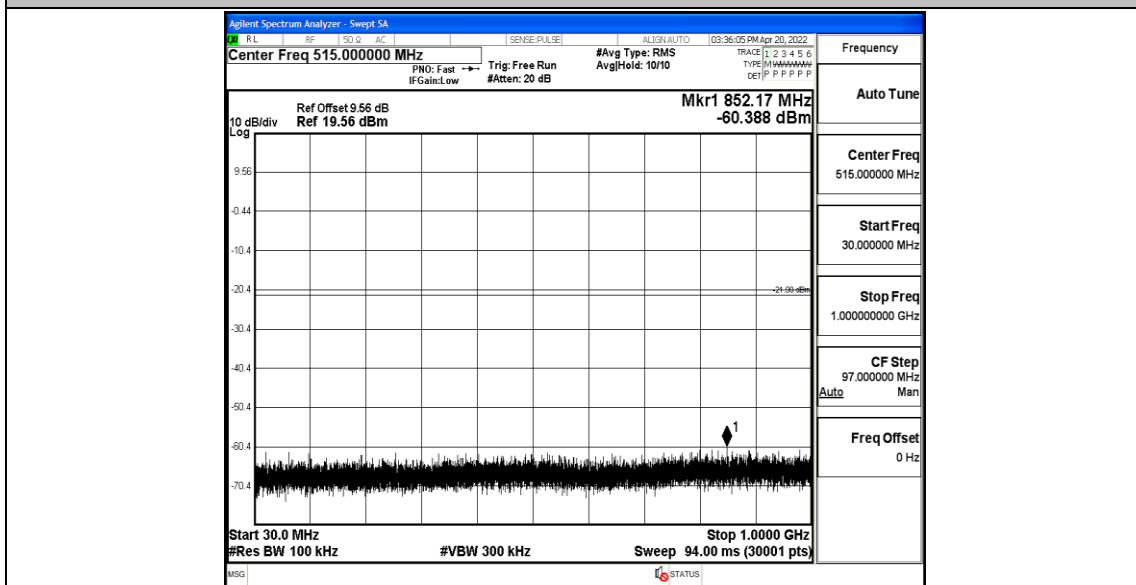
BLE_1M_Ant1_2440_1000~26500



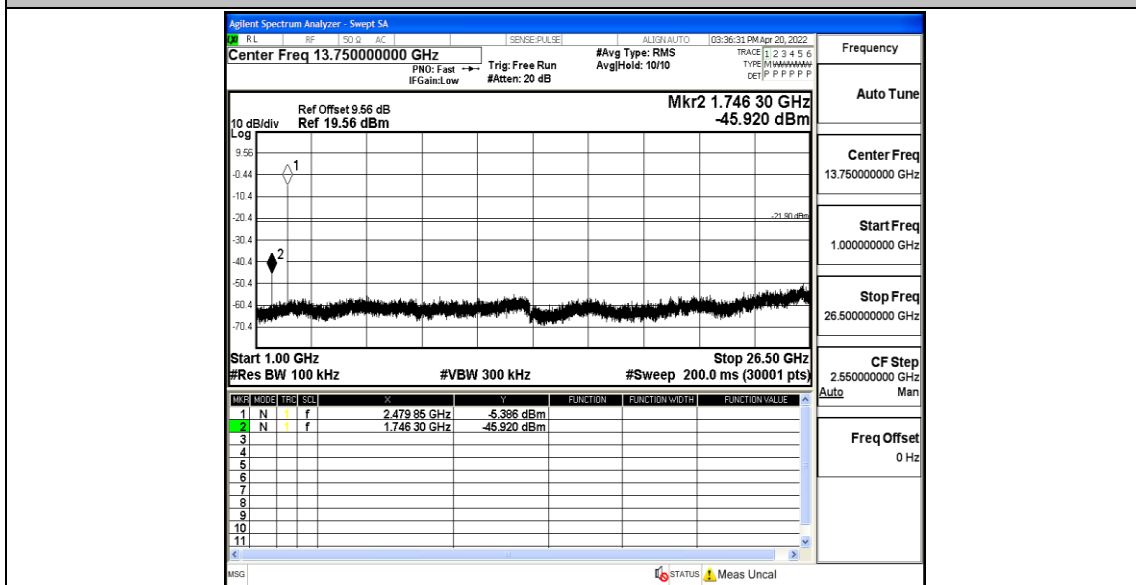
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

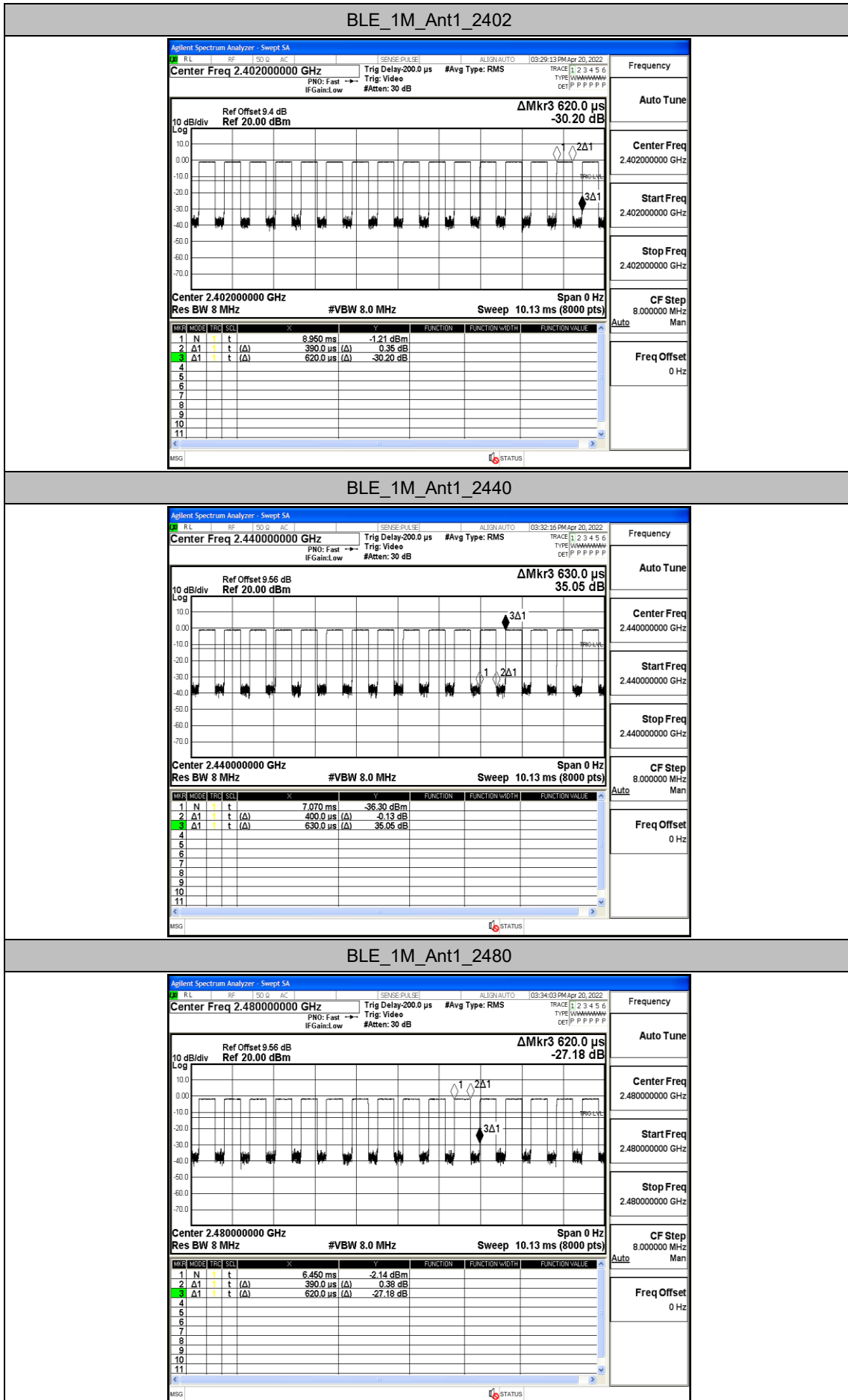


Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T
BLE_1M	Ant1	2402	0.39	0.62	62.90	2.56
		2440	0.40	0.63	63.49	2.50
		2480	0.39	0.62	62.90	2.56

Test Graphs



Appendix H: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.35	≤-41.20	PASS
				AV	2375.495	-47.76	≤-41.20	PASS
				AV	2390.000	-48.36	≤-41.20	PASS
				Peak	2310.000	-42.32	≤-21.20	PASS
				Peak	2323.625	-38.85	≤-21.20	PASS
				Peak	2390.000	-41.88	≤-21.20	PASS
		High	2480	AV	2483.500	-47.4	≤-41.20	PASS
				AV	2489.120	-47.17	≤-41.20	PASS
				AV	2500.000	-47.57	≤-41.20	PASS
				Peak	2483.500	-42.32	≤-21.20	PASS
				Peak	2498.960	-38.72	≤-21.20	PASS
				Peak	2500.000	-39.23	≤-21.20	PASS

Note:

1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
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

