

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

Product Name: Bluetooth adapter

Trade Mark: N/A

Test Model: BTS-U

FCC ID: 2A49K-BTS-U

Environmental Conditions

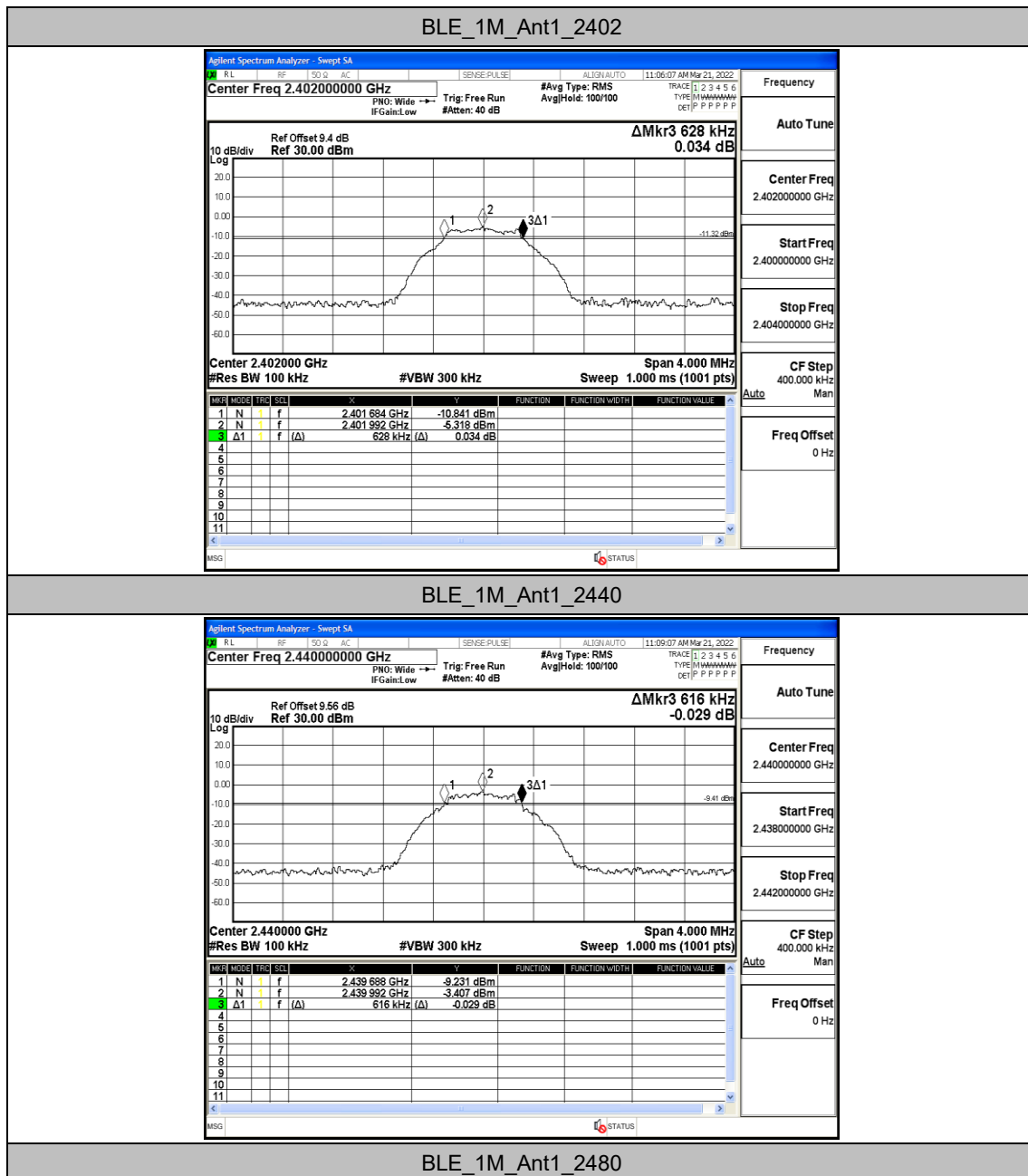
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

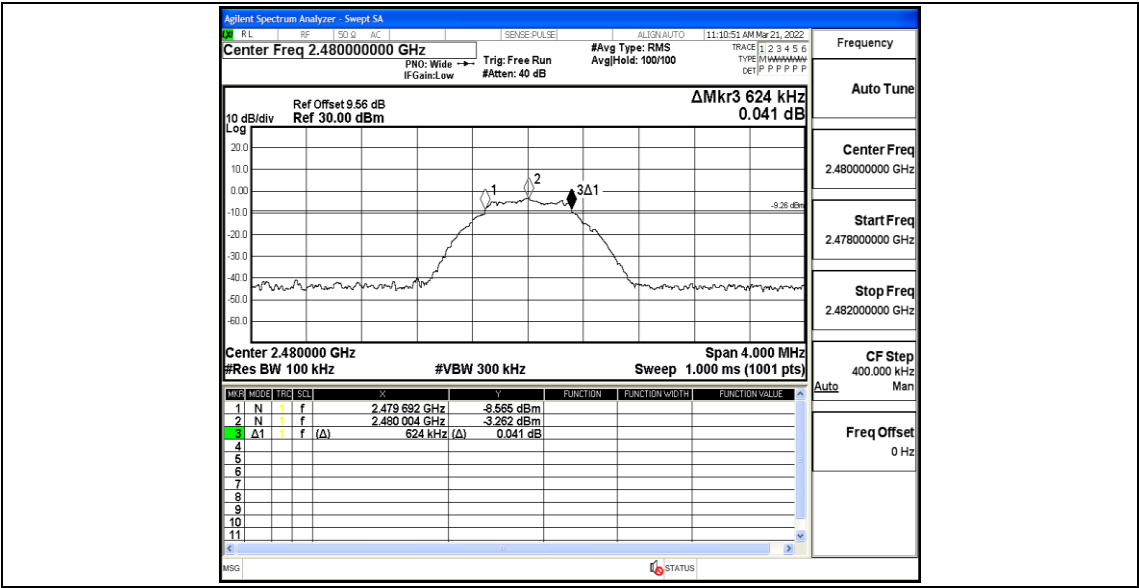
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.628	2401.684	2402.312	0.5	PASS
		2440	0.616	2439.688	2440.304	0.5	PASS
		2480	0.624	2479.692	2480.316	0.5	PASS

Test Graphs



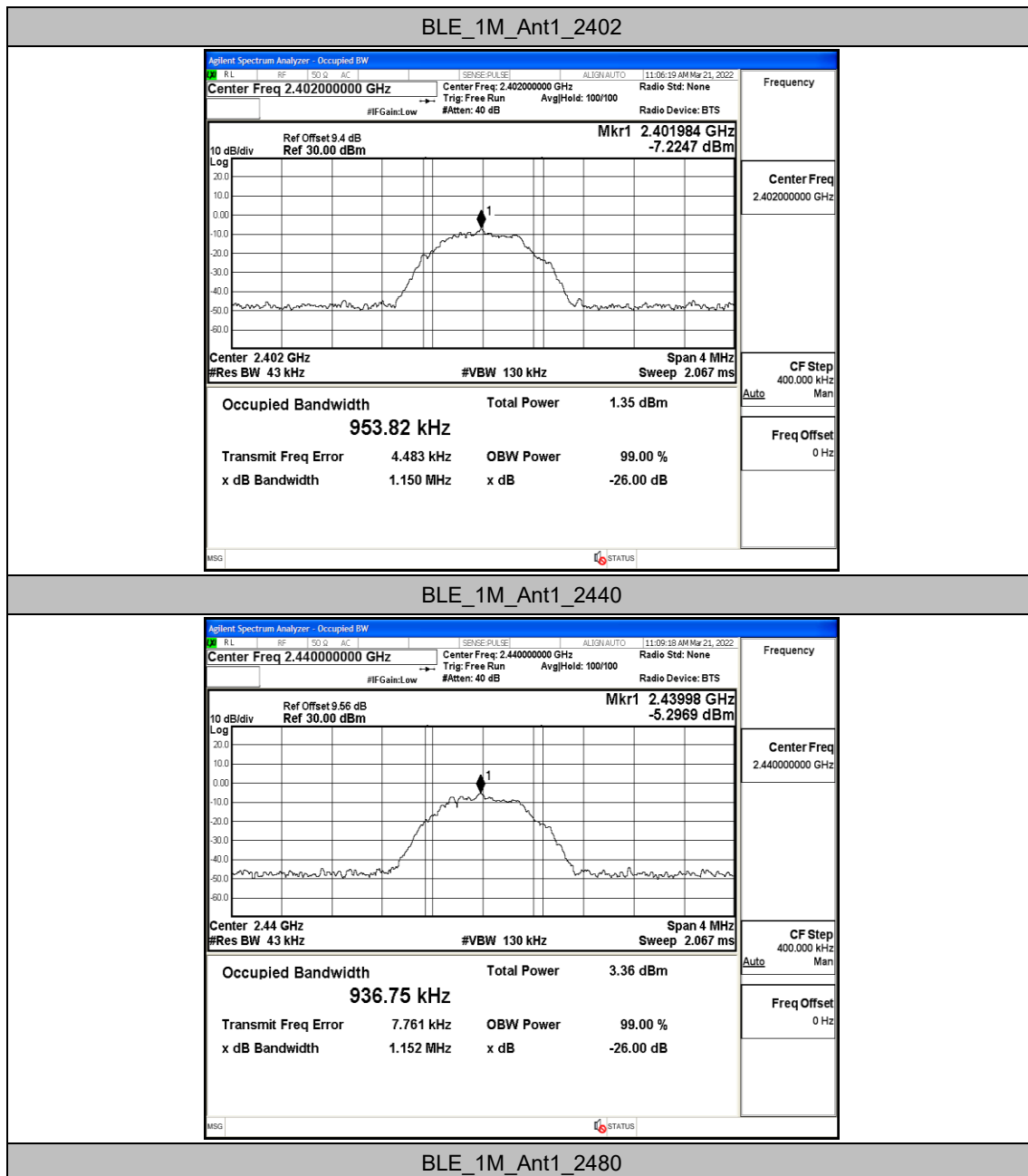


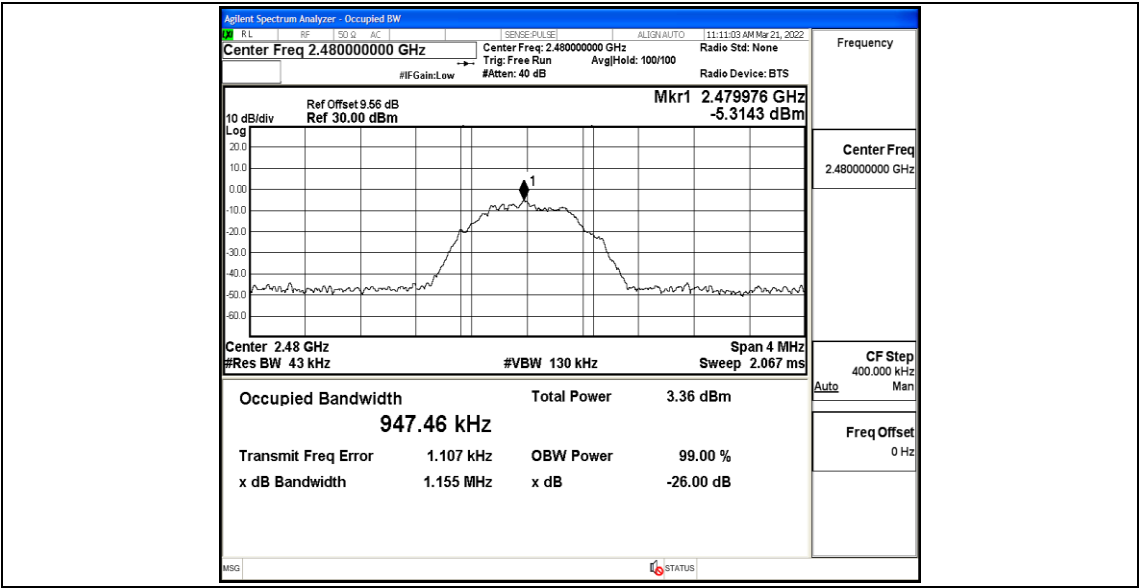
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.95382	2401.528	2402.481	---	---
		2440	0.93675	2439.539	2440.476	---	---
		2480	0.94746	2479.527	2480.475	---	---

Test Graphs



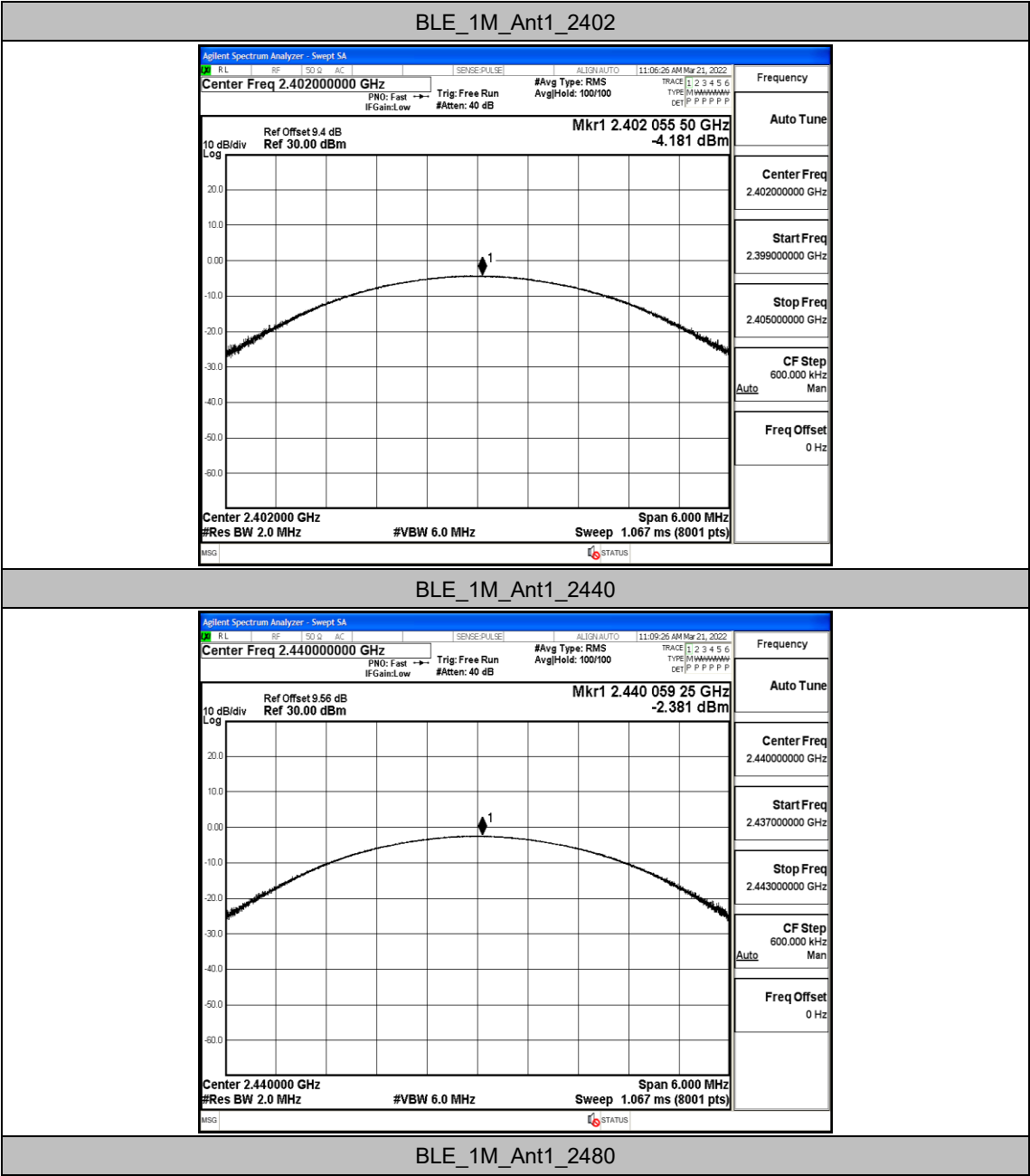


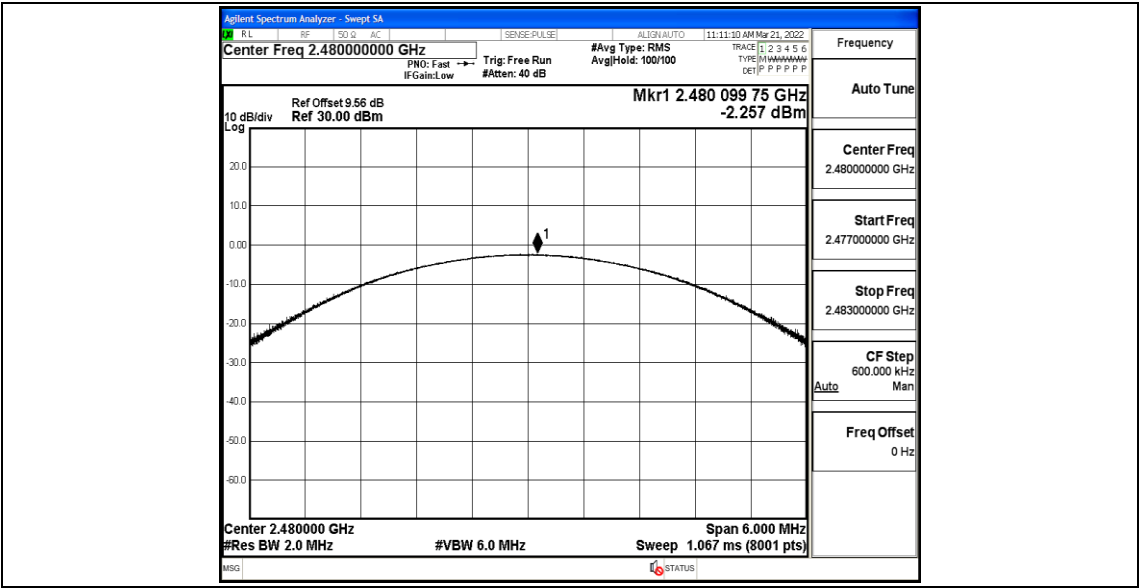
Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-4.18	≤30	PASS
		2440	-2.38	≤30	PASS
		2480	-2.26	≤30	PASS

Test Graphs



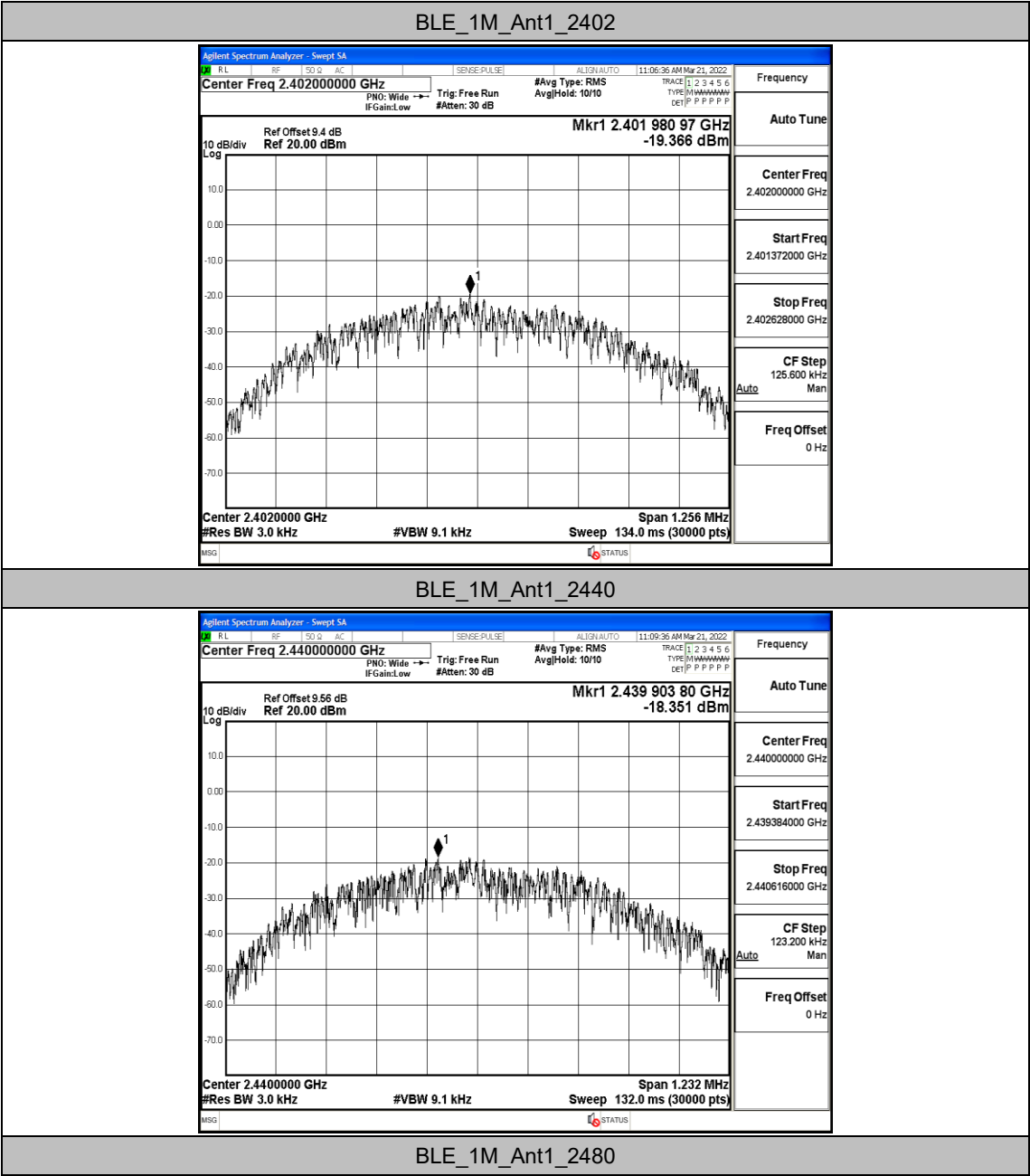


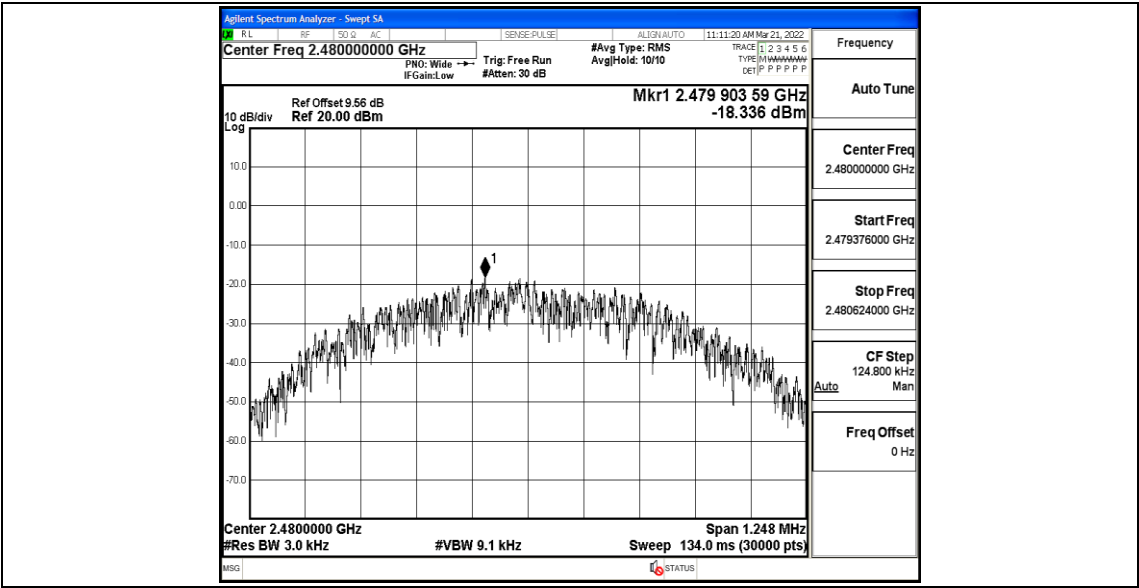
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.37	≤8.00	PASS
		2440	-18.35	≤8.00	PASS
		2480	-18.34	≤8.00	PASS

Test Graphs



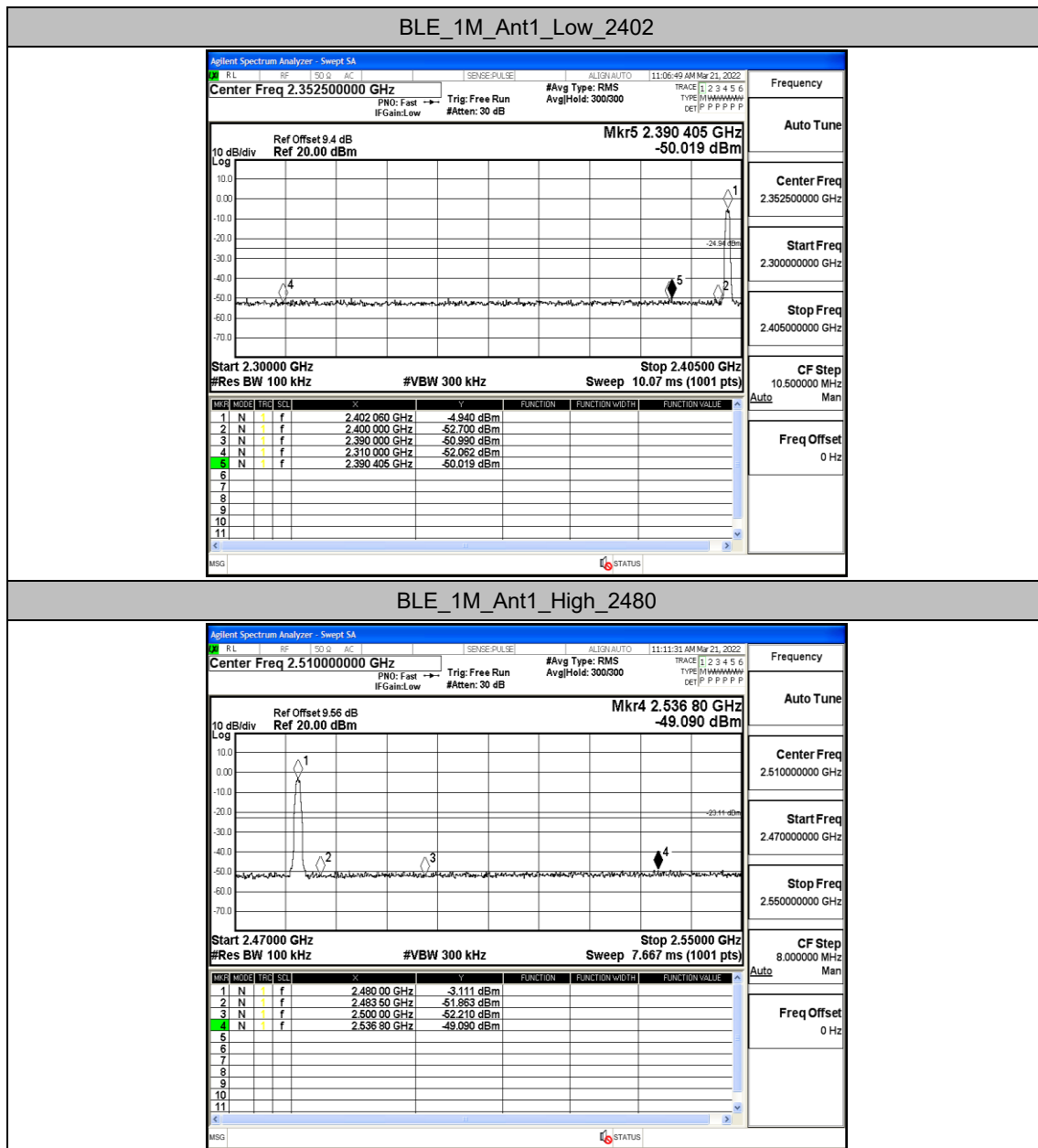


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.94	-50.02	≤-24.94	PASS
		High	2480	-3.11	-49.09	≤-23.11	PASS

Test Graphs

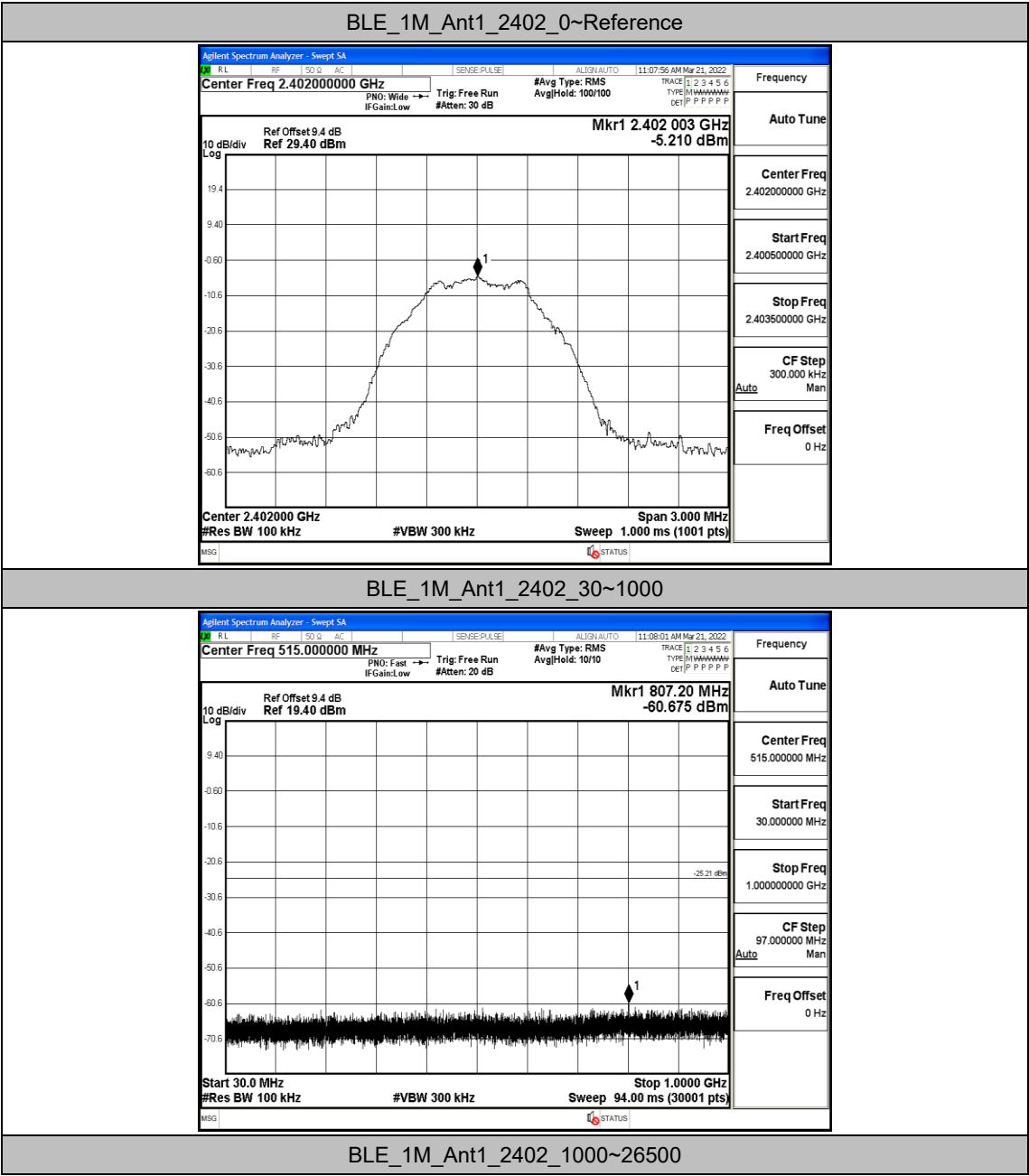


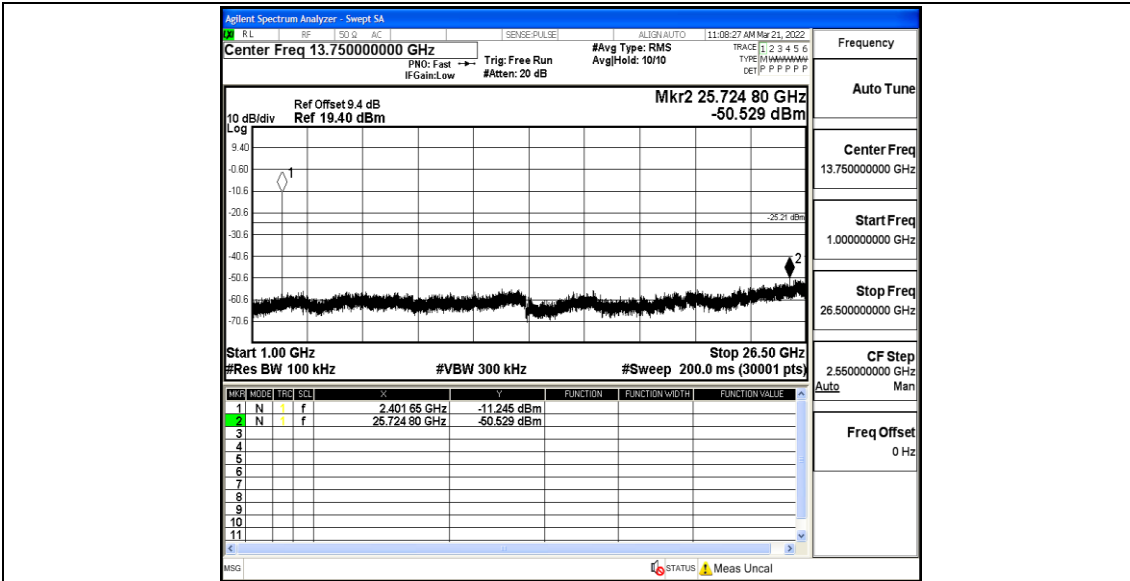
Appendix F: Conducted Spurious Emission

Test Result

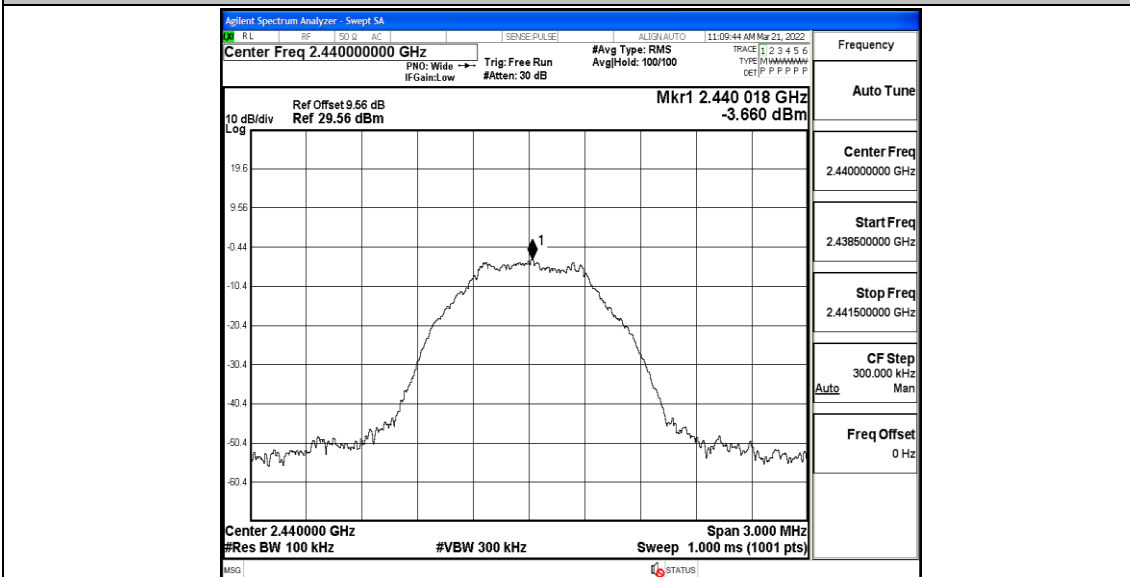
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-5.21	-5.21	---	PASS
			30~1000	-5.21	-60.68	≤-25.21	PASS
			1000~26500	-5.21	-50.53	≤-25.21	PASS
		2440	Reference	-3.66	-3.66	---	PASS
			30~1000	-3.66	-59.32	≤-23.66	PASS
			1000~26500	-3.66	-50.06	≤-23.66	PASS
		2480	Reference	-3.19	-3.19	---	PASS
			30~1000	-3.19	-60.9	≤-23.19	PASS
			1000~26500	-3.19	-51.79	≤-23.19	PASS

Test Graphs

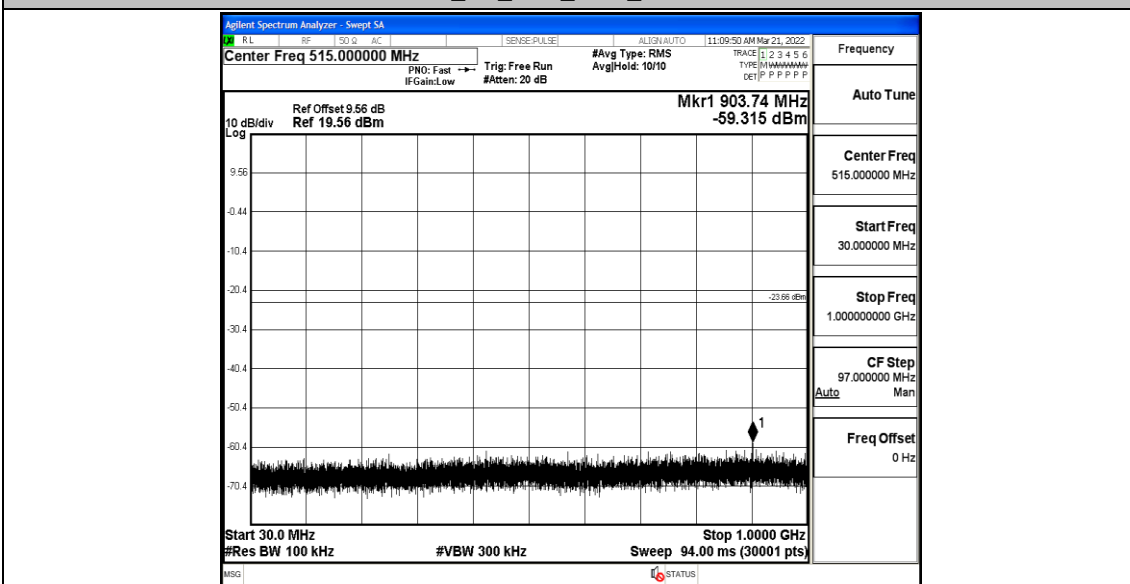


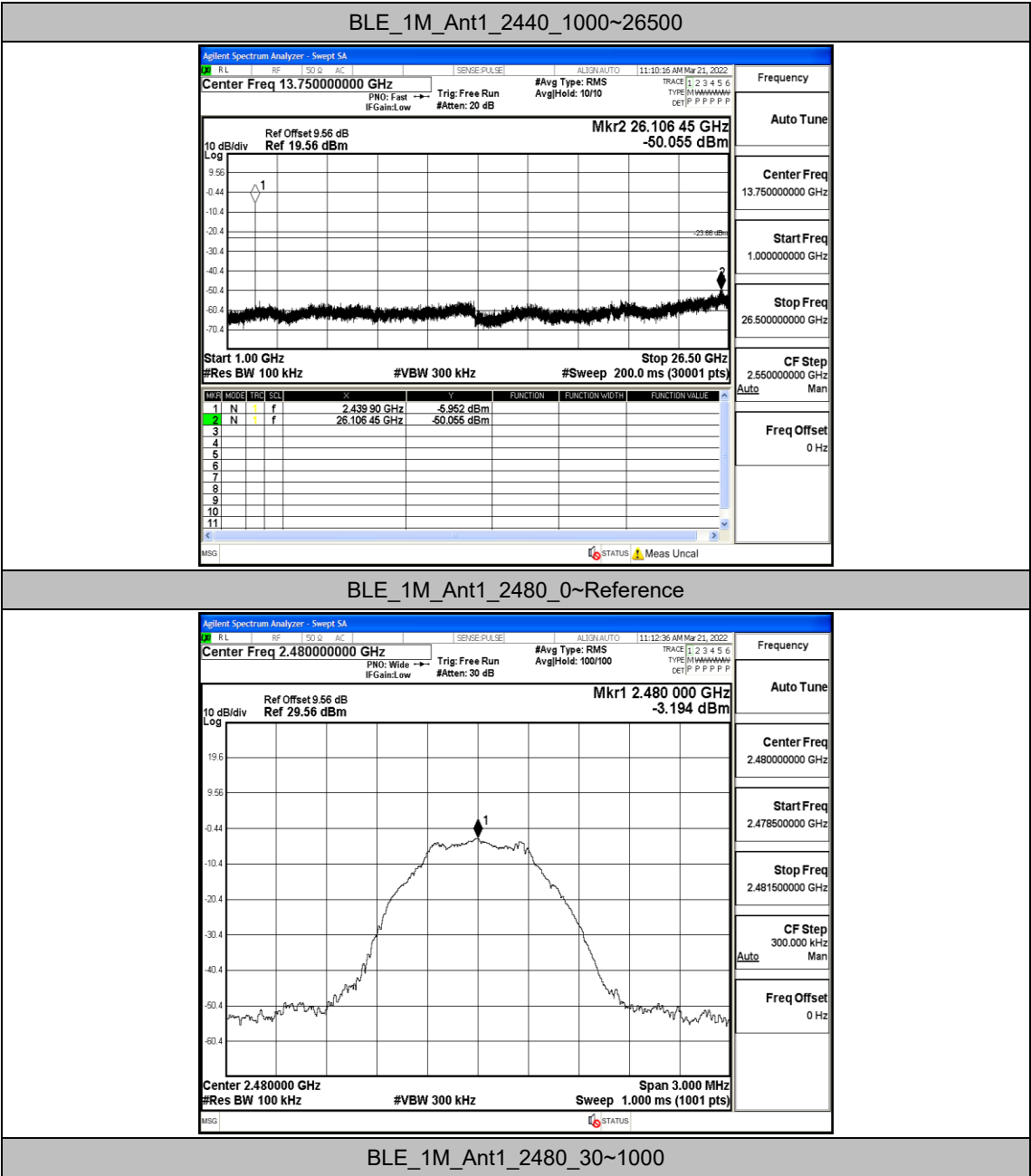


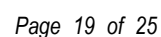
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000





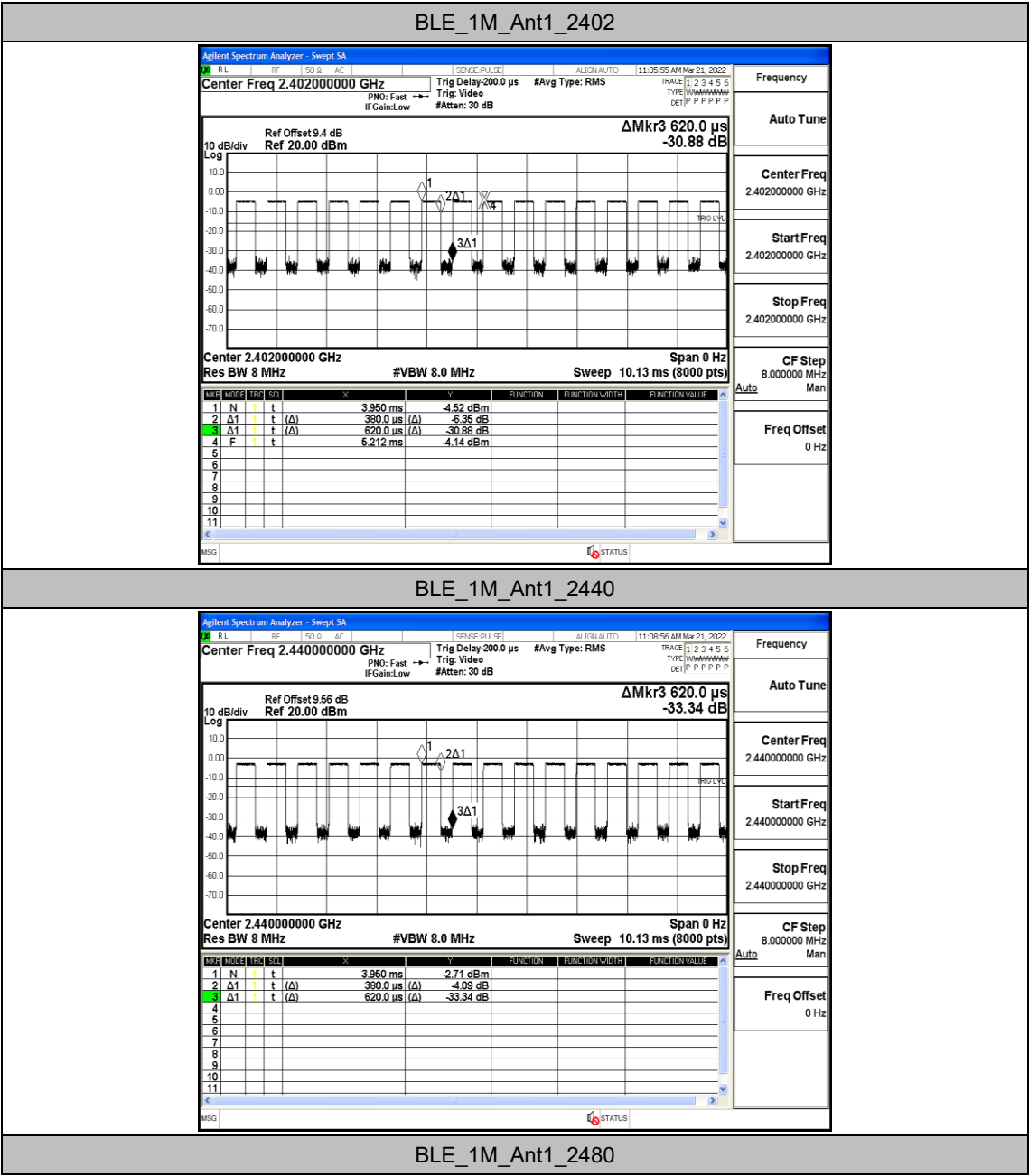


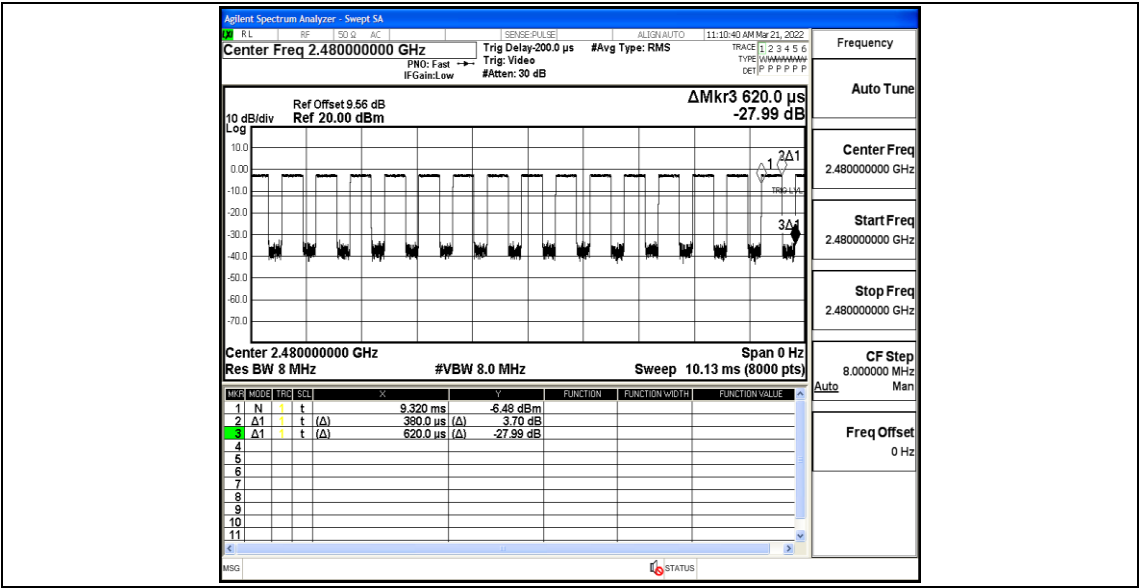
Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.38	0.62	61.29	2.63
		2440	0.38	0.62	61.29	2.63
		2480	0.38	0.62	61.29	2.63

Test Graphs





Appendix H: Emissions in Restricted Bands

Test Result

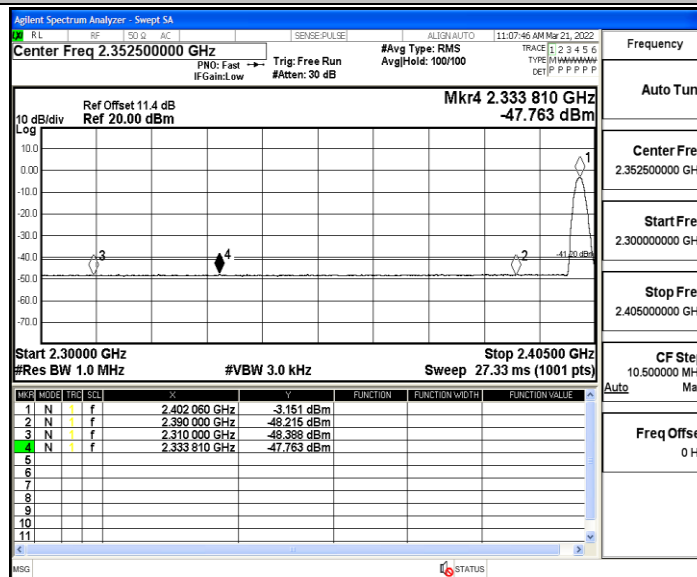
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.39	≤-41.20	PASS
				AV	2333.810	-47.76	≤-41.20	PASS
				AV	2390.000	-48.22	≤-41.20	PASS
				Peak	2310.000	-41.69	≤-21.20	PASS
				Peak	2365.415	-38.51	≤-21.20	PASS
				Peak	2390.000	-41.46	≤-21.20	PASS
		High	2480	AV	2483.500	-47.43	≤-41.20	PASS
				AV	2496.320	-47.09	≤-41.20	PASS
				AV	2500.000	-47.38	≤-41.20	PASS
				Peak	2483.500	-41.89	≤-21.20	PASS
				Peak	2490.080	-37.62	≤-21.20	PASS
				Peak	2500.000	-41.67	≤-21.20	PASS

Note:

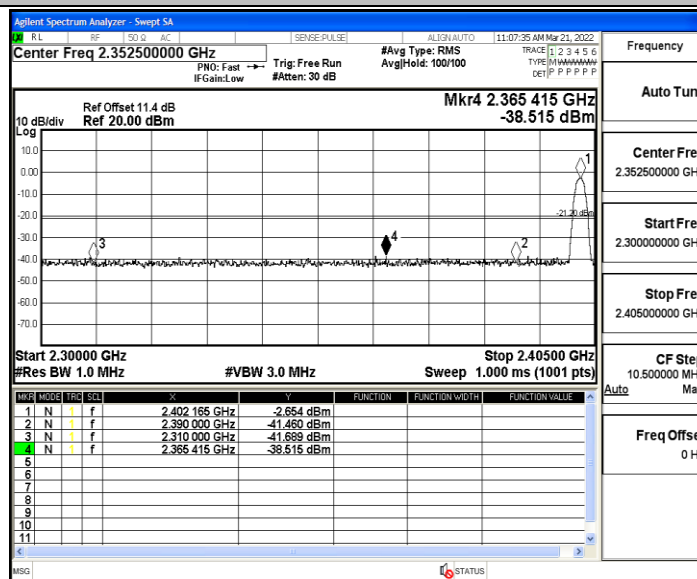
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV

