

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

Product Name: Wireless Mechanical Keyboard

Trade Mark: Keychron

Test Model: V1 Max

FCC ID: 2ASF4-V1MAX

Environmental Conditions

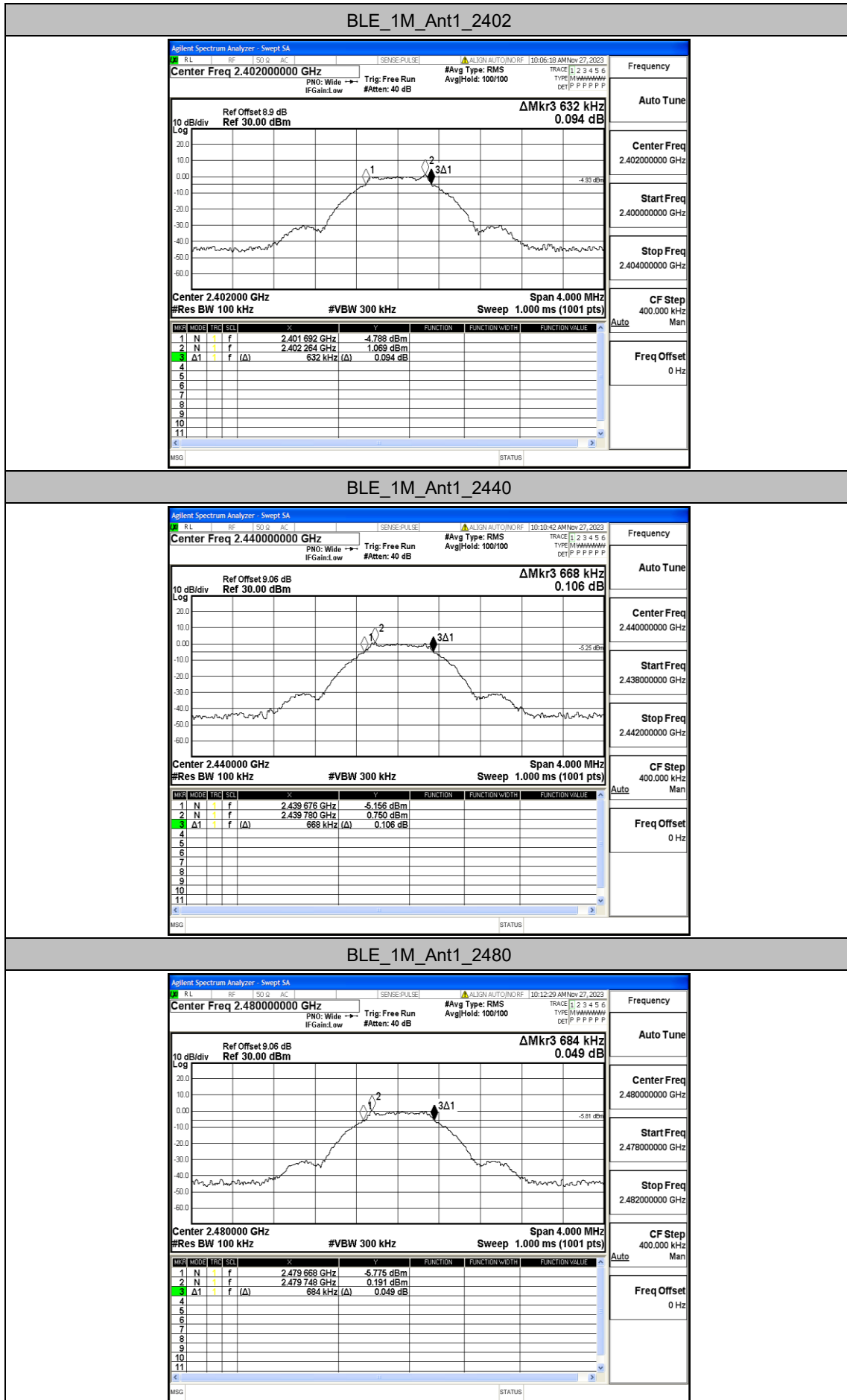
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.632	2401.692	2402.324	0.5	PASS
		2440	0.668	2439.676	2440.344	0.5	PASS
		2480	0.684	2479.668	2480.352	0.5	PASS

Test Graphs

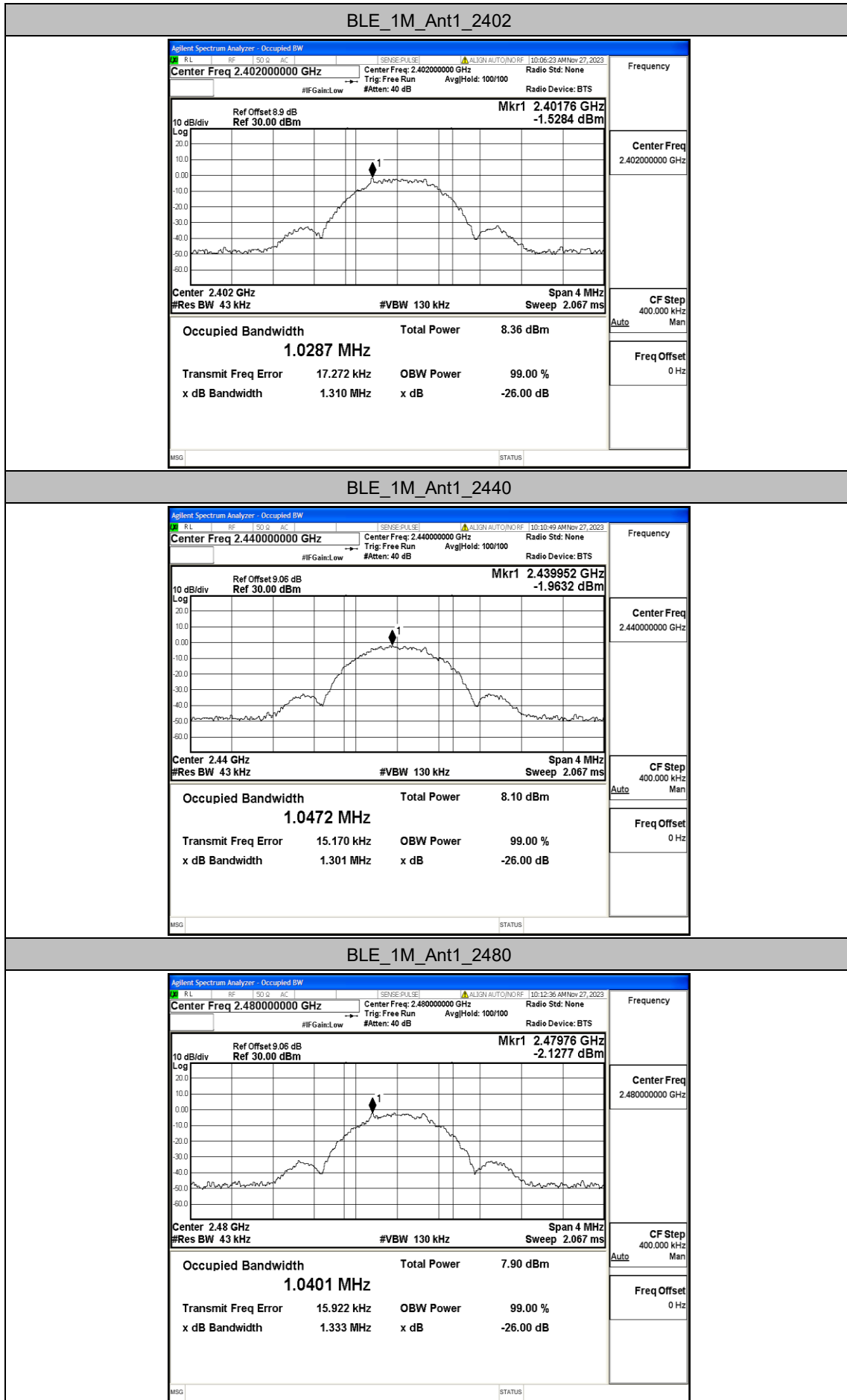


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0287	2401.5029	2402.5316	---	---
		2440	1.0472	2439.4916	2440.5388	---	---
		2480	1.0401	2479.4959	2480.5360	---	---

Test Graphs

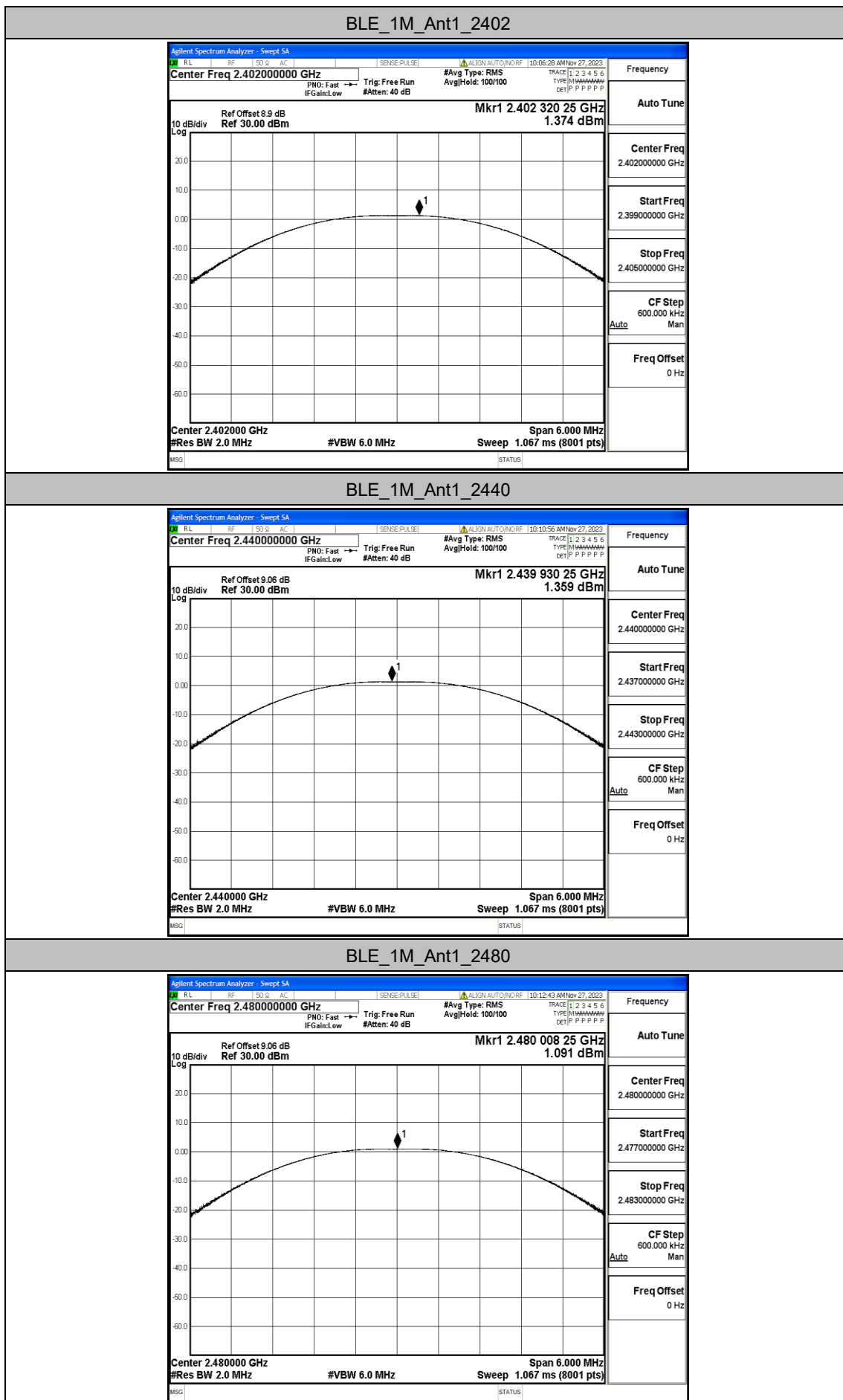


Appendix C: Maximum Peak conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.37	≤30	PASS
		2440	1.36	≤30	PASS
		2480	1.09	≤30	PASS

Test Graphs

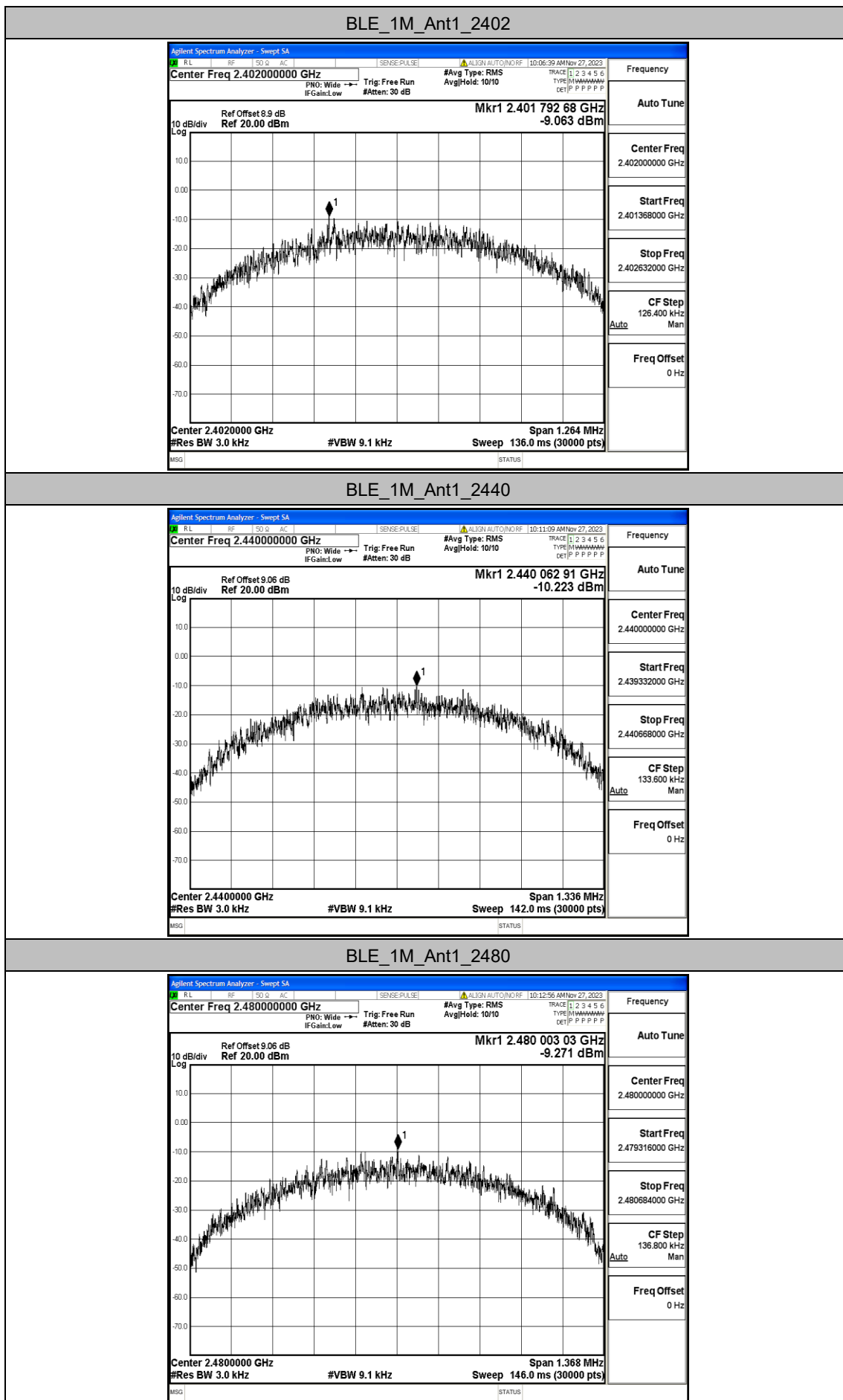


Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.06	≤8.00	PASS
		2440	-10.22	≤8.00	PASS
		2480	-9.27	≤8.00	PASS

Test Graphs

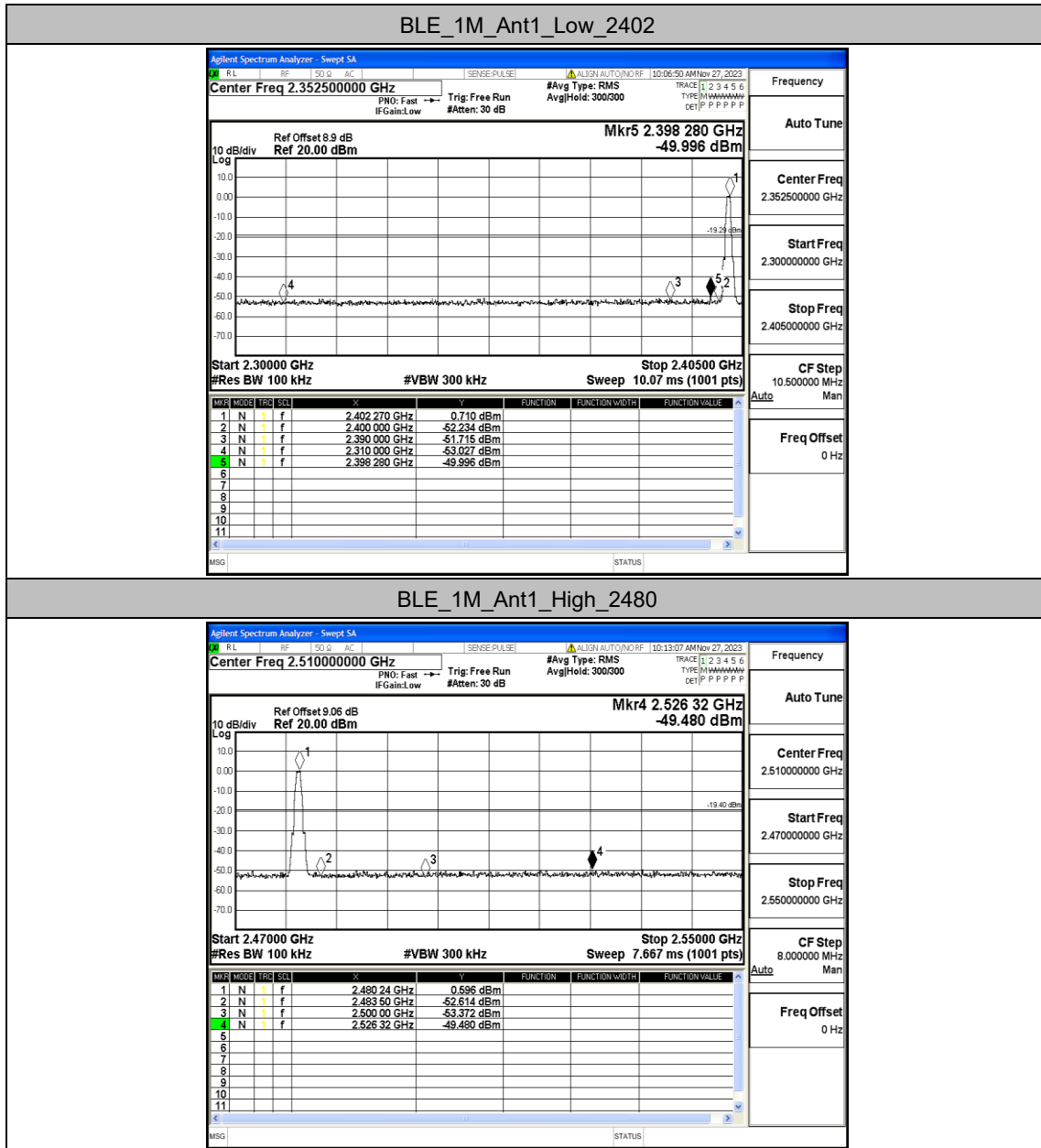


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.71	-50	≤-19.29	PASS
		High	2480	0.60	-49.48	≤-19.4	PASS

Test Graphs

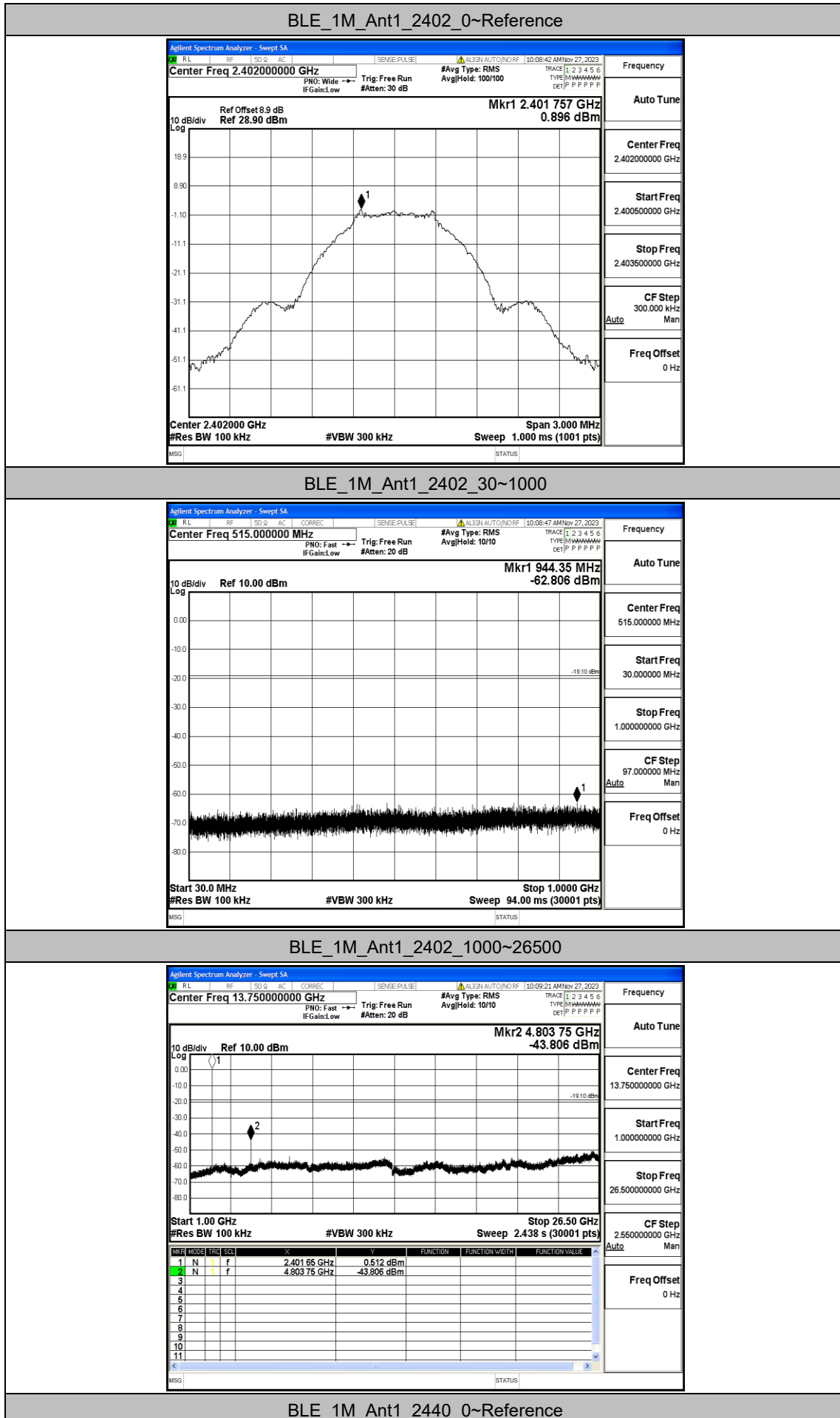


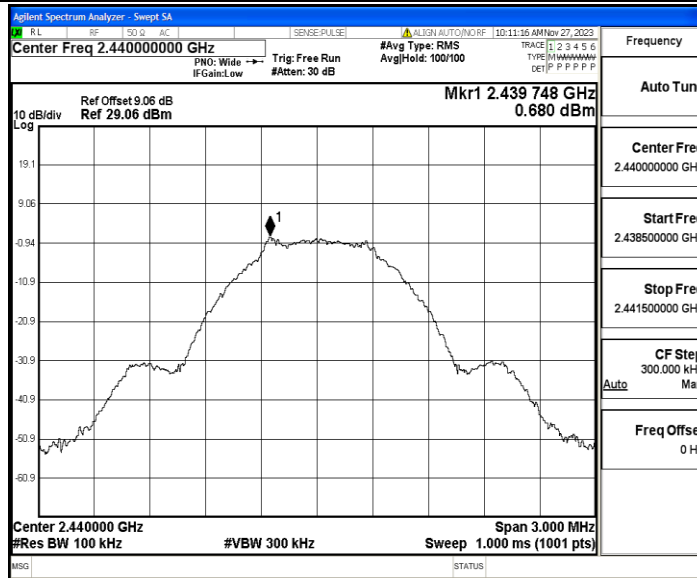
Appendix F: Conducted Spurious Emission

Test Result

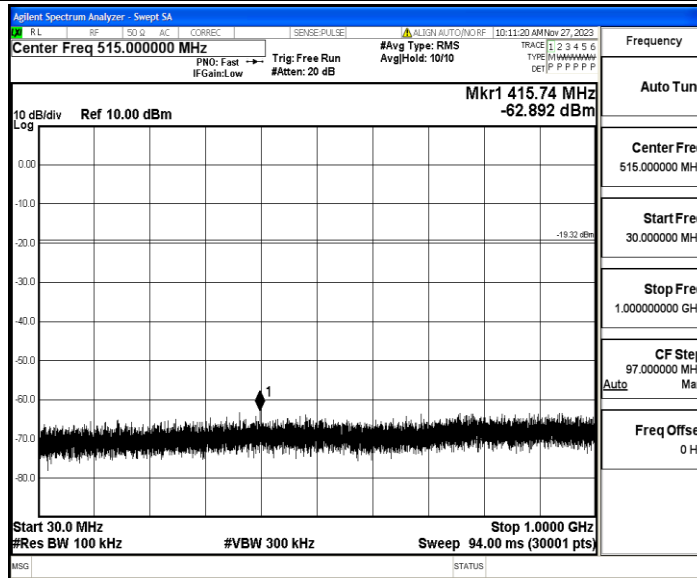
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.90	0.90	---	PASS
			30~1000	0.90	-62.81	≤-19.1	PASS
			1000~26500	0.90	-43.81	≤-19.1	PASS
		2440	Reference	0.68	0.68	---	PASS
			30~1000	0.68	-62.89	≤-19.32	PASS
			1000~26500	0.68	-43.32	≤-19.32	PASS
		2480	Reference	0.31	0.31	---	PASS
			30~1000	0.31	-63.39	≤-19.69	PASS
			1000~26500	0.31	-42.57	≤-19.69	PASS

Test Graphs

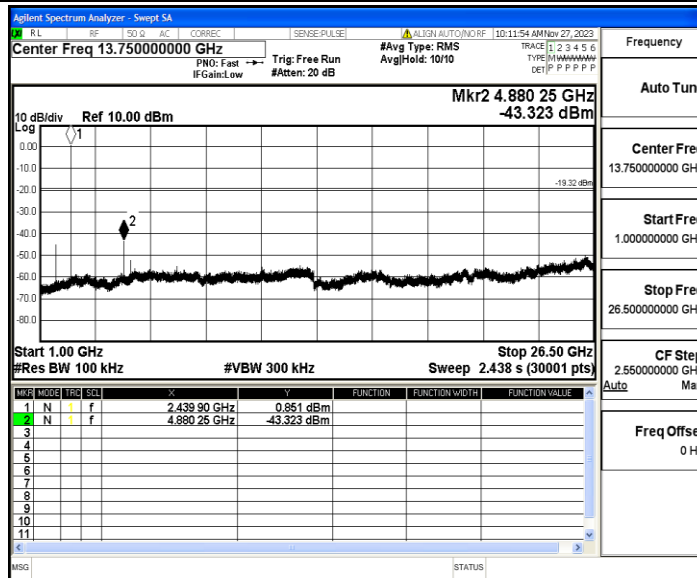




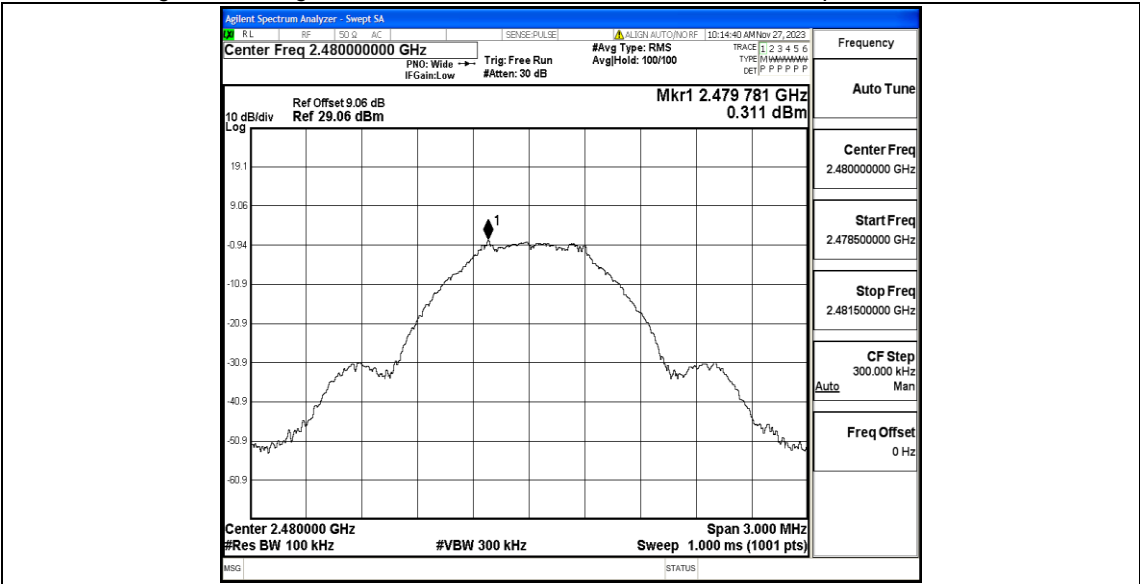
BLE_1M_Ant1_2440_30~1000



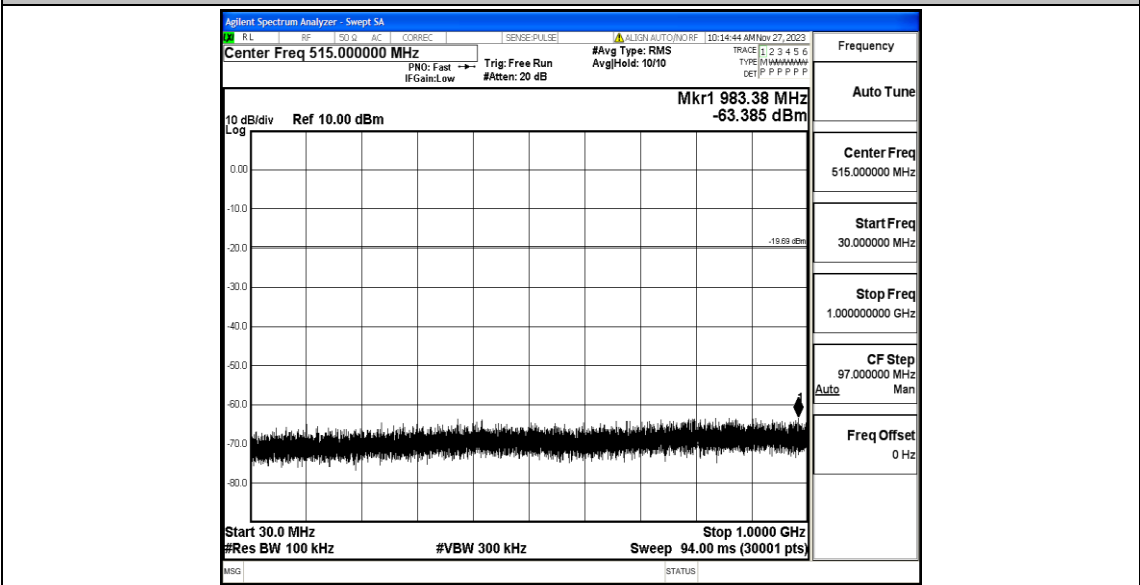
BLE_1M_Ant1_2440_1000~26500



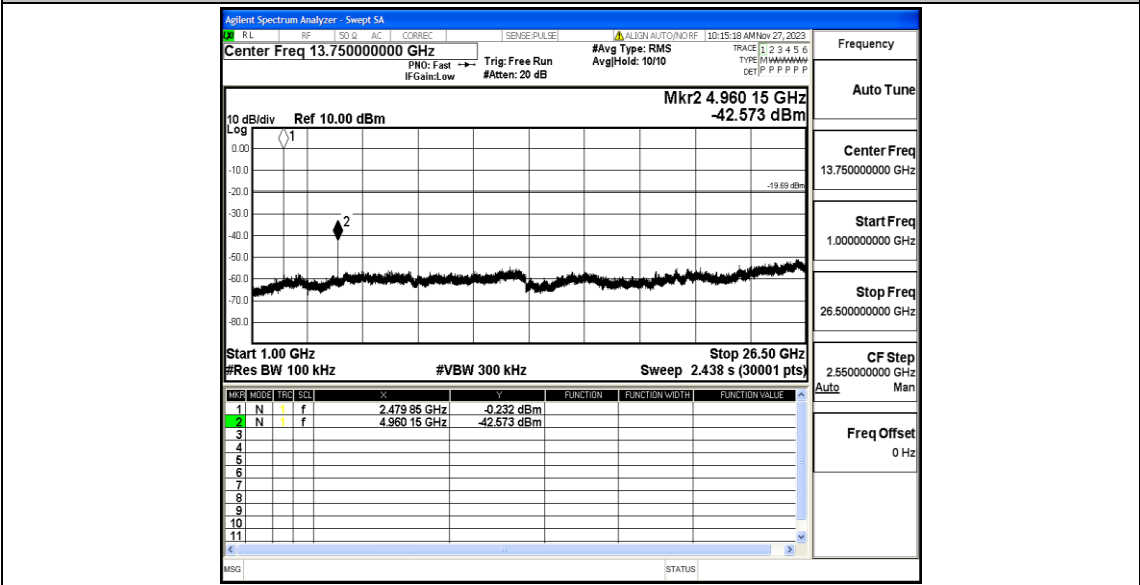
BLE_1M_Ant1_2480_0~Reference



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[kHz]
BLE_1M	Ant1	2402	0.00	0.00	100	∞
		2440	0.00	0.00	100	∞
		2480	0.00	0.00	100	∞

Test Graphs



Appendix H: Emissions in Restricted Bands

Test Result

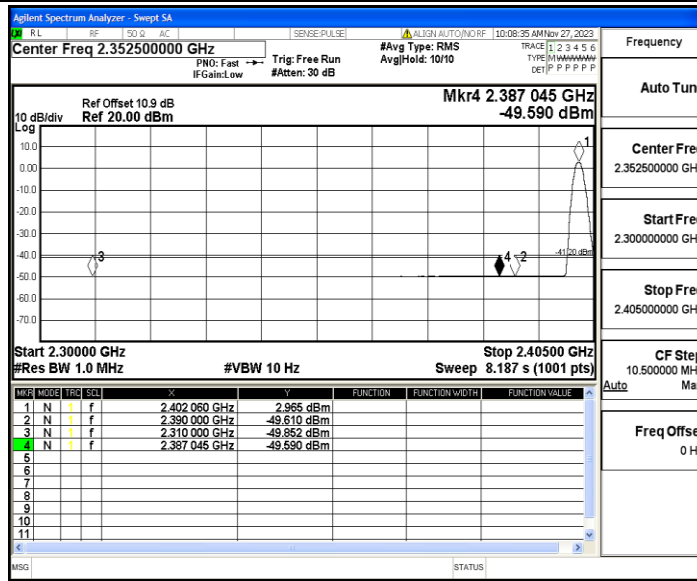
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.85	≤-41.20	PASS
				AV	2387.045	-49.59	≤-41.20	PASS
				AV	2390.000	-49.61	≤-41.20	PASS
				Peak	2310.000	-43.32	≤-21.20	PASS
				Peak	2334.125	-39.89	≤-21.20	PASS
				Peak	2390.000	-46.36	≤-21.20	PASS
		High	2480	AV	2483.500	-48.42	≤-41.20	PASS
				AV	2483.520	-48.42	≤-41.20	PASS
				AV	2500.000	-48.87	≤-41.20	PASS
				Peak	2483.500	-43.61	≤-21.20	PASS
				Peak	2485.600	-39.87	≤-21.20	PASS
				Peak	2500.000	-41.23	≤-21.20	PASS

Note:

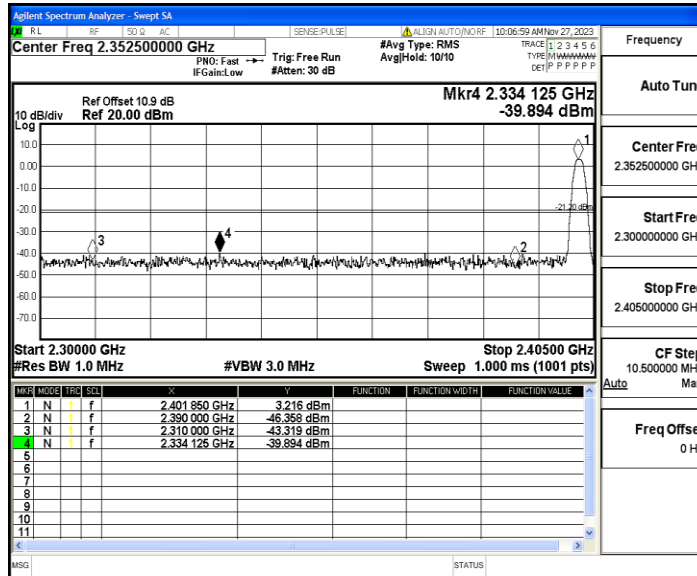
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

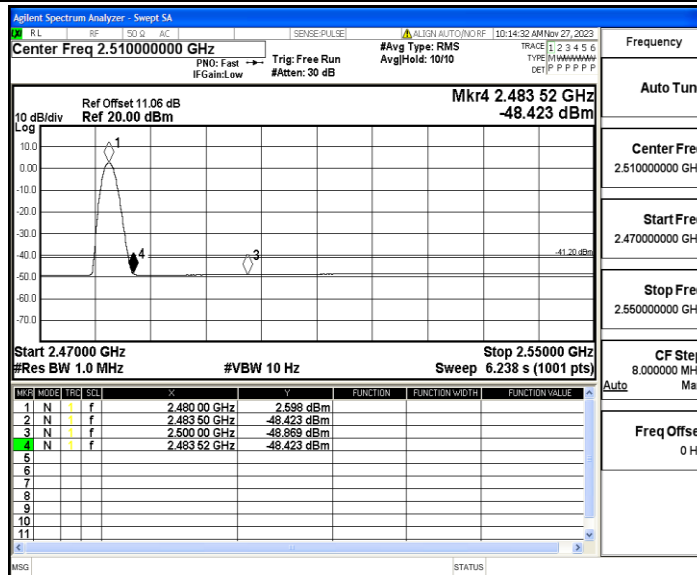
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

