

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

Product Name: Wireless Mouse

Trade Mark: Keychron

Test Model: Keychron M1

FCC ID: 2ASF4-M1

Environmental Conditions

Temperature:	22.5℃
Relative Humidity:	56%
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	0.684	2401.644	2402.328	0.5	PASS
		2440	0.672	2439.664	2440.336	0.5	PASS
		2480	0.672	2479.660	2480.332	0.5	PASS

Test Graphs

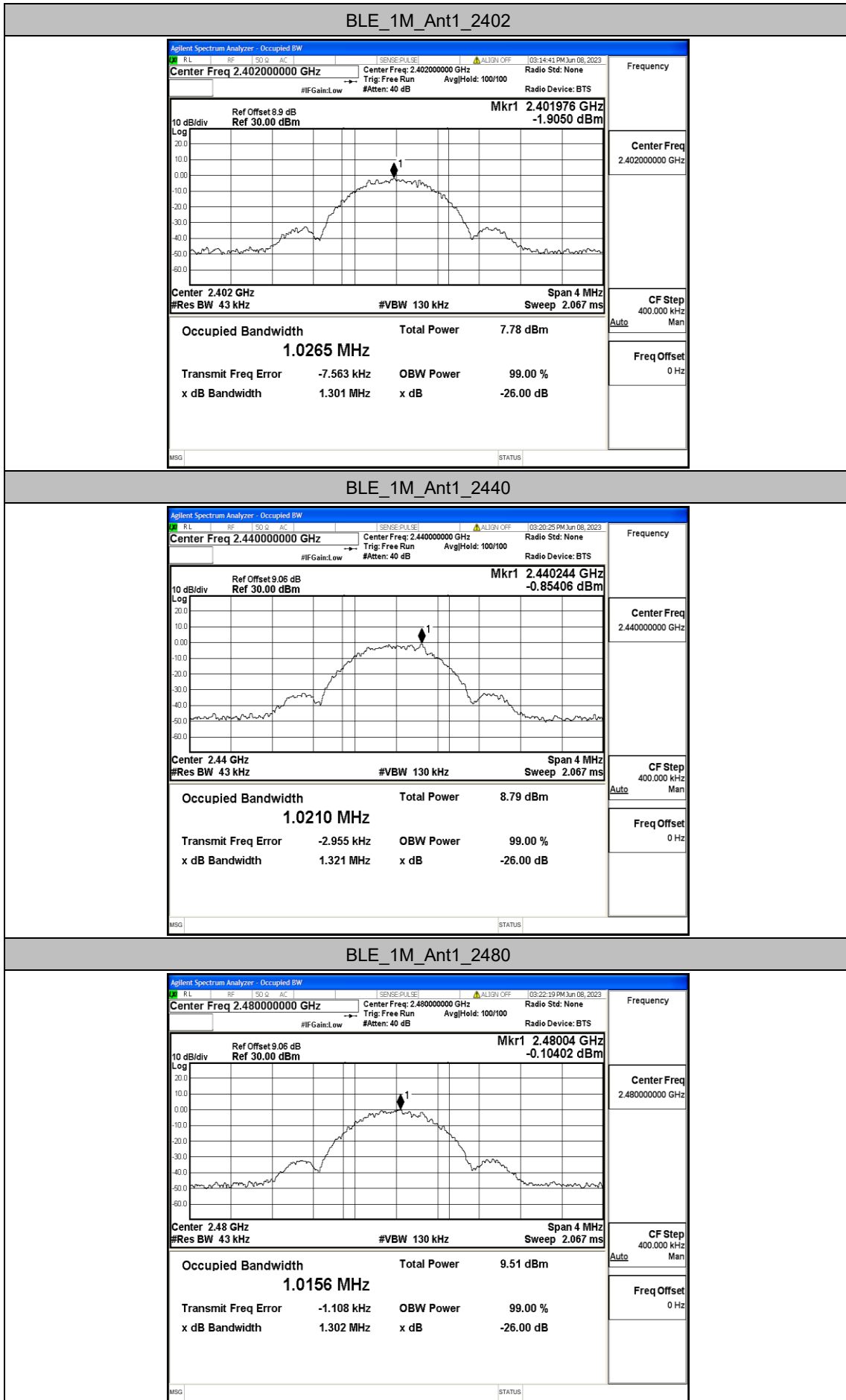


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0265	2401.4792	2402.5057	---	---
		2440	1.0210	2439.4866	2440.5076	---	---
		2480	1.0156	2479.4911	2480.5067	---	---

Test Graphs

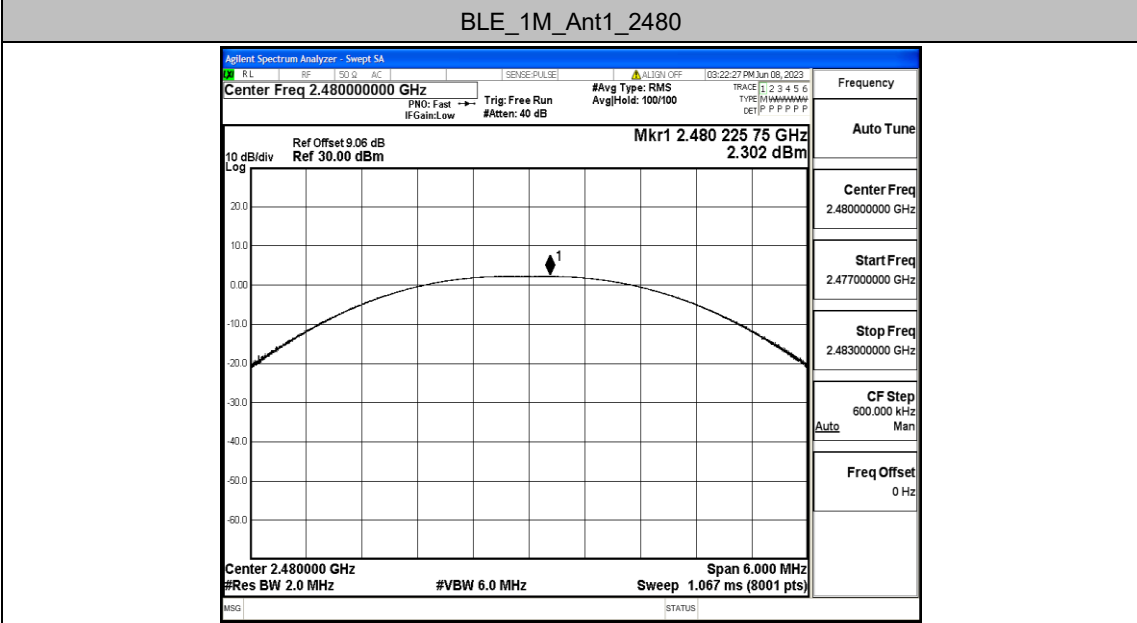
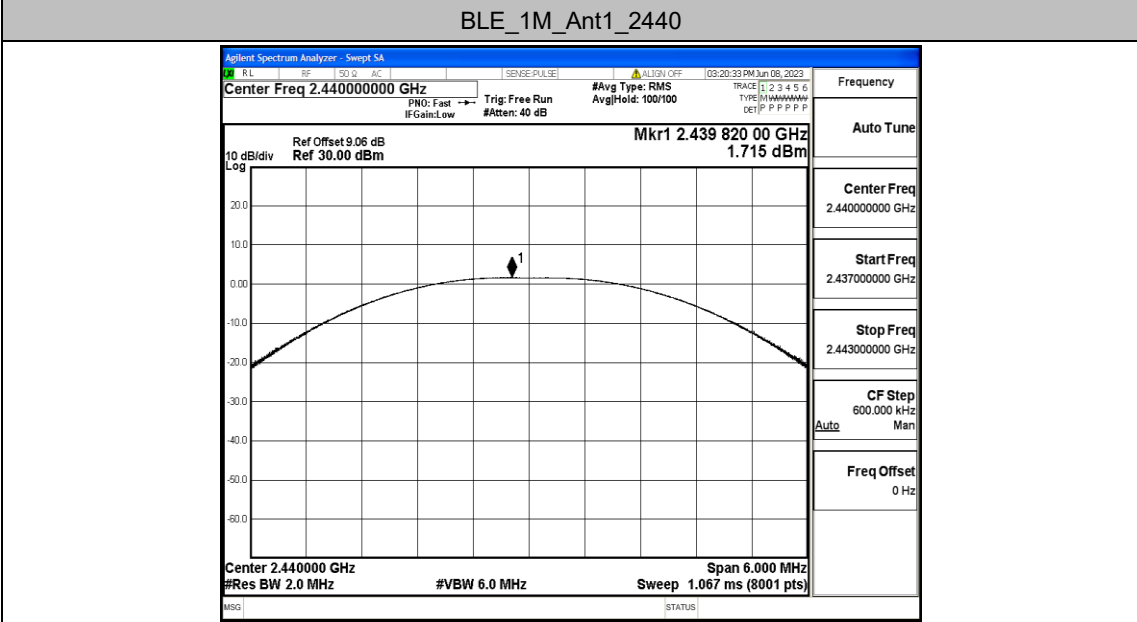
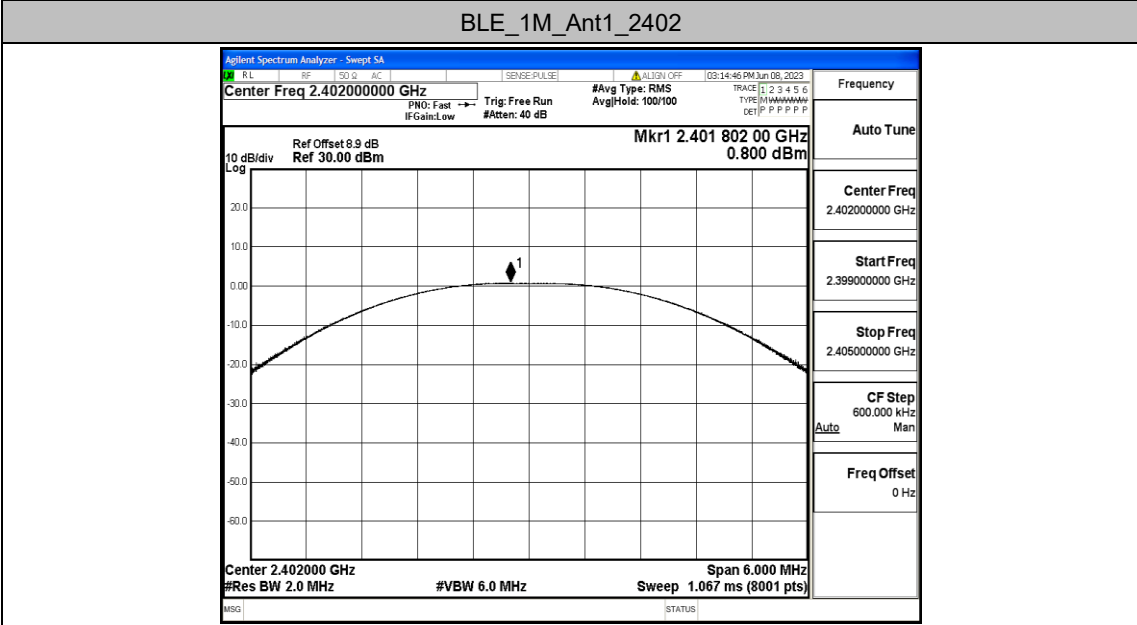


Appendix C: Maximum Peak conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.8	≤30	PASS
		2440	1.72	≤30	PASS
		2480	2.3	≤30	PASS

Test Graphs

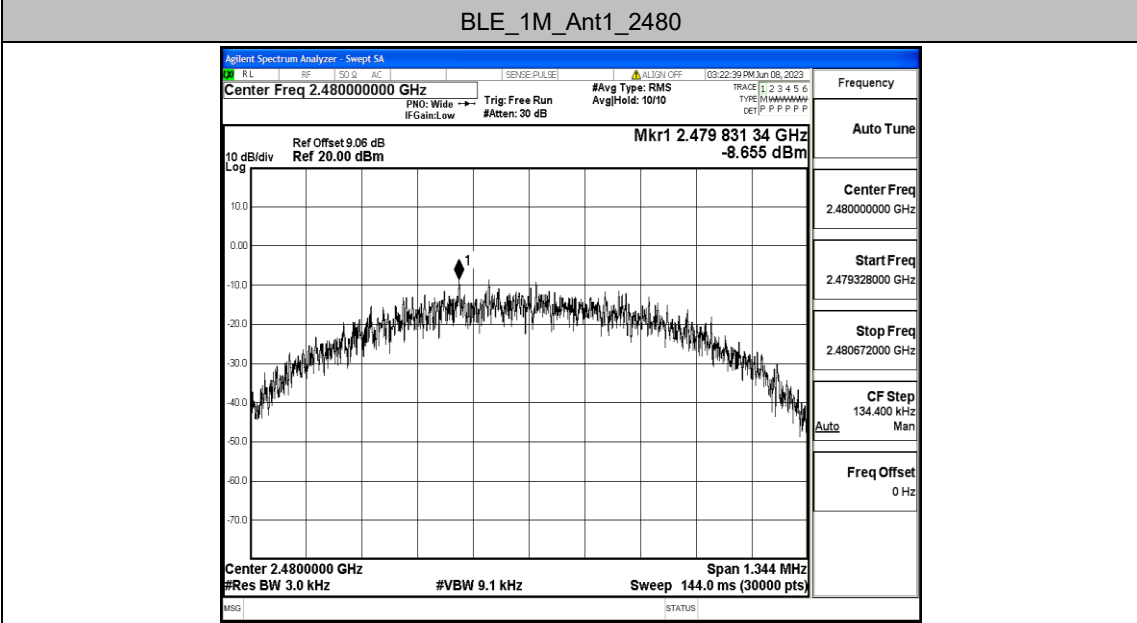
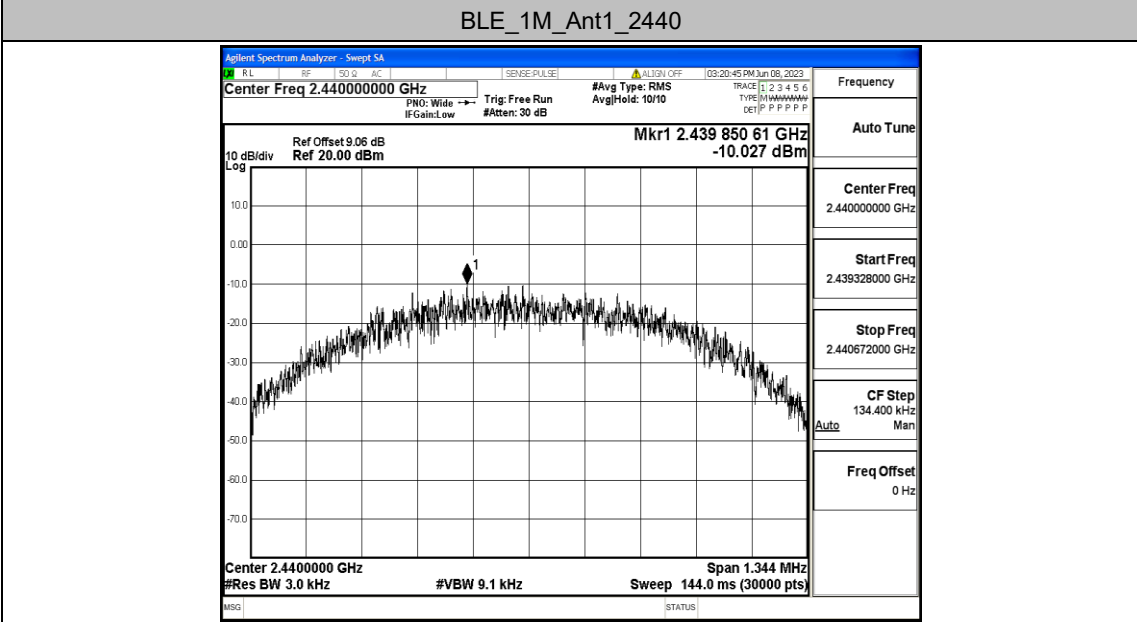
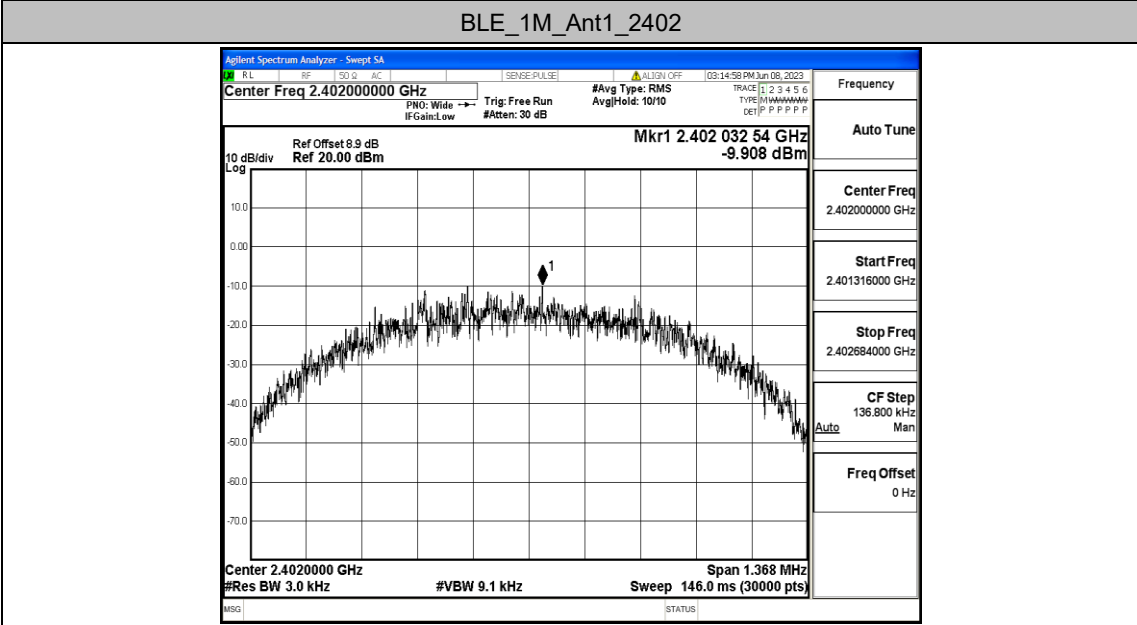


Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.91	≤8.00	PASS
		2440	-10.03	≤8.00	PASS
		2480	-8.66	≤8.00	PASS

Test Graphs

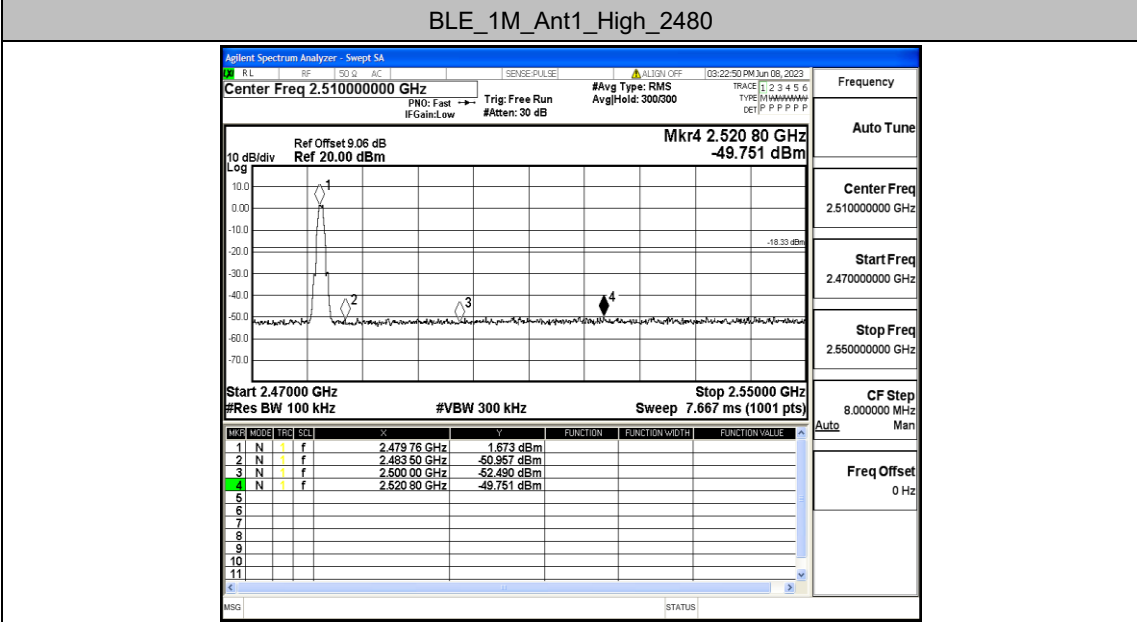
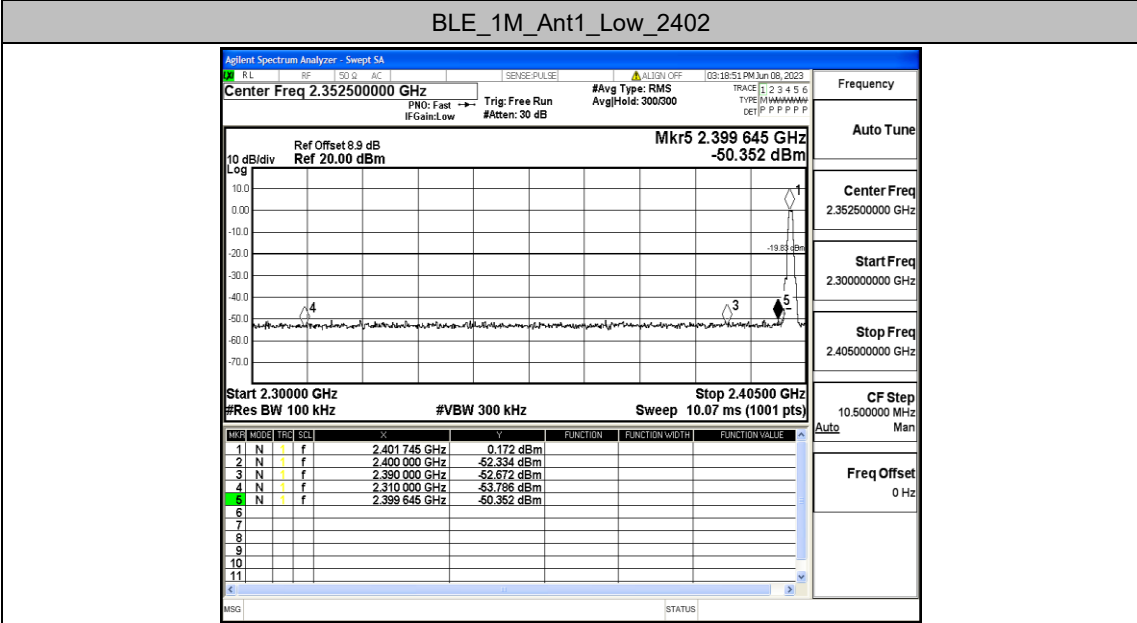


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.17	-50.35	≤-19.83	PASS
		High	2480	1.67	-49.75	≤-18.33	PASS

Test Graphs

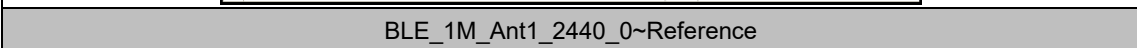
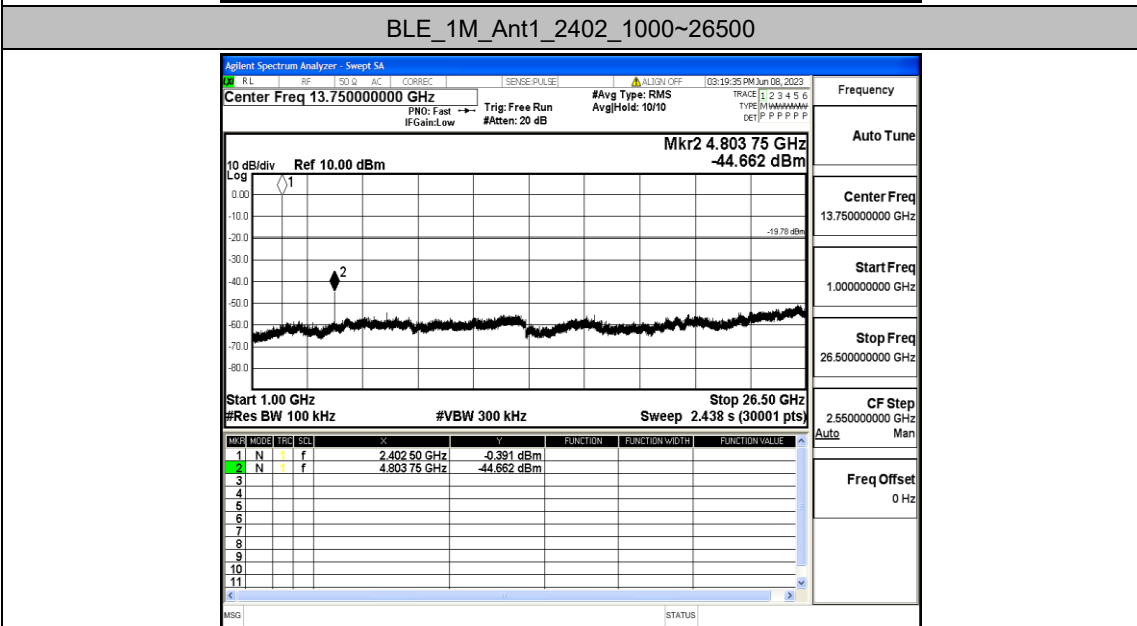
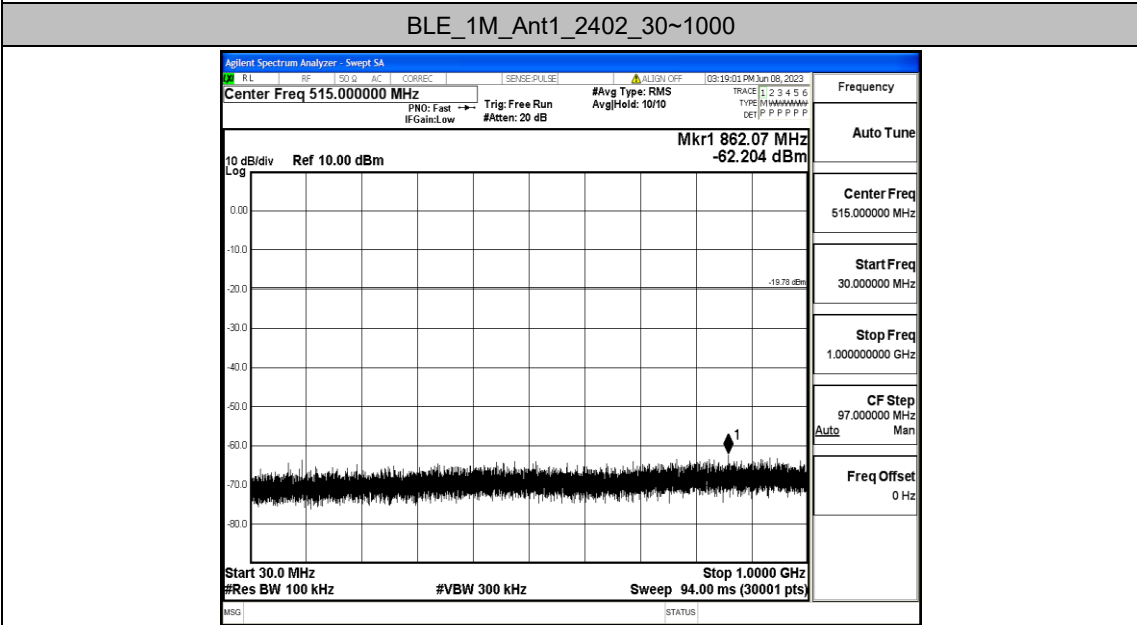
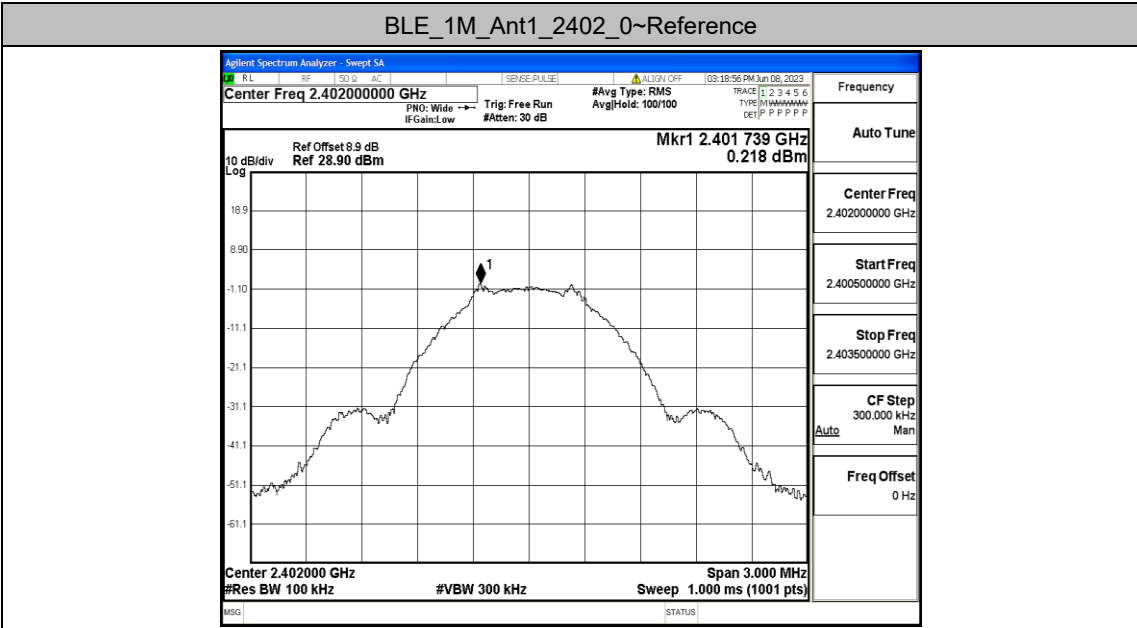


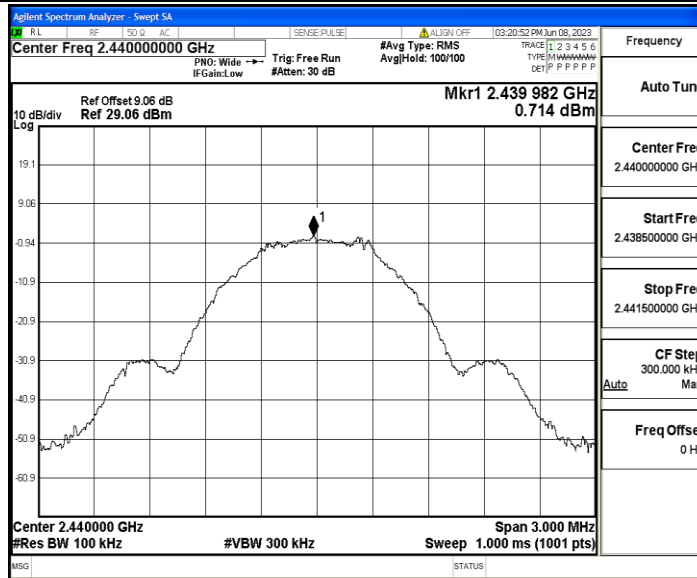
Appendix F: Conducted Spurious Emission

Test Result

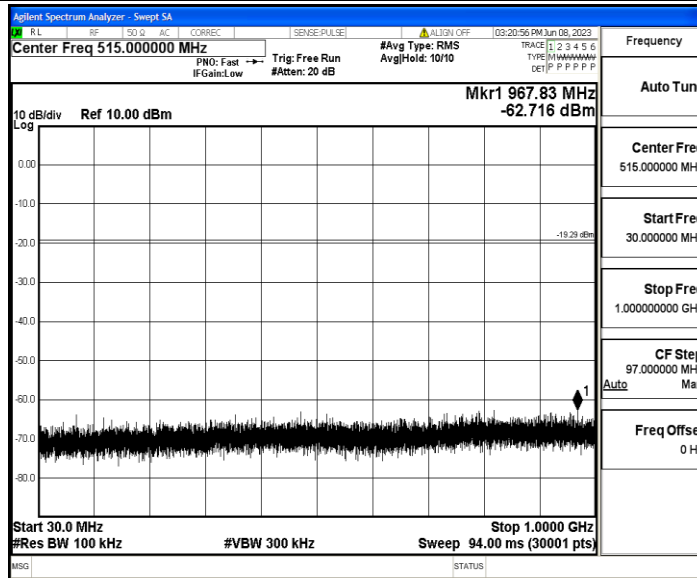
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.22	0.22	---	PASS
			30~1000	0.22	-62.2	≤-19.78	PASS
			1000~26500	0.22	-44.66	≤-19.78	PASS
		2440	Reference	0.71	0.71	---	PASS
			30~1000	0.71	-62.72	≤-19.29	PASS
			1000~26500	0.71	-45.5	≤-19.29	PASS
		2480	Reference	1.56	1.56	---	PASS
			30~1000	1.56	-62.24	≤-18.44	PASS
			1000~26500	1.56	-45.4	≤-18.44	PASS

Test Graphs

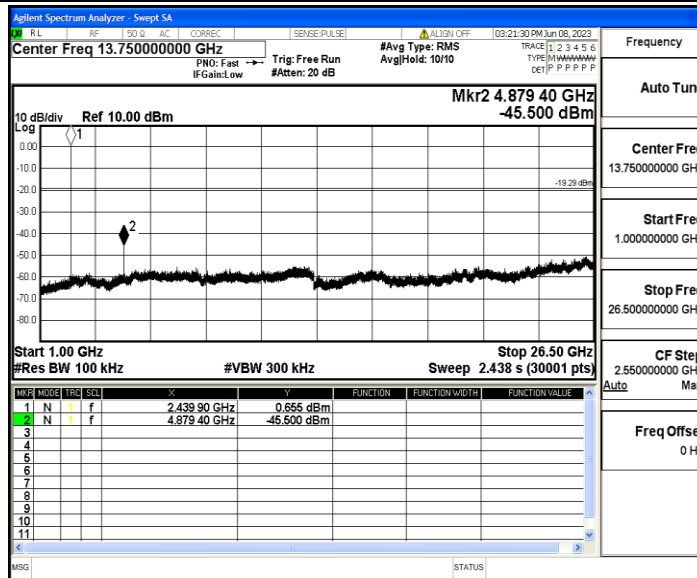




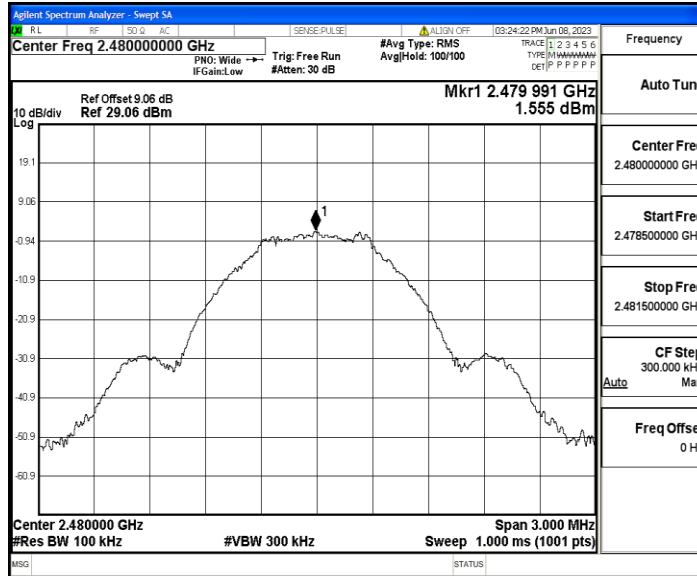
BLE_1M_Ant1_2440_30~1000



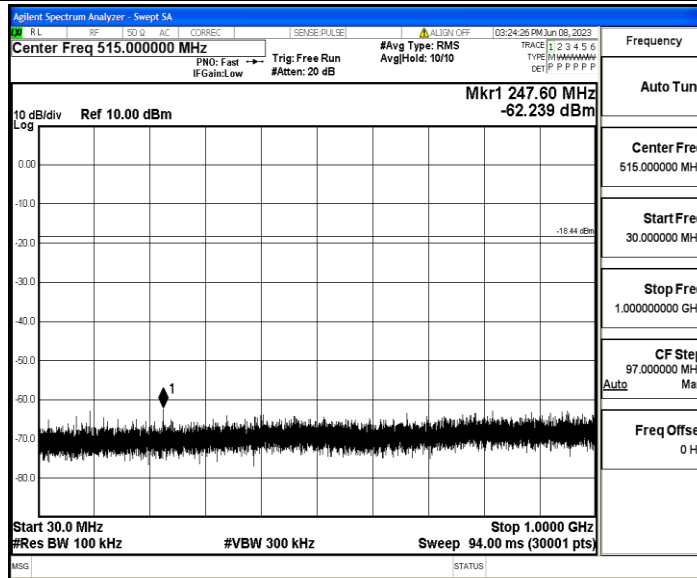
BLE_1M_Ant1_2440_1000~26500



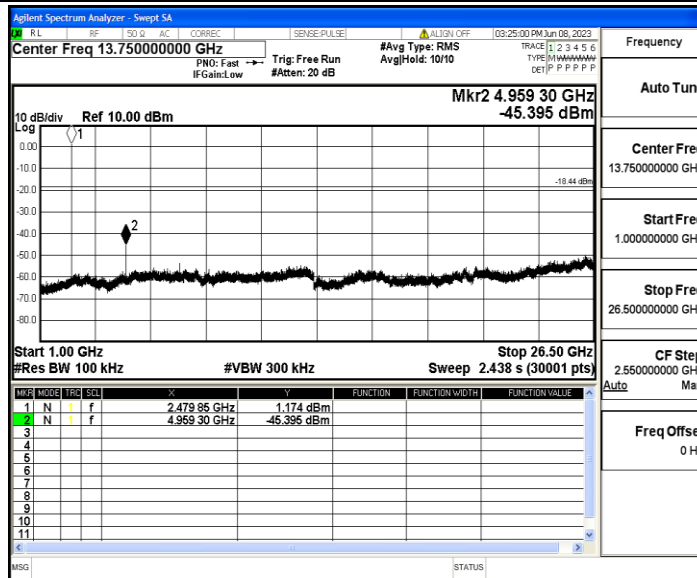
BLE_1M_Ant1_2480_0~Reference



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

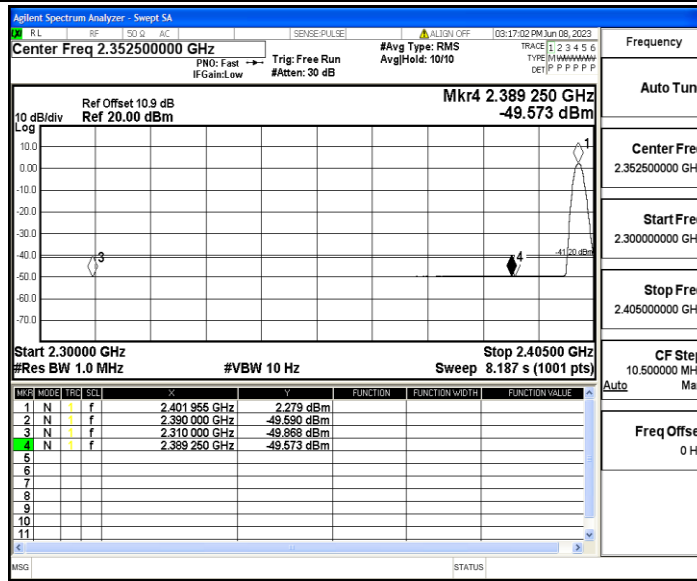
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.87	≤-41.20	PASS
				AV	2389.250	-49.57	≤-41.20	PASS
				AV	2390.000	-49.59	≤-41.20	PASS
				Peak	2310.000	-41.77	≤-21.20	PASS
				Peak	2351.555	-39.15	≤-21.20	PASS
				Peak	2390.000	-43.59	≤-21.20	PASS
		High	2480	AV	2483.500	-48.27	≤-41.20	PASS
				AV	2483.520	-48.27	≤-41.20	PASS
				AV	2500.000	-48.87	≤-41.20	PASS
				Peak	2483.500	-44.58	≤-21.20	PASS
				Peak	2488.240	-40.79	≤-21.20	PASS
				Peak	2500.000	-43.86	≤-21.20	PASS

Note:

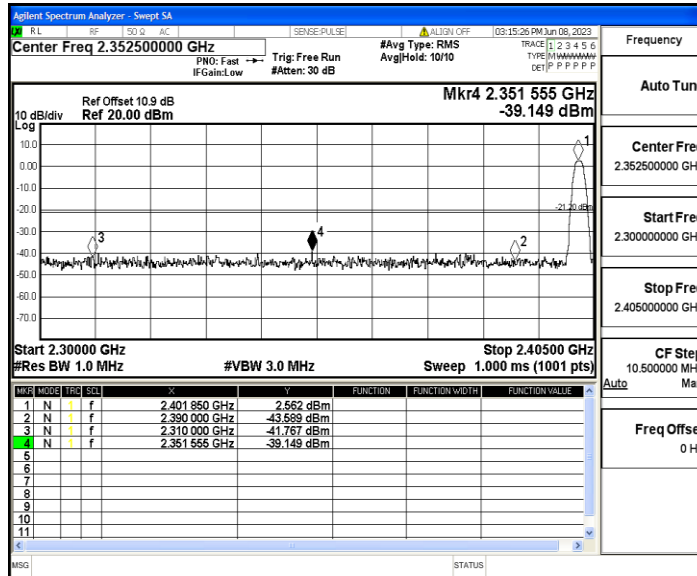
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

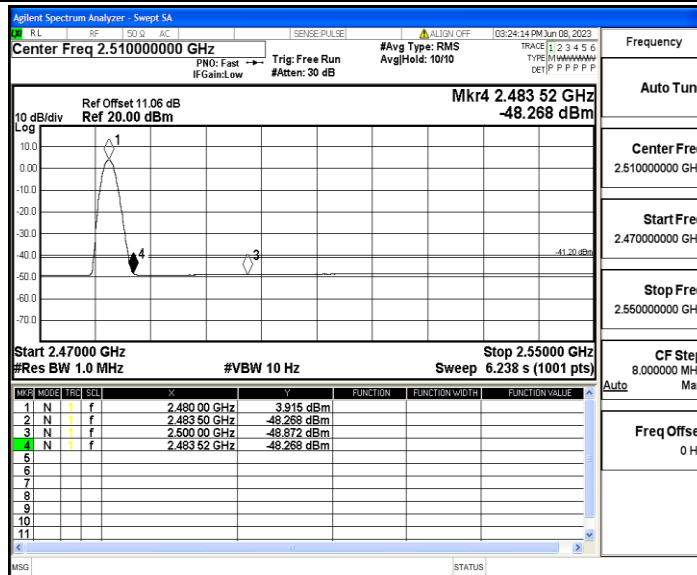
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

