

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

Product Name: NucBox

Trade Mark: GMKtec

Test Model: K1

FCC ID: 2AXUD-K1

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

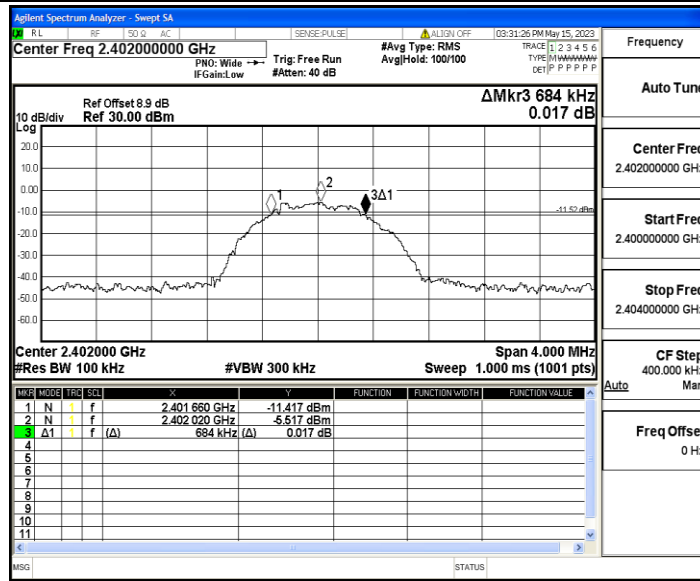
Appendix A: DTS Bandwidth

Test Result

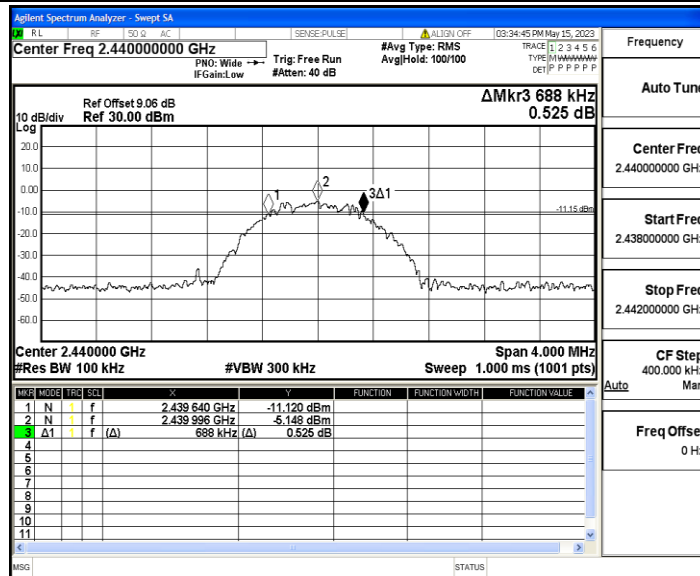
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.684	2401.660	2402.344	0.5	PASS
		2440	0.688	2439.640	2440.328	0.5	PASS
		2480	0.652	2479.676	2480.328	0.5	PASS

Test Graphs

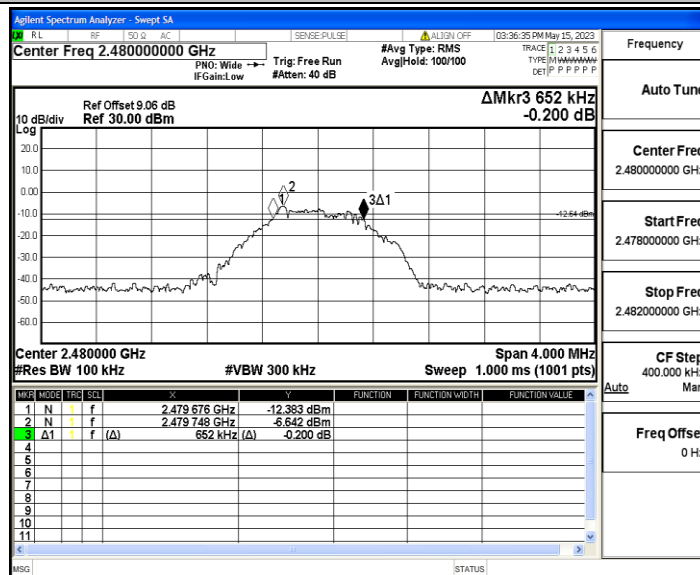
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



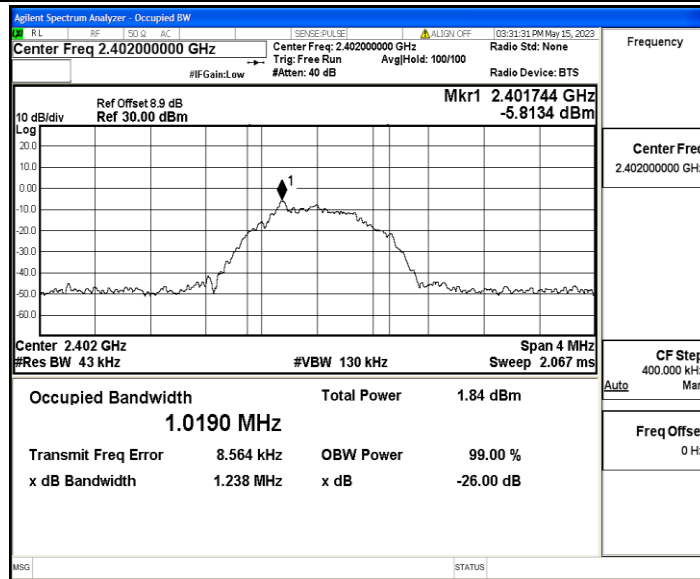
Appendix B: Occupied Channel Bandwidth

Test Result

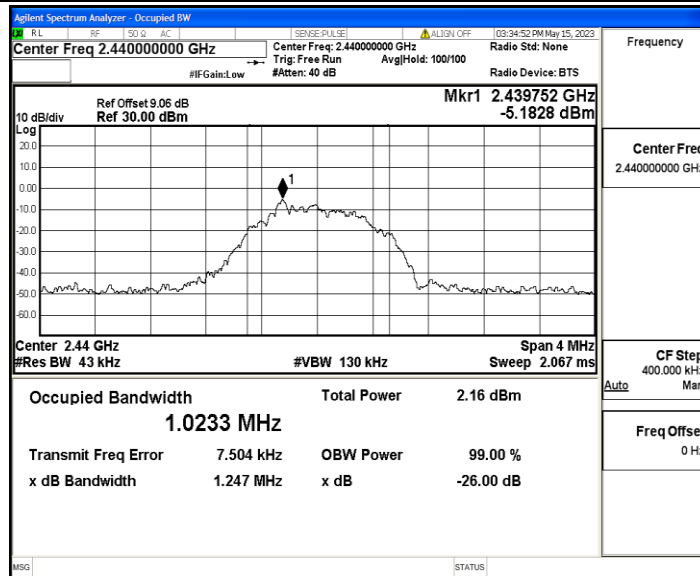
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0190	2401.4991	2402.5181	---	---
		2440	1.0233	2439.4959	2440.5192	---	---
		2480	1.0308	2479.4838	2480.5146	---	---

Test Graphs

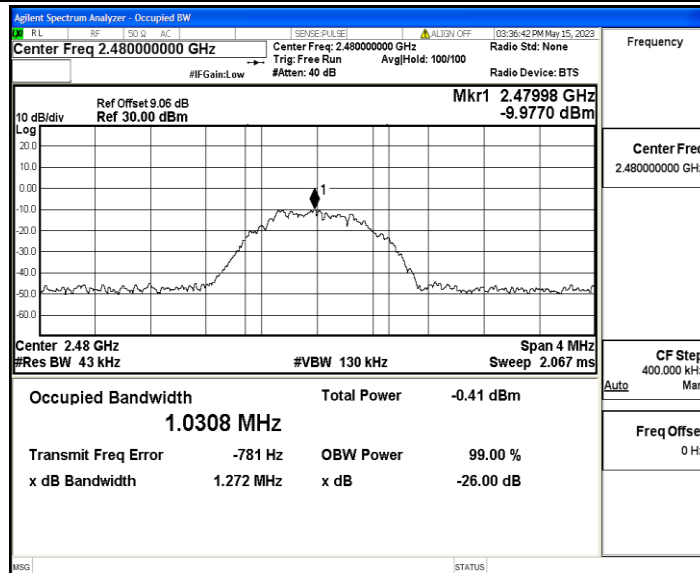
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



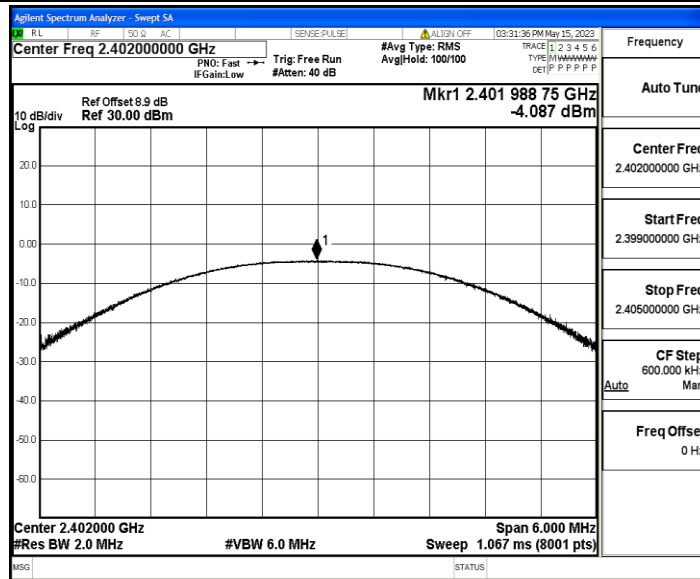
Appendix C: Maximum Peak conducted output power

Test Result

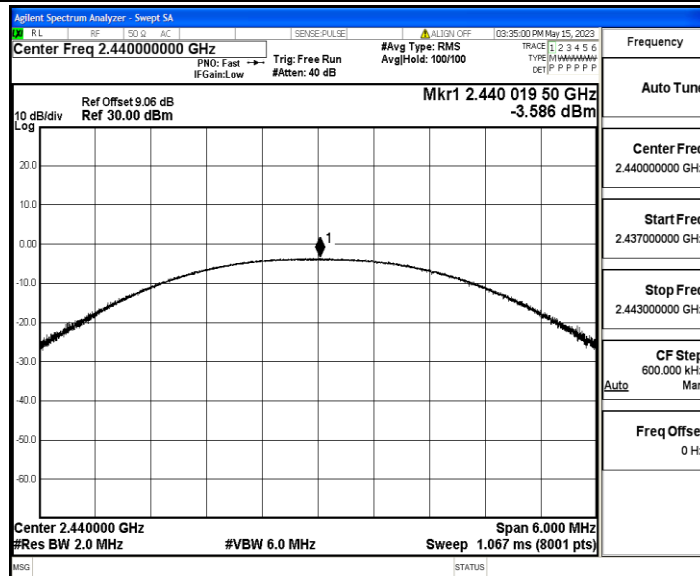
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-4.09	≤30	PASS
		2440	-3.59	≤30	PASS
		2480	-5.86	≤30	PASS

Test Graphs

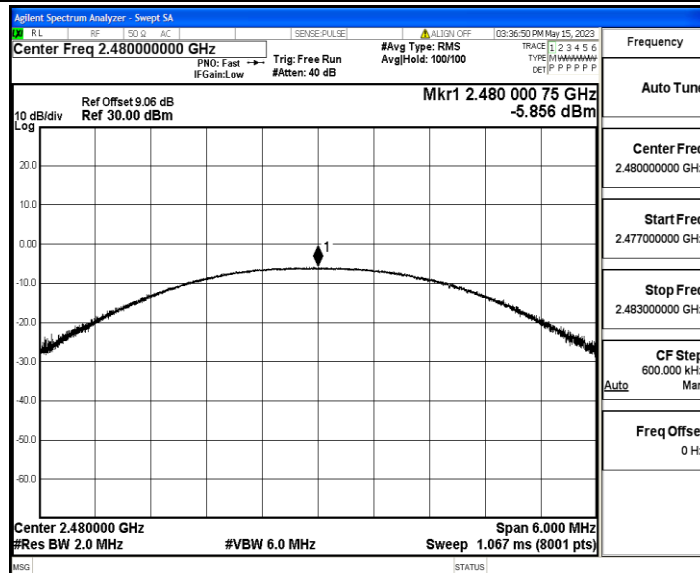
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



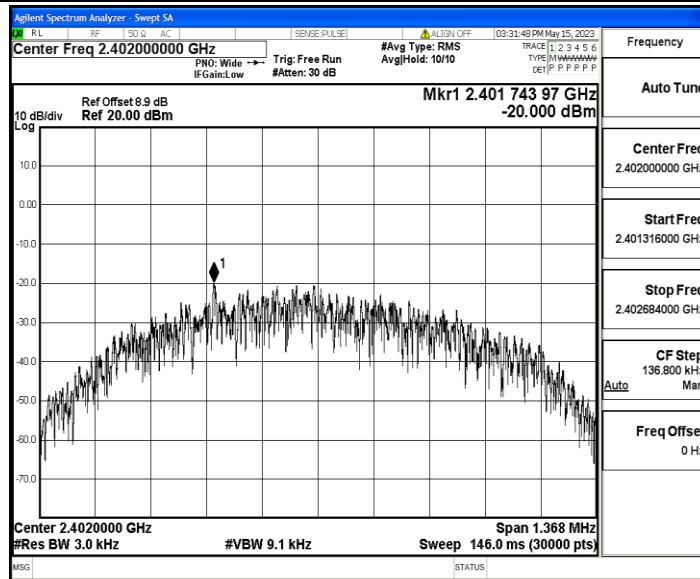
Appendix D: Maximum power spectral density

Test Result

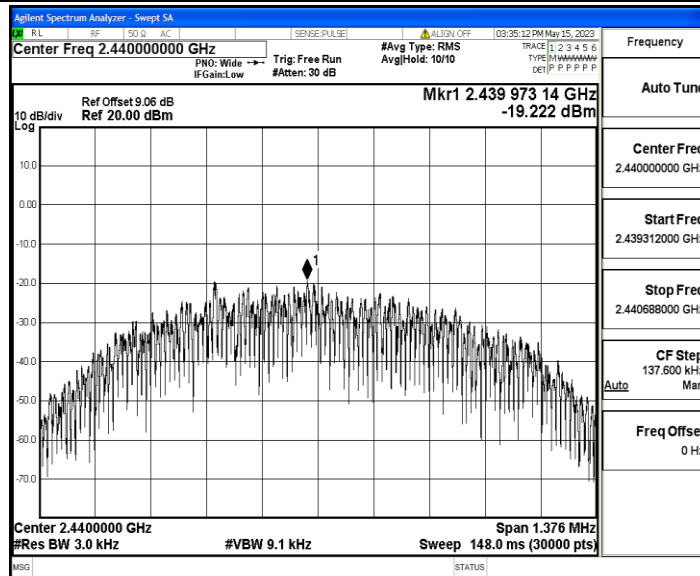
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-20	≤8.00	PASS
		2440	-19.22	≤8.00	PASS
		2480	-21.76	≤8.00	PASS

Test Graphs

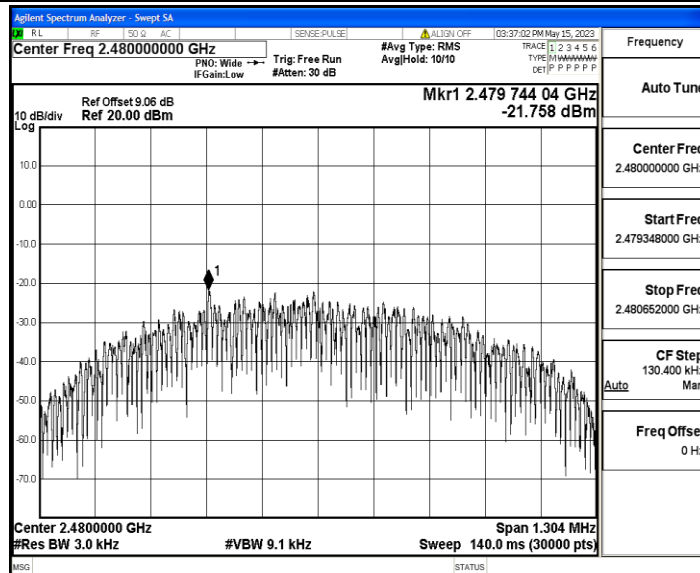
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



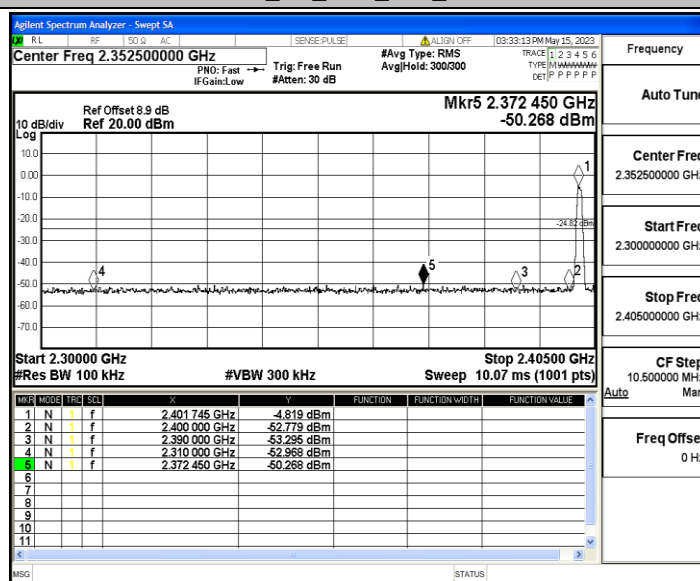
Appendix E: Band edge measurements

Test Result

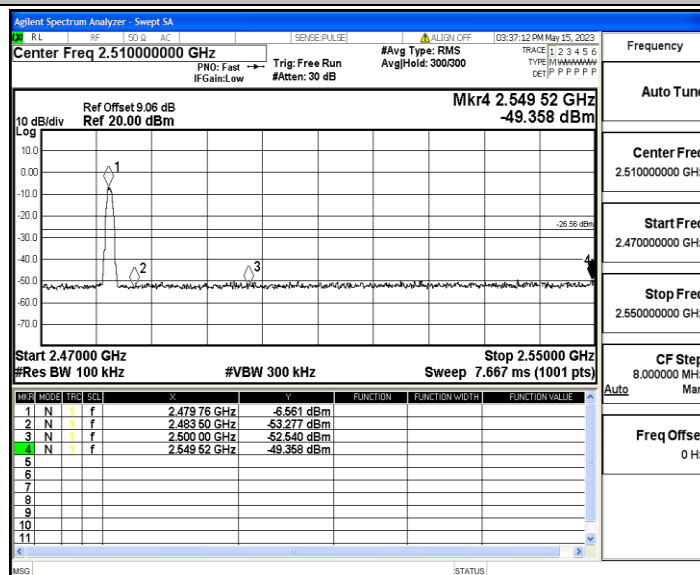
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.82	-50.27	≤-24.82	PASS
		High	2480	-6.56	-49.36	≤-26.56	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



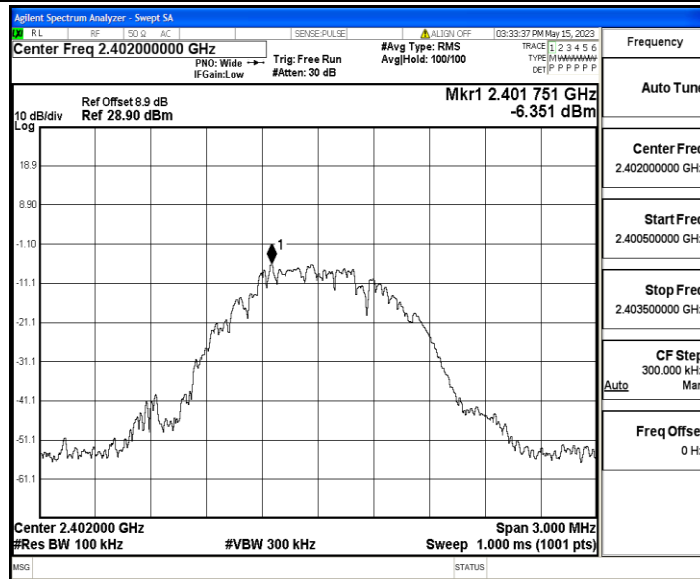
Appendix F: Conducted Spurious Emission

Test Result

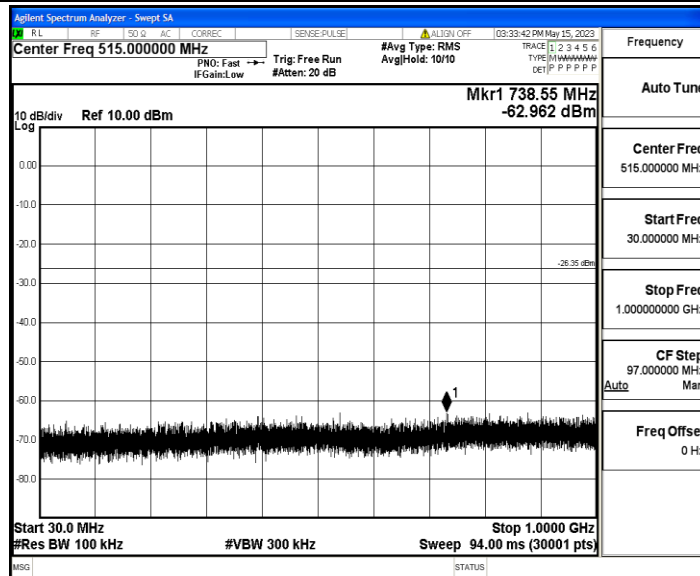
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-6.35	-6.35	---	PASS
			30~1000	-6.35	-62.96	≤-26.35	PASS
			1000~26500	-6.35	-50.57	≤-26.35	PASS
		2440	Reference	-4.87	-4.87	---	PASS
			30~1000	-4.87	-62.25	≤-24.87	PASS
			1000~26500	-4.87	-50.11	≤-24.87	PASS
		2480	Reference	-6.52	-6.52	---	PASS
			30~1000	-6.52	-62.48	≤-26.52	PASS
			1000~26500	-6.52	-50.06	≤-26.52	PASS

Test Graphs

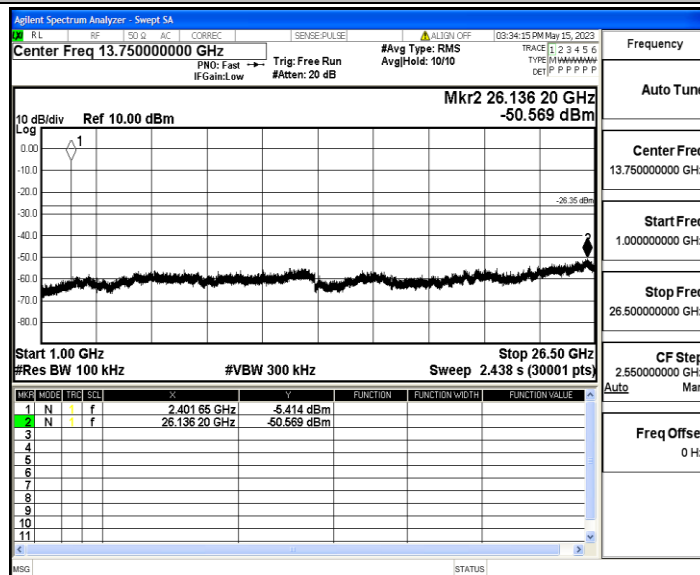
BLE_1M_Ant1_2402_0~Reference



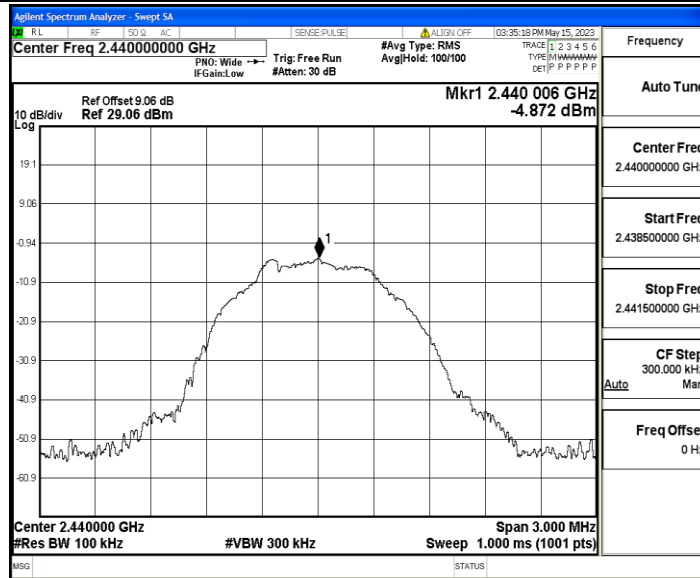
BLE_1M_Ant1_2402_30~1000



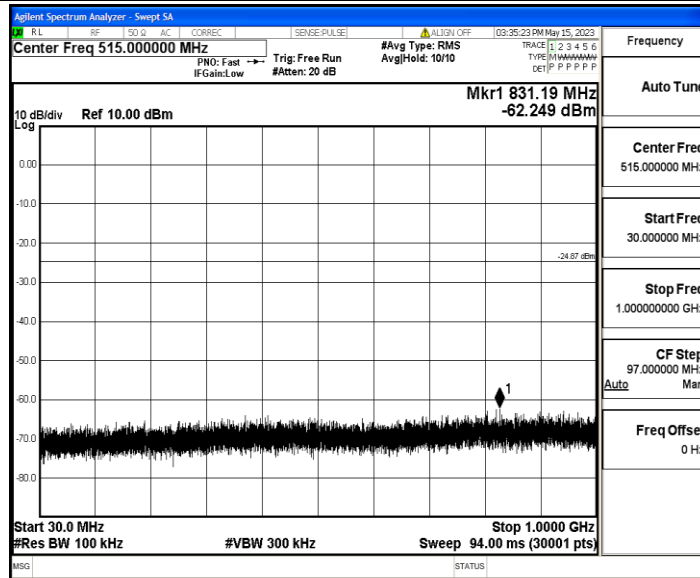
BLE_1M_Ant1_2402_1000~26500



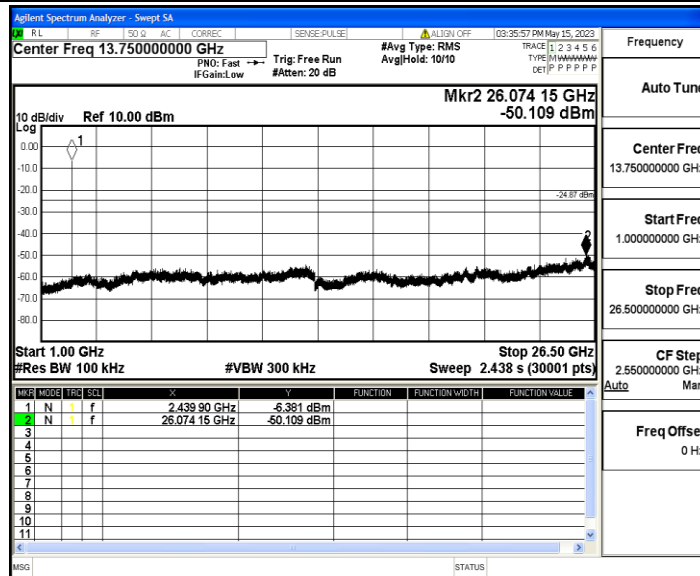
BLE_1M_Ant1_2440_0~Reference



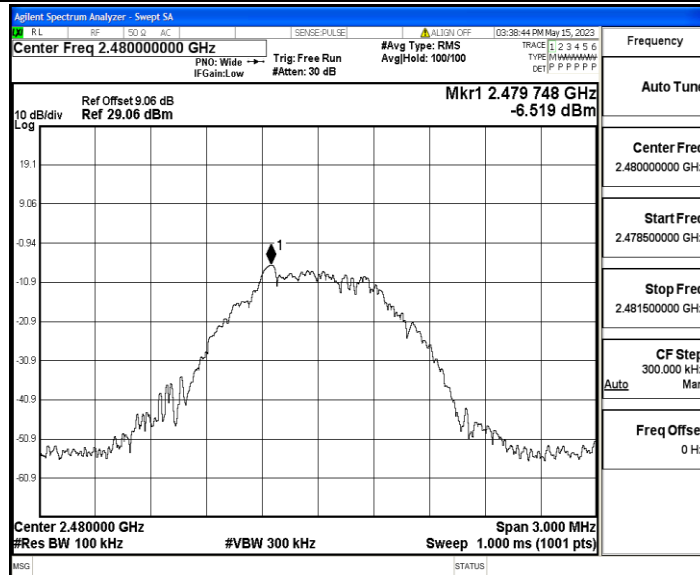
BLE_1M_Ant1_2440_30~1000



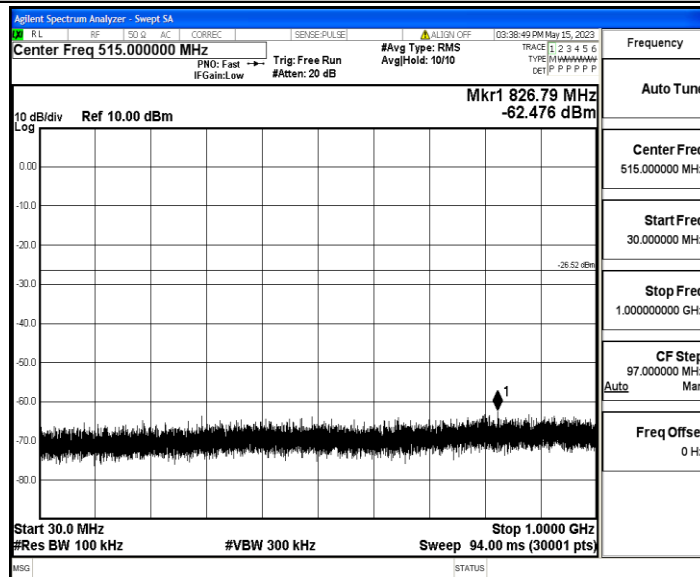
BLE_1M_Ant1_2440_1000~26500



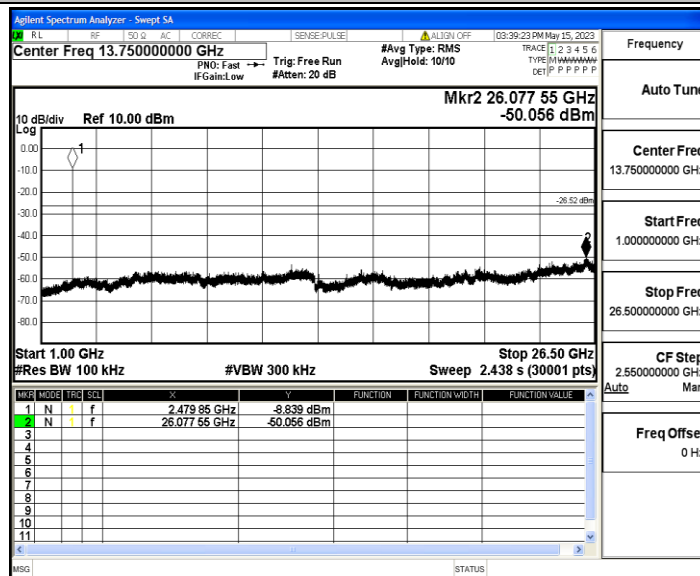
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



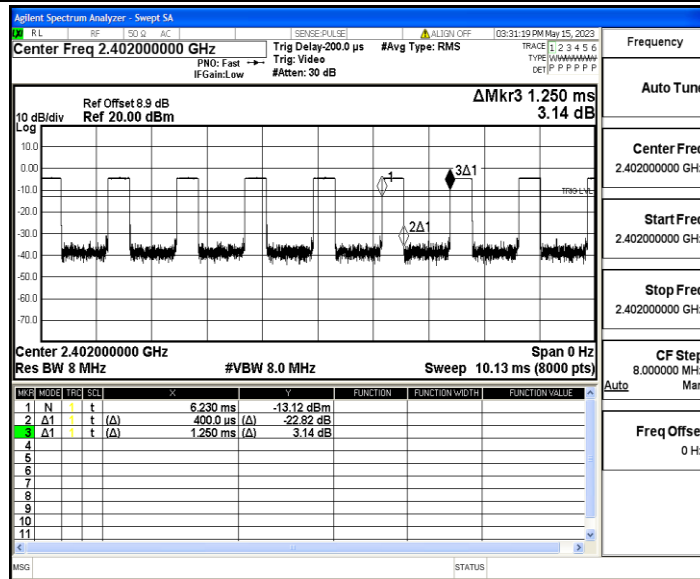
Appendix G: Duty Cycle

Test Result

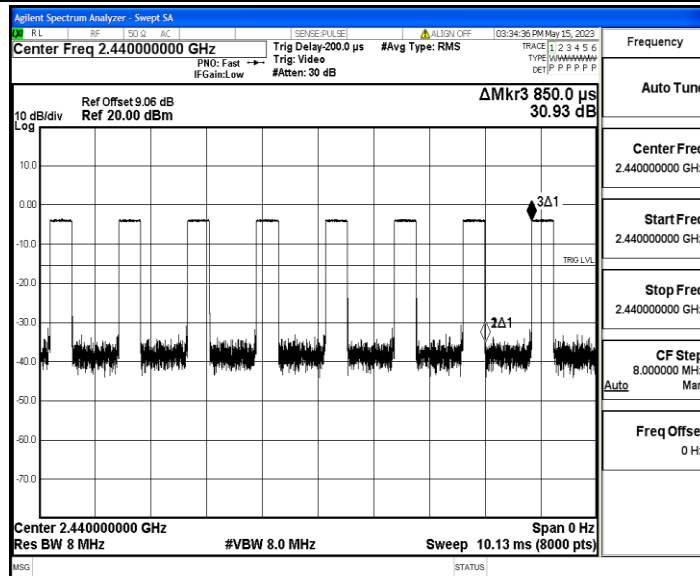
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.40	1.25	32.00	2.50
		2440	0.00	0.85	100	∞
		2480	0.00	0.85	100	∞

Test Graphs

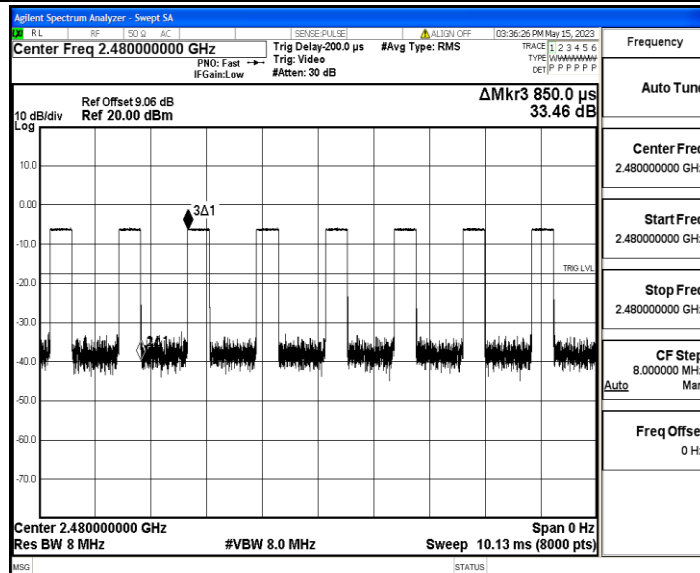
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix H: Emissions in Restricted Bands

Test Result

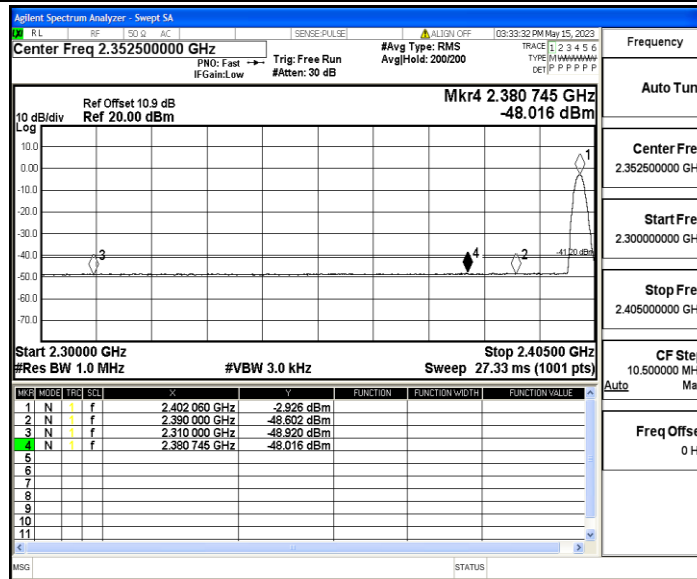
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.92	≤-41.20	PASS
				AV	2380.745	-48.02	≤-41.20	PASS
				AV	2390.000	-48.6	≤-41.20	PASS
				Peak	2310.000	-40.94	≤-21.20	PASS
				Peak	2335.910	-38.9	≤-21.20	PASS
				Peak	2390.000	-40.77	≤-21.20	PASS
		High	2480	AV	2483.500	-49.17	≤-41.20	PASS
				AV	2499.920	-48.93	≤-41.20	PASS
				AV	2500.000	-48.93	≤-41.20	PASS
				Peak	2483.500	-43.6	≤-21.20	PASS
				Peak	2495.920	-38.35	≤-21.20	PASS
				Peak	2500.000	-43.12	≤-21.20	PASS

Note:

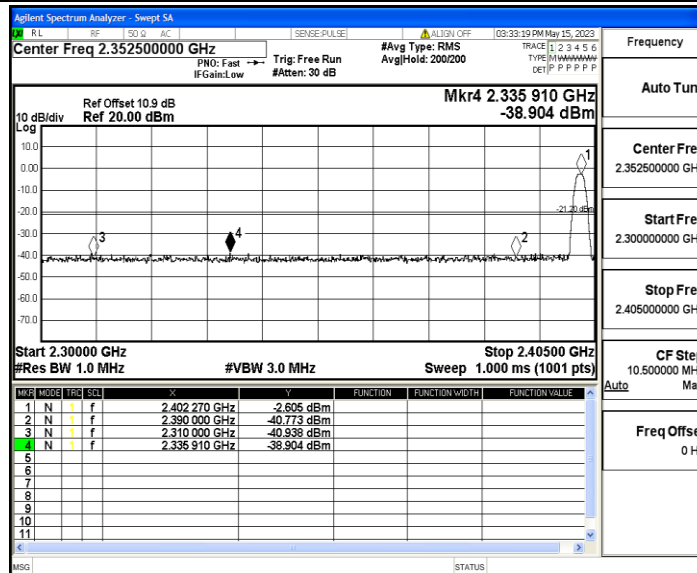
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

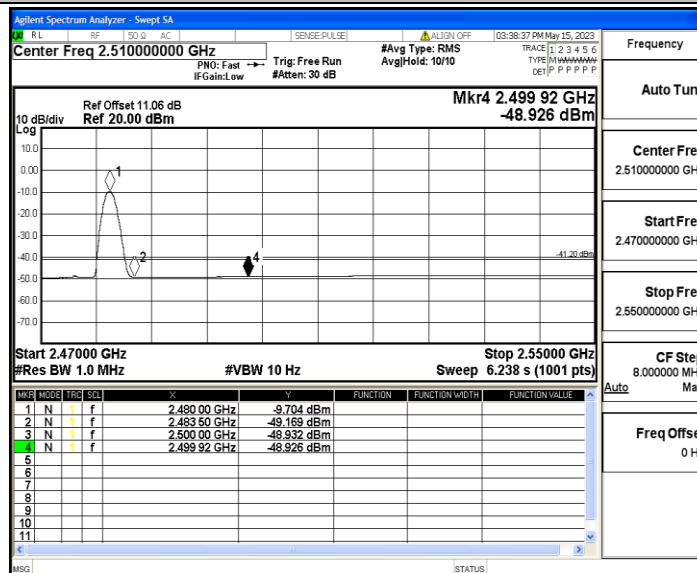
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

