

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

Product Name: Bluetooth Adapter

Trade Mark: INSTALLBAY

Test Model: IBBTR18

FCC ID: 2AHL8-IBBTR18R

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

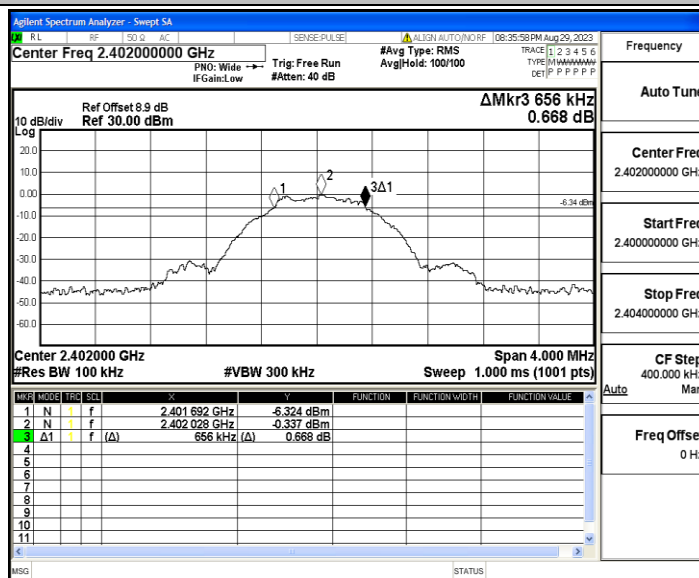
Appendix A: DTS Bandwidth

Test Result

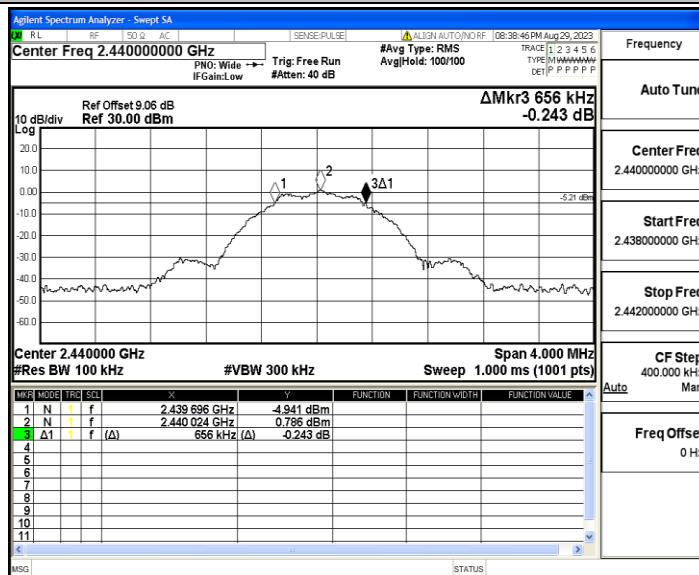
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.656	2401.692	2402.348	0.5	PASS
		2440	0.656	2439.696	2440.352	0.5	PASS
		2480	0.708	2479.672	2480.380	0.5	PASS

Test Graphs

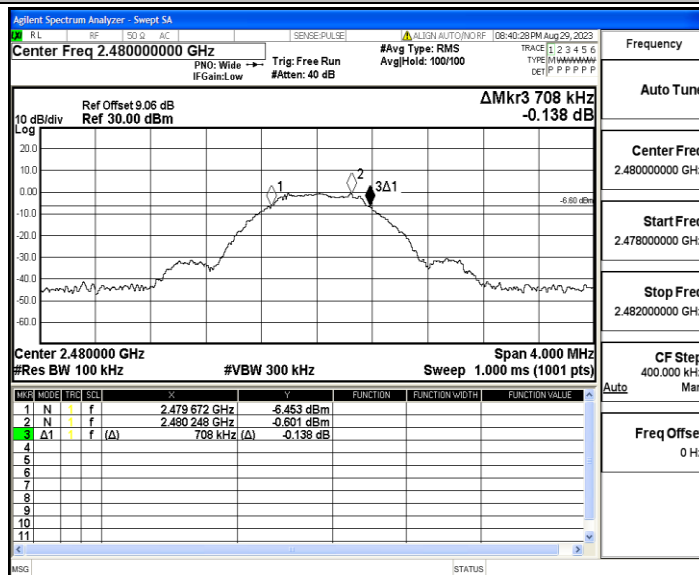
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



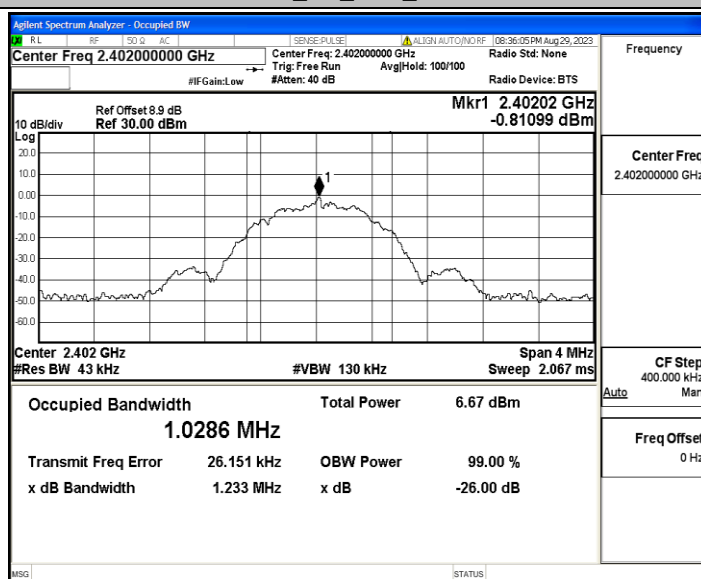
Appendix B: Occupied Channel Bandwidth

Test Result

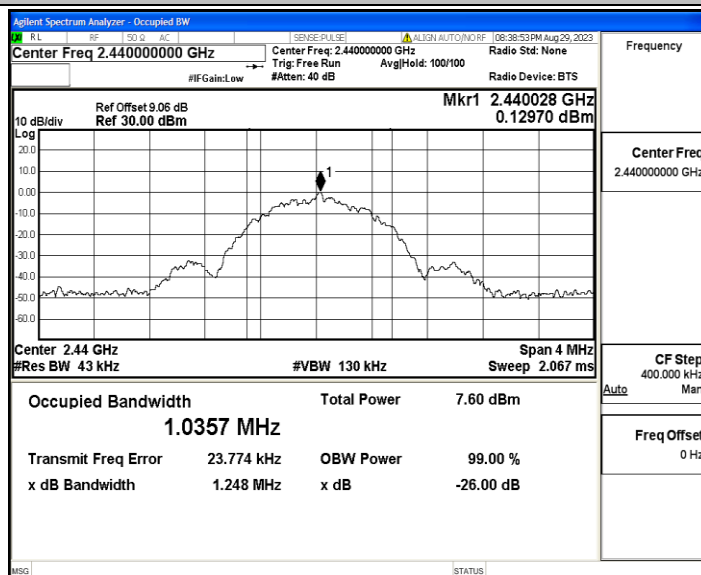
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0286	2401.5119	2402.5405	---	---
		2440	1.0357	2439.5059	2440.5416	---	---
		2480	1.0466	2479.5061	2480.5527	---	---

Test Graphs

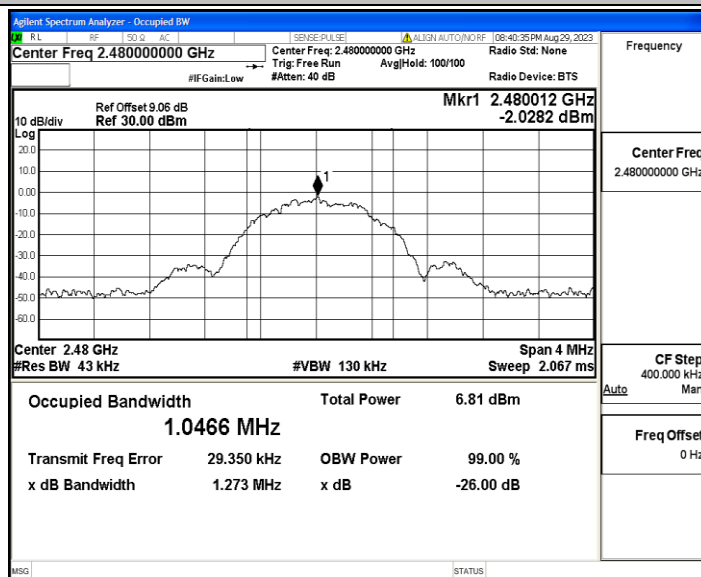
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



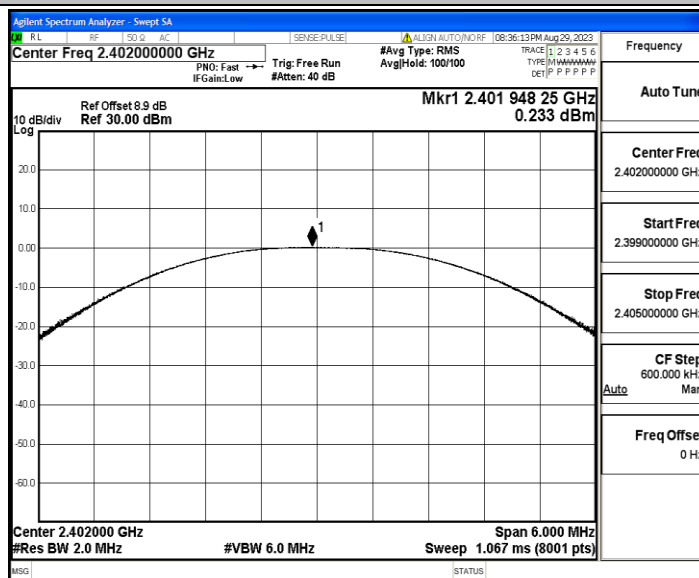
Appendix C: Maximum Peak conducted output power

Test Result

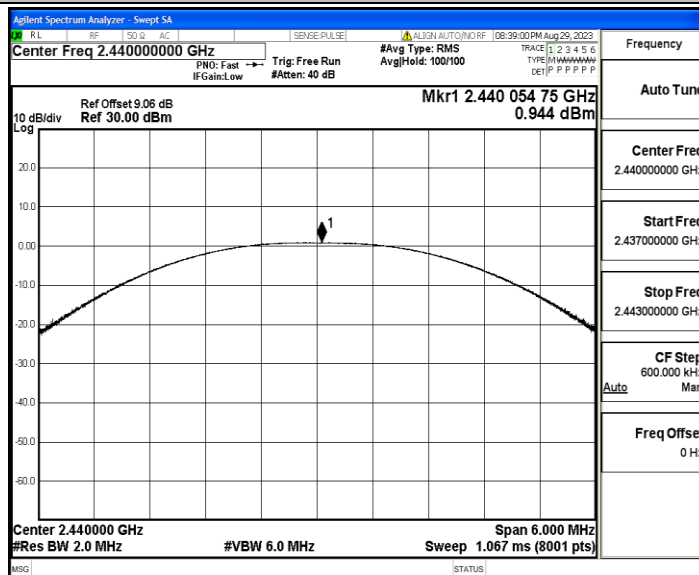
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.23	≤30	PASS
		2440	0.94	≤30	PASS
		2480	0.84	≤30	PASS

Test Graphs

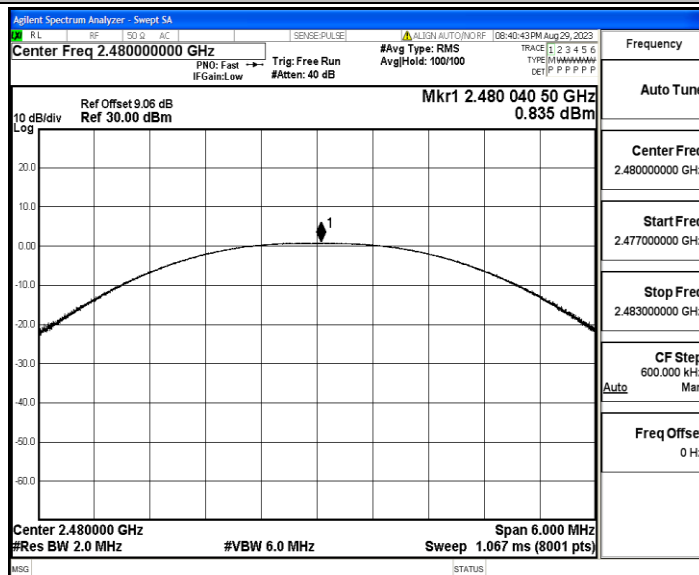
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



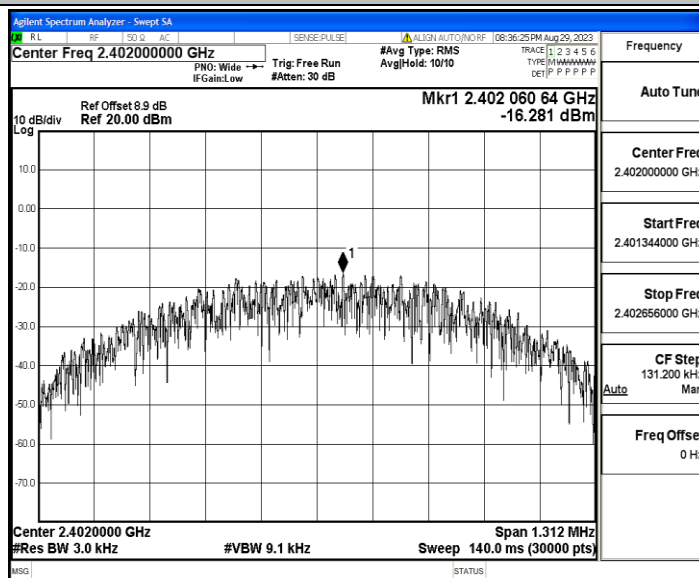
Appendix D: Maximum power spectral density

Test Result

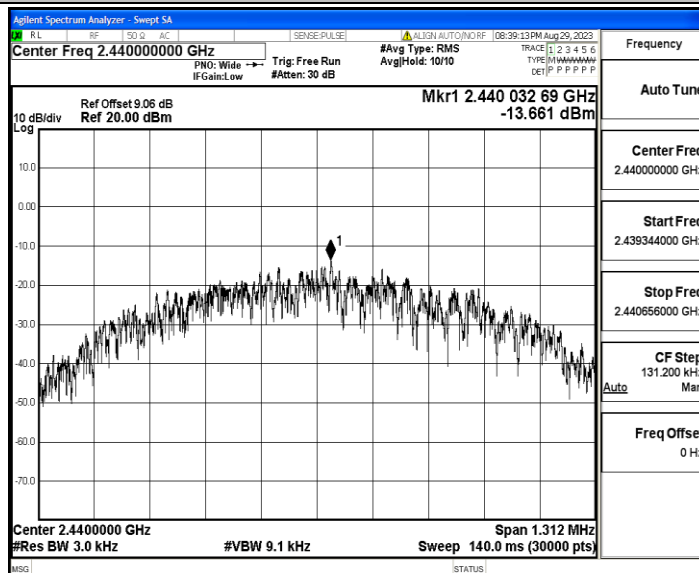
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.28	≤8.00	PASS
		2440	-13.66	≤8.00	PASS
		2480	-16.49	≤8.00	PASS

Test Graphs

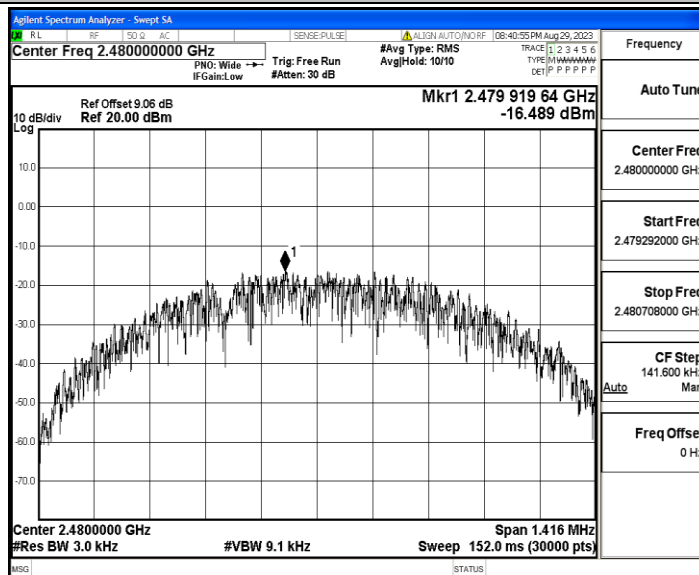
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

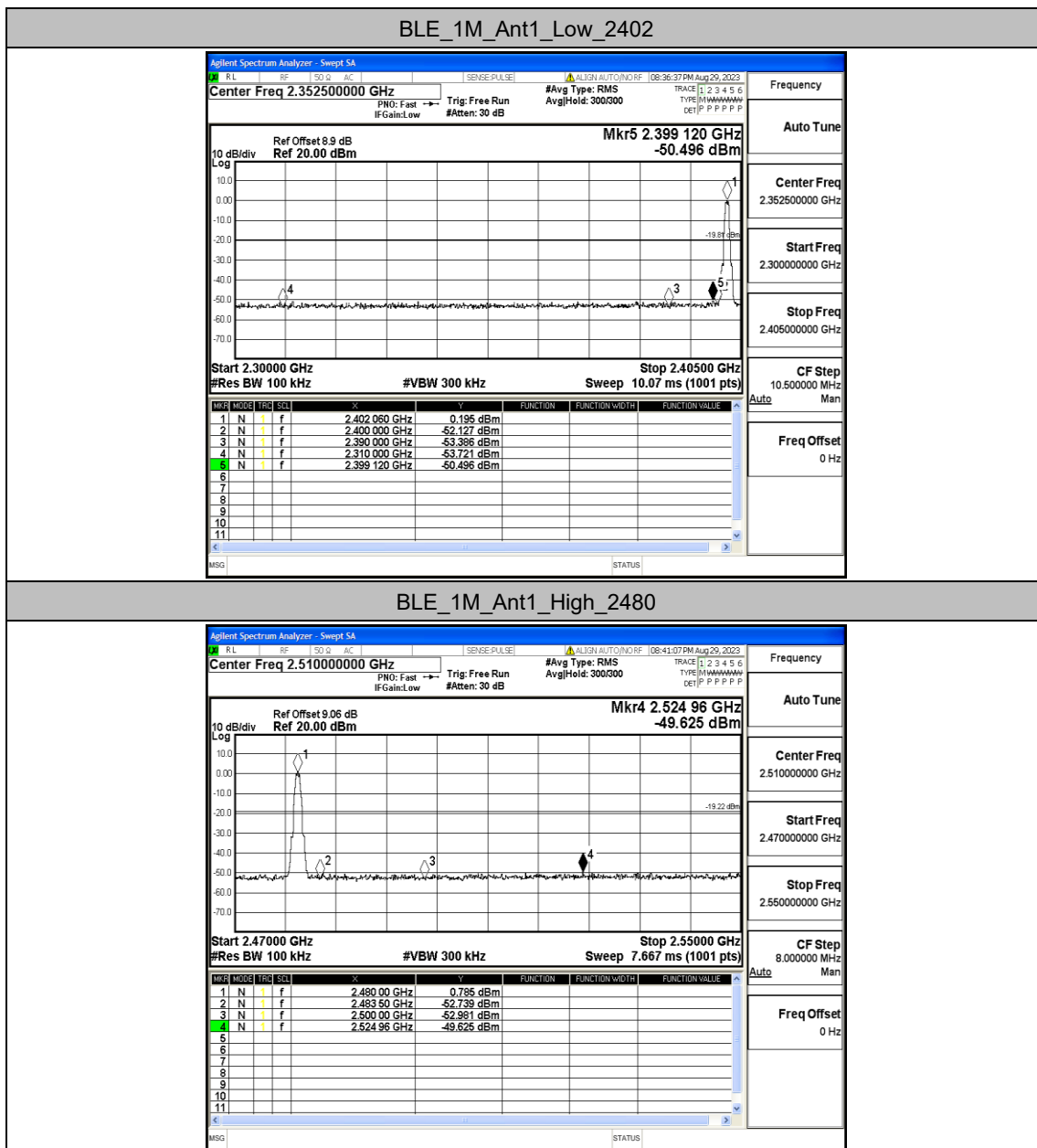


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.20	-50.5	≤-19.81	PASS
		High	2480	0.79	-49.63	≤-19.22	PASS

Test Graphs



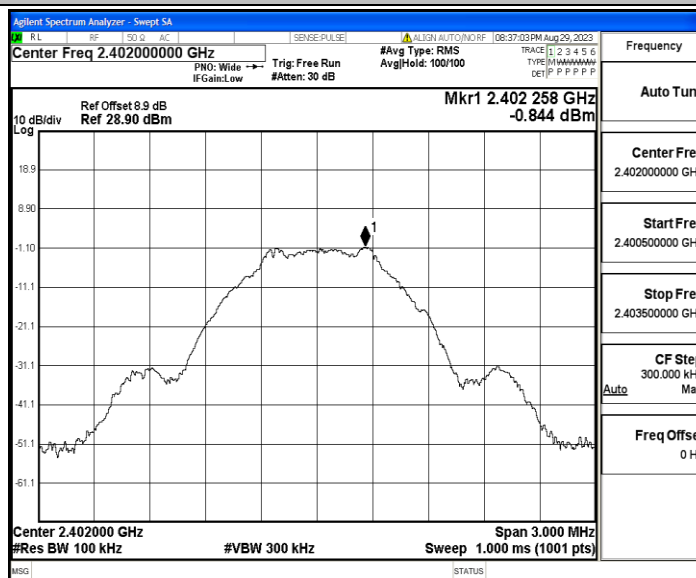
Appendix F: Conducted Spurious Emission

Test Result

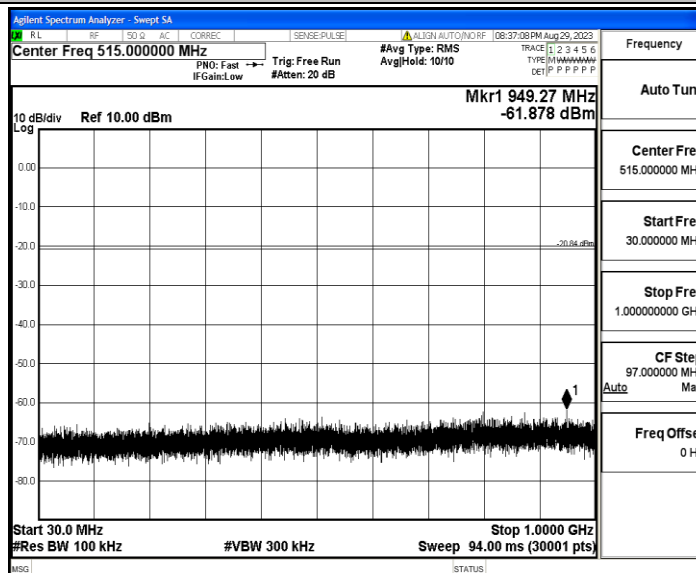
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.84	-0.84	---	PASS
			30~1000	-0.84	-61.88	≤-20.84	PASS
			1000~26500	-0.84	-49.41	≤-20.84	PASS
		2440	Reference	0.59	0.59	---	PASS
			30~1000	0.59	-63.02	≤-19.41	PASS
			1000~26500	0.59	-49.4	≤-19.41	PASS
		2480	Reference	0.49	0.49	---	PASS
			30~1000	0.49	-62.32	≤-19.51	PASS
			1000~26500	0.49	-50.29	≤-19.51	PASS

Test Graphs

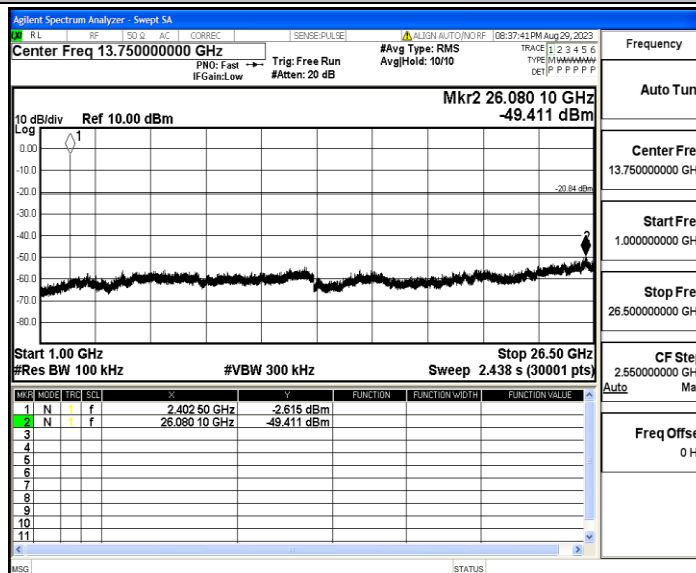
BLE_1M_Ant1_2402_0~Reference



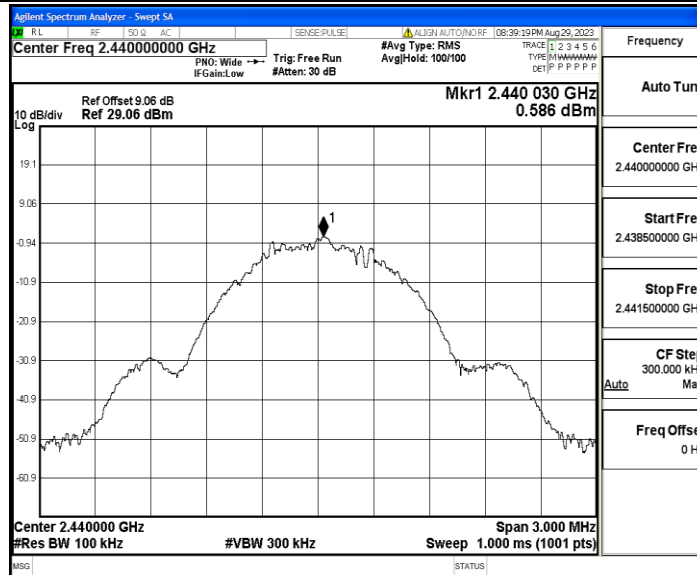
BLE_1M_Ant1_2402_30~1000



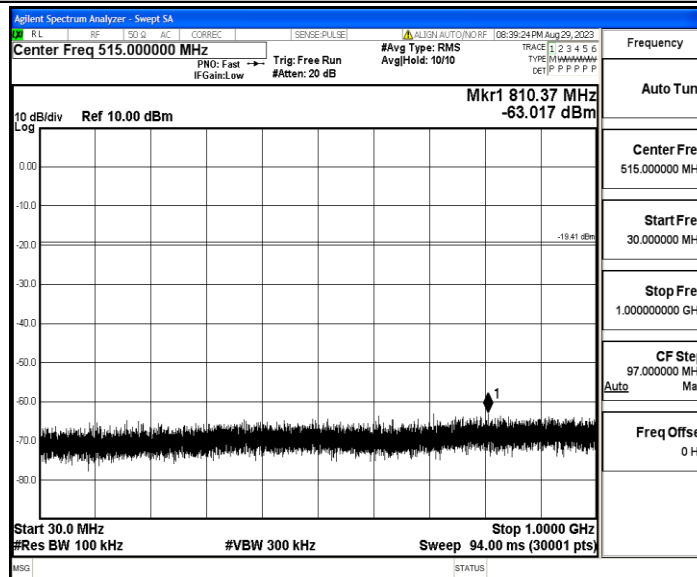
BLE_1M_Ant1_2402_1000~26500



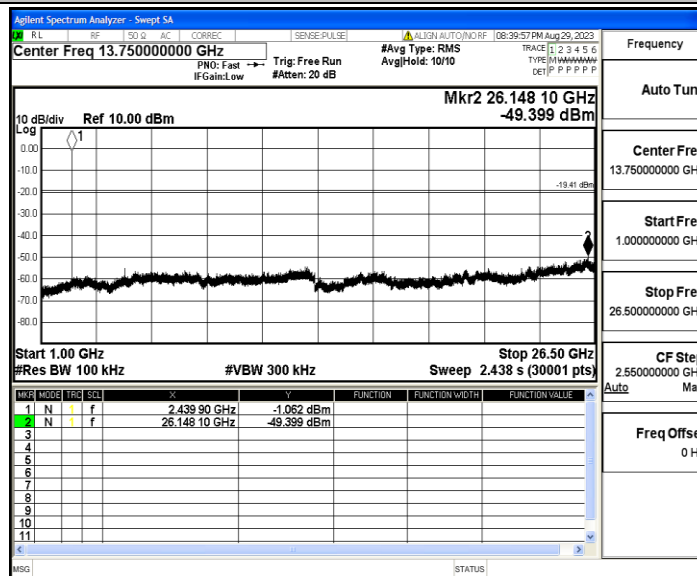
BLE_1M_Ant1_2440_0~Reference



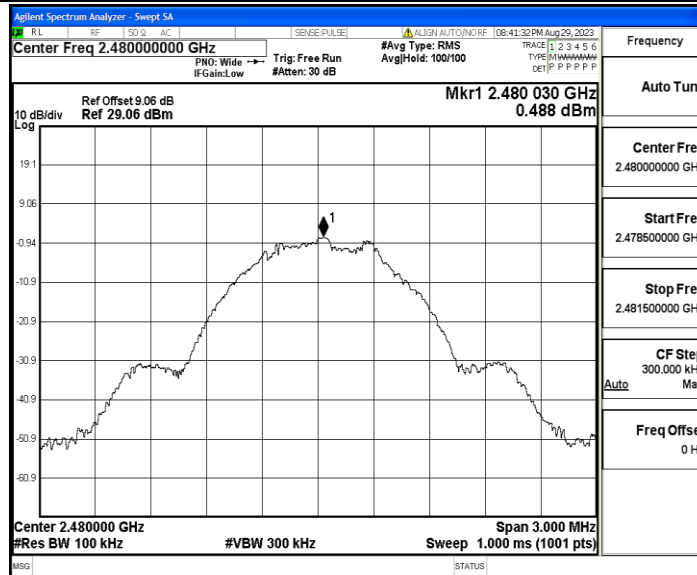
BLE_1M_Ant1_2440_30~1000



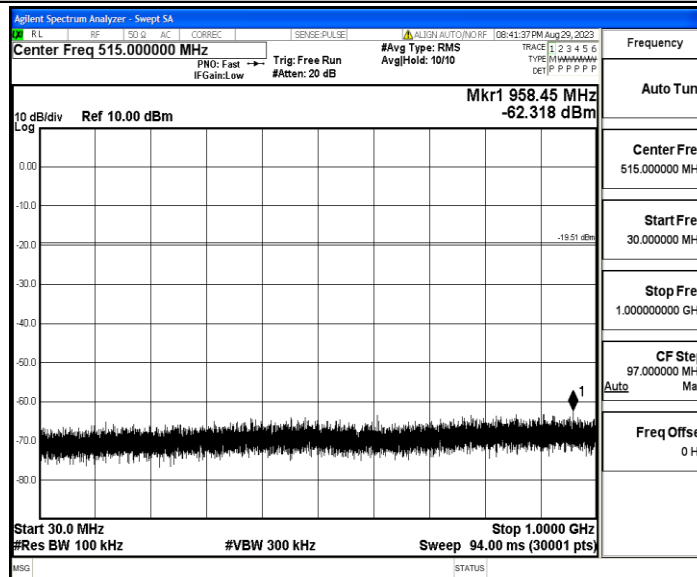
BLE_1M_Ant1_2440_1000~26500



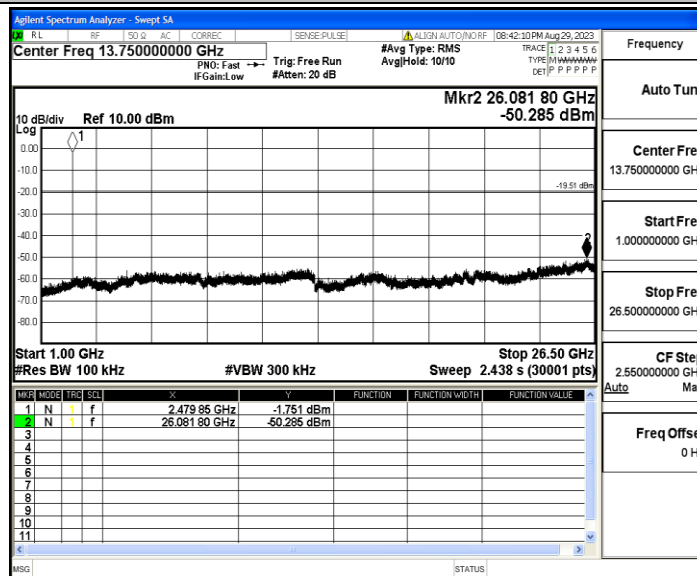
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



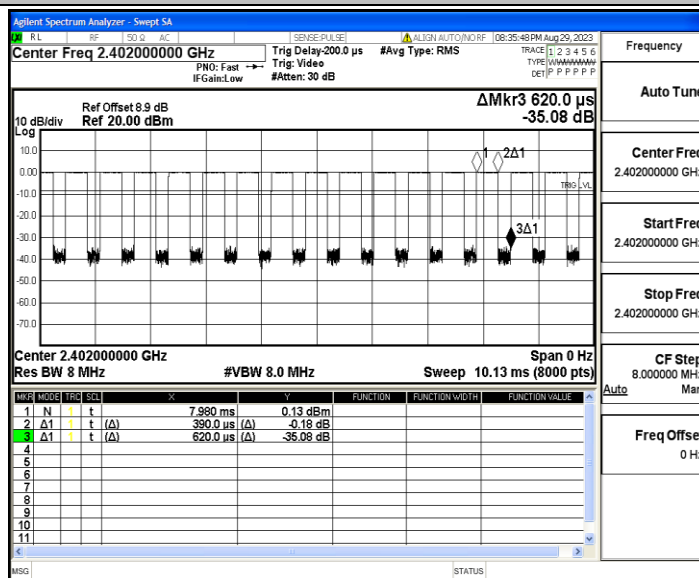
Appendix G: Duty Cycle

Test Result

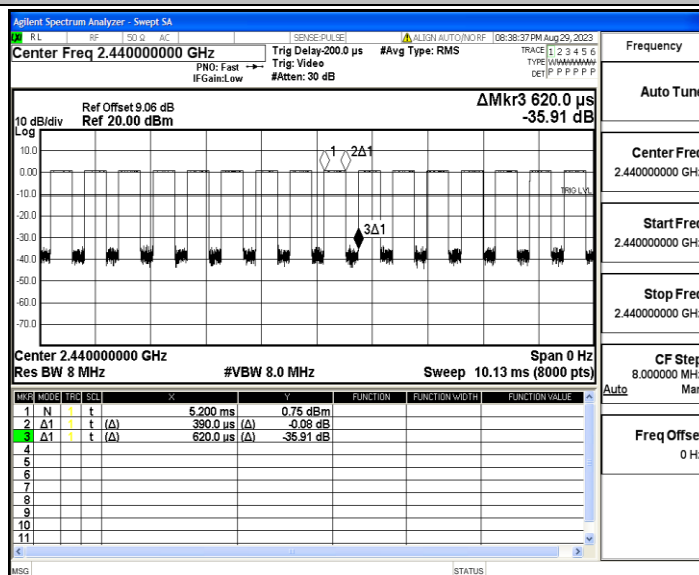
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.39	0.62	62.90	2.56
		2440	0.39	0.62	62.90	2.56
		2480	0.39	0.62	62.90	2.56

Test Graphs

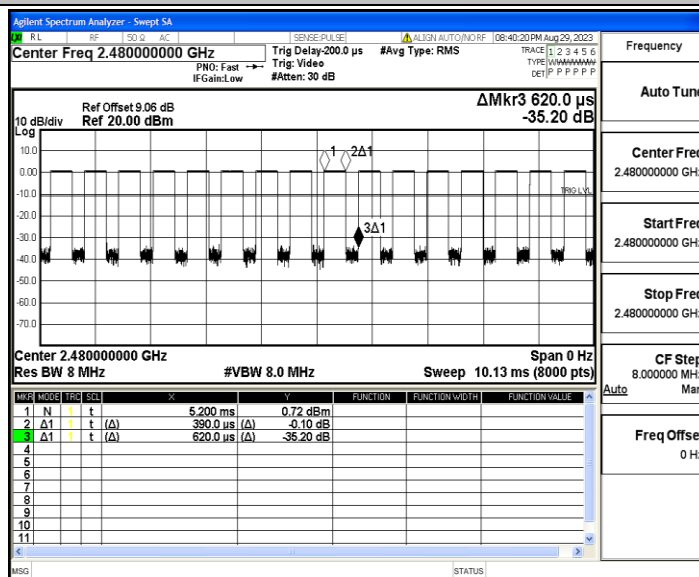
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix H: Emissions in Restricted Bands

Test Result

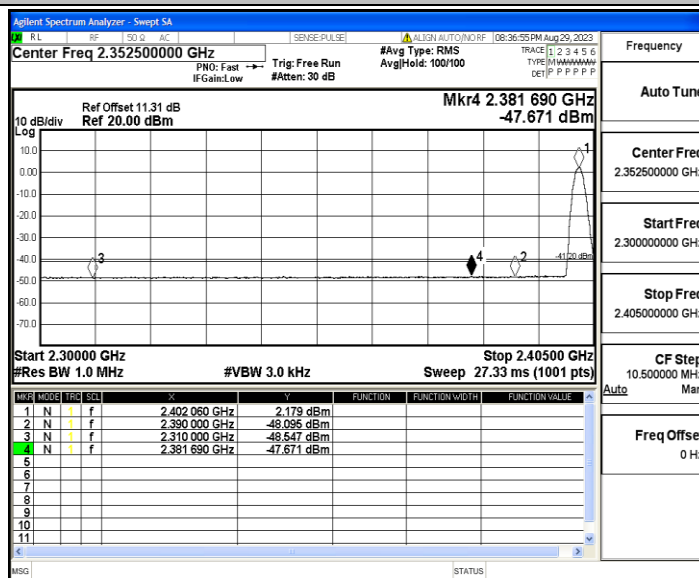
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.55	≤-41.20	PASS
				AV	2381.690	-47.67	≤-41.20	PASS
				AV	2390.000	-48.1	≤-41.20	PASS
				Peak	2310.000	-40.66	≤-21.20	PASS
				Peak	2366.150	-38.95	≤-21.20	PASS
				Peak	2390.000	-41.01	≤-21.20	PASS
		High	2480	AV	2483.500	-47.16	≤-41.20	PASS
				AV	2499.760	-46.99	≤-41.20	PASS
				AV	2500.000	-47.75	≤-41.20	PASS
				Peak	2483.500	-41.36	≤-21.20	PASS
				Peak	2492.480	-37.19	≤-21.20	PASS
				Peak	2500.000	-40.09	≤-21.20	PASS

Note:

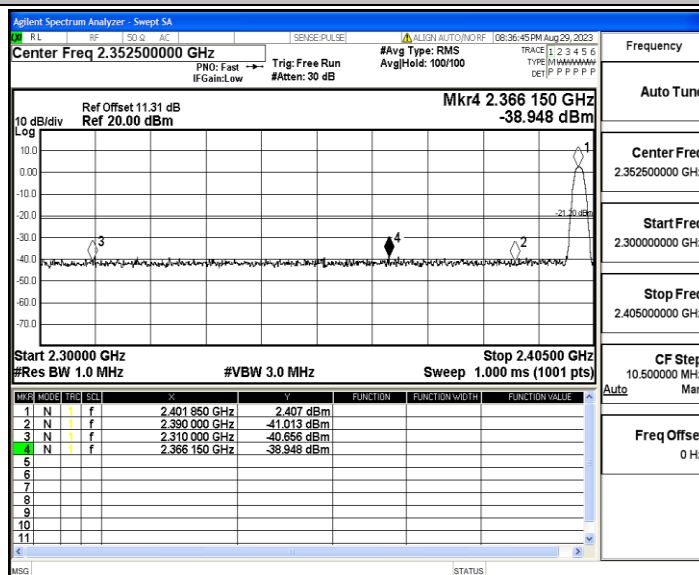
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

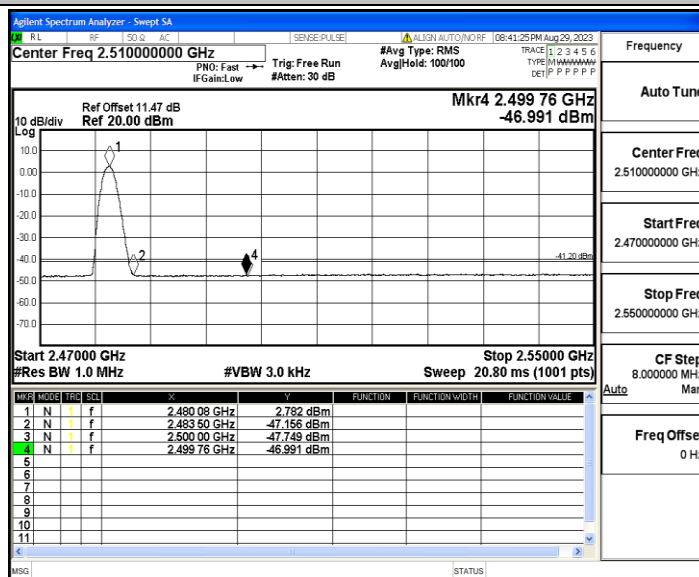
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

