

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

Product Name: AoA positioning Locator

Trade Mark: Dusun

Test Model: DSGW-200

FCC ID: 2AUXBDSGW-200

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

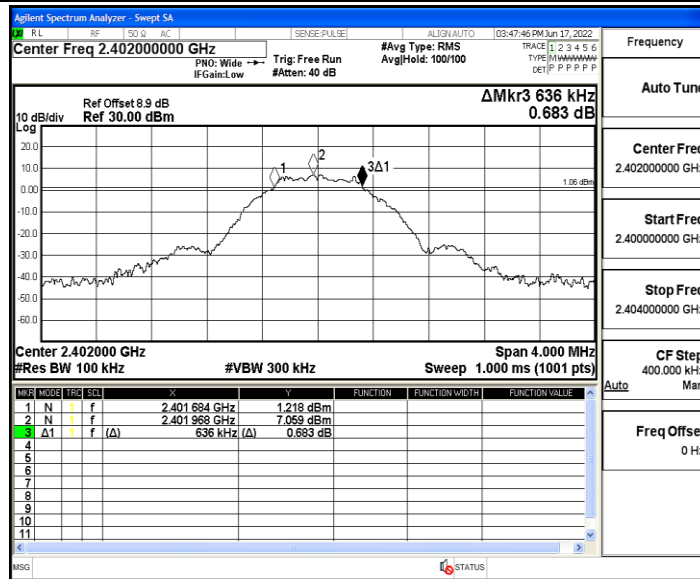
Appendix A: DTS Bandwidth

Test Result

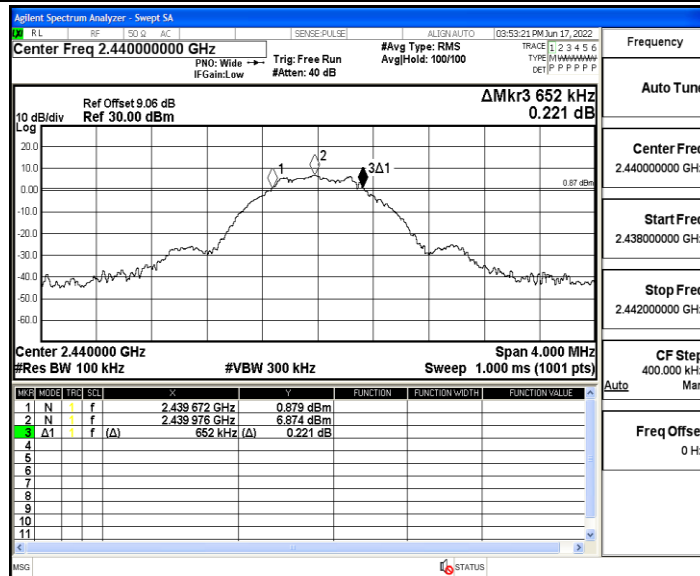
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.636	2401.684	2402.320	0.5	PASS
		2440	0.652	2439.672	2440.324	0.5	PASS
		2480	0.640	2479.692	2480.332	0.5	PASS
BLE_2M	Ant1	2402	1.132	2401.464	2402.596	0.5	PASS
		2440	1.096	2439.456	2440.552	0.5	PASS
		2480	1.124	2479.432	2480.556	0.5	PASS

Test Graphs

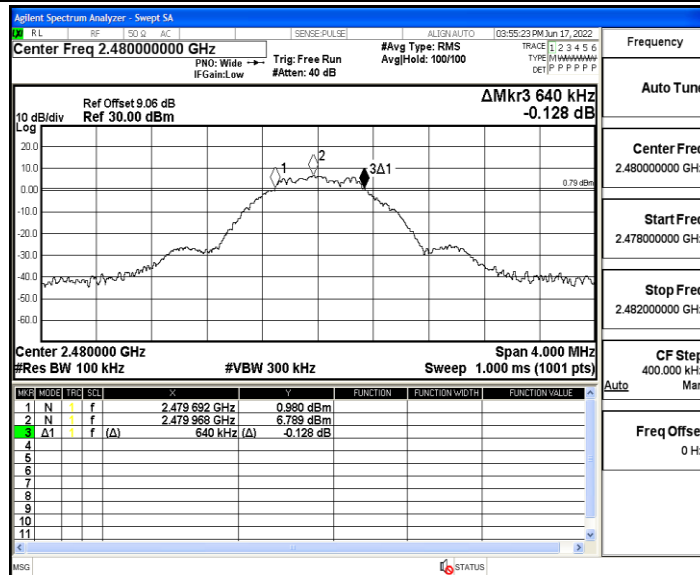
BLE_1M_Ant1_2402



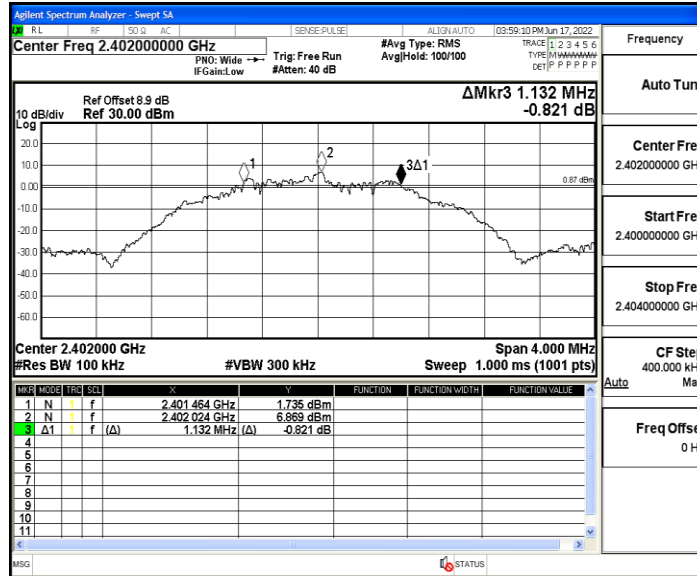
BLE_1M_Ant1_2440



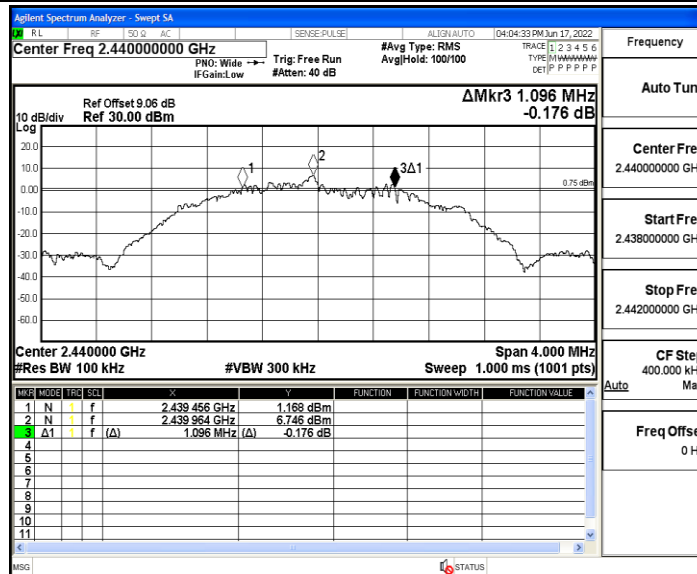
BLE_1M_Ant1_2480



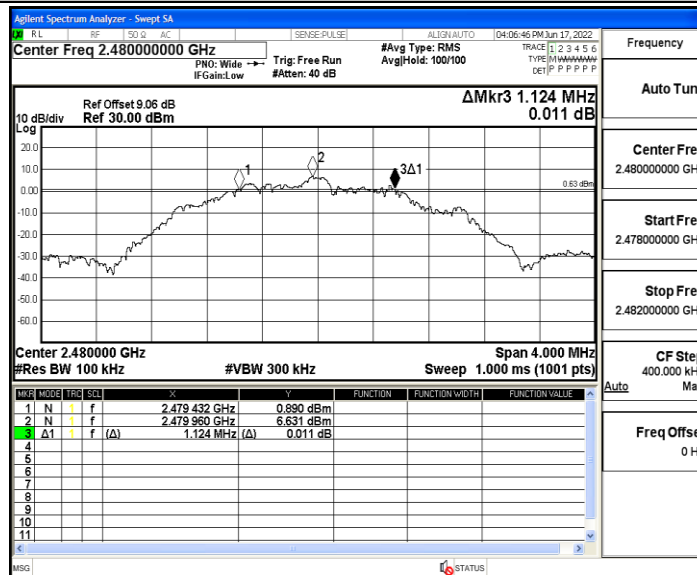
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

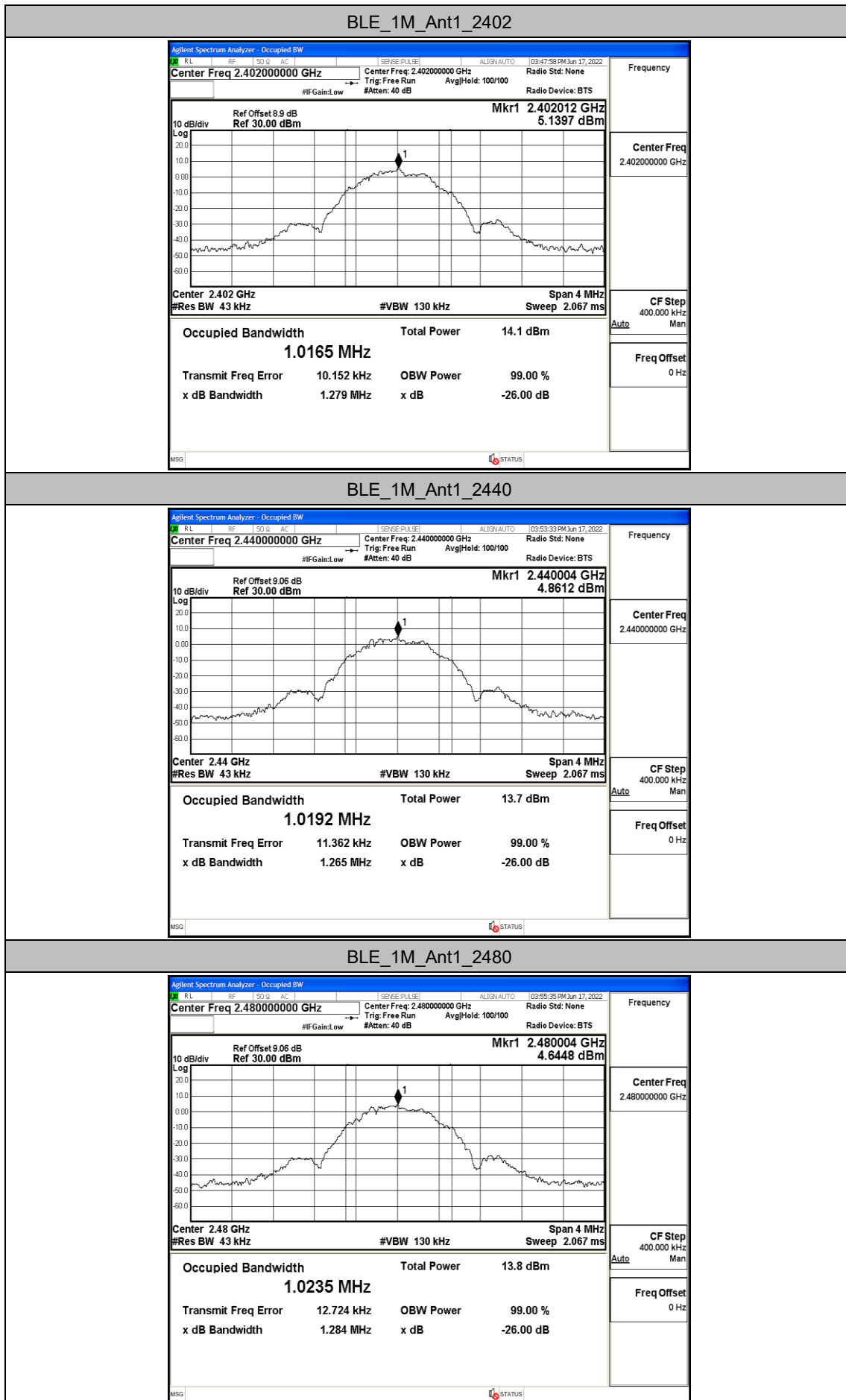


Appendix B: Occupied Channel Bandwidth

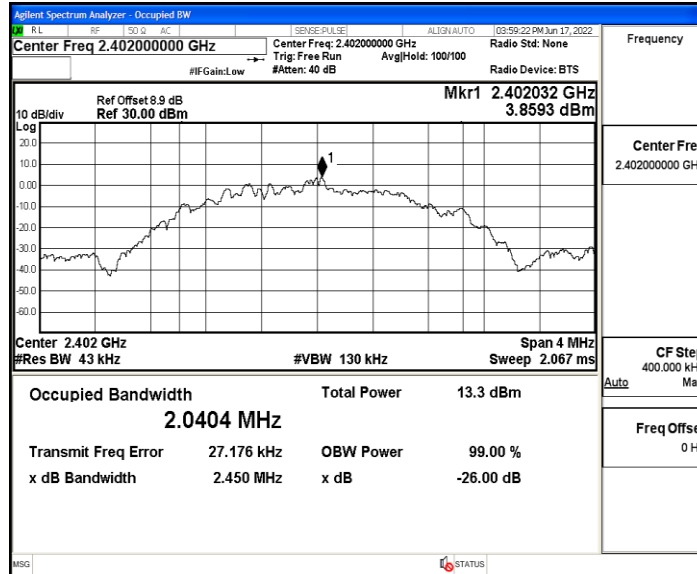
Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0165	2401.502	2402.518	---	---
		2440	1.0192	2439.502	2440.521	---	---
		2480	1.0235	2479.501	2480.524	---	---
BLE_2M	Ant1	2402	2.0404	2401.007	2403.047	---	---
		2440	2.0282	2439.009	2441.038	---	---
		2480	2.0304	2479.011	2481.042	---	---

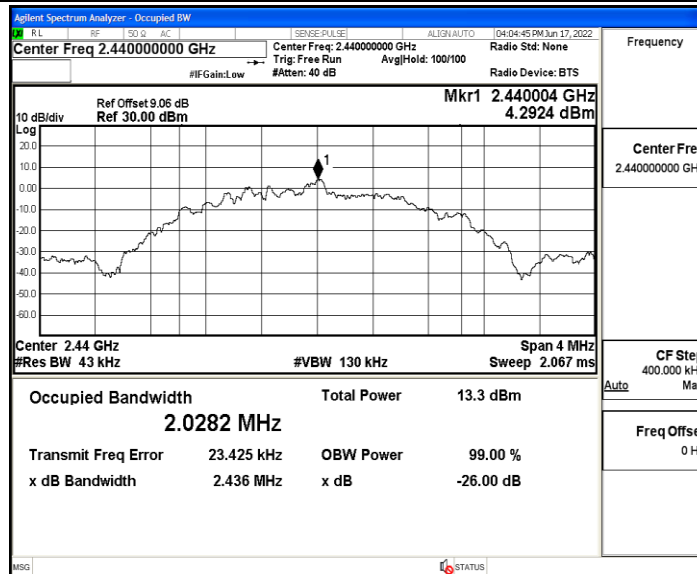
Test Graphs



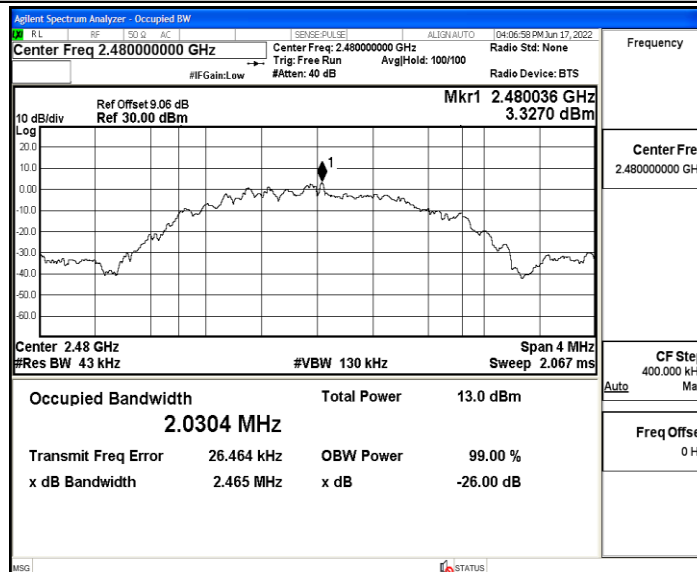
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

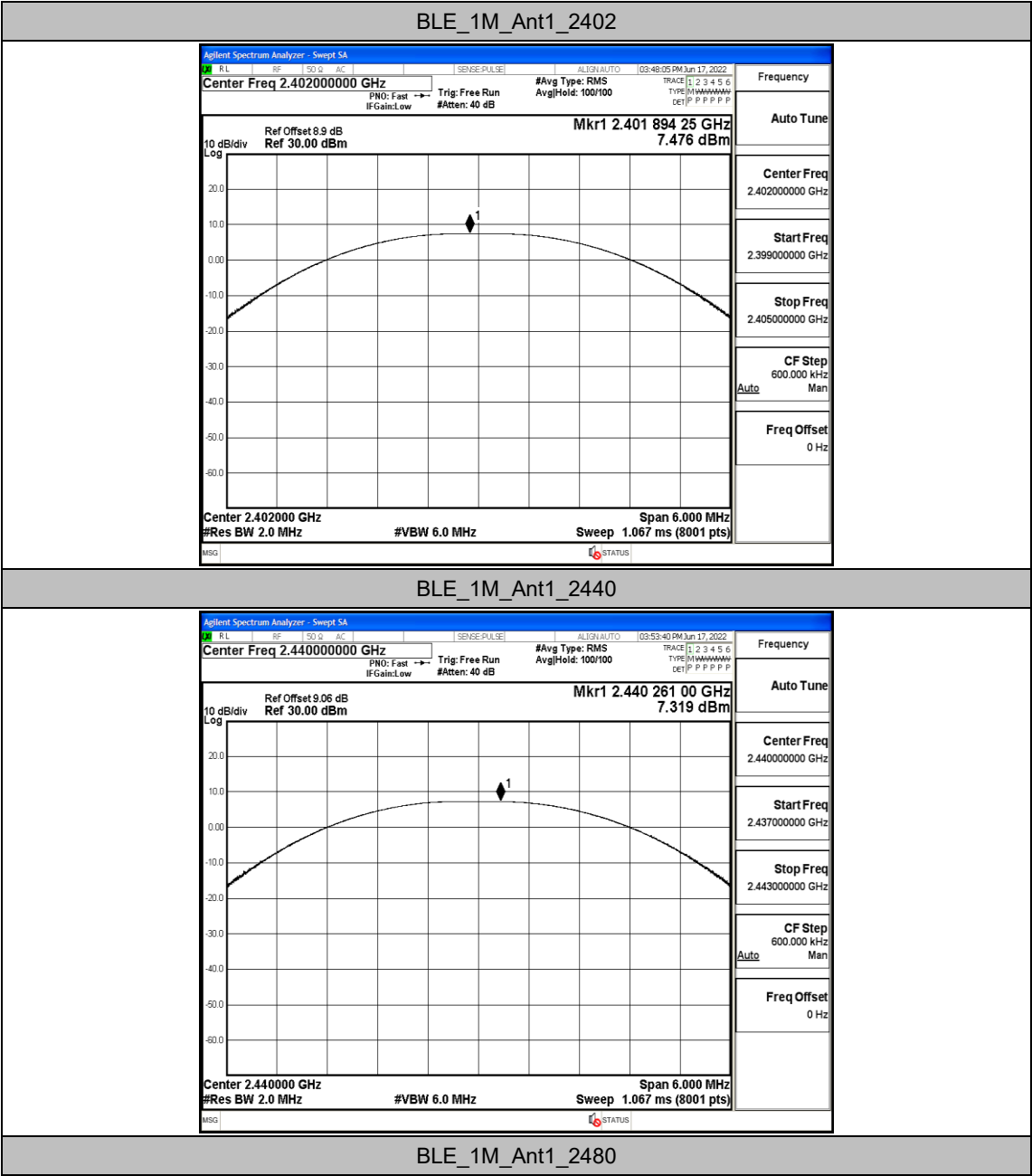


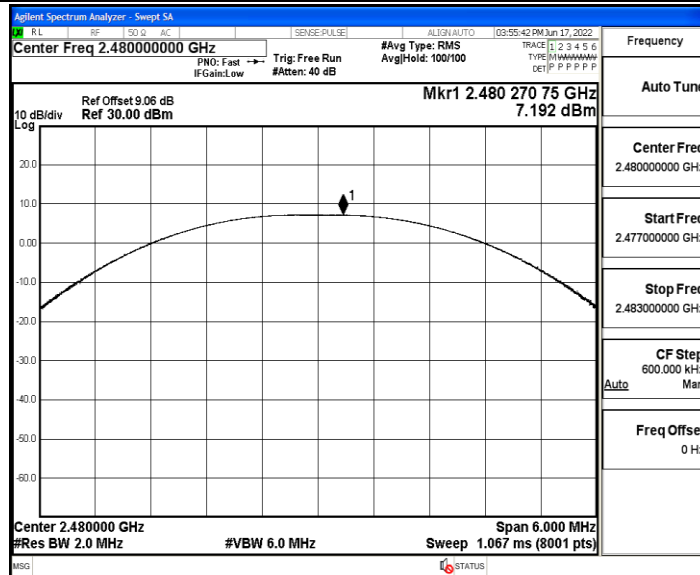
Appendix C: Maximum Peak conducted output power

Test Result

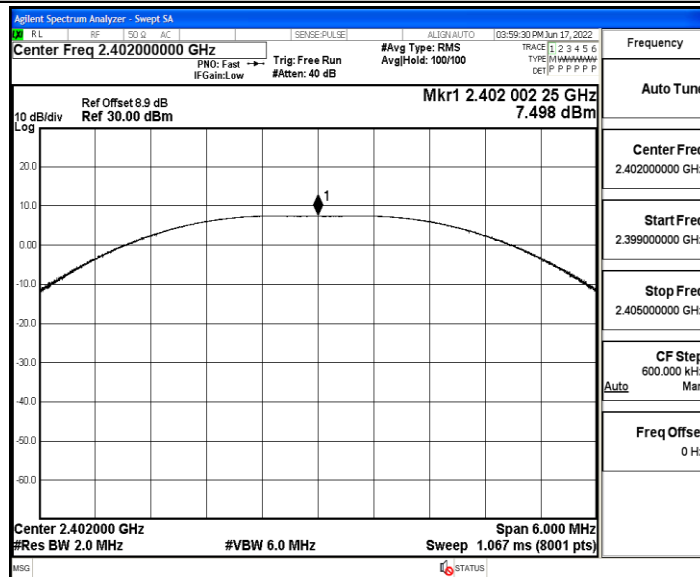
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	7.48	≤30	PASS
		2440	7.32	≤30	PASS
		2480	7.19	≤30	PASS
BLE_2M	Ant1	2402	7.5	≤30	PASS
		2440	7.31	≤30	PASS
		2480	7.2	≤30	PASS

Test Graphs

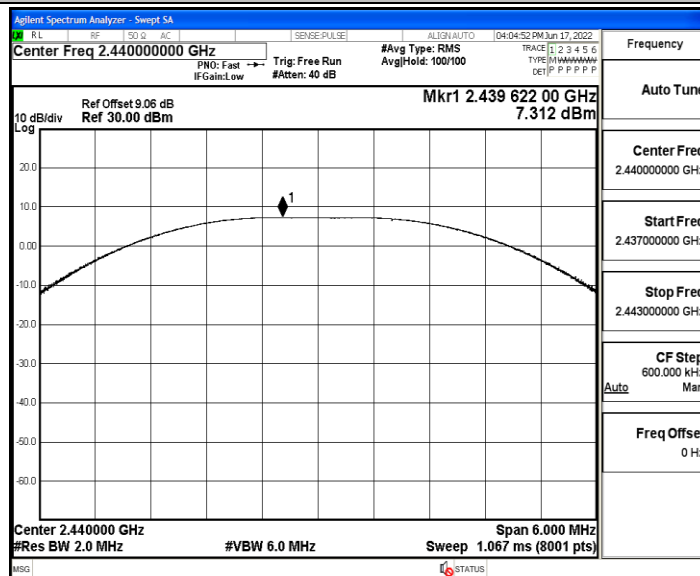




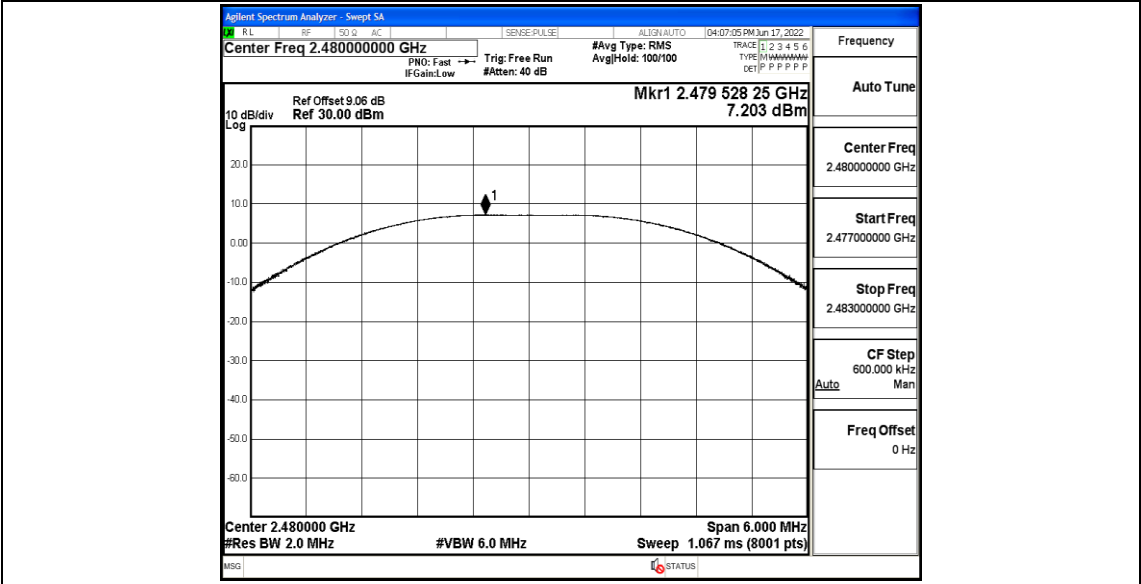
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

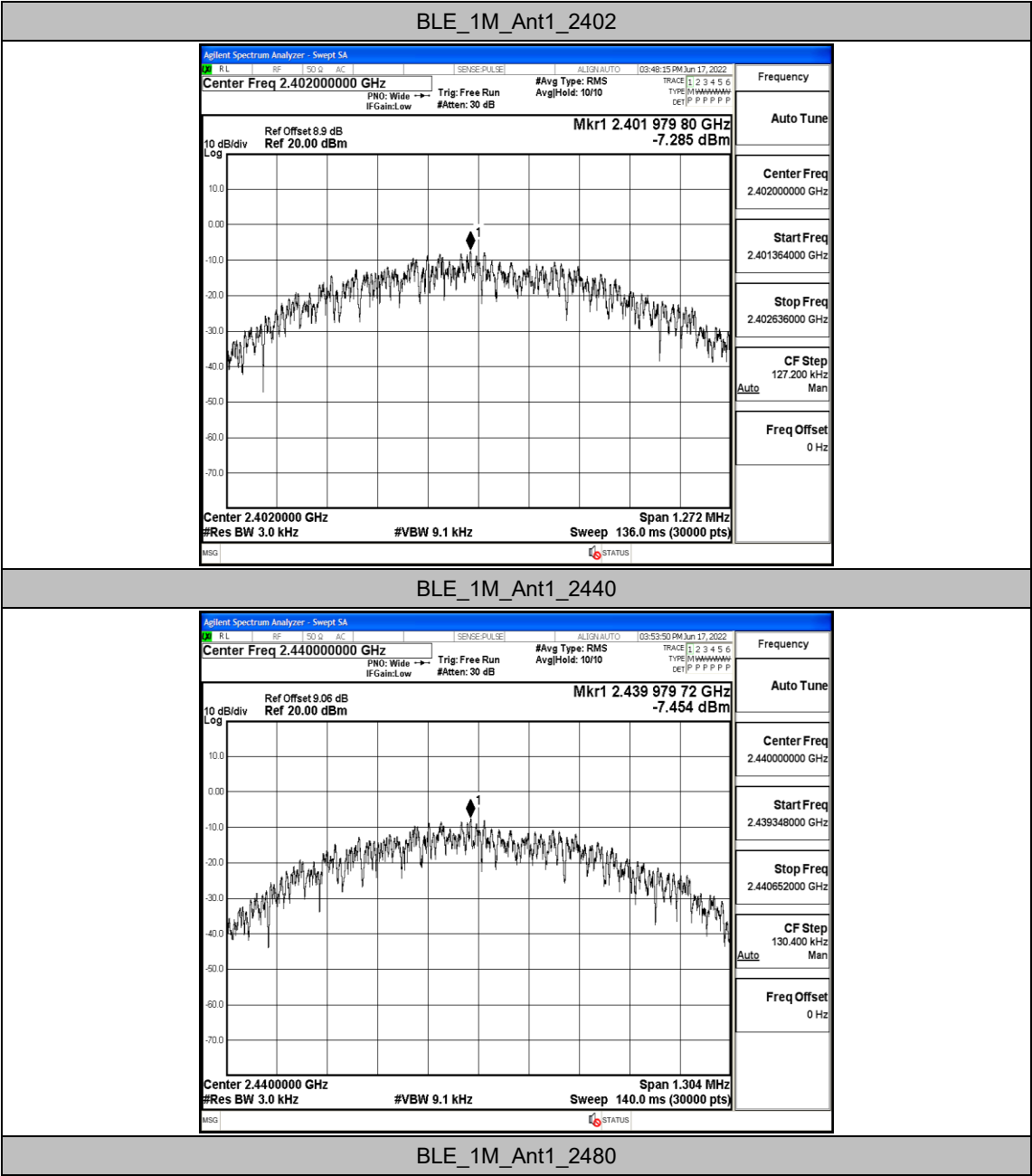


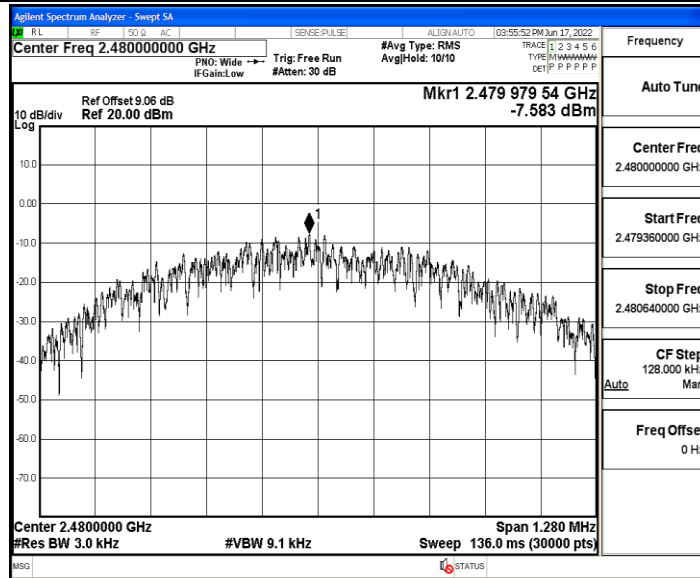
Appendix D: Maximum power spectral density

Test Result

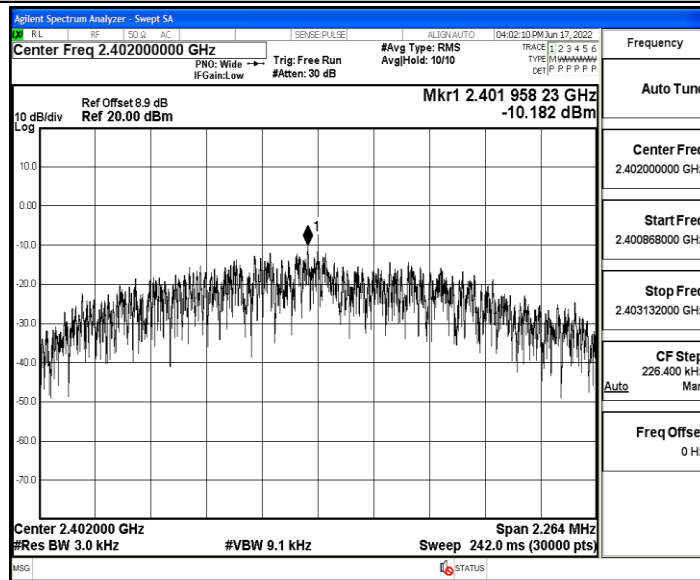
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-7.29	≤8.00	PASS
		2440	-7.45	≤8.00	PASS
		2480	-7.58	≤8.00	PASS
BLE_2M	Ant1	2402	-10.18	≤8.00	PASS
		2440	-10.43	≤8.00	PASS
		2480	-10.5	≤8.00	PASS

Test Graphs

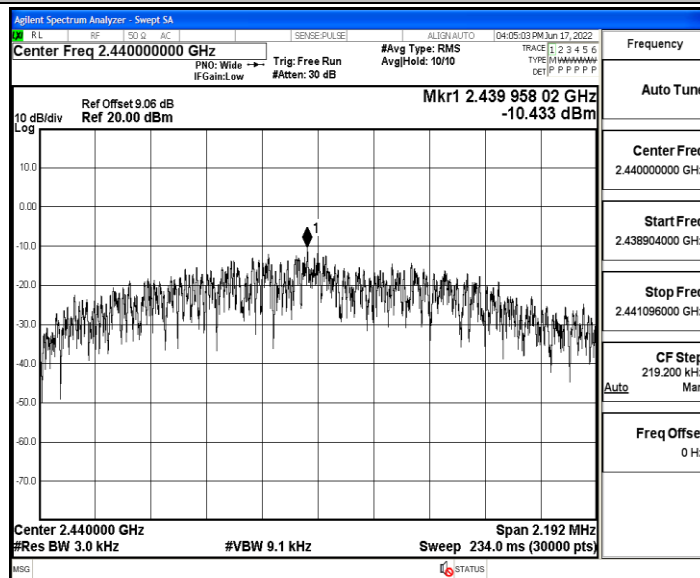




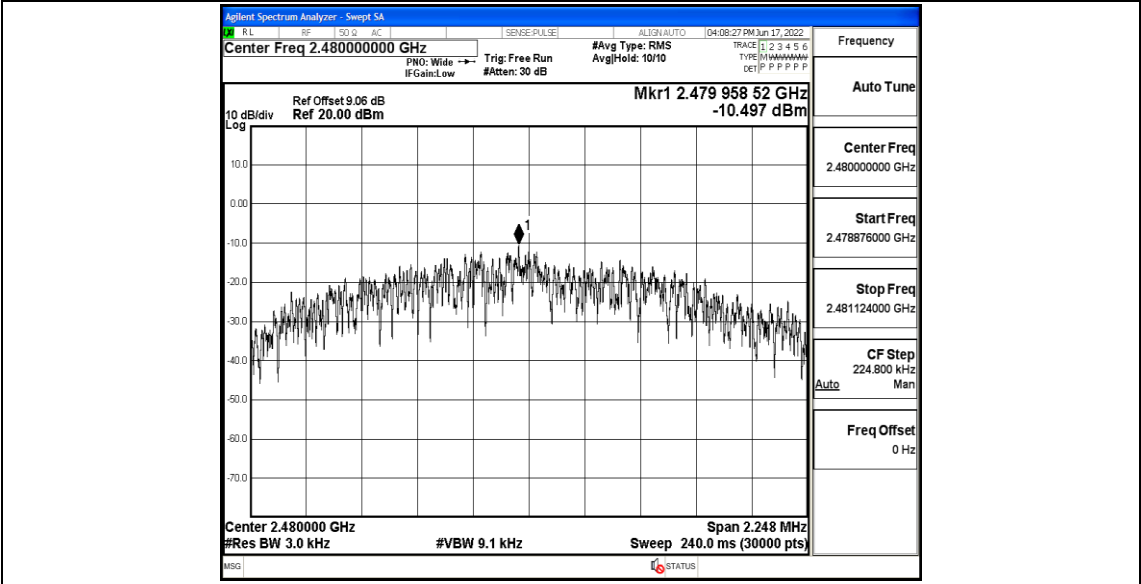
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



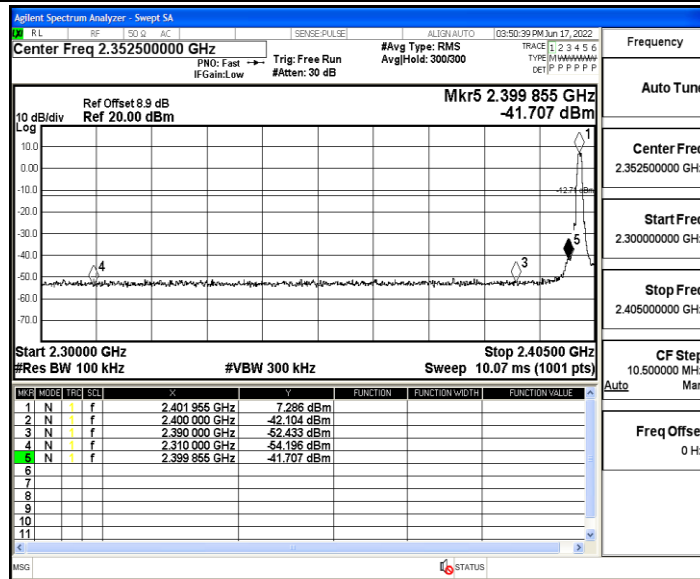
Appendix E: Band edge measurements

Test Result

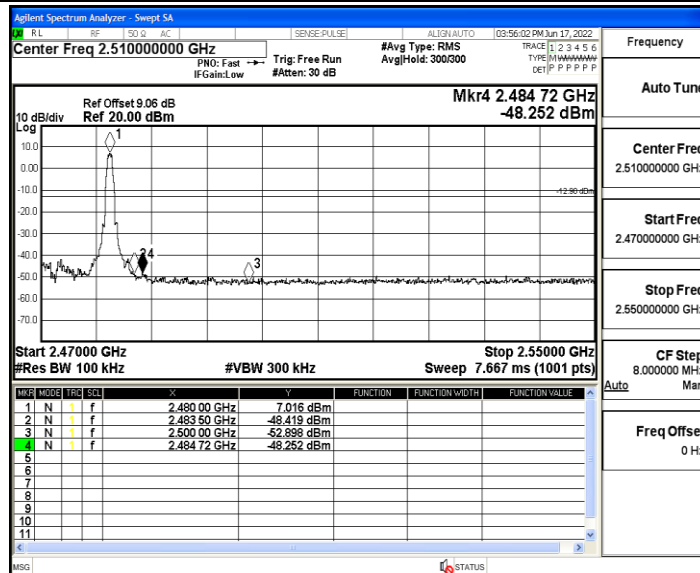
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	7.29	-41.71	≤ -12.71	PASS
		High	2480	7.02	-48.25	≤ -12.98	PASS
BLE_2M	Ant1	Low	2402	7.16	-28.08	≤ -12.84	PASS
		High	2480	6.96	-41.64	≤ -13.04	PASS

Test Graphs

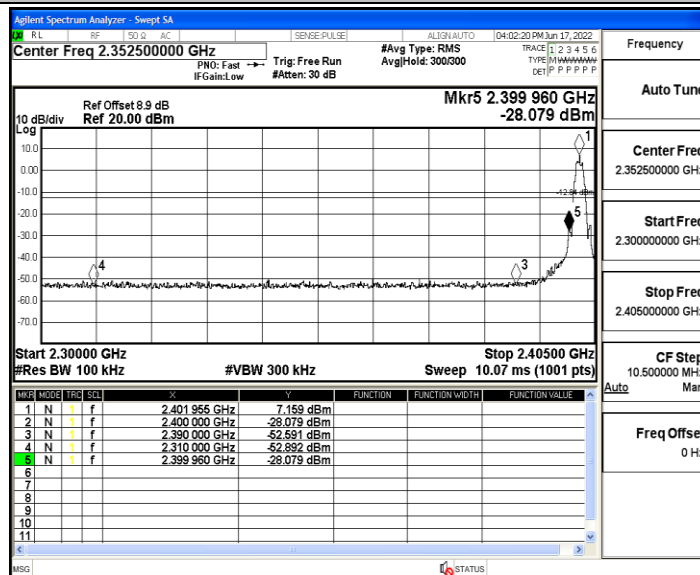
BLE_1M_Ant1_Low_2402



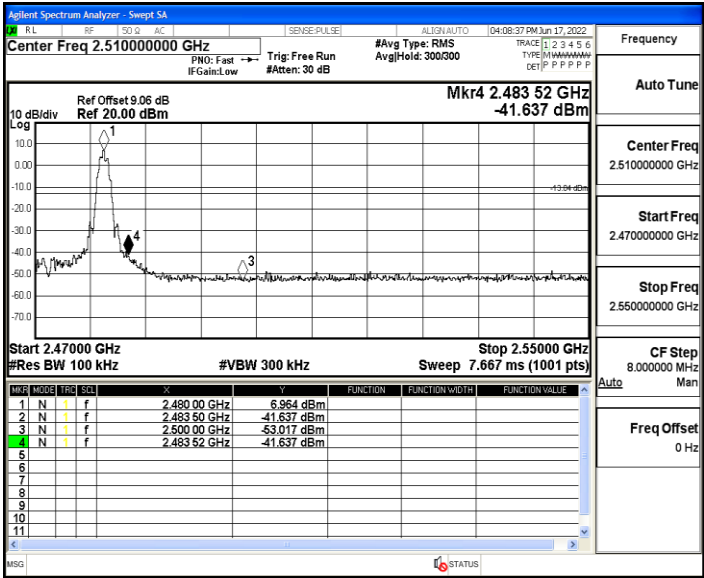
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480

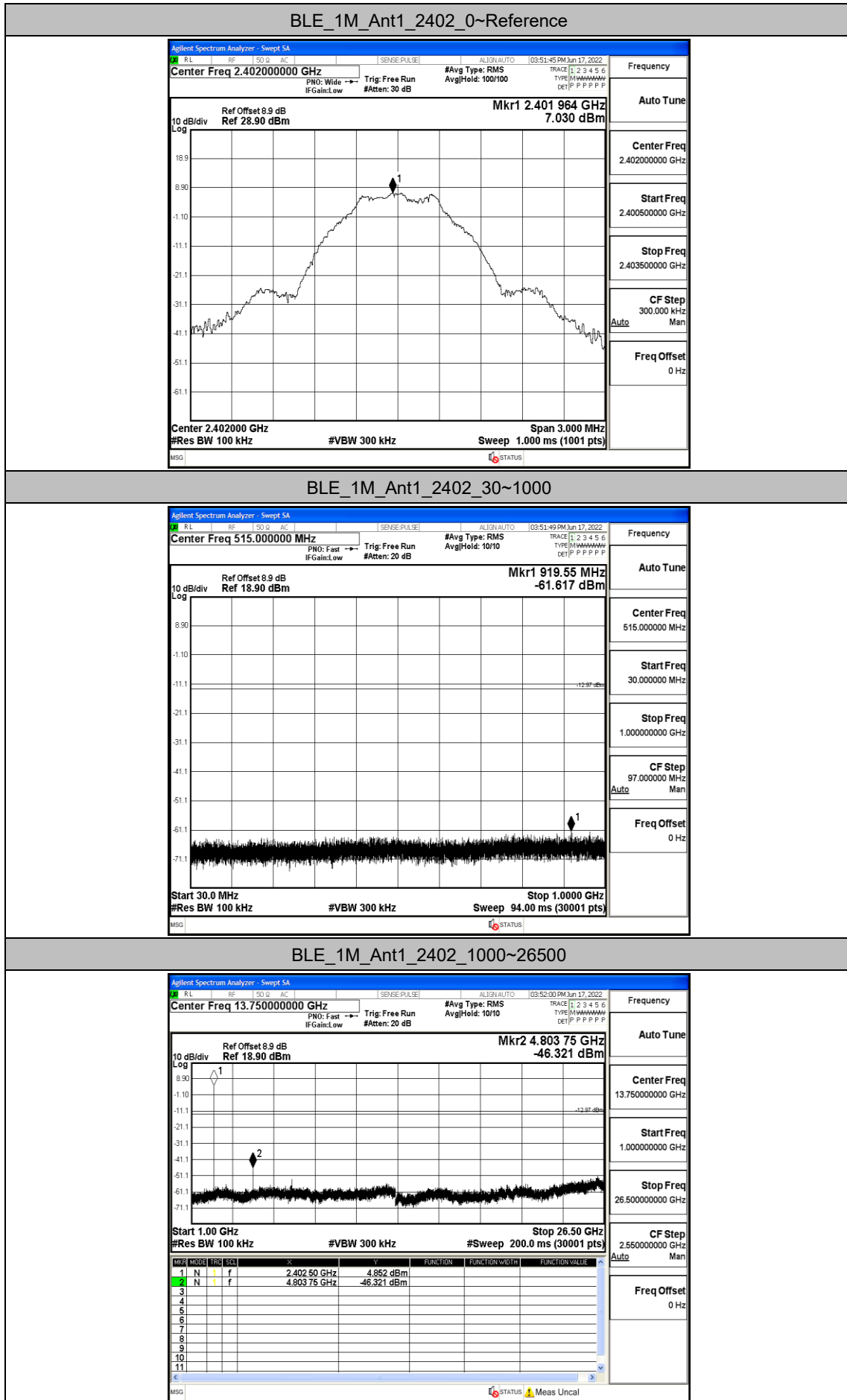


Appendix F: Conducted Spurious Emission

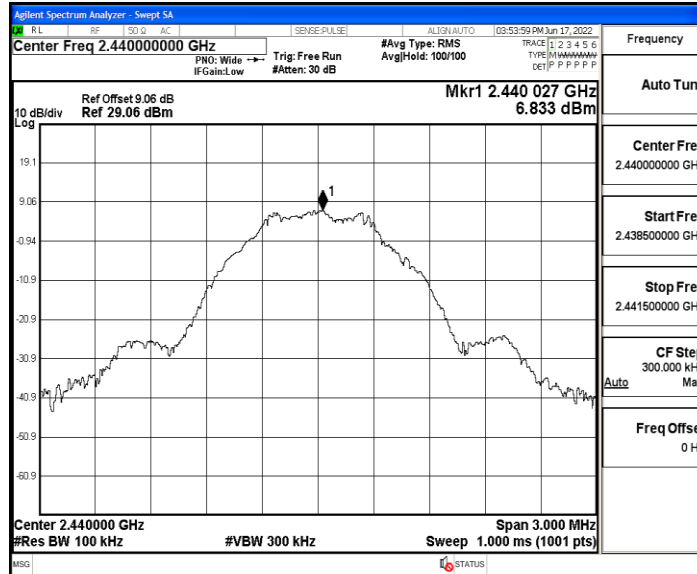
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	7.03	7.03	---	PASS
			30~1000	7.03	-61.62	≤-12.97	PASS
			1000~26500	7.03	-46.32	≤-12.97	PASS
		2440	Reference	6.83	6.83	---	PASS
			30~1000	6.83	-60.72	≤-13.17	PASS
			1000~26500	6.83	-46.4	≤-13.17	PASS
		2480	Reference	6.81	6.81	---	PASS
			30~1000	6.81	-60.98	≤-13.19	PASS
			1000~26500	6.81	-45.69	≤-13.19	PASS
BLE_2M	Ant1	2402	Reference	6.93	6.93	---	PASS
			30~1000	6.93	-61.8	≤-13.07	PASS
			1000~26500	6.93	-49.81	≤-13.07	PASS
		2440	Reference	6.70	6.70	---	PASS
			30~1000	6.70	-61.57	≤-13.3	PASS
			1000~26500	6.70	-48.23	≤-13.3	PASS
		2480	Reference	6.32	6.32	---	PASS
			30~1000	6.32	-61.71	≤-13.68	PASS
			1000~26500	6.32	-47.25	≤-13.68	PASS

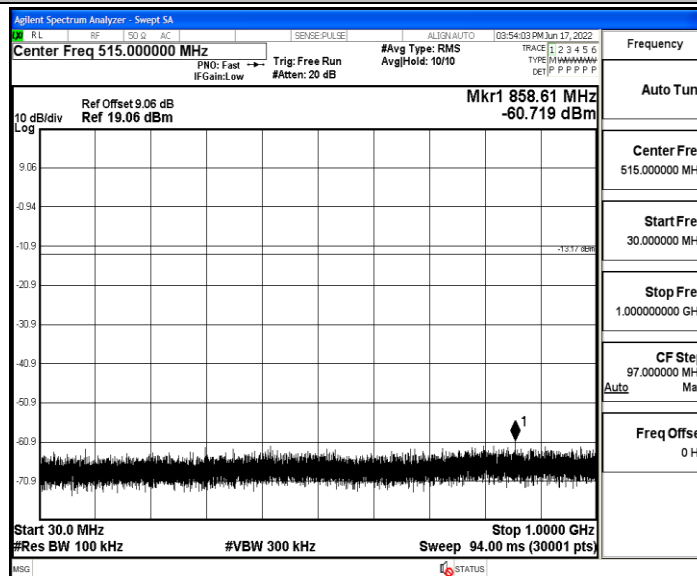
Test Graphs



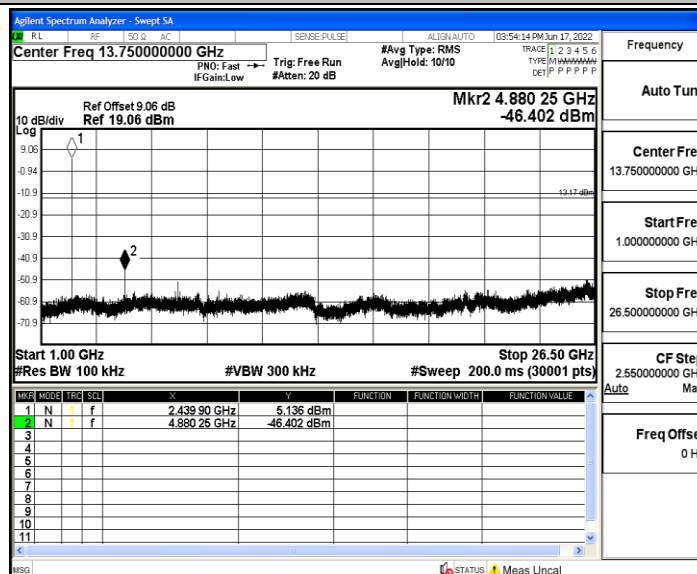
BLE_1M_Ant1_2440_0~Reference



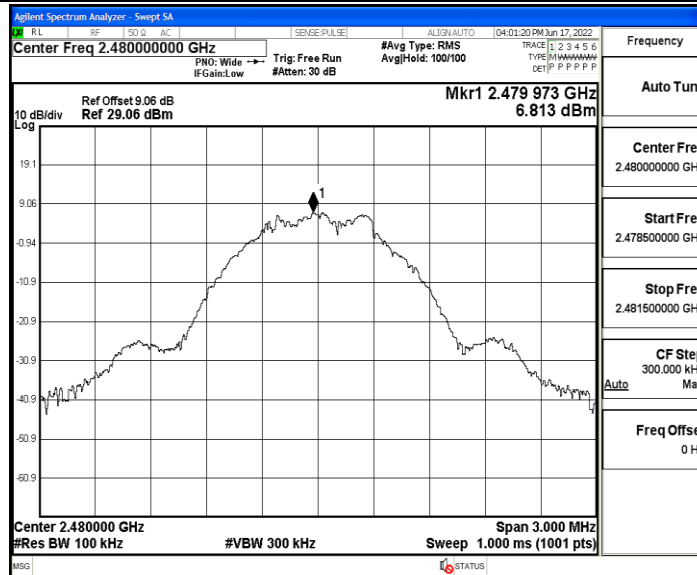
BLE_1M_Ant1_2440_30~1000



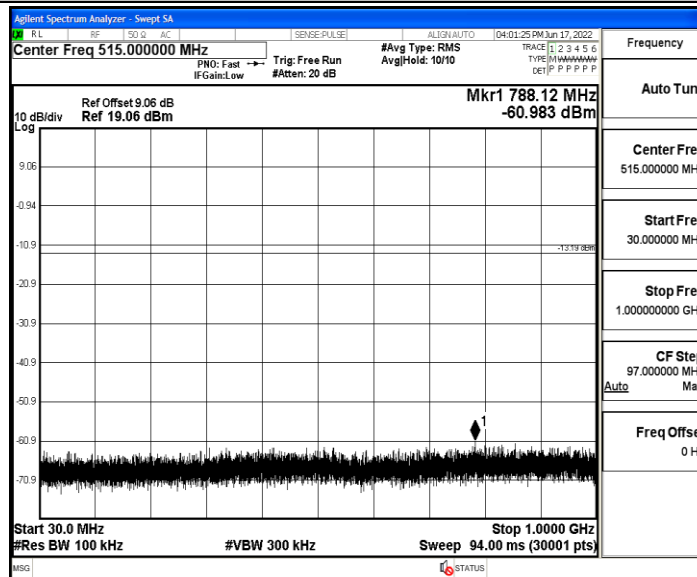
BLE_1M_Ant1_2440_1000~26500



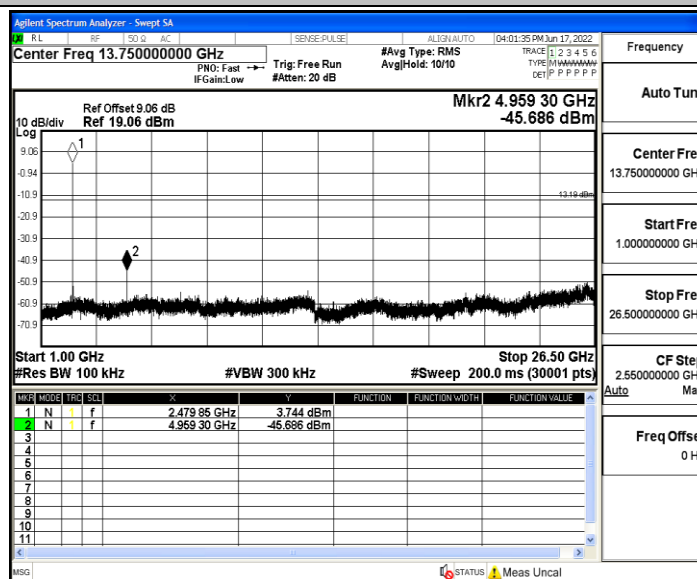
BLE_1M_Ant1_2480_0~Reference



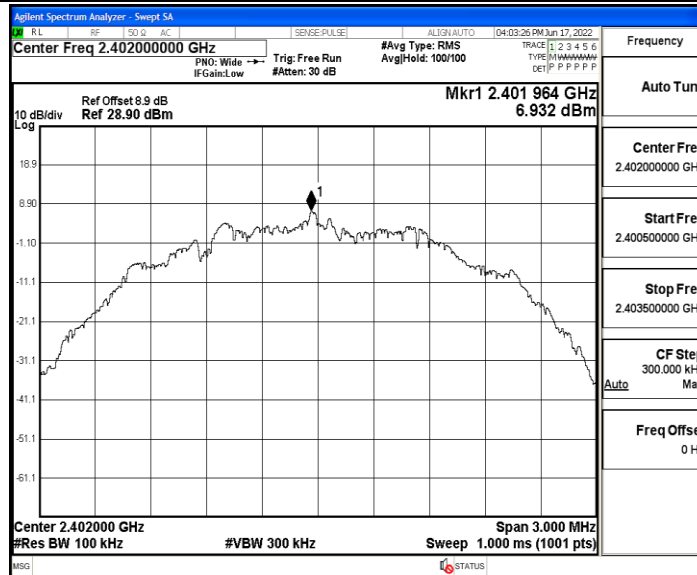
BLE_1M_Ant1_2480_30~1000



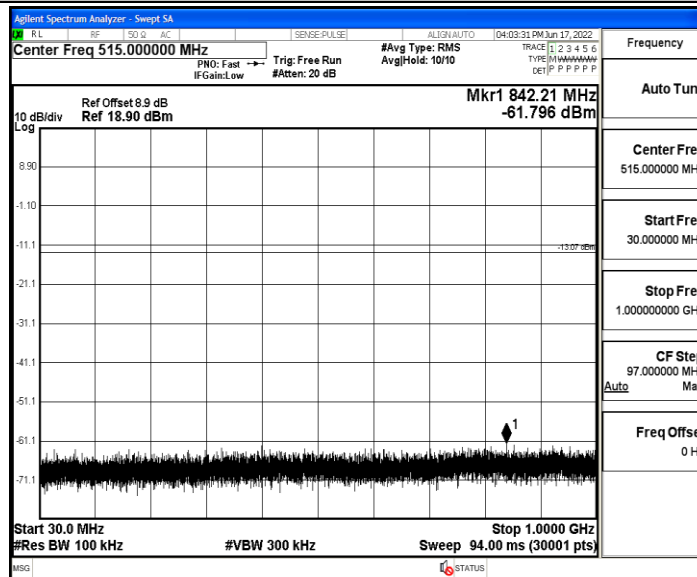
BLE_1M_Ant1_2480_1000~26500



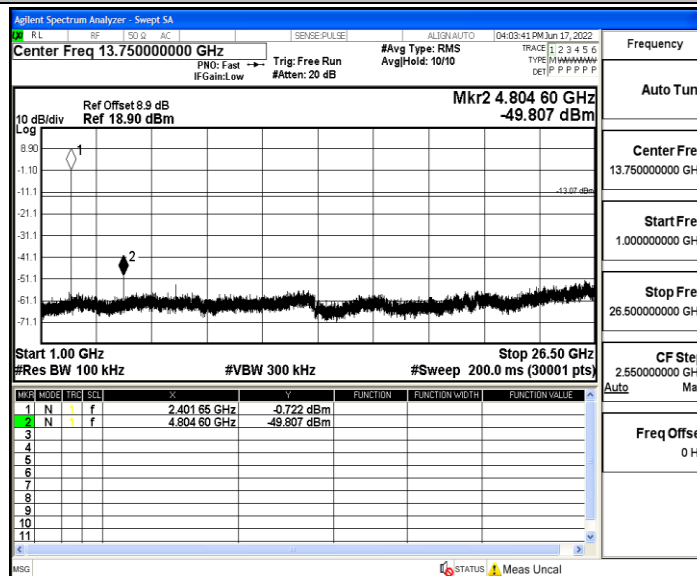
BLE_2M_Ant1_2402_0~Reference



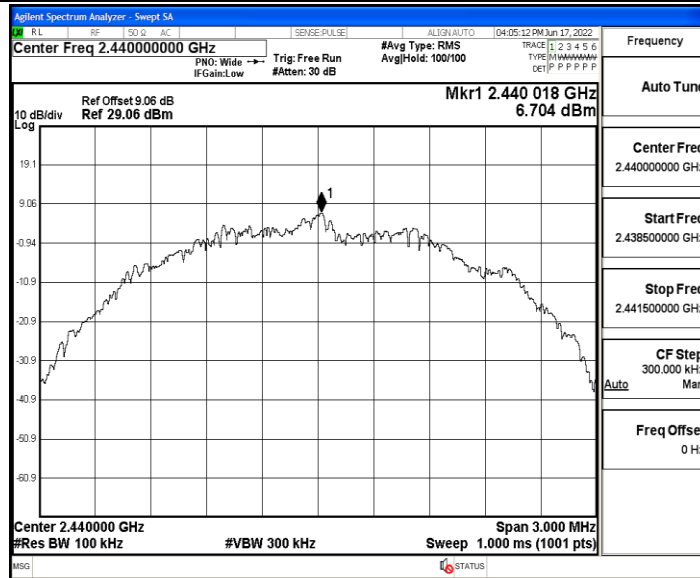
BLE_2M_Ant1_2402_30~1000



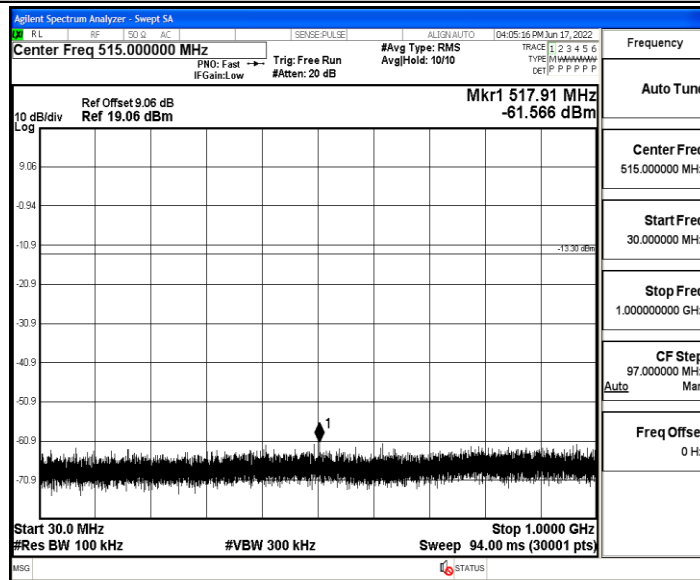
BLE_2M_Ant1_2402_1000~26500



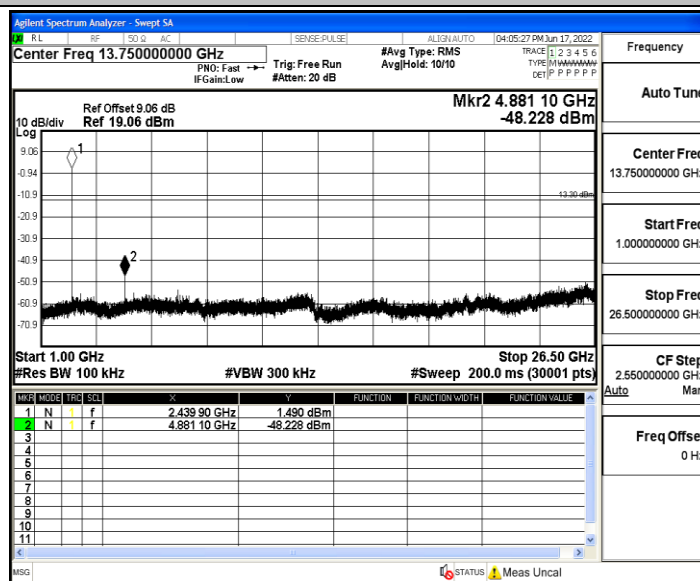
BLE_2M_Ant1_2440_0~Reference



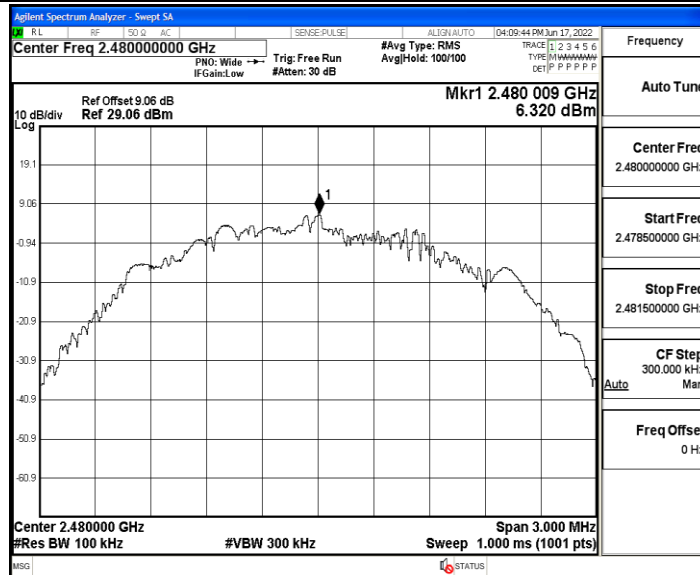
BLE_2M_Ant1_2440_30~1000



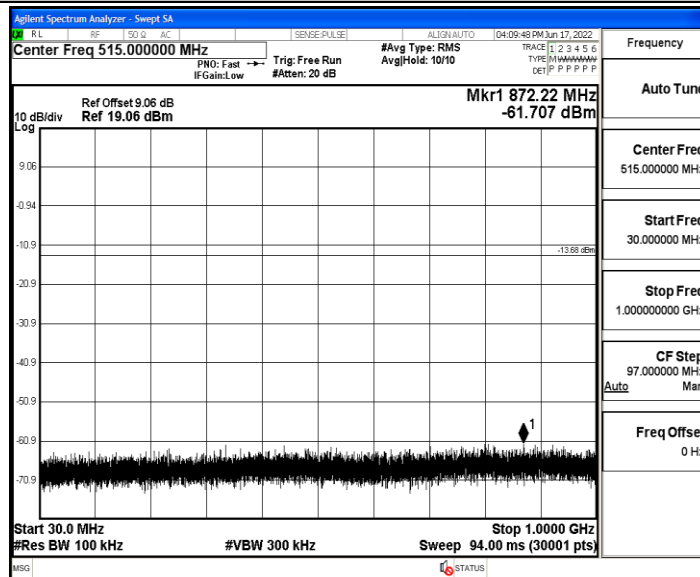
BLE_2M_Ant1_2440_1000~26500



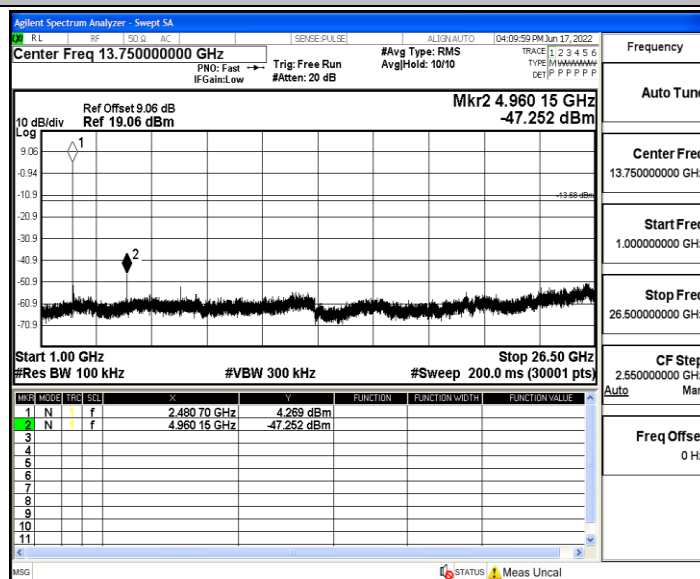
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500

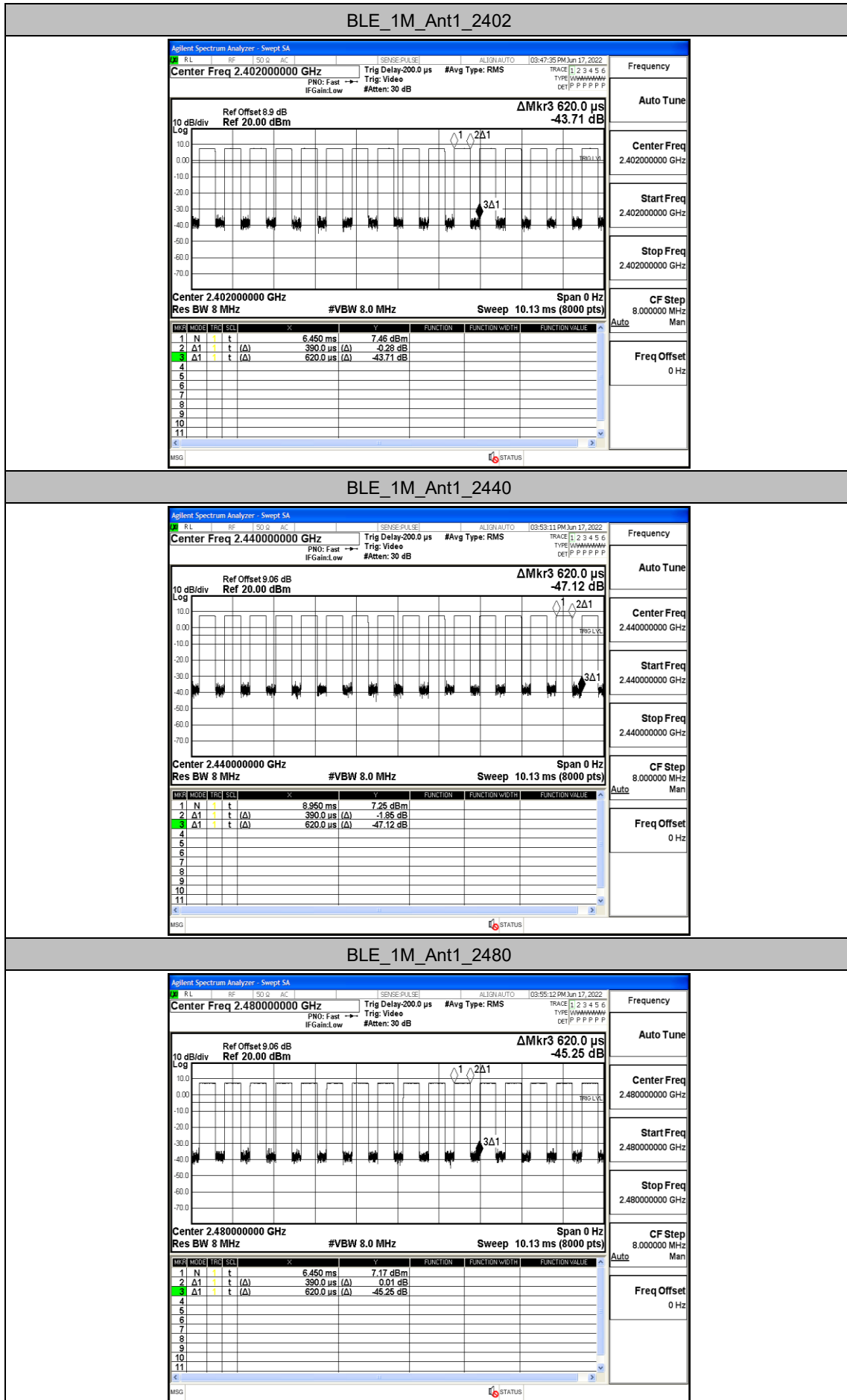


Appendix G: Duty Cycle

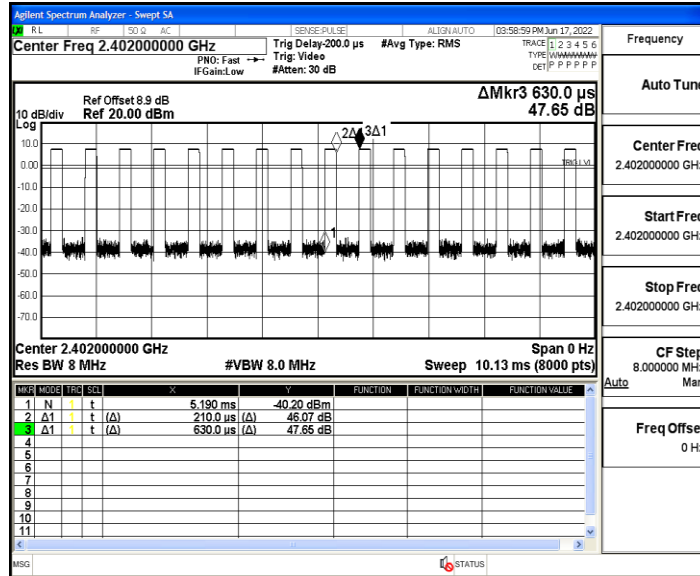
Test Result

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
BLE_2M	Ant1	2402	0.21	0.63	33.33	4.76
		2440	0.21	0.63	33.33	4.76
		2480	0.21	0.62	33.87	4.76

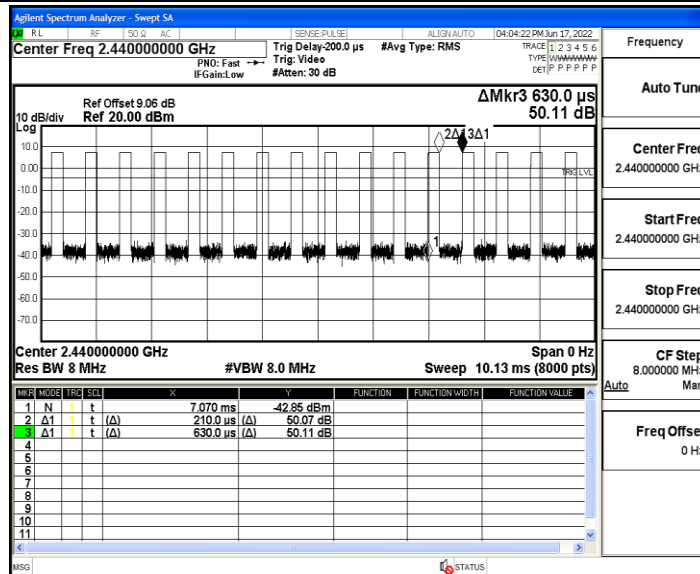
Test Graphs



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

