

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

Product Name: Smart Switch

Trade Mark: Dusun

Test Model: DSW-080

FCC ID: 2AUXB-DSW-080

Environmental Conditions

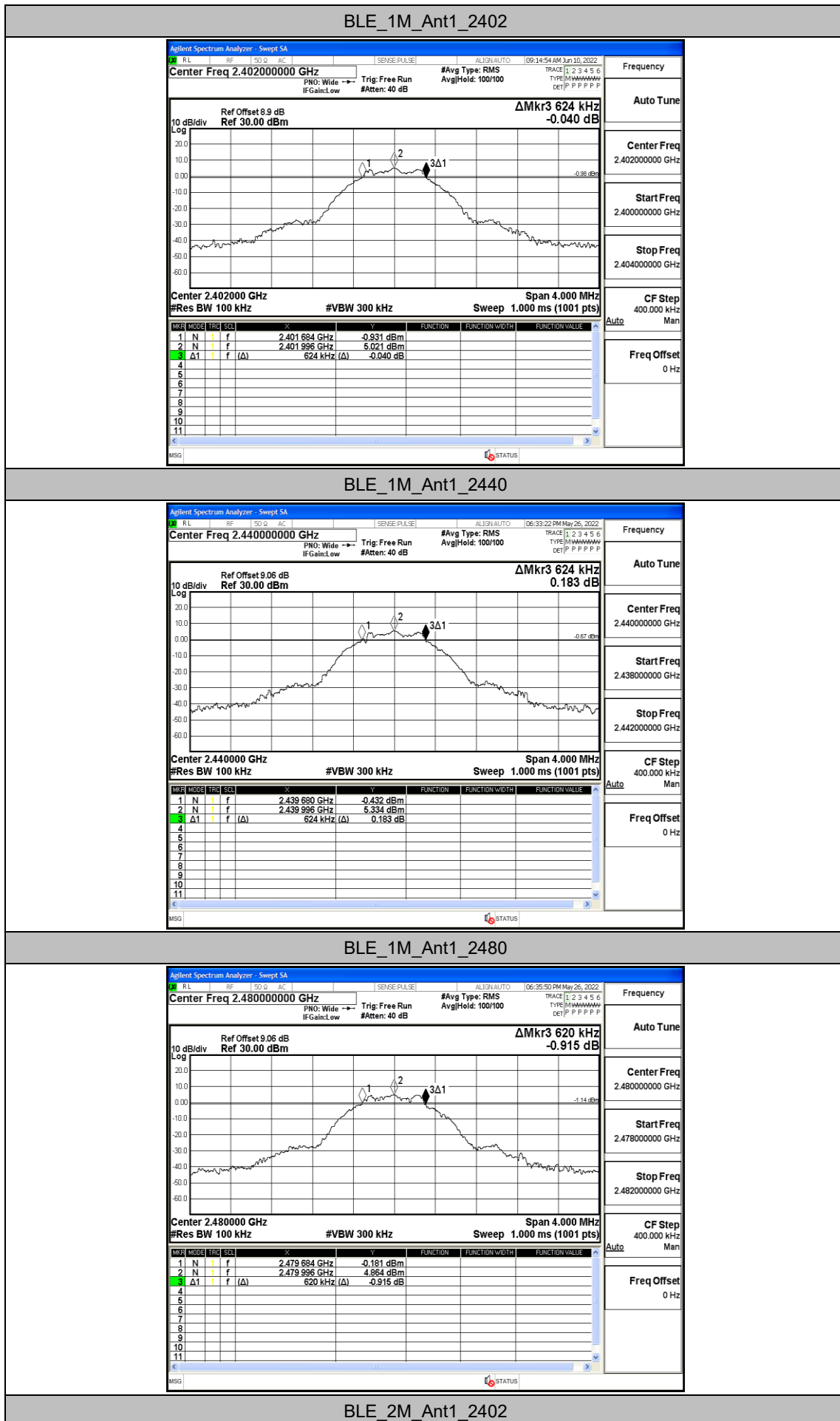
Temperature:	22.8°C
Relative Humidity:	59%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

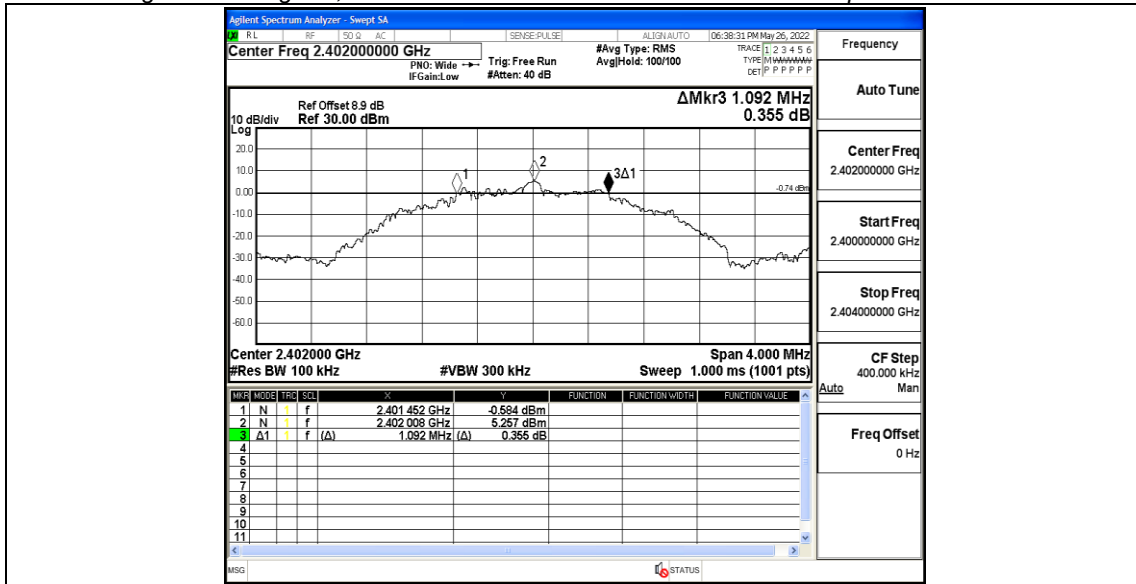
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.624	2401.684	2402.308	0.5	PASS
		2440	0.624	2439.680	2440.304	0.5	PASS
		2480	0.620	2479.684	2480.304	0.5	PASS
BLE_2M	Ant1	2402	1.092	2401.452	2402.544	0.5	PASS
		2440	1.112	2439.448	2440.560	0.5	PASS
		2480	1.212	2479.364	2480.028	0.5	PASS

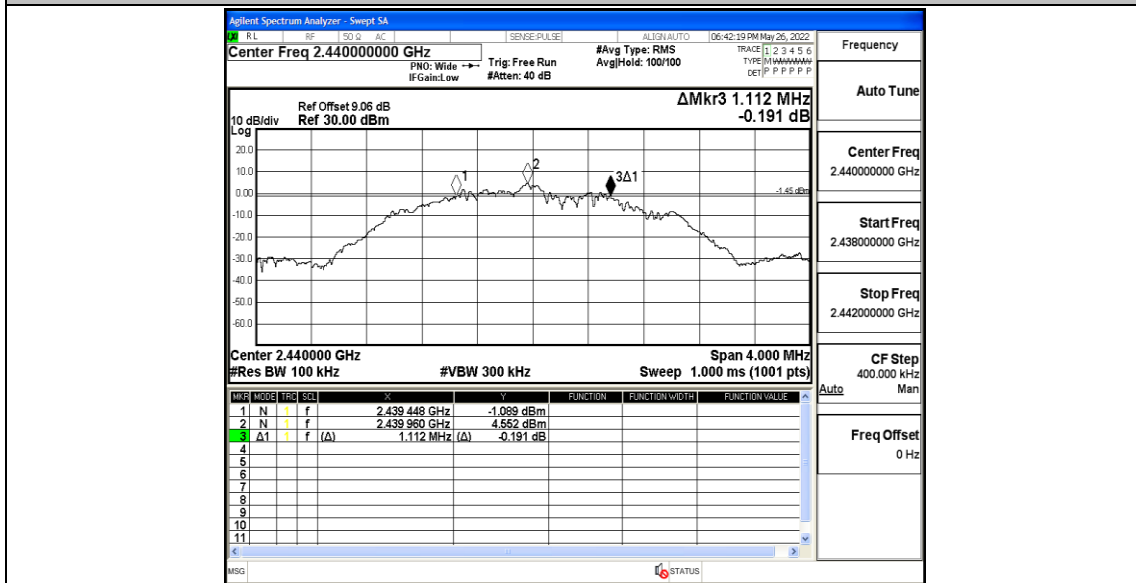
Test Graphs



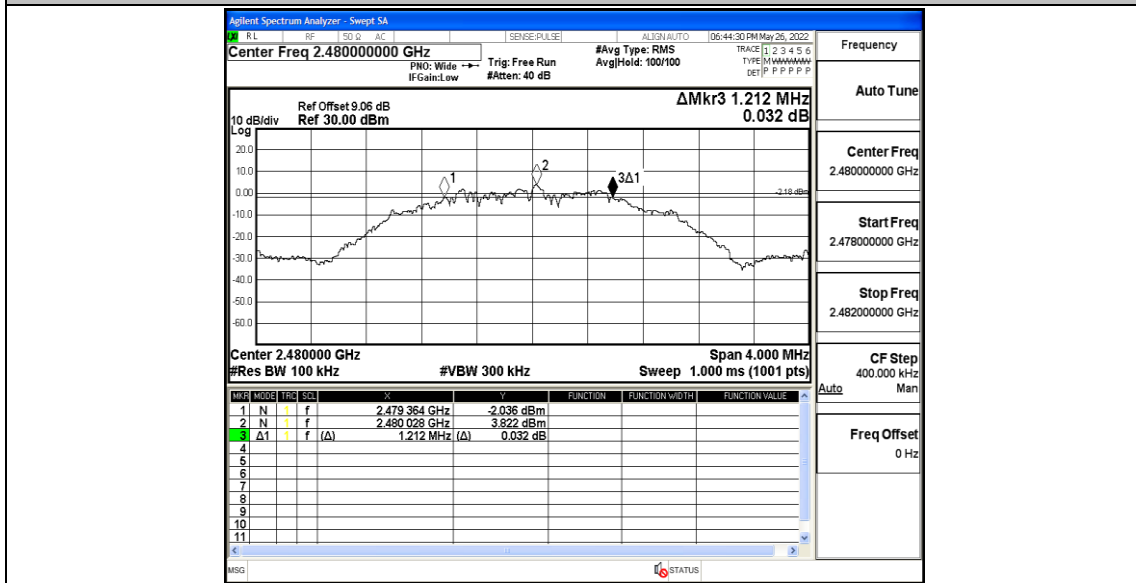
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

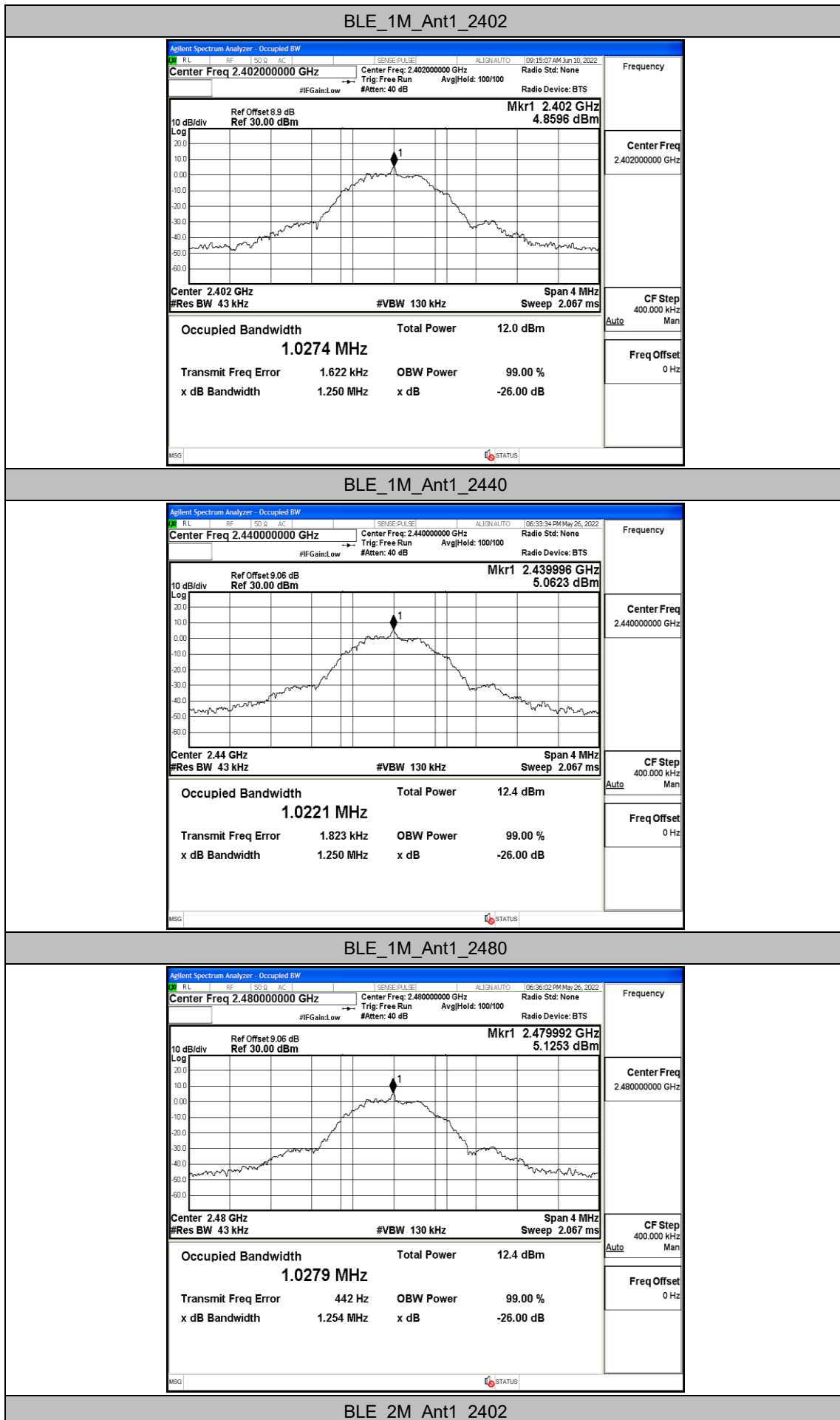


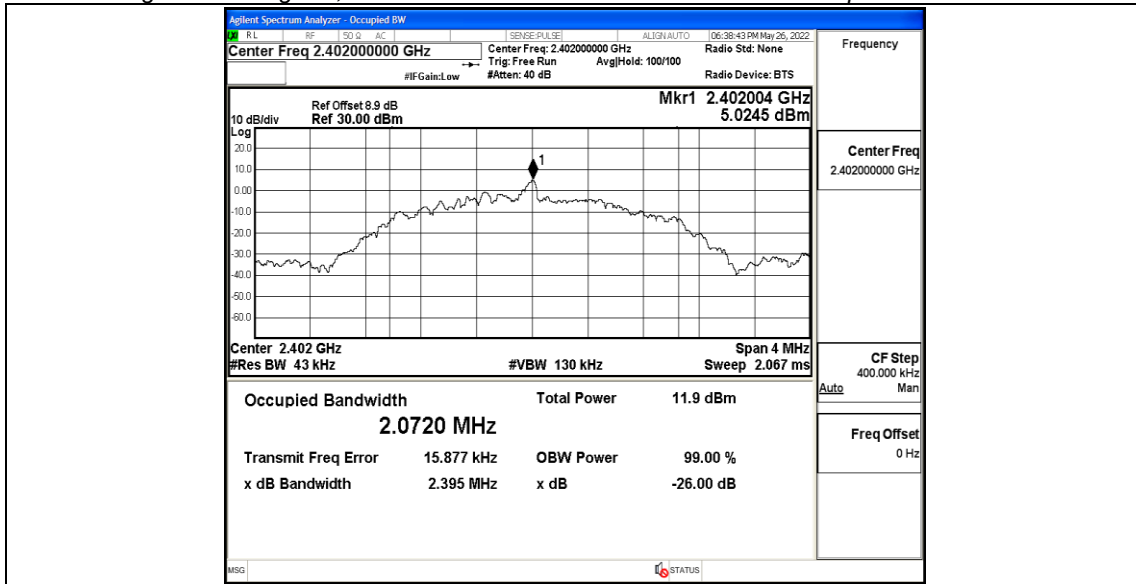
Appendix B: Occupied Channel Bandwidth

Test Result

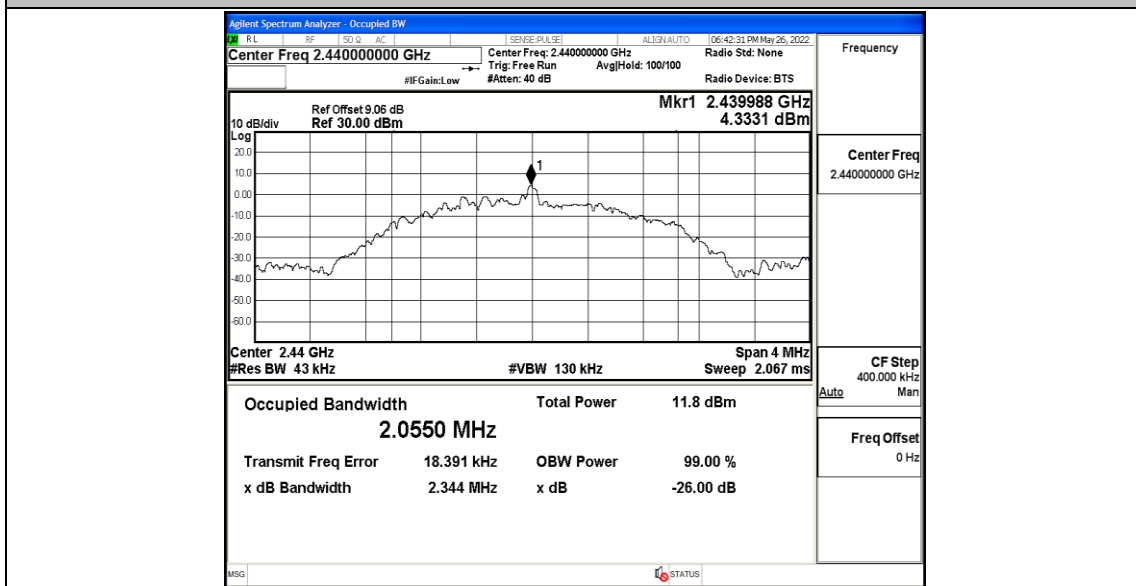
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0274	2401.488	2402.515	---	---
		2440	1.0221	2439.491	2440.513	---	---
		2480	1.0279	2479.486	2480.514	---	---
BLE_2M	Ant1	2402	2.0720	2400.980	2403.052	---	---
		2440	2.0550	2438.991	2441.046	---	---
		2480	2.0610	2478.970	2481.031	---	---

Test Graphs

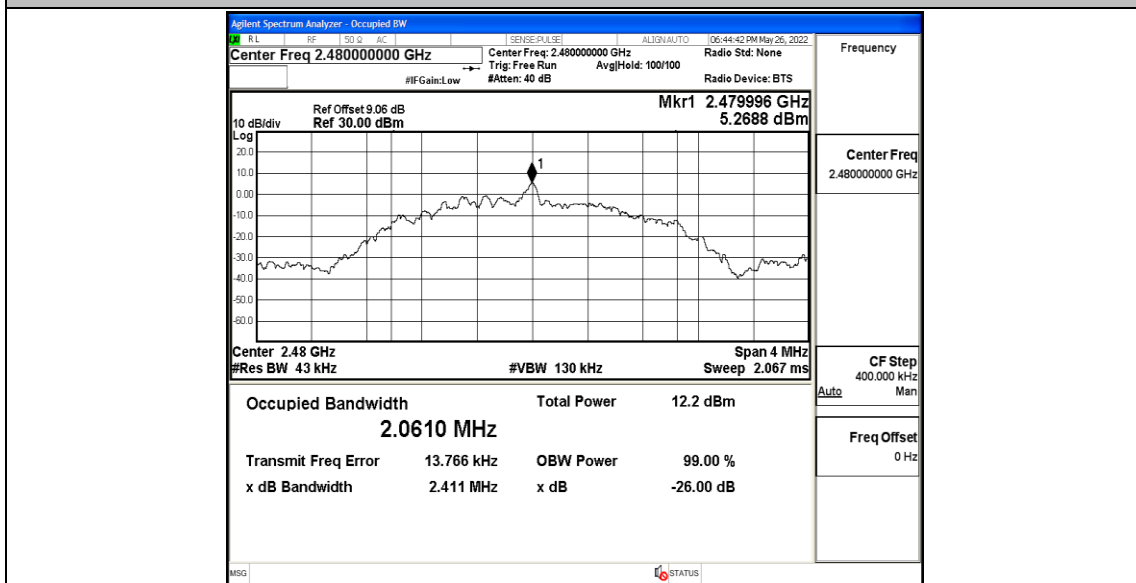




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

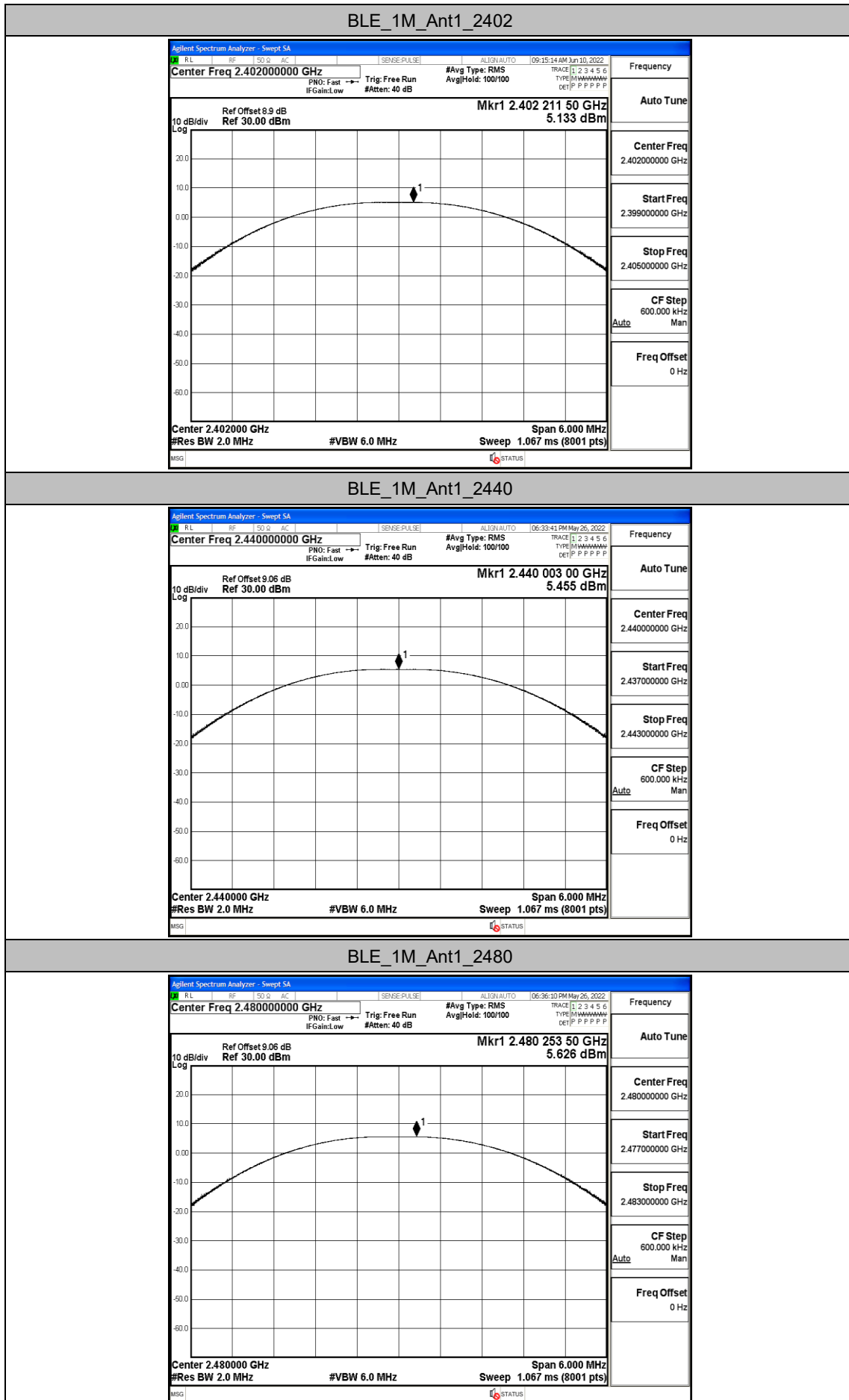


Appendix C: Maximum Peak conducted output power

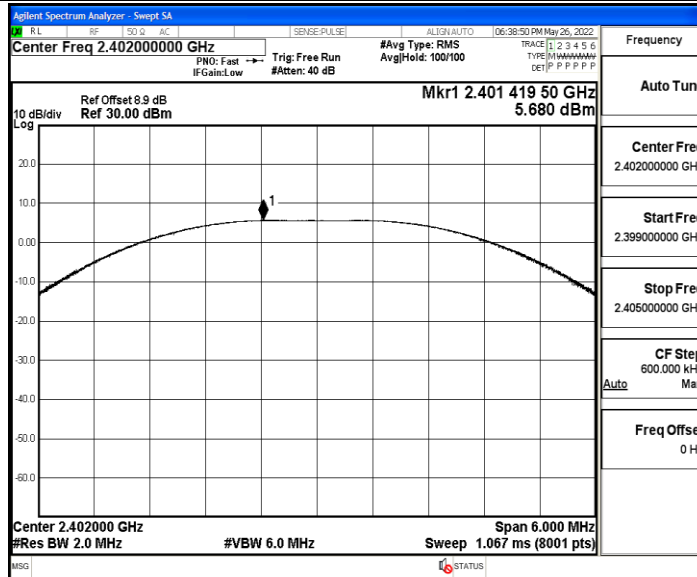
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5.13	≤30	PASS
		2440	5.46	≤30	PASS
		2480	5.63	≤30	PASS
BLE_2M	Ant1	2402	5.68	≤30	PASS
		2440	5.51	≤30	PASS
		2480	5.65	≤30	PASS

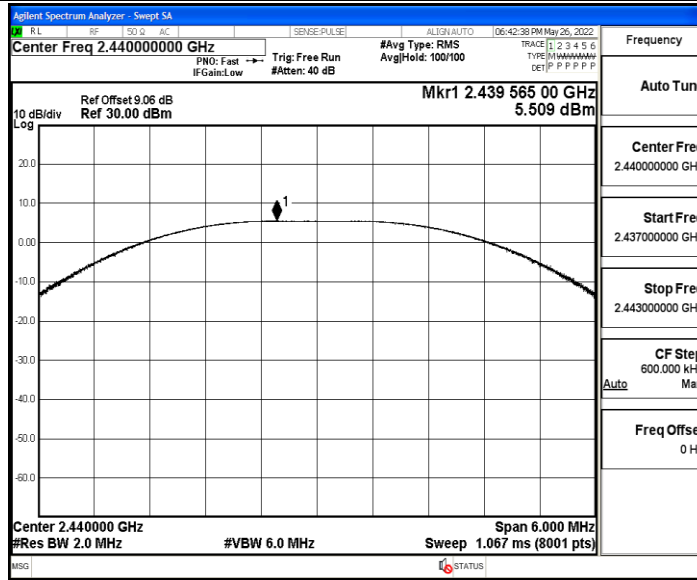
Test Graphs



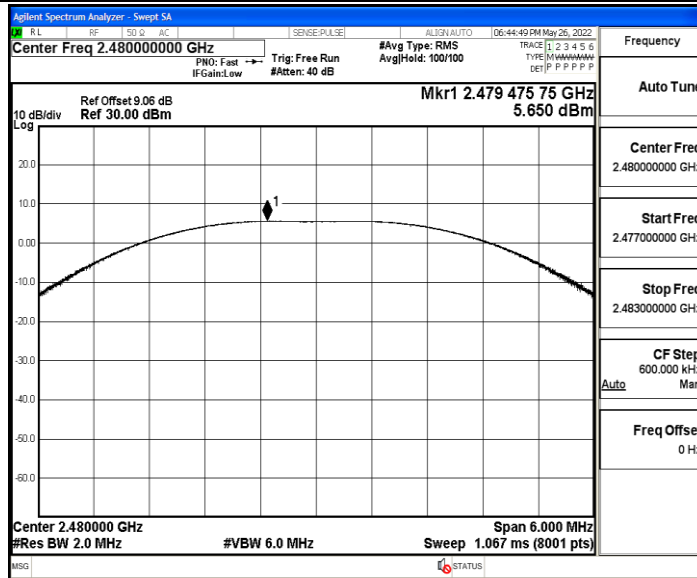
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

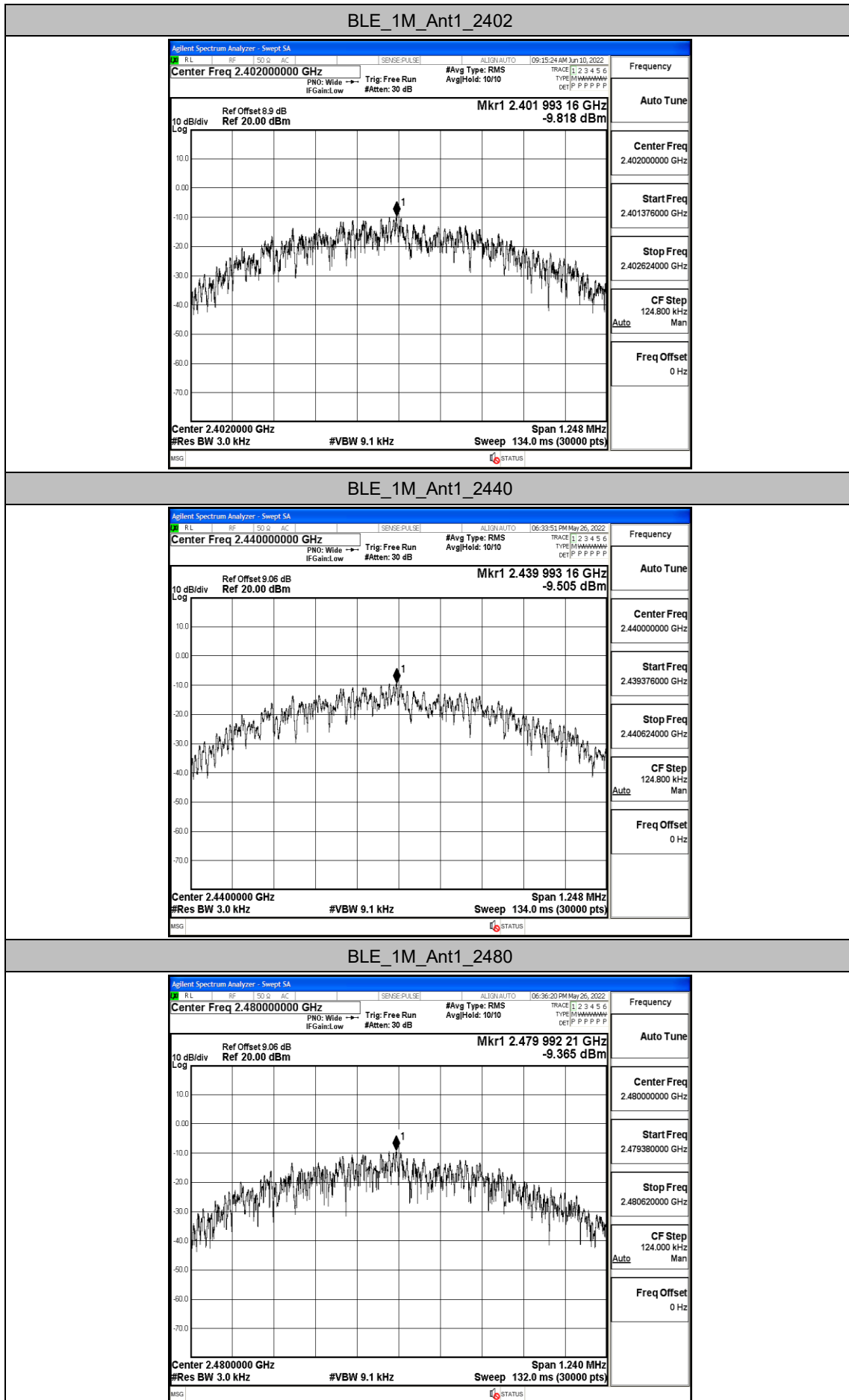


Appendix D: Maximum power spectral density

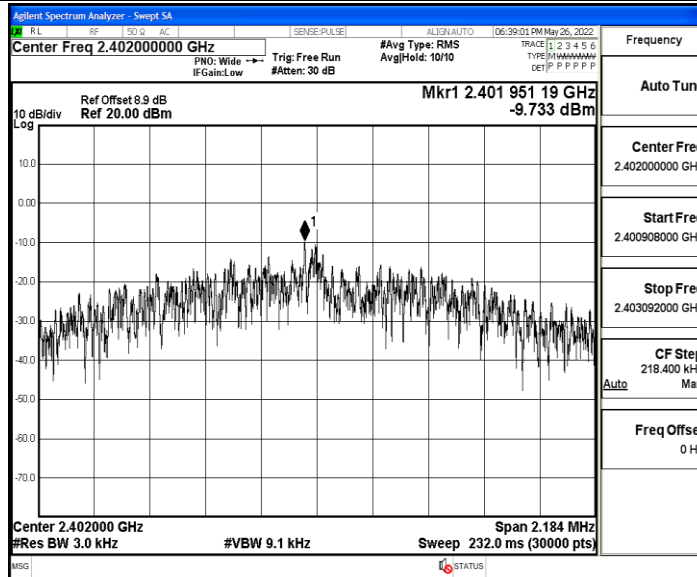
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.82	≤8.00	PASS
		2440	-9.51	≤8.00	PASS
		2480	-9.37	≤8.00	PASS
BLE_2M	Ant1	2402	-9.73	≤8.00	PASS
		2440	-9.93	≤8.00	PASS
		2480	-9.77	≤8.00	PASS

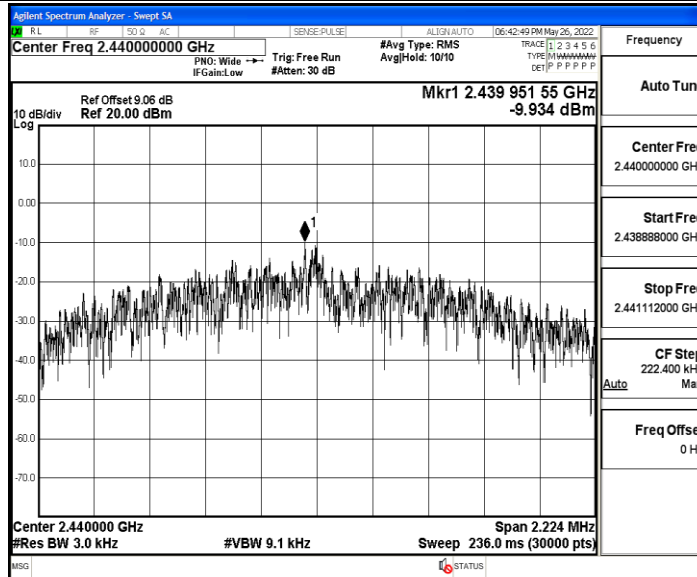
Test Graphs



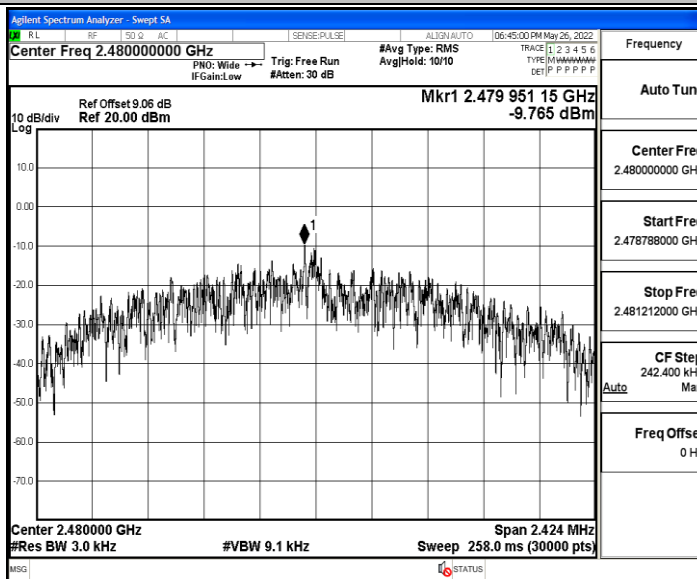
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



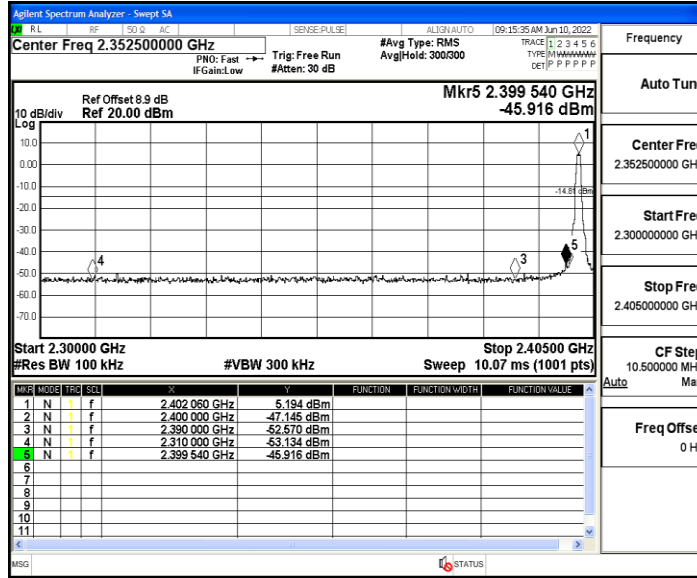
Appendix E: Band edge measurements

Test Result

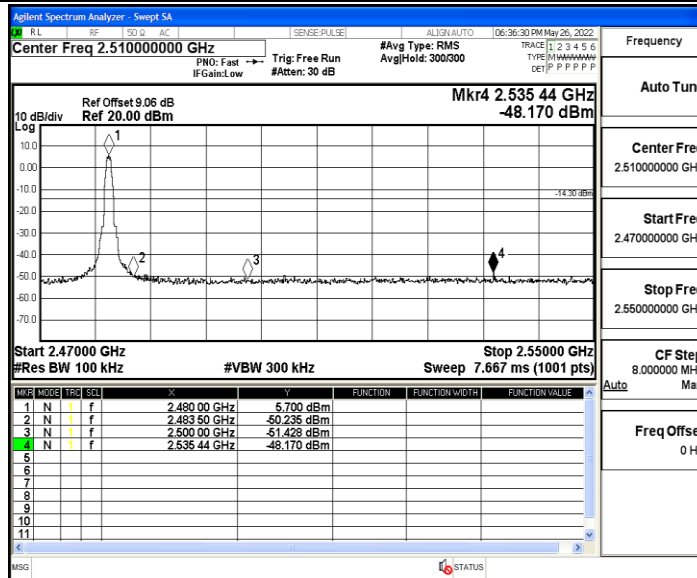
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	5.19	-45.92	≤-14.81	PASS
		High	2480	5.70	-48.17	≤-14.3	PASS
BLE_2M	Ant1	Low	2402	5.73	-27.52	≤-14.27	PASS
		High	2480	5.71	-47.94	≤-14.29	PASS

Test Graphs

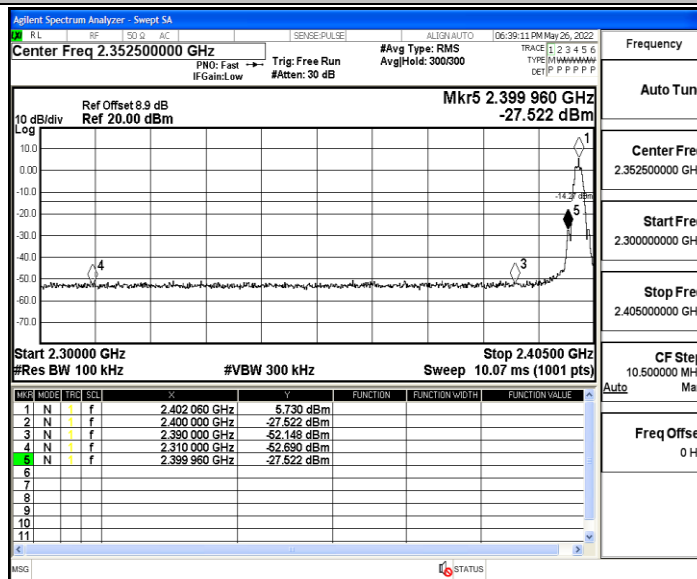
BLE_1M_Ant1_Low_2402



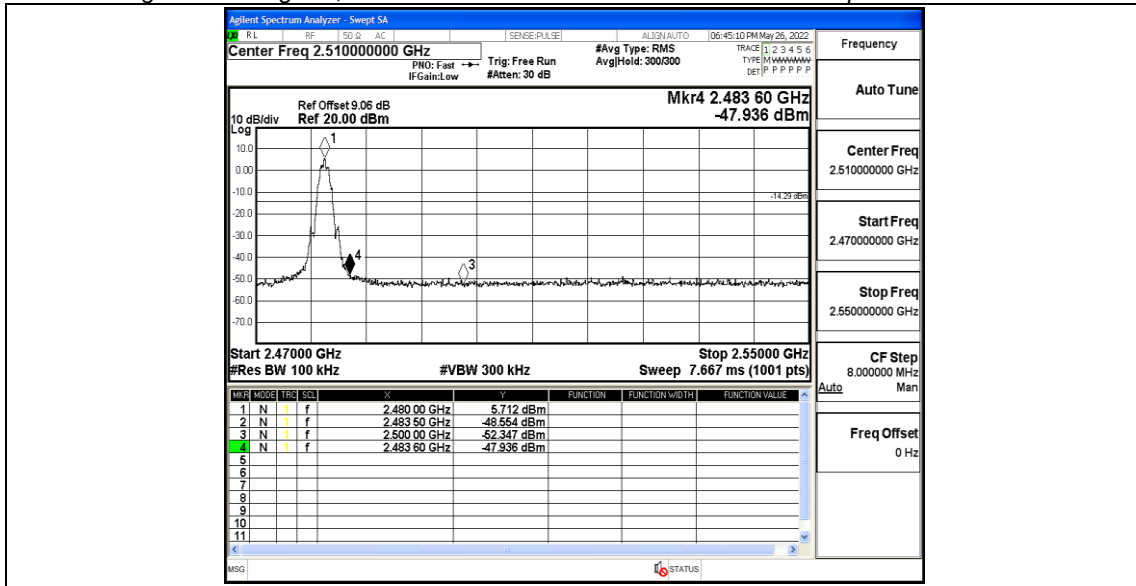
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480

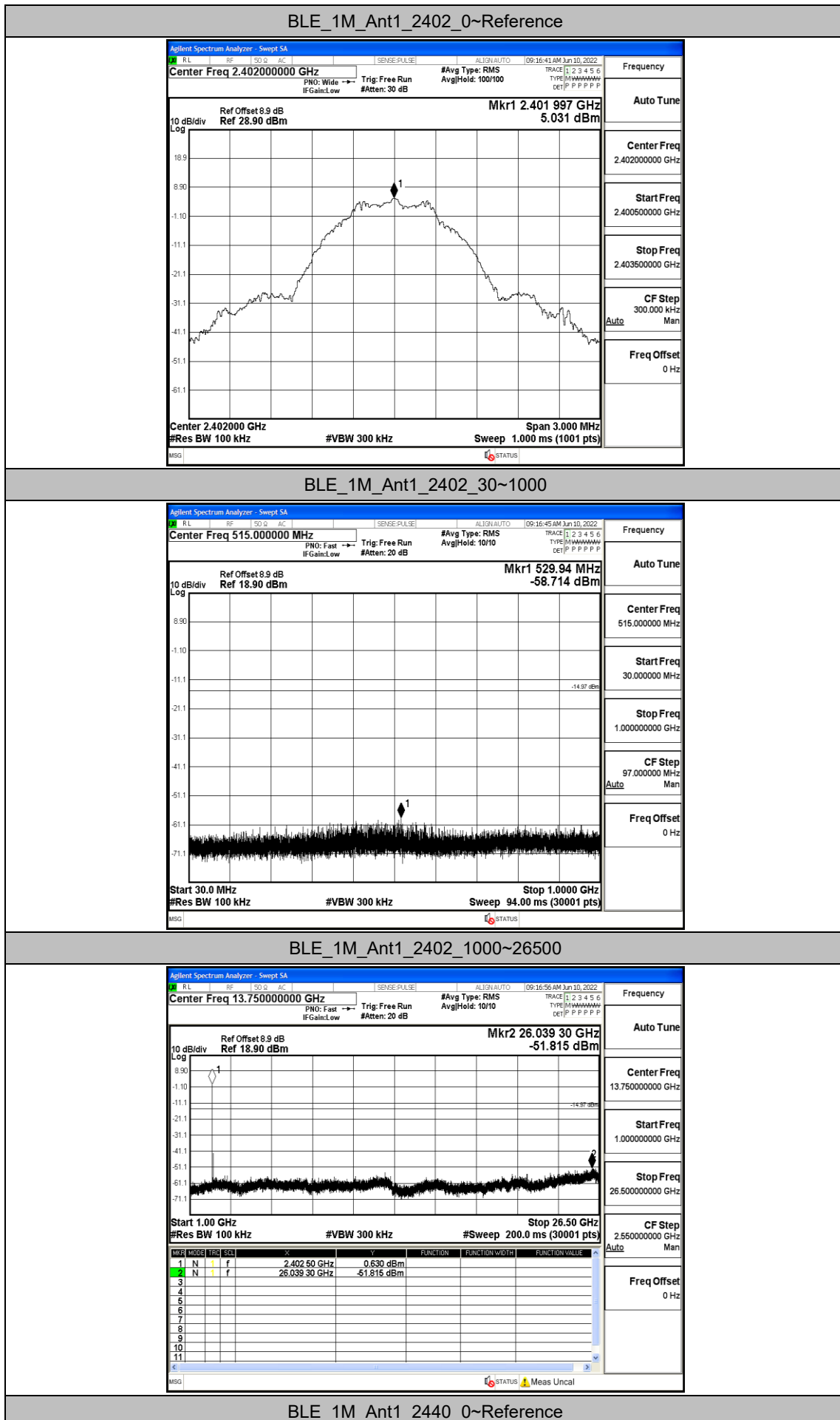


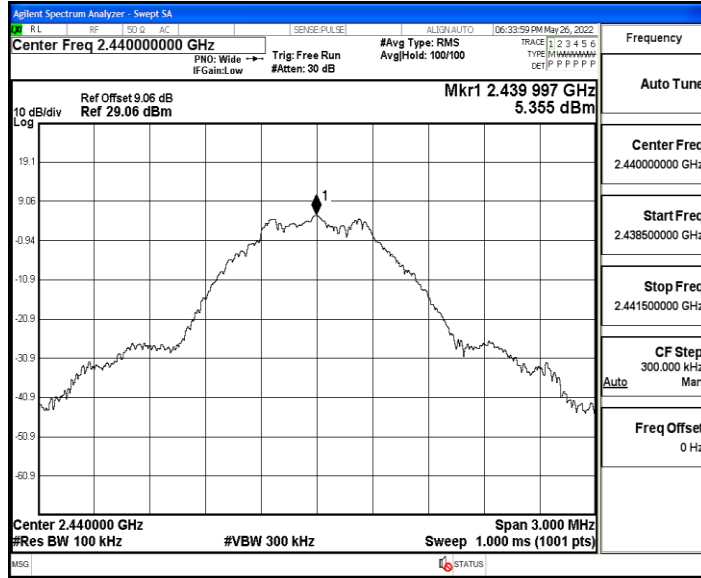
Appendix F: Conducted Spurious Emission

Test Result

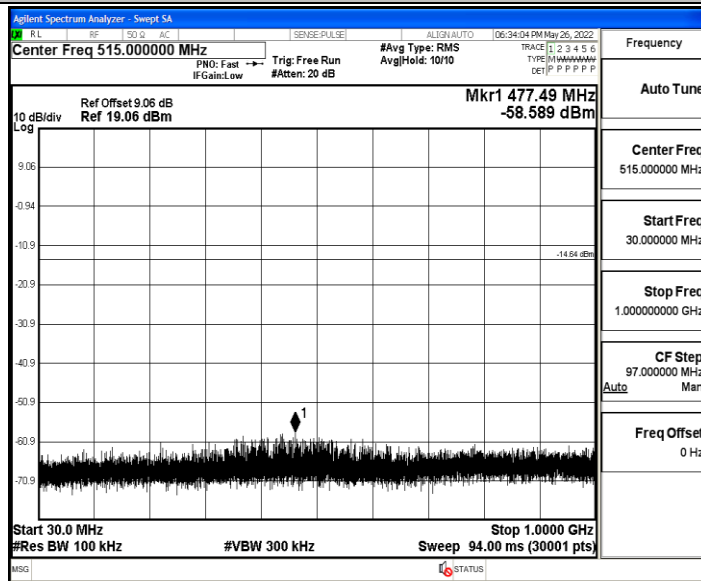
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	5.03	5.03	---	PASS
			30~1000	5.03	-58.71	≤-14.97	PASS
			1000~26500	5.03	-51.82	≤-14.97	PASS
		2440	Reference	5.36	5.36	---	PASS
			30~1000	5.36	-58.59	≤-14.64	PASS
			1000~26500	5.36	-50.33	≤-14.64	PASS
		2480	Reference	5.48	5.48	---	PASS
			30~1000	5.48	-59.46	≤-14.52	PASS
			1000~26500	5.48	-50.81	≤-14.52	PASS
BLE_2M	Ant1	2402	Reference	5.49	5.49	---	PASS
			30~1000	5.49	-58.91	≤-14.51	PASS
			1000~26500	5.49	-50.89	≤-14.51	PASS
		2440	Reference	5.33	5.33	---	PASS
			30~1000	5.33	-58.93	≤-14.67	PASS
			1000~26500	5.33	-50.91	≤-14.67	PASS
		2480	Reference	-0.37	4.94	---	PASS
			30~1000	-0.37	-57.67	≤-15.06	PASS
			1000~26500	-0.37	-51.51	≤-15.06	PASS

Test Graphs

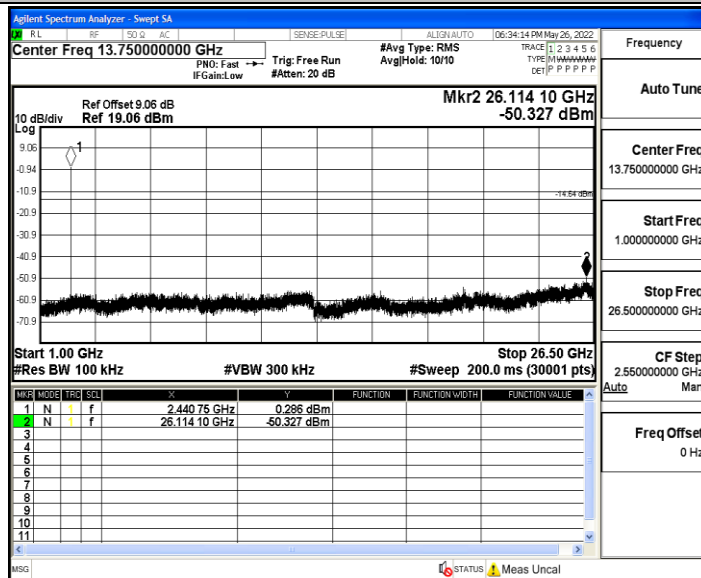




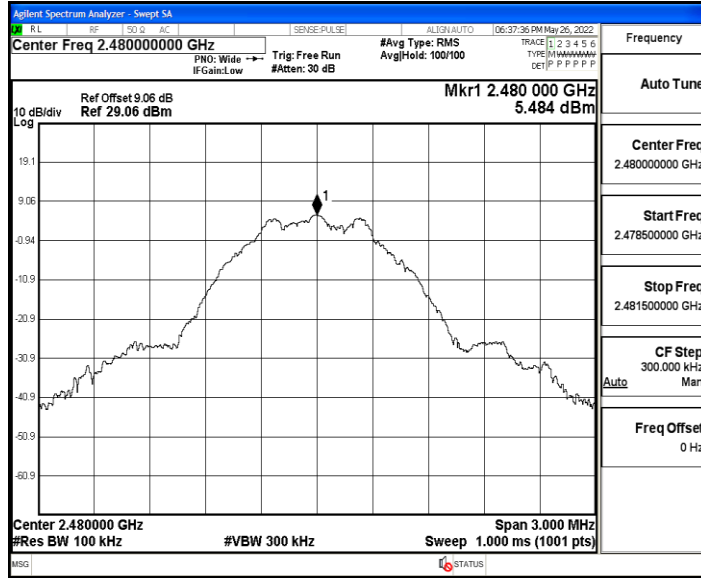
BLE_1M_Ant1_2440_30~1000



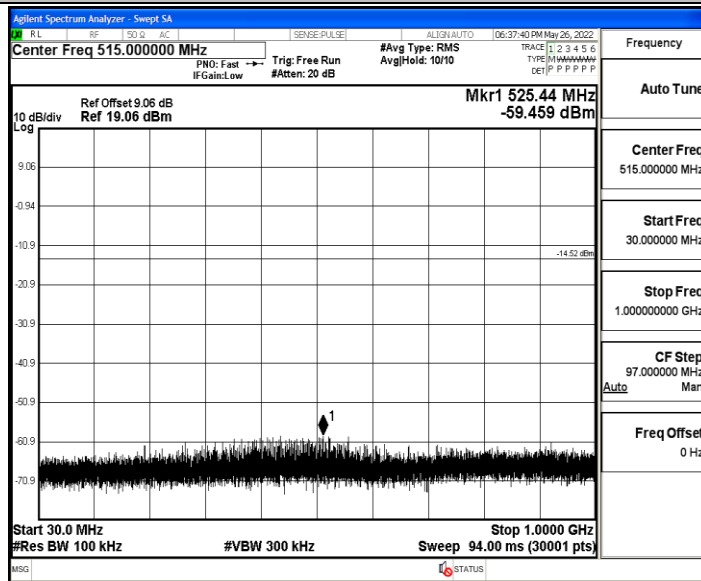
BLE_1M_Ant1_2440_1000~26500



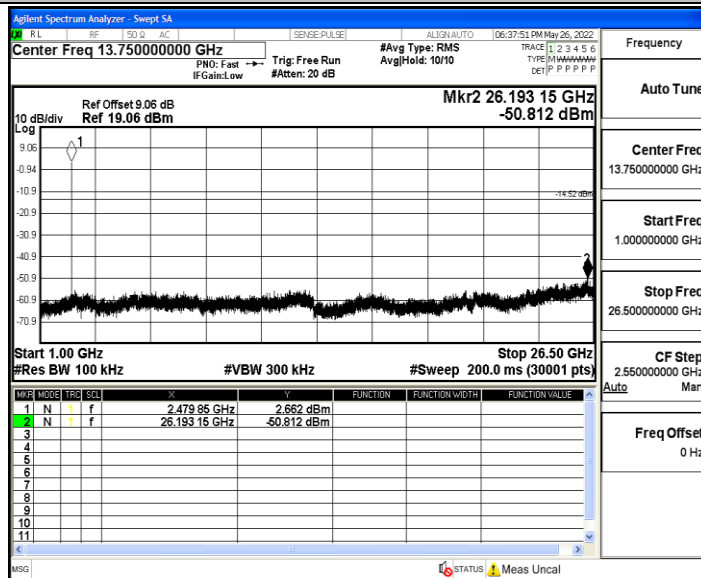
BLE_1M_Ant1_2480_0~Reference



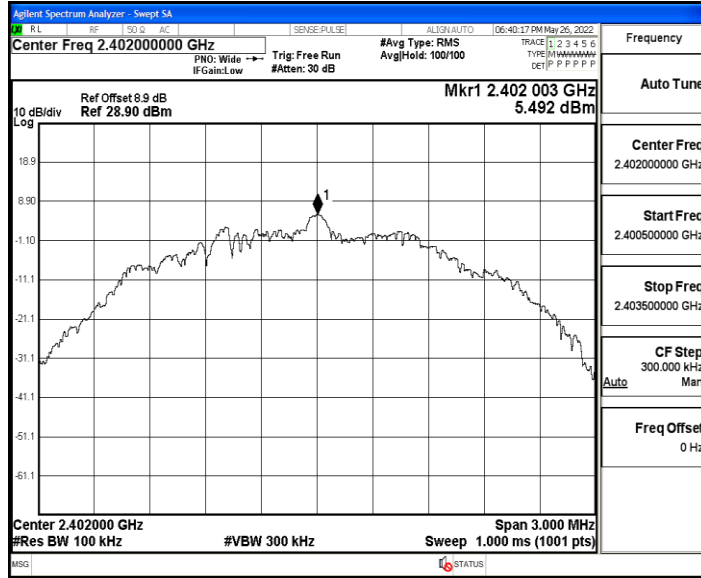
BLE_1M_Ant1_2480_30~1000



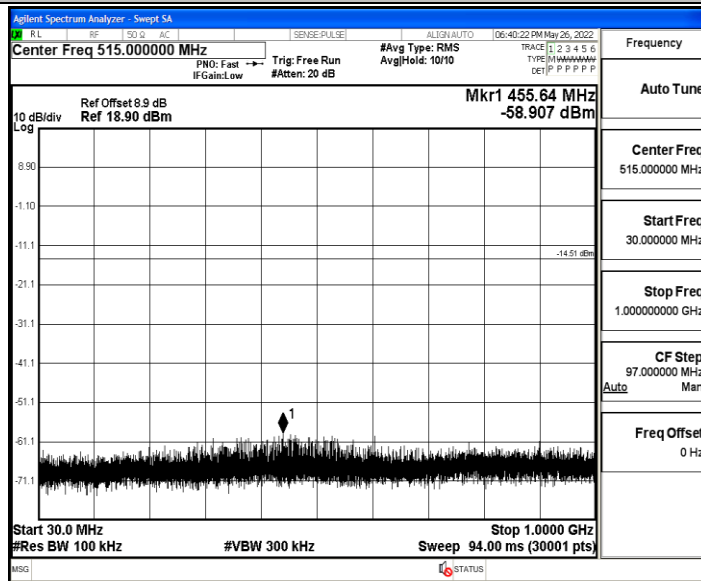
BLE_1M_Ant1_2480_1000~26500



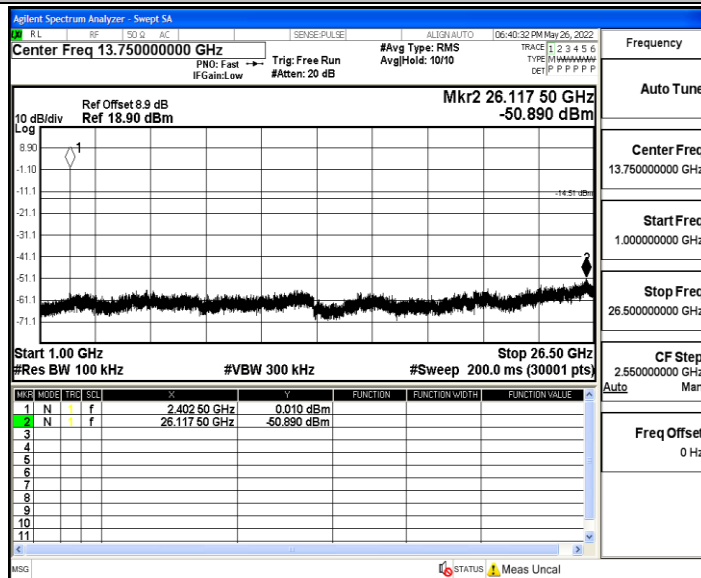
BLE_2M_Ant1_2402_0~Reference



BLE_2M_Ant1_2402_30~1000



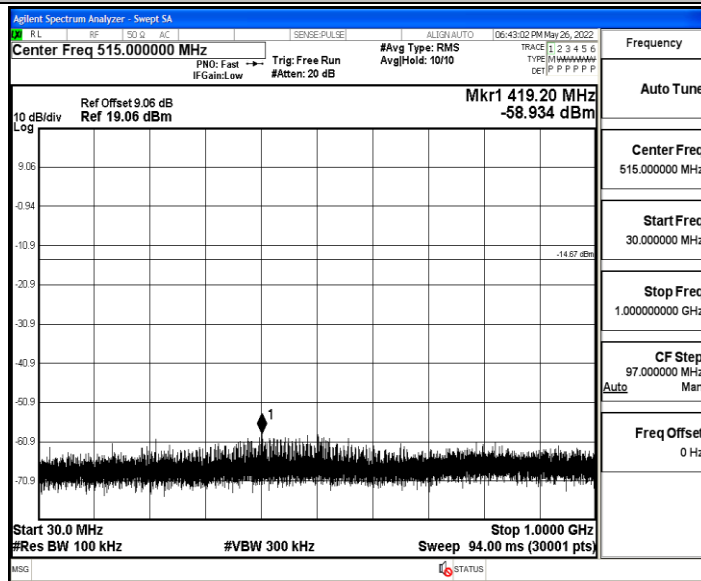
BLE_2M_Ant1_2402_1000~26500



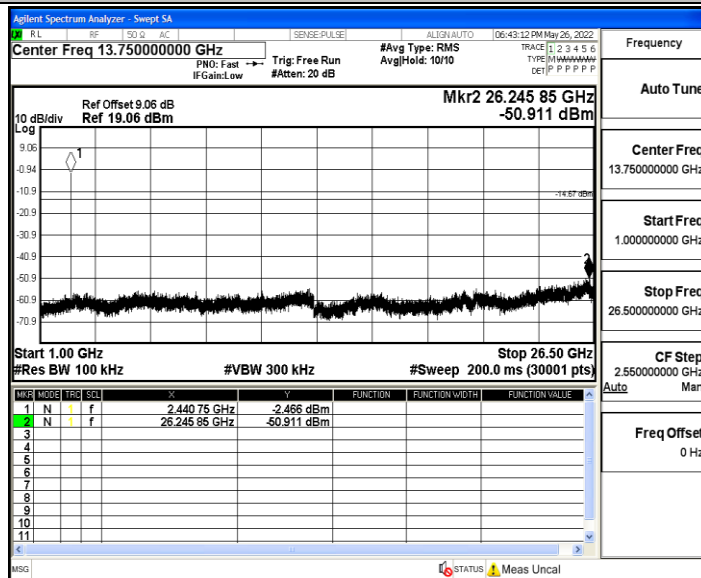
BLE_2M_Ant1_2440_0~Reference



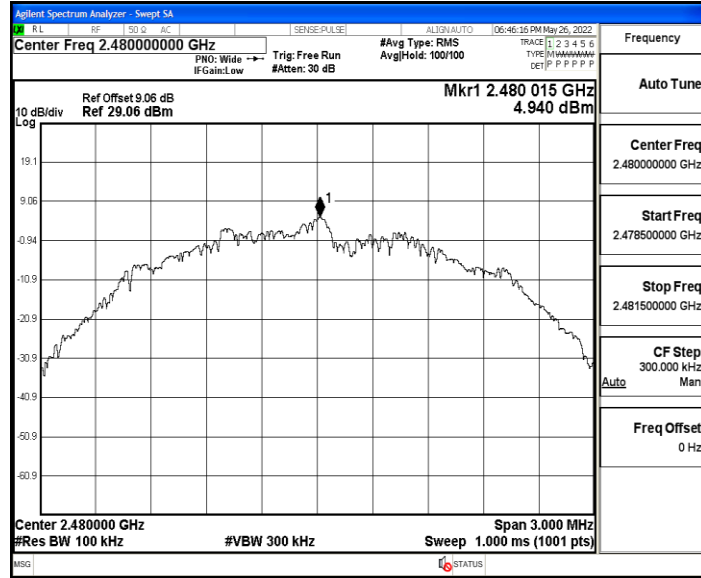
BLE_2M_Ant1_2440_30~1000



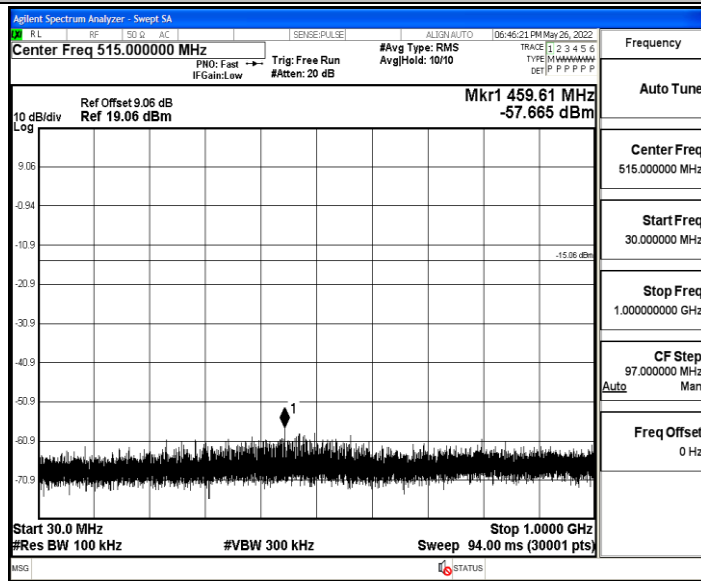
BLE_2M_Ant1_2440_1000~26500



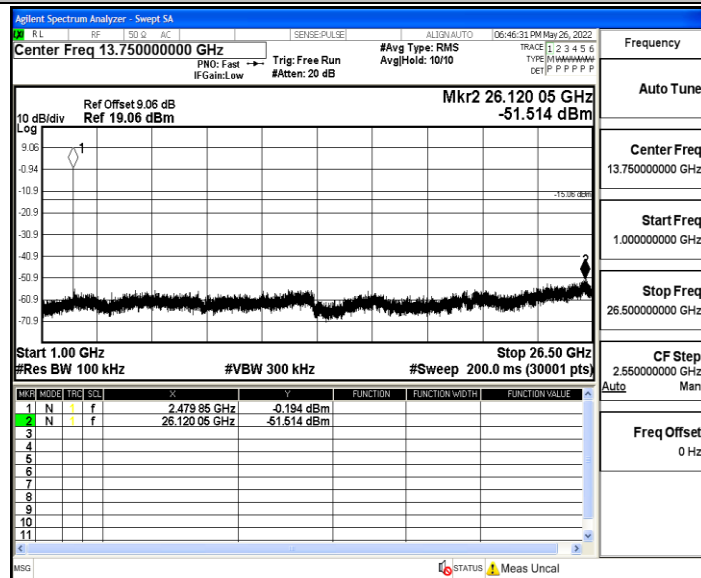
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500

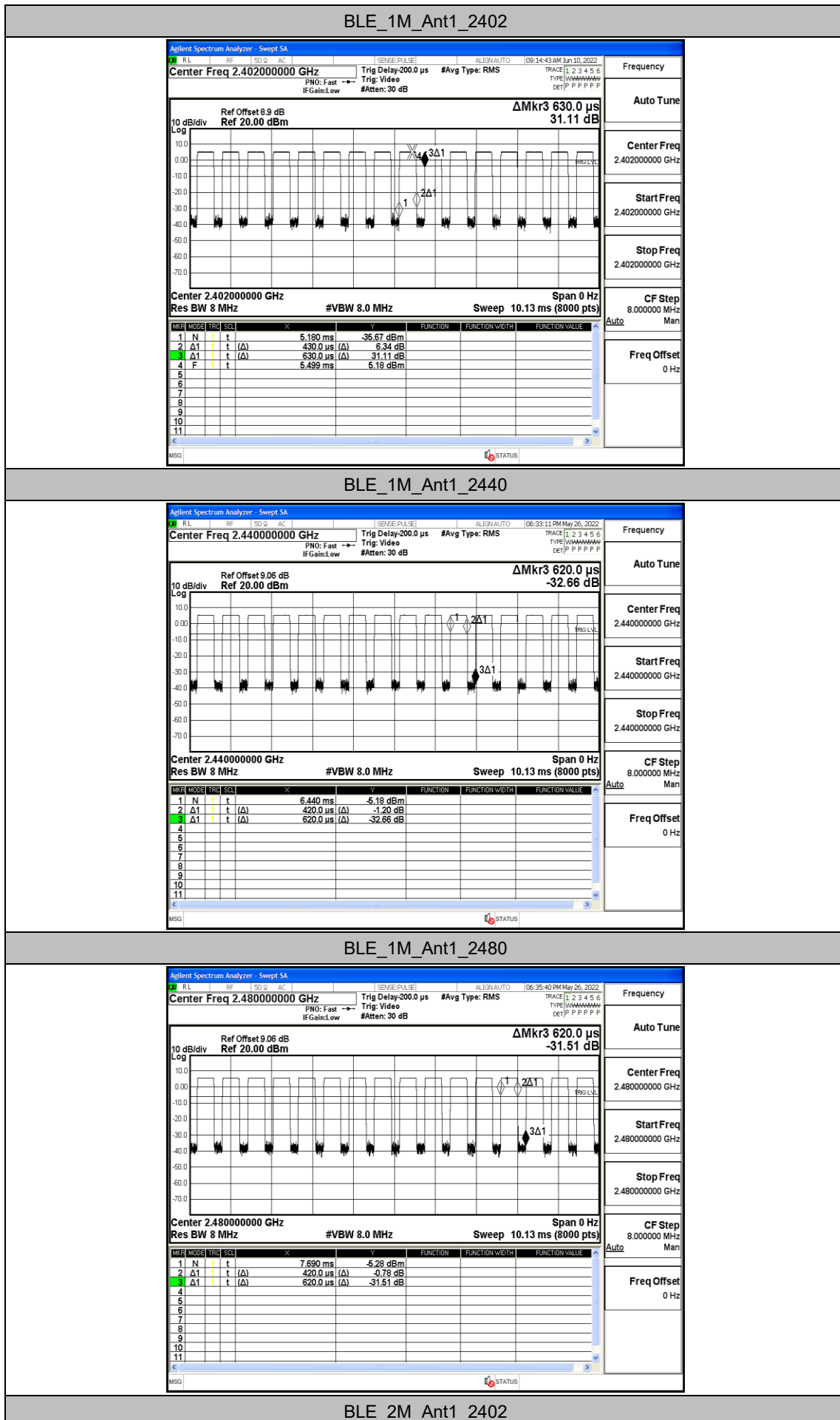


Appendix G: Duty Cycle

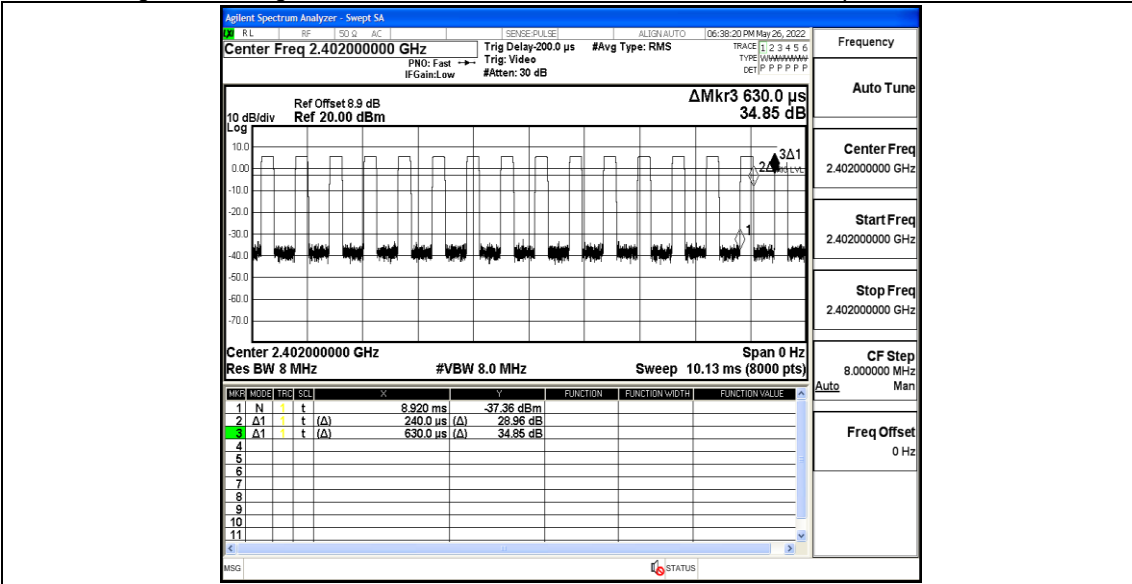
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.43	0.63	68.25	2.33
		2440	0.42	0.62	67.74	2.38
		2480	0.42	0.62	67.74	2.38
BLE_2M	Ant1	2402	0.24	0.63	38.10	4.17
		2440	0.24	0.63	38.10	4.17
		2480	0.24	0.62	38.71	4.17

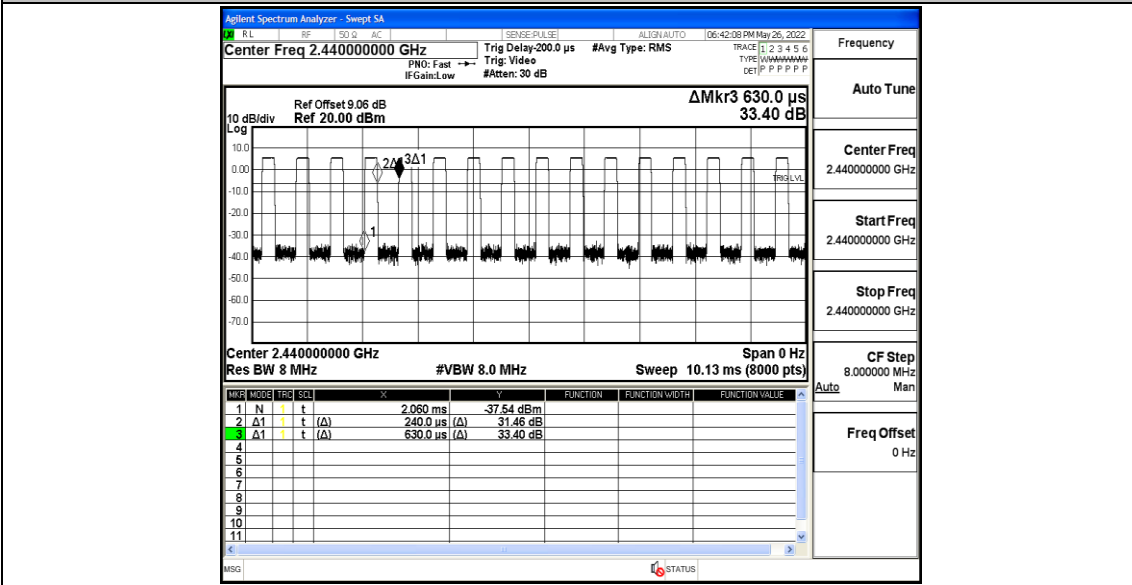
Test Graphs



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

