

Appendix: Bluetooth LE

Contents

Appendix A: DTS Bandwidth..... 3

 Test Result.....3

 Test Graphs.....4

Appendix B: Occupied Channel Bandwidth..... 7

 Test Result.....7

 Test Graphs.....8

Appendix C: Maximum conducted output power..... 11

 Test Result.....11

 Test Graphs.....12

Appendix D: Maximum power spectral density..... 15

 Test Result.....15

 Test Graphs.....16

Appendix E: Band edge measurements..... 19

 Test Result.....19

 Test Graphs.....20

Appendix F: Conducted Spurious Emission..... 22

 Test Result.....22

 Test Graphs.....23

Appendix G: Duty Cycle..... 32

 Test Result.....32

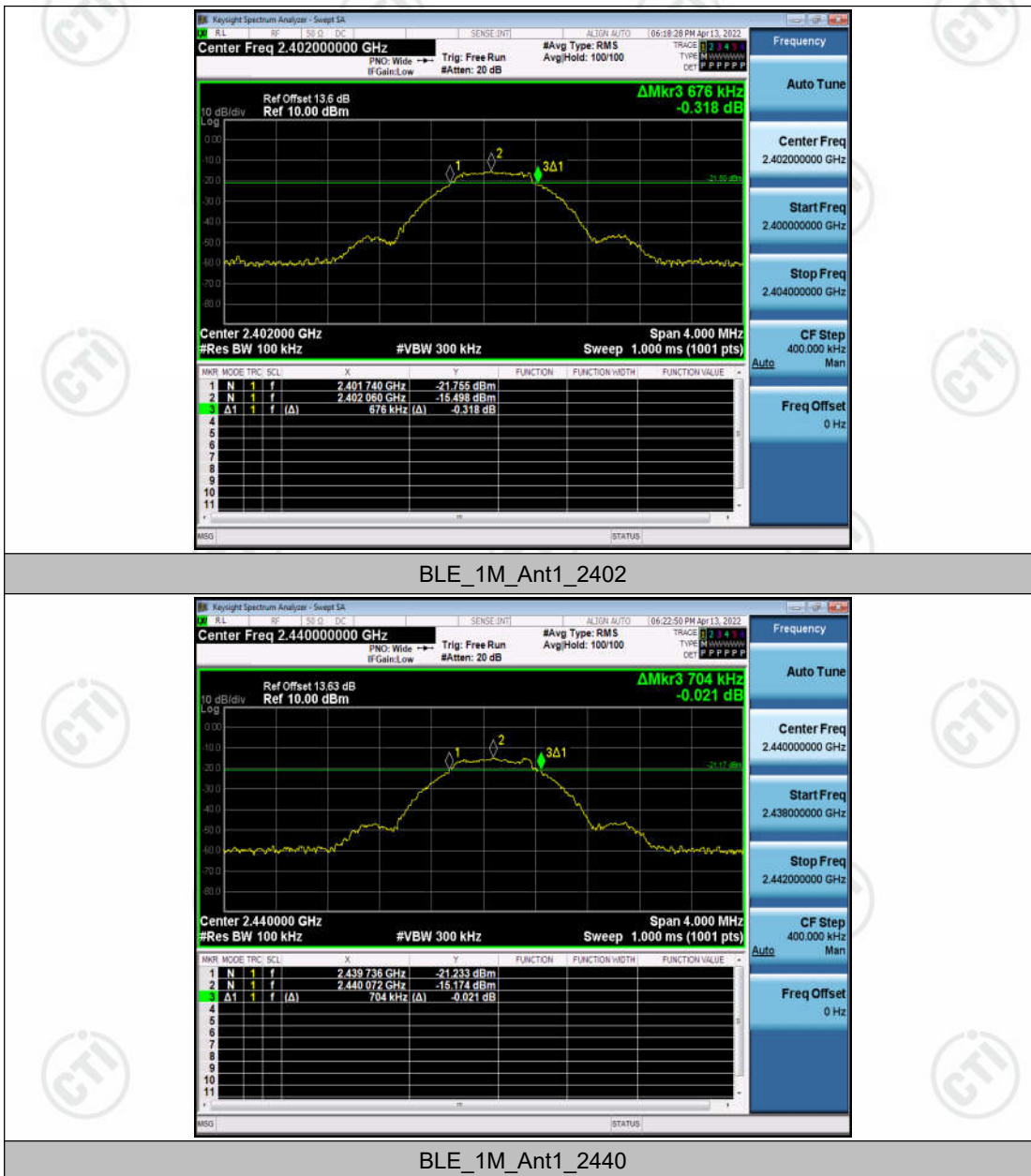
 Test Graphs.....33

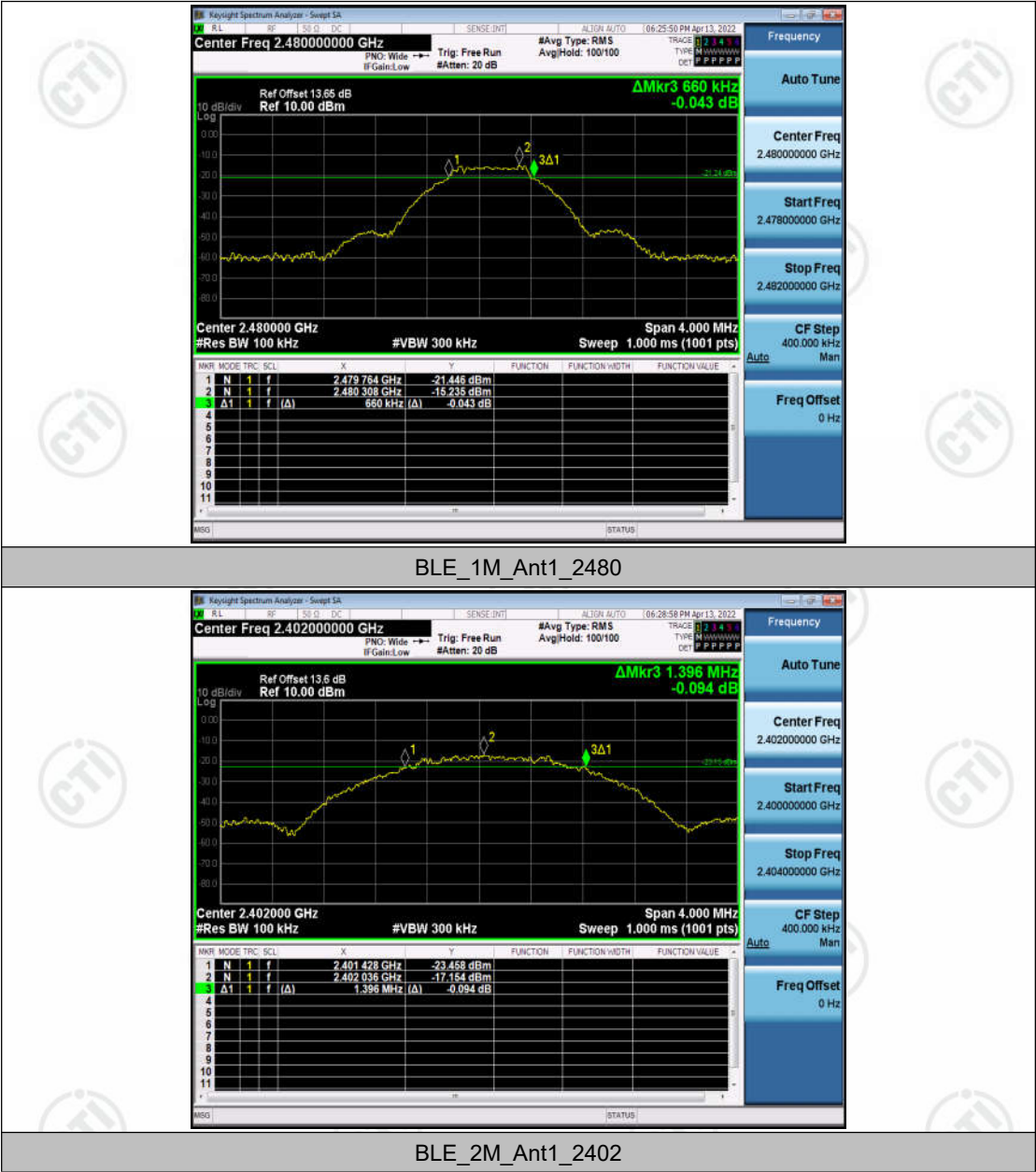
Appendix A: DTS Bandwidth

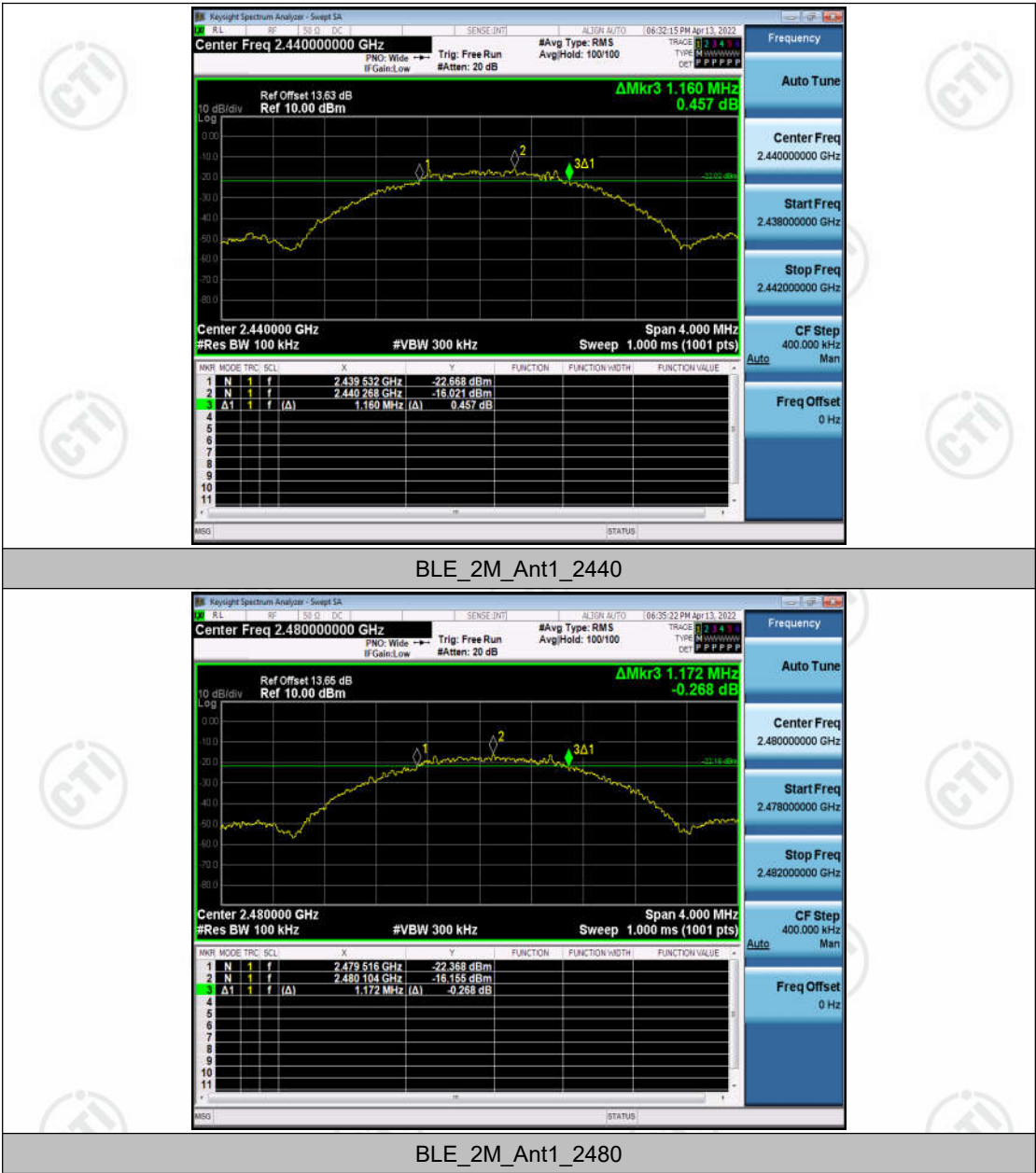
Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.676	2401.740	2402.416	0.5	PASS
		2440	0.704	2439.736	2440.440	0.5	PASS
		2480	0.660	2479.764	2480.424	0.5	PASS
BLE_2M	Ant1	2402	1.396	2401.428	2402.824	0.5	PASS
		2440	1.160	2439.532	2440.692	0.5	PASS
		2480	1.172	2479.516	2480.688	0.5	PASS

Test Graphs





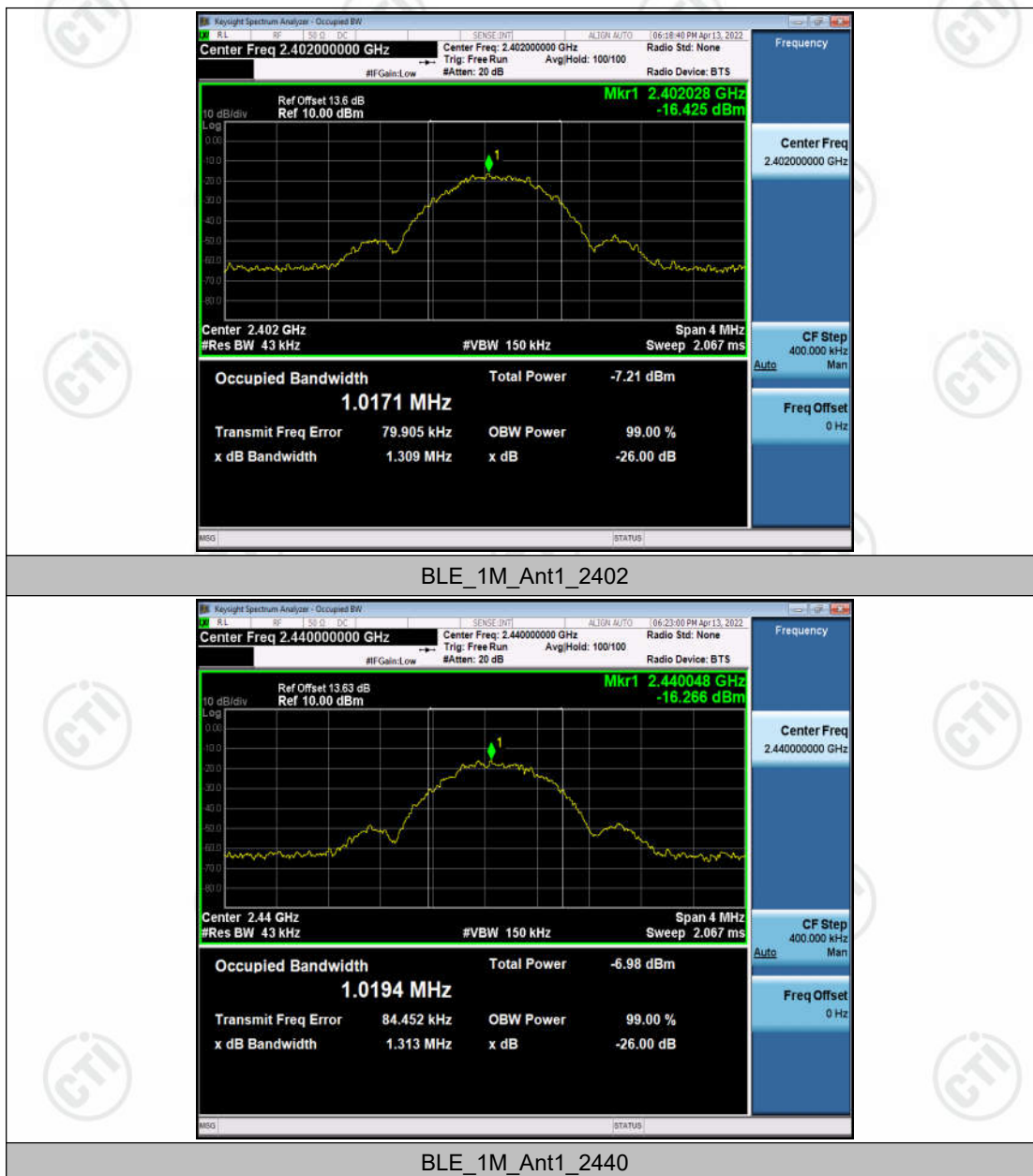


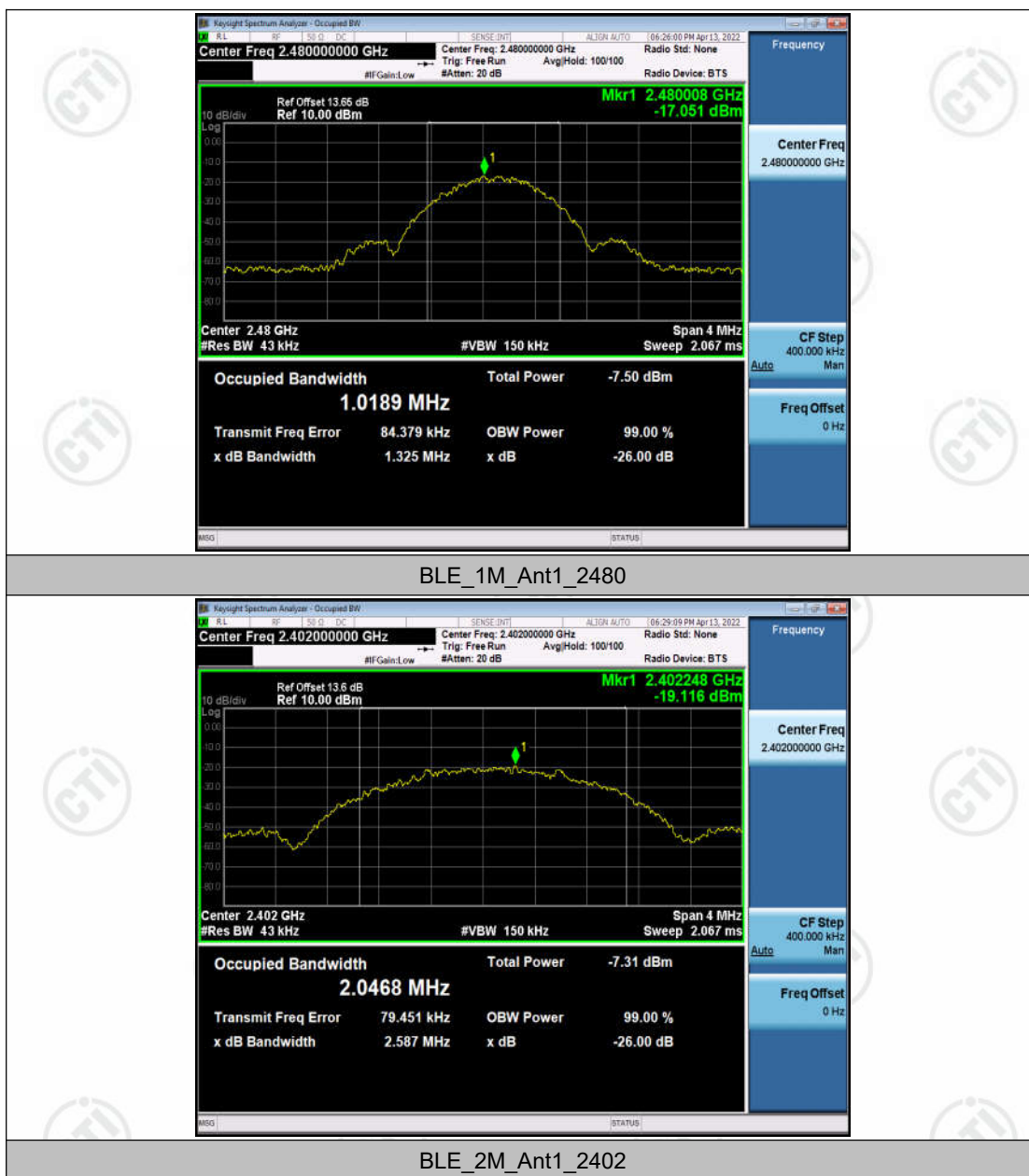
Appendix B: Occupied Channel Bandwidth

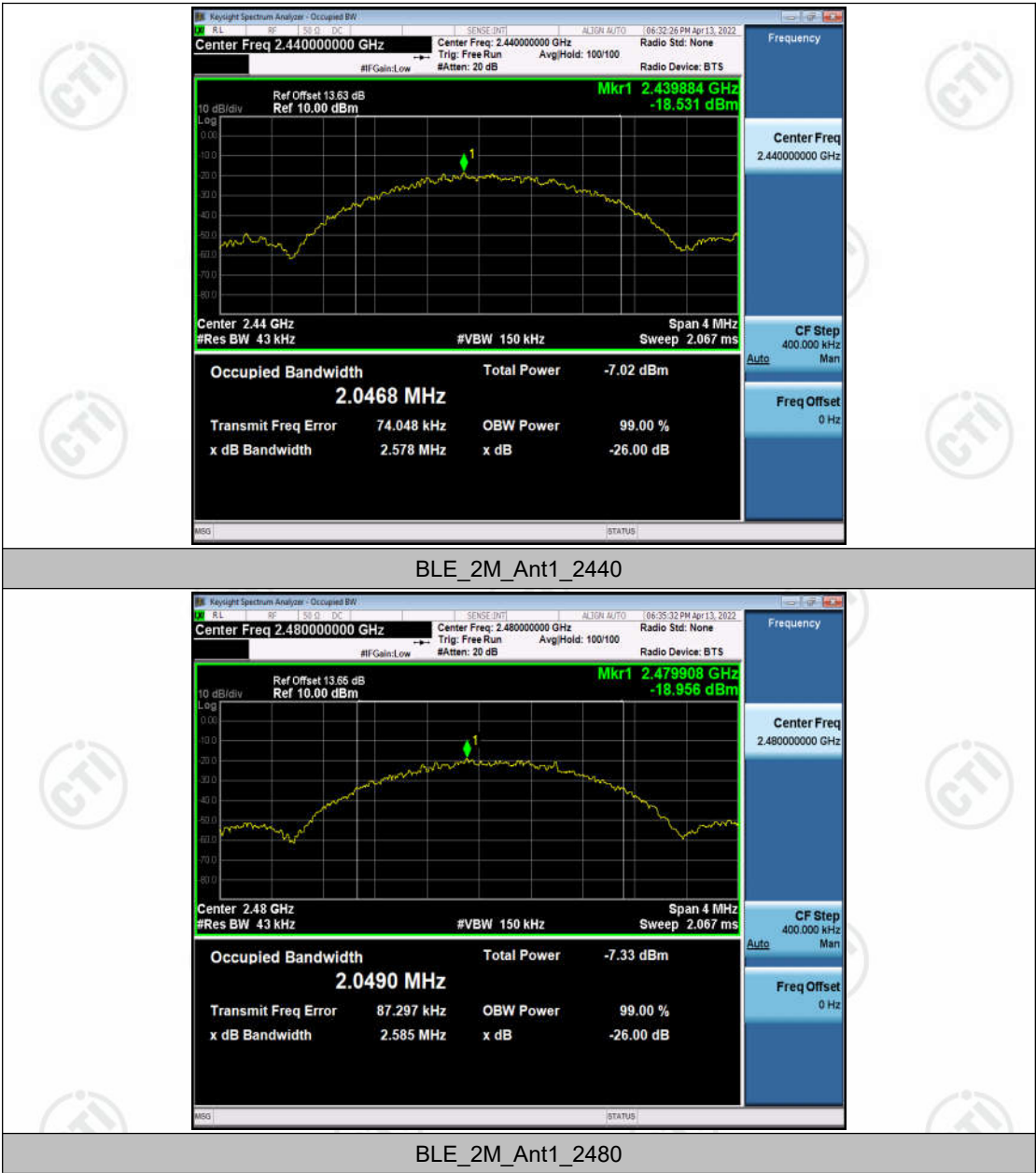
Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0171	2401.571	2402.588	---	PASS
		2440	1.0194	2439.575	2440.594	---	PASS
		2480	1.0189	2479.575	2480.594	---	PASS
BLE_2M	Ant1	2402	2.0468	2401.056	2403.103	---	PASS
		2440	2.0468	2439.051	2441.097	---	PASS
		2480	2.0490	2479.063	2481.112	---	PASS

Test Graphs





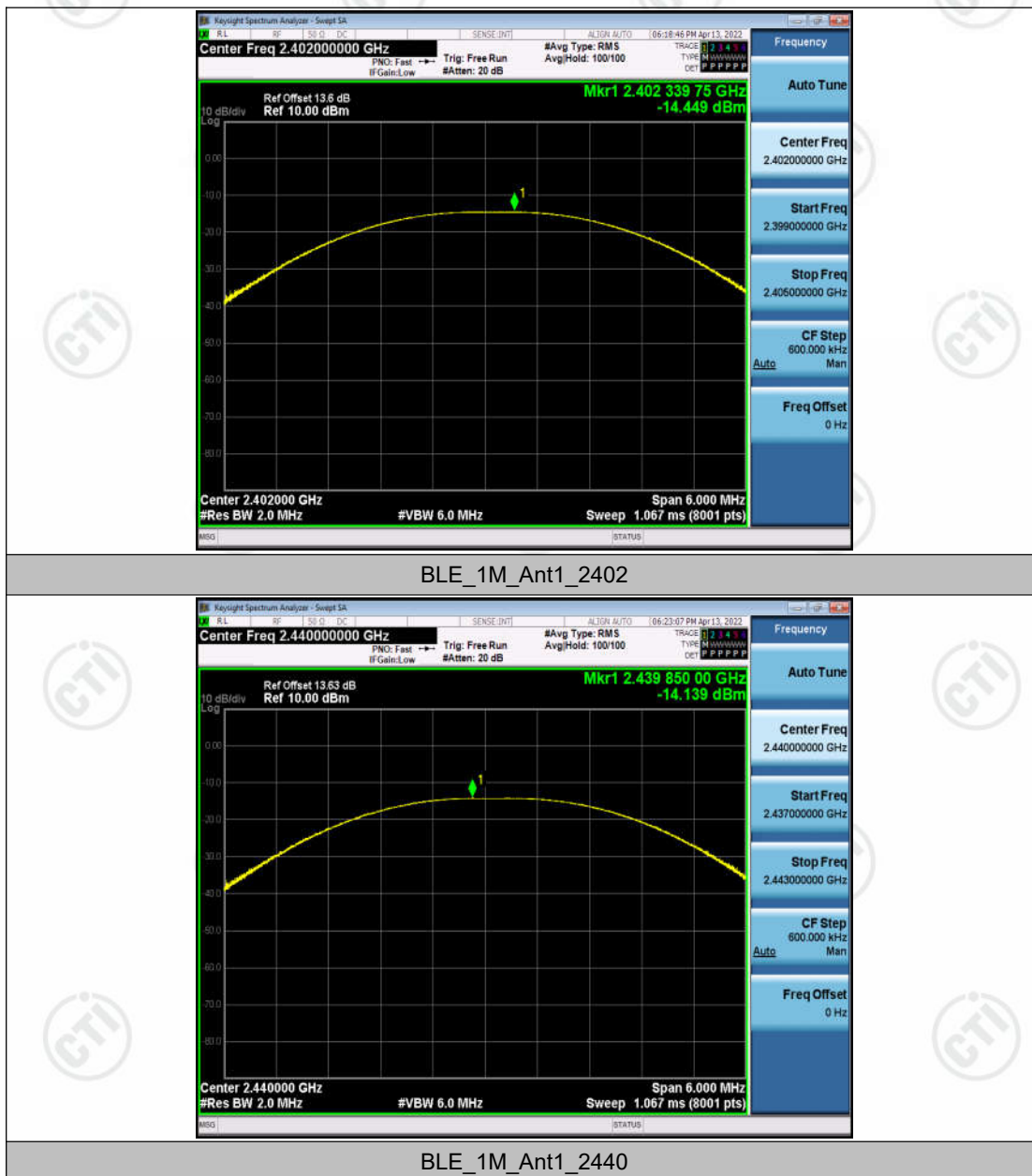


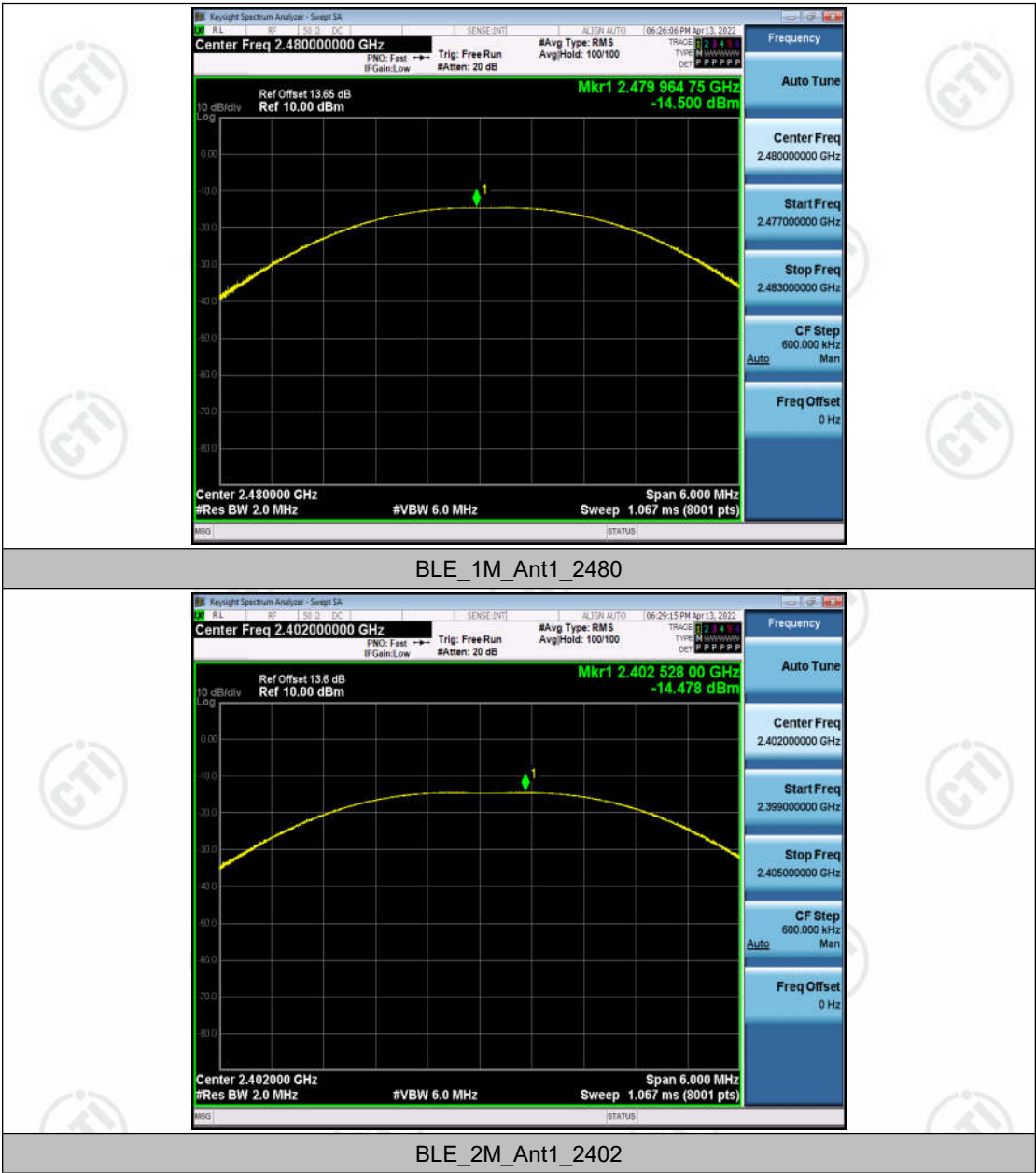
Appendix C: Maximum conducted output power

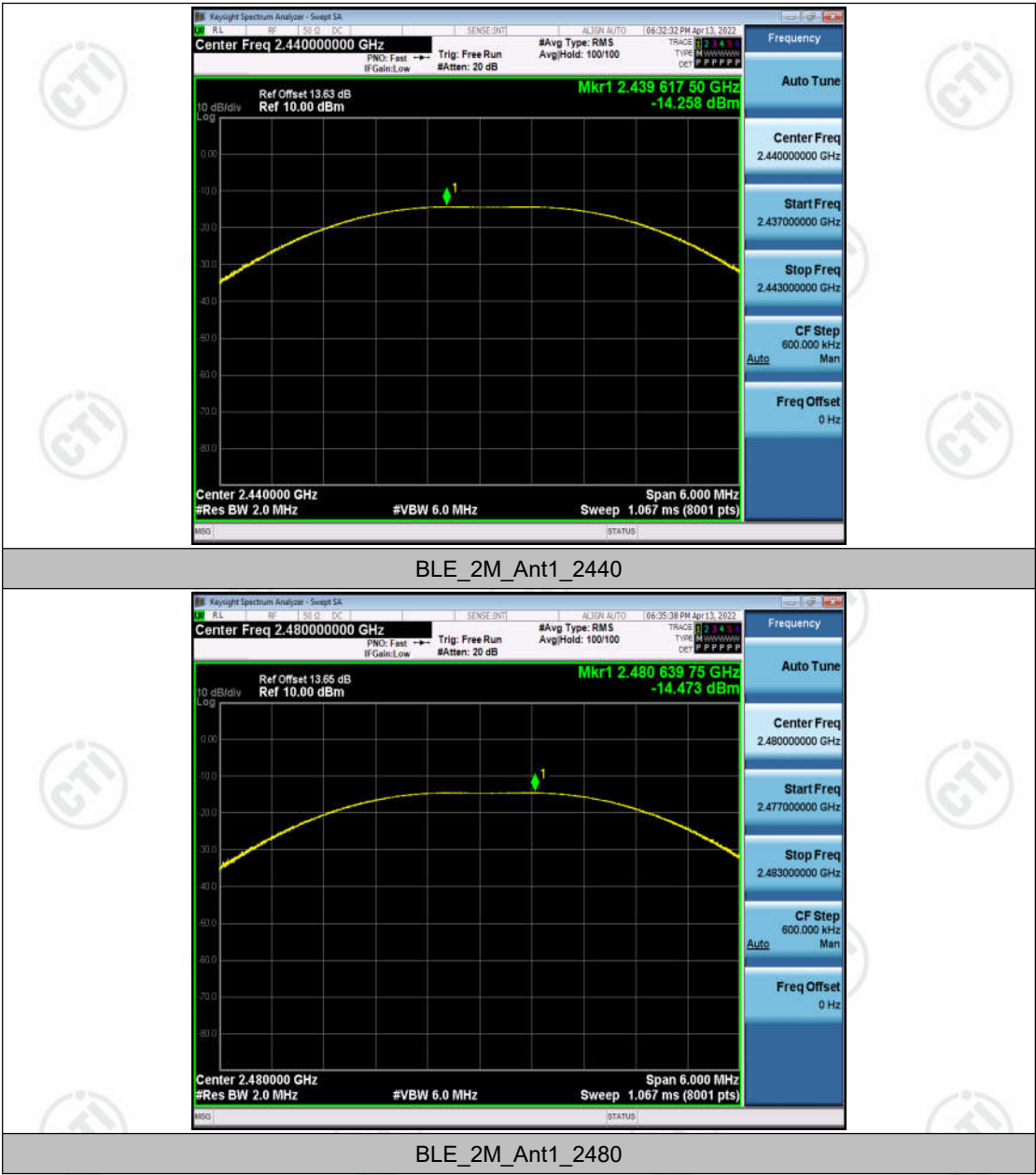
Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-14.45	<=30	PASS
		2440	-14.14	<=30	PASS
		2480	-14.5	<=30	PASS
BLE_2M	Ant1	2402	-14.48	<=30	PASS
		2440	-14.26	<=30	PASS
		2480	-14.47	<=30	PASS

Test Graphs





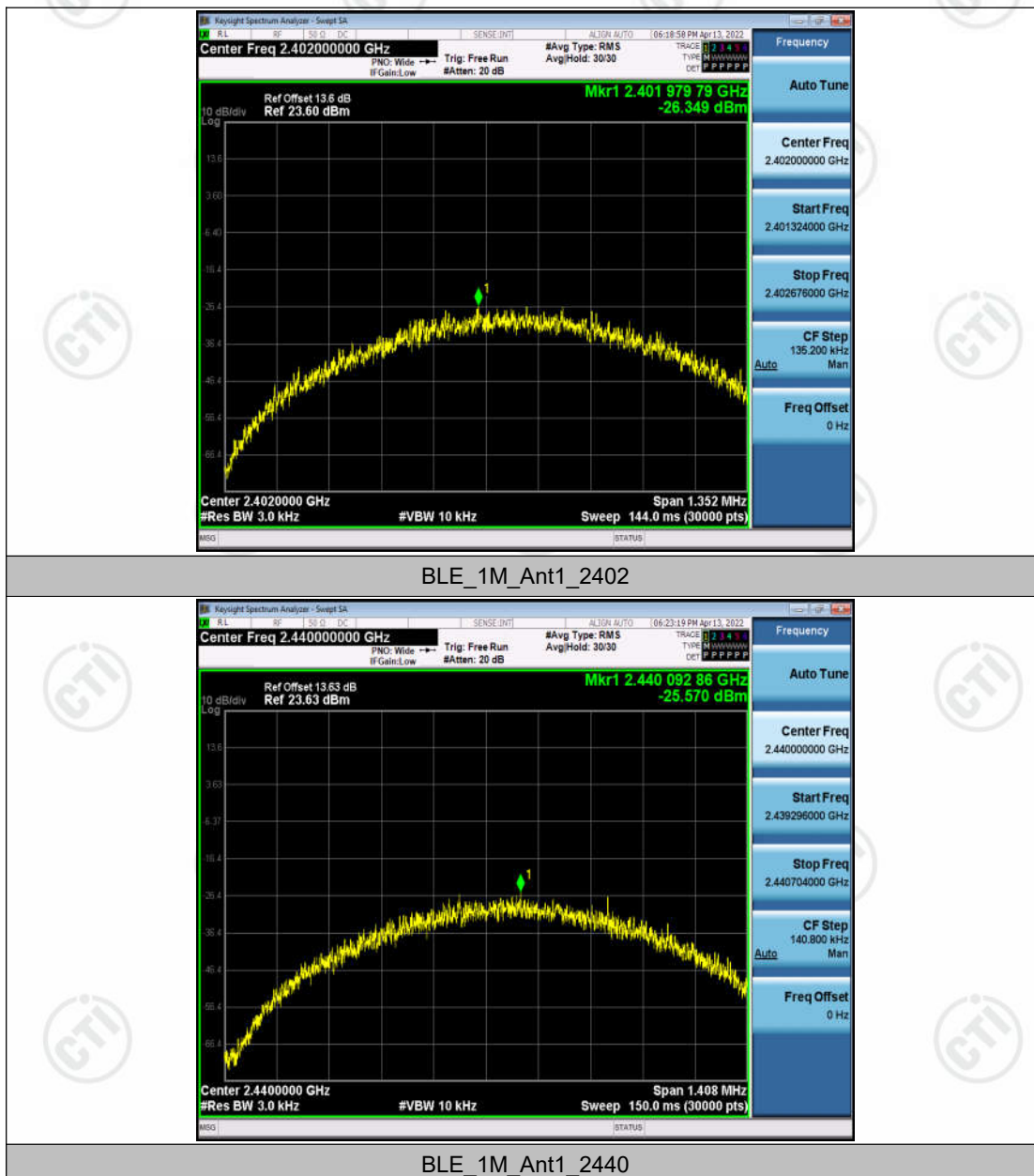


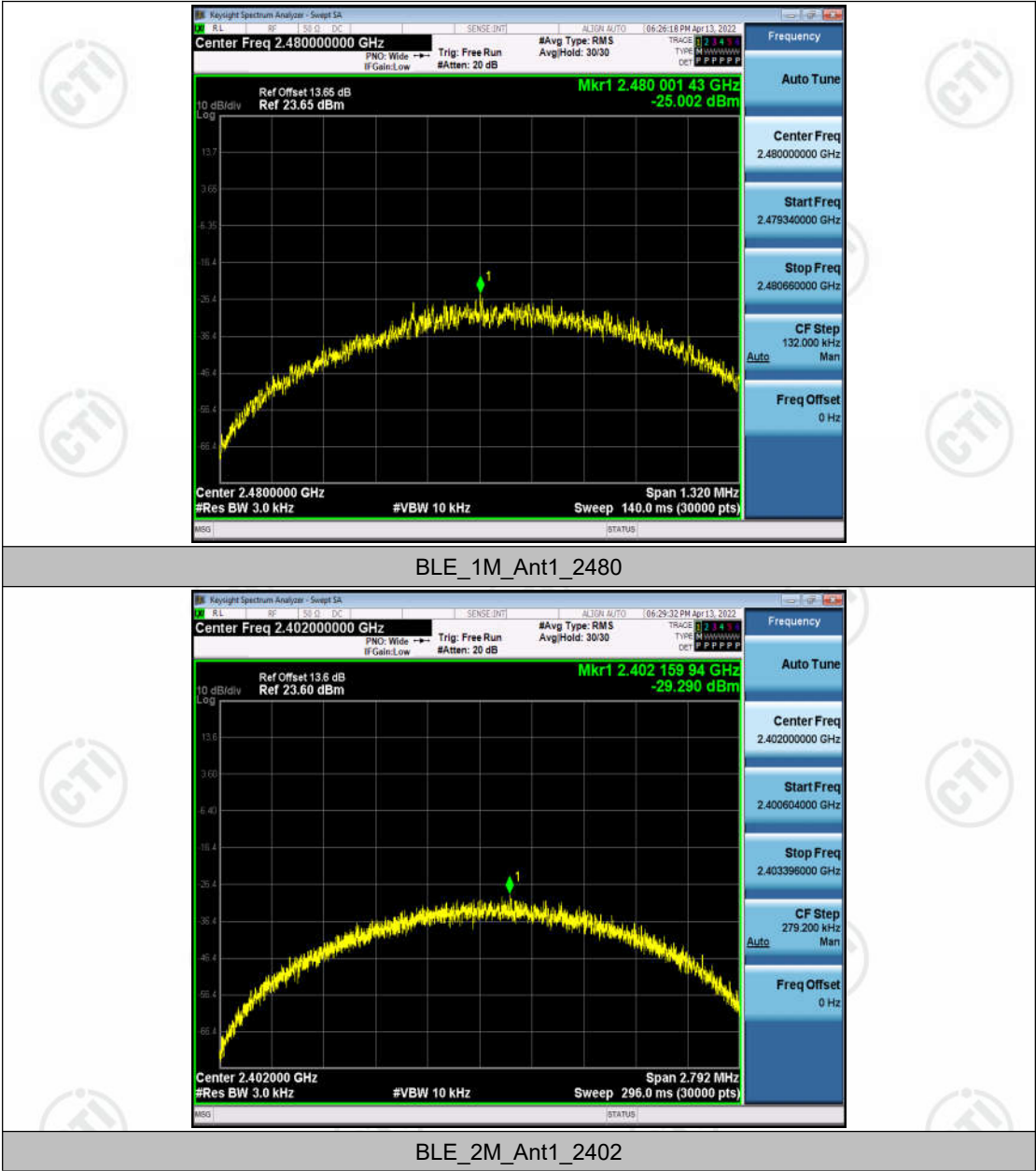
Appendix D: Maximum power spectral density

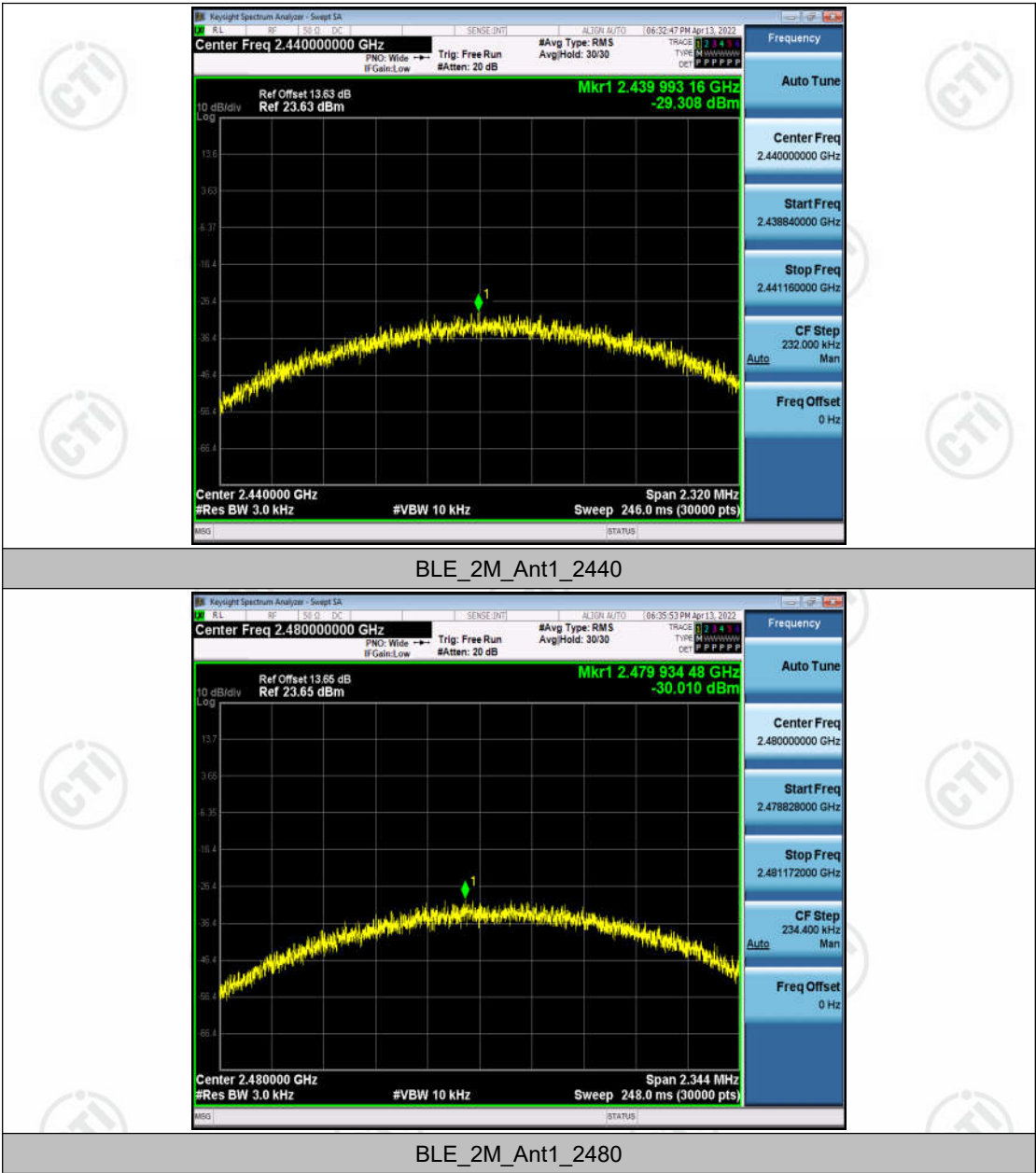
Test Result

Test Mode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-26.35	<=8	PASS
		2440	-25.57	<=8	PASS
		2480	-25	<=8	PASS
BLE_2M	Ant1	2402	-29.29	<=8	PASS
		2440	-29.31	<=8	PASS
		2480	-30.01	<=8	PASS

Test Graphs





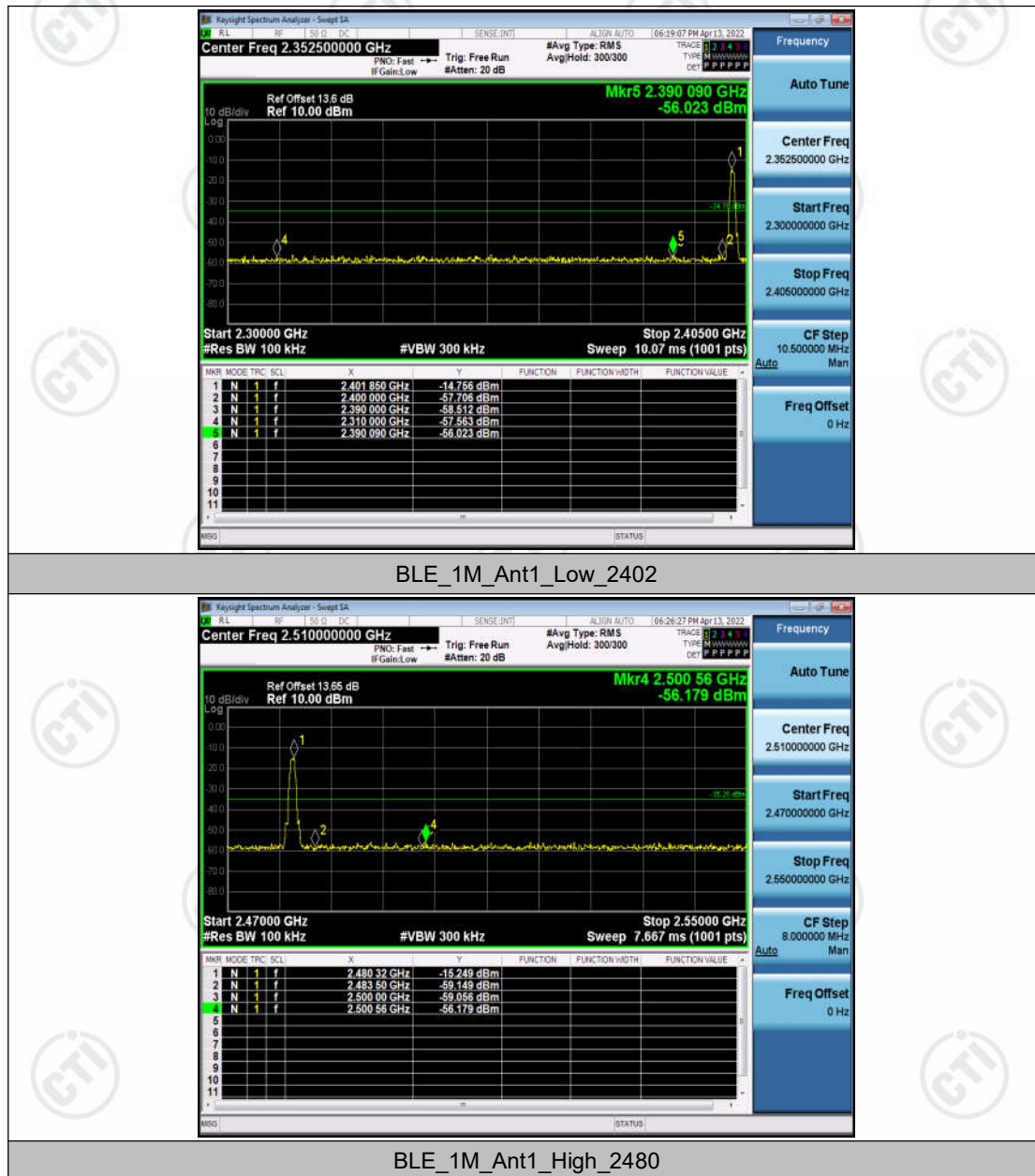


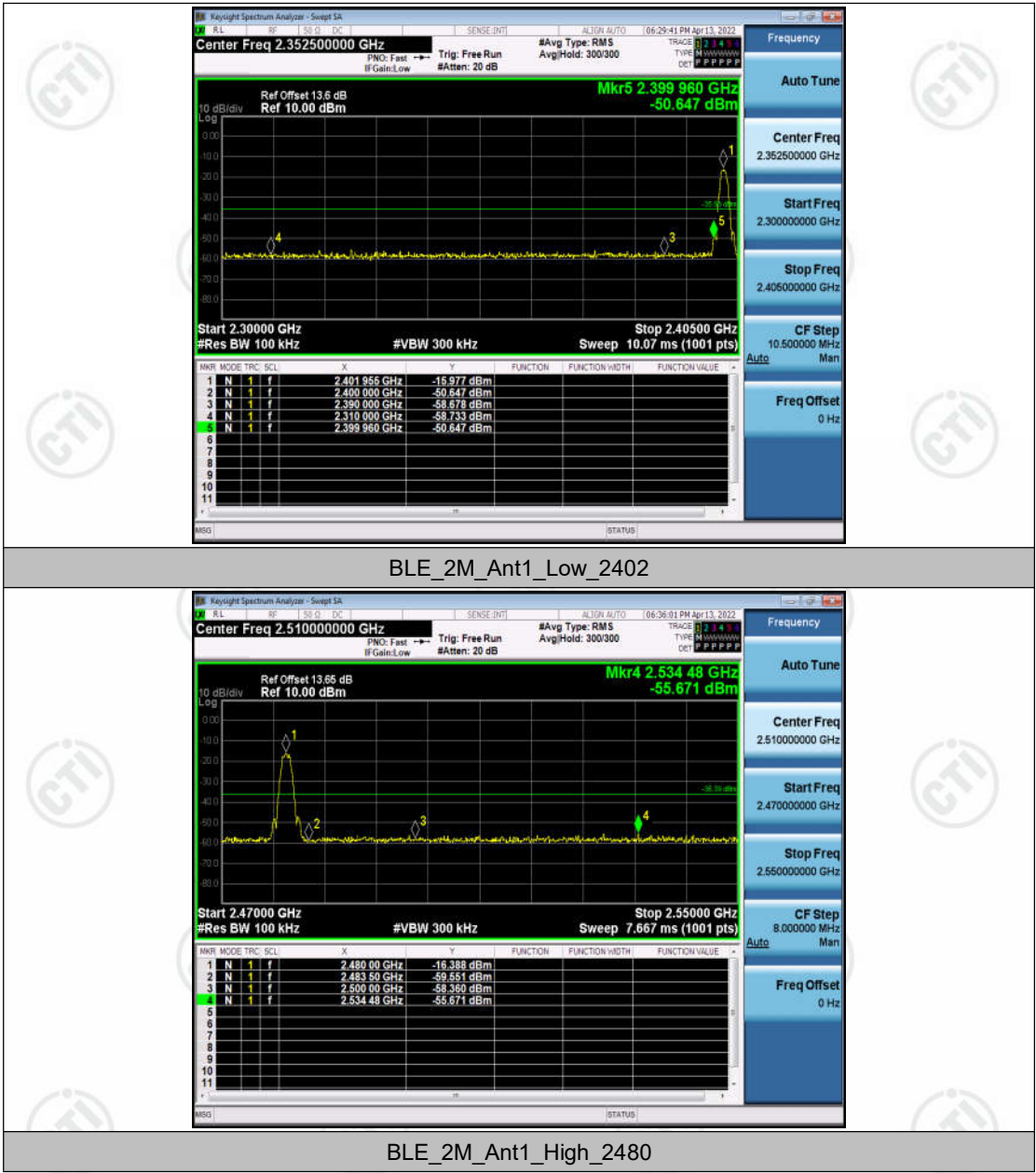
Appendix E: Band edge measurements

Test Result

Test Mode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-14.76	-56.02	<=-34.76	PASS
		High	2480	-15.25	-56.18	<=-35.25	PASS
BLE_2M	Ant1	Low	2402	-15.98	-50.65	<=-35.98	PASS
		High	2480	-16.39	-55.67	<=-36.39	PASS

Test Graphs



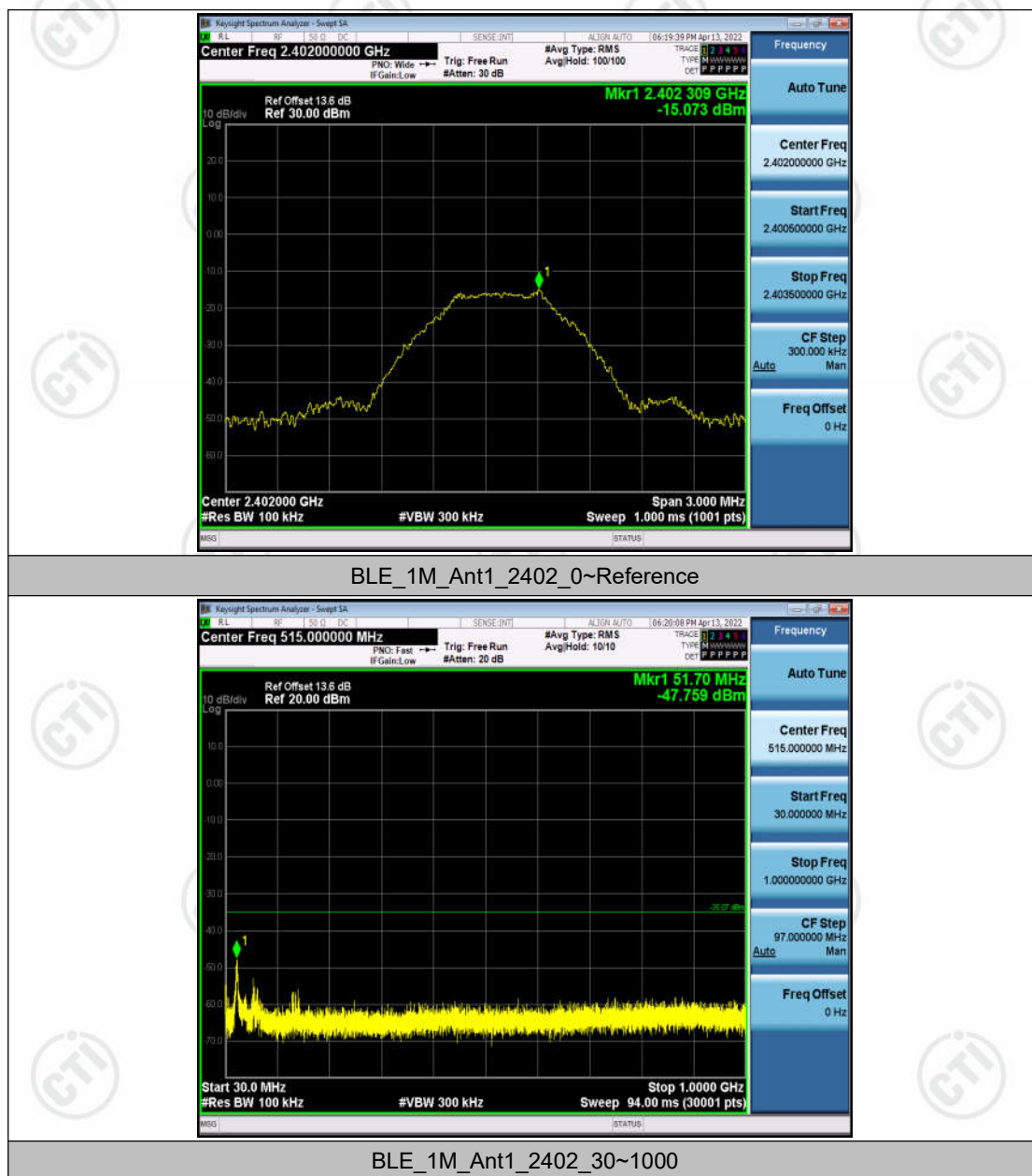


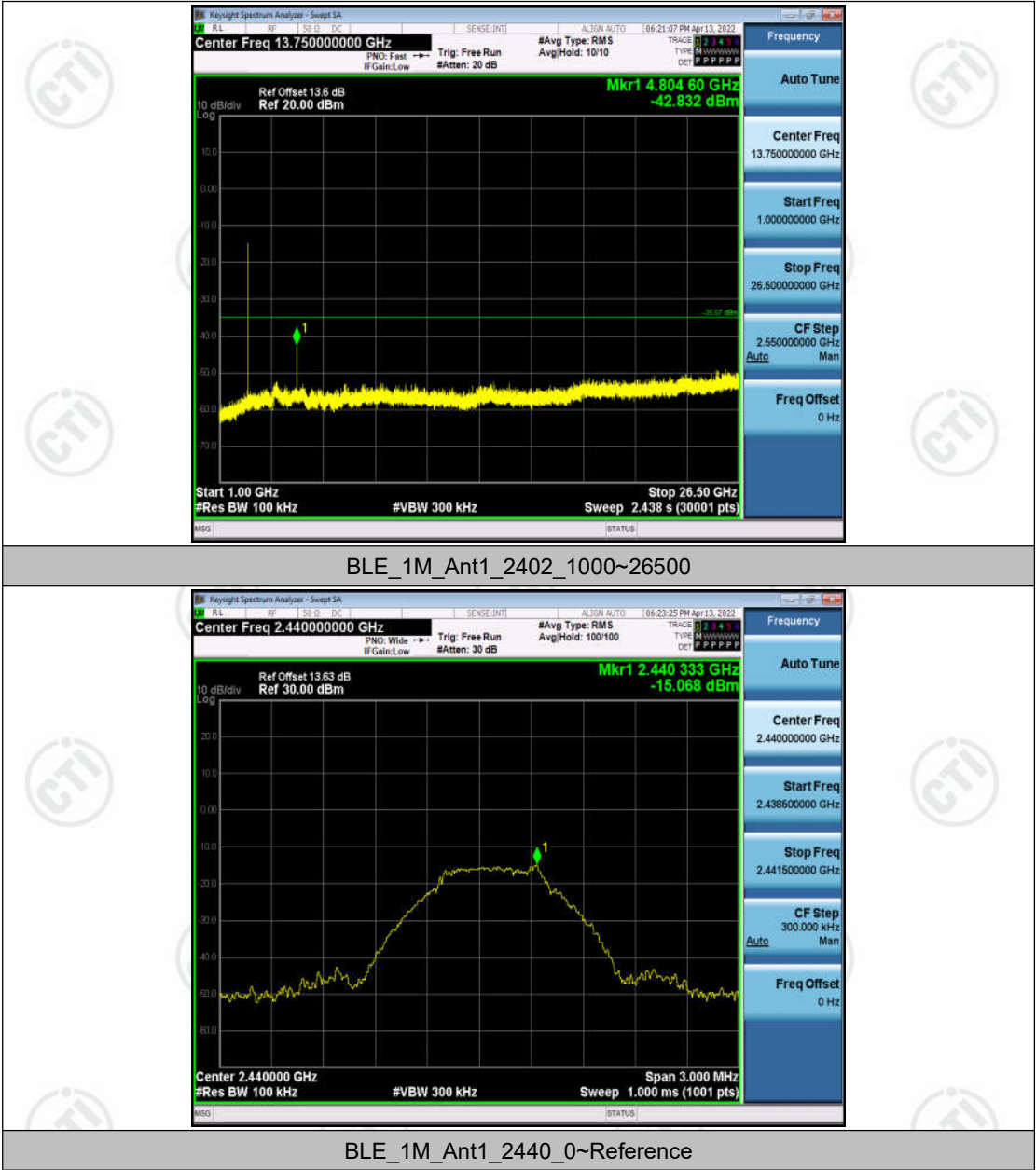
Appendix F: Conducted Spurious Emission

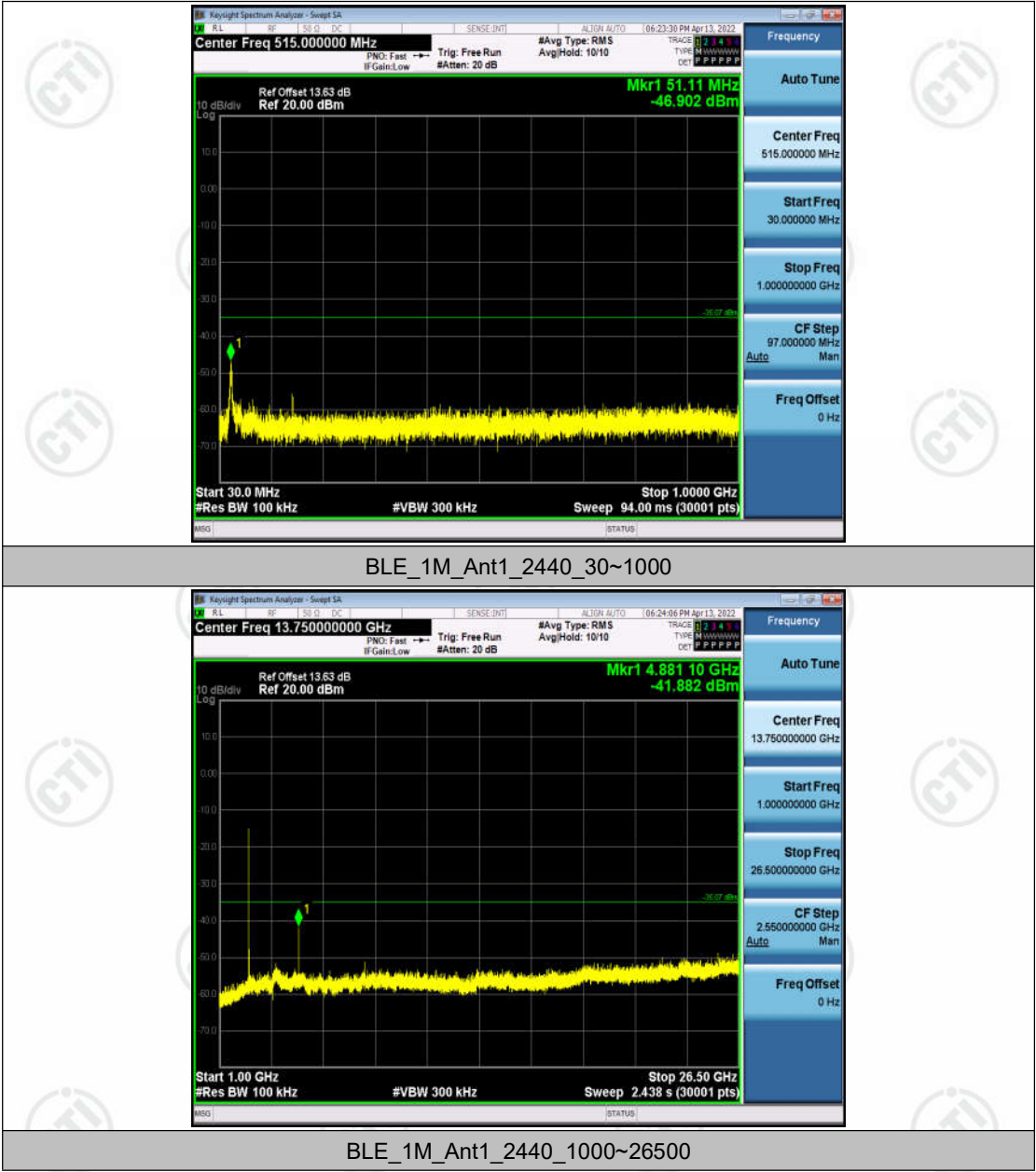
Test Result

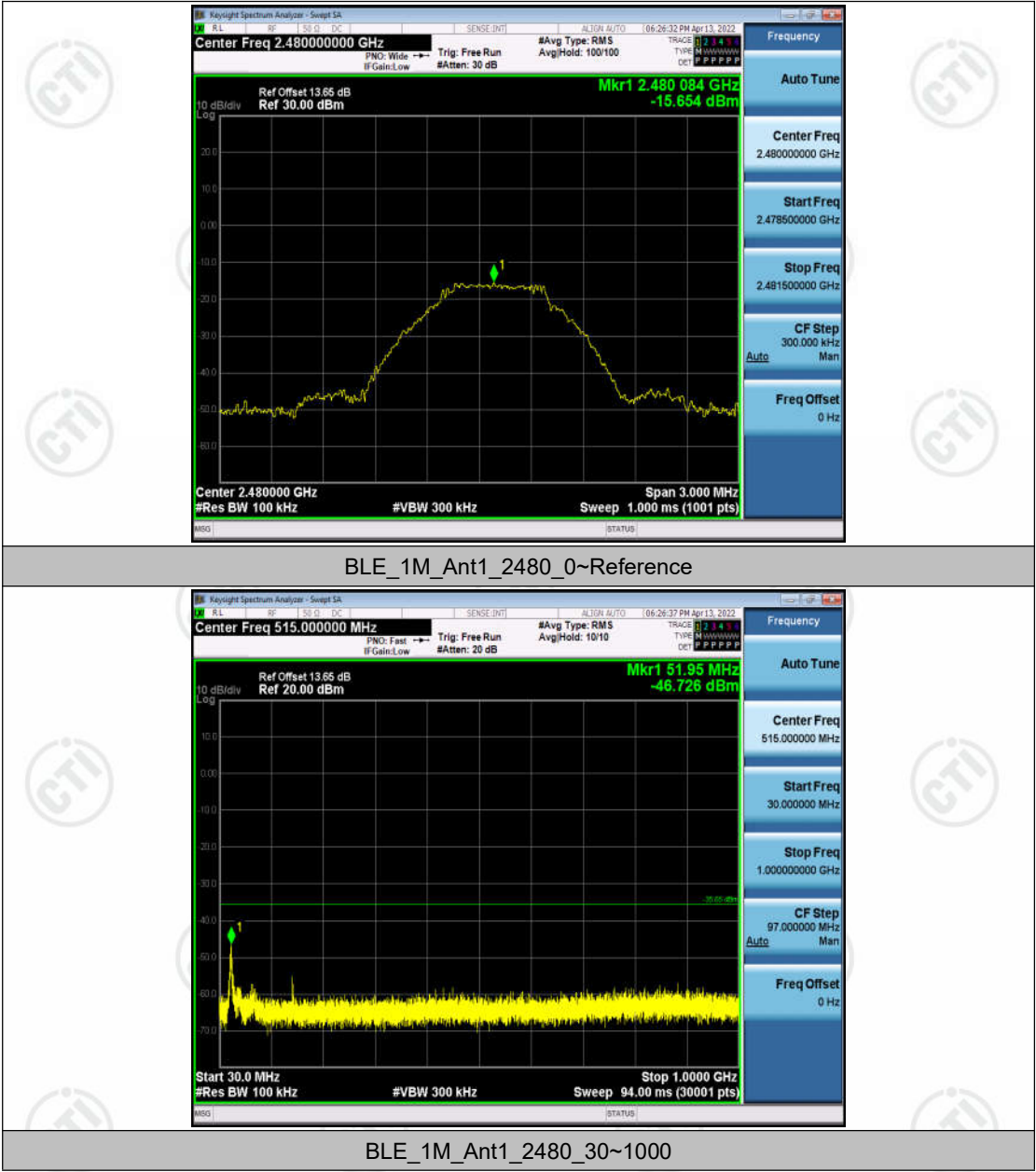
Test Mode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-15.07	-15.07	---	PASS
			30~1000	---	-47.759	<=-35.073	PASS
			1000~26500	---	-42.832	<=-35.073	PASS
		2440	Reference	-15.07	-15.07	---	PASS
			30~1000	---	-46.902	<=-35.068	PASS
			1000~26500	---	-41.882	<=-35.068	PASS
		2480	Reference	-15.65	-15.65	---	PASS
			30~1000	---	-46.726	<=-35.654	PASS
			1000~26500	---	-43.056	<=-35.654	PASS
BLE_2M	Ant1	2402	Reference	-16.64	-16.64	---	PASS
			30~1000	---	-47.407	<=-36.641	PASS
			1000~26500	---	-45.084	<=-36.641	PASS
		2440	Reference	-16.92	-16.92	---	PASS
			30~1000	---	-47.152	<=-36.915	PASS
			1000~26500	---	-42.964	<=-36.915	PASS
		2480	Reference	-16.52	-16.52	---	PASS
			30~1000	---	-47.751	<=-36.522	PASS
			1000~26500	---	-45.149	<=-36.522	PASS

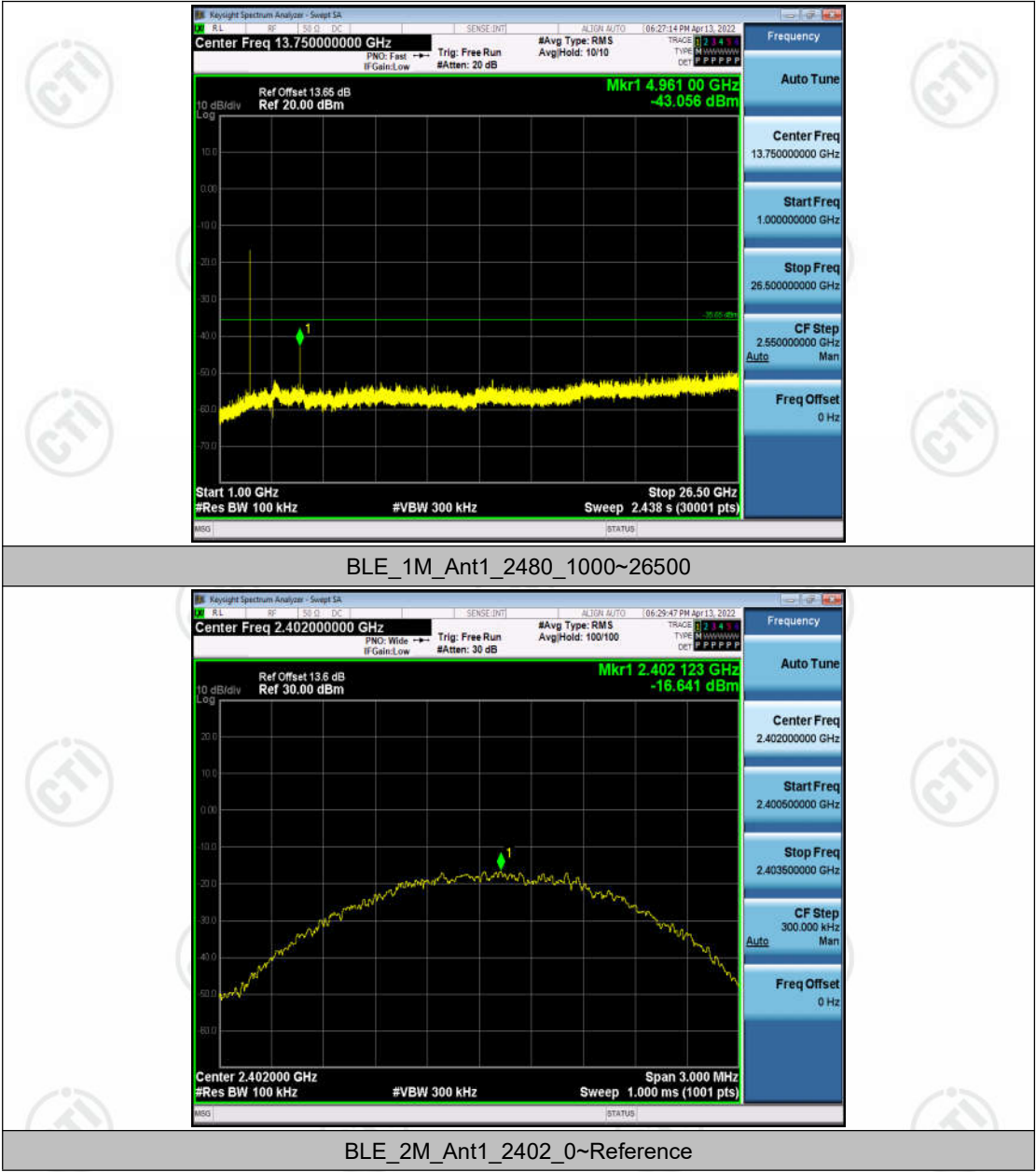
Test Graphs

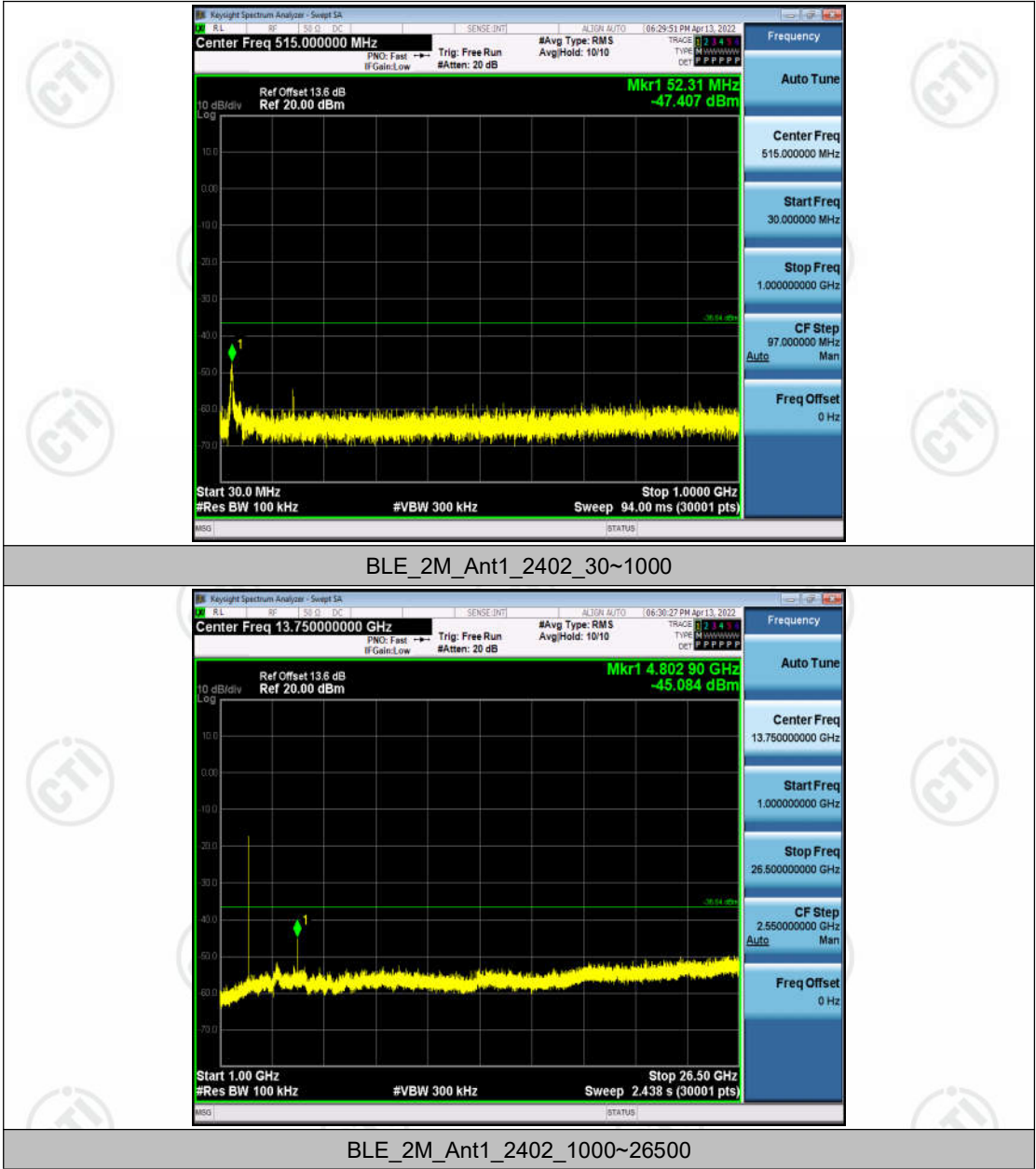


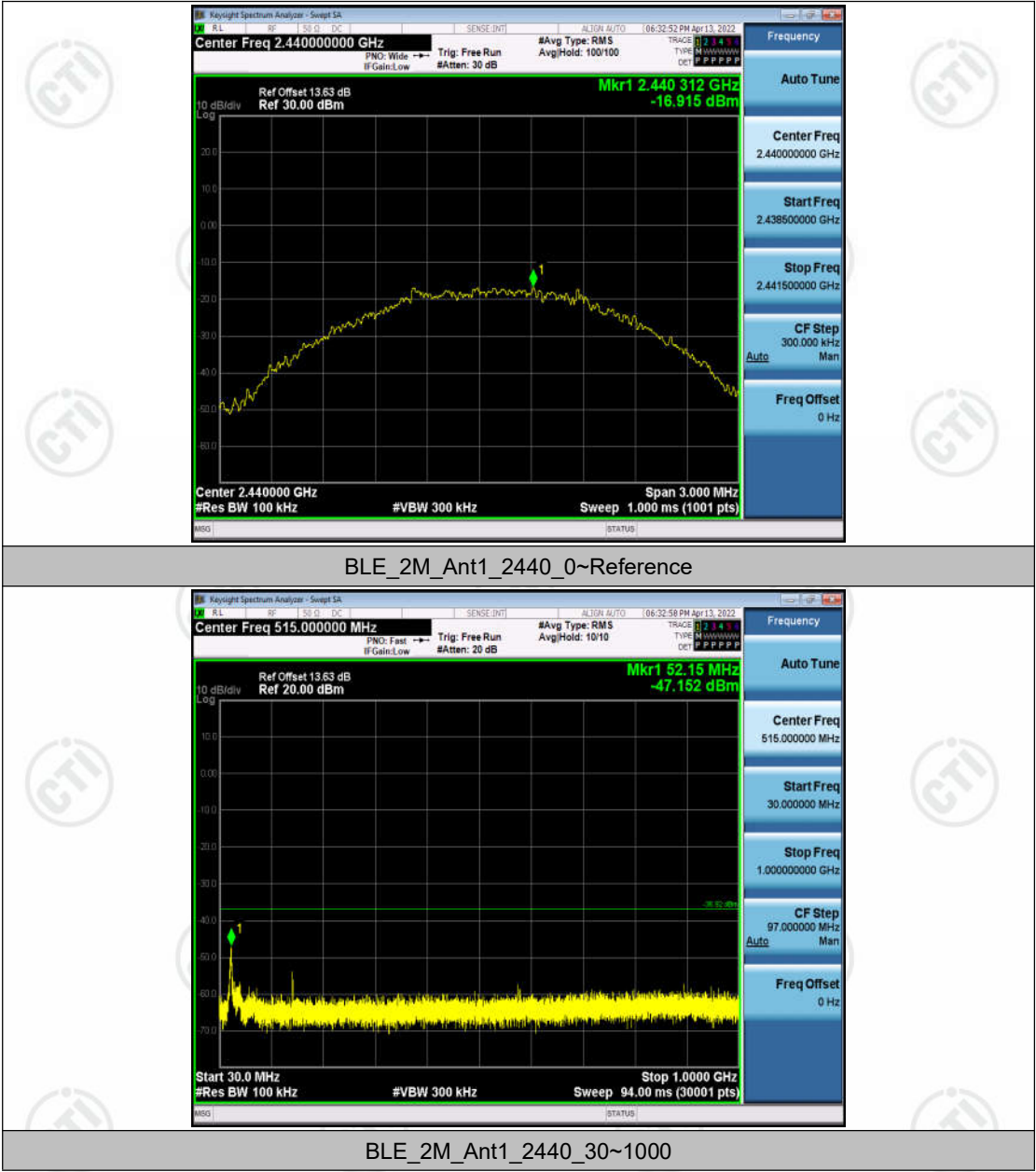


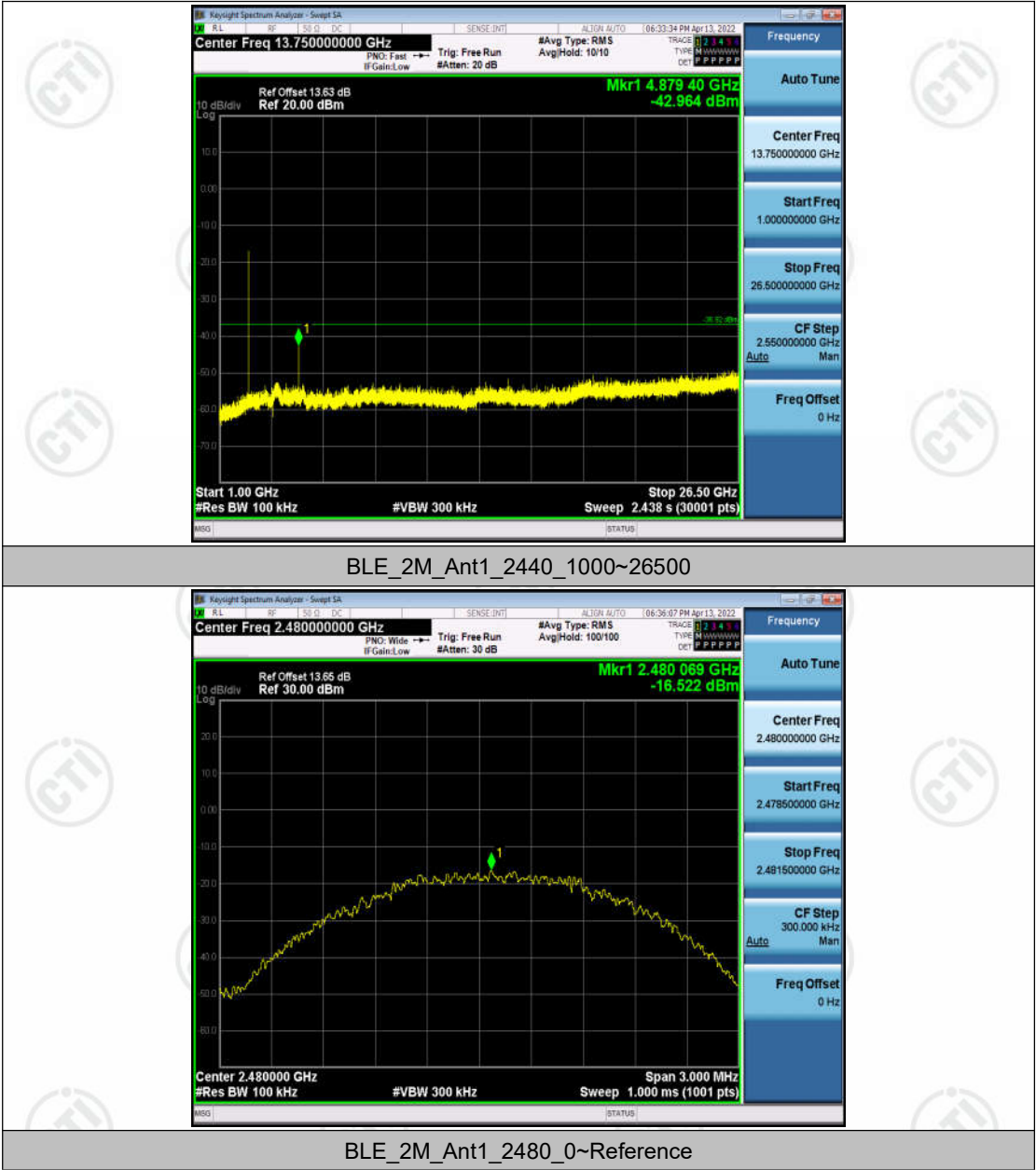


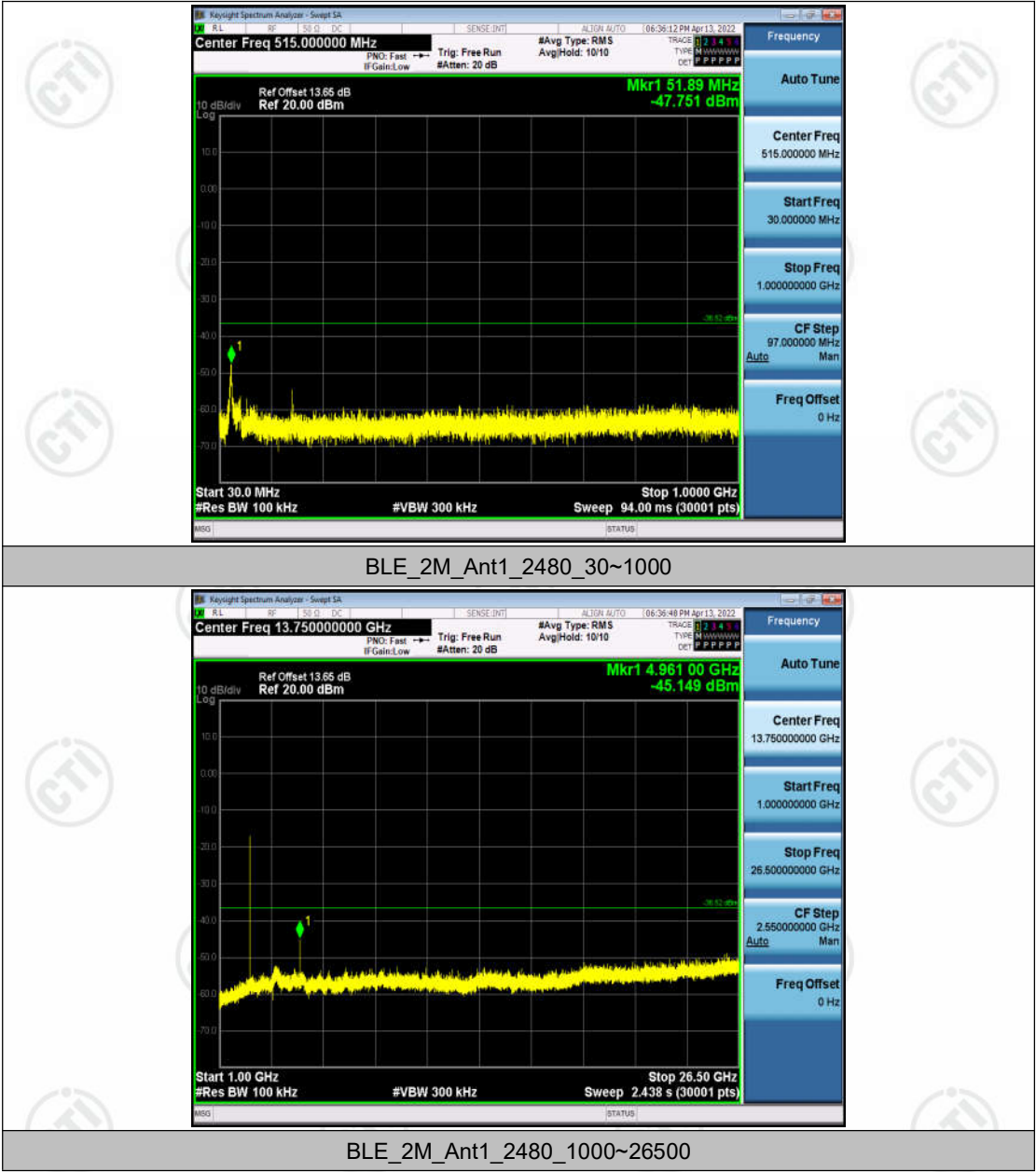










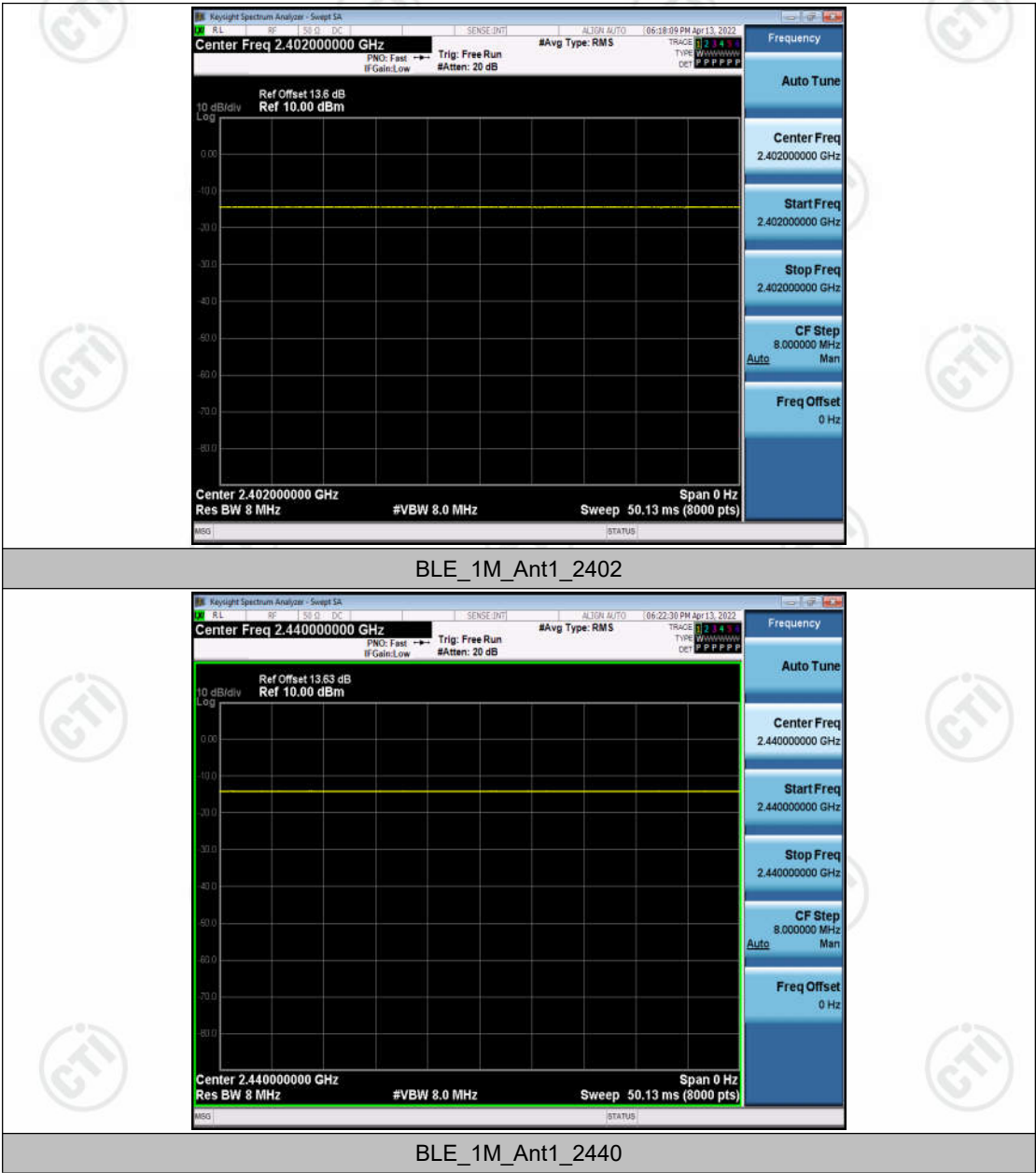


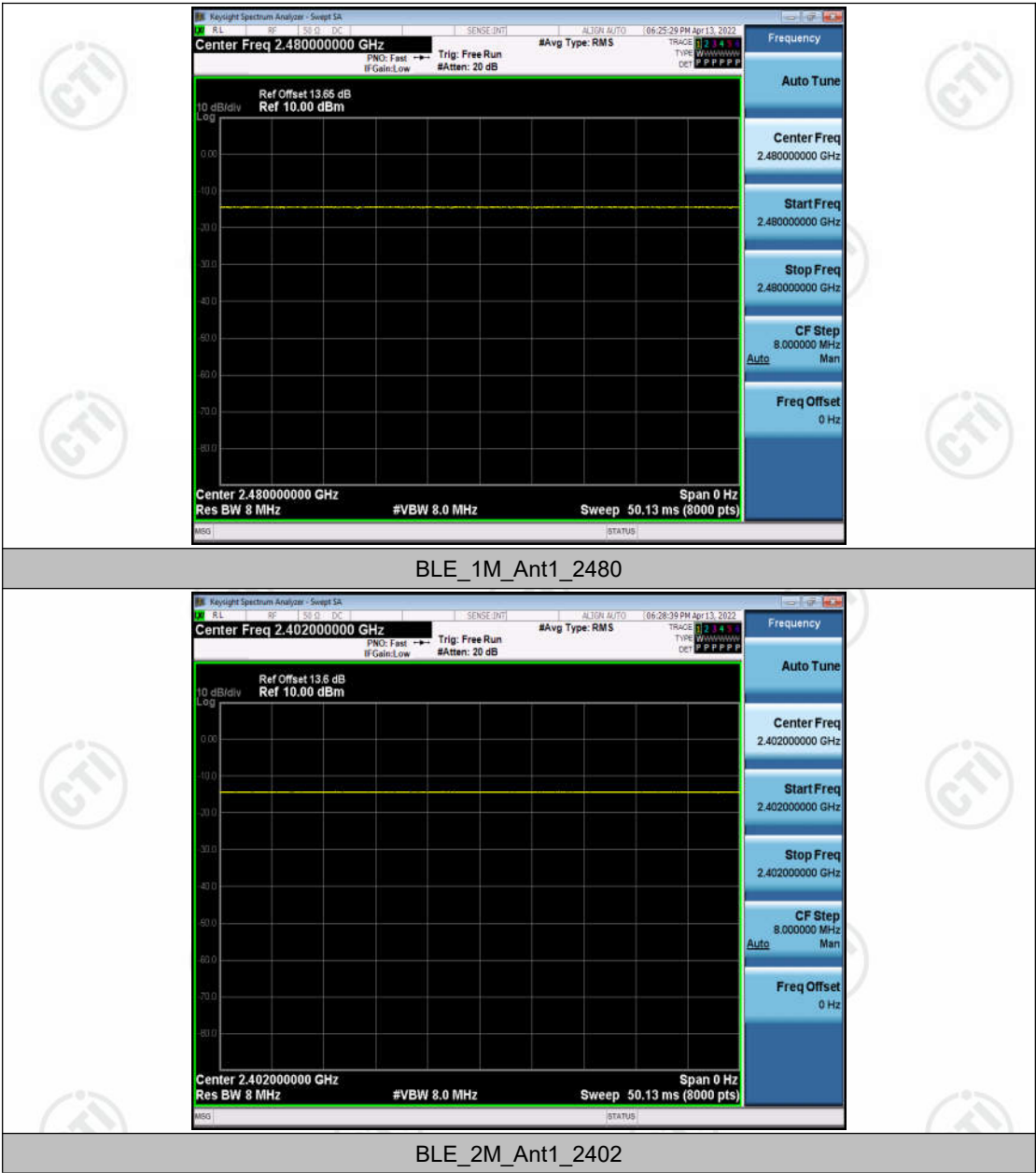
Appendix G: Duty Cycle

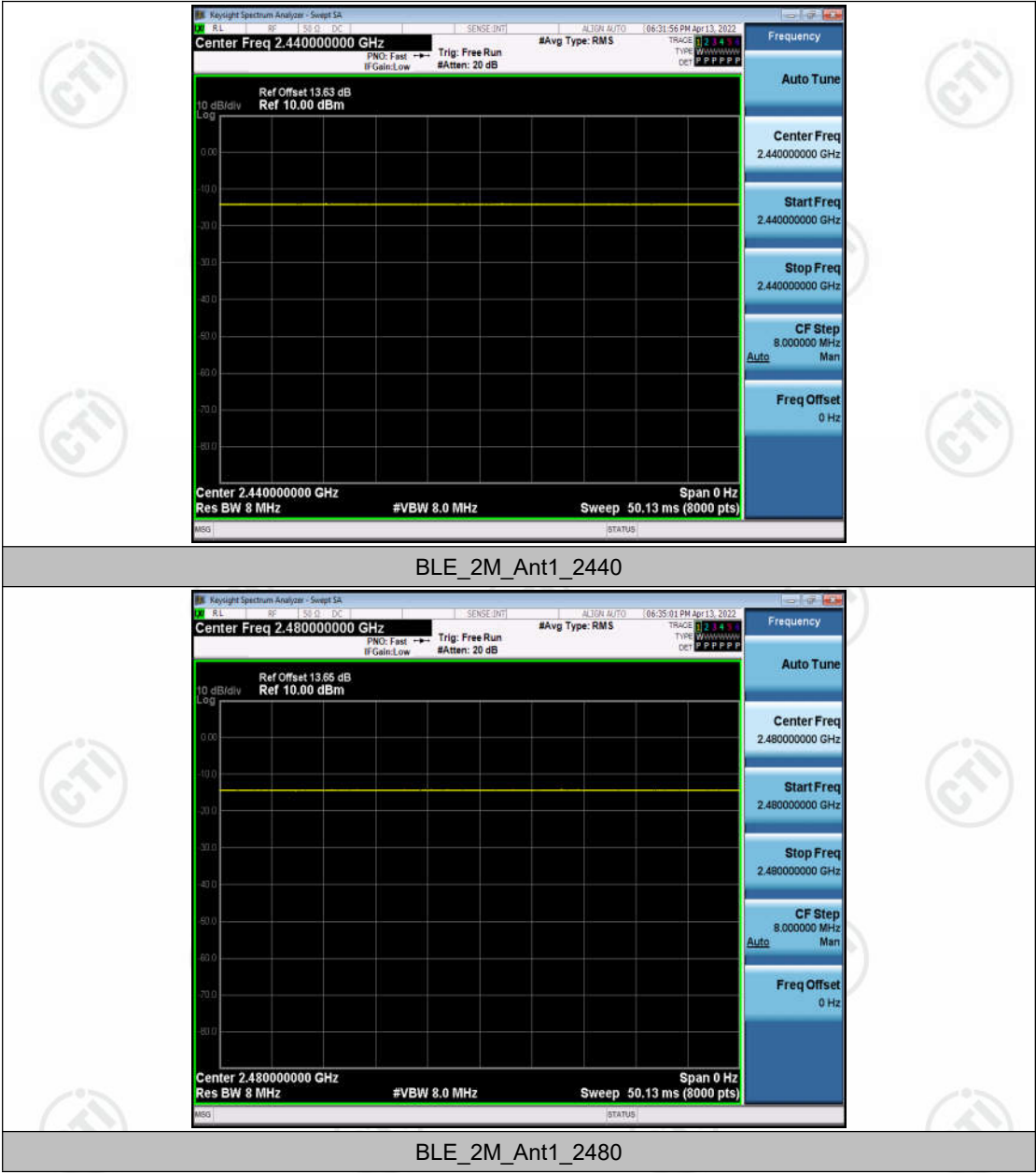
Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
BLE_1M	Ant1	2402	50.00	50.00	100.00	---	PASS
		2440	50.00	50.00	100.00	---	PASS
		2480	50.00	50.00	100.00	---	PASS
BLE_2M	Ant1	2402	50.00	50.00	100.00	---	PASS
		2440	50.00	50.00	100.00	---	PASS
		2480	50.00	50.00	100.00	---	PASS

Test Graphs







*** End of Report ***