

FCC Appendix RF Test Data for BT

FCC ID : 2BLKS-GKDT81

Company : SHENZHEN CHL INDUSTRIES CO.,LTD

EUT : Party Speaker with Flame Light

Model Number : GKDT81

Report No. : CTA26051401901

Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.963	2401.499	2402.462	---	---
		2441	0.954	2440.502	2441.456	---	---
		2480	0.954	2479.499	2480.453	---	---
2DH5	Ant1	2402	1.335	2401.298	2402.633	---	---
		2441	1.269	2440.340	2441.609	---	---
		2480	1.326	2479.301	2480.627	---	---

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



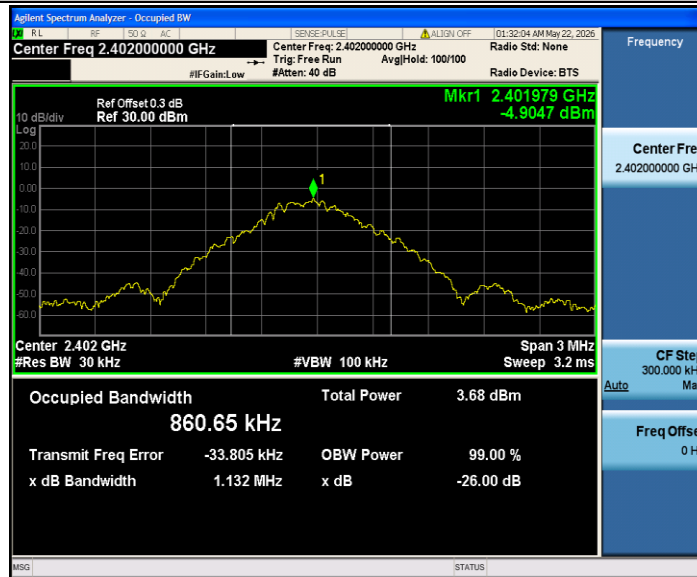
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86065	2401.5359	2402.3965	---	---
		2441	0.86350	2440.5365	2441.4000	---	---
		2480	0.86099	2479.5325	2480.3935	---	---
2DH5	Ant1	2402	1.1744	2401.3781	2402.5525	---	---
		2441	1.1713	2440.3834	2441.5547	---	---
		2480	1.1766	2479.3791	2480.5557	---	---

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



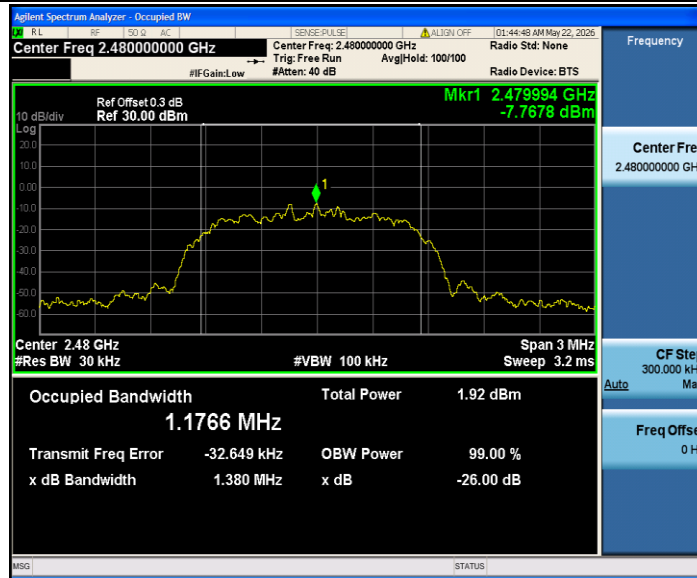
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-2.80	≤20.97	PASS
		2441	-2.97	≤20.97	PASS
		2480	-3.49	≤20.97	PASS
2DH5	Ant1	2402	-2.06	≤20.97	PASS
		2441	-2.25	≤20.97	PASS
		2480	-2.86	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.002	≥ 0.963	PASS
2DH5	Ant1	Hop	1.328	≥ 0.890	PASS

Test Graphs

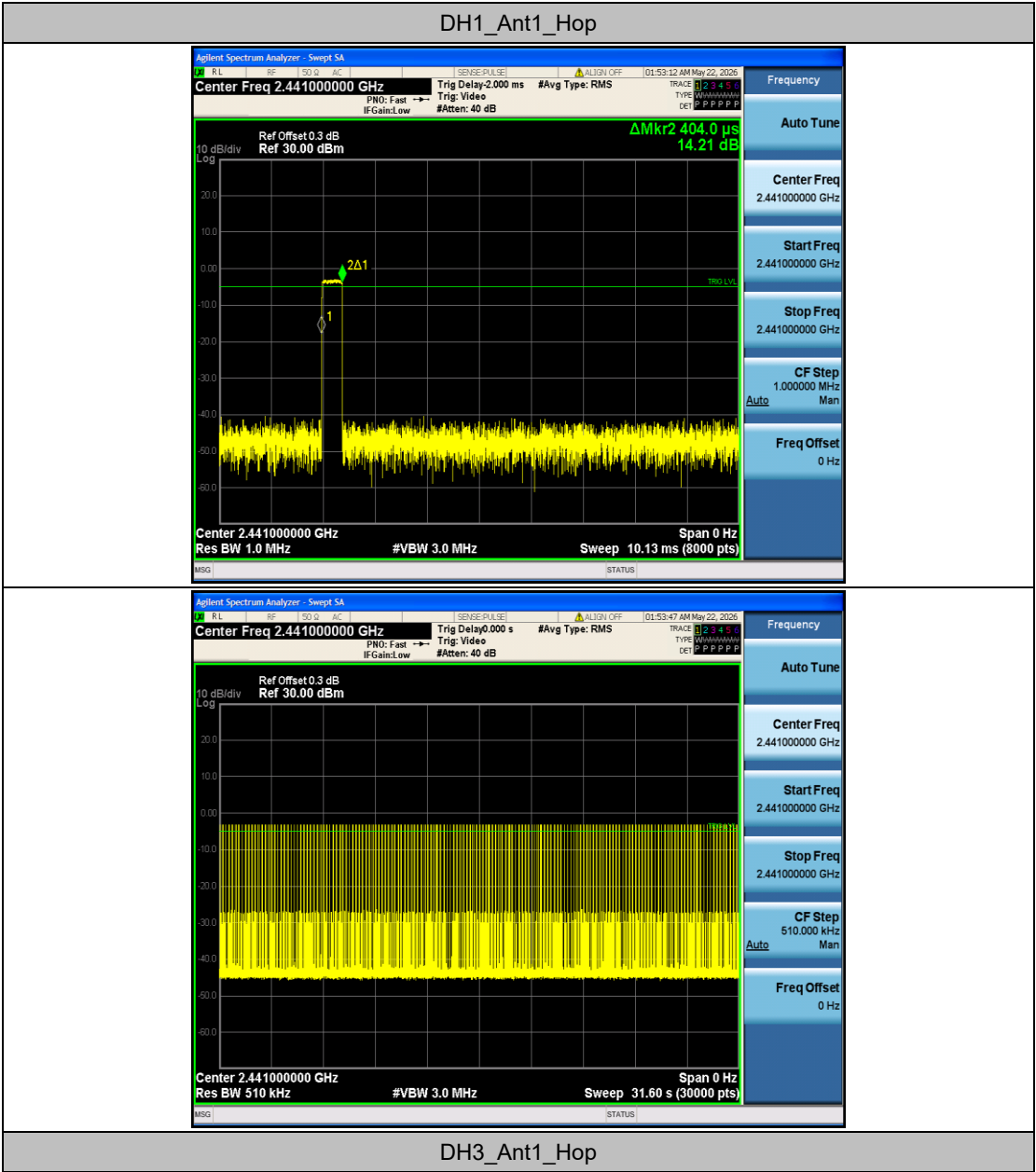


Appendix E: Time of occupancy

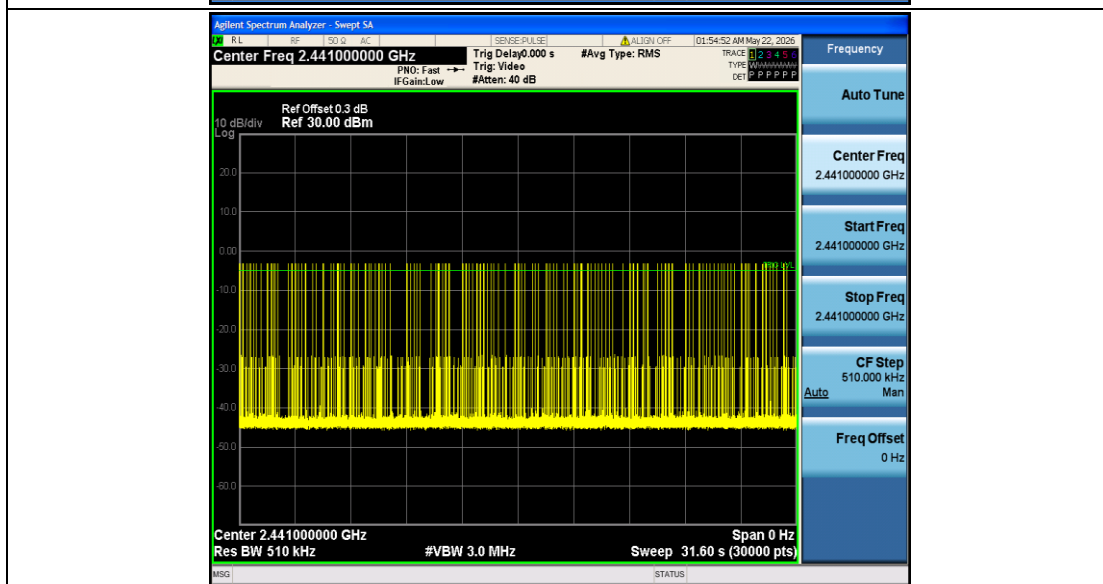
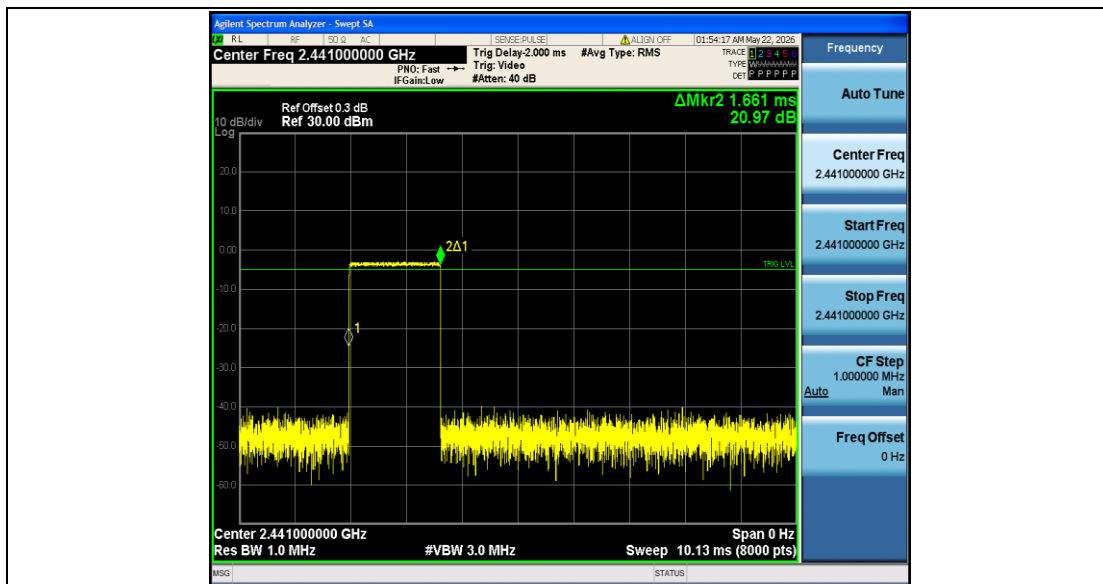
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.404	315	0.127	≤0.4	PASS
DH3	Ant1	Hop	1.661	158	0.262	≤0.4	PASS
DH5	Ant1	Hop	2.908	110	0.32	≤0.4	PASS
2DH1	Ant1	Hop	0.414	317	0.131	≤0.4	PASS
2DH3	Ant1	Hop	1.666	159	0.265	≤0.4	PASS
2DH5	Ant1	Hop	2.915	114	0.332	≤0.4	PASS

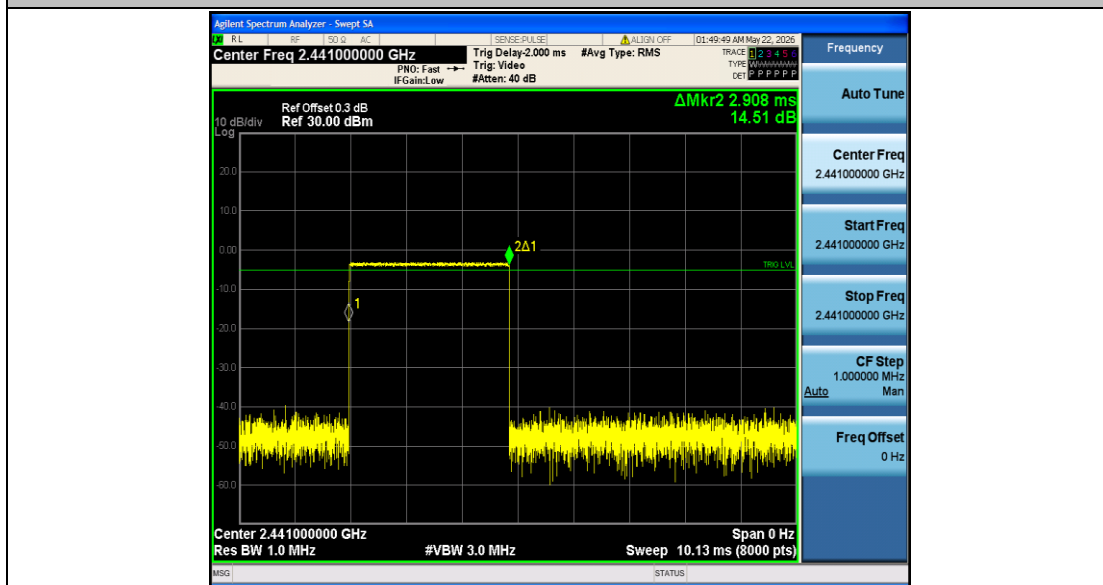
Test Graphs

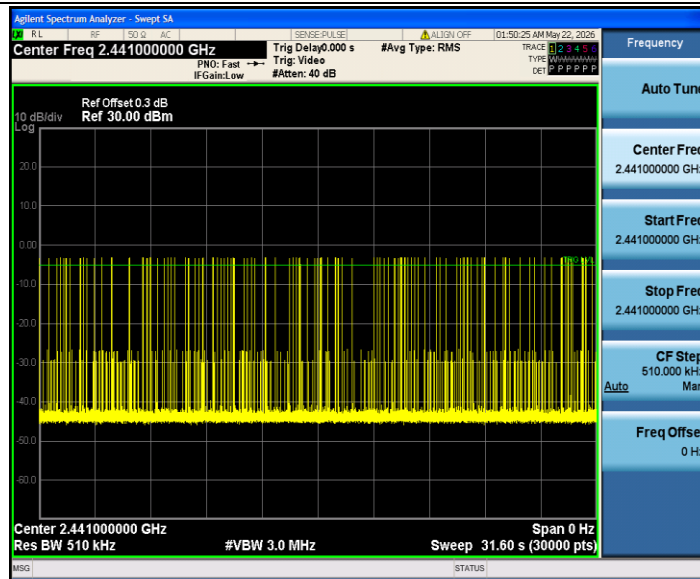


DH3_Ant1_Hop

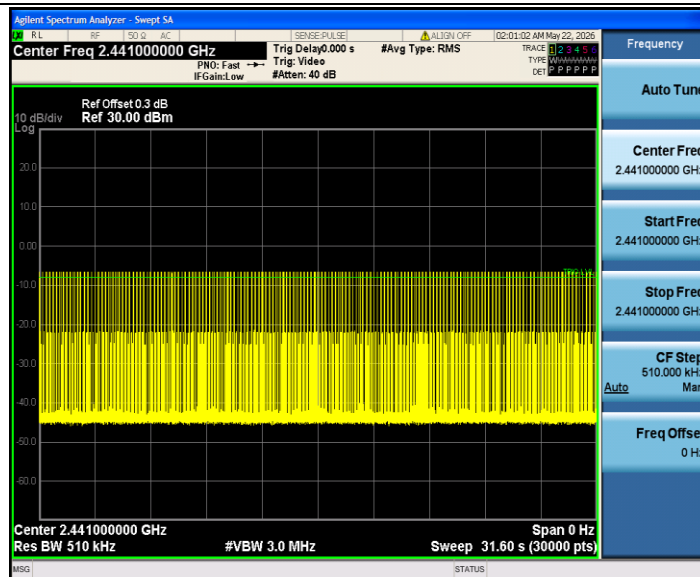
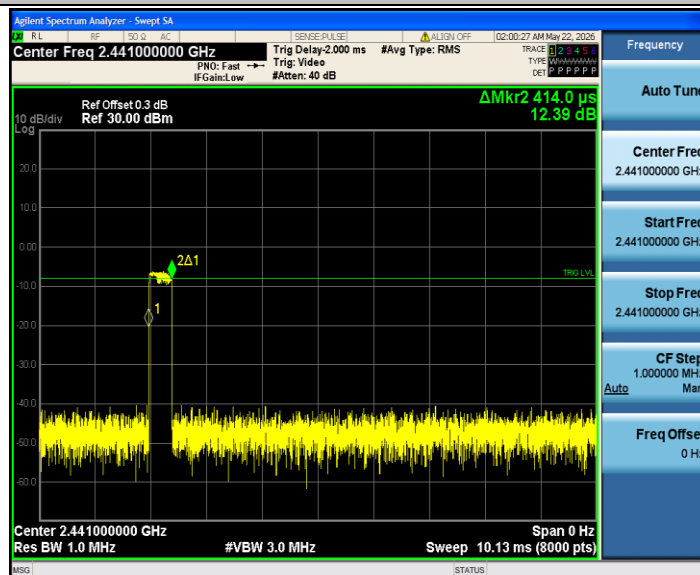


DH5_Ant1_Hop

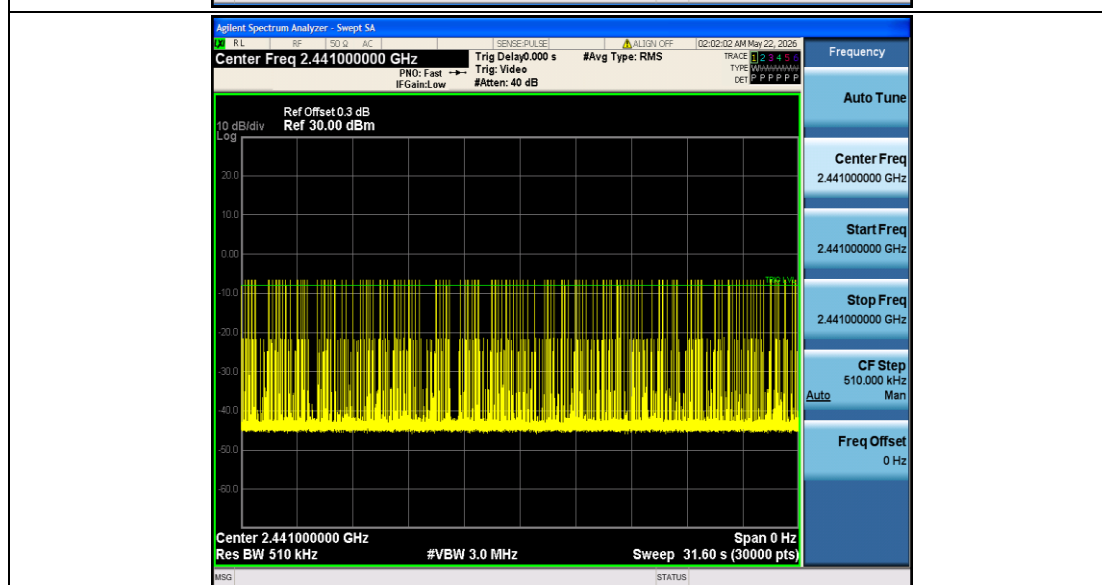
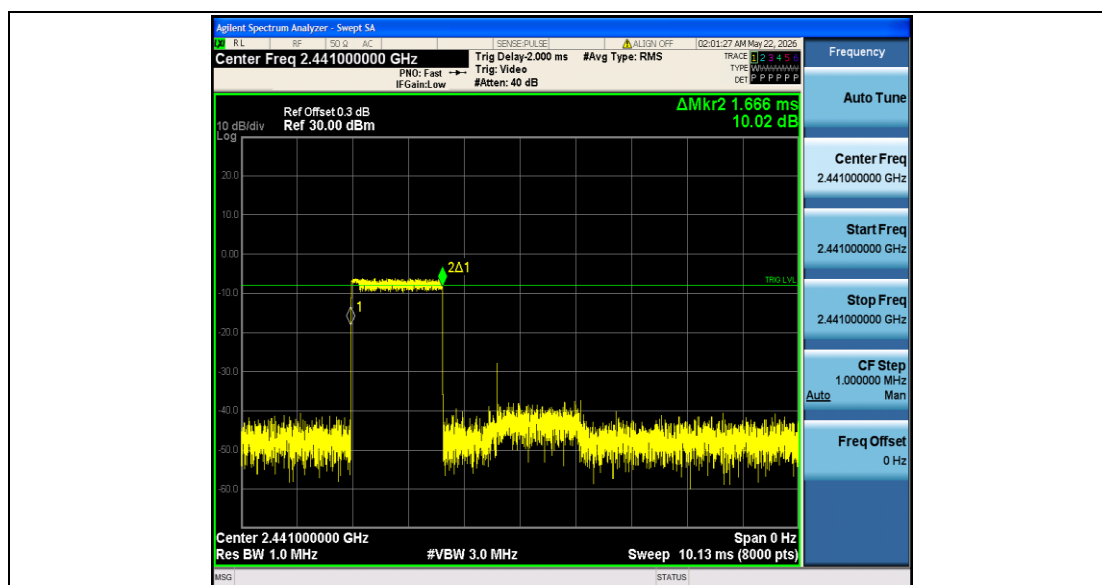




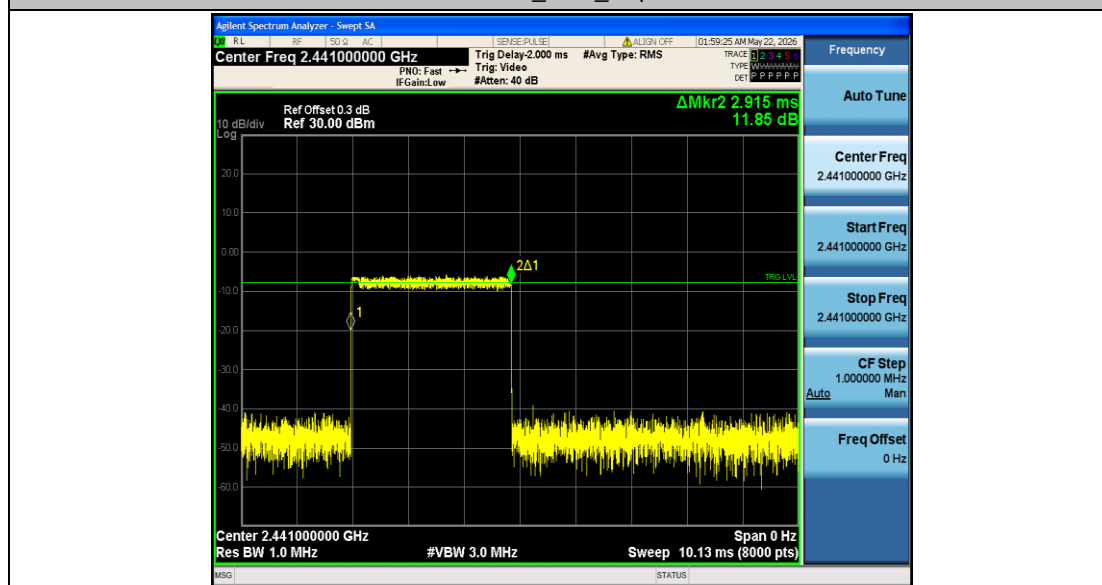
2DH1_Ant1_Hop

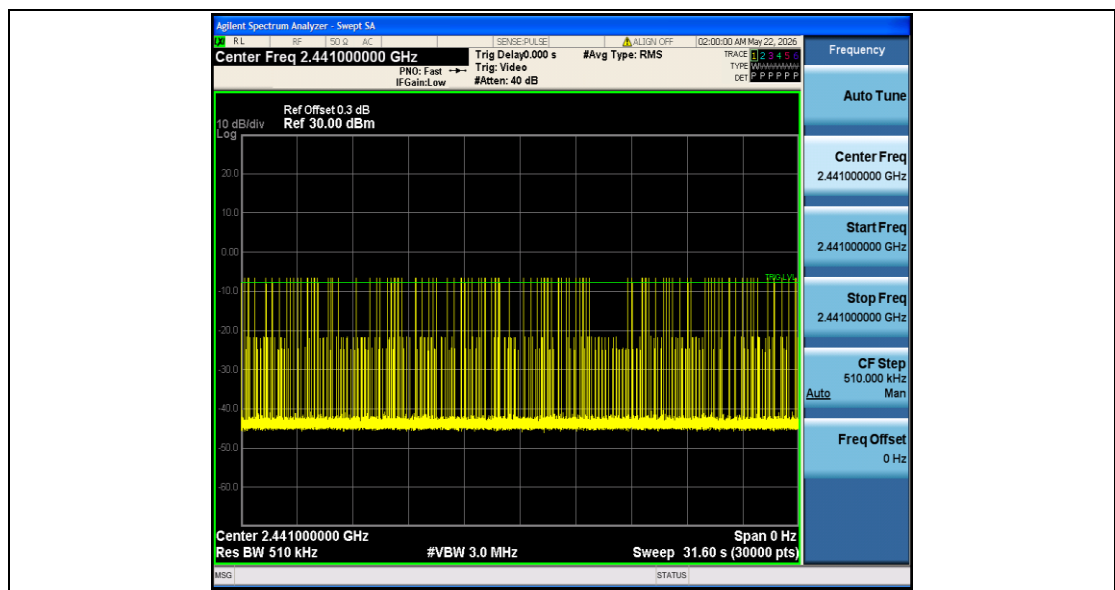


2DH3_Ant1_Hop



2DH5_Ant1_Hop



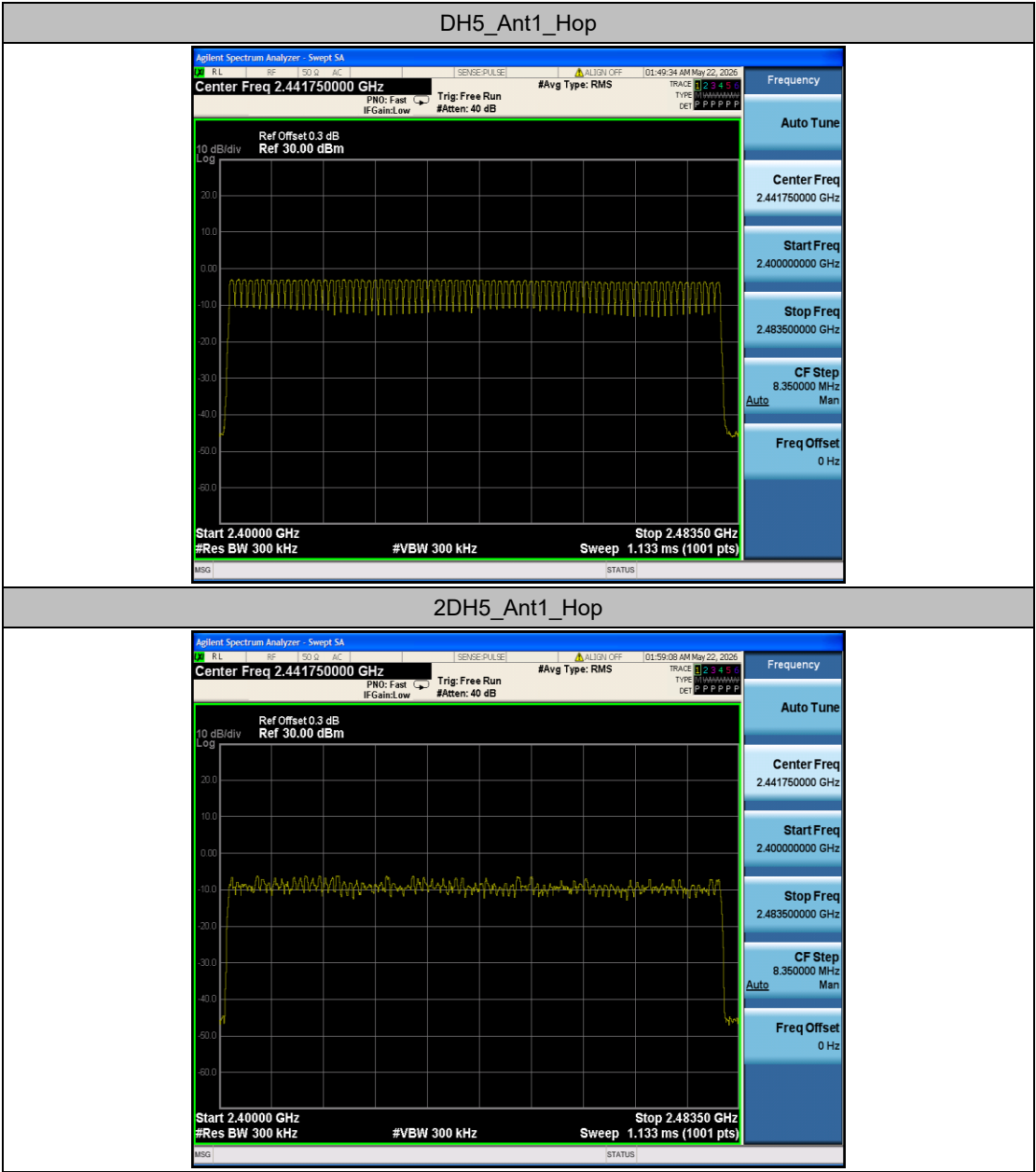


Appendix F: Number of hopping channels

Test Result

TestMode	Antenna	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS

Test Graphs



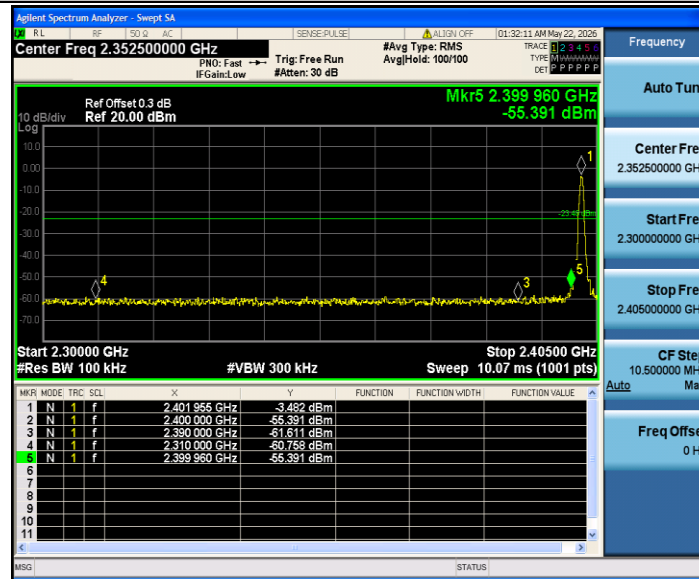
Appendix G: Band edge measurements

Test Result

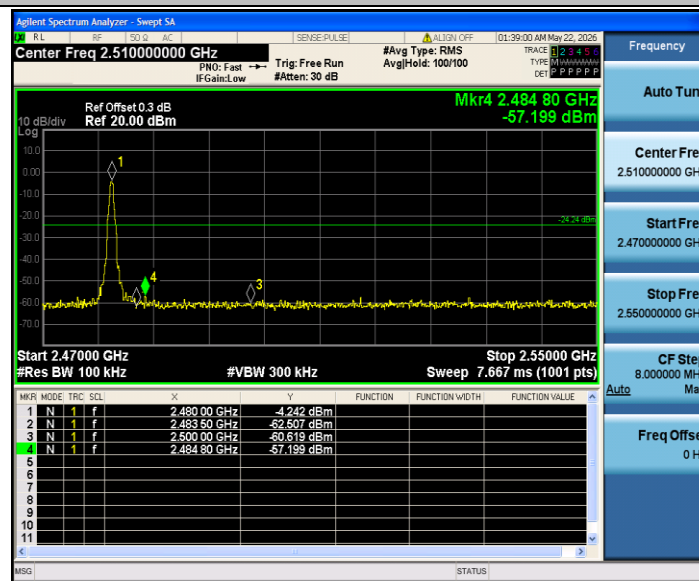
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.48	-55.39	≤-23.48	PASS
		High	2480	-4.24	-57.2	≤-24.24	PASS
		Low	Hop_2402	-4.39	-58.06	≤-24.39	PASS
		High	Hop_2480	-4.26	-57.43	≤-24.26	PASS
2DH5	Ant1	Low	2402	-6.44	-56.75	≤-26.44	PASS
		High	2480	-6.88	-58.06	≤-26.88	PASS
		Low	Hop_2402	-6.83	-58.3	≤-26.83	PASS
		High	Hop_2480	-11.35	-41.77	≤-31.35	PASS

Test Graphs

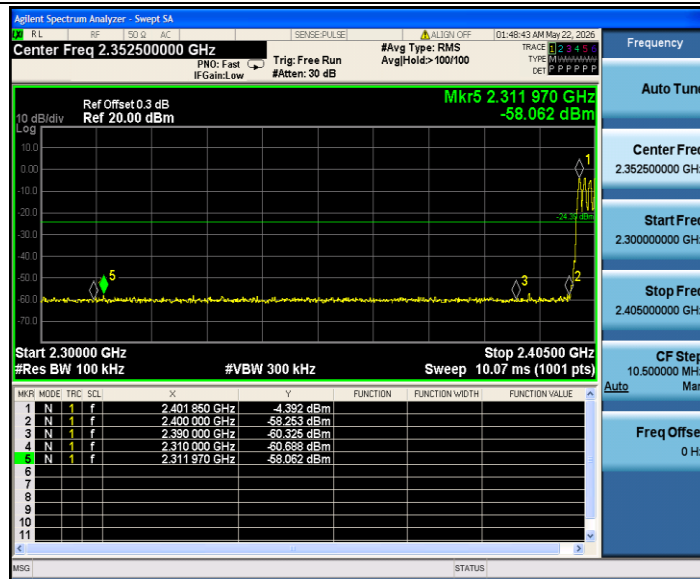
DH5_Ant1_Low_2402



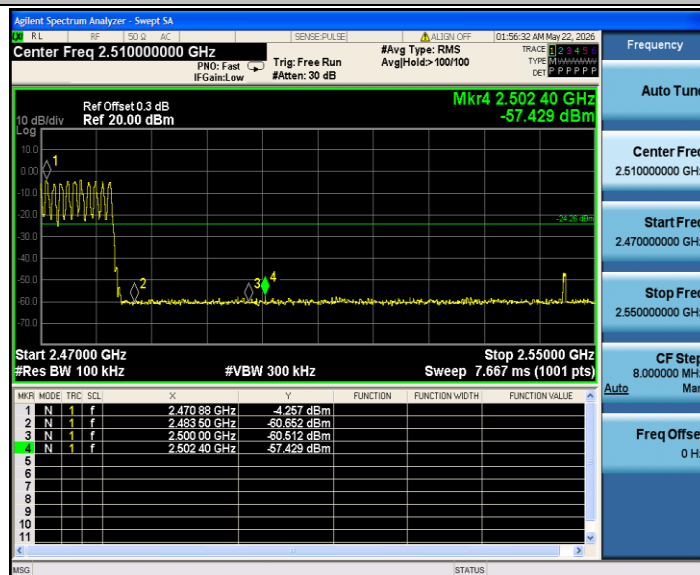
DH5_Ant1_High_2480



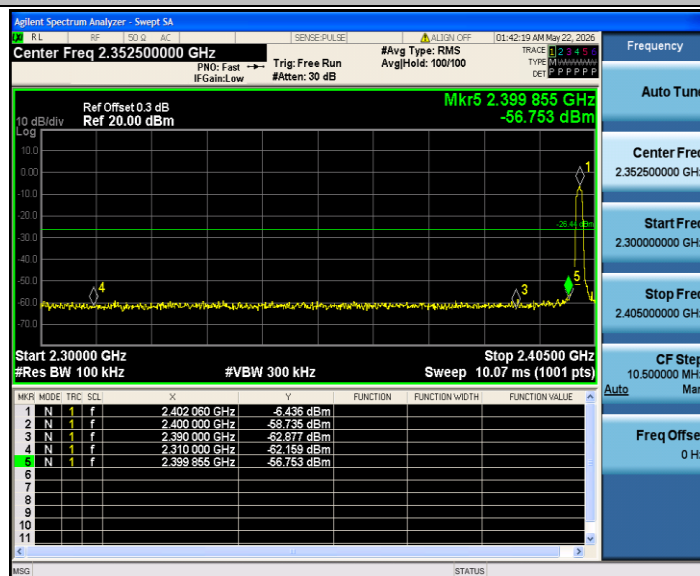
DH5_Ant1_Low_Hop_2402



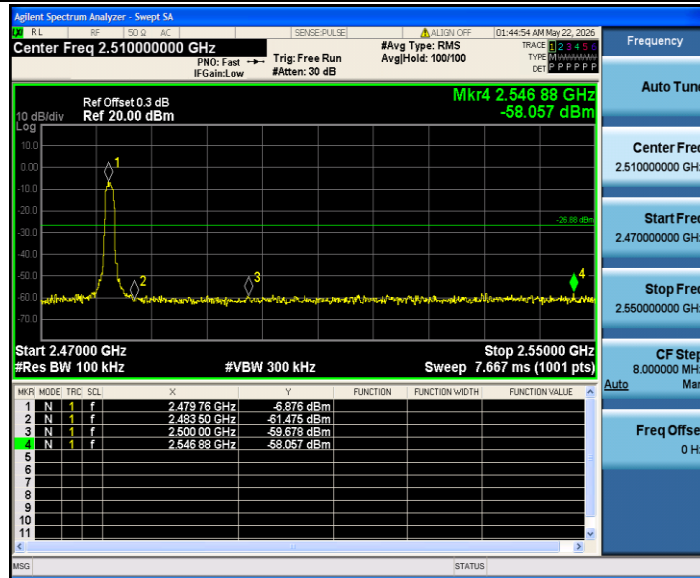
DH5_Ant1_High_Hop_2480



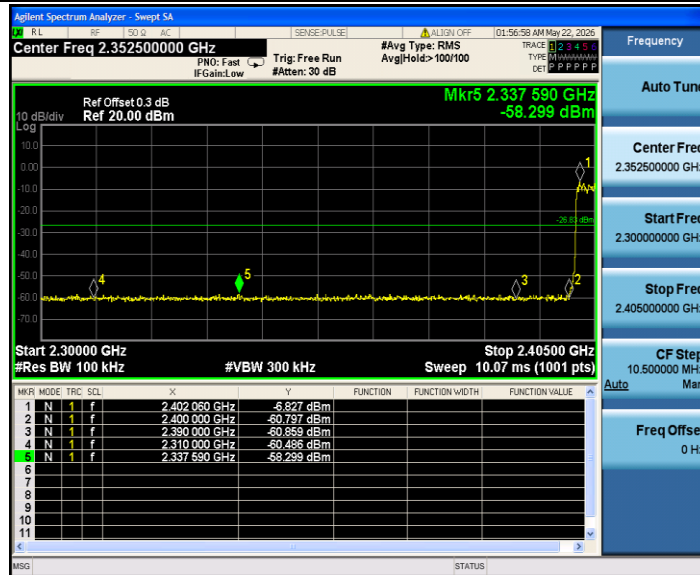
2DH5_Ant1_Low_2402



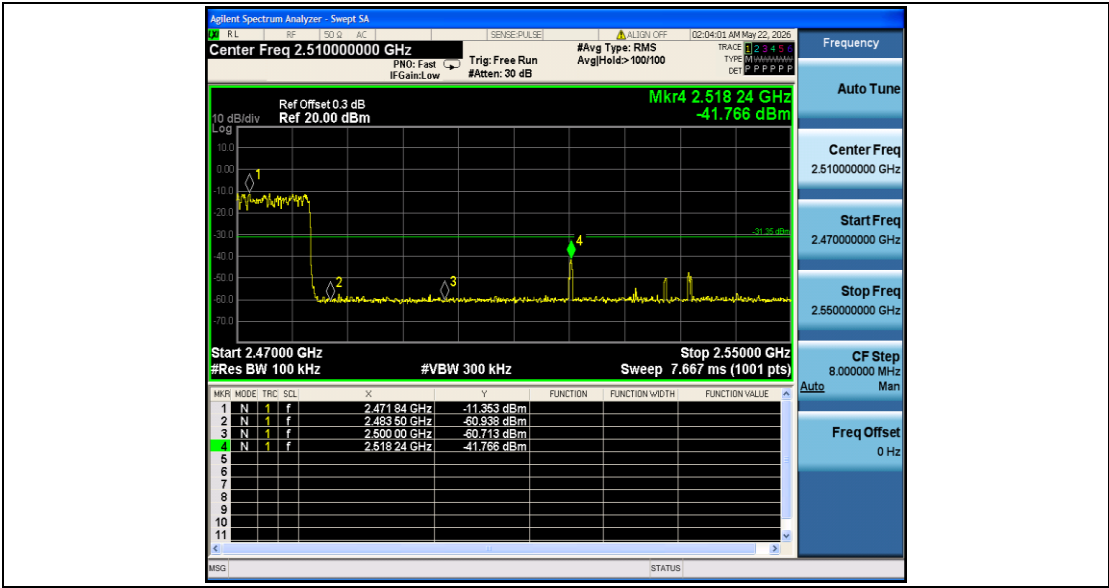
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

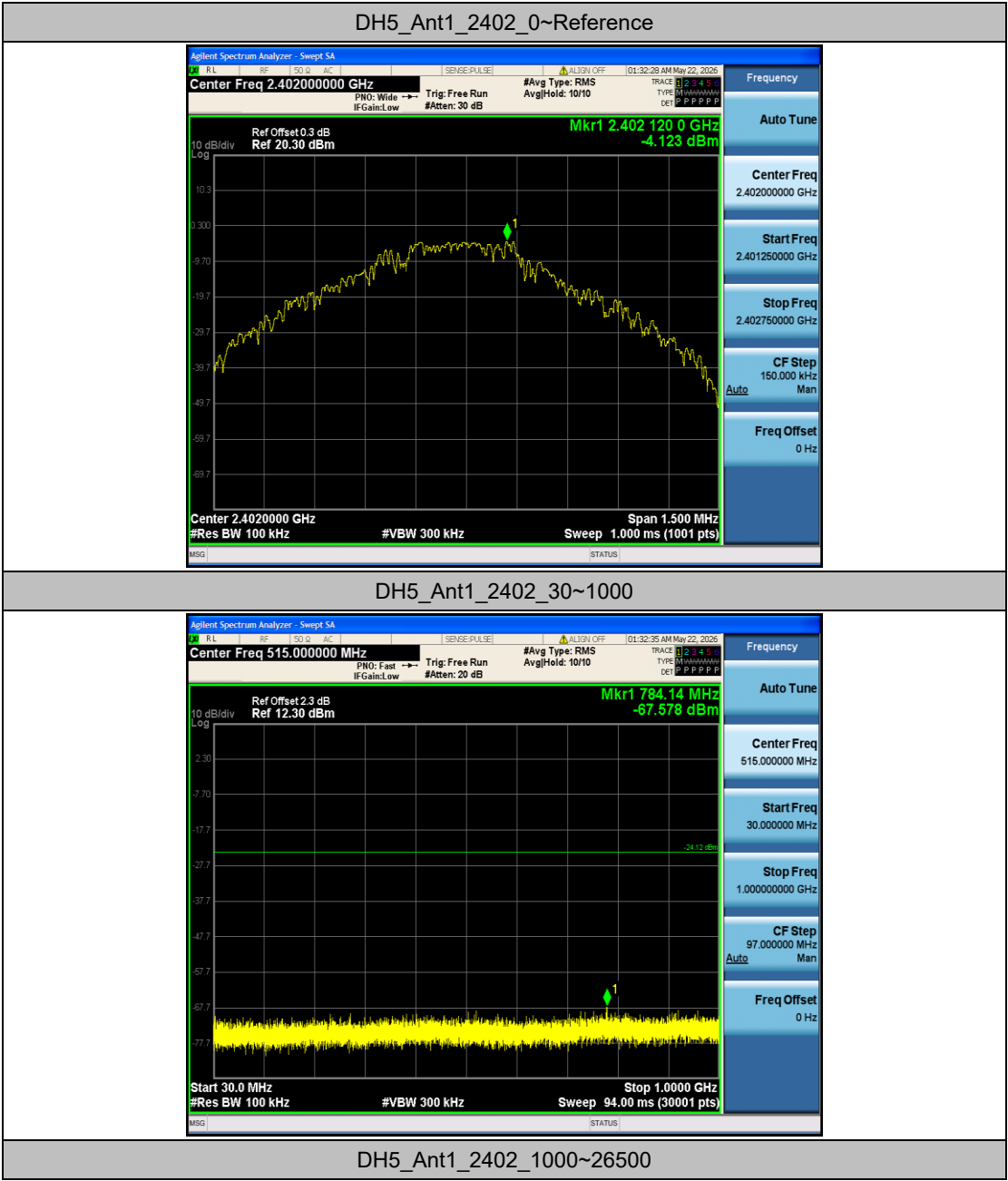


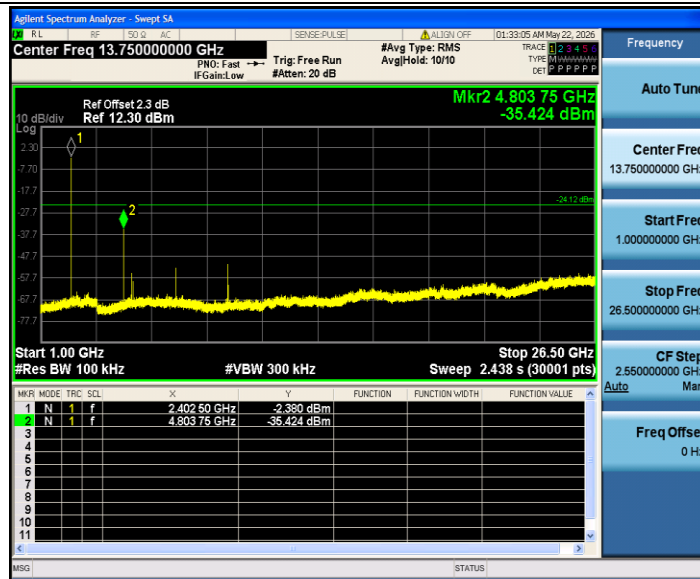
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-4.12	-4.12	---	PASS
			30~1000	-4.12	-67.58	≤-24.12	PASS
			1000~26500	-4.12	-35.42	≤-24.12	PASS
		2441	Reference	-4.28	-4.28	---	PASS
			30~1000	-4.28	-67.44	≤-24.28	PASS
			1000~26500	-4.28	-33.8	≤-24.28	PASS
		2480	Reference	-4.64	-4.64	---	PASS
			30~1000	-4.64	-68.3	≤-24.64	PASS
			1000~26500	-4.64	-34.58	≤-24.64	PASS
2DH5	Ant1	2402	Reference	-4.17	-4.17	---	PASS
			30~1000	-9.03	-67.43	≤-29.03	PASS
			1000~26500	-12.31	-41.71	≤-32.31	PASS
		2441	Reference	-4.04	-4.04	---	PASS
			30~1000	-12.25	-68.25	≤-32.25	PASS
			1000~26500	-12.25	-45.19	≤-32.25	PASS
		2480	Reference	-7.20	-7.20	---	PASS
			30~1000	-7.20	-68.21	≤-27.2	PASS
			1000~26500	-7.20	-34.71	≤-27.2	PASS

Test Graphs

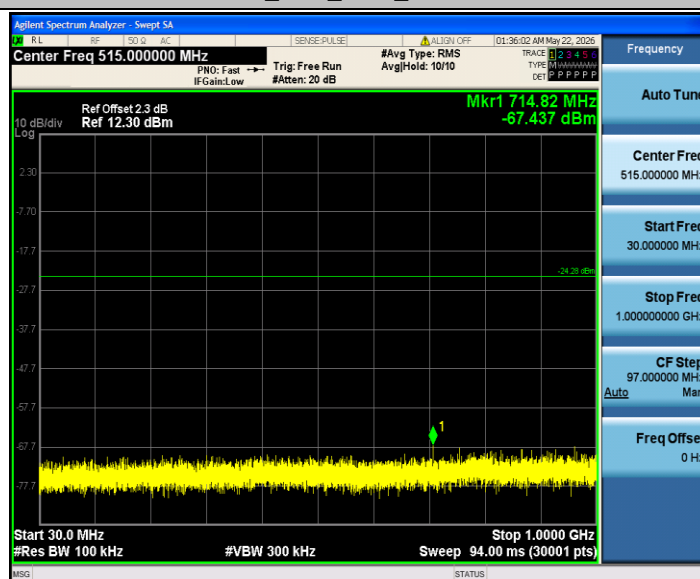




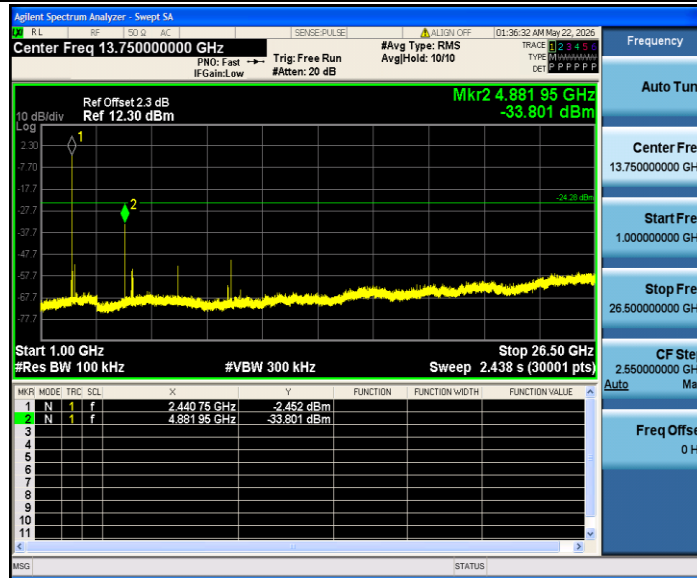
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



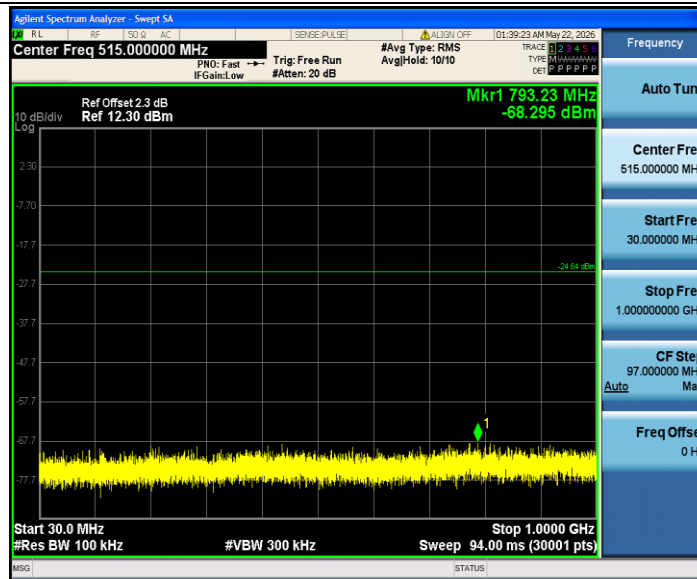
DH5_Ant1_2441_1000~26500



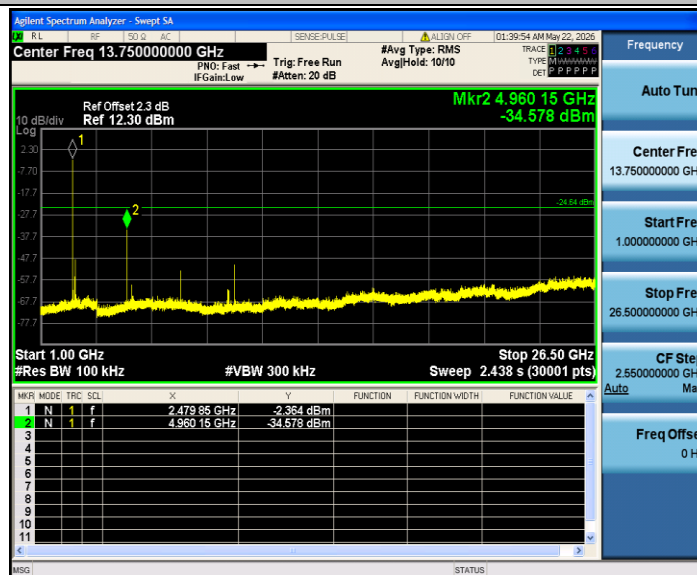
DH5_Ant1_2480_0~Reference



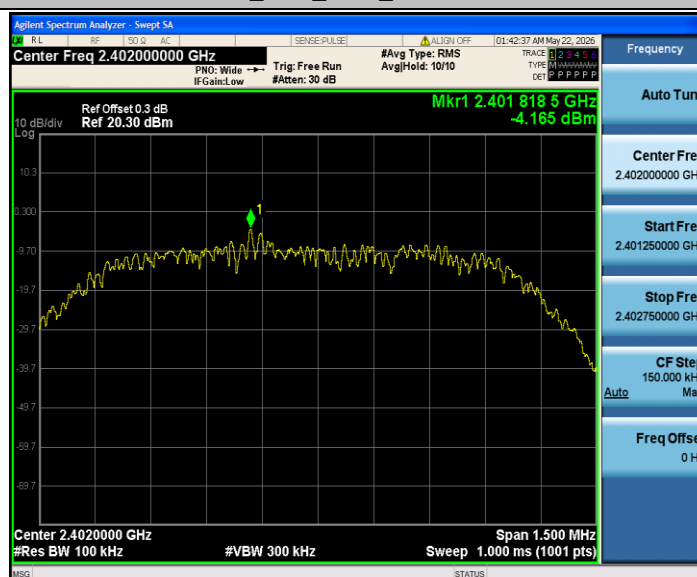
DH5_Ant1_2480_30~1000



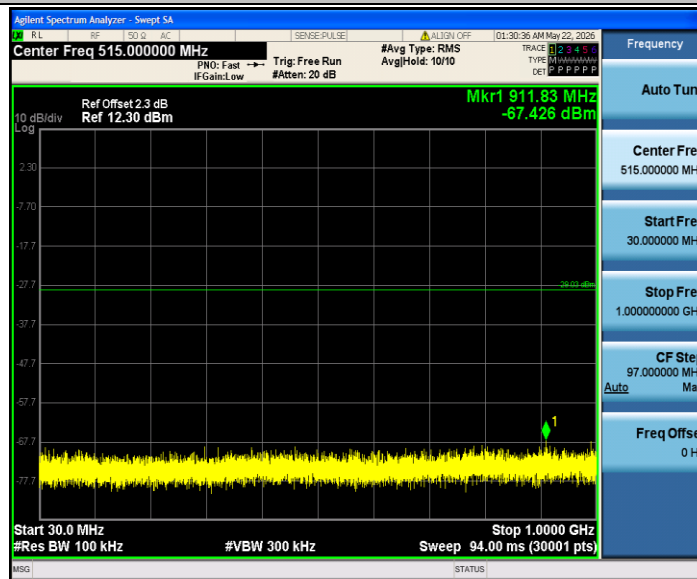
DH5_Ant1_2480_1000~26500



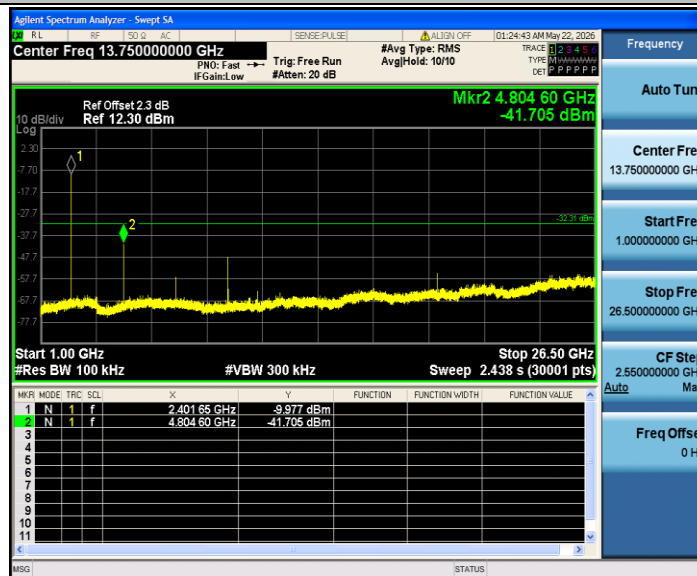
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



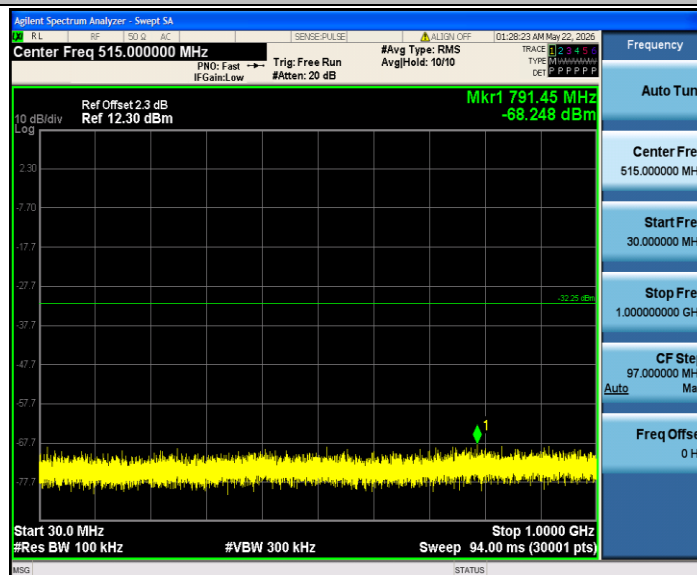
2DH5_Ant1_2402_1000~26500



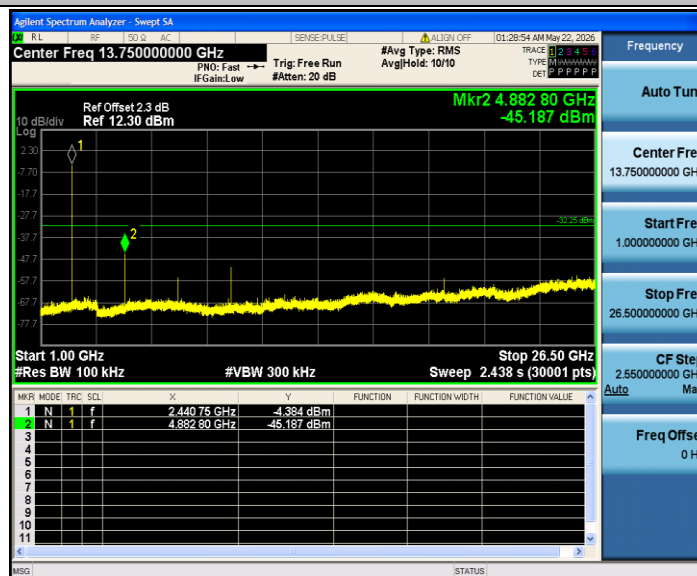
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



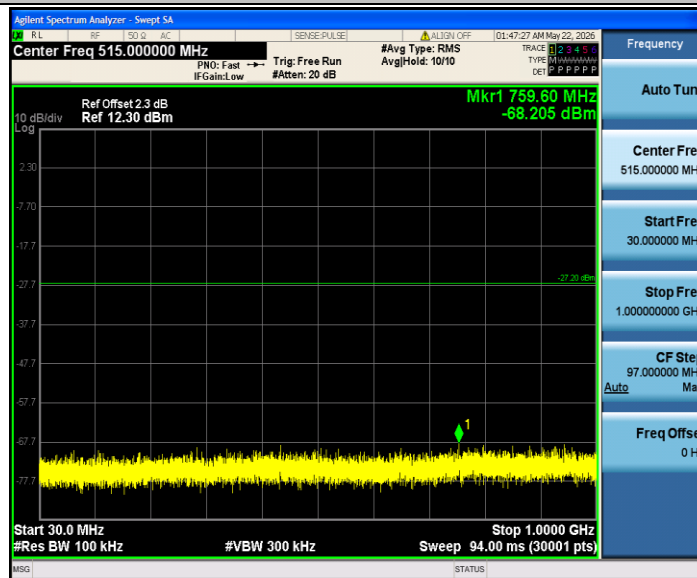
2DH5_Ant1_2441_1000~26500



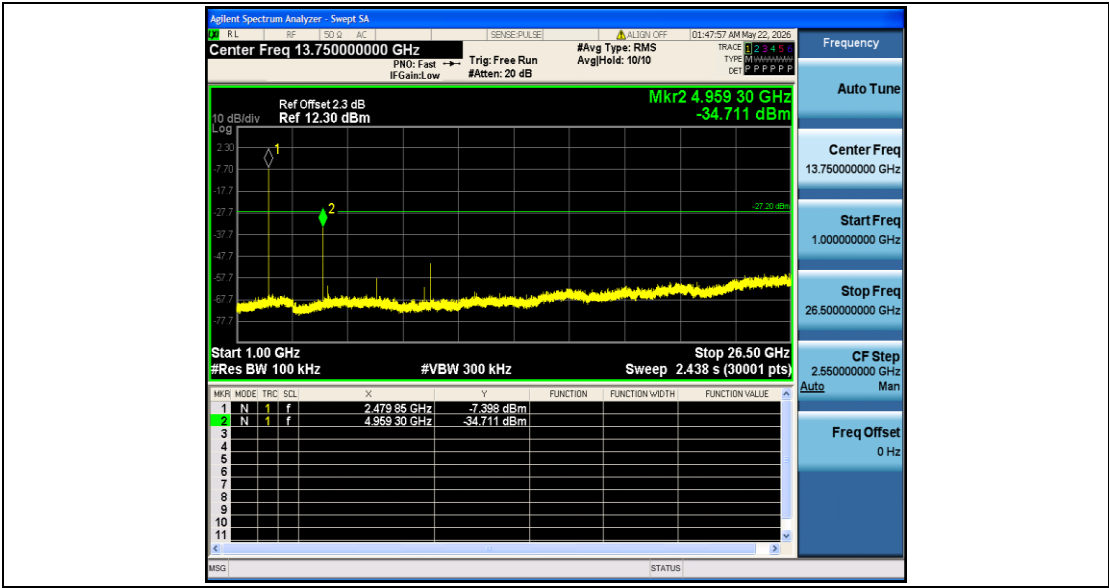
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



Appendix I: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.90	3.74	77.54	1.10	---	---
		2441	2.91	3.75	77.60	1.10	---	---
		2480	2.91	3.75	77.60	1.10	---	---
2DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---