

FCC Appendix RF Test Data for BT

FCC ID : 2BWXL-SH-309

Company : POP UP E.I.R.L.

EUT : Wireless speaker

Model Number : SH-309

Report No. : CTA26061202801

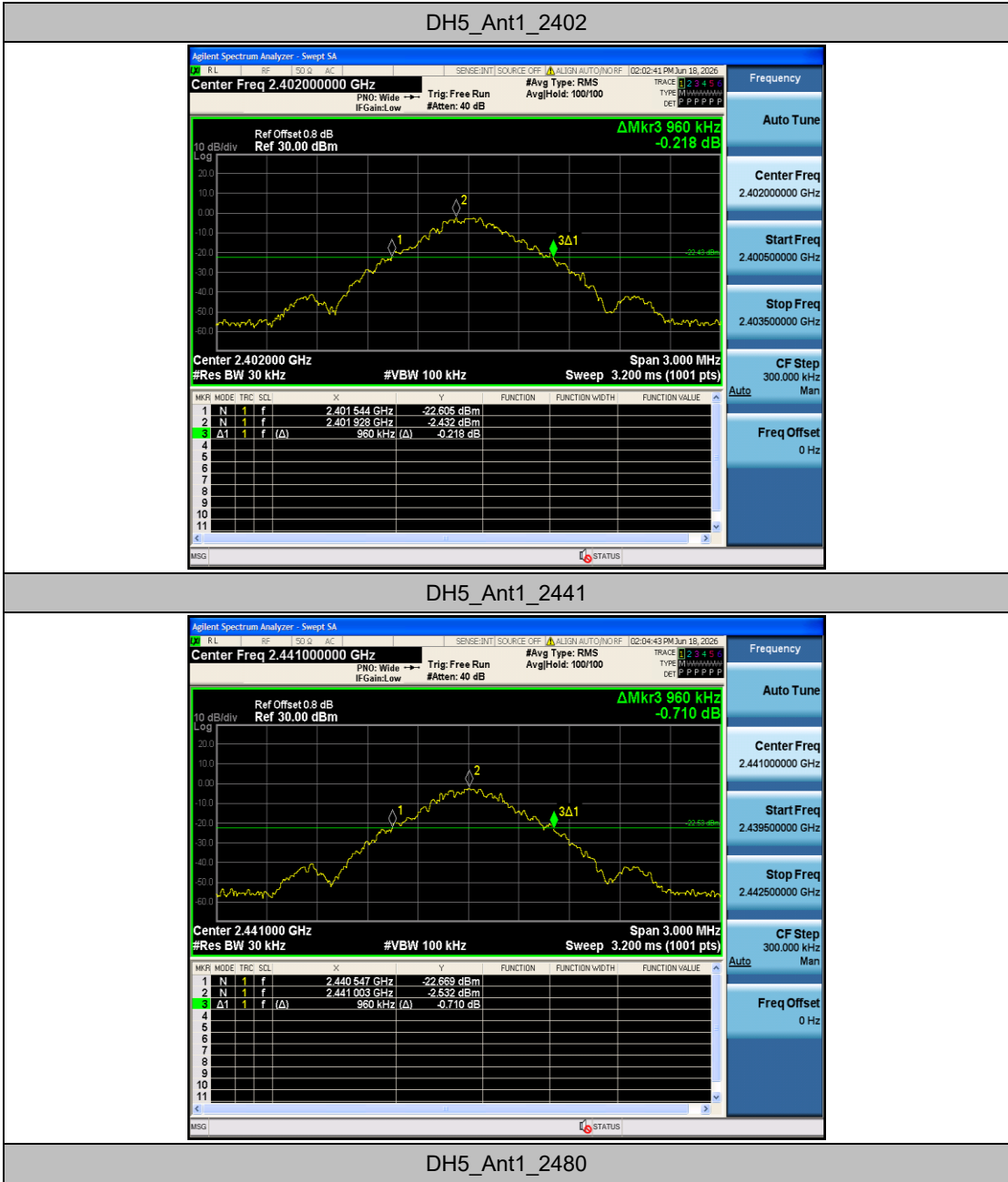
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.960	2401.544	2402.504	---	---
		2441	0.960	2440.547	2441.507	---	---
		2480	0.951	2479.547	2480.498	---	---
2DH5	Ant1	2402	1.347	2401.337	2402.684	---	---
		2441	1.347	2440.337	2441.684	---	---
		2480	1.290	2479.376	2480.666	---	---
3DH5	Ant1	2402	1.311	2401.358	2402.669	---	---
		2441	1.278	2440.364	2441.642	---	---
		2480	1.311	2479.361	2480.672	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

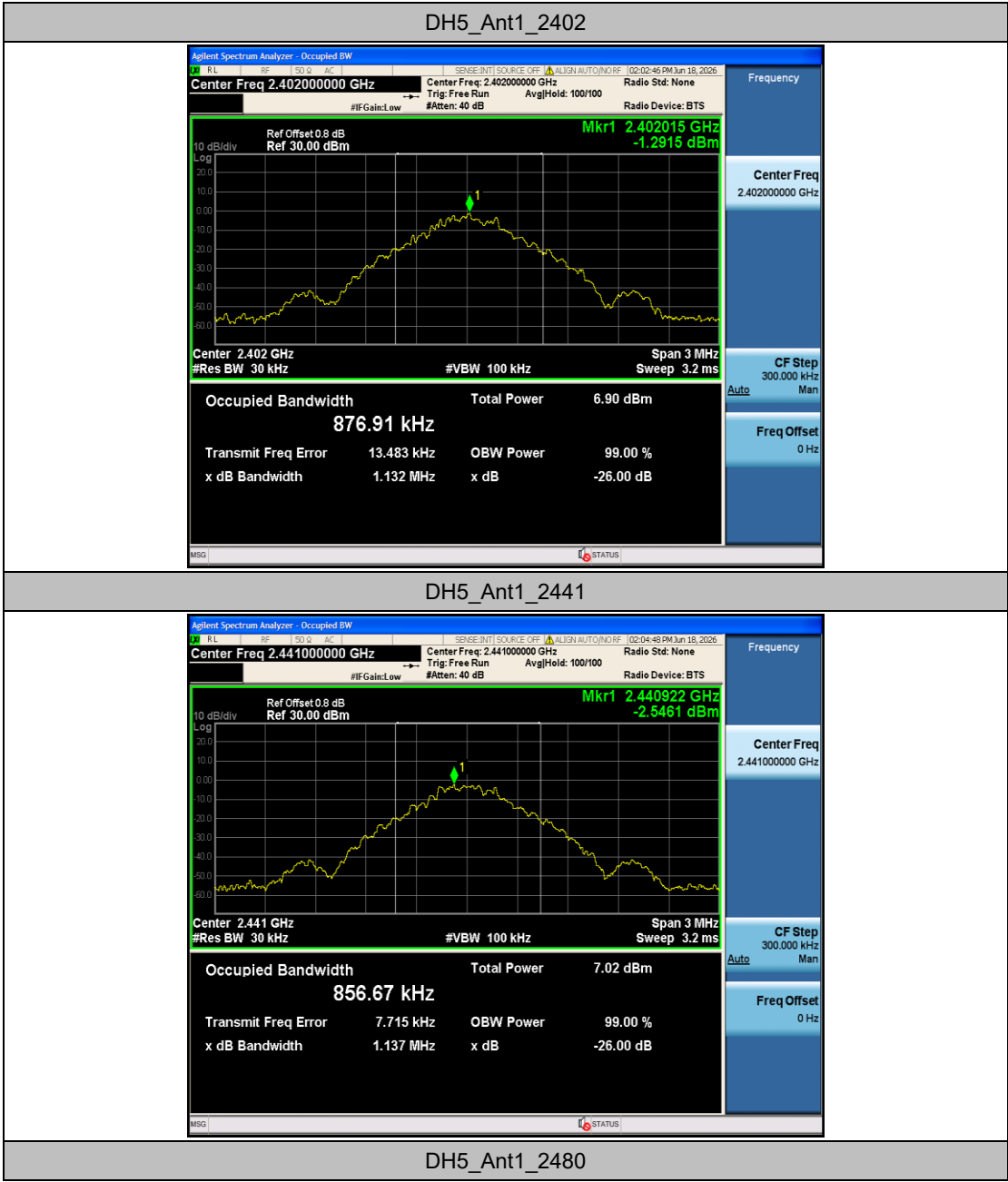


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.87691	2401.5750	2402.4519	---	---
		2441	0.85667	2440.5794	2441.4361	---	---
		2480	0.86984	2479.5751	2480.4449	---	---
2DH5	Ant1	2402	1.1955	2401.4123	2402.6078	---	---
		2441	1.1952	2440.4114	2441.6066	---	---
		2480	1.1925	2479.4149	2480.6074	---	---
3DH5	Ant1	2402	1.1841	2401.4199	2402.6040	---	---
		2441	1.1989	2440.4126	2441.6115	---	---
		2480	1.1867	2479.4215	2480.6082	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



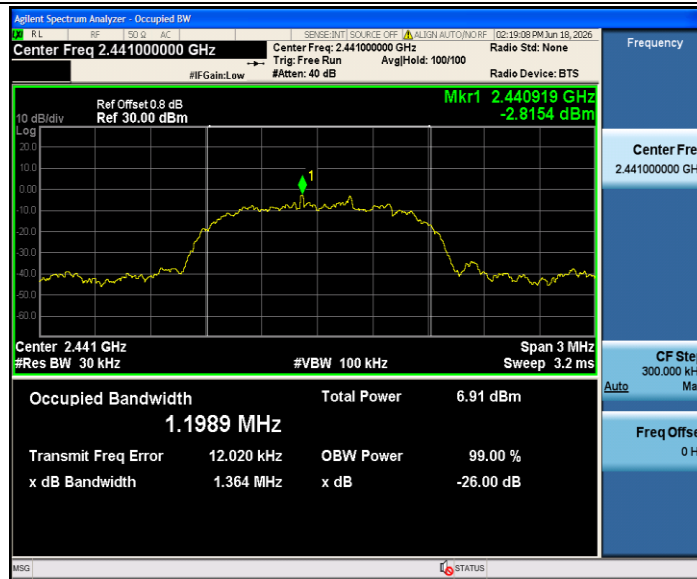
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_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	0.41	≤20.97	PASS
		2441	0.30	≤20.97	PASS
		2480	0.01	≤20.97	PASS
2DH5	Ant1	2402	3.08	≤20.97	PASS
		2441	2.93	≤20.97	PASS
		2480	2.65	≤20.97	PASS
3DH5	Ant1	2402	3.55	≤20.97	PASS
		2441	3.35	≤20.97	PASS
		2480	3.14	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.008	≥ 0.960	PASS
2DH5	Ant1	Hop	1.038	≥ 0.898	PASS
3DH5	Ant1	Hop	1.132	≥ 0.874	PASS

Test Graphs



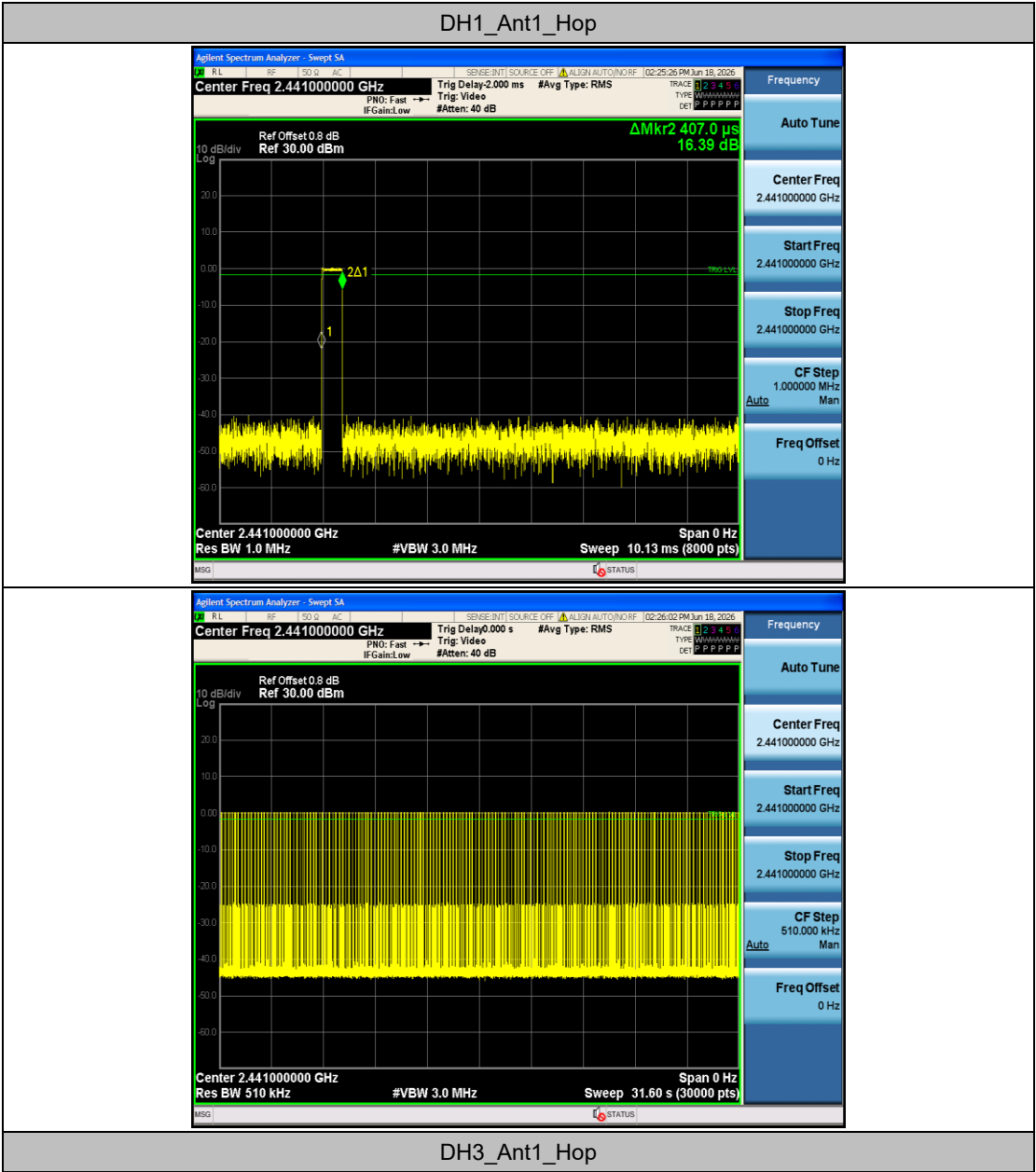


Appendix E: Time of occupancy

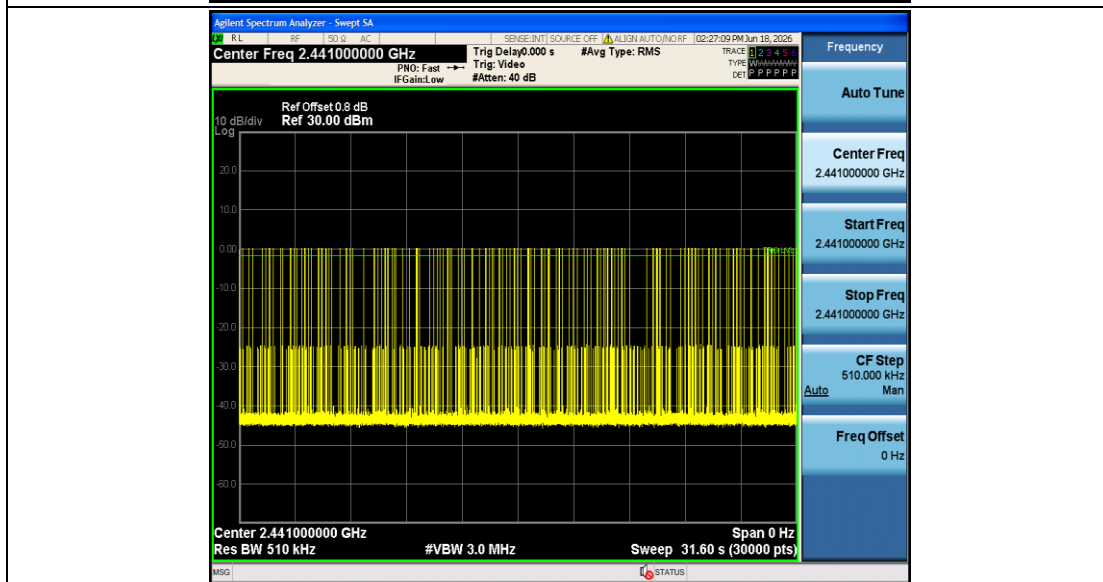
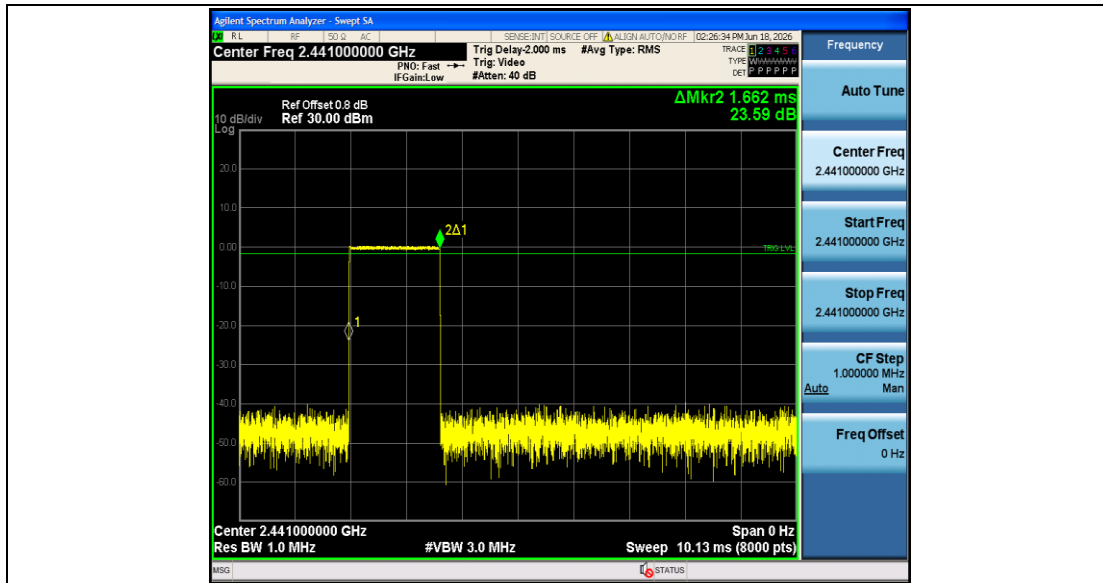
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	314	0.128	≤0.4	PASS
DH3	Ant1	Hop	1.662	158	0.263	≤0.4	PASS
DH5	Ant1	Hop	2.911	108	0.314	≤0.4	PASS
2DH1	Ant1	Hop	0.414	317	0.131	≤0.4	PASS
2DH3	Ant1	Hop	1.667	157	0.262	≤0.4	PASS
2DH5	Ant1	Hop	2.915	107	0.312	≤0.4	PASS
3DH1	Ant1	Hop	0.414	319	0.132	≤0.4	PASS
3DH3	Ant1	Hop	1.666	161	0.268	≤0.4	PASS
3DH5	Ant1	Hop	2.917	113	0.33	≤0.4	PASS

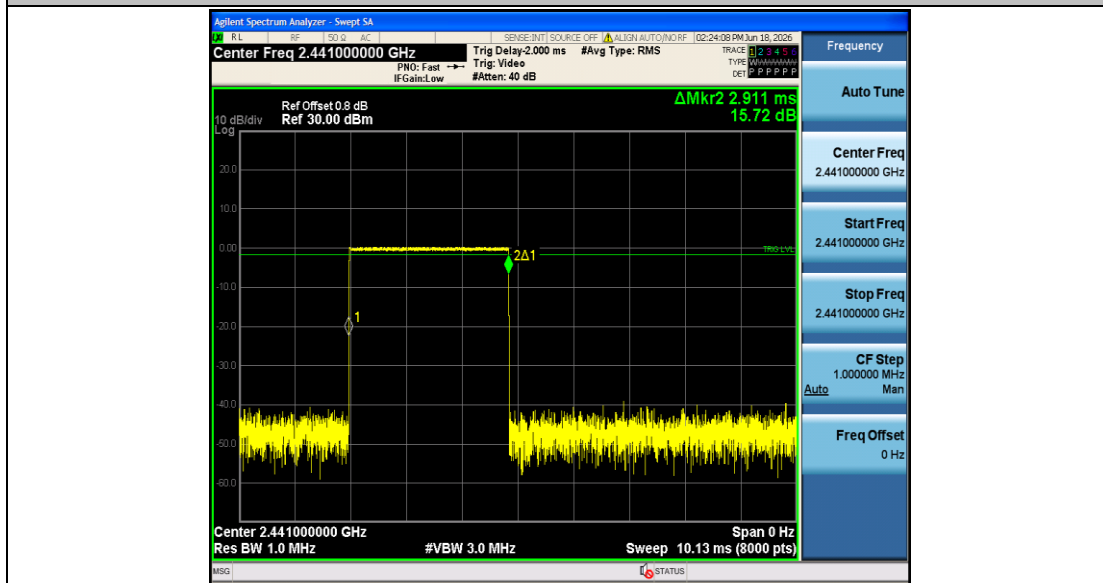
Test Graphs

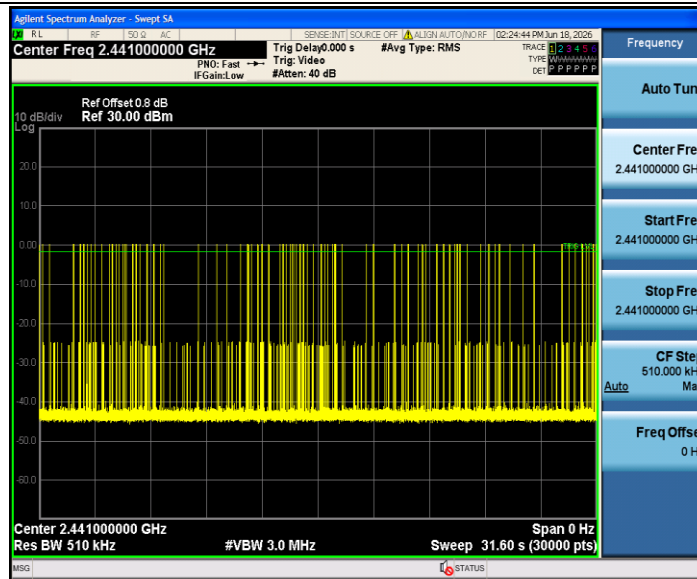


DH3_Ant1_Hop

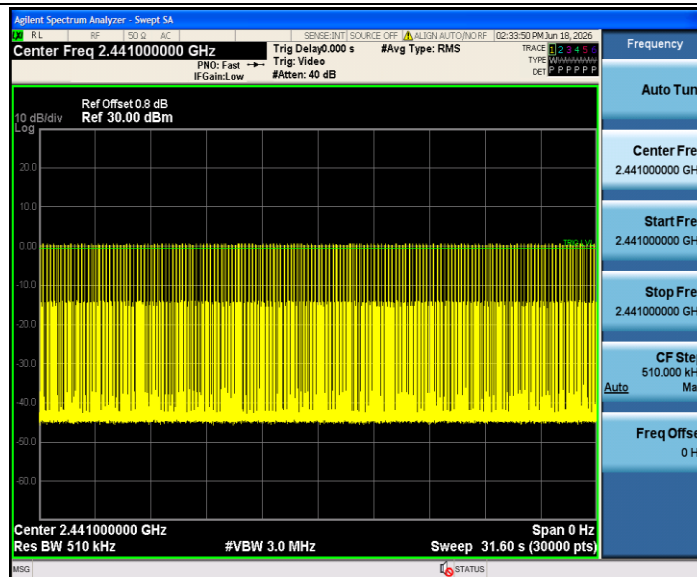
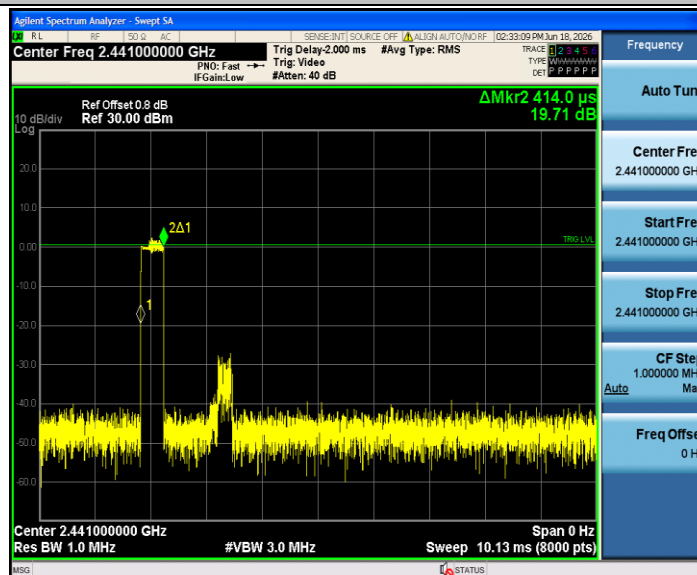


DH5_Ant1_Hop

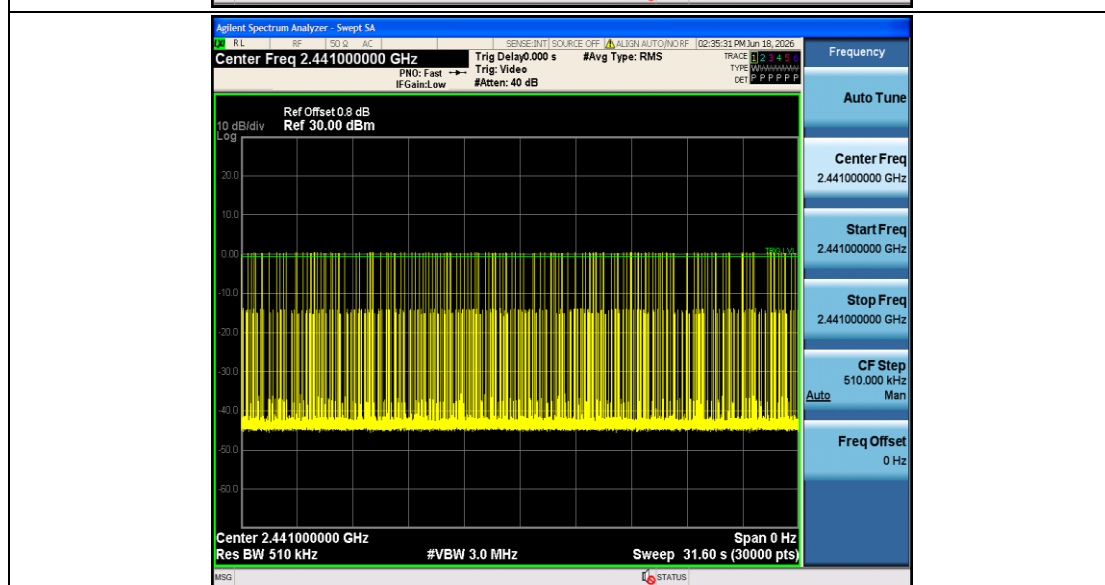
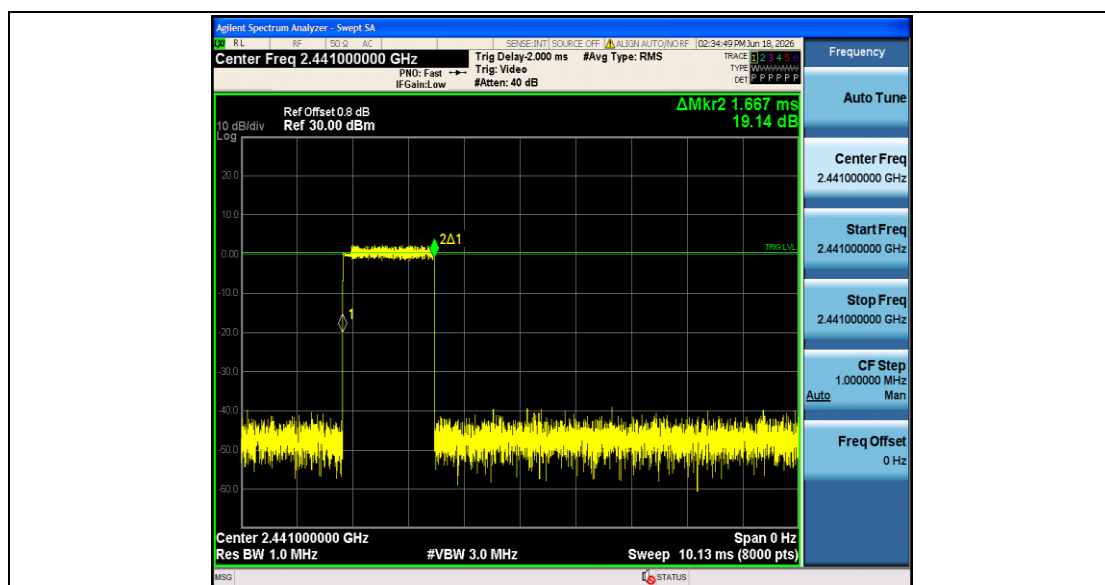




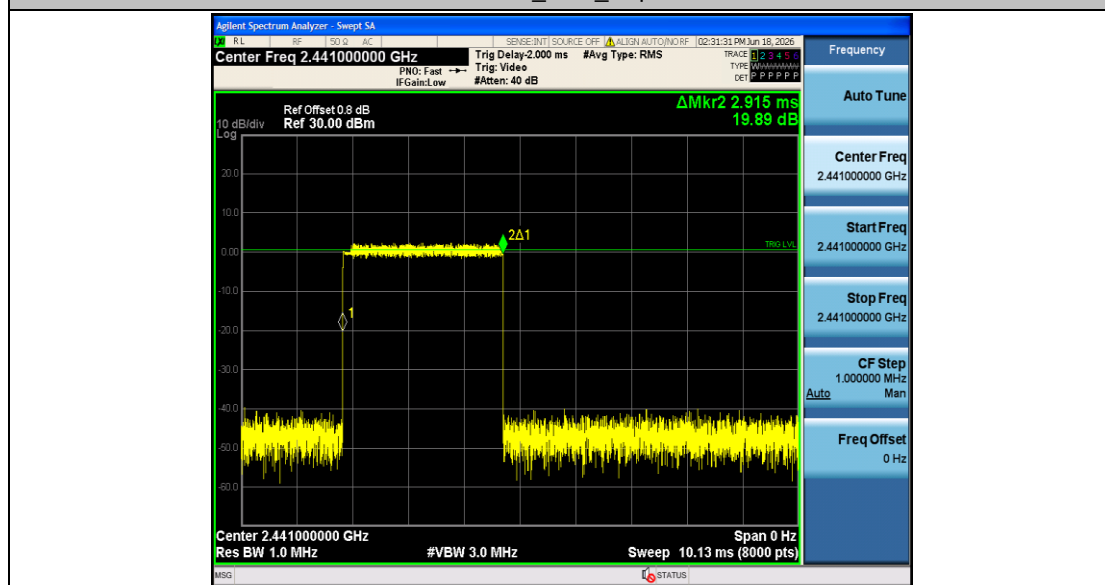
2DH1_Ant1_Hop

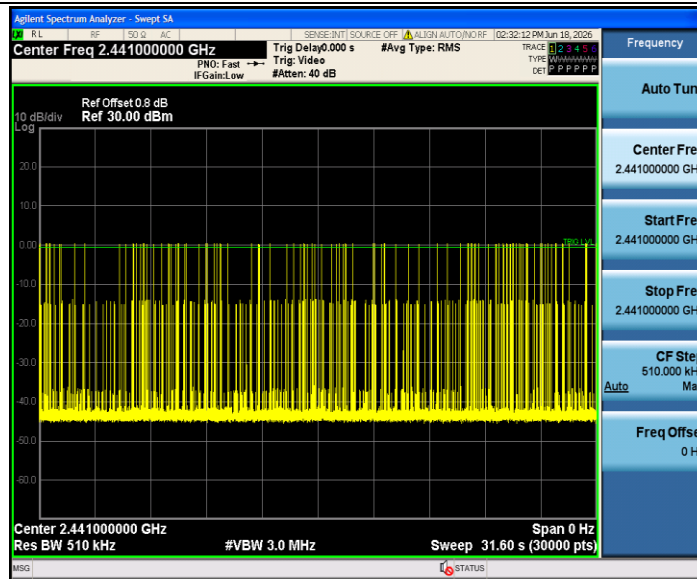


2DH3_Ant1_Hop

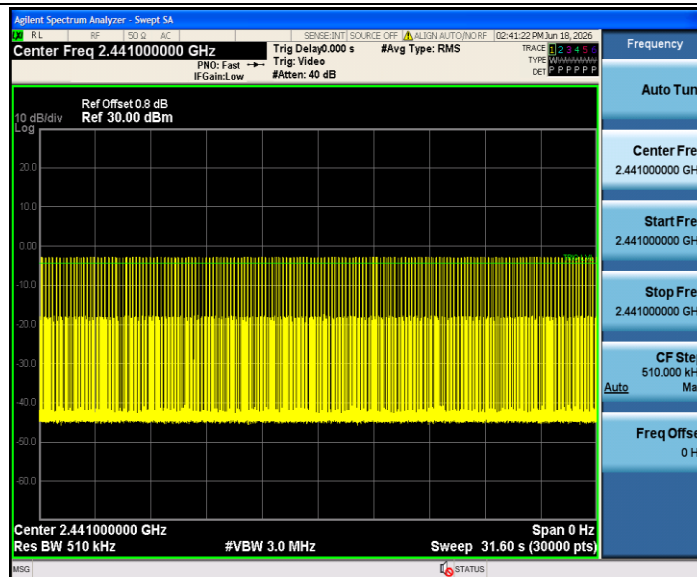
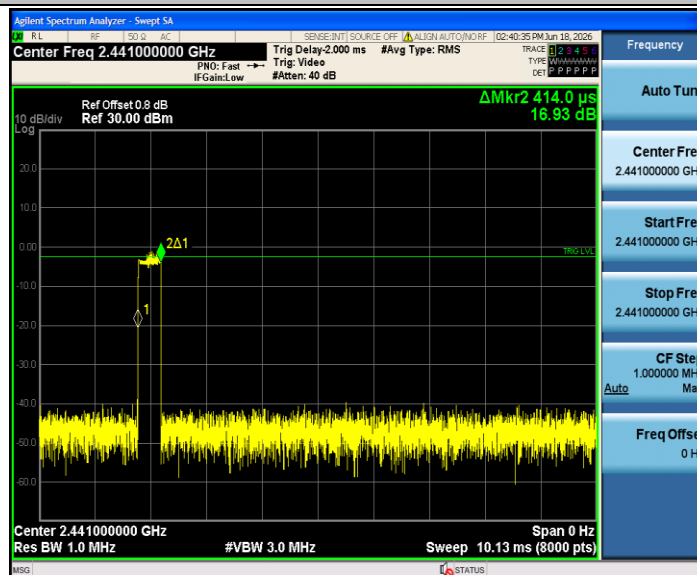


2DH5_Ant1_Hop

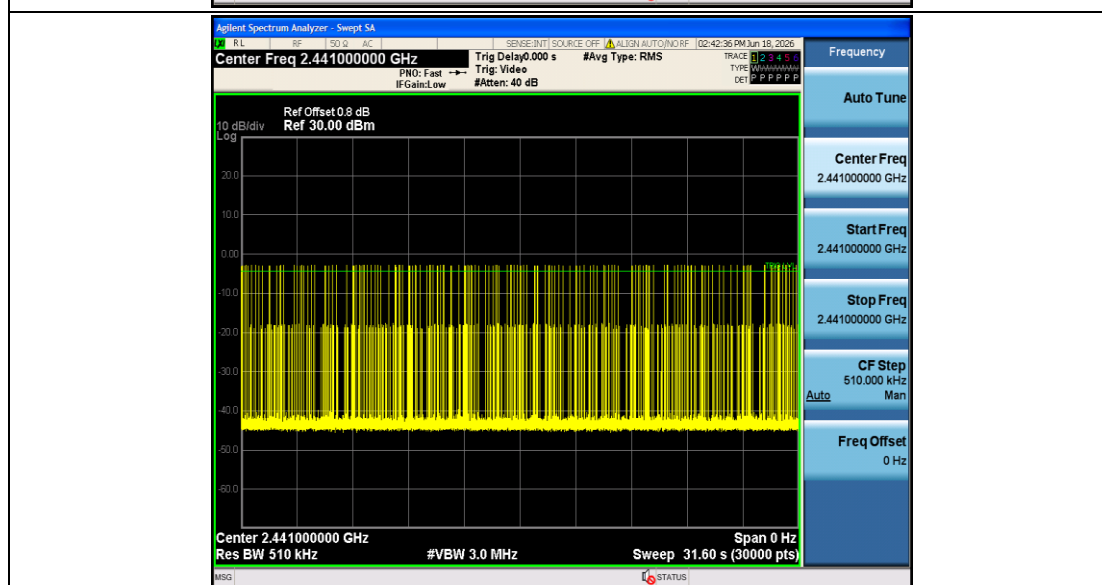
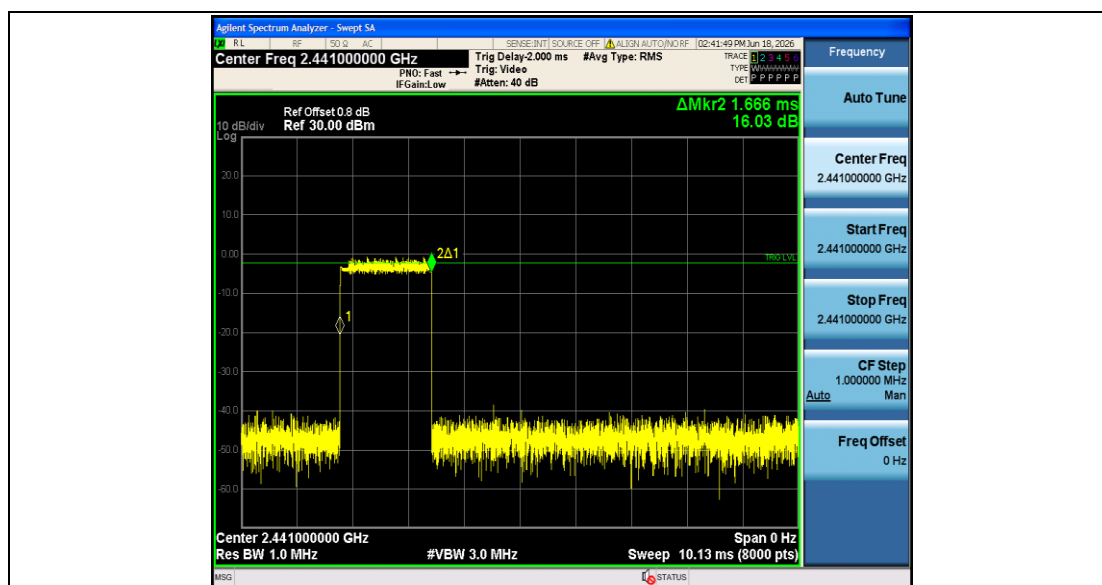




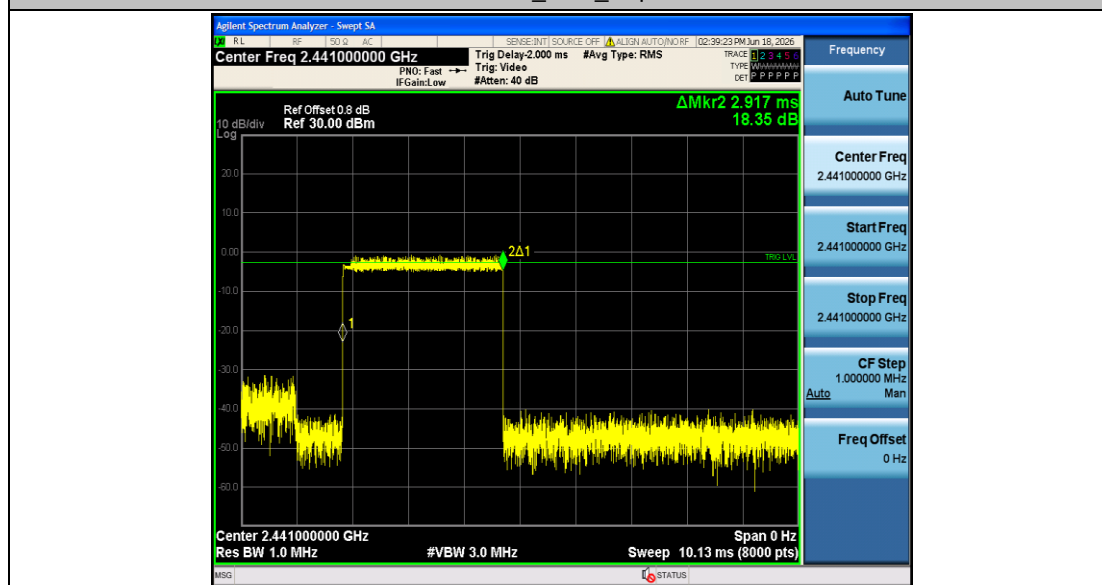
3DH1_Ant1_Hop

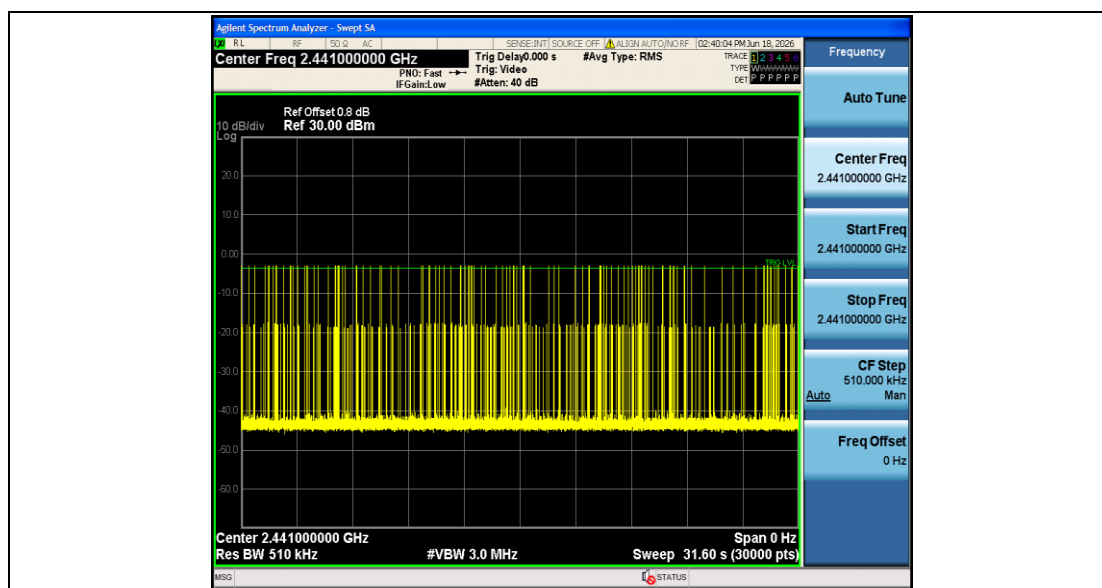


3DH3_Ant1_Hop



3DH5_Ant1_Hop



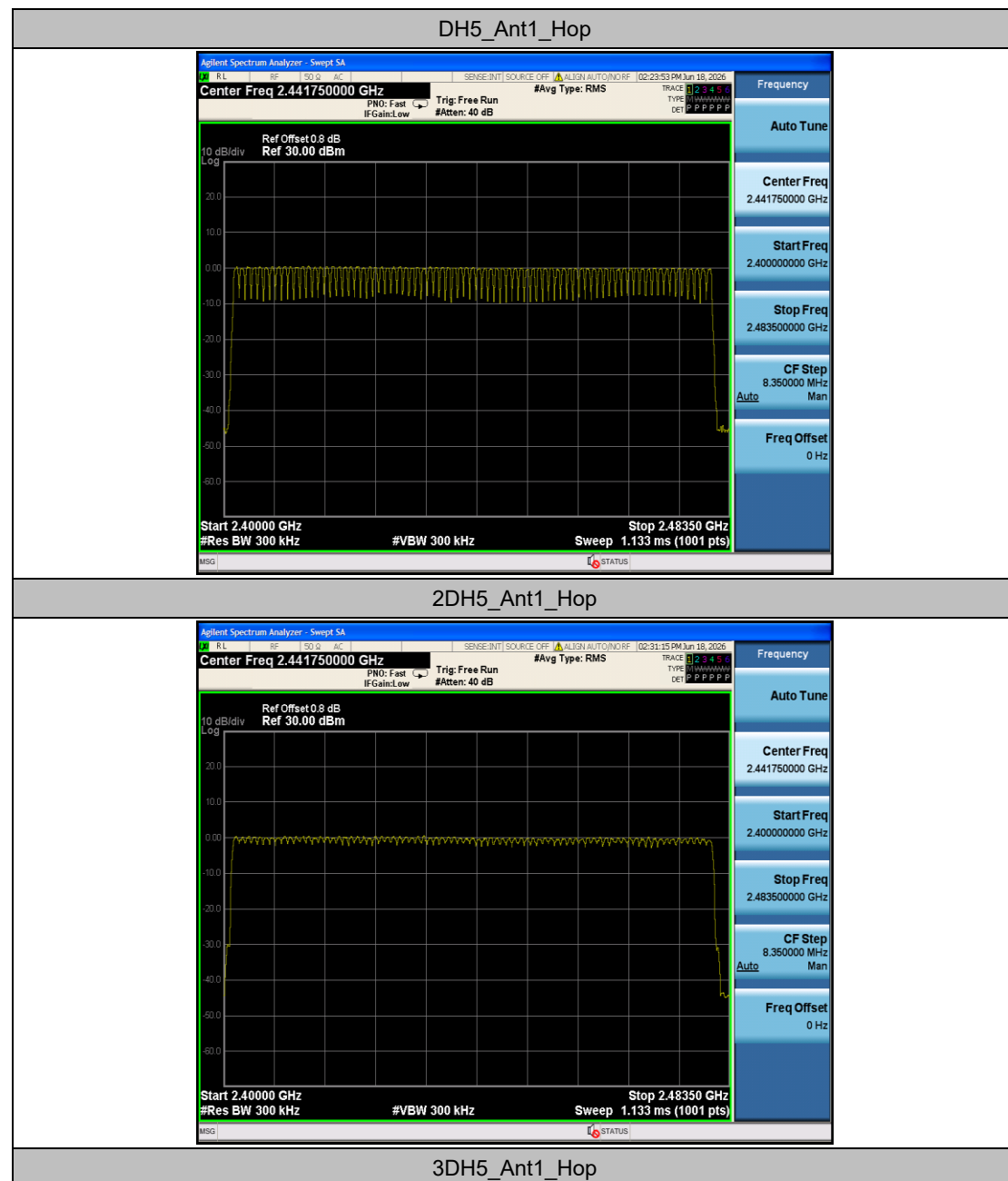


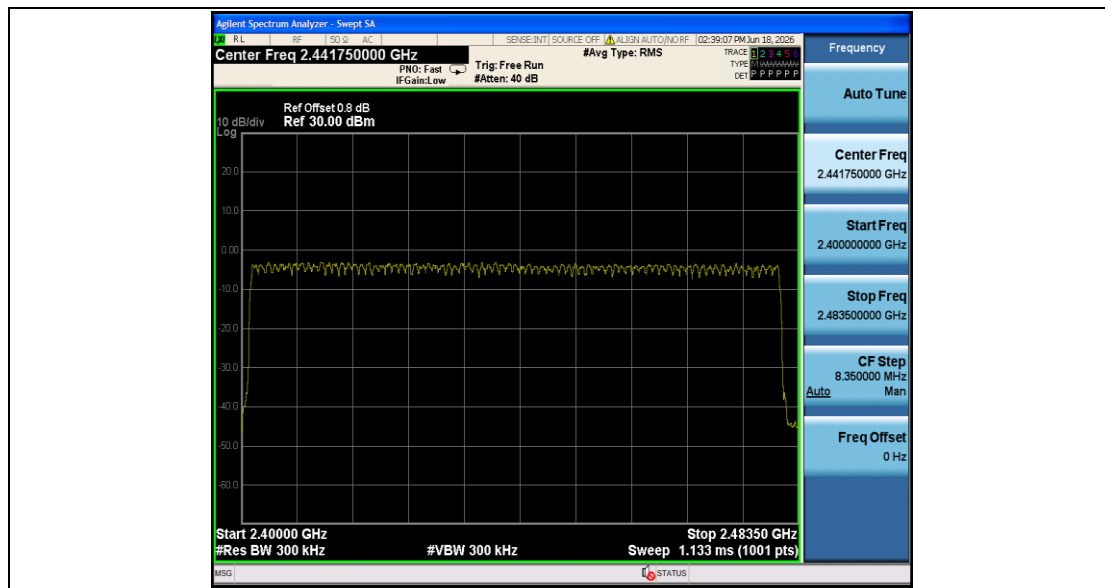
Appendix F: Number of hopping channels

Test Result

TestMode	Antenna	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs



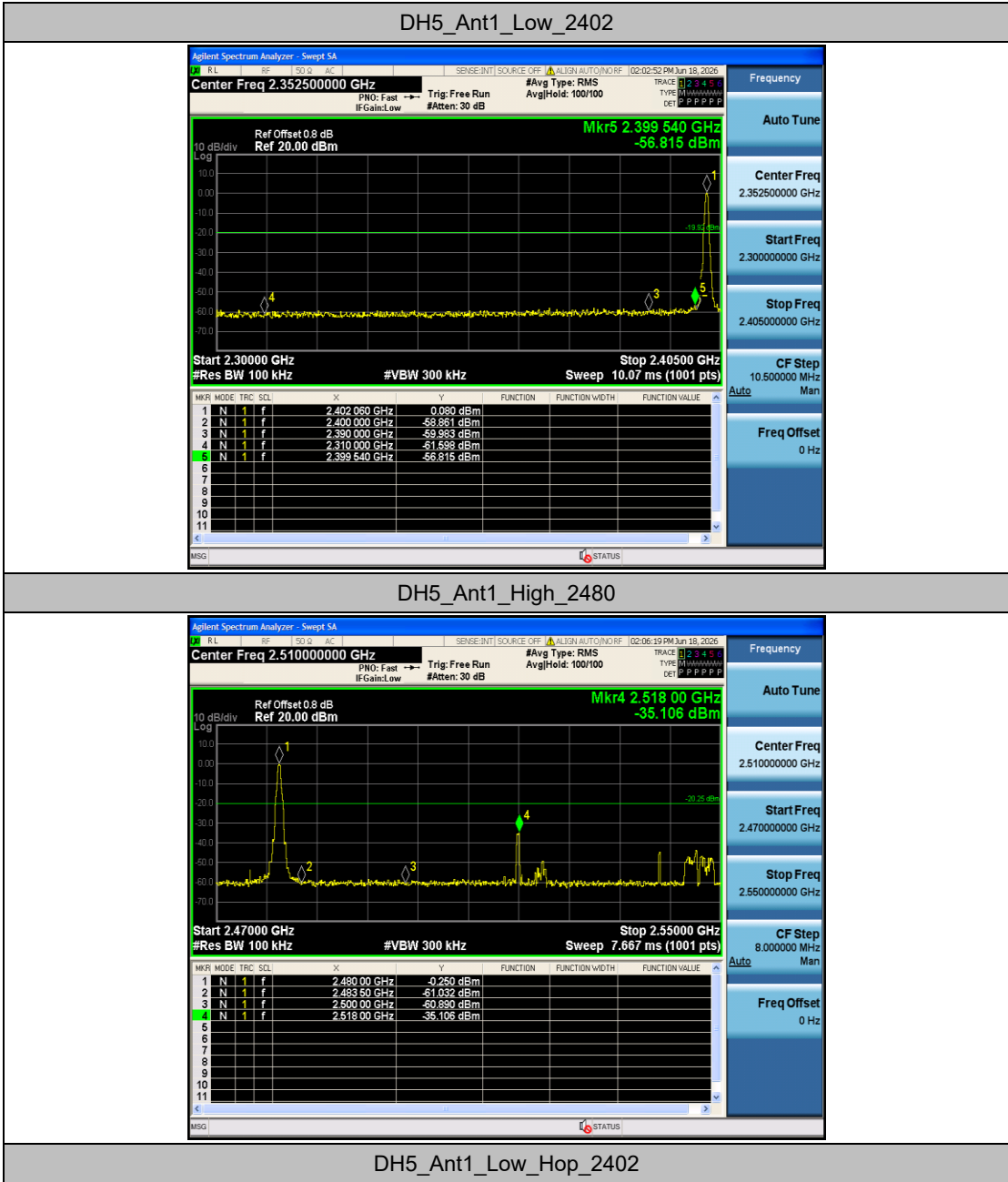


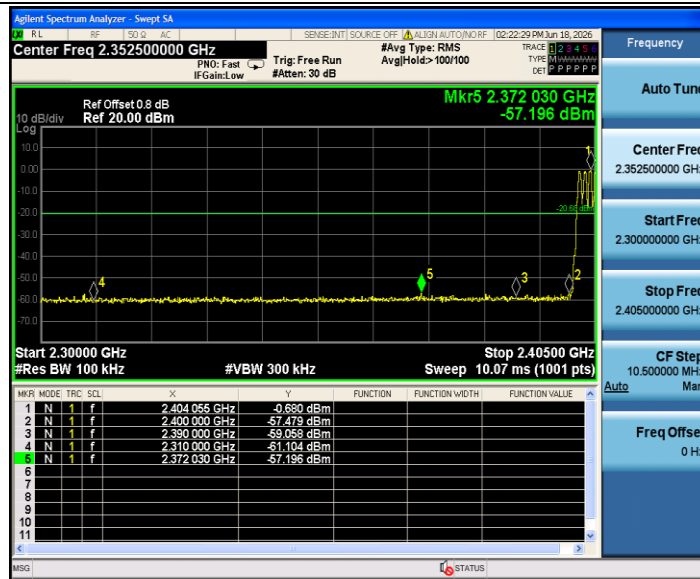
Appendix G: Band edge measurements

Test Result

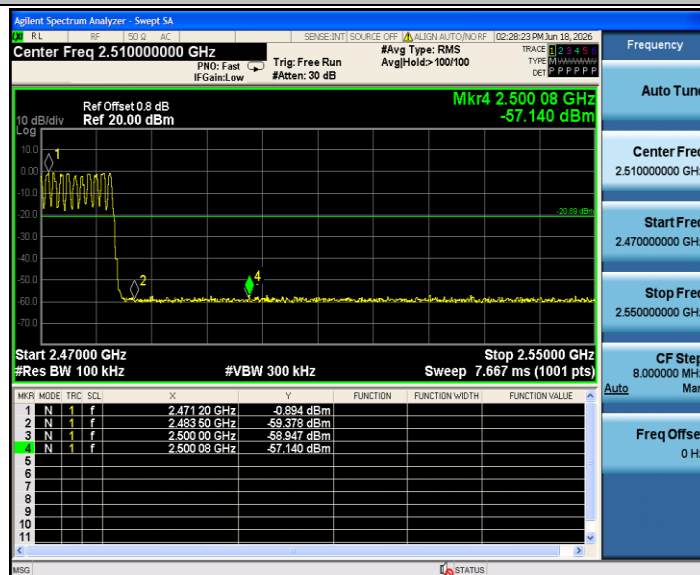
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.08	-56.82	≤-19.92	PASS
		High	2480	-0.25	-35.11	≤-20.25	PASS
		Low	Hop_2402	-0.68	-57.2	≤-20.68	PASS
		High	Hop_2480	-0.89	-57.14	≤-20.89	PASS
2DH5	Ant1	Low	2402	-2.36	-47.63	≤-22.36	PASS
		High	2480	-2.27	-52.68	≤-22.27	PASS
		Low	Hop_2402	-0.42	-52.96	≤-20.42	PASS
		High	Hop_2480	0.09	-43.94	≤-19.91	PASS
3DH5	Ant1	Low	2402	0.00	-50.13	≤-20	PASS
		High	2480	-1.22	-56.64	≤-21.22	PASS
		Low	Hop_2402	-3.03	-52.67	≤-23.03	PASS
		High	Hop_2480	-3.67	-57.24	≤-23.67	PASS

Test Graphs

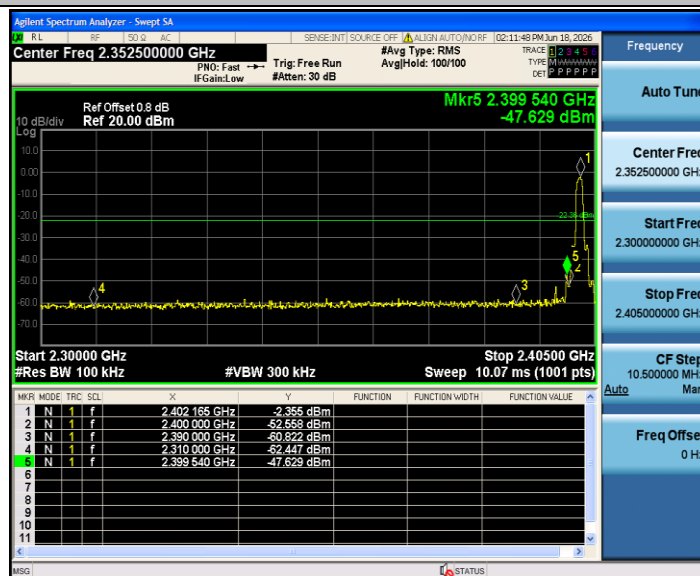




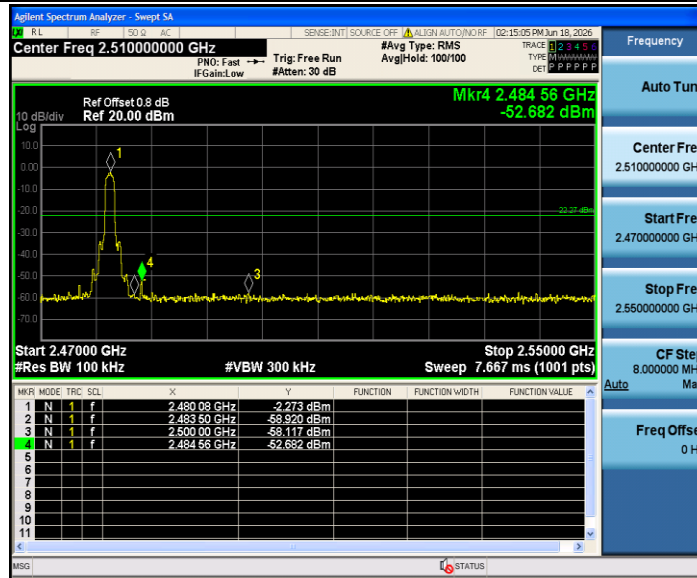
DH5_Ant1_High_Hop_2480



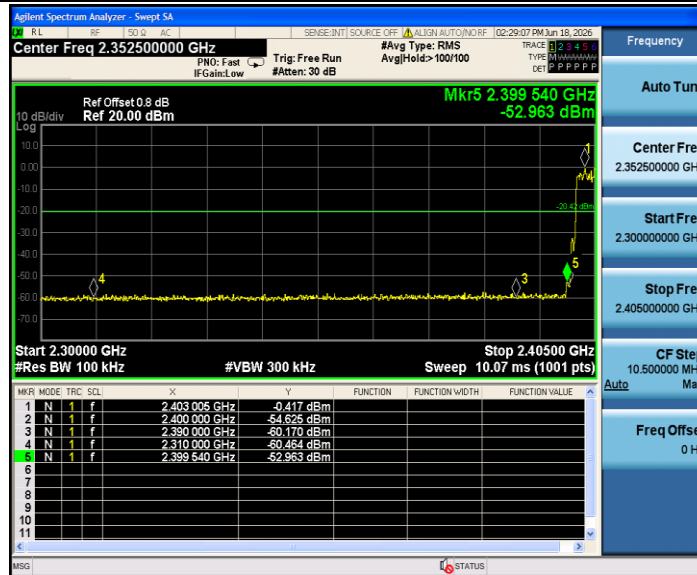
2DH5_Ant1_Low_2402



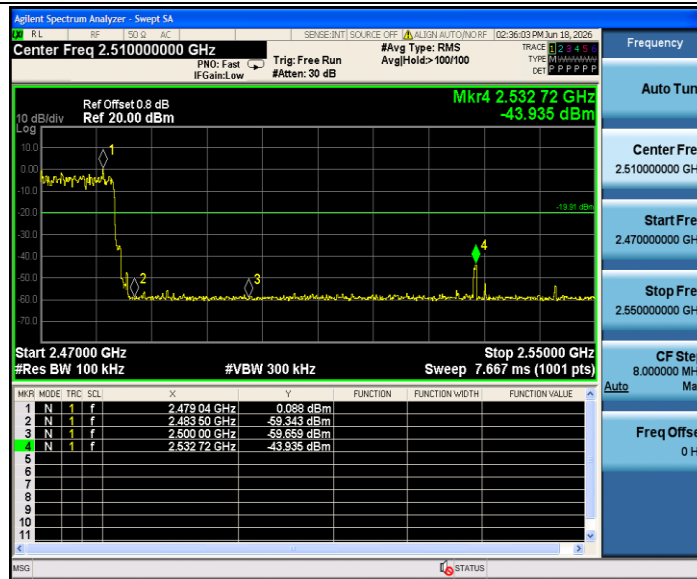
2DH5_Ant1_High_2480



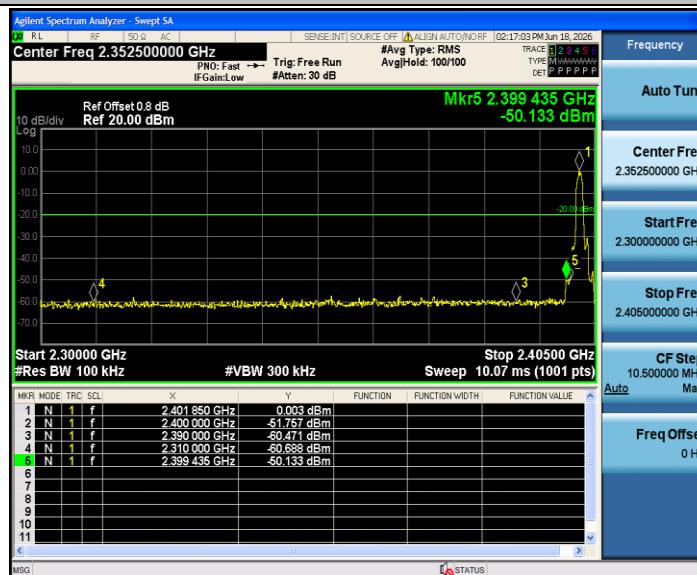
2DH5_Ant1_Low_Hop_2402



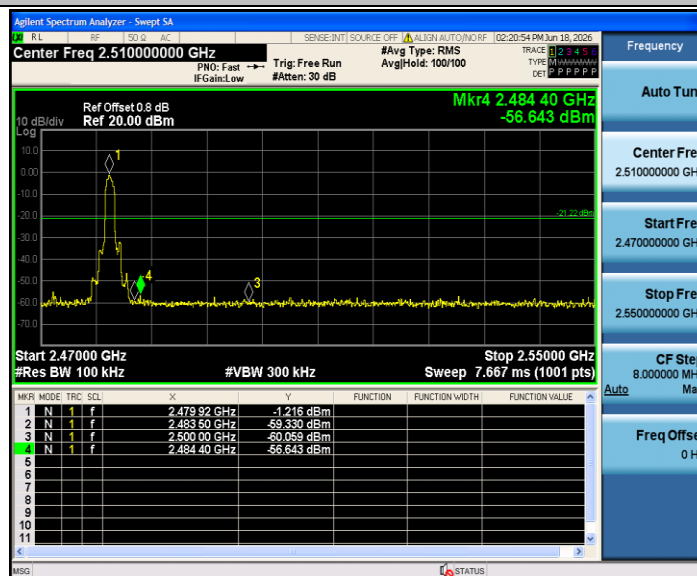
2DH5_Ant1_High_Hop_2480



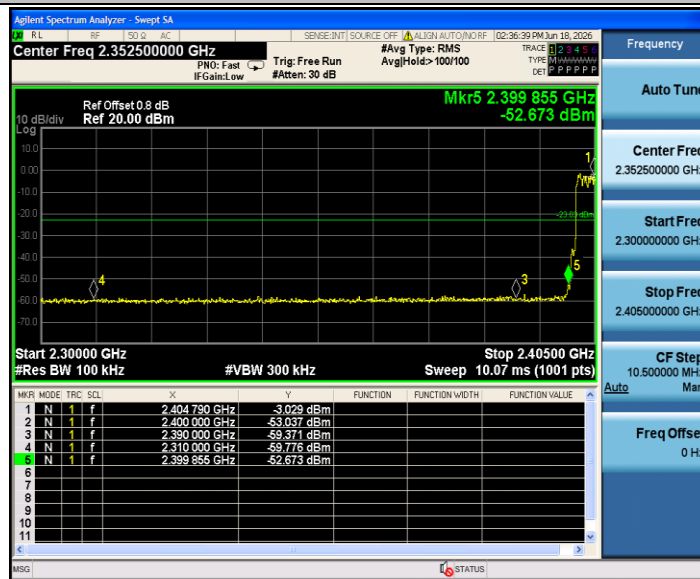
3DH5_Ant1_Low_2402



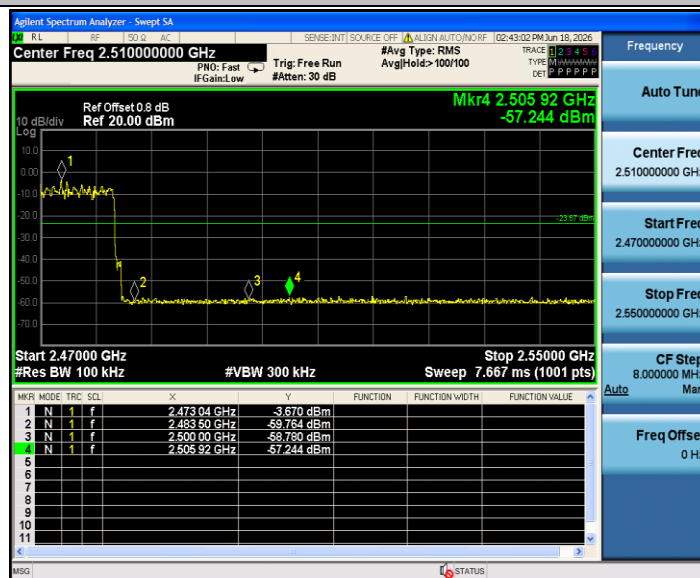
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

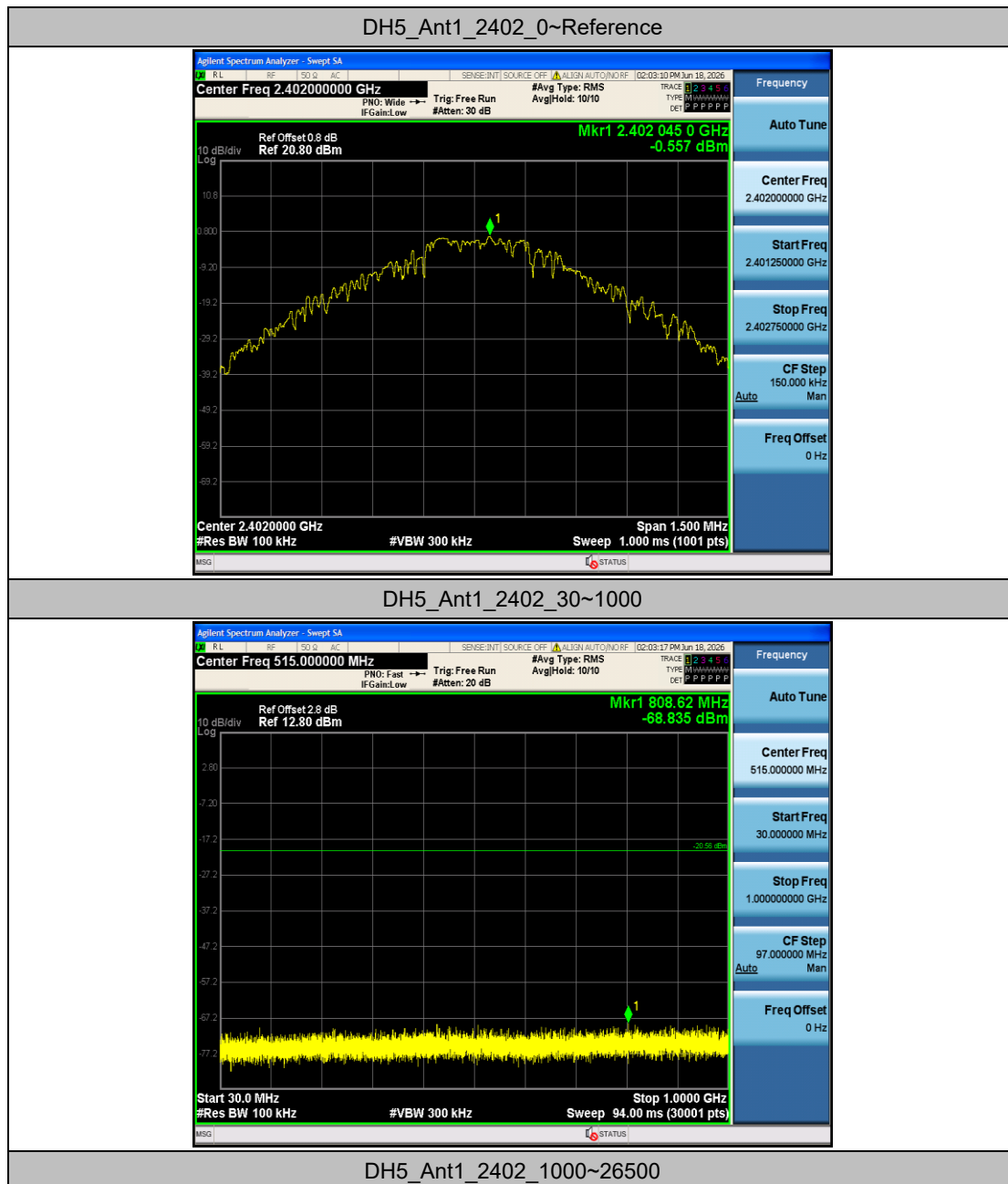


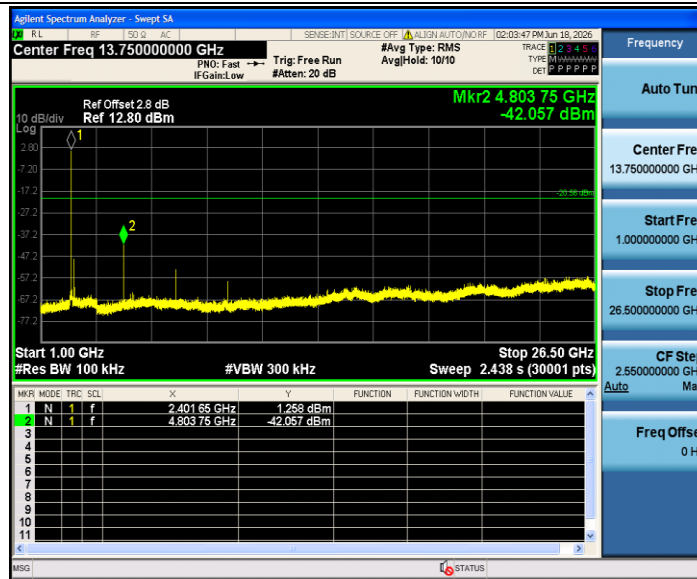
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.56	-0.56	---	PASS
			30~1000	-0.56	-68.84	≤-20.56	PASS
			1000~26500	-0.56	-42.06	≤-20.56	PASS
		2441	Reference	-0.58	-0.58	---	PASS
			30~1000	-0.58	-68.44	≤-20.58	PASS
			1000~26500	-0.58	-41.4	≤-20.58	PASS
		2480	Reference	-1.03	-1.03	---	PASS
			30~1000	-1.03	-68.19	≤-21.03	PASS
			1000~26500	-1.03	-41.88	≤-21.03	PASS
2DH5	Ant1	2402	Reference	-1.52	-1.52	---	PASS
			30~1000	-1.52	-68.86	≤-21.52	PASS
			1000~26500	-1.52	-39.56	≤-21.52	PASS
		2441	Reference	-0.78	-0.78	---	PASS
			30~1000	-0.78	-69.16	≤-20.78	PASS
			1000~26500	-0.78	-36.18	≤-20.78	PASS
		2480	Reference	-1.65	-1.65	---	PASS
			30~1000	-1.65	-66.64	≤-21.65	PASS
			1000~26500	-1.65	-42	≤-21.65	PASS
3DH5	Ant1	2402	Reference	-1.04	-1.04	---	PASS
			30~1000	-1.04	-68.59	≤-21.04	PASS
			1000~26500	-1.04	-38.2	≤-21.04	PASS
		2441	Reference	-0.88	-0.88	---	PASS
			30~1000	-0.88	-67.48	≤-20.88	PASS
			1000~26500	-0.88	-43.59	≤-20.88	PASS
		2480	Reference	-0.87	-0.87	---	PASS
			30~1000	-0.87	-68.64	≤-20.87	PASS
			1000~26500	-0.87	-45.11	≤-20.87	PASS

Test Graphs

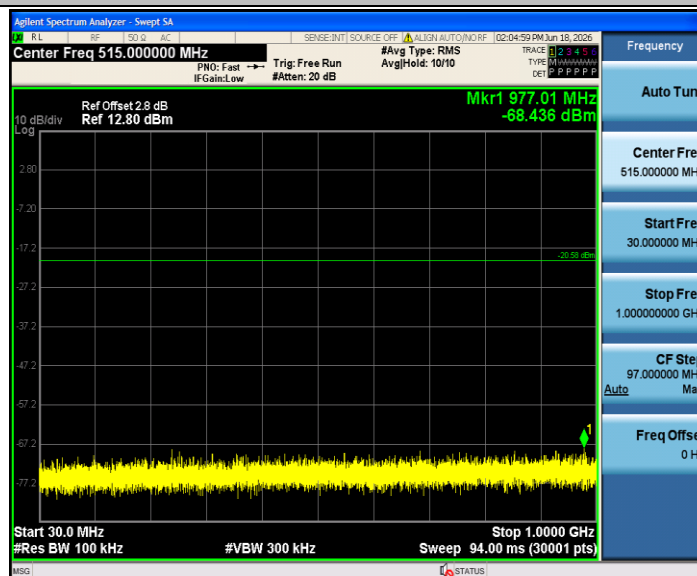




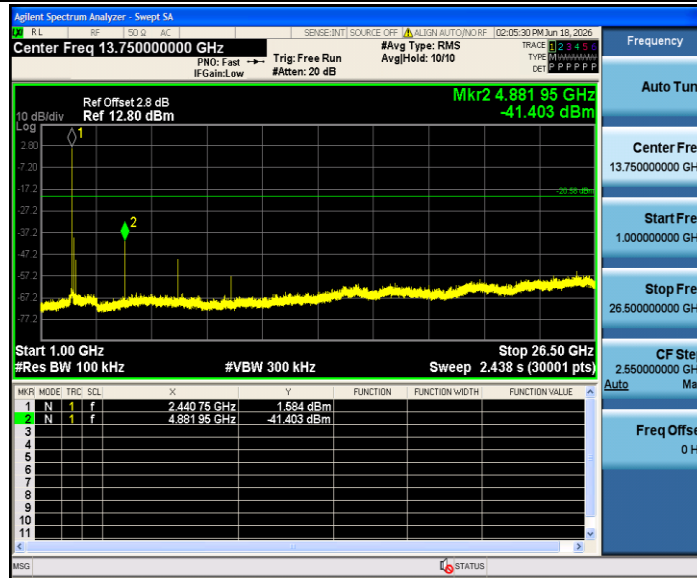
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



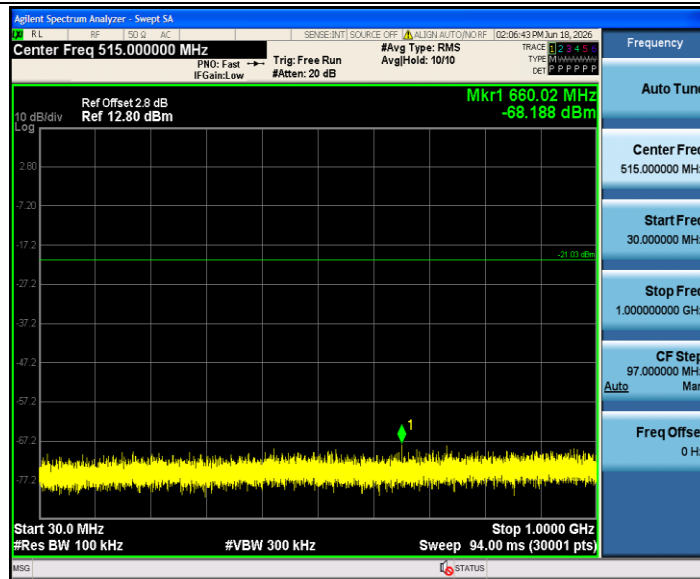
DH5_Ant1_2441_1000~26500



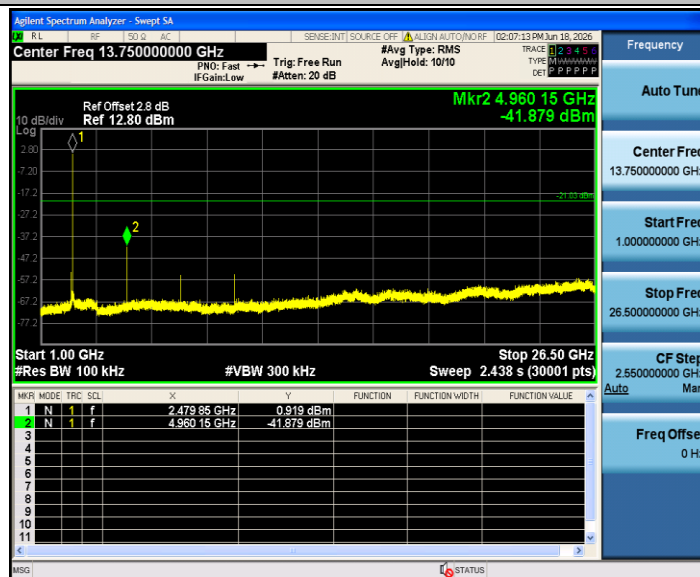
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference

