

FCC Appendix RF Test Data for BT

FCC ID : 2BU4K-U4

Company : Shenzhen Xintie E-commerce Co., Ltd.

EUT : Essential oil Diffuser

Model Number : U4

Report No. : CTA26022500201

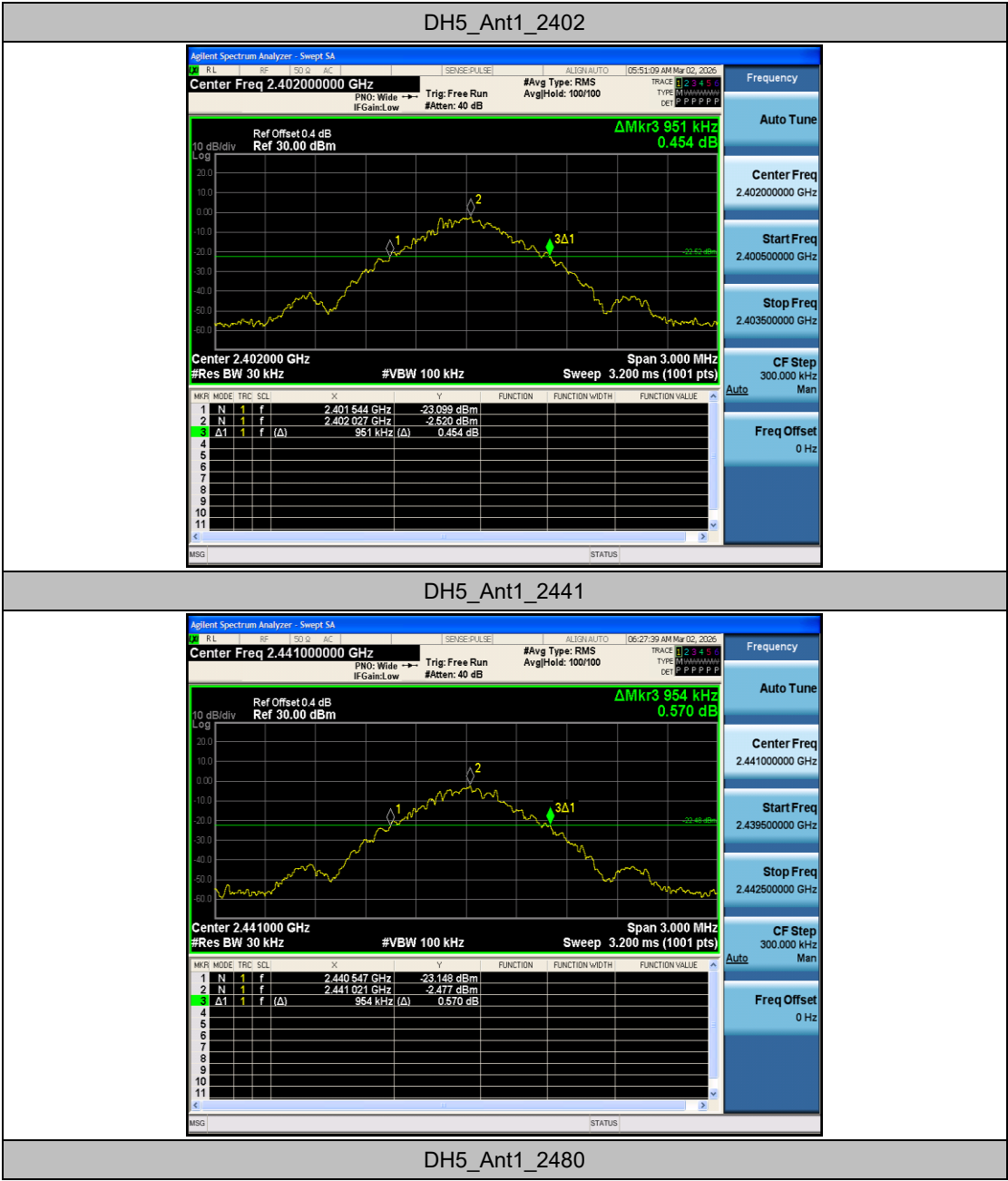
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.951	2401.544	2402.495	---	---
		2441	0.954	2440.547	2441.501	---	---
		2480	0.957	2479.544	2480.501	---	---
2DH5	Ant1	2402	1.284	2401.379	2402.663	---	---
		2441	1.290	2440.376	2441.666	---	---
		2480	1.320	2479.349	2480.669	---	---
3DH5	Ant1	2402	1.317	2401.355	2402.672	---	---
		2441	1.320	2440.355	2441.675	---	---
		2480	1.314	2479.355	2480.669	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

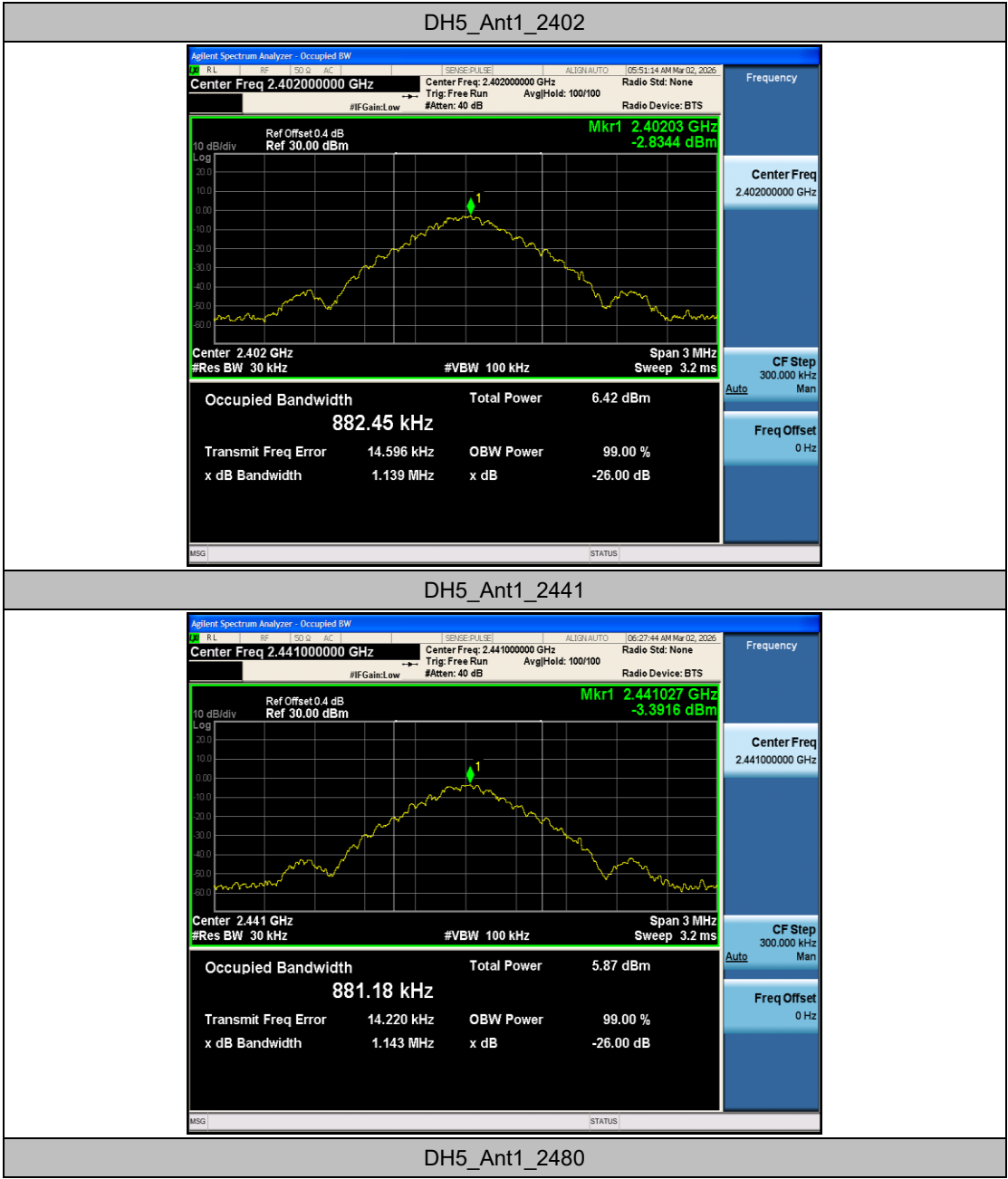


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.88245	2401.5734	2402.4558	---	---
		2441	0.88118	2440.5736	2441.4548	---	---
		2480	0.86317	2479.5802	2480.4434	---	---
2DH5	Ant1	2402	1.1948	2401.4113	2402.6061	---	---
		2441	1.1846	2440.4167	2441.6013	---	---
		2480	1.1833	2479.4171	2480.6004	---	---
3DH5	Ant1	2402	1.1947	2401.4157	2402.6104	---	---
		2441	1.1871	2440.4170	2441.6041	---	---
		2480	1.1979	2479.4130	2480.6109	---	---

Test Graphs





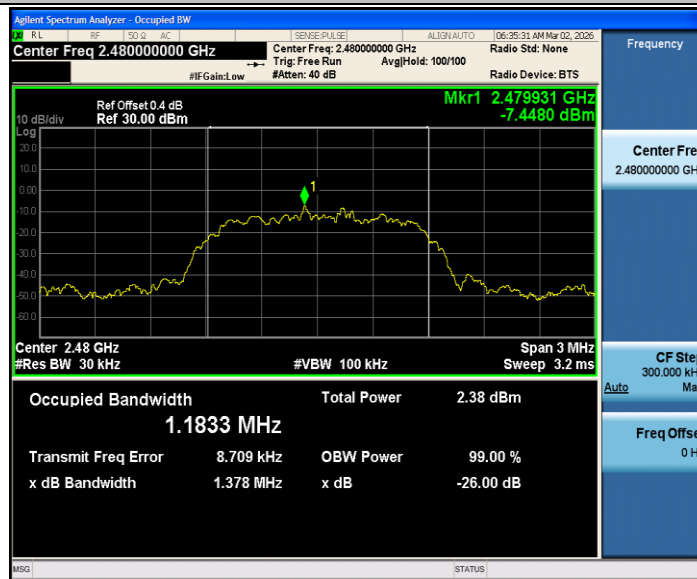
2DH5_Ant1_2402



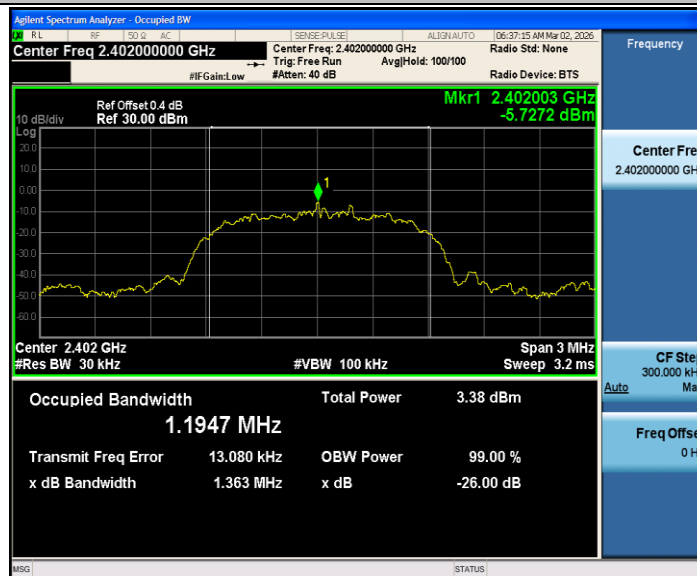
2DH5_Ant1_2441



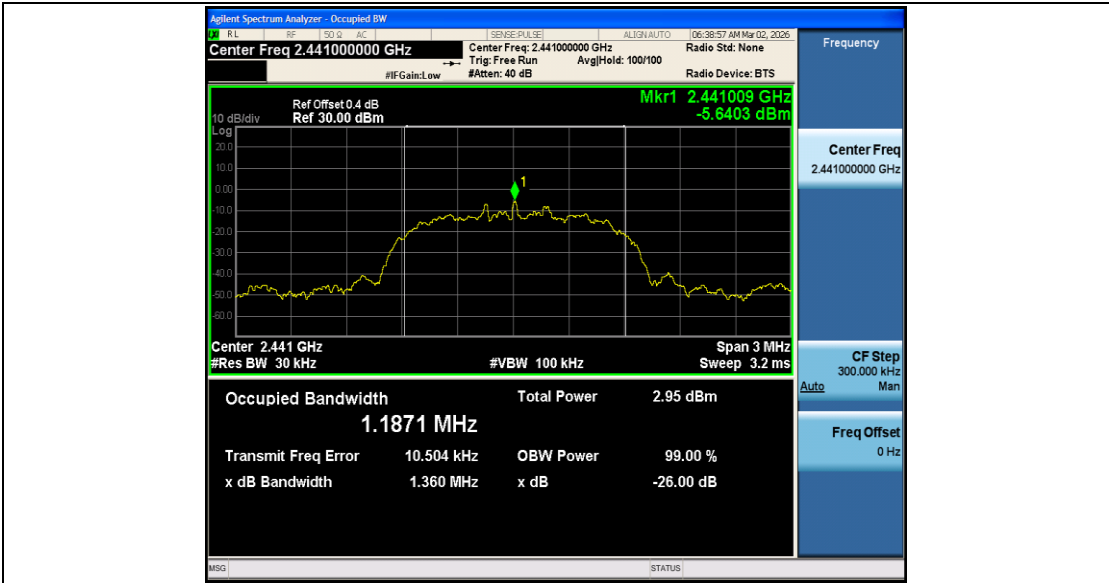
2DH5_Ant1_2480



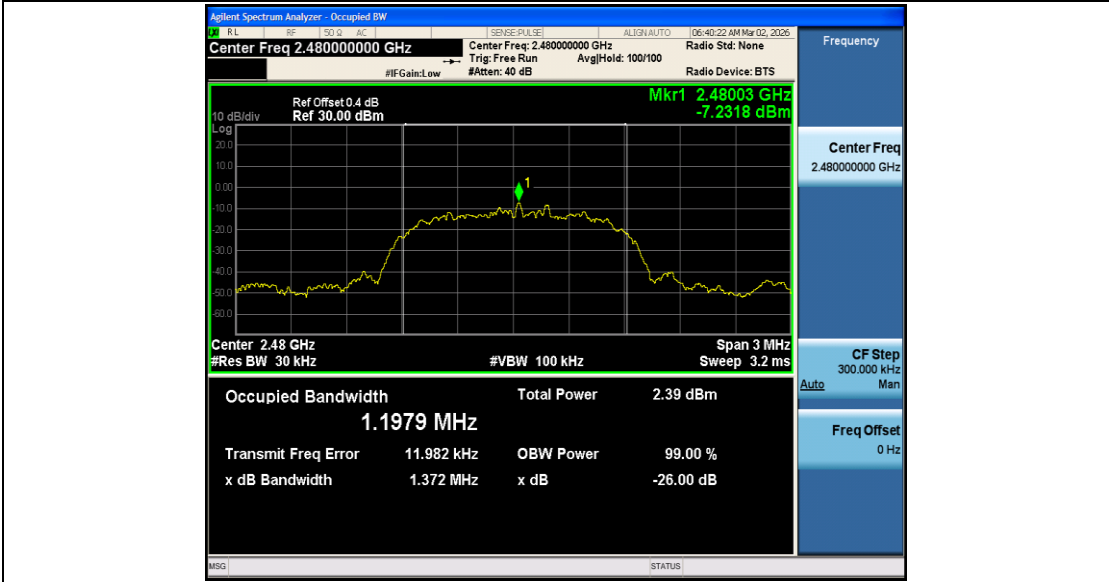
3DH5_Ant1_2402



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	0.14	≤20.97	PASS
		2441	-0.49	≤20.97	PASS
		2480	-0.77	≤20.97	PASS
2DH5	Ant1	2402	-0.71	≤20.97	PASS
		2441	-1.34	≤20.97	PASS
		2480	-1.63	≤20.97	PASS
3DH5	Ant1	2402	-0.30	≤20.97	PASS
		2441	-0.97	≤20.97	PASS
		2480	-1.20	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.036	≥ 0.957	PASS
2DH5	Ant1	Hop	1.016	≥ 0.880	PASS
3DH5	Ant1	Hop	0.976	≥ 0.880	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

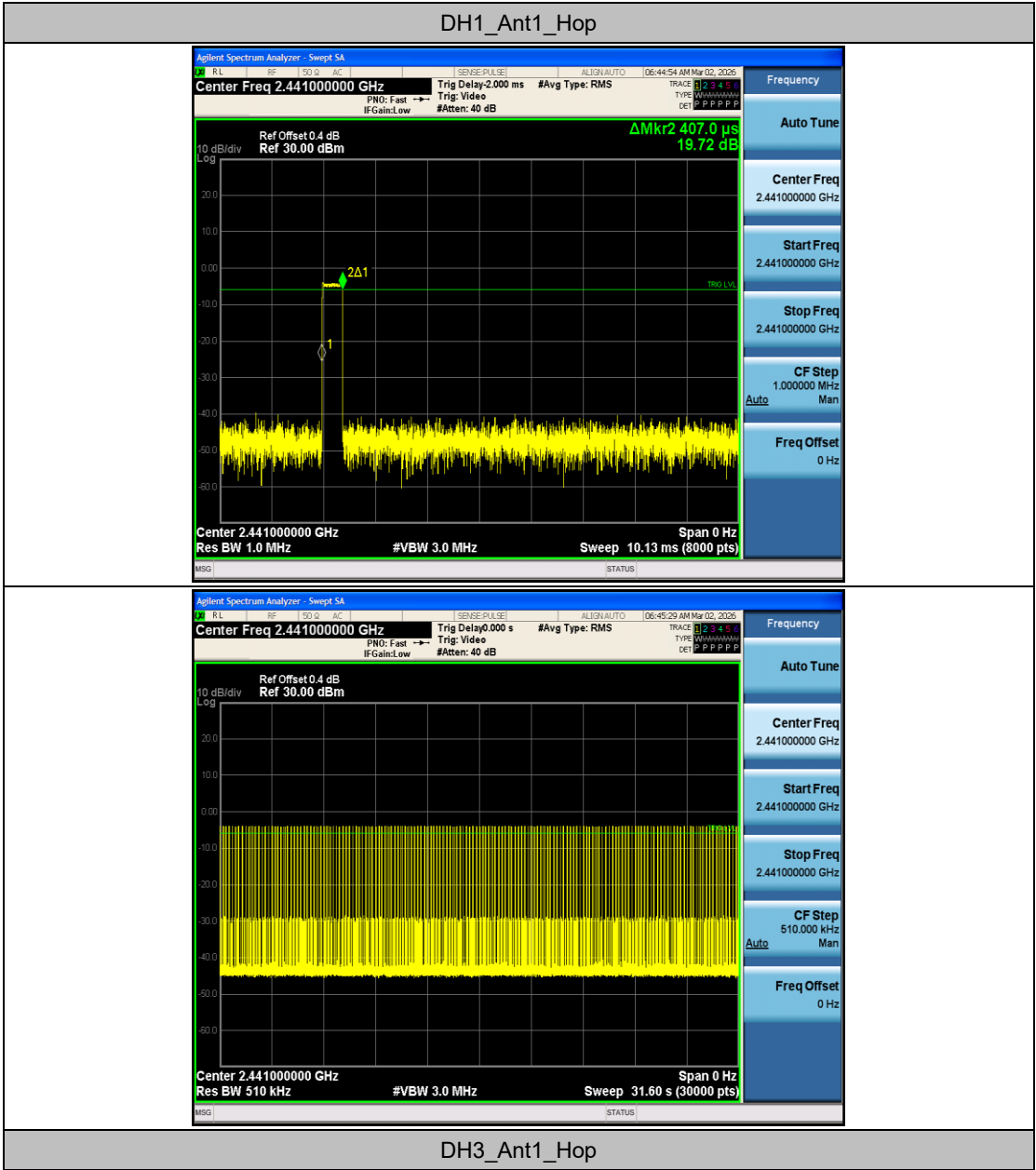


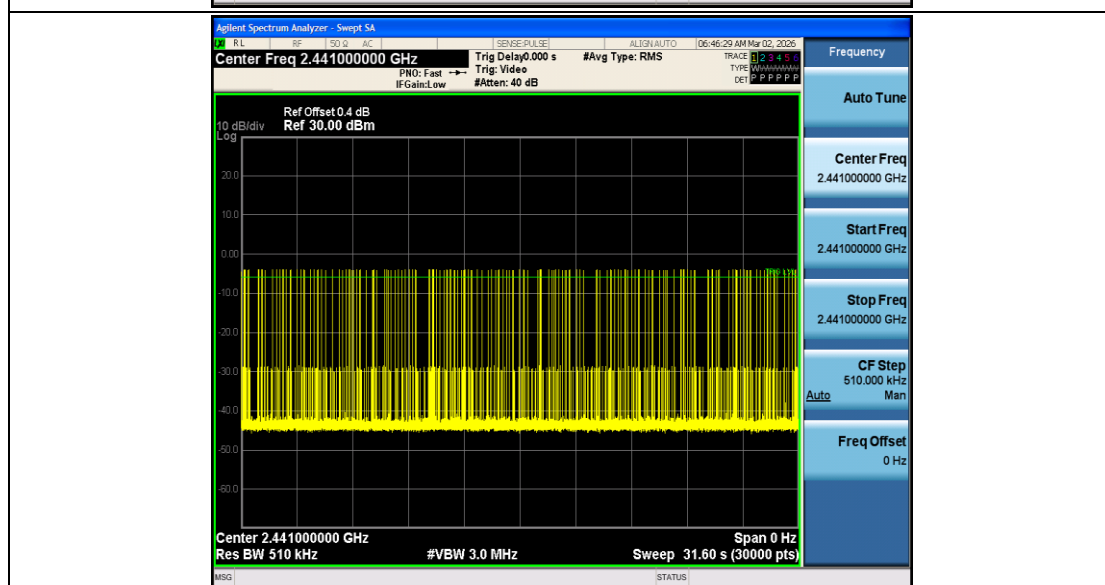
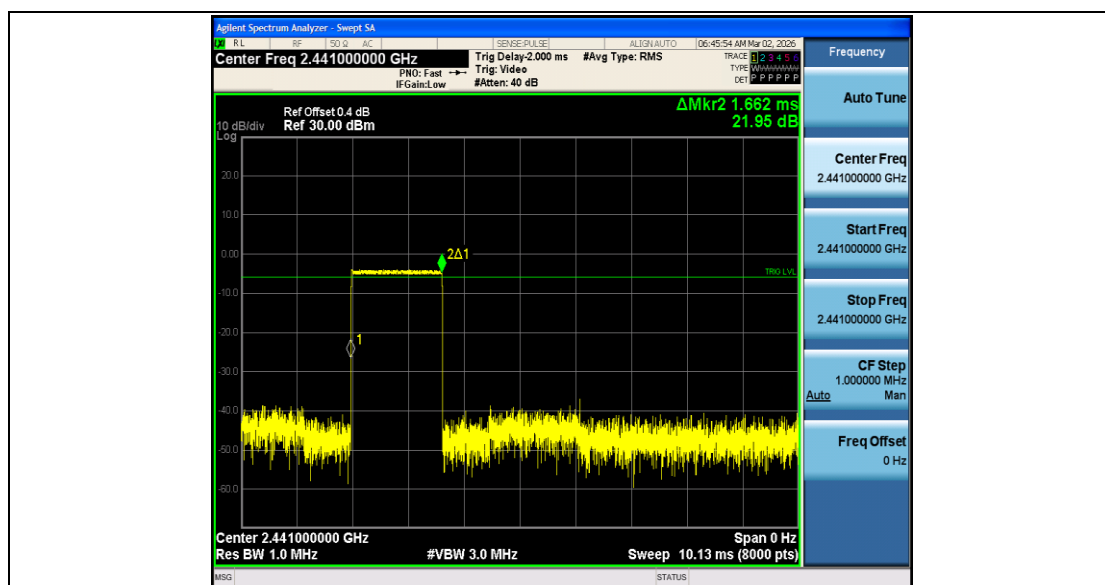
Appendix E: Time of occupancy

Test Result

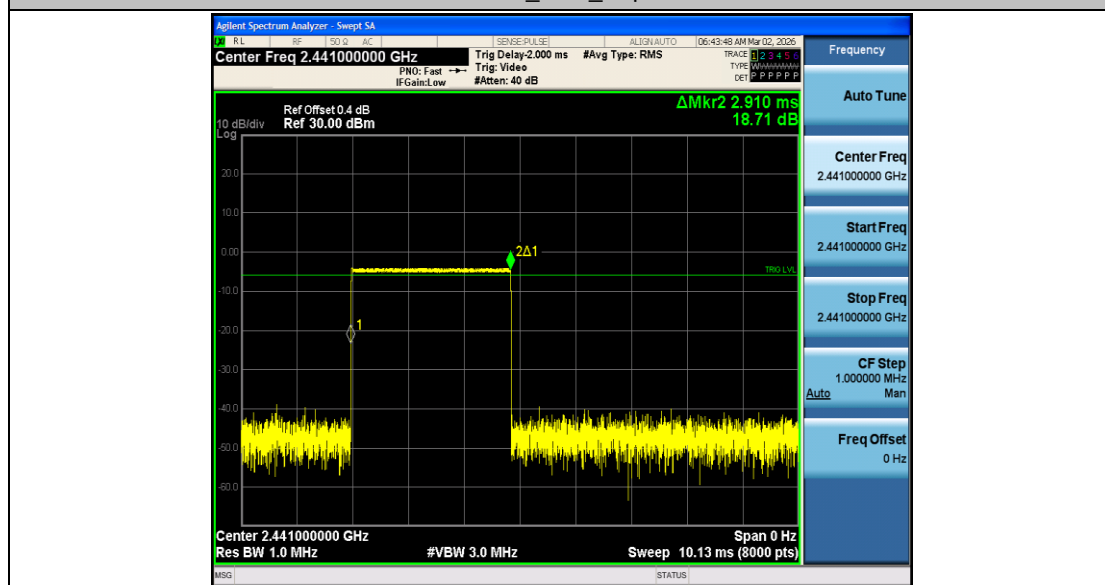
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	312	0.127	≤0.4	PASS
DH3	Ant1	Hop	1.662	166	0.276	≤0.4	PASS
DH5	Ant1	Hop	2.910	102	0.297	≤0.4	PASS
2DH1	Ant1	Hop	0.415	314	0.13	≤0.4	PASS
2DH3	Ant1	Hop	1.668	154	0.257	≤0.4	PASS
2DH5	Ant1	Hop	2.916	99	0.289	≤0.4	PASS
3DH1	Ant1	Hop	0.417	316	0.132	≤0.4	PASS
3DH3	Ant1	Hop	1.666	154	0.257	≤0.4	PASS
3DH5	Ant1	Hop	2.917	102	0.298	≤0.4	PASS

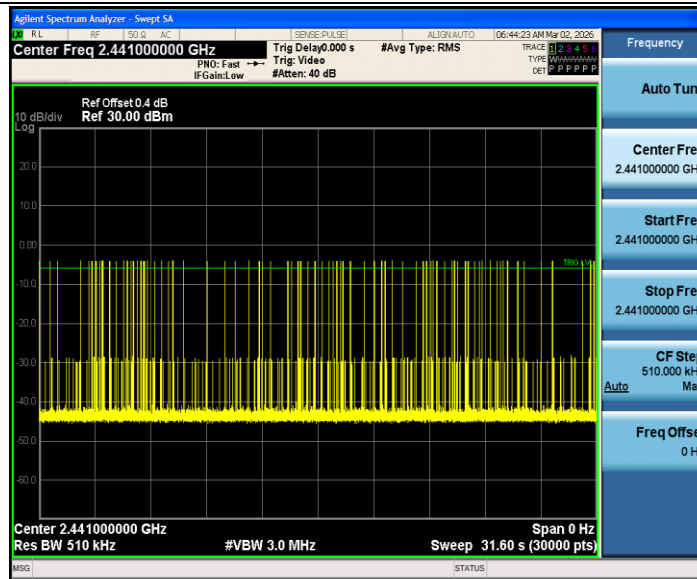
Test Graphs



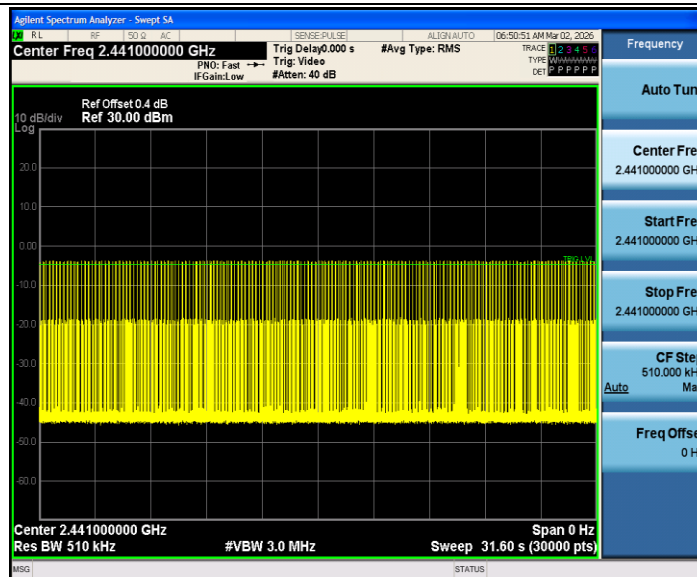
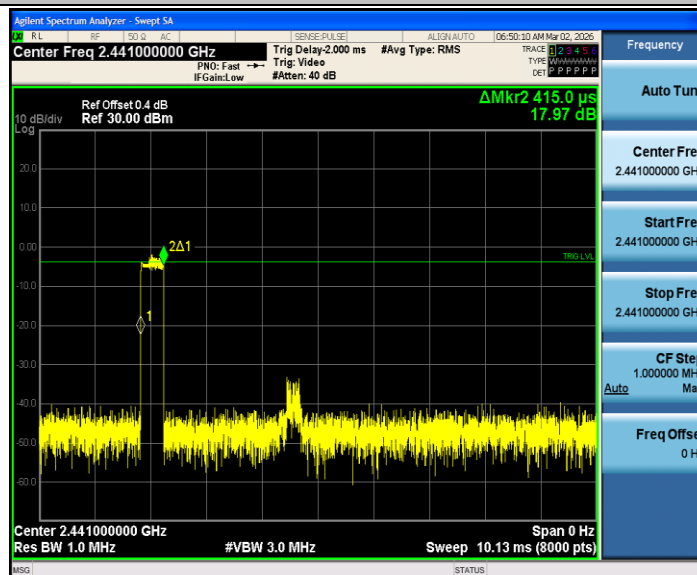


DH5_Ant1_Hop

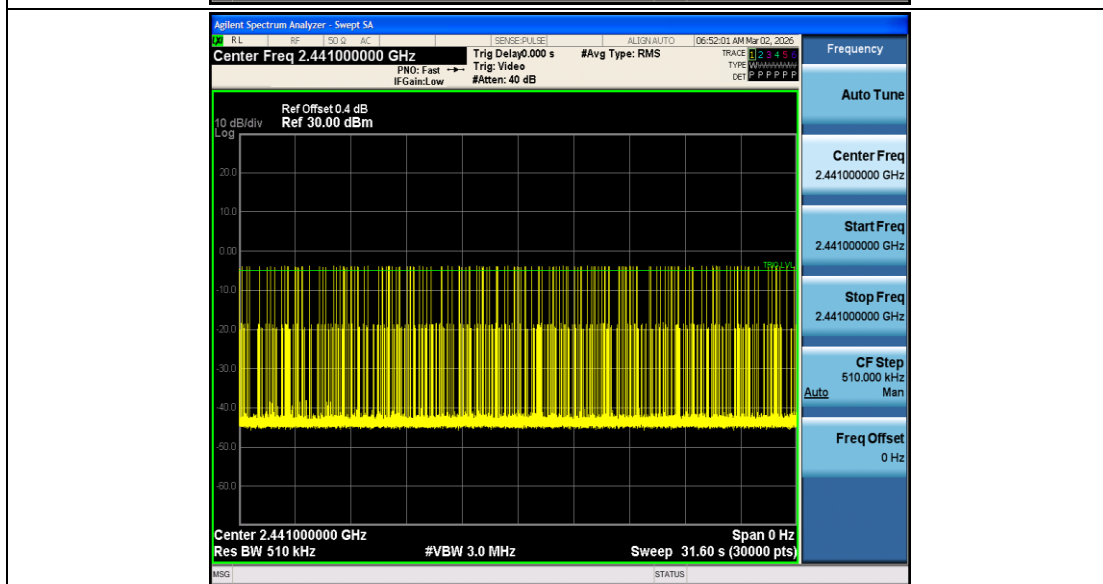
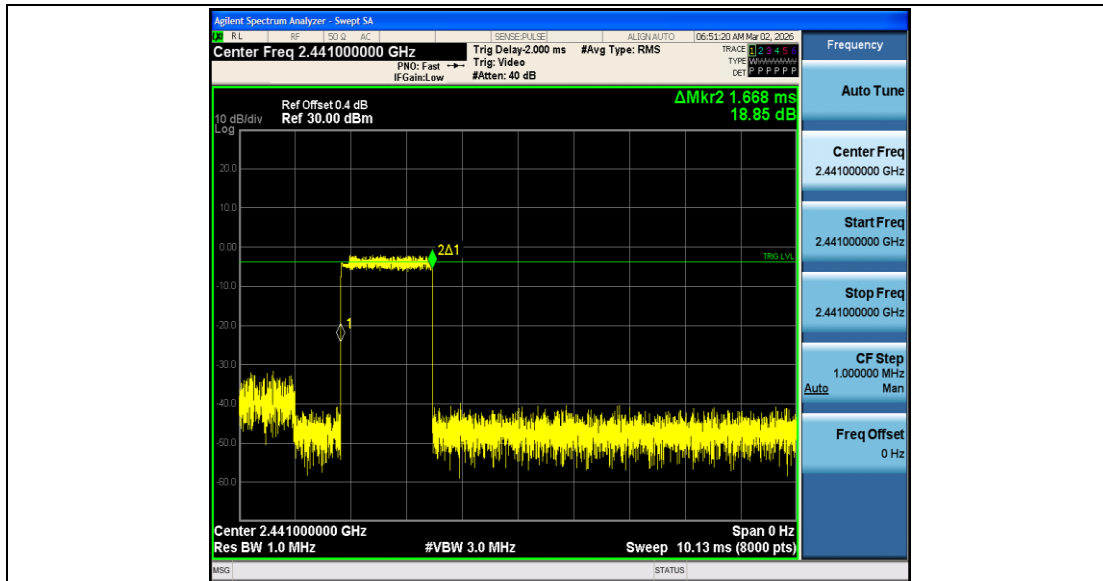




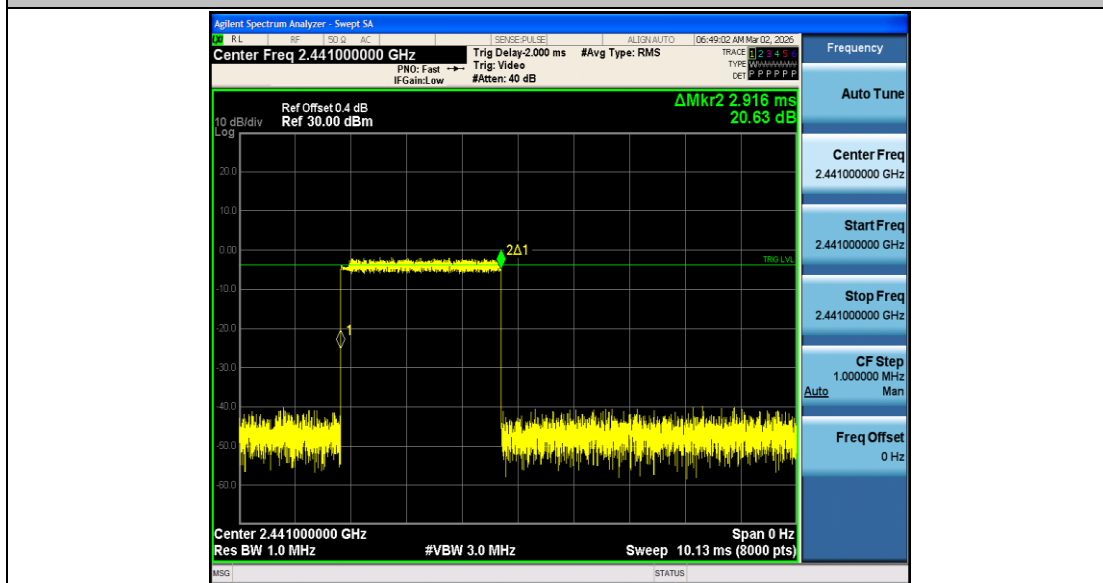
2DH1_Ant1_Hop

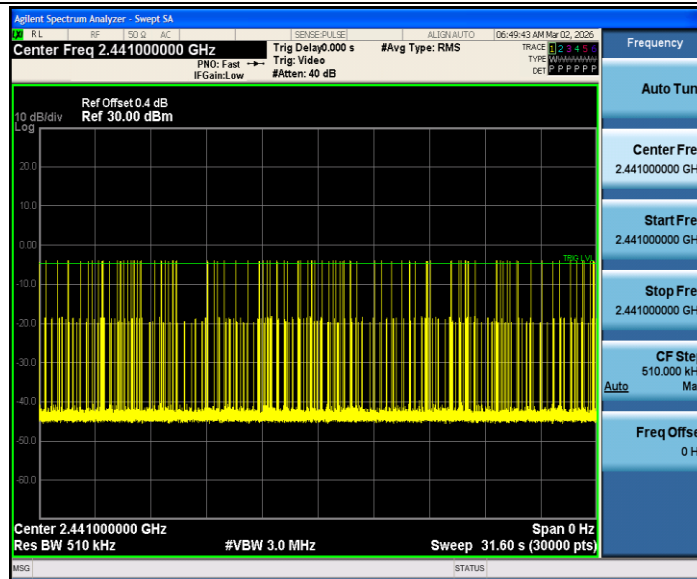


2DH3_Ant1_Hop

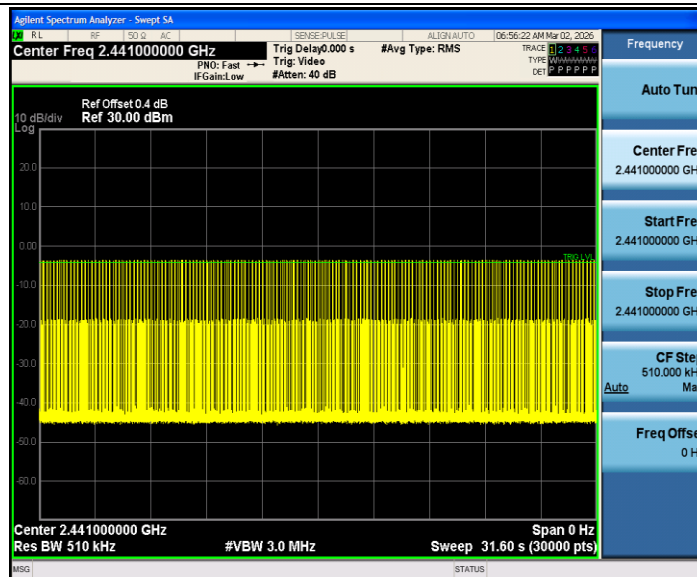
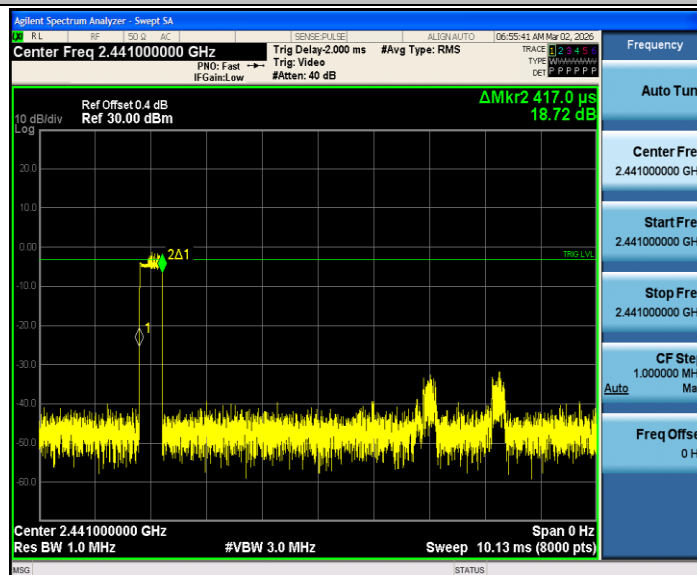


2DH5_Ant1_Hop

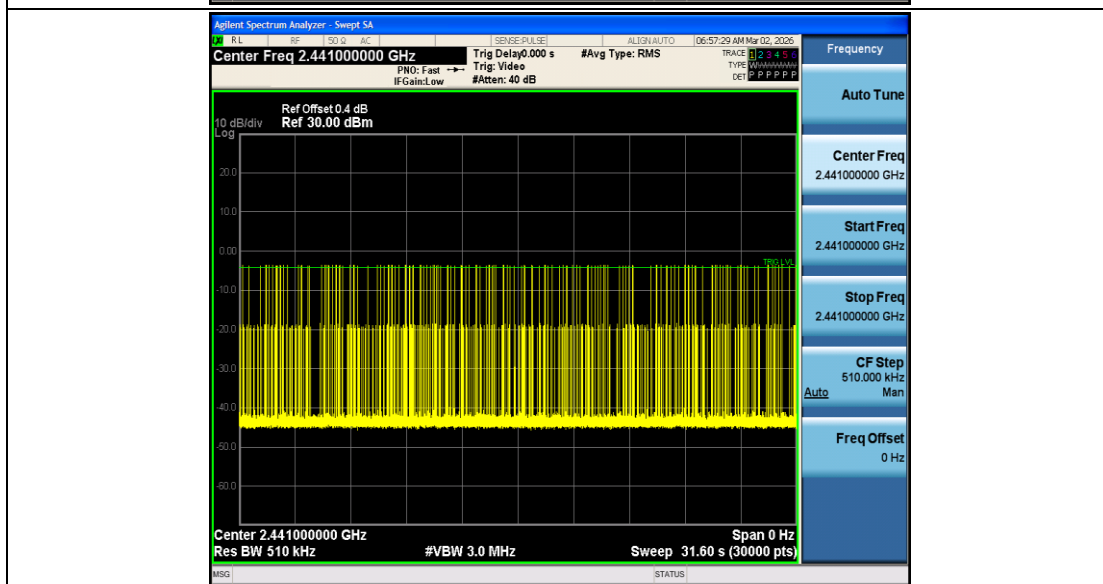
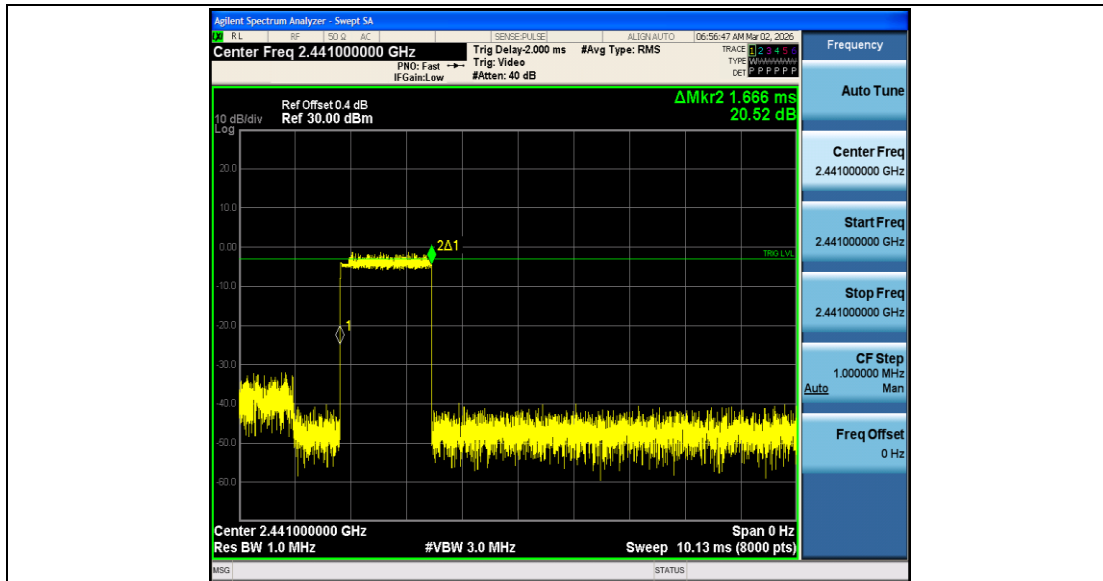




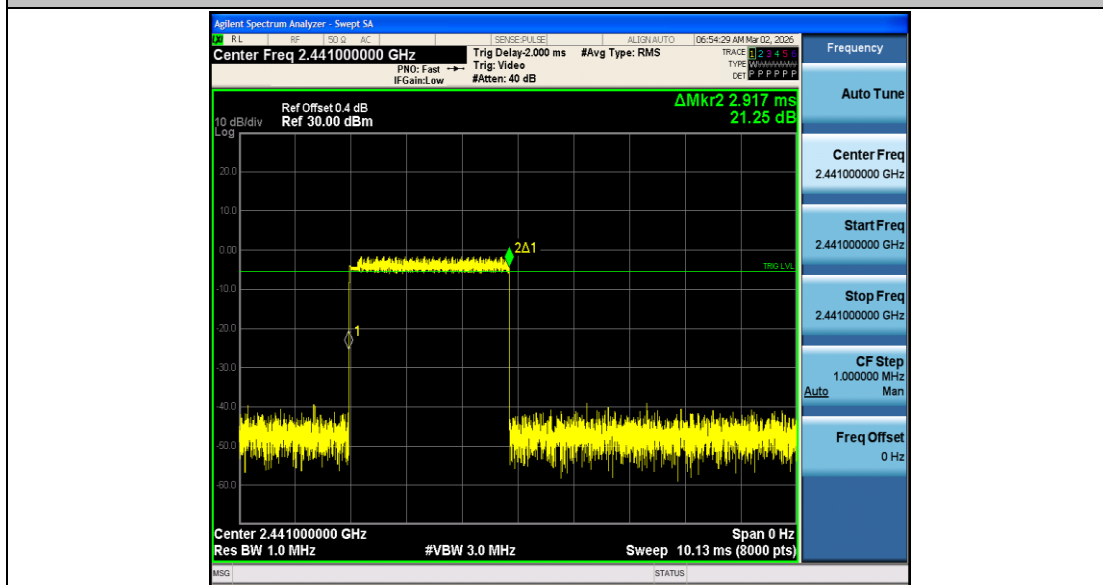
3DH1_Ant1_Hop

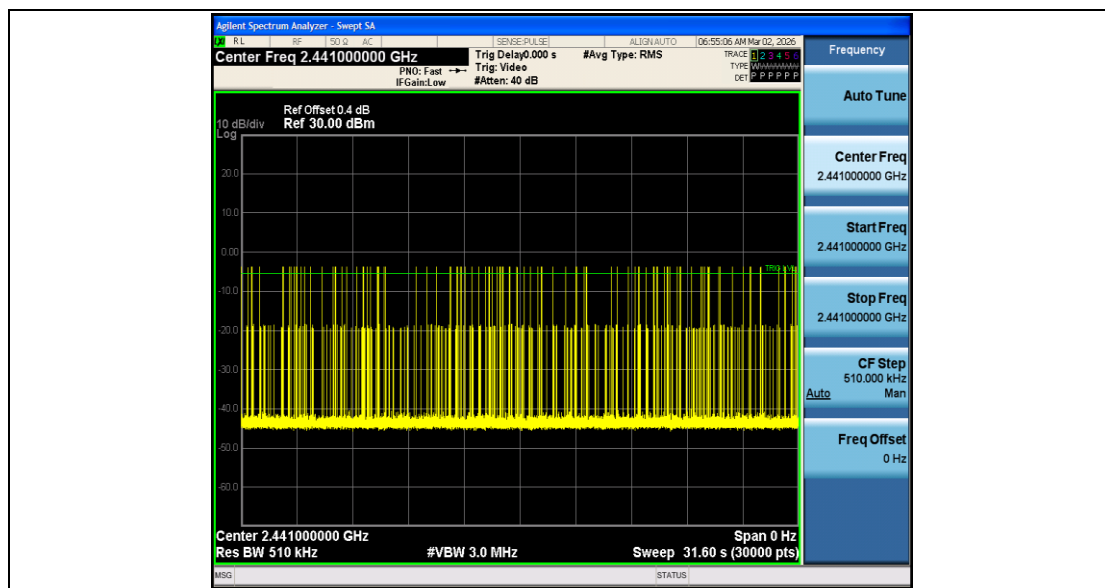


3DH3_Ant1_Hop



3DH5_Ant1_Hop



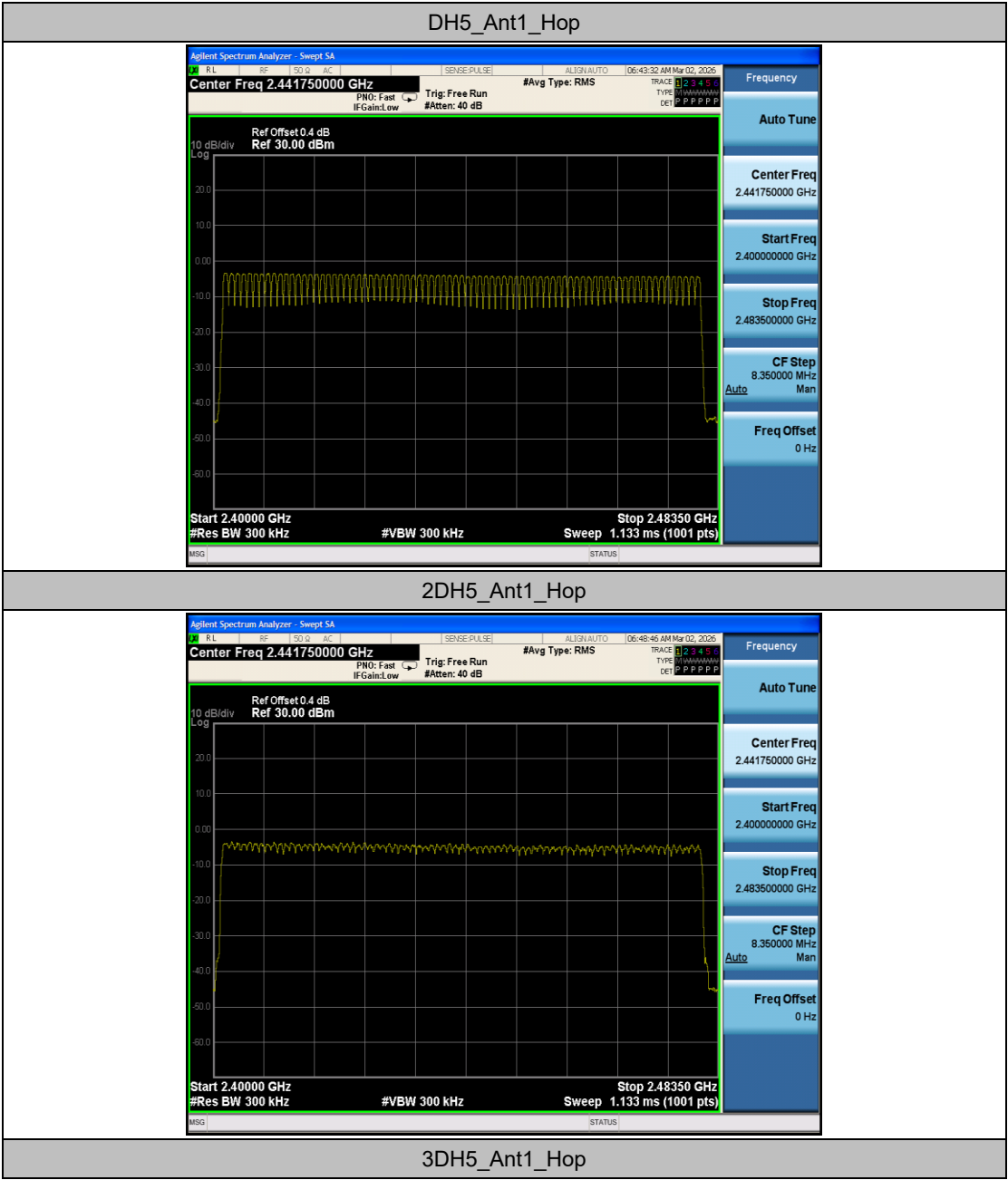


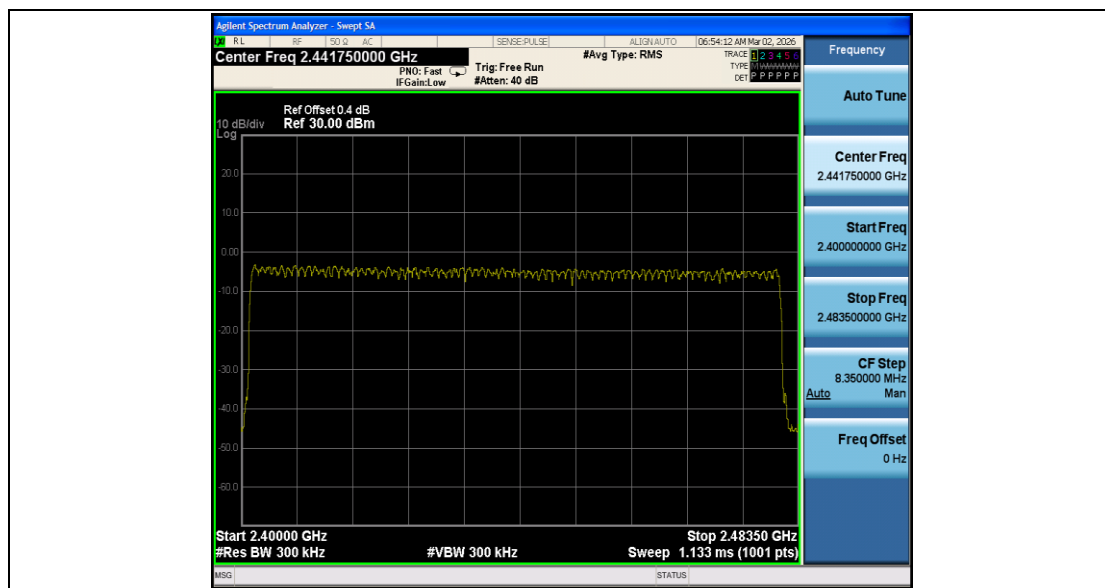
Appendix F: Number of hopping channels

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



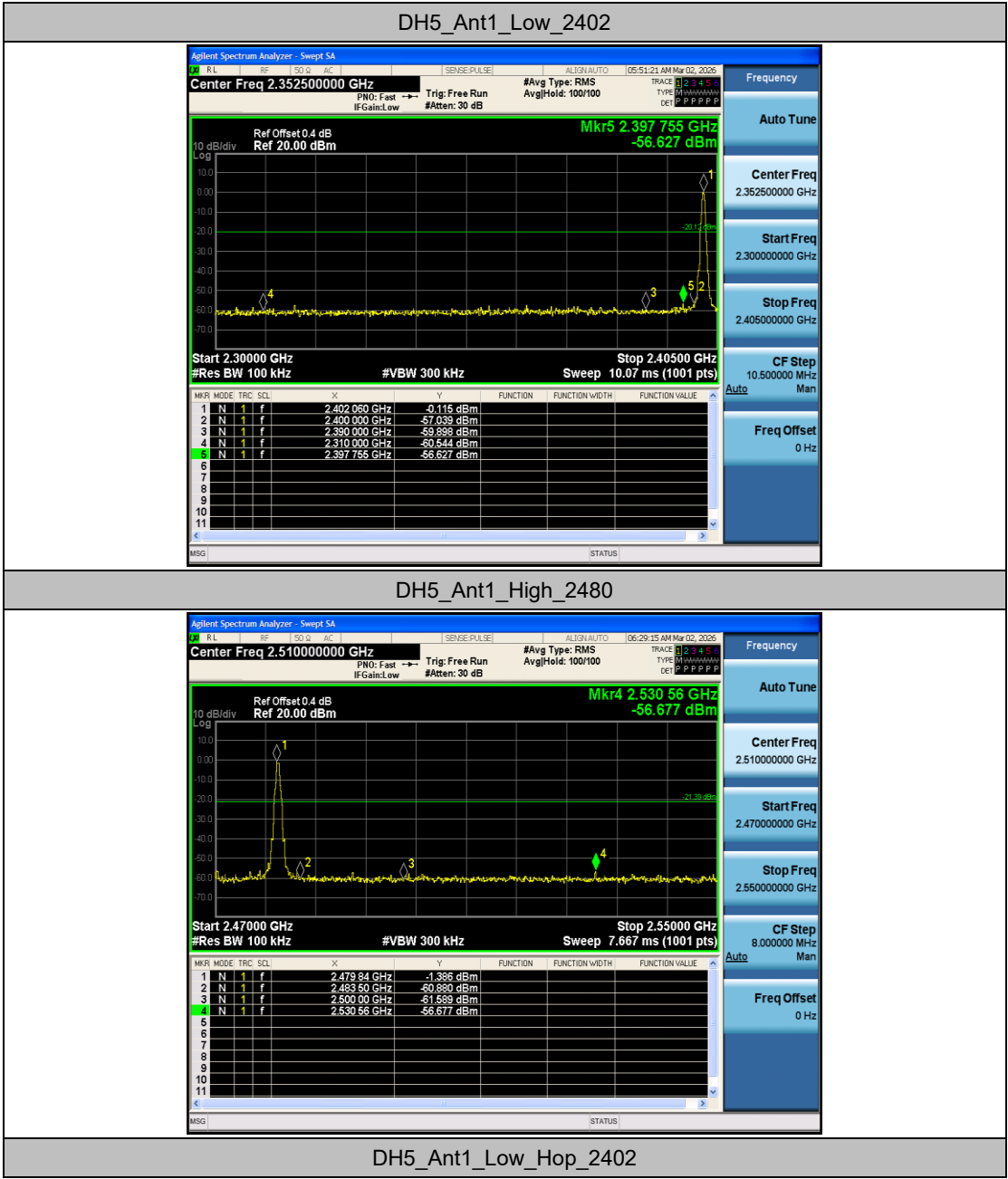


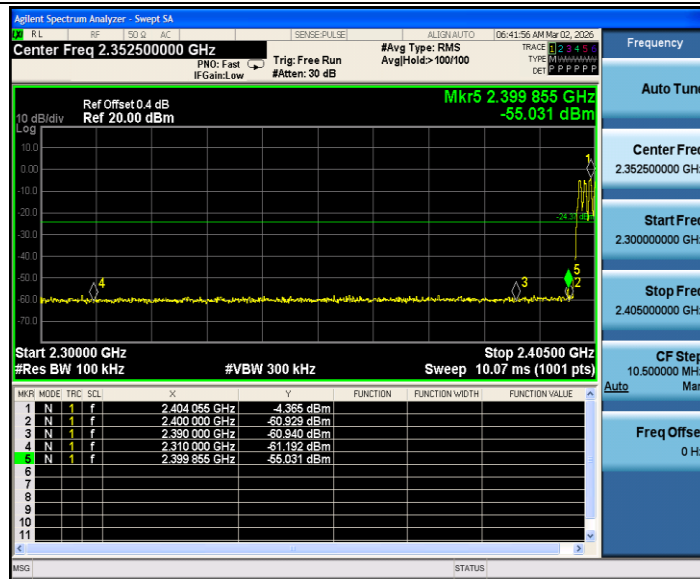
Appendix G: Band edge measurements

Test Result

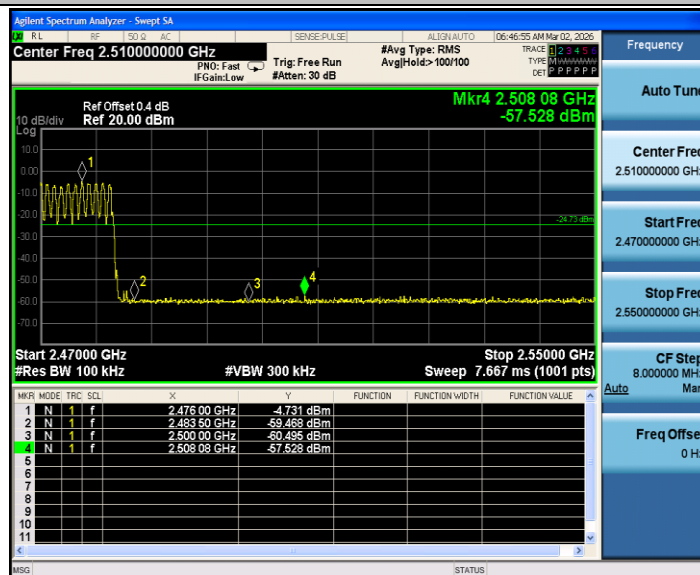
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.12	-56.63	≤-20.12	PASS
		High	2480	-1.39	-56.68	≤-21.39	PASS
		Low	Hop_2402	-4.37	-55.03	≤-24.37	PASS
		High	Hop_2480	-4.73	-57.53	≤-24.73	PASS
2DH5	Ant1	Low	2402	-3.46	-58.04	≤-23.46	PASS
		High	2480	-5.59	-58.12	≤-25.59	PASS
		Low	Hop_2402	-5.94	-57.64	≤-25.94	PASS
		High	Hop_2480	-7.30	-56.58	≤-27.3	PASS
3DH5	Ant1	Low	2402	-6.06	-56.87	≤-26.06	PASS
		High	2480	-4.98	-57.29	≤-24.98	PASS
		Low	Hop_2402	-4.11	-57.3	≤-24.11	PASS
		High	Hop_2480	-4.32	-57.15	≤-24.32	PASS

Test Graphs

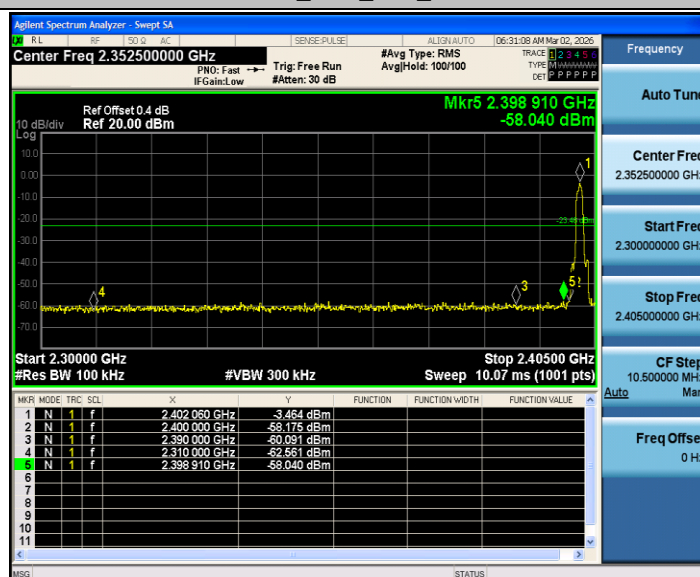




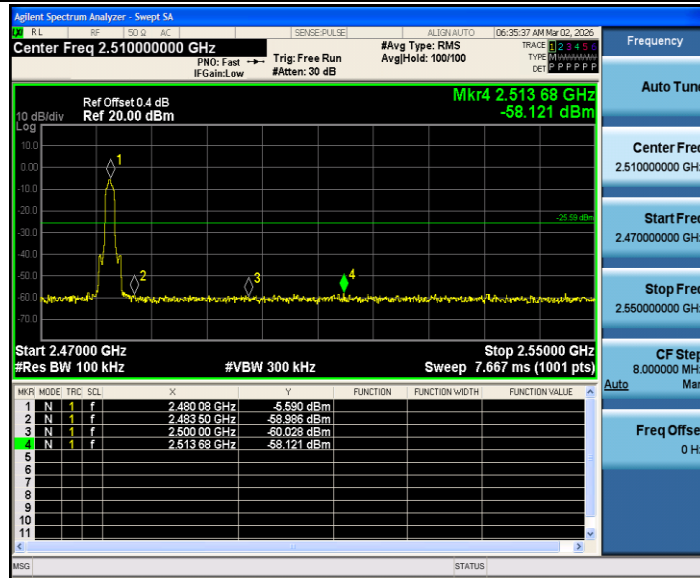
DH5_Ant1_High_Hop_2480



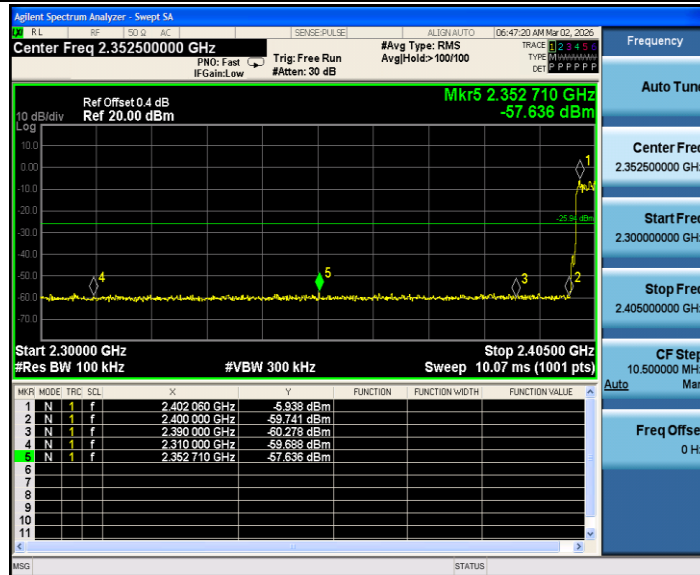
2DH5_Ant1_Low_2402



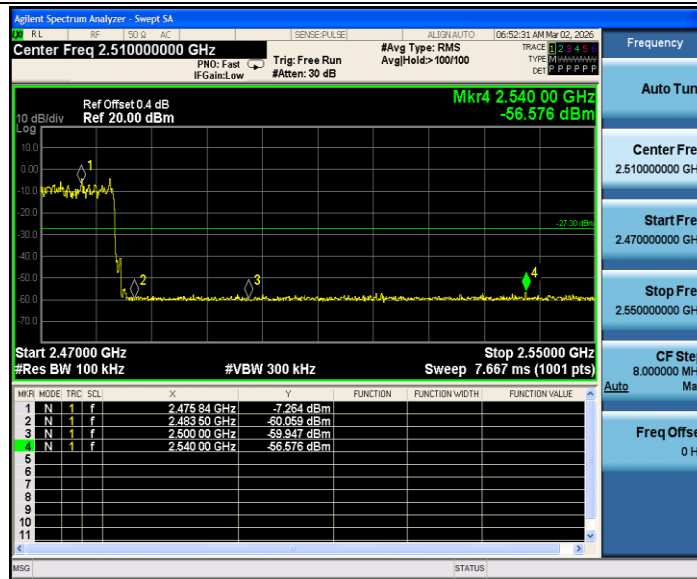
2DH5_Ant1_High_2480



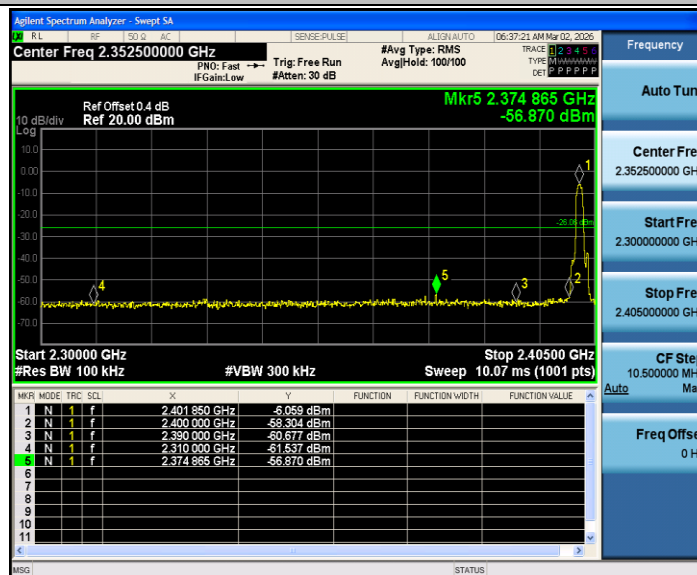
2DH5_Ant1_Low_Hop_2402



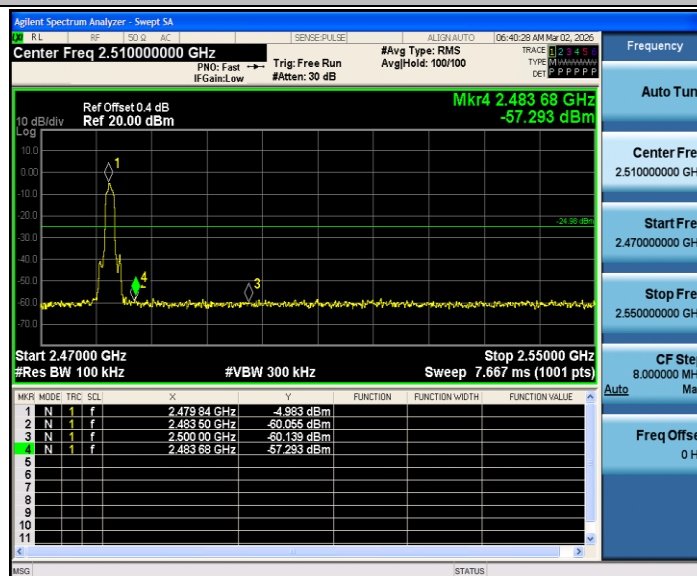
2DH5_Ant1_High_Hop_2480



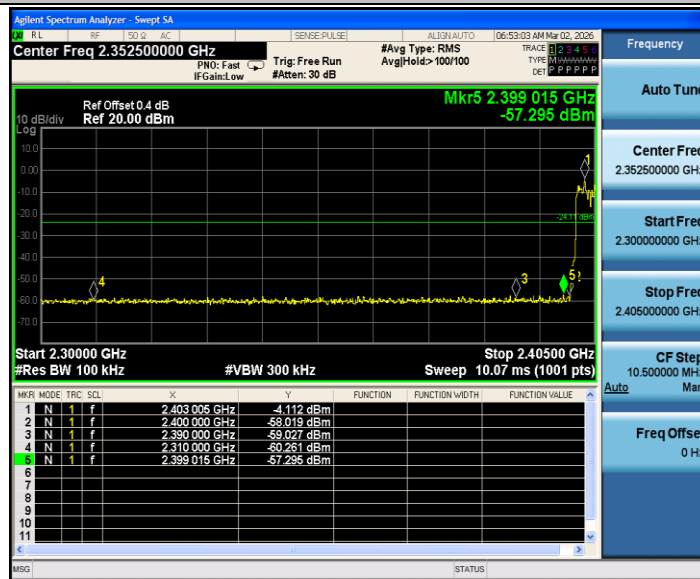
3DH5_Ant1_Low_2402



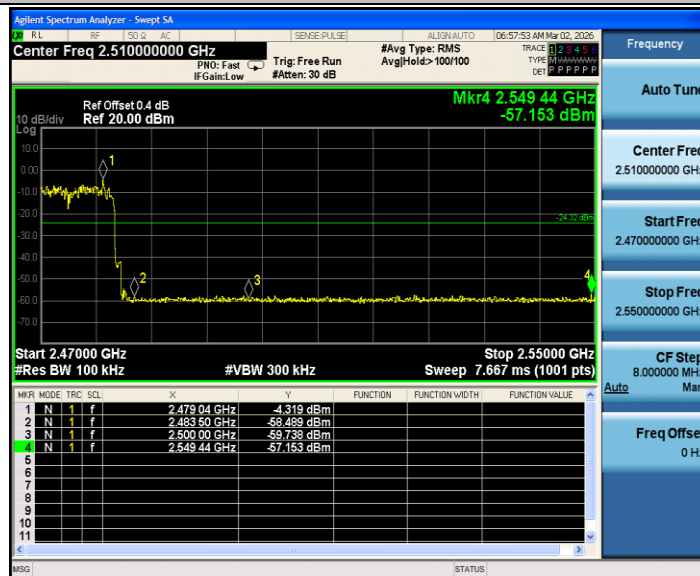
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

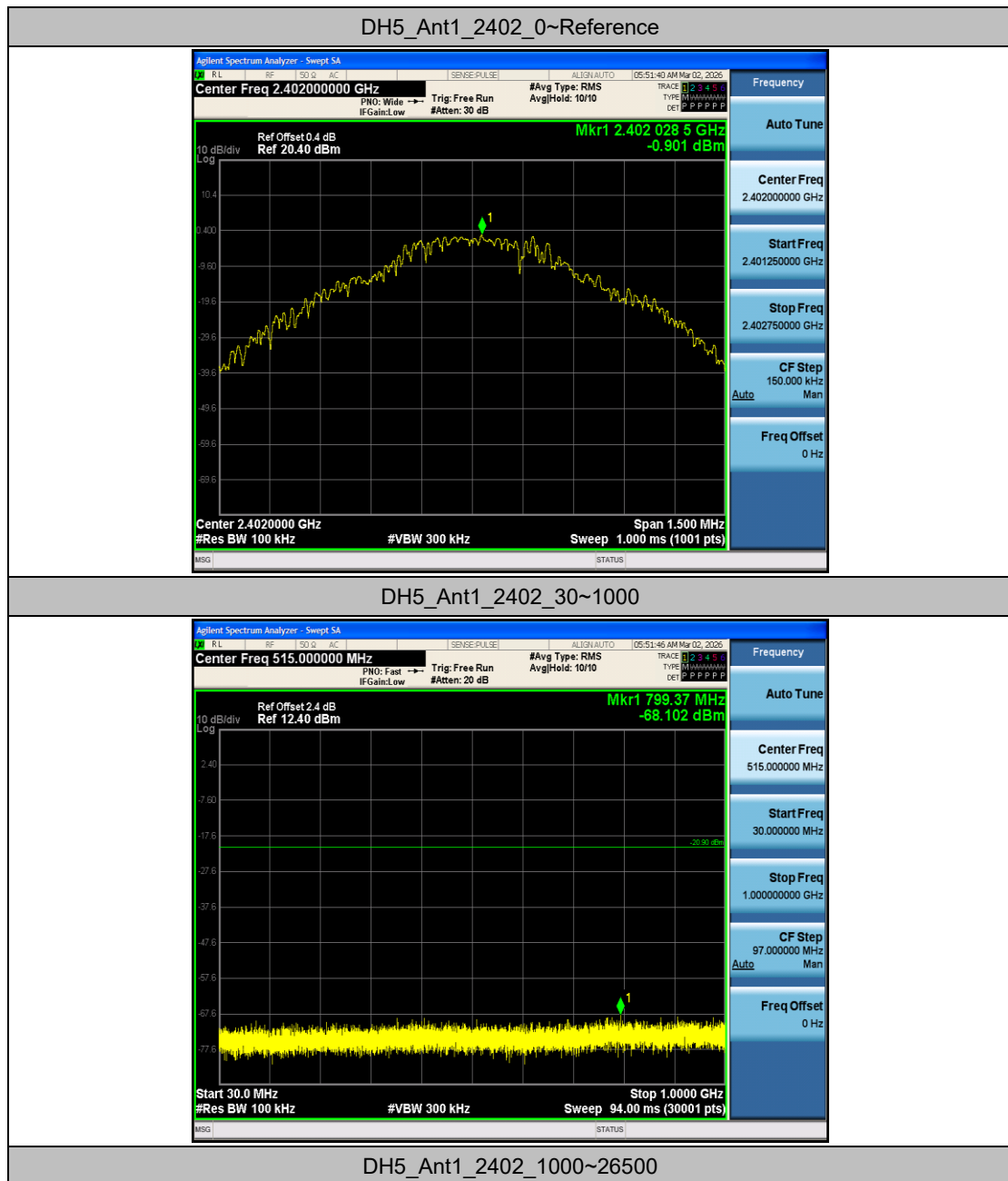


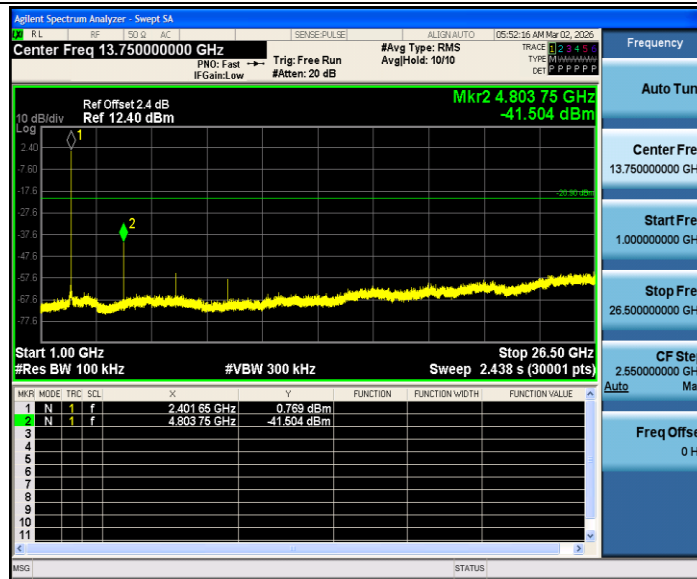
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.90	-0.90	---	PASS
			30~1000	-0.90	-68.1	≤-20.9	PASS
			1000~26500	-0.90	-41.5	≤-20.9	PASS
		2441	Reference	-1.70	-1.70	---	PASS
			30~1000	-1.70	-68.45	≤-21.7	PASS
			1000~26500	-1.70	-43.21	≤-21.7	PASS
		2480	Reference	-1.69	-1.69	---	PASS
			30~1000	-1.69	-28.59	≤-21.69	PASS
			1000~26500	-1.69	-43.96	≤-21.69	PASS
2DH5	Ant1	2402	Reference	-6.83	-6.83	---	PASS
			30~1000	-6.83	-68.06	≤-26.83	PASS
			1000~26500	-6.83	-47.48	≤-26.83	PASS
		2441	Reference	-5.51	-5.51	---	PASS
			30~1000	-5.51	-68.14	≤-25.51	PASS
			1000~26500	-5.51	-50.13	≤-25.51	PASS
		2480	Reference	-7.45	-7.45	---	PASS
			30~1000	-7.45	-34.77	≤-27.45	PASS
			1000~26500	-7.45	-47.57	≤-27.45	PASS
3DH5	Ant1	2402	Reference	-4.21	-4.21	---	PASS
			30~1000	-4.21	-45.1	≤-24.21	PASS
			1000~26500	-4.21	-48.02	≤-24.21	PASS
		2441	Reference	-5.20	-5.20	---	PASS
			30~1000	-5.20	-68.23	≤-25.2	PASS
			1000~26500	-5.20	-50.32	≤-25.2	PASS
		2480	Reference	-5.72	-5.72	---	PASS
			30~1000	-5.72	-67.85	≤-25.72	PASS
			1000~26500	-5.72	-49.57	≤-25.72	PASS

Test Graphs

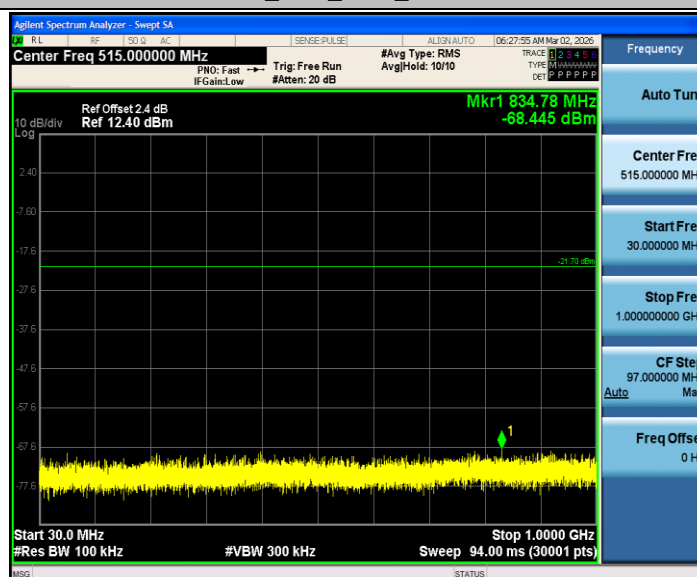




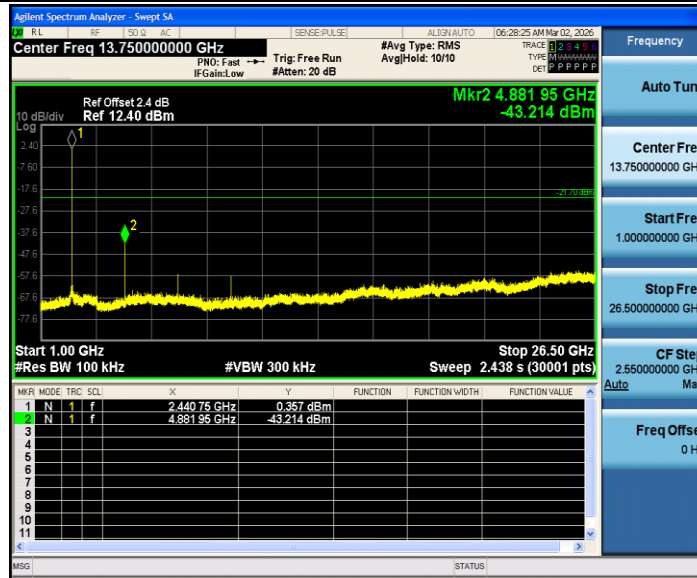
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



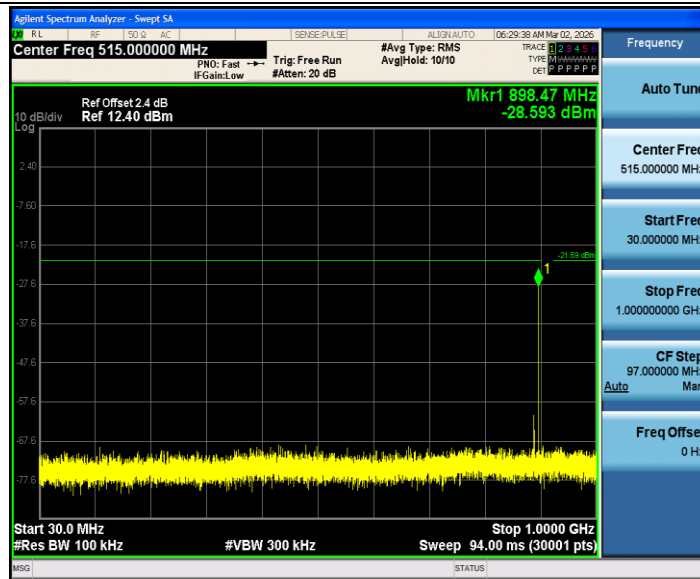
DH5_Ant1_2441_1000~26500



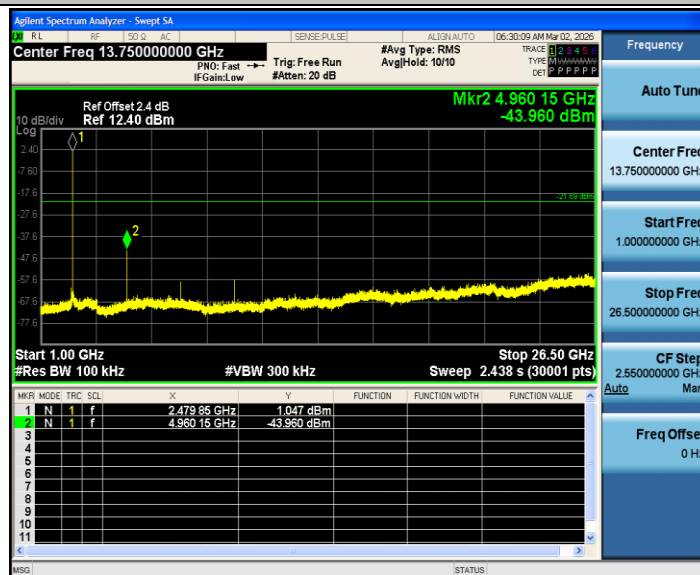
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference

