

FCC Appendix RF Test Data for BT

FCC ID : **HCQ-IDTOUCH1**

Company : **Inovonics Wireless Corporation**

EUT : **Inovonics Wired Touchscreen Keypad**

Model Number : **IDTOUCH1**

Report No. : **CTA26020600502**

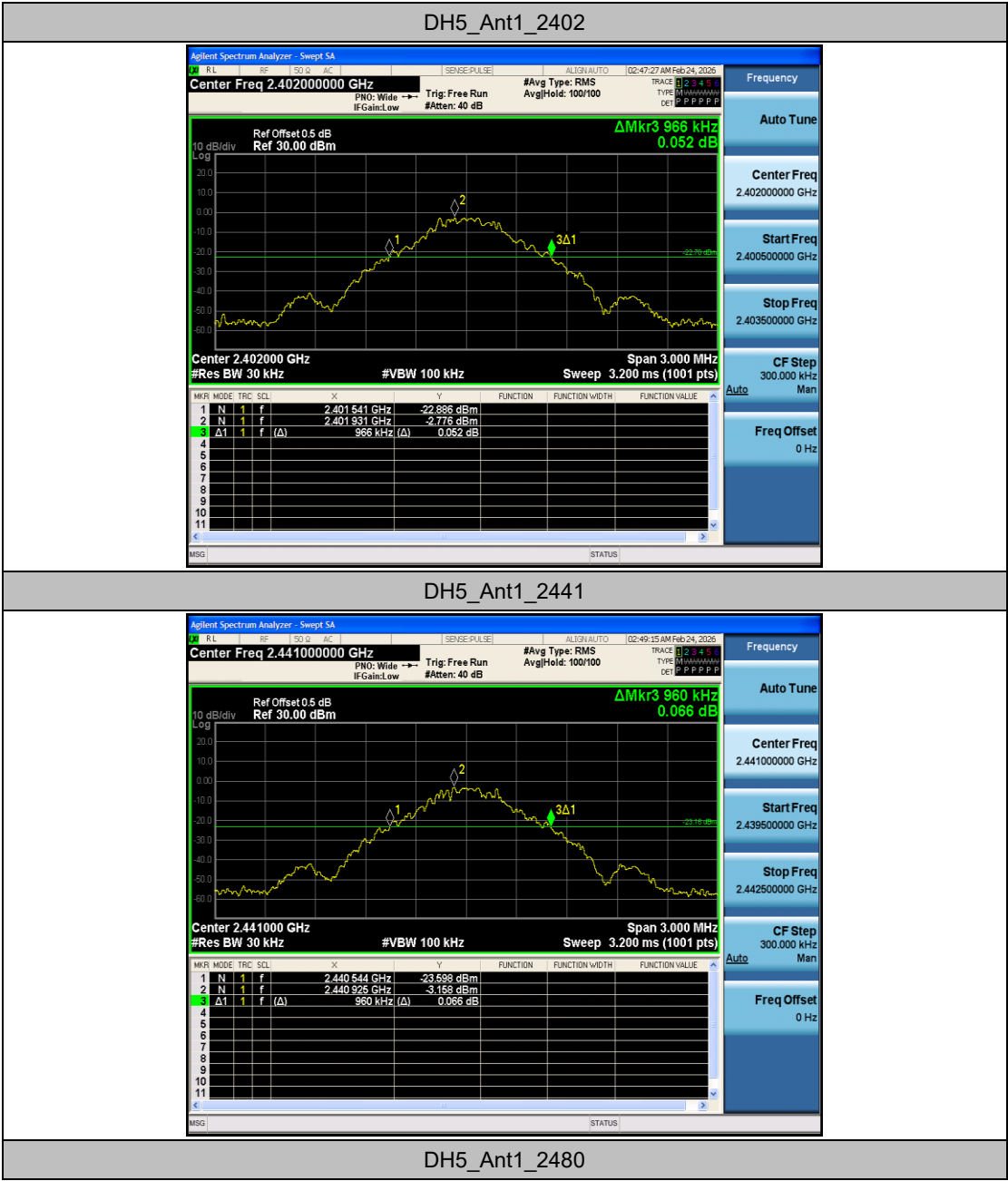
Reviewed By : **Eric Wang**

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.966	2401.541	2402.507	---	---
		2441	0.960	2440.544	2441.504	---	---
		2480	0.945	2479.550	2480.495	---	---
2DH5	Ant1	2402	1.320	2401.346	2402.666	---	---
		2441	1.284	2440.379	2441.663	---	---
		2480	1.347	2479.334	2480.681	---	---
3DH5	Ant1	2402	1.314	2401.358	2402.672	---	---
		2441	1.317	2440.355	2441.672	---	---
		2480	1.296	2479.367	2480.663	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

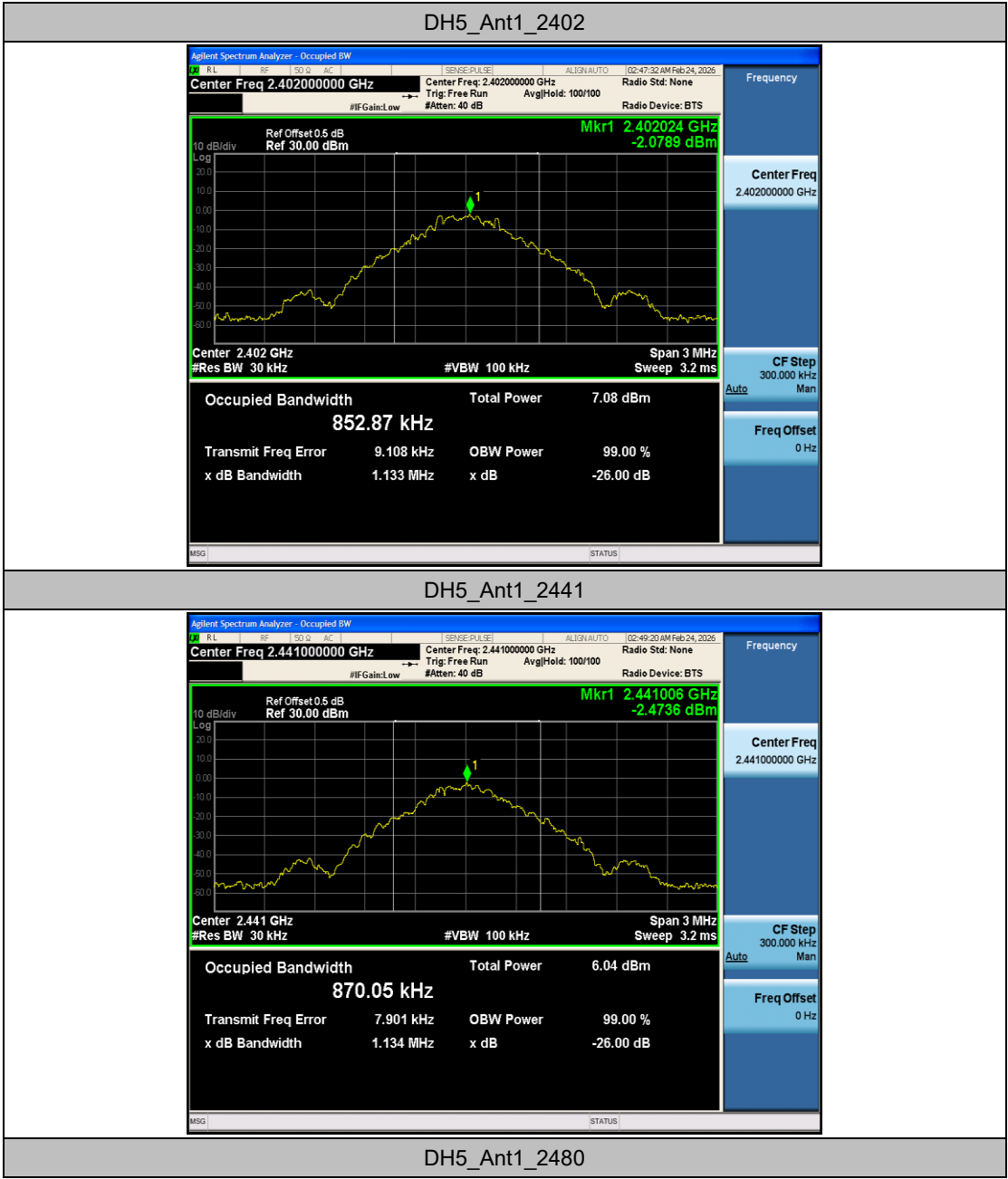


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.85287	2401.5827	2402.4355	---	---
		2441	0.87005	2440.5729	2441.4429	---	---
		2480	0.86683	2479.5785	2480.4453	---	---
2DH5	Ant1	2402	1.1951	2401.4127	2402.6078	---	---
		2441	1.1845	2440.4168	2441.6013	---	---
		2480	1.1903	2479.4160	2480.6063	---	---
3DH5	Ant1	2402	1.1980	2401.4116	2402.6096	---	---
		2441	1.1884	2440.4182	2441.6066	---	---
		2480	1.1791	2479.4276	2480.6067	---	---

Test Graphs





2DH5_Ant1_2402



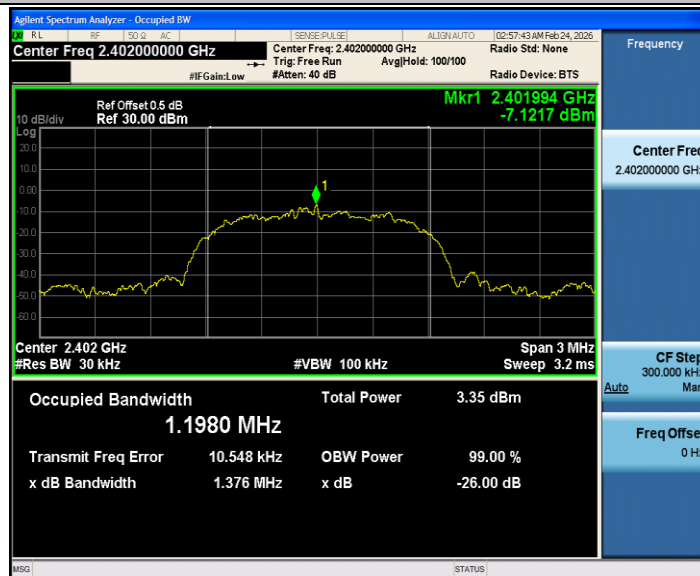
2DH5_Ant1_2441



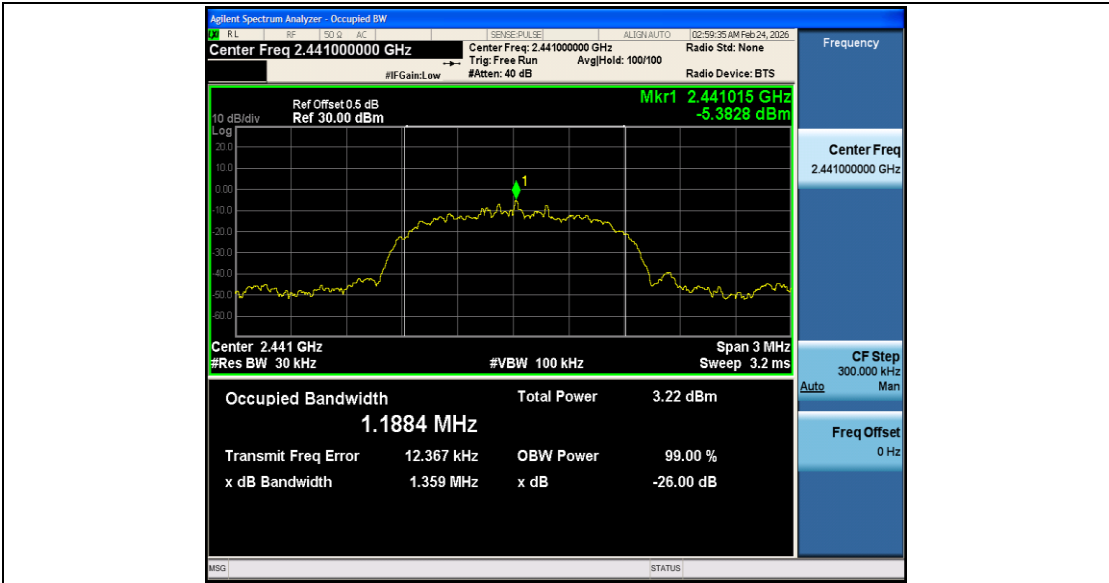
2DH5_Ant1_2480



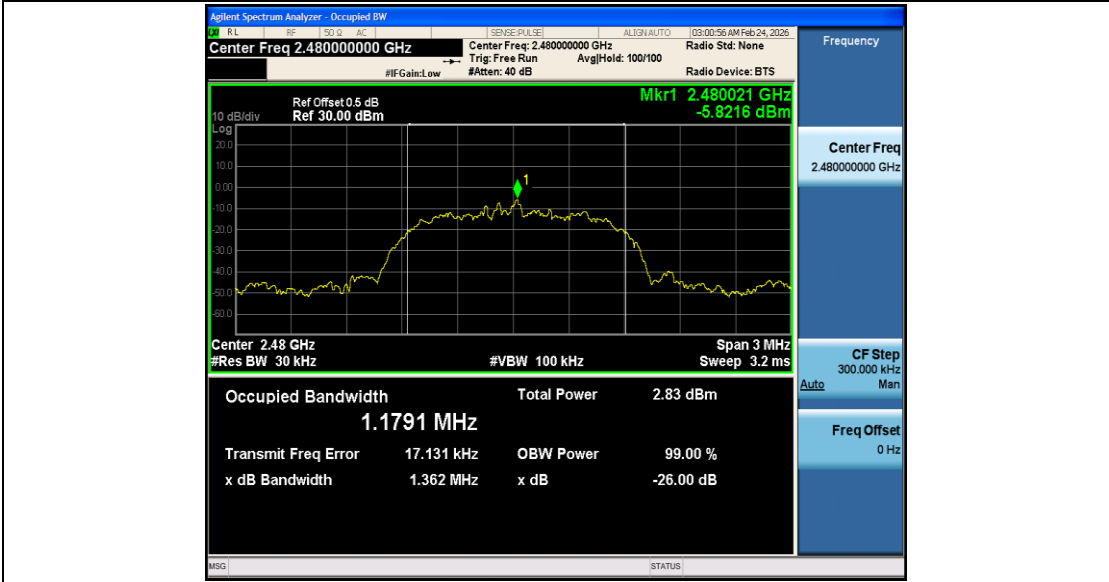
3DH5_Ant1_2402



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	0.25	≤20.97	PASS
		2441	-0.37	≤20.97	PASS
		2480	-0.63	≤20.97	PASS
2DH5	Ant1	2402	-0.57	≤20.97	PASS
		2441	-1.22	≤20.97	PASS
		2480	-1.47	≤20.97	PASS
3DH5	Ant1	2402	-0.19	≤20.97	PASS
		2441	-0.89	≤20.97	PASS
		2480	-1.13	≤20.97	PASS

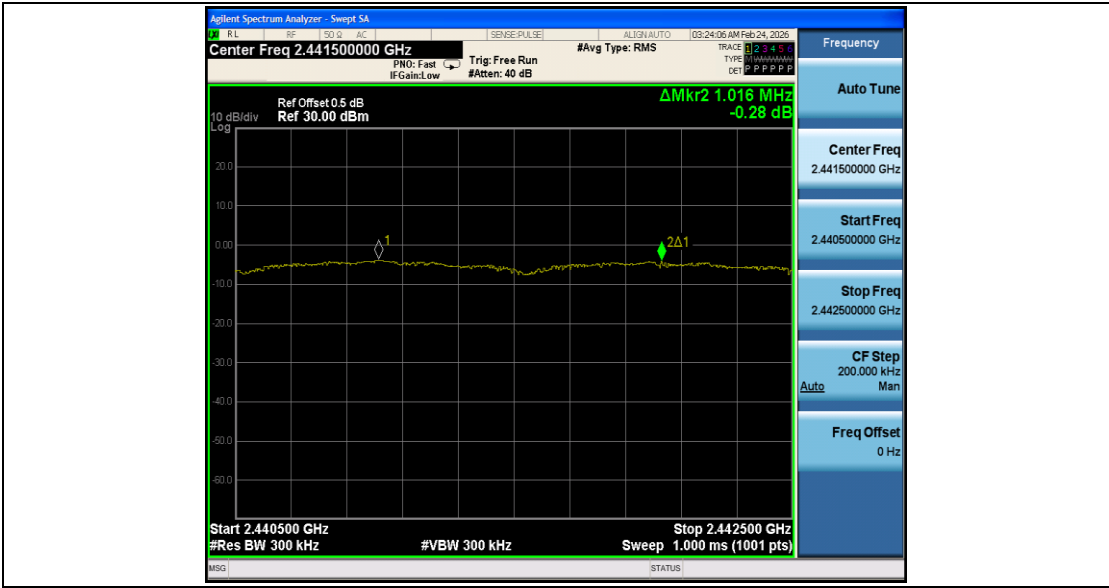
Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.996	≥ 0.966	PASS
2DH5	Ant1	Hop	1.004	≥ 0.898	PASS
3DH5	Ant1	Hop	1.016	≥ 0.878	PASS

Test Graphs



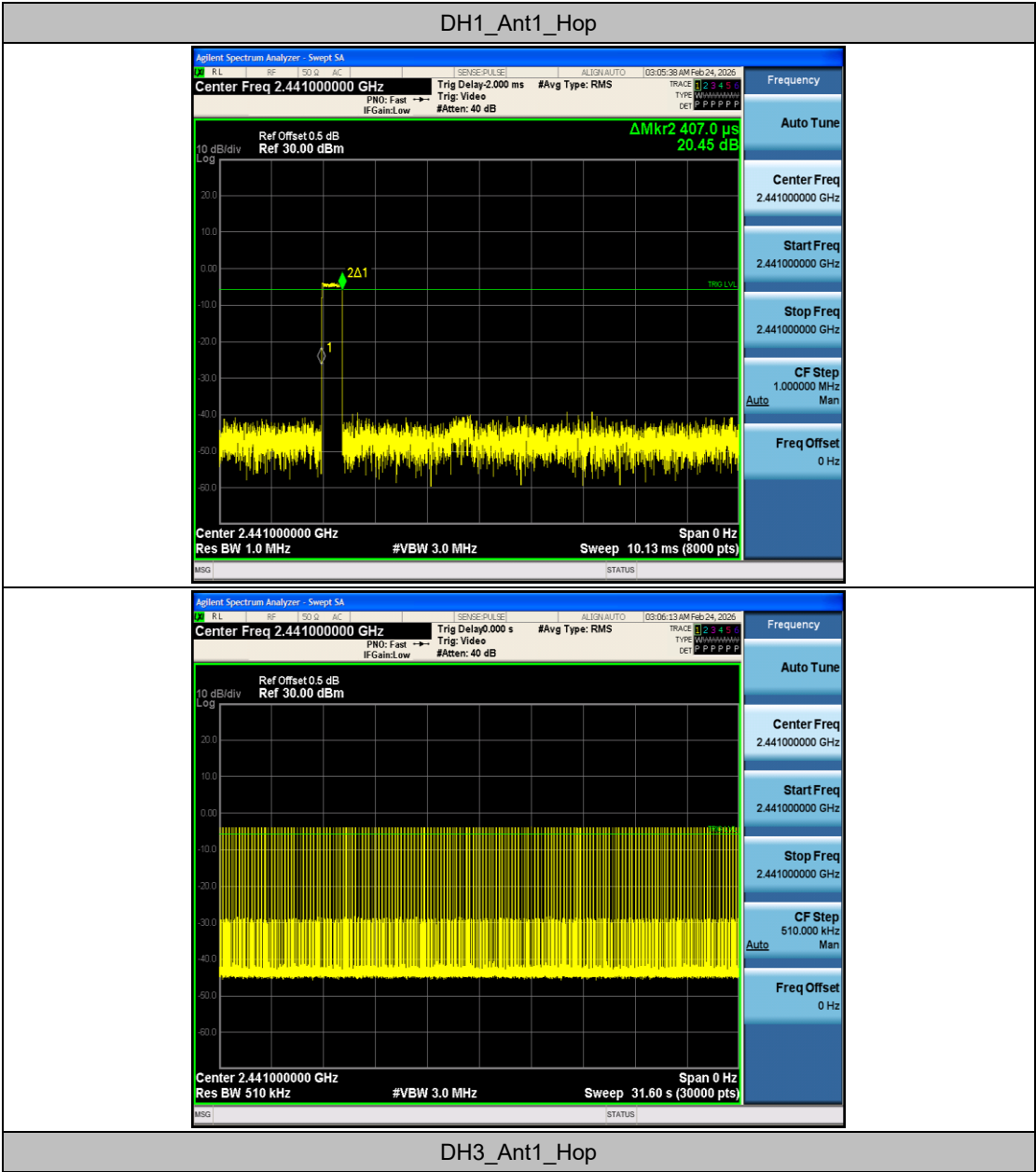


Appendix E: Time of occupancy

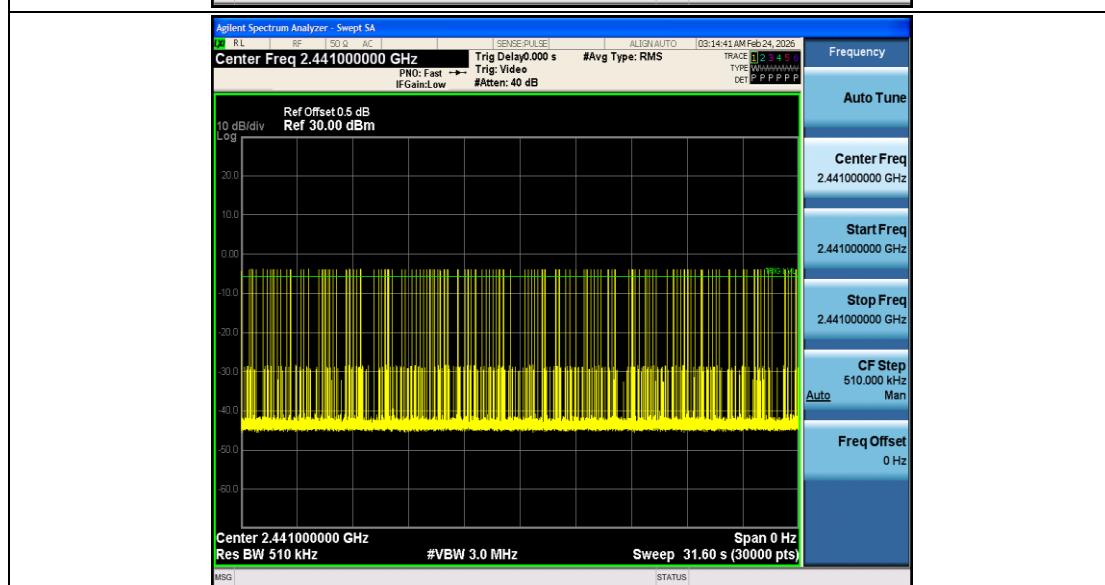
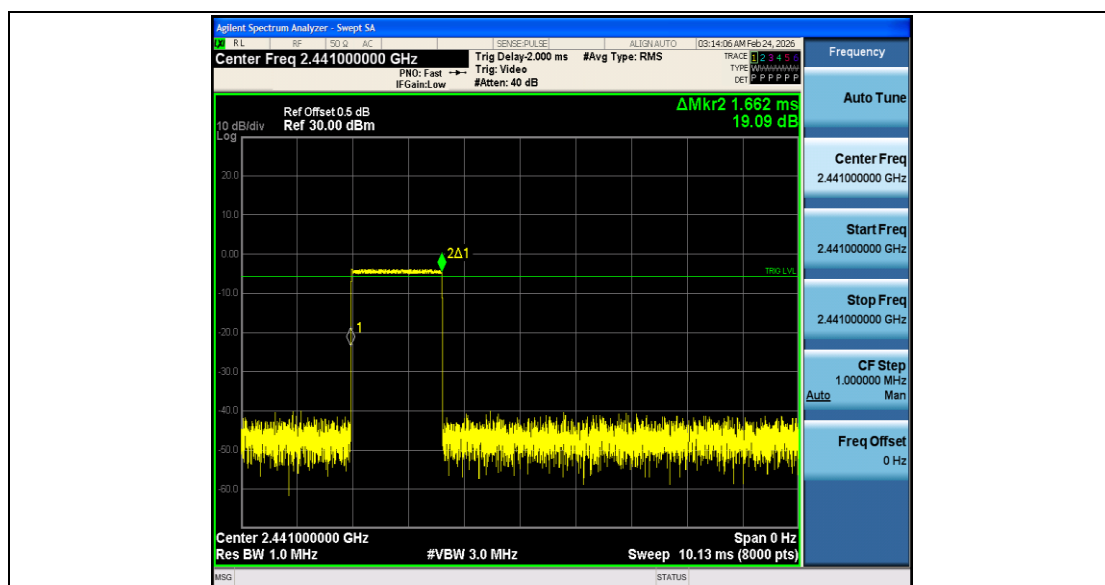
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	320	0.13	≤0.4	PASS
DH3	Ant1	Hop	1.662	151	0.251	≤0.4	PASS
DH5	Ant1	Hop	2.911	110	0.32	≤0.4	PASS
2DH1	Ant1	Hop	0.415	320	0.133	≤0.4	PASS
2DH3	Ant1	Hop	1.667	169	0.282	≤0.4	PASS
2DH5	Ant1	Hop	2.915	102	0.297	≤0.4	PASS
3DH1	Ant1	Hop	0.415	320	0.133	≤0.4	PASS
3DH3	Ant1	Hop	1.666	154	0.257	≤0.4	PASS
3DH5	Ant1	Hop	2.917	106	0.309	≤0.4	PASS

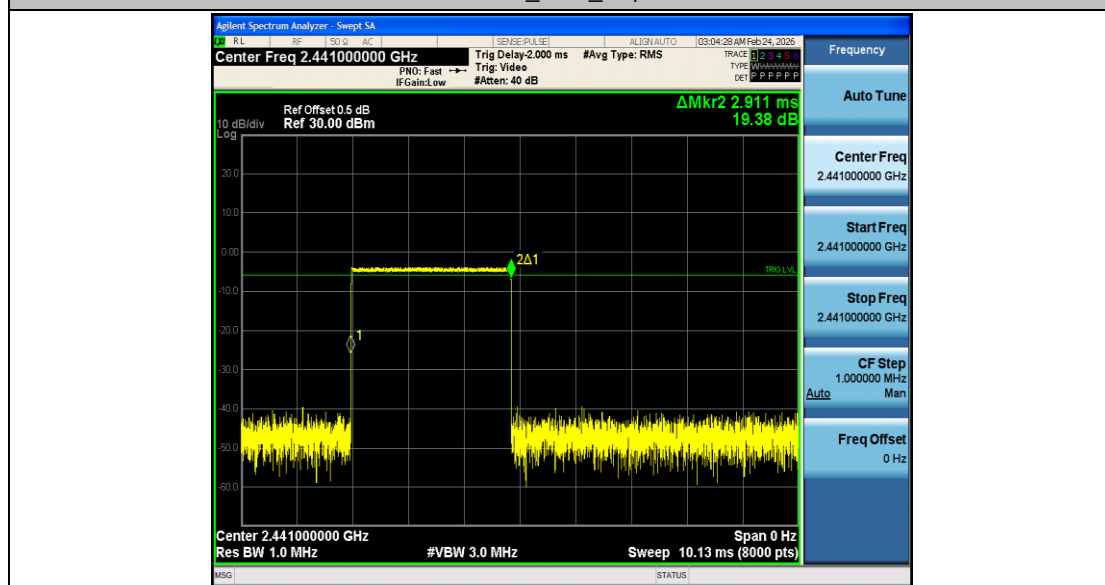
Test Graphs

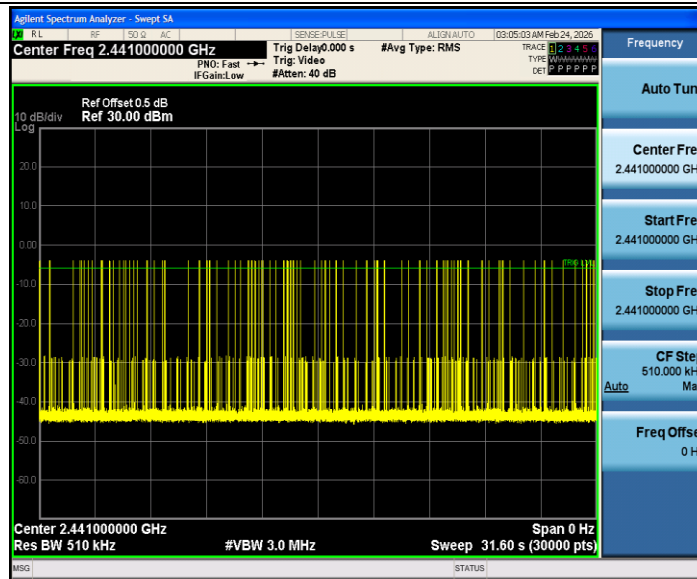


DH3_Ant1_Hop

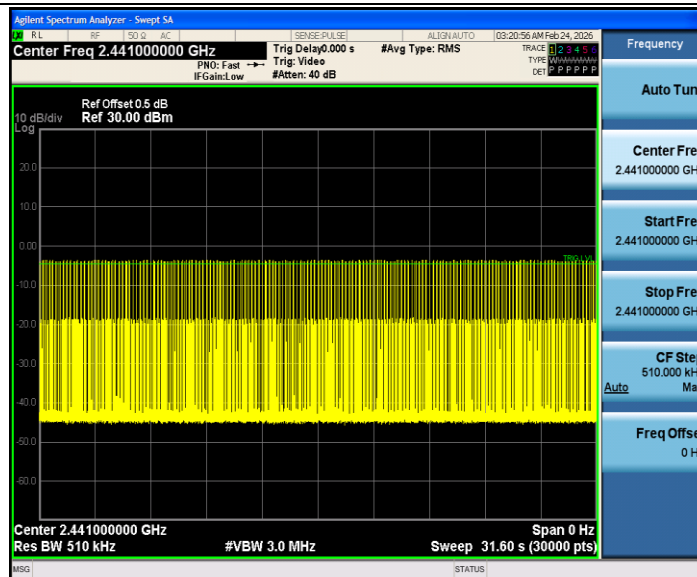
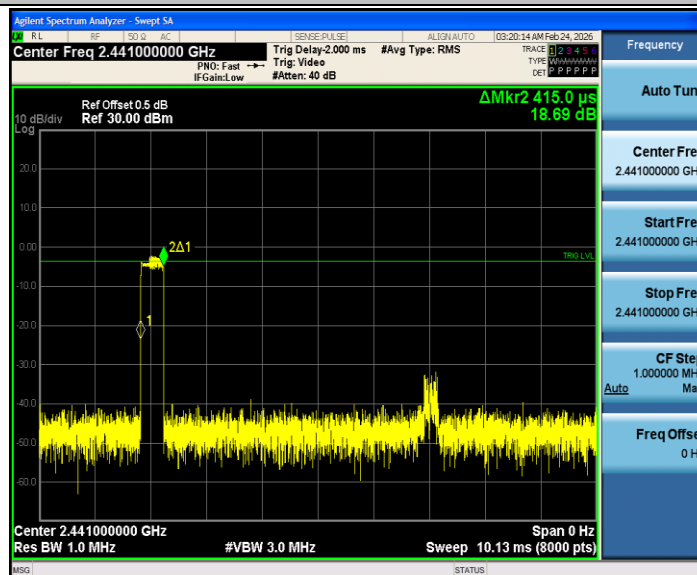


DH5_Ant1_Hop

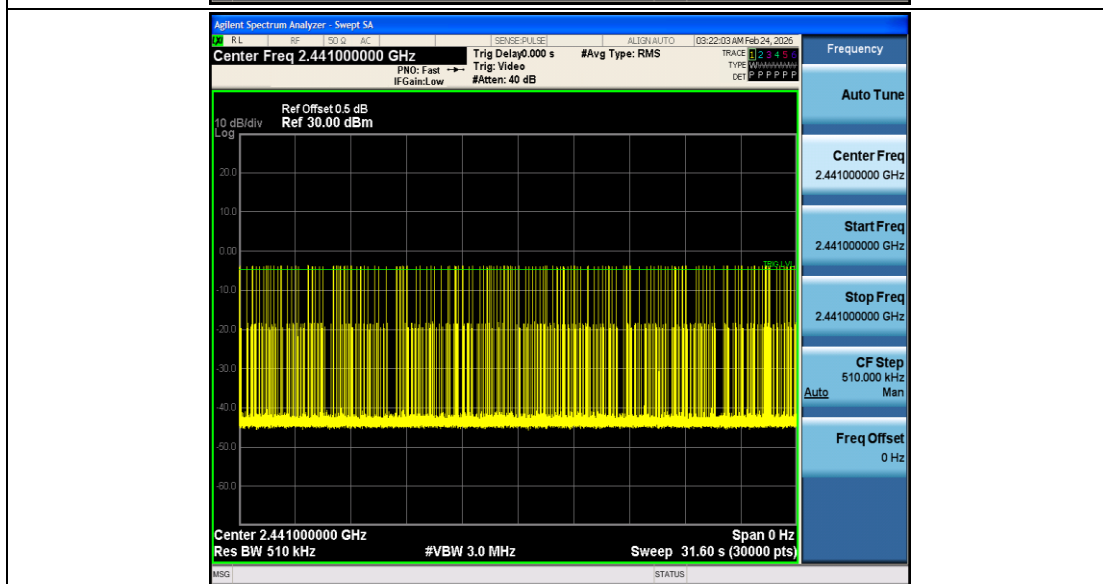
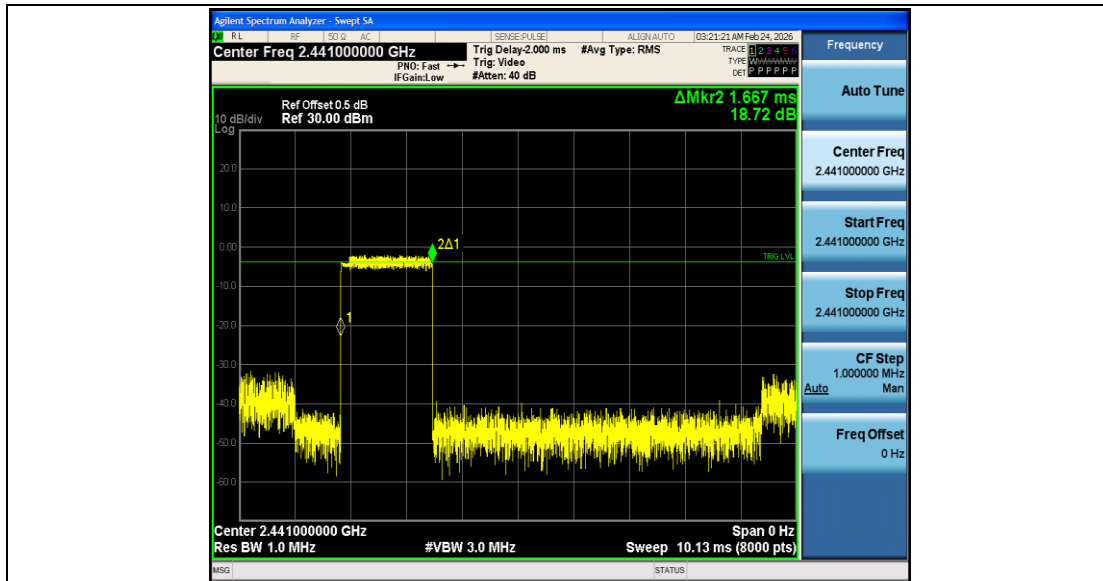




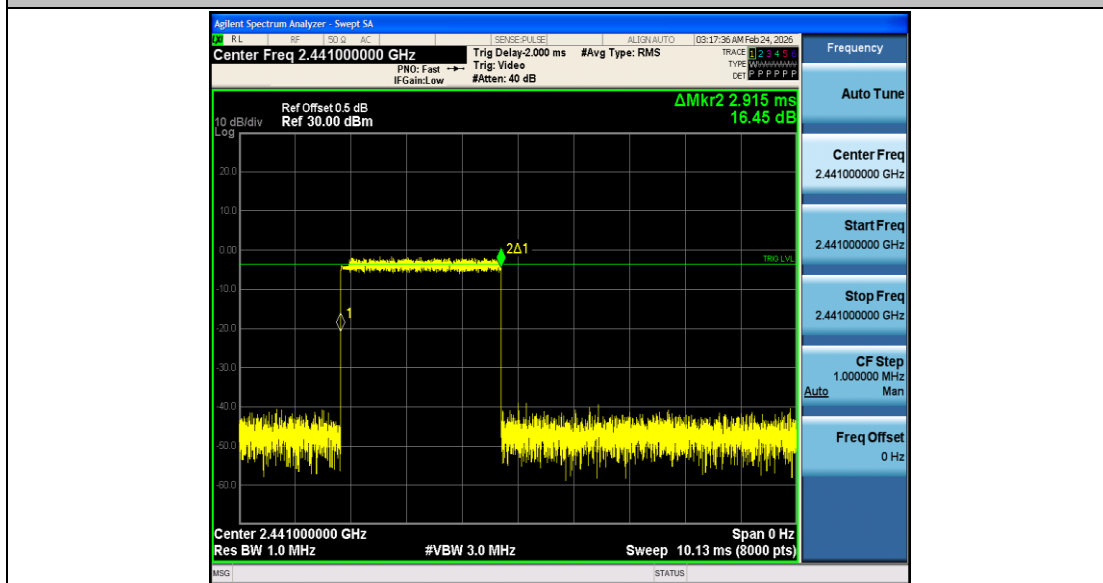
2DH1_Ant1_Hop

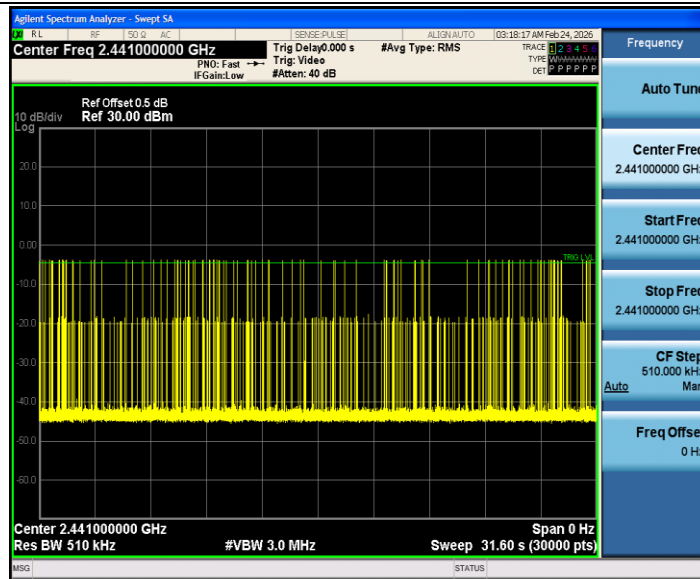


2DH3_Ant1_Hop

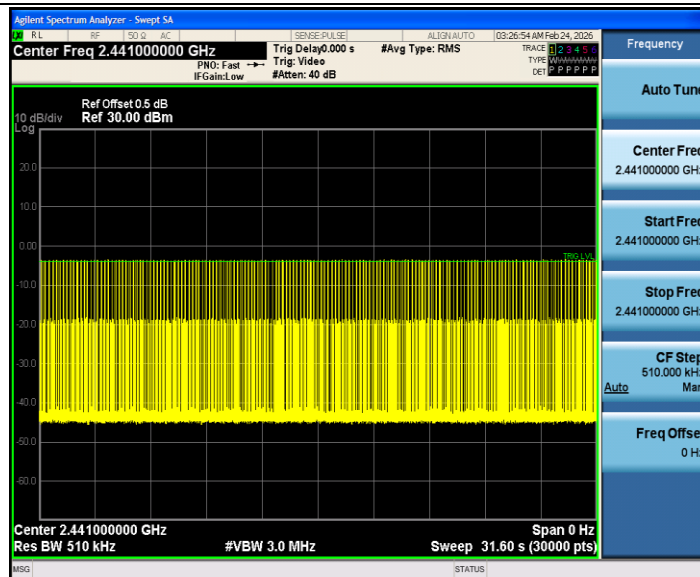
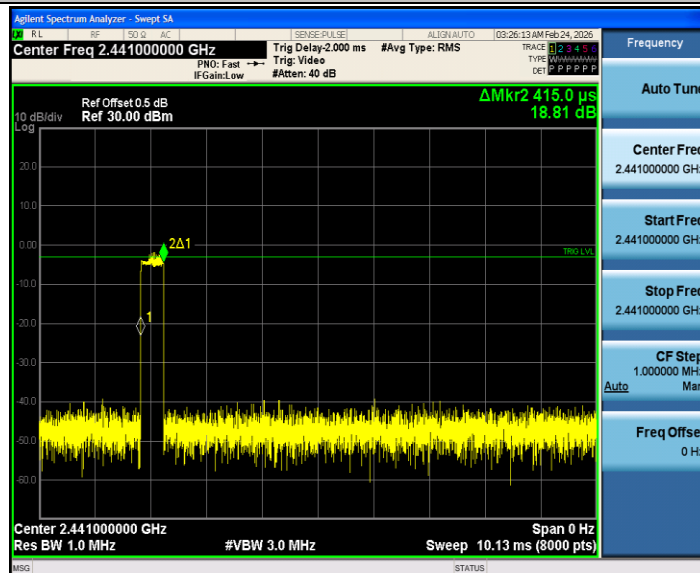


2DH5_Ant1_Hop

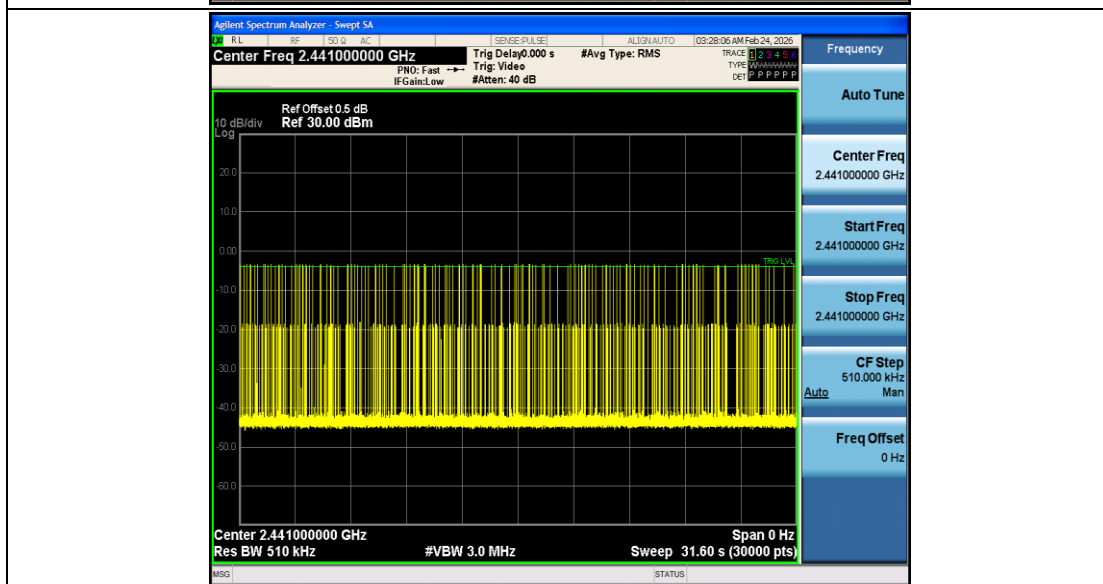
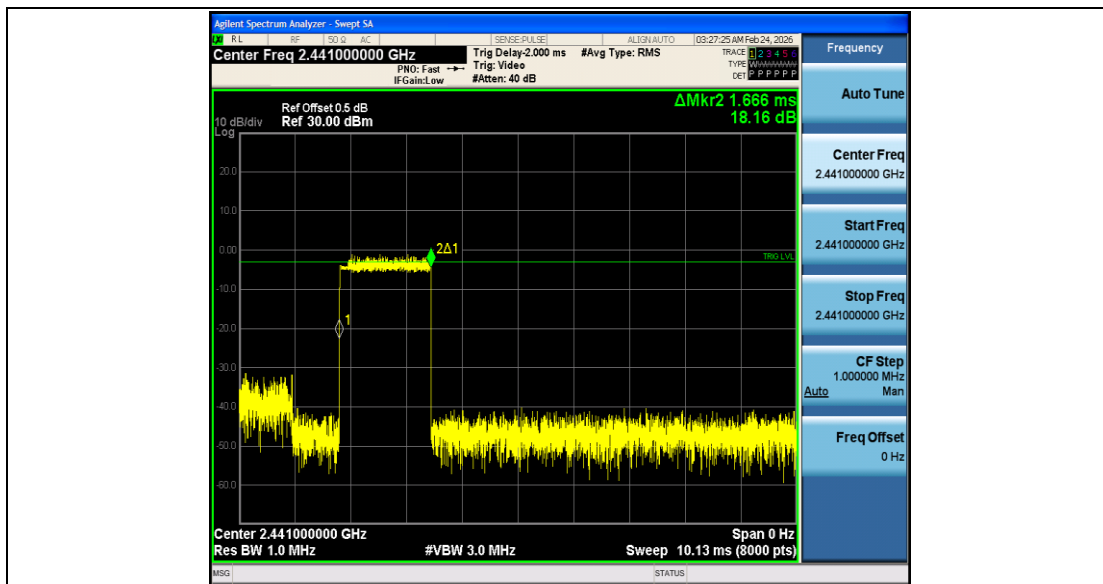




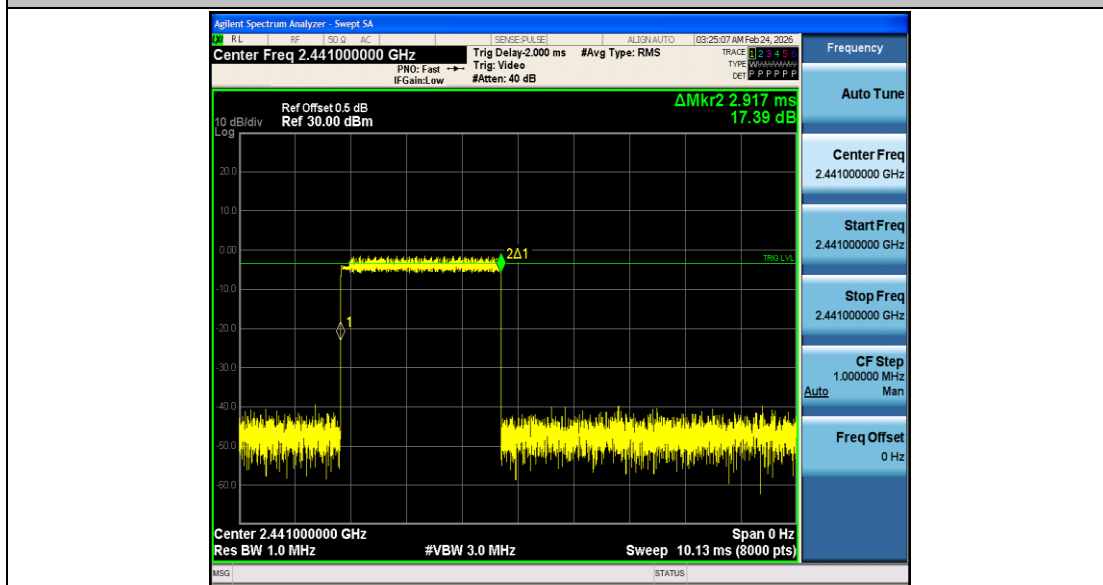
3DH1_Ant1_Hop

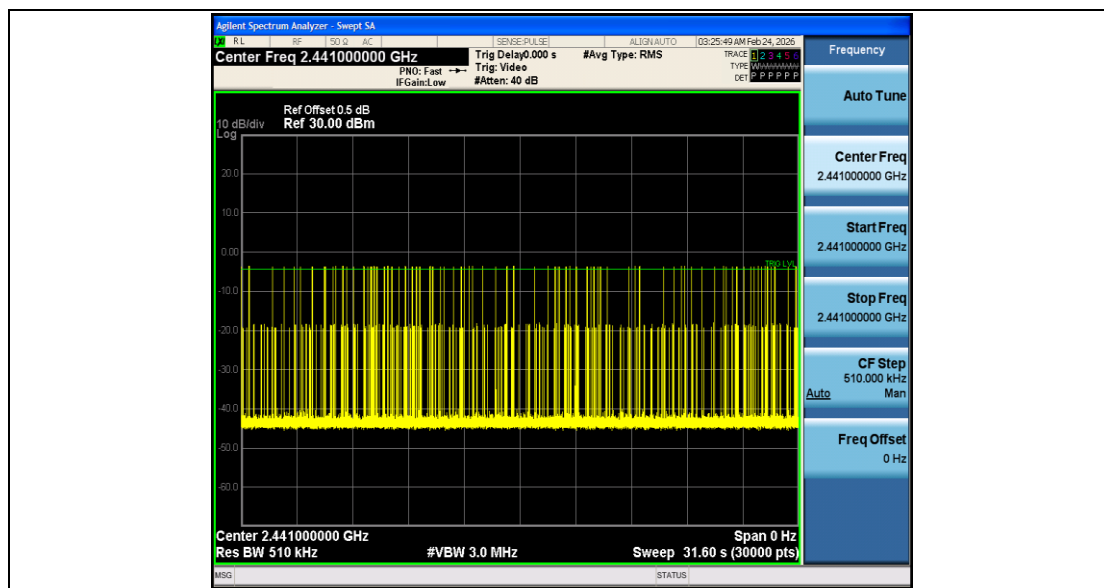


3DH3_Ant1_Hop



3DH5_Ant1_Hop



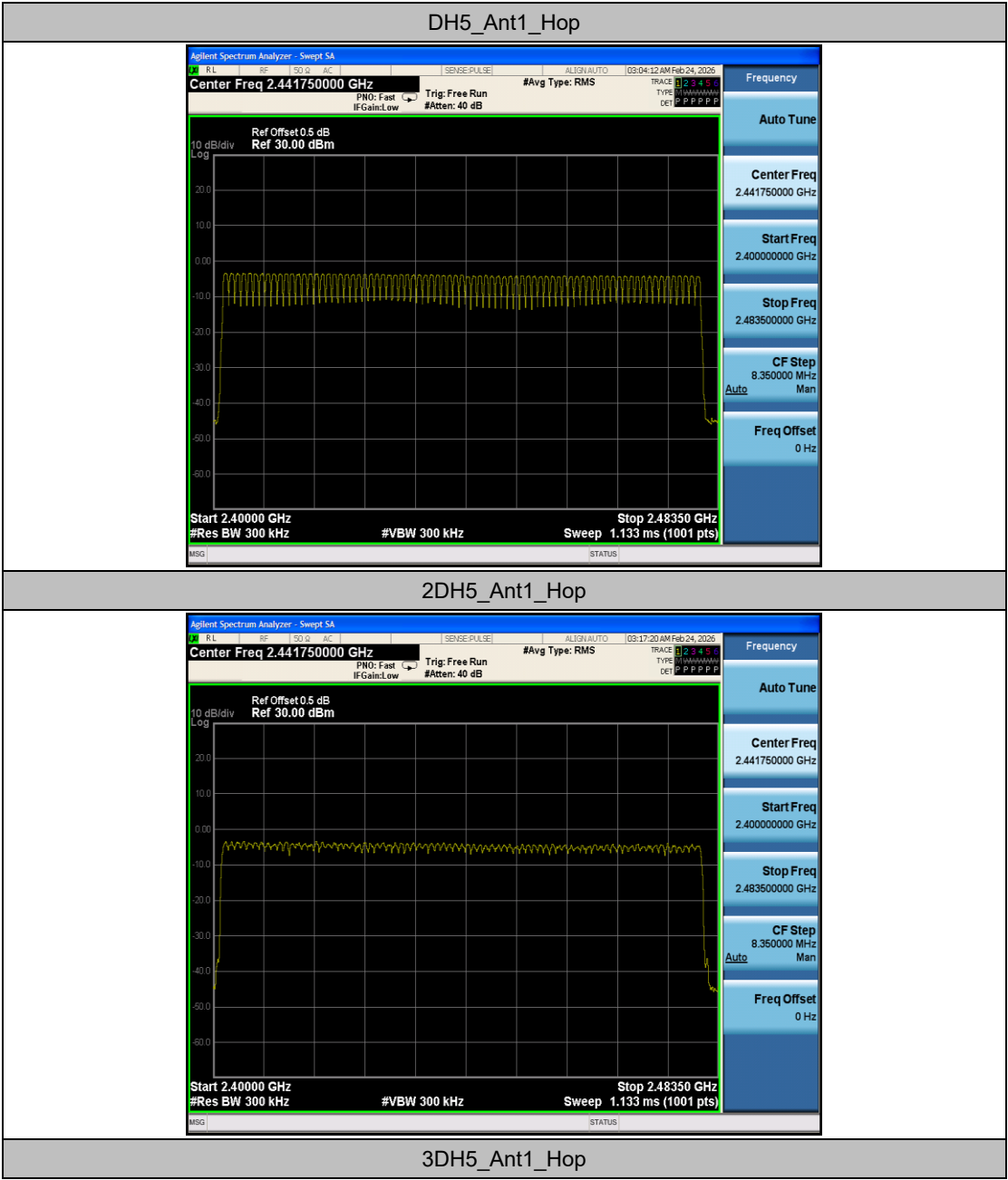


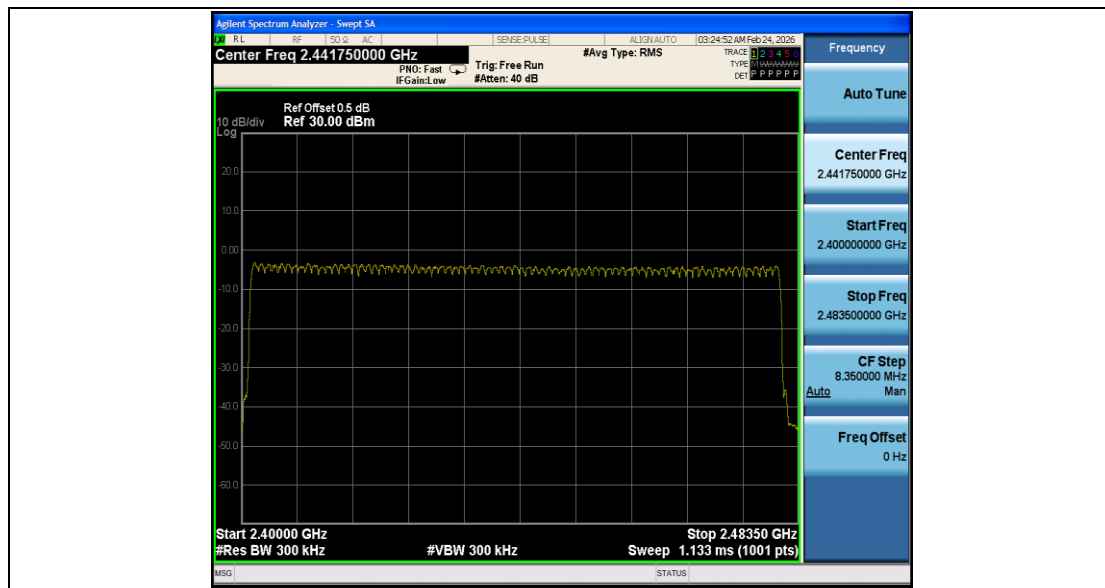
Appendix F: Number of hopping channels

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



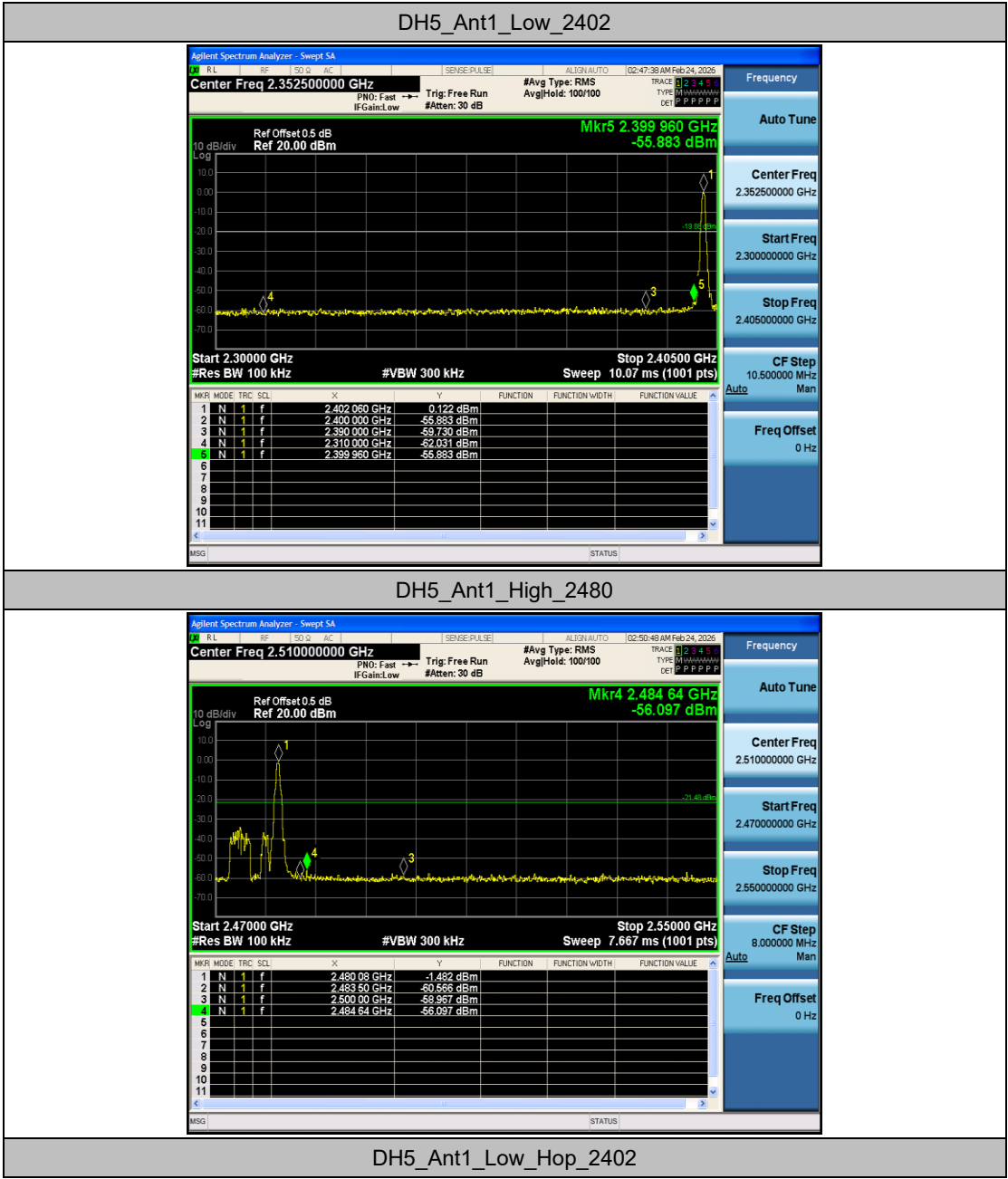


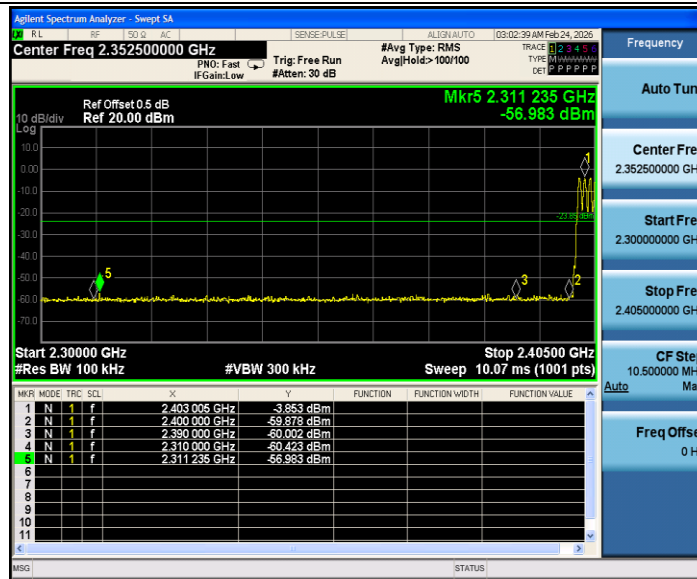
Appendix G: Band edge measurements

Test Result

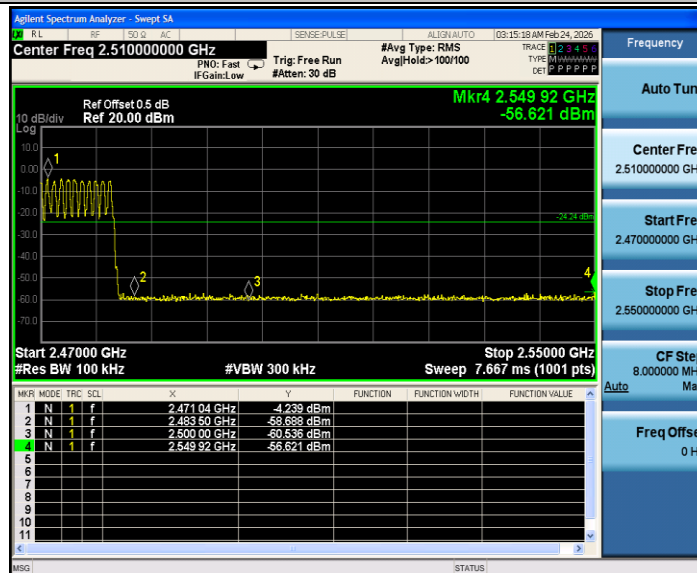
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.12	-55.88	≤ -19.88	PASS
		High	2480	-1.48	-56.1	≤ -21.48	PASS
		Low	Hop_2402	-3.85	-56.98	≤ -23.85	PASS
		High	Hop_2480	-4.24	-56.62	≤ -24.24	PASS
2DH5	Ant1	Low	2402	-4.60	-56.36	≤ -24.6	PASS
		High	2480	-4.26	-57.66	≤ -24.26	PASS
		Low	Hop_2402	-3.40	-57.34	≤ -23.4	PASS
		High	Hop_2480	-4.08	-42.89	≤ -24.08	PASS
3DH5	Ant1	Low	2402	-4.76	-55.47	≤ -24.76	PASS
		High	2480	-6.89	-55.39	≤ -26.89	PASS
		Low	Hop_2402	-6.20	-57.85	≤ -26.2	PASS
		High	Hop_2480	-4.27	-56.89	≤ -24.27	PASS

Test Graphs

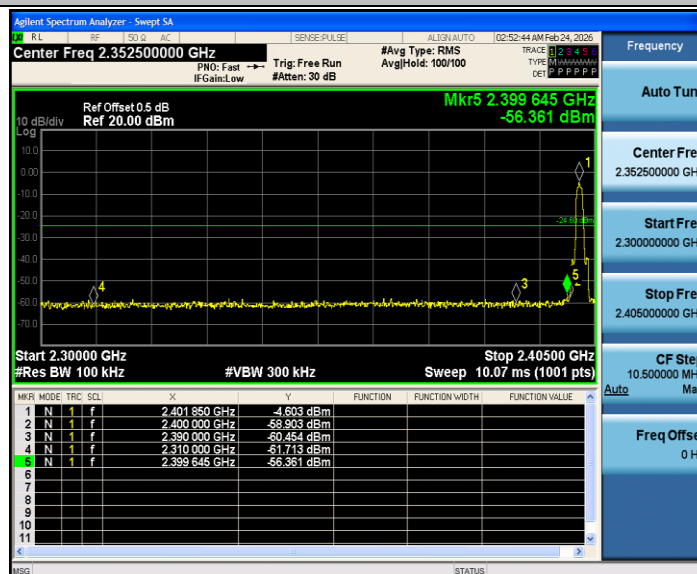




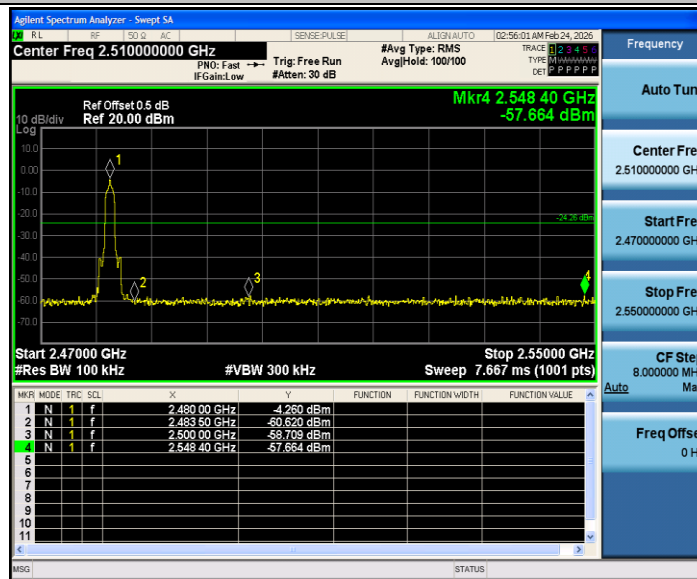
DH5_Ant1_High_Hop_2480



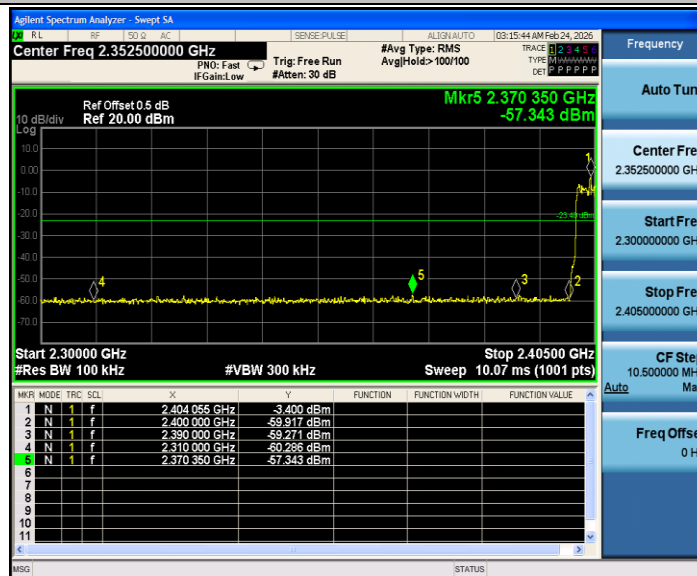
2DH5_Ant1_Low_2402



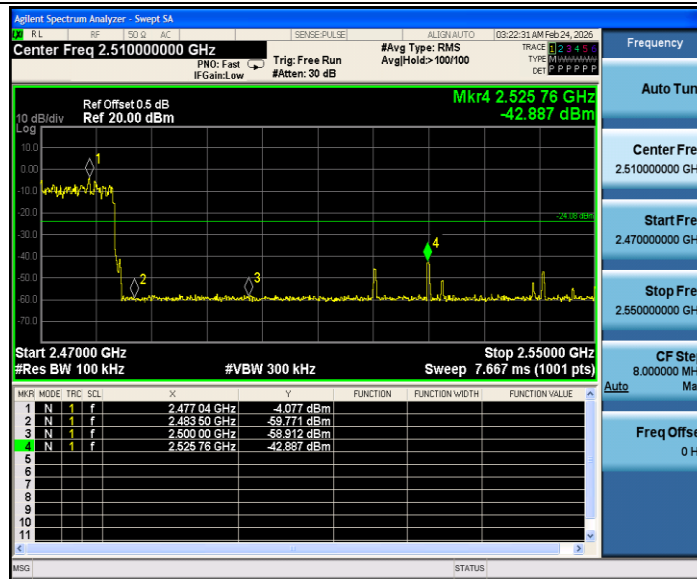
2DH5_Ant1_High_2480



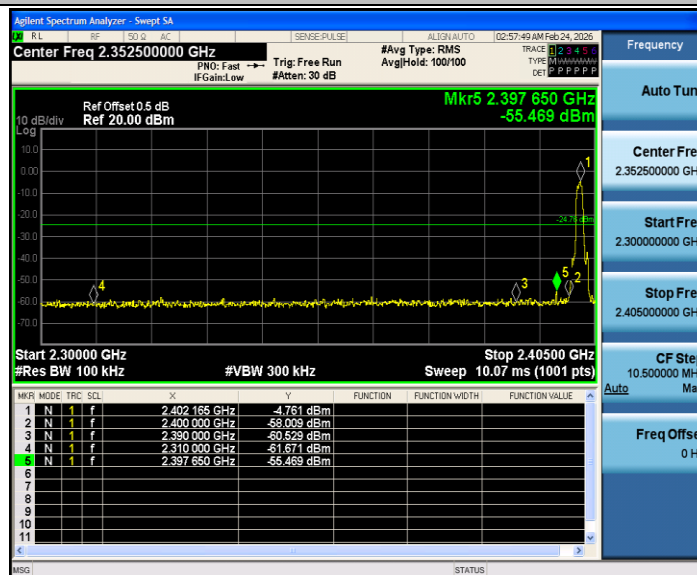
2DH5_Ant1_Low_Hop_2402



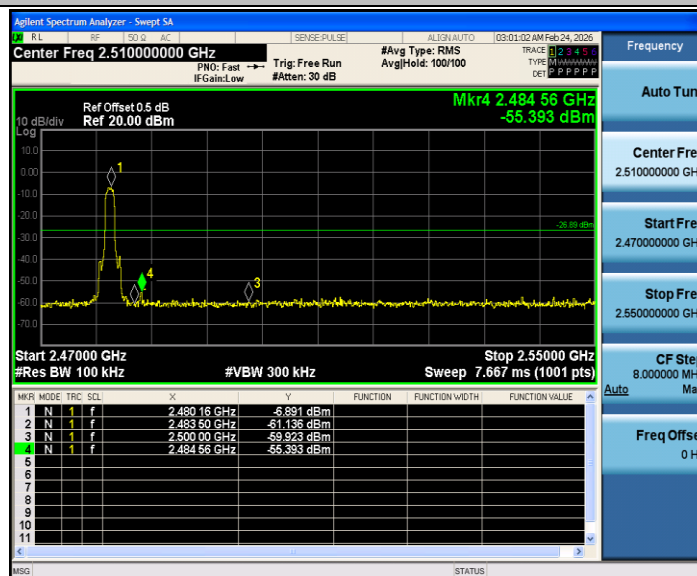
2DH5_Ant1_High_Hop_2480



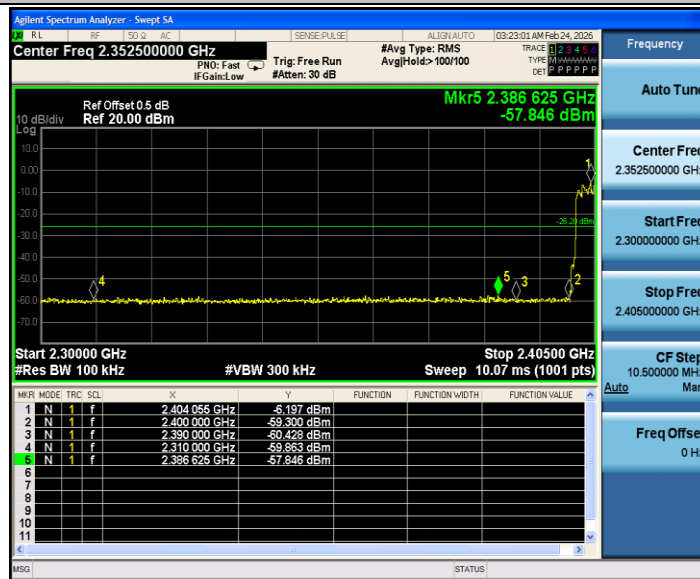
3DH5_Ant1_Low_2402



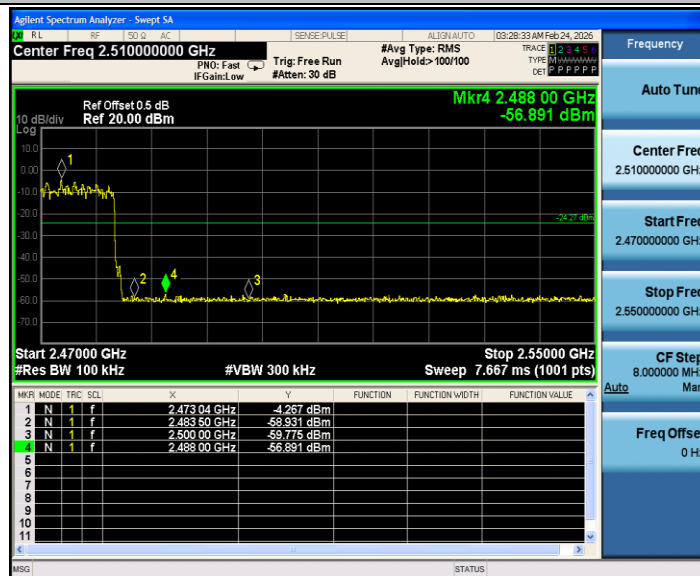
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

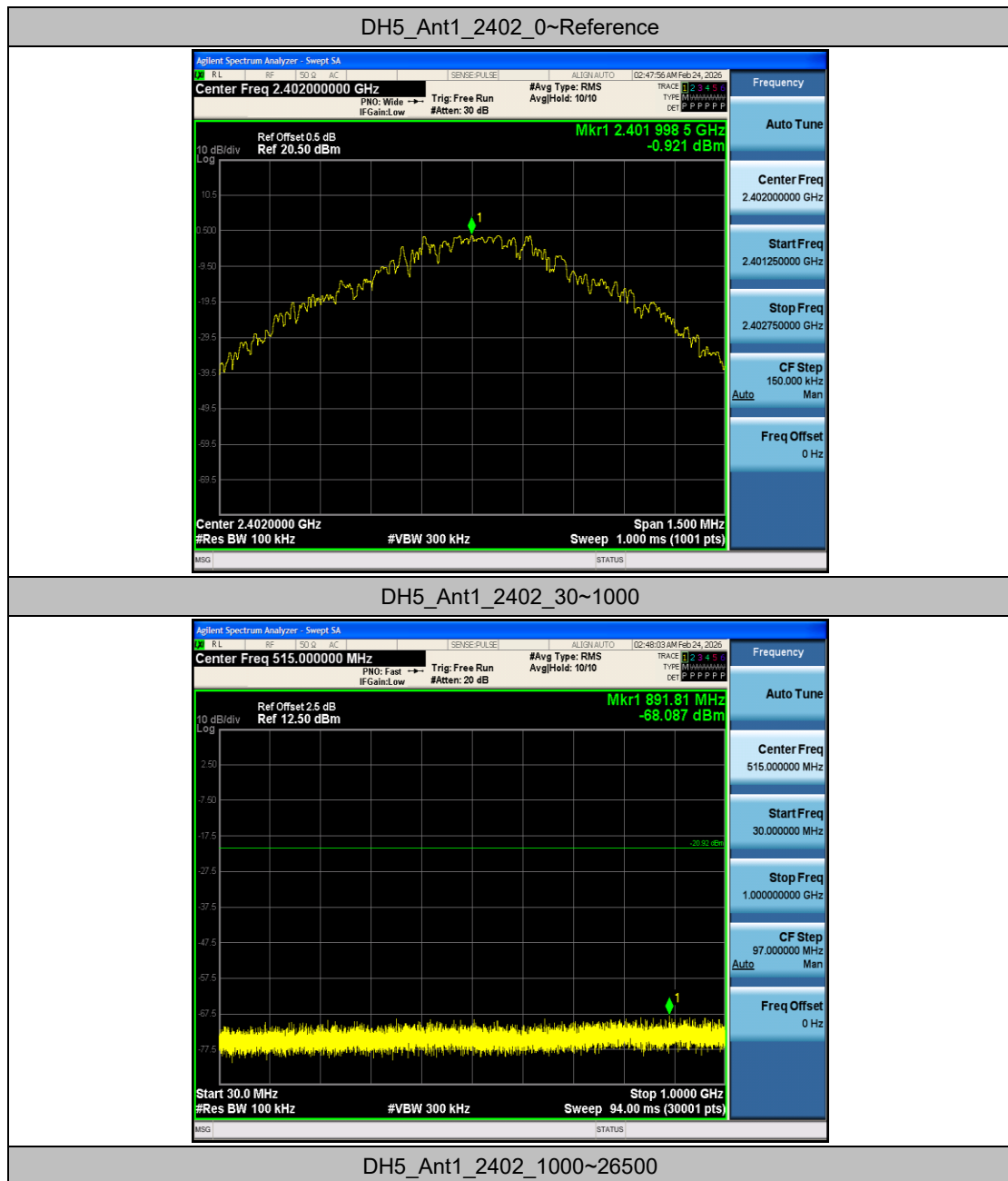


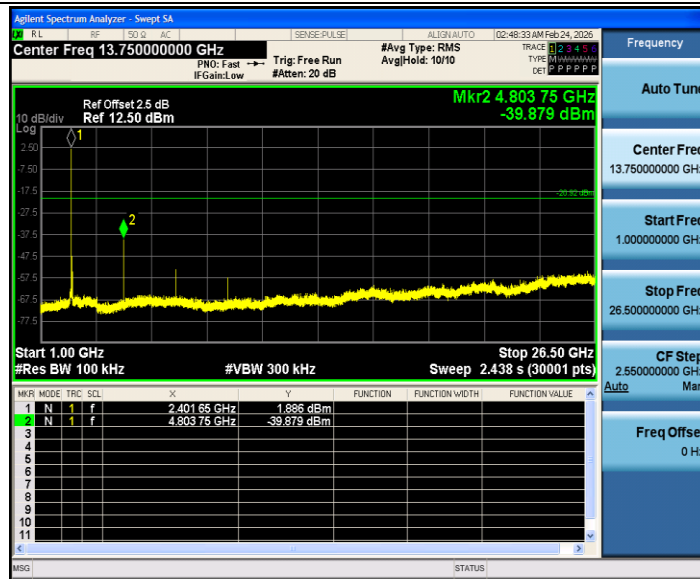
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.92	-0.92	---	PASS
			30~1000	-0.92	-68.09	≤-20.92	PASS
			1000~26500	-0.92	-39.88	≤-20.92	PASS
		2441	Reference	-1.53	-1.53	---	PASS
			30~1000	-1.53	-68.46	≤-21.53	PASS
			1000~26500	-1.53	-43.79	≤-21.53	PASS
		2480	Reference	-1.81	-1.81	---	PASS
			30~1000	-1.81	-67.11	≤-21.81	PASS
			1000~26500	-1.81	-44.43	≤-21.81	PASS
2DH5	Ant1	2402	Reference	-4.76	-4.76	---	PASS
			30~1000	-4.76	-67.2	≤-24.76	PASS
			1000~26500	-4.76	-49.26	≤-24.76	PASS
		2441	Reference	-5.55	-5.55	---	PASS
			30~1000	-5.55	-68.06	≤-25.55	PASS
			1000~26500	-5.55	-49.22	≤-25.55	PASS
		2480	Reference	-6.37	-6.37	---	PASS
			30~1000	-6.37	-67.62	≤-26.37	PASS
			1000~26500	-6.37	-49.35	≤-26.37	PASS
3DH5	Ant1	2402	Reference	-5.90	-5.90	---	PASS
			30~1000	-5.90	-68.02	≤-25.9	PASS
			1000~26500	-5.90	-48.75	≤-25.9	PASS
		2441	Reference	-4.64	-4.64	---	PASS
			30~1000	-4.64	-63.85	≤-24.64	PASS
			1000~26500	-4.64	-49.49	≤-24.64	PASS
		2480	Reference	-7.27	-7.27	---	PASS
			30~1000	-7.27	-66.59	≤-27.27	PASS
			1000~26500	-7.27	-49.94	≤-27.27	PASS

Test Graphs

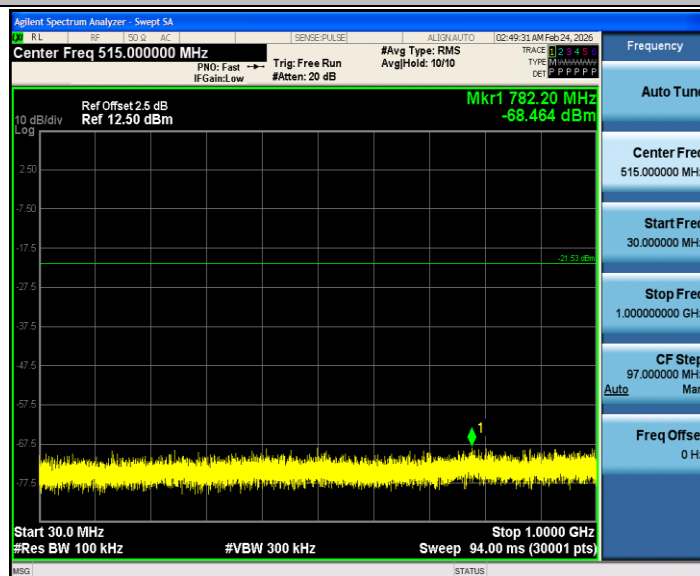




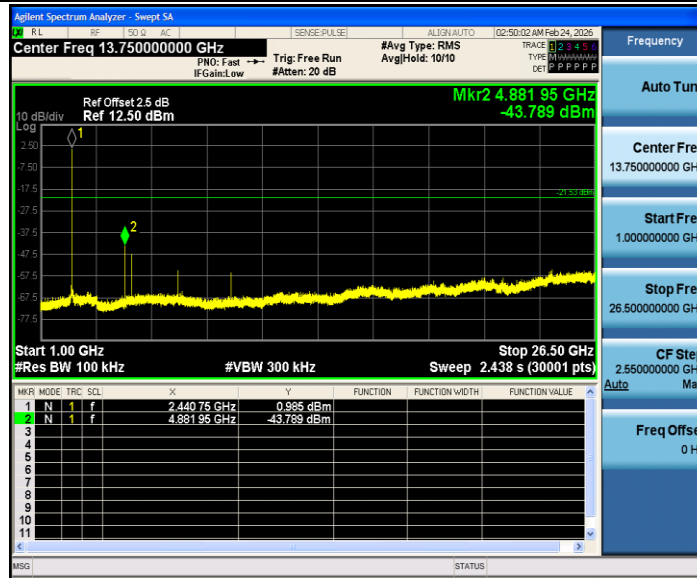
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000