

Appendix RF Test Data for BT

FCC ID : 2BR22-XTQ-A17B

Company : Shenzhen Xingtianquan Electronics Co., Ltd.

EUT : AI Translation Earphone

Model Number : XTQ-A17B

Report No. : CTA25082801501

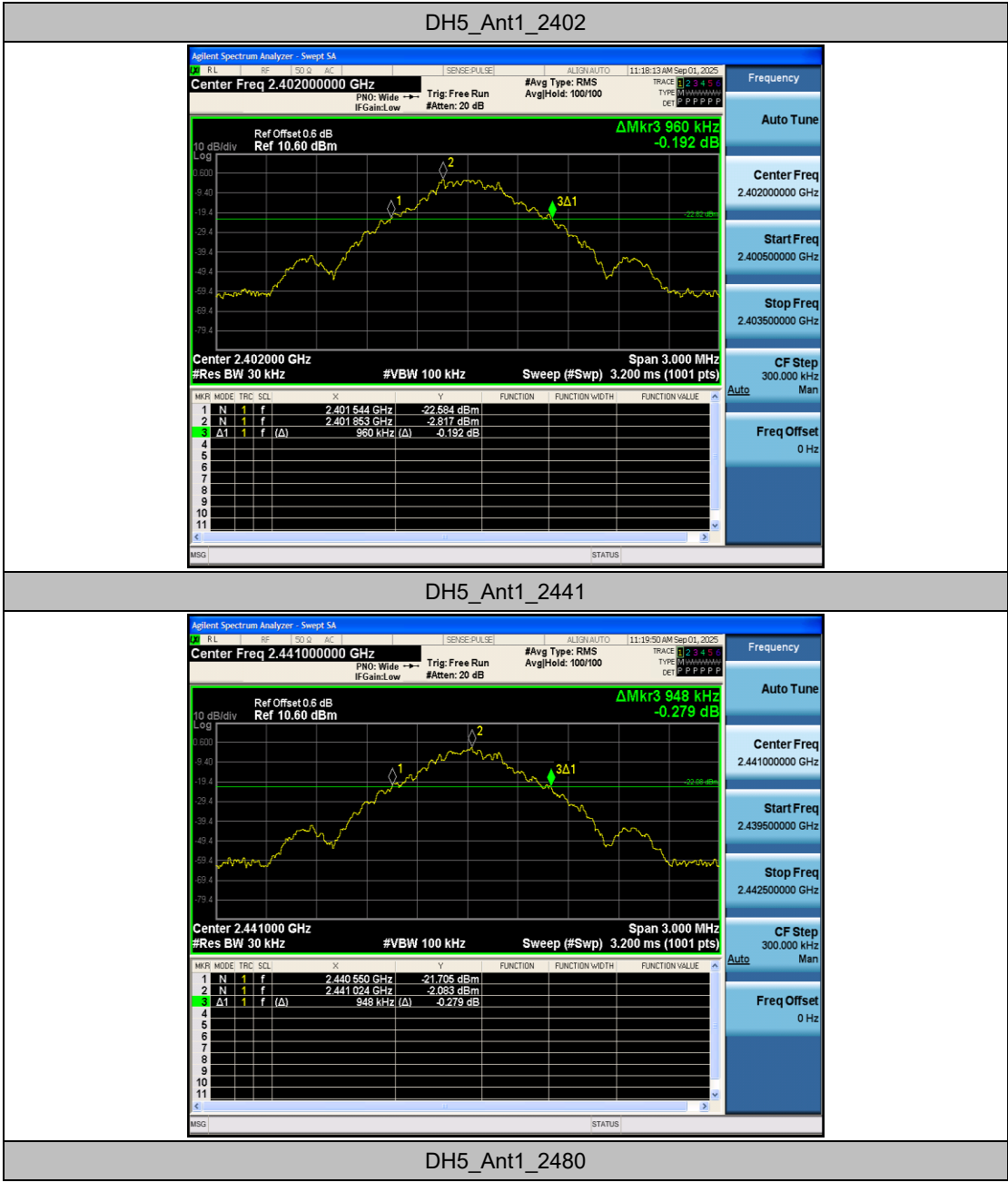
Reviewed By : Eric Wang

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	0.948	2440.550	2441.498	---	---
		2480	0.936	2479.553	2480.489	---	---
2DH5	Ant1	2402	1.275	2401.382	2402.657	---	---
		2441	1.281	2440.379	2441.660	---	---
		2480	1.281	2479.382	2480.663	---	---
3DH5	Ant1	2402	1.326	2401.343	2402.669	---	---
		2441	1.275	2440.379	2441.654	---	---
		2480	1.308	2479.361	2480.669	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

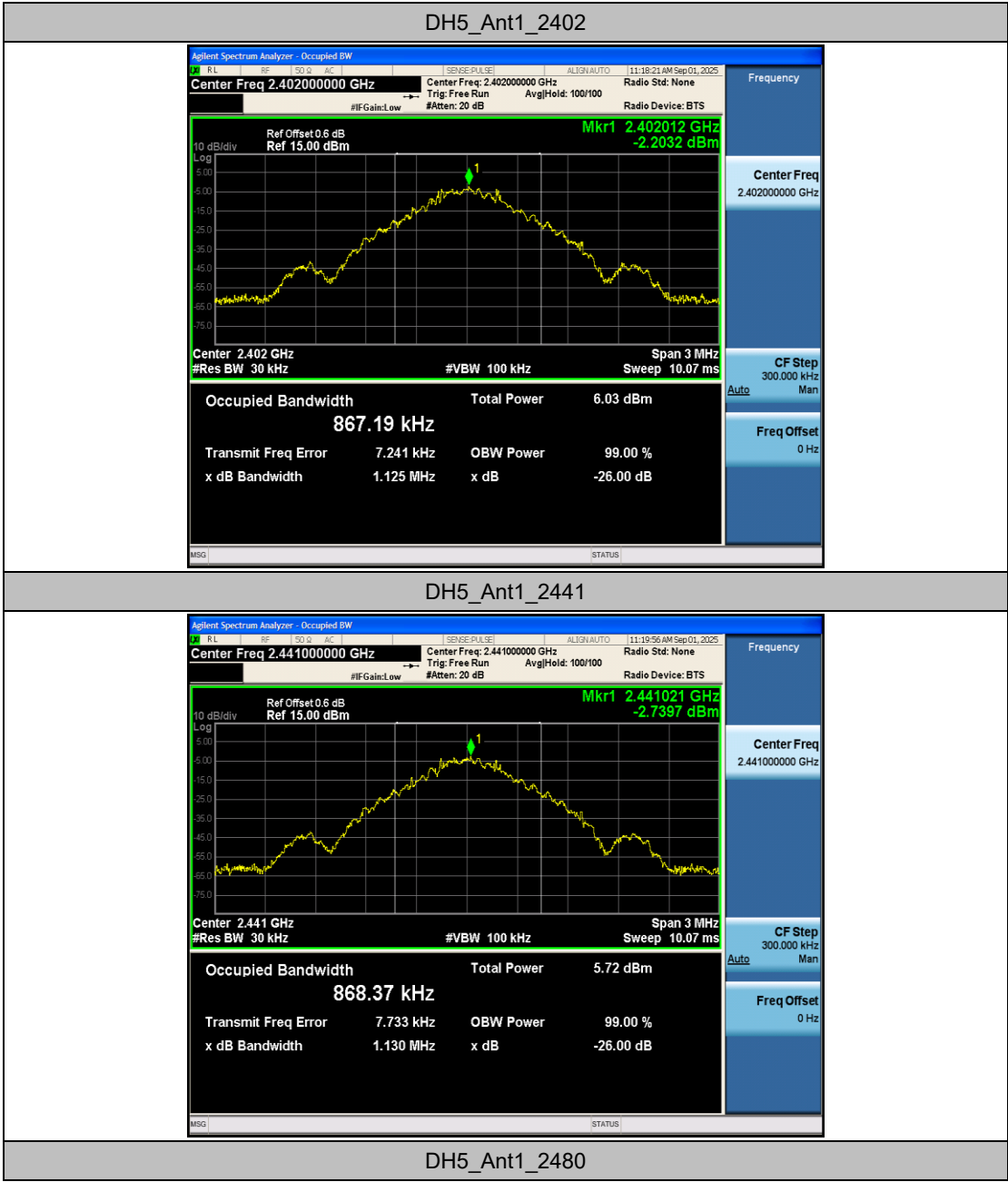


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86719	2401.5736	2402.4408	---	---
		2441	0.86837	2440.5735	2441.4419	---	---
		2480	0.87168	2479.5709	2480.4426	---	---
2DH5	Ant1	2402	1.1936	2401.4143	2402.6079	---	---
		2441	1.1854	2440.4162	2441.6016	---	---
		2480	1.1821	2479.4173	2480.5994	---	---
3DH5	Ant1	2402	1.1904	2401.4139	2402.6043	---	---
		2441	1.1866	2440.4150	2441.6016	---	---
		2480	1.1909	2479.4143	2480.6052	---	---

Test Graphs

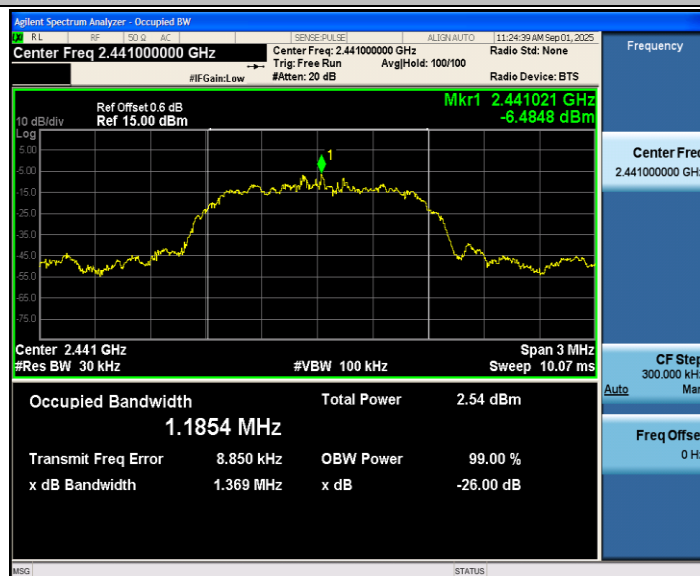




2DH5_Ant1_2402



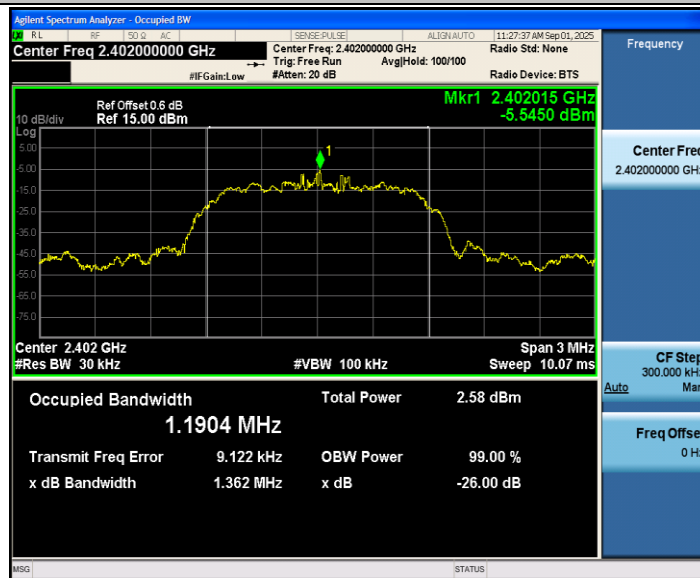
2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

Left:

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.03	≤20.97	PASS
		2441	-0.18	≤20.97	PASS
		2480	-0.24	≤20.97	PASS
2DH5	Ant1	2402	-0.79	≤20.97	PASS
		2441	-0.96	≤20.97	PASS
		2480	-1.00	≤20.97	PASS
3DH5	Ant1	2402	-0.78	≤20.97	PASS
		2441	-0.95	≤20.97	PASS
		2480	-1.01	≤20.97	PASS

Right:

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.15	≤20.97	PASS
		2441	-0.29	≤20.97	PASS
		2480	-0.37	≤20.97	PASS
2DH5	Ant1	2402	-0.54	≤20.97	PASS
		2441	-0.87	≤20.97	PASS
		2480	-1.16	≤20.97	PASS
3DH5	Ant1	2402	-0.92	≤20.97	PASS
		2441	-0.49	≤20.97	PASS
		2480	-1.39	≤20.97	PASS

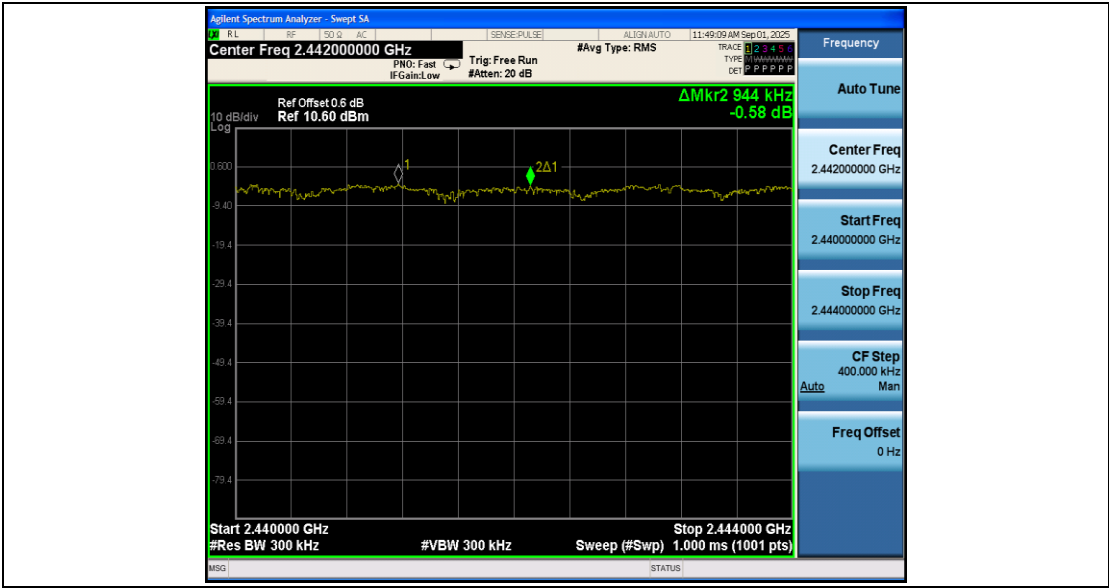
Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.16	≥ 0.960	PASS
2DH5	Ant1	Hop	1.152	≥ 0.854	PASS
3DH5	Ant1	Hop	0.944	≥ 0.884	PASS

Test Graphs



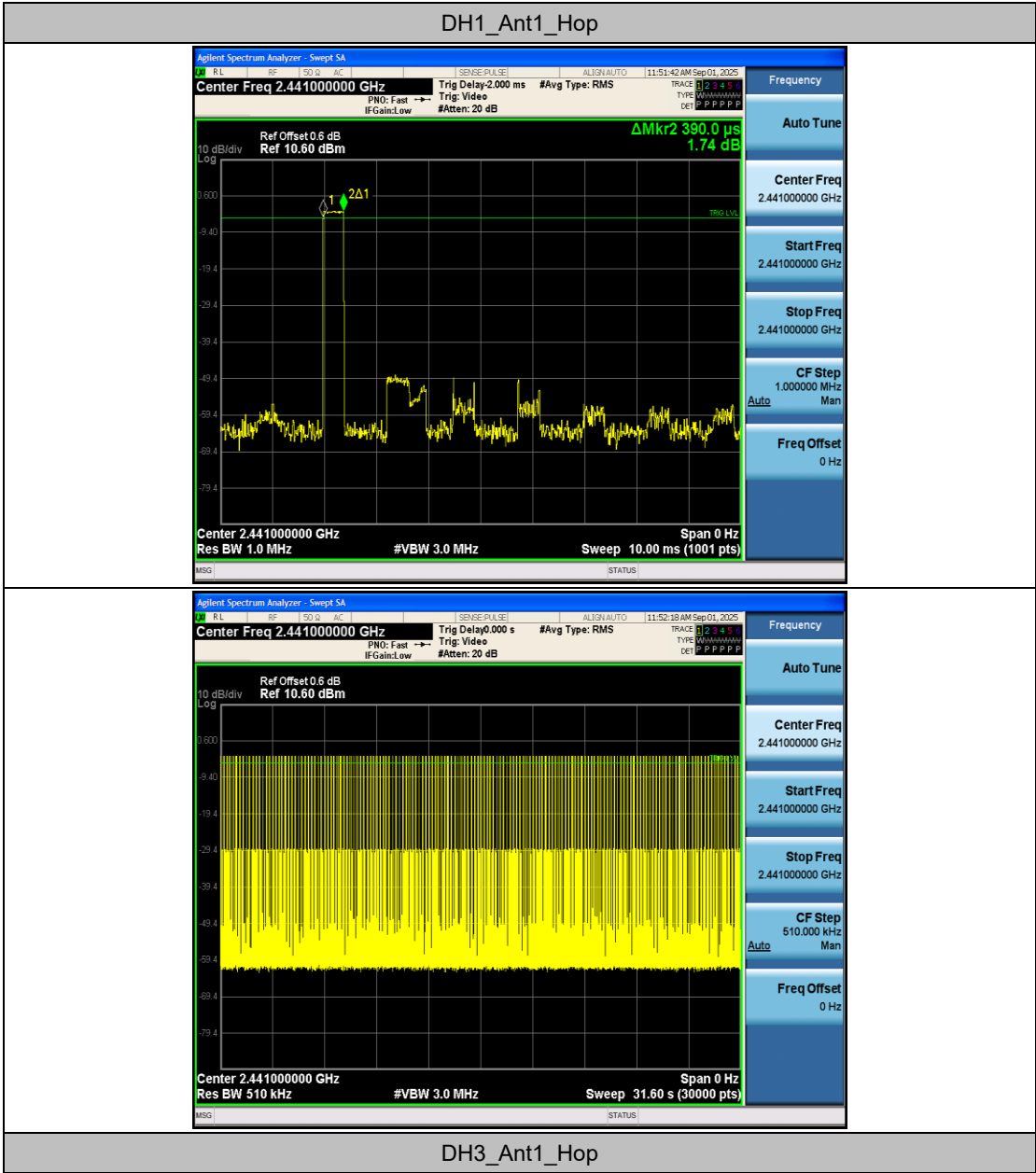


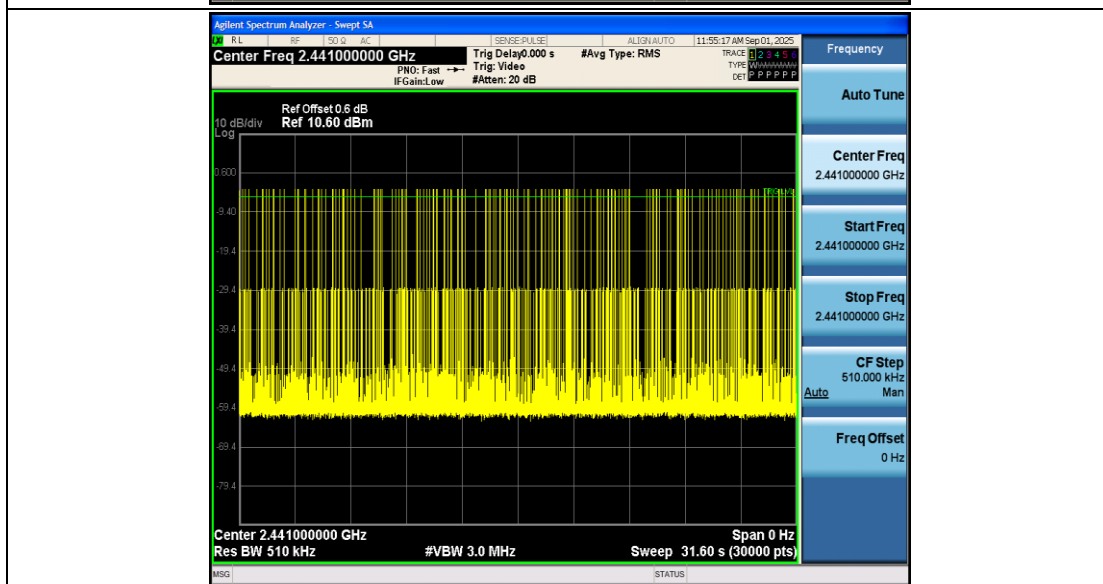
Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.390	319	0.124	≤0.4	PASS
DH3	Ant1	Hop	1.650	162	0.267	≤0.4	PASS
DH5	Ant1	Hop	2.890	105	0.303	≤0.4	PASS
2DH1	Ant1	Hop	0.390	317	0.124	≤0.4	PASS
2DH3	Ant1	Hop	1.650	161	0.266	≤0.4	PASS
2DH5	Ant1	Hop	2.900	105	0.305	≤0.4	PASS
3DH1	Ant1	Hop	0.390	316	0.123	≤0.4	PASS
3DH3	Ant1	Hop	1.640	149	0.244	≤0.4	PASS
3DH5	Ant1	Hop	2.900	114	0.331	≤0.4	PASS

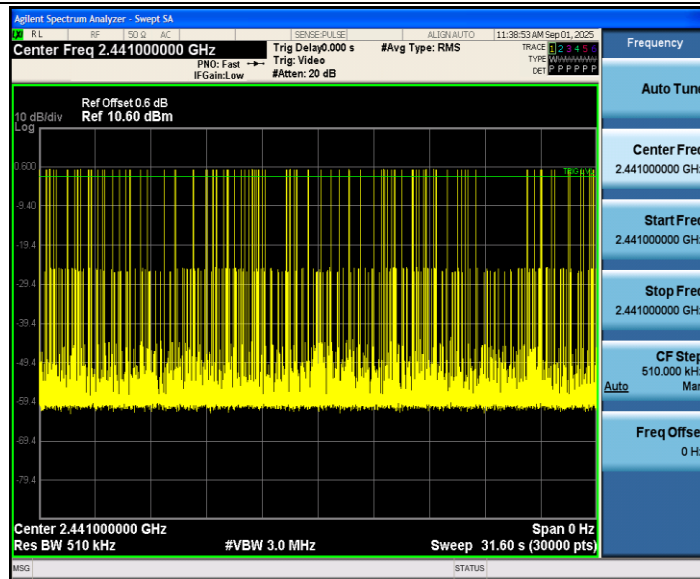
Test Graphs



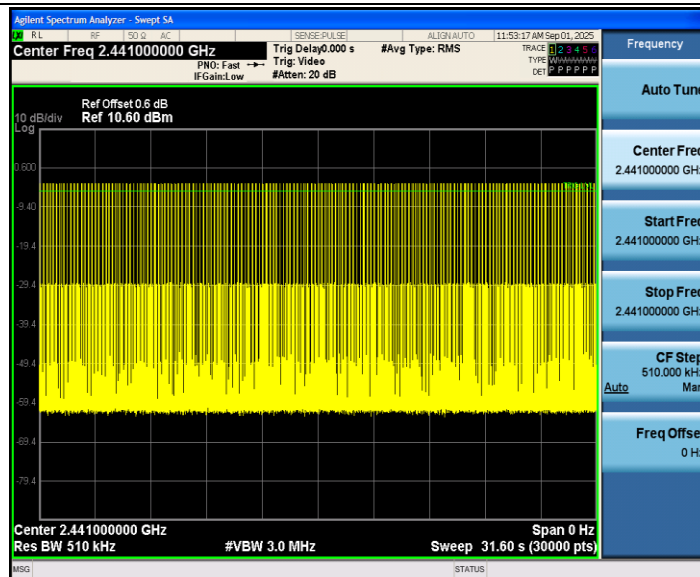
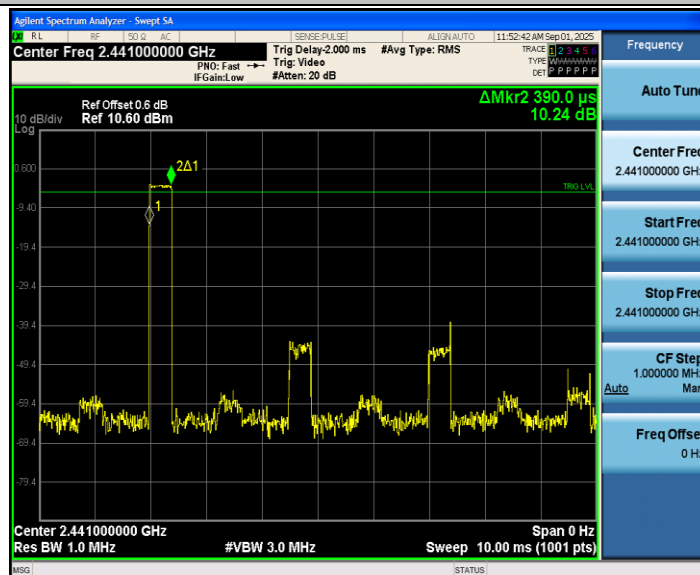


DH5_Ant1_Hop

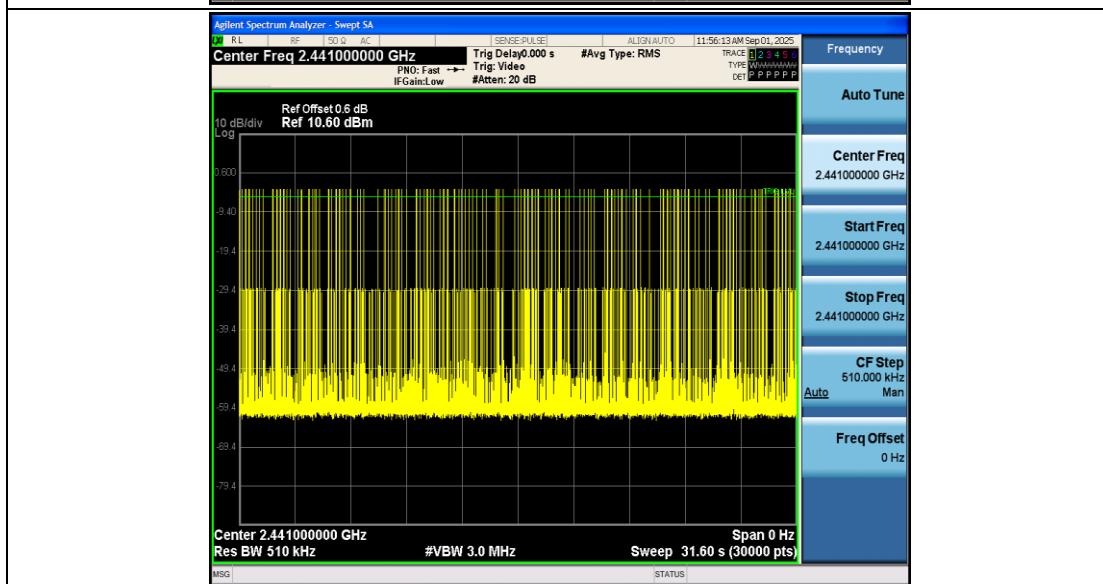




2DH1_Ant1_Hop

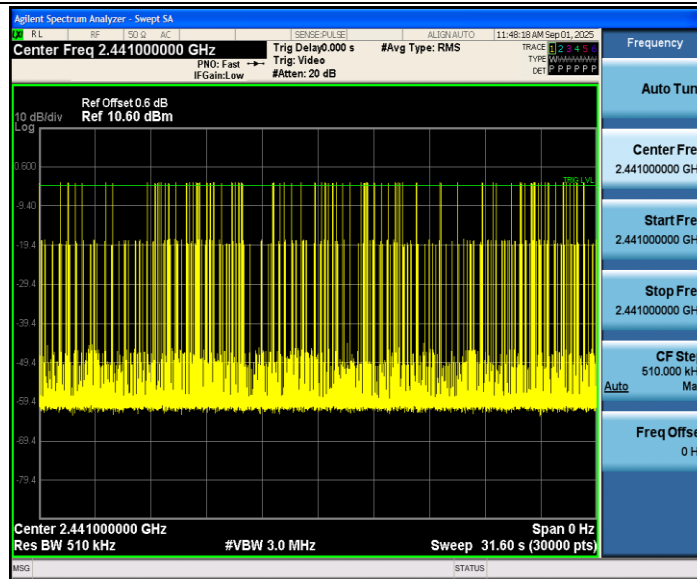


2DH3_Ant1_Hop

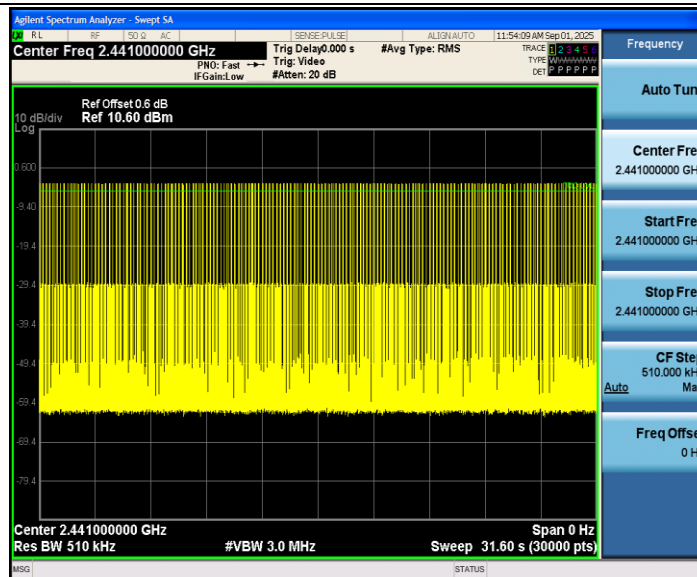
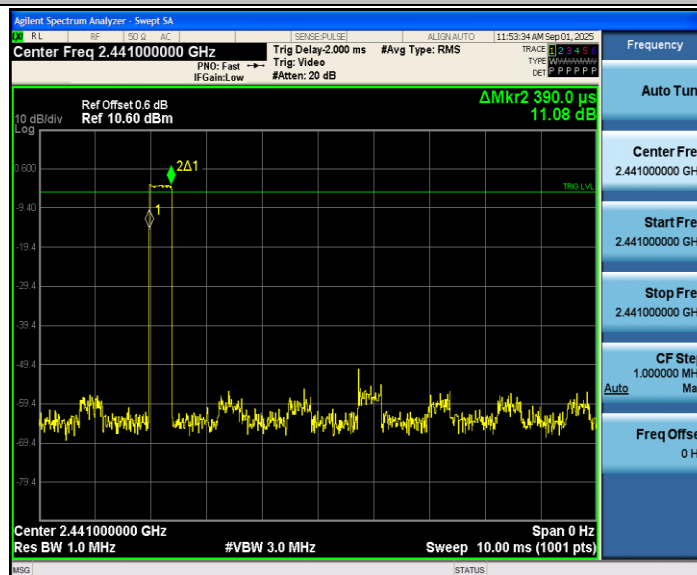


2DH5_Ant1_Hop

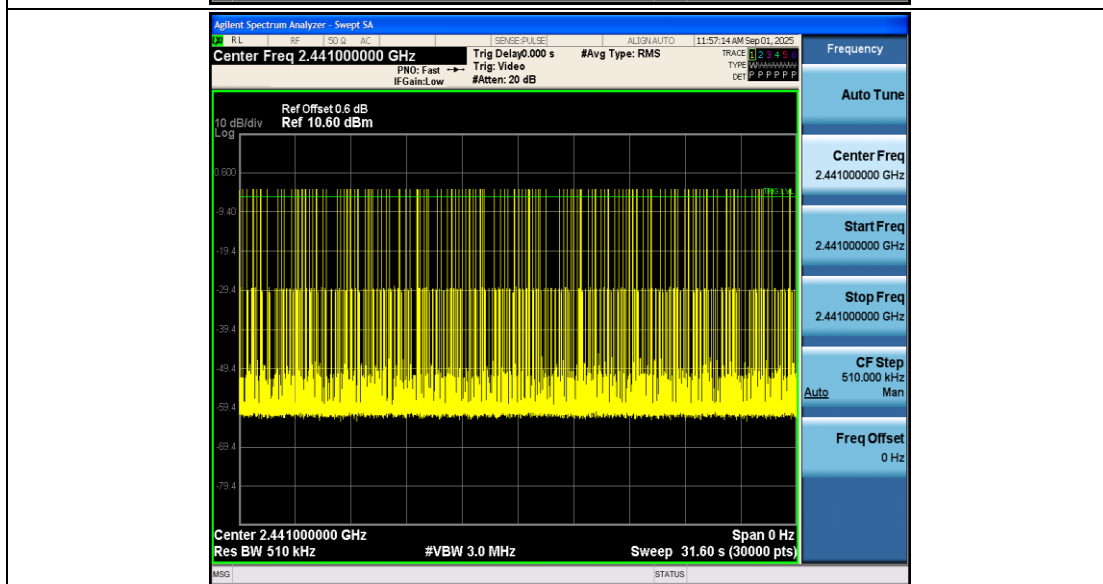




3DH1_Ant1_Hop

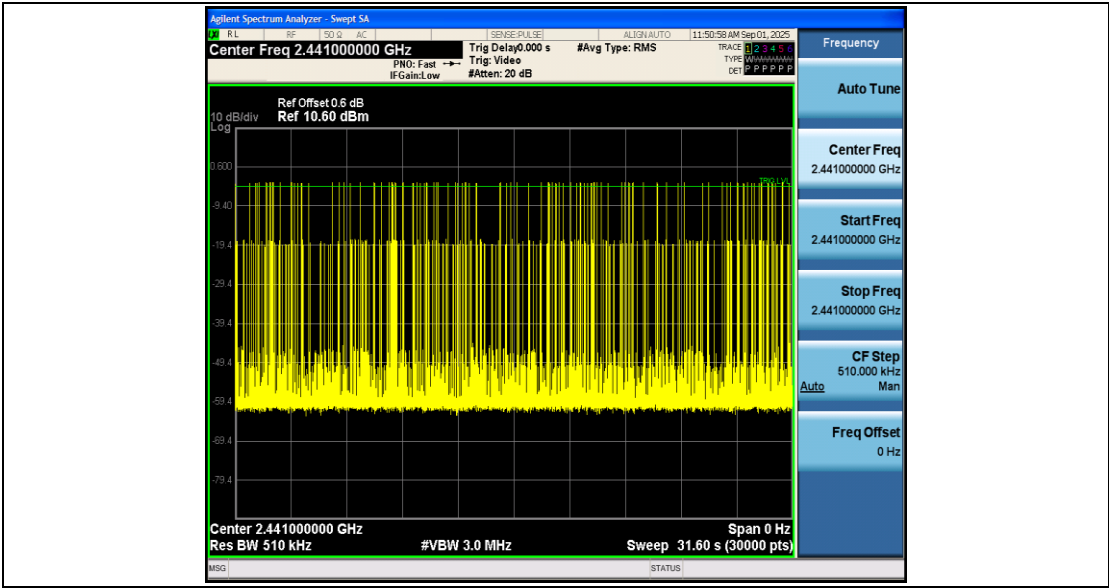


3DH3_Ant1_Hop



3DH5_Ant1_Hop





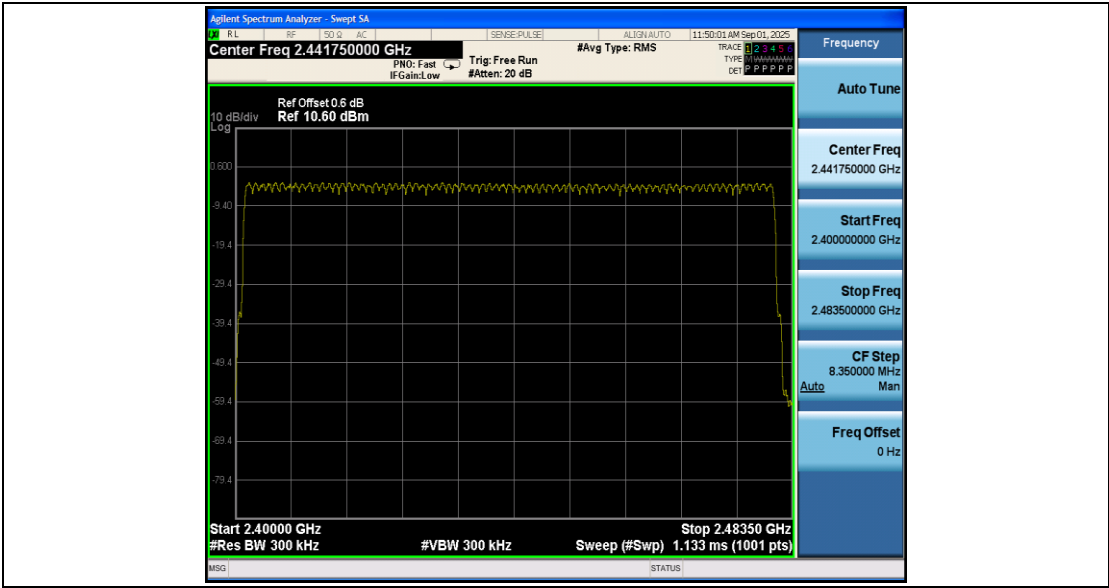
Appendix F: Number of hopping channels

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



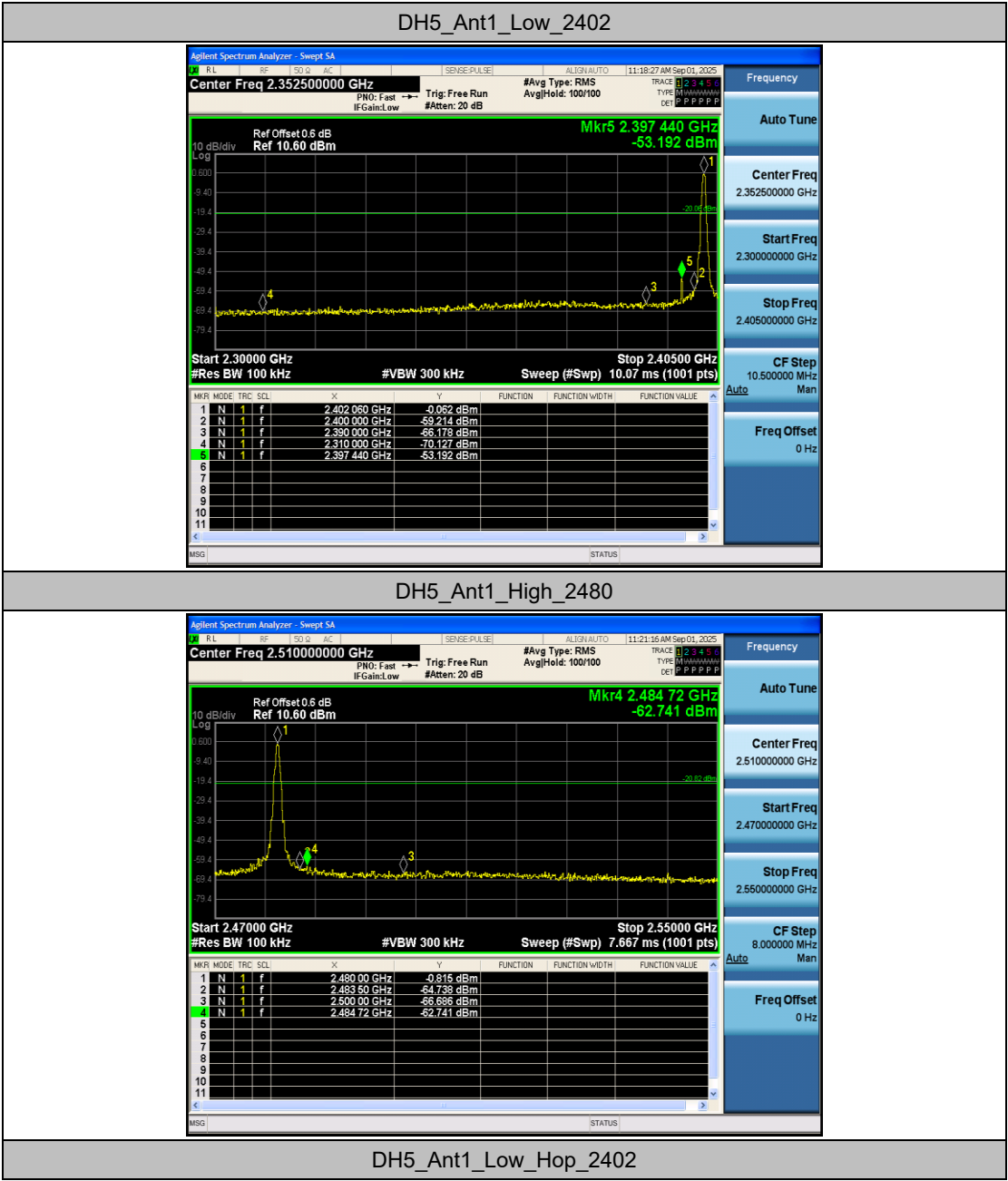


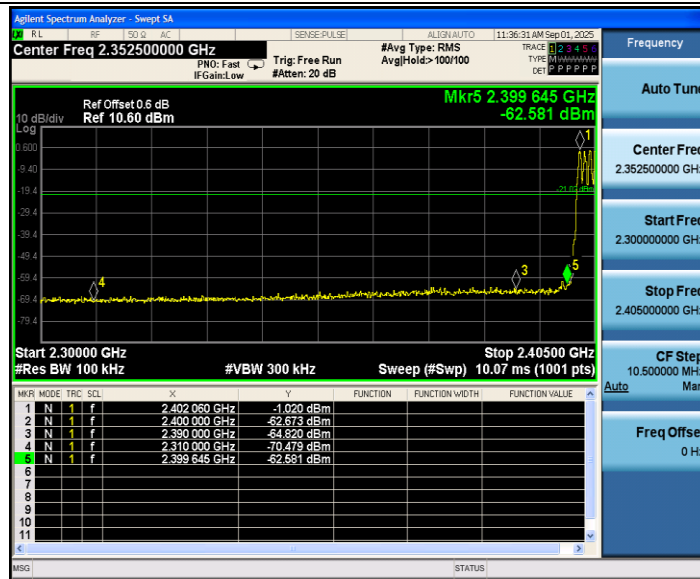
Appendix G: Band edge measurements

Test Result

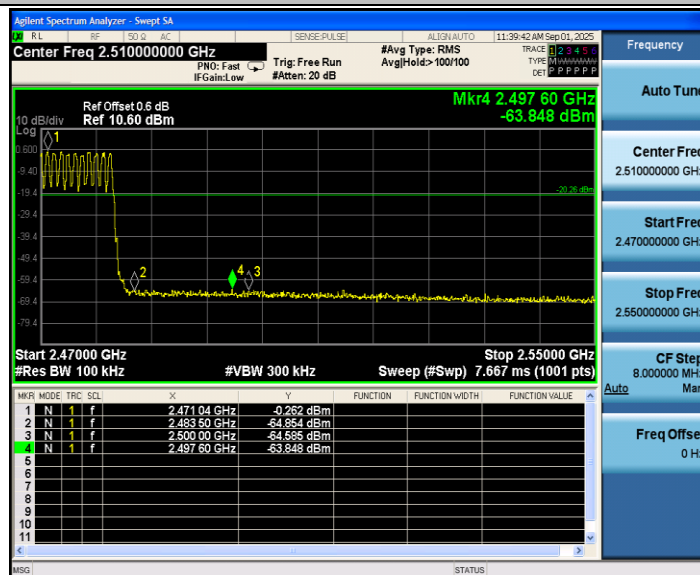
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.06	-53.19	≤-20.06	PASS
		High	2480	-0.82	-62.74	≤-20.82	PASS
		Low	Hop_2402	-1.02	-62.58	≤-21.02	PASS
		High	Hop_2480	-0.26	-63.85	≤-20.26	PASS
2DH5	Ant1	Low	2402	-5.12	-60.51	≤-25.12	PASS
		High	2480	-3.61	-63.65	≤-23.61	PASS
		Low	Hop_2402	-3.50	-62.06	≤-23.5	PASS
		High	Hop_2480	-5.00	-63.55	≤-25	PASS
3DH5	Ant1	Low	2402	-4.71	-60.17	≤-24.71	PASS
		High	2480	-5.61	-61.49	≤-25.61	PASS
		Low	Hop_2402	-5.61	-63.1	≤-25.61	PASS
		High	Hop_2480	-4.43	-64.51	≤-24.43	PASS

Test Graphs

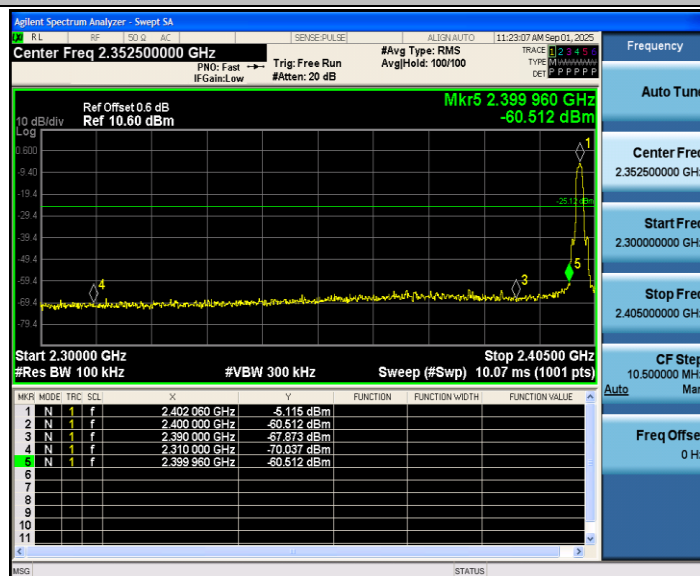




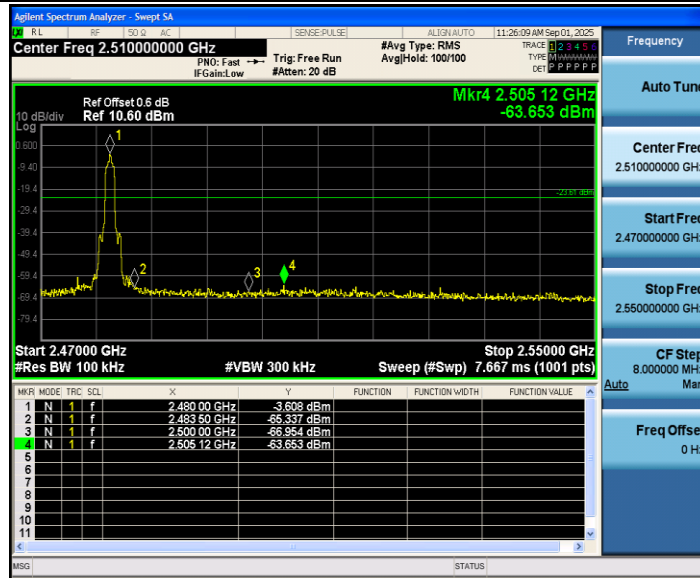
DH5_Ant1_High_Hop_2480



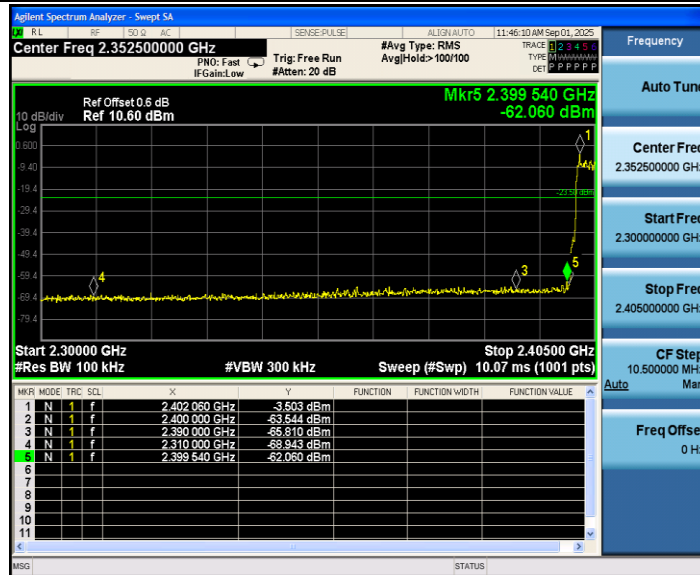
2DH5_Ant1_Low_2402



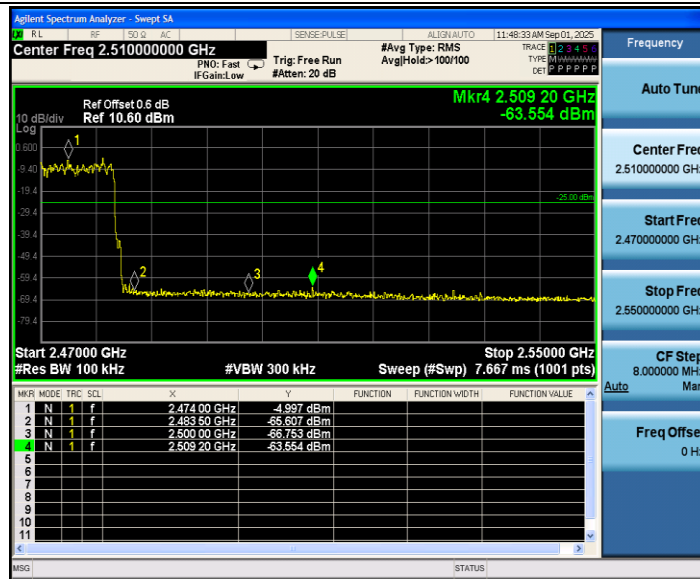
2DH5_Ant1_High_2480



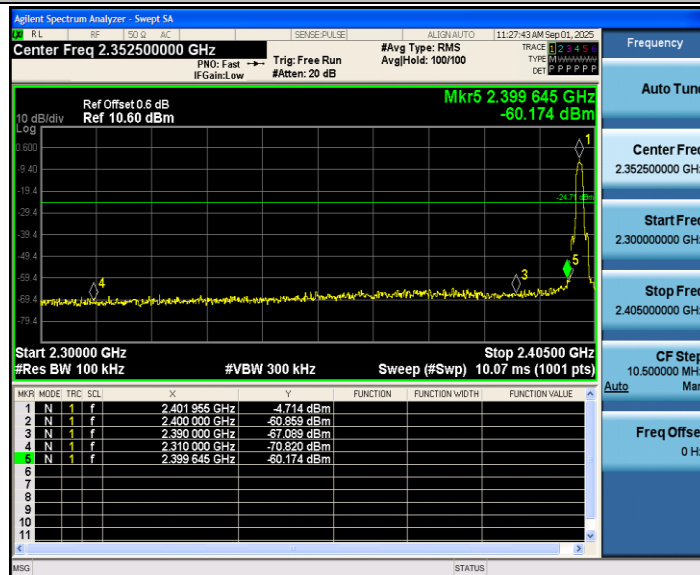
2DH5_Ant1_Low_Hop_2402



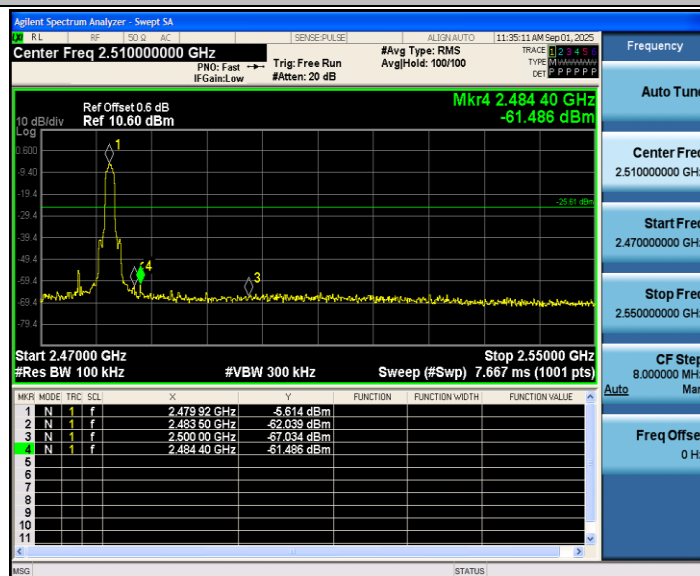
2DH5_Ant1_High_Hop_2480



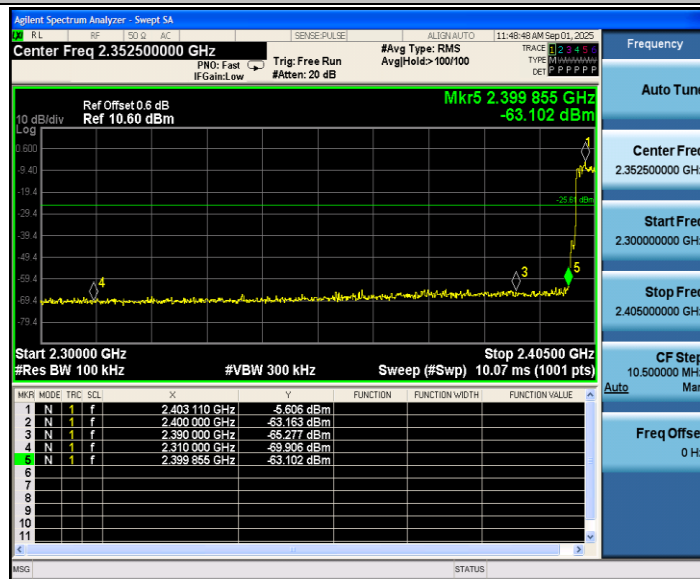
3DH5_Ant1_Low_2402



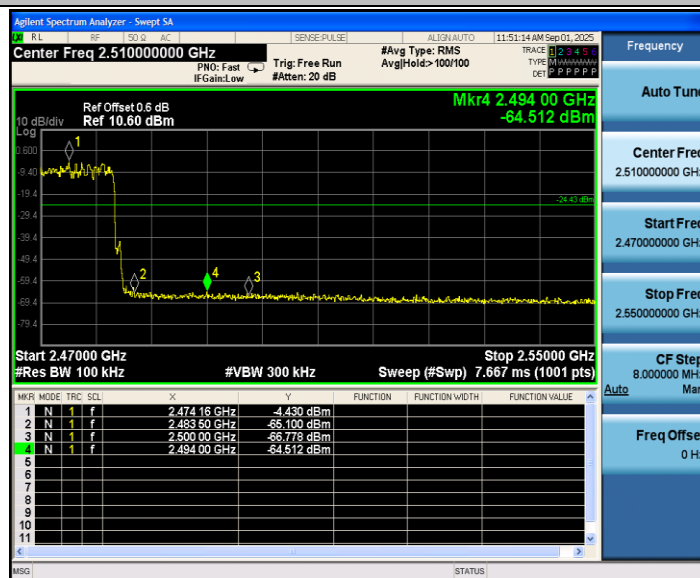
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

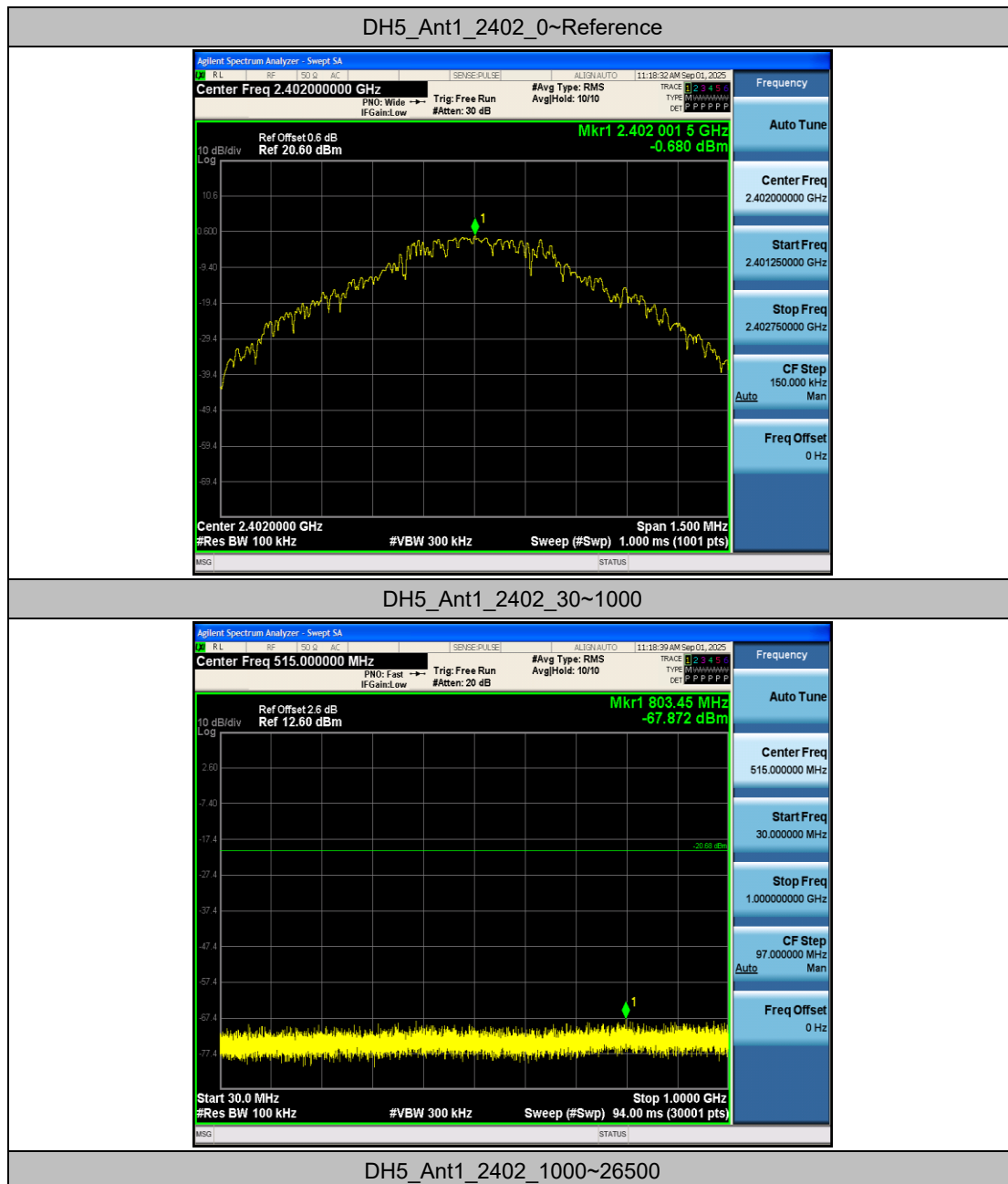


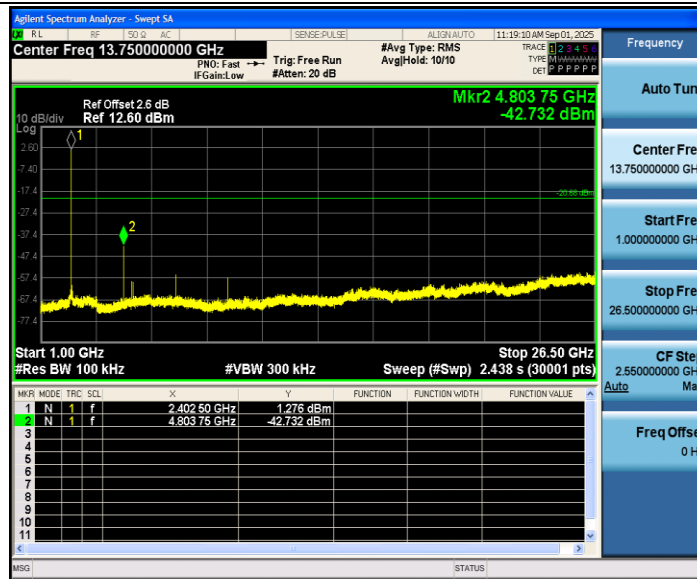
Appendix H: Conducted Spurious Emission

Test Result

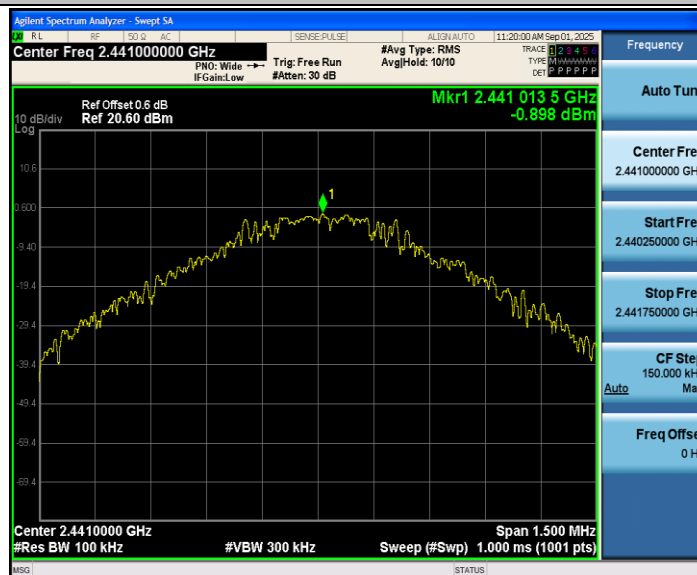
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.68	-0.68	---	PASS
			30~1000	-0.68	-67.87	≤-20.68	PASS
			1000~26500	-0.68	-42.73	≤-20.68	PASS
		2441	Reference	-0.90	-0.90	---	PASS
			30~1000	-0.90	-66.65	≤-20.9	PASS
			1000~26500	-0.90	-41.91	≤-20.9	PASS
		2480	Reference	-0.86	-0.86	---	PASS
			30~1000	-0.86	-67.61	≤-20.86	PASS
			1000~26500	-0.86	-43.34	≤-20.86	PASS
2DH5	Ant1	2402	Reference	-5.55	-5.55	---	PASS
			30~1000	-5.55	-67.74	≤-25.55	PASS
			1000~26500	-5.55	-48.47	≤-25.55	PASS
		2441	Reference	-5.32	-5.32	---	PASS
			30~1000	-5.32	-67.19	≤-25.32	PASS
			1000~26500	-5.32	-45.67	≤-25.32	PASS
		2480	Reference	-5.00	-5.00	---	PASS
			30~1000	-5.00	-67.79	≤-25	PASS
			1000~26500	-5.00	-49.45	≤-25	PASS
3DH5	Ant1	2402	Reference	-4.13	-4.13	---	PASS
			30~1000	-4.13	-67.52	≤-24.13	PASS
			1000~26500	-4.13	-48.41	≤-24.13	PASS
		2441	Reference	-5.57	-5.57	---	PASS
			30~1000	-5.57	-67.5	≤-25.57	PASS
			1000~26500	-5.57	-46.1	≤-25.57	PASS
		2480	Reference	-4.52	-4.52	---	PASS
			30~1000	-4.52	-67.42	≤-24.52	PASS
			1000~26500	-4.52	-48.63	≤-24.52	PASS

Test Graphs

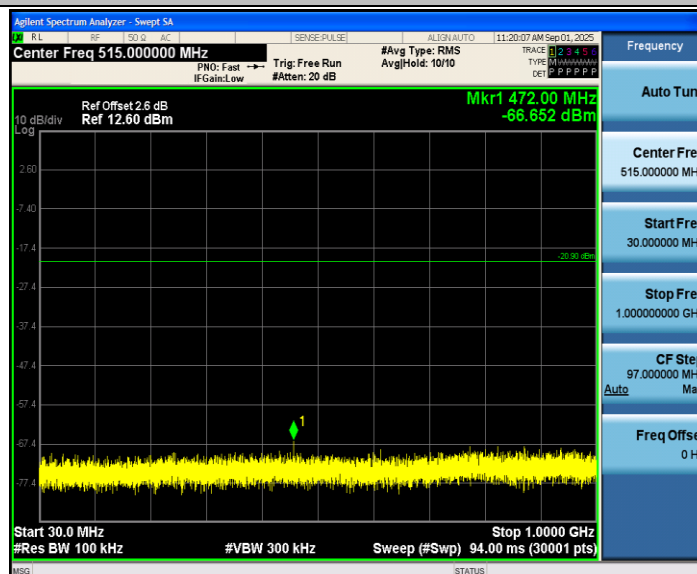




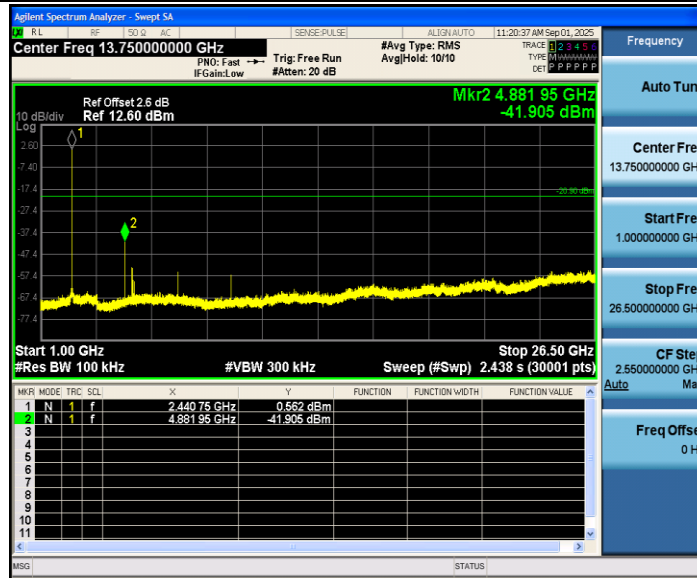
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



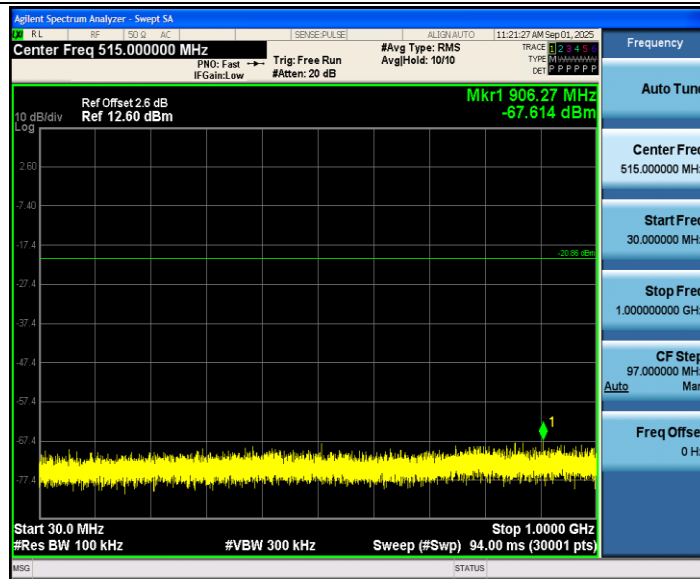
DH5_Ant1_2441_1000~26500



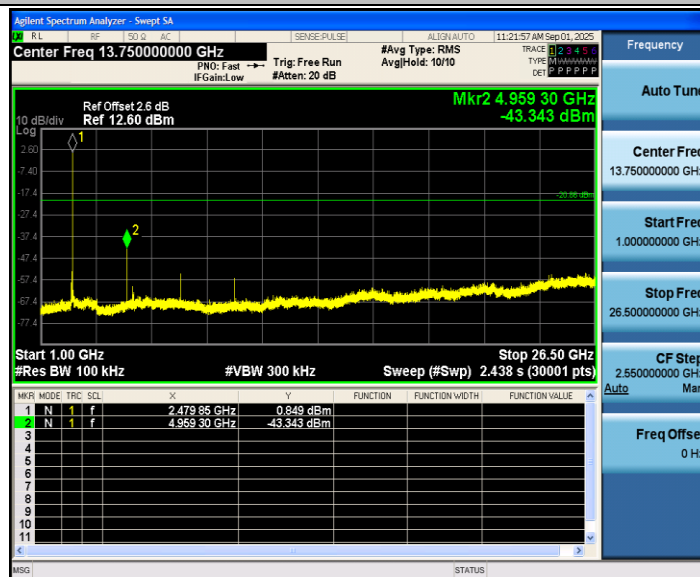
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference

