

FCC Appendix RF Test Data

FCC ID : 2BN8K-8510T

Company : Shanghai Yuanjie Electronic Equipment Co., Ltd.

EUT : Tour Guide System

Model Number : 8510T

Report No. : CTA25062500801

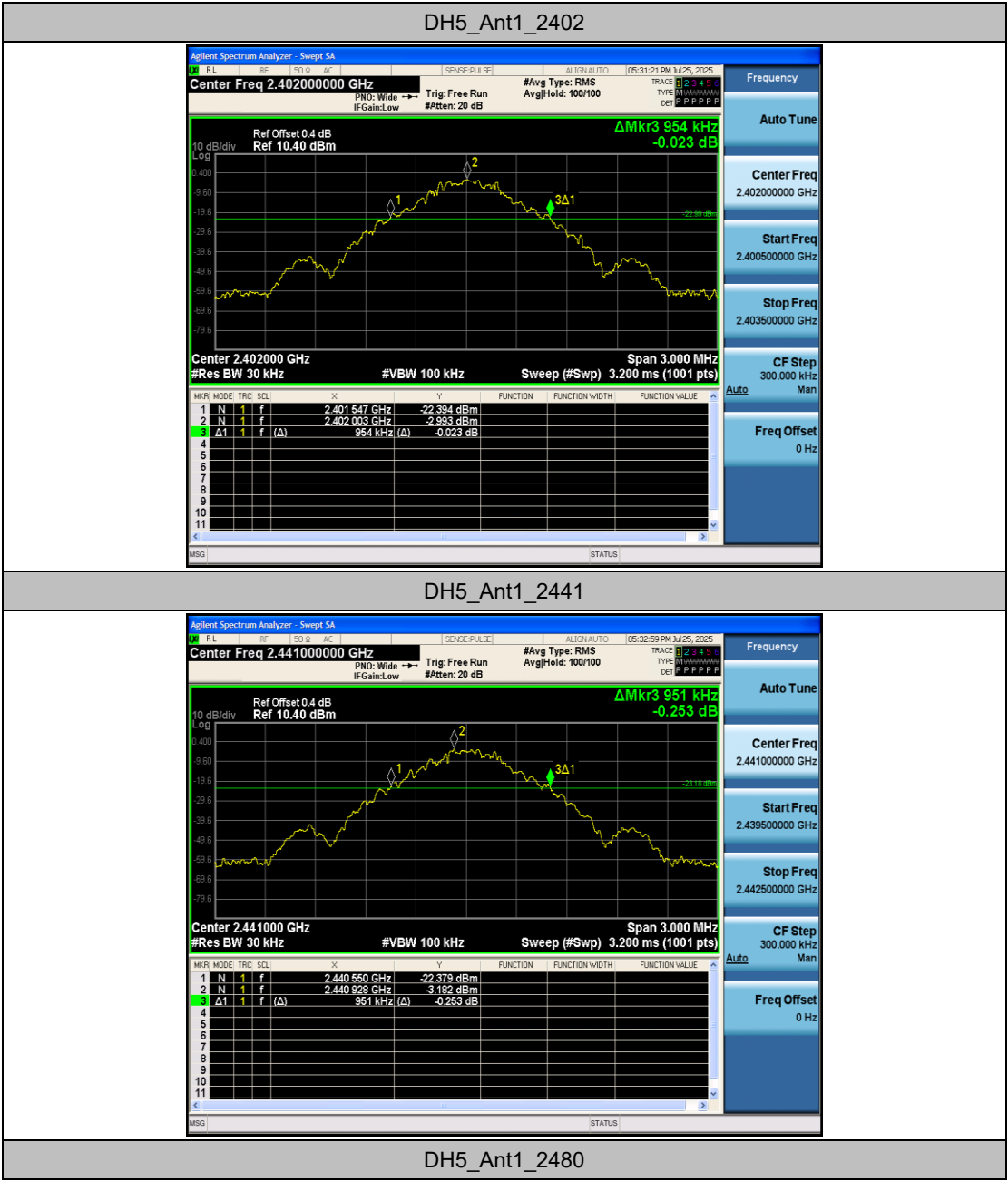
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.954	2401.547	2402.501	---	---
		2441	0.951	2440.550	2441.501	---	---
		2480	0.936	2479.553	2480.489	---	---
2DH5	Ant1	2402	1.317	2401.349	2402.666	---	---
		2441	1.281	2440.379	2441.660	---	---
		2480	1.317	2479.349	2480.666	---	---
3DH5	Ant1	2402	1.296	2401.361	2402.657	---	---
		2441	1.290	2440.361	2441.651	---	---
		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

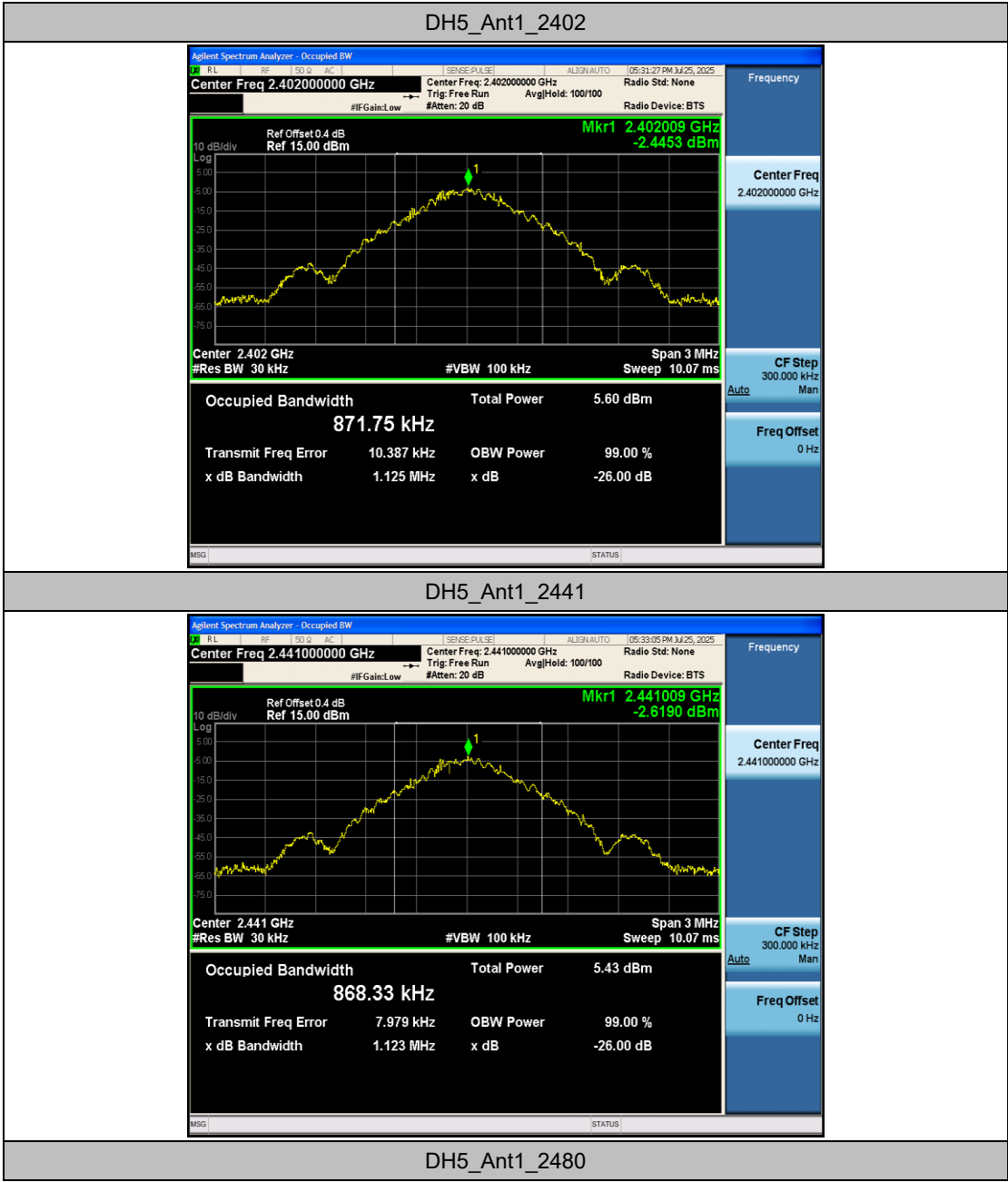


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.87175	2401.5745	2402.4463	---	---
		2441	0.86833	2440.5738	2441.4421	---	---
		2480	0.86579	2479.5767	2480.4425	---	---
2DH5	Ant1	2402	1.1929	2401.4139	2402.6068	---	---
		2441	1.1896	2440.4150	2441.6046	---	---
		2480	1.1896	2479.4155	2480.6051	---	---
3DH5	Ant1	2402	1.1911	2401.4123	2402.6034	---	---
		2441	1.1841	2440.4196	2441.6037	---	---
		2480	1.1816	2479.4212	2480.6028	---	---

Test Graphs

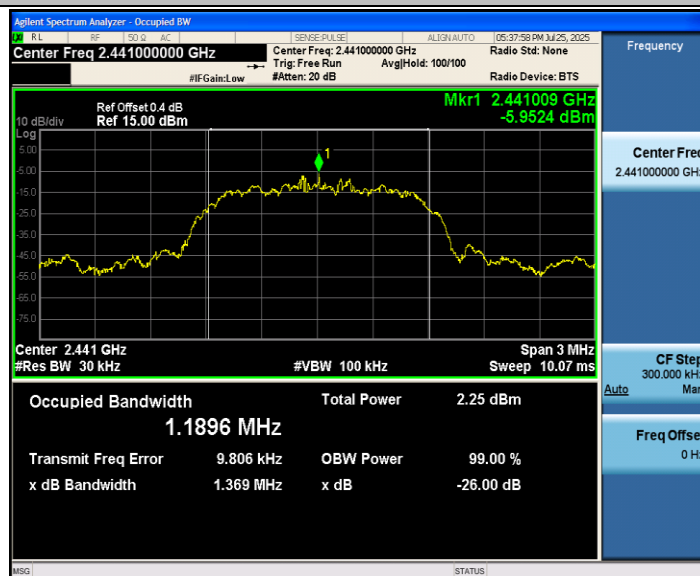




2DH5_Ant1_2402



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	-0.24	≤20.97	PASS
		2441	-0.42	≤20.97	PASS
		2480	-0.47	≤20.97	PASS
2DH5	Ant1	2402	-1.06	≤20.97	PASS
		2441	-1.30	≤20.97	PASS
		2480	-1.27	≤20.97	PASS
3DH5	Ant1	2402	-0.67	≤20.97	PASS
		2441	-0.86	≤20.97	PASS
		2480	-0.89	≤20.97	PASS

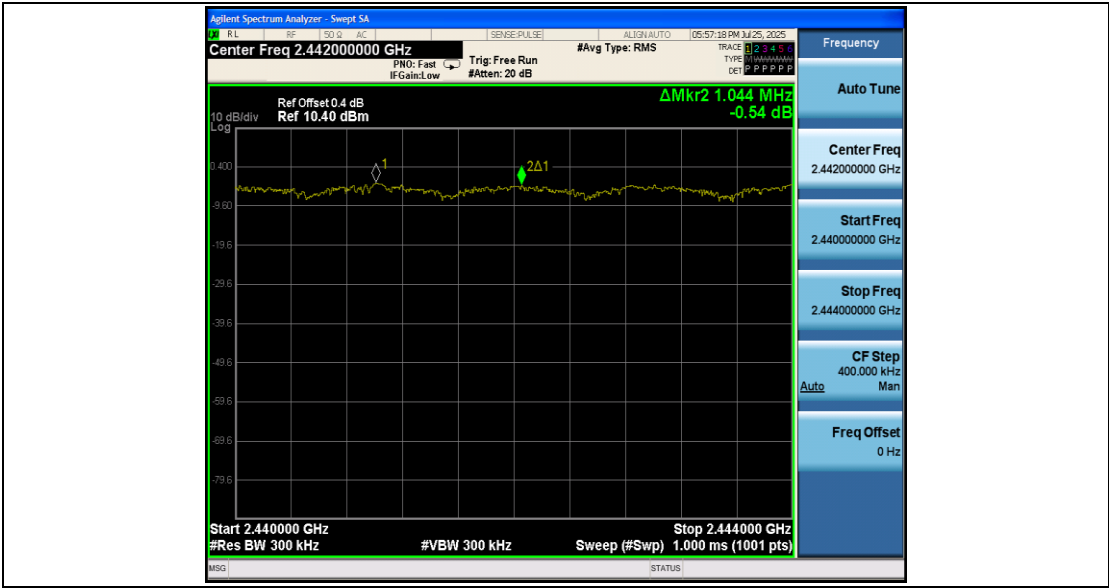
Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.036	≥ 0.954	PASS
2DH5	Ant1	Hop	0.996	≥ 0.878	PASS
3DH5	Ant1	Hop	1.044	≥ 0.872	PASS

Test Graphs



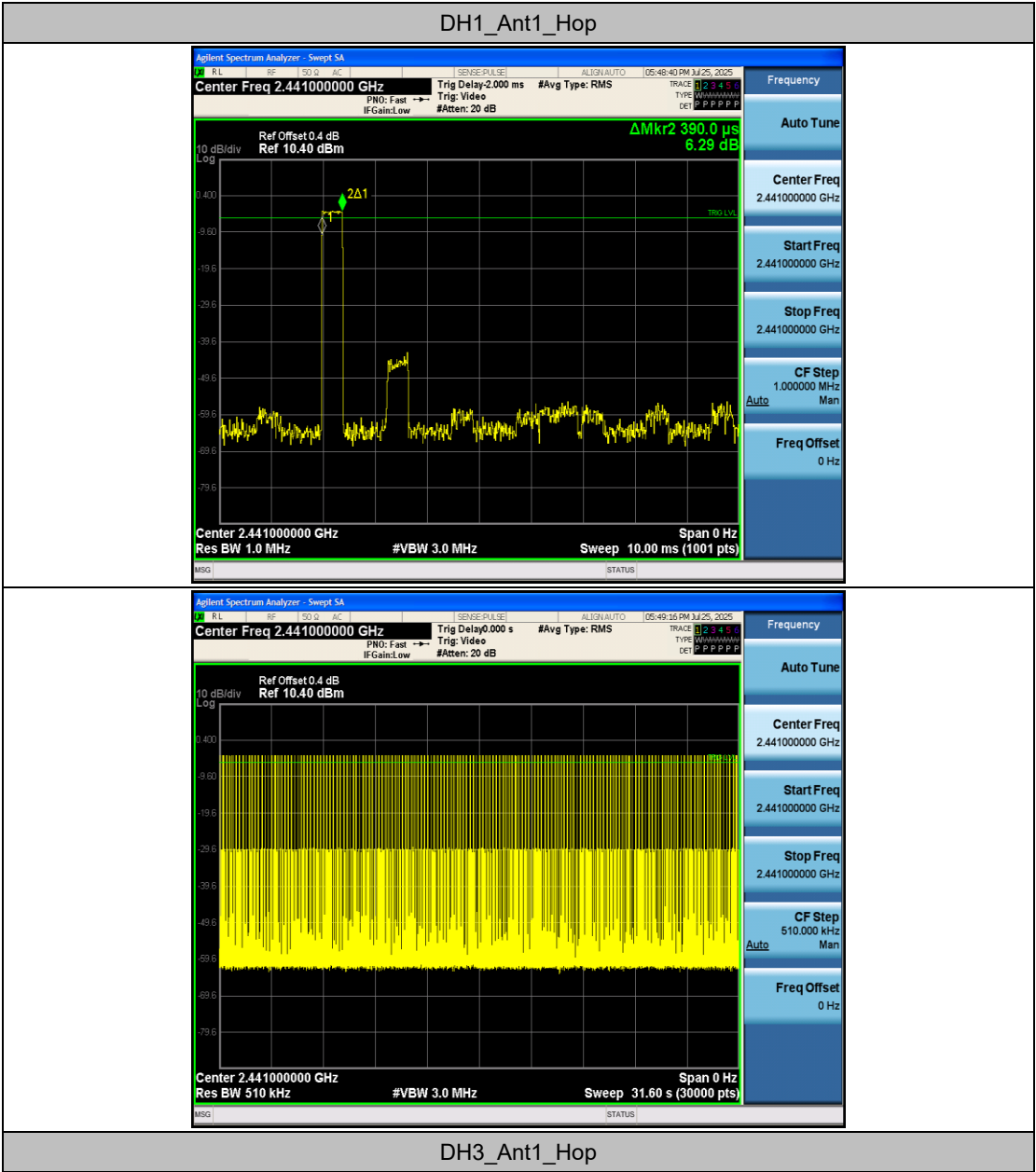


Appendix E: Time of occupancy

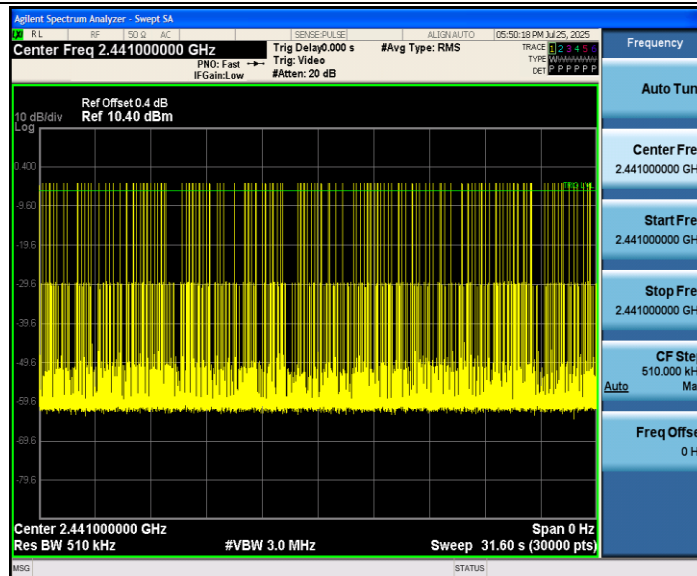
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.390	313	0.122	≤0.4	PASS
DH3	Ant1	Hop	1.640	150	0.246	≤0.4	PASS
DH5	Ant1	Hop	2.890	111	0.321	≤0.4	PASS
2DH1	Ant1	Hop	0.400	317	0.127	≤0.4	PASS
2DH3	Ant1	Hop	1.650	159	0.262	≤0.4	PASS
2DH5	Ant1	Hop	2.900	106	0.307	≤0.4	PASS
3DH1	Ant1	Hop	0.400	317	0.127	≤0.4	PASS
3DH3	Ant1	Hop	1.650	152	0.251	≤0.4	PASS
3DH5	Ant1	Hop	2.900	100	0.29	≤0.4	PASS

Test Graphs

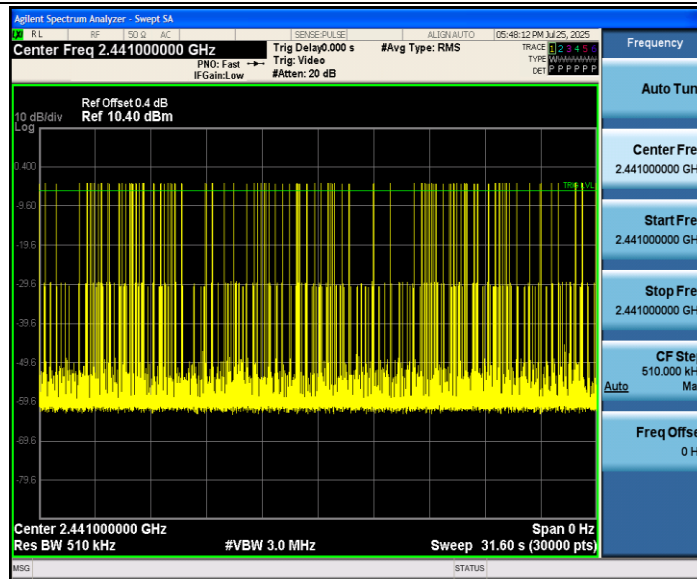


DH3_Ant1_Hop

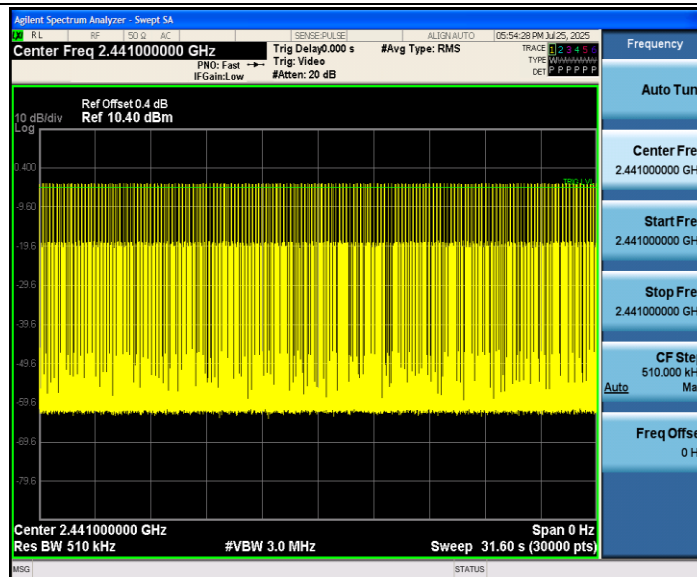
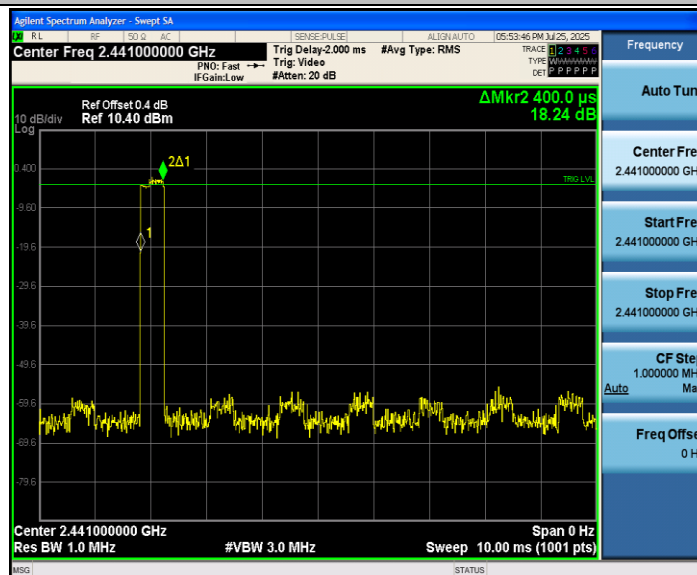


DH5_Ant1_Hop

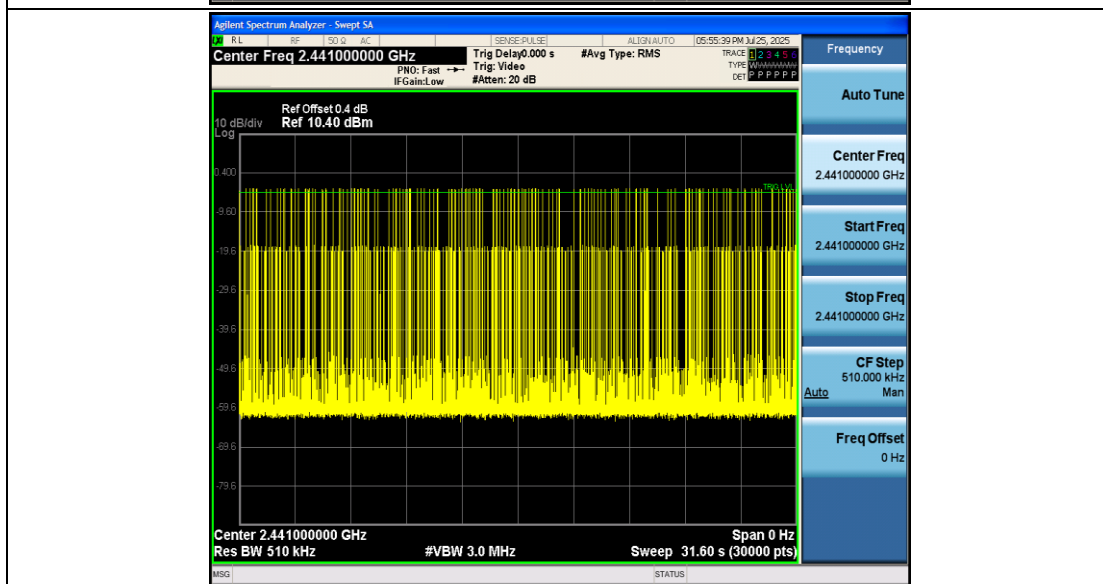




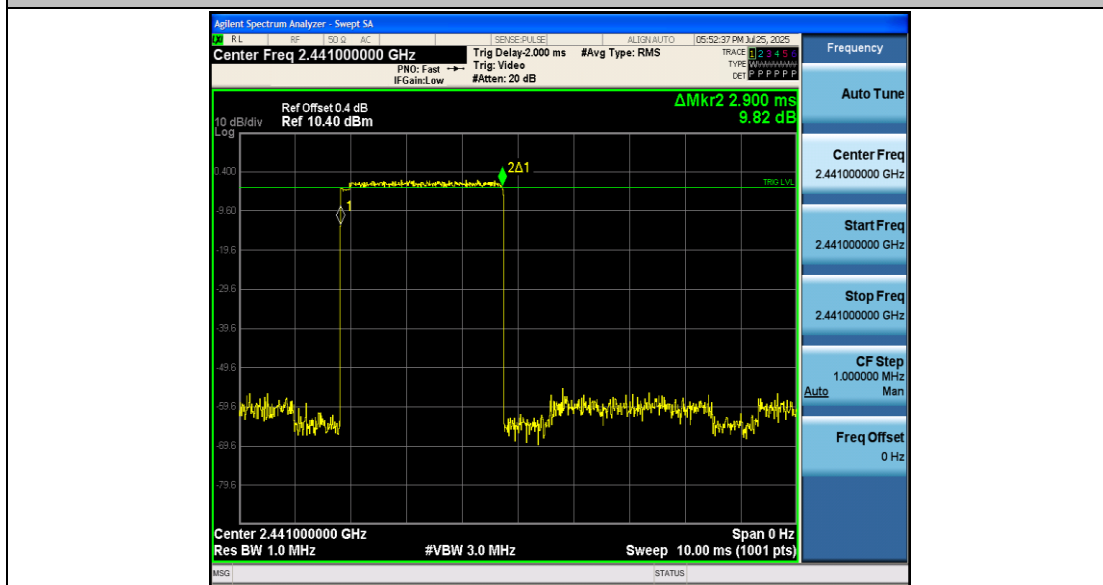
2DH1_Ant1_Hop

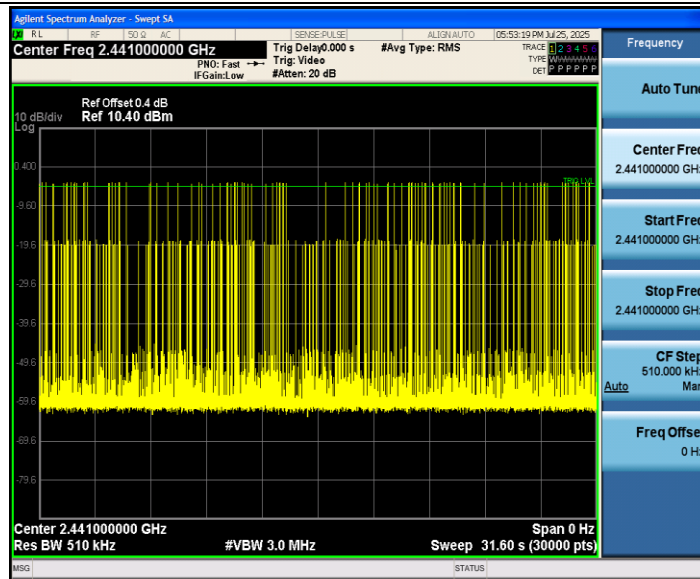


2DH3_Ant1_Hop

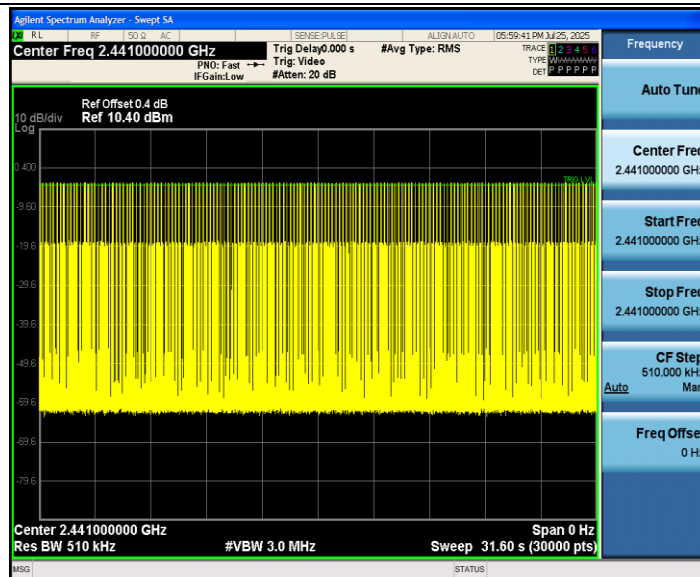
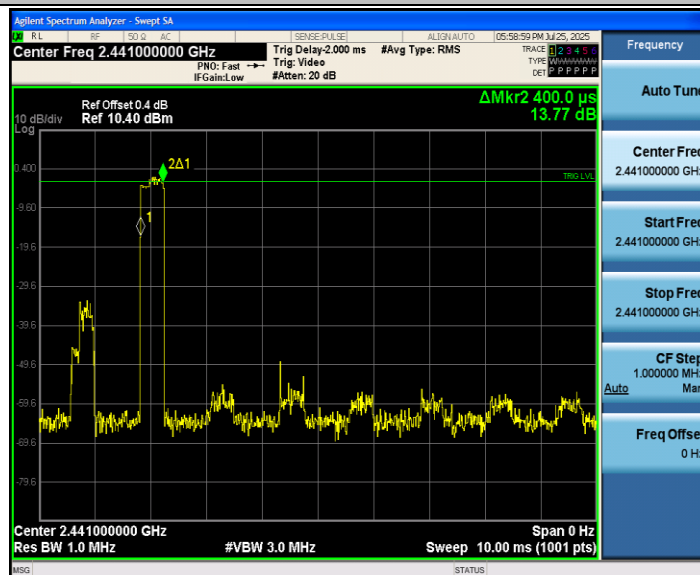


2DH5_Ant1_Hop

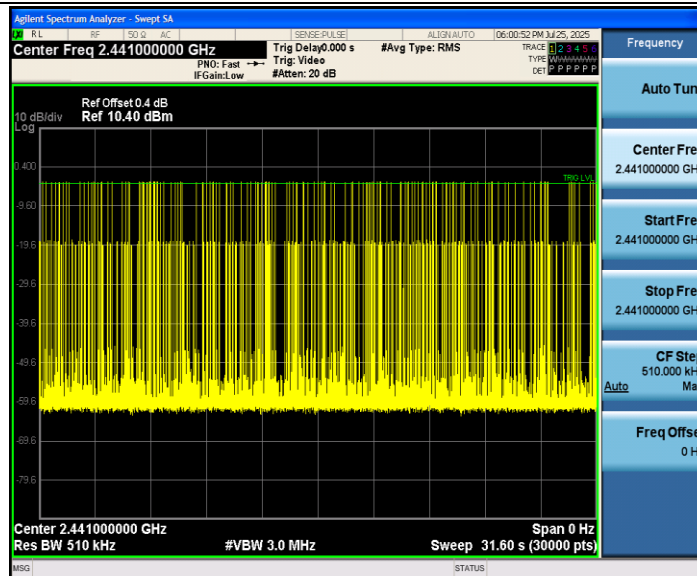
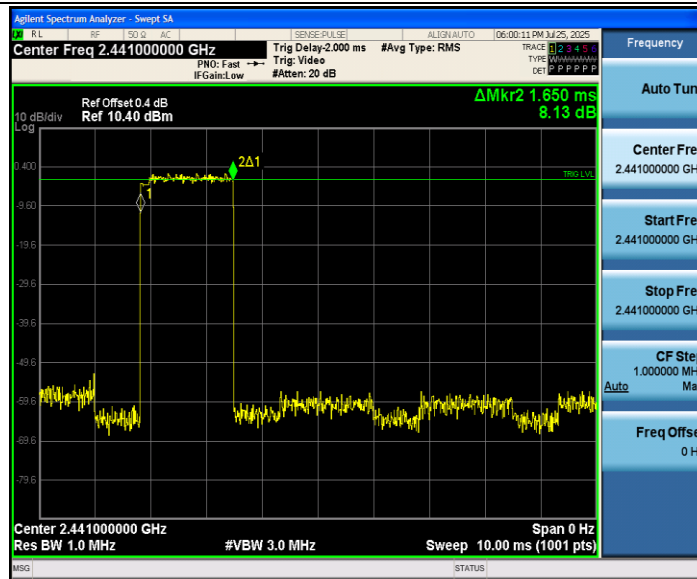




3DH1_Ant1_Hop

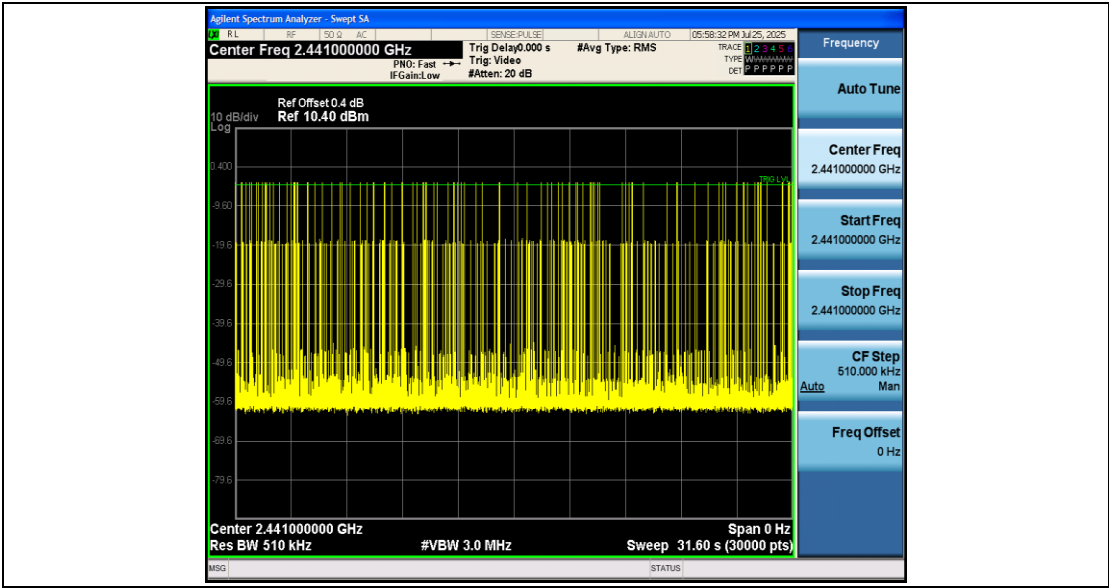


3DH3_Ant1_Hop



3DH5_Ant1_Hop





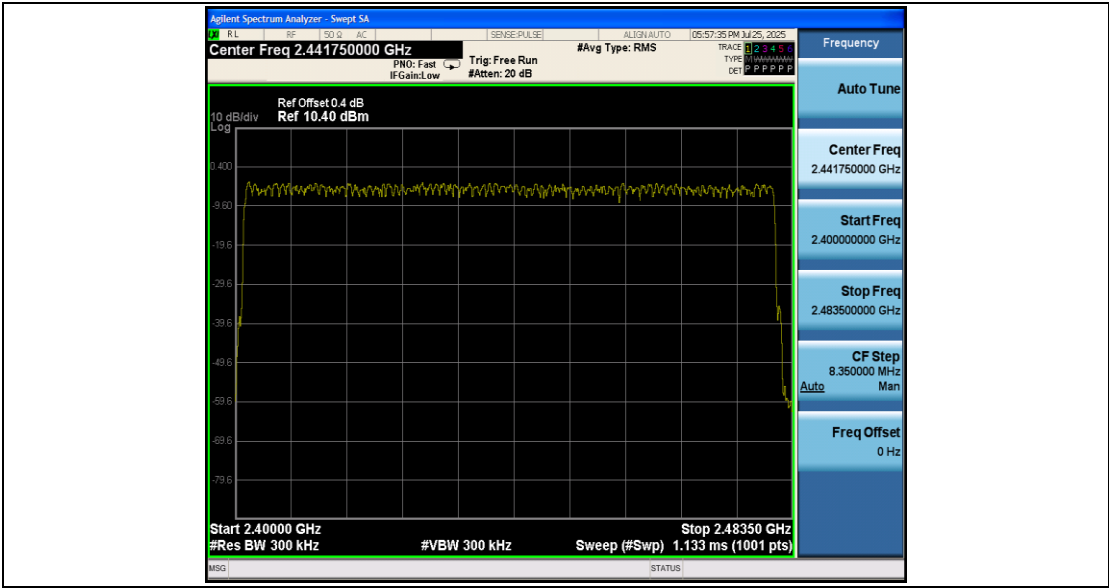
Appendix F: Number of hopping channels

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



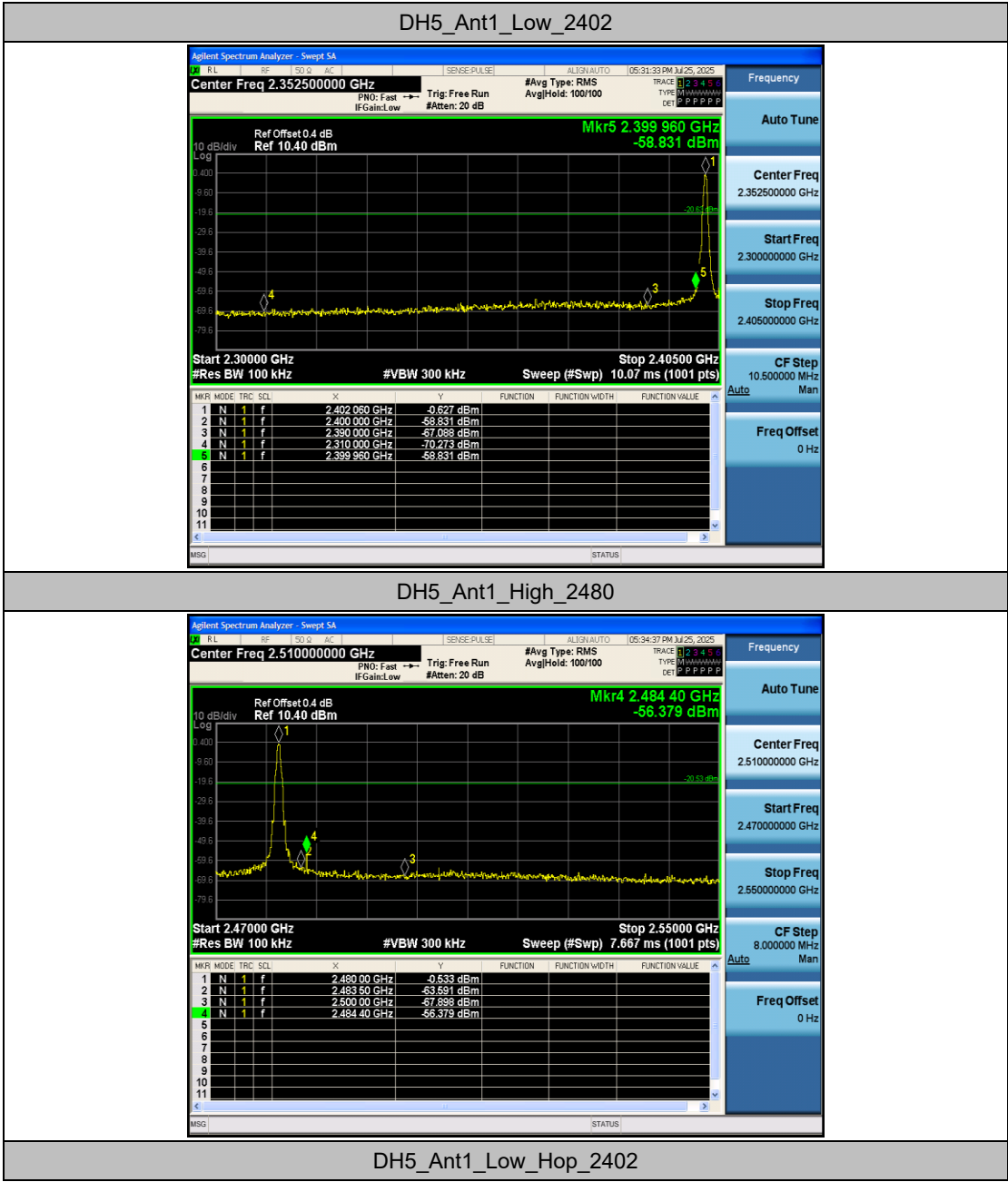


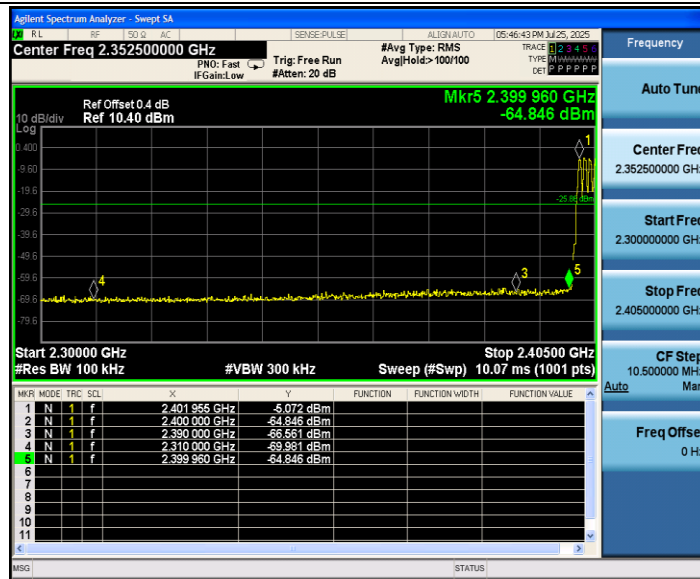
Appendix G: Band edge measurements

Test Result

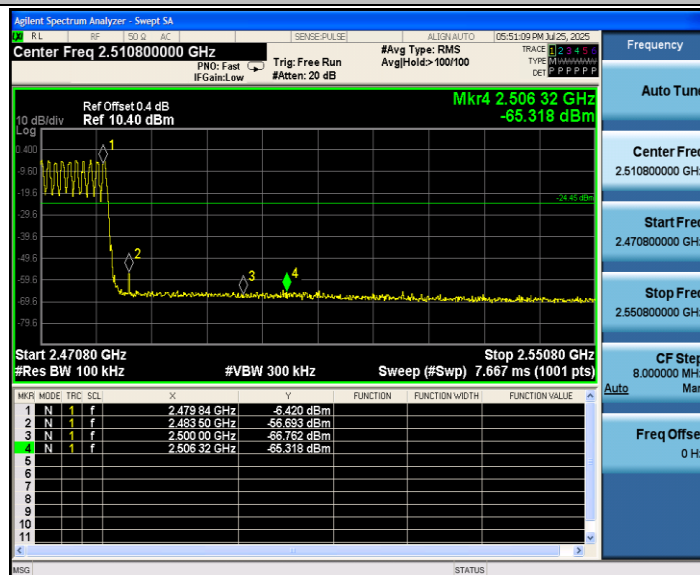
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.63	-58.83	≤-20.63	PASS
		High	2480	-0.53	-56.38	≤-20.53	PASS
		Low	Hop_2402	-5.86	-64.85	≤-25.86	PASS
		High	Hop_2480	-4.45	-65.37	≤-24.45	PASS
2DH5	Ant1	Low	2402	-4.56	-60.94	≤-24.56	PASS
		High	2480	-3.87	-64.63	≤-23.87	PASS
		Low	Hop_2402	-7.50	-63.68	≤-27.5	PASS
		High	Hop_2480	-5.11	-61.99	≤-25.11	PASS
3DH5	Ant1	Low	2402	-4.25	-61.39	≤-24.25	PASS
		High	2480	-5.07	-61.16	≤-25.07	PASS
		Low	Hop_2402	-8.63	-62.96	≤-28.63	PASS
		High	Hop_2480	-5.77	-64.79	≤-25.77	PASS

Test Graphs

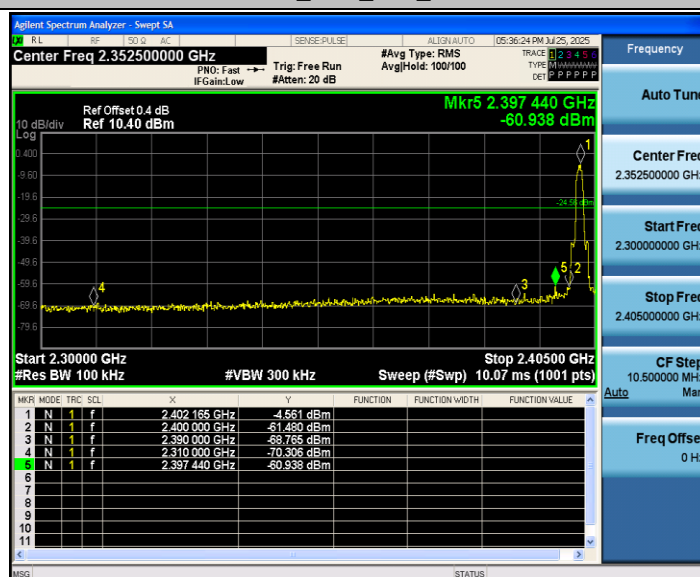




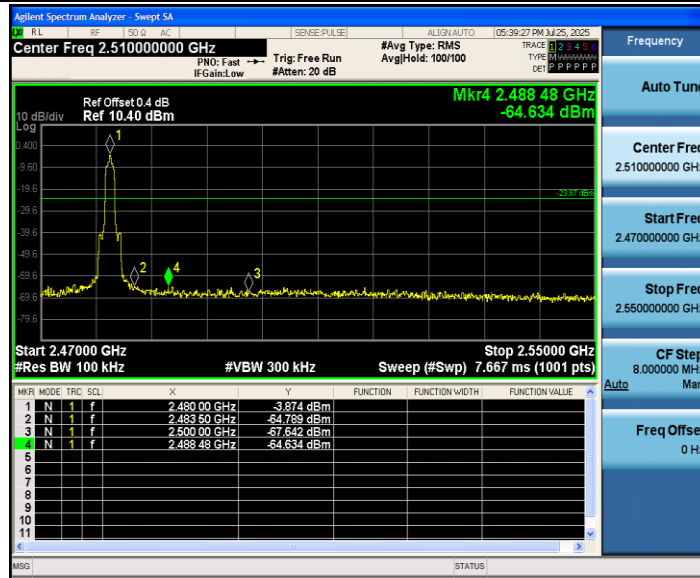
DH5_Ant1_High_Hop_2480



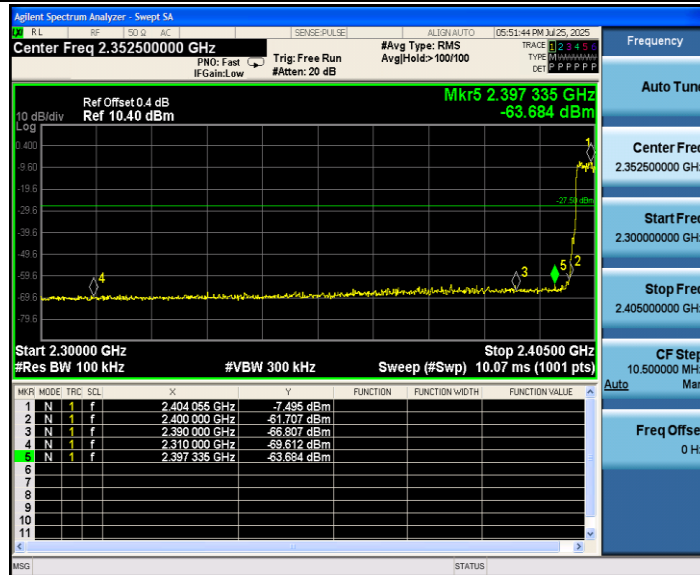
2DH5_Ant1_Low_2402



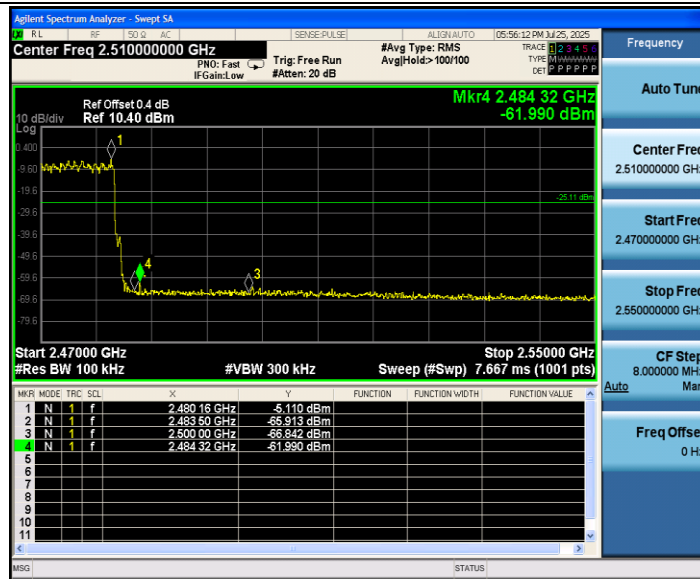
2DH5_Ant1_High_2480



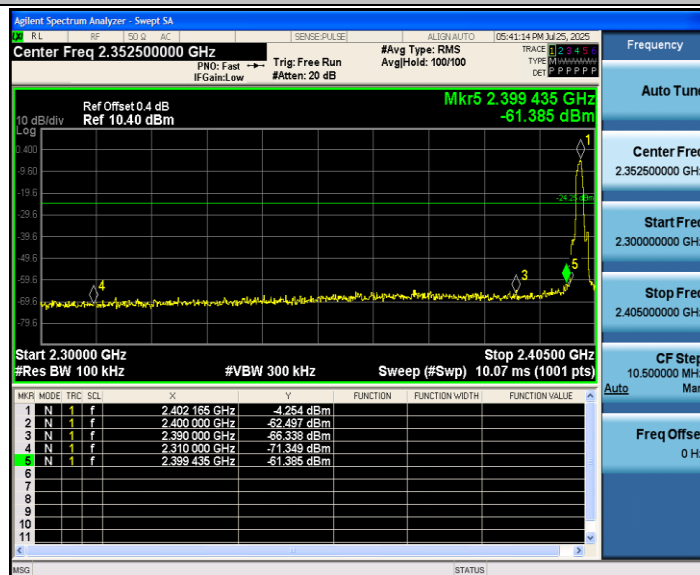
2DH5_Ant1_Low_Hop_2402



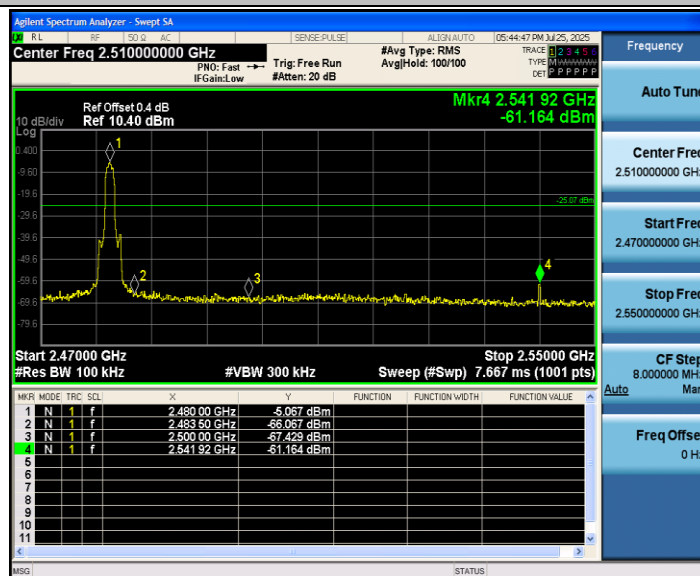
2DH5_Ant1_High_Hop_2480



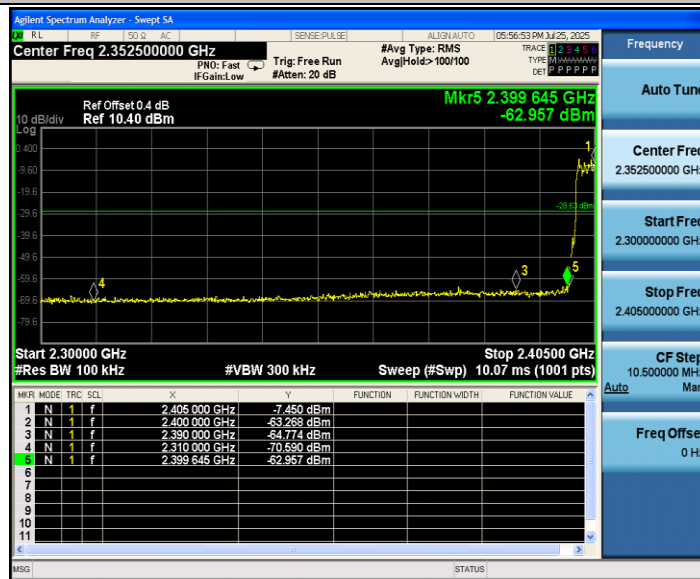
3DH5_Ant1_Low_2402



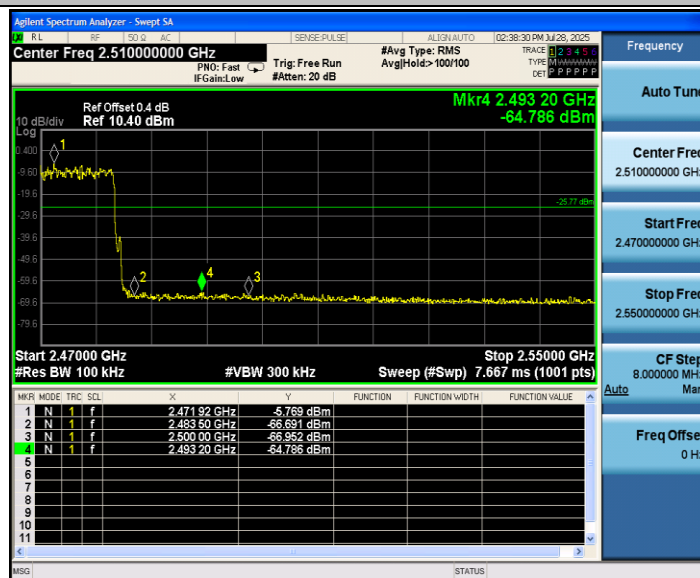
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

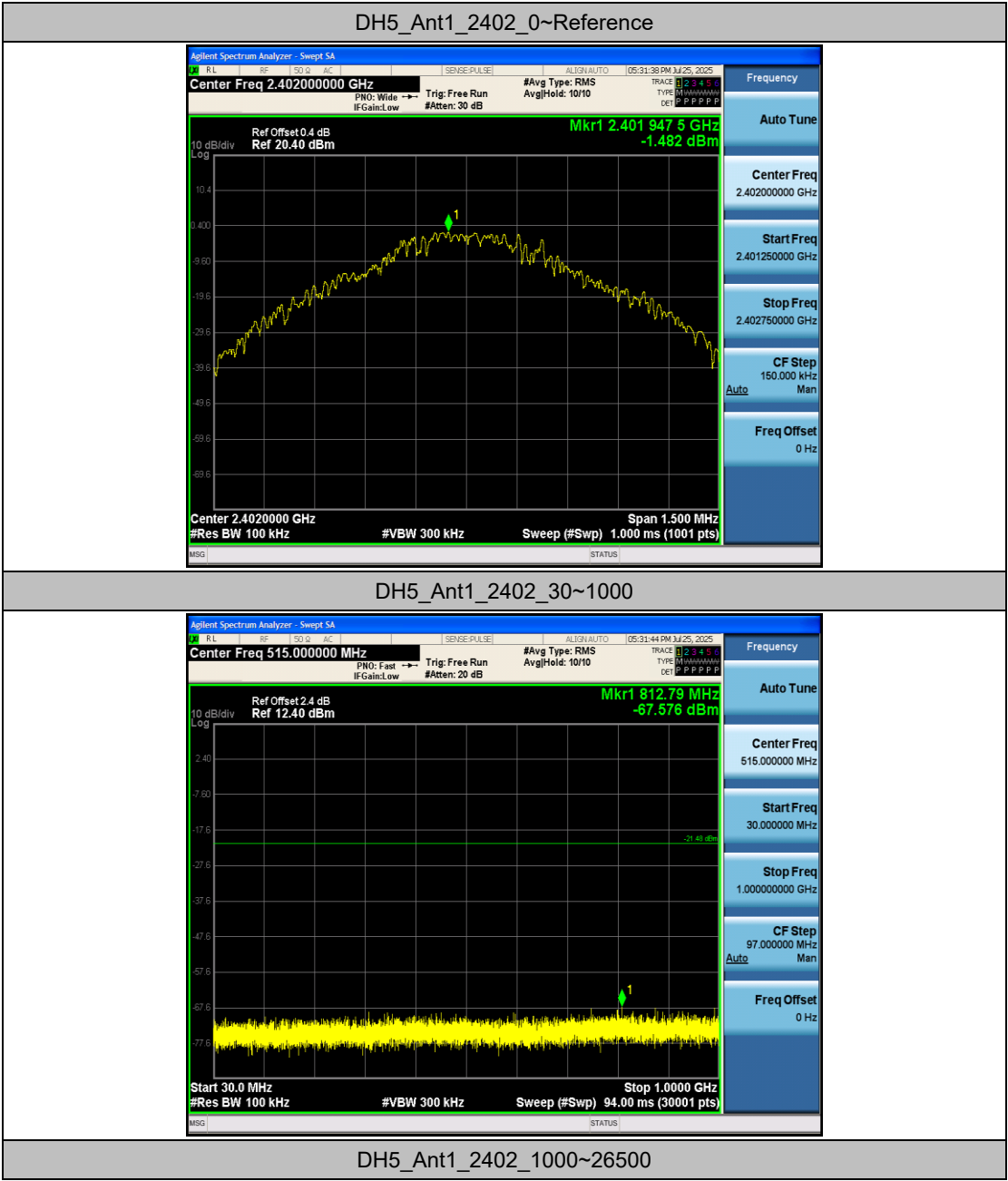


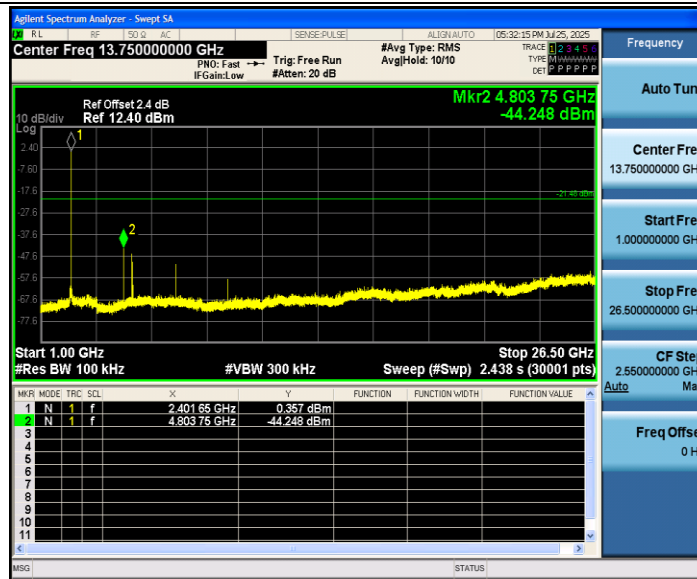
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-1.48	-1.48	---	PASS
			30~1000	-1.48	-67.58	≤-21.48	PASS
			1000~26500	-1.48	-44.25	≤-21.48	PASS
		2441	Reference	-1.42	-1.42	---	PASS
			30~1000	-1.42	-67.93	≤-21.42	PASS
			1000~26500	-1.42	-44.62	≤-21.42	PASS
		2480	Reference	-1.14	-1.14	---	PASS
			30~1000	-1.14	-64.46	≤-21.14	PASS
			1000~26500	-1.14	-44.09	≤-21.14	PASS
2DH5	Ant1	2402	Reference	-4.49	-4.49	---	PASS
			30~1000	-4.49	-68.62	≤-24.49	PASS
			1000~26500	-4.49	-47.32	≤-24.49	PASS
		2441	Reference	-5.16	-5.16	---	PASS
			30~1000	-5.16	-67.47	≤-25.16	PASS
			1000~26500	-5.16	-47.96	≤-25.16	PASS
		2480	Reference	-5.73	-5.73	---	PASS
			30~1000	-5.73	-67.8	≤-25.73	PASS
			1000~26500	-5.73	-47.5	≤-25.73	PASS
3DH5	Ant1	2402	Reference	-6.25	-6.25	---	PASS
			30~1000	-6.25	-65.54	≤-26.25	PASS
			1000~26500	-6.25	-47.05	≤-26.25	PASS
		2441	Reference	-6.95	-6.95	---	PASS
			30~1000	-6.95	-68.02	≤-26.95	PASS
			1000~26500	-6.95	-52.01	≤-26.95	PASS
		2480	Reference	-4.32	-4.32	---	PASS
			30~1000	-4.32	-67.15	≤-24.32	PASS
			1000~26500	-4.32	-49.7	≤-24.32	PASS

Test Graphs

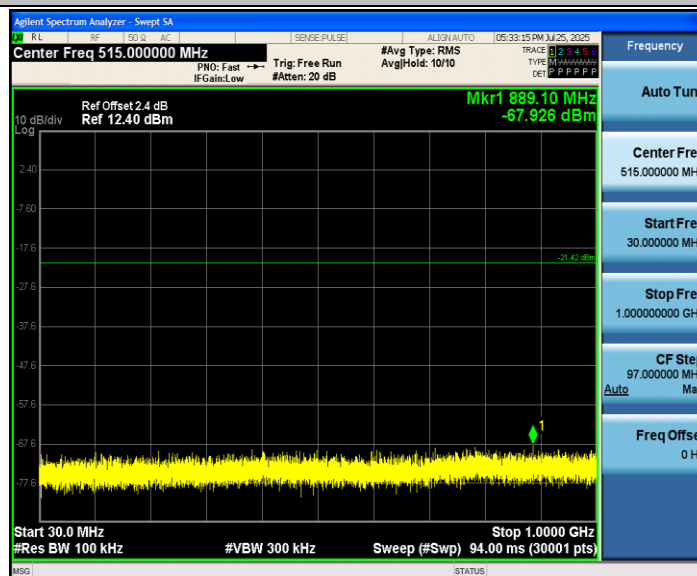




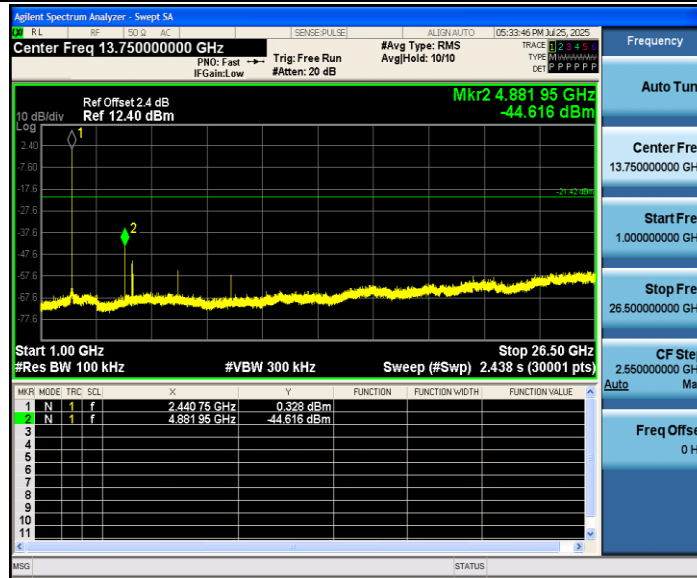
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



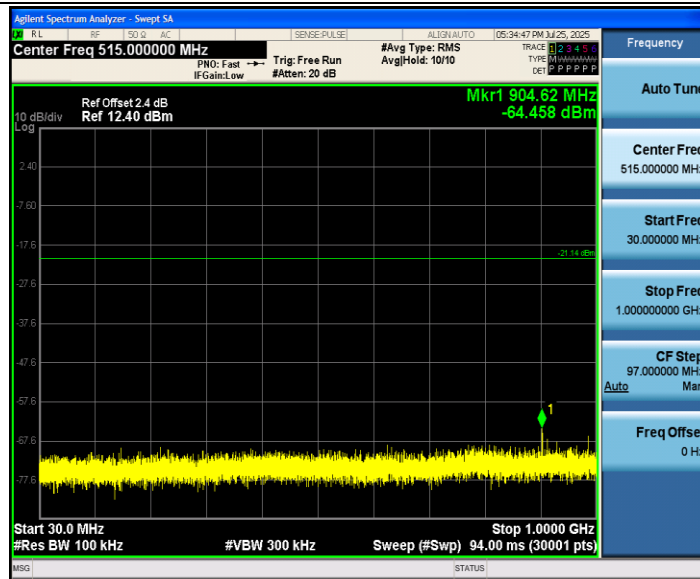
DH5_Ant1_2441_1000~26500



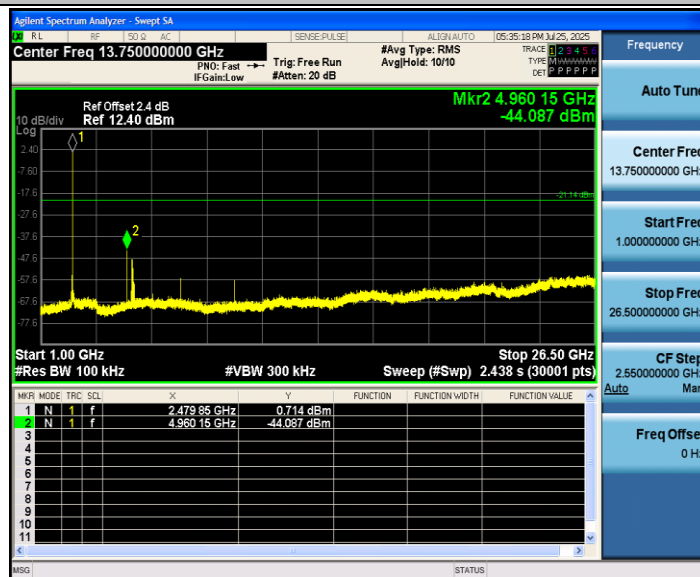
DH5_Ant1_2480_0~Reference



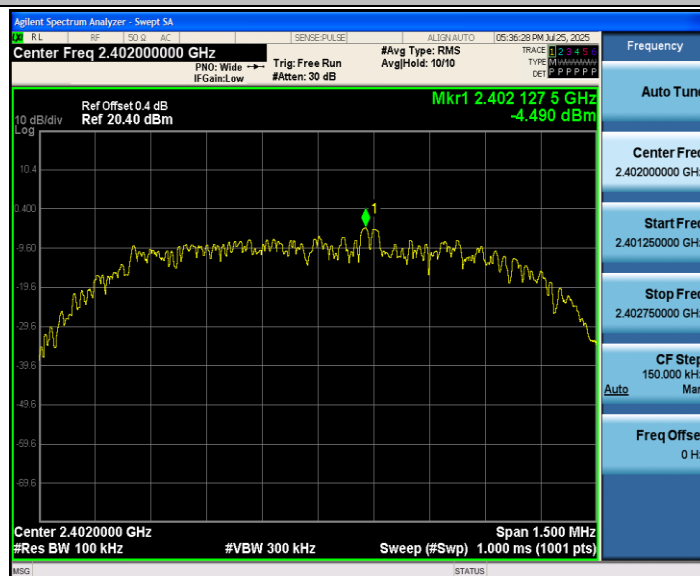
DH5_Ant1_2480_30~1000



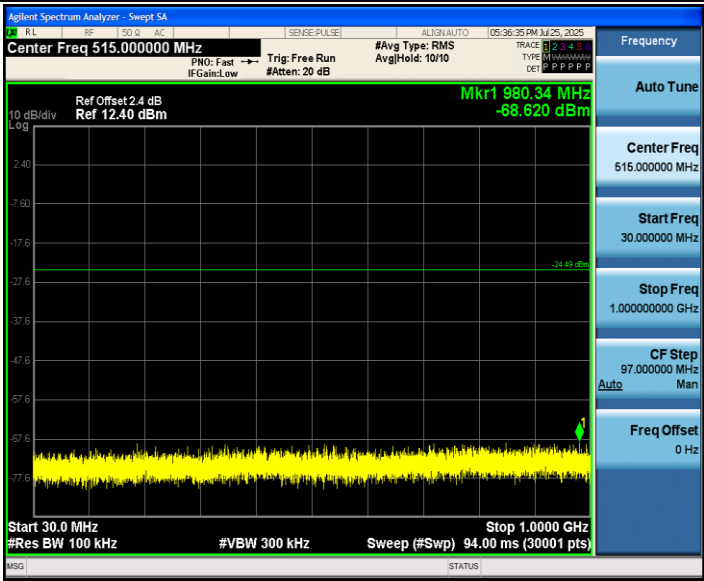
DH5_Ant1_2480_1000~26500



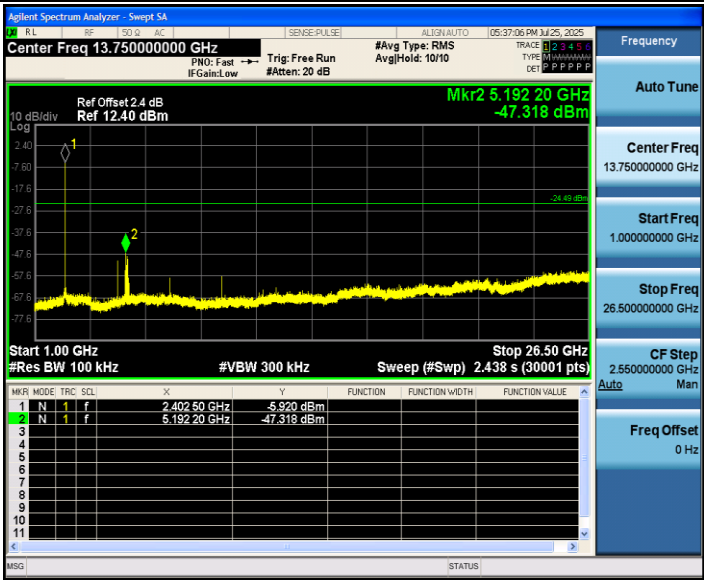
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference