

FCC Appendix RF Test Data

FCC ID : 2BMLQ-M99

Company: : Dongguan Sengeer Electronics Co., Ltd.

EUT : Wireless magnetic speaker

Model Number : M99

Report No. : CTA25051200102

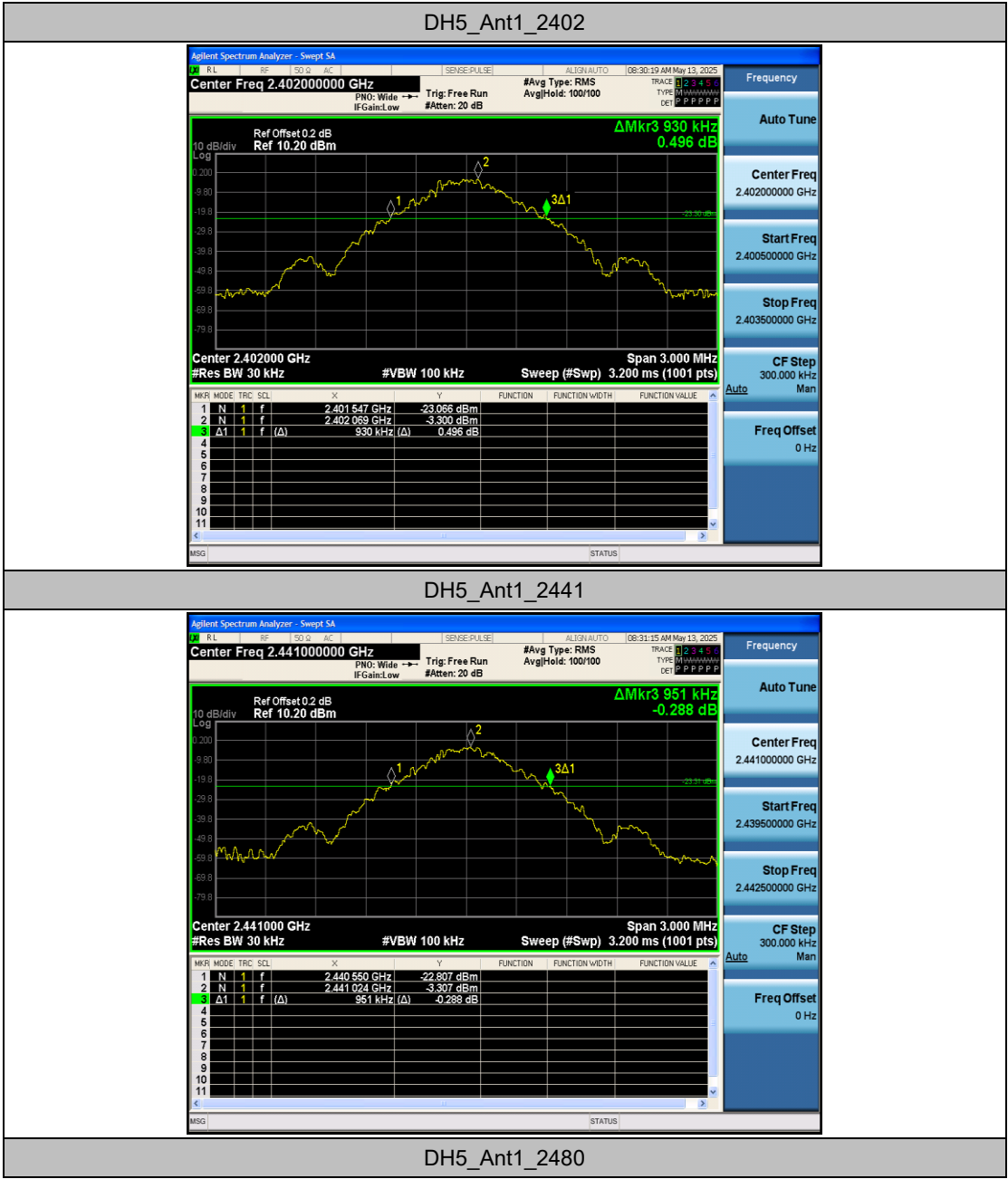
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.930	2401.547	2402.477	---	---
		2441	0.951	2440.550	2441.501	---	---
		2480	0.942	2479.550	2480.492	---	---
2DH5	Ant1	2402	1.338	2401.340	2402.678	---	---
		2441	1.311	2440.352	2441.663	---	---
		2480	1.281	2479.382	2480.663	---	---
3DH5	Ant1	2402	1.308	2401.358	2402.666	---	---
		2441	1.302	2440.364	2441.666	---	---
		2480	1.308	2479.361	2480.669	---	---

Test Graphs





2DHS_Ant1_2402



2DHS_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



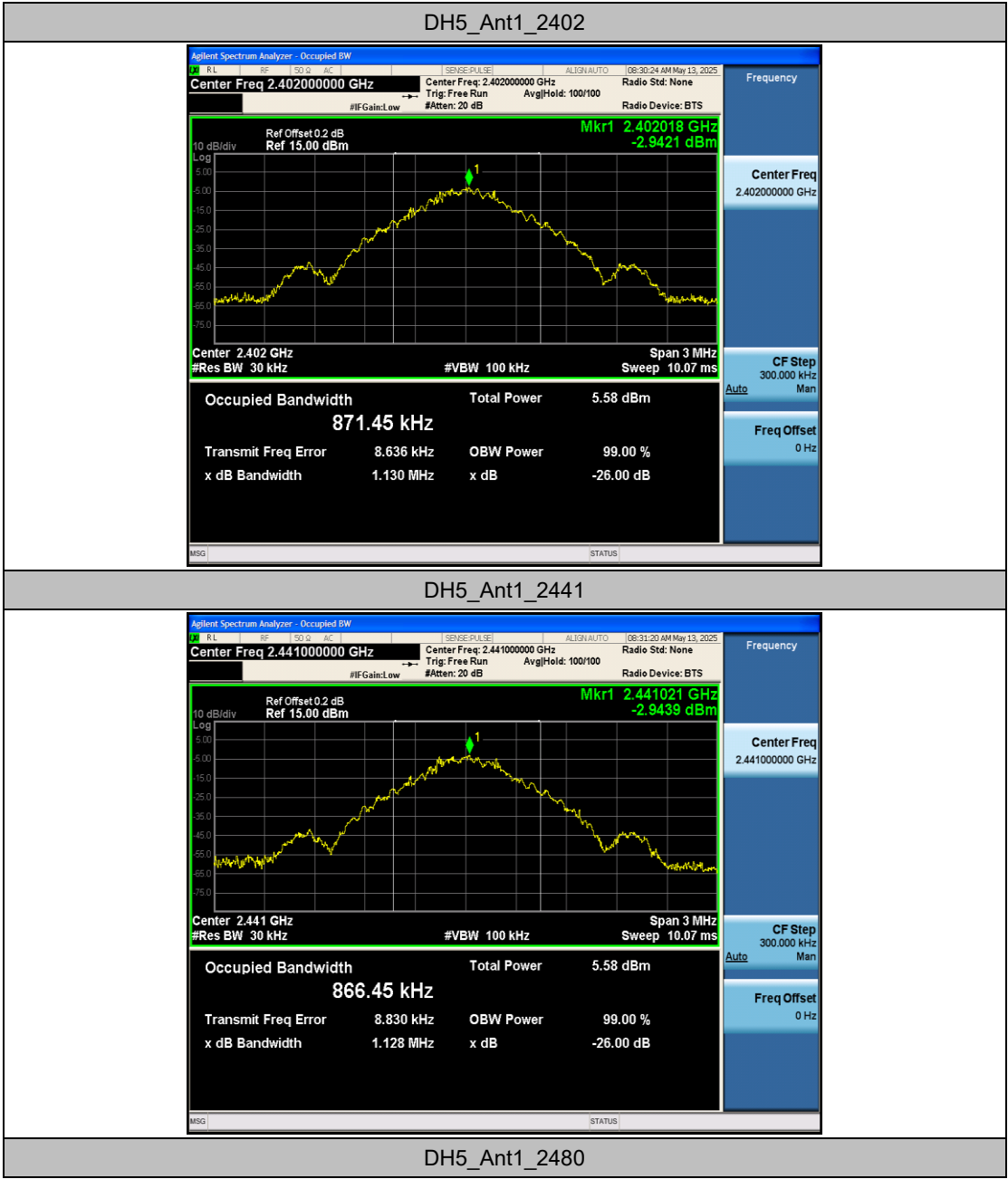
3DH5_Ant1_2441

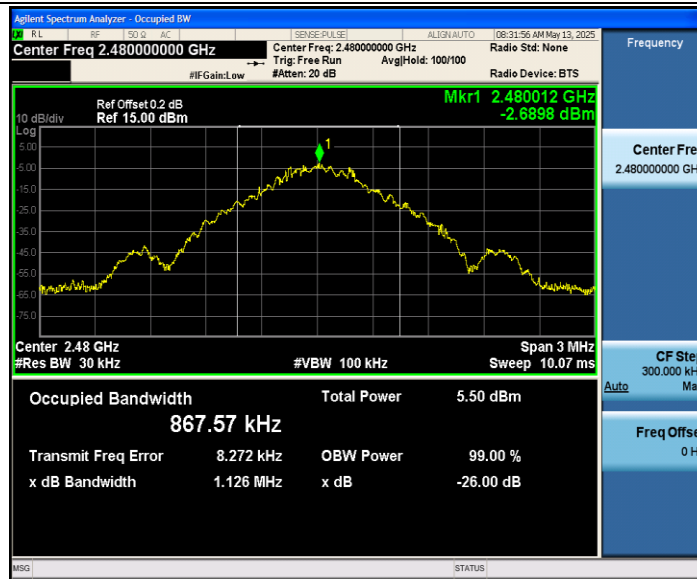
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.87145	2401.5729	2402.4444	---	---
		2441	0.86645	2440.5756	2441.4421	---	---
		2480	0.86757	2479.5745	2480.4421	---	---
2DH5	Ant1	2402	1.1878	2401.4166	2402.6044	---	---
		2441	1.1909	2440.4162	2441.6071	---	---
		2480	1.1917	2479.4157	2480.6074	---	---
3DH5	Ant1	2402	1.1813	2401.4195	2402.6008	---	---
		2441	1.1841	2440.4176	2441.6017	---	---
		2480	1.1849	2479.4204	2480.6053	---	---

Test Graphs

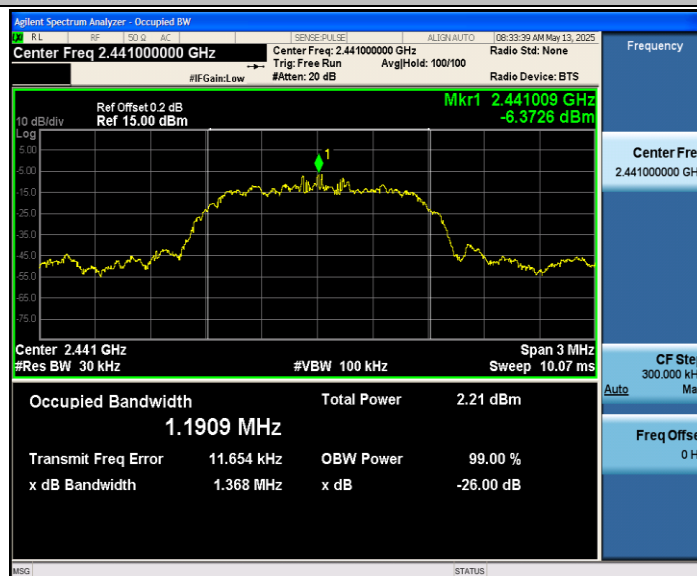




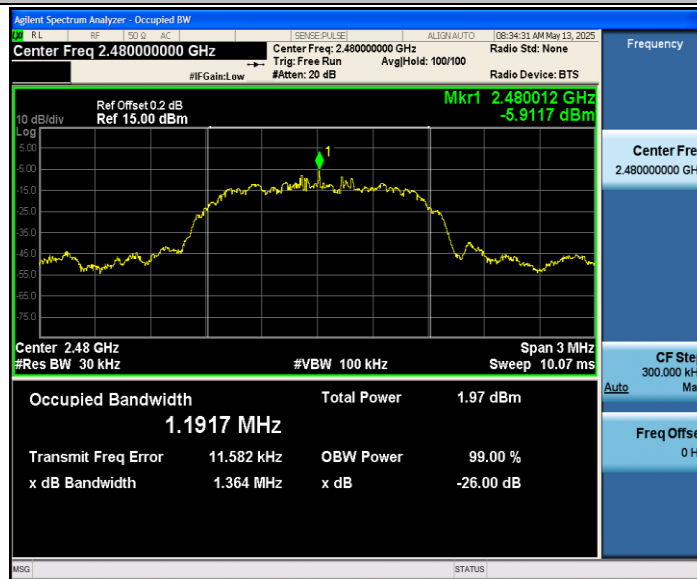
2DH5_Ant1_2402



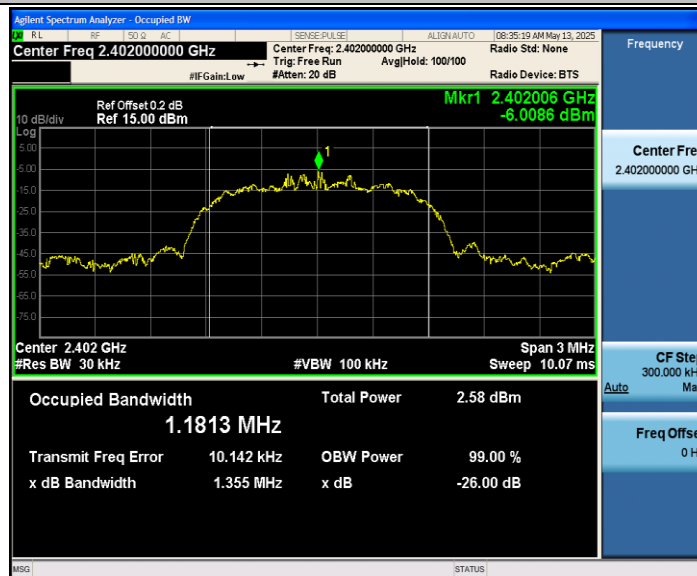
2DH5_Ant1_2441



2DH5_Ant1_2480



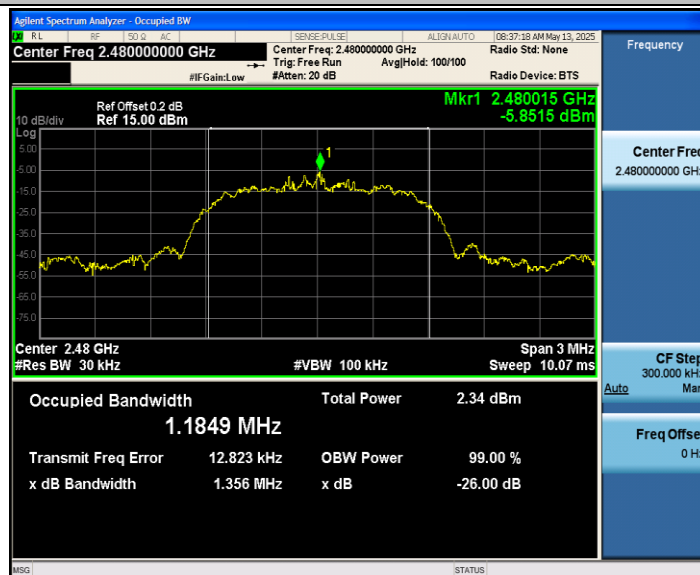
3DH5_Ant1_2402



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	-0.26	≤20.97	PASS
		2441	-0.41	≤20.97	PASS
		2480	-0.45	≤20.97	PASS
2DH5	Ant1	2402	-1.06	≤20.97	PASS
		2441	-1.22	≤20.97	PASS
		2480	-1.27	≤20.97	PASS
3DH5	Ant1	2402	-0.73	≤20.97	PASS
		2441	-0.85	≤20.97	PASS
		2480	-0.87	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.024	≥ 0.951	PASS
2DH5	Ant1	Hop	1.156	≥ 0.892	PASS
3DH5	Ant1	Hop	1.016	≥ 0.872	PASS

Test Graphs



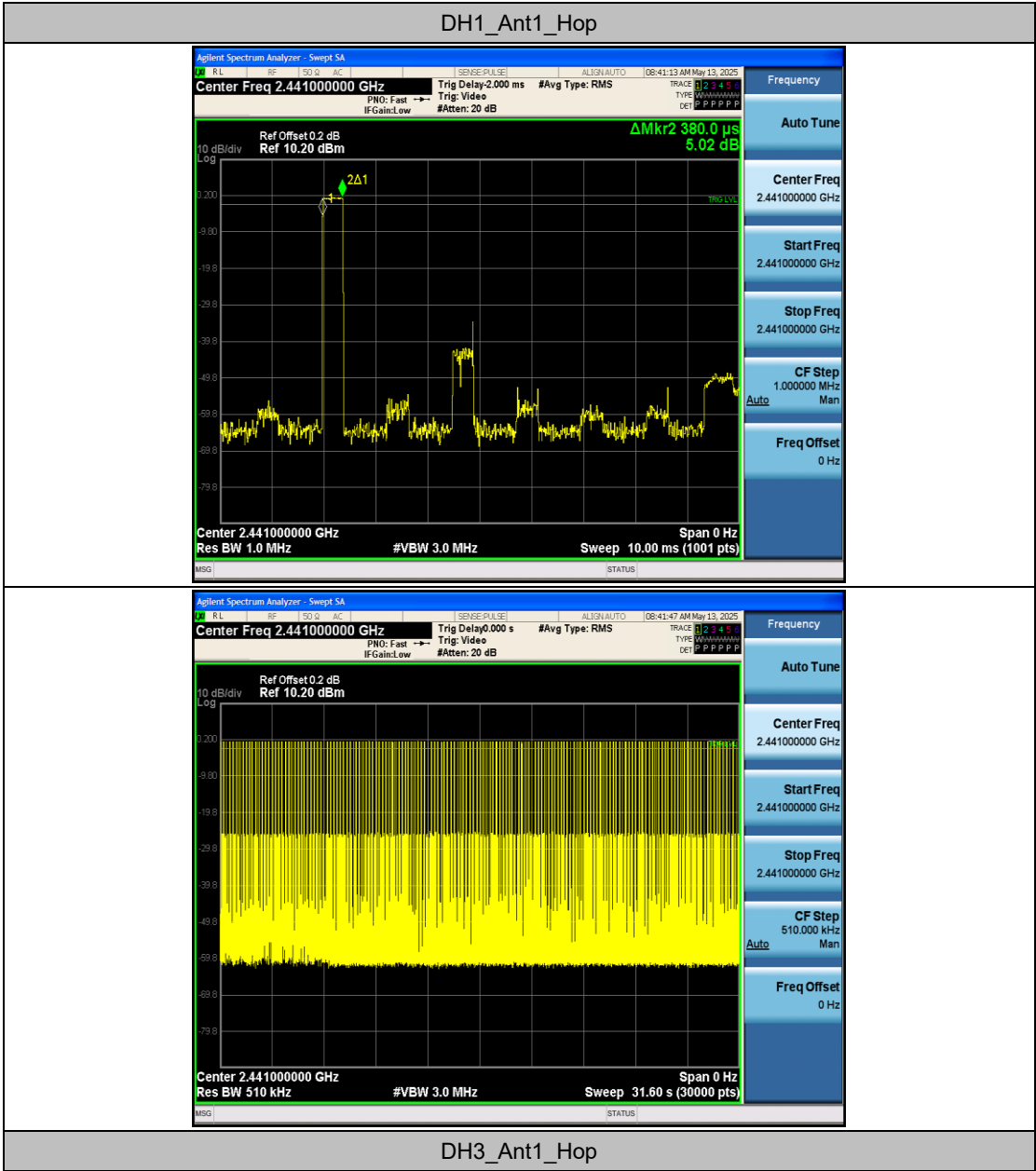


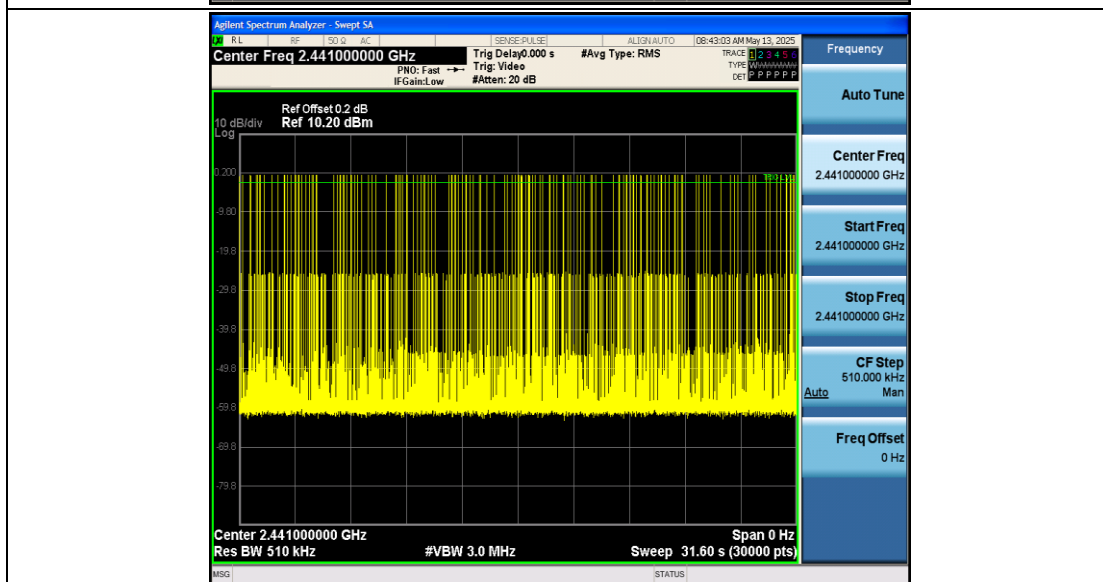
Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.380	318	0.121	≤0.4	PASS
DH3	Ant1	Hop	1.640	148	0.243	≤0.4	PASS
DH5	Ant1	Hop	2.890	105	0.303	≤0.4	PASS
2DH1	Ant1	Hop	0.390	319	0.124	≤0.4	PASS
2DH3	Ant1	Hop	1.650	150	0.248	≤0.4	PASS
2DH5	Ant1	Hop	2.900	103	0.299	≤0.4	PASS
3DH1	Ant1	Hop	0.400	319	0.128	≤0.4	PASS
3DH3	Ant1	Hop	1.650	157	0.259	≤0.4	PASS
3DH5	Ant1	Hop	2.900	113	0.328	≤0.4	PASS

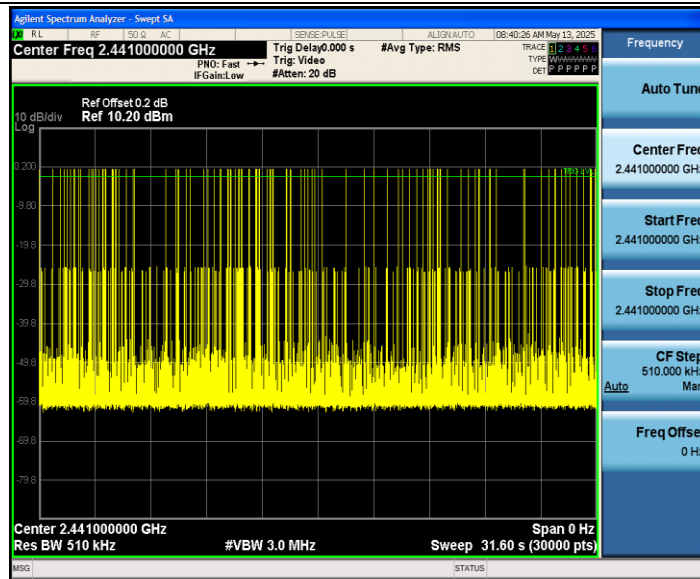
Test Graphs



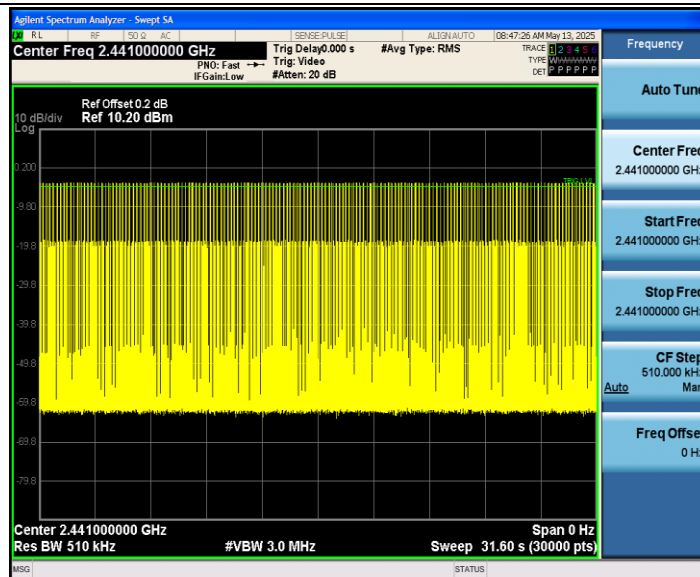
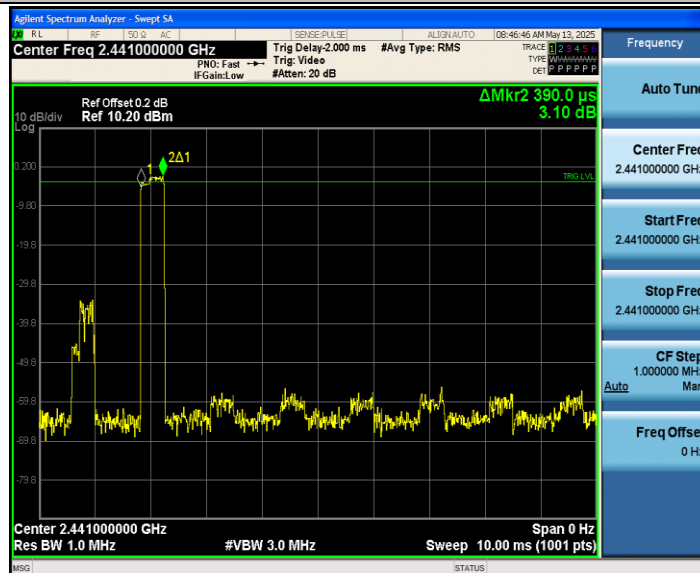


DH5_Ant1_Hop

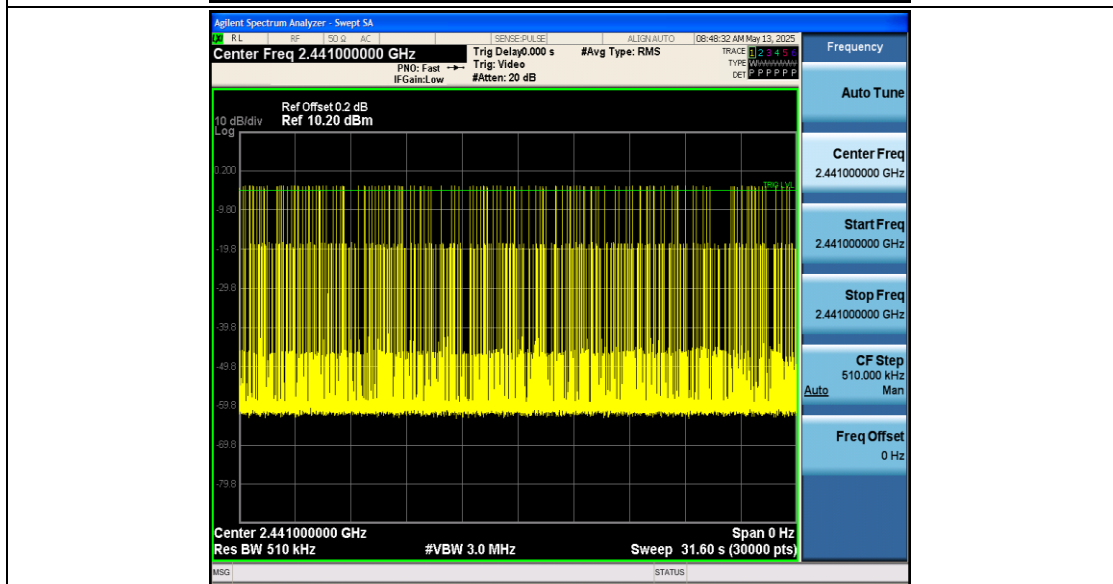




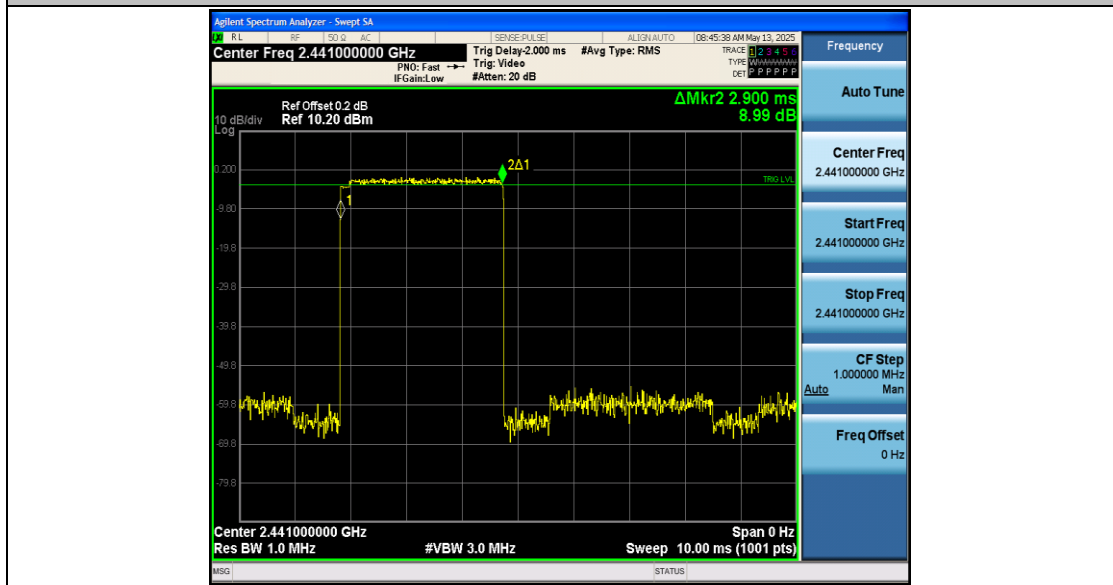
2DH1_Ant1_Hop

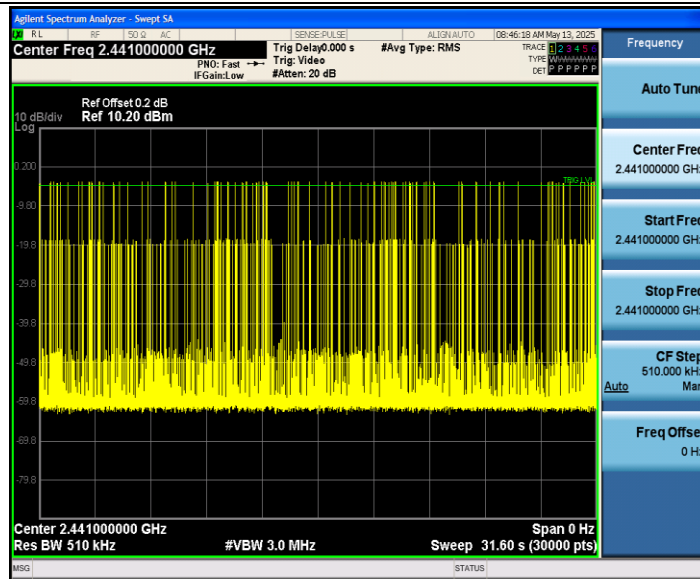


2DH3_Ant1_Hop

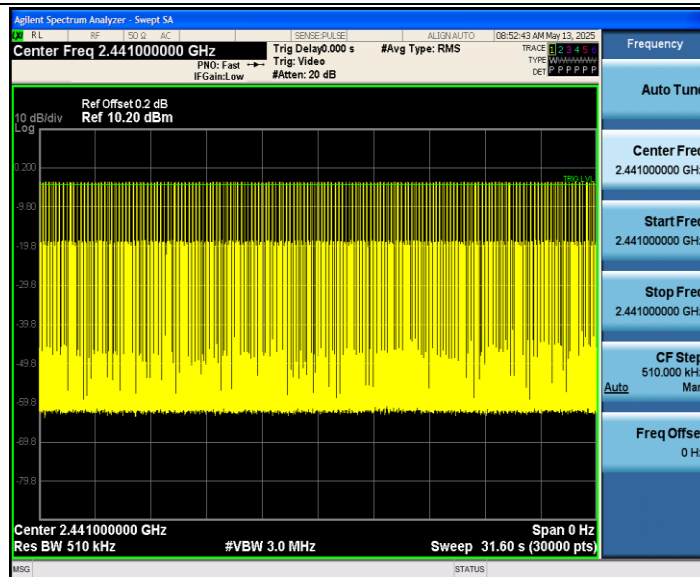
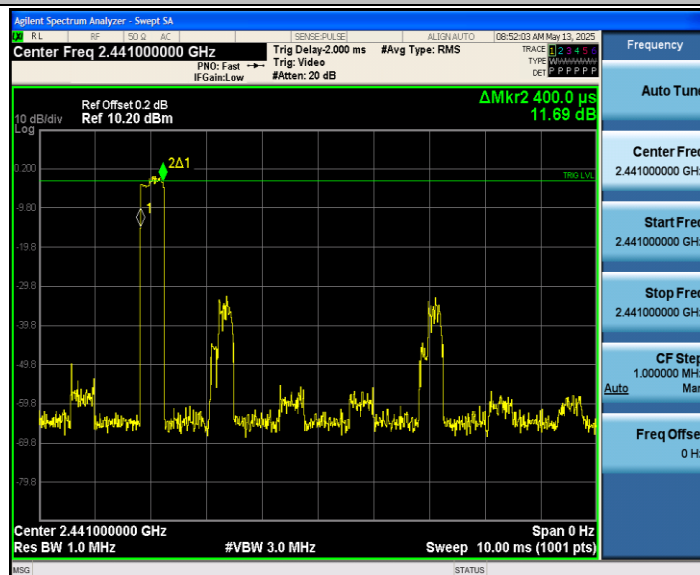


2DH5_Ant1_Hop

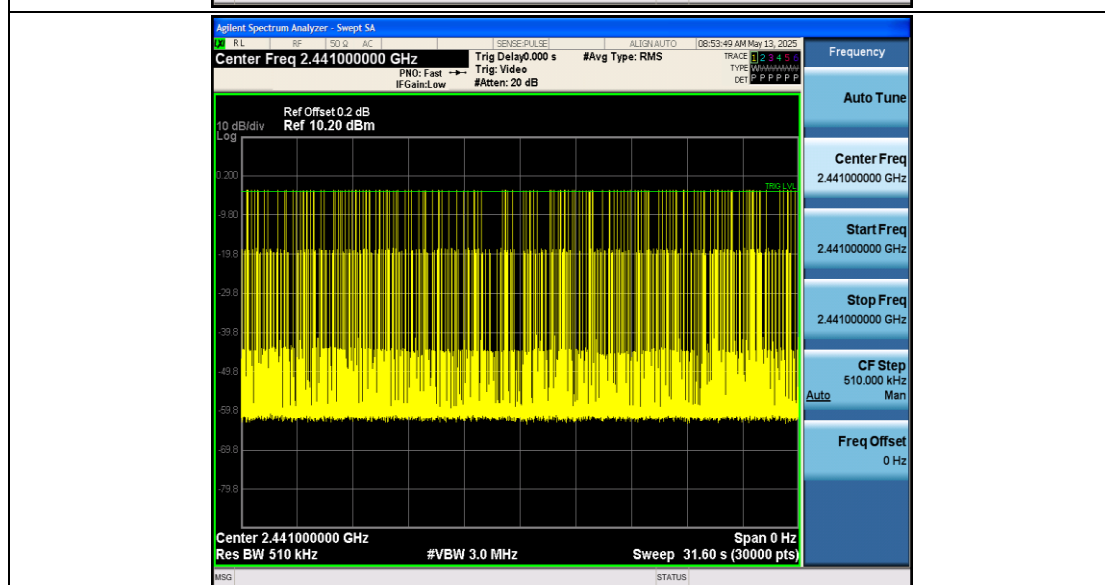




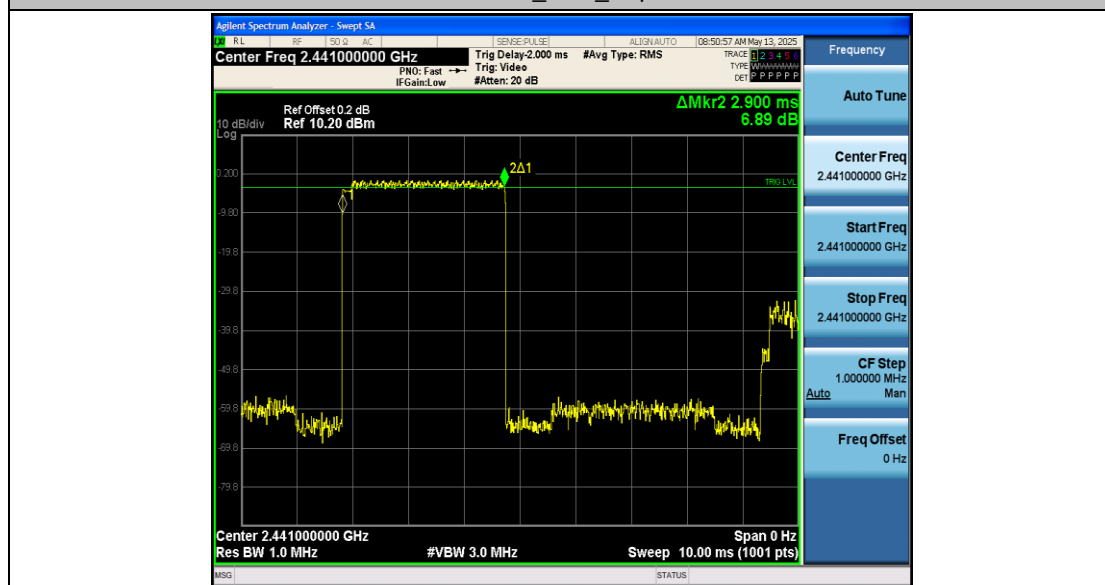
3DH1_Ant1_Hop

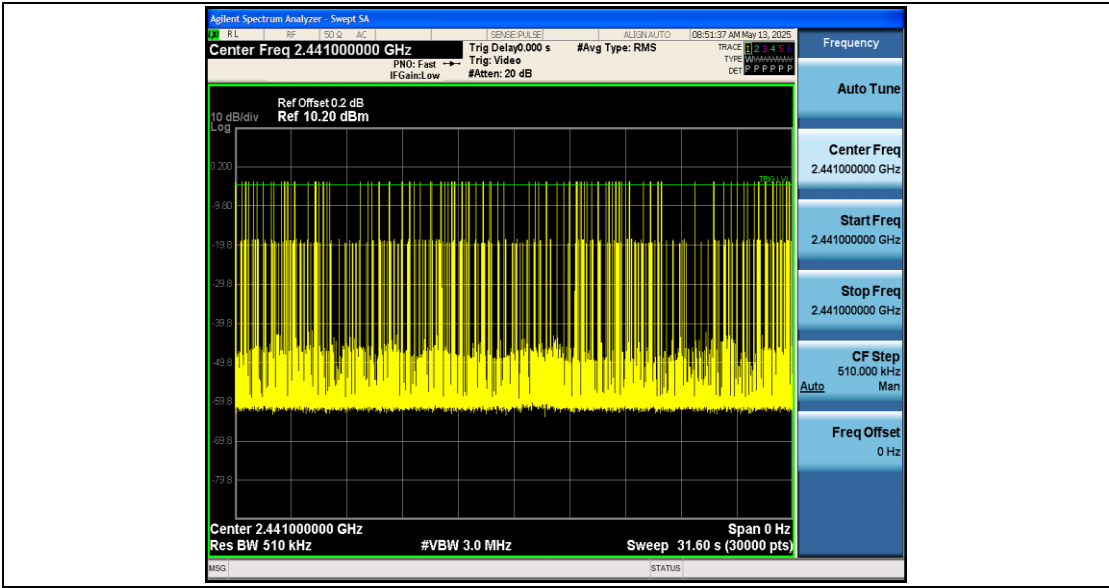


3DH3_Ant1_Hop



3DH5_Ant1_Hop





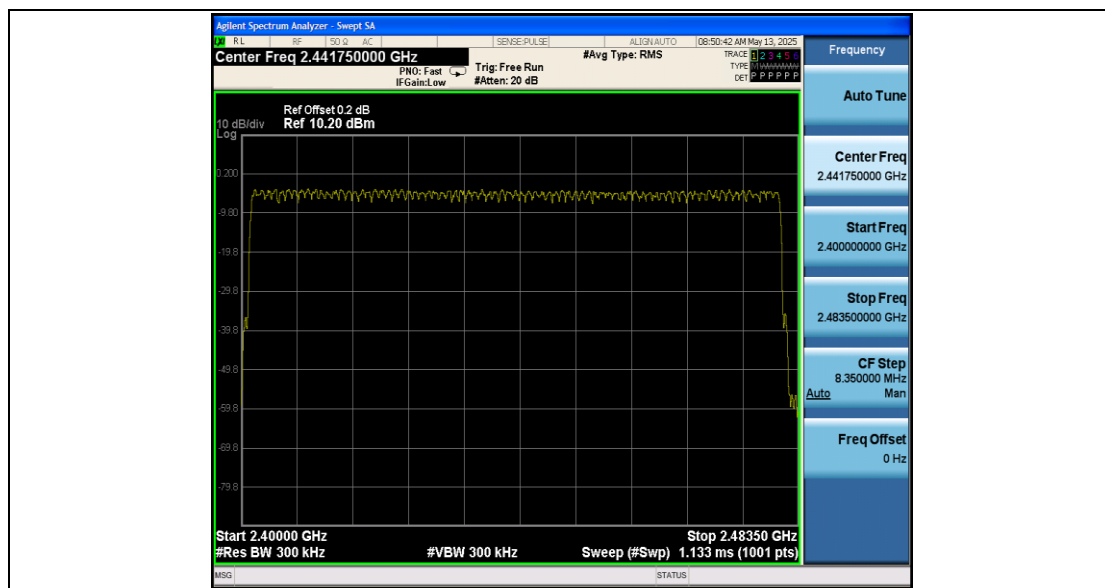
Appendix F: Number of hopping channels

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



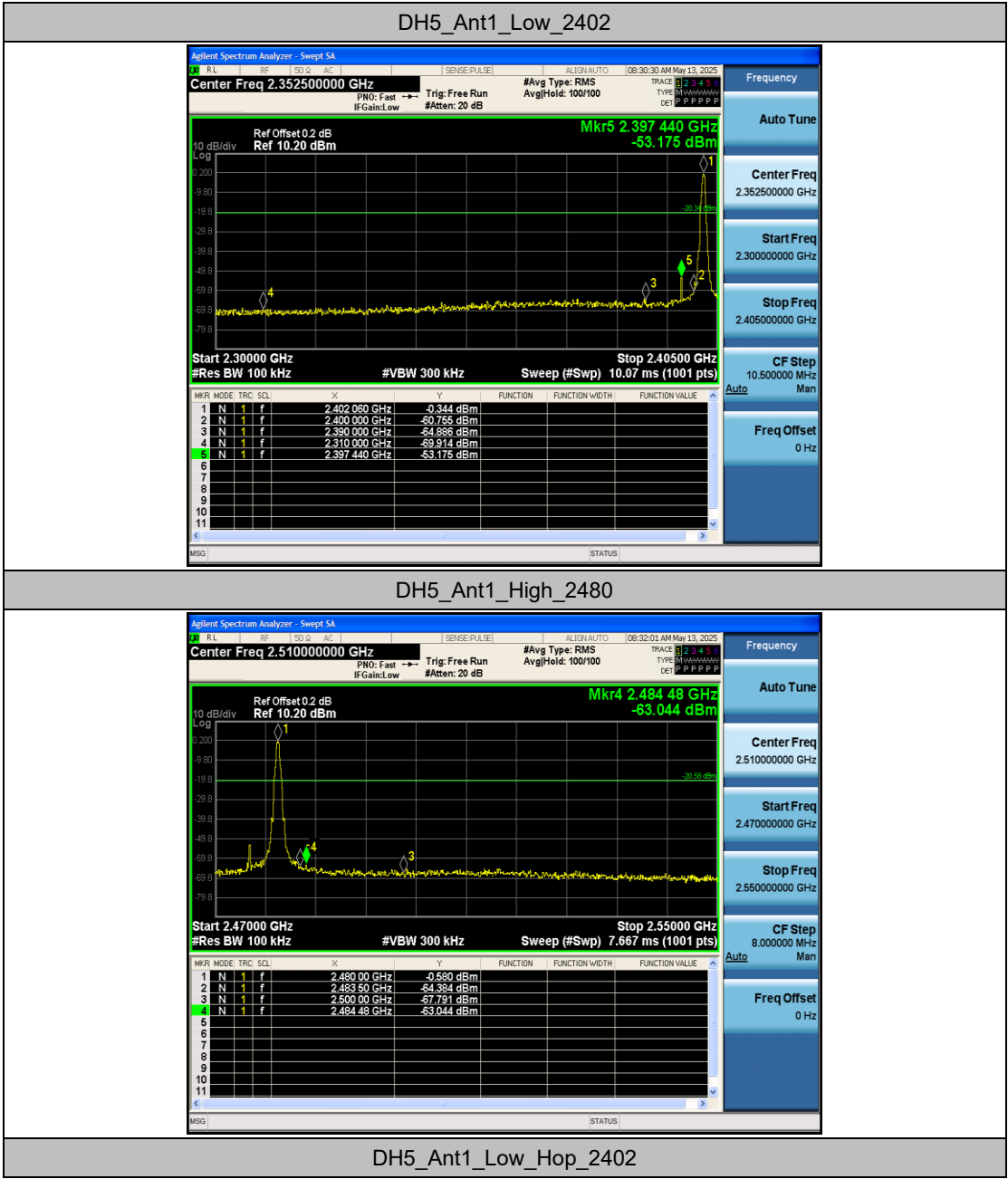


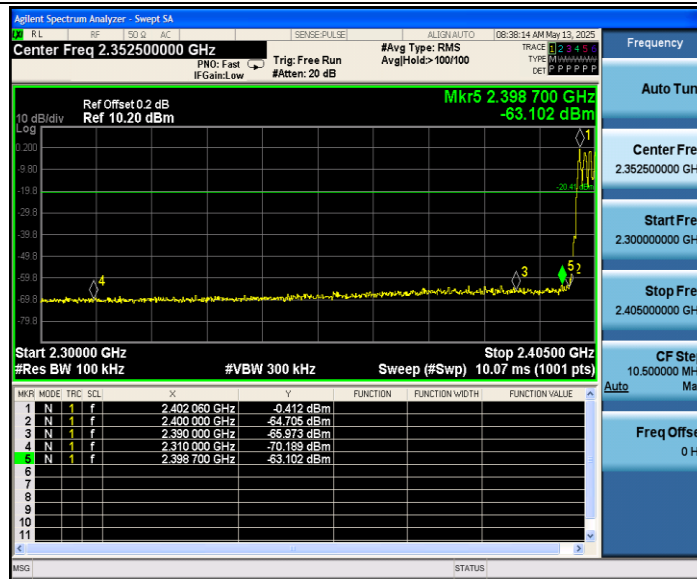
Appendix G: Band edge measurements

Test Result

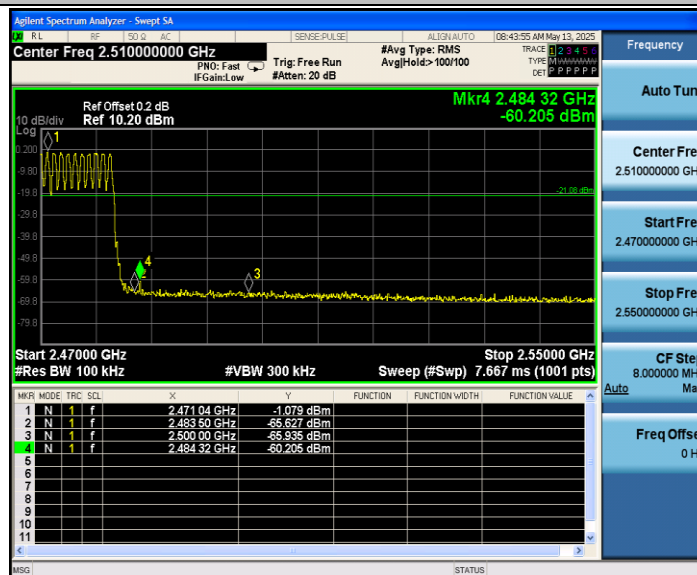
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.34	-53.18	≤ -20.34	PASS
		High	2480	-0.58	-63.04	≤ -20.58	PASS
		Low	Hop_2402	-0.41	-63.1	≤ -20.41	PASS
		High	Hop_2480	-1.08	-60.21	≤ -21.08	PASS
2DH5	Ant1	Low	2402	-4.43	-60.01	≤ -24.43	PASS
		High	2480	-3.99	-58.16	≤ -23.99	PASS
		Low	Hop_2402	-7.46	-64.41	≤ -27.46	PASS
		High	Hop_2480	-5.96	-64.58	≤ -25.96	PASS
3DH5	Ant1	Low	2402	-5.90	-59.67	≤ -25.9	PASS
		High	2480	-6.95	-56.22	≤ -26.95	PASS
		Low	Hop_2402	-4.59	-63.85	≤ -24.59	PASS
		High	Hop_2480	-4.50	-63.92	≤ -24.5	PASS

Test Graphs

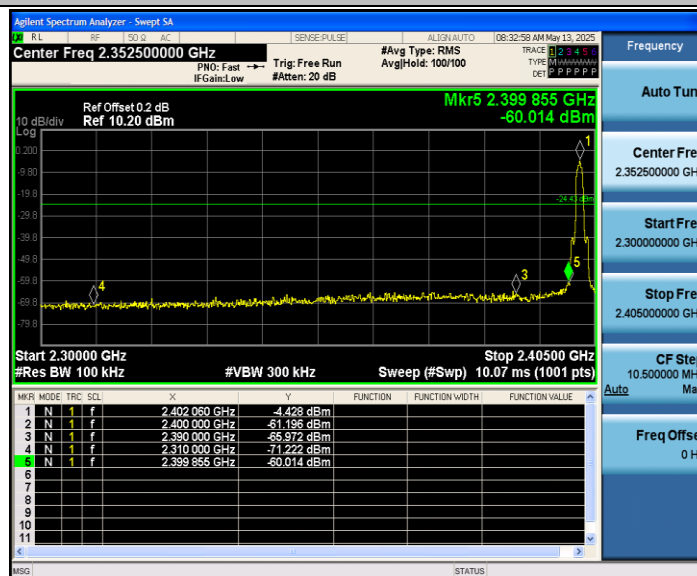




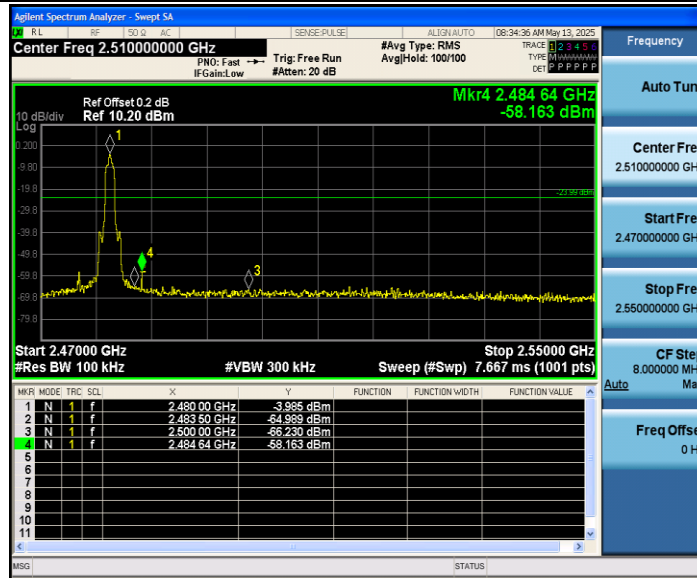
DH5_Ant1_High_Hop_2480



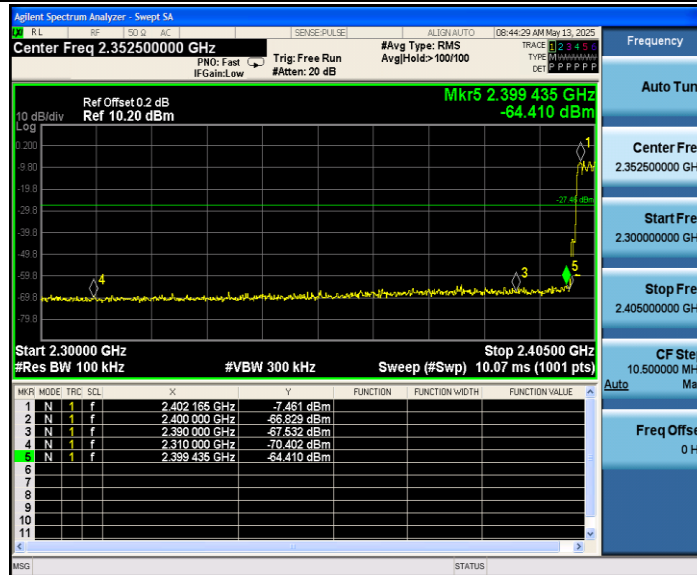
2DH5_Ant1_Low_2402



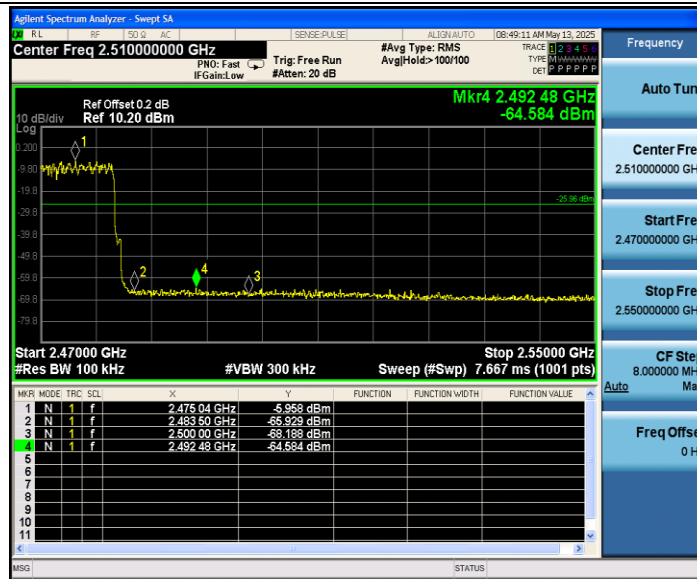
2DH5_Ant1_High_2480



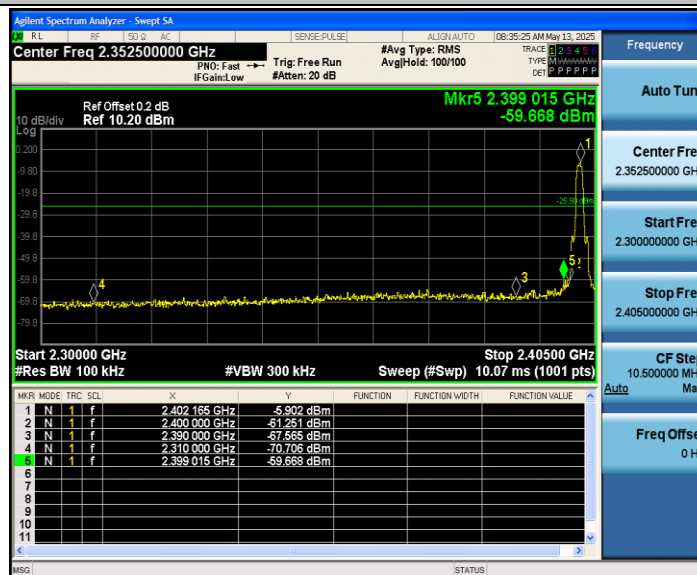
2DH5_Ant1_Low_Hop_2402



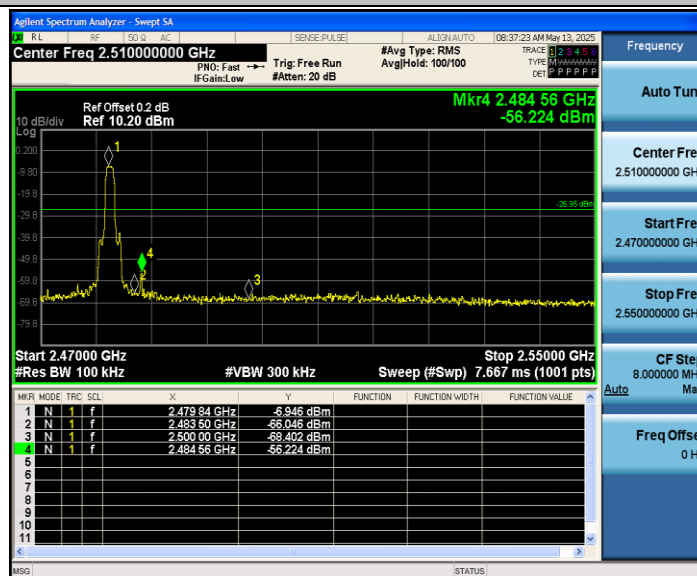
2DH5_Ant1_High_Hop_2480



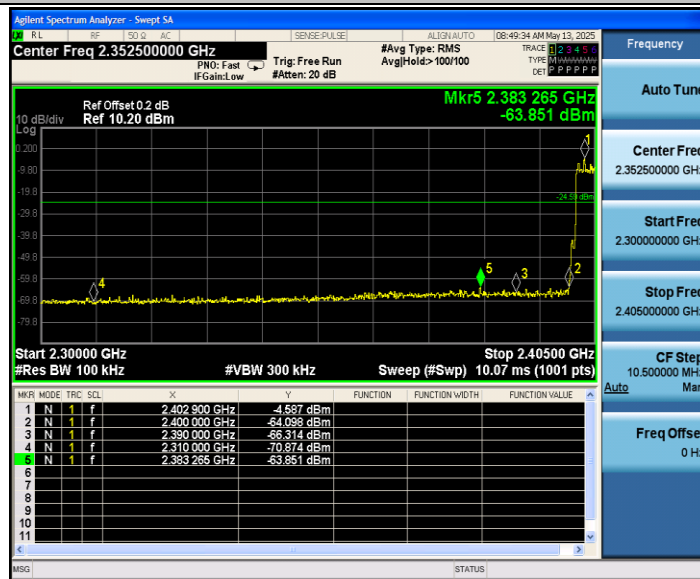
3DH5_Ant1_Low_2402



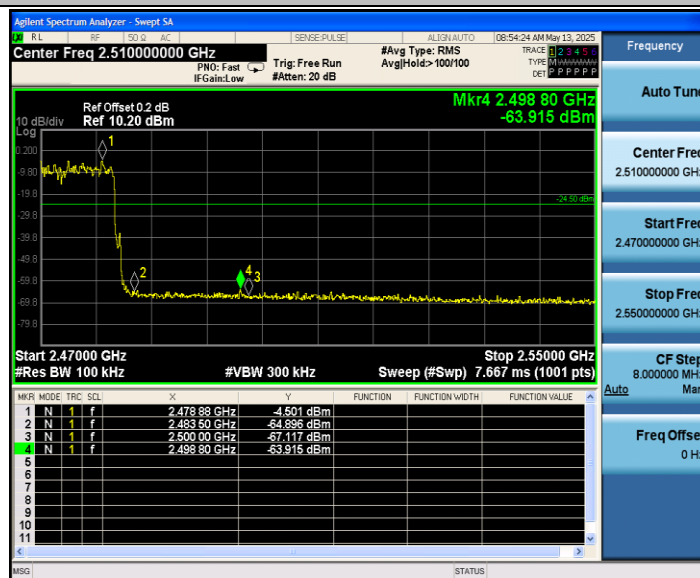
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

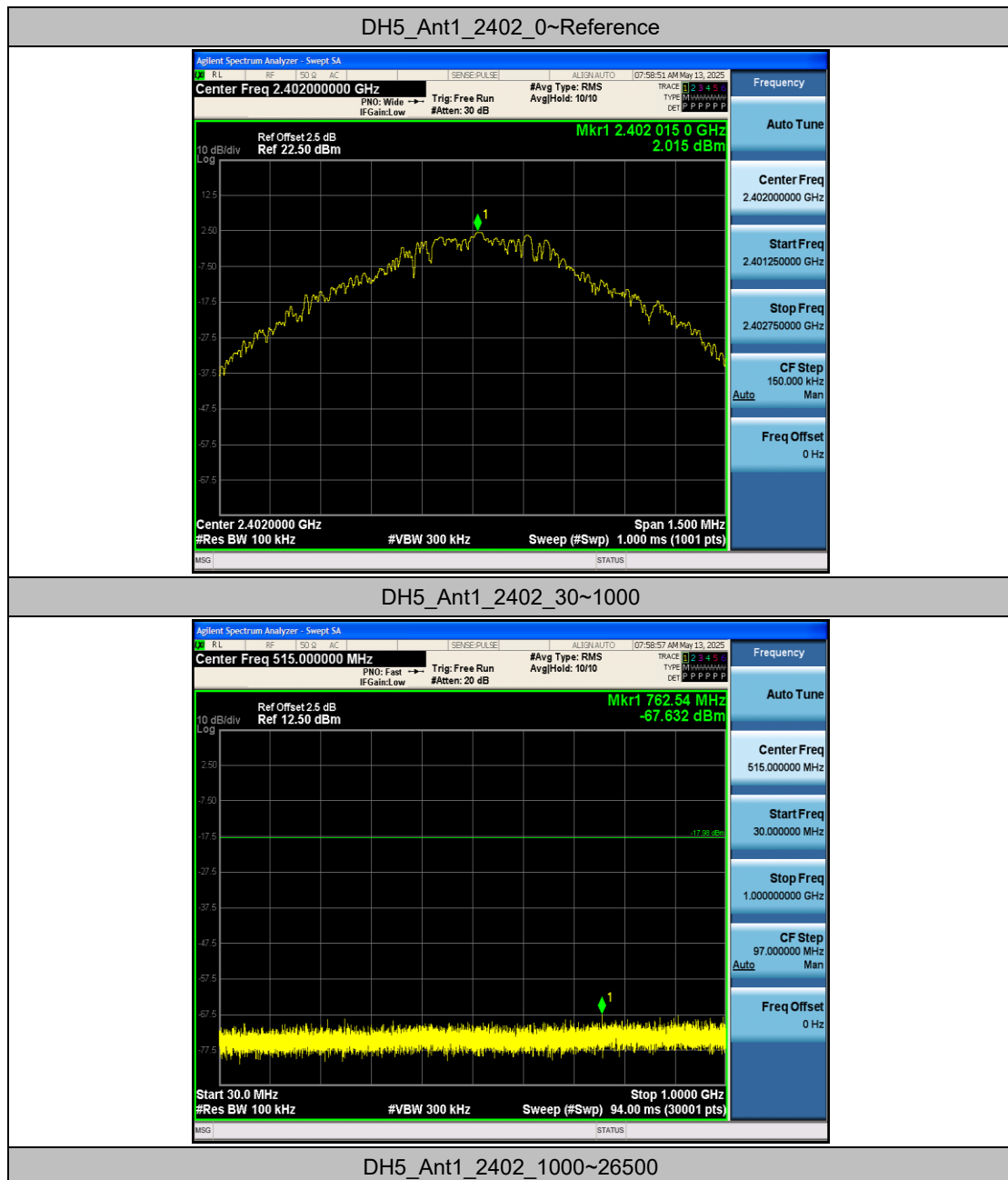


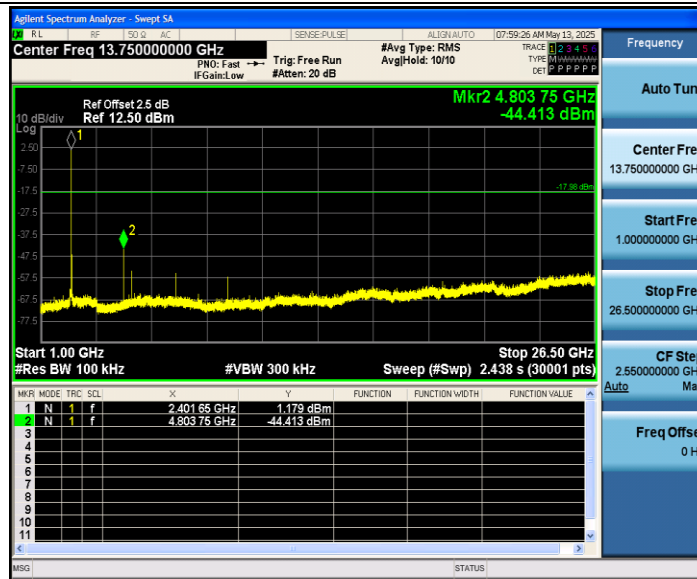
Appendix H: Conducted Spurious Emission

Test Result

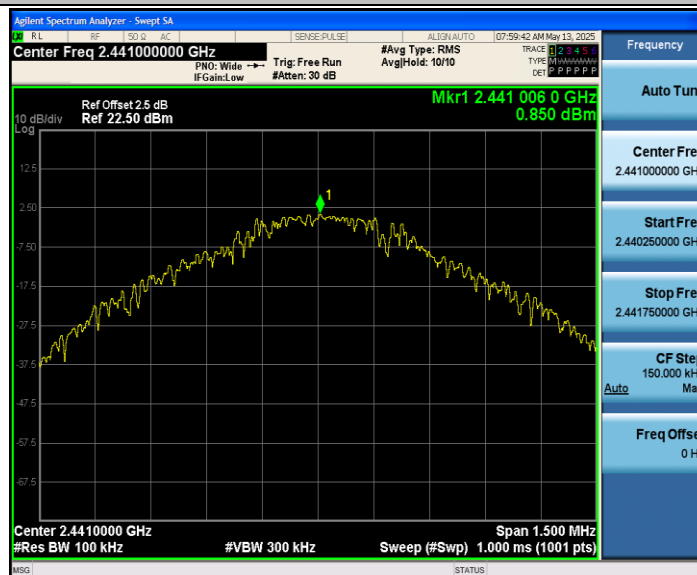
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	2.02	2.02	---	PASS
			30~1000	2.02	-67.63	≤-17.98	PASS
			1000~26500	2.02	-44.41	≤-17.98	PASS
		2441	Reference	0.85	0.85	---	PASS
			30~1000	0.85	-67.52	≤-19.15	PASS
			1000~26500	0.85	-41.32	≤-19.15	PASS
		2480	Reference	1.05	1.05	---	PASS
			30~1000	1.05	-68.07	≤-18.95	PASS
			1000~26500	1.05	-41.31	≤-18.95	PASS
2DH5	Ant1	2402	Reference	-2.96	-2.96	---	PASS
			30~1000	-2.96	-67.65	≤-22.96	PASS
			1000~26500	-2.96	-49.44	≤-22.96	PASS
		2441	Reference	-2.22	-2.22	---	PASS
			30~1000	-2.22	-68.3	≤-22.22	PASS
			1000~26500	-2.22	-47.81	≤-22.22	PASS
		2480	Reference	-3.00	-3.00	---	PASS
			30~1000	-3.00	-67.91	≤-23	PASS
			1000~26500	-3.00	-45.64	≤-23	PASS
3DH5	Ant1	2402	Reference	-3.90	-3.90	---	PASS
			30~1000	-3.90	-67.67	≤-23.9	PASS
			1000~26500	-3.90	-50.18	≤-23.9	PASS
		2441	Reference	-2.53	-2.53	---	PASS
			30~1000	-2.53	-67.7	≤-22.53	PASS
			1000~26500	-2.53	-49.73	≤-22.53	PASS
		2480	Reference	-4.01	-4.01	---	PASS
			30~1000	-4.01	-68.24	≤-24.01	PASS
			1000~26500	-4.01	-49.35	≤-24.01	PASS

Test Graphs

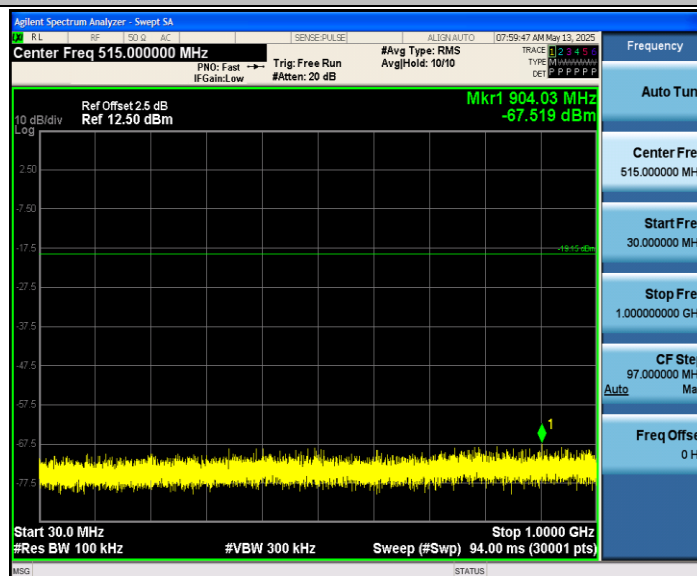




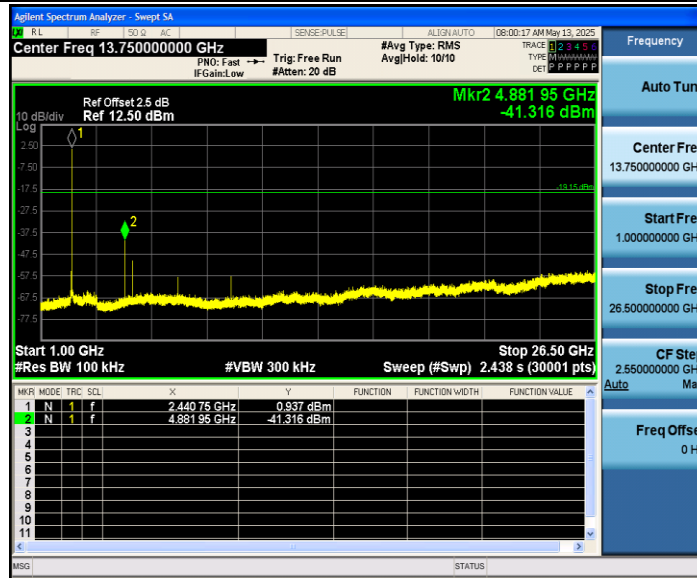
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



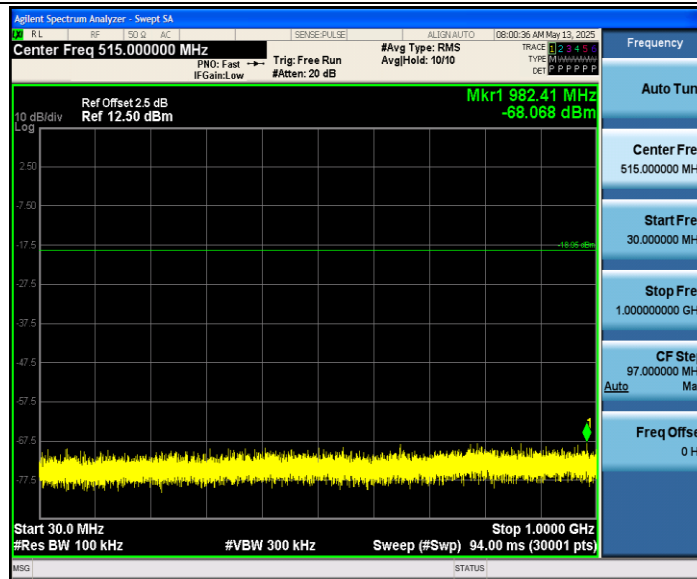
DH5_Ant1_2441_1000~26500



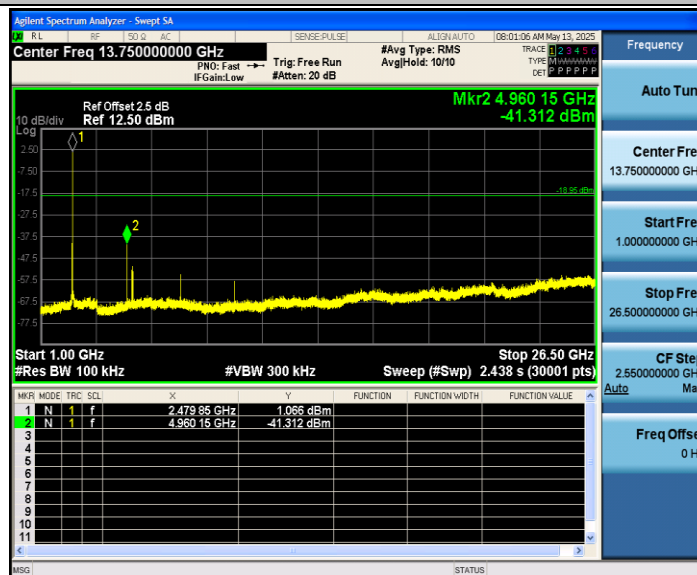
DH5_Ant1_2480_0~Reference



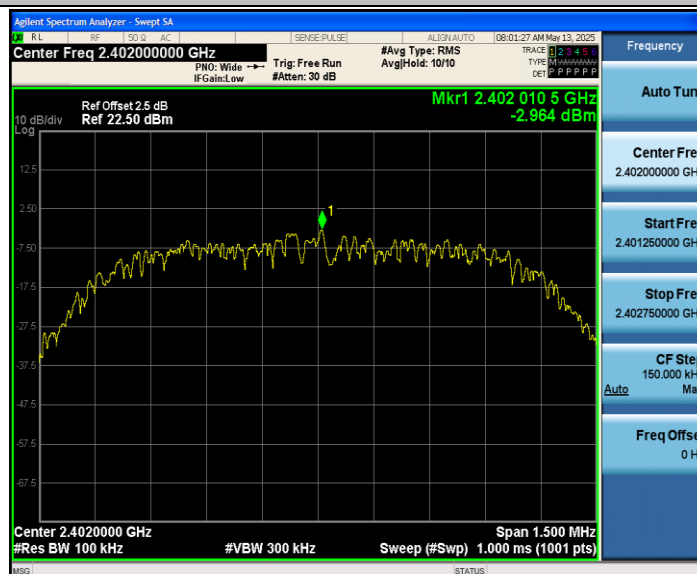
DH5_Ant1_2480_30~1000



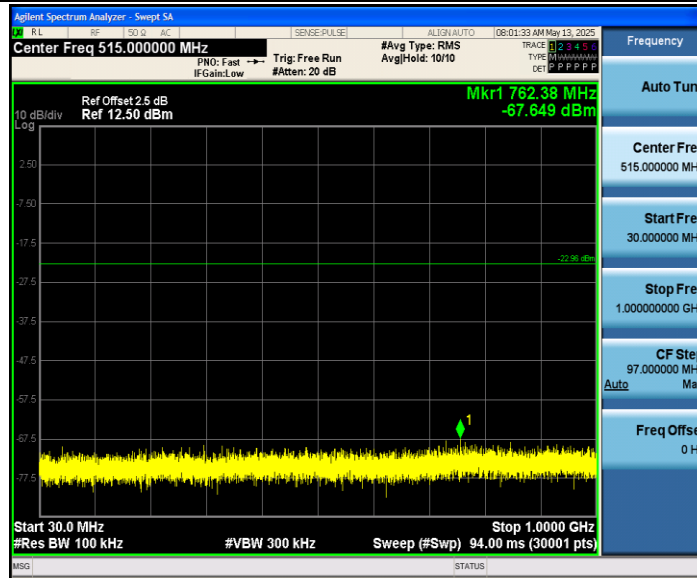
DH5_Ant1_2480_1000~26500



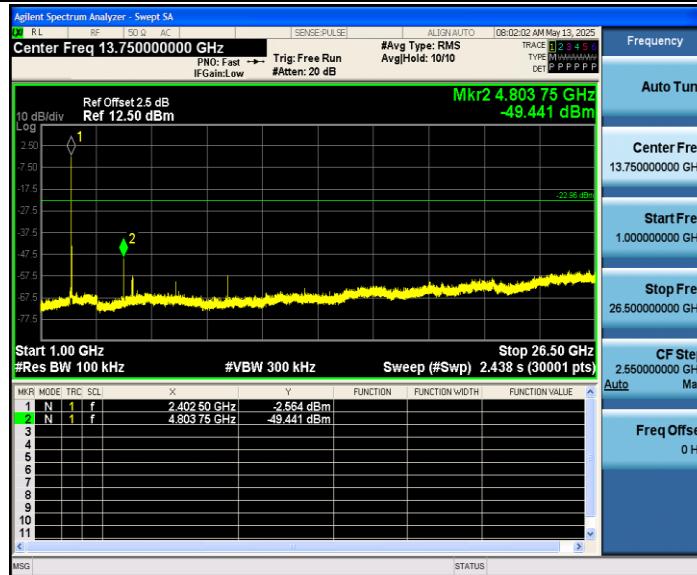
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference