

FCC Appendix RF Test Data for BT

FCC ID : 2A6P9-NWCA01

Company : Promaster Electronic LLC

EUT : Wireless CP&AA adaptor

Model Number : NWCAA-1

Report No. : CTA25092701202

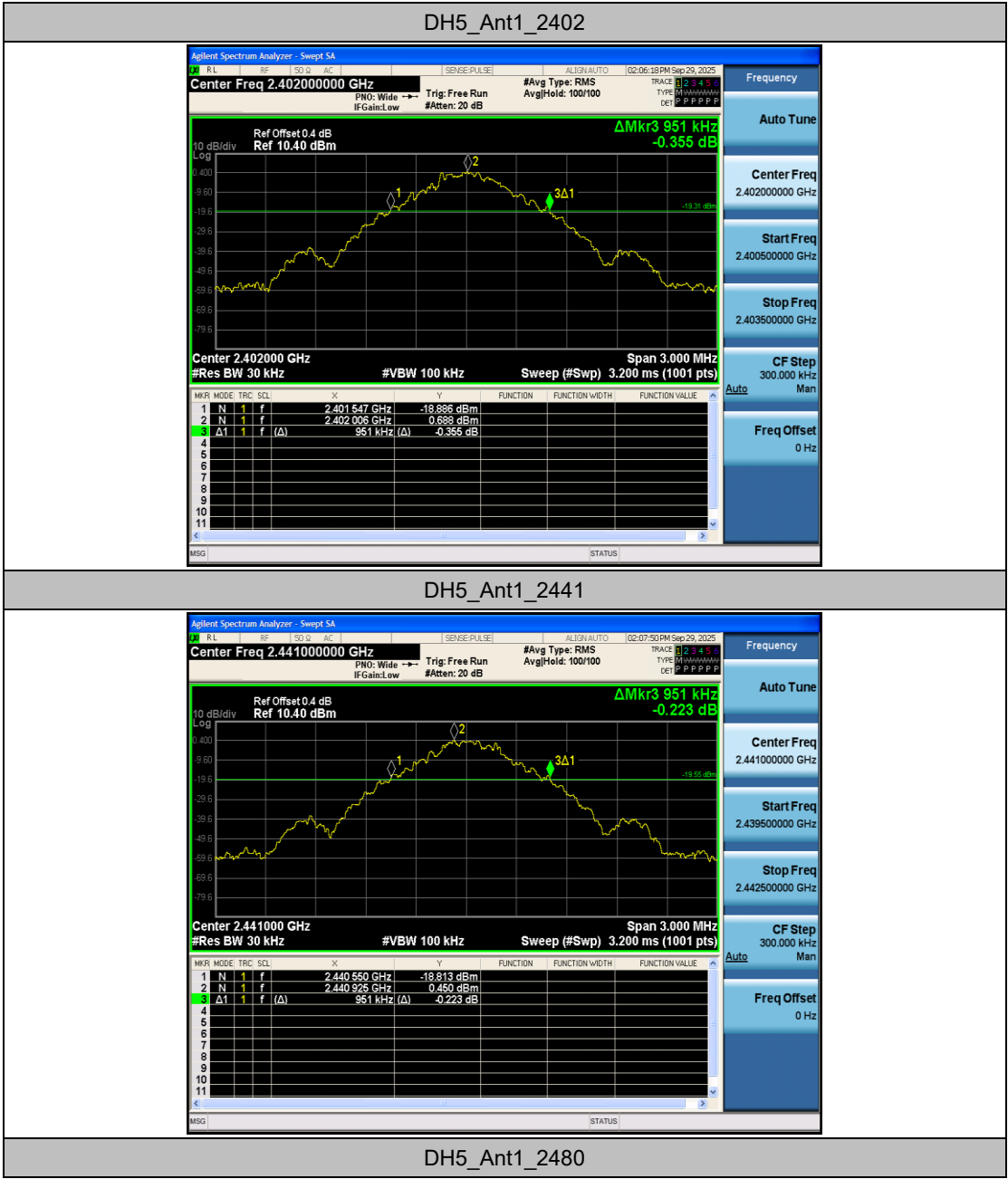
Reviewed By : Eric Wang

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	2401.547	2402.498	---	---
		2441	0.951	2440.550	2441.501	---	---
		2480	0.957	2479.544	2480.501	---	---
2DH5	Ant1	2402	1.326	2401.343	2402.669	---	---
		2441	1.305	2440.361	2441.666	---	---
		2480	1.323	2479.349	2480.672	---	---
3DH5	Ant1	2402	1.308	2401.355	2402.663	---	---
		2441	1.305	2440.358	2441.663	---	---
		2480	1.311	2479.355	2480.666	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

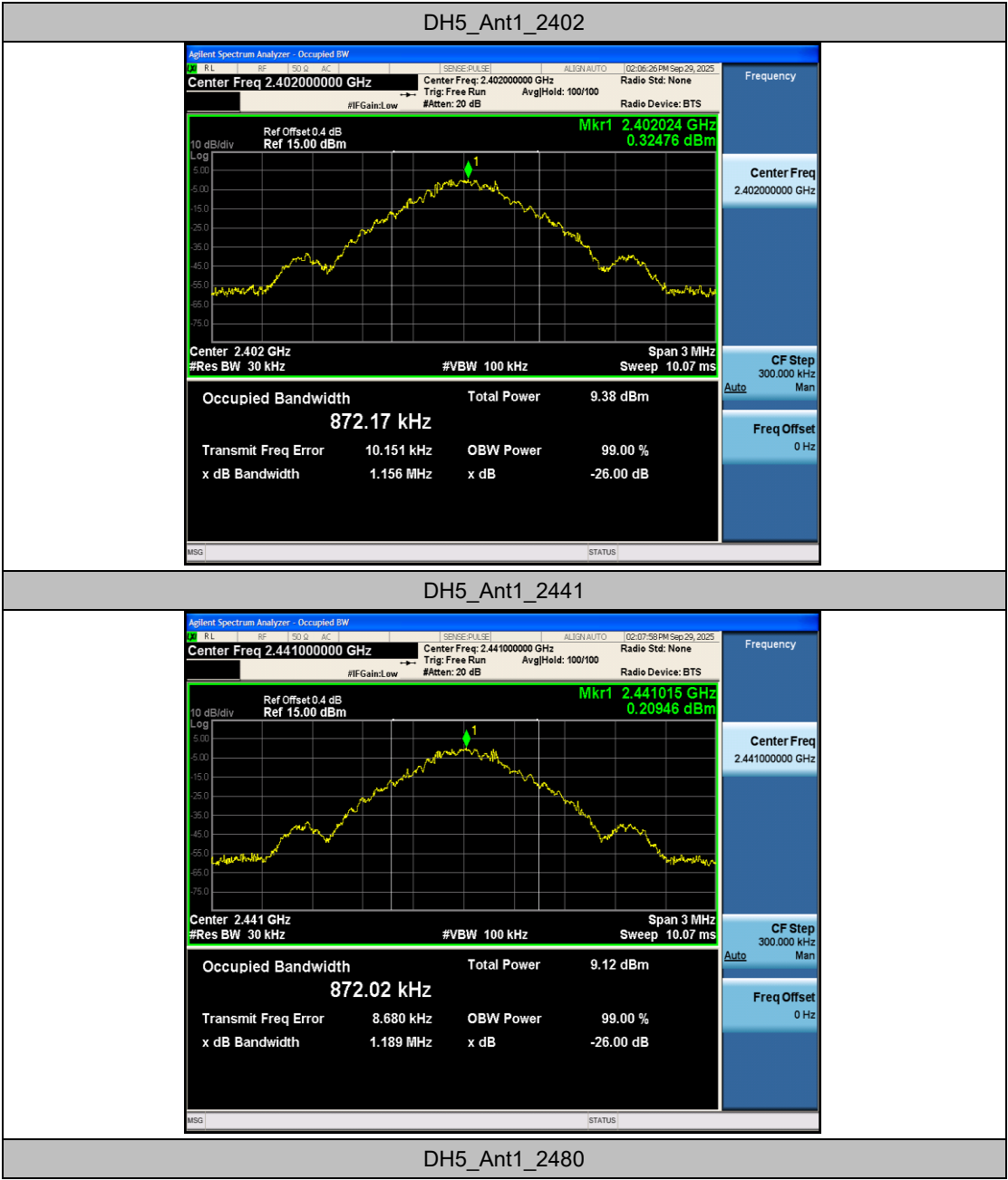


Appendix B: Occupied Channel Bandwidth

Test Result

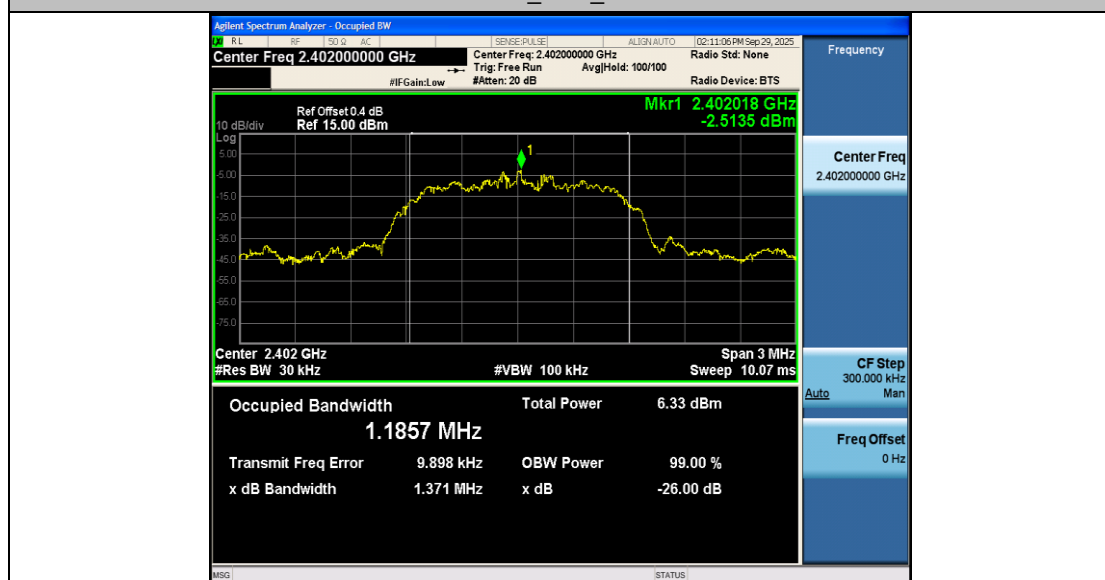
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.87217	2401.5741	2402.4462	---	---
		2441	0.87202	2440.5727	2441.4447	---	---
		2480	0.86665	2479.5726	2480.4393	---	---
2DH5	Ant1	2402	1.1857	2401.4171	2402.6028	---	---
		2441	1.1903	2440.4170	2441.6073	---	---
		2480	1.1945	2479.4122	2480.6067	---	---
3DH5	Ant1	2402	1.1921	2401.4134	2402.6055	---	---
		2441	1.1913	2440.4156	2441.6069	---	---
		2480	1.1904	2479.4147	2480.6051	---	---

Test Graphs

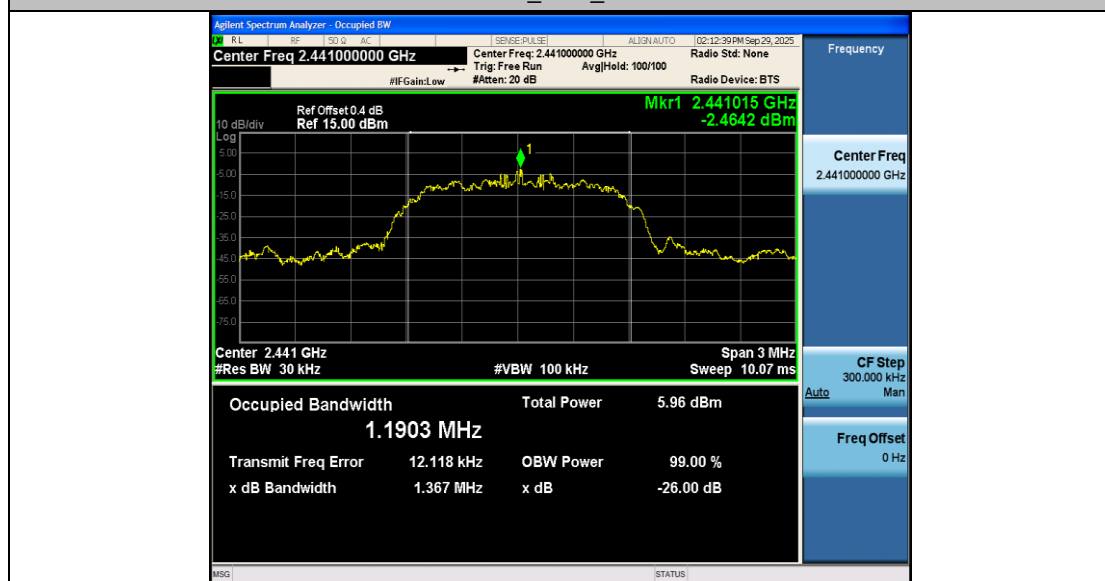




2DH5_Ant1_2402



2DH5_Ant1_2441



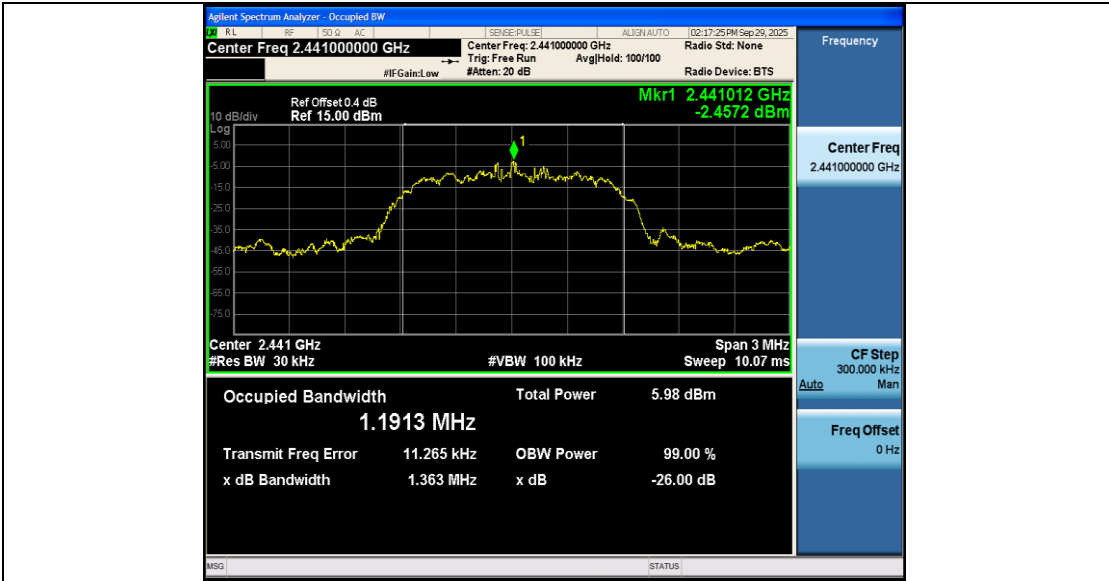
2DH5_Ant1_2480



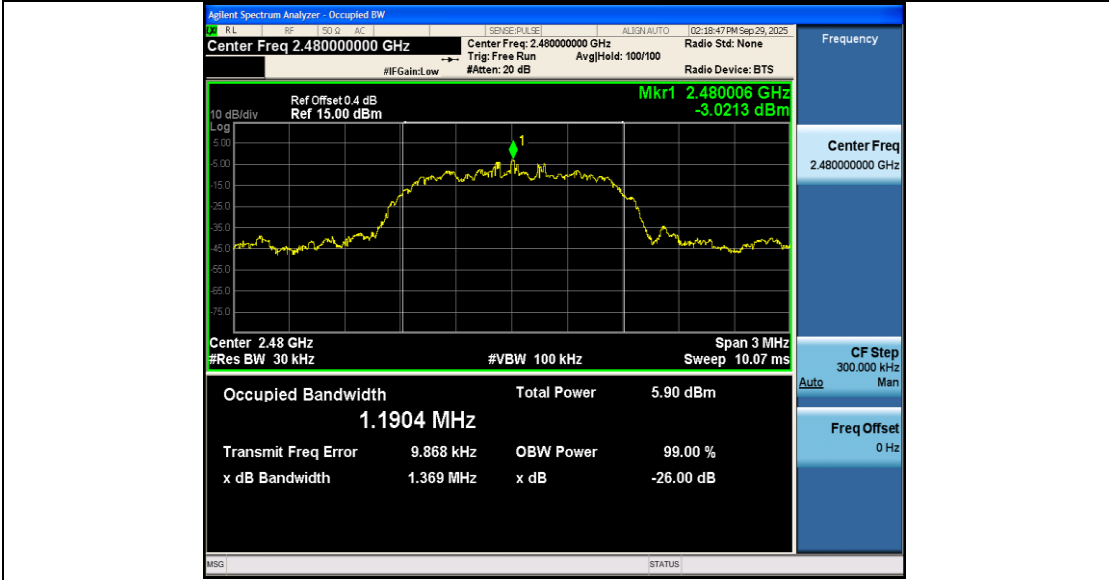
3DH5_Ant1_2402



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	3.33	≤20.97	PASS
		2441	3.07	≤20.97	PASS
		2480	3.03	≤20.97	PASS
2DH5	Ant1	2402	2.65	≤20.97	PASS
		2441	2.34	≤20.97	PASS
		2480	2.26	≤20.97	PASS
3DH5	Ant1	2402	2.59	≤20.97	PASS
		2441	2.36	≤20.97	PASS
		2480	2.31	≤20.97	PASS

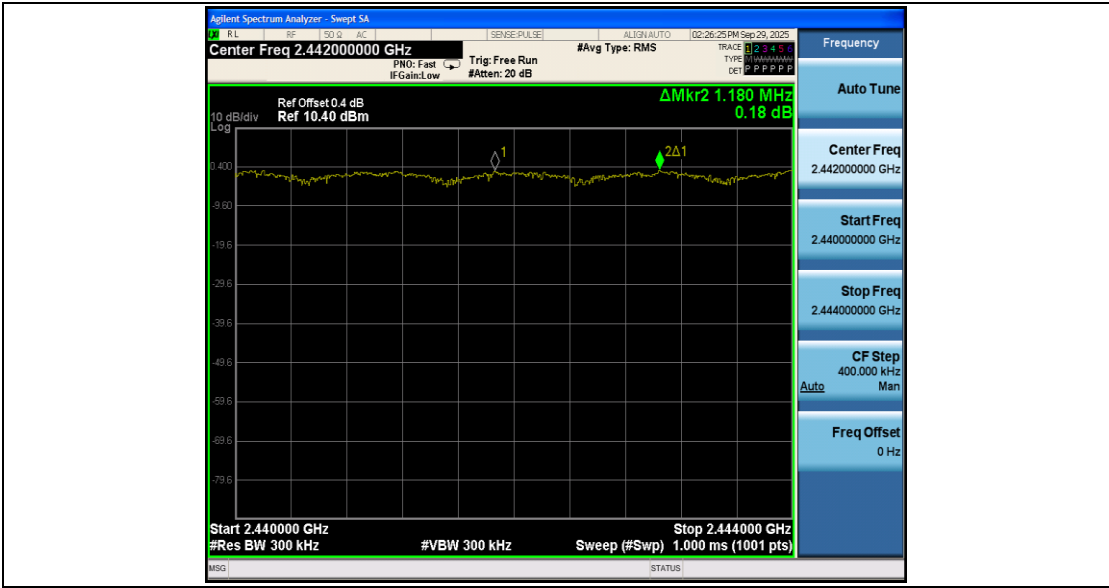
Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.016	≥ 0.957	PASS
2DH5	Ant1	Hop	1.124	≥ 0.884	PASS
3DH5	Ant1	Hop	1.18	≥ 0.874	PASS

Test Graphs



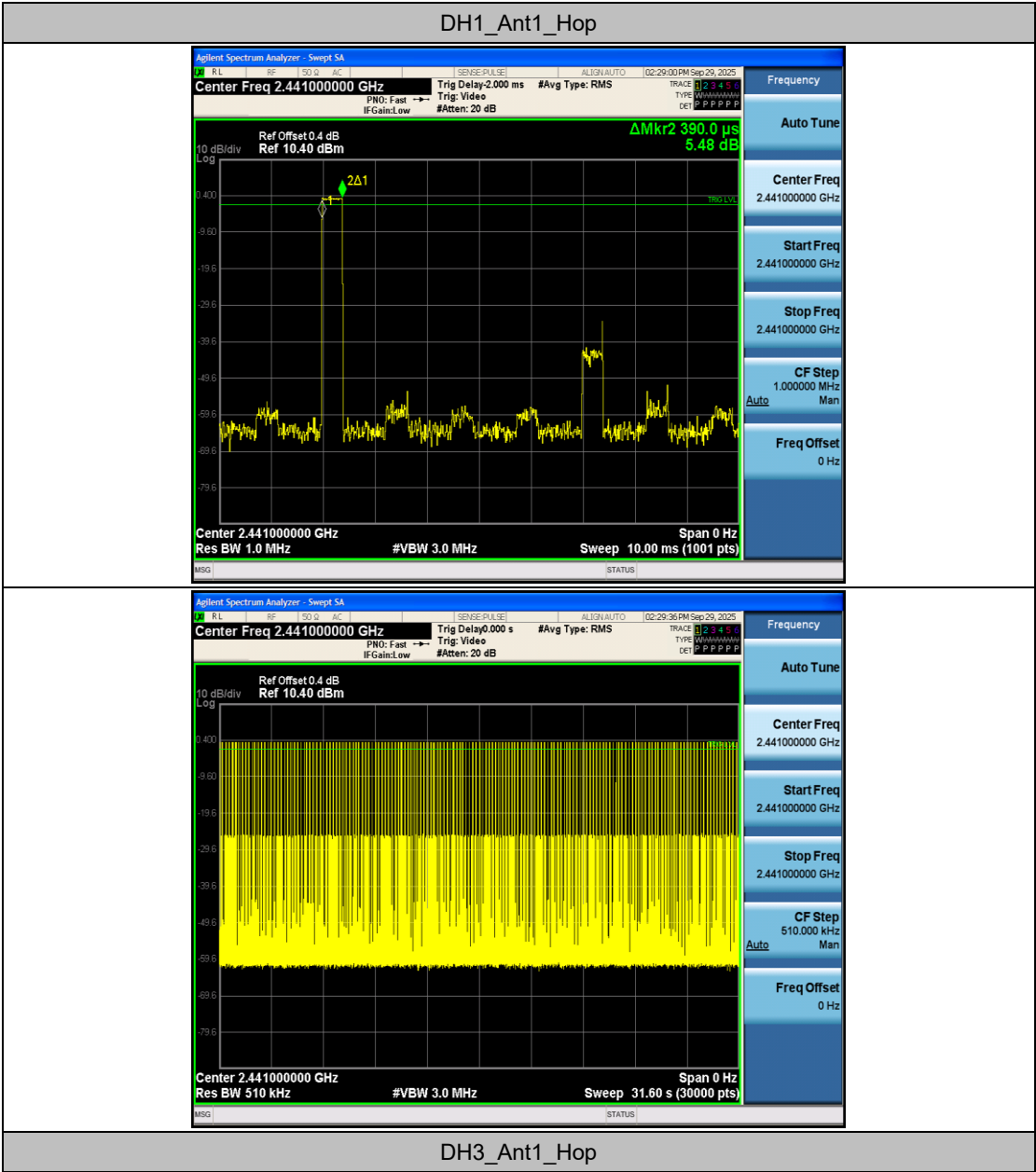


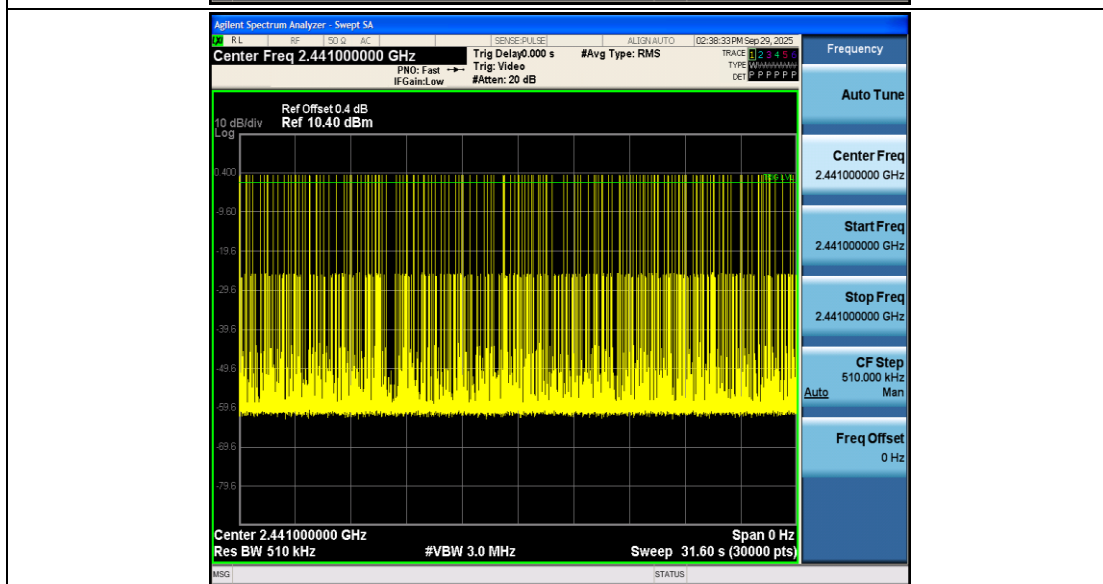
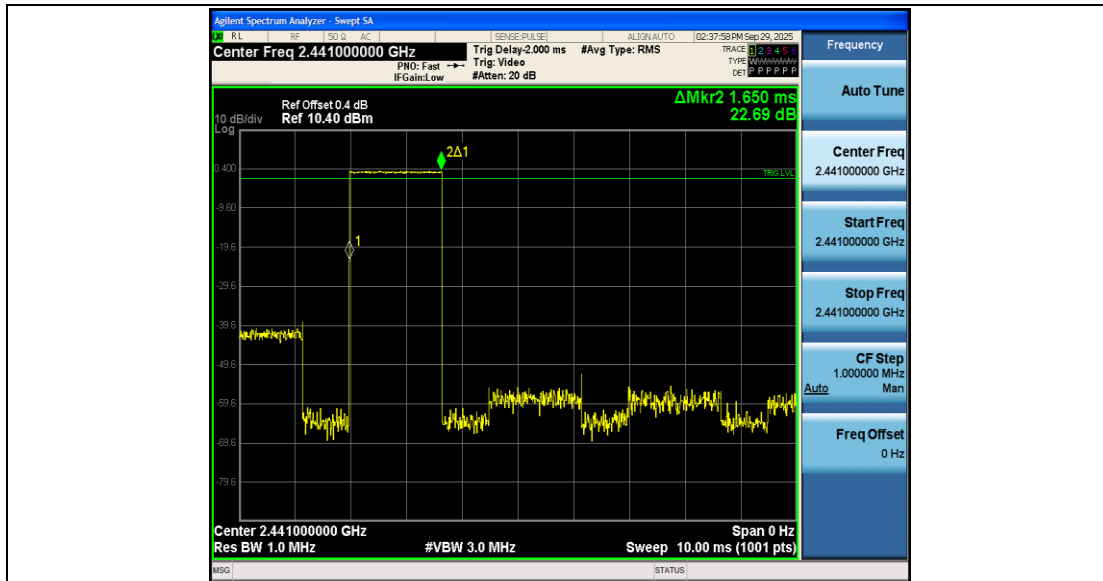
Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.390	318	0.124	≤0.4	PASS
DH3	Ant1	Hop	1.650	155	0.256	≤0.4	PASS
DH5	Ant1	Hop	2.900	108	0.313	≤0.4	PASS
2DH1	Ant1	Hop	0.390	316	0.123	≤0.4	PASS
2DH3	Ant1	Hop	1.640	161	0.264	≤0.4	PASS
2DH5	Ant1	Hop	2.900	103	0.299	≤0.4	PASS
3DH1	Ant1	Hop	0.390	318	0.124	≤0.4	PASS
3DH3	Ant1	Hop	1.650	163	0.269	≤0.4	PASS
3DH5	Ant1	Hop	2.900	112	0.325	≤0.4	PASS

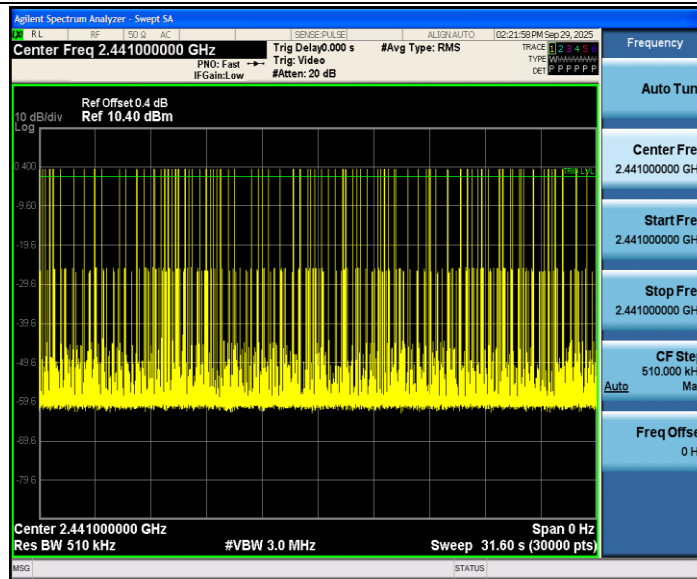
Test Graphs



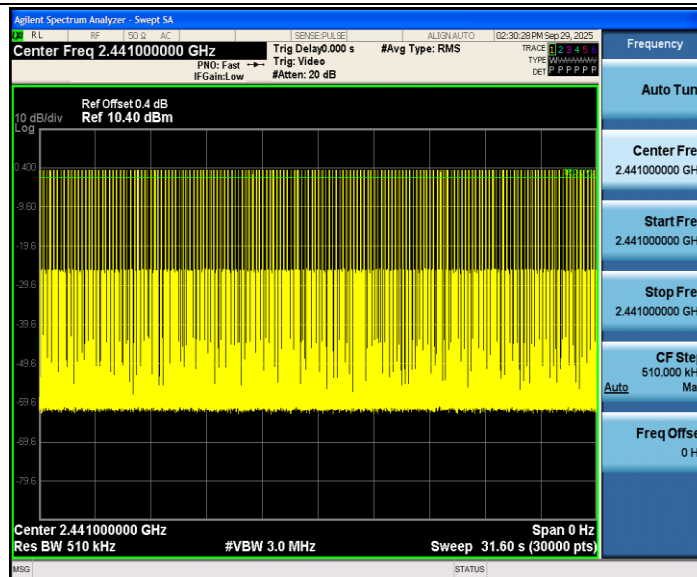
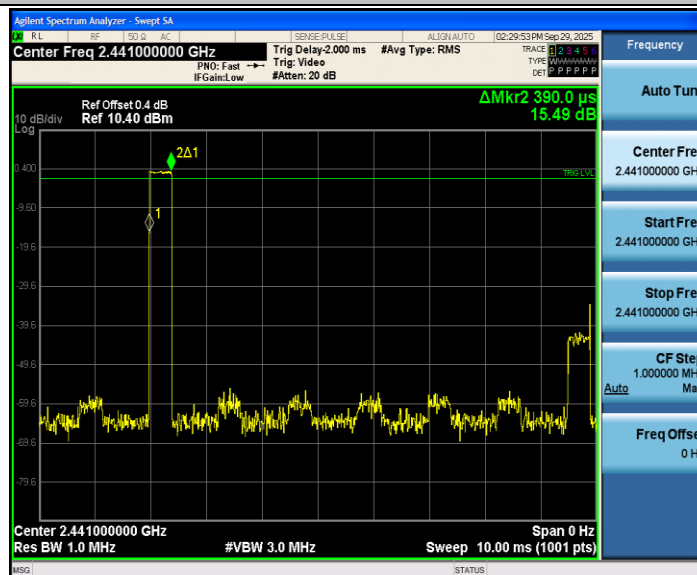


DH5_Ant1_Hop

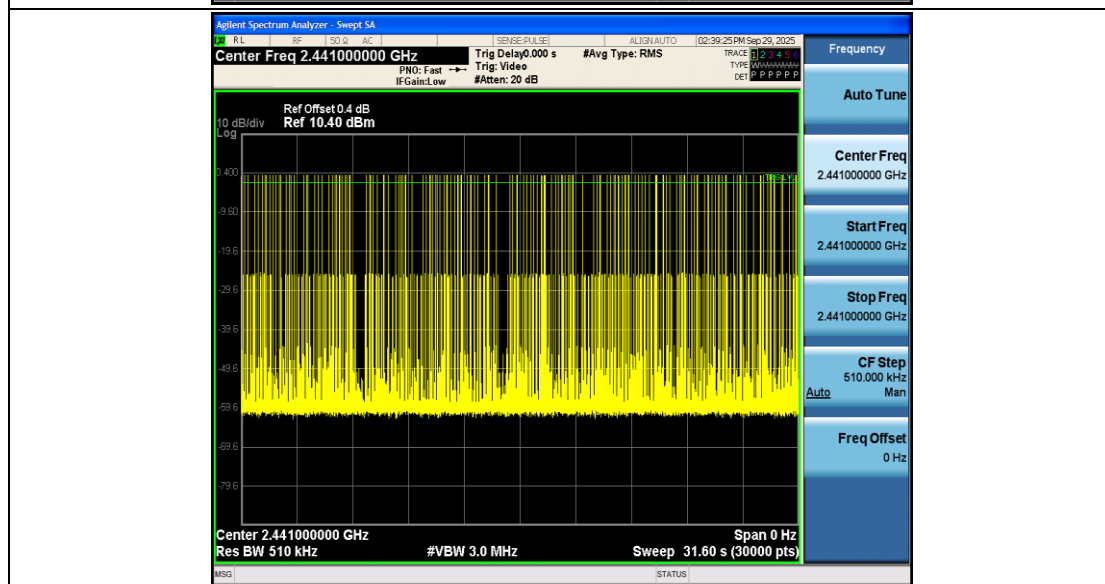




2DH1_Ant1_Hop

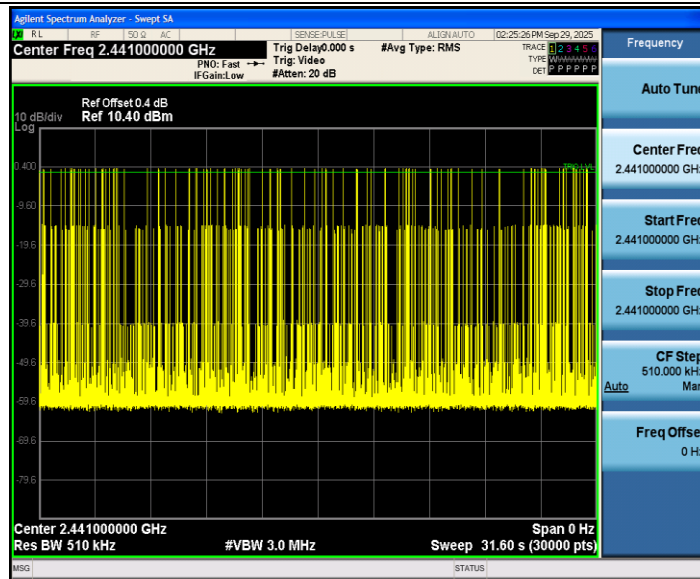


2DH3_Ant1_Hop

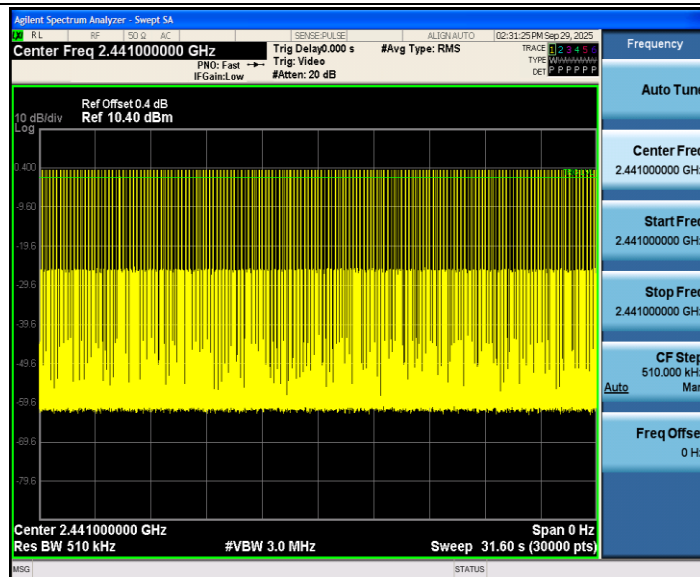
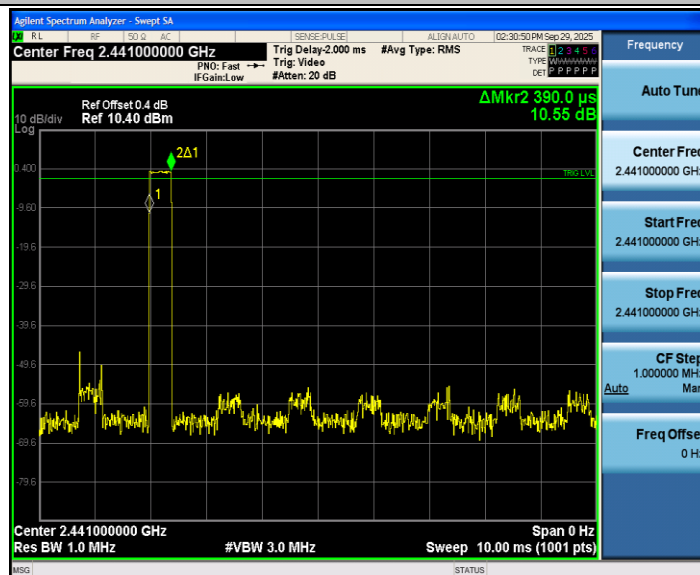


2DH5_Ant1_Hop

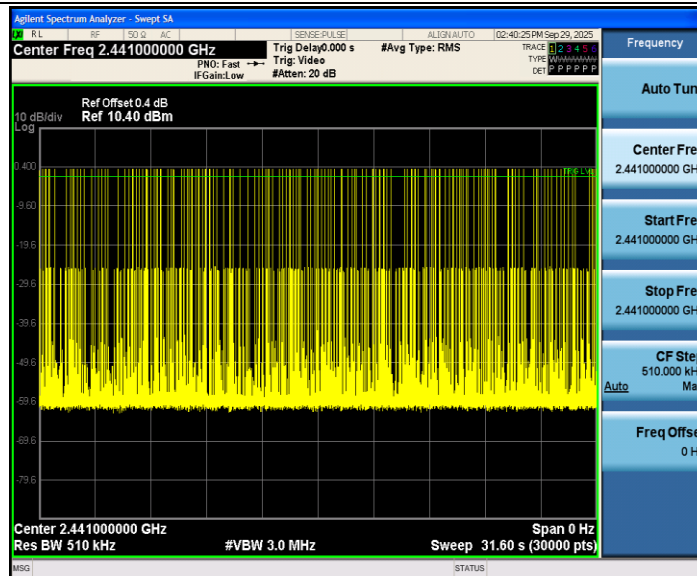
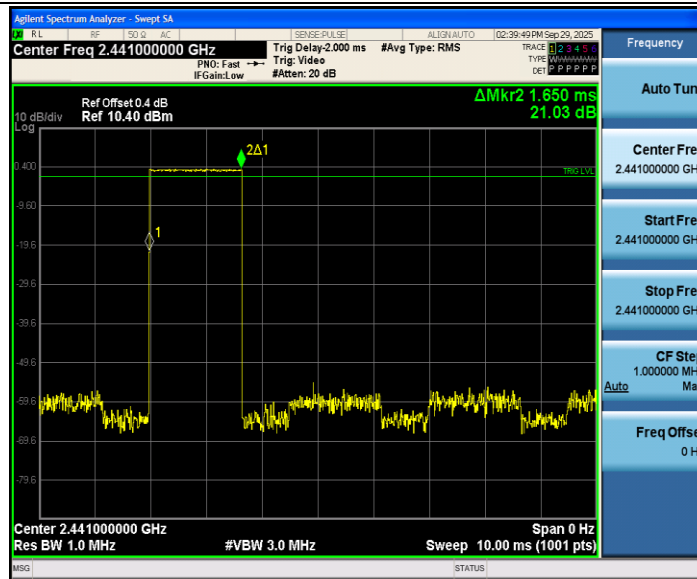




3DH1_Ant1_Hop

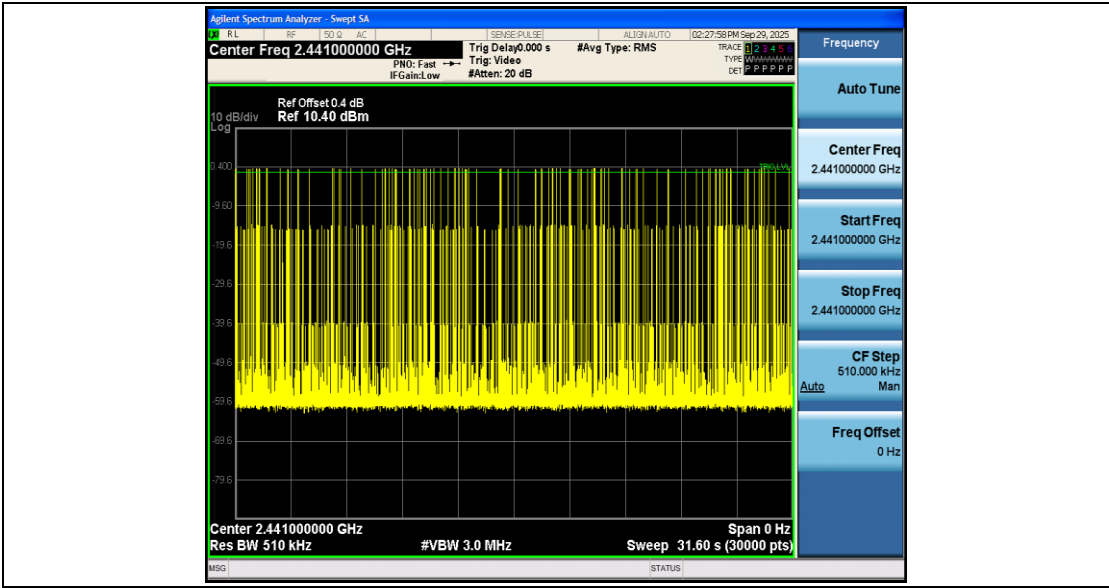


3DH3_Ant1_Hop



3DH5_Ant1_Hop



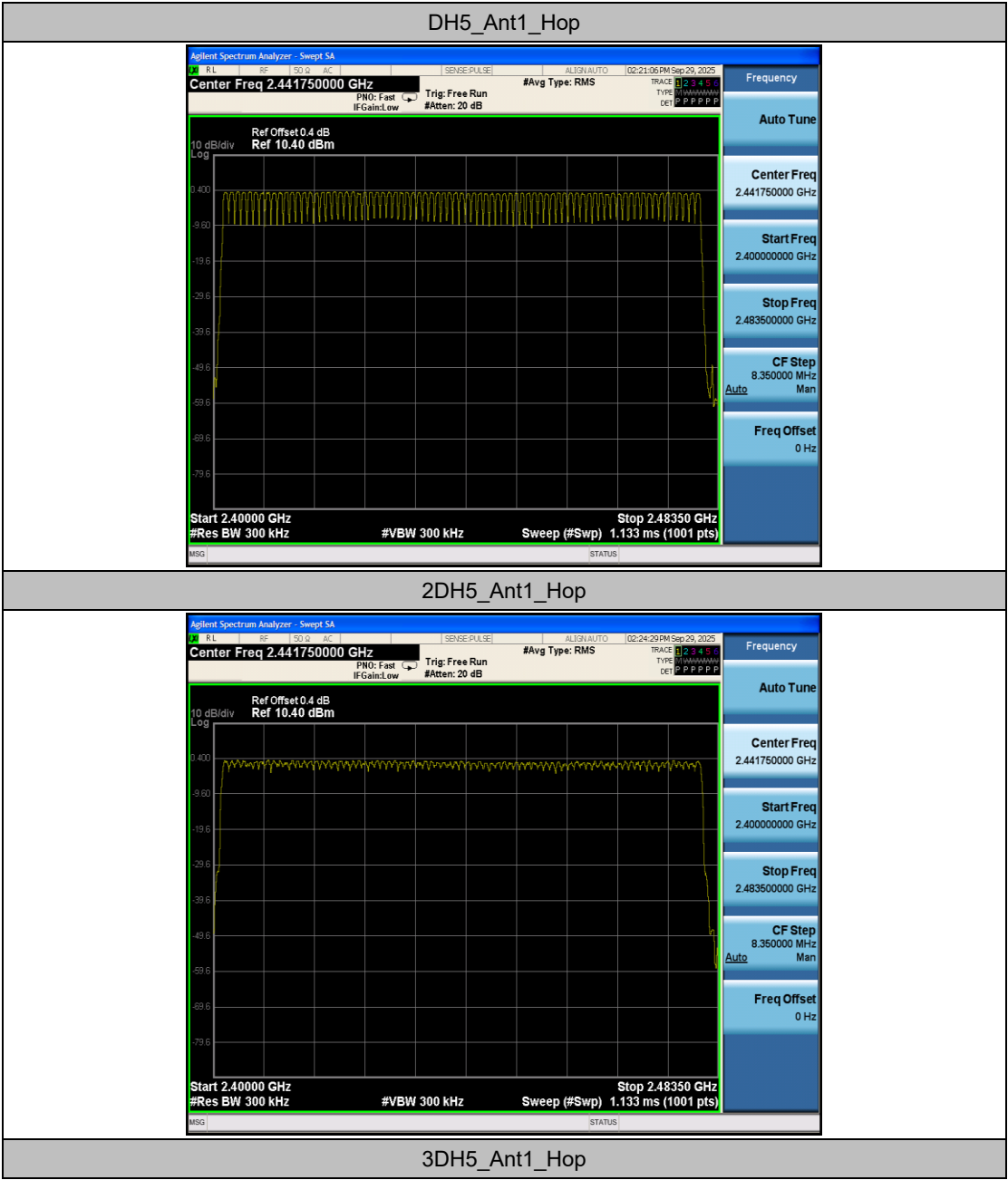


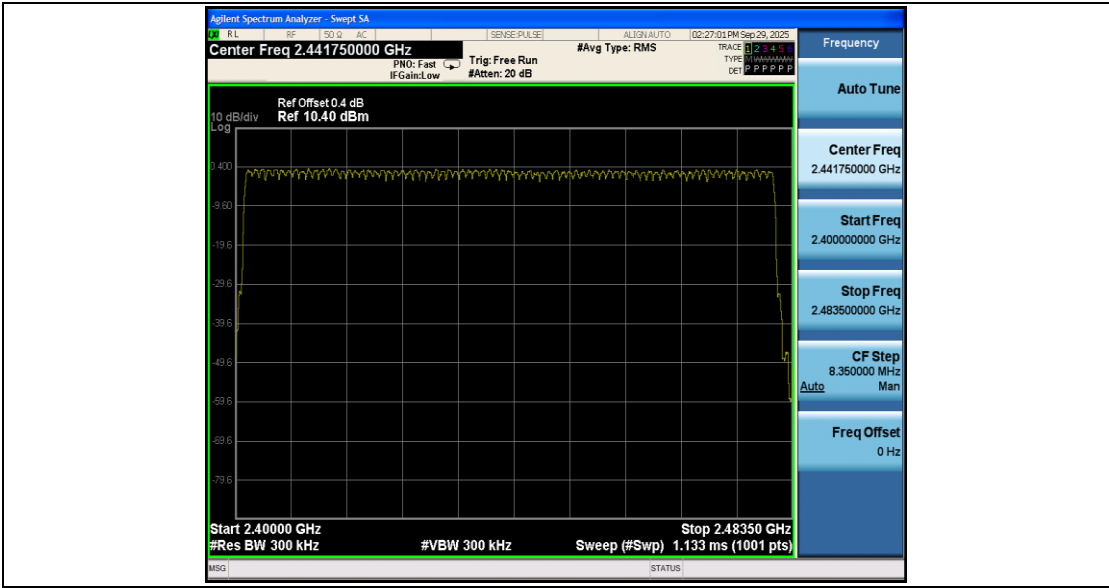
Appendix F: Number of hopping channels

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



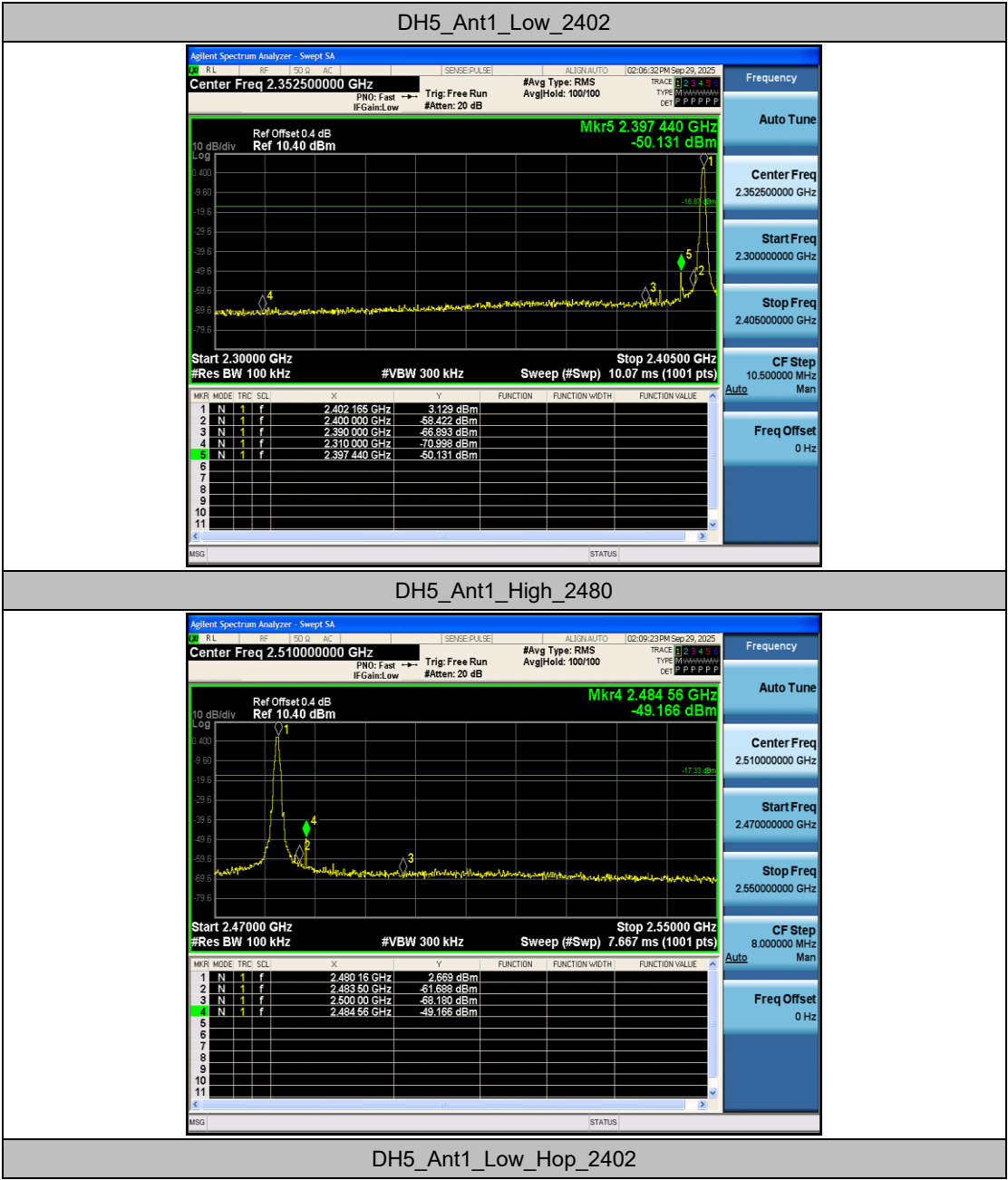


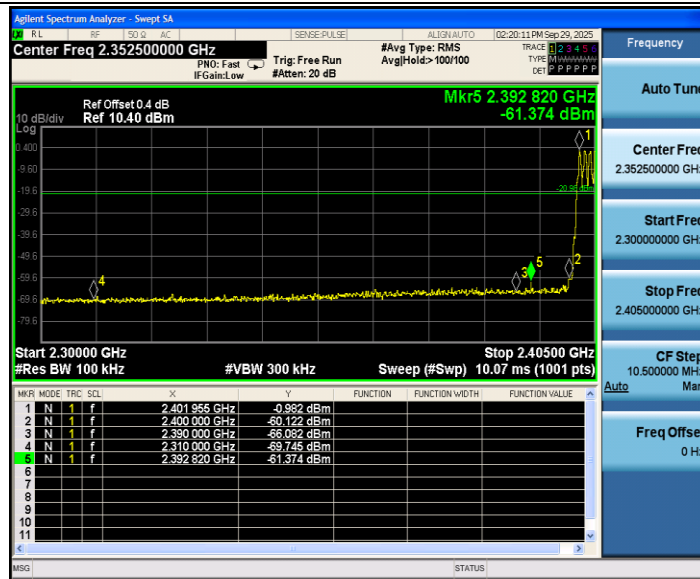
Appendix G: Band edge measurements

Test Result

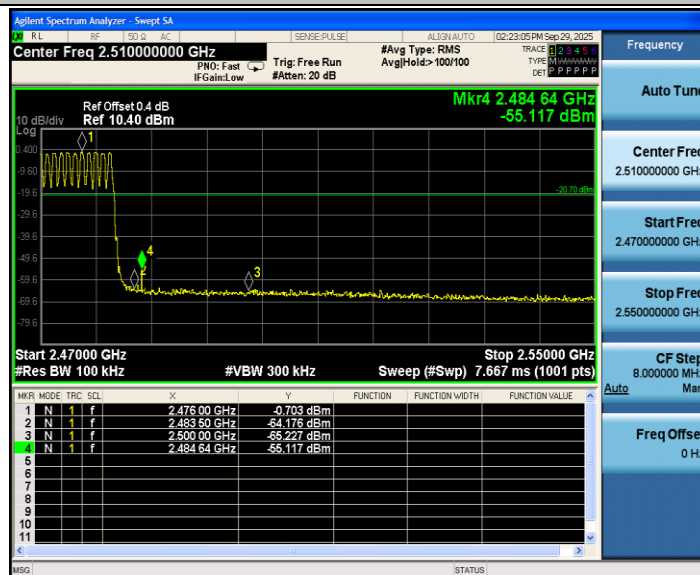
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	3.13	-50.13	≤-16.87	PASS
		High	2480	2.67	-49.17	≤-17.33	PASS
		Low	Hop_2402	-0.98	-61.37	≤-20.98	PASS
		High	Hop_2480	-0.70	-55.12	≤-20.7	PASS
2DH5	Ant1	Low	2402	-1.01	-51.15	≤-21.01	PASS
		High	2480	-1.40	-62.52	≤-21.4	PASS
		Low	Hop_2402	-2.57	-53.84	≤-22.57	PASS
		High	Hop_2480	-1.78	-62.22	≤-21.78	PASS
3DH5	Ant1	Low	2402	-0.20	-52.4	≤-20.2	PASS
		High	2480	-0.48	-63.13	≤-20.48	PASS
		Low	Hop_2402	-1.29	-52.16	≤-21.29	PASS
		High	Hop_2480	-2.49	-53.5	≤-22.49	PASS

Test Graphs

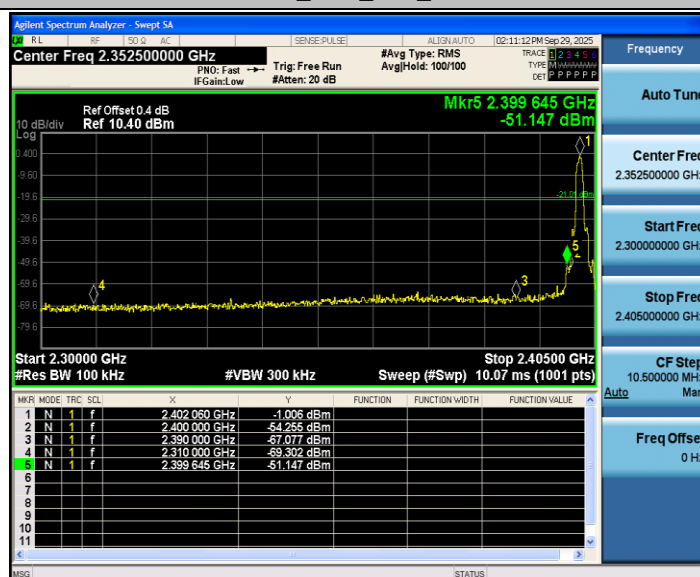




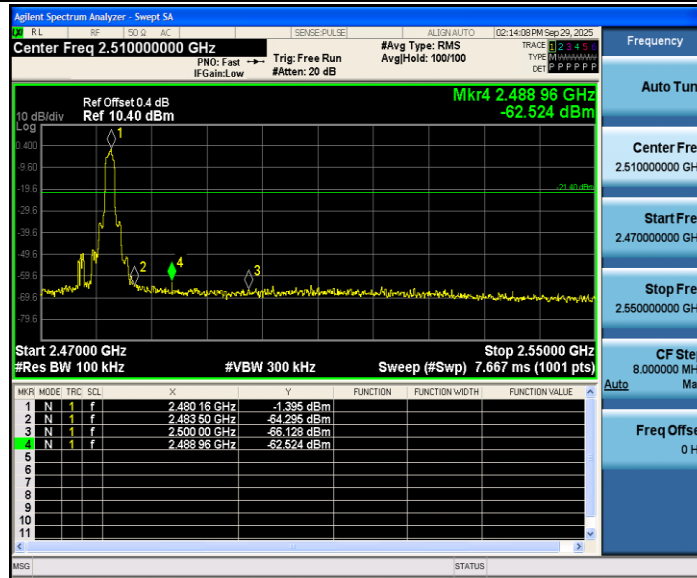
DH5_Ant1_High_Hop_2480



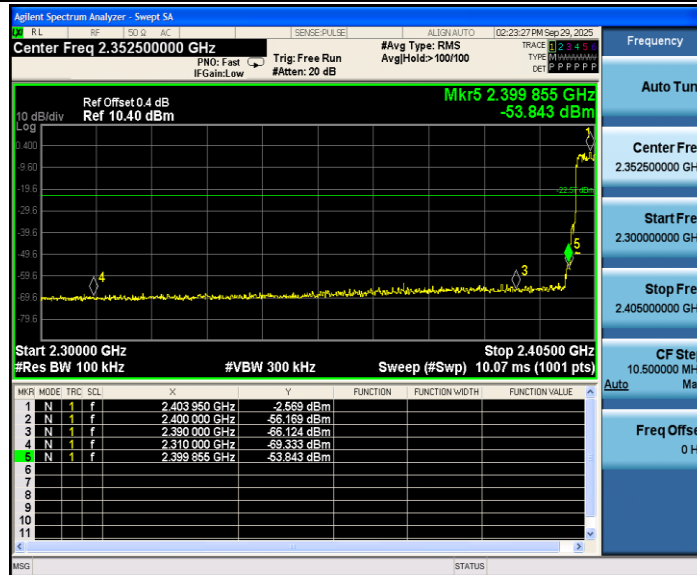
2DH5_Ant1_Low_2402



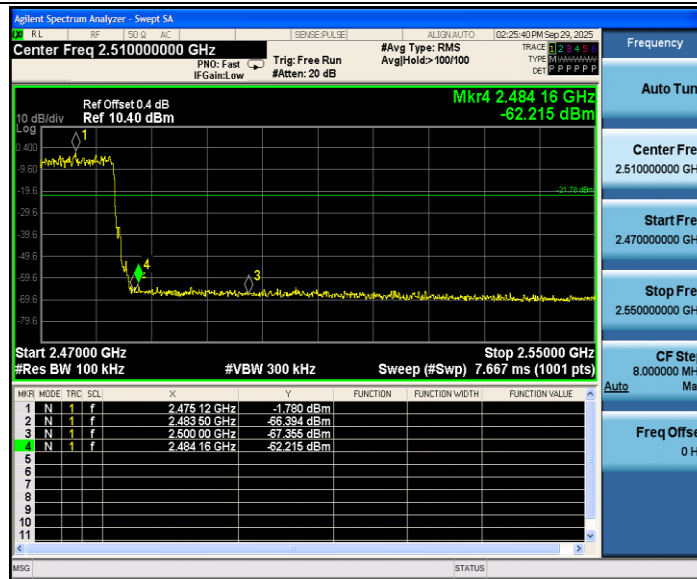
2DH5_Ant1_High_2480



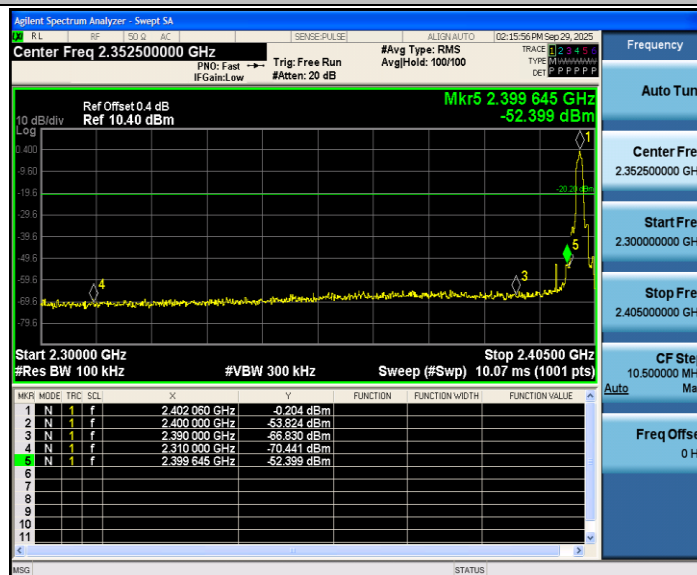
2DH5_Ant1_Low_Hop_2402



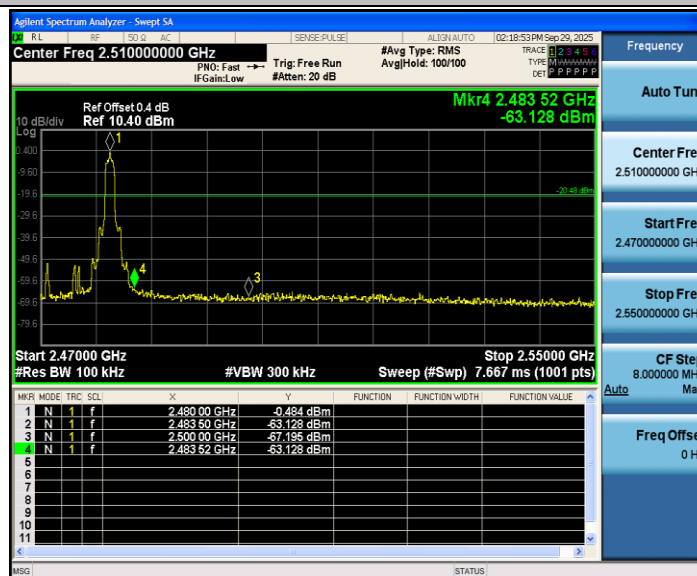
2DH5_Ant1_High_Hop_2480



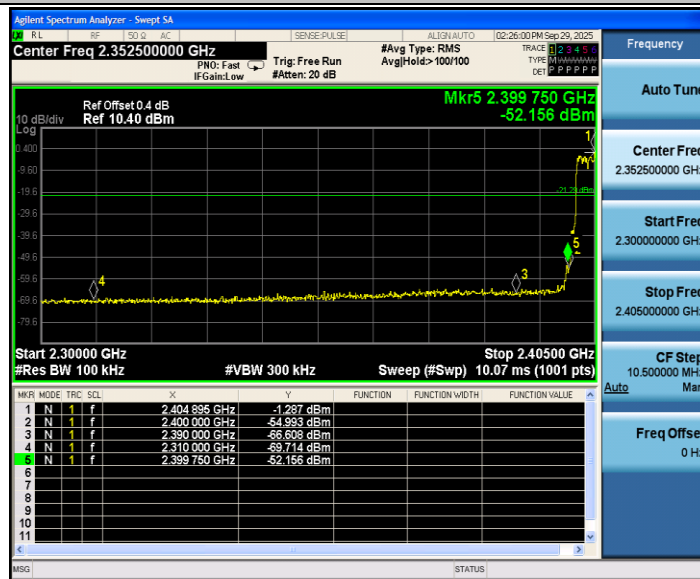
3DH5_Ant1_Low_2402



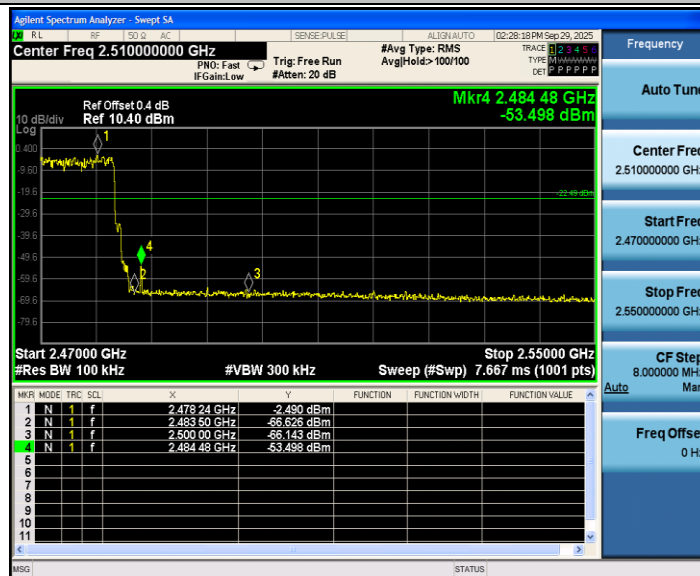
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

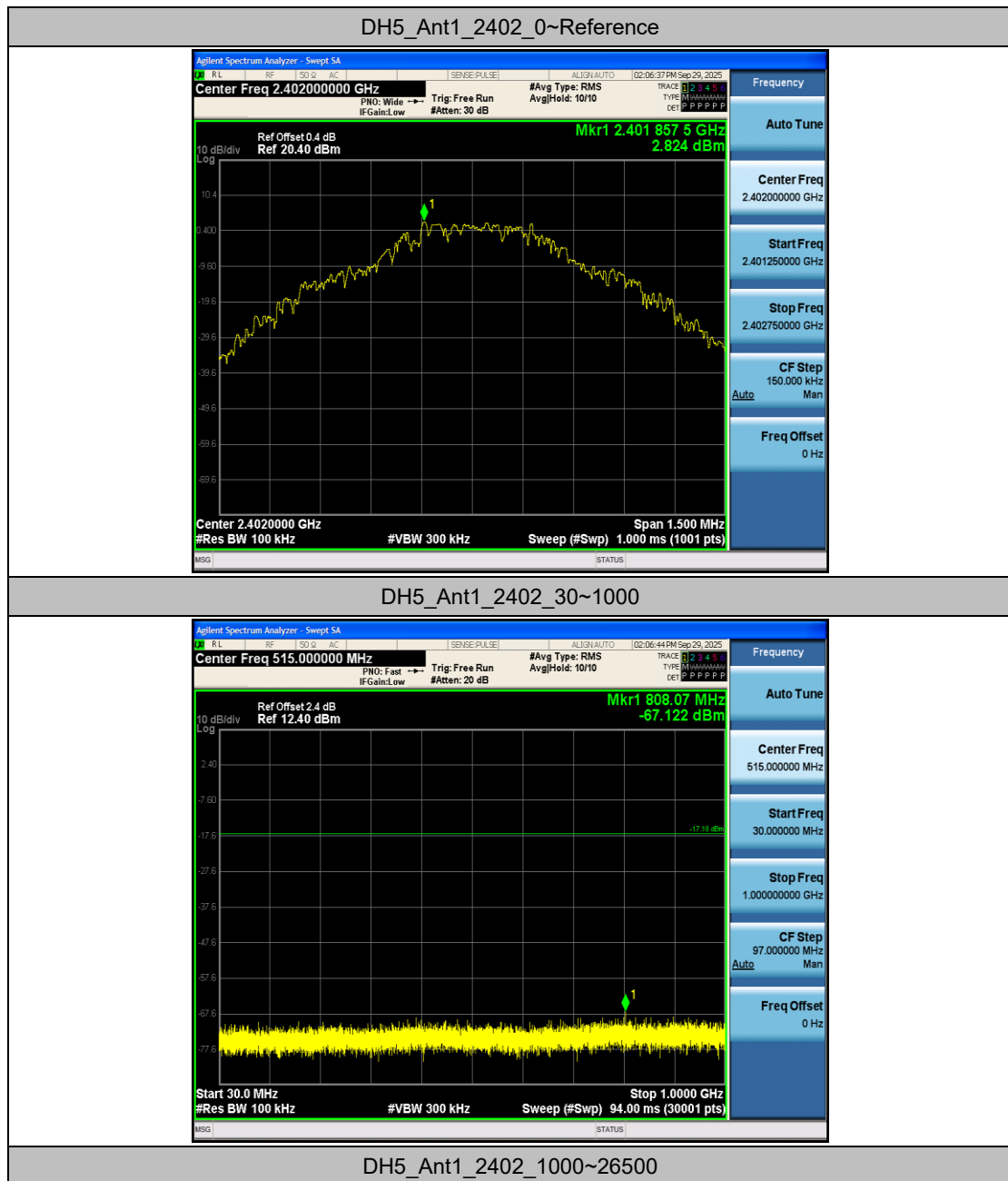


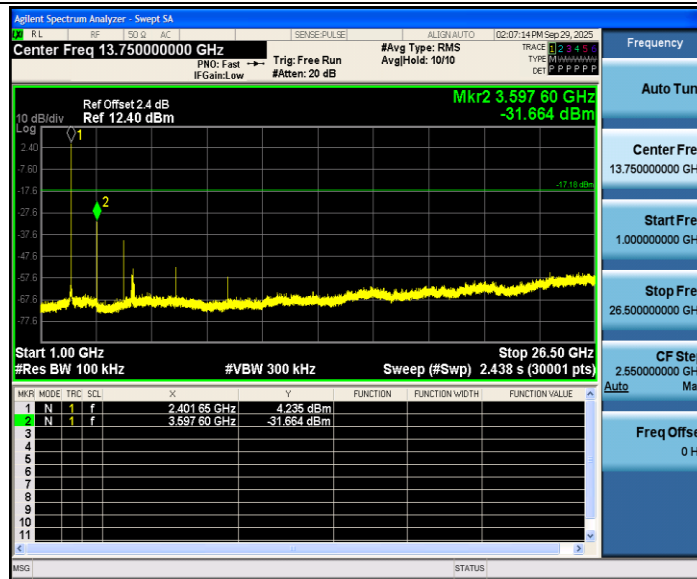
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	2.82	2.82	---	PASS
			30~1000	2.82	-67.12	≤-17.18	PASS
			1000~26500	2.82	-31.66	≤-17.18	PASS
		2441	Reference	1.89	1.89	---	PASS
			30~1000	1.89	-67.72	≤-18.11	PASS
			1000~26500	1.89	-38.84	≤-18.11	PASS
		2480	Reference	1.90	1.90	---	PASS
			30~1000	1.90	-68.25	≤-18.1	PASS
			1000~26500	1.90	-38.84	≤-18.1	PASS
2DH5	Ant1	2402	Reference	-1.69	-1.69	---	PASS
			30~1000	-1.69	-67.91	≤-21.69	PASS
			1000~26500	-1.69	-44.02	≤-21.69	PASS
		2441	Reference	-2.10	-2.10	---	PASS
			30~1000	-2.10	-67.67	≤-22.1	PASS
			1000~26500	-2.10	-43.4	≤-22.1	PASS
		2480	Reference	-0.43	-0.43	---	PASS
			30~1000	-0.43	-68.1	≤-20.43	PASS
			1000~26500	-0.43	-45.65	≤-20.43	PASS
3DH5	Ant1	2402	Reference	-0.68	-0.68	---	PASS
			30~1000	-0.68	-68.6	≤-20.68	PASS
			1000~26500	-0.68	-44.08	≤-20.68	PASS
		2441	Reference	-3.90	-3.90	---	PASS
			30~1000	-3.90	-67.32	≤-23.9	PASS
			1000~26500	-3.90	-46.51	≤-23.9	PASS
		2480	Reference	-1.83	-1.83	---	PASS
			30~1000	-1.83	-68.45	≤-21.83	PASS
			1000~26500	-1.83	-42.4	≤-21.83	PASS

Test Graphs

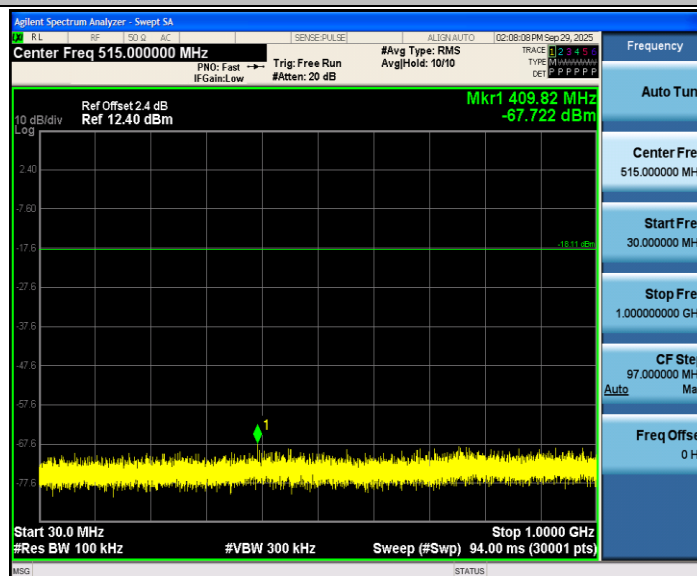




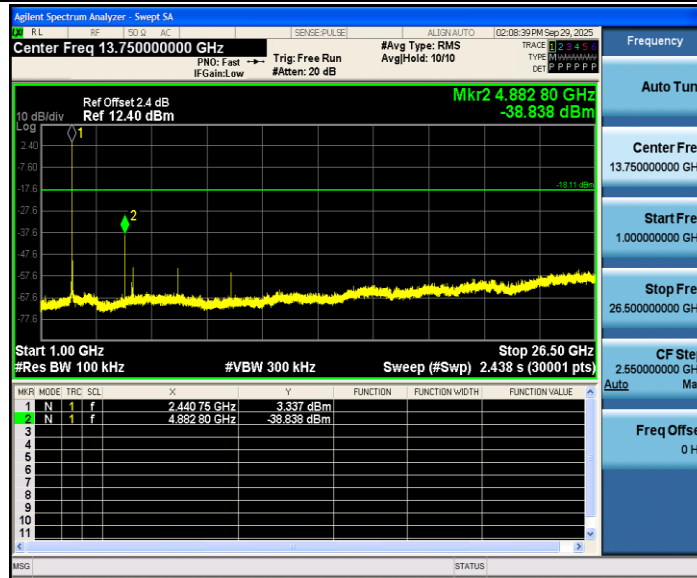
DH5_Ant1_2441_0~Reference



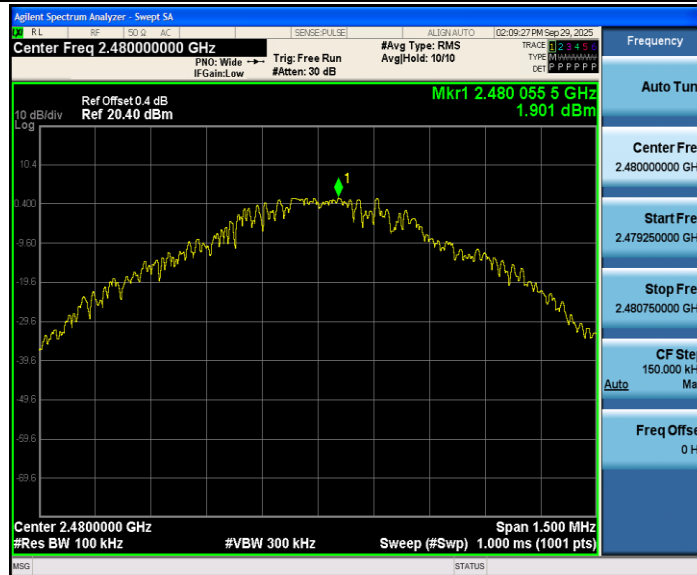
DH5_Ant1_2441_30~1000



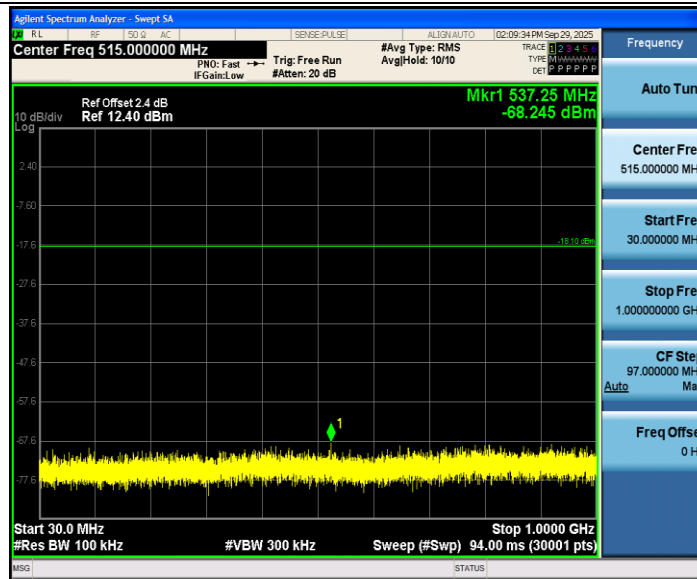
DH5_Ant1_2441_1000~26500



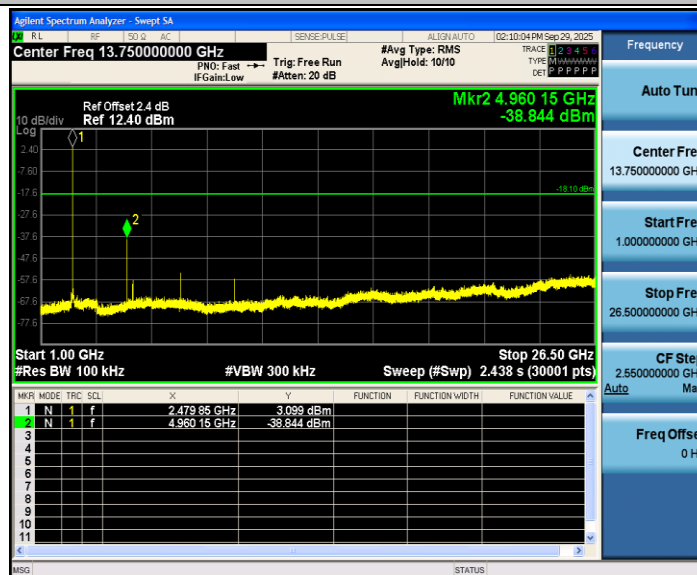
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



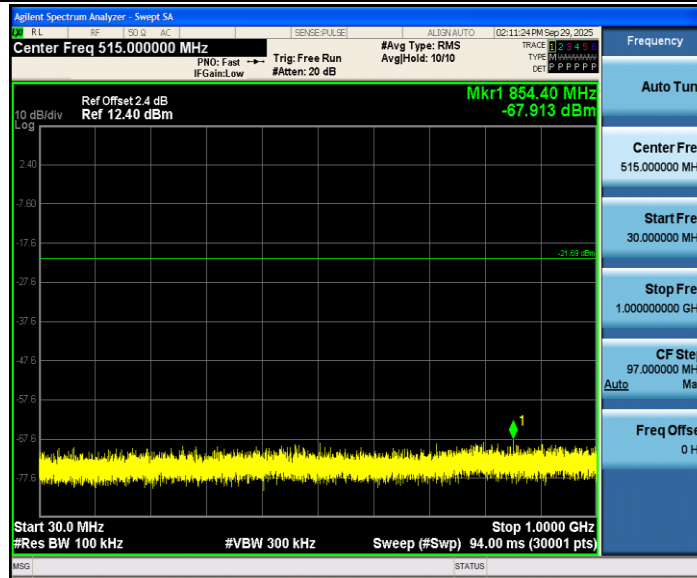
DH5_Ant1_2480_1000~26500



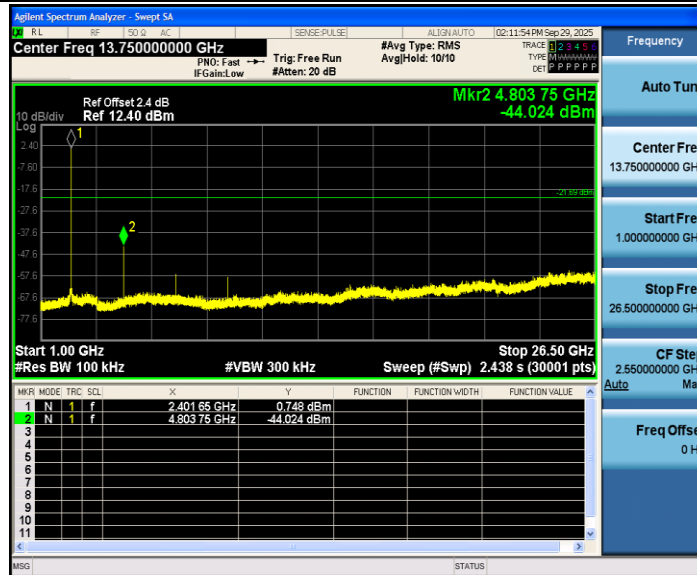
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference