

FCC Appendix RF Test Data for BT

Company: : **Promaster Electronic LLC**

EUT : **Wireless CP&AA adaptor**

FCC ID : **2A6P9-KPWCA01**

Model Number : **KPWCA-101**

Report No. : **CTA25052700501**

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	0.948	2401.550	2402.498	---	---
		2441	0.936	2440.553	2441.489	---	---
		2480	0.954	2479.547	2480.501	---	---
2DH5	Ant1	2402	1.281	2401.382	2402.663	---	---
		2441	1.281	2440.382	2441.663	---	---
		2480	1.317	2479.349	2480.666	---	---
3DH5	Ant1	2402	1.284	2401.364	2402.648	---	---
		2441	1.314	2440.358	2441.672	---	---
		2480	1.302	2479.367	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	0.87007	2401.5739	2402.4440	---	---
		2441	0.86562	2440.5744	2441.4400	---	---
		2480	0.87489	2479.5724	2480.4473	---	---
2DH5	Ant1	2402	1.1855	2401.4182	2402.6037	---	---
		2441	1.1877	2440.4160	2441.6037	---	---
		2480	1.1905	2479.4158	2480.6063	---	---
3DH5	Ant1	2402	1.1883	2401.4159	2402.6042	---	---
		2441	1.1913	2440.4145	2441.6058	---	---
		2480	1.1897	2479.4154	2480.6051	---	---

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



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

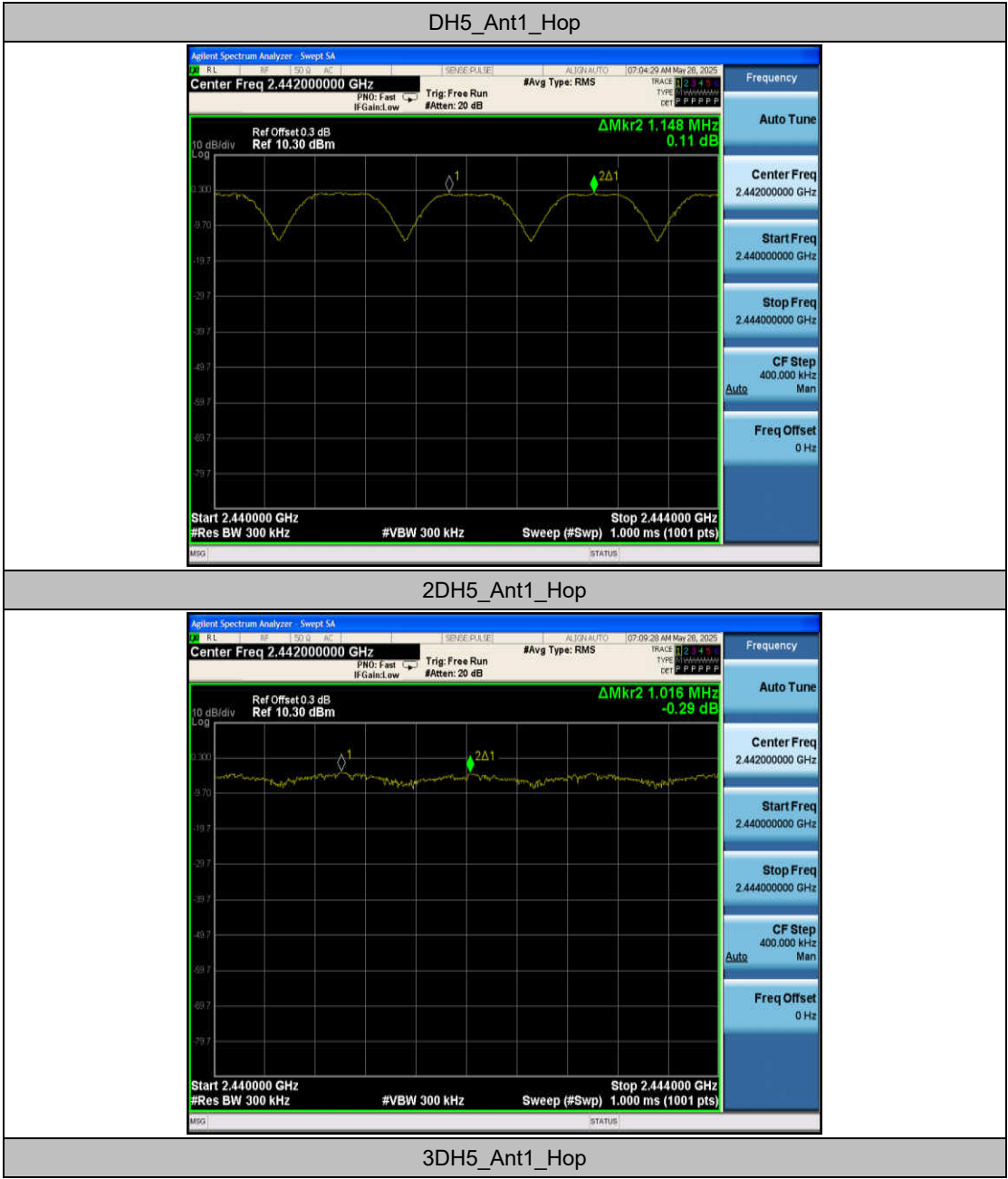
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-0.20	≤20.97	PASS
		2441	-0.42	≤20.97	PASS
		2480	-0.48	≤20.97	PASS
2DH5	Ant1	2402	-0.97	≤20.97	PASS
		2441	-1.18	≤20.97	PASS
		2480	-1.24	≤20.97	PASS
3DH5	Ant1	2402	-0.60	≤20.97	PASS
		2441	-0.82	≤20.97	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	1.148	≥ 0.954	PASS
2DH5	Ant1	Hop	1.016	≥ 0.878	PASS
3DH5	Ant1	Hop	1.032	≥ 0.876	PASS

Test Graphs



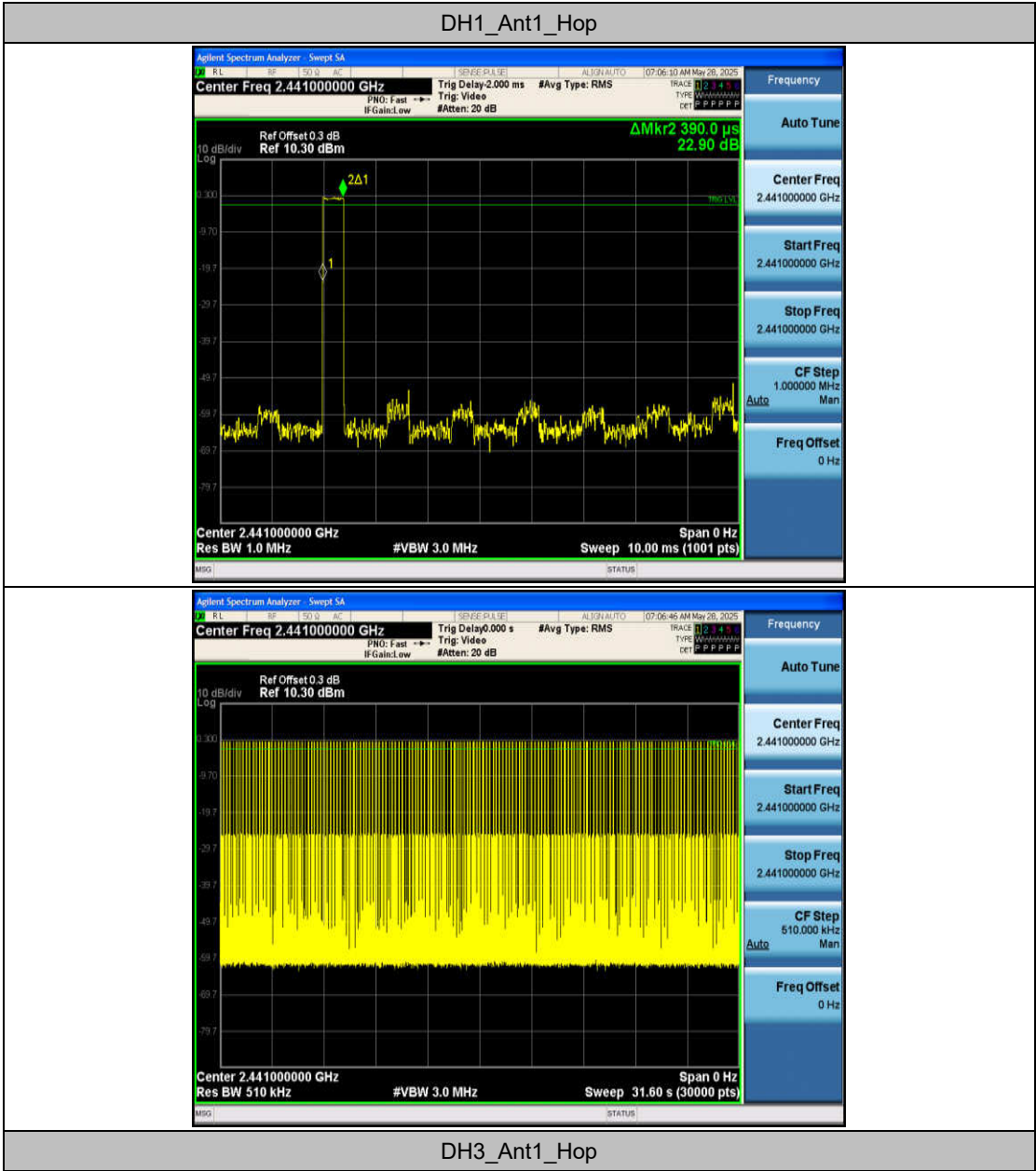


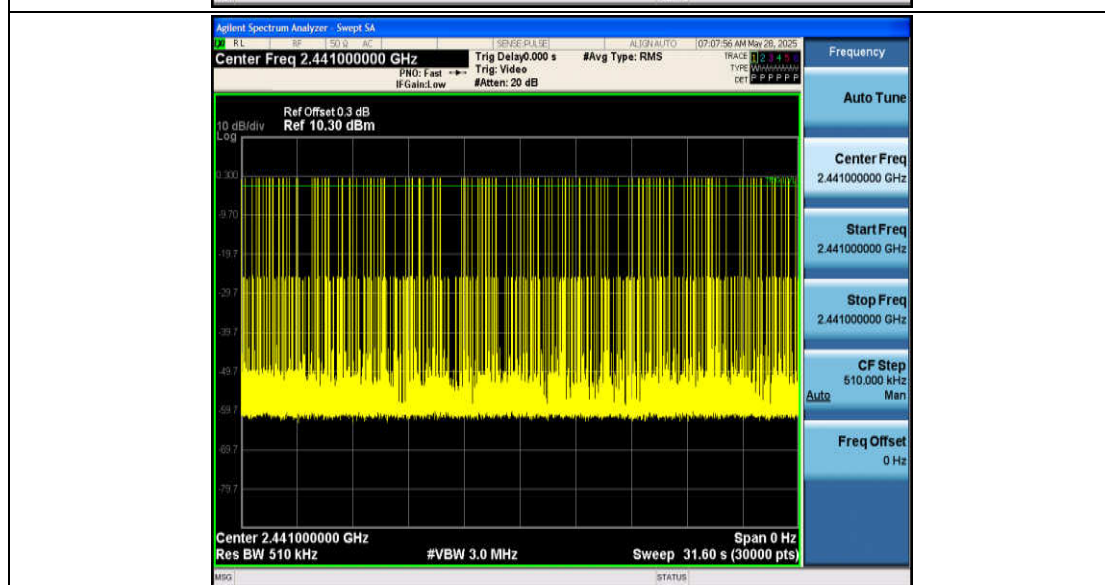
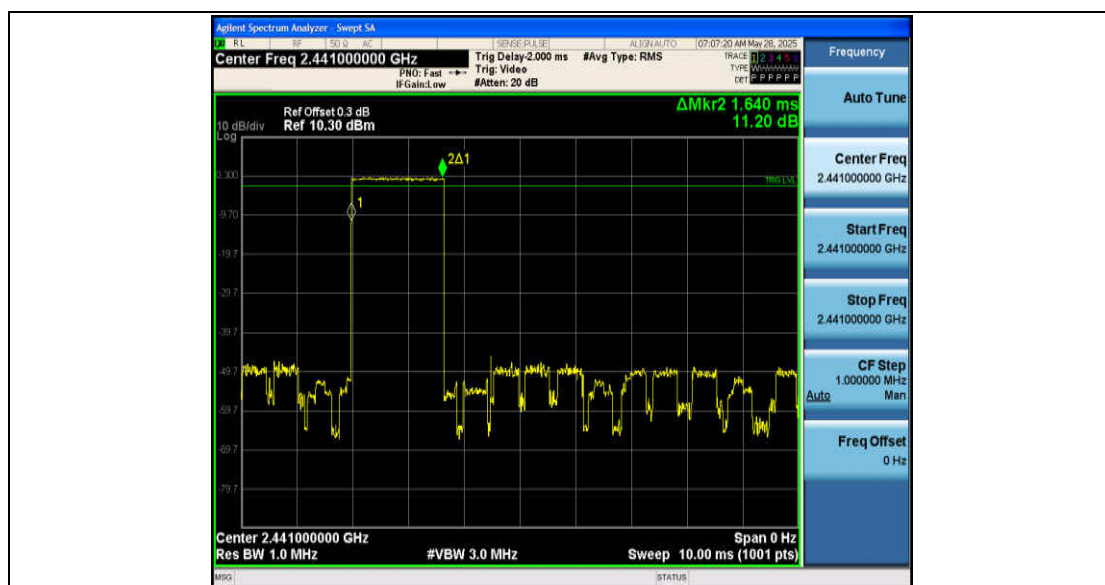
Appendix E: Time of occupancy

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	1.640	155	0.254	≤0.4	PASS
DH5	Ant1	Hop	2.890	105	0.303	≤0.4	PASS
2DH1	Ant1	Hop	0.400	319	0.128	≤0.4	PASS
2DH3	Ant1	Hop	1.650	154	0.254	≤0.4	PASS
2DH5	Ant1	Hop	2.900	104	0.302	≤0.4	PASS
3DH1	Ant1	Hop	0.400	316	0.126	≤0.4	PASS
3DH3	Ant1	Hop	1.650	158	0.261	≤0.4	PASS
3DH5	Ant1	Hop	2.890	106	0.306	≤0.4	PASS

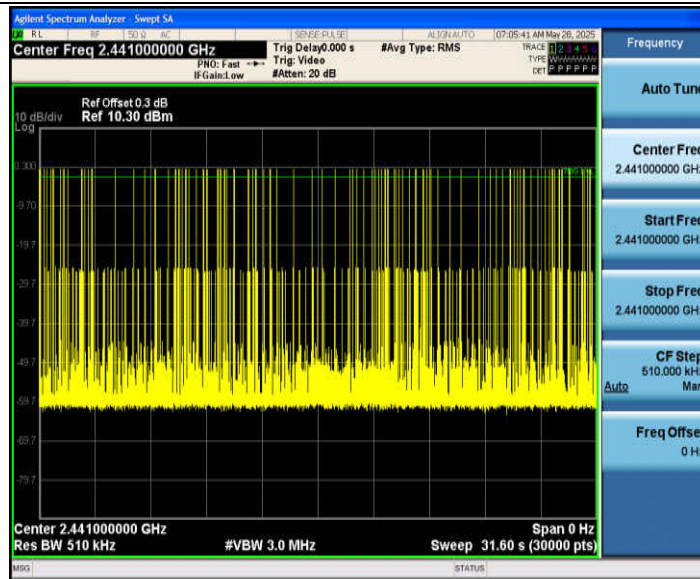
Test Graphs



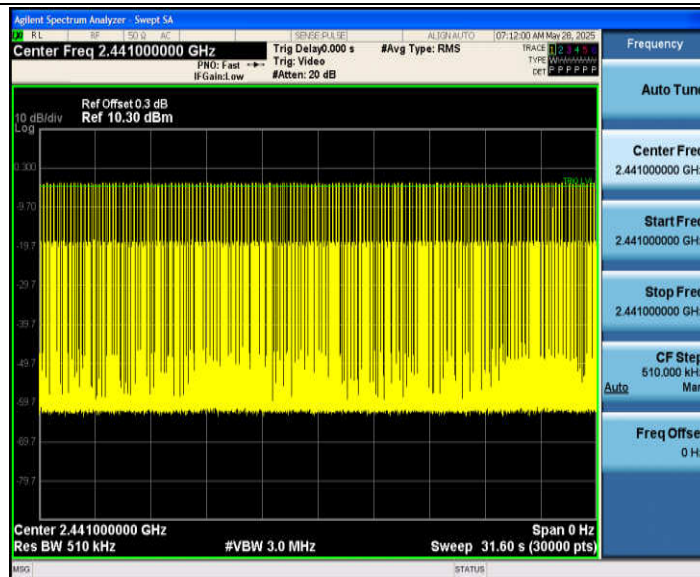
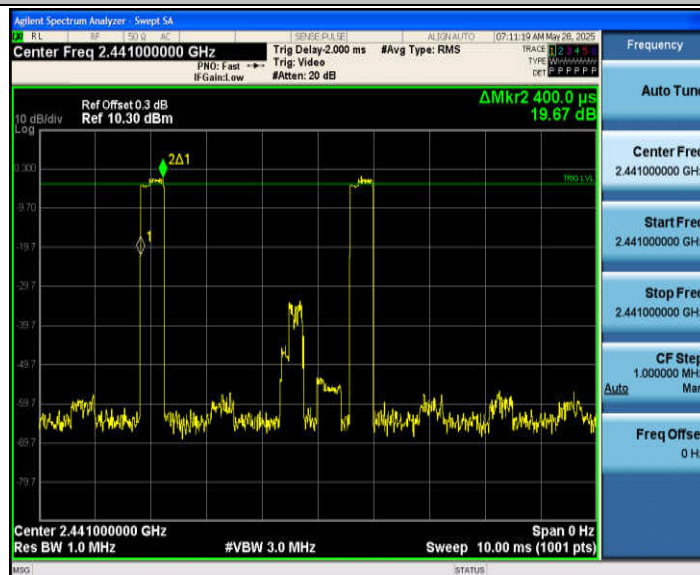


DH5_Ant1_Hop

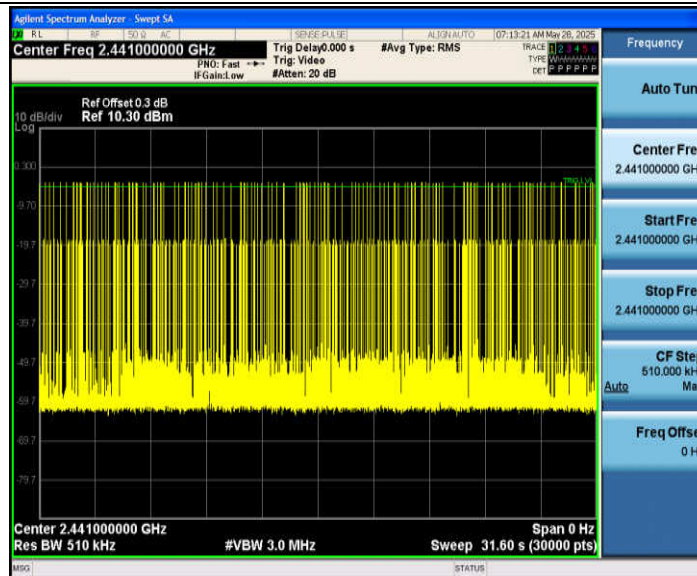




2DH1_Ant1_Hop

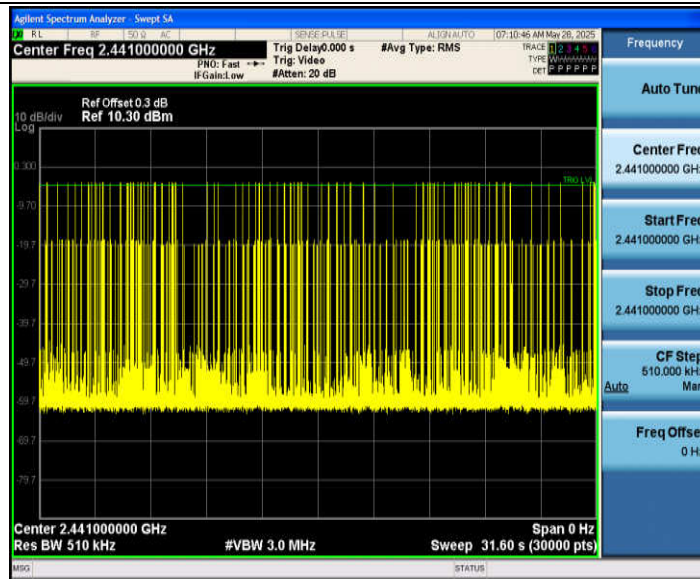


2DH3_Ant1_Hop

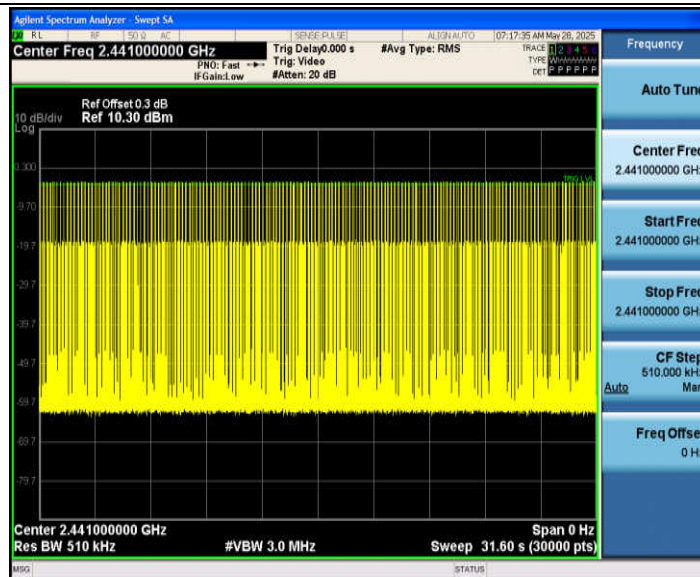


2DH5_Ant1_Hop

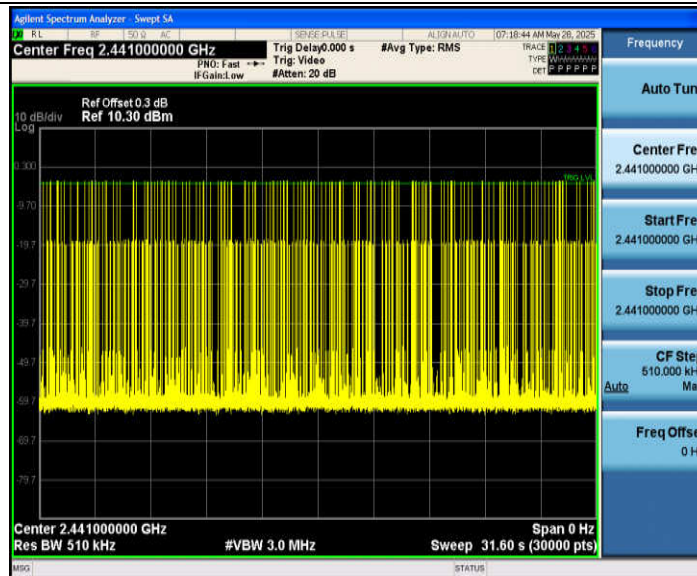




3DH1_Ant1_Hop

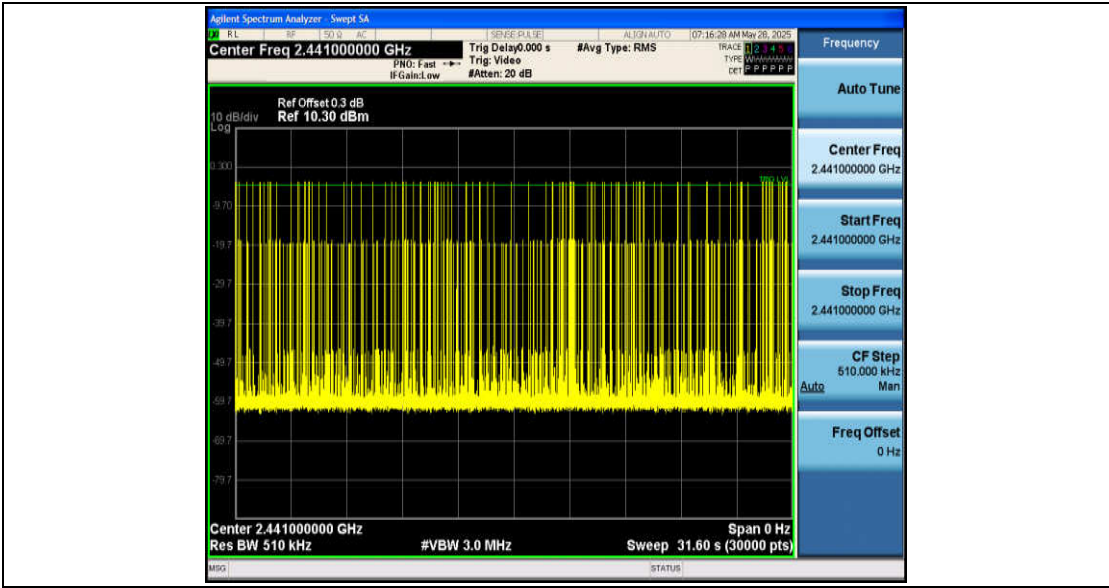


3DH3_Ant1_Hop



3DH5_Ant1_Hop



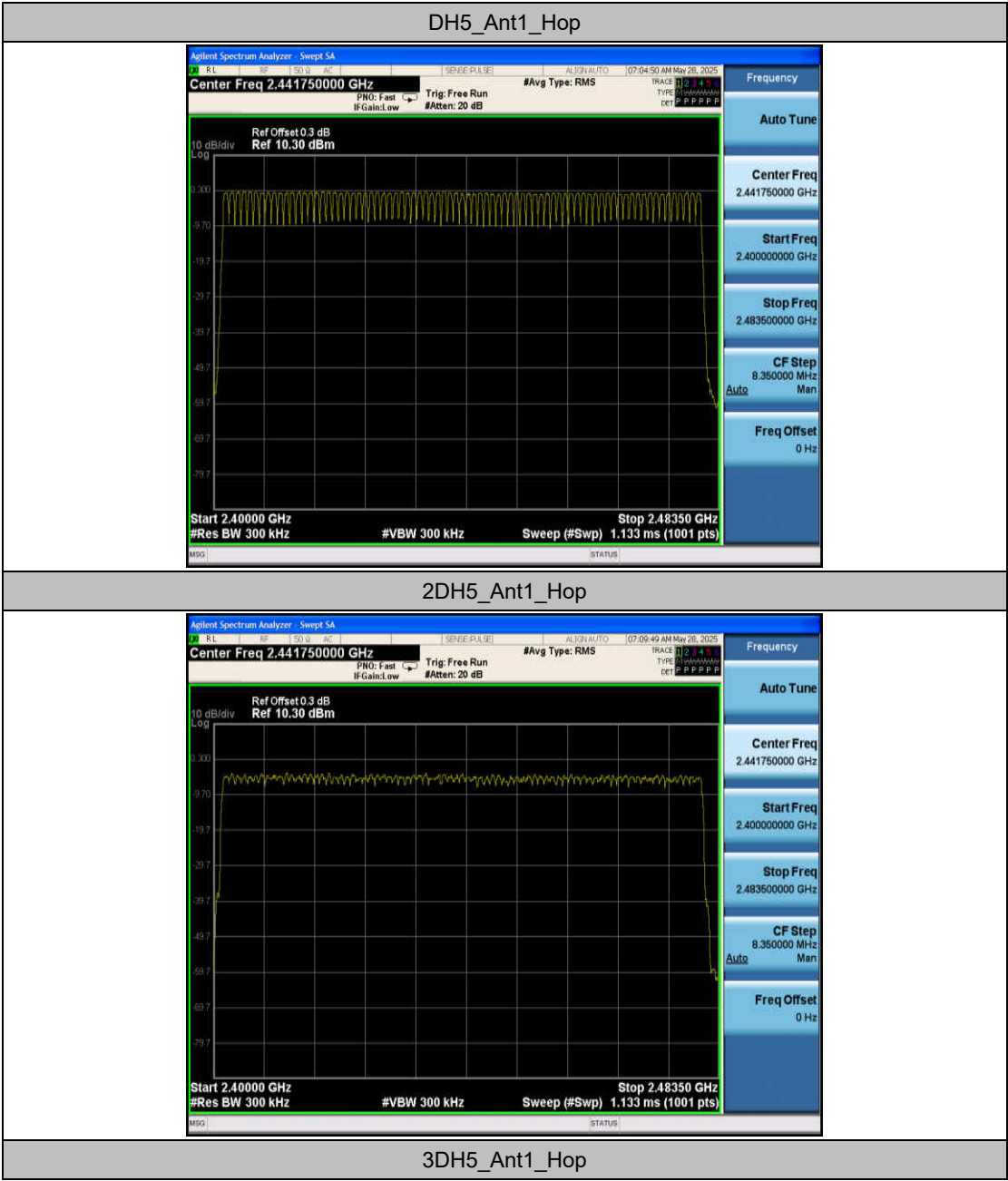


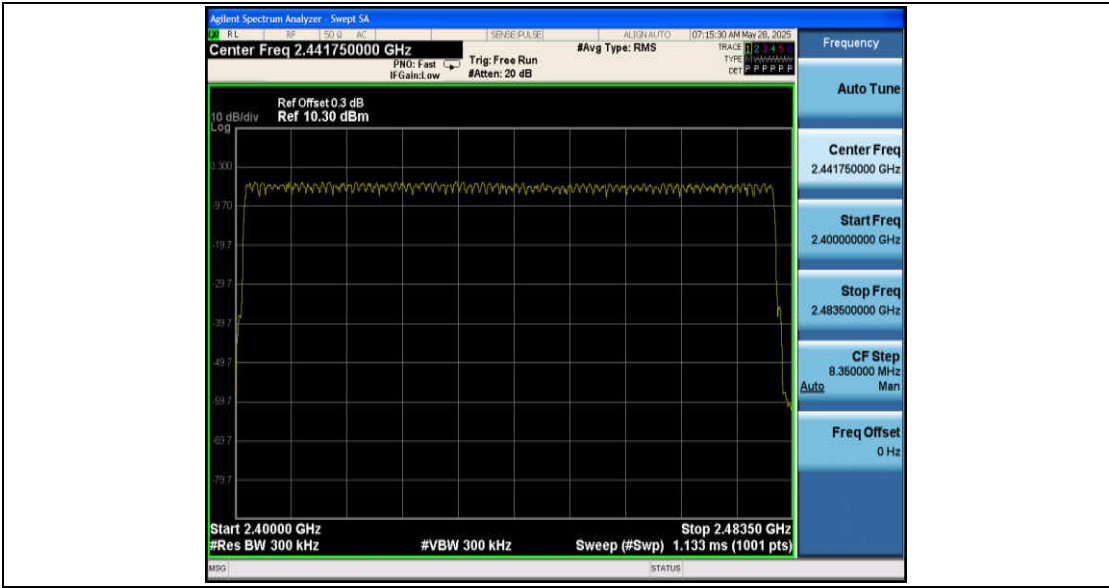
Appendix F: Number of hopping channels

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





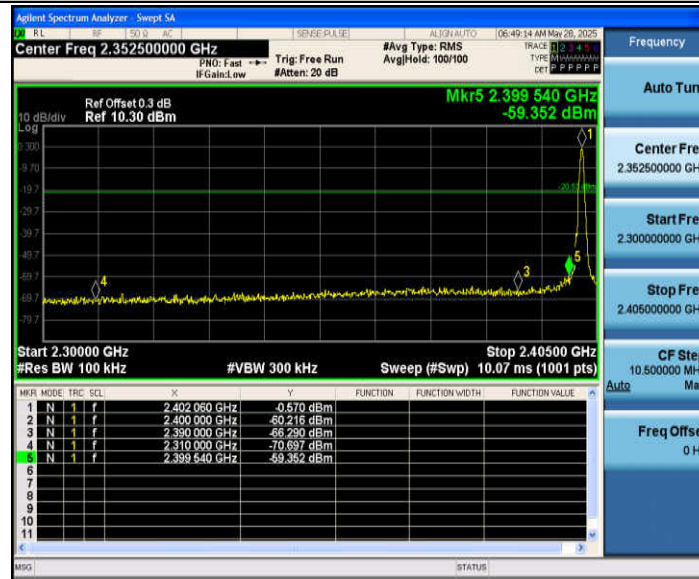
Appendix G: Band edge measurements

Test Result

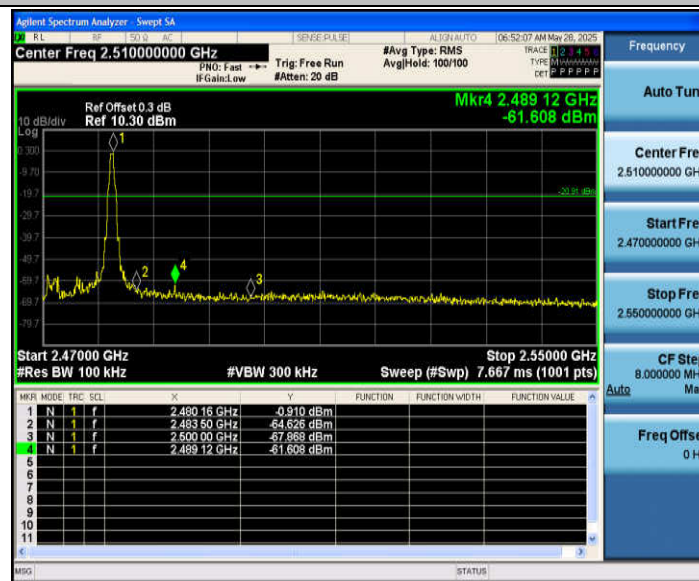
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.57	-59.35	≤-20.57	PASS
		High	2480	-0.91	-61.61	≤-20.91	PASS
		Low	Hop_2402	-0.93	-61.77	≤-20.93	PASS
		High	Hop_2480	-0.77	-63.94	≤-20.77	PASS
2DH5	Ant1	Low	2402	-4.01	-61.25	≤-24.01	PASS
		High	2480	-4.75	-56.23	≤-24.75	PASS
		Low	Hop_2402	-3.66	-63.24	≤-23.66	PASS
		High	Hop_2480	-4.30	-62.94	≤-24.3	PASS
3DH5	Ant1	Low	2402	-3.69	-59.76	≤-23.69	PASS
		High	2480	-4.50	-64.13	≤-24.5	PASS
		Low	Hop_2402	-6.18	-59.39	≤-26.18	PASS
		High	Hop_2480	-4.51	-65.77	≤-24.51	PASS

Test Graphs

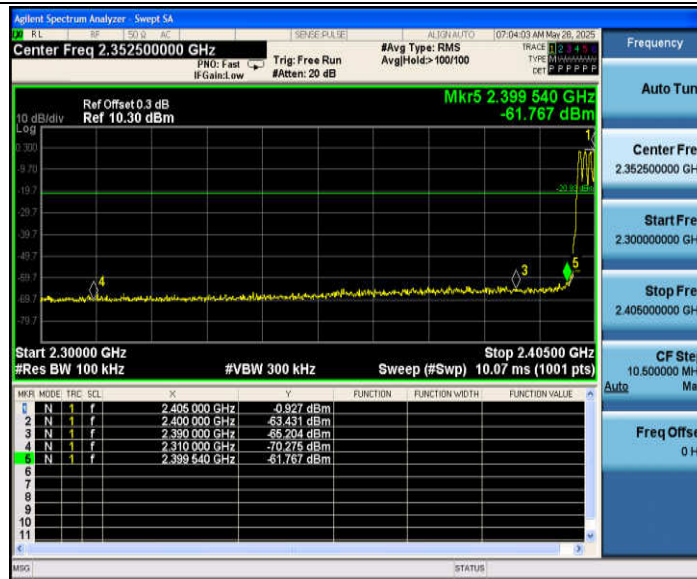
DH5_Ant1_Low_2402



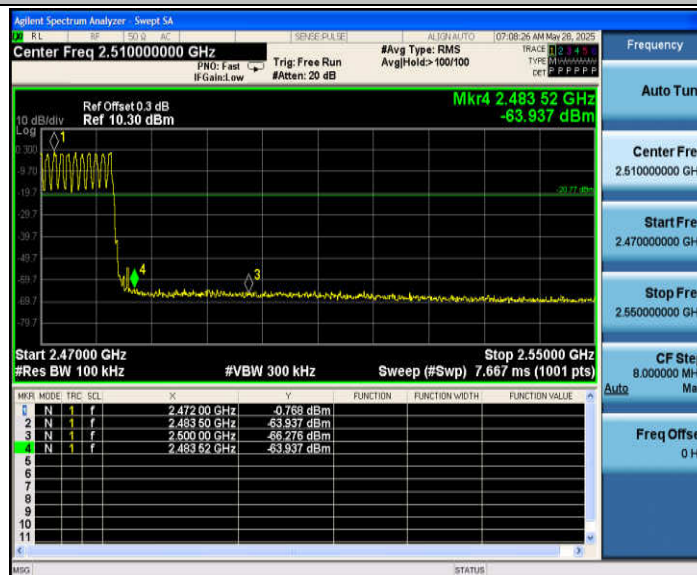
DH5_Ant1_High_2480



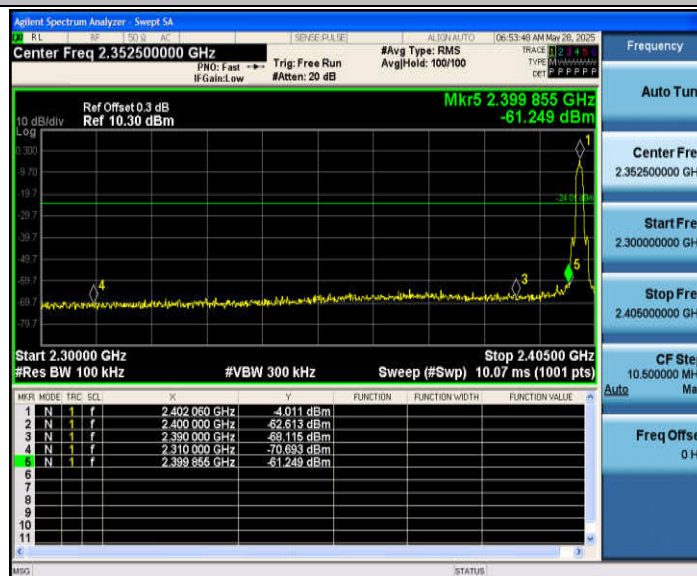
DH5_Ant1_Low_Hop_2402



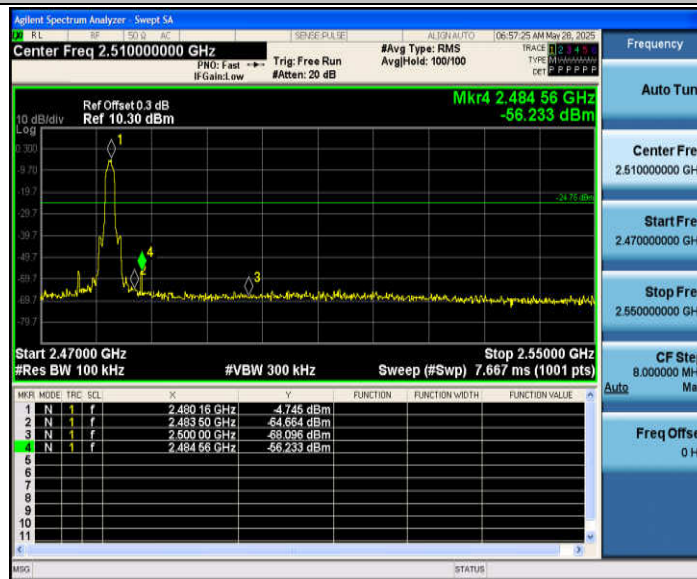
DH5_Ant1_High_Hop_2480



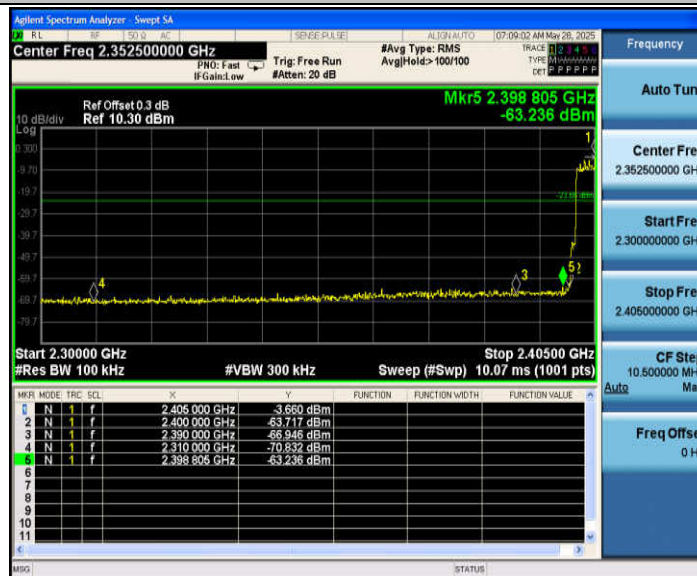
2DH5_Ant1_Low_2402



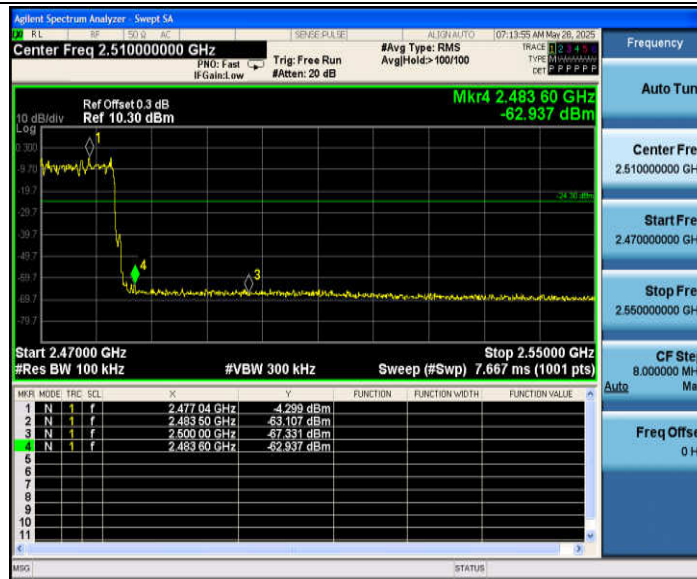
2DH5_Ant1_High_2480



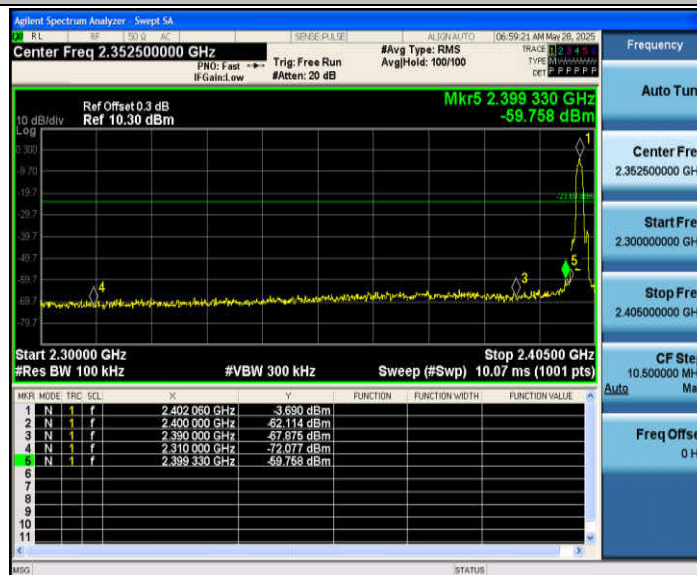
2DH5_Ant1_Low_Hop_2402



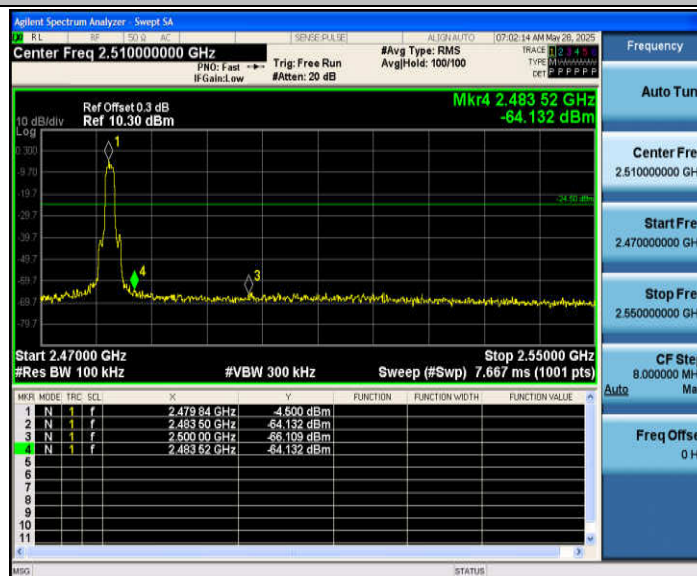
2DH5_Ant1_High_Hop_2480



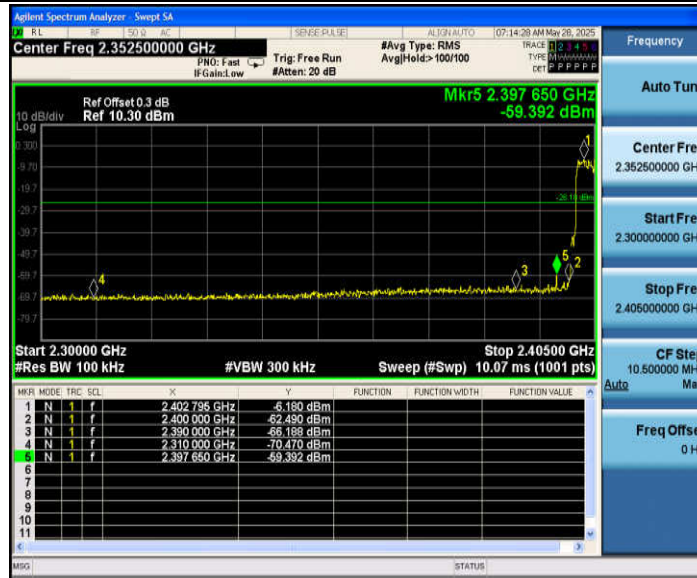
3DH5_Ant1_Low_2402



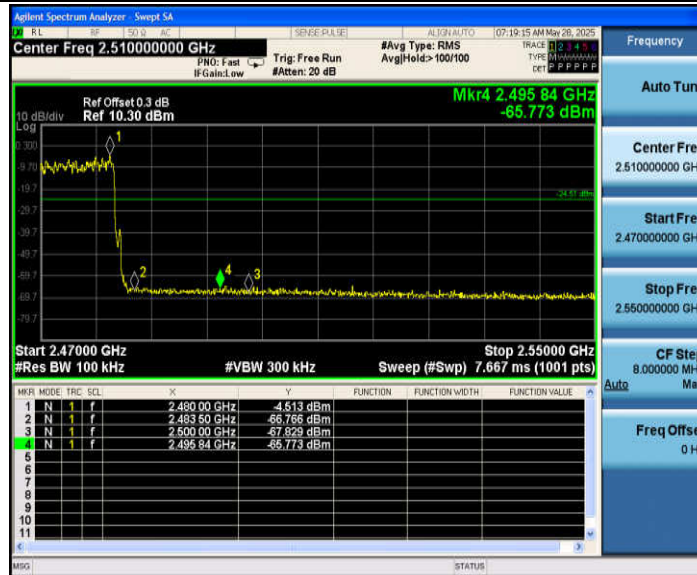
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

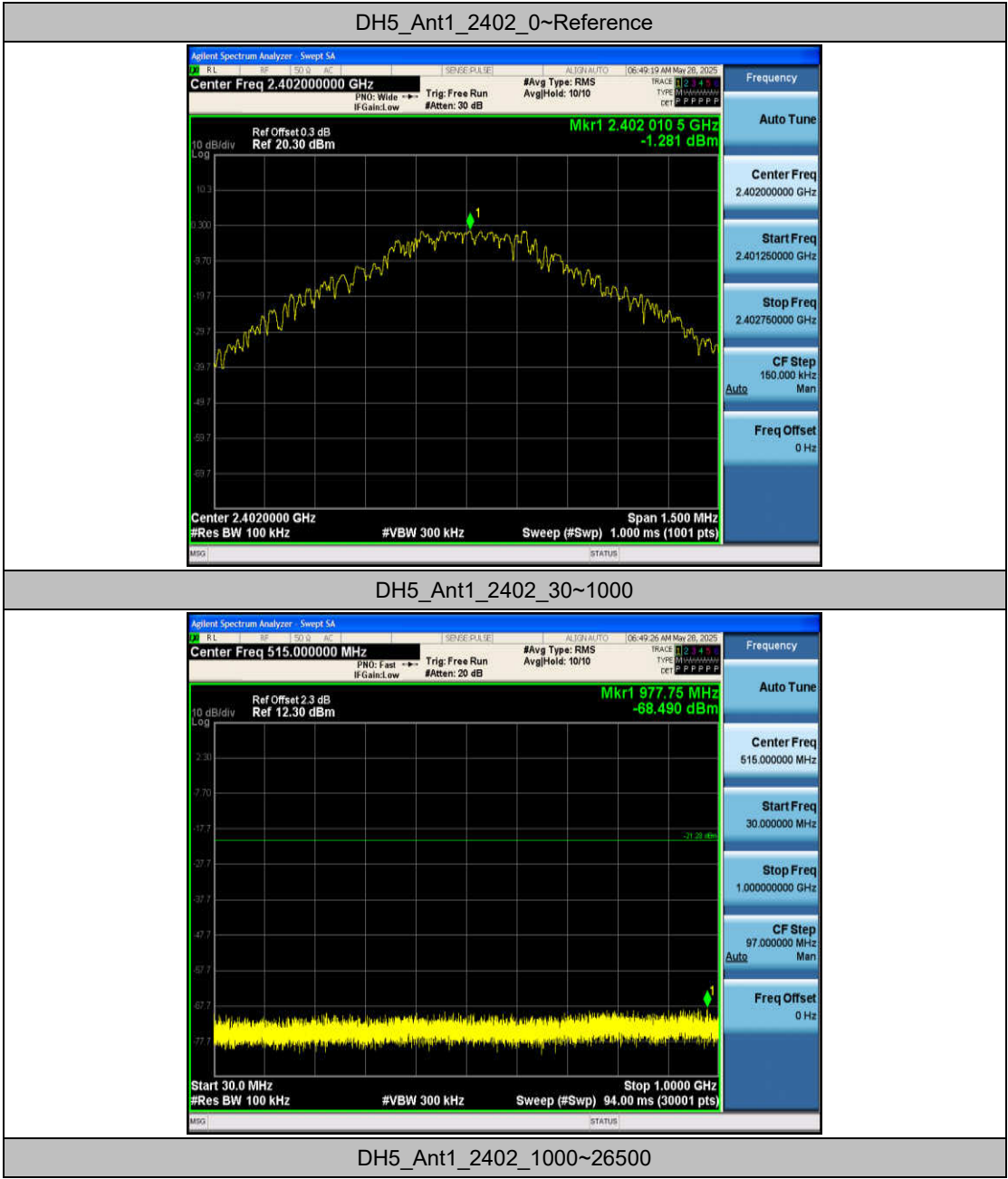


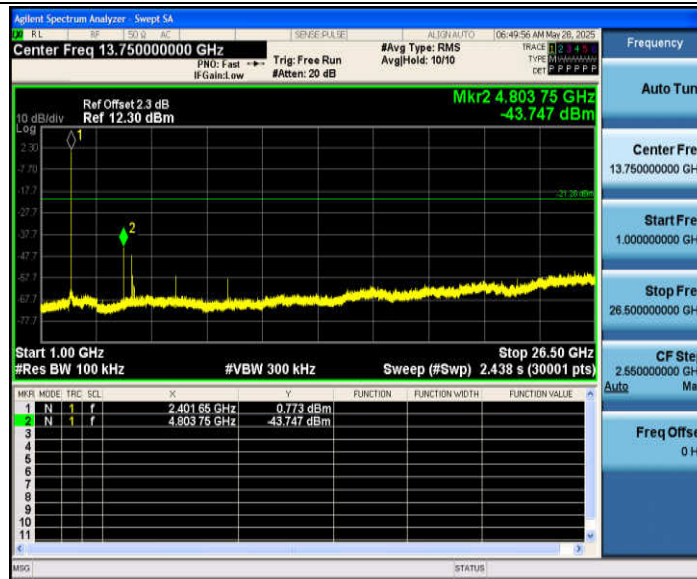
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-1.28	-1.28	---	PASS
			30~1000	-1.28	-68.49	≤-21.28	PASS
			1000~26500	-1.28	-43.75	≤-21.28	PASS
		2441	Reference	-1.55	-1.55	---	PASS
			30~1000	-1.55	-68.08	≤-21.55	PASS
			1000~26500	-1.55	-44.26	≤-21.55	PASS
		2480	Reference	-1.29	-1.29	---	PASS
			30~1000	-1.29	-67.99	≤-21.29	PASS
			1000~26500	-1.29	-45.15	≤-21.29	PASS
2DH5	Ant1	2402	Reference	-7.11	-7.11	---	PASS
			30~1000	-7.11	-68.24	≤-27.11	PASS
			1000~26500	-7.11	-49.97	≤-27.11	PASS
		2441	Reference	-4.91	-4.91	---	PASS
			30~1000	-4.91	-68.12	≤-24.91	PASS
			1000~26500	-4.91	-49.22	≤-24.91	PASS
		2480	Reference	-7.47	-7.47	---	PASS
			30~1000	-7.47	-67.89	≤-27.47	PASS
			1000~26500	-7.47	-48.79	≤-27.47	PASS
3DH5	Ant1	2402	Reference	-6.22	-6.22	---	PASS
			30~1000	-6.22	-68.39	≤-26.22	PASS
			1000~26500	-6.22	-48.45	≤-26.22	PASS
		2441	Reference	-4.06	-4.06	---	PASS
			30~1000	-4.06	-67.81	≤-24.06	PASS
			1000~26500	-4.06	-47.16	≤-24.06	PASS
		2480	Reference	-6.19	-6.19	---	PASS
			30~1000	-6.19	-68.32	≤-26.19	PASS
			1000~26500	-6.19	-51.57	≤-26.19	PASS

Test Graphs

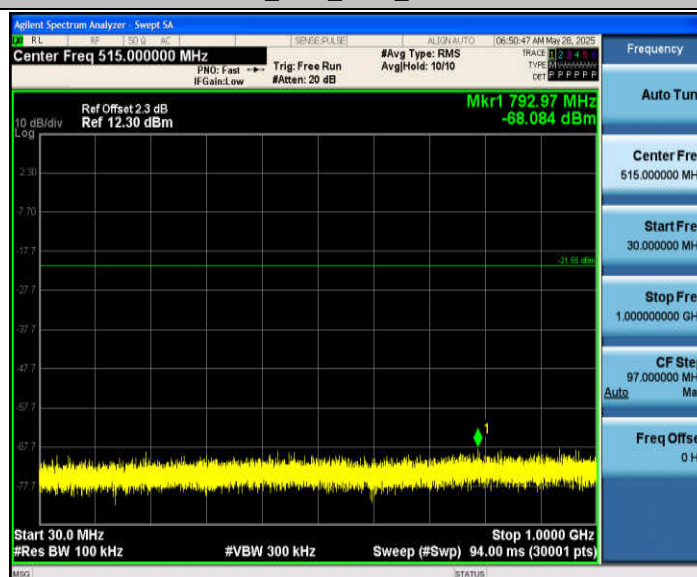




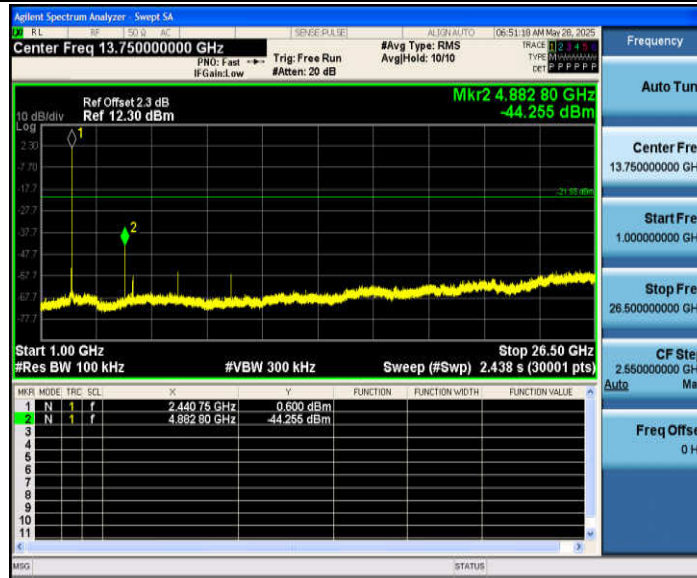
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



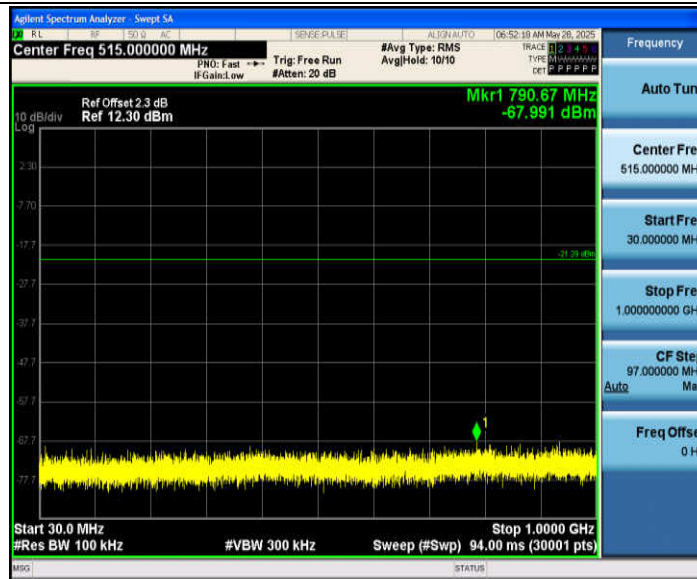
DH5_Ant1_2441_1000~26500



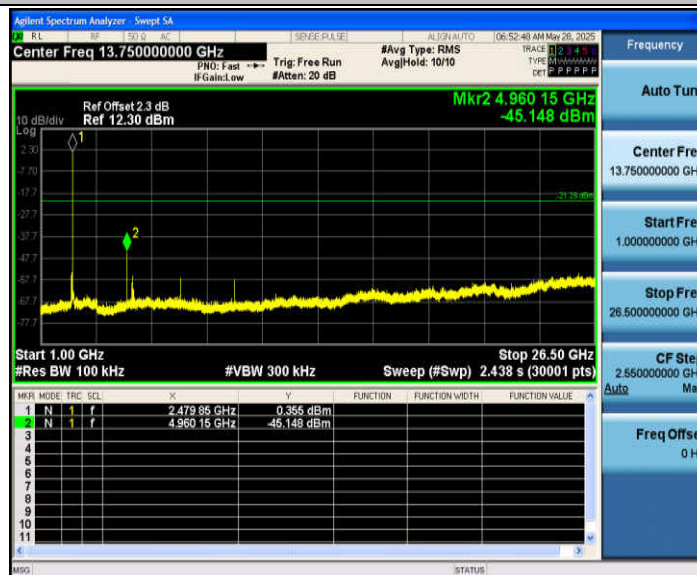
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



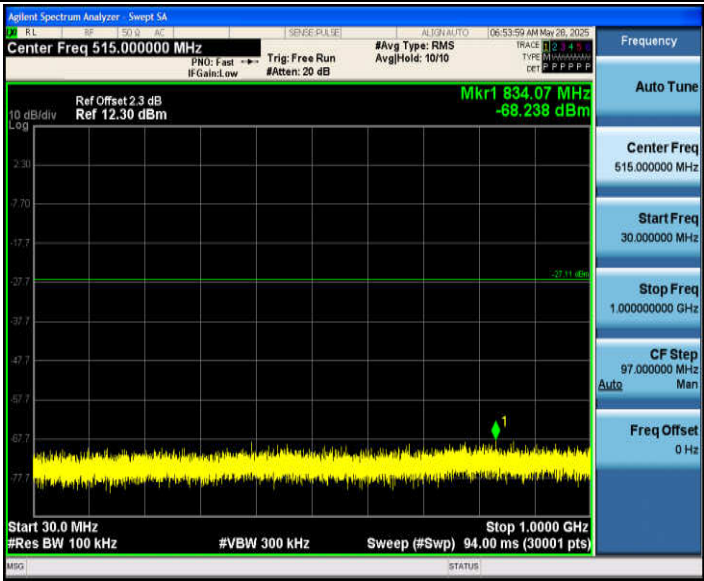
DH5_Ant1_2480_1000~26500



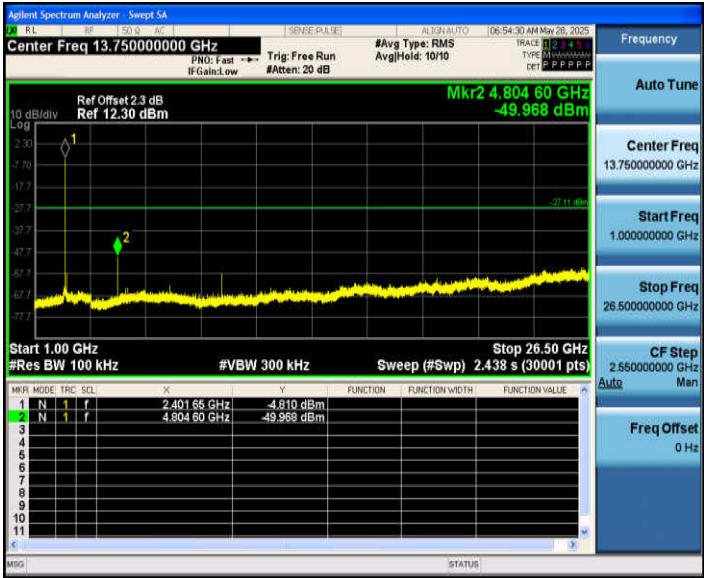
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



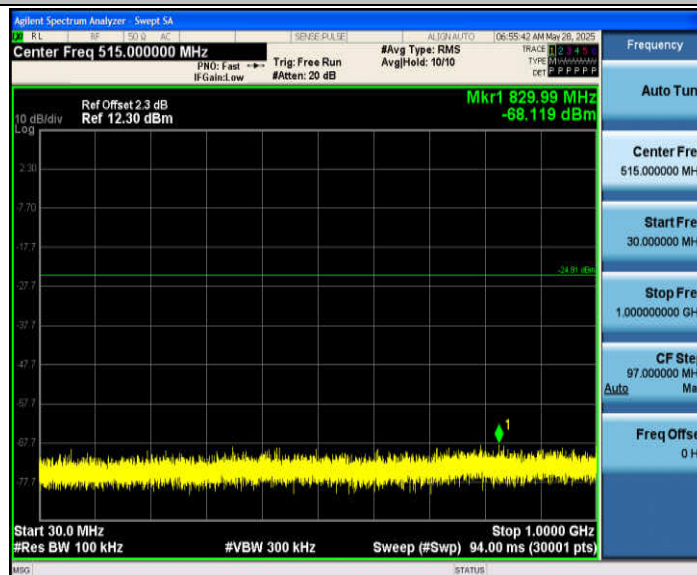
2DH5_Ant1_2402_1000~26500



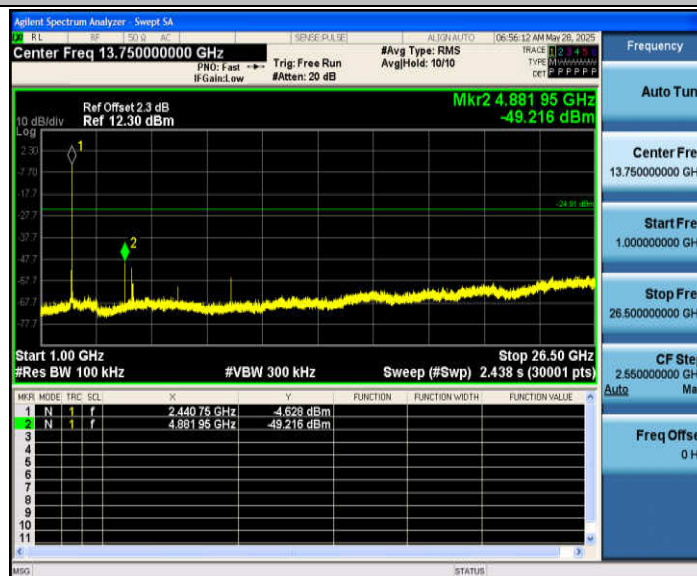
2DH5_Ant1_2441_0~Reference

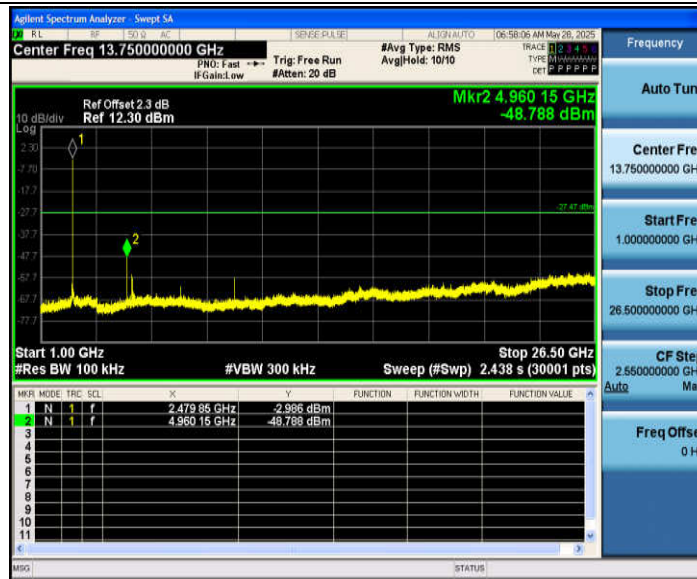


2DH5_Ant1_2441_30~1000



2DH5_Ant1_2441_1000~26500

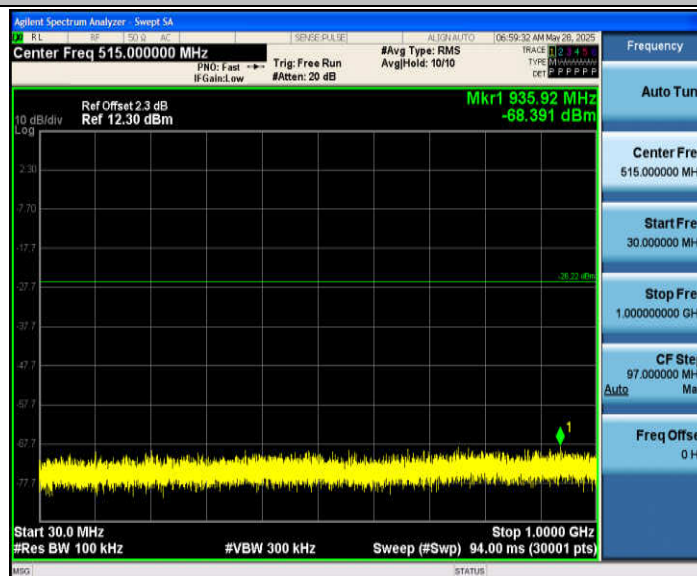




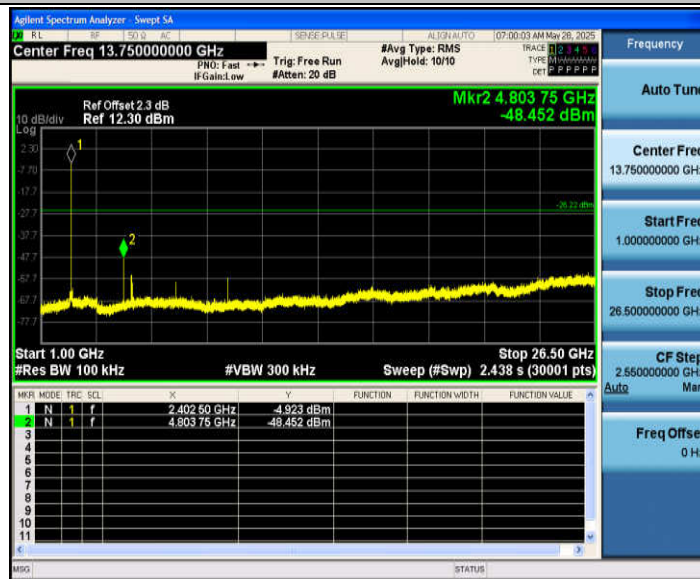
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000



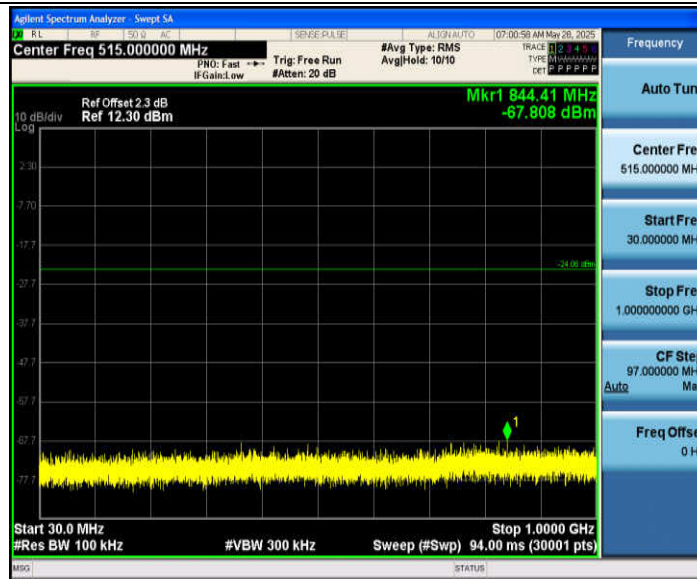
3DH5_Ant1_2402_1000~26500



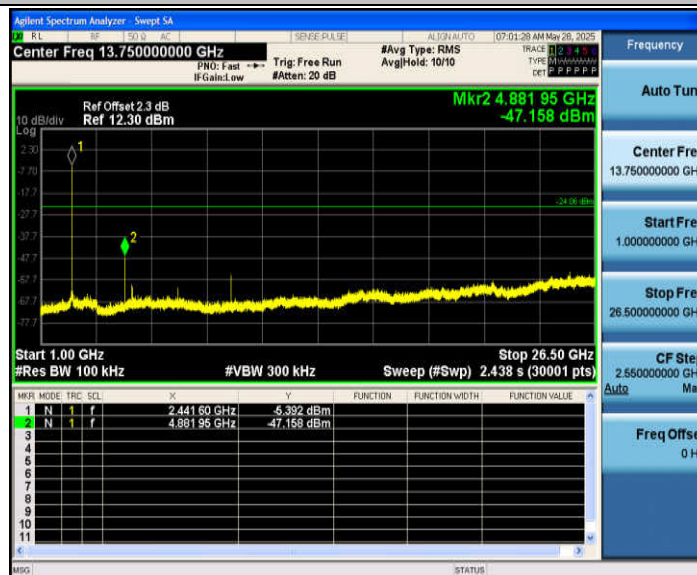
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



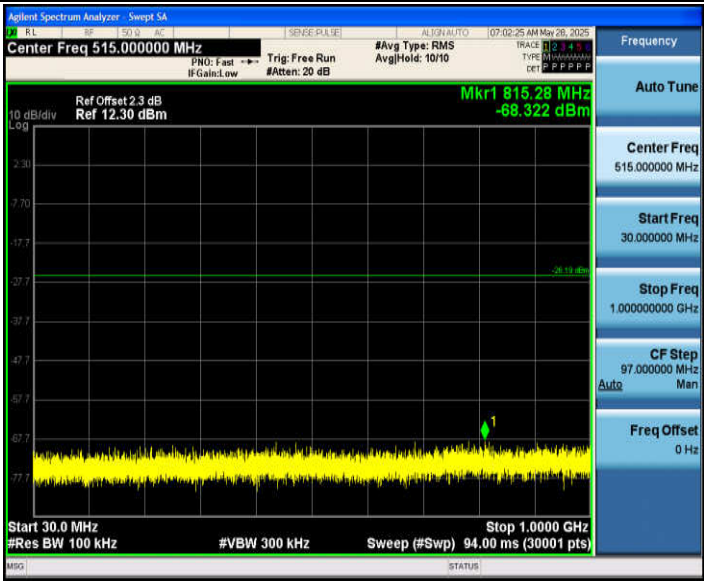
3DH5_Ant1_2441_1000~26500



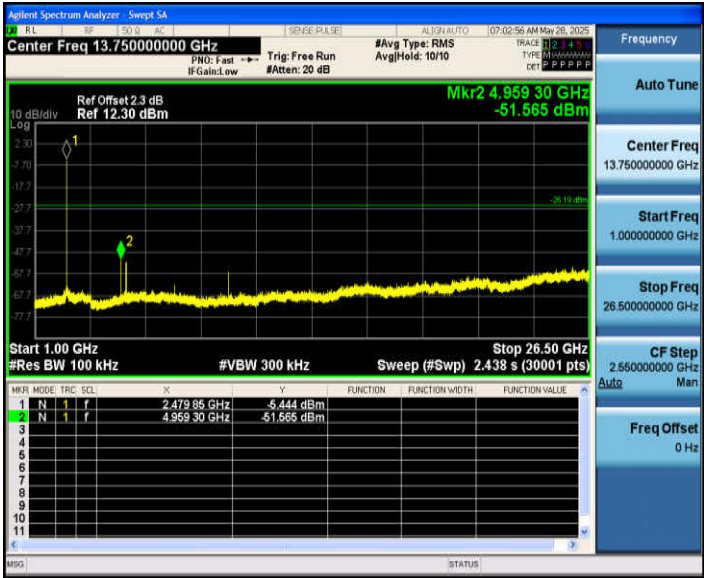
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500

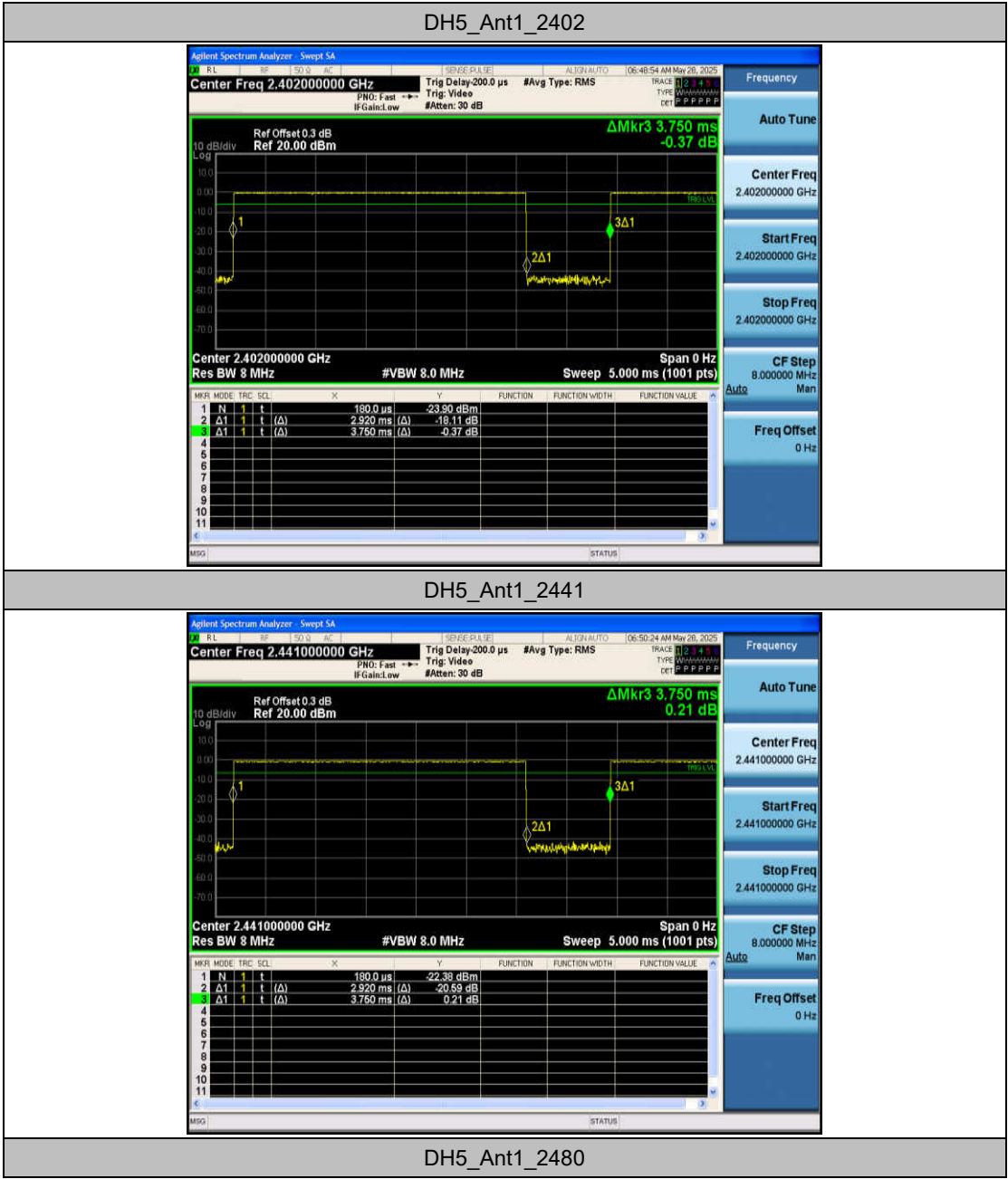


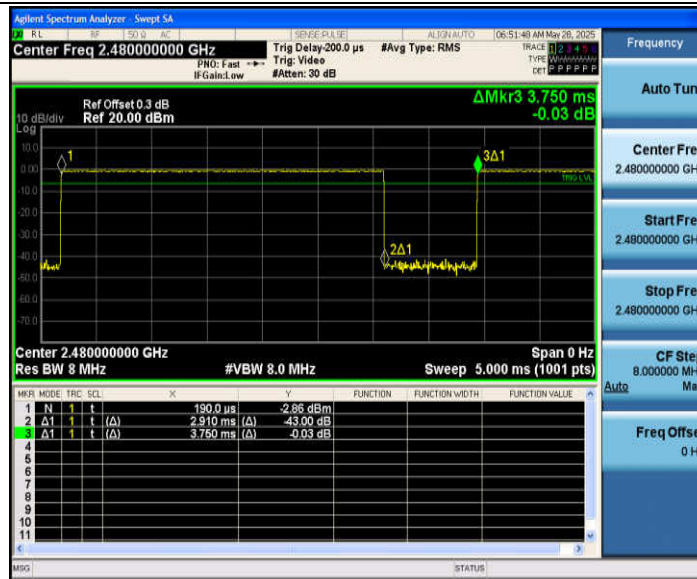
Appendix I: Duty Cycle

Test Result

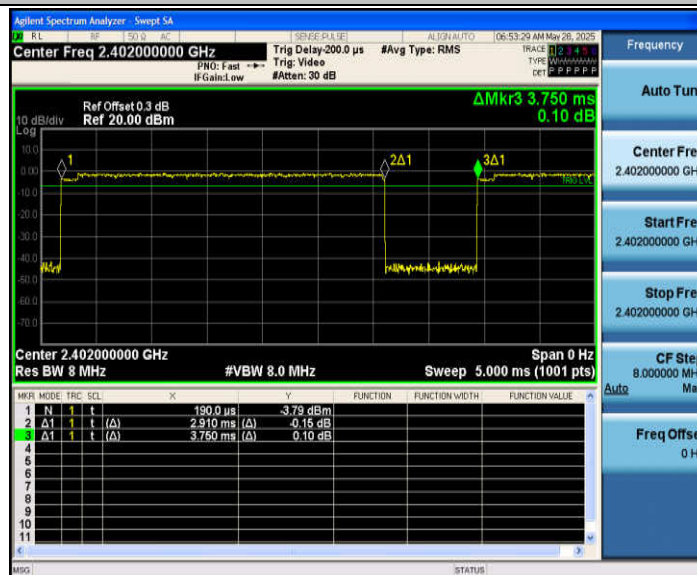
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.92	3.75	77.87	1.09	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.91	3.75	77.60	1.10	---	---
2DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---
3DH5	Ant1	2402	2.92	3.75	77.87	1.09	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---

Test Graphs

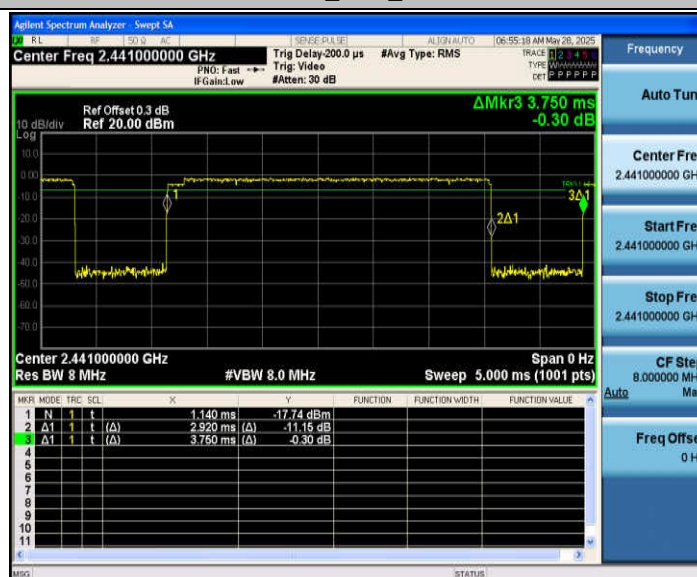




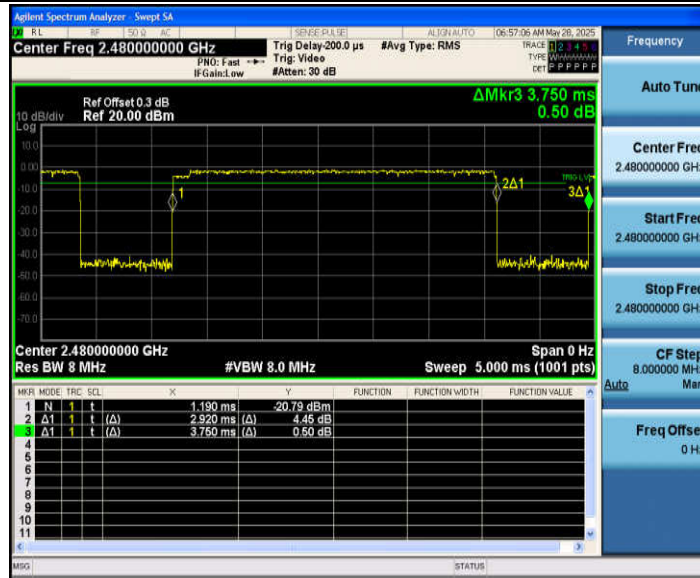
2DH5_Ant1_2402



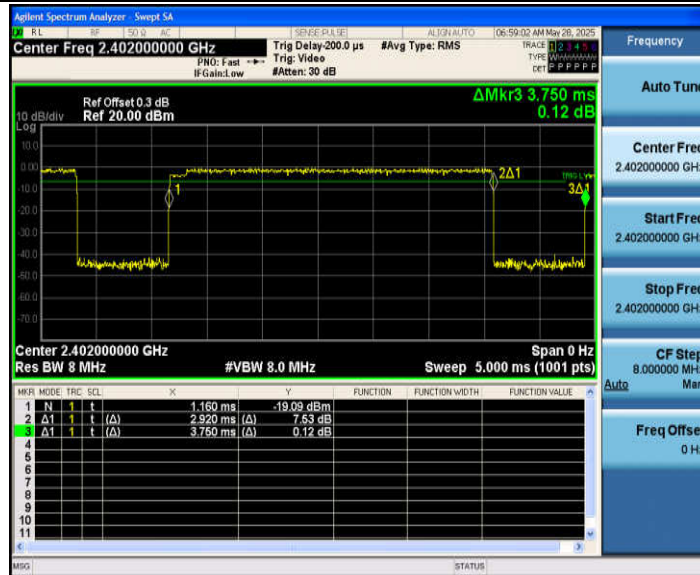
2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

