

FCC Appendix RF Test Data for BT

Company: : **Promaster Electronic LLC**

EUT : **Wireless CPAA adaptor**

FCC ID : **2A6P9-KPAIB01**

Model Number : **KPWCA-101**

Report No. : **CTA25052700601**

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	2401.550	2402.501	---	---
		2441	0.948	2440.550	2441.498	---	---
		2480	0.951	2479.547	2480.498	---	---
2DH5	Ant1	2402	1.284	2401.379	2402.663	---	---
		2441	1.272	2440.385	2441.657	---	---
		2480	1.281	2479.382	2480.663	---	---
3DH5	Ant1	2402	1.287	2401.370	2402.657	---	---
		2441	1.293	2440.367	2441.660	---	---
		2480	1.308	2479.364	2480.672	---	---

Test Graphs





2DHS_Ant1_2402



2DHS_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

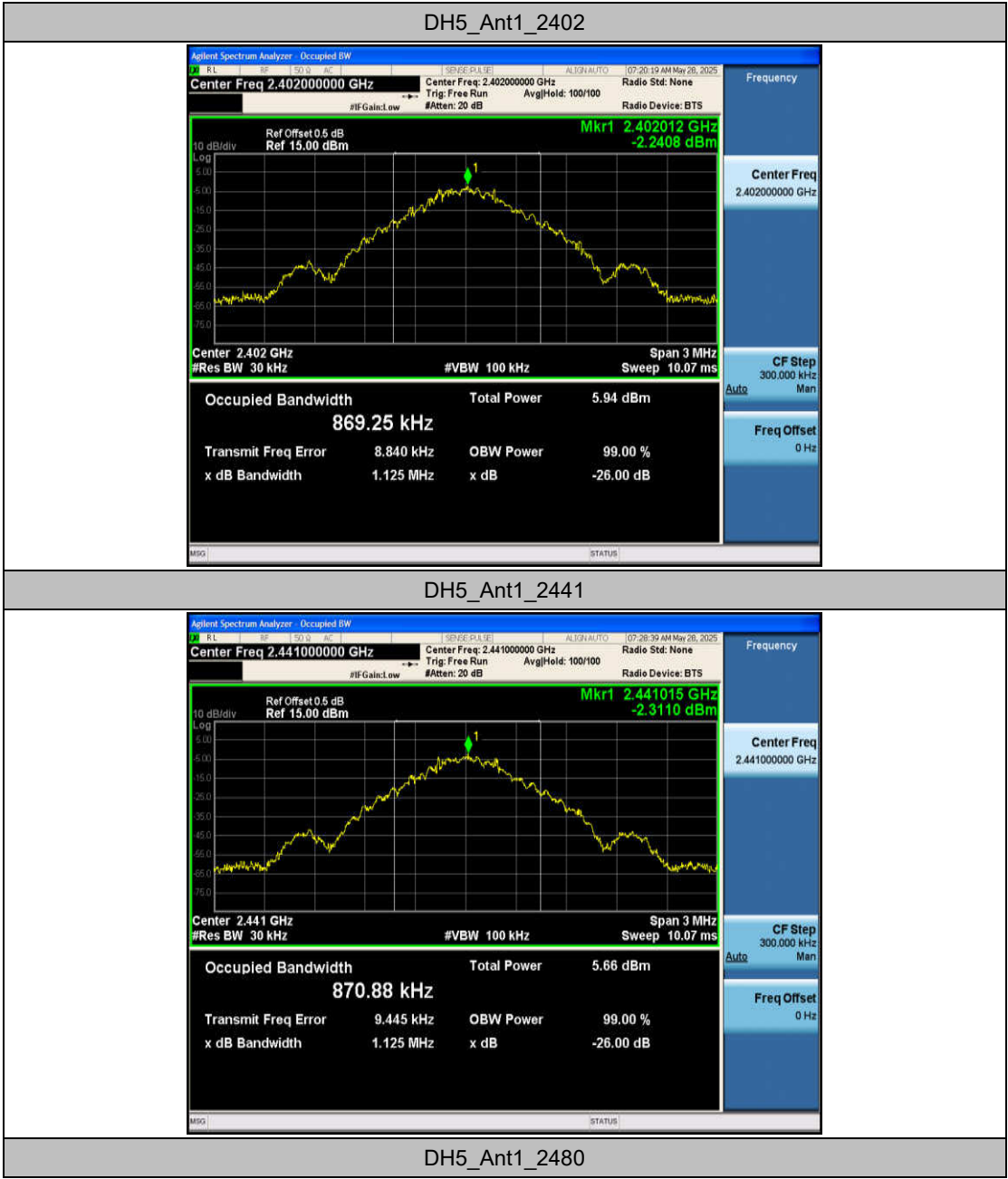


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86925	2401.5742	2402.4435	---	---
		2441	0.87088	2440.5740	2441.4449	---	---
		2480	0.87161	2479.5739	2480.4455	---	---
2DH5	Ant1	2402	1.1892	2401.4163	2402.6055	---	---
		2441	1.1883	2440.4170	2441.6053	---	---
		2480	1.1883	2479.4160	2480.6043	---	---
3DH5	Ant1	2402	1.1811	2401.4209	2402.6020	---	---
		2441	1.1884	2440.4165	2441.6049	---	---
		2480	1.1895	2479.4163	2480.6058	---	---

Test Graphs





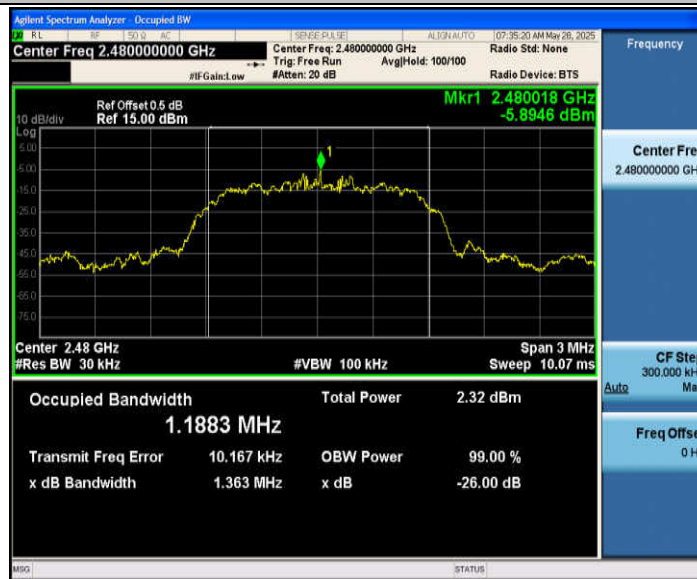
2DH5_Ant1_2402



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	0.03	≤20.97	PASS
		2441	-0.22	≤20.97	PASS
		2480	-0.28	≤20.97	PASS
2DH5	Ant1	2402	-0.84	≤20.97	PASS
		2441	-1.01	≤20.97	PASS
		2480	-1.09	≤20.97	PASS
3DH5	Ant1	2402	-0.39	≤20.97	PASS
		2441	-0.63	≤20.97	PASS
		2480	-0.70	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.036	≥ 0.951	PASS
2DH5	Ant1	Hop	1.016	≥ 0.856	PASS
3DH5	Ant1	Hop	1.008	≥ 0.872	PASS

Test Graphs



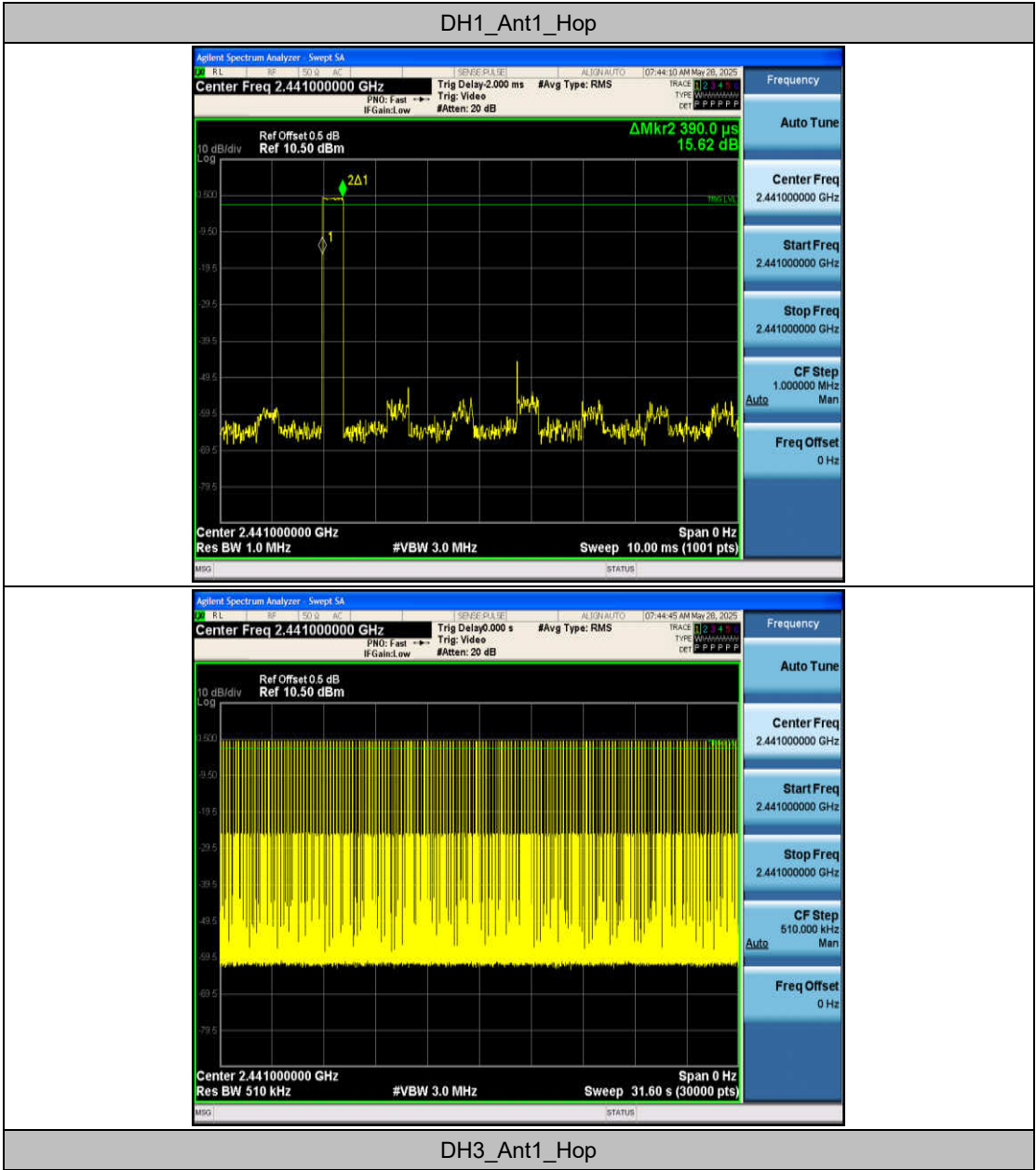


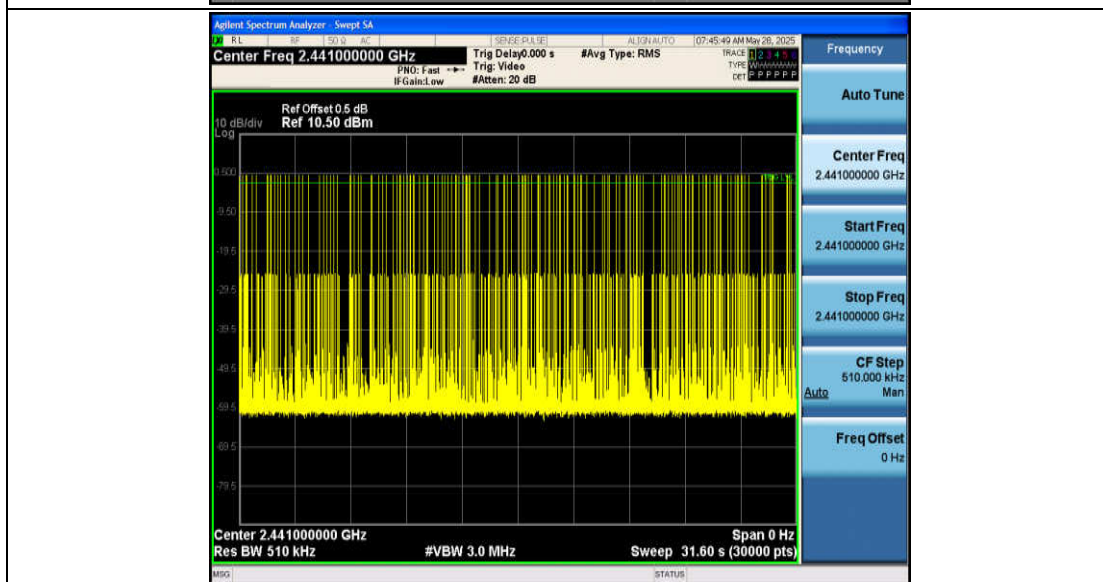
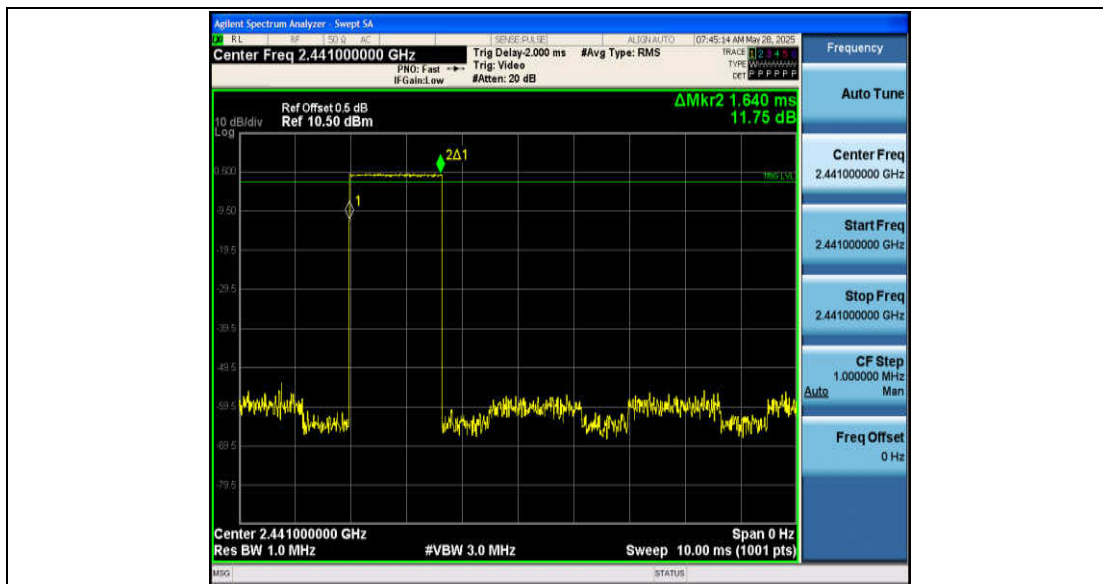
Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.390	317	0.124	≤0.4	PASS
DH3	Ant1	Hop	1.640	156	0.256	≤0.4	PASS
DH5	Ant1	Hop	2.890	103	0.298	≤0.4	PASS
2DH1	Ant1	Hop	0.400	320	0.128	≤0.4	PASS
2DH3	Ant1	Hop	1.650	161	0.266	≤0.4	PASS
2DH5	Ant1	Hop	2.900	115	0.334	≤0.4	PASS
3DH1	Ant1	Hop	0.390	317	0.124	≤0.4	PASS
3DH3	Ant1	Hop	1.650	175	0.289	≤0.4	PASS
3DH5	Ant1	Hop	2.890	99	0.286	≤0.4	PASS

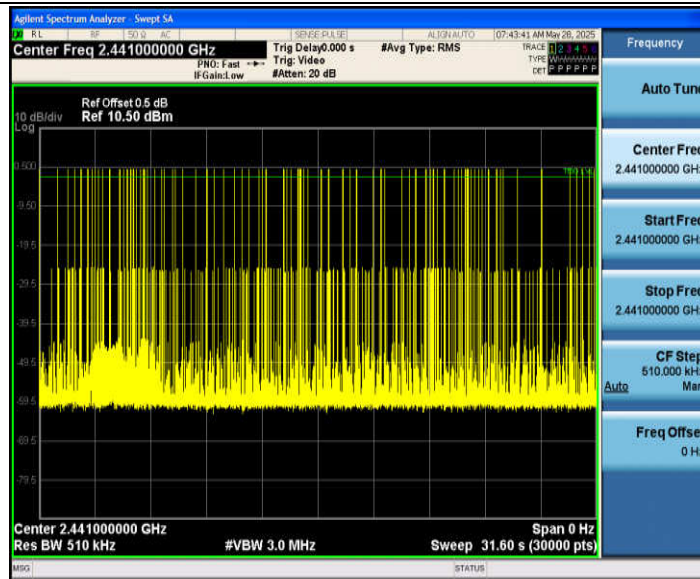
Test Graphs



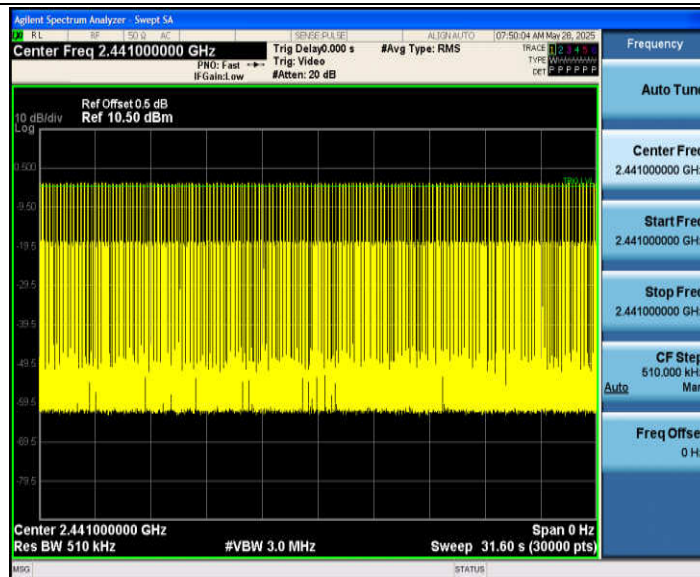


DH5_Ant1_Hop

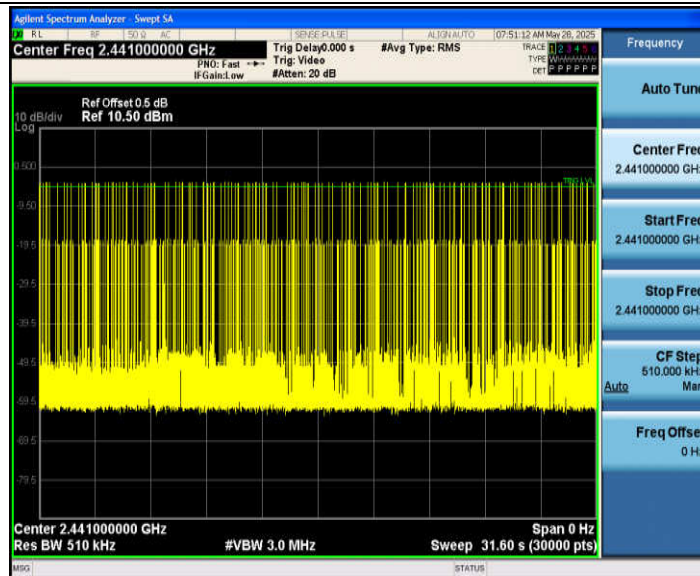




2DH1_Ant1_Hop

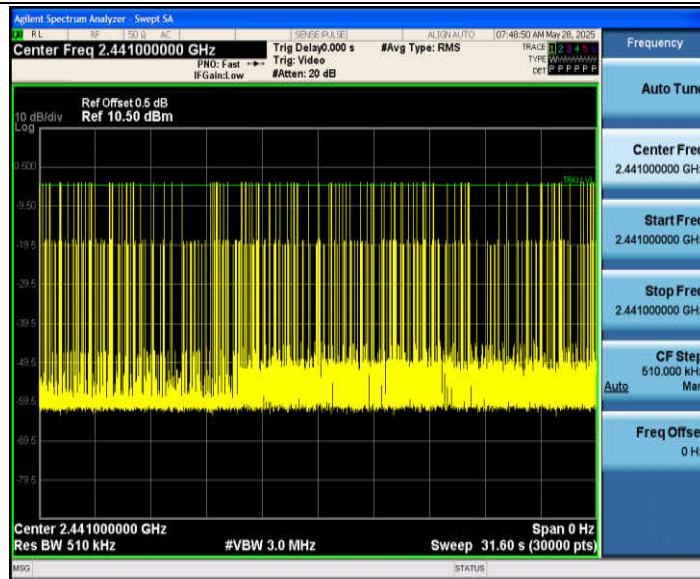


2DH3_Ant1_Hop

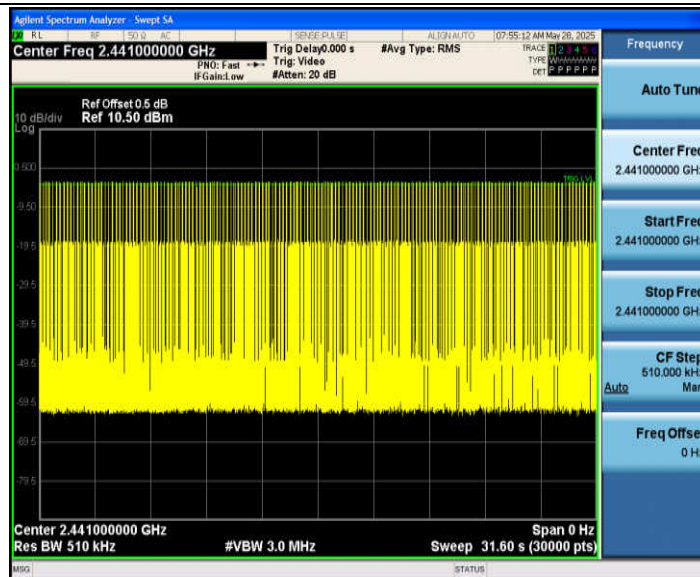
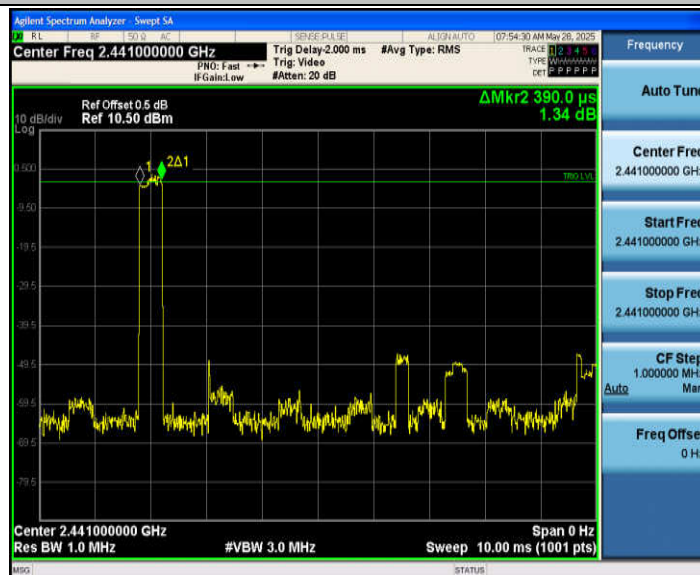


2DH5_Ant1_Hop

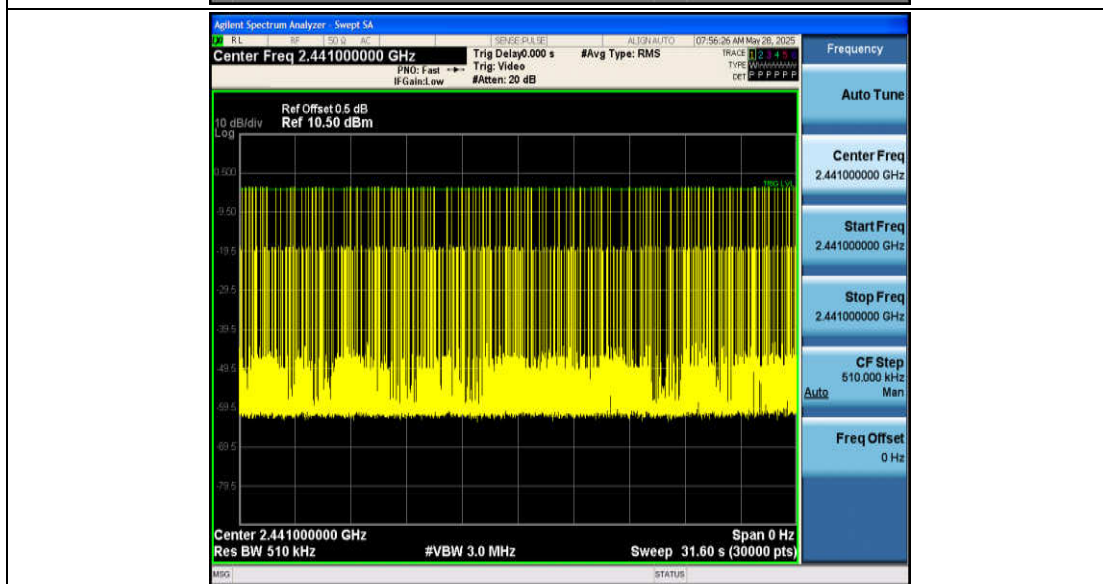
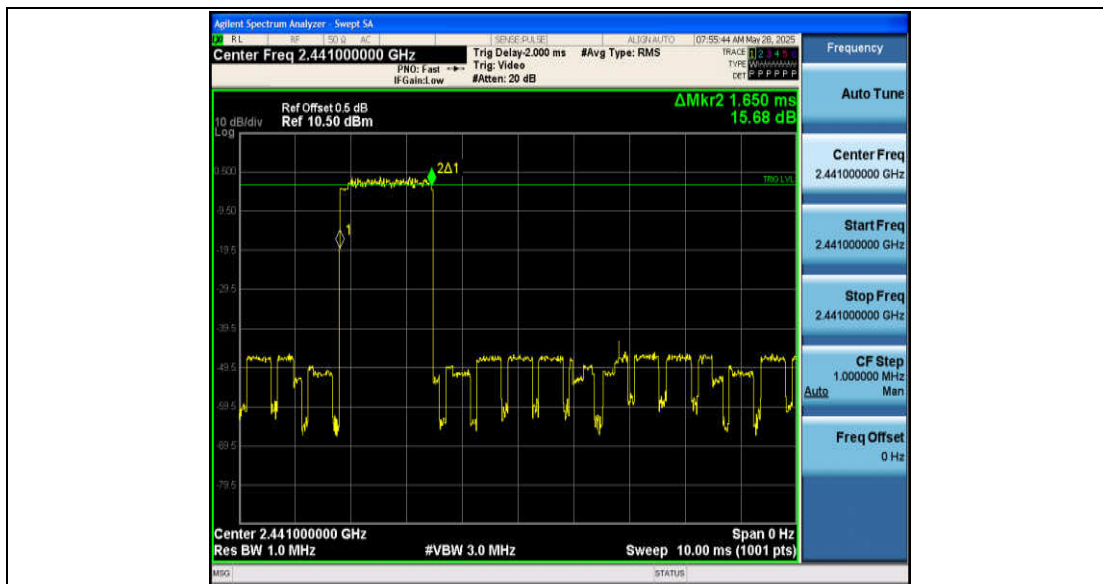




3DH1_Ant1_Hop

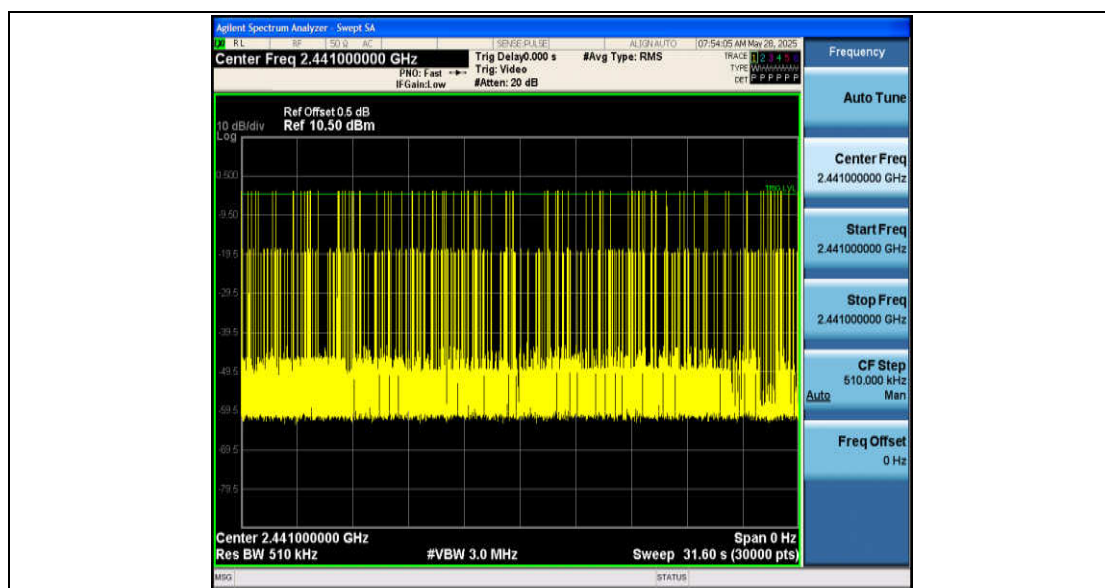


3DH3_Ant1_Hop



3DH5_Ant1_Hop





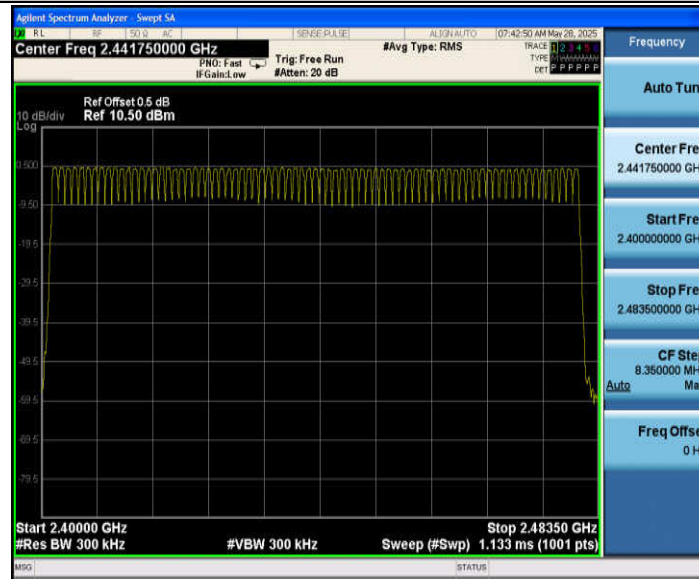
Appendix F: Number of hopping channels

Test Result

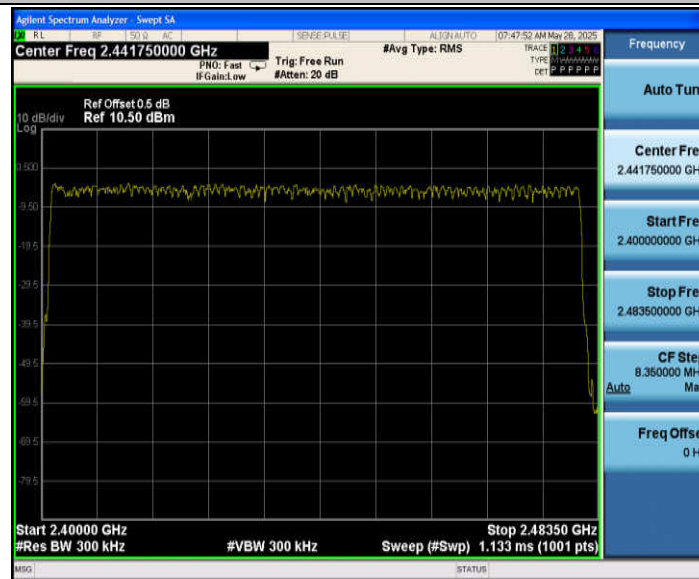
TestMode	Antenna	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

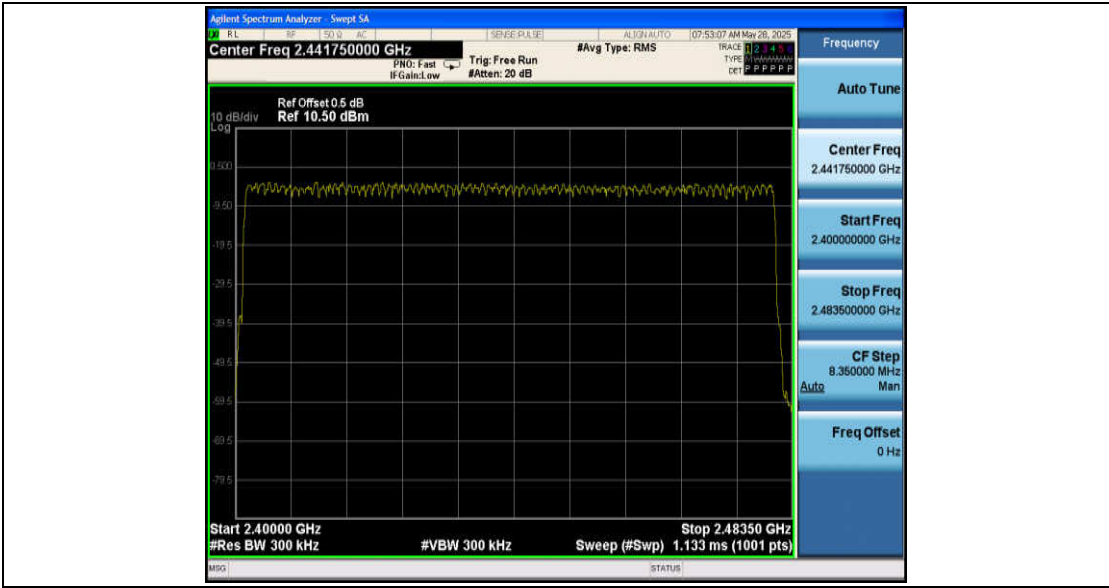
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



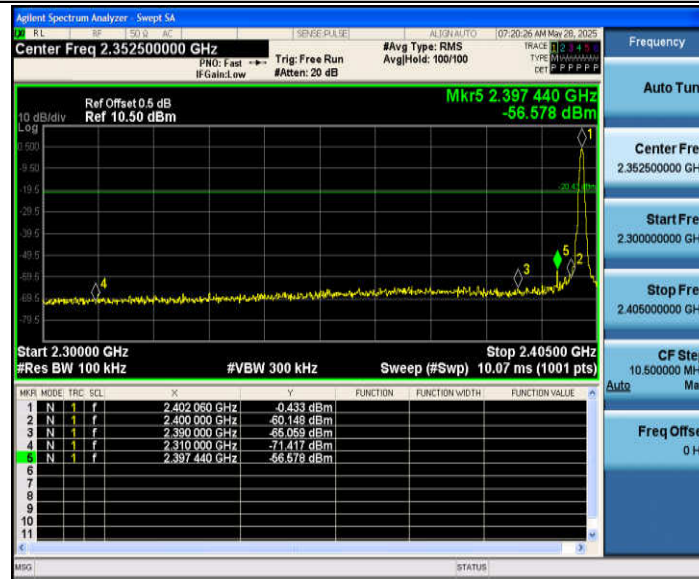
Appendix G: Band edge measurements

Test Result

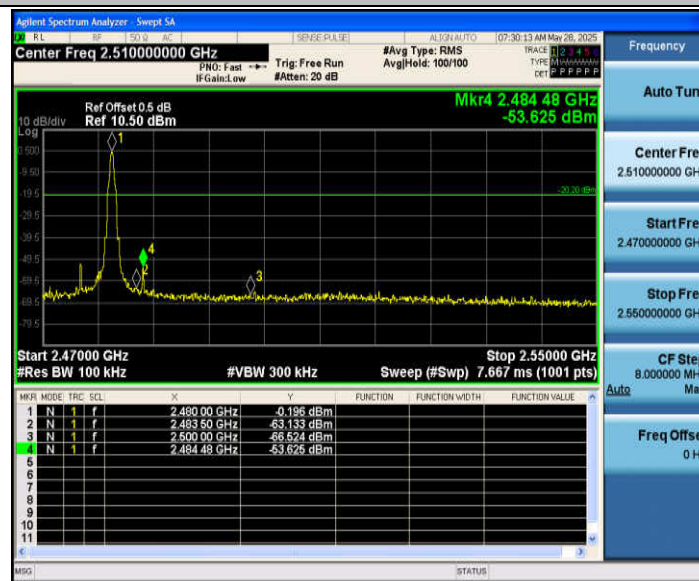
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.43	-56.58	≤ -20.43	PASS
		High	2480	-0.20	-53.63	≤ -20.2	PASS
		Low	Hop_2402	-0.34	-59.79	≤ -20.34	PASS
		High	Hop_2480	-0.32	-62.2	≤ -20.32	PASS
2DH5	Ant1	Low	2402	-4.09	-61.32	≤ -24.09	PASS
		High	2480	-4.00	-63.86	≤ -24	PASS
		Low	Hop_2402	-4.42	-59.29	≤ -24.42	PASS
		High	Hop_2480	-4.76	-64.73	≤ -24.76	PASS
3DH5	Ant1	Low	2402	-6.07	-60.27	≤ -26.07	PASS
		High	2480	-4.84	-55.37	≤ -24.84	PASS
		Low	Hop_2402	-5.05	-61.89	≤ -25.05	PASS
		High	Hop_2480	-3.71	-64.68	≤ -23.71	PASS

Test Graphs

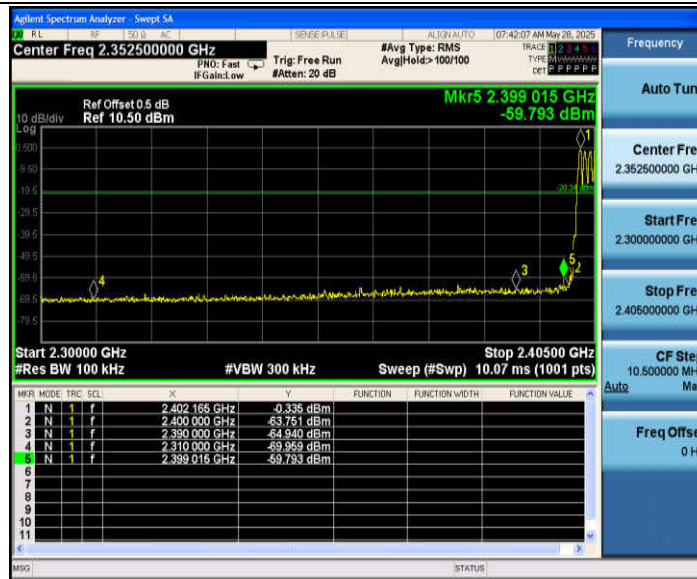
DH5_Ant1_Low_2402



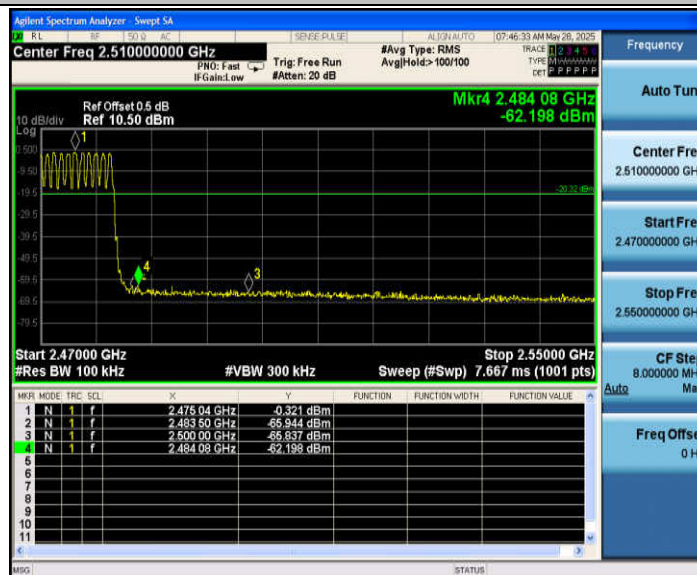
DH5_Ant1_High_2480



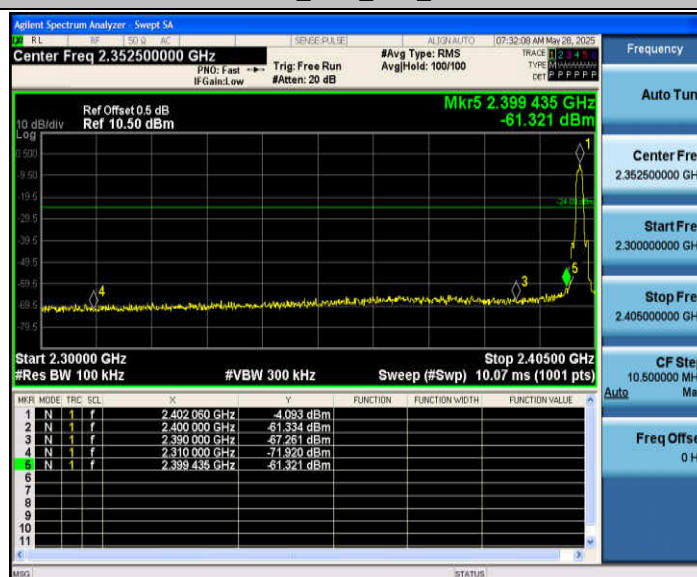
DH5_Ant1_Low_Hop_2402



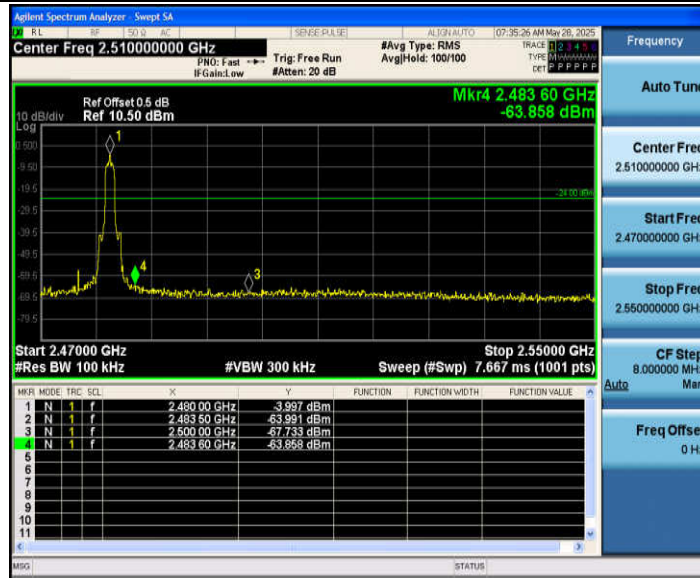
DH5_Ant1_High_Hop_2480



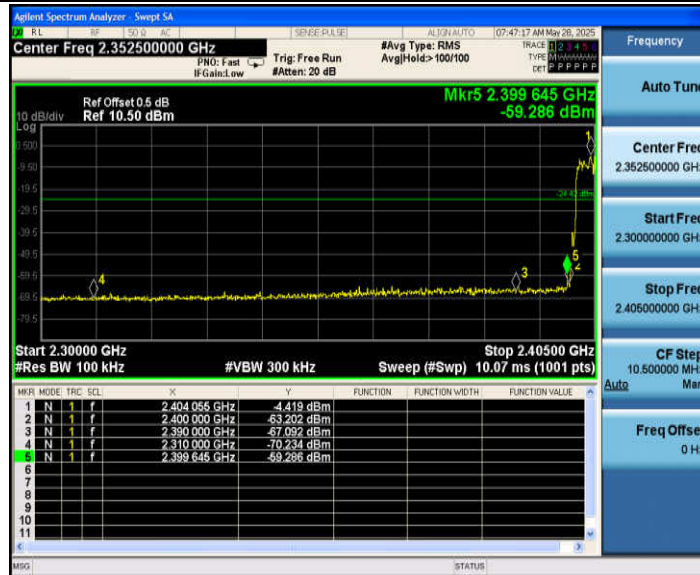
2DH5_Ant1_Low_2402



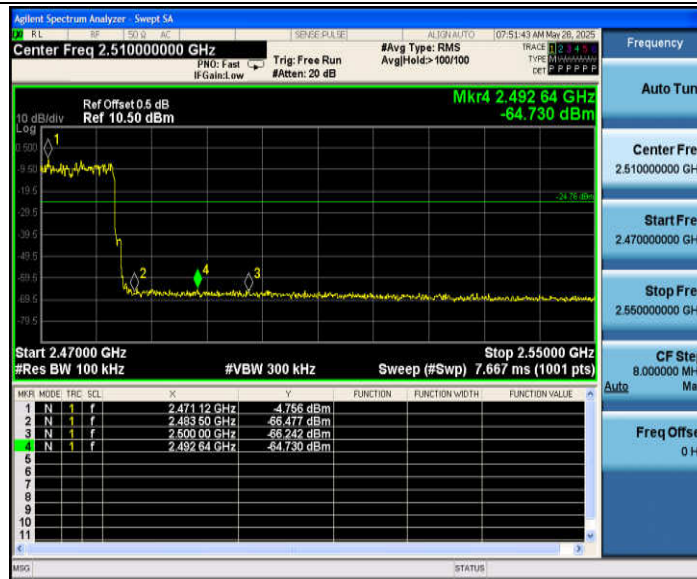
2DH5_Ant1_High_2480



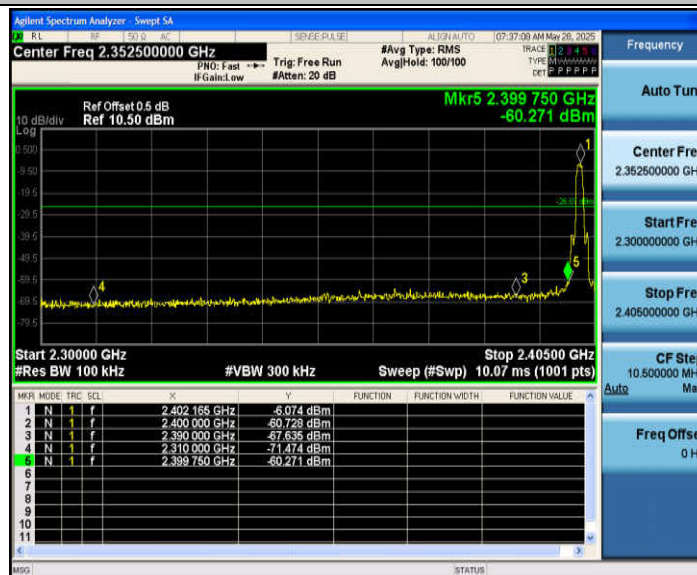
2DH5_Ant1_Low_Hop_2402



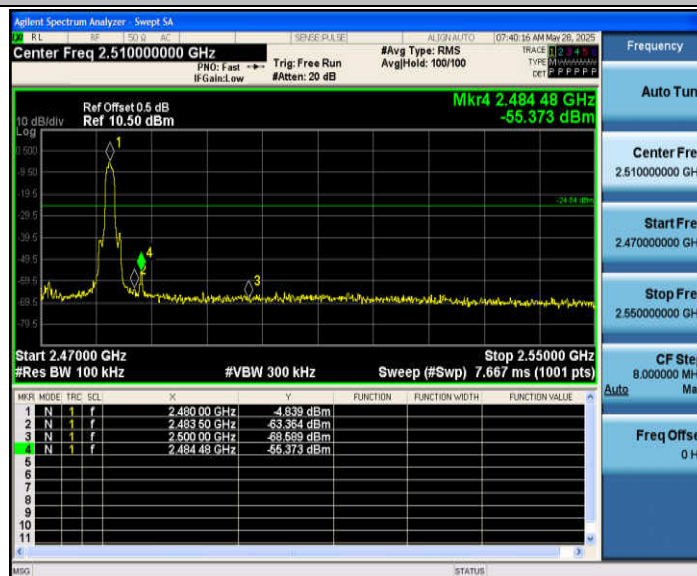
2DH5_Ant1_High_Hop_2480



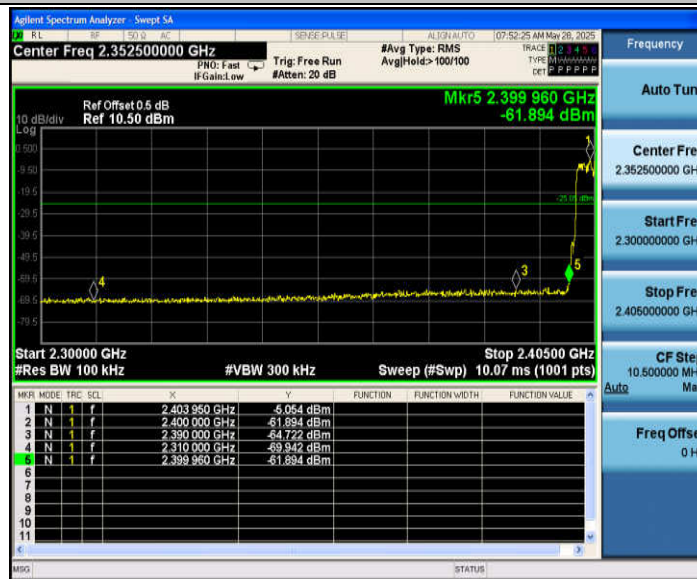
3DH5_Ant1_Low_2402



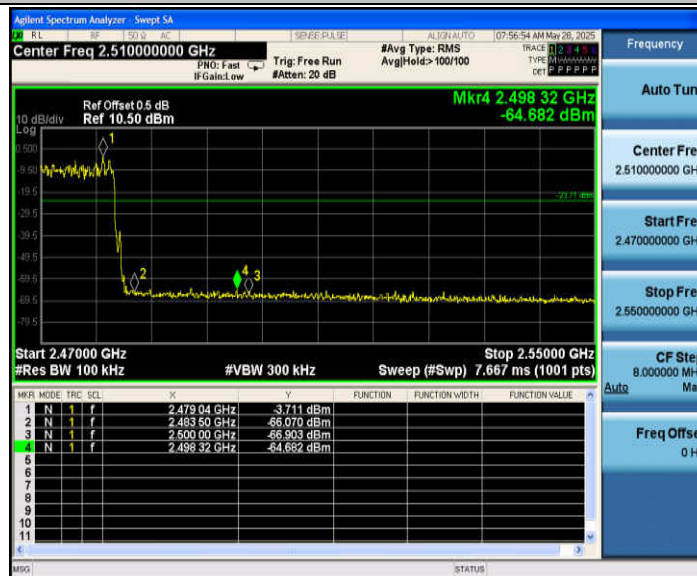
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

Test Result

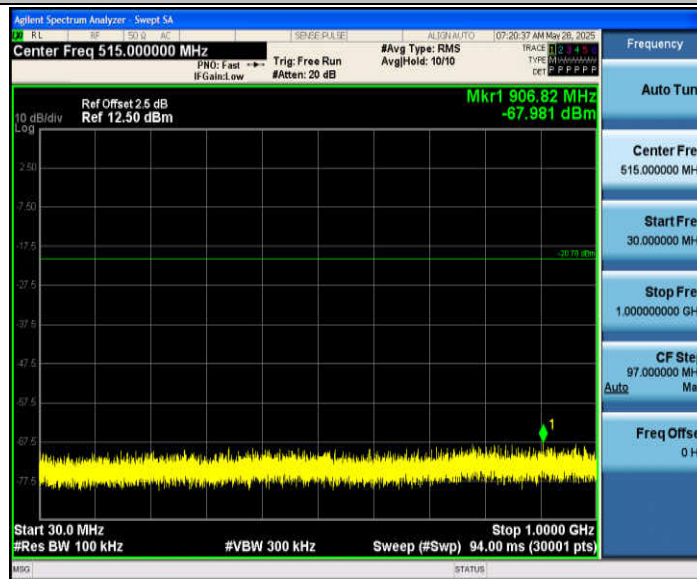
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.78	-0.78	---	PASS
			30~1000	-0.78	-67.98	≤-20.78	PASS
			1000~26500	-0.78	-43.56	≤-20.78	PASS
		2441	Reference	-1.16	-1.16	---	PASS
			30~1000	-1.16	-67.54	≤-21.16	PASS
			1000~26500	-1.16	-44.23	≤-21.16	PASS
		2480	Reference	-1.40	-1.40	---	PASS
			30~1000	-1.40	-67.11	≤-21.4	PASS
			1000~26500	-1.40	-43.63	≤-21.4	PASS
2DH5	Ant1	2402	Reference	-5.30	-5.30	---	PASS
			30~1000	-5.30	-67.73	≤-25.3	PASS
			1000~26500	-5.30	-49.21	≤-25.3	PASS
		2441	Reference	-5.60	-5.60	---	PASS
			30~1000	-5.60	-68.49	≤-25.6	PASS
			1000~26500	-5.60	-50.92	≤-25.6	PASS
		2480	Reference	-6.99	-6.99	---	PASS
			30~1000	-6.99	-67.52	≤-26.99	PASS
			1000~26500	-6.99	-47.3	≤-26.99	PASS
3DH5	Ant1	2402	Reference	-5.53	-5.53	---	PASS
			30~1000	-5.53	-68.36	≤-25.53	PASS
			1000~26500	-5.53	-48.67	≤-25.53	PASS
		2441	Reference	-3.97	-3.97	---	PASS
			30~1000	-3.97	-66.89	≤-23.97	PASS
			1000~26500	-3.97	-49.59	≤-23.97	PASS
		2480	Reference	-6.39	-6.39	---	PASS
			30~1000	-6.39	-47.99	≤-26.39	PASS
			1000~26500	-6.39	-50.92	≤-26.39	PASS

Test Graphs

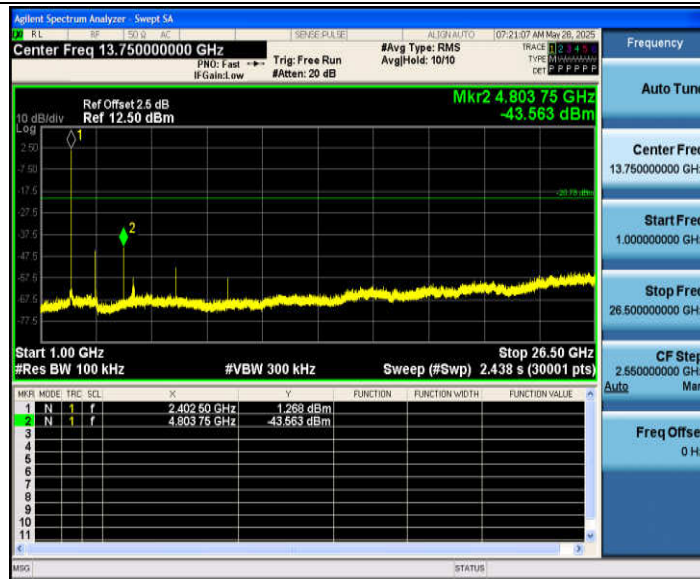
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



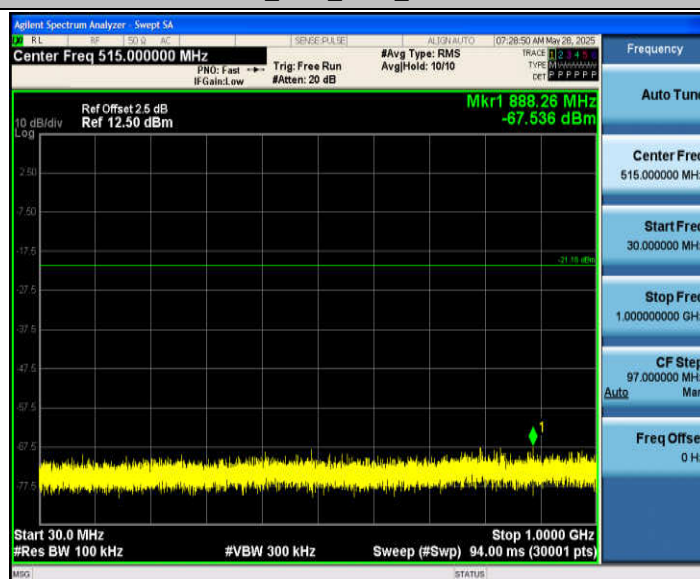
DH5_Ant1_2402_1000~26500



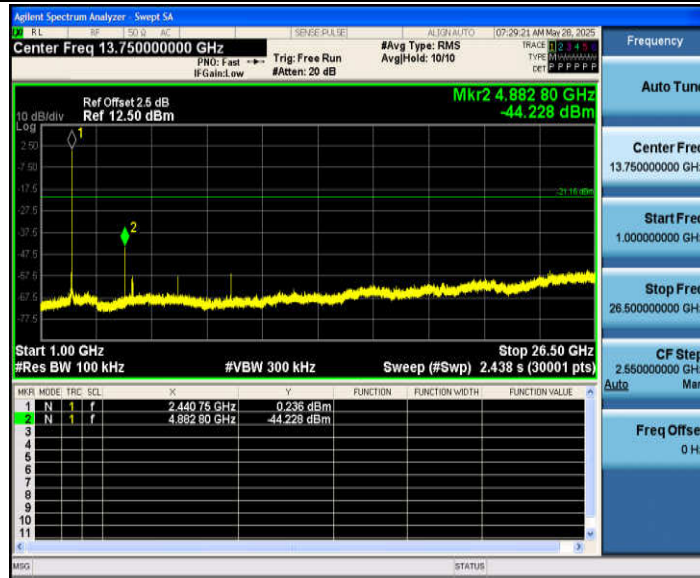
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



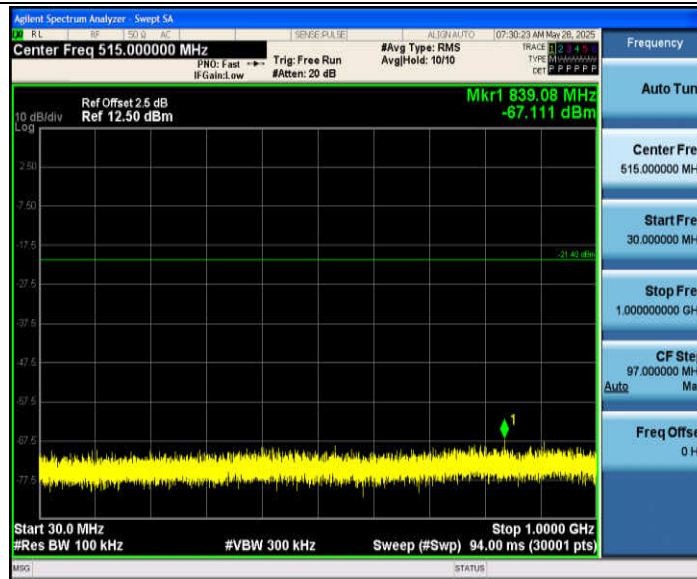
DH5_Ant1_2441_1000~26500



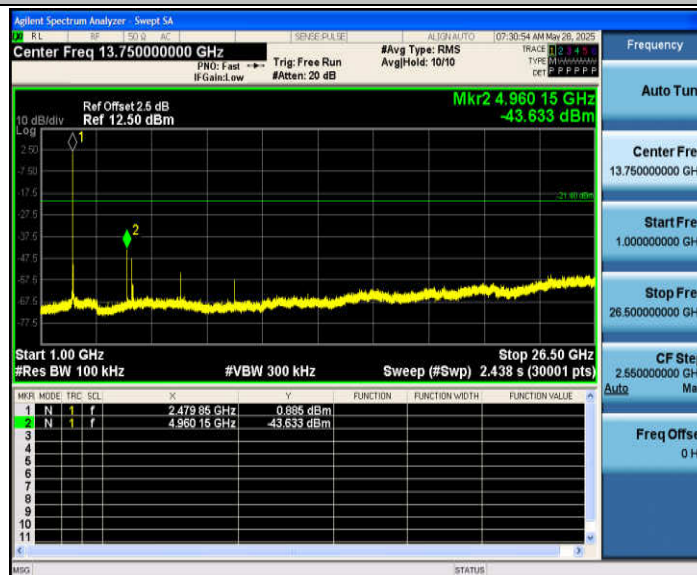
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



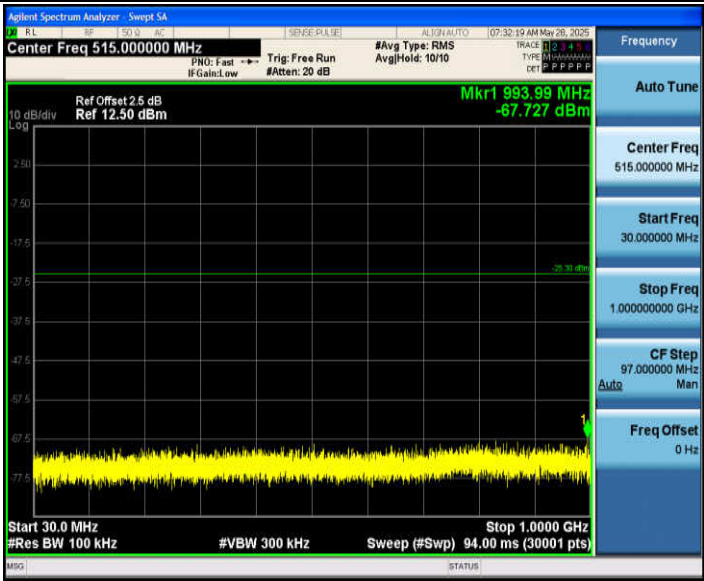
DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



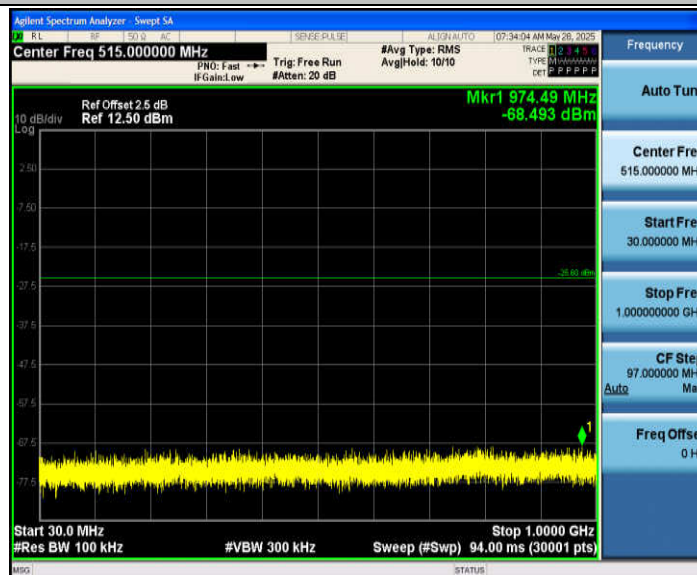
2DH5_Ant1_2402_1000~26500



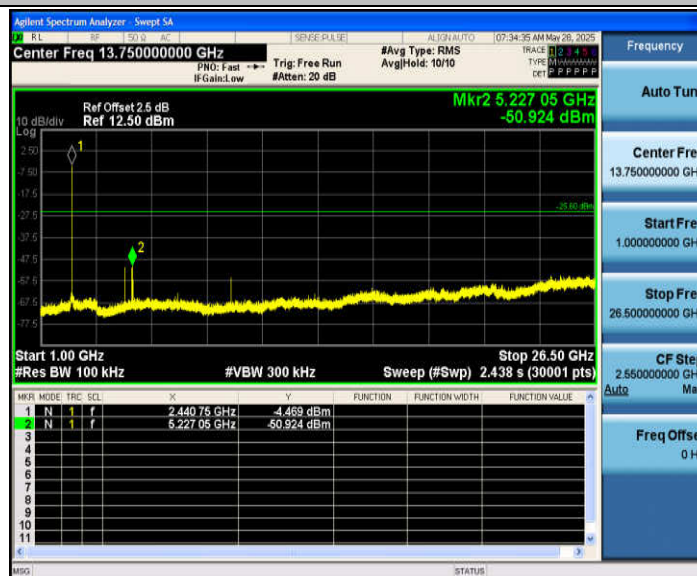
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



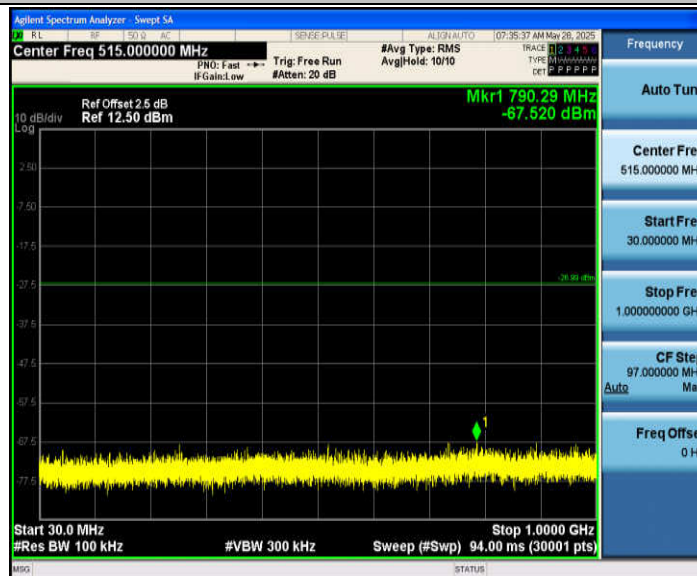
2DH5_Ant1_2441_1000~26500



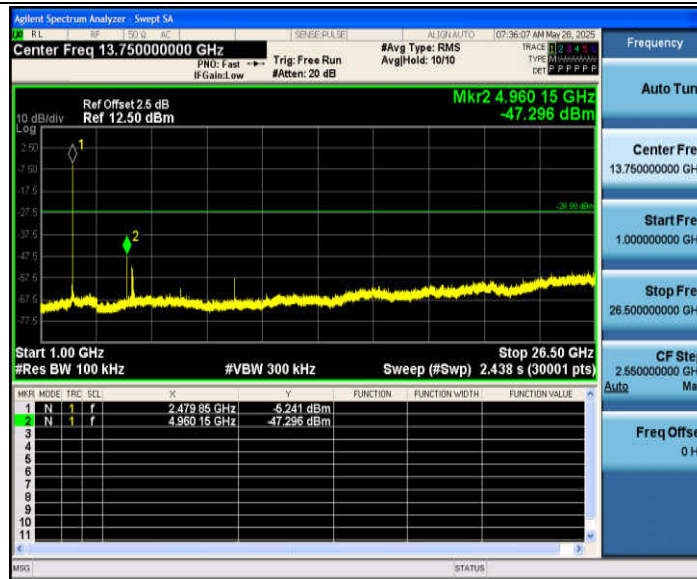
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



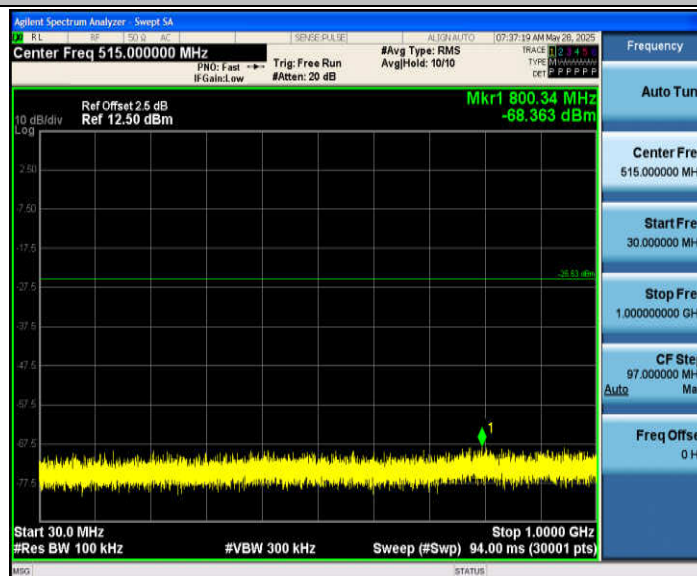
2DH5_Ant1_2480_1000~26500



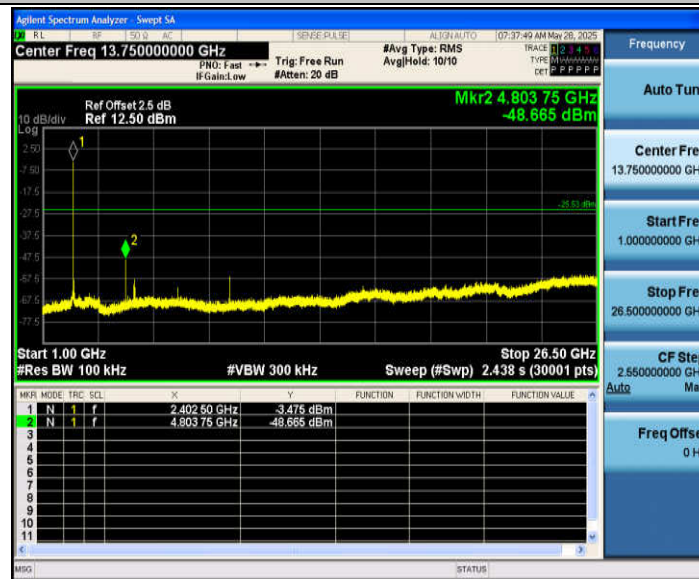
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000



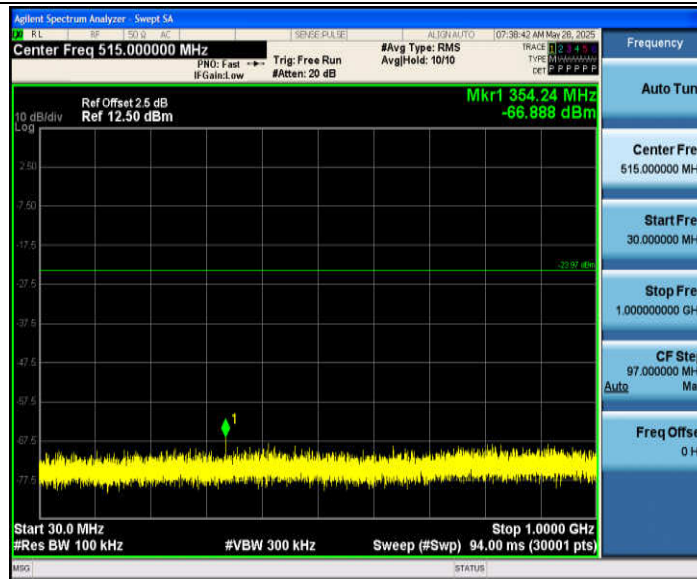
3DH5_Ant1_2402_1000~26500



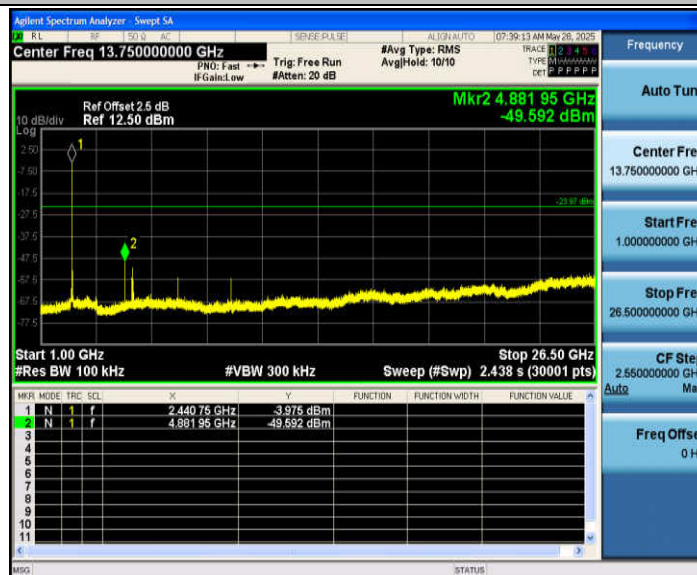
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



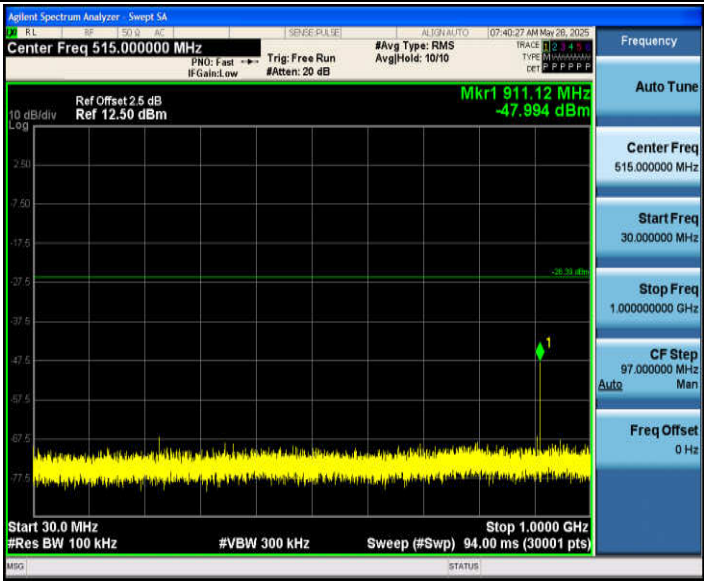
3DH5_Ant1_2441_1000~26500



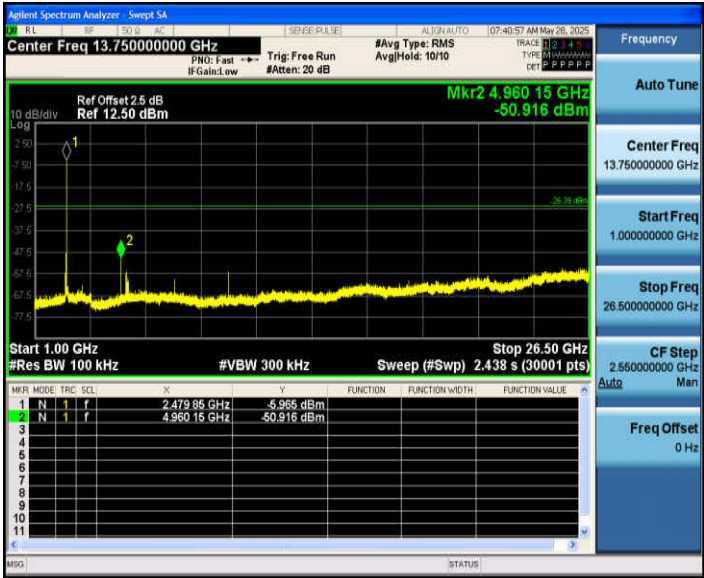
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500

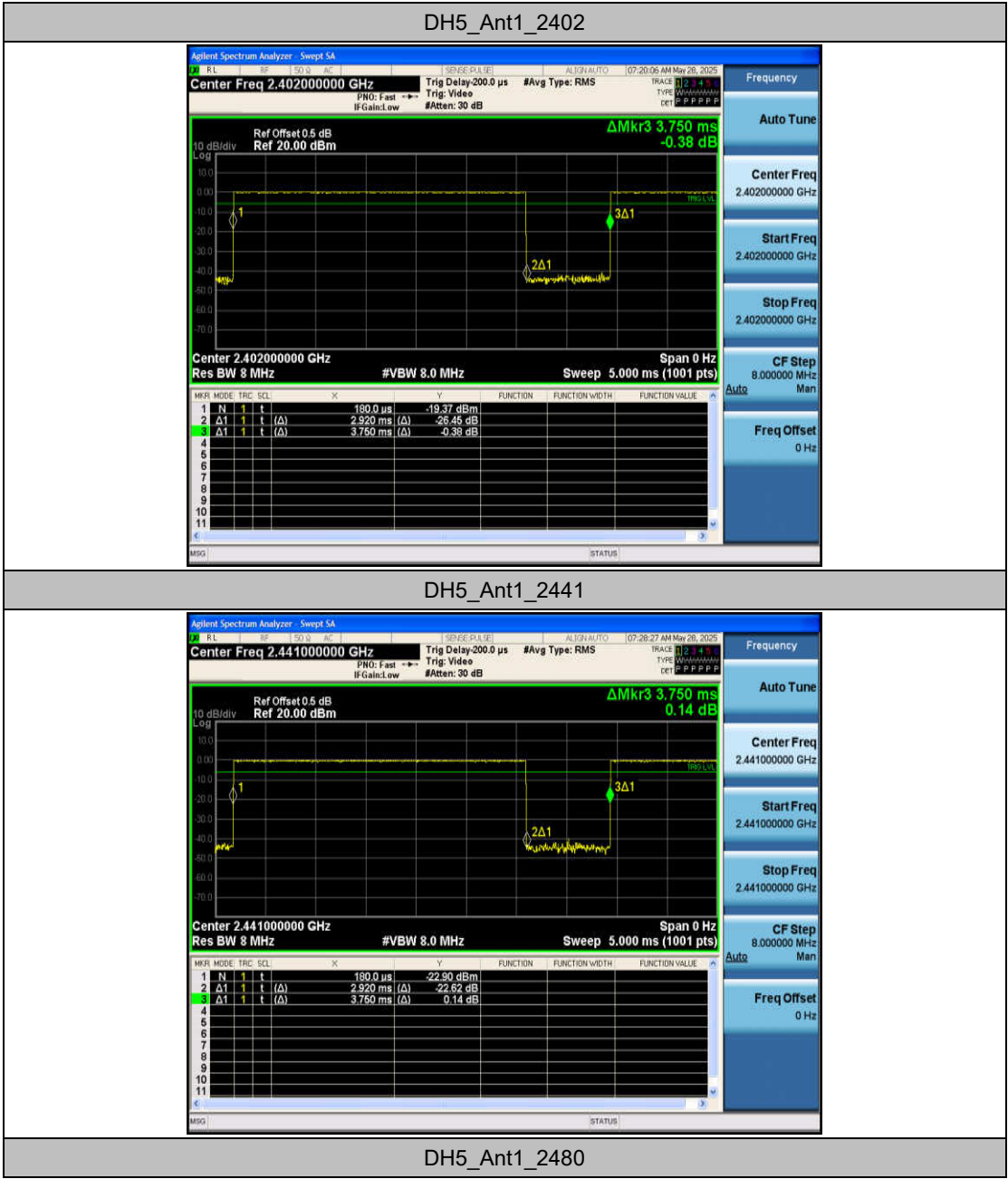


Appendix I: Duty Cycle

Test Result

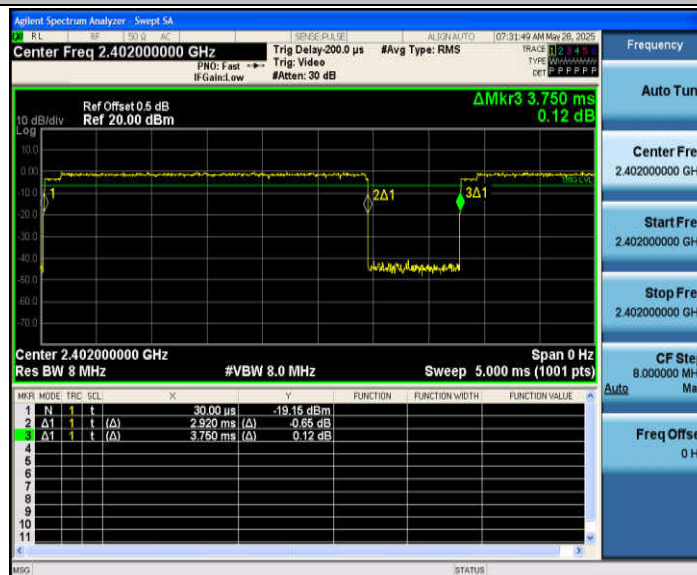
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.92	3.75	77.87	1.09	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.91	3.75	77.60	1.10	---	---
2DH5	Ant1	2402	2.92	3.75	77.87	1.09	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.91	3.75	77.60	1.10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

Test Graphs

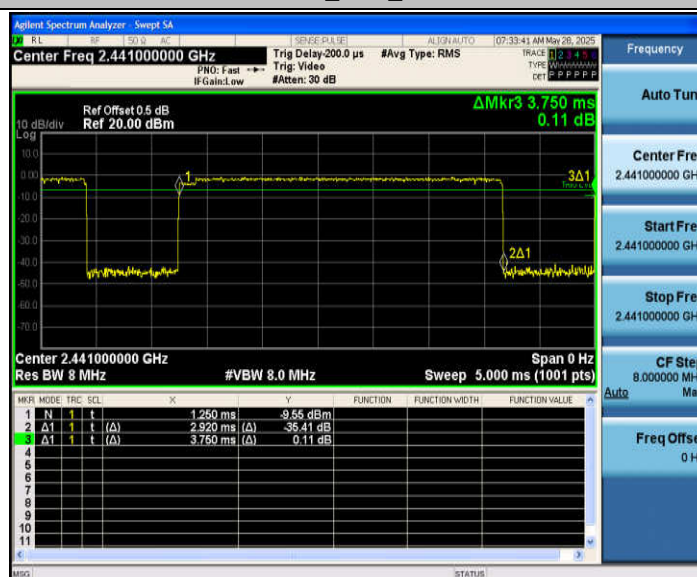




2DH5_Ant1_2402



2DH5_Ant1_2441





3DH5_Ant1_2480

