

FCC Appendix RF Test Data for BT

FCC ID : 2BAQY-SVANAR2R

Company : HIFIMAN KUNSHAN TECHNOLOGY GROUP CO., LTD.

EUT : True Wireless Earbuds

Model Number : Svanar wireless 2-R

Report No. : CTA26072802102

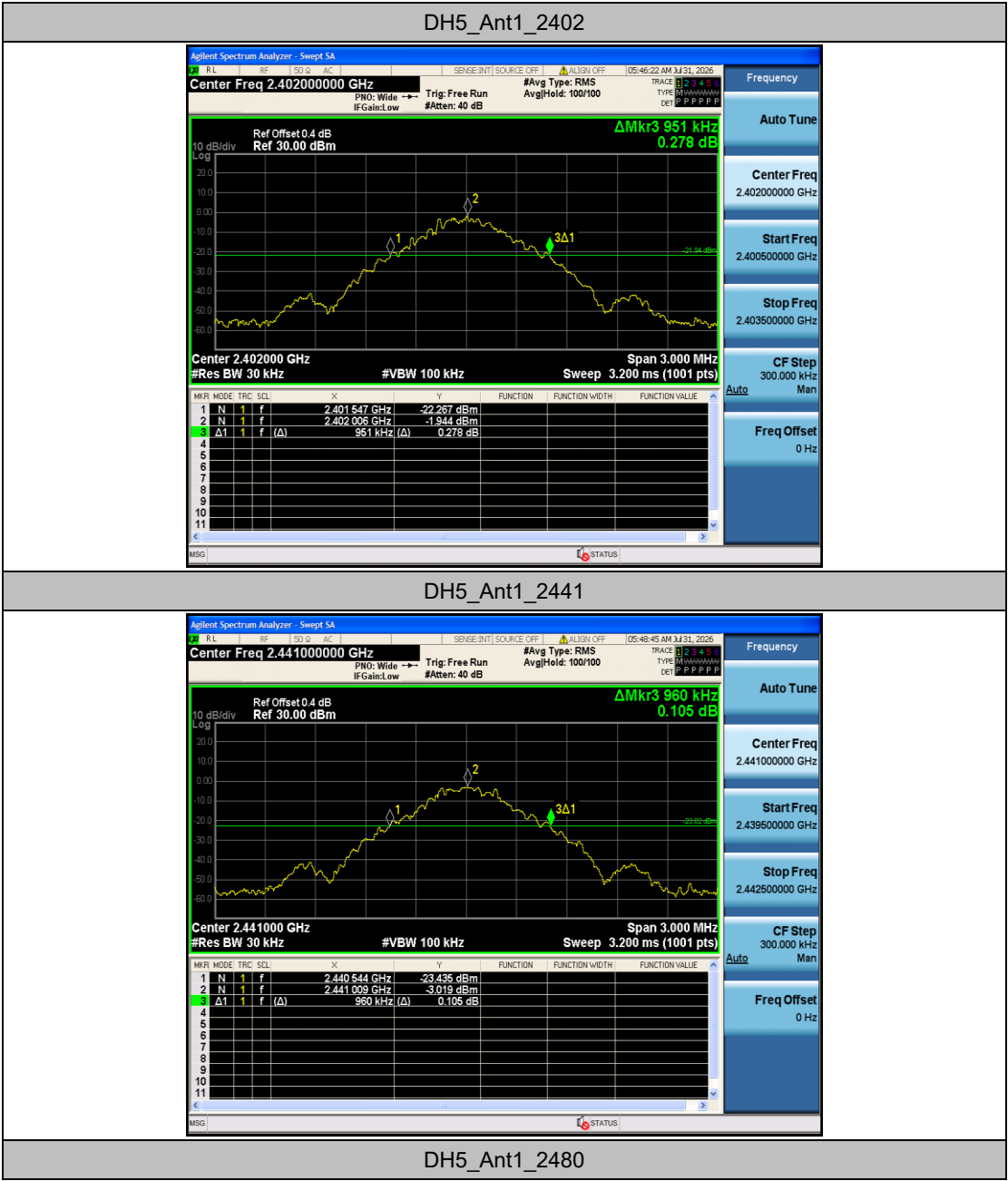
Reviewed By : Eric Wang

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	0.960	2440.544	2441.504	---	---
		2480	0.969	2479.538	2480.507	---	---
2DH5	Ant1	2402	1.281	2401.376	2402.657	---	---
		2441	1.323	2440.346	2441.669	---	---
		2480	1.284	2479.379	2480.663	---	---
3DH5	Ant1	2402	1.293	2401.361	2402.654	---	---
		2441	1.302	2440.361	2441.663	---	---
		2480	1.320	2479.352	2480.672	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

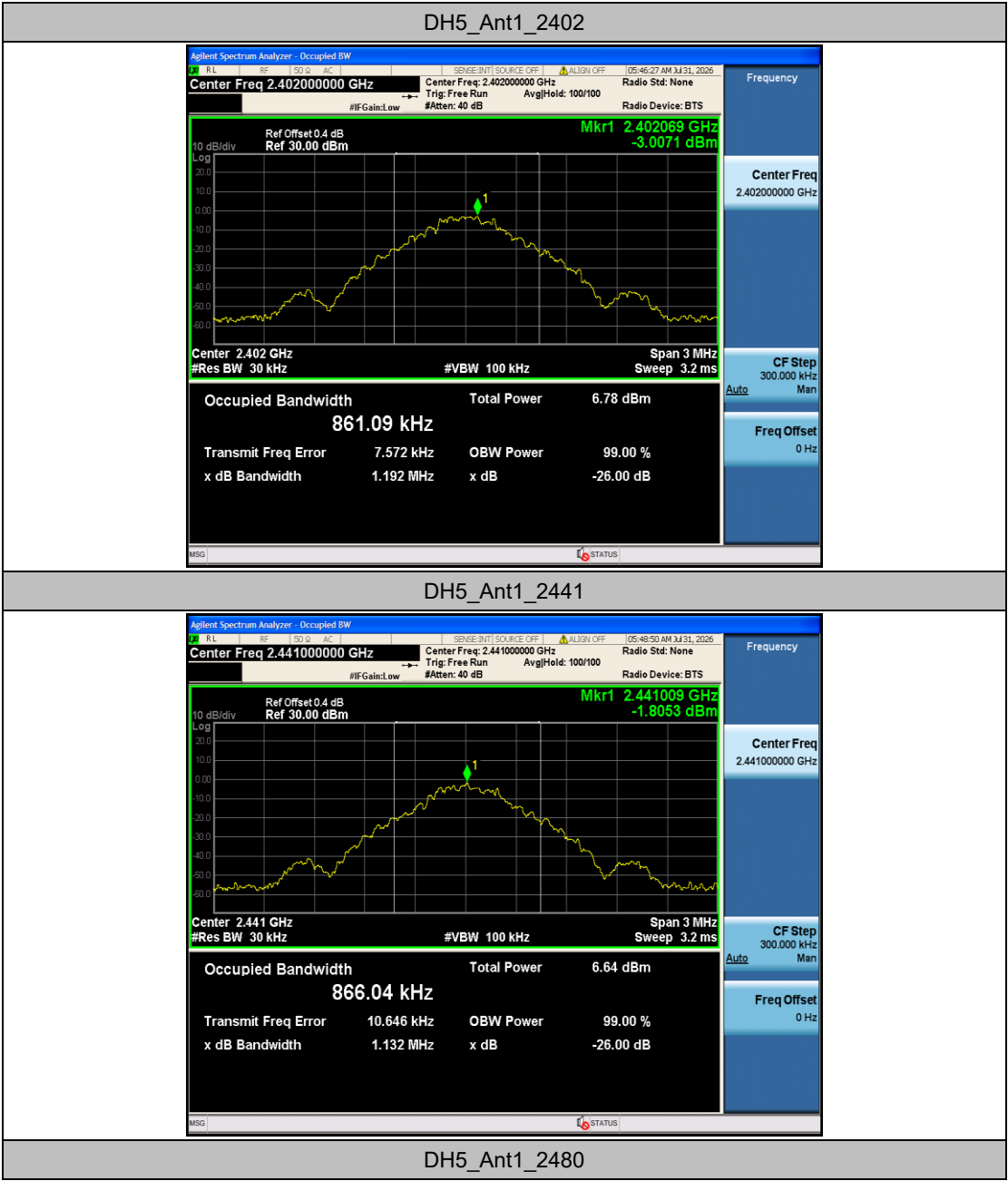


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86109	2401.5770	2402.4381	---	---
		2441	0.86604	2440.5776	2441.4437	---	---
		2480	0.86196	2479.5776	2480.4395	---	---
2DH5	Ant1	2402	1.1879	2401.4166	2402.6045	---	---
		2441	1.1826	2440.4165	2441.5991	---	---
		2480	1.1886	2479.4146	2480.6032	---	---
3DH5	Ant1	2402	1.1877	2401.4160	2402.6037	---	---
		2441	1.1966	2440.4120	2441.6086	---	---
		2480	1.2033	2479.4088	2480.6121	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



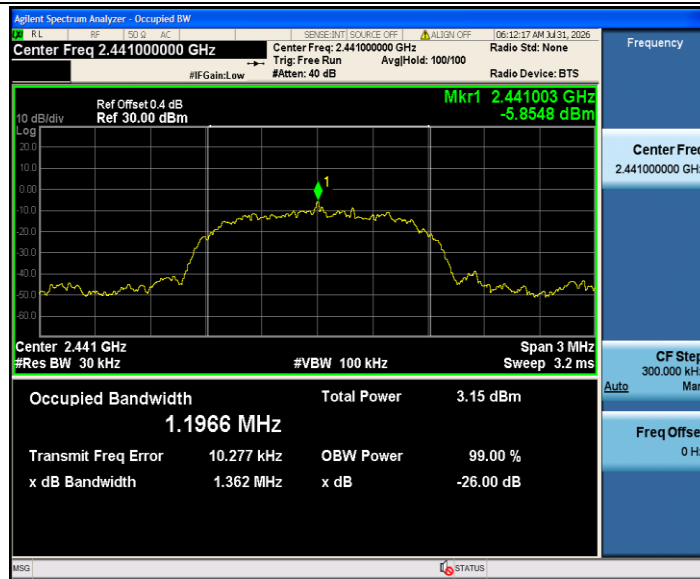
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

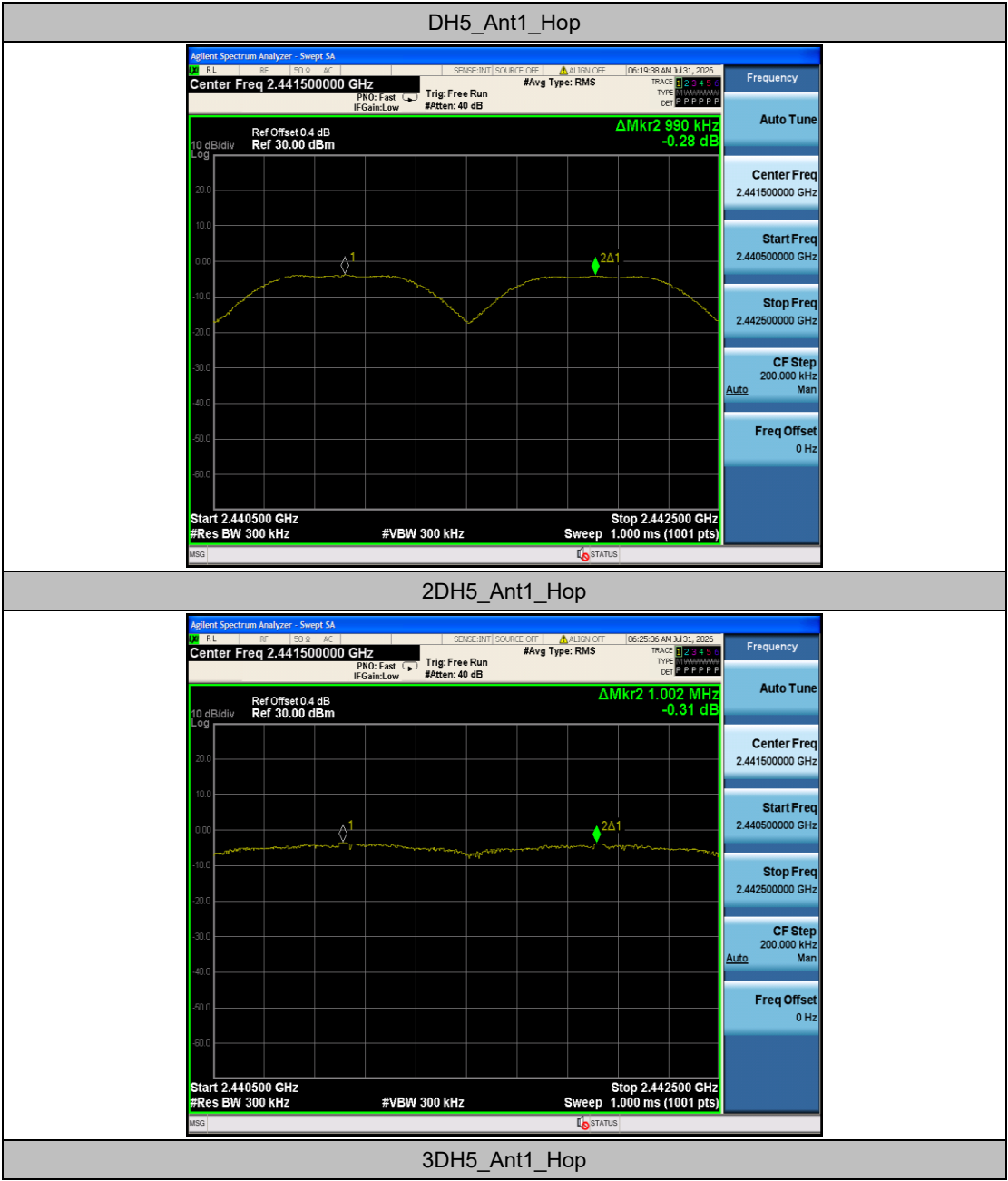
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.12	≤20.97	PASS
		2441	0.02	≤20.97	PASS
		2480	-0.28	≤20.97	PASS
2DH5	Ant1	2402	-0.72	≤20.97	PASS
		2441	-0.80	≤20.97	PASS
		2480	-1.15	≤20.97	PASS
3DH5	Ant1	2402	-0.32	≤20.97	PASS
		2441	-0.59	≤20.97	PASS
		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	0.99	≥ 0.969	PASS
2DH5	Ant1	Hop	1.002	≥ 0.882	PASS
3DH5	Ant1	Hop	1.134	≥ 0.880	PASS

Test Graphs



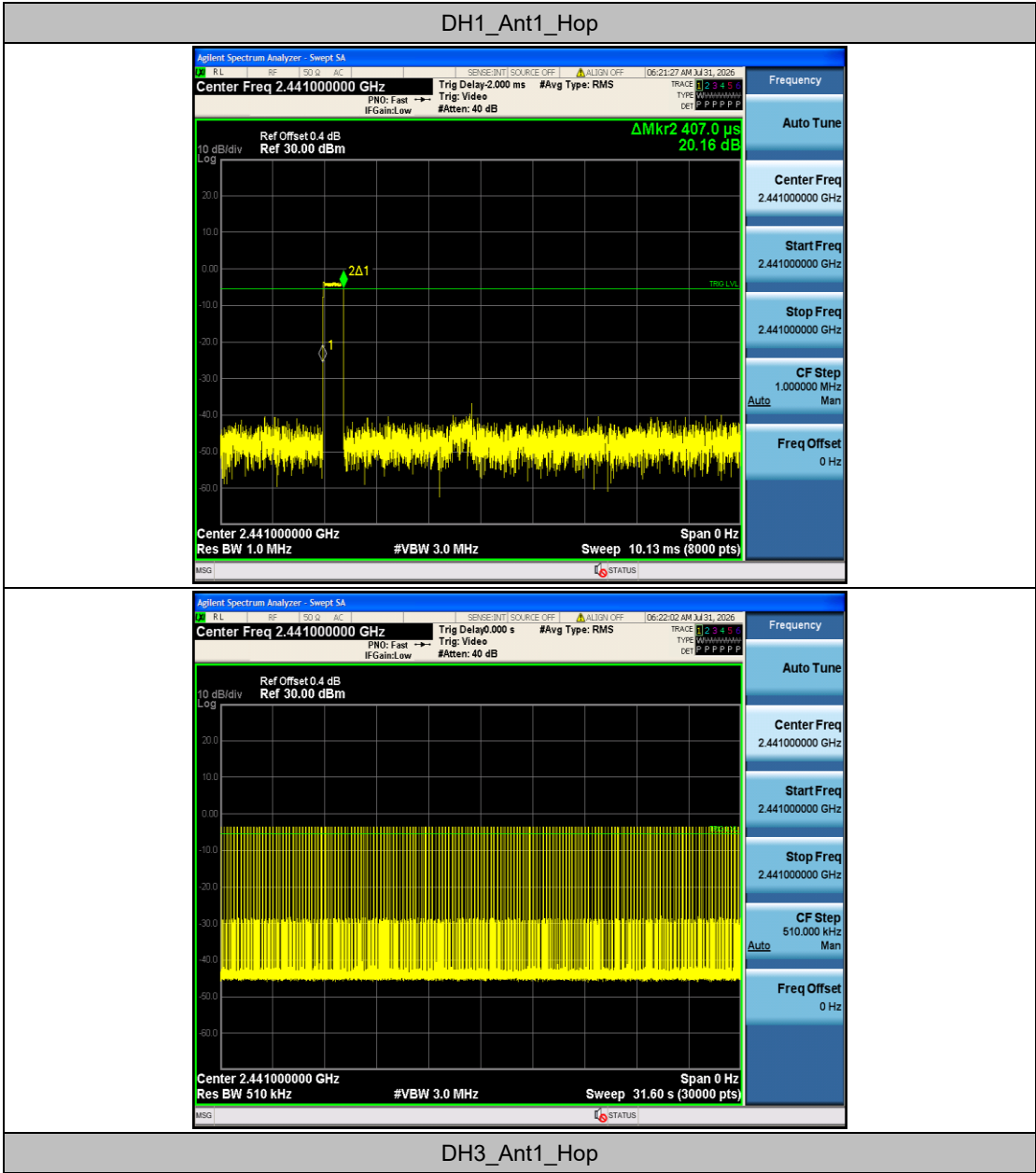


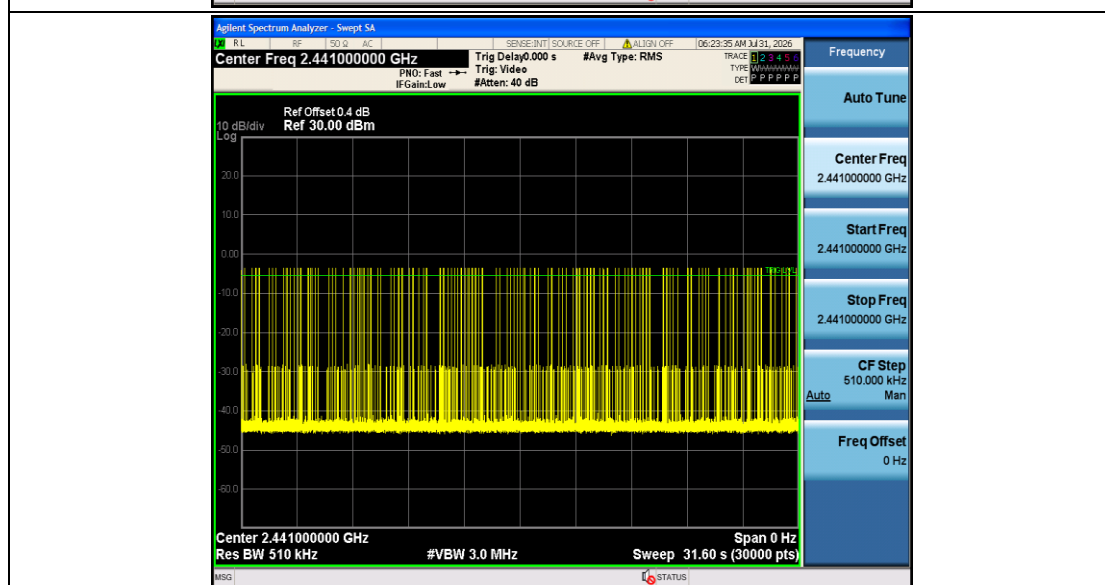
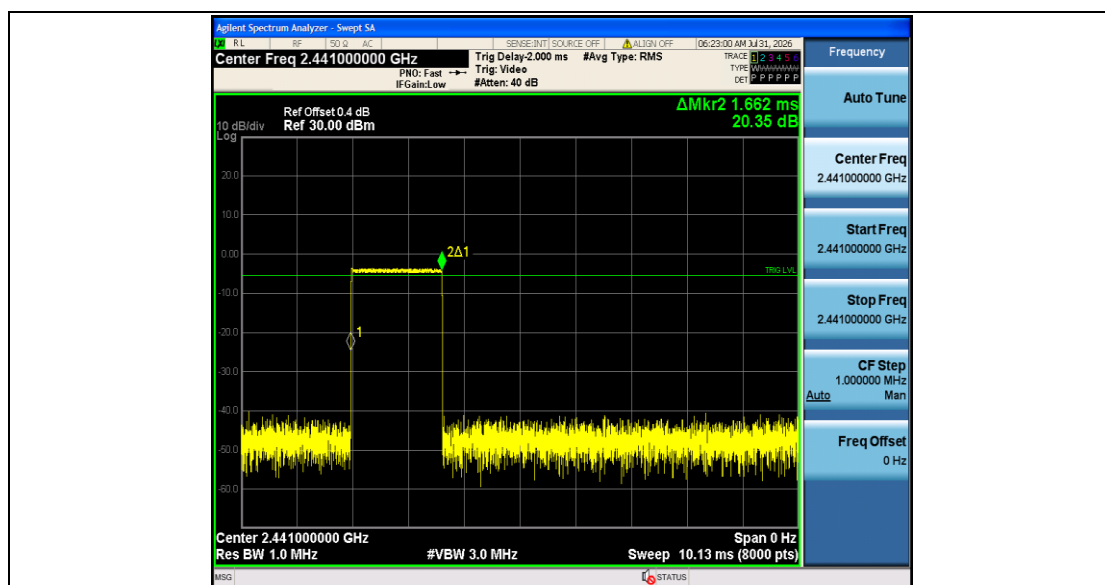
Appendix E: Time of occupancy

Test Result

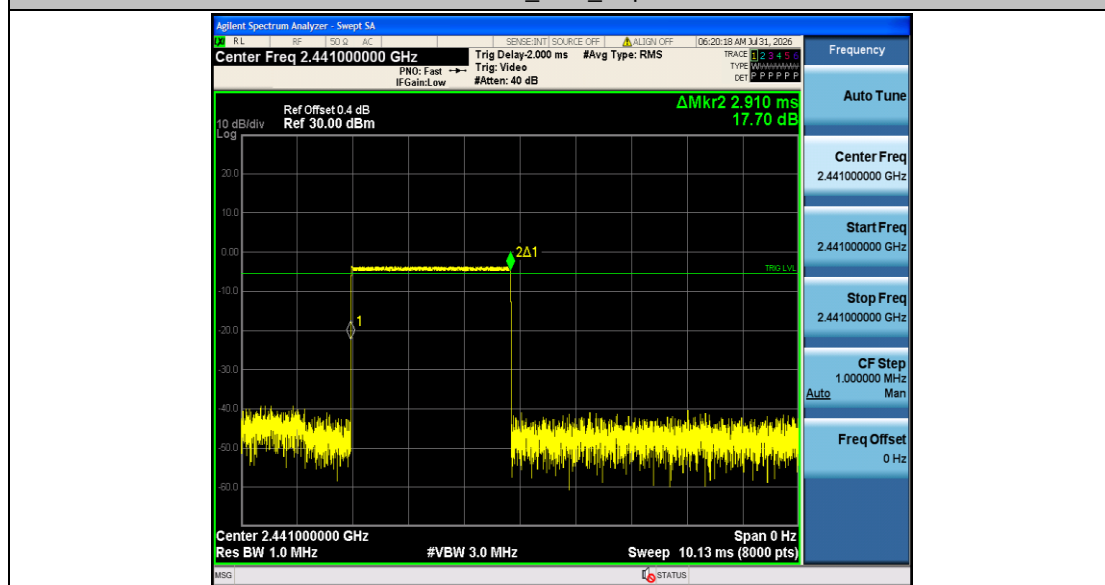
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	317	0.129	≤0.4	PASS
DH3	Ant1	Hop	1.662	160	0.266	≤0.4	PASS
DH5	Ant1	Hop	2.910	117	0.34	≤0.4	PASS
2DH1	Ant1	Hop	0.415	319	0.132	≤0.4	PASS
2DH3	Ant1	Hop	1.667	163	0.272	≤0.4	PASS
2DH5	Ant1	Hop	2.916	113	0.33	≤0.4	PASS
3DH1	Ant1	Hop	0.414	315	0.13	≤0.4	PASS
3DH3	Ant1	Hop	1.666	152	0.253	≤0.4	PASS
3DH5	Ant1	Hop	2.916	103	0.3	≤0.4	PASS

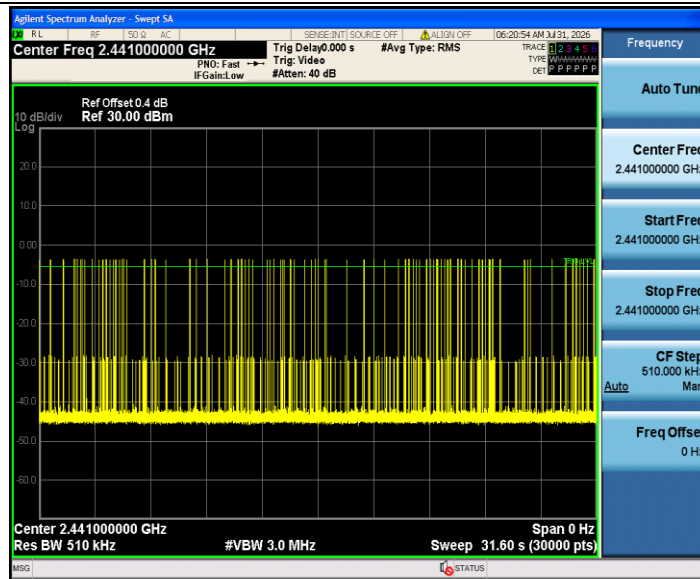
Test Graphs



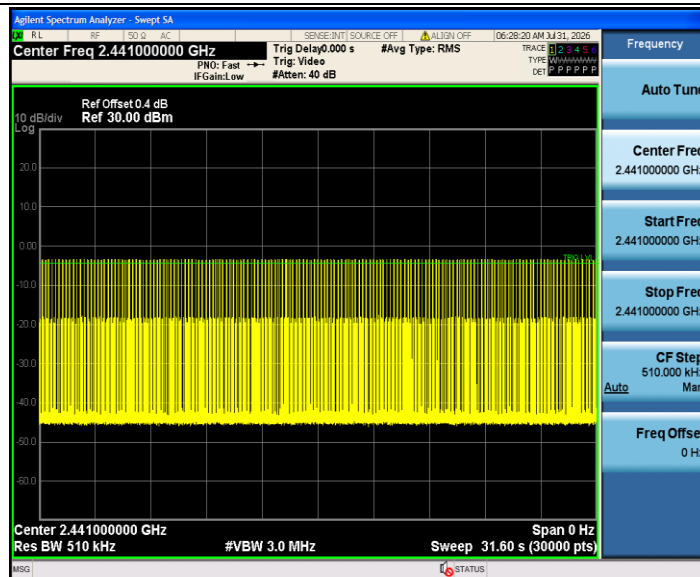
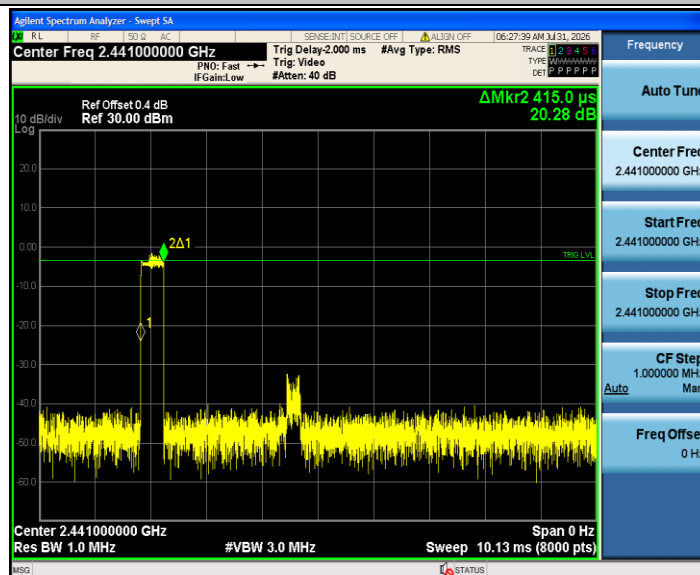


DH5_Ant1_Hop

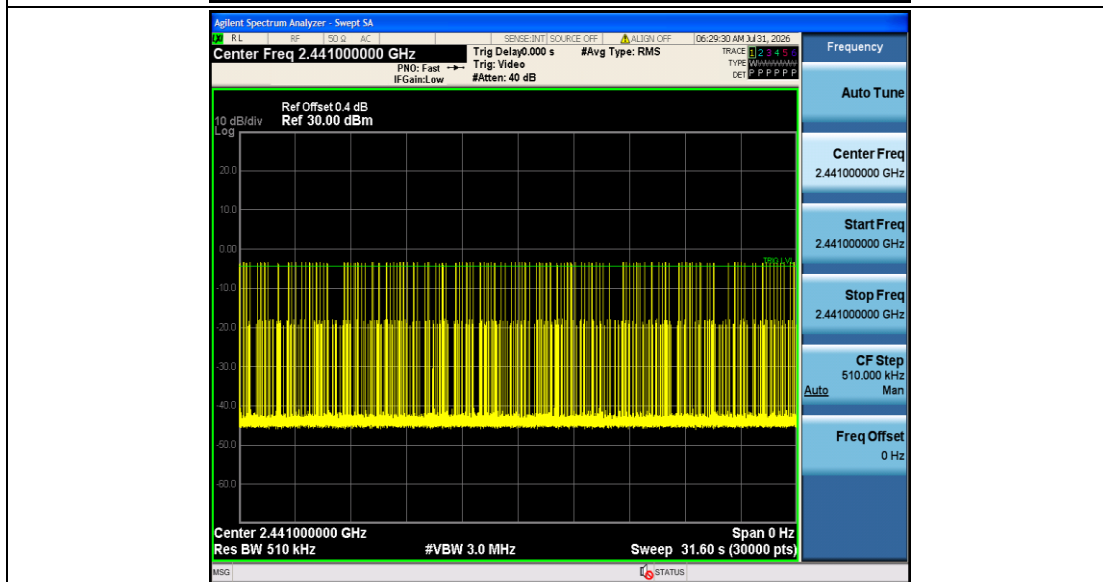
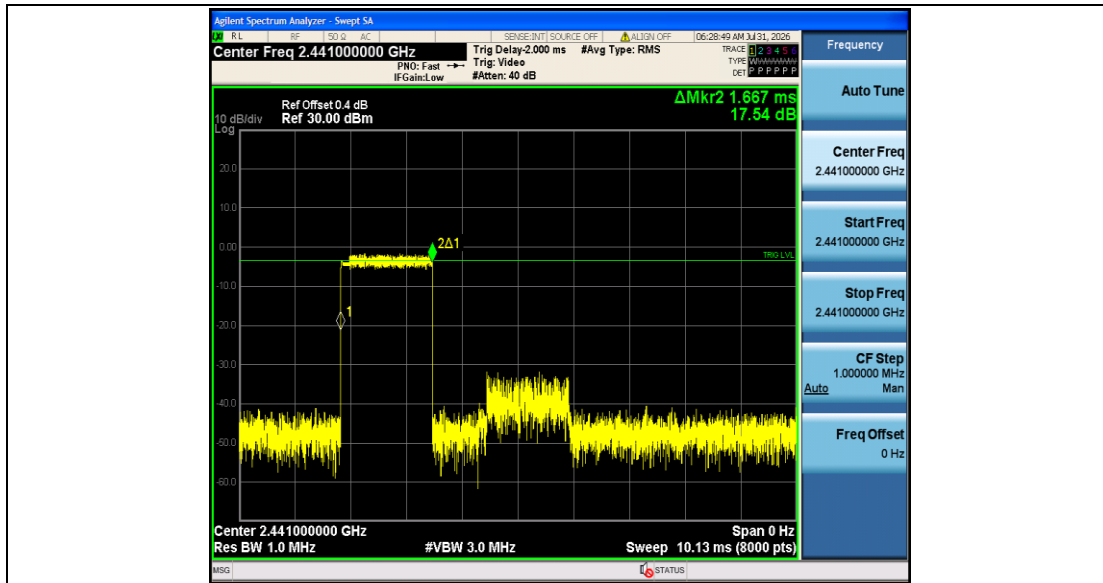




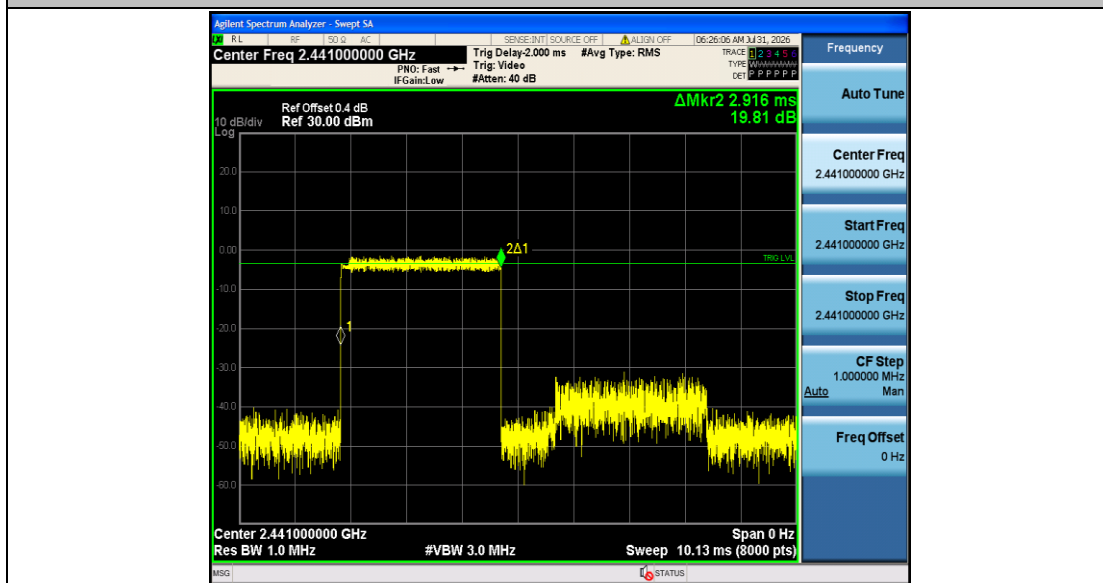
2DH1_Ant1_Hop

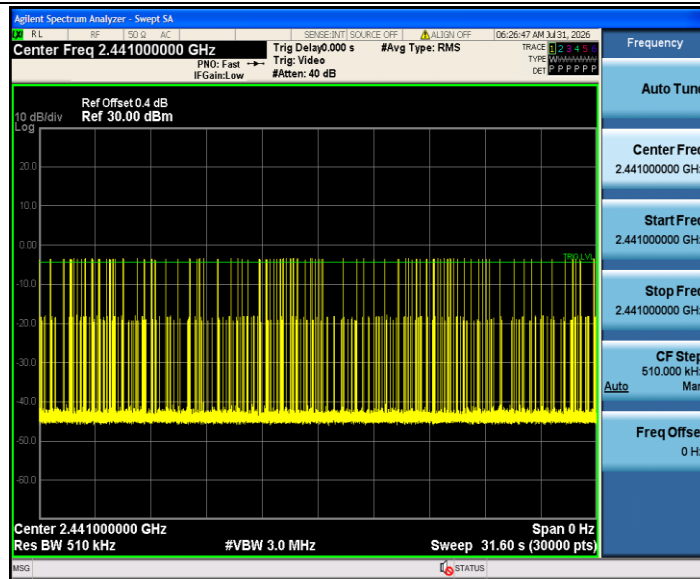


2DH3_Ant1_Hop

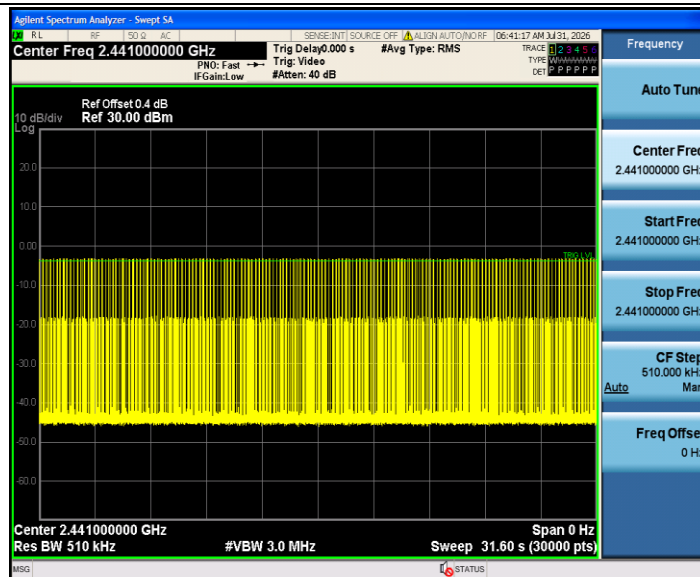
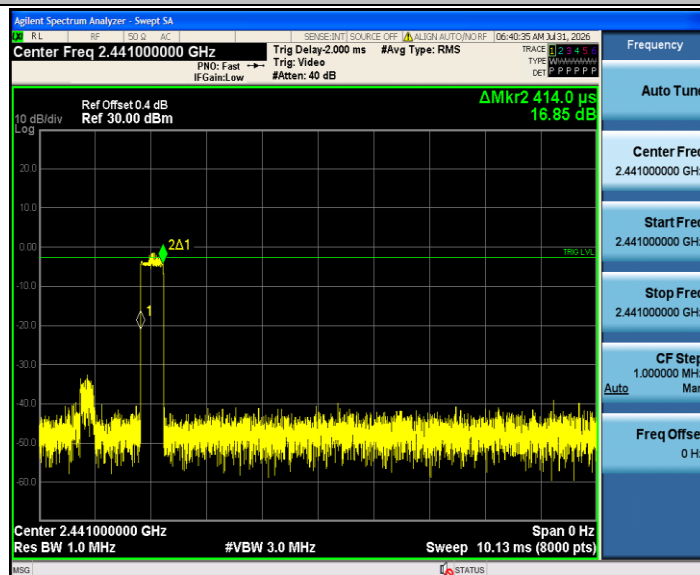


2DH5_Ant1_Hop

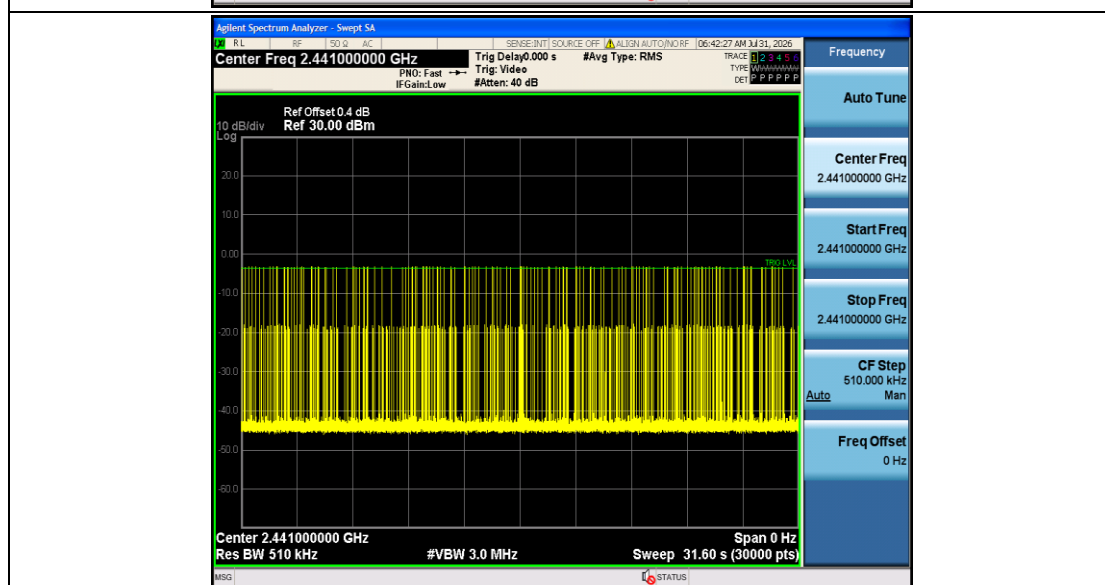
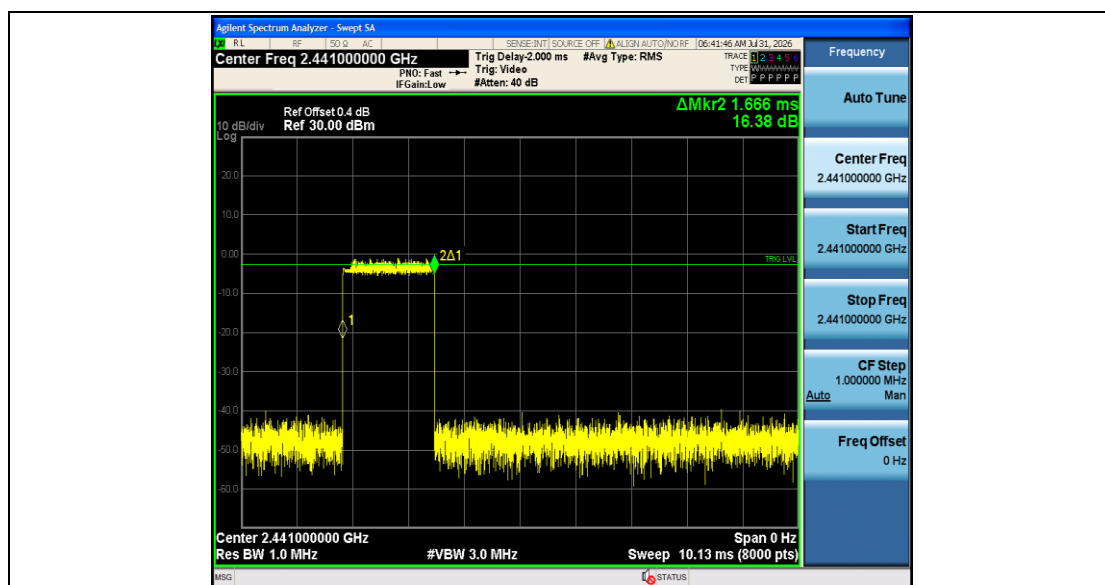




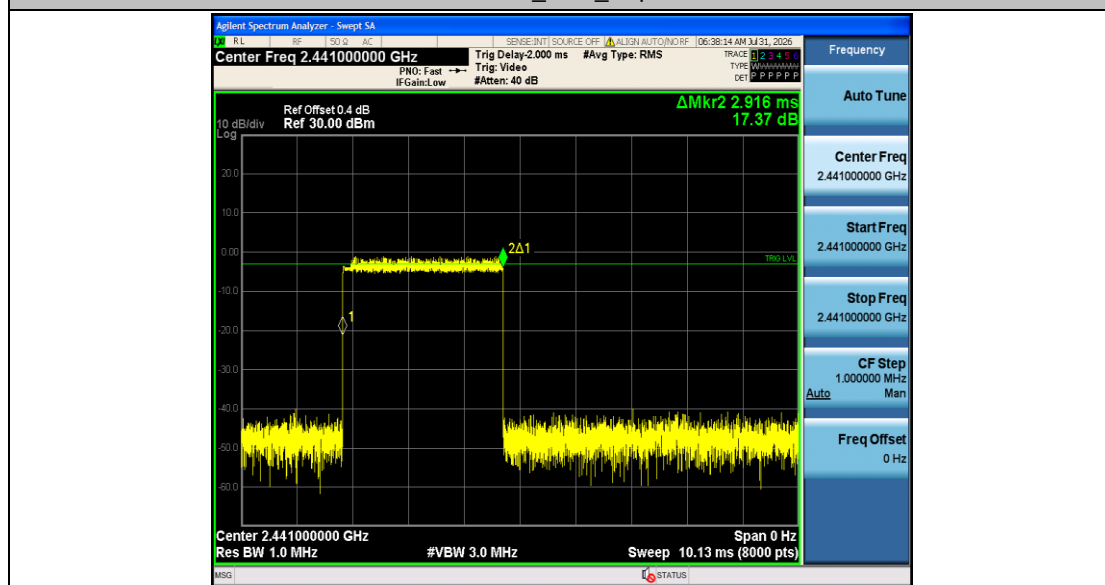
3DH1_Ant1_Hop

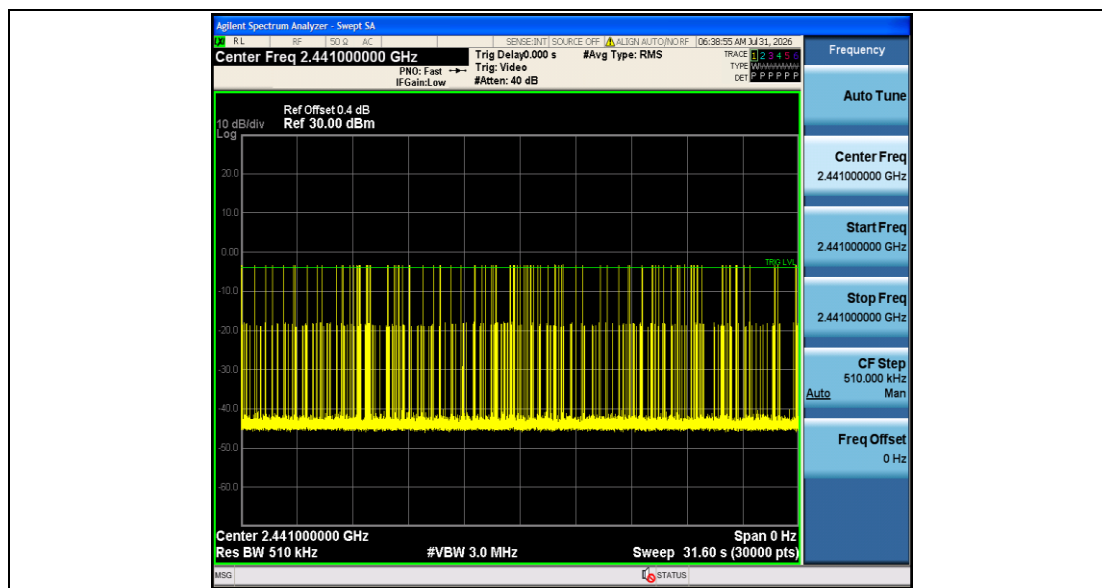


3DH3_Ant1_Hop



3DH5_Ant1_Hop



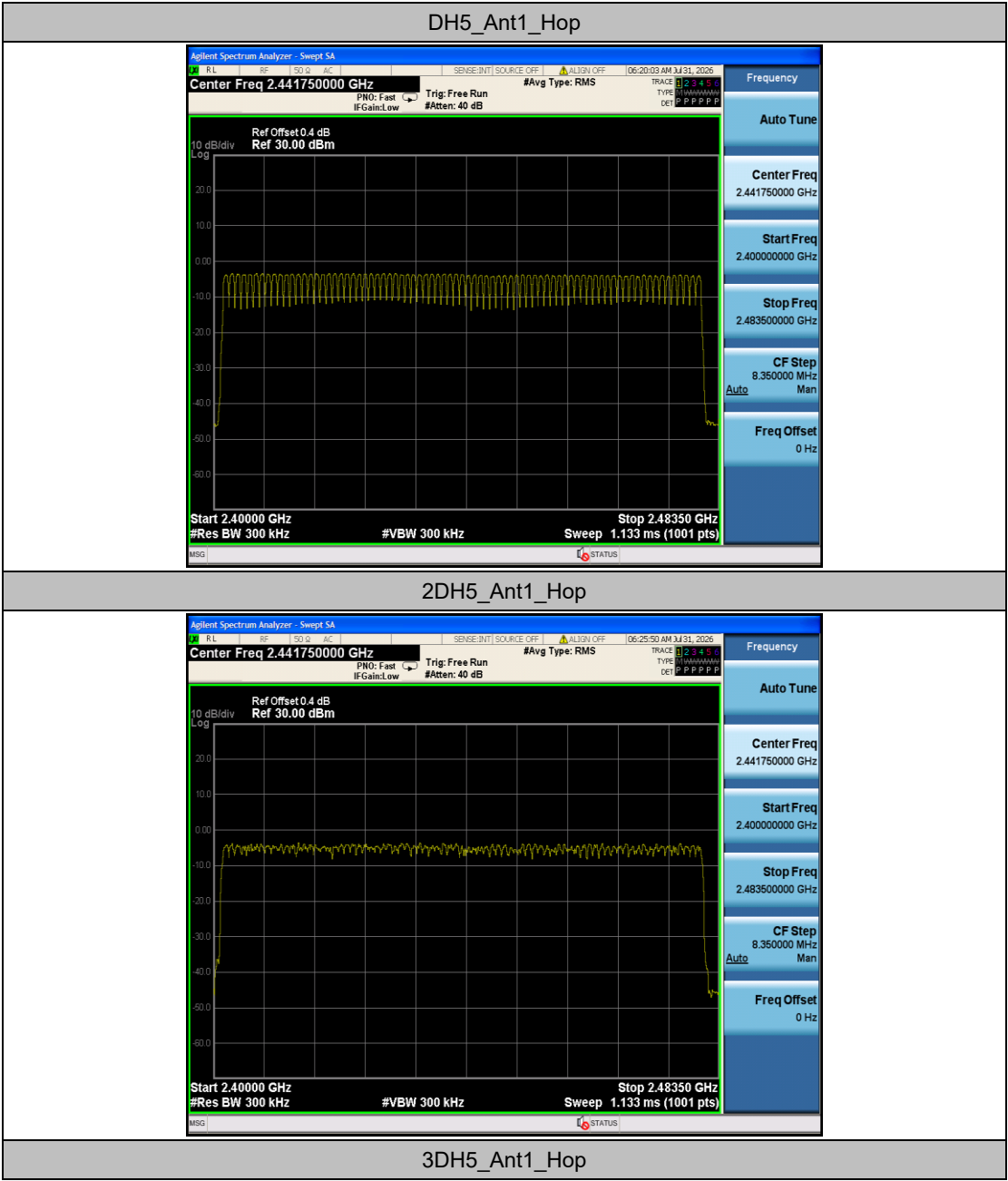


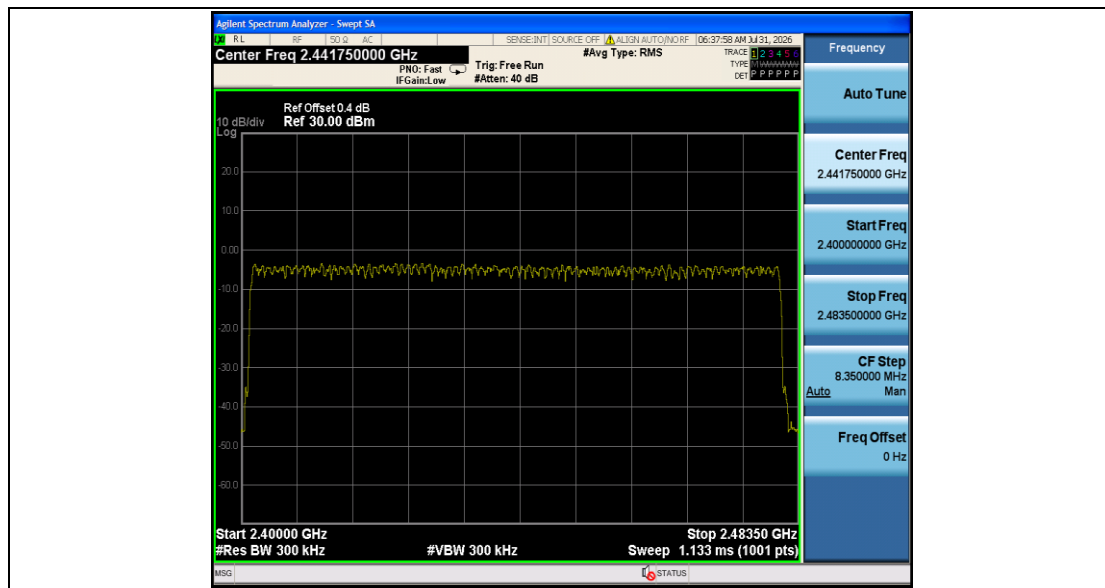
Appendix F: Number of hopping channels

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





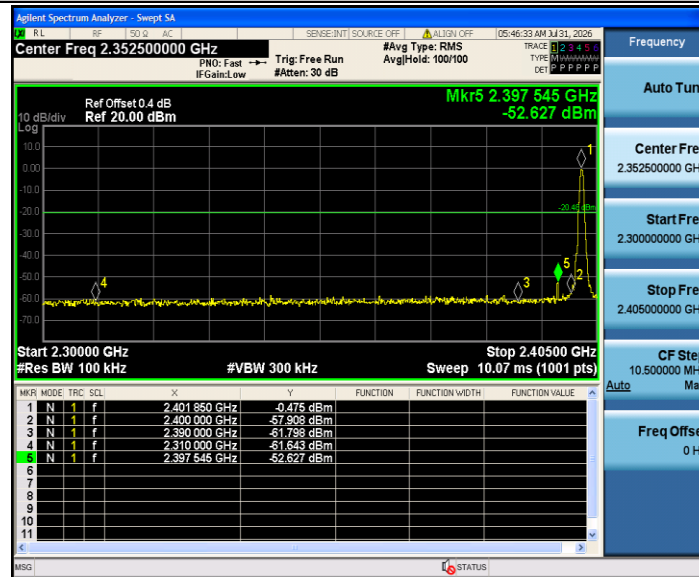
Appendix G: Band edge measurements

Test Result

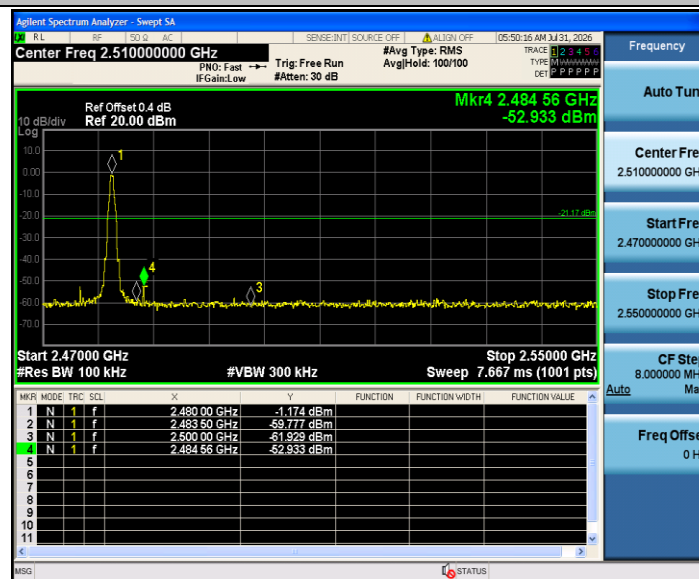
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.48	-52.63	≤-20.48	PASS
		High	2480	-1.17	-52.93	≤-21.17	PASS
		Low	Hop_2402	-4.04	-57.61	≤-24.04	PASS
		High	Hop_2480	-4.52	-57.11	≤-24.52	PASS
2DH5	Ant1	Low	2402	-4.68	-57.83	≤-24.68	PASS
		High	2480	-5.21	-57.99	≤-25.21	PASS
		Low	Hop_2402	-4.68	-57.89	≤-24.68	PASS
		High	Hop_2480	-5.11	-47.78	≤-25.11	PASS
3DH5	Ant1	Low	2402	-3.52	-57.56	≤-23.52	PASS
		High	2480	-4.37	-57.76	≤-24.37	PASS
		Low	Hop_2402	-5.98	-58.18	≤-25.98	PASS
		High	Hop_2480	-4.85	-57.58	≤-24.85	PASS

Test Graphs

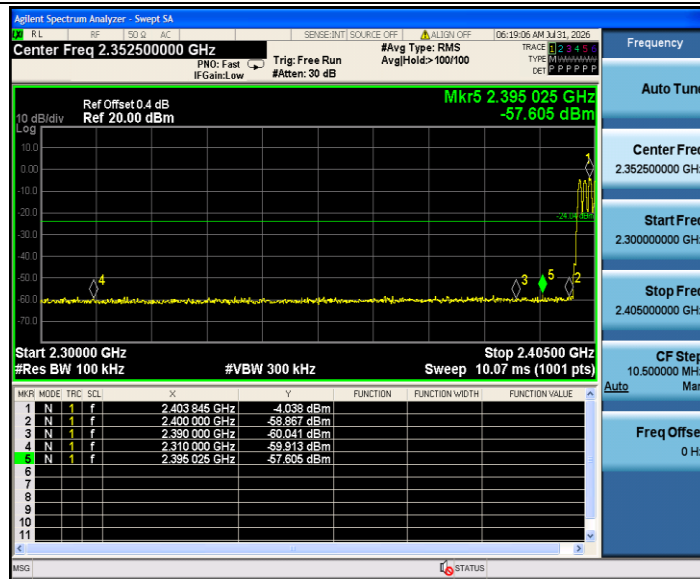
DH5_Ant1_Low_2402



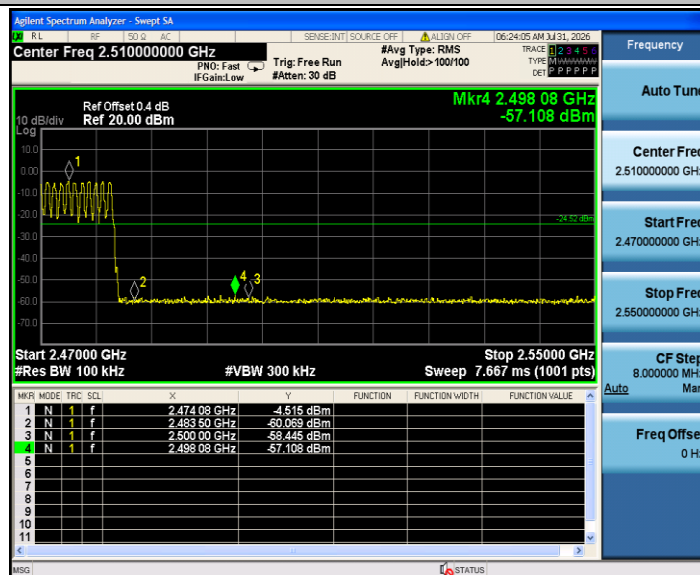
DH5_Ant1_High_2480



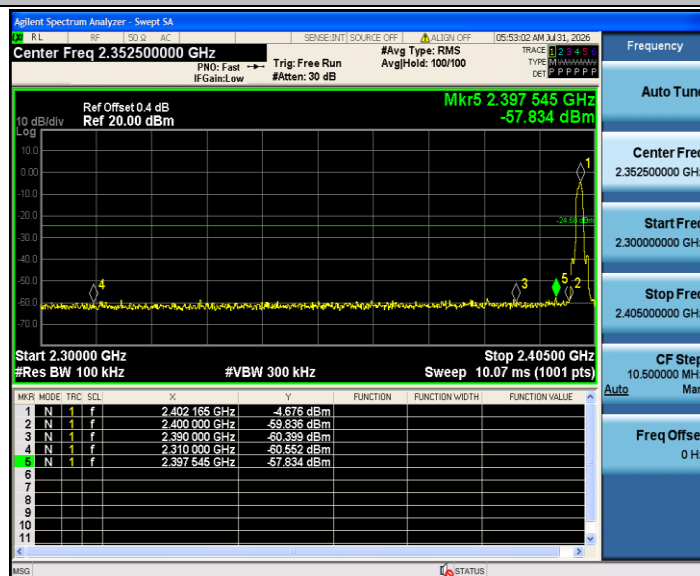
DH5_Ant1_Low_Hop_2402



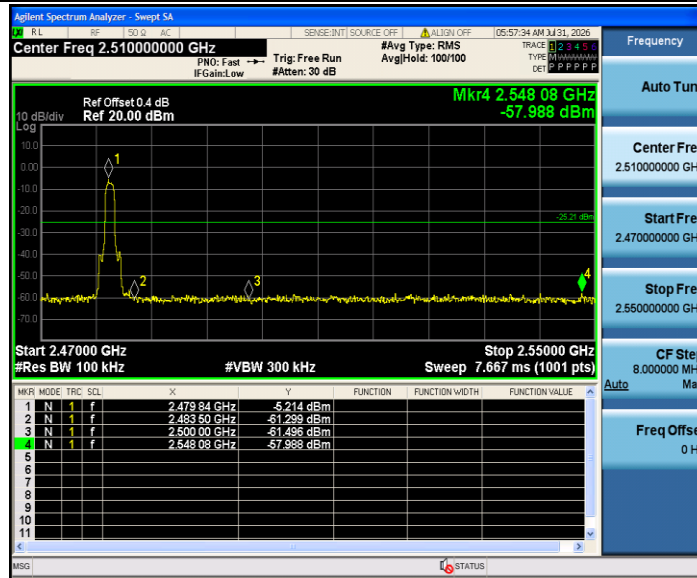
DH5_Ant1_High_Hop_2480



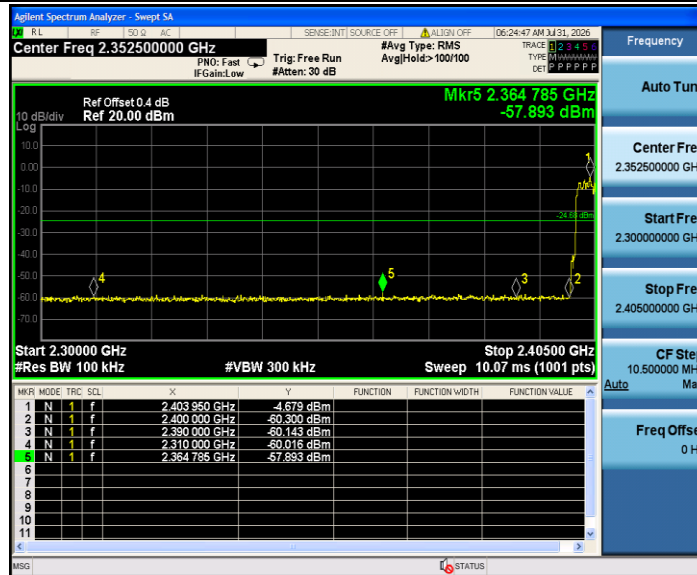
2DH5_Ant1_Low_2402



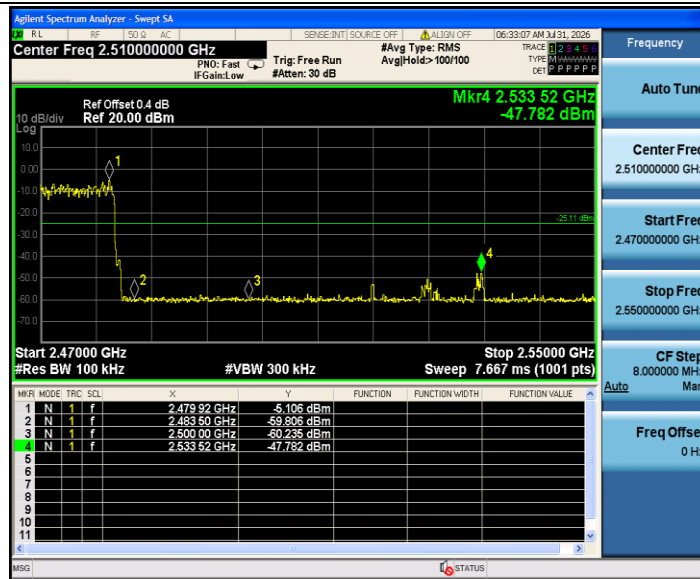
2DH5_Ant1_High_2480



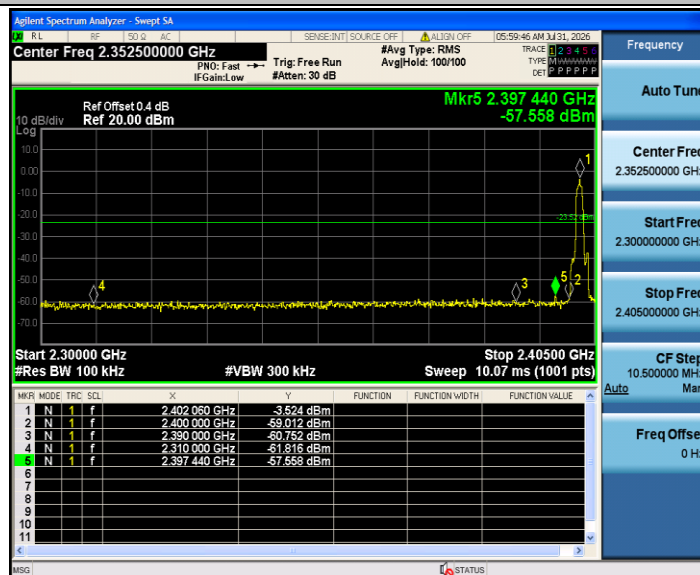
2DH5_Ant1_Low_Hop_2402



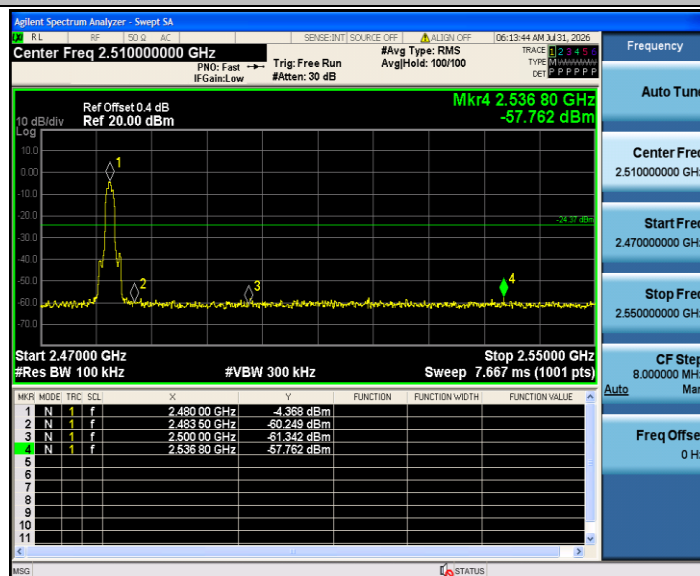
2DH5_Ant1_High_Hop_2480



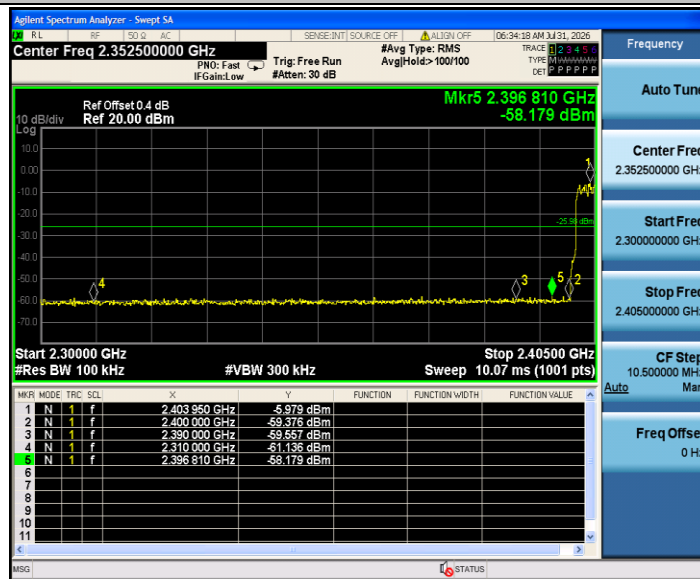
3DH5_Ant1_Low_2402



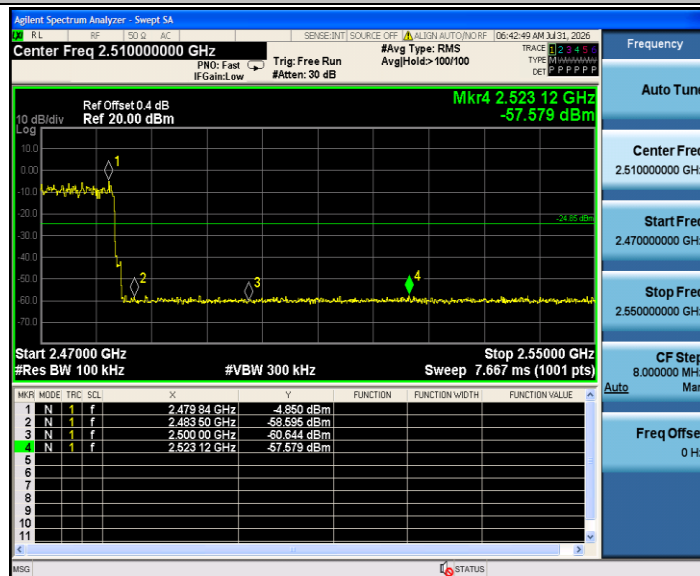
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

Test Result

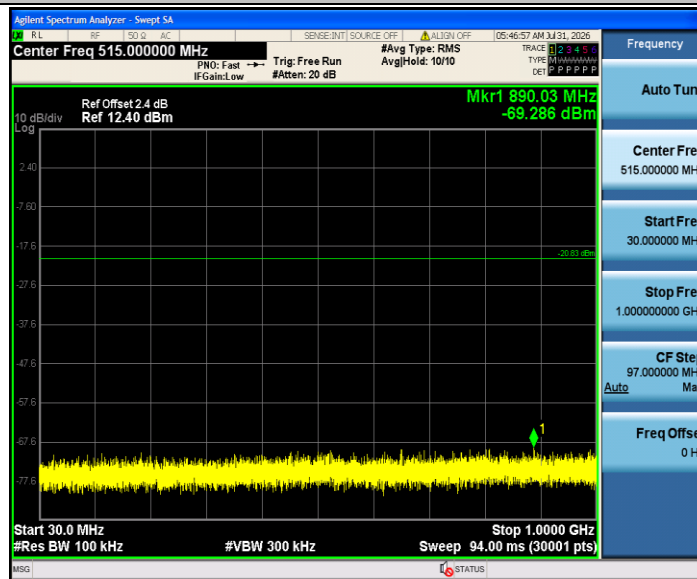
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.83	-0.83	---	PASS
			30~1000	-0.83	-69.29	≤-20.83	PASS
			1000~26500	-0.83	-40.77	≤-20.83	PASS
		2441	Reference	-1.39	-1.39	---	PASS
			30~1000	-1.39	-69.05	≤-21.39	PASS
			1000~26500	-1.39	-41.55	≤-21.39	PASS
		2480	Reference	-0.98	-0.98	---	PASS
			30~1000	-0.98	-69.21	≤-20.98	PASS
			1000~26500	-0.98	-42.46	≤-20.98	PASS
2DH5	Ant1	2402	Reference	-3.92	-3.92	---	PASS
			30~1000	-3.92	-69.39	≤-23.92	PASS
			1000~26500	-3.92	-46.47	≤-23.92	PASS
		2441	Reference	-5.73	-5.73	---	PASS
			30~1000	-5.73	-68.46	≤-25.73	PASS
			1000~26500	-5.73	-46.39	≤-25.73	PASS
		2480	Reference	-5.10	-5.10	---	PASS
			30~1000	-5.10	-68.74	≤-25.1	PASS
			1000~26500	-5.10	-46.56	≤-25.1	PASS
3DH5	Ant1	2402	Reference	-5.91	-5.91	---	PASS
			30~1000	-5.91	-69.1	≤-25.91	PASS
			1000~26500	-5.91	-46.81	≤-25.91	PASS
		2441	Reference	-6.30	-6.30	---	PASS
			30~1000	-6.30	-69.01	≤-26.3	PASS
			1000~26500	-6.30	-45.7	≤-26.3	PASS
		2480	Reference	-4.90	-4.90	---	PASS
			30~1000	-4.90	-68.64	≤-24.9	PASS
			1000~26500	-4.90	-46.11	≤-24.9	PASS

Test Graphs

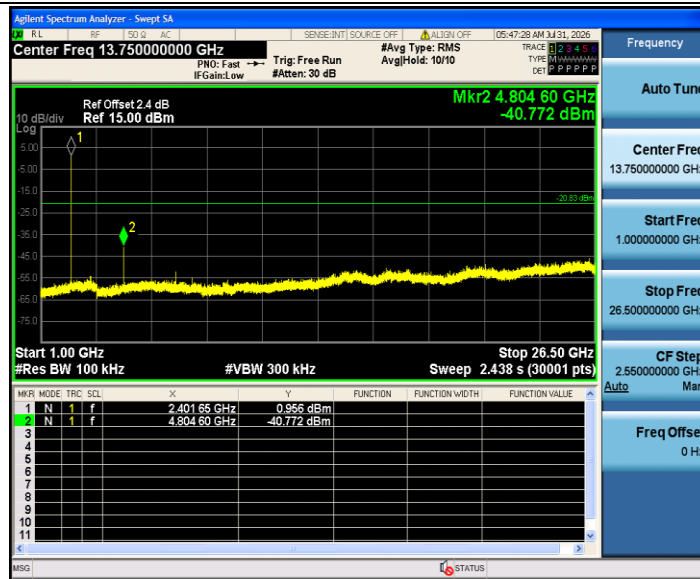
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



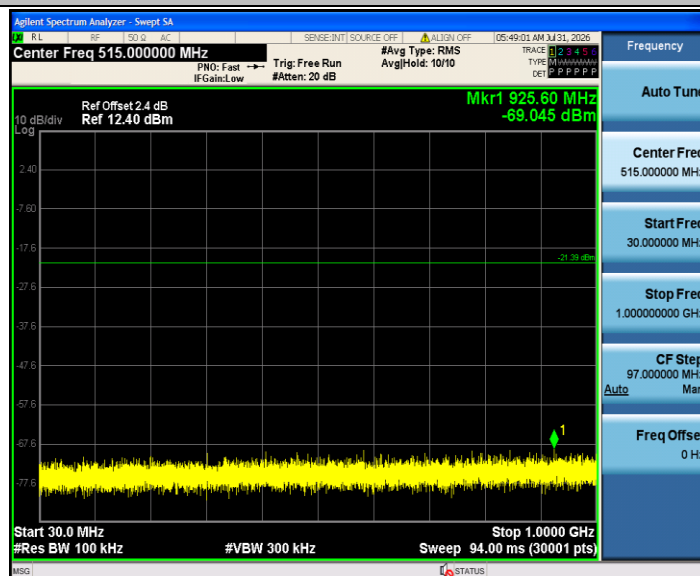
DH5_Ant1_2402_1000~26500



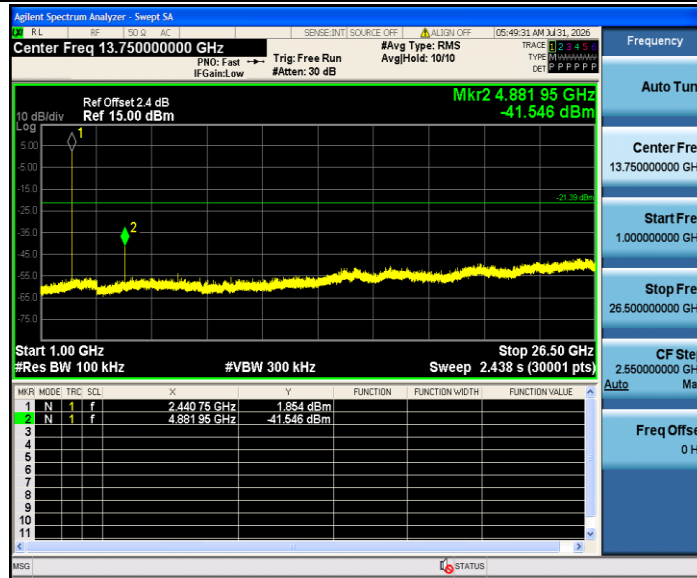
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



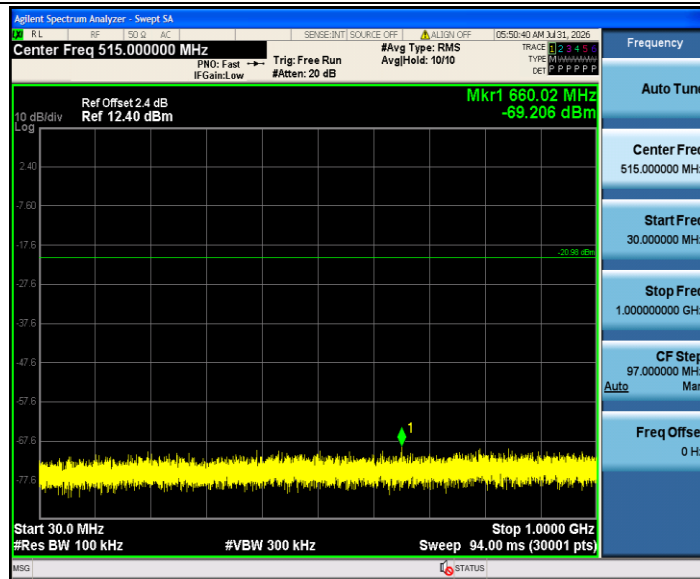
DH5_Ant1_2441_1000~26500



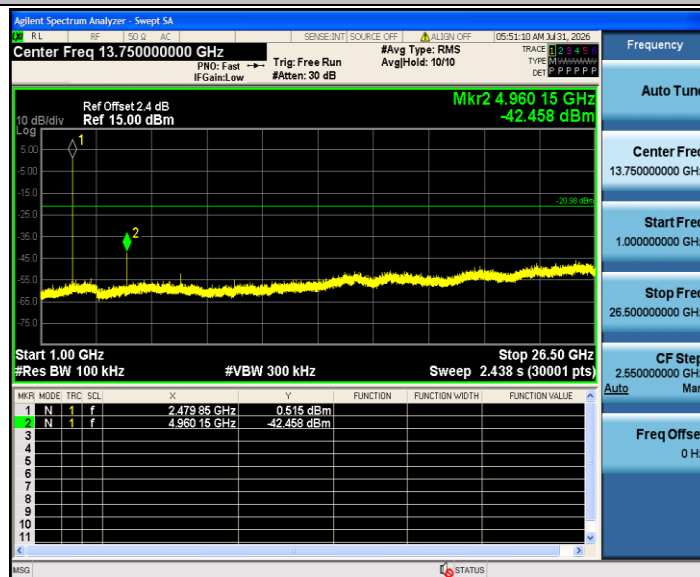
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference

