

FCC Appendix RF Test Data for BR-EDR

FCC ID : 2BMBM-VV21

Company : Shenzhen Lanxiaoer Technology Co., Ltd

EUT : Bluetooth headphones

Model Number : VV21

Report No. : CTA26062900901

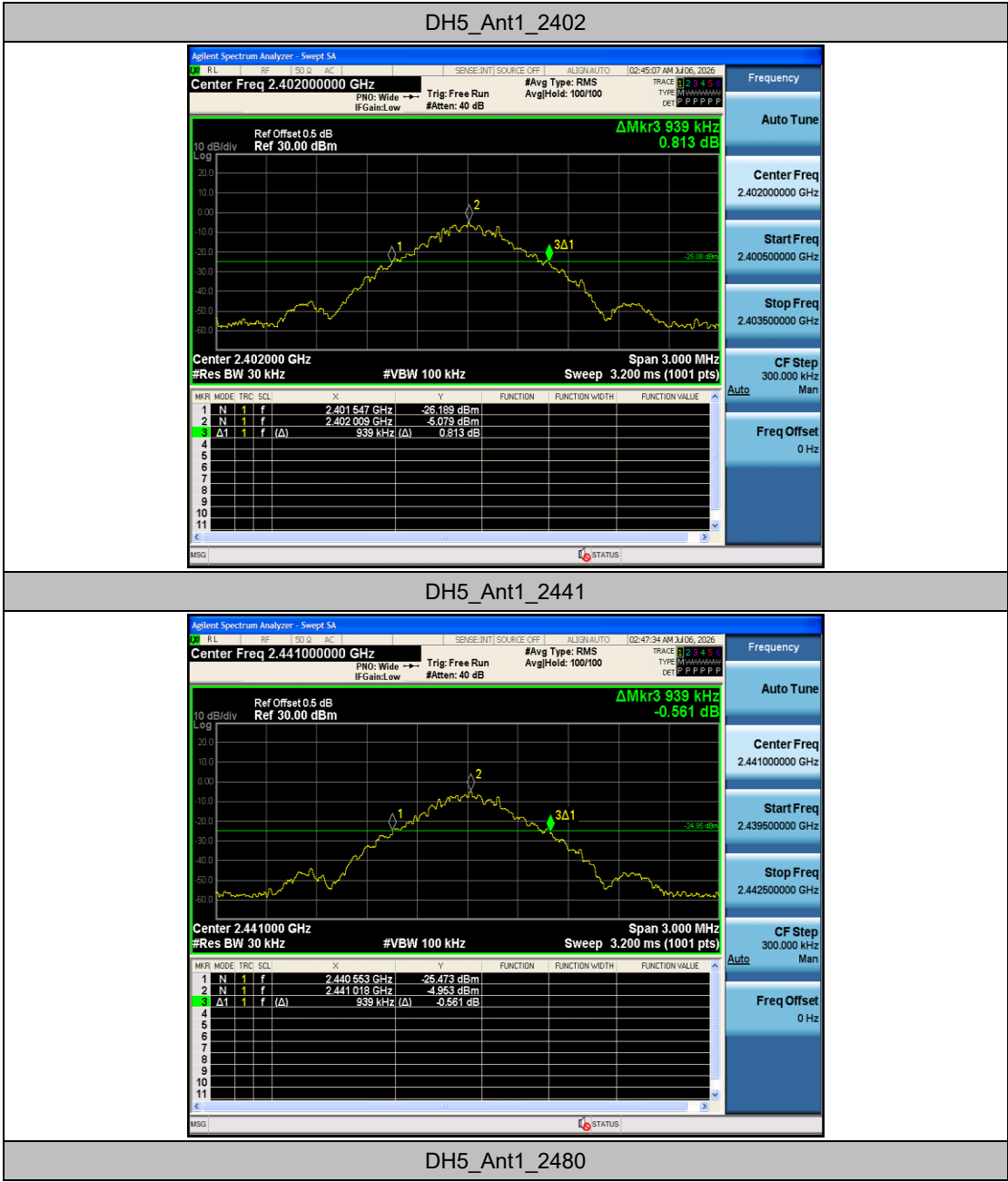
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.939	2401.547	2402.486	---	---
		2441	0.939	2440.553	2441.492	---	---
		2480	0.963	2479.544	2480.507	---	---
2DH5	Ant1	2402	1.317	2401.352	2402.669	---	---
		2441	1.284	2440.379	2441.663	---	---
		2480	1.320	2479.349	2480.669	---	---
3DH5	Ant1	2402	1.293	2401.364	2402.657	---	---
		2441	1.302	2440.361	2441.663	---	---
		2480	1.302	2479.358	2480.660	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

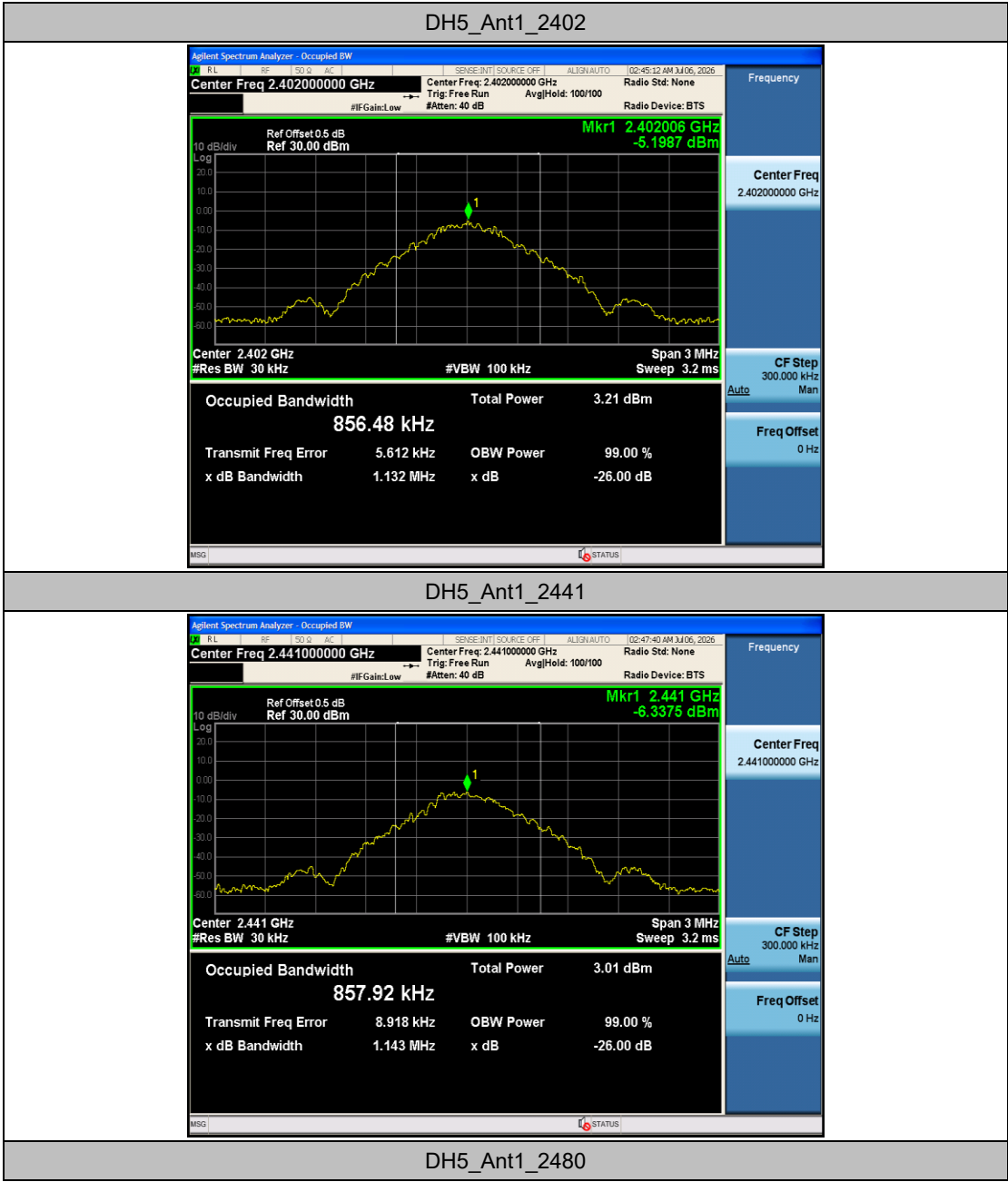


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.85648	2401.5774	2402.4339	---	---
		2441	0.85792	2440.5800	2441.4379	---	---
		2480	0.86246	2479.5792	2480.4417	---	---
2DH5	Ant1	2402	1.1864	2401.4165	2402.6029	---	---
		2441	1.1887	2440.4171	2441.6058	---	---
		2480	1.1799	2479.4215	2480.6014	---	---
3DH5	Ant1	2402	1.1798	2401.4236	2402.6034	---	---
		2441	1.1873	2440.4192	2441.6065	---	---
		2480	1.1831	2479.4215	2480.6046	---	---

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

Left:

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-3.29	≤20.97	PASS
		2441	-3.38	≤20.97	PASS
		2480	-3.45	≤20.97	PASS
2DH5	Ant1	2402	-0.67	≤20.97	PASS
		2441	-0.74	≤20.97	PASS
		2480	-1.03	≤20.97	PASS
3DH5	Ant1	2402	-0.26	≤20.97	PASS
		2441	-0.35	≤20.97	PASS
		2480	-0.65	≤20.97	PASS

Right:

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-3.20	≤20.97	PASS
		2441	-3.29	≤20.97	PASS
		2480	-3.07	≤20.97	PASS
2DH5	Ant1	2402	-0.56	≤20.97	PASS
		2441	-0.70	≤20.97	PASS
		2480	-0.95	≤20.97	PASS
3DH5	Ant1	2402	-0.31	≤20.97	PASS
		2441	-0.47	≤20.97	PASS
		2480	-0.83	≤20.97	PASS

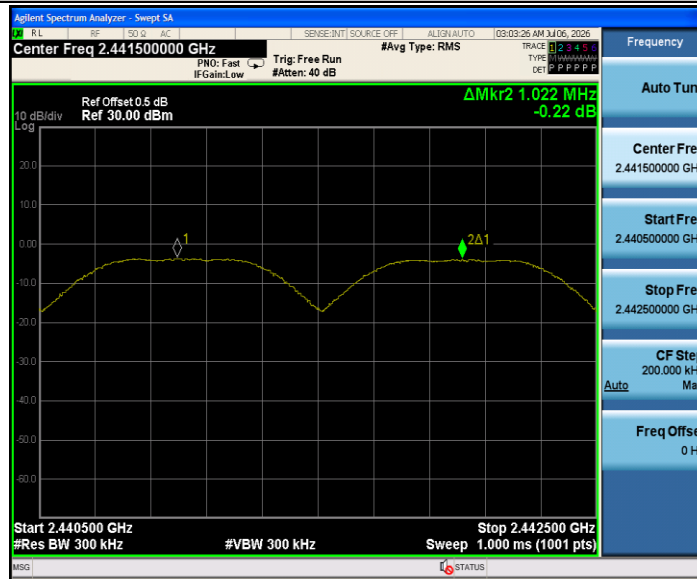
Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.022	≥ 0.963	PASS
2DH5	Ant1	Hop	1.184	≥ 0.880	PASS
3DH5	Ant1	Hop	1.048	≥ 0.868	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

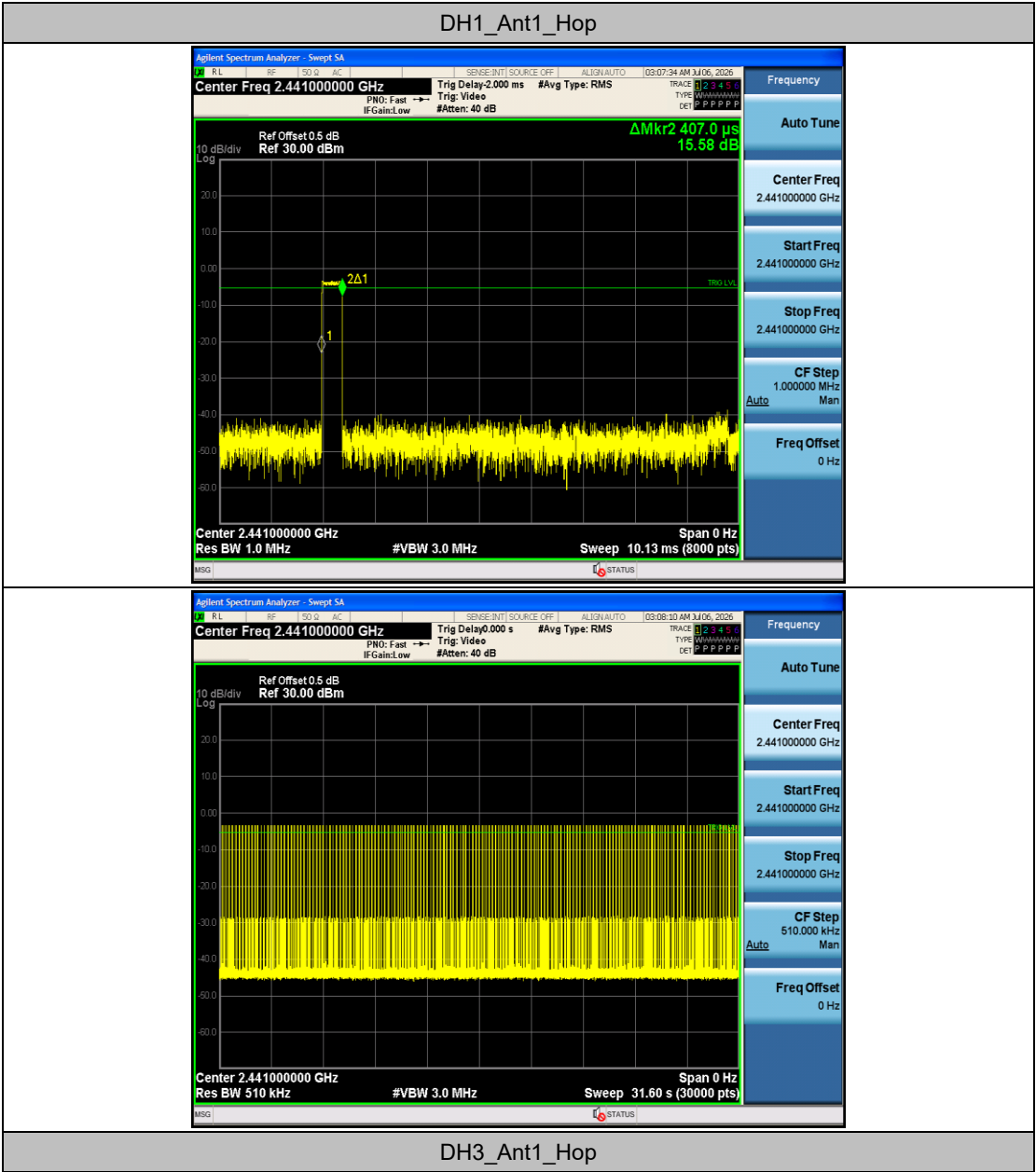


Appendix E: Time of occupancy

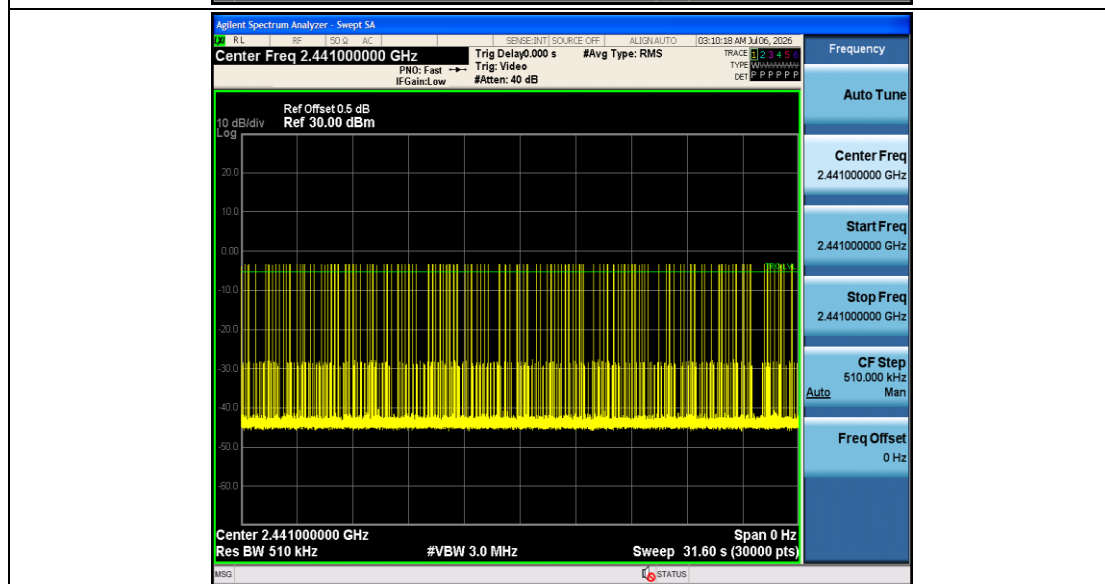
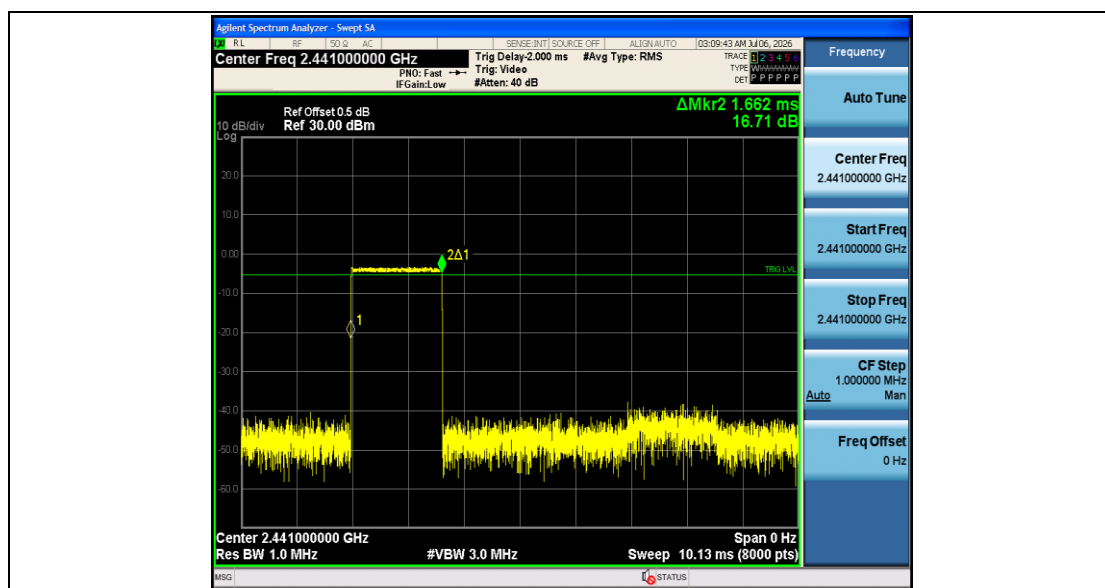
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	316	0.129	≤0.4	PASS
DH3	Ant1	Hop	1.662	162	0.269	≤0.4	PASS
DH5	Ant1	Hop	2.910	105	0.306	≤0.4	PASS
2DH1	Ant1	Hop	0.417	315	0.131	≤0.4	PASS
2DH3	Ant1	Hop	1.668	159	0.265	≤0.4	PASS
2DH5	Ant1	Hop	2.916	105	0.306	≤0.4	PASS
3DH1	Ant1	Hop	0.415	315	0.131	≤0.4	PASS
3DH3	Ant1	Hop	2.916	112	0.327	≤0.4	PASS
3DH5	Ant1	Hop	2.916	109	0.318	≤0.4	PASS

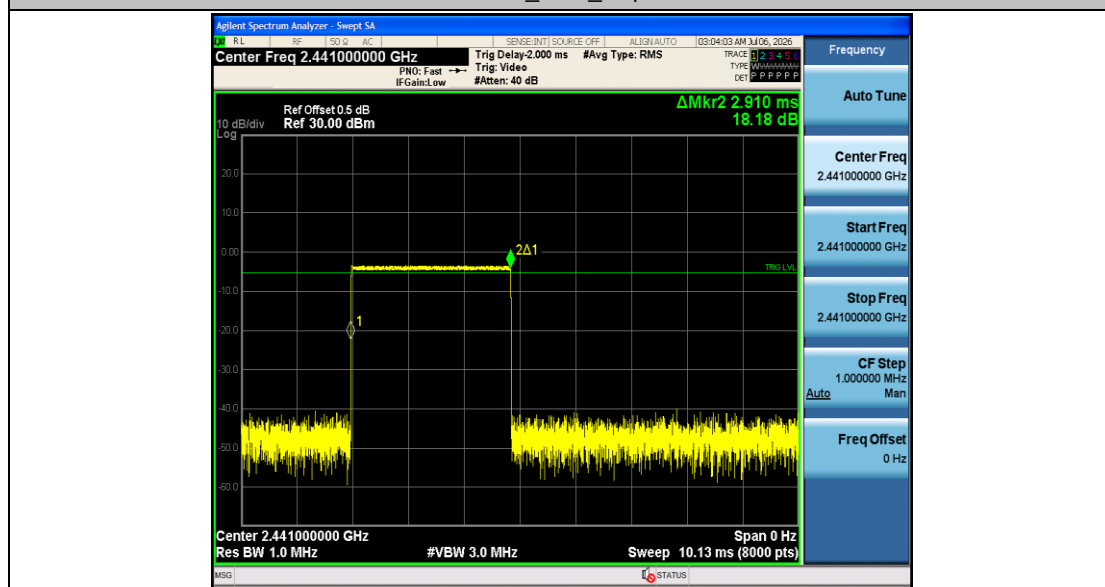
Test Graphs

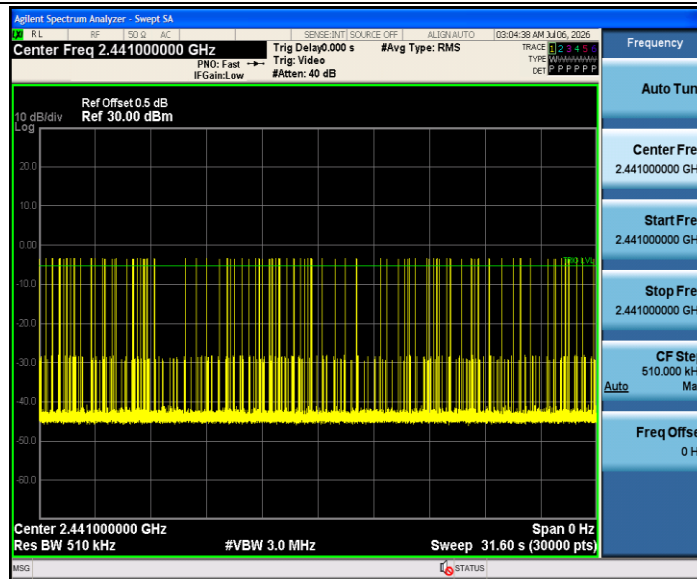


DH3_Ant1_Hop

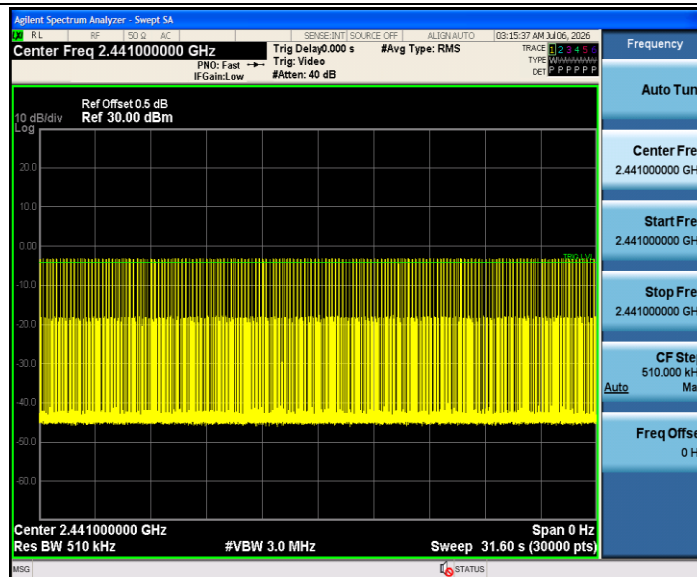
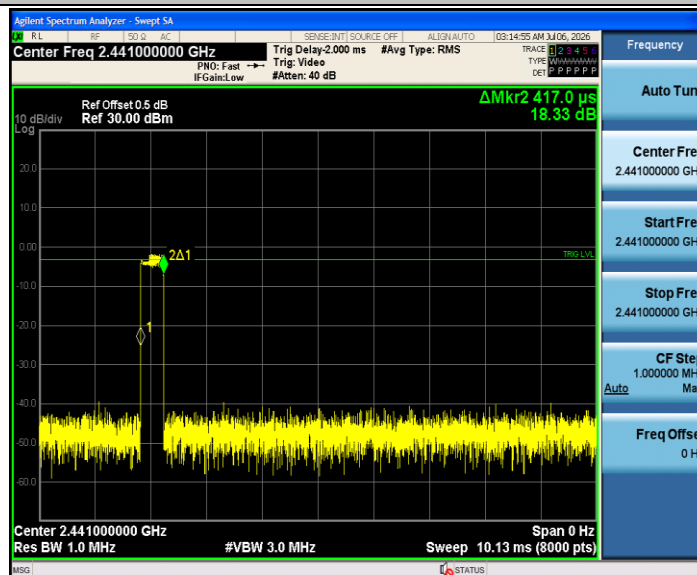


DH5_Ant1_Hop

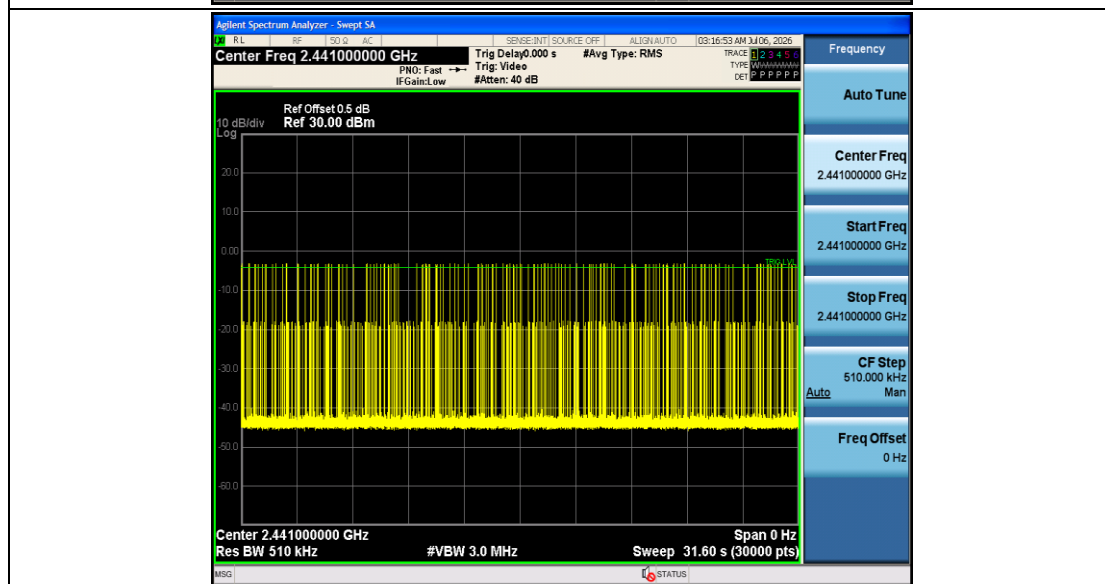
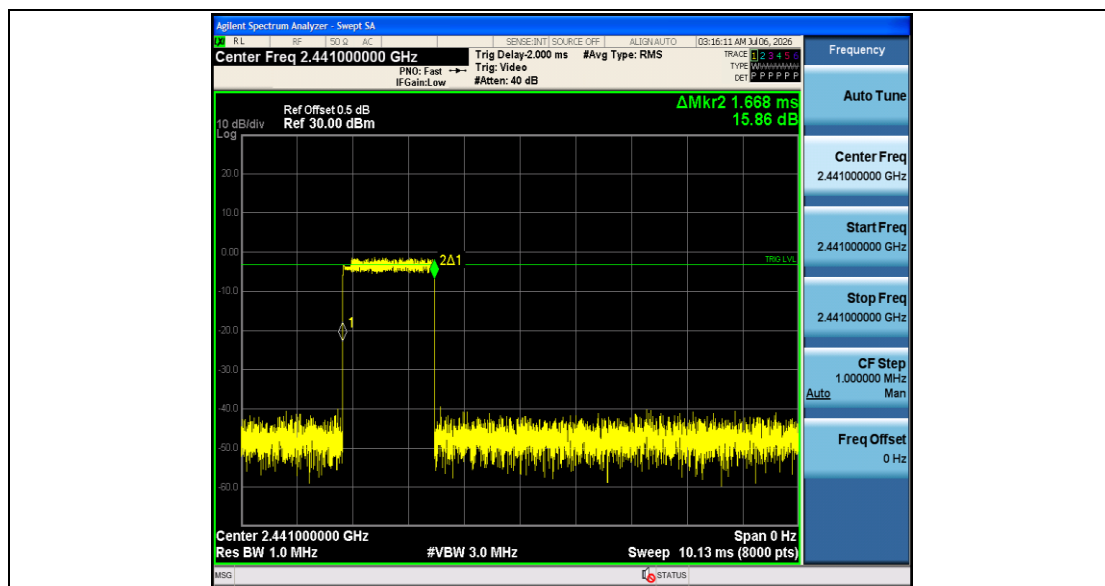




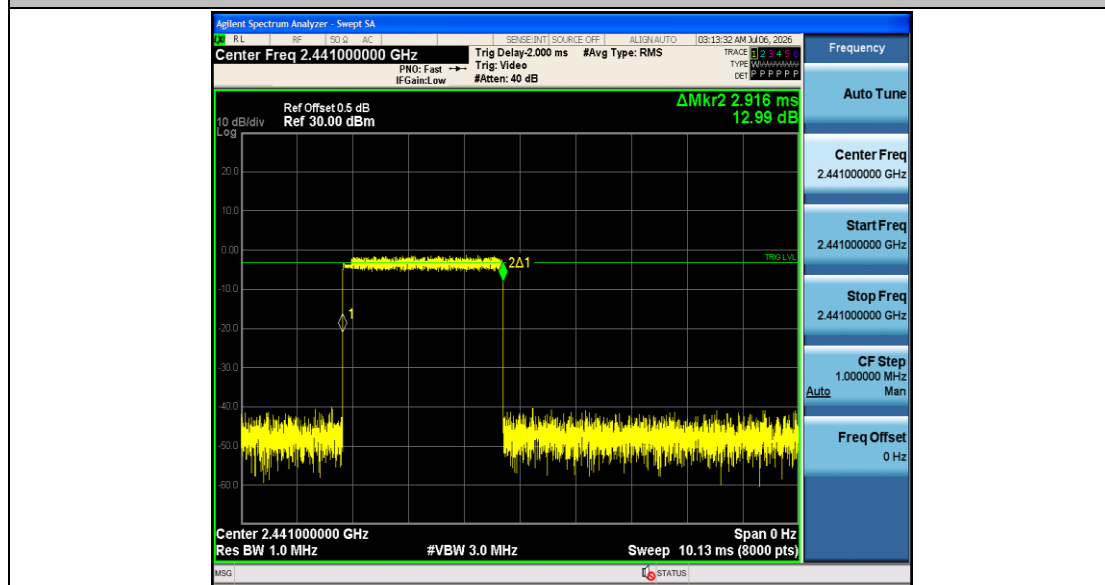
2DH1_Ant1_Hop

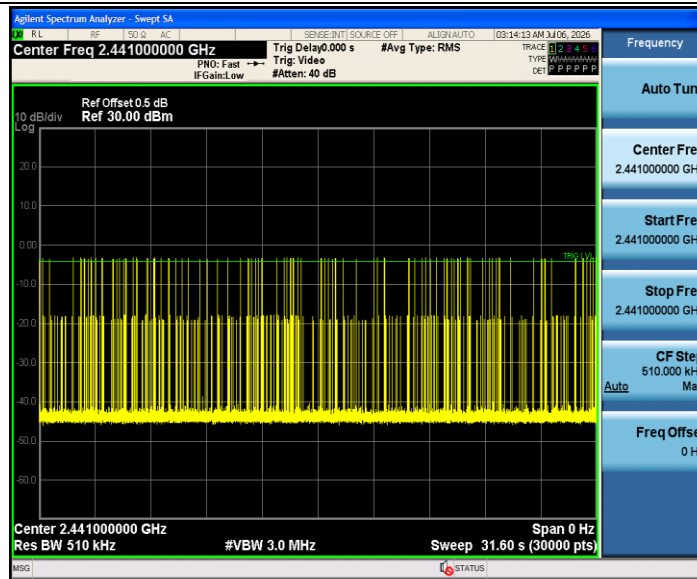


2DH3_Ant1_Hop

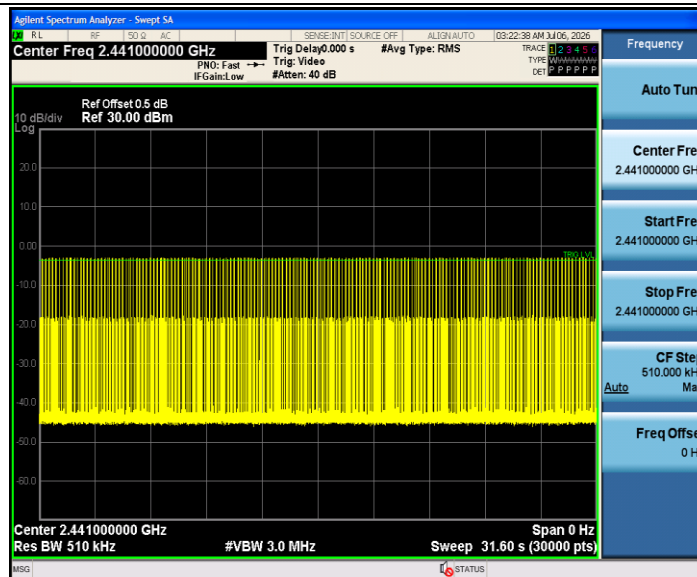
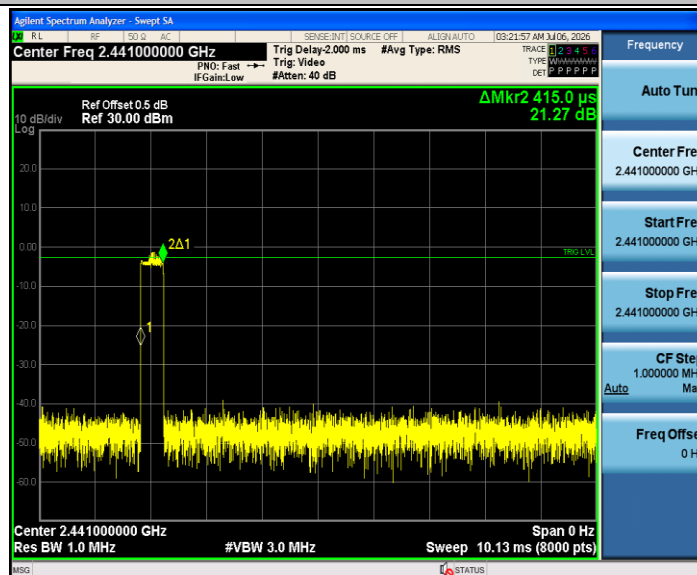


2DH5_Ant1_Hop

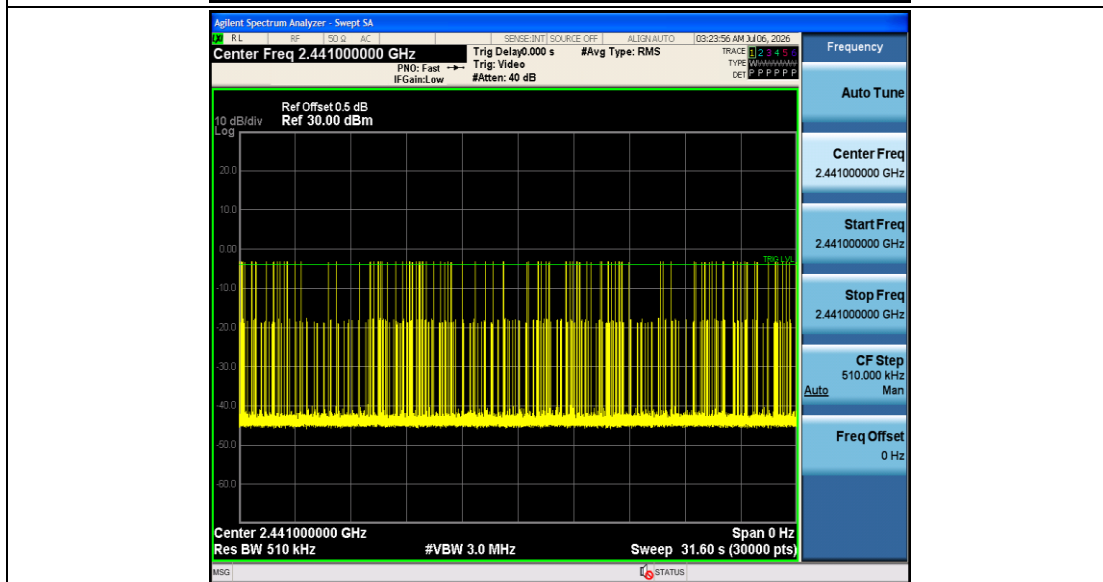
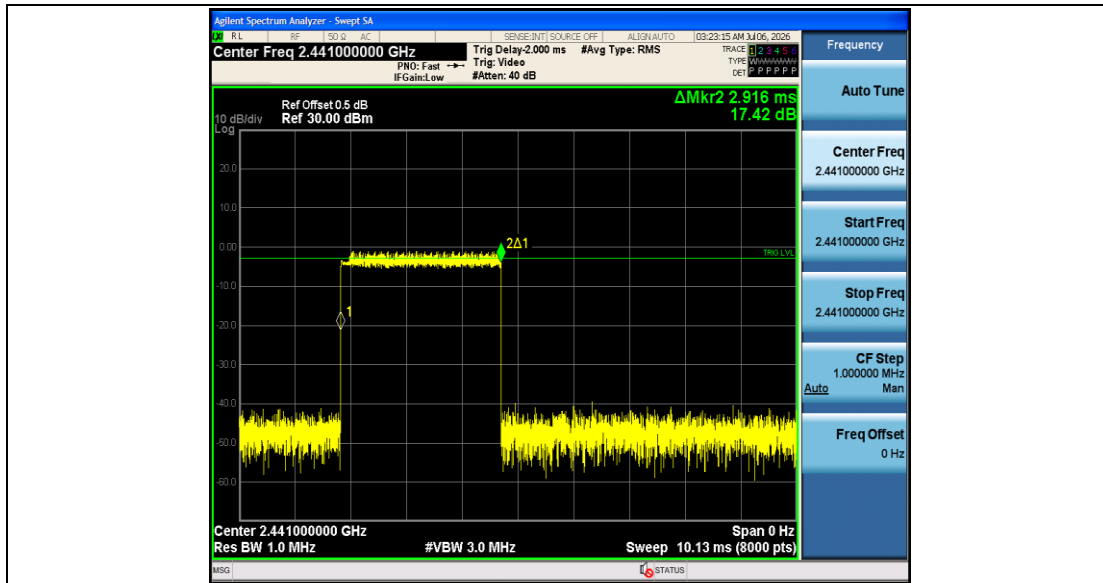




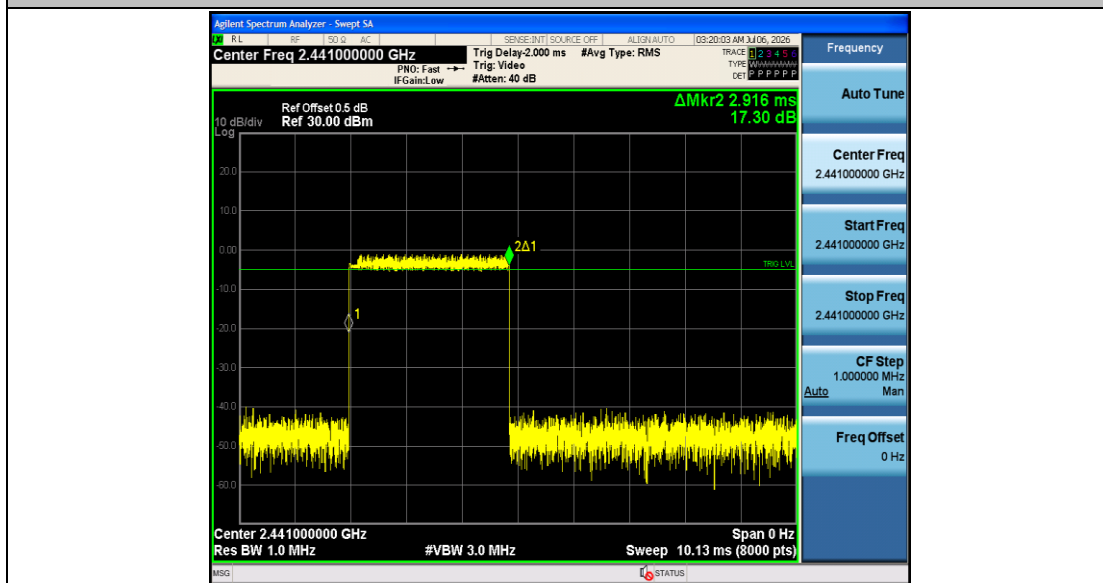
3DH1_Ant1_Hop

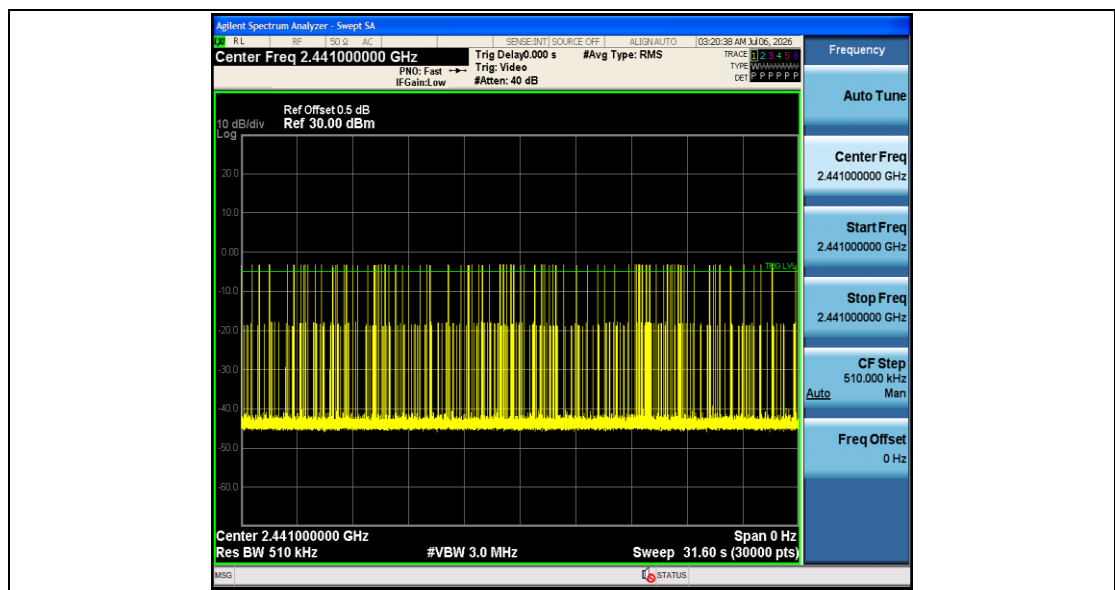


3DH3_Ant1_Hop



3DH5_Ant1_Hop



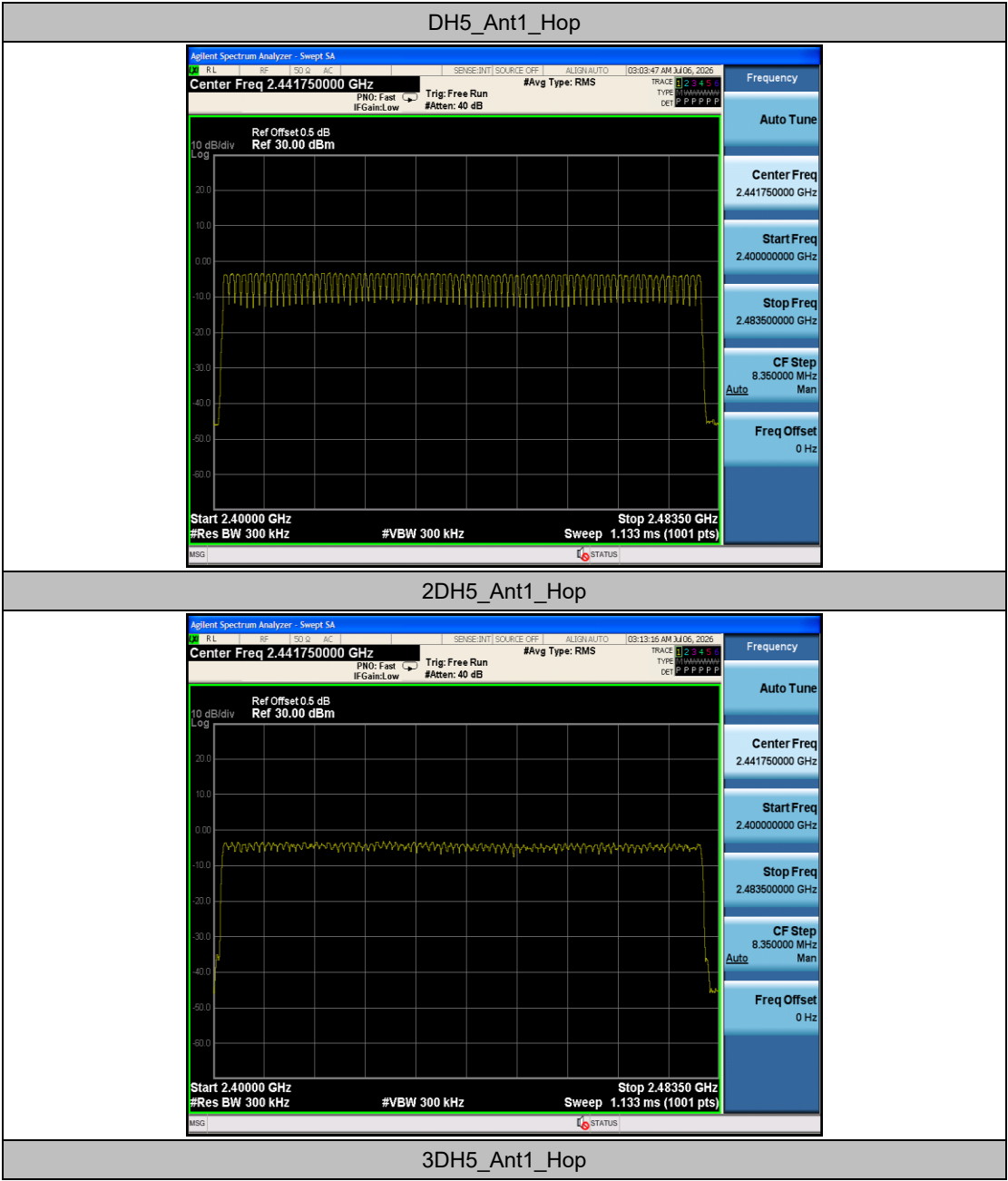


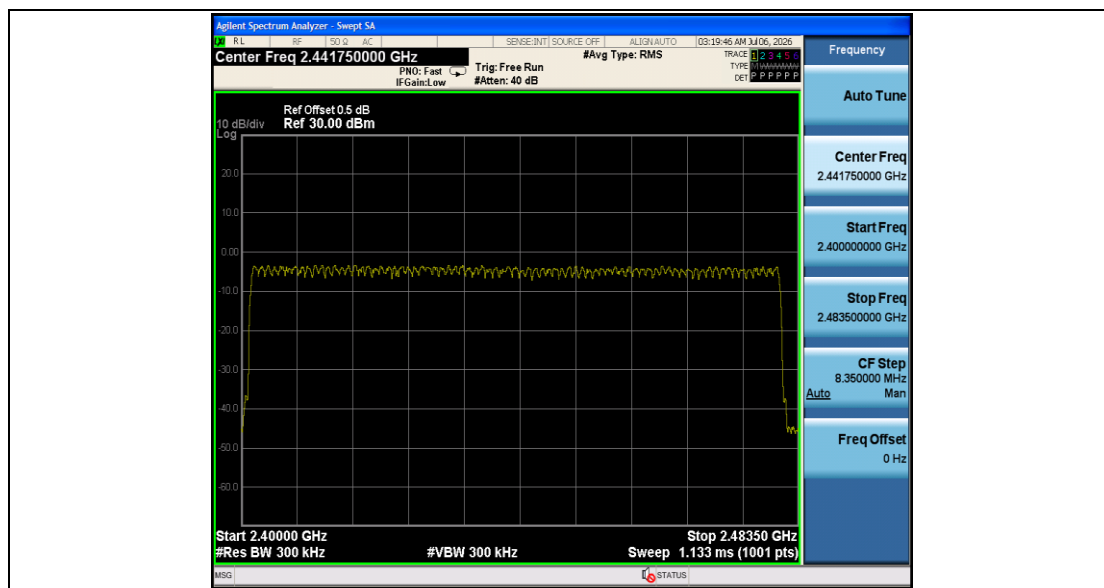
Appendix F: Number of hopping channels

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





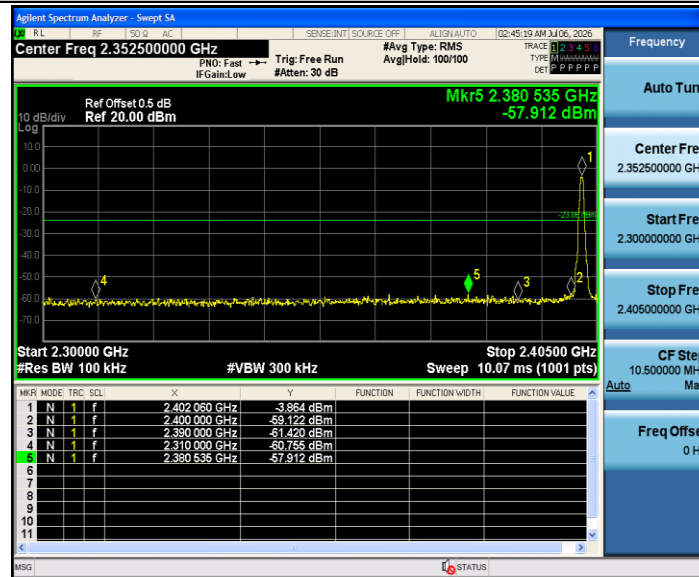
Appendix G: Band edge measurements

Test Result

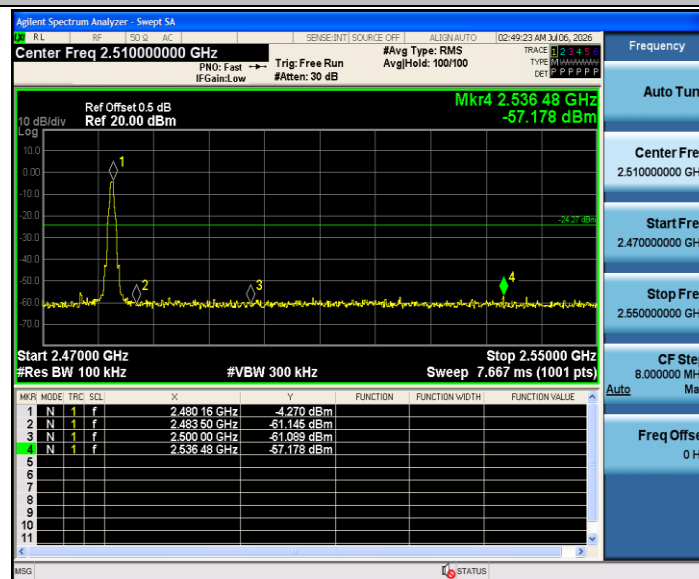
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.86	-57.91	≤-23.86	PASS
		High	2480	-4.27	-57.18	≤-24.27	PASS
		Low	Hop_2402	-4.07	-57.87	≤-24.07	PASS
		High	Hop_2480	-4.14	-57.28	≤-24.14	PASS
2DH5	Ant1	Low	2402	-3.42	-55.02	≤-23.42	PASS
		High	2480	-3.91	-49.82	≤-23.91	PASS
		Low	Hop_2402	-8.59	-58.37	≤-28.59	PASS
		High	Hop_2480	-4.43	-56.86	≤-24.43	PASS
3DH5	Ant1	Low	2402	-5.70	-57.7	≤-25.7	PASS
		High	2480	-4.38	-57.61	≤-24.38	PASS
		Low	Hop_2402	-4.51	-57.67	≤-24.51	PASS
		High	Hop_2480	-6.50	-57.77	≤-26.5	PASS

Test Graphs

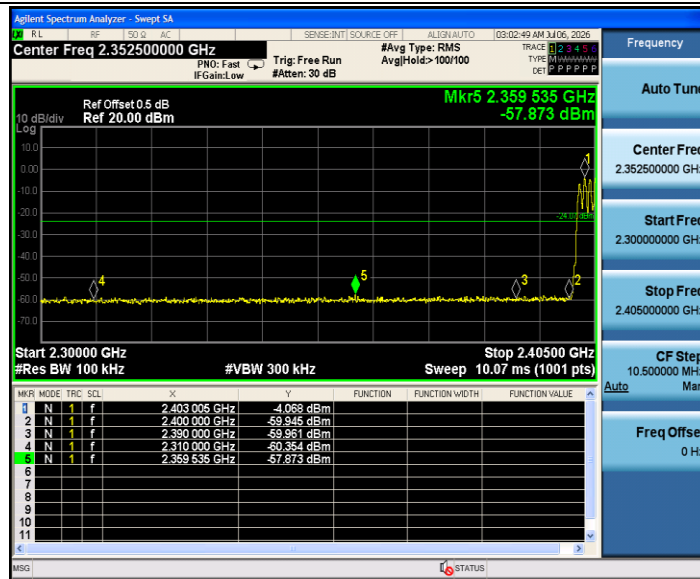
DH5_Ant1_Low_2402



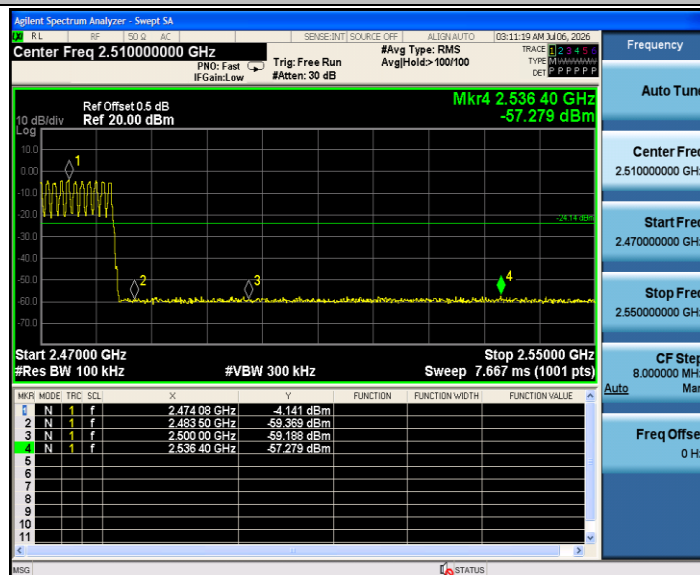
DH5_Ant1_High_2480



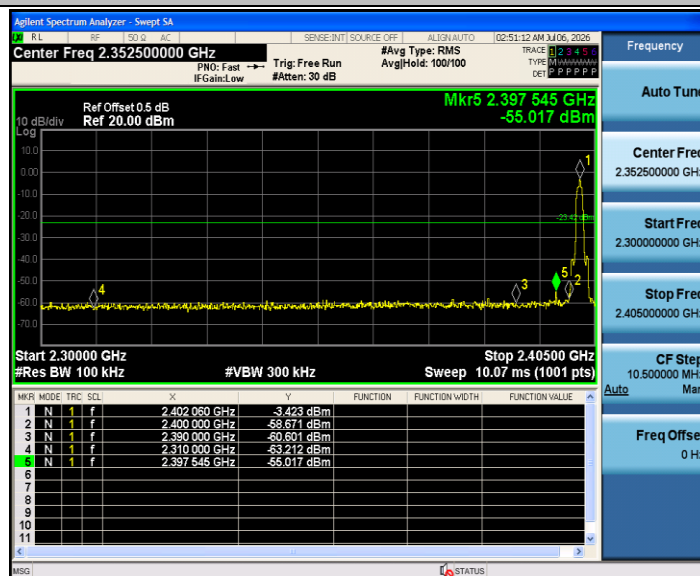
DH5_Ant1_Low_Hop_2402



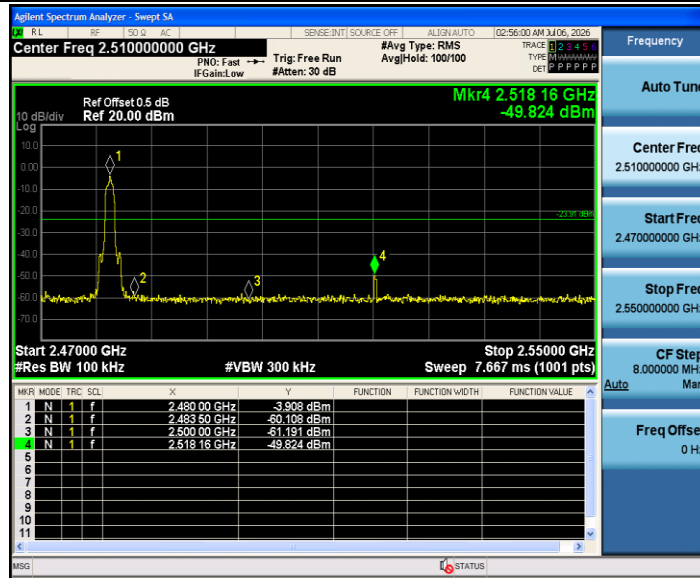
DH5_Ant1_High_Hop_2480



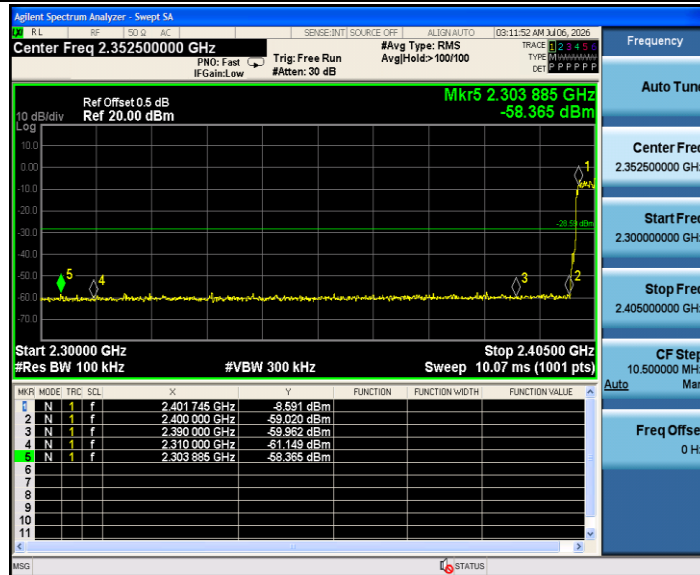
2DH5_Ant1_Low_2402



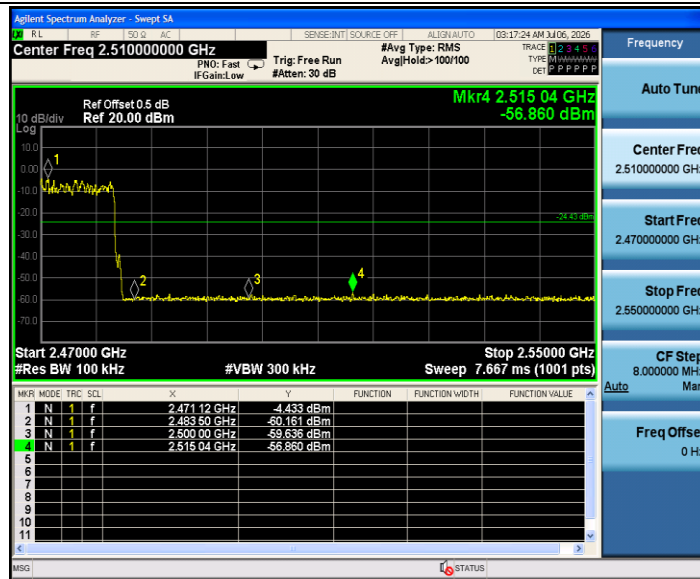
2DH5_Ant1_High_2480



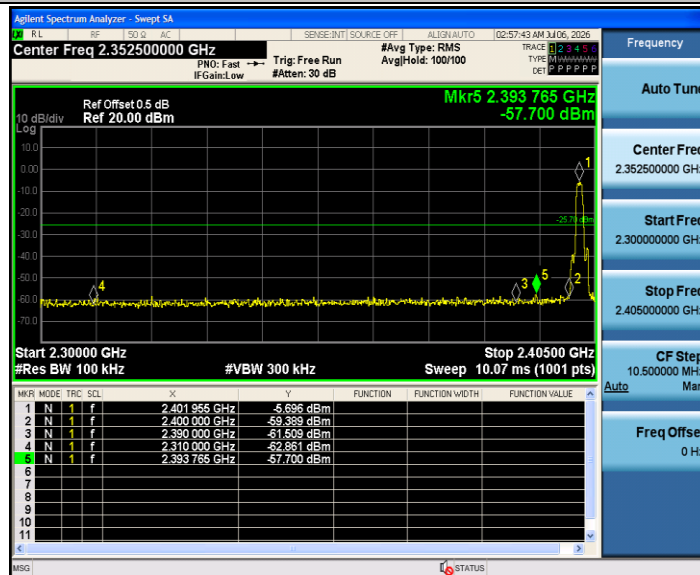
2DH5_Ant1_Low_Hop_2402



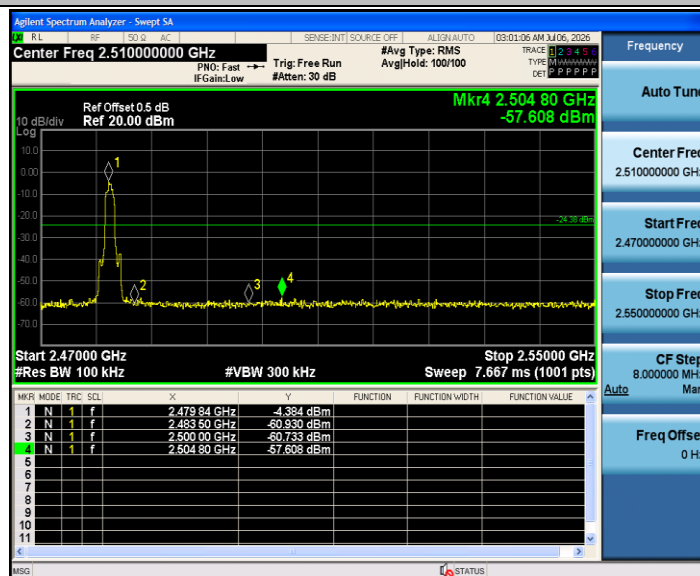
2DH5_Ant1_High_Hop_2480



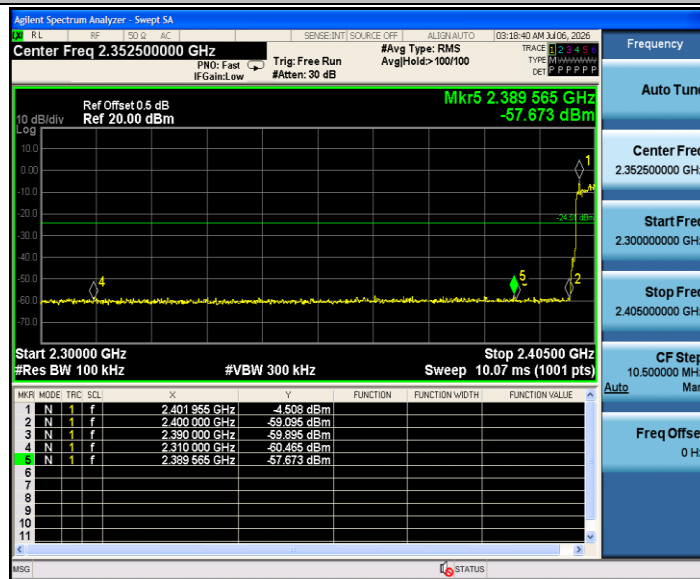
3DH5_Ant1_Low_2402



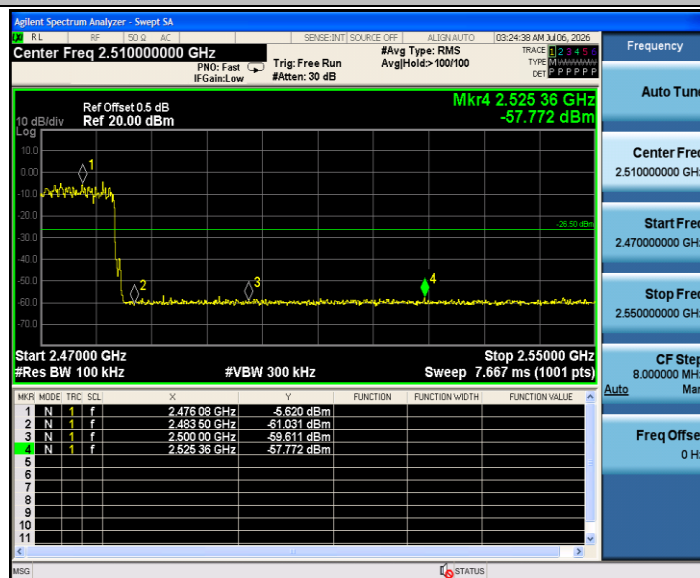
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

Test Result

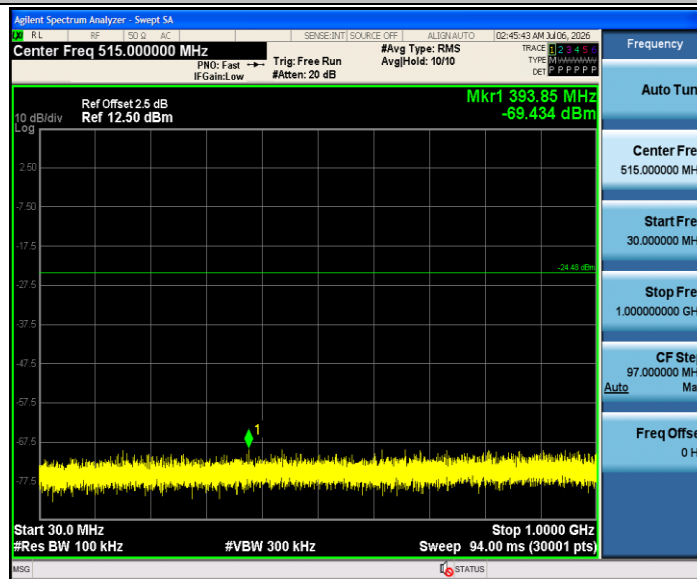
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-4.48	-4.48	---	PASS
			30~1000	-4.48	-69.43	≤-24.48	PASS
			1000~26500	-4.48	-46.21	≤-24.48	PASS
		2441	Reference	-4.56	-4.56	---	PASS
			30~1000	-4.56	-69.52	≤-24.56	PASS
			1000~26500	-4.56	-46.36	≤-24.56	PASS
		2480	Reference	-4.14	-4.14	---	PASS
			30~1000	-4.14	-69.26	≤-24.14	PASS
			1000~26500	-4.14	-46.72	≤-24.14	PASS
2DH5	Ant1	2402	Reference	-5.06	-5.06	---	PASS
			30~1000	-5.06	-69.25	≤-25.06	PASS
			1000~26500	-5.06	-46.41	≤-25.06	PASS
		2441	Reference	-4.84	-4.84	---	PASS
			30~1000	-4.84	-68.89	≤-24.84	PASS
			1000~26500	-4.84	-46.82	≤-24.84	PASS
		2480	Reference	-3.98	-3.98	---	PASS
			30~1000	-3.98	-69.58	≤-23.98	PASS
			1000~26500	-3.98	-46.86	≤-23.98	PASS
3DH5	Ant1	2402	Reference	-6.20	-6.20	---	PASS
			30~1000	-6.20	-69.21	≤-26.2	PASS
			1000~26500	-6.20	-47.12	≤-26.2	PASS
		2441	Reference	-6.58	-6.58	---	PASS
			30~1000	-6.58	-68.89	≤-26.58	PASS
			1000~26500	-6.58	-46.83	≤-26.58	PASS
		2480	Reference	-6.66	-6.66	---	PASS
			30~1000	-6.66	-69.17	≤-26.66	PASS
			1000~26500	-6.66	-46.11	≤-26.66	PASS

Test Graphs

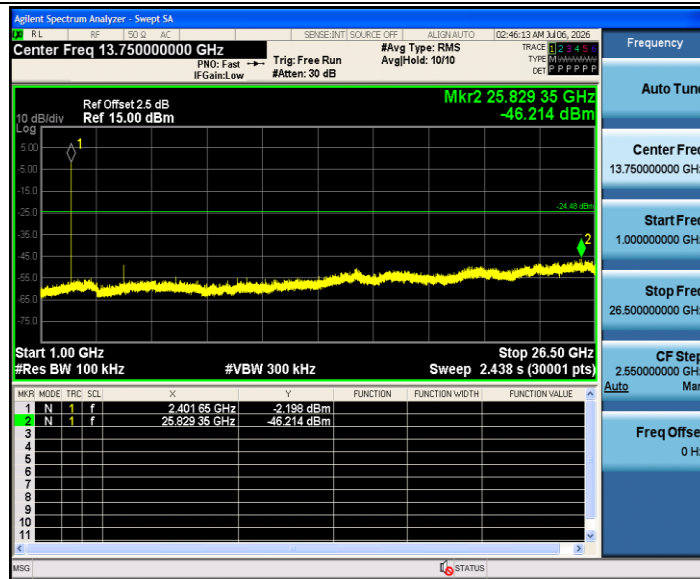
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



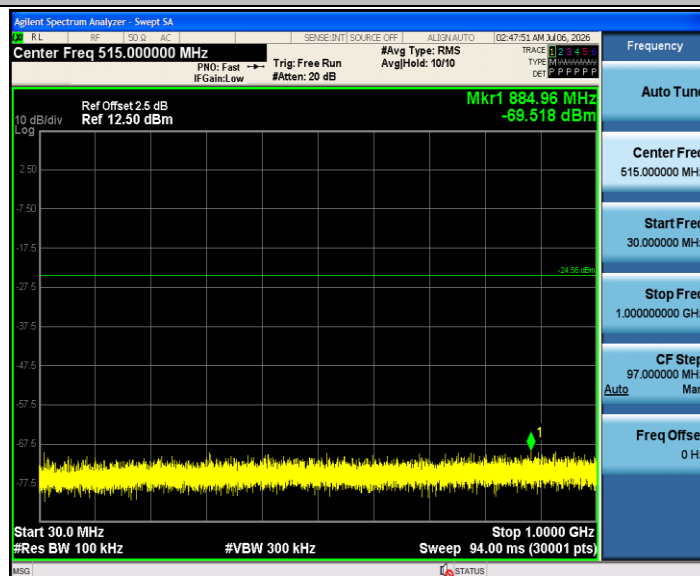
DH5_Ant1_2402_1000~26500



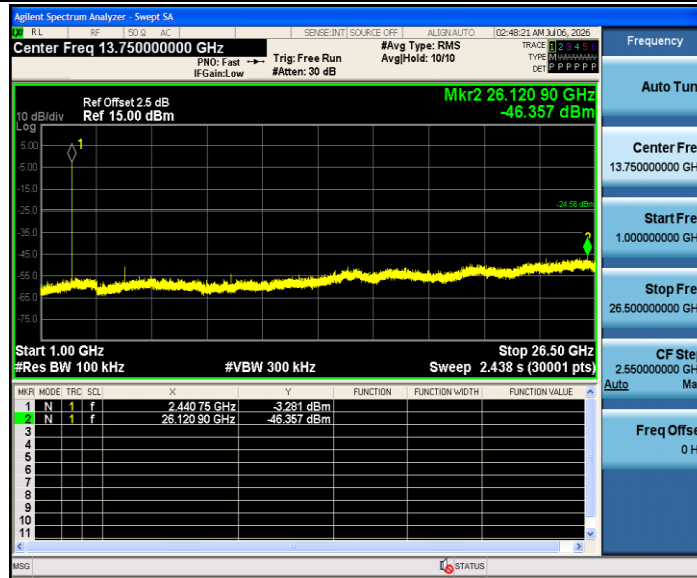
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



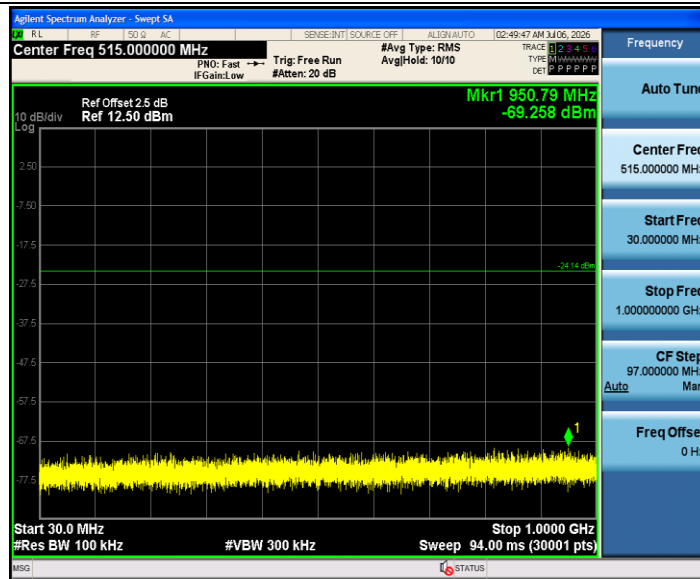
DH5_Ant1_2441_1000~26500



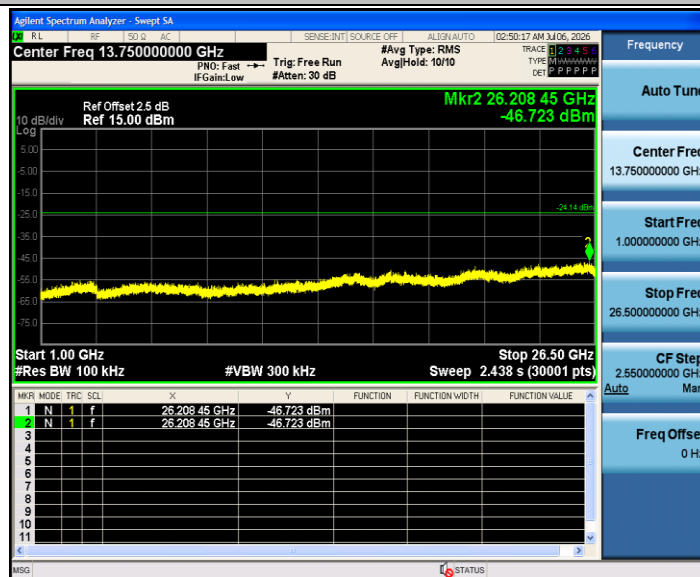
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference

