

Case No. : <u>GTS20230520008-1-1</u>
Ambient Condition: <u>24</u> °C, <u>59</u> %RH, Atmos100.1Kpa,
Test Date: <u>2023.6.20</u> Test Engineer: <u>Evan Ouyang</u>

Appendix A.1: 20dB Emission Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.933	2401.559	2402.492	---	---
		2441	0.897	2440.541	2441.438	---	---
		2480	0.939	2479.535	2480.474	---	---
2DH1	Ant1	2402	1.410	2401.280	2402.690	---	---
		2441	1.425	2440.271	2441.696	---	---
		2480	1.440	2479.256	2480.696	---	---
3DH1	Ant1	2402	1.425	2401.277	2402.702	---	---
		2441	1.446	2440.268	2441.714	---	---
		2480	1.425	2479.286	2480.711	---	---

Test Graphs



DH1_Ant1_2402



DH1_Ant1_2441



DH1_Ant1_2480



2DH1_Ant1_2402



2DH1_Ant1_2441



2DH1_Ant1_2480



3DH1_Ant1_2402



3DH1_Ant1_2441



3DH1_Ant1_2480

Appendix A.2: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.84608	2401.577	2402.423	---	---
		2441	0.85100	2440.569	2441.420	---	---
		2480	0.85594	2479.563	2480.419	---	---
2DH1	Ant1	2402	1.3587	2401.304	2402.663	---	---
		2441	1.3342	2440.319	2441.653	---	---
		2480	1.3418	2479.319	2480.661	---	---
3DH1	Ant1	2402	1.3535	2401.307	2402.660	---	---
		2441	1.3440	2440.317	2441.661	---	---
		2480	1.3454	2479.317	2480.663	---	---

Test Graphs



DH1_Ant1_2402



DH1_Ant1_2441



DH1_Ant1_2480



2DH1_Ant1_2402



2DH1_Ant1_2441



2DH1_Ant1_2480



3DH1_Ant1_2402



3DH1_Ant1_2441



3DH1_Ant1_2480

Appendix A.3: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH1	Ant1	2402	6.13	≤20.97	PASS
		2441	8.33	≤20.97	PASS
		2480	8.3	≤20.97	PASS
2DH1	Ant1	2402	5.08	≤20.97	PASS
		2441	6.92	≤20.97	PASS
		2480	6.79	≤20.97	PASS
3DH1	Ant1	2402	5.12	≤20.97	PASS
		2441	6.99	≤20.97	PASS
		2480	6.9	≤20.97	PASS

Appendix A.4: Carrier frequency separation

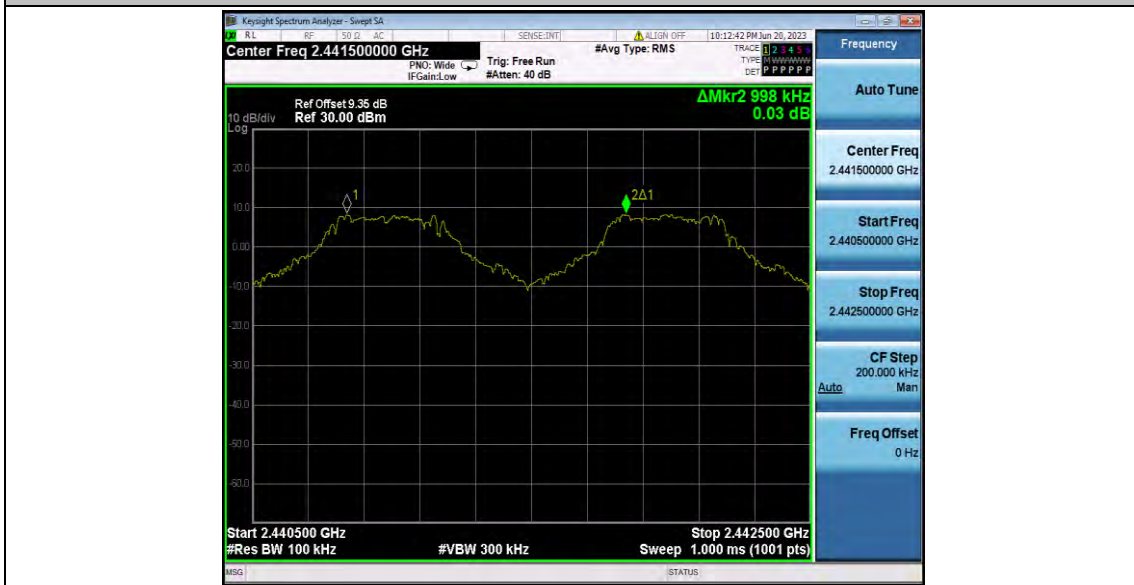
Test Result

Test Mode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	0.86	≥ 0.626	PASS
		Hop_2441	0.998	≥ 0.626	PASS
		Hop_2480	1.14	≥ 0.626	PASS
2DH1	Ant1	Hop_2402	1.004	≥ 0.960	PASS
		Hop_2441	1.16	≥ 0.960	PASS
		Hop_2480	0.988	≥ 0.960	PASS
3DH1	Ant1	Hop_2402	1.156	≥ 0.964	PASS
		Hop_2441	1.02	≥ 0.964	PASS
		Hop_2480	1.012	≥ 0.964	PASS

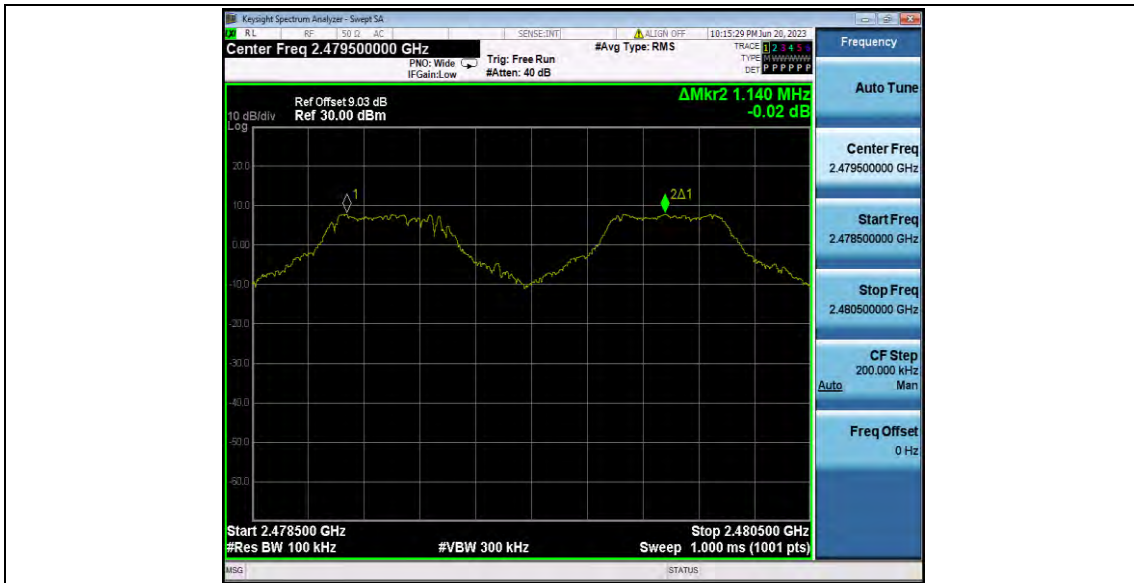
Test Graphs



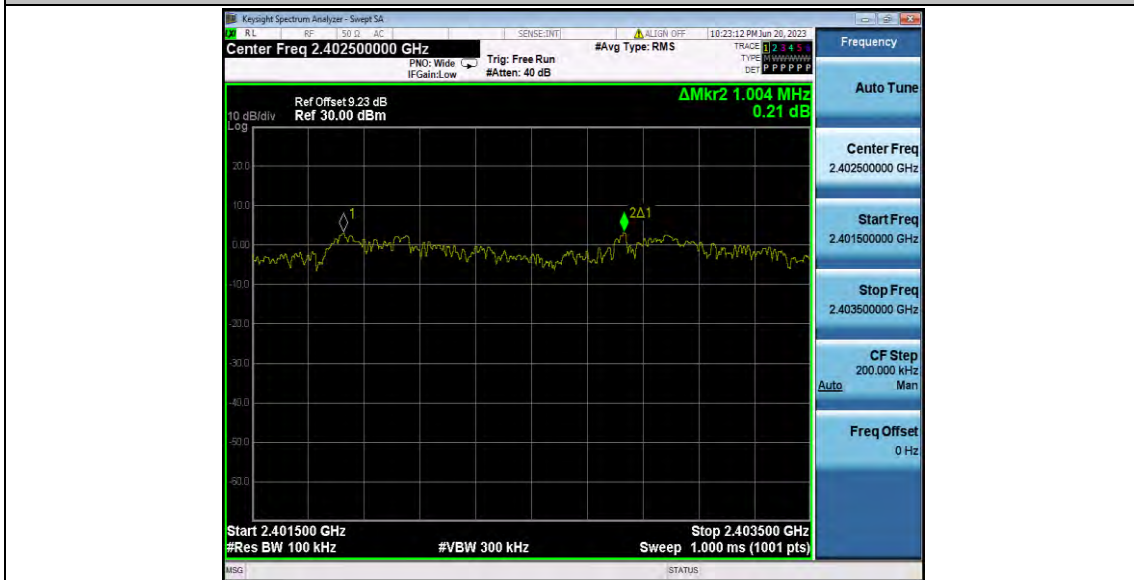
DH1_Ant1_Hop_2402



DH1_Ant1_Hop_2441



DH1_Ant1_Hop_2480



2DH1_Ant1_Hop_2402



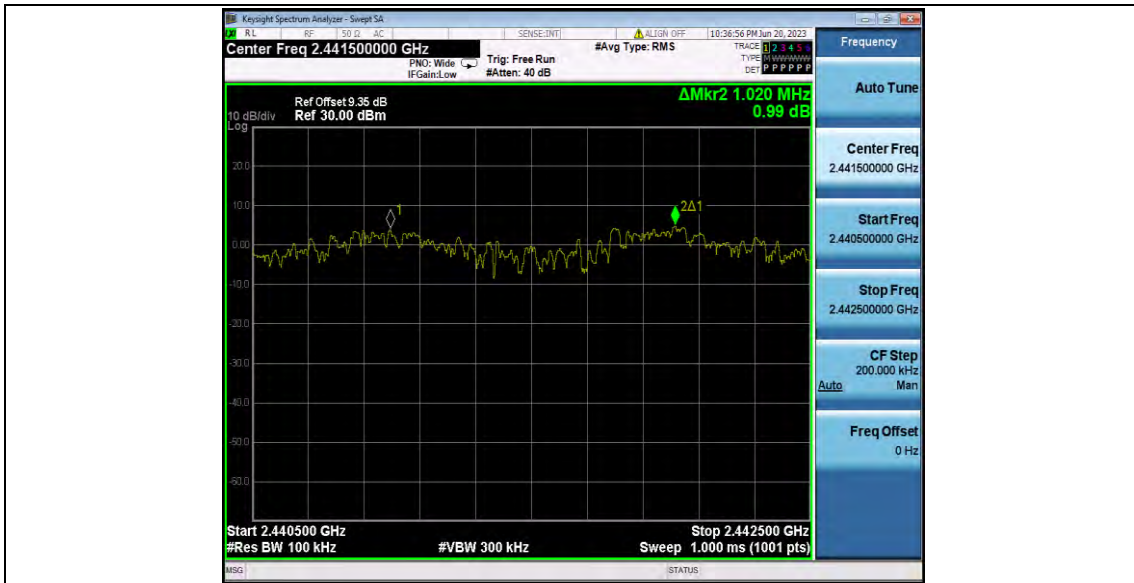
2DH1_Ant1_Hop_2441



2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402



3DH1_Ant1_Hop_2441



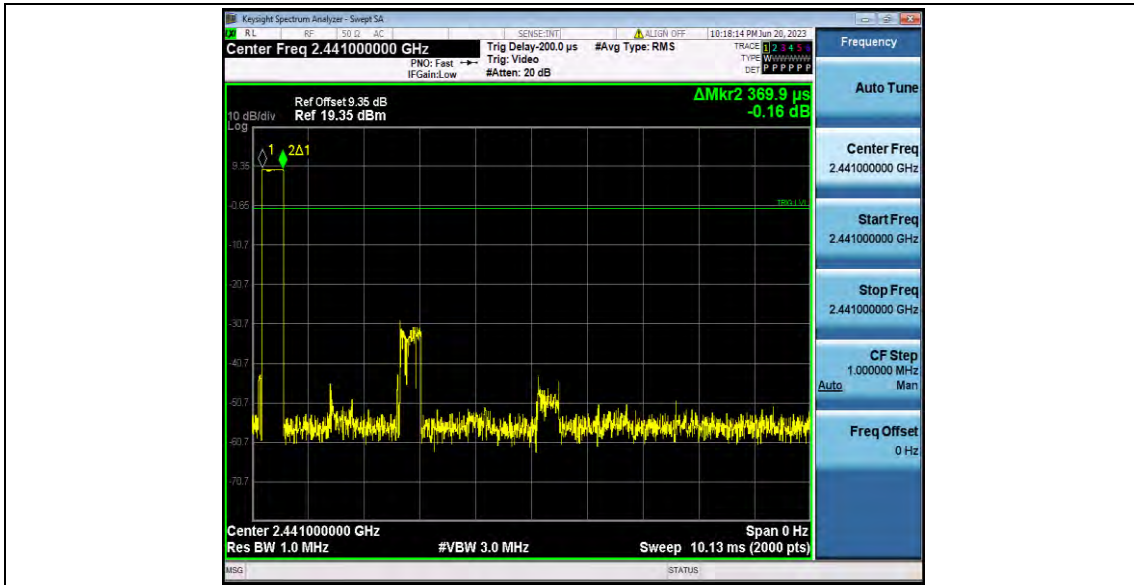
3DH1_Ant1_Hop_2480

Appendix A.5: Time of occupancy

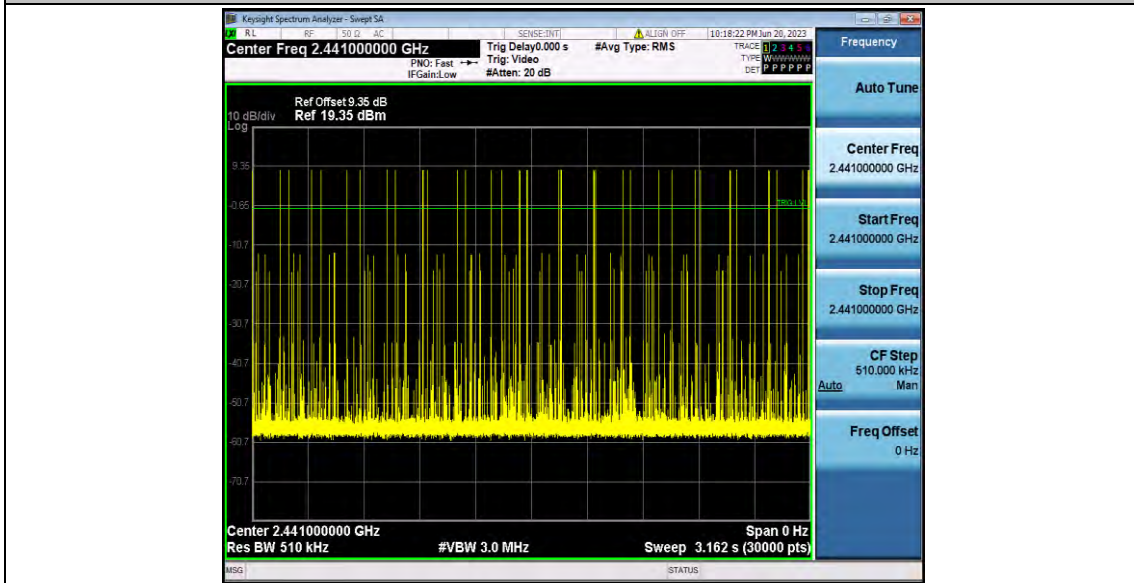
Test Result

Test Mode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.37	330	0.122	≤0.4	PASS
DH3	Ant1	Hop	1.63	130	0.212	≤0.4	PASS
DH5	Ant1	Hop	2.88	110	0.317	≤0.4	PASS
2DH1	Ant1	Hop	0.38	330	0.125	≤0.4	PASS
2DH3	Ant1	Hop	1.63	190	0.31	≤0.4	PASS
2DH5	Ant1	Hop	2.88	120	0.346	≤0.4	PASS
3DH1	Ant1	Hop	0.37	320	0.119	≤0.4	PASS
3DH3	Ant1	Hop	1.63	150	0.245	≤0.4	PASS
3DH5	Ant1	Hop	2.88	70	0.201	≤0.4	PASS

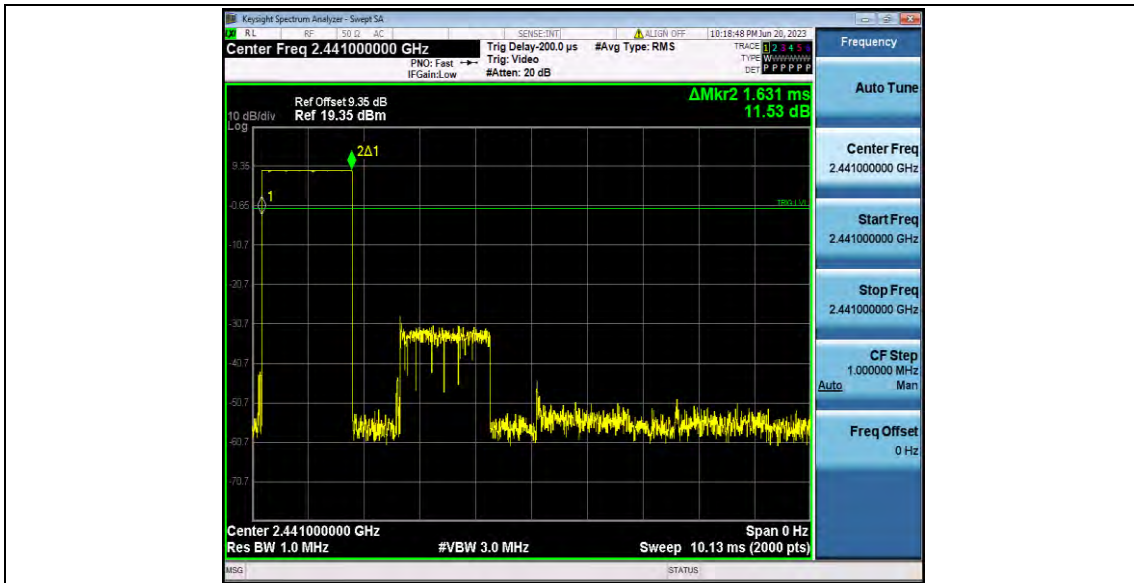
Test Graphs



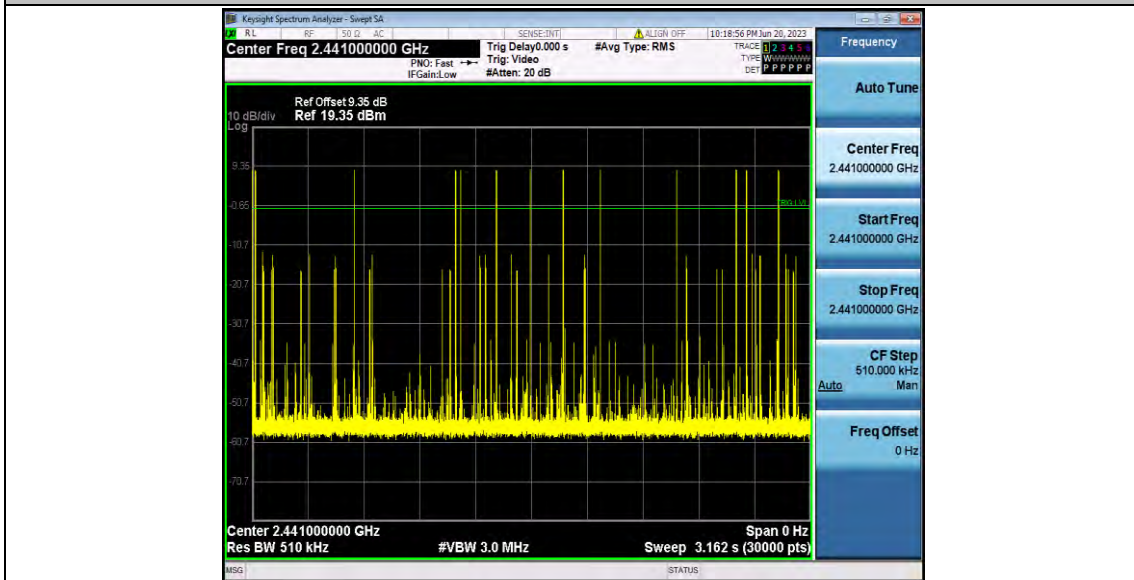
DH1_Ant1_Hop



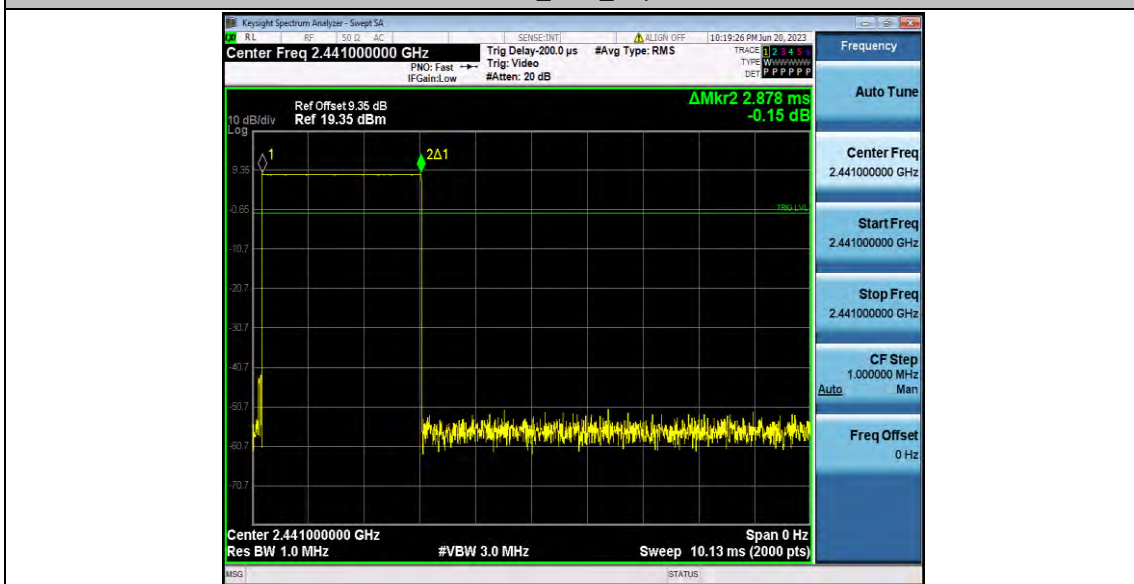
DH1_Ant1_Hop



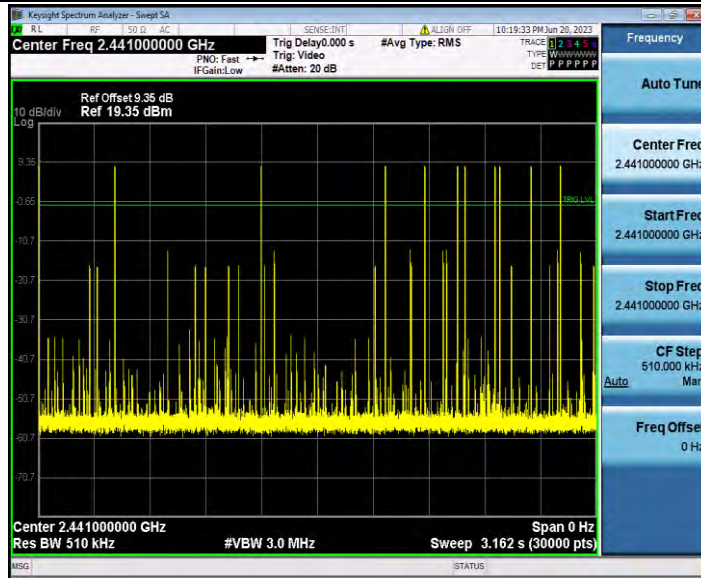
DH3_Ant1_Hop



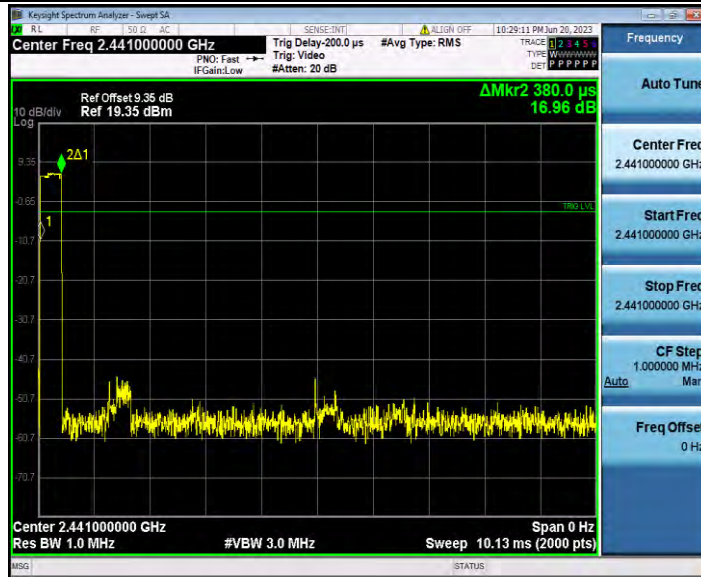
DH3_Ant1_Hop



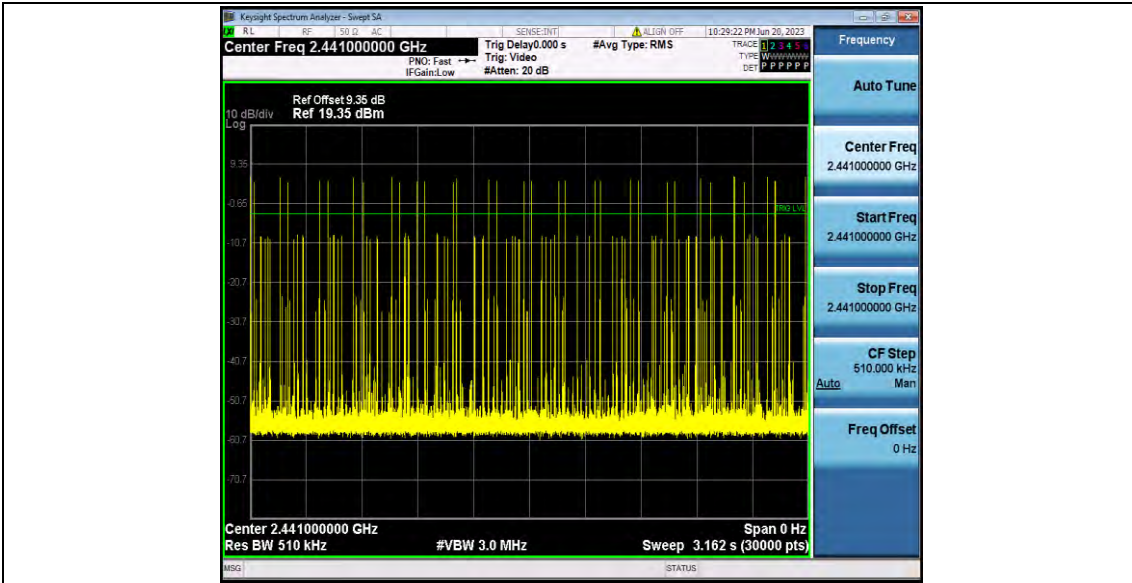
DH5_Ant1_Hop



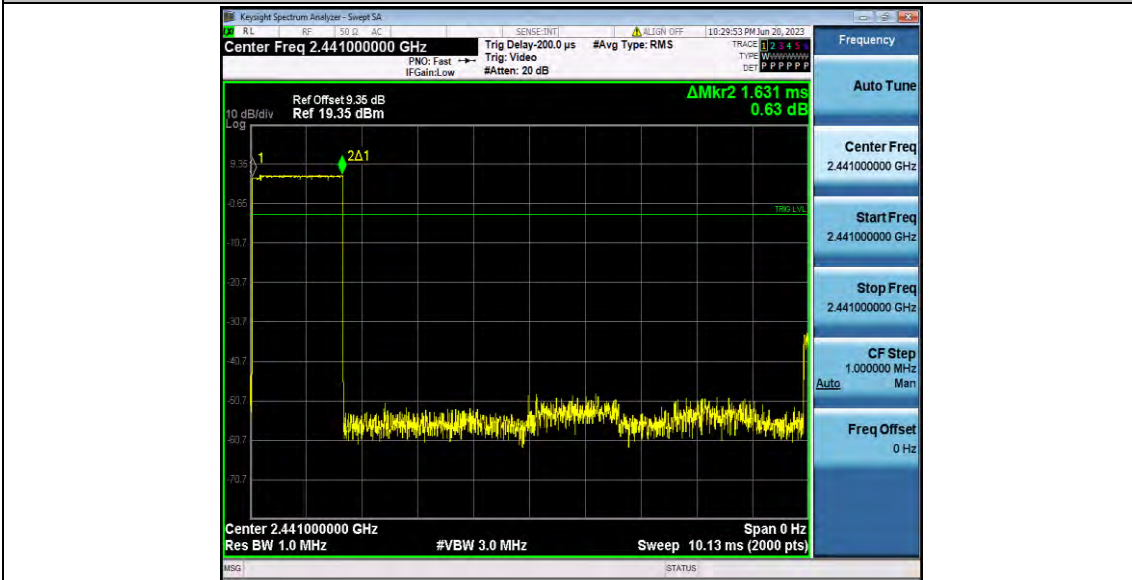
DH5_Ant1_Hop



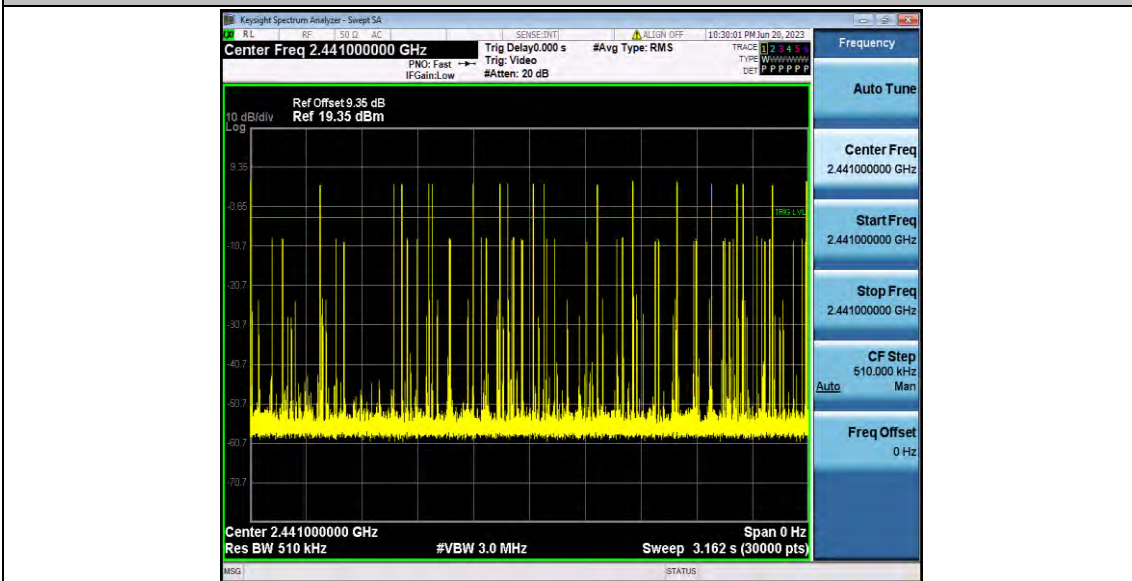
2DH1_Ant1_Hop



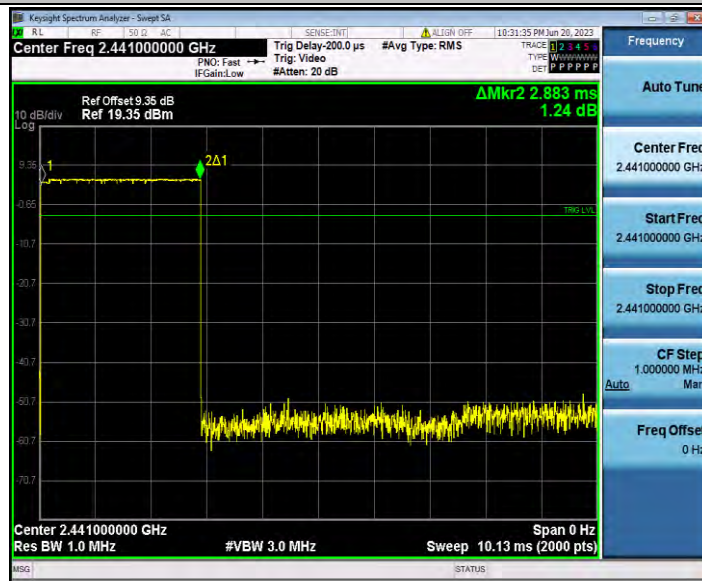
2DH1_Ant1_Hop



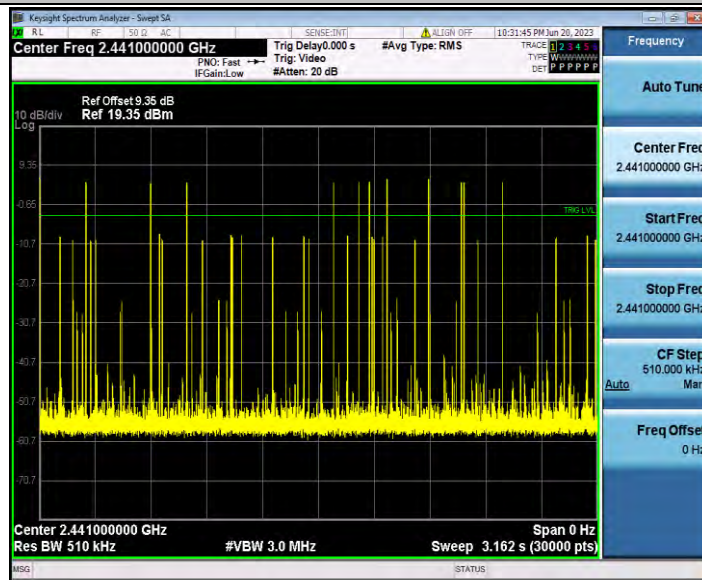
2DH3_Ant1_Hop



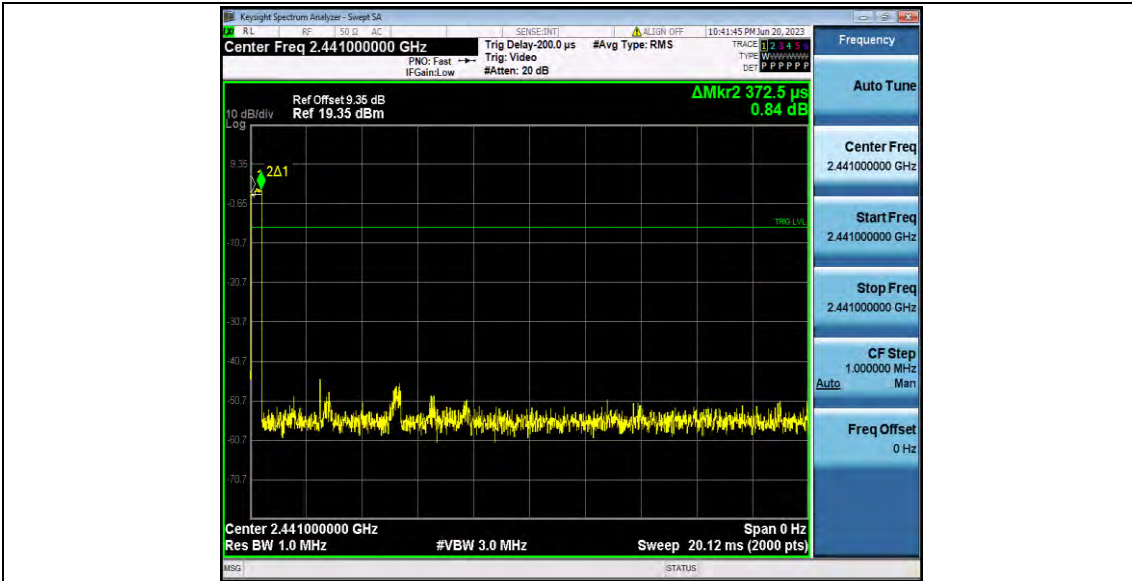
2DH3_Ant1_Hop



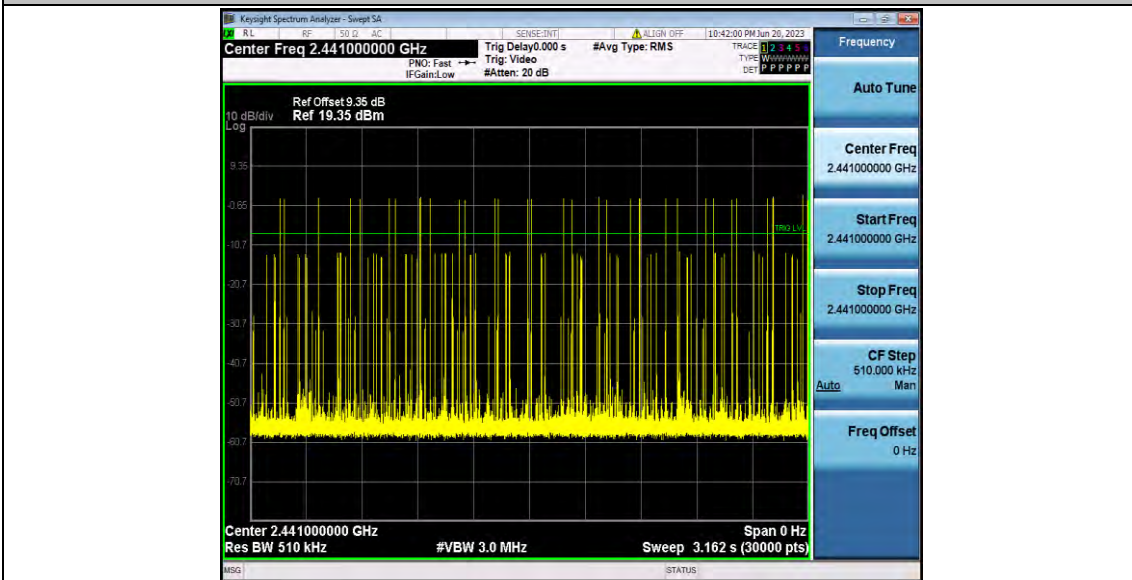
2DH5_Ant1_Hop



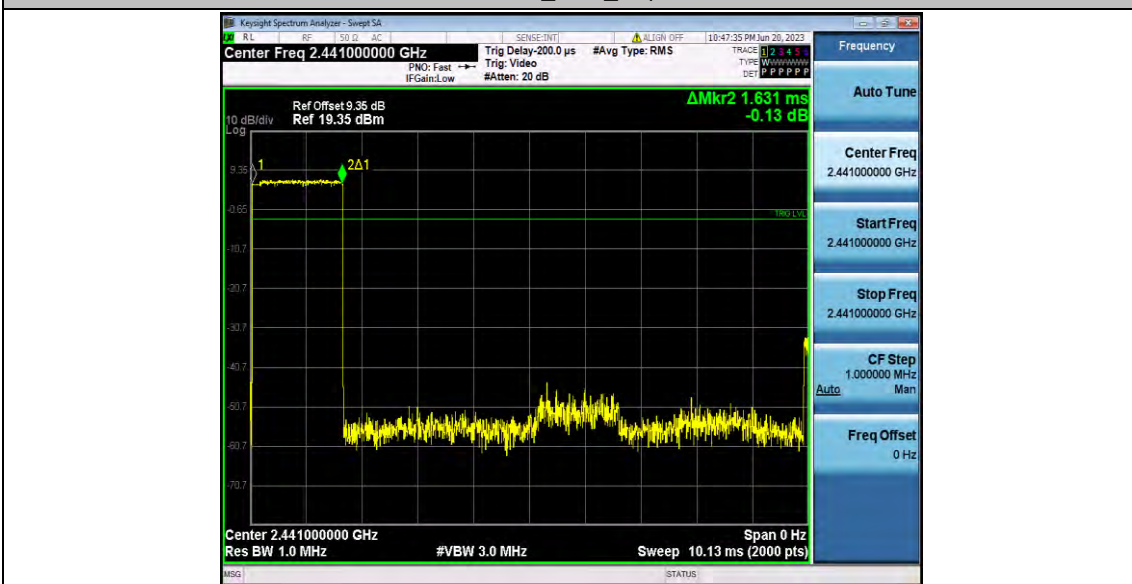
2DH5_Ant1_Hop



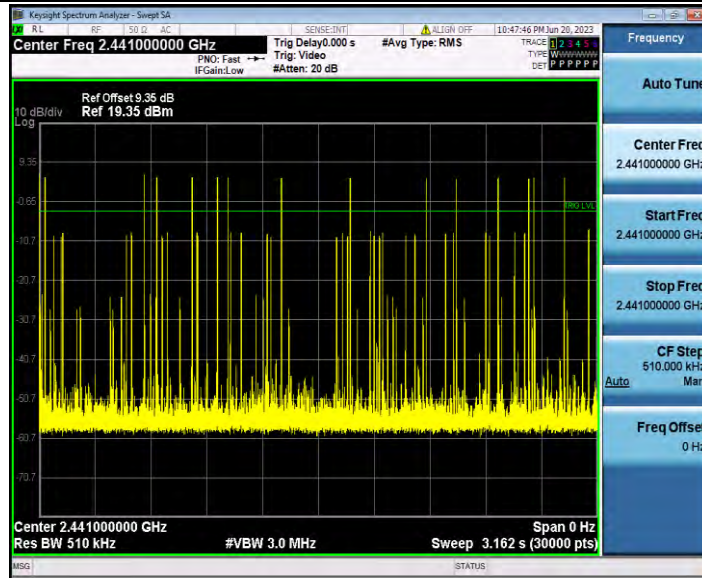
3DH1_Ant1_Hop



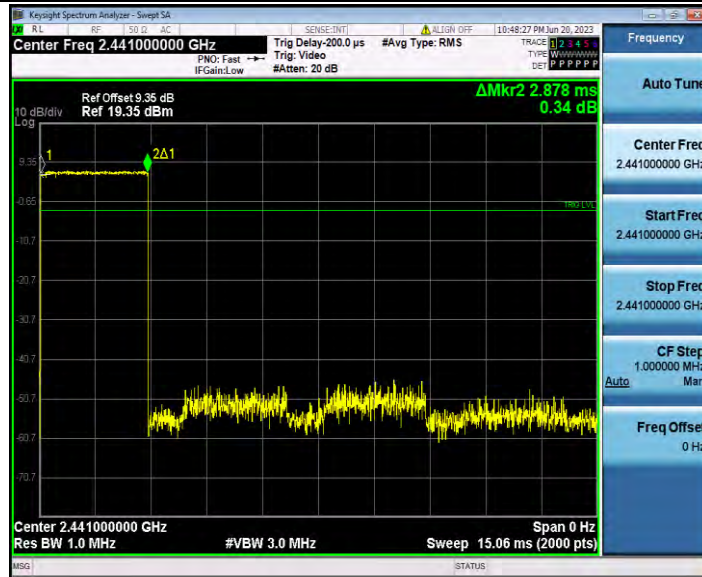
3DH1_Ant1_Hop



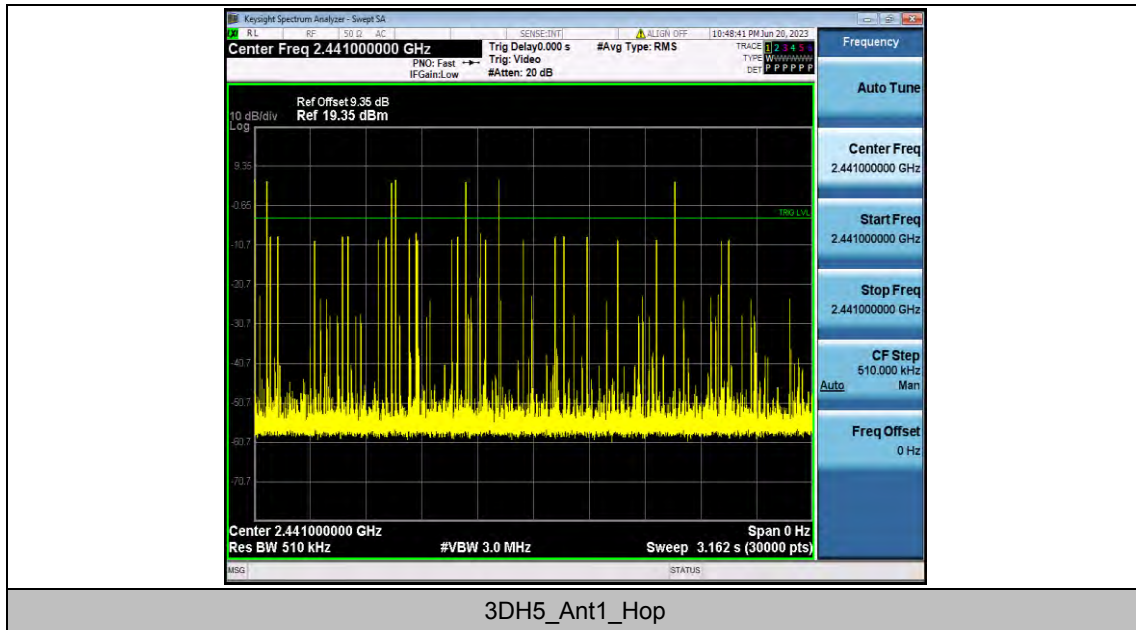
3DH3_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop

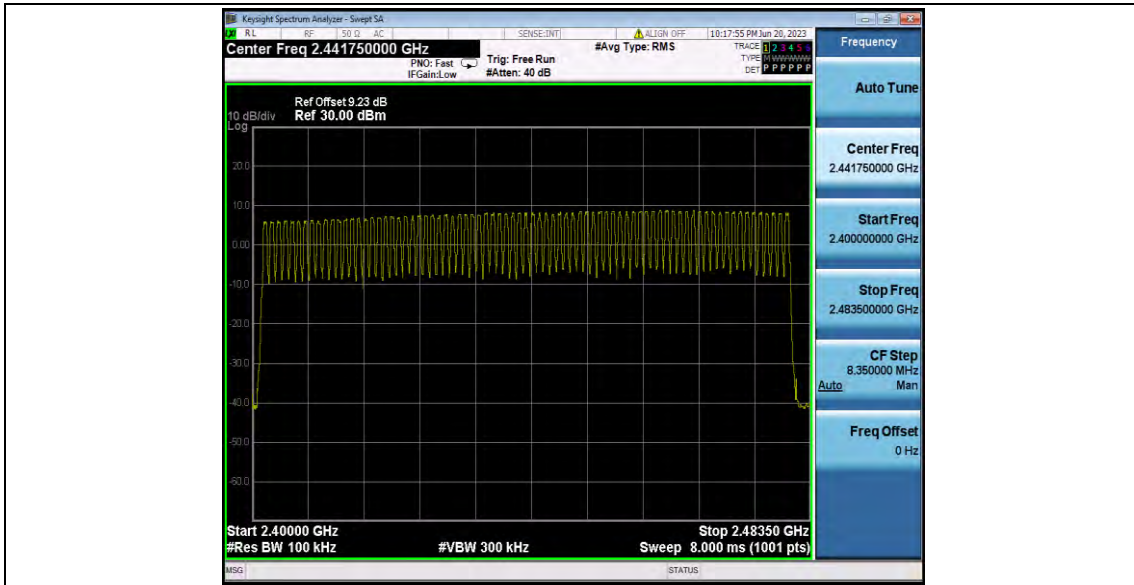


Appendix A.6: Number of hopping channels

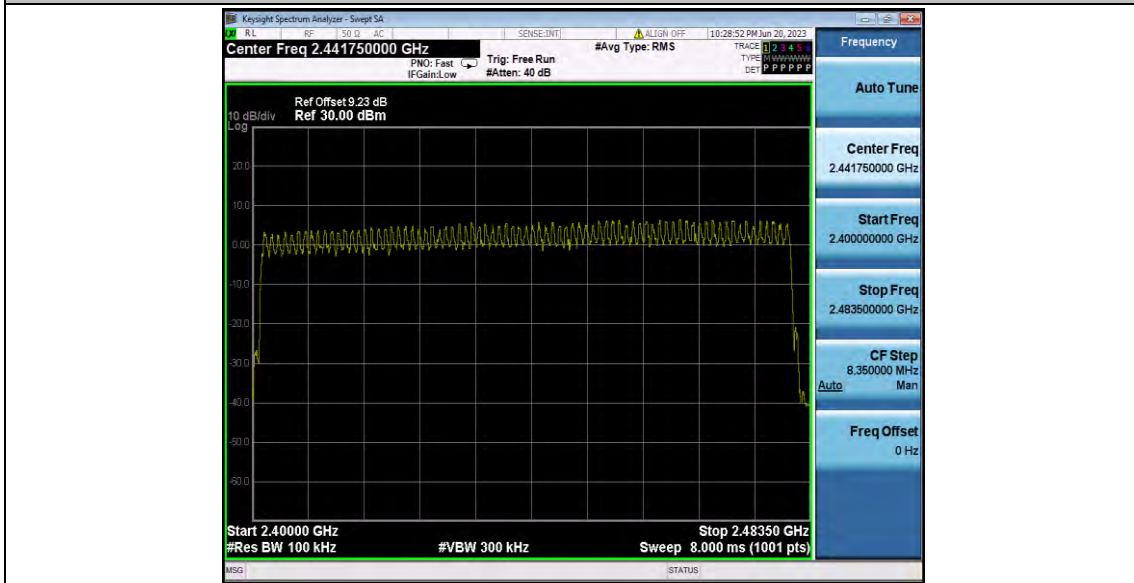
Test Result

Test Mode	Antenna	Frequency[MHz]	Result[Num]	Limit[Num]	Verdict
DH1	Ant1	Hop	79	≥15	PASS
2DH1	Ant1	Hop	79	≥15	PASS
3DH1	Ant1	Hop	79	≥15	PASS

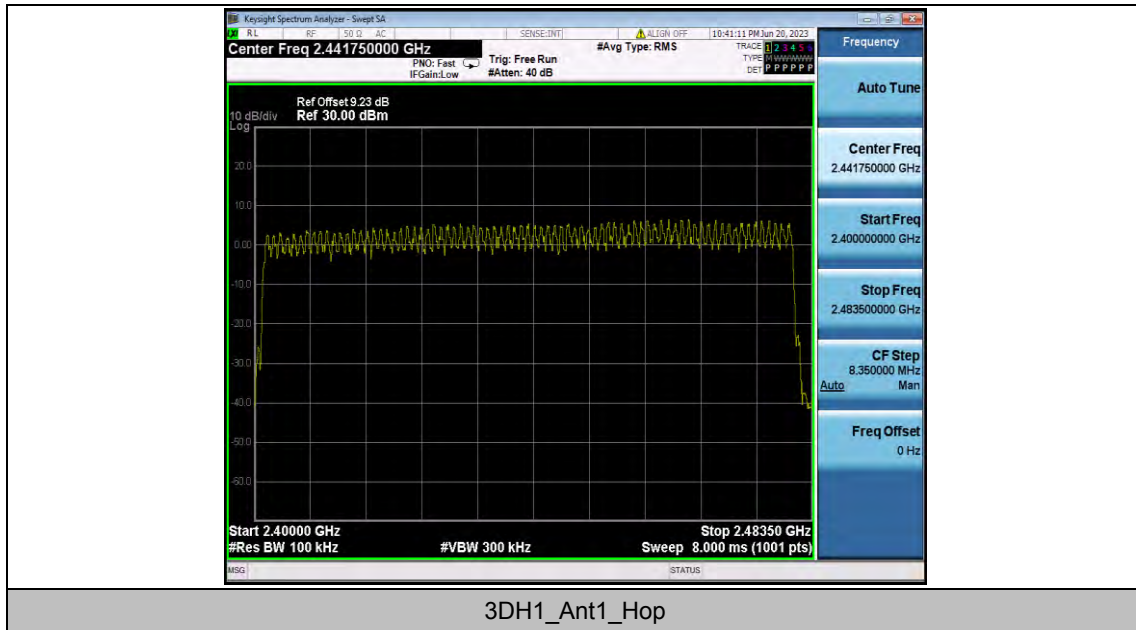
Test Graphs



DH1_Ant1_Hop



2DH1_Ant1_Hop



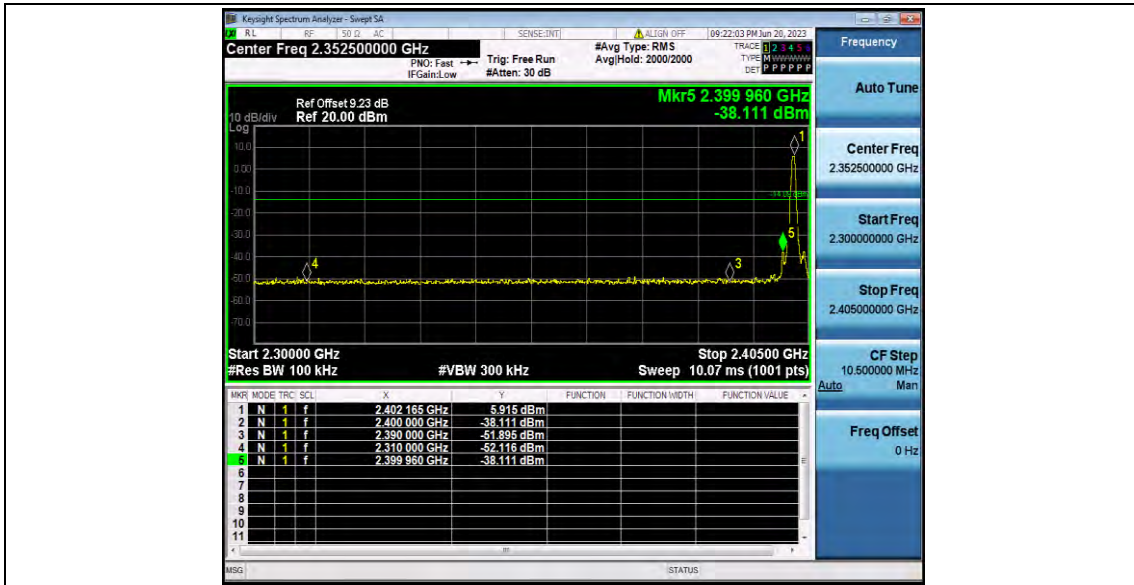
3DH1_Ant1_Hop

Appendix A.7: Band edge measurements

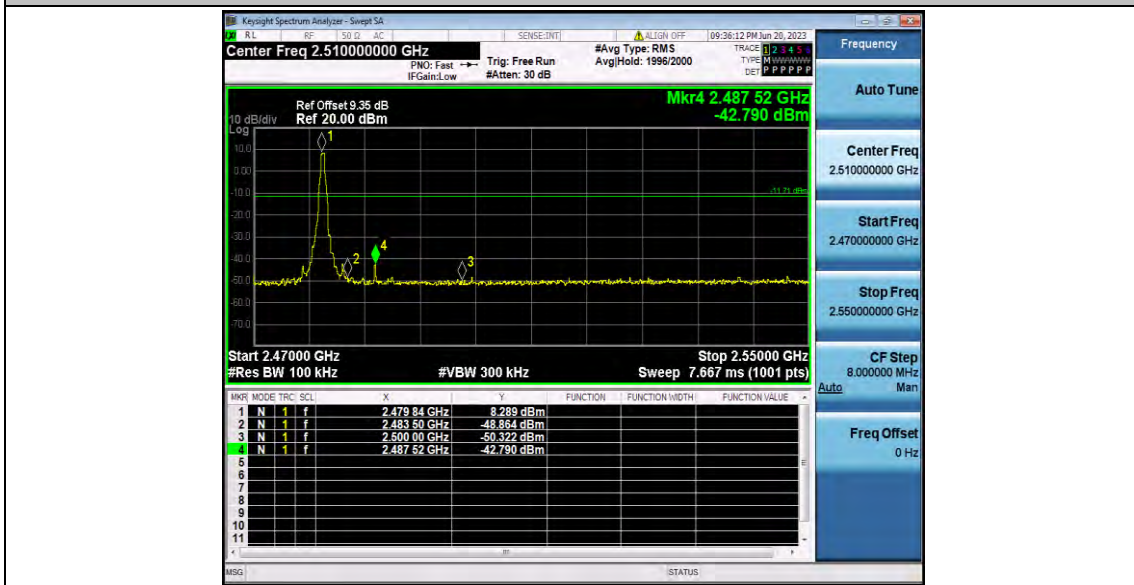
Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	5.92	-38.11	≤-14.09	PASS
		High	2480	8.29	-42.79	≤-11.71	PASS
		Low	Hop_2402	5.75	-49.32	≤-14.25	PASS
		High	Hop_2480	8.68	-48.28	≤-11.32	PASS
2DH1	Ant1	Low	2402	3.45	-39.75	≤-16.55	PASS
		High	2480	4.97	-43.87	≤-15.03	PASS
		Low	Hop_2402	2.60	-48.51	≤-17.4	PASS
		High	Hop_2480	6.06	-47.76	≤-13.94	PASS
3DH1	Ant1	Low	2402	3.44	-39.78	≤-16.56	PASS
		High	2480	4.97	-43.31	≤-15.03	PASS
		Low	Hop_2402	3.09	-49	≤-16.91	PASS
		High	Hop_2480	5.80	-48.76	≤-14.2	PASS

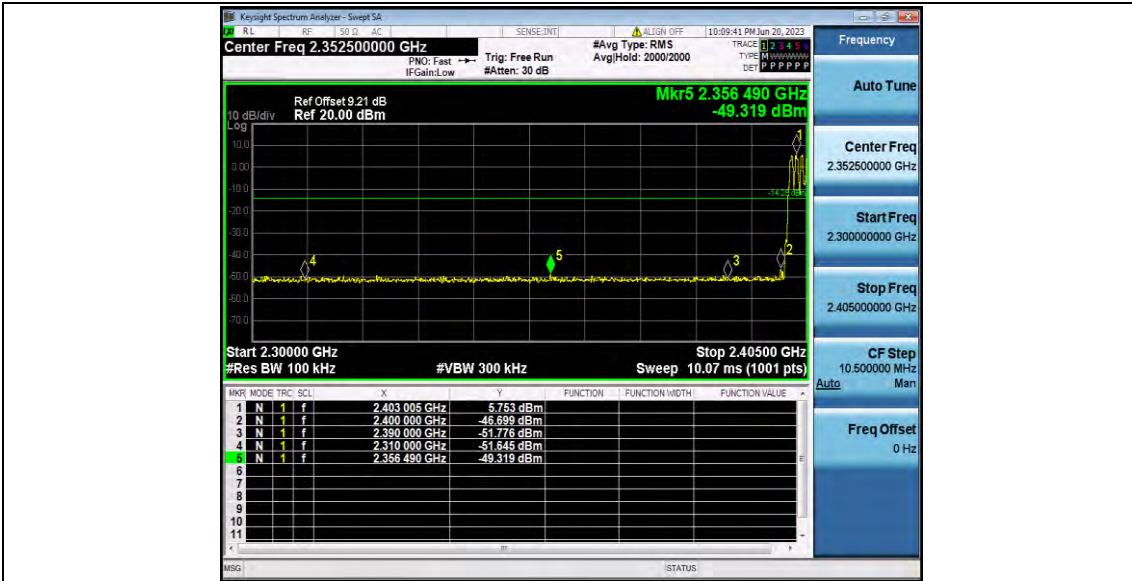
Test Graphs



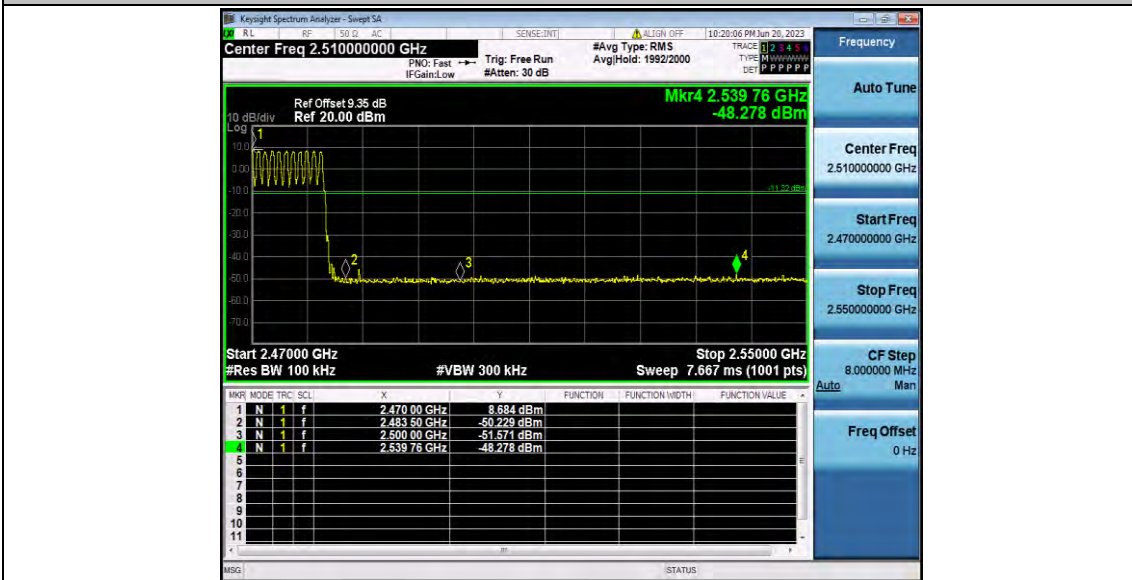
DH1_Ant1_Low_2402



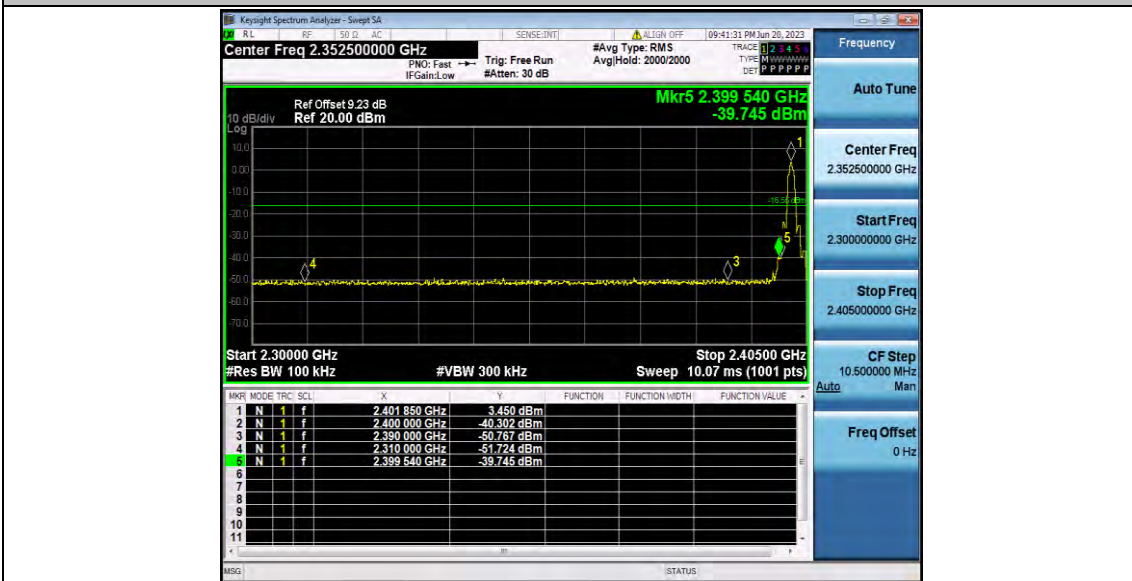
DH1_Ant1_High_2480



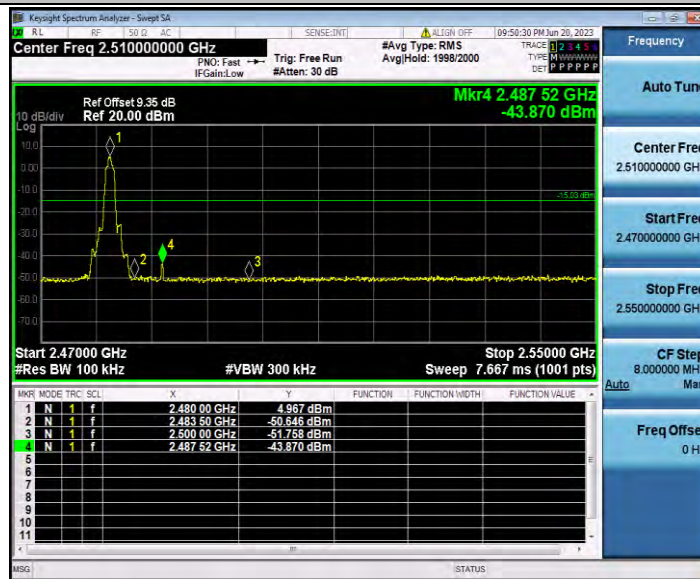
DH1_Ant1_Low_Hop_2402



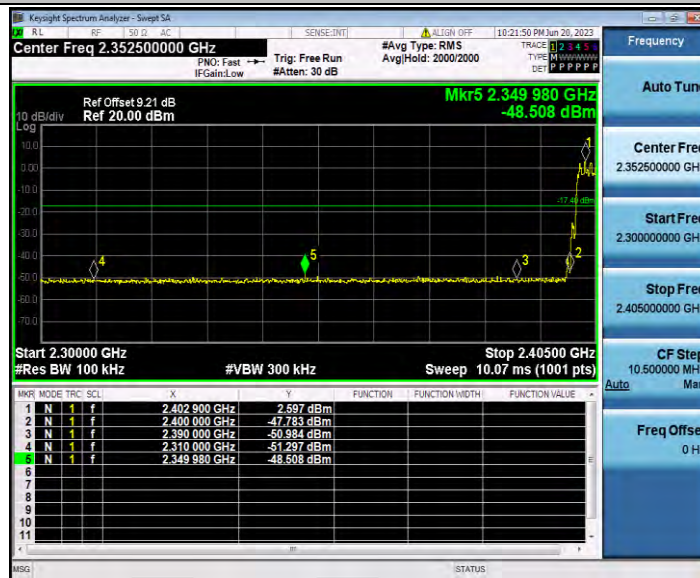
DH1_Ant1_High_Hop_2480



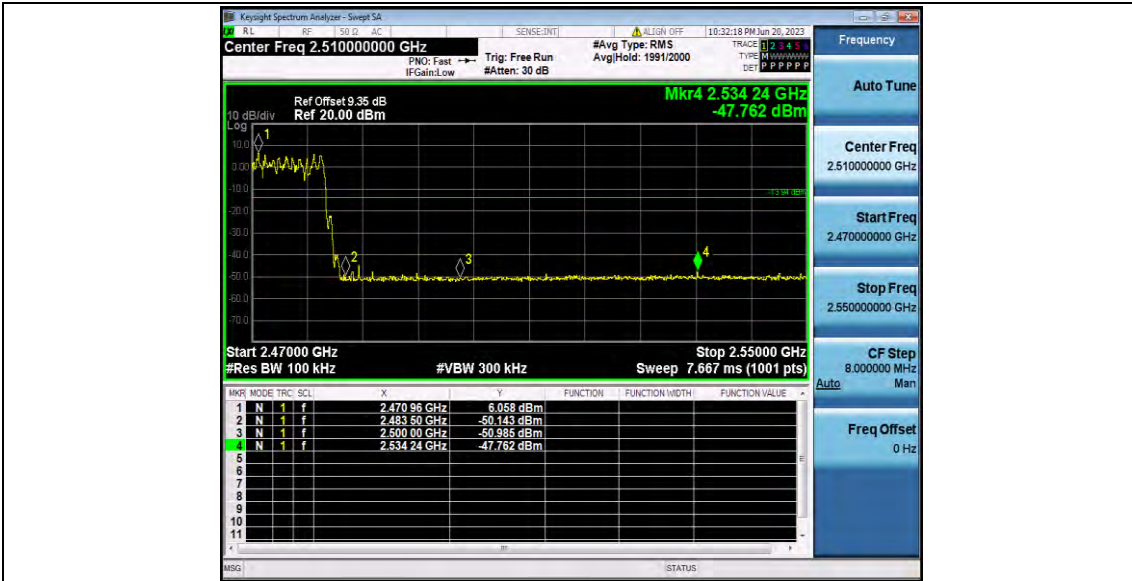
2DH1_Ant1_Low_2402



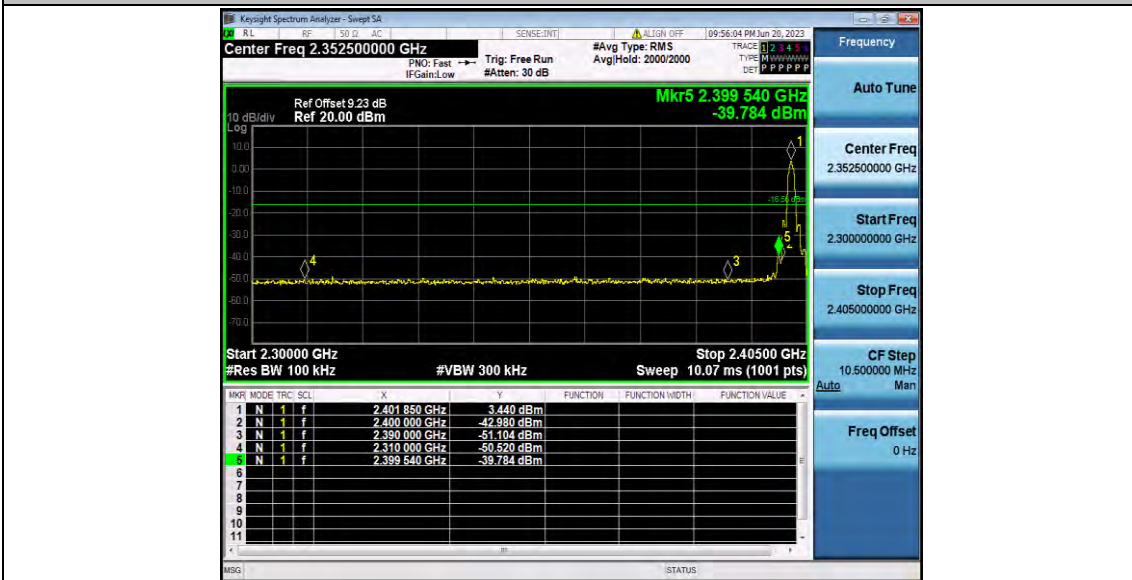
2DH1_Ant1_High_2480



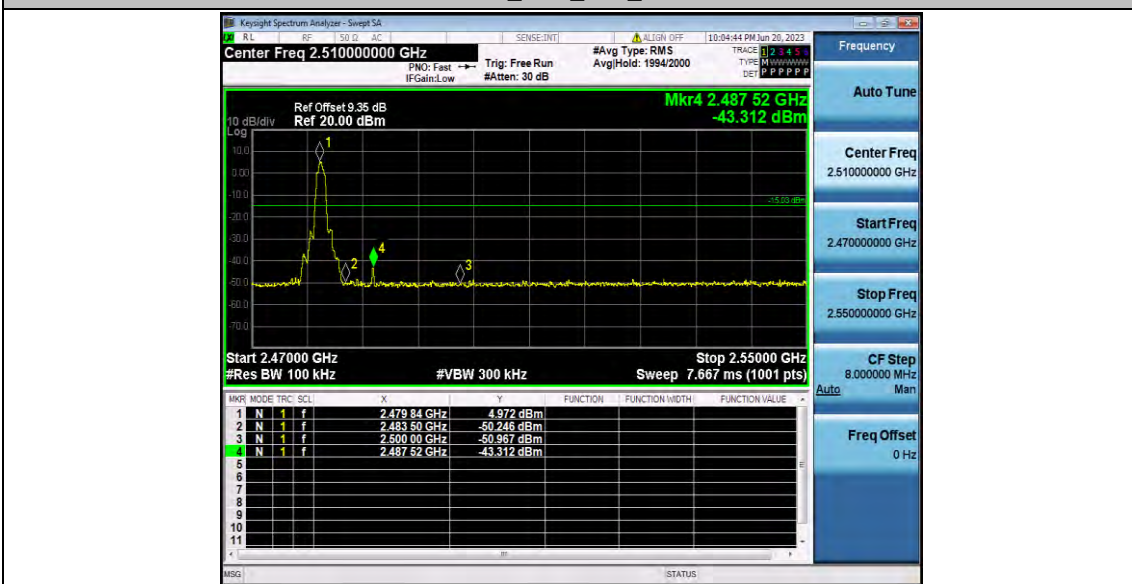
2DH1_Ant1_Low_Hop_2402



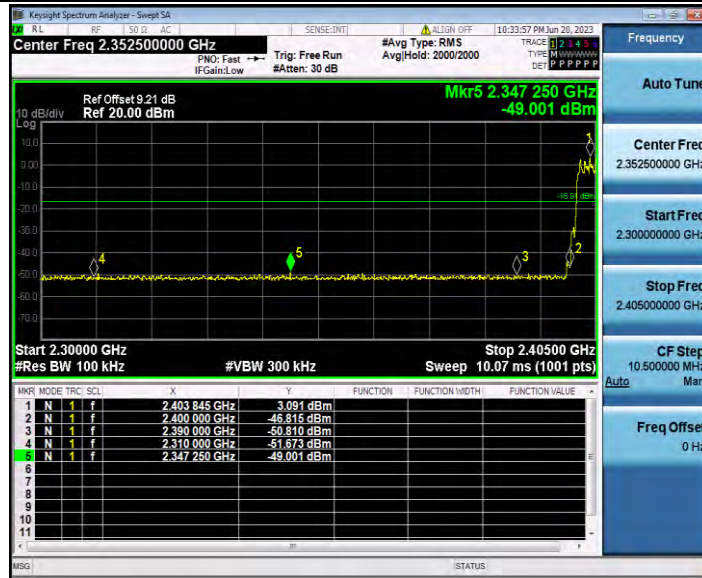
2DH1_Ant1_High_Hop_2480



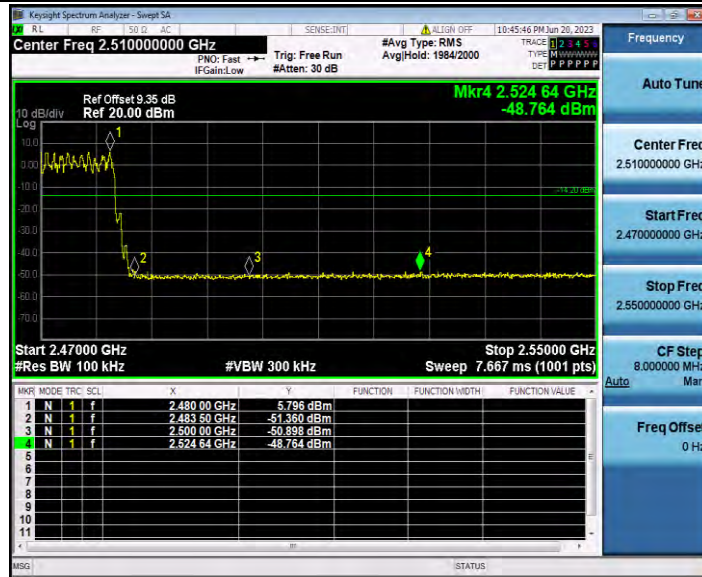
3DH1_Ant1_Low_2402



3DH1_Ant1_High_2480



3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

Appendix A.8: Conducted Spurious Emission

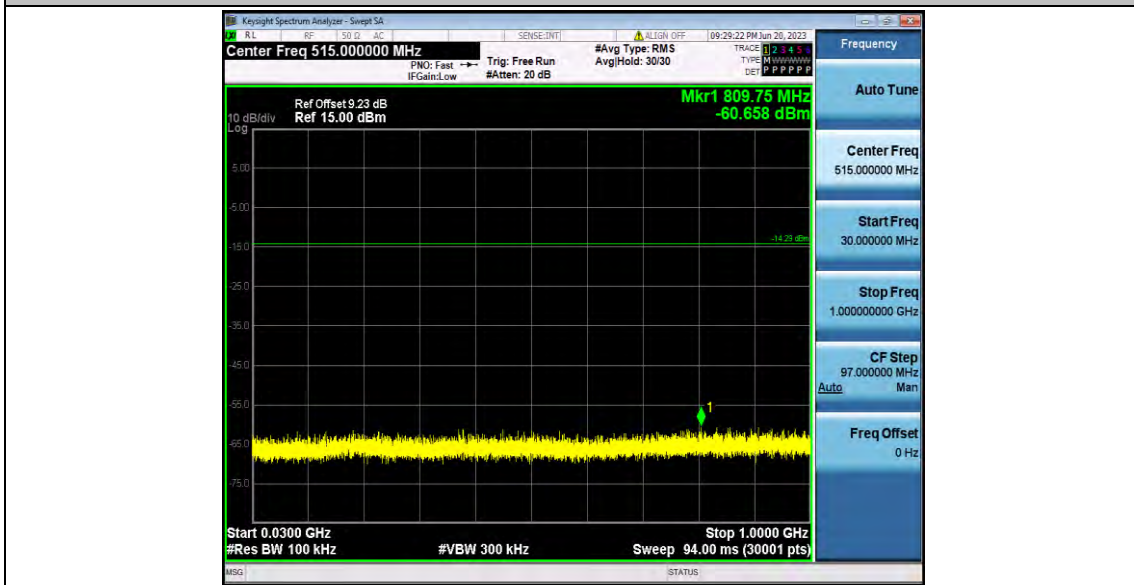
Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	5.71	5.71	---	PASS
			30~1000	5.71	-60.66	≤-14.29	PASS
			1000~26500	5.71	-46.74	≤-14.29	PASS
		2441	Reference	7.98	7.98	---	PASS
			30~1000	7.98	-60.15	≤-12.02	PASS
			1000~26500	7.98	-47.86	≤-12.02	PASS
		2480	Reference	8.02	8.02	---	PASS
			30~1000	8.02	-60.13	≤-11.98	PASS
			1000~26500	8.02	-47.93	≤-11.98	PASS
2DH1	Ant1	2402	Reference	3.16	3.16	---	PASS
			30~1000	3.16	-60.21	≤-16.84	PASS
			1000~26500	3.16	-46.17	≤-16.84	PASS
		2441	Reference	4.71	4.71	---	PASS
			30~1000	4.71	-60.89	≤-15.29	PASS
			1000~26500	4.71	-47.39	≤-15.29	PASS
		2480	Reference	4.85	4.85	---	PASS
			30~1000	4.85	-60.33	≤-15.15	PASS
			1000~26500	4.85	-47.19	≤-15.15	PASS
3DH1	Ant1	2402	Reference	3.05	3.05	---	PASS
			30~1000	3.05	-59.88	≤-16.95	PASS
			1000~26500	3.05	-48.08	≤-16.95	PASS
		2441	Reference	4.91	4.91	---	PASS
			30~1000	4.91	-60.08	≤-15.09	PASS
			1000~26500	4.91	-47.72	≤-15.09	PASS
		2480	Reference	4.29	4.29	---	PASS
			30~1000	4.29	-60.31	≤-15.71	PASS
			1000~26500	4.29	-47.1	≤-15.71	PASS

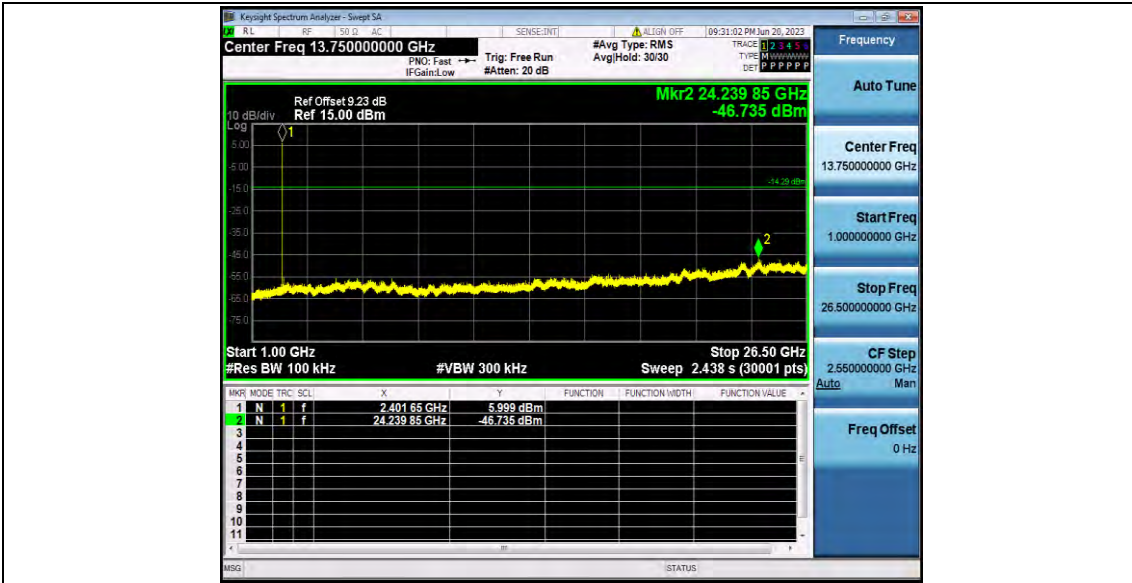
Test Graphs



DH1_Ant1_2402_0~Reference



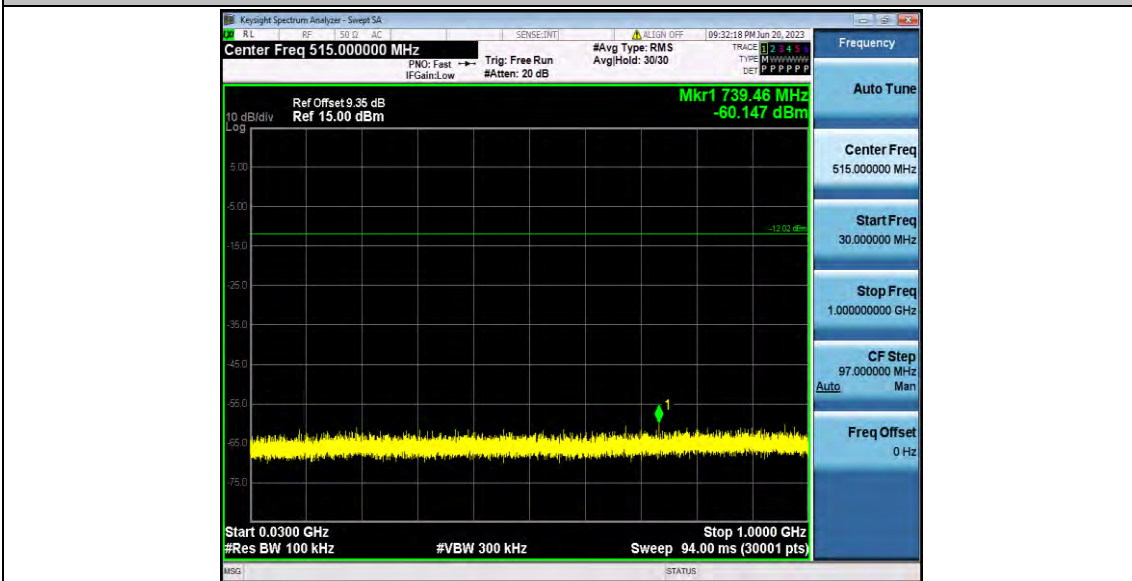
DH1_Ant1_2402_30~1000



DH1_Ant1_2402_1000~26500



DH1_Ant1_2441_0~Reference



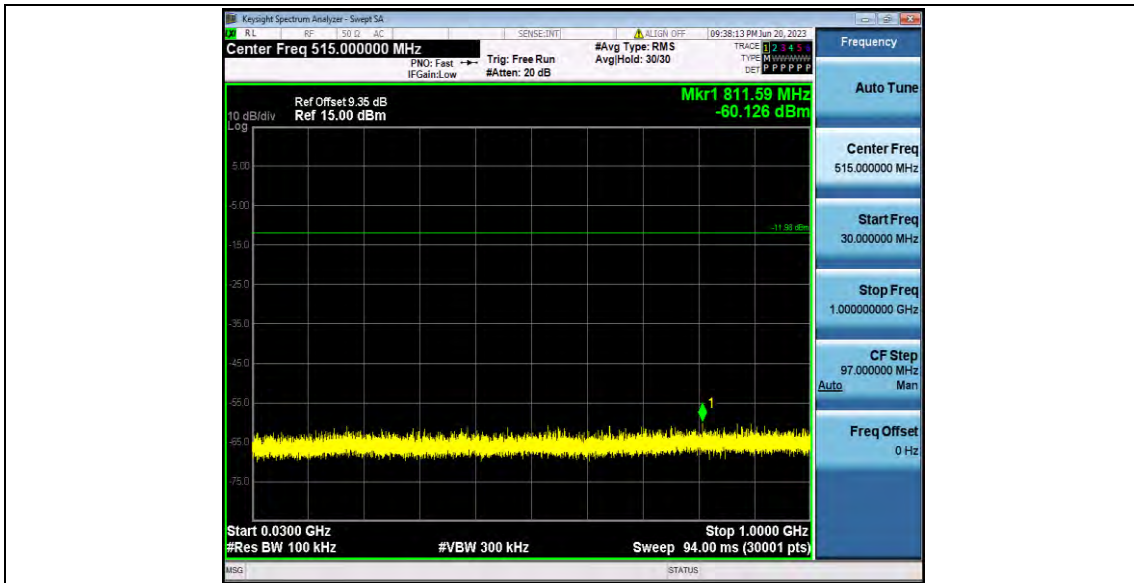
DH1_Ant1_2441_30~1000



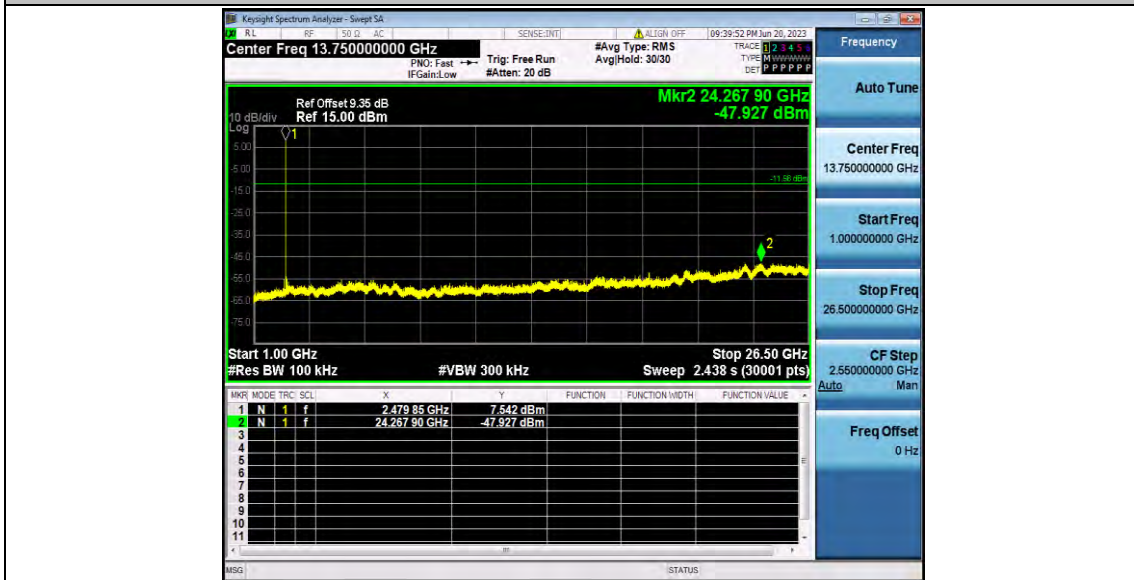
DH1_Ant1_2441_1000~26500



DH1_Ant1_2480_0~Reference



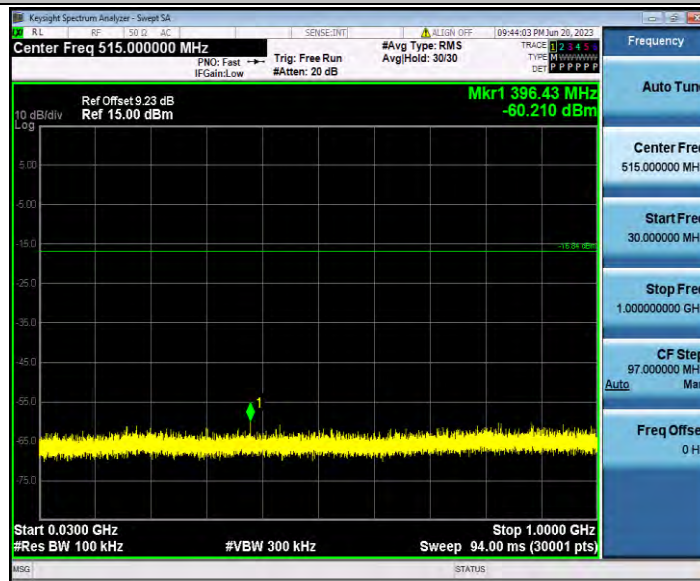
DH1_Ant1_2480_30~1000



DH1_Ant1_2480_1000~26500



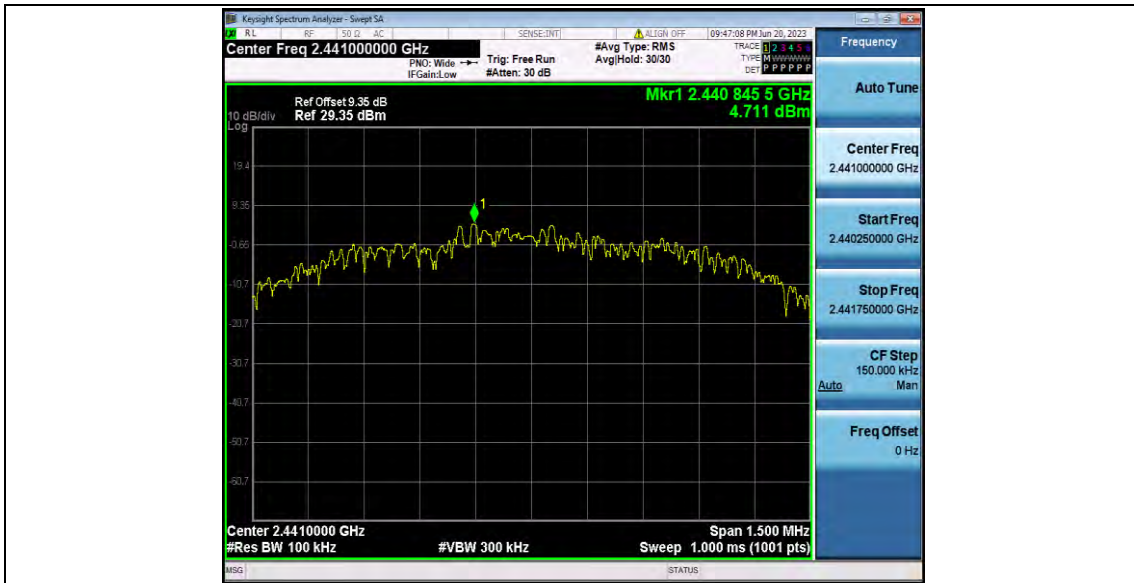
2DH1_Ant1_2402_0~Reference



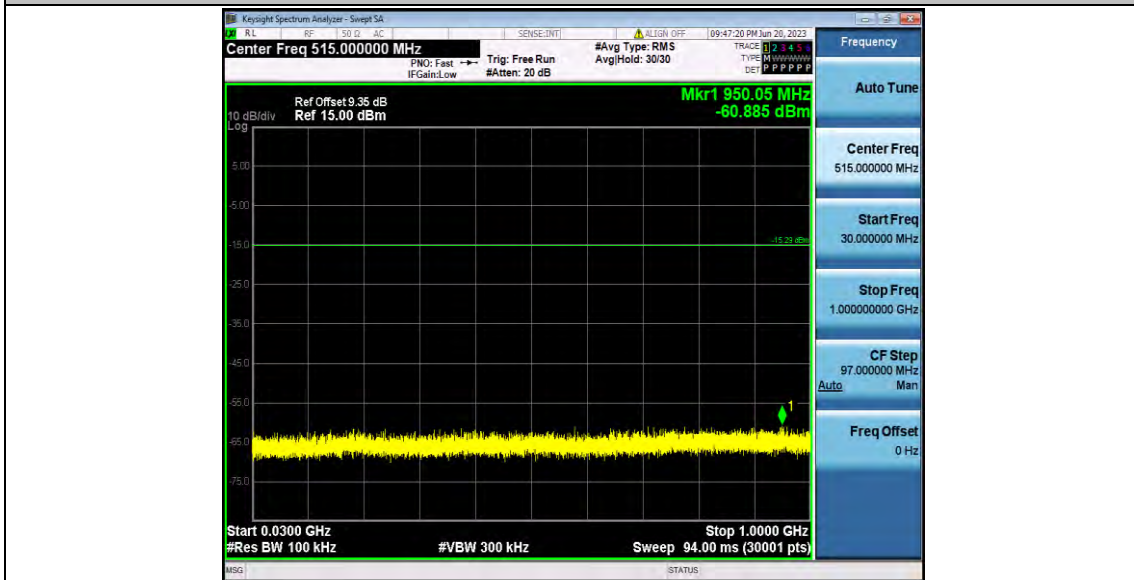
2DH1_Ant1_2402_30~1000



2DH1_Ant1_2402_1000~26500



2DH1_Ant1_2441_0~Reference



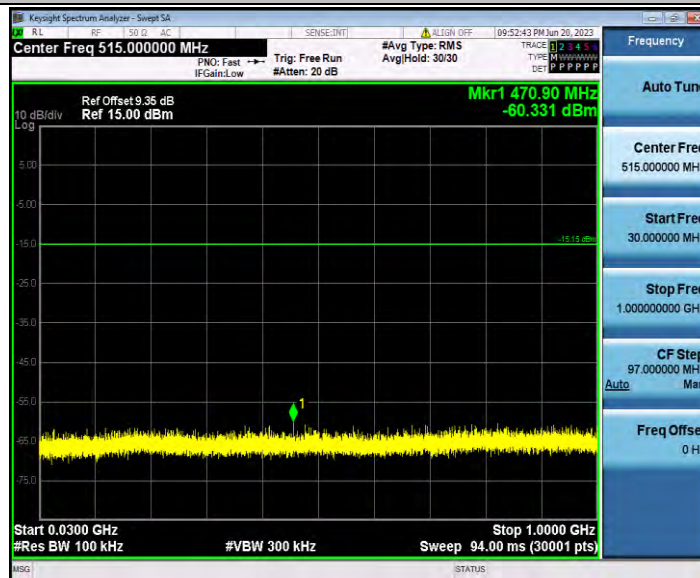
2DH1_Ant1_2441_30~1000



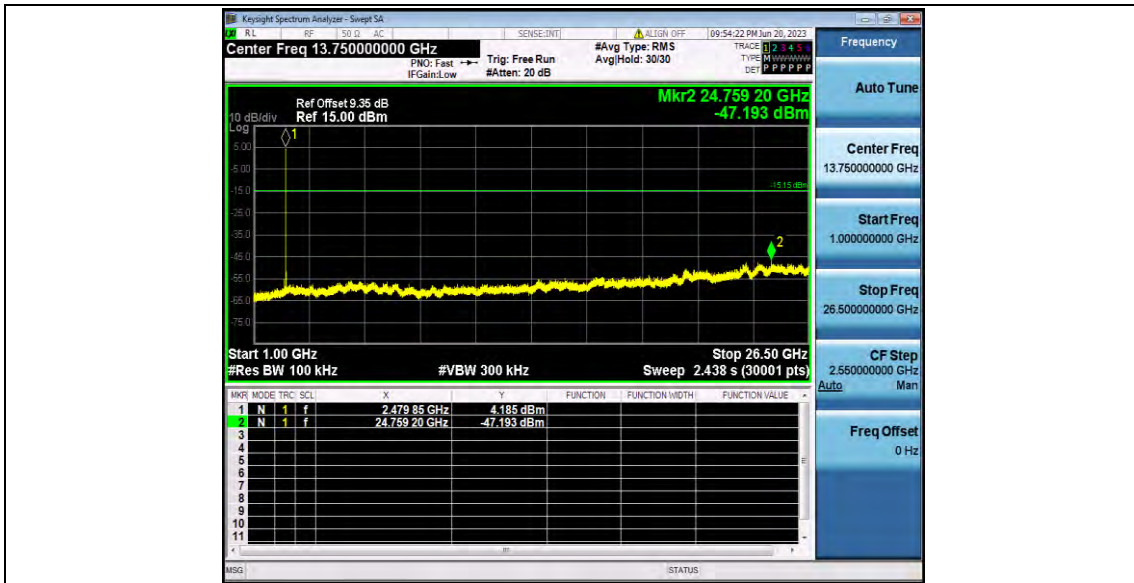
2DH1_Ant1_2441_1000~26500



2DH1_Ant1_2480_0~Reference



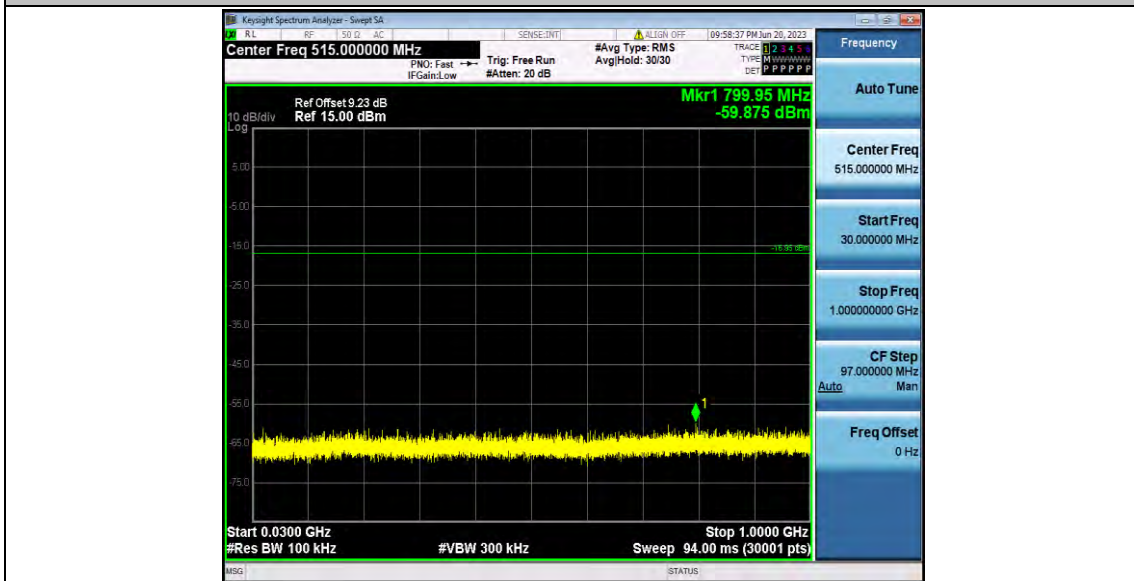
2DH1_Ant1_2480_30~1000



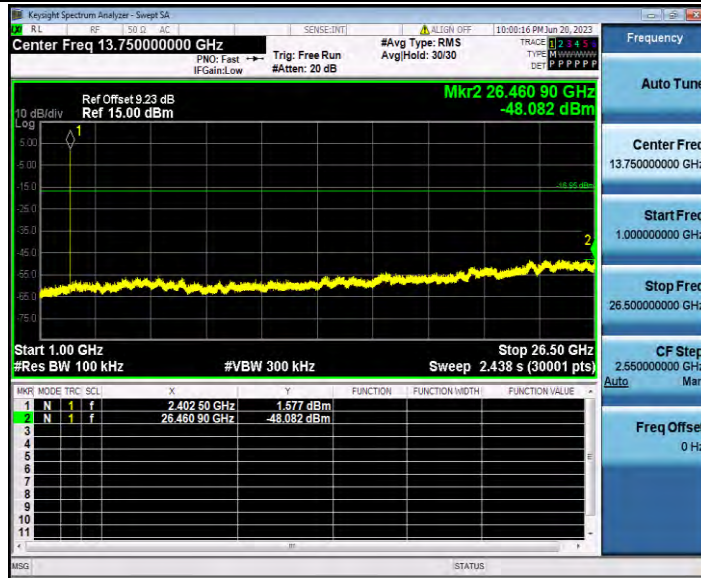
2DH1_Ant1_2480_1000~26500



3DH1_Ant1_2402_0~Reference



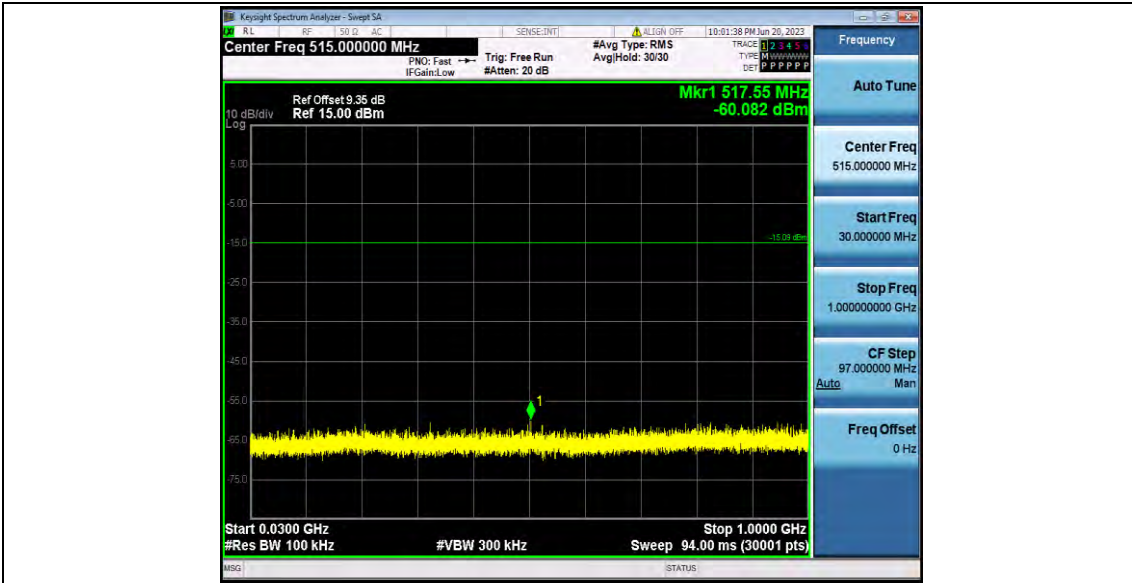
3DH1_Ant1_2402_30~1000



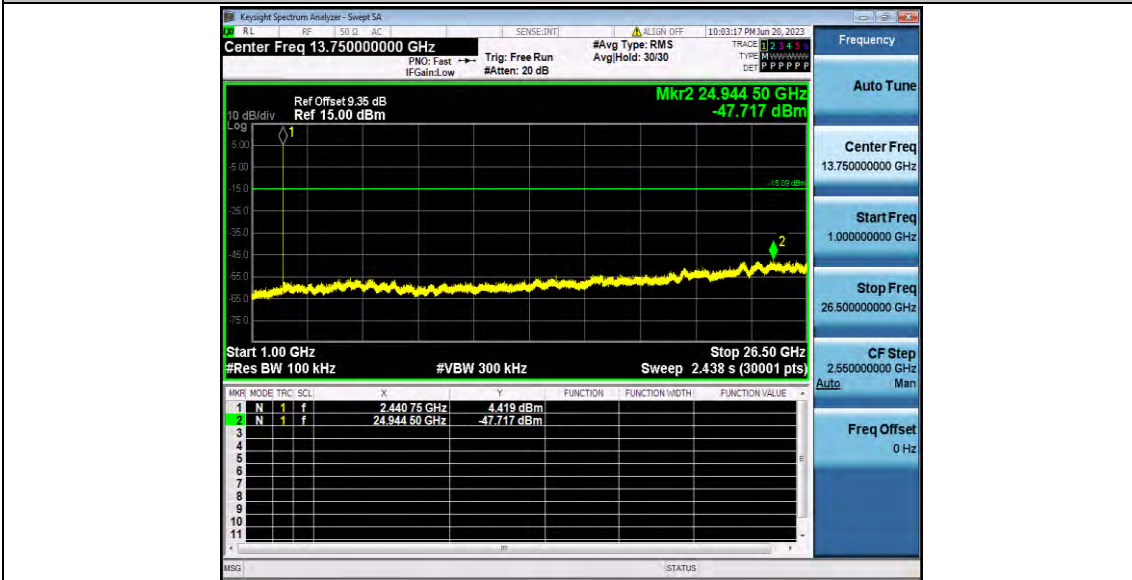
3DH1_Ant1_2402_1000~26500



3DH1_Ant1_2441_0~Reference



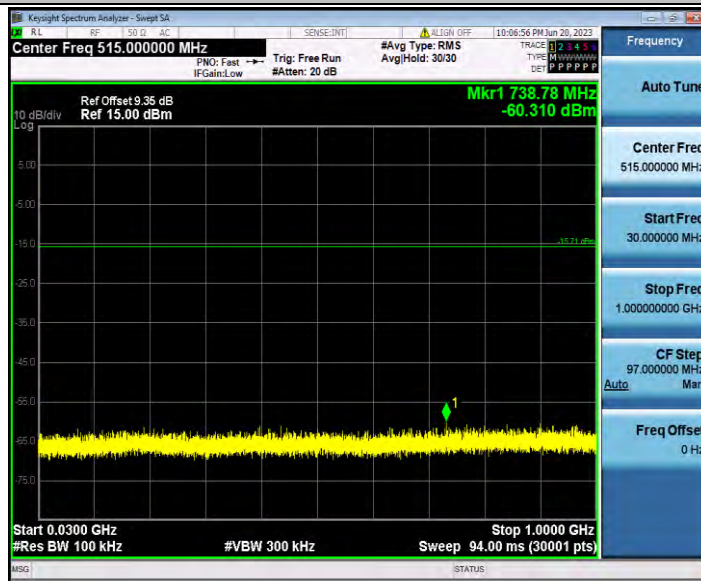
3DH1_Ant1_2441_30~100



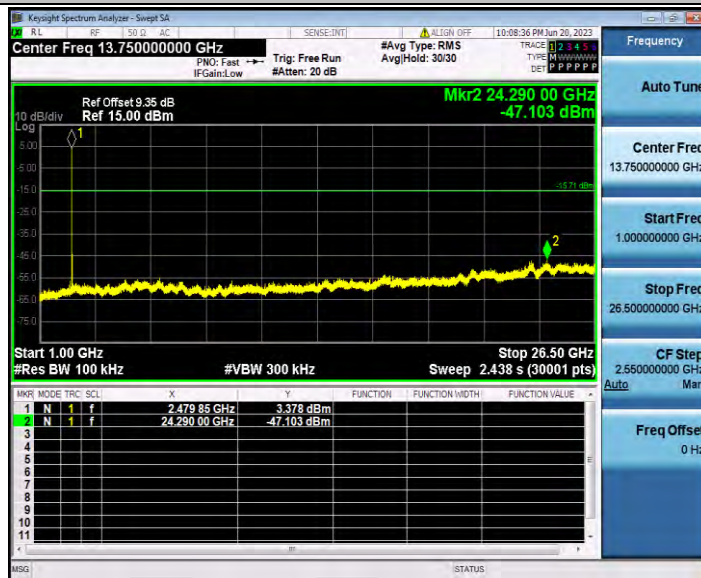
3DH1_Ant1_2441_1000~26500



3DH1_Ant1_2480_0~Reference



3DH1_Ant1_2480_30~1000



3DH1_Ant1_2480_1000~26500