

Case No. : <u>GTS20230321014-1-1</u>
Ambient Condition: <u>23</u> °C, <u>49</u> %RH, Atmos100.1Kpa,
Test Date: <u>2023.4.24</u> Test Engineer: <u>Jenny zeng</u>

Appendix A.1: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.870	2401.553	2402.423	---	---
		2441	0.861	2440.550	2441.411	---	---
		2480	0.858	2479.571	2480.429	---	---
2DH1	Ant1	2402	1.449	2401.262	2402.711	---	---
		2441	1.416	2440.283	2441.699	---	---
		2480	1.413	2479.292	2480.705	---	---
3DH1	Ant1	2402	1.443	2401.274	2402.717	---	---
		2441	1.473	2440.262	2441.735	---	---
		2480	1.413	2479.268	2480.681	---	---

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



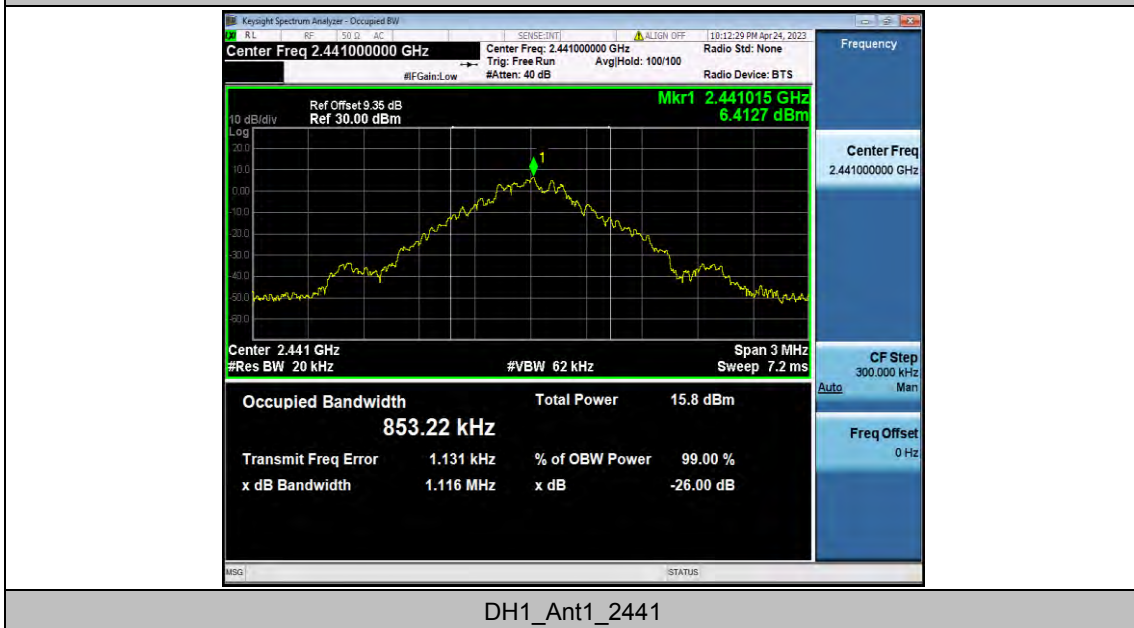
3DH1_Ant1_2480

Appendix A.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.83346	2401.576	2402.410	---	---
		2441	0.85322	2440.575	2441.428	---	---
		2480	0.84761	2479.578	2480.426	---	---
2DH1	Ant1	2402	1.3399	2401.329	2402.669	---	---
		2441	1.3396	2440.328	2441.667	---	---
		2480	1.3437	2479.322	2480.666	---	---
3DH1	Ant1	2402	1.3374	2401.332	2402.670	---	---
		2441	1.3329	2440.329	2441.662	---	---
		2480	1.3334	2479.324	2480.657	---	---

Test Graphs





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	8.71	≤ 20.97	PASS
		2441	9.83	≤ 20.97	PASS
		2480	10.37	≤ 20.97	PASS
2DH1	Ant1	2402	6.9	≤ 20.97	PASS
		2441	8.01	≤ 20.97	PASS
		2480	8.04	≤ 20.97	PASS
3DH1	Ant1	2402	6.99	≤ 20.97	PASS
		2441	8.13	≤ 20.97	PASS
		2480	8.21	≤ 20.97	PASS

Appendix A.4: Carrier frequency separation

Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	0.852	≥ 0.580	PASS
		Hop_2441	0.996	≥ 0.580	PASS
		Hop_2480	0.996	≥ 0.580	PASS
2DH1	Ant1	Hop_2402	1.16	≥ 0.966	PASS
		Hop_2441	1.158	≥ 0.966	PASS
		Hop_2480	1.164	≥ 0.966	PASS
3DH1	Ant1	Hop_2402	1.008	≥ 0.982	PASS
		Hop_2441	1.006	≥ 0.982	PASS
		Hop_2480	1.012	≥ 0.982	PASS

Test Graphs



DH1_Ant1_Hop_2402



DH1_Ant1_Hop_2441



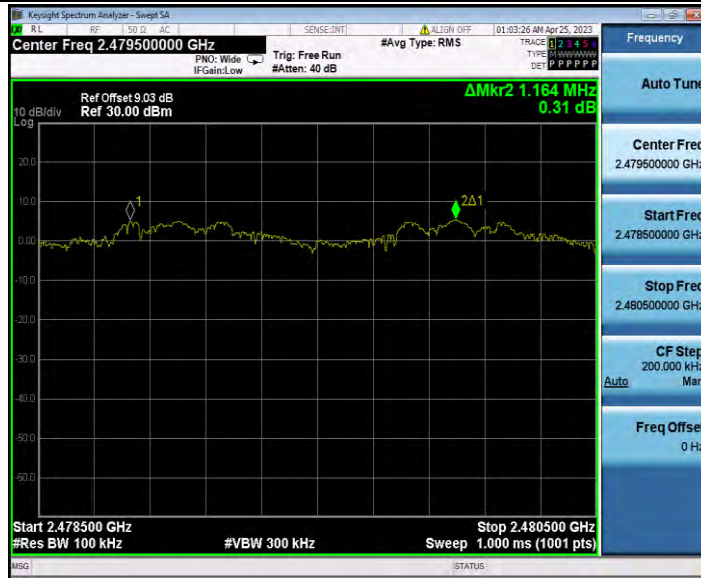
DH1_Ant1_Hop_2480



2DH1_Ant1_Hop_2402



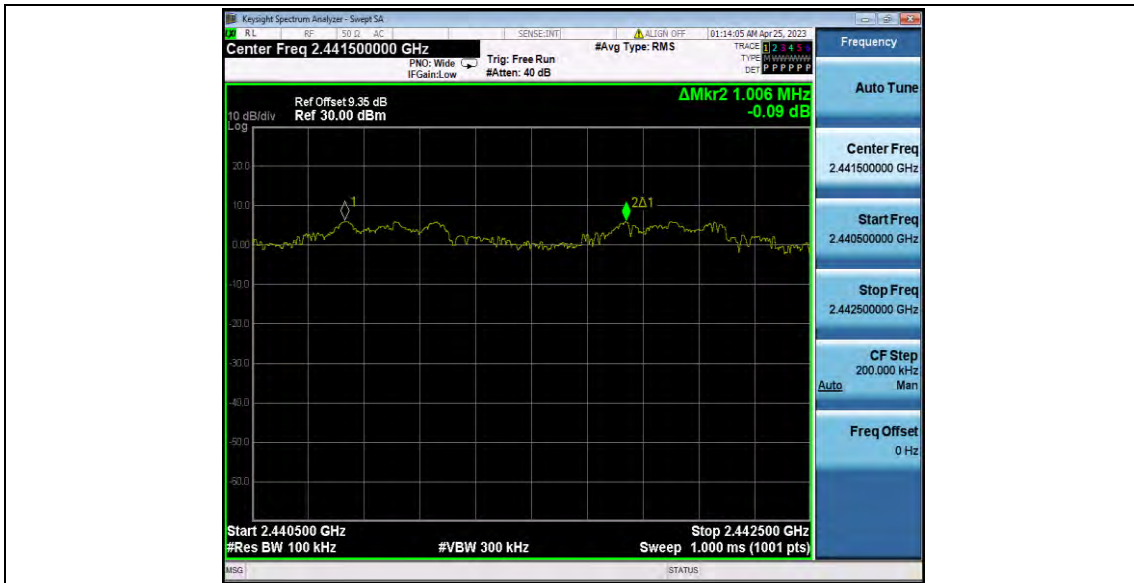
2DH1_Ant1_Hop_2441



2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402



3DH1_Ant1_Hop_2441



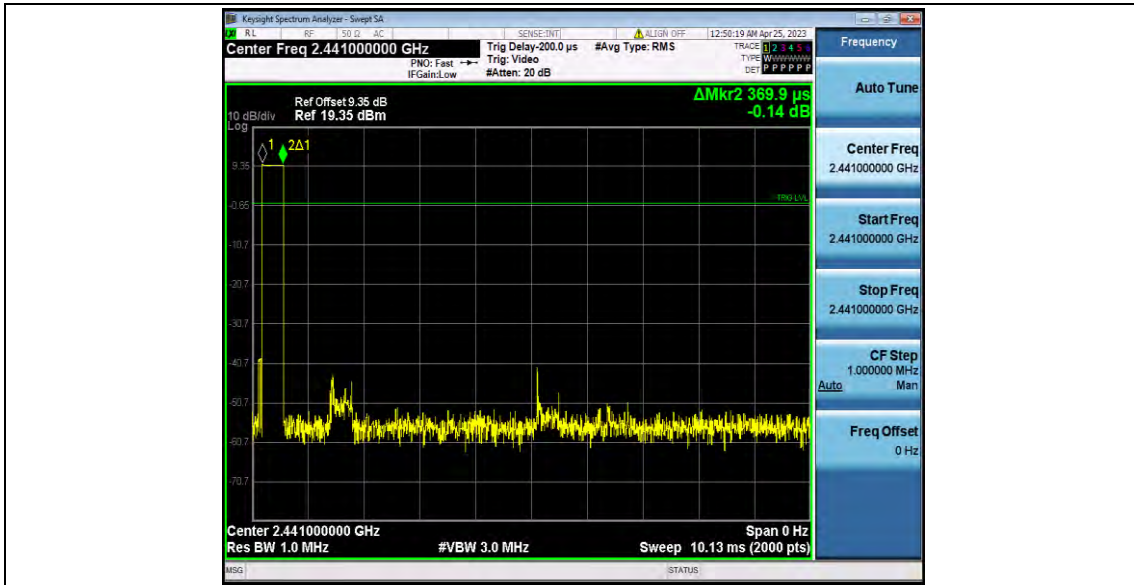
3DH1_Ant1_Hop_2480

Appendix A.5: Time of occupancy

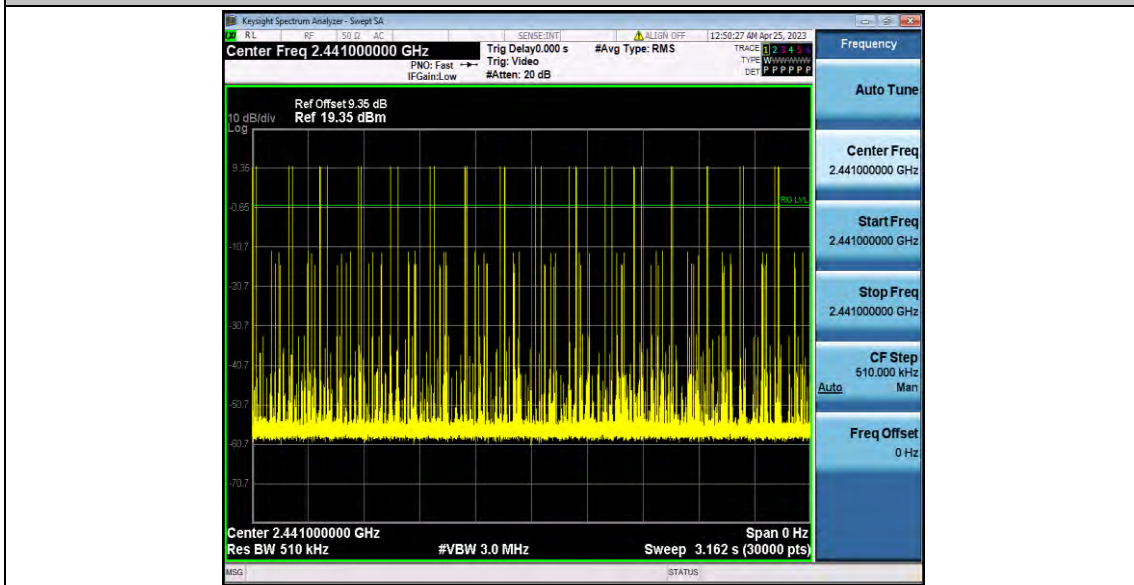
Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.37	320	0.118	≤0.4	PASS
DH3	Ant1	Hop	1.63	160	0.26	≤0.4	PASS
DH5	Ant1	Hop	2.88	100	0.288	≤0.4	PASS
2DH1	Ant1	Hop	0.38	330	0.125	≤0.4	PASS
2DH3	Ant1	Hop	1.64	180	0.295	≤0.4	PASS
2DH5	Ant1	Hop	2.88	110	0.317	≤0.4	PASS
3DH1	Ant1	Hop	0.36	320	0.116	≤0.4	PASS
3DH3	Ant1	Hop	1.63	190	0.309	≤0.4	PASS
3DH5	Ant1	Hop	2.88	130	0.375	≤0.4	PASS

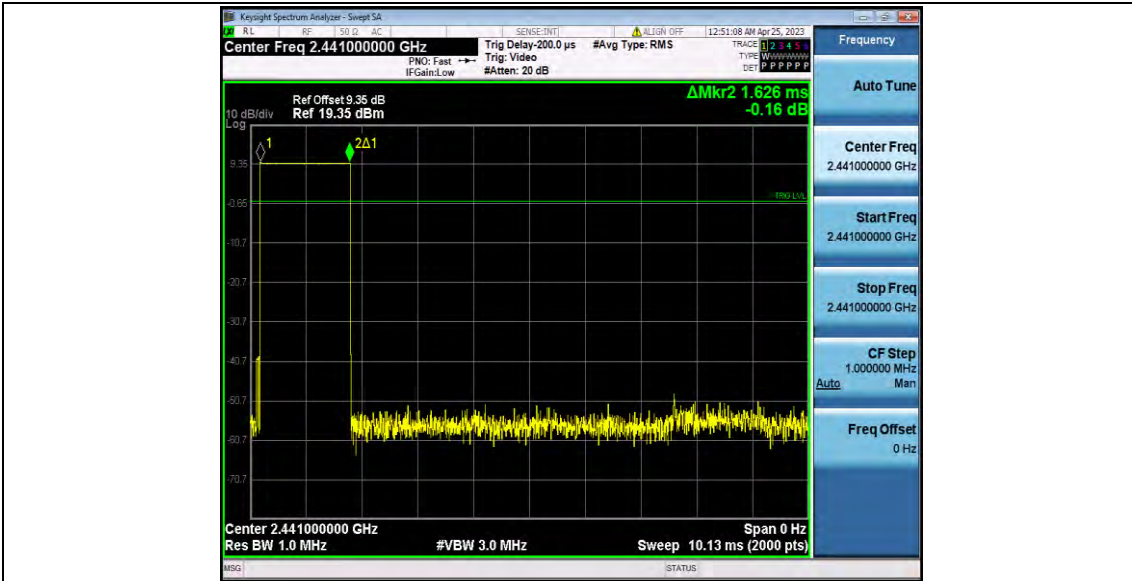
Test Graphs



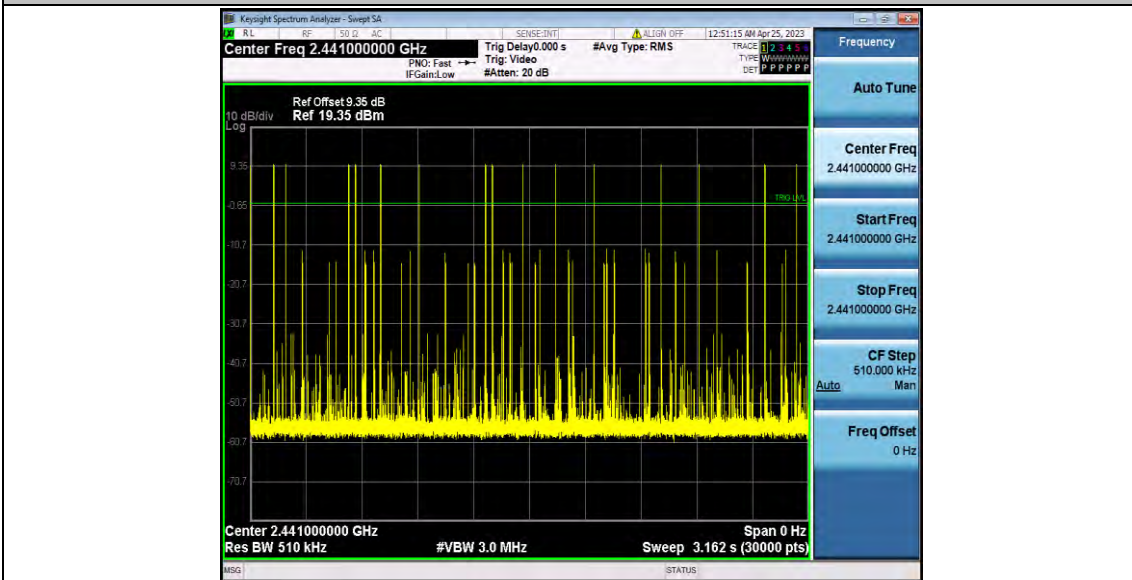
DH1_Ant1_Hop



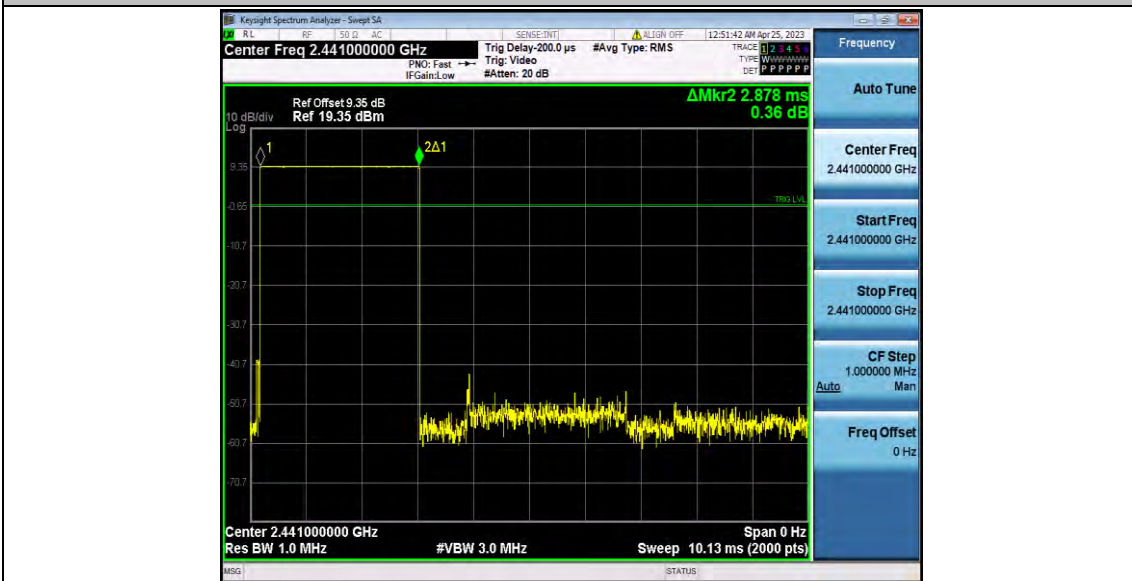
DH1_Ant1_Hop



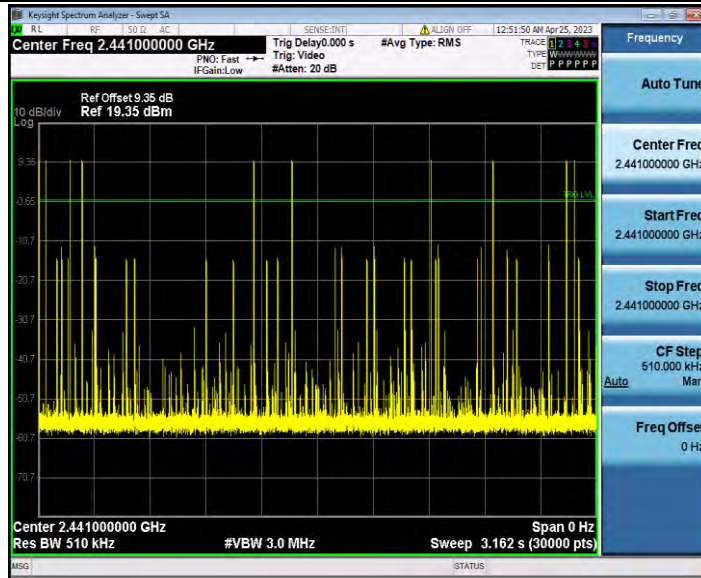
DH3_Ant1_Hop



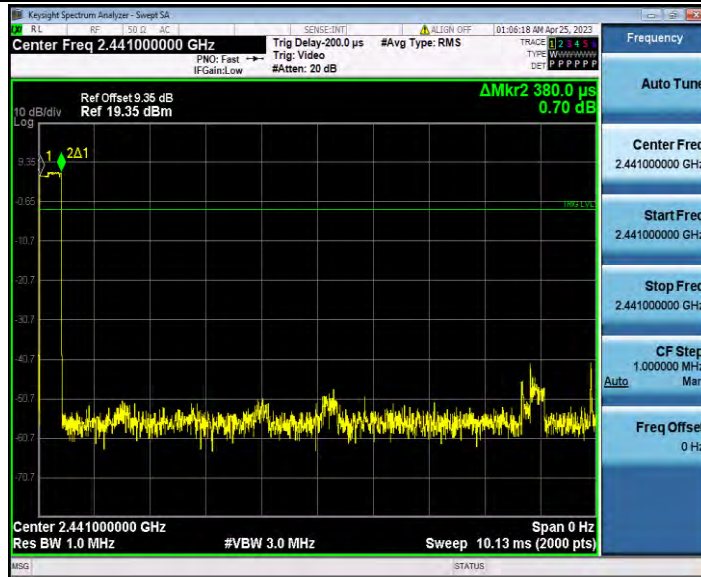
DH3_Ant1_Hop



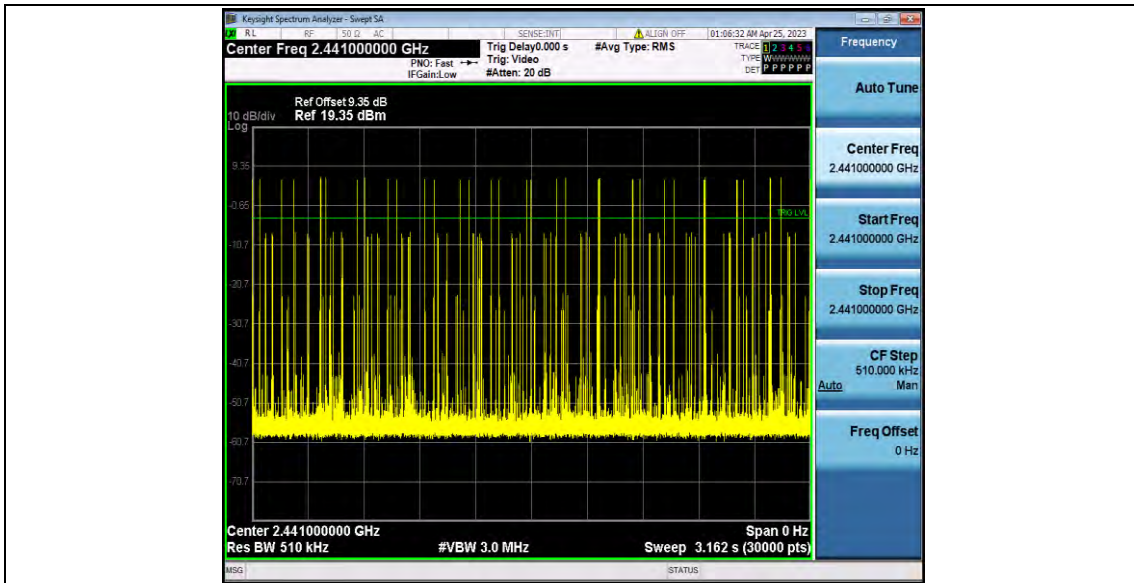
DH5_Ant1_Hop



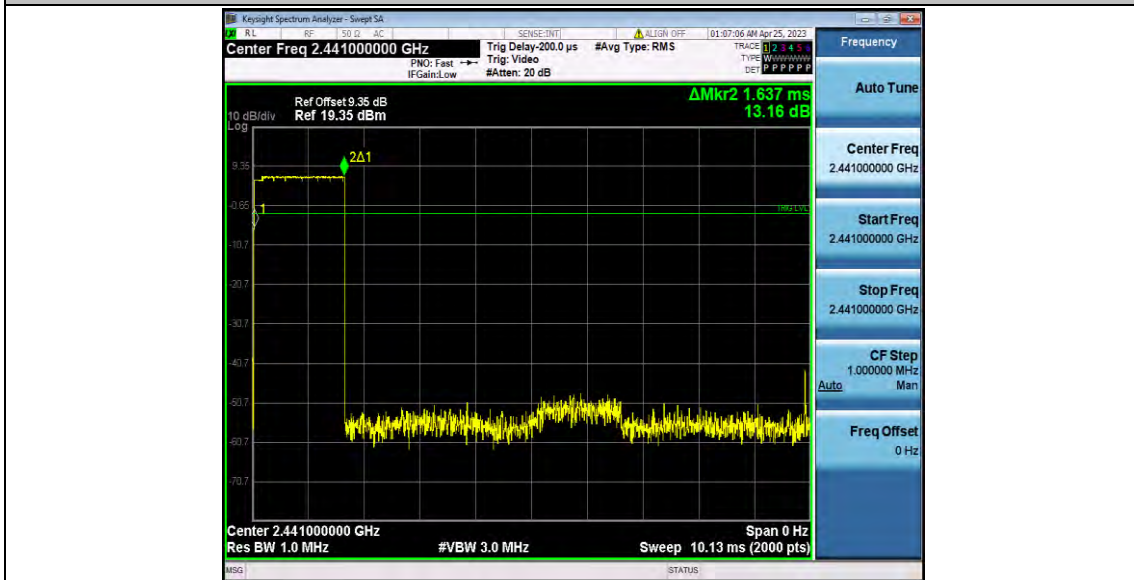
DH5_Ant1_Hop



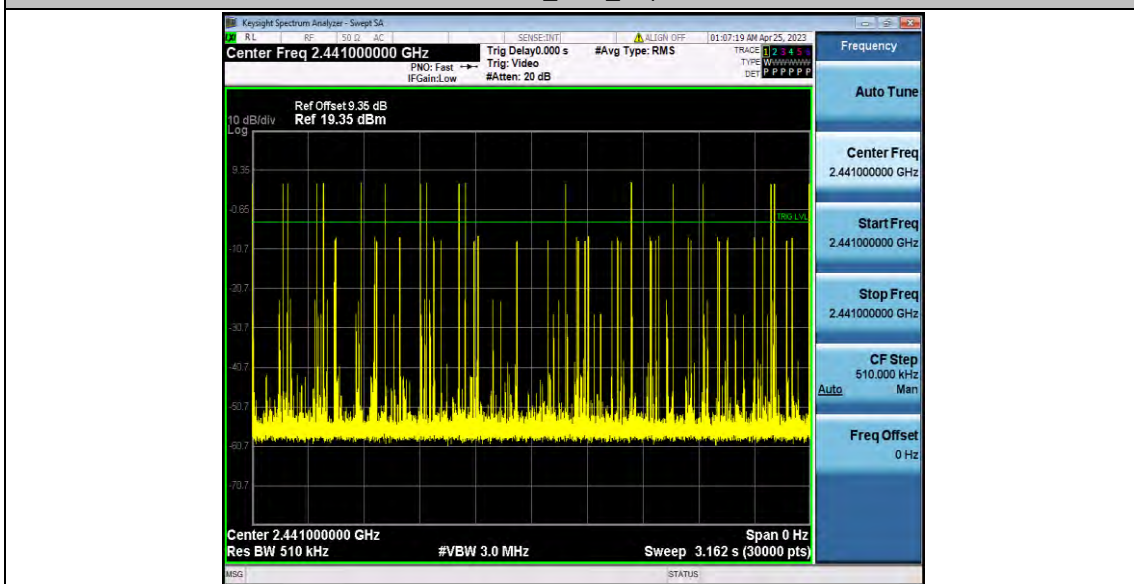
2DH1_Ant1_Hop



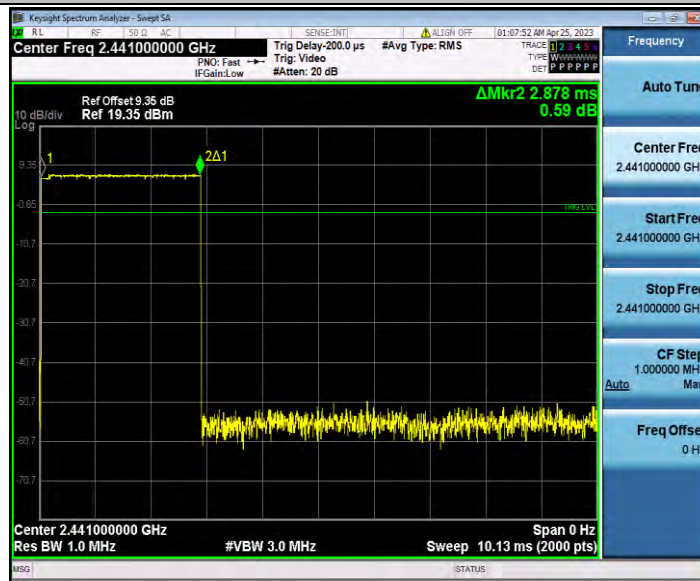
2DH1_Ant1_Hop



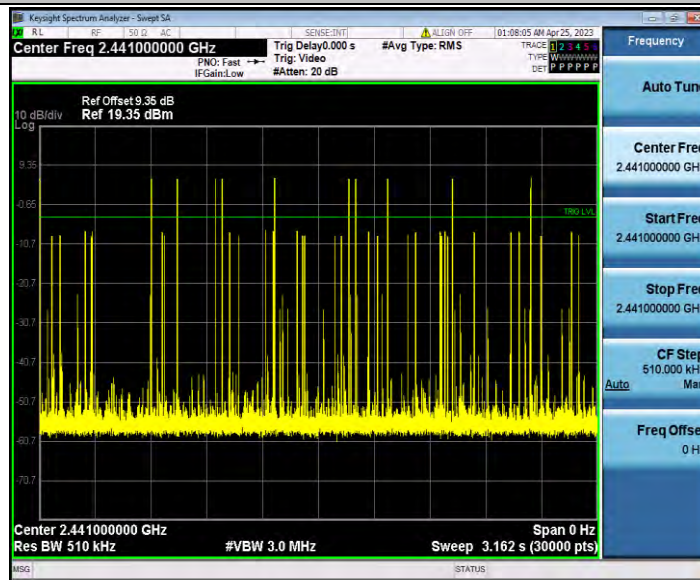
2DH3_Ant1_Hop



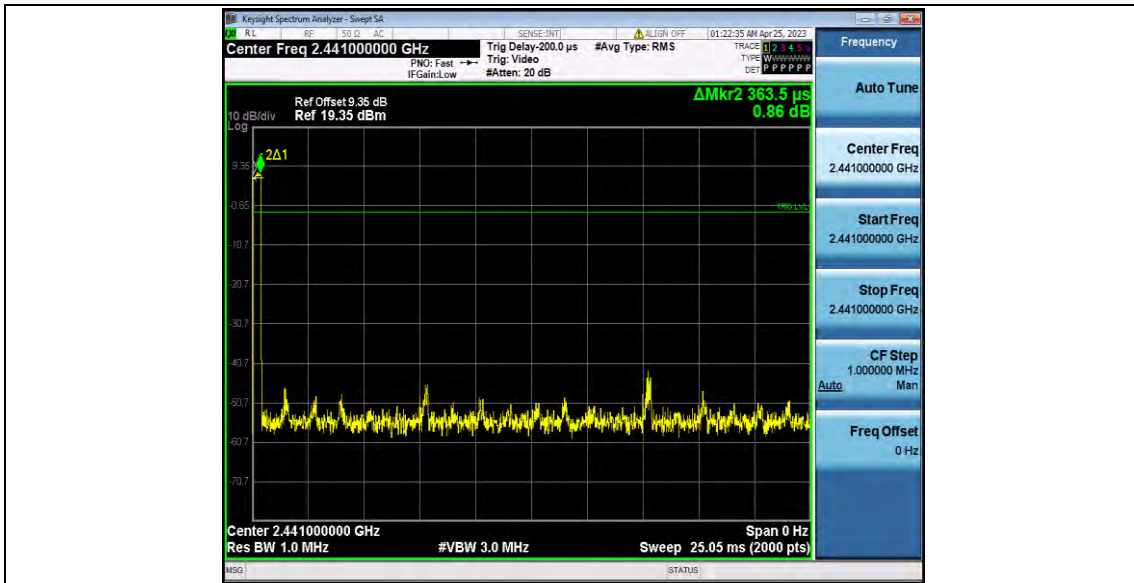
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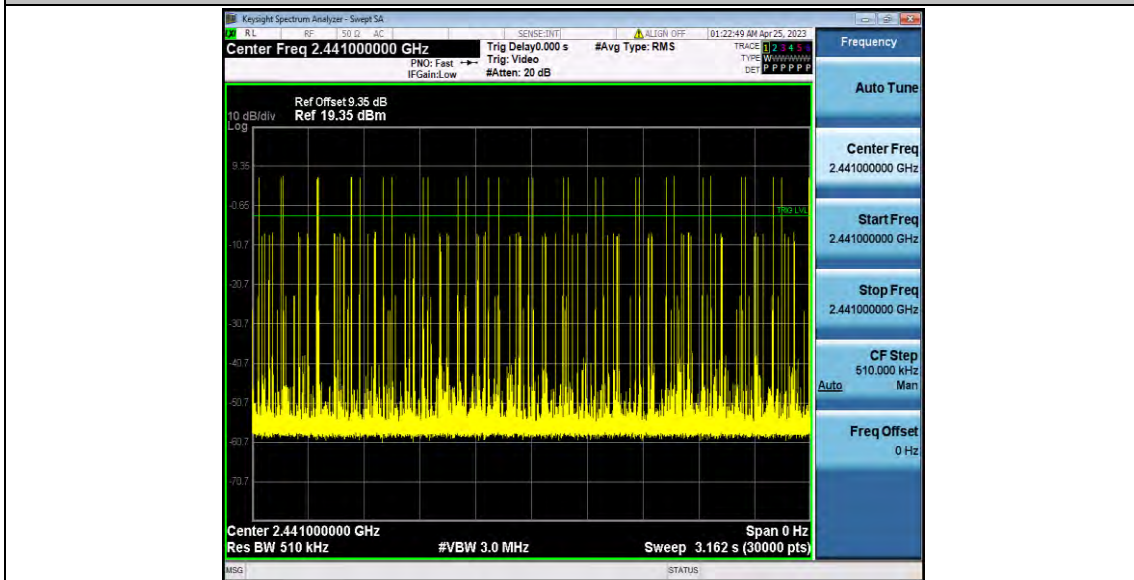
2DH5_Ant1_Hop



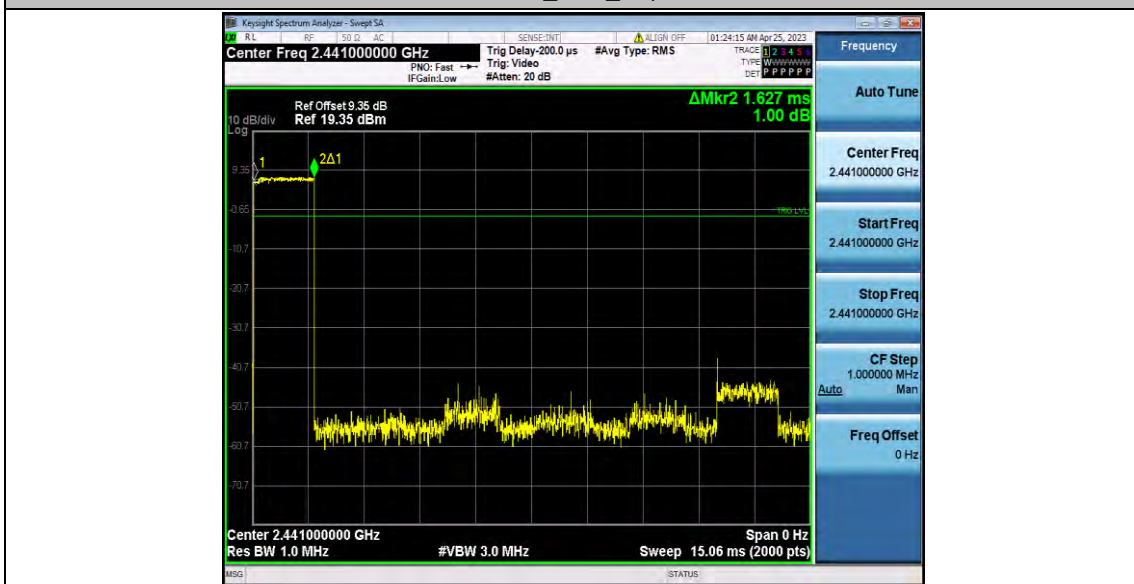
2DH5_Ant1_Hop



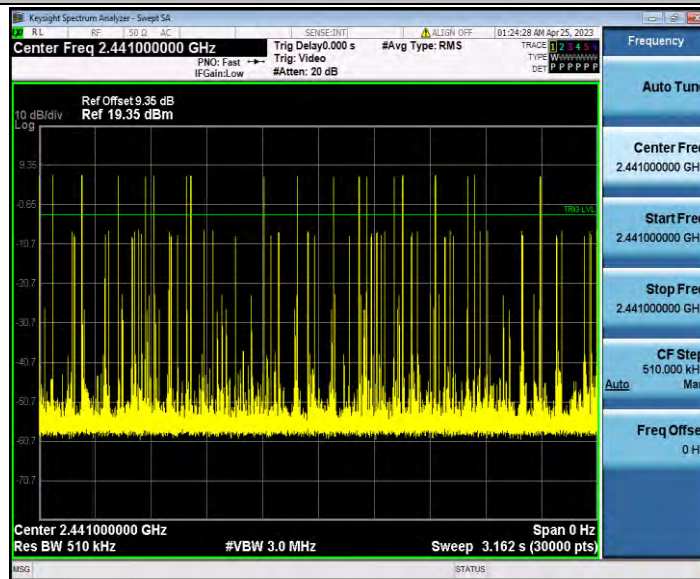
3DH1_Ant1_Hop



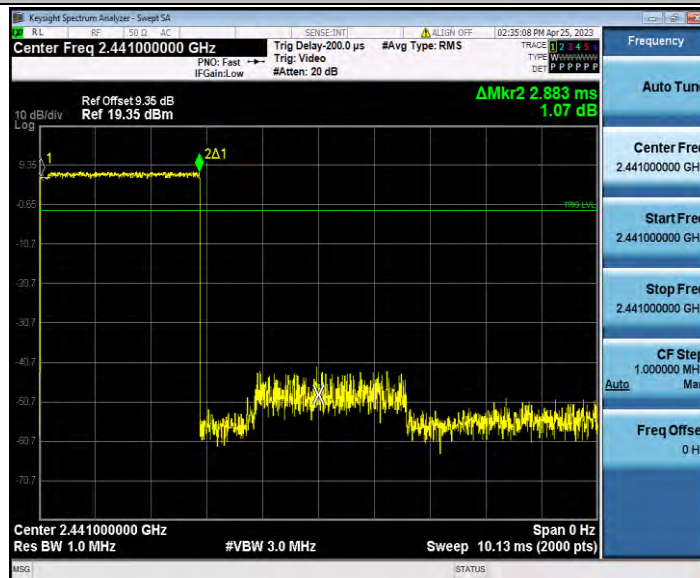
3DH1_Ant1_Hop



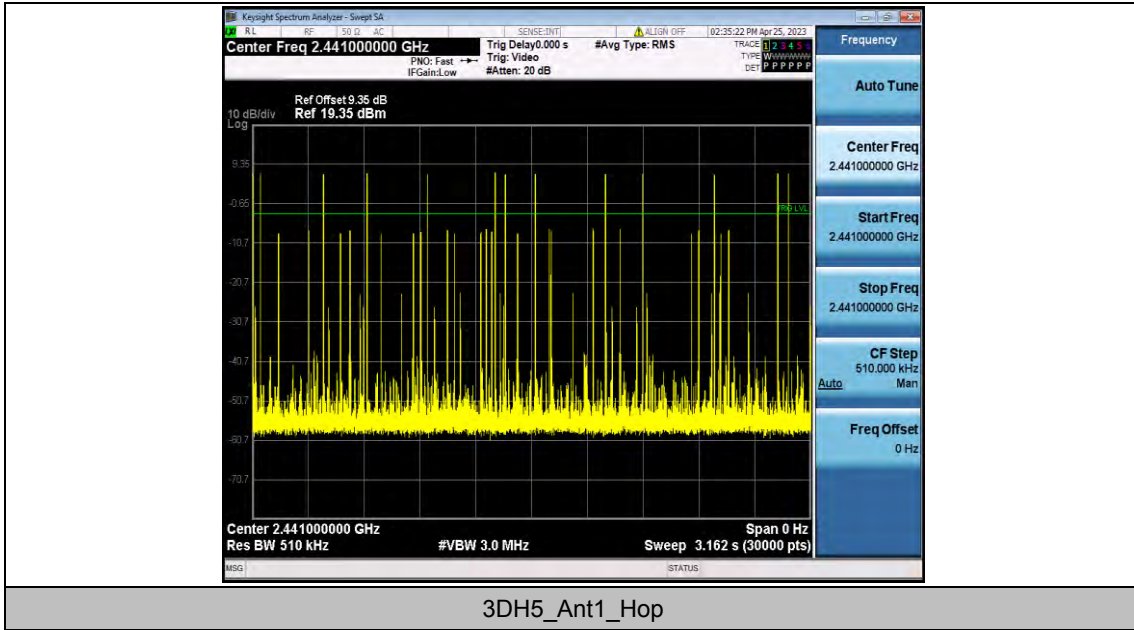
3DH3_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop

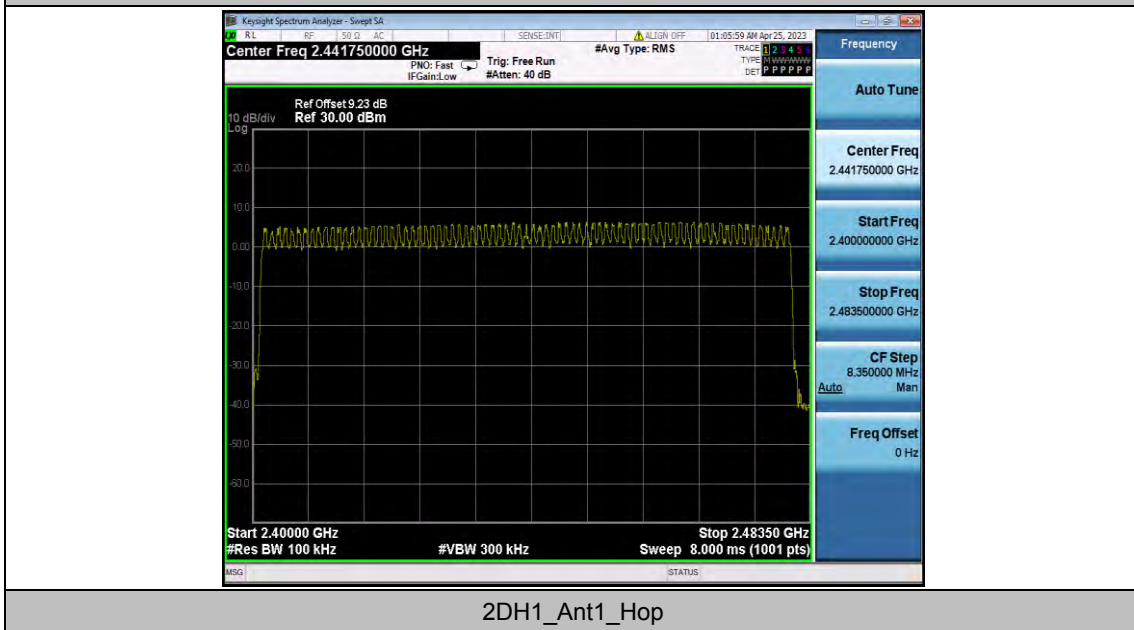
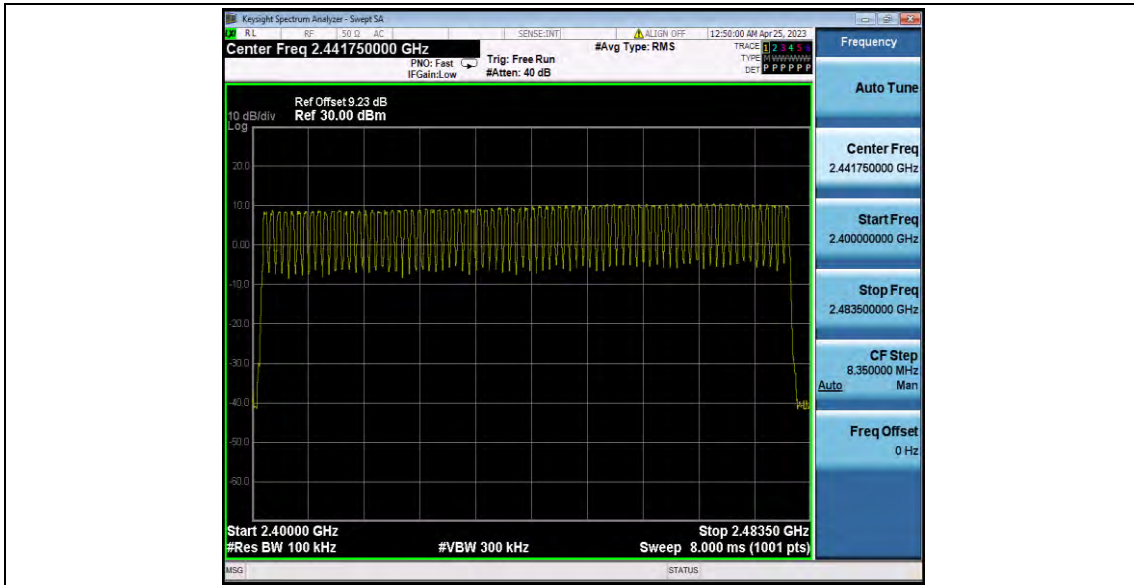


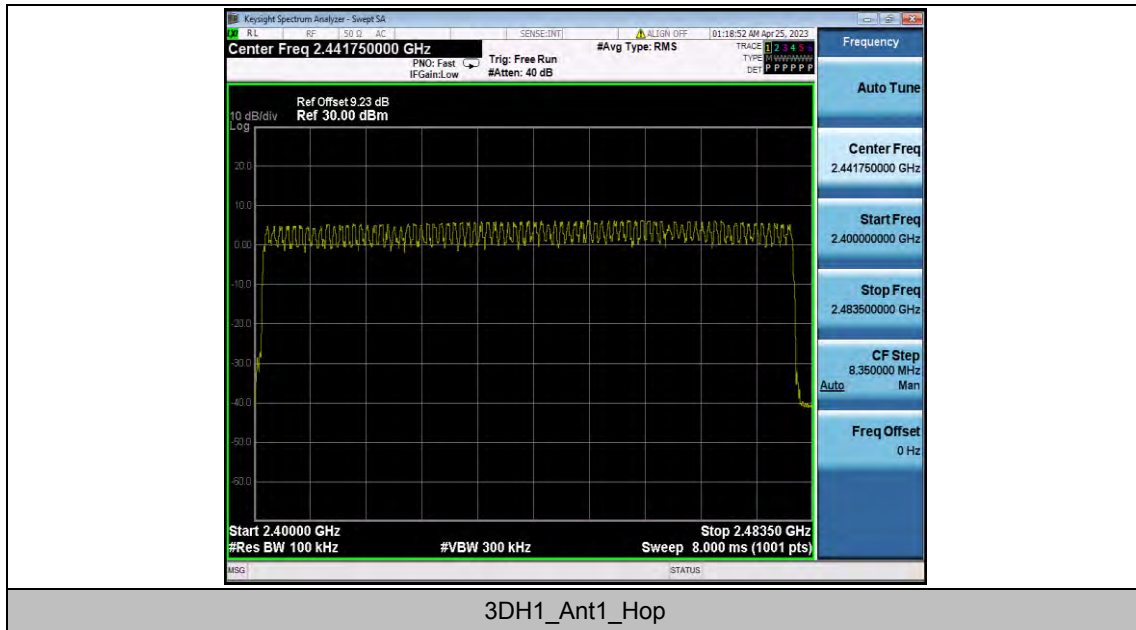
Appendix A.6: Number of hopping channels

Test Result

TestMode	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



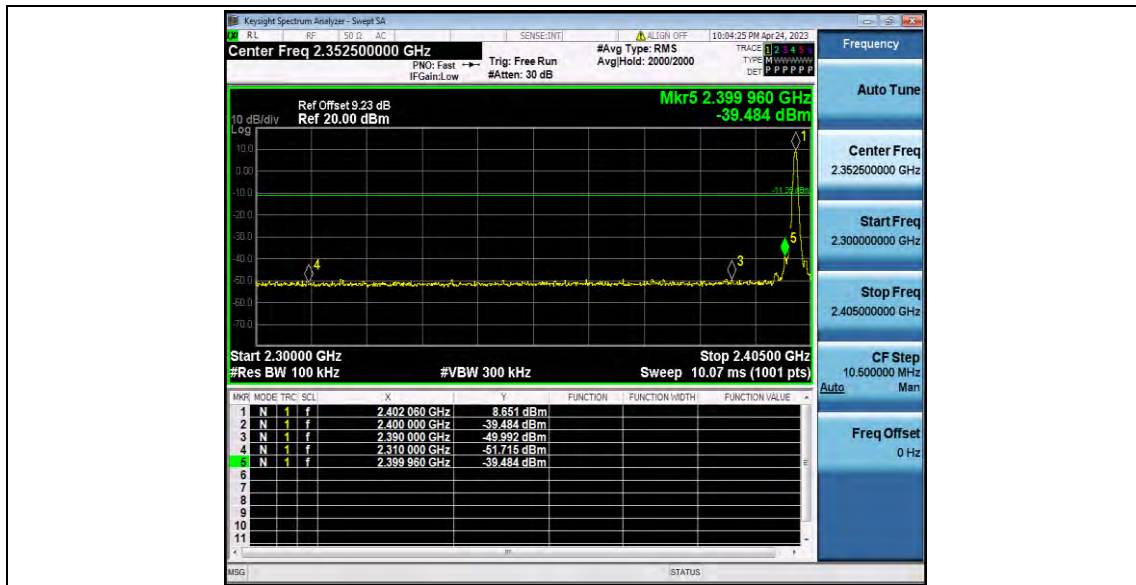


Appendix A.7: Band edge measurements

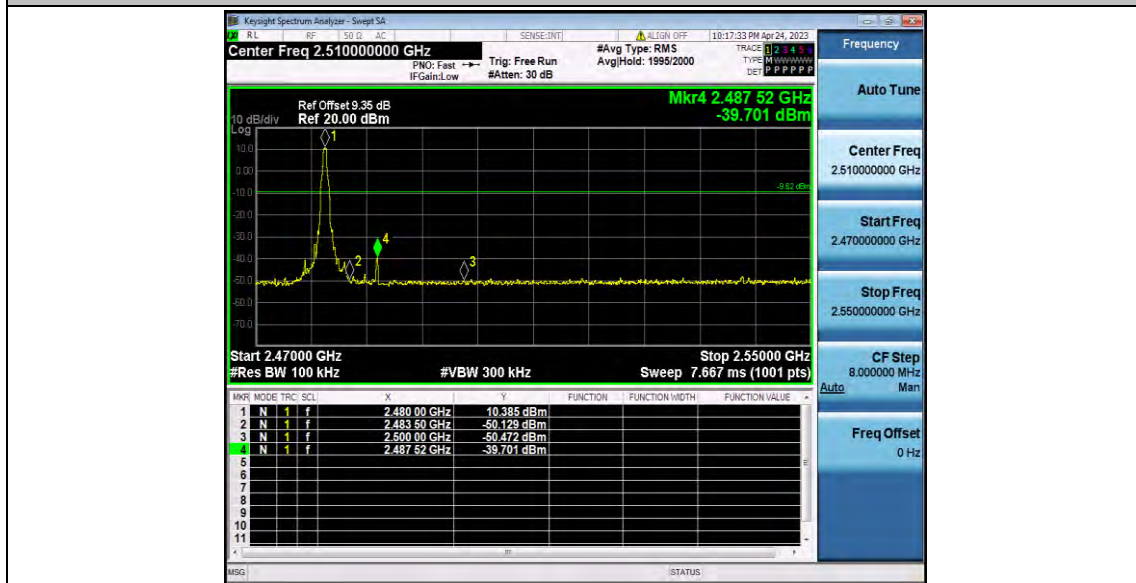
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	8.65	-39.48	≤-11.35	PASS
		High	2480	10.39	-39.7	≤-9.62	PASS
		Low	Hop_2402	8.04	-49.26	≤-11.96	PASS
		High	Hop_2480	10.17	-48.51	≤-9.83	PASS
2DH1	Ant1	Low	2402	4.86	-38.98	≤-15.14	PASS
		High	2480	5.86	-40.33	≤-14.14	PASS
		Low	Hop_2402	4.77	-49.44	≤-15.24	PASS
		High	Hop_2480	5.77	-48.98	≤-14.23	PASS
3DH1	Ant1	Low	2402	4.84	-38.31	≤-15.16	PASS
		High	2480	6.04	-40.46	≤-13.96	PASS
		Low	Hop_2402	5.03	-49.23	≤-14.97	PASS
		High	Hop_2480	5.81	-47.37	≤-14.19	PASS

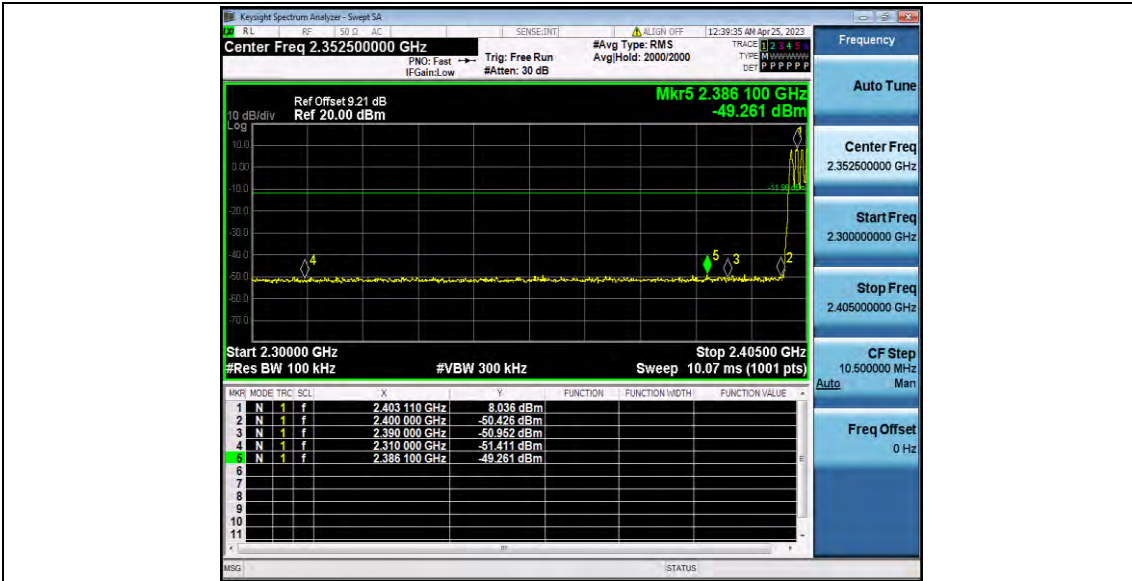
Test Graphs



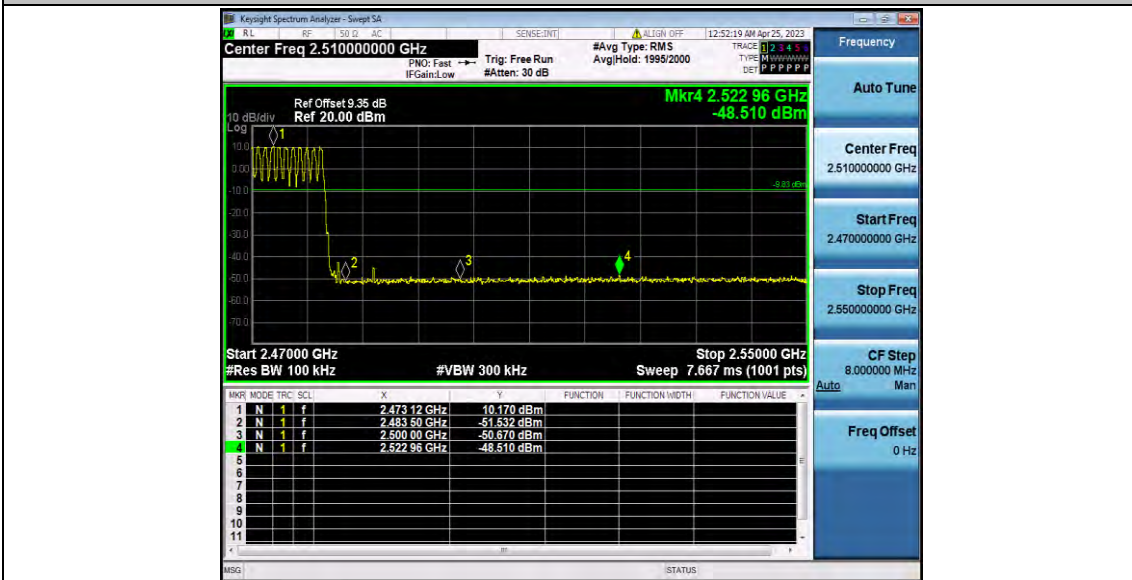
DH1_Ant1_Low_2402



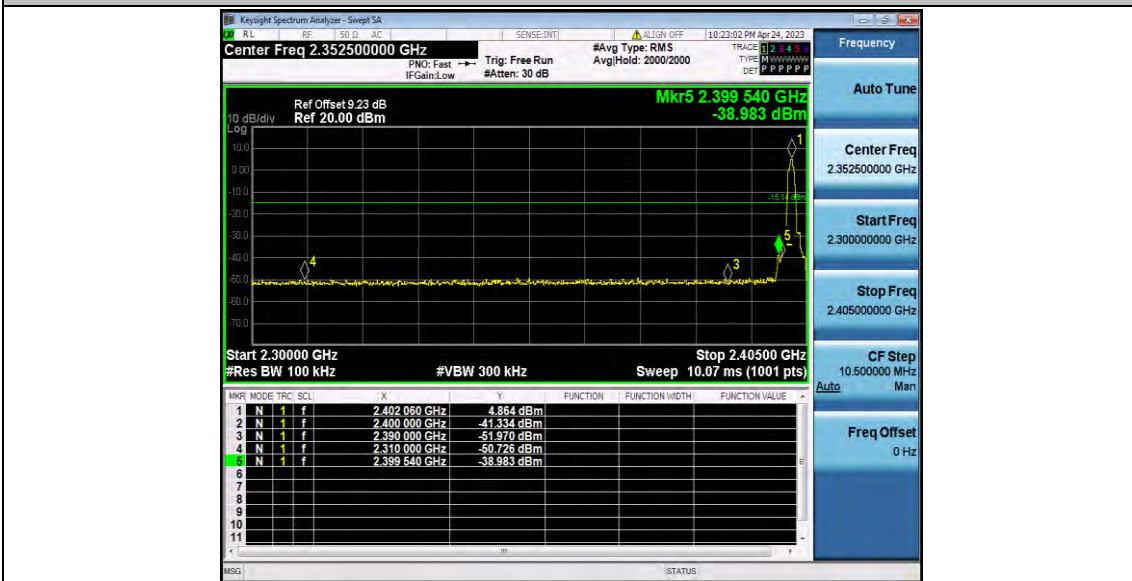
DH1_Ant1_High_2480



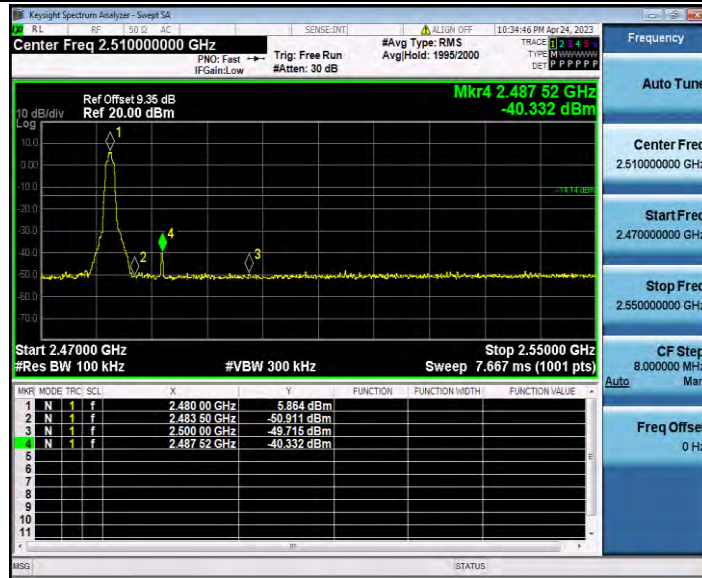
DH1_Ant1_Low_Hop_2402



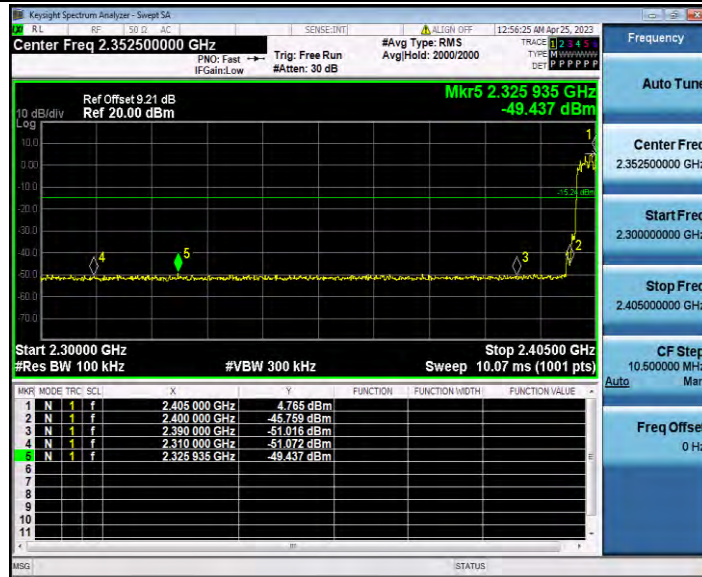
DH1_Ant1_High_Hop_2480



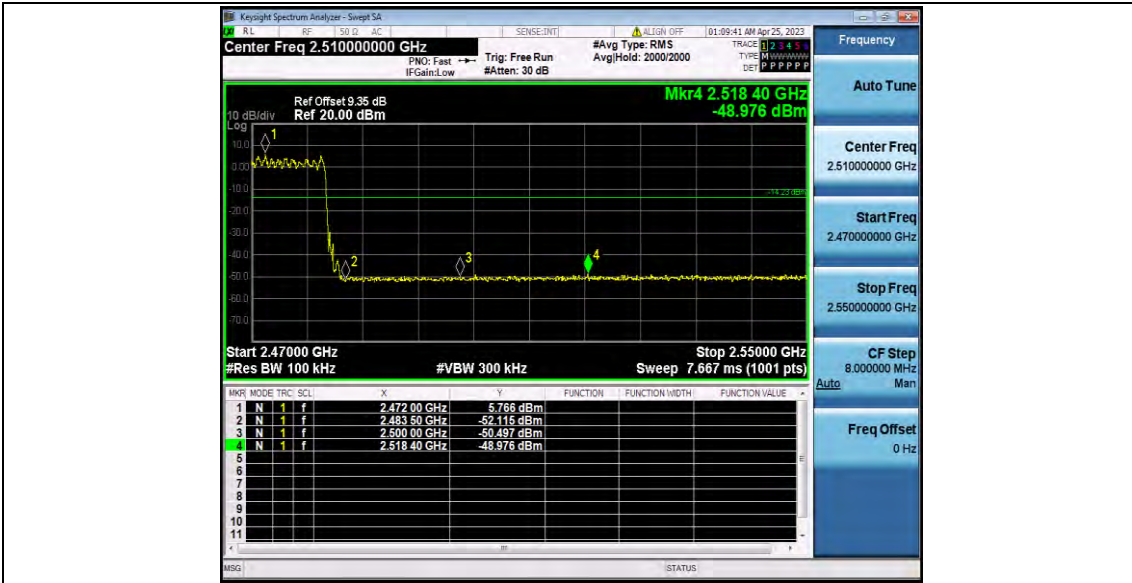
2DH1_Ant1_Low_2402



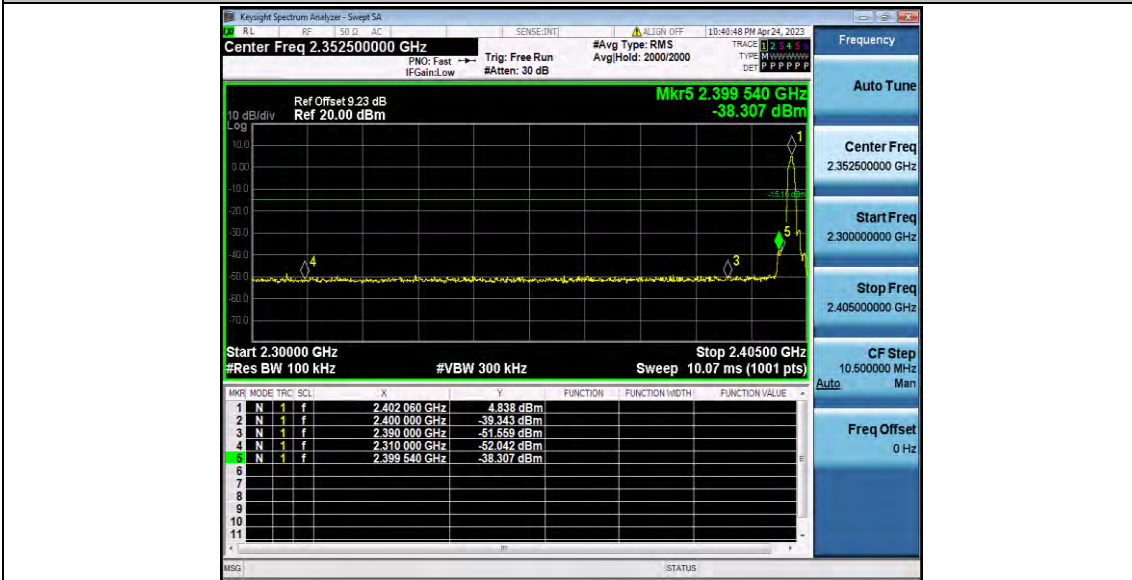
2DH1_Ant1_High_2480



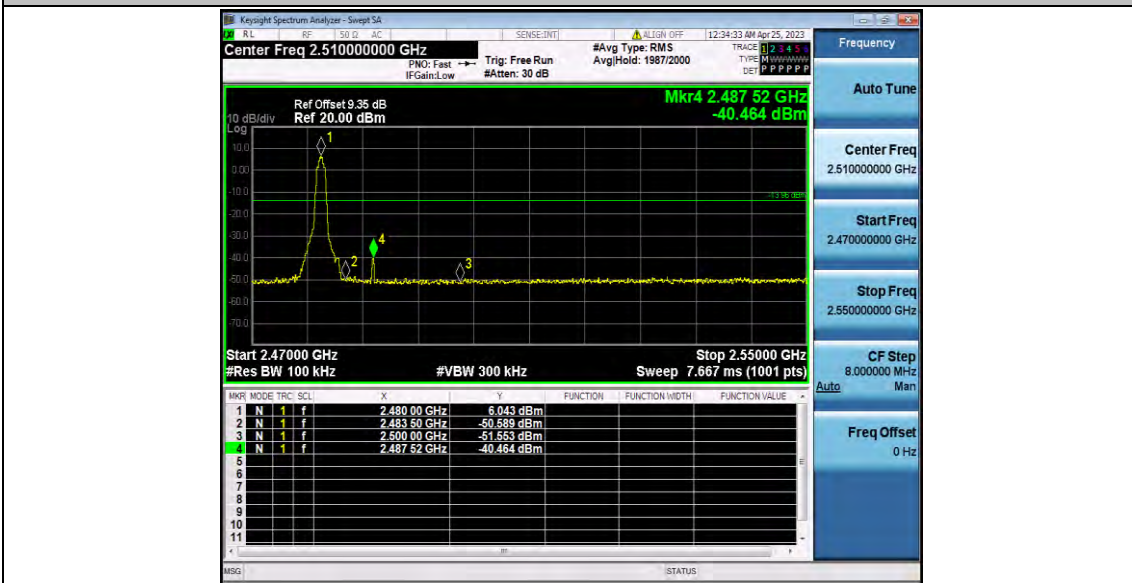
2DH1_Ant1_Low_Hop_2402



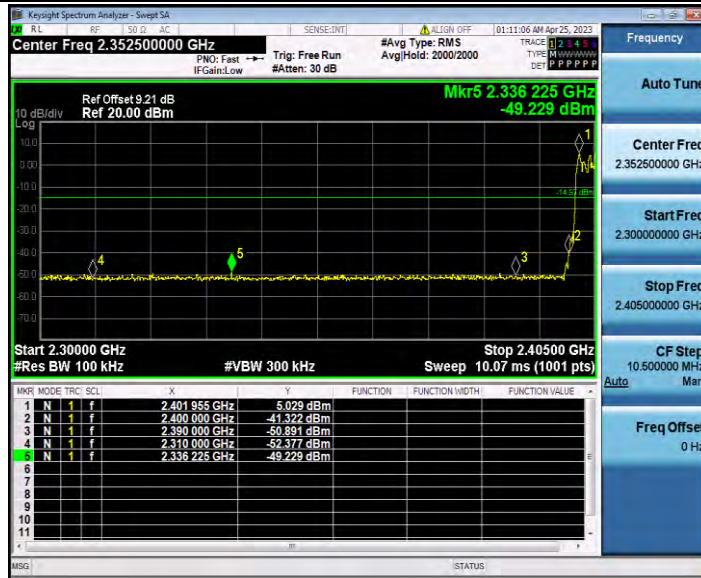
2DH1_Ant1_High_Hop_2480



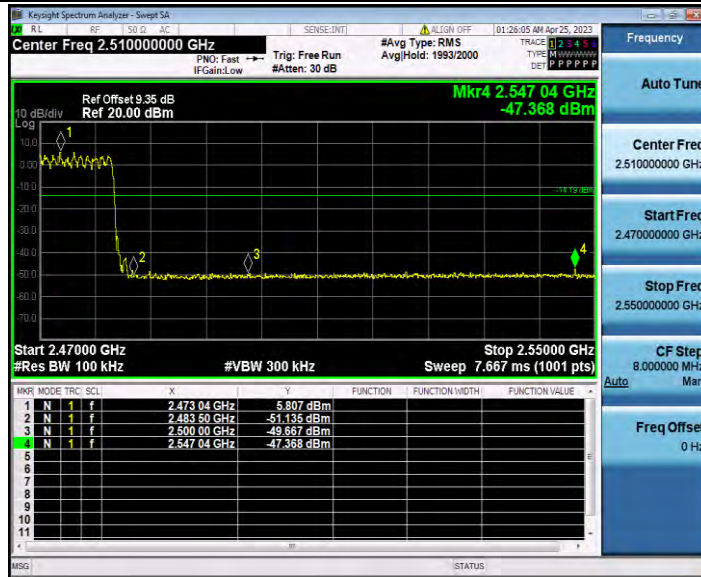
3DH1_Ant1_Low_2402



3DH1_Ant1_High_2480



3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

Appendix A.8: Conducted Spurious Emission

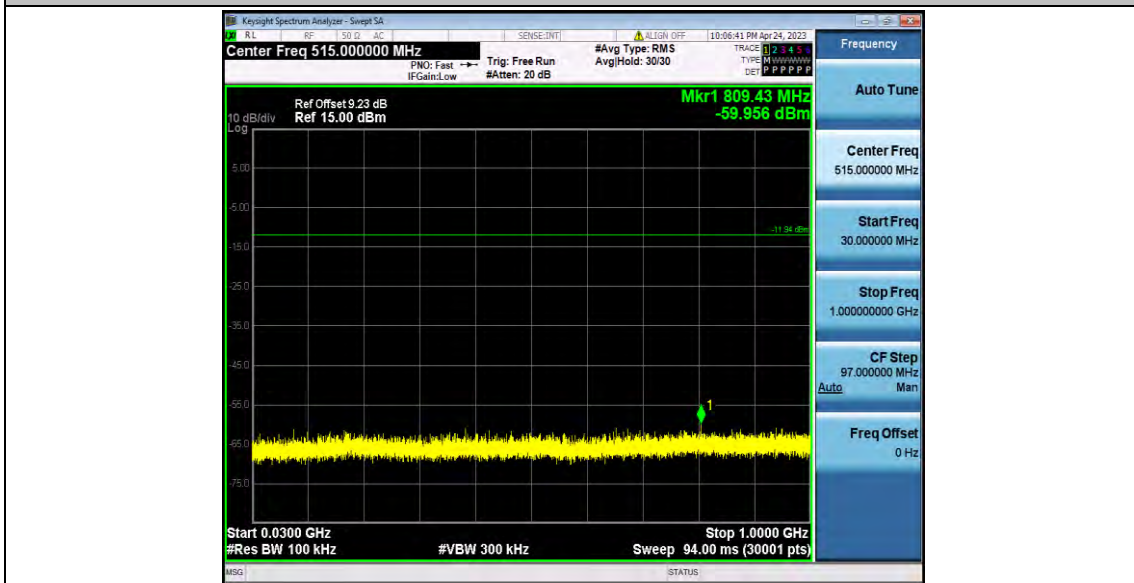
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	8.06	8.06	---	PASS
			30~1000	8.06	-59.96	≤-11.94	PASS
			1000~26500	8.06	-47.5	≤-11.94	PASS
		2441	Reference	9.44	9.44	---	PASS
			30~1000	9.44	-59.87	≤-10.56	PASS
			1000~26500	9.44	-47.35	≤-10.56	PASS
		2480	Reference	9.94	9.94	---	PASS
			30~1000	9.94	-47.23	≤-10.06	PASS
			1000~26500	9.94	-47.2	≤-10.06	PASS
2DH1	Ant1	2402	Reference	4.49	4.49	---	PASS
			30~1000	4.49	-59.86	≤-15.51	PASS
			1000~26500	4.49	-47.92	≤-15.51	PASS
		2441	Reference	5.64	5.64	---	PASS
			30~1000	5.64	-59.81	≤-14.36	PASS
			1000~26500	5.64	-47.87	≤-14.36	PASS
		2480	Reference	5.53	5.53	---	PASS
			30~1000	5.53	-60.09	≤-14.47	PASS
			1000~26500	5.53	-47.95	≤-14.47	PASS
3DH1	Ant1	2402	Reference	4.58	4.58	---	PASS
			30~1000	4.58	-60.67	≤-15.42	PASS
			1000~26500	4.58	-46.42	≤-15.42	PASS
		2441	Reference	5.59	5.59	---	PASS
			30~1000	5.59	-60.07	≤-14.41	PASS
			1000~26500	5.59	-47.99	≤-14.41	PASS
		2480	Reference	5.78	5.78	---	PASS
			30~1000	5.78	-60.18	≤-14.22	PASS
			1000~26500	5.78	-46.78	≤-14.22	PASS

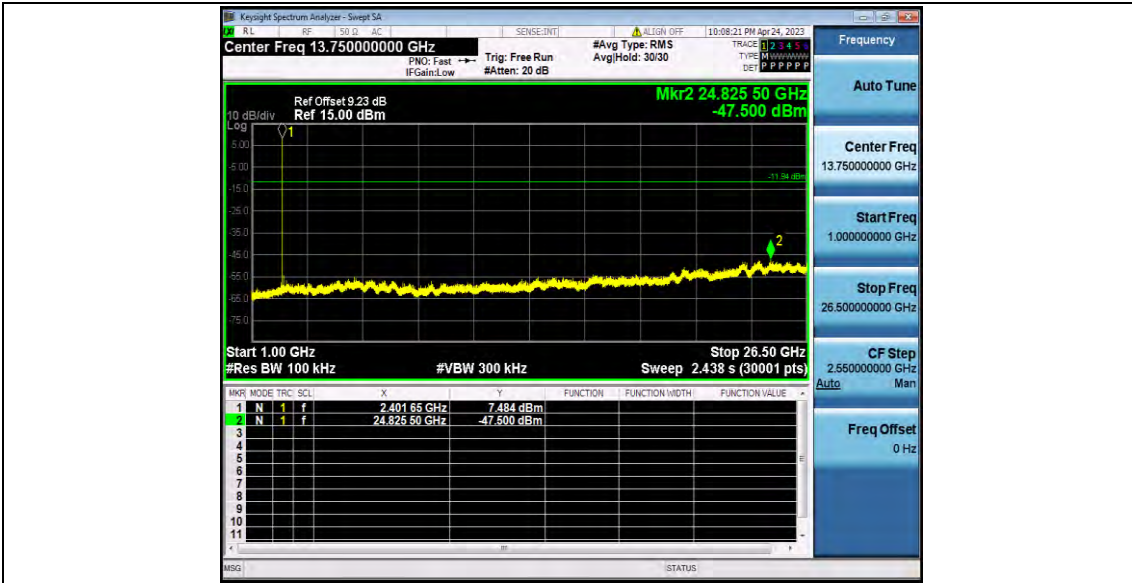
Test Graphs



DH1_Ant1_2402_0~Reference



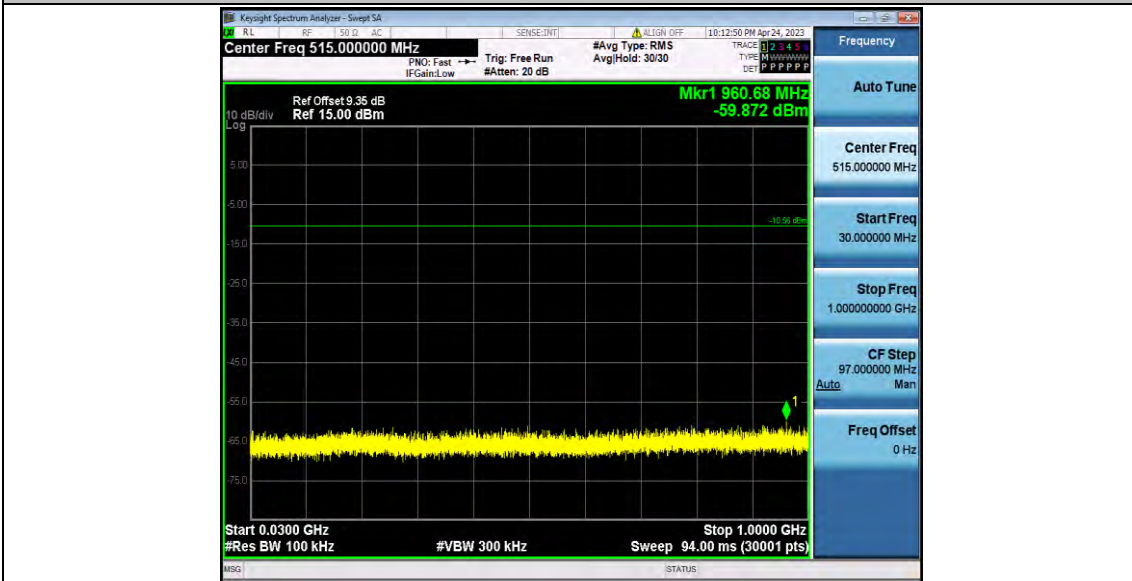
DH1_Ant1_2402_30~1000



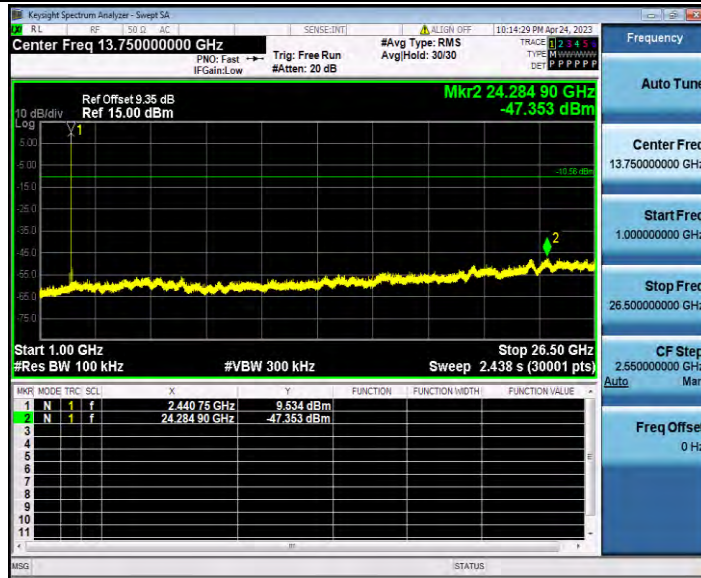
DH1_Ant1_2402_1000~26500



DH1_Ant1_2441_0~Reference



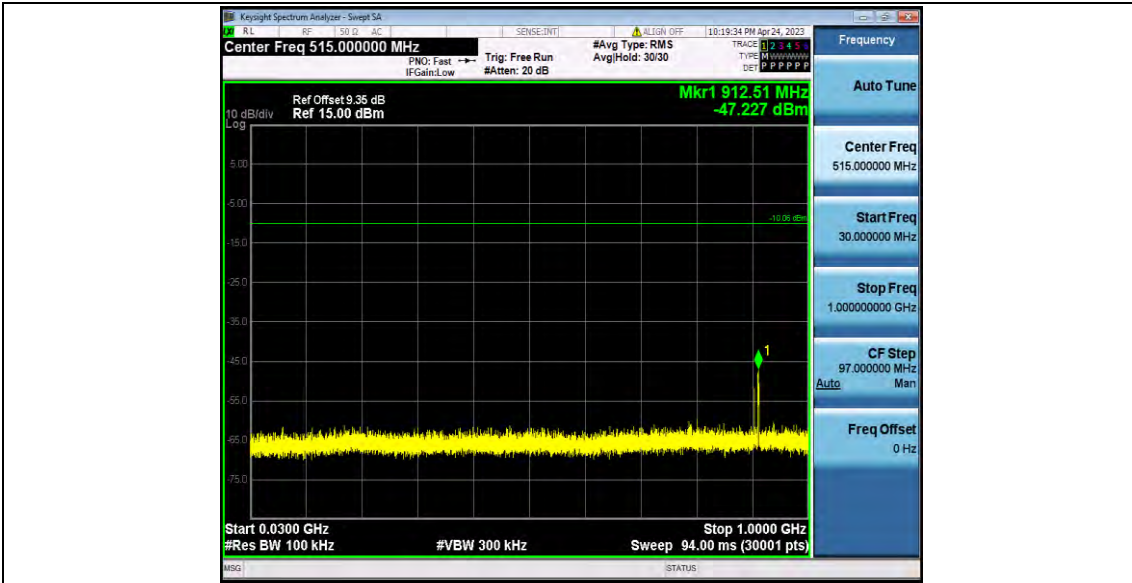
DH1_Ant1_2441_30~1000



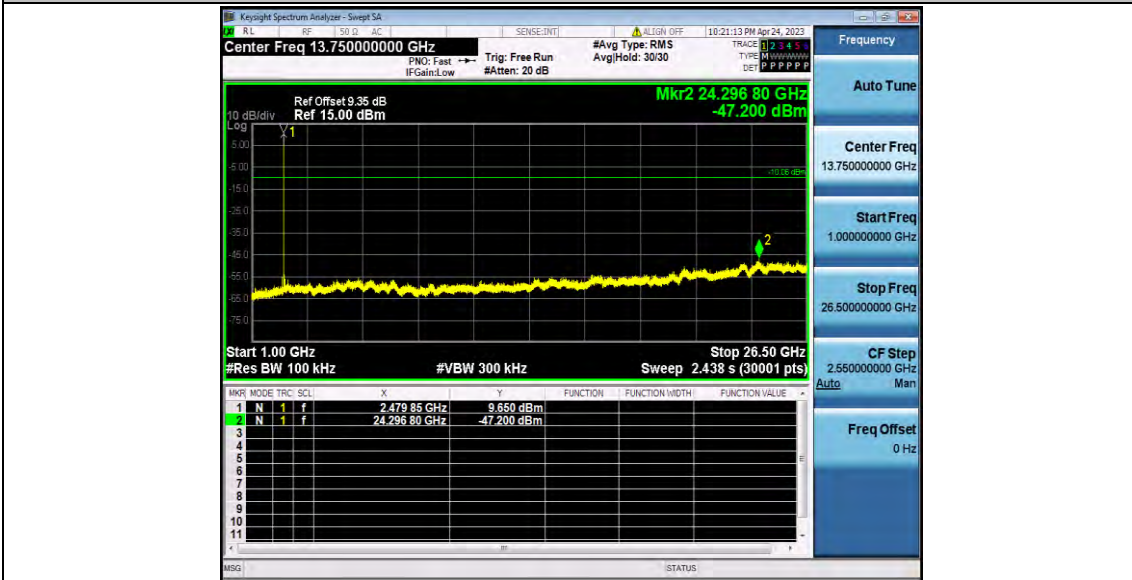
DH1_Ant1_2441_1000~26500



DH1_Ant1_2480_0~Reference



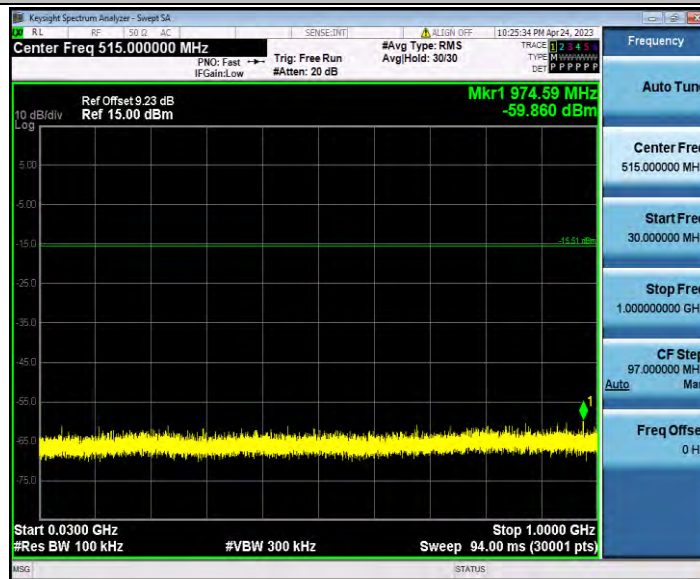
DH1_Ant1_2480_30~1000



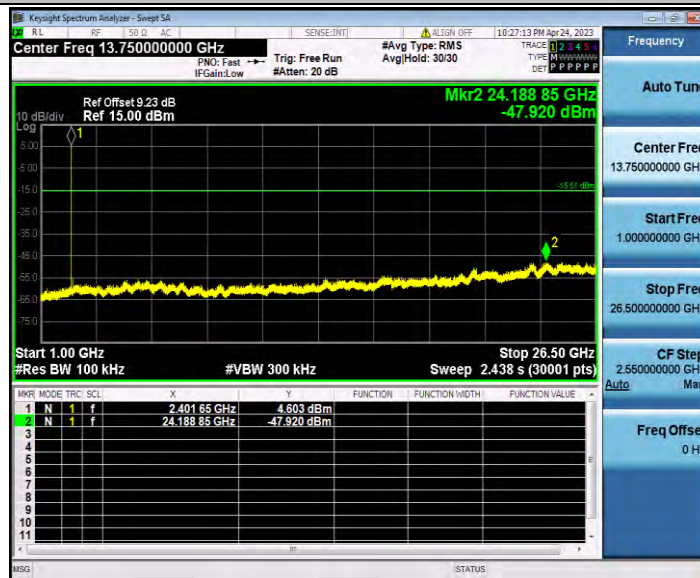
DH1_Ant1_2480_1000~26500



2DH1_Ant1_2402_0~Reference



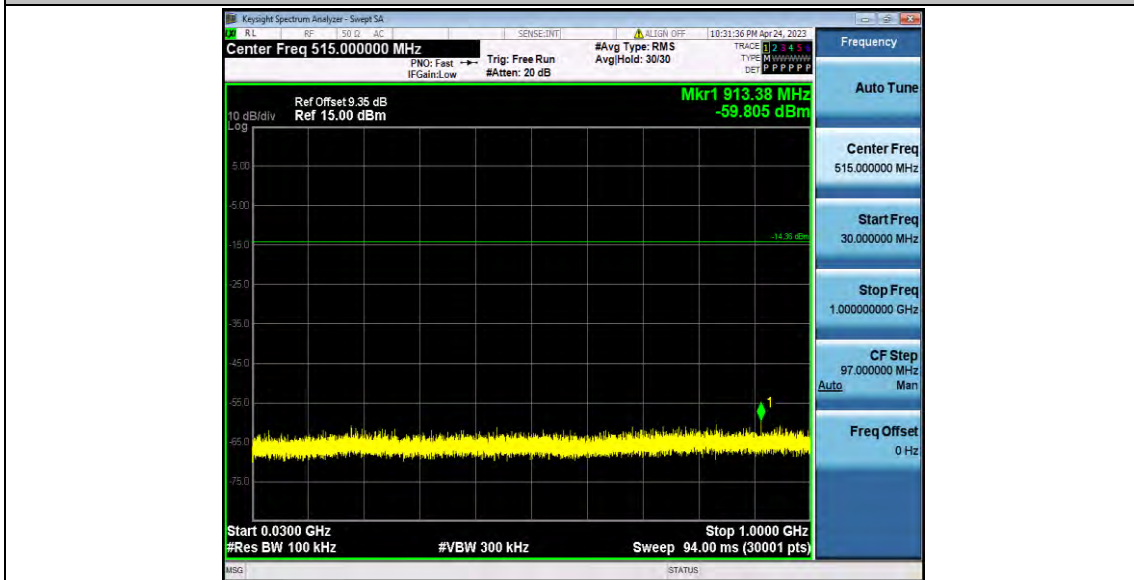
2DH1_Ant1_2402_30~1000



2DH1_Ant1_2402_1000~26500



2DH1_Ant1_2441_0~Reference



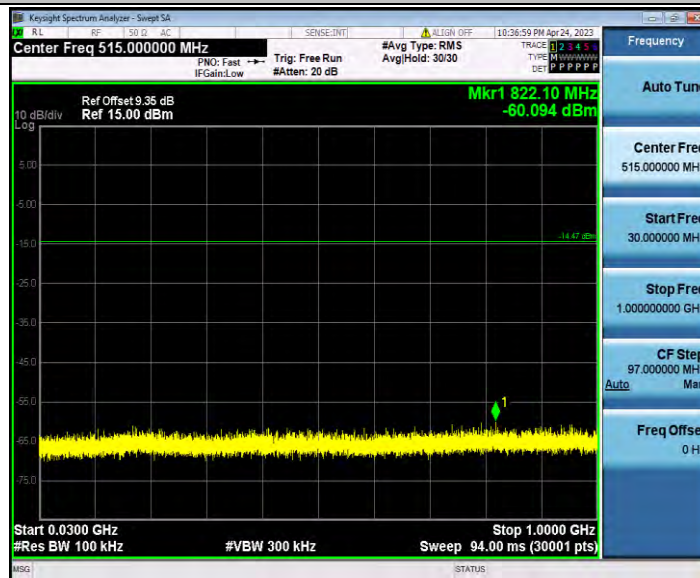
2DH1_Ant1_2441_30~1000



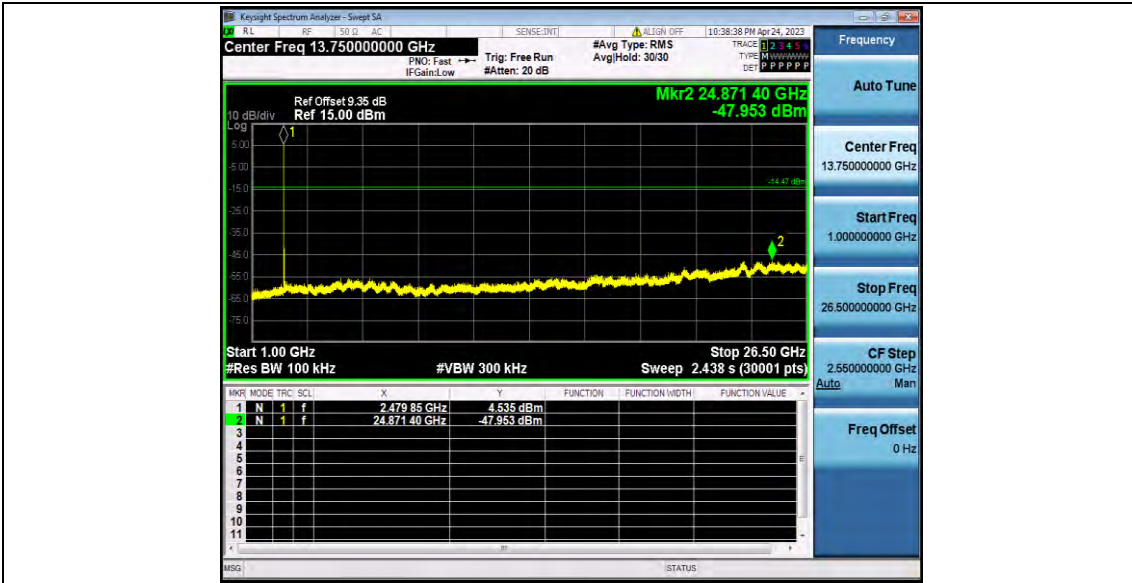
2DH1_Ant1_2441_1000~26500



2DH1_Ant1_2480_0~Reference



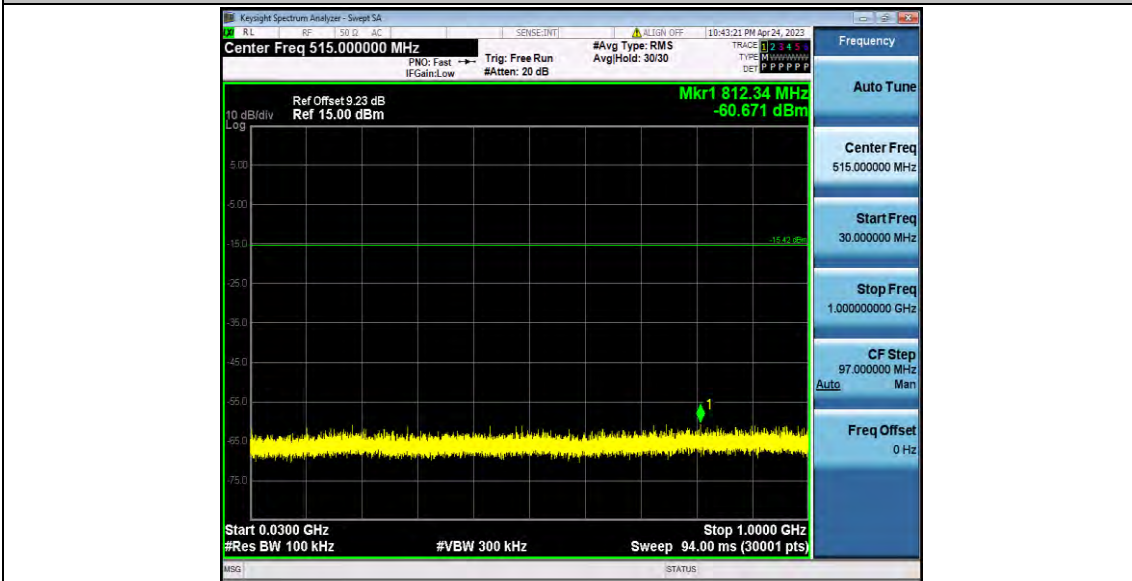
2DH1_Ant1_2480_30~1000



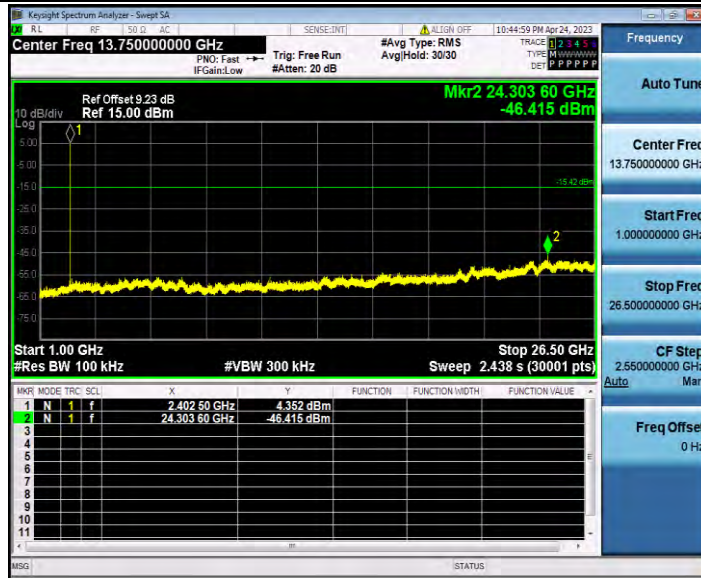
2DH1_Ant1_2480_1000~26500



3DH1_Ant1_2402_0~Reference



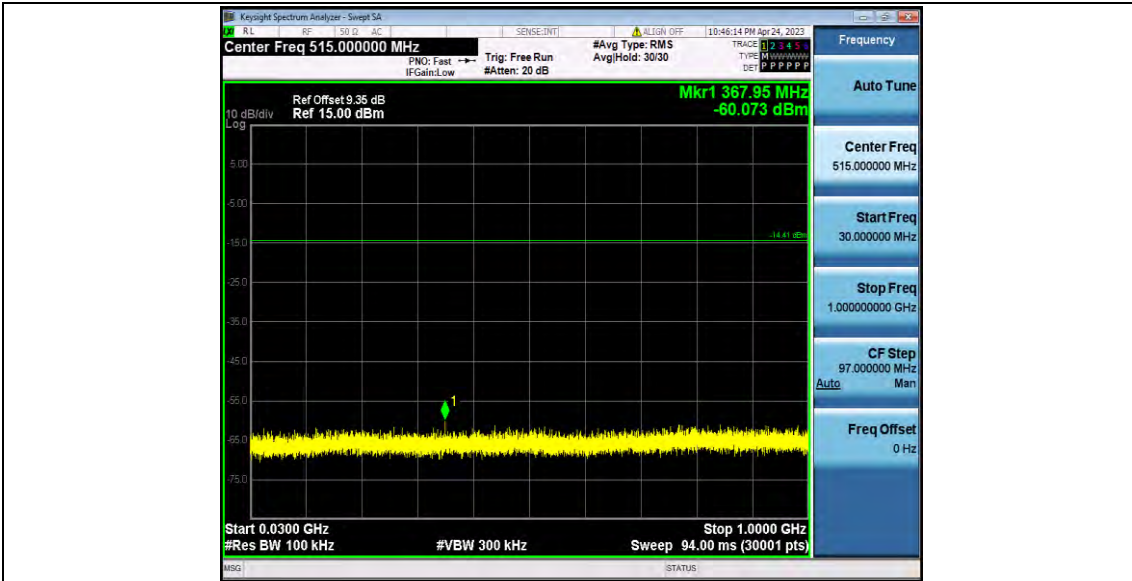
3DH1_Ant1_2402_30~1000



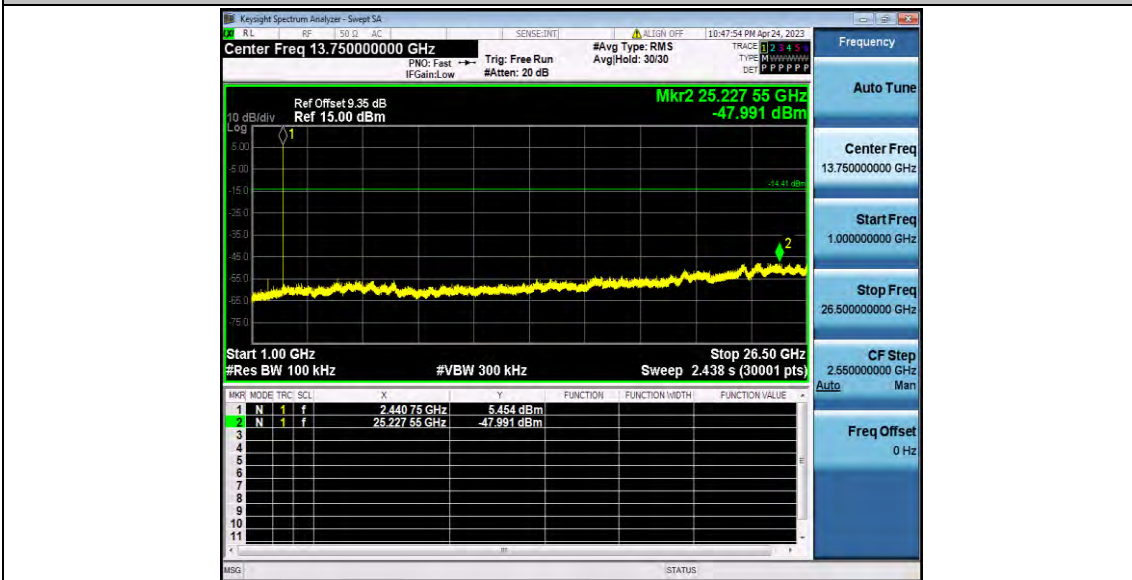
3DH1_Ant1_2402_1000~26500



3DH1_Ant1_2441_0~Reference



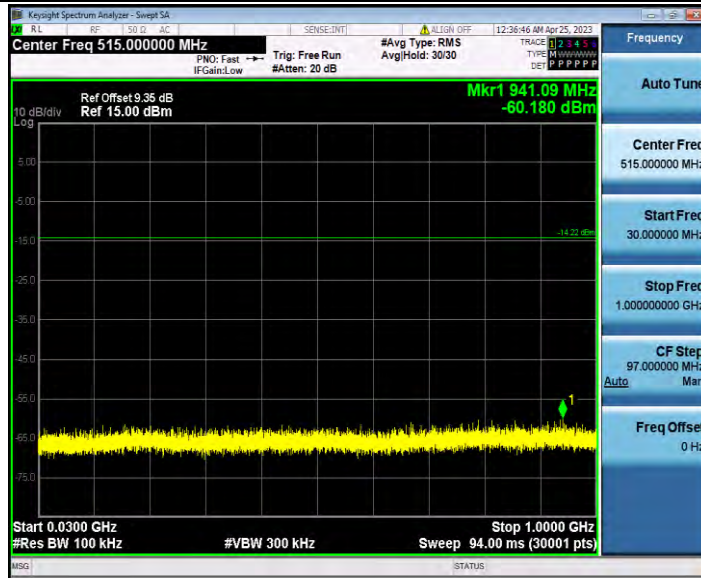
3DH1_Ant1_2441_30~100



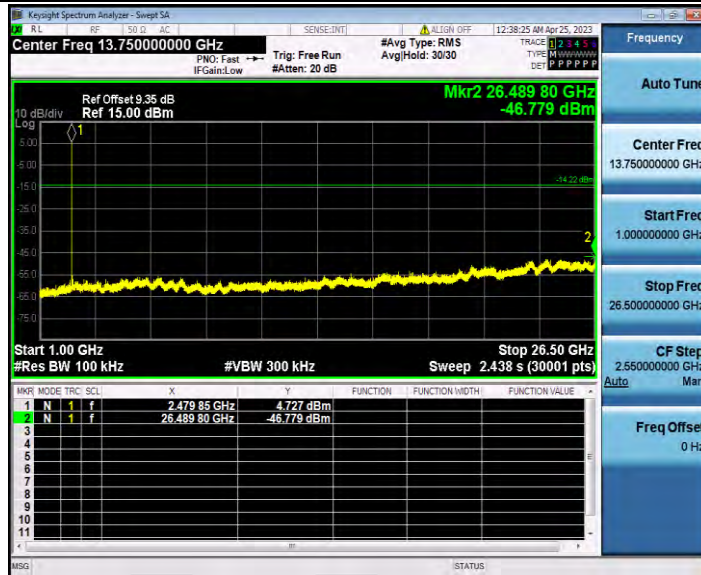
3DH1_Ant1_2441_1000~26500



3DH1_Ant1_2480_0~Reference



3DH1_Ant1_2480_30~1000



3DH1_Ant1_2480_1000~26500