

Case No. : <u>GTS20230224006-1-1</u>
Ambient Condition: <u>25</u> °C, <u>52</u> %RH, Atmos100.1Kpa,
Test Date: <u>2023.3.16</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	0.915	2401.496	2402.411	---	---
		2441	0.921	2440.493	2441.414	---	---
		2480	0.906	2479.502	2480.408	---	---
2DH1	Ant1	2402	1.425	2401.268	2402.693	---	---
		2441	1.395	2440.286	2441.681	---	---
		2480	1.416	2479.271	2480.687	---	---
3DH1	Ant1	2402	1.449	2401.259	2402.708	---	---
		2441	1.416	2440.286	2441.702	---	---
		2480	1.440	2479.262	2480.702	---	---

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	0.85281	2401.562	2402.414	---	---
		2441	0.86921	2440.551	2441.420	---	---
		2480	0.86973	2479.549	2480.418	---	---
2DH1	Ant1	2402	1.3470	2401.308	2402.655	---	---
		2441	1.3453	2440.309	2441.654	---	---
		2480	1.3442	2479.304	2480.648	---	---
3DH1	Ant1	2402	1.3470	2401.311	2402.658	---	---
		2441	1.3423	2440.313	2441.656	---	---
		2480	1.3462	2479.311	2480.657	---	---

Test Graphs





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	4.47	≤20.97	PASS
		2441	5.17	≤20.97	PASS
		2480	4.41	≤20.97	PASS
2DH1	Ant1	2402	0.85	≤20.97	PASS
		2441	1.6	≤20.97	PASS
		2480	0.74	≤20.97	PASS
3DH1	Ant1	2402	1.11	≤20.97	PASS
		2441	1.8	≤20.97	PASS
		2480	0.93	≤20.97	PASS

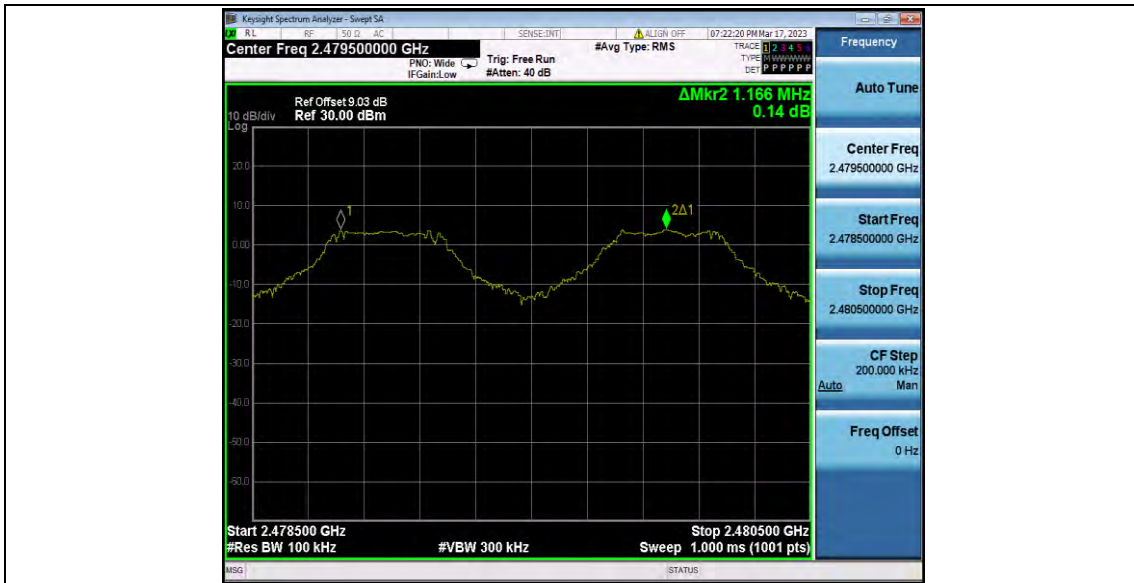
Appendix A.4: Carrier frequency separation

Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	0.994	≥ 0.614	PASS
		Hop_2441	0.84	≥ 0.614	PASS
		Hop_2480	1.166	≥ 0.614	PASS
2DH1	Ant1	Hop_2402	1.006	≥ 0.950	PASS
		Hop_2441	1.016	≥ 0.950	PASS
		Hop_2480	1.166	≥ 0.950	PASS
3DH1	Ant1	Hop_2402	1.156	≥ 0.966	PASS
		Hop_2441	1.166	≥ 0.966	PASS
		Hop_2480	0.988	≥ 0.966	PASS

Test Graphs





2DH1_Ant1_Hop_2402



2DH1_Ant1_Hop_2441



2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402



3DH1_Ant1_Hop_2441



3DH1_Ant1_Hop_2480

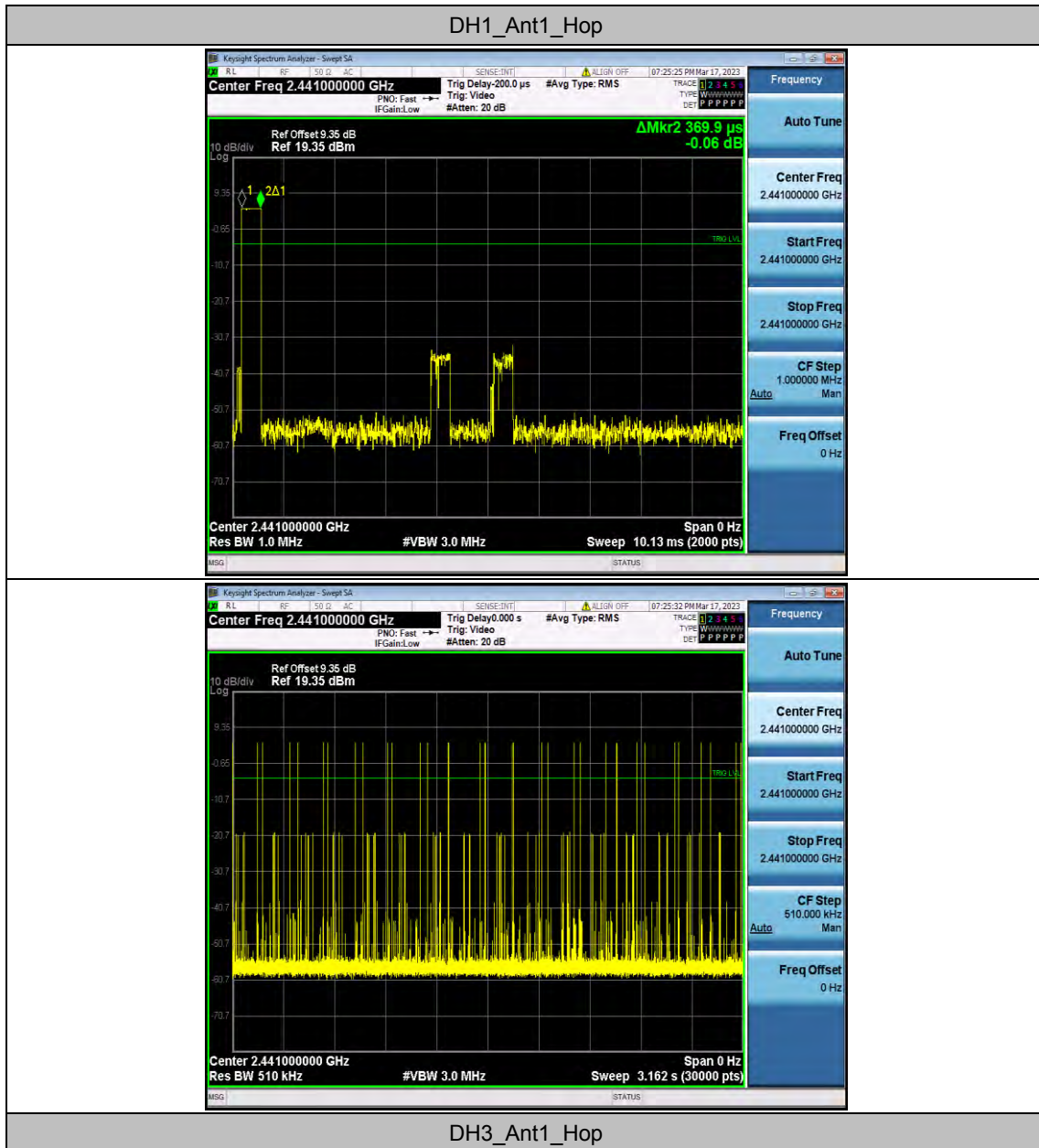


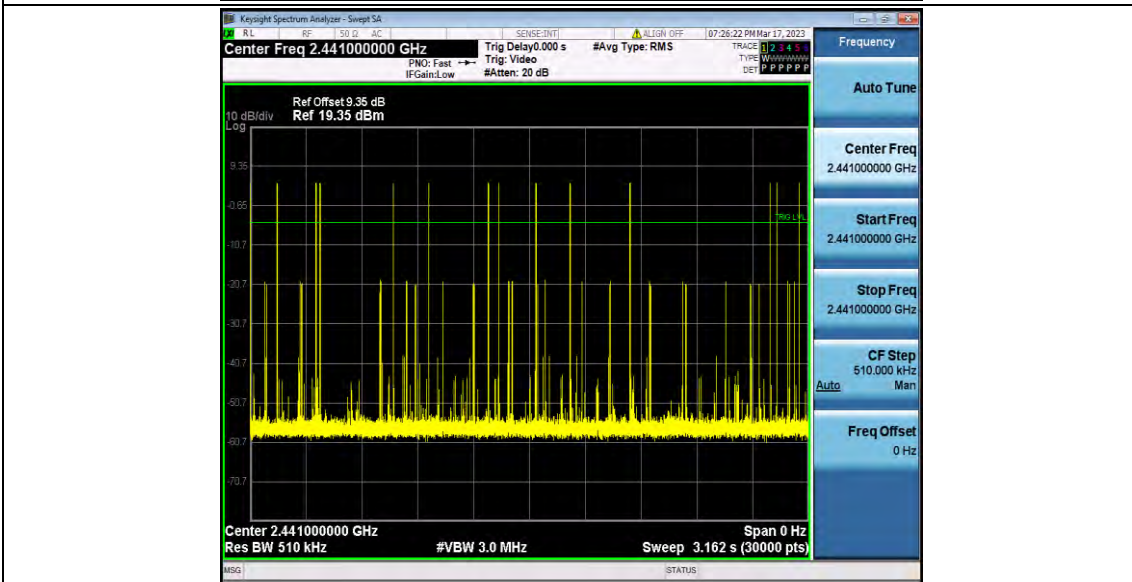
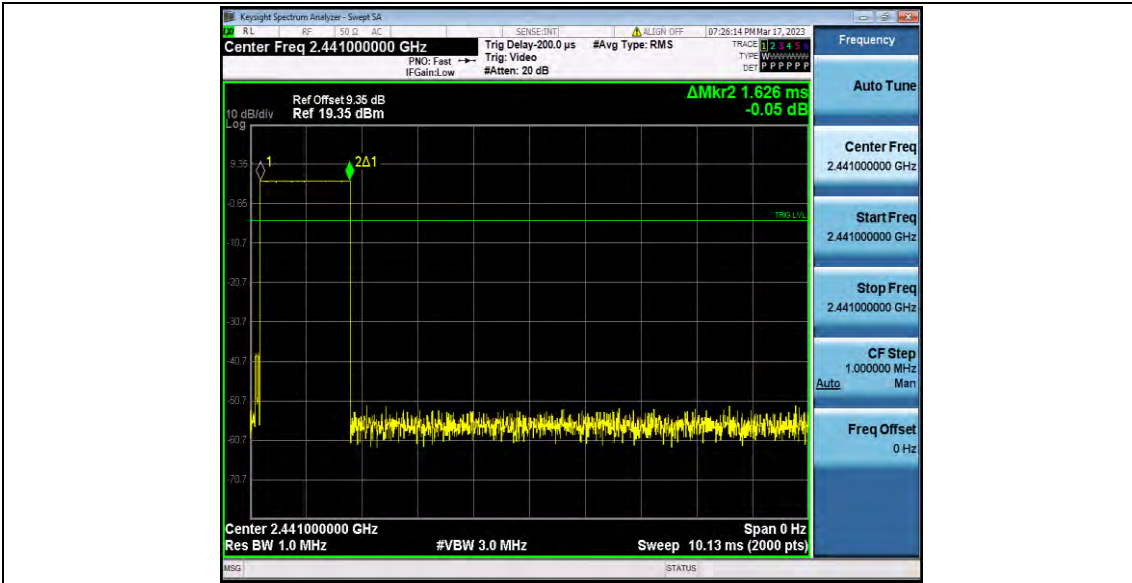
Appendix A.5: Time of occupancy

Test Result

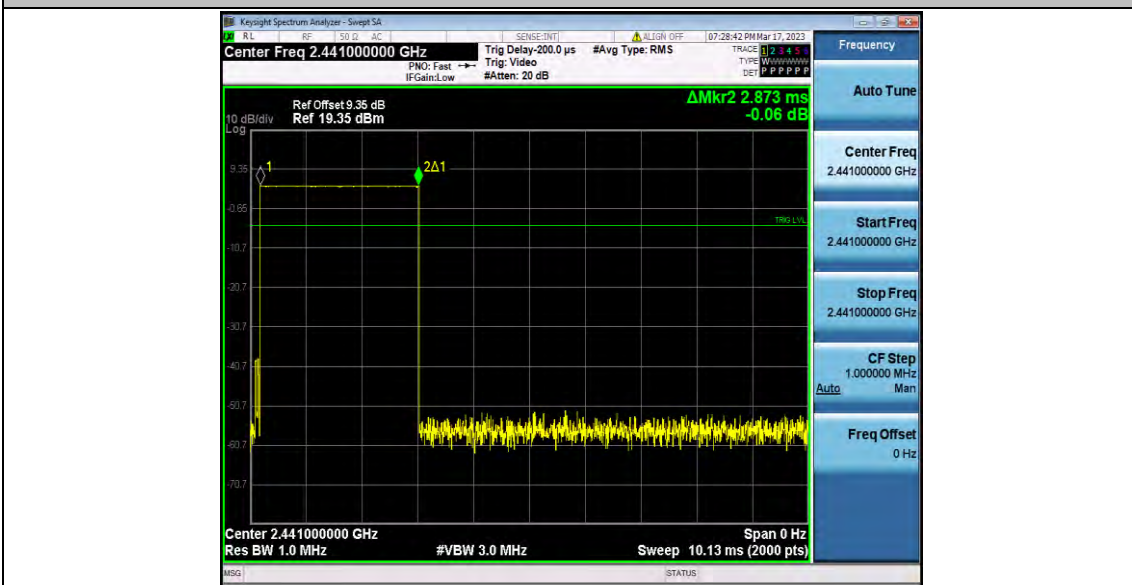
TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.37	330	0.122	≤0.4	PASS
DH3	Ant1	Hop	1.63	140	0.228	≤0.4	PASS
DH5	Ant1	Hop	2.87	130	0.373	≤0.4	PASS
2DH1	Ant1	Hop	0.38	330	0.125	≤0.4	PASS
2DH3	Ant1	Hop	1.63	170	0.277	≤0.4	PASS
2DH5	Ant1	Hop	2.88	110	0.317	≤0.4	PASS
3DH1	Ant1	Hop	0.38	320	0.122	≤0.4	PASS
3DH3	Ant1	Hop	1.63	170	0.276	≤0.4	PASS
3DH5	Ant1	Hop	2.88	100	0.288	≤0.4	PASS

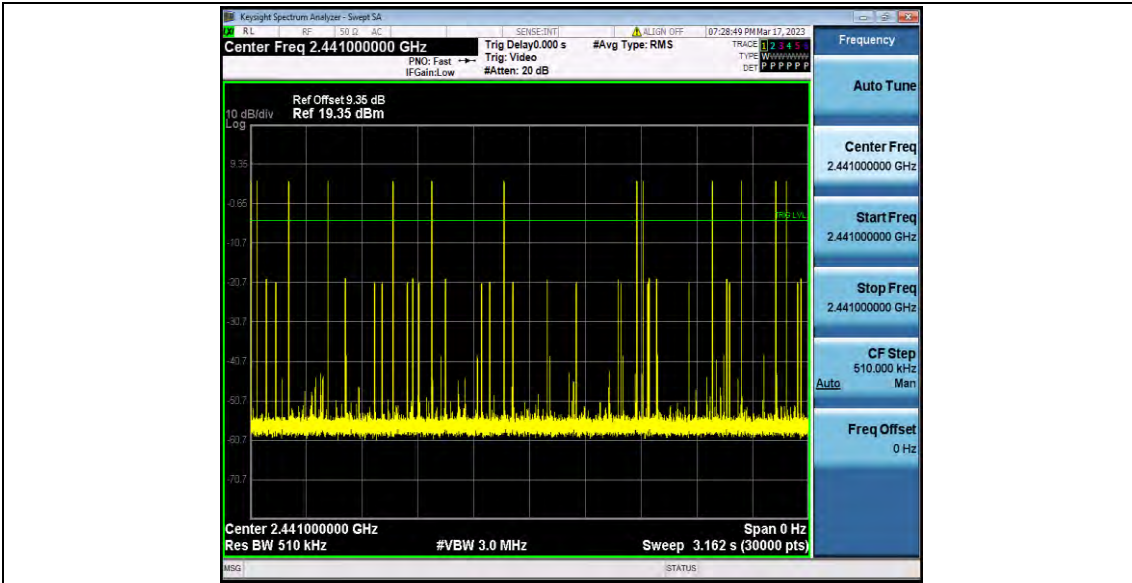
Test Graphs



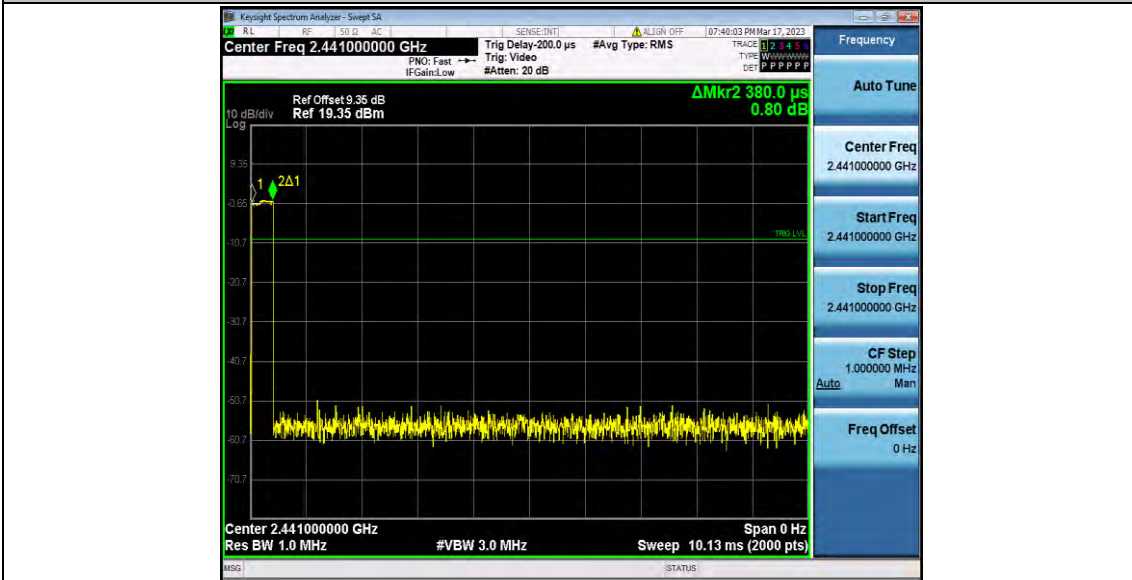


DH5_Ant1_Hop

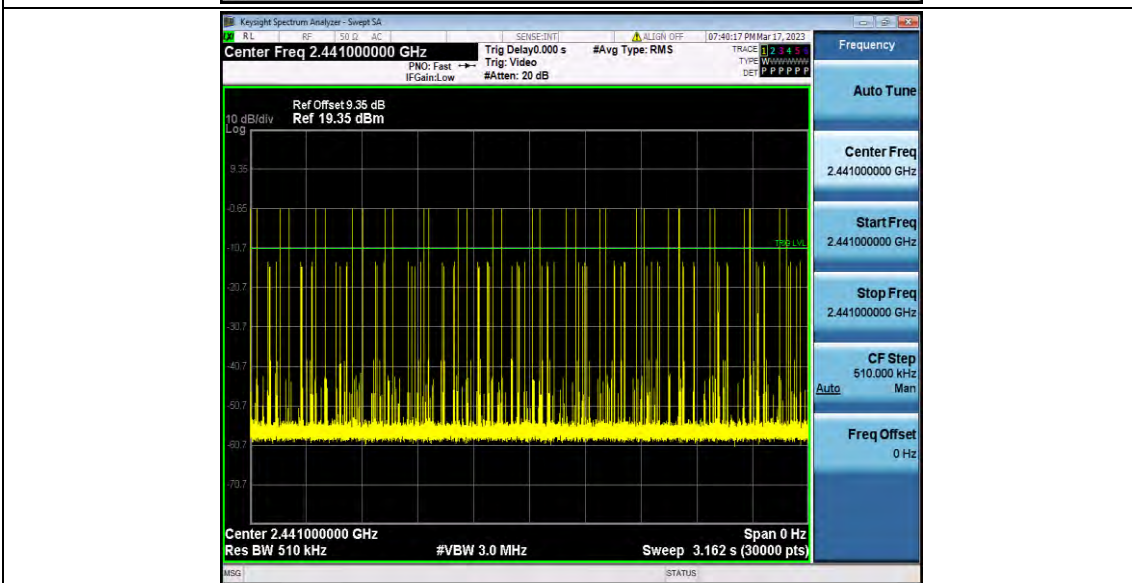


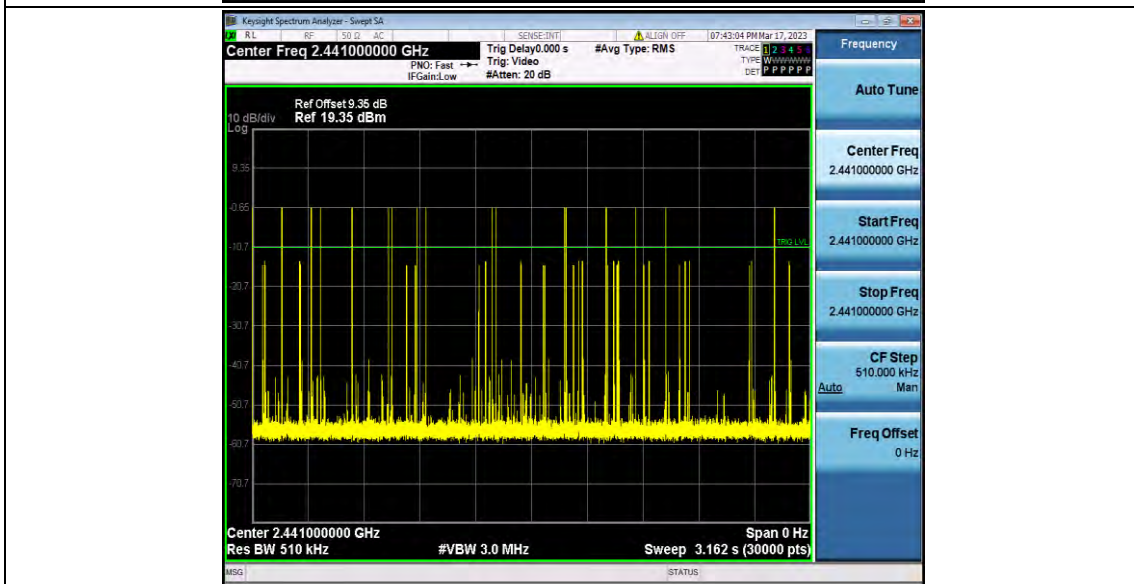
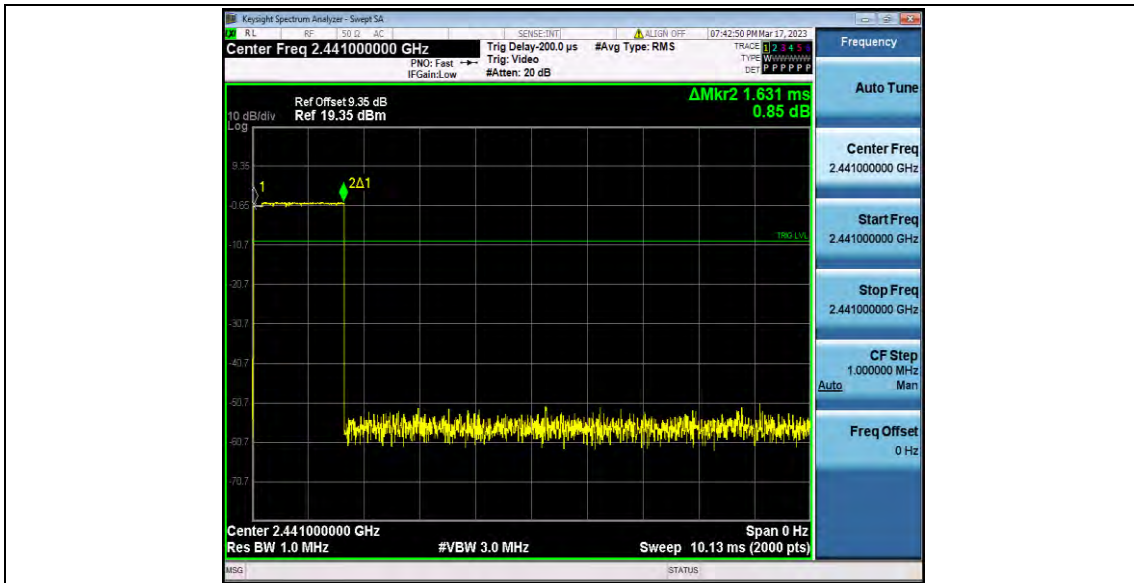


2DH1_Ant1_Hop



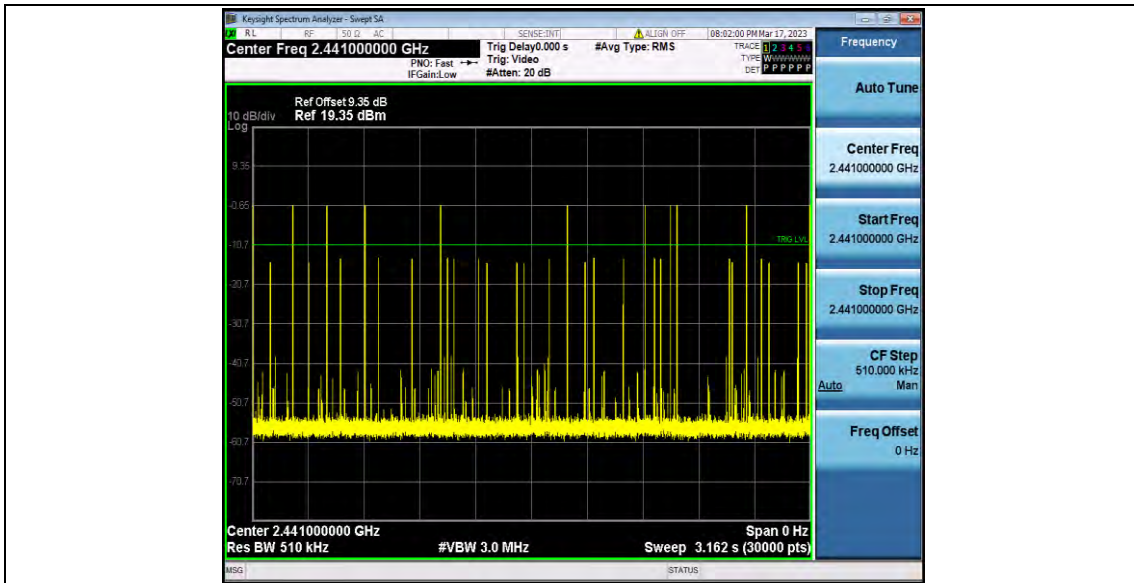
2DH3_Ant1_Hop



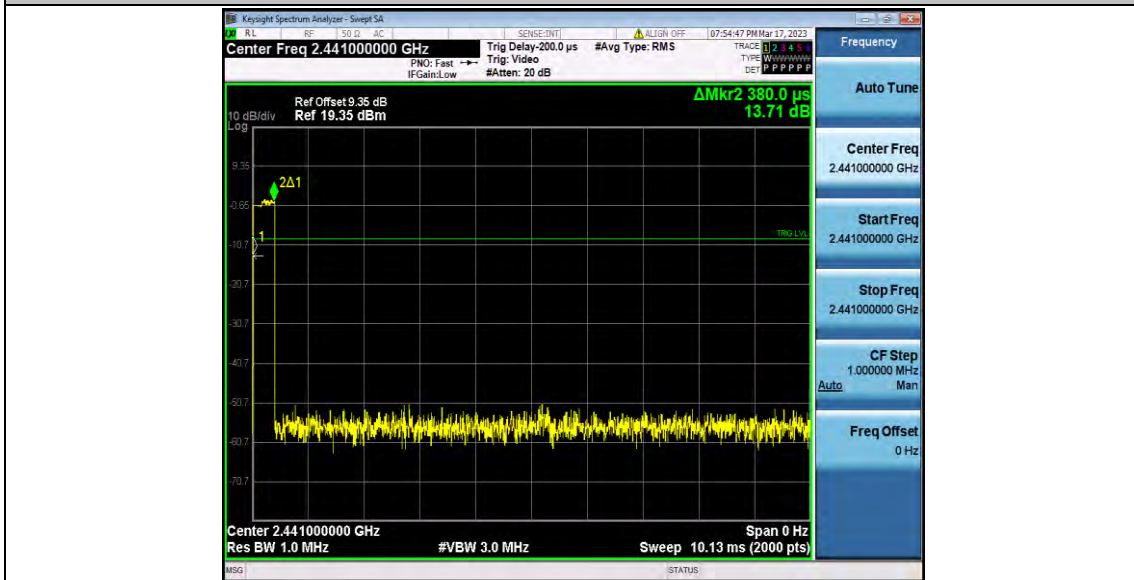


2DH5_Ant1_Hop

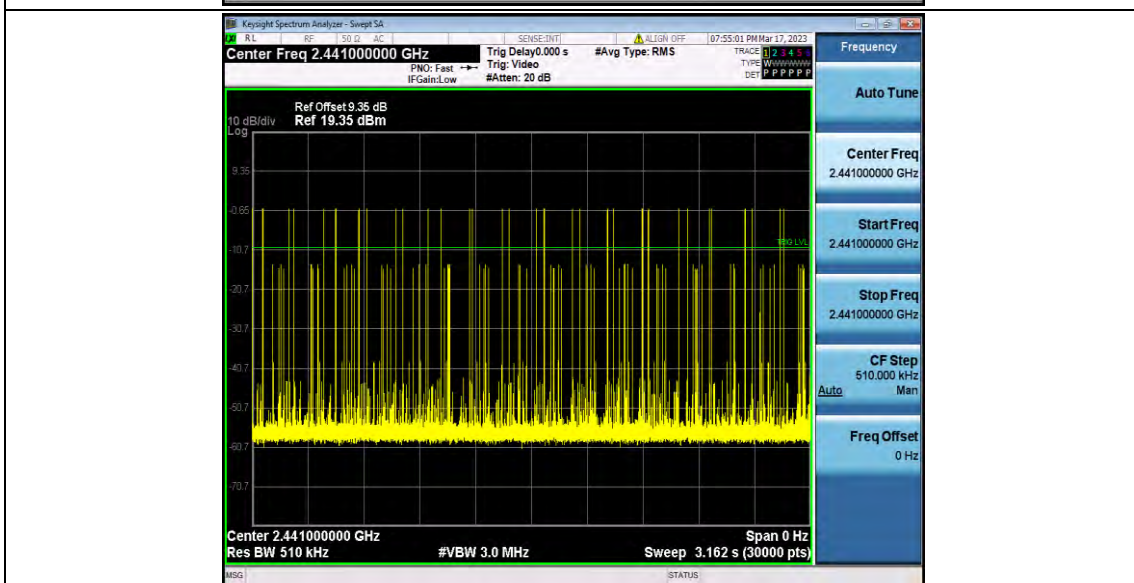


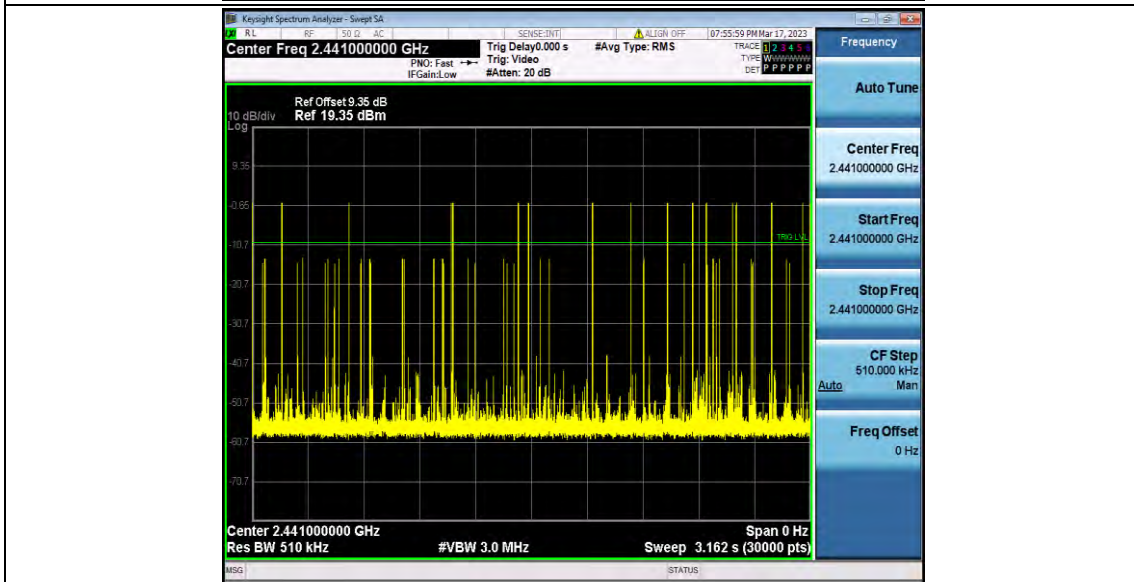
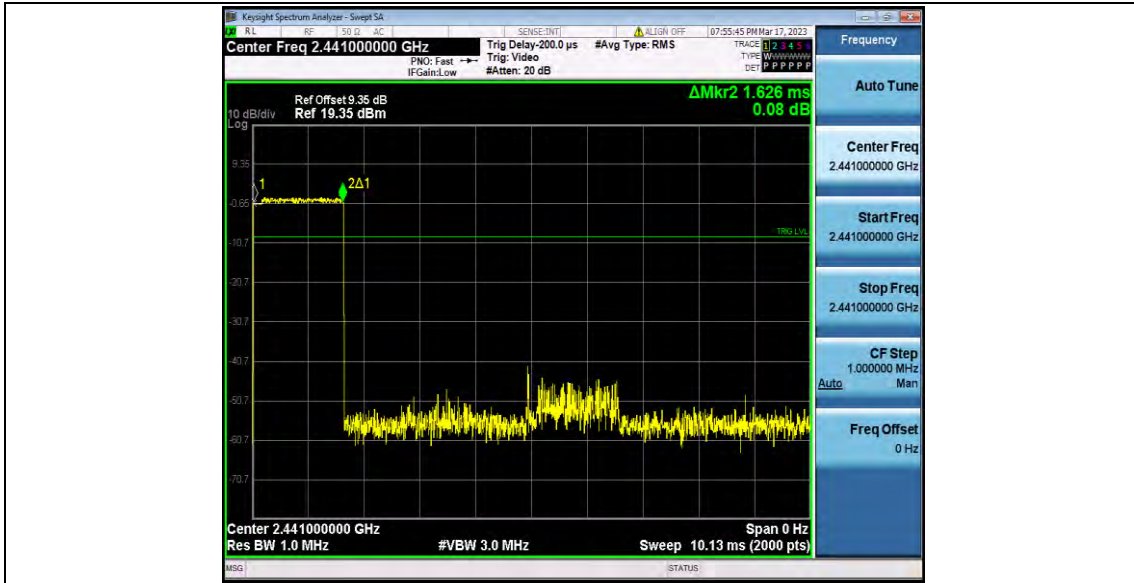


3DH1_Ant1_Hop

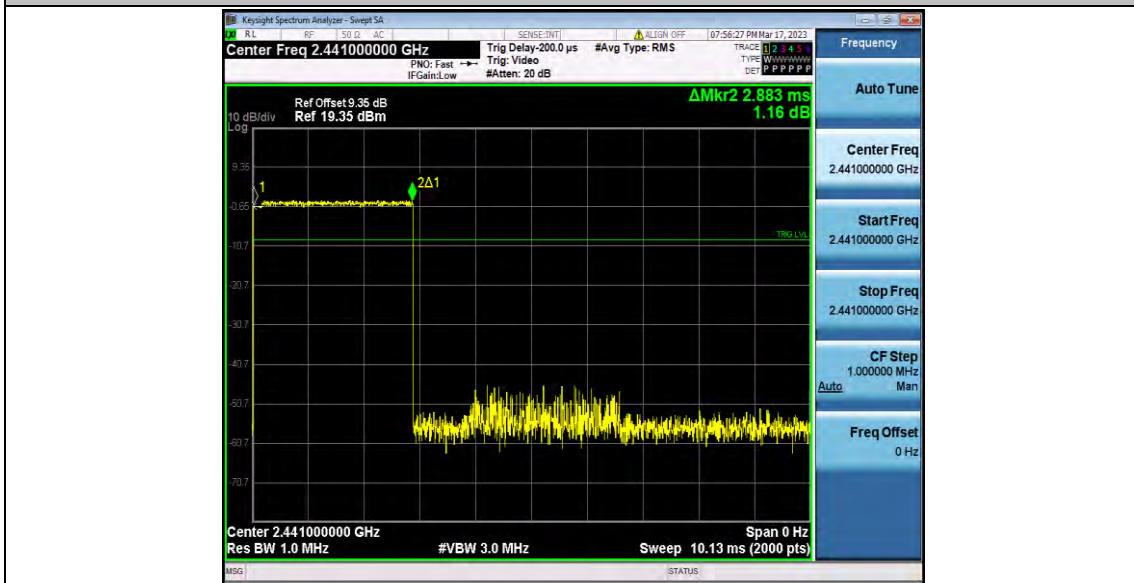


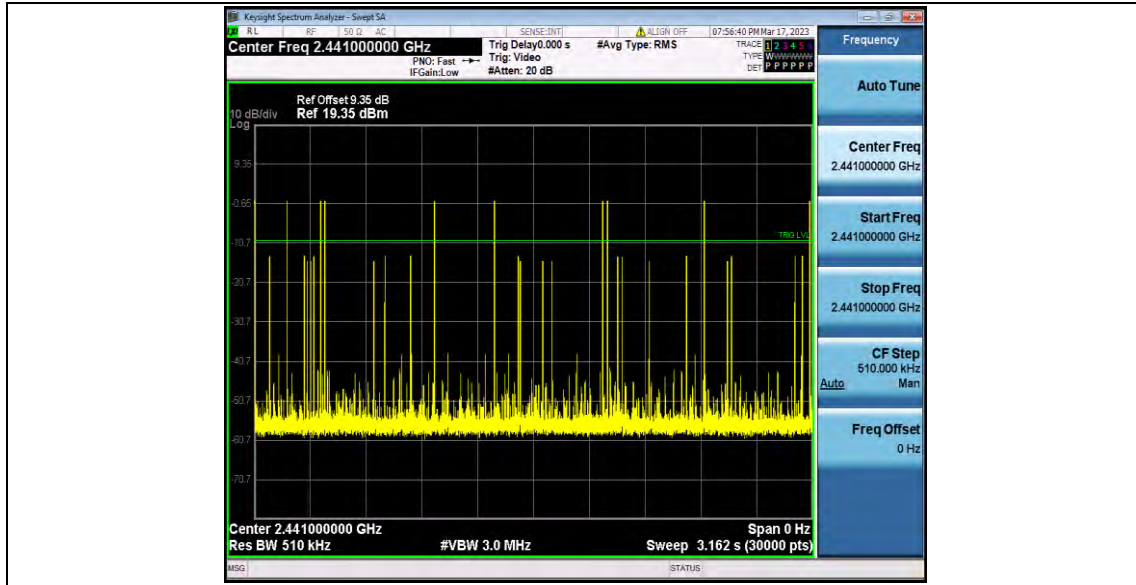
3DH3_Ant1_Hop





3DH5_Ant1_Hop



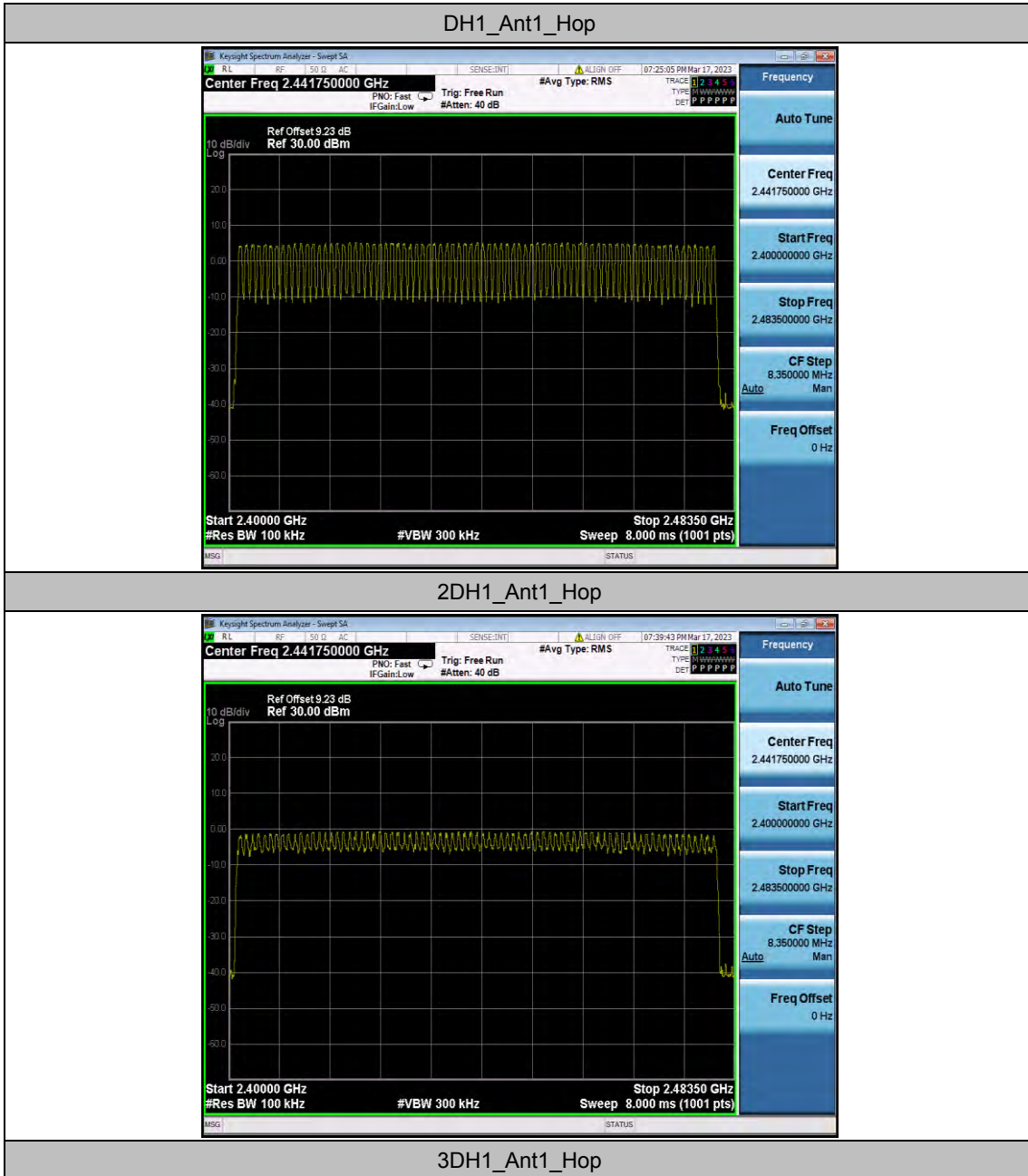


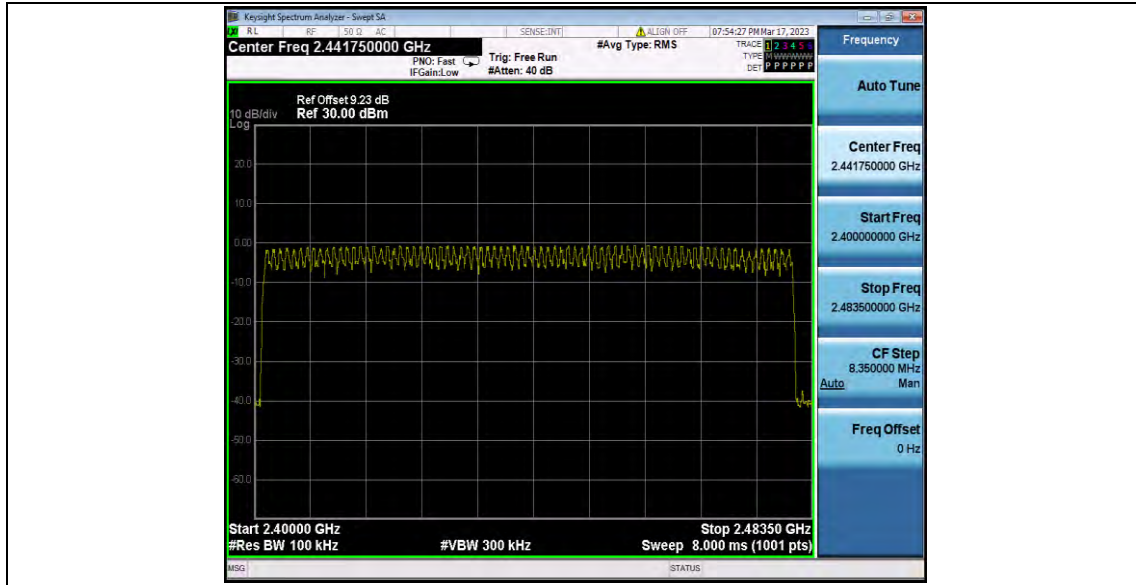
Appendix A.6: Number of hopping channels

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



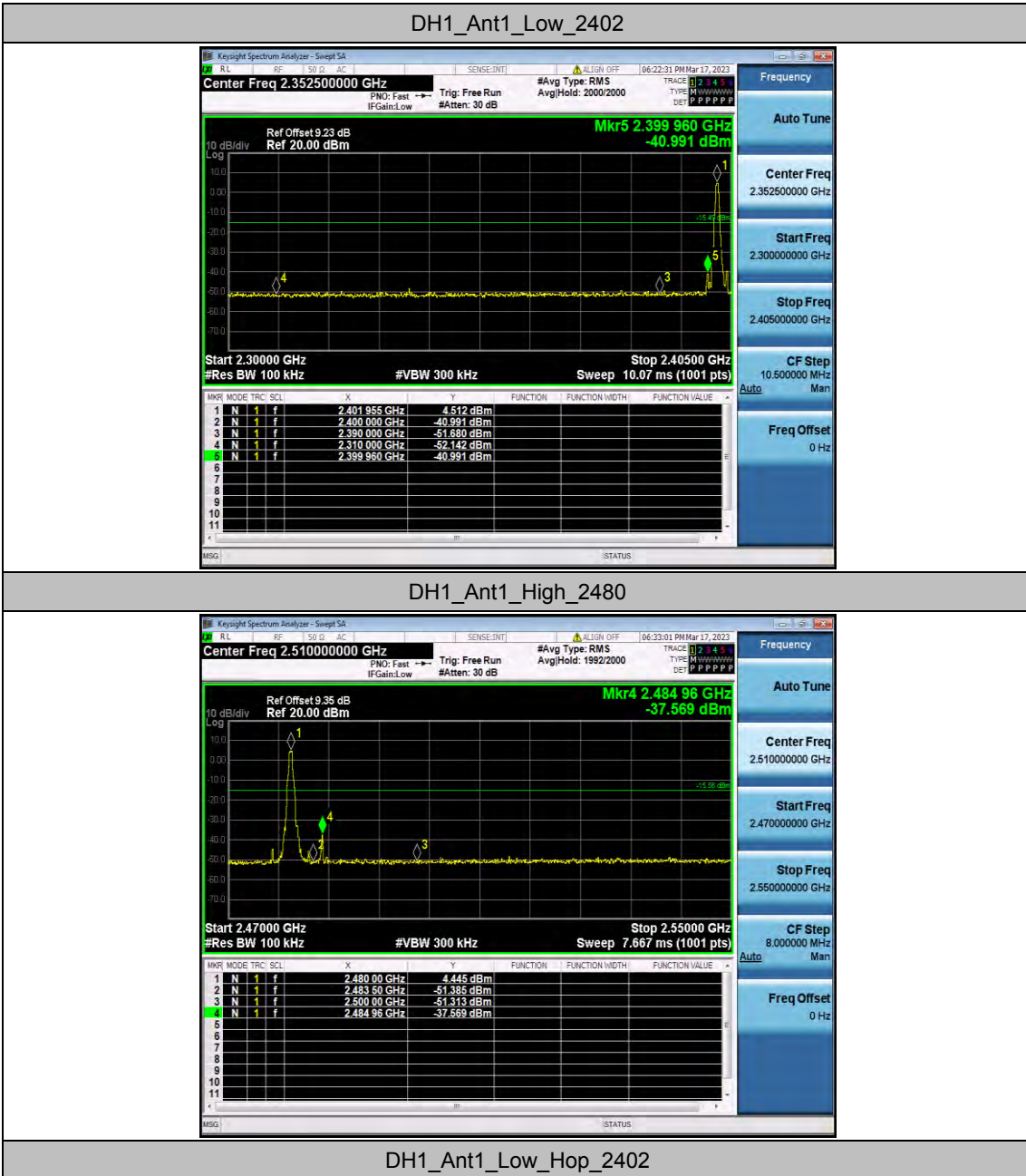


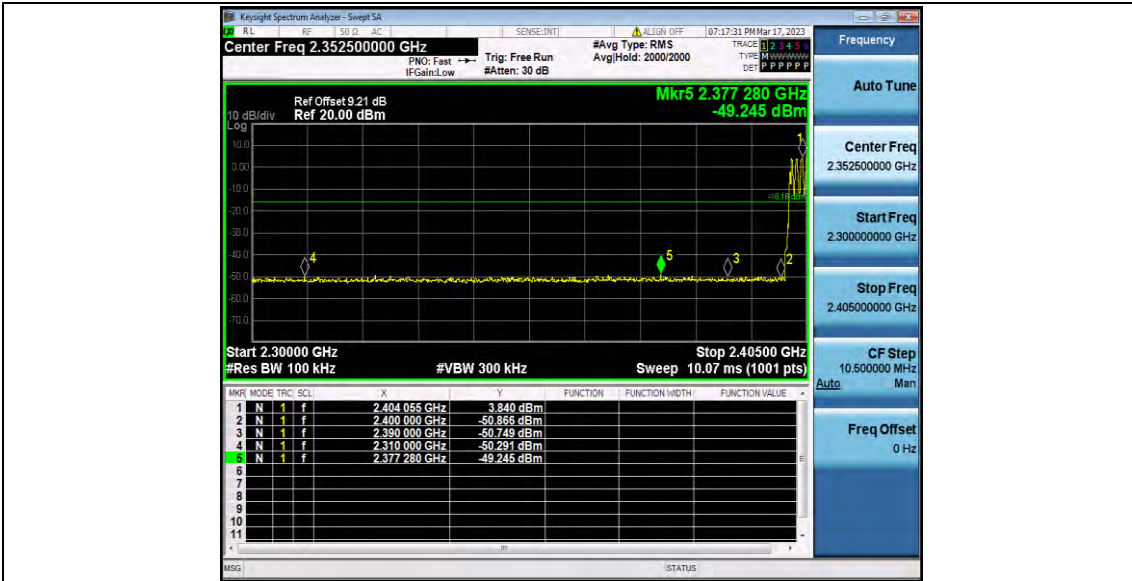
Appendix A.7: Band edge measurements

Test Result

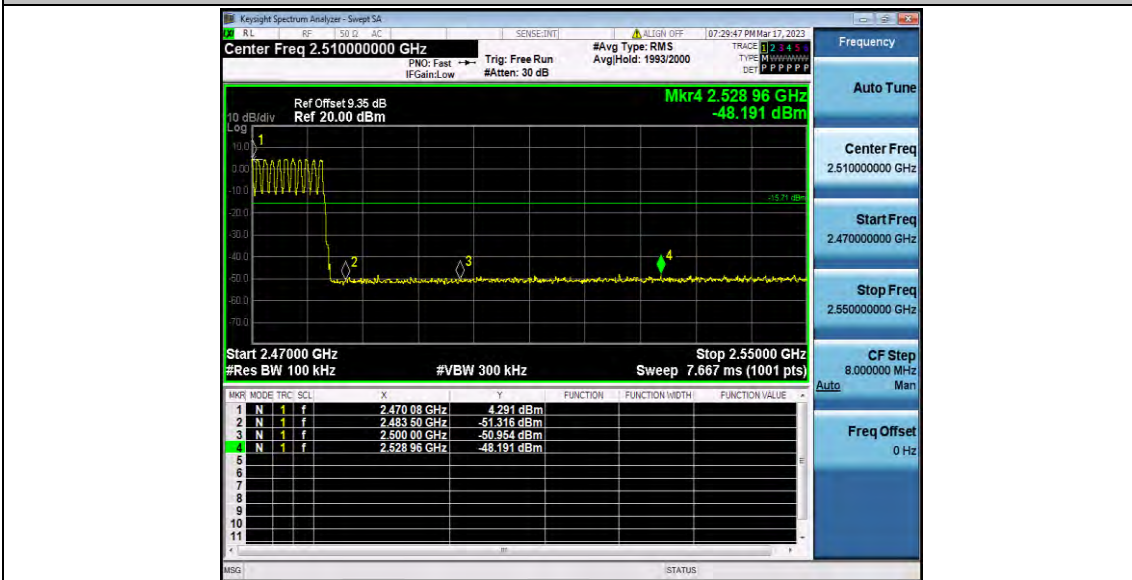
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	4.51	-40.99	≤-15.49	PASS
		High	2480	4.45	-37.57	≤-15.56	PASS
		Low	Hop_2402	3.84	-49.25	≤-16.16	PASS
		High	Hop_2480	4.29	-48.19	≤-15.71	PASS
2DH1	Ant1	Low	2402	-1.41	-46.99	≤-21.41	PASS
		High	2480	-1.26	-38.39	≤-21.26	PASS
		Low	Hop_2402	-2.51	-48.73	≤-22.51	PASS
		High	Hop_2480	-1.37	-48.5	≤-21.37	PASS
3DH1	Ant1	Low	2402	-1.45	-48.36	≤-21.45	PASS
		High	2480	-1.31	-37.9	≤-21.31	PASS
		Low	Hop_2402	-1.80	-49.75	≤-21.8	PASS
		High	Hop_2480	-1.16	-48.48	≤-21.16	PASS

Test Graphs

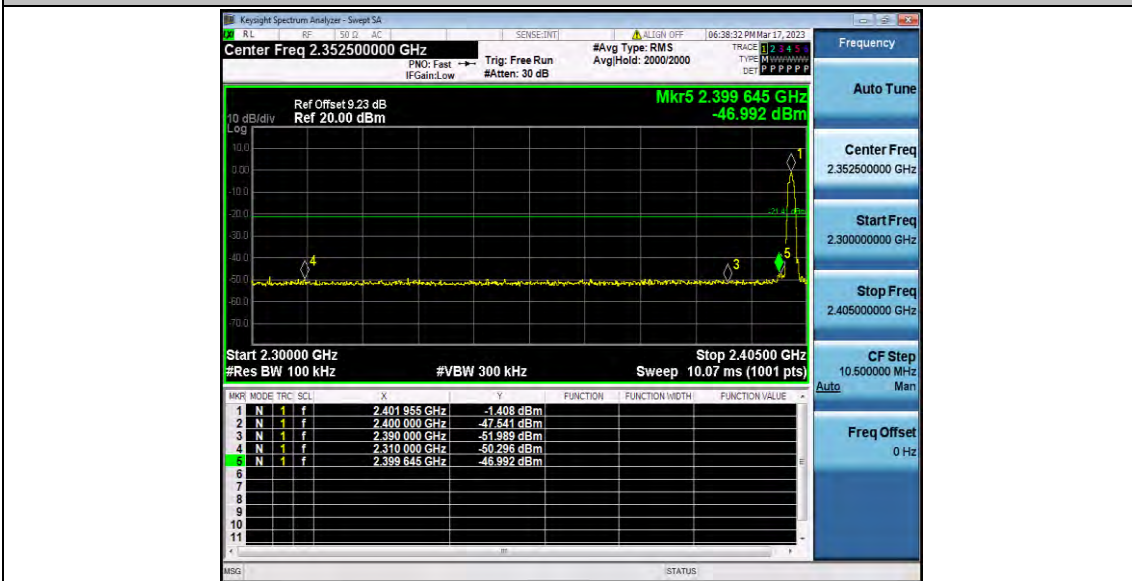




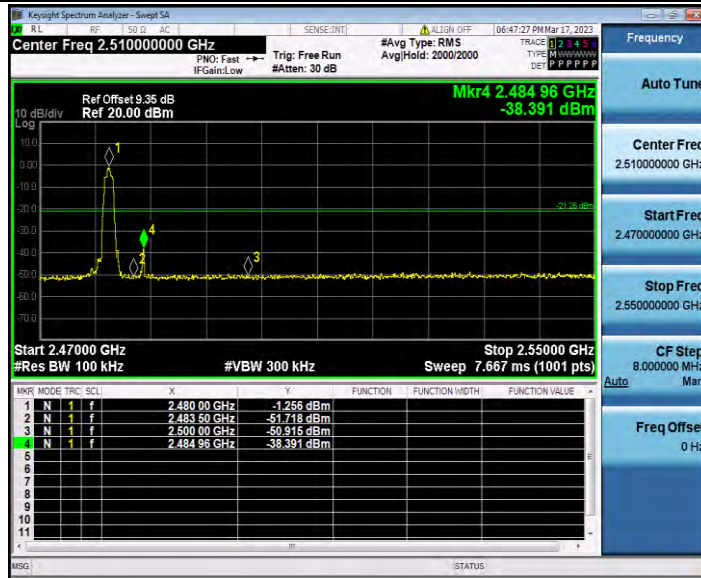
DH1_Ant1_High_Hop_2480



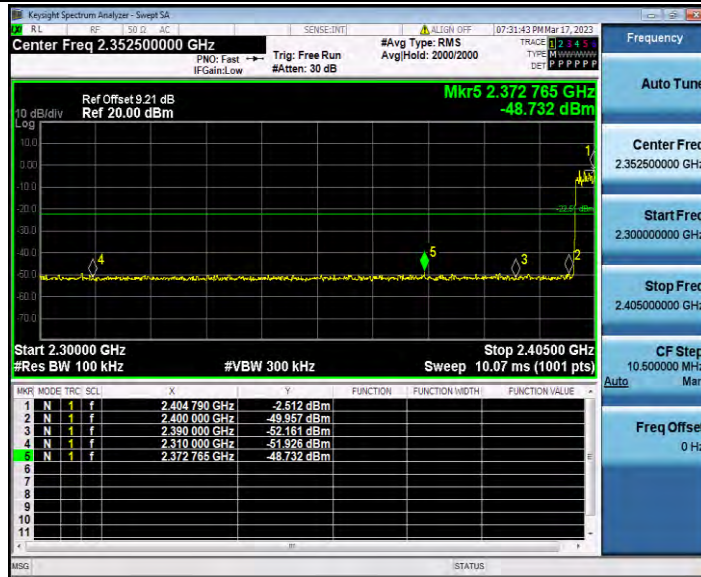
2DH1_Ant1_Low_2402



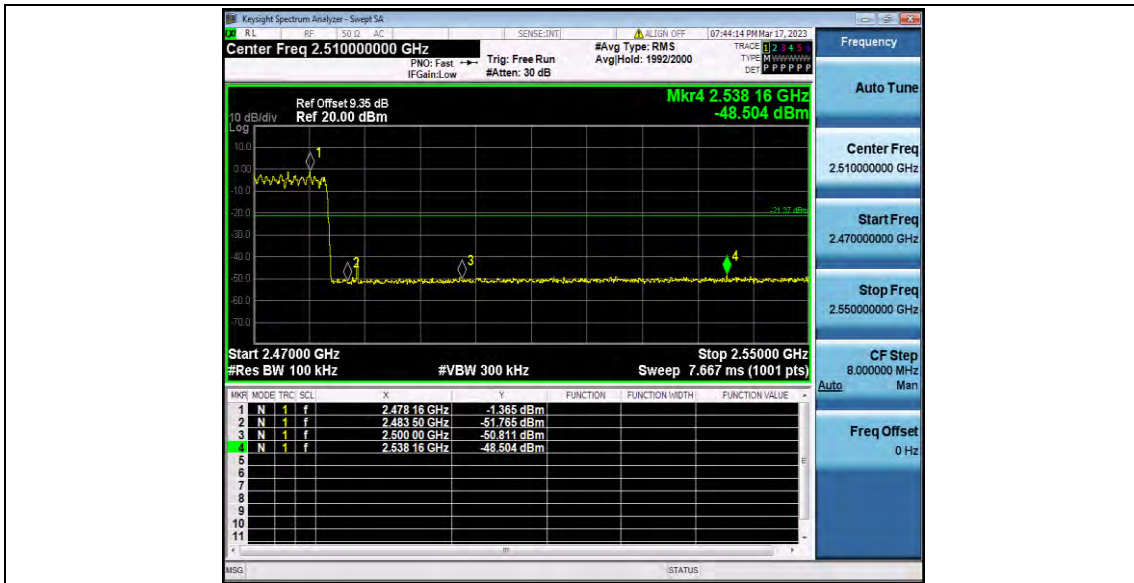
2DH1_Ant1_High_2480



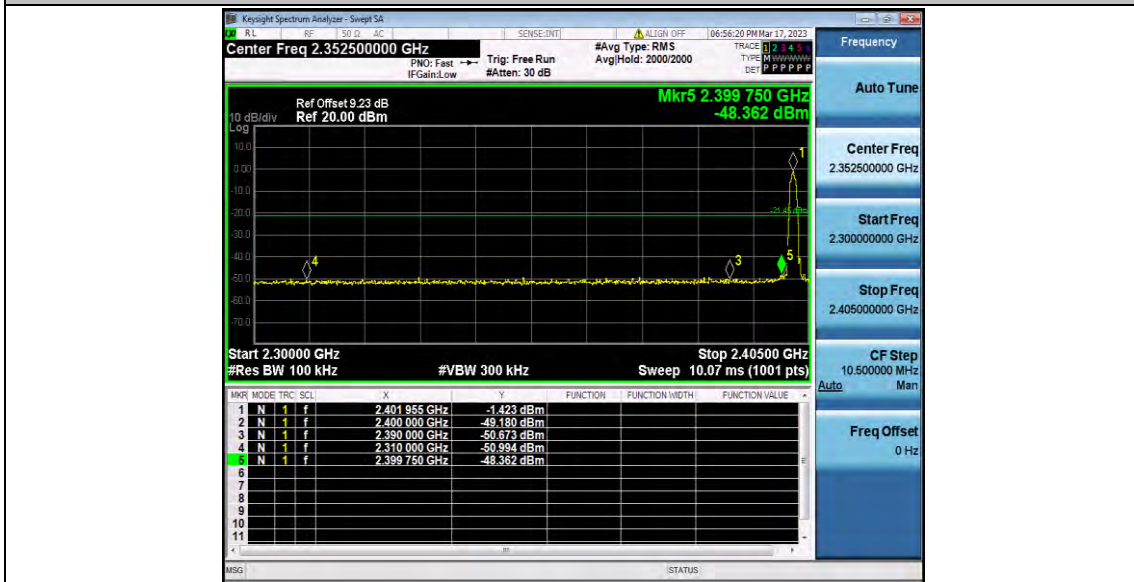
2DH1_Ant1_Low_Hop_2402



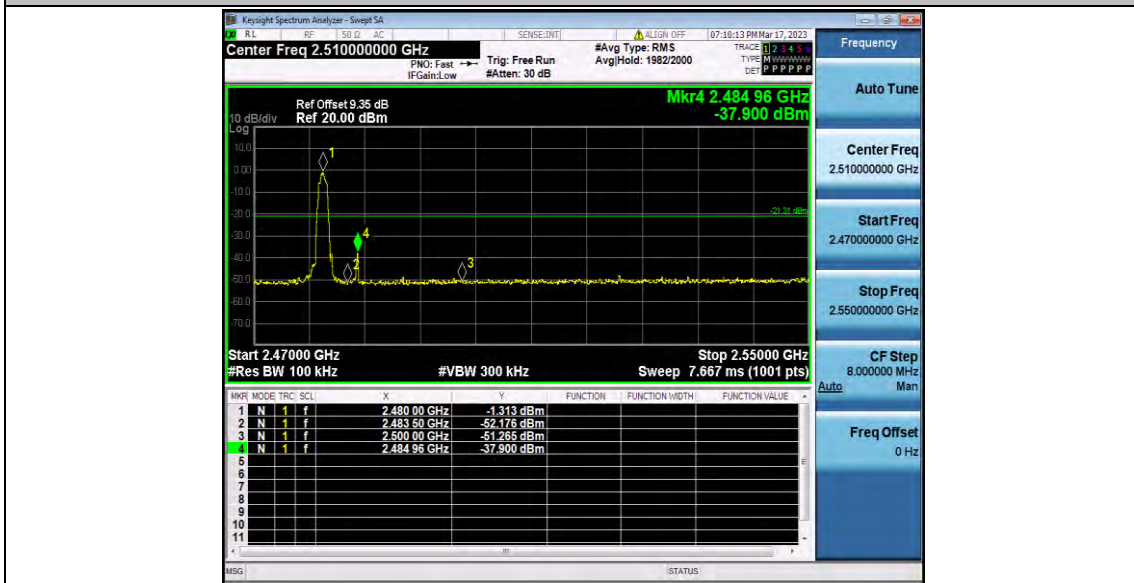
2DH1_Ant1_High_Hop_2480



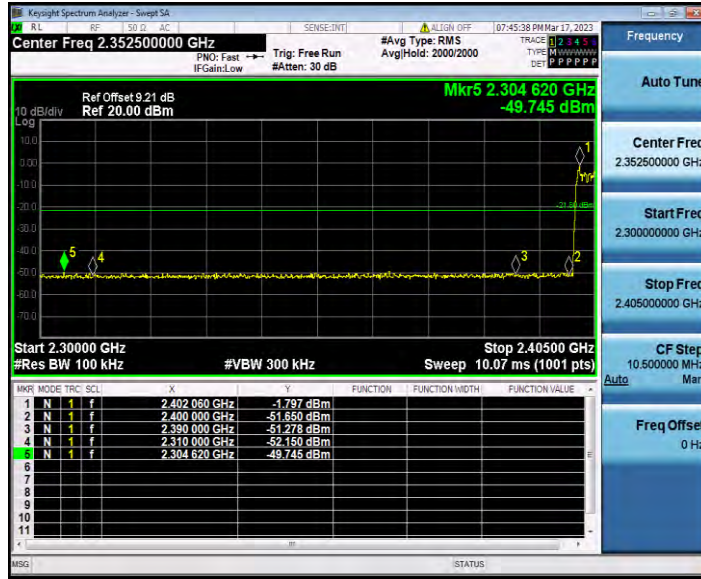
3D H1_Ant1_Low_2402



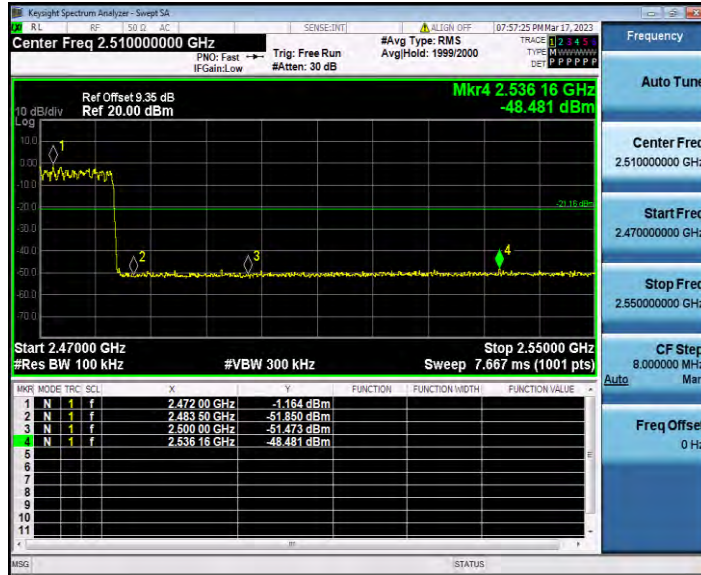
3D H1_Ant1_High_2480



3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

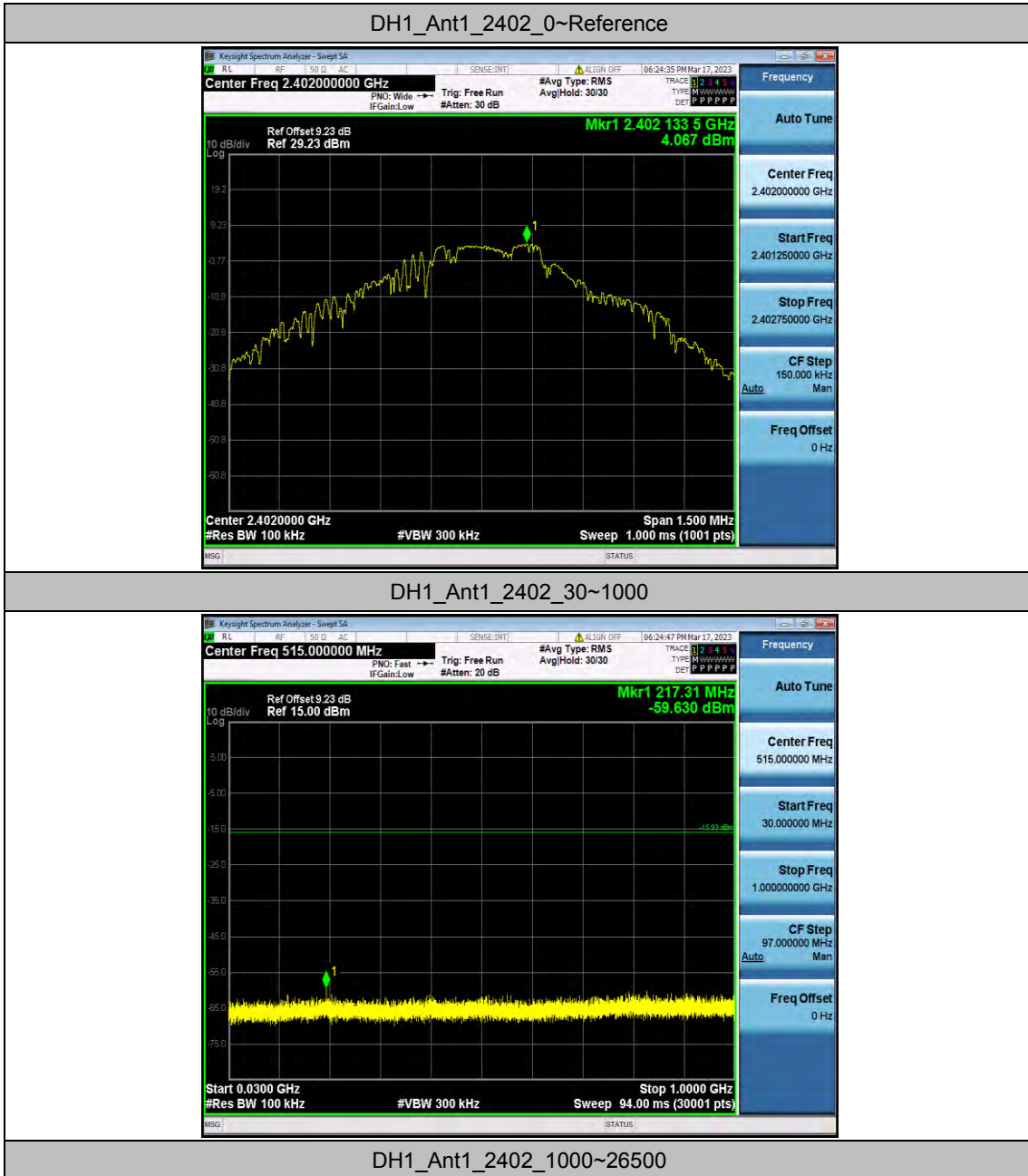


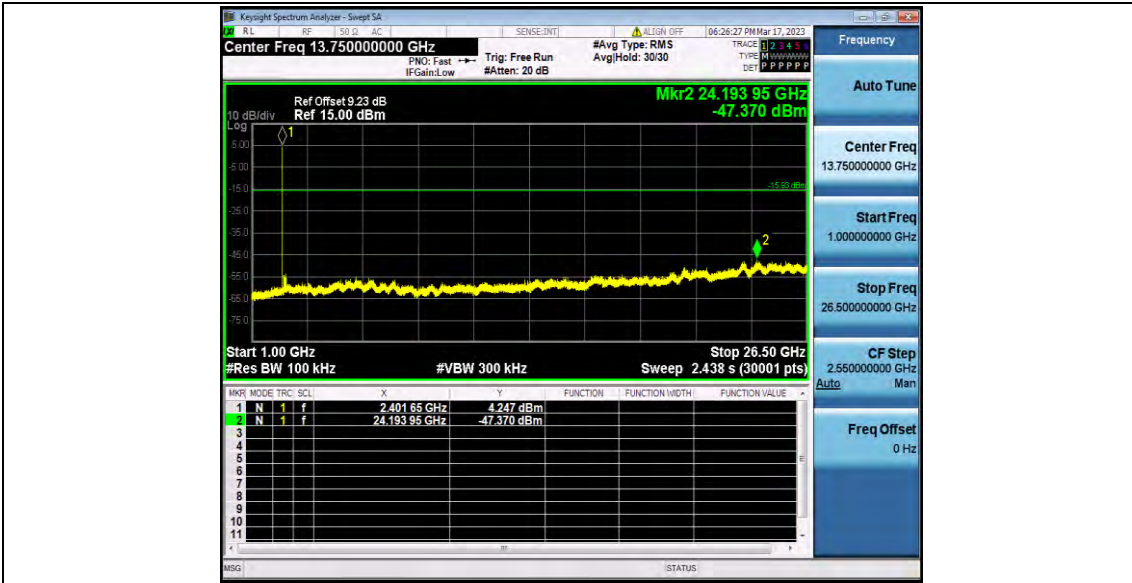
Appendix A.8: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict	
DH1	Ant1	2402	Reference	4.07	4.07	---	PASS	
			30~1000	4.07	-59.63	≤ -15.93	PASS	
			1000~26500	4.07	-47.37	≤ -15.93	PASS	
		2441	Ant1	Reference	4.98	4.98	---	PASS
				30~1000	4.98	-59.74	≤ -15.02	PASS
				1000~26500	4.98	-47.46	≤ -15.02	PASS
		2480	Ant1	Reference	4.14	4.14	---	PASS
				30~1000	4.14	-59.72	≤ -15.86	PASS
				1000~26500	4.14	-47.67	≤ -15.86	PASS
2DH1	Ant1	2402	Reference	-1.77	-1.77	---	PASS	
			30~1000	-1.77	-60.02	≤ -21.77	PASS	
			1000~26500	-1.77	-47.3	≤ -21.77	PASS	
		2441	Ant1	Reference	-0.93	-0.93	---	PASS
				30~1000	-0.93	-59.96	≤ -20.93	PASS
				1000~26500	-0.93	-47.34	≤ -20.93	PASS
		2480	Ant1	Reference	-2.04	-2.04	---	PASS
				30~1000	-2.04	-60.43	≤ -22.04	PASS
				1000~26500	-2.04	-47.71	≤ -22.04	PASS
3DH1	Ant1	2402	Reference	-2.77	-2.77	---	PASS	
			30~1000	-2.77	-59.34	≤ -22.77	PASS	
			1000~26500	-2.77	-47.81	≤ -22.77	PASS	
		2441	Ant1	Reference	-1.71	-1.71	---	PASS
				30~1000	-1.71	-60.02	≤ -21.71	PASS
				1000~26500	-1.71	-47.28	≤ -21.71	PASS
		2480	Ant1	Reference	-1.69	-1.69	---	PASS
				30~1000	-1.69	-59.83	≤ -21.69	PASS
				1000~26500	-1.69	-47.18	≤ -21.69	PASS

Test Graphs

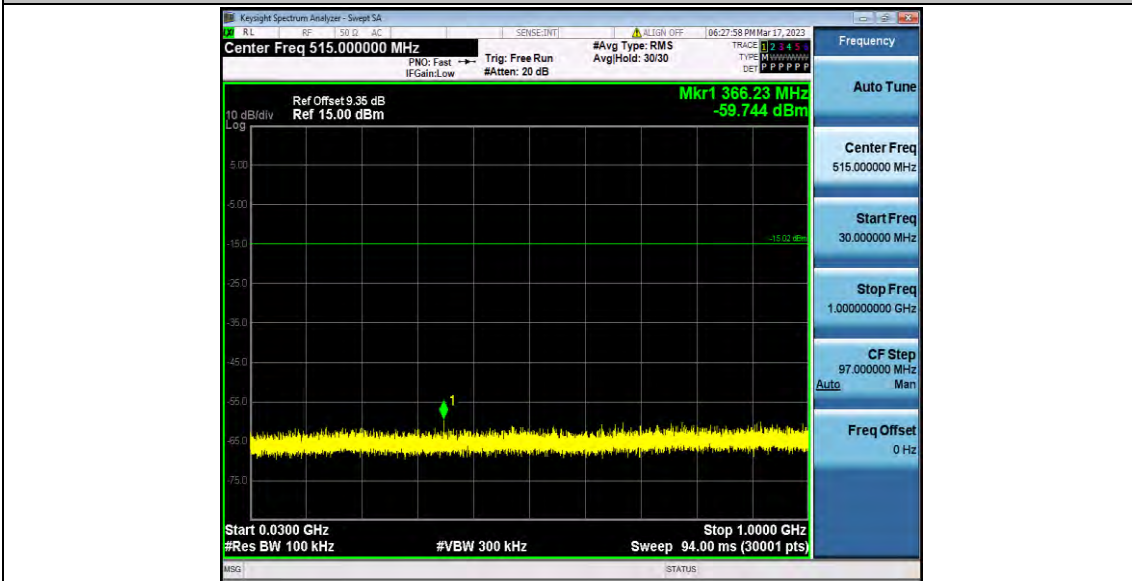




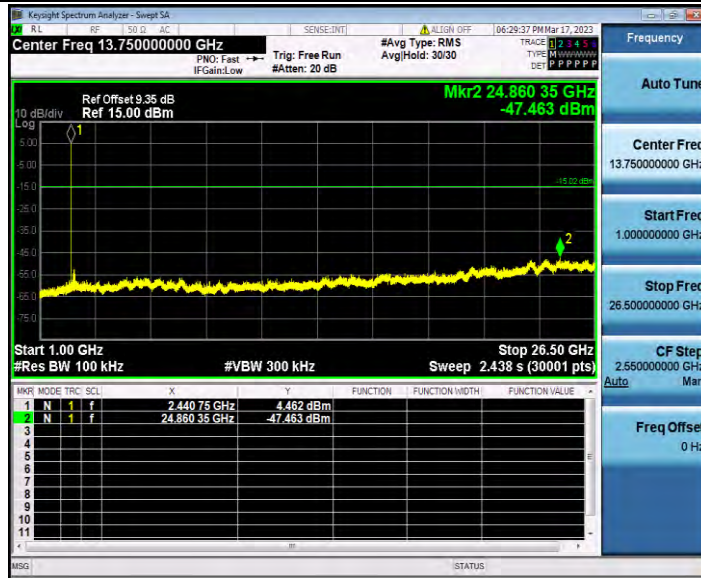
DH1_Ant1_2441_0~Reference



DH1_Ant1_2441_30~1000



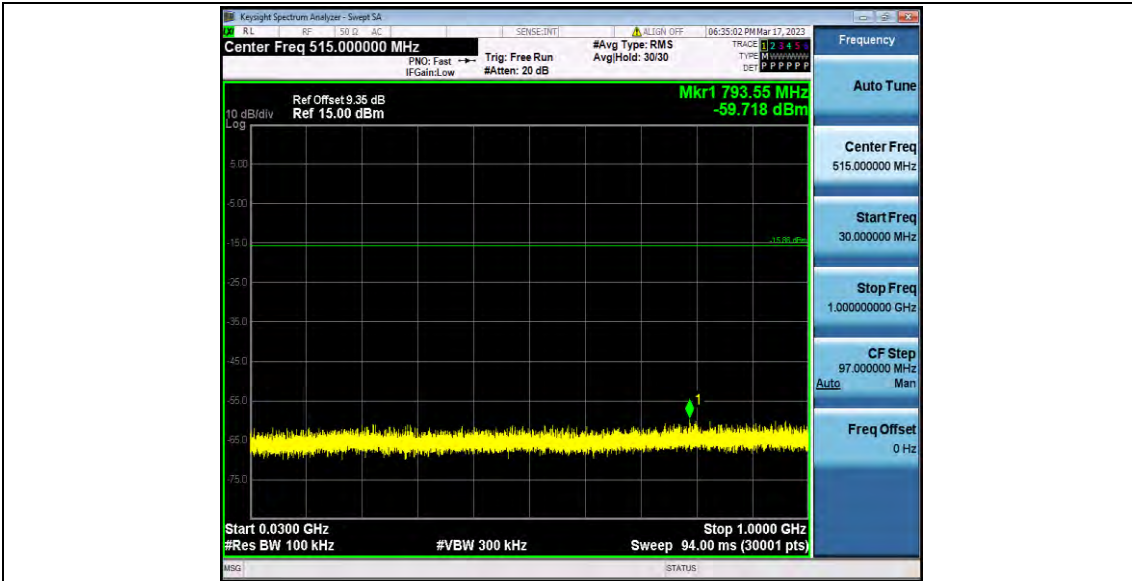
DH1_Ant1_2441_1000~26500



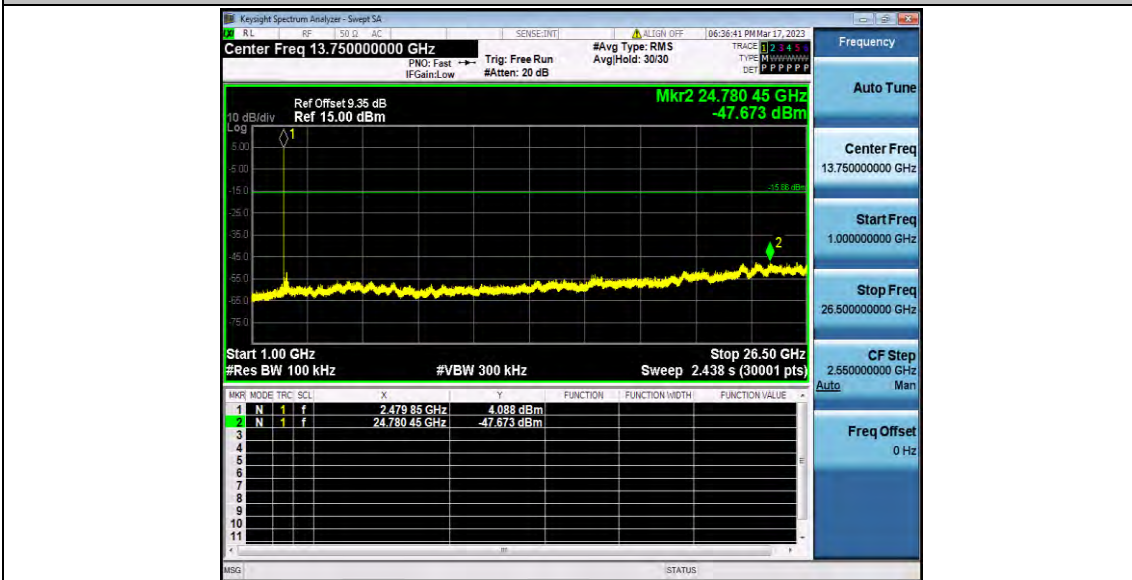
DH1_Ant1_2480_0~Reference



DH1_Ant1_2480_30~1000



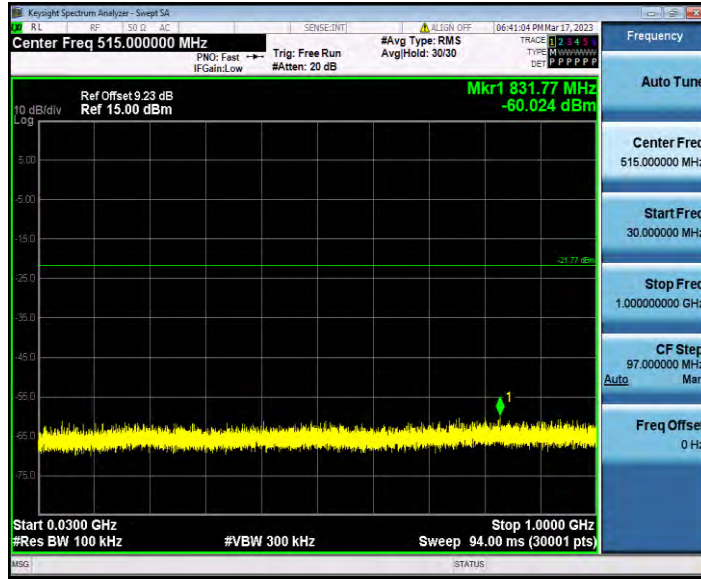
DH1_Ant1_2480_1000~26500



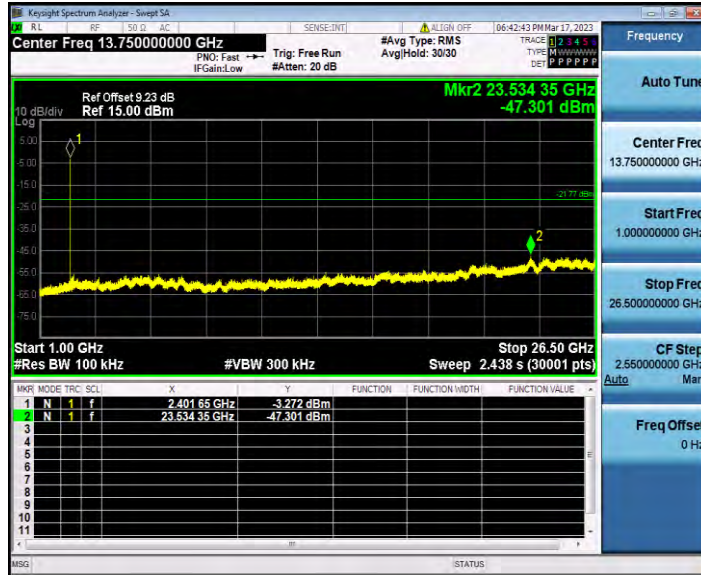
2DH1_Ant1_2402_0~Reference



2DH1_Ant1_2402_30~1000



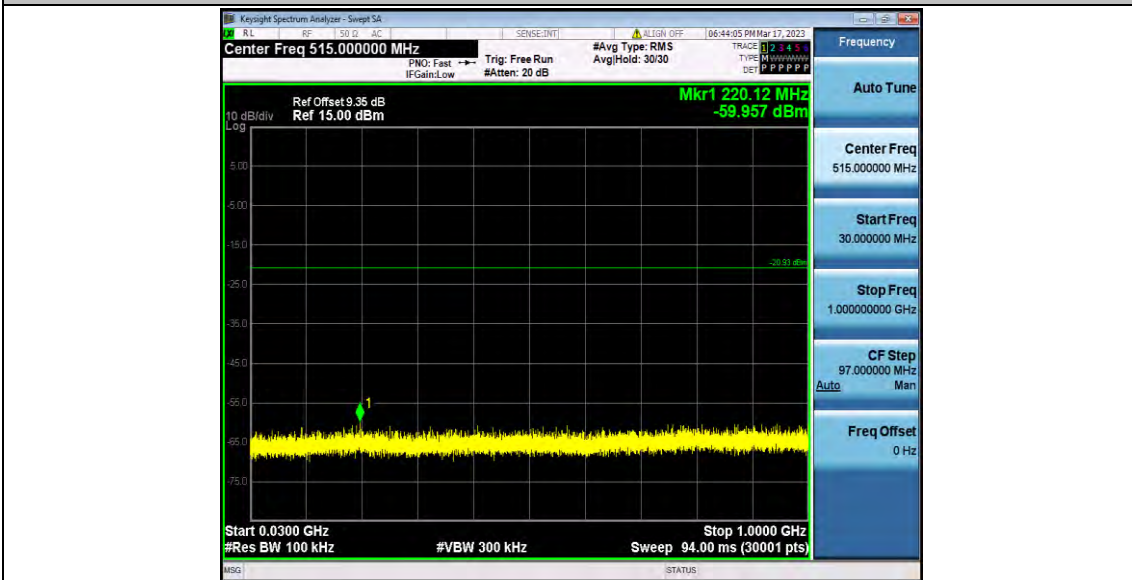
2DH1_Ant1_2402_1000~26500



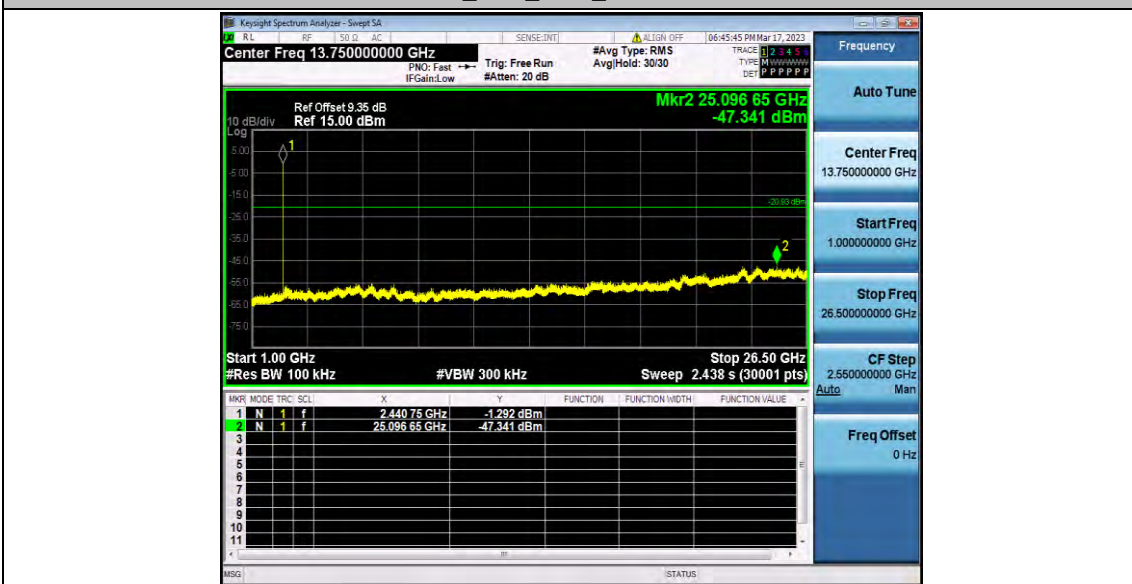
2DH1_Ant1_2441_0~Reference



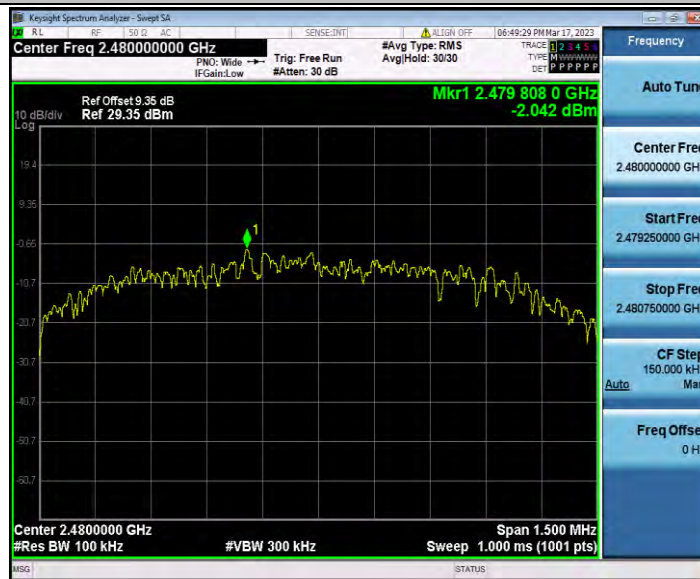
2DH1_Ant1_2441_30~100



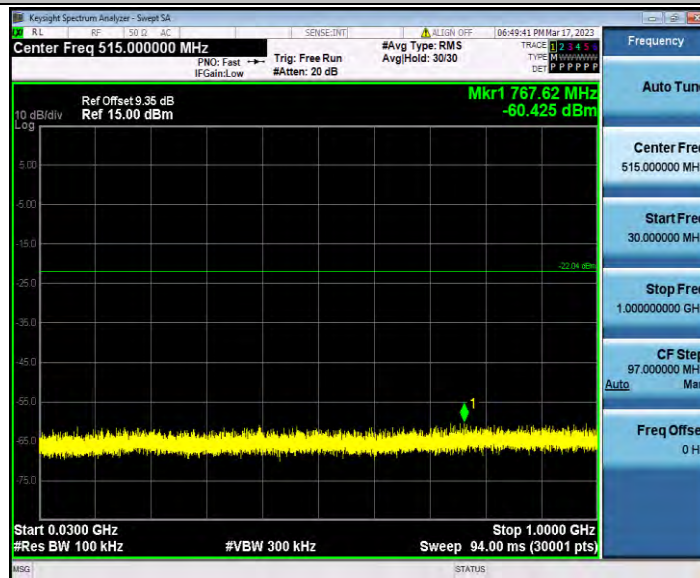
2DH1_Ant1_2441_1000~26500



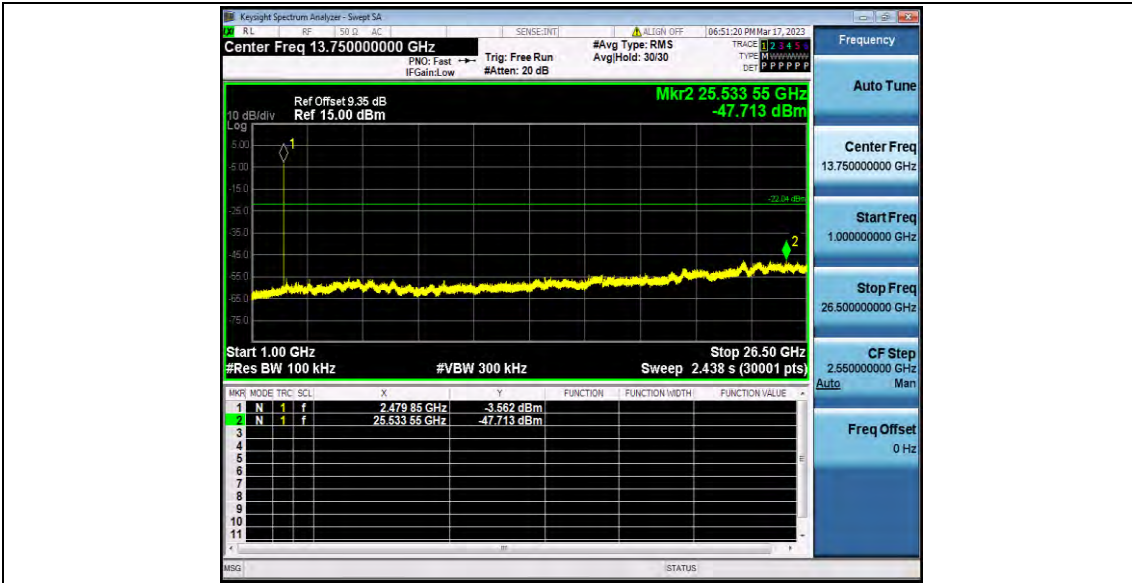
2DH1_Ant1_2480_0~Reference



2DH1_Ant1_2480_30~1000



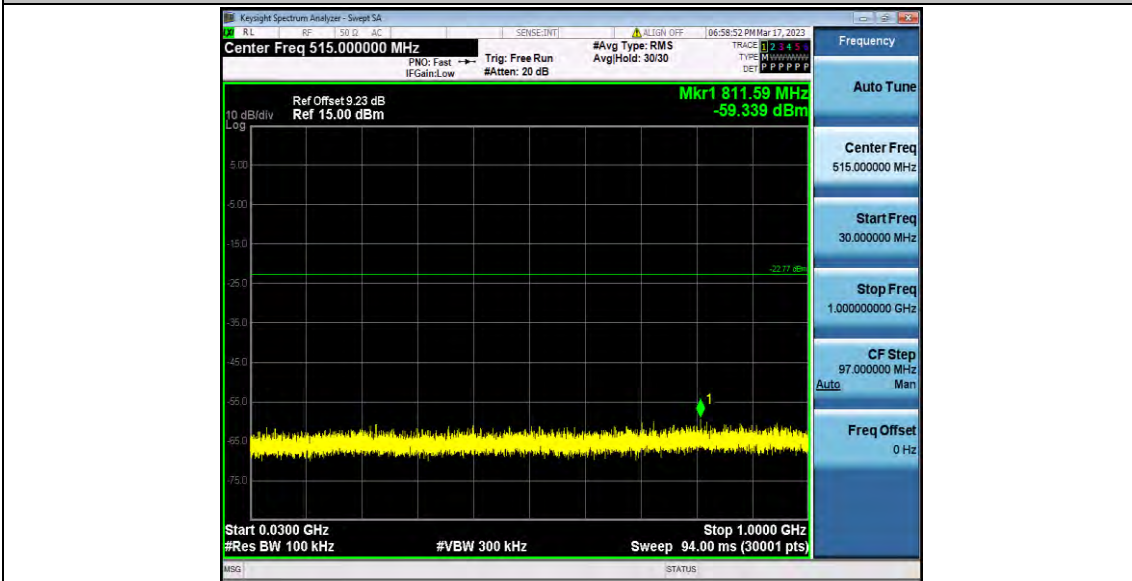
2DH1_Ant1_2480_1000~26500



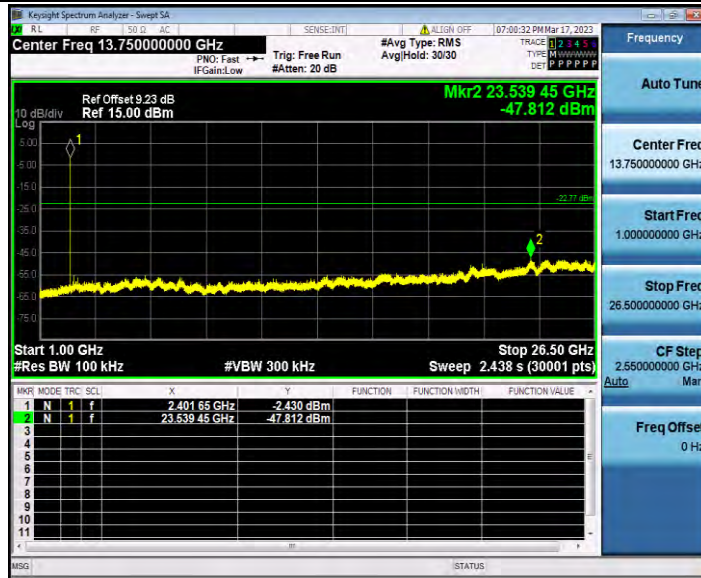
3DH1_Ant1_2402_0~Reference



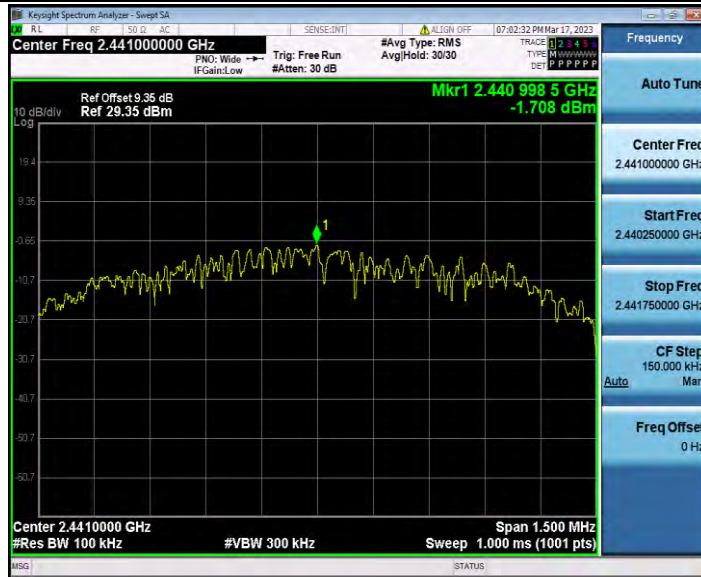
3DH1_Ant1_2402_30~1000



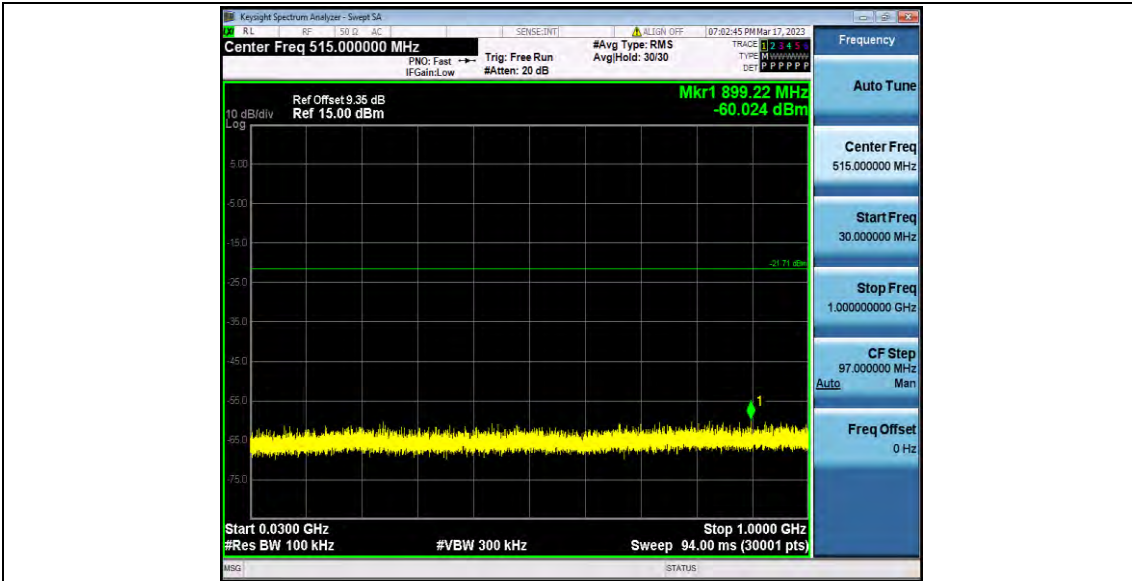
3DH1_Ant1_2402_1000~26500



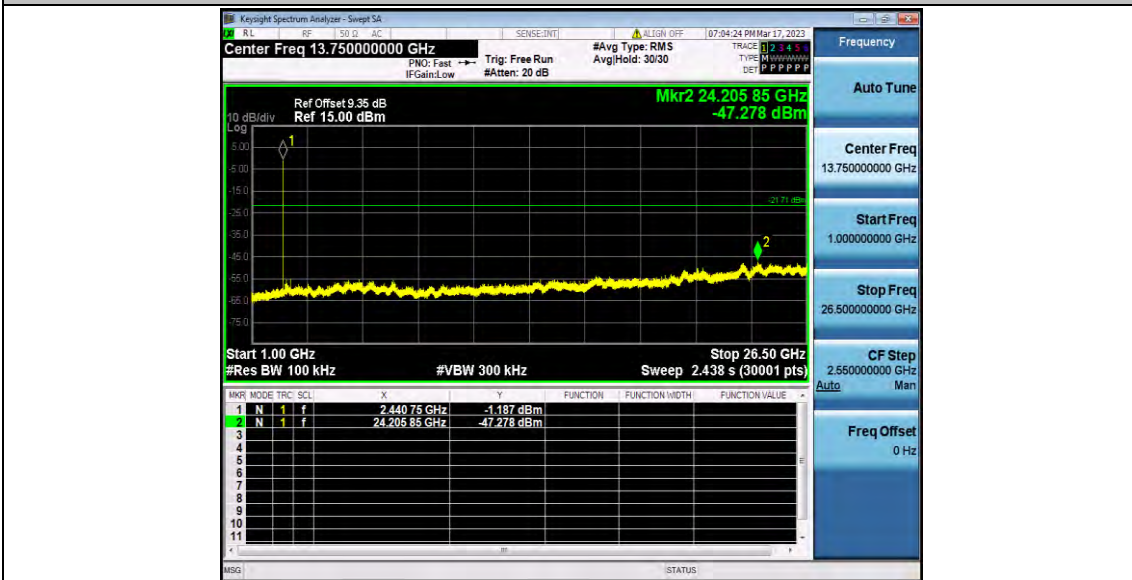
3DH1_Ant1_2441_0~Reference



3DH1_Ant1_2441_30~1000



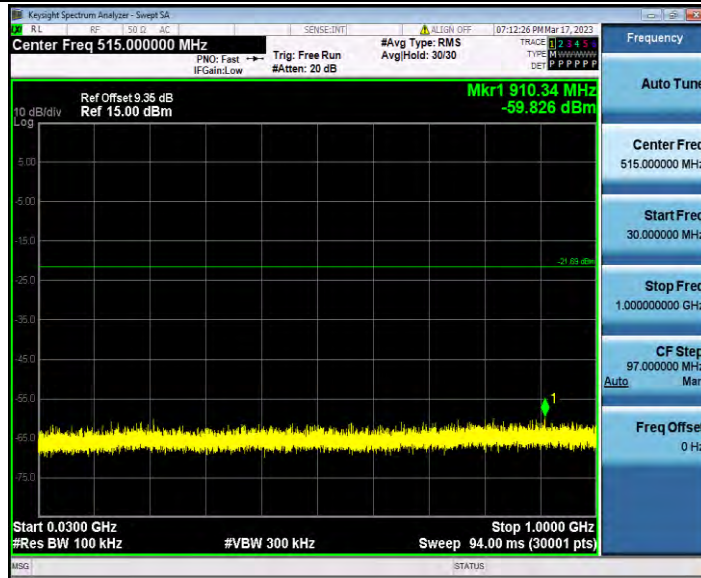
3DH1_Ant1_2441_1000~26500



3DH1_Ant1_2480_0~Reference



3DH1_Ant1_2480_30~1000



3DH1_Ant1_2480_1000~26500

