

<b>Case No. :</b> <u>GTS20230411005-1-12</u>
<b>Ambient Condition:</b> <u>24</u> °C, <u>50</u> %RH, Atmos100.1Kpa,
<b>Test Date:</b> <u>2023.5.9</u> <b>Test Engineer:</b> <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	0.894	2401.553	2402.447	---	---
		2441	0.930	2440.565	2441.495	---	---
		2480	0.939	2479.550	2480.489	---	---
2DH1	Ant1	2402	1.434	2401.271	2402.705	---	---
		2441	1.413	2440.298	2441.711	---	---
		2480	1.443	2479.265	2480.708	---	---
3DH1	Ant1	2402	1.386	2401.298	2402.684	---	---
		2441	1.464	2440.271	2441.735	---	---
		2480	1.446	2479.280	2480.726	---	---

## Test Graphs



DH1\_Ant1\_2402



DH1\_Ant1\_2441



DH1\_Ant1\_2480



2DH1\_Ant1\_2400



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	0.85730	2401.572	2402.429	---	---
		2441	0.86074	2440.577	2441.438	---	---
		2480	0.86059	2479.569	2480.430	---	---
2DH1	Ant1	2402	1.3420	2401.335	2402.677	---	---
		2441	1.3357	2440.332	2441.668	---	---
		2480	1.3427	2479.326	2480.669	---	---
3DH1	Ant1	2402	1.3434	2401.334	2402.677	---	---
		2441	1.3411	2440.331	2441.673	---	---
		2480	1.3413	2479.329	2480.670	---	---

## 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	8.68	≤30.00	PASS
		2441	10.59	≤30.00	PASS
		2480	10.54	≤30.00	PASS
2DH1	Ant1	2402	6.98	≤20.97	PASS
		2441	8.65	≤20.97	PASS
		2480	8.23	≤20.97	PASS
3DH1	Ant1	2402	7.17	≤20.97	PASS
		2441	8.79	≤20.97	PASS
		2480	8.47	≤20.97	PASS

## Appendix A.4: Carrier frequency separation

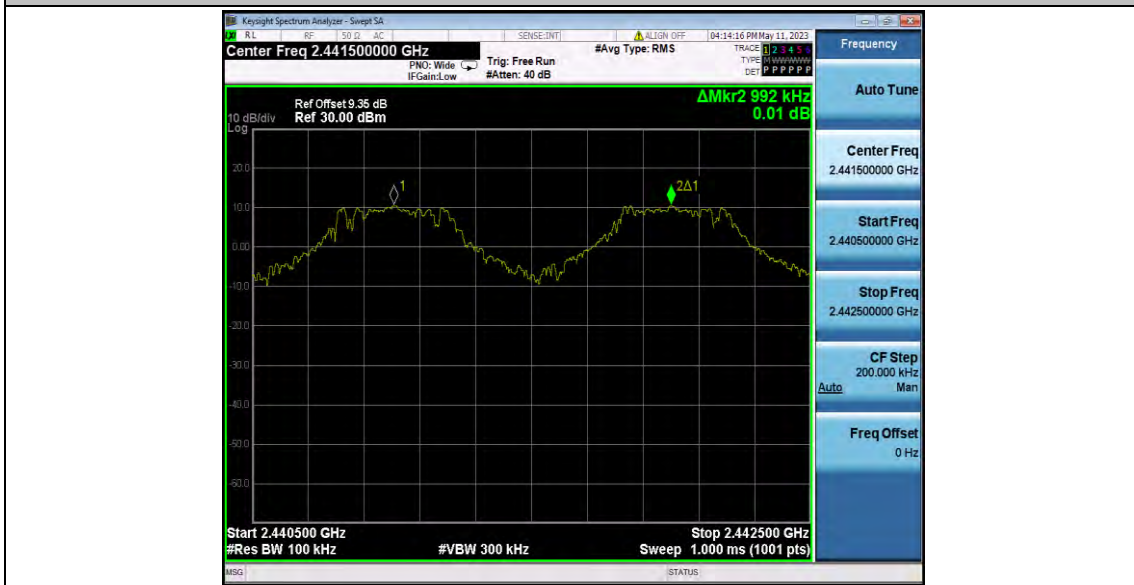
### Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	0.998	$\geq 0.939$	PASS
		Hop_2441	0.992	$\geq 0.939$	PASS
		Hop_2480	0.994	$\geq 0.939$	PASS
2DH1	Ant1	Hop_2402	1.162	$\geq 0.964$	PASS
		Hop_2441	1.152	$\geq 0.964$	PASS
		Hop_2480	0.992	$\geq 0.964$	PASS
3DH1	Ant1	Hop_2402	0.99	$\geq 0.976$	PASS
		Hop_2441	1	$\geq 0.976$	PASS
		Hop_2480	1	$\geq 0.976$	PASS

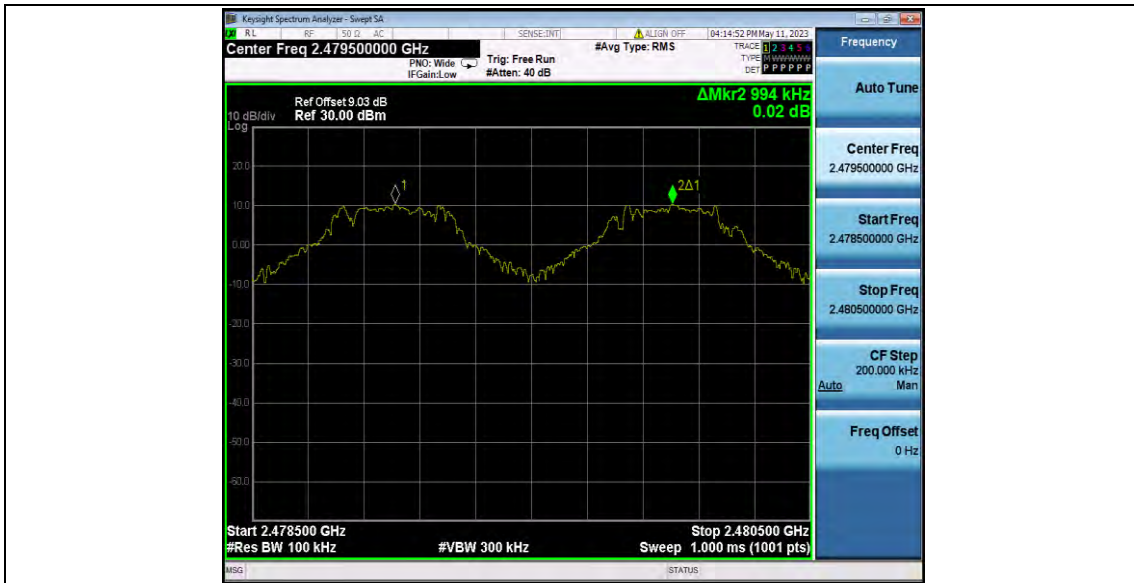
## Test Graphs



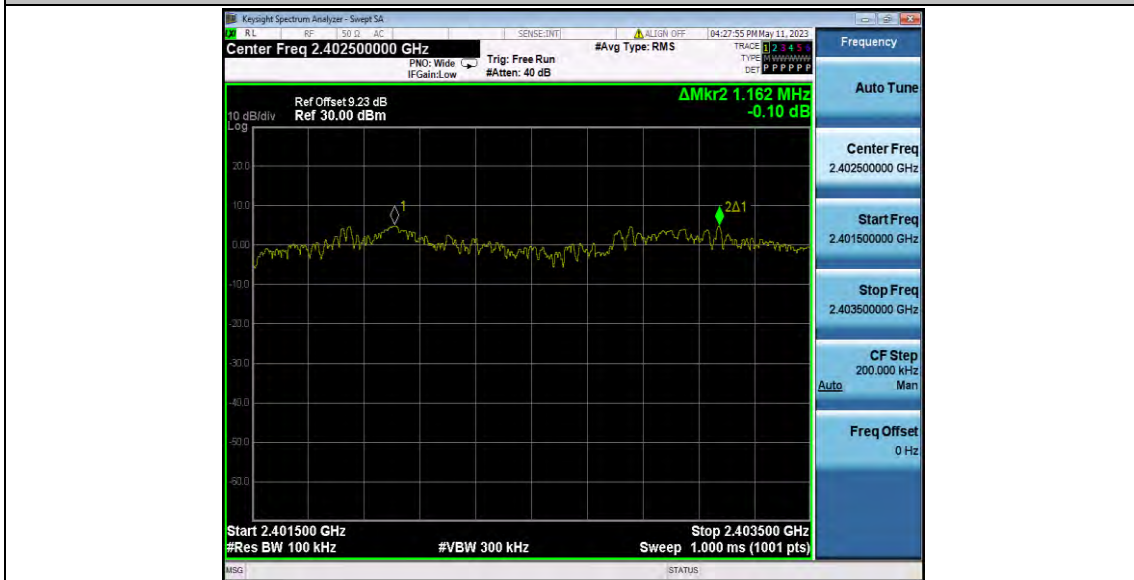
DH1\_Ant1\_Hop\_2402



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

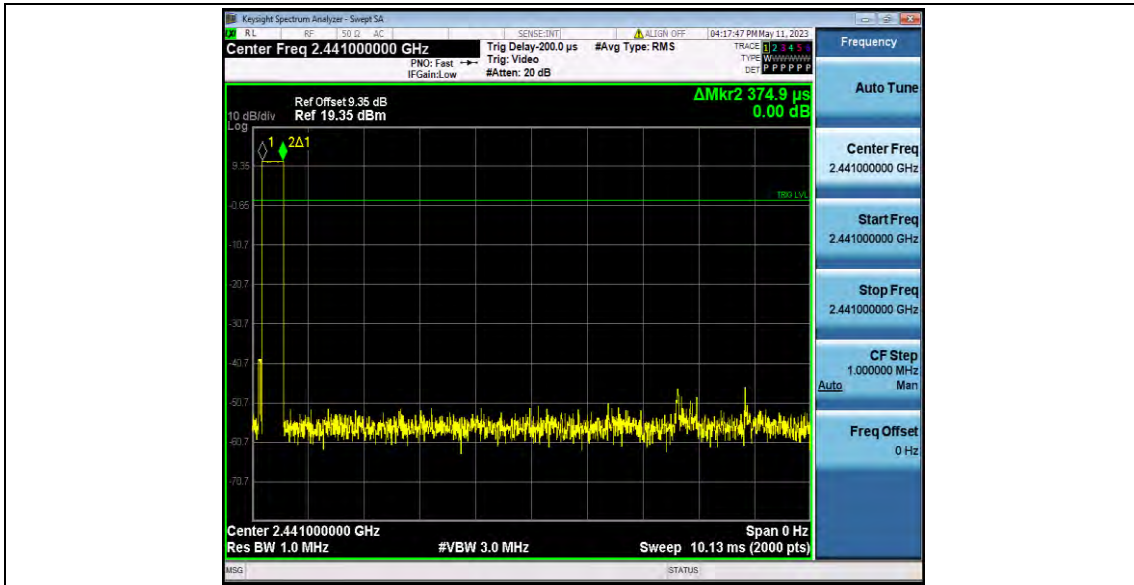


## Appendix A.5: Time of occupancy

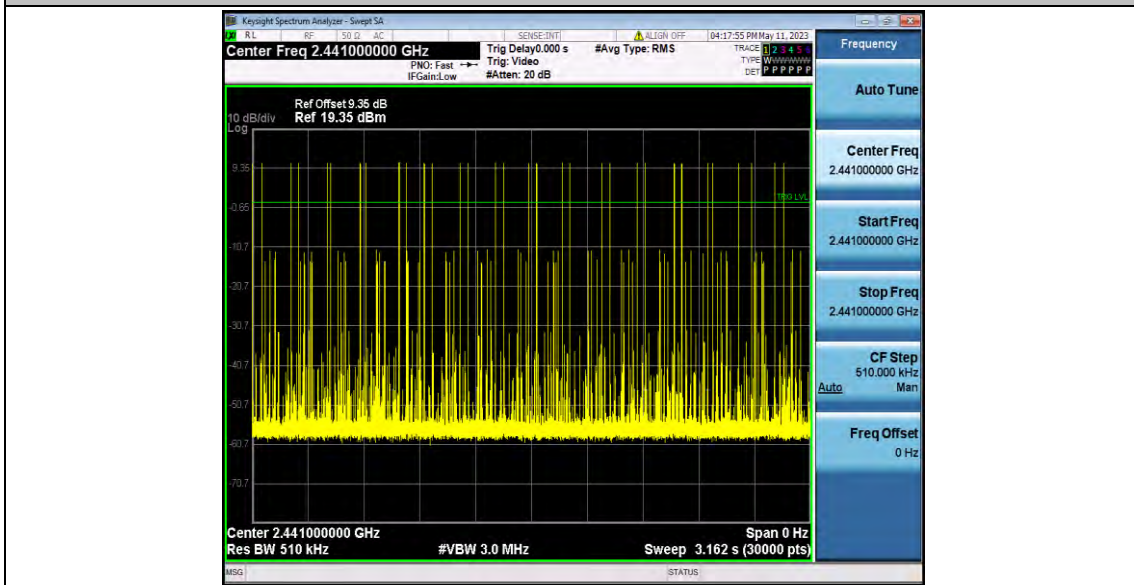
### Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.37	320	0.12	≤0.4	PASS
DH3	Ant1	Hop	1.63	170	0.276	≤0.4	PASS
DH5	Ant1	Hop	2.88	120	0.345	≤0.4	PASS
2DH1	Ant1	Hop	0.38	320	0.122	≤0.4	PASS
2DH3	Ant1	Hop	1.63	180	0.294	≤0.4	PASS
2DH5	Ant1	Hop	2.88	100	0.288	≤0.4	PASS
3DH1	Ant1	Hop	0.38	330	0.125	≤0.4	PASS
3DH3	Ant1	Hop	1.63	180	0.294	≤0.4	PASS
3DH5	Ant1	Hop	2.88	100	0.288	≤0.4	PASS

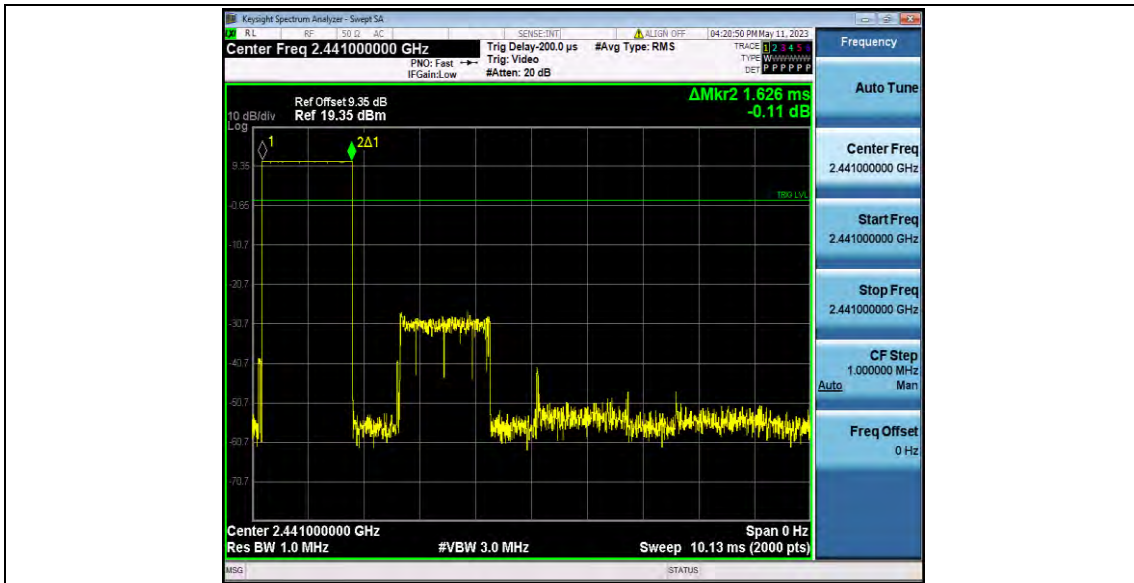
## Test Graphs



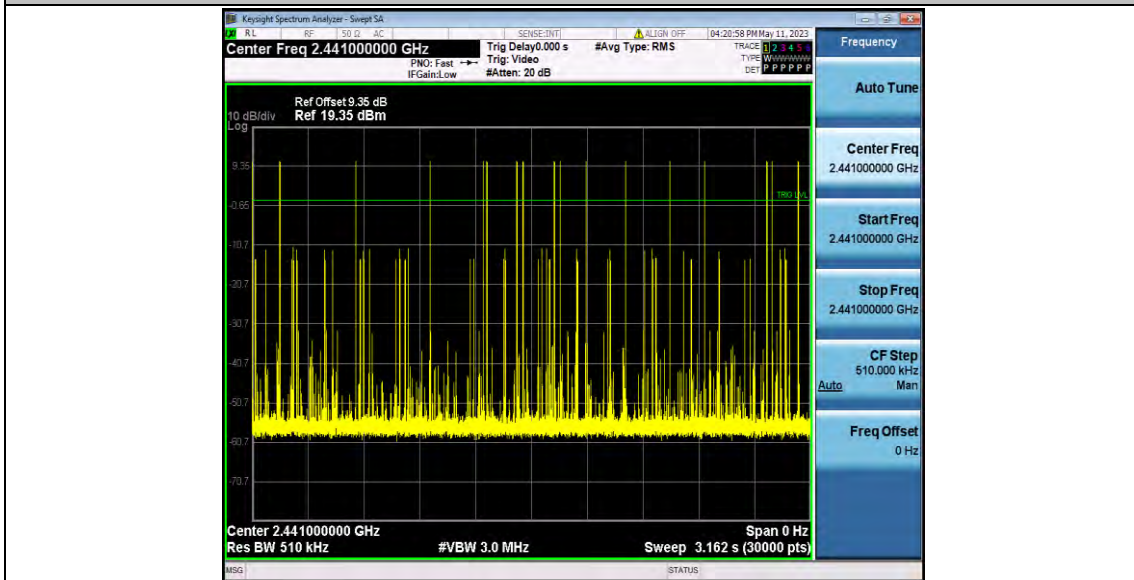
DH1\_Ant1\_Hop



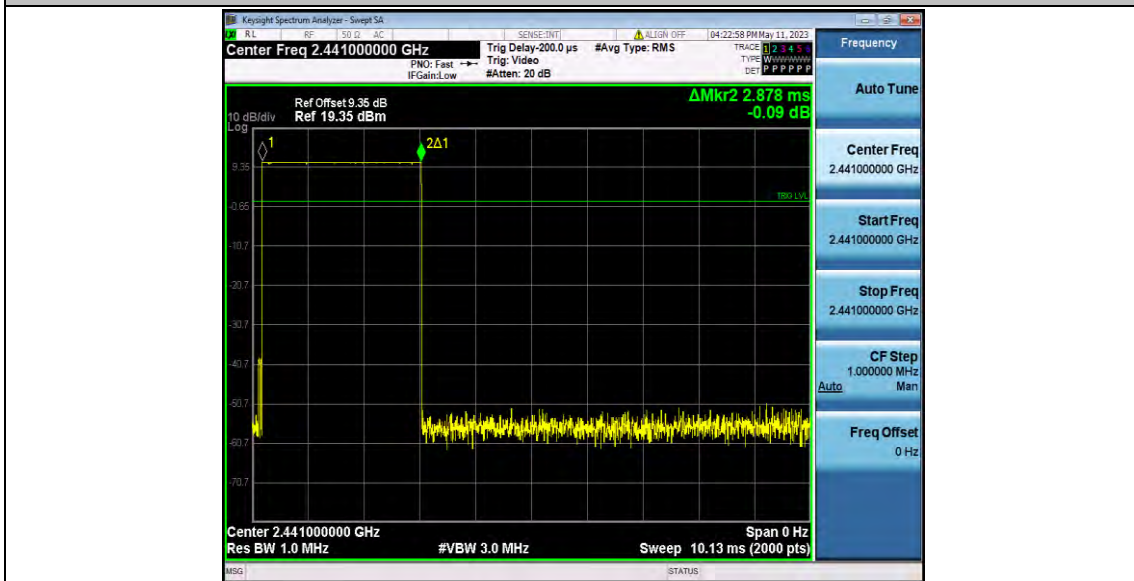
DH1\_Ant1\_Hop



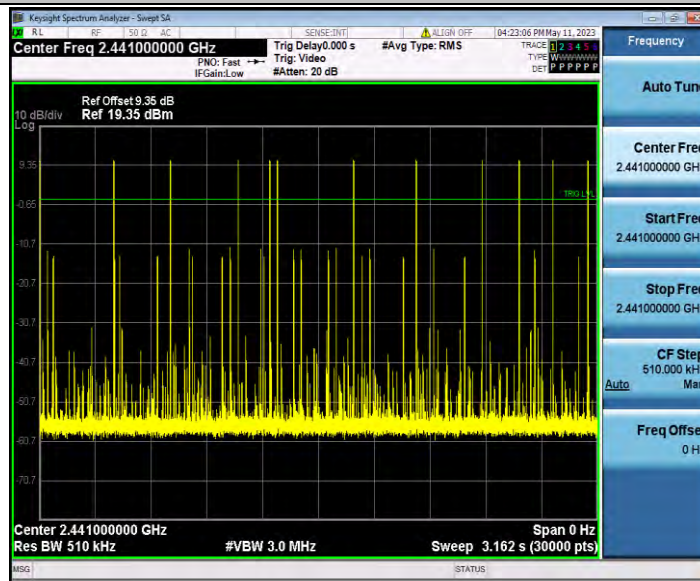
DH3\_Ant1\_Hop



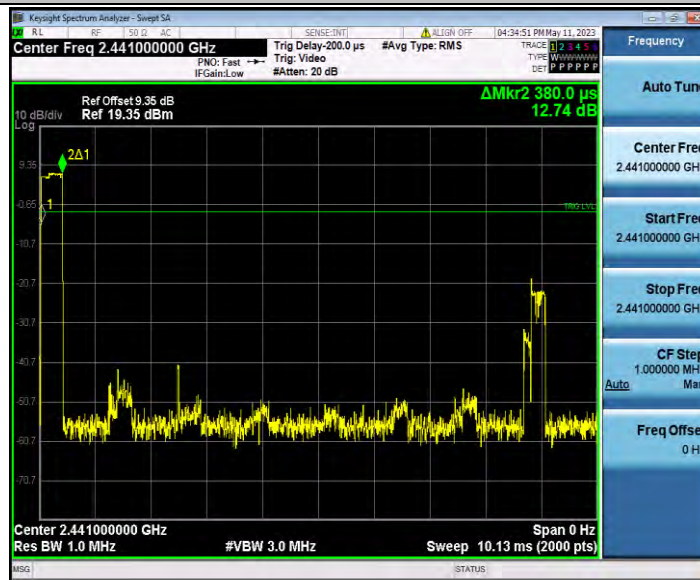
DH3\_Ant1\_Hop



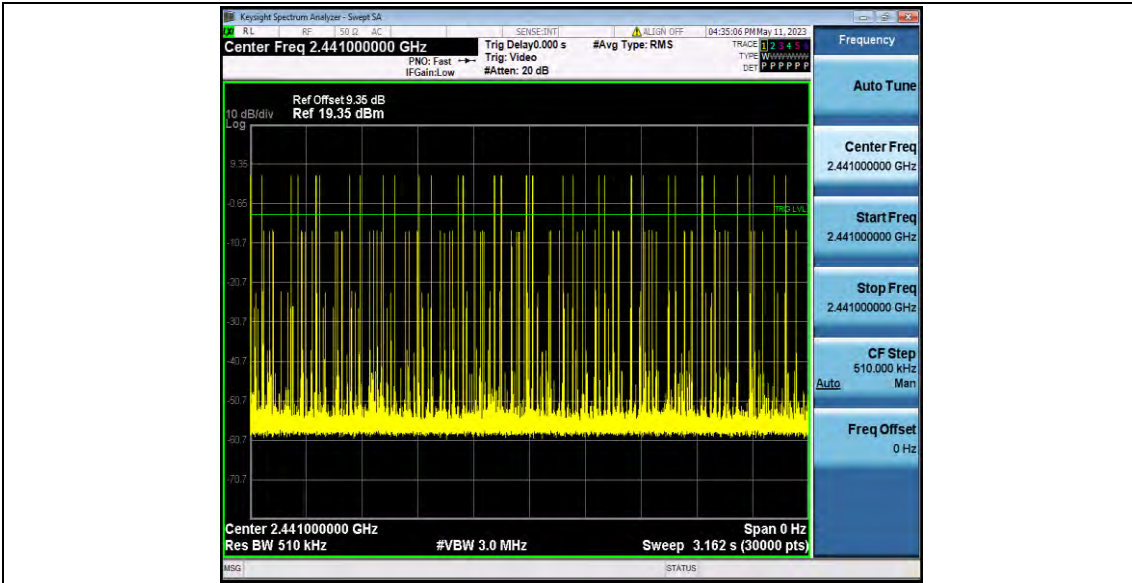
DH5\_Ant1\_Hop



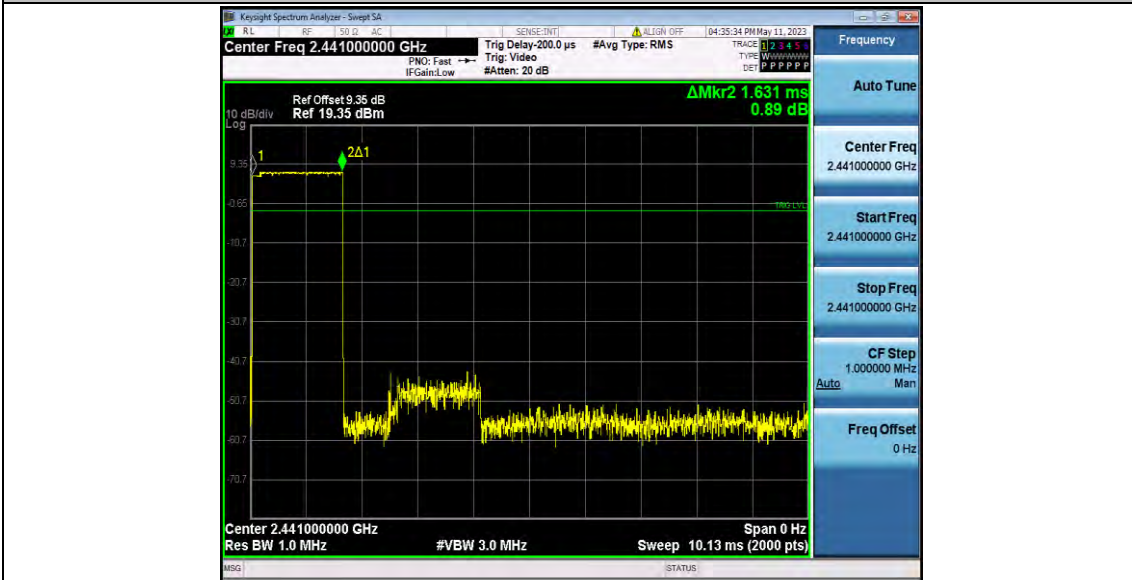
DH5\_Ant1\_Hop



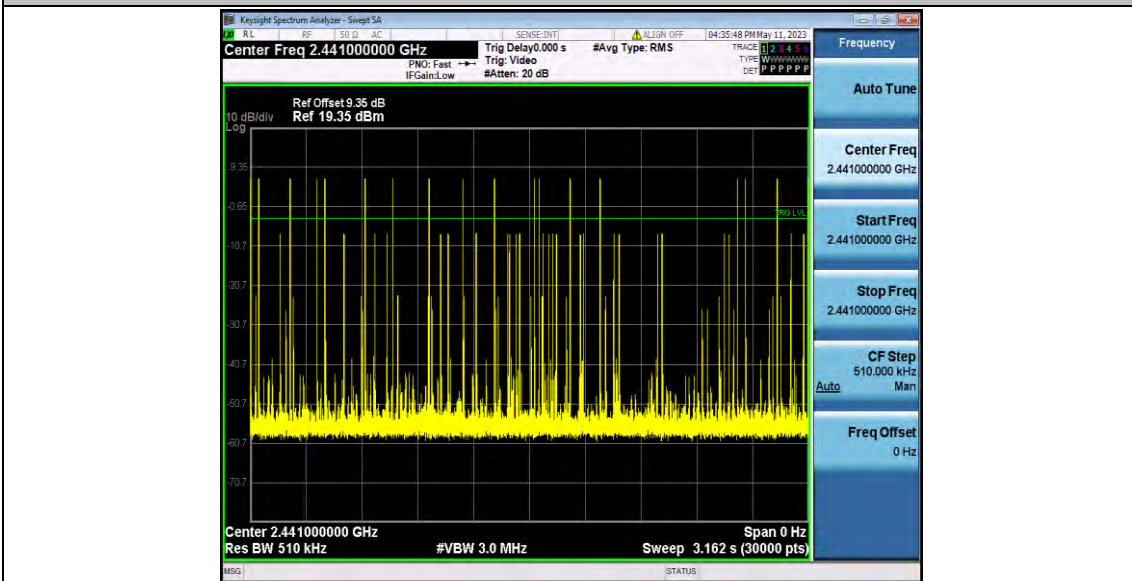
2DH1\_Ant1\_Hop



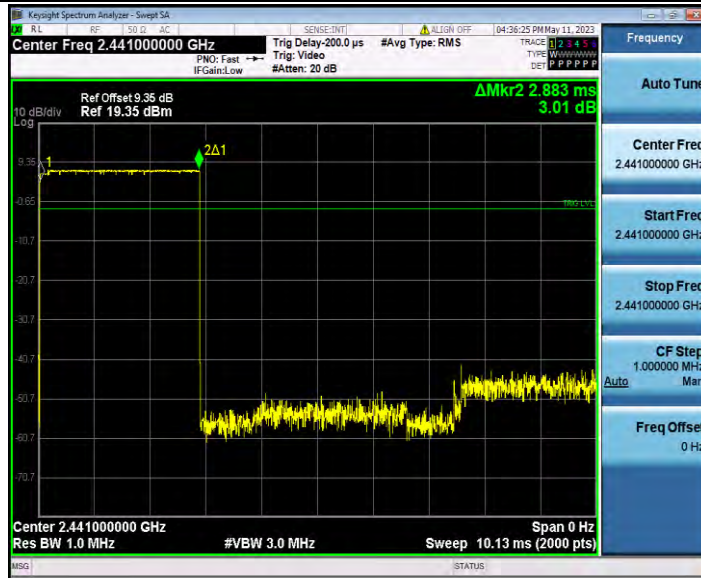
2DH1\_Ant1\_Hop



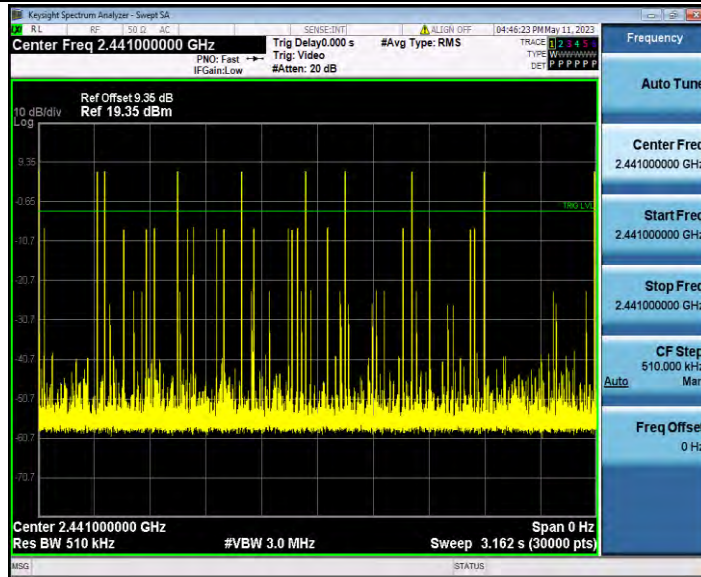
2DH3\_Ant1\_Hop



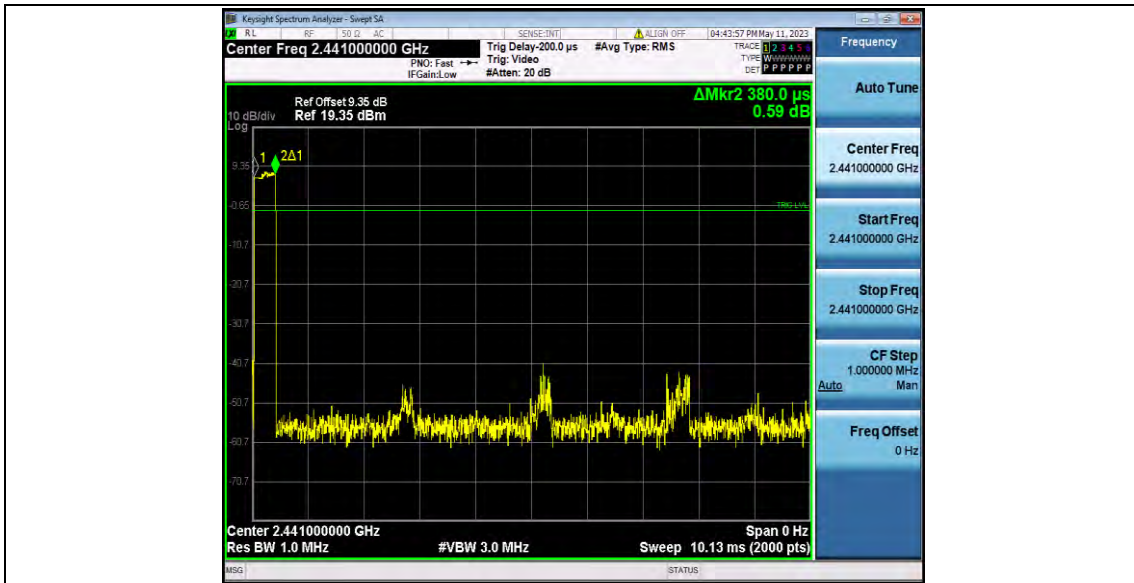
2DH3\_Ant1\_Hop



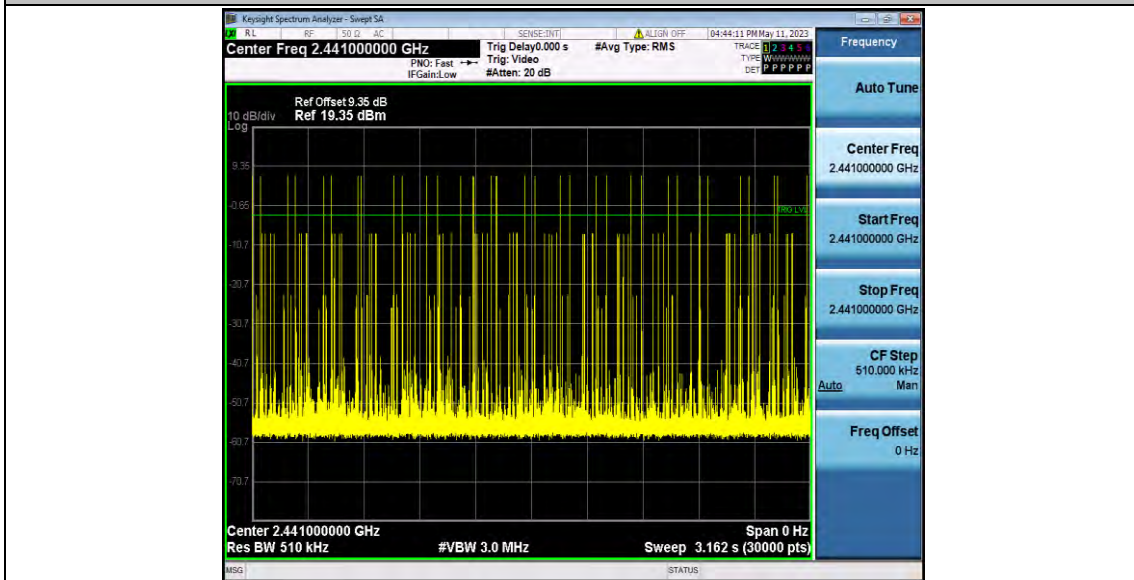
2DH5\_Ant1\_Hop



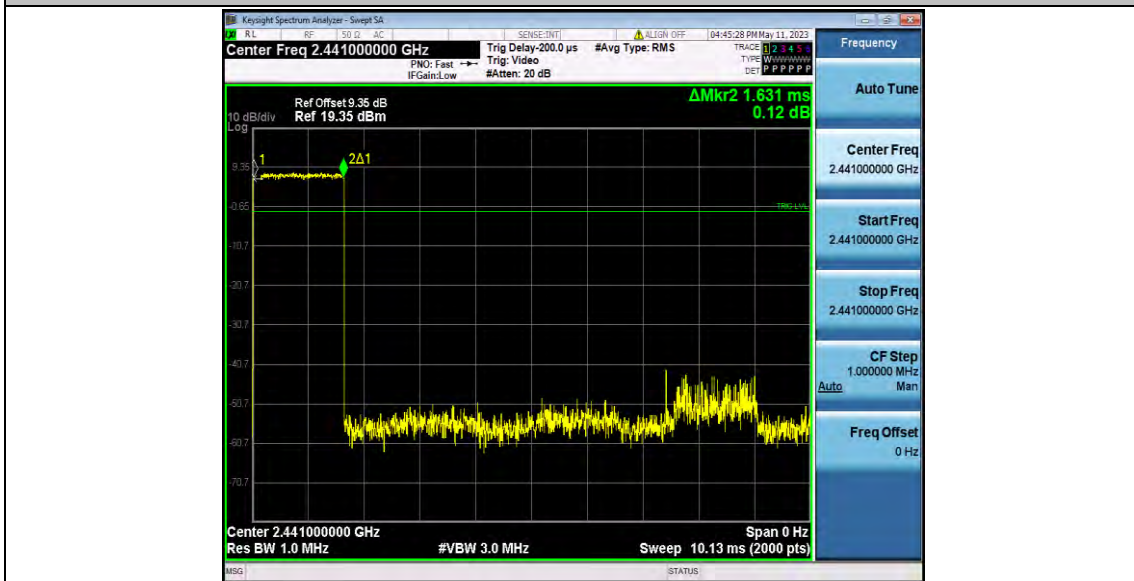
2DH5\_Ant1\_Hop



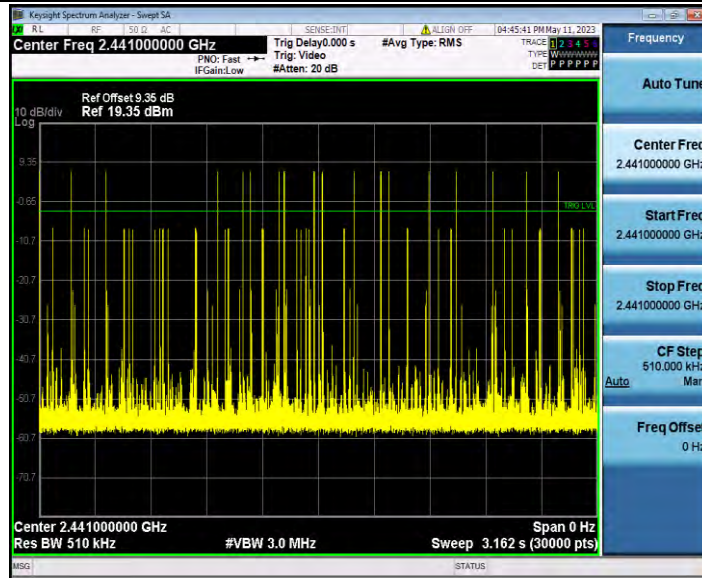
3DH1\_Ant1\_Hop



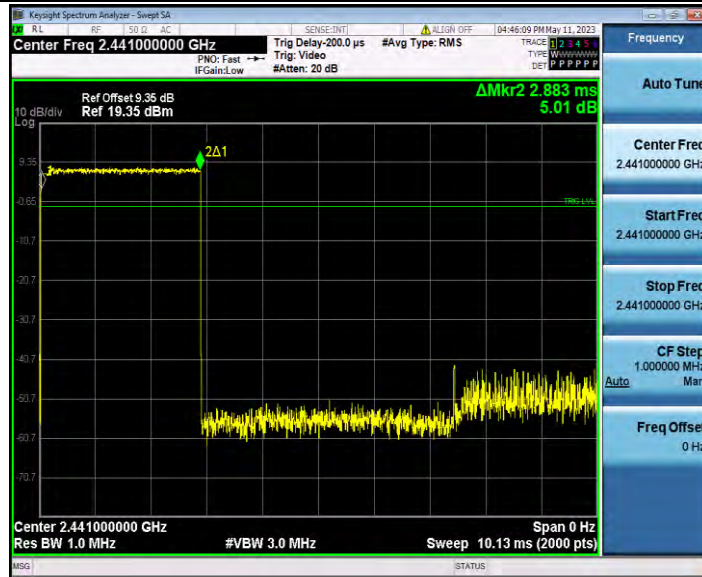
3DH1\_Ant1\_Hop



3DH3\_Ant1\_Hop

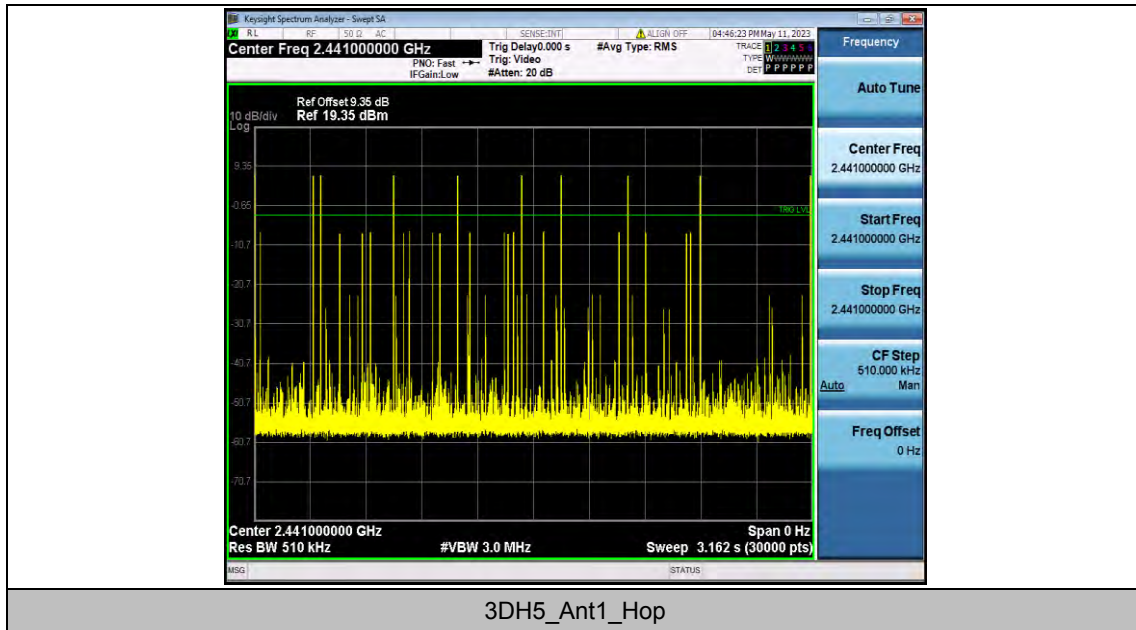


3DH3\_Ant1\_Hop



3DH5\_Ant1\_Hop





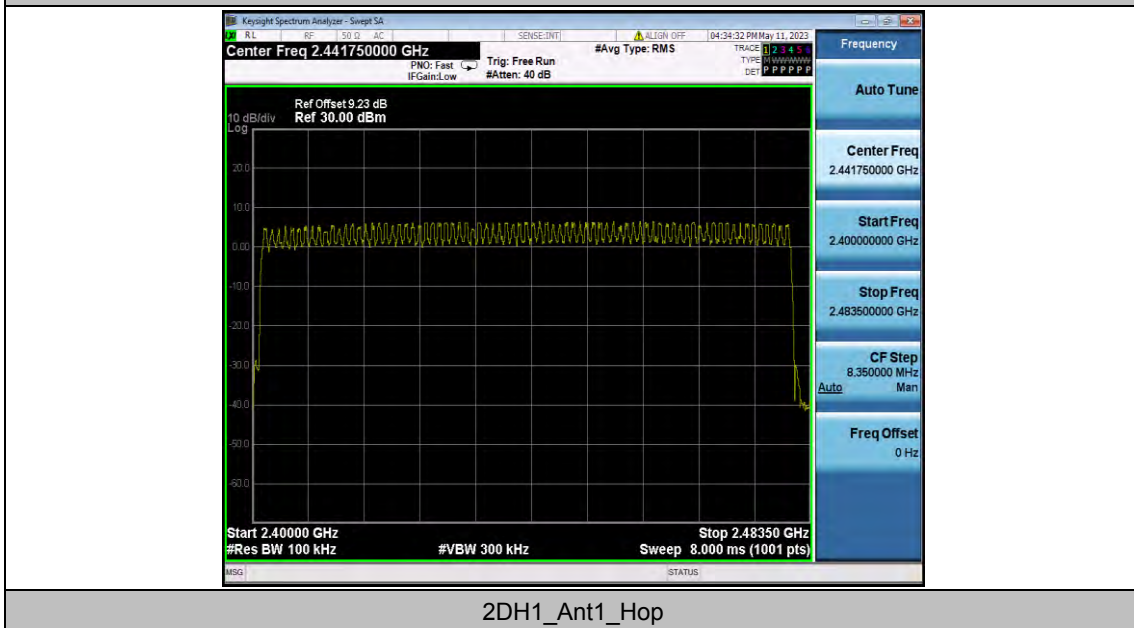
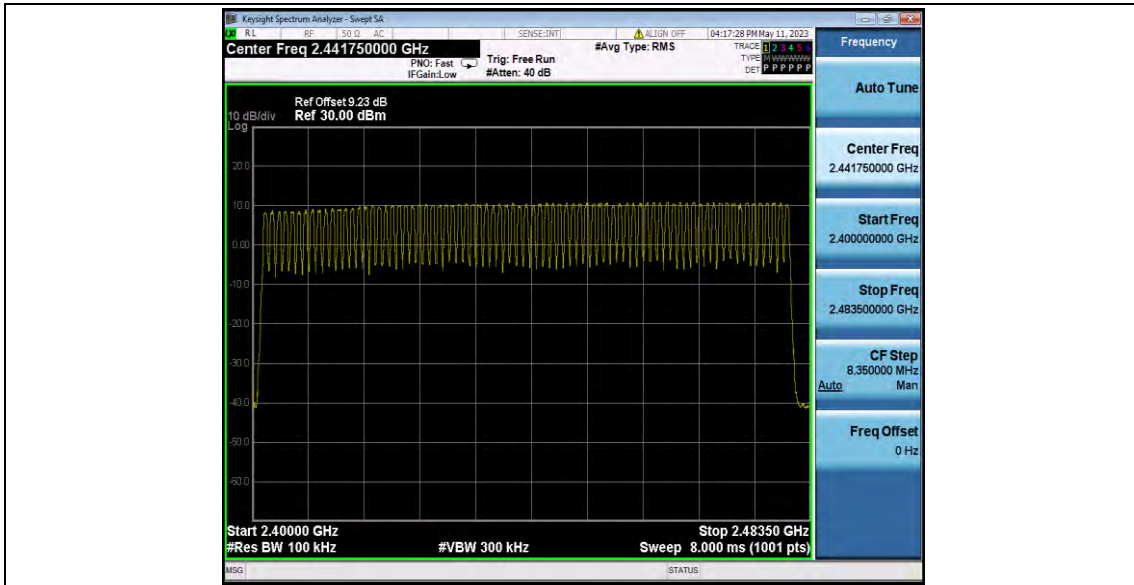
3DH5\_Ant1\_Hop

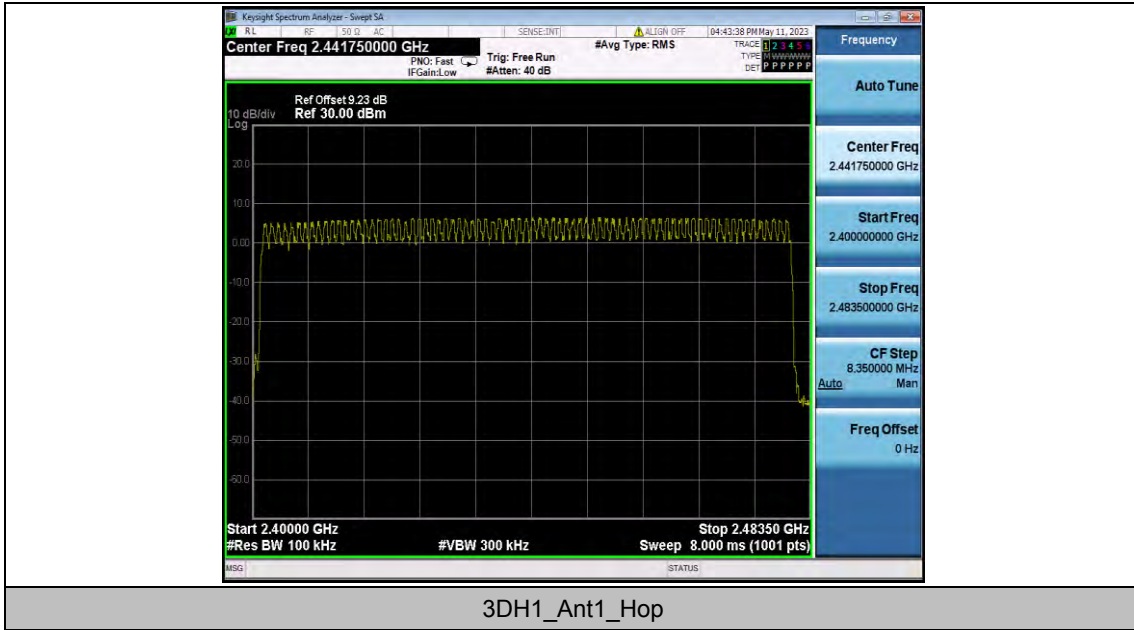
## Appendix A.6: Number of hopping channels

### 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





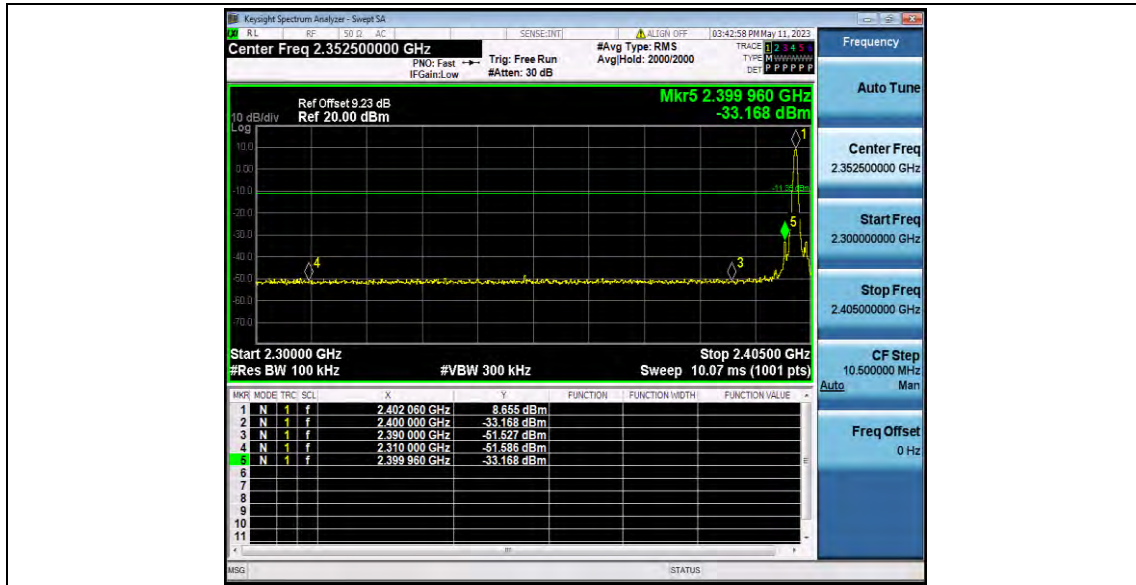
3DH1\_Ant1\_Hop

## Appendix A.7: Band edge measurements

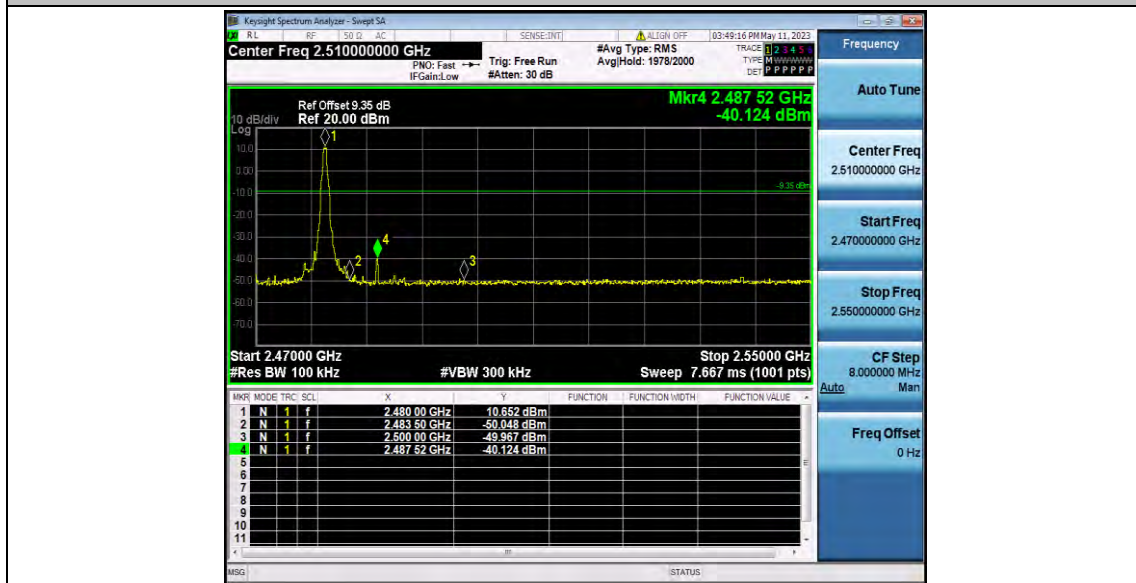
### Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	8.66	-33.17	≤-11.35	PASS
		High	2480	10.65	-40.12	≤-9.35	PASS
		Low	Hop_2402	8.02	-49.38	≤-11.98	PASS
		High	Hop_2480	10.65	-47.78	≤-9.35	PASS
2DH1	Ant1	Low	2402	5.06	-37.95	≤-14.94	PASS
		High	2480	6.17	-40.67	≤-13.83	PASS
		Low	Hop_2402	4.98	-49.46	≤-15.03	PASS
		High	Hop_2480	5.67	-48.46	≤-14.33	PASS
3DH1	Ant1	Low	2402	4.96	-37.39	≤-15.04	PASS
		High	2480	6.20	-40.74	≤-13.8	PASS
		Low	Hop_2402	4.79	-49.6	≤-15.21	PASS
		High	Hop_2480	5.75	-48.28	≤-14.25	PASS

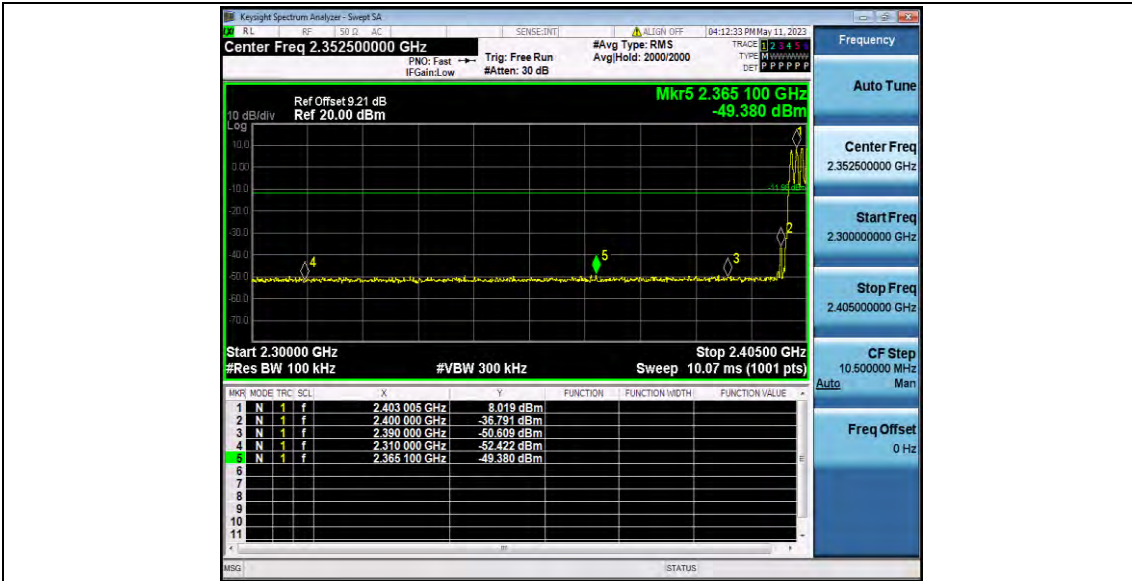
## Test Graphs



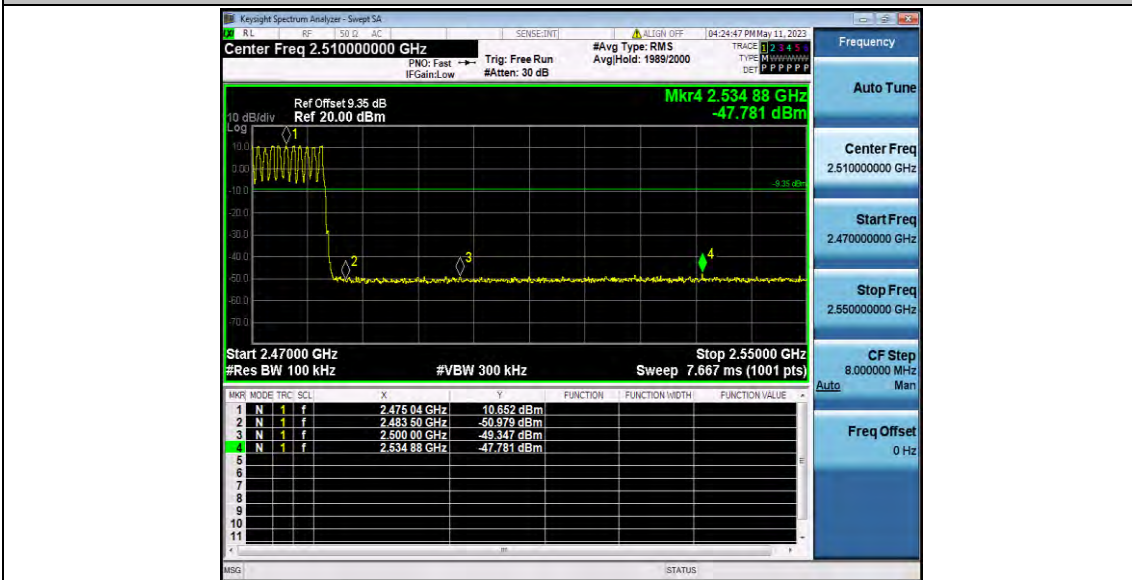
DH1\_Ant1\_Low\_2402



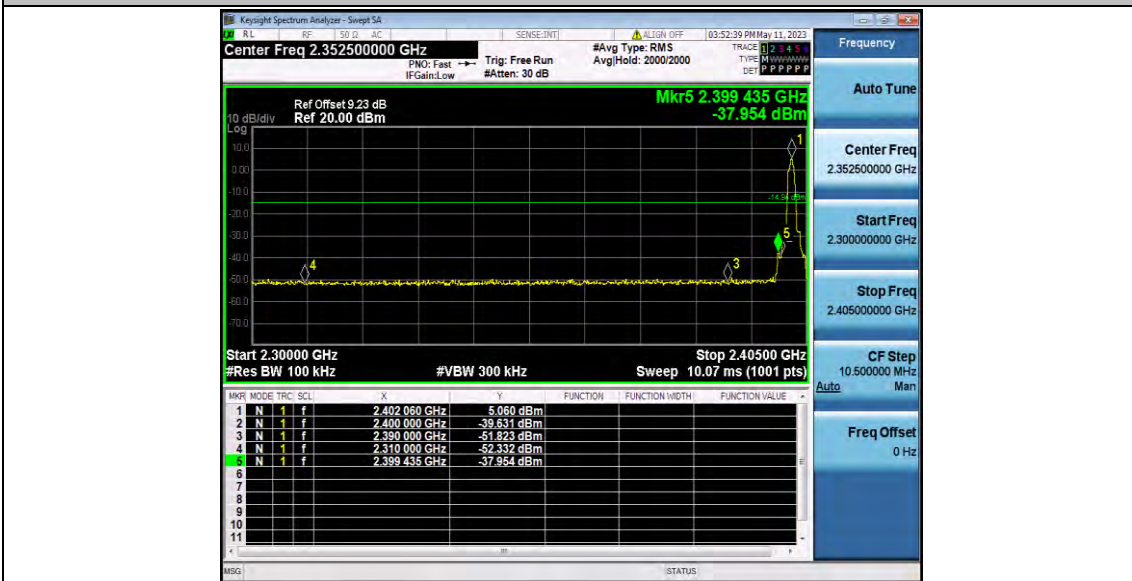
DH1\_Ant1\_High\_2480



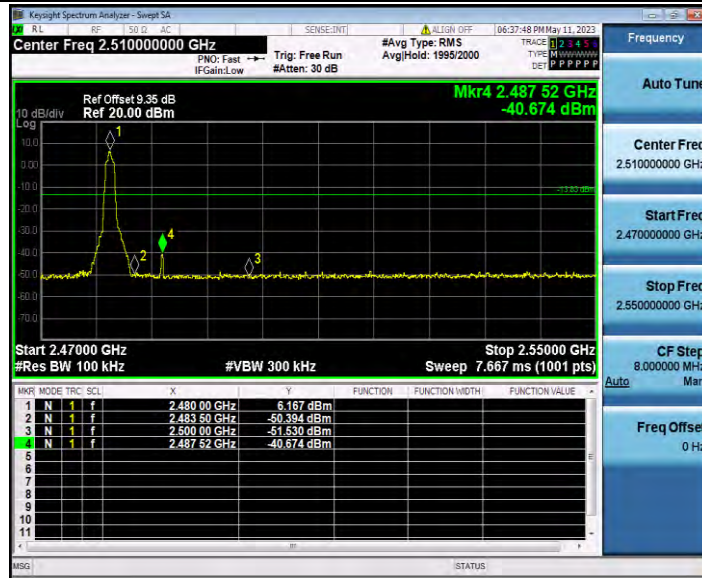
DH1\_Ant1\_Low\_Hop\_2402



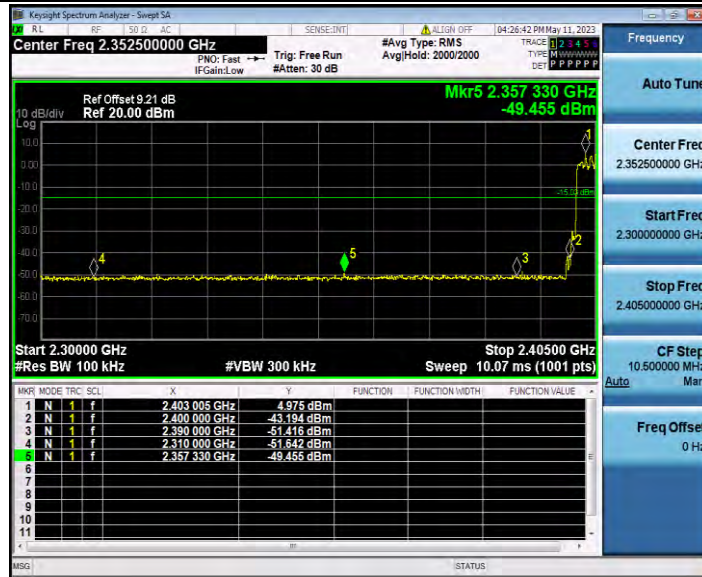
DH1\_Ant1\_High\_Hop\_2480



2DH1\_Ant1\_Low\_2402

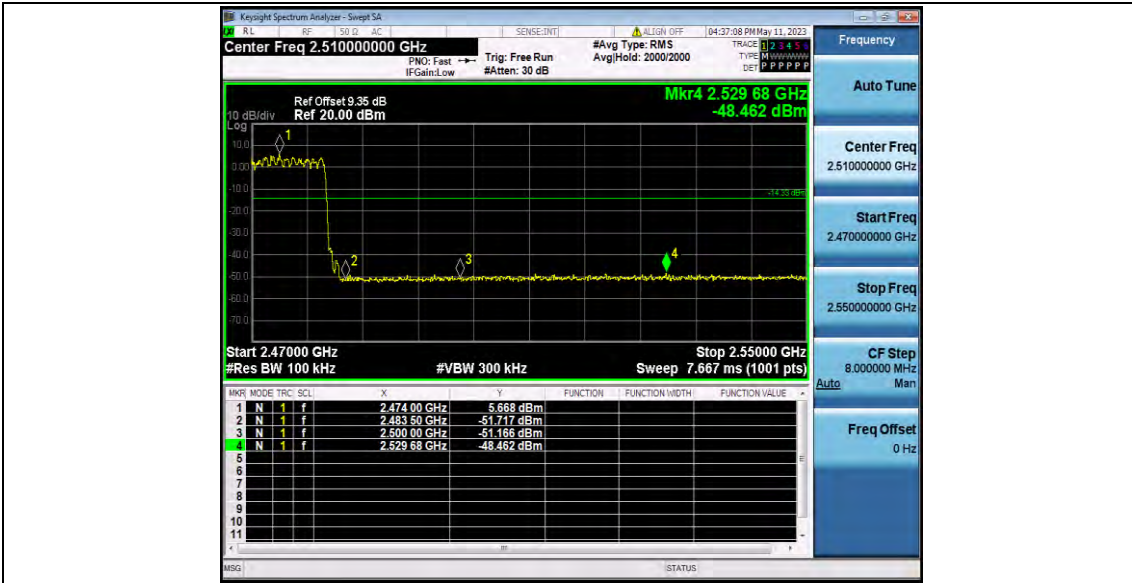


2DH1\_Ant1\_High\_2480

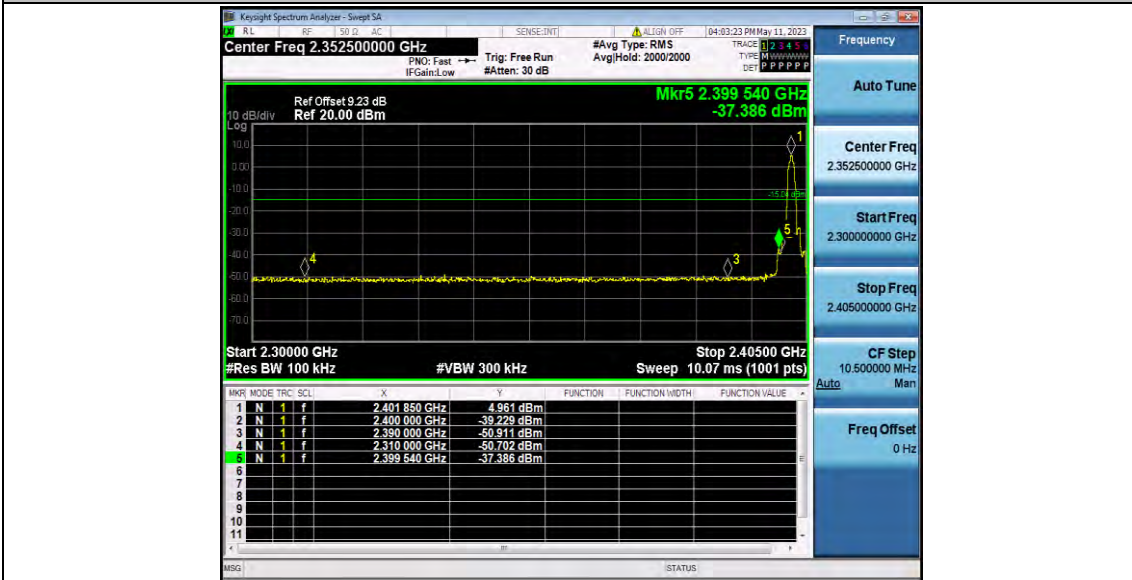


2DH1\_Ant1\_Low\_Hop\_2402

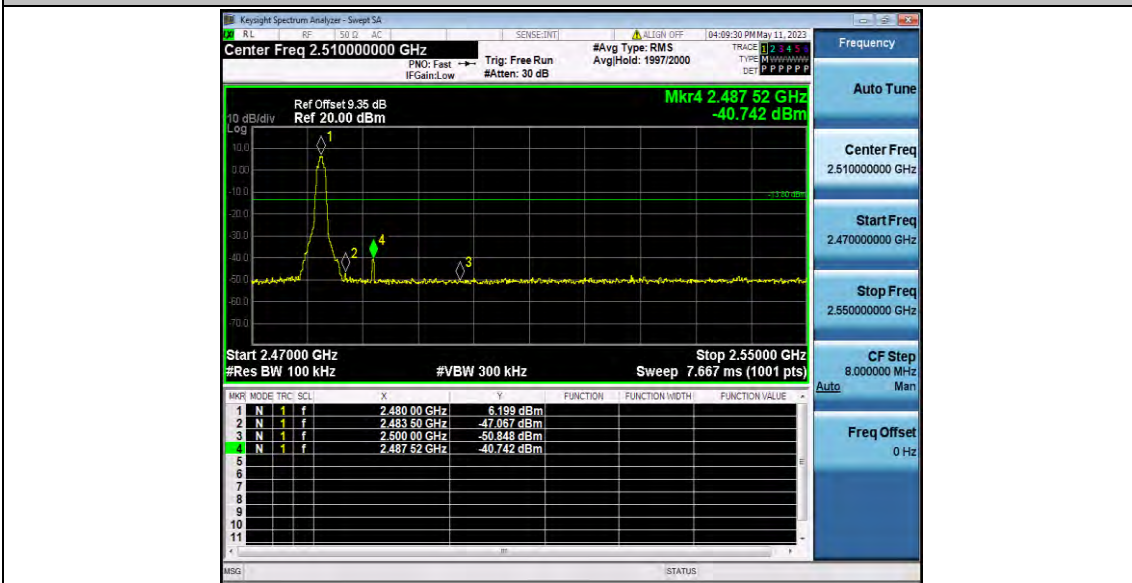




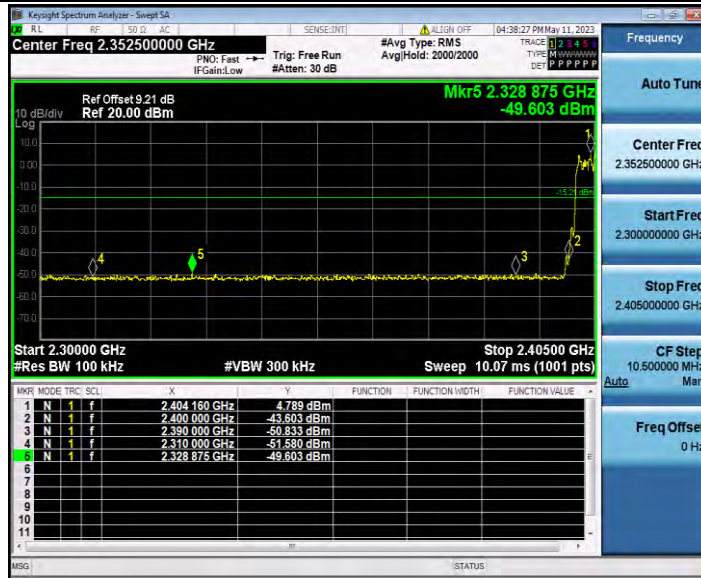
2D1H\_Ant1\_High\_Hop\_2480



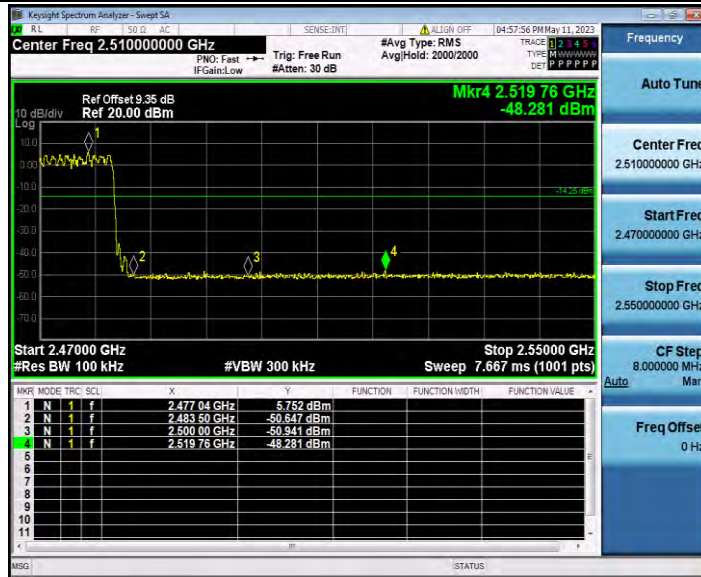
3D1H\_Ant1\_Low\_2402



3DH1\_Ant1\_High\_2480



3DH1\_Ant1\_Low\_Hop\_2402



3DH1\_Ant1\_High\_Hop\_2480

## Appendix A.8: Conducted Spurious Emission

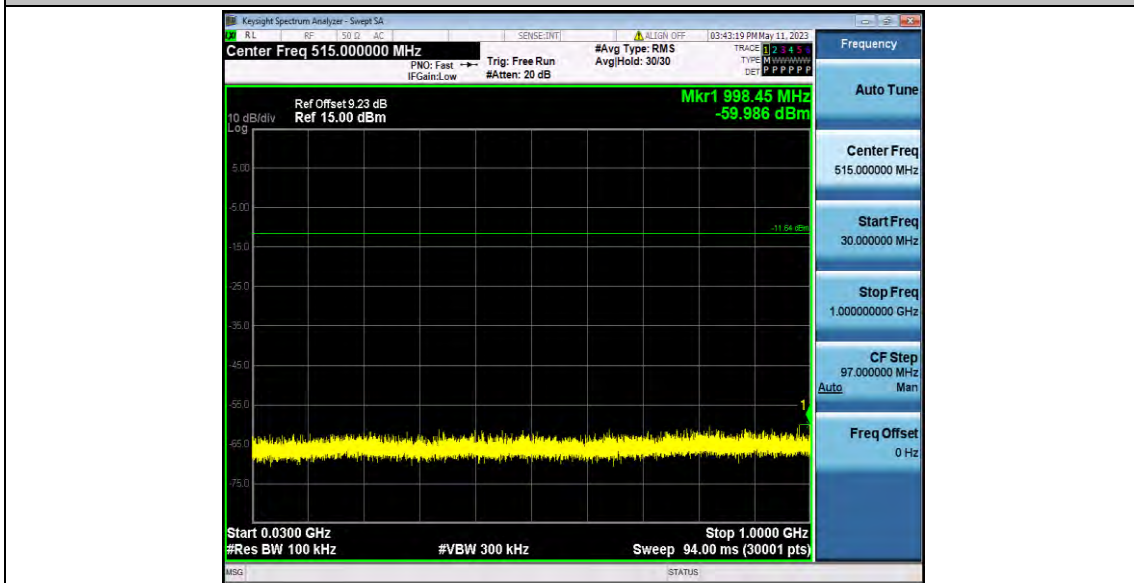
### Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	8.36	8.36	---	PASS
			30~1000	8.36	-59.99	≤-11.64	PASS
			1000~26500	8.36	-47.07	≤-11.64	PASS
		2441	Reference	10.03	10.03	---	PASS
			30~1000	10.03	-59.43	≤-9.97	PASS
			1000~26500	10.03	-47.61	≤-9.97	PASS
		2480	Reference	10.33	10.33	---	PASS
			30~1000	10.33	-59.74	≤-9.67	PASS
			1000~26500	10.33	-47.29	≤-9.67	PASS
2DH1	Ant1	2402	Reference	4.81	4.81	---	PASS
			30~1000	4.81	-60.27	≤-15.19	PASS
			1000~26500	4.81	-47.35	≤-15.19	PASS
		2441	Reference	6.31	6.31	---	PASS
			30~1000	6.31	-60.39	≤-13.69	PASS
			1000~26500	6.31	-47.68	≤-13.69	PASS
		2480	Reference	5.97	5.97	---	PASS
			30~1000	5.97	-60.54	≤-14.03	PASS
			1000~26500	5.97	-46.88	≤-14.03	PASS
3DH1	Ant1	2402	Reference	4.85	4.85	---	PASS
			30~1000	4.85	-60.63	≤-15.15	PASS
			1000~26500	4.85	-48.12	≤-15.15	PASS
		2441	Reference	6.32	6.32	---	PASS
			30~1000	6.32	-60.42	≤-13.68	PASS
			1000~26500	6.32	-47.23	≤-13.68	PASS
		2480	Reference	5.91	5.91	---	PASS
			30~1000	5.91	-60.82	≤-14.09	PASS
			1000~26500	5.91	-48.01	≤-14.09	PASS

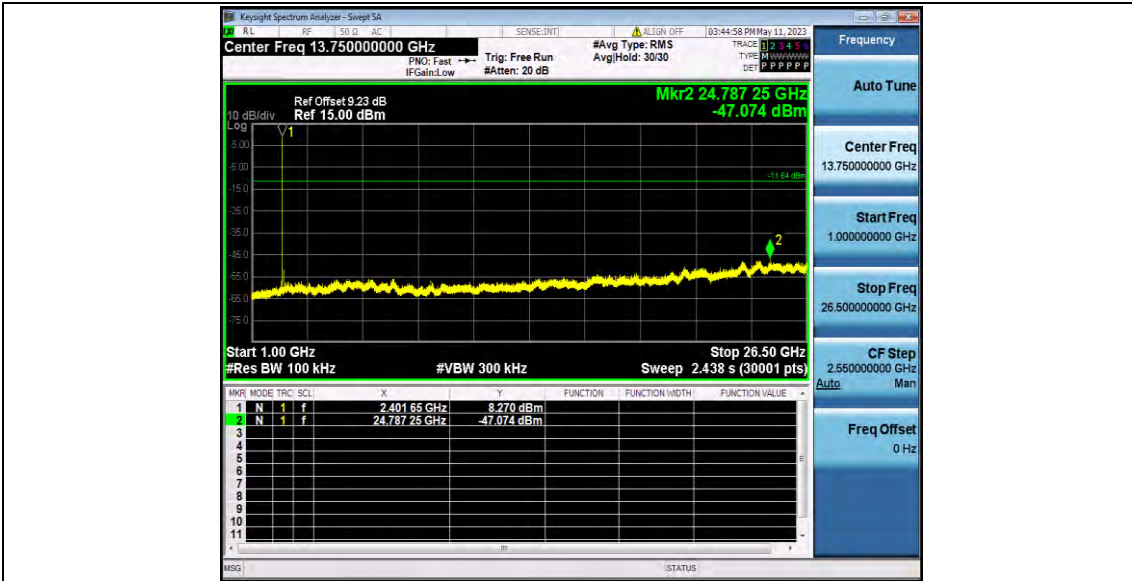
## Test Graphs



DH1\_Ant1\_2402\_0~Reference



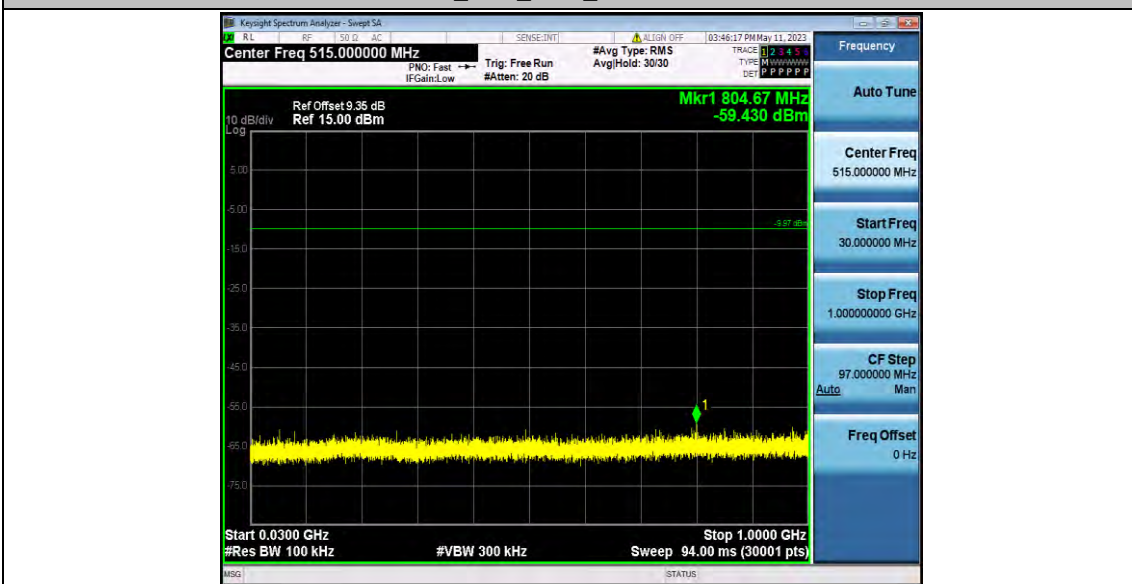
DH1\_Ant1\_2402\_30~1000



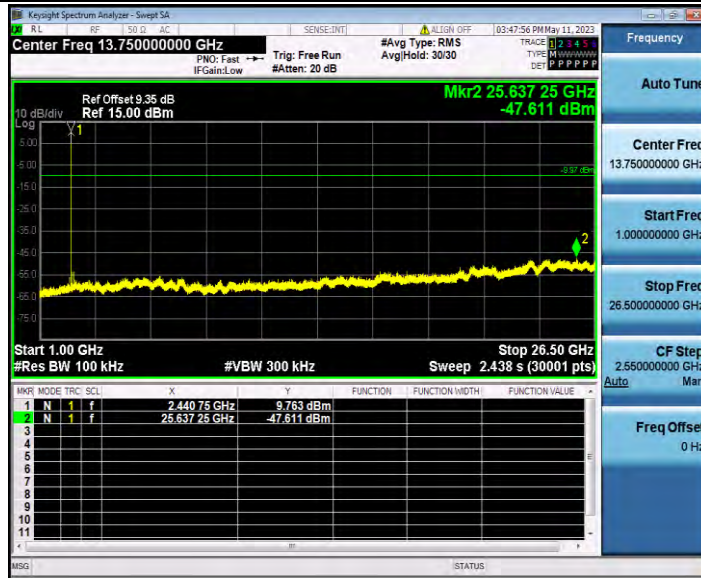
DH1\_Ant1\_2402\_1000~26500



DH1\_Ant1\_2441\_0~Reference



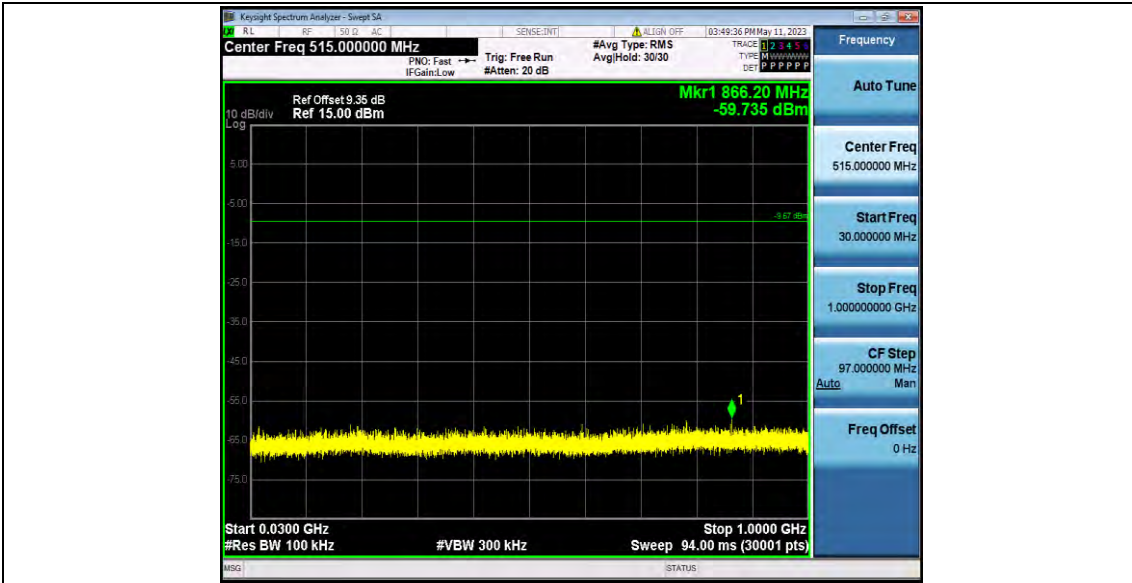
DH1\_Ant1\_2441\_30~1000



DH1\_Ant1\_2441\_1000~26500



DH1\_Ant1\_2480\_0~Reference



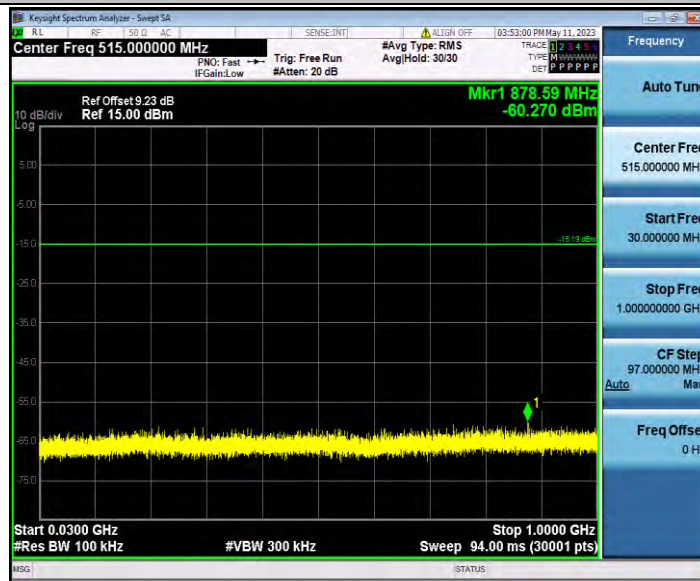
DH1\_Ant1\_2480\_30~1000



DH1\_Ant1\_2480\_1000~26500



2DH1\_Ant1\_2402\_0~Reference



2DH1\_Ant1\_2402\_30~1000

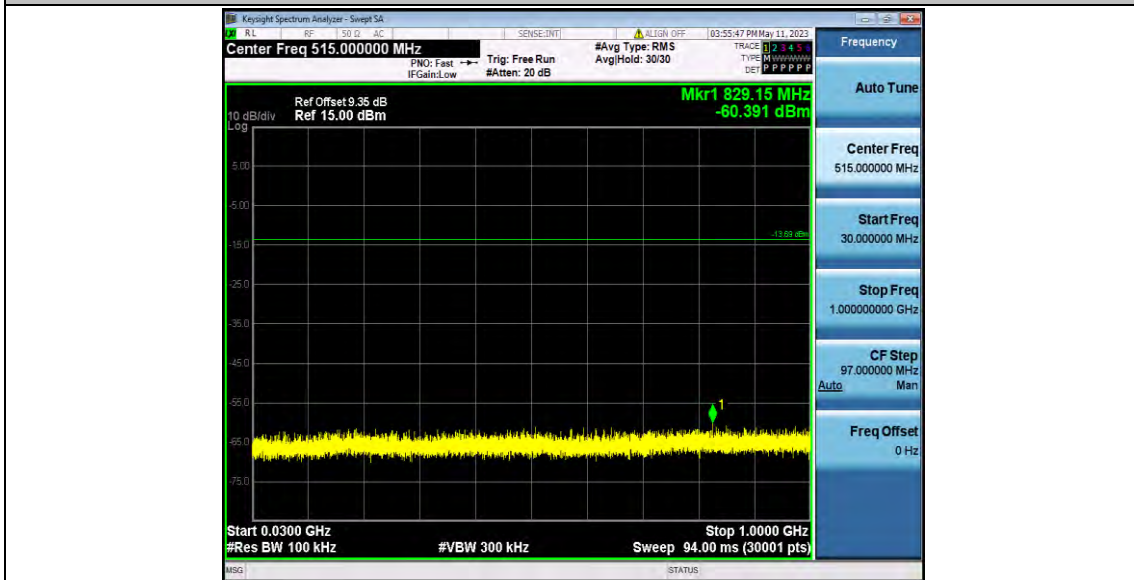


2DH1\_Ant1\_2402\_1000~26500





2DH1\_Ant1\_2441\_0~Reference



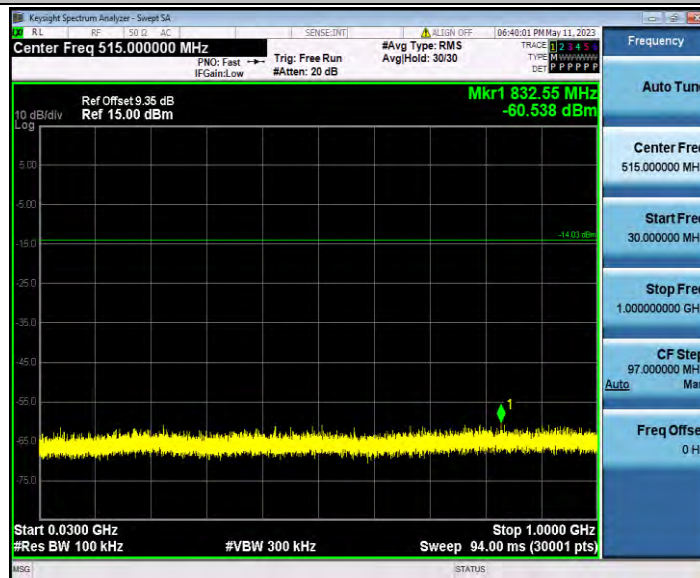
2DH1\_Ant1\_2441\_30~1000



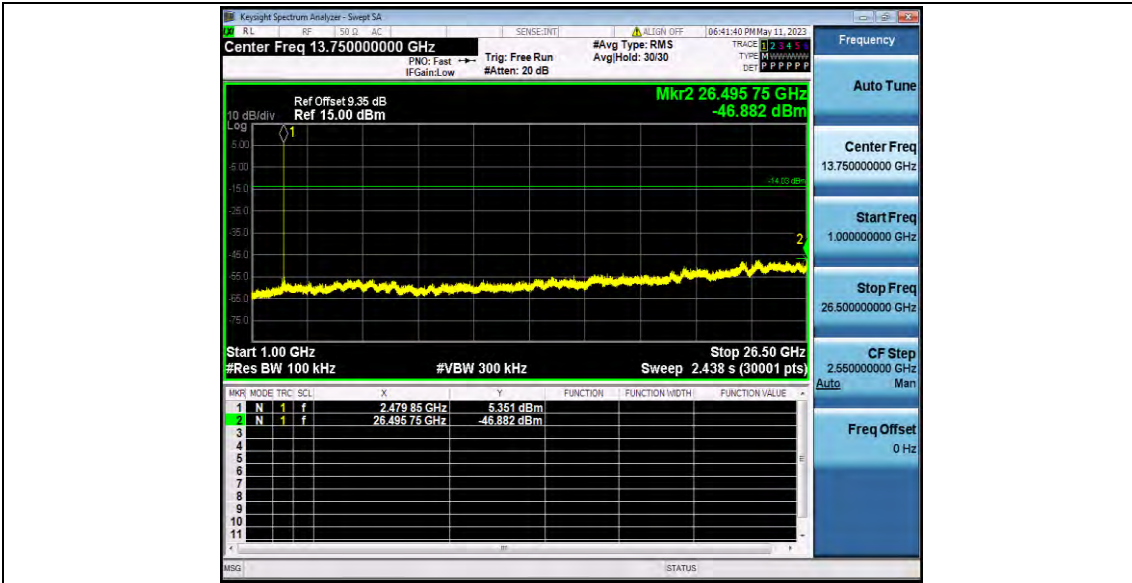
2DH1\_Ant1\_2441\_1000~26500



2DH1\_Ant1\_2480\_0~Reference



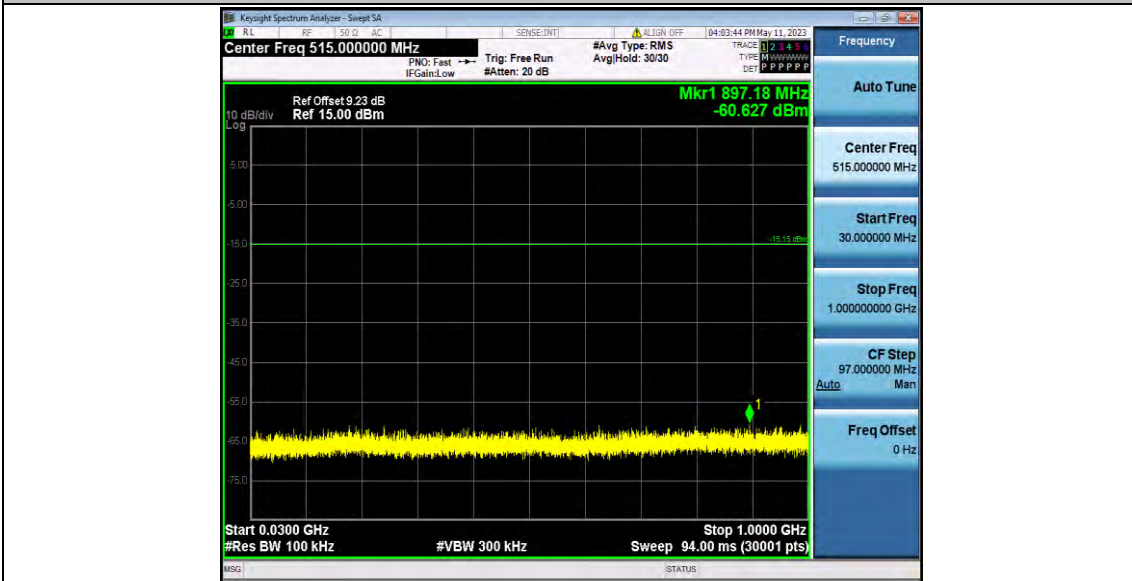
2DH1\_Ant1\_2480\_30~1000



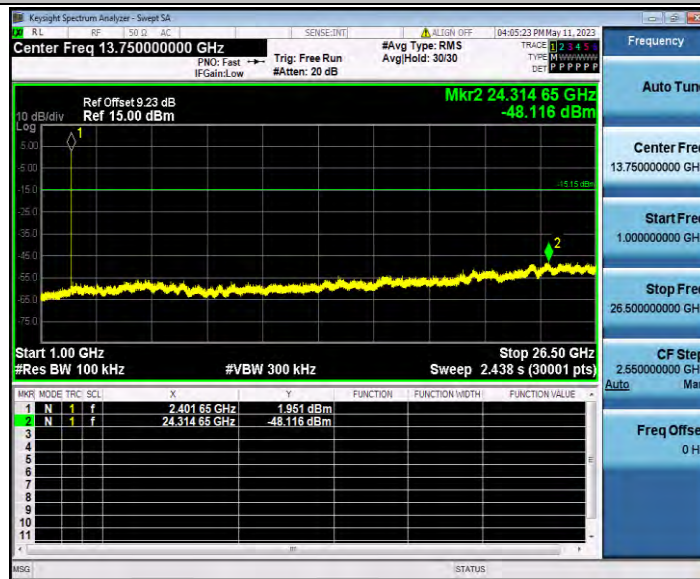
2DH1\_Ant1\_2480\_1000~26500



3DH1\_Ant1\_2402\_0~Reference



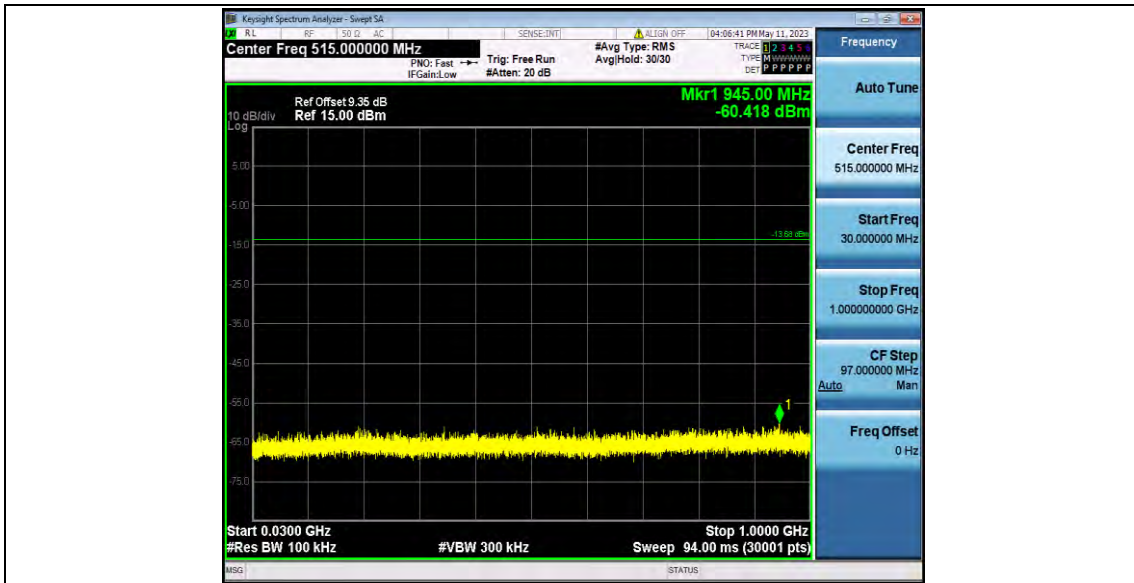
3DH1\_Ant1\_2402\_30~1000



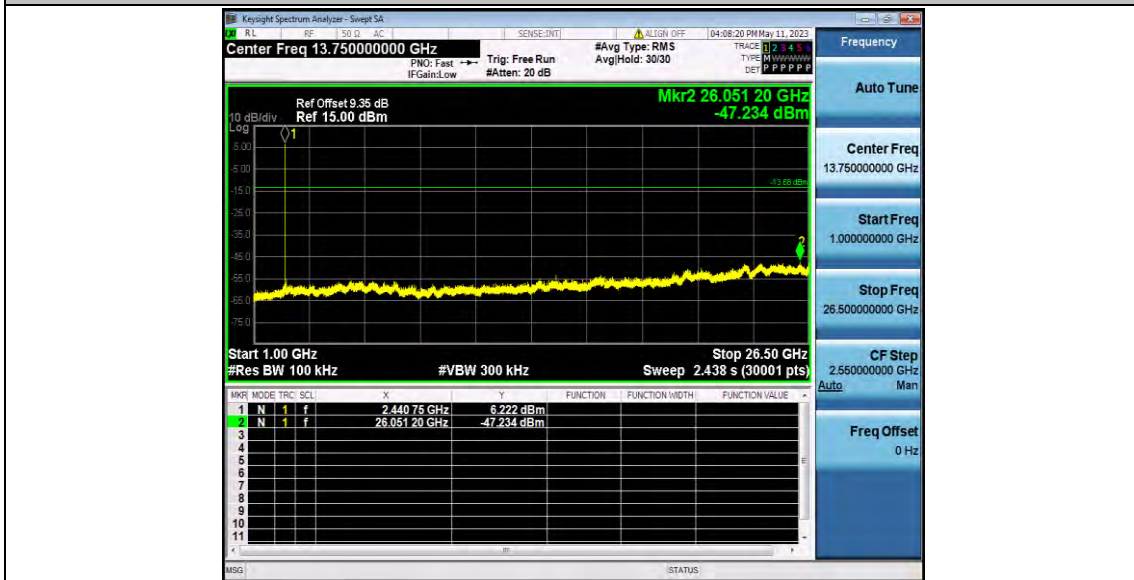
3DH1\_Ant1\_2402\_1000~26500



3DH1\_Ant1\_2441\_0~Reference



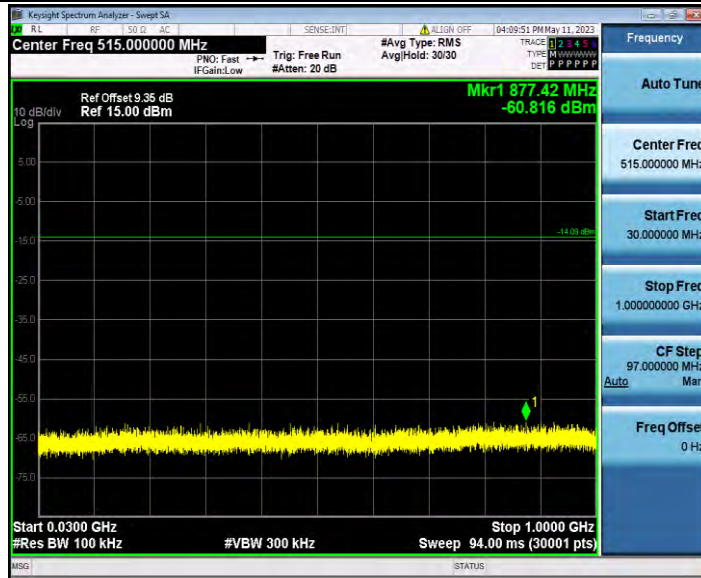
3DH1\_Ant1\_2441\_30~100



3DH1\_Ant1\_2441\_1000~26500



3DH1\_Ant1\_2480\_0~Reference



3DH1\_Ant1\_2480\_30~1000



3DH1\_Ant1\_2480\_1000~26500