

<b>Case No. :</b> <u>GTS20230628010-1-1</u>
<b>Ambient Condition:</b> <u>24</u> °C, <u>49</u> %RH, Atmos100.1Kpa,
<b>Test Date:</b> <u>2023.7.11</u> <b>Test Engineer:</b> <u>Jenny zeng</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	0.927	2401.544	2402.471	---	---
		2441	0.951	2440.526	2441.477	---	---
		2480	0.945	2479.523	2480.468	---	---
2DH1	Ant1	2402	1.434	2401.265	2402.699	---	---
		2441	1.479	2440.226	2441.705	---	---
		2480	1.446	2479.253	2480.699	---	---
3DH1	Ant1	2402	1.473	2401.253	2402.726	---	---
		2441	1.470	2440.259	2441.729	---	---
		2480	1.473	2479.259	2480.732	---	---

## Test Graphs



DH1\_Ant1\_2402



DH1\_Ant1\_2441



DH1\_Ant1\_2480



2D11\_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	0.84991	2401.565	2402.415	---	---
		2441	0.85085	2440.568	2441.419	---	---
		2480	0.84407	2479.566	2480.410	---	---
2DH1	Ant1	2402	1.3399	2401.318	2402.658	---	---
		2441	1.3436	2440.316	2441.660	---	---
		2480	1.3407	2479.315	2480.655	---	---
3DH1	Ant1	2402	1.3506	2401.310	2402.661	---	---
		2441	1.3496	2440.312	2441.662	---	---
		2480	1.3456	2479.314	2480.660	---	---



## 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

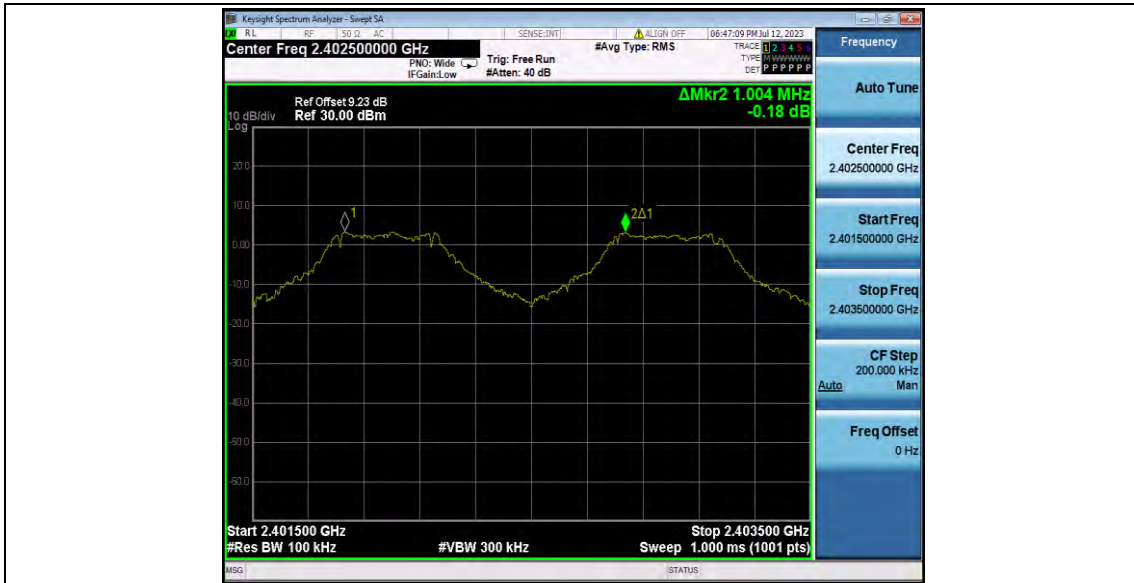
Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH1	Ant1	2402	3.53	≤20.97	PASS
		2441	4.22	≤20.97	PASS
		2480	4.15	≤20.97	PASS
2DH1	Ant1	2402	1.91	≤20.97	PASS
		2441	2.56	≤20.97	PASS
		2480	2.51	≤20.97	PASS
3DH1	Ant1	2402	2.03	≤20.97	PASS
		2441	2.74	≤20.97	PASS
		2480	2.74	≤20.97	PASS

## Appendix A.4: Carrier frequency separation

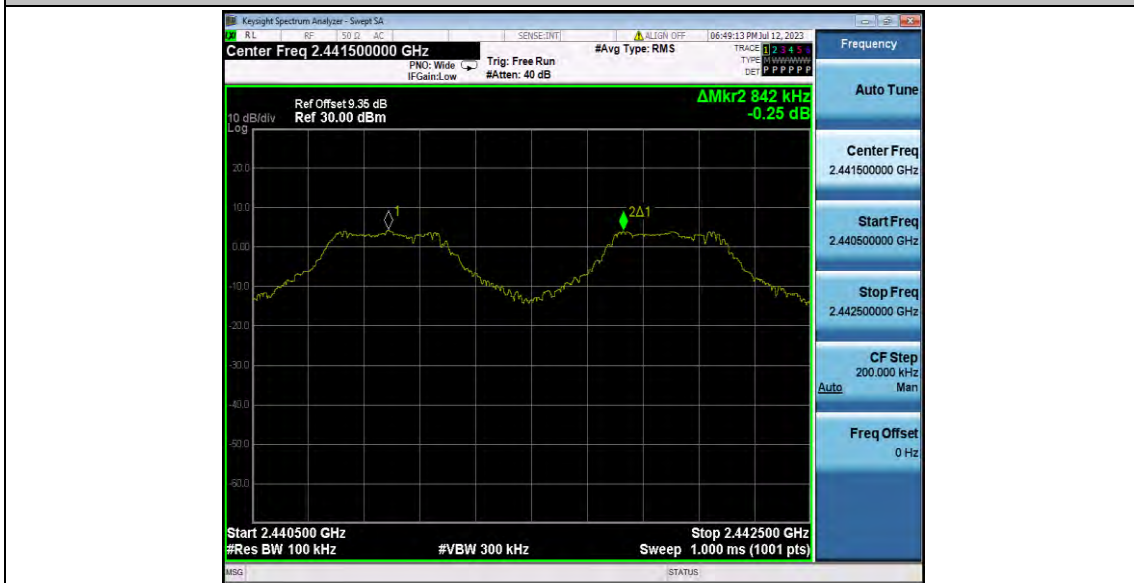
### Test Result

Test Mode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	1.004	$\geq 0.634$	PASS
		Hop_2441	0.842	$\geq 0.634$	PASS
		Hop_2480	1.000	$\geq 0.634$	PASS
2DH1	Ant1	Hop_2402	1.002	$\geq 0.986$	PASS
		Hop_2441	0.998	$\geq 0.986$	PASS
		Hop_2480	1.004	$\geq 0.986$	PASS
3DH1	Ant1	Hop_2402	1.162	$\geq 0.982$	PASS
		Hop_2441	1.000	$\geq 0.982$	PASS
		Hop_2480	1.004	$\geq 0.982$	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



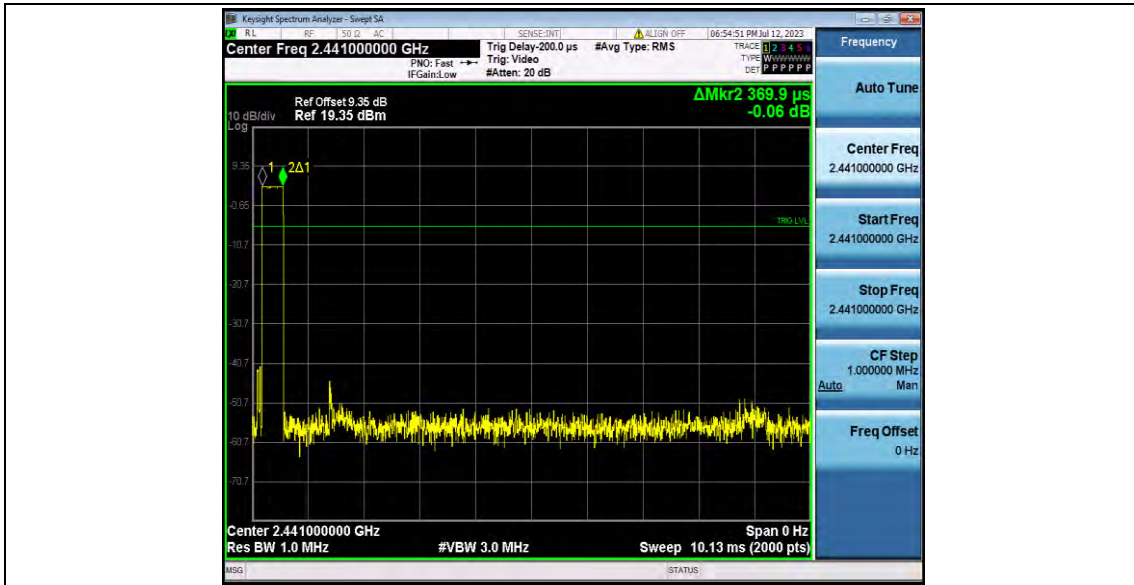
3DH1\_Ant1\_Hop\_2480

## Appendix A.5: Time of occupancy

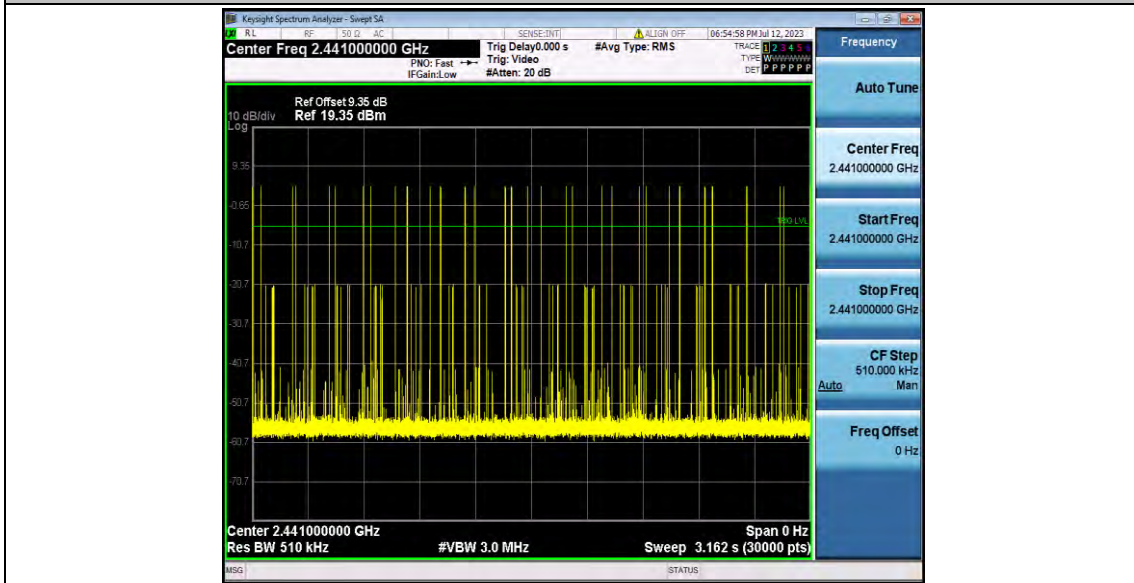
### Test Result

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	180	0.293	≤0.4	PASS
DH5	Ant1	Hop	2.87	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	130	0.374	≤0.4	PASS
3DH1	Ant1	Hop	0.36	320	0.116	≤0.4	PASS
3DH3	Ant1	Hop	1.63	180	0.294	≤0.4	PASS
3DH5	Ant1	Hop	2.88	110	0.317	≤0.4	PASS

## Test Graphs

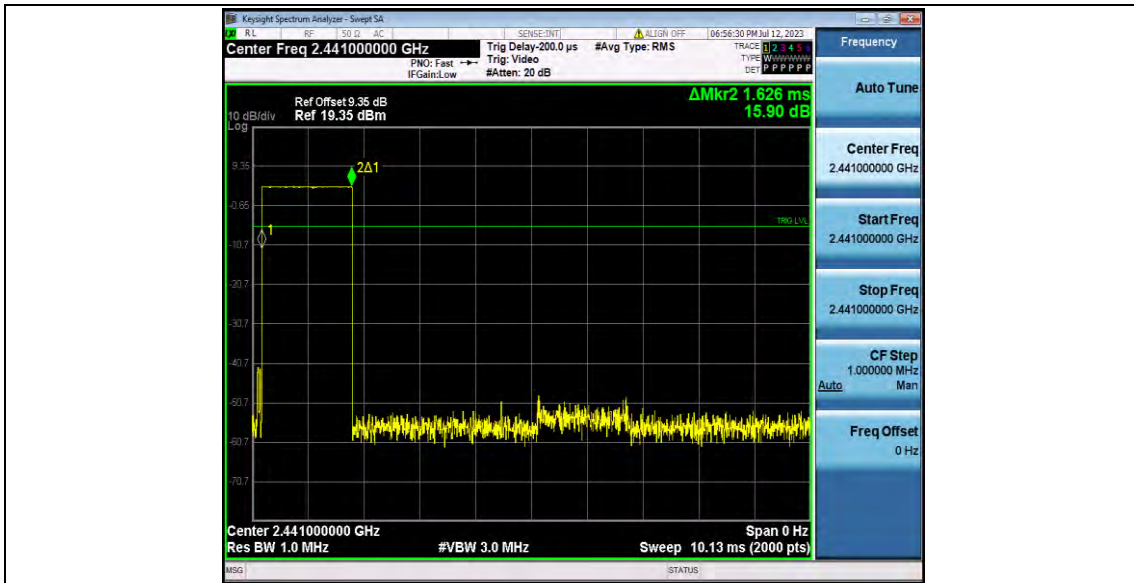


DH1\_Ant1\_Hop

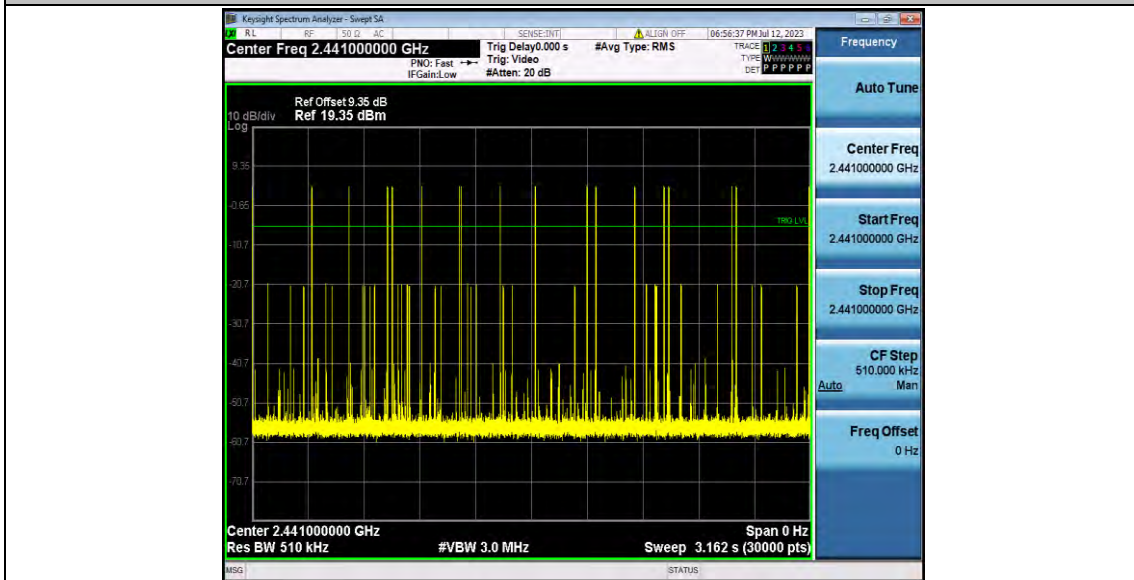


DH1\_Ant1\_Hop

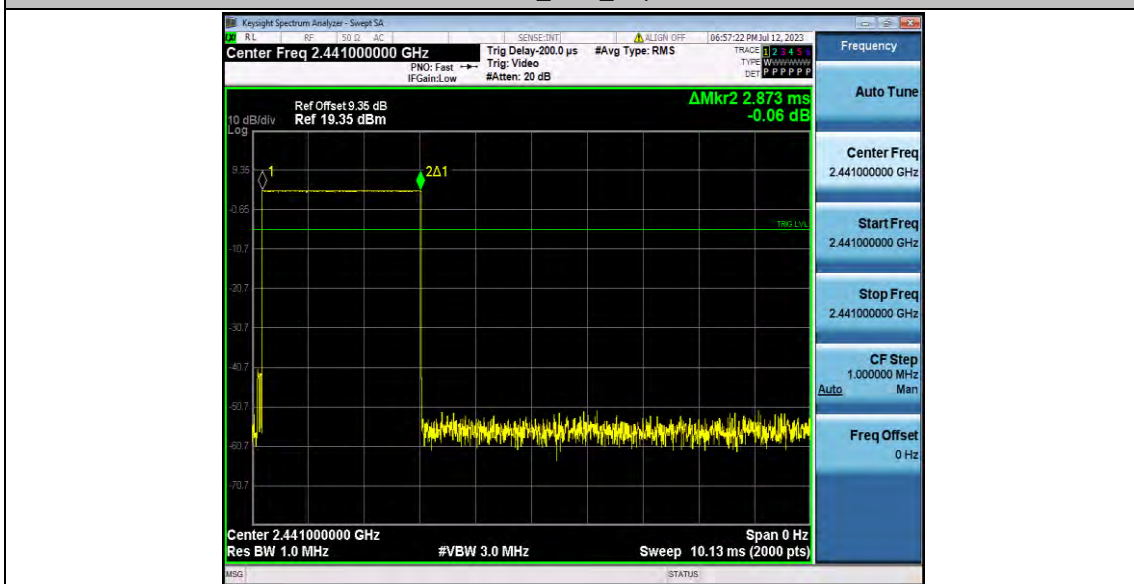




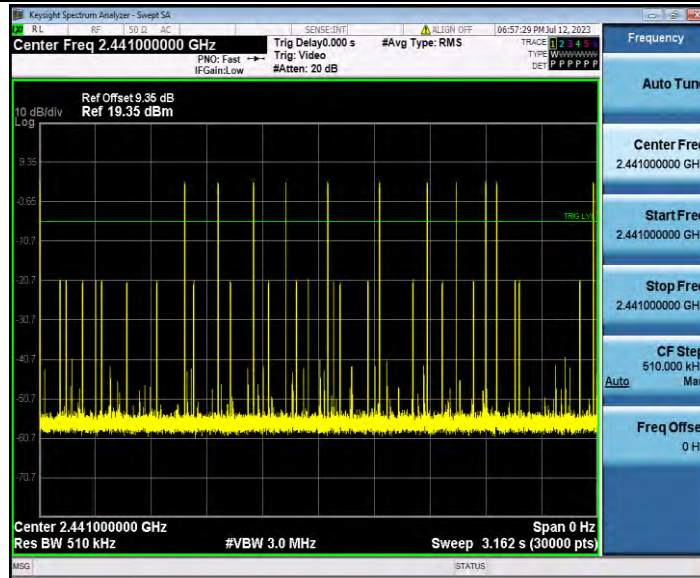
DH3\_Ant1\_Hop



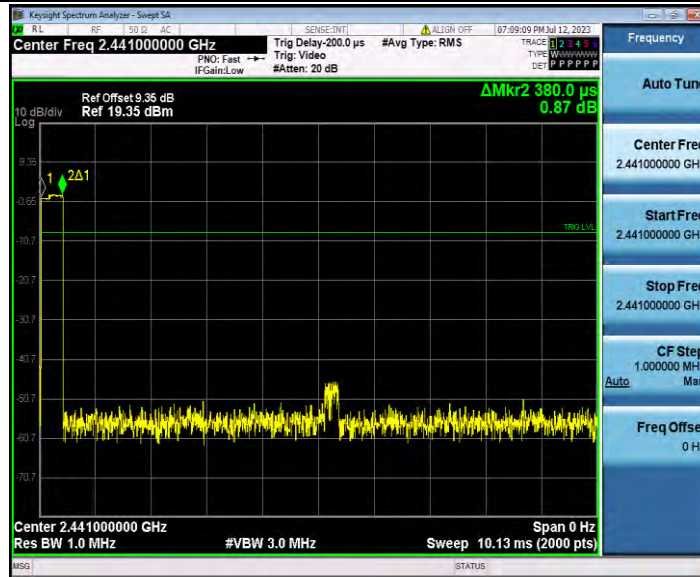
DH3\_Ant1\_Hop



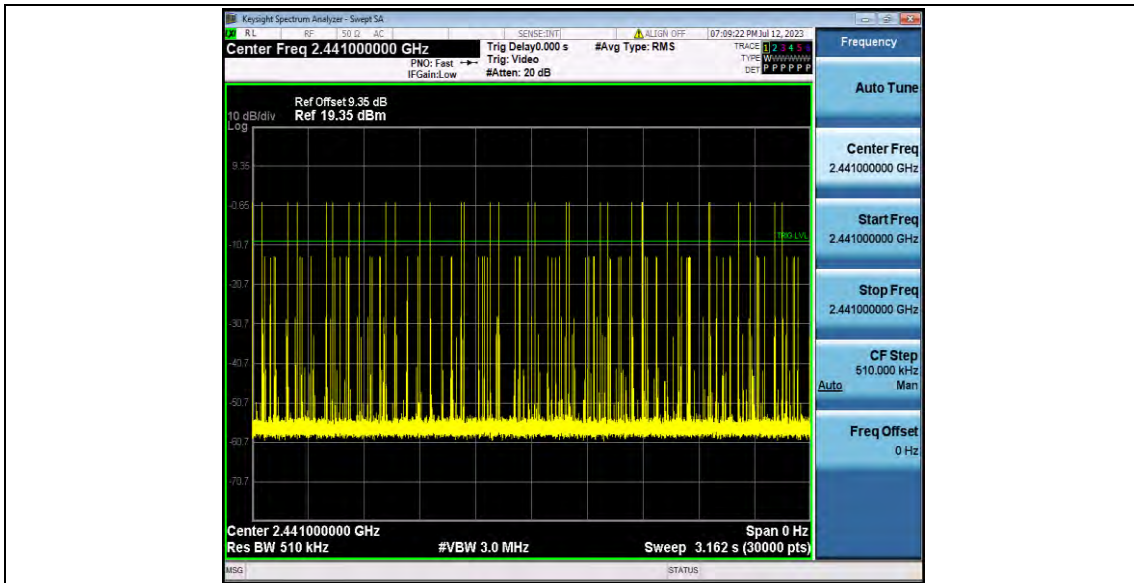
DH5\_Ant1\_Hop



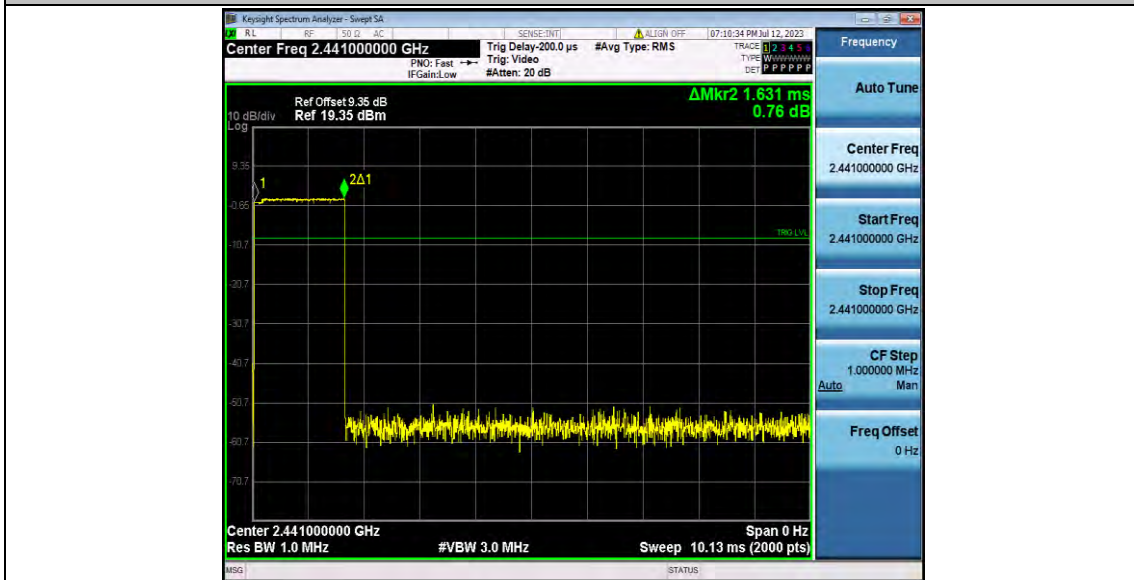
DH5\_Ant1\_Hop



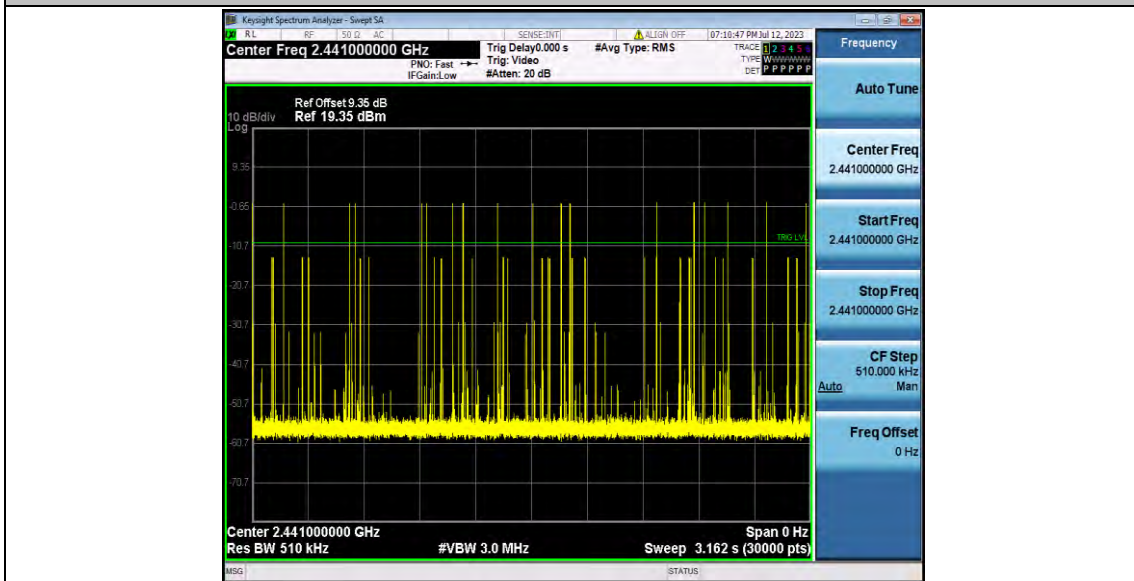
2DH1\_Ant1\_Hop



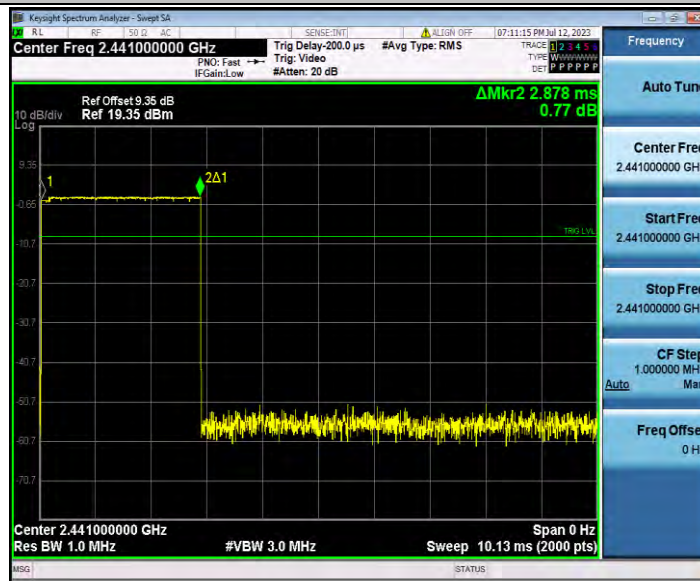
2DH1\_Ant1\_Hop



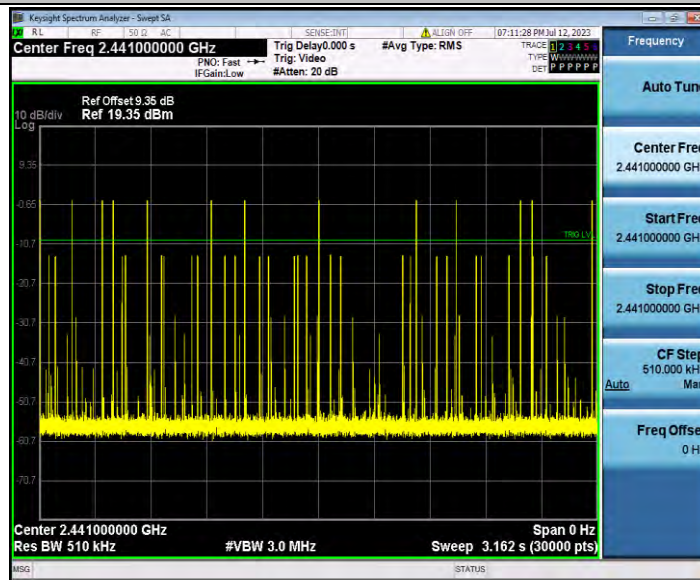
2DH3\_Ant1\_Hop



2DH3\_Ant1\_Hop

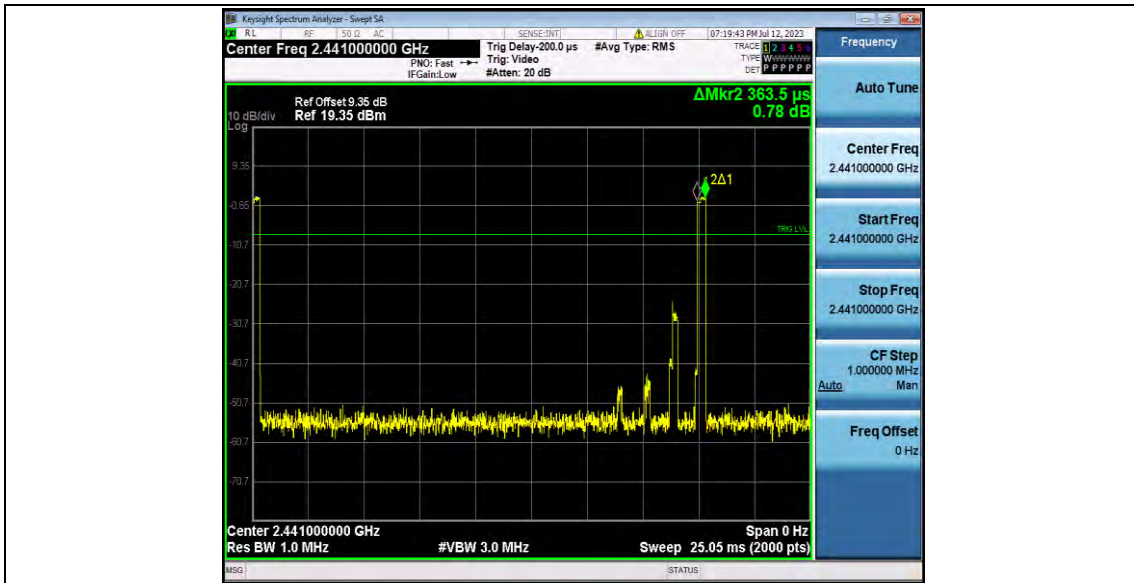


2DH5\_Ant1\_Hop

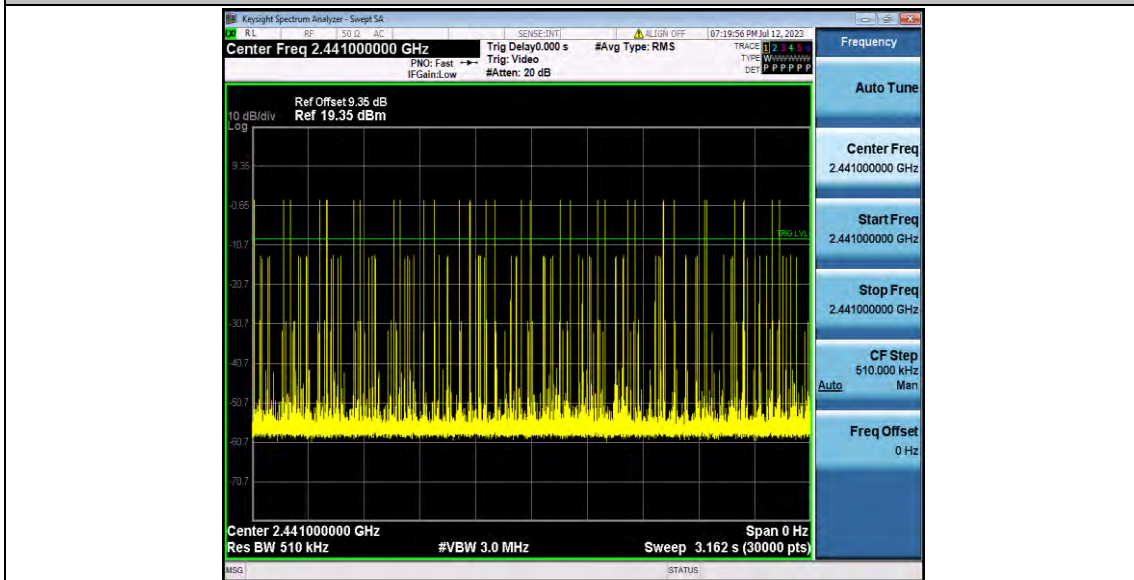


2DH5\_Ant1\_Hop





3DH1\_Ant1\_Hop

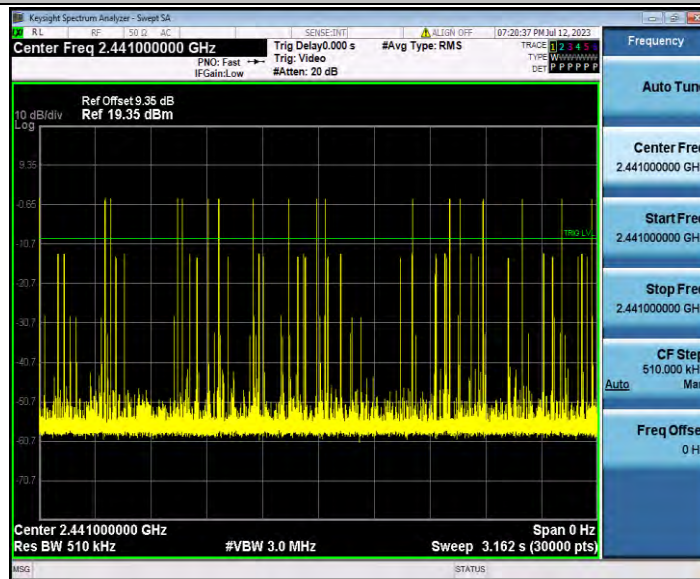


3DH1\_Ant1\_Hop

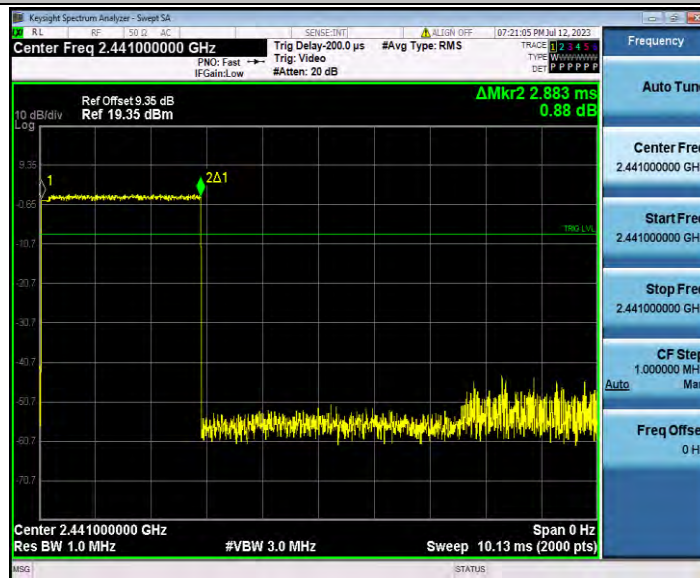




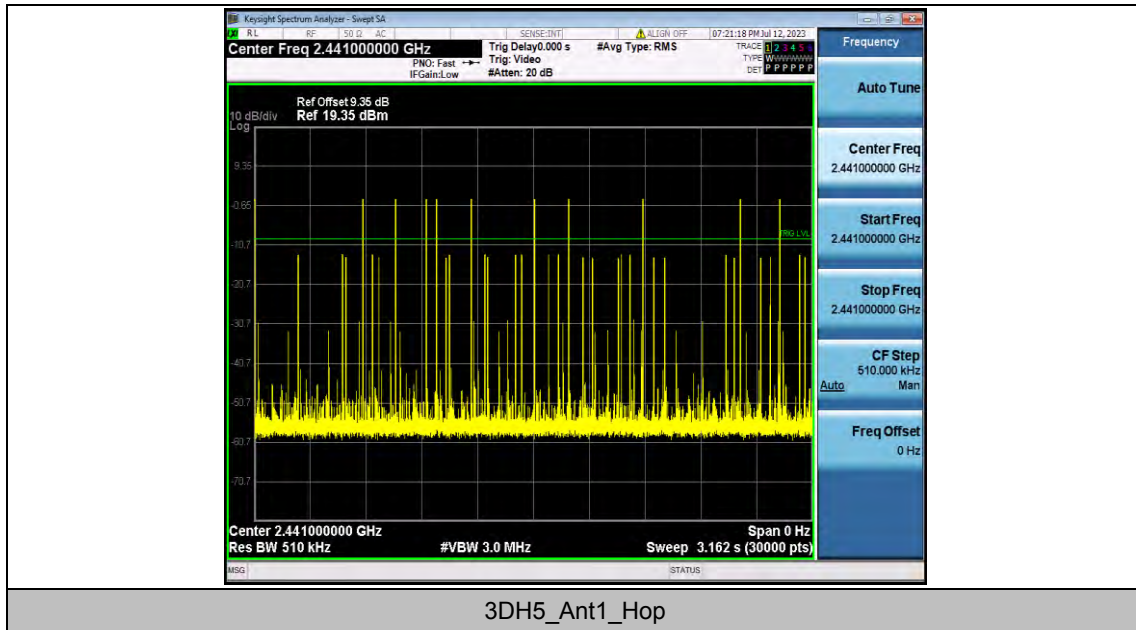
3DH3\_Ant1\_Hop



3DH3\_Ant1\_Hop



3DH5\_Ant1\_Hop



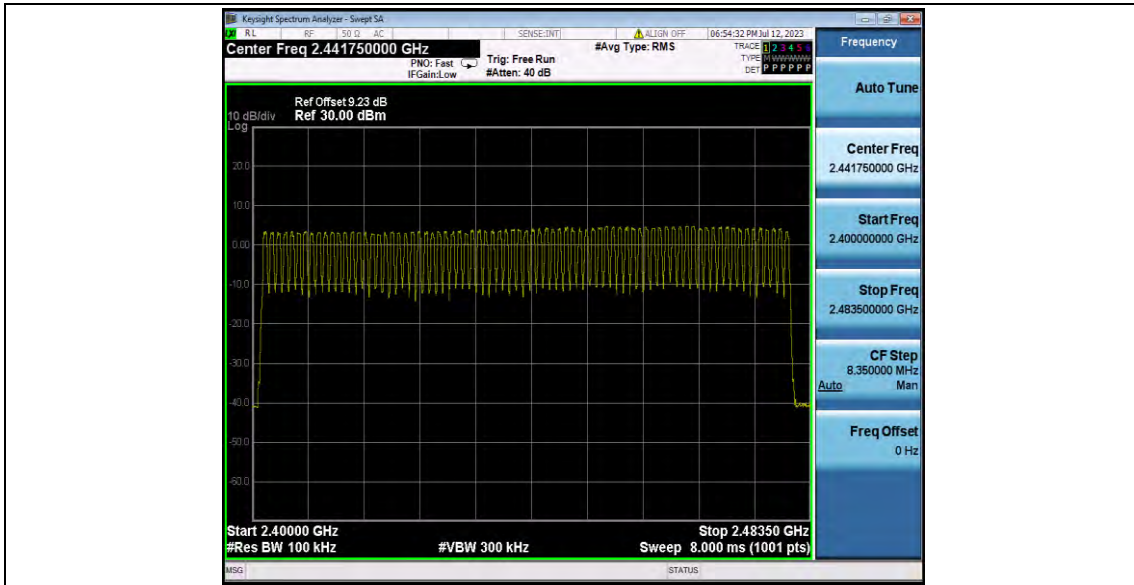
3DH5\_Ant1\_Hop

## Appendix A.6: Number of hopping channels

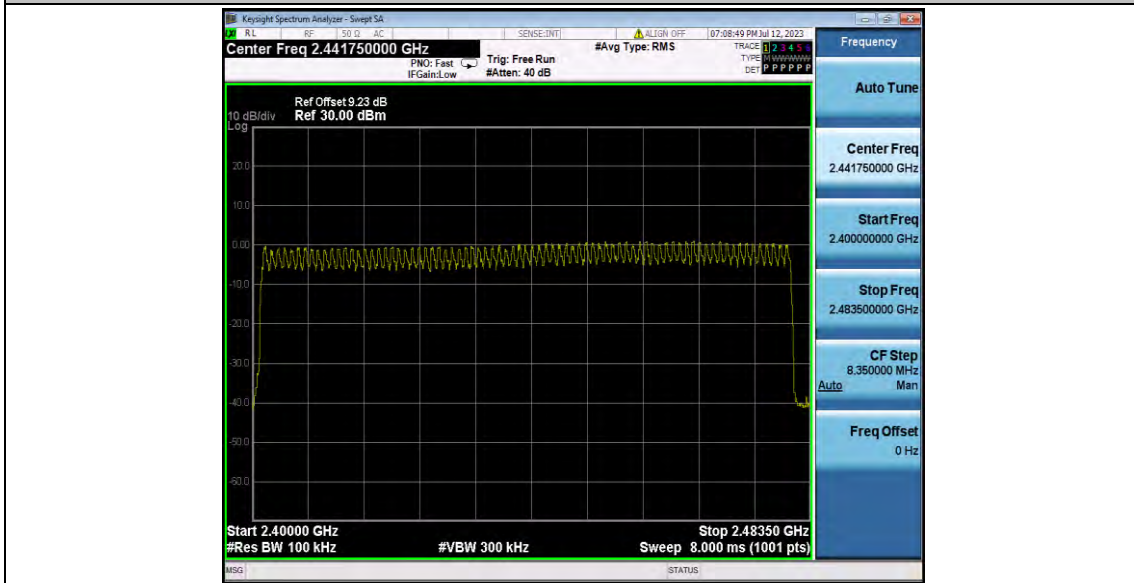
### Test Result

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

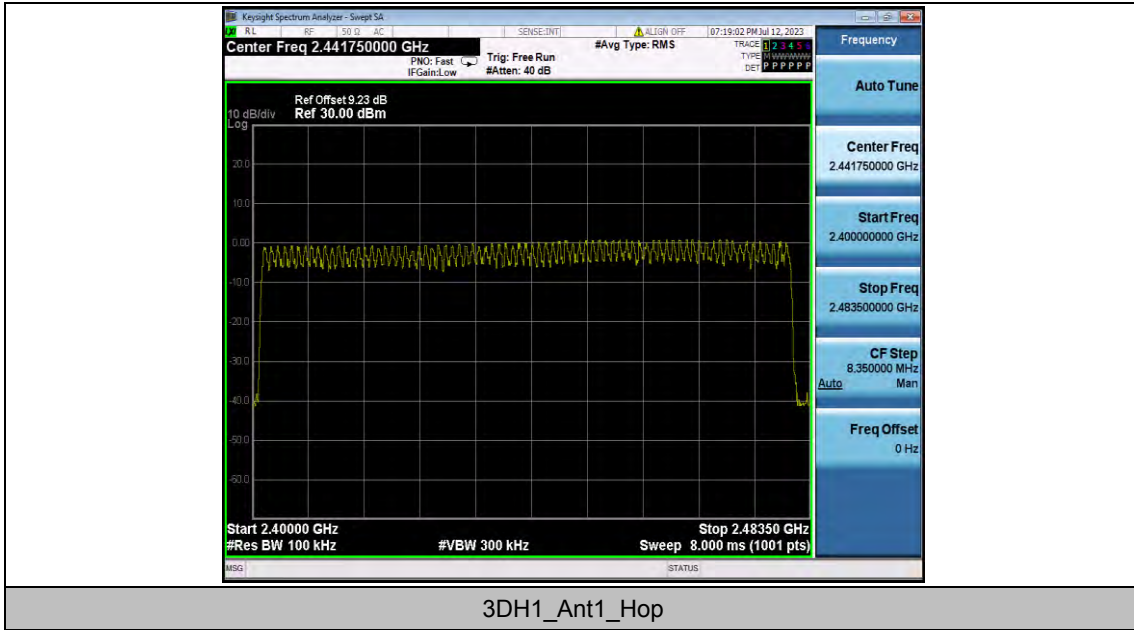
## Test Graphs



DH1\_Ant1\_Hop



2DH1\_Ant1\_Hop



3DH1\_Ant1\_Hop

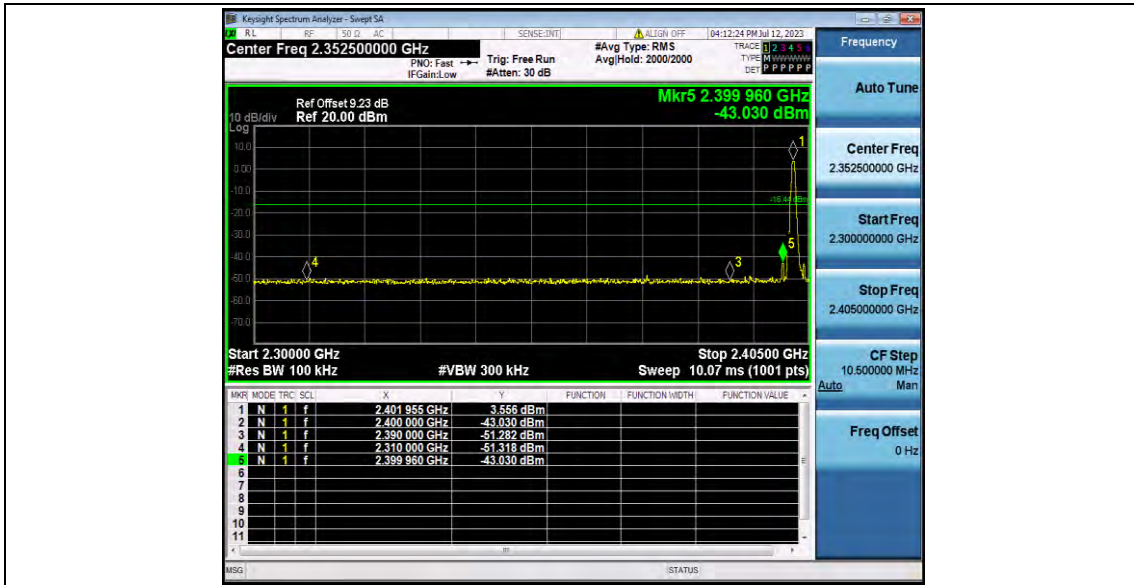


## Appendix A.7: Band edge measurements

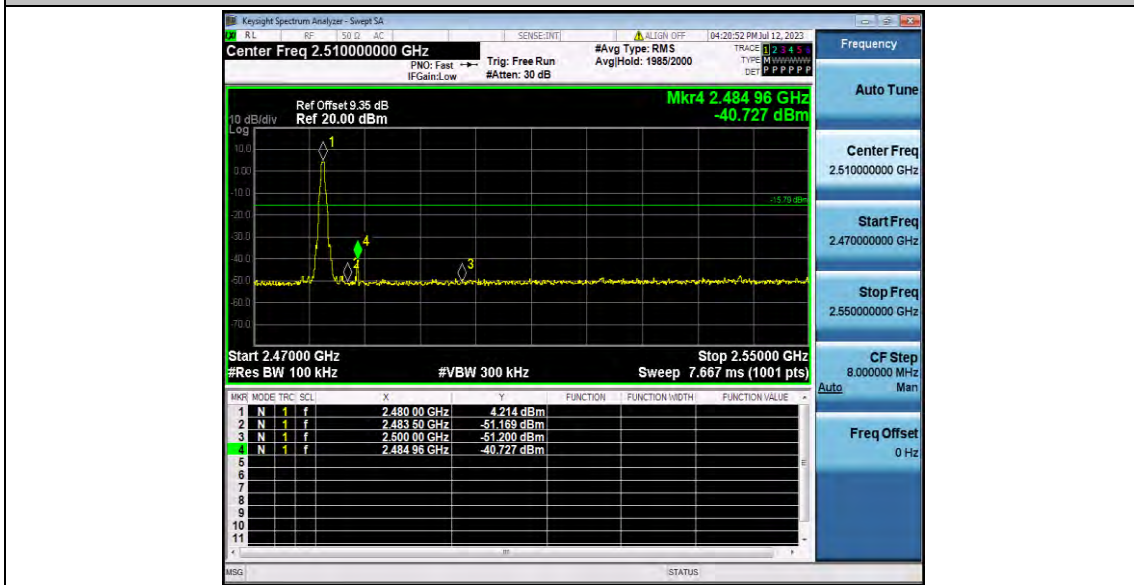
### Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	3.56	-43.03	≤-16.44	PASS
		High	2480	4.21	-40.73	≤-15.79	PASS
		Low	Hop_2402	3.38	-48.37	≤-16.62	PASS
		High	Hop_2480	4.12	-46.48	≤-15.89	PASS
2DH1	Ant1	Low	2402	-0.35	-42.37	≤-20.35	PASS
		High	2480	0.40	-40.36	≤-19.6	PASS
		Low	Hop_2402	-0.77	-49.1	≤-20.77	PASS
		High	Hop_2480	0.72	-46.44	≤-19.28	PASS
3DH1	Ant1	Low	2402	-0.42	-45.14	≤-20.42	PASS
		High	2480	0.43	-39.53	≤-19.57	PASS
		Low	Hop_2402	-0.83	-49.54	≤-20.83	PASS
		High	Hop_2480	0.29	-47.28	≤-19.72	PASS

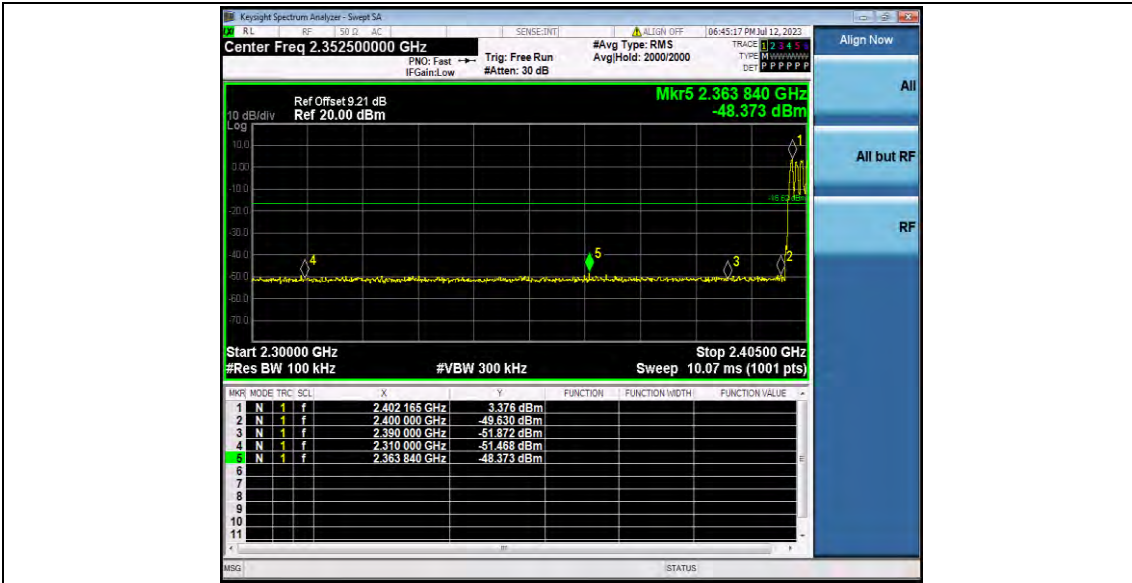
## Test Graphs



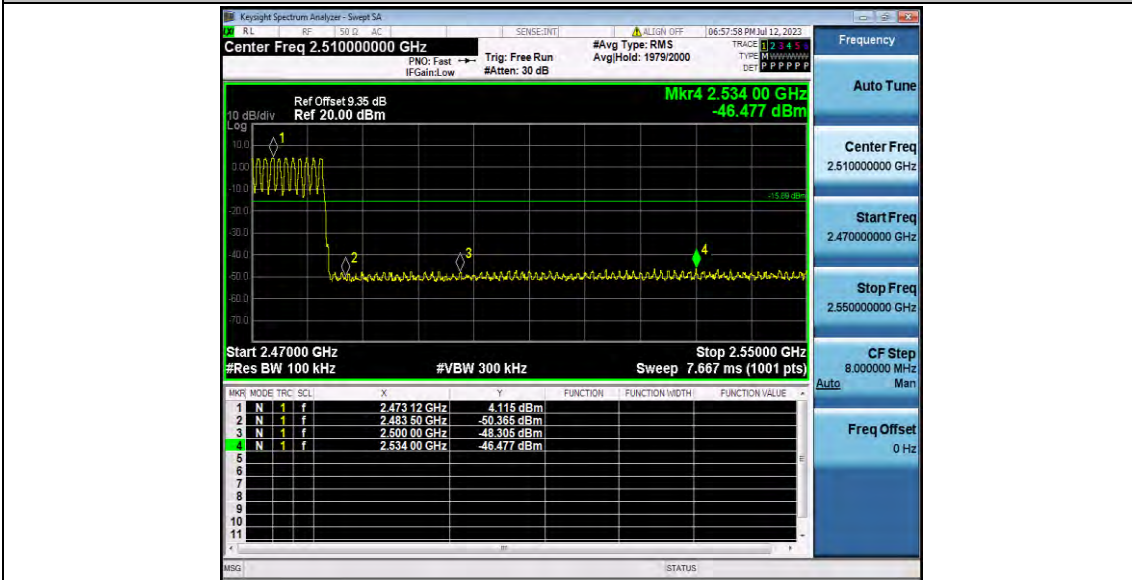
DH1\_Ant1\_Low\_2402



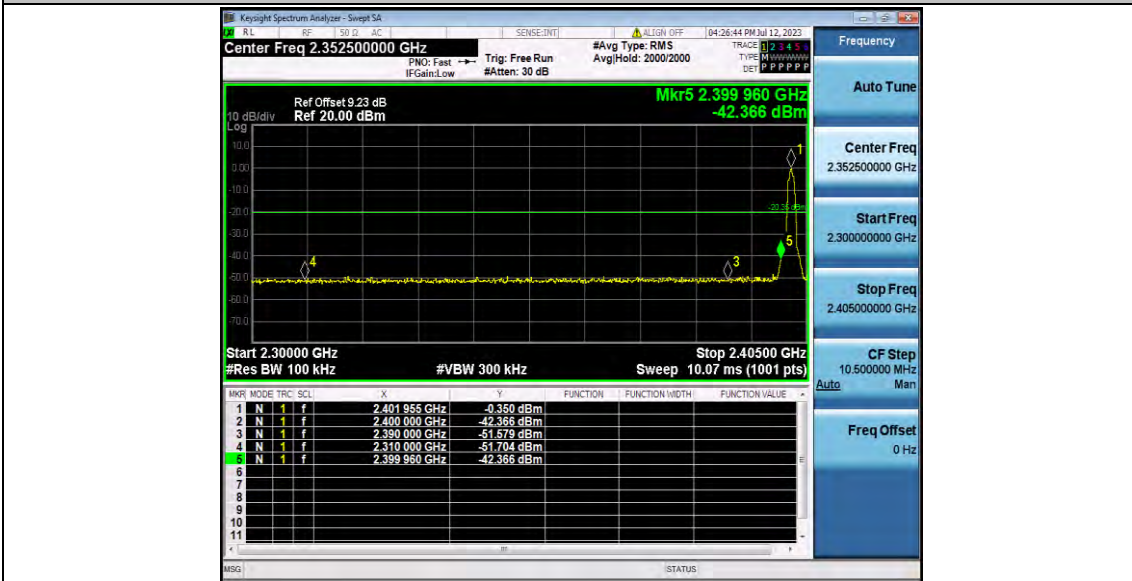
DH1\_Ant1\_High\_2480



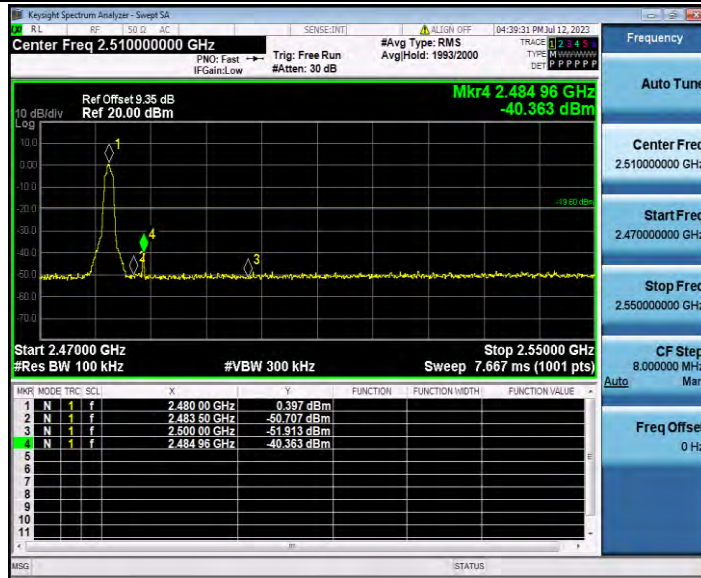
DH1\_Ant1\_Low\_Hop\_2402



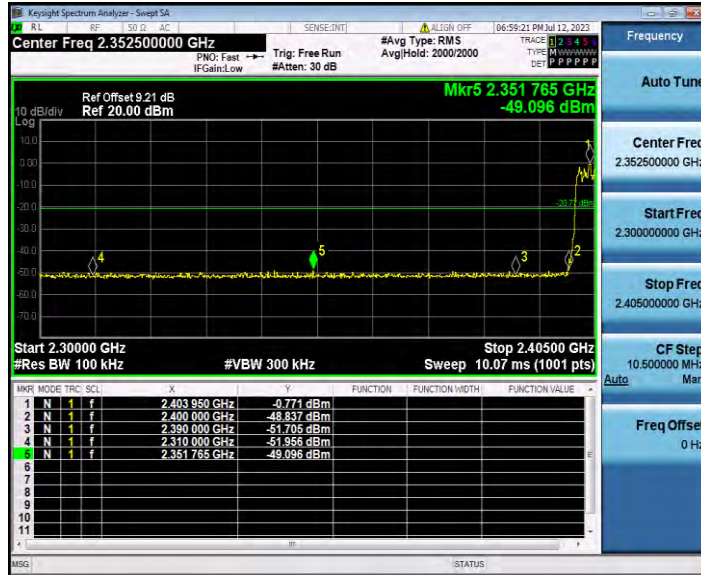
DH1\_Ant1\_High\_Hop\_2480



2DH1\_Ant1\_Low\_2402

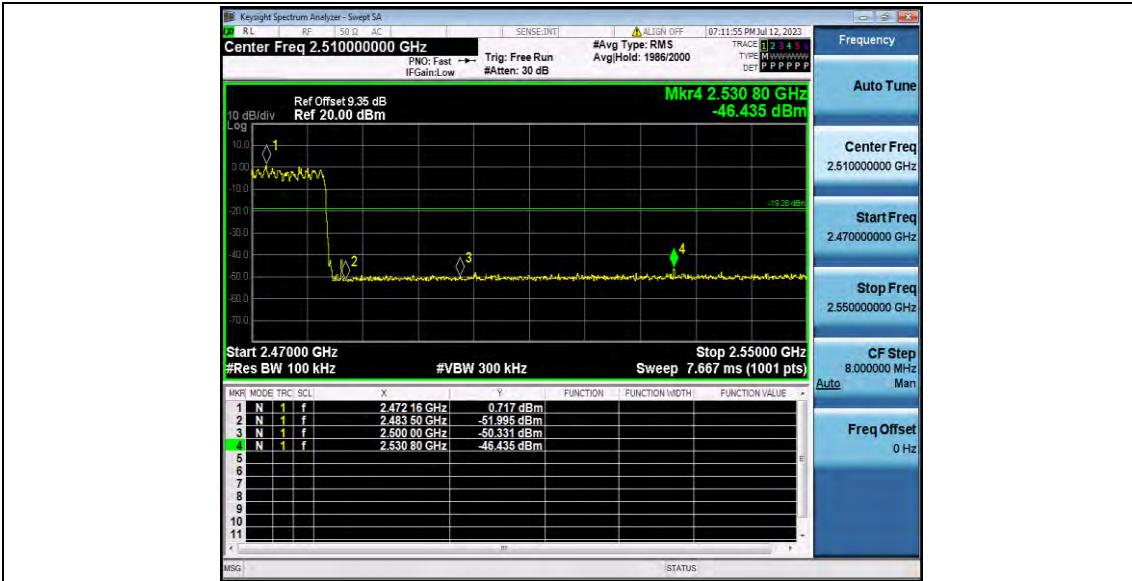


2DH1\_Ant1\_High\_2480

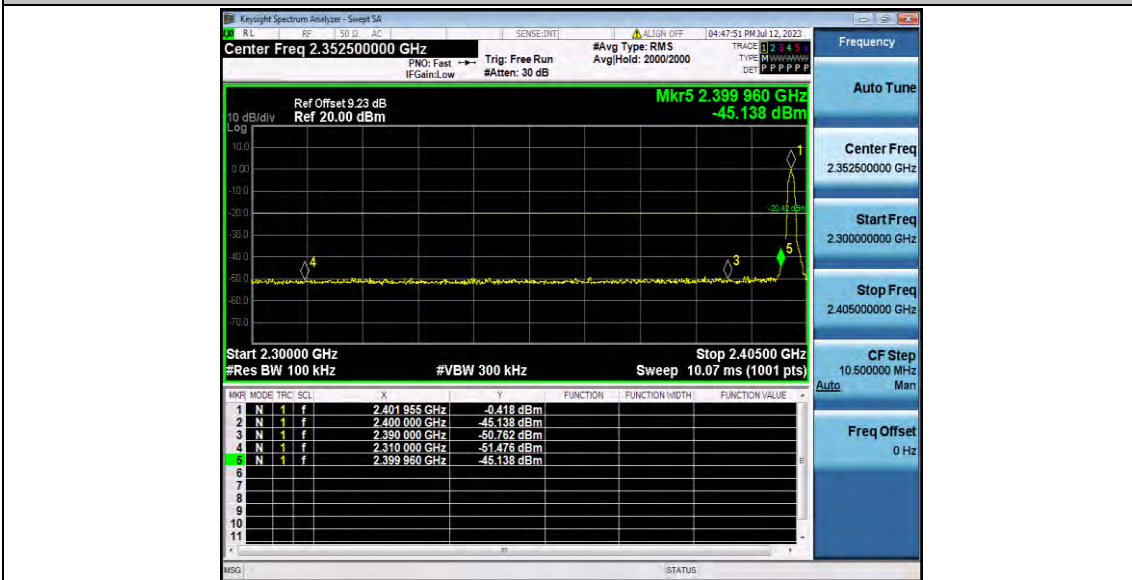


2DH1\_Ant1\_Low\_Hop\_2402

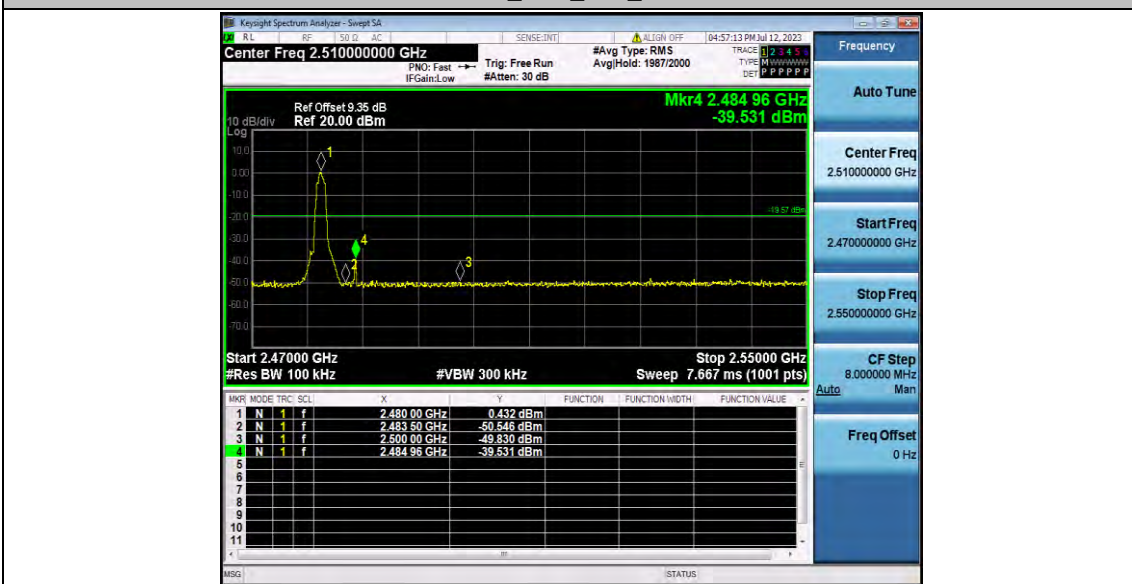




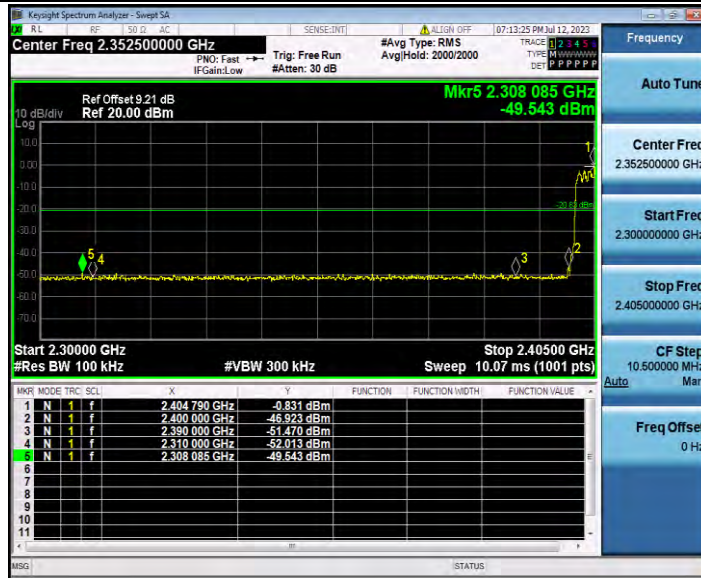
2DH1\_Ant1\_High\_Hop\_2480



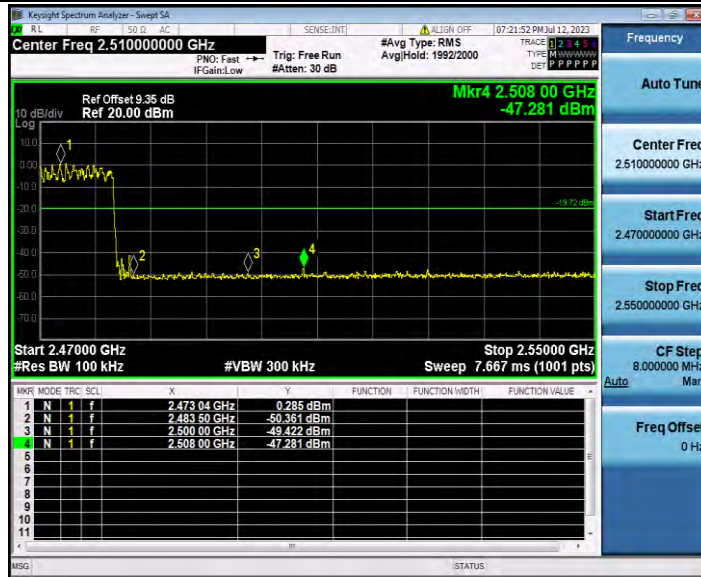
3DH1\_Ant1\_Low\_2402



3DH1\_Ant1\_High\_2480



3DH1\_Ant1\_Low\_Hop\_2402



3DH1\_Ant1\_High\_Hop\_2480



## Appendix A.8: Conducted Spurious Emission

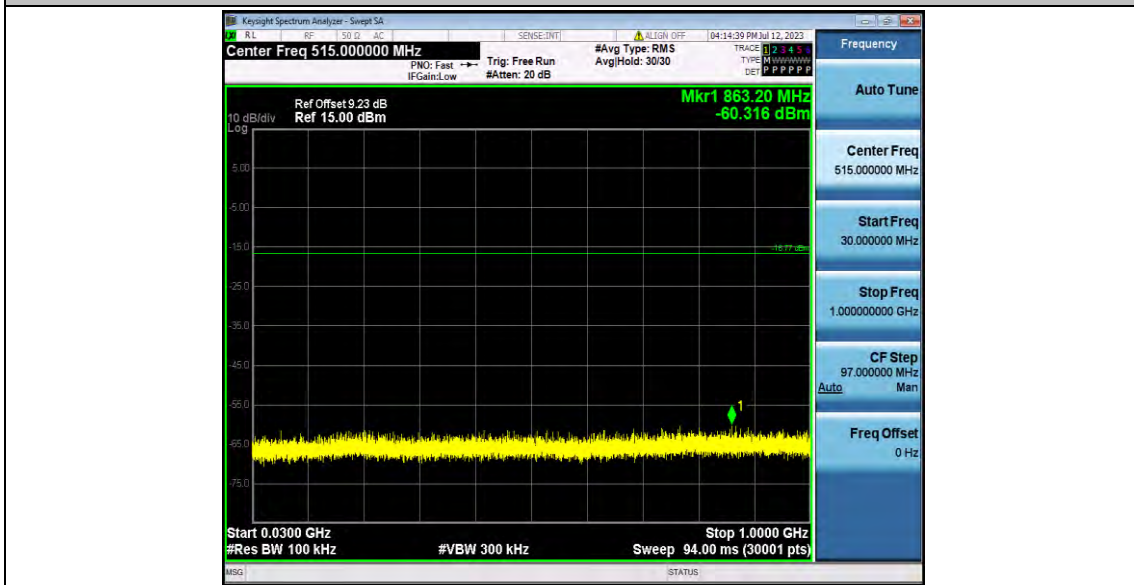
### Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	3.23	3.23	---	PASS
			30~1000	3.23	-60.32	≤-16.77	PASS
			1000~26500	3.23	-47.63	≤-16.77	PASS
		2441	Reference	3.80	3.80	---	PASS
			30~1000	3.80	-59.59	≤-16.2	PASS
			1000~26500	3.80	-47.45	≤-16.2	PASS
		2480	Reference	3.98	3.98	---	PASS
			30~1000	3.98	-46.84	≤-16.02	PASS
			1000~26500	3.98	-47.33	≤-16.02	PASS
2DH1	Ant1	2402	Reference	-0.72	-0.72	---	PASS
			30~1000	-0.72	-60.09	≤-20.72	PASS
			1000~26500	-0.72	-47.62	≤-20.72	PASS
		2441	Reference	0.14	0.14	---	PASS
			30~1000	0.14	-60.24	≤-19.86	PASS
			1000~26500	0.14	-47.61	≤-19.86	PASS
		2480	Reference	0.22	0.22	---	PASS
			30~1000	0.22	-59.51	≤-19.78	PASS
			1000~26500	0.22	-47.59	≤-19.78	PASS
3DH1	Ant1	2402	Reference	-0.59	-0.59	---	PASS
			30~1000	-0.59	-59.44	≤-20.59	PASS
			1000~26500	-0.59	-47.36	≤-20.59	PASS
		2441	Reference	0.17	0.17	---	PASS
			30~1000	0.17	-60.15	≤-19.83	PASS
			1000~26500	0.17	-47.41	≤-19.83	PASS
		2480	Reference	0.24	0.24	---	PASS
			30~1000	0.24	-60.46	≤-19.76	PASS
			1000~26500	0.24	-47.46	≤-19.76	PASS

## Test Graphs



DH1\_Ant1\_2402\_0~Reference



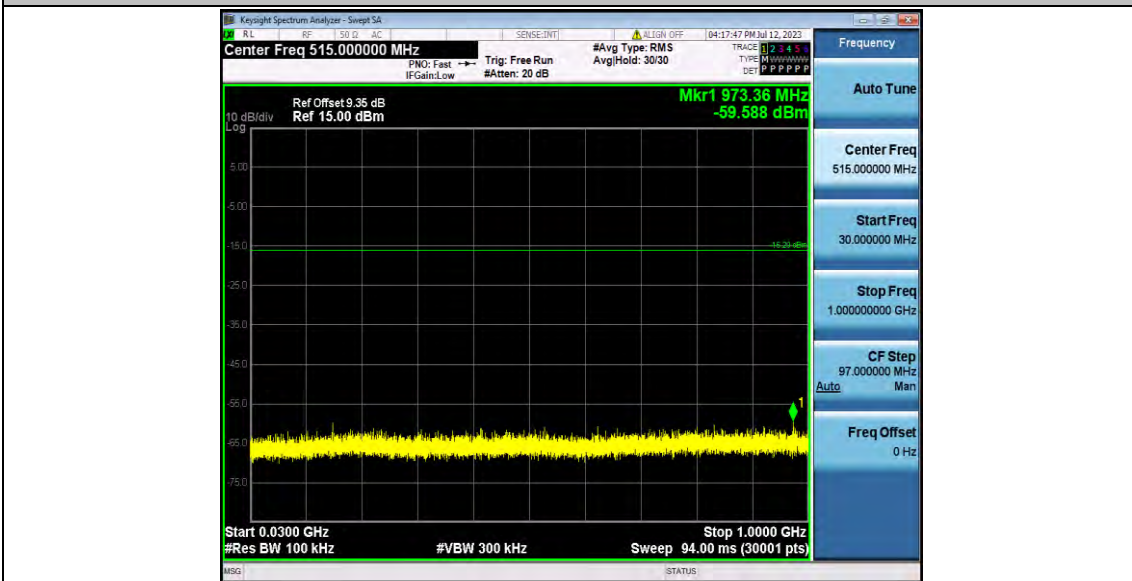
DH1\_Ant1\_2402\_30~1000



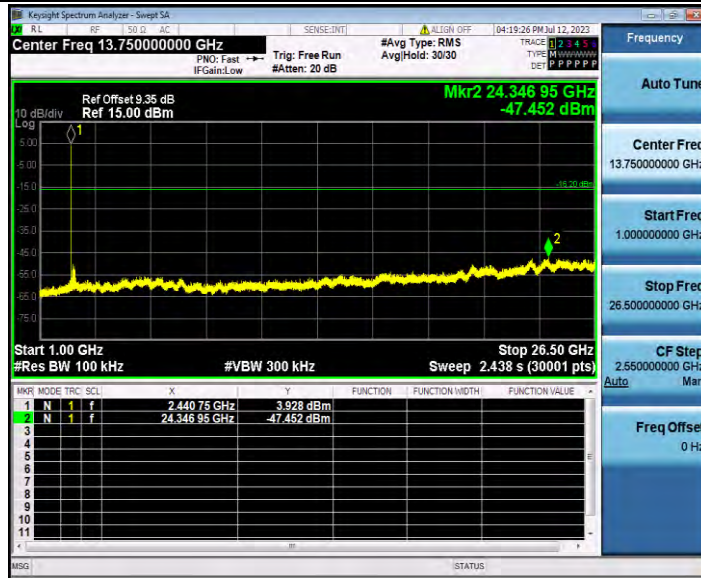
DH1\_Ant1\_2402\_1000~26500



DH1\_Ant1\_2441\_0~Reference



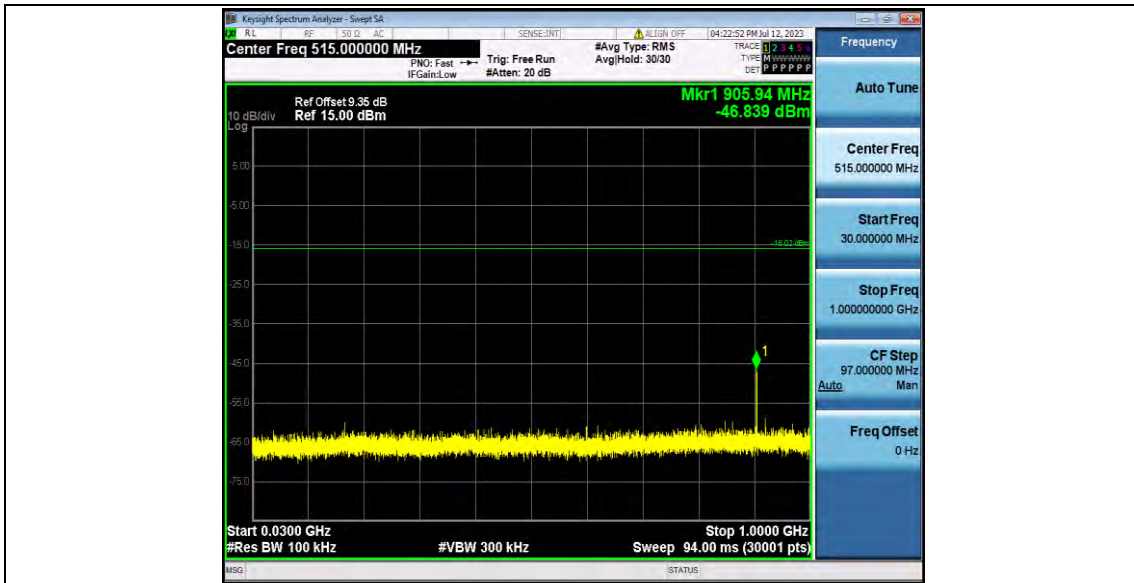
DH1\_Ant1\_2441\_30~1000



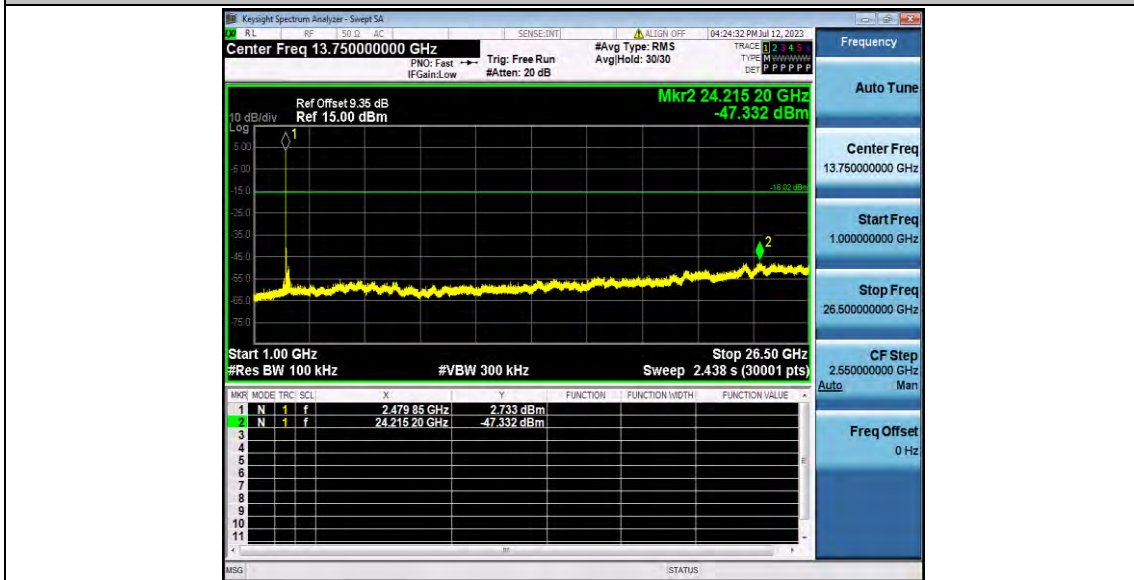
DH1\_Ant1\_2441\_1000~26500



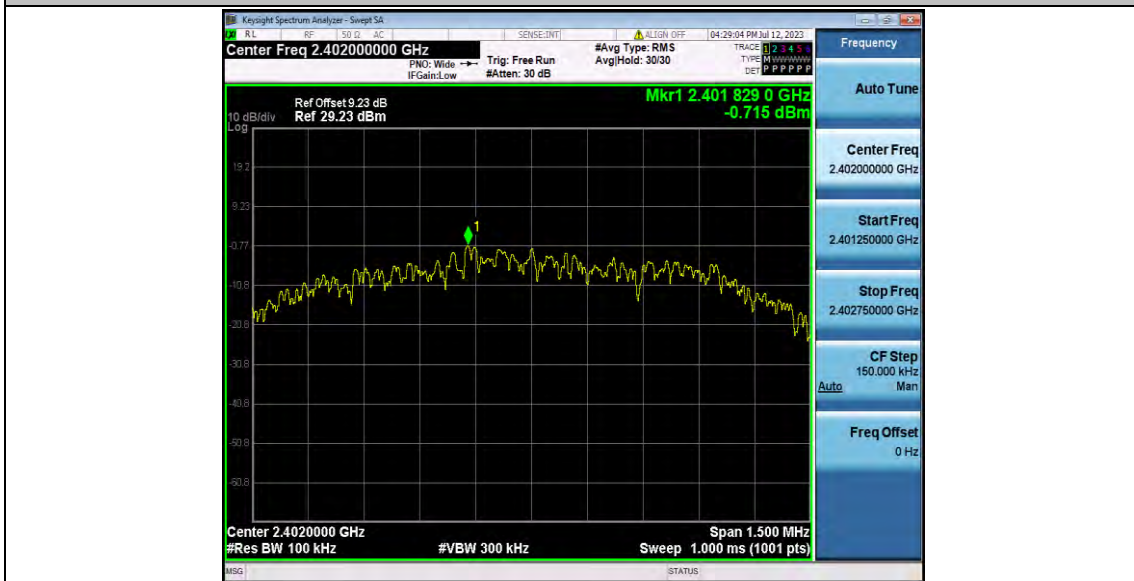
DH1\_Ant1\_2480\_0~Reference



DH1\_Ant1\_2480\_30~1000

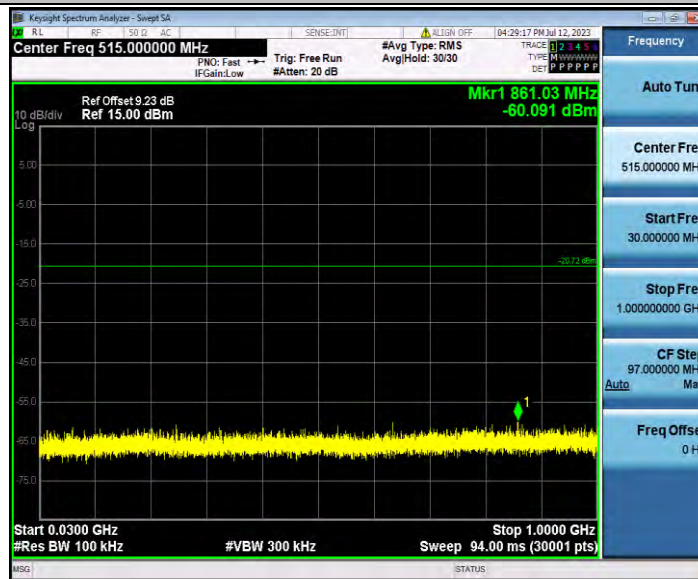


DH1\_Ant1\_2480\_1000~26500

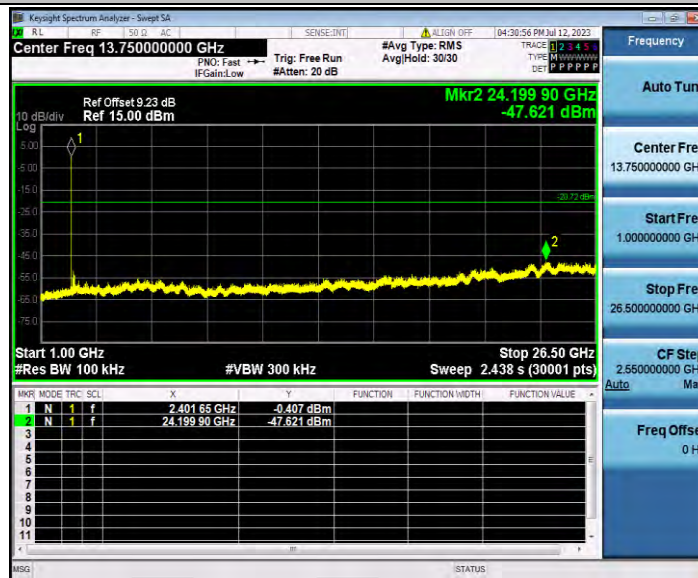




2DH1\_Ant1\_2402\_0~Reference



2DH1\_Ant1\_2402\_30~1000

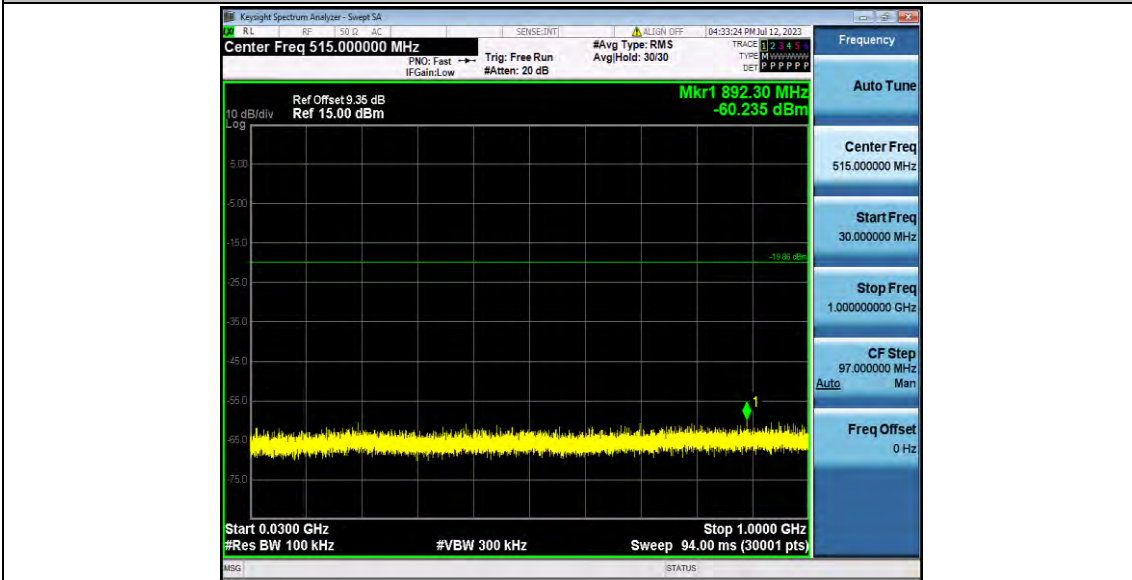


2DH1\_Ant1\_2402\_1000~26500





2DH1\_Ant1\_2441\_0~Reference



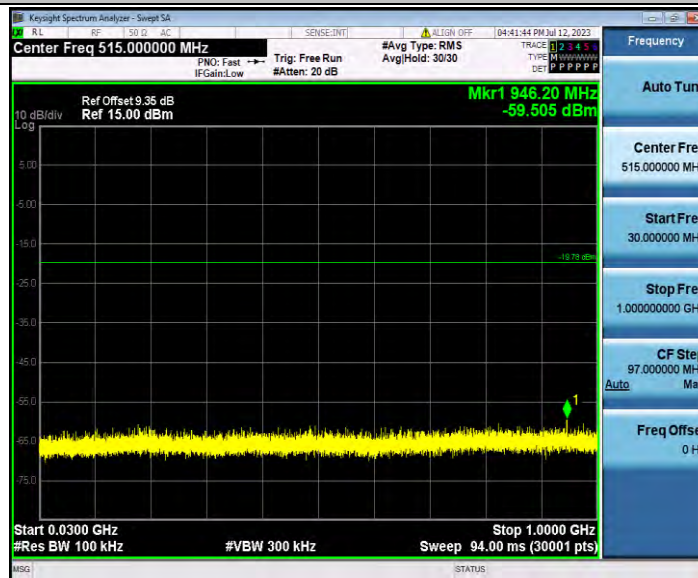
2DH1\_Ant1\_2441\_30~1000



2DH1\_Ant1\_2441\_1000~26500



2DH1\_Ant1\_2480\_0~Reference



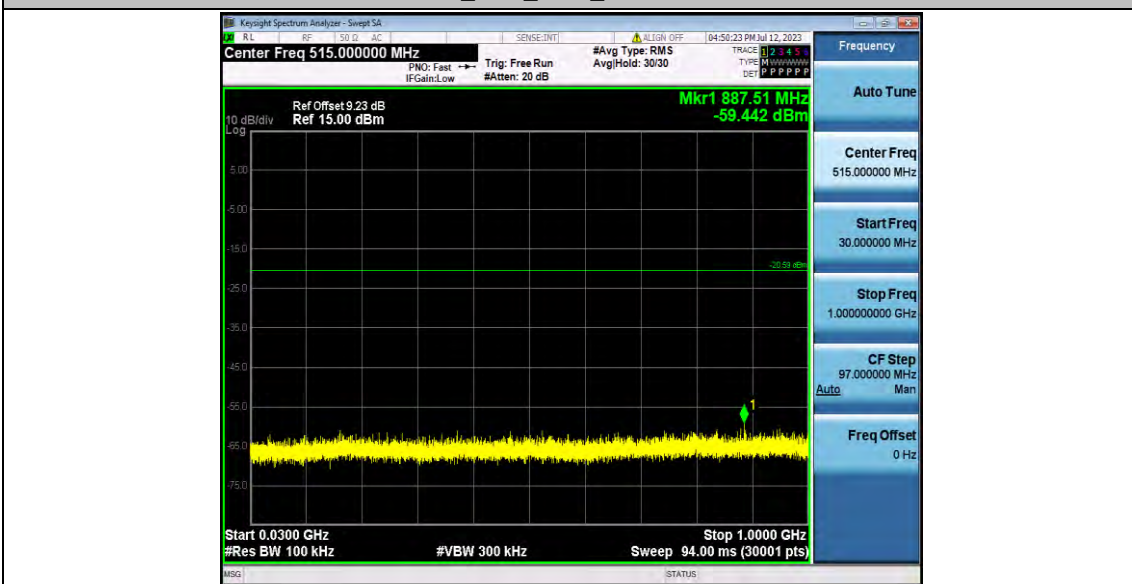
2DH1\_Ant1\_2480\_30~1000



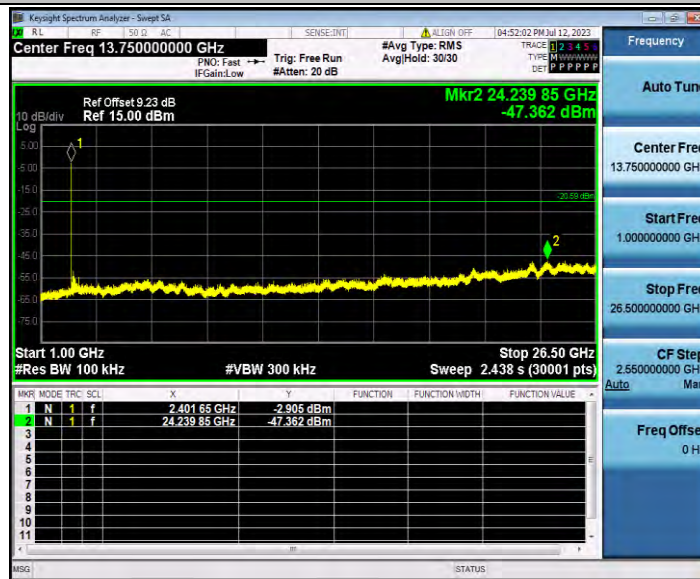
2DH1\_Ant1\_2480\_1000~26500



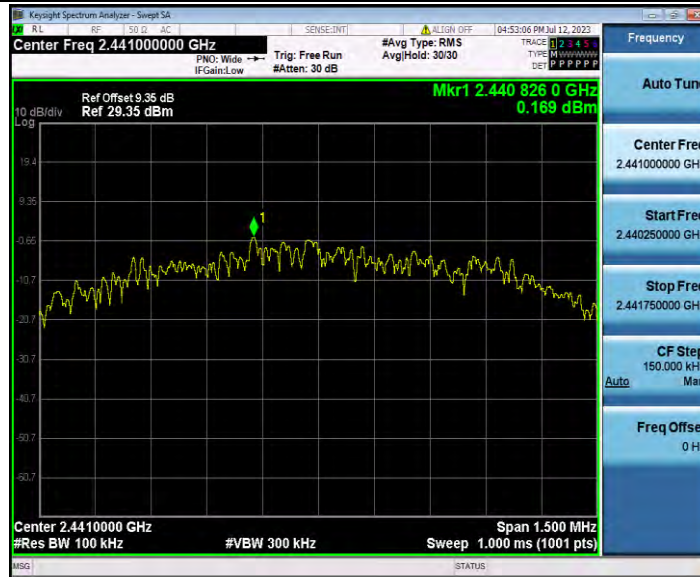
3DH1\_Ant1\_2402\_0~Reference



3DH1\_Ant1\_2402\_30~1000

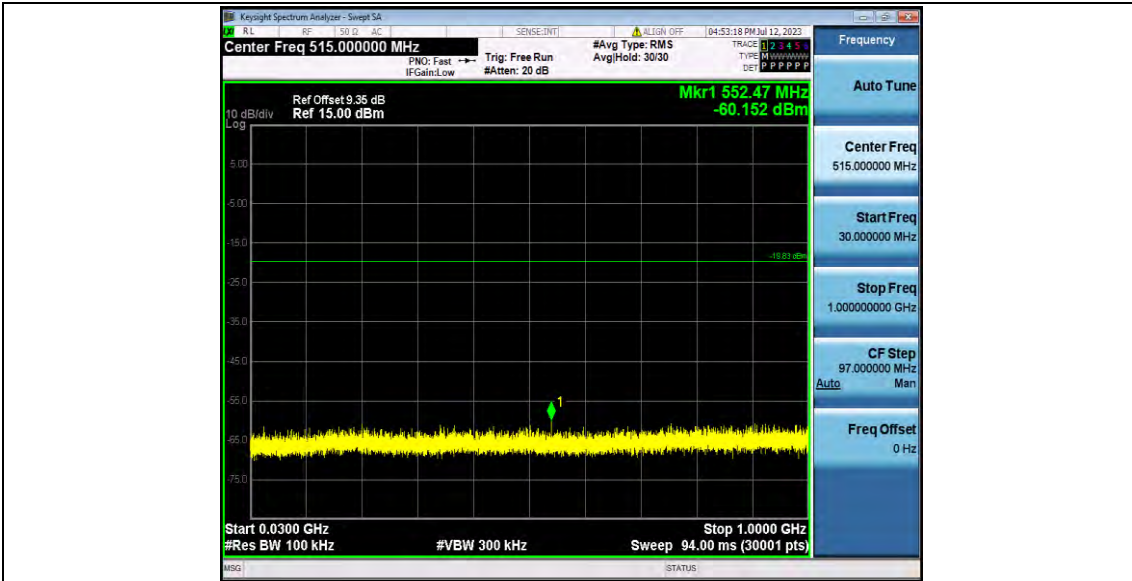


3DH1\_Ant1\_2402\_1000~26500

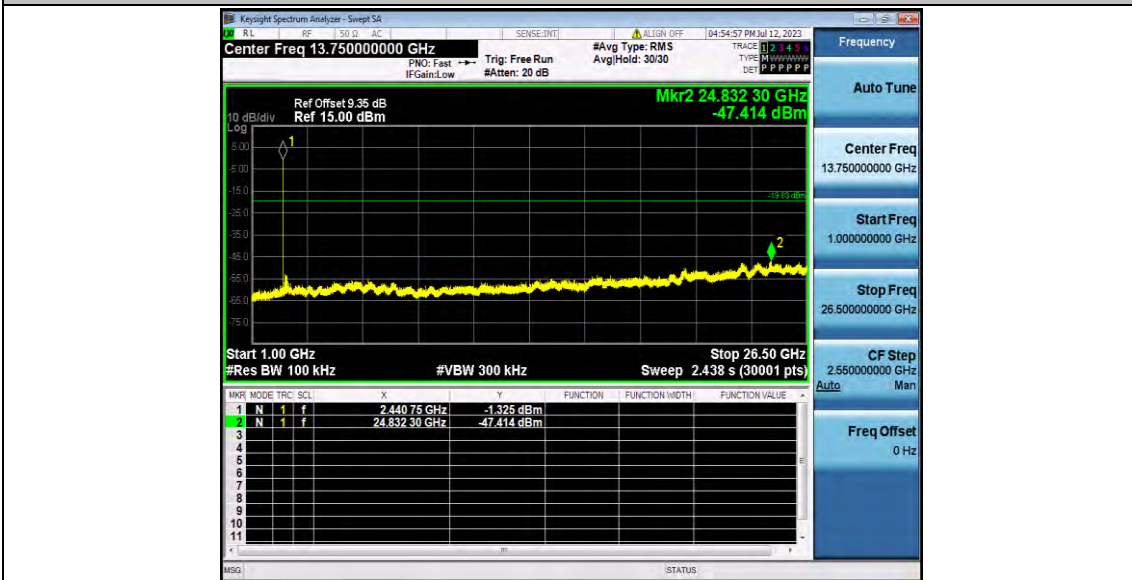


3DH1\_Ant1\_2441\_0~Reference

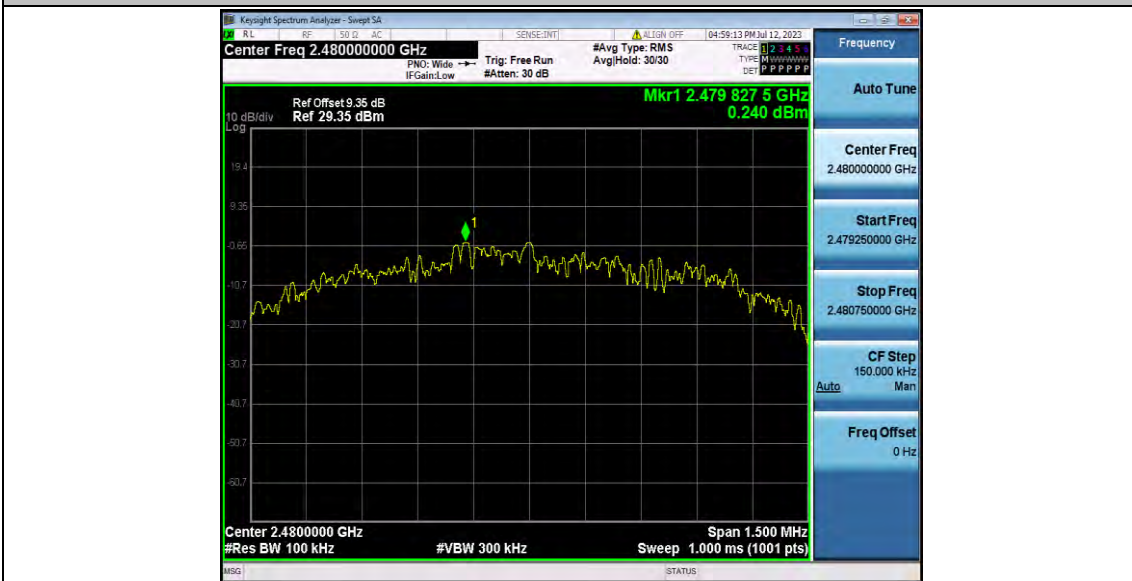




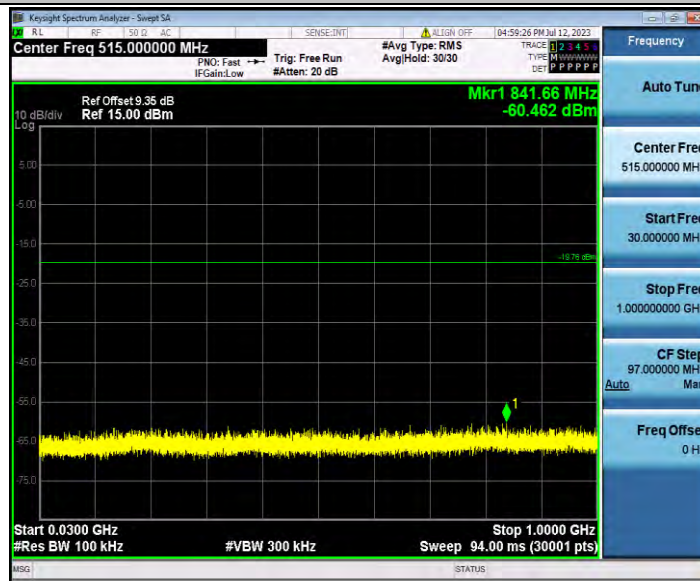
3DH1\_Ant1\_2441\_30~100



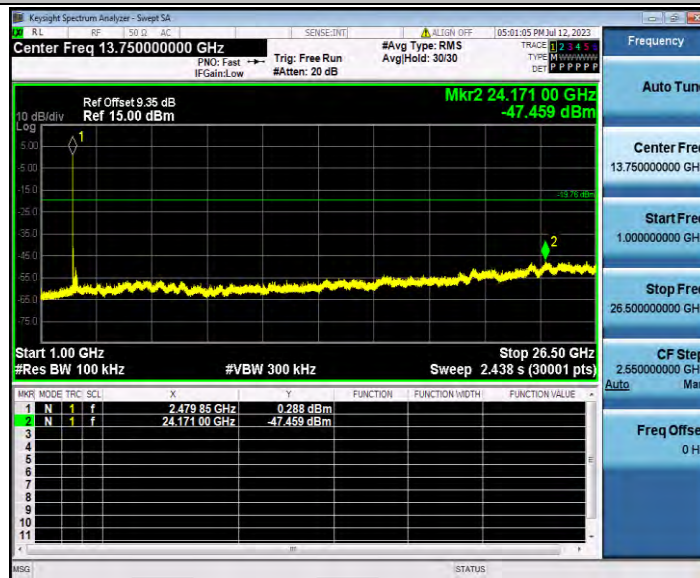
3DH1\_Ant1\_2441\_1000~26500



3DH1\_Ant1\_2480\_0~Reference



3DH1\_Ant1\_2480\_30~1000



3DH1\_Ant1\_2480\_1000~26500