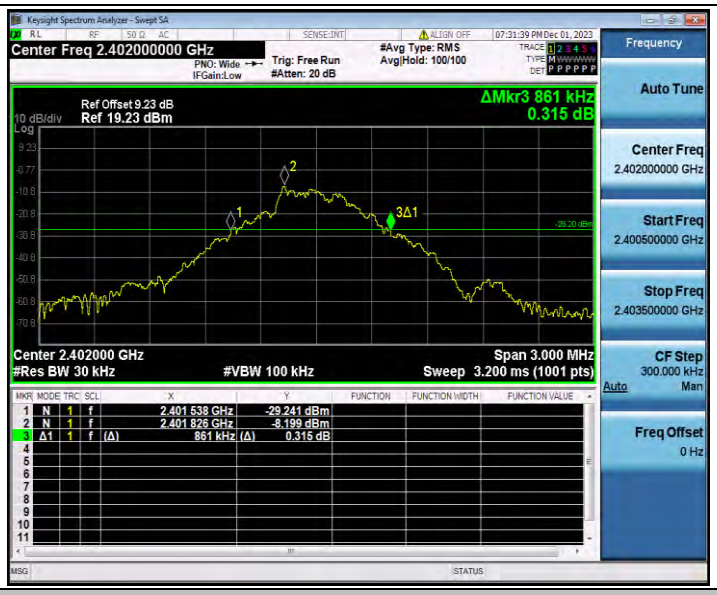
Case No. : GTS20231116004-1-1	
Ambient Condition: 23 ℃, 49 %RH, Atmos100.1Kpa,	
Test Date: 2023.12.1	**Test Engineer:** Evan ouyang

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	0.861	2401.538	2402.399	---	---
		2441	0.882	2440.535	2441.417	---	---
		2480	0.864	2479.538	2480.402	---	---
2DH1	Ant1	2402	1.272	2401.352	2402.624	---	---
		2441	1.299	2440.325	2441.624	---	---
		2480	1.266	2479.355	2480.621	---	---
3DH1	Ant1	2402	1.260	2401.352	2402.612	---	---
		2441	1.248	2440.364	2441.612	---	---
		2480	1.260	2479.352	2480.612	---	---

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

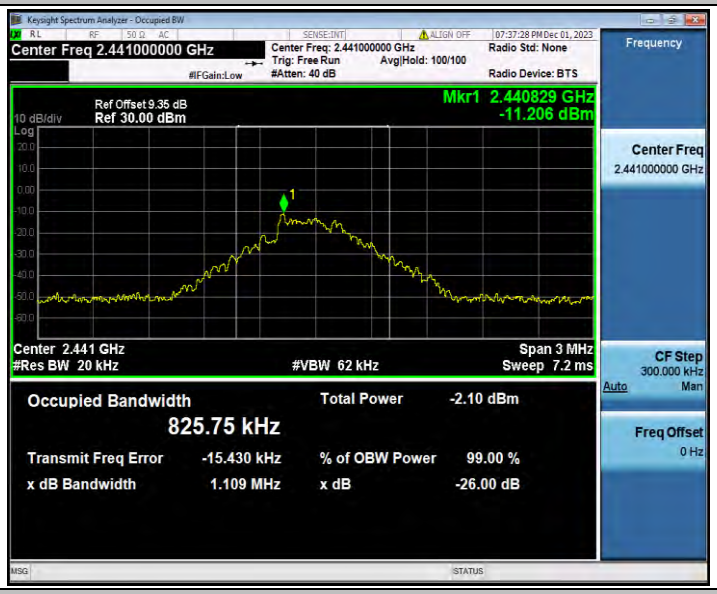
Appendix A.2: Occupied Channel Bandwidth

Test Result

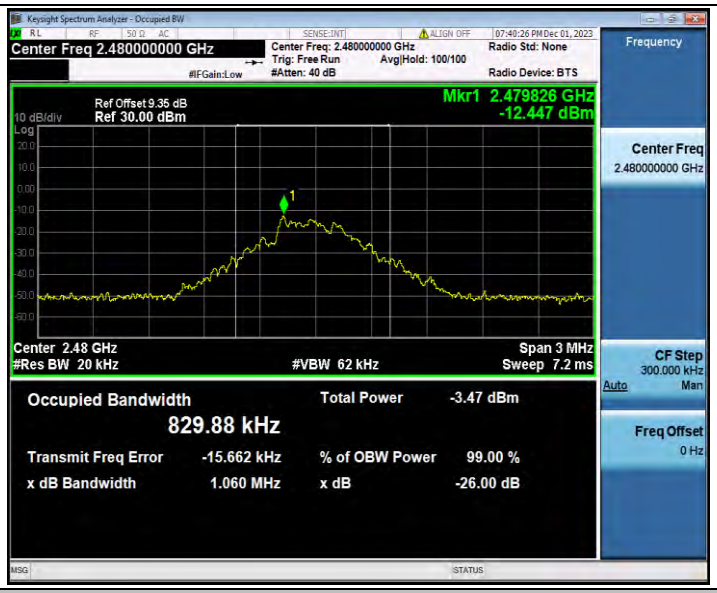
Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.79269	2401.585	2402.378	---	---
		2441	0.82575	2440.572	2441.397	---	---
		2480	0.82988	2479.569	2480.399	---	---
2DH1	Ant1	2402	1.1531	2401.402	2402.555	---	---
		2441	1.1601	2440.402	2441.562	---	---
		2480	1.1598	2479.403	2480.563	---	---
3DH1	Ant1	2402	1.1559	2401.418	2402.573	---	---
		2441	1.1552	2440.417	2441.572	---	---
		2480	1.1580	2479.419	2480.577	---	---

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 Powert[dBm]	Conducted Limit[dBm]	Verdict
DH1	Ant1	2402	-5.64	≤30.00	PASS
		2441	-7.28	≤30.00	PASS
		2480	-8.61	≤30.00	PASS
2DH1	Ant1	2402	-3.54	≤20.97	PASS
		2441	-5.41	≤20.97	PASS
		2480	-7.31	≤20.97	PASS
3DH1	Ant1	2402	-4.23	≤20.97	PASS
		2441	-5.63	≤20.97	PASS
		2480	-6.84	≤20.97	PASS

Appendix A.4: Carrier frequency separation

Test Result

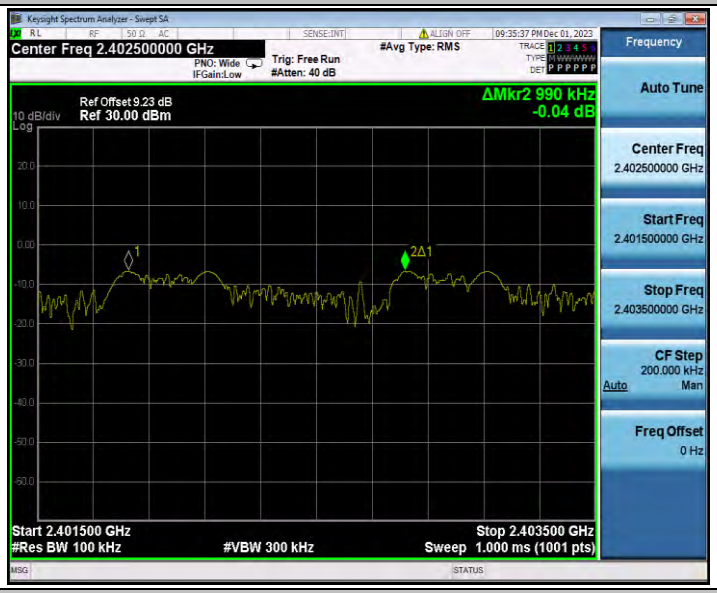
Test Mode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	0.998	≥0.882	PASS
		Hop_2441	1.008	≥0.882	PASS
		Hop_2480	1	≥0.882	PASS
2DH1	Ant1	Hop_2402	0.99	≥0.866	PASS
		Hop_2441	0.994	≥0.866	PASS
		Hop_2480	1.28	≥0.866	PASS
3DH1	Ant1	Hop_2402	1.17	≥0.840	PASS
		Hop_2441	0.994	≥0.840	PASS
		Hop_2480	0.842	≥0.840	PASS

Test Graphs

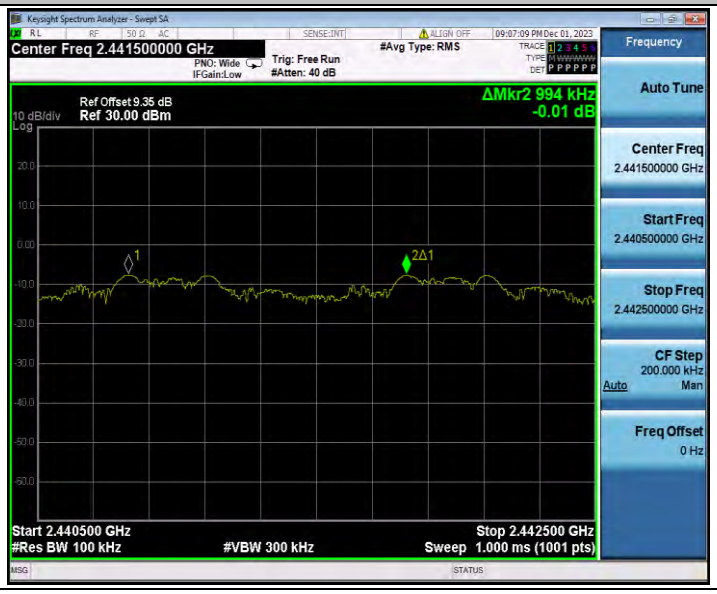
DH1_Ant1_Hop_2402

DH1_Ant1_Hop_2441

DH1_Ant1_Hop_2480

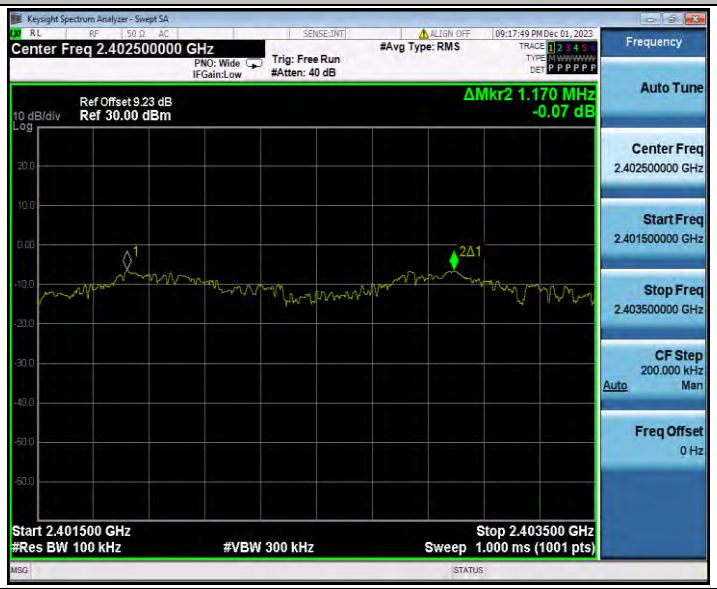


2DH1_Ant1_Hop_2402



2DH1_Ant1_Hop_2441

2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402

3DH1_Ant1_Hop_2441

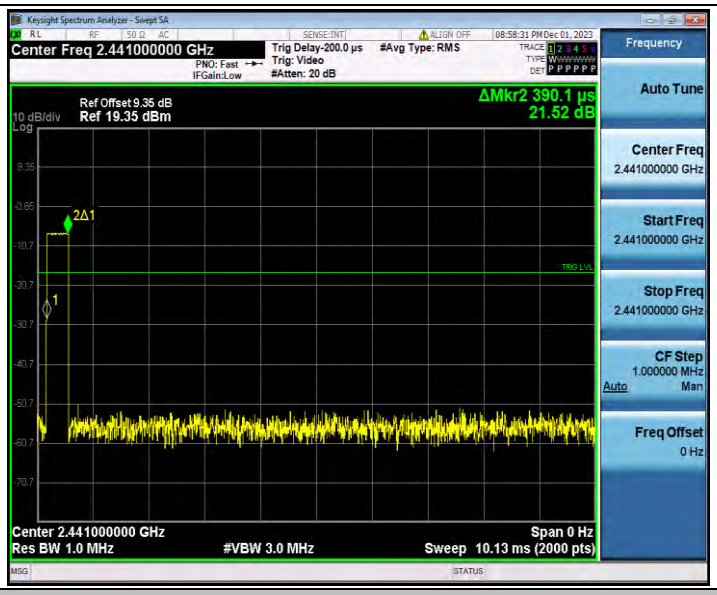
3DH1_Ant1_Hop_2480

Appendix A.5: Time of occupancy

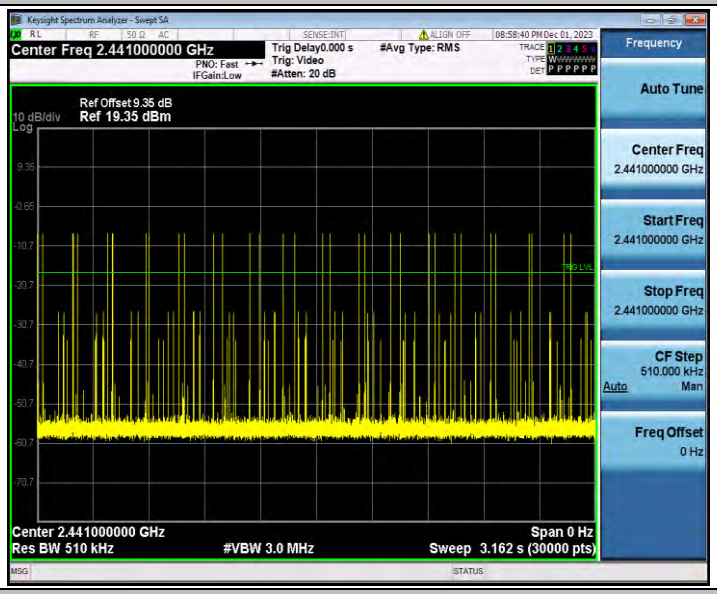
Test Result

Test Mode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.39	320	0.125	≤0.4	PASS
DH3	Ant1	Hop	1.64	130	0.213	≤0.4	PASS
DH5	Ant1	Hop	2.89	90	0.26	≤0.4	PASS
2DH1	Ant1	Hop	0.40	330	0.13	≤0.4	PASS
2DH3	Ant1	Hop	1.65	160	0.263	≤0.4	PASS
2DH5	Ant1	Hop	2.90	120	0.348	≤0.4	PASS
3DH1	Ant1	Hop	0.38	320	0.121	≤0.4	PASS
3DH3	Ant1	Hop	1.65	190	0.314	≤0.4	PASS
3DH5	Ant1	Hop	2.89	80	0.231	≤0.4	PASS

Test Graphs

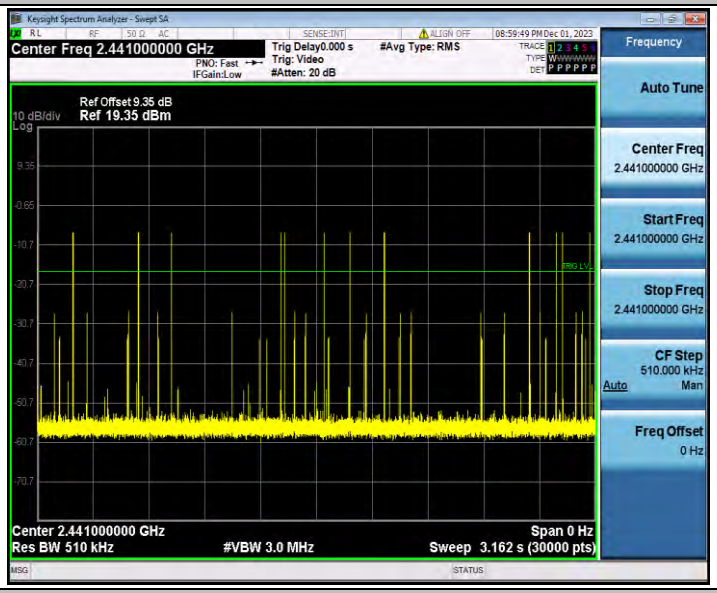


DH1_Ant1_Hop



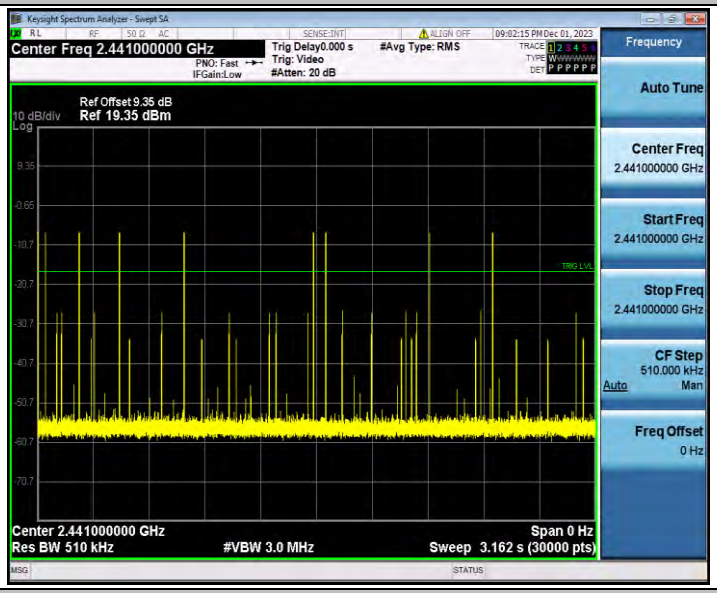
DH1_Ant1_Hop

DH3_Ant1_Hop

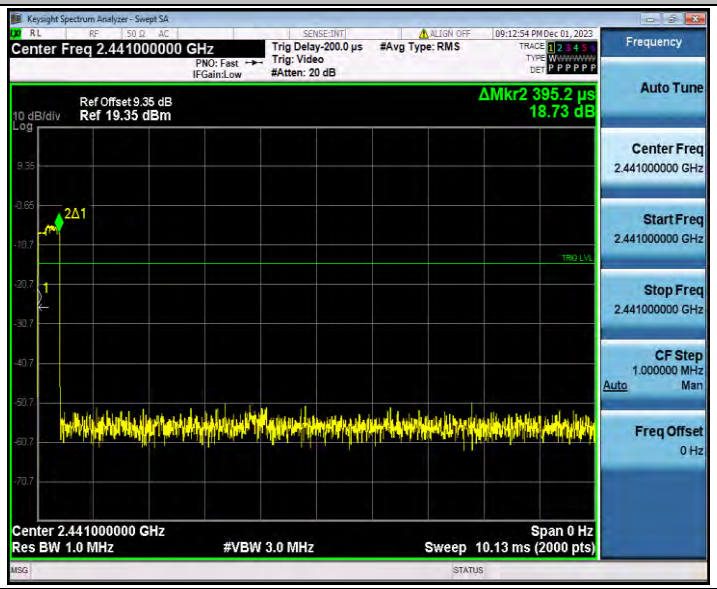


DH3_Ant1_Hop

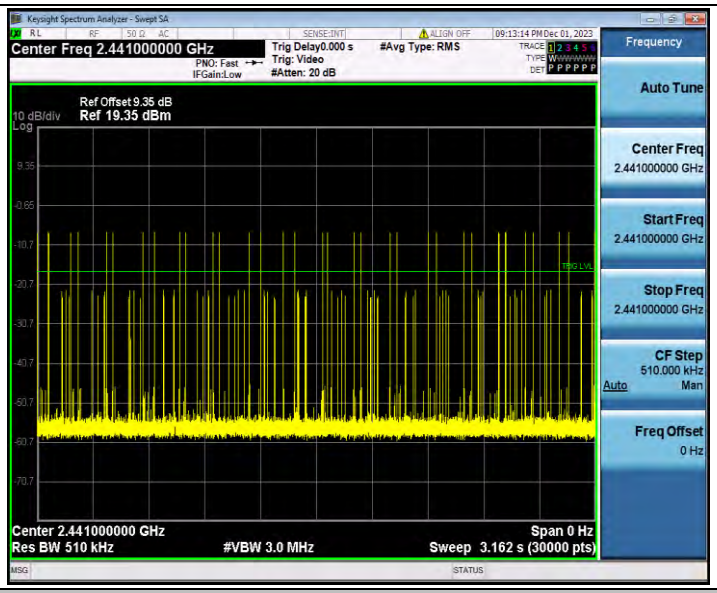
DH5_Ant1_Hop



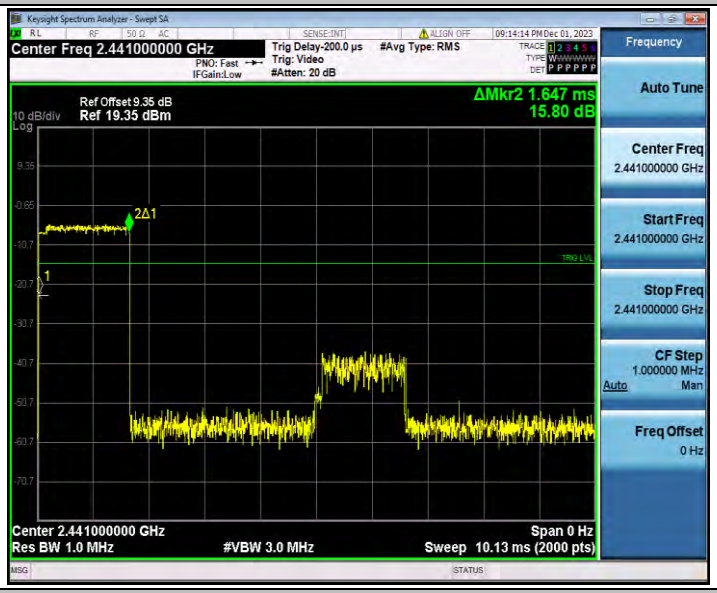
DH5_Ant1_Hop



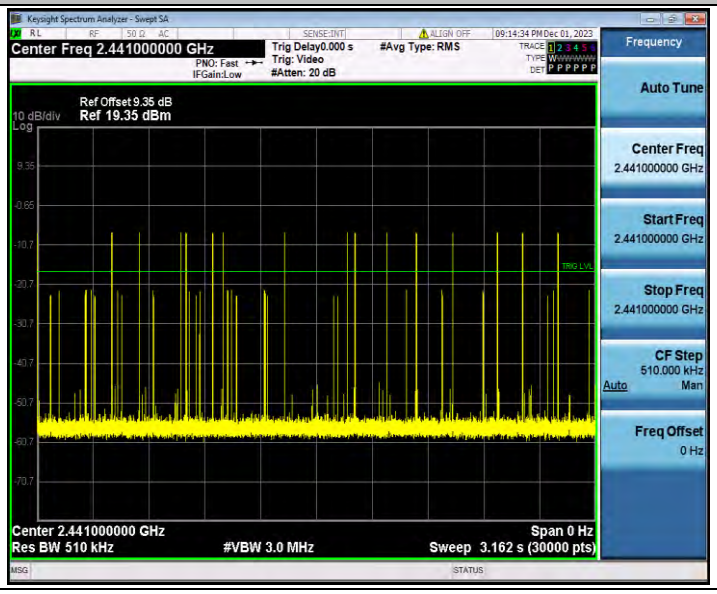
2DH1_Ant1_Hop



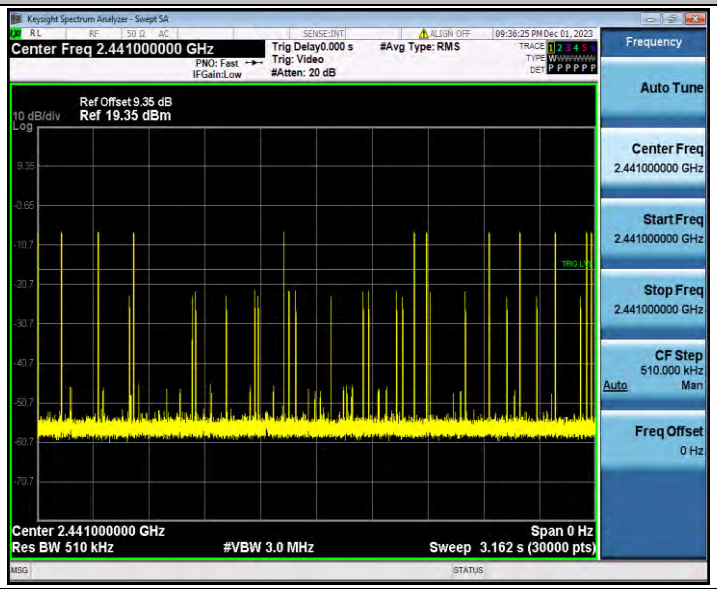
2DH1_Ant1_Hop



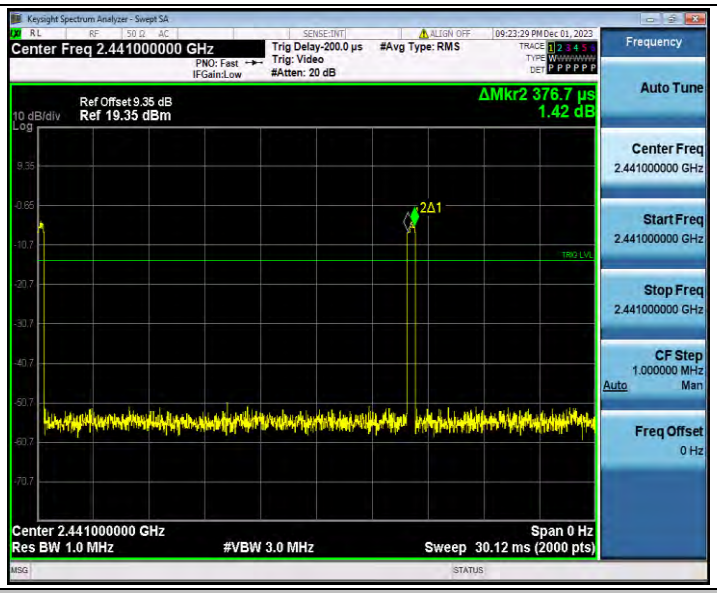
2DH3_Ant1_Hop



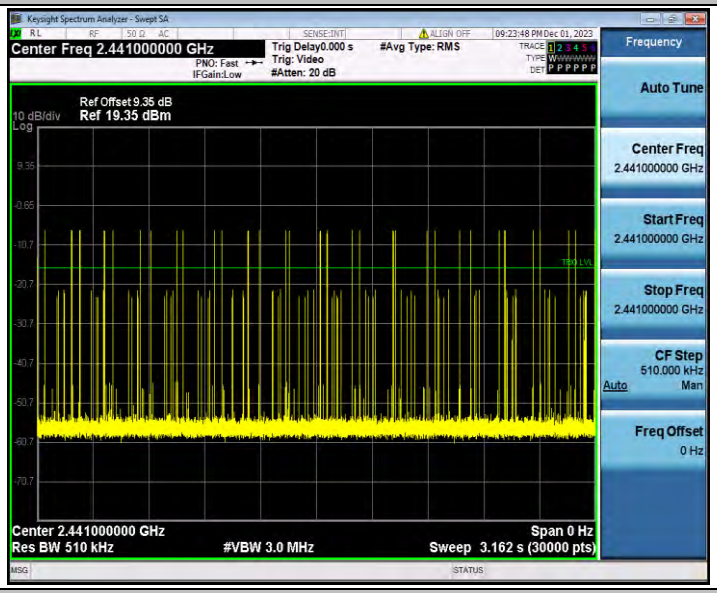
2DH3_Ant1_Hop

2DH5_Ant1_Hop


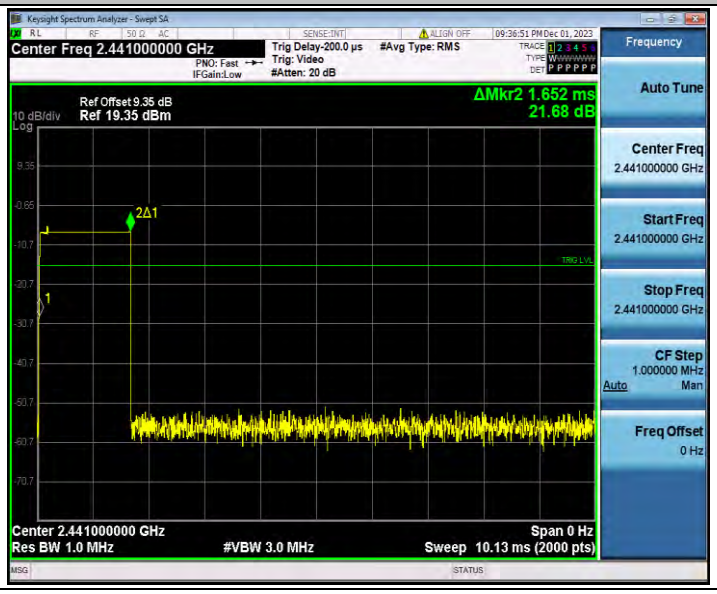
2DH5_Ant1_Hop



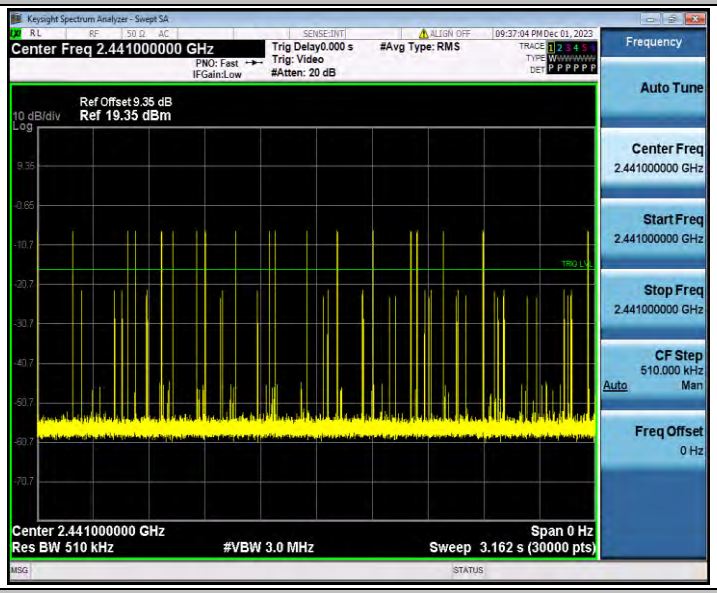
3DH1_Ant1_Hop



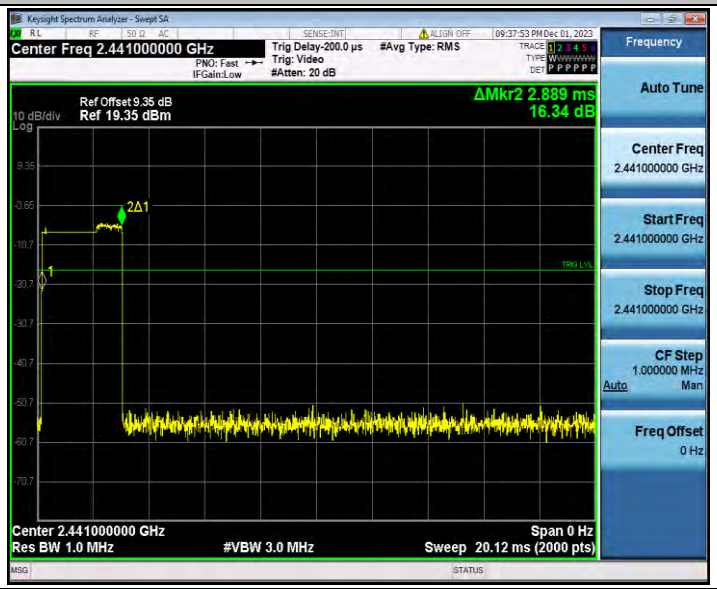
3DH1_Ant1_Hop



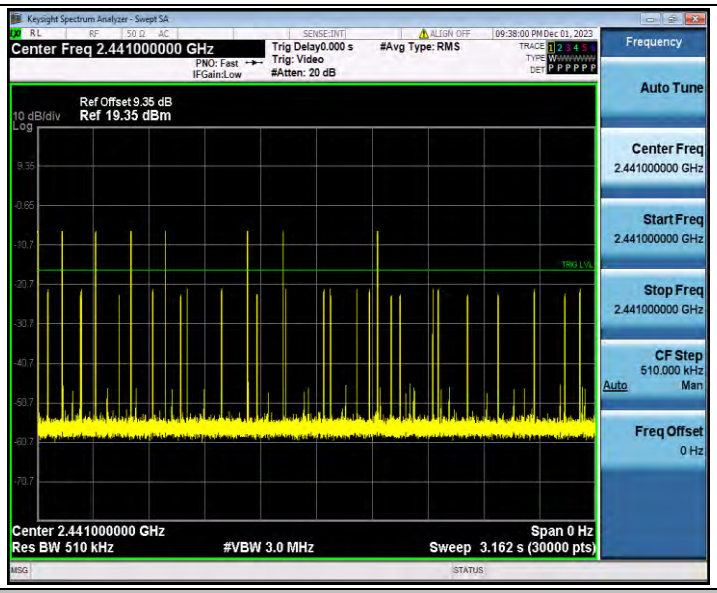
3DH3_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop



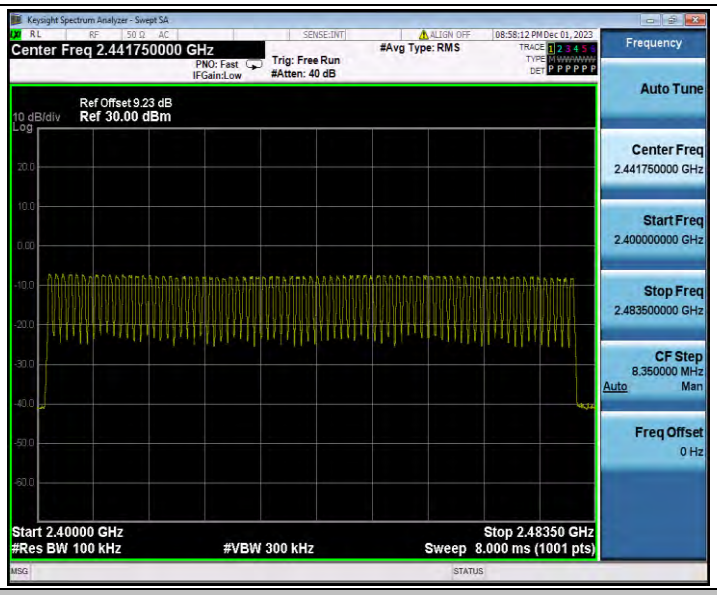
3DH5_Ant1_Hop

Appendix A.6: Number of hopping channels

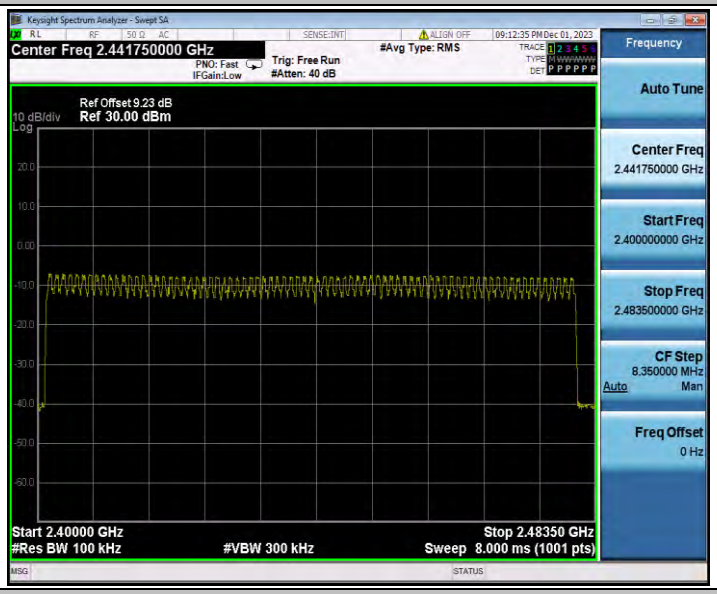
Test Result

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

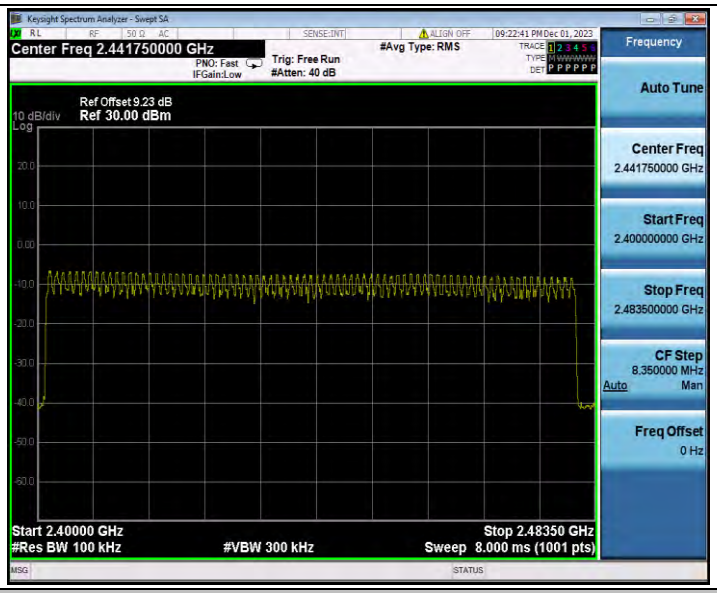
Test Graphs



DH1_Ant1_Hop



2DH1_Ant1_Hop



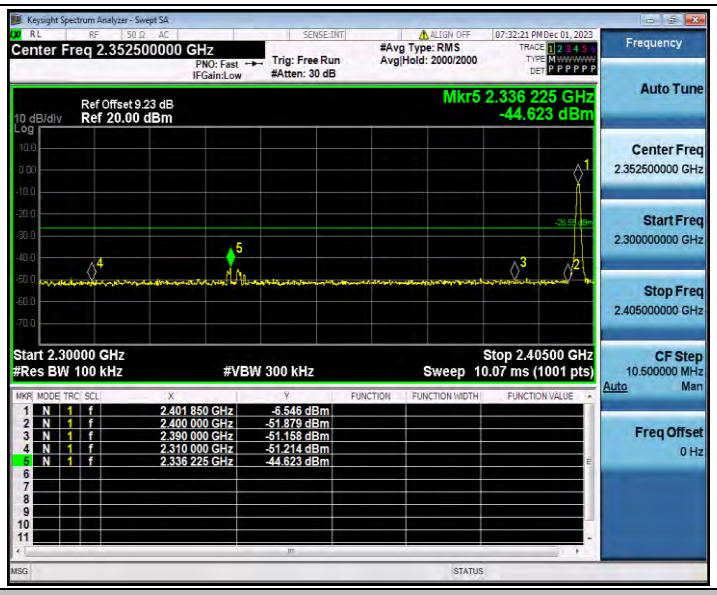
3DH1_Ant1_Hop

Appendix A.7: Band edge measurements

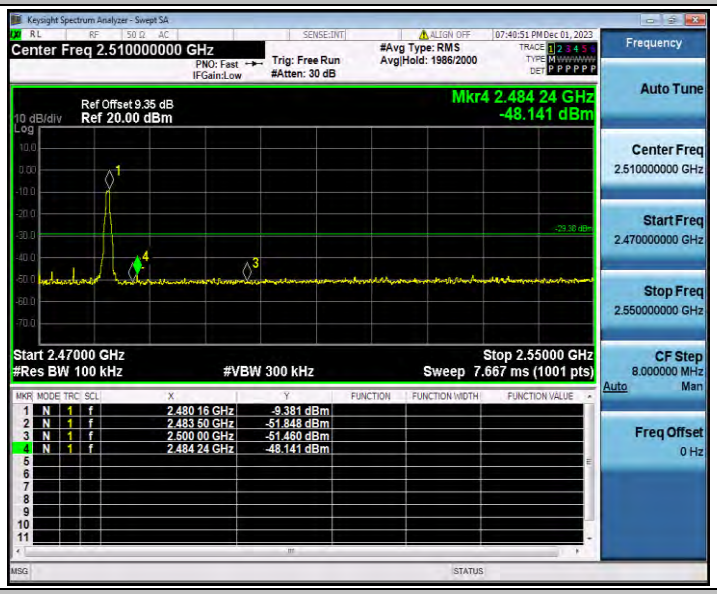
Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	-6.55	-44.62	≤-26.55	PASS
		High	2480	-9.38	-48.14	≤-29.38	PASS
		Low	Hop_2402	-7.32	-49.55	≤-27.32	PASS
		High	Hop_2480	-7.98	-48.53	≤-27.98	PASS
2DH1	Ant1	Low	2402	-6.31	-49.39	≤-26.31	PASS
		High	2480	-10.22	-48.18	≤-30.22	PASS
		Low	Hop_2402	-6.79	-49.44	≤-26.79	PASS
		High	Hop_2480	-8.17	-48.47	≤-28.17	PASS
3DH1	Ant1	Low	2402	-8.05	-45.25	≤-28.05	PASS
		High	2480	-10.21	-48.42	≤-30.21	PASS
		Low	Hop_2402	-6.71	-49.59	≤-26.71	PASS
		High	Hop_2480	-8.29	-48.87	≤-28.29	PASS

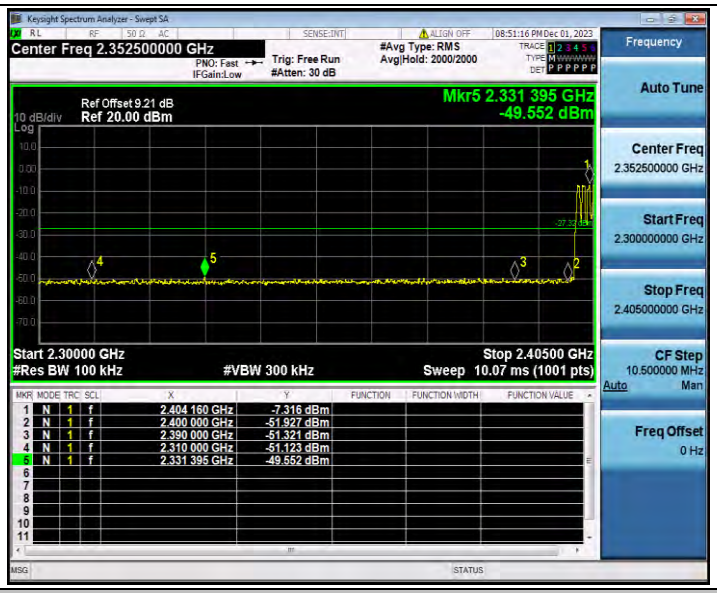
Test Graphs



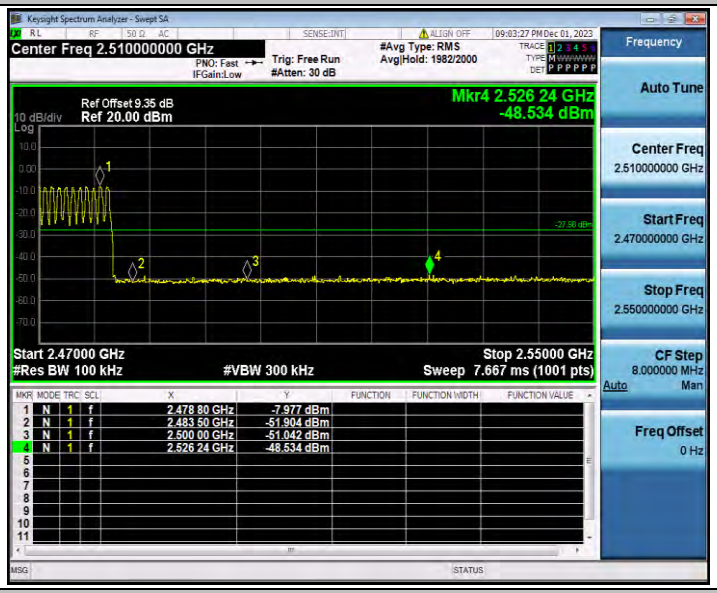
DH1_Ant1_Low_2402



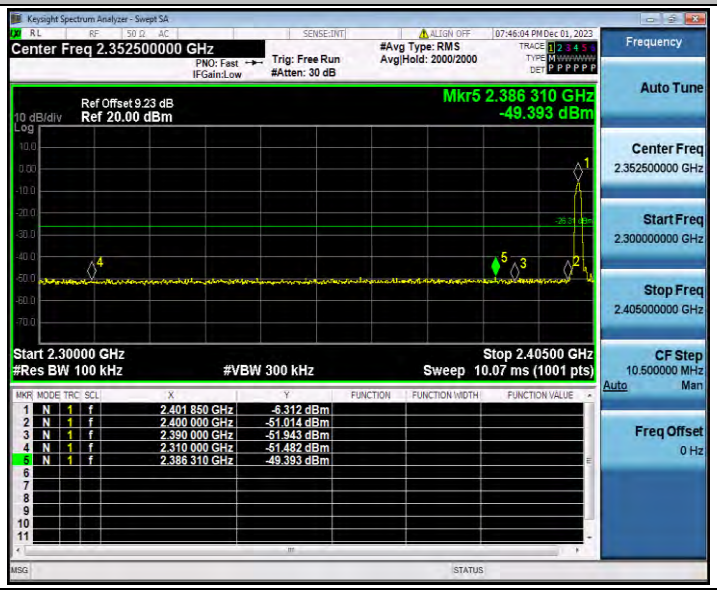
DH1_Ant1_High_2480



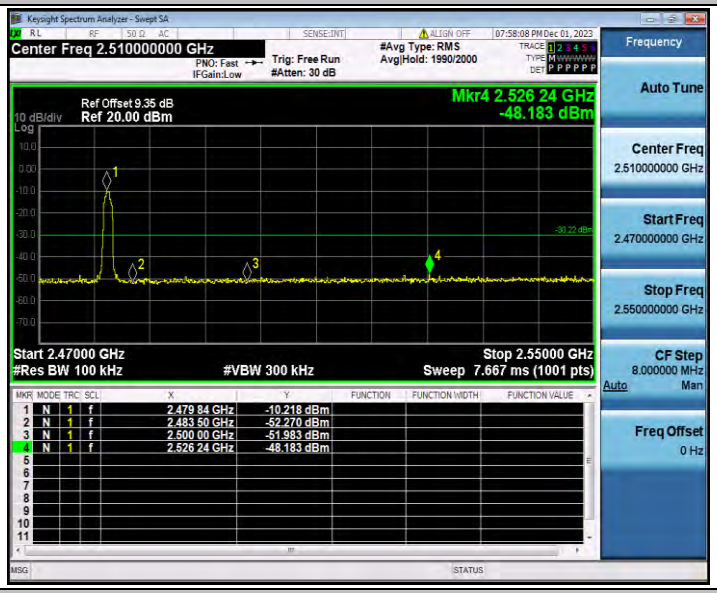
DH1_Ant1_Low_Hop_2402



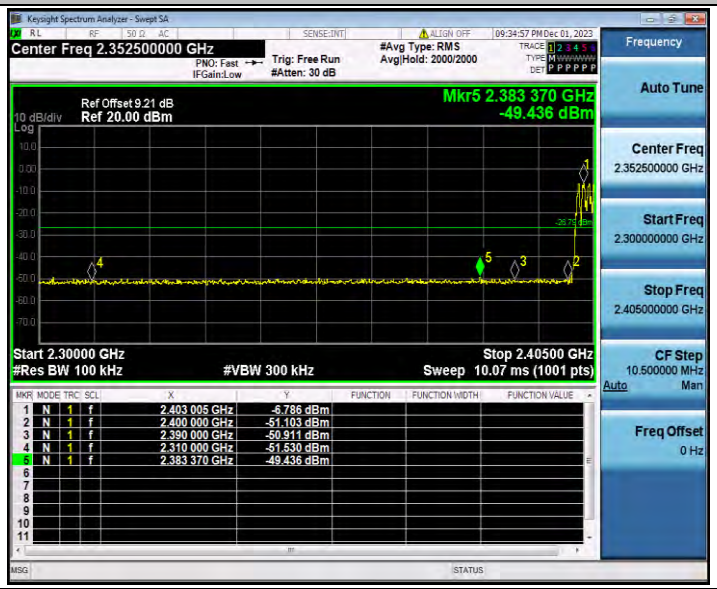
DH1_Ant1_High_Hop_2480



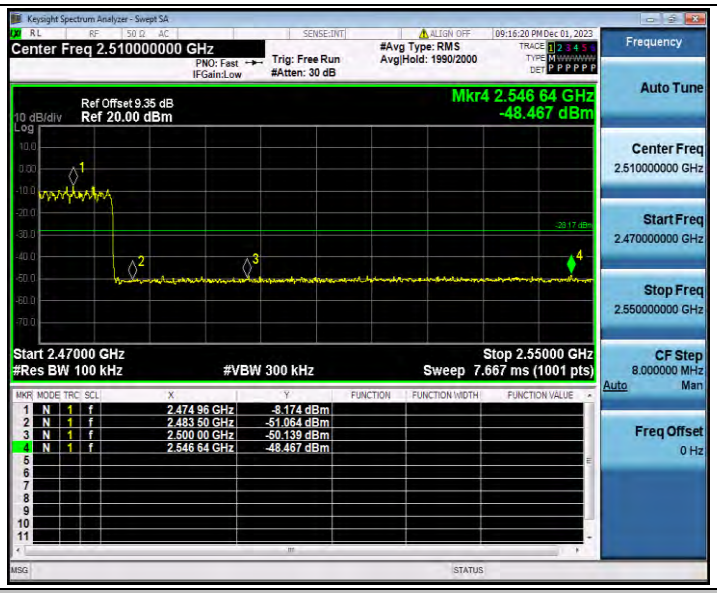
2DH1_Ant1_Low_2402



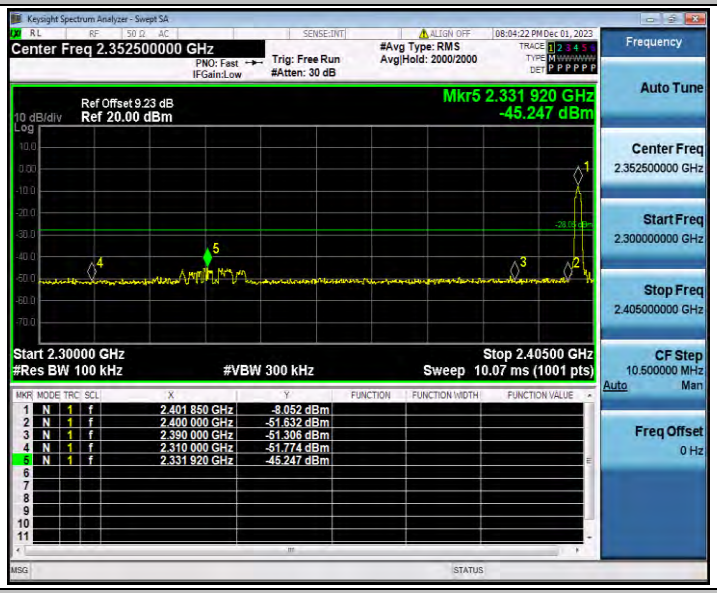
2DH1_Ant1_High_2480



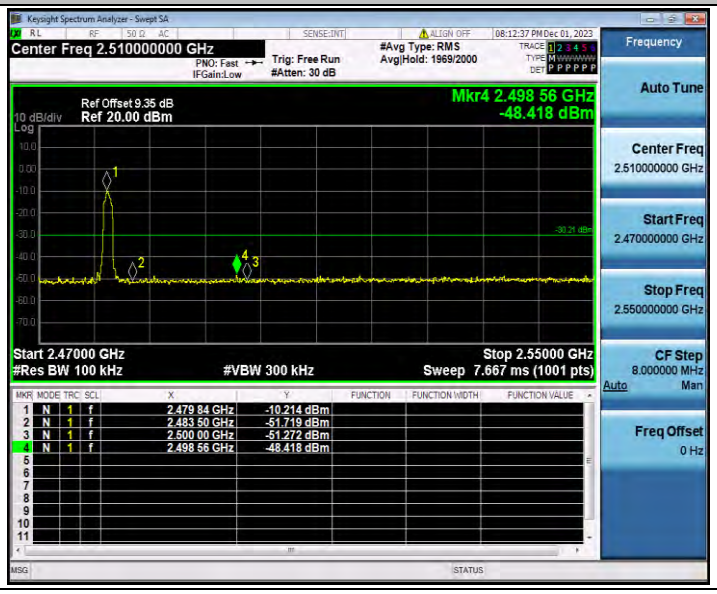
2DH1_Ant1_Low_Hop_2402



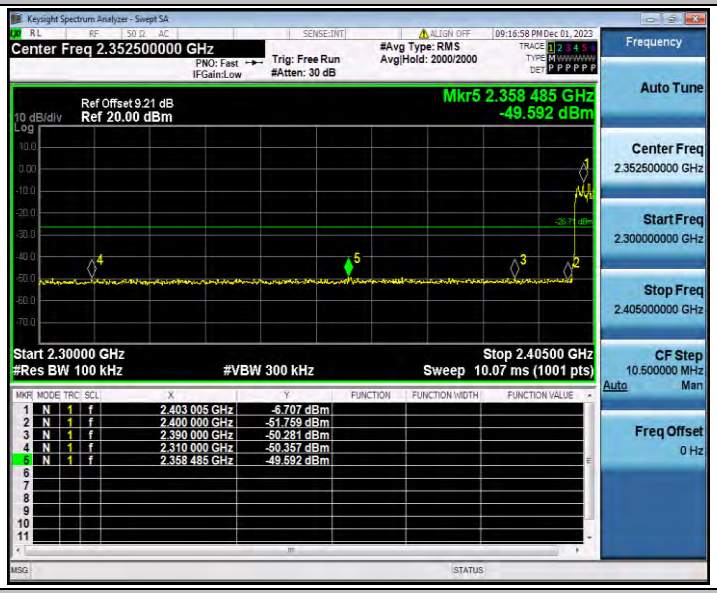
2DH1_Ant1_High_Hop_2480



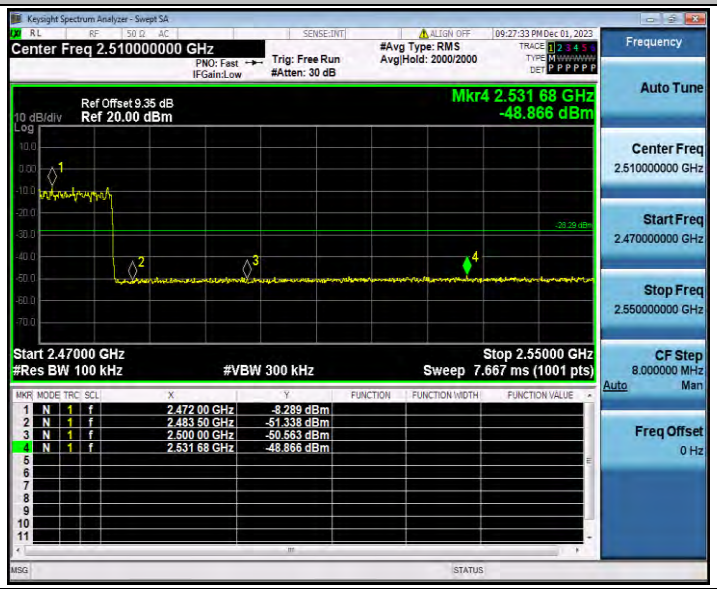
3DH1_Ant1_Low_2402



3DH1_Ant1_High_2480



3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

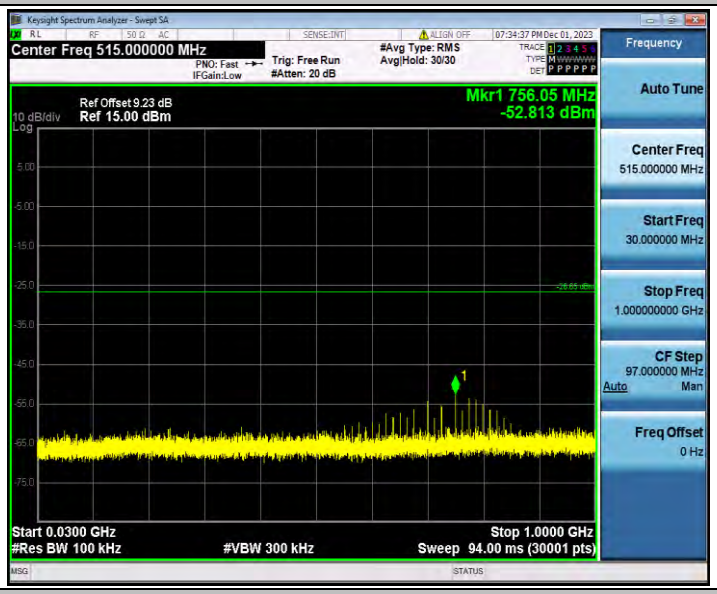
Appendix A.8: Conducted Spurious Emission

Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	-6.65	-6.65	---	PASS
			30~1000	-6.65	-52.81	≤-26.65	PASS
			1000~26500	-6.65	-47.75	≤-26.65	PASS
		2441	Reference	-8.43	-8.43	---	PASS
			30~1000	-8.43	-53.88	≤-28.43	PASS
			1000~26500	-8.43	-47.37	≤-28.43	PASS
		2480	Reference	-9.57	-9.57	---	PASS
			30~1000	-9.57	-45.48	≤-29.57	PASS
			1000~26500	-9.57	-45.86	≤-29.57	PASS
2DH1	Ant1	2402	Reference	-6.84	-6.84	---	PASS
			30~1000	-6.84	-32.72	≤-26.84	PASS
			1000~26500	-6.84	-47.38	≤-26.84	PASS
		2441	Reference	-8.39	-8.39	---	PASS
			30~1000	-8.39	-30.51	≤-28.39	PASS
			1000~26500	-8.39	-47.02	≤-28.39	PASS
		2480	Reference	-9.89	-9.89	---	PASS
			30~1000	-9.89	-52.12	≤-29.89	PASS
			1000~26500	-9.89	-45.63	≤-29.89	PASS
3DH1	Ant1	2402	Reference	-8.35	-8.35	---	PASS
			30~1000	-8.35	-52.42	≤-28.35	PASS
			1000~26500	-8.35	-47.51	≤-28.35	PASS
		2441	Reference	-9.39	-9.39	---	PASS
			30~1000	-9.39	-42.92	≤-29.39	PASS
			1000~26500	-9.39	-47.57	≤-29.39	PASS
		2480	Reference	-10.37	-10.37	---	PASS
			30~1000	-10.37	-34.58	≤-30.37	PASS
			1000~26500	-10.37	-45.77	≤-30.37	PASS

Test Graphs

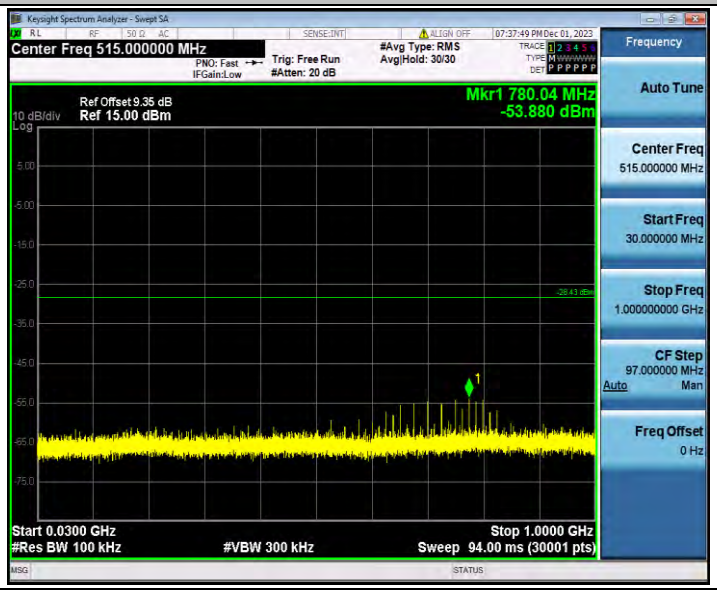
DH1_Ant1_2402_0~Reference



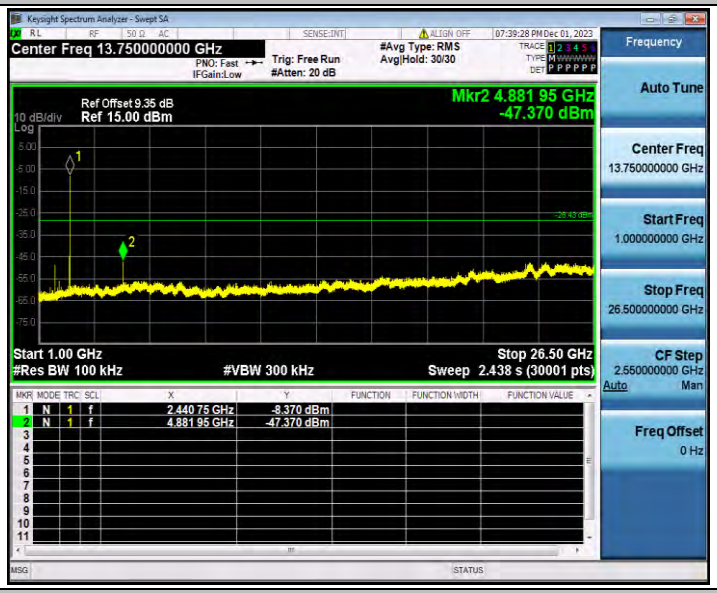
DH1_Ant1_2402_30~1000

DH1_Ant1_2402_1000~26500

DH1_Ant1_2441_0~Reference

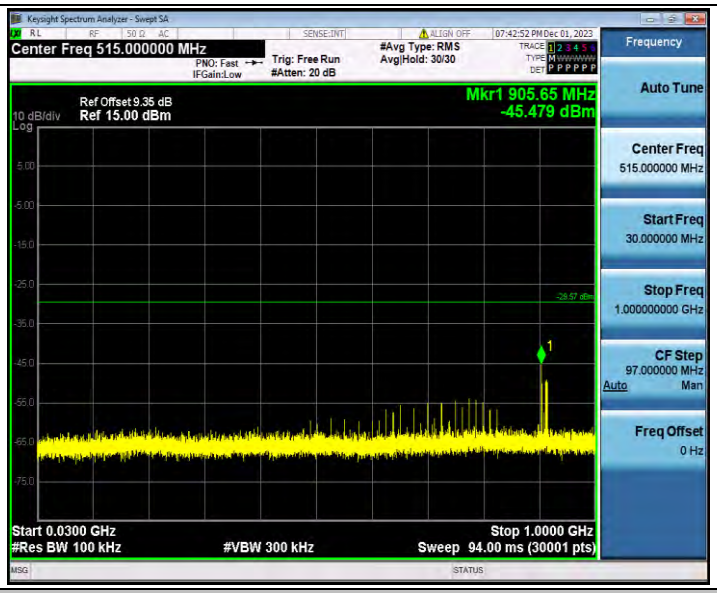


DH1_Ant1_2441_30~1000

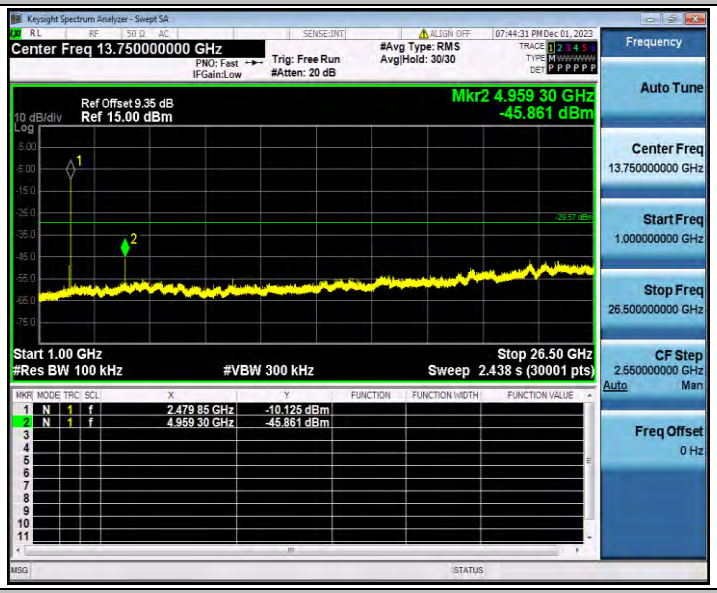


DH1_Ant1_2441_1000~26500

DH1_Ant1_2480_0~Reference

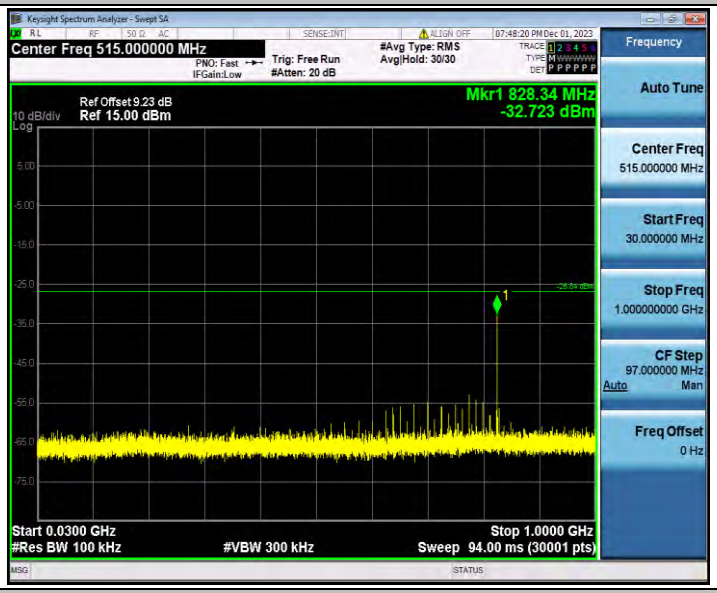


DH1_Ant1_2480_30~1000

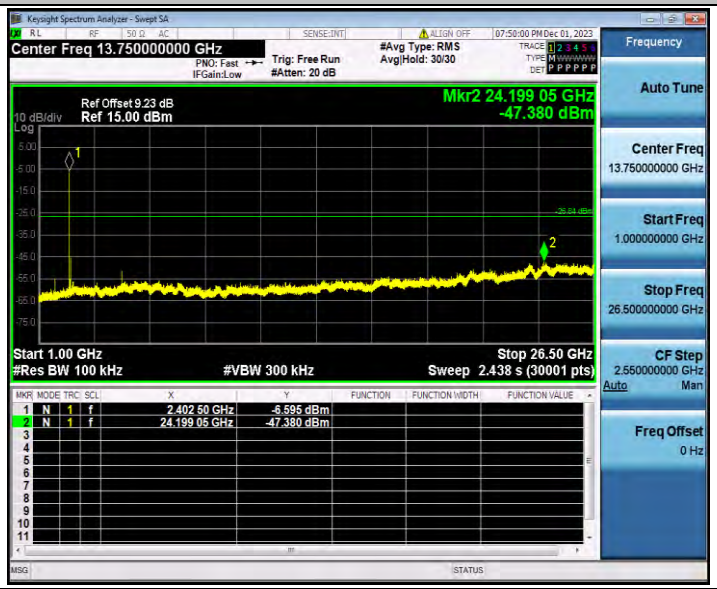


DH1_Ant1_2480_1000~26500

2DH1_Ant1_2402_0~Reference

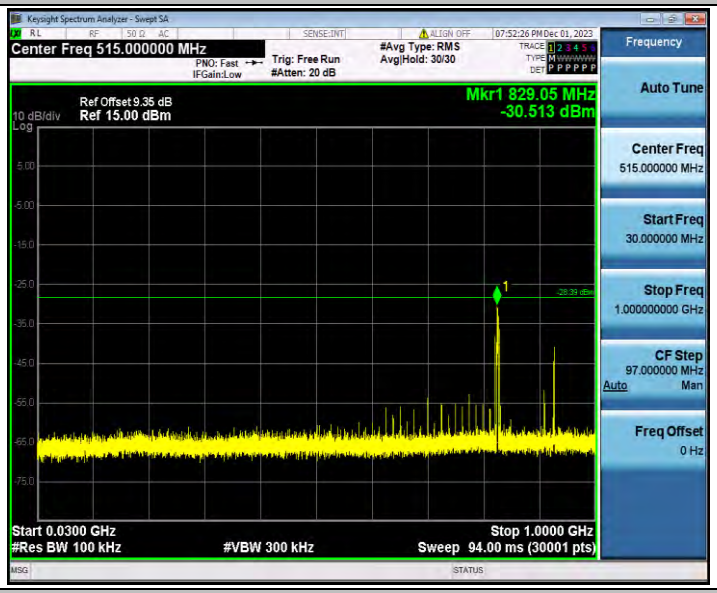


2DH1_Ant1_2402_30~1000

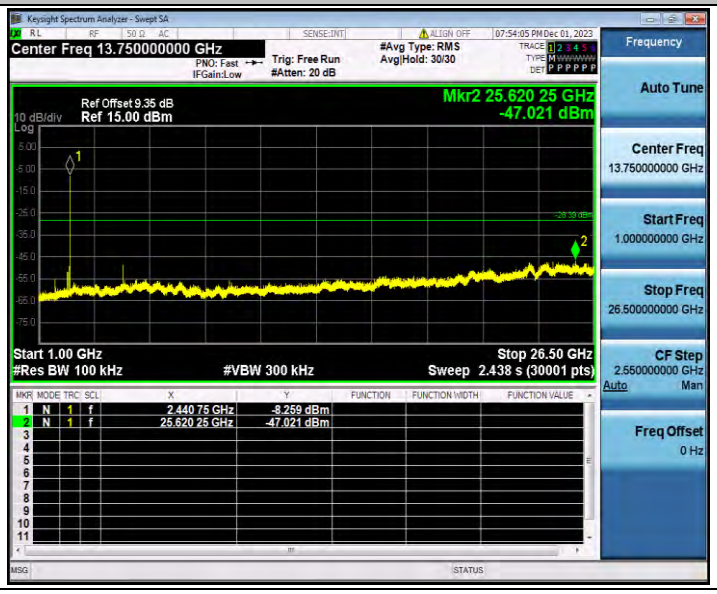


2DH1_Ant1_2402_1000~26500

2DH1_Ant1_2441_0~Reference

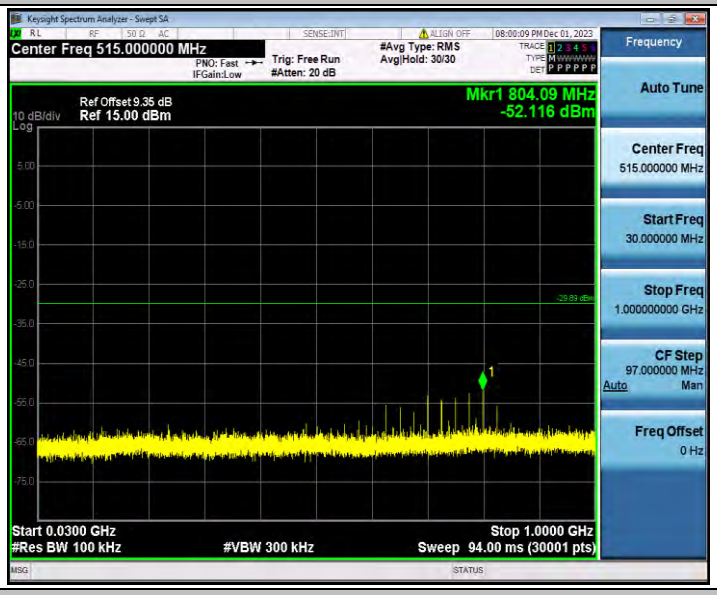


2DH1_Ant1_2441_30~1000

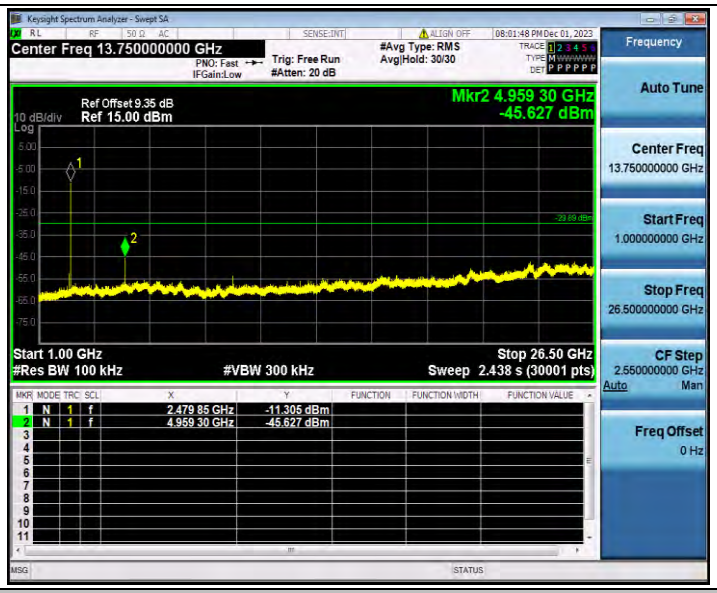


2DH1_Ant1_2441_1000~26500

2DH1_Ant1_2480_0~Reference

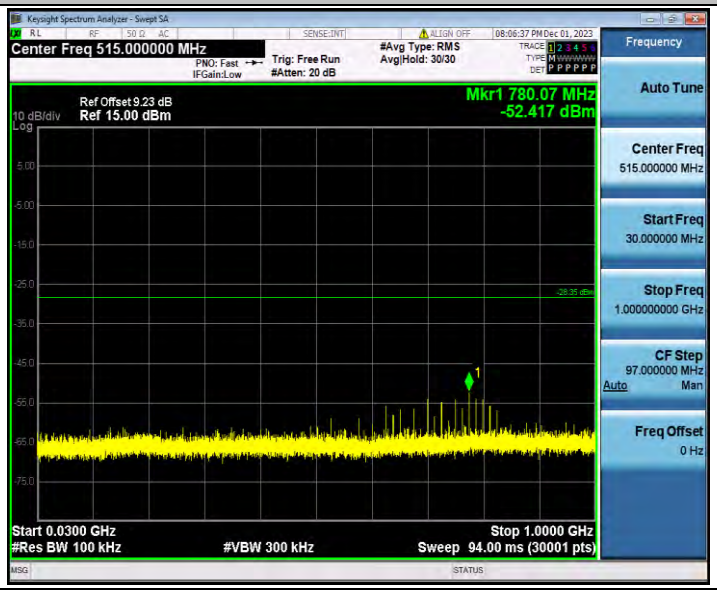


2DH1_Ant1_2480_30~1000

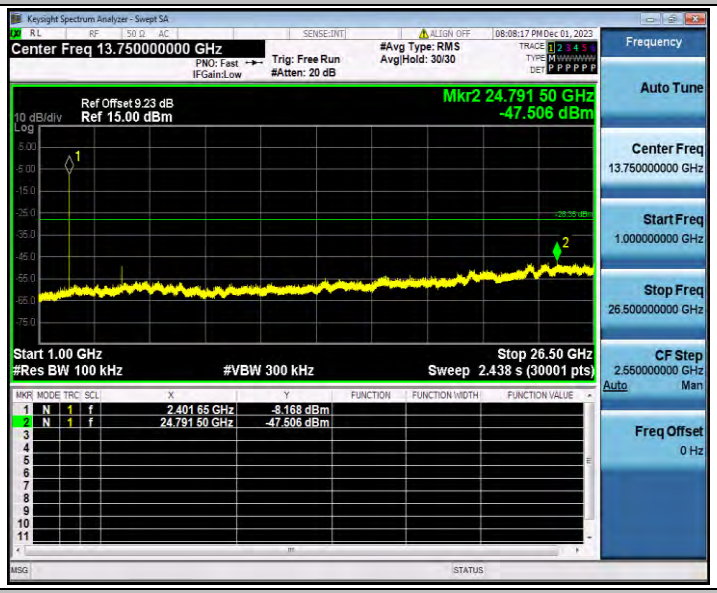


2DH1_Ant1_2480_1000~26500

3DH1_Ant1_2402_0~Reference

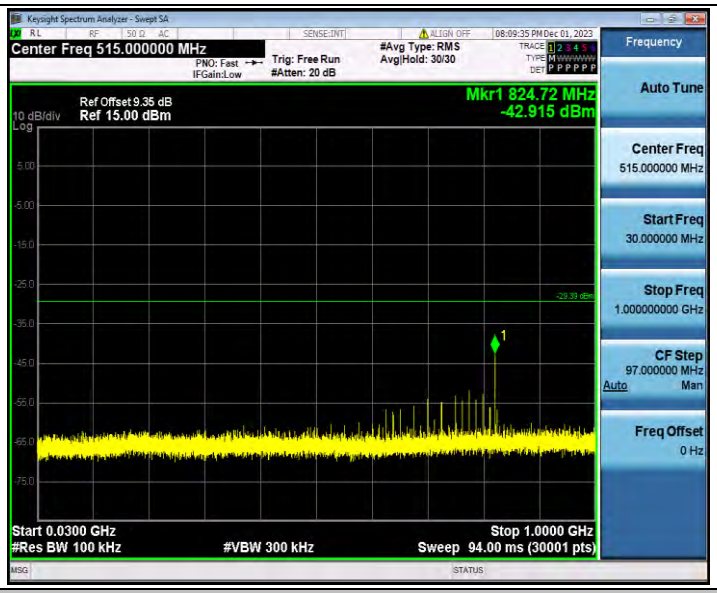


3DH1_Ant1_2402_30~1000

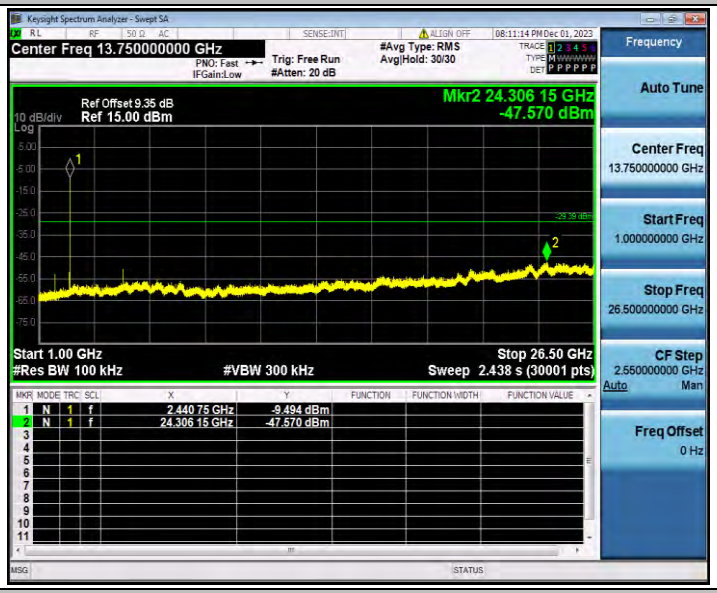


3DH1_Ant1_2402_1000~26500

3DH1_Ant1_2441_0~Reference

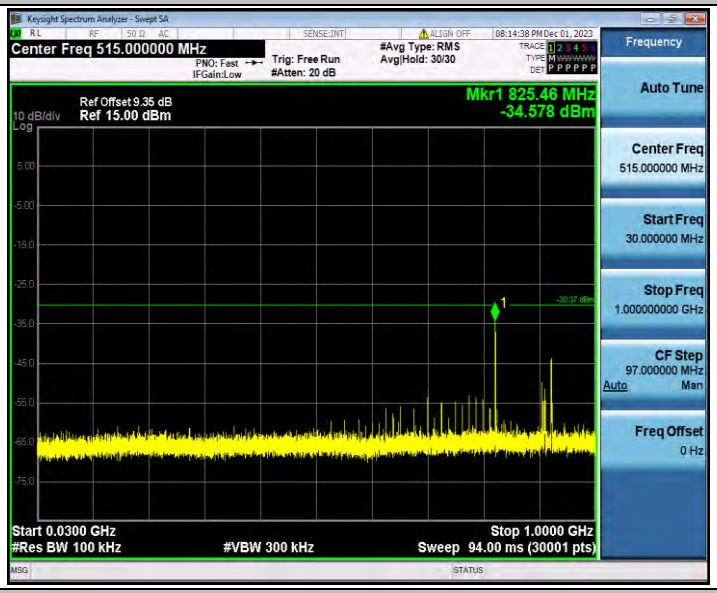


3DH1_Ant1_2441_30~1000



3DH1_Ant1_2441_1000~26500

3DH1_Ant1_2480_0~Reference



3DH1_Ant1_2480_30~1000

3DH1_Ant1_2480_1000~26500

Appendix A.9: Emissions in Restricted Bands

Test Result

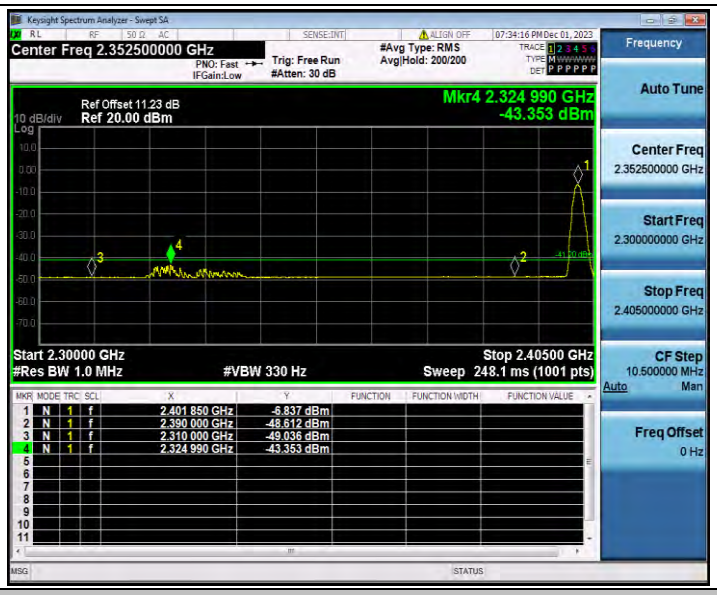
TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH1	Ant1	Low	2402	AV	2310.000	-49.04	≤-41.20	46.16	≤54	PASS
				AV	2324.990	-43.35	≤-41.20	51.85	≤54	PASS
				AV	2390.000	-48.61	≤-41.20	46.59	≤54	PASS
				Peak	2310.000	-40.88	≤-21.20	54.32	≤74	PASS
				Peak	2380.430	-38.88	≤-21.20	56.32	≤74	PASS
				Peak	2390.000	-40.7	≤-21.20	54.50	≤74	PASS
		High	2480	AV	2483.500	-48.57	≤-41.20	46.63	≤54	PASS
				AV	2498.640	-48.22	≤-41.20	46.98	≤54	PASS
				AV	2500.000	-48.39	≤-41.20	46.81	≤54	PASS
				Peak	2483.500	-41.46	≤-21.20	53.74	≤74	PASS
				Peak	2499.760	-38.82	≤-21.20	56.38	≤74	PASS
				Peak	2500.000	-41.32	≤-21.20	53.88	≤74	PASS
2DH1	Ant1	Low	2402	AV	2310.000	-49.06	≤-41.20	46.14	≤54	PASS
				AV	2323.625	-46.47	≤-41.20	48.73	≤54	PASS
				AV	2390.000	-48.65	≤-41.20	46.55	≤54	PASS
				Peak	2310.000	-40.69	≤-21.20	54.51	≤74	PASS
				Peak	2375.600	-37.9	≤-21.20	57.30	≤74	PASS
				Peak	2390.000	-42.28	≤-21.20	52.92	≤74	PASS
		High	2480	AV	2483.500	-48.62	≤-41.20	46.58	≤54	PASS
				AV	2499.360	-48.34	≤-41.20	46.86	≤54	PASS
				AV	2500.000	-48.43	≤-41.20	46.77	≤54	PASS
				Peak	2483.500	-41.68	≤-21.20	53.52	≤74	PASS
				Peak	2495.600	-38.88	≤-21.20	56.32	≤74	PASS
				Peak	2500.000	-40.62	≤-21.20	54.58	≤74	PASS
3DH1	Ant1	Low	2402	AV	2310.000	-49.01	≤-41.20	46.19	≤54	PASS
				AV	2375.915	-48.57	≤-41.20	46.63	≤54	PASS
				AV	2390.000	-48.65	≤-41.20	46.55	≤54	PASS
				Peak	2310.000	-41.49	≤-21.20	53.71	≤74	PASS
				Peak	2323.625	-38.1	≤-21.20	57.10	≤74	PASS
				Peak	2390.000	-40.7	≤-21.20	54.50	≤74	PASS
		High	2480	AV	2483.500	-48.57	≤-41.20	46.63	≤54	PASS
				AV	2498.400	-48.27	≤-41.20	46.93	≤54	PASS
				AV	2500.000	-48.42	≤-41.20	46.78	≤54	PASS
				Peak	2483.500	-41.4	≤-21.20	53.80	≤74	PASS

				Peak	2488.800	-37.98	≤-21.20	57.22	≤74	PASS
				Peak	2500.000	-41.55	≤-21.20	53.65	≤74	PASS

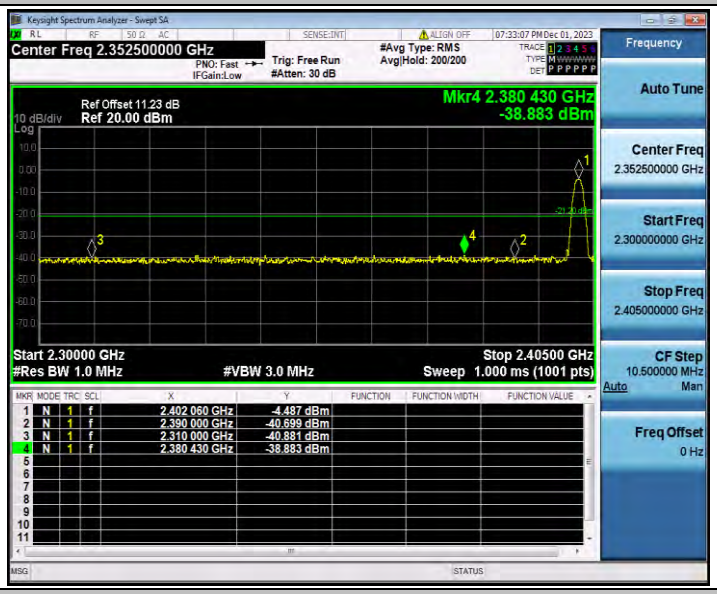
Note：

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

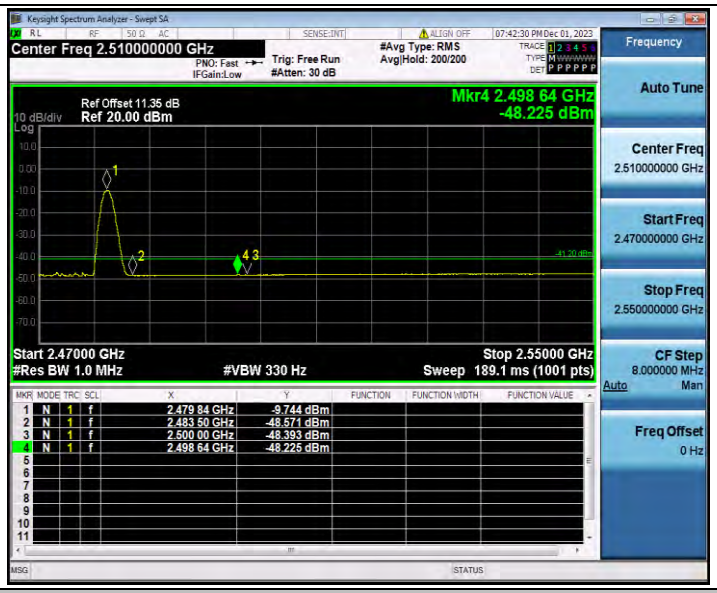
Test Graphs



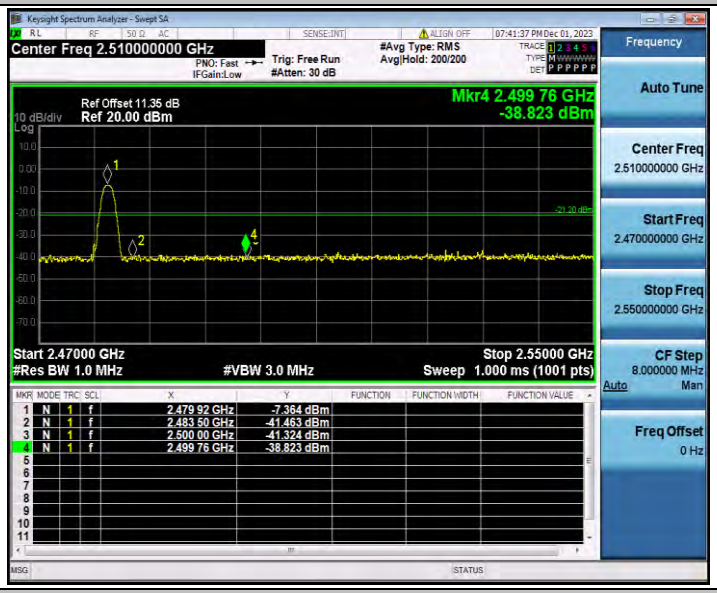
DH1_Ant1_Low_2402_AV



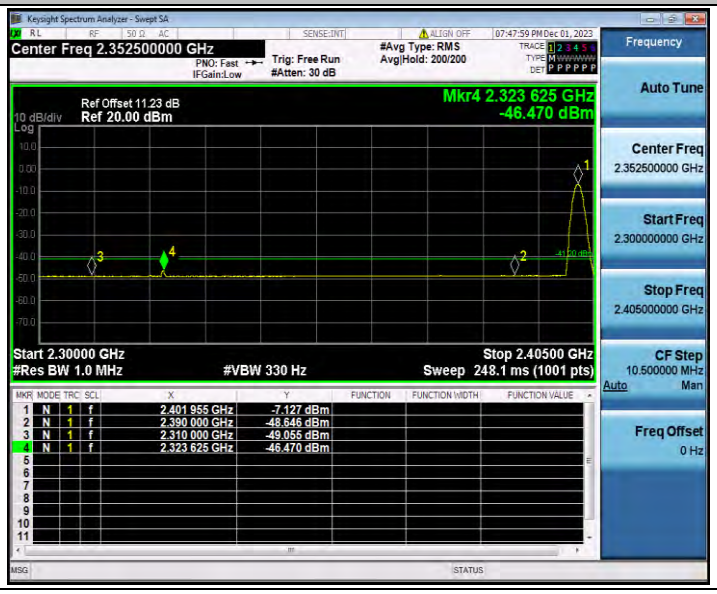
DH1_Ant1_Low_2402_Peak



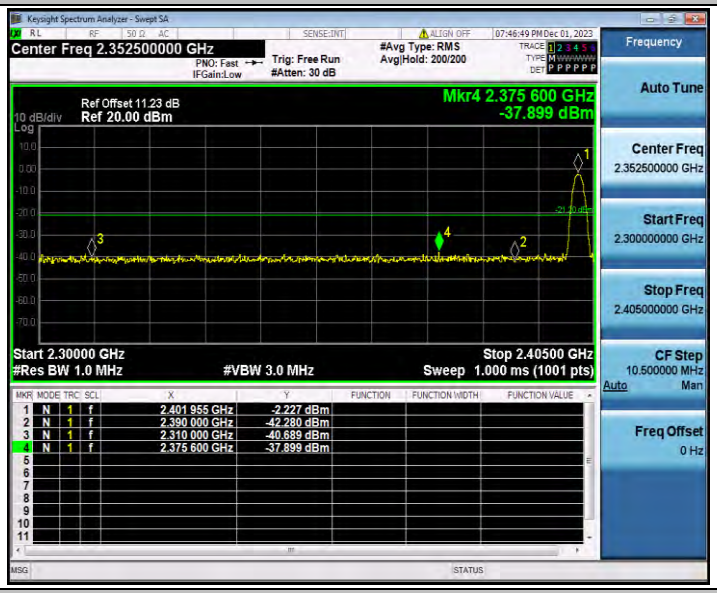
DH1_Ant1_High_2480_AV



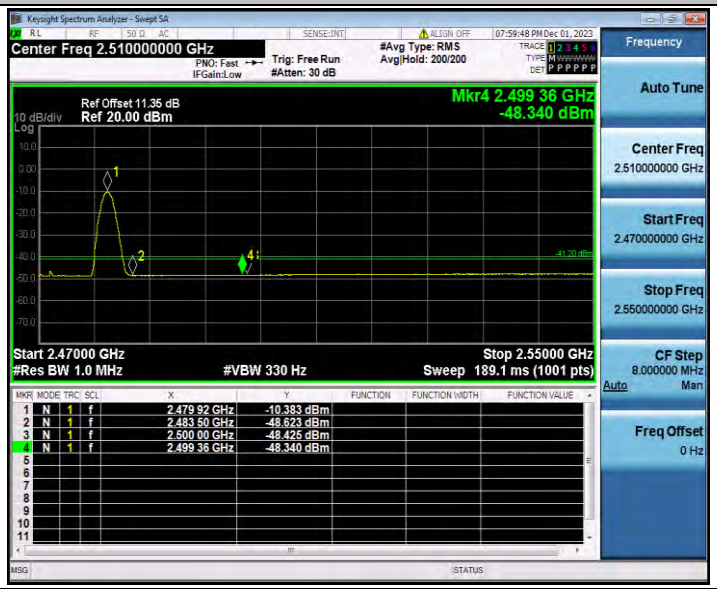
DH1_Ant1_High_2480_Peak



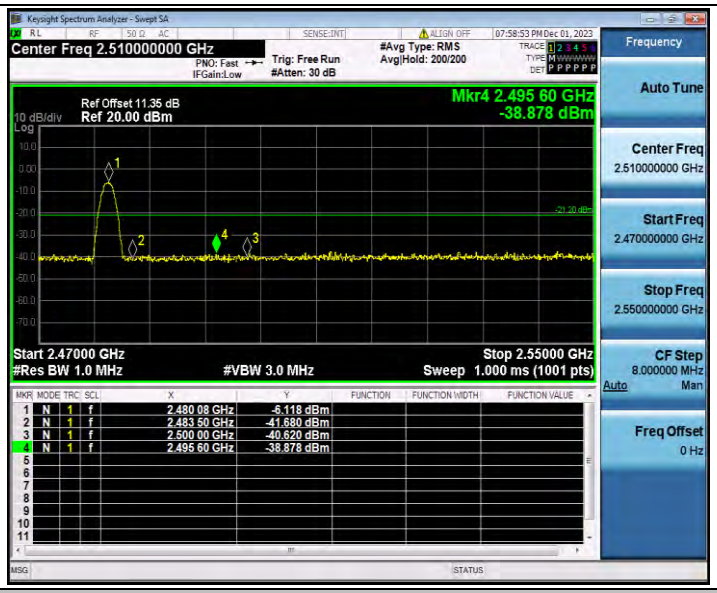
2DH1_Ant1_Low_2402_AV



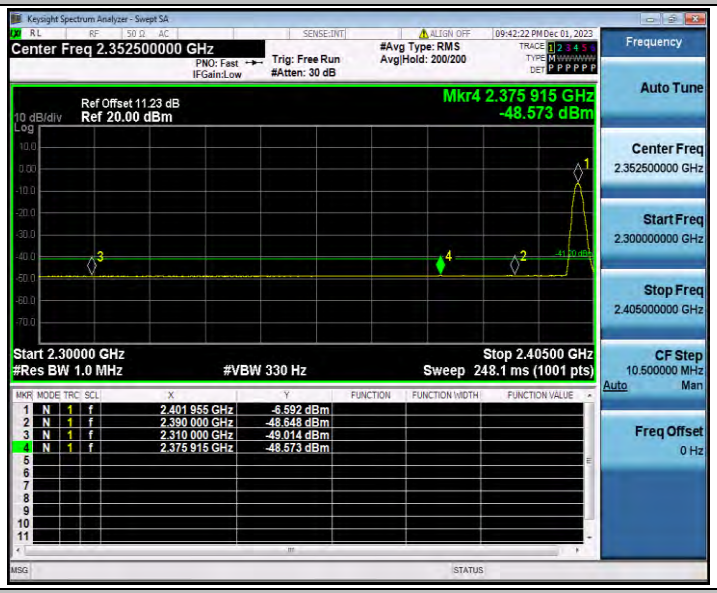
2DH1_Ant1_Low_2402_Peak



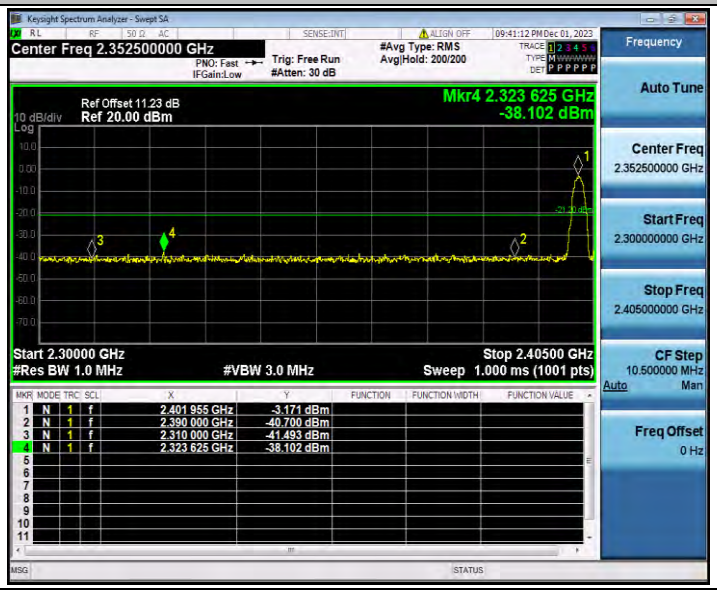
2DH1_Ant1_High_2480_AV



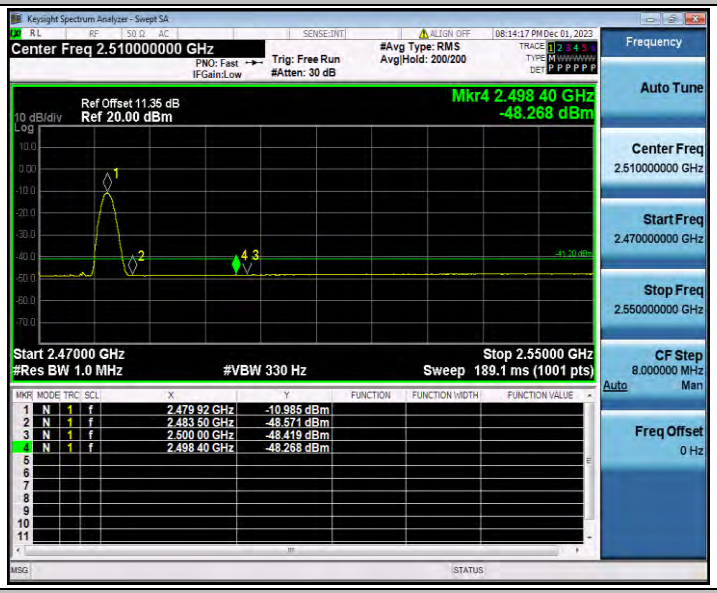
2DH1_Ant1_High_2480_Peak



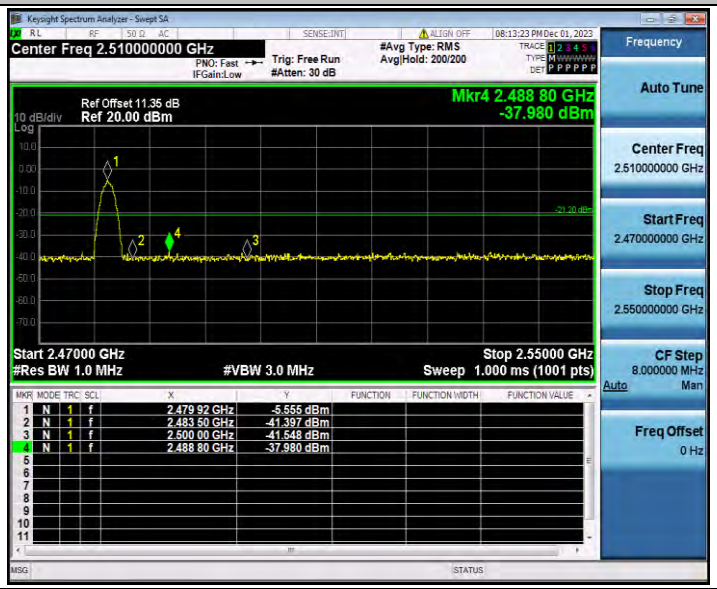
3DH1_Ant1_Low_2402_AV



3DH1_Ant1_Low_2402_Peak



3DH1_Ant1_High_2480_AV



3DH1_Ant1_High_2480_Peak