Case No. : GTS20231018019-1-4	
Ambient Condition: 23 ℃, 49 %RH, Atmos100.1Kpa,	
Test Date: 2023-11-06	**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	0.984	2401.616	2402.600	---	---
		2441	1.020	2440.598	2441.618	---	---
		2480	1.029	2479.598	2480.627	---	---
2DH1	Ant1	2402	1.293	2401.472	2402.765	---	---
		2441	1.284	2440.487	2441.771	---	---
		2480	1.284	2479.487	2480.771	---	---
3DH1	Ant1	2402	1.242	2401.496	2402.738	---	---
		2441	1.254	2440.490	2441.744	---	---
		2480	1.293	2479.463	2480.756	---	---

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	0.86811	2401.671	2402.539	---	---
		2441	0.89563	2440.651	2441.547	---	---
		2480	0.92701	2479.645	2480.572	---	---
2DH1	Ant1	2402	1.1720	2401.525	2402.697	---	---
		2441	1.1731	2440.526	2441.699	---	---
		2480	1.1914	2479.519	2480.710	---	---
3DH1	Ant1	2402	1.1591	2401.547	2402.706	---	---
		2441	1.1674	2440.543	2441.710	---	---
		2480	1.2135	2479.505	2480.719	---	---

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	1.55	≤20.97	PASS
		2441	2.74	≤20.97	PASS
		2480	2.14	≤20.97	PASS
2DH1	Ant1	2402	2.16	≤20.97	PASS
		2441	3.37	≤20.97	PASS
		2480	2.78	≤20.97	PASS
3DH1	Ant1	2402	2.68	≤20.97	PASS
		2441	3.93	≤20.97	PASS
		2480	3.13	≤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	0.988	≥0.686	PASS
		Hop_2441	0.998	≥0.686	PASS
		Hop_2480	1	≥0.686	PASS
2DH1	Ant1	Hop_2402	1.016	≥0.862	PASS
		Hop_2441	1.014	≥0.862	PASS
		Hop_2480	1.006	≥0.862	PASS
3DH1	Ant1	Hop_2402	1.008	≥0.862	PASS
		Hop_2441	1.004	≥0.862	PASS
		Hop_2480	1.138	≥0.862	PASS

Test Graphs

DH1_Ant1_Hop_2402

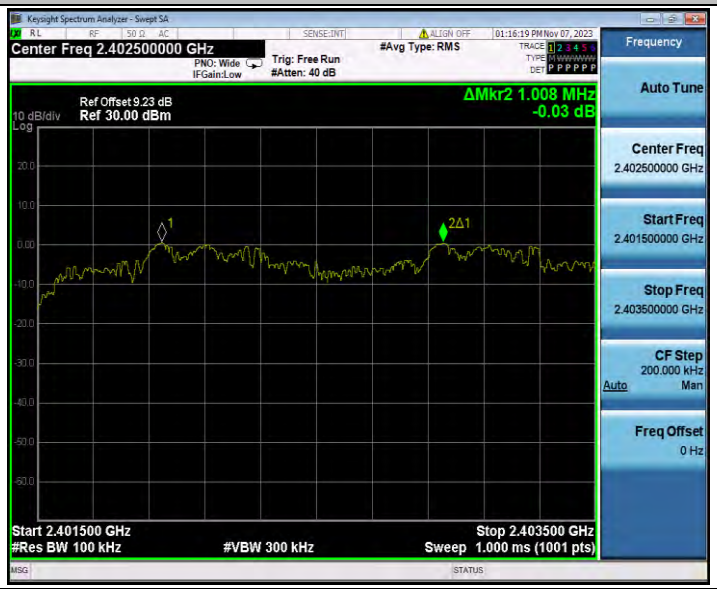
DH1_Ant1_Hop_2441

DH1_Ant1_Hop_2480

2DH1_Ant1_Hop_2402

2DH1_Ant1_Hop_2441

2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402

3DH1_Ant1_Hop_2441

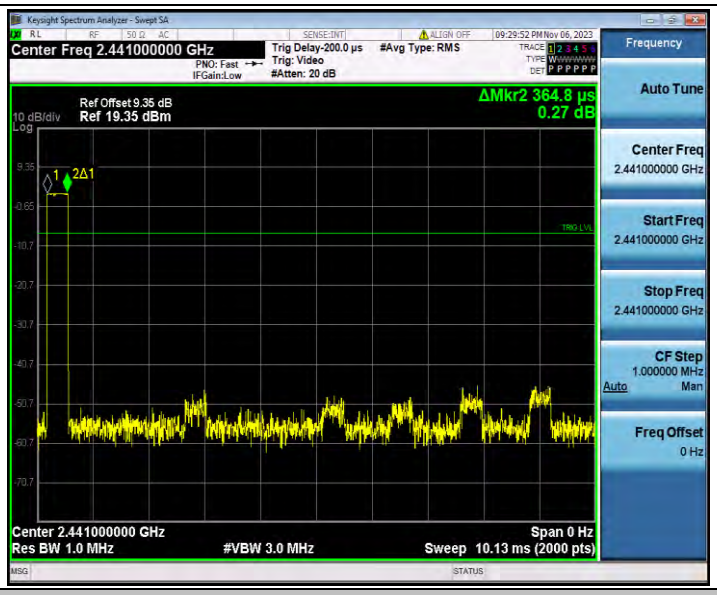
3DH1_Ant1_Hop_2480

Appendix A.5: Time of occupancy

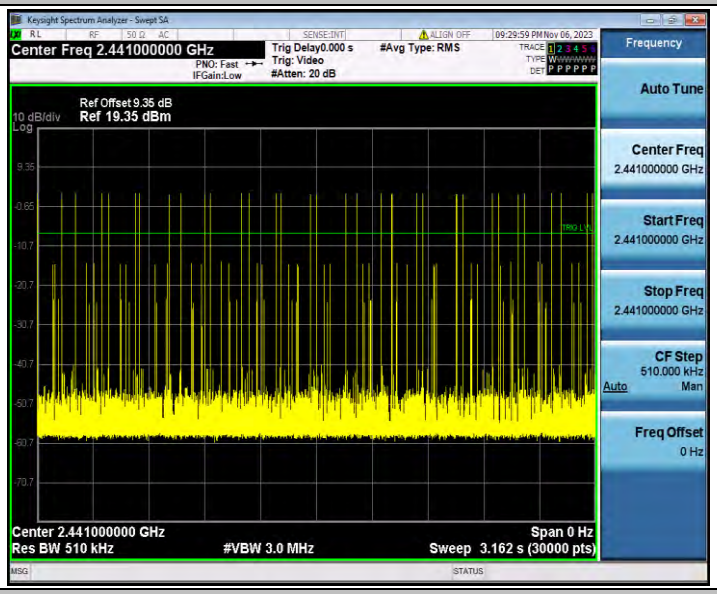
Test Result

Test Mode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.36	330	0.12	≤0.4	PASS
DH3	Ant1	Hop	1.62	180	0.292	≤0.4	PASS
DH5	Ant1	Hop	2.87	70	0.201	≤0.4	PASS
2DH1	Ant1	Hop	0.37	320	0.12	≤0.4	PASS
2DH3	Ant1	Hop	1.62	140	0.226	≤0.4	PASS
2DH5	Ant1	Hop	2.88	100	0.288	≤0.4	PASS
3DH1	Ant1	Hop	0.37	330	0.124	≤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

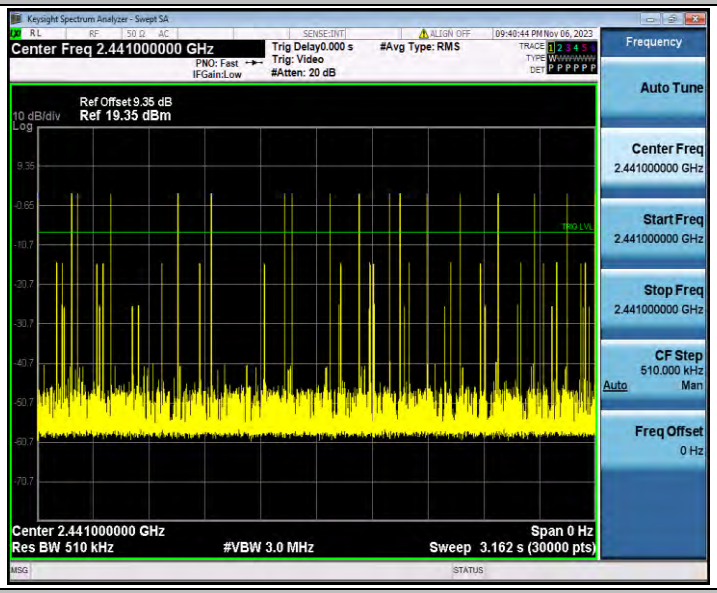


DH1_Ant1_Hop



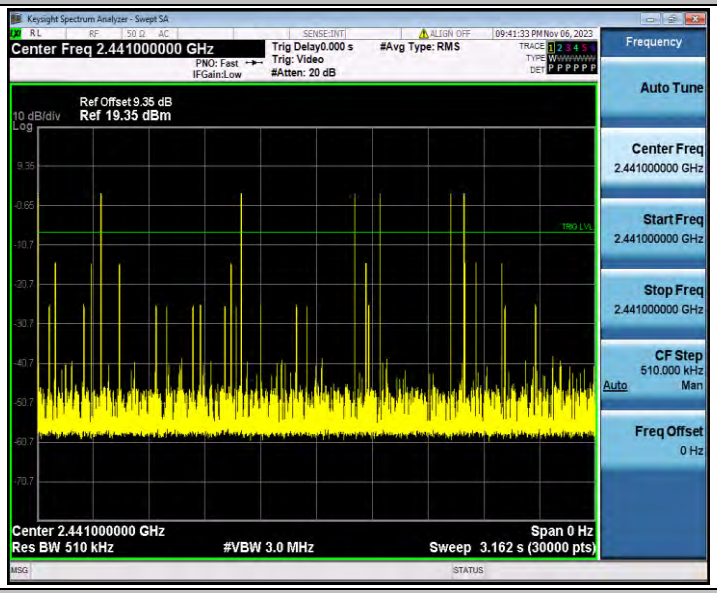
DH1_Ant1_Hop

DH3_Ant1_Hop

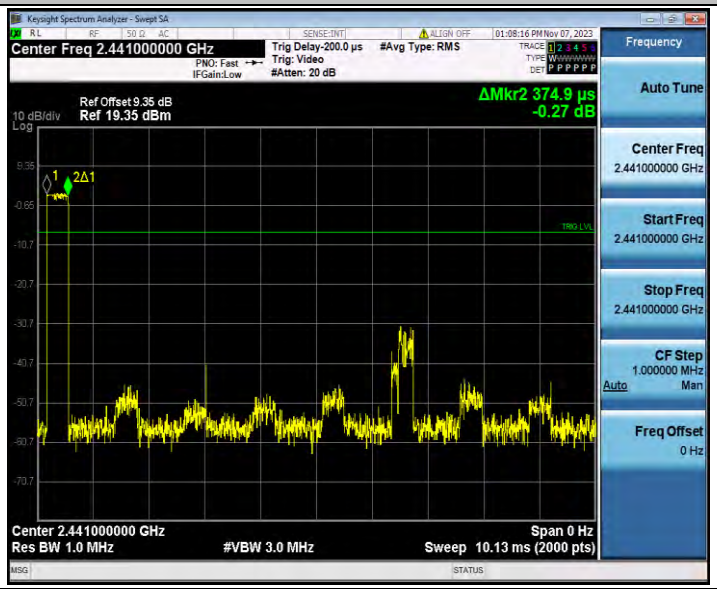


DH3_Ant1_Hop

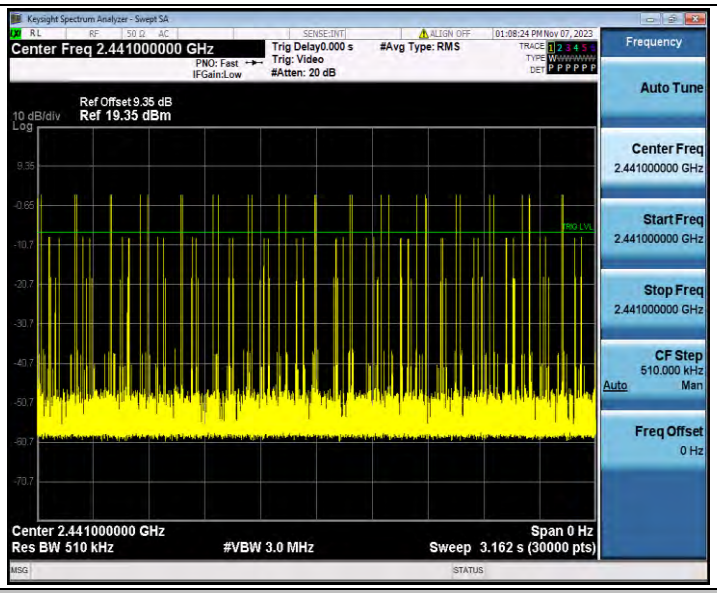
DH5_Ant1_Hop



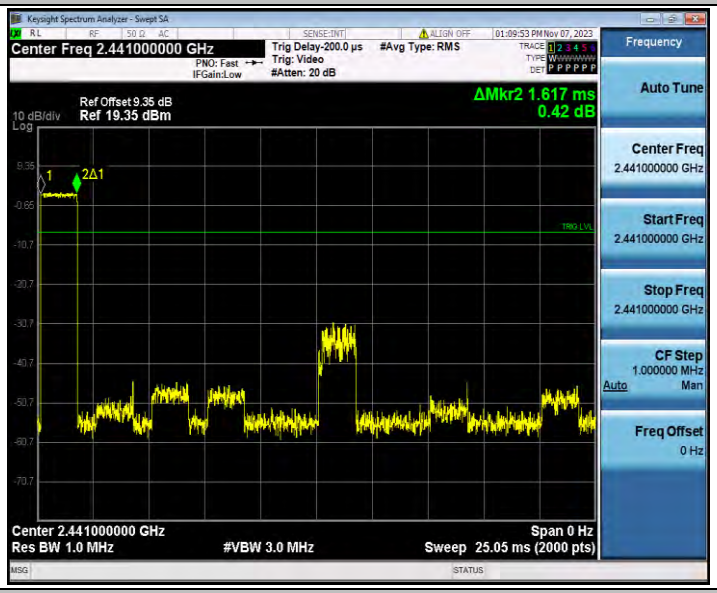
DH5_Ant1_Hop



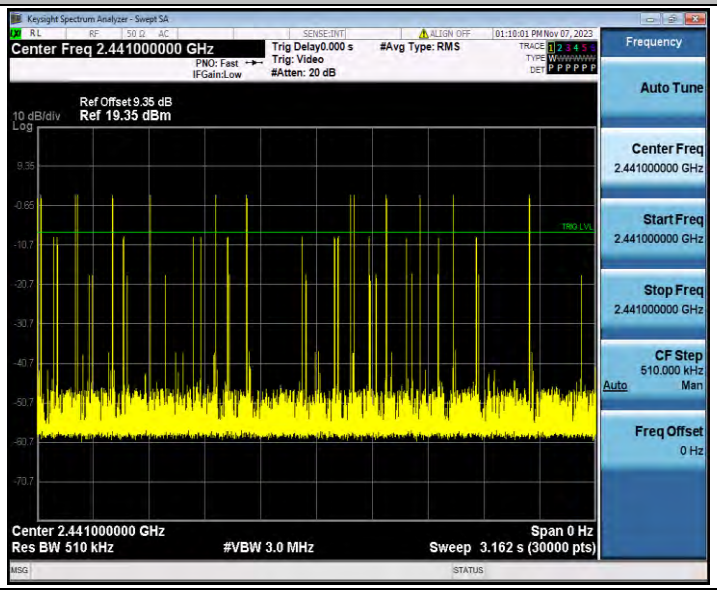
2DH1_Ant1_Hop



2DH1_Ant1_Hop



2DH3_Ant1_Hop



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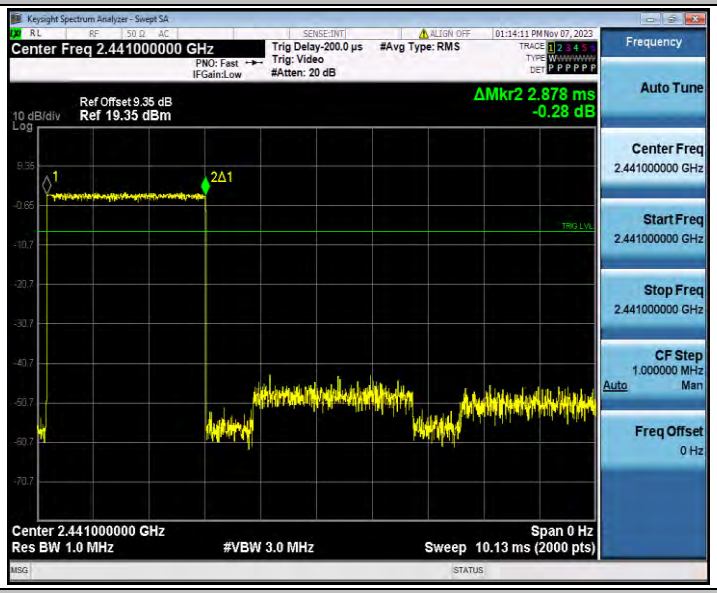
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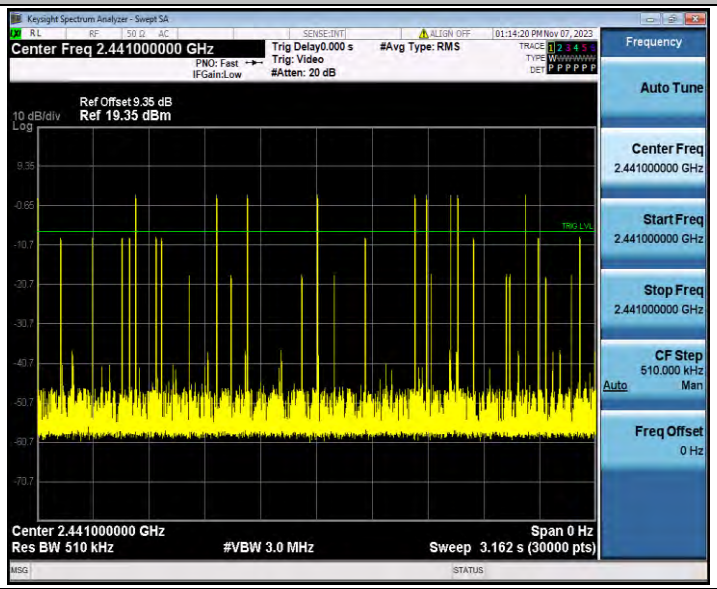
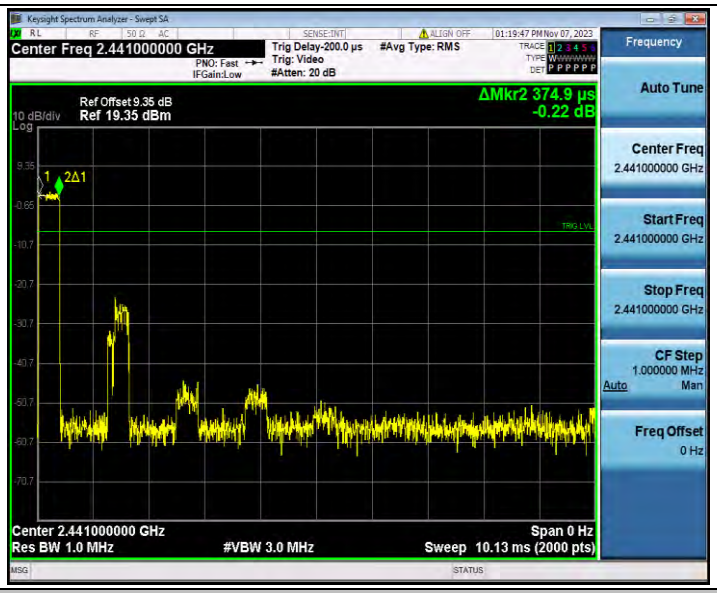
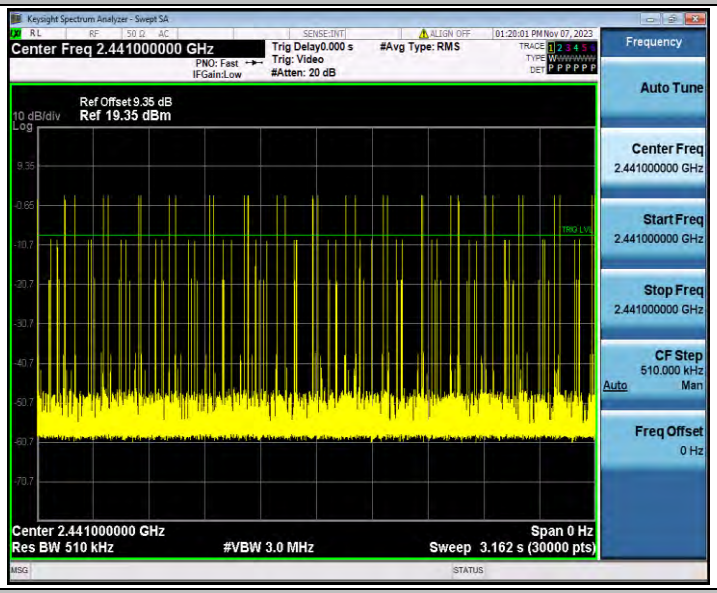
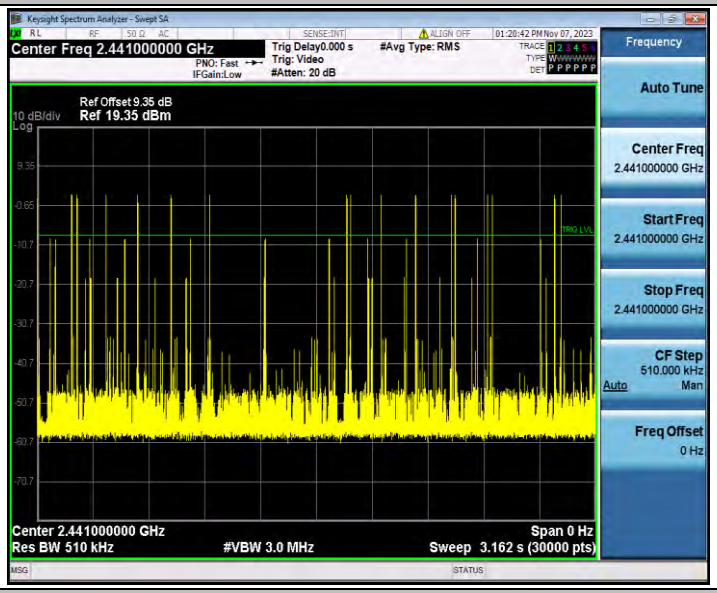
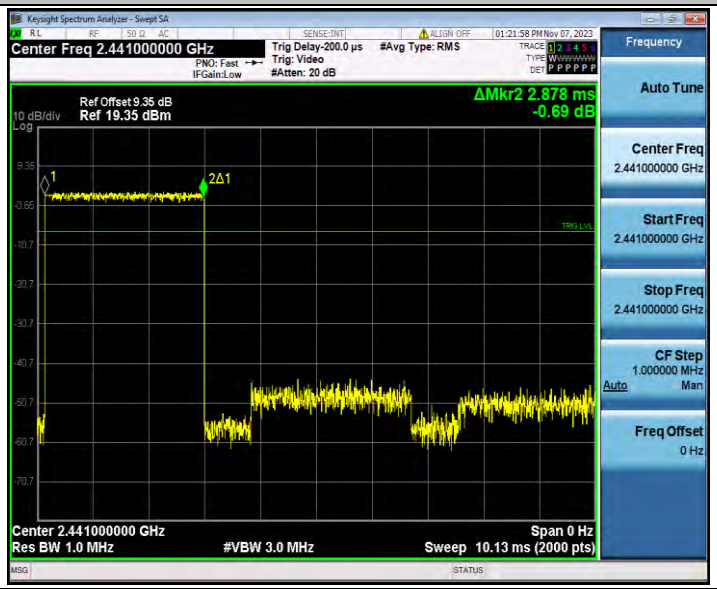

2DH5_Ant1_Hop

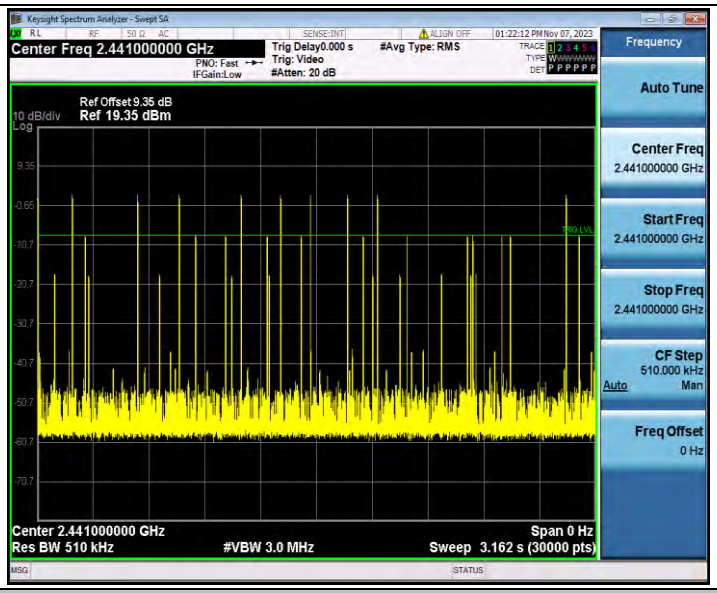


3DH1_Ant1_Hop



3DH1_Ant1_Hop

3DH3_Ant1_Hop

3DH3_Ant1_Hop

3DH5_Ant1_Hop



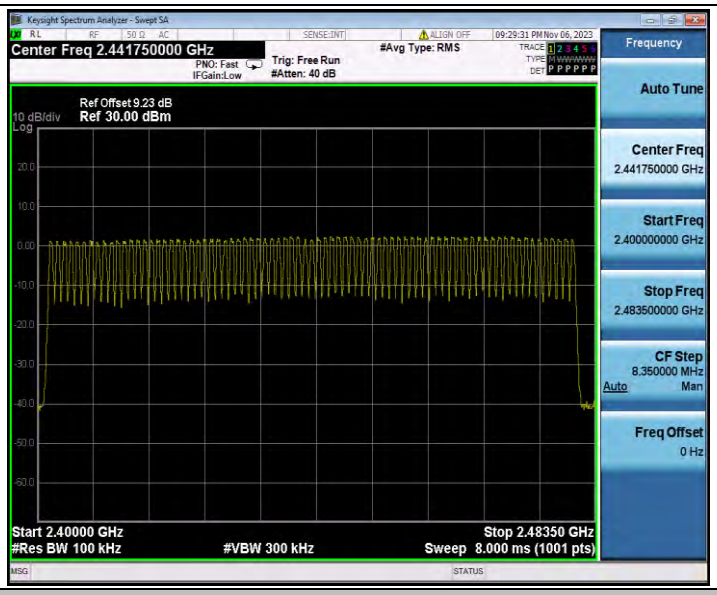
3DH5_Ant1_Hop

Appendix A.6: Number of hopping channels

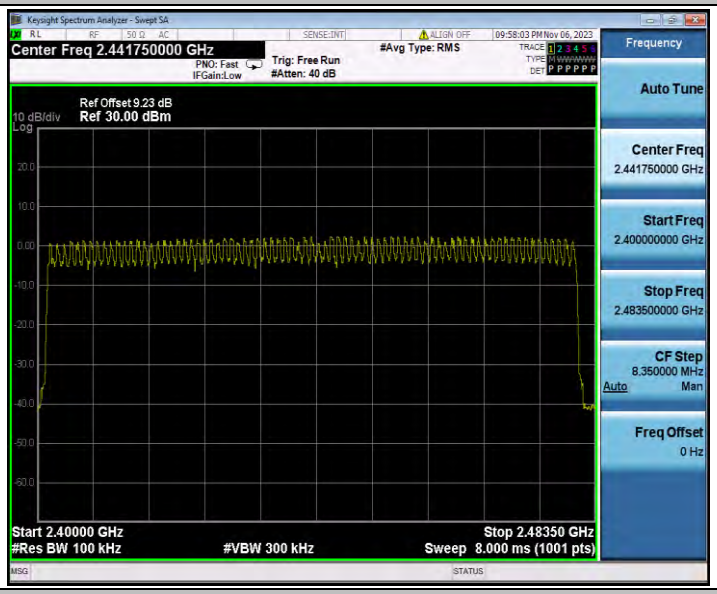
Test Result

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

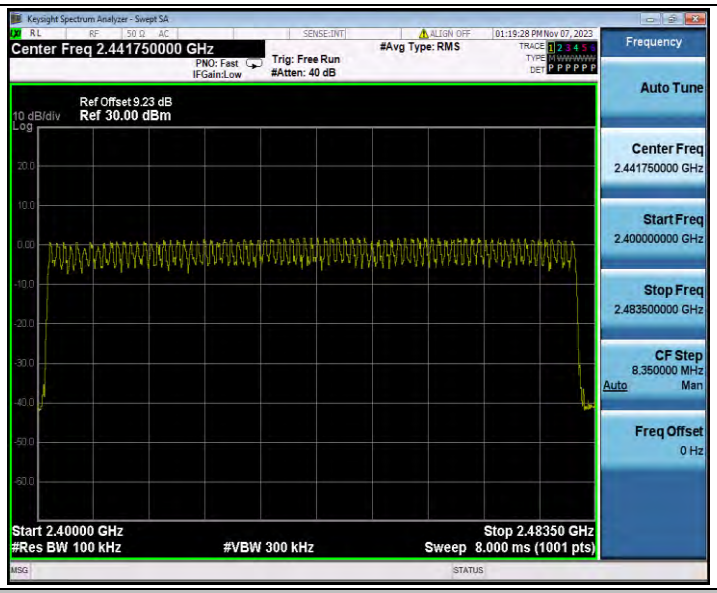
Test Graphs



DH1_Ant1_Hop



2DH1_Ant1_Hop



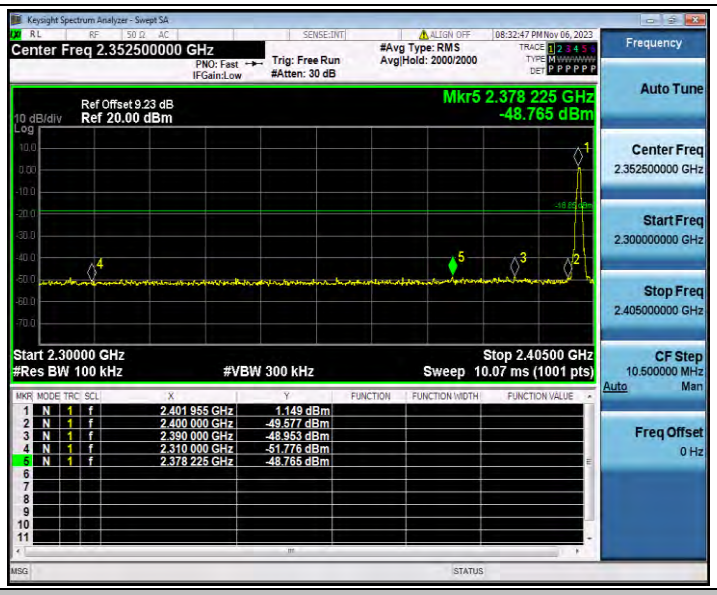
3DH1_Ant1_Hop

Appendix A.7: Band edge measurements

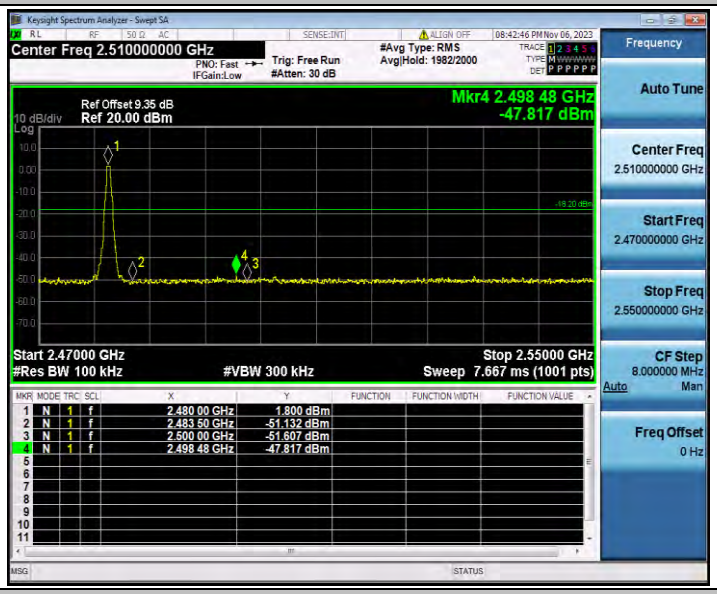
Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	1.15	-48.77	≤-18.85	PASS
		High	2480	1.80	-47.82	≤-18.2	PASS
		Low	Hop_2402	0.79	-49.6	≤-19.21	PASS
		High	Hop_2480	1.96	-46.66	≤-18.05	PASS
2DH1	Ant1	Low	2402	1.12	-48.4	≤-18.89	PASS
		High	2480	1.85	-47.88	≤-18.16	PASS
		Low	Hop_2402	0.81	-48.85	≤-19.19	PASS
		High	Hop_2480	1.73	-49.14	≤-18.27	PASS
3DH1	Ant1	Low	2402	1.08	-47.8	≤-18.92	PASS
		High	2480	1.65	-48.55	≤-18.35	PASS
		Low	Hop_2402	-0.11	-49.6	≤-20.11	PASS
		High	Hop_2480	-1.26	-47.11	≤-21.26	PASS

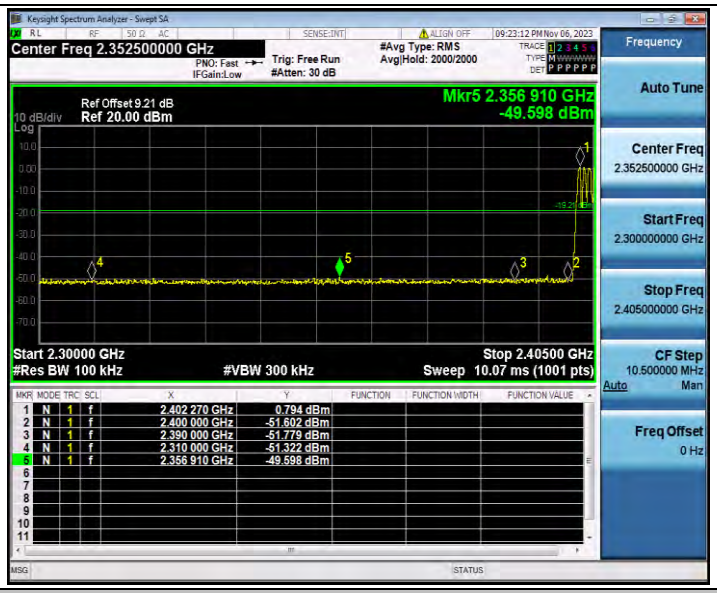
Test Graphs



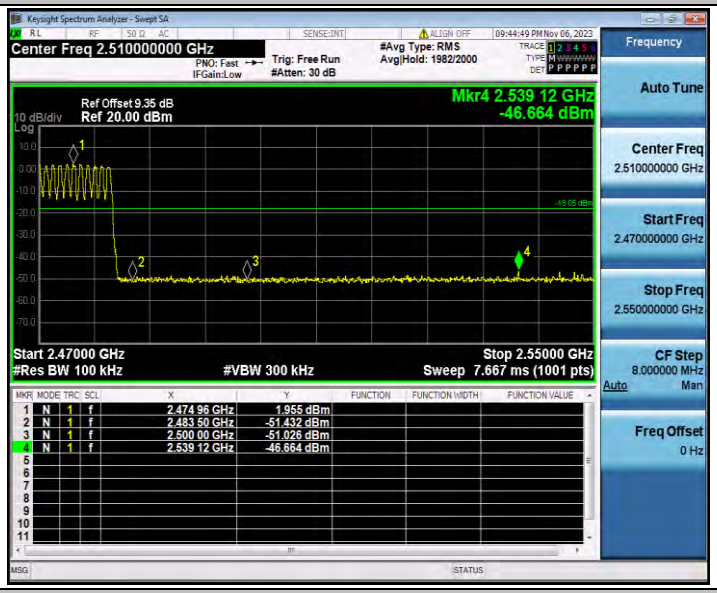
DH1_Ant1_Low_2402



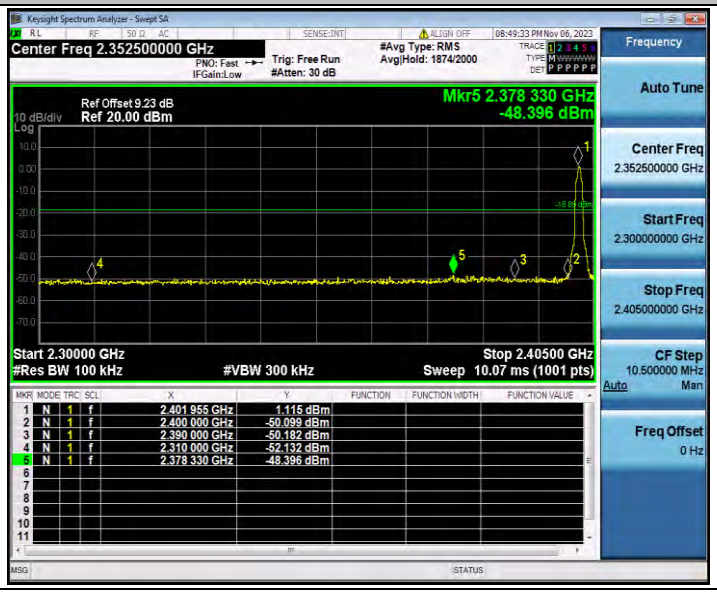
DH1_Ant1_High_2480

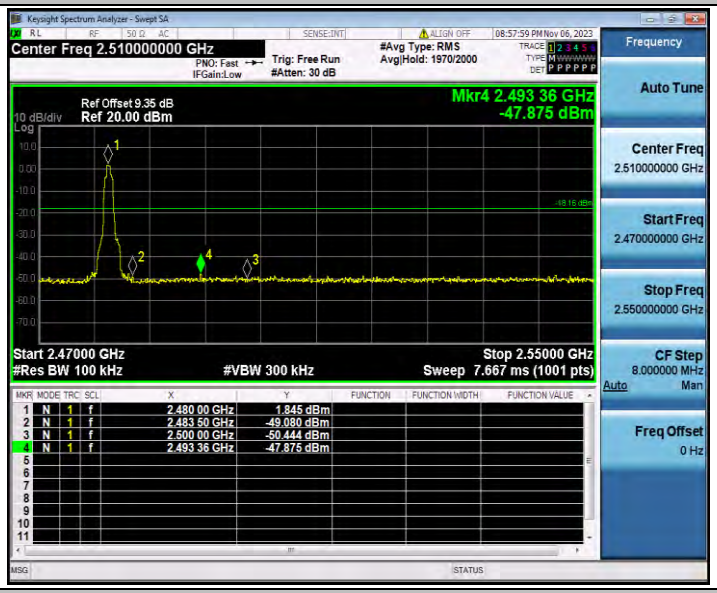


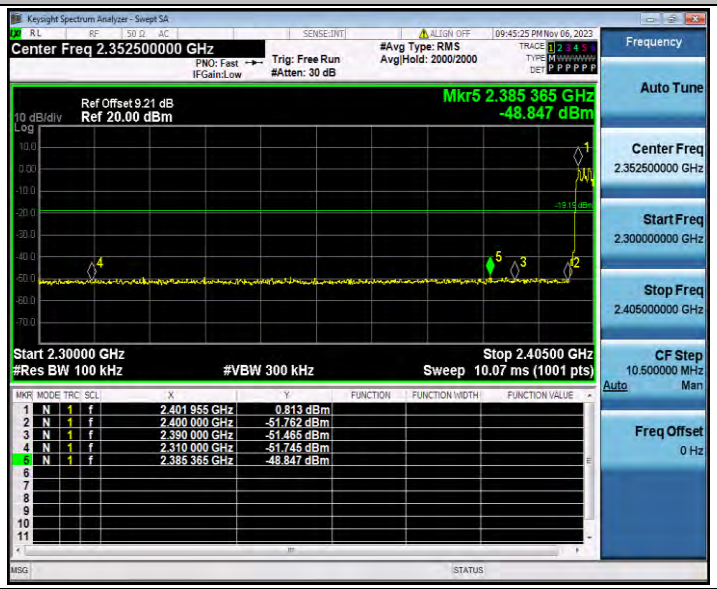
DH1_Ant1_Low_Hop_2402



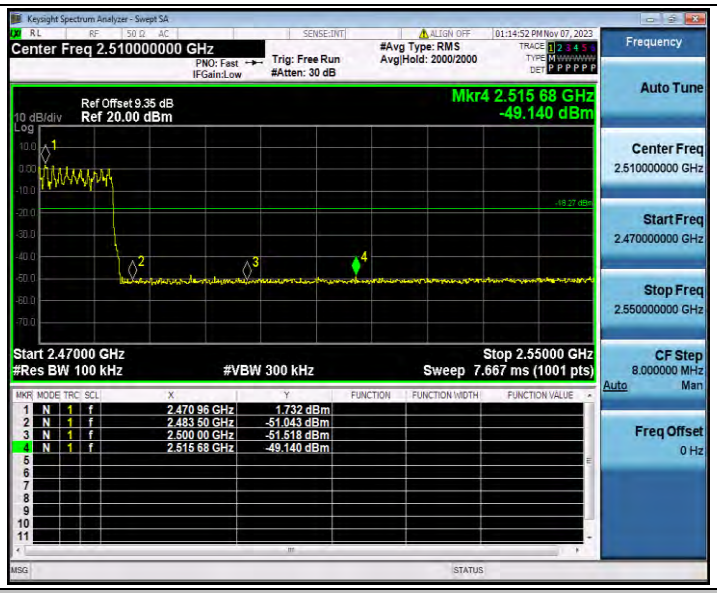
DH1_Ant1_High_Hop_2480



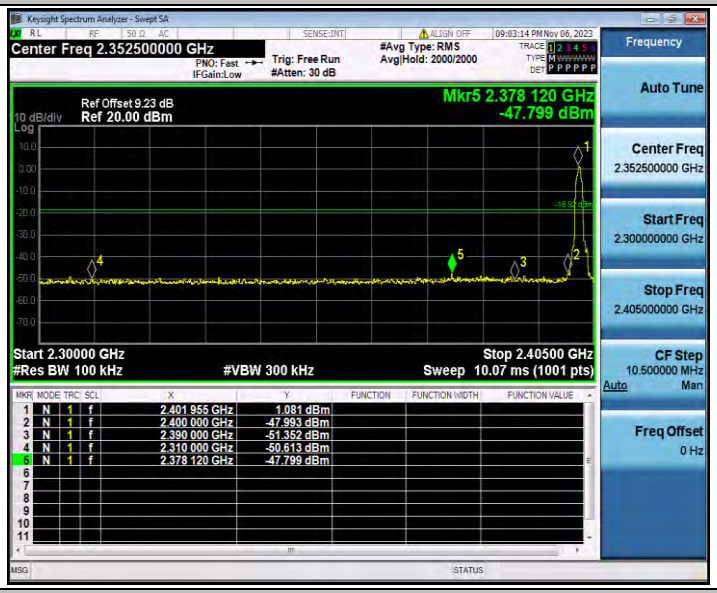
2DH1_Ant1_Low_2402


2DH1_Ant1_High_2480


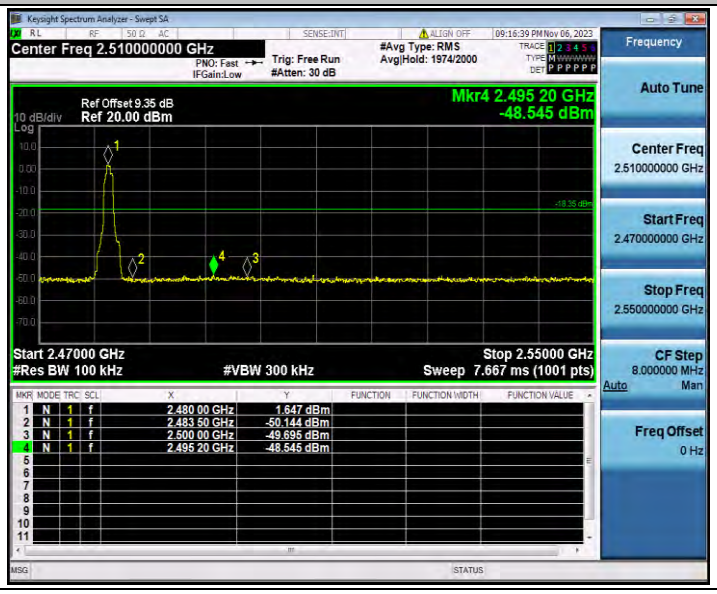
2DH1_Ant1_Low_Hop_2402



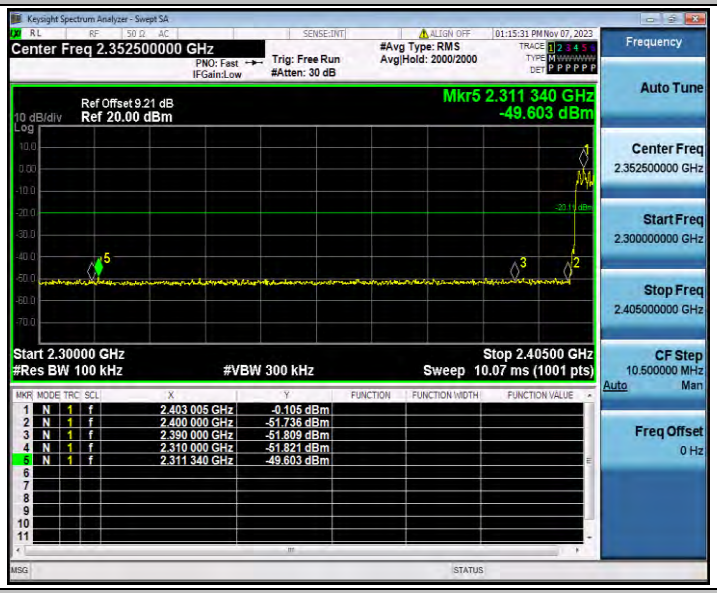
2DH1_Ant1_High_Hop_2480



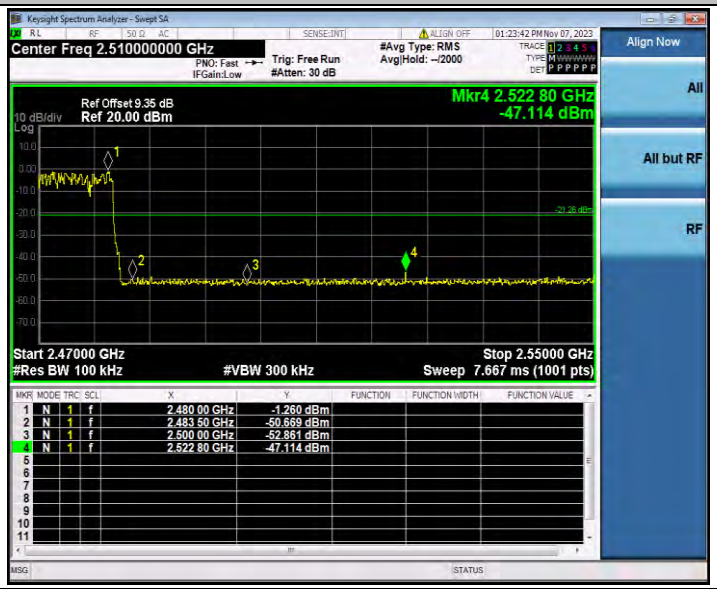
3DH1_Ant1_Low_2402



3DH1_Ant1_High_2480



3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

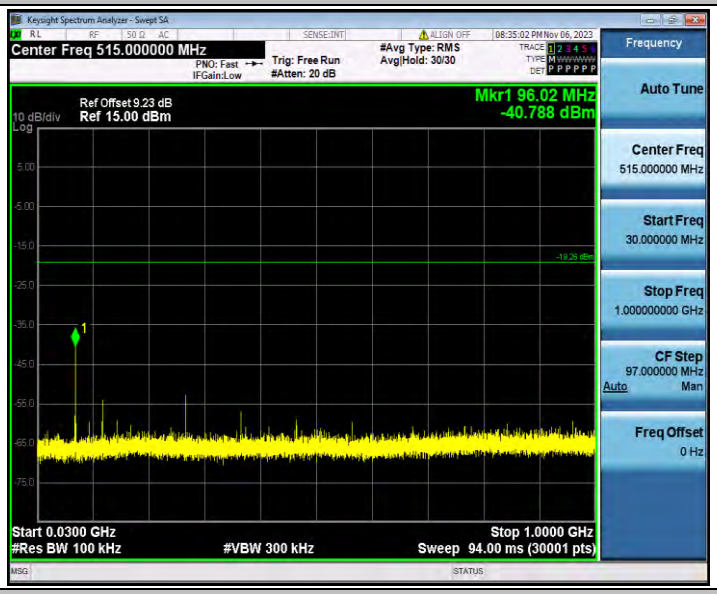
Appendix A.8: Conducted Spurious Emission

Test Result

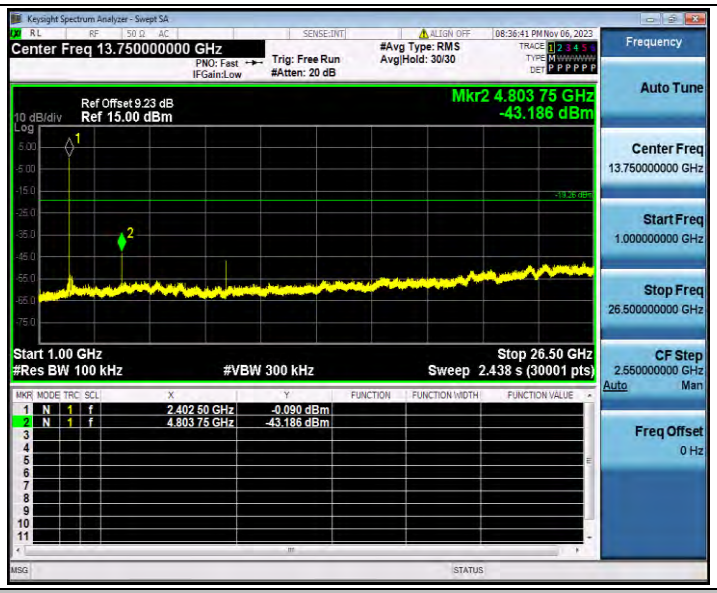
Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	0.74	0.74	---	PASS
			30~1000	0.74	-40.79	≤-19.26	PASS
			1000~26500	0.74	-43.19	≤-19.26	PASS
		2441	Reference	1.58	1.58	---	PASS
			30~1000	1.58	-40.66	≤-18.42	PASS
			1000~26500	1.58	-41.92	≤-18.42	PASS
		2480	Reference	1.33	1.33	---	PASS
			30~1000	1.33	-41.63	≤-18.67	PASS
			1000~26500	1.33	-41.15	≤-18.67	PASS
2DH1	Ant1	2402	Reference	1.06	1.06	---	PASS
			30~1000	1.06	-40.65	≤-18.94	PASS
			1000~26500	1.06	-42.93	≤-18.94	PASS
		2441	Reference	2.02	2.02	---	PASS
			30~1000	2.02	-40.33	≤-17.98	PASS
			1000~26500	2.02	-43.61	≤-17.98	PASS
		2480	Reference	1.22	1.22	---	PASS
			30~1000	1.22	-40.65	≤-18.78	PASS
			1000~26500	1.22	-40.5	≤-18.78	PASS
3DH1	Ant1	2402	Reference	1.07	1.07	---	PASS
			30~1000	1.07	-52.22	≤-18.93	PASS
			1000~26500	1.07	-42.73	≤-18.93	PASS
		2441	Reference	0.90	0.90	---	PASS
			30~1000	0.90	-46.23	≤-19.1	PASS
			1000~26500	0.90	-42.35	≤-19.1	PASS
		2480	Reference	1.30	1.30	---	PASS
			30~1000	1.30	-40.73	≤-18.7	PASS
			1000~26500	1.30	-45.08	≤-18.7	PASS

Test Graphs

DH1_Ant1_2402_0~Reference

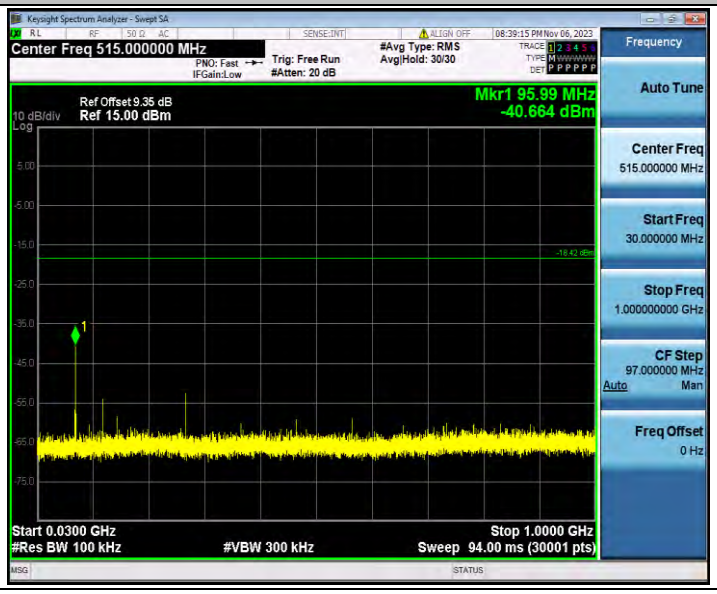


DH1_Ant1_2402_30~1000

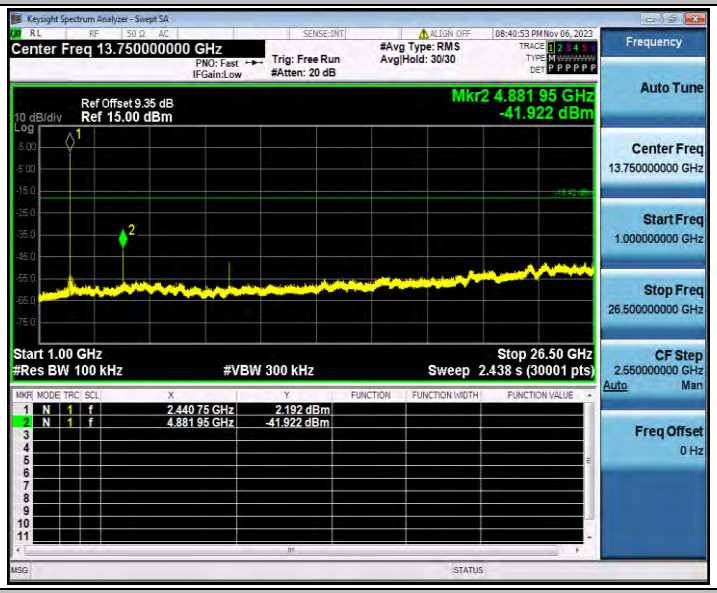


DH1_Ant1_2402_1000~26500

DH1_Ant1_2441_0~Reference



DH1_Ant1_2441_30~1000



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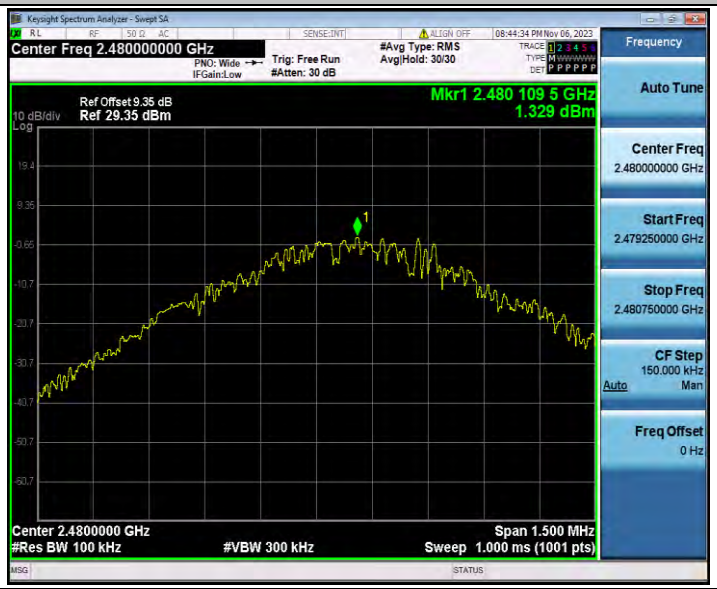
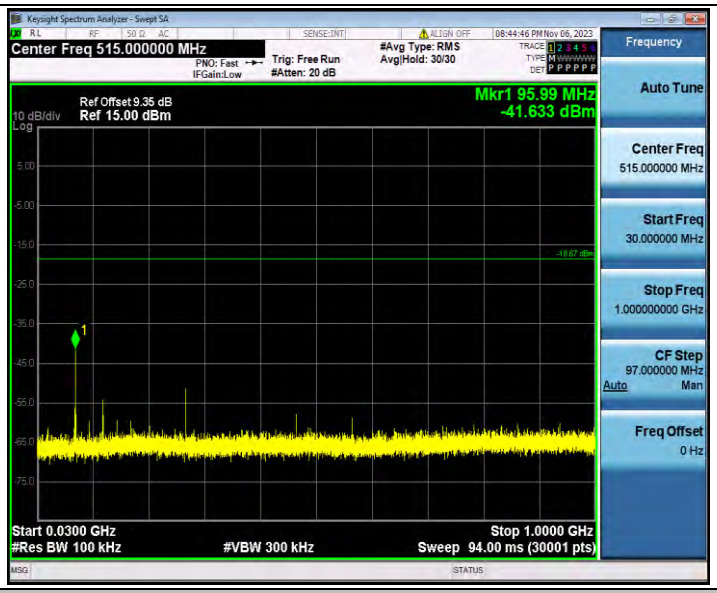


DH1_Ant1_2480_0~Reference



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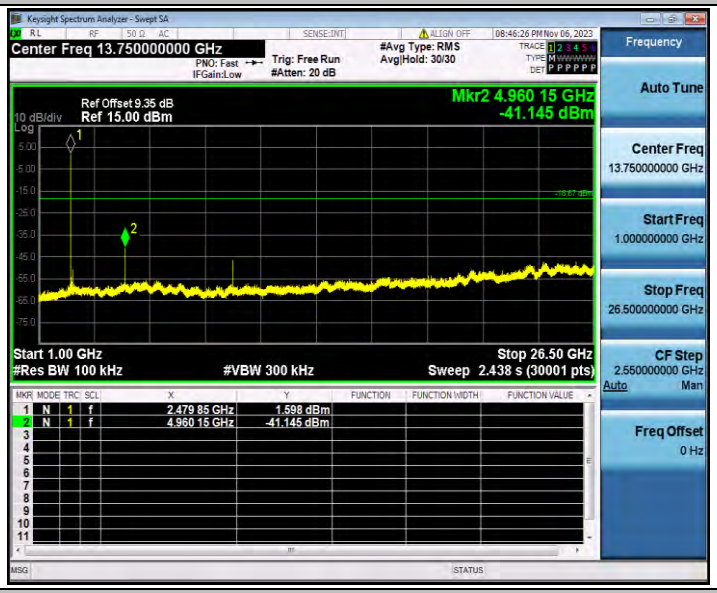
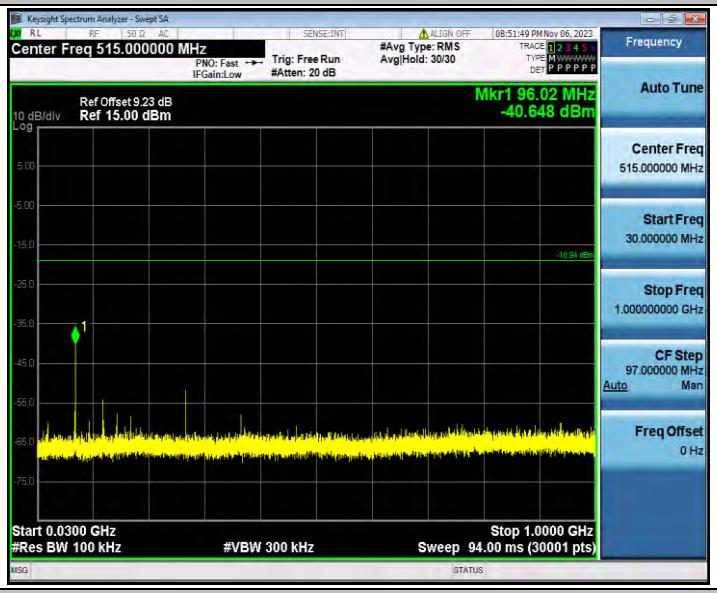
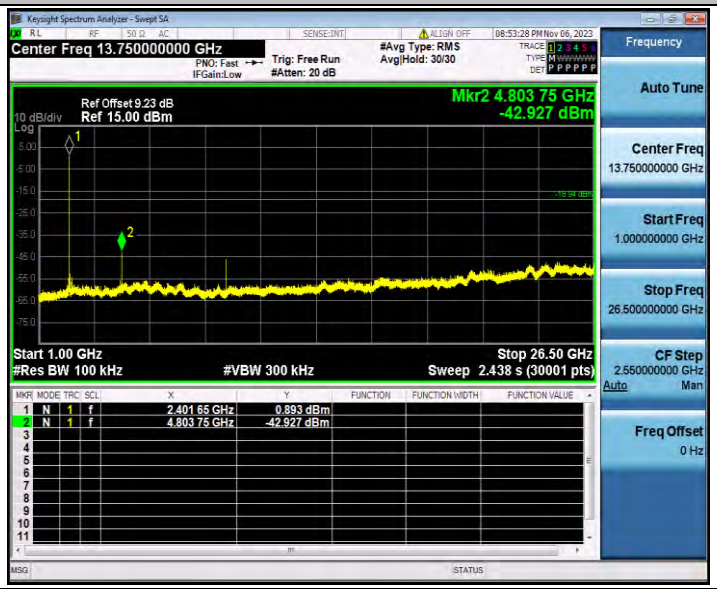


DH1_Ant1_2480_1000~26500

2DH1_Ant1_2402_0~Reference

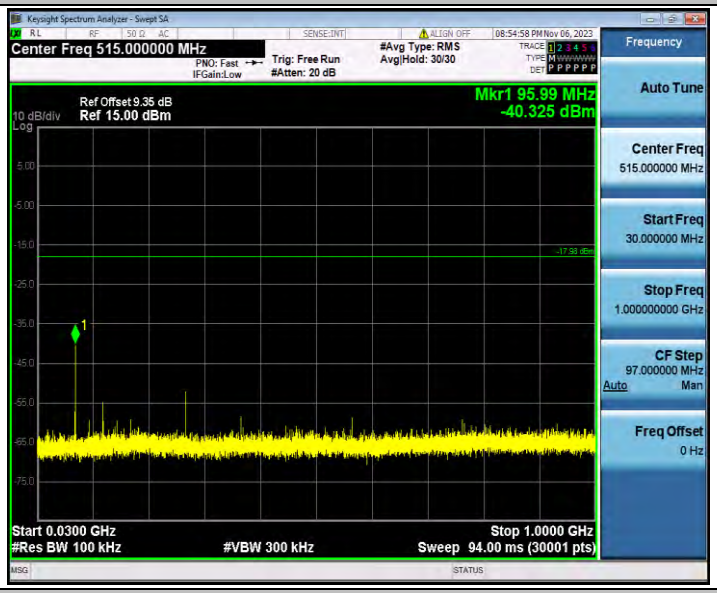


2DH1_Ant1_2402_30~1000



2DH1_Ant1_2402_1000~26500

2DH1_Ant1_2441_0~Reference



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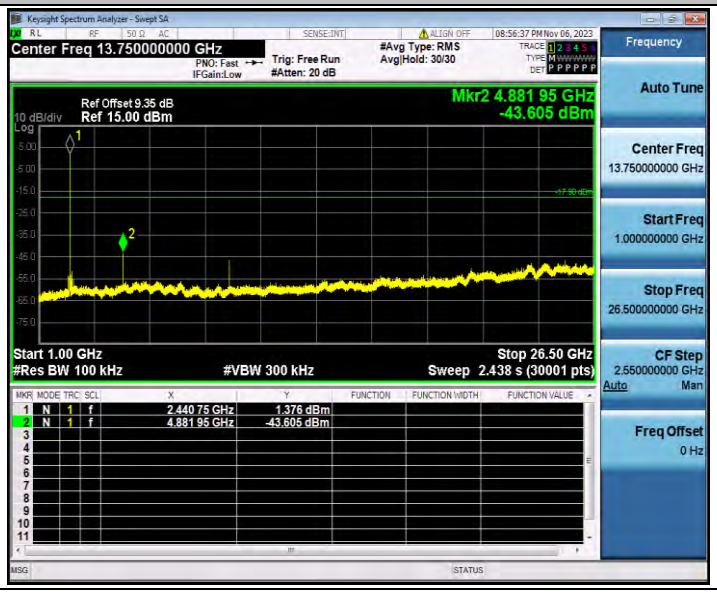
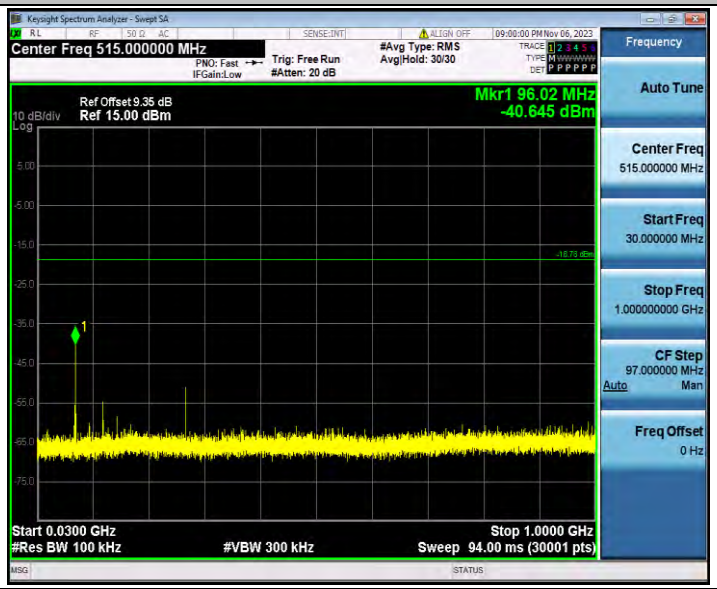
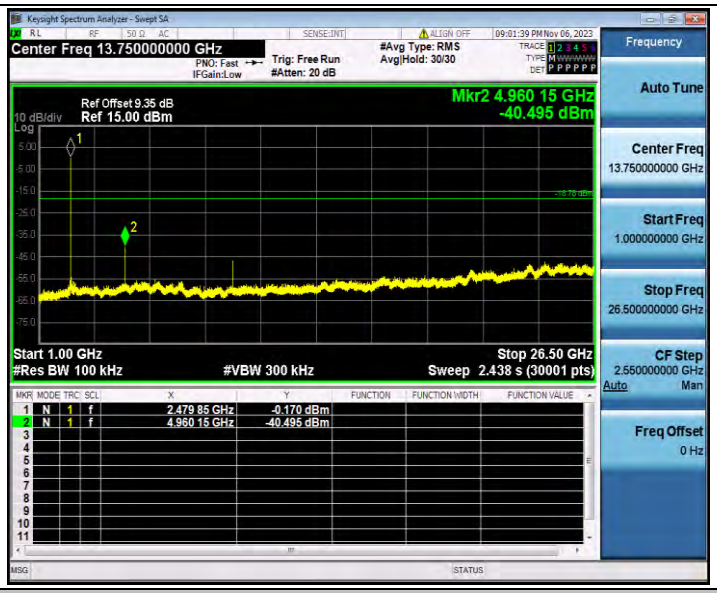


2DH1_Ant1_2441_1000~26500

2DH1_Ant1_2480_0~Reference

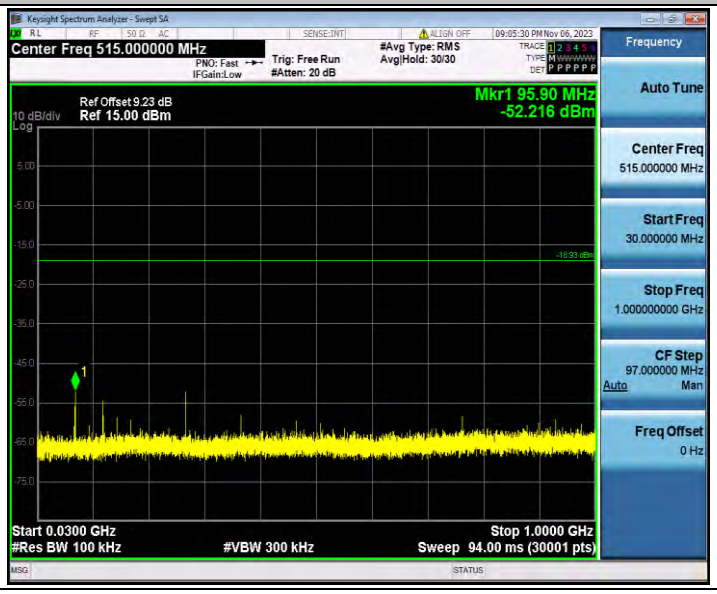


2DH1_Ant1_2480_30~1000



2DH1_Ant1_2480_1000~26500

3DH1_Ant1_2402_0~Reference



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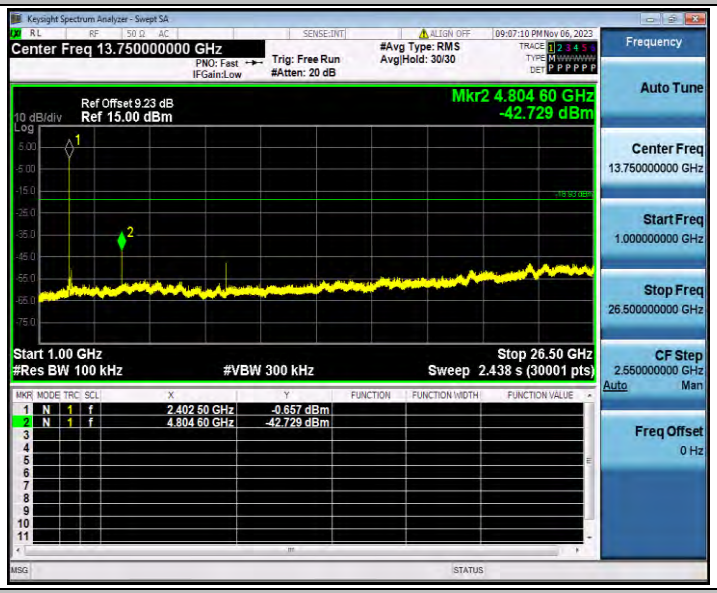
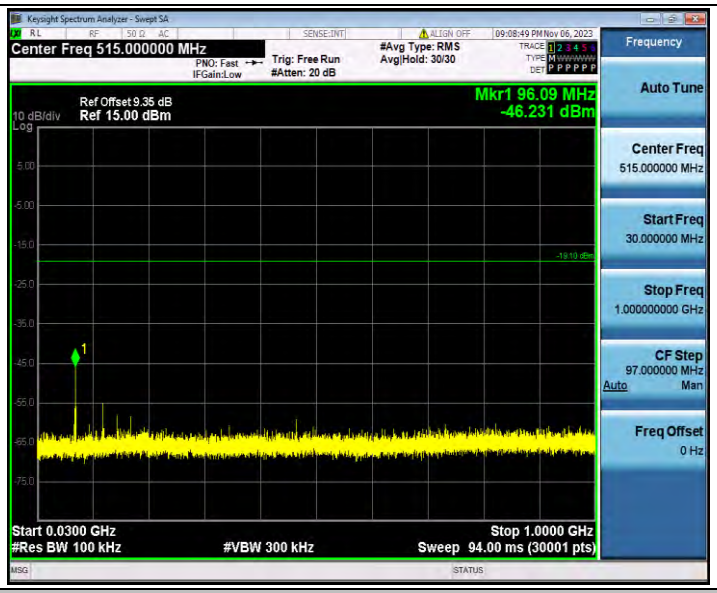
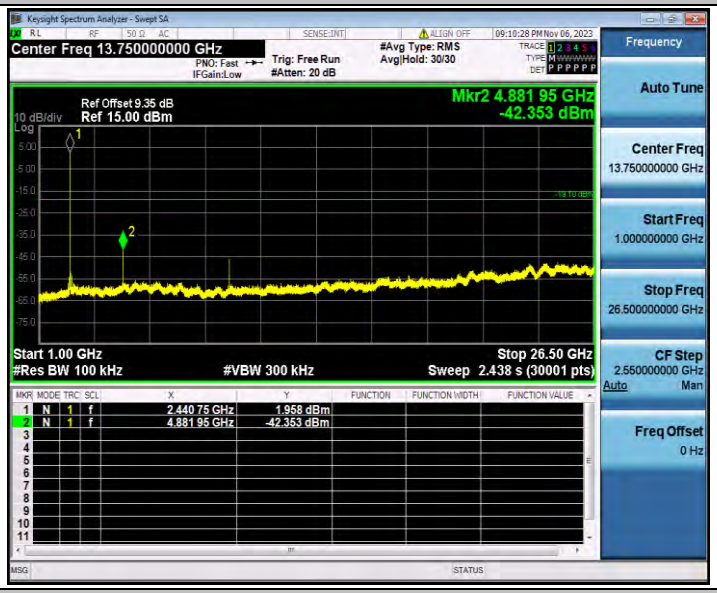


3DH1_Ant1_2402_1000~26500

3DH1_Ant1_2441_0~Reference

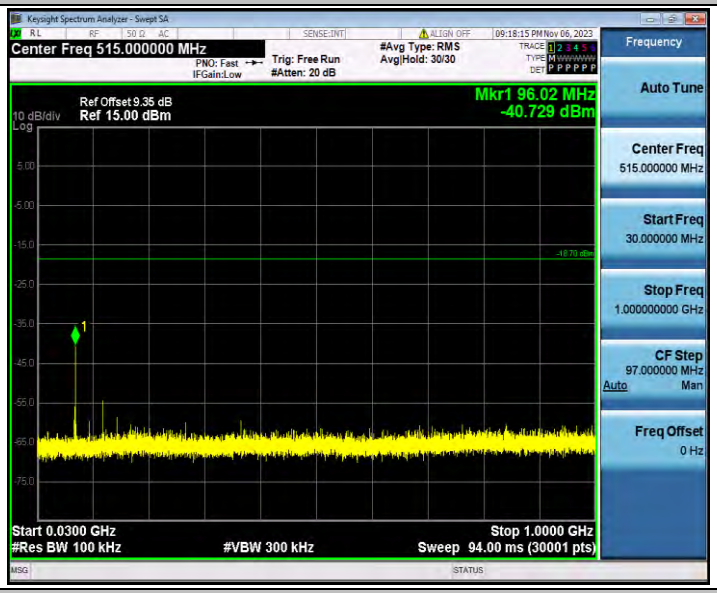


3DH1_Ant1_2441_30~1000



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

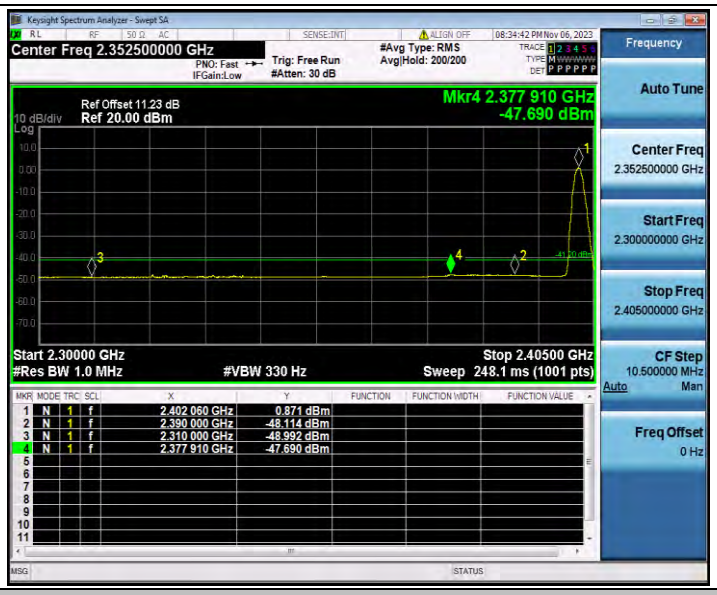
TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH1	Ant1	Low	2402	AV	2310.000	-48.99	≤-41.20	46.21	≤54	PASS
				AV	2377.910	-47.69	≤-41.20	47.51	≤54	PASS
				AV	2390.000	-48.11	≤-41.20	47.09	≤54	PASS
				Peak	2310.000	-41.28	≤-21.20	53.92	≤74	PASS
				Peak	2364.890	-38.14	≤-21.20	57.06	≤74	PASS
				Peak	2390.000	-40.96	≤-21.20	54.24	≤74	PASS
		High	2480	AV	2483.500	-48.01	≤-41.20	47.19	≤54	PASS
				AV	2495.920	-47.61	≤-41.20	47.59	≤54	PASS
				AV	2500.000	-47.66	≤-41.20	47.54	≤54	PASS
				Peak	2483.500	-40.82	≤-21.20	54.38	≤74	PASS
				Peak	2496.640	-38.45	≤-21.20	56.75	≤74	PASS
				Peak	2500.000	-40.98	≤-21.20	54.22	≤74	PASS
2DH1	Ant1	Low	2402	AV	2310.000	-48.96	≤-41.20	46.24	≤54	PASS
				AV	2377.910	-47.71	≤-41.20	47.49	≤54	PASS
				AV	2390.000	-48.12	≤-41.20	47.08	≤54	PASS
				Peak	2310.000	-40.3	≤-21.20	54.90	≤74	PASS
				Peak	2366.570	-37.26	≤-21.20	57.94	≤74	PASS
				Peak	2390.000	-41.43	≤-21.20	53.77	≤74	PASS
		High	2480	AV	2483.500	-47.77	≤-41.20	47.43	≤54	PASS
				AV	2498.560	-47.55	≤-41.20	47.65	≤54	PASS
				AV	2500.000	-47.63	≤-41.20	47.57	≤54	PASS
				Peak	2483.500	-39.57	≤-21.20	55.63	≤74	PASS
				Peak	2483.760	-35.56	≤-21.20	59.64	≤74	PASS
				Peak	2500.000	-41.22	≤-21.20	53.98	≤74	PASS
3DH1	Ant1	Low	2402	AV	2310.000	-48.97	≤-41.20	46.23	≤54	PASS
				AV	2321.735	-46.14	≤-41.20	49.06	≤54	PASS
				AV	2390.000	-48.15	≤-41.20	47.05	≤54	PASS
				Peak	2310.000	-40.6	≤-21.20	54.60	≤74	PASS
				Peak	2385.890	-36.97	≤-21.20	58.23	≤74	PASS
				Peak	2390.000	-40.75	≤-21.20	54.45	≤74	PASS
		High	2480	AV	2483.500	-46.87	≤-41.20	48.33	≤54	PASS
				AV	2483.520	-46.87	≤-41.20	48.33	≤54	PASS
				AV	2500.000	-47.2	≤-41.20	48.00	≤54	PASS
				Peak	2483.500	-39.65	≤-21.20	55.55	≤74	PASS

				Peak	2492.960	-37.8	≤-21.20	57.40	≤74	PASS
				Peak	2500.000	-41.38	≤-21.20	53.82	≤74	PASS

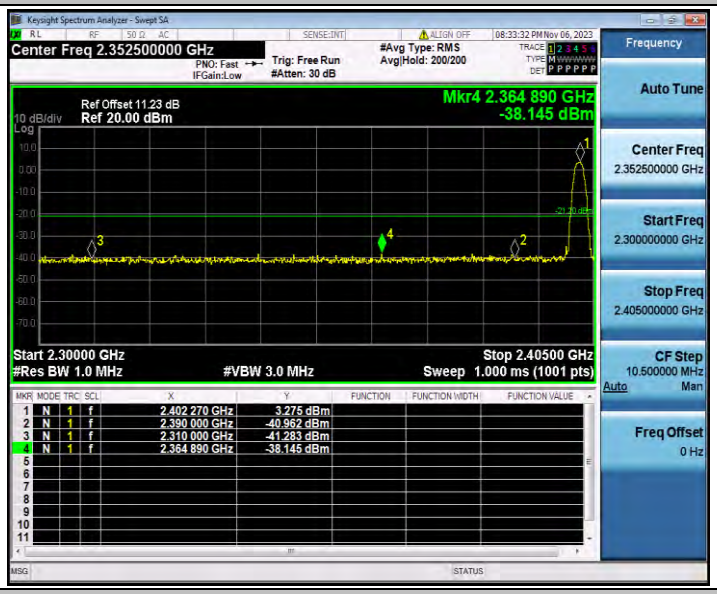
Note：

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.

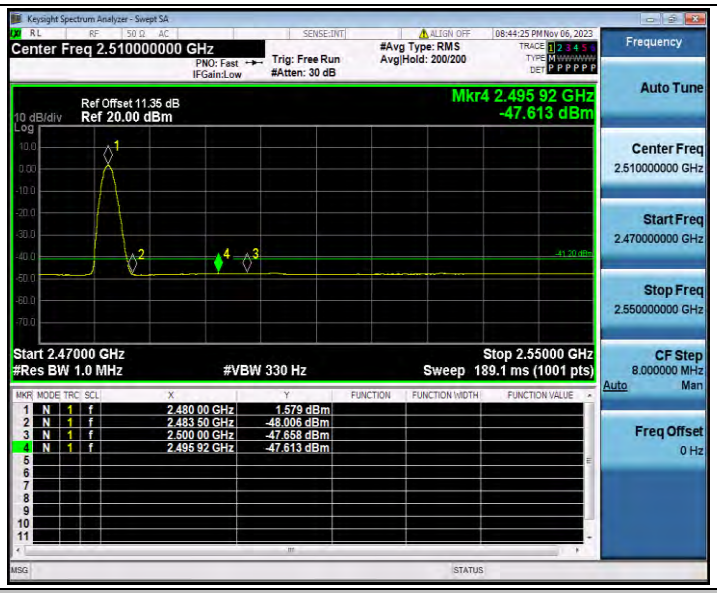
Test Graphs



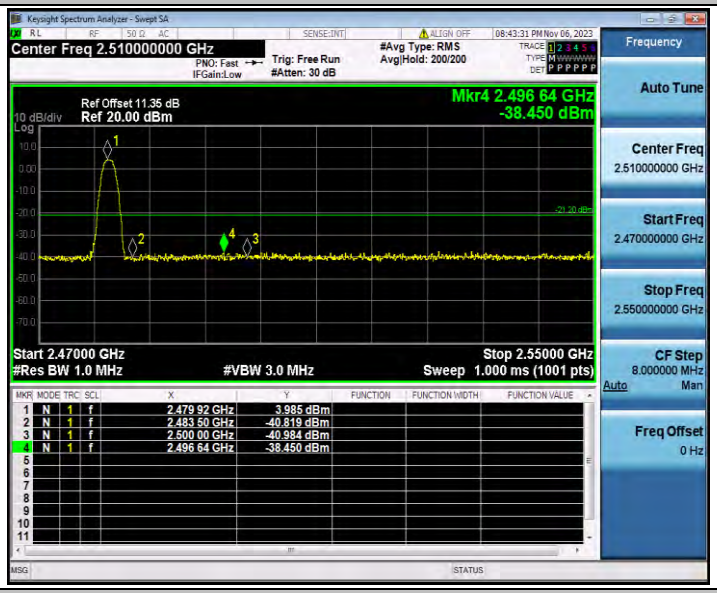
DH1_Ant1_Low_2402_AV



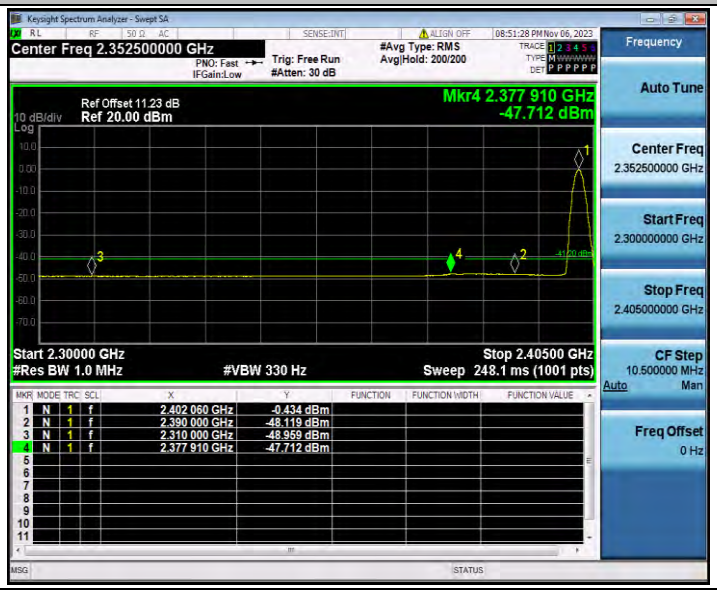
DH1_Ant1_Low_2402_Peak



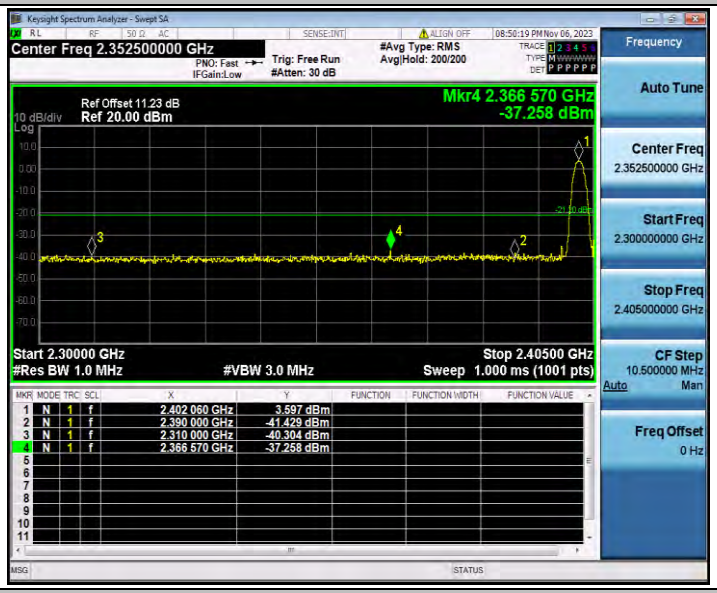
DH1_Ant1_High_2480_AV



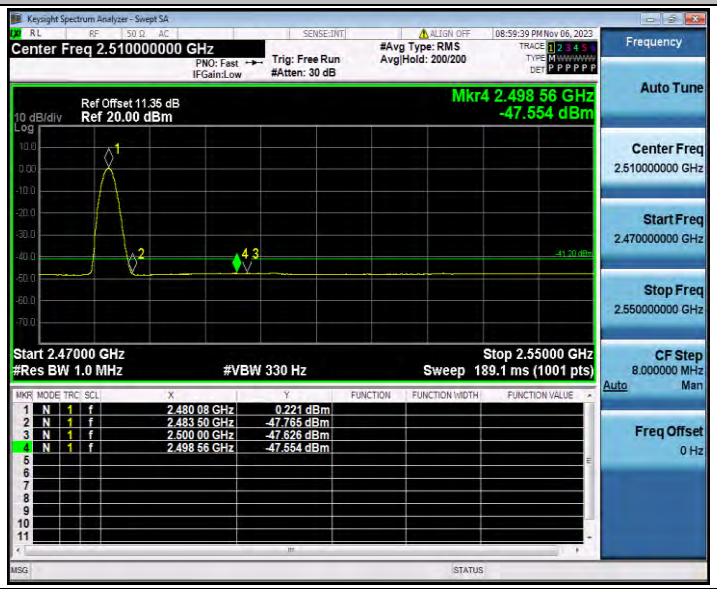
DH1_Ant1_High_2480_Peak



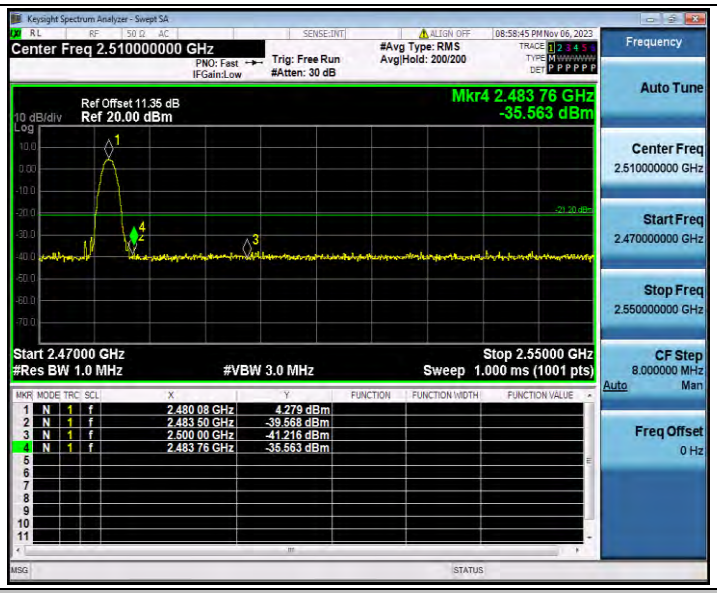
2DH1_Ant1_Low_2402_AV



2DH1_Ant1_Low_2402_Peak



2DH1_Ant1_High_2480_AV



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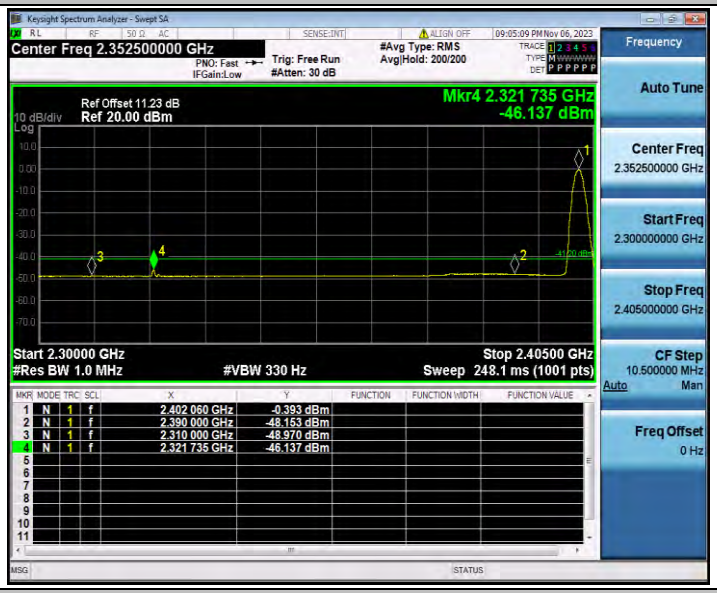
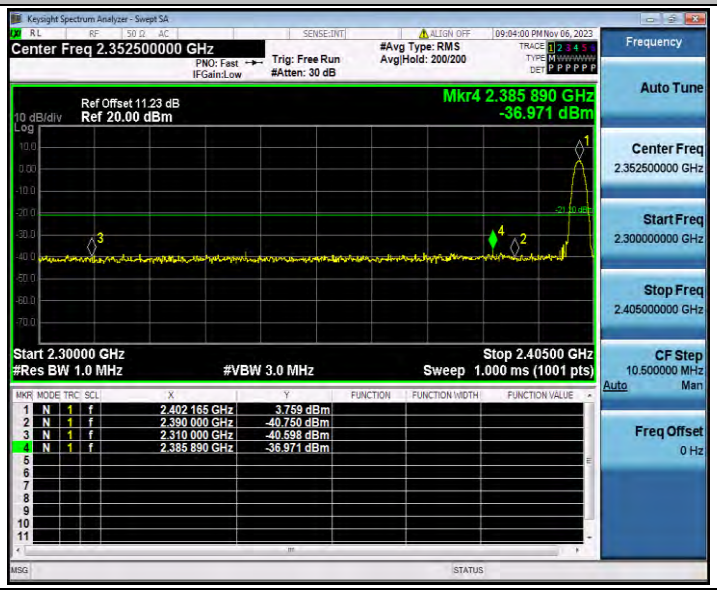
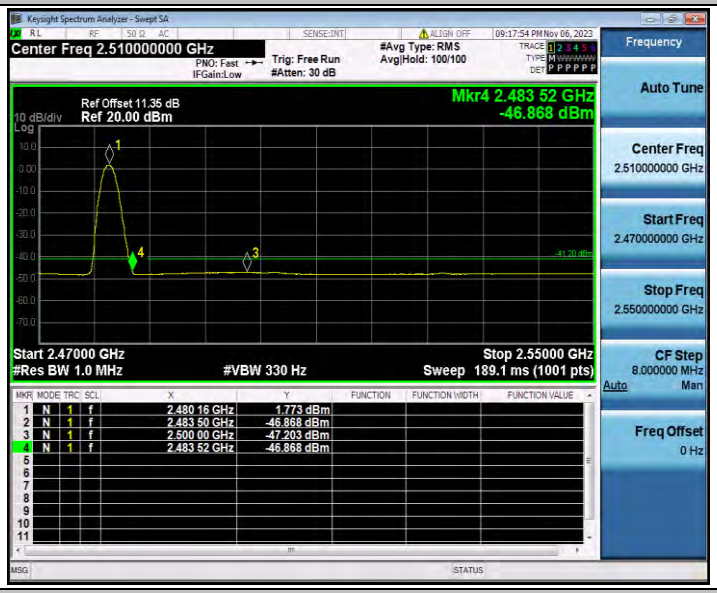


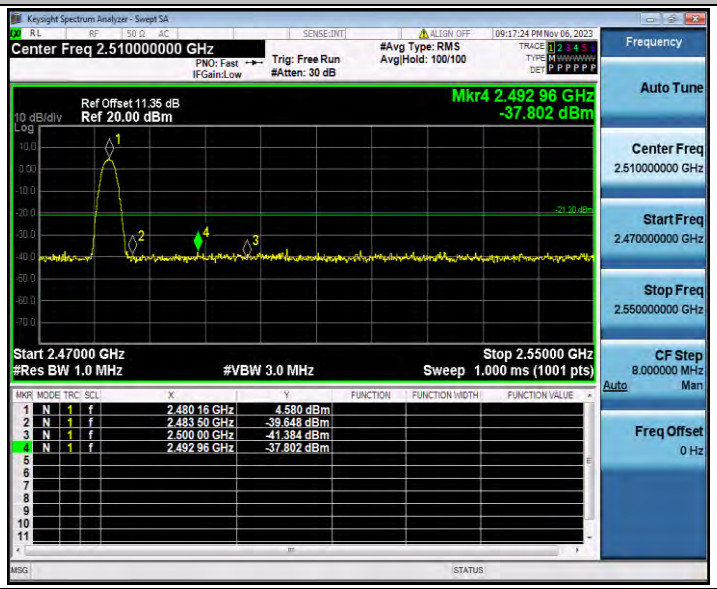
3DH1_Ant1_Low_2402_AV



3DH1_Ant1_Low_2402_Peak



3DH1_Ant1_High_2480_AV



3DH1_Ant1_High_2480_Peak