

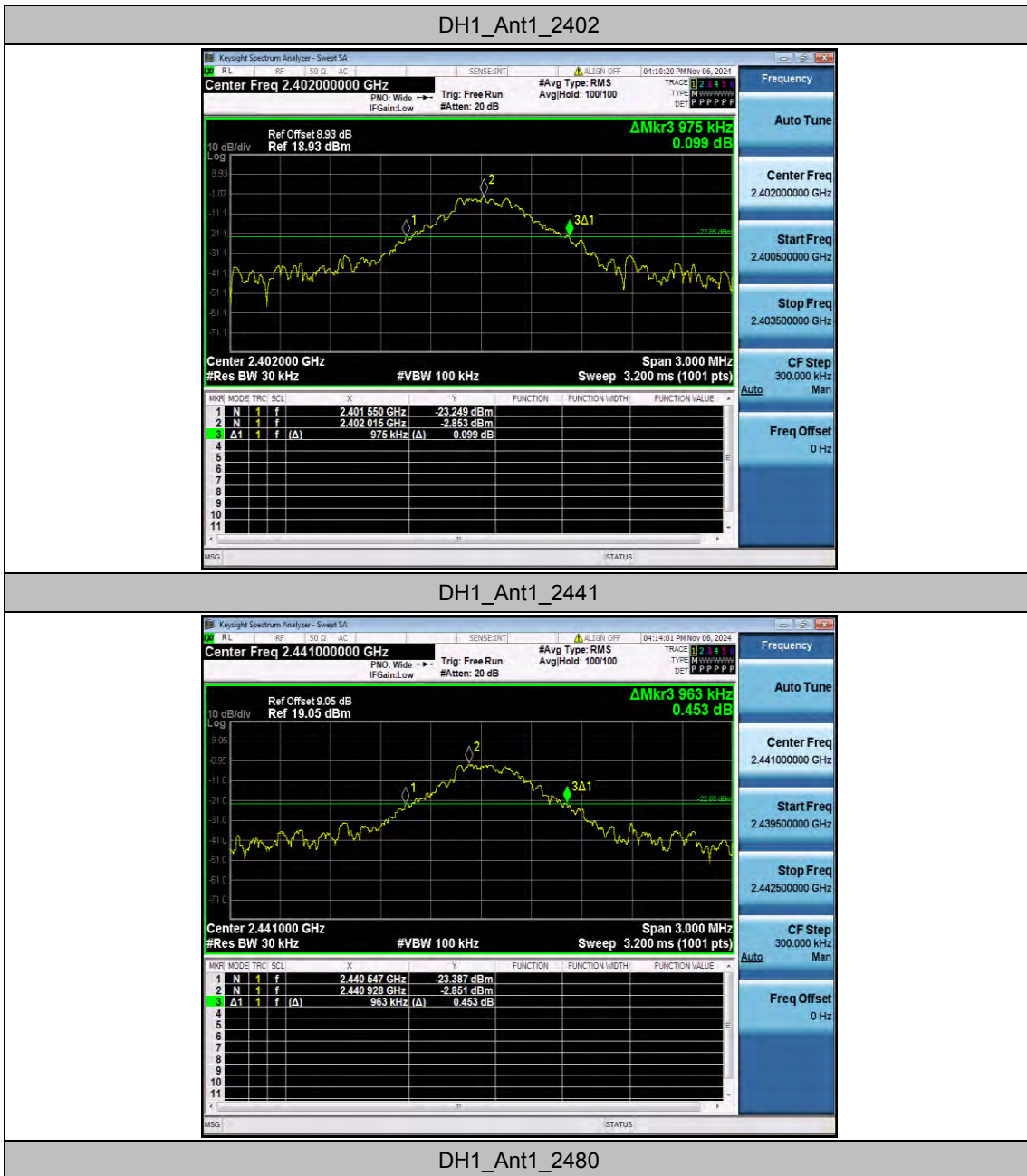
Case No. : <u>GTS20241019009-1-01</u>
Ambient Condition: <u>22 °C, 54 %RH</u>
According Standard: <u>■Part15C</u>
Test Date: <u>2024.11.6</u> Test Engineer: <u>Evan ouyang</u>

Appendix A.1: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.975	2401.550	2402.525	---	---
		2441	0.963	2440.547	2441.510	---	---
		2480	0.969	2479.547	2480.516	---	---
2DH1	Ant1	2402	1.350	2401.376	2402.726	---	---
		2441	1.359	2440.370	2441.729	---	---
		2480	1.338	2479.370	2480.708	---	---
3DH1	Ant1	2402	1.329	2401.391	2402.720	---	---
		2441	1.311	2440.400	2441.711	---	---
		2480	1.293	2479.403	2480.696	---	---

Test Graphs





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

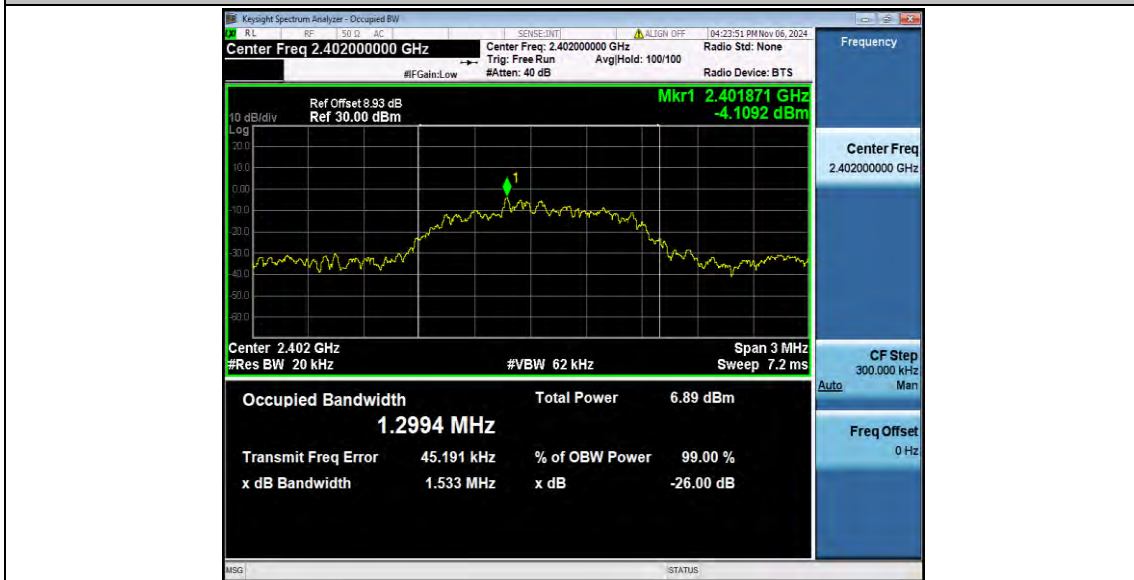
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.86352	2401.6105	2402.4740	---	---
		2441	0.85836	2440.6111	2441.4695	---	---
		2480	0.86662	2479.6076	2480.4742	---	---
2DH1	Ant1	2402	1.2994	2401.3955	2402.6949	---	---
		2441	1.2869	2440.4022	2441.6891	---	---
		2480	1.2558	2479.4152	2480.6710	---	---
3DH1	Ant1	2402	1.2747	2401.4129	2402.6876	---	---
		2441	1.2616	2440.4174	2441.6790	---	---
		2480	1.2124	2479.4435	2480.6559	---	---

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	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH1	Ant1	2402	1.14	≤20.97	PASS
		2441	1.17	≤20.97	PASS
		2480	0.78	≤20.97	PASS
2DH1	Ant1	2402	1.31	≤20.97	PASS
		2441	1.41	≤20.97	PASS
		2480	0.92	≤20.97	PASS
3DH1	Ant1	2402	1.51	≤20.97	PASS
		2441	1.49	≤20.97	PASS
		2480	0.93	≤20.97	PASS

Appendix A.4: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	0.842	≥ 0.650	PASS
		Hop_2441	1.324	≥ 0.650	PASS
		Hop_2480	0.694	≥ 0.650	PASS
2DH1	Ant1	Hop_2402	1.184	≥ 0.906	PASS
		Hop_2441	1.154	≥ 0.906	PASS
		Hop_2480	1.092	≥ 0.906	PASS
3DH1	Ant1	Hop_2402	0.992	≥ 0.886	PASS
		Hop_2441	1.002	≥ 0.886	PASS
		Hop_2480	0.994	≥ 0.886	PASS

Test Graphs





2DH1_Ant1_Hop_2402



2DH1_Ant1_Hop_2441



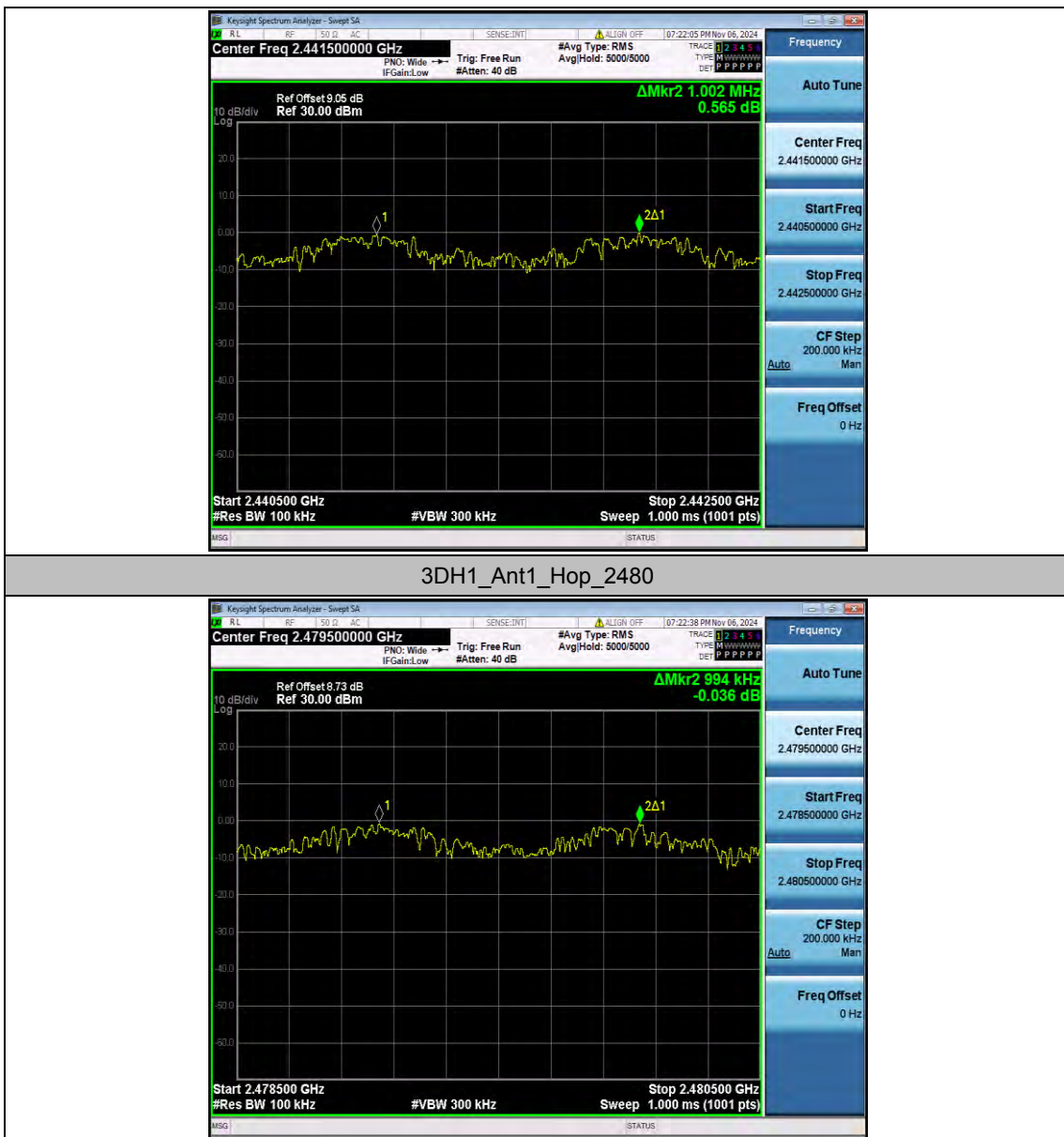
2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402



3DH1_Ant1_Hop_2441

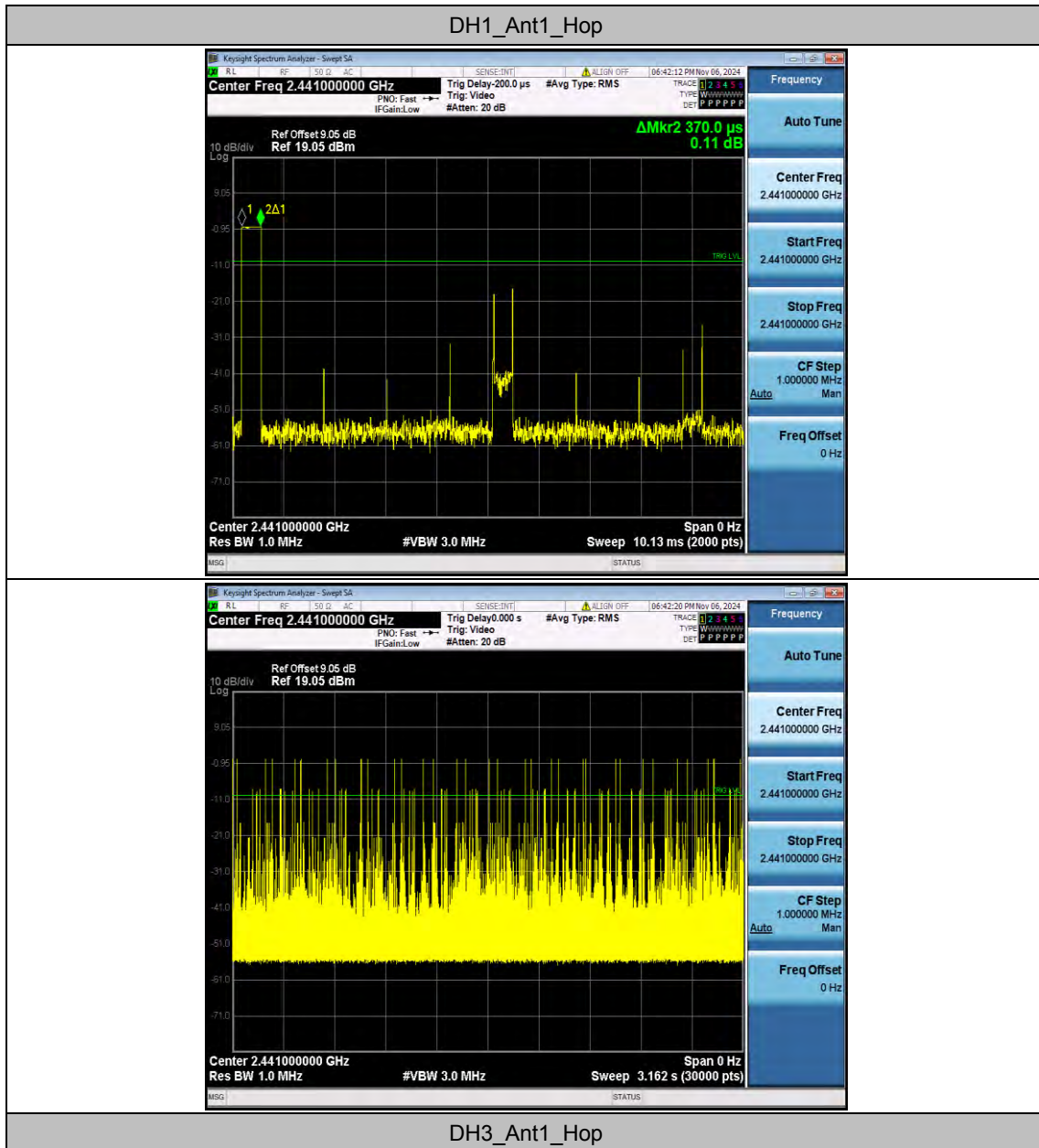


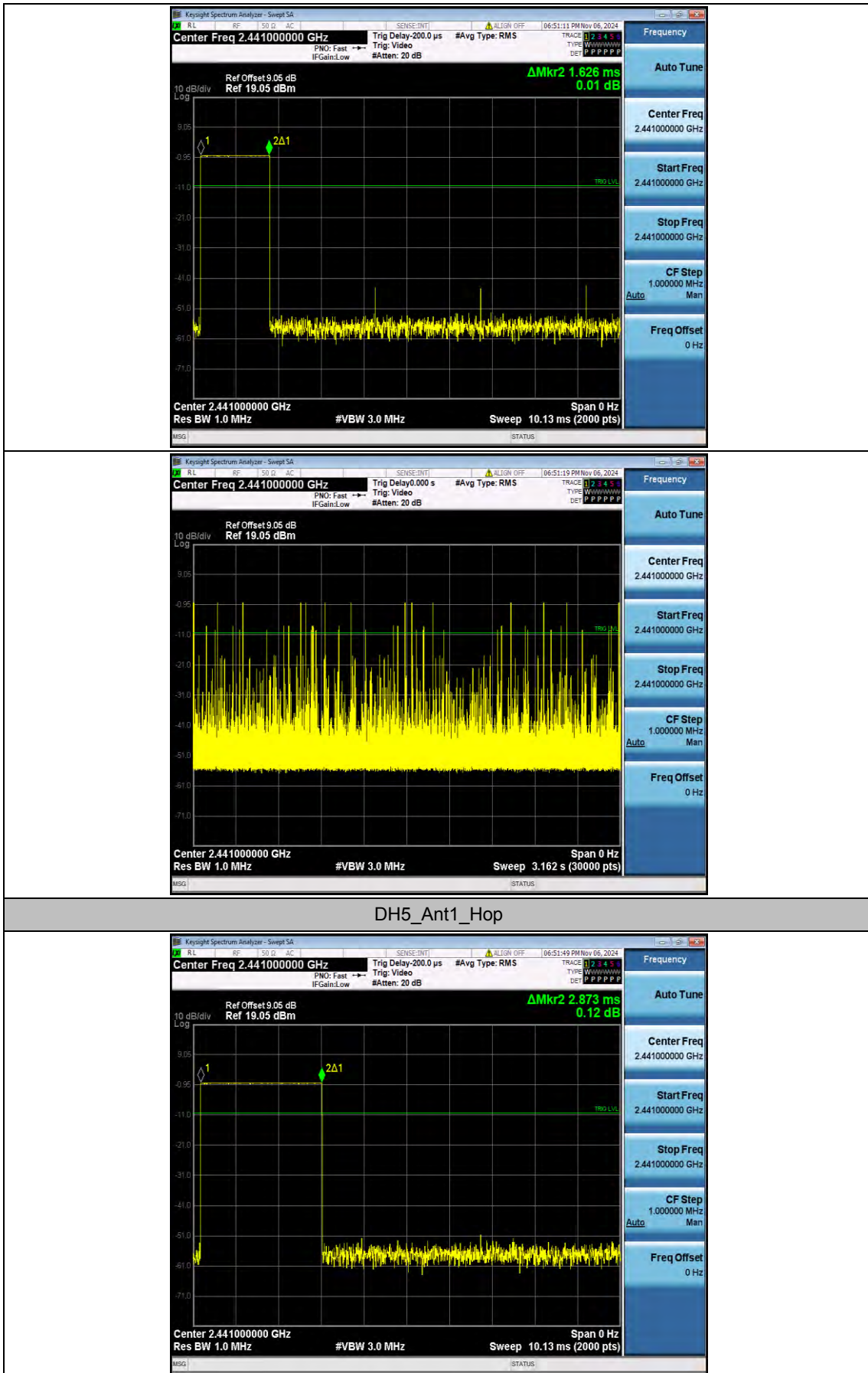
Appendix A.5: Time of occupancy

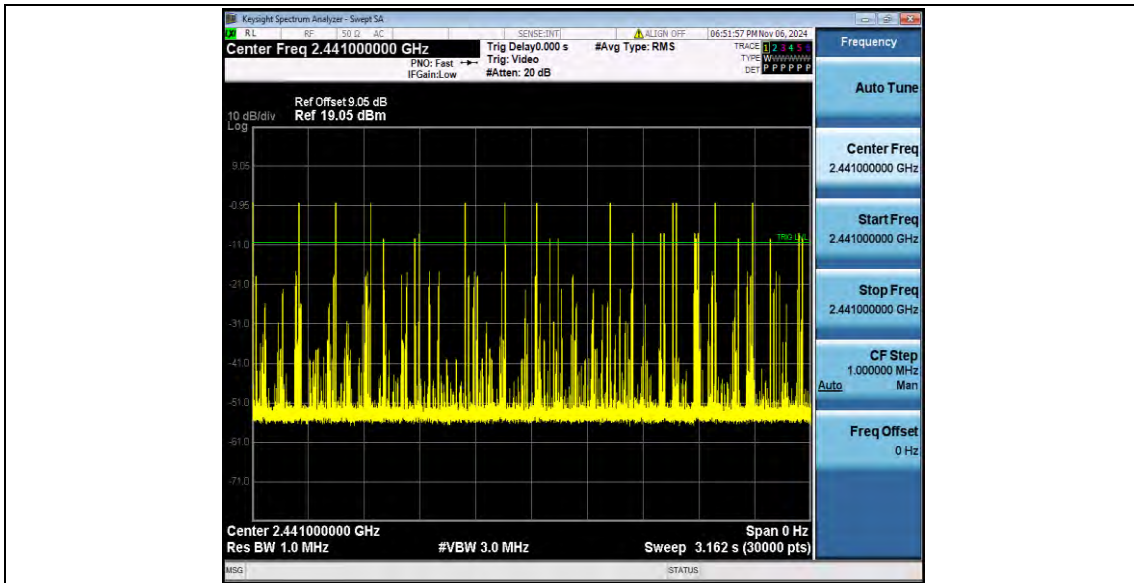
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.370	330	0.122	≤0.4	PASS
DH3	Ant1	Hop	1.626	150	0.244	≤0.4	PASS
DH5	Ant1	Hop	2.873	120	0.345	≤0.4	PASS
2DH1	Ant1	Hop	0.380	970	0.369	≤0.4	PASS
2DH3	Ant1	Hop	1.626	160	0.26	≤0.4	PASS
2DH5	Ant1	Hop	2.873	80	0.23	≤0.4	PASS
3DH1	Ant1	Hop	0.380	960	0.365	≤0.4	PASS
3DH3	Ant1	Hop	1.626	180	0.293	≤0.4	PASS
3DH5	Ant1	Hop	2.878	90	0.259	≤0.4	PASS

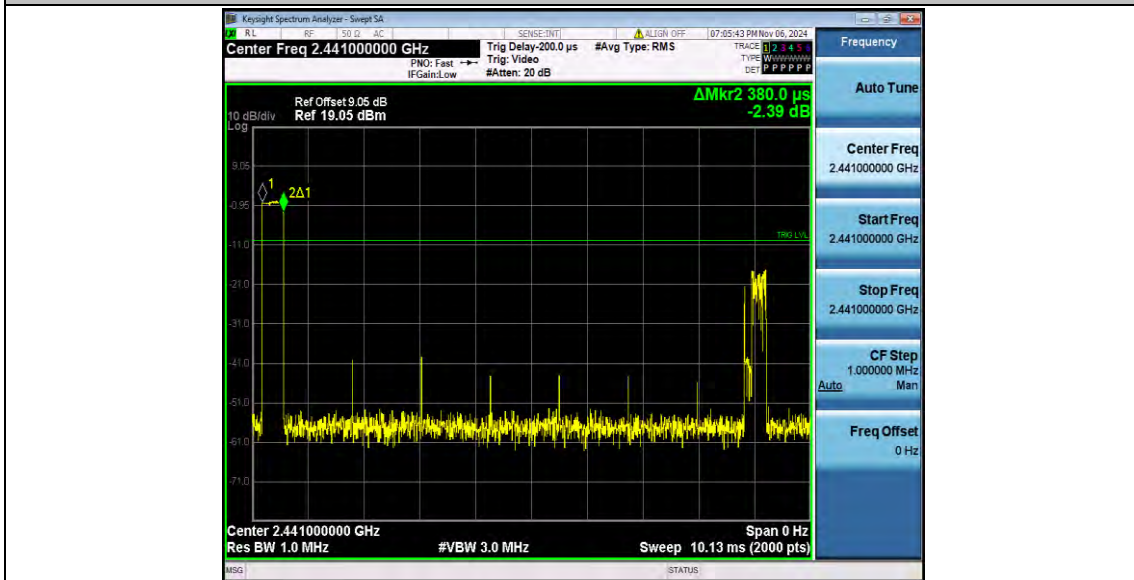
Test Graphs



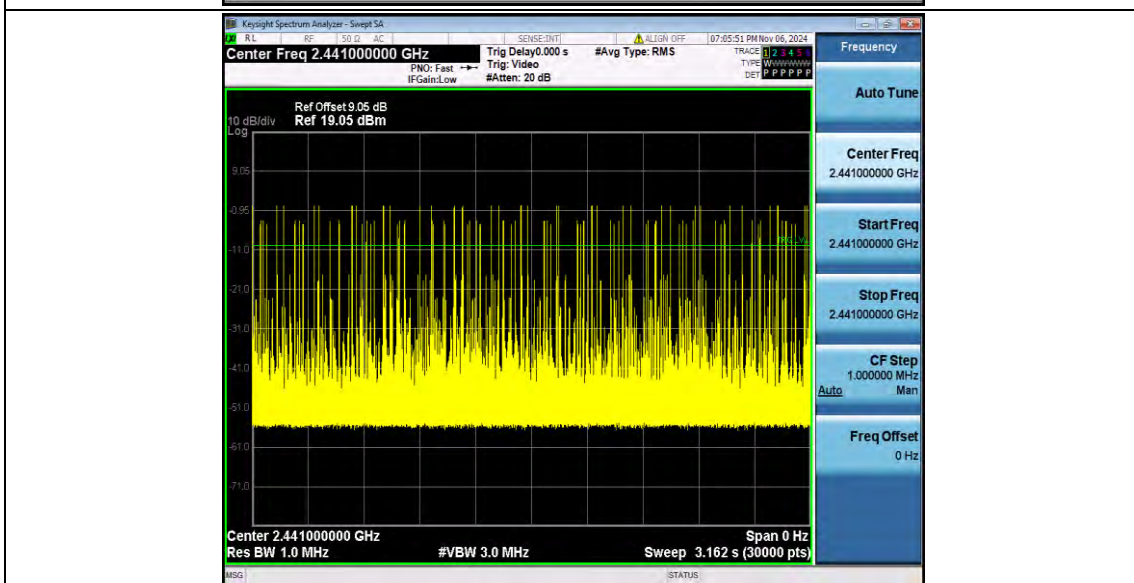


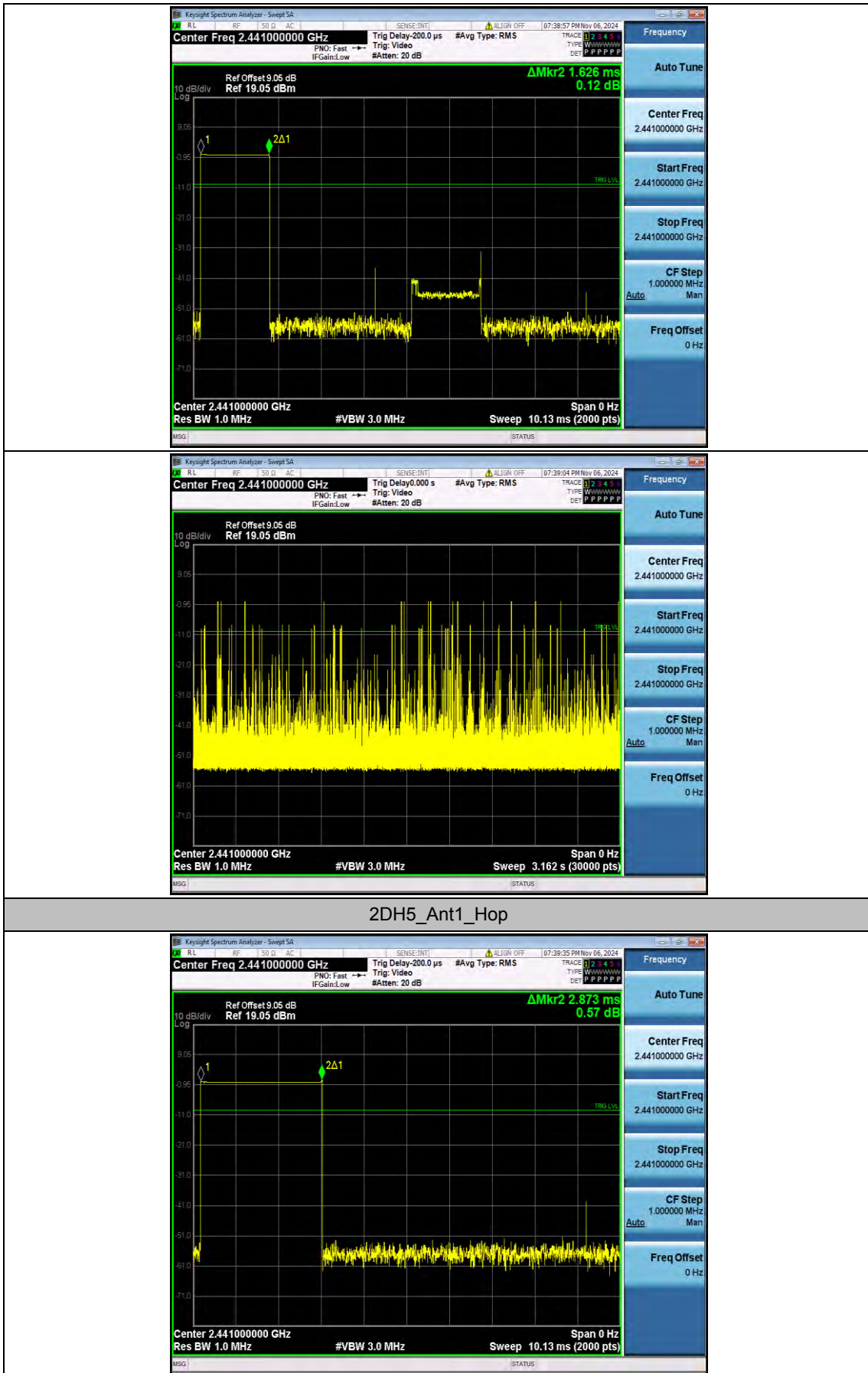


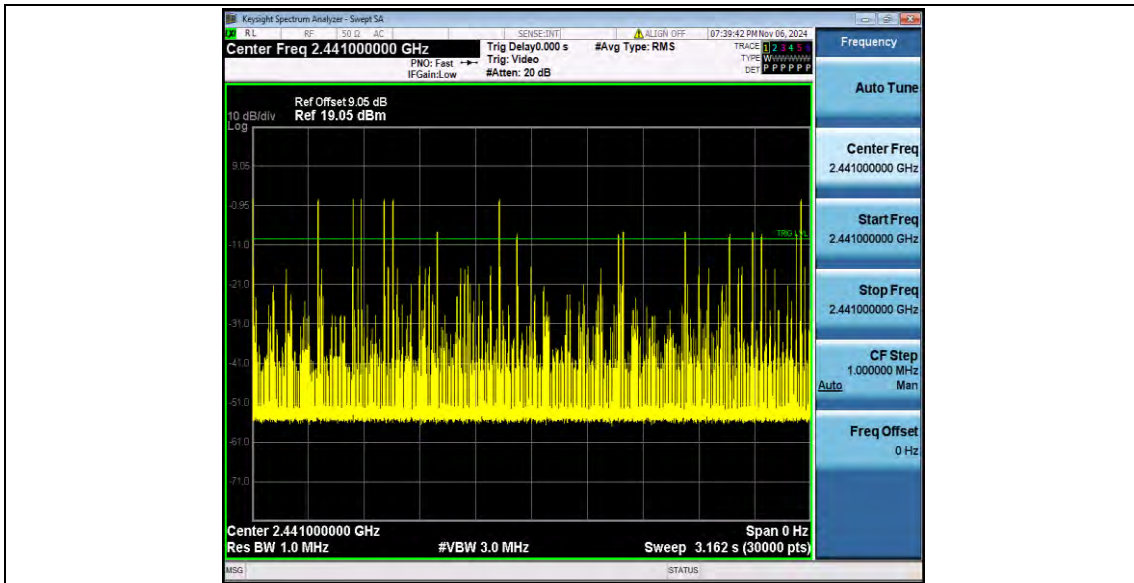
2DH1_Ant1_Hop



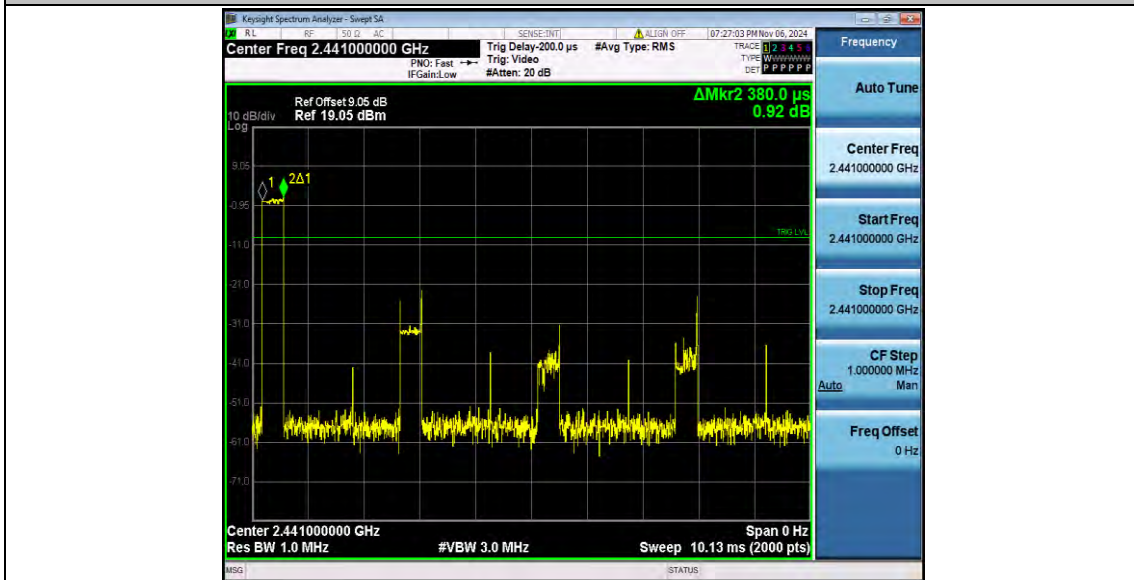
2DH3_Ant1_Hop



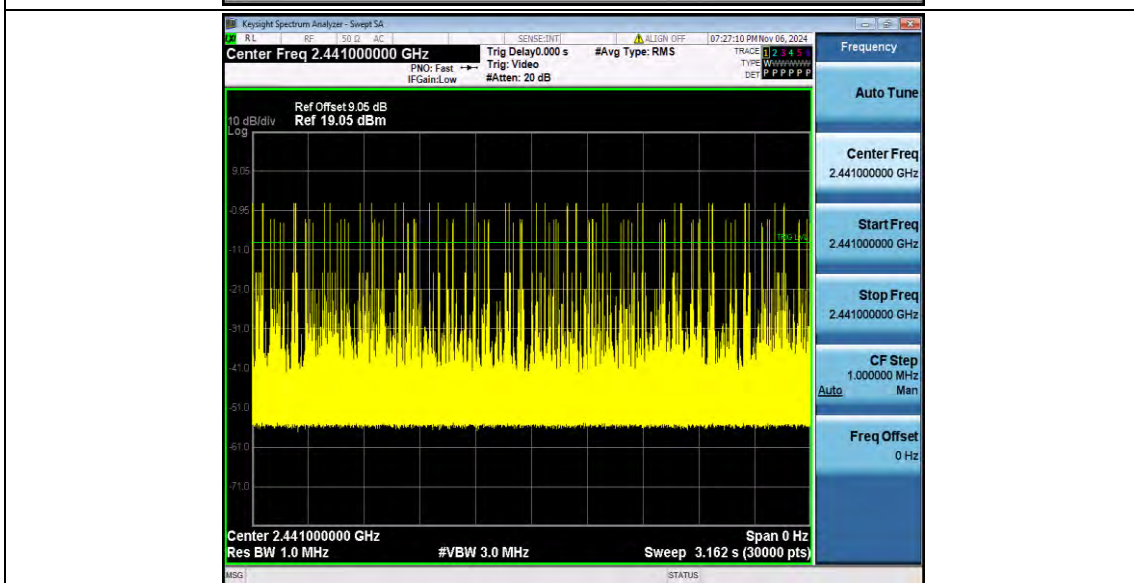


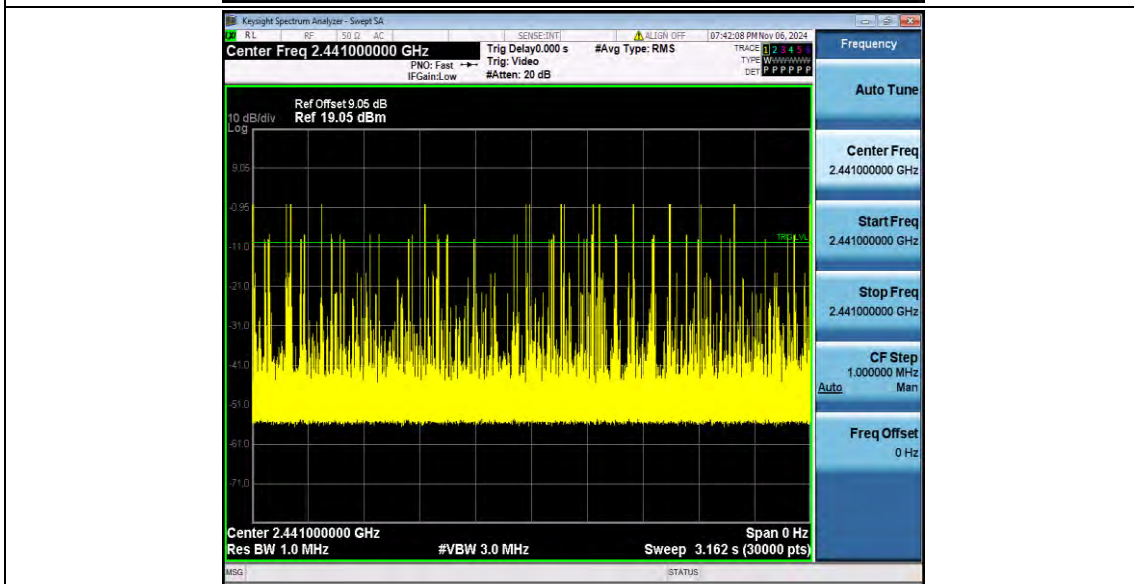
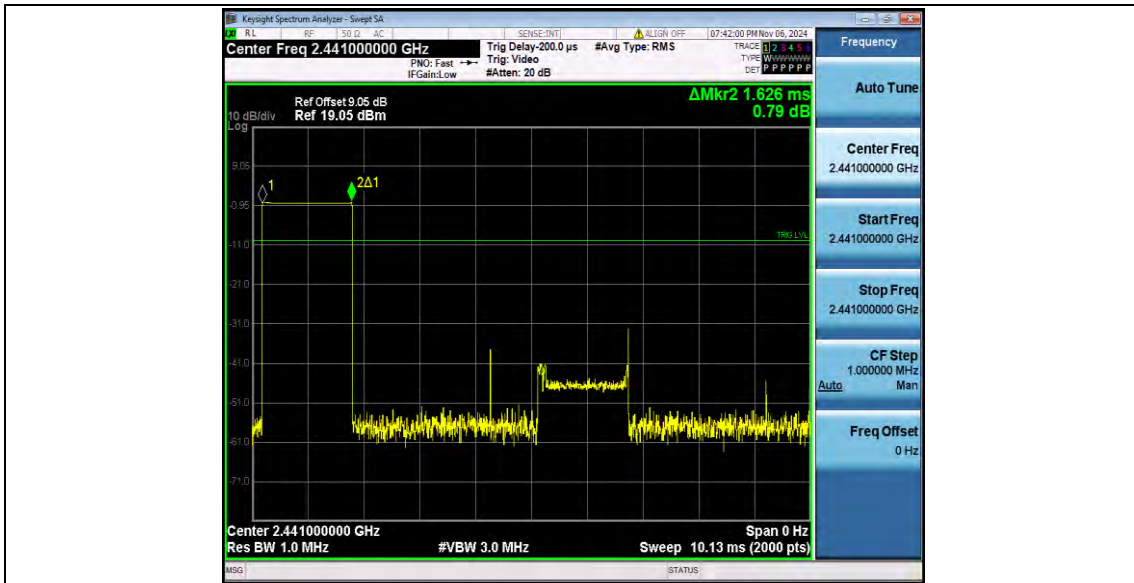


3DH1_Ant1_Hop

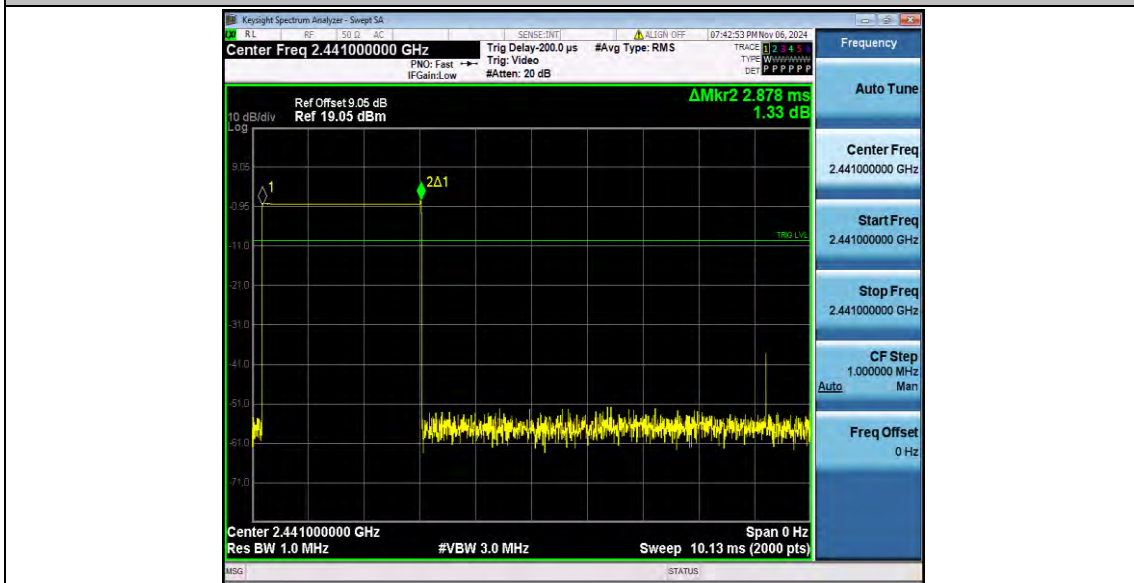


3DH3_Ant1_Hop





3DH5_Ant1_Hop

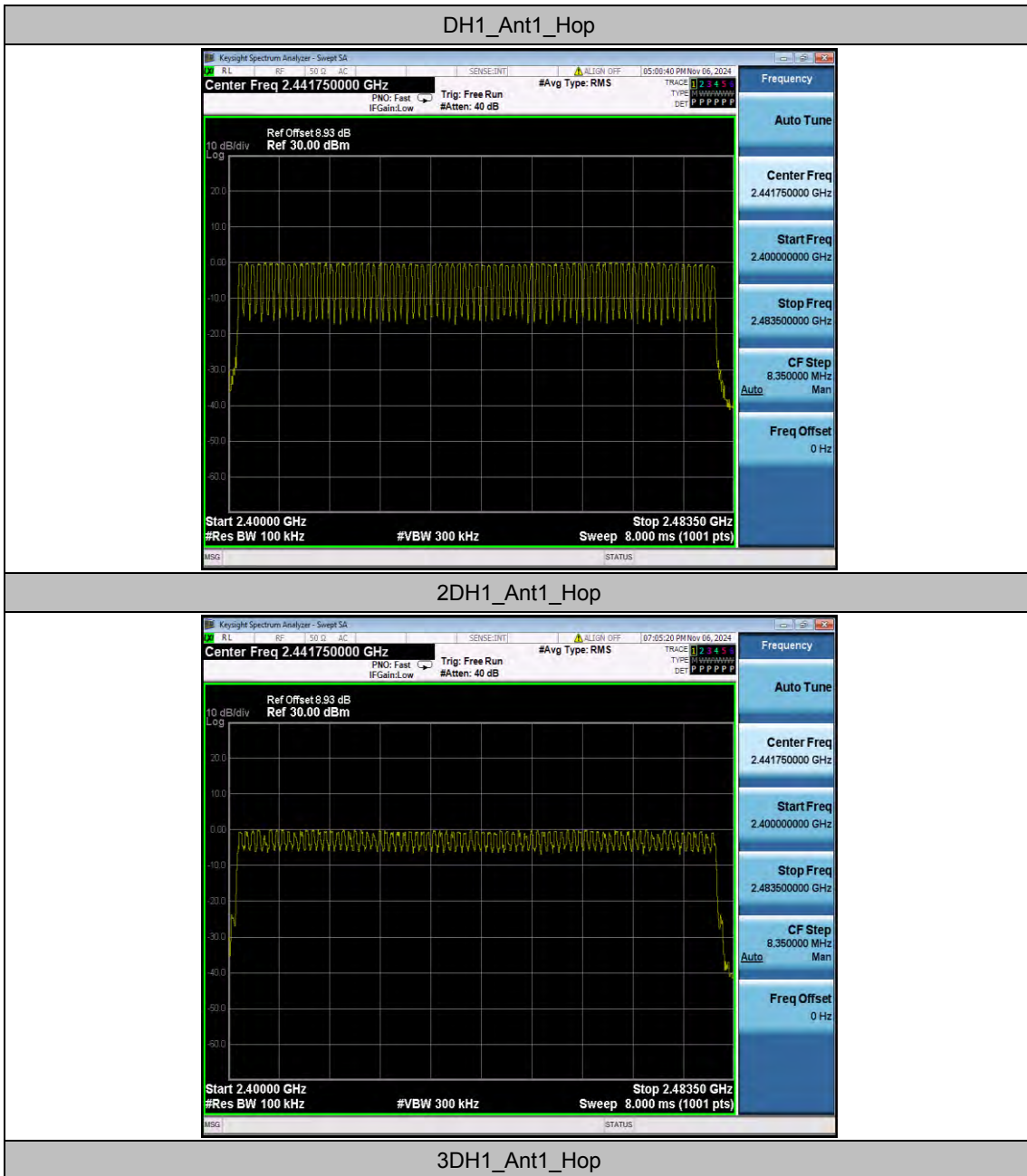


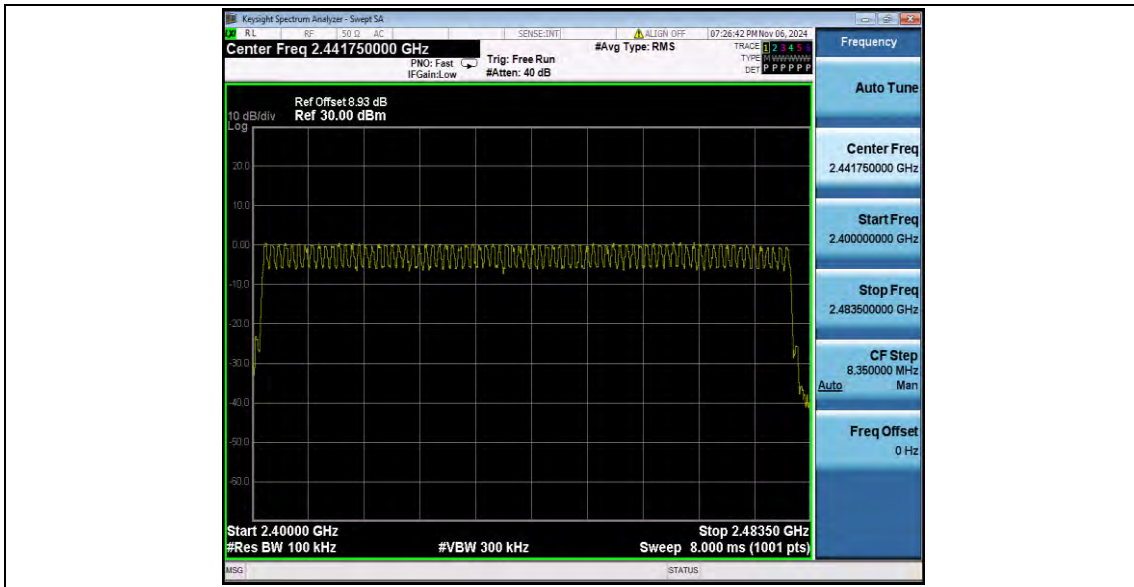
Appendix A.6: Number of hopping channels

Test Result

TestMode	Antenna	Freq(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



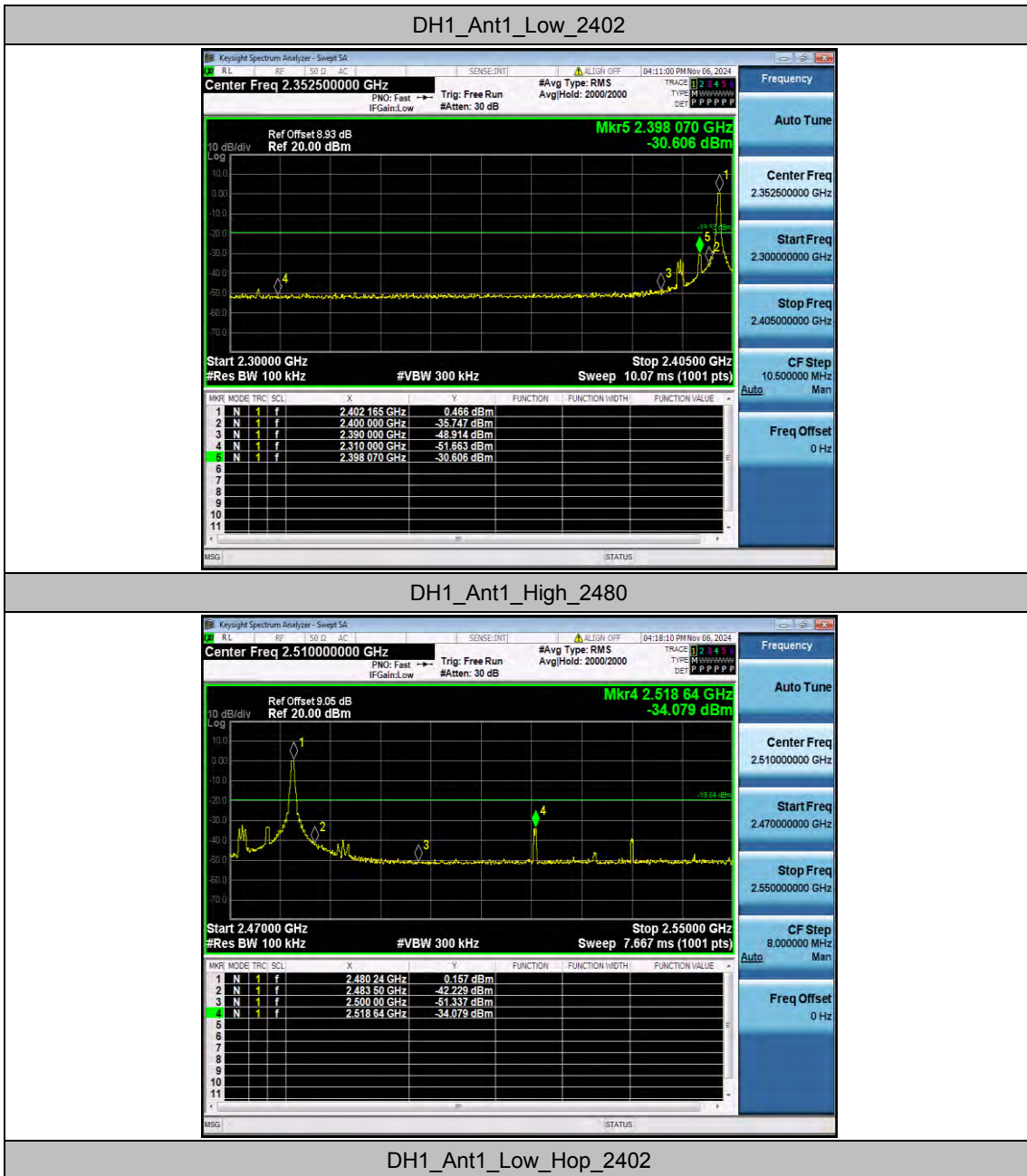


Appendix A.7: Band edge measurements

Test Result

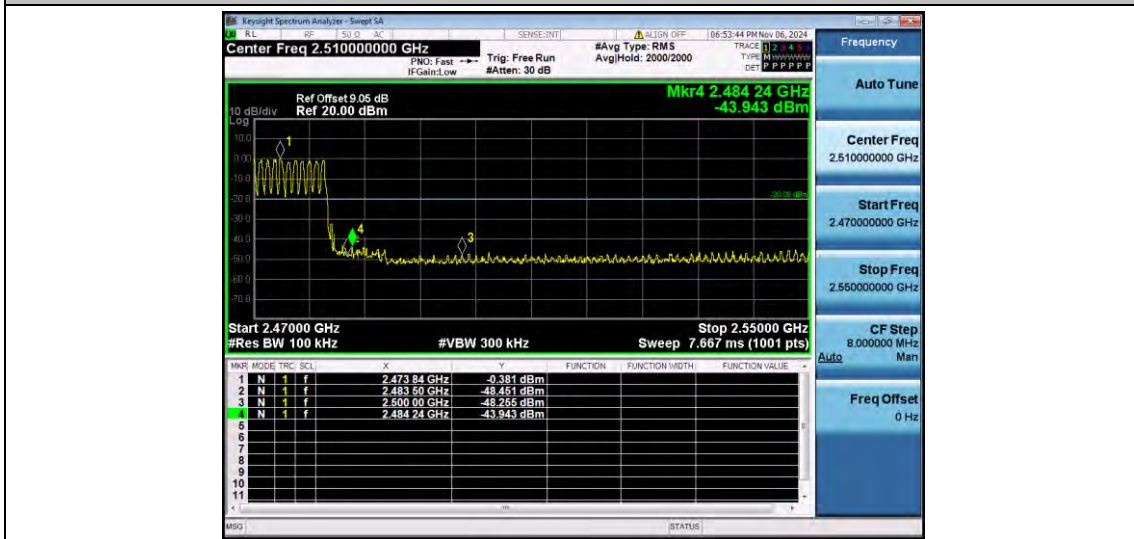
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	0.47	-30.61	≤-19.53	PASS
		High	2480	0.16	-34.08	≤-19.84	PASS
		Low	Hop_2402	0.10	-31.34	≤-19.9	PASS
		High	Hop_2480	-0.38	-43.94	≤-20.38	PASS
2DH1	Ant1	Low	2402	0.39	-30.53	≤-19.61	PASS
		High	2480	-0.01	-42.25	≤-20.01	PASS
		Low	Hop_2402	-0.66	-31.41	≤-20.66	PASS
		High	Hop_2480	-0.74	-41.25	≤-20.74	PASS
3DH1	Ant1	Low	2402	0.76	-30.25	≤-19.24	PASS
		High	2480	0.09	-38.09	≤-19.91	PASS
		Low	Hop_2402	-0.72	-31.55	≤-20.72	PASS
		High	Hop_2480	0.49	-40.3	≤-19.51	PASS

Test Graphs

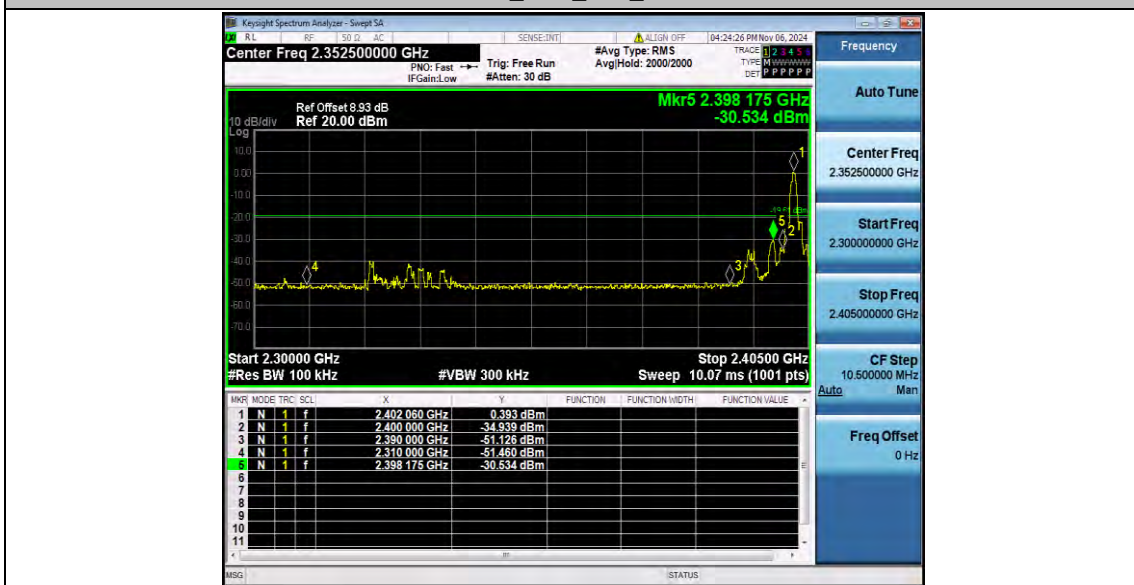




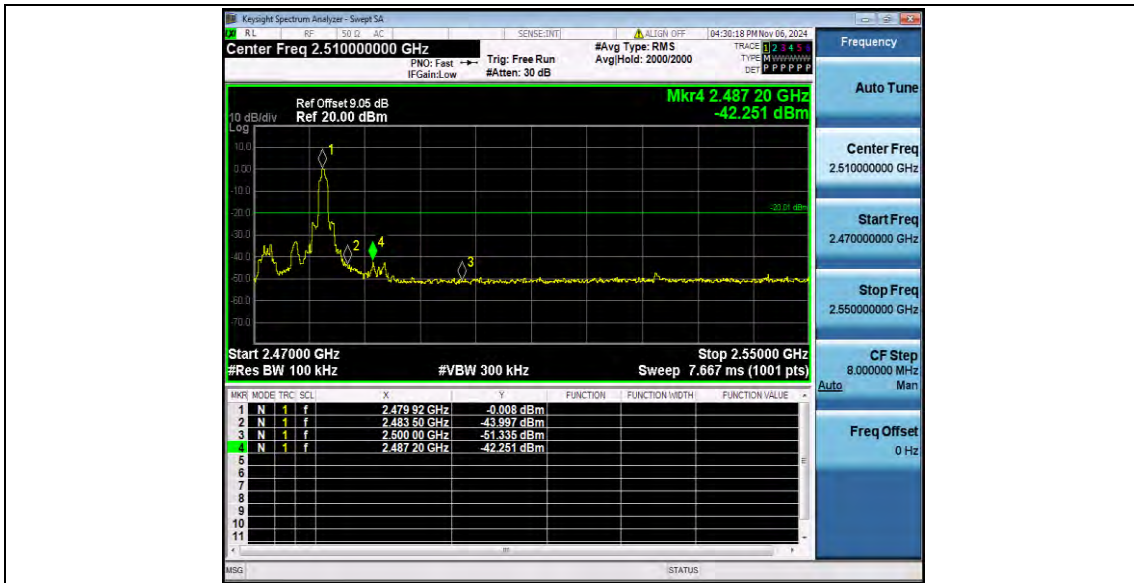
DH1_Ant1_High_Hop_2480



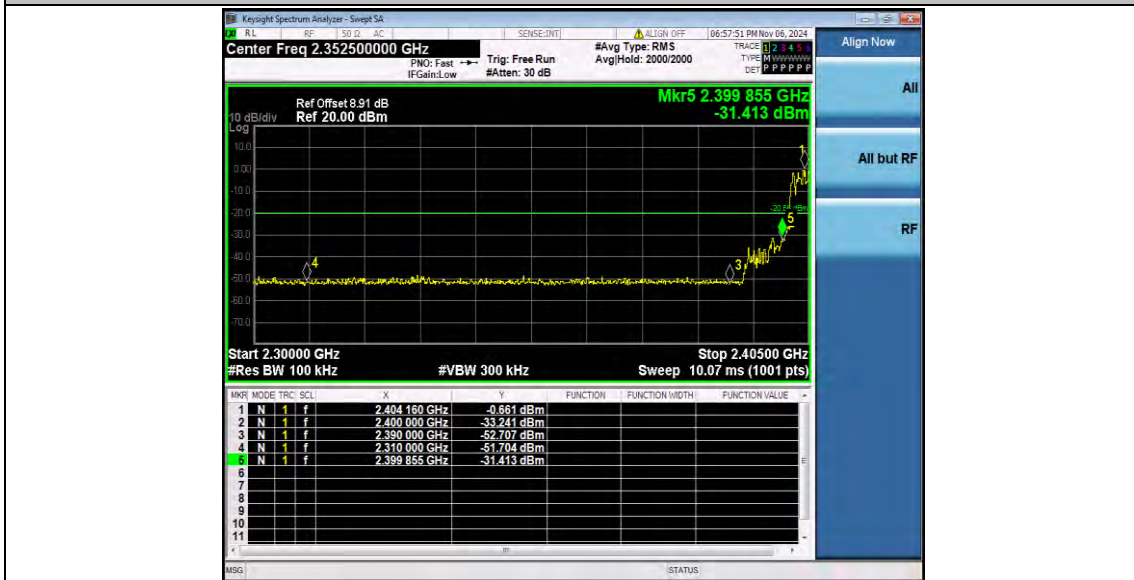
2DH1_Ant1_Low_2402



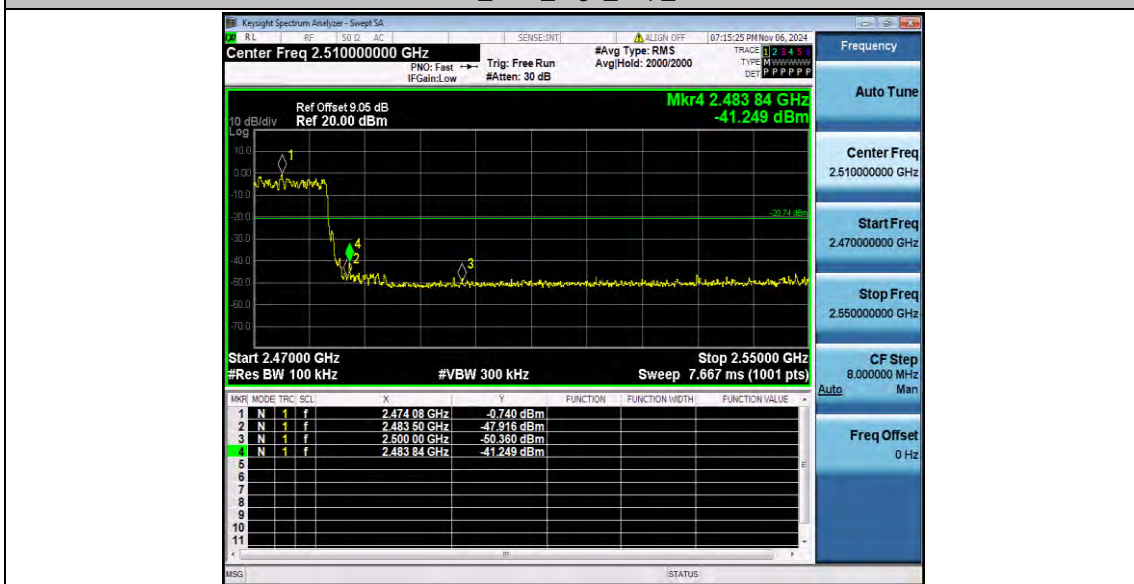
2DH1_Ant1_High_2480



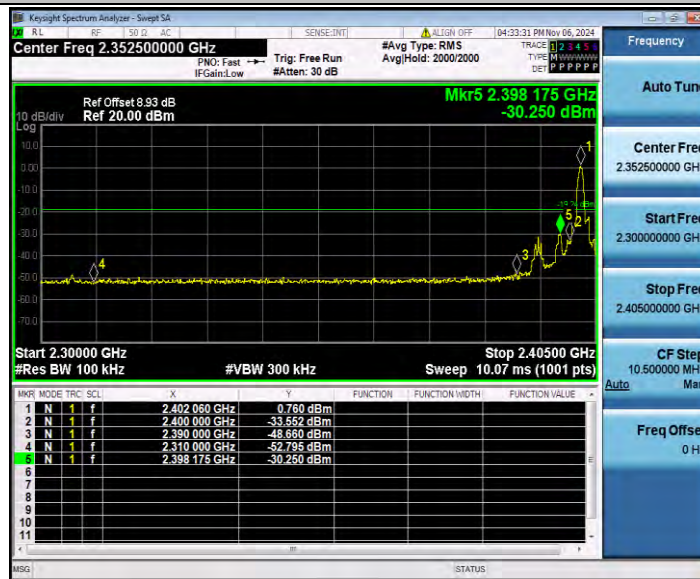
2DH1_Ant1_Low_Hop_2402



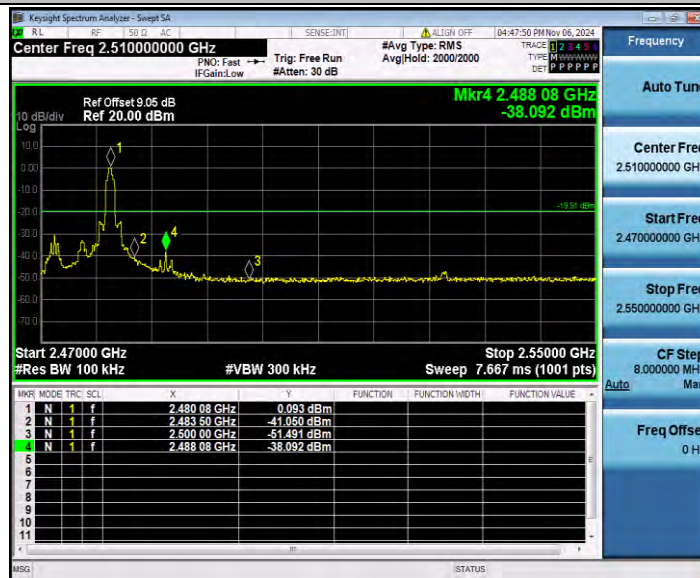
2DH1_Ant1_High_Hop_2480



3DH1_Ant1_Low_2402



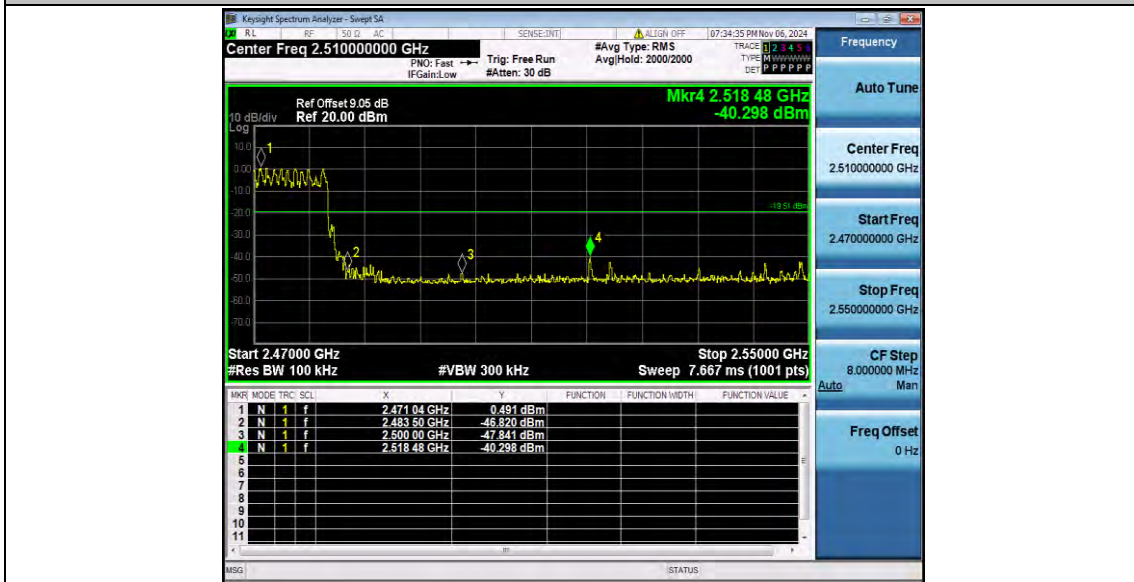
3DH1_Ant1_High_2480



3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

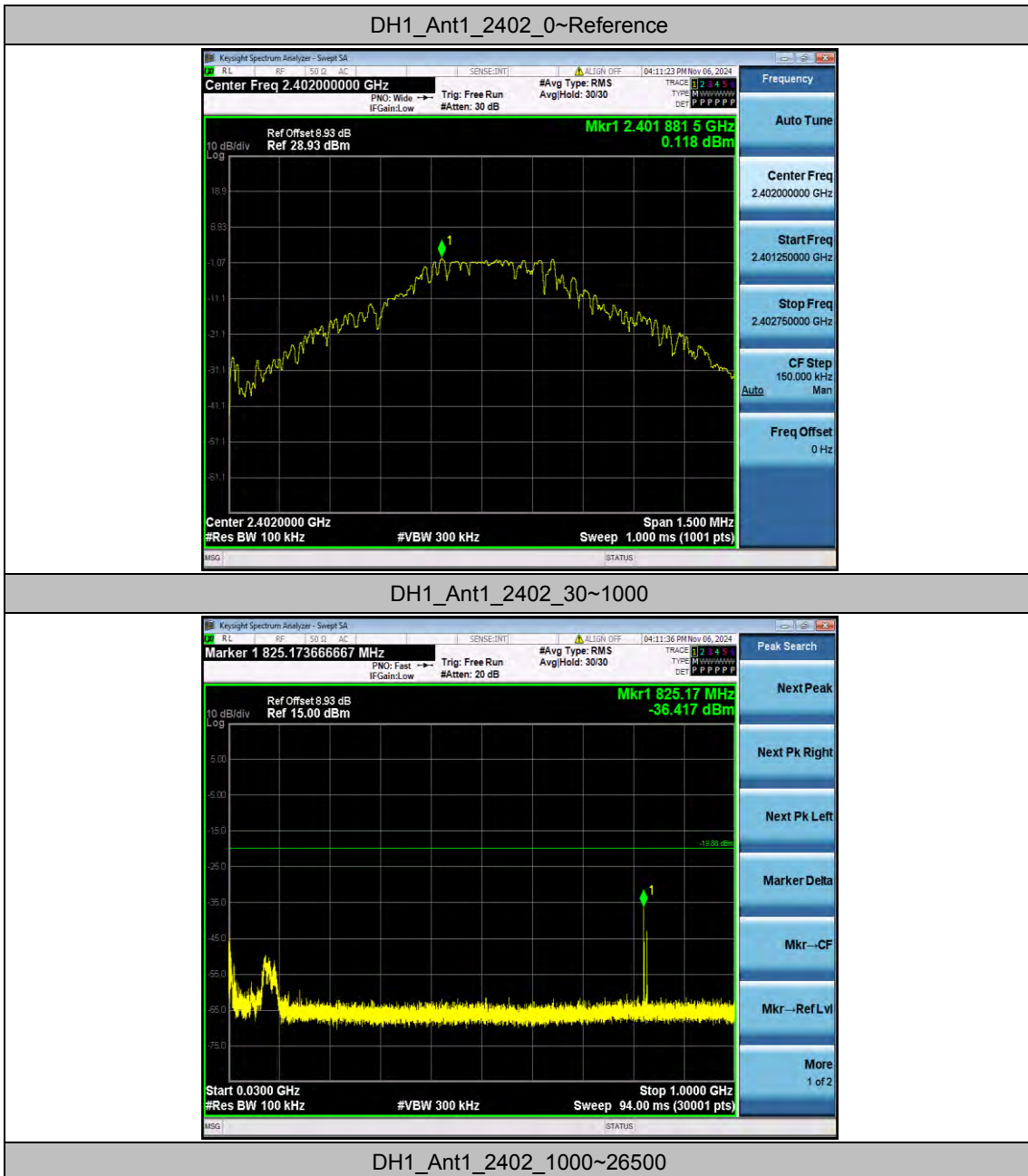


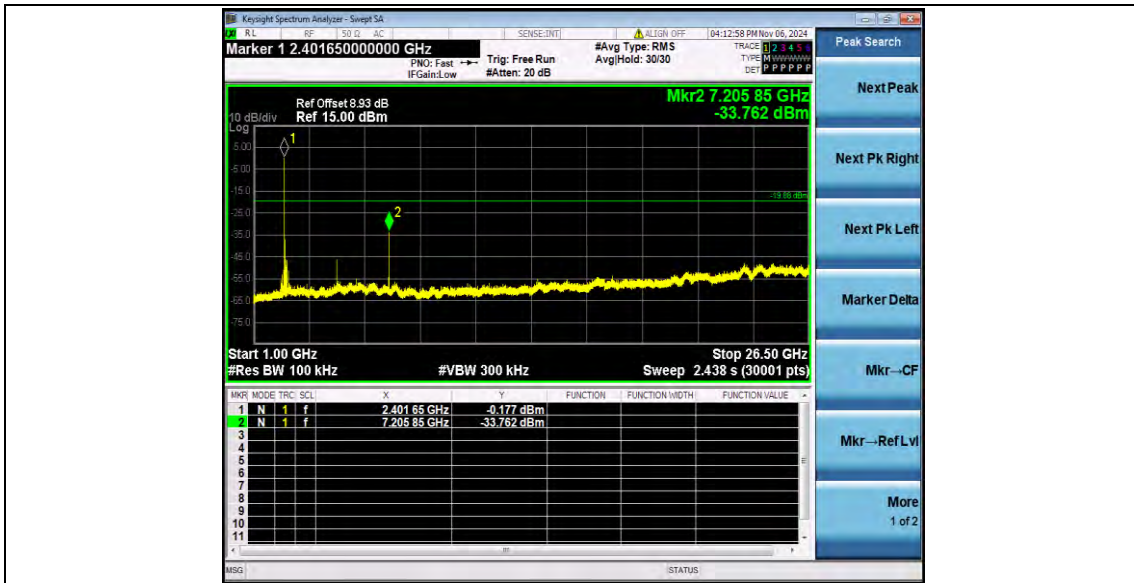
Appendix A.8: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	0.12	0.12	---	PASS
			30~1000	0.12	-31.23	≤-19.88	PASS
			1000~26500	0.12	-33.76	≤-19.88	PASS
		2441	Reference	0.14	0.14	---	PASS
			30~1000	0.14	-46.16	≤-19.86	PASS
			1000~26500	0.14	-38.19	≤-19.86	PASS
		2480	Reference	-0.60	-0.60	---	PASS
			30~1000	-0.60	-45.28	≤-20.6	PASS
			1000~26500	-0.60	-36.55	≤-20.6	PASS
2DH1	Ant1	2402	Reference	-0.34	-0.34	---	PASS
			30~1000	-0.34	-34.45	≤-20.34	PASS
			1000~26500	-0.34	-35.24	≤-20.34	PASS
		2441	Reference	-0.16	-0.16	---	PASS
			30~1000	-0.16	-43.95	≤-20.16	PASS
			1000~26500	-0.16	-36.98	≤-20.16	PASS
		2480	Reference	-0.70	-0.70	---	PASS
			30~1000	-0.70	-48.36	≤-20.7	PASS
			1000~26500	-0.70	-36.59	≤-20.7	PASS
3DH1	Ant1	2402	Reference	0.49	0.49	---	PASS
			30~1000	0.49	-45.23	≤-19.51	PASS
			1000~26500	0.49	-35.25	≤-19.51	PASS
		2441	Reference	0.38	0.38	---	PASS
			30~1000	0.38	-48.17	≤-19.62	PASS
			1000~26500	0.38	-37.84	≤-19.62	PASS
		2480	Reference	-0.02	-0.02	---	PASS
			30~1000	-0.02	-46.75	≤-20.02	PASS
			1000~26500	-0.02	-36.61	≤-20.02	PASS

Test Graphs

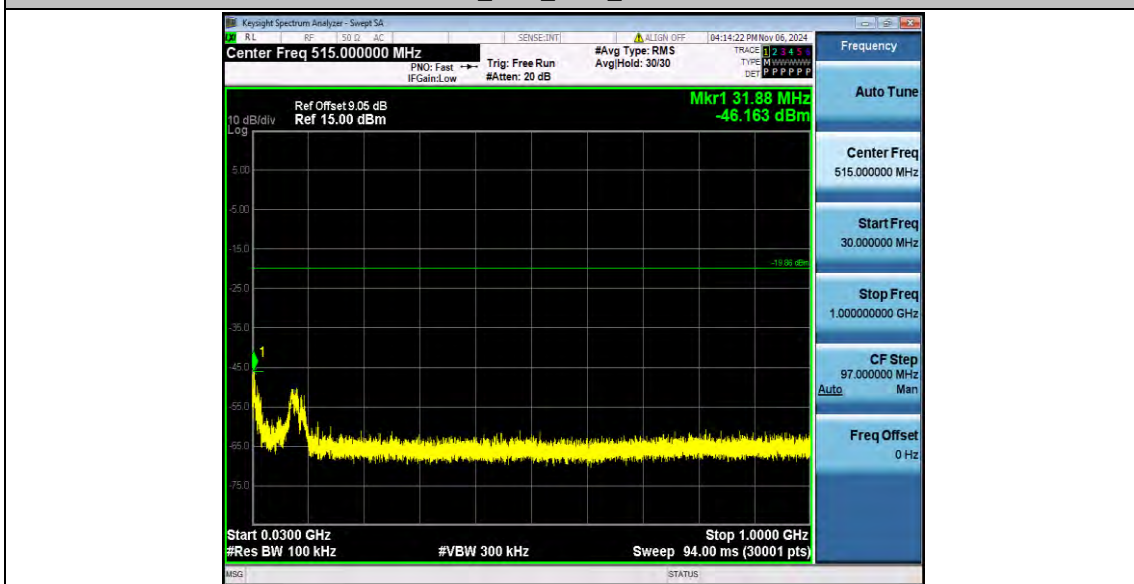




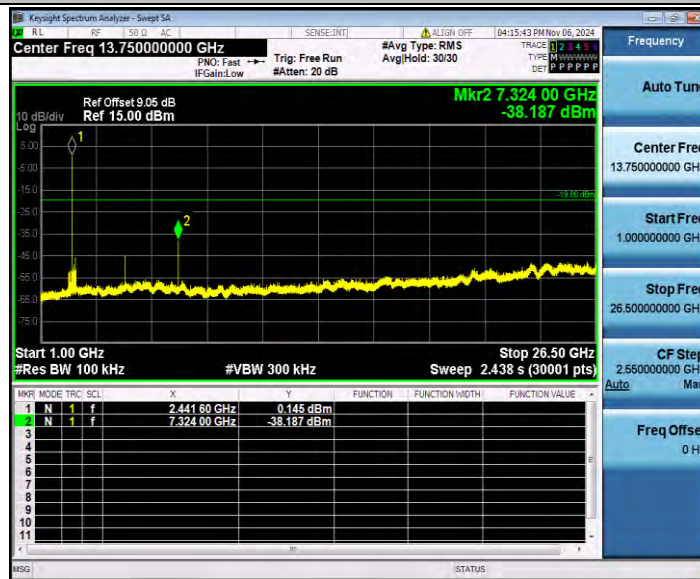
DH1_Ant1_2441_0~Reference



DH1_Ant1_2441_30~1000



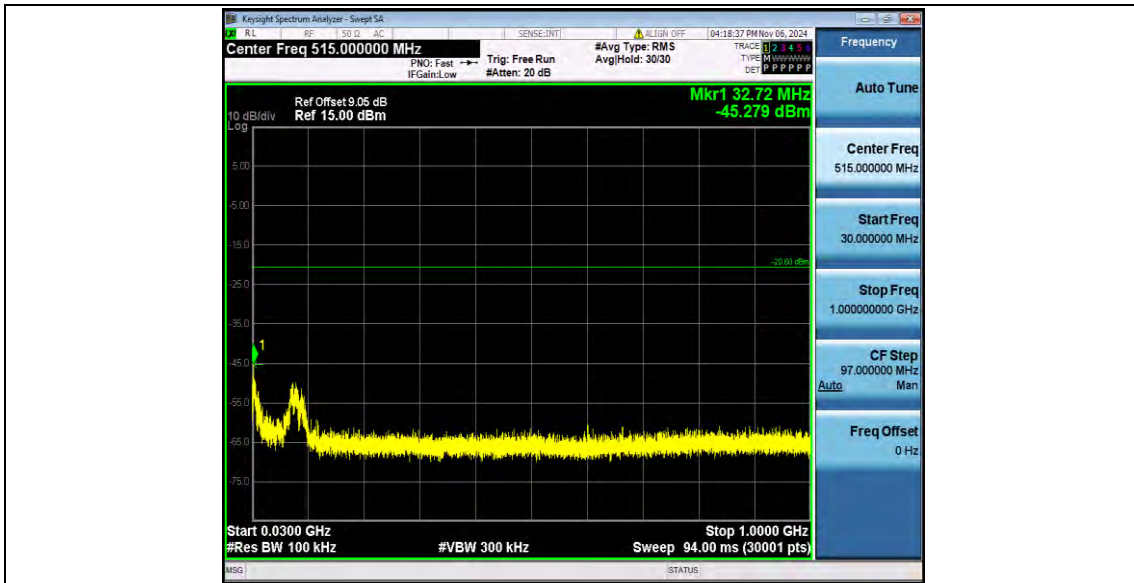
DH1_Ant1_2441_1000~26500



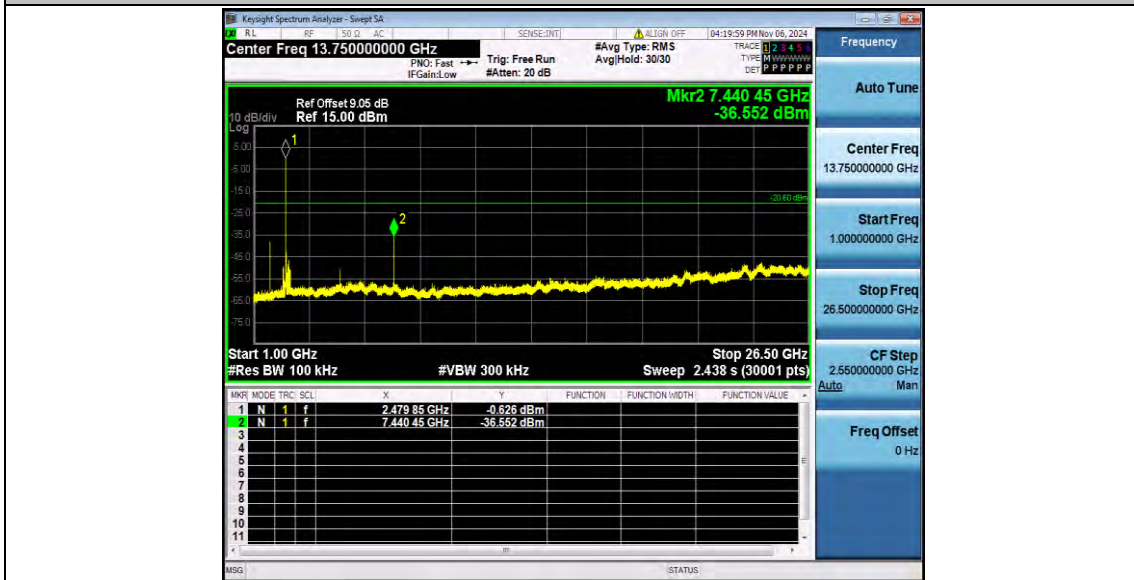
DH1_Ant1_2480_0~Reference



DH1_Ant1_2480_30~1000



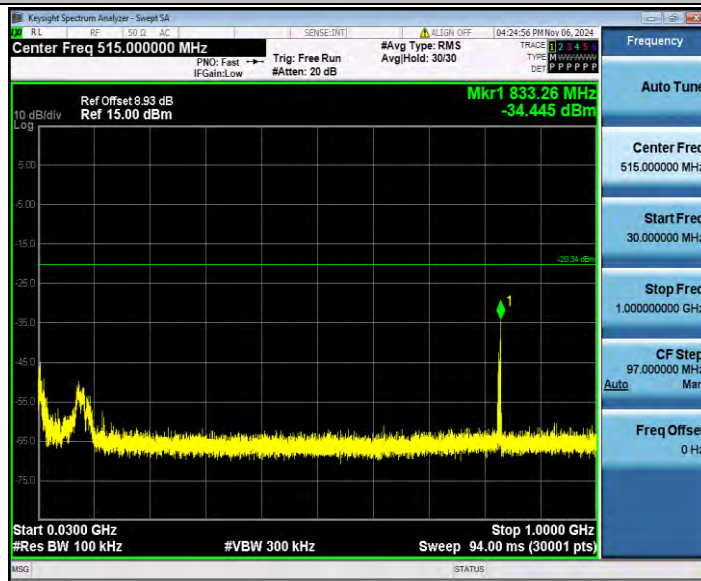
DH1_Ant1_2480_1000~26500



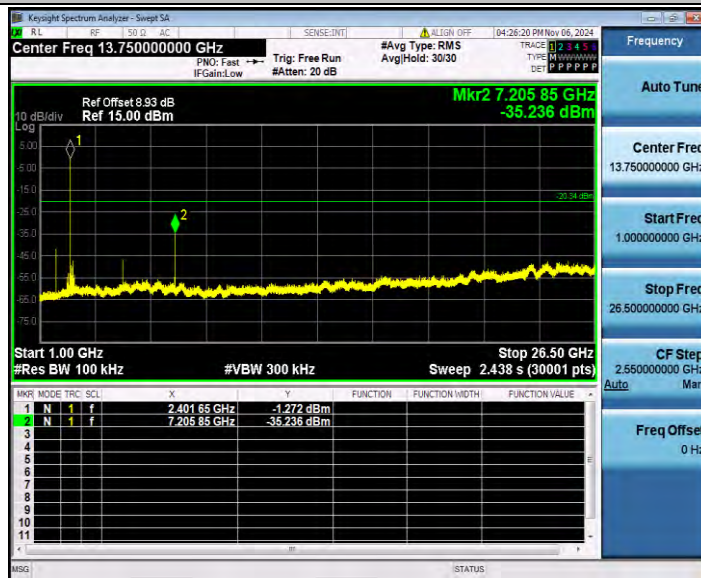
2DH1_Ant1_2402_0~Reference



2DH1_Ant1_2402_30~1000



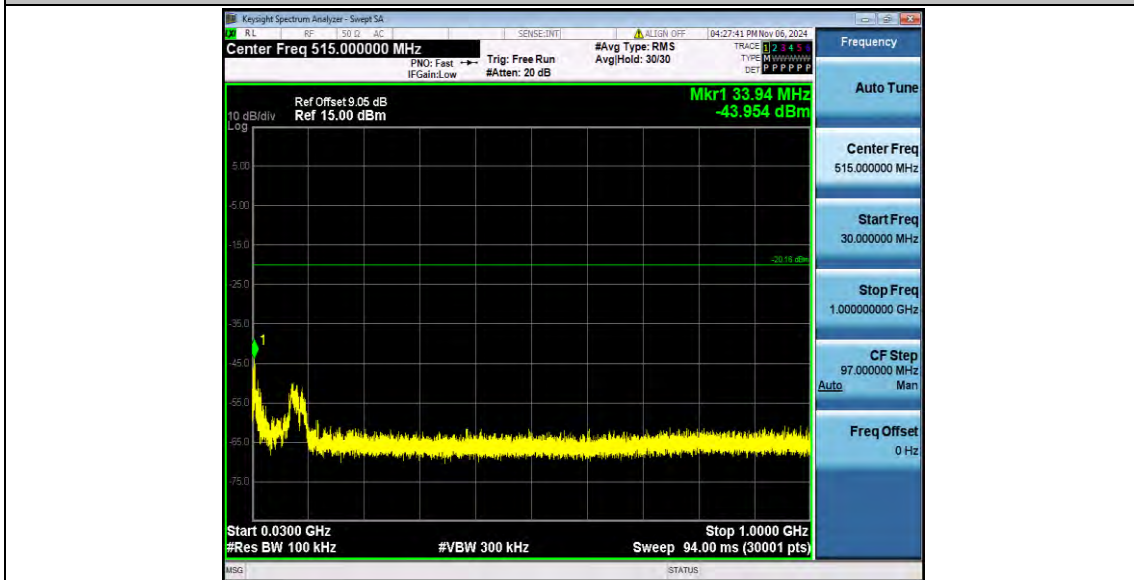
2DH1_Ant1_2402_1000~26500



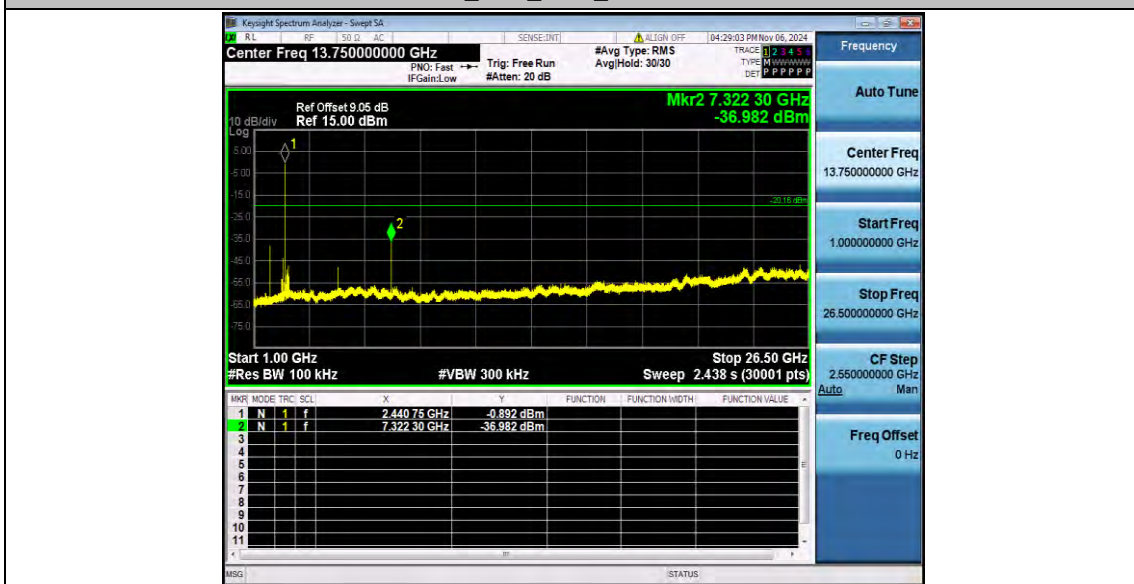
2DH1_Ant1_2441_0~Reference



2DH1_Ant1_2441_30~100



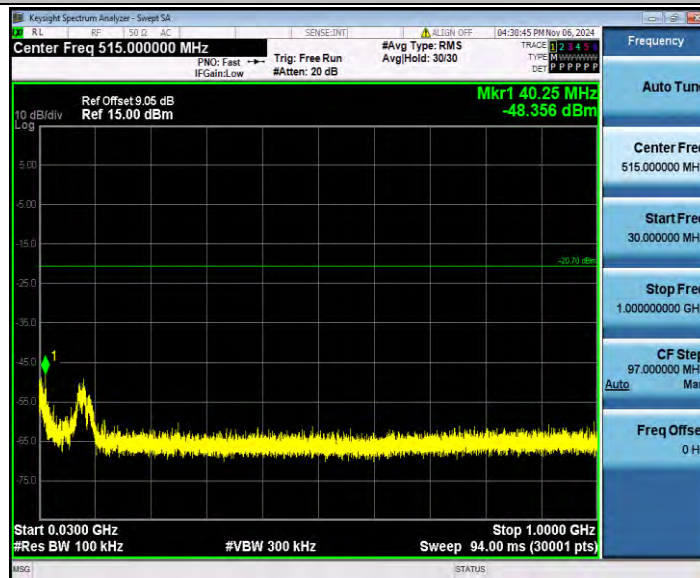
2DH1_Ant1_2441_1000~26500



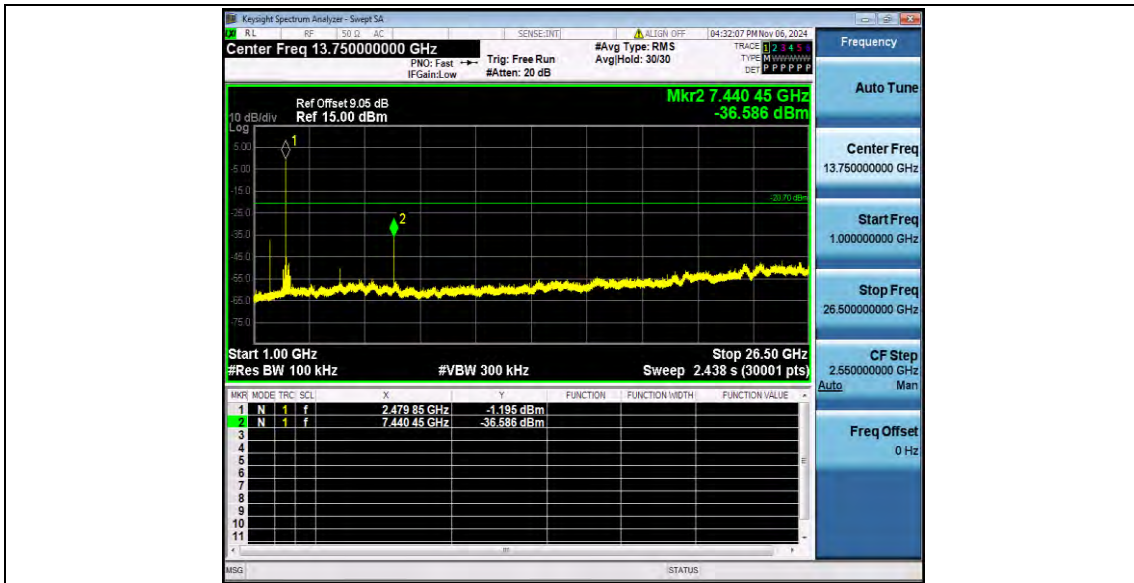
2DH1_Ant1_2480_0~Reference



2DH1_Ant1_2480_30~1000



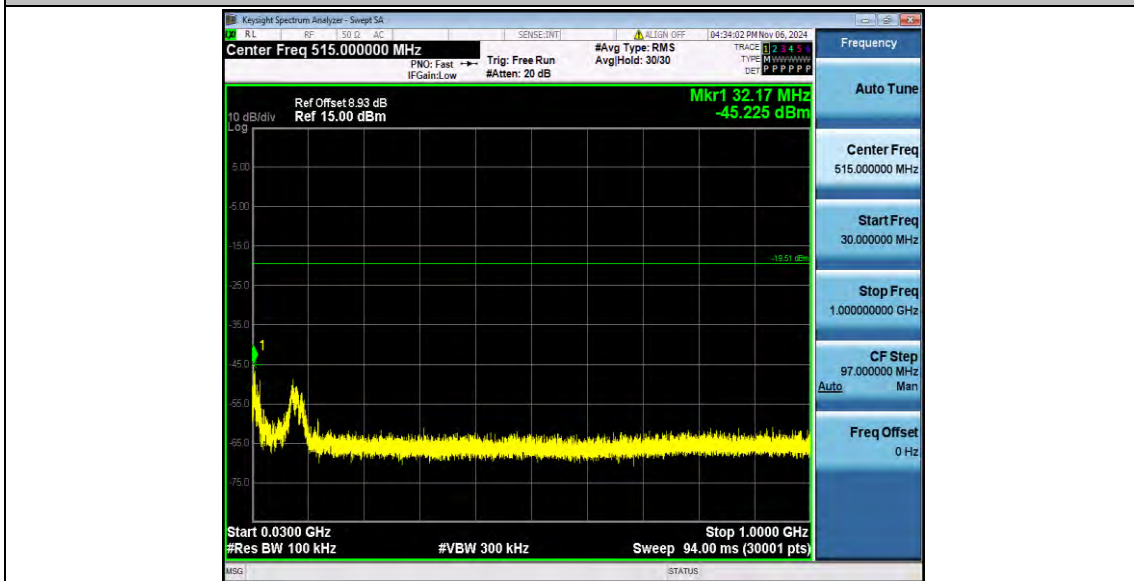
2DH1_Ant1_2480_1000~26500



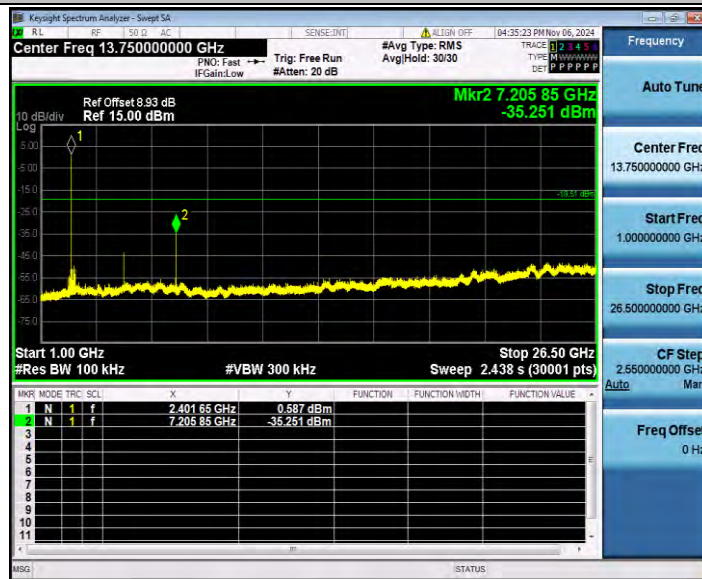
3DH1_Ant1_2402_0~Reference



3DH1_Ant1_2402_30~1000



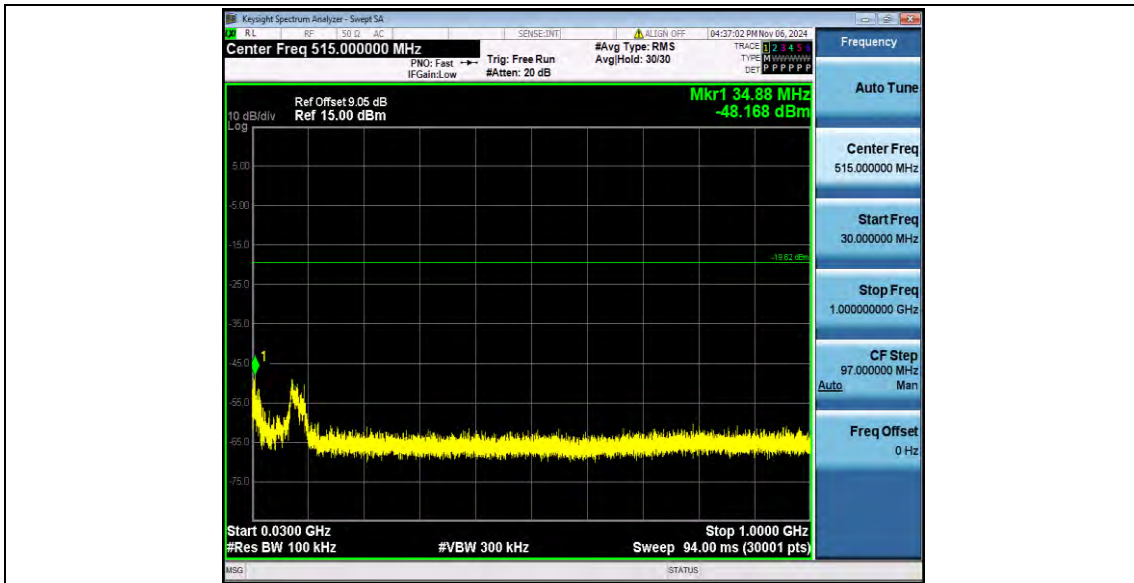
3DH1_Ant1_2402_1000~26500



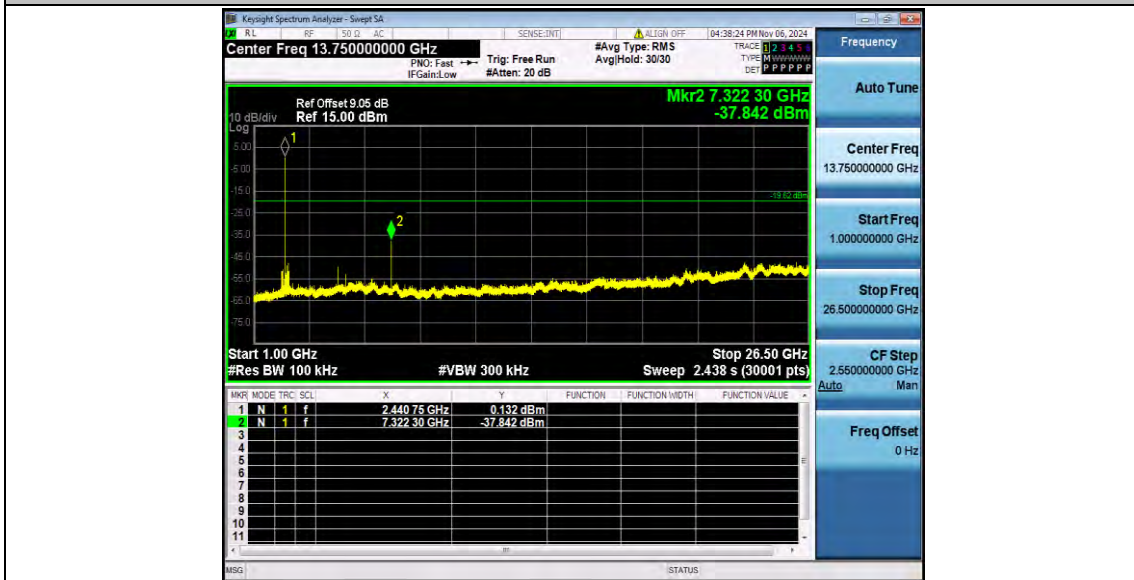
3DH1_Ant1_2441_0~Reference



3DH1_Ant1_2441_30~1000



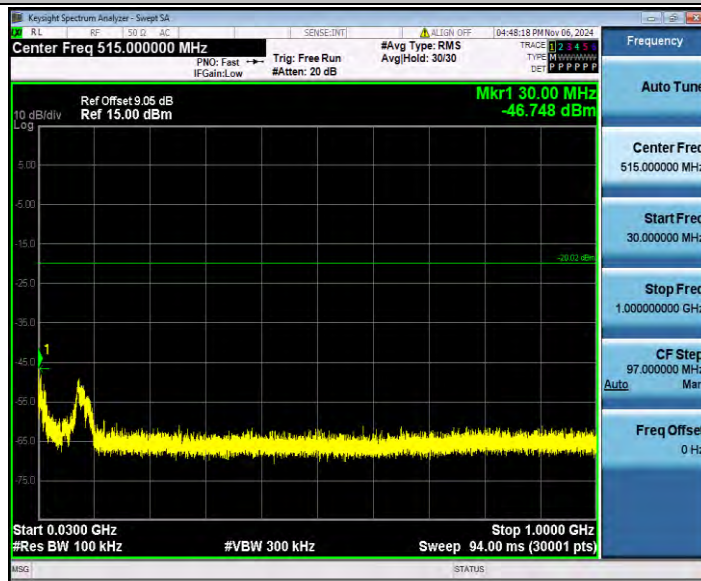
3DH1_Ant1_2441_1000~26500



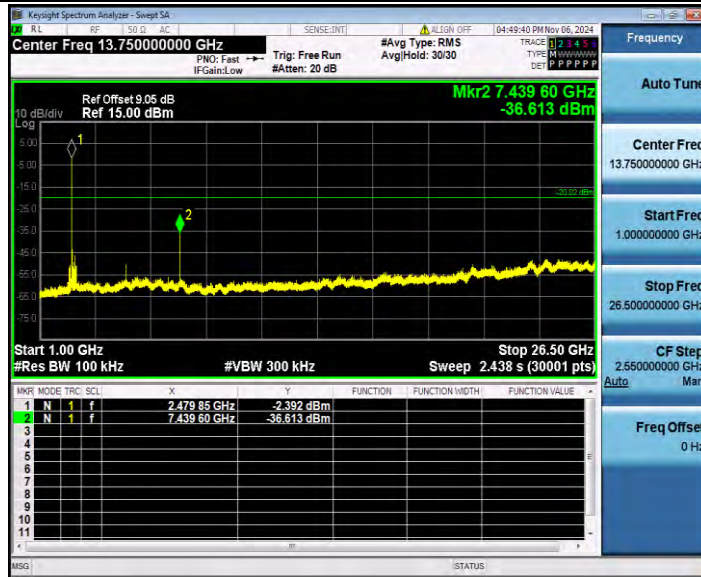
3DH1_Ant1_2480_0~Reference



3DH1_Ant1_2480_30~1000



3DH1_Ant1_2480_1000~26500



Appendix A.9: Emissions in Restricted Bands

Test Result

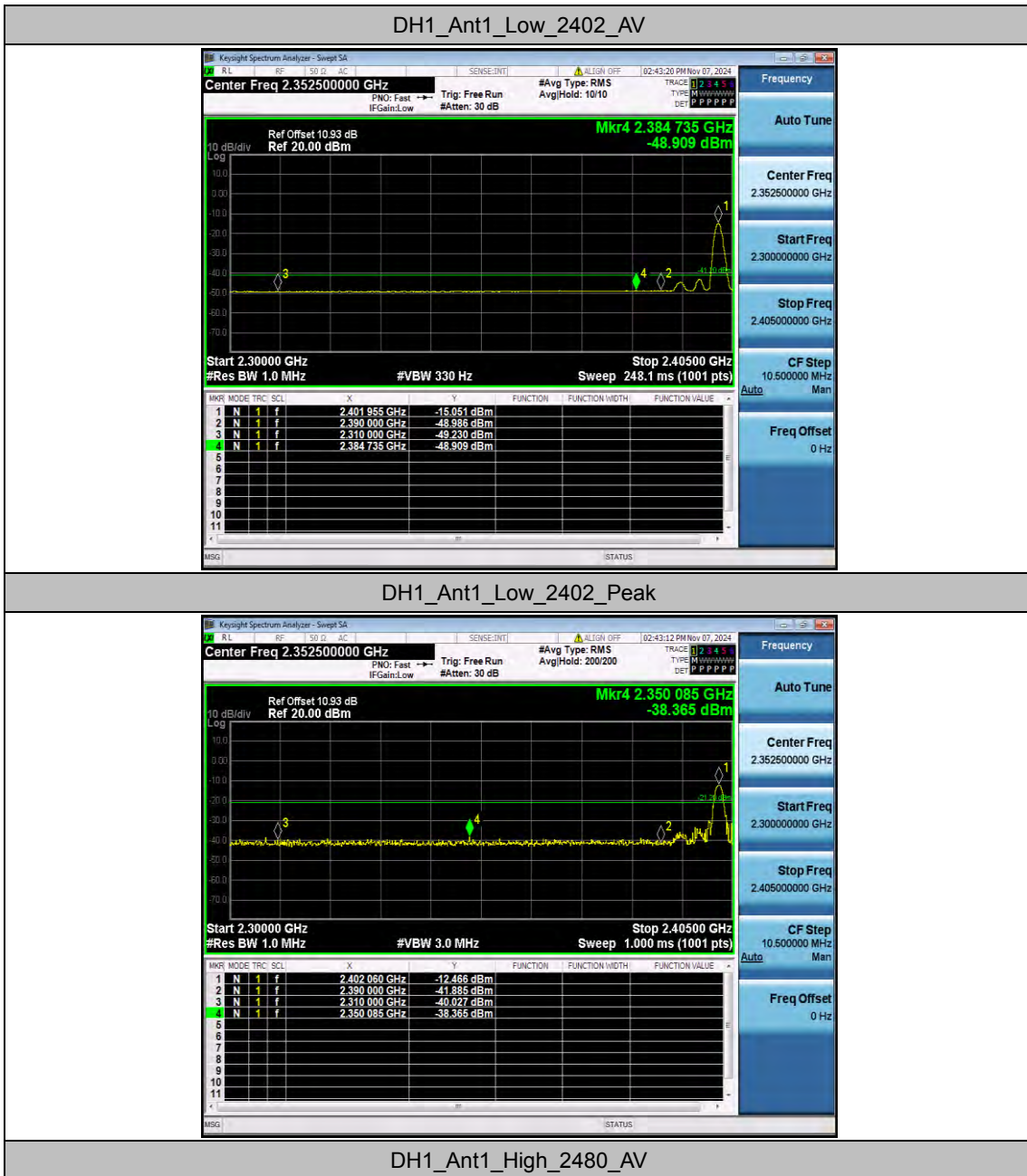
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH1	Ant1	Low	2402	AV	2310.000	-49.23	≤-41.20	45.97	≤54	PASS
				AV	2384.735	-48.91	≤-41.20	46.29	≤54	PASS
				AV	2390.000	-48.99	≤-41.20	46.21	≤54	PASS
				Peak	2310.000	-40.03	≤-21.20	55.17	≤74	PASS
				Peak	2350.085	-38.37	≤-21.20	56.83	≤74	PASS
				Peak	2390.000	-41.89	≤-21.20	53.31	≤74	PASS
		High	2480	AV	2483.500	-48.82	≤-41.20	46.38	≤54	PASS
				AV	2498.080	-48.67	≤-41.20	46.53	≤54	PASS
				AV	2500.000	-48.78	≤-41.20	46.42	≤54	PASS
				Peak	2483.500	-41.98	≤-21.20	53.22	≤74	PASS
				Peak	2483.680	-35.49	≤-21.20	59.71	≤74	PASS
				Peak	2500.000	-41.13	≤-21.20	54.07	≤74	PASS
2DH1	Ant1	Low	2402	AV	2310.000	-49.43	≤-41.20	45.77	≤54	PASS
				AV	2386.520	-48.93	≤-41.20	46.27	≤54	PASS
				AV	2390.000	-49.15	≤-41.20	46.05	≤54	PASS
				Peak	2310.000	-43.74	≤-21.20	51.46	≤74	PASS
				Peak	2373.920	-38.82	≤-21.20	56.38	≤74	PASS
				Peak	2390.000	-43.04	≤-21.20	52.16	≤74	PASS
		High	2480	AV	2483.500	-48.91	≤-41.20	46.29	≤54	PASS
				AV	2499.440	-48.55	≤-41.20	46.65	≤54	PASS
				AV	2500.000	-48.83	≤-41.20	46.37	≤54	PASS
				Peak	2483.500	-40.07	≤-21.20	55.13	≤74	PASS
				Peak	2492.960	-38.62	≤-21.20	56.58	≤74	PASS
				Peak	2500.000	-39.9	≤-21.20	55.30	≤74	PASS
3DH1	Ant1	Low	2402	AV	2310.000	-49.26	≤-41.20	45.94	≤54	PASS
				AV	2389.670	-48.78	≤-41.20	46.42	≤54	PASS
				AV	2390.000	-49.11	≤-41.20	46.09	≤54	PASS
				Peak	2310.000	-44.09	≤-21.20	51.11	≤74	PASS
				Peak	2348.195	-40.02	≤-21.20	55.18	≤74	PASS
				Peak	2390.000	-43.49	≤-21.20	51.71	≤74	PASS
		High	2480	AV	2483.500	-48.85	≤-41.20	46.35	≤54	PASS
				AV	2499.360	-48.62	≤-41.20	46.58	≤54	PASS
				AV	2500.000	-48.76	≤-41.20	46.44	≤54	PASS
				Peak	2483.500	-40.32	≤-21.20	54.88	≤74	PASS
Peak	2483.760	-33.94	≤-21.20	61.26	≤74	PASS				

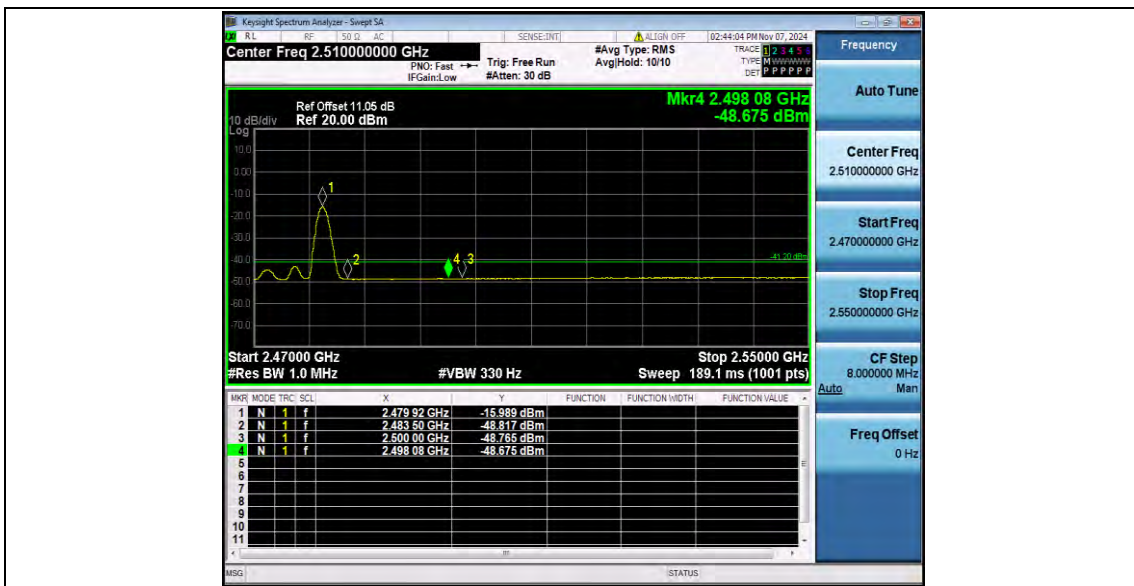
				Peak	2500.000	-41.51	≤-21.20	53.69	≤74	PASS
--	--	--	--	------	----------	--------	---------	-------	-----	------

Note:

1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. 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





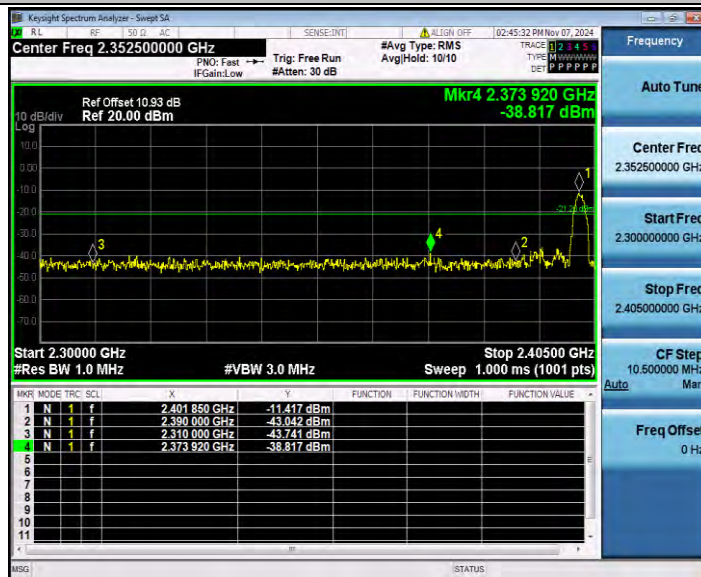
DH1_Ant1_High_2480_Peak



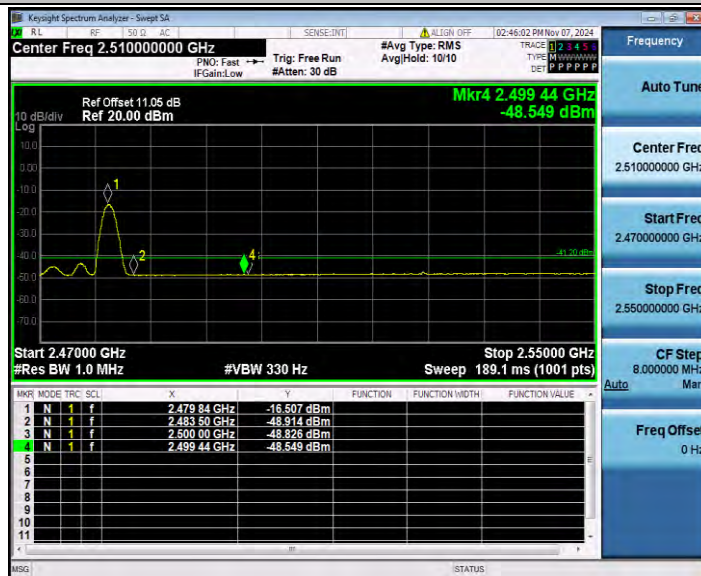
2DH1_Ant1_Low_2402_AV



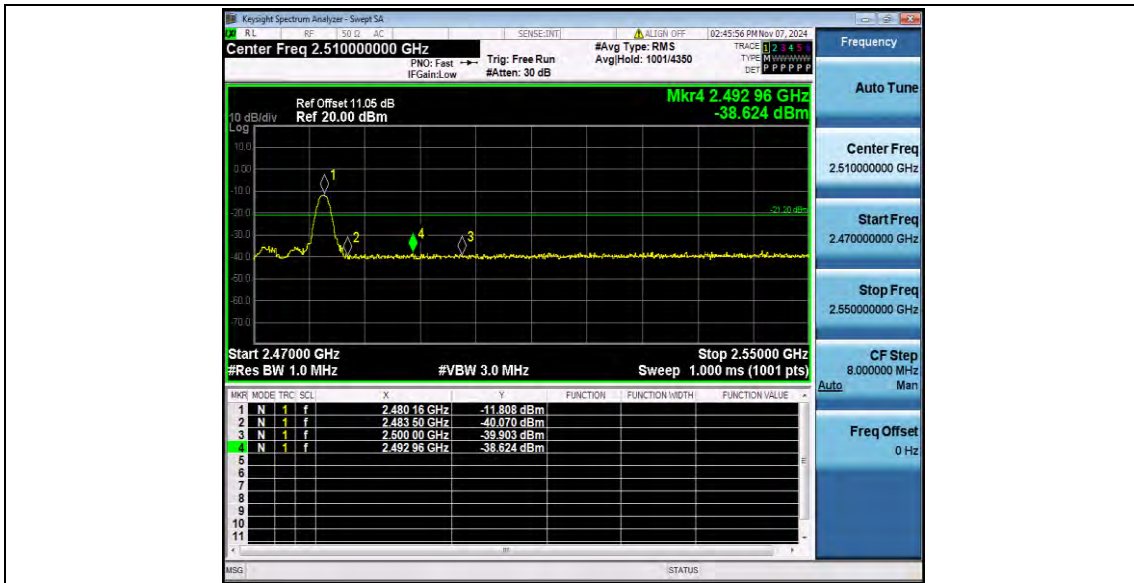
2DH1_Ant1_Low_2402_Peak



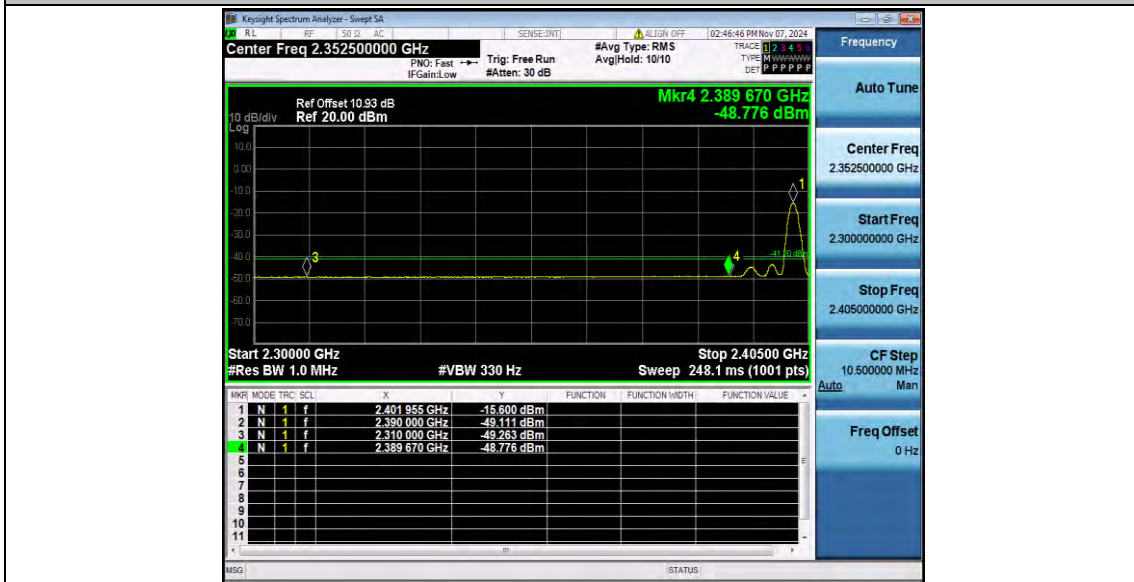
2DH1_Ant1_High_2480_AV



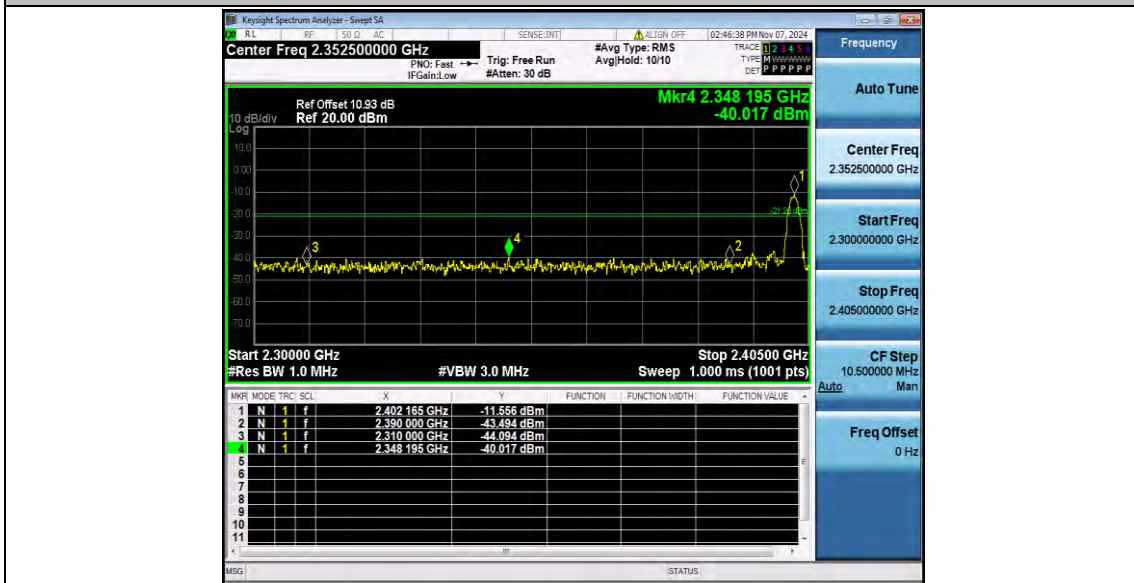
2DH1_Ant1_High_2480_Peak



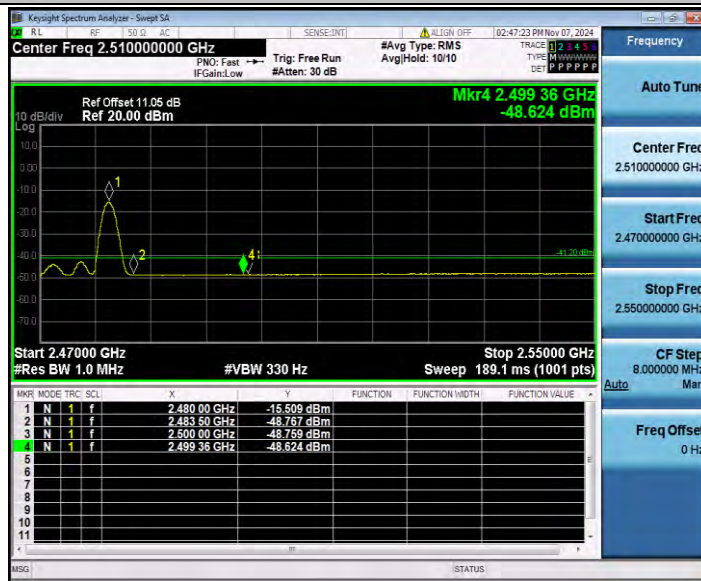
3DH1_Ant1_Low_2402_AV



3DH1_Ant1_Low_2402_Peak



3DH1_Ant1_High_2480_AV



3DH1_Ant1_High_2480_Peak

