

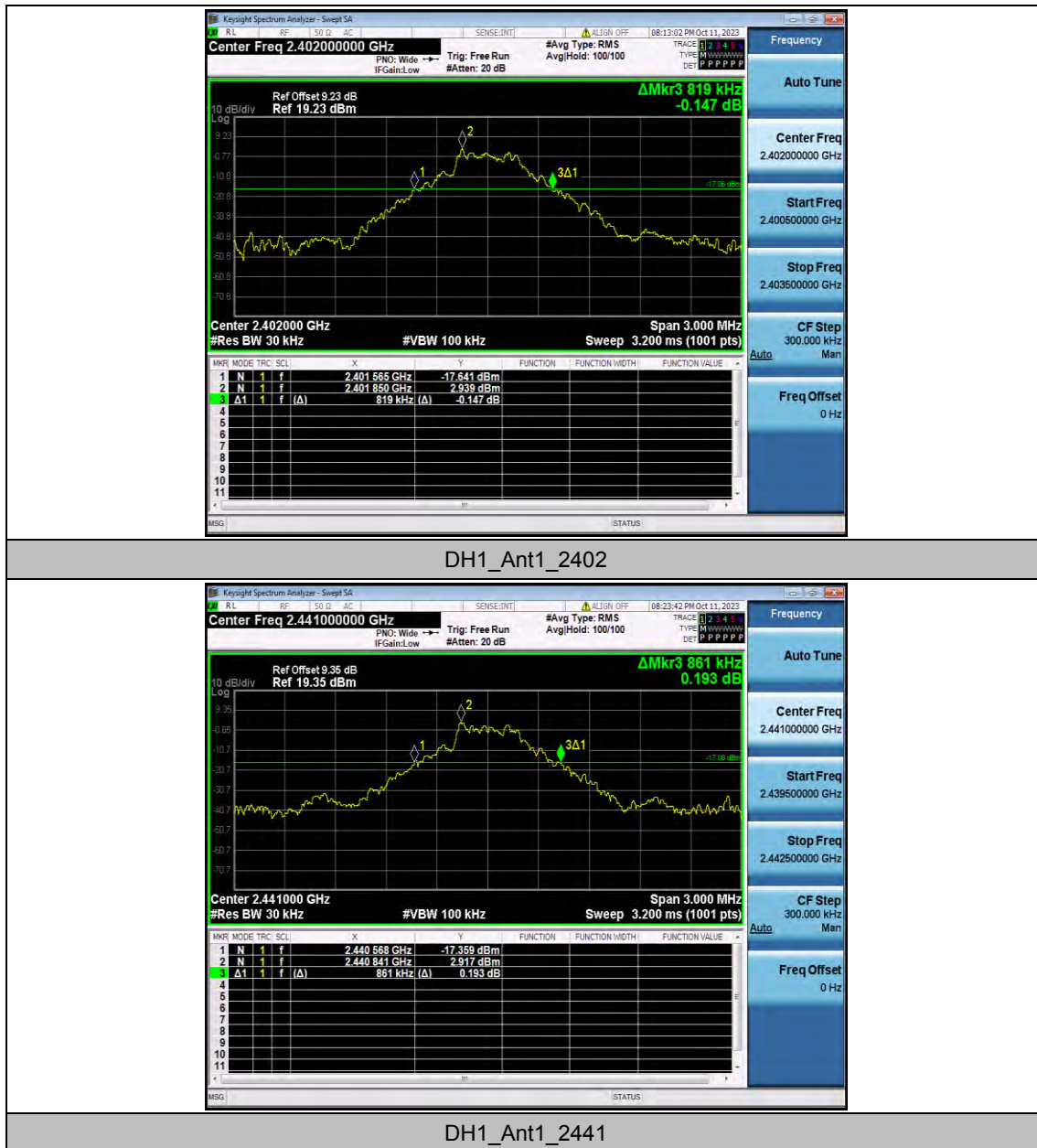
Case No. : <u>GTS20230914005-1-9</u>	
Ambient Condition: <u>24</u> °C, <u>52</u> %RH, Atmos100.1Kpa,	
Test Date: <u>2023.9.27</u>	Test Engineer: <u>Evan ouyang</u>

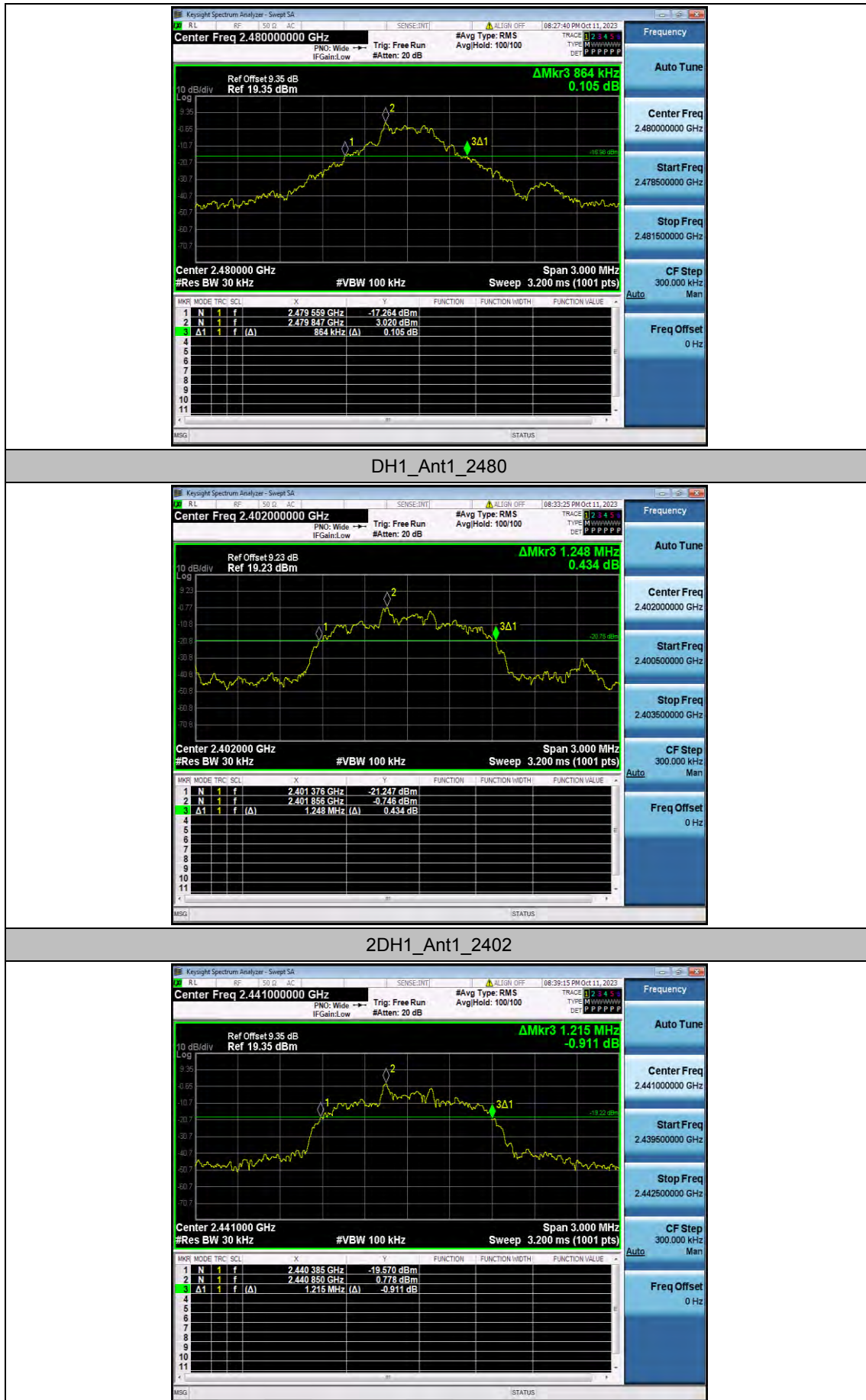
Appendix A.1: 20dB Emission Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.819	2401.565	2402.384	---	---
		2441	0.861	2440.568	2441.429	---	---
		2480	0.864	2479.559	2480.423	---	---
2DH1	Ant1	2402	1.248	2401.376	2402.624	---	---
		2441	1.215	2440.385	2441.600	---	---
		2480	1.194	2479.379	2480.573	---	---
3DH1	Ant1	2402	1.197	2401.421	2402.618	---	---
		2441	1.203	2440.415	2441.618	---	---
		2480	1.215	2479.409	2480.624	---	---

Test Graphs





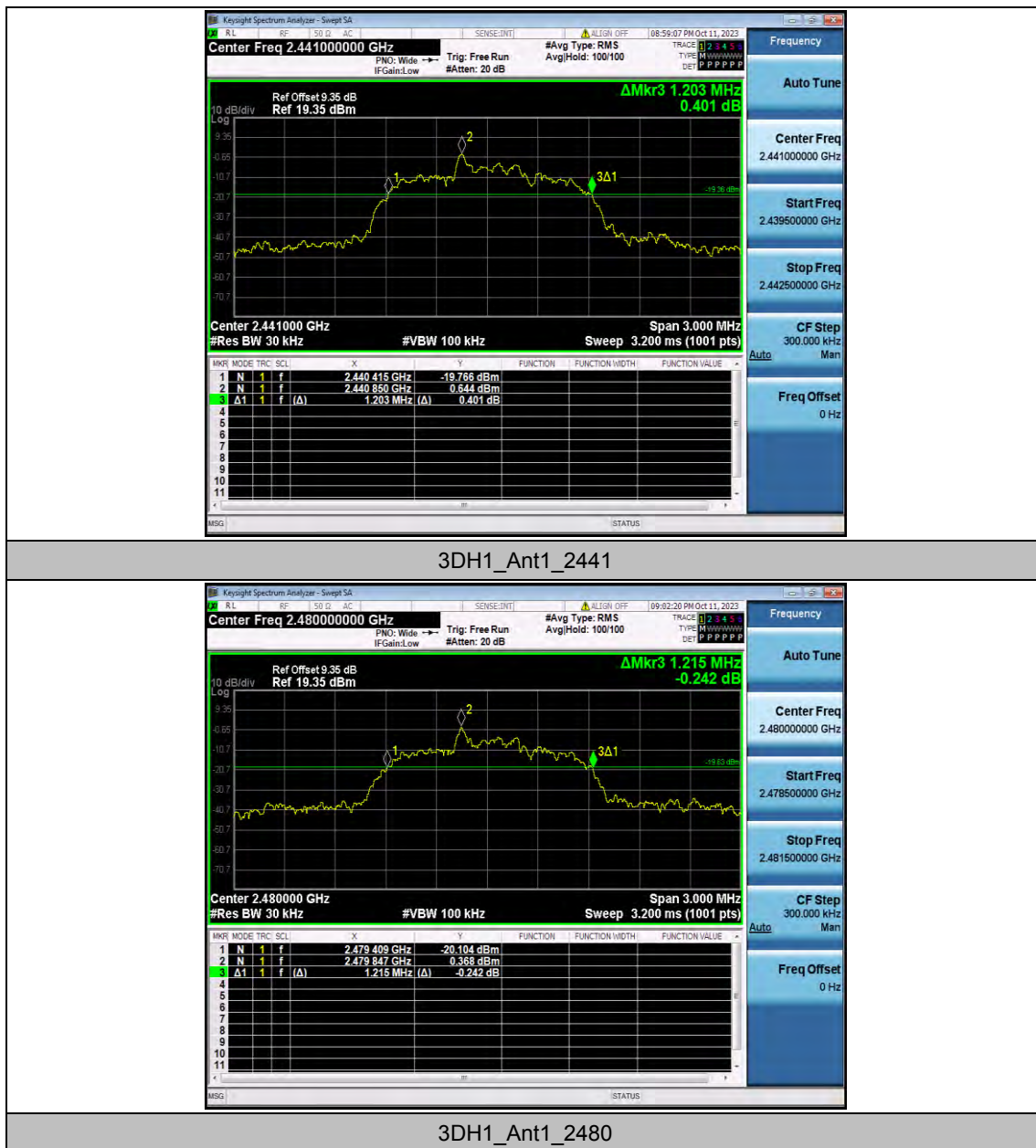
2DH1_Ant1_2441



2DH1_Ant1_2480



3DH1_Ant1_2402

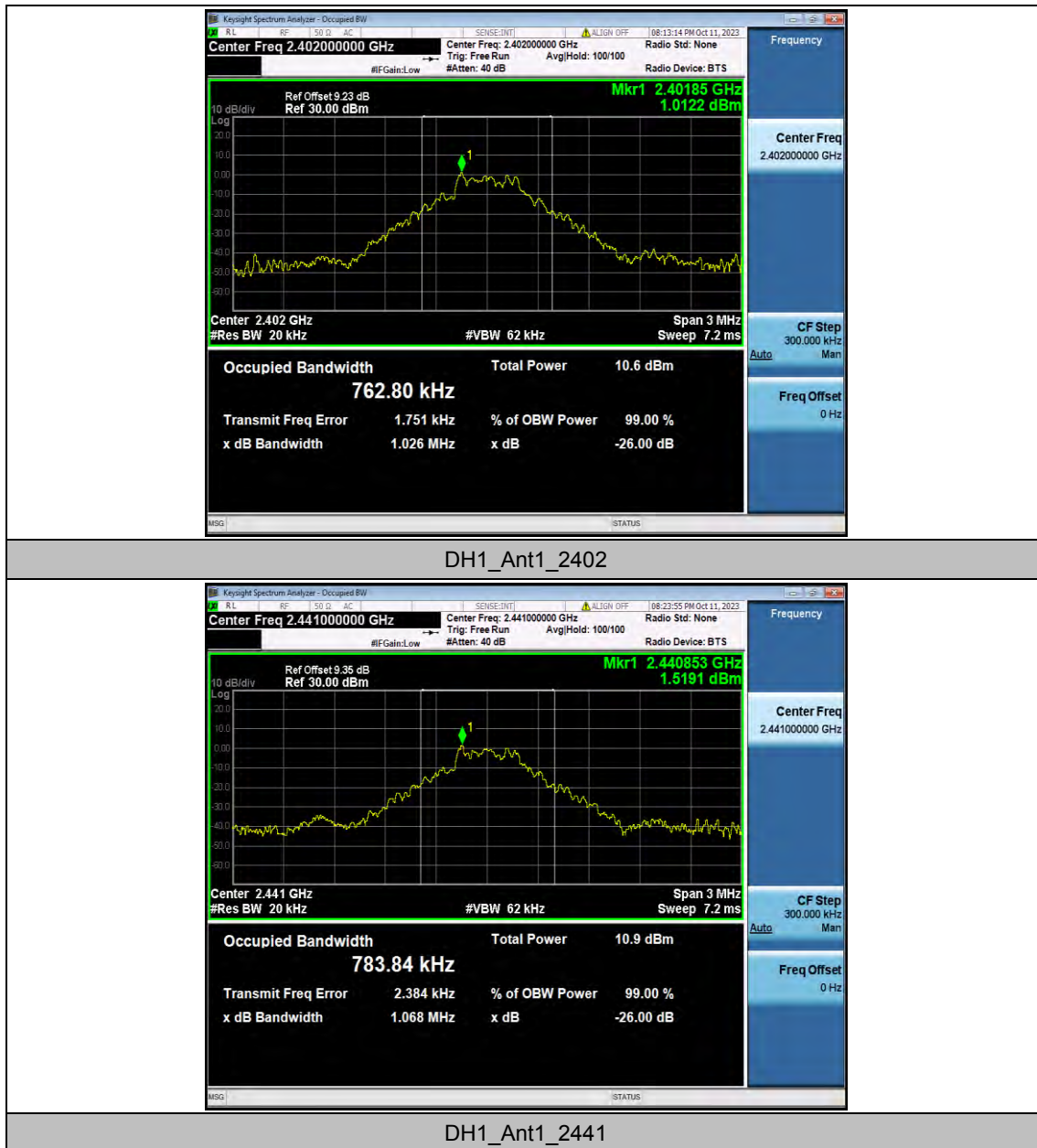


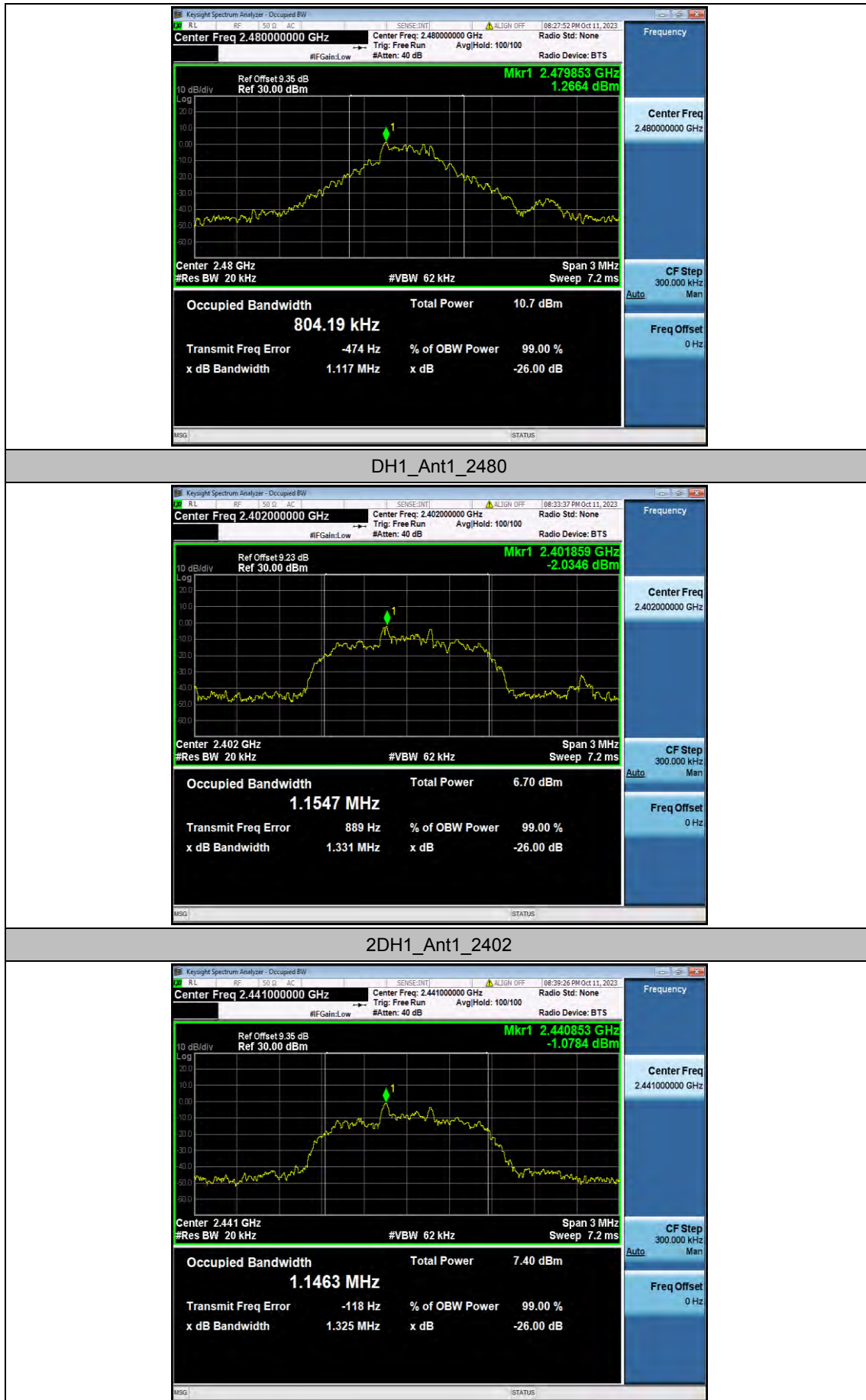
Appendix A.2: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.76280	2401.620	2402.383	---	---
		2441	0.78384	2440.610	2441.394	---	---
		2480	0.80419	2479.597	2480.402	---	---
2DH1	Ant1	2402	1.1547	2401.424	2402.578	---	---
		2441	1.1463	2440.427	2441.573	---	---
		2480	1.1578	2479.422	2480.580	---	---
3DH1	Ant1	2402	1.1440	2401.439	2402.583	---	---
		2441	1.1395	2440.442	2441.582	---	---
		2480	1.1558	2479.435	2480.591	---	---

Test Graphs





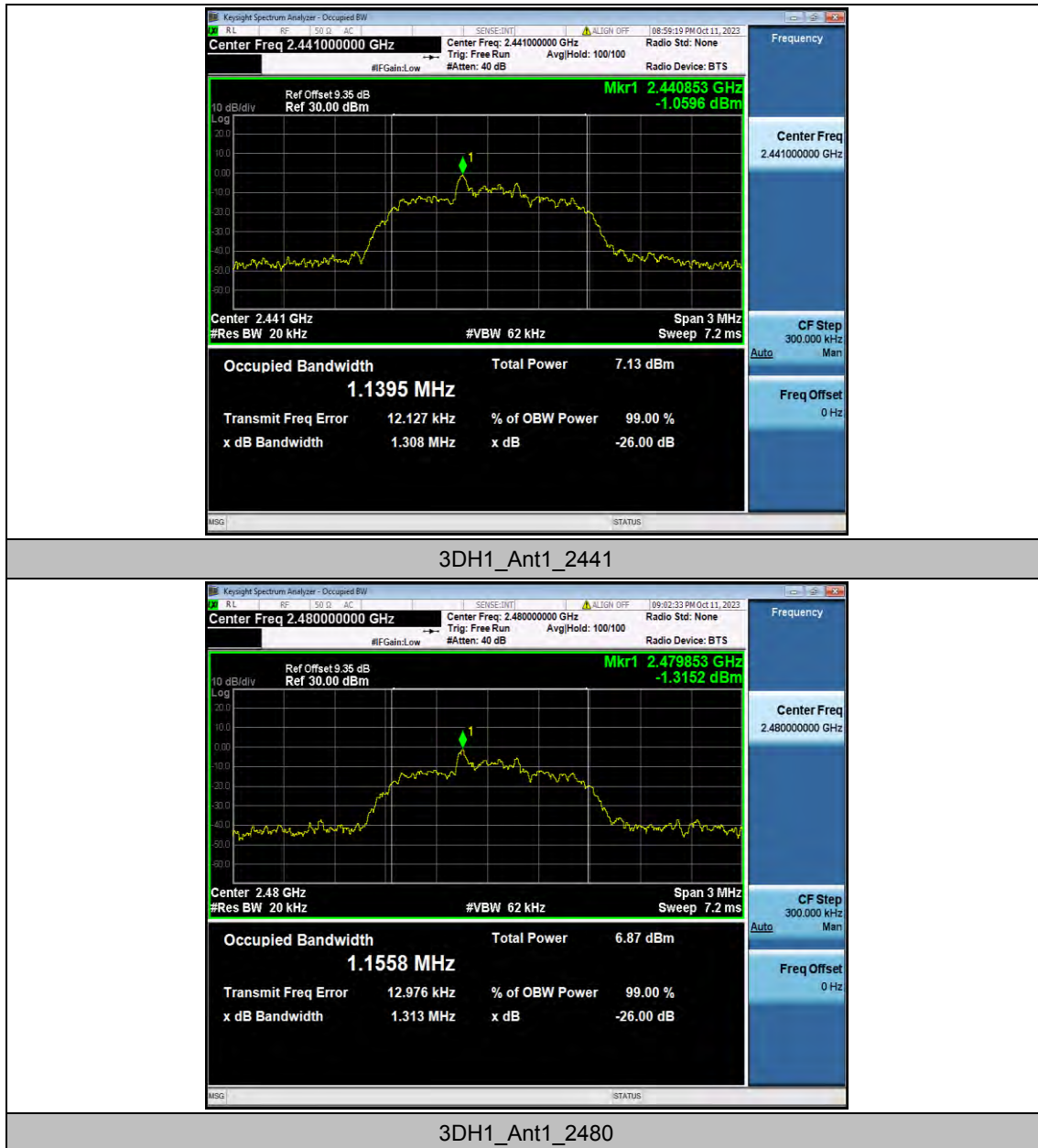
2DH1_Ant1_2441



2DH1_Ant1_2480



3DH1_Ant1_2402



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	4.17	≤20.97	PASS
		2441	4.63	≤20.97	PASS
		2480	4.4	≤20.97	PASS
2DH1	Ant1	2402	1.63	≤20.97	PASS
		2441	2.07	≤20.97	PASS
		2480	1.84	≤20.97	PASS
3DH1	Ant1	2402	1.58	≤20.97	PASS
		2441	2.07	≤20.97	PASS
		2480	1.75	≤20.97	PASS

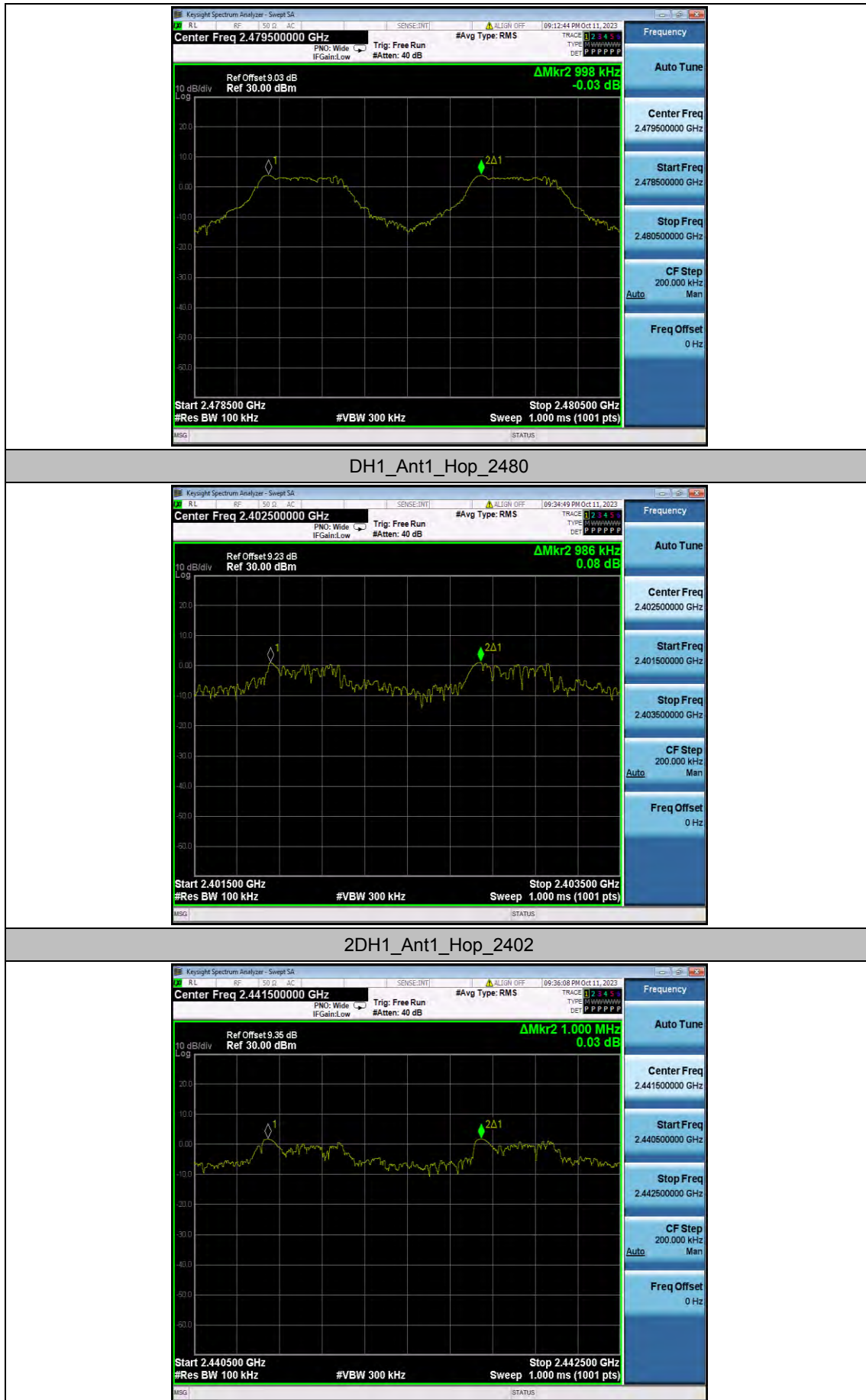
Appendix A.4: Carrier frequency separation

Test Result

Test Mode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	1	≥ 0.864	PASS
		Hop_2441	1	≥ 0.864	PASS
		Hop_2480	0.998	≥ 0.864	PASS
2DH1	Ant1	Hop_2402	0.986	≥ 0.832	PASS
		Hop_2441	1	≥ 0.832	PASS
		Hop_2480	1.002	≥ 0.832	PASS
3DH1	Ant1	Hop_2402	1	≥ 0.810	PASS
		Hop_2441	0.998	≥ 0.810	PASS
		Hop_2480	0.998	≥ 0.810	PASS

Test Graphs





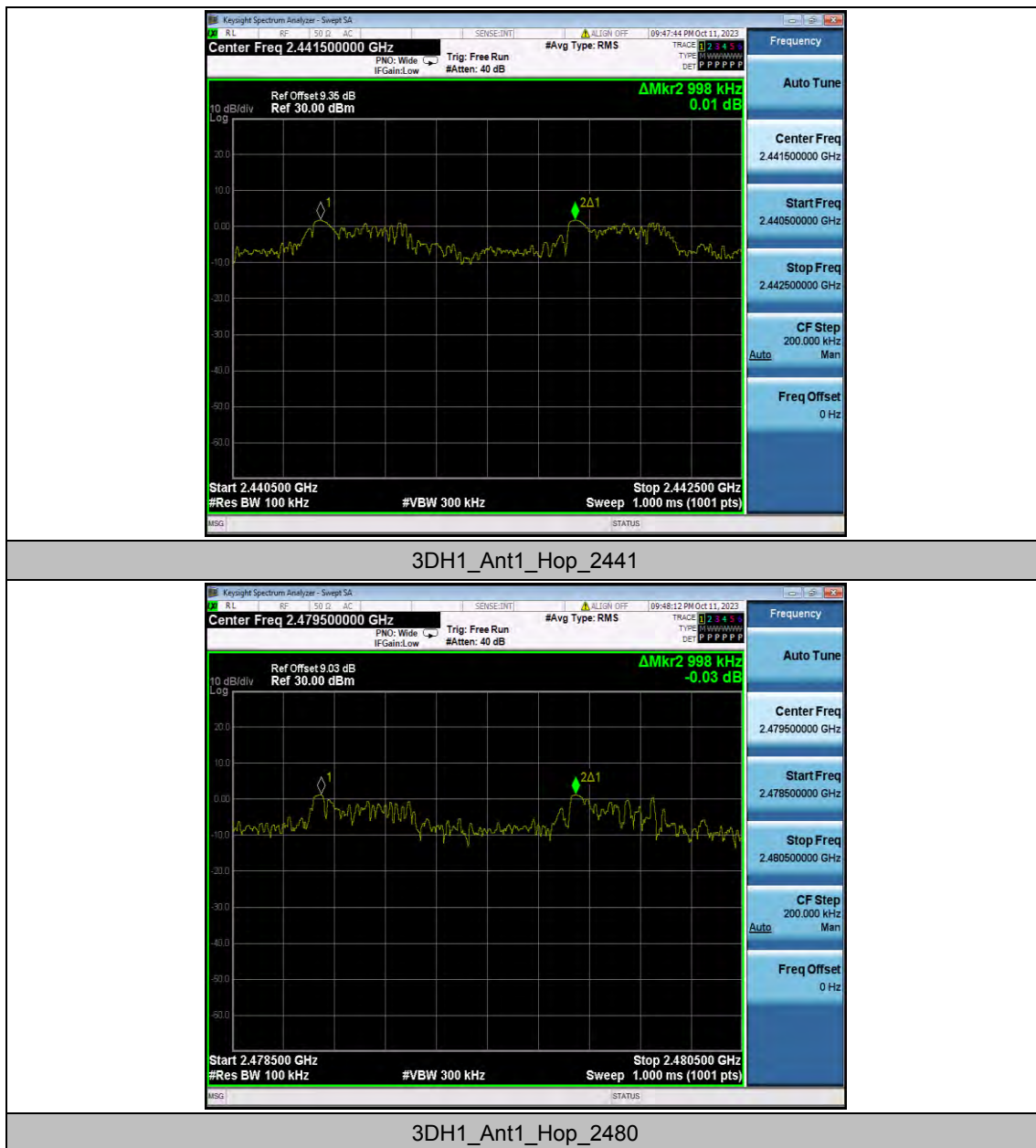
2DH1_Ant1_Hop_2441



2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402

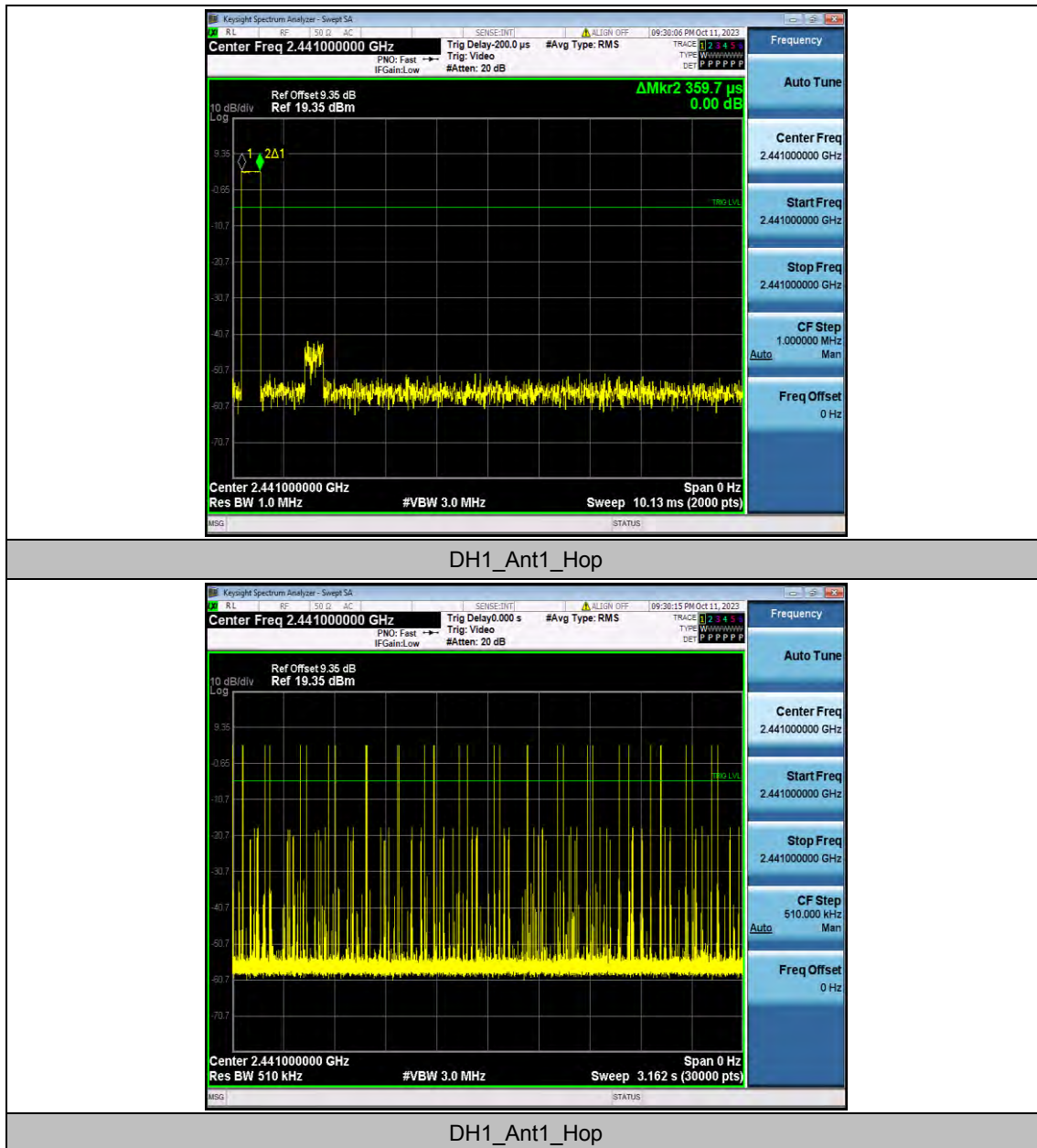


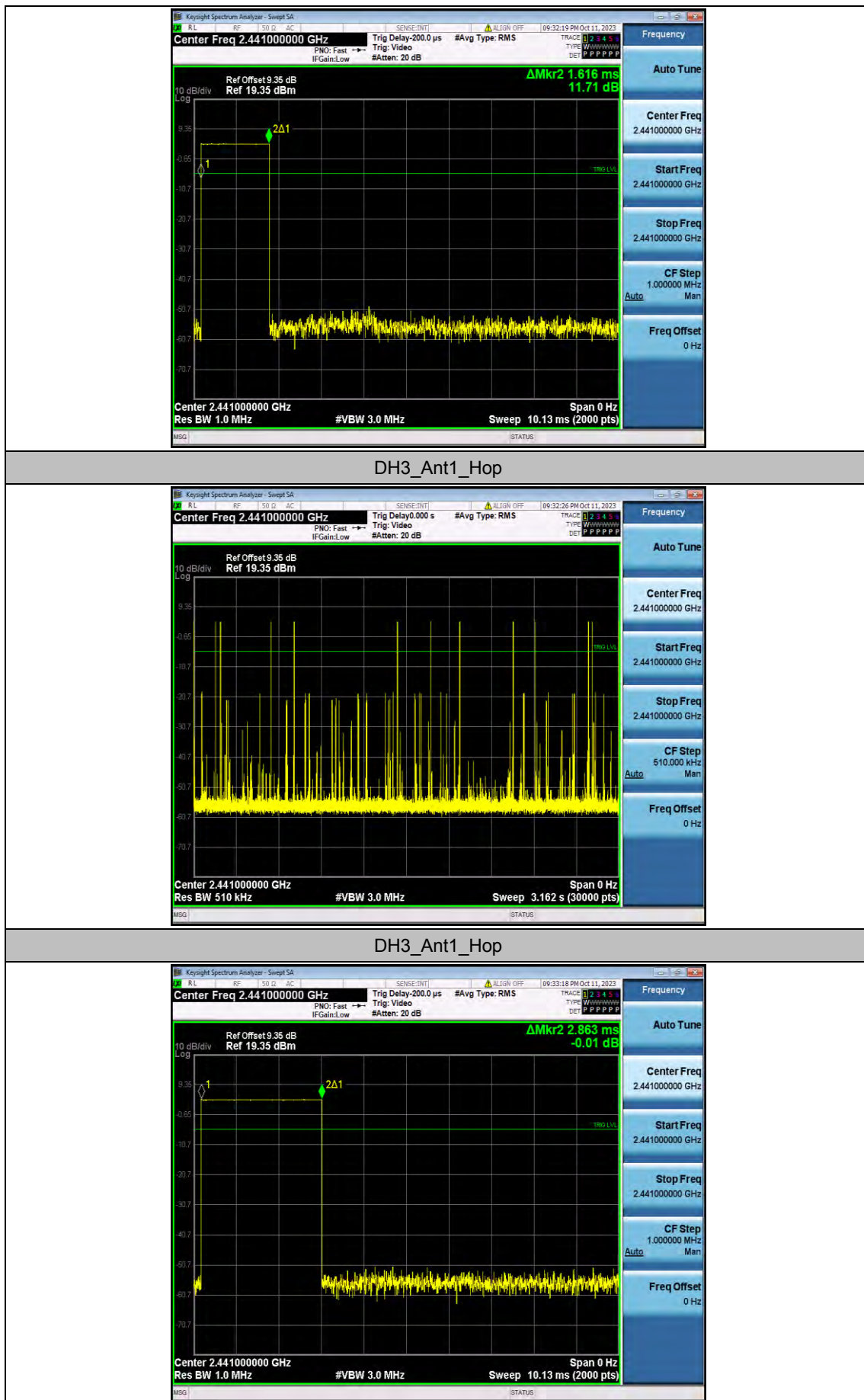
Appendix A.5: Time of occupancy

Test Result

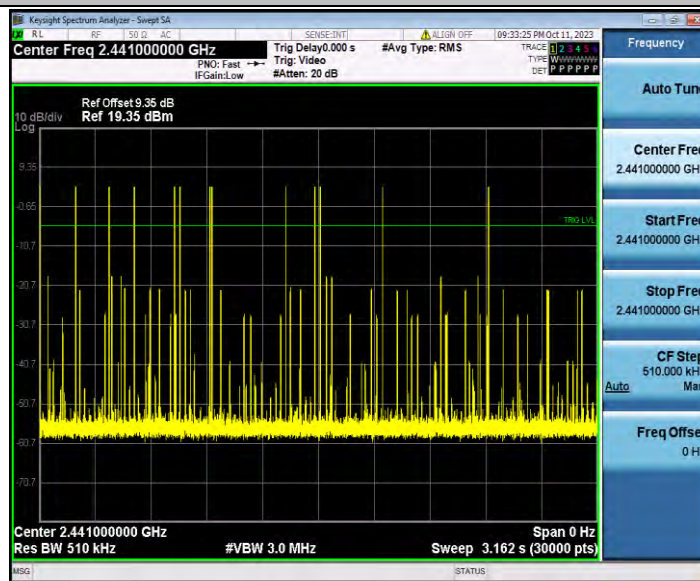
Test Mode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.36	320	0.115	≤0.4	PASS
DH3	Ant1	Hop	1.62	130	0.21	≤0.4	PASS
DH5	Ant1	Hop	2.86	130	0.372	≤0.4	PASS
2DH1	Ant1	Hop	0.36	320	0.117	≤0.4	PASS
2DH3	Ant1	Hop	1.62	180	0.292	≤0.4	PASS
2DH5	Ant1	Hop	2.87	60	0.172	≤0.4	PASS
3DH1	Ant1	Hop	0.37	330	0.122	≤0.4	PASS
3DH3	Ant1	Hop	1.62	170	0.276	≤0.4	PASS
3DH5	Ant1	Hop	2.87	90	0.259	≤0.4	PASS

Test Graphs

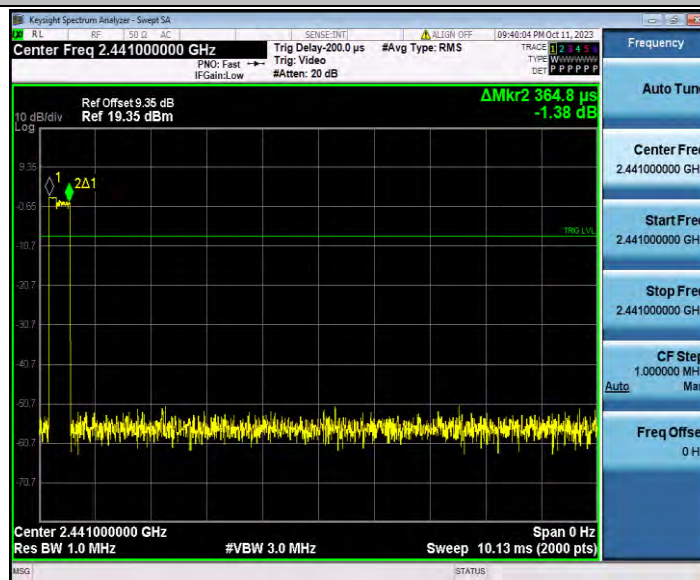




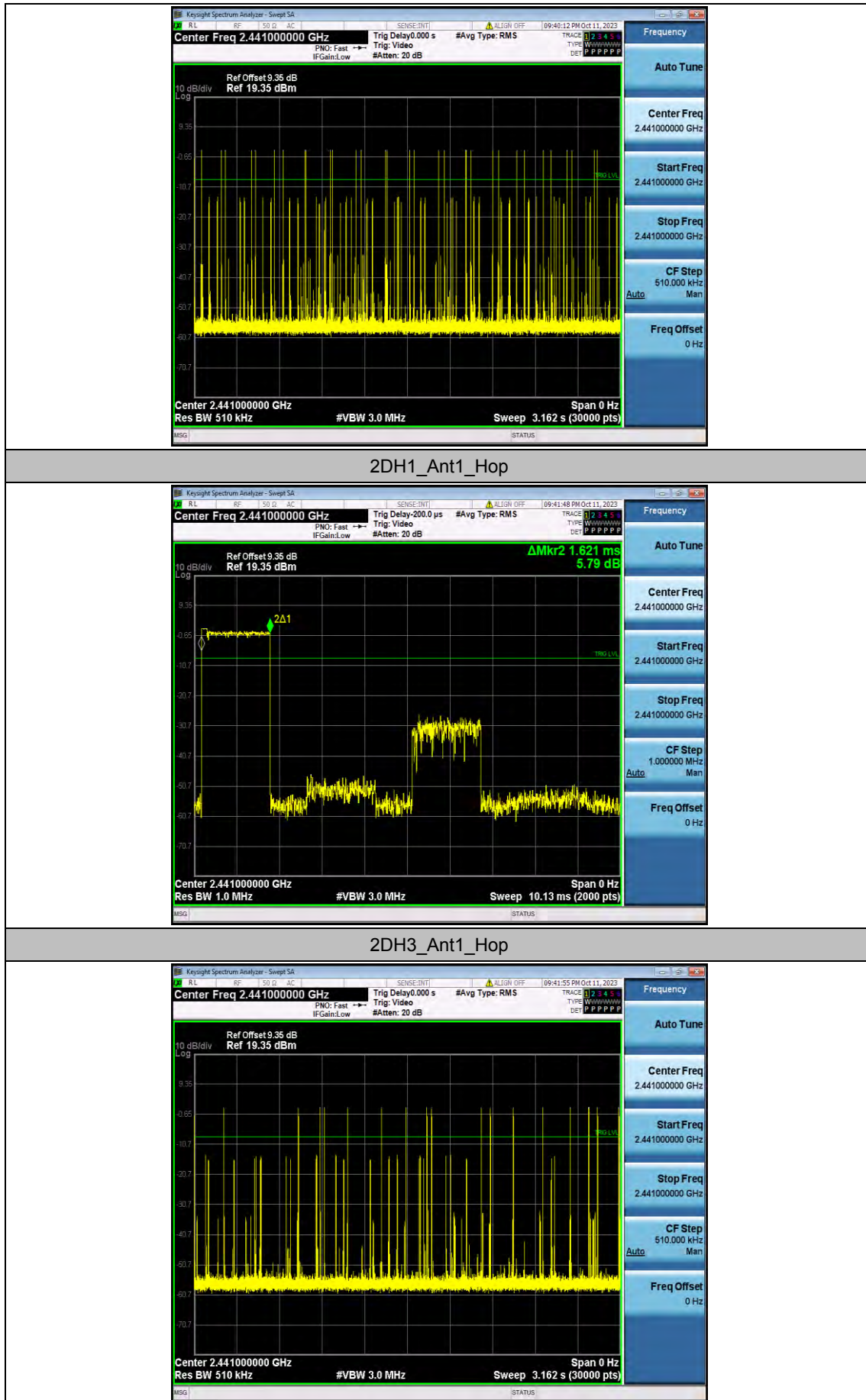
DH5_Ant1_Hop



DH5_Ant1_Hop



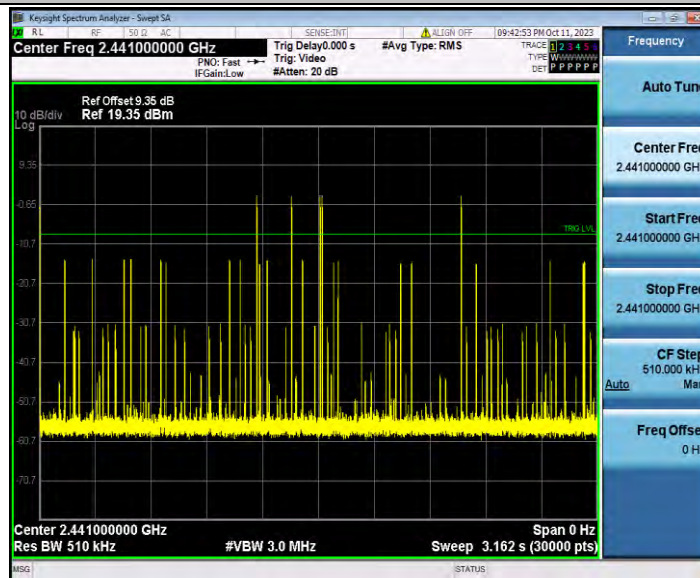
2DH1_Ant1_Hop



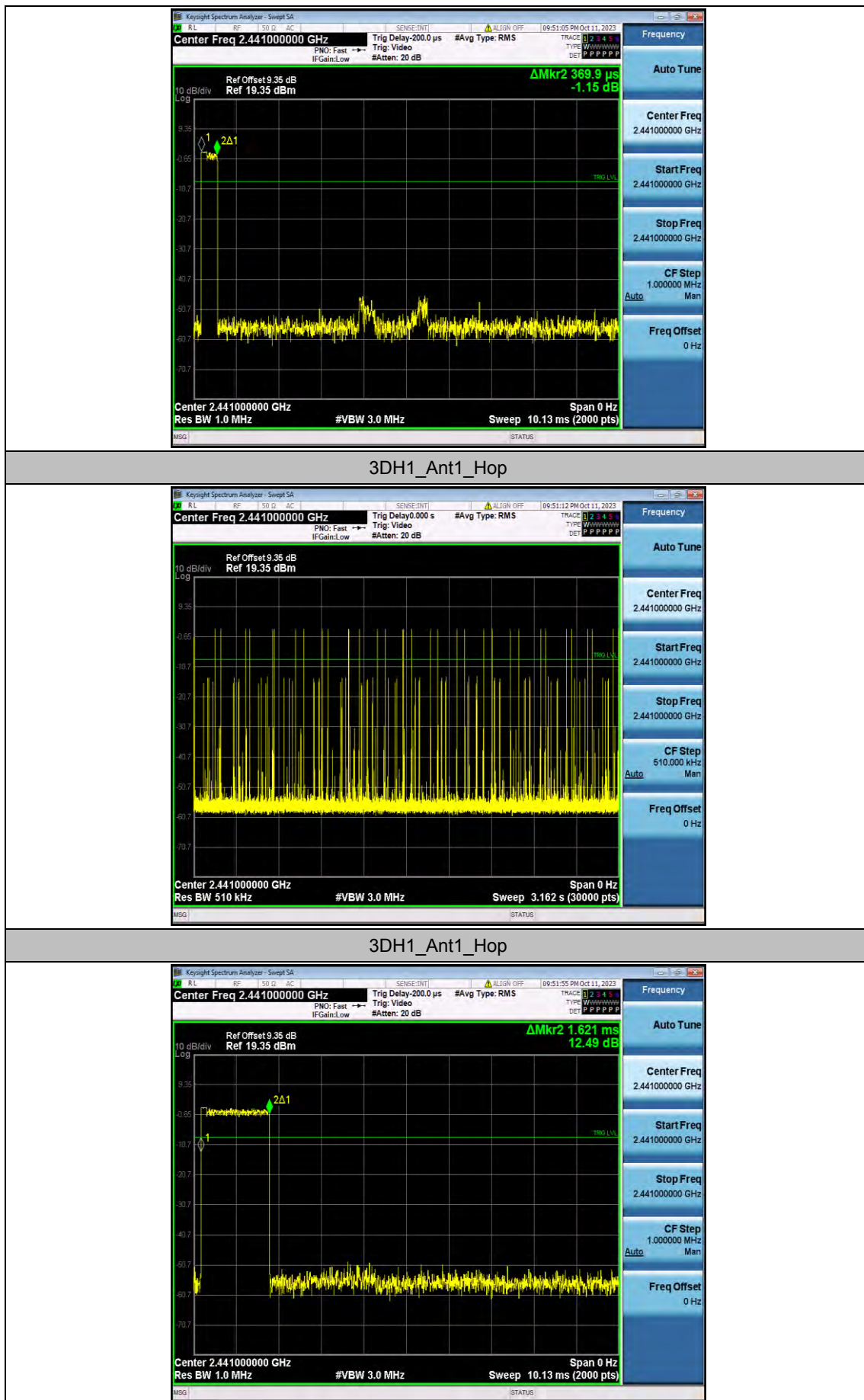
2DH3_Ant1_Hop



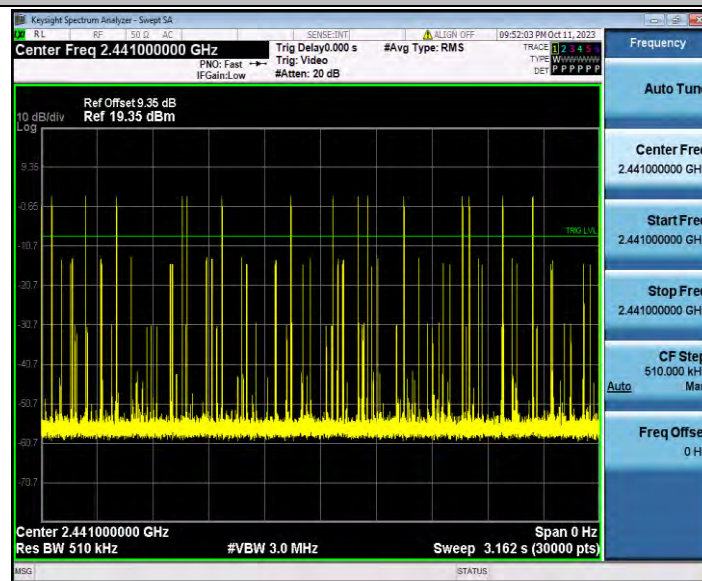
2DH5_Ant1_Hop



2DH5_Ant1_Hop



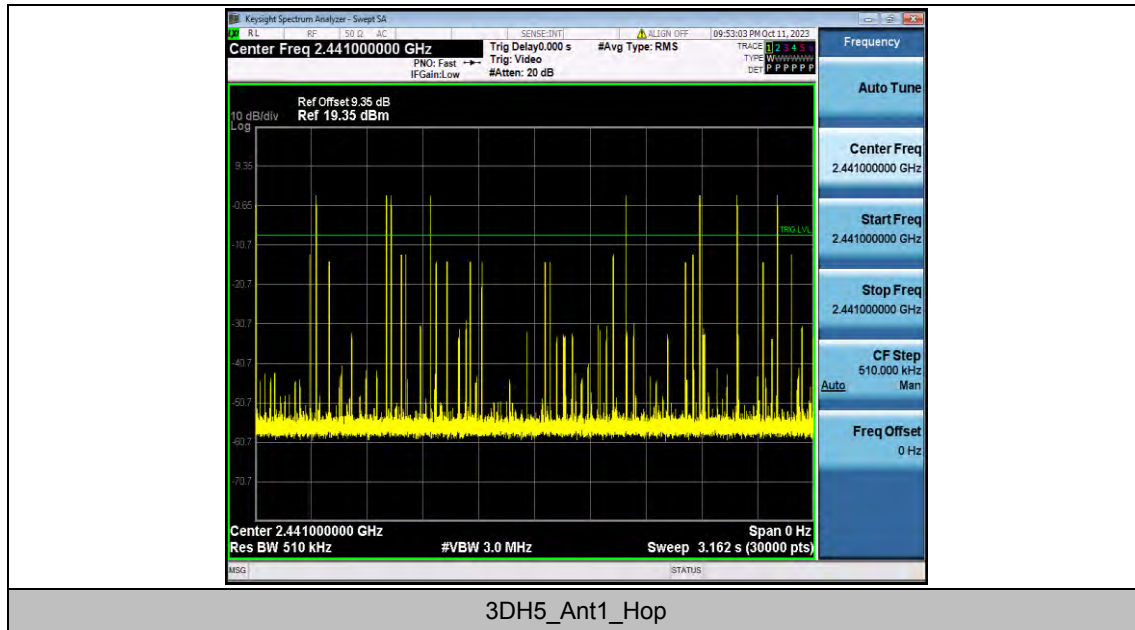
3DH3_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop

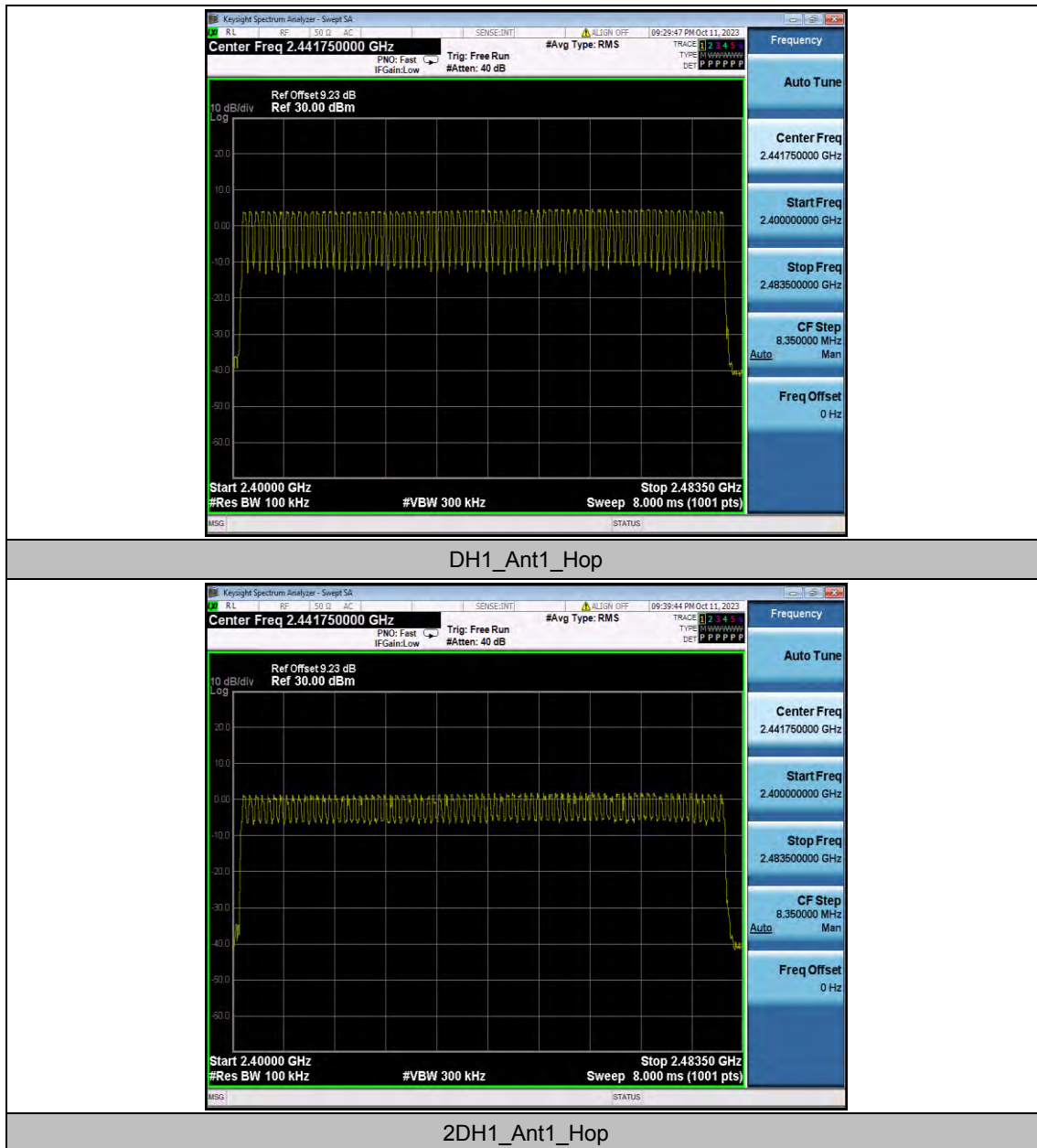


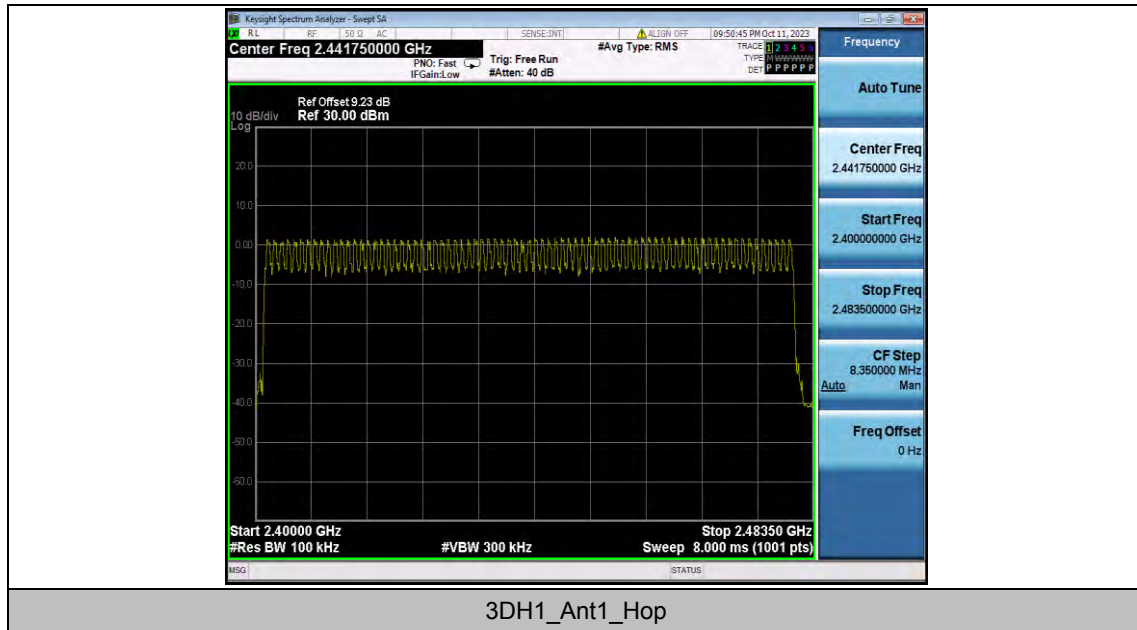
Appendix A.6: Number of hopping channels

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



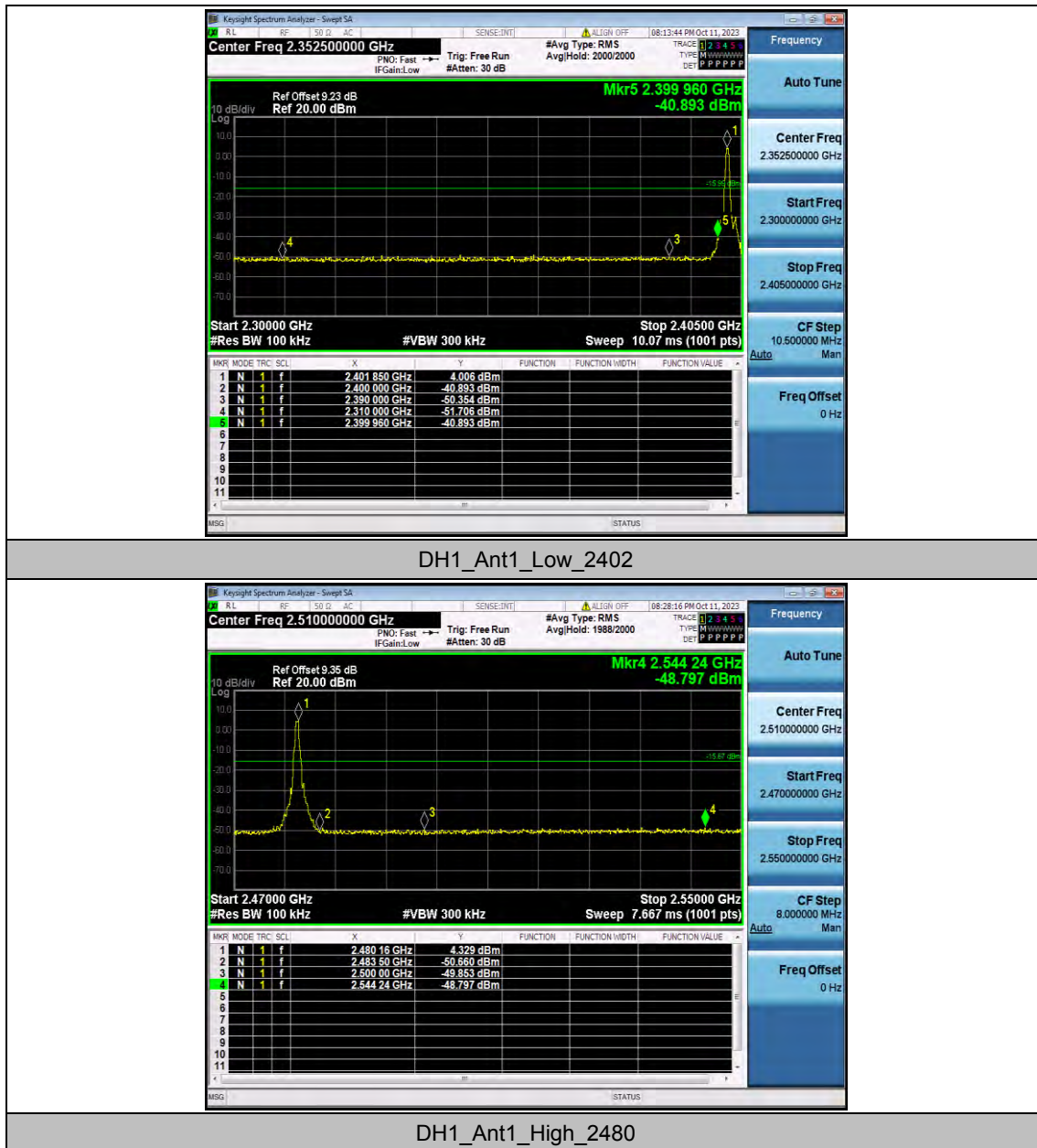


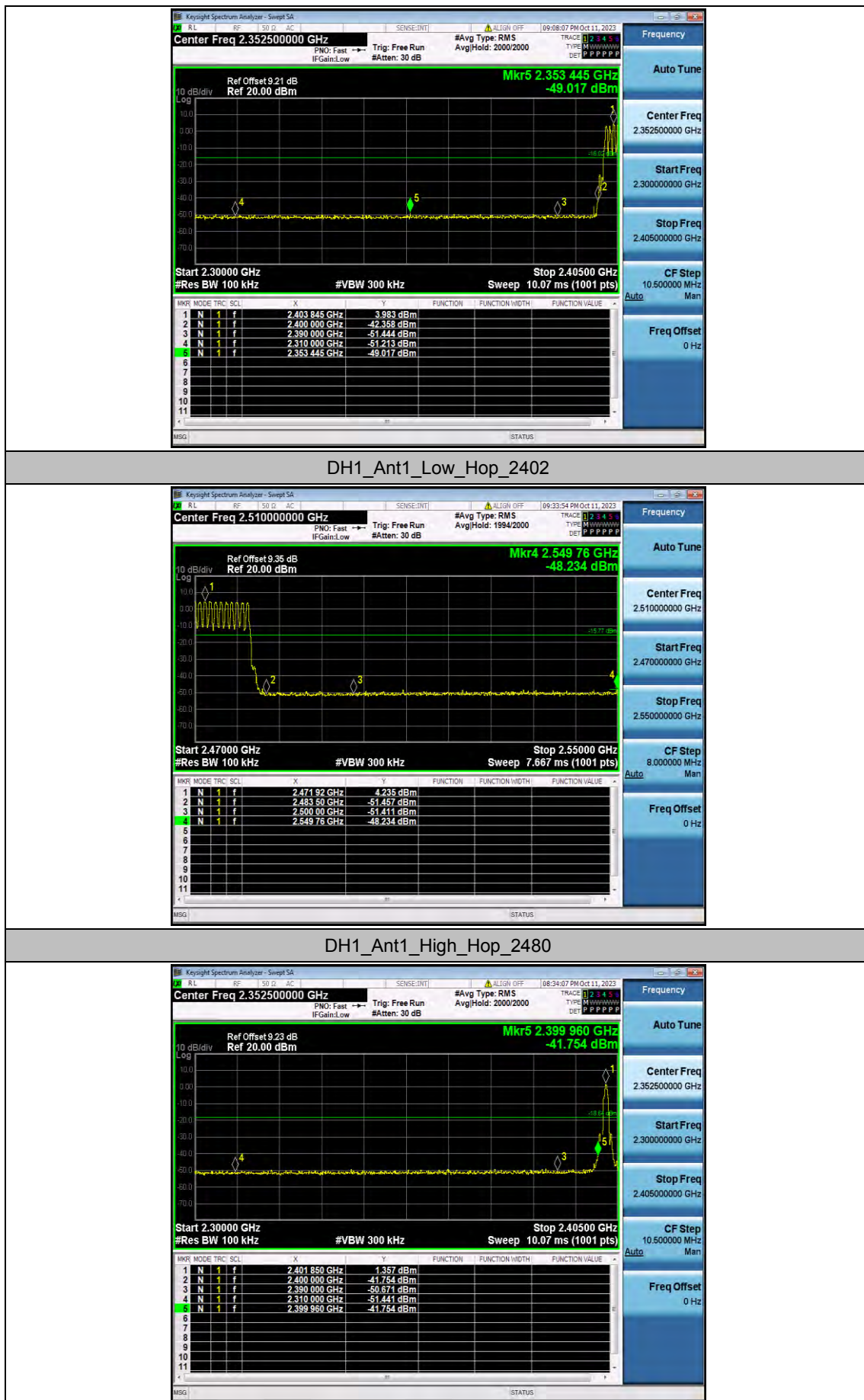
Appendix A.7: Band edge measurements

Test Result

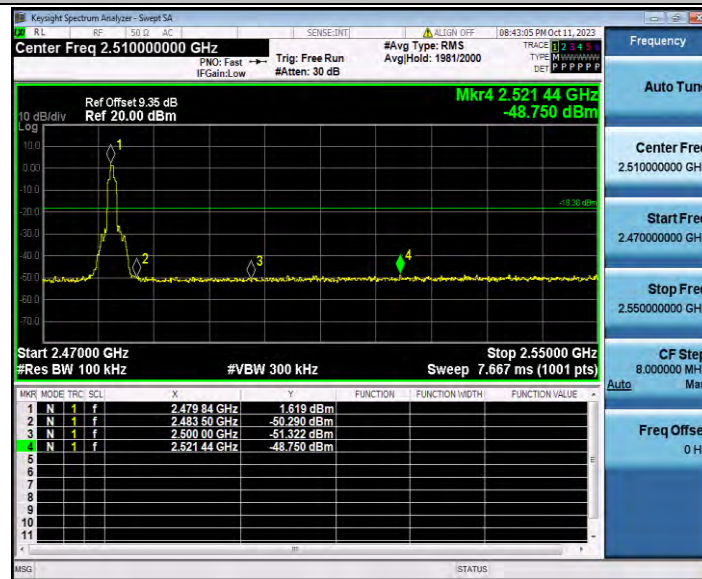
Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	4.01	-40.89	≤-15.99	PASS
		High	2480	4.33	-48.8	≤-15.67	PASS
		Low	Hop_2402	3.98	-49.02	≤-16.02	PASS
		High	Hop_2480	4.24	-48.23	≤-15.77	PASS
2DH1	Ant1	Low	2402	1.36	-41.75	≤-18.64	PASS
		High	2480	1.62	-48.75	≤-18.38	PASS
		Low	Hop_2402	1.17	-49.63	≤-18.83	PASS
		High	Hop_2480	1.57	-48.24	≤-18.43	PASS
3DH1	Ant1	Low	2402	1.39	-43.22	≤-18.61	PASS
		High	2480	1.60	-48.7	≤-18.4	PASS
		Low	Hop_2402	1.23	-49.28	≤-18.77	PASS
		High	Hop_2480	1.52	-48.68	≤-18.48	PASS

Test Graphs

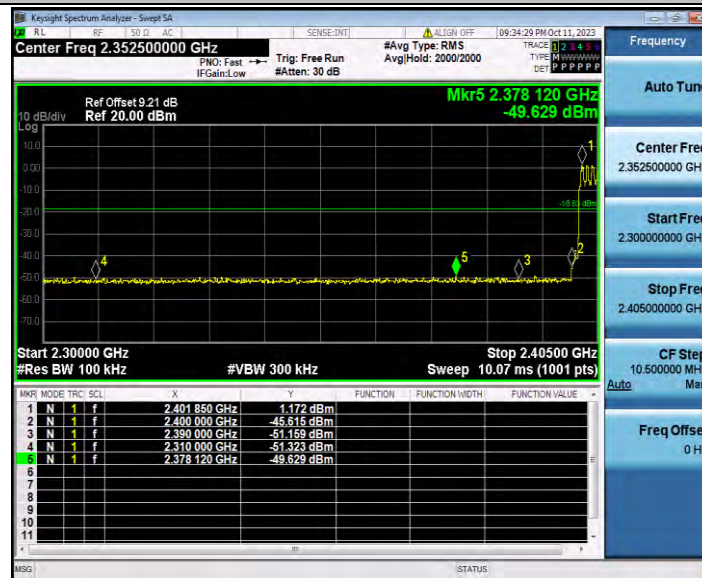




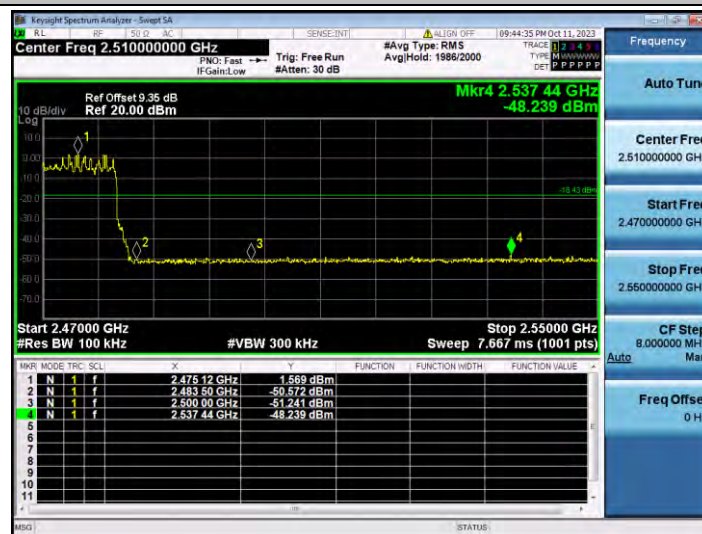
2DH1_Ant1_Low_2402



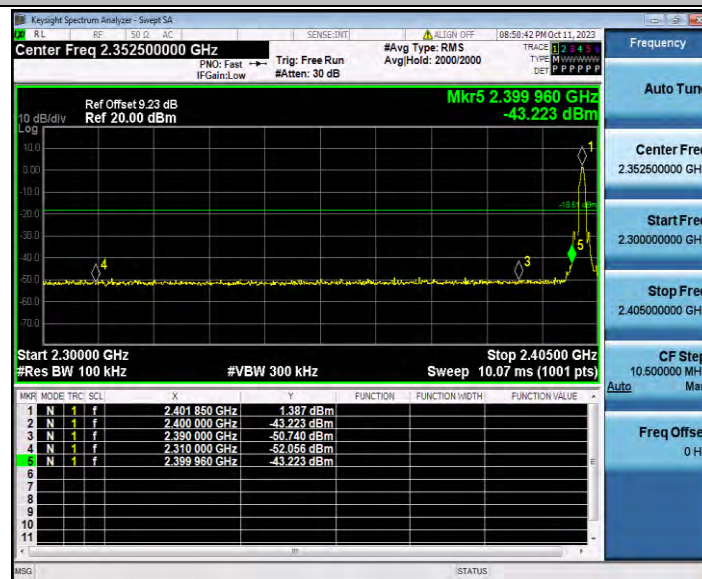
2DH1_Ant1_High_2480



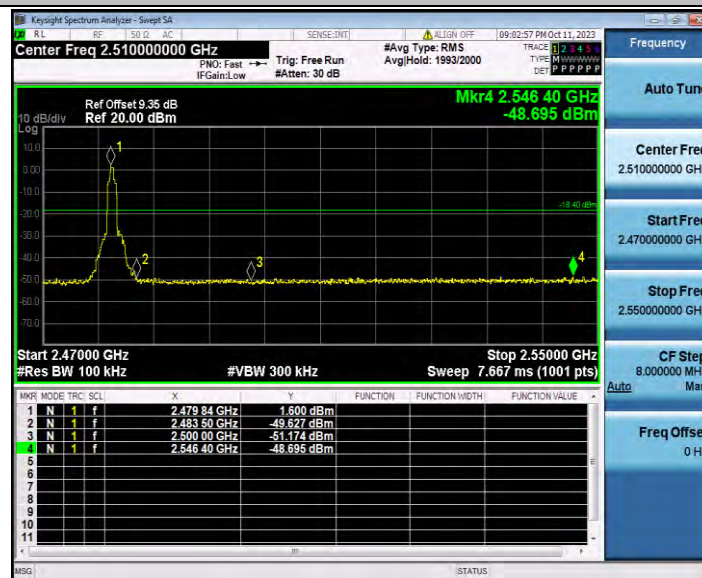
2DH1_Ant1_Low_Hop_2402



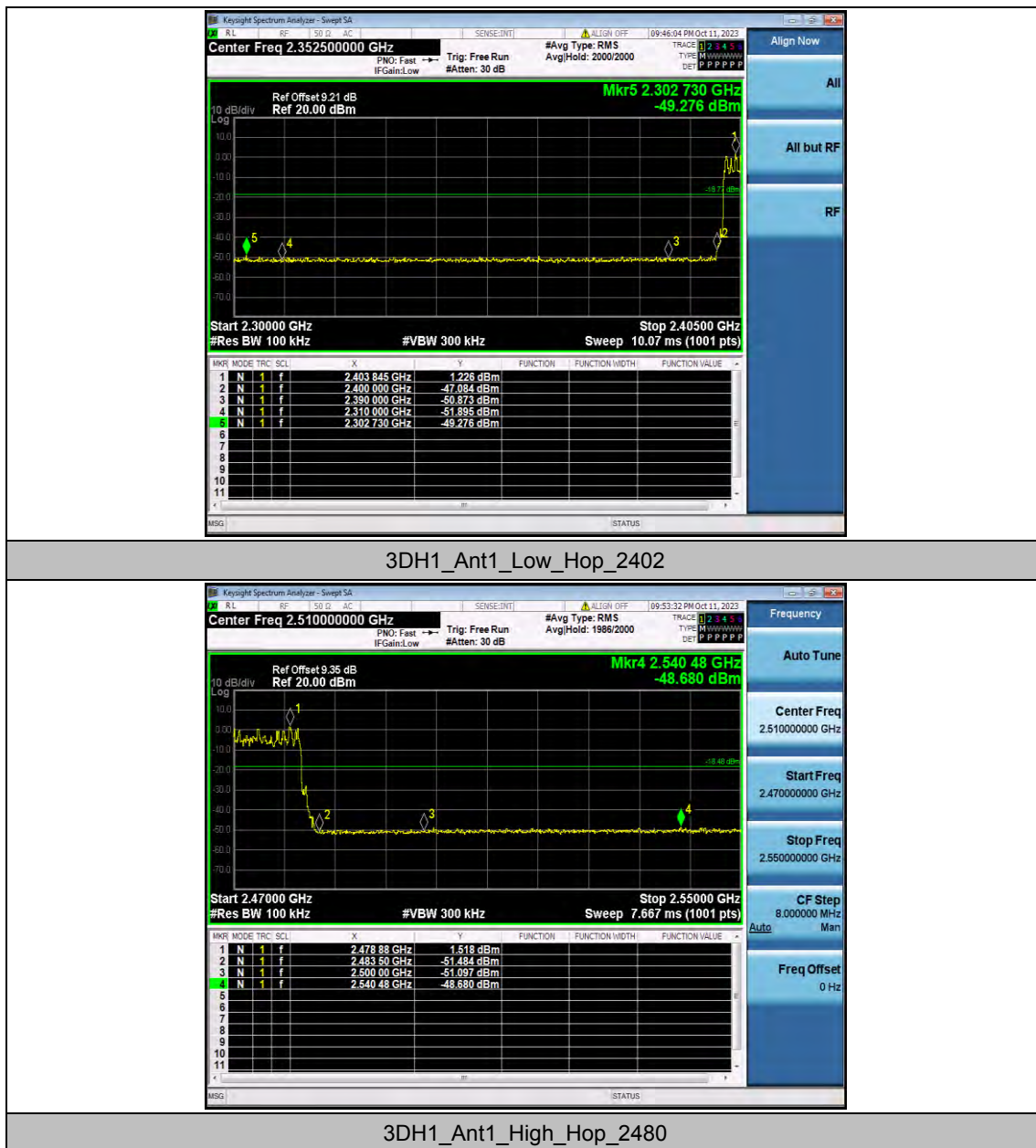
2DH1_Ant1_High_Hop_2480



3DH1_Ant1_Low_2402



3DH1_Ant1_High_2480

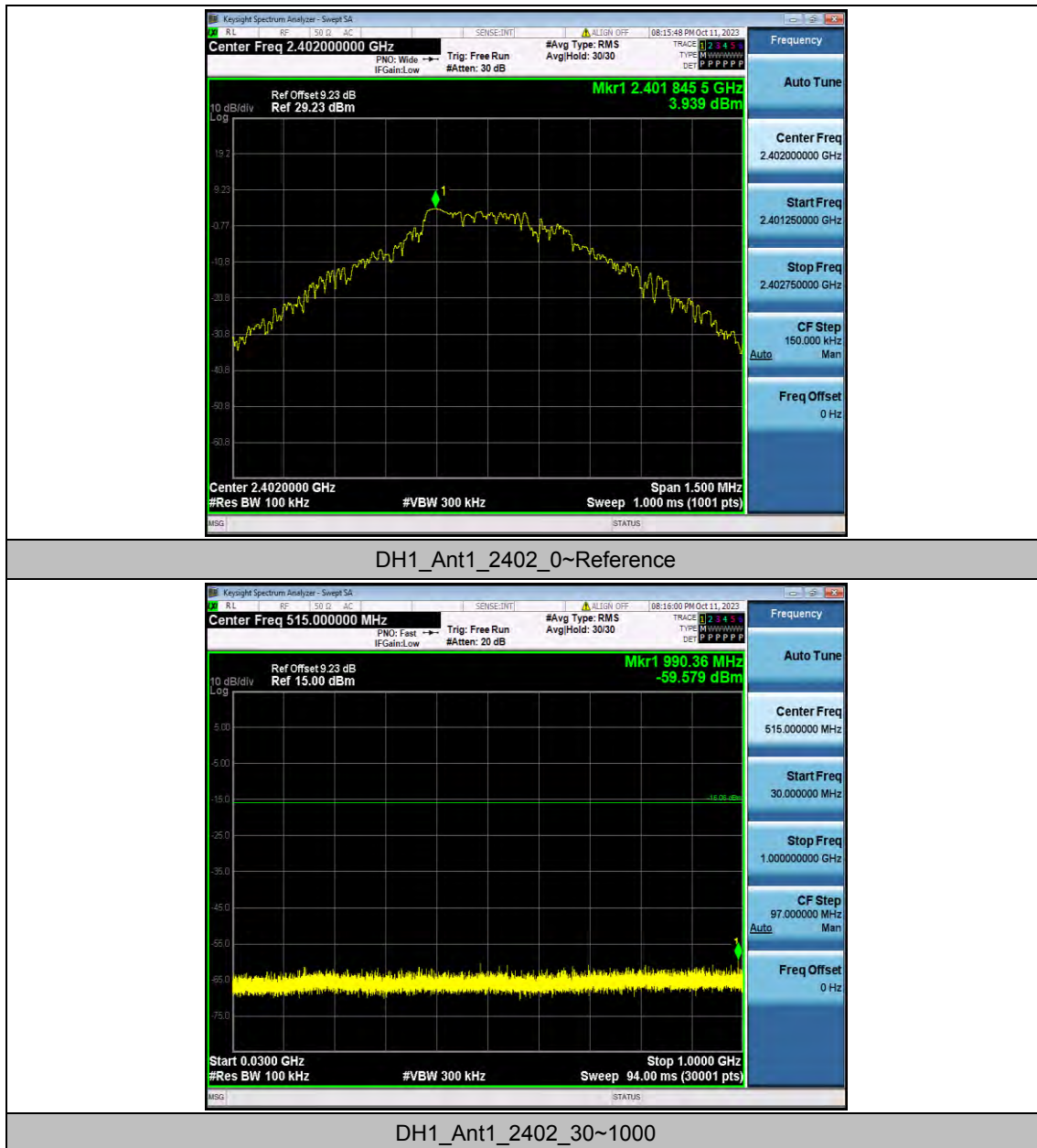


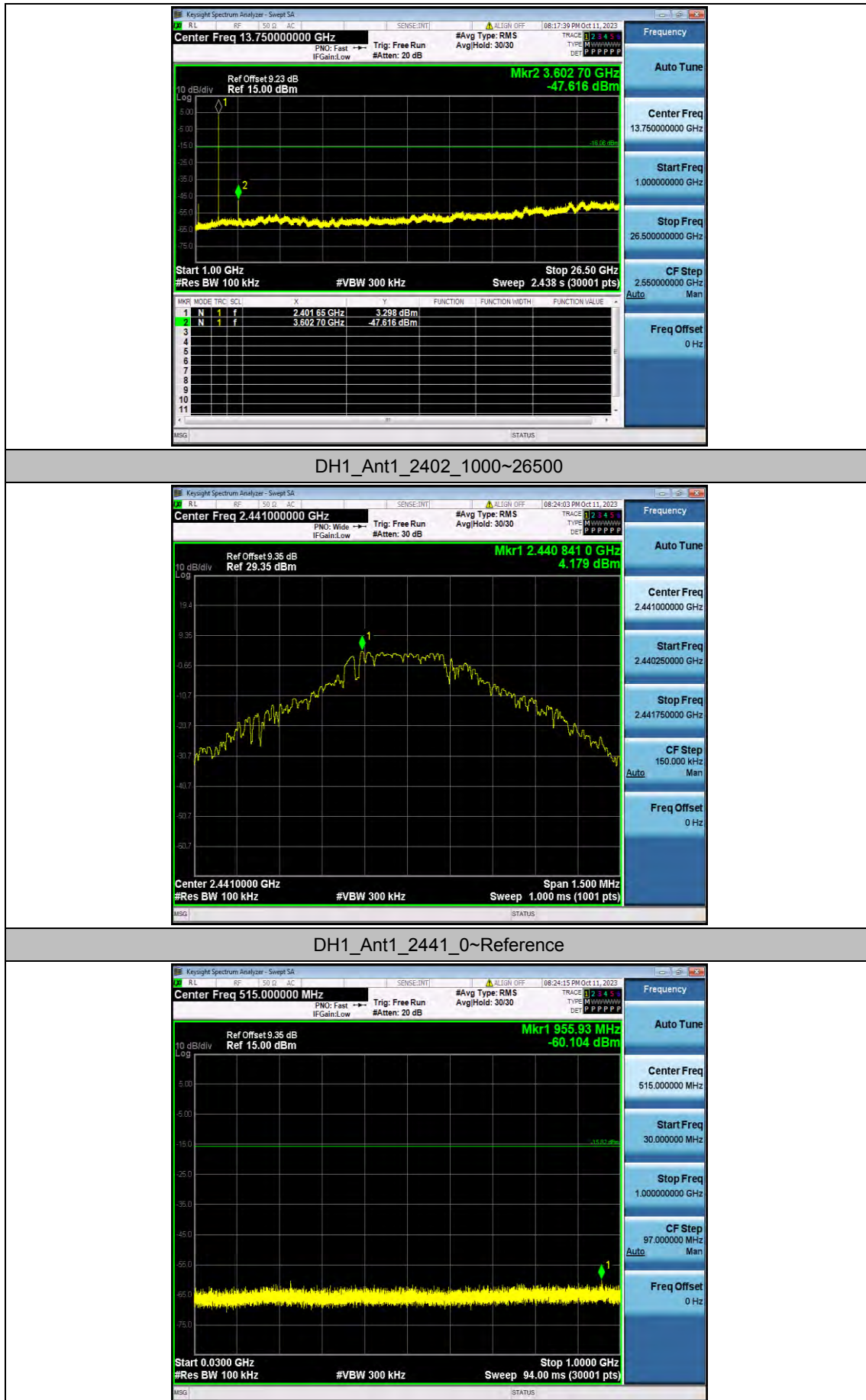
Appendix A.8: Conducted Spurious Emission

Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	3.94	3.94	---	PASS
			30~1000	3.94	-59.58	≤-16.06	PASS
			1000~26500	3.94	-47.62	≤-16.06	PASS
		2441	Reference	4.18	4.18	---	PASS
			30~1000	4.18	-60.1	≤-15.82	PASS
			1000~26500	4.18	-47.7	≤-15.82	PASS
		2480	Reference	3.46	3.46	---	PASS
			30~1000	3.46	-60.26	≤-16.54	PASS
			1000~26500	3.46	-47.74	≤-16.54	PASS
2DH1	Ant1	2402	Reference	1.14	1.14	---	PASS
			30~1000	1.14	-60.09	≤-18.86	PASS
			1000~26500	1.14	-44.54	≤-18.86	PASS
		2441	Reference	1.61	1.61	---	PASS
			30~1000	1.61	-60.23	≤-18.39	PASS
			1000~26500	1.61	-44.85	≤-18.39	PASS
		2480	Reference	1.43	1.43	---	PASS
			30~1000	1.43	-60.22	≤-18.57	PASS
			1000~26500	1.43	-43.86	≤-18.57	PASS
3DH1	Ant1	2402	Reference	1.21	1.21	---	PASS
			30~1000	1.21	-60.37	≤-18.79	PASS
			1000~26500	1.21	-44.75	≤-18.79	PASS
		2441	Reference	1.74	1.74	---	PASS
			30~1000	1.74	-60.13	≤-18.26	PASS
			1000~26500	1.74	-44.18	≤-18.26	PASS
		2480	Reference	1.18	1.18	---	PASS
			30~1000	1.18	-59.58	≤-18.82	PASS
			1000~26500	1.18	-43.57	≤-18.82	PASS

Test Graphs





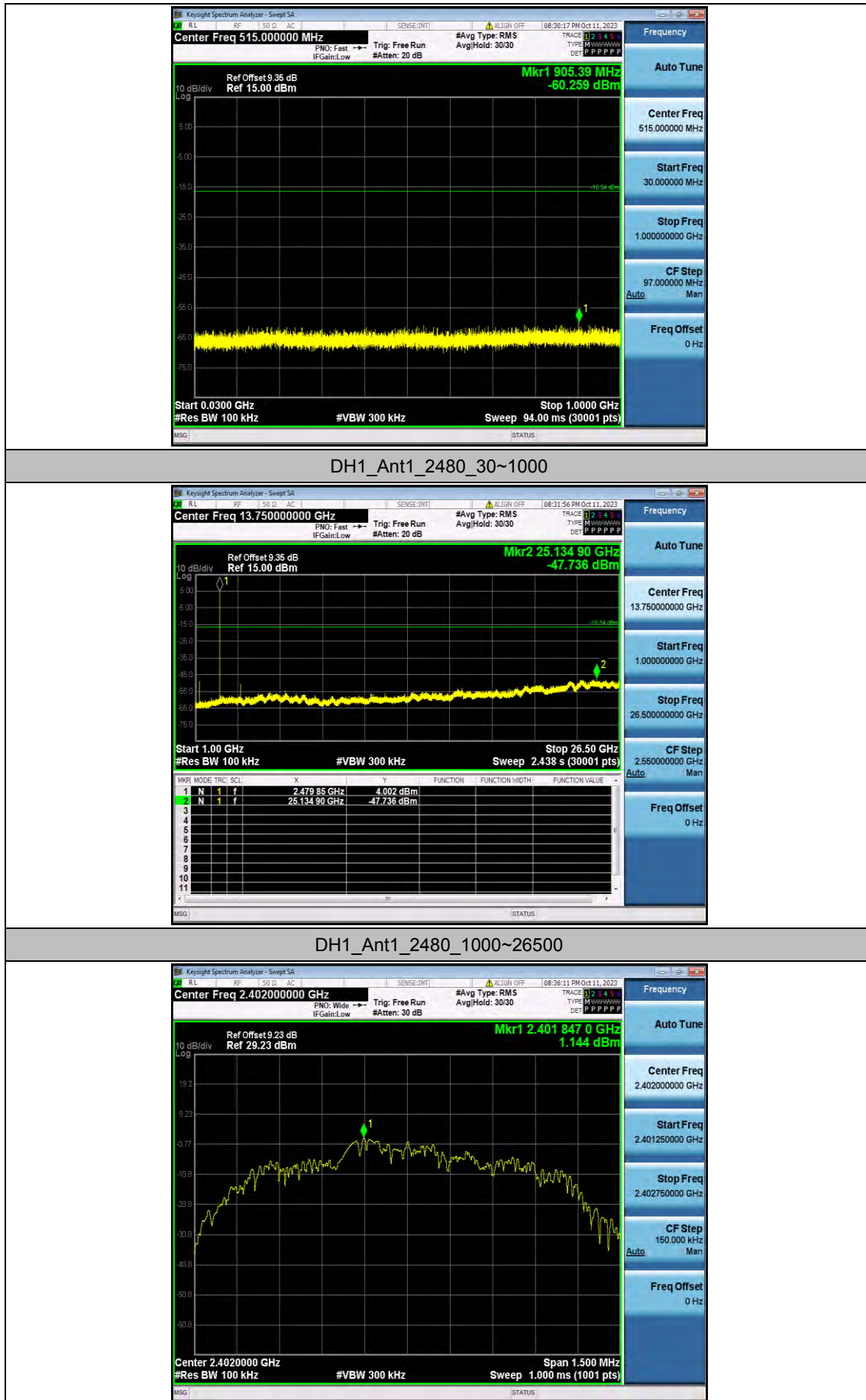
DH1_Ant1_2441_30~1000



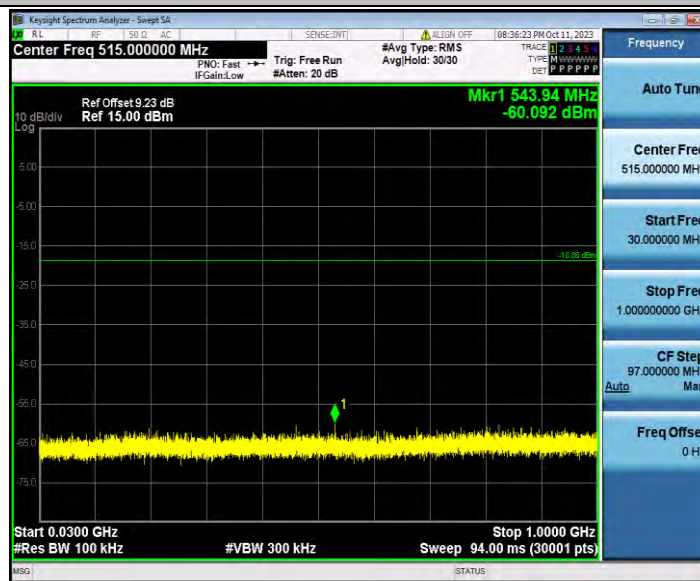
DH1_Ant1_2441_1000~26500



DH1_Ant1_2480_0~Reference



2DH1_Ant1_2402_0~Reference



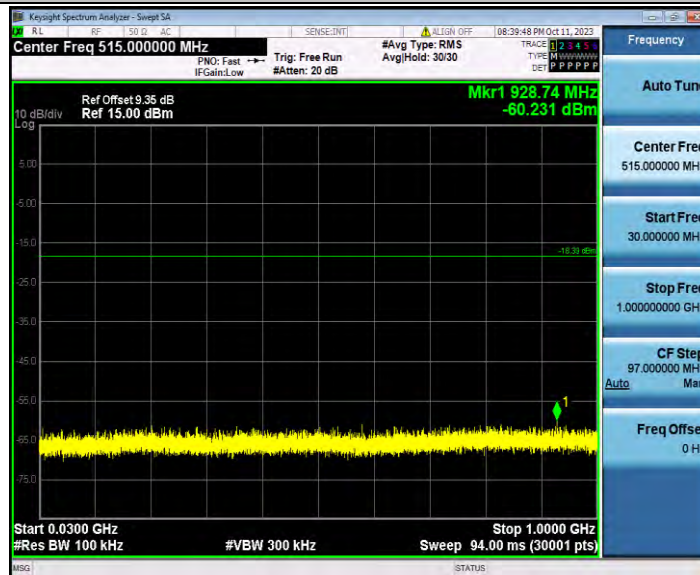
2DH1_Ant1_2402_30~1000



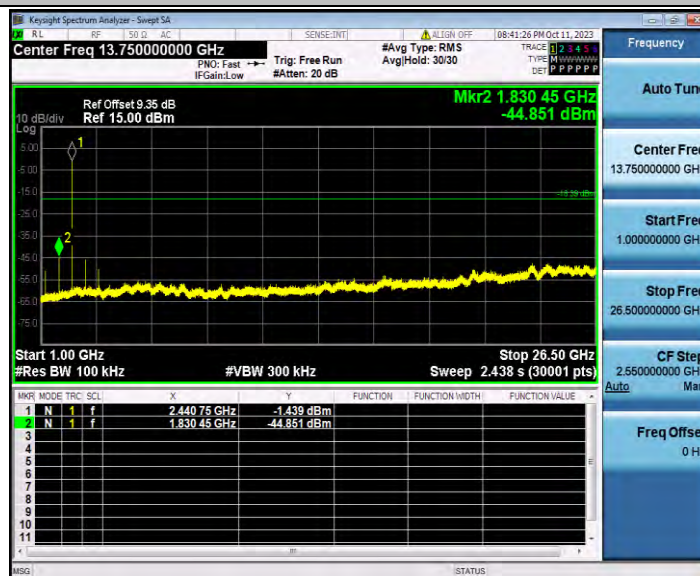
2DH1_Ant1_2402_1000~26500



2DH1_Ant1_2441_0~Reference



2DH1_Ant1_2441_30~1000



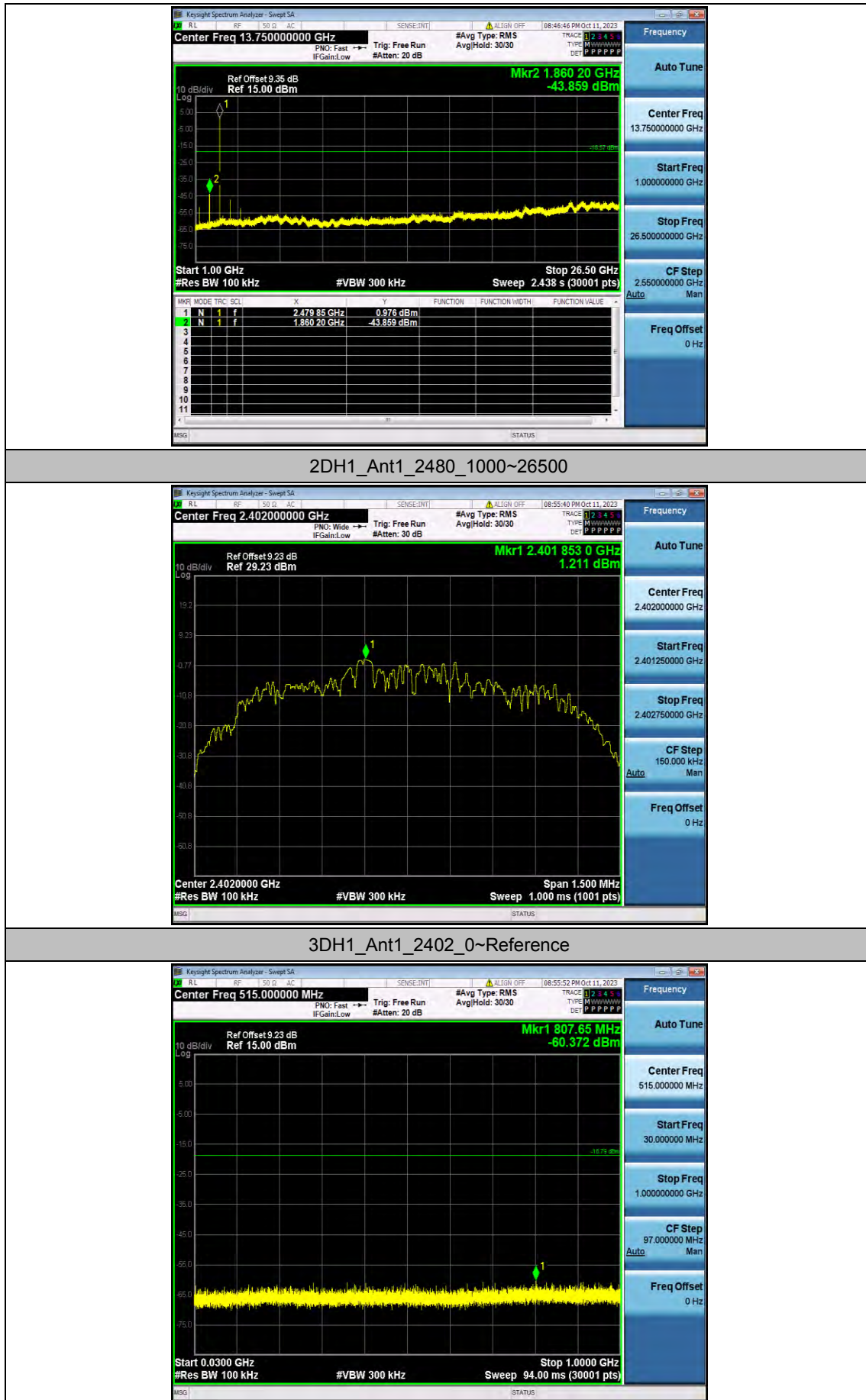
2DH1_Ant1_2441_1000~26500

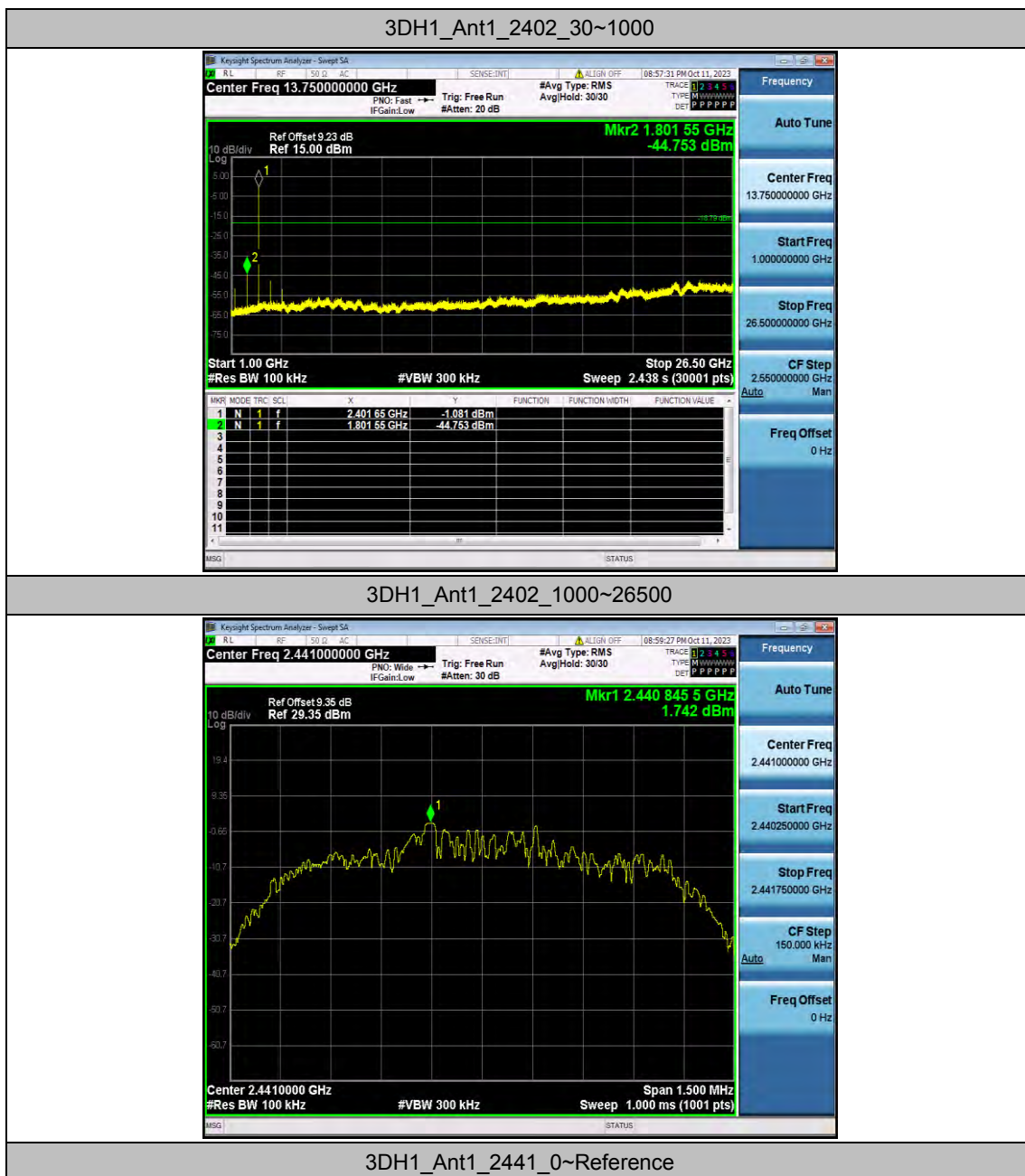


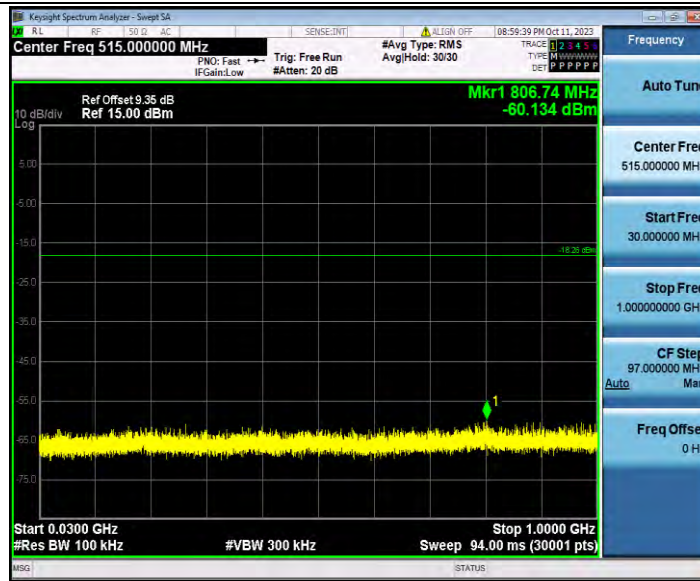
2DH1_Ant1_2480_0~Reference



2DH1_Ant1_2480_30~1000







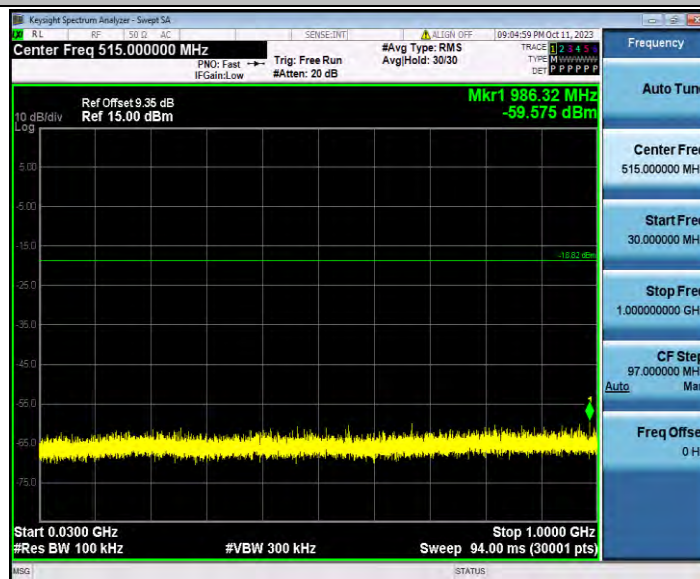
3DH1_Ant1_2441_30~1000



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

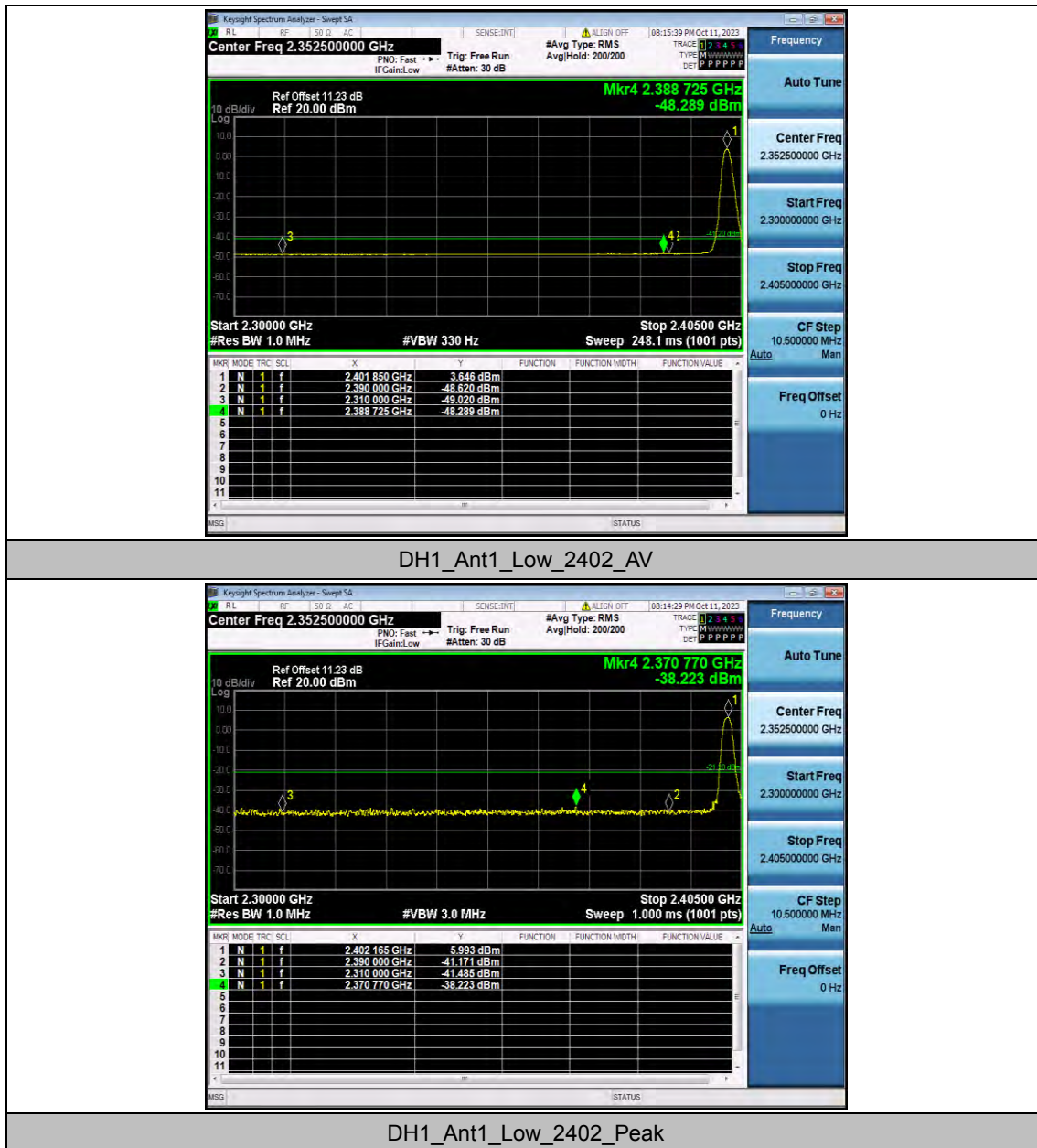
TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH1	Ant1	Low	2402	AV	2310.000	-49.02	≤-41.20	46.18	≤54	PASS
				AV	2388.725	-48.29	≤-41.20	46.91	≤54	PASS
				AV	2390.000	-48.62	≤-41.20	46.58	≤54	PASS
				Peak	2310.000	-41.49	≤-21.20	53.71	≤74	PASS
				Peak	2370.770	-38.22	≤-21.20	56.98	≤74	PASS
				Peak	2390.000	-41.17	≤-21.20	54.03	≤74	PASS
		High	2480	AV	2483.500	-46.4	≤-41.20	48.80	≤54	PASS
				AV	2483.520	-46.4	≤-41.20	48.80	≤54	PASS
				AV	2500.000	-48.29	≤-41.20	46.91	≤54	PASS
				Peak	2483.500	-38.74	≤-21.20	56.46	≤74	PASS
				Peak	2483.760	-38.39	≤-21.20	56.81	≤74	PASS
				Peak	2500.000	-40.4	≤-21.20	54.80	≤74	PASS
2DH1	Ant1	Low	2402	AV	2310.000	-48.94	≤-41.20	46.26	≤54	PASS
				AV	2389.355	-48.49	≤-41.20	46.71	≤54	PASS
				AV	2390.000	-48.65	≤-41.20	46.55	≤54	PASS
				Peak	2310.000	-40.89	≤-21.20	54.31	≤74	PASS
				Peak	2362.580	-38.38	≤-21.20	56.82	≤74	PASS
				Peak	2390.000	-41.45	≤-21.20	53.75	≤74	PASS
		High	2480	AV	2483.500	-47.08	≤-41.20	48.12	≤54	PASS
				AV	2483.520	-47.08	≤-41.20	48.12	≤54	PASS
				AV	2500.000	-48.22	≤-41.20	46.98	≤54	PASS
				Peak	2483.500	-39.5	≤-21.20	55.70	≤74	PASS
				Peak	2492.560	-38.28	≤-21.20	56.92	≤74	PASS
				Peak	2500.000	-41.24	≤-21.20	53.96	≤74	PASS
3DH1	Ant1	Low	2402	AV	2310.000	-49.07	≤-41.20	46.13	≤54	PASS
				AV	2387.570	-48.53	≤-41.20	46.67	≤54	PASS
				AV	2390.000	-48.71	≤-41.20	46.49	≤54	PASS
				Peak	2310.000	-40.67	≤-21.20	54.53	≤74	PASS
				Peak	2370.350	-38.84	≤-21.20	56.36	≤74	PASS
				Peak	2390.000	-40.88	≤-21.20	54.32	≤74	PASS
		High	2480	AV	2483.500	-46.97	≤-41.20	48.23	≤54	PASS
				AV	2483.520	-46.97	≤-41.20	48.23	≤54	PASS
				AV	2500.000	-48.43	≤-41.20	46.77	≤54	PASS
				Peak	2483.500	-37.42	≤-21.20	57.78	≤74	PASS
				Peak	2483.680	-35.01	≤-21.20	60.19	≤74	PASS

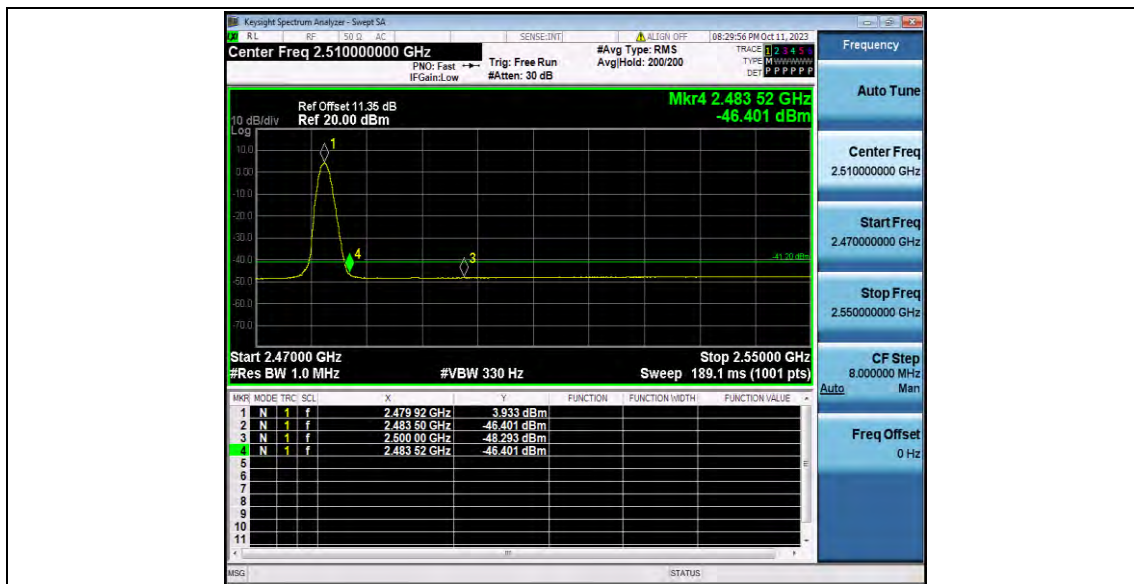
				Peak	2500.000	-40.72	≤-21.20	54.48	≤74	PASS
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Note:

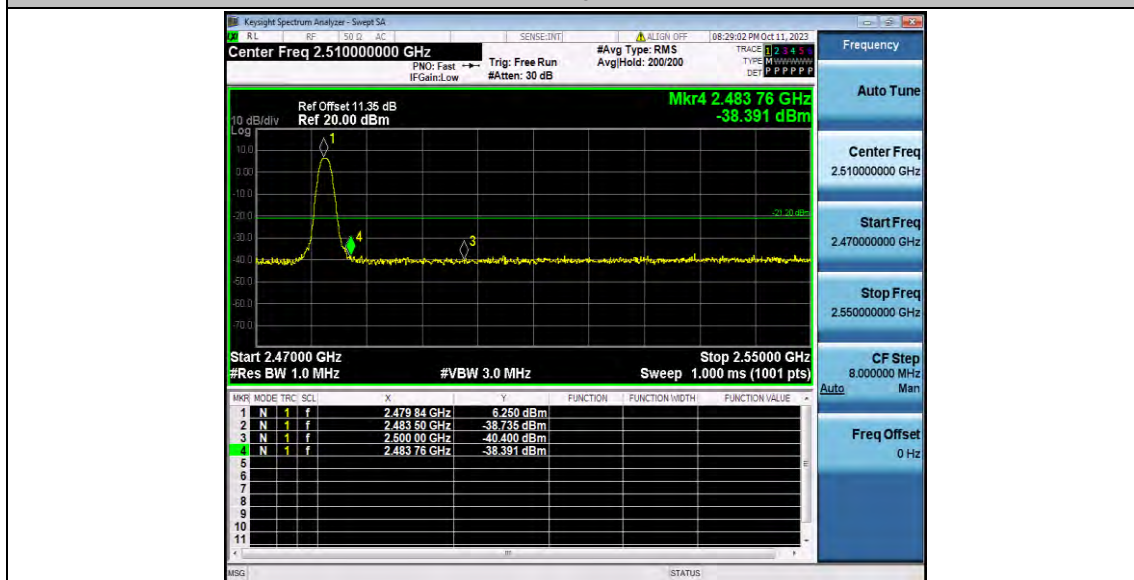
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

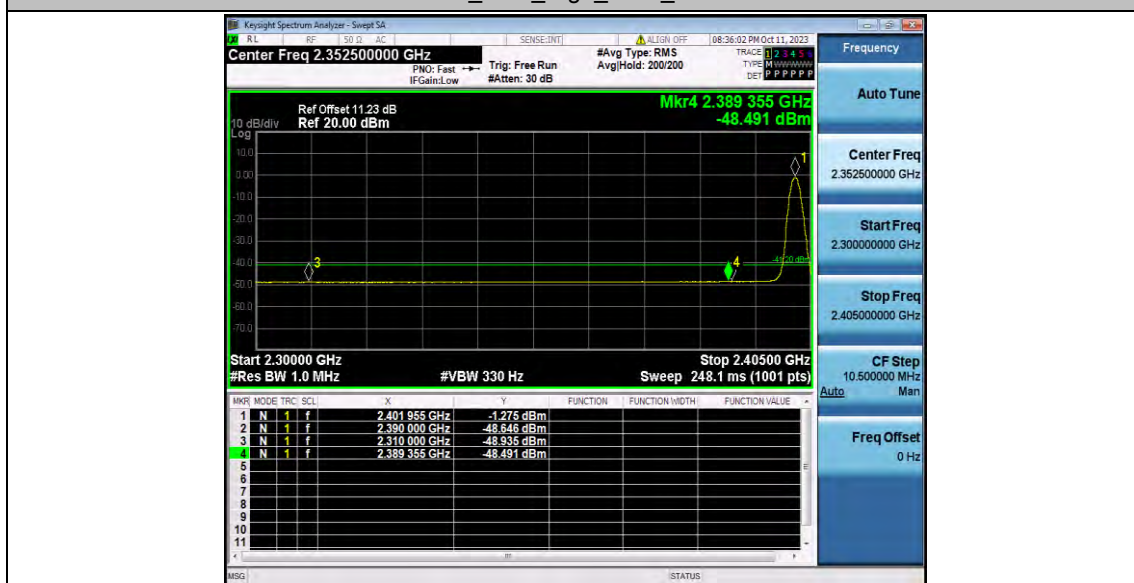




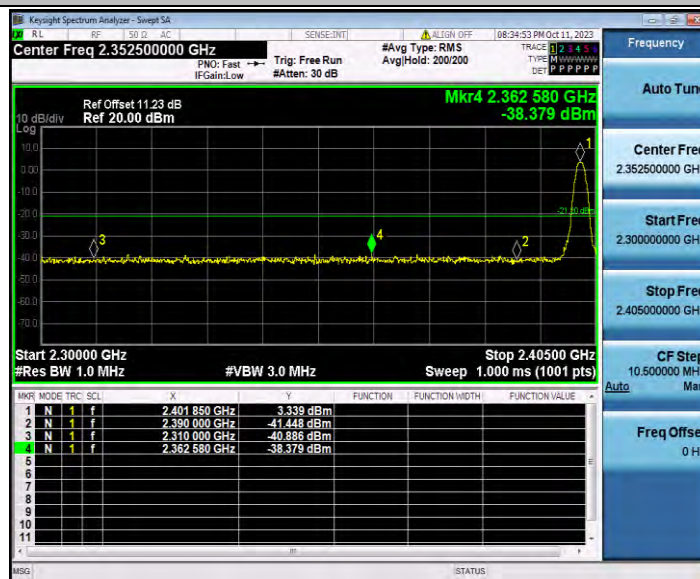
DH1_Ant1_High_2480_AV



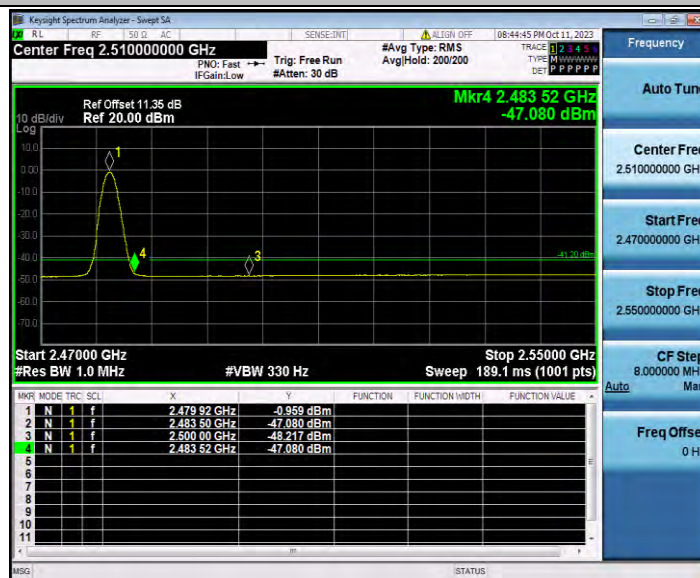
DH1_Ant1_High_2480_Peak



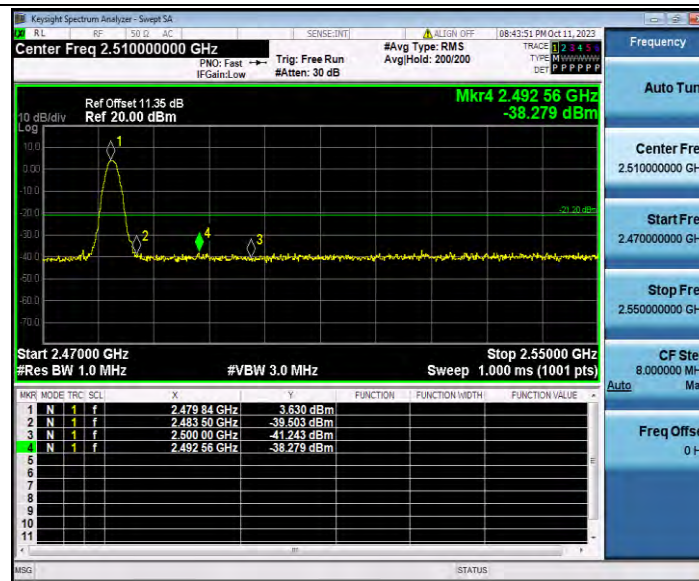
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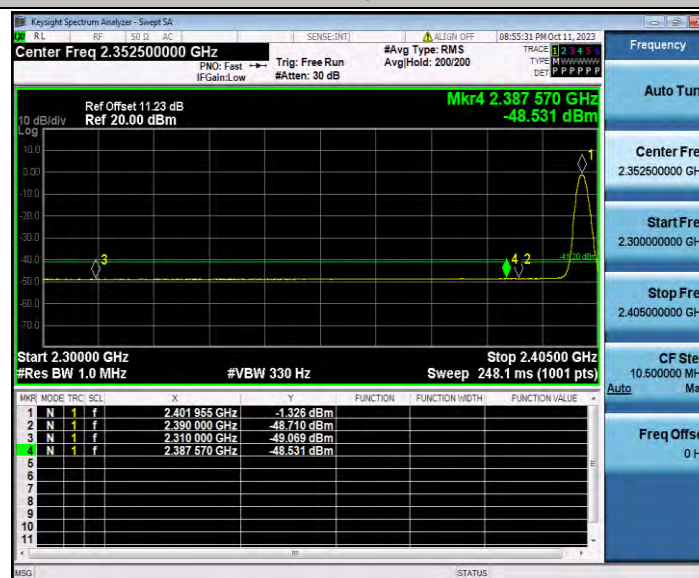
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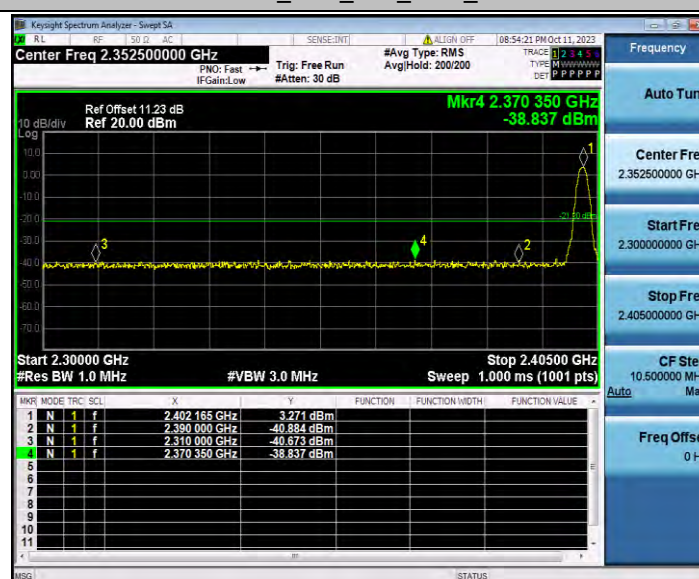
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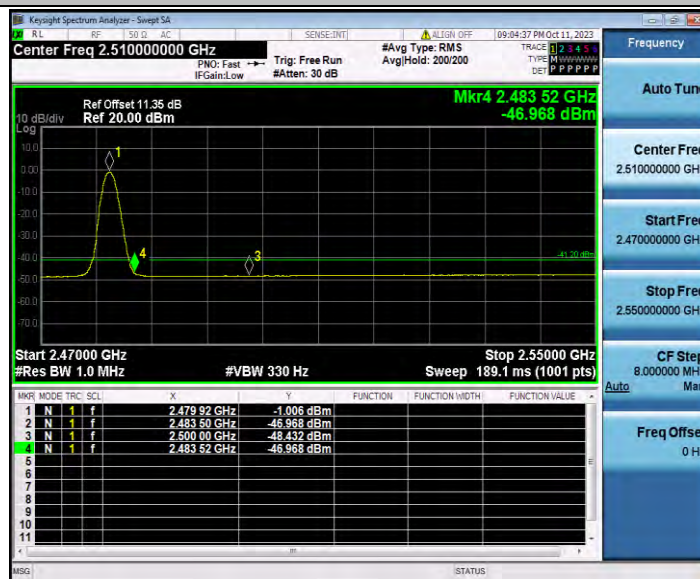
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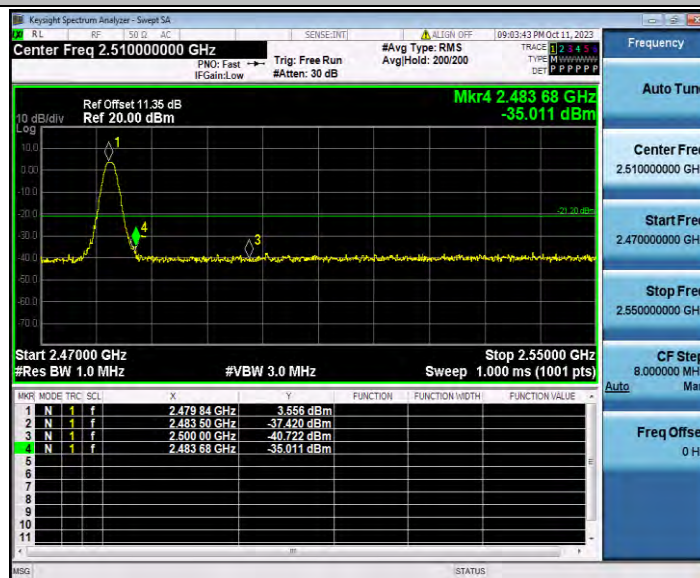
3DH1_Ant1_Low_2402_AV



3DH1_Ant1_Low_2402_Peak



3DH1_Ant1_High_2480_AV



3DH1_Ant1_High_2480_Peak