

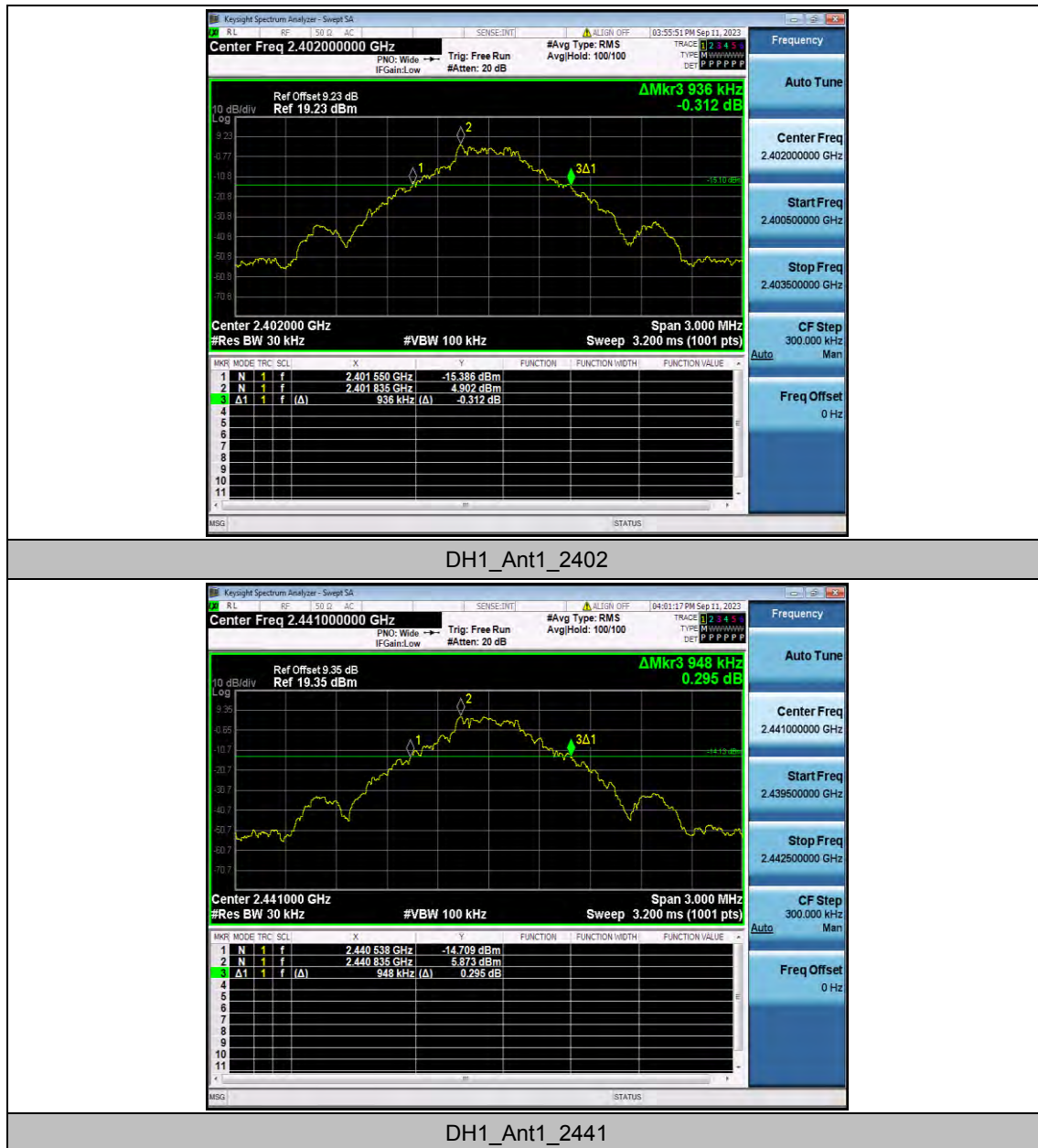
Case No. : <u>GTS20230628002-1-24</u>	
Ambient Condition: <u>23</u> °C, <u>53</u> %RH, Atmos100.1Kpa,	
Test Date: <u>2023.9.9</u>	Test Engineer: <u>Evan ouyang</u>

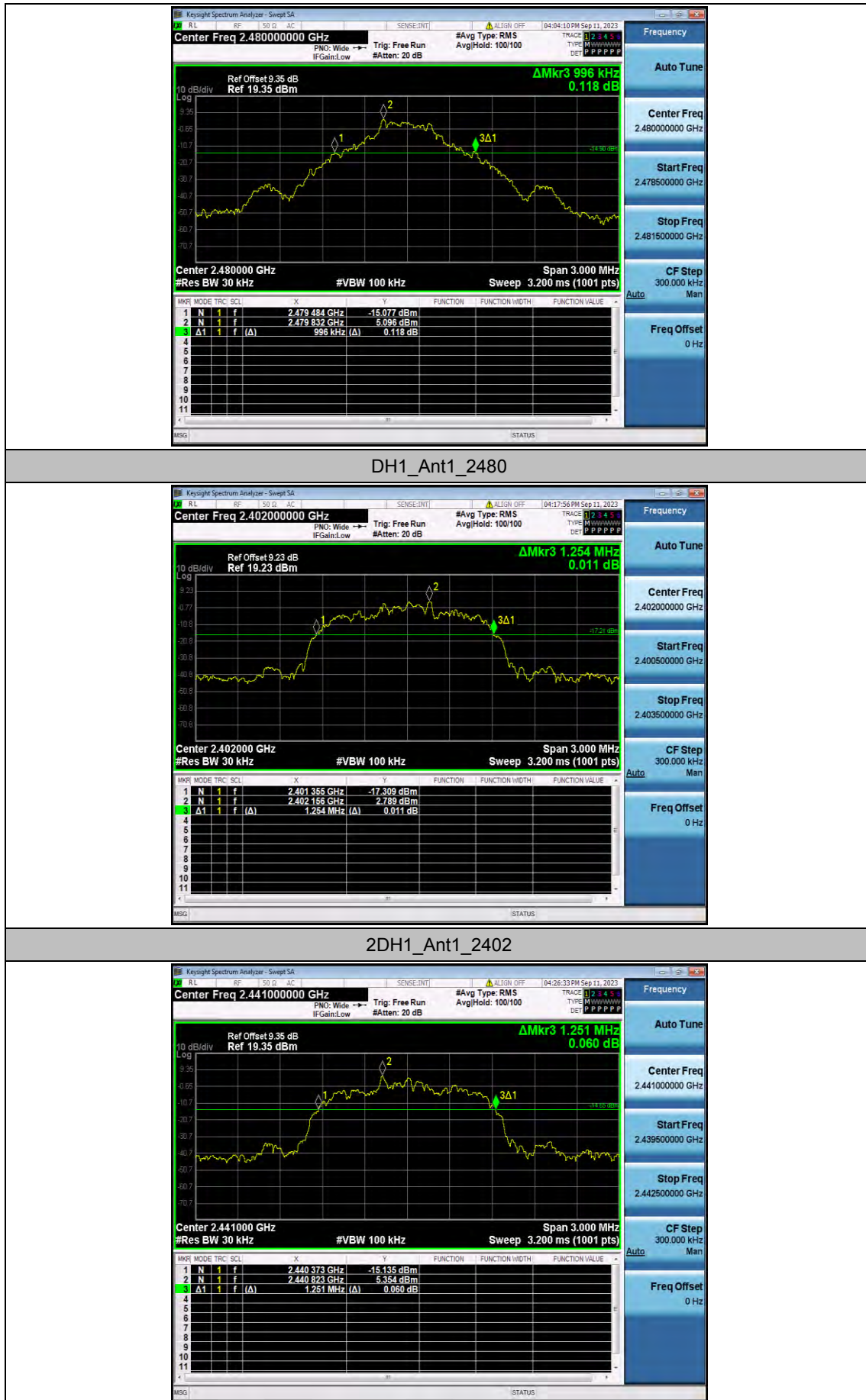
Appendix A.1: 20dB Emission Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.936	2401.550	2402.486	---	---
		2441	0.948	2440.538	2441.486	---	---
		2480	0.996	2479.484	2480.480	---	---
2DH1	Ant1	2402	1.254	2401.355	2402.609	---	---
		2441	1.251	2440.373	2441.624	---	---
		2480	1.230	2479.370	2480.600	---	---
3DH1	Ant1	2402	1.239	2401.388	2402.627	---	---
		2441	1.269	2440.358	2441.627	---	---
		2480	1.266	2479.355	2480.621	---	---

Test Graphs





2DH1_Ant1_2441



2DH1_Ant1_2480



3DH1_Ant1_2402



3D H1_Ant1_2441



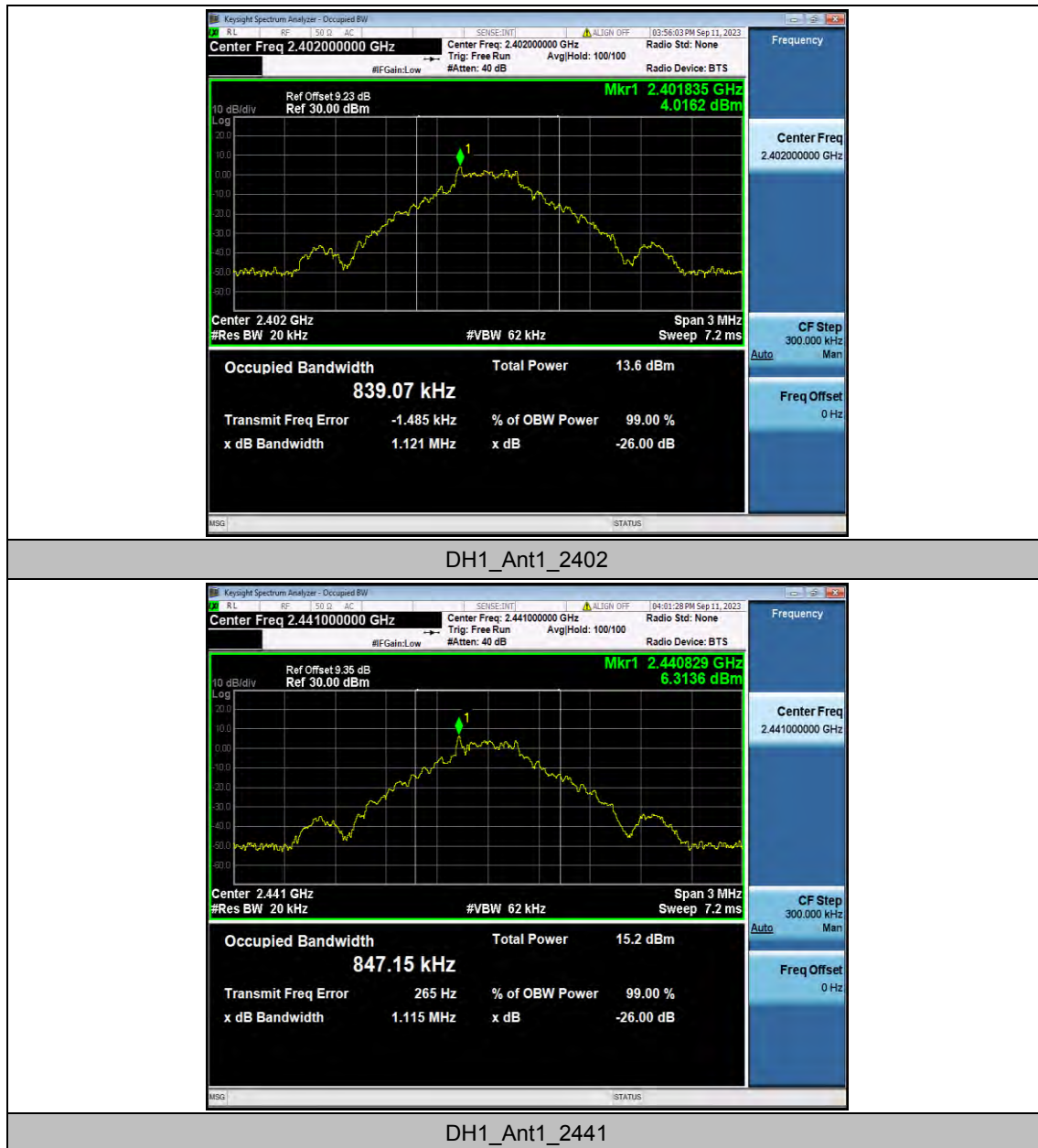
3D H1_Ant1_2480

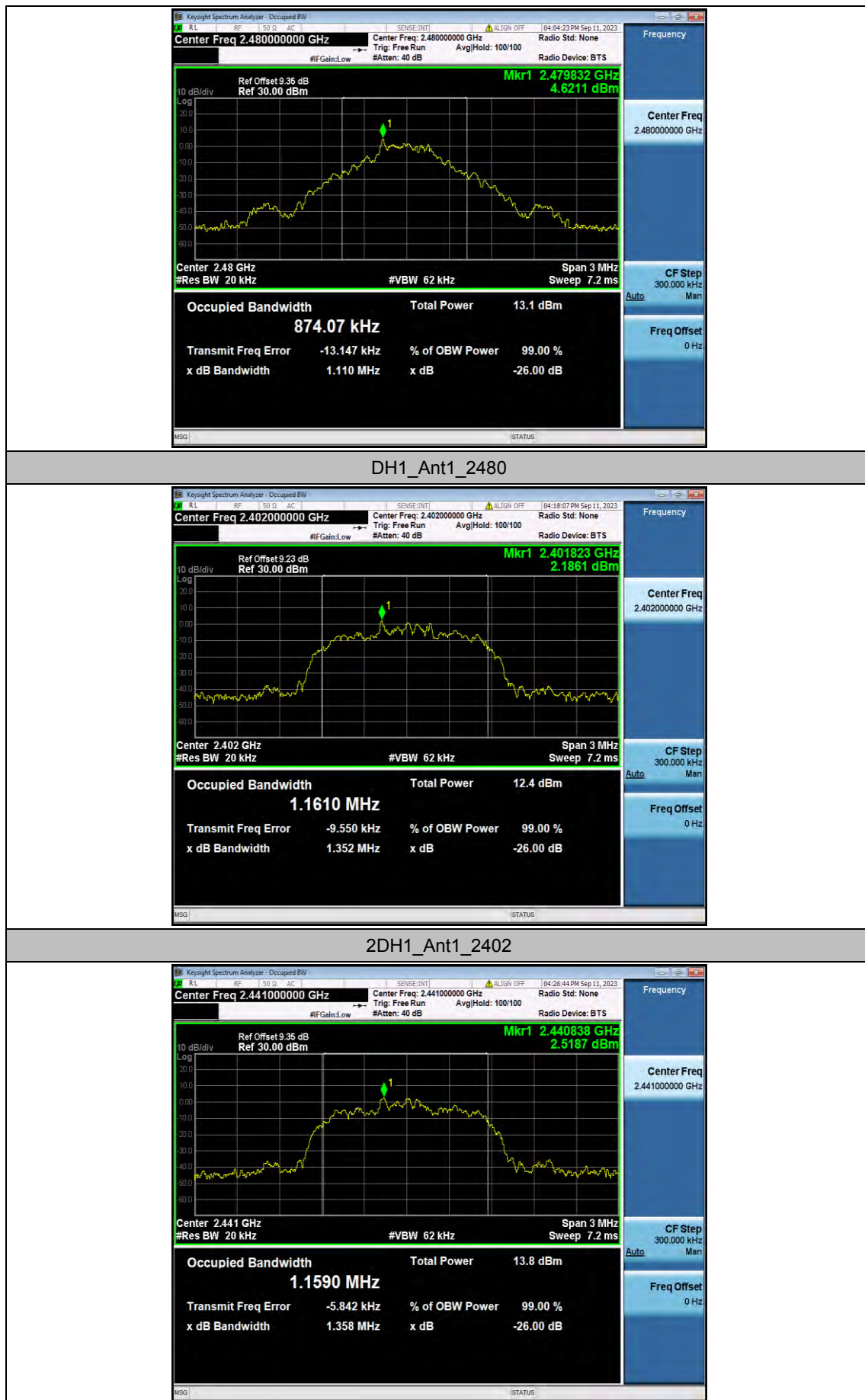
Appendix A.2: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.83907	2401.579	2402.418	---	---
		2441	0.84715	2440.577	2441.424	---	---
		2480	0.87407	2479.550	2480.424	---	---
2DH1	Ant1	2402	1.1610	2401.410	2402.571	---	---
		2441	1.1590	2440.415	2441.574	---	---
		2480	1.1692	2479.402	2480.571	---	---
3DH1	Ant1	2402	1.1575	2401.426	2402.584	---	---
		2441	1.1551	2440.428	2441.583	---	---
		2480	1.1604	2479.418	2480.578	---	---

Test Graphs





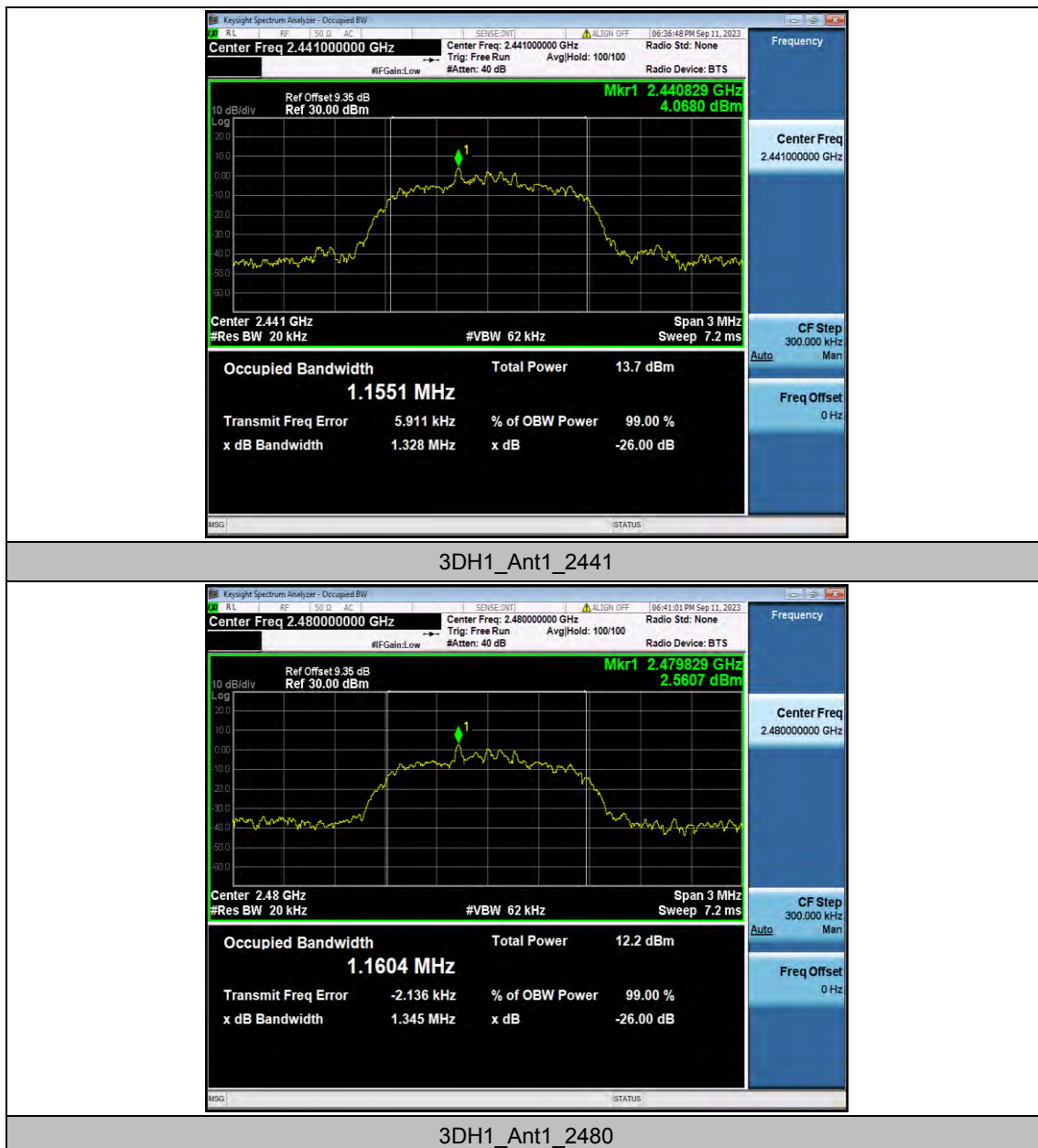
2DH1_Ant1_2441



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	7.51	≤20.97	PASS
		2441	9.16	≤20.97	PASS
		2480	7.52	≤20.97	PASS
2DH1	Ant1	2402	7.07	≤20.97	PASS
		2441	8.72	≤20.97	PASS
		2480	7.12	≤20.97	PASS
3DH1	Ant1	2402	7.44	≤20.97	PASS
		2441	9.16	≤20.97	PASS
		2480	7.14	≤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	1.002	≥ 0.664	PASS
		Hop_2441	0.688	≥ 0.664	PASS
		Hop_2480	1.012	≥ 0.664	PASS
2DH1	Ant1	Hop_2402	0.998	≥ 0.836	PASS
		Hop_2441	1.014	≥ 0.836	PASS
		Hop_2480	1.16	≥ 0.836	PASS
3DH1	Ant1	Hop_2402	0.976	≥ 0.846	PASS
		Hop_2441	1.008	≥ 0.846	PASS
		Hop_2480	1	≥ 0.846	PASS

Test Graphs





2DH1_Ant1_Hop_2441



2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402



3DH1_Ant1_Hop_2441



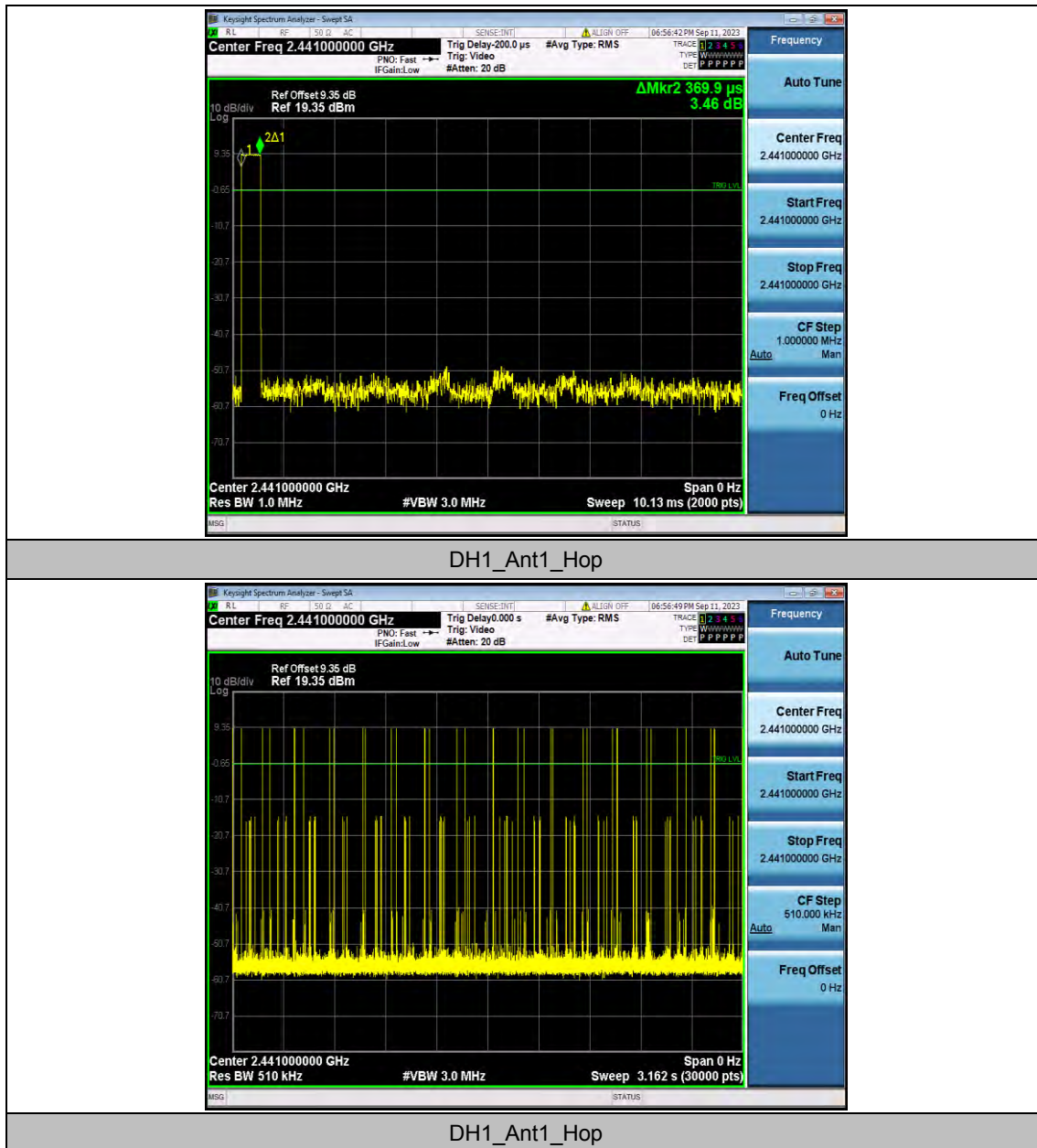
3DH1_Ant1_Hop_2480

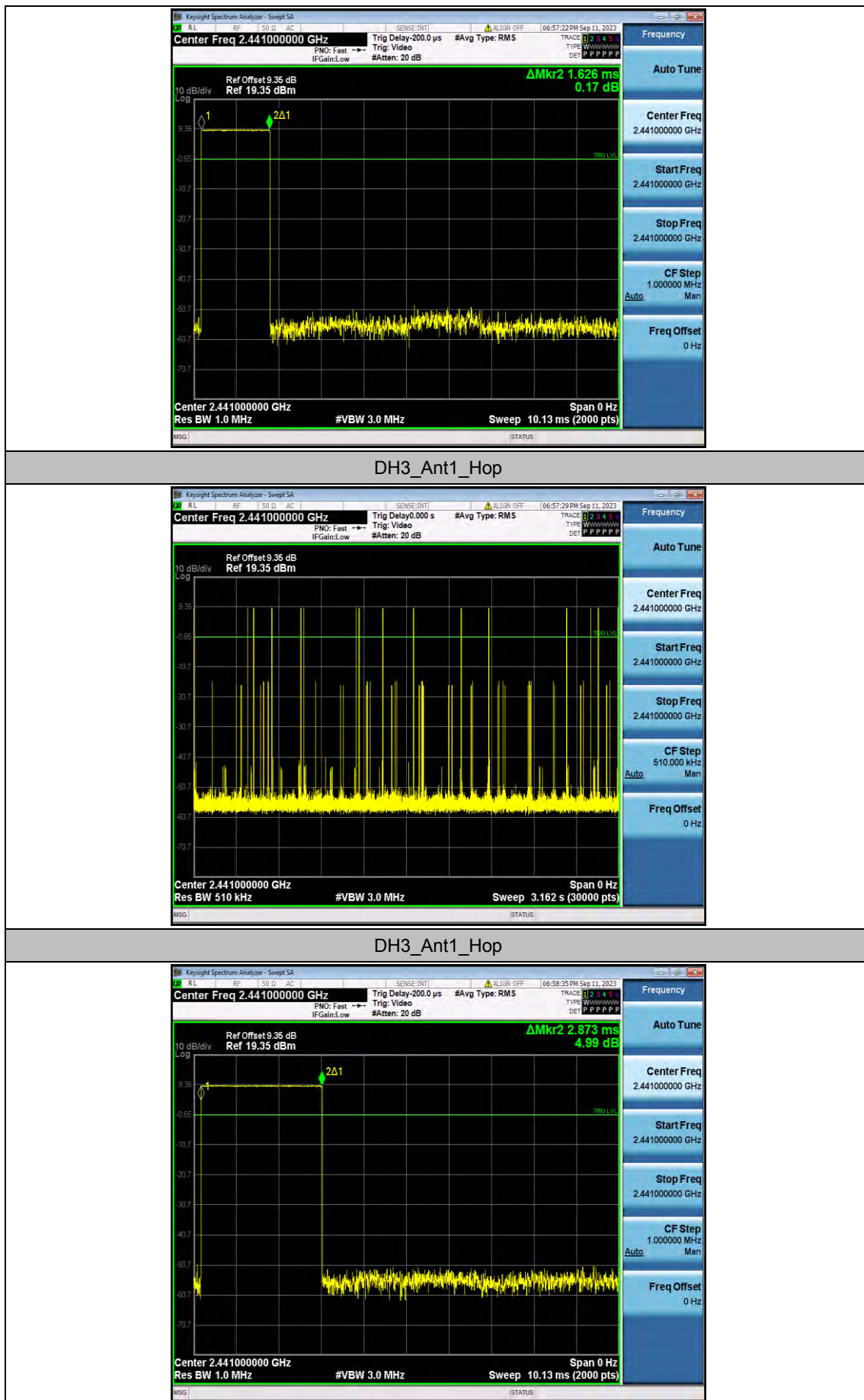
Appendix A.5: Time of occupancy

Test Result

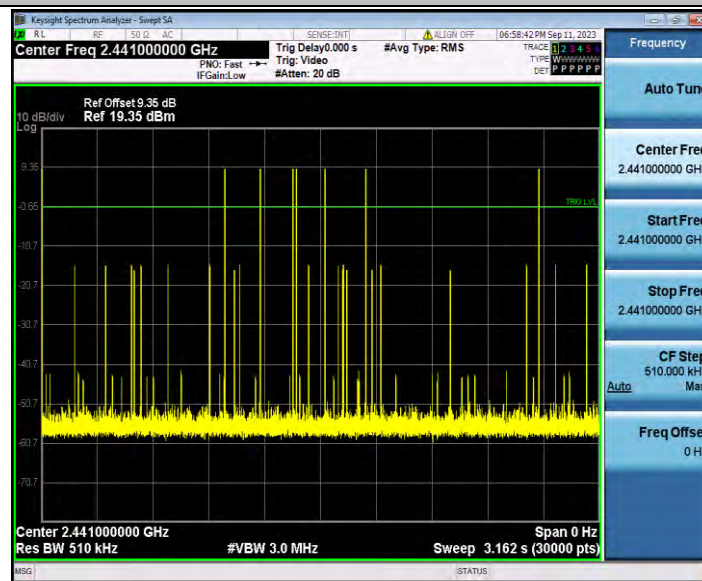
Test Mode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.37	330	0.122	≤0.4	PASS
DH3	Ant1	Hop	1.63	160	0.26	≤0.4	PASS
DH5	Ant1	Hop	2.87	80	0.23	≤0.4	PASS
2DH1	Ant1	Hop	0.37	330	0.124	≤0.4	PASS
2DH3	Ant1	Hop	1.63	160	0.261	≤0.4	PASS
2DH5	Ant1	Hop	2.88	80	0.23	≤0.4	PASS
3DH1	Ant1	Hop	0.38	330	0.125	≤0.4	PASS
3DH3	Ant1	Hop	1.63	160	0.26	≤0.4	PASS
3DH5	Ant1	Hop	2.88	90	0.259	≤0.4	PASS

Test Graphs

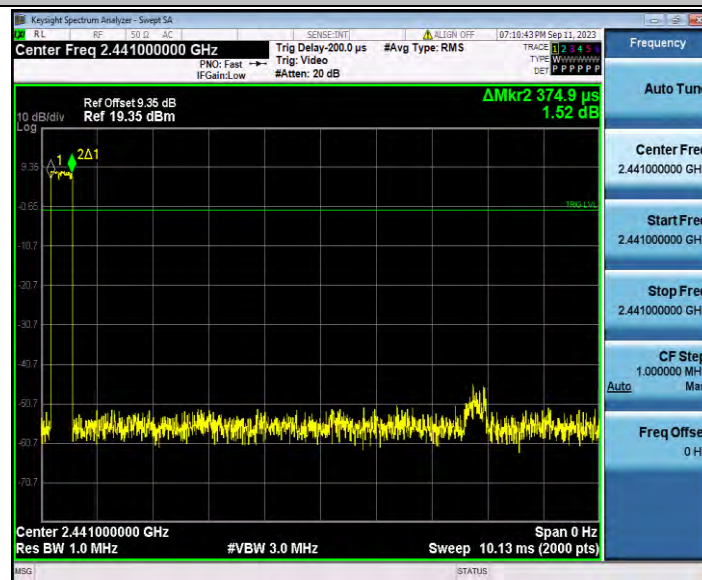




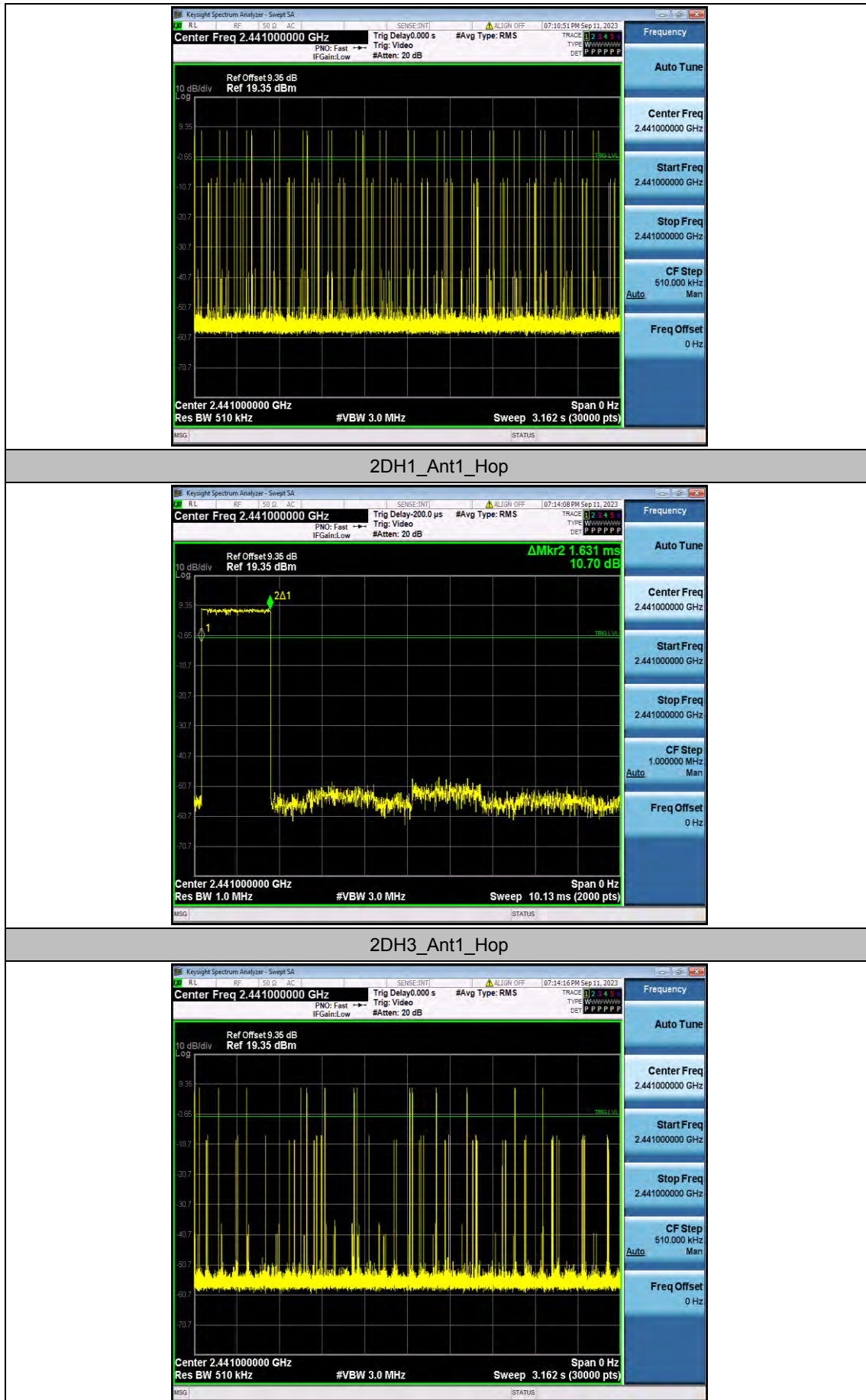
DH5_Ant1_Hop



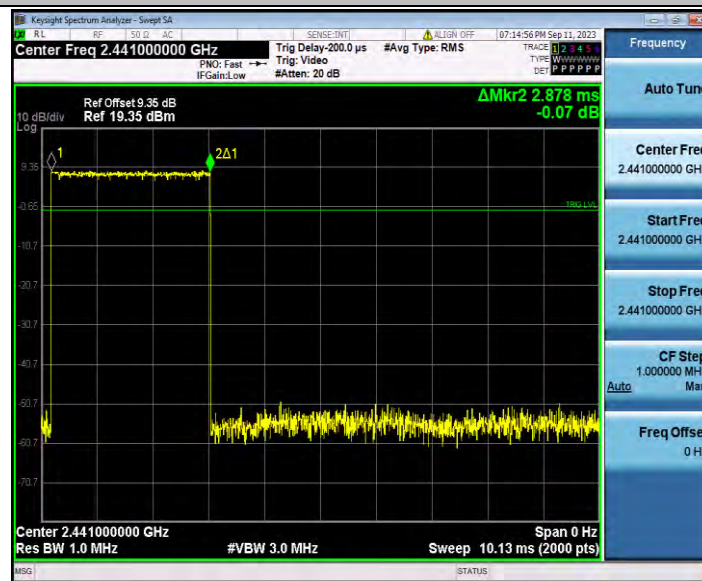
DH5_Ant1_Hop



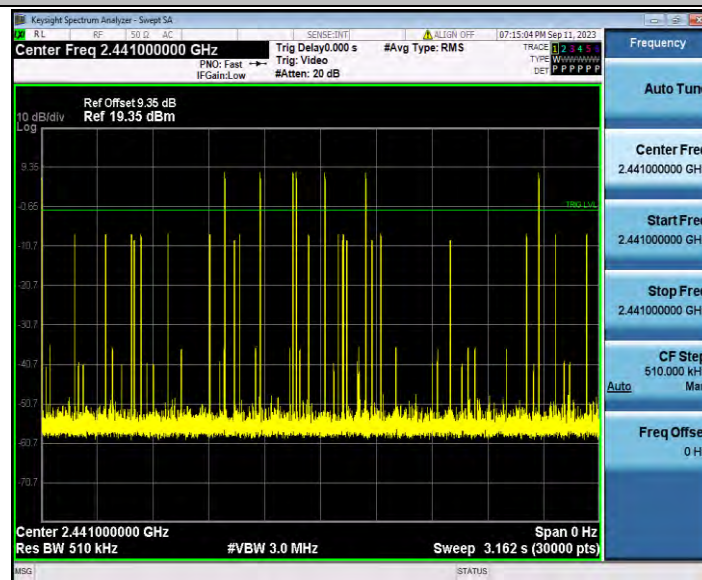
2DH1_Ant1_Hop



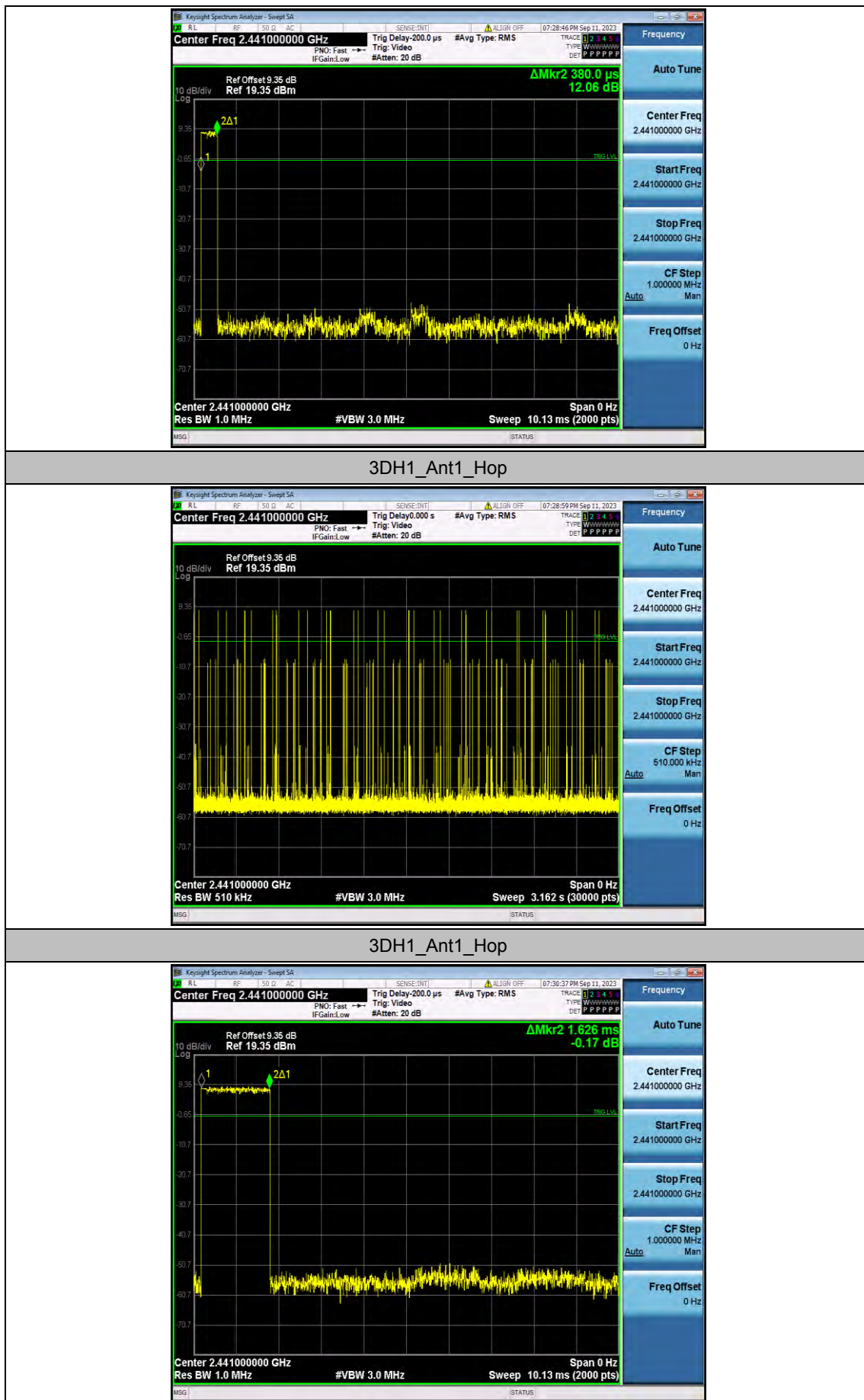
2DH3_Ant1_Hop



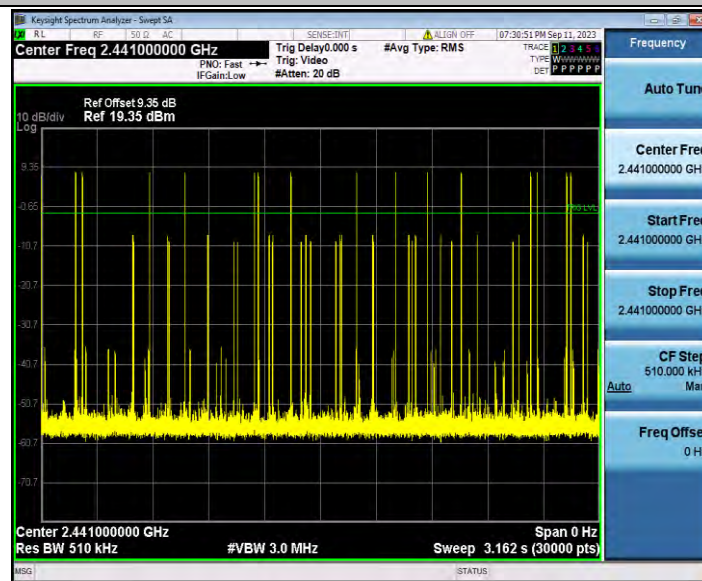
2DH5_Ant1_Hop



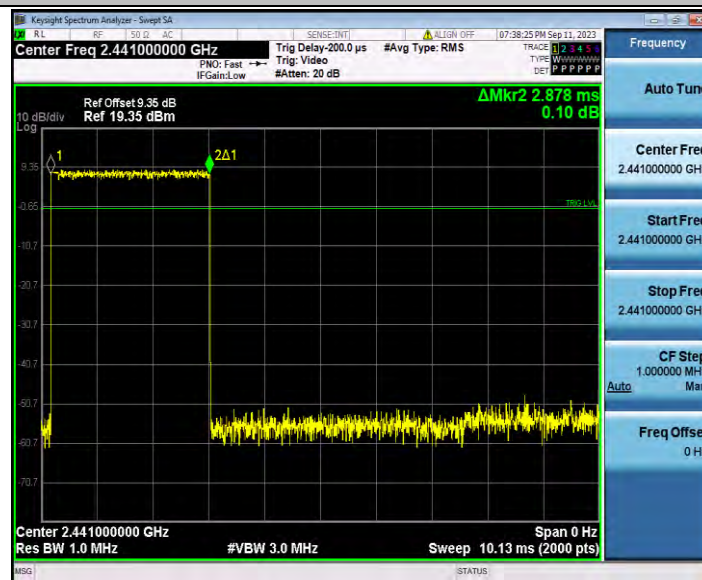
2DH5_Ant1_Hop



3DH3_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop

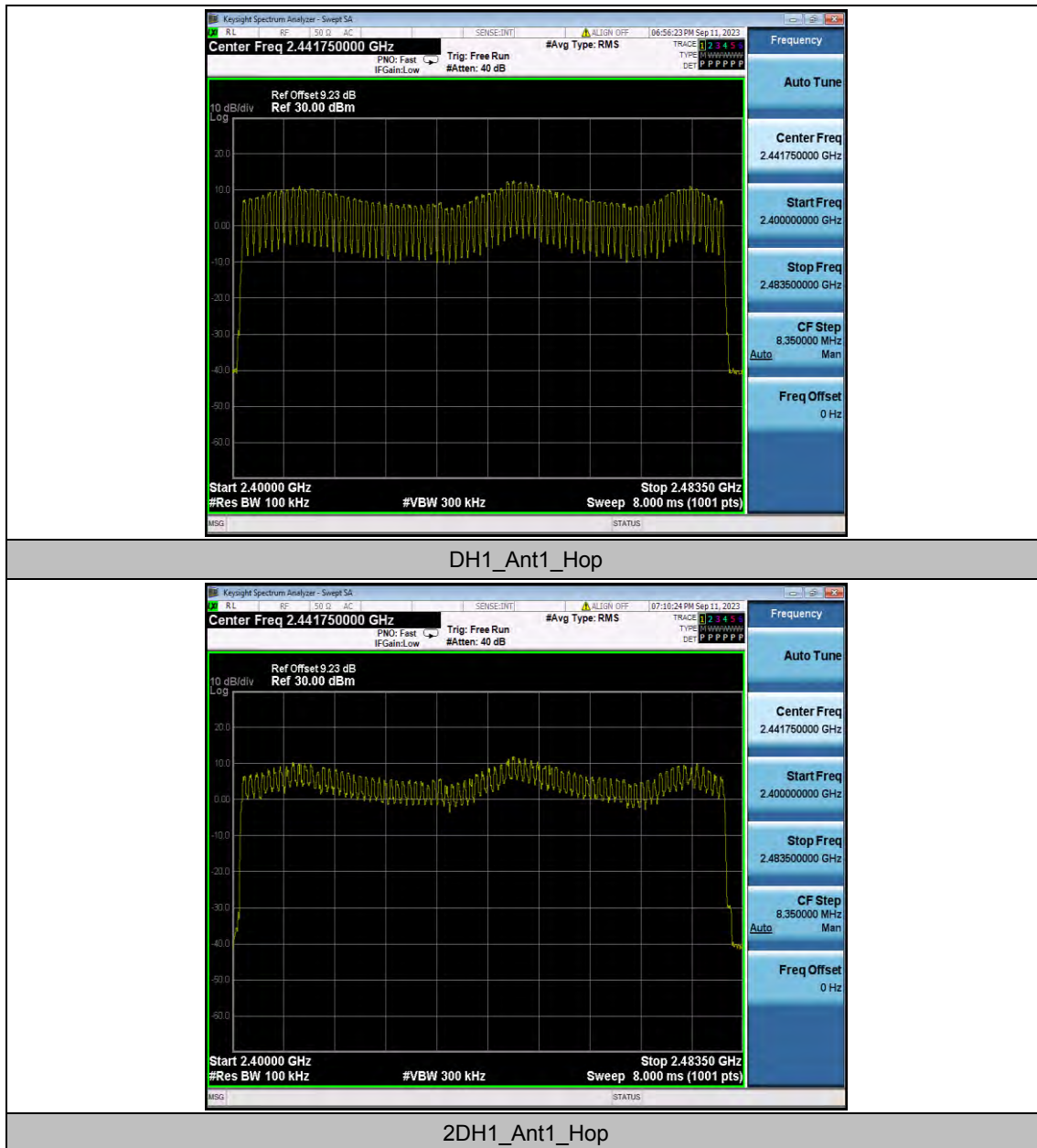


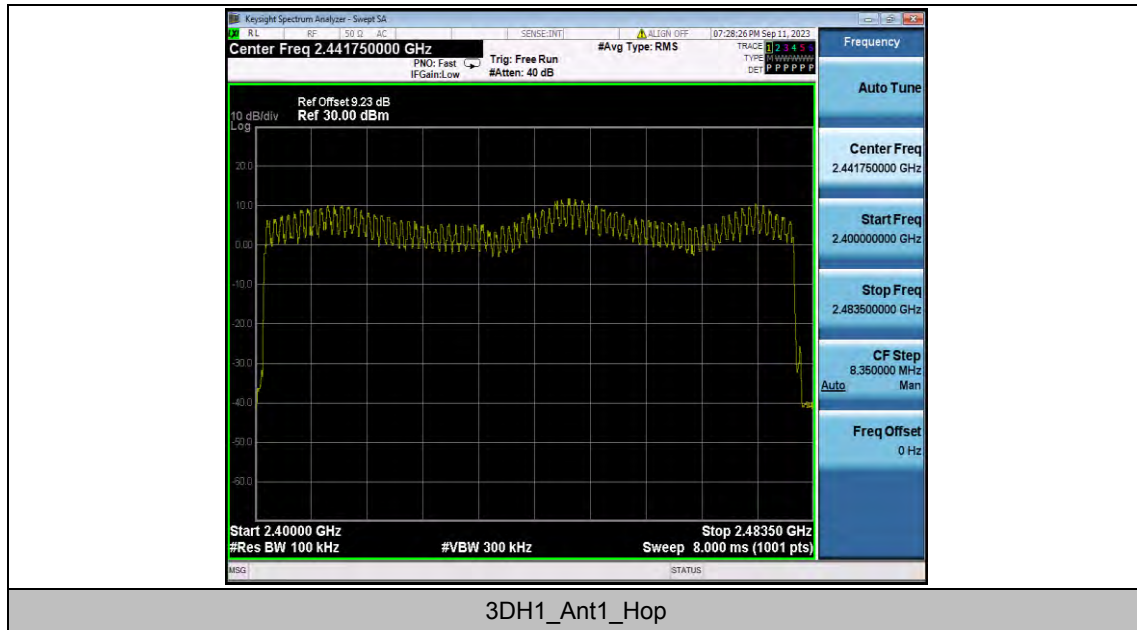
Appendix A.6: Number of hopping channels

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



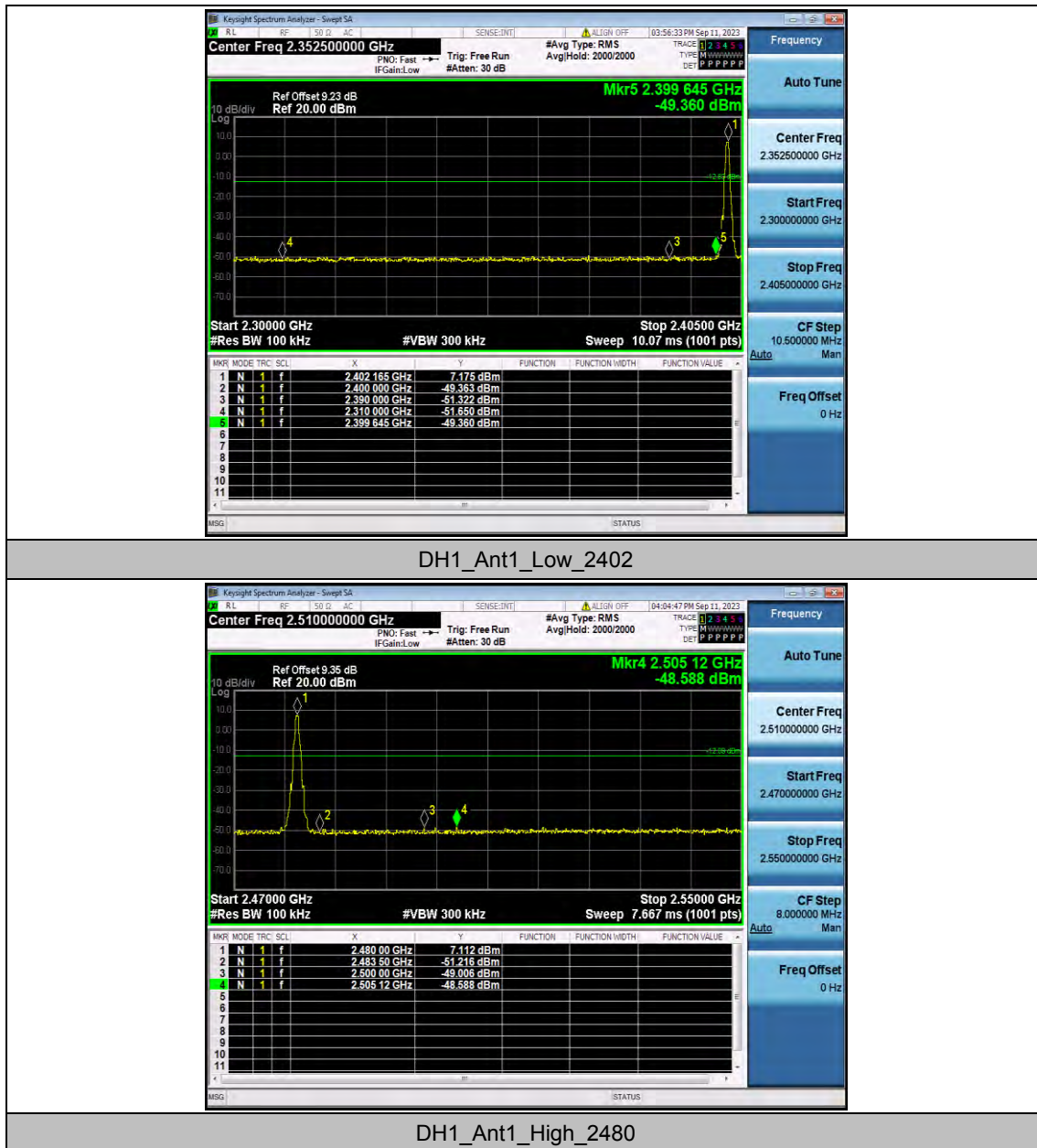


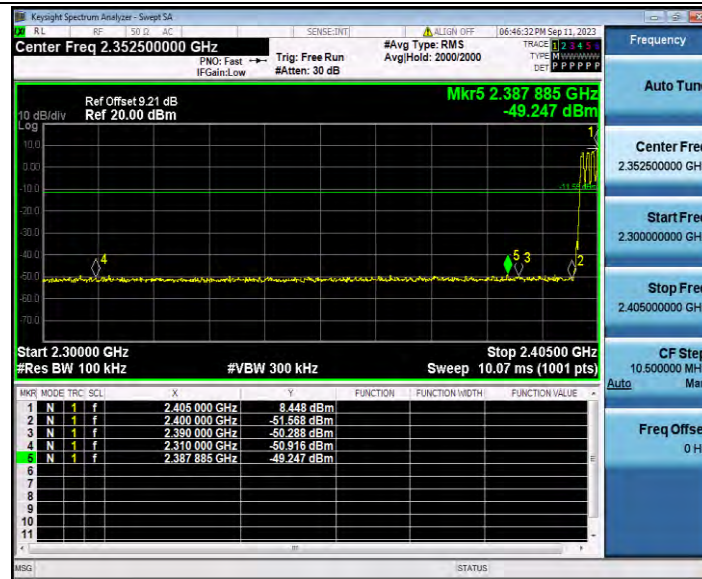
Appendix A.7: Band edge measurements

Test Result

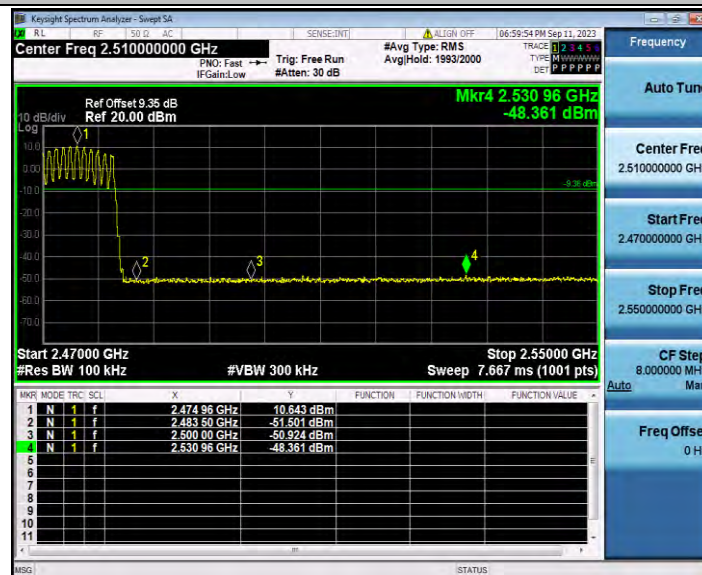
Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	7.18	-49.36	≤ -12.83	PASS
		High	2480	7.11	-48.59	≤ -12.89	PASS
		Low	Hop_2402	8.45	-49.25	≤ -11.55	PASS
		High	Hop_2480	10.64	-48.36	≤ -9.36	PASS
2DH1	Ant1	Low	2402	6.45	-47.51	≤ -13.55	PASS
		High	2480	6.53	-47.78	≤ -13.47	PASS
		Low	Hop_2402	7.24	-49.41	≤ -12.76	PASS
		High	Hop_2480	6.70	-47.82	≤ -13.3	PASS
3DH1	Ant1	Low	2402	6.47	-45.67	≤ -13.53	PASS
		High	2480	6.56	-48.19	≤ -13.44	PASS
		Low	Hop_2402	6.63	-48.66	≤ -13.37	PASS
		High	Hop_2480	8.79	-48.9	≤ -11.22	PASS

Test Graphs

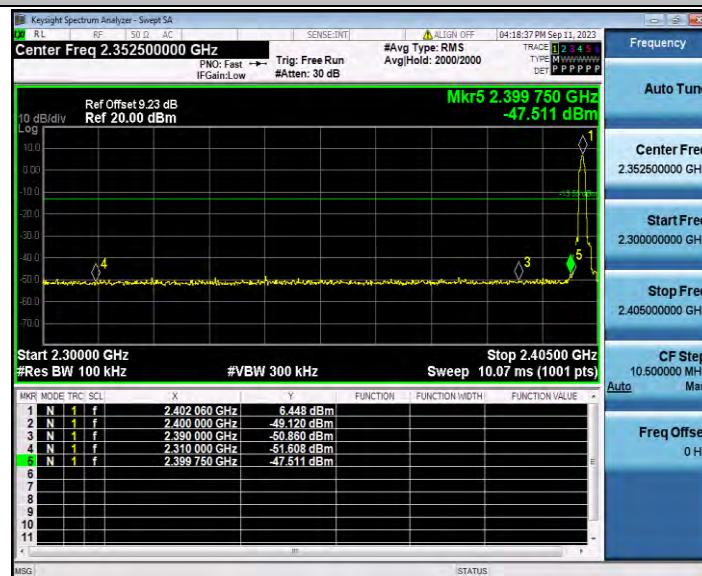




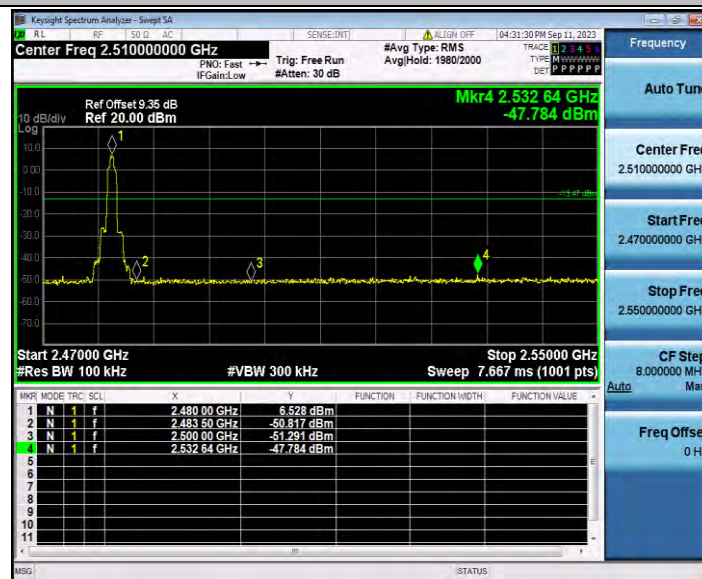
DH1_Ant1_Low_Hop_2402



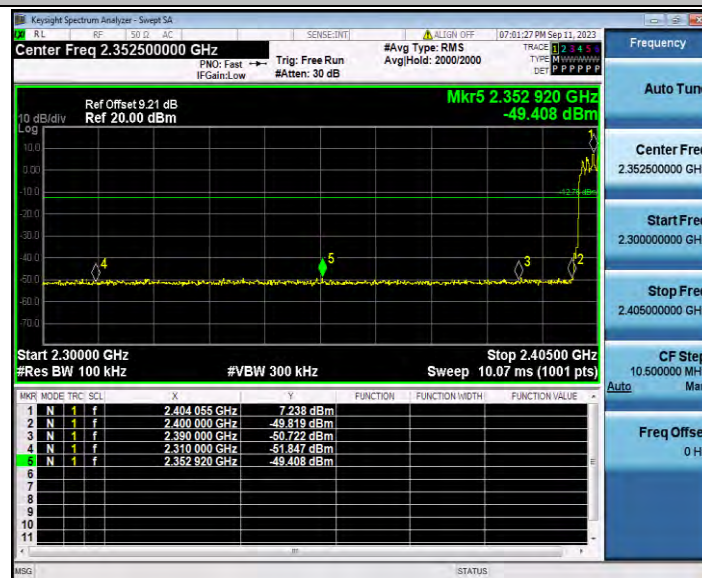
DH1_Ant1_High_Hop_2480



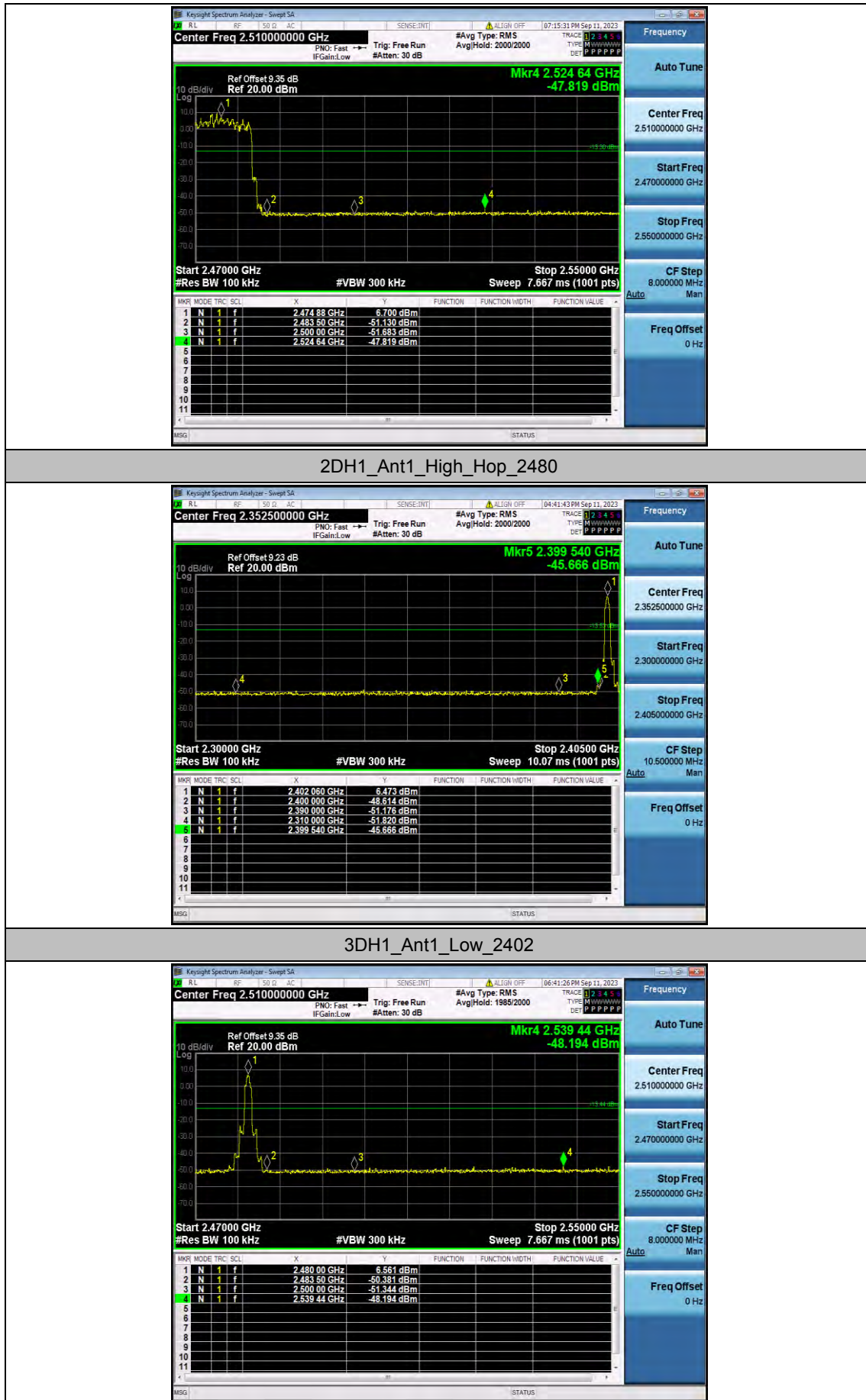
2DH1_Ant1_Low_2402



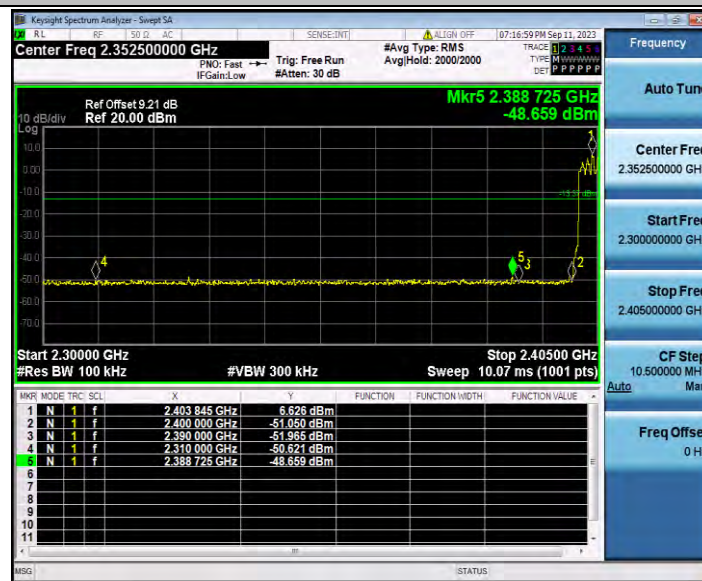
2DH1_Ant1_High_2480



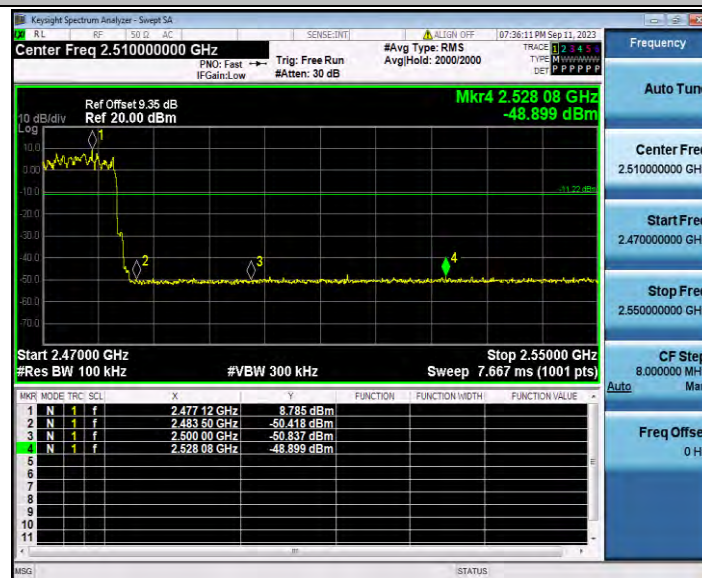
2DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_2480



3DH1_Ant1_Low_Hop_2402



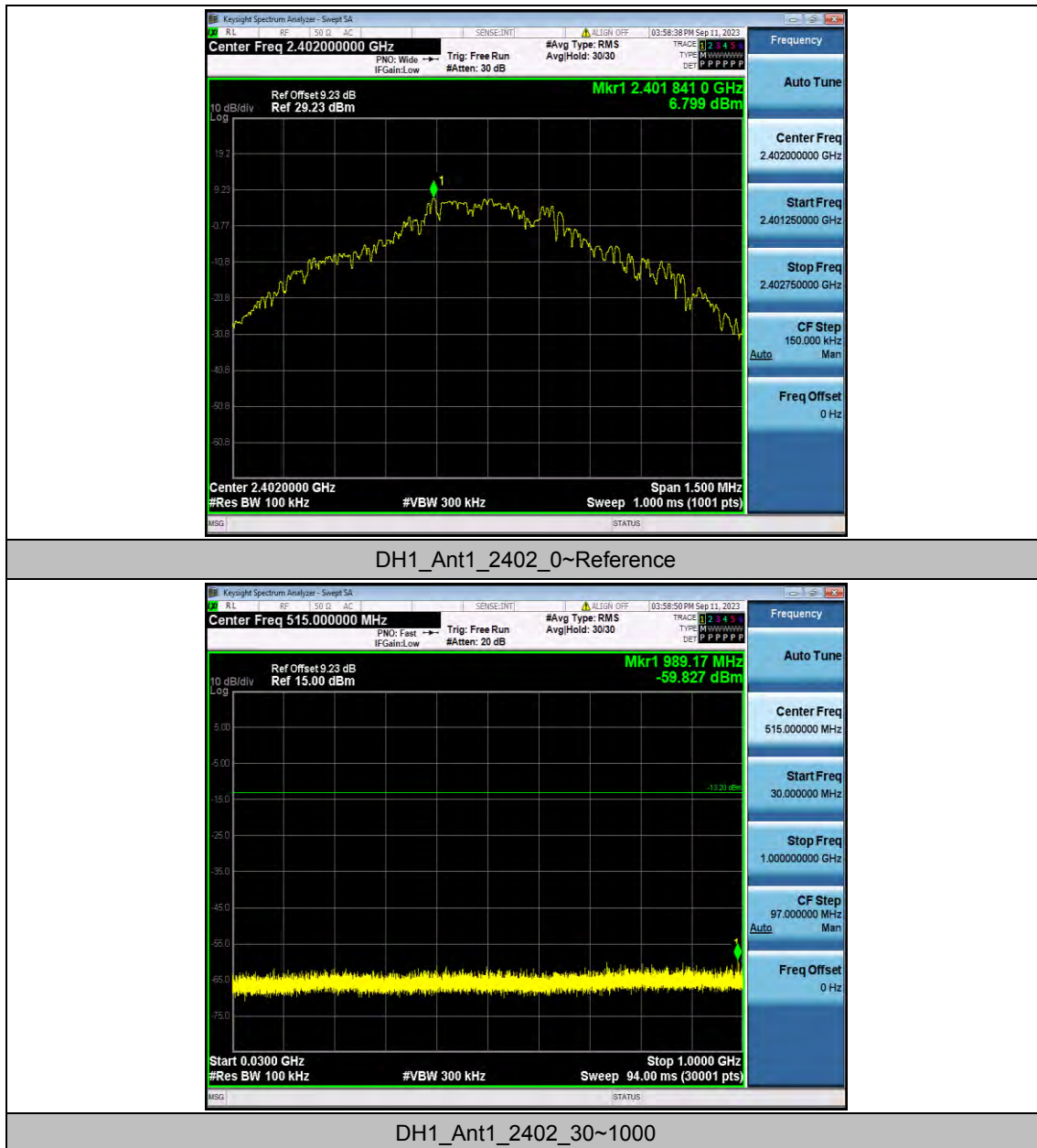
3DH1_Ant1_High_Hop_2480

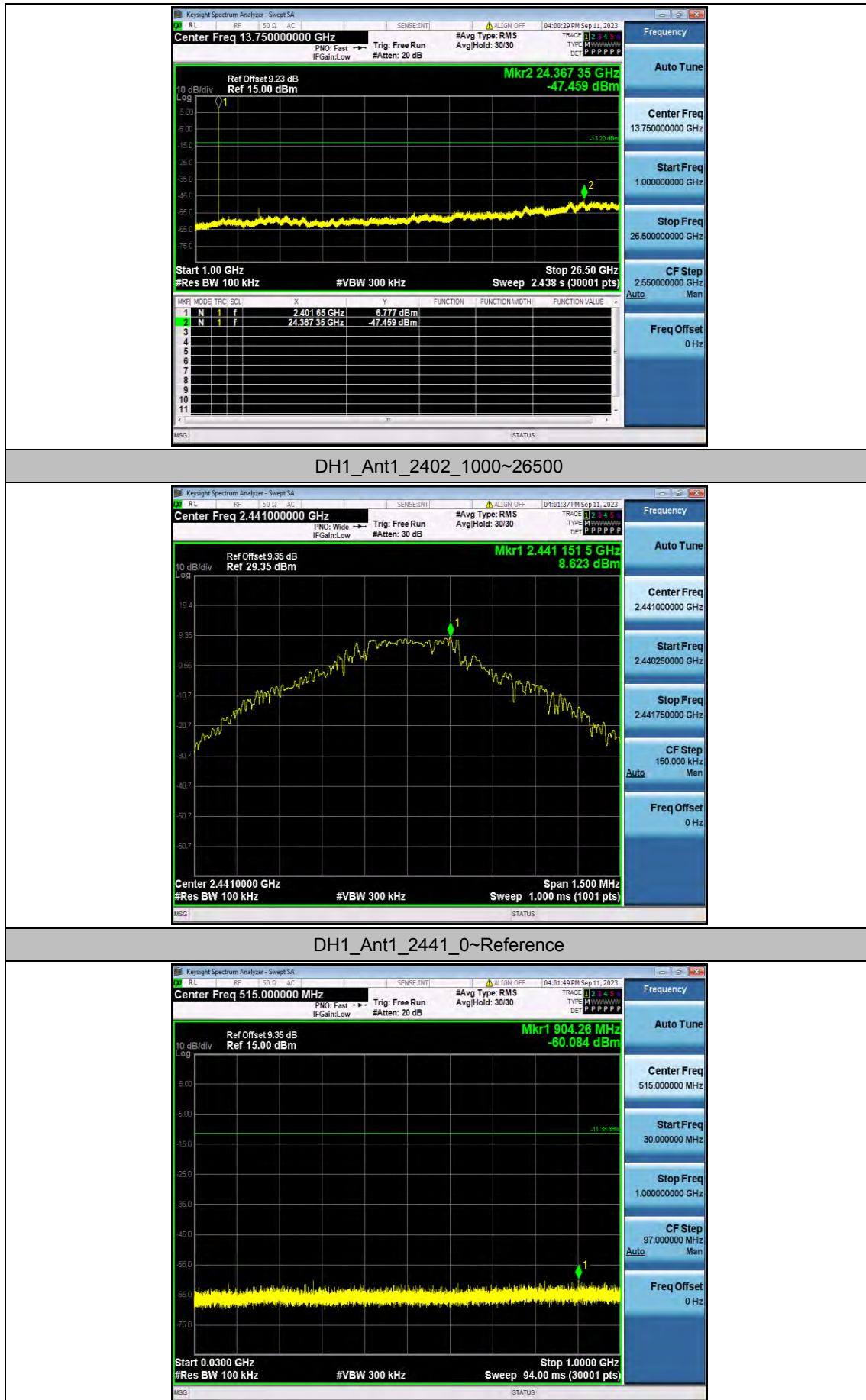
Appendix A.8: Conducted Spurious Emission

Test Result

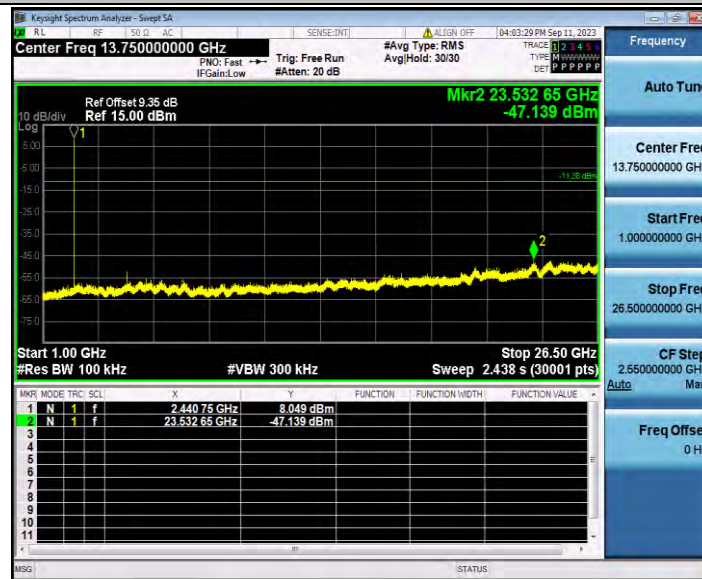
Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	6.80	6.80	---	PASS
			30~1000	6.80	-59.83	≤ -13.2	PASS
			1000~26500	6.80	-47.46	≤ -13.2	PASS
		2441	Reference	8.62	8.62	---	PASS
			30~1000	8.62	-60.08	≤ -11.38	PASS
			1000~26500	8.62	-47.14	≤ -11.38	PASS
		2480	Reference	6.86	6.86	---	PASS
			30~1000	6.86	-60	≤ -13.14	PASS
			1000~26500	6.86	-46.52	≤ -13.14	PASS
2DH1	Ant1	2402	Reference	6.23	6.23	---	PASS
			30~1000	6.23	-59.99	≤ -13.77	PASS
			1000~26500	6.23	-47.17	≤ -13.77	PASS
		2441	Reference	6.40	6.40	---	PASS
			30~1000	6.40	-60.33	≤ -13.6	PASS
			1000~26500	6.40	-47.34	≤ -13.6	PASS
		2480	Reference	6.12	6.12	---	PASS
			30~1000	6.12	-60.07	≤ -13.88	PASS
			1000~26500	6.12	-47.59	≤ -13.88	PASS
3DH1	Ant1	2402	Reference	6.21	6.21	---	PASS
			30~1000	6.21	-60.32	≤ -13.79	PASS
			1000~26500	6.21	-47.84	≤ -13.79	PASS
		2441	Reference	7.58	7.58	---	PASS
			30~1000	7.58	-60.28	≤ -12.42	PASS
			1000~26500	7.58	-47.11	≤ -12.42	PASS
		2480	Reference	5.89	5.89	---	PASS
			30~1000	5.89	-60.09	≤ -14.11	PASS
			1000~26500	5.89	-47.51	≤ -14.11	PASS

Test Graphs





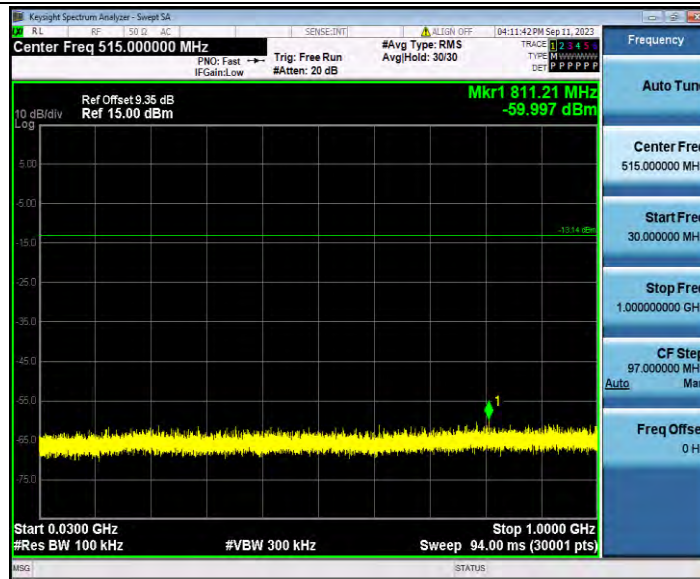
DH1_Ant1_2441_30~1000



DH1_Ant1_2441_1000~26500



DH1_Ant1_2480_0~Reference



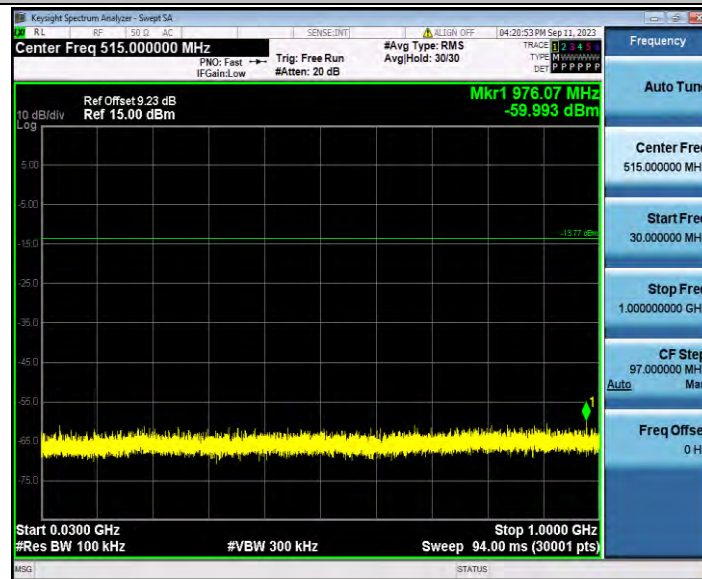
DH1_Ant1_2480_30~1000



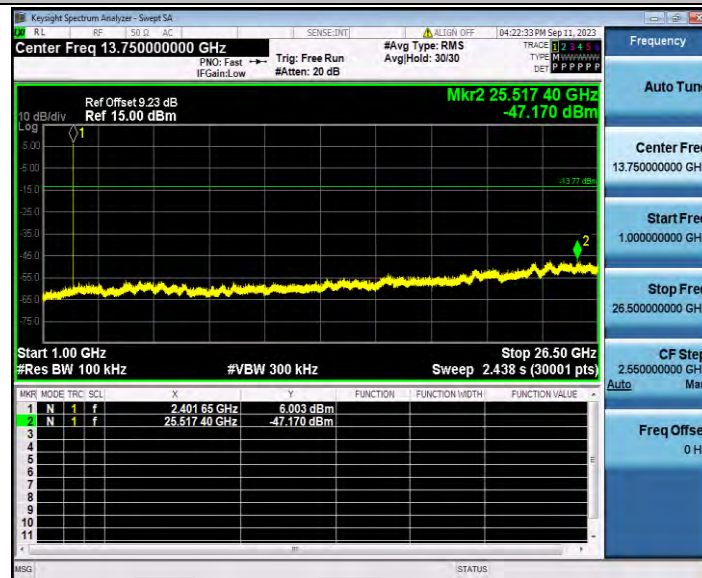
DH1_Ant1_2480_1000~26500



2DH1_Ant1_2402_0~Reference



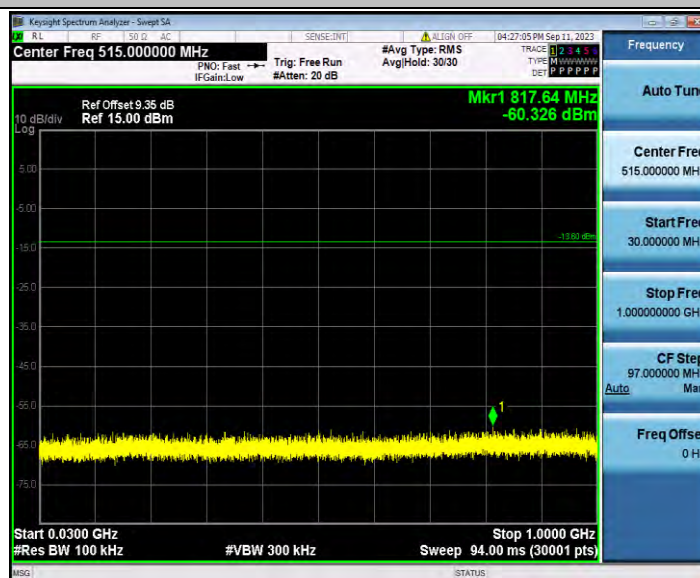
2DH1_Ant1_2402_30~1000



2DH1_Ant1_2402_1000~26500



2DH1_Ant1_2441_0~Reference



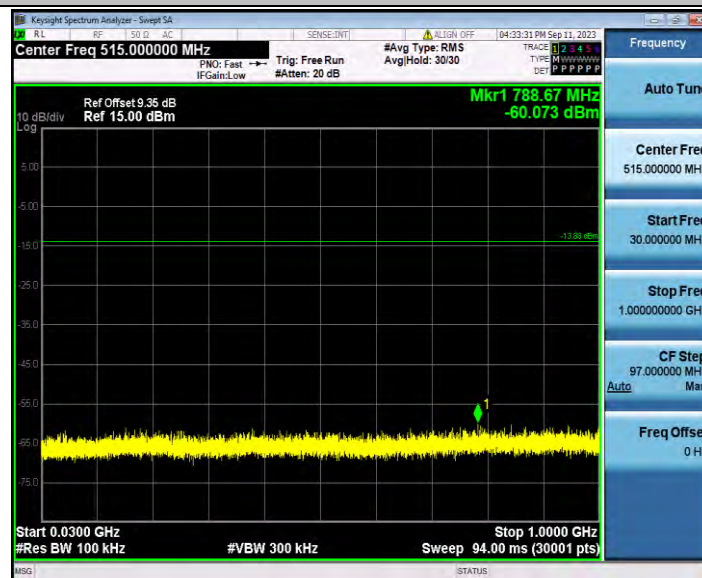
2DH1_Ant1_2441_30~1000



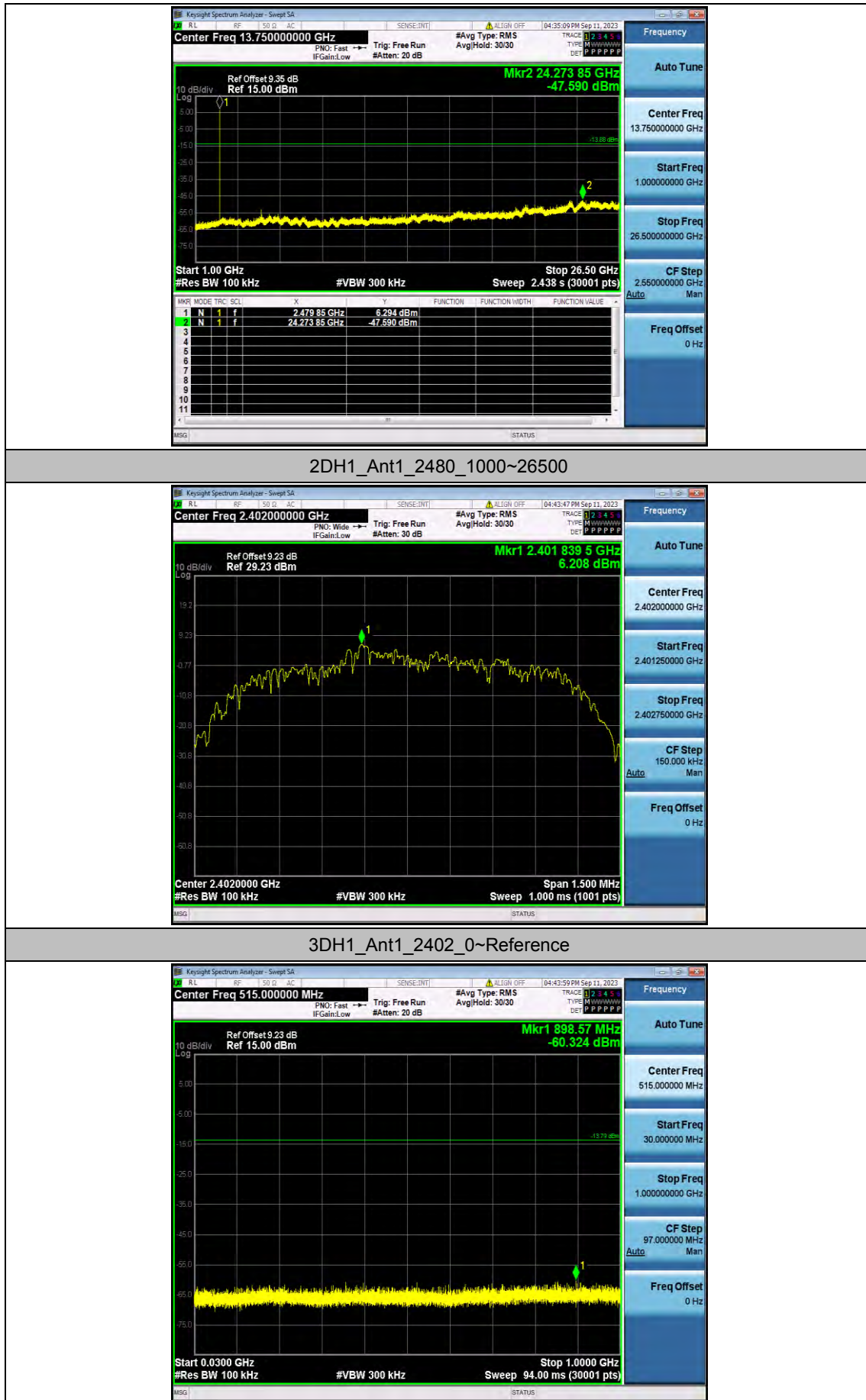
2DH1_Ant1_2441_1000~26500

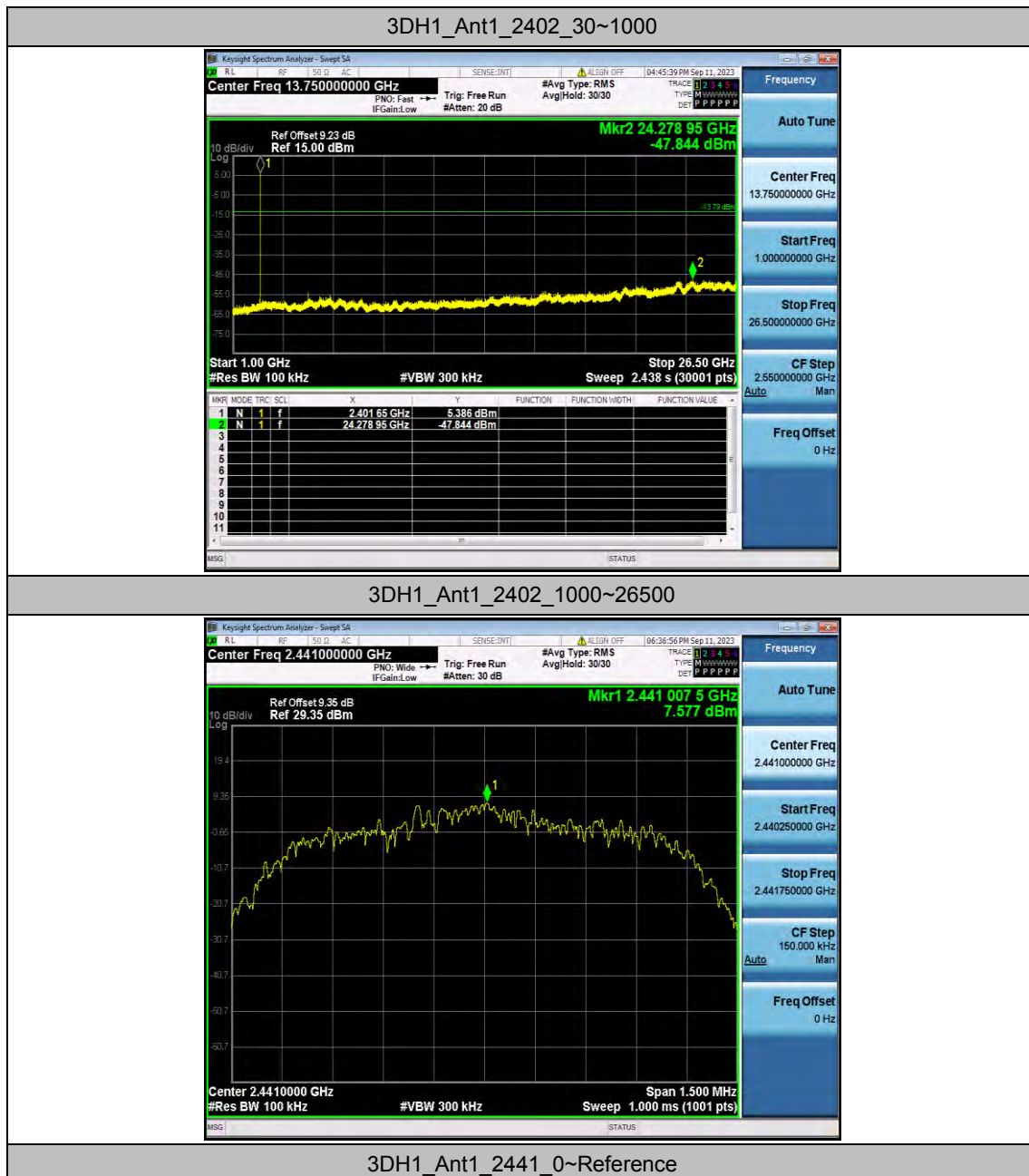


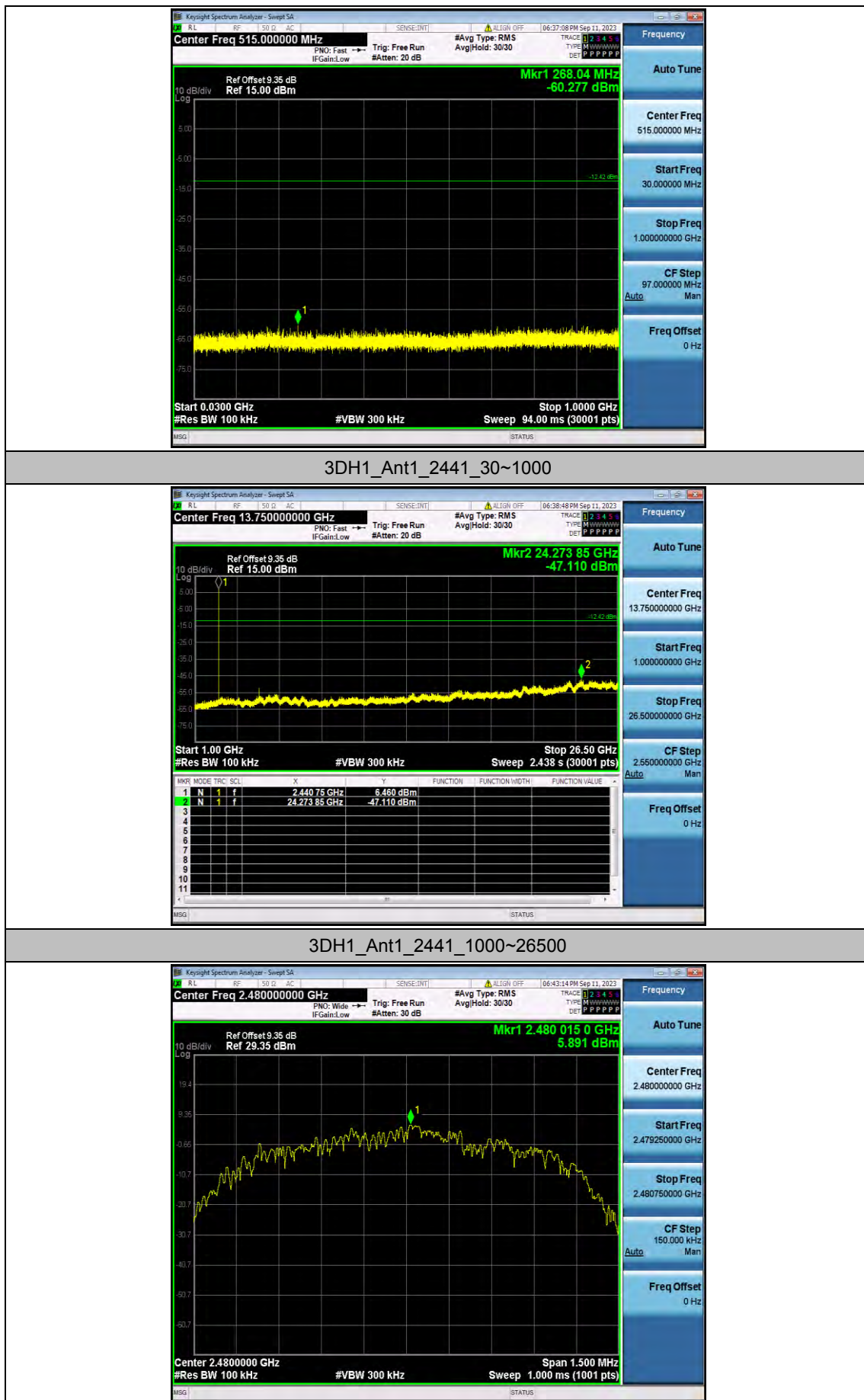
2DH1_Ant1_2480_0~Reference



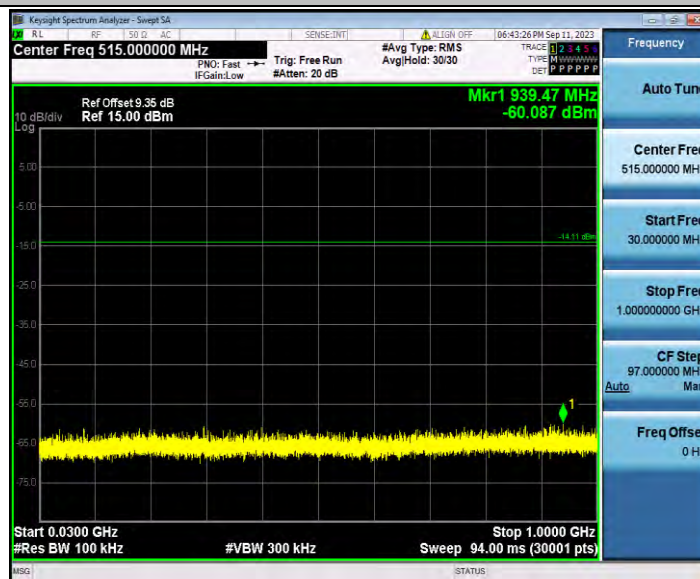
2DH1_Ant1_2480_30~1000







3DH1_Ant1_2480_0~Reference



3DH1_Ant1_2480_30~1000



3DH1_Ant1_2480_1000~26500

Appendix A.9: Emissions in Restricted Bands

Test Result

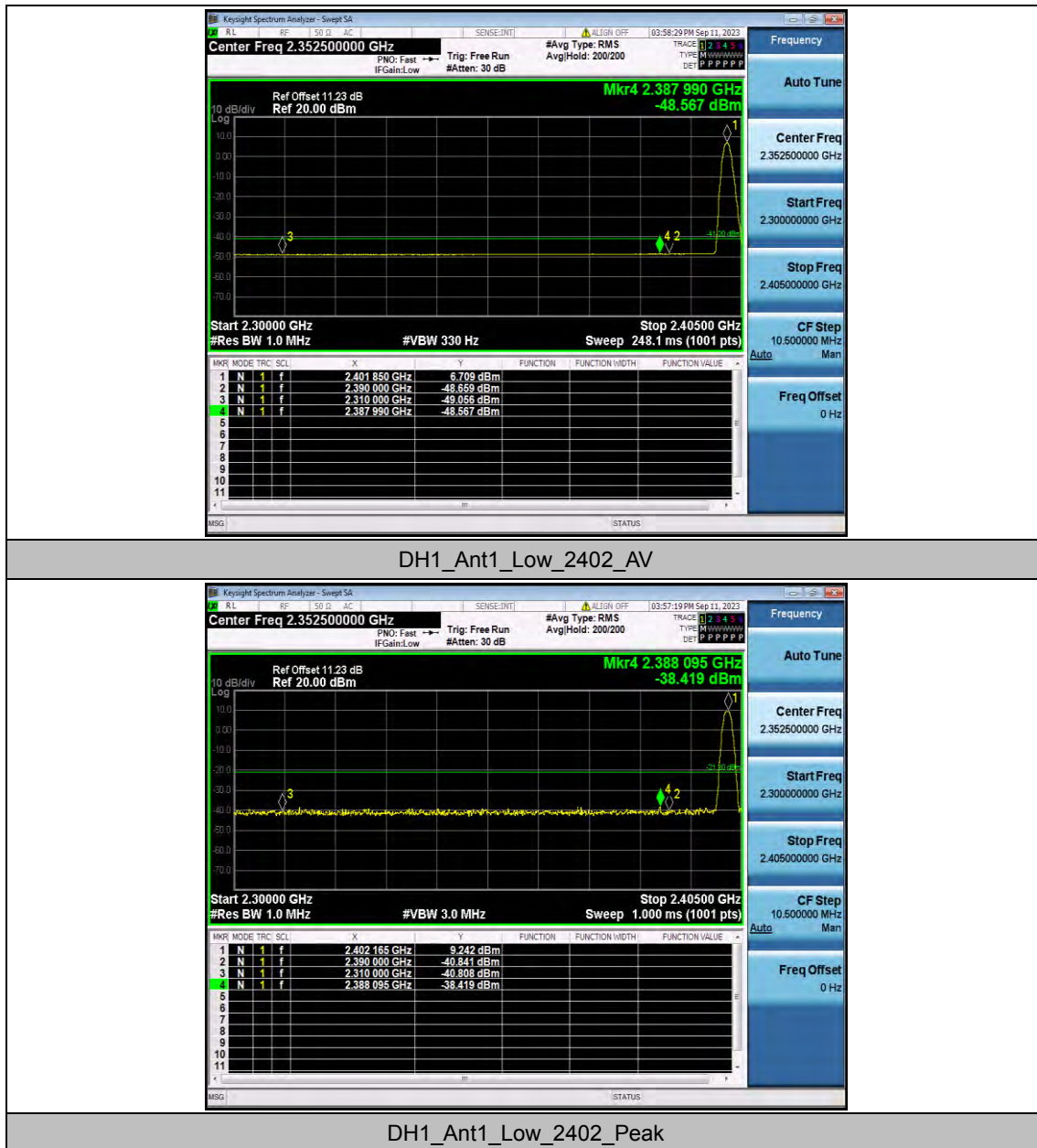
TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH1	Ant1	Low	2402	AV	2310.000	-49.06	≤-41.20	46.14	≤54	PASS
				AV	2387.990	-48.57	≤-41.20	46.63	≤54	PASS
				AV	2390.000	-48.66	≤-41.20	46.54	≤54	PASS
				Peak	2310.000	-40.81	≤-21.20	54.39	≤74	PASS
				Peak	2388.095	-38.42	≤-21.20	56.78	≤74	PASS
				Peak	2390.000	-40.84	≤-21.20	54.36	≤74	PASS
		High	2480	AV	2483.500	-47.78	≤-41.20	47.42	≤54	PASS
				AV	2483.520	-47.78	≤-41.20	47.42	≤54	PASS
				AV	2500.000	-48.31	≤-41.20	46.89	≤54	PASS
				Peak	2483.500	-41.48	≤-21.20	53.72	≤74	PASS
				Peak	2495.200	-37.36	≤-21.20	57.84	≤74	PASS
				Peak	2500.000	-40.79	≤-21.20	54.41	≤74	PASS
2DH1	Ant1	Low	2402	AV	2310.000	-48.92	≤-41.20	46.28	≤54	PASS
				AV	2389.985	-48.49	≤-41.20	46.71	≤54	PASS
				AV	2390.000	-48.49	≤-41.20	46.71	≤54	PASS
				Peak	2310.000	-41.31	≤-21.20	53.89	≤74	PASS
				Peak	2378.645	-37.78	≤-21.20	57.42	≤74	PASS
				Peak	2390.000	-41.77	≤-21.20	53.43	≤74	PASS
		High	2480	AV	2483.500	-47.48	≤-41.20	47.72	≤54	PASS
				AV	2483.520	-47.48	≤-41.20	47.72	≤54	PASS
				AV	2500.000	-48.27	≤-41.20	46.93	≤54	PASS
				Peak	2483.500	-39.9	≤-21.20	55.30	≤74	PASS
				Peak	2485.680	-37.82	≤-21.20	57.38	≤74	PASS
				Peak	2500.000	-40.28	≤-21.20	54.92	≤74	PASS
3DH1	Ant1	Low	2402	AV	2310.000	-48.97	≤-41.20	46.23	≤54	PASS
				AV	2387.465	-48.5	≤-41.20	46.70	≤54	PASS
				AV	2390.000	-48.56	≤-41.20	46.64	≤54	PASS
				Peak	2310.000	-42.08	≤-21.20	53.12	≤74	PASS
				Peak	2386.625	-37.63	≤-21.20	57.57	≤74	PASS
				Peak	2390.000	-41.15	≤-21.20	54.05	≤74	PASS
		High	2480	AV	2483.500	-47.47	≤-41.20	47.73	≤54	PASS
				AV	2483.520	-47.47	≤-41.20	47.73	≤54	PASS
				AV	2500.000	-48.3	≤-41.20	46.90	≤54	PASS
				Peak	2483.500	-39.58	≤-21.20	55.62	≤74	PASS
				Peak	2490.480	-38.44	≤-21.20	56.76	≤74	PASS

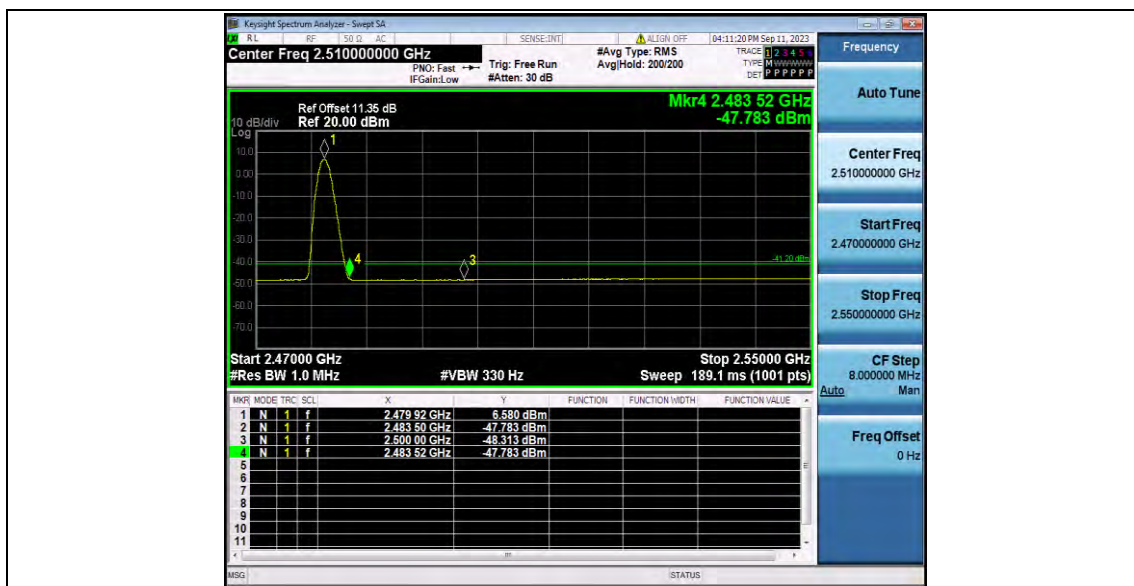
				Peak	2500.000	-39.64	≤-21.20	55.56	≤74	PASS
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Note:

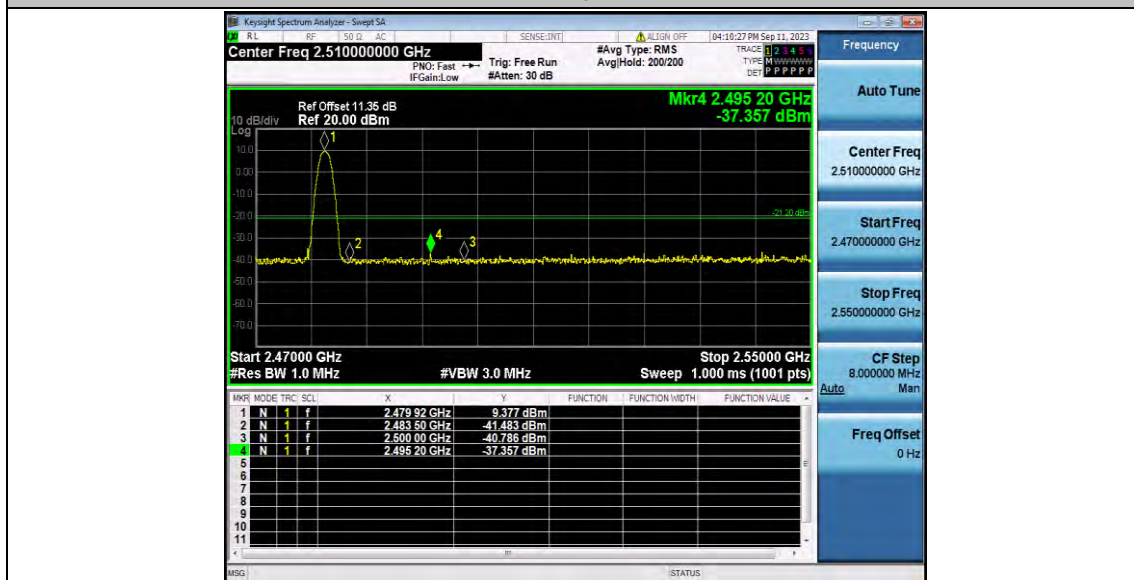
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

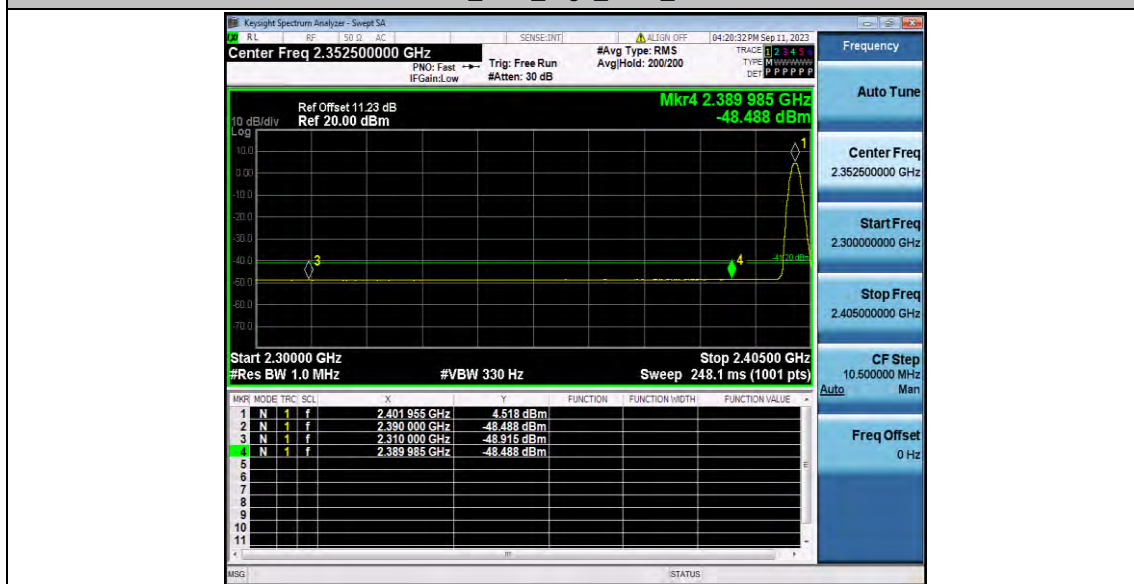




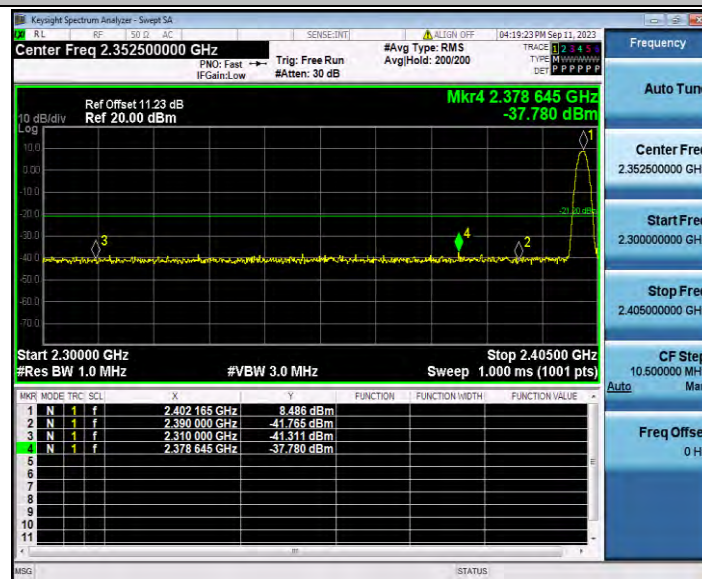
DH1_Ant1_High_2480_AV



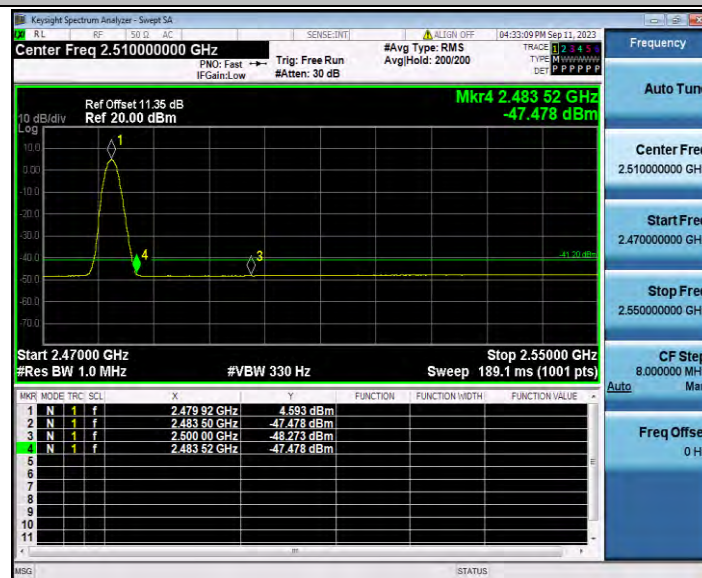
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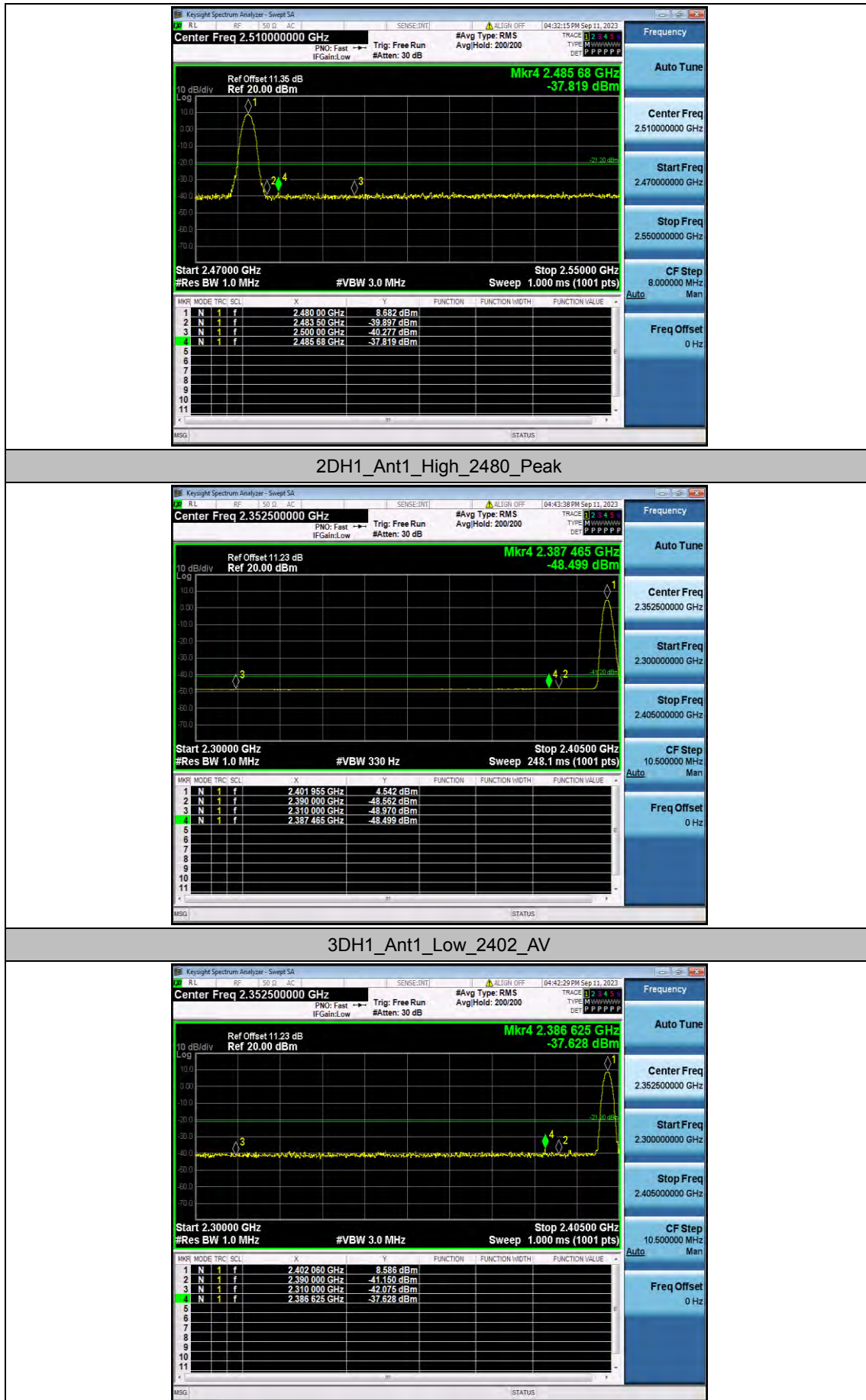
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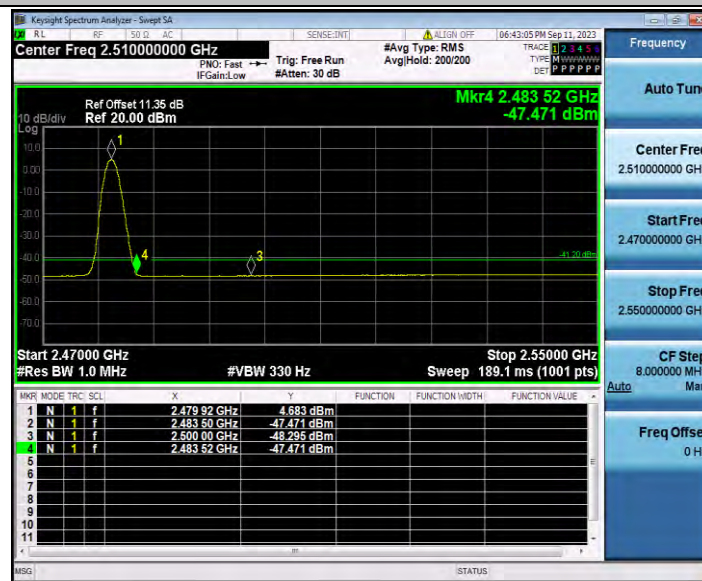
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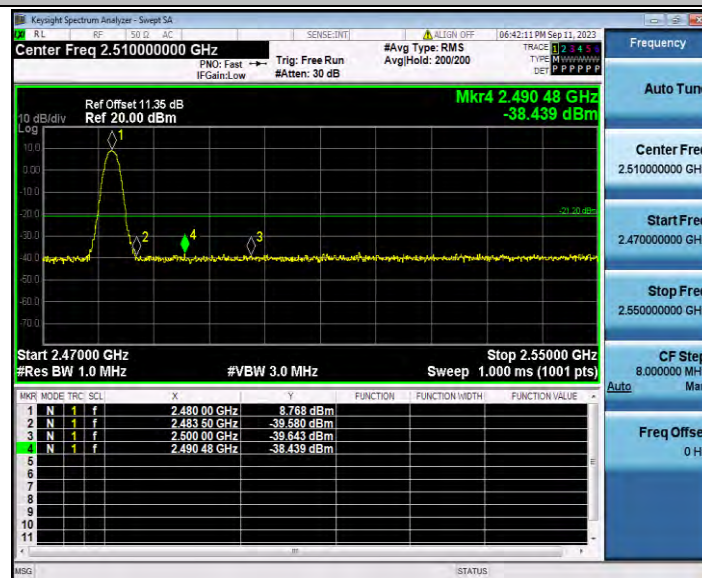
2DH1_Ant1_High_2480_AV



3DH1_Ant1_Low_2402_Peak



3DH1_Ant1_High_2480_AV



3DH1_Ant1_High_2480_Peak