

Case No. : <u>CTA24111401801</u>	
Ambient Condition: <u>23</u> °C, <u>54</u> %RH	
According Standard: ■Part15C	
Test Date: <u>2024.9.12</u>	Test Engineer: <u>Lushan Kong</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	0.960	2401.526	2402.486	---	---
		2441	0.960	2440.523	2441.483	---	---
		2480	0.945	2479.523	2480.468	---	---
2DH1	Ant1	2402	1.416	2401.283	2402.699	---	---
		2441	1.461	2440.241	2441.702	---	---
		2480	1.449	2479.256	2480.705	---	---
3DH1	Ant1	2402	1.467	2401.265	2402.732	---	---
		2441	1.452	2440.277	2441.729	---	---
		2480	1.449	2479.277	2480.726	---	---

Test Graphs





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	0.85097	2401.5700	2402.4210	---	---
		2441	0.85563	2440.5672	2441.4228	---	---
		2480	0.85480	2479.5649	2480.4197	---	---
2DH1	Ant1	2402	1.3383	2401.3227	2402.6610	---	---
		2441	1.3363	2440.3240	2441.6603	---	---
		2480	1.3550	2479.3088	2480.6638	---	---
3DH1	Ant1	2402	1.3383	2401.3247	2402.6630	---	---
		2441	1.3398	2440.3260	2441.6658	---	---
		2480	1.3489	2479.3160	2480.6649	---	---

Test Graphs





2DH1_Ant1_2402



2DH1_Ant1_2441



2DH1_Ant1_2480



3DH1_Ant1_2402



3DH1_Ant1_2441



3D H1_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	8.69	≤20.97	PASS
		2441	6.63	≤20.97	PASS
		2480	8.68	≤20.97	PASS
2DH1	Ant1	2402	7.03	≤20.97	PASS
		2441	7.65	≤20.97	PASS
		2480	7.85	≤20.97	PASS
3DH1	Ant1	2402	7.19	≤20.97	PASS
		2441	7.81	≤20.97	PASS
		2480	7.97	≤20.97	PASS

Appendix A.4: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	0.69	≥ 0.640	PASS
		Hop_2441	1.01	≥ 0.640	PASS
		Hop_2480	0.848	≥ 0.640	PASS
2DH1	Ant1	Hop_2402	1.004	≥ 0.974	PASS
		Hop_2441	1.022	≥ 0.974	PASS
		Hop_2480	1.158	≥ 0.974	PASS
3DH1	Ant1	Hop_2402	1.012	≥ 0.978	PASS
		Hop_2441	1.01	≥ 0.978	PASS
		Hop_2480	1.014	≥ 0.978	PASS

Test Graphs

DH1_Ant1_Hop_2402



DH1_Ant1_Hop_2441



DH1_Ant1_Hop_2480



2DH1_Ant1_Hop_2402



2DH1_Ant1_Hop_2441



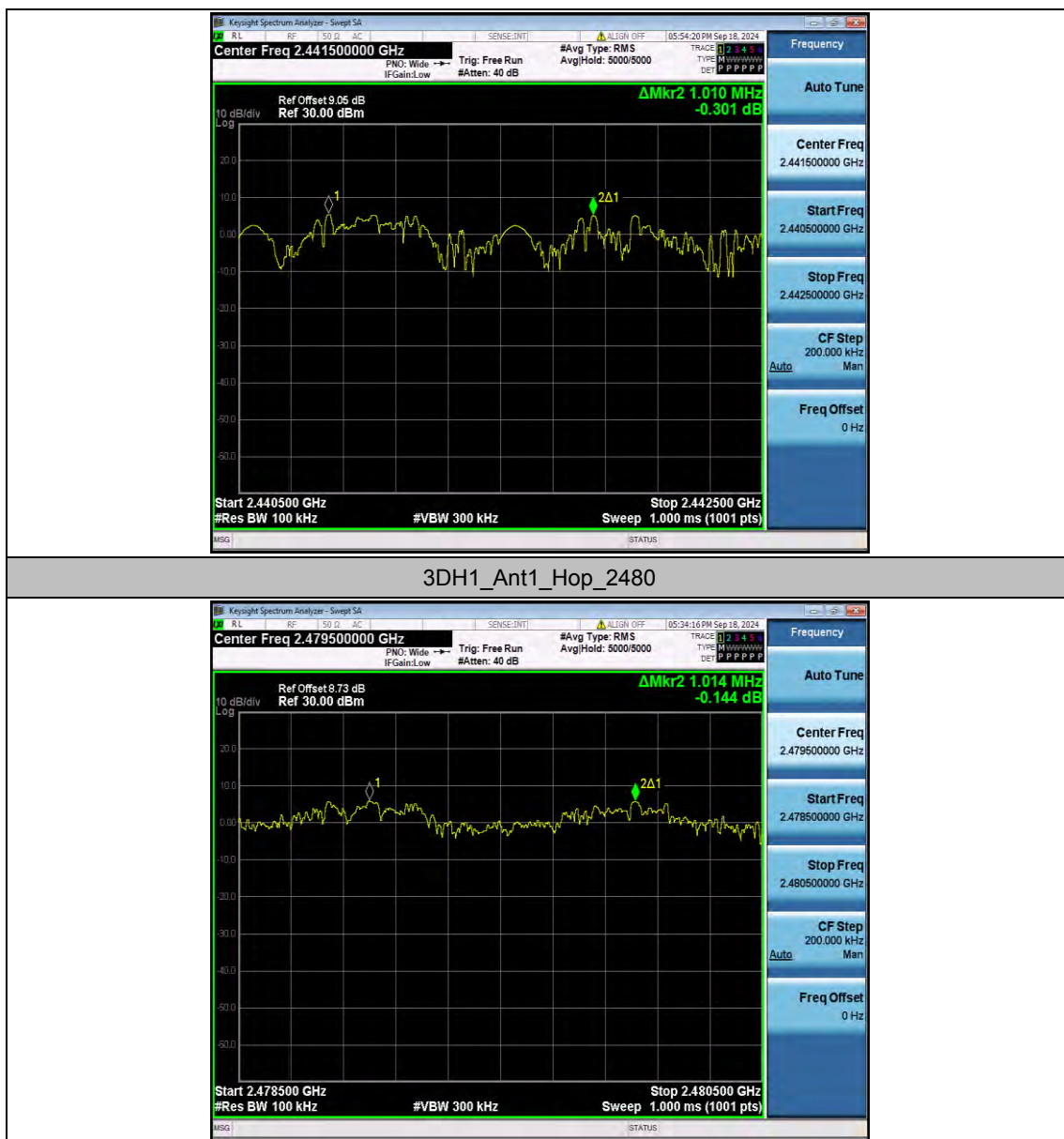
2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402



3DH1_Ant1_Hop_2441

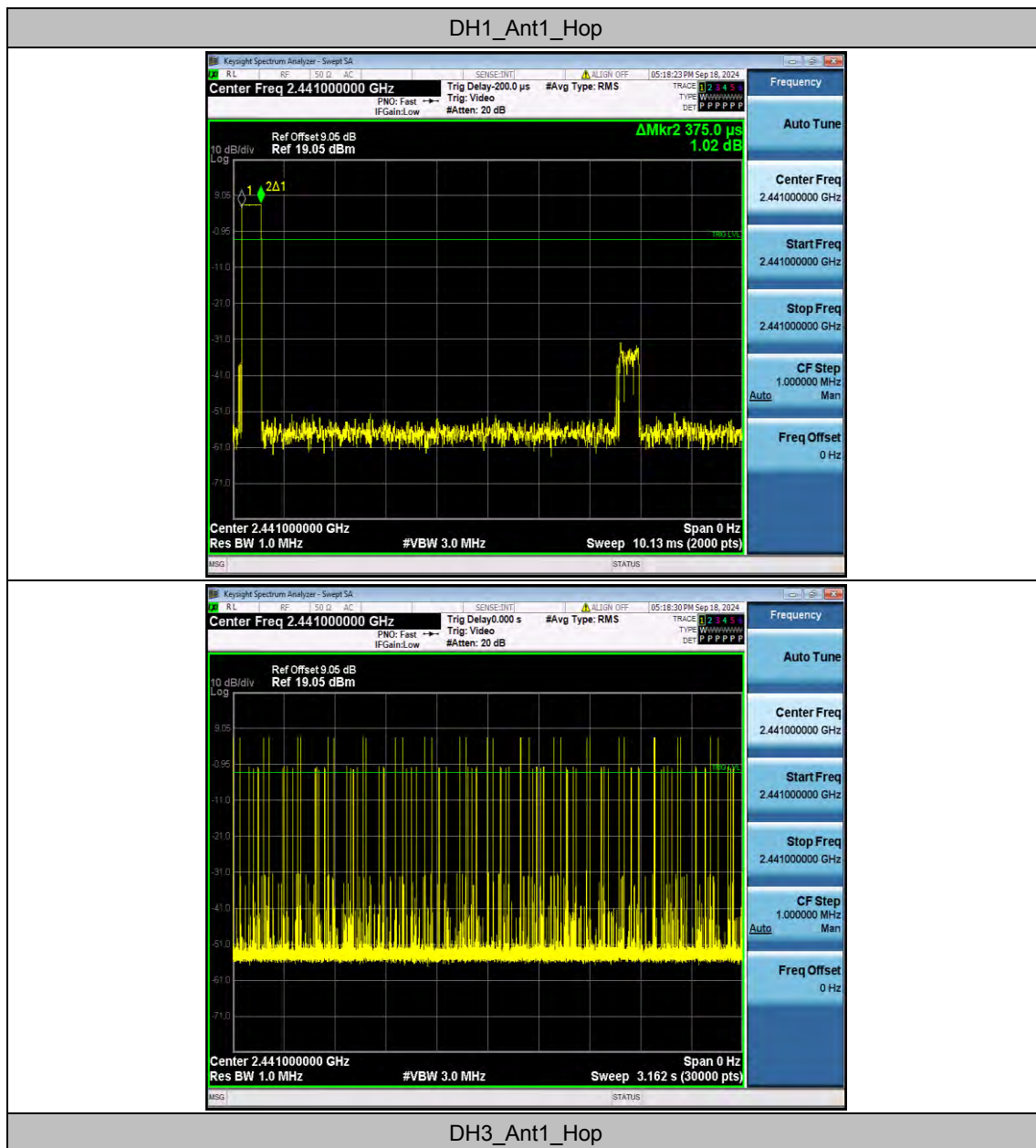


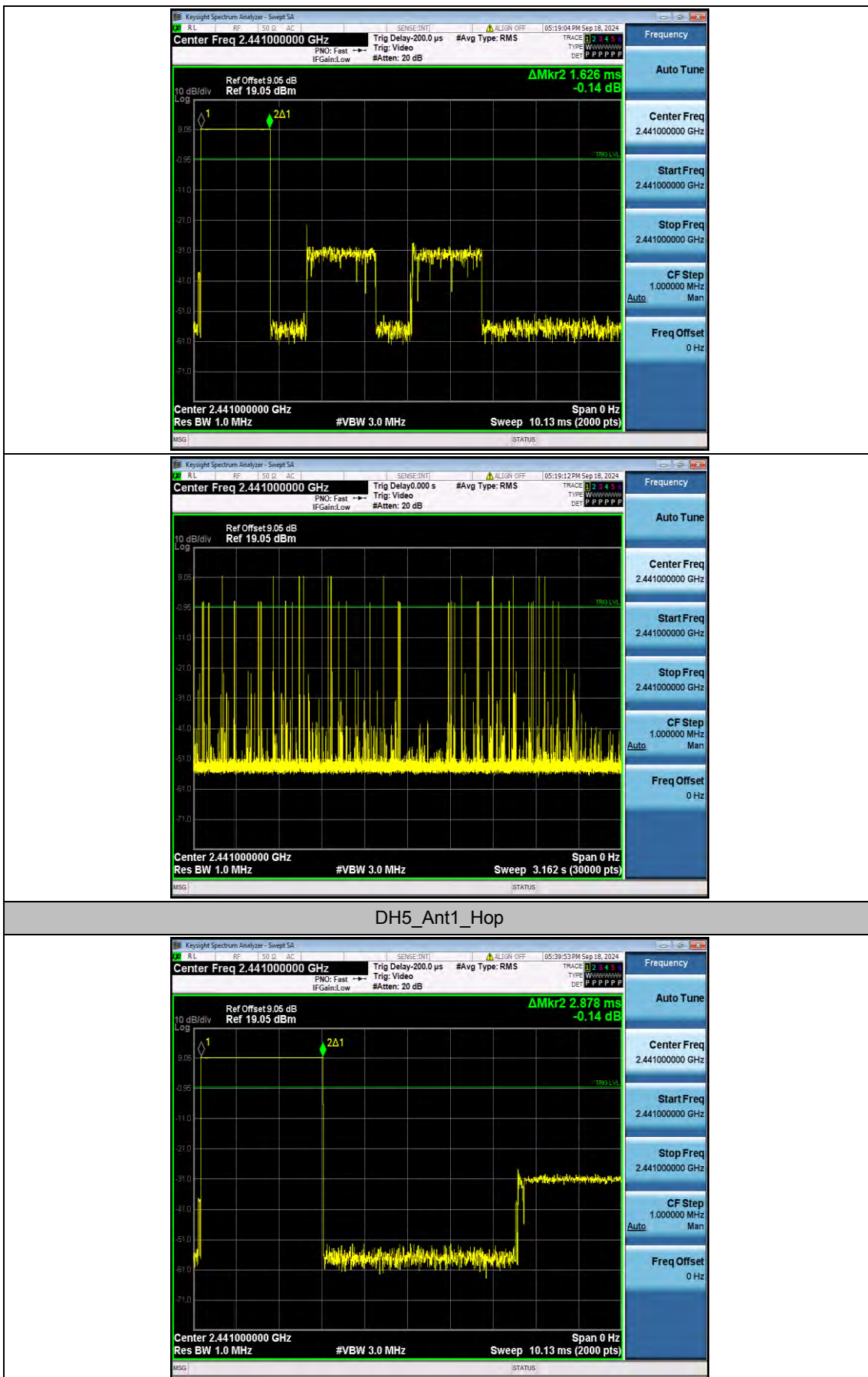
Appendix A.5: Time of occupancy

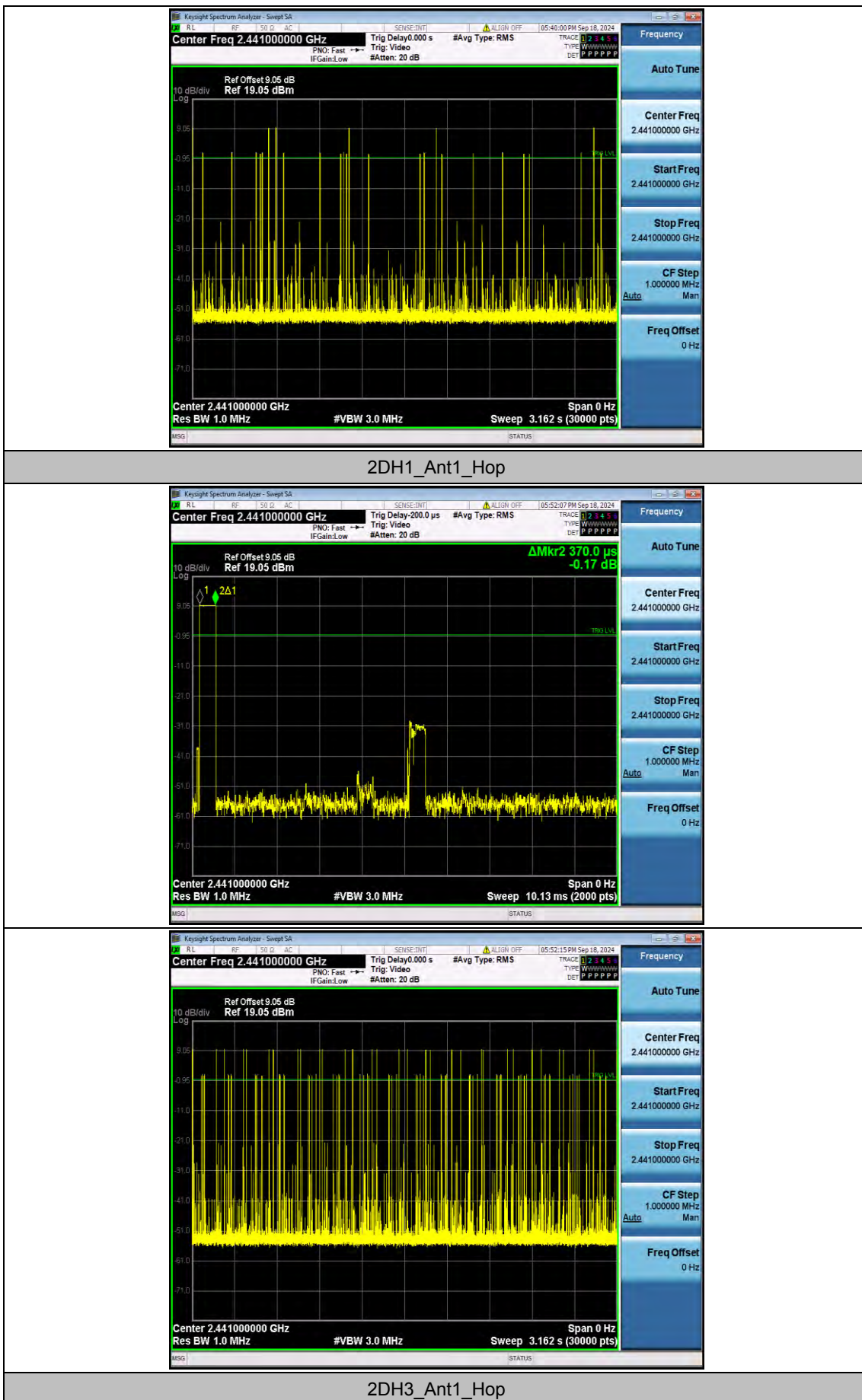
Test Result

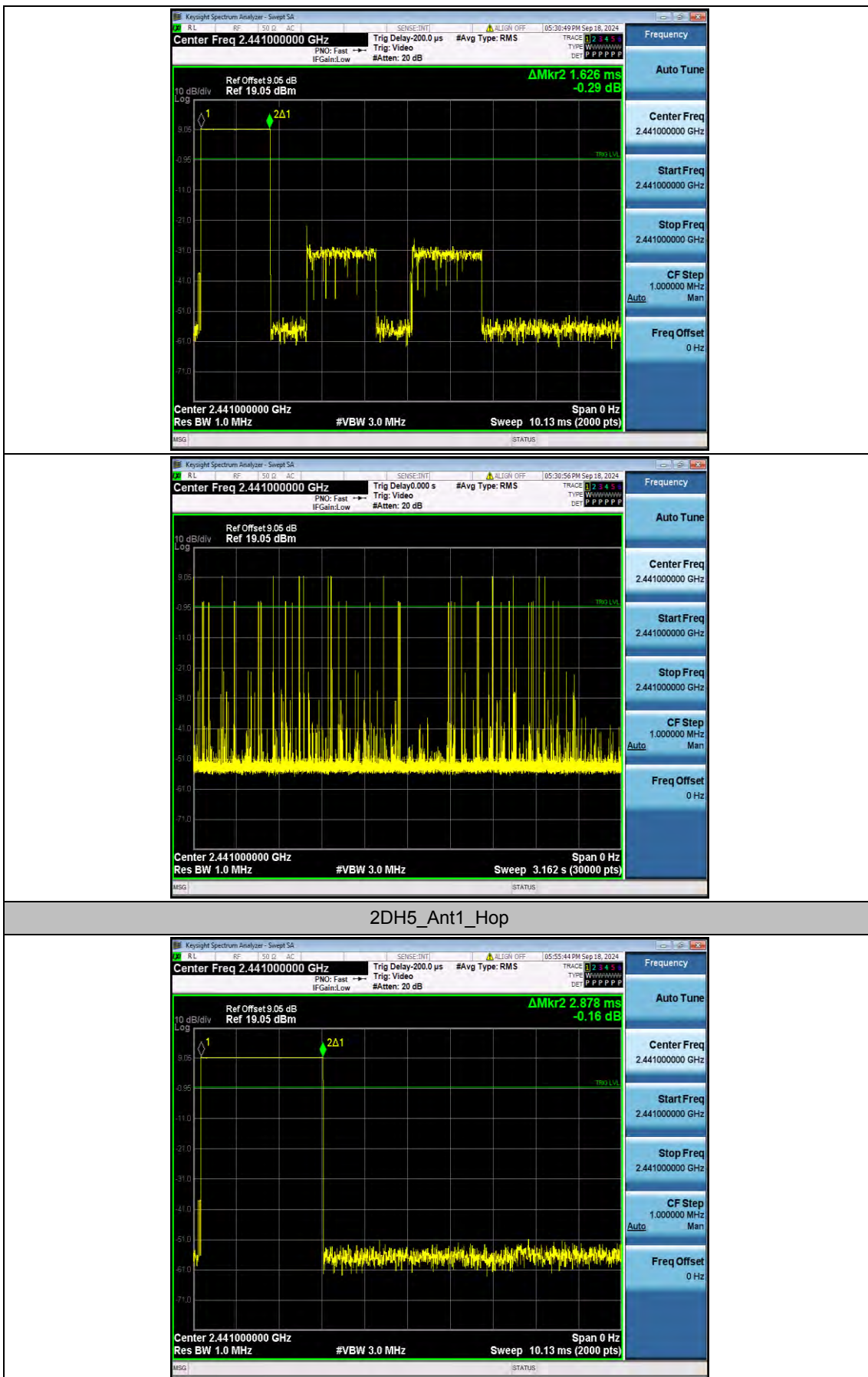
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.375	320	0.12	≤0.4	PASS
DH3	Ant1	Hop	1.626	130	0.211	≤0.4	PASS
DH5	Ant1	Hop	2.878	60	0.173	≤0.4	PASS
2DH1	Ant1	Hop	0.370	330	0.122	≤0.4	PASS
2DH3	Ant1	Hop	1.626	130	0.211	≤0.4	PASS
2DH5	Ant1	Hop	2.878	80	0.23	≤0.4	PASS
3DH1	Ant1	Hop	0.370	330	0.122	≤0.4	PASS
3DH3	Ant1	Hop	1.626	200	0.325	≤0.4	PASS
3DH5	Ant1	Hop	2.873	90	0.259	≤0.4	PASS

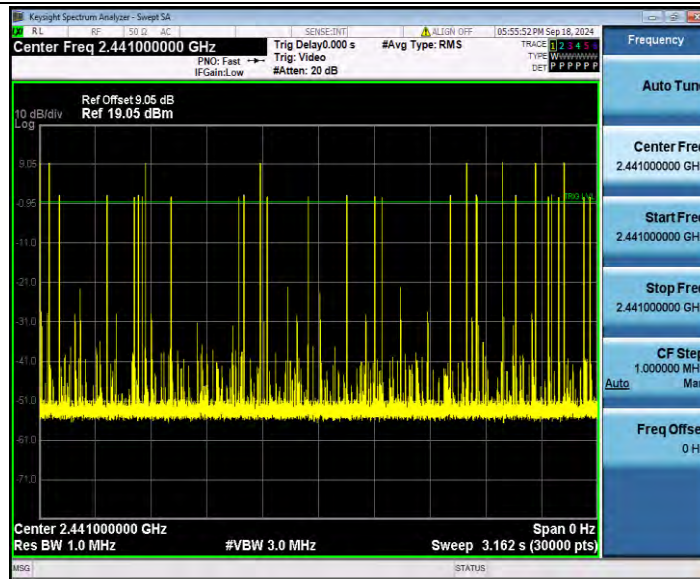
Test Graphs



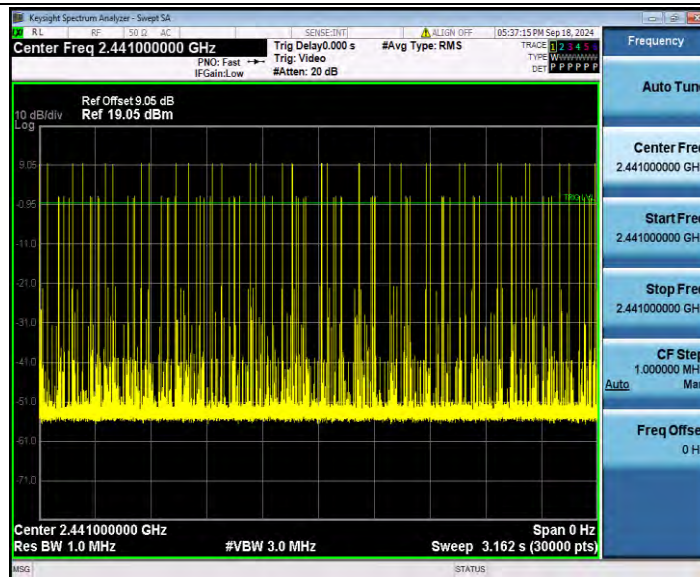
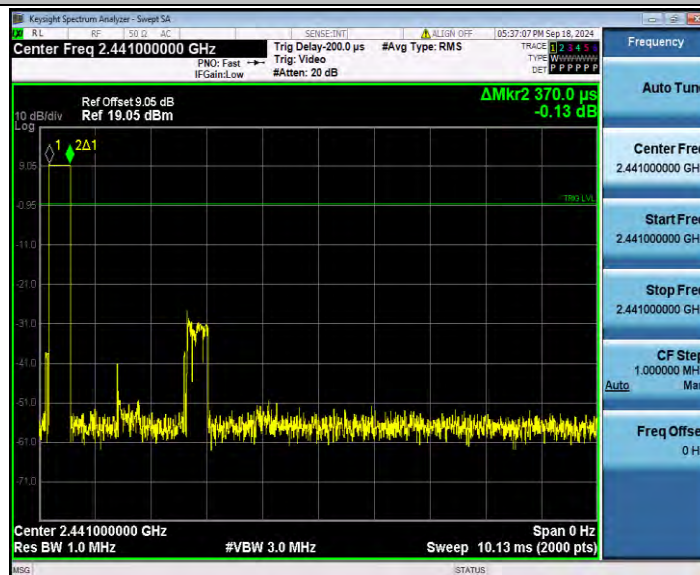




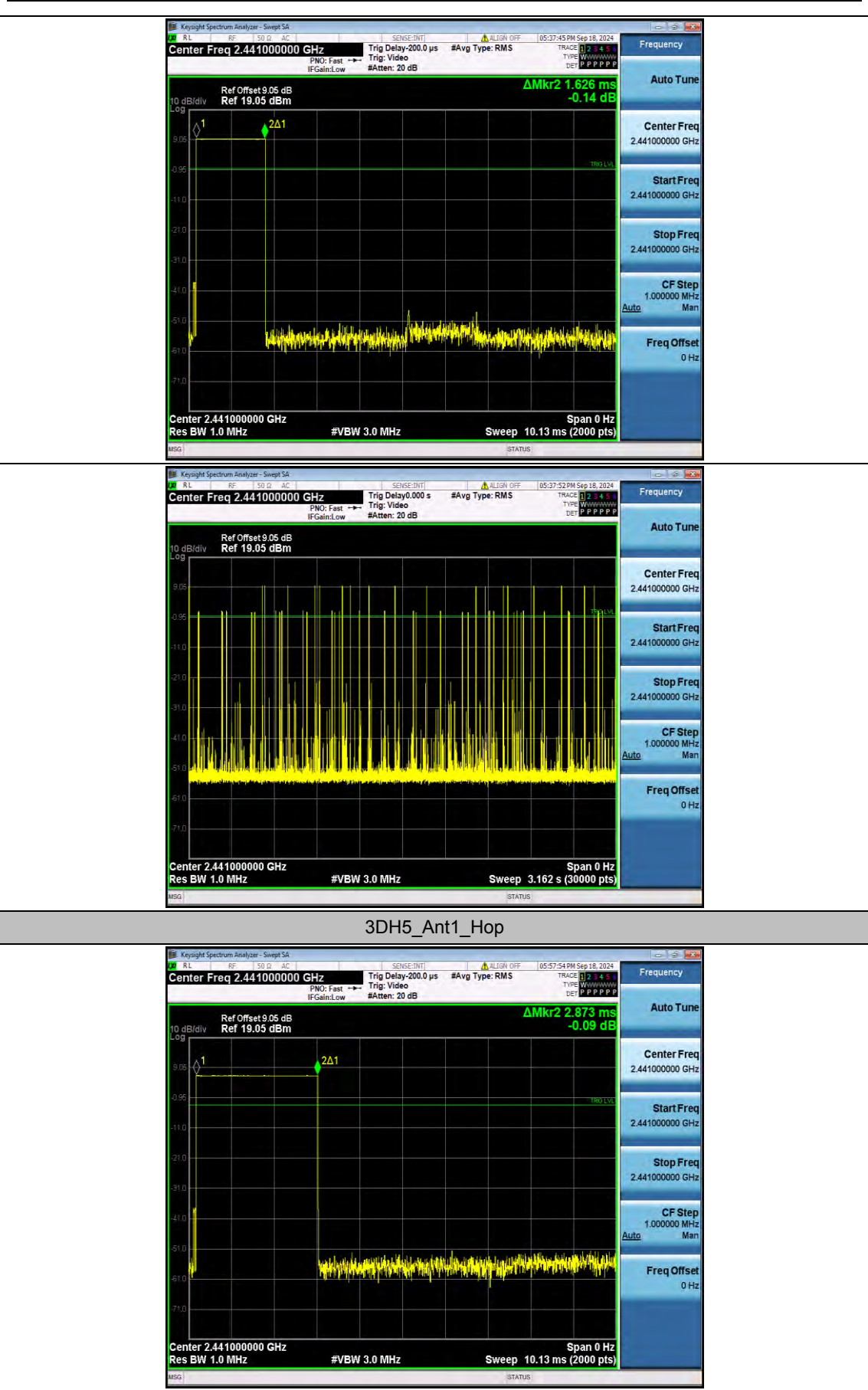


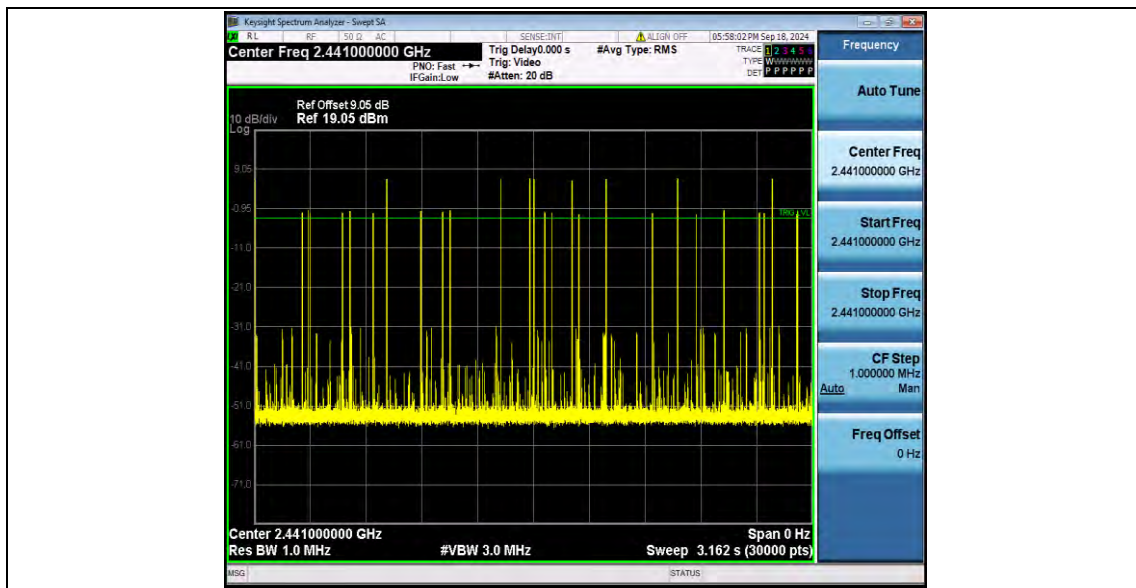


3DH1_Ant1_Hop



3DH3_Ant1_Hop



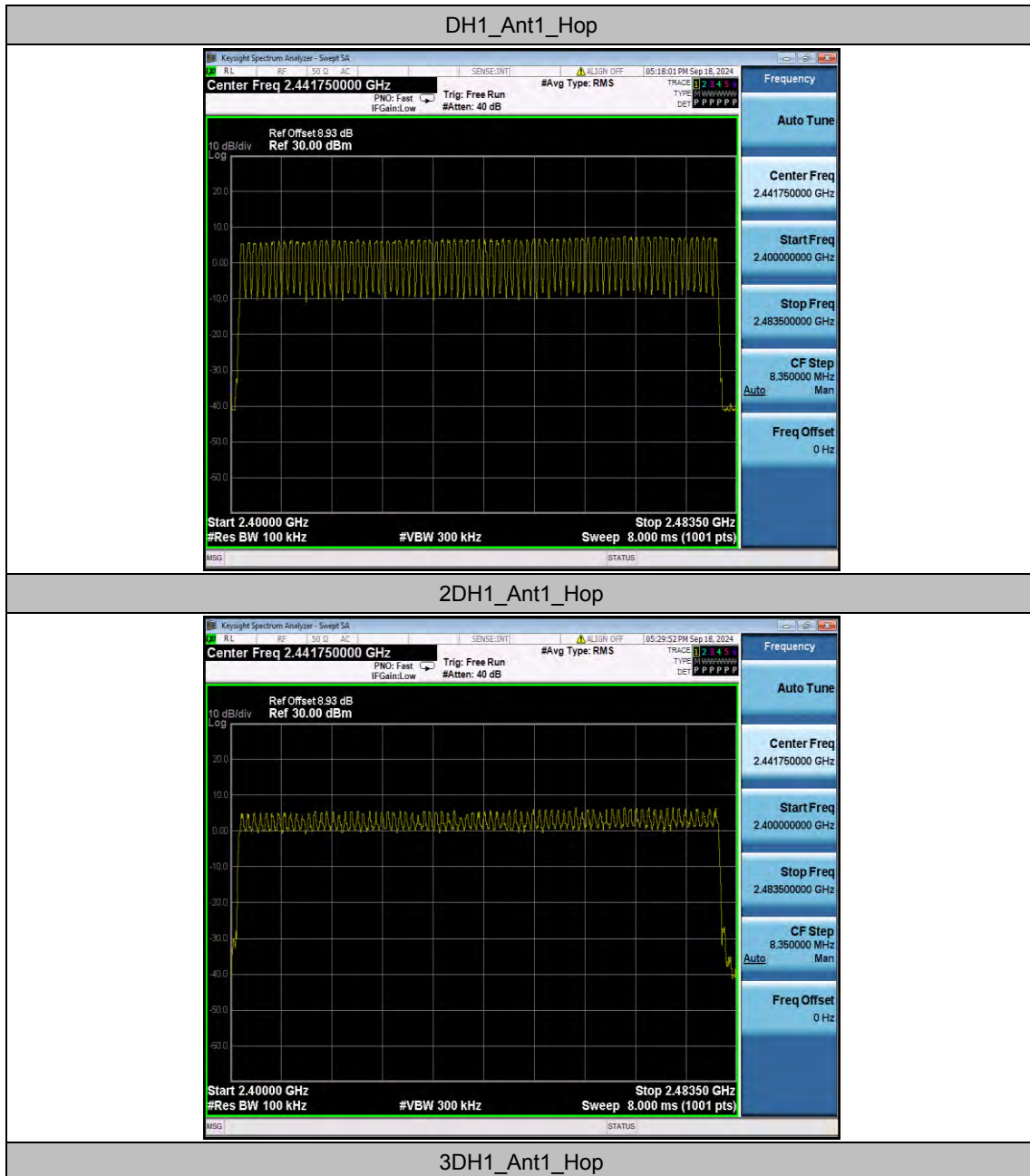


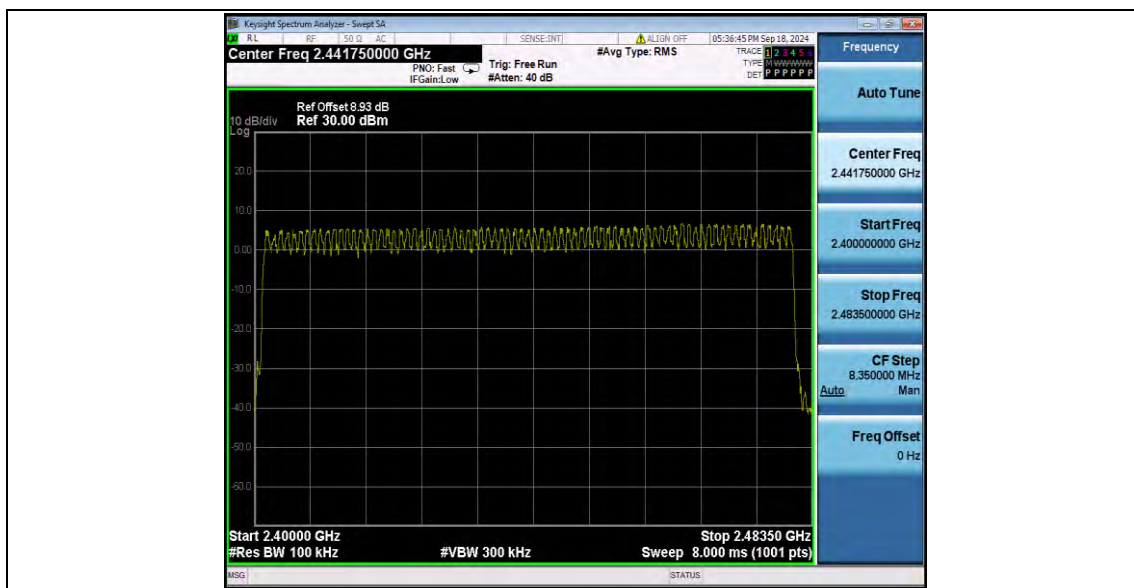
Appendix A.6: Number of hopping channels

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



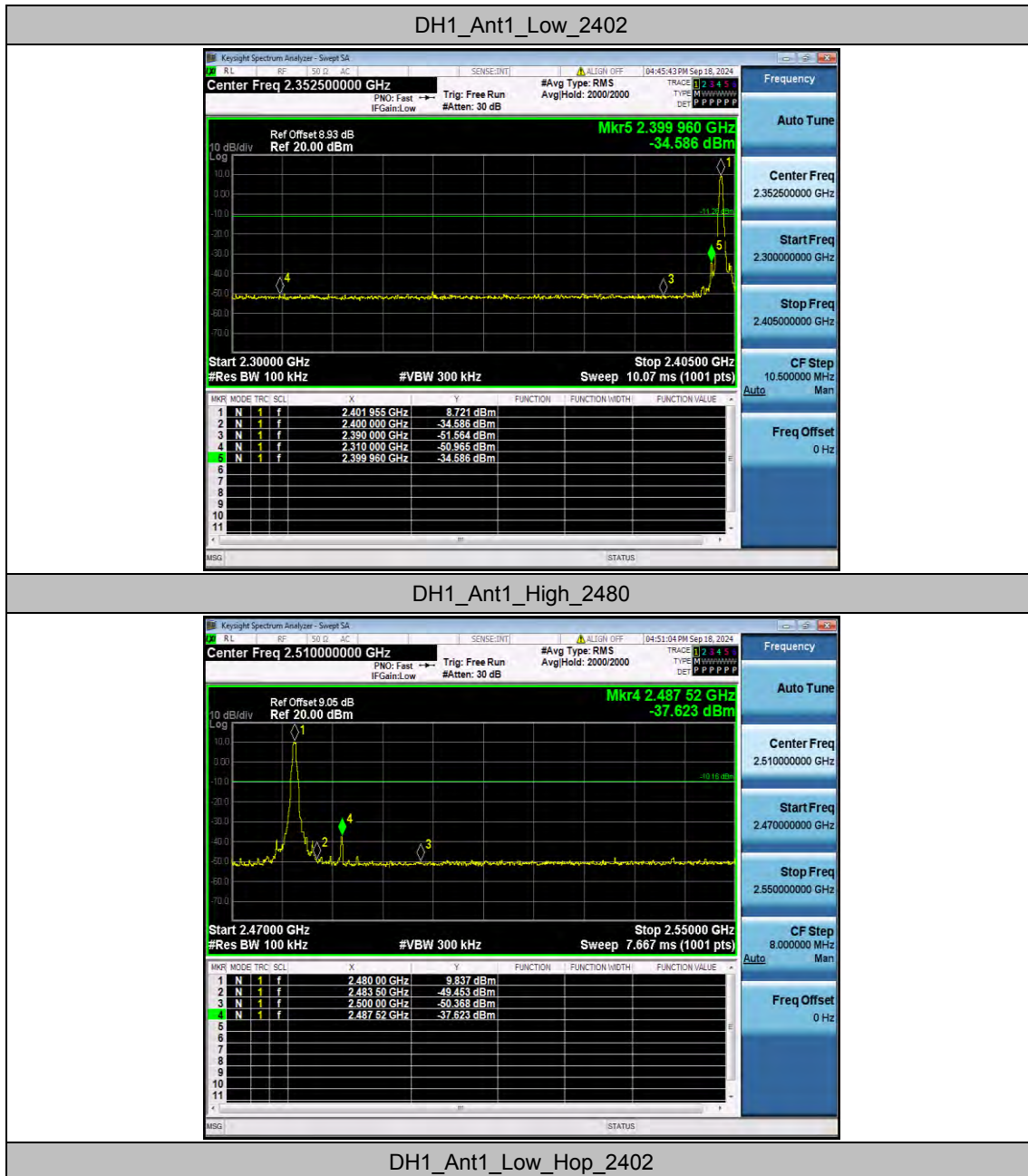


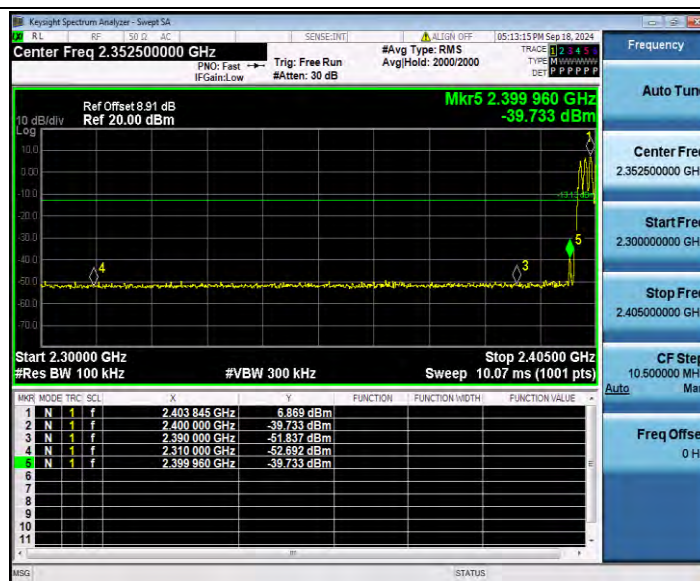
Appendix A.7: Band edge measurements

Test Result

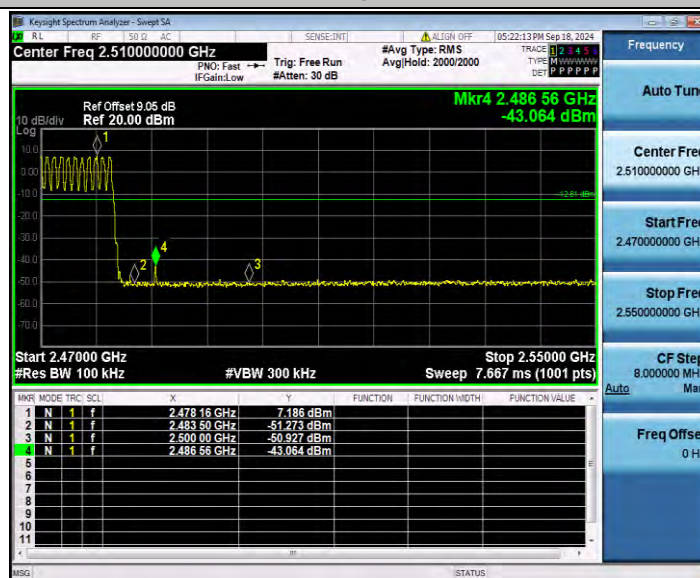
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	8.72	-34.59	≤ -11.28	PASS
		High	2480	9.84	-37.62	≤ -10.16	PASS
		Low	Hop_2402	6.87	-39.73	≤ -13.13	PASS
		High	Hop_2480	7.19	-43.06	≤ -12.81	PASS
2DH1	Ant1	Low	2402	5.08	-38.2	≤ -14.92	PASS
		High	2480	5.87	-37.29	≤ -14.13	PASS
		Low	Hop_2402	3.32	-42.01	≤ -16.68	PASS
		High	Hop_2480	6.56	-39.31	≤ -13.44	PASS
3DH1	Ant1	Low	2402	5.07	-38.28	≤ -14.93	PASS
		High	2480	5.89	-37.77	≤ -14.11	PASS
		Low	Hop_2402	4.87	-42.93	≤ -15.13	PASS
		High	Hop_2480	10.02	-39.66	≤ -9.98	PASS

Test Graphs

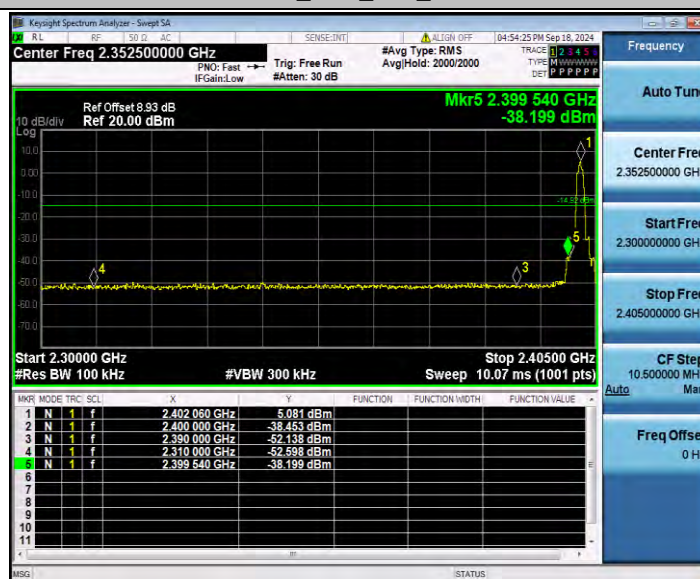




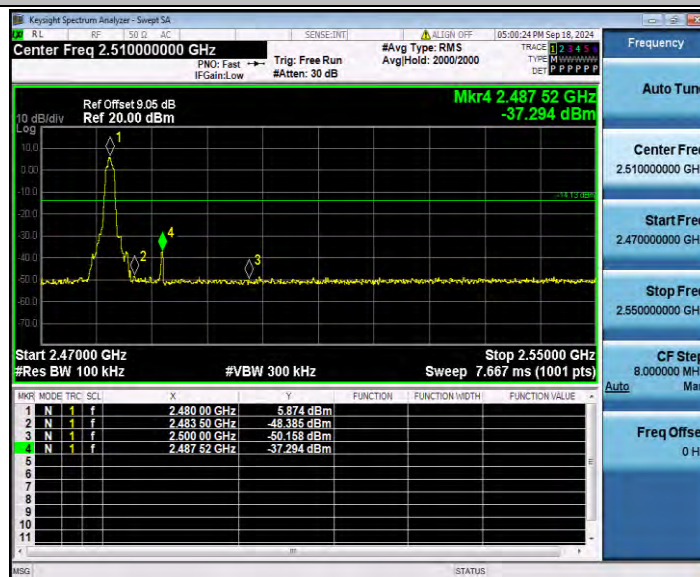
DH1_Ant1_High_Hop_2480



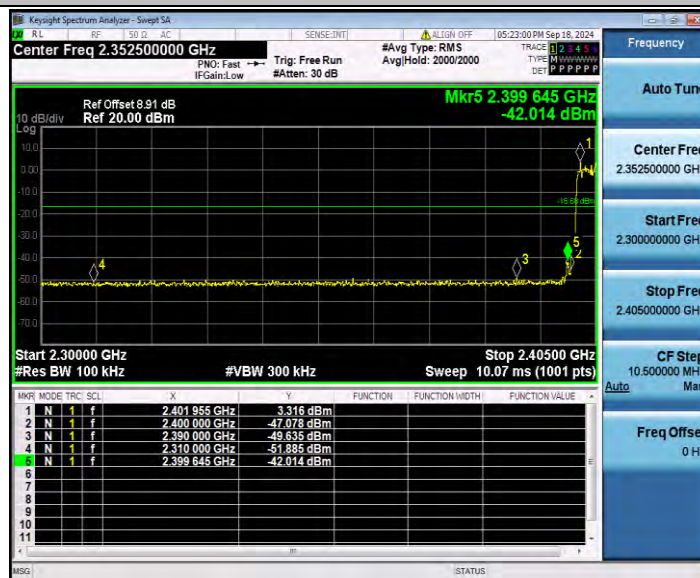
2DH1_Ant1_Low_2402



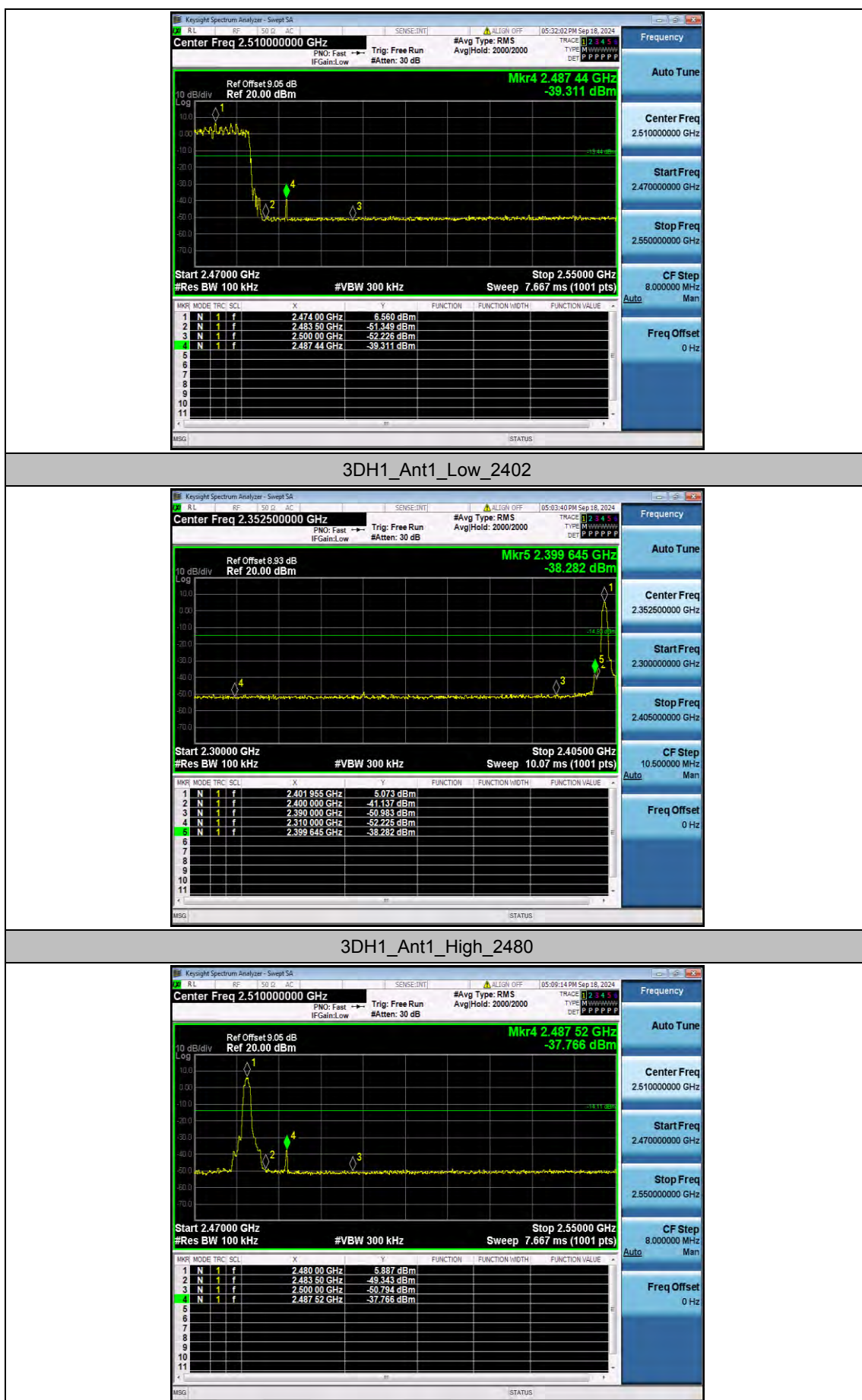
2DH1_Ant1_High_2480



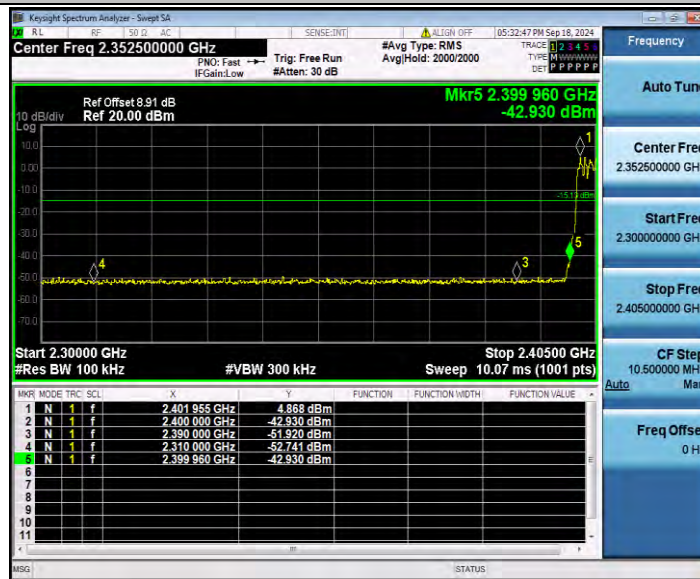
2DH1_Ant1_Low_Hop_2402



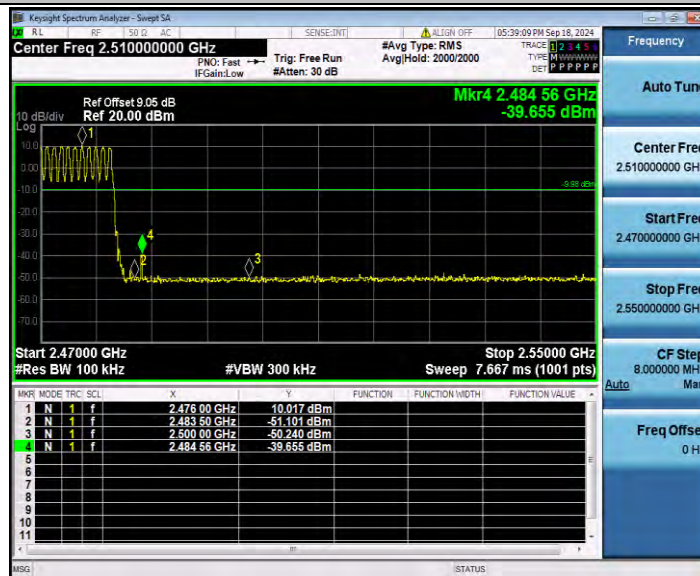
2DH1_Ant1_High_Hop_2480



3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

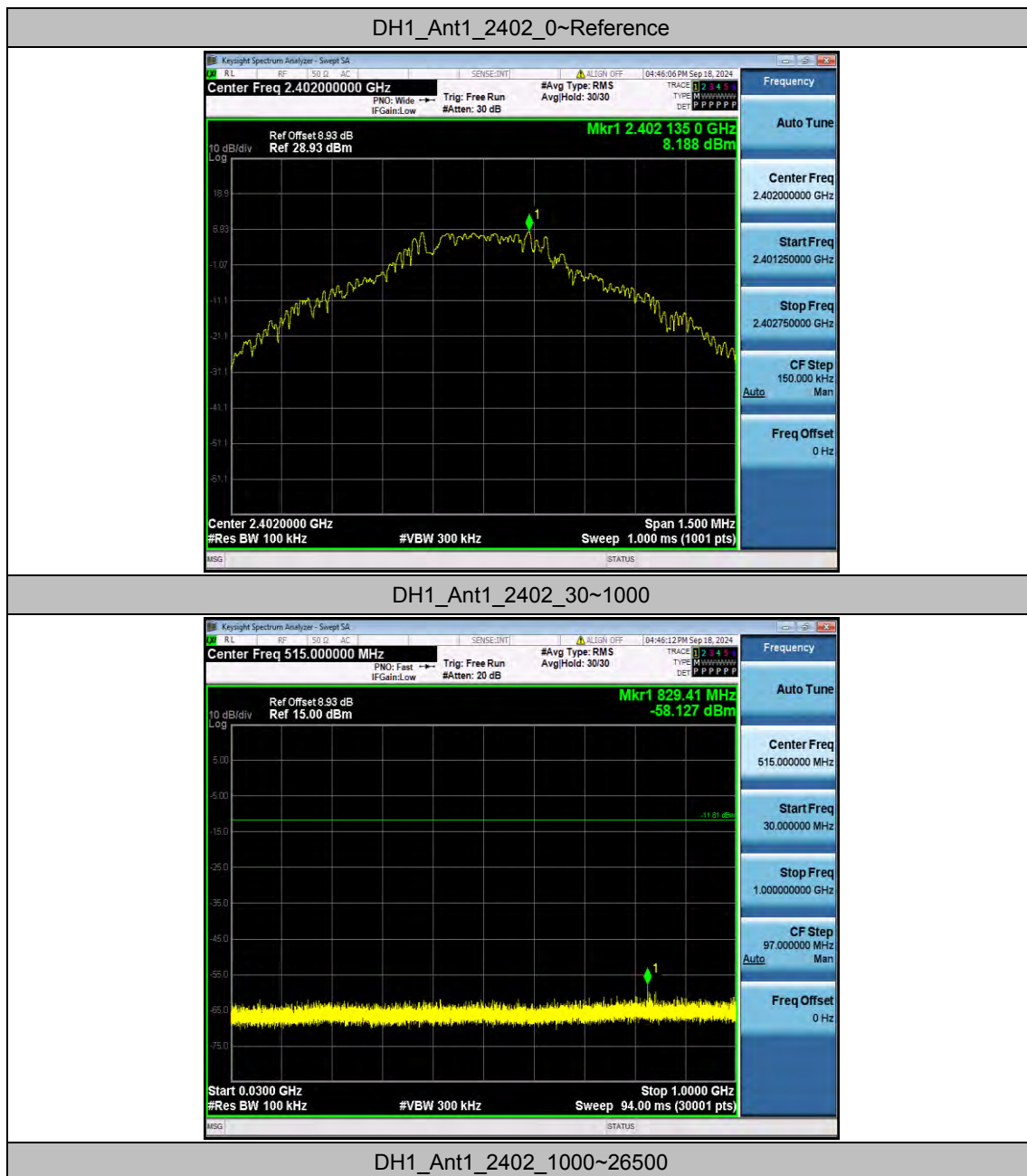


Appendix A.8: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	8.19	8.19	---	PASS
			30~1000	8.19	-58.13	≤-11.81	PASS
			1000~26500	8.19	-48.17	≤-11.81	PASS
		2441	Reference	6.29	6.29	---	PASS
			30~1000	6.29	-60.7	≤-13.71	PASS
			1000~26500	6.29	-47.74	≤-13.71	PASS
		2480	Reference	9.65	9.65	---	PASS
			30~1000	9.65	-60.24	≤-10.35	PASS
			1000~26500	9.65	-47.48	≤-10.35	PASS
2DH1	Ant1	2402	Reference	4.82	4.82	---	PASS
			30~1000	4.82	-60.81	≤-15.18	PASS
			1000~26500	4.82	-47.55	≤-15.18	PASS
		2441	Reference	5.45	5.45	---	PASS
			30~1000	5.45	-60.18	≤-14.55	PASS
			1000~26500	5.45	-47.9	≤-14.55	PASS
		2480	Reference	5.60	5.60	---	PASS
			30~1000	5.60	-60.48	≤-14.4	PASS
			1000~26500	5.60	-47.81	≤-14.4	PASS
3DH1	Ant1	2402	Reference	4.71	4.71	---	PASS
			30~1000	4.71	-60.58	≤-15.29	PASS
			1000~26500	4.71	-48.27	≤-15.29	PASS
		2441	Reference	5.31	5.31	---	PASS
			30~1000	5.31	-60.72	≤-14.69	PASS
			1000~26500	5.31	-47.8	≤-14.69	PASS
		2480	Reference	5.51	5.51	---	PASS
			30~1000	5.51	-60.13	≤-14.49	PASS
			1000~26500	5.51	-47.58	≤-14.49	PASS

Test Graphs

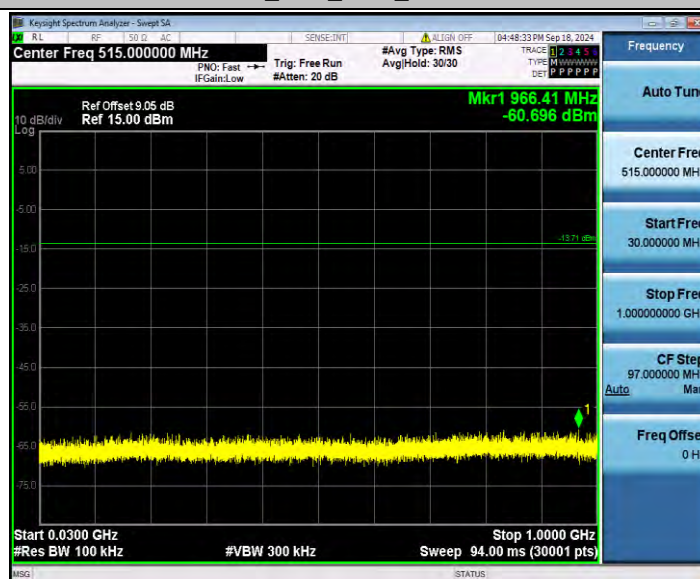




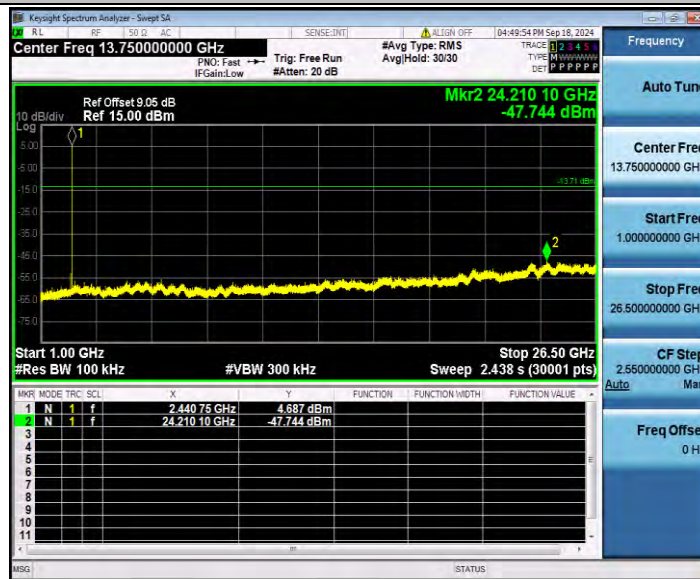
DH1_Ant1_2441_0~Reference



DH1_Ant1_2441_30~1000



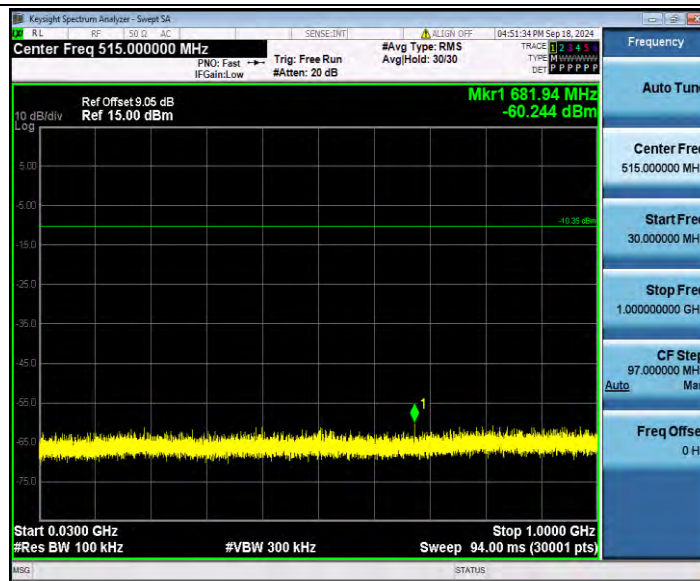
DH1_Ant1_2441_1000~26500



DH1_Ant1_2480_0~Reference



DH1_Ant1_2480_30~1000

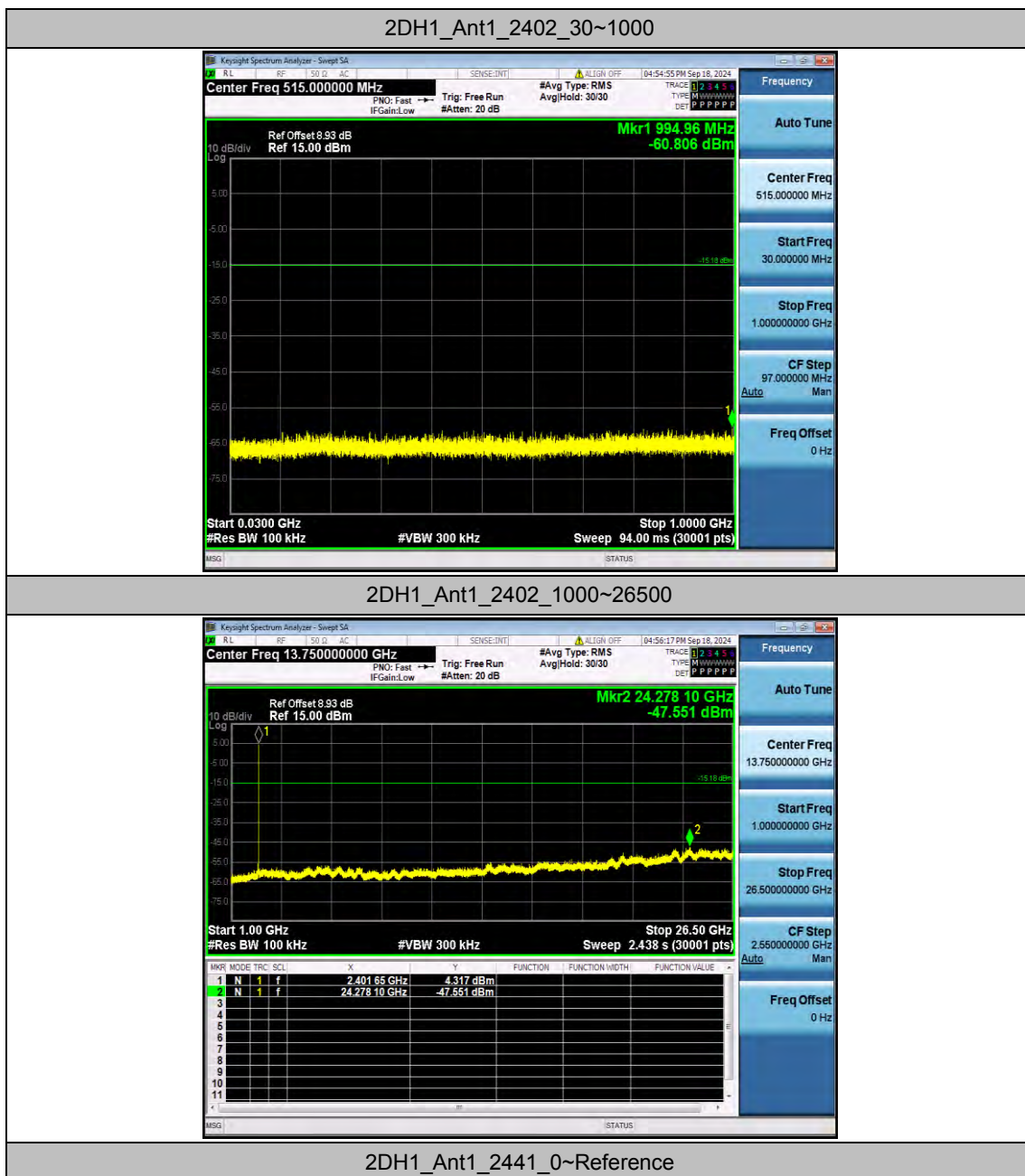


DH1_Ant1_2480_1000~26500



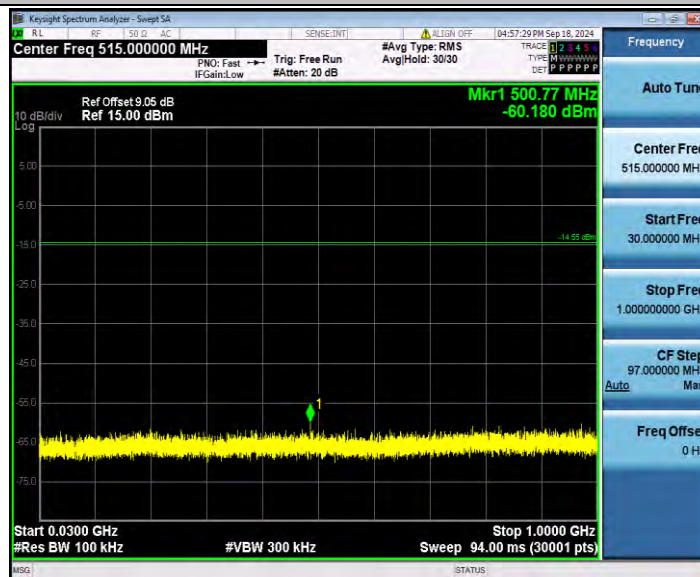
2DH1_Ant1_2402_0~Reference







2DH1_Ant1_2441_30~1000



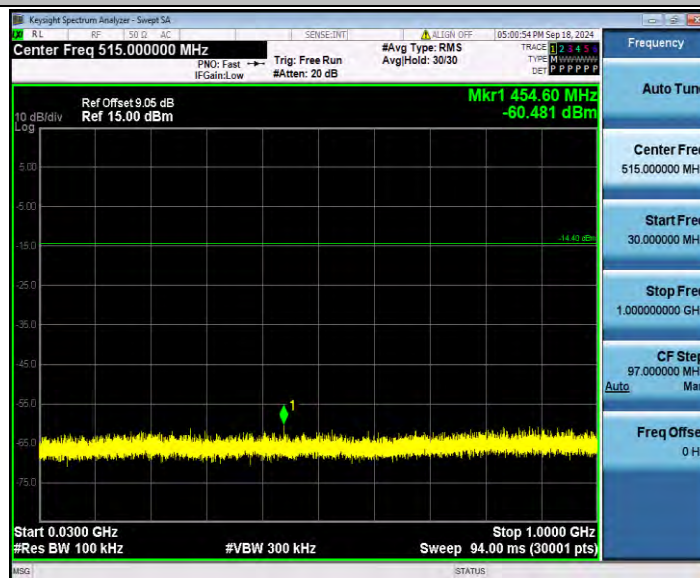
2DH1_Ant1_2441_1000~26500



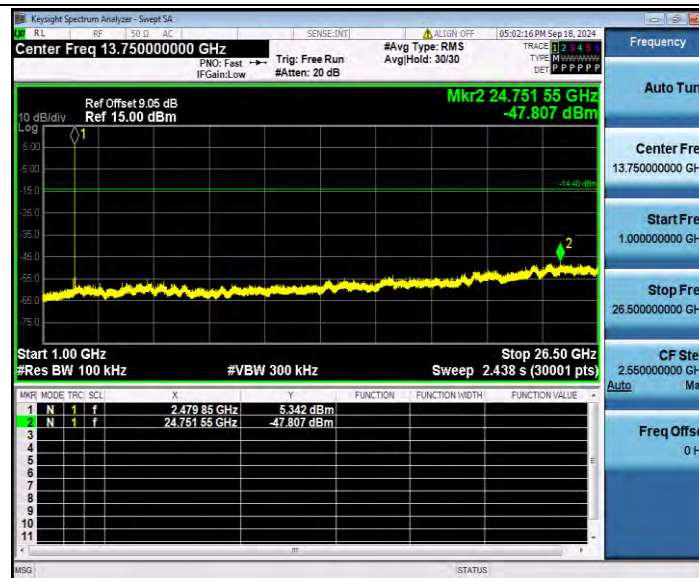
2DH1_Ant1_2480_0~Reference



2DH1_Ant1_2480_30~1000



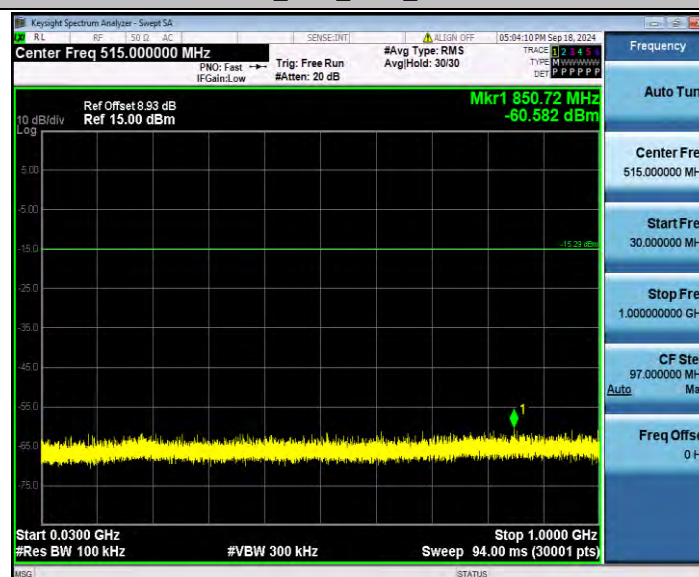
2DH1_Ant1_2480_1000~26500



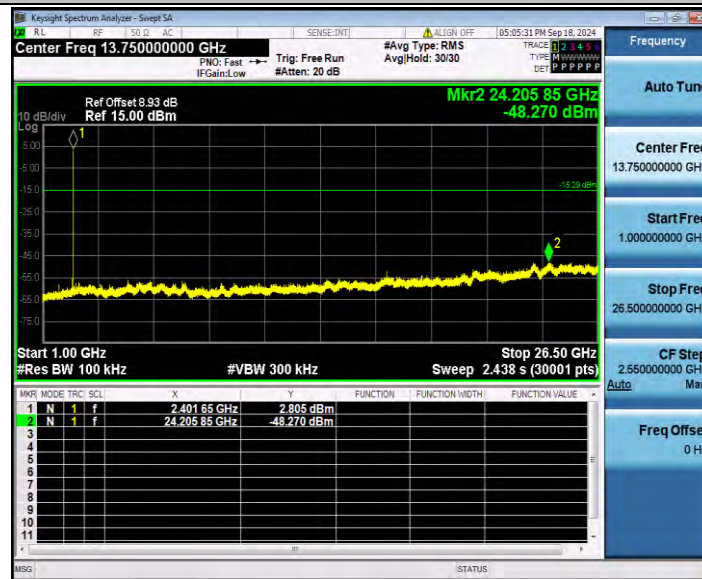
3DH1_Ant1_2402_0~Reference



3DH1_Ant1_2402_30~1000



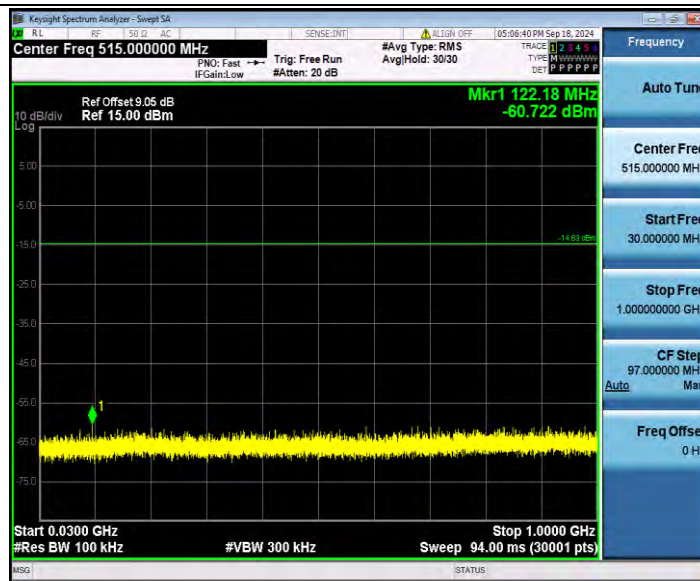
3DH1_Ant1_2402_1000~26500



3DH1_Ant1_2441_0~Reference



3DH1_Ant1_2441_30~1000



3DH1_Ant1_2441_1000~26500



3DH1_Ant1_2480_0~Reference



