

Case No. : <u>GTS20240827006-1-01</u>	
Ambient Condition: <u>22</u> °C, <u>52</u> %RH	
According Standard: ■Part15C	
Test Date: <u>2024.9.18</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	1.038	2401.490	2402.528	---	---
		2441	1.035	2440.493	2441.528	---	---
		2480	1.035	2479.490	2480.525	---	---
2DH1	Ant1	2402	1.368	2401.319	2402.687	---	---
		2441	1.392	2440.310	2441.702	---	---
		2480	1.389	2479.307	2480.696	---	---
3DH1	Ant1	2402	1.308	2401.340	2402.648	---	---
		2441	1.305	2440.340	2441.645	---	---
		2480	1.290	2479.340	2480.630	---	---

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

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.91912	2401.5290	2402.4481	---	---
		2441	0.92060	2440.5314	2441.4520	---	---
		2480	0.91995	2479.5296	2480.4496	---	---
2DH1	Ant1	2402	1.2242	2401.3829	2402.6071	---	---
		2441	1.2975	2440.3475	2441.6450	---	---
		2480	1.2803	2479.3509	2480.6312	---	---
3DH1	Ant1	2402	1.2080	2401.3868	2402.5948	---	---
		2441	1.2650	2440.3577	2441.6227	---	---
		2480	1.2373	2479.3666	2480.6039	---	---

Test Graphs

DH1_Ant1_2402



DH1_Ant1_2441



DH1_Ant1_2480



2DHI_Ant1_2402



2DHI_Ant1_2441



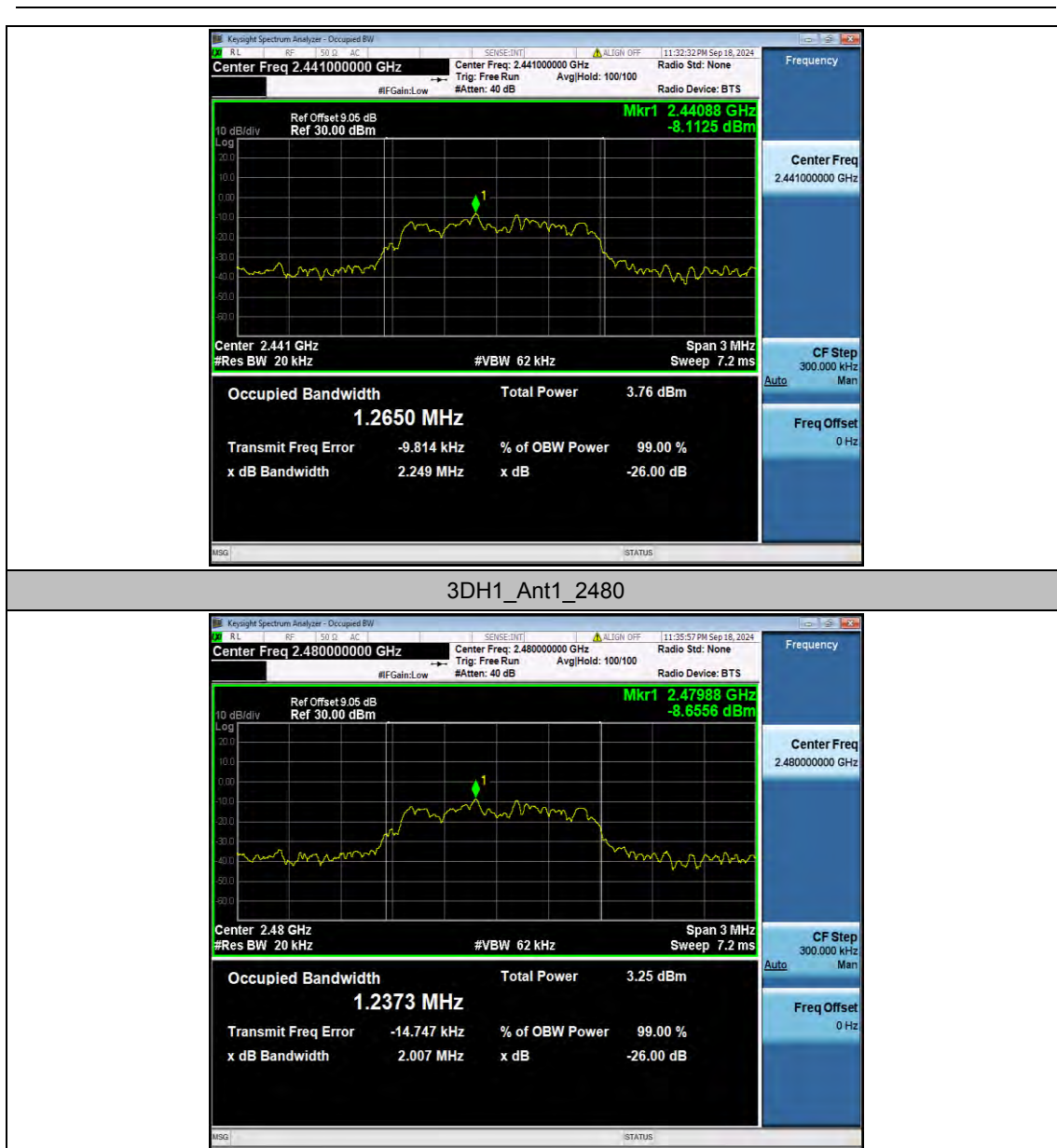
2DH1_Ant1_2480



3DH1_Ant1_2402



3DH1_Ant1_2441



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	0.08	≤ 20.97	PASS
		2441	0.77	≤ 20.97	PASS
		2480	0.54	≤ 20.97	PASS
2DH1	Ant1	2402	0.14	≤ 20.97	PASS
		2441	0.62	≤ 20.97	PASS
		2480	0.41	≤ 20.97	PASS
3DH1	Ant1	2402	0.07	≤ 20.97	PASS
		2441	0.58	≤ 20.97	PASS
		2480	0.57	≤ 20.97	PASS

Appendix A.4: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	0.992	≥ 0.692	PASS
		Hop_2441	0.998	≥ 0.692	PASS
		Hop_2480	1.332	≥ 0.692	PASS
2DH1	Ant1	Hop_2402	0.976	≥ 0.928	PASS
		Hop_2441	1.338	≥ 0.928	PASS
		Hop_2480	1.004	≥ 0.928	PASS
3DH1	Ant1	Hop_2402	0.982	≥ 0.872	PASS
		Hop_2441	0.99	≥ 0.872	PASS
		Hop_2480	0.98	≥ 0.872	PASS

Test Graphs

DH1_Ant1_Hop_2402



DH1_Ant1_Hop_2441



DH1_Ant1_Hop_2480



2DH1_Ant1_Hop_2402



2DH1_Ant1_Hop_2441



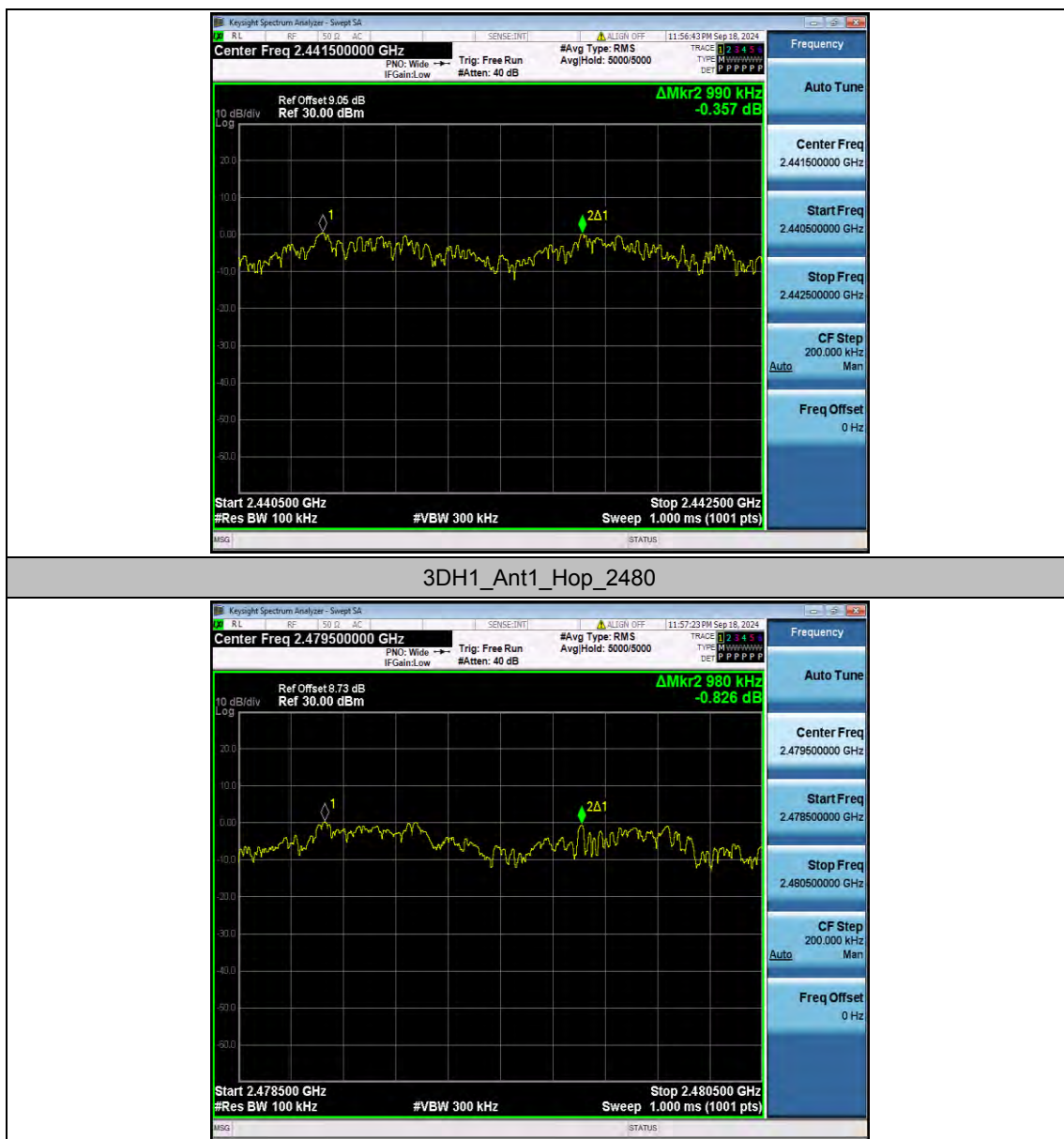
2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402



3DH1_Ant1_Hop_2441

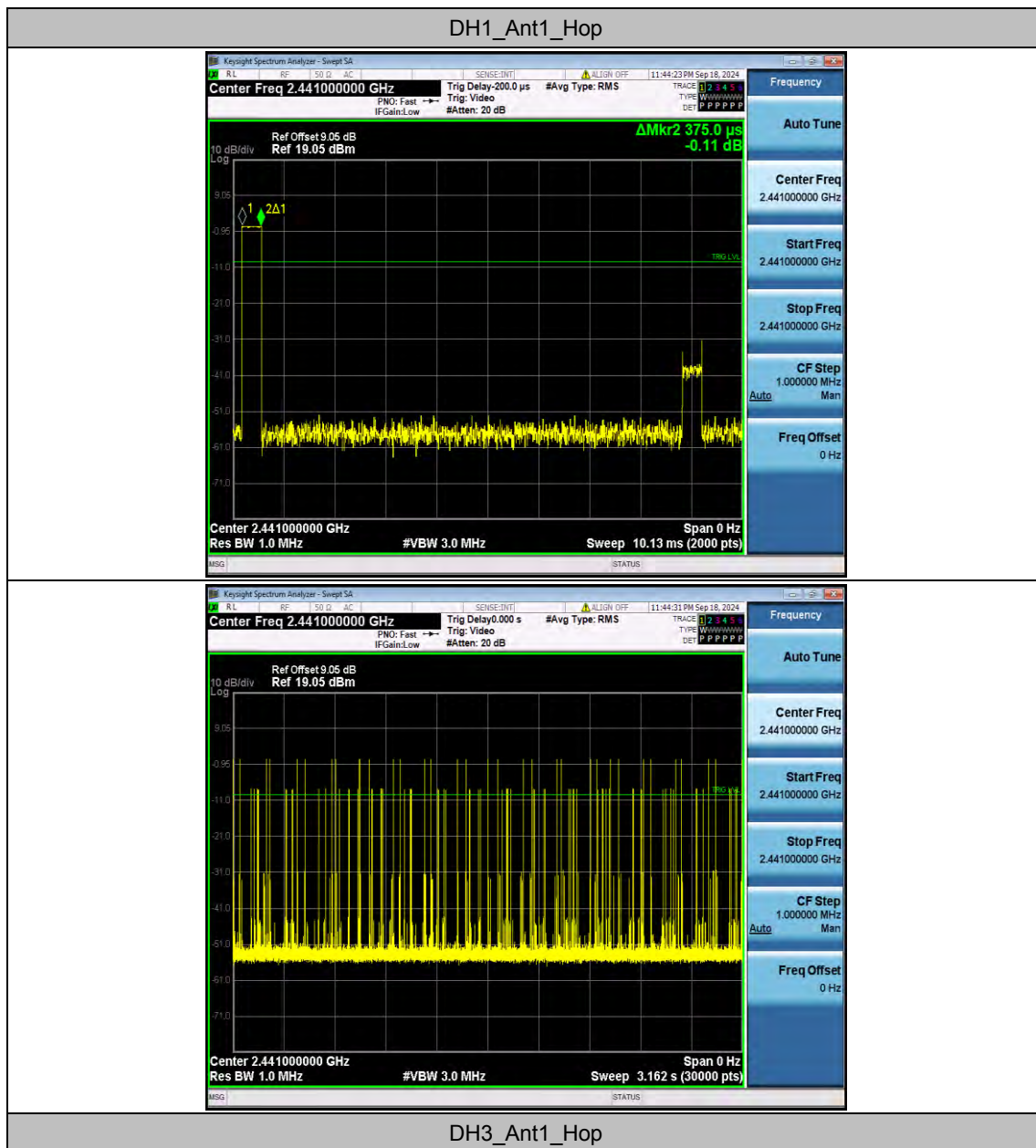


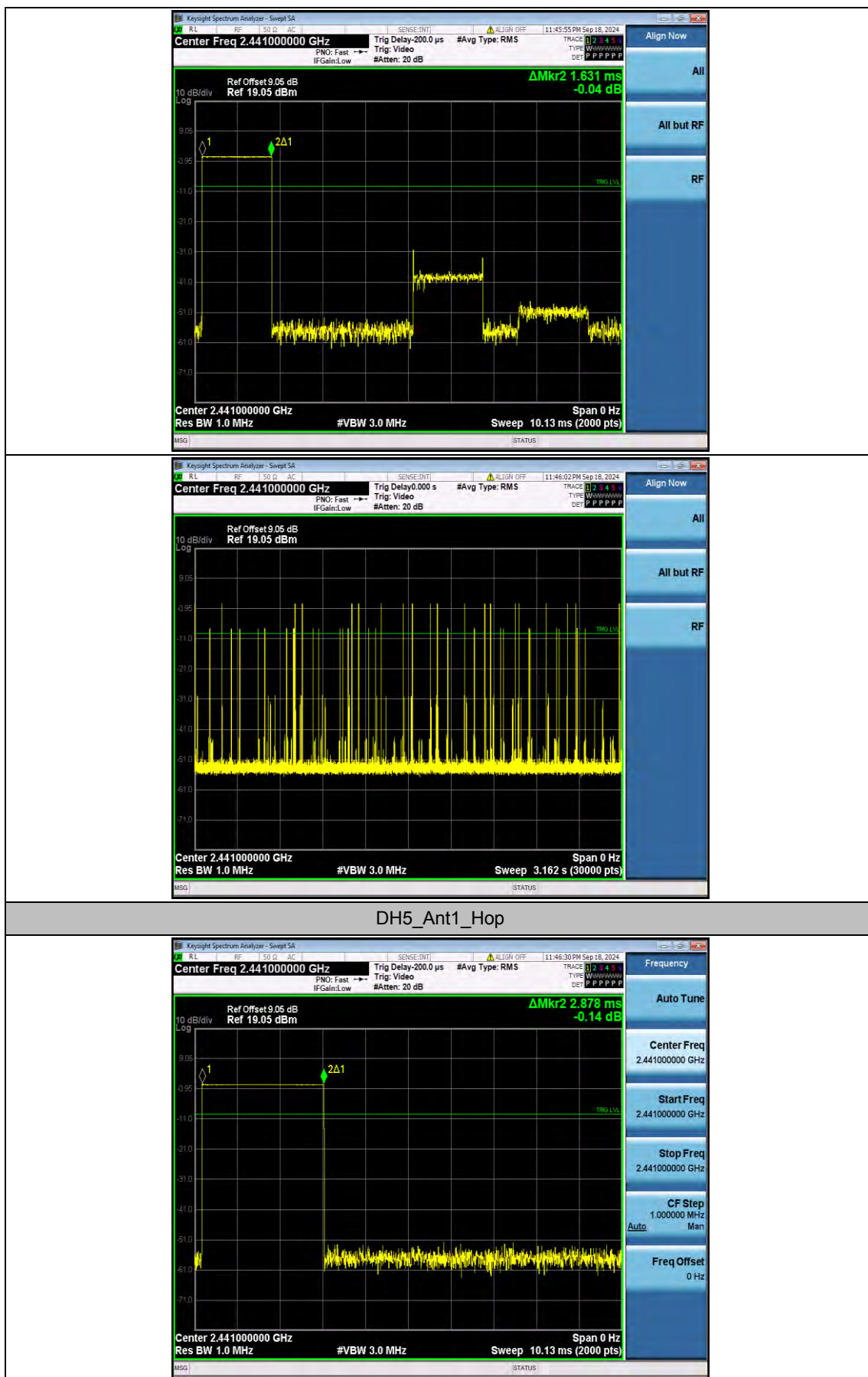
Appendix A.5: Time of occupancy

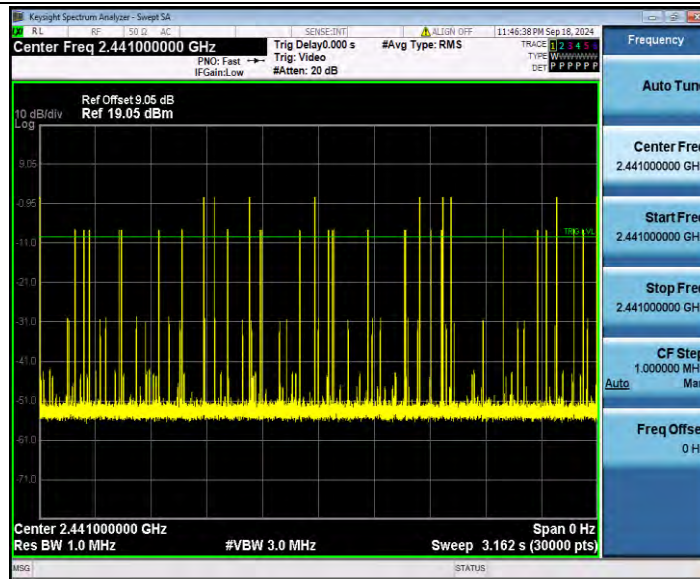
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.375	330	0.124	≤0.4	PASS
DH3	Ant1	Hop	1.631	200	0.326	≤0.4	PASS
DH5	Ant1	Hop	2.878	100	0.288	≤0.4	PASS
2DH1	Ant1	Hop	0.385	960	0.37	≤0.4	PASS
2DH3	Ant1	Hop	1.626	150	0.244	≤0.4	PASS
2DH5	Ant1	Hop	2.878	100	0.288	≤0.4	PASS
3DH1	Ant1	Hop	0.385	970	0.373	≤0.4	PASS
3DH3	Ant1	Hop	1.626	200	0.325	≤0.4	PASS
3DH5	Ant1	Hop	2.878	80	0.23	≤0.4	PASS

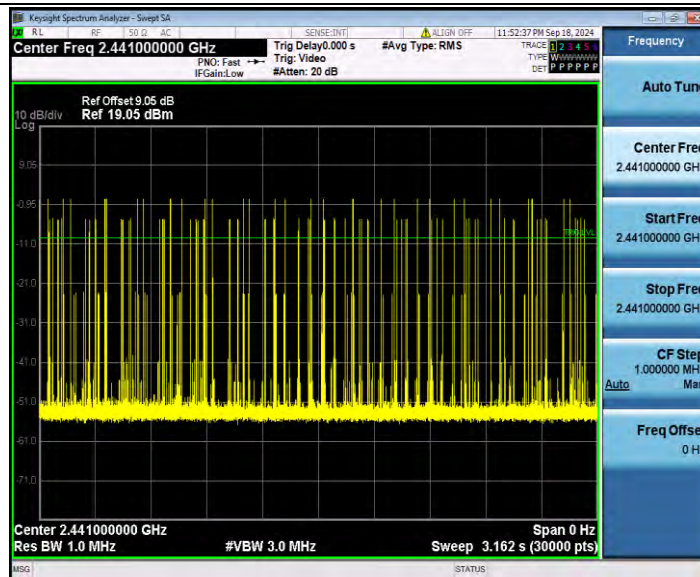
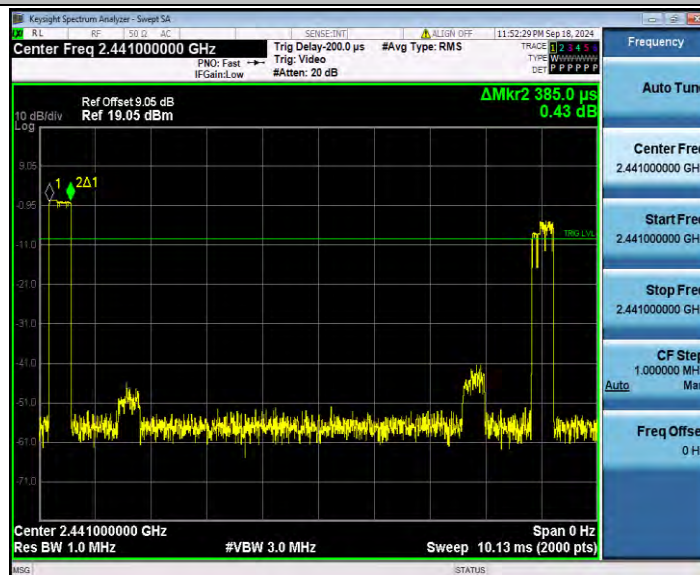
Test Graphs



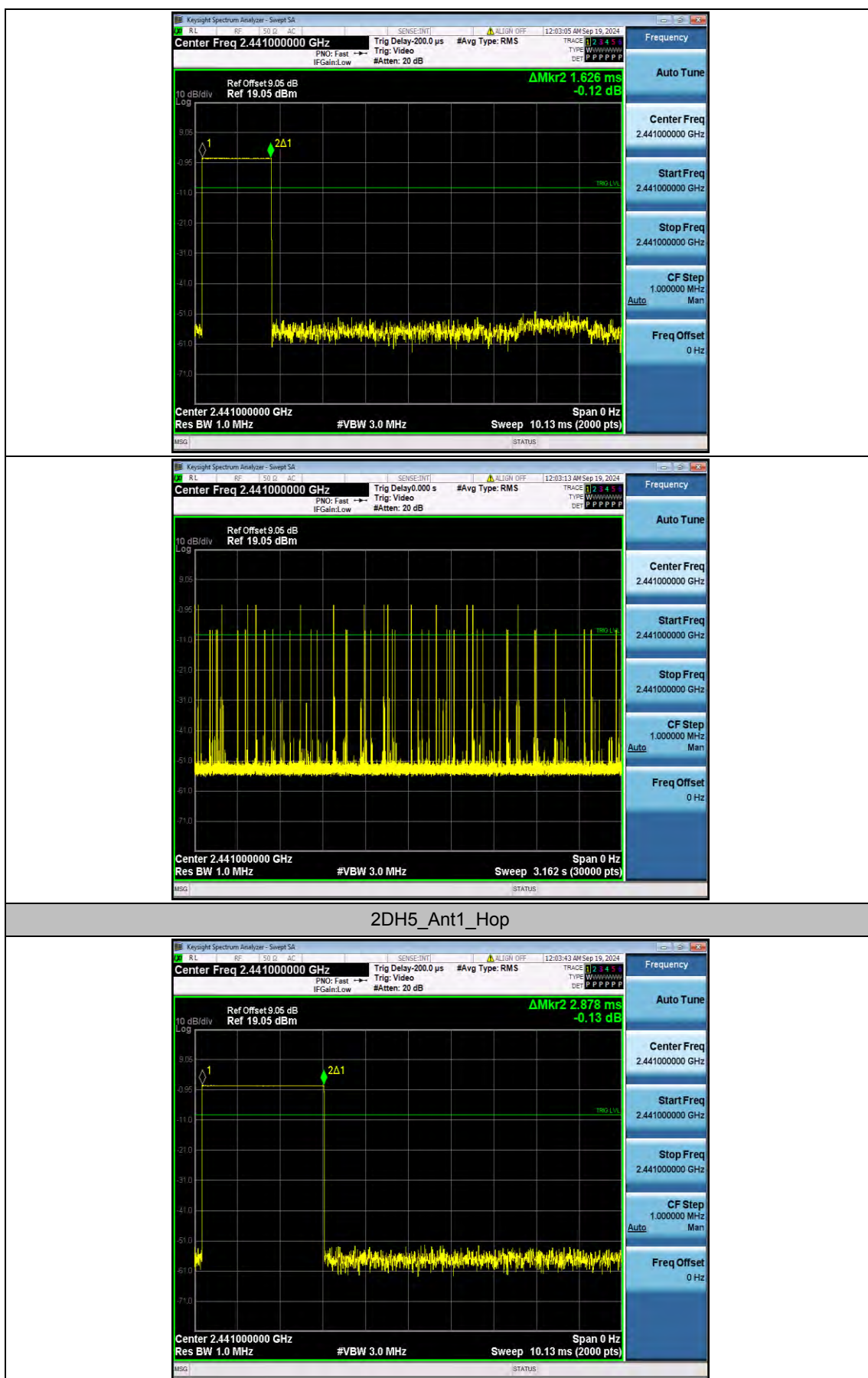


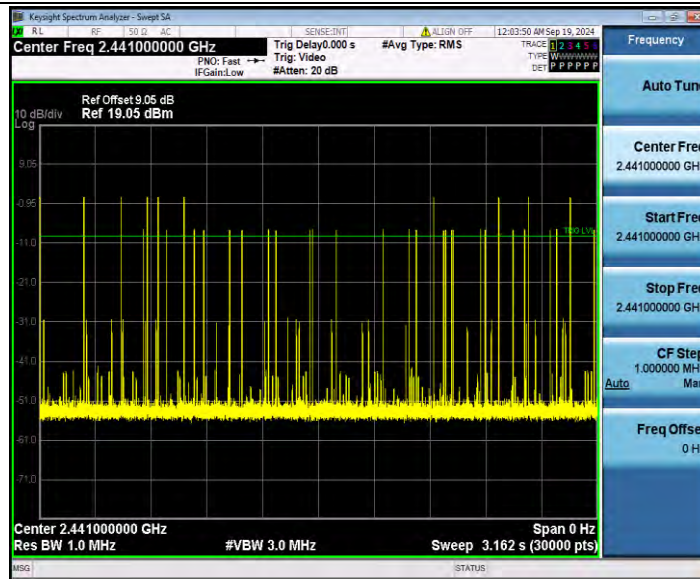


2DH1_Ant1_Hop

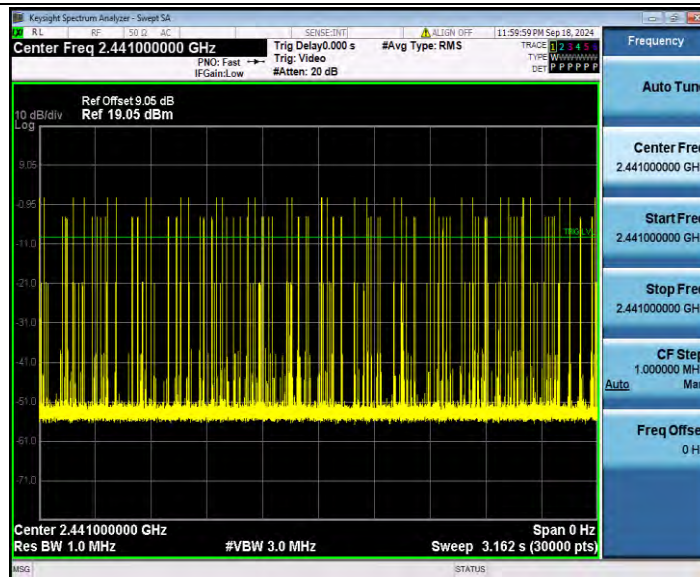
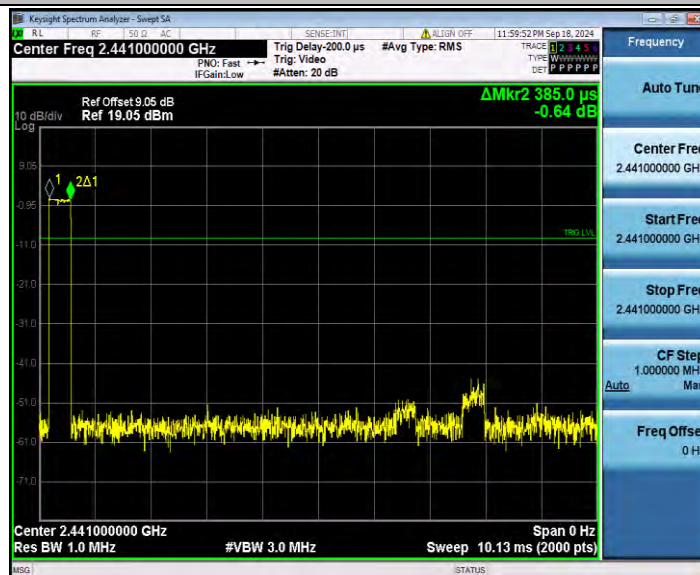


2DH3_Ant1_Hop

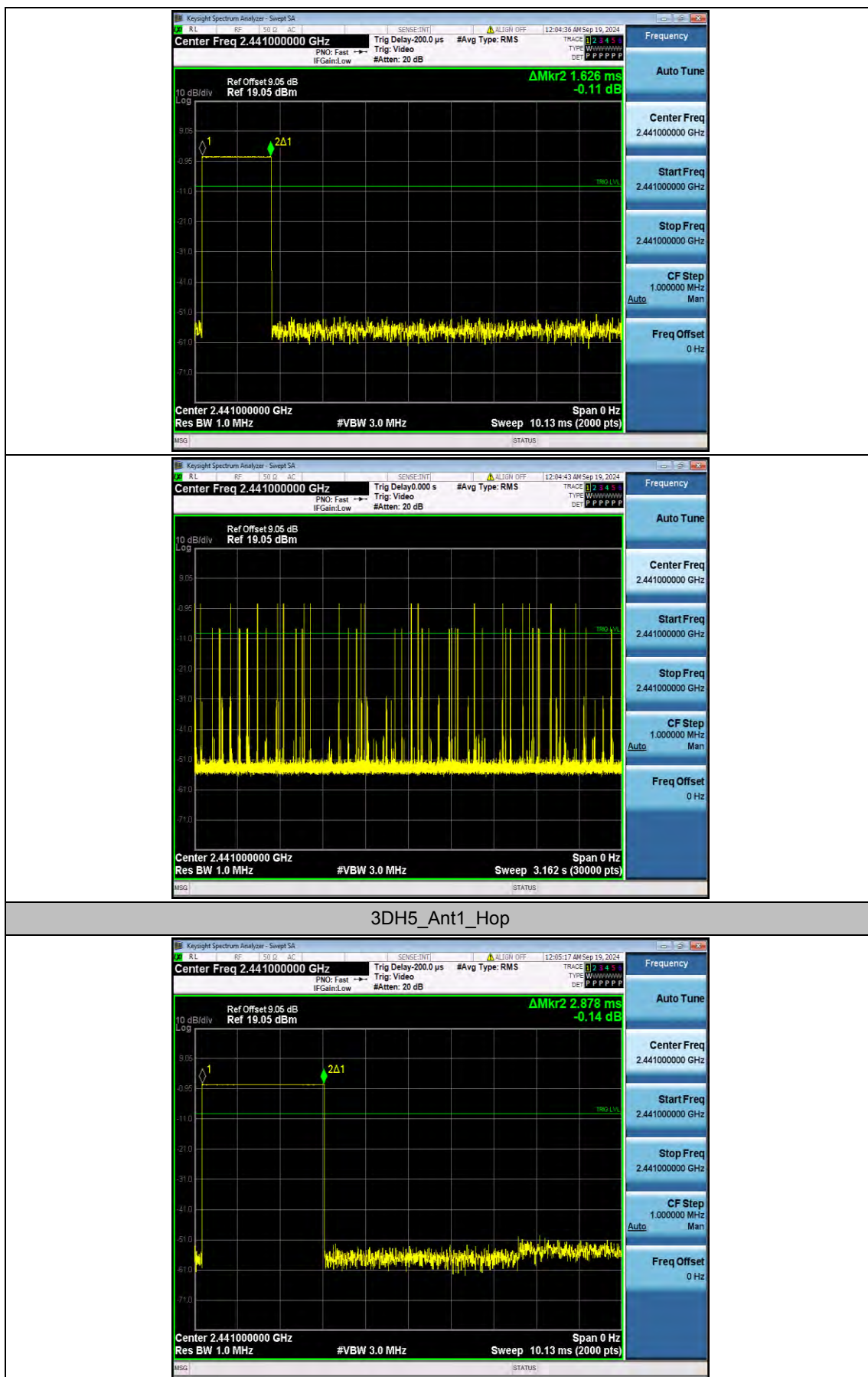


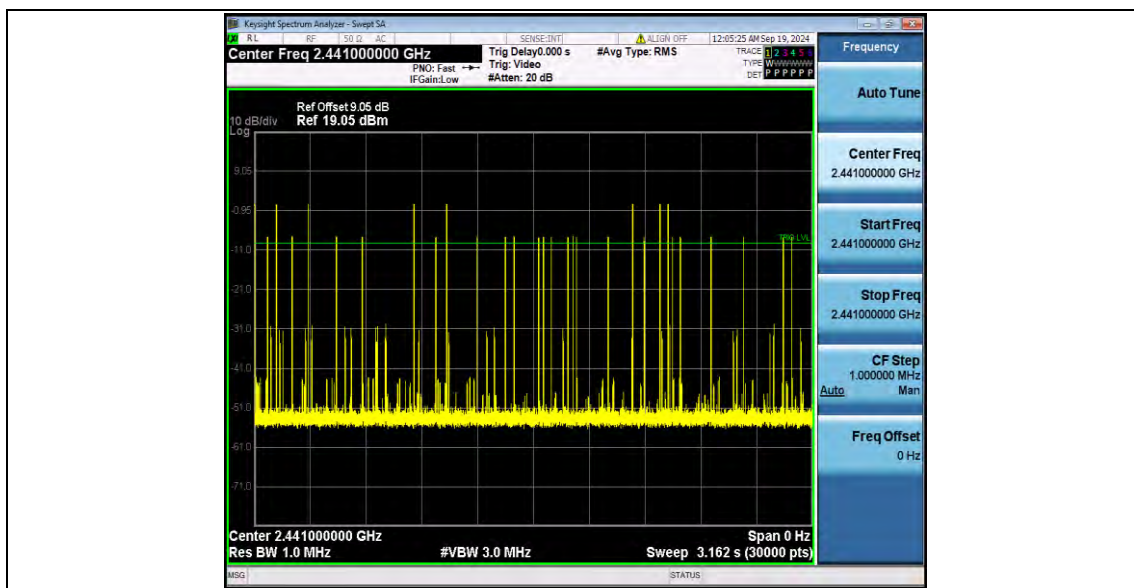


3DH1_Ant1_Hop



3DH3_Ant1_Hop



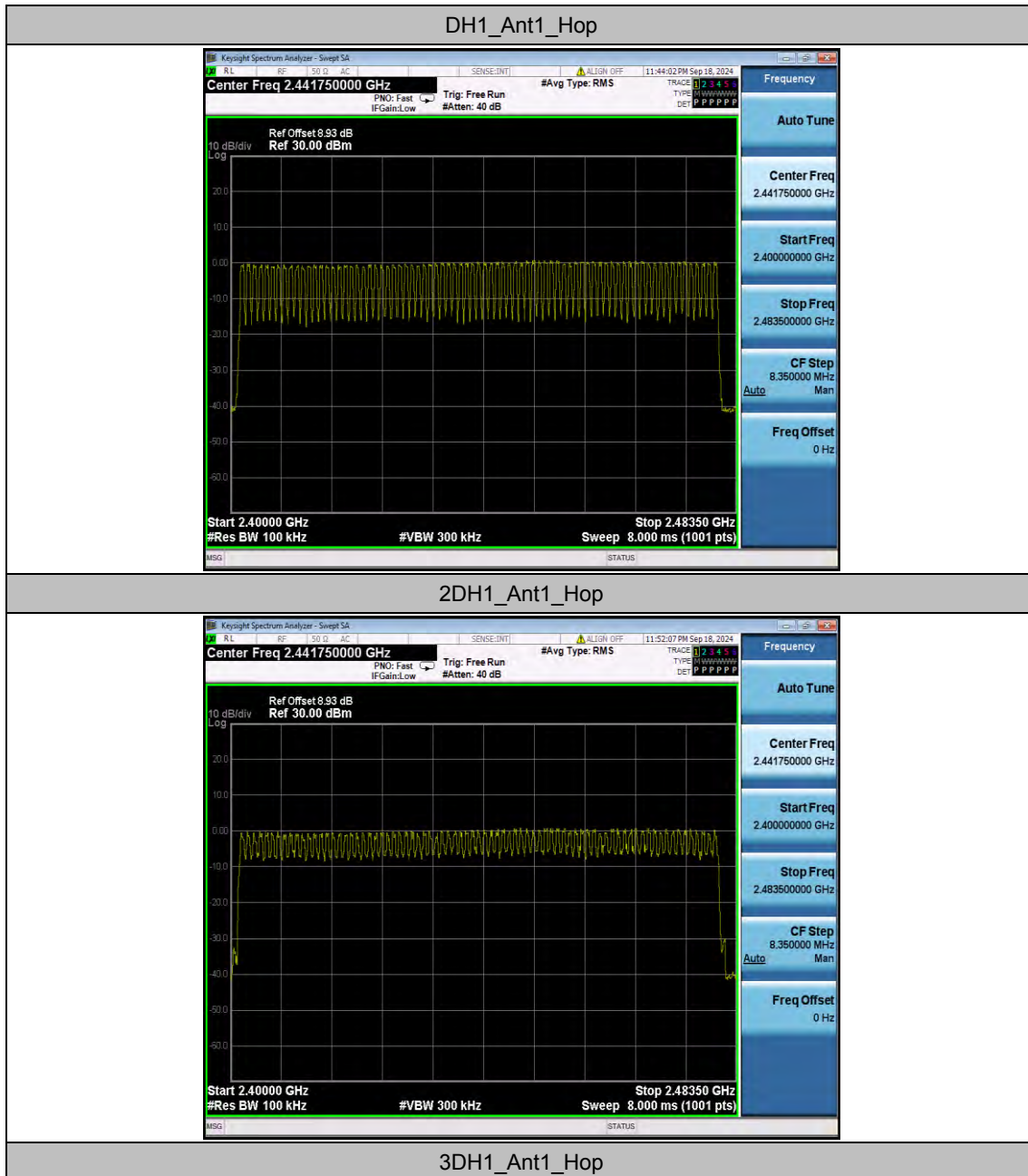


Appendix A.6: Number of hopping channels

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





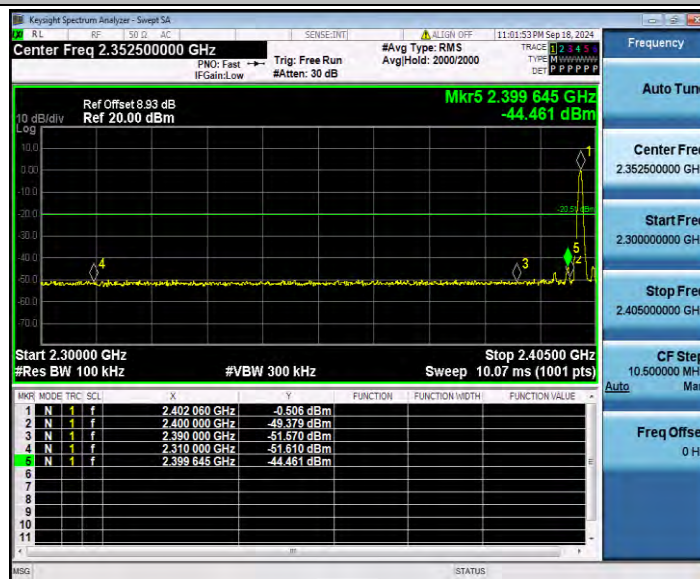
Appendix A.7: Band edge measurements

Test Result

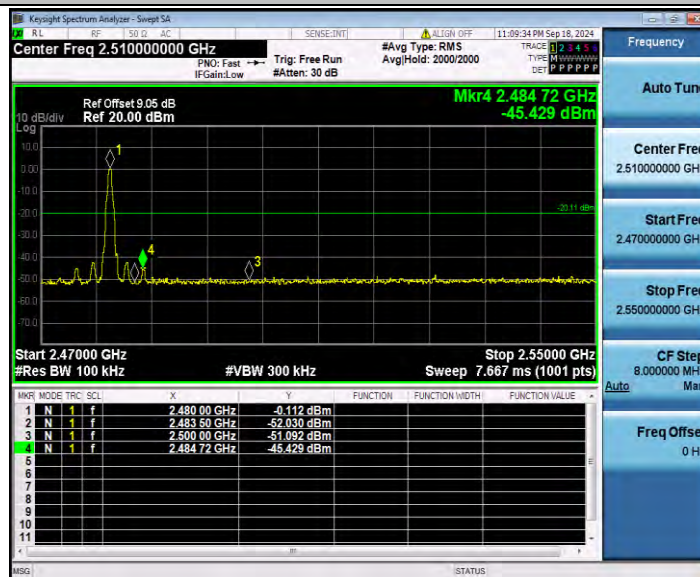
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	-0.51	-44.46	≤ -20.51	PASS
		High	2480	-0.11	-45.43	≤ -20.11	PASS
		Low	Hop_2402	-0.50	-46.5	≤ -20.5	PASS
		High	Hop_2480	0.66	-46.32	≤ -19.35	PASS
2DH1	Ant1	Low	2402	-3.89	-45.59	≤ -23.89	PASS
		High	2480	-3.63	-47.92	≤ -23.63	PASS
		Low	Hop_2402	-0.39	-47.53	≤ -20.39	PASS
		High	Hop_2480	0.73	-47.22	≤ -19.27	PASS
3DH1	Ant1	Low	2402	-3.50	-44.88	≤ -23.5	PASS
		High	2480	-3.16	-47.99	≤ -23.16	PASS
		Low	Hop_2402	-0.84	-46.17	≤ -20.84	PASS
		High	Hop_2480	-0.02	-48.09	≤ -20.02	PASS

Test Graphs

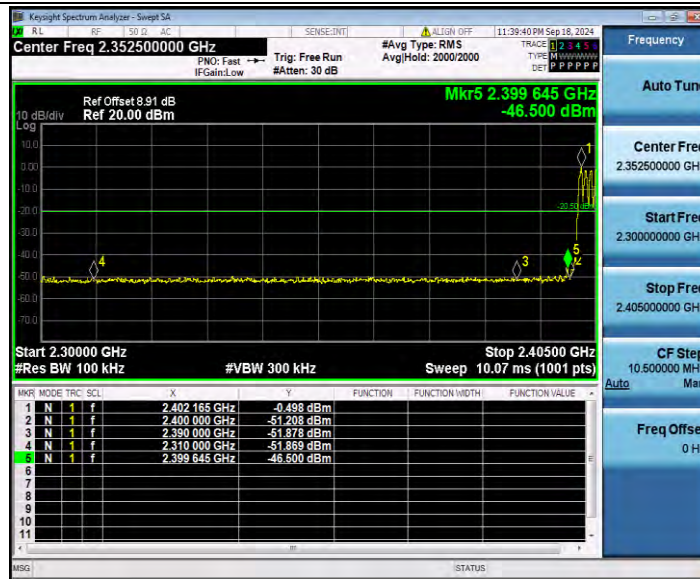
DH1_Ant1_Low_2402



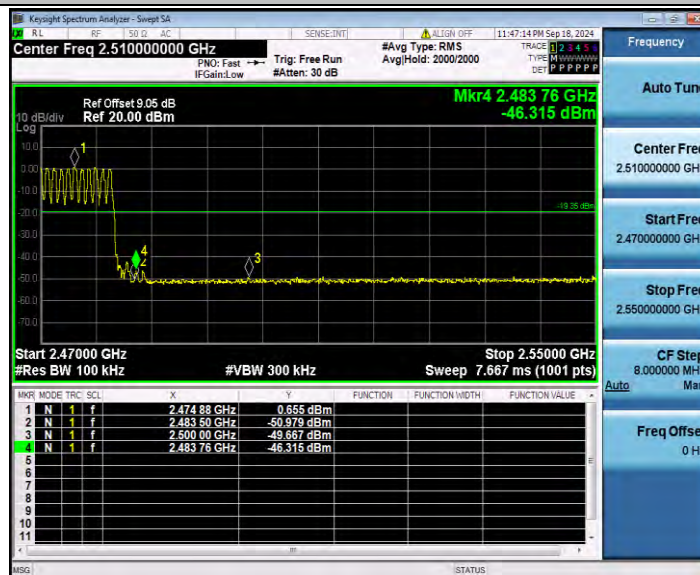
DH1_Ant1_High_2480



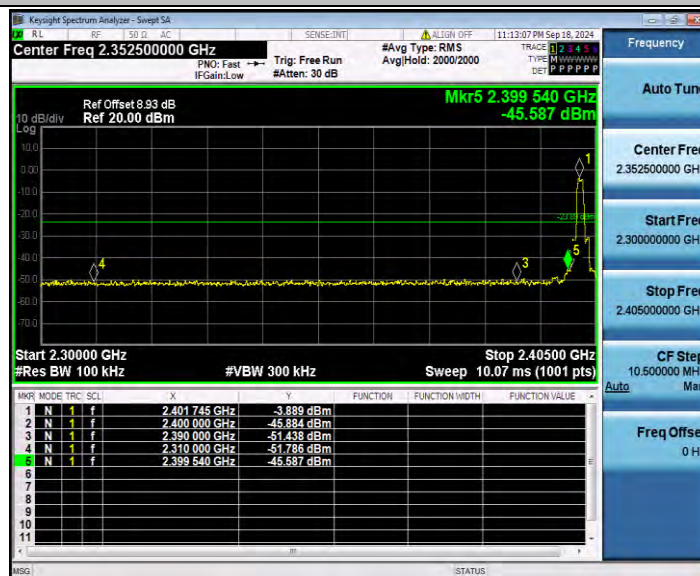
DH1_Ant1_Low_Hop_2402



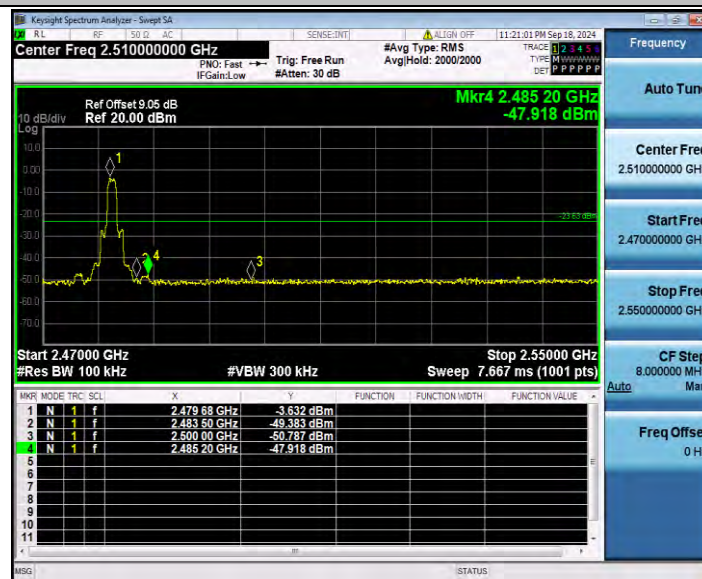
DH1_Ant1_High_Hop_2480



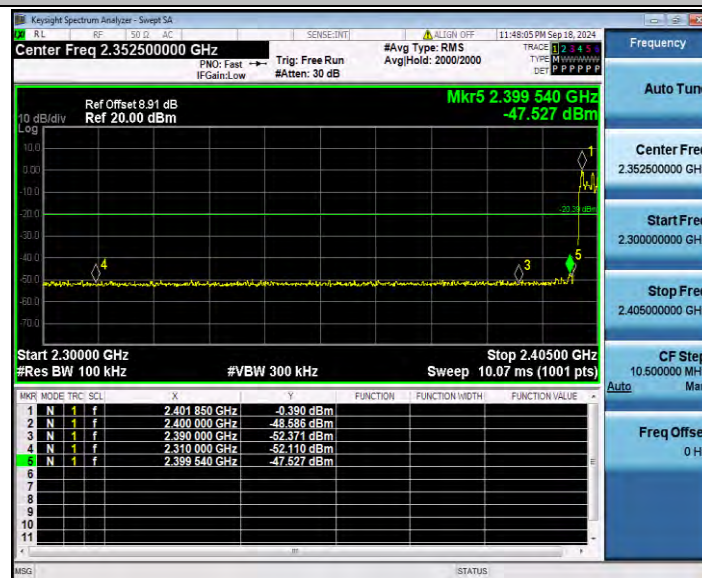
2DH1_Ant1_Low_2402



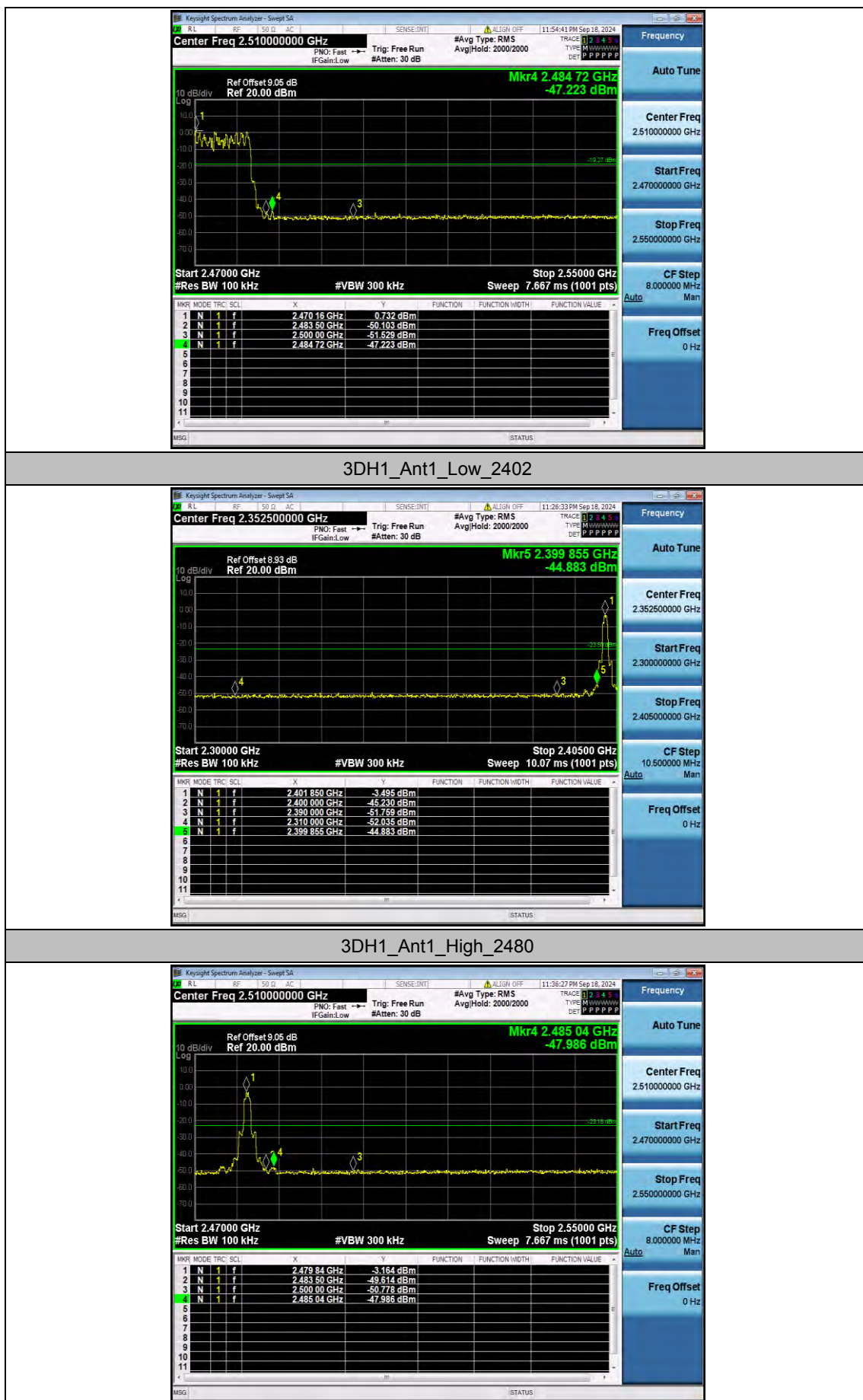
2DH1_Ant1_High_2480



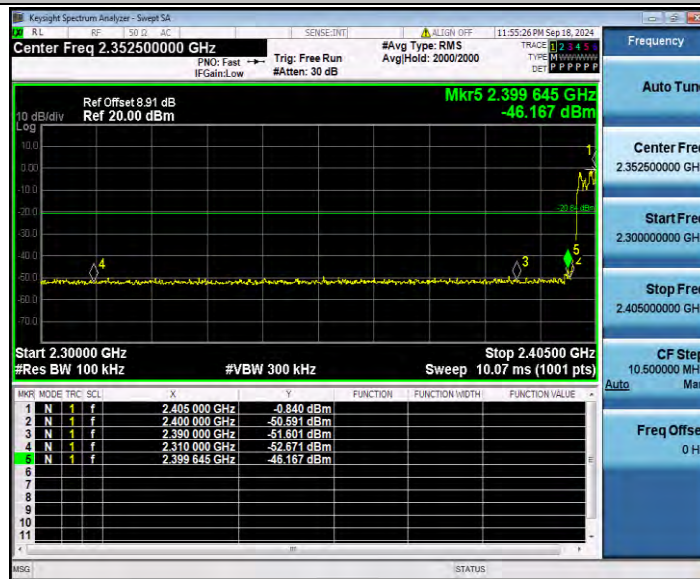
2DH1_Ant1_Low_Hop_2402



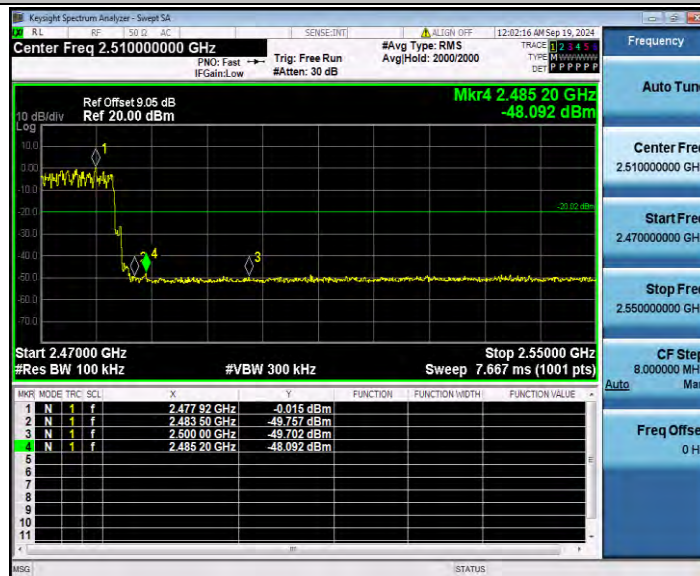
2DH1_Ant1_High_Hop_2480



3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

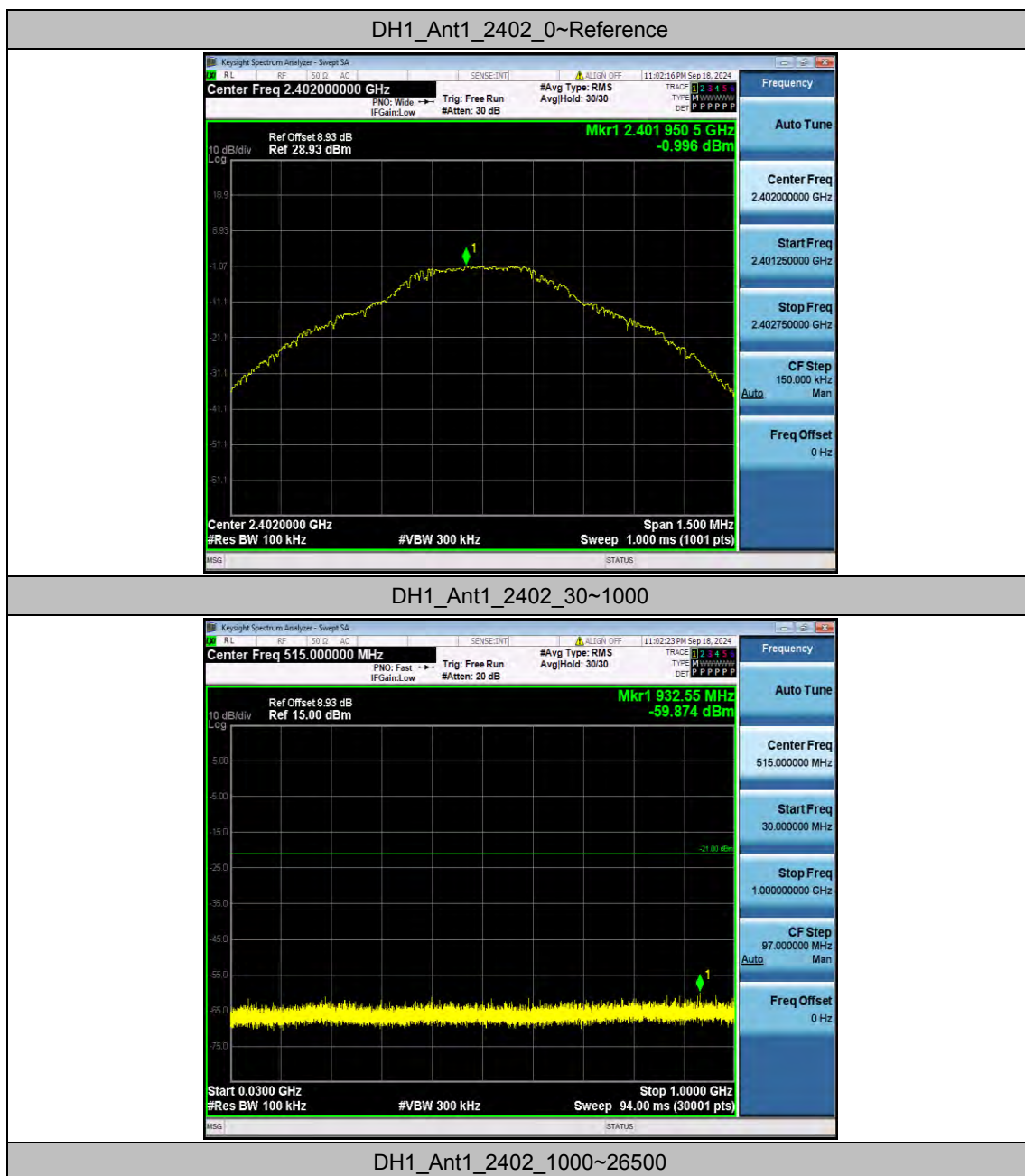


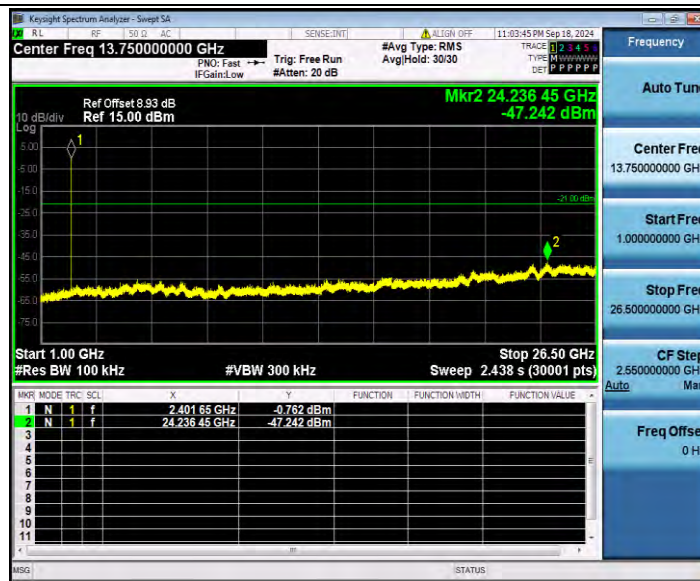
Appendix A.8: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	-1.00	-1.00	---	PASS
			30~1000	-1.00	-59.87	≤ -21	PASS
			1000~26500	-1.00	-47.24	≤ -21	PASS
		2441	Reference	-0.42	-0.42	---	PASS
			30~1000	-0.42	-61.2	≤ -20.42	PASS
			1000~26500	-0.42	-47.15	≤ -20.42	PASS
		2480	Reference	-0.67	-0.67	---	PASS
			30~1000	-0.67	-60.44	≤ -20.67	PASS
			1000~26500	-0.67	-47.62	≤ -20.67	PASS
2DH1	Ant1	2402	Reference	-4.13	-4.13	---	PASS
			30~1000	-4.13	-61.03	≤ -24.13	PASS
			1000~26500	-4.13	-47.89	≤ -24.13	PASS
		2441	Reference	-3.36	-3.36	---	PASS
			30~1000	-3.36	-59.94	≤ -23.36	PASS
			1000~26500	-3.36	-47.71	≤ -23.36	PASS
		2480	Reference	-3.88	-3.88	---	PASS
			30~1000	-3.88	-59.51	≤ -23.88	PASS
			1000~26500	-3.88	-47.85	≤ -23.88	PASS
3DH1	Ant1	2402	Reference	-3.95	-3.95	---	PASS
			30~1000	-3.95	-60.25	≤ -23.95	PASS
			1000~26500	-3.95	-47.59	≤ -23.95	PASS
		2441	Reference	-3.11	-3.11	---	PASS
			30~1000	-3.11	-59.81	≤ -23.11	PASS
			1000~26500	-3.11	-47.77	≤ -23.11	PASS
		2480	Reference	-3.71	-3.71	---	PASS
			30~1000	-3.71	-60.73	≤ -23.71	PASS
			1000~26500	-3.71	-47.79	≤ -23.71	PASS

Test Graphs





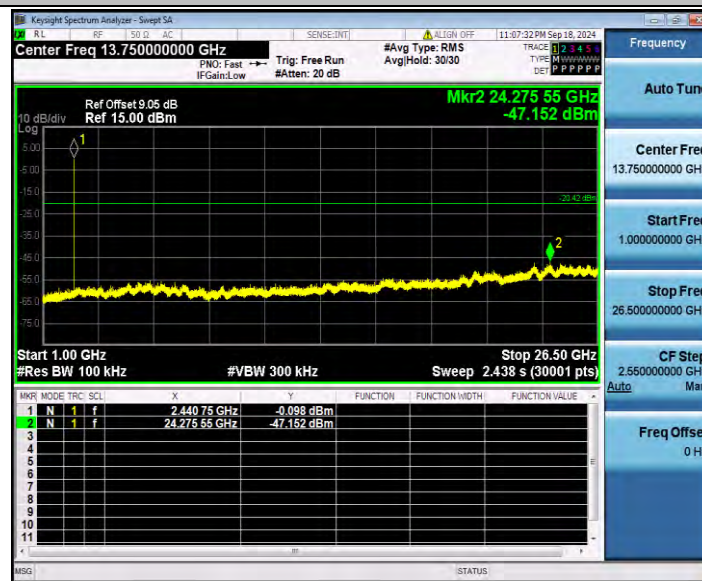
DH1_Ant1_2441_0~Reference



DH1_Ant1_2441_30~1000



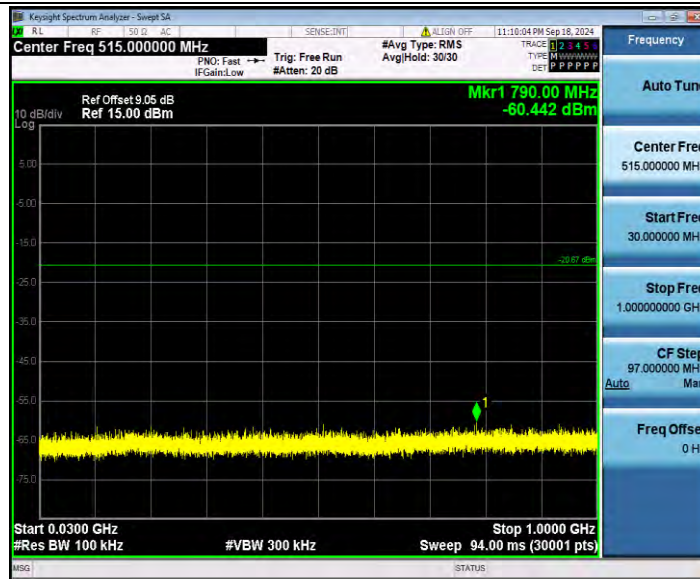
DH1_Ant1_2441_1000~26500



DH1_Ant1_2480_0~Reference



DH1_Ant1_2480_30~1000

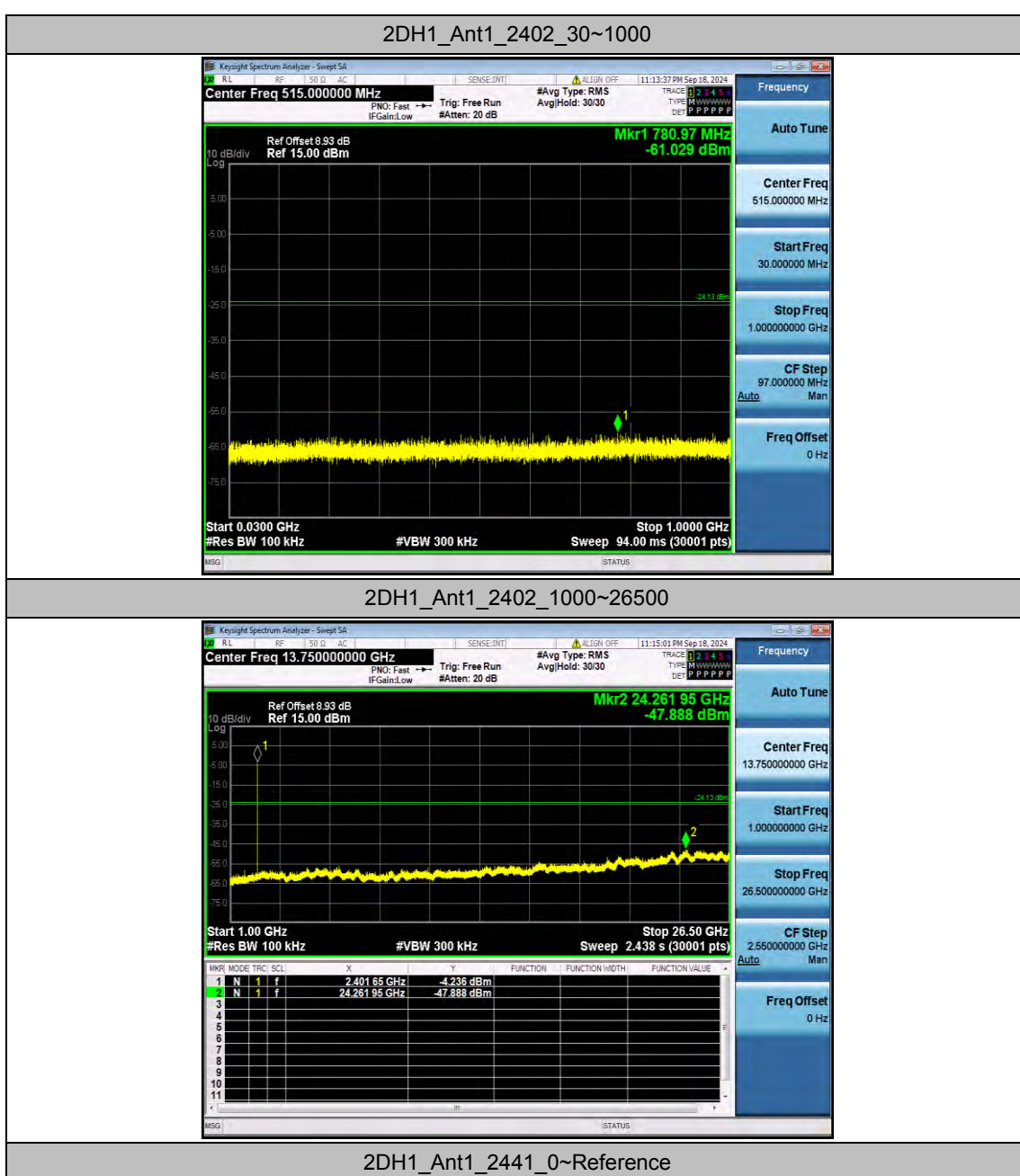


DH1_Ant1_2480_1000~26500



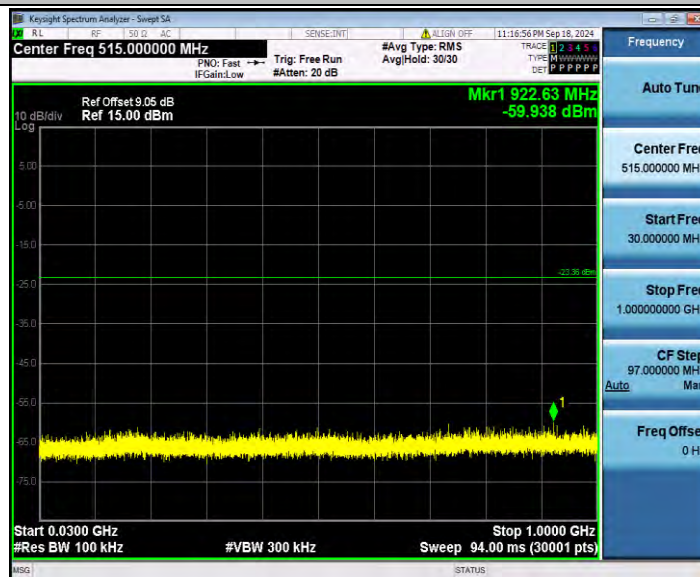
2DH1_Ant1_2402_0~Reference







2DH1_Ant1_2441_30~1000



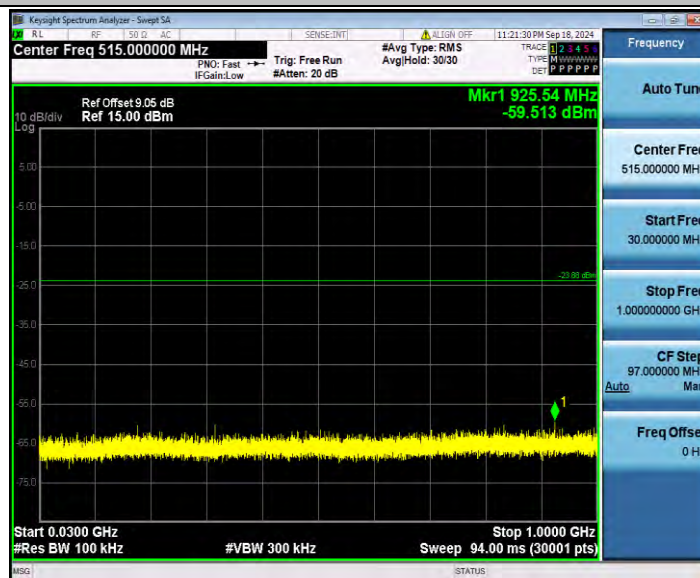
2DH1_Ant1_2441_1000~26500



2DH1_Ant1_2480_0~Reference



2DH1_Ant1_2480_30~1000



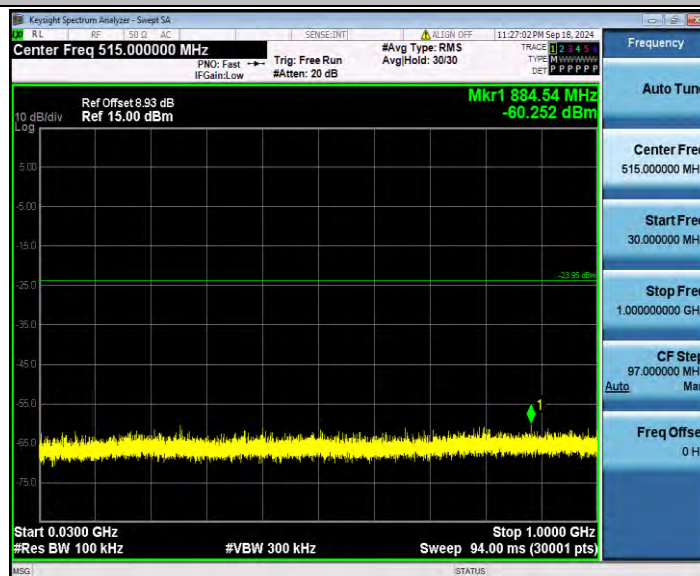
2DH1_Ant1_2480_1000~26500



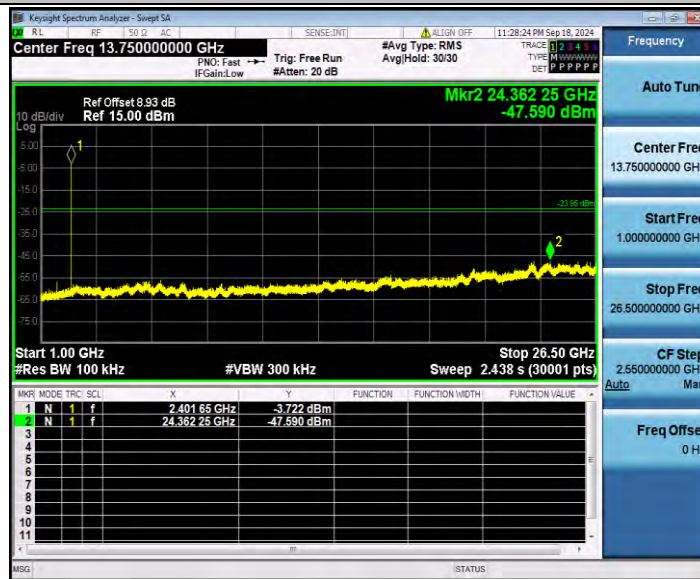
3DH1_Ant1_2402_0~Reference



3DH1_Ant1_2402_30~1000



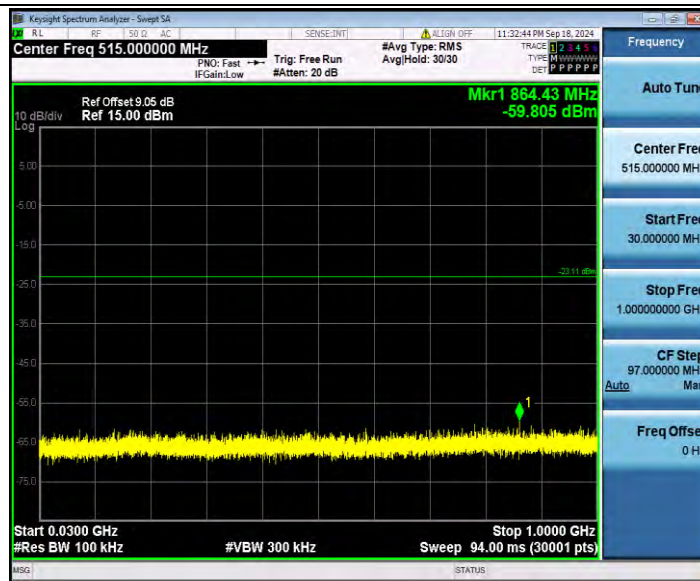
3DH1_Ant1_2402_1000~26500



3DH1_Ant1_2441_0~Reference



3DH1_Ant1_2441_30~1000

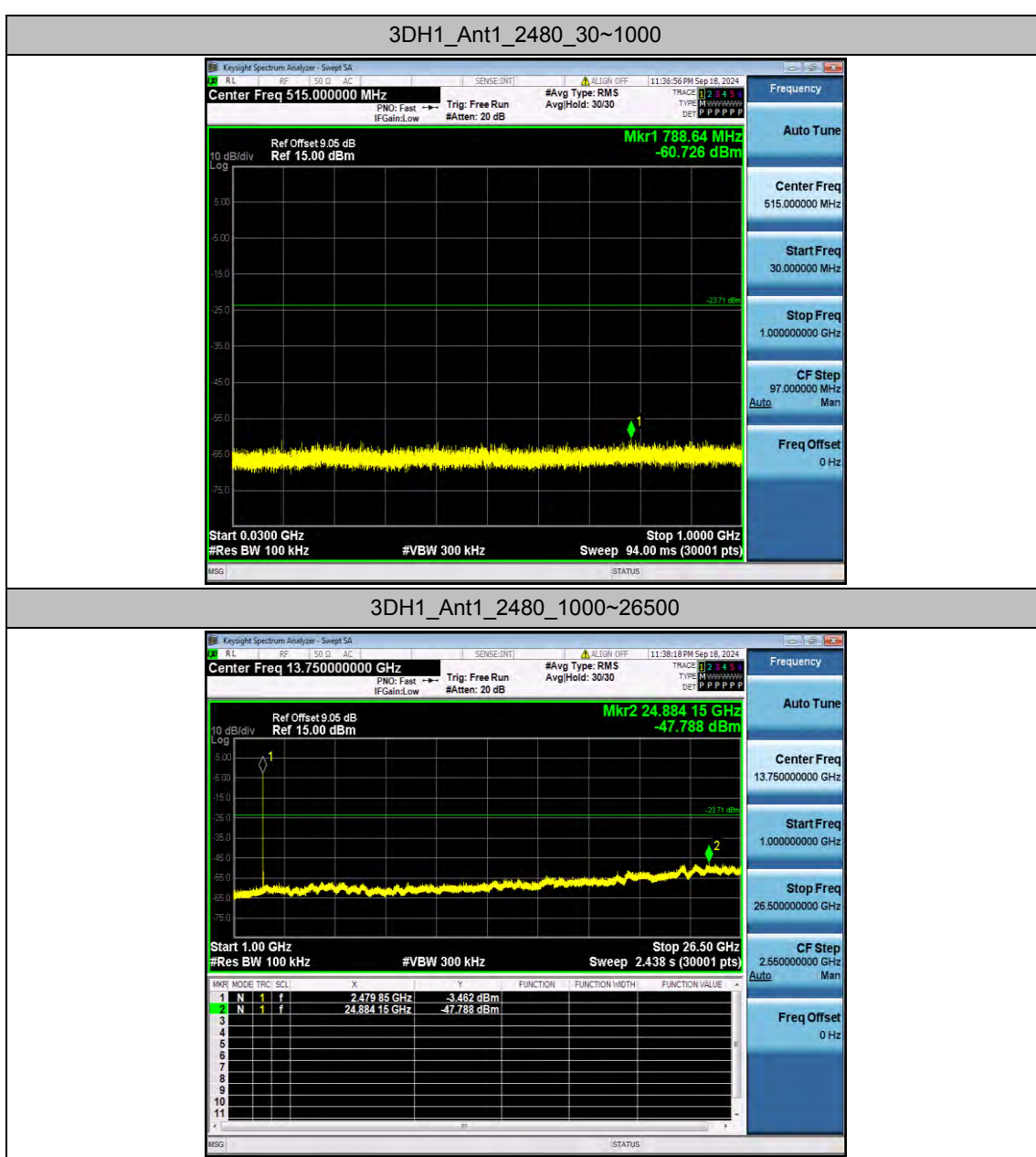


3DH1_Ant1_2441_1000~26500



3DH1_Ant1_2480_0~Reference





Appendix A.9: Emissions in Restricted Bands

Test Result

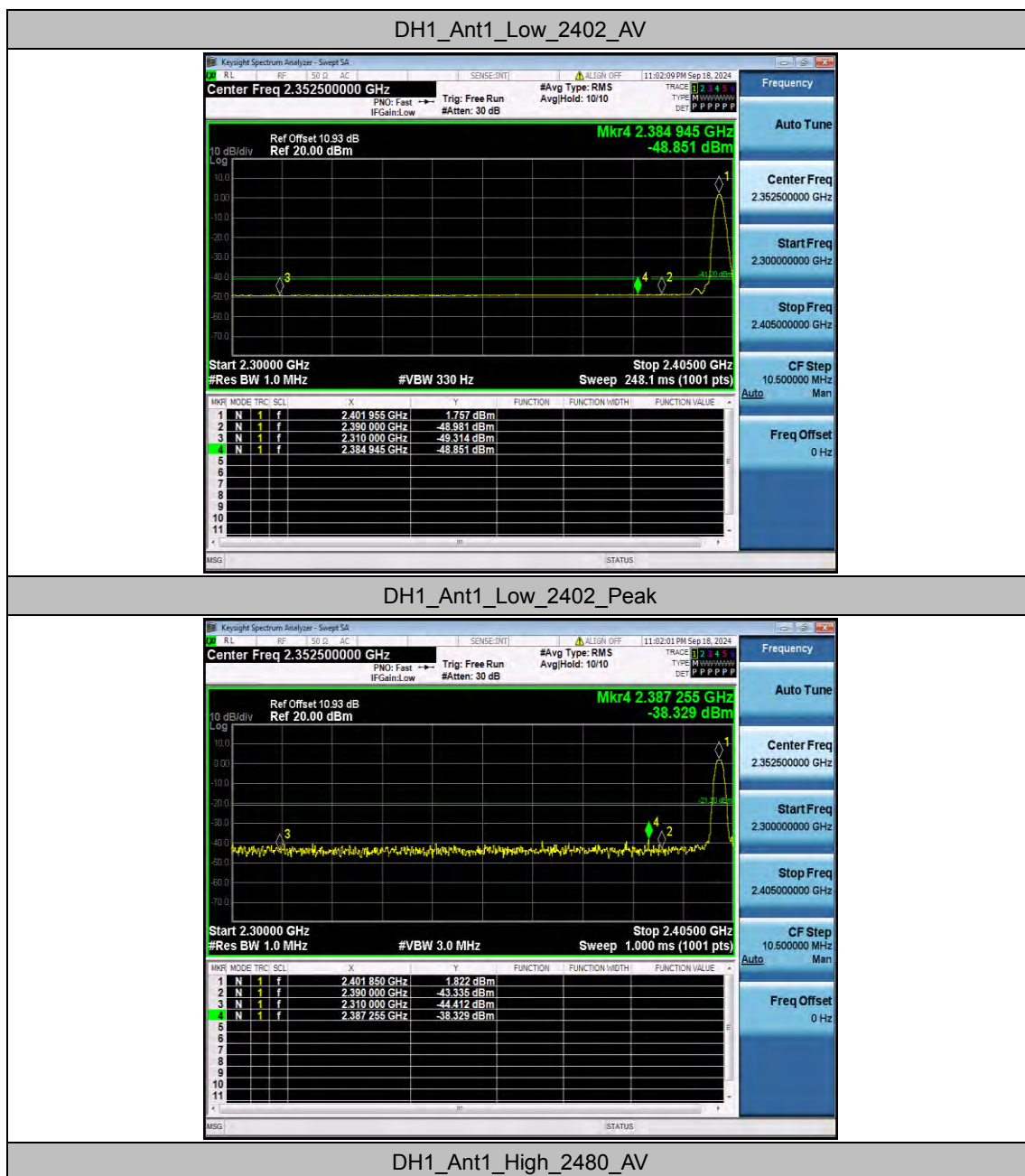
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH1	Ant1	Low	2402	AV	2310.000	-49.31	≤-41.20	45.89	≤54	PASS
				AV	2384.945	-48.85	≤-41.20	46.35	≤54	PASS
				AV	2390.000	-48.98	≤-41.20	46.22	≤54	PASS
				Peak	2310.000	-44.41	≤-21.20	50.79	≤74	PASS
				Peak	2387.255	-38.33	≤-21.20	56.87	≤74	PASS
				Peak	2390.000	-43.34	≤-21.20	51.86	≤74	PASS
		High	2480	AV	2483.500	-46.9	≤-41.20	48.30	≤54	PASS
				AV	2484.800	-44.46	≤-41.20	50.74	≤54	PASS
				AV	2500.000	-48.75	≤-41.20	46.45	≤54	PASS
				Peak	2483.500	-41.86	≤-21.20	53.34	≤74	PASS
				Peak	2484.960	-38.66	≤-21.20	56.54	≤74	PASS
				Peak	2500.000	-45.28	≤-21.20	49.92	≤74	PASS
2DH1	Ant1	Low	2402	AV	2310.000	-49.26	≤-41.20	45.94	≤54	PASS
				AV	2384.945	-48.91	≤-41.20	46.29	≤54	PASS
				AV	2390.000	-48.95	≤-41.20	46.25	≤54	PASS
				Peak	2310.000	-45.08	≤-21.20	50.12	≤74	PASS
				Peak	2344.730	-39.74	≤-21.20	55.46	≤74	PASS
				Peak	2390.000	-43.22	≤-21.20	51.98	≤74	PASS
		High	2480	AV	2483.500	-46	≤-41.20	49.20	≤54	PASS
				AV	2484.720	-45.81	≤-41.20	49.39	≤54	PASS
				AV	2500.000	-48.68	≤-41.20	46.52	≤54	PASS
				Peak	2483.500	-43.9	≤-21.20	51.30	≤74	PASS
				Peak	2484.240	-39.16	≤-21.20	56.04	≤74	PASS
				Peak	2500.000	-40.82	≤-21.20	54.38	≤74	PASS
3DH1	Ant1	Low	2402	AV	2310.000	-49.31	≤-41.20	45.89	≤54	PASS
				AV	2389.985	-48.89	≤-41.20	46.31	≤54	PASS
				AV	2390.000	-48.89	≤-41.20	46.31	≤54	PASS
				Peak	2310.000	-44.48	≤-21.20	50.72	≤74	PASS
				Peak	2378.330	-40.2	≤-21.20	55.00	≤74	PASS
				Peak	2390.000	-43.67	≤-21.20	51.53	≤74	PASS
		High	2480	AV	2483.500	-45.86	≤-41.20	49.34	≤54	PASS
				AV	2484.800	-45.83	≤-41.20	49.37	≤54	PASS
				AV	2500.000	-48.64	≤-41.20	46.56	≤54	PASS
				Peak	2483.500	-41.34	≤-21.20	53.86	≤74	PASS
				Peak	2484.800	-39.13	≤-21.20	56.07	≤74	PASS

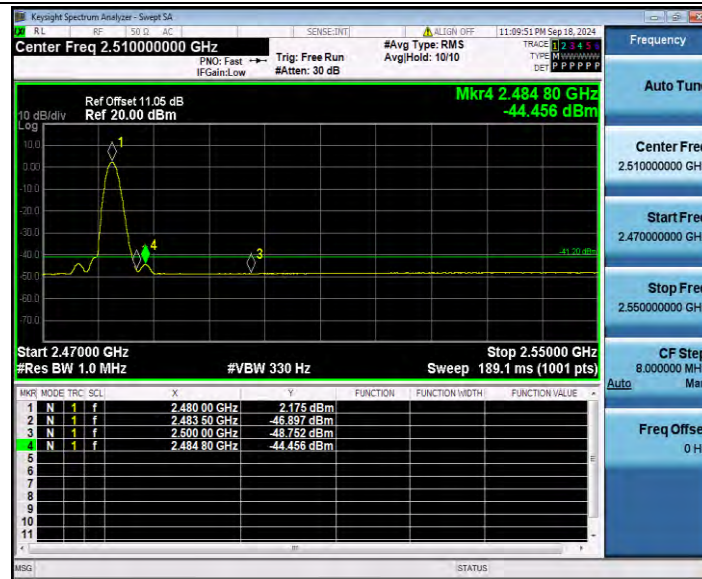
				Peak	2500.000	-46.17	≤ -21.20	49.03	≤ 74	PASS
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Note:

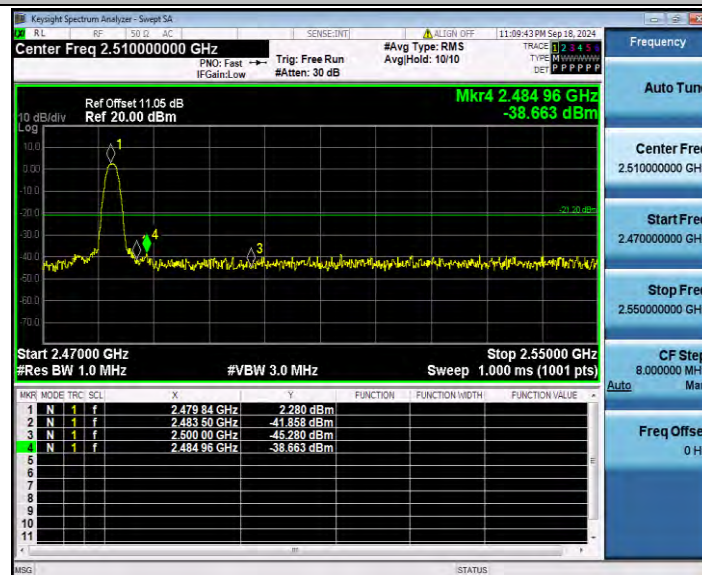
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

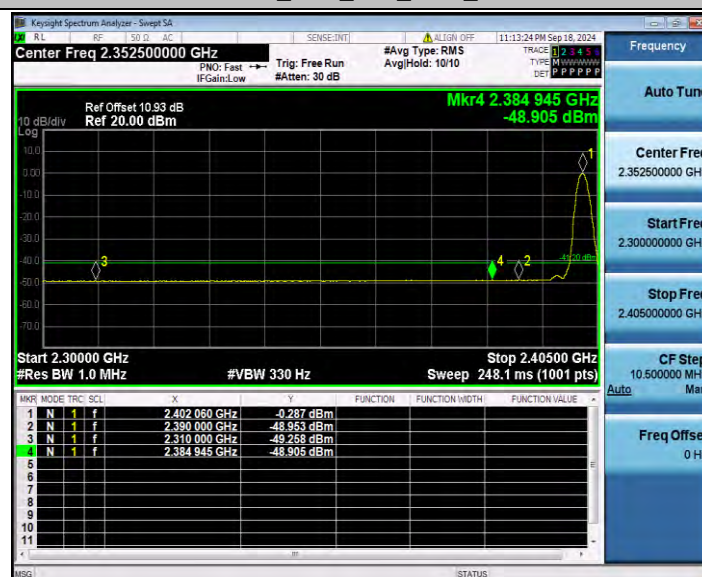




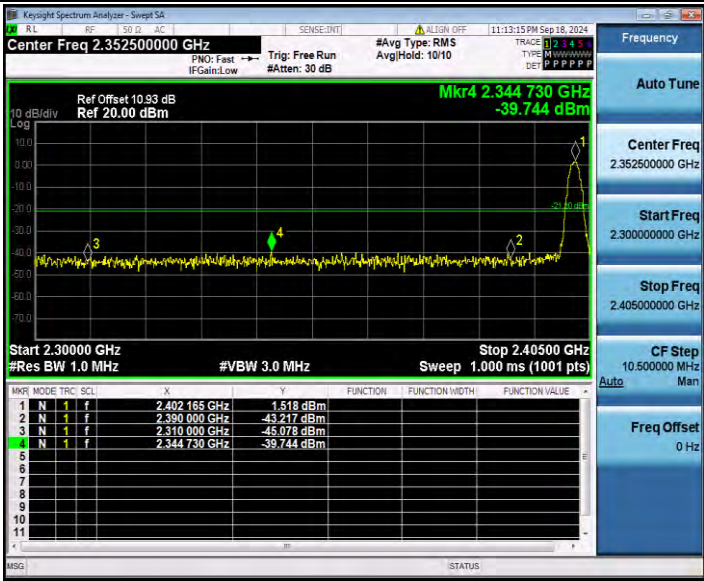
DH1_Ant1_High_2480_Peak



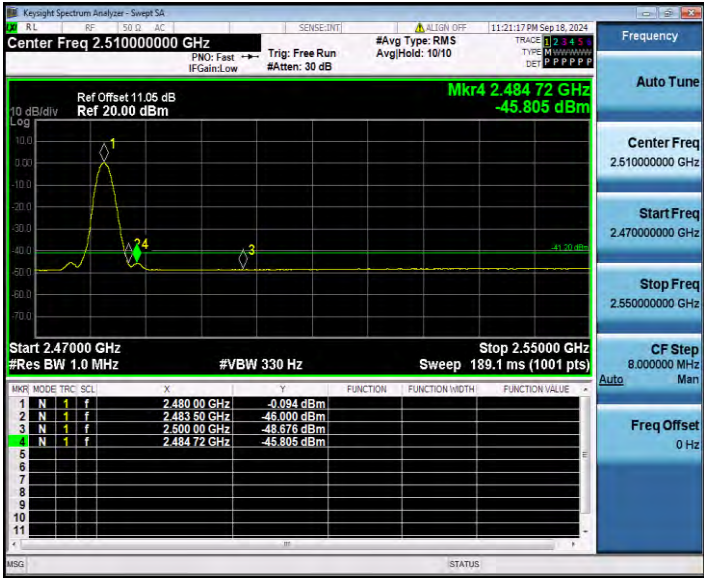
2DH1_Ant1_Low_2402_AV



2DH1_Ant1_Low_2402_Peak



2DH1_Ant1_High_2480_AV



2DH1_Ant1_High_2480_Peak

