

Case No. : <u>GTS20250728023-3-01</u>
Ambient Condition: <u>23</u> °C, <u>51</u> %RH
According Standard: <u>■Part15C</u>
Test Date: <u>2025.8.14-2025.8.20</u> Test Engineer: <u>Evan ouyang</u>

AppendixA.1: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	1.014	2401.526	2402.540	---	---
		2441	1.032	2440.520	2441.552	---	---
		2480	1.041	2479.517	2480.558	---	---
2DH1	Ant1	2402	1.299	2401.394	2402.693	---	---
		2441	1.302	2440.397	2441.699	---	---
		2480	1.266	2479.427	2480.693	---	---
3DH1	Ant1	2402	1.227	2401.439	2402.666	---	---
		2441	1.260	2440.409	2441.669	---	---
		2480	1.275	2479.400	2480.675	---	---

Test Graphs





2DH1_Ant1_2480



3DH1_Ant1_2402



3DH1_Ant1_2441



AppendixA.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.92786	2401.5600	2402.4879	---	---
		2441	0.95856	2440.5495	2441.5081	---	---
		2480	0.98164	2479.5449	2480.5266	---	---
2DH1	Ant1	2402	1.1944	2401.4376	2402.6320	---	---
		2441	1.2124	2440.4369	2441.6493	---	---
		2480	1.2203	2479.4313	2480.6516	---	---
3DH1	Ant1	2402	1.1745	2401.4616	2402.6361	---	---
		2441	1.1803	2440.4577	2441.6380	---	---
		2480	1.1858	2479.4532	2480.6390	---	---

Test Graphs

DH1_Ant1_2402



DH1_Ant1_2441



DH1_Ant1_2480



2DH1_Ant1_2402



2DH1_Ant1_2441



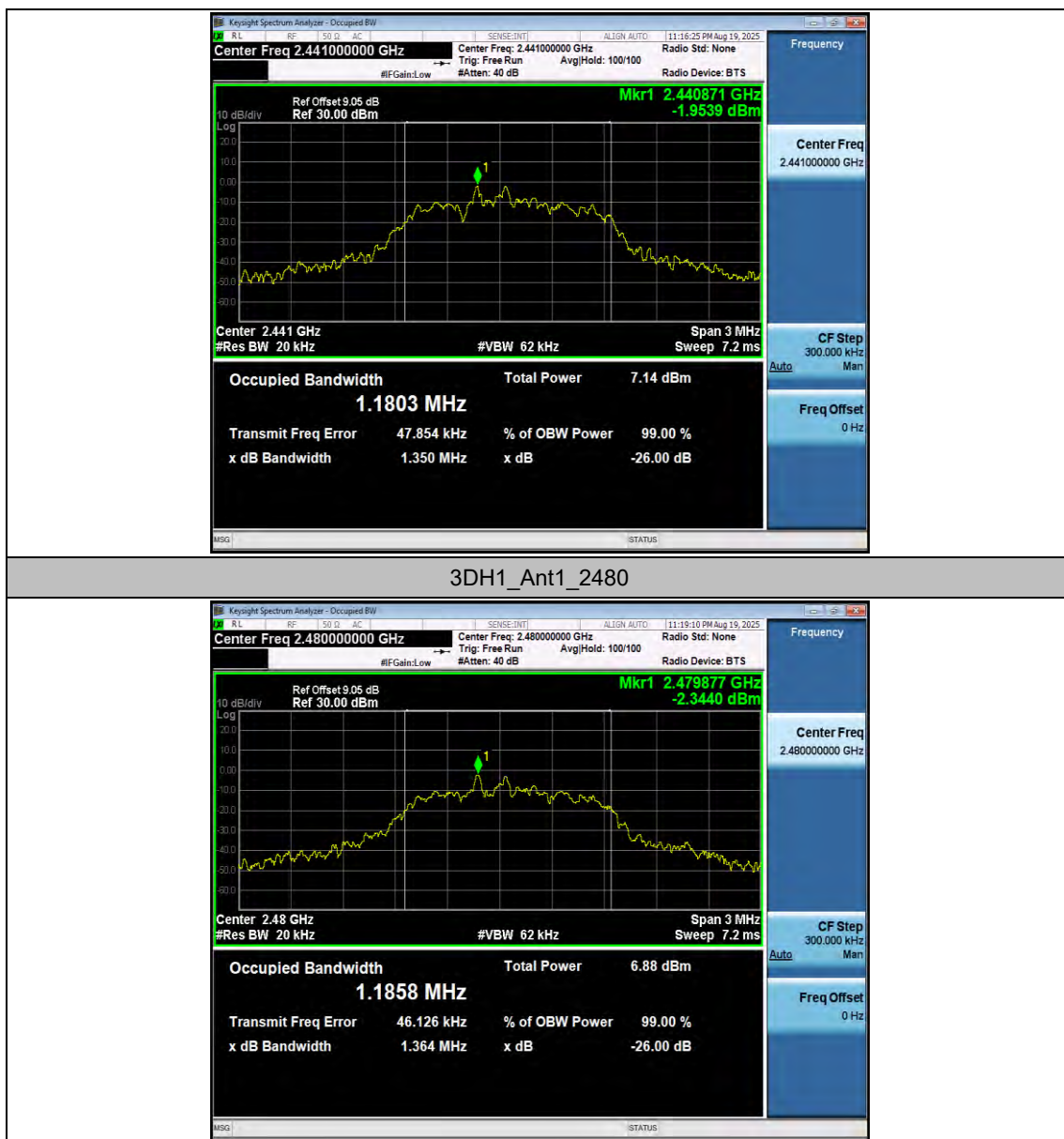
2DH1_Ant1_2480



3DH1_Ant1_2402



3DH1_Ant1_2441



AppendixA.3: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH1	Ant1	2402	1.41	≤20.97	PASS
		2441	2.73	≤20.97	PASS
		2480	2.45	≤20.97	PASS
2DH1	Ant1	2402	2.08	≤20.97	PASS
		2441	3.32	≤20.97	PASS
		2480	3.09	≤20.97	PASS
3DH1	Ant1	2402	2.56	≤20.97	PASS
		2441	3.81	≤20.97	PASS
		2480	3.46	≤20.97	PASS

AppendixA.4: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	1.004	≥ 0.694	PASS
		Hop_2441	0.99	≥ 0.694	PASS
		Hop_2480	0.996	≥ 0.694	PASS
2DH1	Ant1	Hop_2402	0.988	≥ 0.868	PASS
		Hop_2441	1.144	≥ 0.868	PASS
		Hop_2480	1.144	≥ 0.868	PASS
3DH1	Ant1	Hop_2402	0.99	≥ 0.850	PASS
		Hop_2441	1.006	≥ 0.850	PASS
		Hop_2480	1.002	≥ 0.850	PASS

Test Graphs

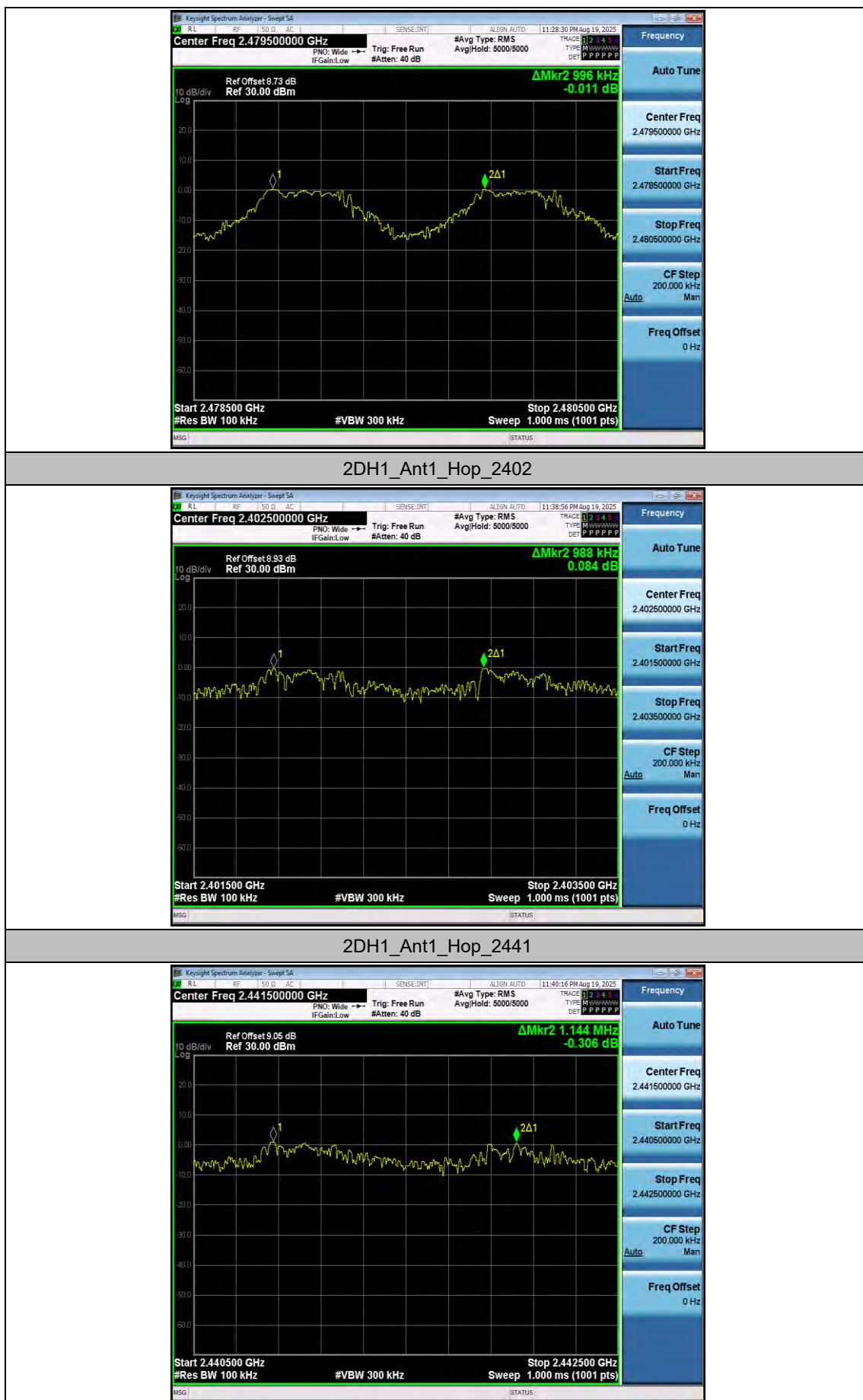
DH1_Ant1_Hop_2402



DH1_Ant1_Hop_2441



DH1_Ant1_Hop_2480



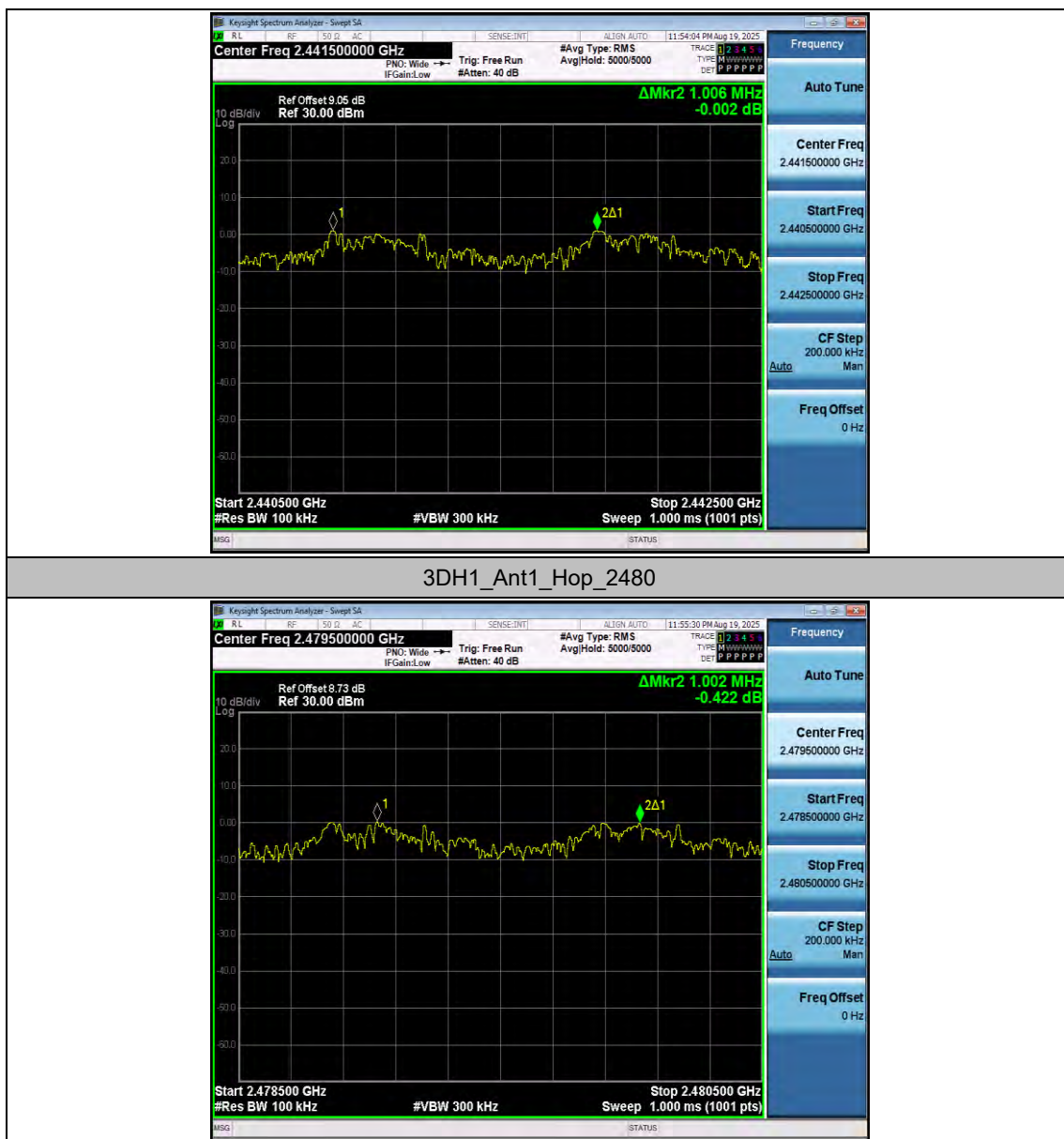
2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402



3DH1_Ant1_Hop_2441

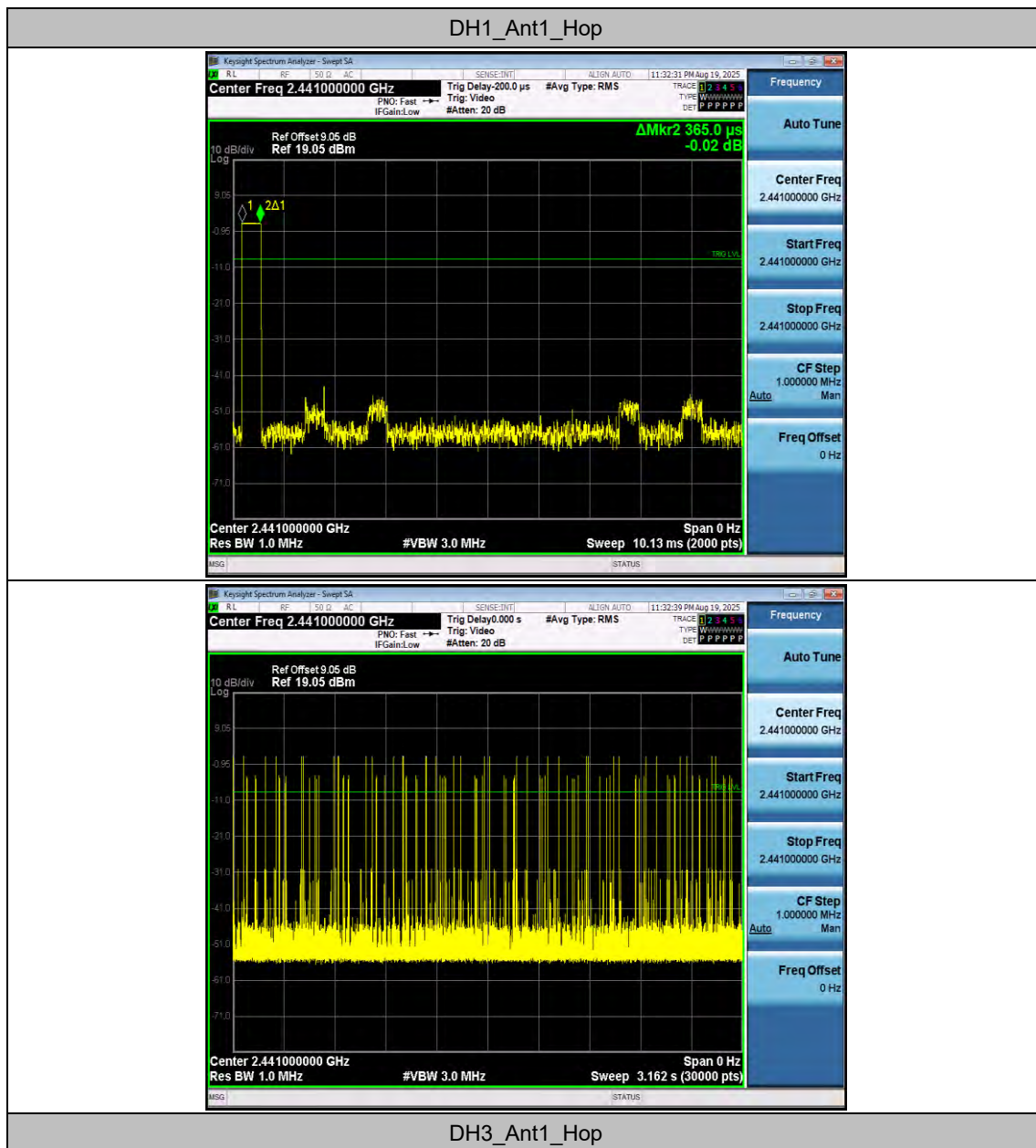


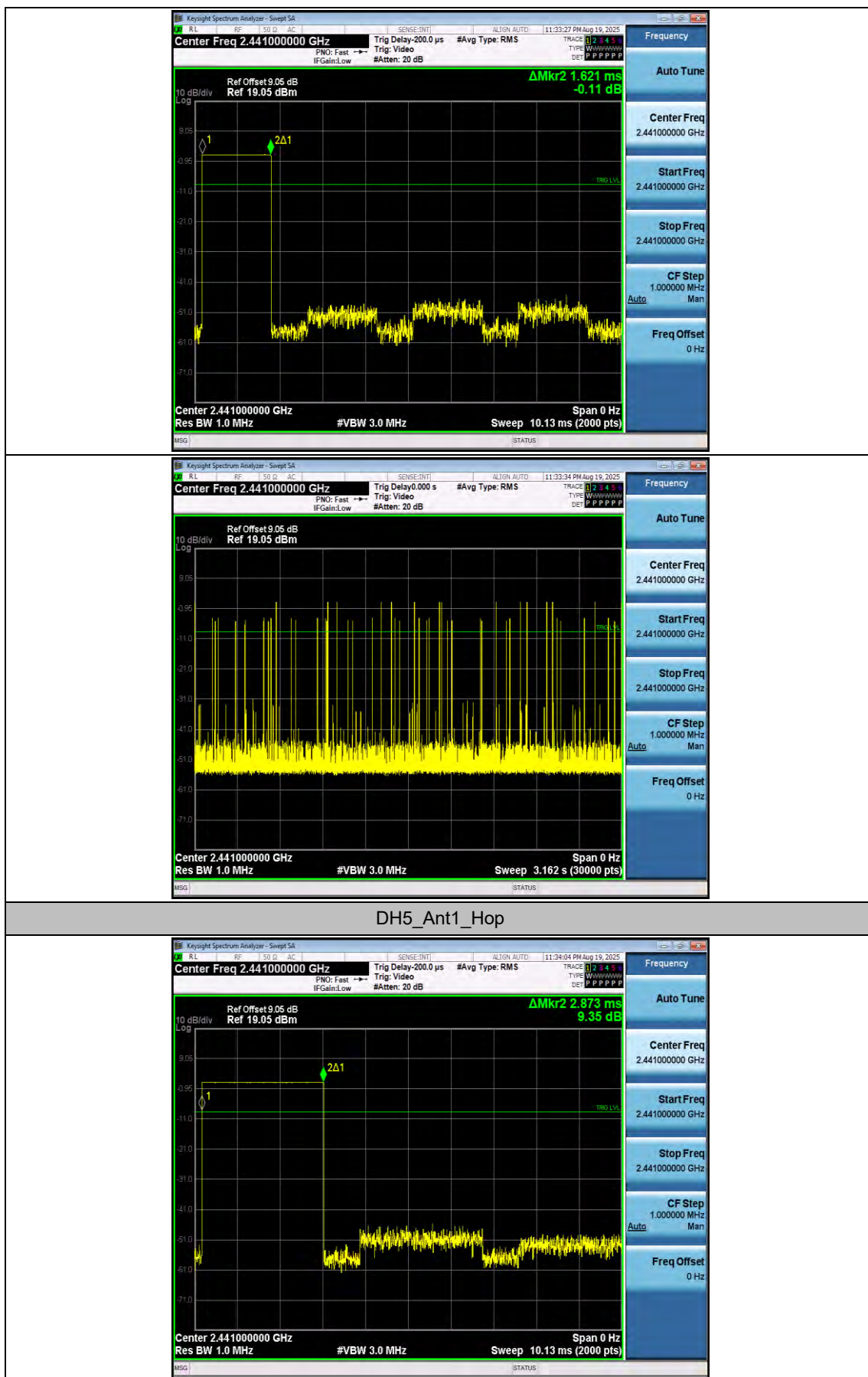
AppendixA.5: Time of occupancy

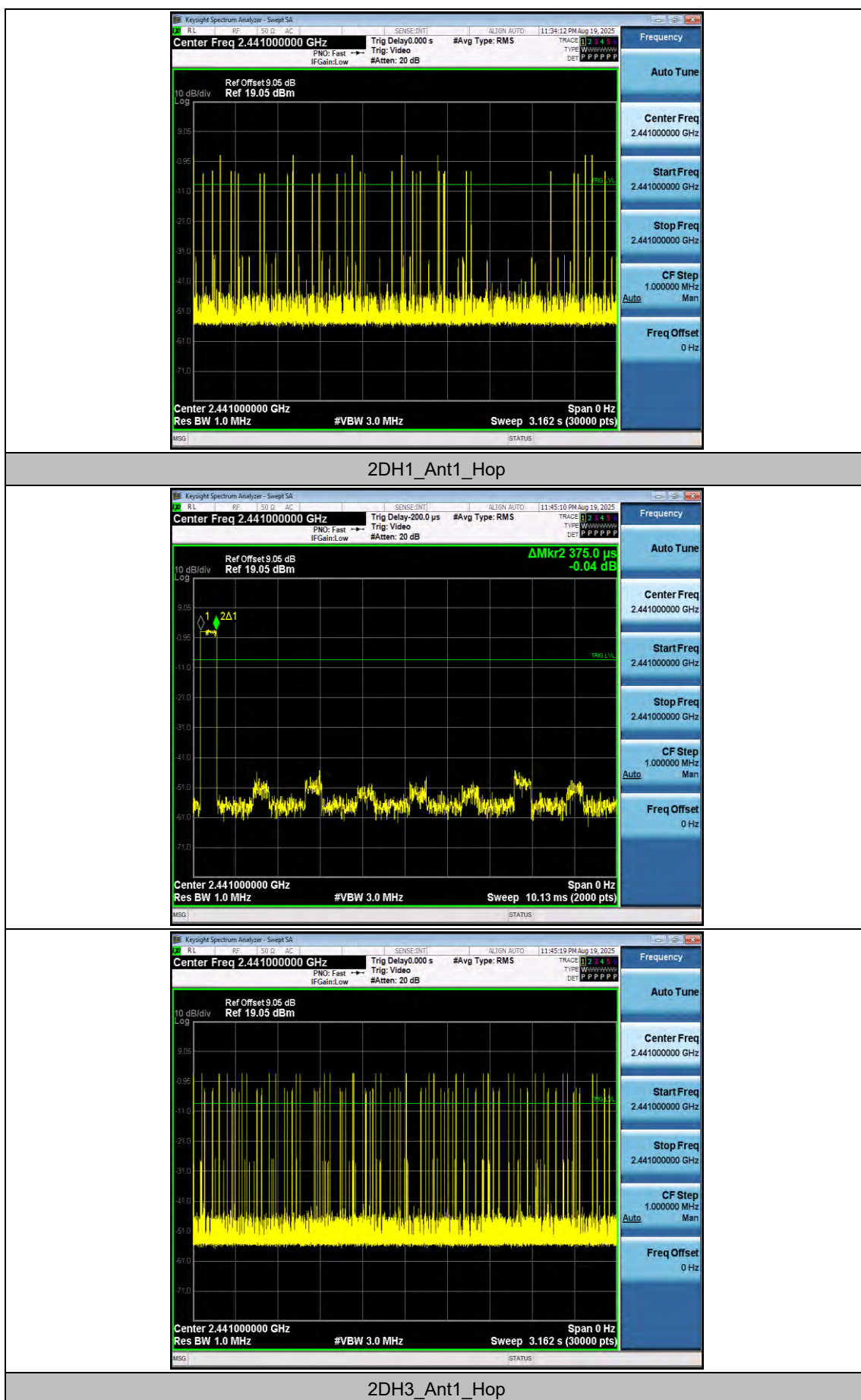
Test Result

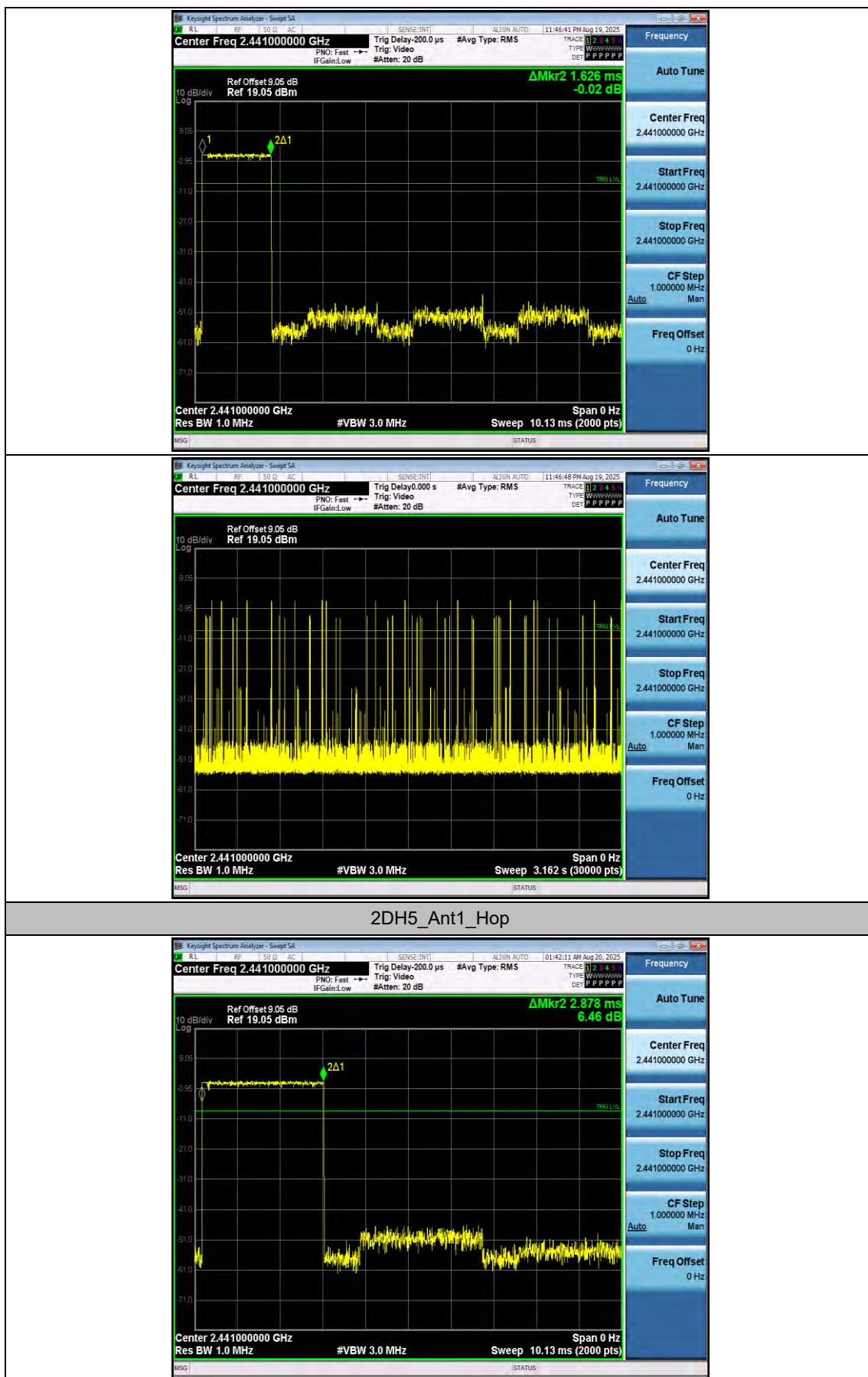
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.365	320	0.117	≤0.4	PASS
DH3	Ant1	Hop	1.621	160	0.259	≤0.4	PASS
DH5	Ant1	Hop	2.873	80	0.23	≤0.4	PASS
2DH1	Ant1	Hop	0.375	320	0.12	≤0.4	PASS
2DH3	Ant1	Hop	1.626	170	0.276	≤0.4	PASS
2DH5	Ant1	Hop	2.878	100	0.288	≤0.4	PASS
3DH1	Ant1	Hop	0.380	330	0.125	≤0.4	PASS
3DH3	Ant1	Hop	1.626	200	0.325	≤0.4	PASS
3DH5	Ant1	Hop	2.878	130	0.374	≤0.4	PASS

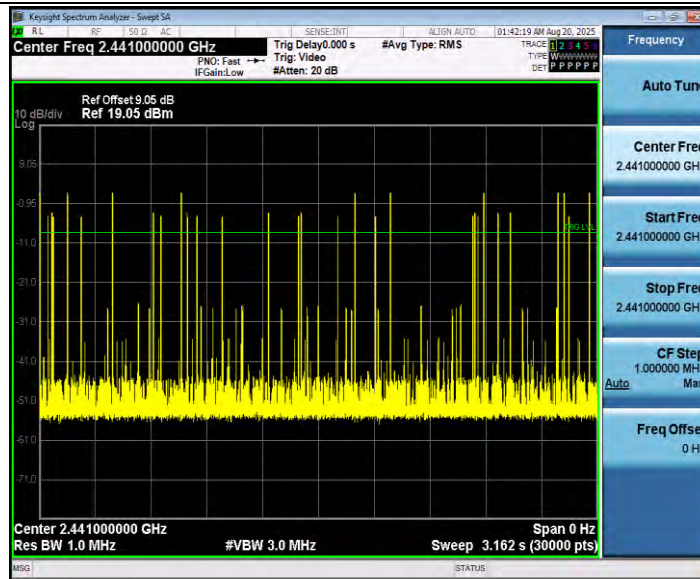
Test Graphs



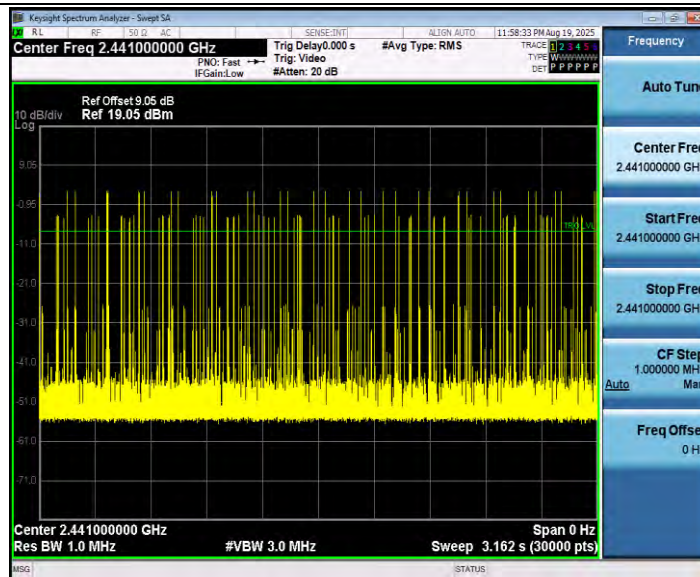
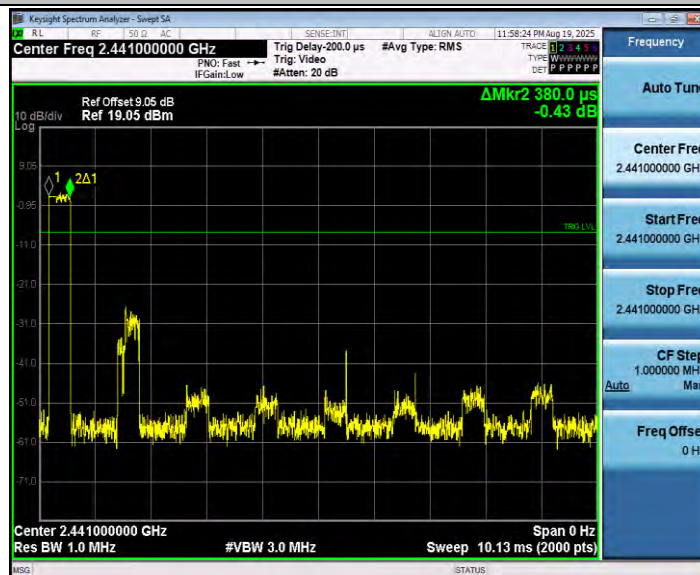




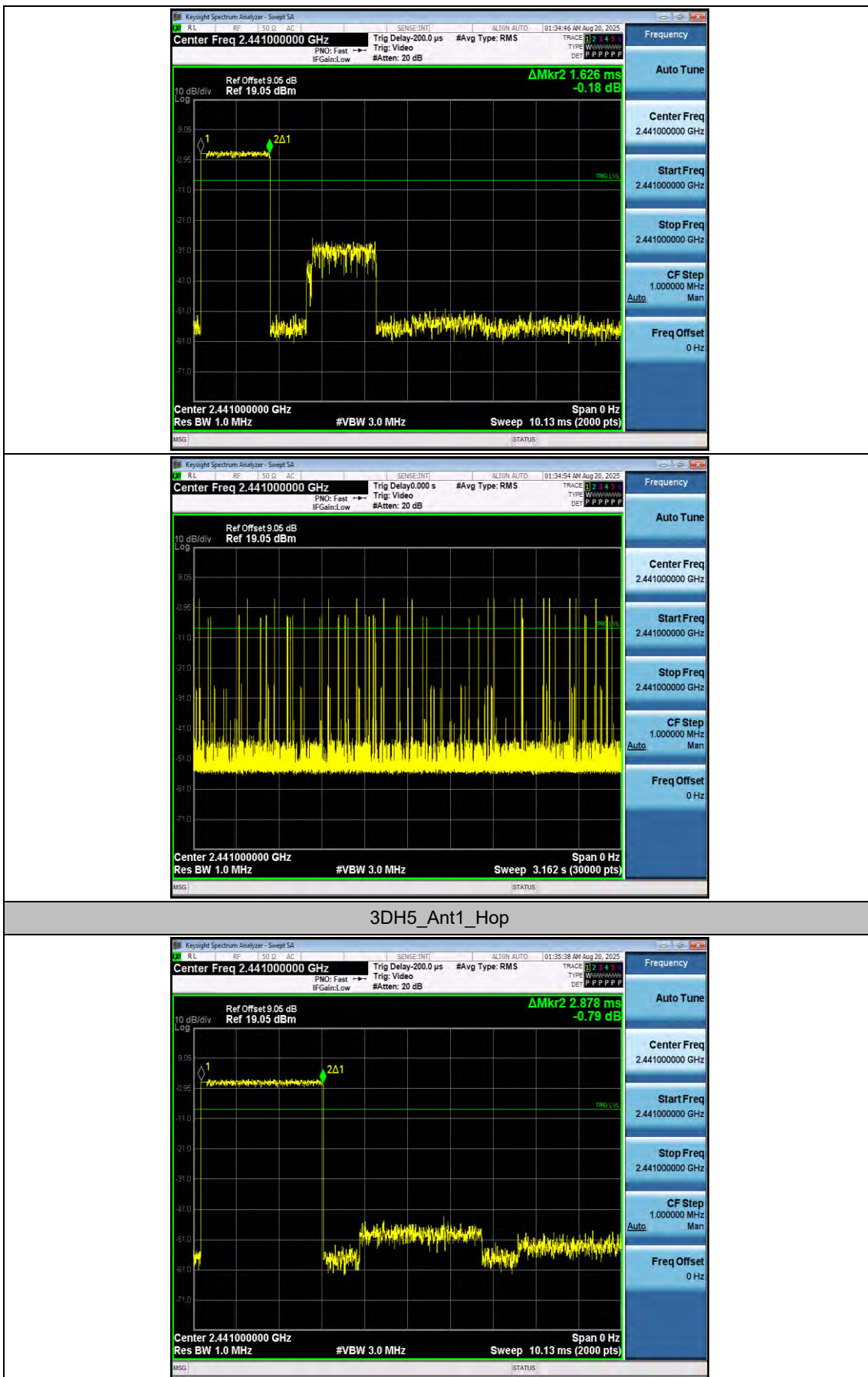




3DH1_Ant1_Hop



3DH3_Ant1_Hop

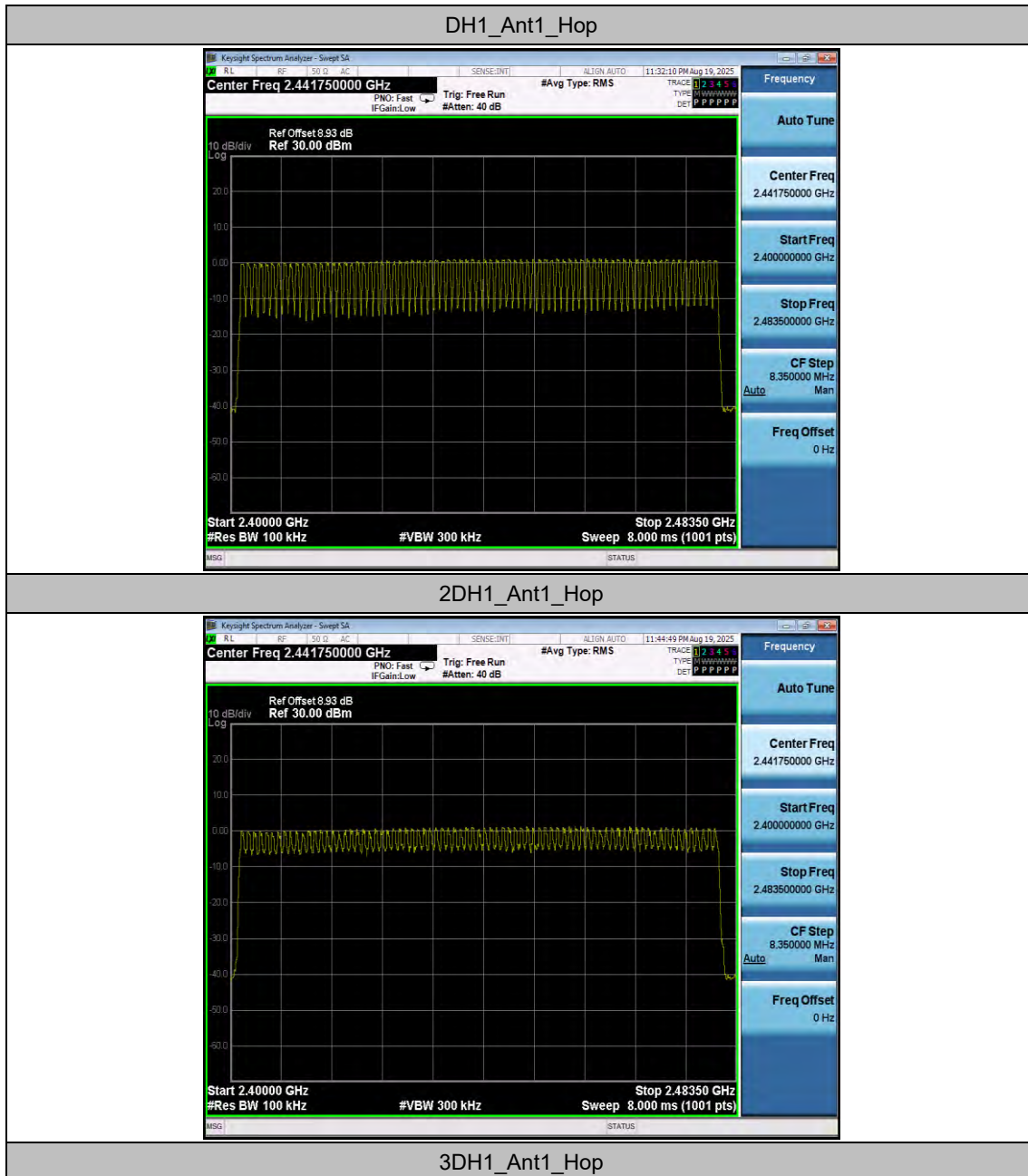


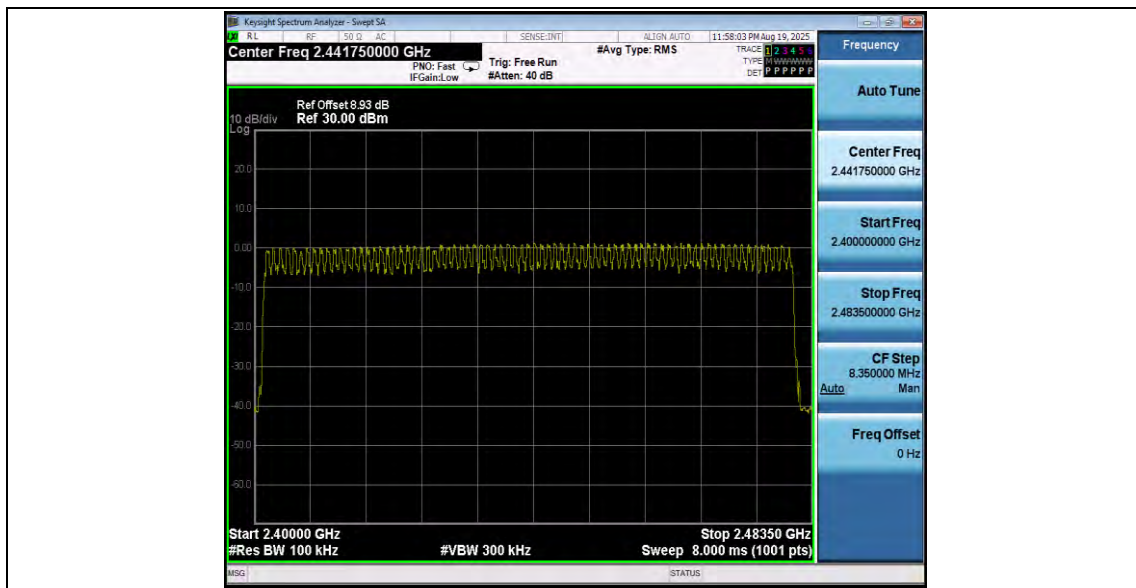


AppendixA.6: Number of hopping channels**Test Result**

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





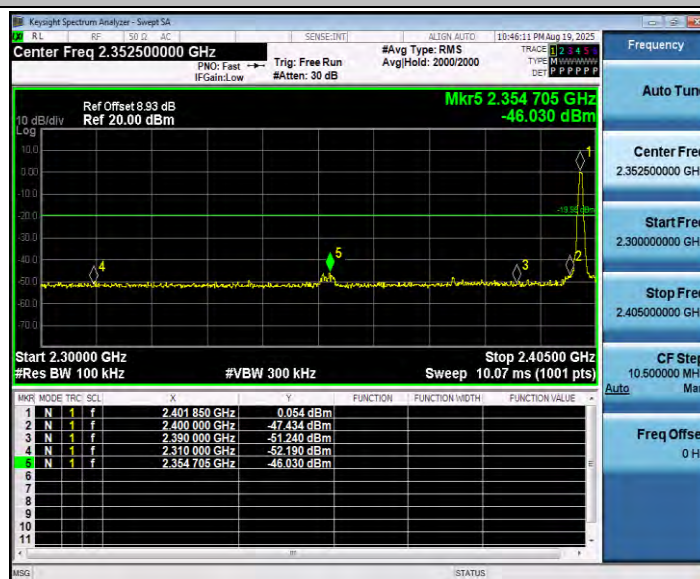
Appendix A.7: Band edge measurements

Test Result

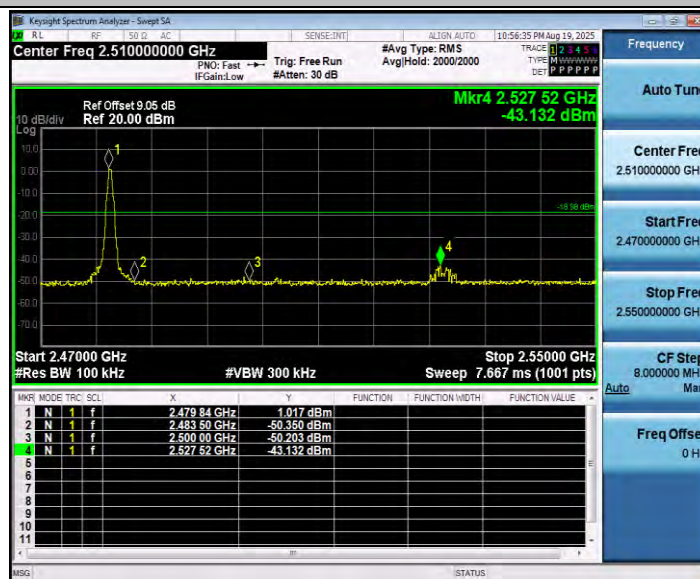
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	0.05	-46.03	≤ -19.95	PASS
		High	2480	1.02	-43.13	≤ -18.98	PASS
		Low	Hop_2402	-0.44	-46.96	≤ -20.44	PASS
		High	Hop_2480	0.84	-43.99	≤ -19.16	PASS
2DH1	Ant1	Low	2402	0.03	-45.1	≤ -19.97	PASS
		High	2480	0.93	-44.56	≤ -19.07	PASS
		Low	Hop_2402	-0.28	-47.41	≤ -20.28	PASS
		High	Hop_2480	0.38	-44.14	≤ -19.63	PASS
3DH1	Ant1	Low	2402	-0.06	-46.28	≤ -20.06	PASS
		High	2480	0.93	-44.43	≤ -19.07	PASS
		Low	Hop_2402	-1.13	-48.67	≤ -21.13	PASS
		High	Hop_2480	0.64	-43.25	≤ -19.36	PASS

Test Graphs

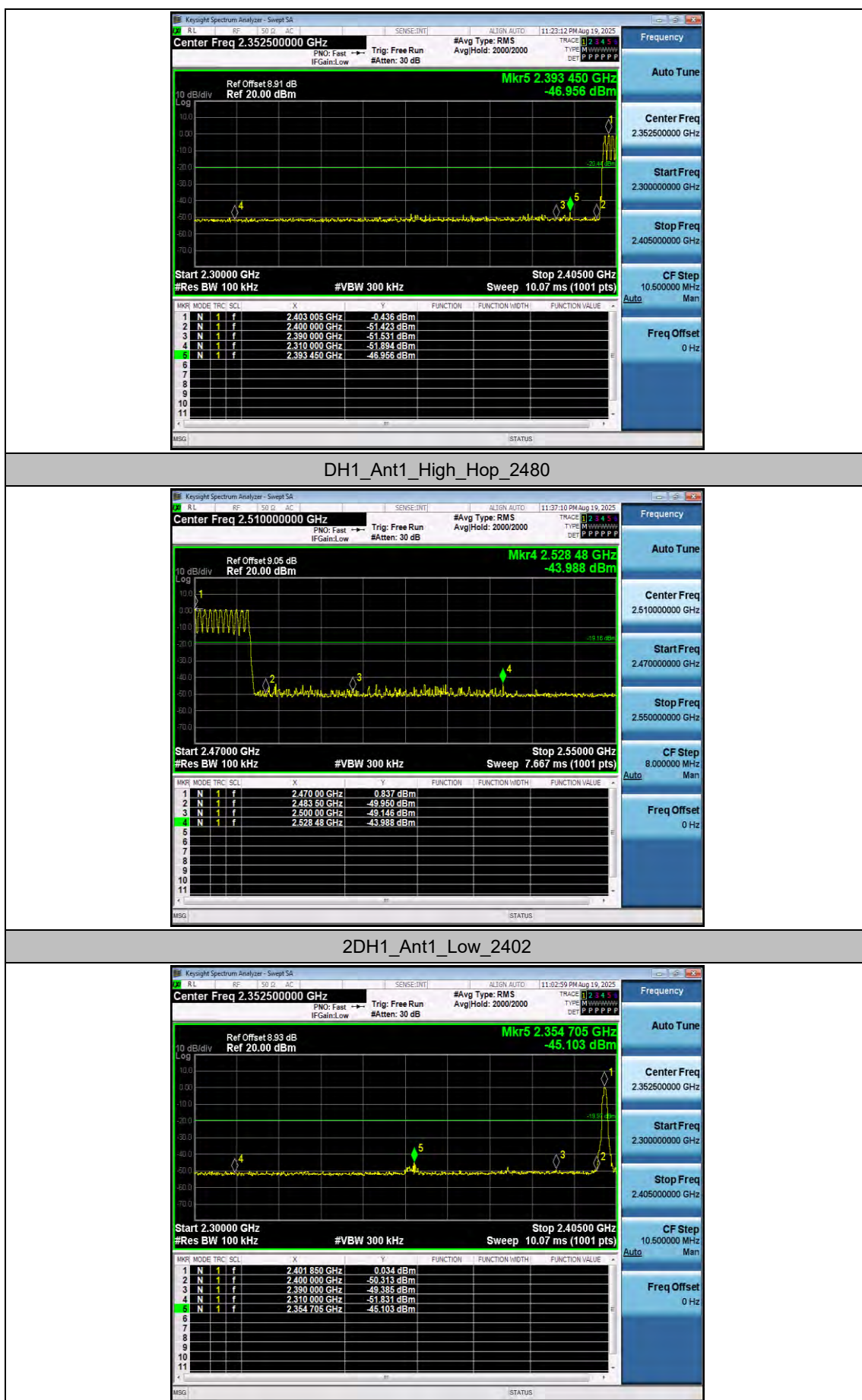
DH1_Ant1_Low_2402



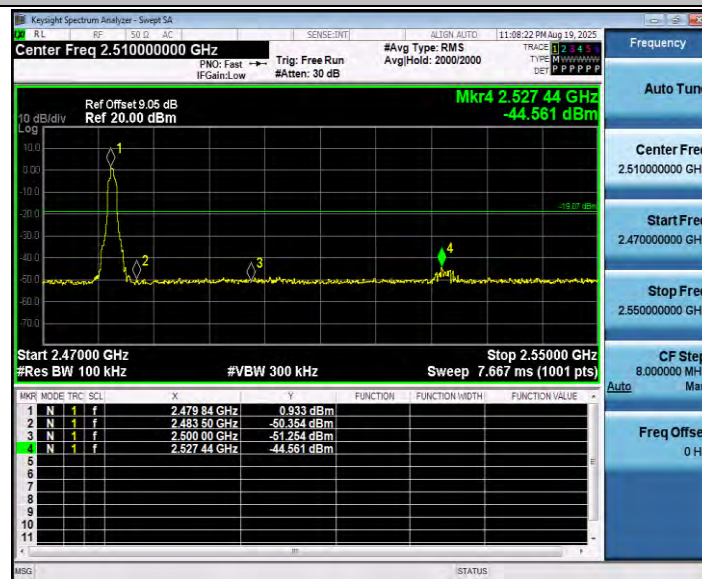
DH1_Ant1_High_2480



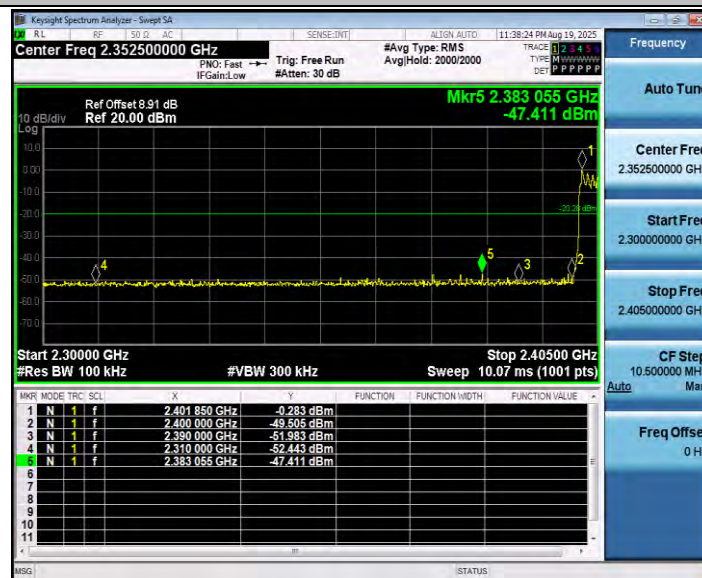
DH1_Ant1_Low_Hop_2402



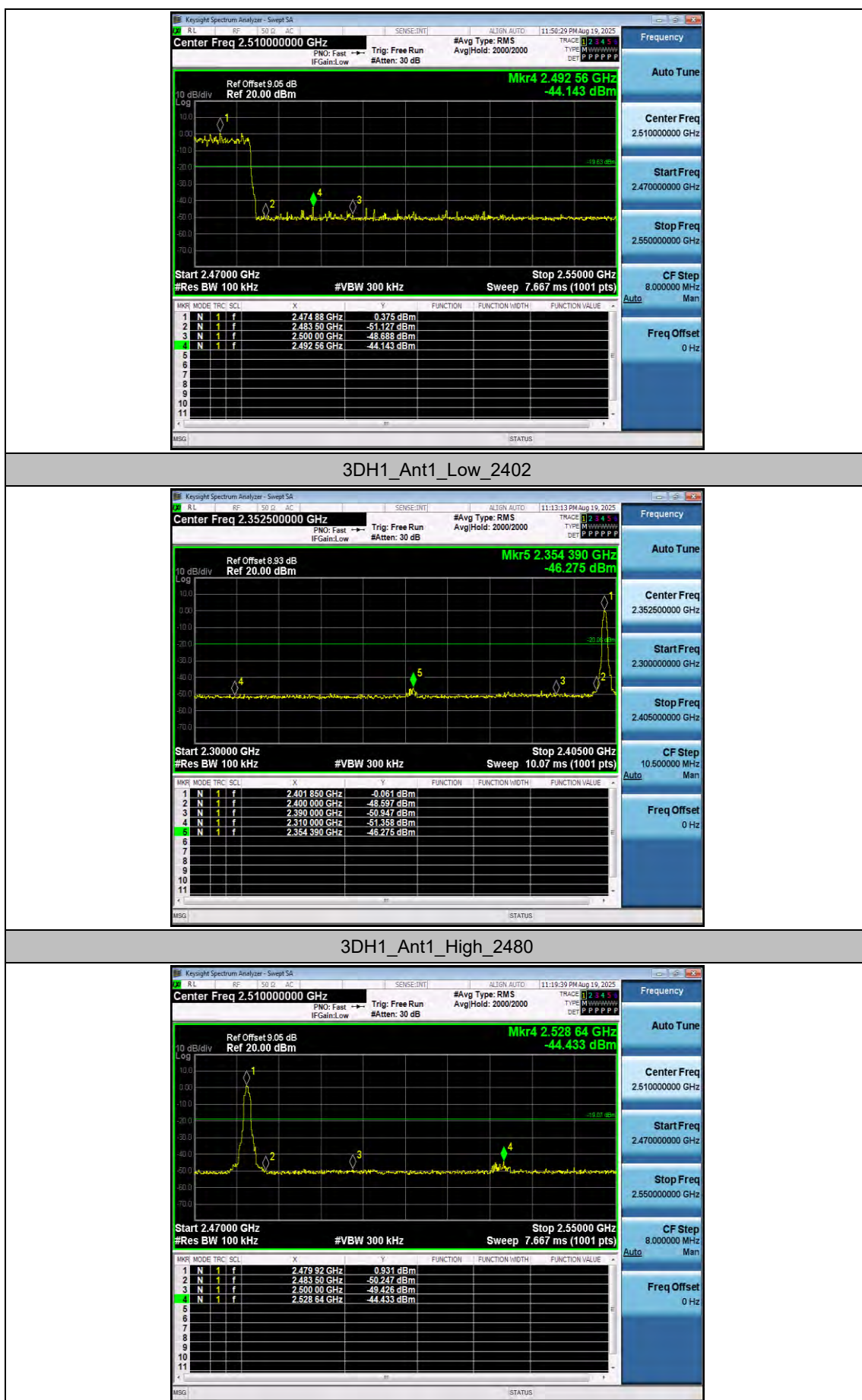
2DH1_Ant1_High_2480

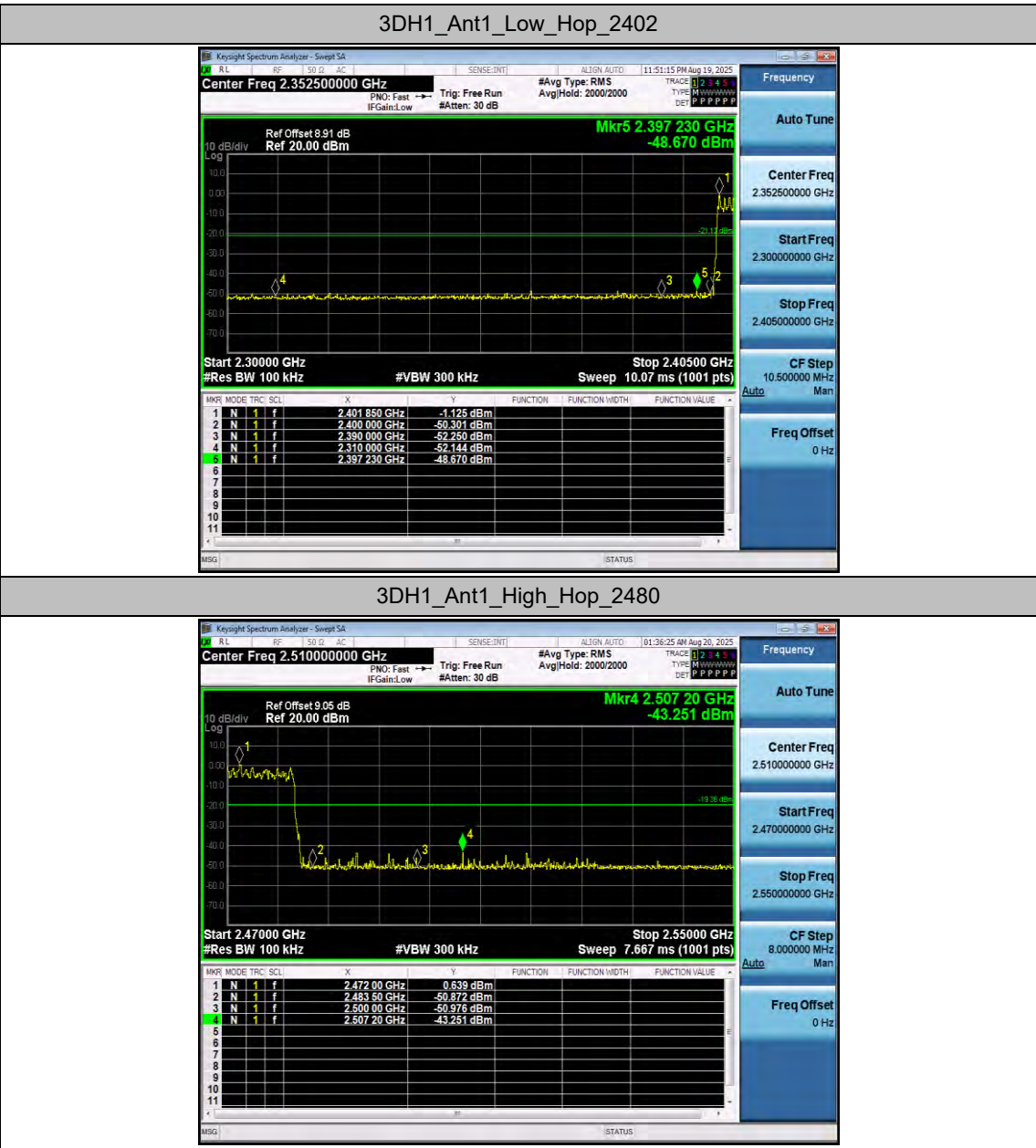


2DH1_Ant1_Low_Hop_2402



2DH1_Ant1_High_Hop_2480



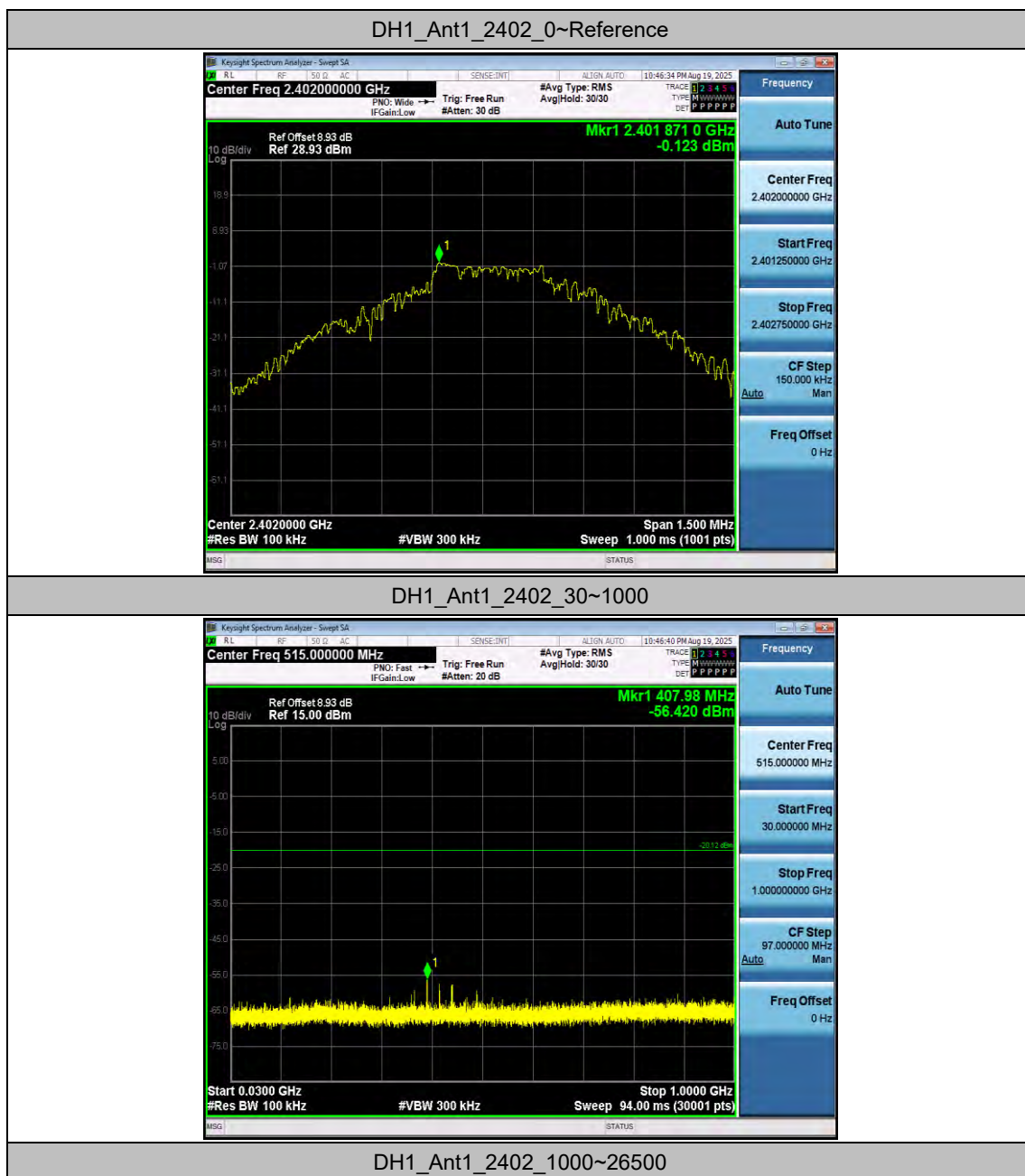


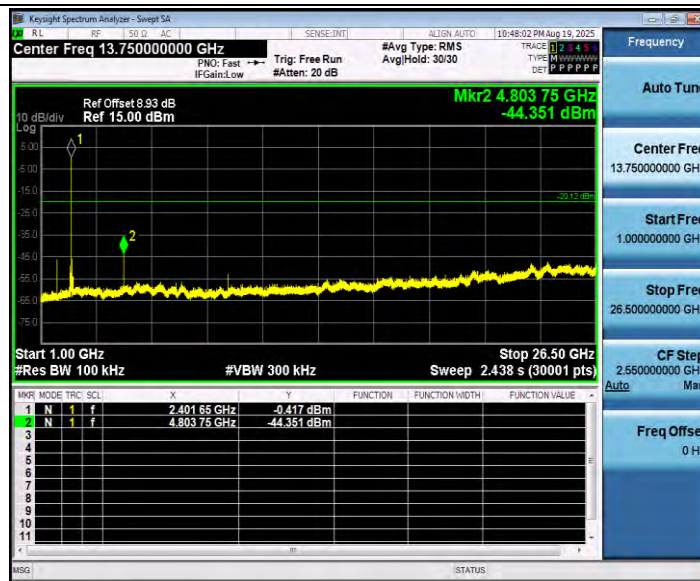
Appendix A.8: Conducted Spurious Emission

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	-56.42	≤-20.12	PASS
			1000~26500	-0.12	-44.35	≤-20.12	PASS
		2441	Reference	0.82	0.82	---	PASS
			30~1000	0.82	-54.96	≤-19.18	PASS
			1000~26500	0.82	-41.93	≤-19.18	PASS
		2480	Reference	0.62	0.62	---	PASS
			30~1000	0.62	-57	≤-19.38	PASS
			1000~26500	0.62	-44.11	≤-19.38	PASS
2DH1	Ant1	2402	Reference	-0.26	-0.26	---	PASS
			30~1000	-0.26	-54.55	≤-20.26	PASS
			1000~26500	-0.26	-43.2	≤-20.26	PASS
		2441	Reference	0.43	0.43	---	PASS
			30~1000	0.43	-55.52	≤-19.57	PASS
			1000~26500	0.43	-44.79	≤-19.57	PASS
		2480	Reference	0.41	0.41	---	PASS
			30~1000	0.41	-56.09	≤-19.59	PASS
			1000~26500	0.41	-43.32	≤-19.59	PASS
3DH1	Ant1	2402	Reference	-0.32	-0.32	---	PASS
			30~1000	-0.32	-56.47	≤-20.32	PASS
			1000~26500	-0.32	-30.02	≤-20.32	PASS
		2441	Reference	1.07	1.07	---	PASS
			30~1000	1.07	-55.88	≤-18.93	PASS
			1000~26500	1.07	-30.66	≤-18.93	PASS
		2480	Reference	0.06	0.06	---	PASS
			30~1000	0.06	-58.03	≤-19.94	PASS
			1000~26500	0.06	-31.25	≤-19.94	PASS

Test Graphs

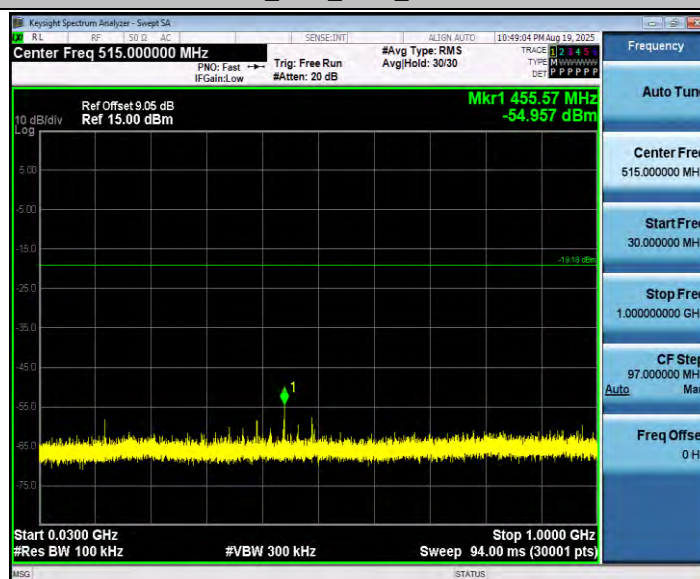


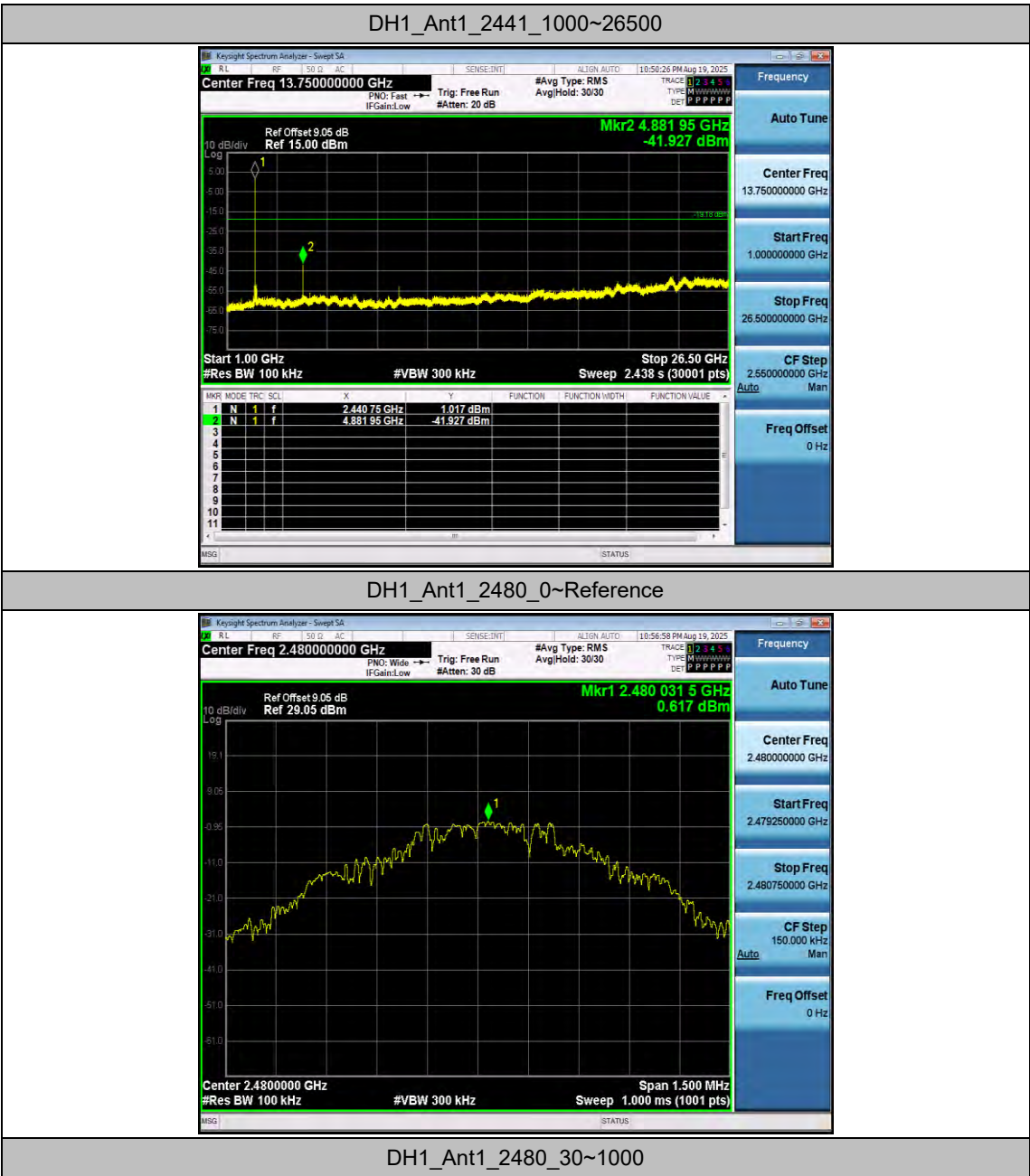


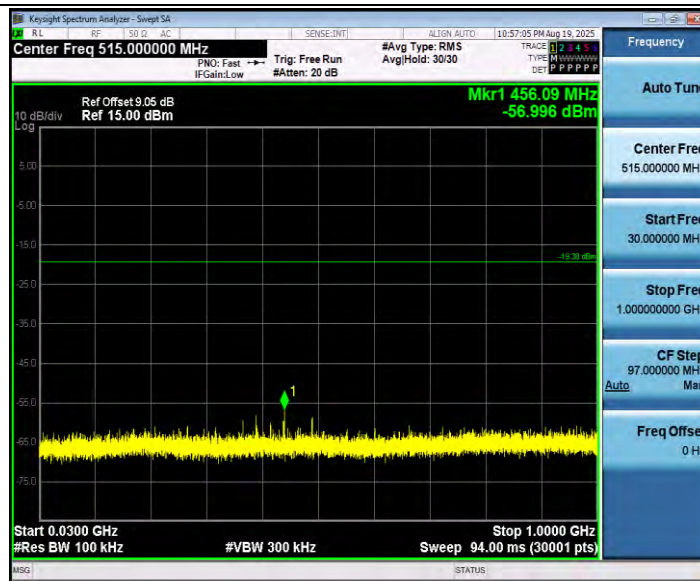
DH1_Ant1_2441_0~Reference



DH1_Ant1_2441_30~1000





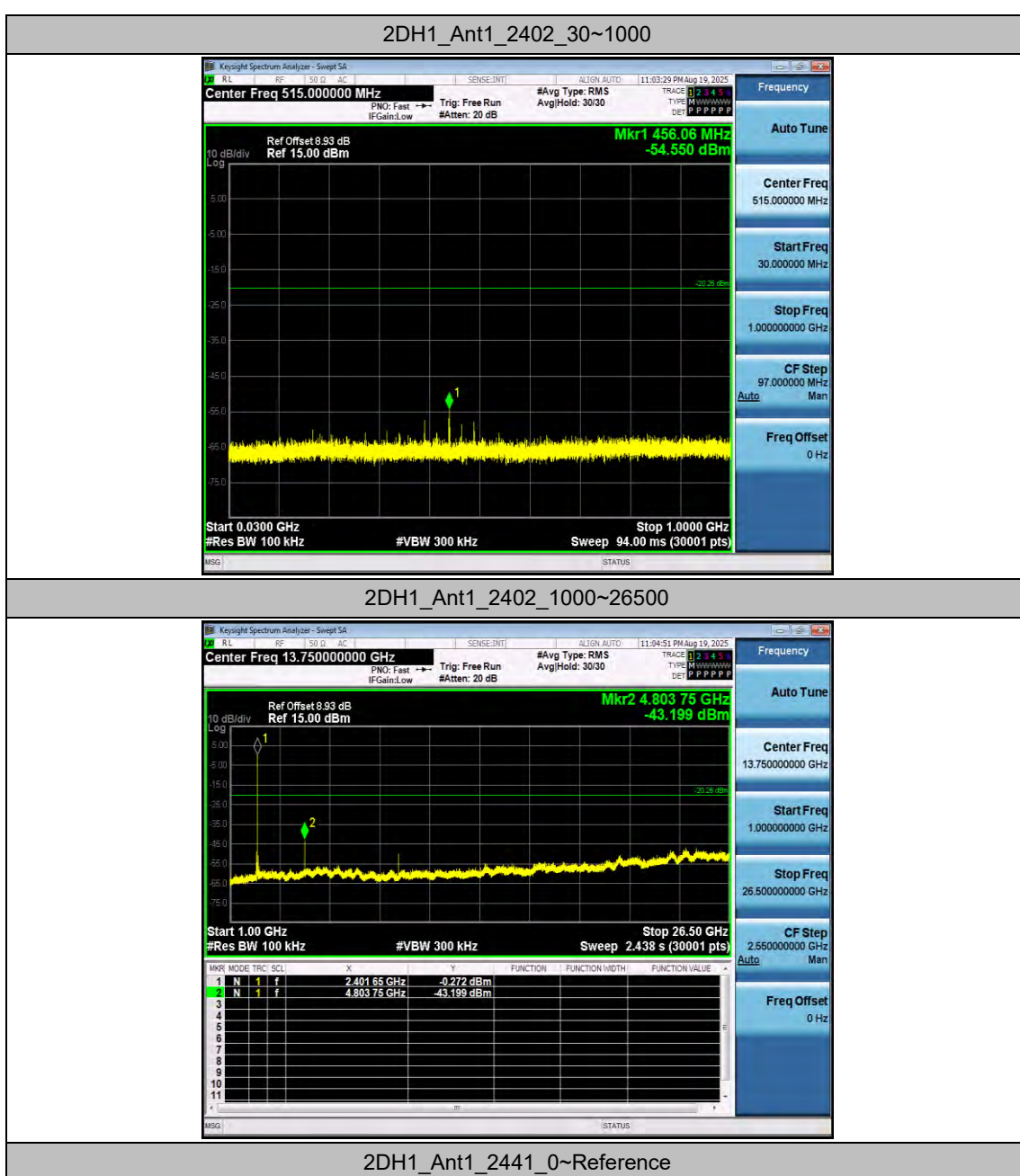


DH1_Ant1_2480_1000~26500



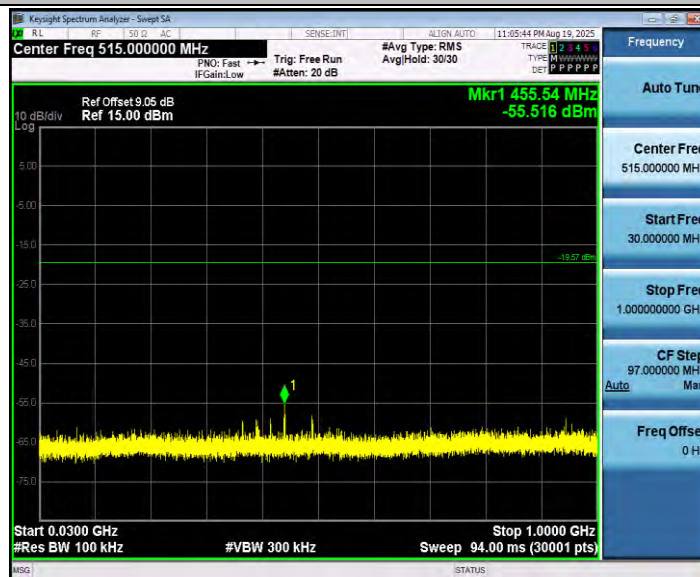
2DH1_Ant1_2402_0~Reference



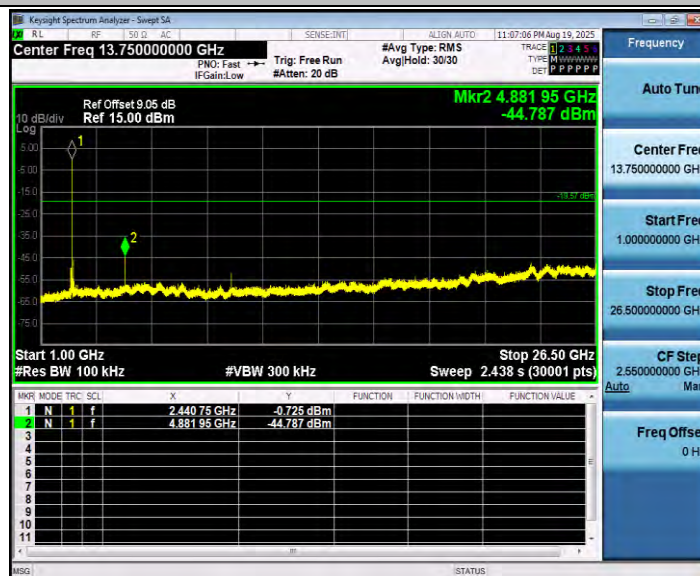




2DH1_Ant1_2441_30~1000



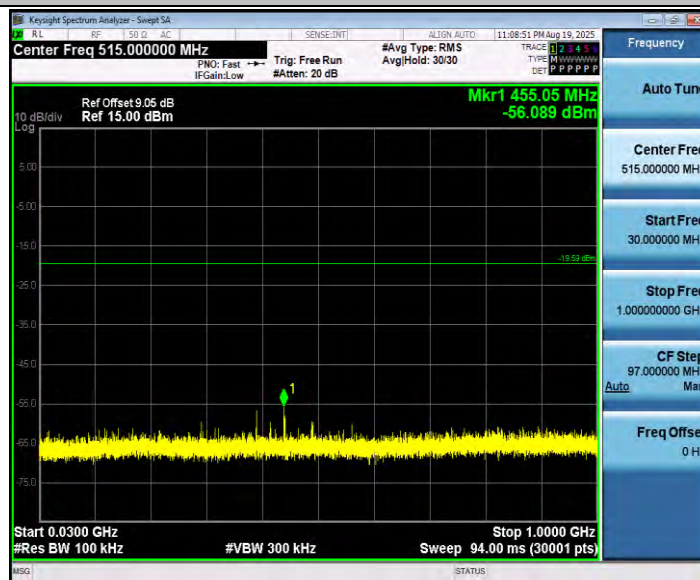
2DH1_Ant1_2441_1000~26500



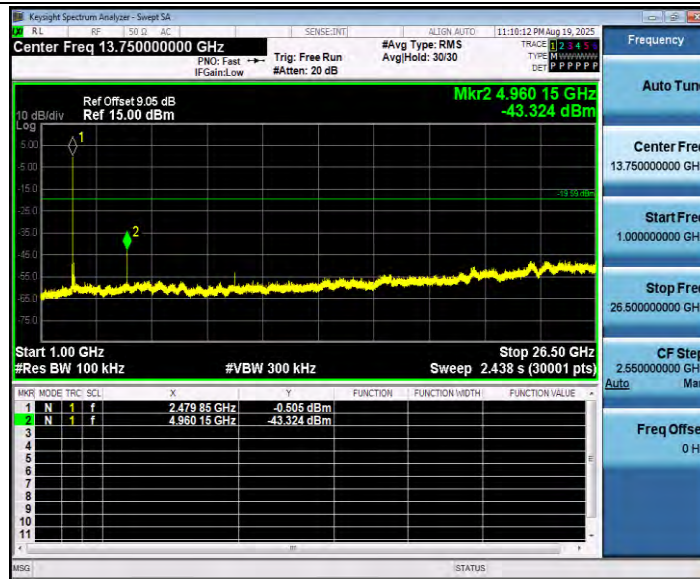
2DH1_Ant1_2480_0~Reference



2DH1_Ant1_2480_30~1000



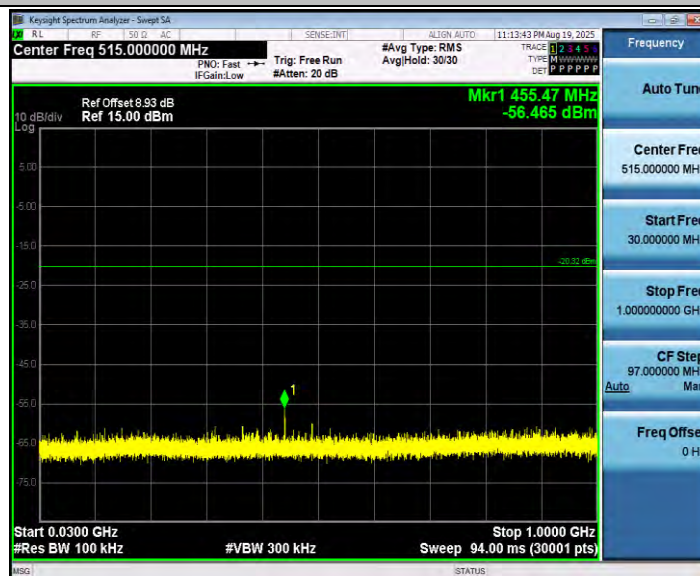
2DH1_Ant1_2480_1000~26500



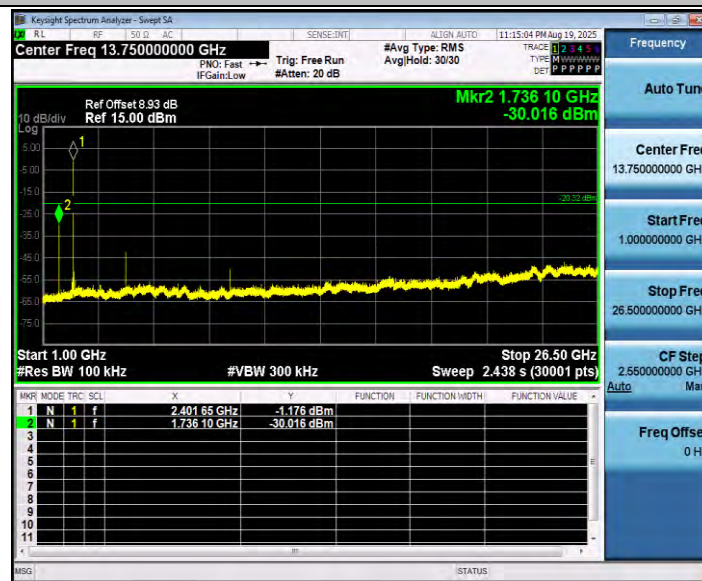
3DH1_Ant1_2402_0~Reference



3DH1_Ant1_2402_30~1000



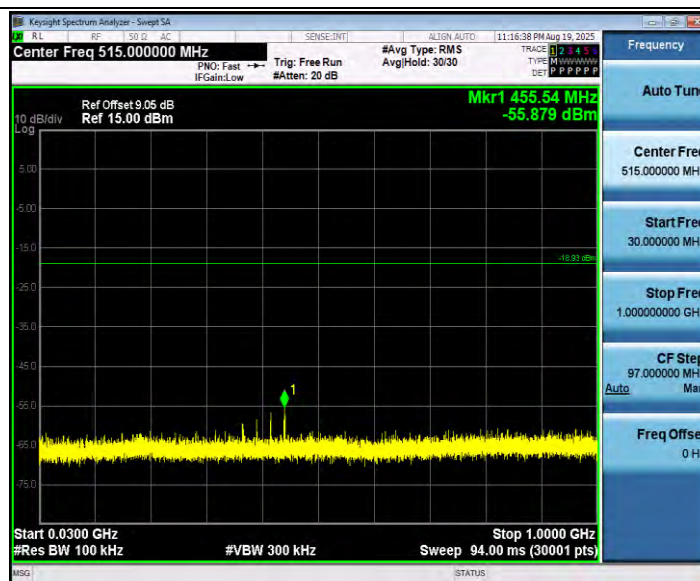
3DH1_Ant1_2402_1000~26500



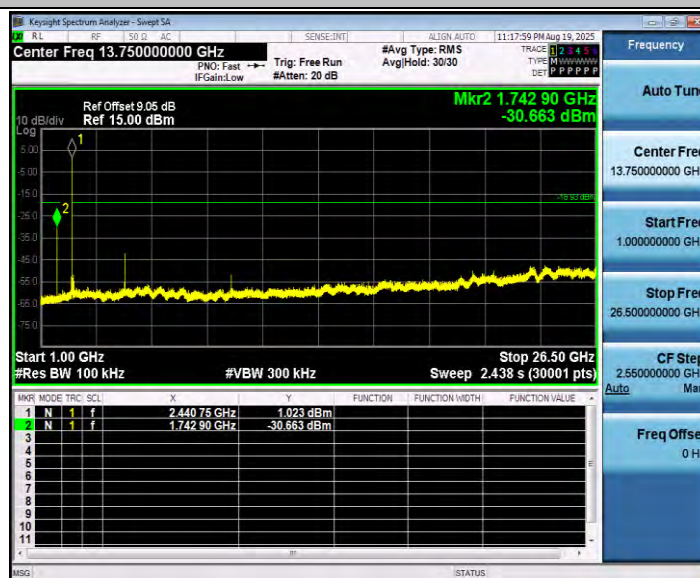
3DH1_Ant1_2441_0~Reference



3DH1_Ant1_2441_30~1000

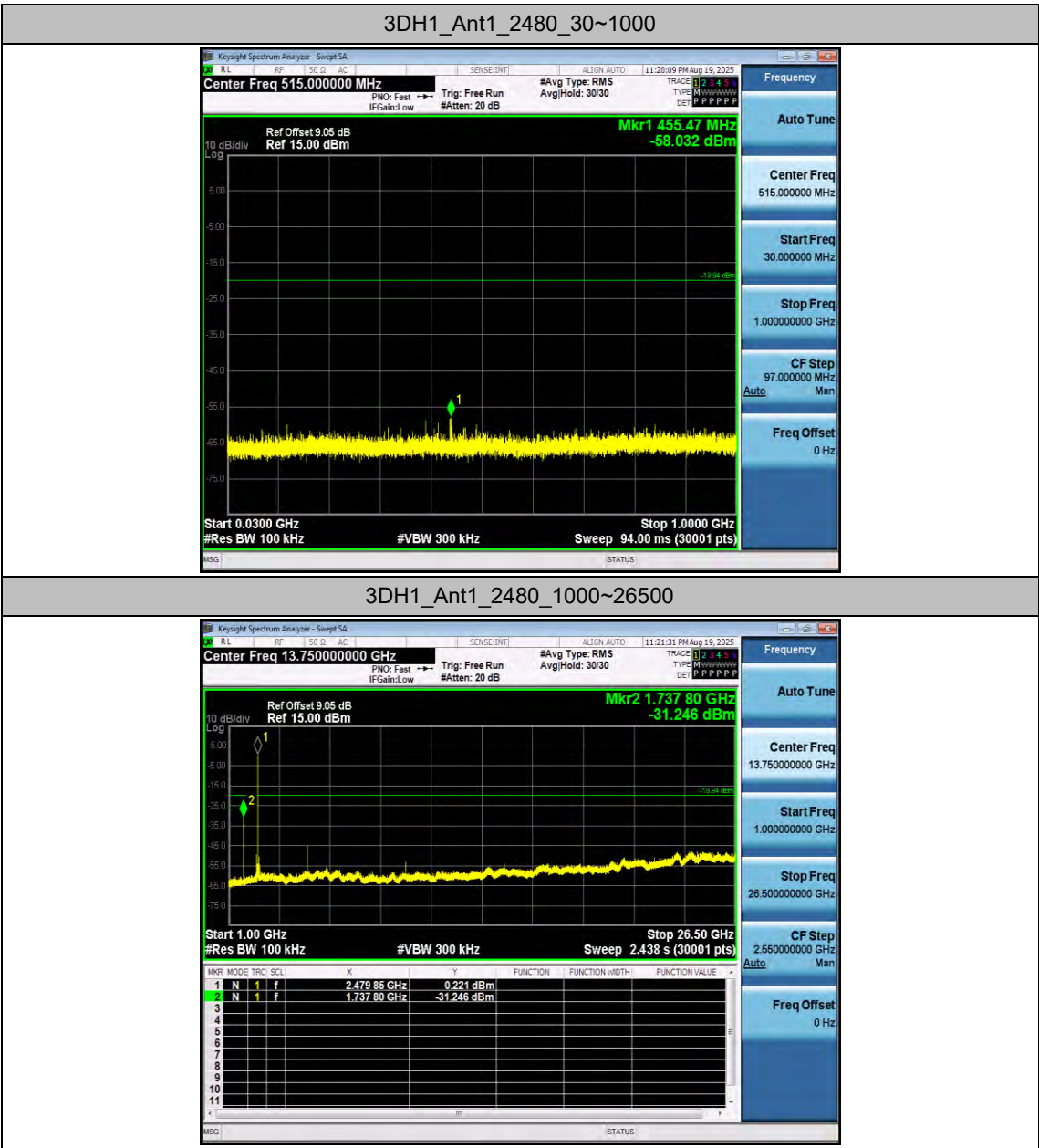


3DH1_Ant1_2441_1000~26500



3DH1_Ant1_2480_0~Reference





Appendix A.9: Emissions in Restricted Bands

Test Result

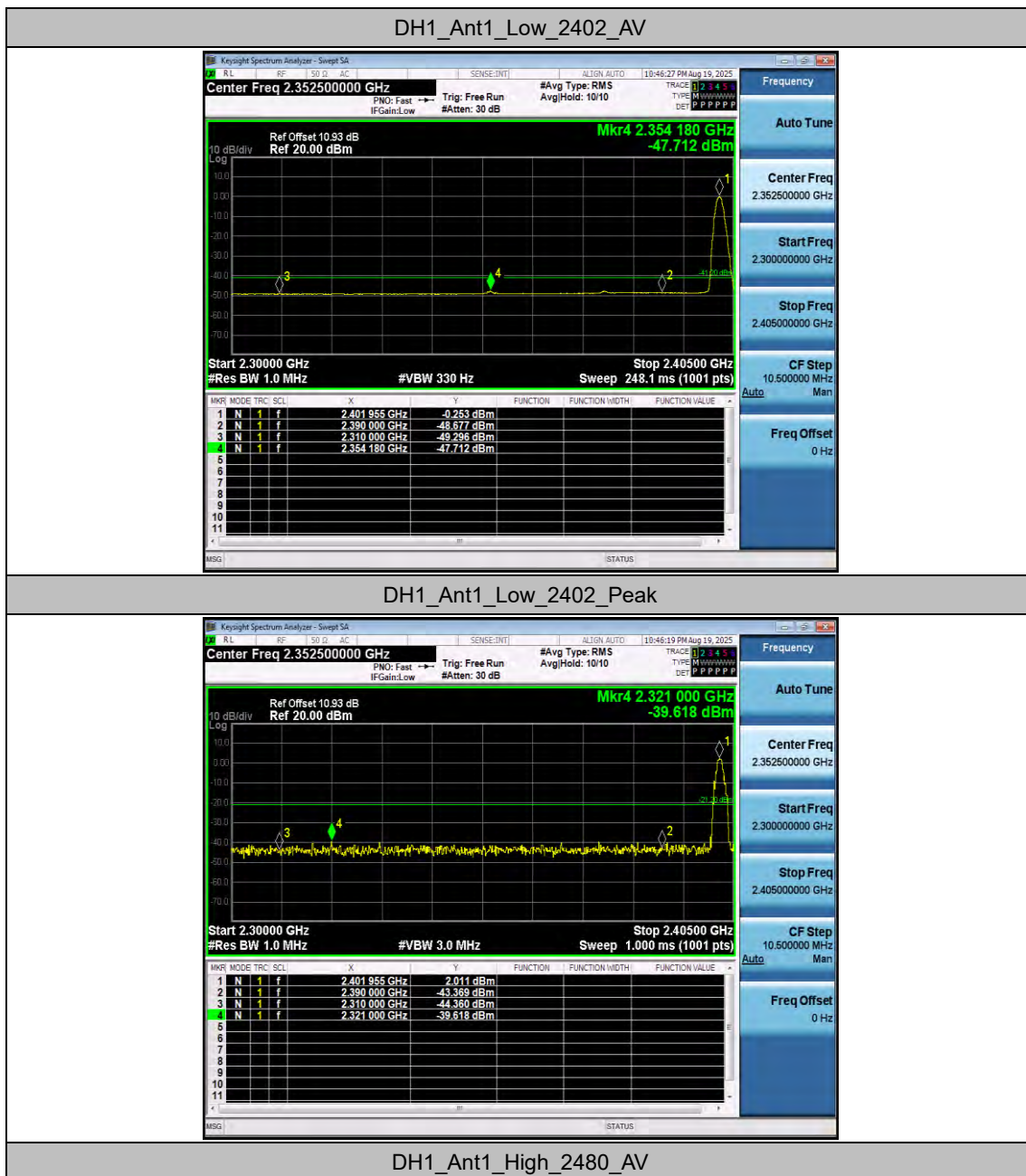
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH1	Ant1	Low	2402	AV	2310.000	-49.3	≤-41.20	45.90	≤54	PASS
				AV	2354.180	-47.71	≤-41.20	47.49	≤54	PASS
				AV	2390.000	-48.68	≤-41.20	46.52	≤54	PASS
				Peak	2310.000	-44.36	≤-21.20	50.84	≤74	PASS
				Peak	2321.000	-39.62	≤-21.20	55.58	≤74	PASS
				Peak	2390.000	-43.37	≤-21.20	51.83	≤74	PASS
		High	2480	AV	2483.500	-48.01	≤-41.20	47.19	≤54	PASS
				AV	2498.080	-47.9	≤-41.20	47.30	≤54	PASS
				AV	2500.000	-48.06	≤-41.20	47.14	≤54	PASS
				Peak	2483.500	-32.63	≤-21.20	62.57	≤74	PASS
				Peak	2483.520	-32.63	≤-21.20	62.57	≤74	PASS
				Peak	2500.000	-41.04	≤-21.20	54.16	≤74	PASS
2DH1	Ant1	Low	2402	AV	2310.000	-49.34	≤-41.20	45.86	≤54	PASS
				AV	2377.805	-48.01	≤-41.20	47.19	≤54	PASS
				AV	2390.000	-48.63	≤-41.20	46.57	≤54	PASS
				Peak	2310.000	-40.59	≤-21.20	54.61	≤74	PASS
				Peak	2372.660	-38.22	≤-21.20	56.98	≤74	PASS
				Peak	2390.000	-41.71	≤-21.20	53.49	≤74	PASS
		High	2480	AV	2483.500	-48.28	≤-41.20	46.92	≤54	PASS
				AV	2496.400	-47.91	≤-41.20	47.29	≤54	PASS
				AV	2500.000	-48.05	≤-41.20	47.15	≤54	PASS
				Peak	2483.500	-40.73	≤-21.20	54.47	≤74	PASS
				Peak	2495.040	-37.96	≤-21.20	57.24	≤74	PASS
				Peak	2500.000	-40.1	≤-21.20	55.10	≤74	PASS
3DH1	Ant1	Low	2402	AV	2310.000	-49.24	≤-41.20	45.96	≤54	PASS
				AV	2377.910	-47.95	≤-41.20	47.25	≤54	PASS
				AV	2390.000	-48.55	≤-41.20	46.65	≤54	PASS
				Peak	2310.000	-41.59	≤-21.20	53.61	≤74	PASS
				Peak	2353.550	-32.07	≤-21.20	63.13	≤74	PASS
				Peak	2390.000	-40.62	≤-21.20	54.58	≤74	PASS
		High	2480	AV	2483.500	-48.09	≤-41.20	47.11	≤54	PASS
				AV	2499.680	-47.91	≤-41.20	47.29	≤54	PASS
				AV	2500.000	-48.2	≤-41.20	47.00	≤54	PASS
				Peak	2483.500	-40.44	≤-21.20	54.76	≤74	PASS

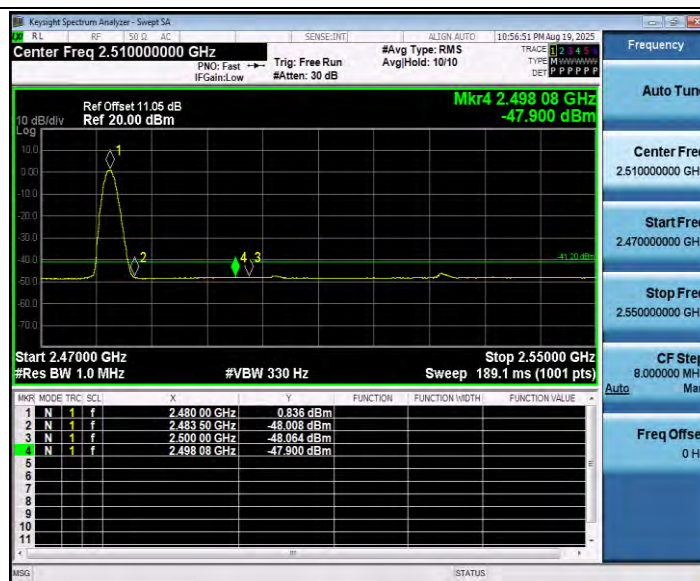
				Peak	2484.160	-36.87	≤ -21.20	58.33	≤ 74	PASS
				Peak	2500.000	-39.76	≤ -21.20	55.44	≤ 74	PASS

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

