

Case No. : <u>GTS20240328013-1-04</u>	
Ambient Condition: <u>23</u> °C, <u>53</u> %RH	
According Standard: ■Part15C	
Test Date: <u>2025.3.12</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	0.798	2401.595	2402.393	---	---
		2441	0.771	2440.595	2441.366	---	---
		2480	0.795	2479.604	2480.399	---	---
2DH1	Ant1	2402	1.239	2401.376	2402.615	---	---
		2441	1.248	2440.370	2441.618	---	---
		2480	1.233	2479.385	2480.618	---	---
3DH1	Ant1	2402	1.227	2401.391	2402.618	---	---
		2441	1.248	2440.379	2441.627	---	---
		2480	1.236	2479.382	2480.618	---	---

Test Graphs

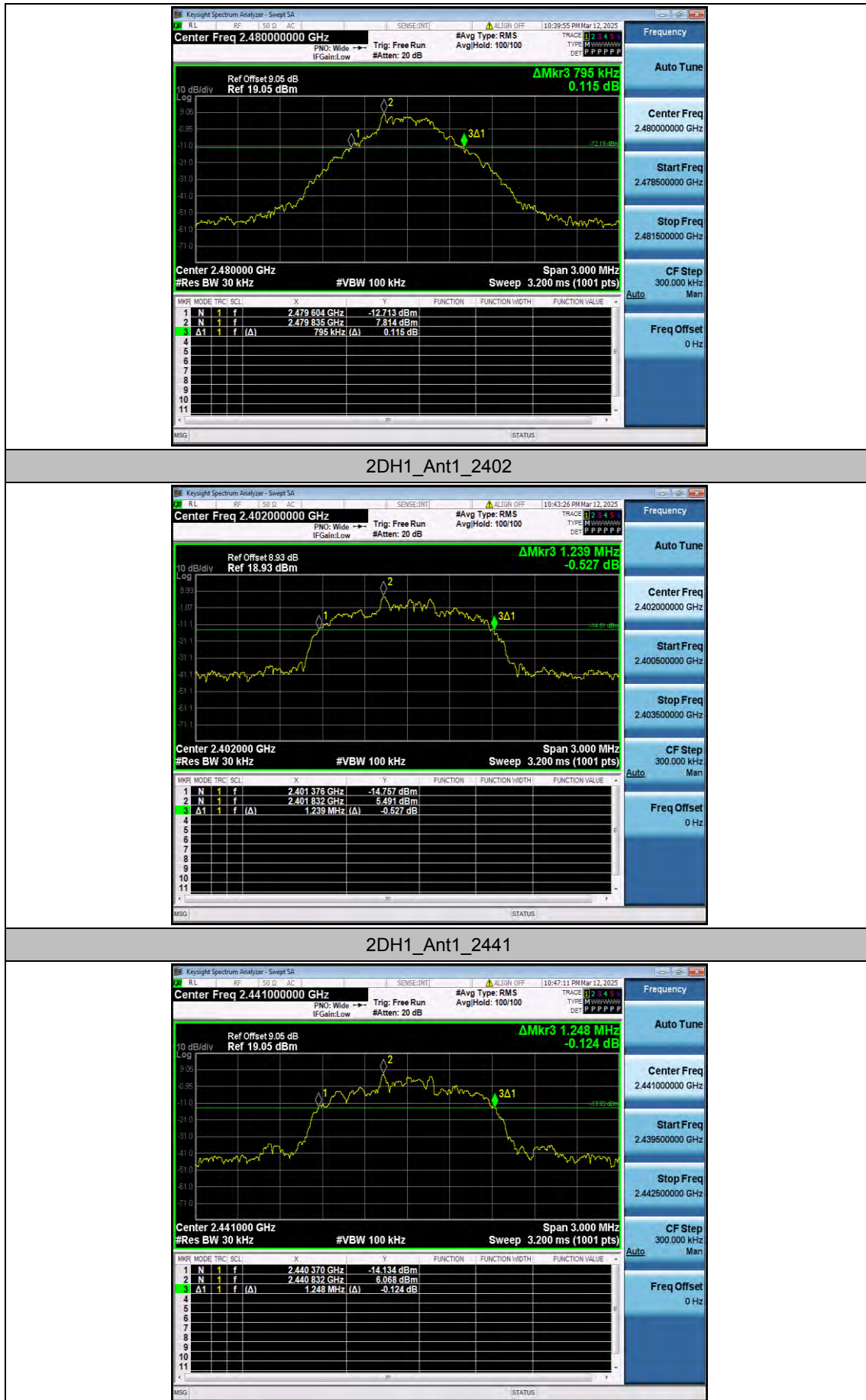
DH1_Ant1_2402



DH1_Ant1_2441



DH1_Ant1_2480



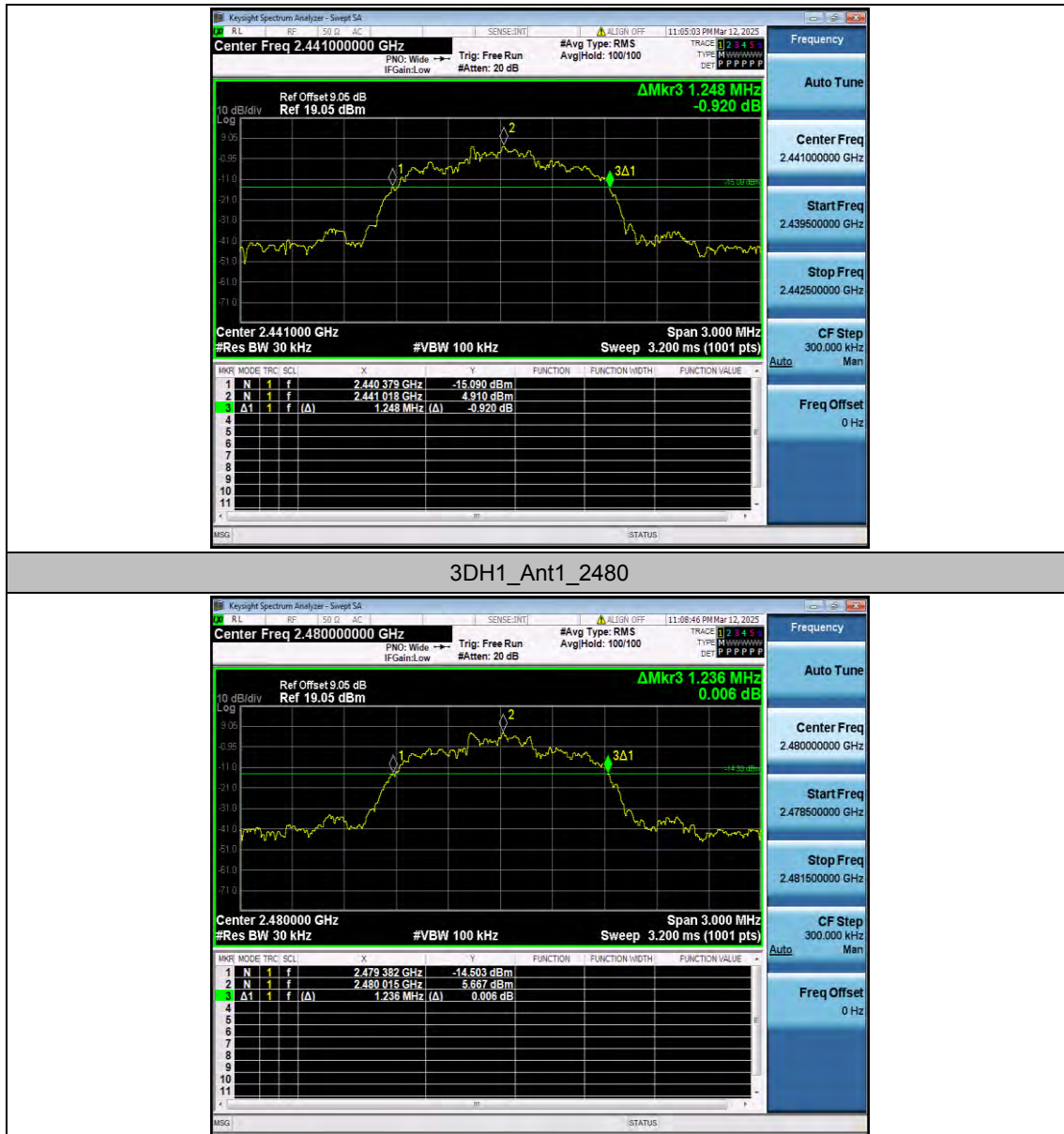
2DH1_Ant1_2480



3DH1_Ant1_2402



3DH1_Ant1_2441



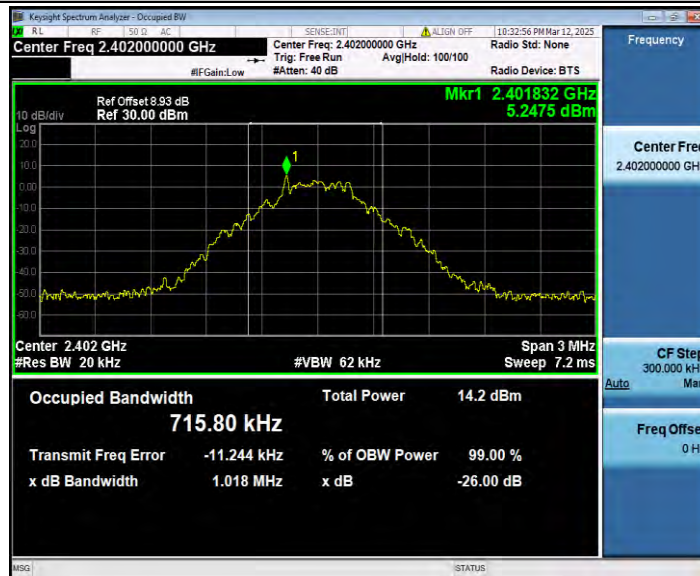
Appendix A.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.71580	2401.6309	2402.3467	---	---
		2441	0.71907	2440.6302	2441.3493	---	---
		2480	0.71507	2479.6333	2480.3484	---	---
2DH1	Ant1	2402	1.1392	2401.4261	2402.5653	---	---
		2441	1.1350	2440.4299	2441.5649	---	---
		2480	1.1364	2479.4285	2480.5649	---	---
3DH1	Ant1	2402	1.1412	2401.4373	2402.5785	---	---
		2441	1.1302	2440.4433	2441.5735	---	---
		2480	1.1376	2479.4382	2480.5758	---	---

Test Graphs

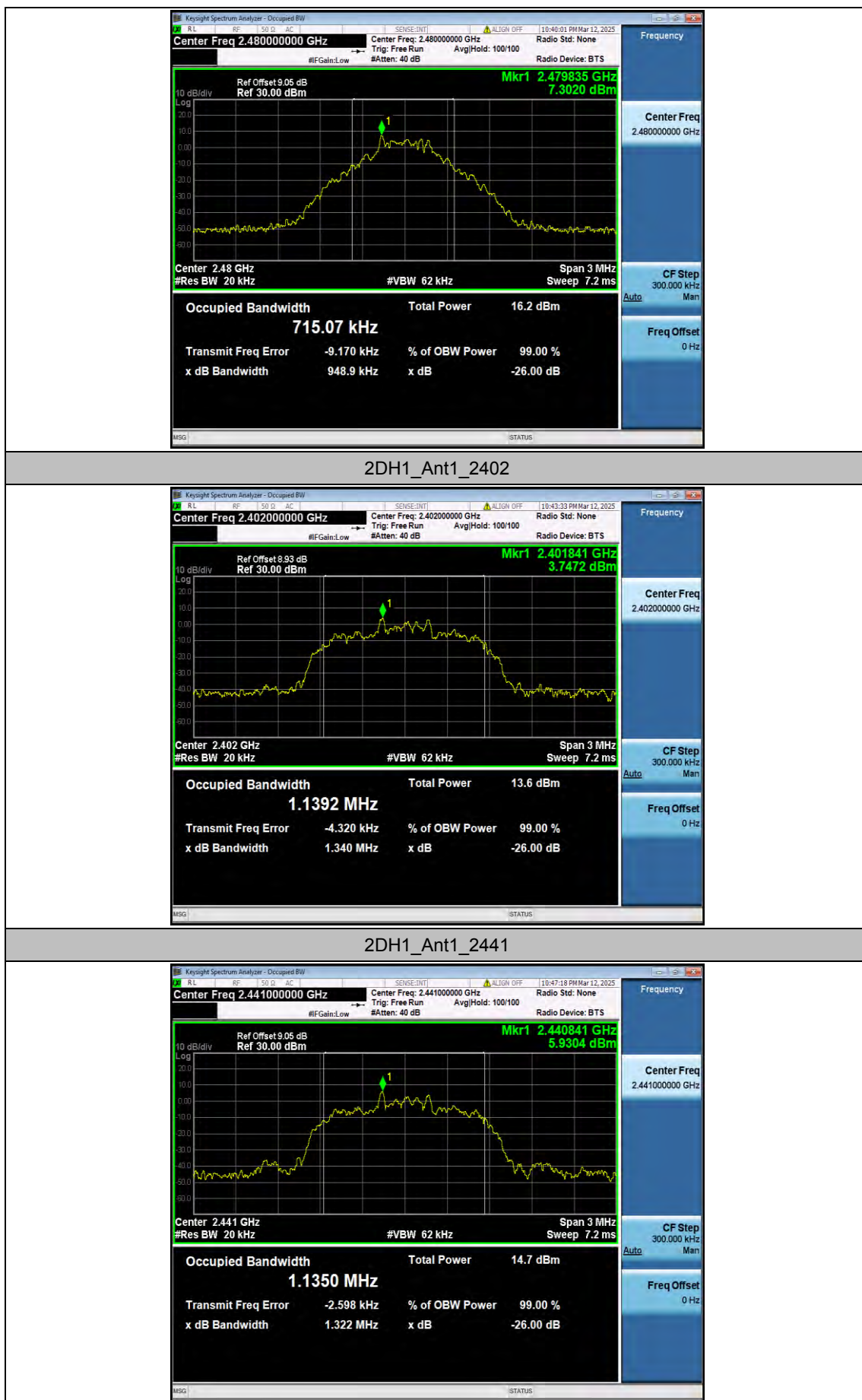
DH1_Ant1_2402



DH1_Ant1_2441



DH1_Ant1_2480



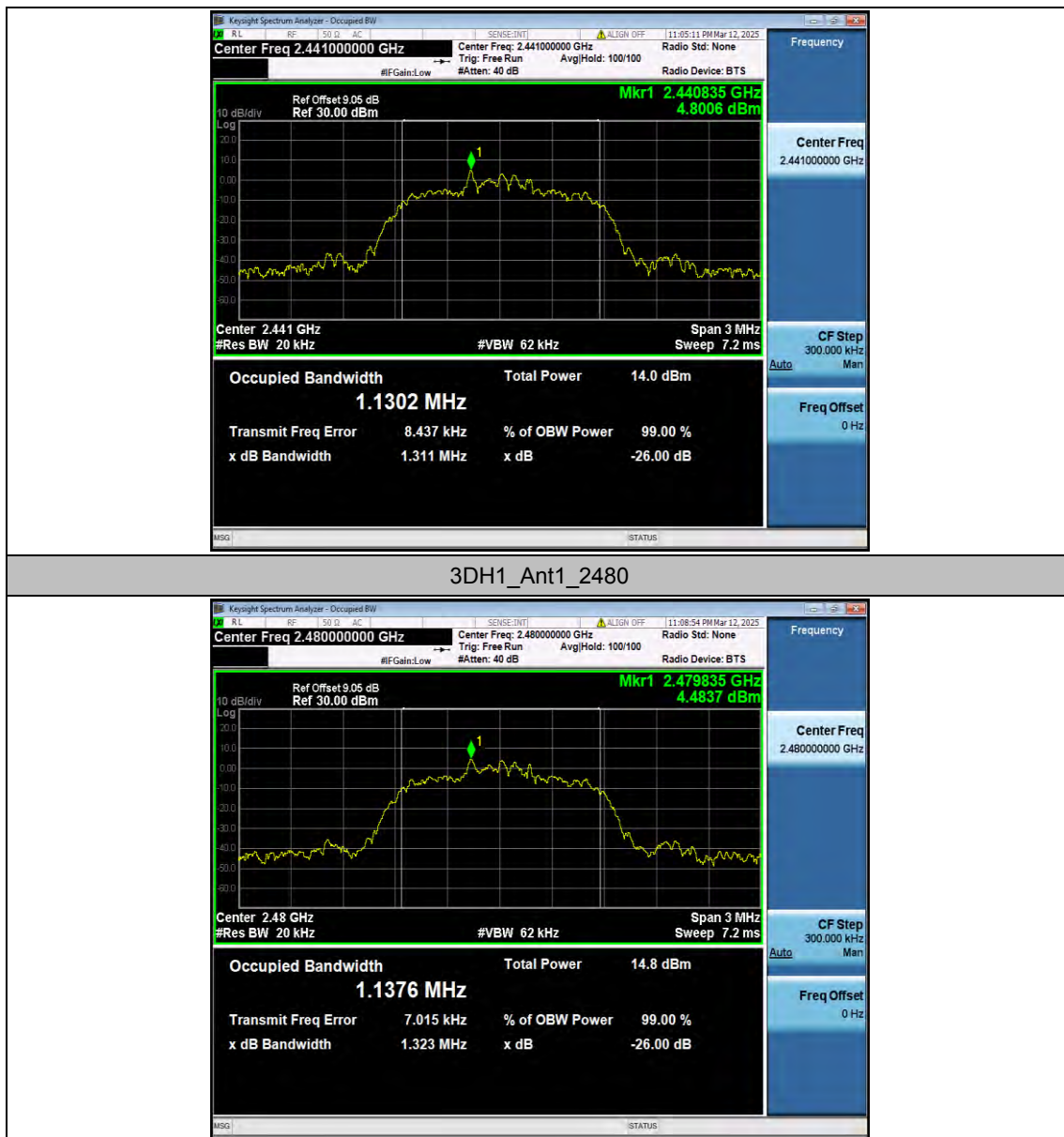
2DH1_Ant1_2480



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	8.39	≤30.00	PASS
		2441	9.50	≤30.00	PASS
		2480	10.98	≤30.00	PASS
2DH1	Ant1	2402	8.05	≤20.97	PASS
		2441	8.86	≤20.97	PASS
		2480	10.17	≤20.97	PASS
3DH1	Ant1	2402	8.17	≤20.97	PASS
		2441	8.88	≤20.97	PASS
		2480	9.79	≤20.97	PASS

Appendix A.4: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	1.172	≥ 0.798	PASS
		Hop_2441	0.994	≥ 0.798	PASS
		Hop_2480	1.162	≥ 0.798	PASS
2DH1	Ant1	Hop_2402	1.002	≥ 0.832	PASS
		Hop_2441	0.982	≥ 0.832	PASS
		Hop_2480	1.002	≥ 0.832	PASS
3DH1	Ant1	Hop_2402	1.002	≥ 0.832	PASS
		Hop_2441	0.992	≥ 0.832	PASS
		Hop_2480	0.842	≥ 0.832	PASS

Test Graphs

DH1_Ant1_Hop_2402



DH1_Ant1_Hop_2441



DH1_Ant1_Hop_2480



2DH1_Ant1_Hop_2402



2DH1_Ant1_Hop_2441



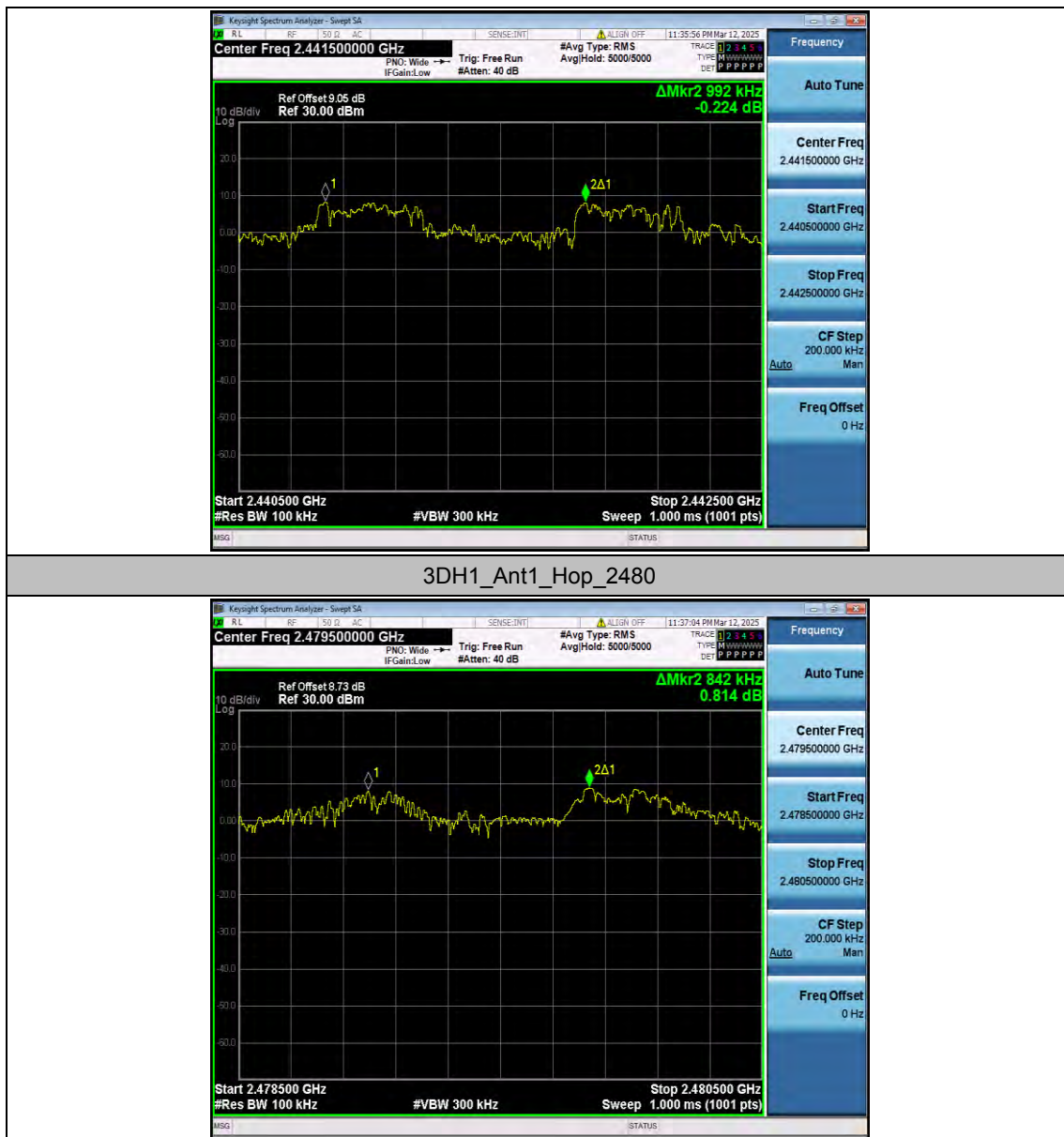
2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402



3DH1_Ant1_Hop_2441

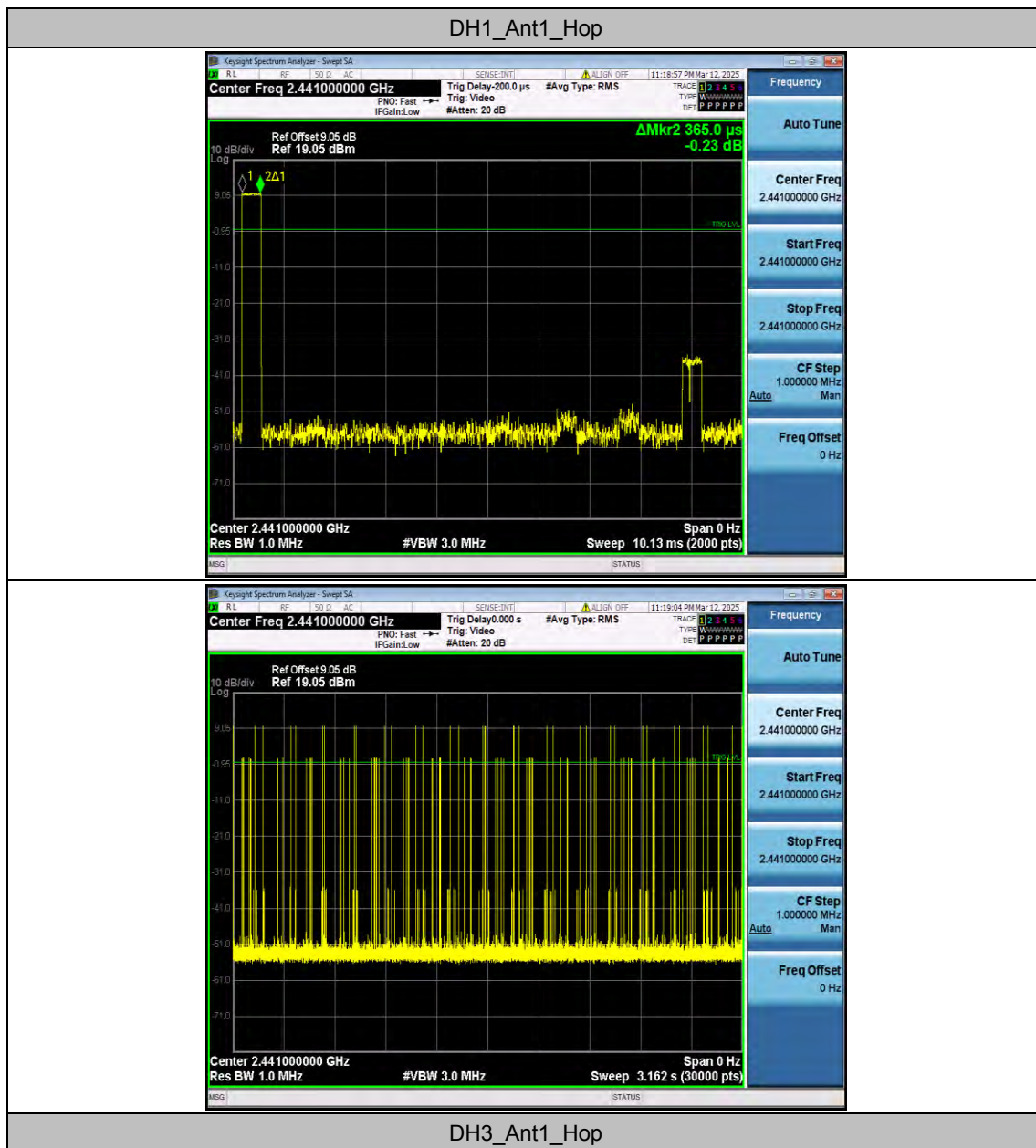


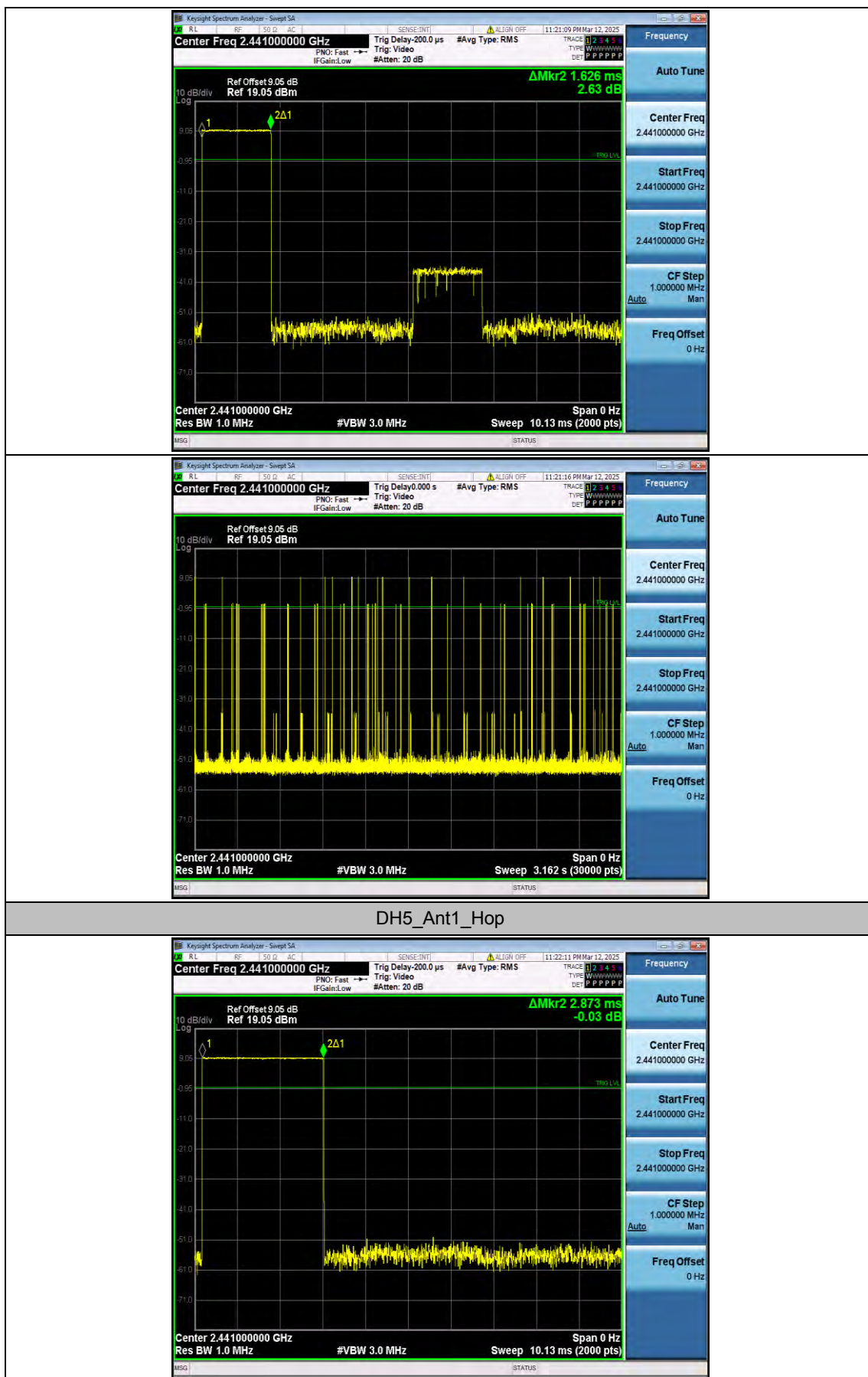
Appendix A.5: Time of occupancy

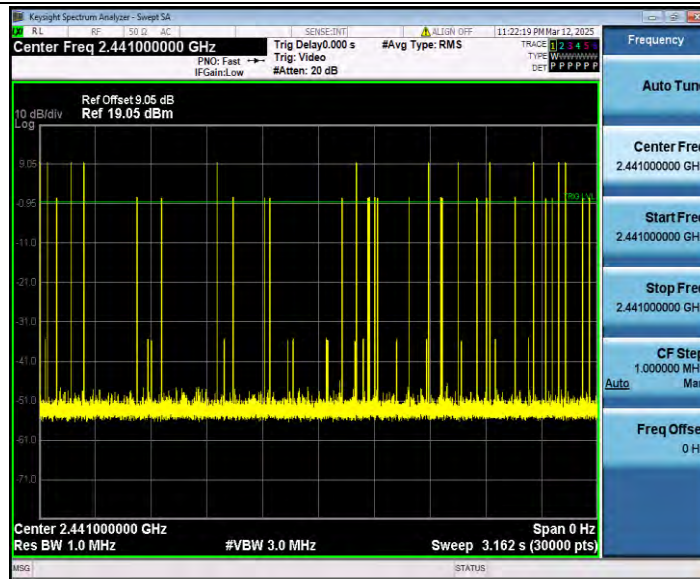
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.365	330	0.12	≤0.4	PASS
DH3	Ant1	Hop	1.626	170	0.276	≤0.4	PASS
DH5	Ant1	Hop	2.873	120	0.345	≤0.4	PASS
2DH1	Ant1	Hop	0.375	330	0.124	≤0.4	PASS
2DH3	Ant1	Hop	1.626	180	0.293	≤0.4	PASS
2DH5	Ant1	Hop	2.878	120	0.345	≤0.4	PASS
3DH1	Ant1	Hop	0.380	330	0.125	≤0.4	PASS
3DH3	Ant1	Hop	1.626	150	0.244	≤0.4	PASS
3DH5	Ant1	Hop	2.878	120	0.345	≤0.4	PASS

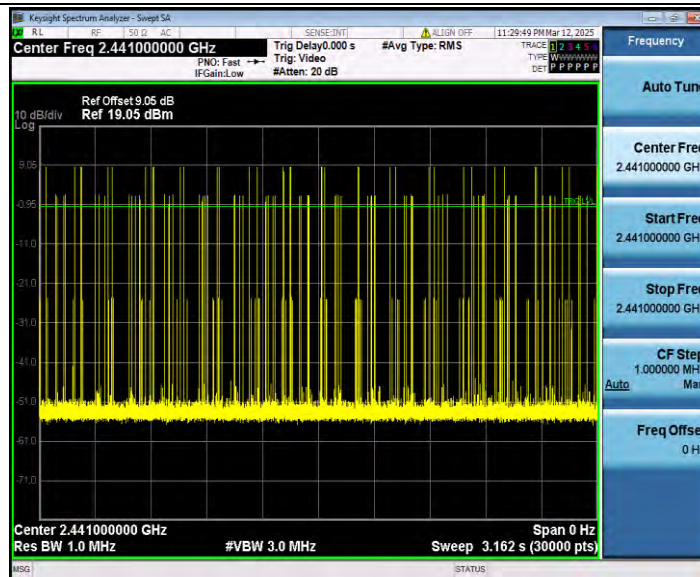
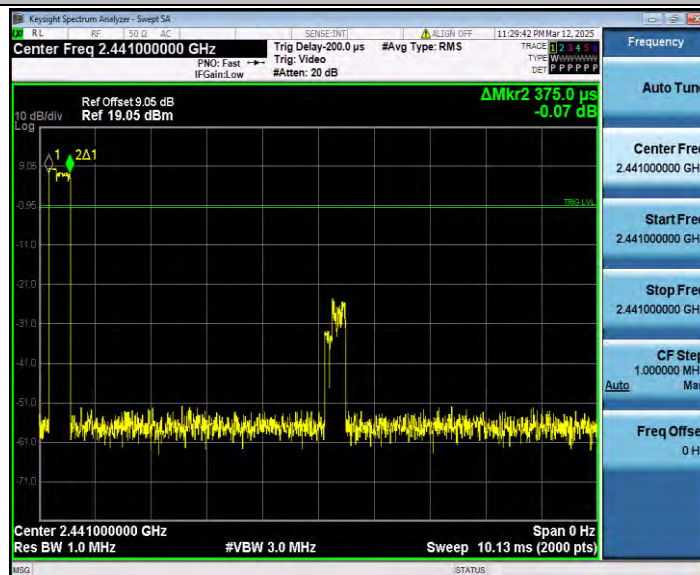
Test Graphs



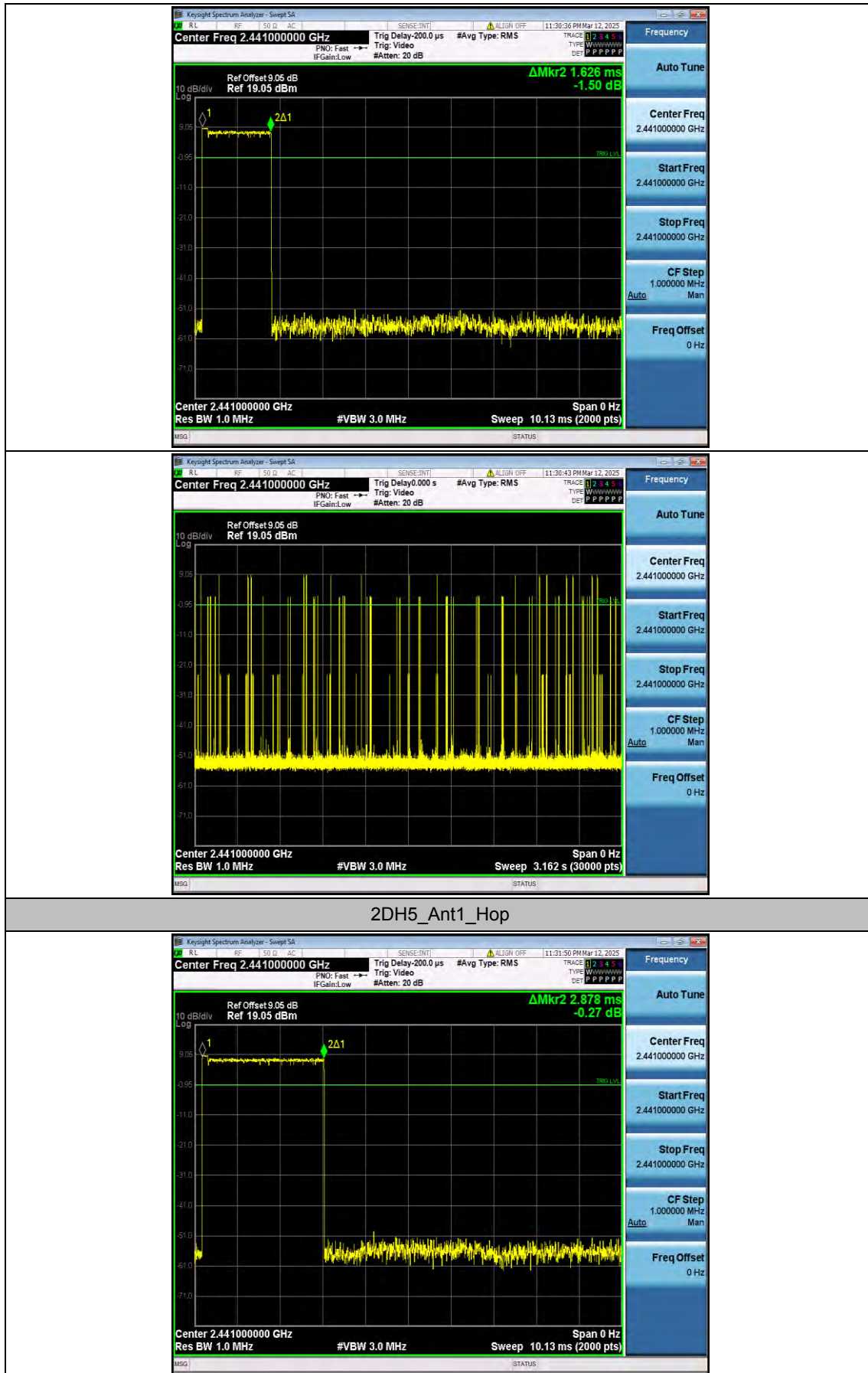


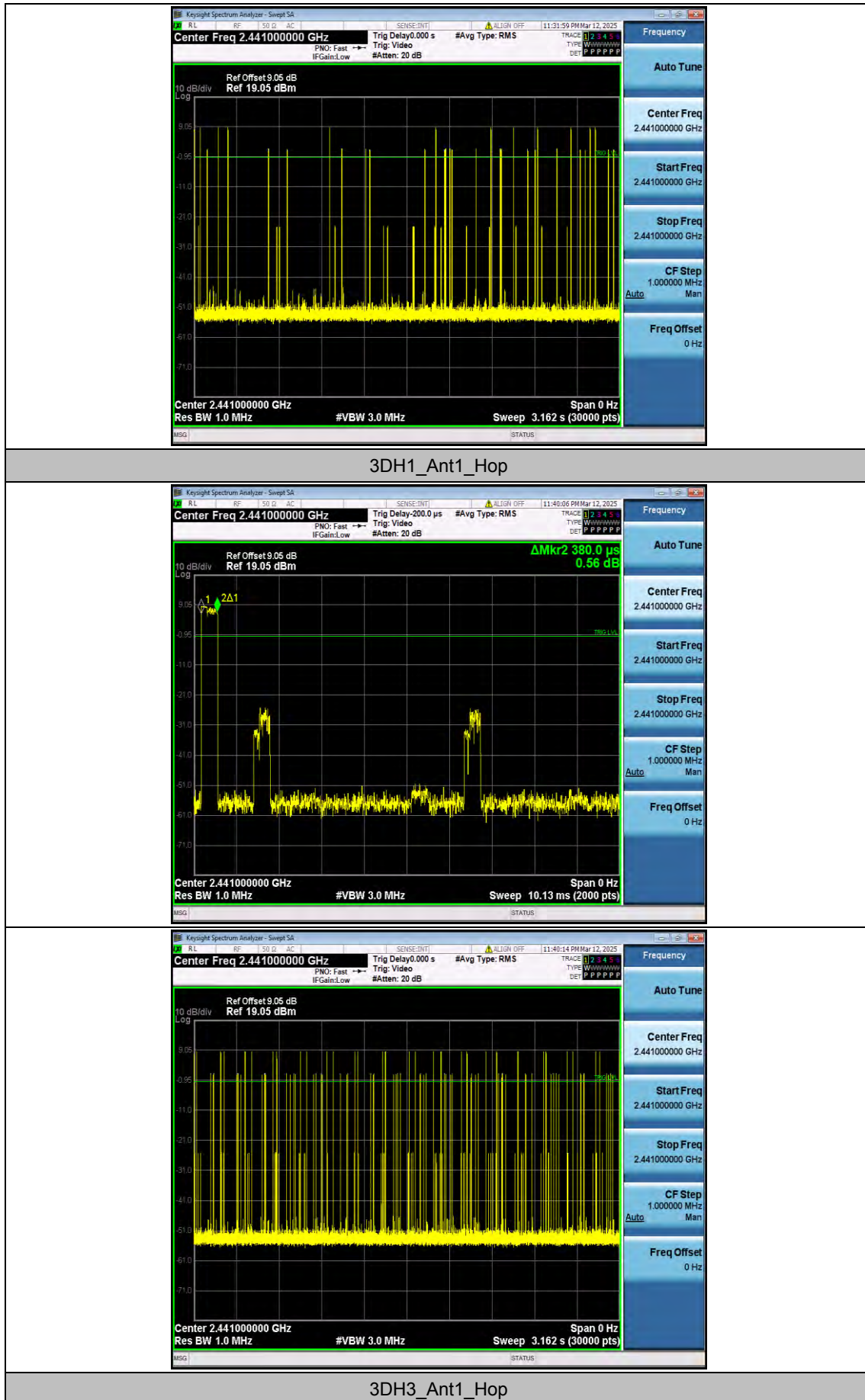


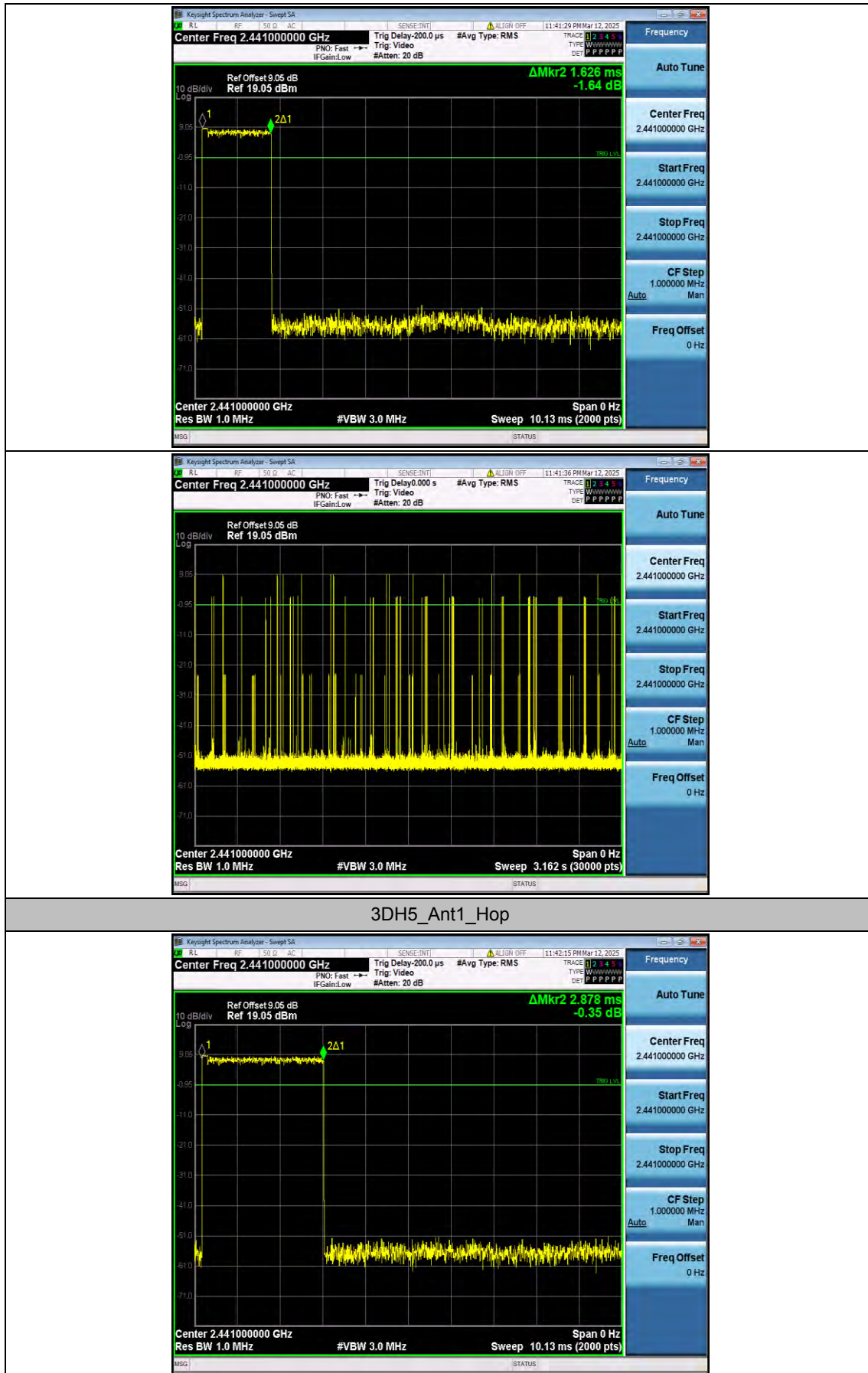
2DH1_Ant1_Hop

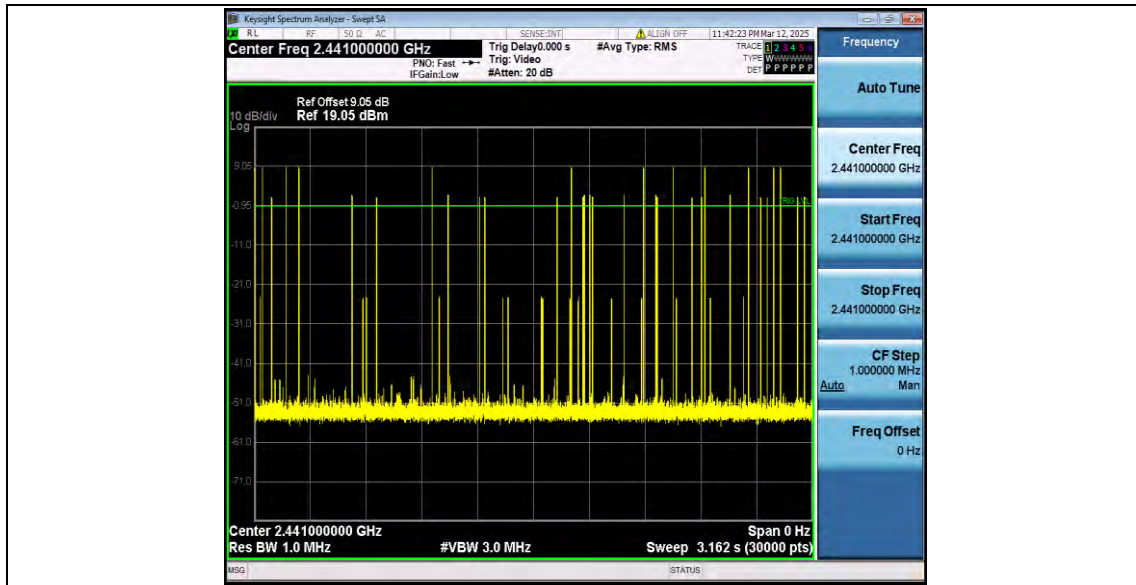


2DH3_Ant1_Hop







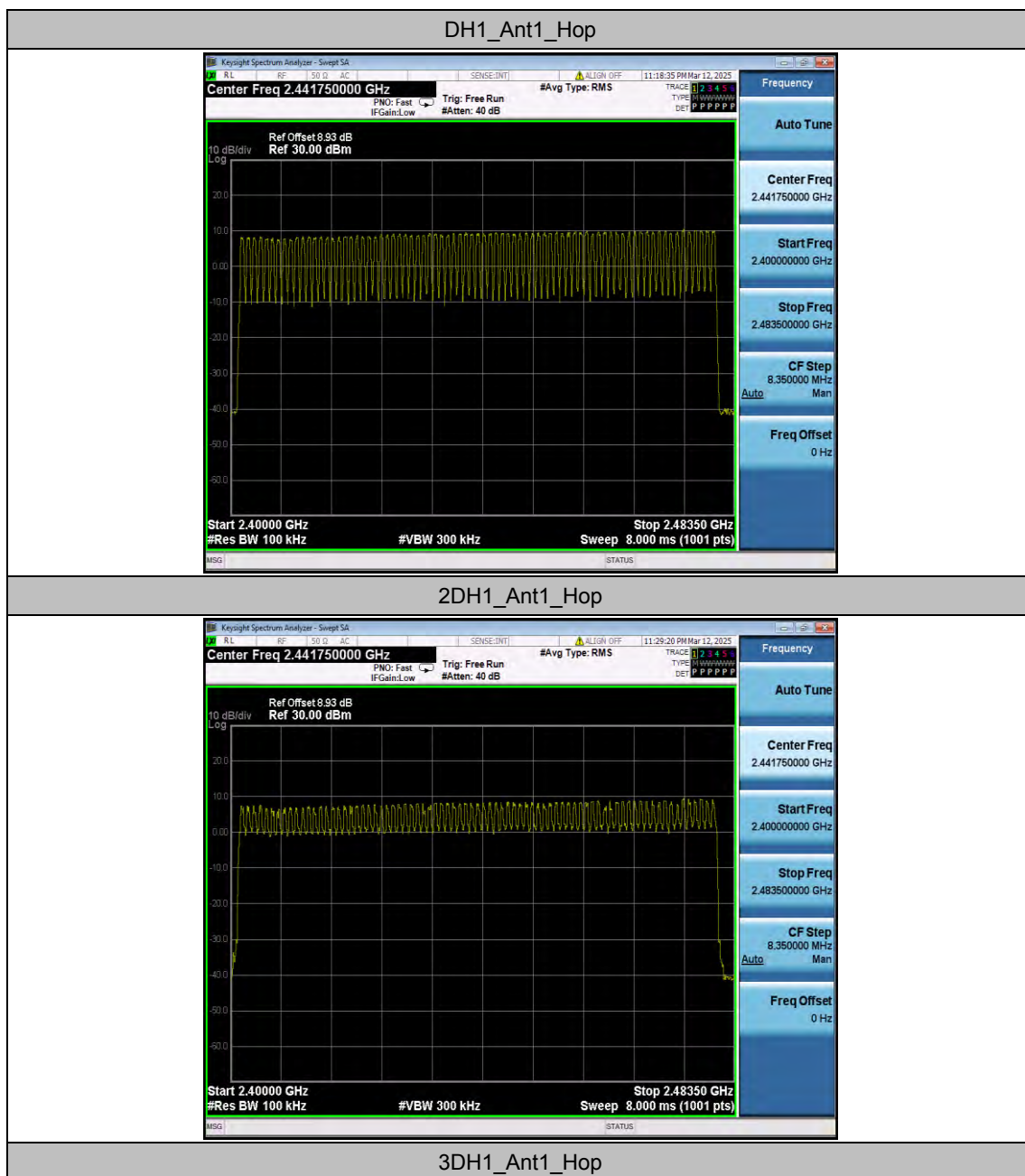


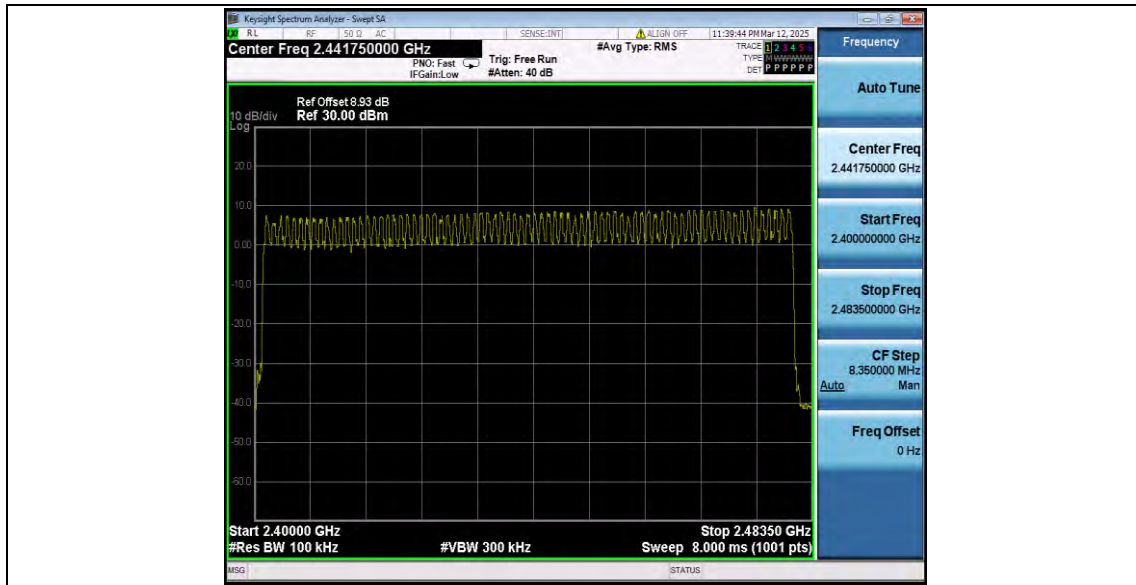
Appendix A.6: Number of hopping channels

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





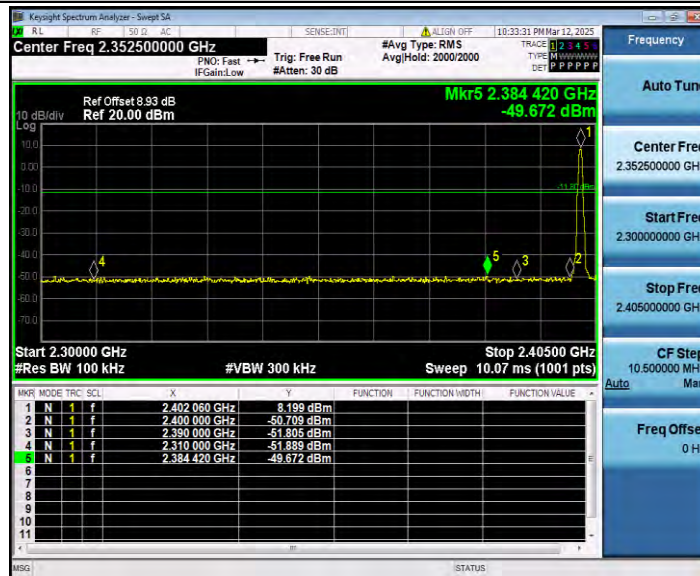
Appendix A.7: Band edge measurements

Test Result

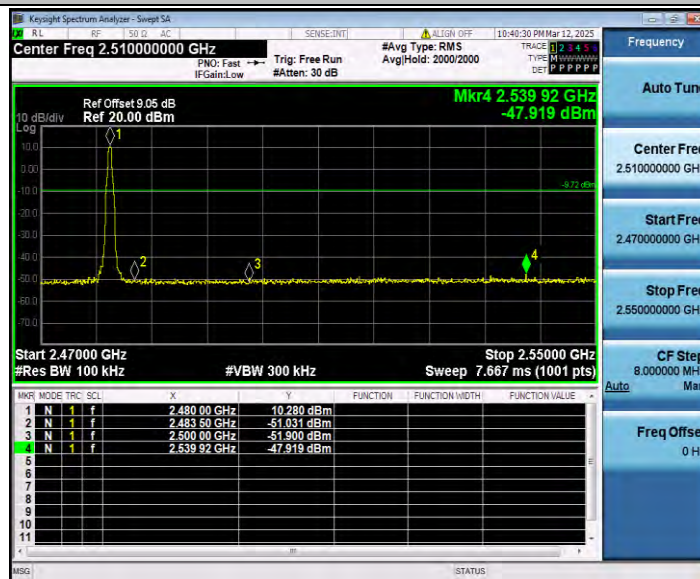
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	8.20	-49.67	≤ -11.8	PASS
		High	2480	10.28	-47.92	≤ -9.72	PASS
		Low	Hop_2402	7.93	-49.44	≤ -12.07	PASS
		High	Hop_2480	10.17	-47.9	≤ -9.83	PASS
2DH1	Ant1	Low	2402	7.75	-47.72	≤ -12.25	PASS
		High	2480	9.60	-48.92	≤ -10.4	PASS
		Low	Hop_2402	7.56	-48.98	≤ -12.44	PASS
		High	Hop_2480	9.61	-48.26	≤ -10.39	PASS
3DH1	Ant1	Low	2402	7.89	-46.47	≤ -12.11	PASS
		High	2480	9.59	-48.62	≤ -10.41	PASS
		Low	Hop_2402	7.49	-48.45	≤ -12.52	PASS
		High	Hop_2480	9.15	-48.09	≤ -10.85	PASS

Test Graphs

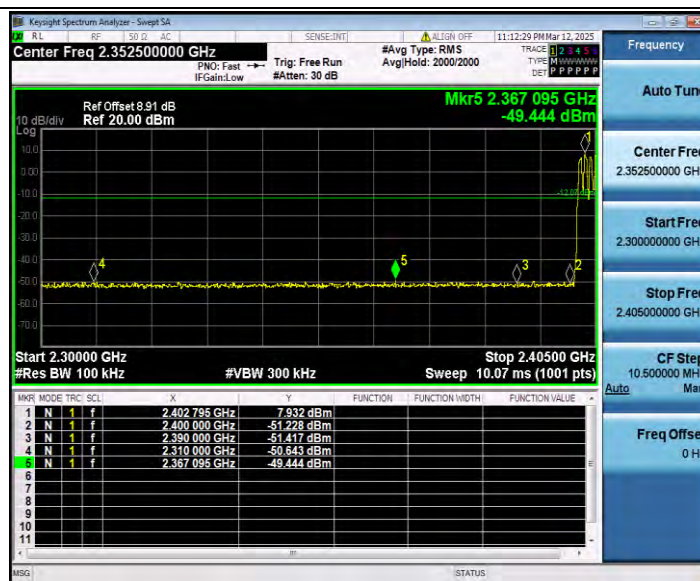
DH1_Ant1_Low_2402



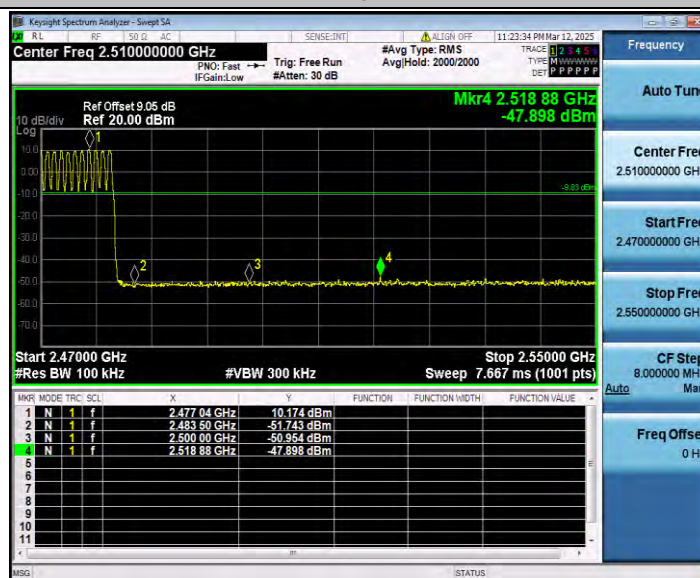
DH1_Ant1_High_2480



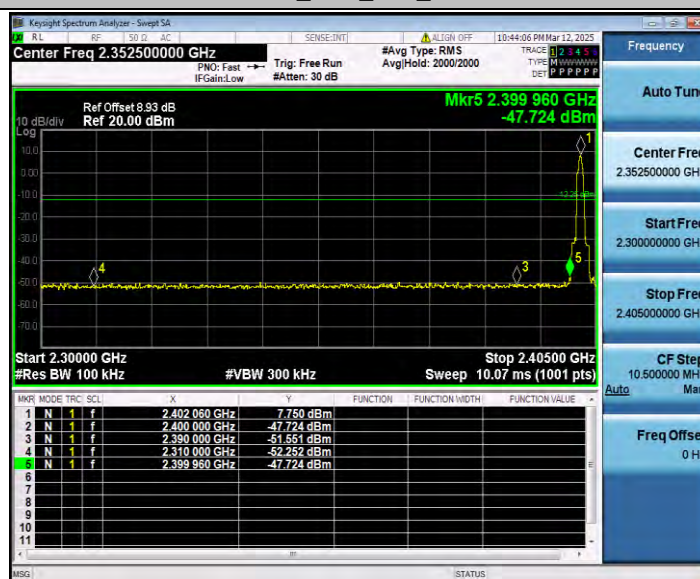
DH1_Ant1_Low_Hop_2402



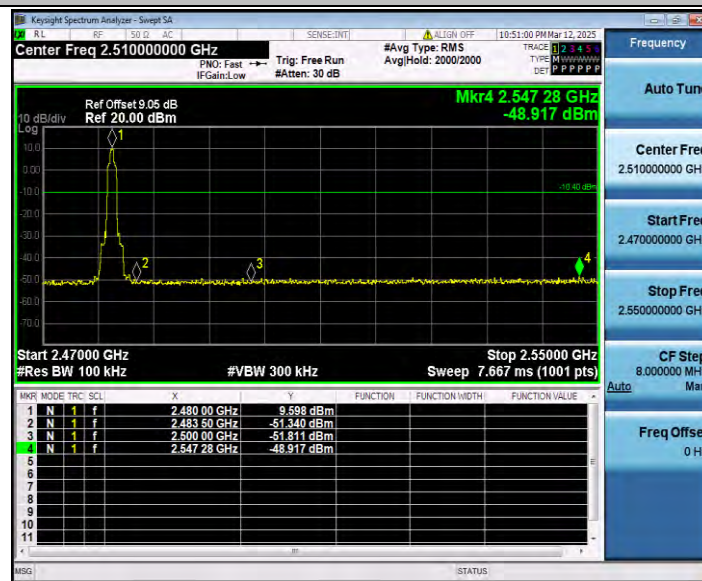
DH1_Ant1_High_Hop_2480



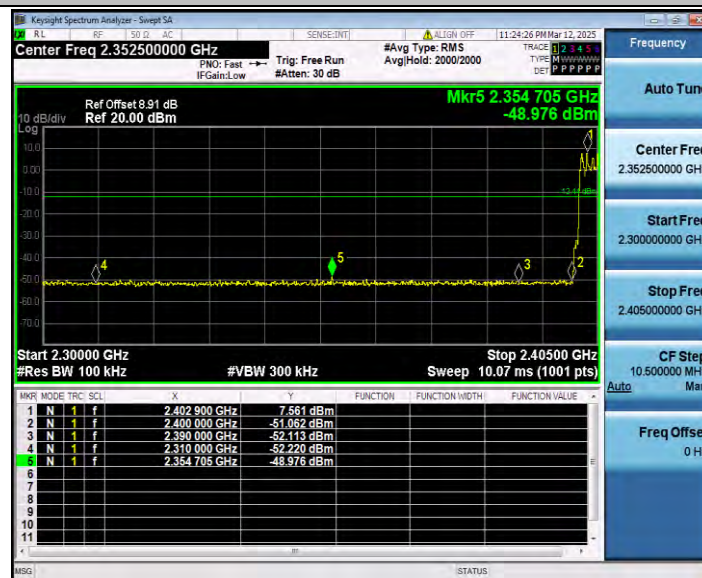
2DH1_Ant1_Low_2402



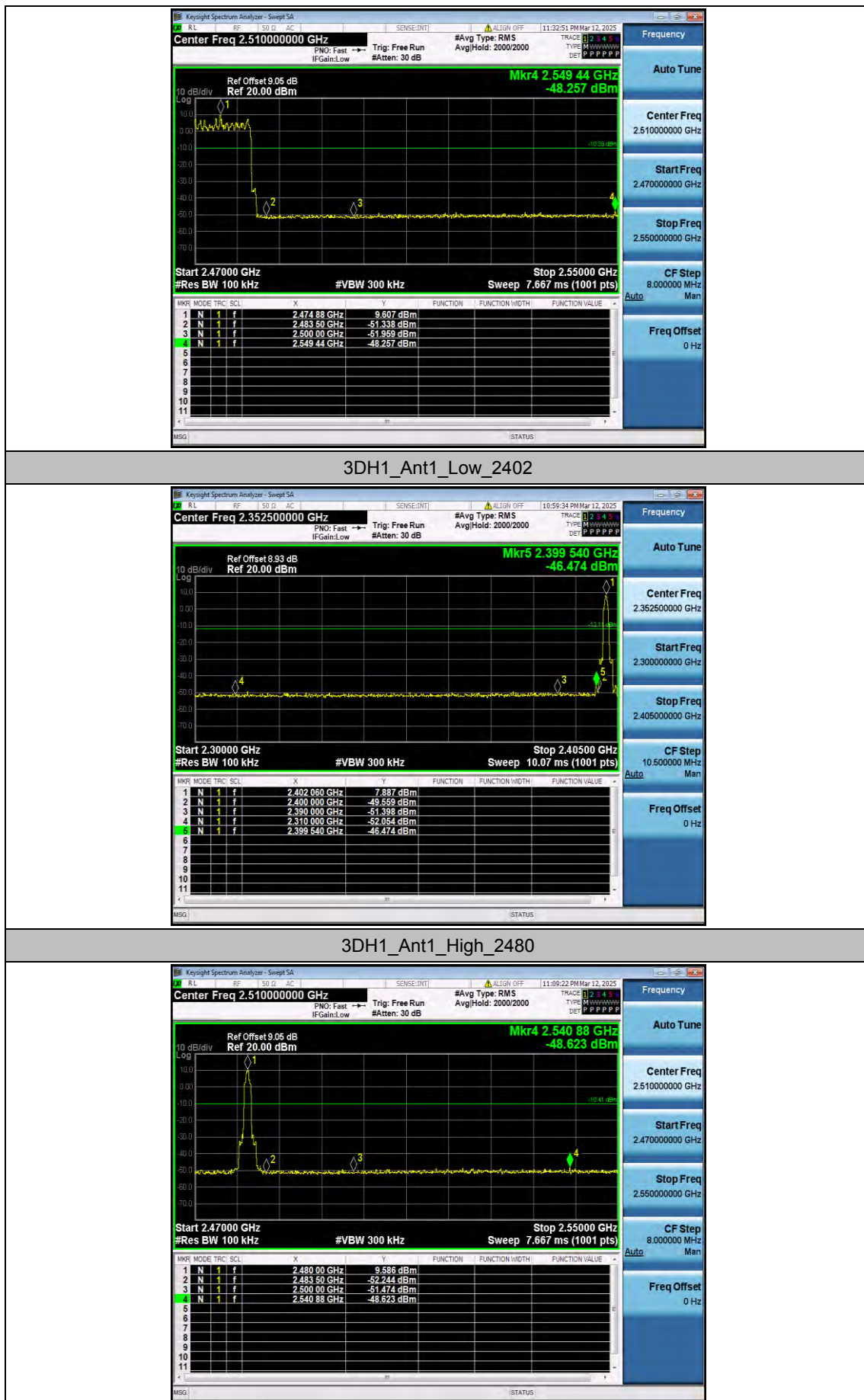
2DH1_Ant1_High_2480



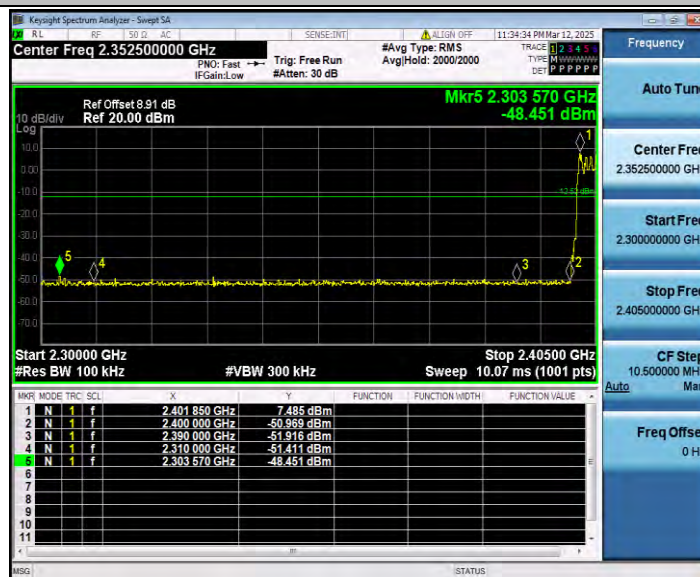
2DH1_Ant1_Low_Hop_2402



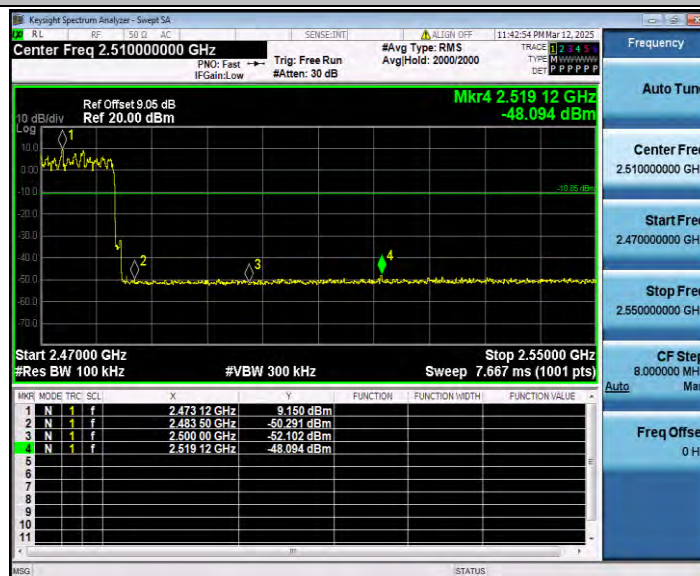
2DH1_Ant1_High_Hop_2480



3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

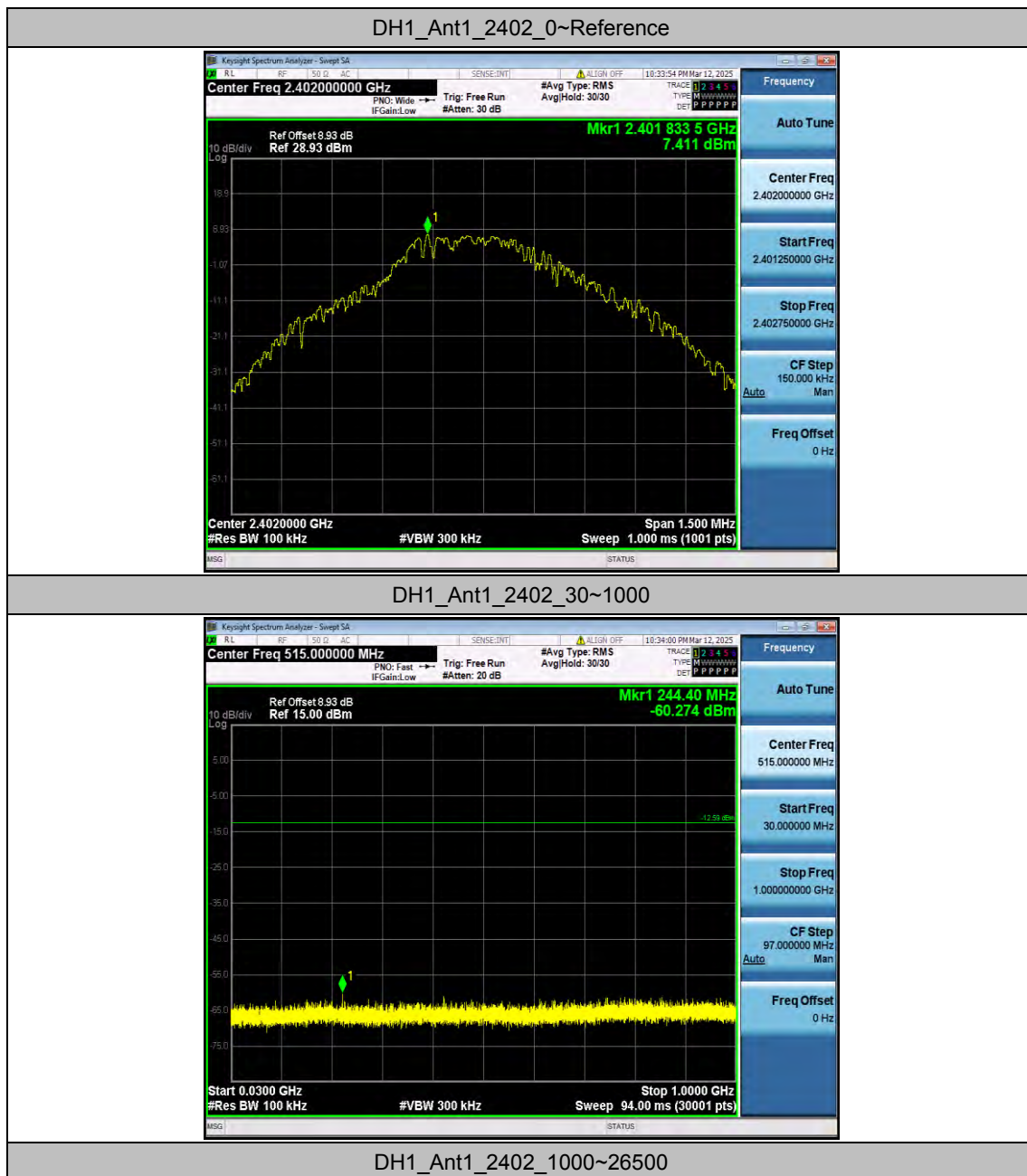


Appendix A.8: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	7.41	7.41	---	PASS
			30~1000	7.41	-60.27	≤-12.59	PASS
			1000~26500	7.41	-47.46	≤-12.59	PASS
		2441	Reference	8.87	8.87	---	PASS
			30~1000	8.87	-60.13	≤-11.13	PASS
			1000~26500	8.87	-47.59	≤-11.13	PASS
		2480	Reference	9.54	9.54	---	PASS
			30~1000	9.54	-60.43	≤-10.46	PASS
			1000~26500	9.54	-47.94	≤-10.46	PASS
2DH1	Ant1	2402	Reference	7.52	7.52	---	PASS
			30~1000	7.52	-60.69	≤-12.48	PASS
			1000~26500	7.52	-48.06	≤-12.48	PASS
		2441	Reference	8.39	8.39	---	PASS
			30~1000	8.39	-60.63	≤-11.61	PASS
			1000~26500	8.39	-47.34	≤-11.61	PASS
		2480	Reference	9.25	9.25	---	PASS
			30~1000	9.25	-60.69	≤-10.75	PASS
			1000~26500	9.25	-46.48	≤-10.75	PASS
3DH1	Ant1	2402	Reference	7.41	7.41	---	PASS
			30~1000	7.41	-61.02	≤-12.59	PASS
			1000~26500	7.41	-47.81	≤-12.59	PASS
		2441	Reference	8.09	8.09	---	PASS
			30~1000	8.09	-60.06	≤-11.91	PASS
			1000~26500	8.09	-48.01	≤-11.91	PASS
		2480	Reference	8.78	8.78	---	PASS
			30~1000	8.78	-60.1	≤-11.22	PASS
			1000~26500	8.78	-47.76	≤-11.22	PASS

Test Graphs

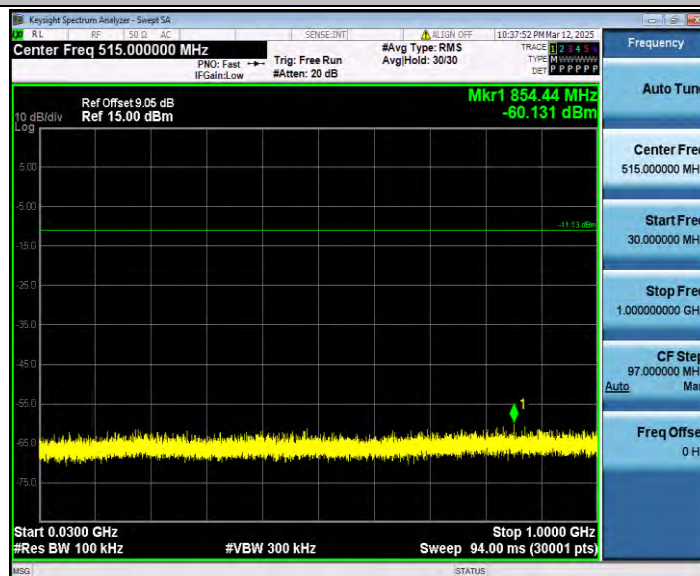




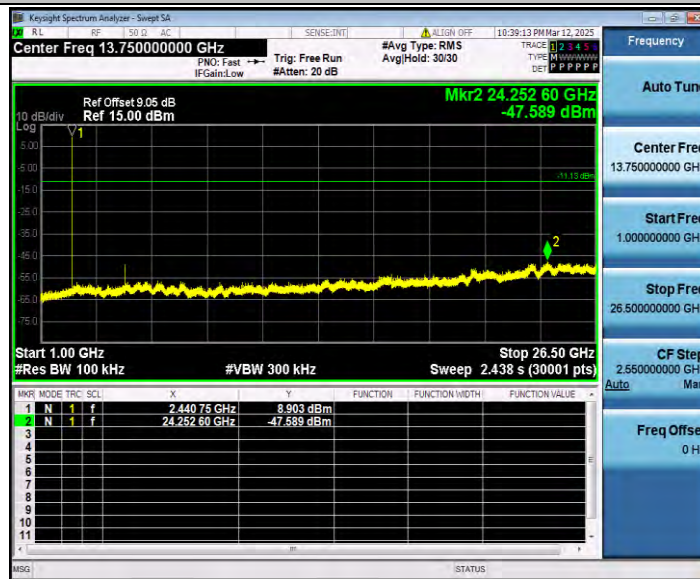
DH1_Ant1_2441_0~Reference



DH1_Ant1_2441_30~1000



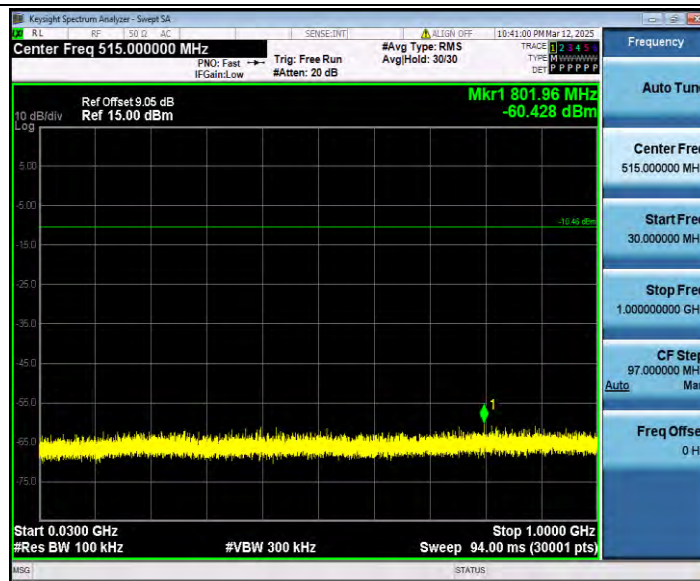
DH1_Ant1_2441_1000~26500



DH1_Ant1_2480_0~Reference



DH1_Ant1_2480_30~1000



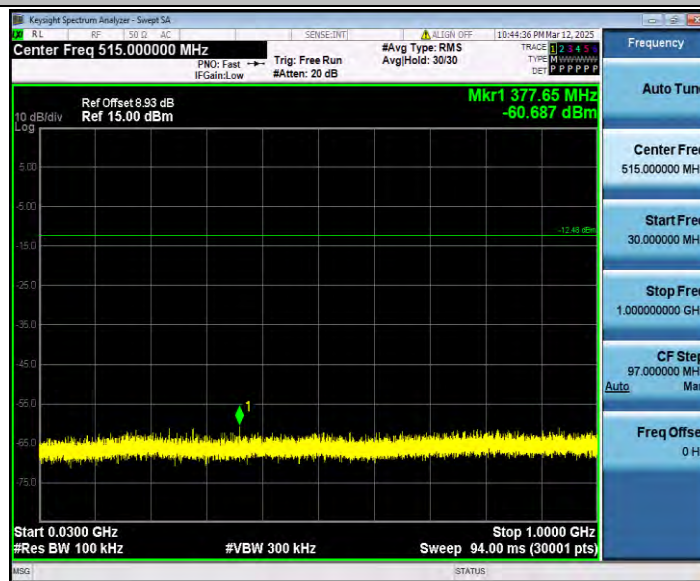
DH1_Ant1_2480_1000~26500



2DH1_Ant1_2402_0~Reference



2DH1_Ant1_2402_30~1000



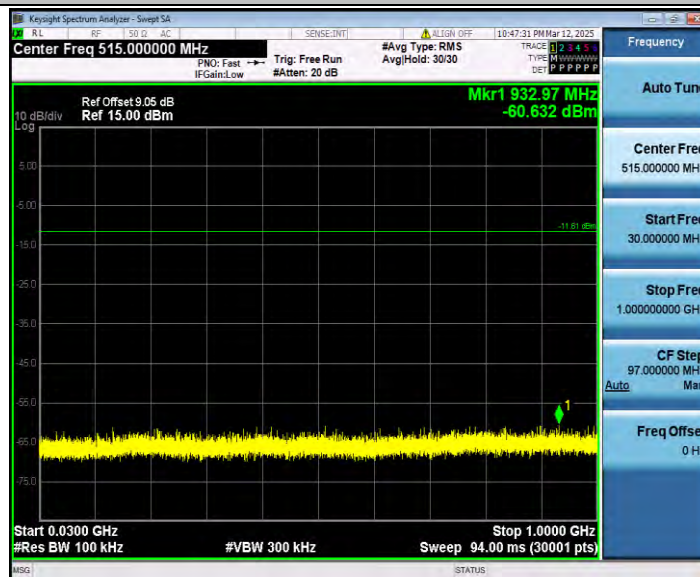
2DH1_Ant1_2402_1000~26500



2DH1_Ant1_2441_0~Reference



2DH1_Ant1_2441_30~1000



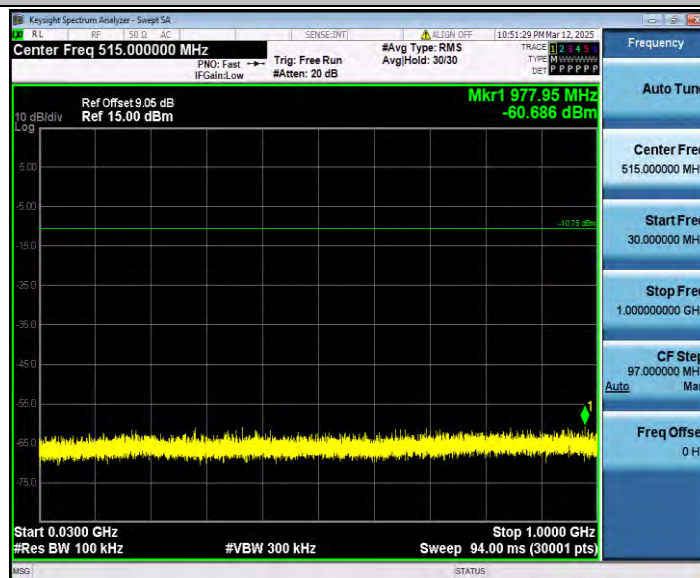
2DH1_Ant1_2441_1000~26500



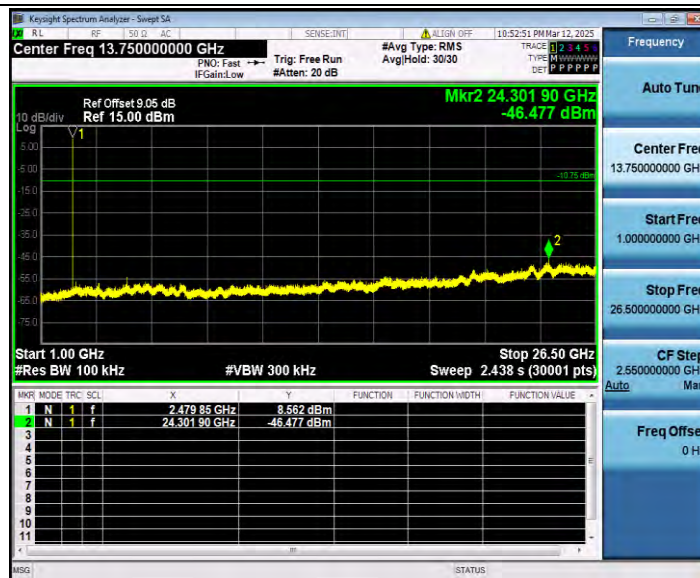
2DH1_Ant1_2480_0~Reference



2DH1_Ant1_2480_30~1000



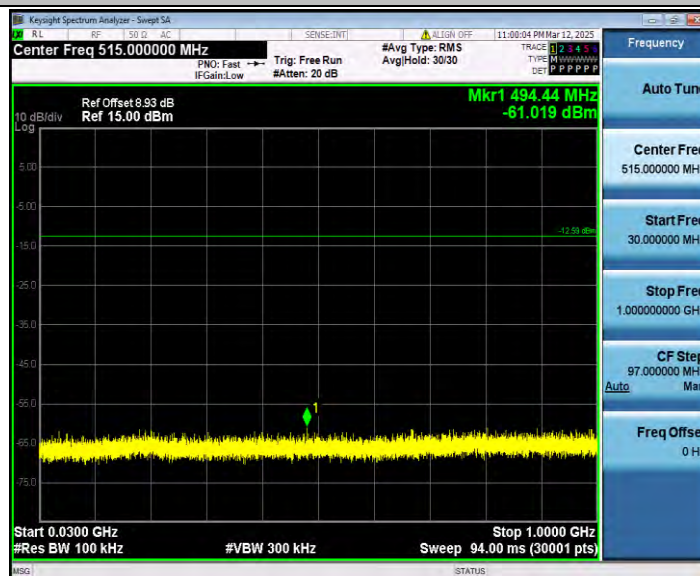
2DH1_Ant1_2480_1000~26500



3DH1_Ant1_2402_0~Reference



3DH1_Ant1_2402_30~1000



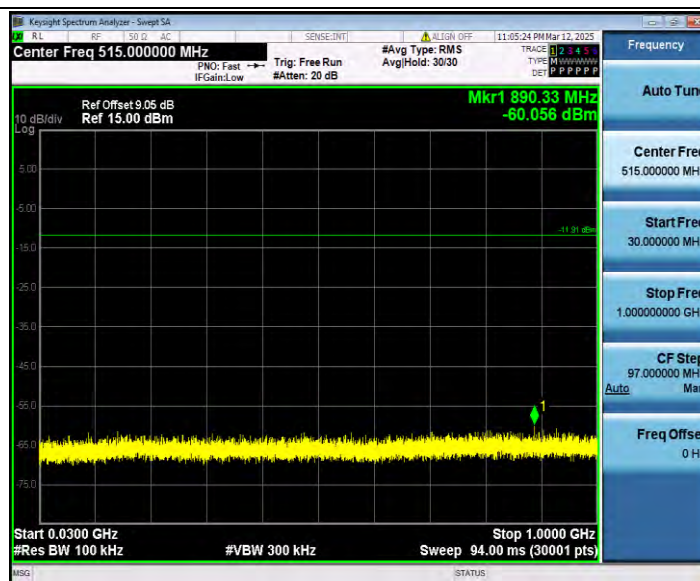
3DH1_Ant1_2402_1000~26500



3DH1_Ant1_2441_0~Reference



3DH1_Ant1_2441_30~1000

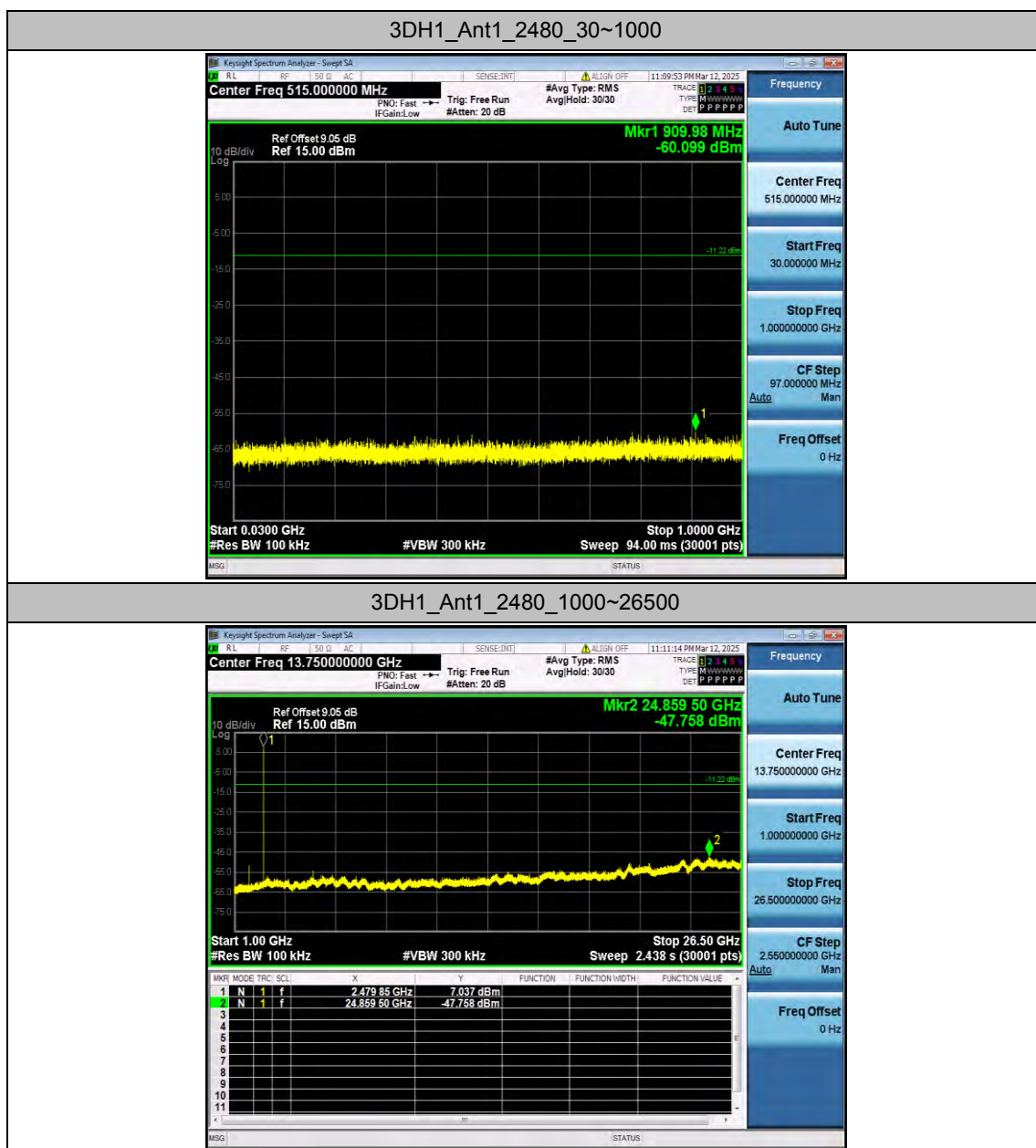


3DH1_Ant1_2441_1000~26500



3DH1_Ant1_2480_0~Reference





Appendix A.9: Emissions in Restricted Bands

Test Result

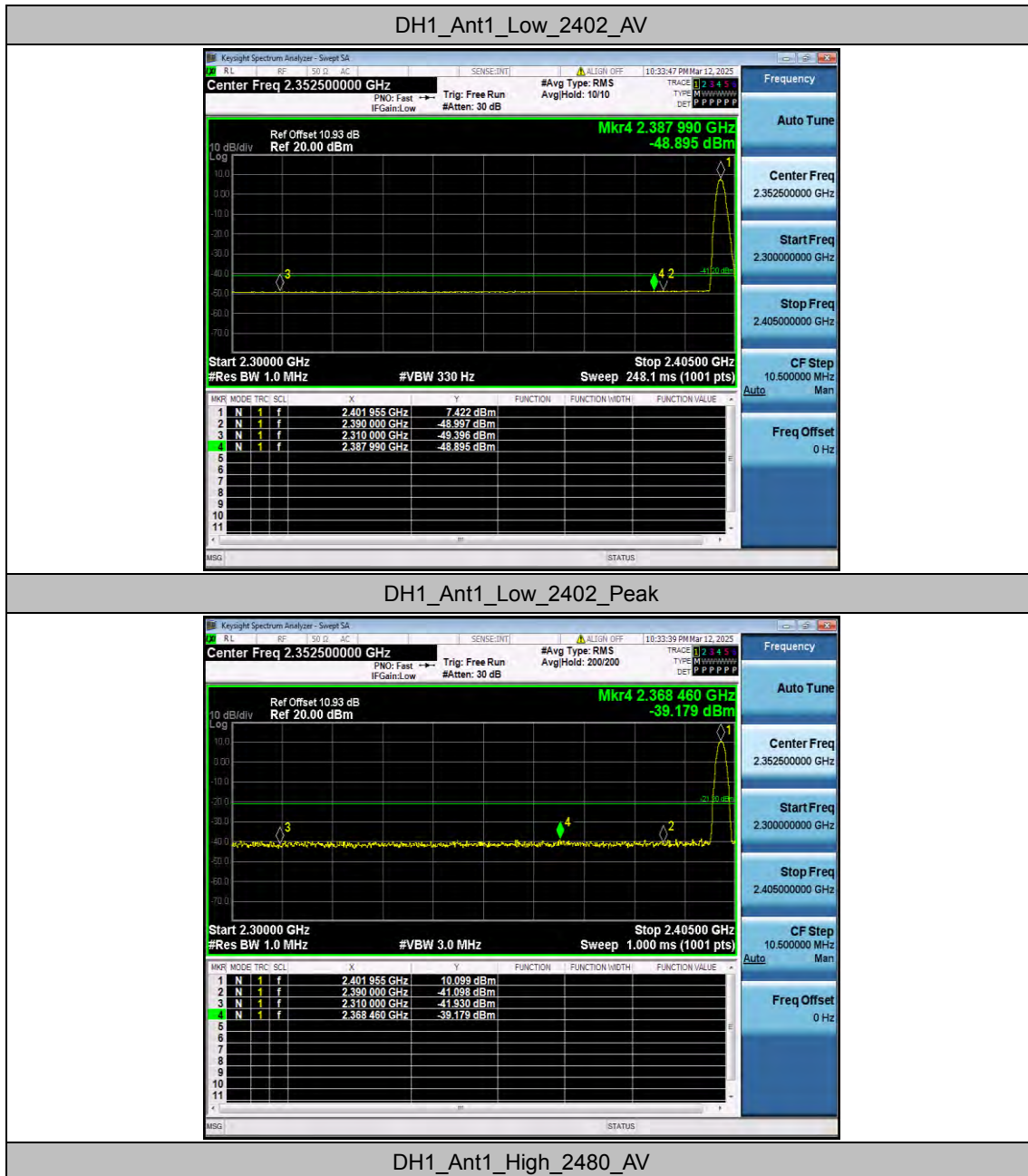
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH1	Ant1	Low	2402	AV	2310.000	-49.4	≤-41.20	45.80	≤54	PASS
				AV	2387.990	-48.89	≤-41.20	46.31	≤54	PASS
				AV	2390.000	-49	≤-41.20	46.20	≤54	PASS
				Peak	2310.000	-41.93	≤-21.20	53.27	≤74	PASS
				Peak	2368.460	-39.18	≤-21.20	56.02	≤74	PASS
				Peak	2390.000	-41.1	≤-21.20	54.10	≤74	PASS
		High	2480	AV	2483.500	-47.55	≤-41.20	47.65	≤54	PASS
				AV	2483.520	-47.55	≤-41.20	47.65	≤54	PASS
				AV	2500.000	-48.73	≤-41.20	46.47	≤54	PASS
				Peak	2483.500	-41.16	≤-21.20	54.04	≤74	PASS
				Peak	2499.920	-38.33	≤-21.20	56.87	≤74	PASS
				Peak	2500.000	-40.63	≤-21.20	54.57	≤74	PASS
2DH1	Ant1	Low	2402	AV	2310.000	-49.31	≤-41.20	45.89	≤54	PASS
				AV	2373.500	-48.89	≤-41.20	46.31	≤54	PASS
				AV	2390.000	-48.94	≤-41.20	46.26	≤54	PASS
				Peak	2310.000	-41.73	≤-21.20	53.47	≤74	PASS
				Peak	2352.290	-38.67	≤-21.20	56.53	≤74	PASS
				Peak	2390.000	-40.63	≤-21.20	54.57	≤74	PASS
		High	2480	AV	2483.500	-47.39	≤-41.20	47.81	≤54	PASS
				AV	2483.520	-47.39	≤-41.20	47.81	≤54	PASS
				AV	2500.000	-48.7	≤-41.20	46.50	≤54	PASS
				Peak	2483.500	-41.25	≤-21.20	53.95	≤74	PASS
				Peak	2493.360	-39.06	≤-21.20	56.14	≤74	PASS
				Peak	2500.000	-39.34	≤-21.20	55.86	≤74	PASS
3DH1	Ant1	Low	2402	AV	2310.000	-49.42	≤-41.20	45.78	≤54	PASS
				AV	2385.260	-48.88	≤-41.20	46.32	≤54	PASS
				AV	2390.000	-49.08	≤-41.20	46.12	≤54	PASS
				Peak	2310.000	-42.04	≤-21.20	53.16	≤74	PASS
				Peak	2385.470	-38.09	≤-21.20	57.11	≤74	PASS
				Peak	2390.000	-40.98	≤-21.20	54.22	≤74	PASS
		High	2480	AV	2483.500	-47.34	≤-41.20	47.86	≤54	PASS
				AV	2483.520	-47.34	≤-41.20	47.86	≤54	PASS
				AV	2500.000	-48.63	≤-41.20	46.57	≤54	PASS
				Peak	2483.500	-40.53	≤-21.20	54.67	≤74	PASS
				Peak	2494.000	-38.85	≤-21.20	56.35	≤74	PASS

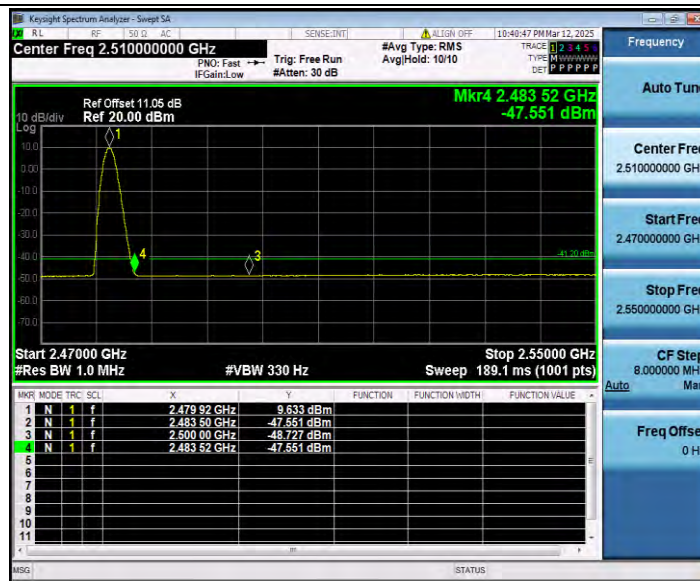
				Peak	2500.000	-40.36	≤-21.20	54.84	≤74	PASS
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Note:

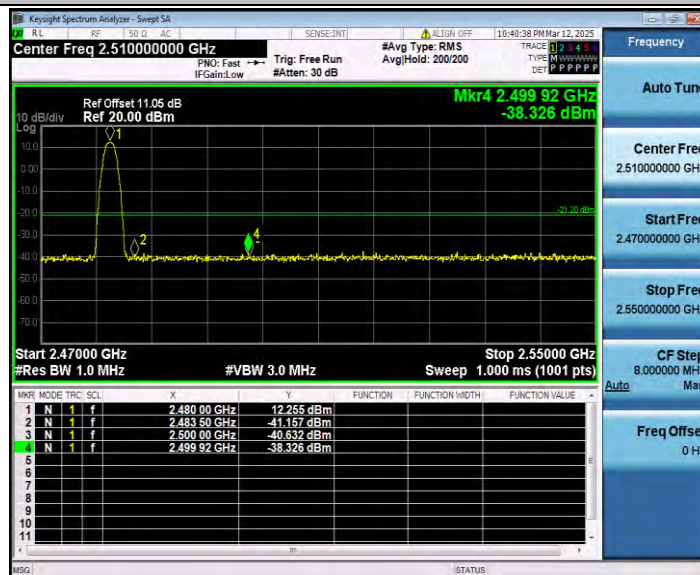
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

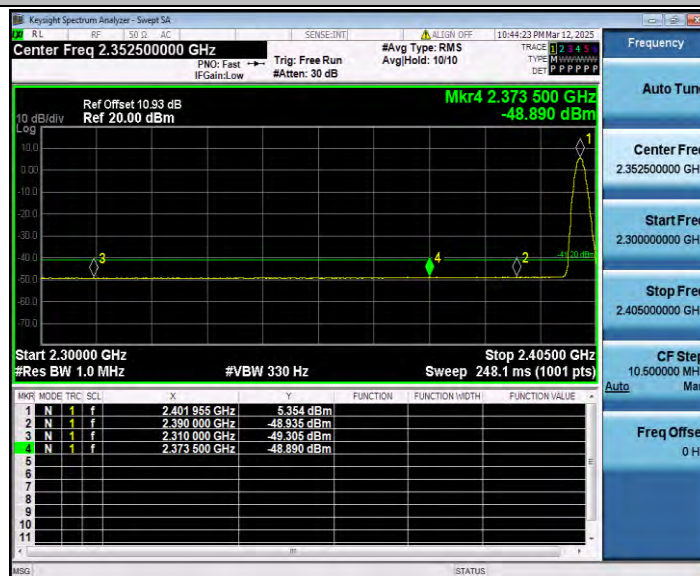




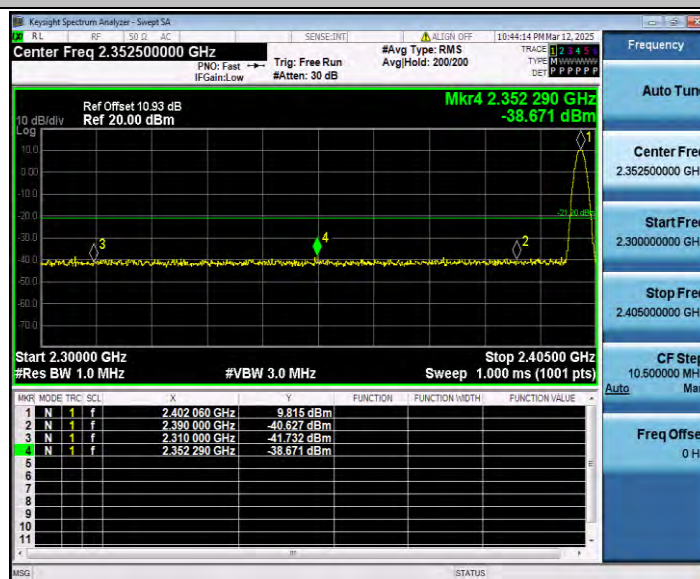
DH1_Ant1_High_2480_Peak



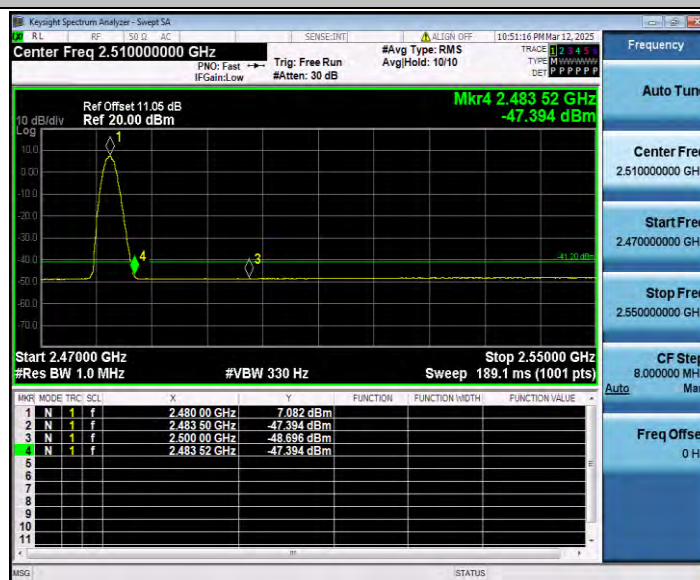
2DH1_Ant1_Low_2402_AV



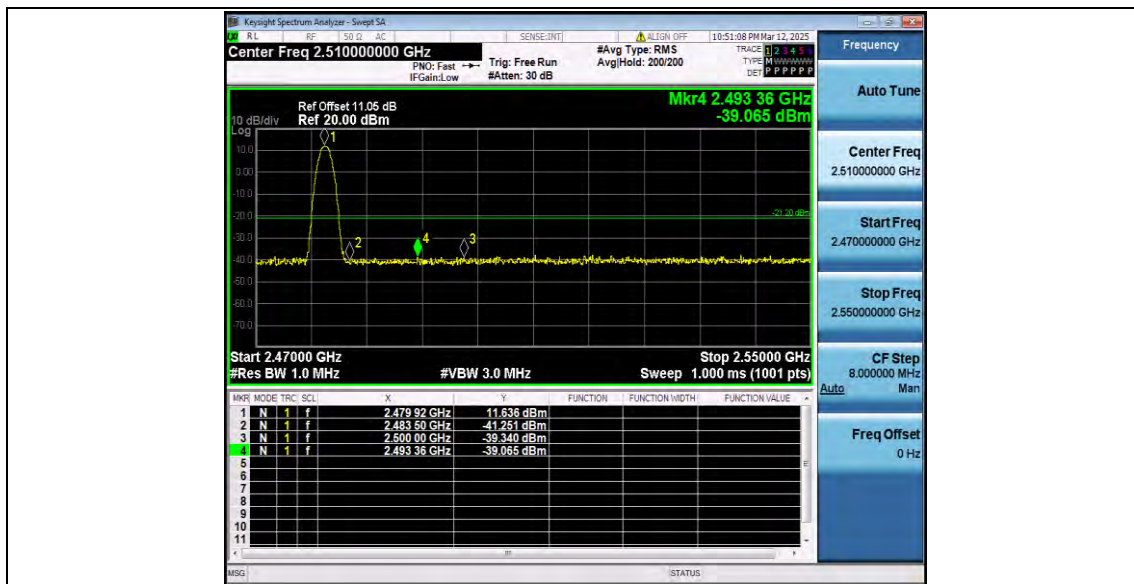
2DH1_Ant1_Low_2402_Peak



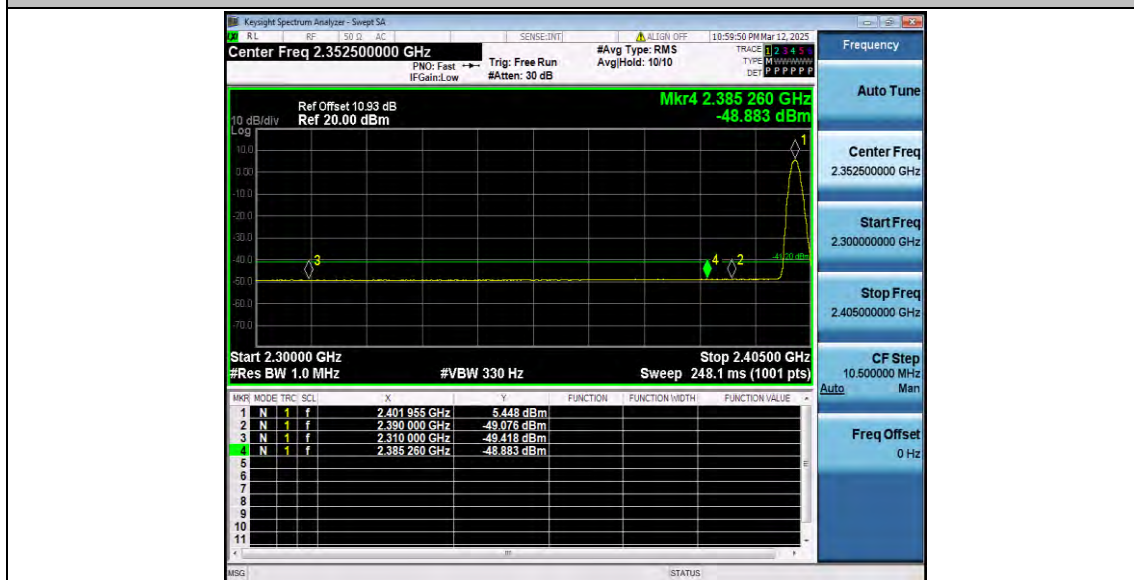
2DH1_Ant1_High_2480_AV



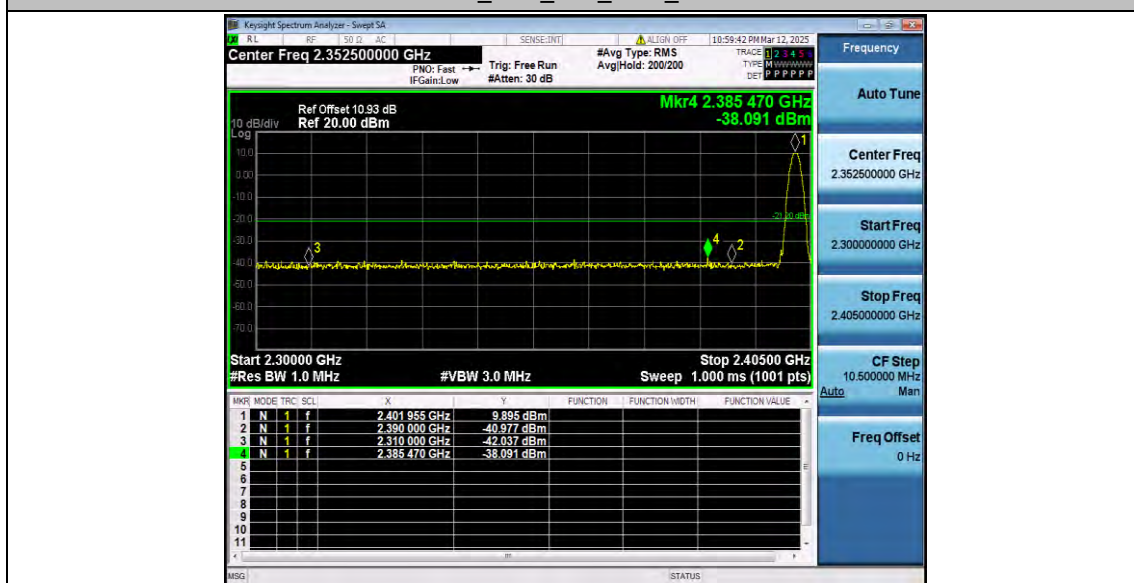
2DH1_Ant1_High_2480_Peak



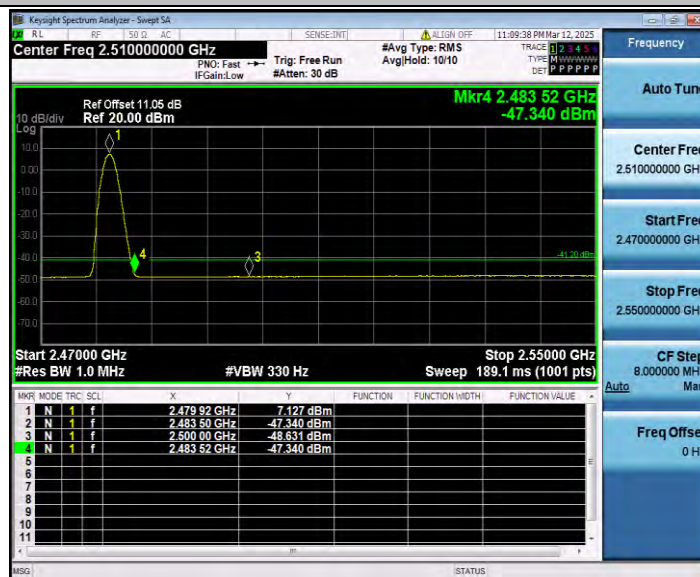
3DH1_Ant1_Low_2402_AV



3DH1_Ant1_Low_2402_Peak



3DH1_Ant1_High_2480_AV



3DH1_Ant1_High_2480_Peak

