

Case No. : <u>GTS20241121026-1-01</u>	
Ambient Condition: <u>22</u> °C, <u>59</u> %RH	
According Standard: ■Part15C	
Test Date: <u>2024.11.29</u>	Test Engineer: <u>Evan ouyang</u>

Appendix A.1: 20dB Emission Bandwidth

Test Result

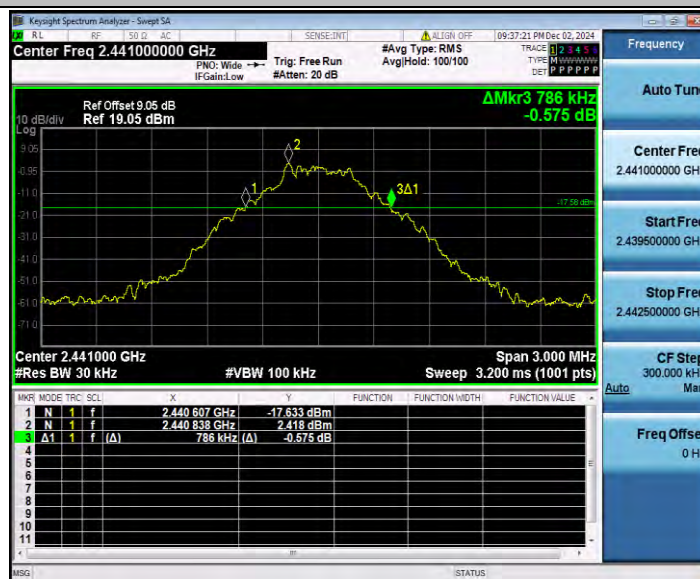
TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.834	2401.565	2402.399	---	---
		2441	0.786	2440.607	2441.393	---	---
		2480	0.855	2479.562	2480.417	---	---
2DH1	Ant1	2402	1.200	2401.388	2402.588	---	---
		2441	1.263	2440.367	2441.630	---	---
		2480	1.260	2479.370	2480.630	---	---
3DH1	Ant1	2402	1.224	2401.400	2402.624	---	---
		2441	1.227	2440.394	2441.621	---	---
		2480	1.248	2479.373	2480.621	---	---

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



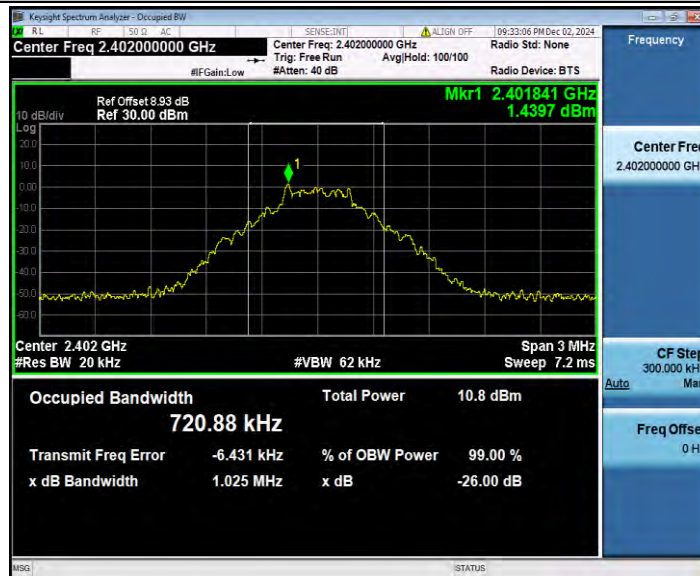
Appendix A.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.72088	2401.6331	2402.3540	---	---
		2441	0.71542	2440.6335	2441.3489	---	---
		2480	0.70833	2479.6341	2480.3425	---	---
2DH1	Ant1	2402	1.1447	2401.4238	2402.5685	---	---
		2441	1.1420	2440.4259	2441.5679	---	---
		2480	1.1373	2479.4272	2480.5645	---	---
3DH1	Ant1	2402	1.1476	2401.4361	2402.5837	---	---
		2441	1.1430	2440.4363	2441.5793	---	---
		2480	1.1367	2479.4392	2480.5759	---	---

Test Graphs

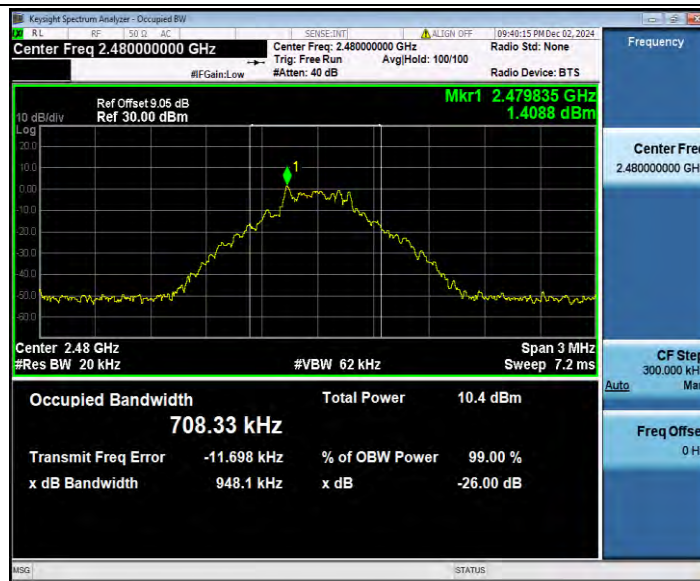
DH1_Ant1_2402



DH1_Ant1_2441



DH1_Ant1_2480



2DH1_Ant1_2402



2DH1_Ant1_2441



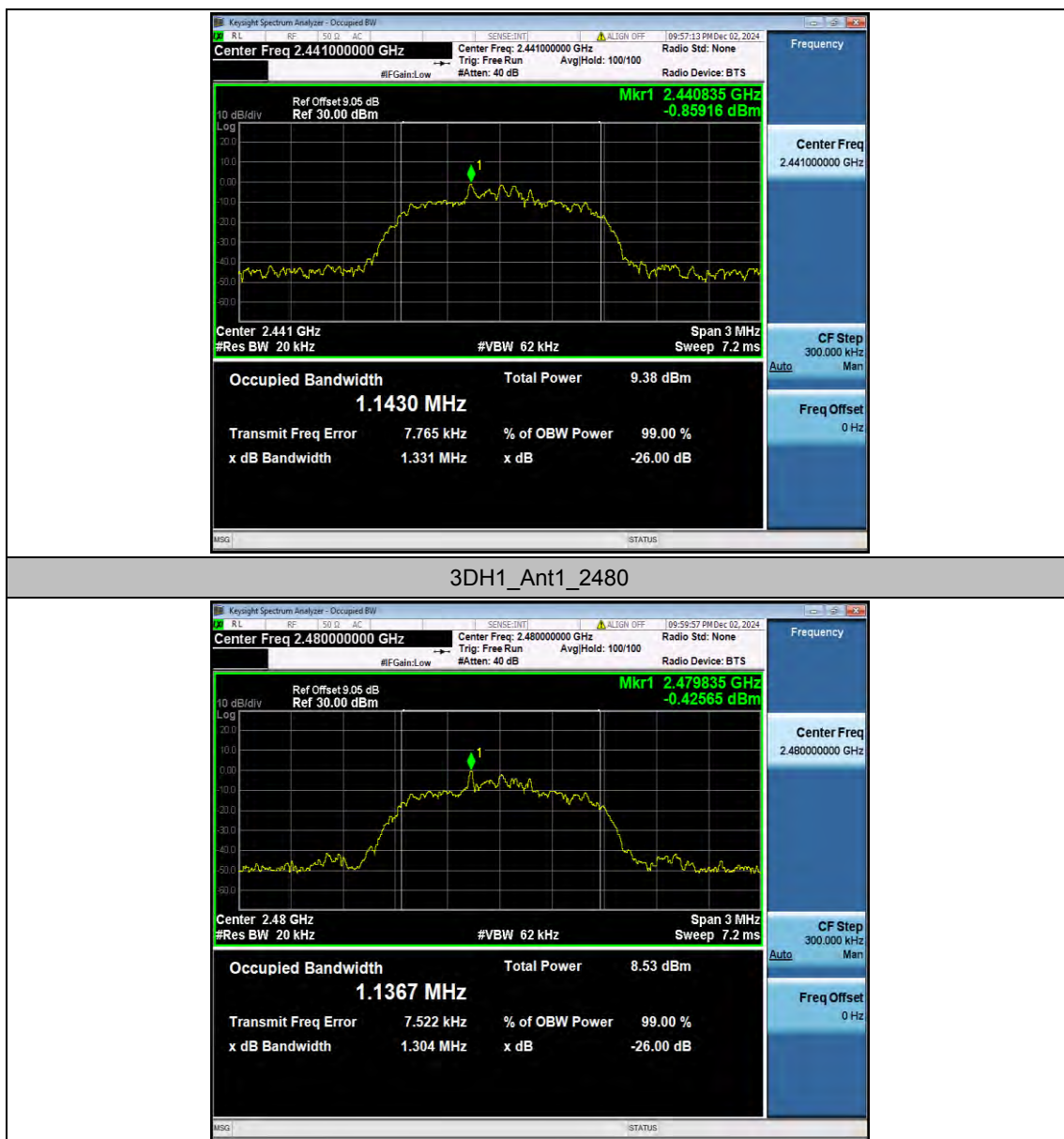
2DH1_Ant1_2480



3DH1_Ant1_2402



3DH1_Ant1_2441



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	5.83	≤30.00	PASS
		2441	5.99	≤30.00	PASS
		2480	4.47	≤30.00	PASS
2DH1	Ant1	2402	4.74	≤20.97	PASS
		2441	4.48	≤20.97	PASS
		2480	3.64	≤20.97	PASS
3DH1	Ant1	2402	4.77	≤20.97	PASS
		2441	4.48	≤20.97	PASS
		2480	3.71	≤20.97	PASS

Appendix A.4: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	0.988	≥ 0.855	PASS
		Hop_2441	1	≥ 0.855	PASS
		Hop_2480	0.856	≥ 0.855	PASS
2DH1	Ant1	Hop_2402	1.144	≥ 0.842	PASS
		Hop_2441	1.004	≥ 0.842	PASS
		Hop_2480	0.986	≥ 0.842	PASS
3DH1	Ant1	Hop_2402	1.168	≥ 0.832	PASS
		Hop_2441	0.998	≥ 0.832	PASS
		Hop_2480	1.162	≥ 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



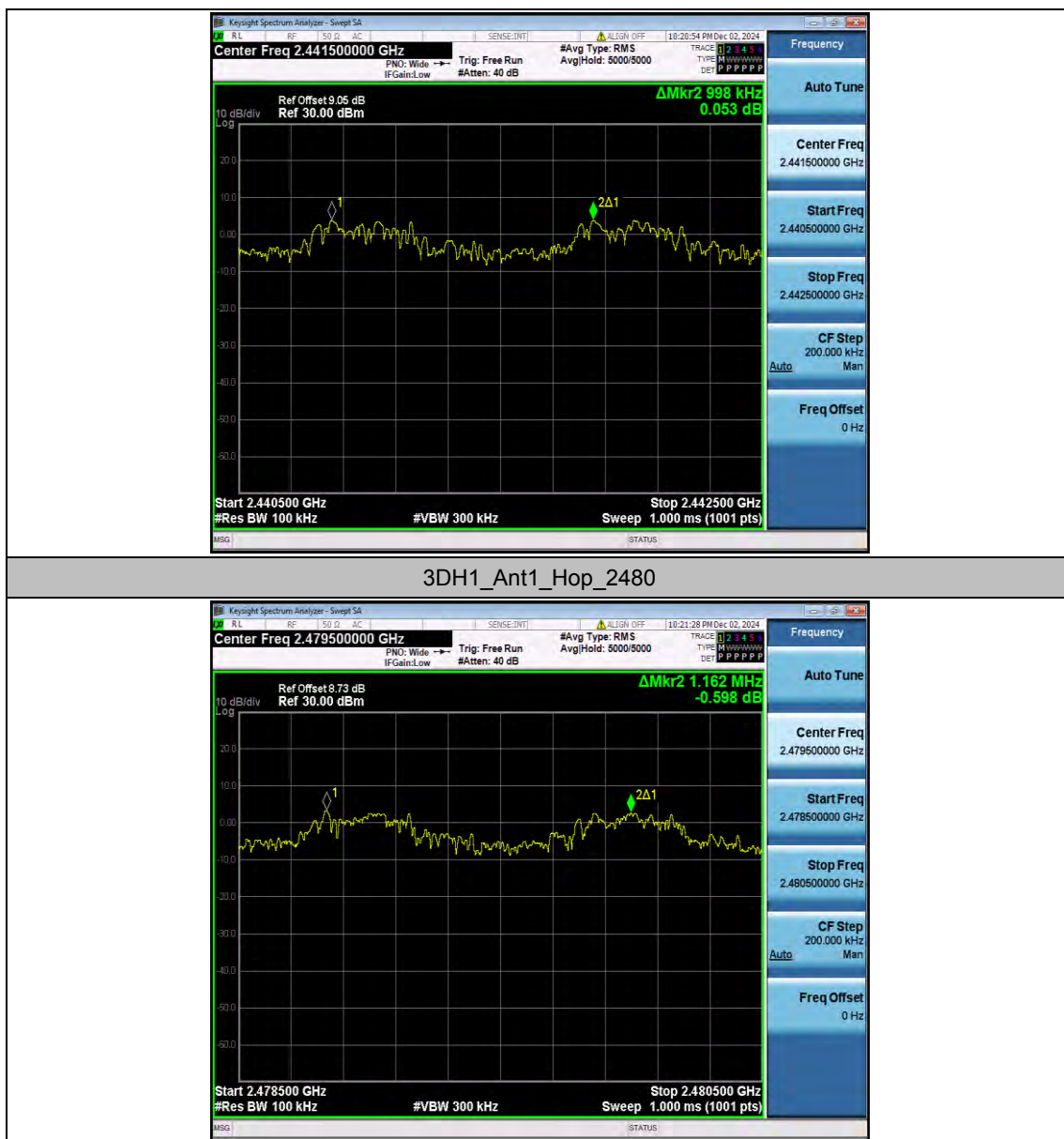
2DH1_Ant1_Hop_2480



3DH1_Ant1_Hop_2402



3DH1_Ant1_Hop_2441

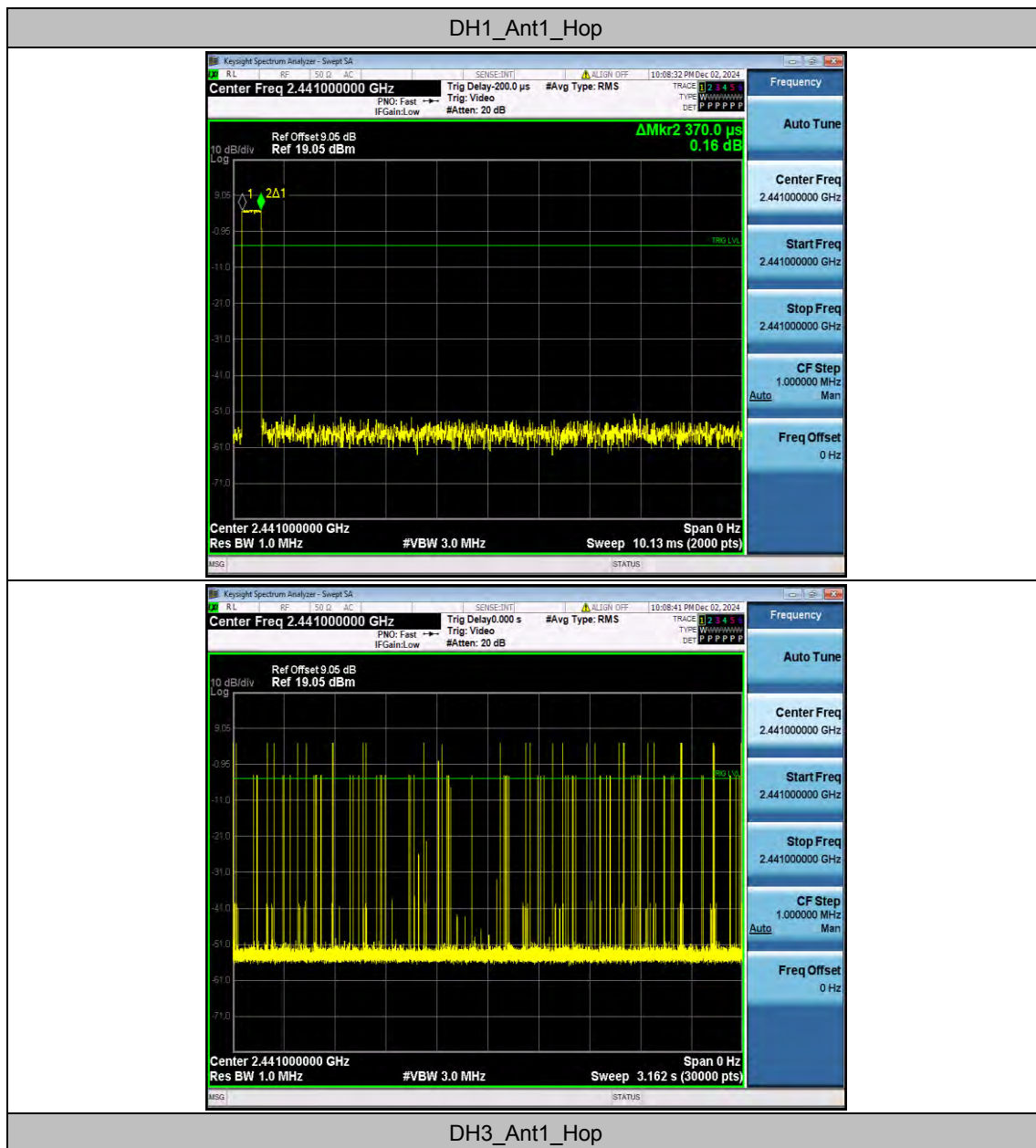


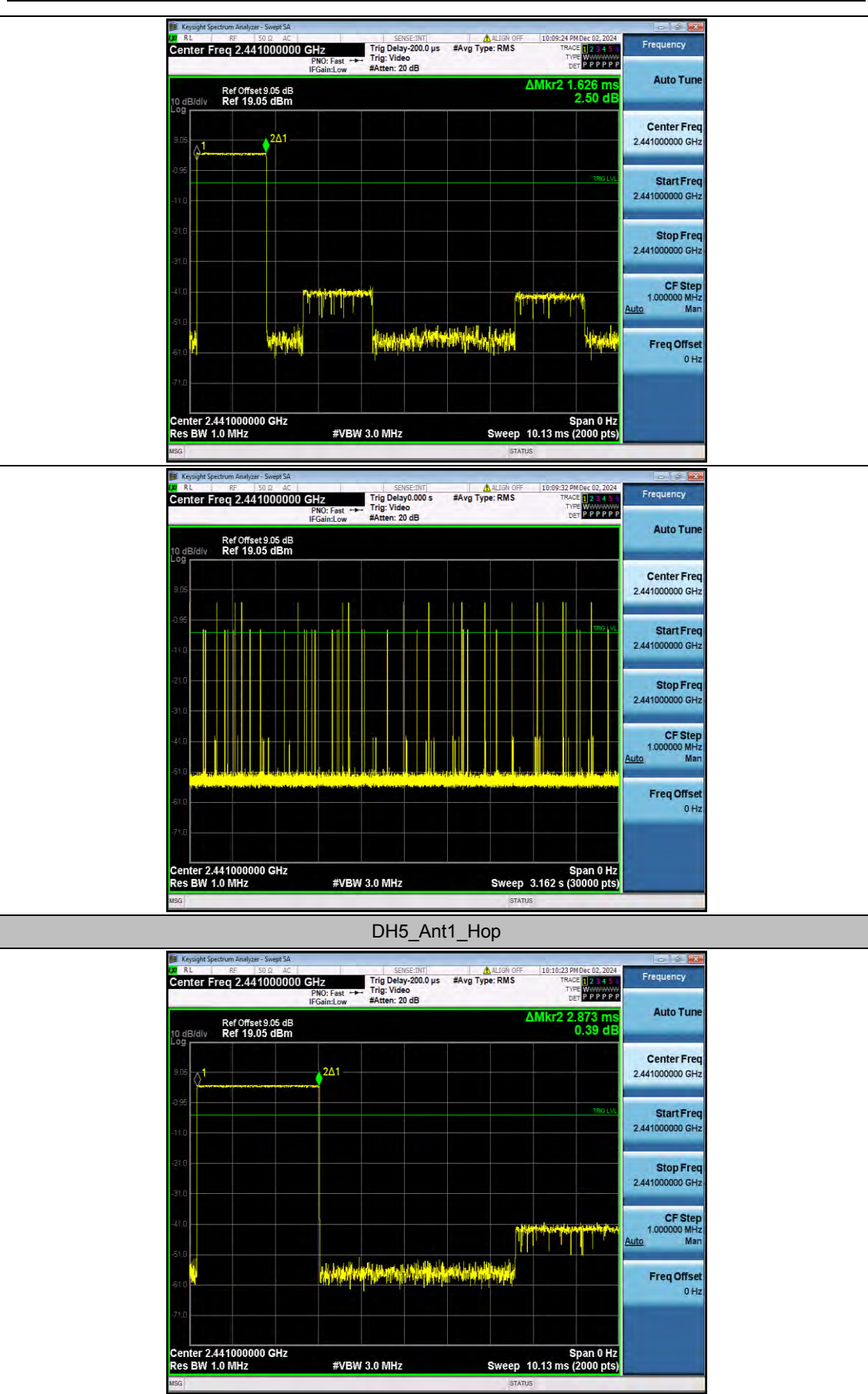
Appendix A.5: Time of occupancy

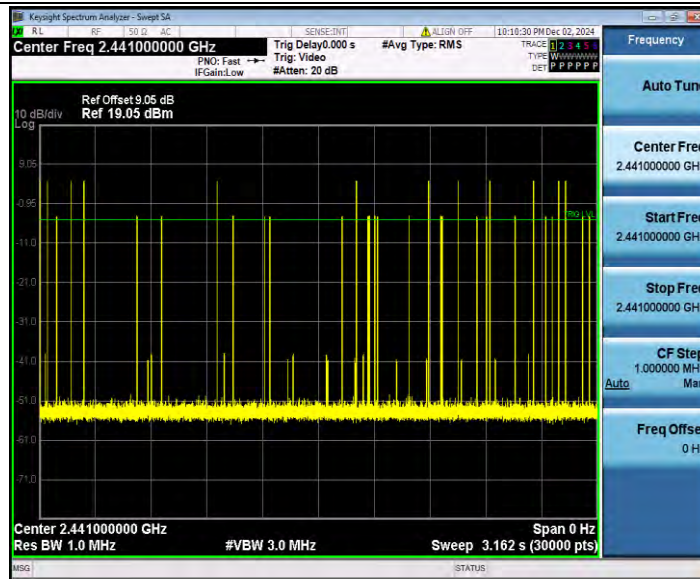
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.370	290	0.107	≤0.4	PASS
DH3	Ant1	Hop	1.626	180	0.293	≤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	1.631	160	0.261	≤0.4	PASS
2DH5	Ant1	Hop	2.873	110	0.316	≤0.4	PASS
3DH1	Ant1	Hop	0.375	320	0.12	≤0.4	PASS
3DH3	Ant1	Hop	1.626	180	0.293	≤0.4	PASS
3DH5	Ant1	Hop	2.878	130	0.374	≤0.4	PASS

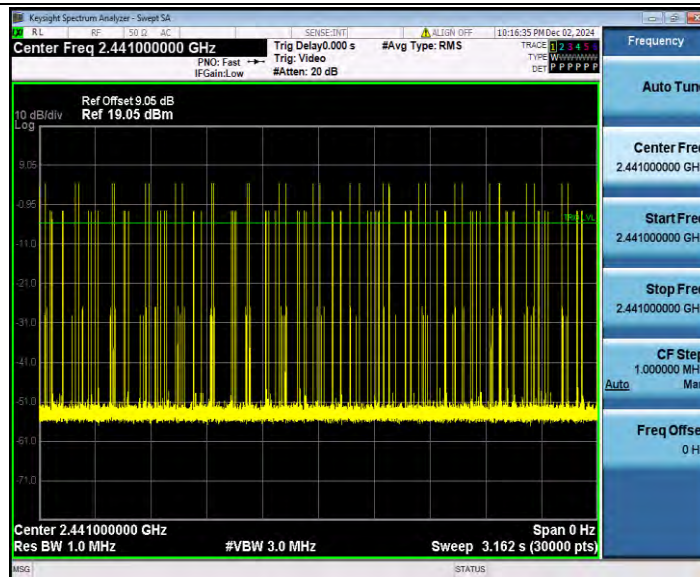
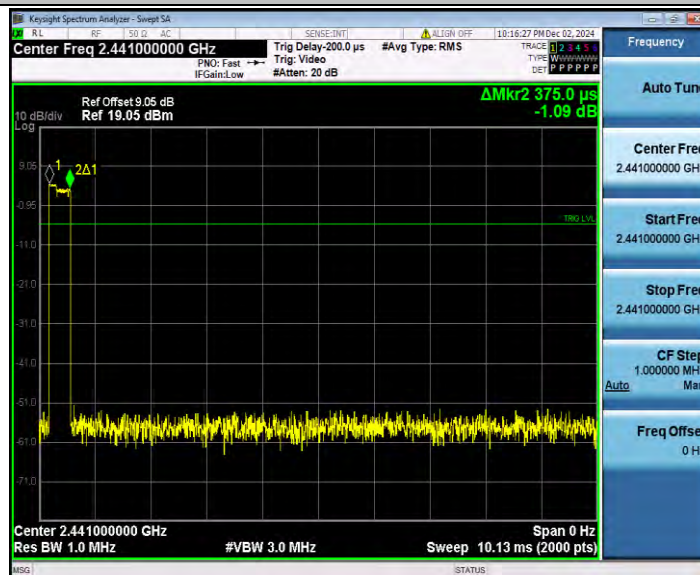
Test Graphs



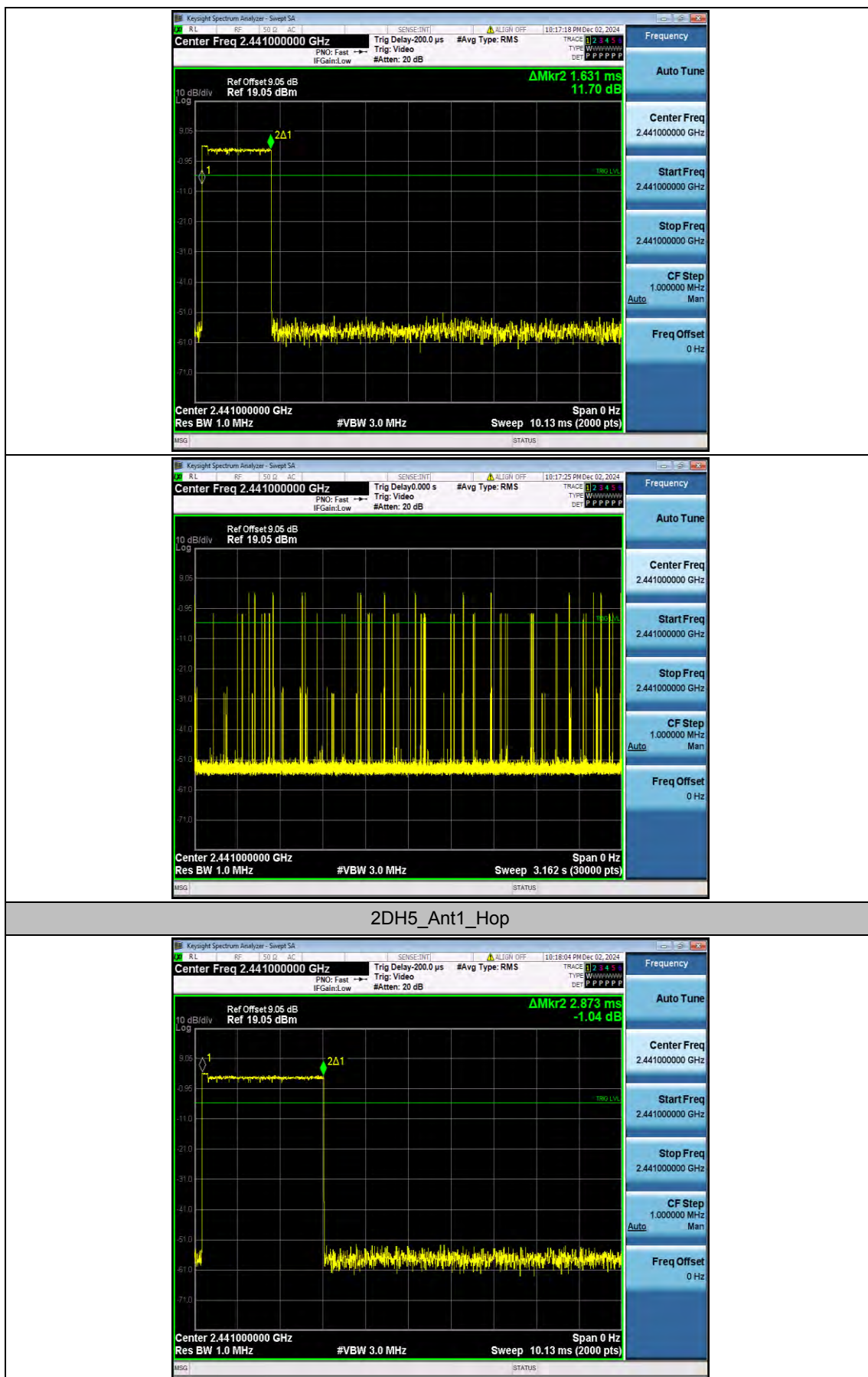


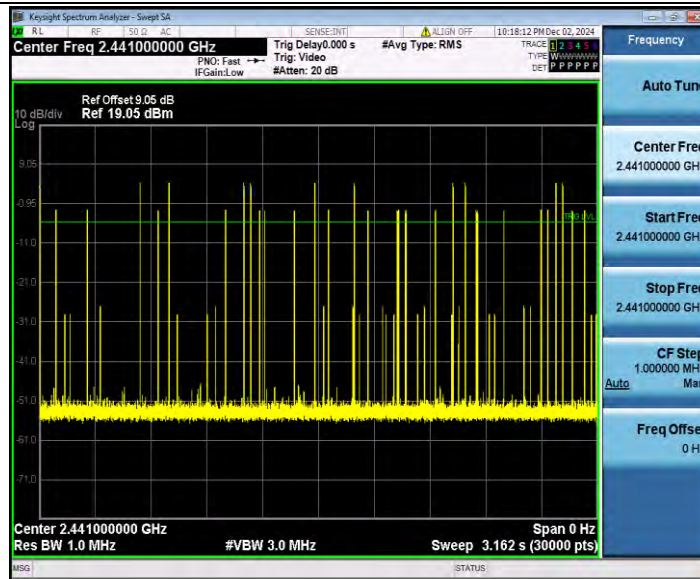


2DH1_Ant1_Hop

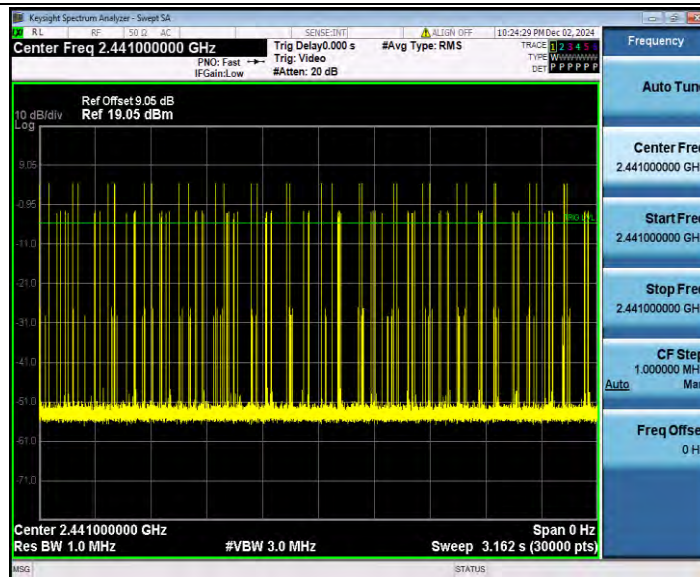
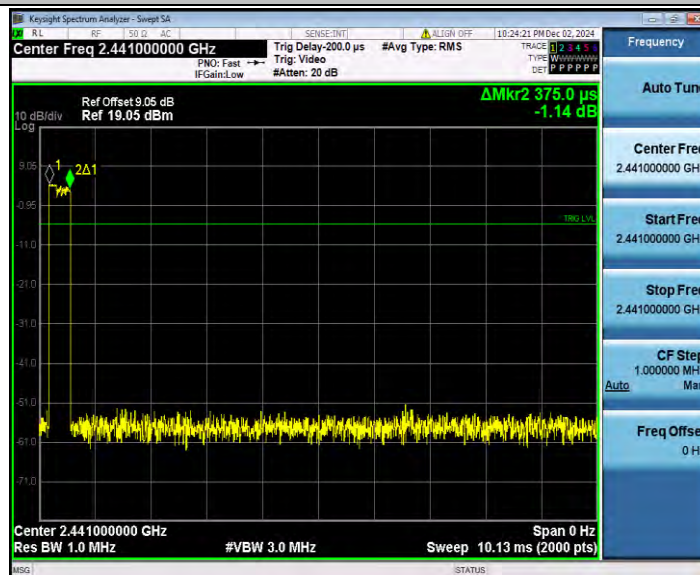


2DH3_Ant1_Hop

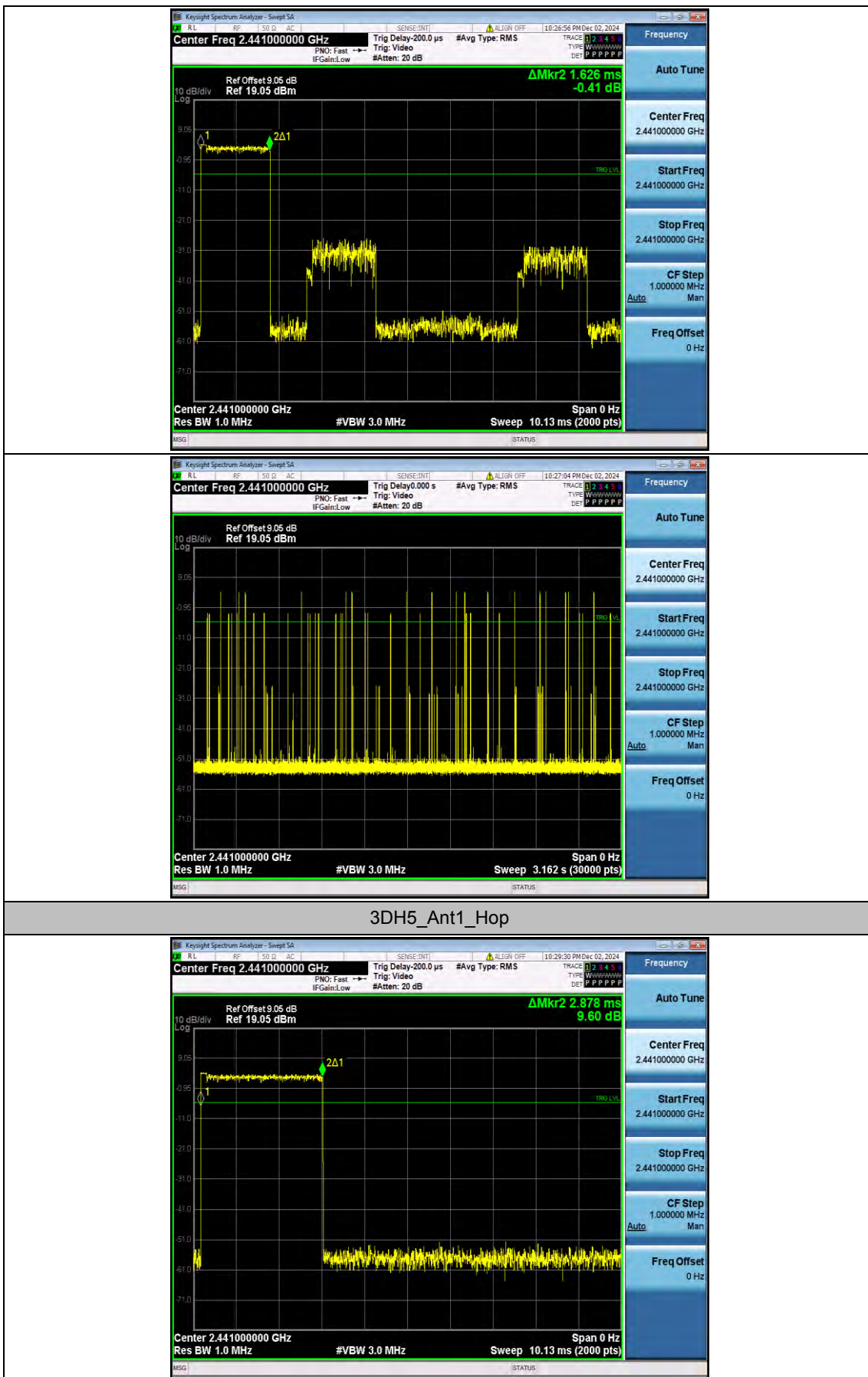


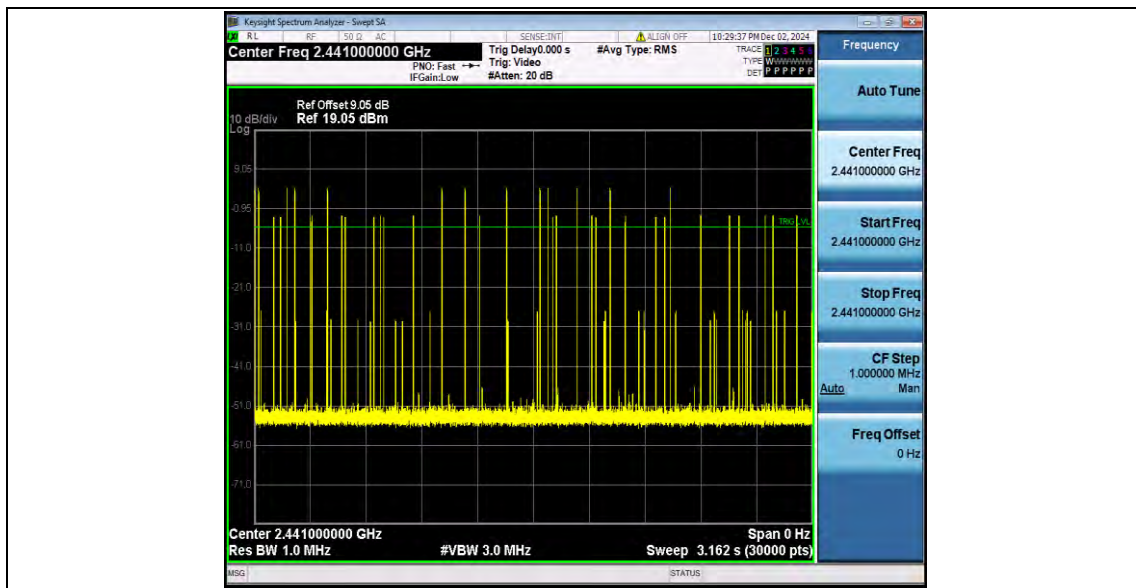


3DH1_Ant1_Hop



3DH3_Ant1_Hop



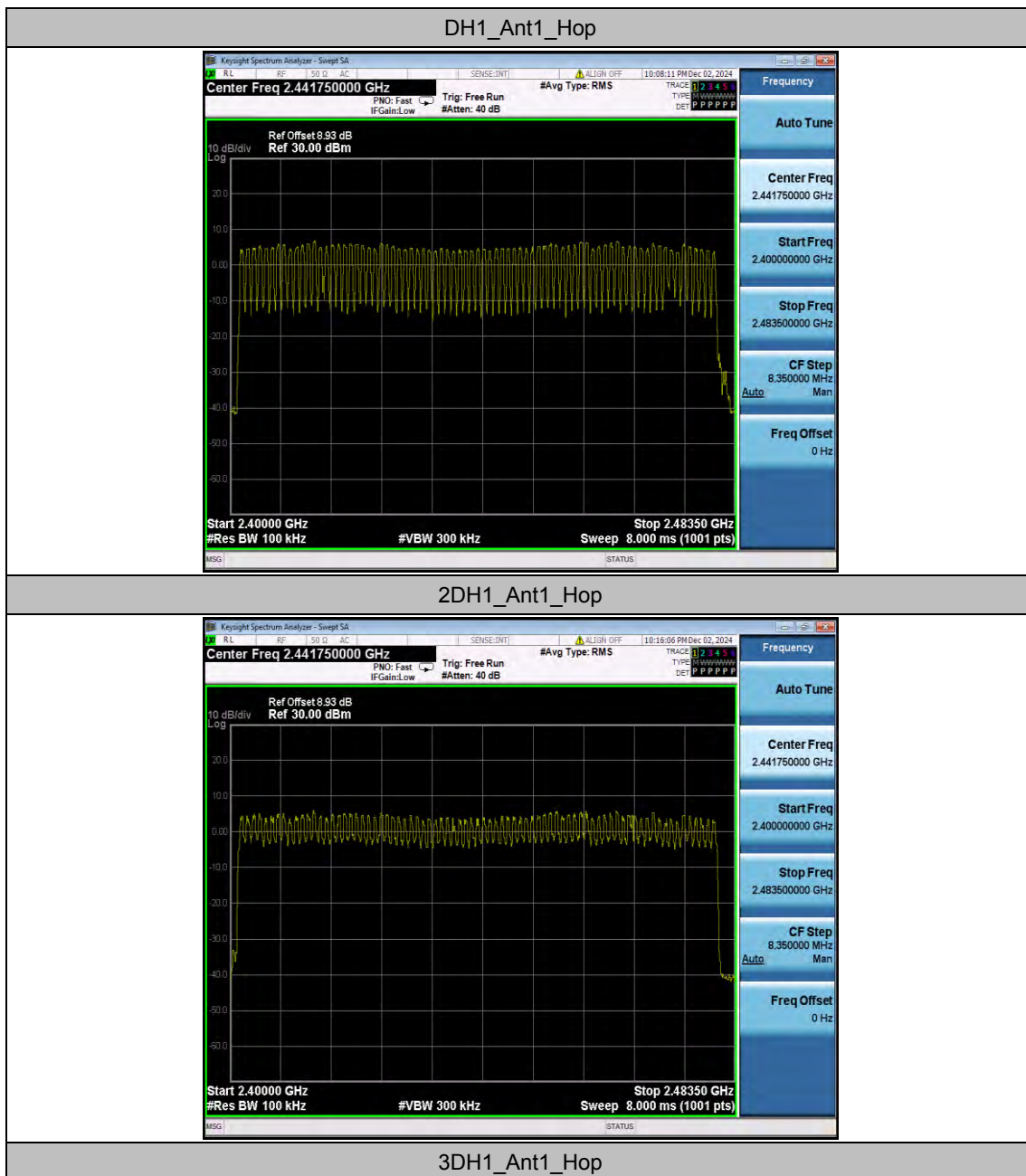


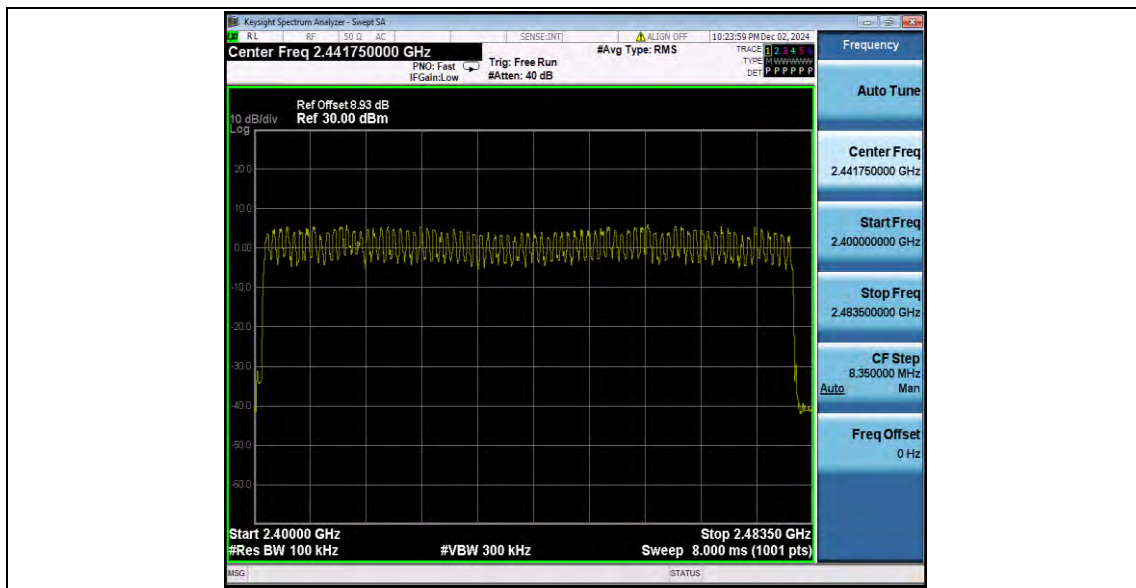
Appendix A.6: Number of hopping channels

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





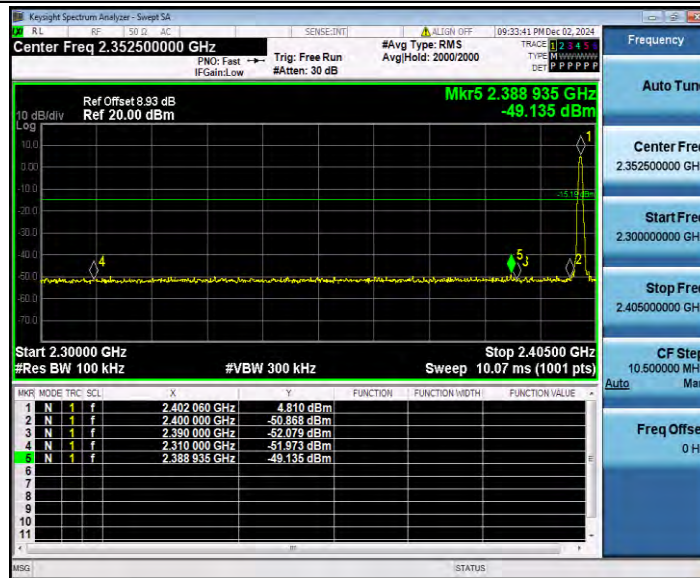
Appendix A.7: Band edge measurements

Test Result

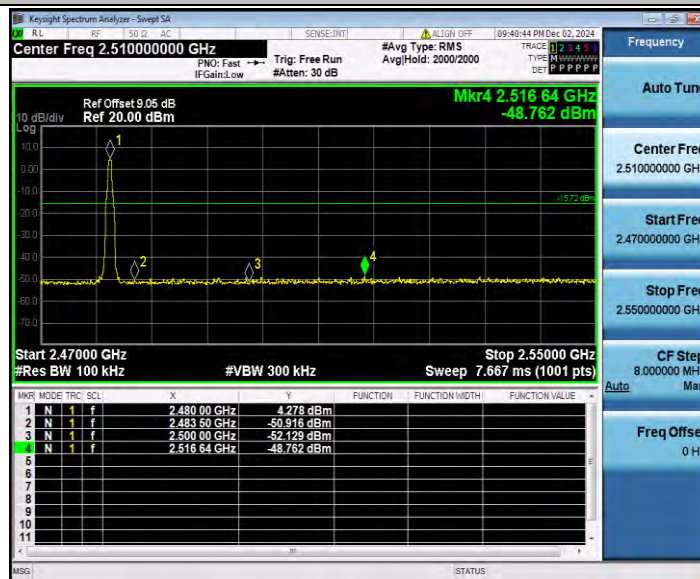
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	4.81	-49.14	≤ -15.19	PASS
		High	2480	4.28	-48.76	≤ -15.72	PASS
		Low	Hop_2402	4.66	-46.31	≤ -15.34	PASS
		High	Hop_2480	5.70	-48.5	≤ -14.3	PASS
2DH1	Ant1	Low	2402	4.39	-48.43	≤ -15.61	PASS
		High	2480	3.45	-48.79	≤ -16.55	PASS
		Low	Hop_2402	4.05	-49.18	≤ -15.95	PASS
		High	Hop_2480	1.65	-48.71	≤ -18.35	PASS
3DH1	Ant1	Low	2402	4.42	-47.8	≤ -15.58	PASS
		High	2480	3.42	-48.69	≤ -16.58	PASS
		Low	Hop_2402	4.19	-49.66	≤ -15.81	PASS
		High	Hop_2480	4.69	-49.13	≤ -15.31	PASS

Test Graphs

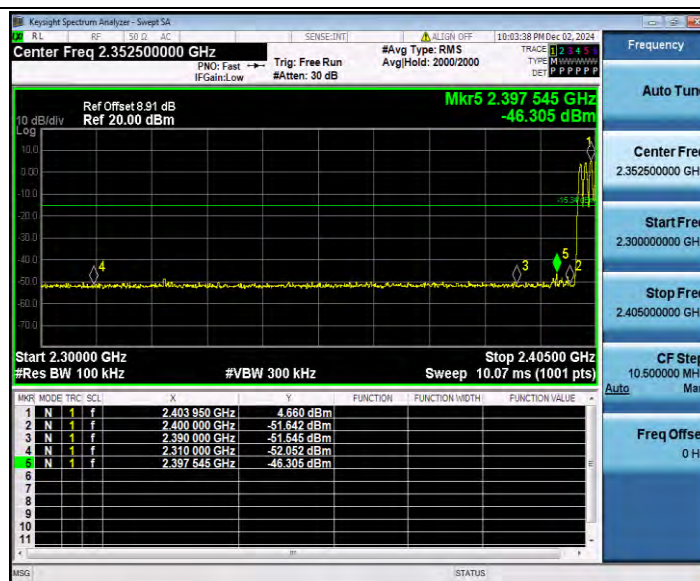
DH1_Ant1_Low_2402



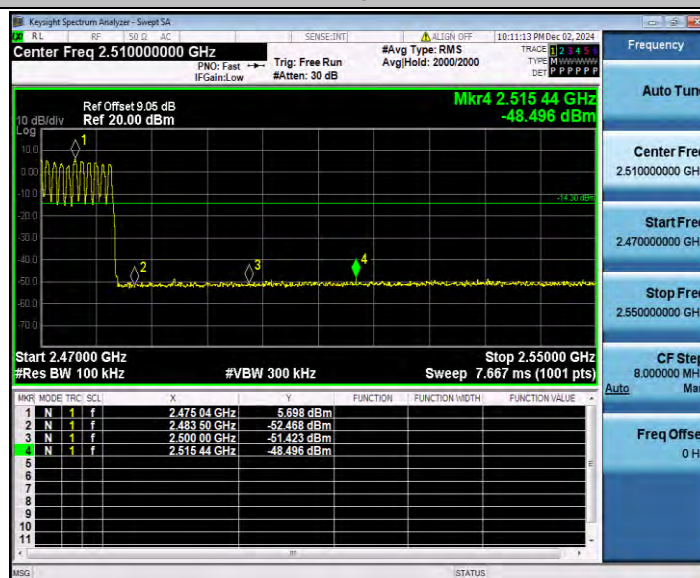
DH1_Ant1_High_2480



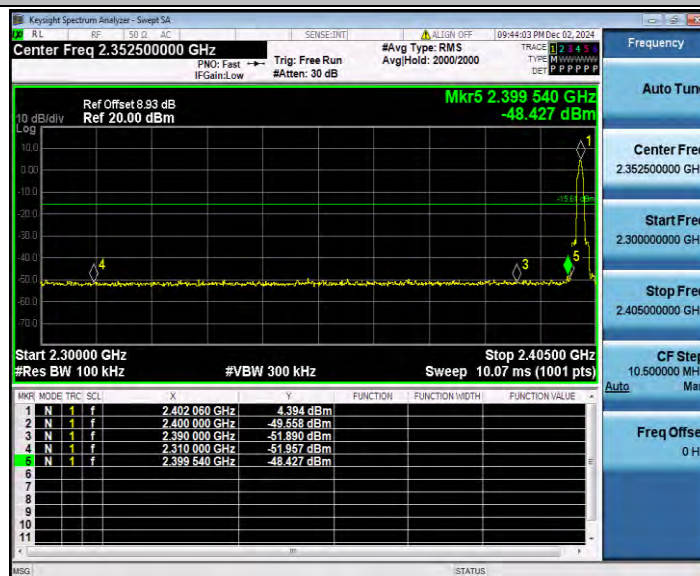
DH1_Ant1_Low_Hop_2402



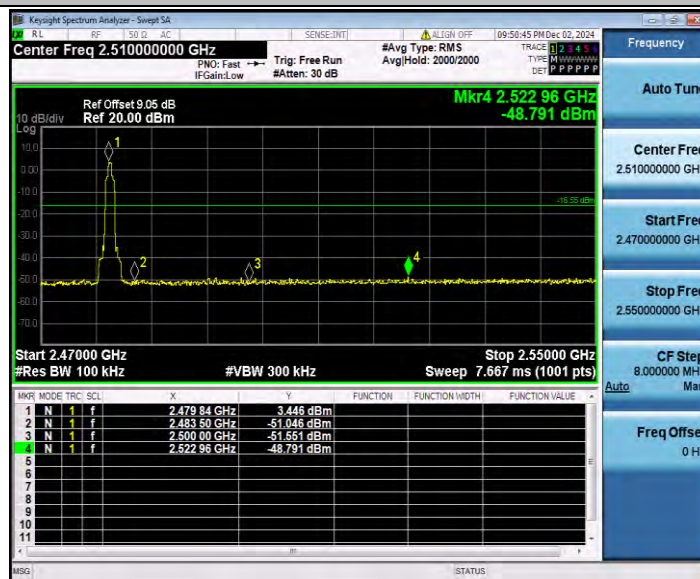
DH1_Ant1_High_Hop_2480



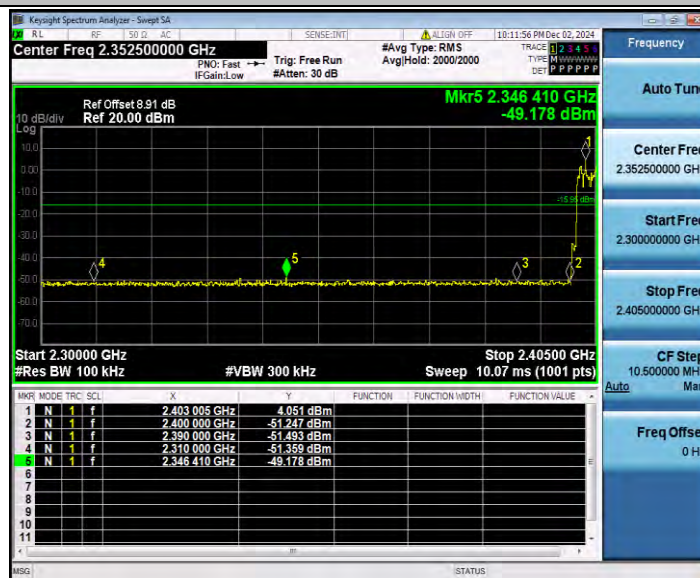
2DH1_Ant1_Low_2402



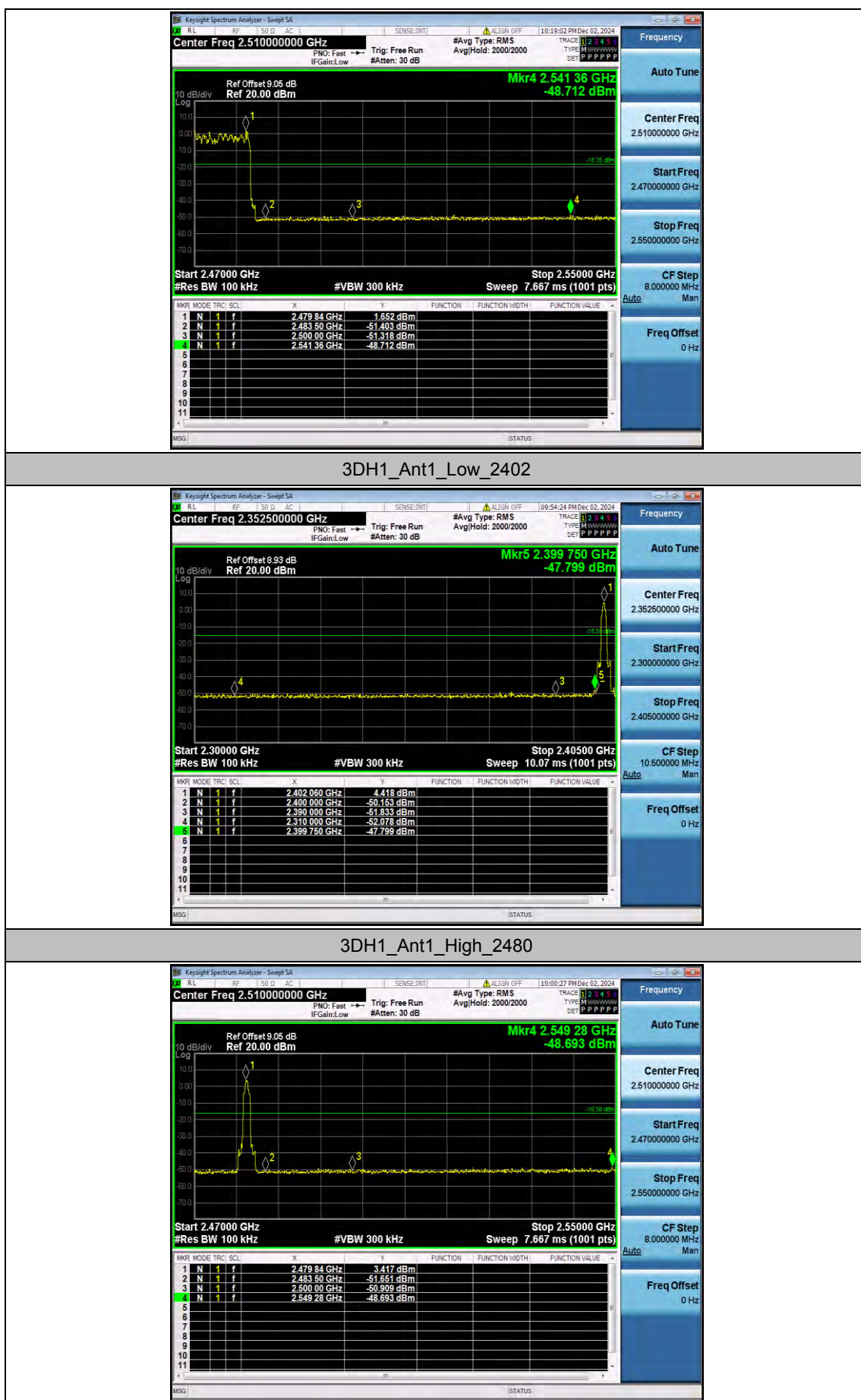
2DH1_Ant1_High_2480



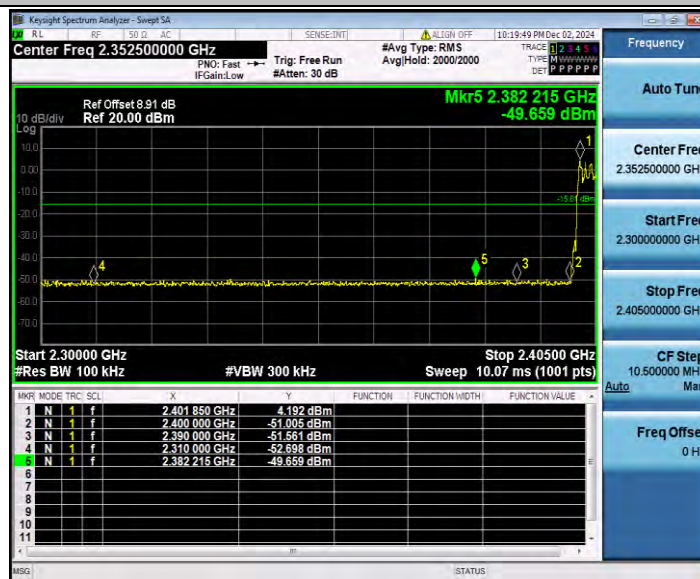
2DH1_Ant1_Low_Hop_2402



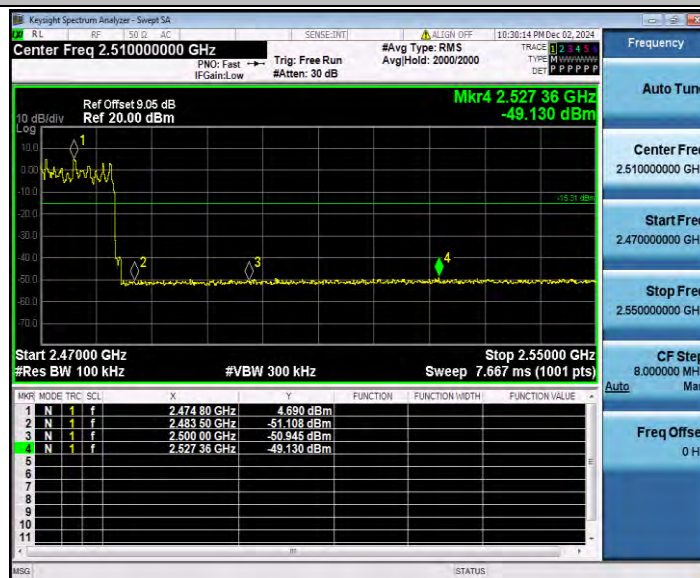
2DH1_Ant1_High_Hop_2480



3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

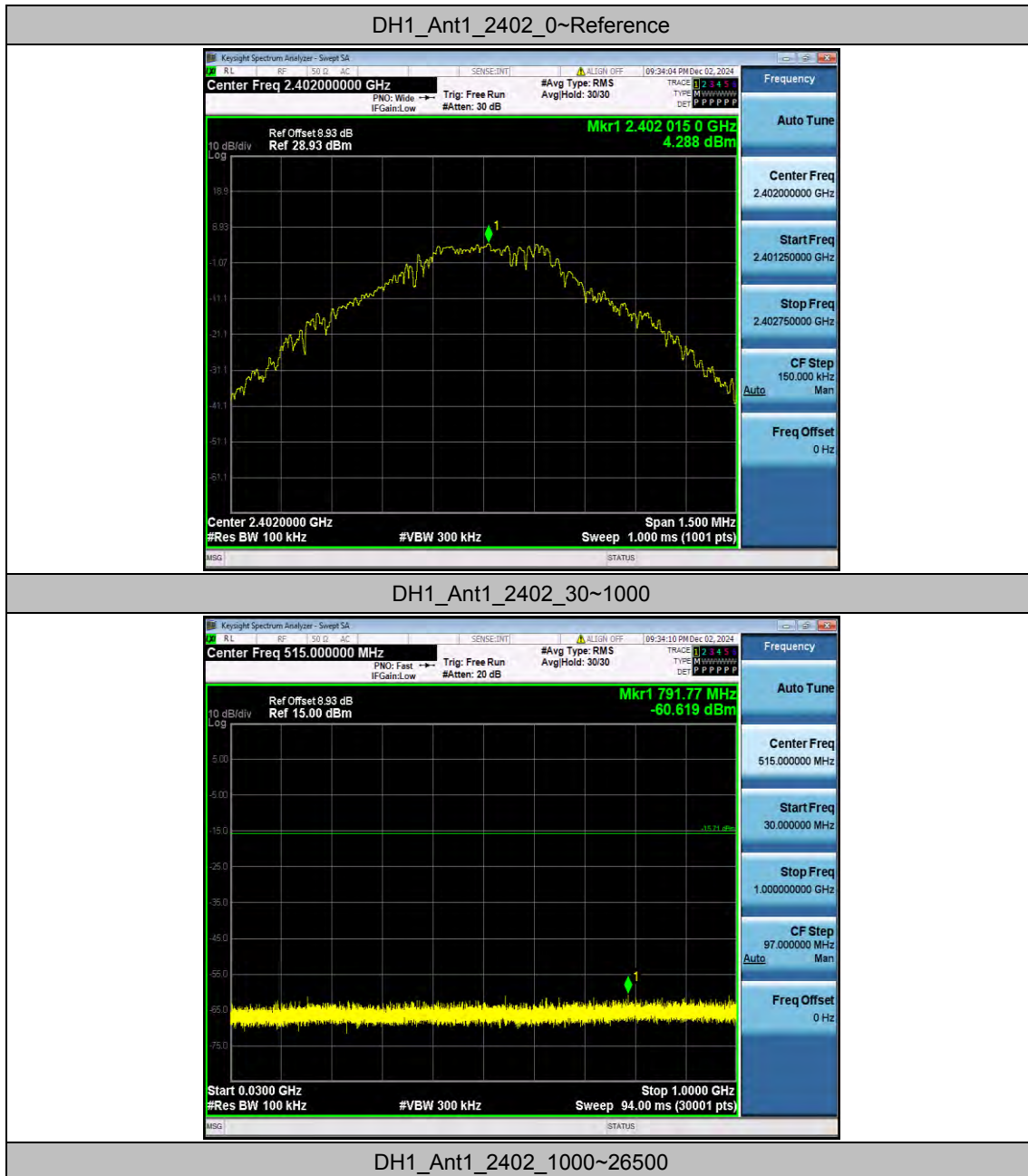


Appendix A.8: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	4.29	4.29	---	PASS
			30~1000	4.29	-60.62	≤ -15.71	PASS
			1000~26500	4.29	-47.99	≤ -15.71	PASS
		2441	Reference	4.34	4.34	---	PASS
			30~1000	4.34	-60.33	≤ -15.66	PASS
			1000~26500	4.34	-47.83	≤ -15.66	PASS
		2480	Reference	3.89	3.89	---	PASS
			30~1000	3.89	-60.8	≤ -16.11	PASS
			1000~26500	3.89	-47.82	≤ -16.11	PASS
2DH1	Ant1	2402	Reference	3.88	3.88	---	PASS
			30~1000	3.88	-60.82	≤ -16.12	PASS
			1000~26500	3.88	-47.95	≤ -16.12	PASS
		2441	Reference	3.92	3.92	---	PASS
			30~1000	3.92	-60.47	≤ -16.08	PASS
			1000~26500	3.92	-47.56	≤ -16.08	PASS
		2480	Reference	3.27	3.27	---	PASS
			30~1000	3.27	-60.69	≤ -16.73	PASS
			1000~26500	3.27	-47.41	≤ -16.73	PASS
3DH1	Ant1	2402	Reference	3.96	3.96	---	PASS
			30~1000	3.96	-60.42	≤ -16.04	PASS
			1000~26500	3.96	-47.73	≤ -16.04	PASS
		2441	Reference	4.03	4.03	---	PASS
			30~1000	4.03	-60	≤ -15.97	PASS
			1000~26500	4.03	-47.37	≤ -15.97	PASS
		2480	Reference	2.58	2.58	---	PASS
			30~1000	2.58	-60.38	≤ -17.42	PASS
			1000~26500	2.58	-48.26	≤ -17.42	PASS

Test Graphs

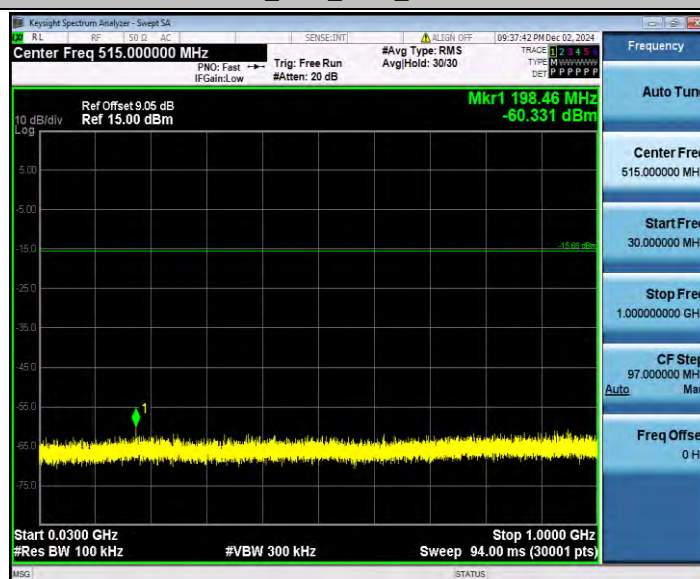




DH1_Ant1_2441_0~Reference



DH1_Ant1_2441_30~1000



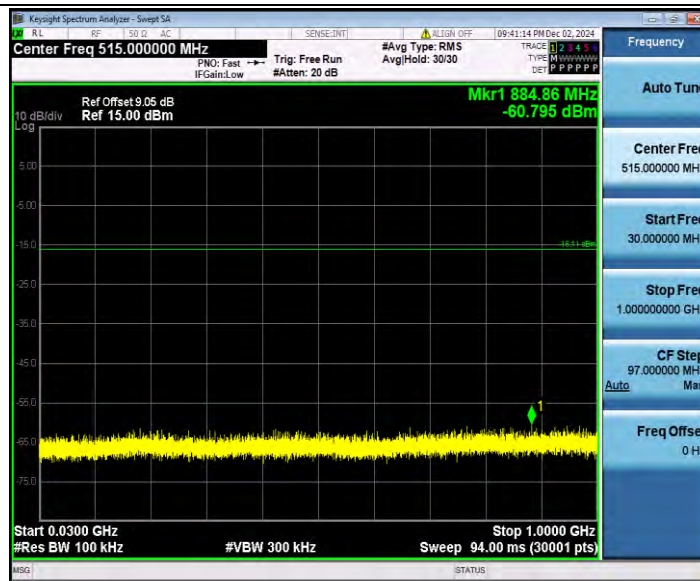
DH1_Ant1_2441_1000~26500



DH1_Ant1_2480_0~Reference



DH1_Ant1_2480_30~1000

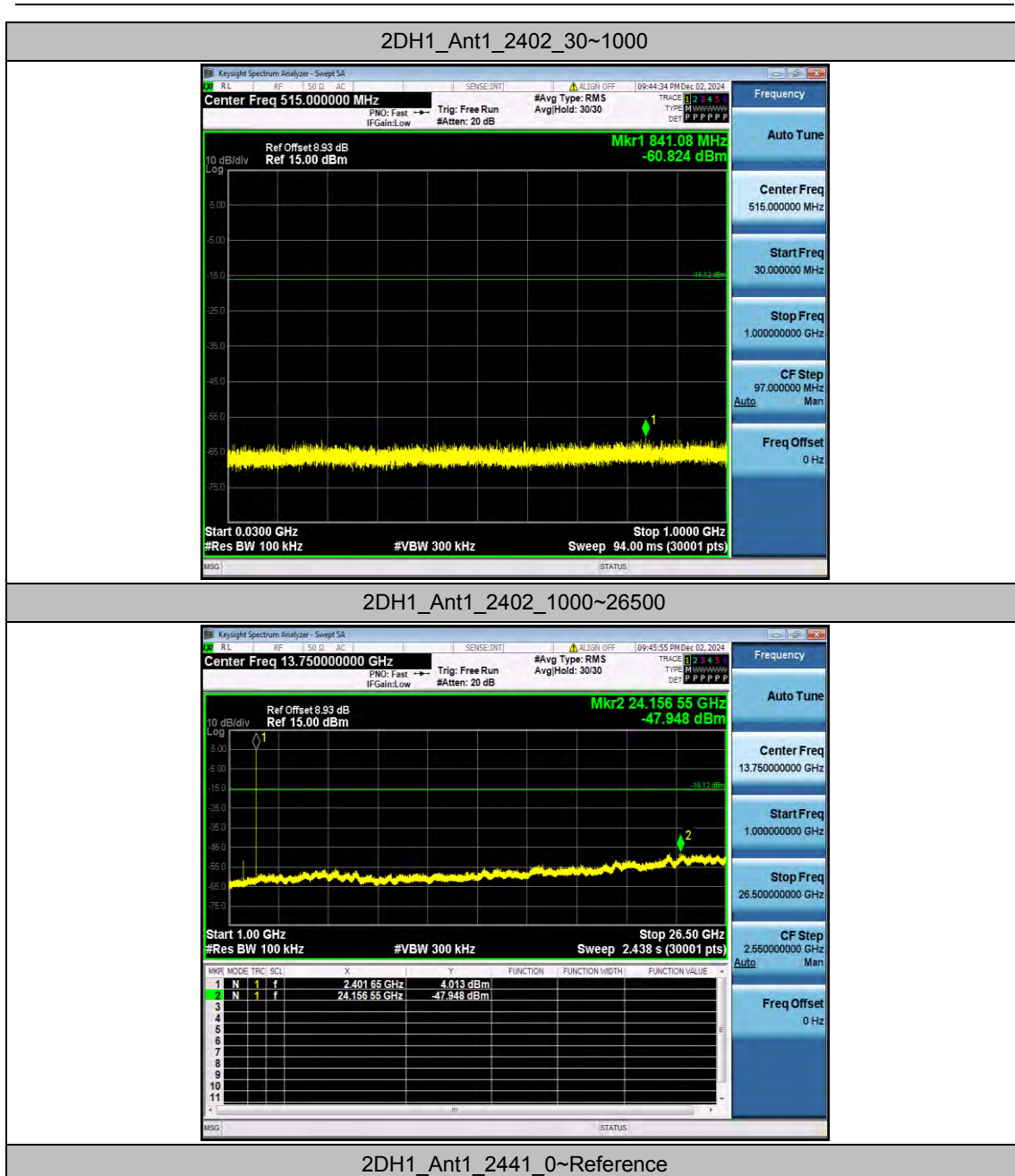


DH1_Ant1_2480_1000~26500



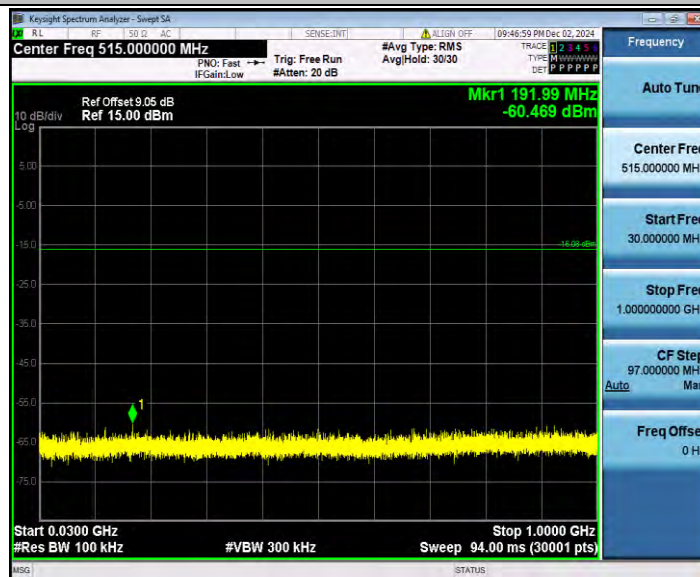
2DH1_Ant1_2402_0~Reference







2DH1_Ant1_2441_30~1000



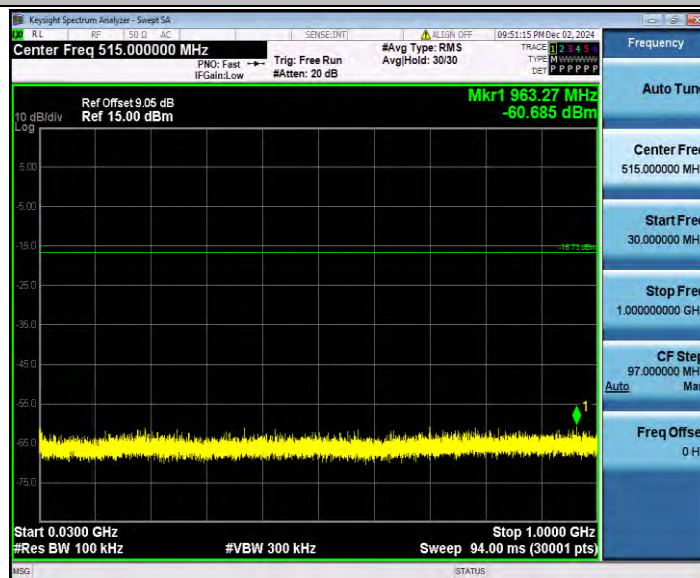
2DH1_Ant1_2441_1000~26500



2DH1_Ant1_2480_0~Reference



2DH1_Ant1_2480_30~1000



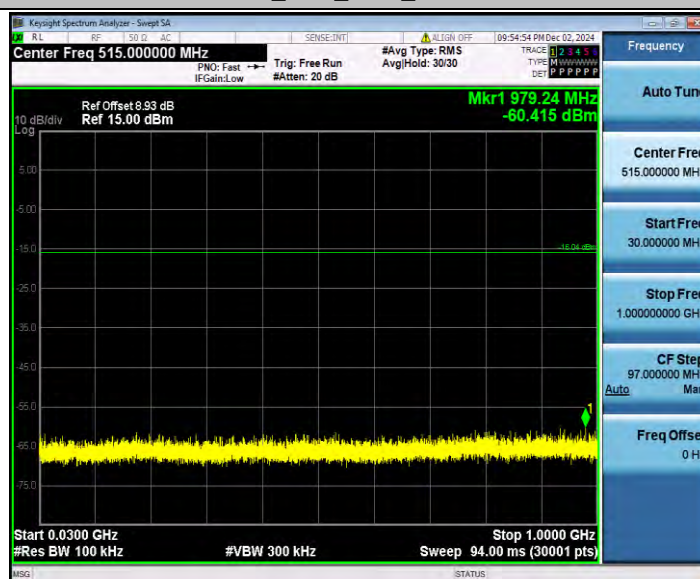
2DH1_Ant1_2480_1000~26500



3DH1_Ant1_2402_0~Reference



3DH1_Ant1_2402_30~1000



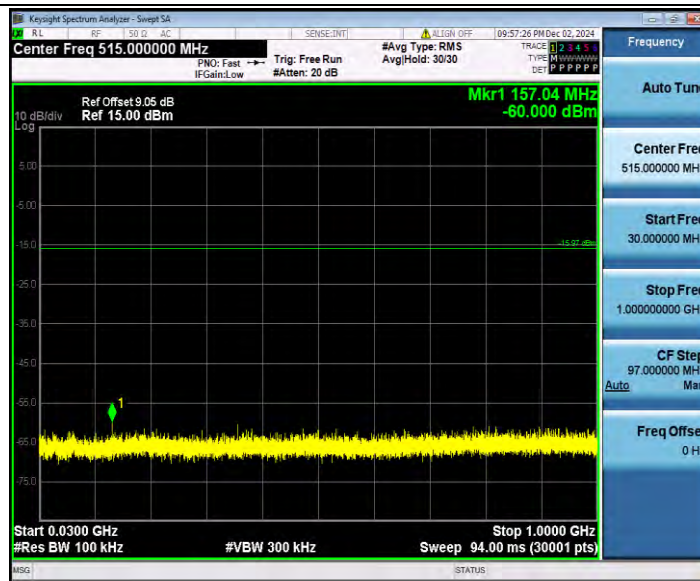
3DH1_Ant1_2402_1000~26500



3DH1_Ant1_2441_0~Reference



3DH1_Ant1_2441_30~1000

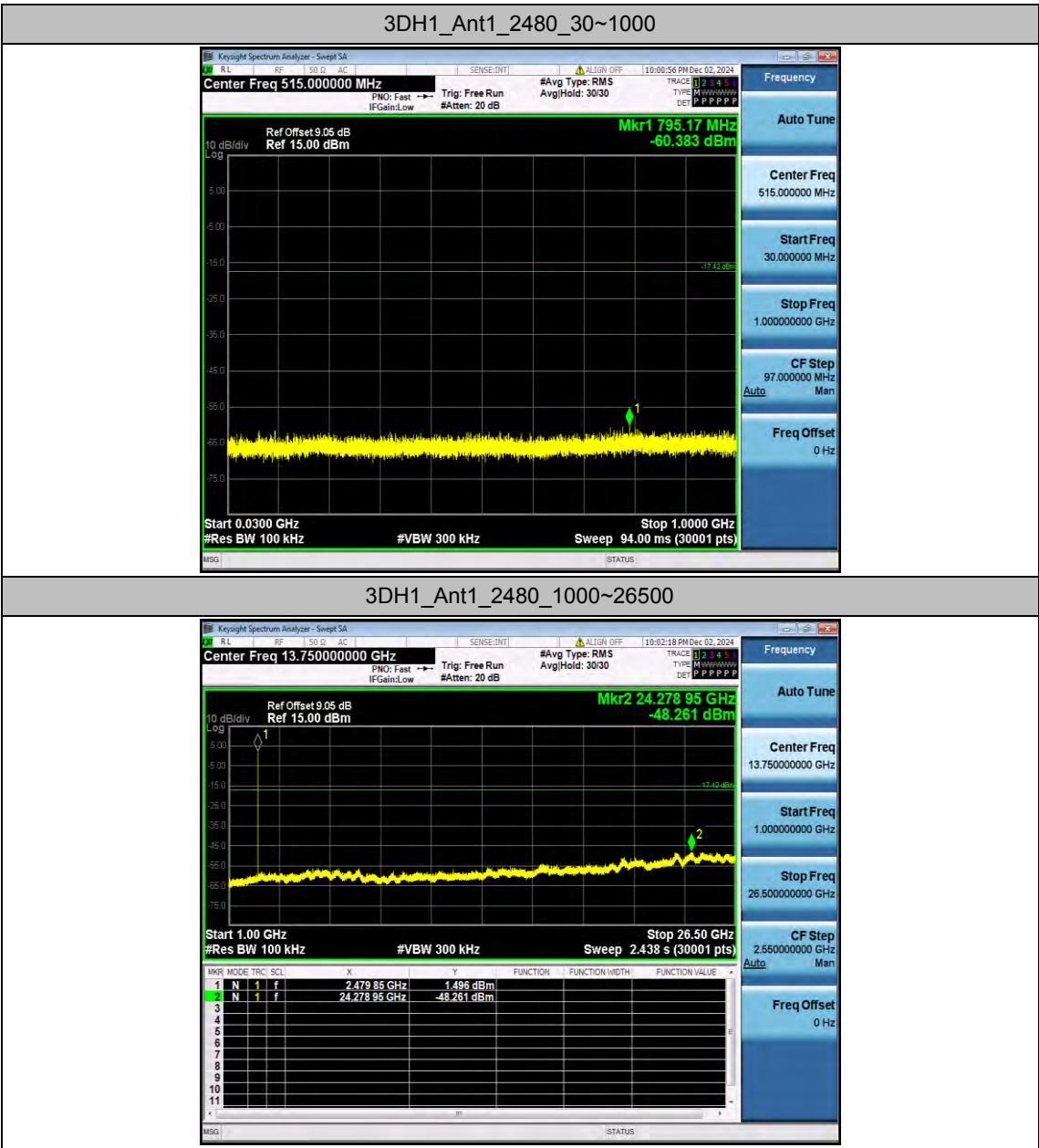


3DH1_Ant1_2441_1000~26500



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	-49.46	≤-41.20	45.74	≤54	PASS
				AV	2383.265	-48.94	≤-41.20	46.26	≤54	PASS
				AV	2390.000	-49.1	≤-41.20	46.10	≤54	PASS
				Peak	2310.000	-41.05	≤-21.20	54.15	≤74	PASS
				Peak	2317.325	-38.84	≤-21.20	56.36	≤74	PASS
				Peak	2390.000	-42.19	≤-21.20	53.01	≤74	PASS
		High	2480	AV	2483.500	-48.77	≤-41.20	46.43	≤54	PASS
				AV	2499.840	-48.76	≤-41.20	46.44	≤54	PASS
				AV	2500.000	-48.76	≤-41.20	46.44	≤54	PASS
				Peak	2483.500	-41.77	≤-21.20	53.43	≤74	PASS
				Peak	2499.920	-39.61	≤-21.20	55.59	≤74	PASS
				Peak	2500.000	-39.62	≤-21.20	55.58	≤74	PASS
2DH1	Ant1	Low	2402	AV	2310.000	-49.45	≤-41.20	45.75	≤54	PASS
				AV	2384.630	-49.02	≤-41.20	46.18	≤54	PASS
				AV	2390.000	-49.24	≤-41.20	45.96	≤54	PASS
				Peak	2310.000	-41.48	≤-21.20	53.72	≤74	PASS
				Peak	2378.540	-38.98	≤-21.20	56.22	≤74	PASS
				Peak	2390.000	-41.83	≤-21.20	53.37	≤74	PASS
		High	2480	AV	2483.500	-48.67	≤-41.20	46.53	≤54	PASS
				AV	2483.520	-48.67	≤-41.20	46.53	≤54	PASS
				AV	2500.000	-48.89	≤-41.20	46.31	≤54	PASS
				Peak	2483.500	-41.89	≤-21.20	53.31	≤74	PASS
				Peak	2488.320	-39.46	≤-21.20	55.74	≤74	PASS
				Peak	2500.000	-40.64	≤-21.20	54.56	≤74	PASS
3DH1	Ant1	Low	2402	AV	2310.000	-49.57	≤-41.20	45.63	≤54	PASS
				AV	2387.885	-49.05	≤-41.20	46.15	≤54	PASS
				AV	2390.000	-49.17	≤-41.20	46.03	≤54	PASS
				Peak	2310.000	-41.74	≤-21.20	53.46	≤74	PASS
				Peak	2353.025	-39.3	≤-21.20	55.90	≤74	PASS
				Peak	2390.000	-42.26	≤-21.20	52.94	≤74	PASS
		High	2480	AV	2483.500	-48.69	≤-41.20	46.51	≤54	PASS
				AV	2483.520	-48.69	≤-41.20	46.51	≤54	PASS
				AV	2500.000	-48.94	≤-41.20	46.26	≤54	PASS
				Peak	2483.500	-41.23	≤-21.20	53.97	≤74	PASS
				Peak	2484.160	-38.52	≤-21.20	56.68	≤74	PASS

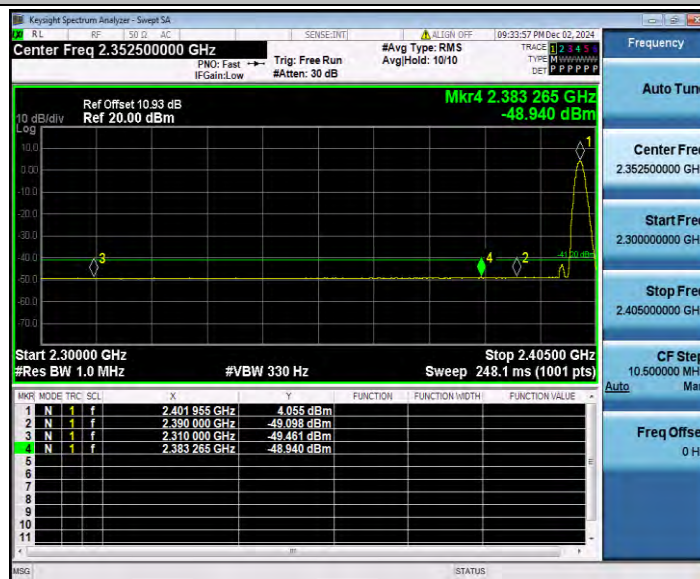
				Peak	2500.000	-42.52	≤ -21.20	52.68	≤ 74	PASS
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Note:

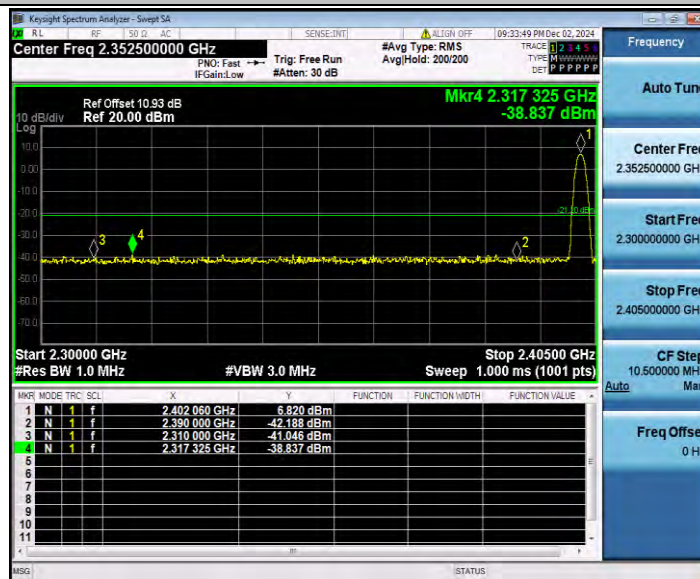
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

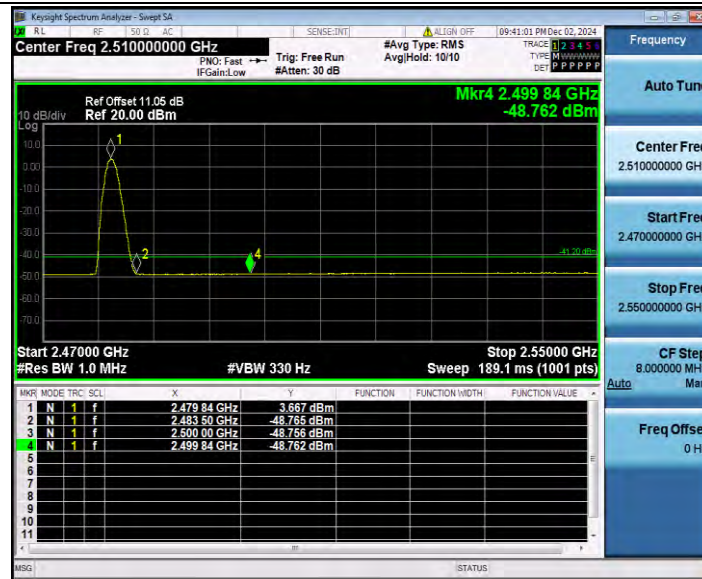
DH1_Ant1_Low_2402_AV



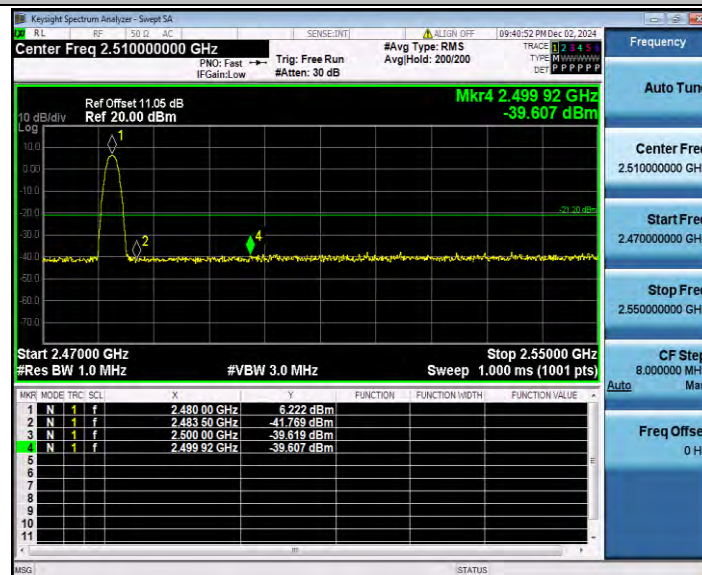
DH1_Ant1_Low_2402_Peak



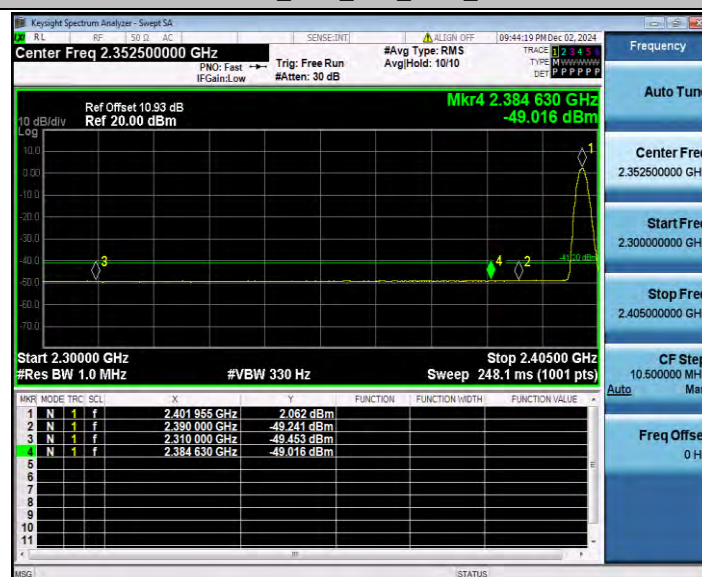
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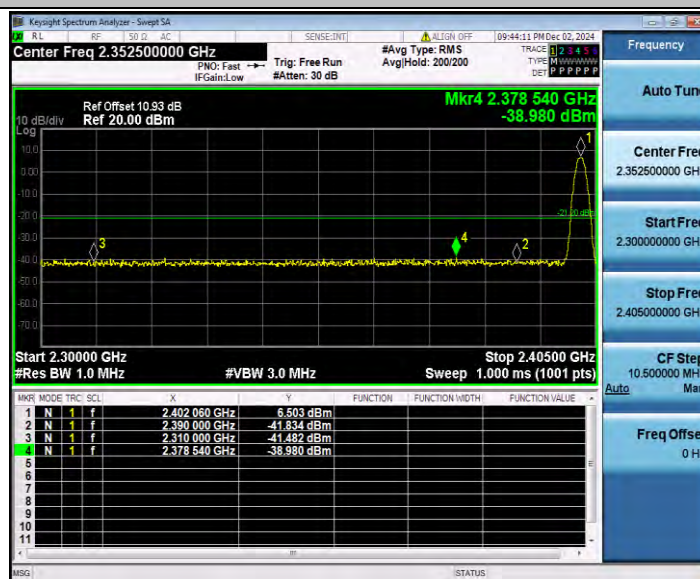
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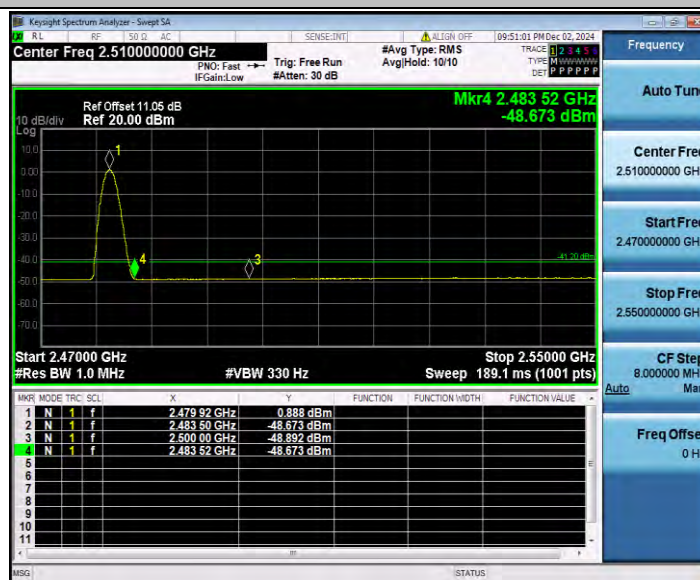
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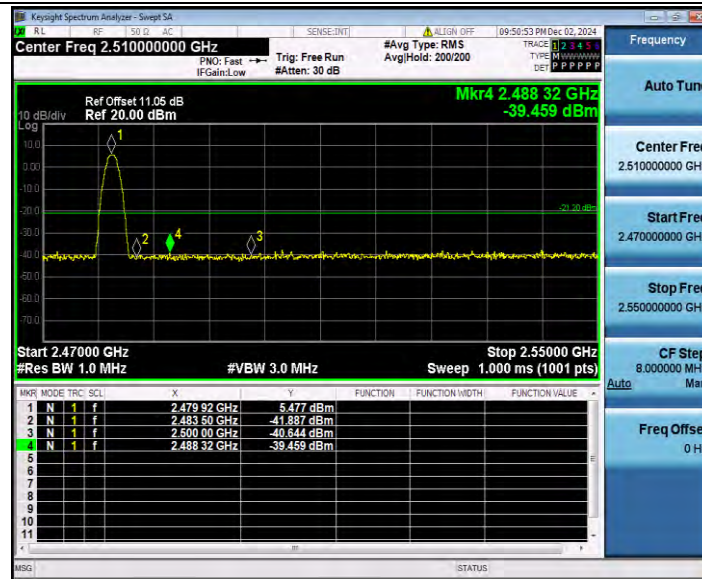
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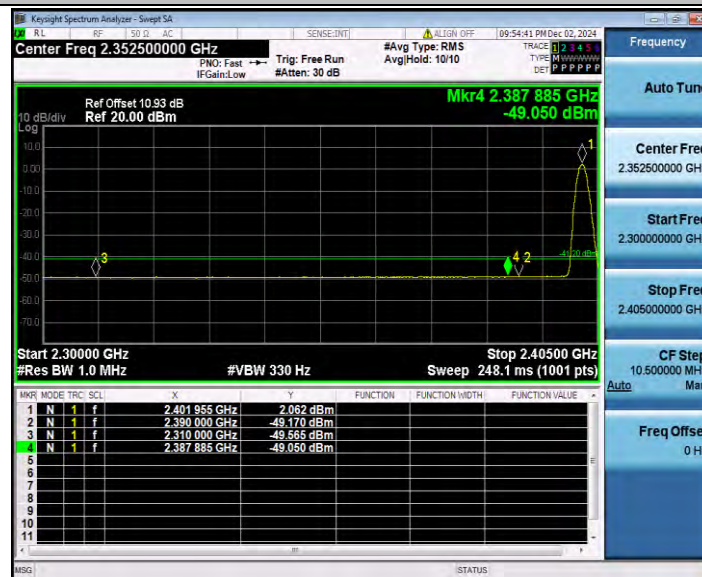
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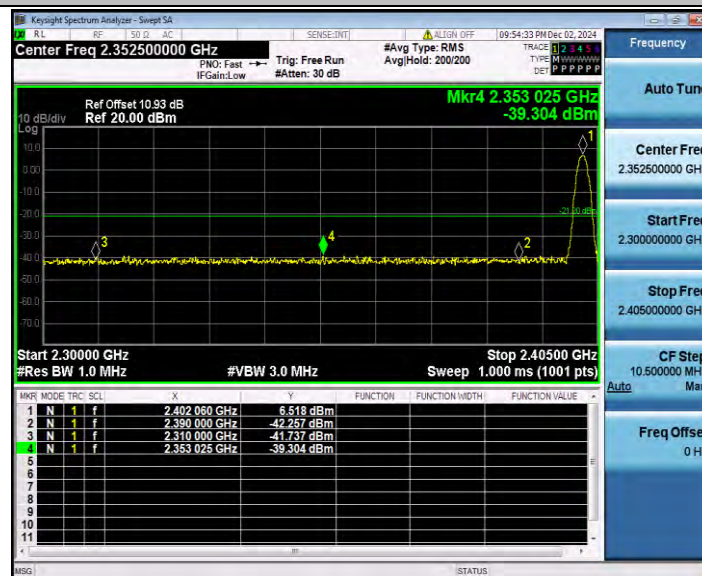
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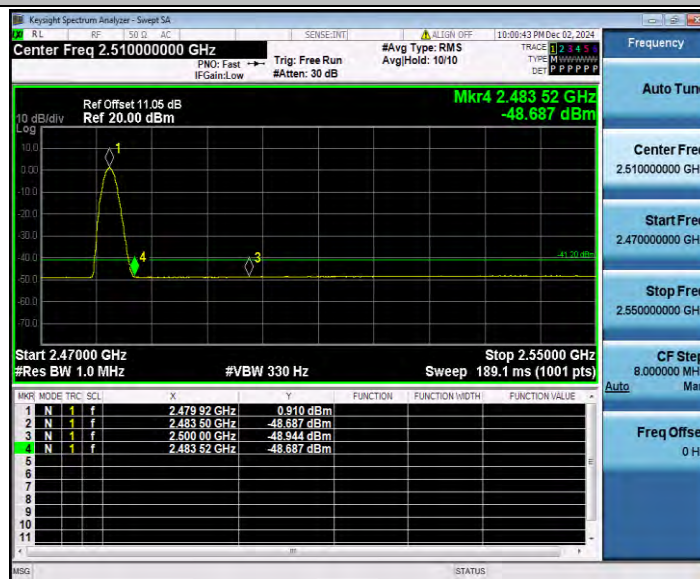
3DH1_Ant1_Low_2402_AV



3DH1_Ant1_Low_2402_Peak



3DH1_Ant1_High_2480_AV



3DH1_Ant1_High_2480_Peak

