

Case No. : <u>GTS20240118008-1-20</u>
Ambient Condition: <u>23 °C, 49 %RH</u>
According Standard: <u>■Part15C</u>
Test Date: <u>2024.3.13</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	0.981	2401.511	2402.492	---	---
		2441	0.990	2440.505	2441.495	---	---
		2480	1.002	2479.499	2480.501	---	---
2DH1	Ant1	2402	1.260	2401.385	2402.645	---	---
		2441	1.290	2440.346	2441.636	---	---
		2480	1.275	2479.358	2480.633	---	---

Test Graphs

DH1_Ant1_2402



DH1_Ant1_2441



DH1_Ant1_2480



2DH1_Ant1_2402



2DH1_Ant1_2441



2DH1_Ant1_2480

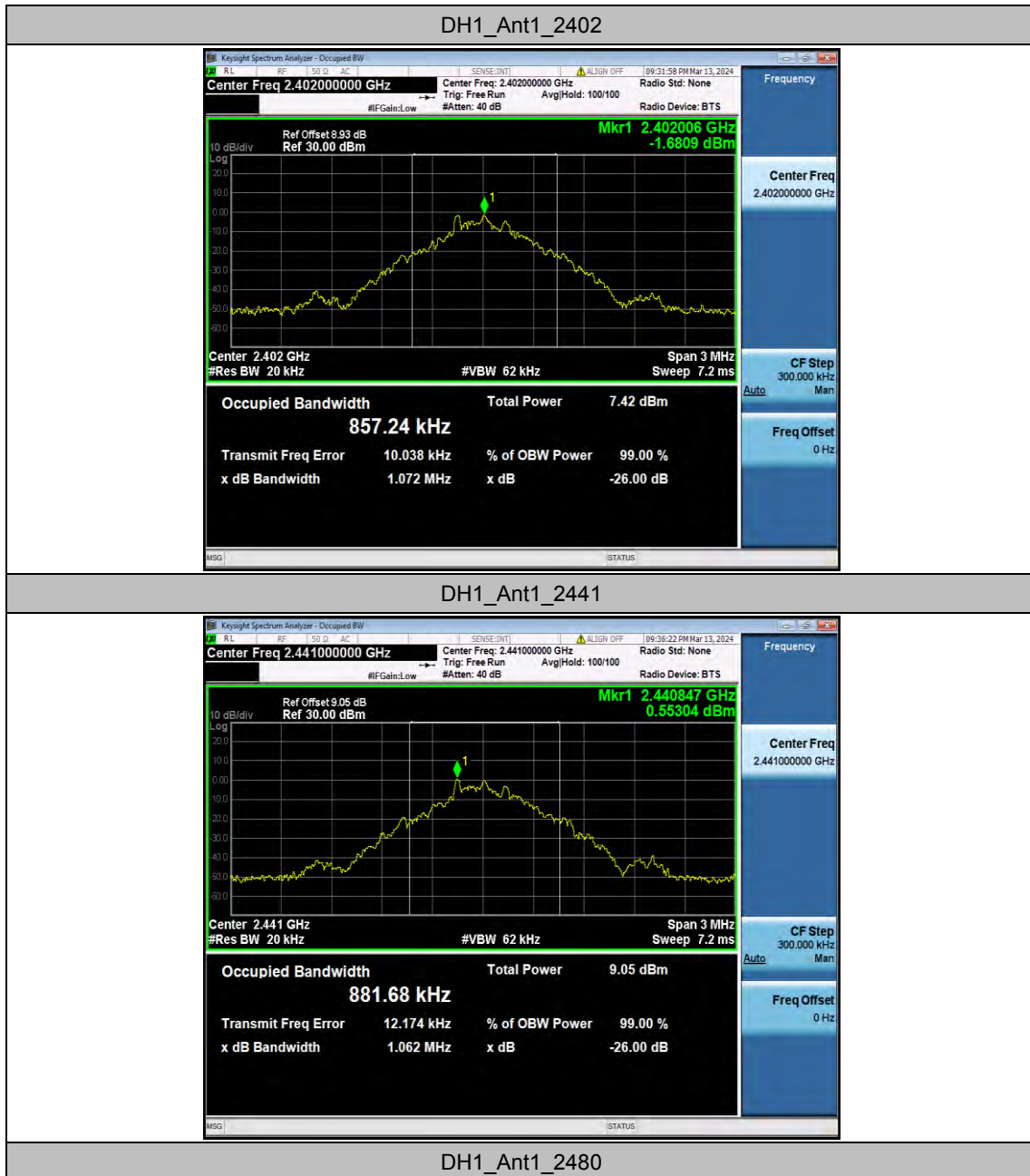


Appendix A.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	0.85724	2401.5814	2402.4387	---	---
		2441	0.88168	2440.5713	2441.4530	---	---
		2480	0.92365	2479.5357	2480.4593	---	---
2DH1	Ant1	2402	1.1645	2401.4261	2402.5906	---	---
		2441	1.1720	2440.4218	2441.5938	---	---
		2480	1.1782	2479.4127	2480.5909	---	---

Test Graphs



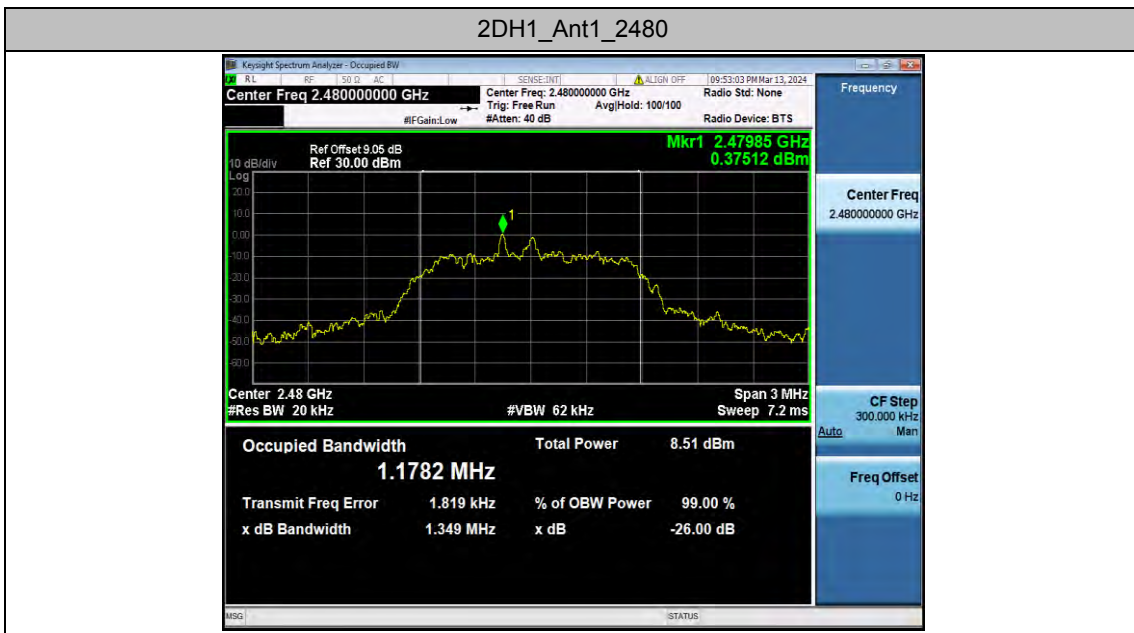


2DH1_Ant1_2402



2DH1_Ant1_2441





Appendix A.3: Maximum conducted output power

Test Result

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH1	Ant1	2402	1.52	≤20.97	PASS
		2441	2.97	≤20.97	PASS
		2480	2.66	≤20.97	PASS
2DH1	Ant1	2402	2.27	≤20.97	PASS
		2441	3.72	≤20.97	PASS
		2480	3.34	≤20.97	PASS

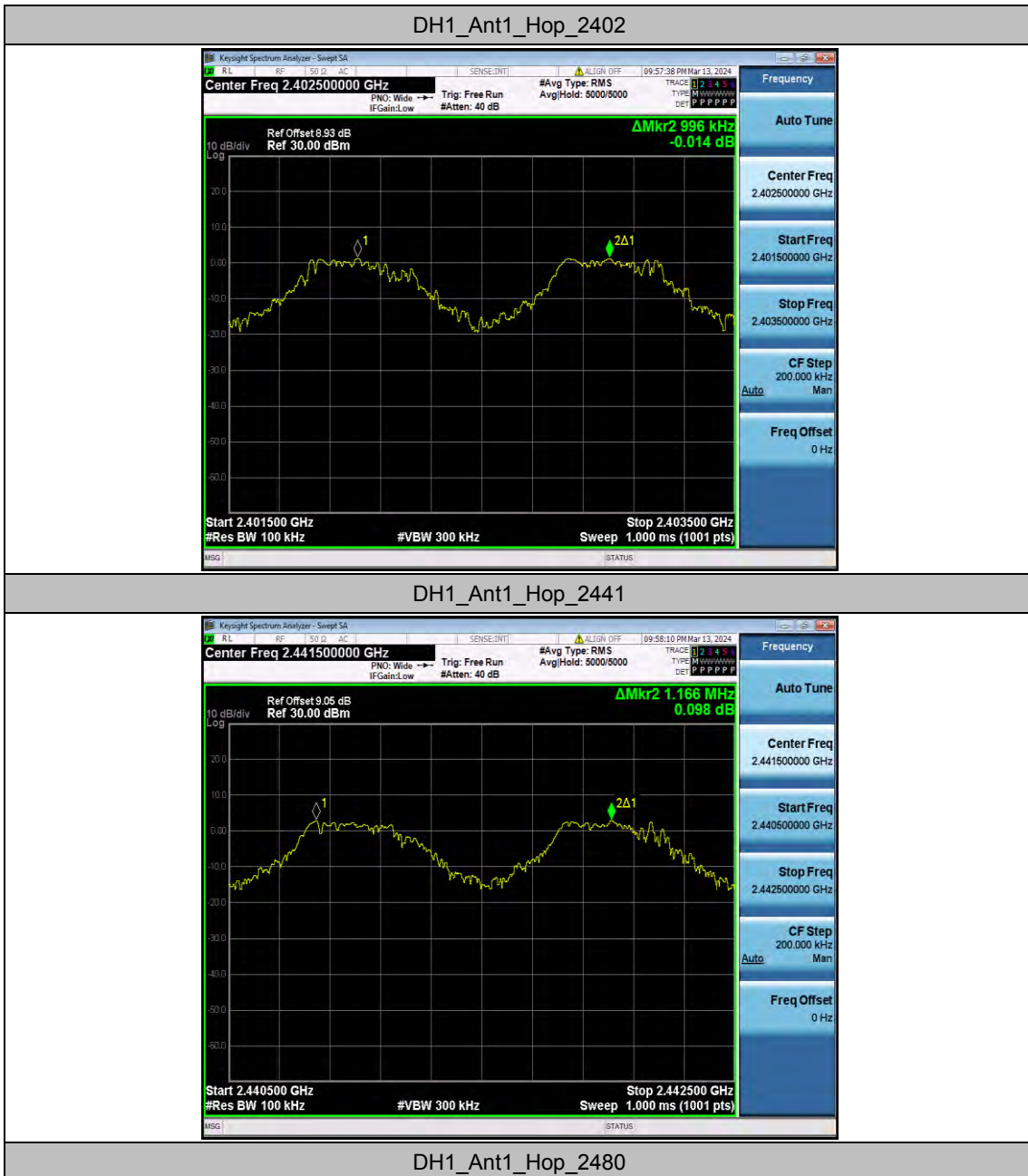
Note:

1.The Duty Cycle Factor and RBW Factor is compensated in the data.

Appendix A.4: Carrier frequency separation**Test Result**

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop_2402	0.996	≥0.668	PASS
		Hop_2441	1.166	≥0.668	PASS
		Hop_2480	0.998	≥0.668	PASS
2DH1	Ant1	Hop_2402	0.99	≥0.860	PASS
		Hop_2441	1.15	≥0.860	PASS
		Hop_2480	1.164	≥0.860	PASS

Test Graphs





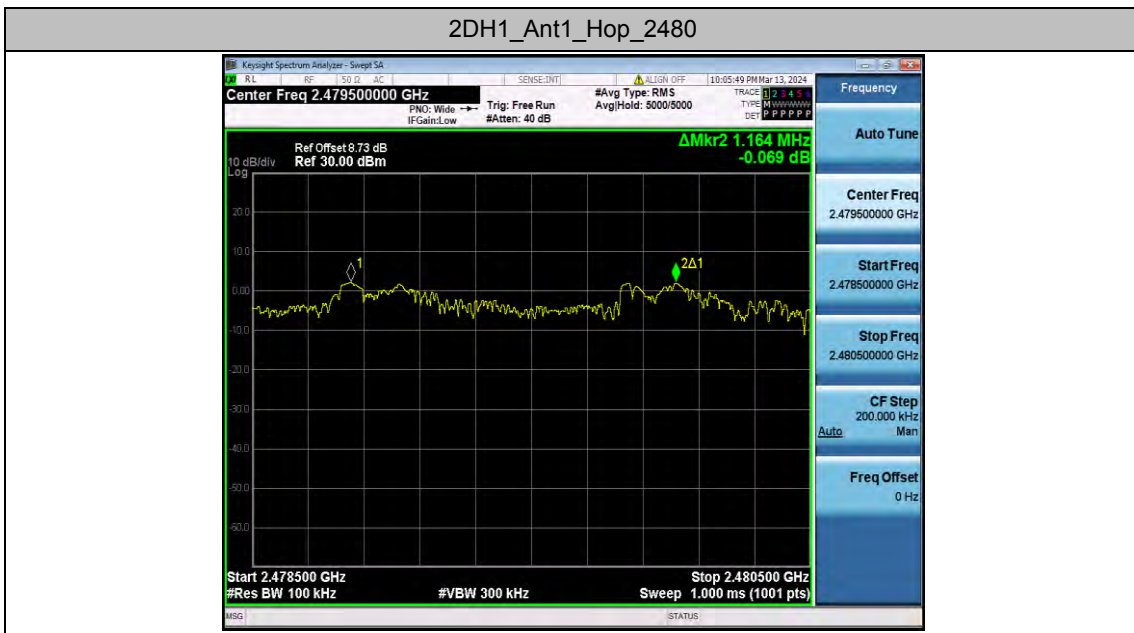
2DH1_Ant1_Hop_2402



2DH1_Ant1_Hop_2441



2DH1_Ant1_Hop_2480

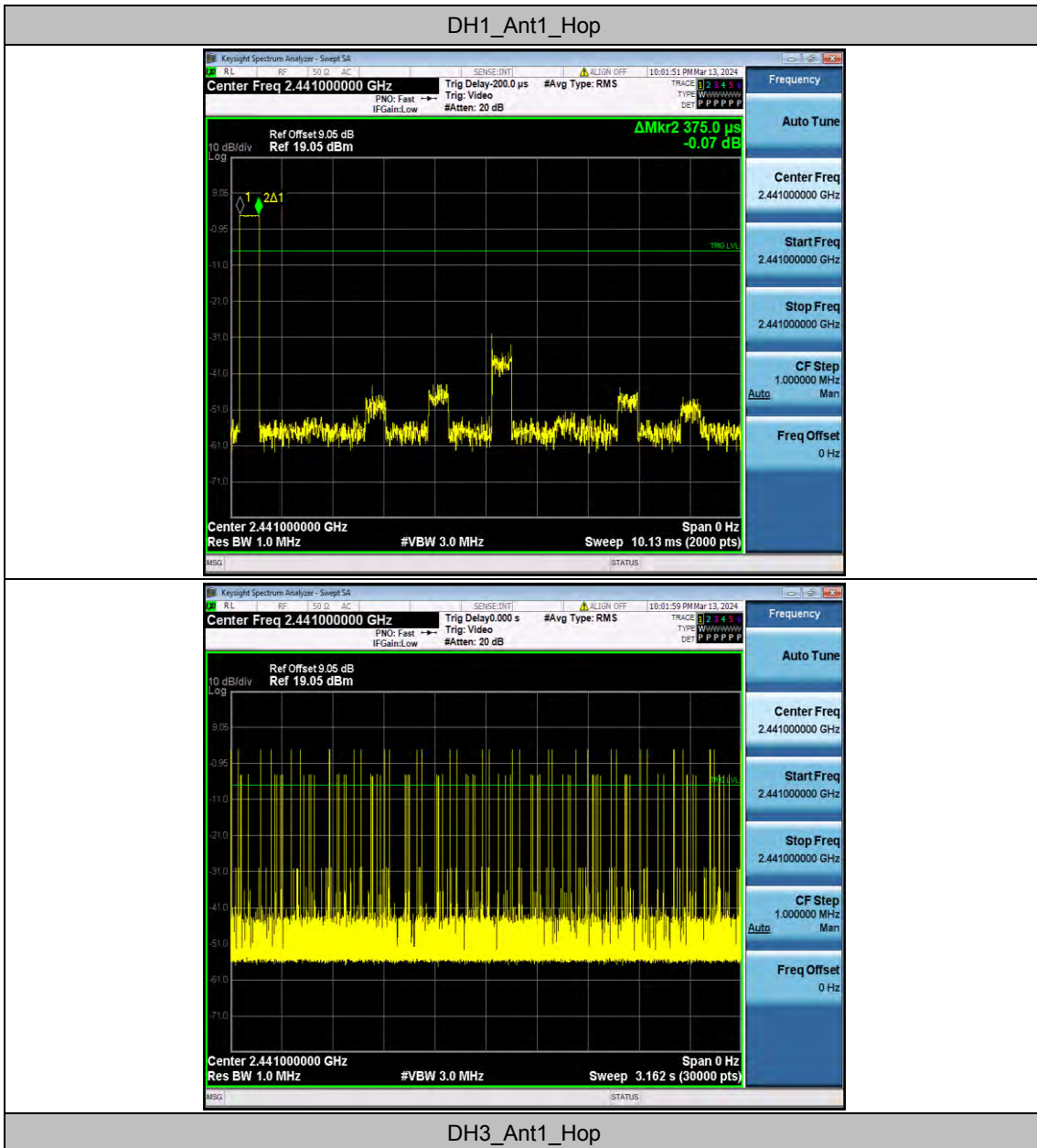


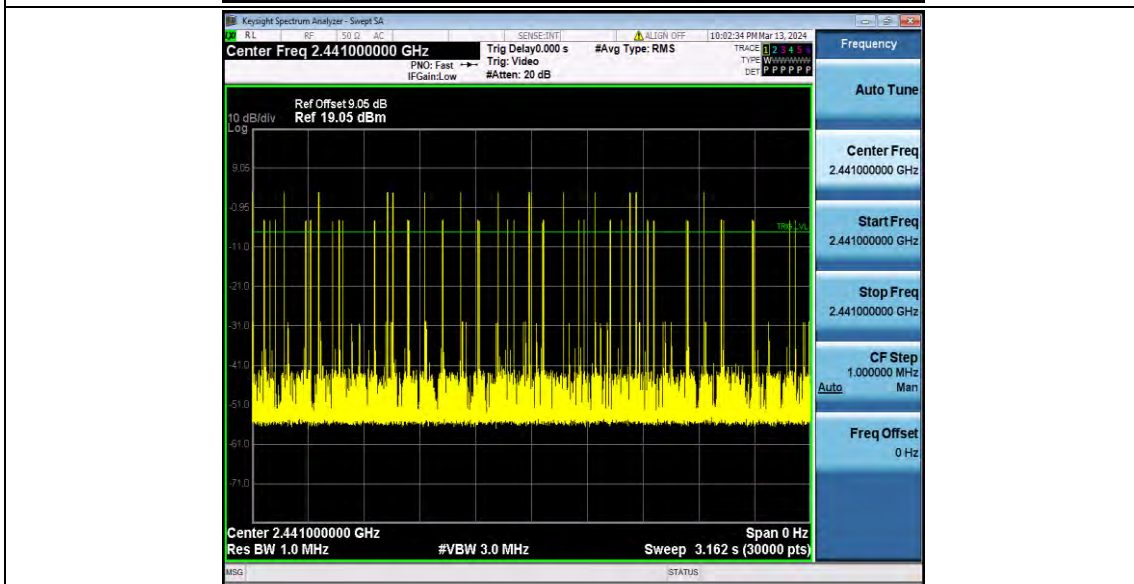
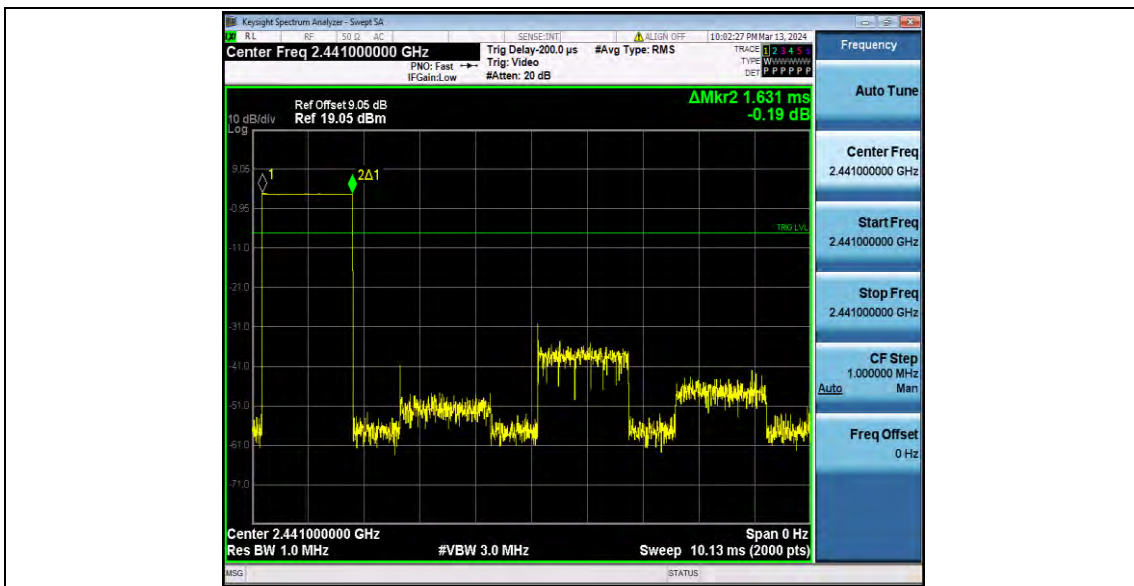
Appendix A.5: Time of occupancy

Test Result

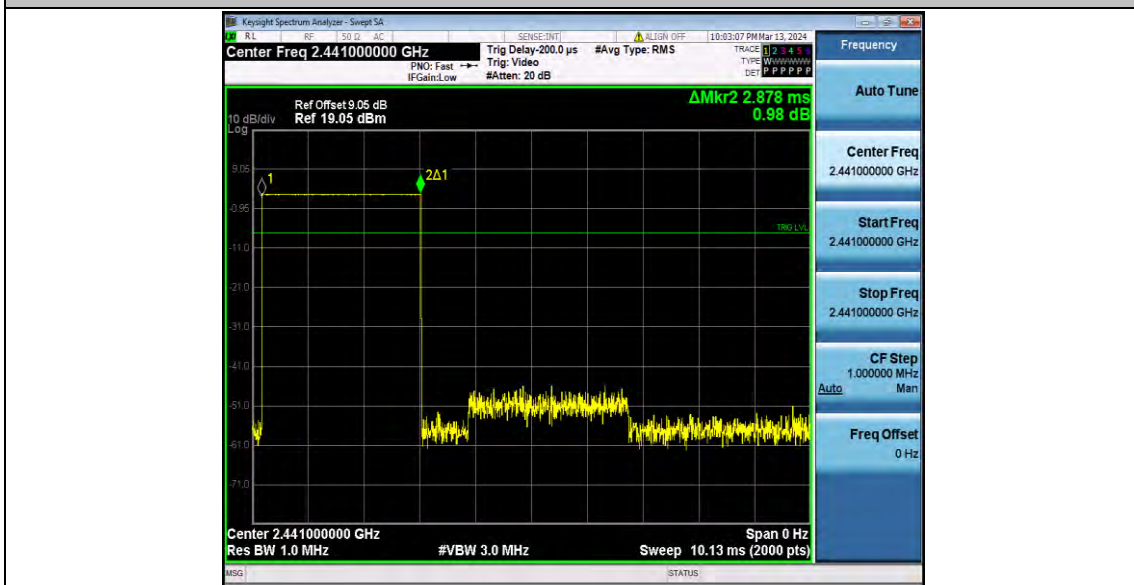
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.375	330	0.124	≤0.4	PASS
DH3	Ant1	Hop	1.631	150	0.245	≤0.4	PASS
DH5	Ant1	Hop	2.878	100	0.288	≤0.4	PASS
2DH1	Ant1	Hop	0.385	640	0.246	≤0.4	PASS
2DH3	Ant1	Hop	1.626	200	0.325	≤0.4	PASS
2DH5	Ant1	Hop	2.878	60	0.173	≤0.4	PASS

Test Graphs



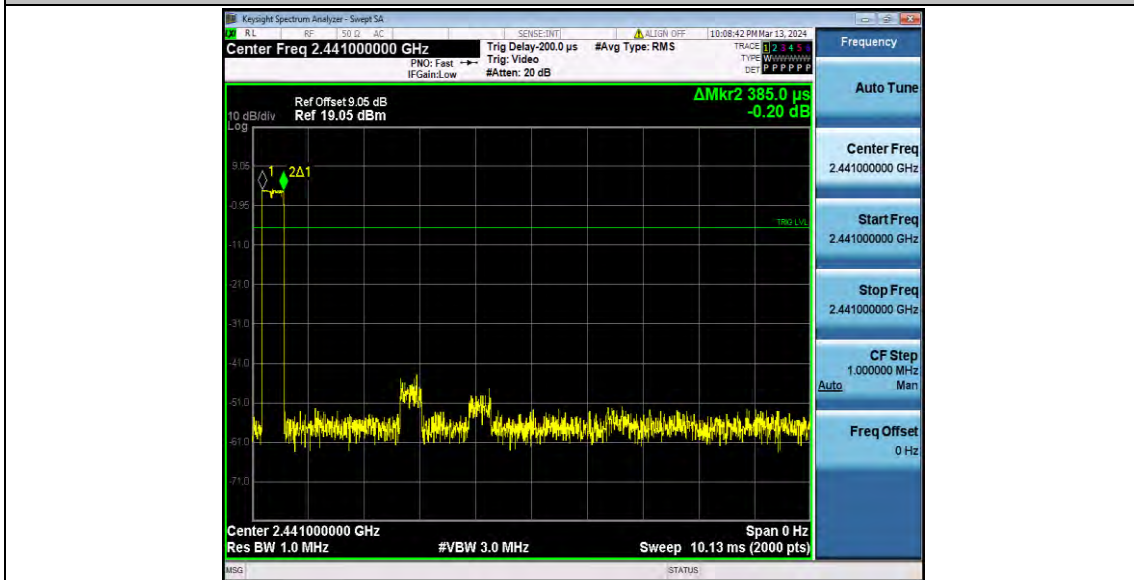


DH5_Ant1_Hop

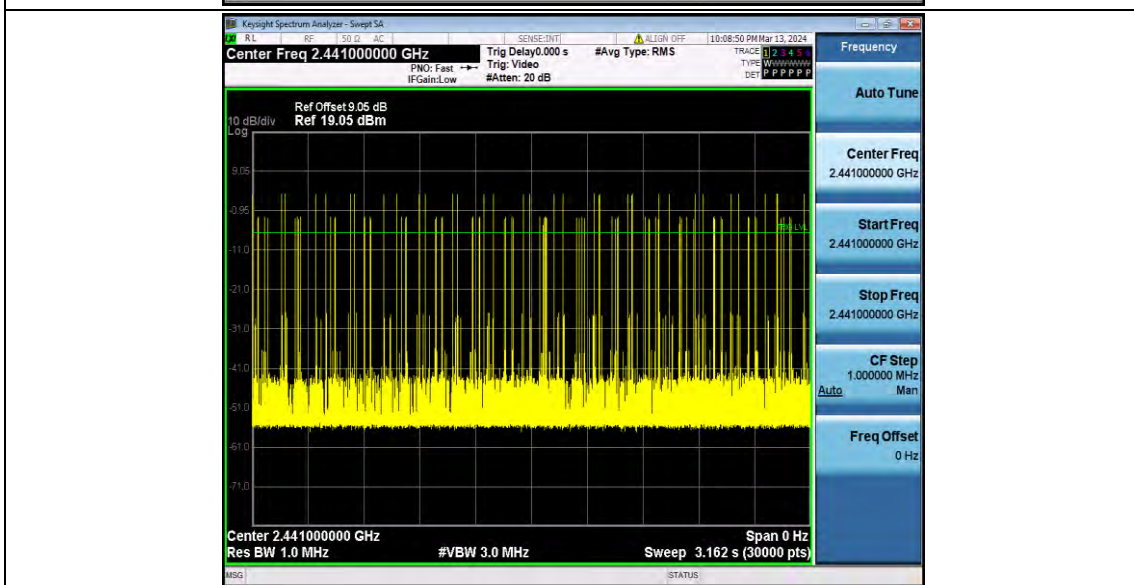


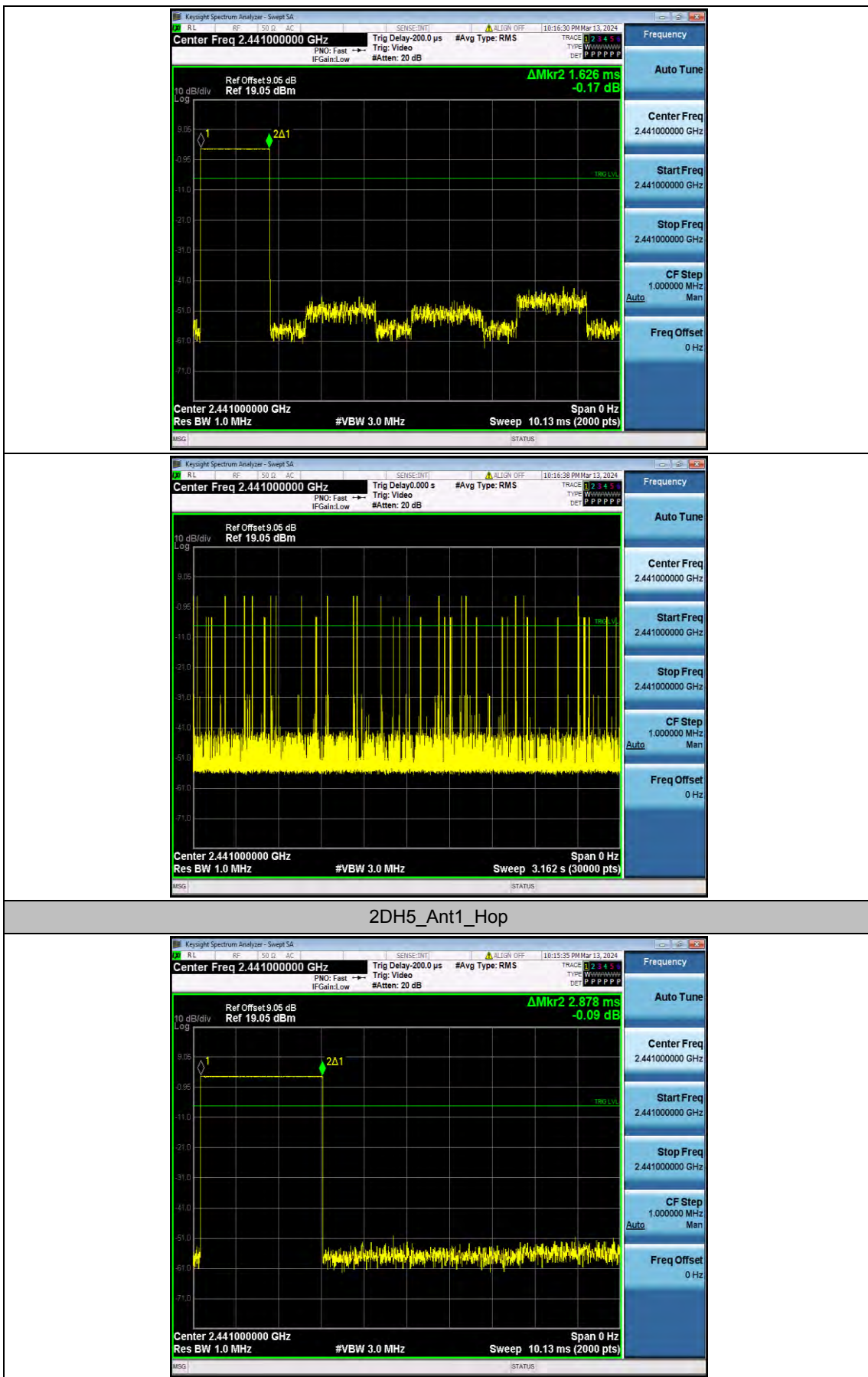


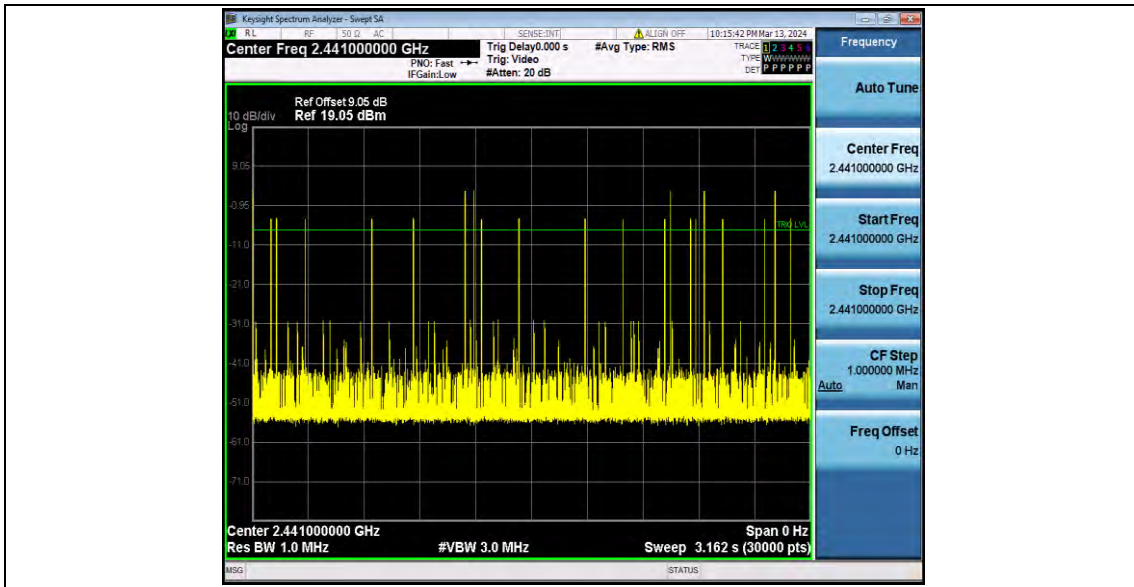
2DH1_Ant1_Hop



2DH3_Ant1_Hop







Appendix A.6: Number of hopping channels

Test Result

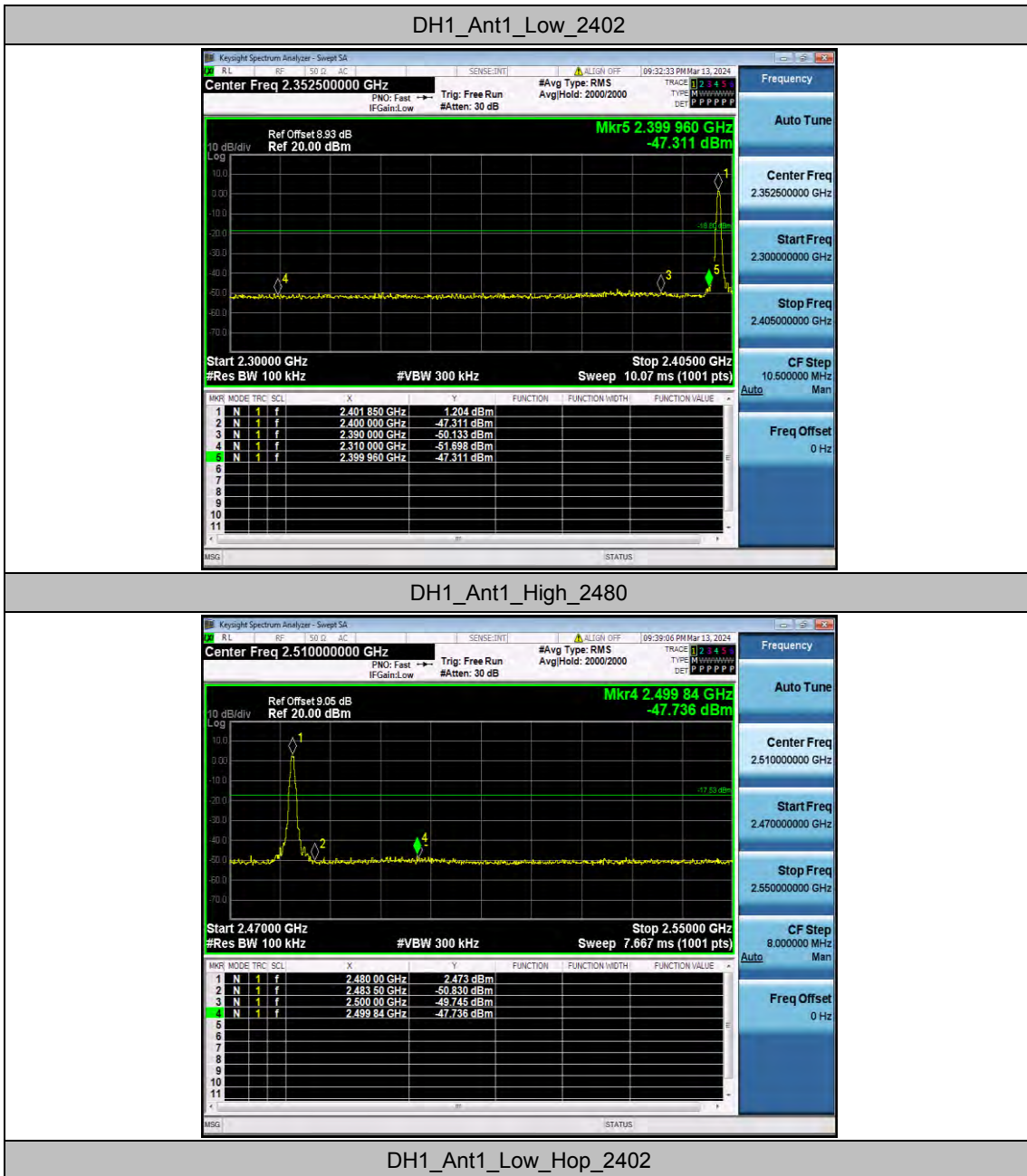
TestMode	Antenna	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH1	Ant1	Hop	79	≥15	PASS
2DH1	Ant1	Hop	79	≥15	PASS

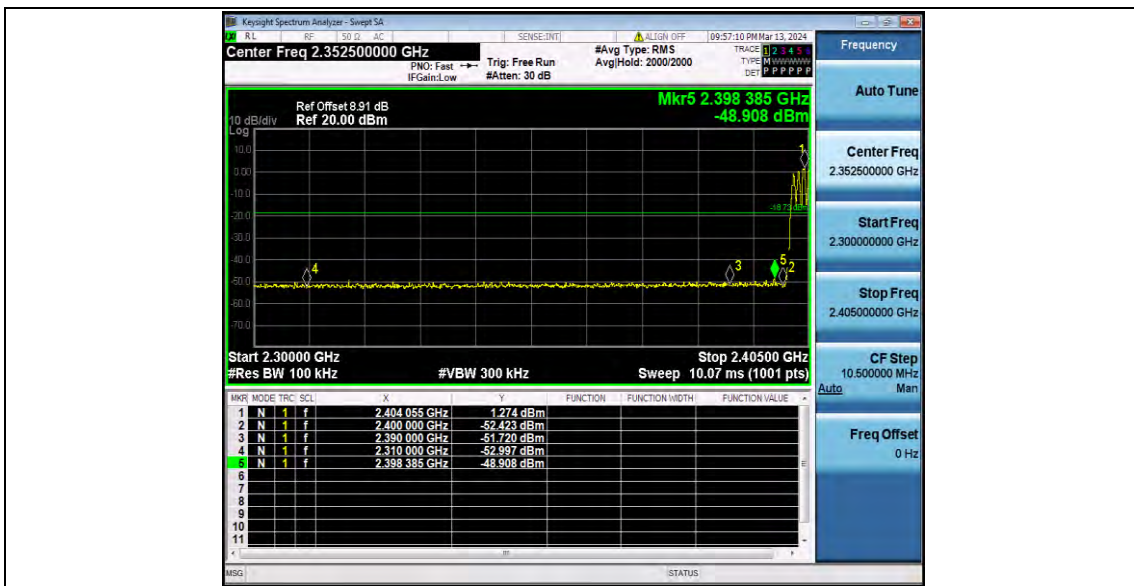
Appendix A.7: Band edge measurements

Test Result

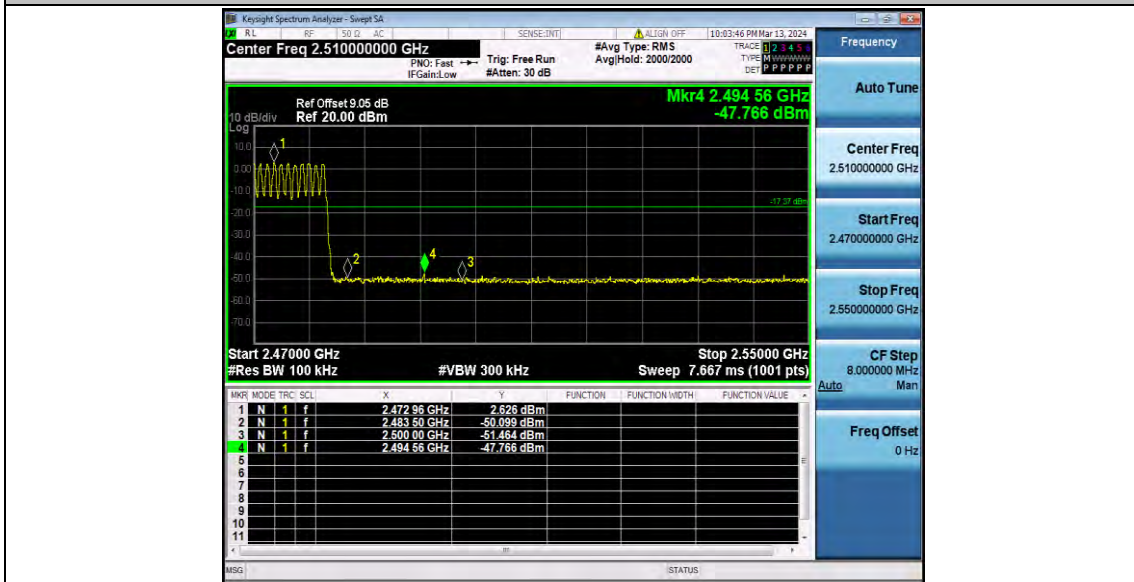
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	1.20	-47.31	≤-18.8	PASS
		High	2480	2.47	-47.74	≤-17.53	PASS
		Low	Hop_2402	1.27	-48.91	≤-18.73	PASS
		High	Hop_2480	2.63	-47.77	≤-17.37	PASS
2DH1	Ant1	Low	2402	1.28	-45.81	≤-18.72	PASS
		High	2480	2.50	-48.37	≤-17.5	PASS
		Low	Hop_2402	1.26	-48.97	≤-18.74	PASS
		High	Hop_2480	2.81	-48.26	≤-17.19	PASS

Test Graphs

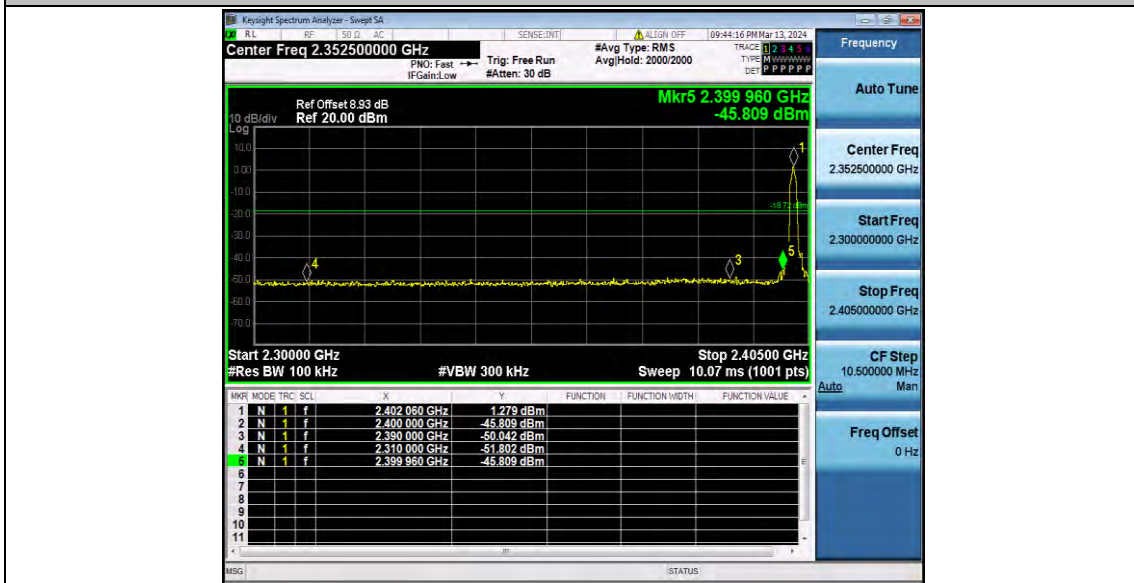




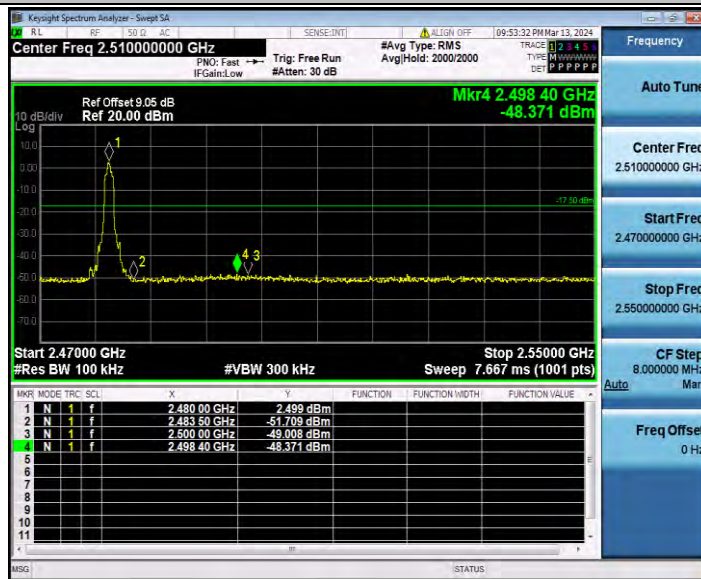
DH1_Ant1_High_Hop_2480



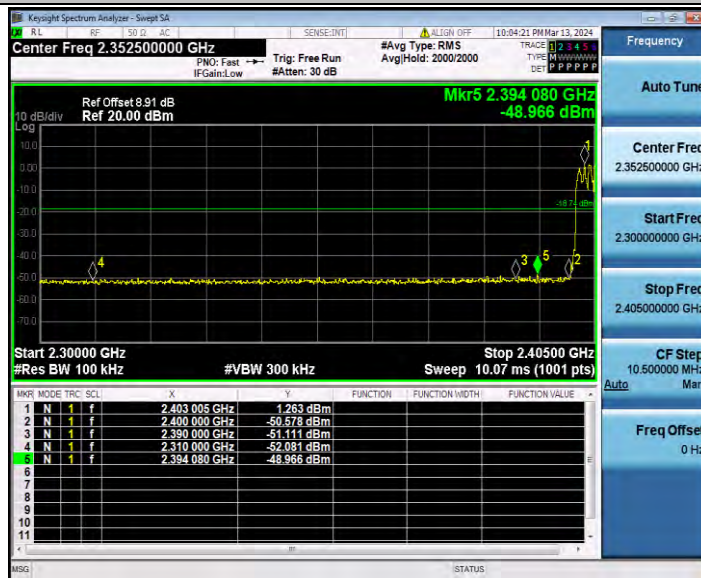
2DH1_Ant1_Low_2402



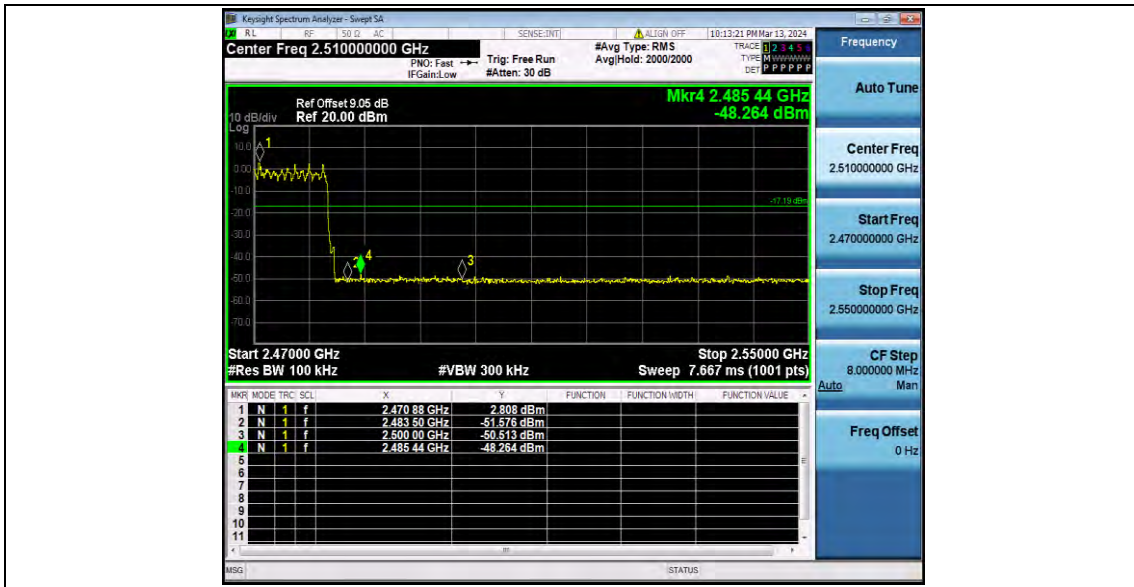
2DH1_Ant1_High_2480



2DH1_Ant1_Low_Hop_2402



2DH1_Ant1_High_Hop_2480

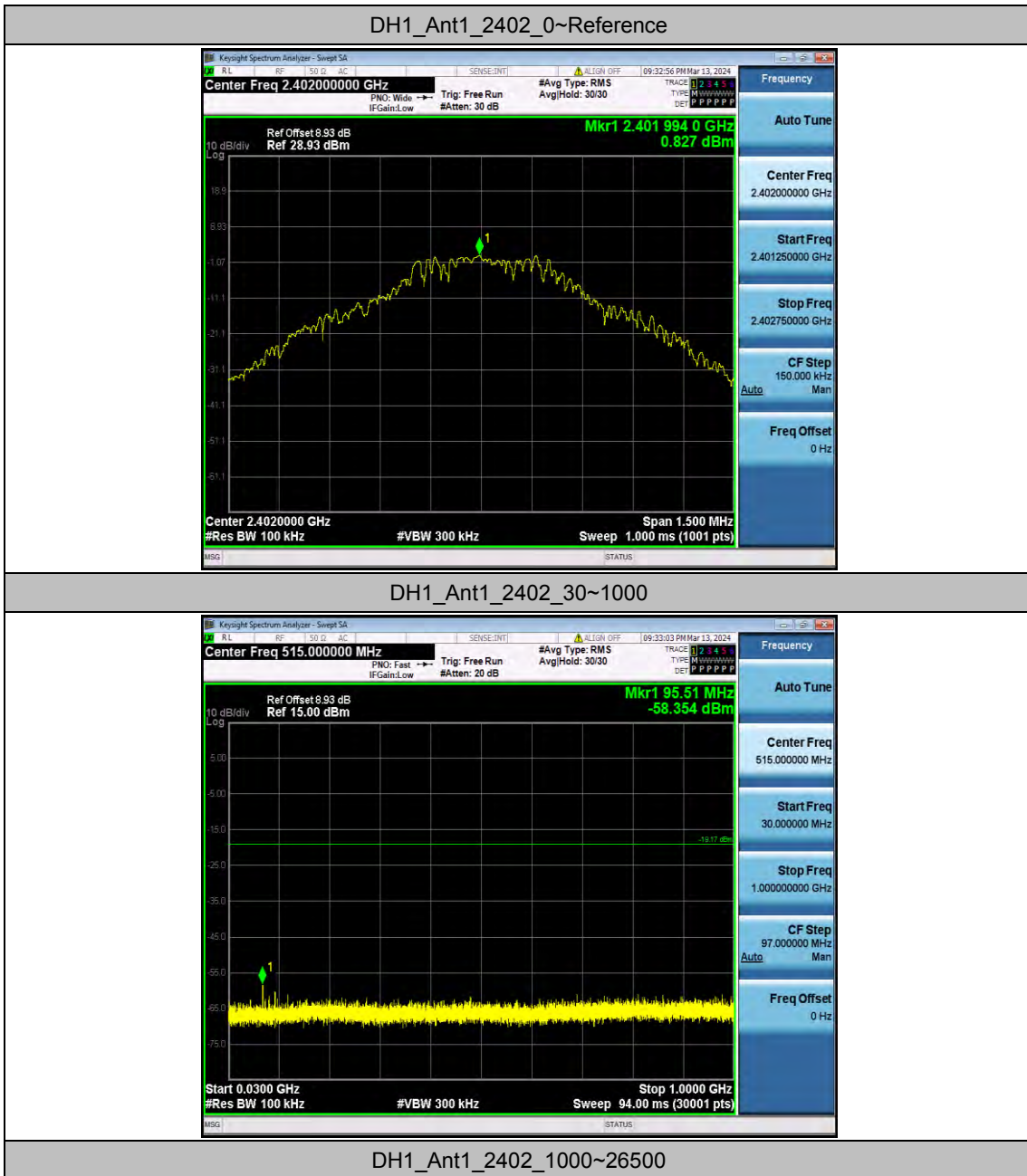


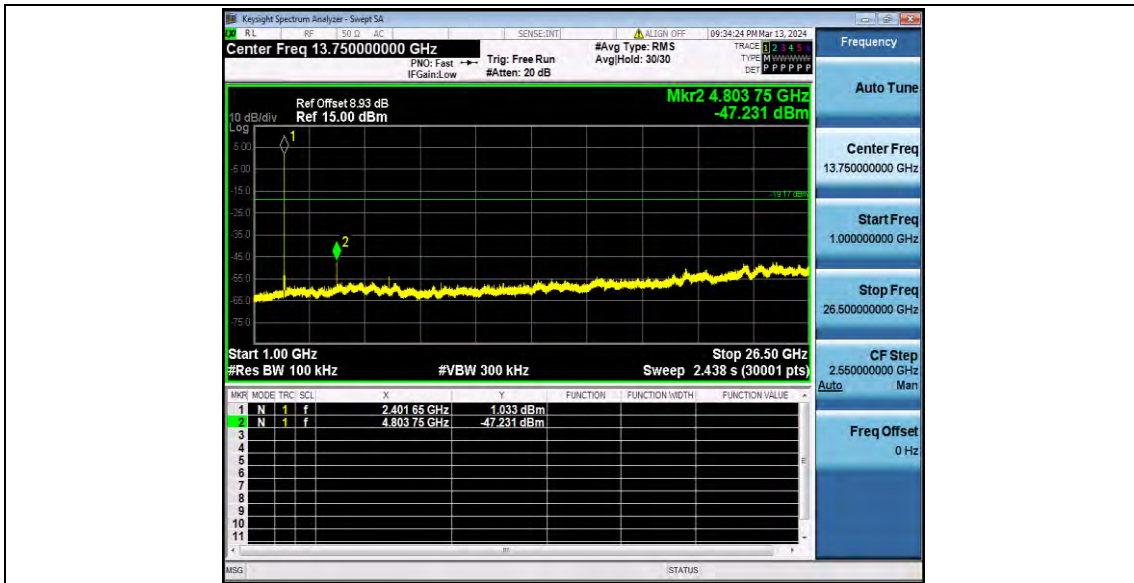
Appendix A.8: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	0.83	0.83	---	PASS
			30~1000	0.83	-58.35	≤-19.17	PASS
			1000~26500	0.83	-47.23	≤-19.17	PASS
		2441	Reference	2.66	2.66	---	PASS
			30~1000	2.66	-34.5	≤-17.34	PASS
			1000~26500	2.66	-45.99	≤-17.34	PASS
		2480	Reference	2.06	2.06	---	PASS
			30~1000	2.06	-58.08	≤-17.94	PASS
			1000~26500	2.06	-42.87	≤-17.94	PASS
2DH1	Ant1	2402	Reference	1.16	1.16	---	PASS
			30~1000	1.16	-58.18	≤-18.84	PASS
			1000~26500	1.16	-47.33	≤-18.84	PASS
		2441	Reference	2.69	2.69	---	PASS
			30~1000	2.69	-57.93	≤-17.31	PASS
			1000~26500	2.69	-46.6	≤-17.31	PASS
		2480	Reference	2.16	2.16	---	PASS
			30~1000	2.16	-59.09	≤-17.84	PASS
			1000~26500	2.16	-47.29	≤-17.84	PASS

Test Graphs

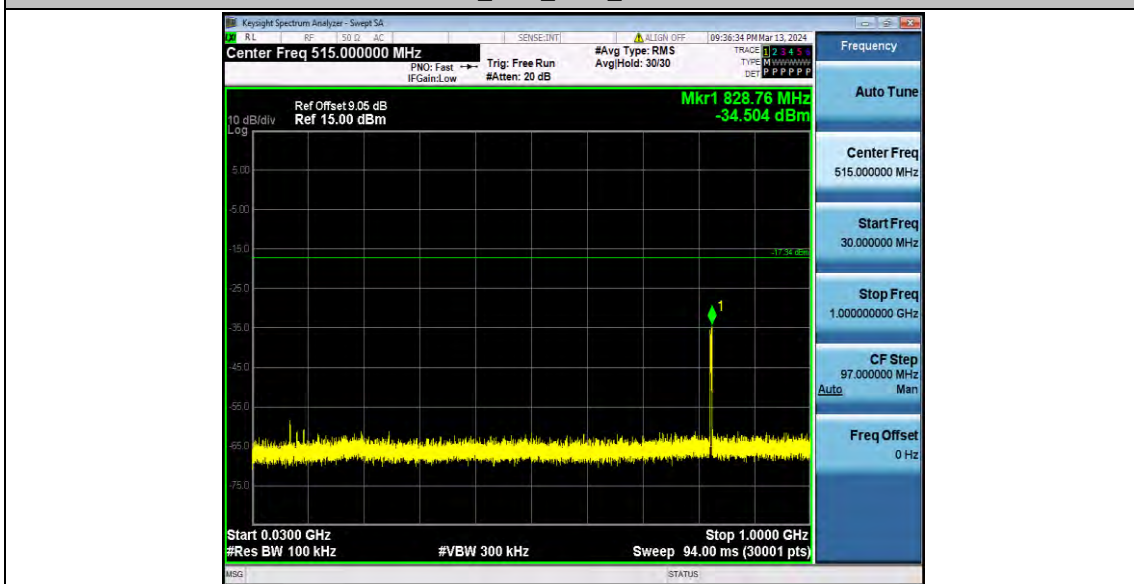




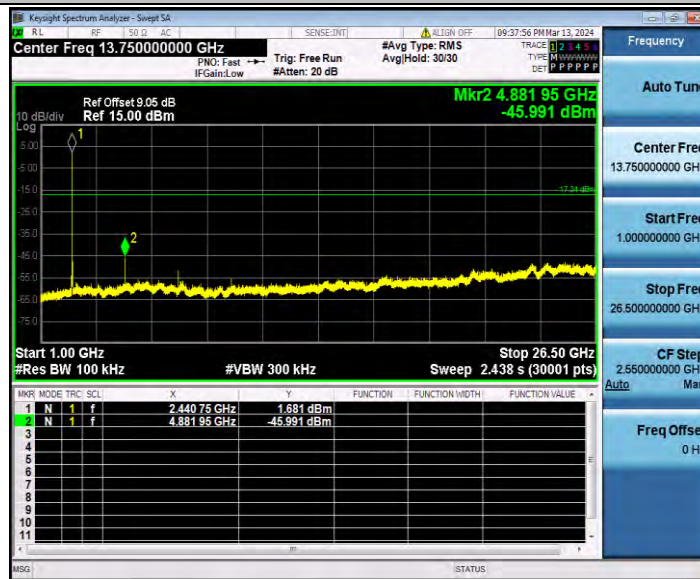
DH1_Ant1_2441_0~Reference



DH1_Ant1_2441_30~1000



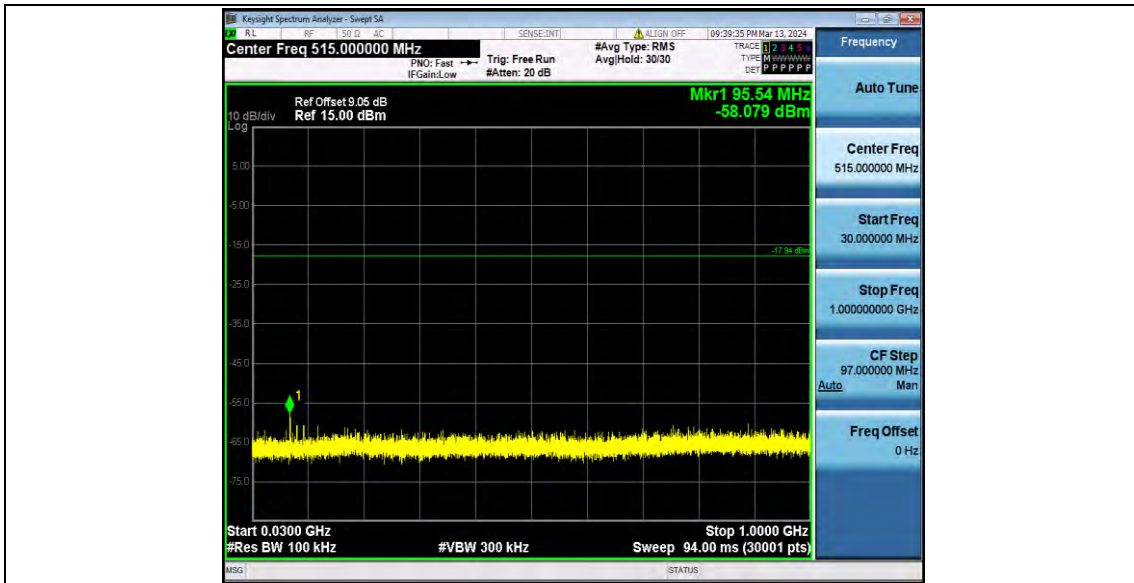
DH1_Ant1_2441_1000~26500



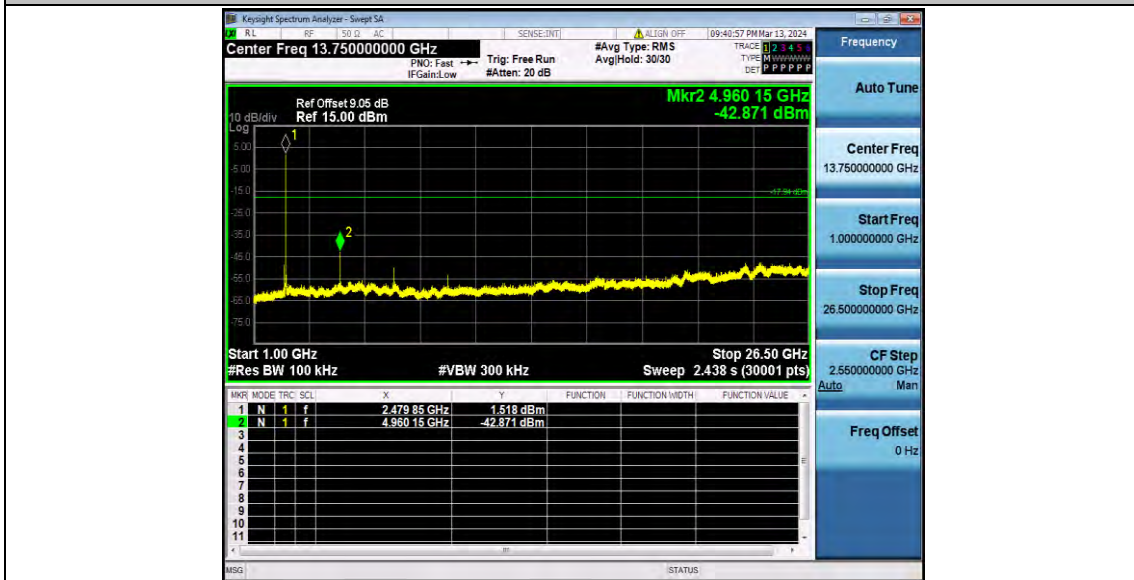
DH1_Ant1_2480_0~Reference



DH1_Ant1_2480_30~1000



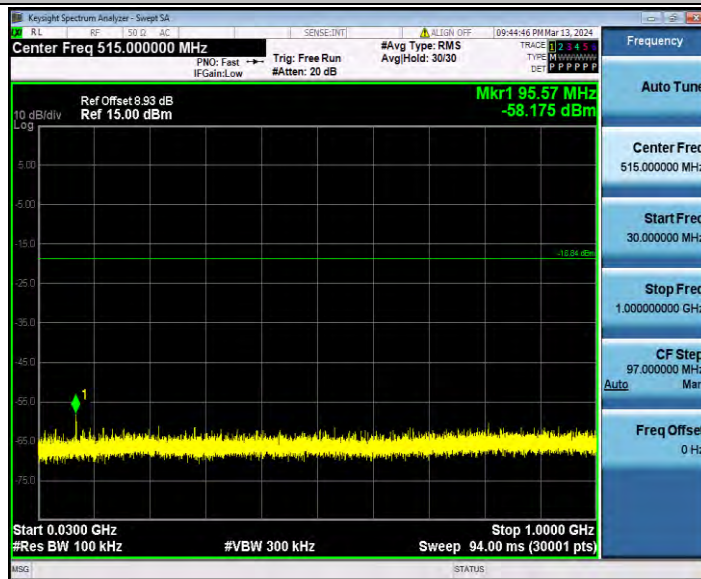
DH1_Ant1_2480_1000~26500



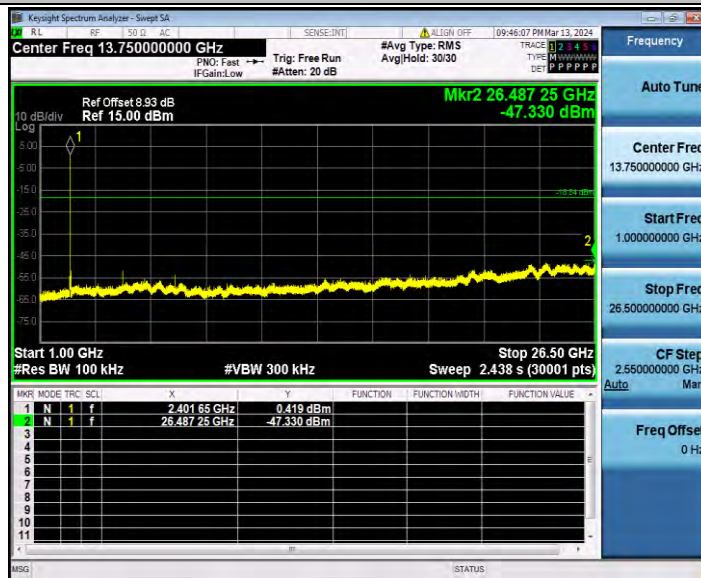
2DH1_Ant1_2402_0~Reference



2DH1_Ant1_2402_30~1000



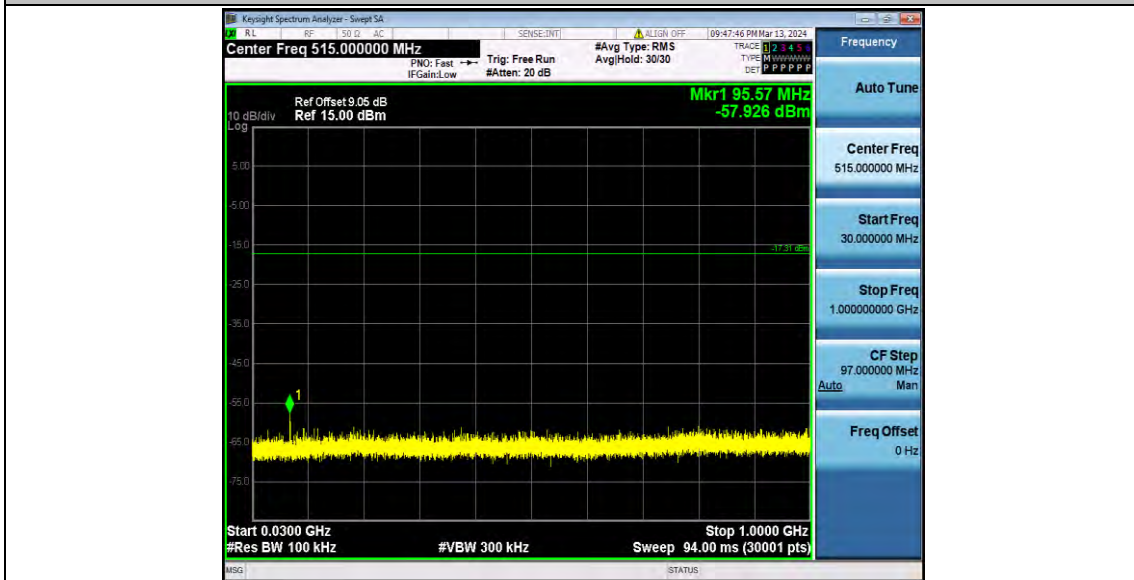
2DH1_Ant1_2402_1000~26500



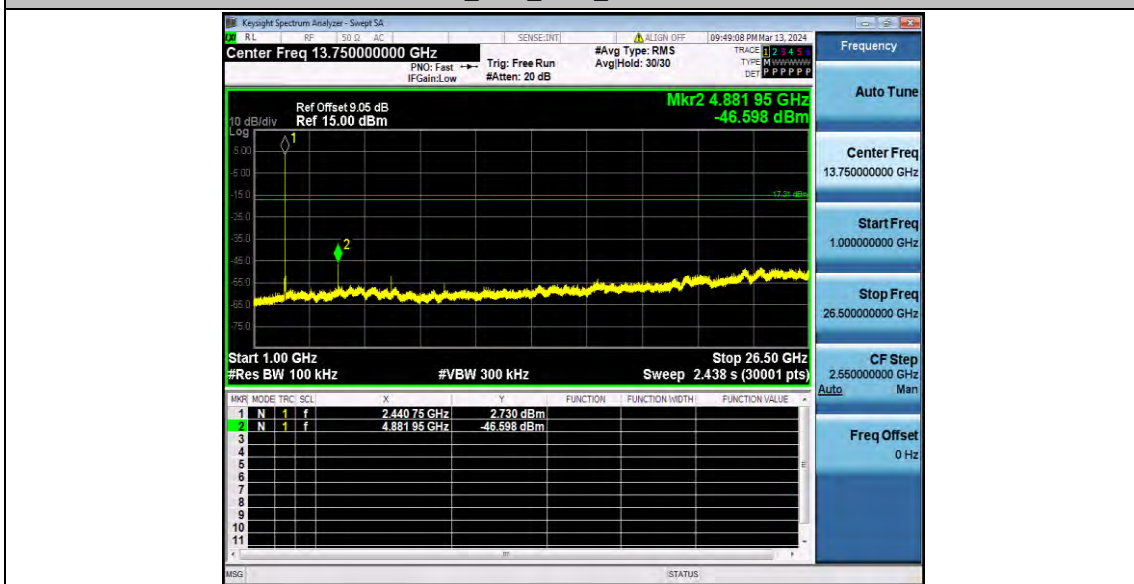
2DH1_Ant1_2441_0~Reference



2DH1_Ant1_2441_30~100



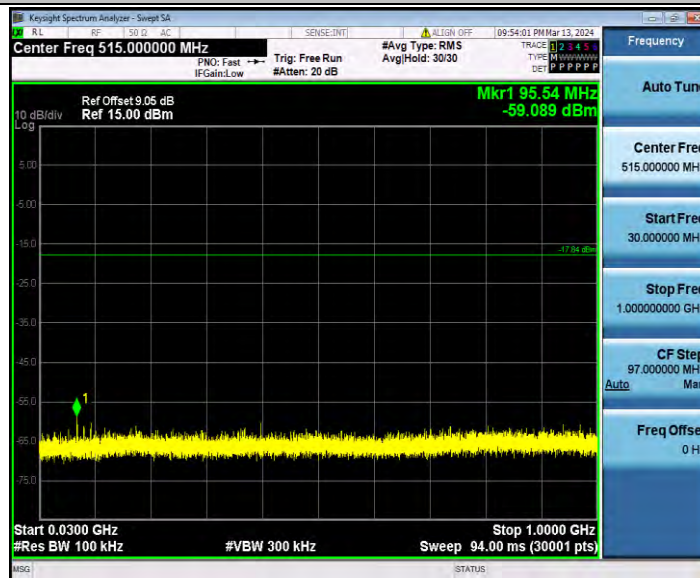
2DH1_Ant1_2441_1000~26500



2DH1_Ant1_2480_0~Reference



2DH1_Ant1_2480_30~1000



2DH1_Ant1_2480_1000~26500



Appendix A.9: Emissions in Restricted Bands

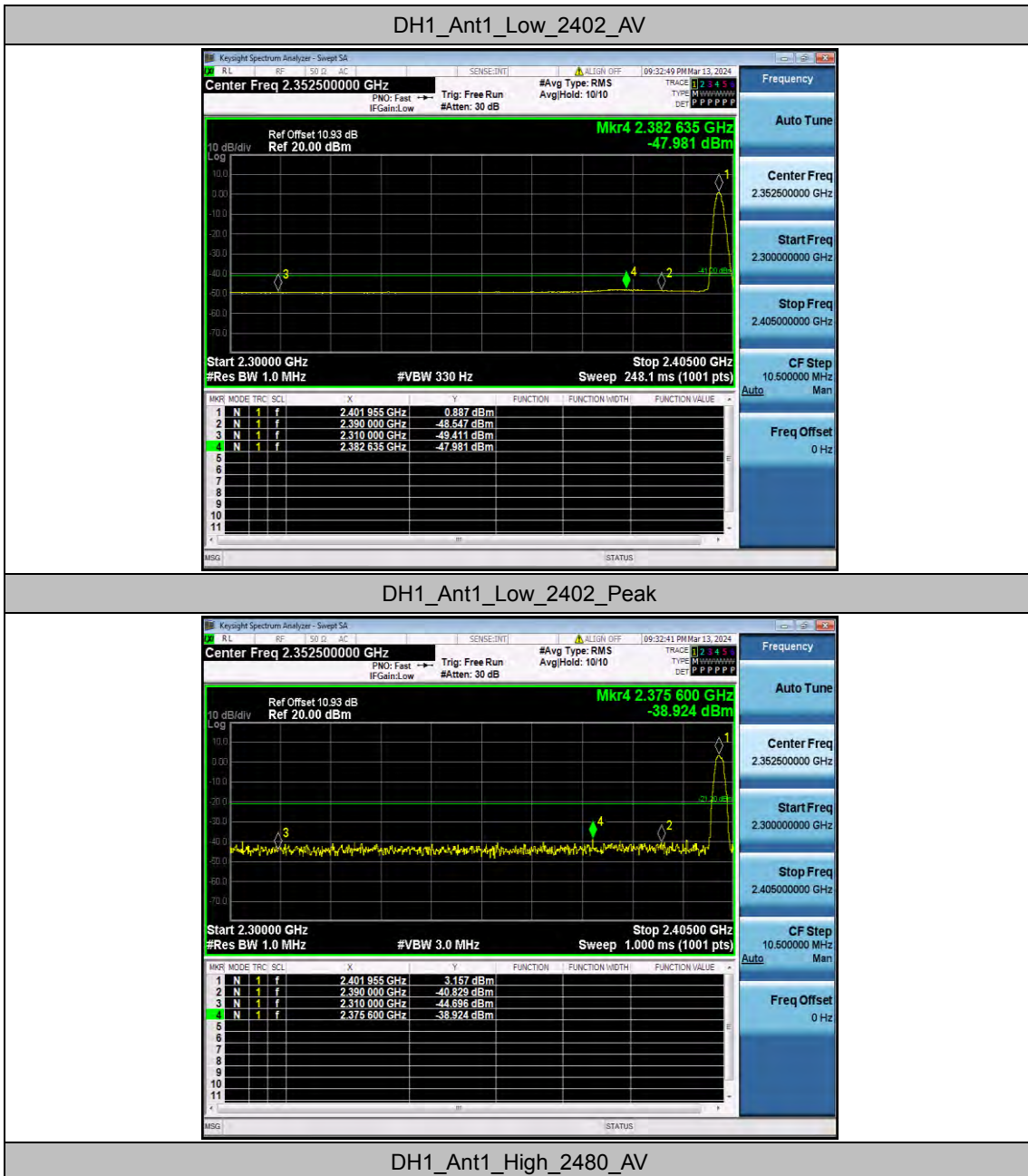
Test Result

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	-49.41	≤-41.20	45.79	≤54	PASS
				AV	2382.635	-47.98	≤-41.20	47.22	≤54	PASS
				AV	2390.000	-48.55	≤-41.20	46.65	≤54	PASS
				Peak	2310.000	-44.7	≤-21.20	50.50	≤74	PASS
				Peak	2375.600	-38.92	≤-21.20	56.28	≤74	PASS
				Peak	2390.000	-40.83	≤-21.20	54.37	≤74	PASS
		High	2480	AV	2483.500	-48.41	≤-41.20	46.79	≤54	PASS
				AV	2499.200	-47.55	≤-41.20	47.65	≤54	PASS
				AV	2500.000	-47.75	≤-41.20	47.45	≤54	PASS
				Peak	2483.500	-39.04	≤-21.20	56.16	≤74	PASS
				Peak	2486.240	-38.31	≤-21.20	56.89	≤74	PASS
				Peak	2500.000	-40.39	≤-21.20	54.81	≤74	PASS
2DH1	Ant1	Low	2402	AV	2310.000	-49.54	≤-41.20	45.66	≤54	PASS
				AV	2382.740	-47.99	≤-41.20	47.21	≤54	PASS
				AV	2390.000	-48.46	≤-41.20	46.74	≤54	PASS
				Peak	2310.000	-43.08	≤-21.20	52.12	≤74	PASS
				Peak	2378.855	-37.84	≤-21.20	57.36	≤74	PASS
				Peak	2390.000	-39.55	≤-21.20	55.65	≤74	PASS
		High	2480	AV	2483.500	-48.22	≤-41.20	46.98	≤54	PASS
				AV	2498.720	-47.57	≤-41.20	47.63	≤54	PASS
				AV	2500.000	-47.66	≤-41.20	47.54	≤54	PASS
				Peak	2483.500	-40.84	≤-21.20	54.36	≤74	PASS
				Peak	2486.800	-37.73	≤-21.20	57.47	≤74	PASS
				Peak	2500.000	-39.92	≤-21.20	55.28	≤74	PASS

Note:

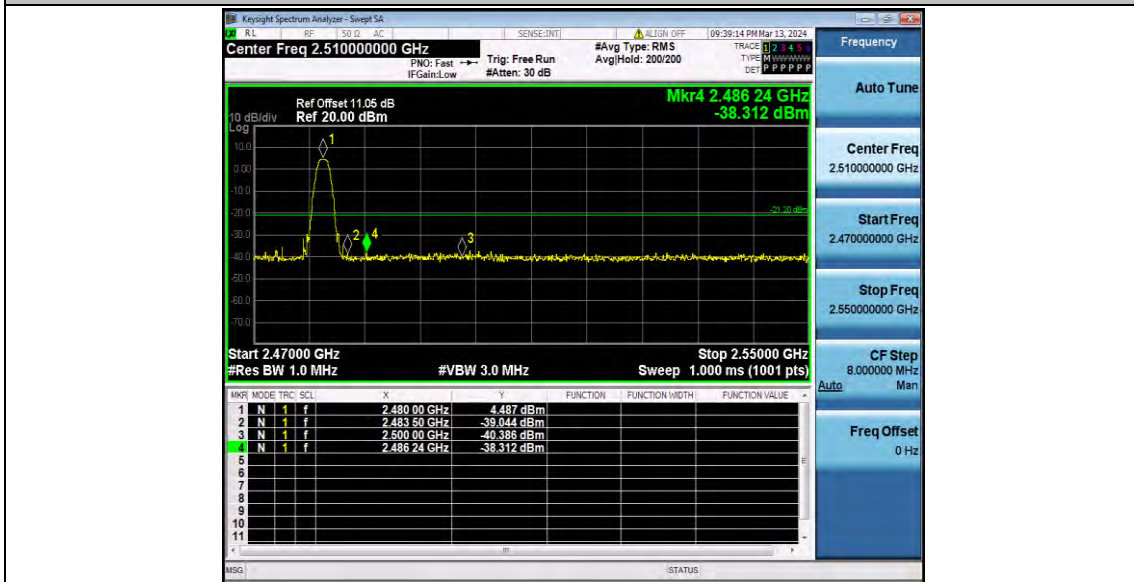
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

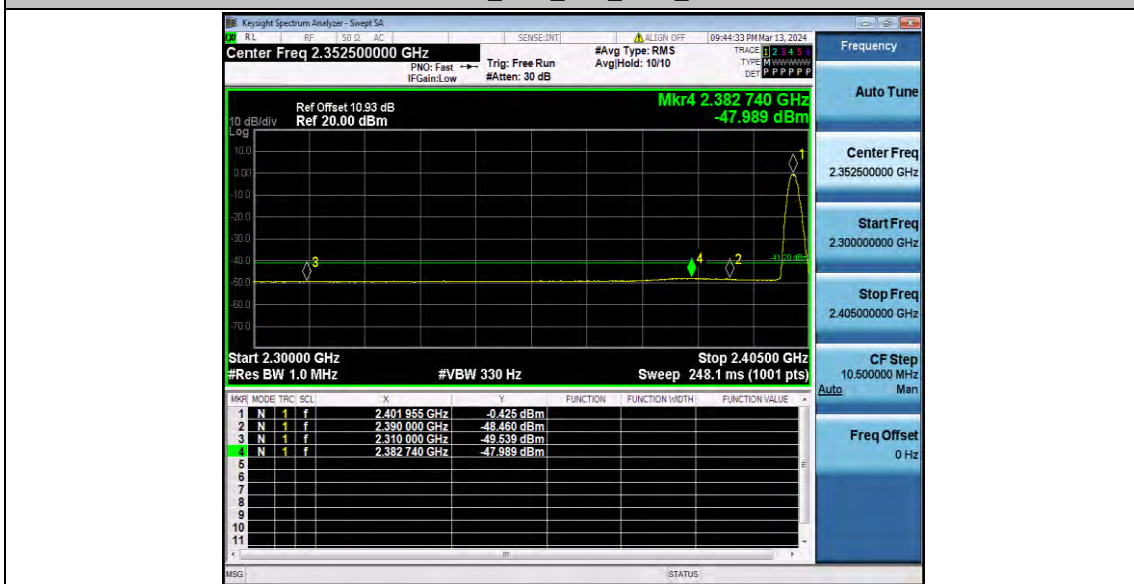




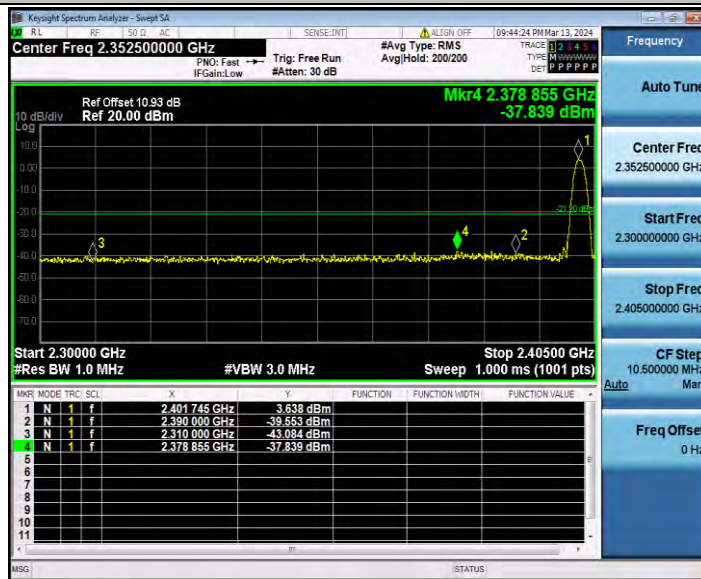
DH1_Ant1_High_2480_Peak



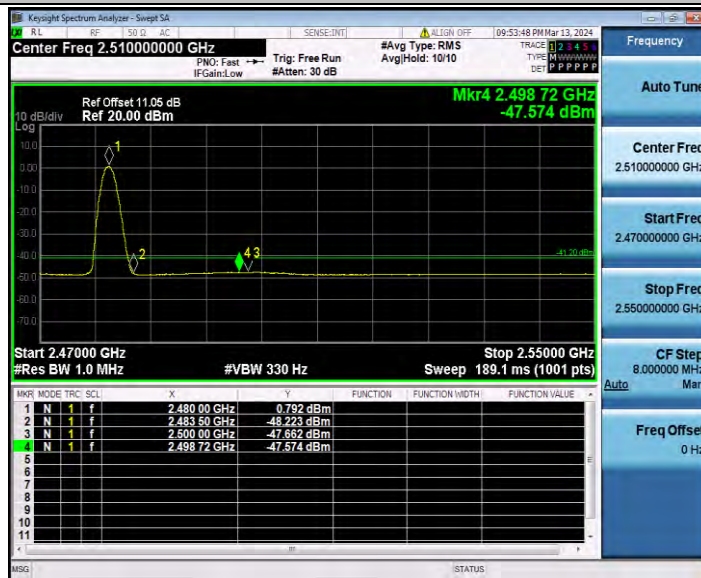
2DH1_Ant1_Low_2402_AV



2DH1_Ant1_Low_2402_Peak



2DH1_Ant1_High_2480_AV



2DH1_Ant1_High_2480_Peak

