

Appendix Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: Wireless Speaker

Trade Mark: DOOHOOEK, Mevoix, Kalence, Qozybuds

Test Model: AE-001

FCC ID: 2BCRG-AE001

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

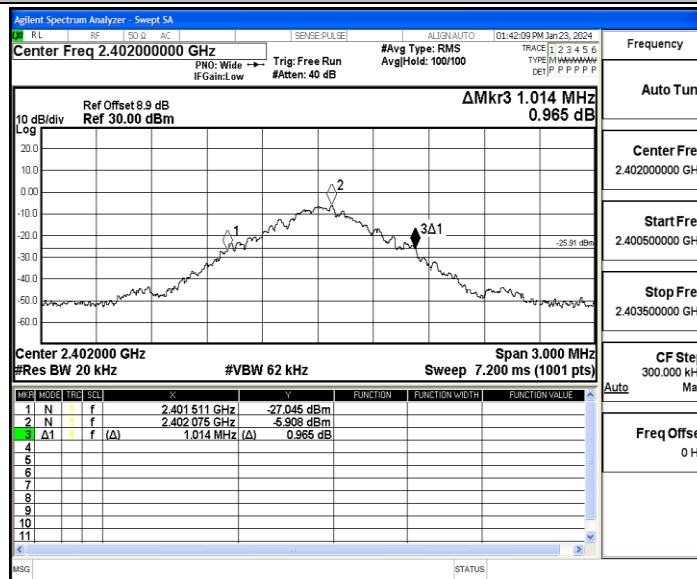
Appendix A: 20dB Emission Bandwidth

Test Result

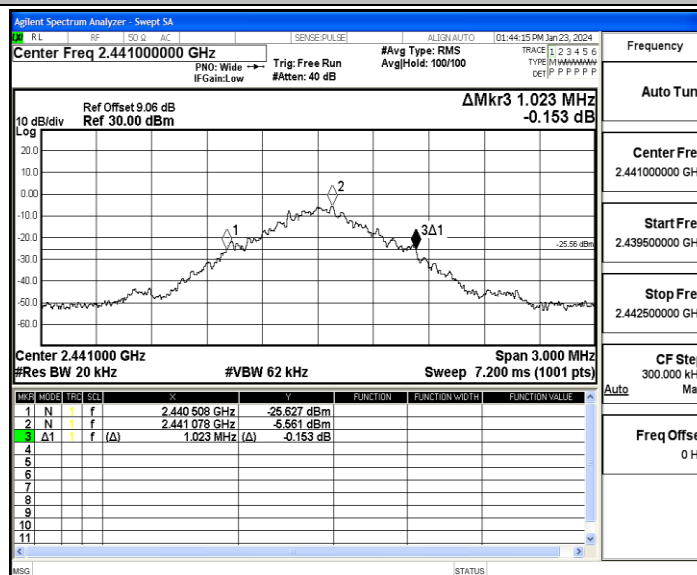
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.014	2401.511	2402.525	---	---
		2441	1.023	2440.508	2441.531	---	---
		2480	1.029	2479.502	2480.531	---	---
2DH5	Ant1	2402	1.317	2401.364	2402.681	---	---
		2441	1.329	2440.355	2441.684	---	---
		2480	1.341	2479.355	2480.696	---	---

Test Graphs

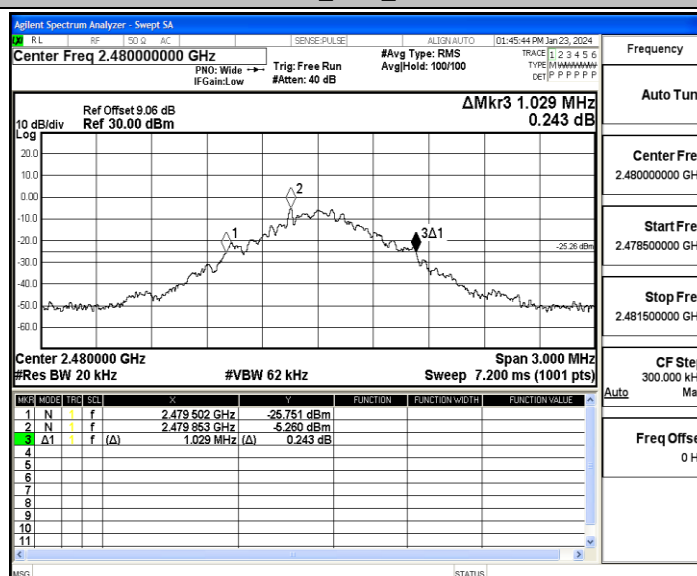
DH5_Ant1_2402



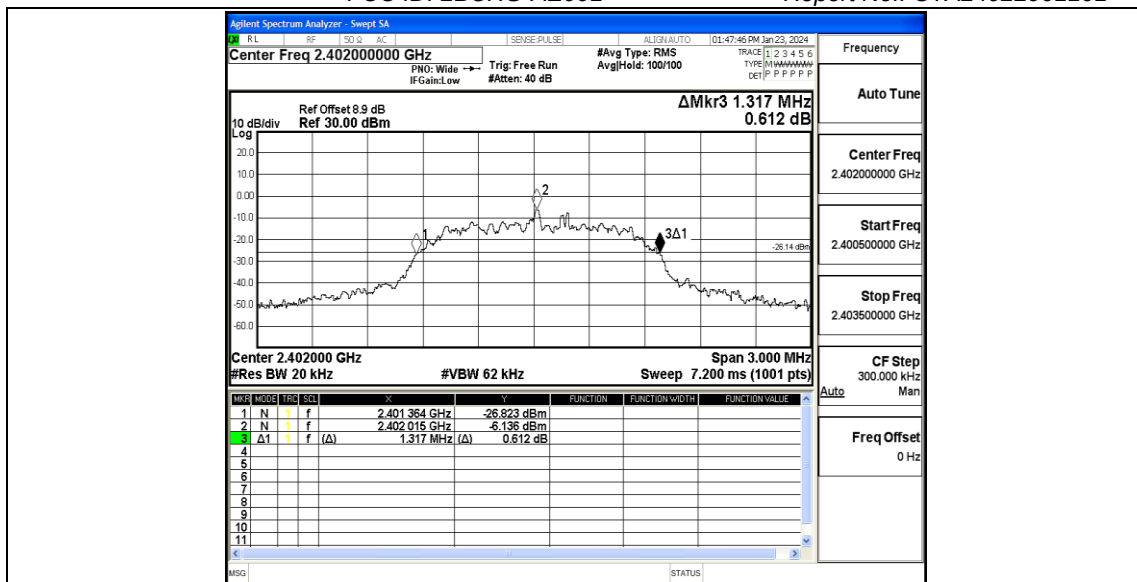
DH5_Ant1_2441



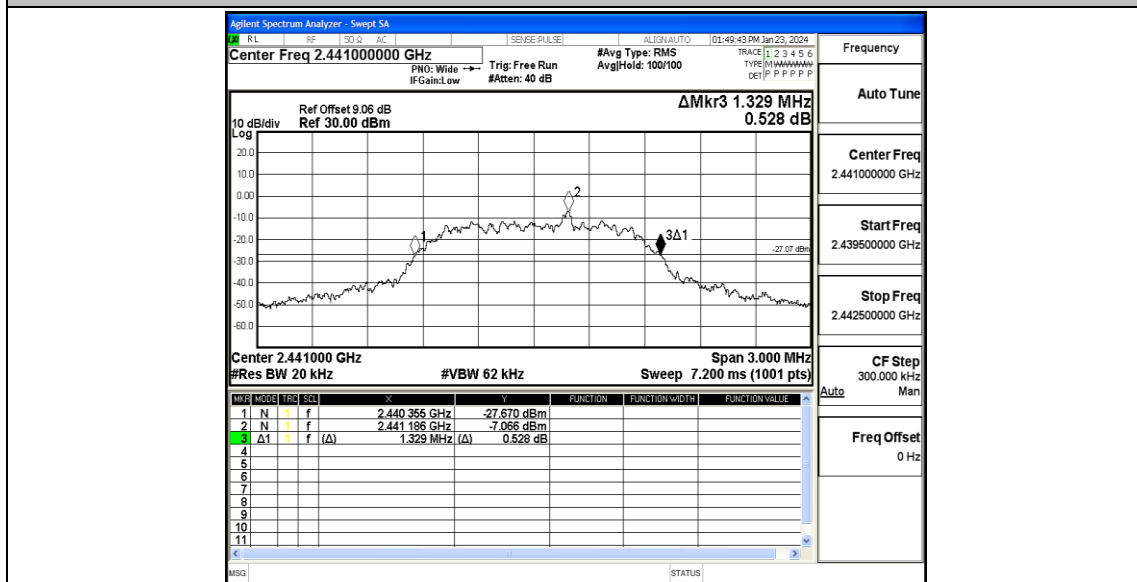
DH5_Ant1_2480



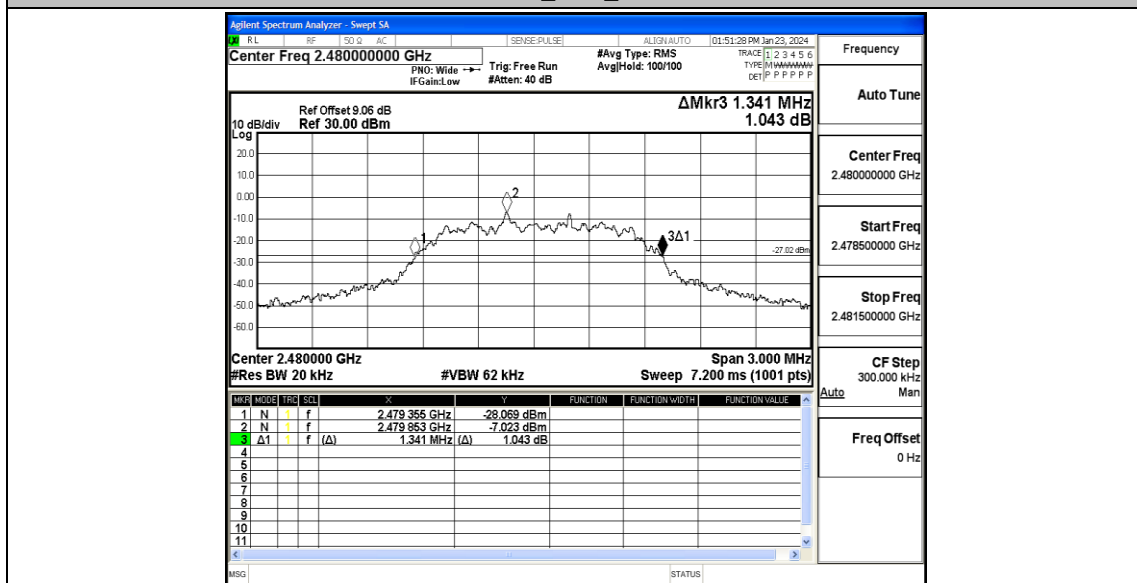
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



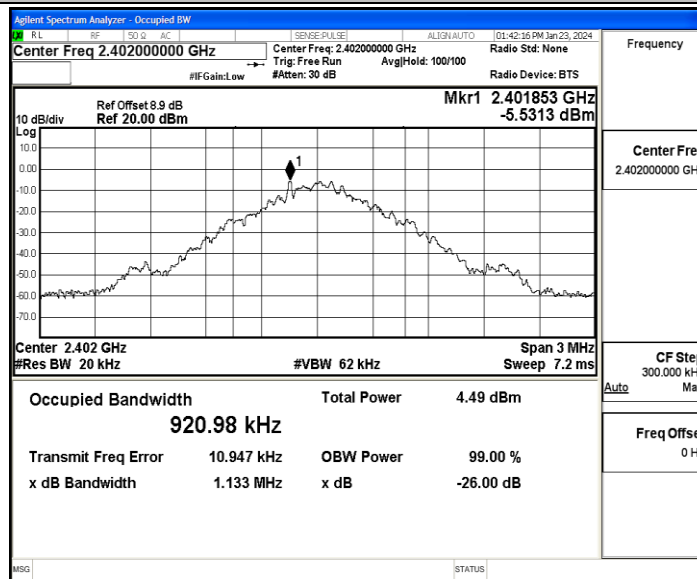
Appendix B: Occupied Channel Bandwidth

Test Result

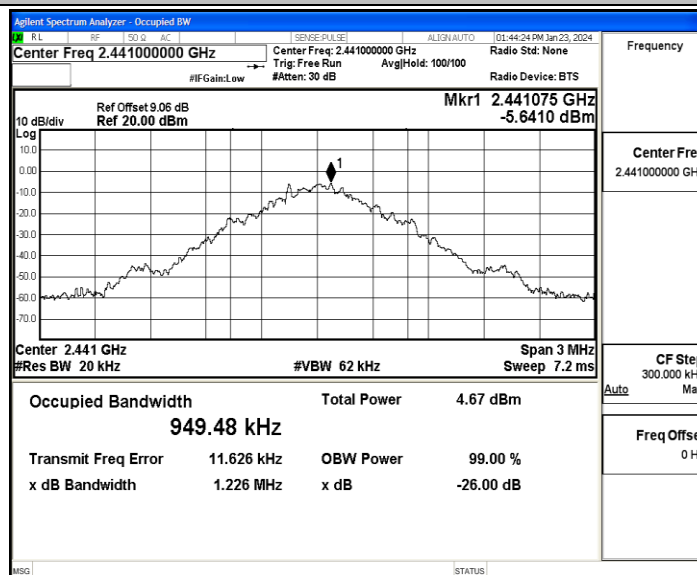
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.92098	2401.5505	2402.4714	---	---
		2441	0.94948	2440.5369	2441.4864	---	---
		2480	0.96112	2479.5316	2480.4927	---	---
2DH5	Ant1	2402	1.2072	2401.4204	2402.6276	---	---
		2441	1.2148	2440.4160	2441.6308	---	---
		2480	1.2111	2479.4182	2480.6293	---	---

Test Graphs

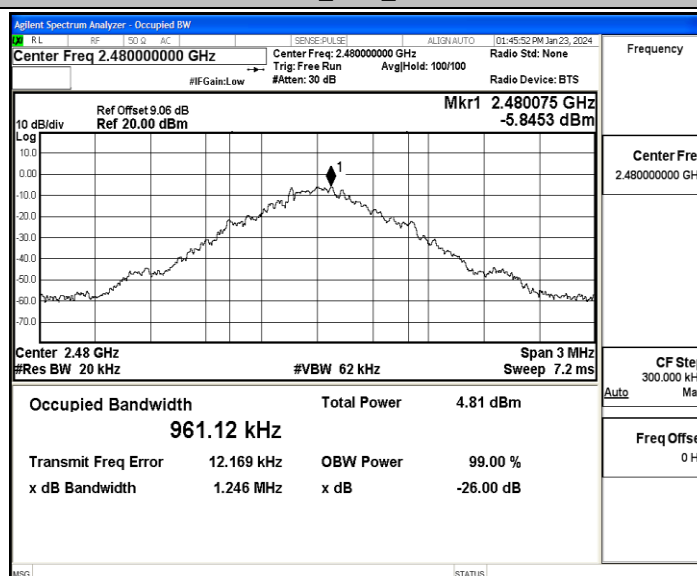
DH5_Ant1_2402



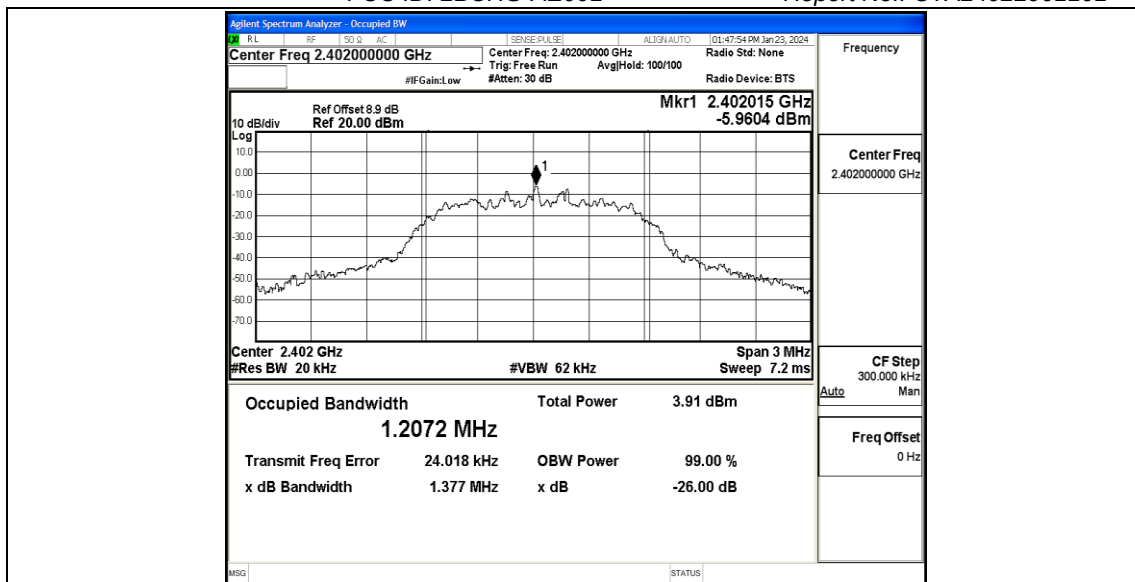
DH5_Ant1_2441



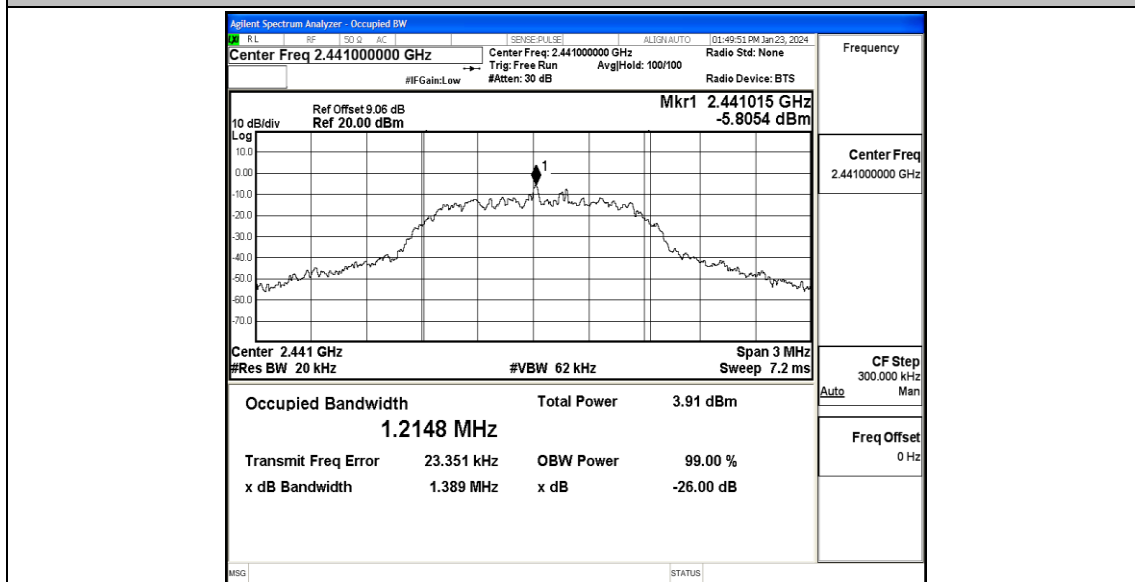
DH5_Ant1_2480



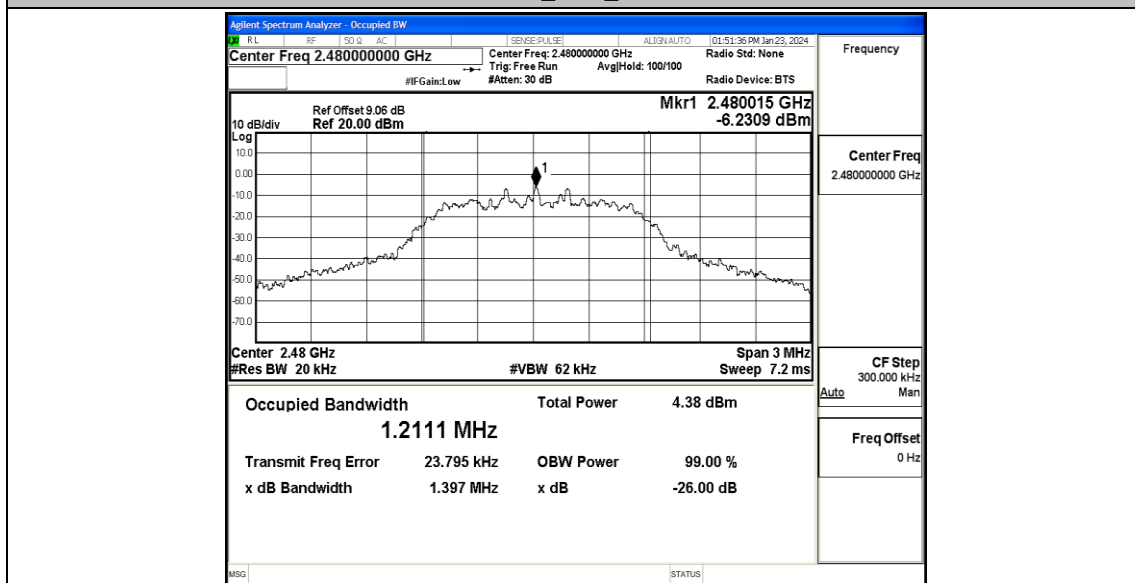
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



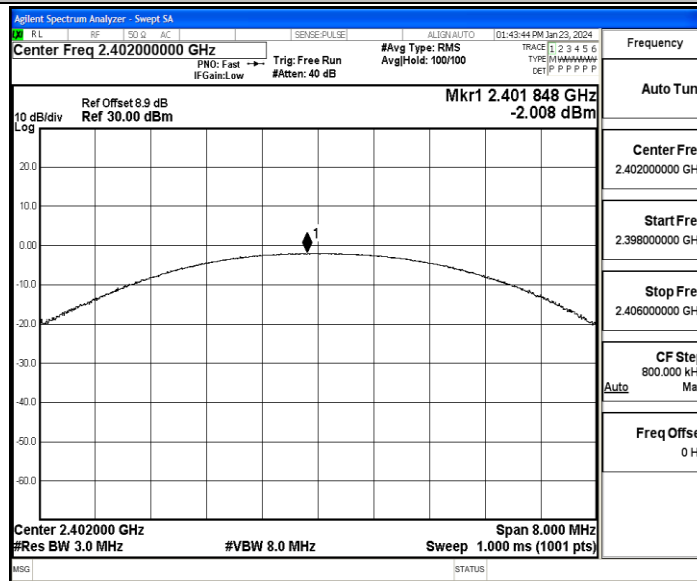
Appendix C: Maximum Peak conducted output power

Test Result

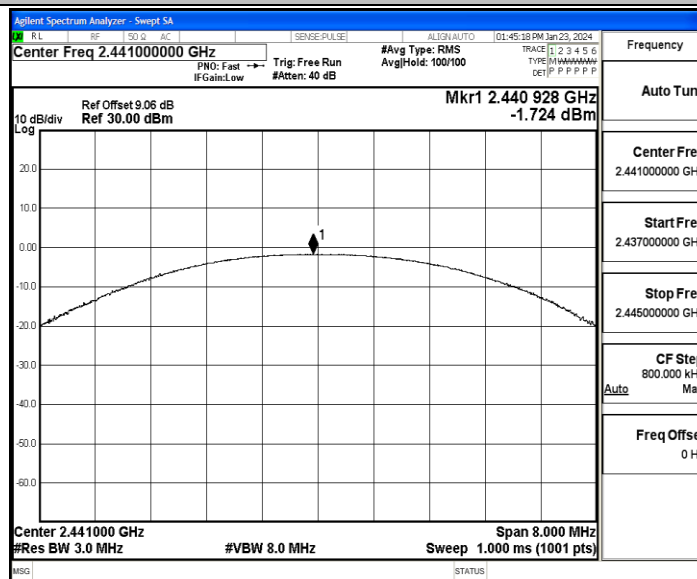
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-2.01	≤30	PASS
		2441	-1.72	≤30	PASS
		2480	-1.7	≤30	PASS
2DH5	Ant1	2402	-1.23	≤20.97	PASS
		2441	-0.98	≤20.97	PASS
		2480	-0.92	≤20.97	PASS

Test Graphs

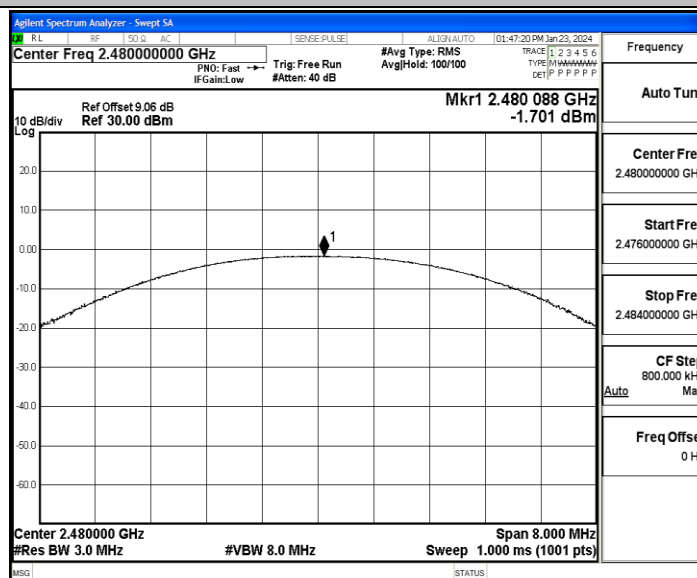
DH5_Ant1_2402



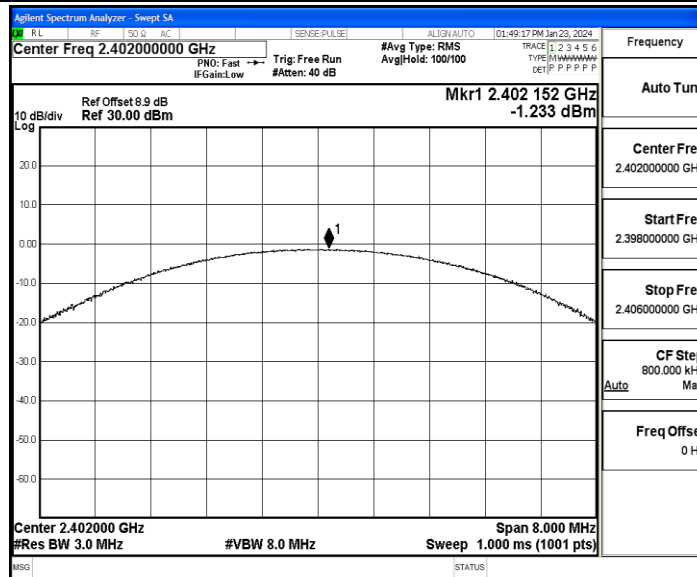
DH5_Ant1_2441



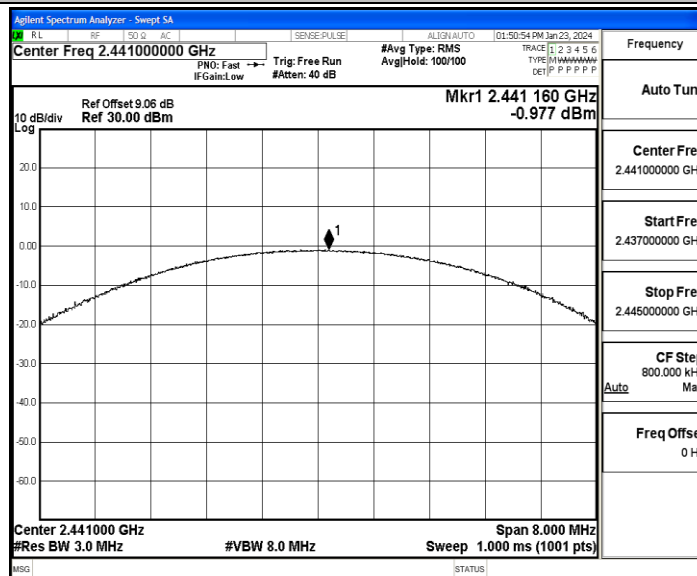
DH5_Ant1_2480



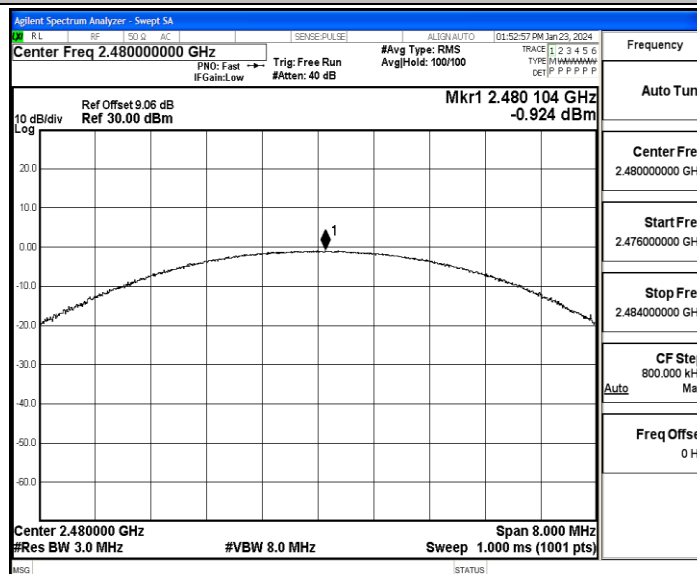
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

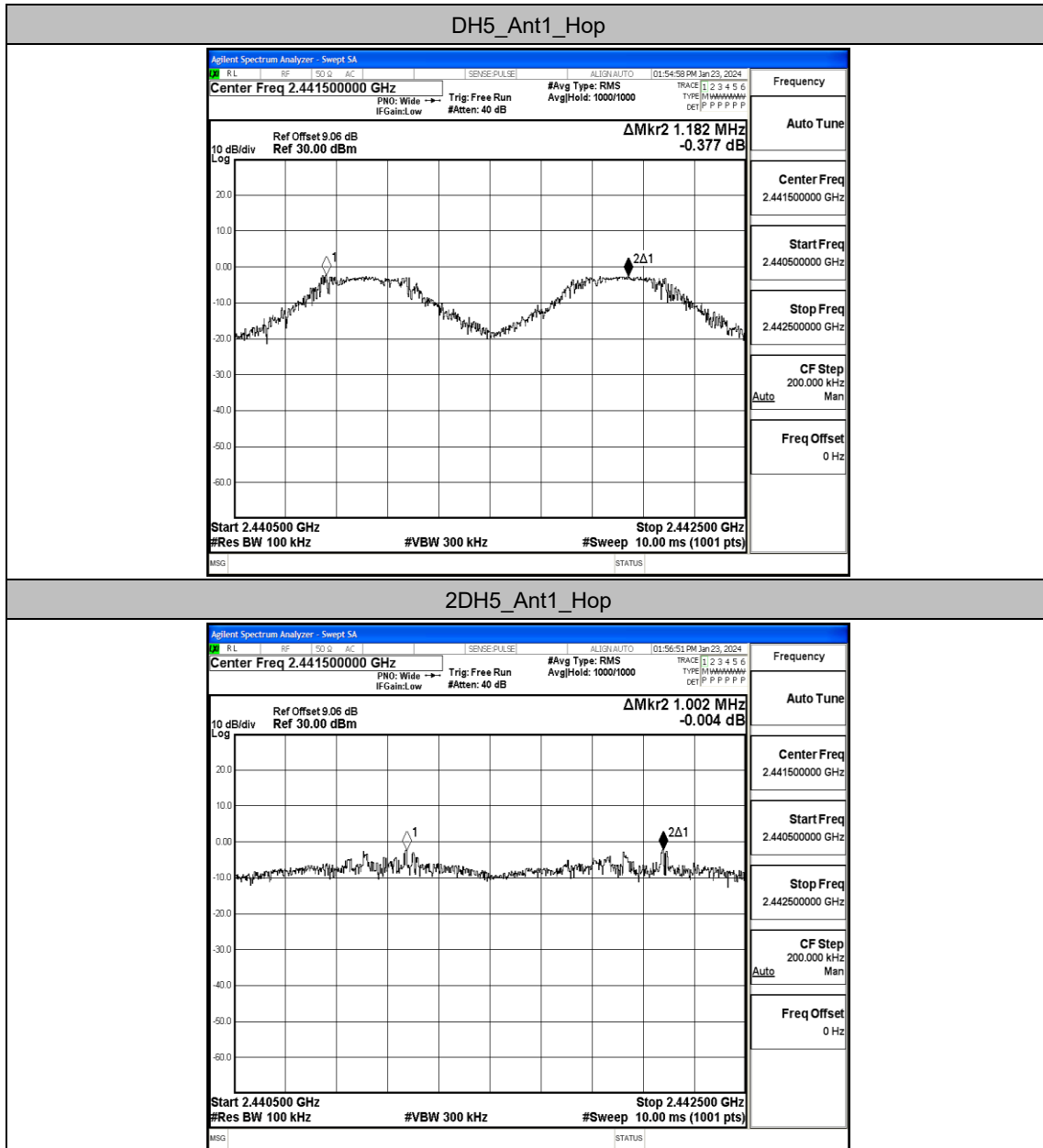


Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.182	≥ 1.029	PASS
2DH5	Ant1	Hop	1.002	≥ 0.894	PASS

Test Graphs

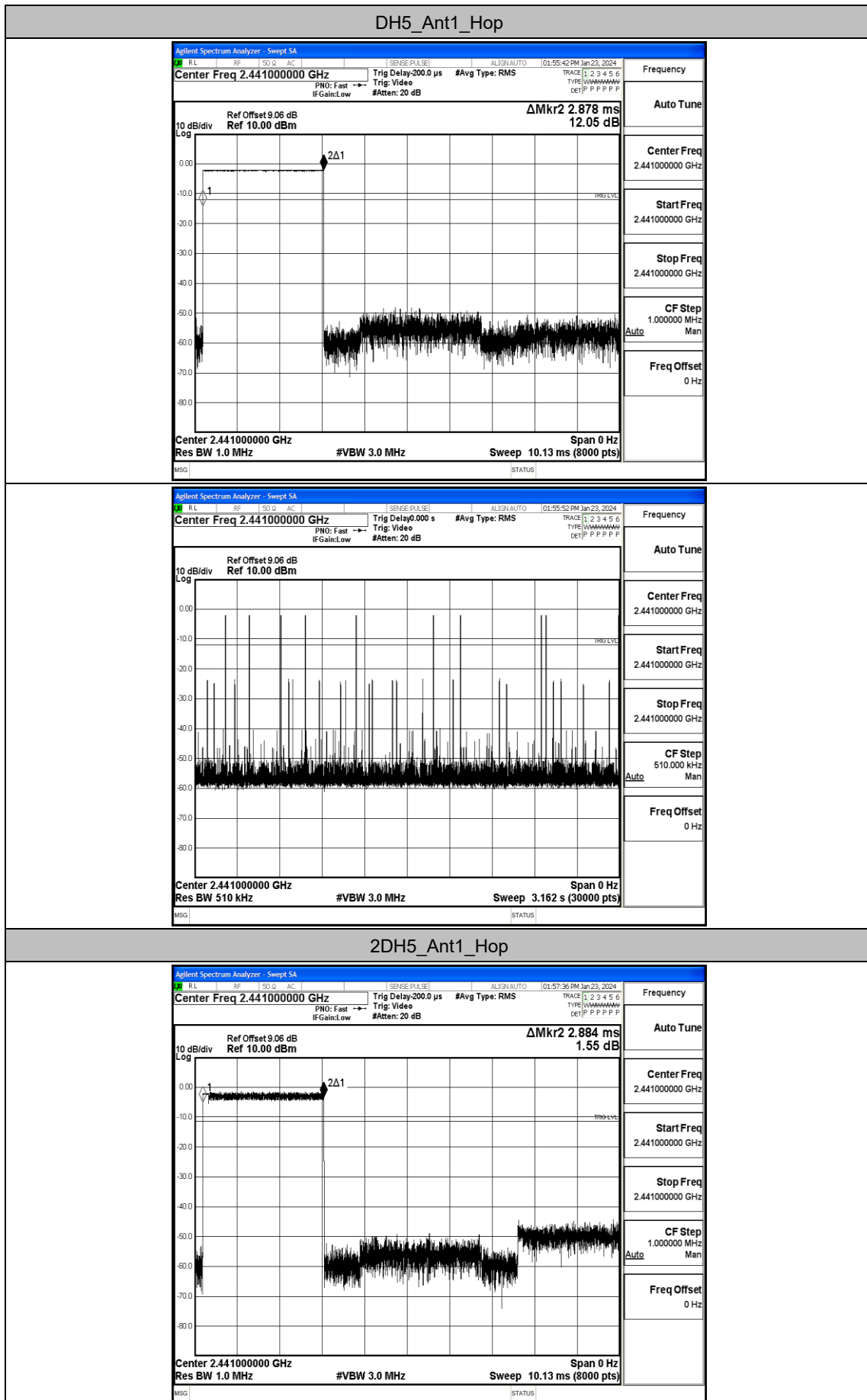


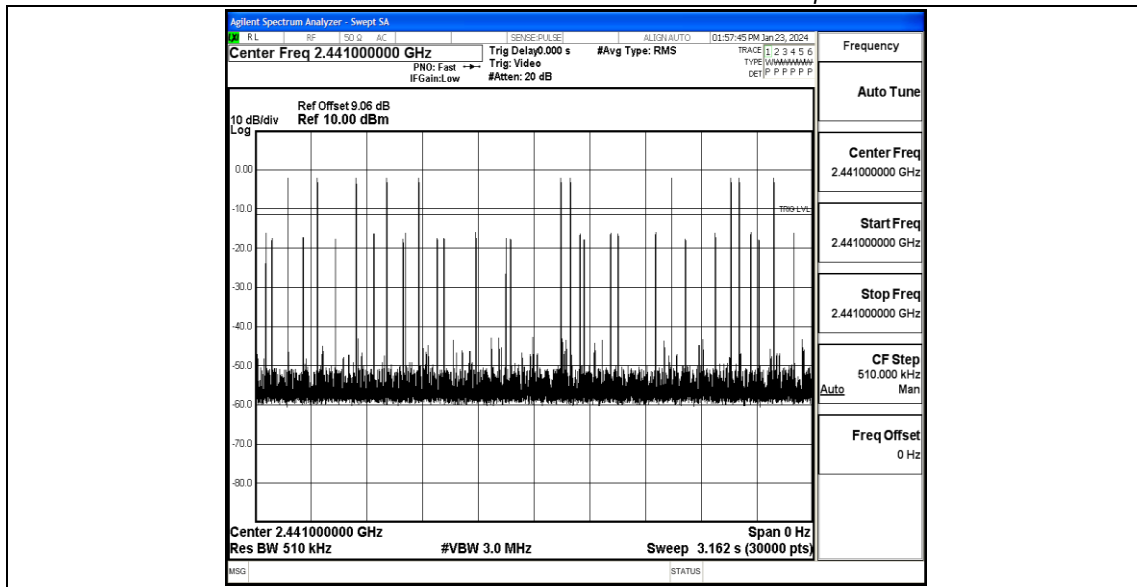
Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.878	110	0.317	≤0.4	PASS
2DH5	Ant1	Hop	2.884	120	0.346	≤0.4	PASS

Test Graphs



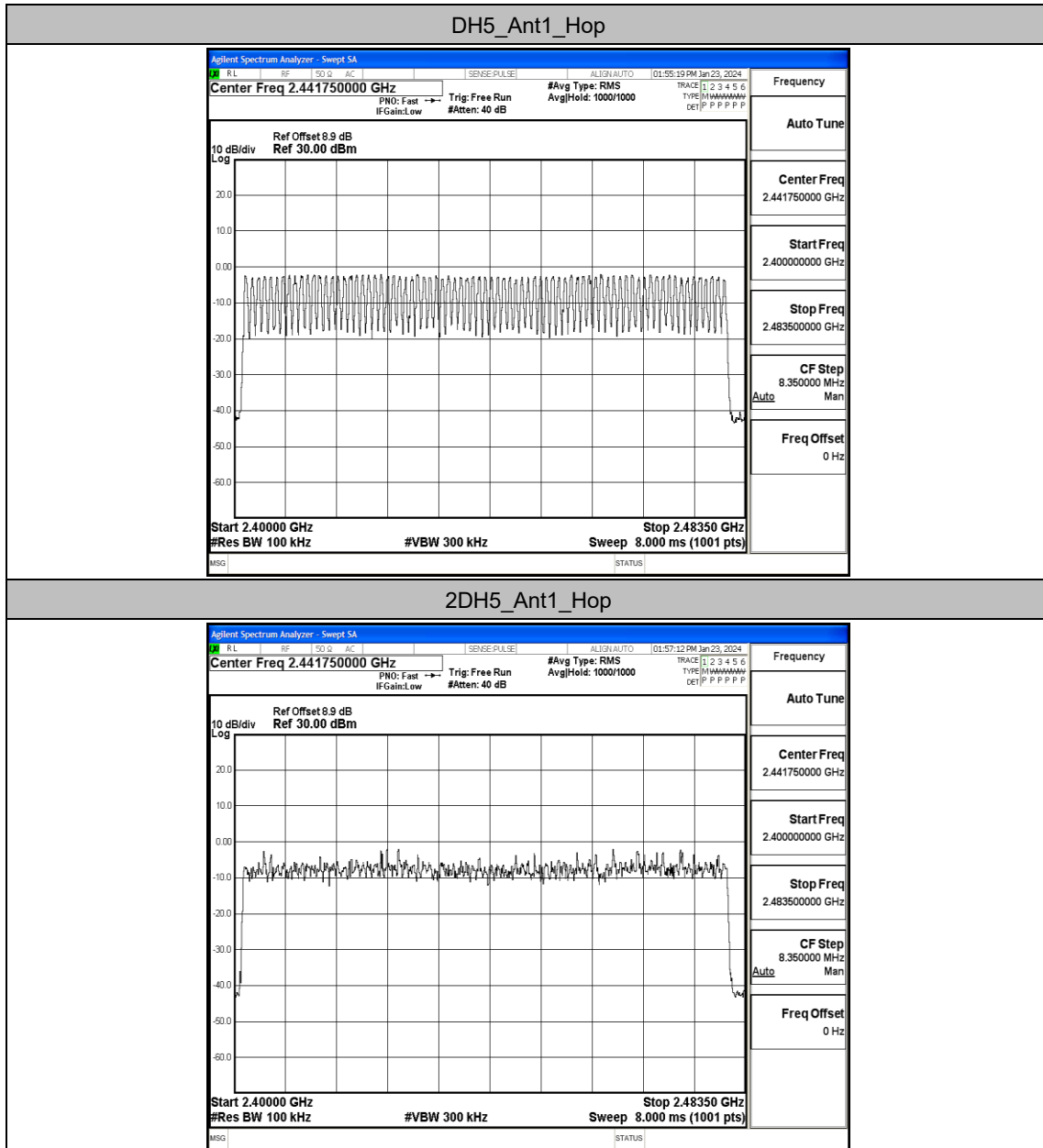


Appendix F: Number of hopping channels

Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS

Test Graphs



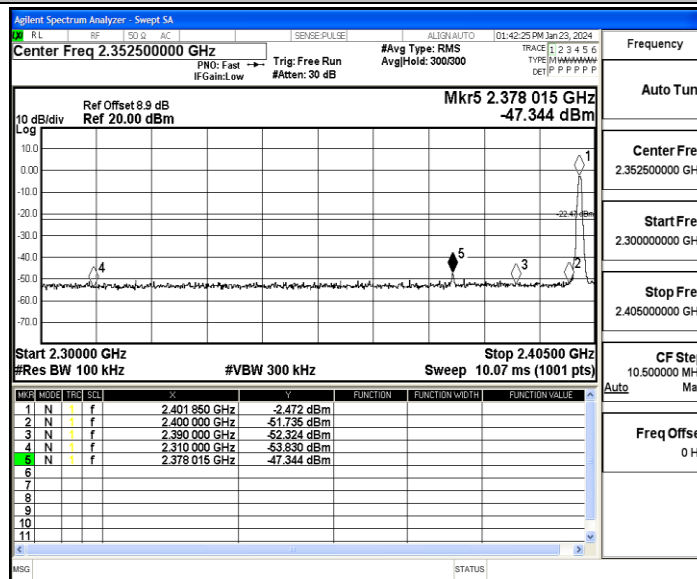
Appendix G: Band edge measurements

Test Result

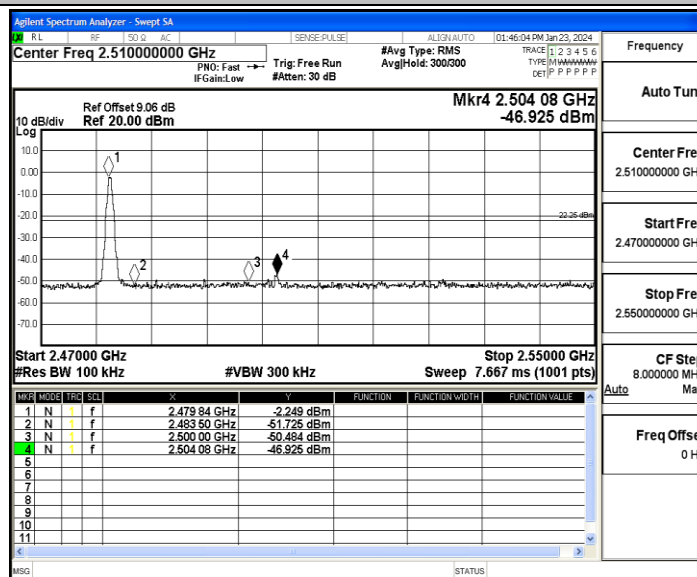
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.47	-47.34	≤ -22.47	PASS
		High	2480	-2.25	-46.93	≤ -22.25	PASS
		Low	Hop_2402	-2.56	-47.88	≤ -22.56	PASS
		High	Hop_2480	-2.29	-47.96	≤ -22.29	PASS
2DH5	Ant1	Low	2402	-2.44	-49.52	≤ -22.44	PASS
		High	2480	-2.23	-47.1	≤ -22.23	PASS
		Low	Hop_2402	-7.77	-50	≤ -27.77	PASS
		High	Hop_2480	-4.61	-49.71	≤ -24.61	PASS

Test Graphs

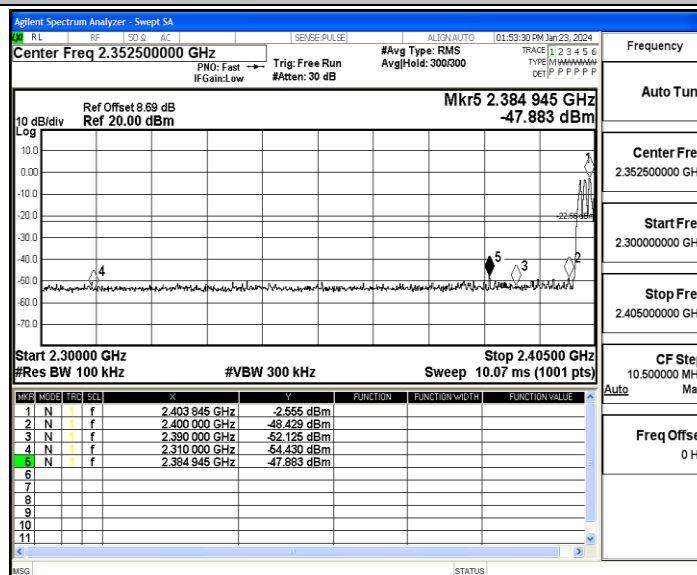
DH5_Ant1_Low_2402



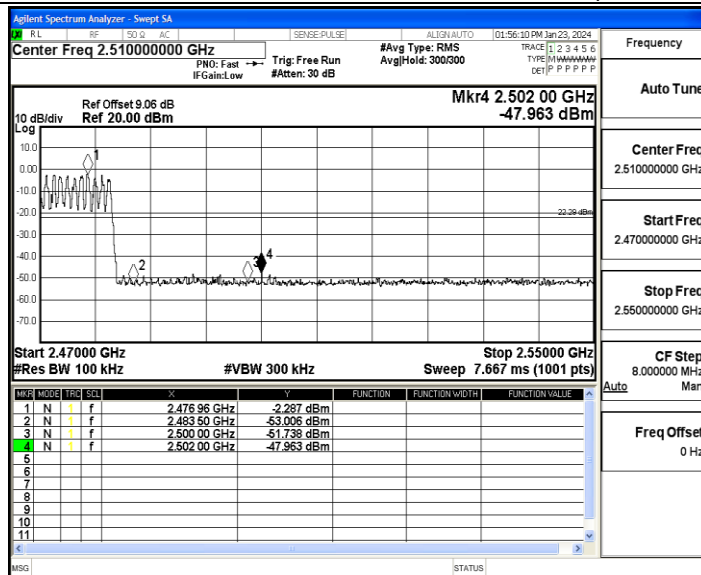
DH5_Ant1_High_2480



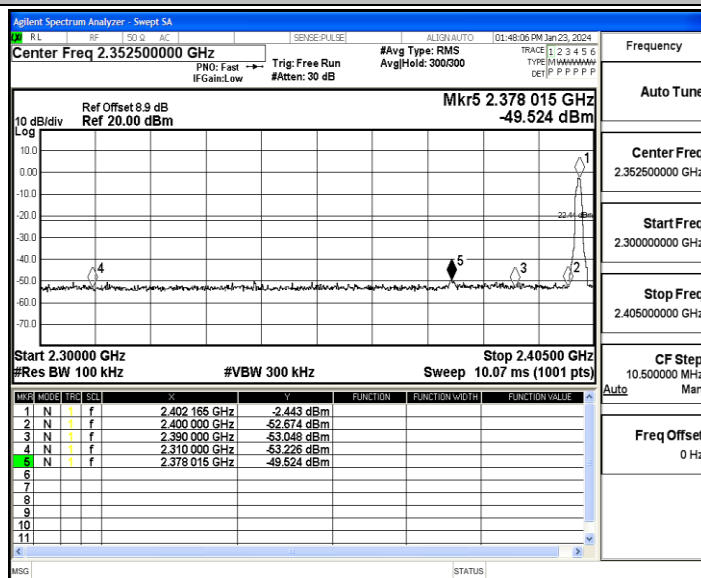
DH5_Ant1_Low_Hop_2402



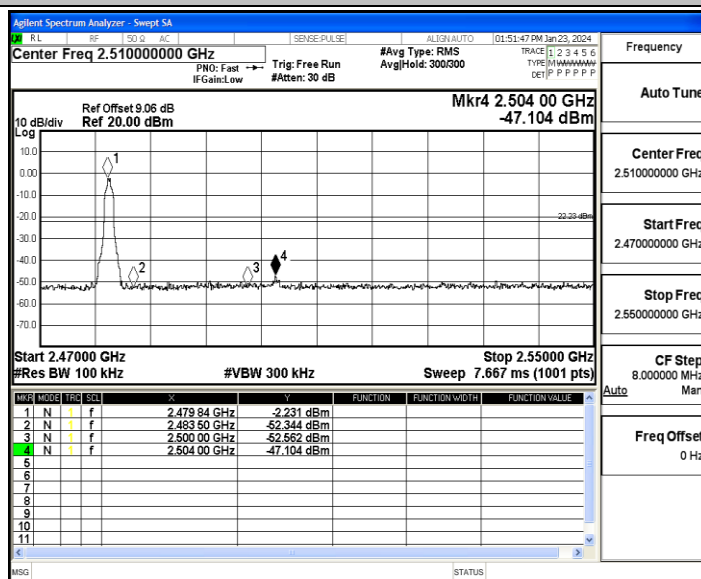
DH5_Ant1_High_Hop_2480



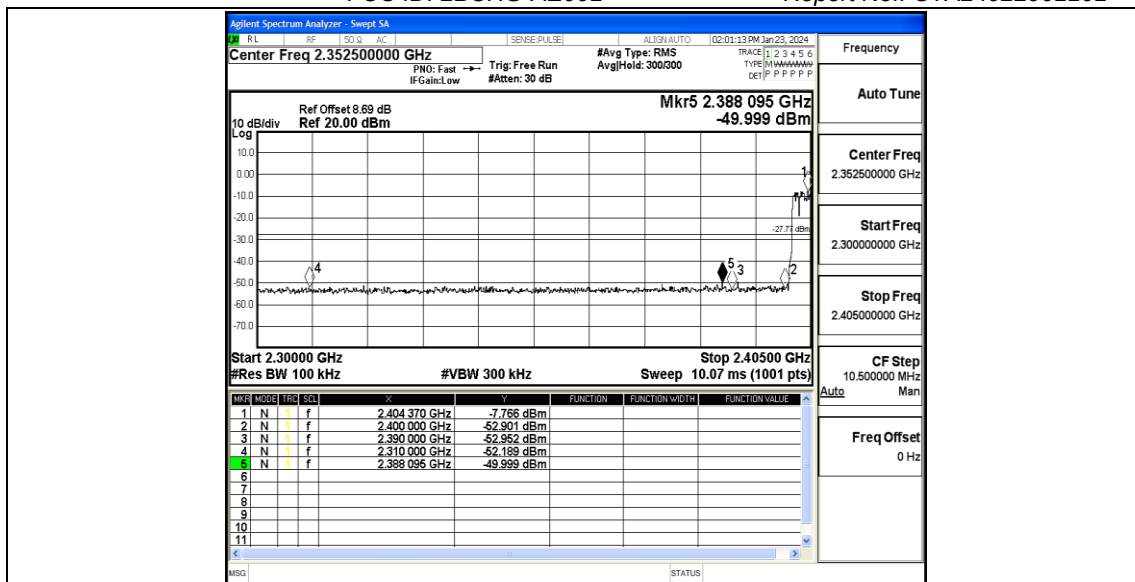
2DH5_Ant1_Low_2402



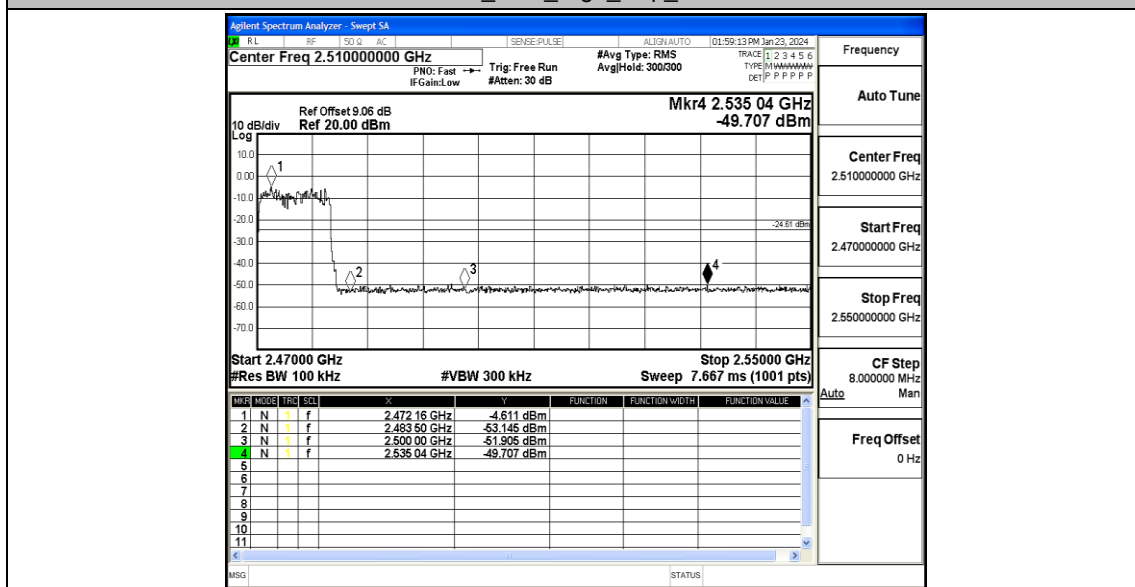
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

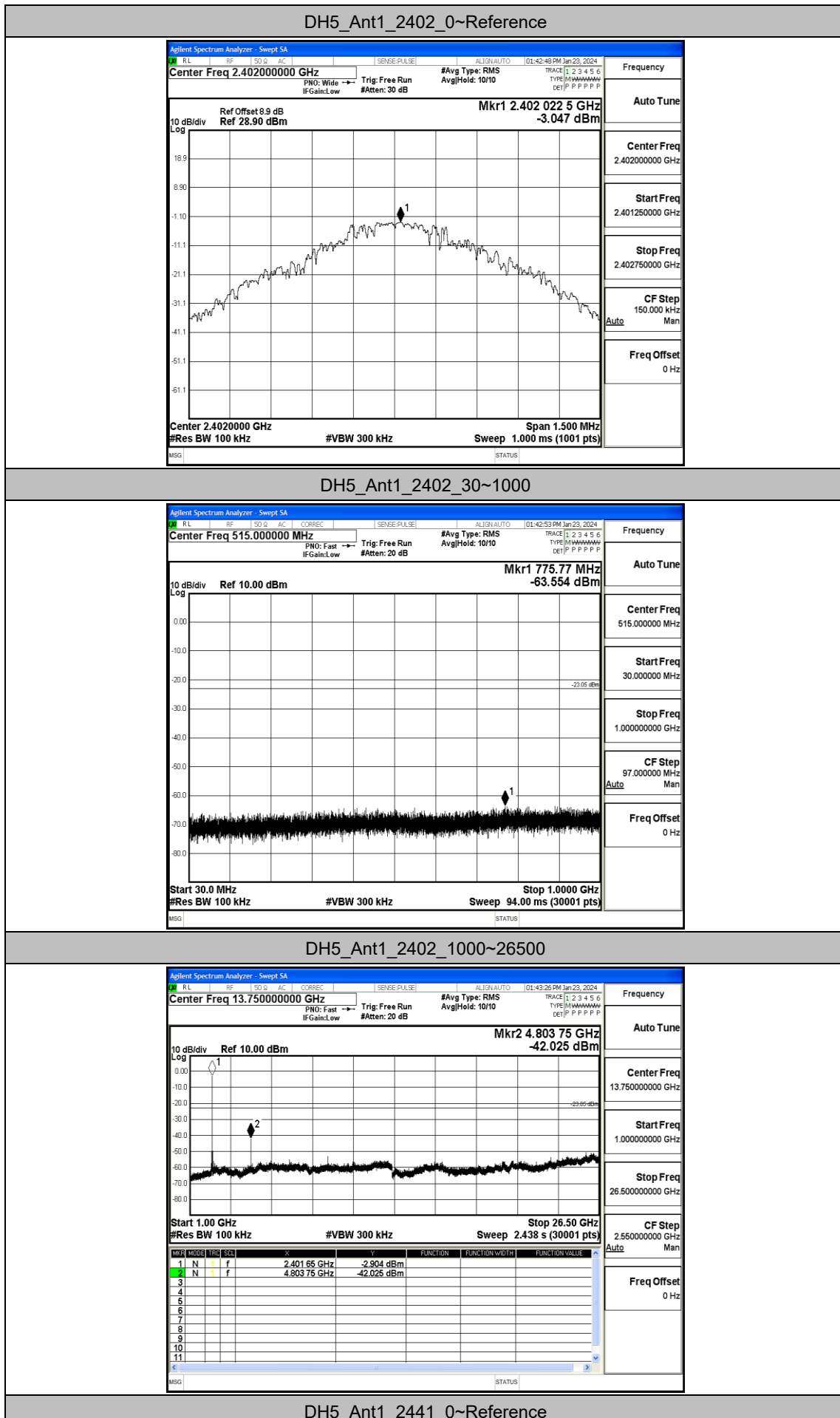


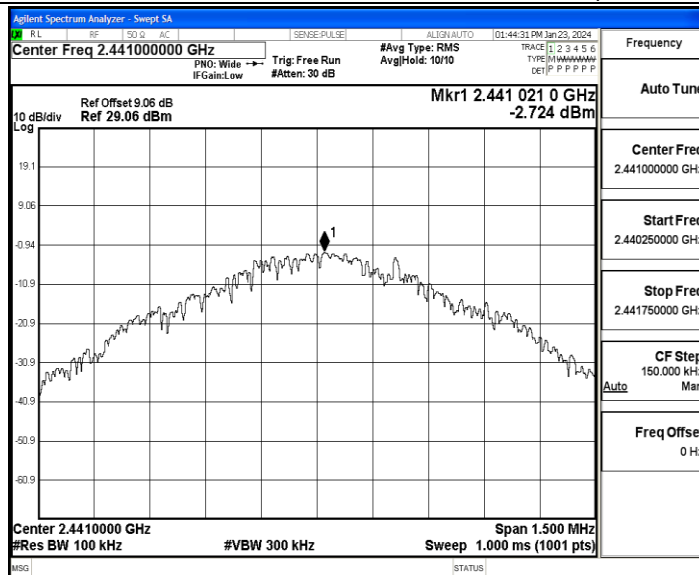
Appendix H: Conducted Spurious Emission

Test Result

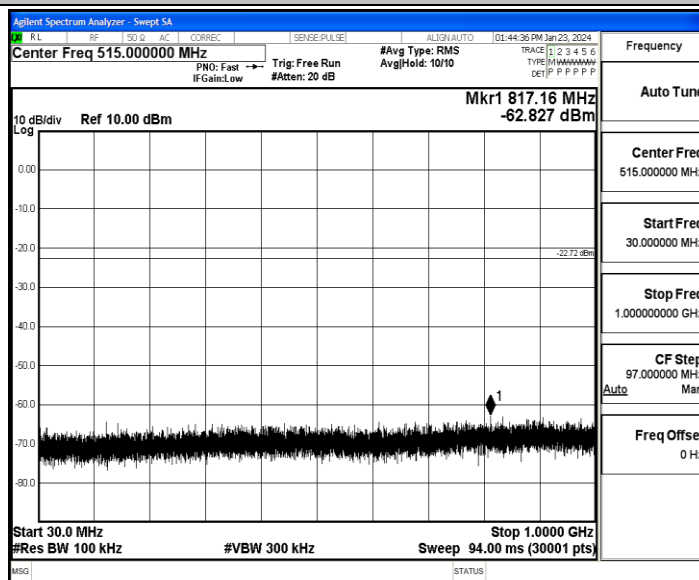
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-3.05	-3.05	---	PASS
			30~1000	-3.05	-63.55	≤-23.05	PASS
			1000~26500	-3.05	-42.03	≤-23.05	PASS
		2441	Reference	-2.72	-2.72	---	PASS
			30~1000	-2.72	-62.83	≤-22.72	PASS
			1000~26500	-2.72	-42.42	≤-22.72	PASS
		2480	Reference	-2.24	-2.24	---	PASS
			30~1000	-2.24	-62.77	≤-22.24	PASS
			1000~26500	-2.24	-41.74	≤-22.24	PASS
2DH5	Ant1	2402	Reference	-5.31	-5.31	---	PASS
			30~1000	-5.31	-63.04	≤-25.31	PASS
			1000~26500	-5.31	-44.94	≤-25.31	PASS
		2441	Reference	-2.98	-2.98	---	PASS
			30~1000	-2.98	-61.63	≤-22.98	PASS
			1000~26500	-2.98	-45.03	≤-22.98	PASS
		2480	Reference	-3.48	-3.48	---	PASS
			30~1000	-3.48	-63.53	≤-23.48	PASS
			1000~26500	-3.48	-45.45	≤-23.48	PASS

Test Graphs

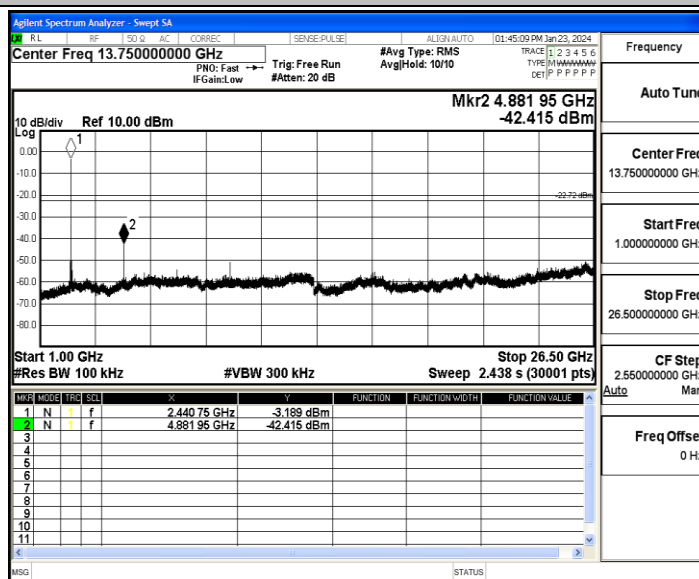




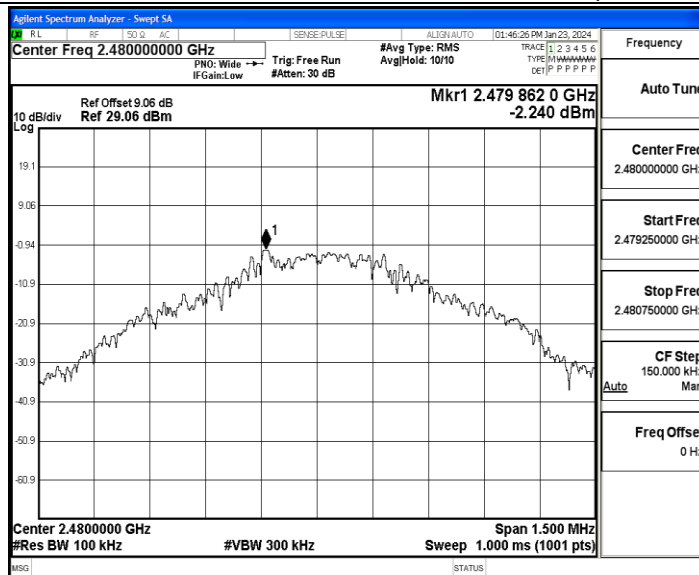
DH5_Ant1_2441_30~1000



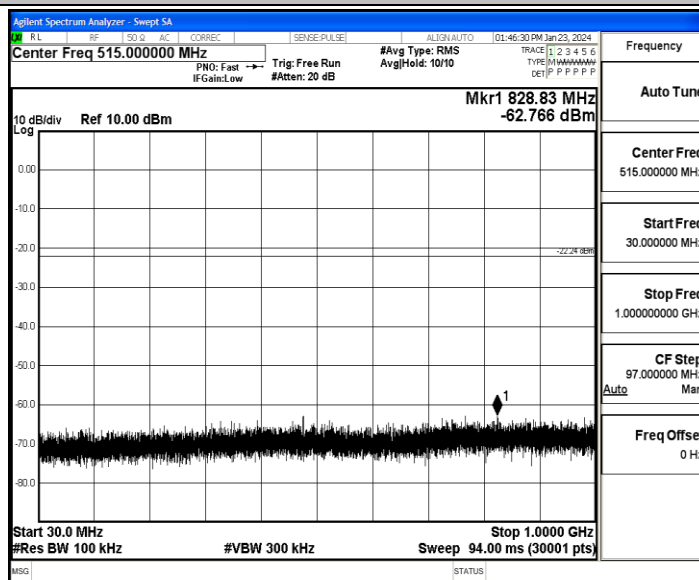
DH5_Ant1_2441_1000~26500



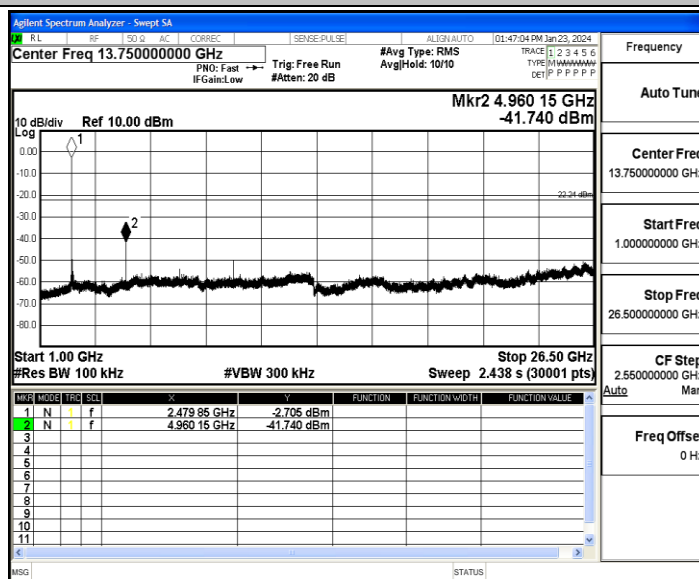
DH5_Ant1_2480_0~Reference



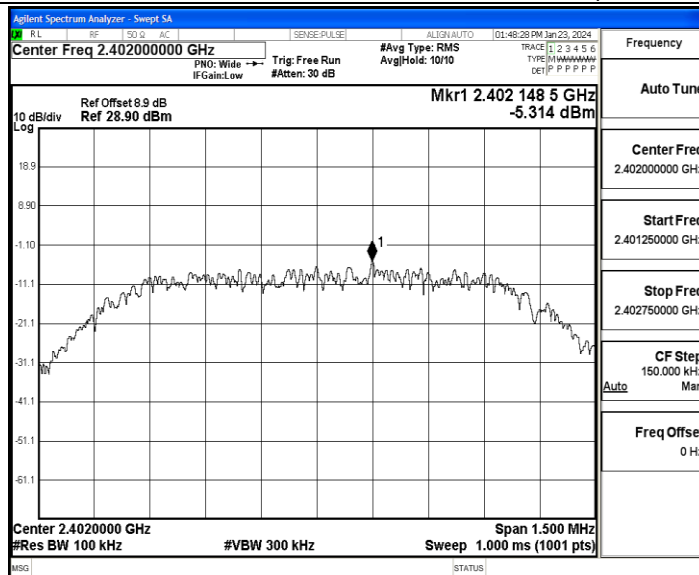
DH5_Ant1_2480_30~1000



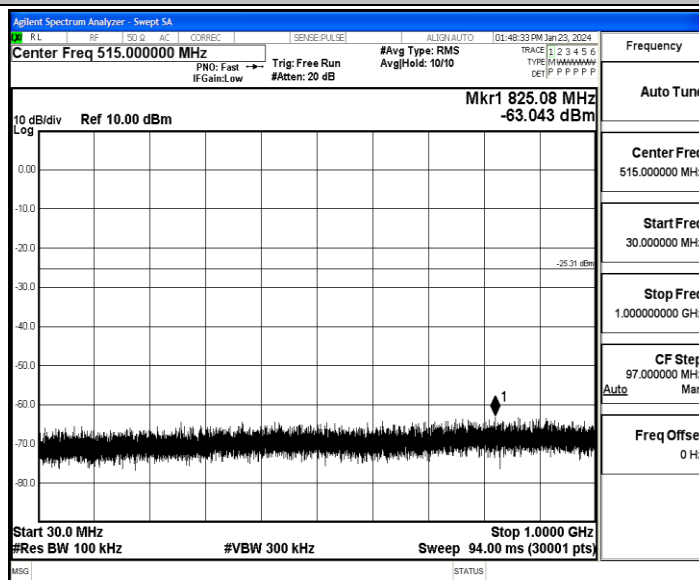
DH5_Ant1_2480_1000~26500



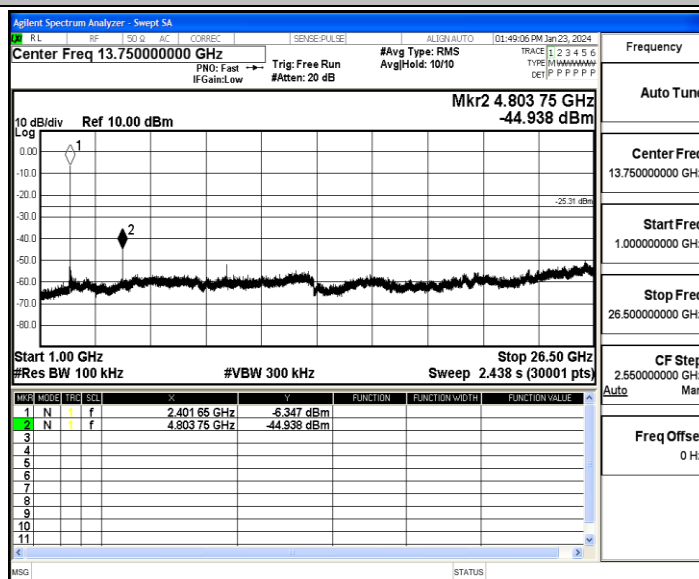
2DH5_Ant1_2402_0~Reference



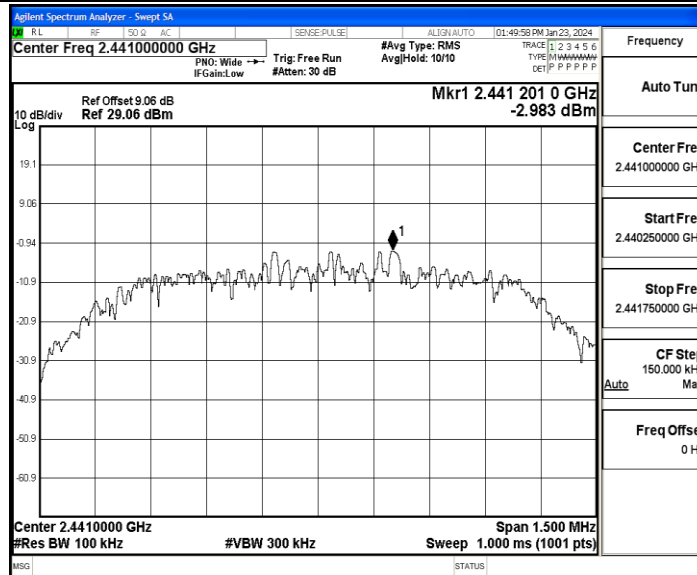
2DH5_Ant1_2402_30~1000



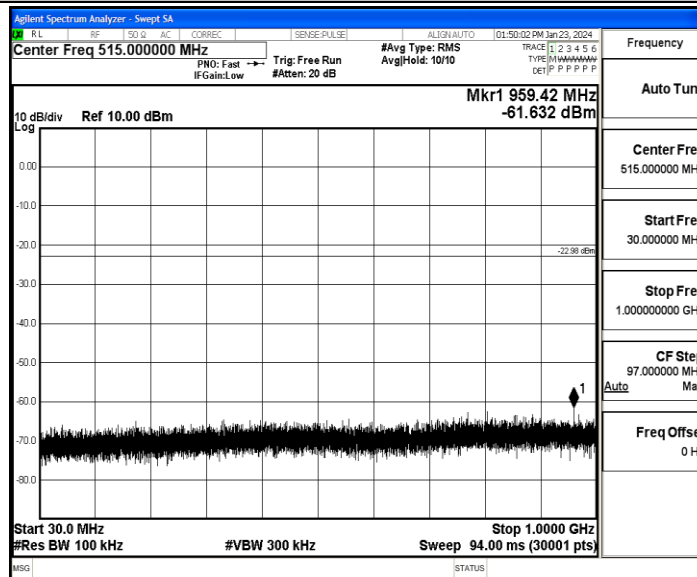
2DH5_Ant1_2402_1000~26500



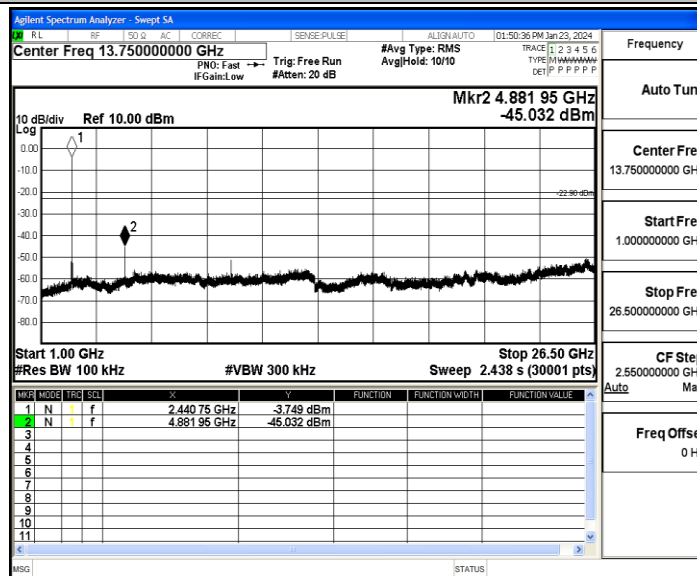
2DH5_Ant1_2441_0~Reference



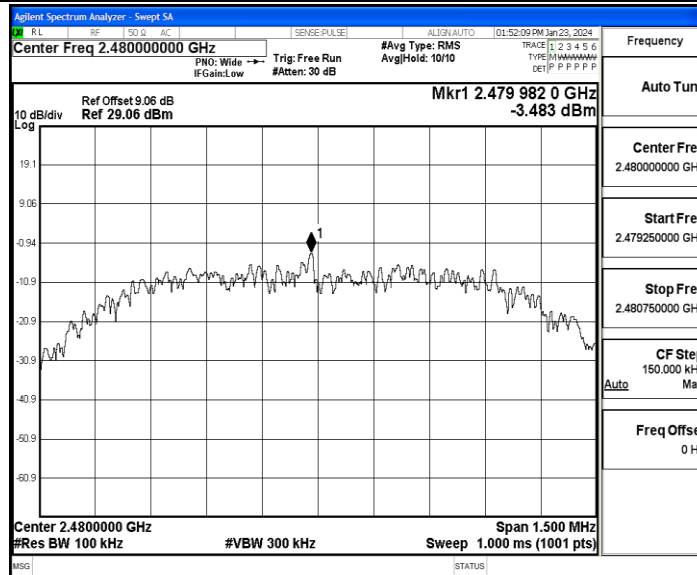
2DH5_Ant1_2441_30~1000



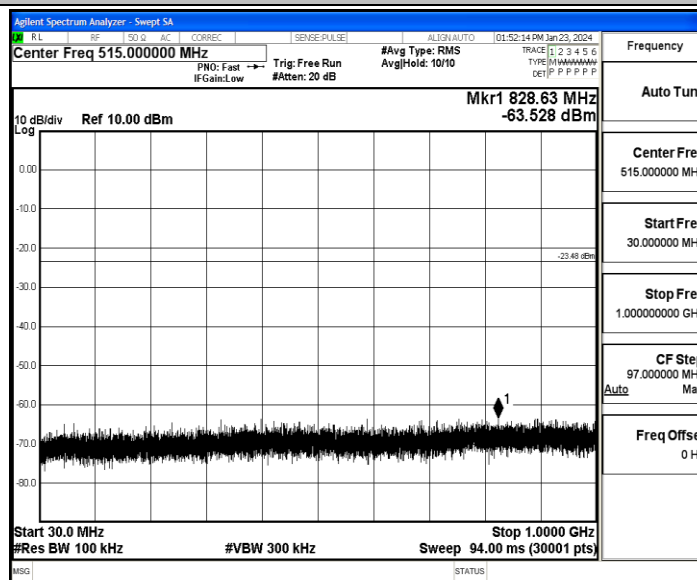
2DH5_Ant1_2441_1000~26500



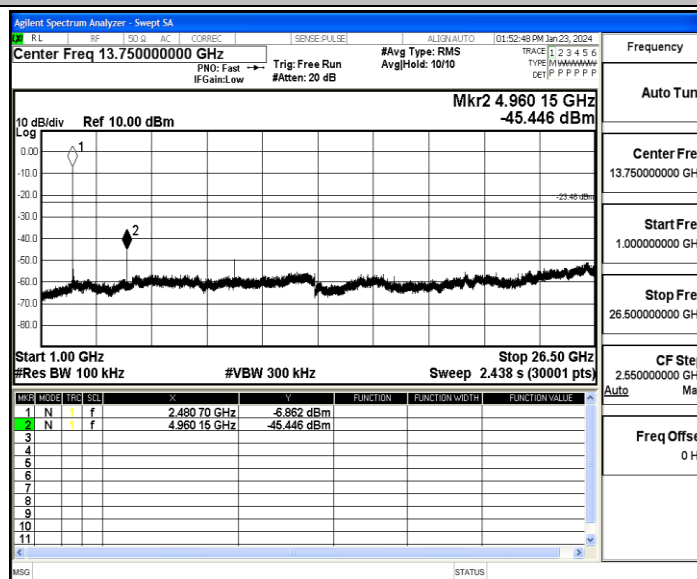
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500

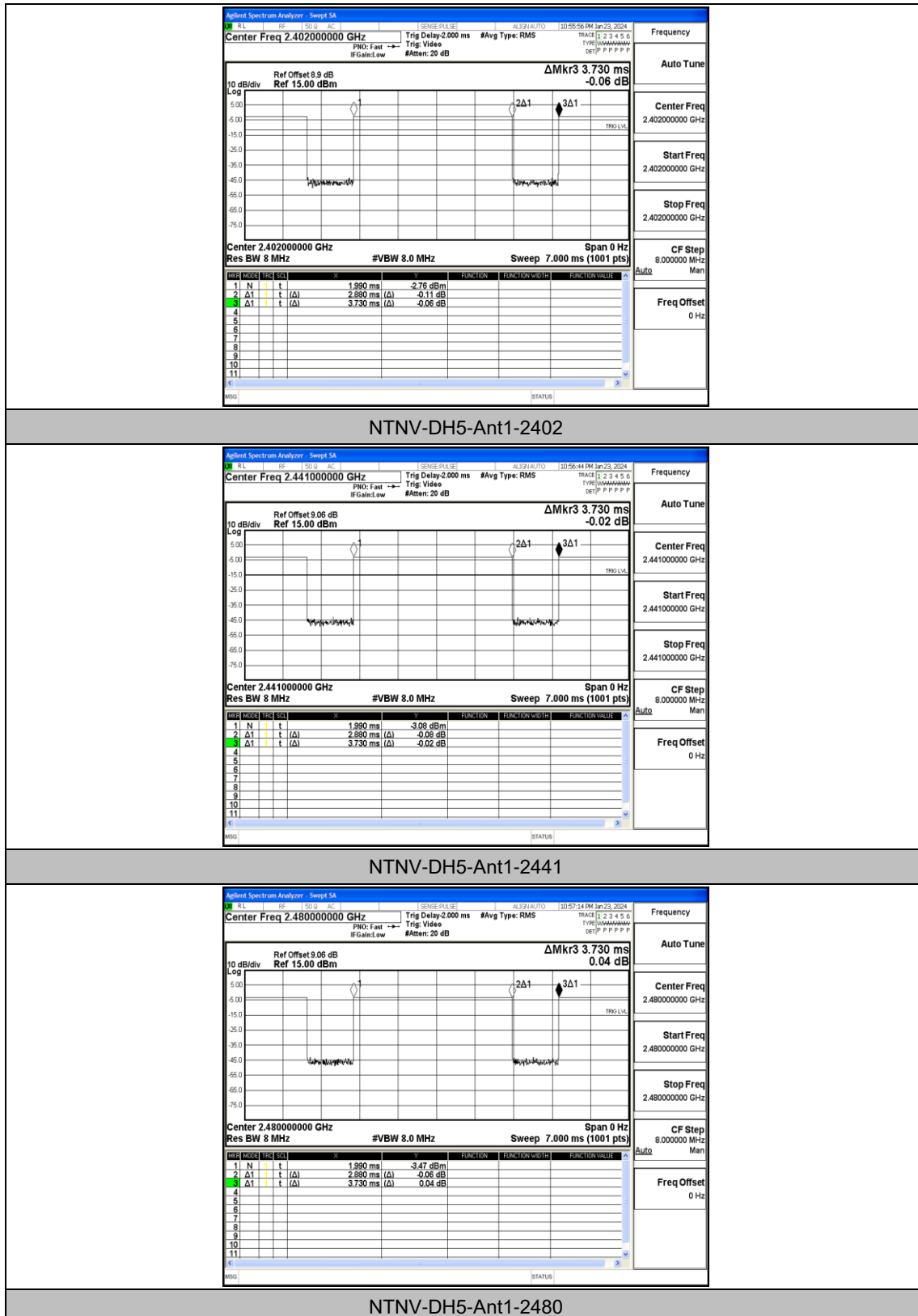


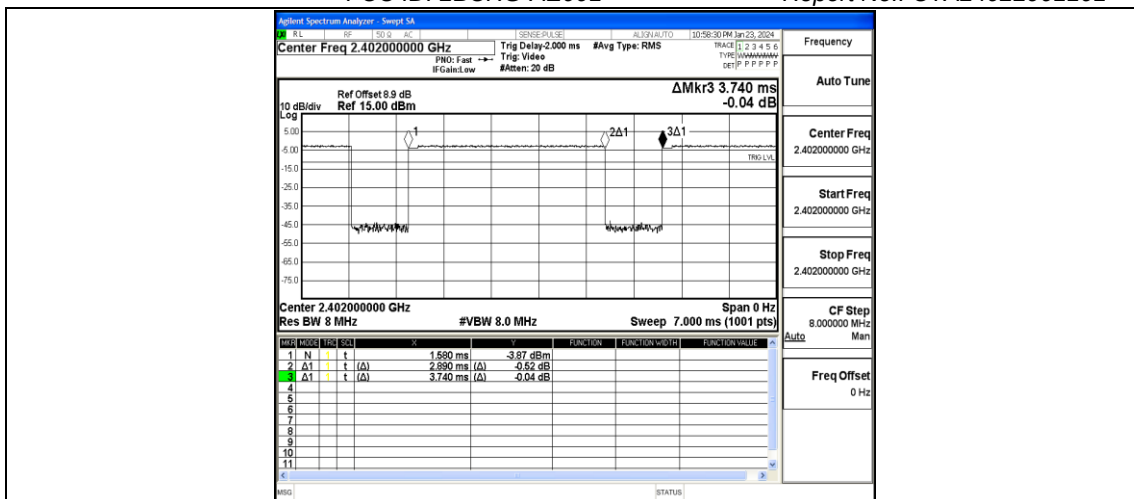
Appendix I: Duty Cycle

Test Result

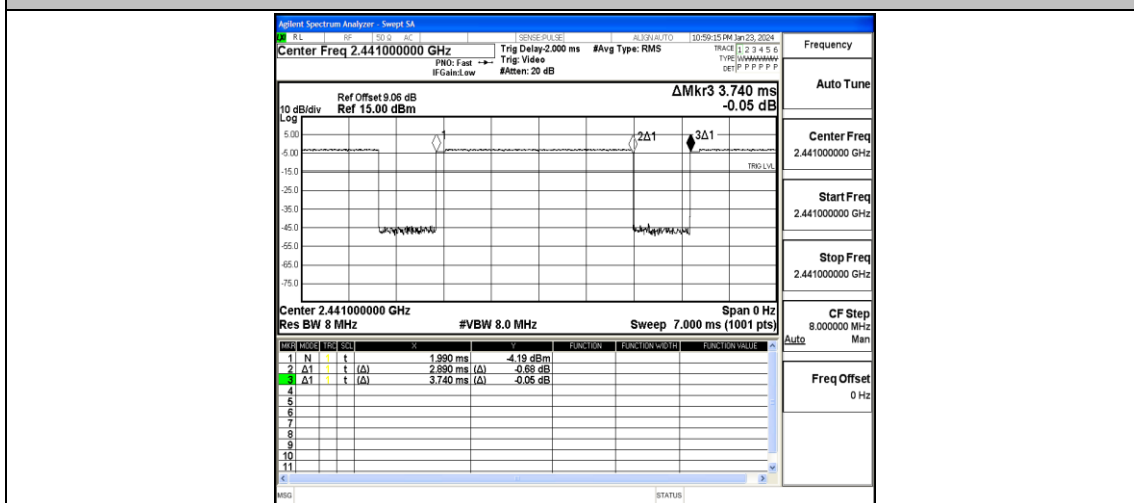
TestMode	Antenna	Frequency[MHz]	ON Time[ms]	Period[ms]	Duty Cycle[%]	Duty Cycle Factor[dB]
DH5	Ant1	2402	2.88	3.73	77.21	1.12
DH5	Ant1	2441	2.88	3.73	77.21	1.12
DH5	Ant1	2480	2.88	3.73	77.21	1.12
2DH5	Ant1	2402	2.89	3.74	77.27	1.12
2DH5	Ant1	2441	2.89	3.74	77.27	1.12
2DH5	Ant1	2480	2.89	3.74	77.27	1.12

Test Graphs

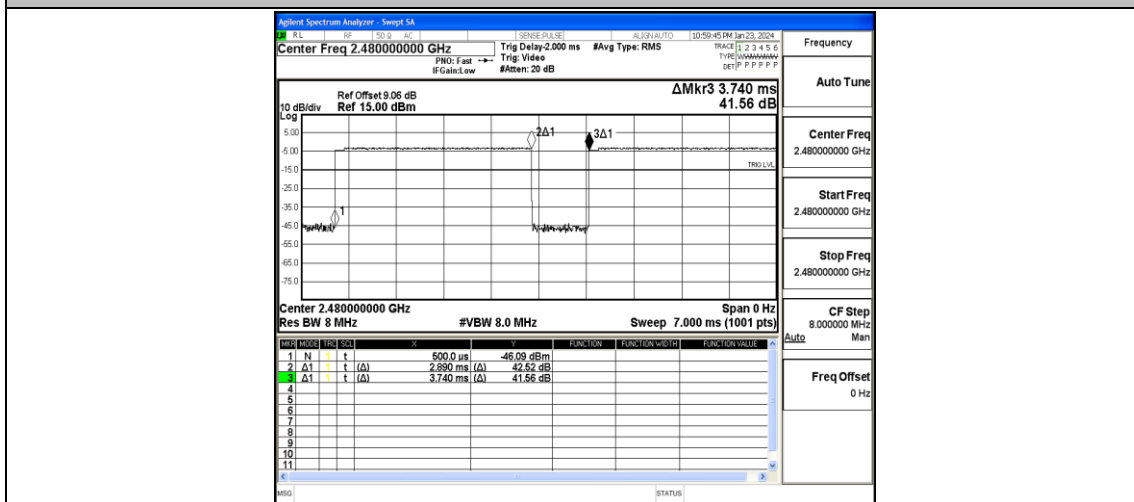




NTNV-2DH5-Ant1-2402



NTNV-2DH5-Ant1-2441



NTNV-2DH5-Ant1-2480

Appendix J: Emissions in Restricted Bands

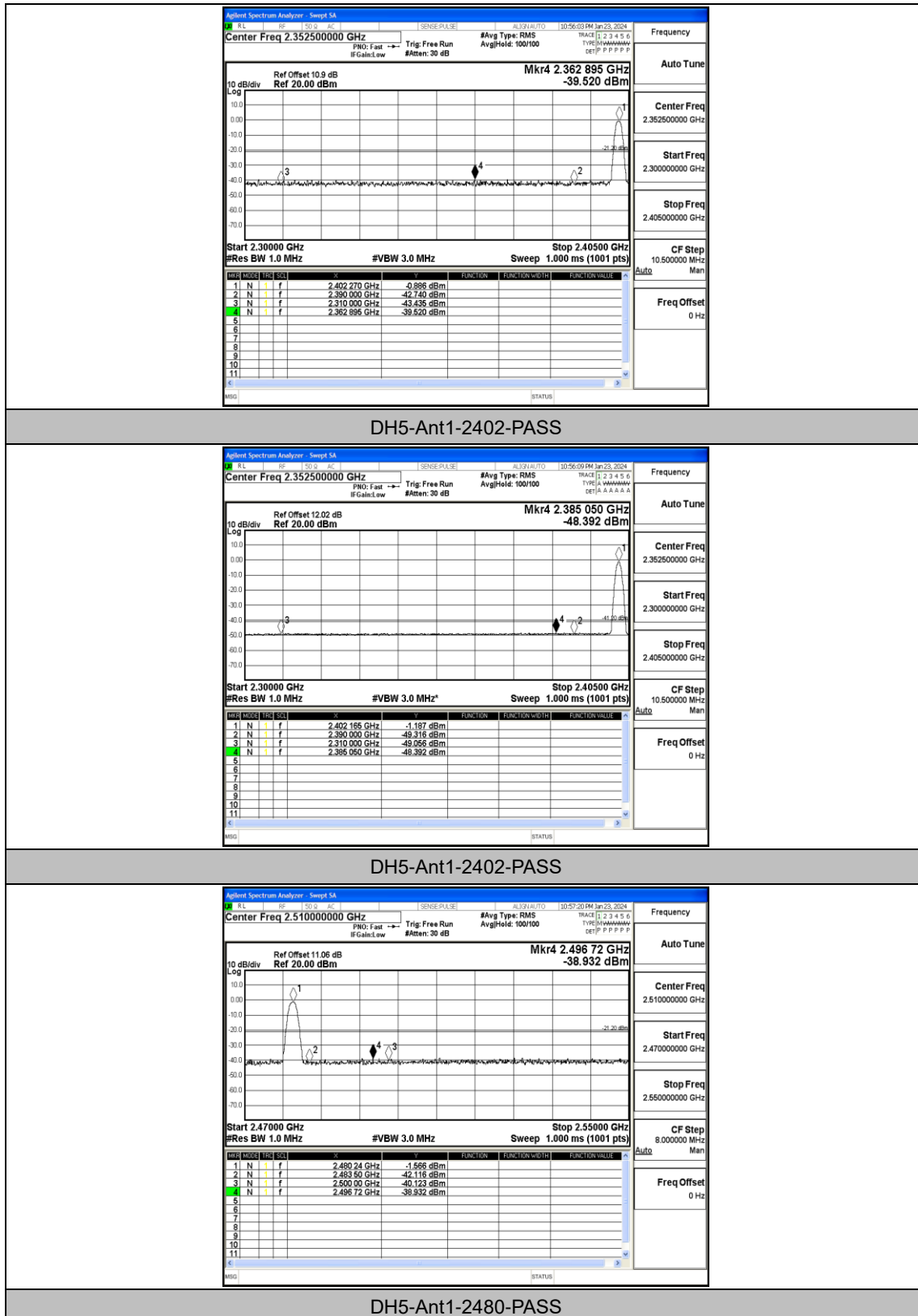
Test Result

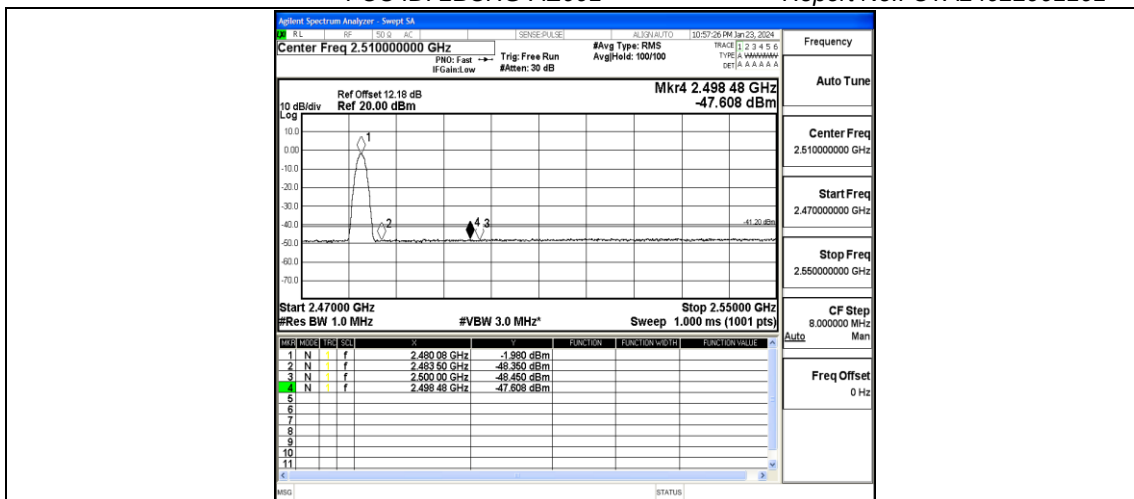
TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	Peak	2390.000	-42.74	≤-21.20	PASS
				Peak	2310.000	-43.44	≤-21.20	PASS
				Peak	2362.895	-39.52	≤-21.20	PASS
				AV	2390.000	-49.32	≤-41.20	PASS
				AV	2310.000	-49.06	≤-41.20	PASS
				AV	2385.050	-48.39	≤-41.20	PASS
		High	2480	Peak	2483.500	-42.12	≤-21.20	PASS
				Peak	2500.000	-40.12	≤-21.20	PASS
				Peak	2496.720	-38.93	≤-21.20	PASS
				AV	2483.500	-48.35	≤-41.20	PASS
				AV	2500.000	-48.45	≤-41.20	PASS
				AV	2498.480	-47.61	≤-41.20	PASS
2DH5	Ant1	Low	2402	Peak	2390.000	-41.97	≤-21.20	PASS
				Peak	2310.000	-41.43	≤-21.20	PASS
				Peak	2379.590	-39.71	≤-21.20	PASS
				AV	2390.000	-49.33	≤-41.20	PASS
				AV	2310.000	-49.79	≤-41.20	PASS
				AV	2384.000	-48.36	≤-41.20	PASS
		High	2480	Peak	2483.500	-40.69	≤-21.20	PASS
				Peak	2500.000	-41.87	≤-21.20	PASS
				Peak	2484.720	-38.33	≤-21.20	PASS
				AV	2483.500	-48.85	≤-41.20	PASS
				AV	2500.000	-48.5	≤-41.20	PASS
				AV	2495.840	-47.86	≤-41.20	PASS

Note:

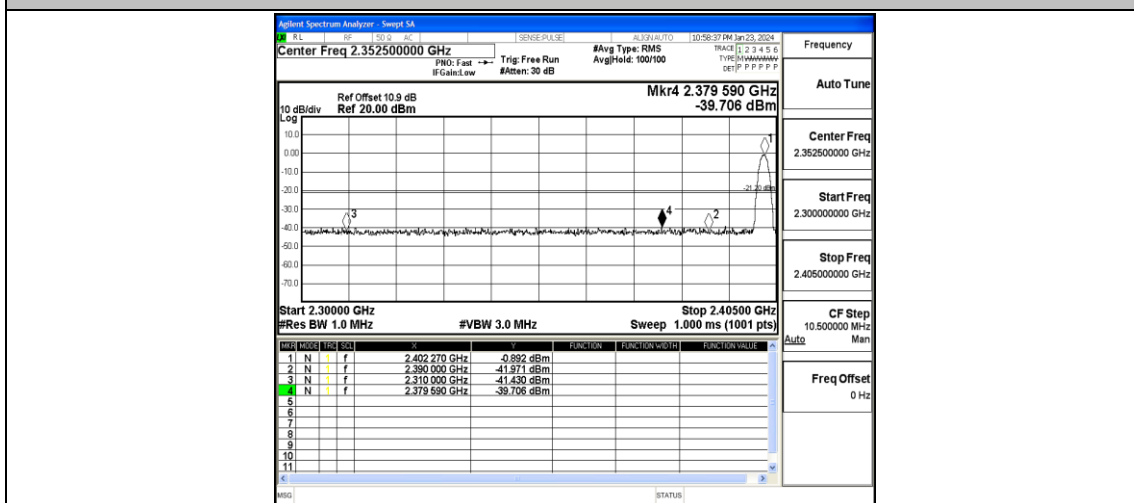
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

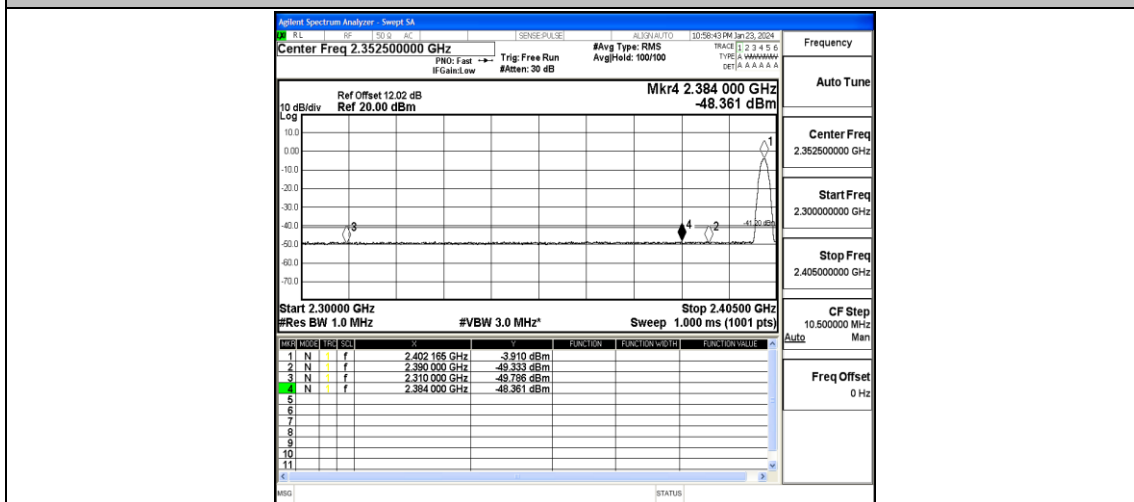




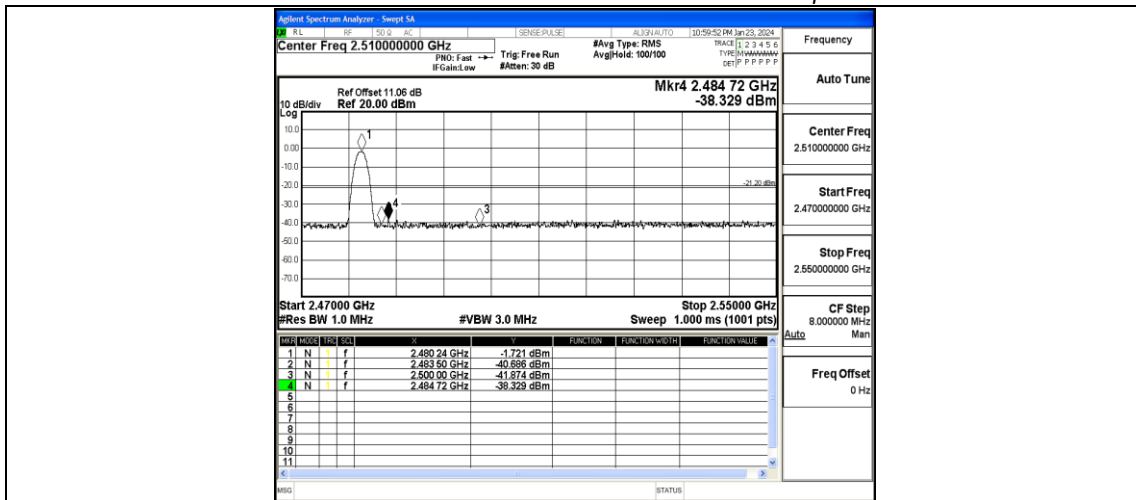
DH5-Ant1-2480-PASS



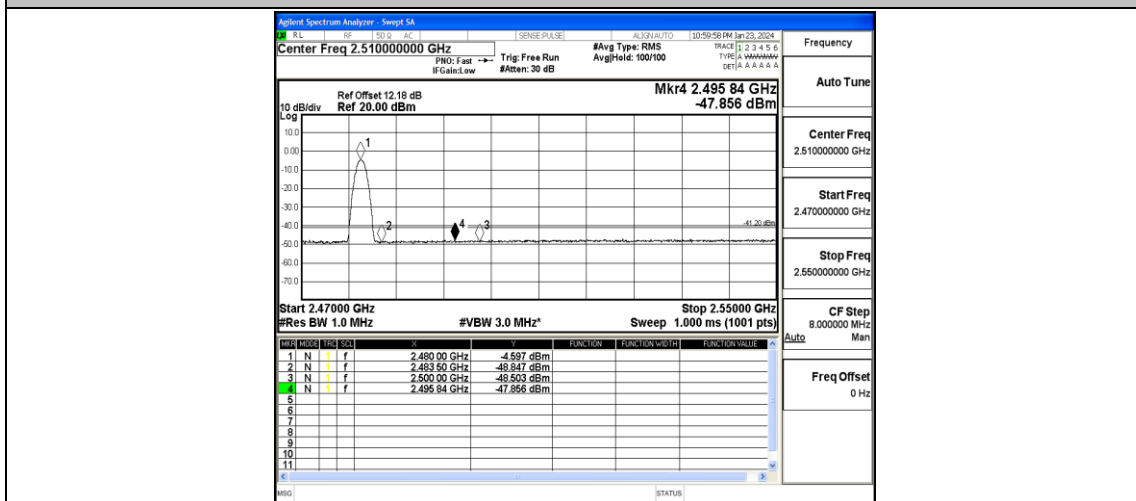
2DH5-Ant1-2402-PASS



2DH5-Ant1-2402-PASS



2DH5-Ant1-2480-PASS



2DH5-Ant1-2480-PASS