

FCC Appendix RF Test Data

FCC ID : **2BPA4-S3**

Company: : **Shenzhen Yuansheng Technology Development Co., Ltd.**

EUT : **Fan Bluetooth speaker**

Model Number : **S3**

Report No. : **CTA25043000101**

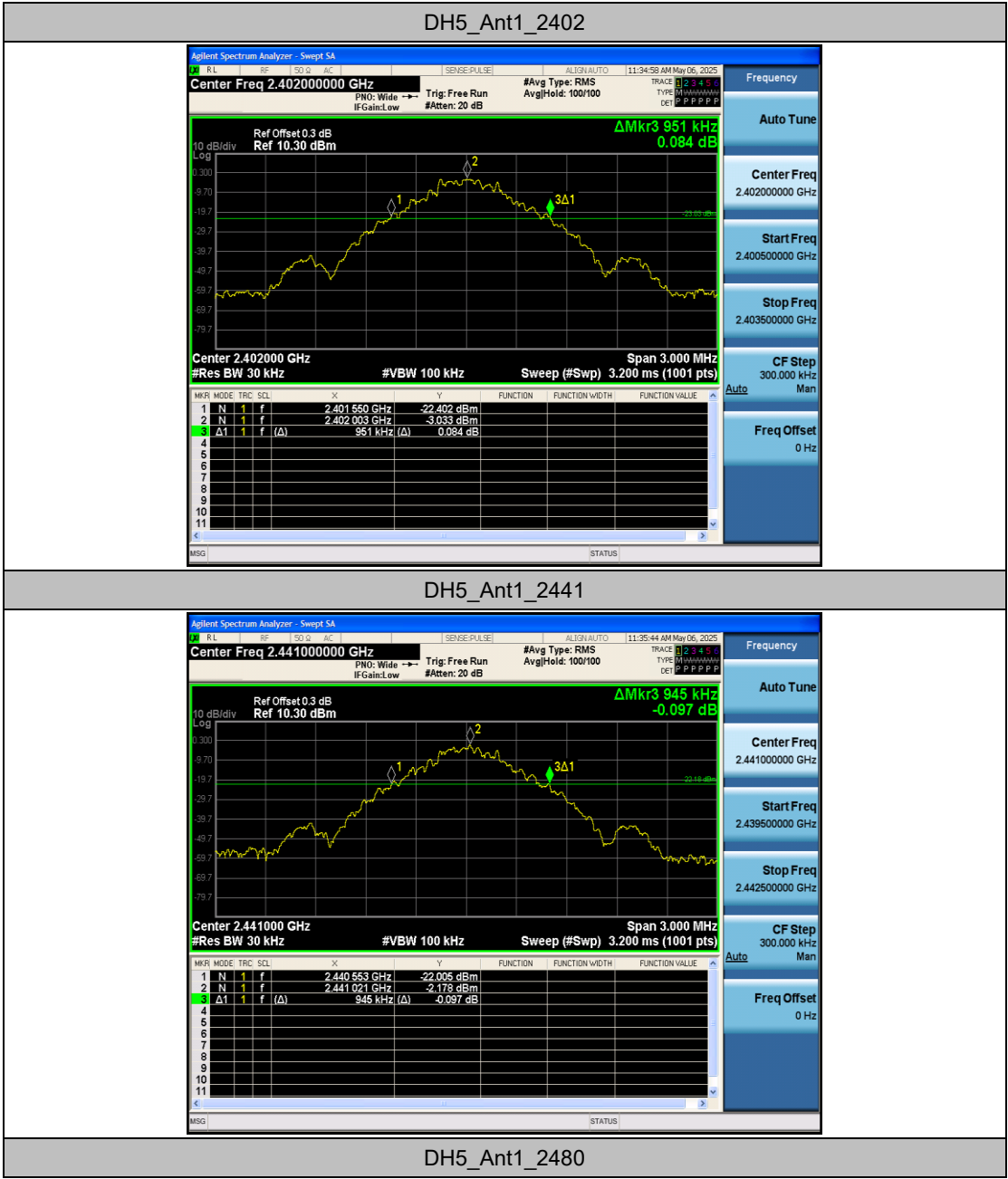
Reviewed By : **Eric Wang**

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.951	2401.550	2402.501	---	---
		2441	0.945	2440.553	2441.498	---	---
		2480	0.954	2479.550	2480.504	---	---
2DH5	Ant1	2402	1.275	2401.385	2402.660	---	---
		2441	1.278	2440.382	2441.660	---	---
		2480	1.275	2479.382	2480.657	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

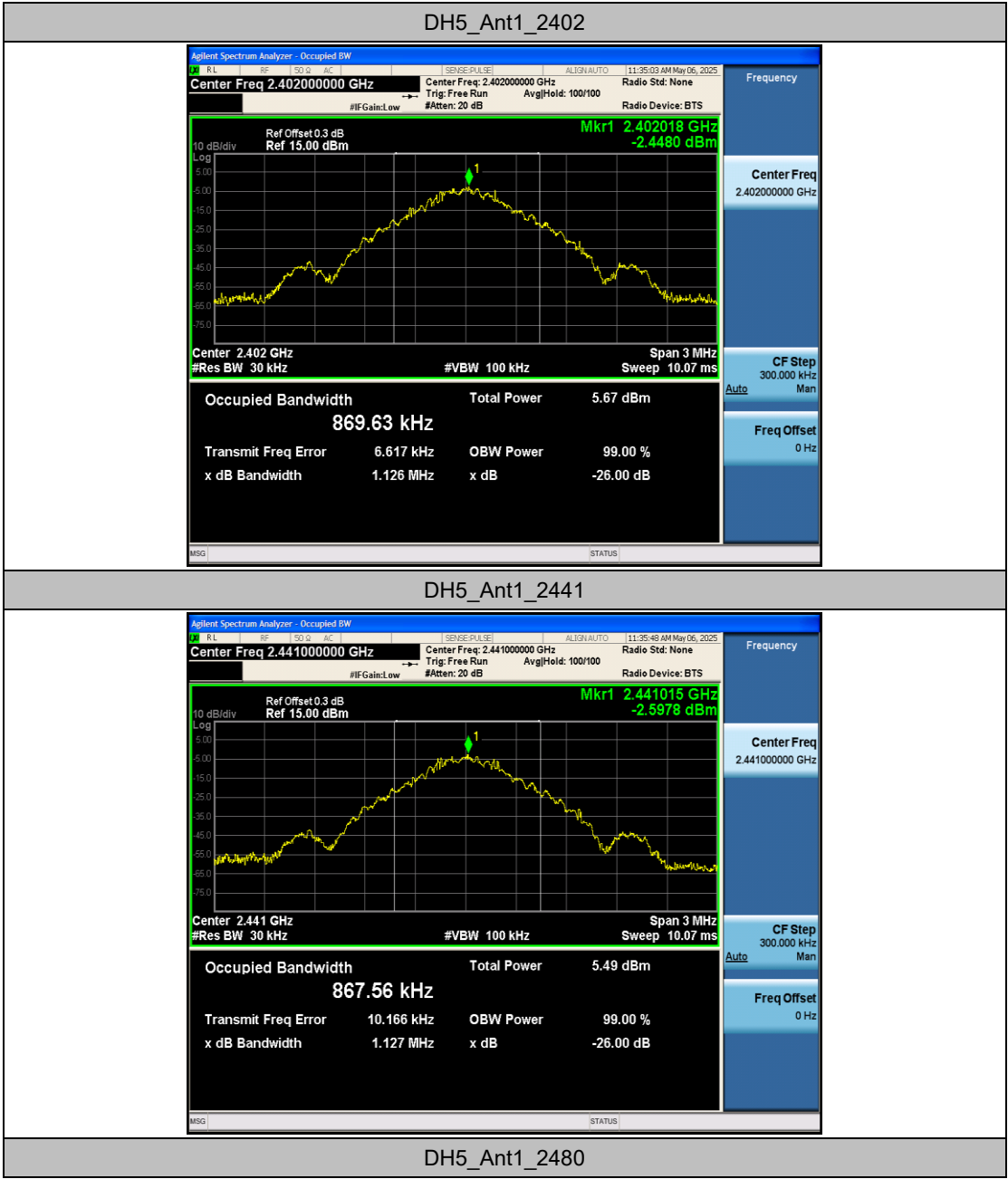


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86963	2401.5718	2402.4414	---	---
		2441	0.86756	2440.5764	2441.4440	---	---
		2480	0.87731	2479.5698	2480.4472	---	---
2DH5	Ant1	2402	1.1894	2401.4163	2402.6057	---	---
		2441	1.1899	2440.4149	2441.6048	---	---
		2480	1.1901	2479.4160	2480.6061	---	---

Test Graphs





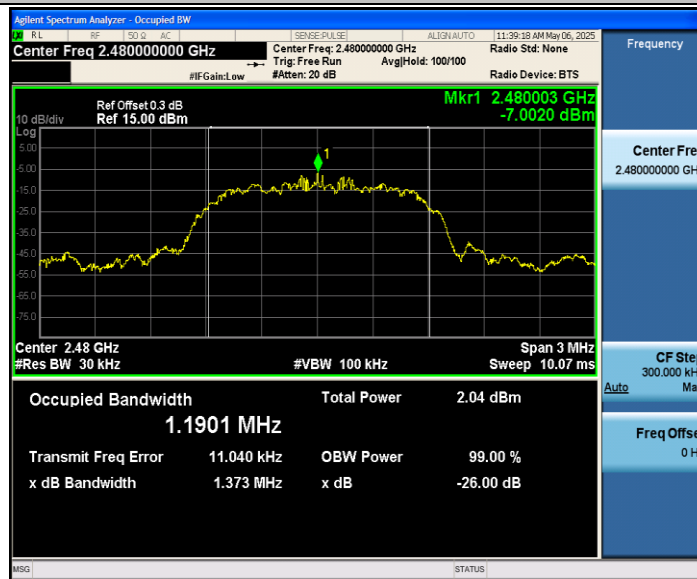
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-0.19	≤20.97	PASS
		2441	-0.42	≤20.97	PASS
		2480	-0.54	≤20.97	PASS
2DH5	Ant1	2402	-0.99	≤20.97	PASS
		2441	-1.26	≤20.97	PASS
		2480	-1.35	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.16	≥ 0.954	PASS
2DH5	Ant1	Hop	0.996	≥ 0.852	PASS

Test Graphs

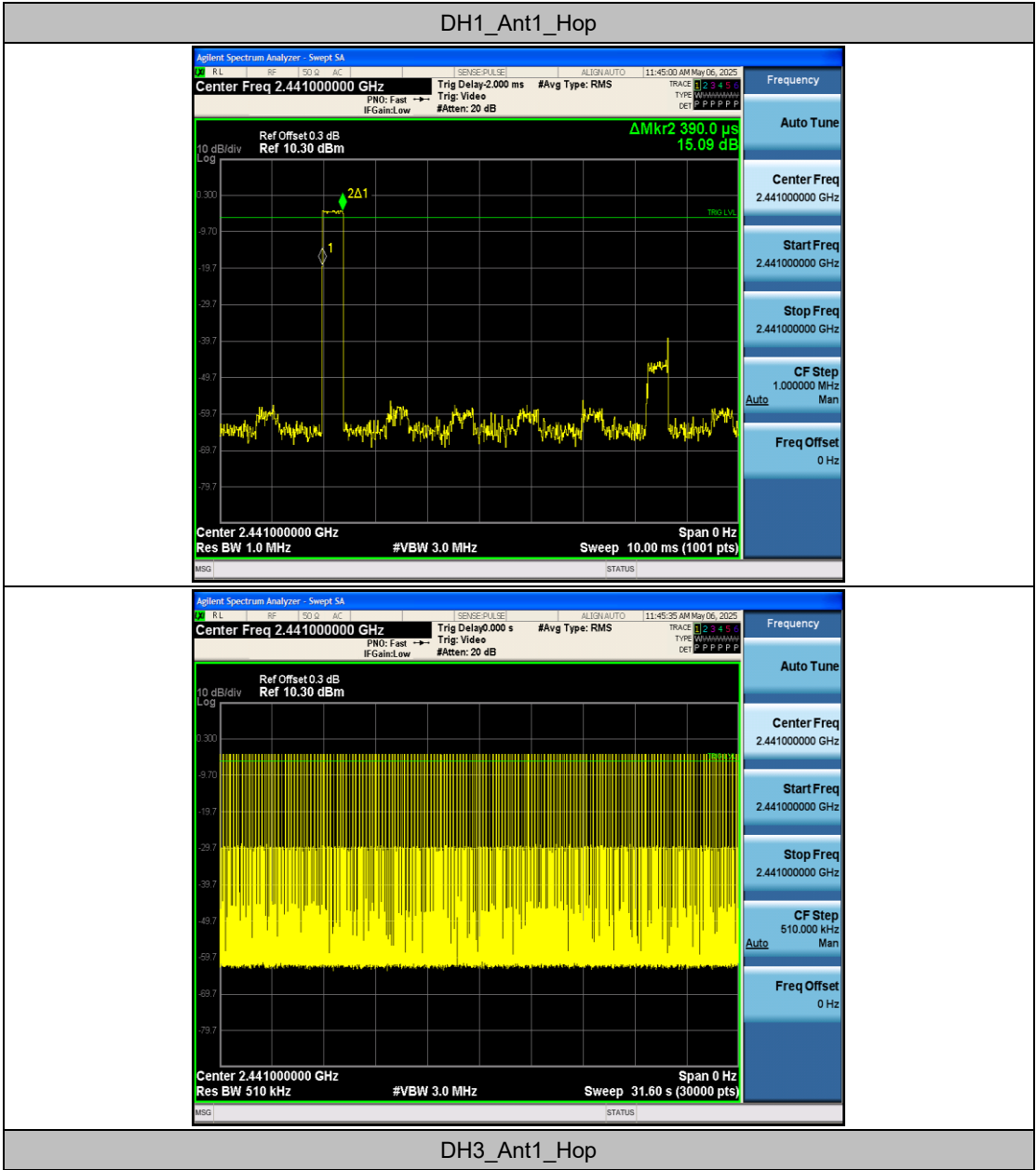


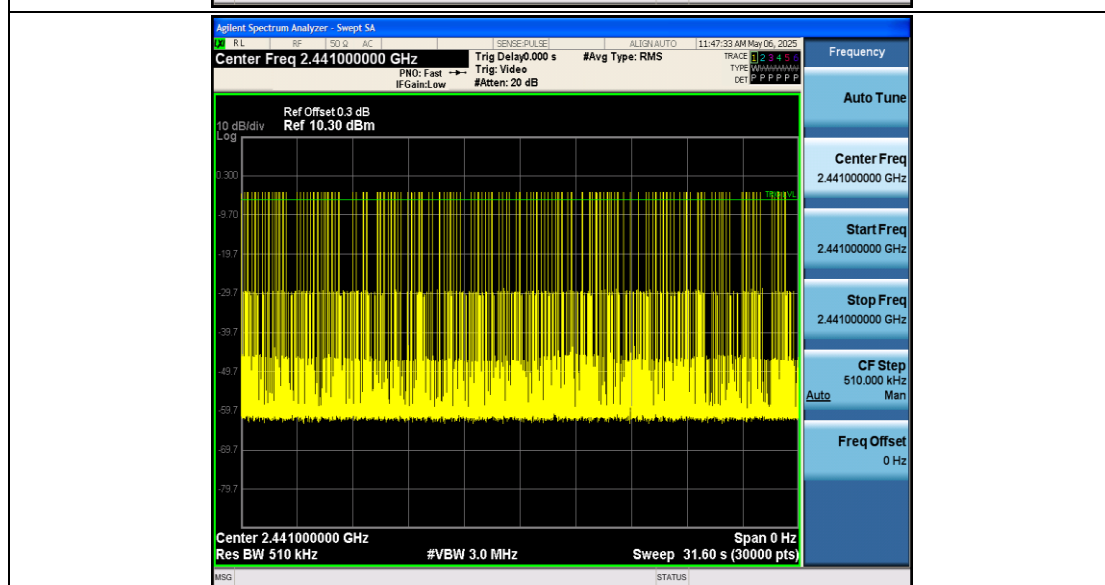
Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.390	320	0.125	≤0.4	PASS
DH3	Ant1	Hop	1.650	169	0.279	≤0.4	PASS
DH5	Ant1	Hop	2.890	102	0.295	≤0.4	PASS
2DH1	Ant1	Hop	0.390	320	0.125	≤0.4	PASS
2DH3	Ant1	Hop	1.650	157	0.259	≤0.4	PASS
2DH5	Ant1	Hop	2.900	99	0.287	≤0.4	PASS

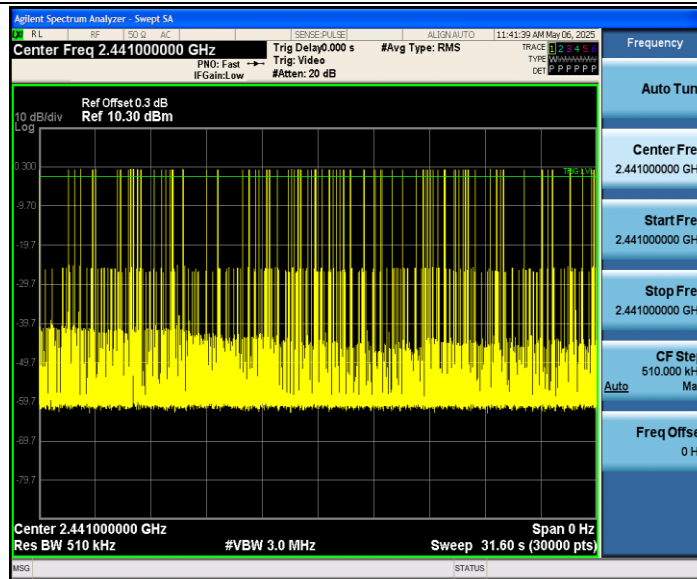
Test Graphs



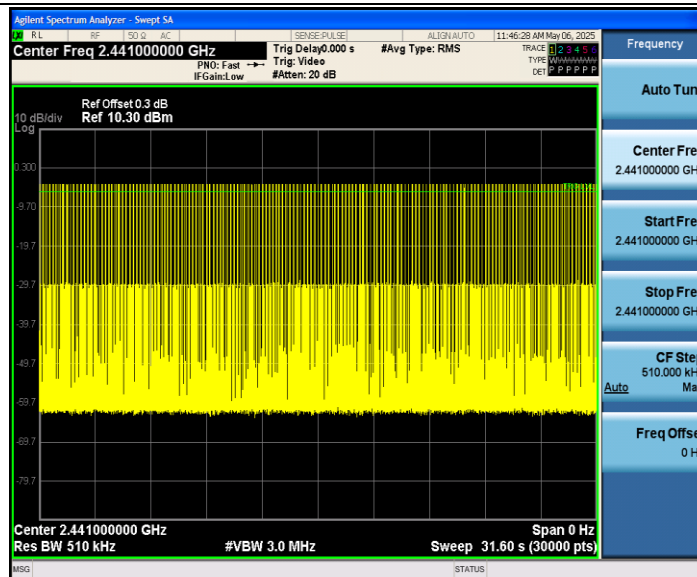
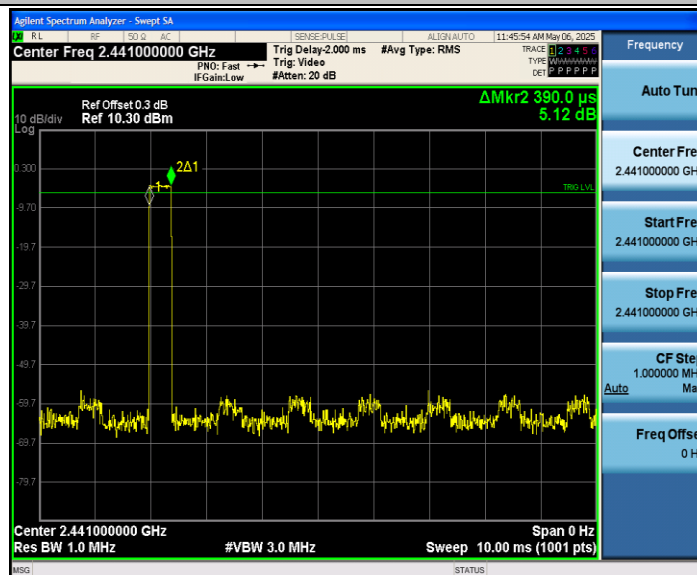


DH5_Ant1_Hop

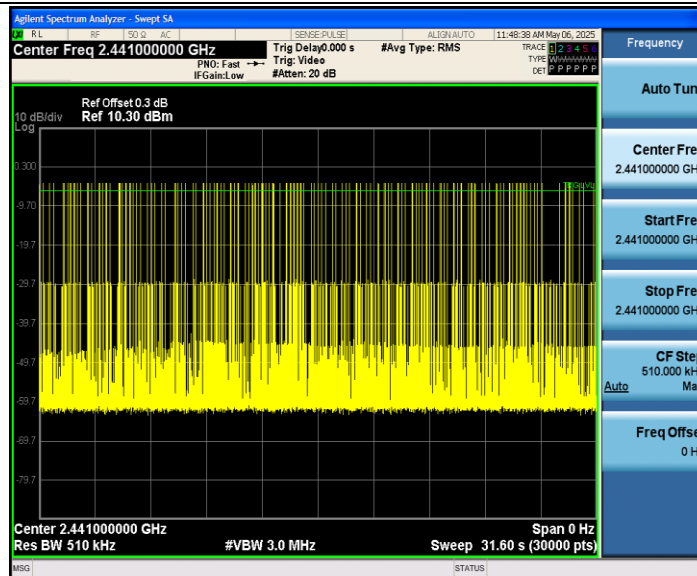




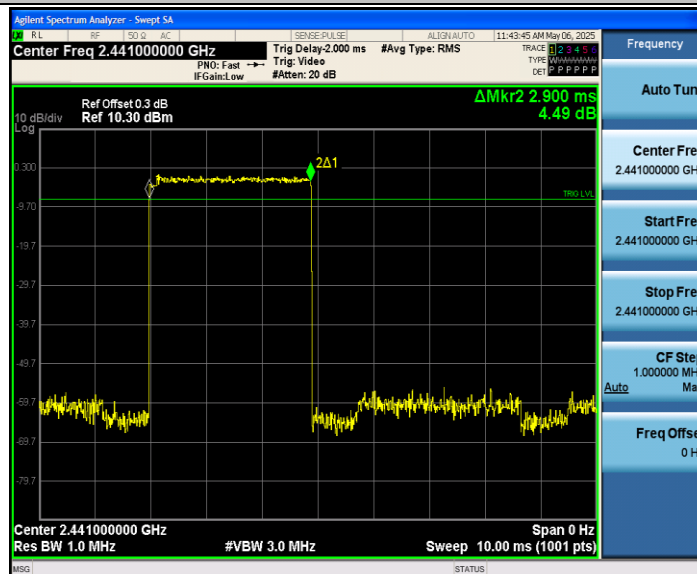
2DH1_Ant1_Hop

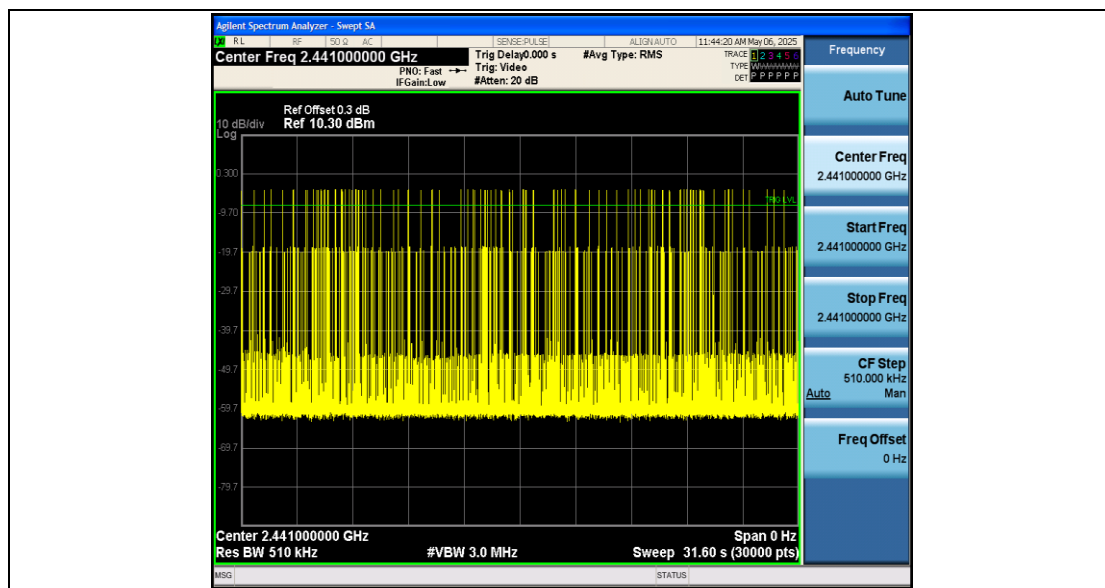


2DH3_Ant1_Hop



2DH5_Ant1_Hop





Appendix F: Number of hopping channels

Test Result

TestMode	Antenna	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

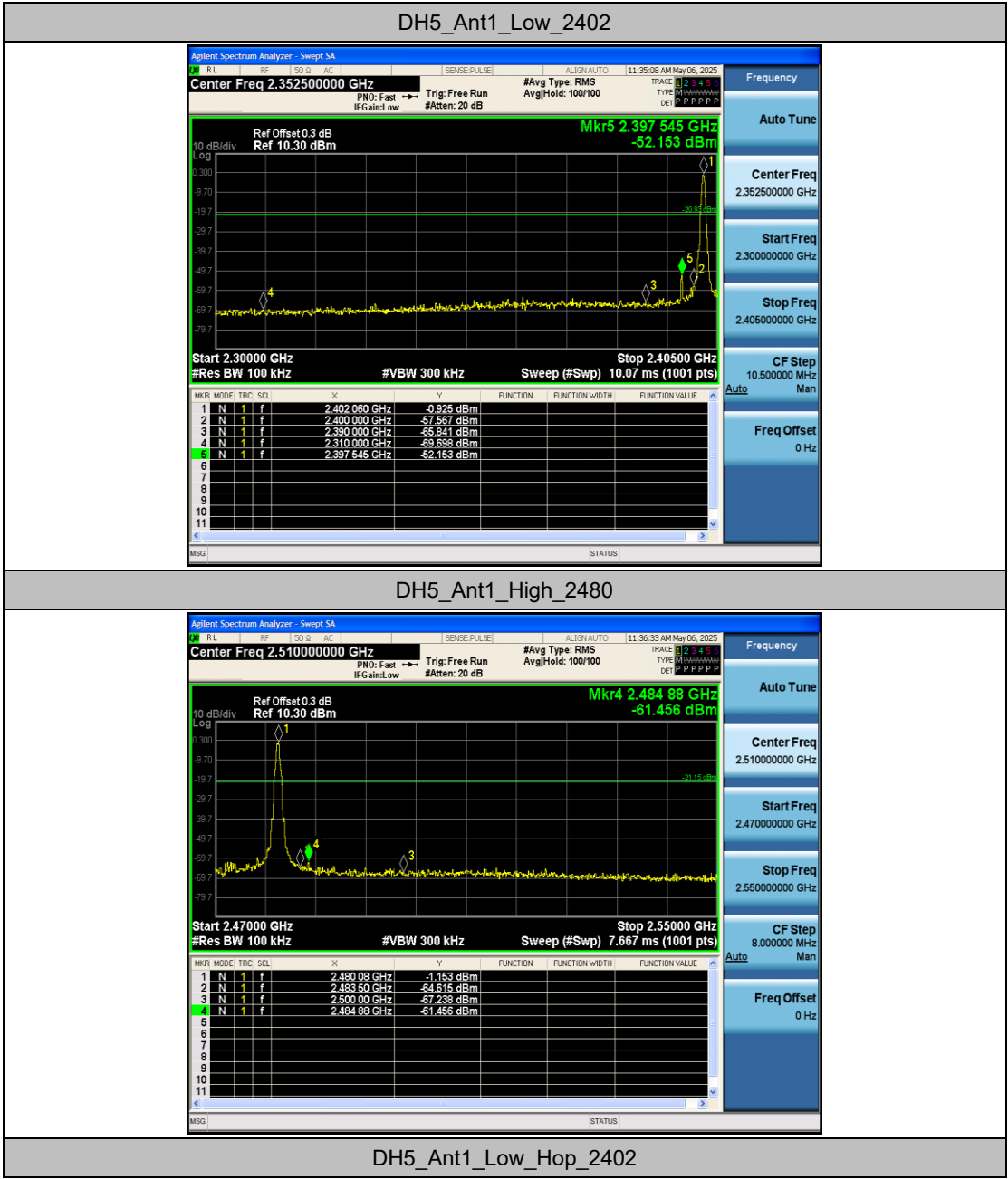


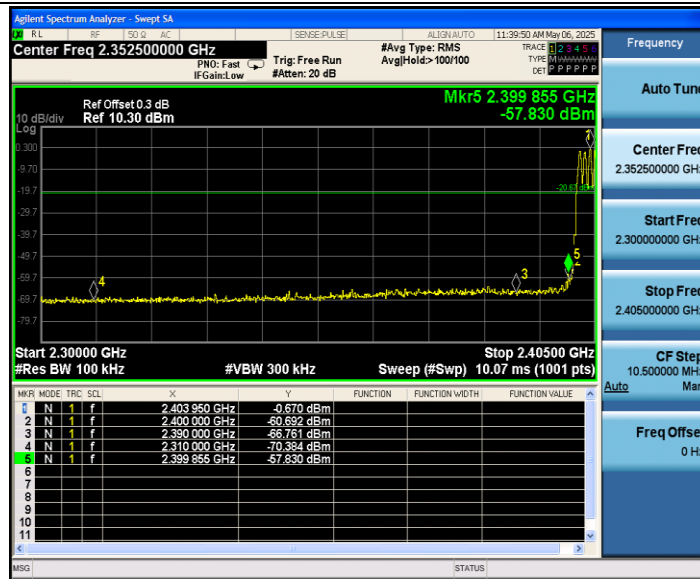
Appendix G: Band edge measurements

Test Result

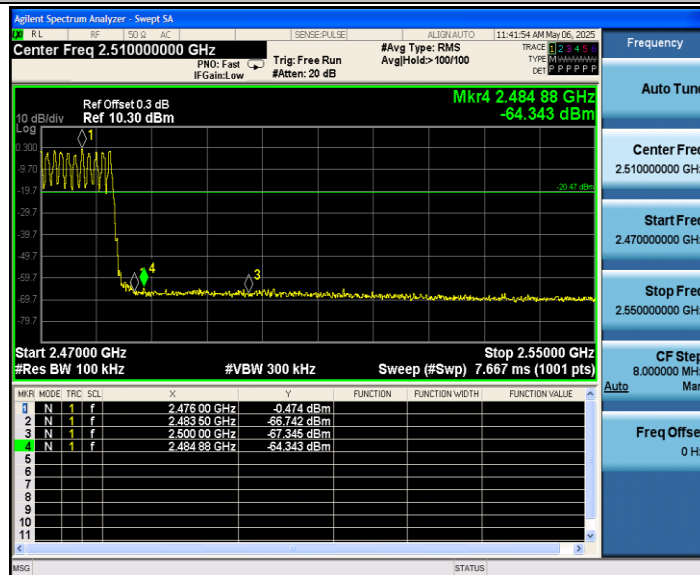
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.93	-52.15	≤ -20.93	PASS
		High	2480	-1.15	-61.46	≤ -21.15	PASS
		Low	Hop_2402	-0.67	-57.83	≤ -20.67	PASS
		High	Hop_2480	-0.47	-64.34	≤ -20.47	PASS
2DH5	Ant1	Low	2402	-5.43	-60.48	≤ -25.43	PASS
		High	2480	-4.51	-63.55	≤ -24.51	PASS
		Low	Hop_2402	-4.71	-61.49	≤ -24.71	PASS
		High	Hop_2480	-4.36	-64.42	≤ -24.36	PASS

Test Graphs

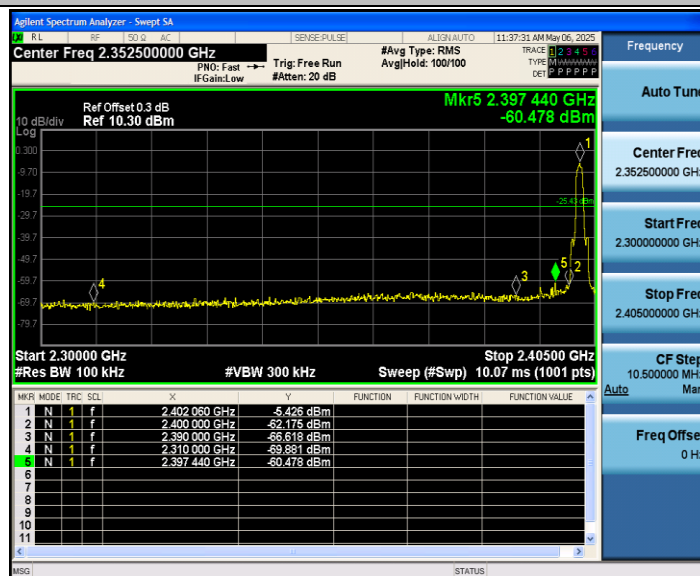




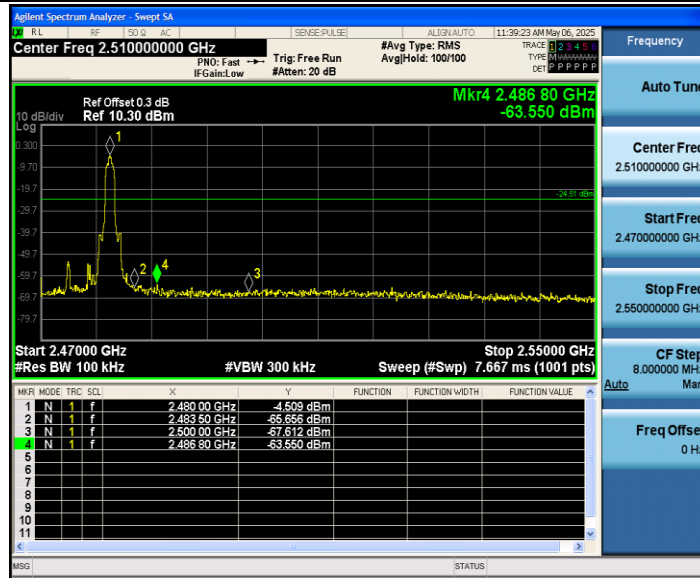
DH5_Ant1_High_Hop_2480



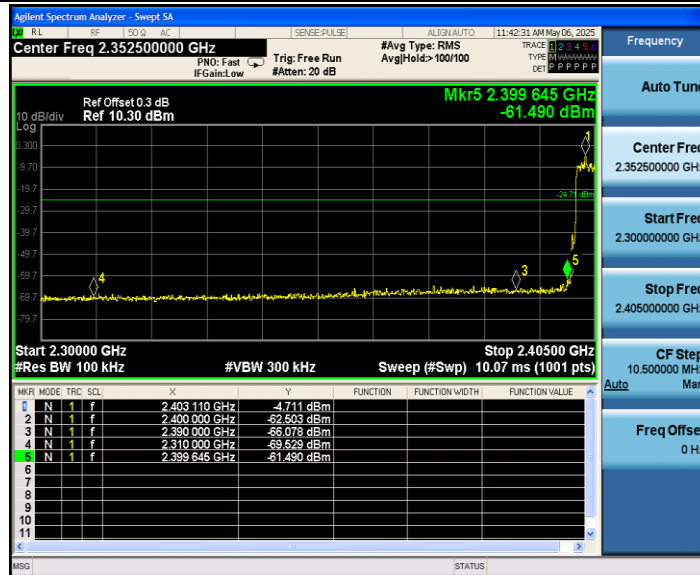
2DH5_Ant1_Low_2402



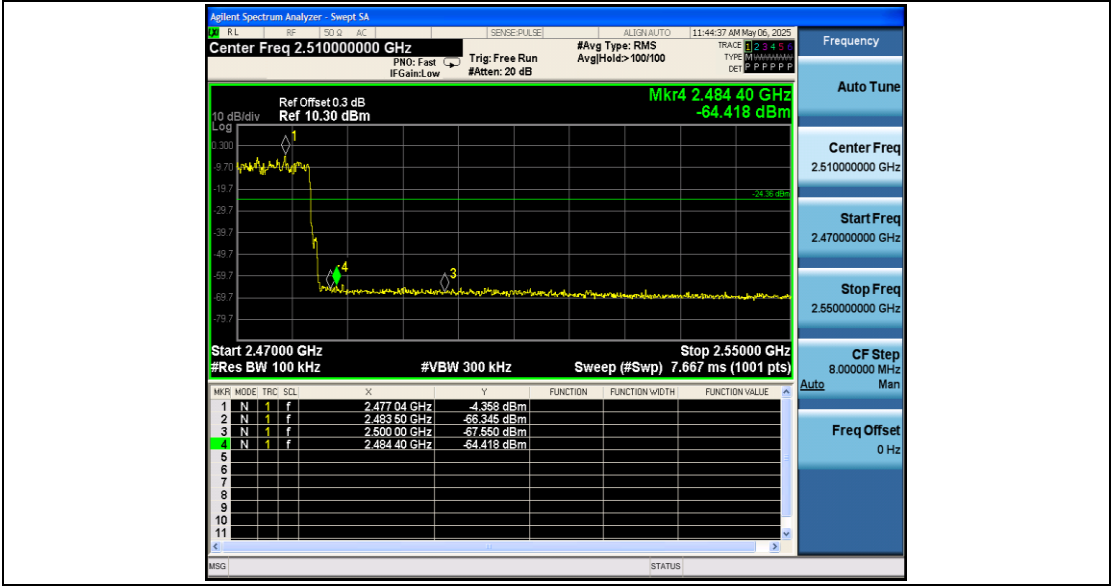
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

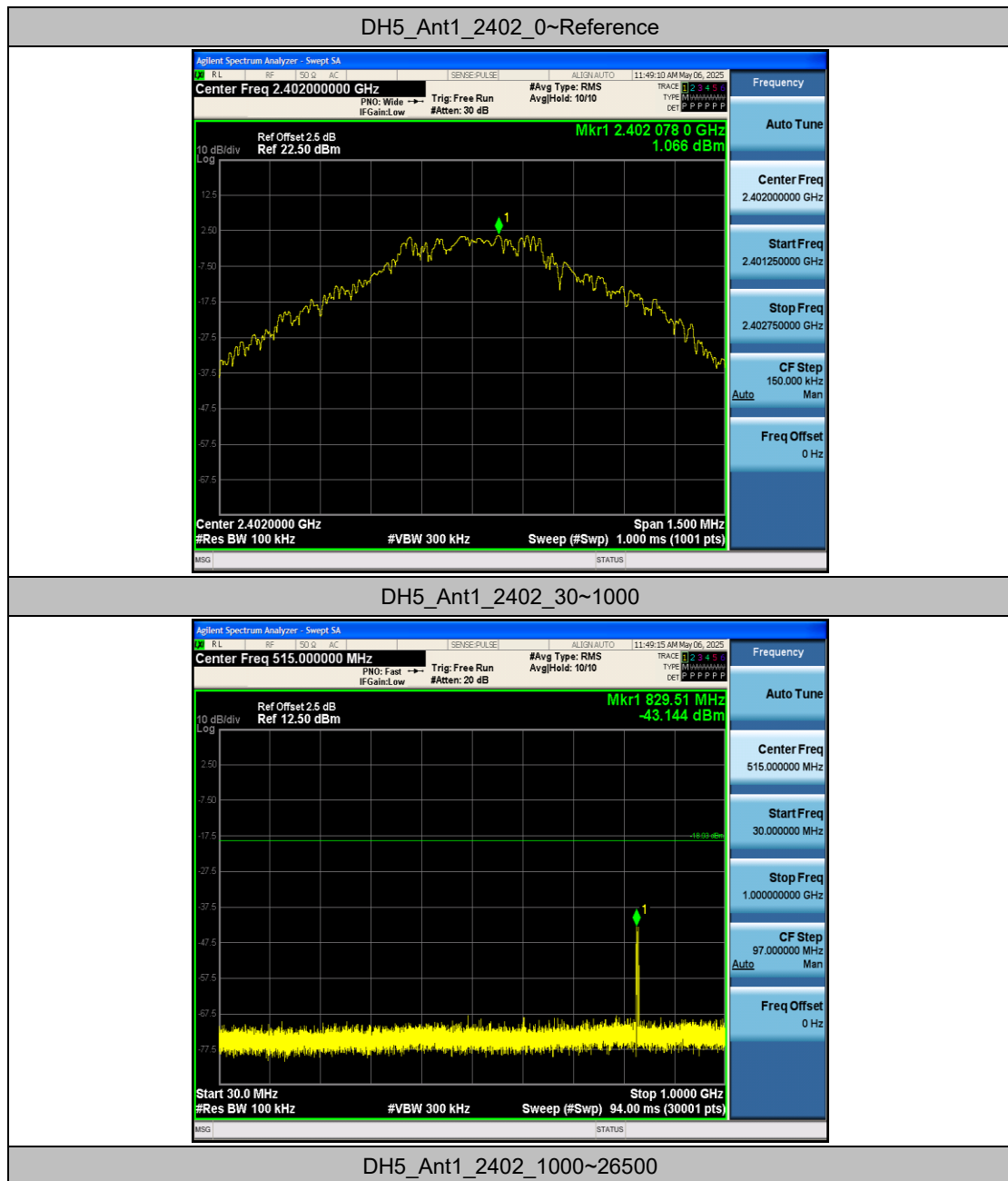


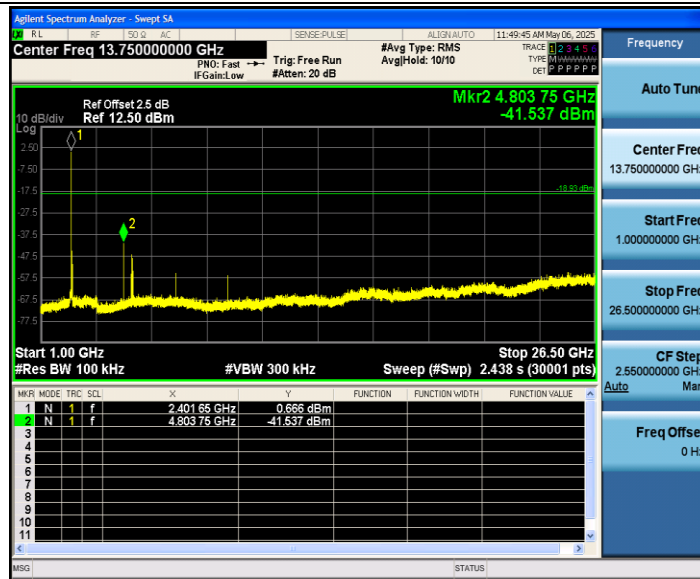
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	1.07	1.07	---	PASS
			30~1000	1.07	-43.14	≤-18.93	PASS
			1000~26500	1.07	-41.54	≤-18.93	PASS
		2441	Reference	1.62	1.62	---	PASS
			30~1000	1.62	-39.89	≤-18.38	PASS
			1000~26500	1.62	-43.88	≤-18.38	PASS
		2480	Reference	0.90	0.90	---	PASS
			30~1000	0.90	-36.68	≤-19.1	PASS
			1000~26500	0.90	-43.21	≤-19.1	PASS
2DH5	Ant1	2402	Reference	-3.72	-3.72	---	PASS
			30~1000	-3.72	-44.74	≤-23.72	PASS
			1000~26500	-3.72	-50.4	≤-23.72	PASS
		2441	Reference	-3.19	-3.19	---	PASS
			30~1000	-3.19	-41.42	≤-23.19	PASS
			1000~26500	-3.19	-49.14	≤-23.19	PASS
		2480	Reference	-5.00	-5.00	---	PASS
			30~1000	-5.00	-48.18	≤-25	PASS
			1000~26500	-5.00	-46.17	≤-25	PASS

Test Graphs

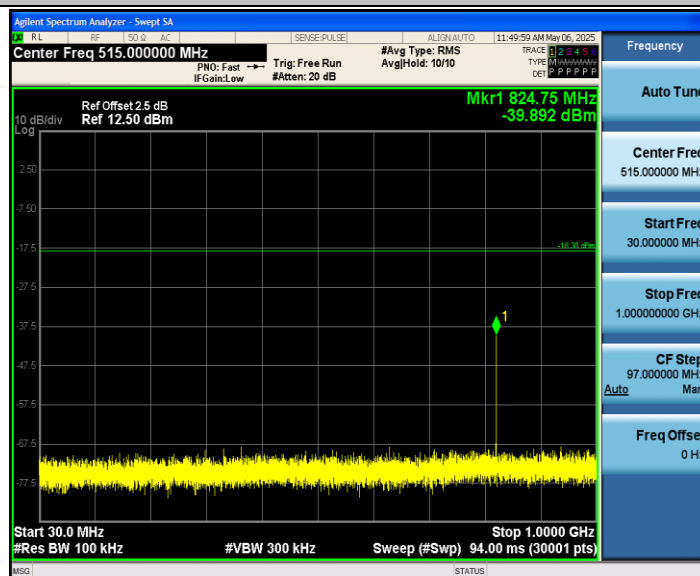




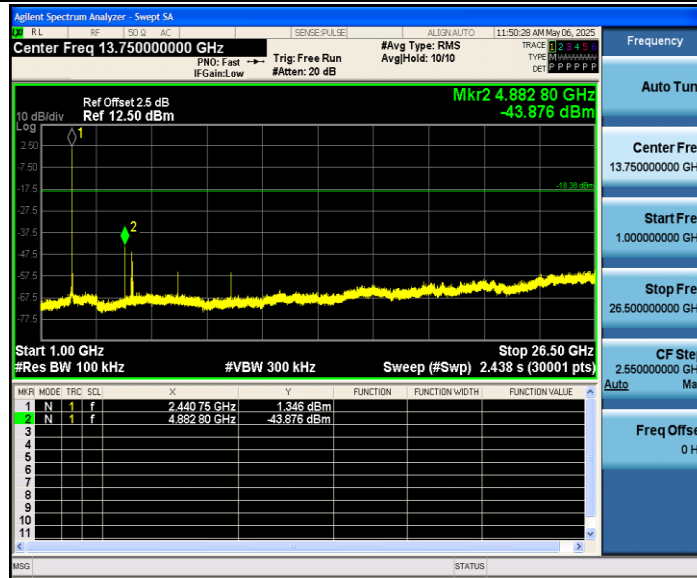
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



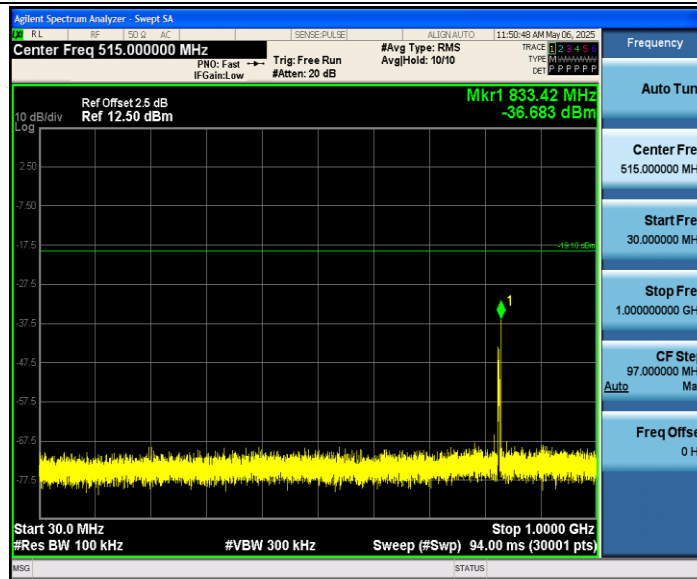
DH5_Ant1_2441_1000~26500



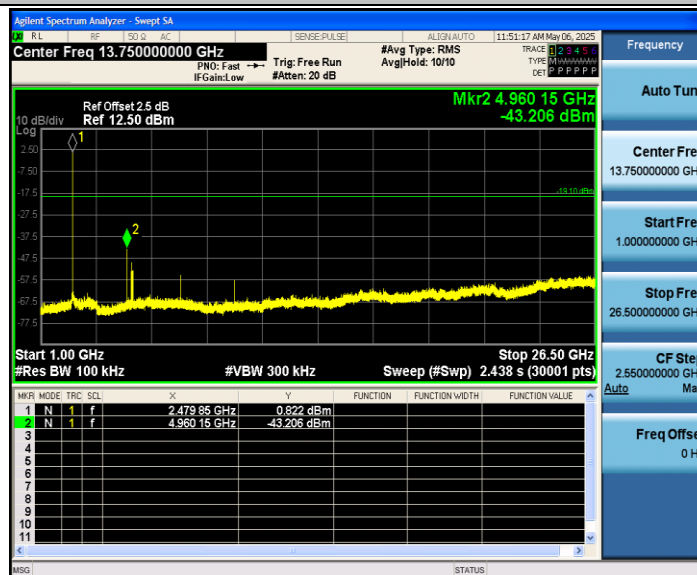
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



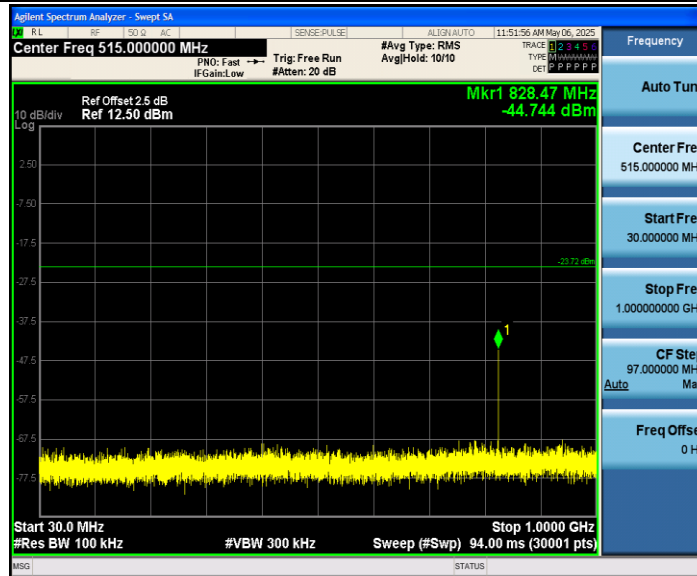
DH5_Ant1_2480_1000~26500



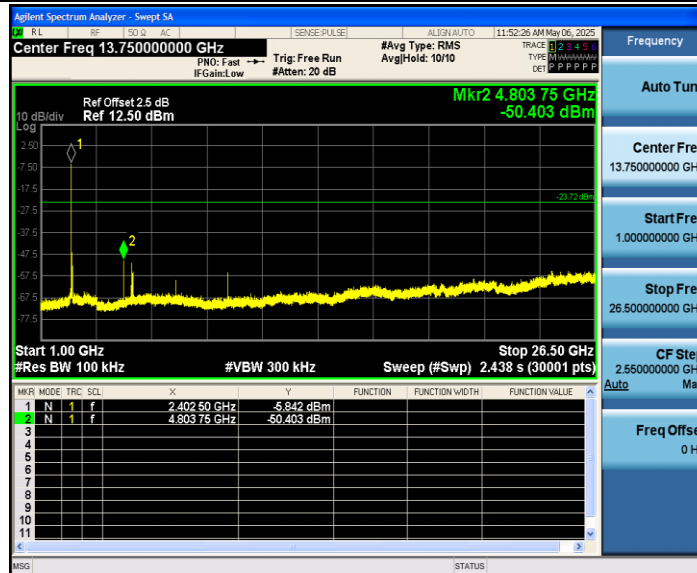
2DH5_Ant1_2402_0~Reference



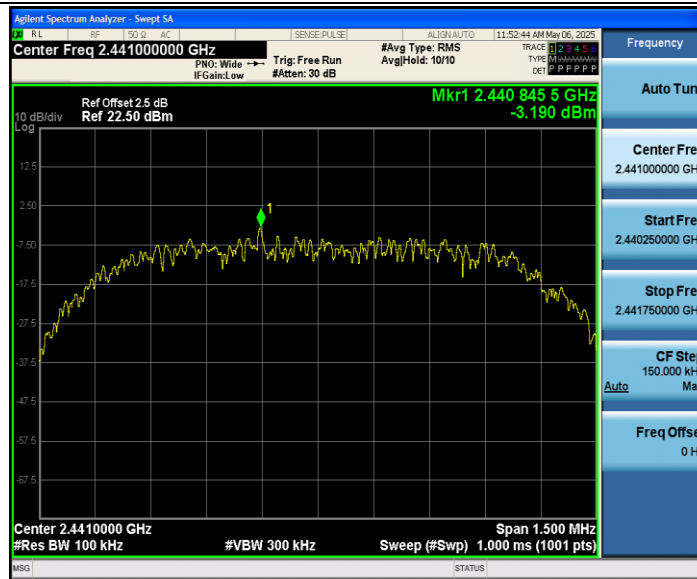
2DH5_Ant1_2402_30~1000



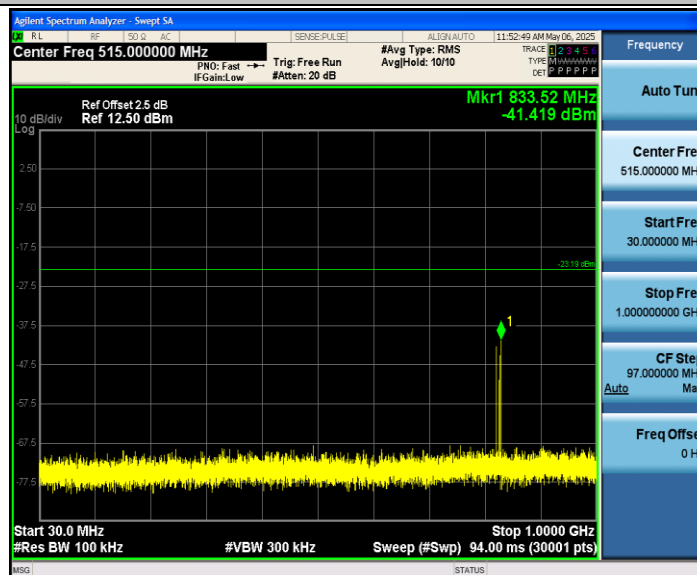
2DH5_Ant1_2402_1000~26500



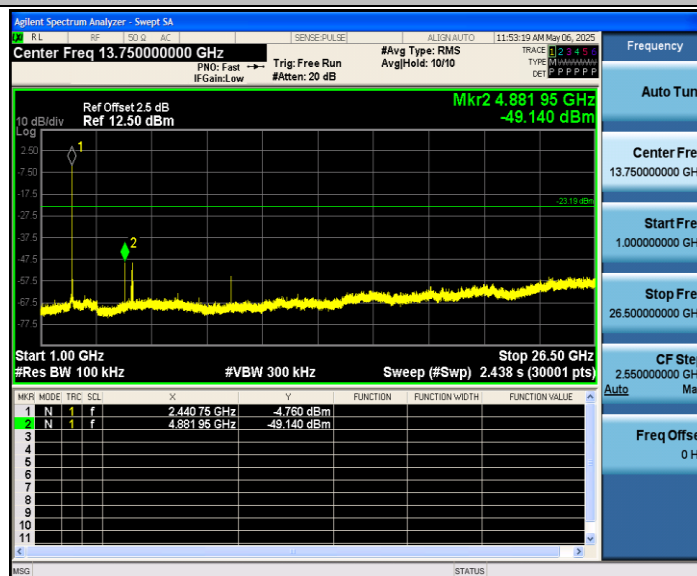
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



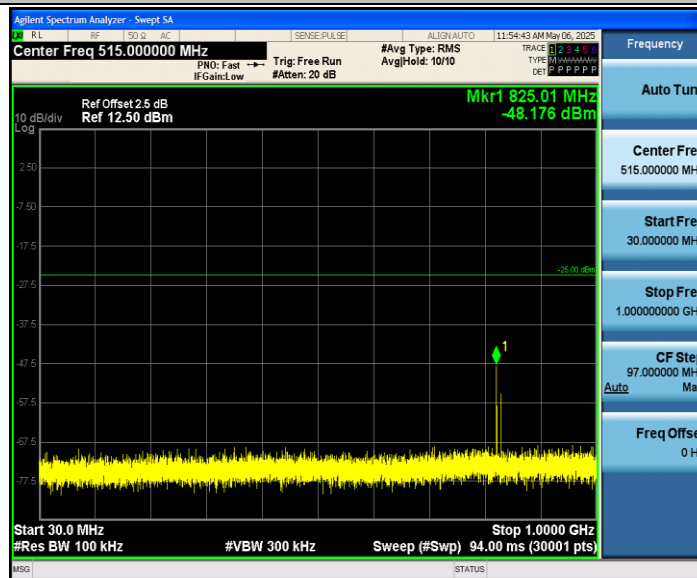
2DH5_Ant1_2441_1000~26500



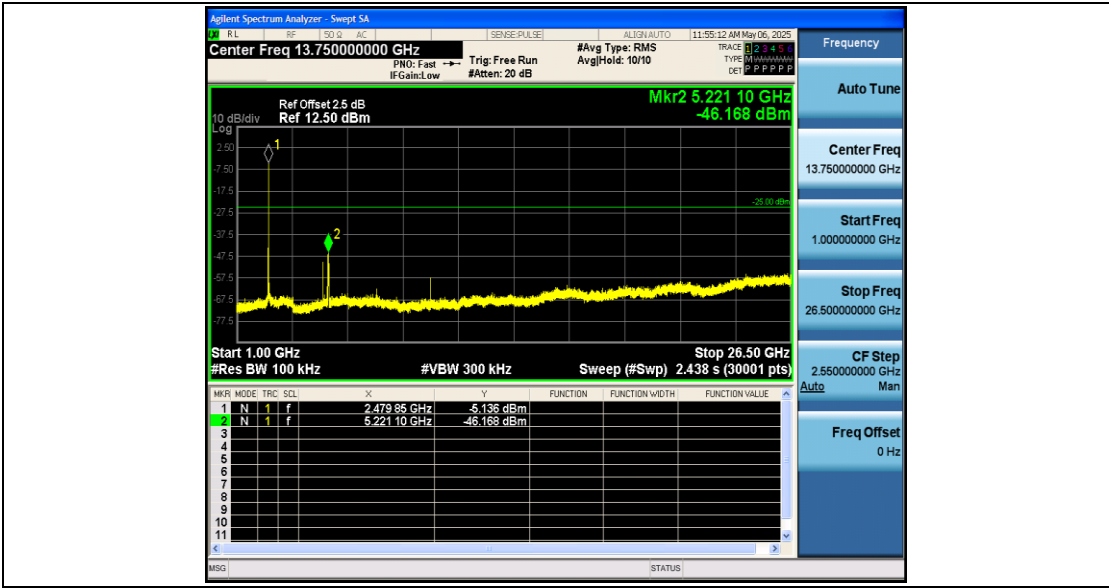
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500

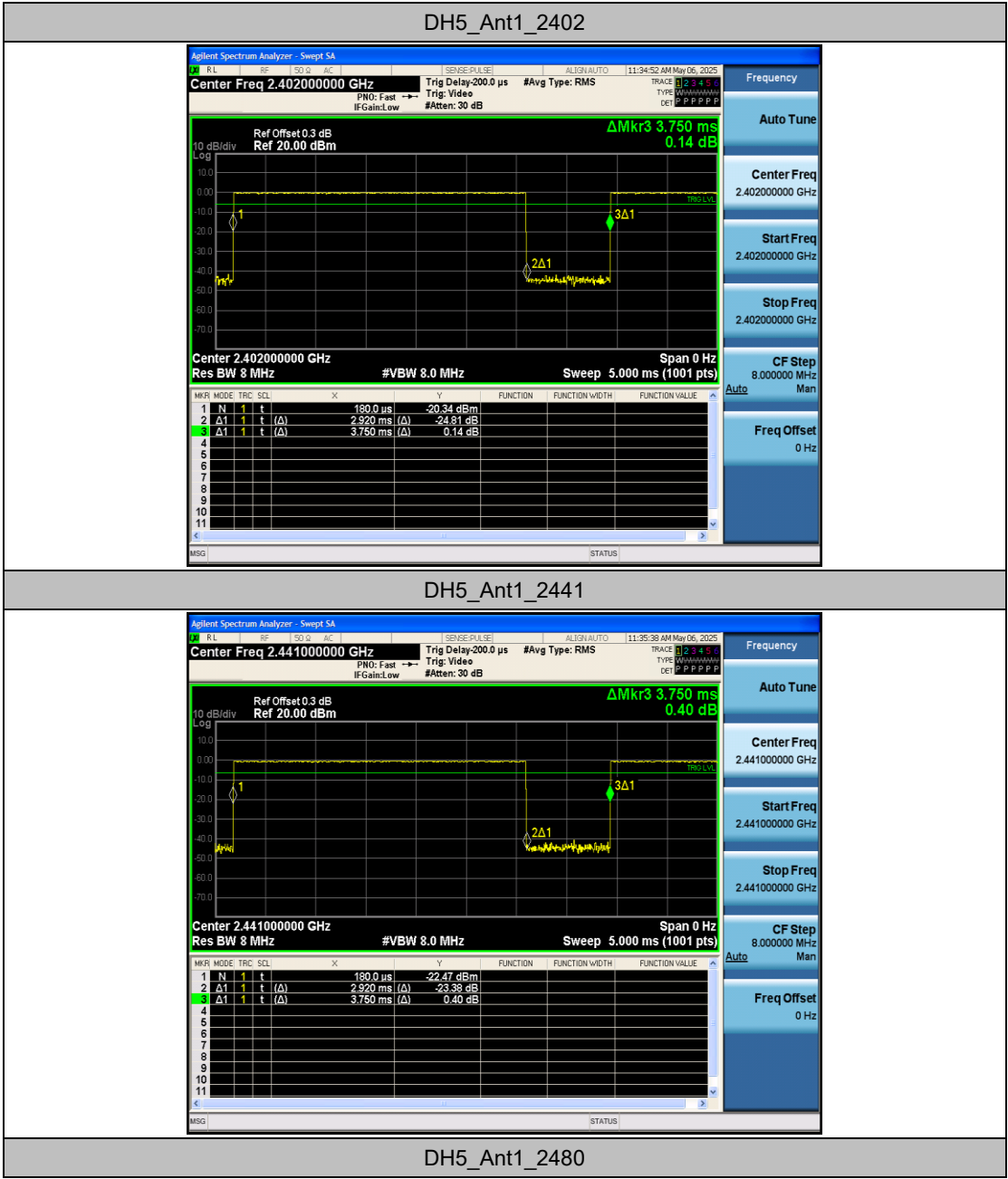


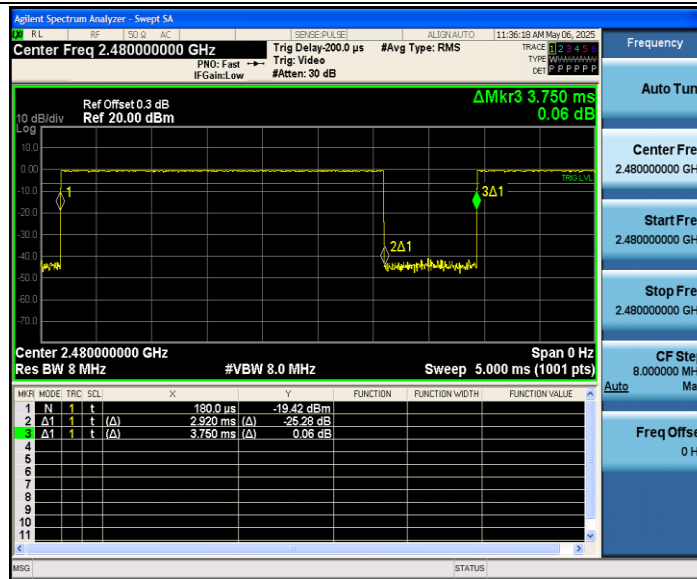
Appendix I: Duty Cycle

Test Result

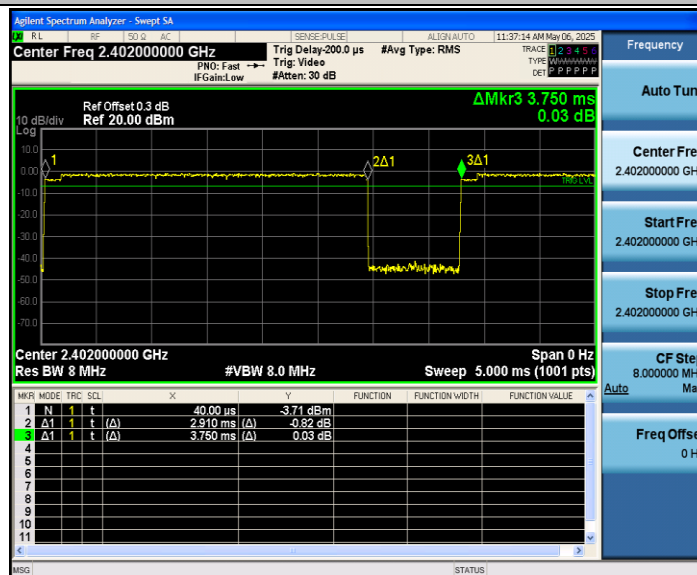
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.92	3.75	77.87	1.09	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---
2DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---

Test Graphs

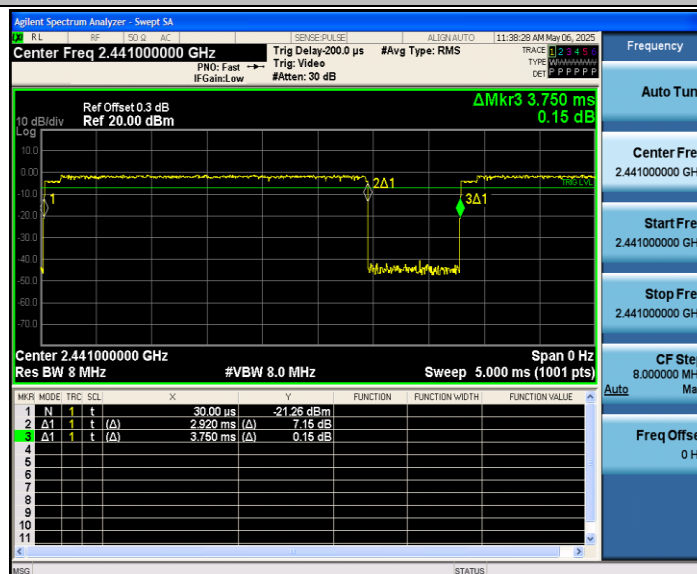




2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

