

FCC Appendix RF Test Data for BT

FCC ID : 2BR4J-POWERX7

Company : power appliance Co., Ltd.

EUT : Bluetooth

Model Number : POWER X7

Report No. : CTA25090901801

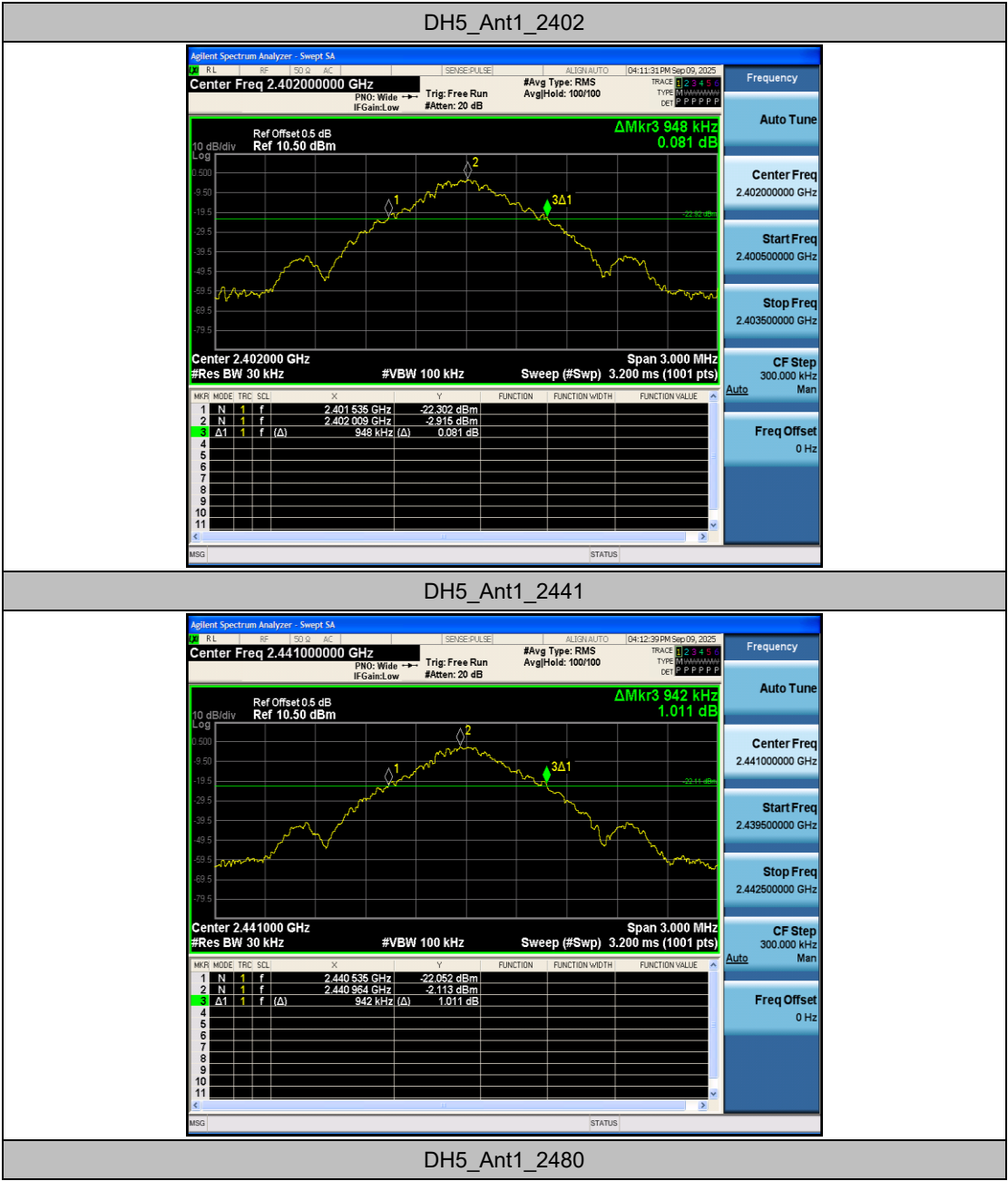
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

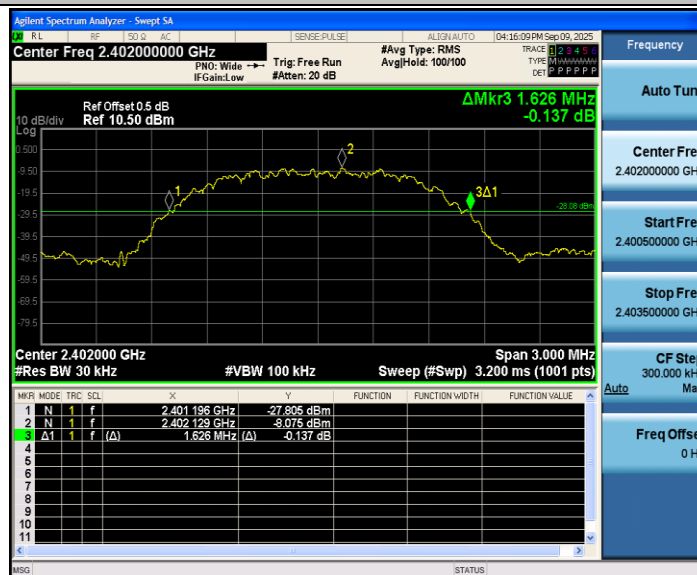
TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.948	2401.535	2402.483	---	---
		2441	0.942	2440.535	2441.477	---	---
		2480	0.957	2479.526	2480.483	---	---
2DH5	Ant1	2402	1.626	2401.196	2402.822	---	---
		2441	1.494	2440.259	2441.753	---	---
		2480	1.488	2479.262	2480.750	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

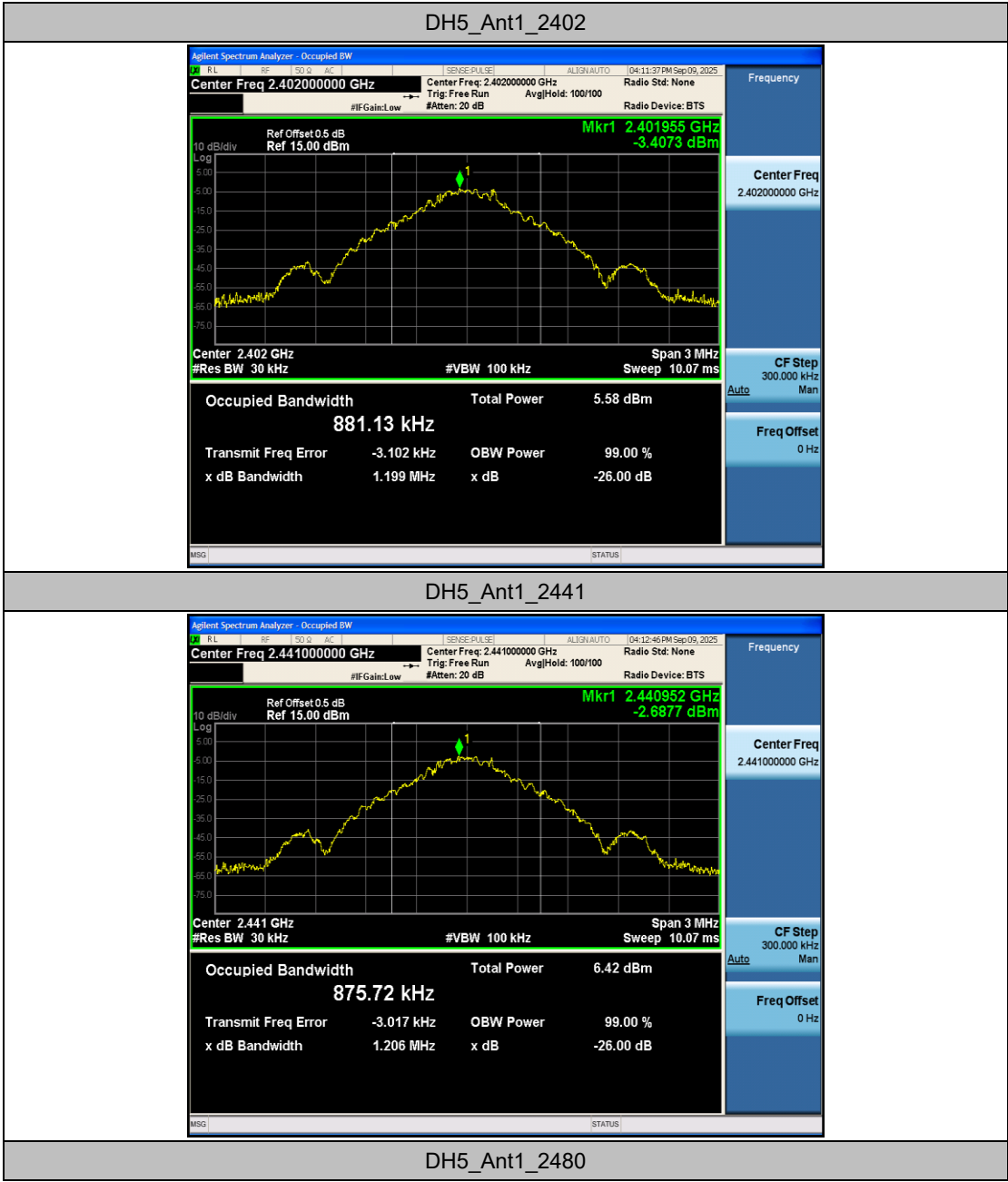


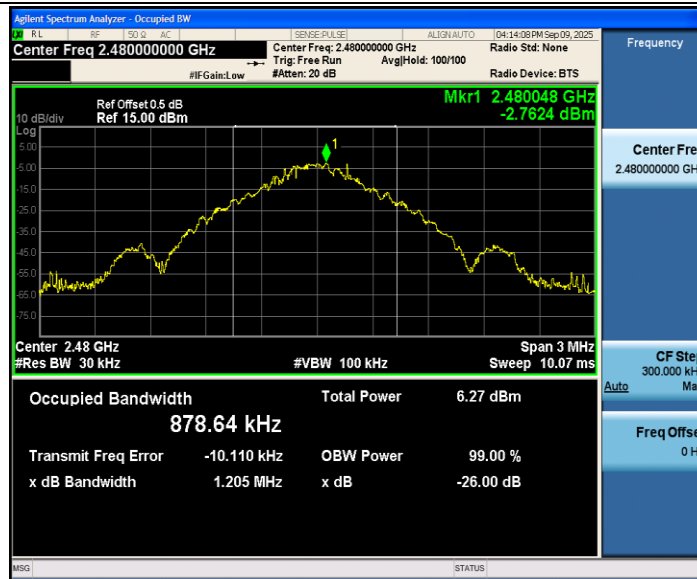
Appendix B: Occupied Channel Bandwidth

Test Result

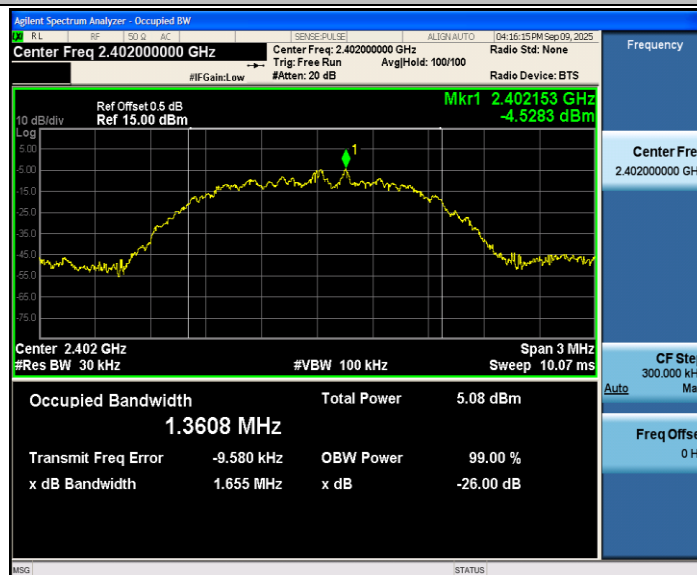
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.88113	2401.5563	2402.4375	---	---
		2441	0.87572	2440.5591	2441.4348	---	---
		2480	0.87864	2479.5506	2480.4292	---	---
2DH5	Ant1	2402	1.3608	2401.3100	2402.6708	---	---
		2441	1.3592	2440.3139	2441.6731	---	---
		2480	1.3634	2479.3082	2480.6716	---	---

Test Graphs

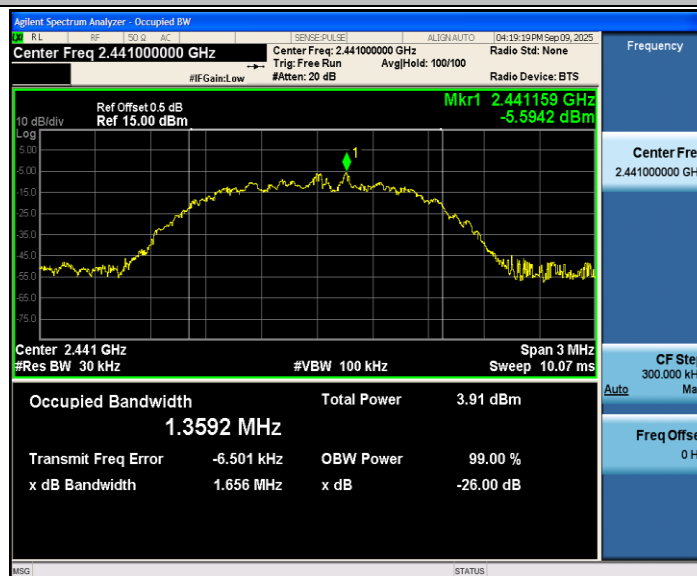




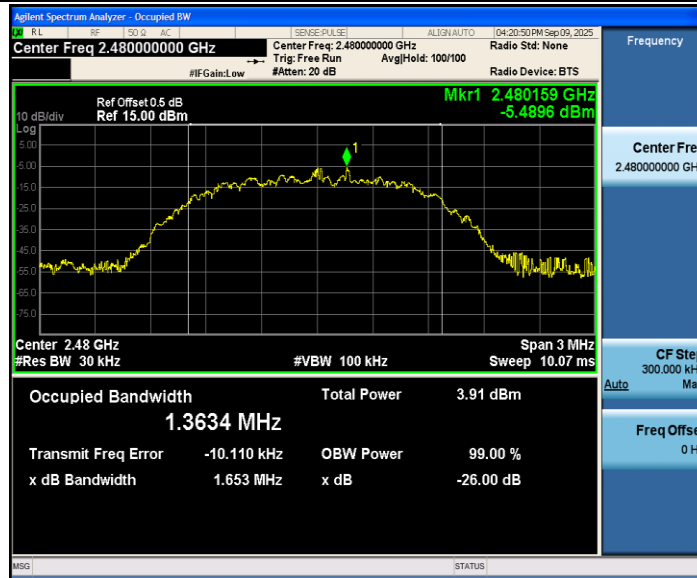
2DH5_Ant1_2402



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	-0.75	≤20.97	PASS
		2441	0.01	≤20.97	PASS
		2480	0.27	≤20.97	PASS
2DH5	Ant1	2402	0.92	≤20.97	PASS
		2441	-0.32	≤20.97	PASS
		2480	-0.38	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.256	≥ 0.957	PASS
2DH5	Ant1	Hop	1.312	≥ 1.084	PASS

Test Graphs

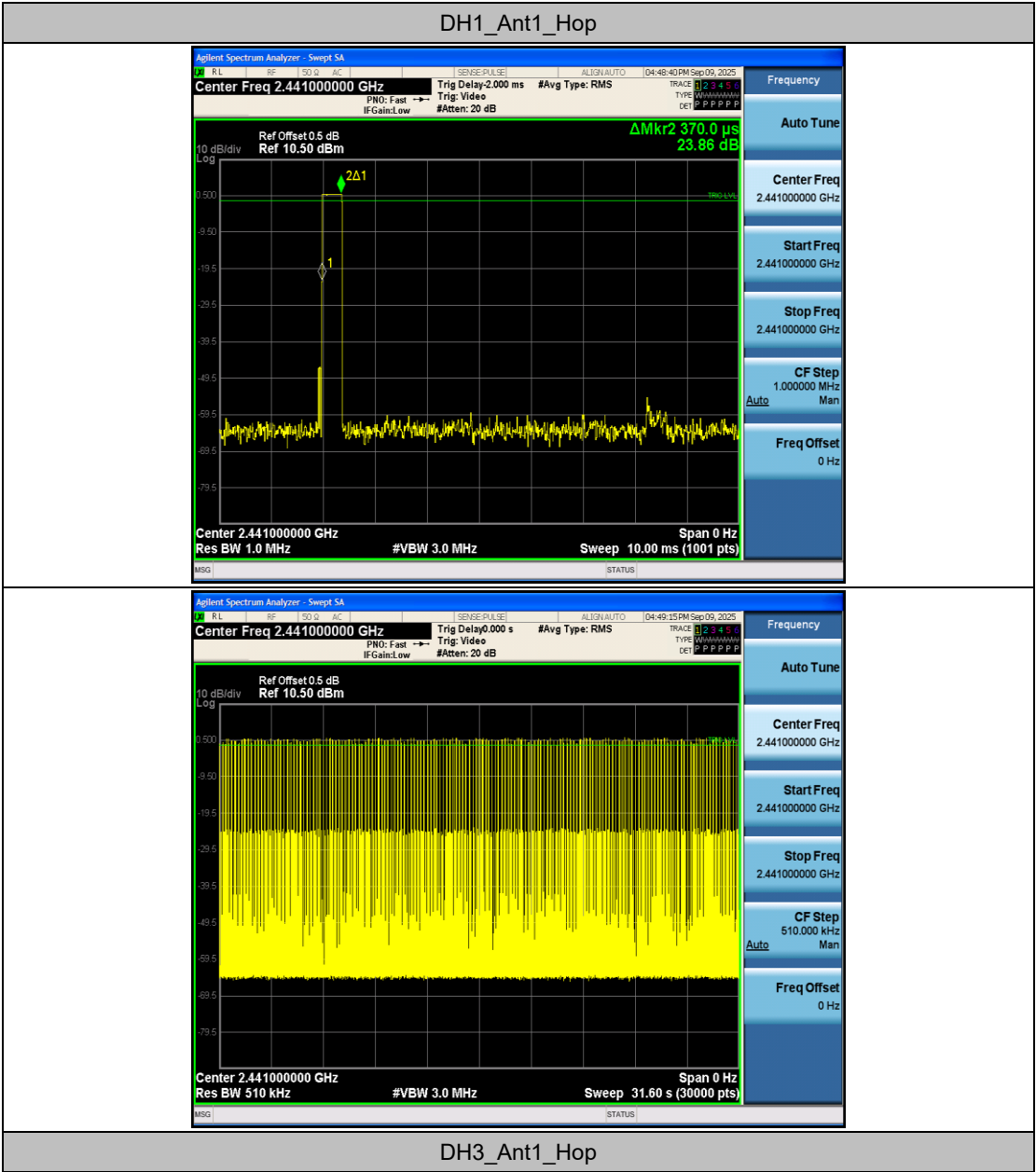


Appendix E: Time of occupancy

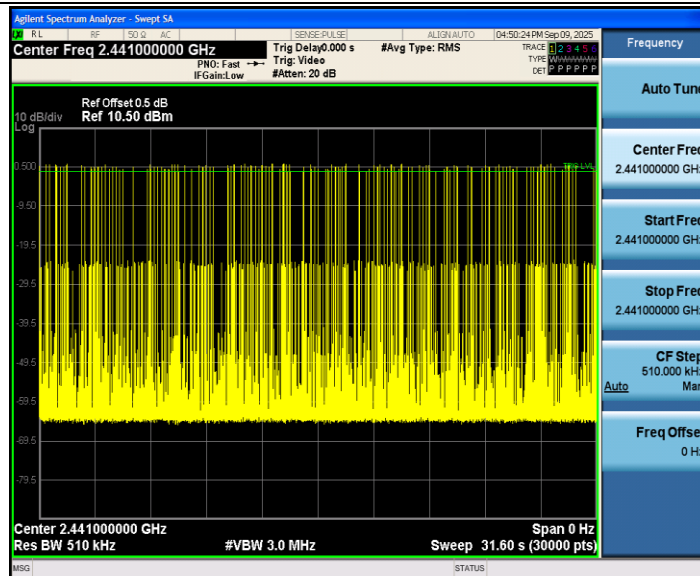
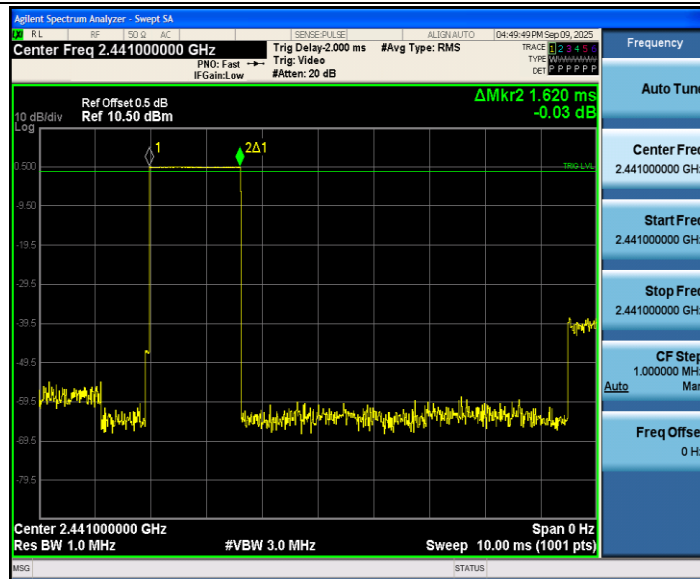
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.370	319	0.118	≤0.4	PASS
DH3	Ant1	Hop	1.620	156	0.253	≤0.4	PASS
DH5	Ant1	Hop	2.870	108	0.31	≤0.4	PASS
2DH1	Ant1	Hop	0.370	319	0.118	≤0.4	PASS
2DH3	Ant1	Hop	1.620	161	0.261	≤0.4	PASS
2DH5	Ant1	Hop	2.870	105	0.301	≤0.4	PASS

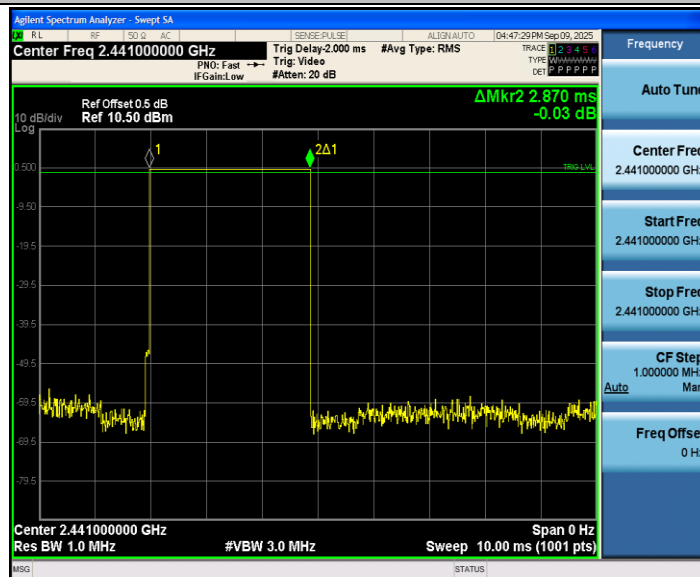
Test Graphs

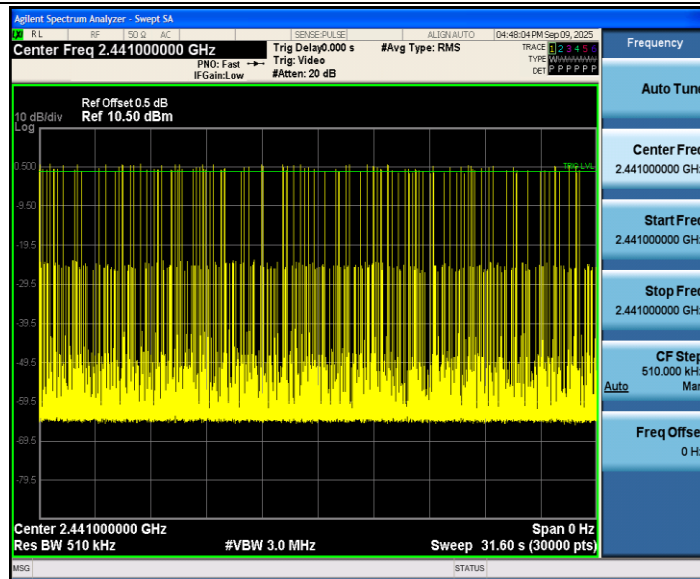


DH3_Ant1_Hop

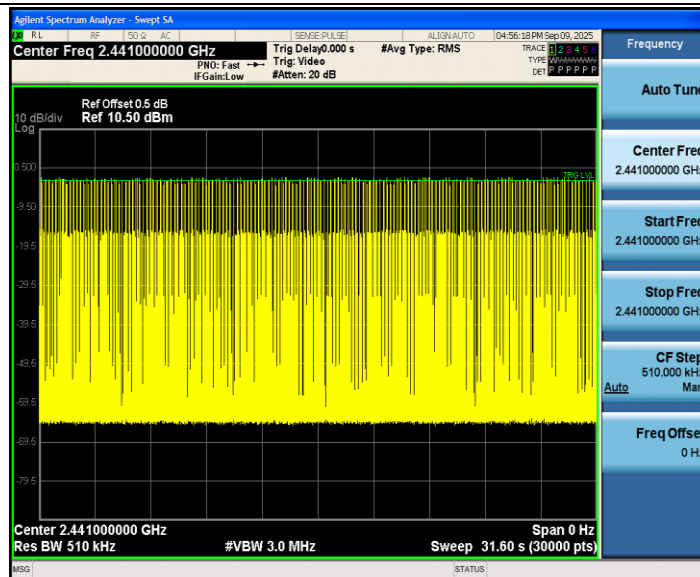
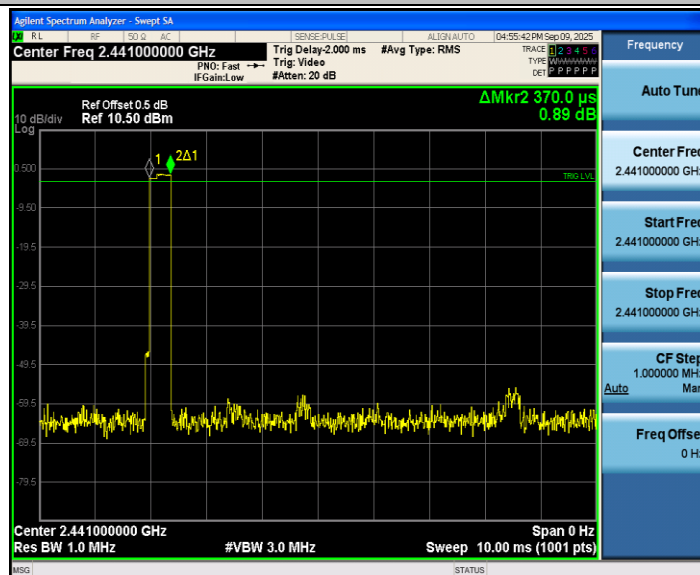


DH5_Ant1_Hop

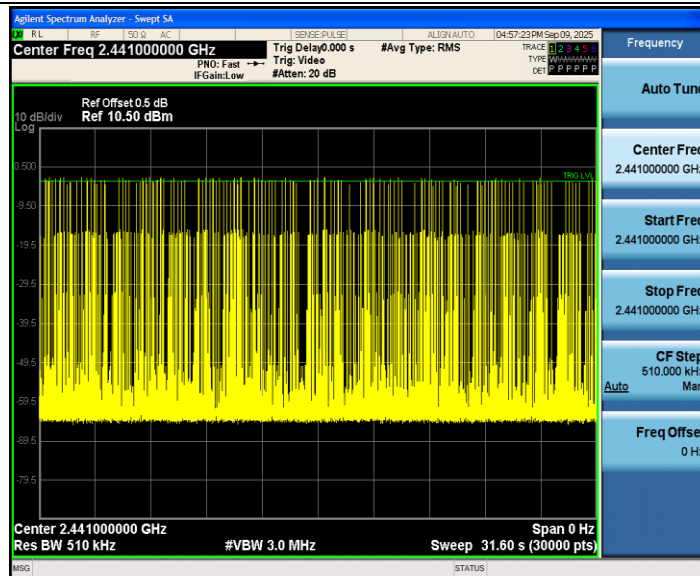
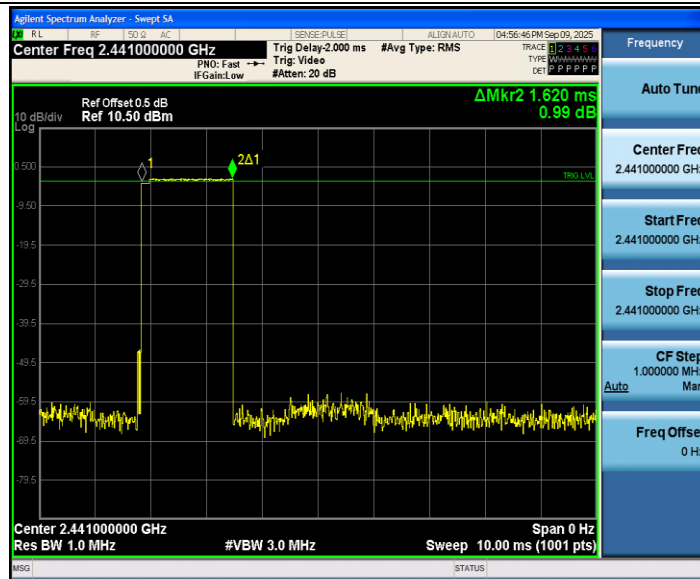




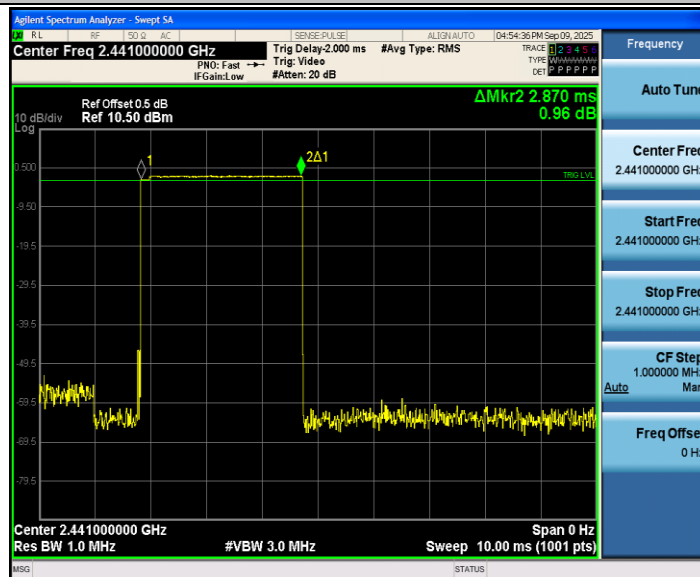
2DH1_Ant1_Hop

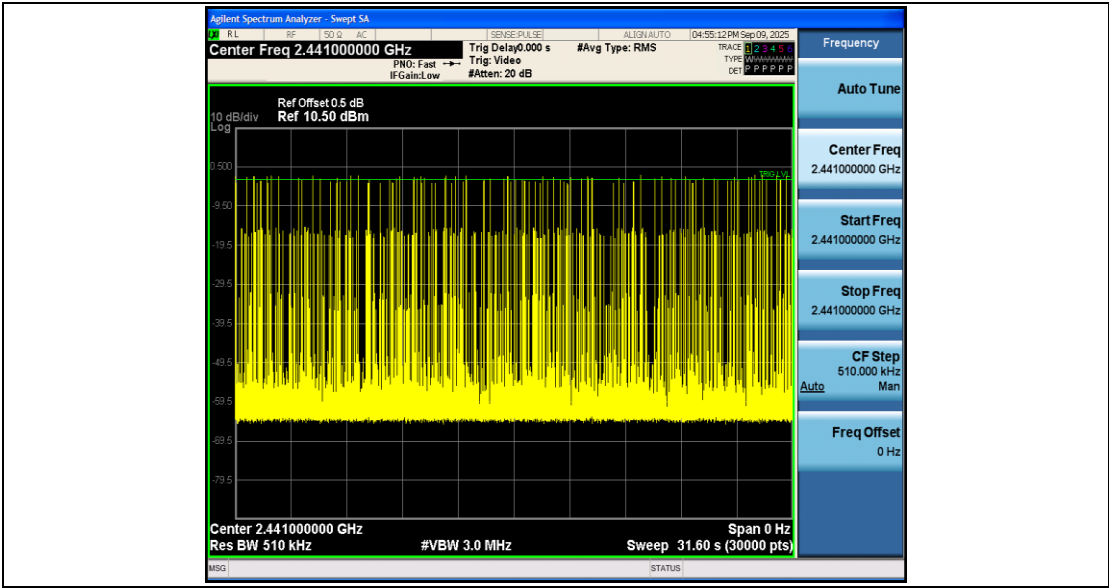


2DH3_Ant1_Hop



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

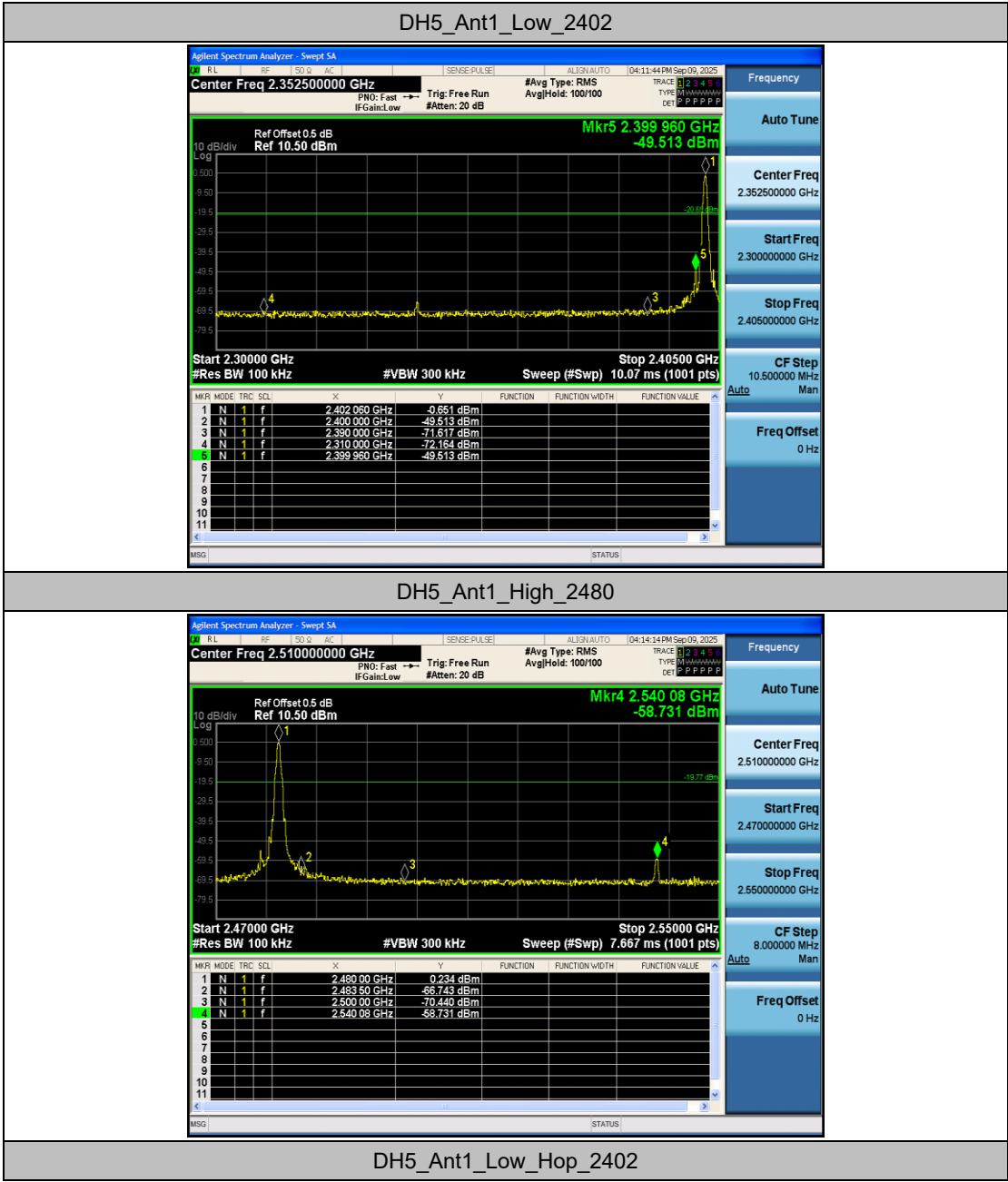


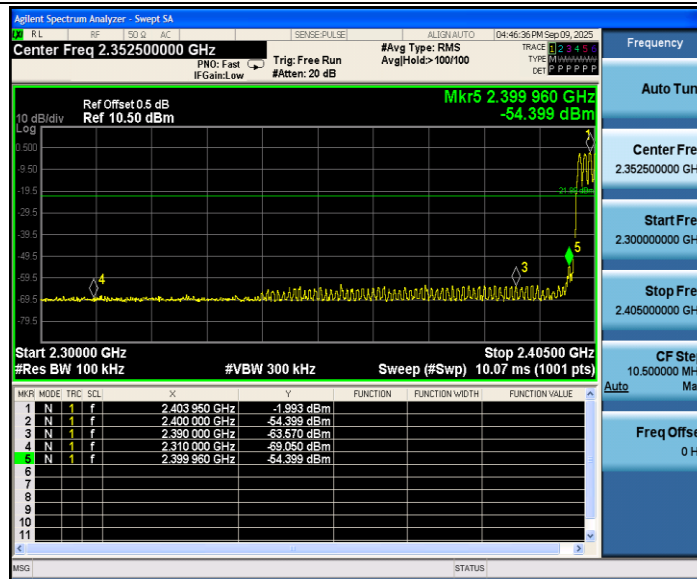
Appendix G: Band edge measurements

Test Result

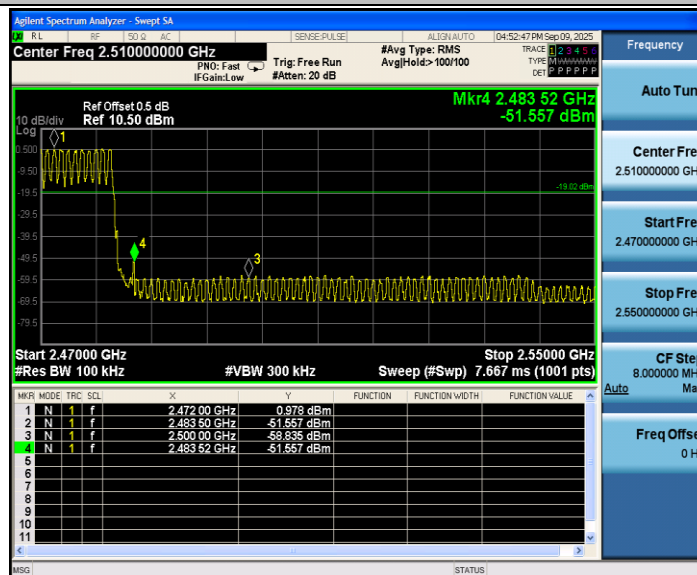
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.65	-49.51	≤-20.65	PASS
		High	2480	0.23	-58.73	≤-19.77	PASS
		Low	Hop_2402	-1.99	-54.4	≤-21.99	PASS
		High	Hop_2480	0.98	-51.56	≤-19.02	PASS
2DH5	Ant1	Low	2402	-1.88	-51.43	≤-21.88	PASS
		High	2480	-4.64	-49.12	≤-24.64	PASS
		Low	Hop_2402	-5.56	-57.96	≤-25.56	PASS
		High	Hop_2480	-2.51	-47.65	≤-22.51	PASS

Test Graphs

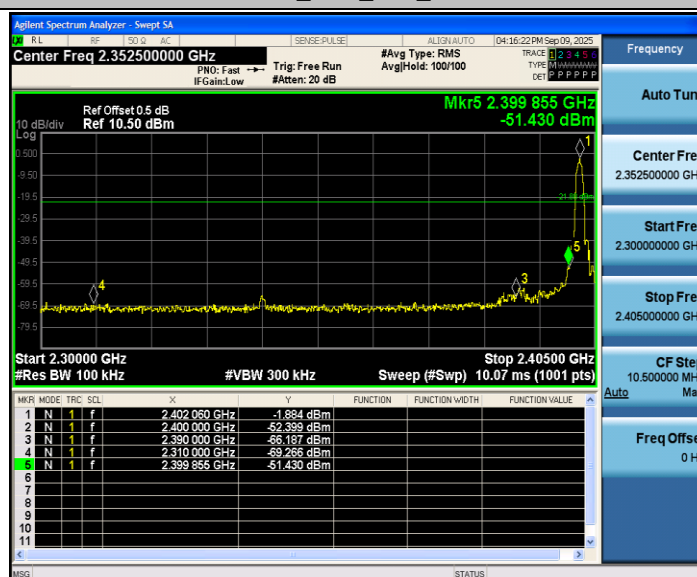




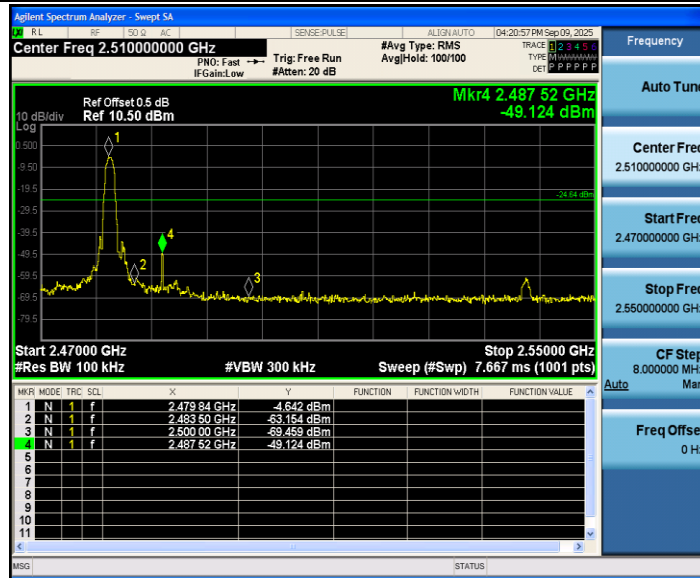
DH5_Ant1_High_Hop_2480



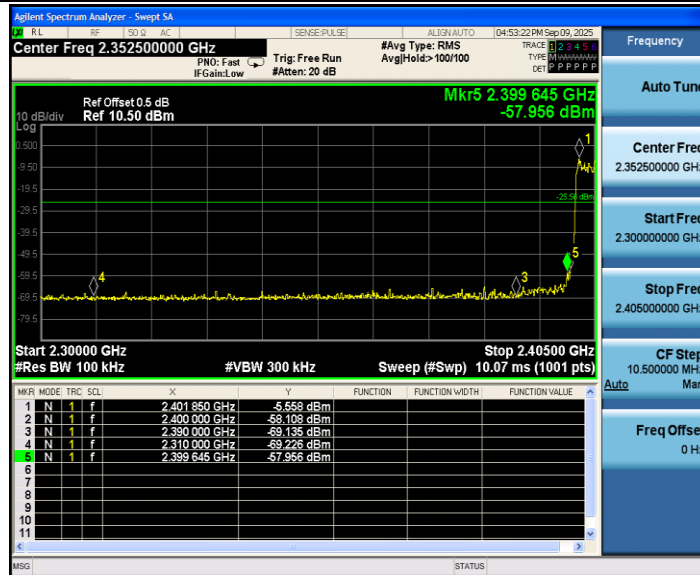
2DH5_Ant1_Low_2402



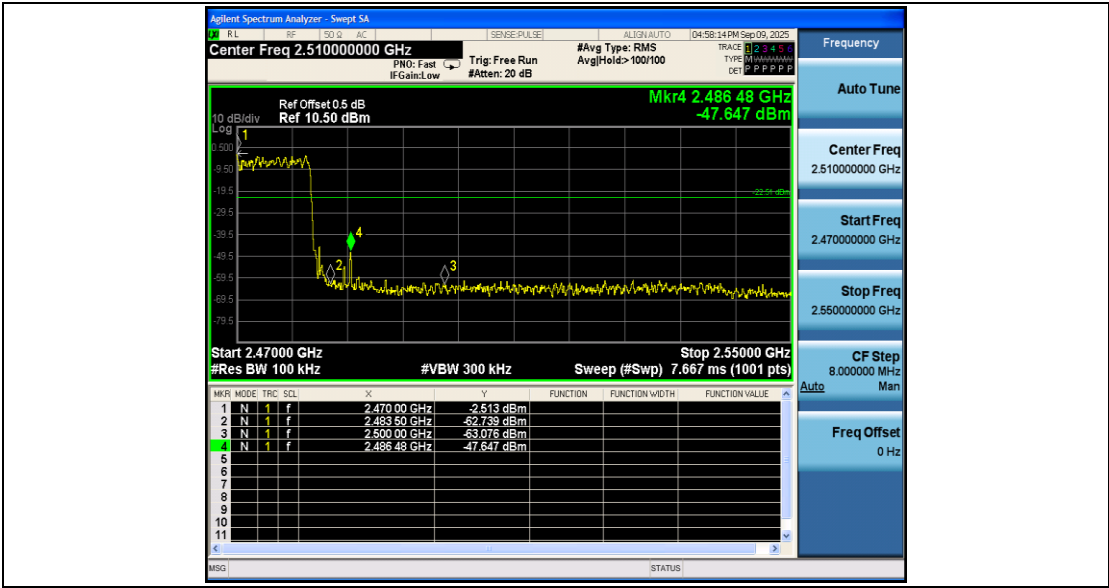
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

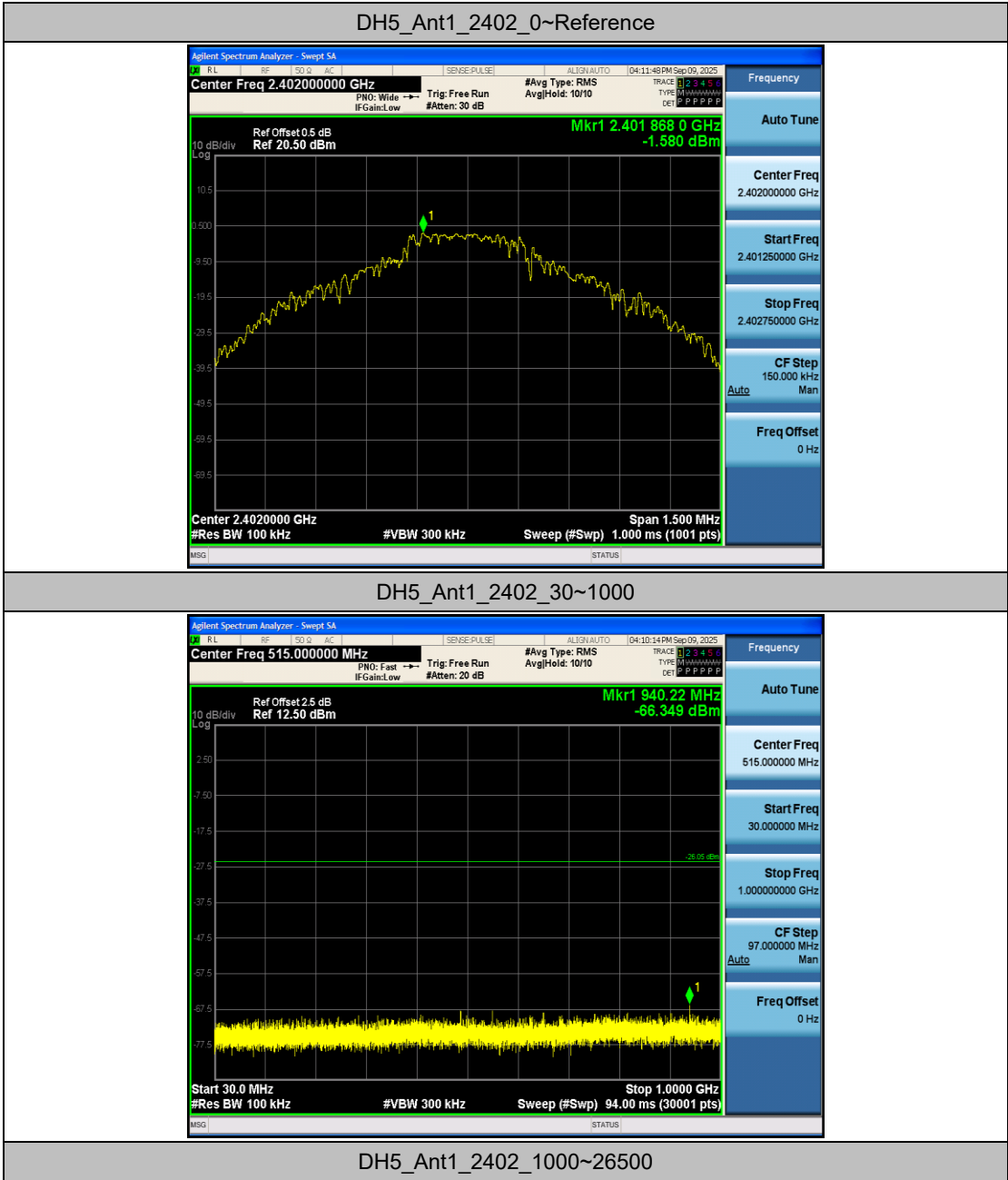


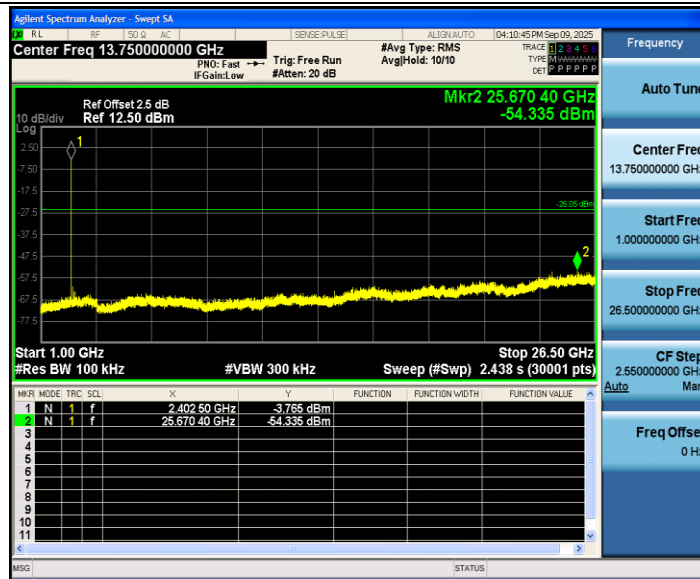
Appendix H: Conducted Spurious Emission

Test Result

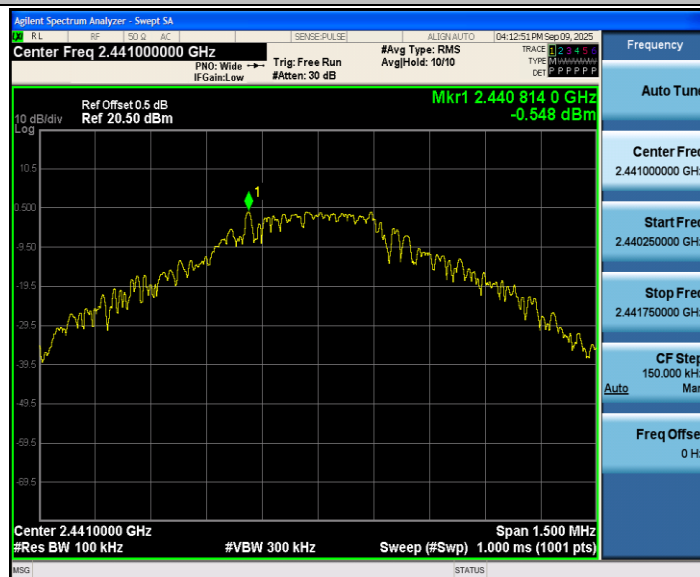
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-1.58	-1.58	---	PASS
			30~1000	-6.05	-66.35	≤-26.05	PASS
			1000~26500	-6.05	-54.34	≤-26.05	PASS
		2441	Reference	-0.55	-0.55	---	PASS
			30~1000	-0.55	-68.19	≤-20.55	PASS
			1000~26500	-0.55	-54.42	≤-20.55	PASS
		2480	Reference	-0.39	-0.39	---	PASS
			30~1000	-0.39	-66.38	≤-20.39	PASS
			1000~26500	-0.39	-53.12	≤-20.39	PASS
2DH5	Ant1	2402	Reference	-2.11	-2.11	---	PASS
			30~1000	-2.11	-60.6	≤-22.11	PASS
			1000~26500	-2.11	-55.35	≤-22.11	PASS
		2441	Reference	-4.74	-4.74	---	PASS
			30~1000	-4.74	-67.61	≤-24.74	PASS
			1000~26500	-4.74	-55.06	≤-24.74	PASS
		2480	Reference	-3.74	-3.74	---	PASS
			30~1000	-3.74	-67.58	≤-23.74	PASS
			1000~26500	-3.74	-54.9	≤-23.74	PASS

Test Graphs

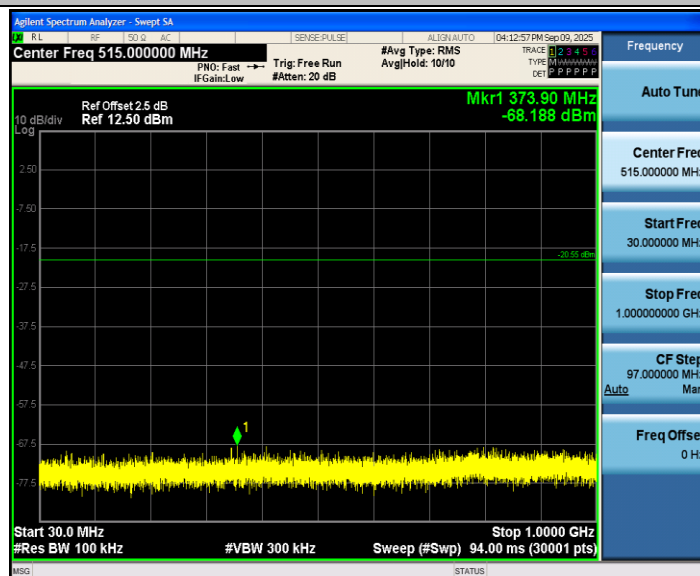




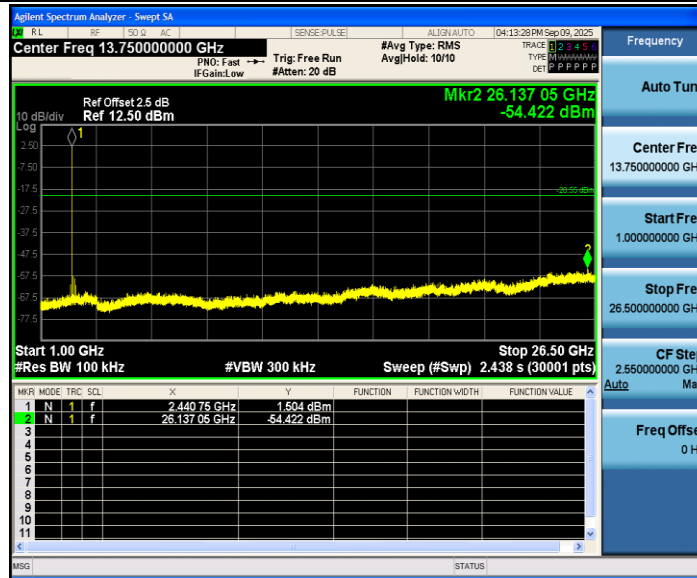
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



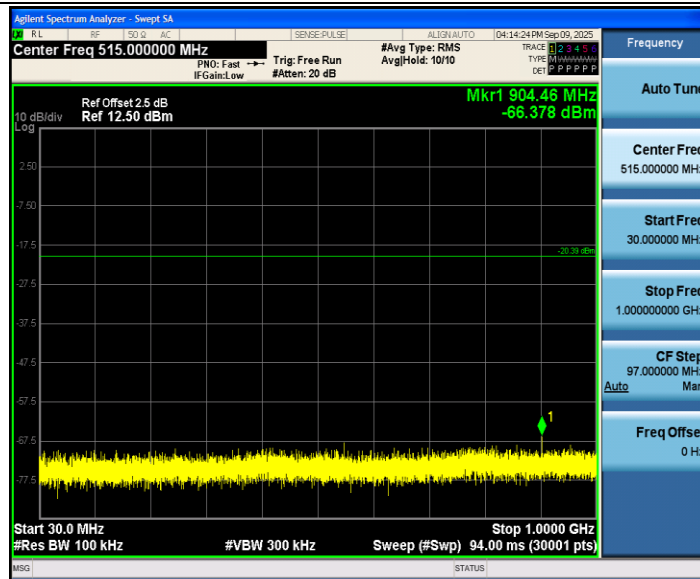
DH5_Ant1_2441_1000~26500



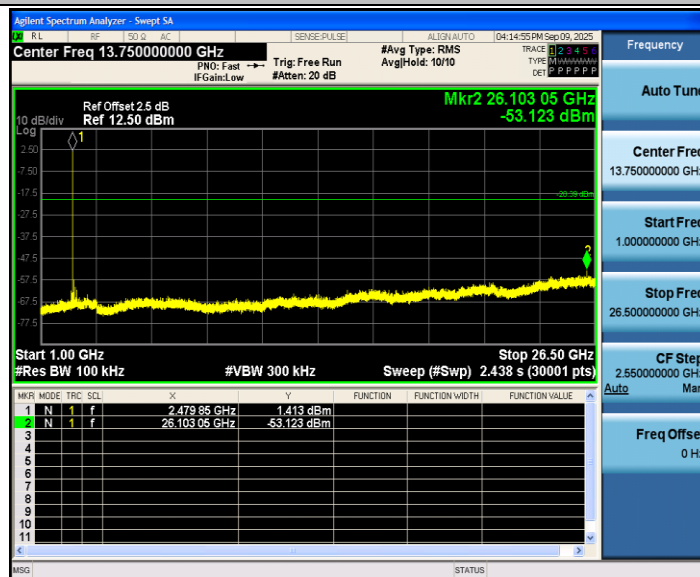
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



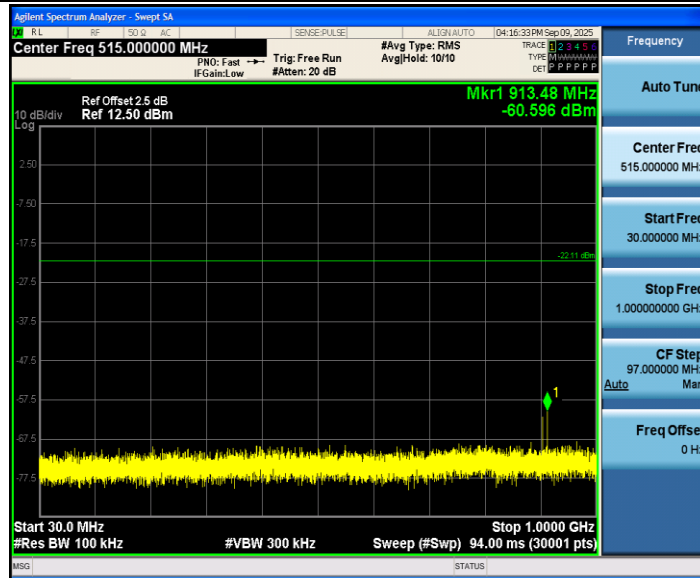
DH5_Ant1_2480_1000~26500



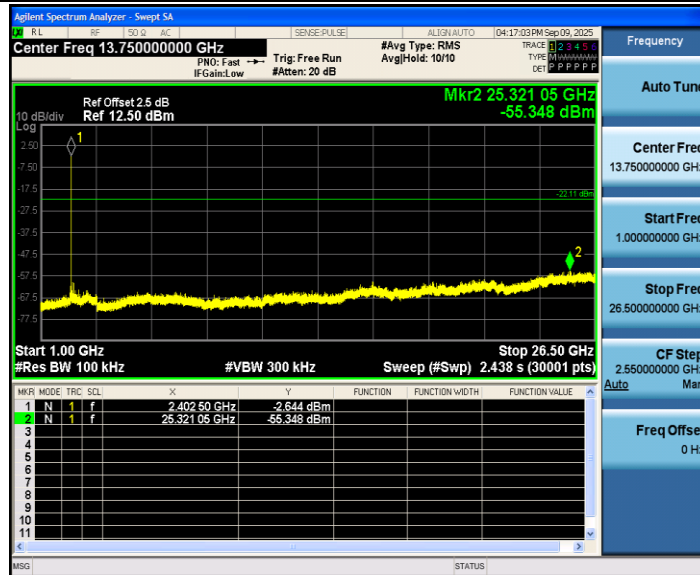
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



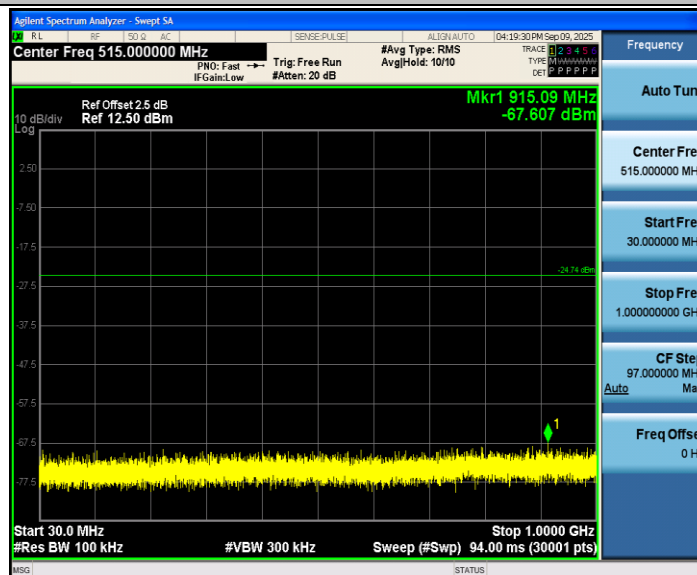
2DH5_Ant1_2402_1000~26500



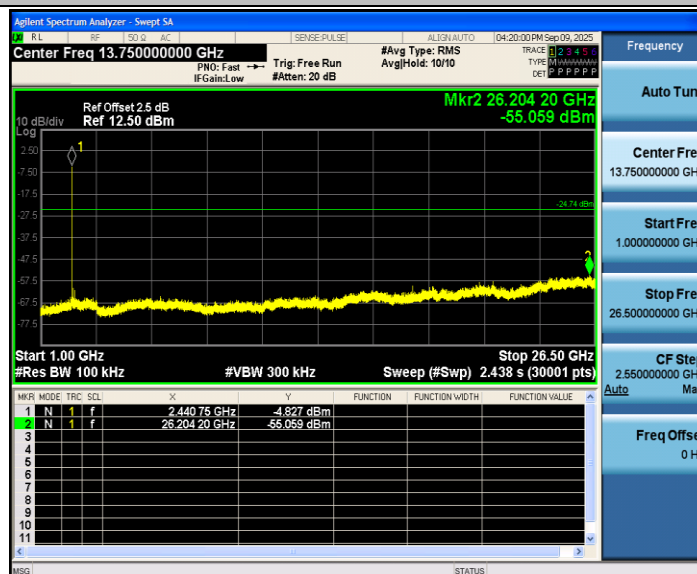
2DH5_Ant1_2441_0~Reference



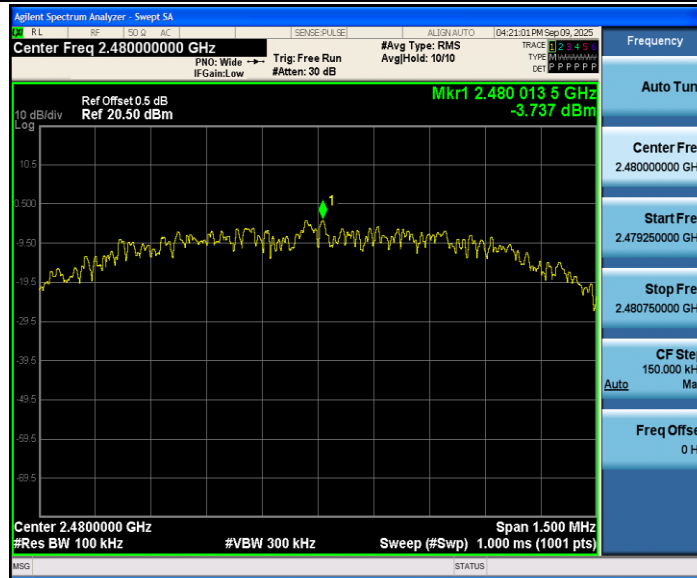
2DH5_Ant1_2441_30~1000



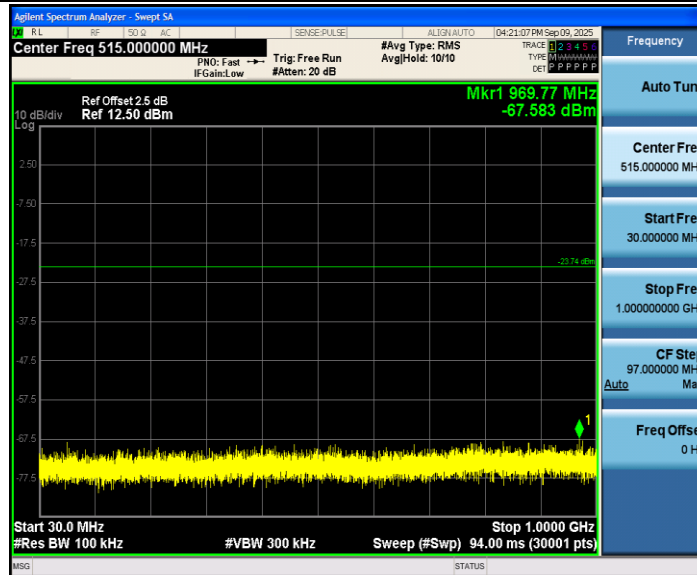
2DH5_Ant1_2441_1000~26500



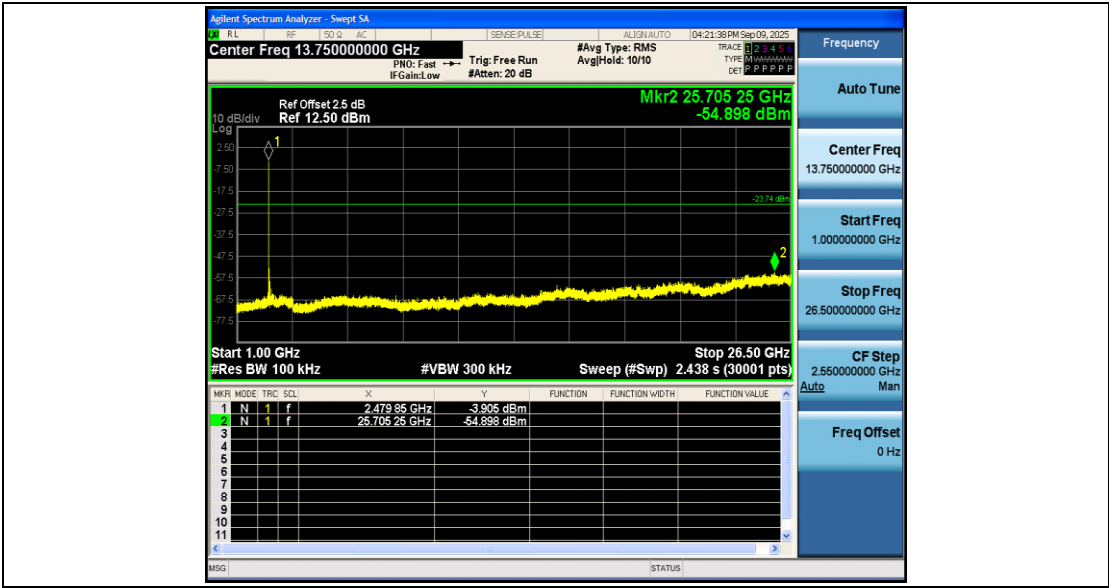
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500

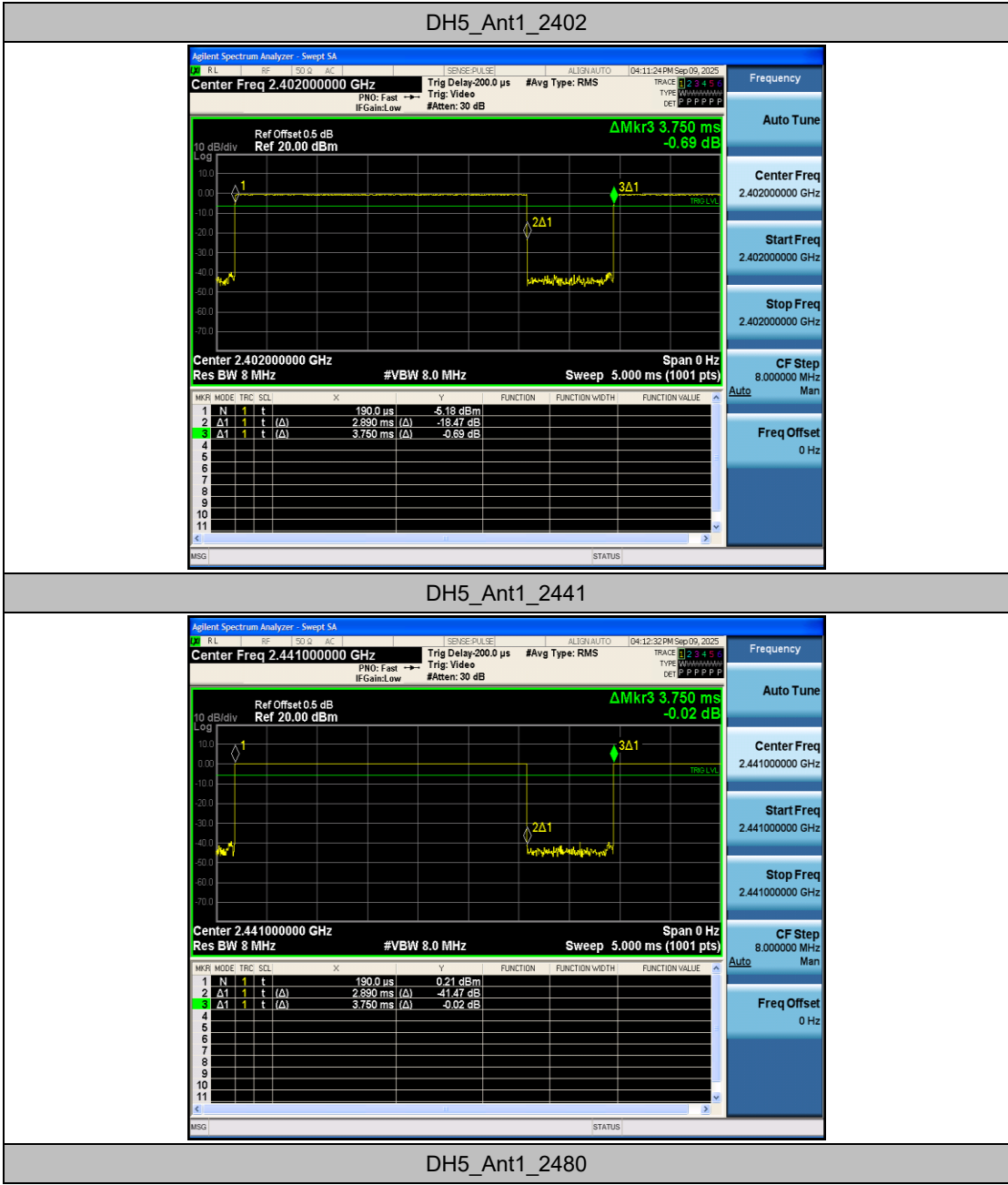


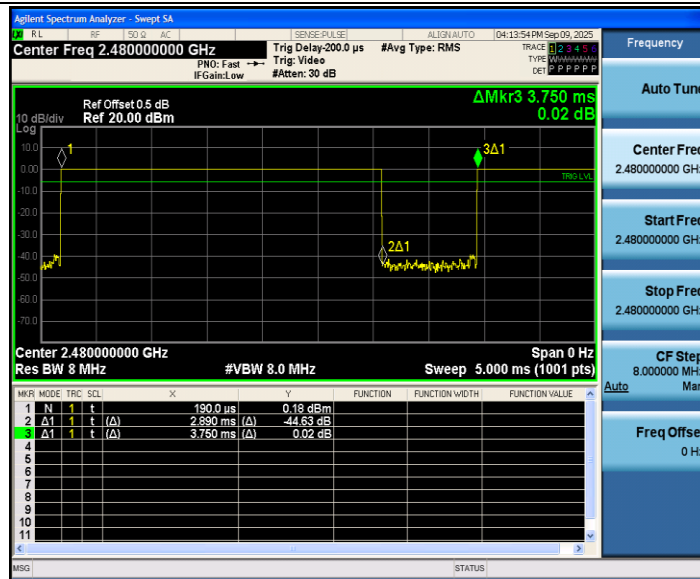
Appendix I: Duty Cycle

Test Result

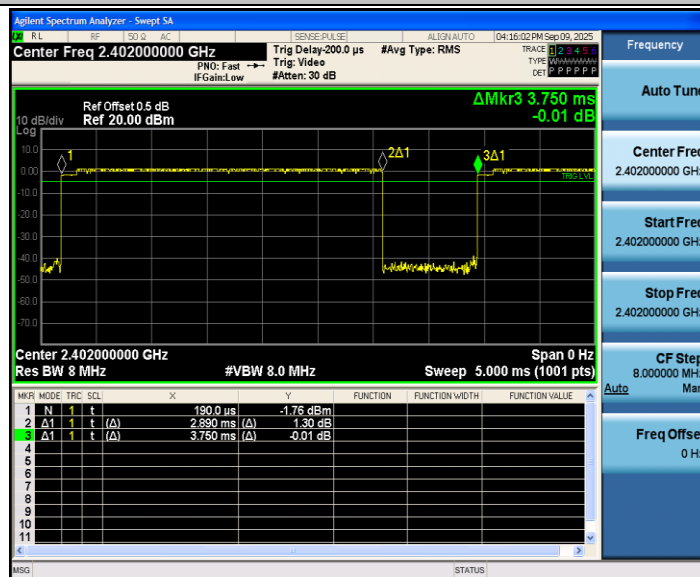
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.89	3.75	77.07	1.13	---	---
		2441	2.89	3.75	77.07	1.13	---	---
		2480	2.89	3.75	77.07	1.13	---	---
2DH5	Ant1	2402	2.89	3.75	77.07	1.13	---	---
		2441	2.89	3.75	77.07	1.13	---	---
		2480	2.89	3.75	77.07	1.13	---	---

Test Graphs

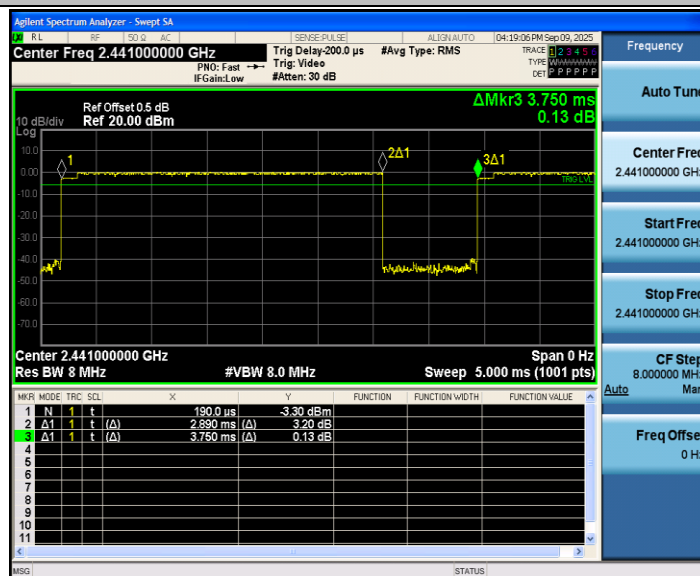




2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

