

Appendix RF Test Data for BT

FCC ID : 2BR5W-GDY-100

Company : Wuxi Goldenwave Industrial Co Ltd

EUT : GDY-100 Series controllers

Model Number : GDY-100

Report No. : CTA25082500701

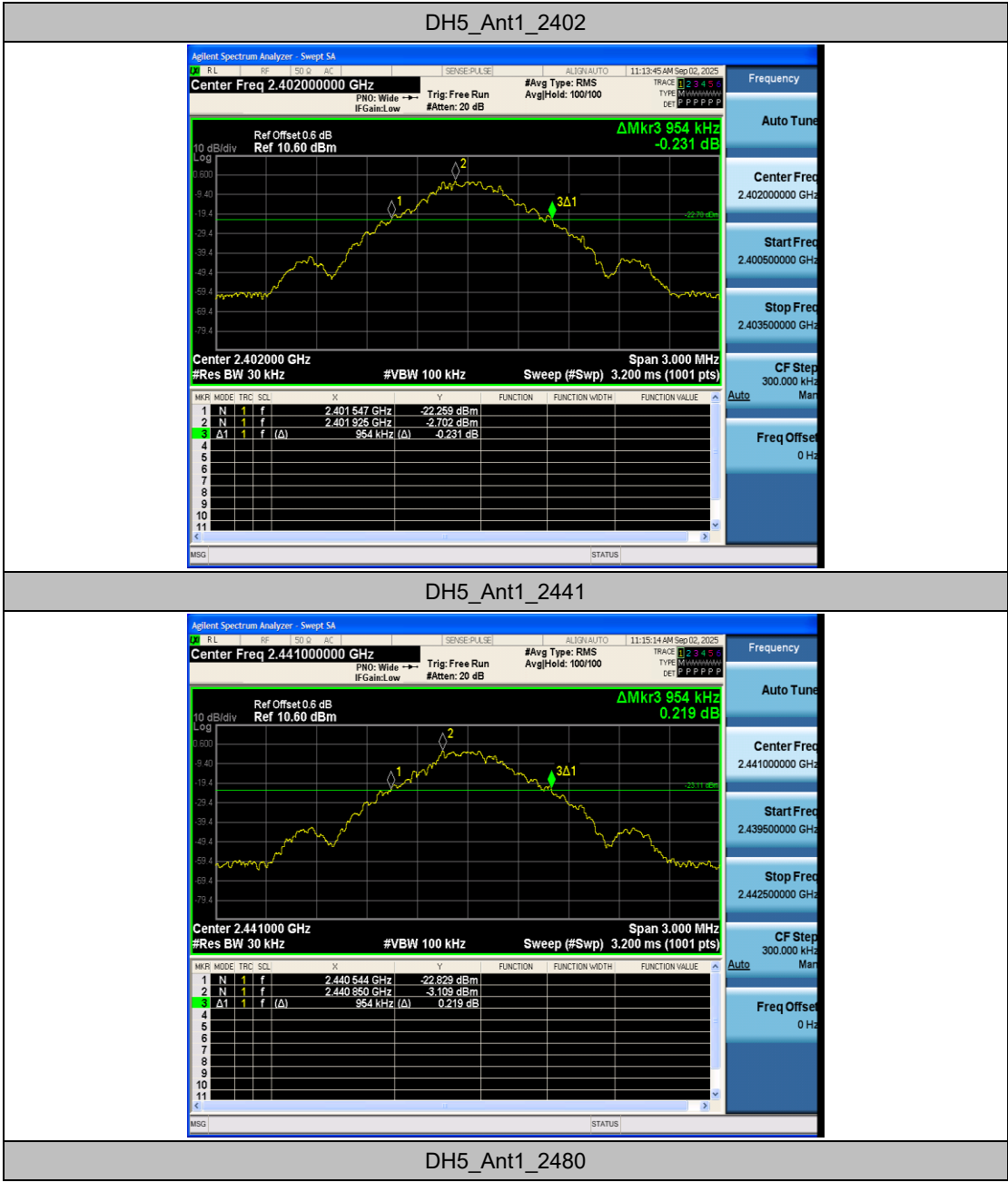
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.954	2401.547	2402.501	---	---
		2441	0.954	2440.544	2441.498	---	---
		2480	0.957	2479.544	2480.501	---	---
2DH5	Ant1	2402	1.308	2401.358	2402.666	---	---
		2441	1.308	2440.358	2441.666	---	---
		2480	1.305	2479.355	2480.660	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

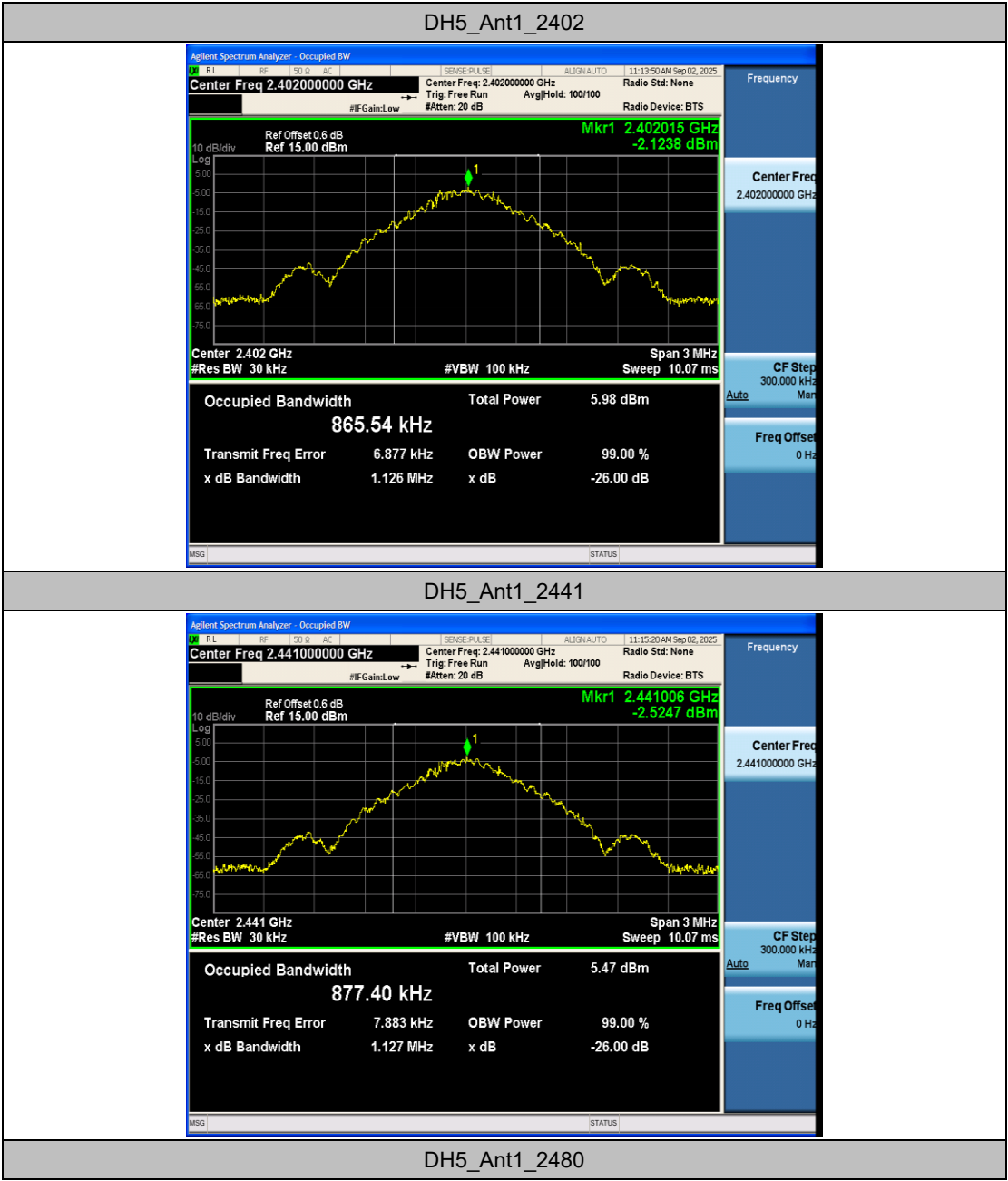


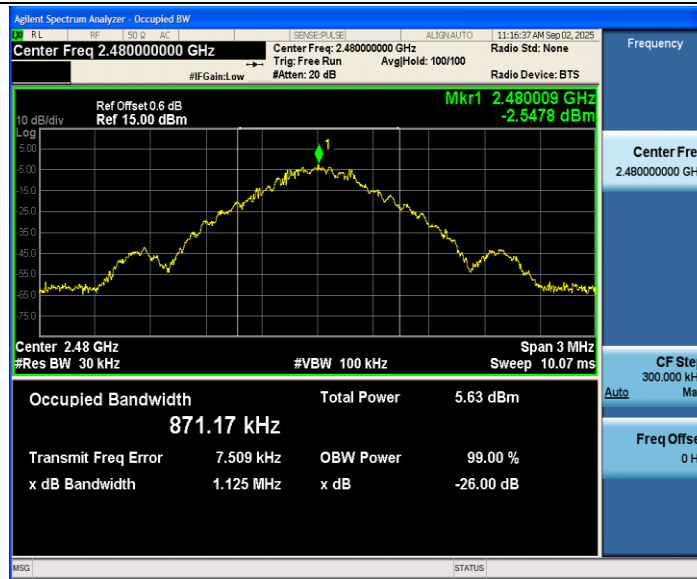
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86554	2401.5741	2402.4397	---	---
		2441	0.87740	2440.5692	2441.4466	---	---
		2480	0.87117	2479.5719	2480.4431	---	---
2DH5	Ant1	2402	1.1873	2401.4155	2402.6028	---	---
		2441	1.1856	2440.4158	2441.6014	---	---
		2480	1.1973	2479.4128	2480.6101	---	---

Test Graphs

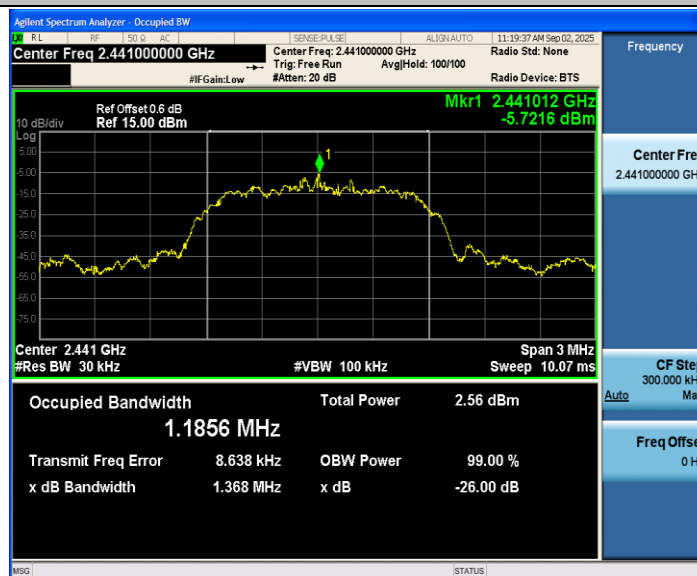




2DH5_Ant1_2402



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	0.02	≤20.97	PASS
		2441	-0.20	≤20.97	PASS
		2480	-0.24	≤20.97	PASS
2DH5	Ant1	2402	-0.79	≤20.97	PASS
		2441	-0.99	≤20.97	PASS
		2480	-1.09	≤20.97	PASS

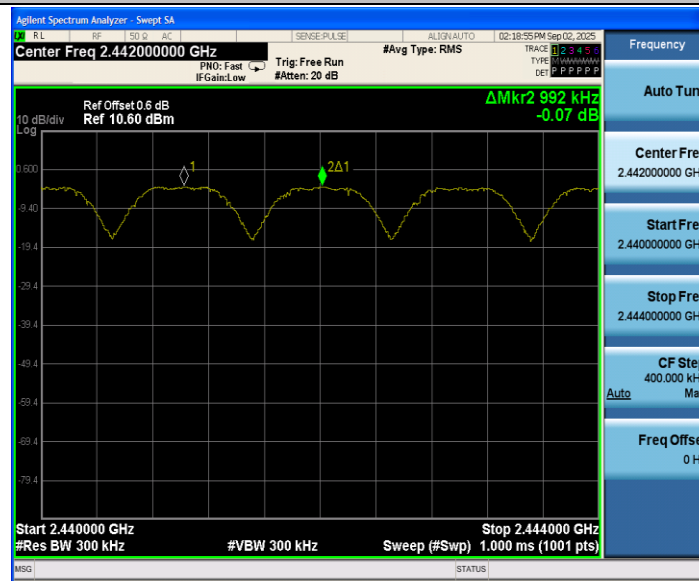
Appendix D: Carrier frequency separation

Test Result

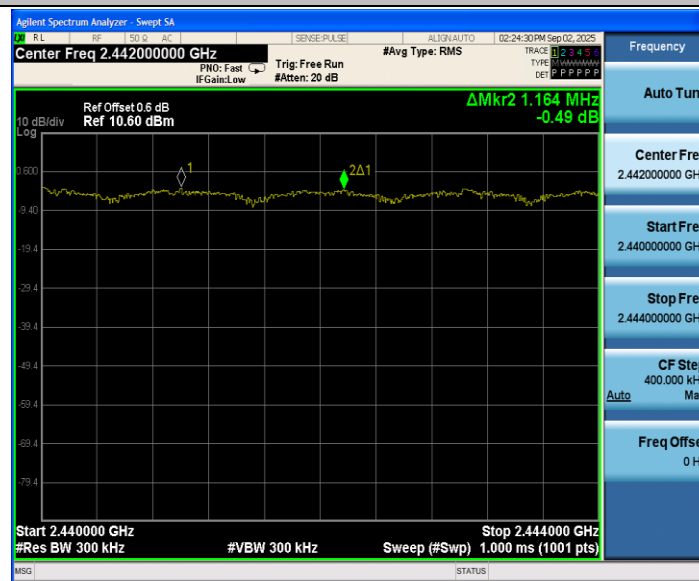
TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.992	≥ 0.957	PASS
2DH5	Ant1	Hop	1.164	≥ 0.872	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop

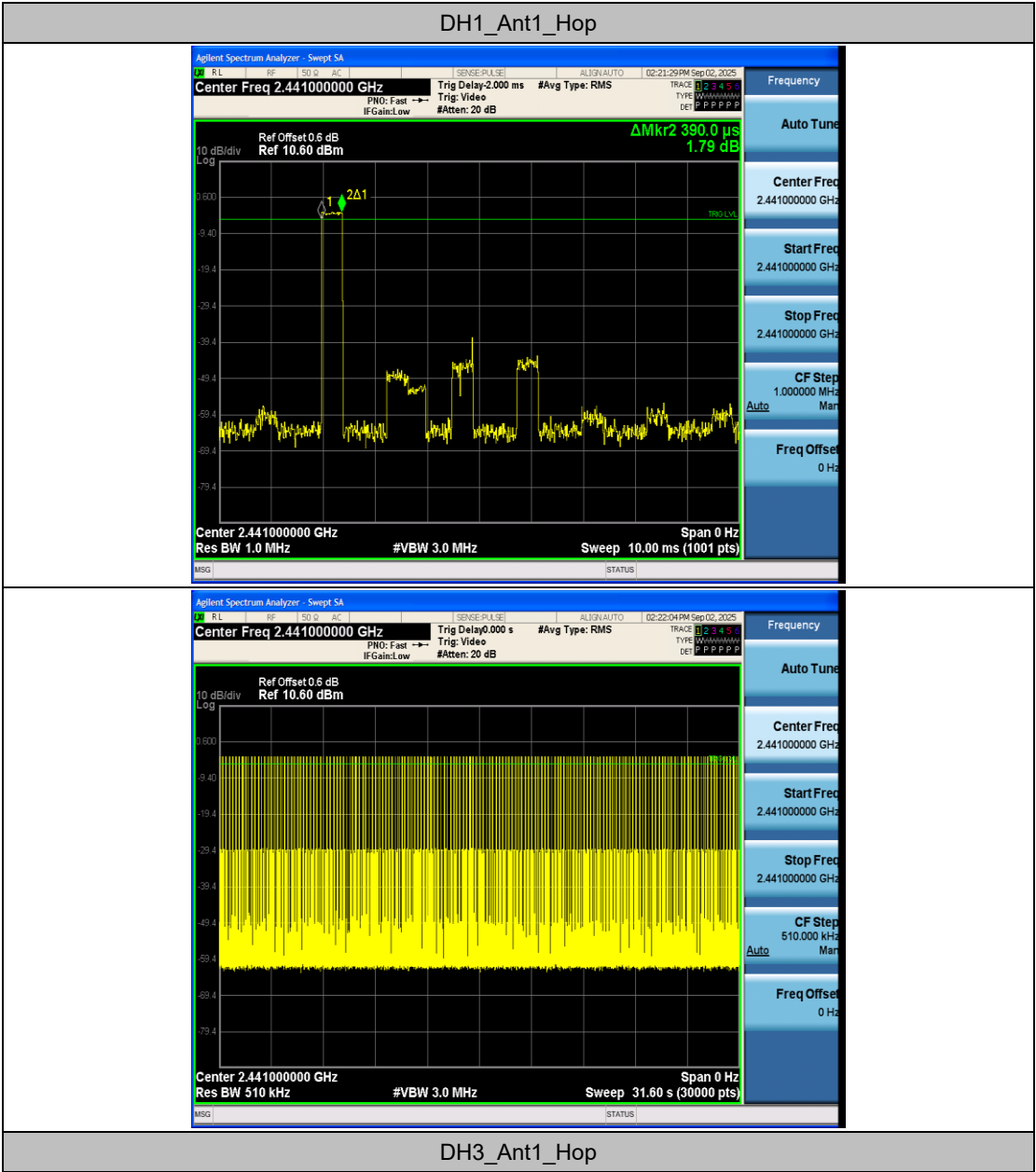


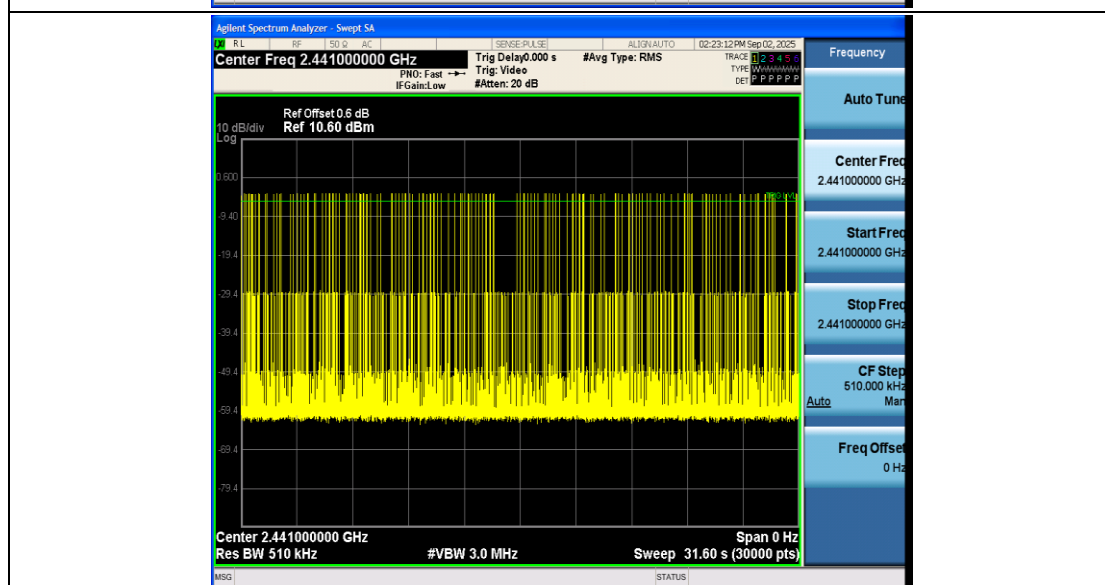
Appendix E: Time of occupancy

Test Result

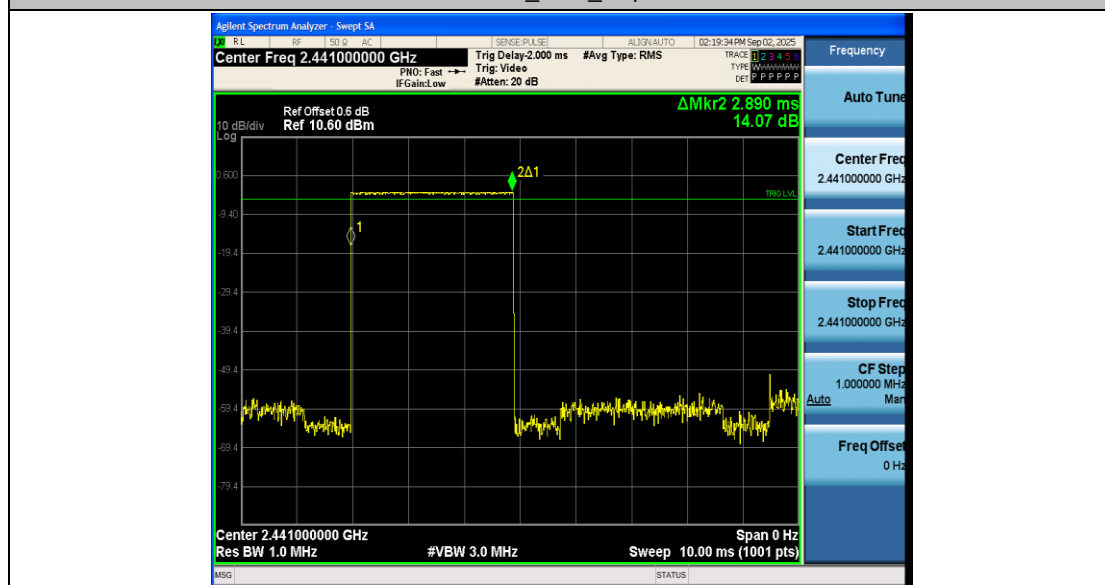
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.390	317	0.124	≤0.4	PASS
DH3	Ant1	Hop	1.640	152	0.249	≤0.4	PASS
DH5	Ant1	Hop	2.890	117	0.338	≤0.4	PASS
2DH1	Ant1	Hop	0.400	314	0.126	≤0.4	PASS
2DH3	Ant1	Hop	1.650	163	0.269	≤0.4	PASS
2DH5	Ant1	Hop	2.900	100	0.29	≤0.4	PASS

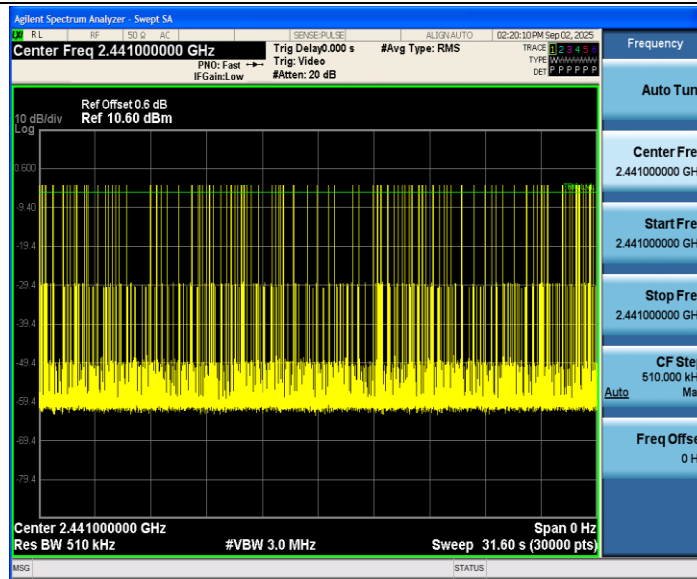
Test Graphs



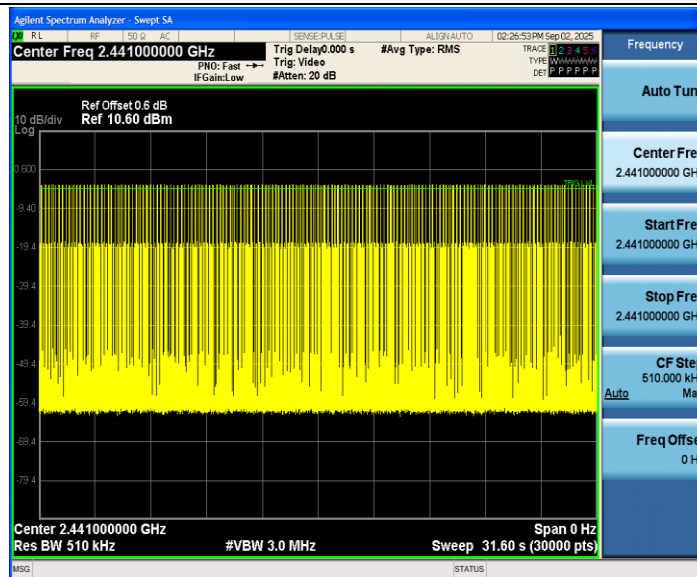
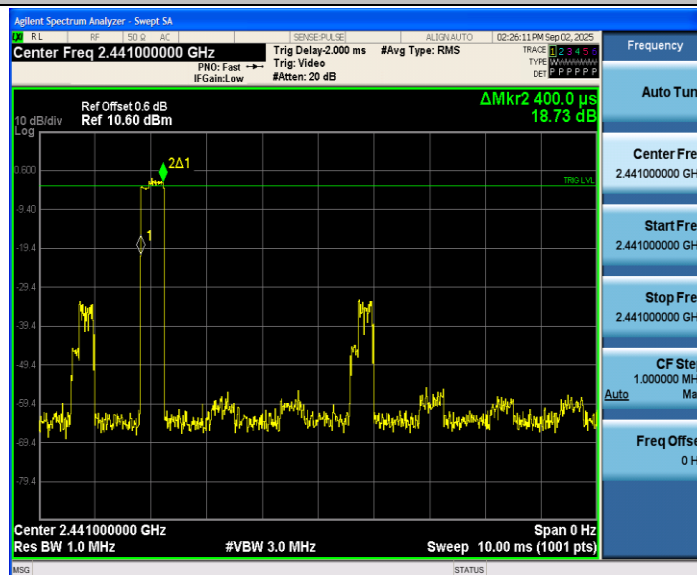


DH5_Ant1_Hop

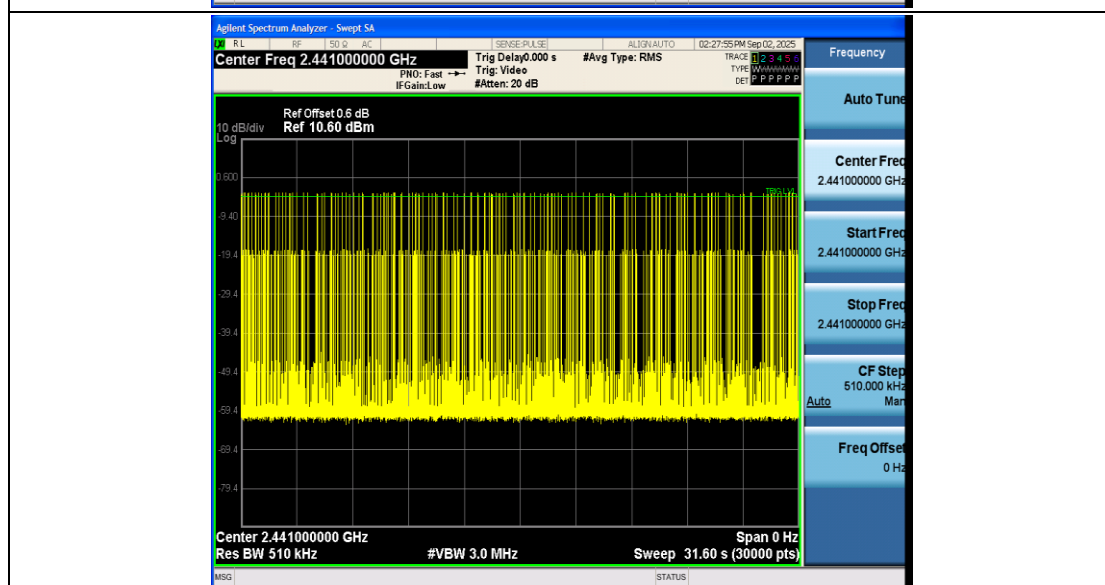
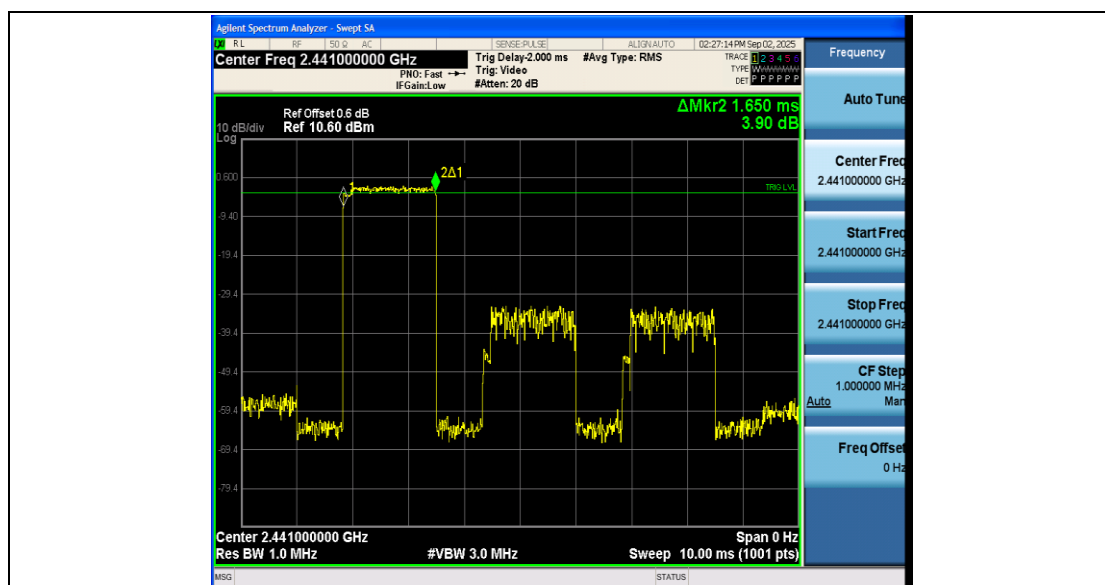




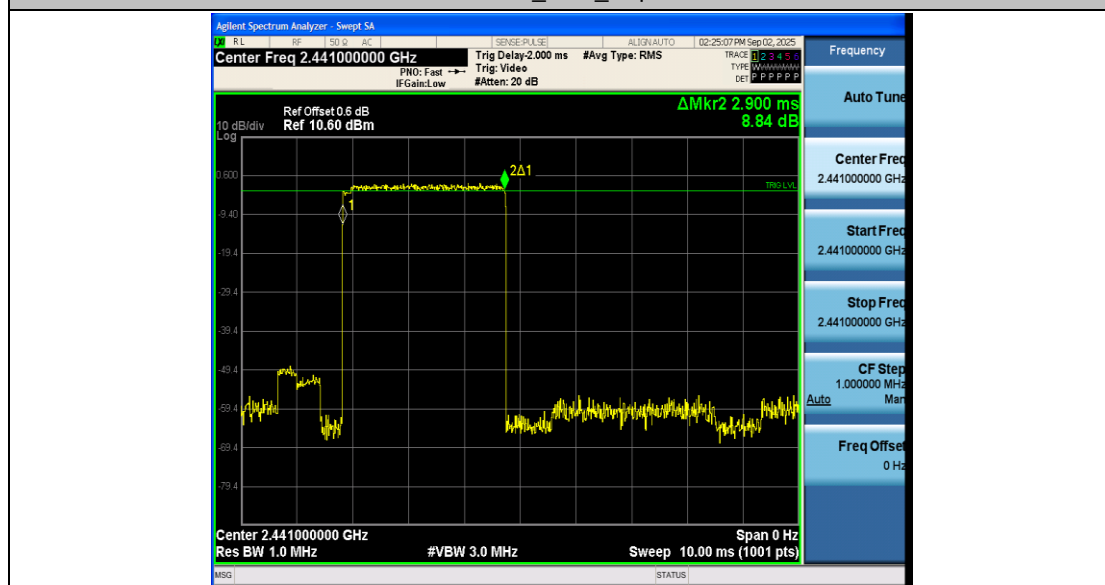
2DH1_Ant1_Hop

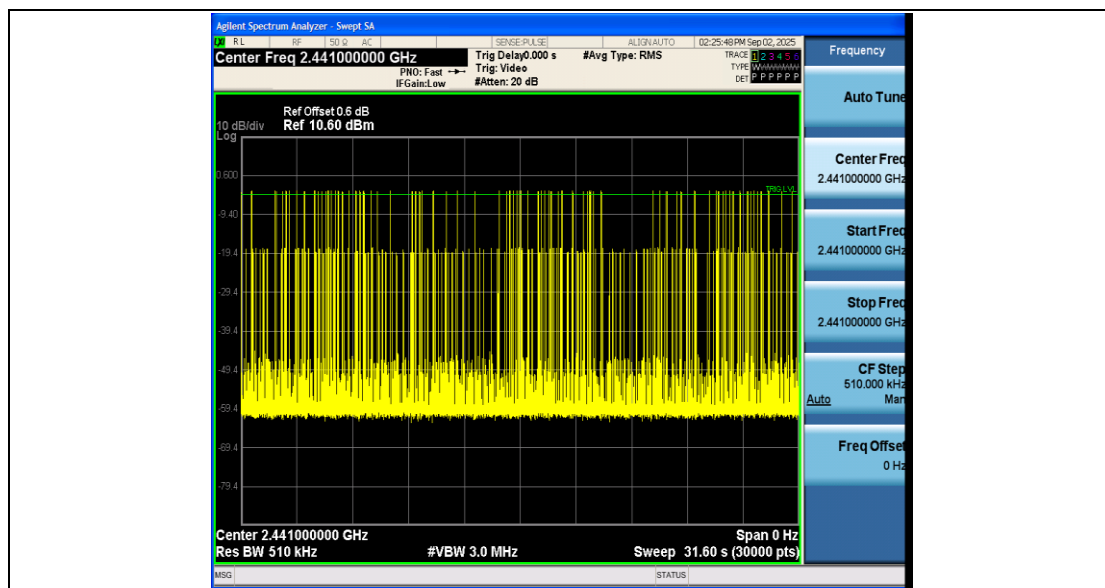


2DH3_Ant1_Hop



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

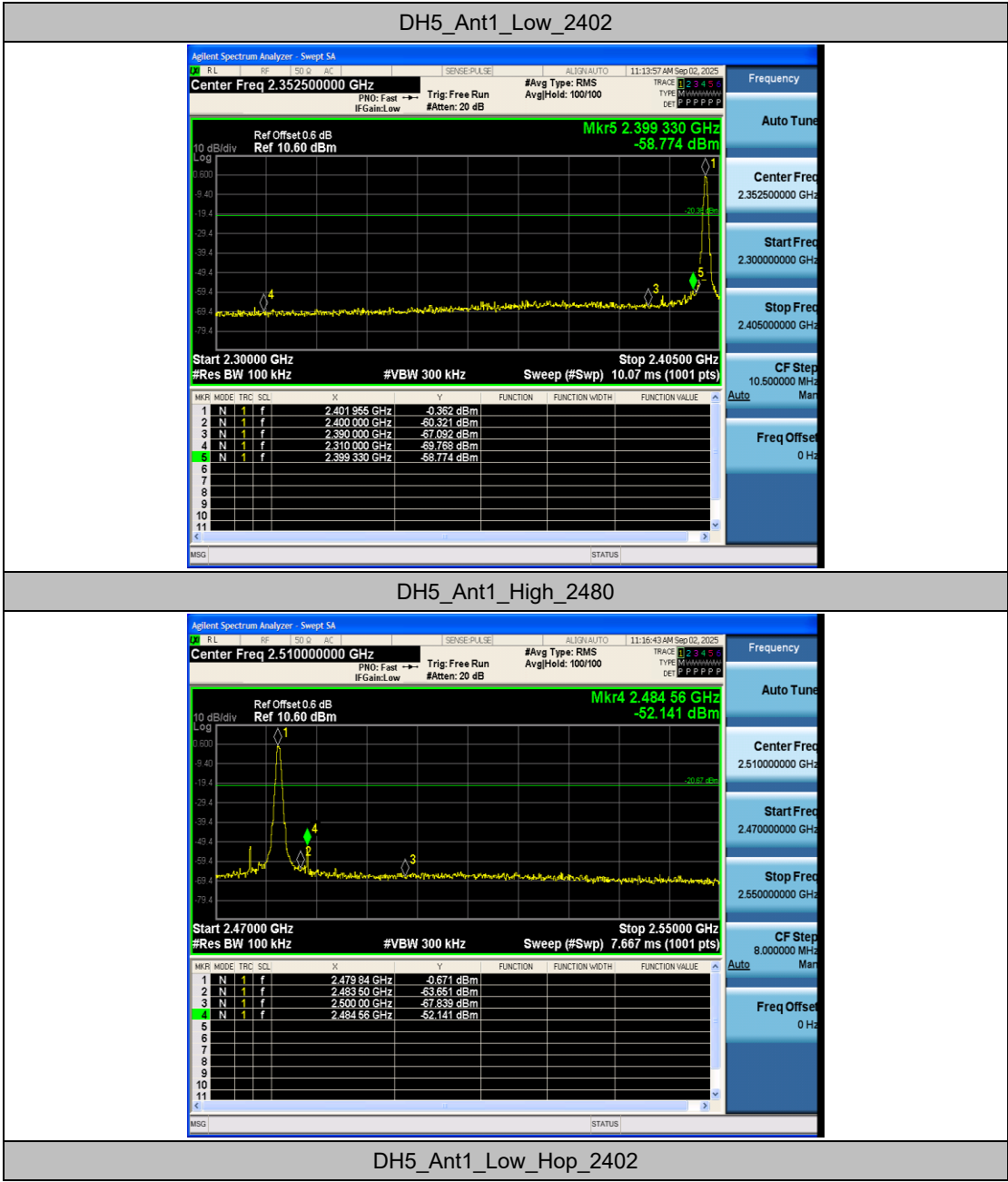


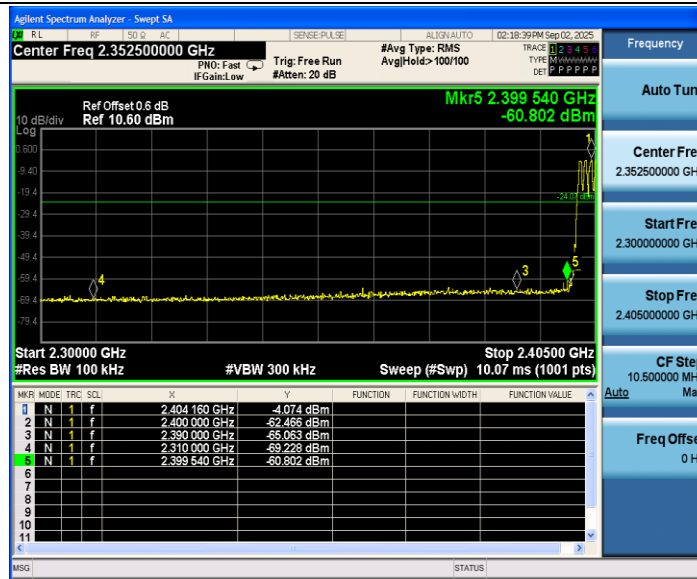
Appendix G: Band edge measurements

Test Result

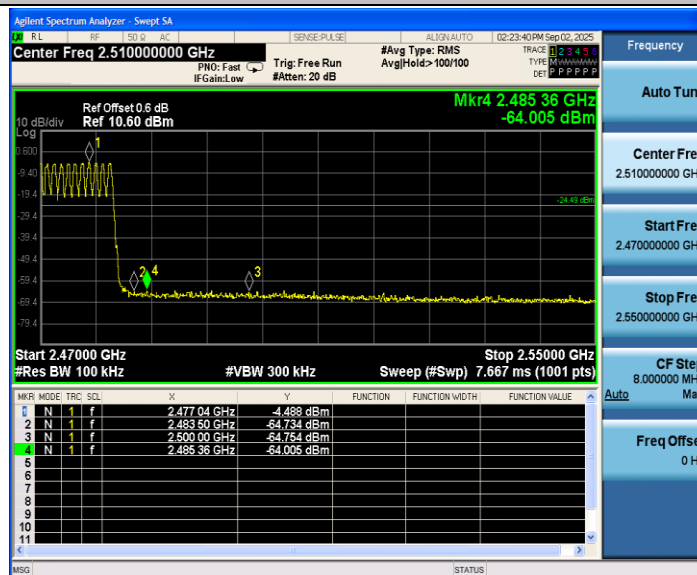
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.36	-58.77	≤-20.36	PASS
		High	2480	-0.67	-52.14	≤-20.67	PASS
		Low	Hop_2402	-4.07	-60.8	≤-24.07	PASS
		High	Hop_2480	-4.49	-64.01	≤-24.49	PASS
2DH5	Ant1	Low	2402	-4.99	-56.41	≤-24.99	PASS
		High	2480	-4.62	-55.18	≤-24.62	PASS
		Low	Hop_2402	-6.14	-61.97	≤-26.14	PASS
		High	Hop_2480	-4.59	-64.25	≤-24.59	PASS

Test Graphs

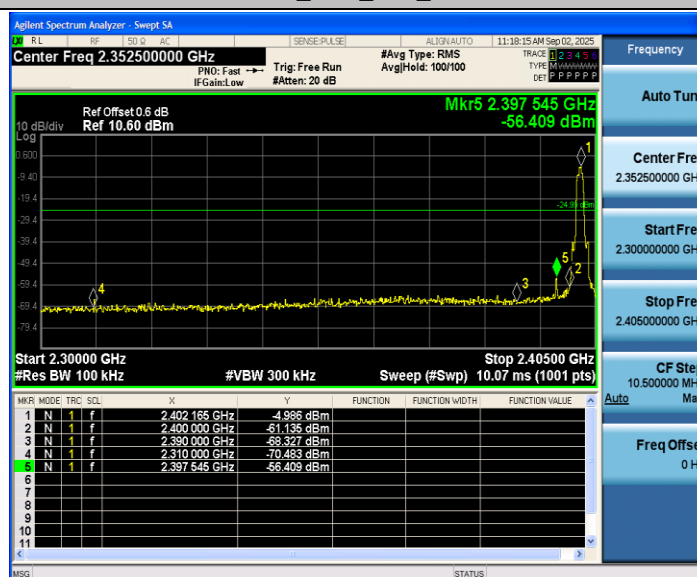




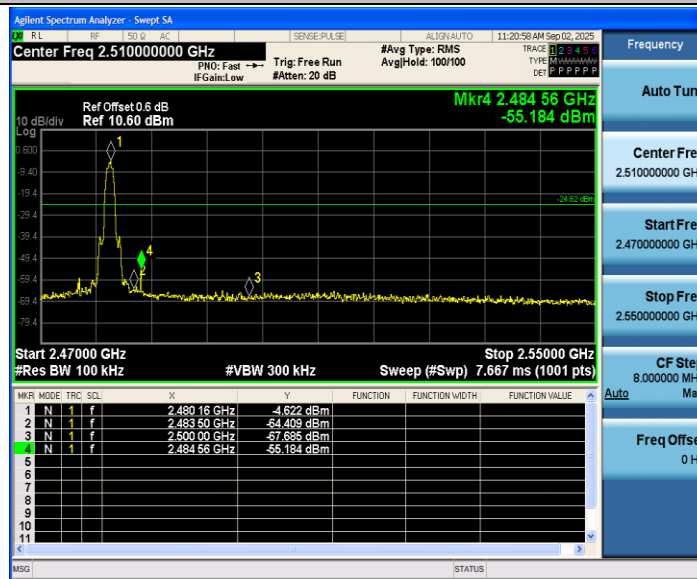
DH5_Ant1_High_Hop_2480



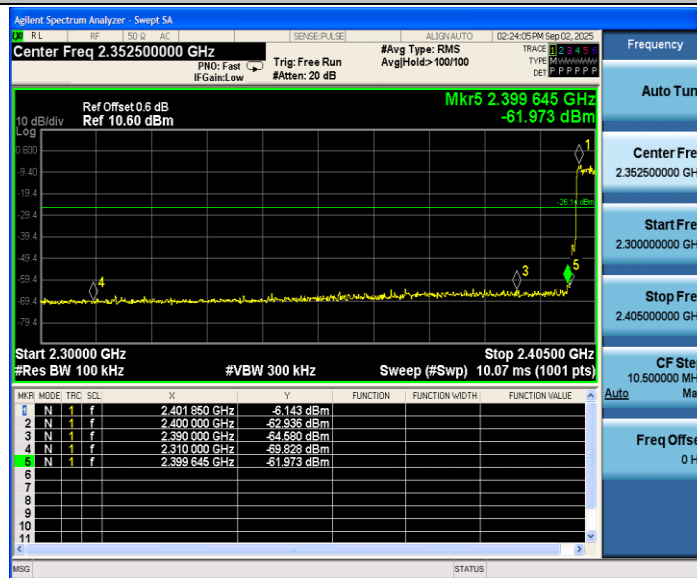
2DH5_Ant1_Low_2402



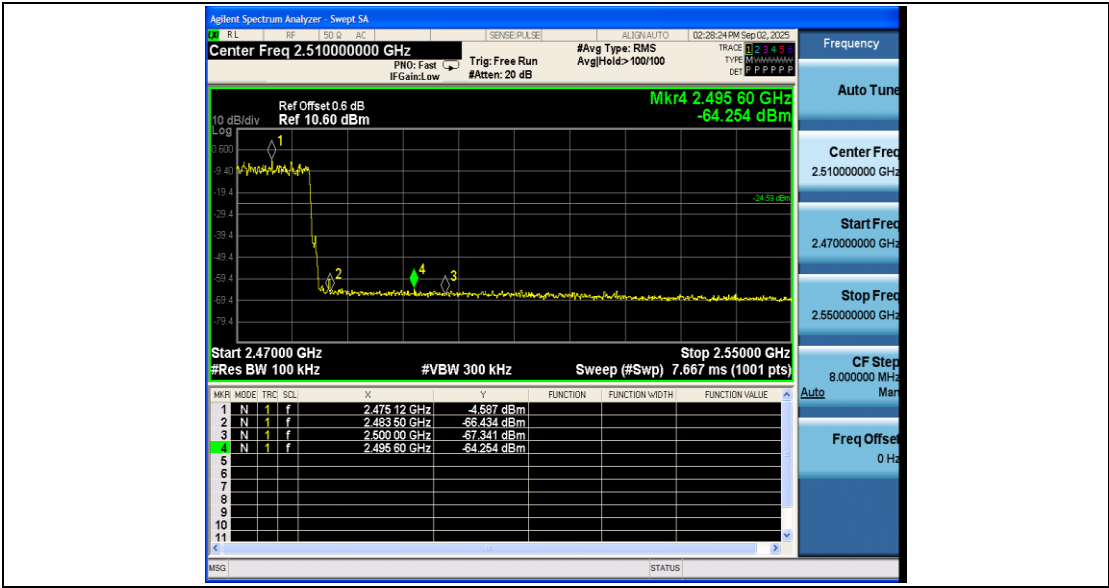
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

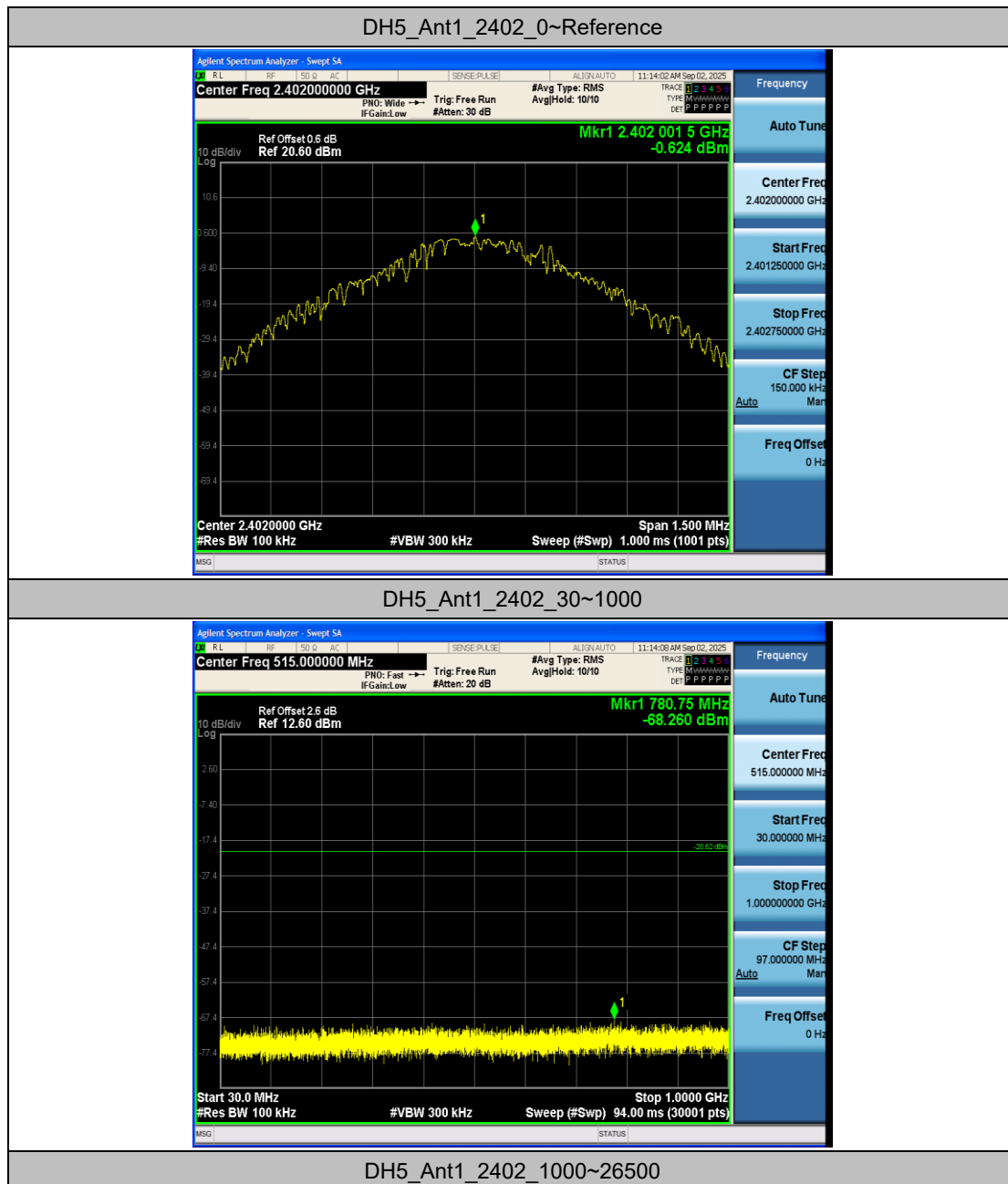


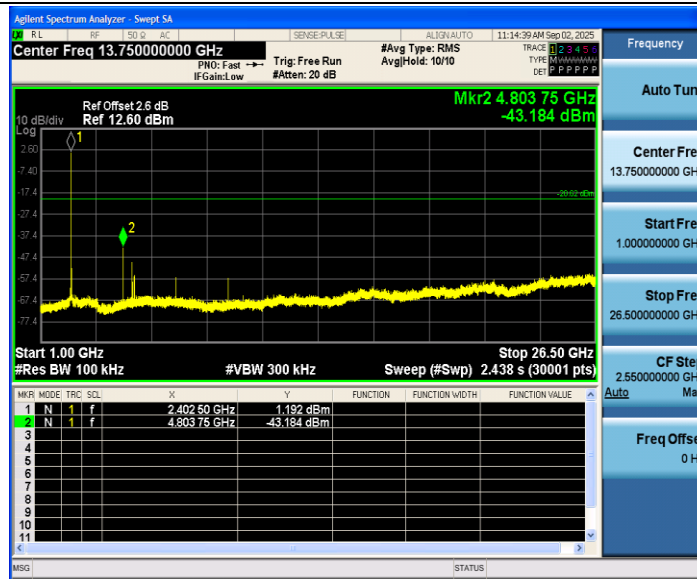
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.62	-0.62	---	PASS
			30~1000	-0.62	-68.26	≤-20.62	PASS
			1000~26500	-0.62	-43.18	≤-20.62	PASS
		2441	Reference	-0.77	-0.77	---	PASS
			30~1000	-0.77	-67.72	≤-20.77	PASS
			1000~26500	-0.77	-43.09	≤-20.77	PASS
		2480	Reference	-0.47	-0.47	---	PASS
			30~1000	-0.47	-67.47	≤-20.47	PASS
			1000~26500	-0.47	-43.87	≤-20.47	PASS
2DH5	Ant1	2402	Reference	-6.59	-6.59	---	PASS
			30~1000	-6.59	-68.18	≤-26.59	PASS
			1000~26500	-6.59	-47.88	≤-26.59	PASS
		2441	Reference	-5.40	-5.40	---	PASS
			30~1000	-5.40	-67.33	≤-25.4	PASS
			1000~26500	-5.40	-48.88	≤-25.4	PASS
		2480	Reference	-3.86	-3.86	---	PASS
			30~1000	-3.86	-67.76	≤-23.86	PASS
			1000~26500	-3.86	-48.43	≤-23.86	PASS

Test Graphs

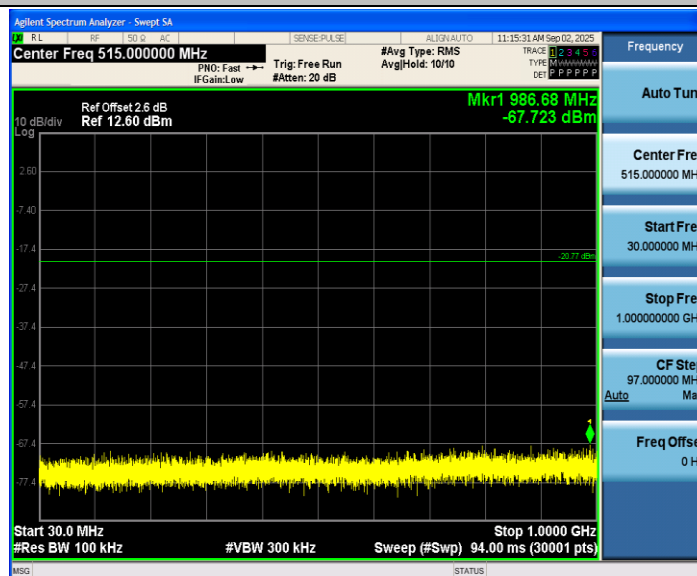




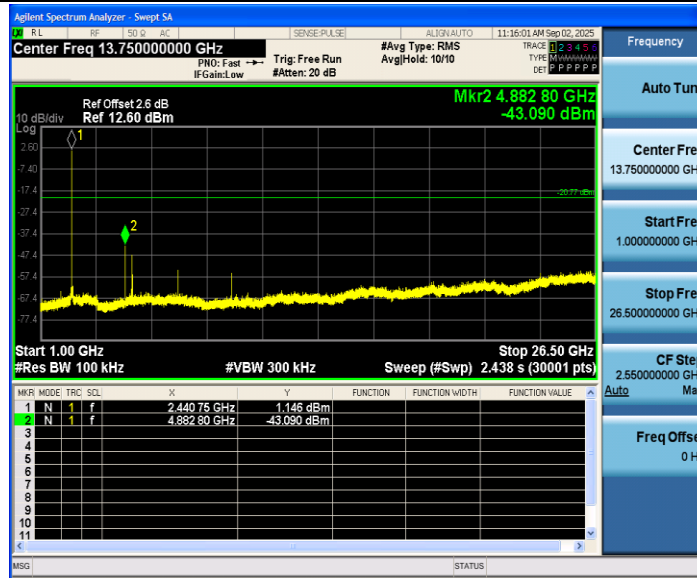
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



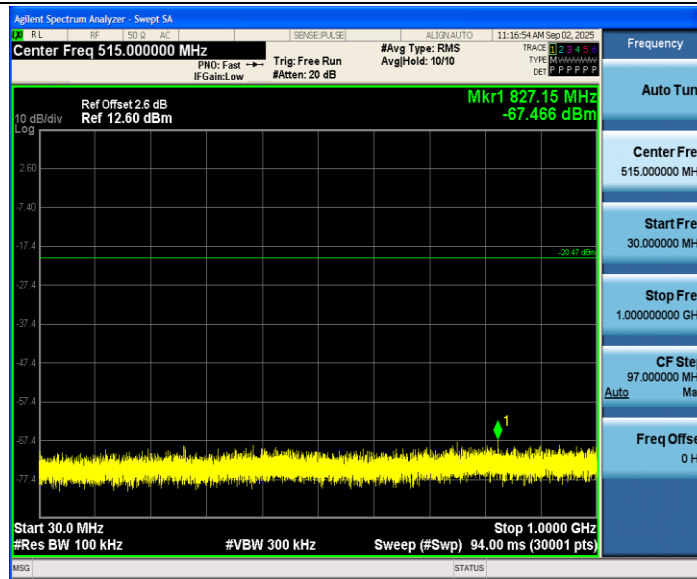
DH5_Ant1_2441_1000~26500



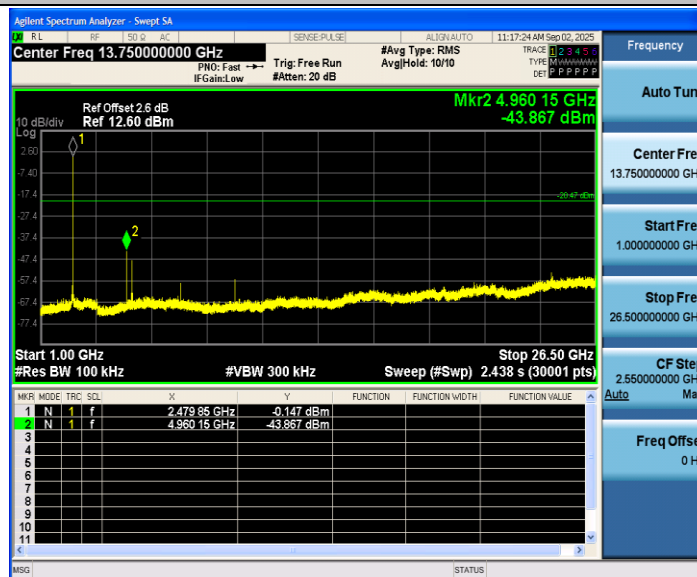
DH5_Ant1_2480_0~Reference



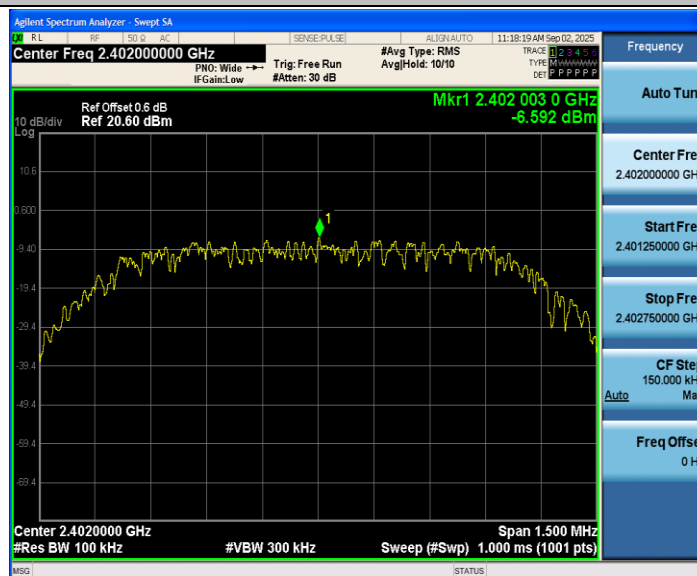
DH5_Ant1_2480_30~1000



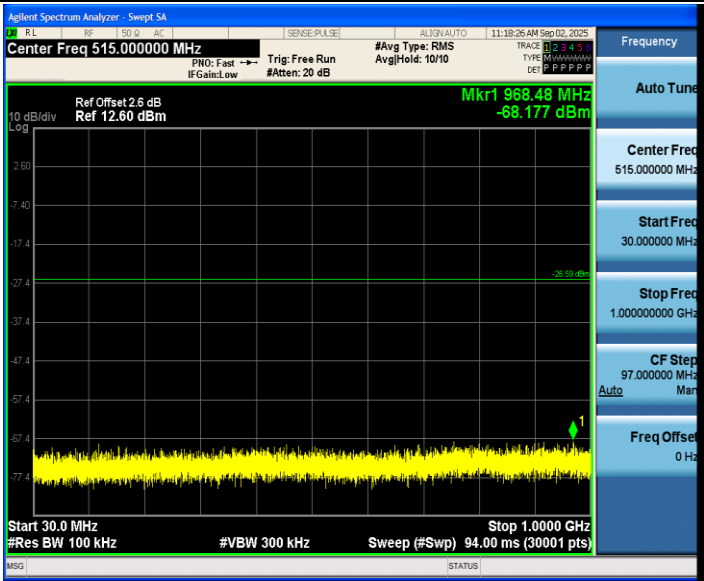
DH5_Ant1_2480_1000~26500



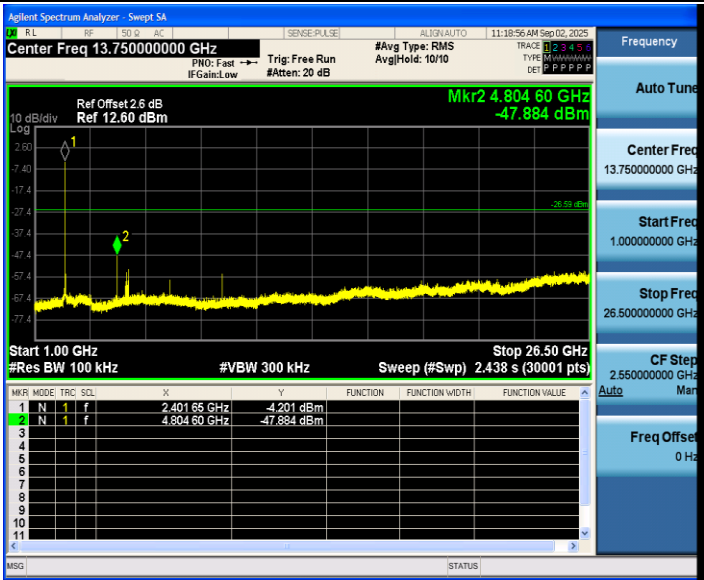
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



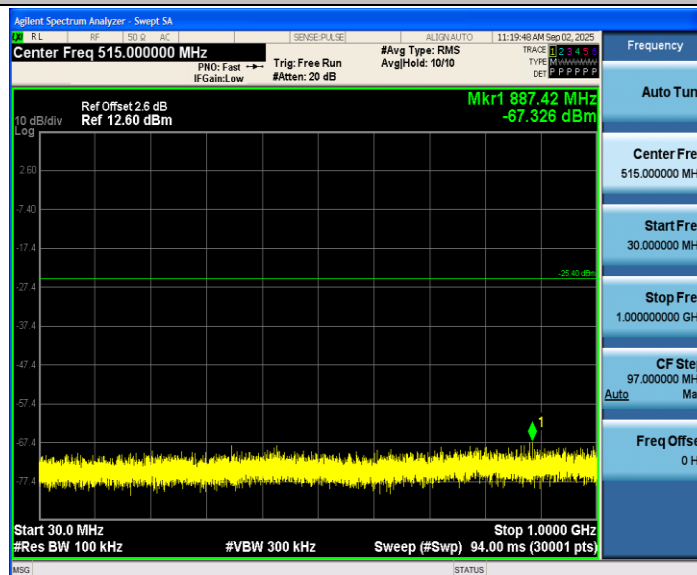
2DH5_Ant1_2402_1000~26500



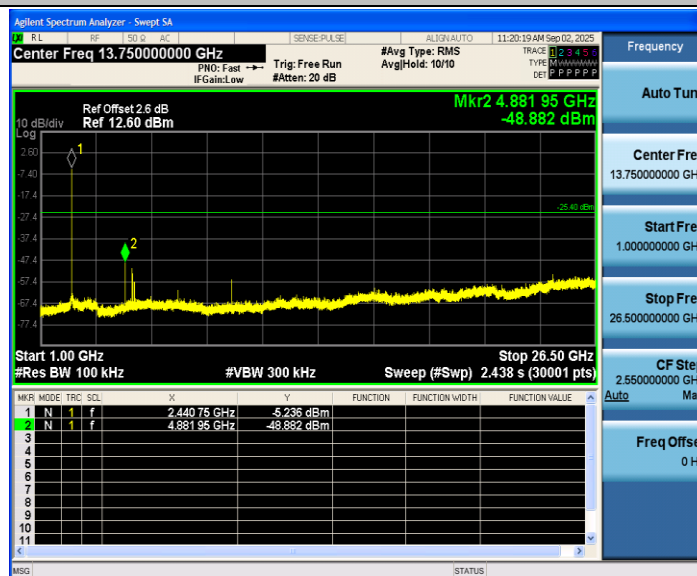
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



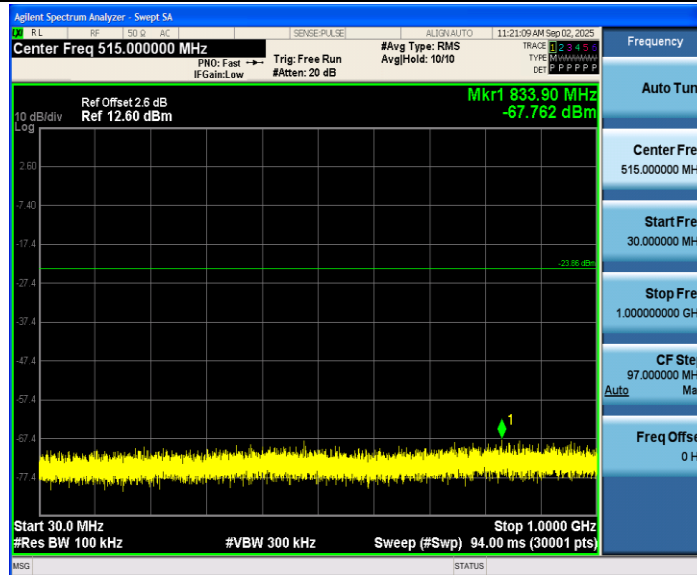
2DH5_Ant1_2441_1000~26500



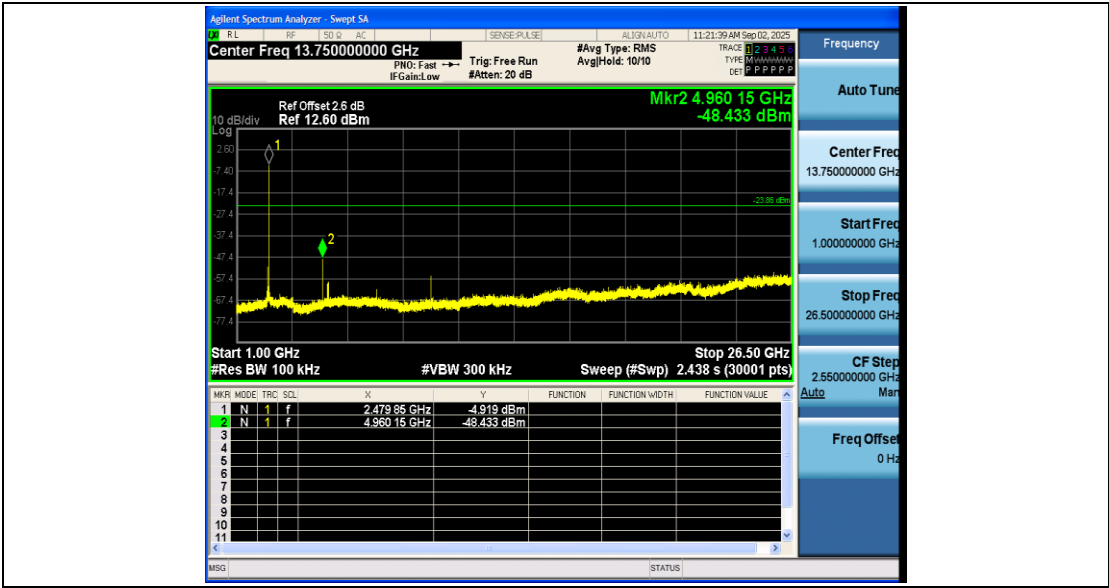
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500

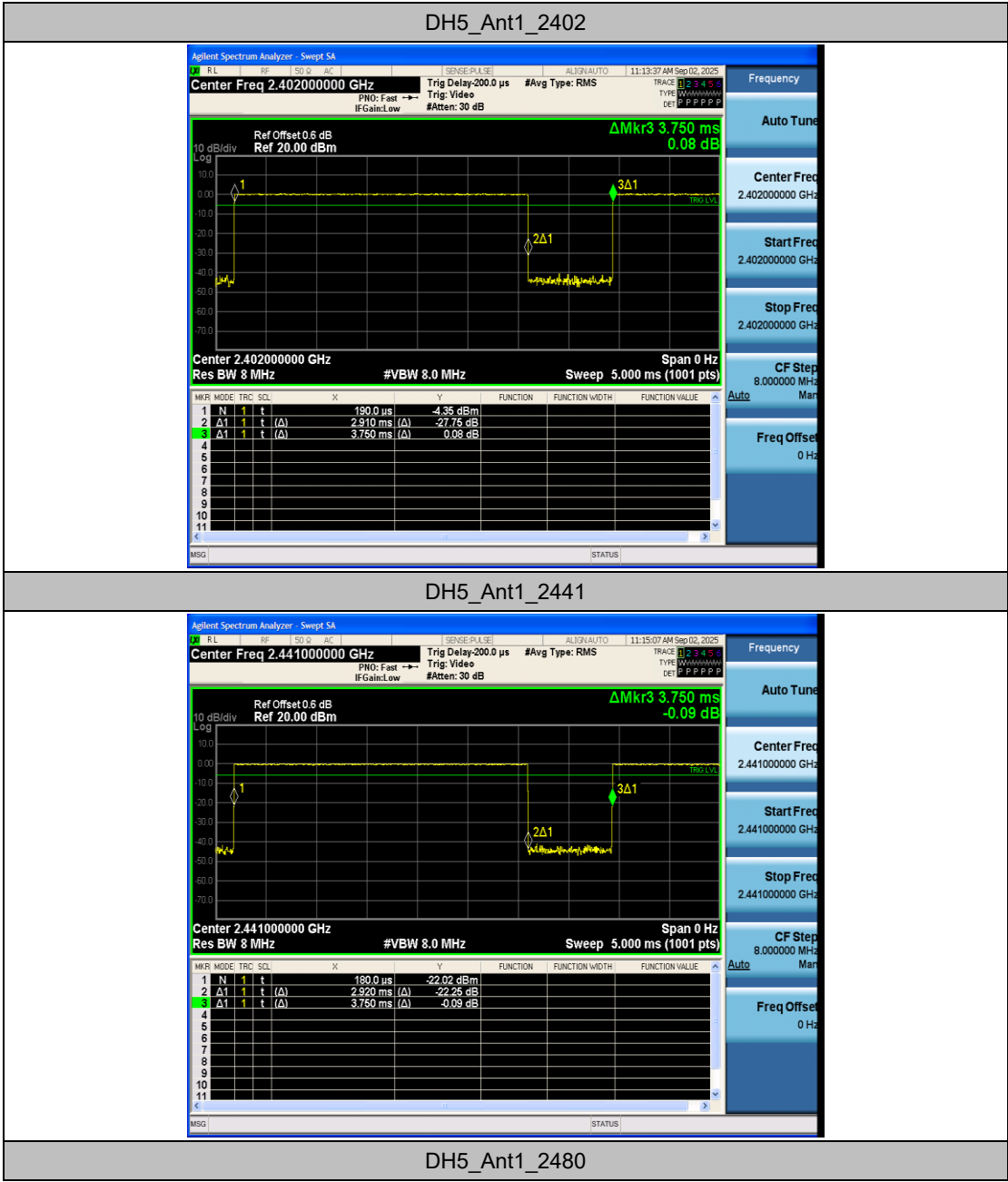


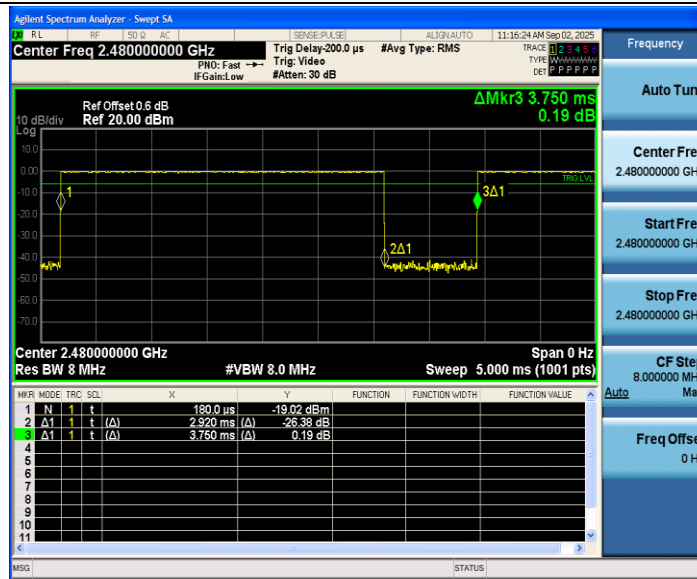
Appendix I: Duty Cycle

Test Result

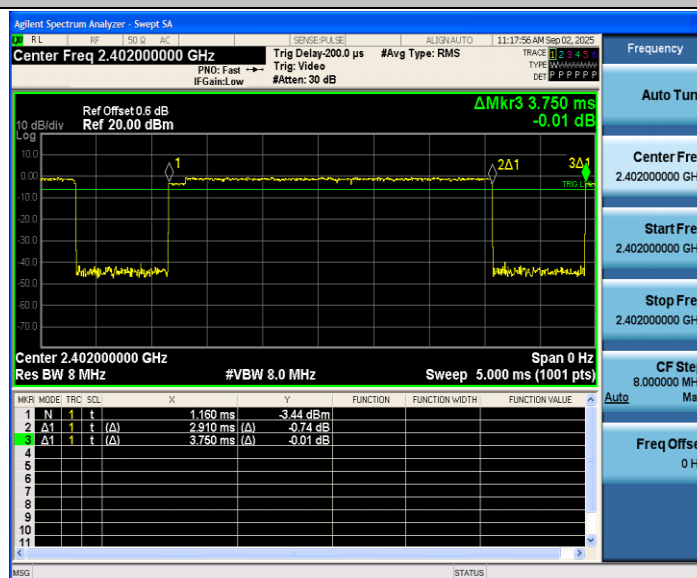
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---
2DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.91	3.75	77.60	1.10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

Test Graphs

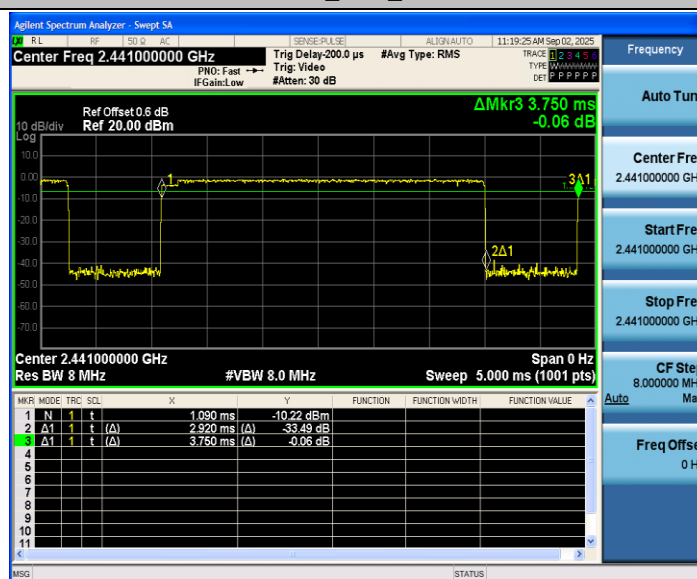




2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

