

FCC Appendix RF Test Data for BT

FCC ID : 2BYMX-RS001

Company : Dongguan Xinchuangyi Electronics Co.,Ltd

EUT : Rechargeable Water-Resistant Bluetooth Speaker

Model Number : RS001

Report No. : CTA26083101101

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	0.957	2401.544	2402.501	---	---
		2441	0.957	2440.544	2441.501	---	---
		2480	0.942	2479.553	2480.495	---	---
2DH5	Ant1	2402	1.287	2401.376	2402.663	---	---
		2441	1.314	2440.358	2441.672	---	---
		2480	1.317	2479.352	2480.669	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

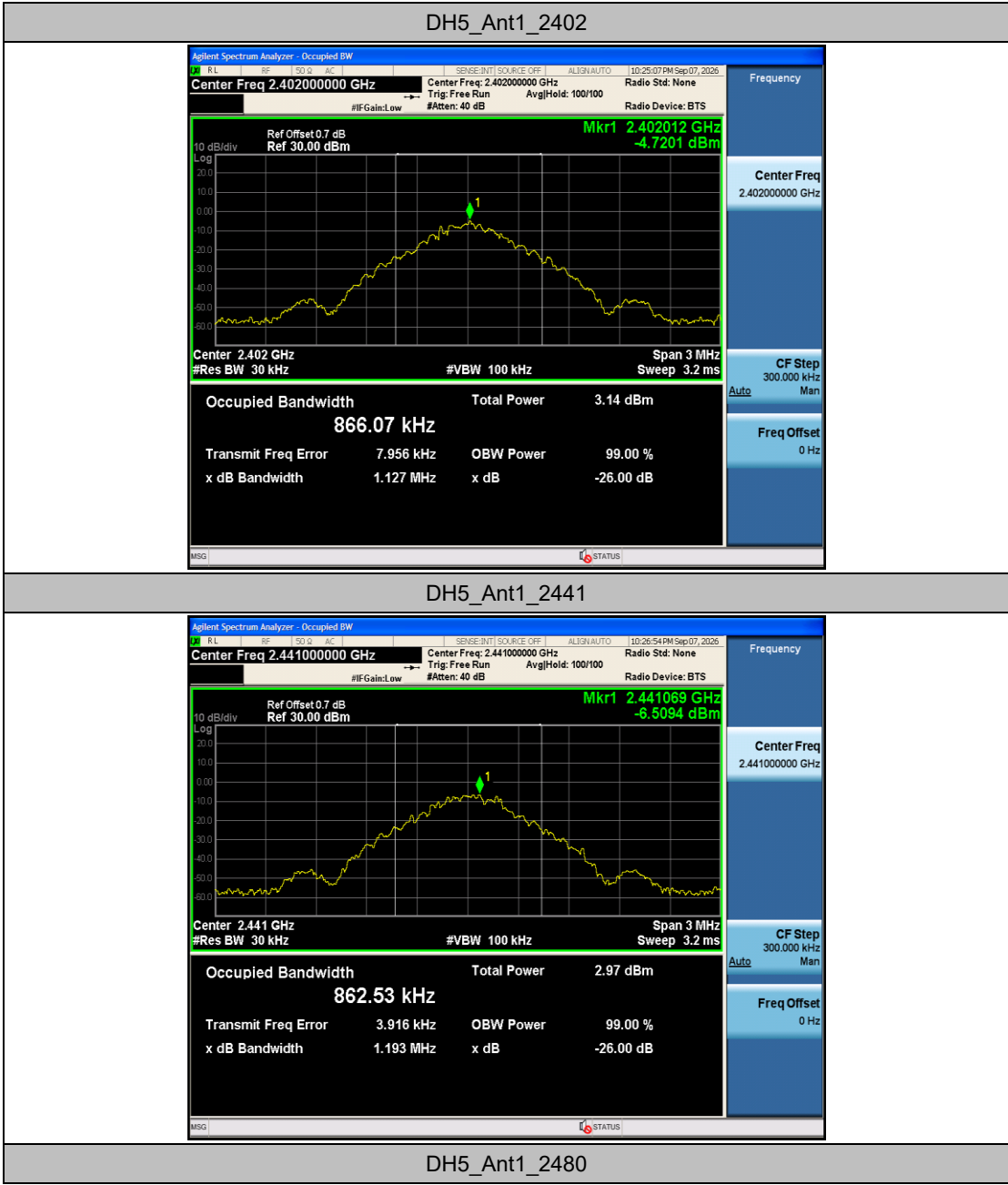


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86607	2401.5749	2402.4410	---	---
		2441	0.86253	2440.5727	2441.4352	---	---
		2480	0.86360	2479.5767	2480.4403	---	---
2DH5	Ant1	2402	1.1779	2401.4208	2402.5987	---	---
		2441	1.1943	2440.4124	2441.6067	---	---
		2480	1.1779	2479.4215	2480.5994	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

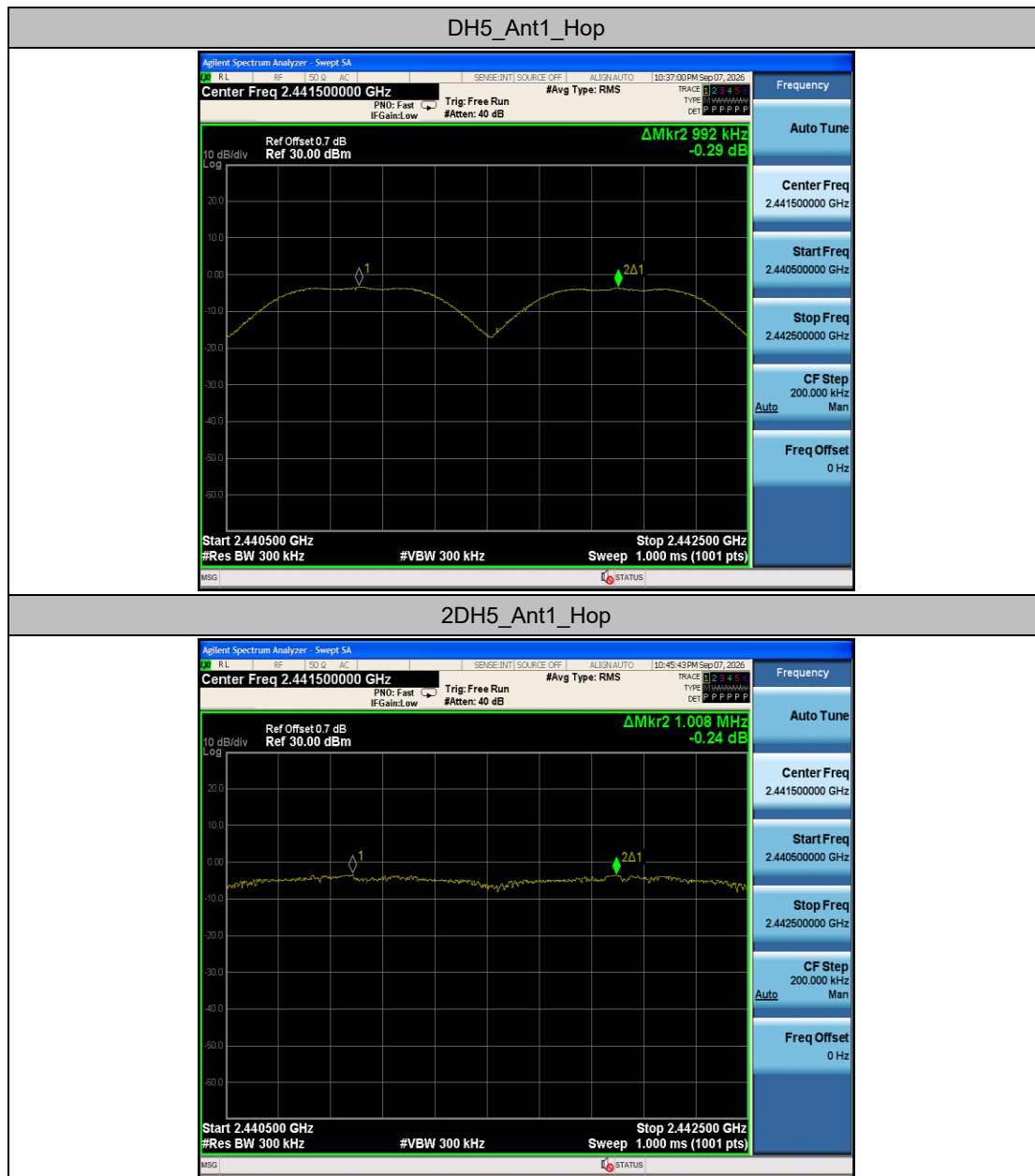
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-3.18	≤20.97	PASS
		2441	-3.23	≤20.97	PASS
		2480	-3.49	≤20.97	PASS
2DH5	Ant1	2402	-0.52	≤20.97	PASS
		2441	-0.61	≤20.97	PASS
		2480	-0.82	≤20.97	PASS

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	1.008	≥ 0.878	PASS

Test Graphs

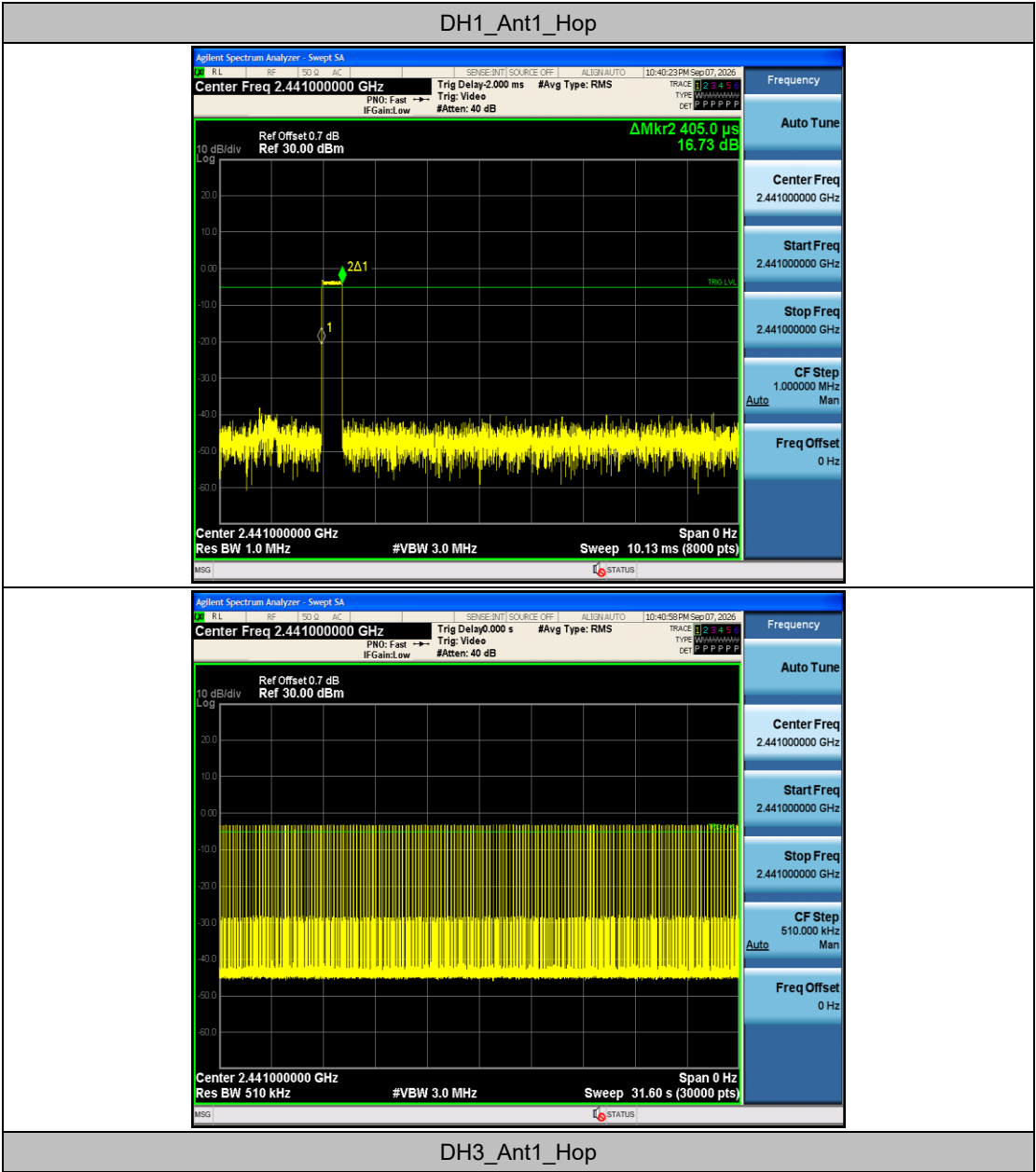


Appendix E: Time of occupancy

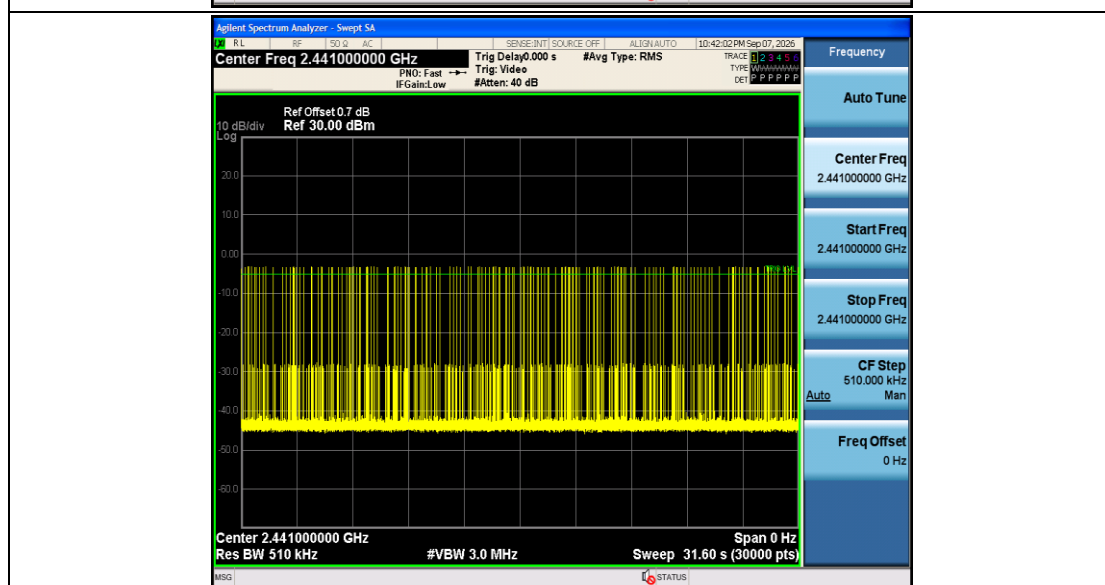
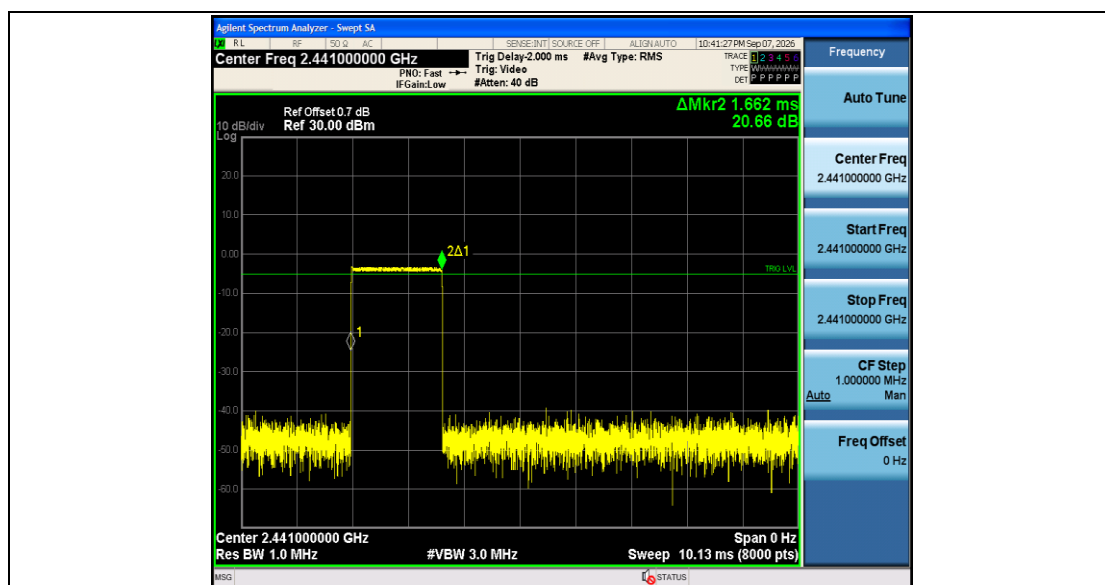
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.405	318	0.129	≤0.4	PASS
DH3	Ant1	Hop	1.662	165	0.274	≤0.4	PASS
DH5	Ant1	Hop	2.911	118	0.343	≤0.4	PASS
2DH1	Ant1	Hop	0.415	319	0.132	≤0.4	PASS
2DH3	Ant1	Hop	1.668	168	0.28	≤0.4	PASS
2DH5	Ant1	Hop	2.916	114	0.332	≤0.4	PASS

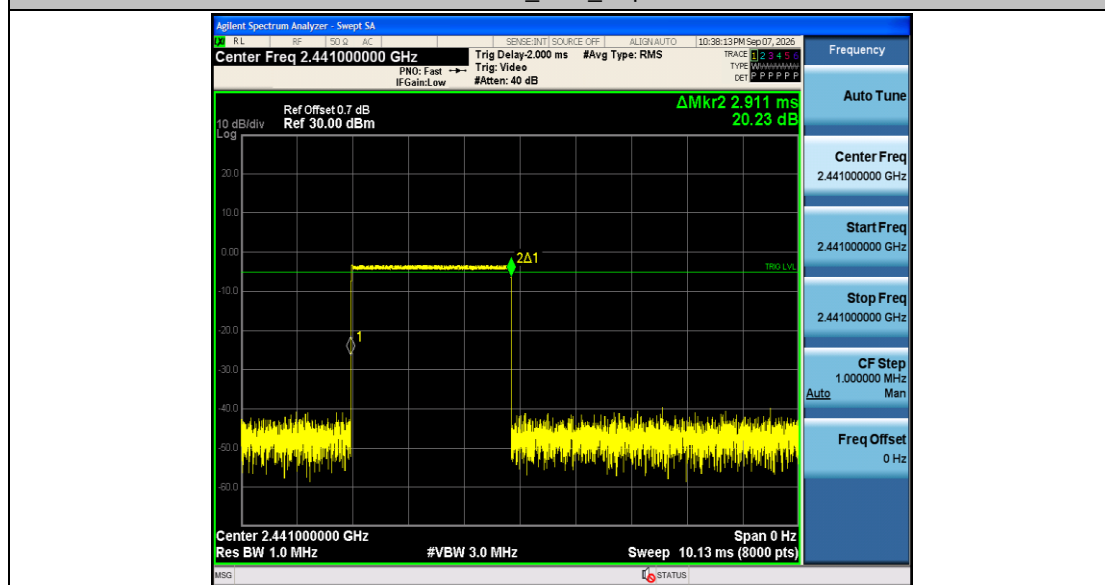
Test Graphs

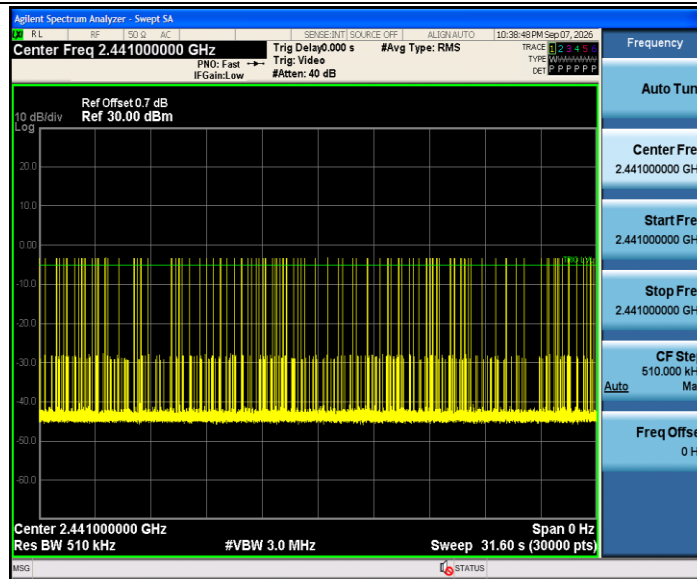


DH3_Ant1_Hop

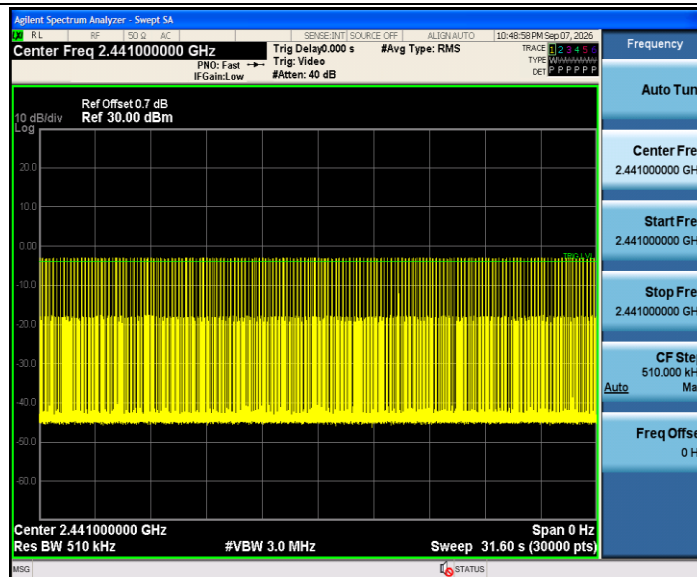
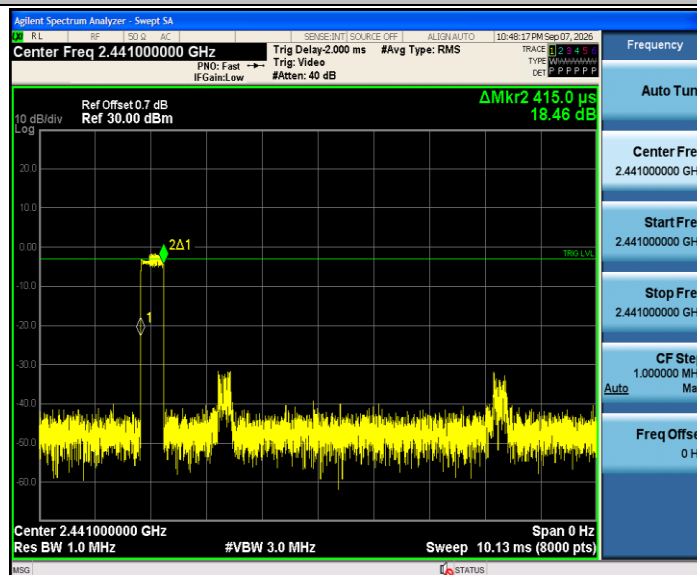


DH5_Ant1_Hop

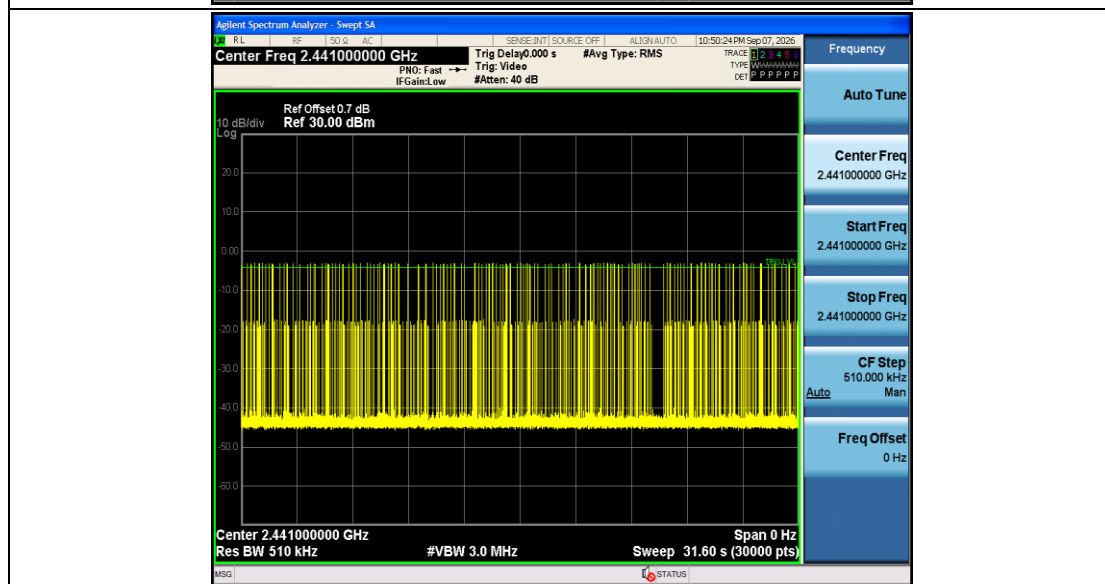
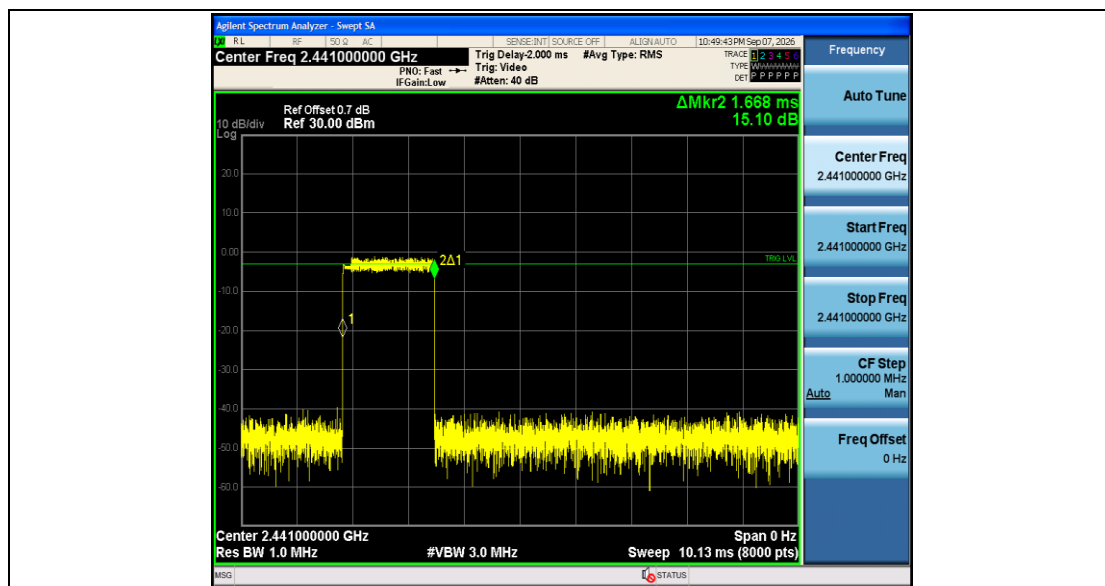




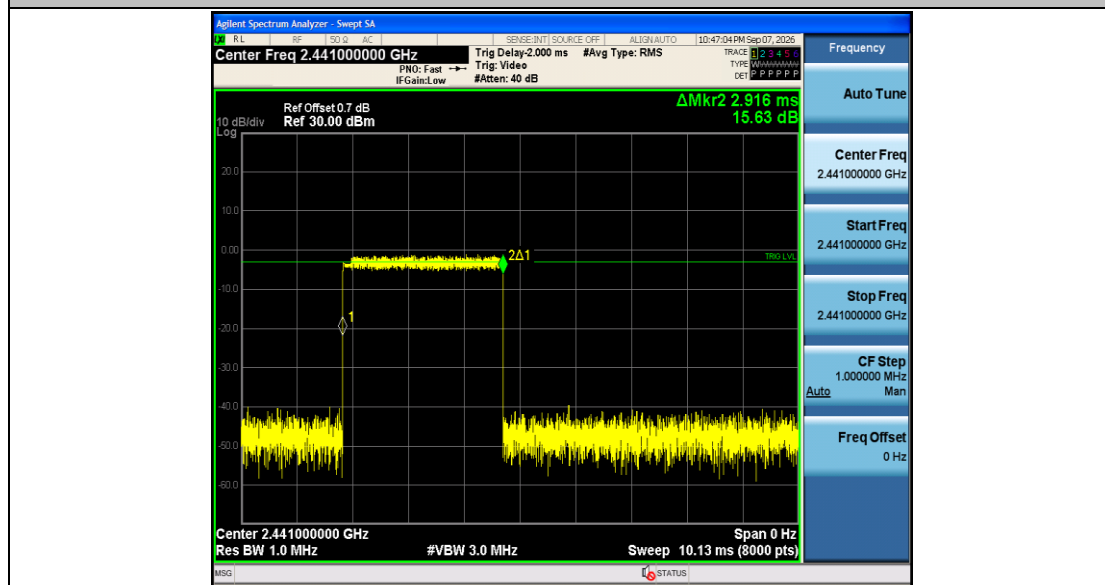
2DH1_Ant1_Hop

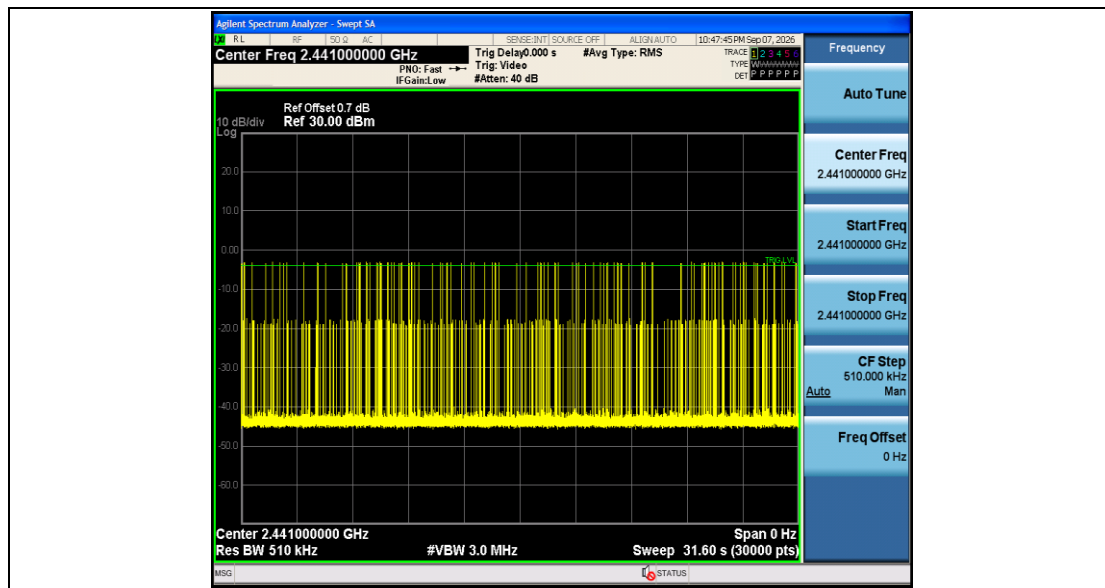


2DH3_Ant1_Hop



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

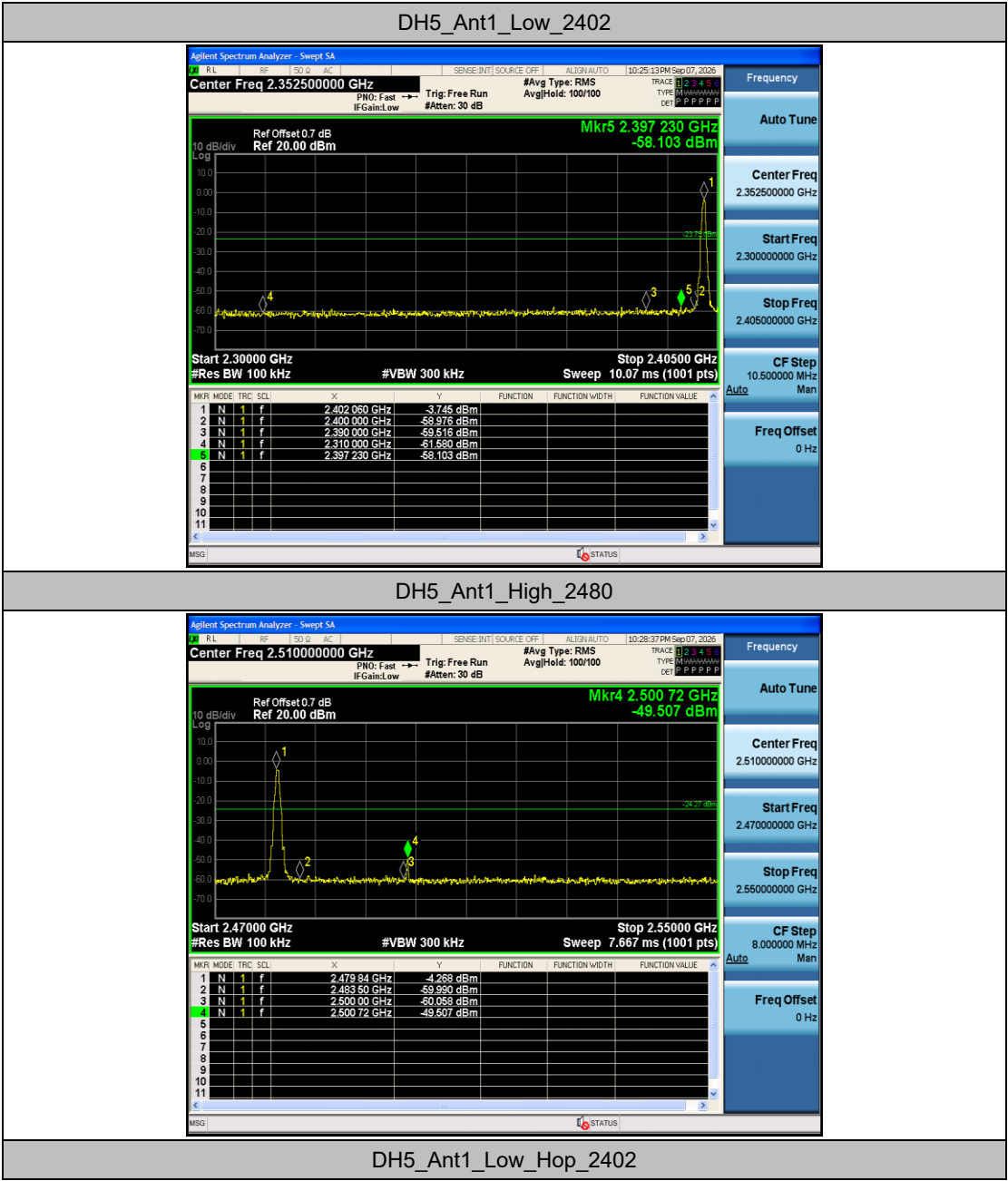


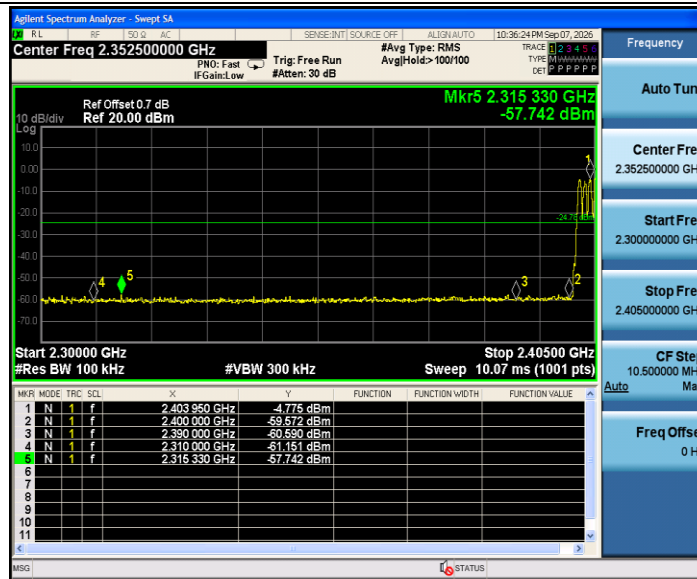
Appendix G: Band edge measurements

Test Result

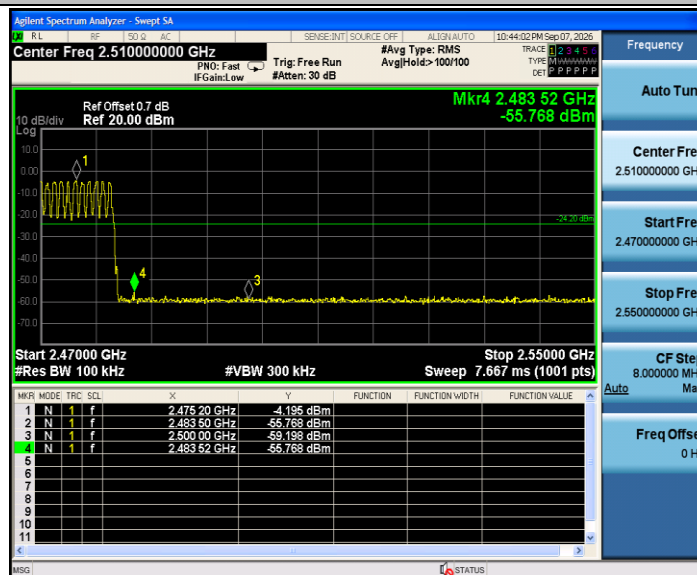
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.75	-58.1	≤ -23.75	PASS
		High	2480	-4.27	-49.51	≤ -24.27	PASS
		Low	Hop_2402	-4.78	-57.74	≤ -24.78	PASS
		High	Hop_2480	-4.20	-55.77	≤ -24.2	PASS
2DH5	Ant1	Low	2402	-4.32	-57.07	≤ -24.32	PASS
		High	2480	-3.93	-58.07	≤ -23.93	PASS
		Low	Hop_2402	-6.17	-56.27	≤ -26.17	PASS
		High	Hop_2480	-6.65	-57.51	≤ -26.65	PASS

Test Graphs

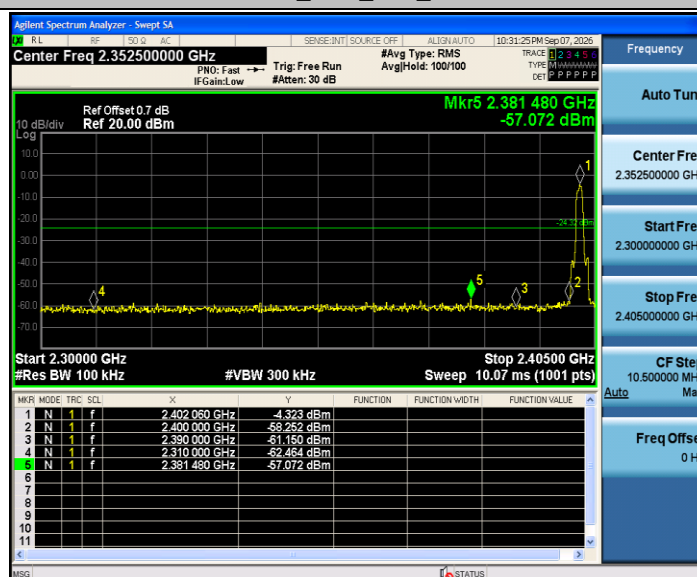




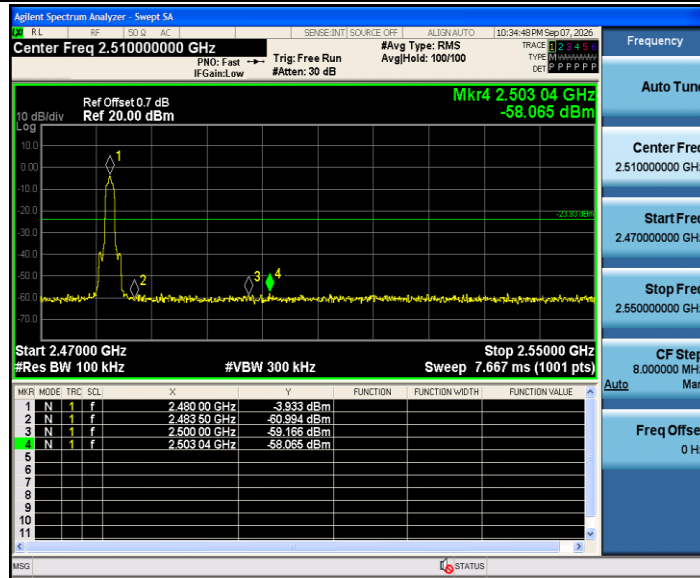
DH5_Ant1_High_Hop_2480



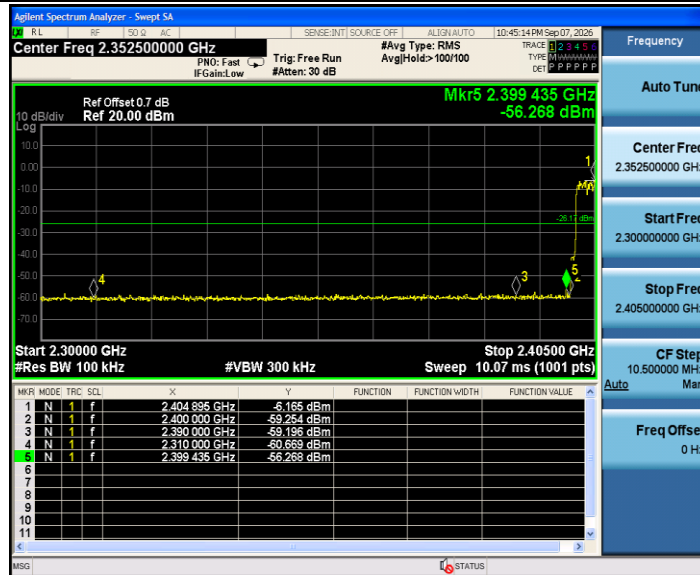
2DH5_Ant1_Low_2402



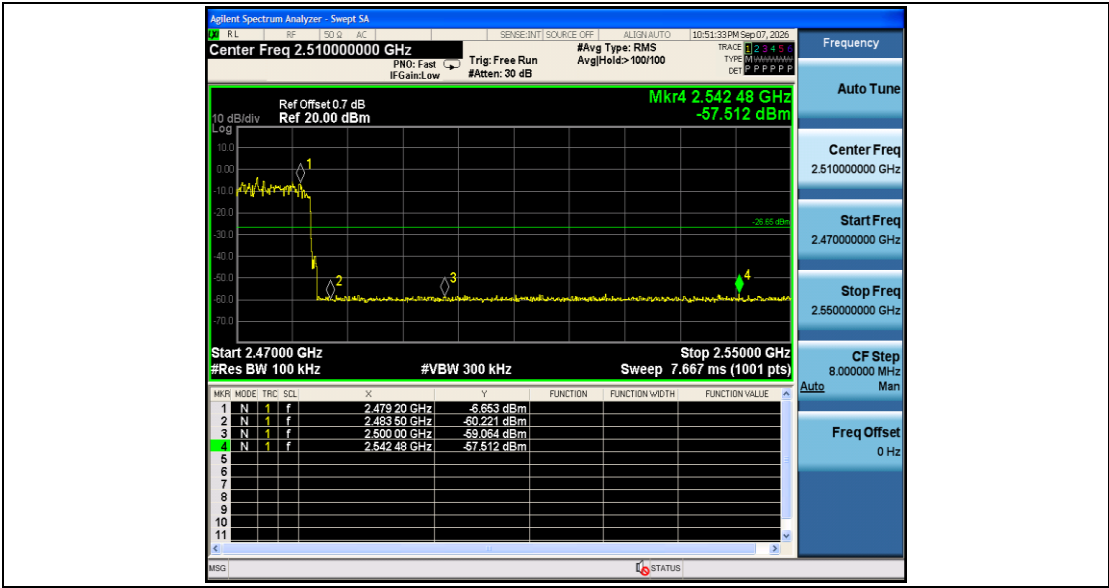
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

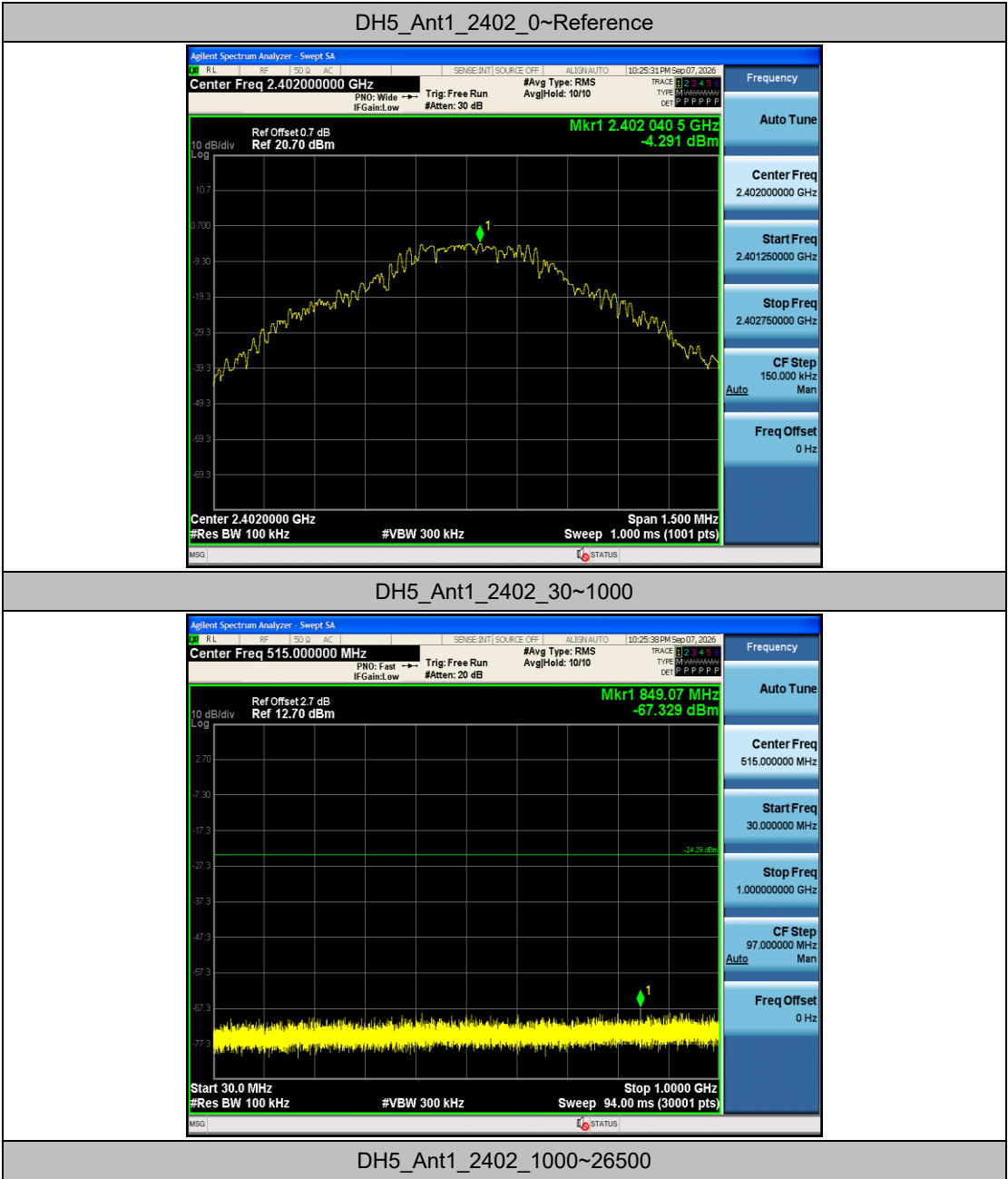


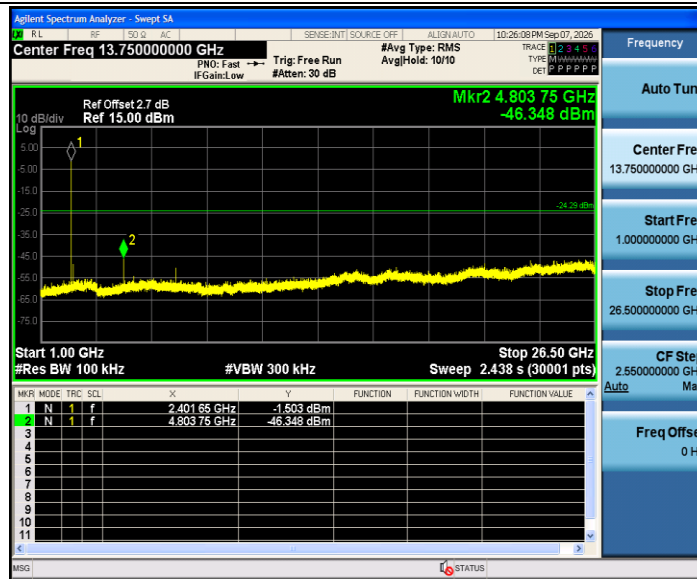
Appendix H: Conducted Spurious Emission

Test Result

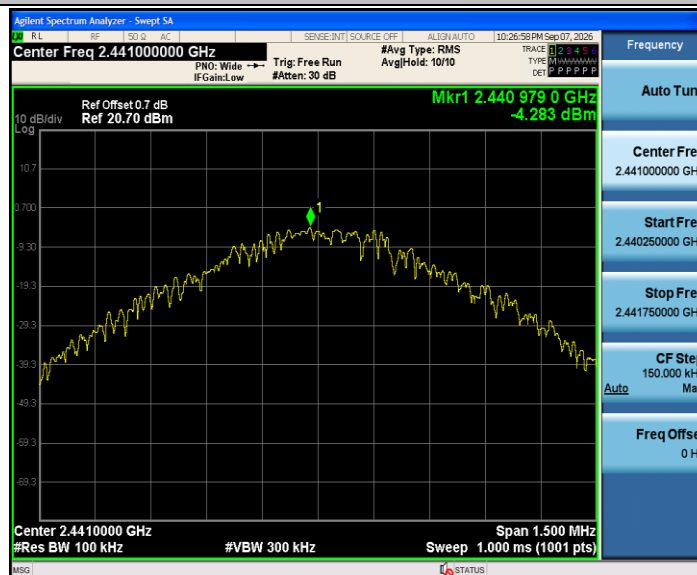
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-4.29	-4.29	---	PASS
			30~1000	-4.29	-67.33	≤-24.29	PASS
			1000~26500	-4.29	-46.35	≤-24.29	PASS
		2441	Reference	-4.28	-4.28	---	PASS
			30~1000	-4.28	-68.73	≤-24.28	PASS
			1000~26500	-4.28	-46.62	≤-24.28	PASS
		2480	Reference	-4.53	-4.53	---	PASS
			30~1000	-4.53	-67.99	≤-24.53	PASS
			1000~26500	-4.53	-46.26	≤-24.53	PASS
2DH5	Ant1	2402	Reference	-3.47	-3.47	---	PASS
			30~1000	-3.47	-67.21	≤-23.47	PASS
			1000~26500	-3.47	-45.83	≤-23.47	PASS
		2441	Reference	-5.95	-5.95	---	PASS
			30~1000	-5.95	-67.71	≤-25.95	PASS
			1000~26500	-5.95	-46.46	≤-25.95	PASS
		2480	Reference	-5.07	-5.07	---	PASS
			30~1000	-5.07	-67.59	≤-25.07	PASS
			1000~26500	-5.07	-46.63	≤-25.07	PASS

Test Graphs

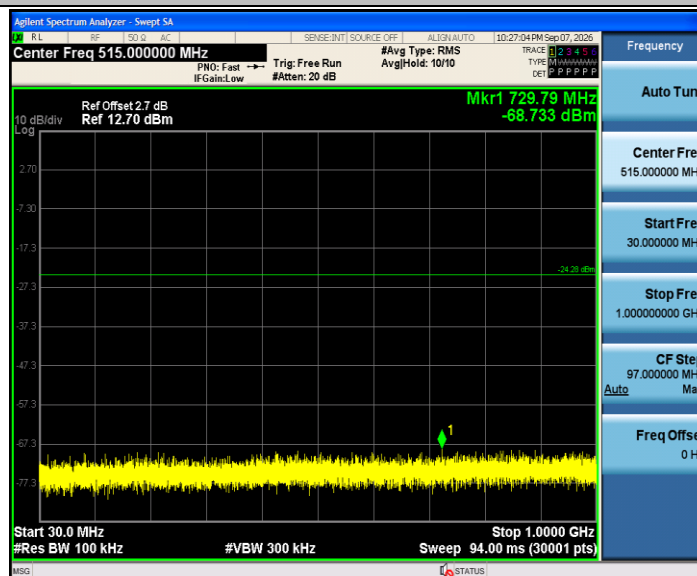




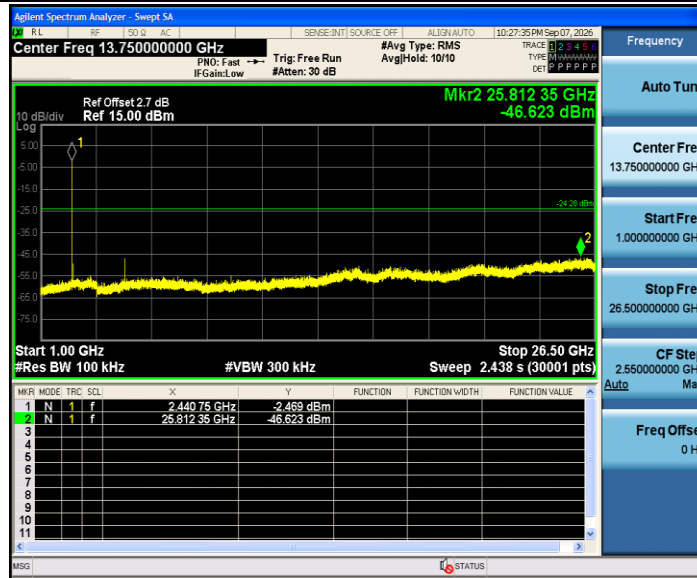
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



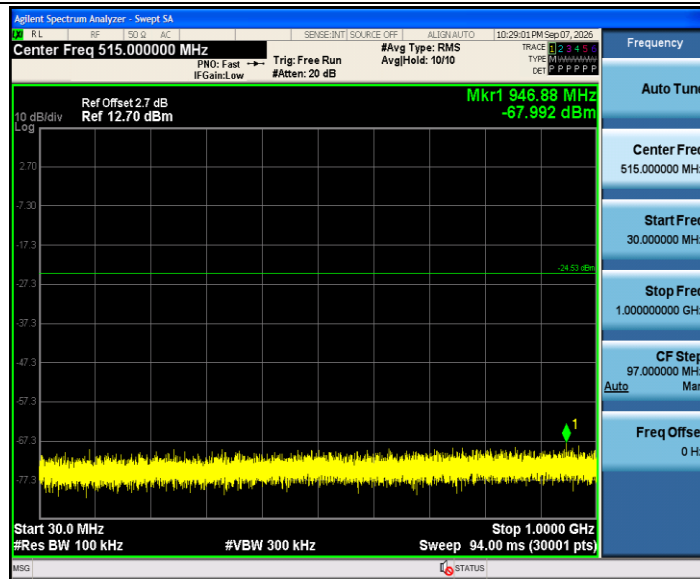
DH5_Ant1_2441_1000~26500



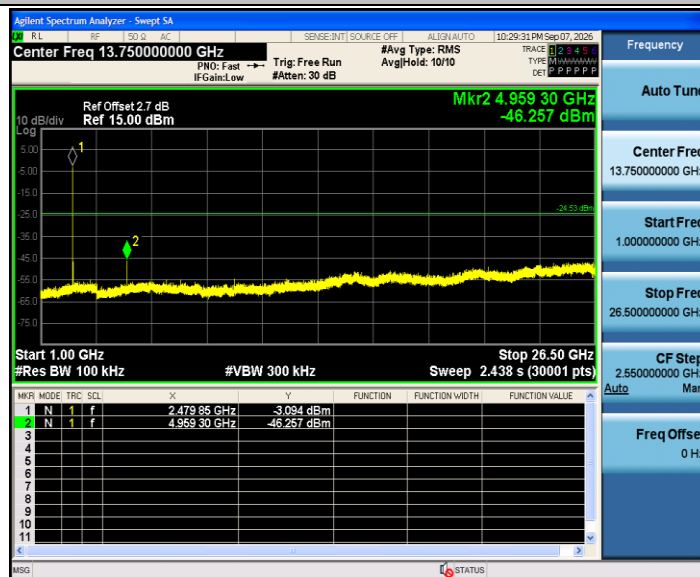
DH5_Ant1_2480_0~Reference



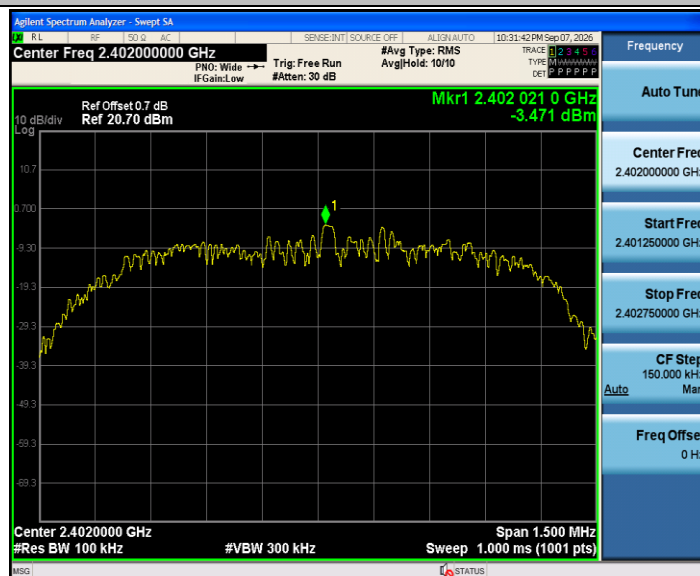
DH5_Ant1_2480_30~1000



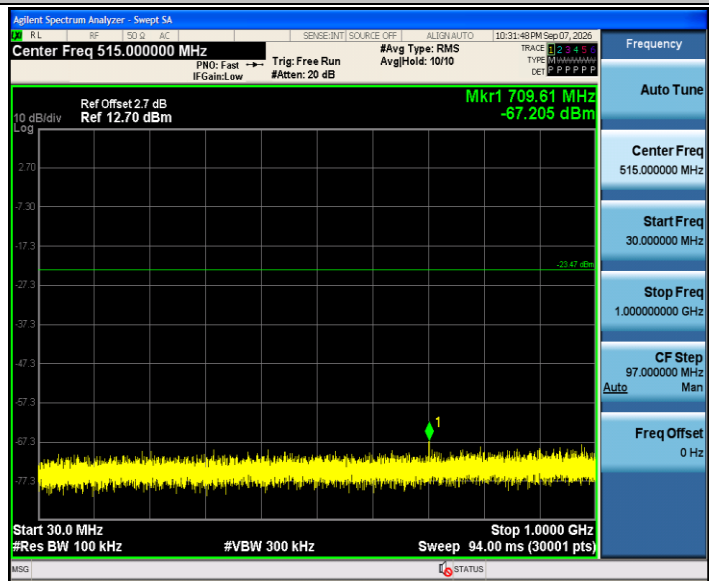
DH5_Ant1_2480_1000~26500



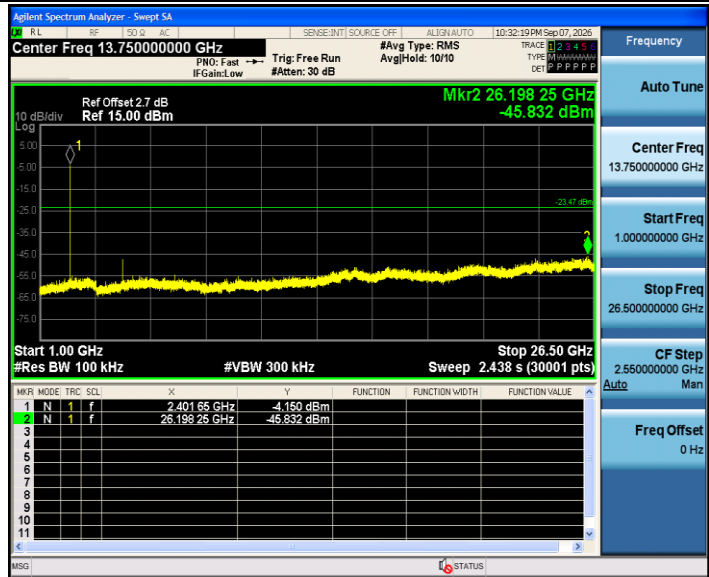
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



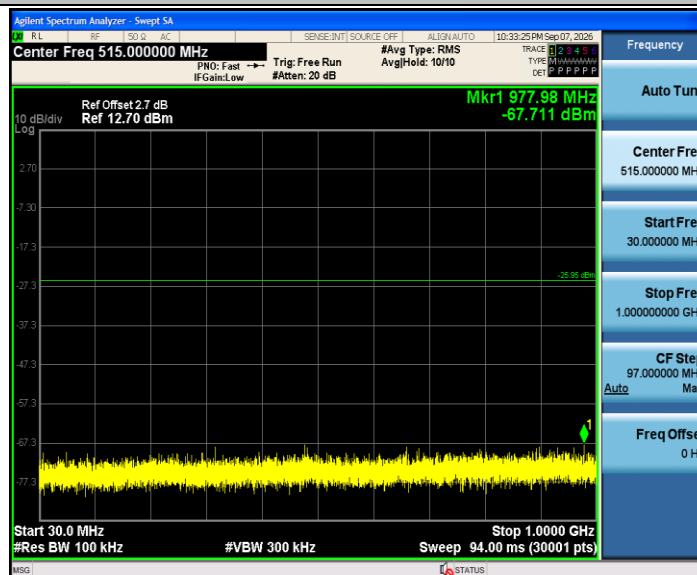
2DH5_Ant1_2402_1000~26500



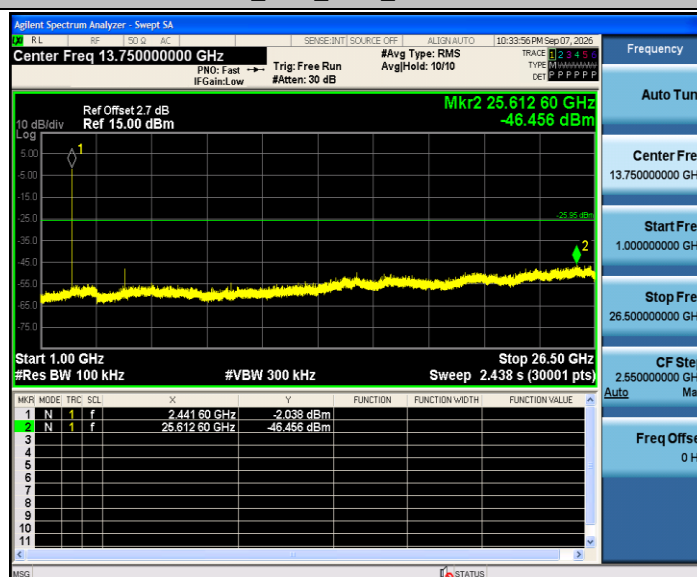
2DH5_Ant1_2441_0~Reference



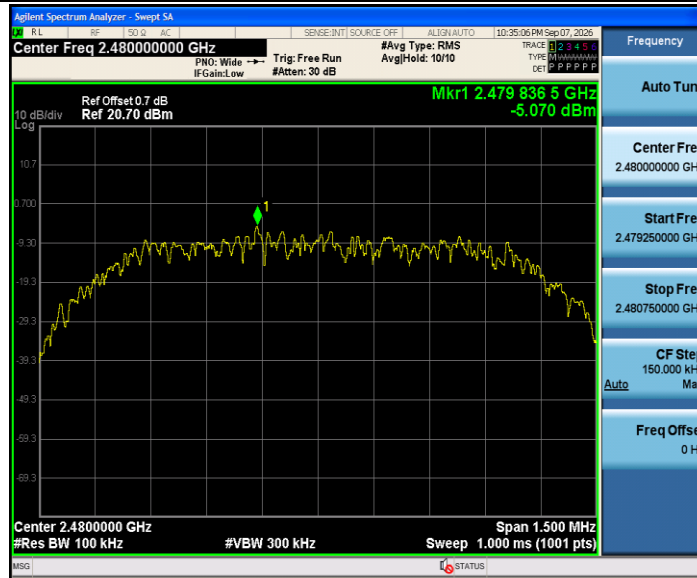
2DH5_Ant1_2441_30~1000



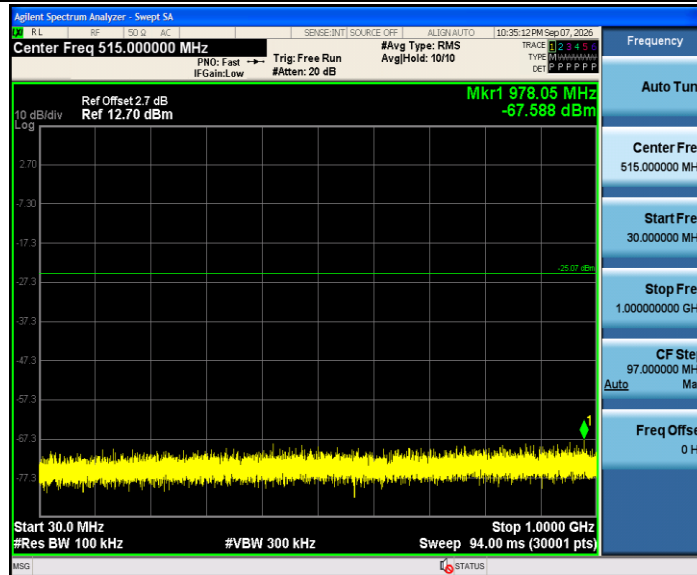
2DH5_Ant1_2441_1000~26500



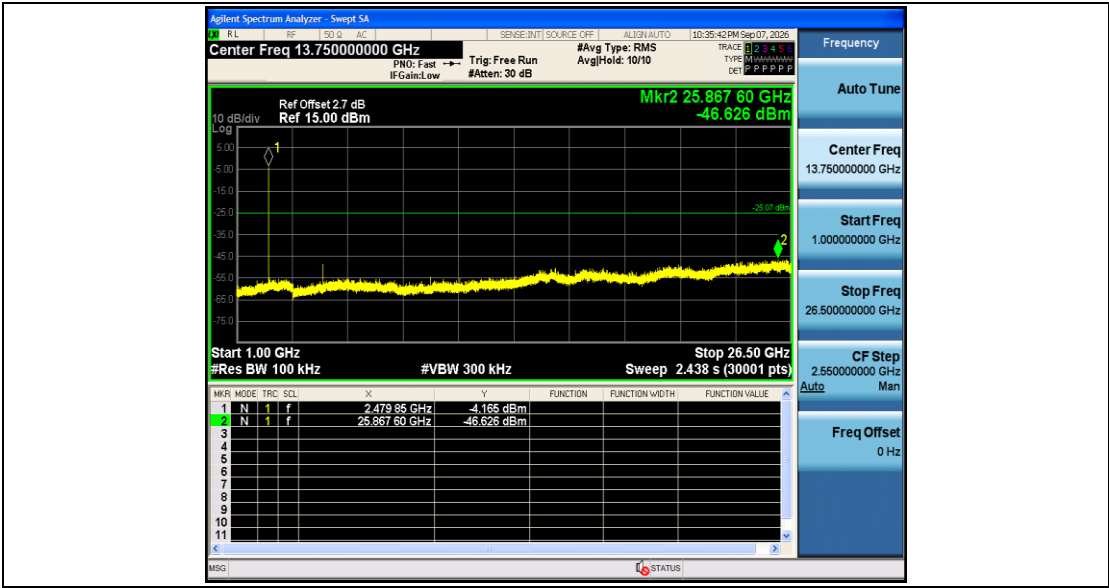
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500

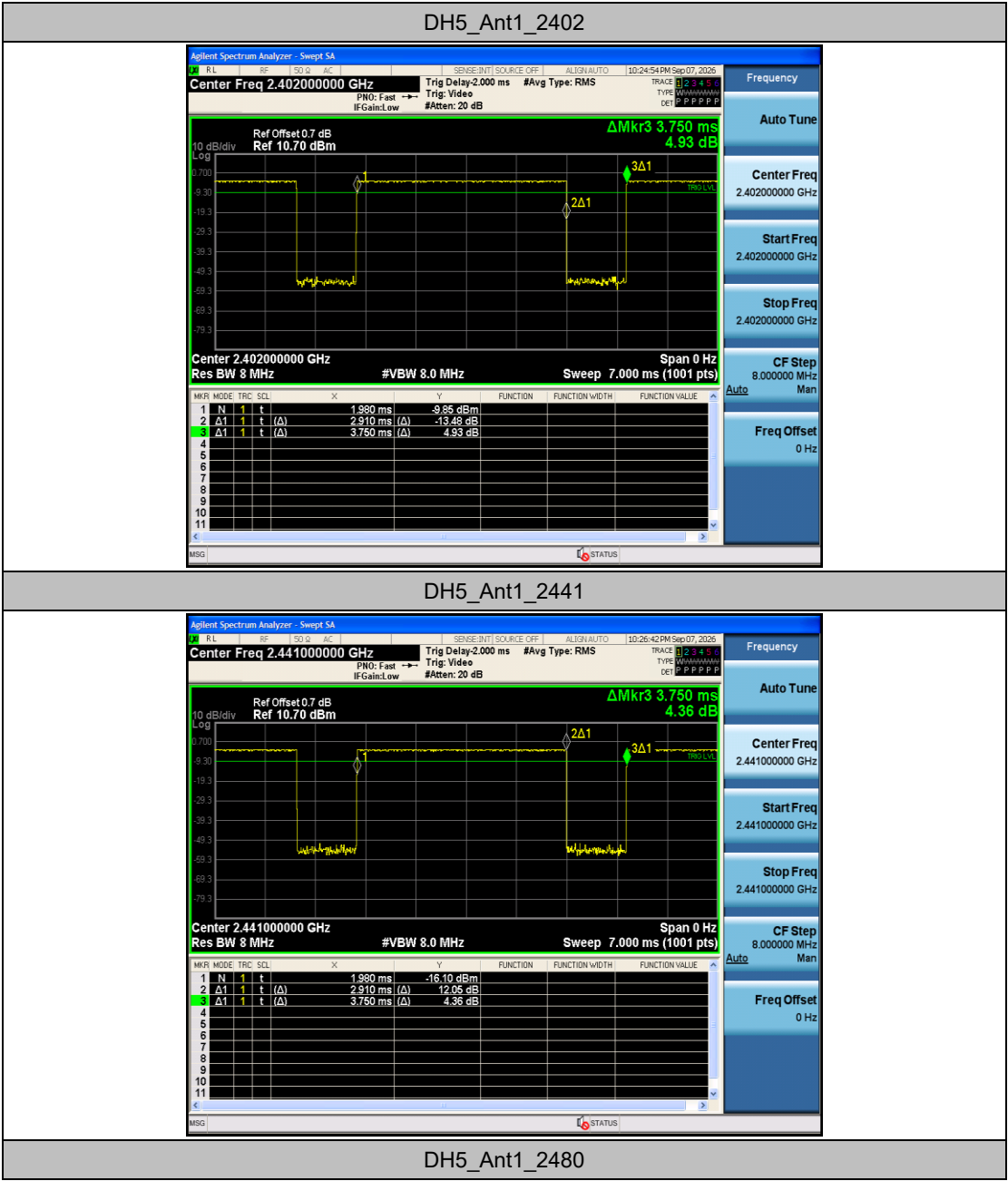


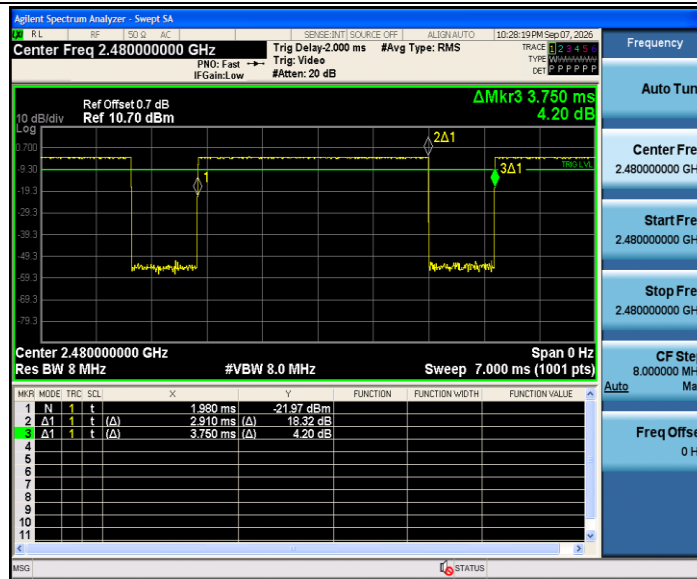
Appendix I: Duty Cycle

Test Result

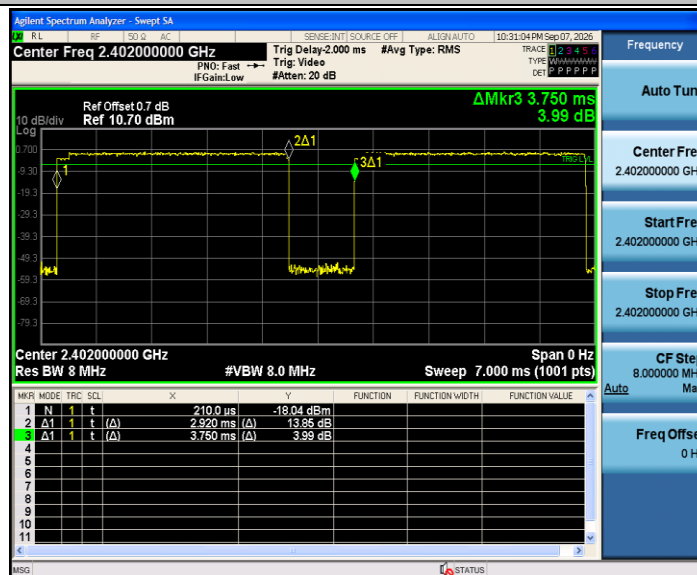
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.91	3.75	77.60	1.10	---	---
		2480	2.91	3.75	77.60	1.10	---	---
2DH5	Ant1	2402	2.92	3.75	77.87	1.09	---	---
		2441	2.91	3.75	77.60	1.10	---	---
		2480	2.91	3.74	77.81	1.09	---	---

Test Graphs

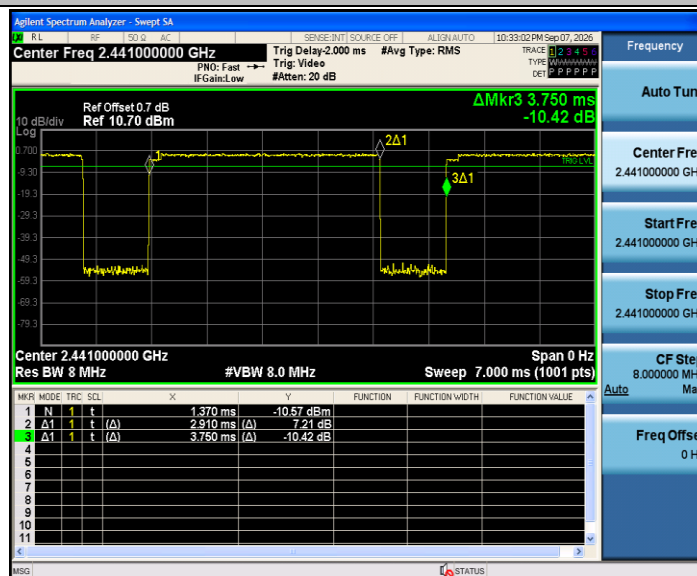




2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

