

FCC Appendix RF Test Data for BT

FCC ID : 2BX54-ZH172

Company : ShenZhen YiChuangWeiLai KeJiYouXianGongSi

EUT : Sunrise Alarm ClockORB300S

Model Number : ZH172

Report No. : CTA26082500102

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	0.960	2401.544	2402.504	---	---
		2441	0.957	2440.547	2441.504	---	---
		2480	0.957	2479.544	2480.501	---	---
2DH5	Ant1	2402	1.287	2401.376	2402.663	---	---
		2441	1.344	2440.337	2441.681	---	---
		2480	1.275	2479.388	2480.663	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

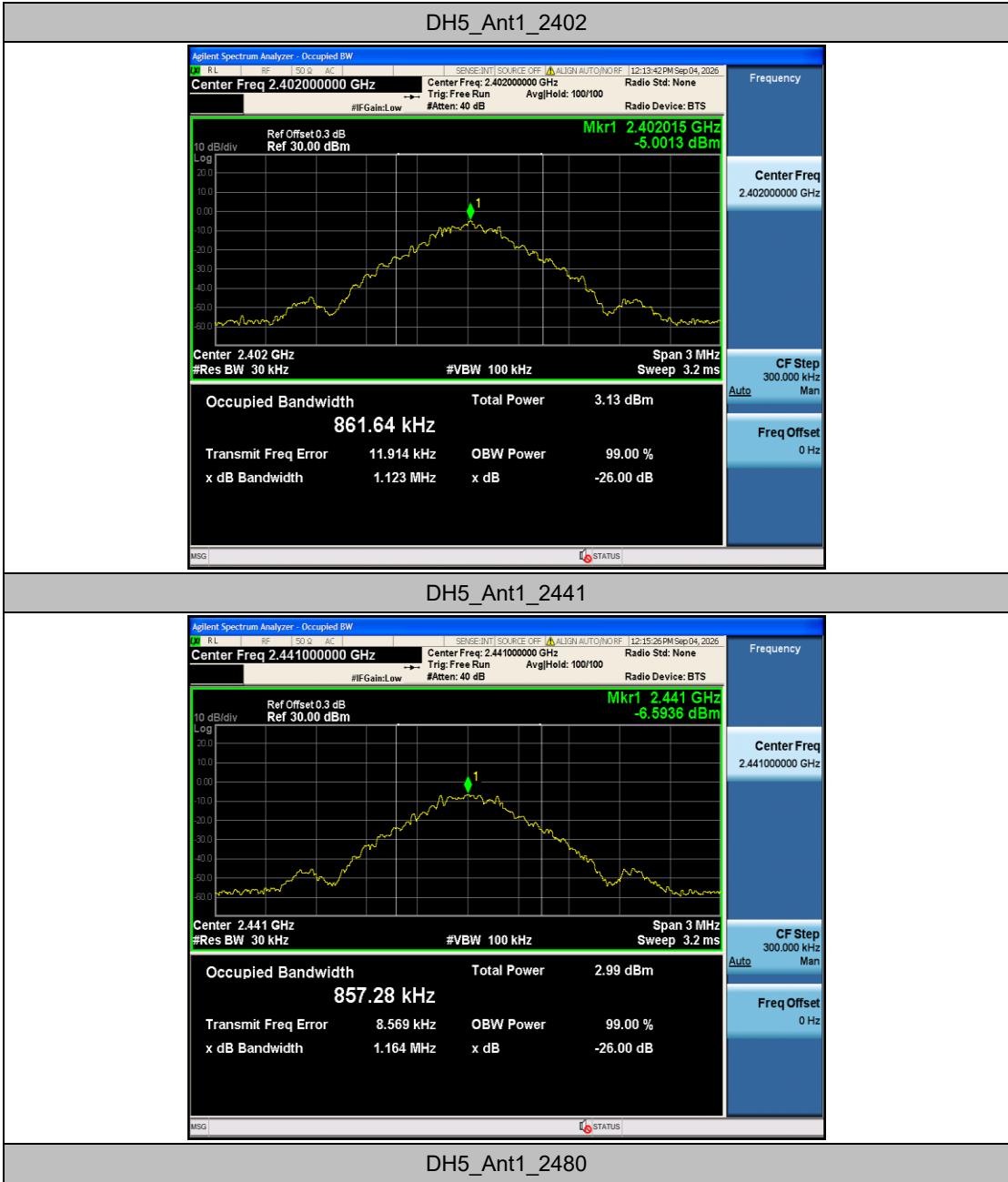


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86164	2401.5811	2402.4427	---	---
		2441	0.85728	2440.5799	2441.4372	---	---
		2480	0.86894	2479.5763	2480.4453	---	---
2DH5	Ant1	2402	1.1918	2401.4146	2402.6064	---	---
		2441	1.1828	2440.4221	2441.6049	---	---
		2480	1.1970	2479.4145	2480.6115	---	---

Test Graphs





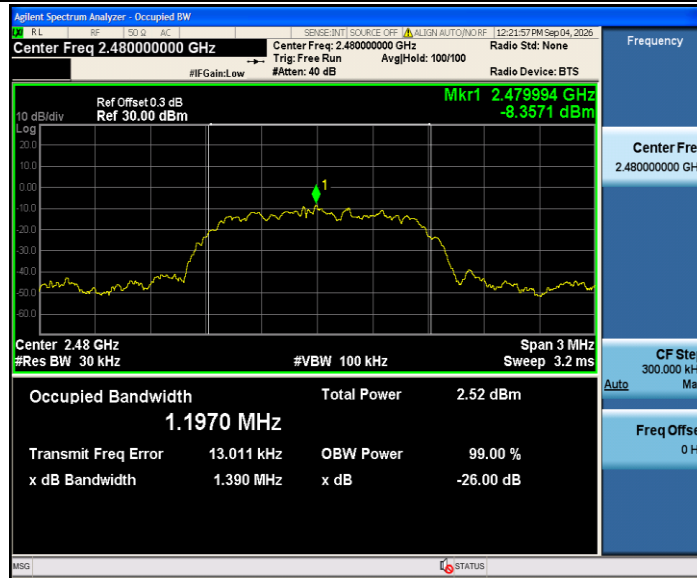
2DH5_Ant1_2402



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	-3.53	≤20.97	PASS
		2441	-3.58	≤20.97	PASS
		2480	-3.82	≤20.97	PASS
2DH5	Ant1	2402	-0.92	≤20.97	PASS
		2441	-0.99	≤20.97	PASS
		2480	-1.25	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.978	≥ 0.960	PASS
2DH5	Ant1	Hop	1.144	≥ 0.896	PASS

Test Graphs

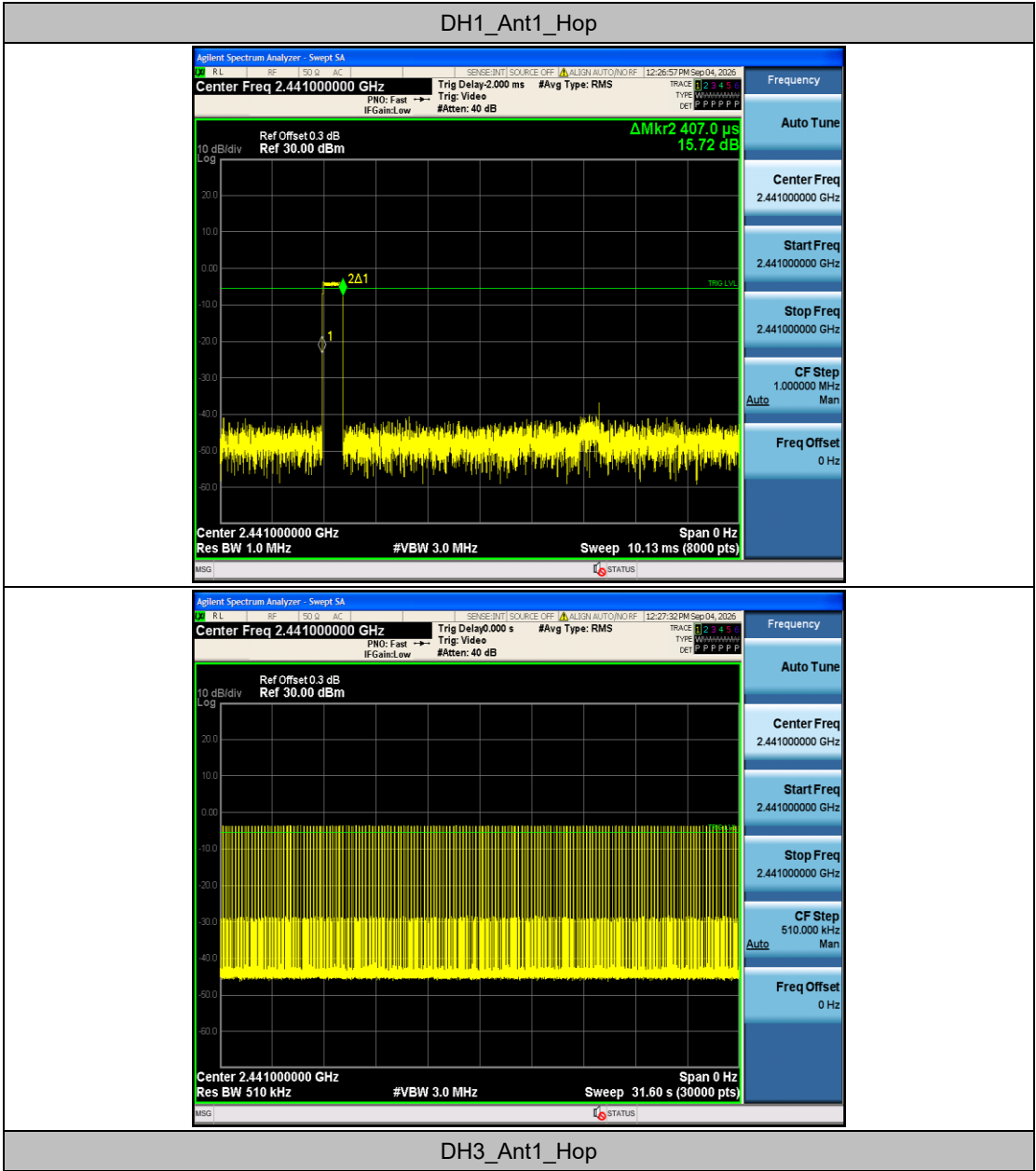


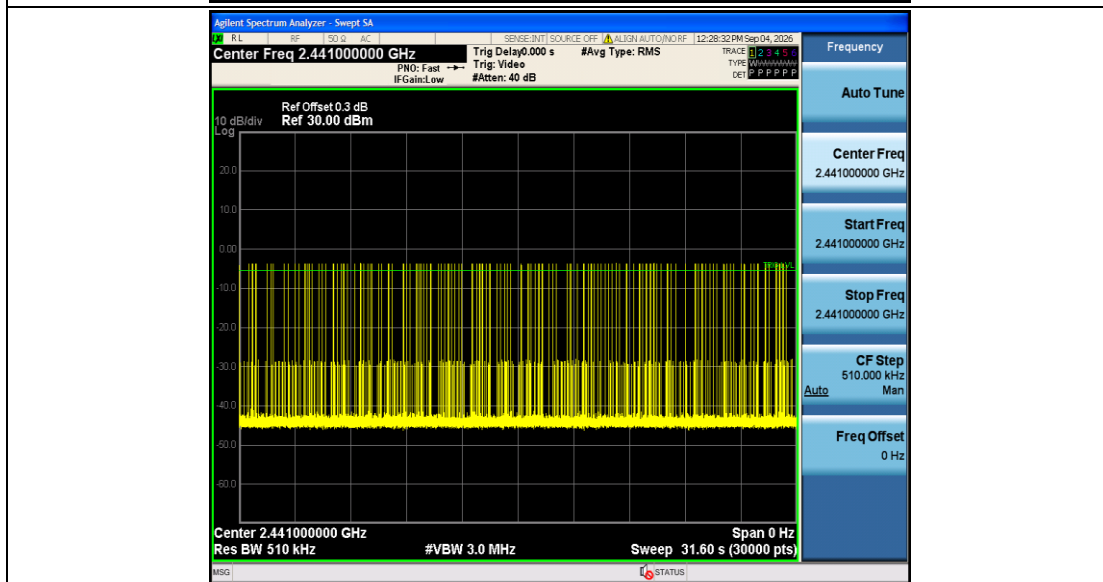
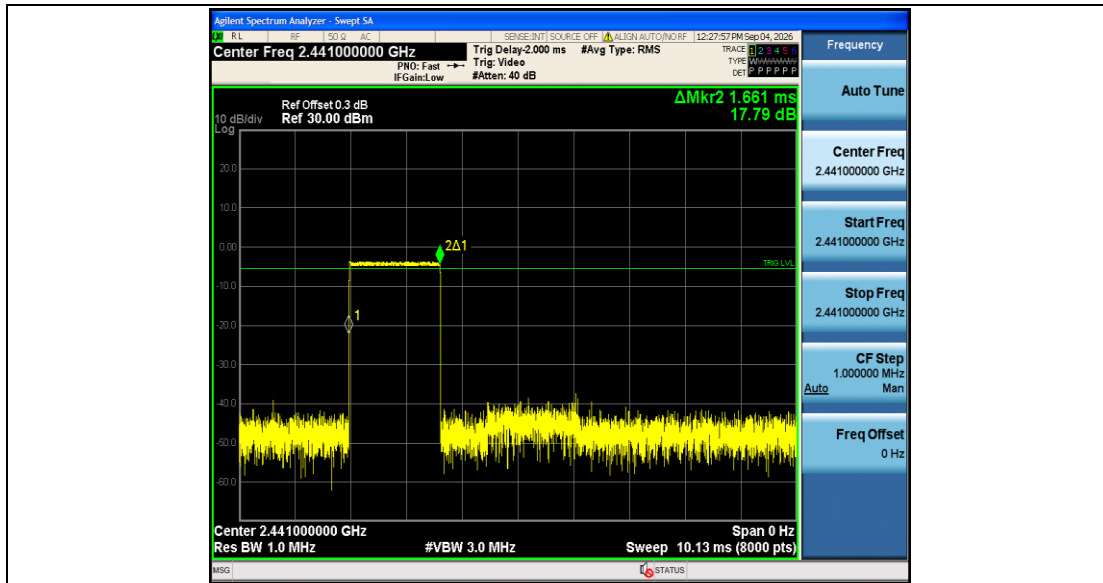
Appendix E: Time of occupancy

Test Result

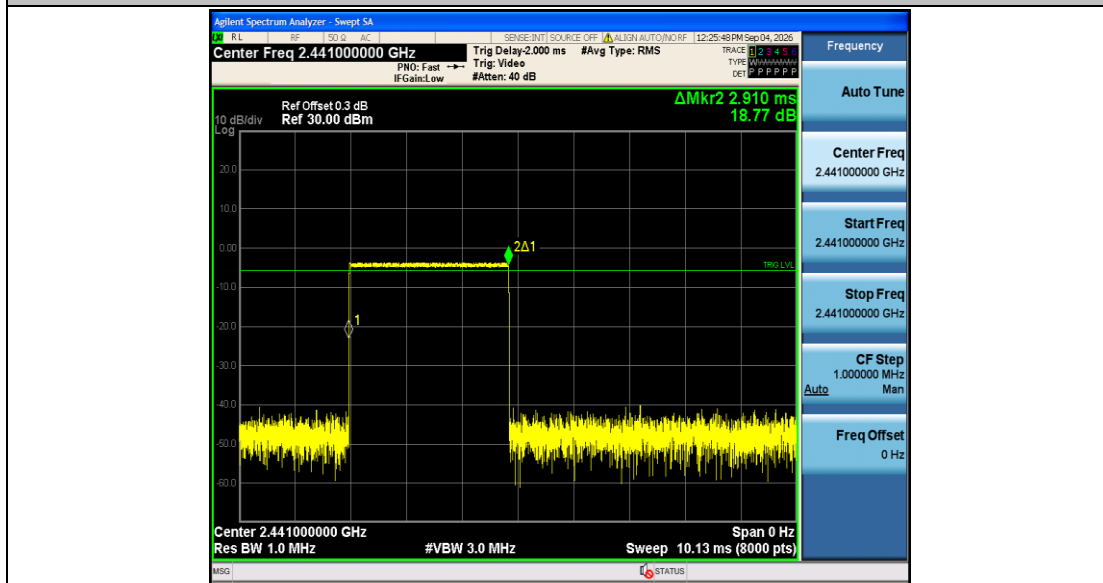
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	314	0.128	≤0.4	PASS
DH3	Ant1	Hop	1.661	152	0.252	≤0.4	PASS
DH5	Ant1	Hop	2.910	100	0.291	≤0.4	PASS
2DH1	Ant1	Hop	0.415	315	0.131	≤0.4	PASS
2DH3	Ant1	Hop	1.668	167	0.279	≤0.4	PASS
2DH5	Ant1	Hop	2.916	109	0.318	≤0.4	PASS

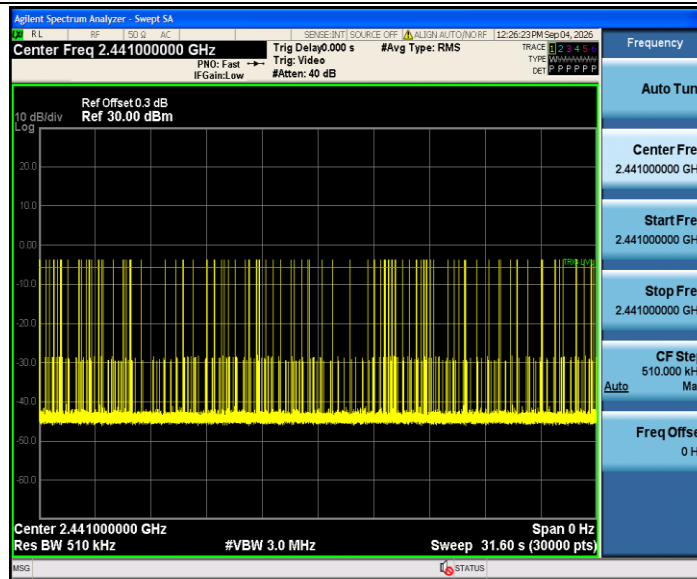
Test Graphs



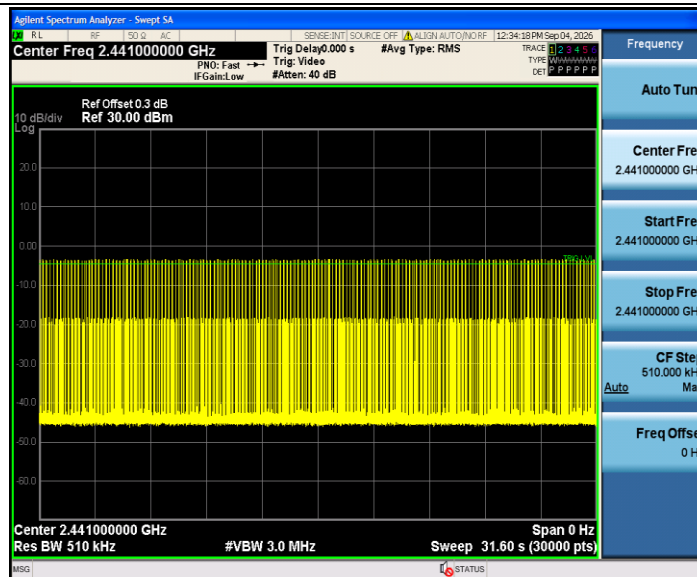
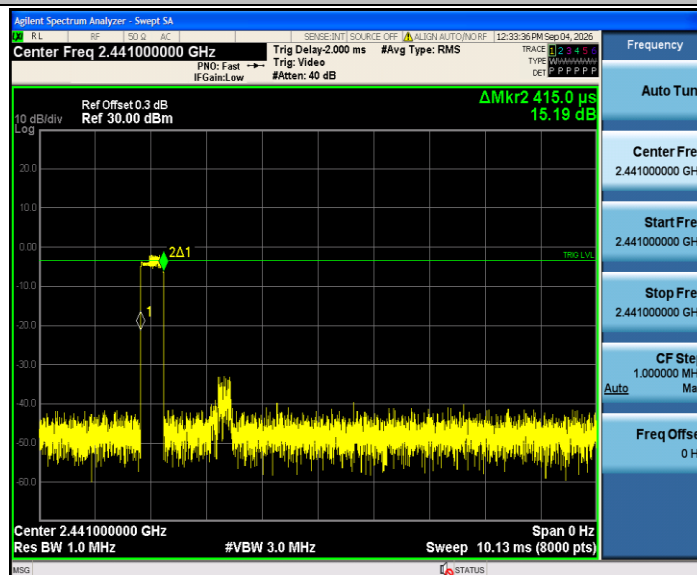


DH5_Ant1_Hop

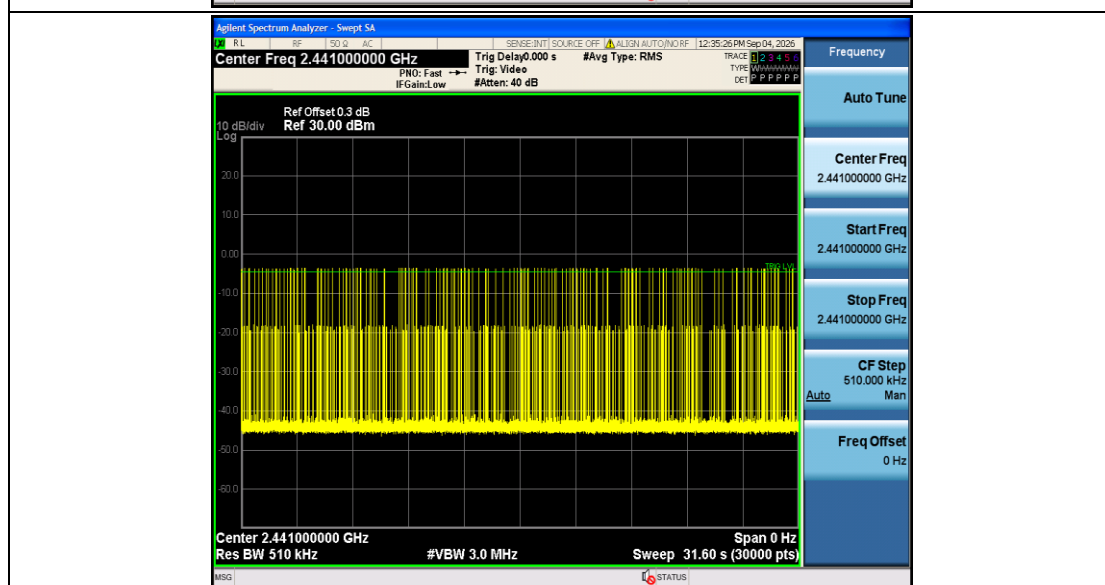
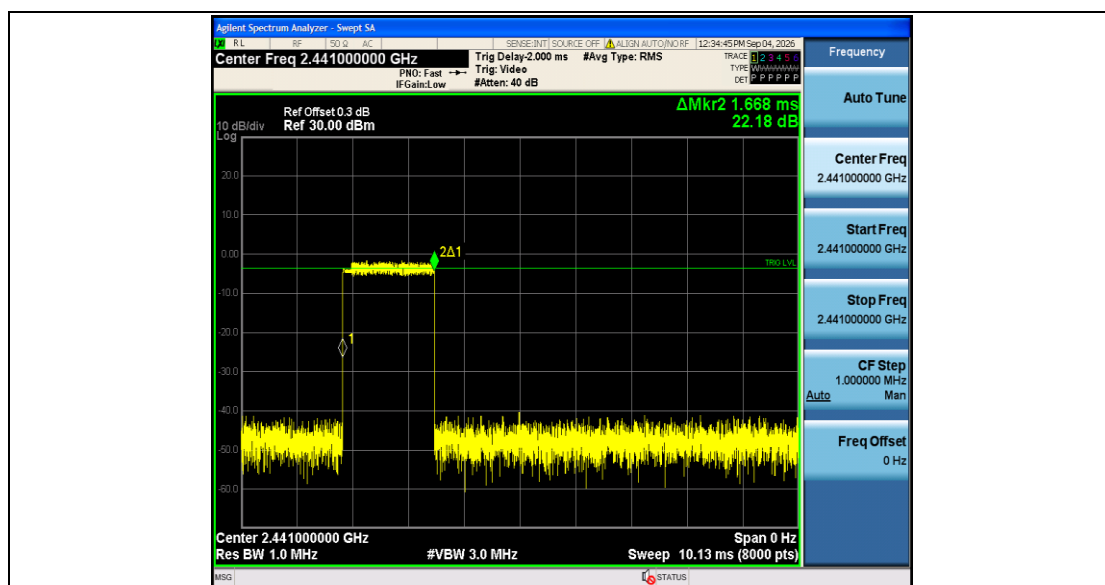




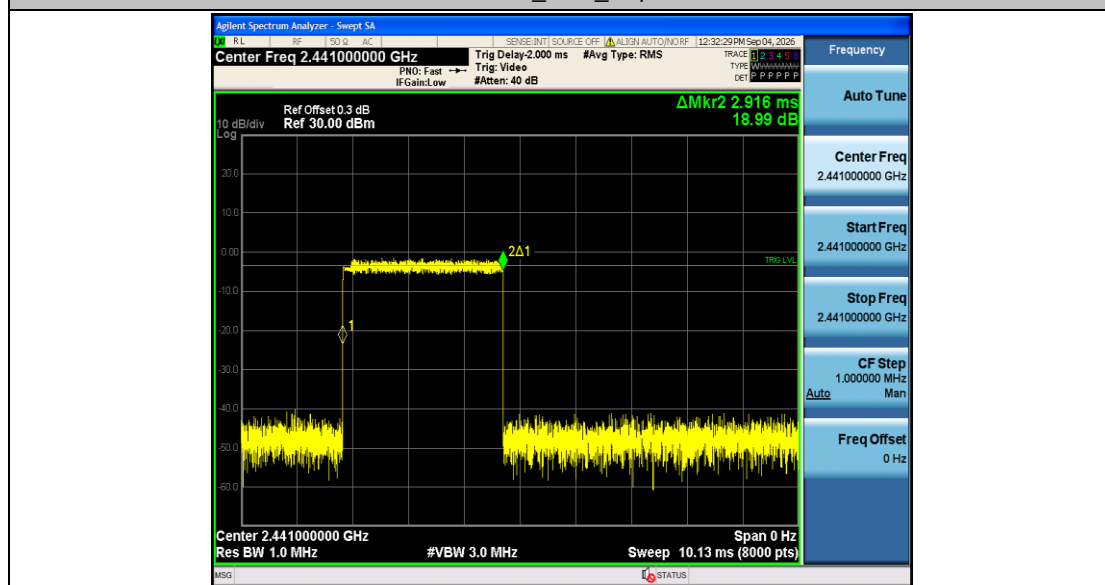
2DH1_Ant1_Hop

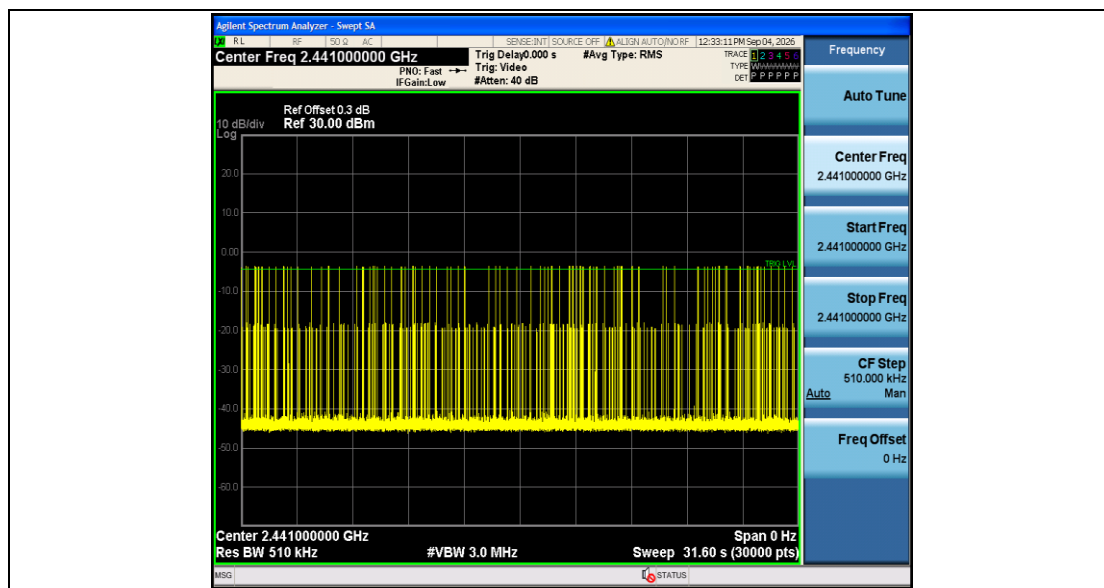


2DH3_Ant1_Hop



2DH5_Ant1_Hop



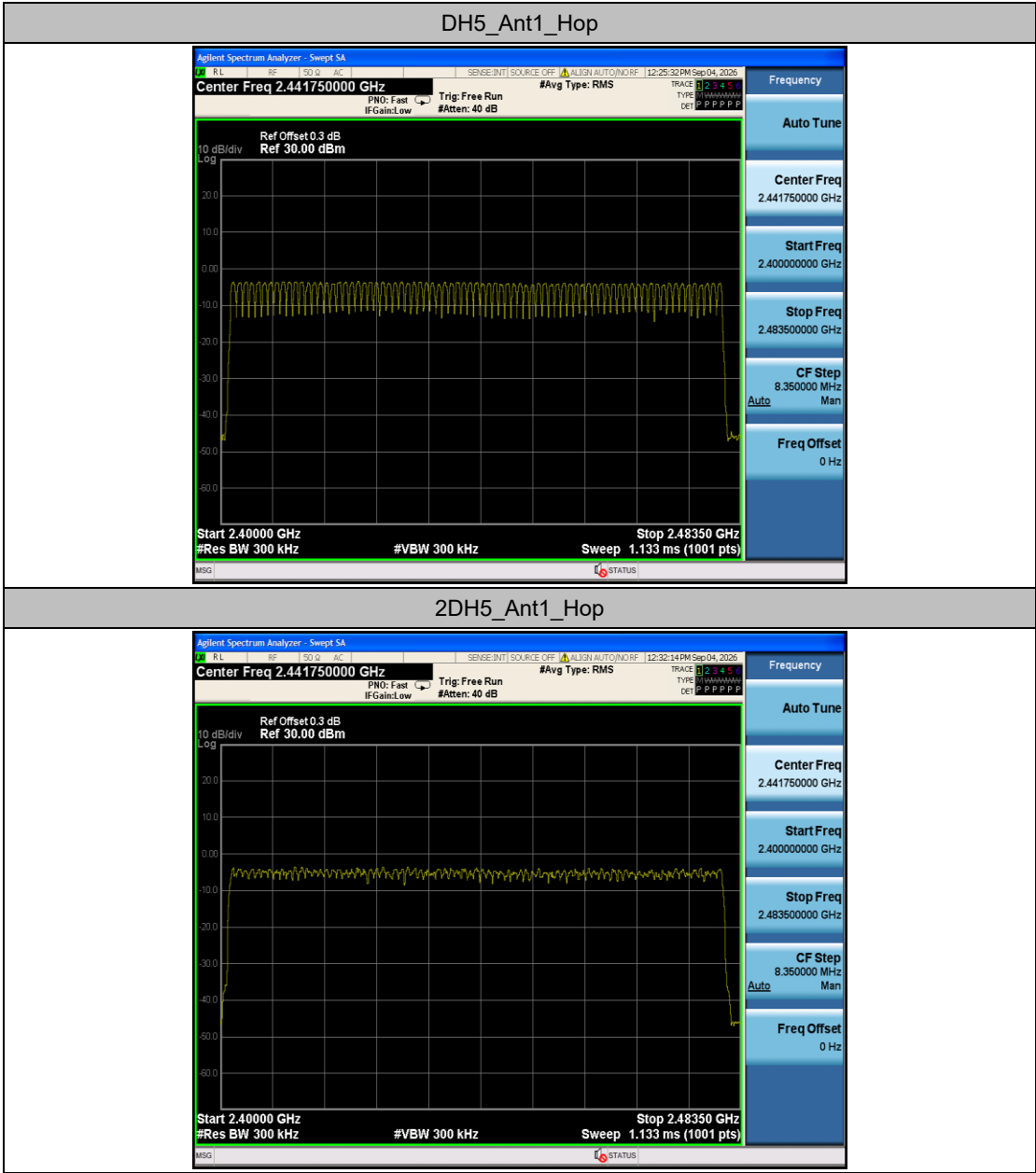


Appendix F: Number of hopping channels

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

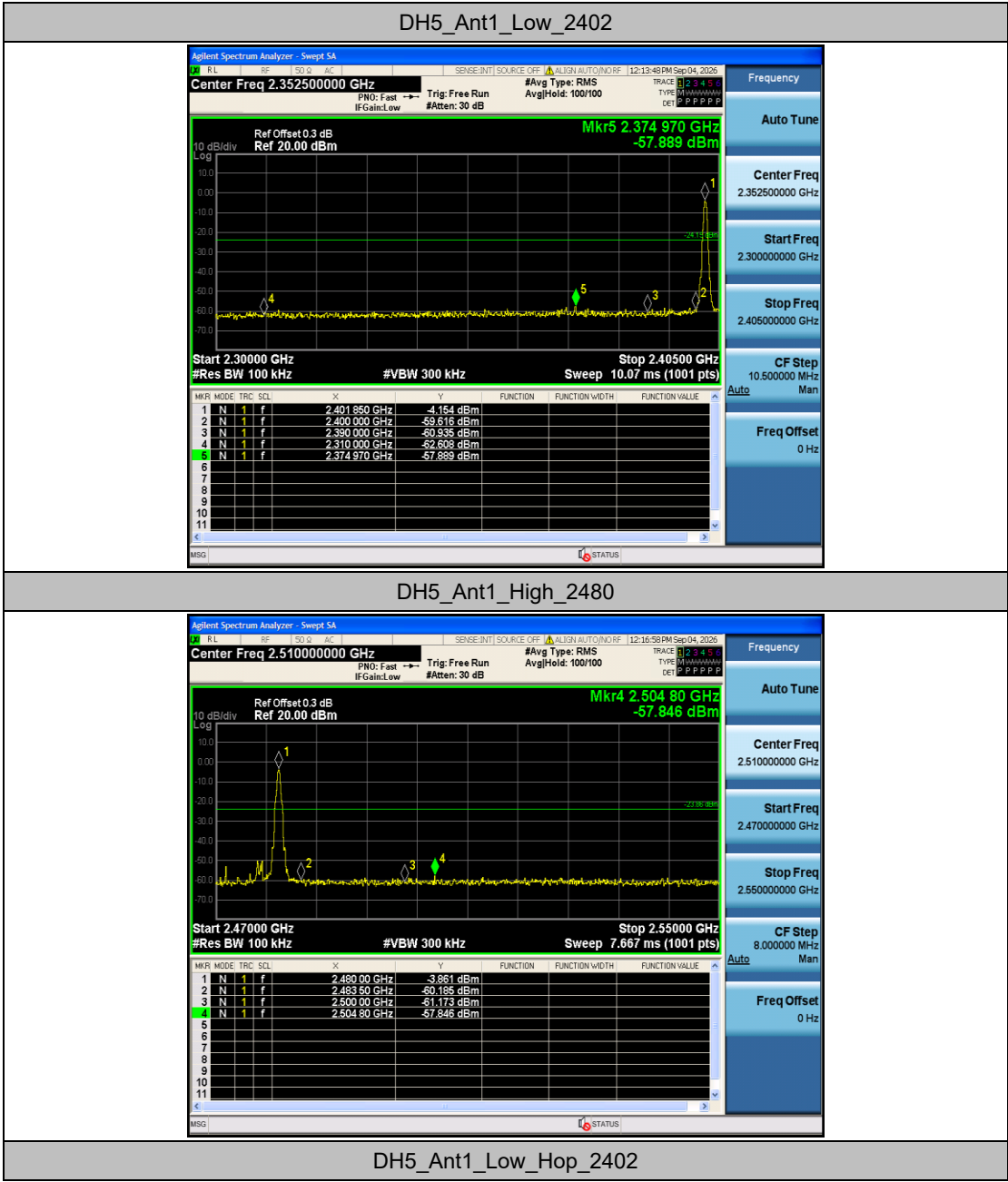


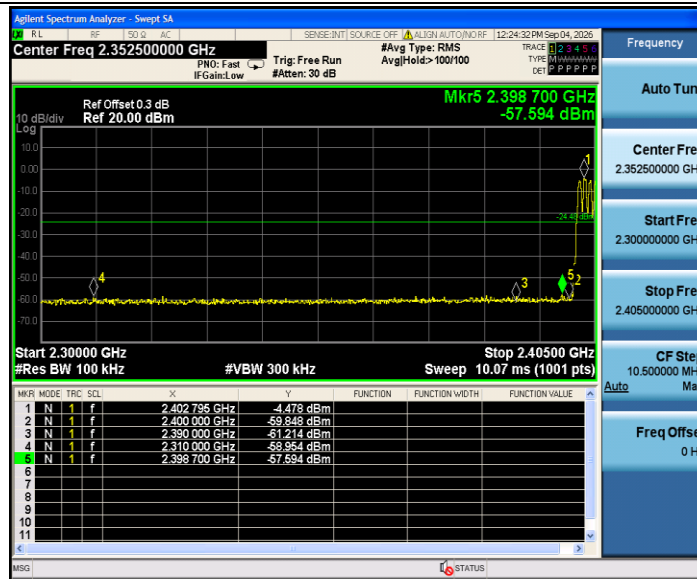
Appendix G: Band edge measurements

Test Result

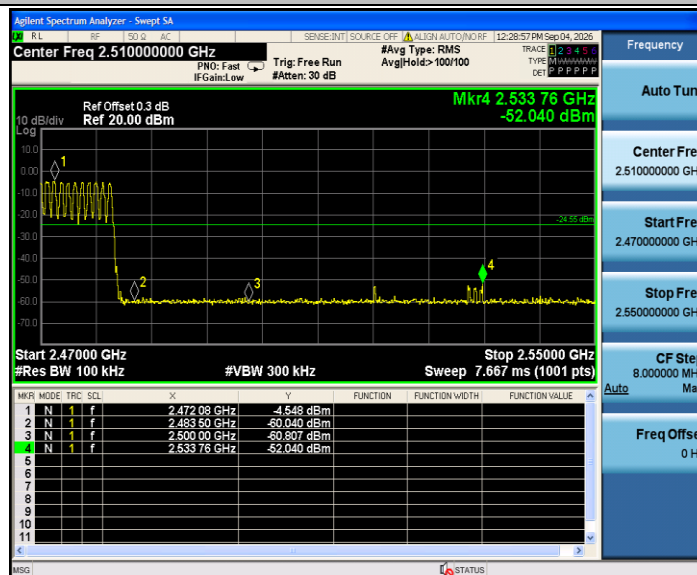
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-4.15	-57.89	≤-24.15	PASS
		High	2480	-3.86	-57.85	≤-23.86	PASS
		Low	Hop_2402	-4.48	-57.59	≤-24.48	PASS
		High	Hop_2480	-4.55	-52.04	≤-24.55	PASS
2DH5	Ant1	Low	2402	-6.34	-57.72	≤-26.34	PASS
		High	2480	-5.16	-58.34	≤-25.16	PASS
		Low	Hop_2402	-6.86	-58.16	≤-26.86	PASS
		High	Hop_2480	-4.74	-51.43	≤-24.74	PASS

Test Graphs

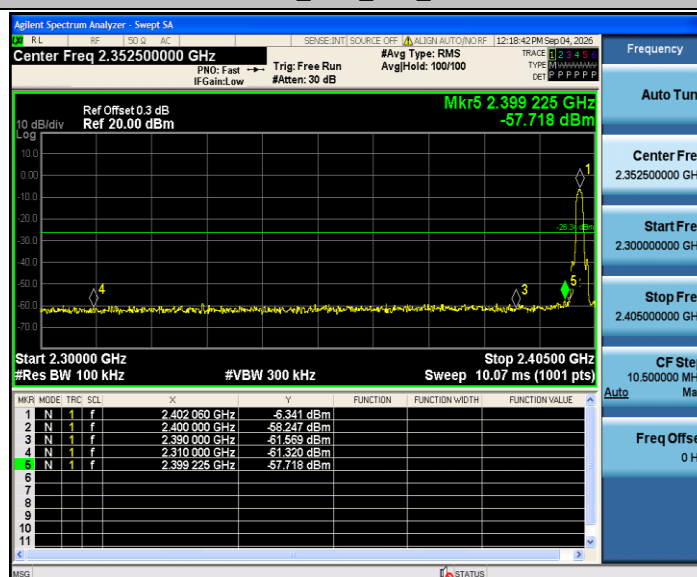




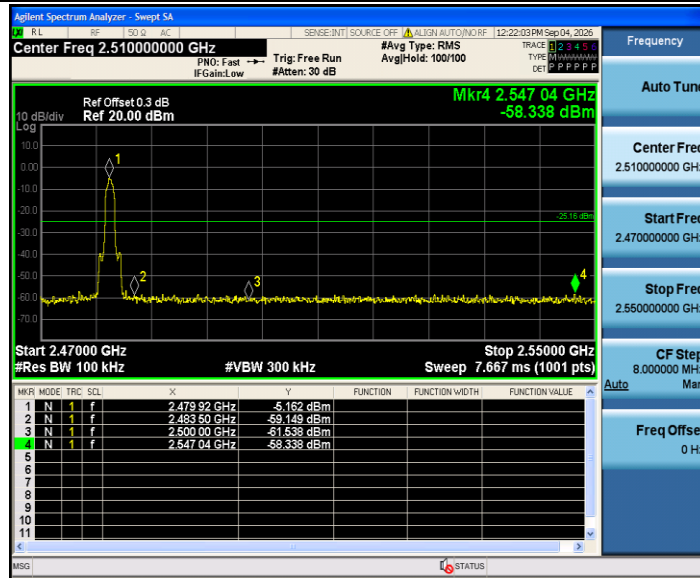
DH5_Ant1_High_Hop_2480



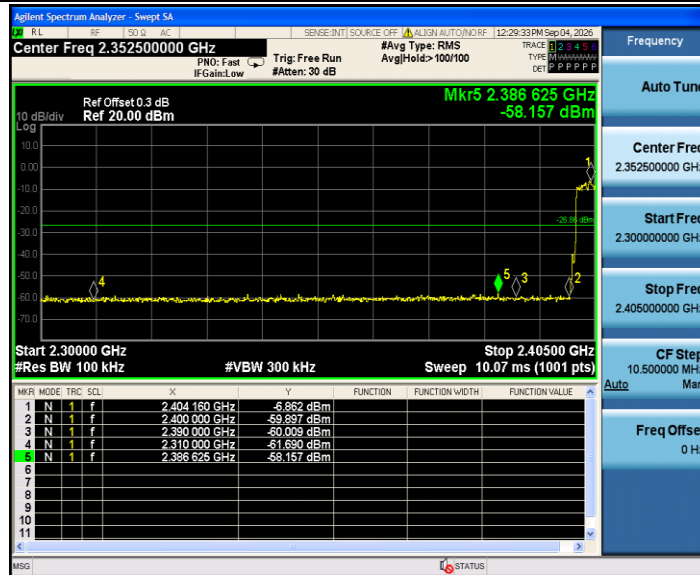
2DH5_Ant1_Low_2402



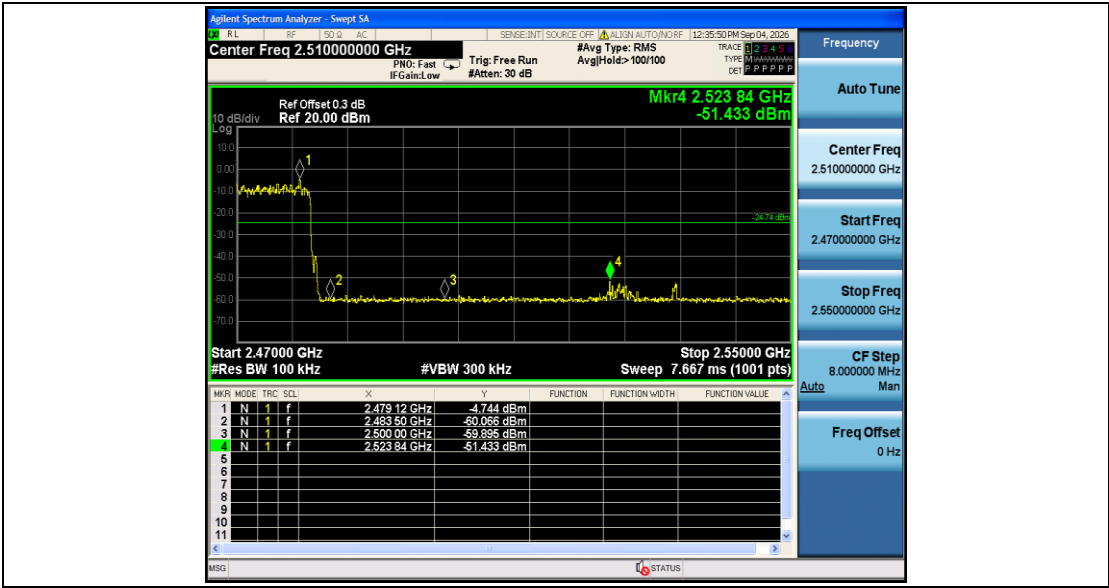
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

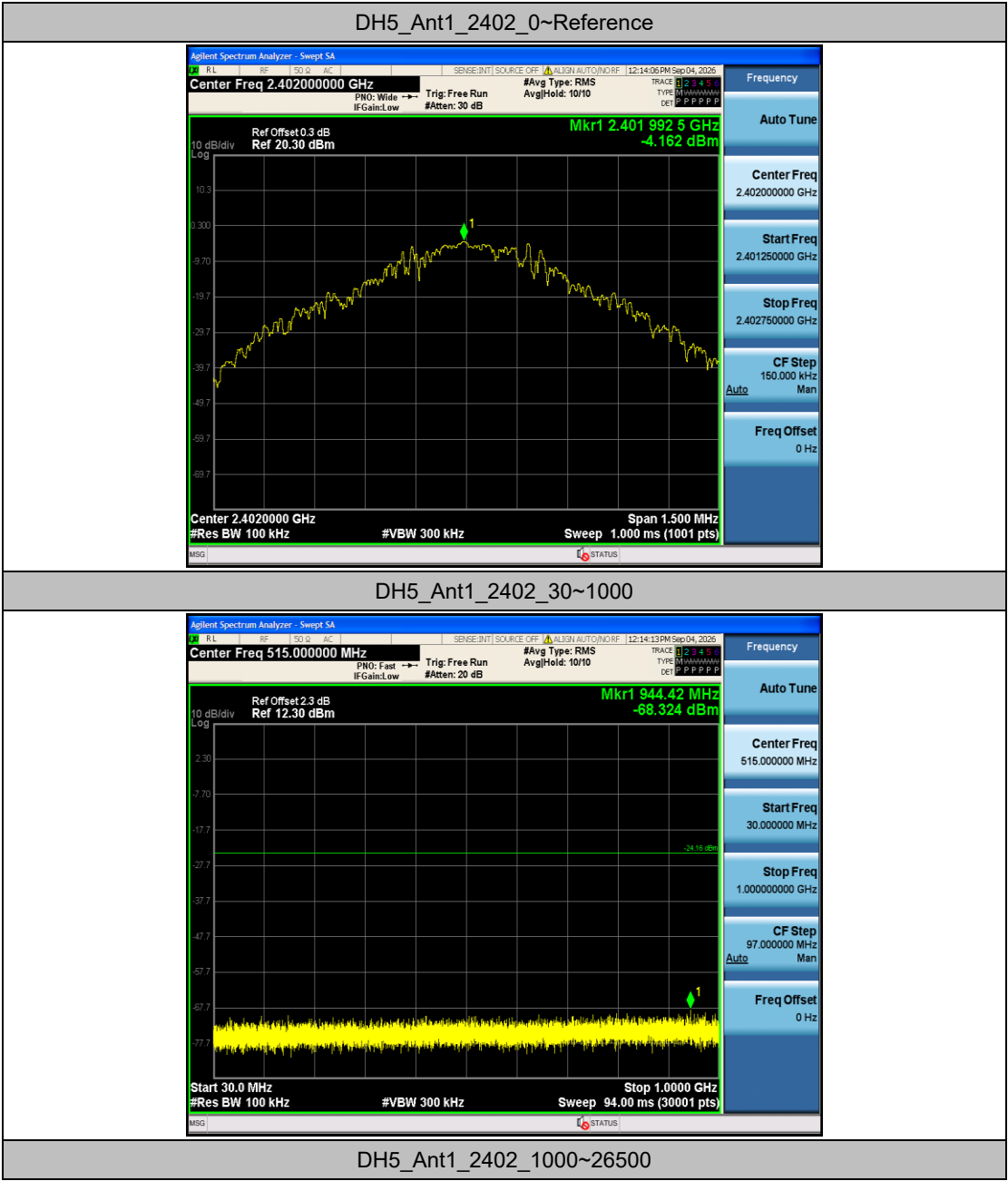


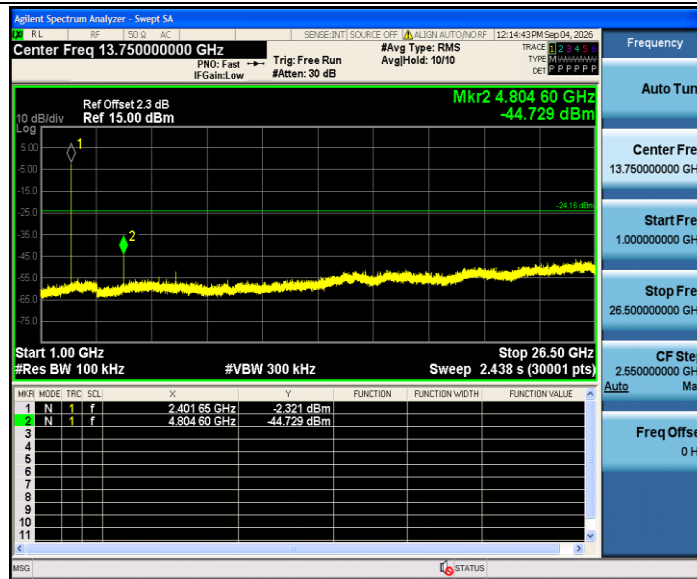
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-4.16	-4.16	---	PASS
			30~1000	-4.16	-68.32	≤-24.16	PASS
			1000~26500	-4.16	-44.73	≤-24.16	PASS
		2441	Reference	-5.01	-5.01	---	PASS
			30~1000	-5.01	-68.54	≤-25.01	PASS
			1000~26500	-5.01	-44.52	≤-25.01	PASS
		2480	Reference	-5.14	-5.14	---	PASS
			30~1000	-5.14	-68.93	≤-25.14	PASS
			1000~26500	-5.14	-46.41	≤-25.14	PASS
2DH5	Ant1	2402	Reference	-4.93	-4.93	---	PASS
			30~1000	-4.93	-68.46	≤-24.93	PASS
			1000~26500	-4.93	-46.6	≤-24.93	PASS
		2441	Reference	-5.51	-5.51	---	PASS
			30~1000	-5.51	-68.04	≤-25.51	PASS
			1000~26500	-5.51	-46.74	≤-25.51	PASS
		2480	Reference	-5.52	-5.52	---	PASS
			30~1000	-5.52	-64.53	≤-25.52	PASS
			1000~26500	-5.52	-45.1	≤-25.52	PASS

Test Graphs

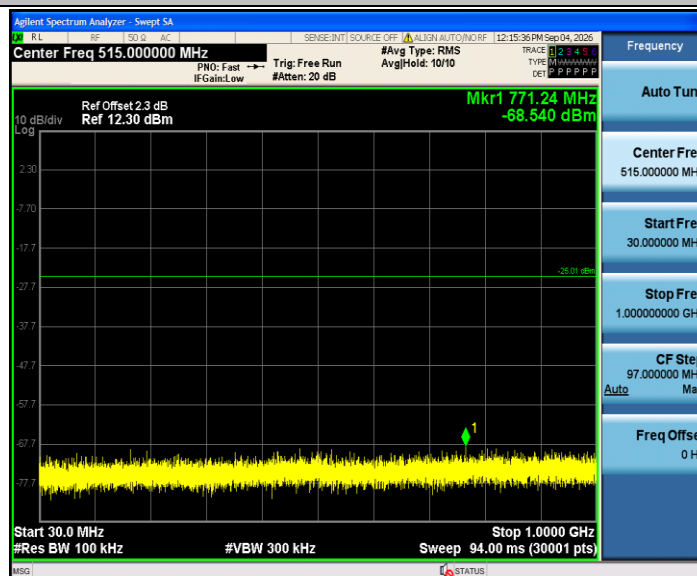




DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



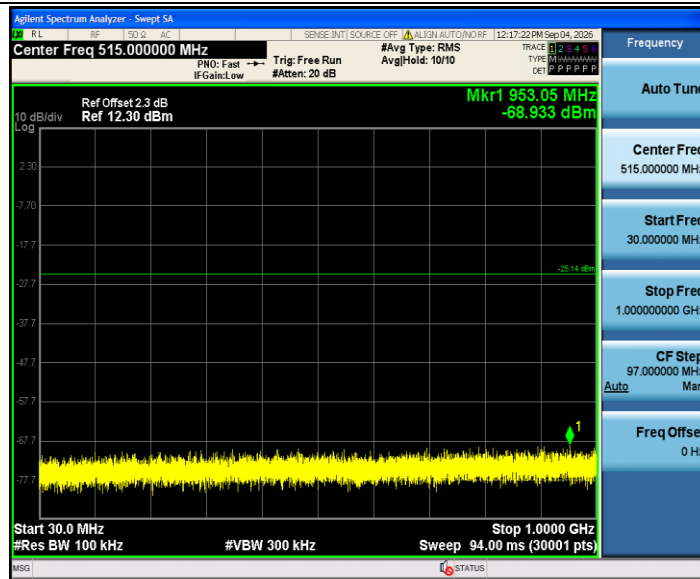
DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference



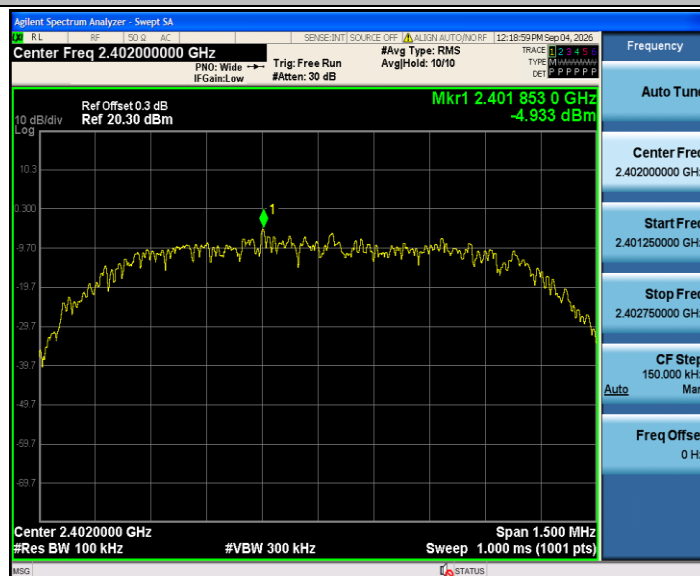
DH5_Ant1_2480_30~1000



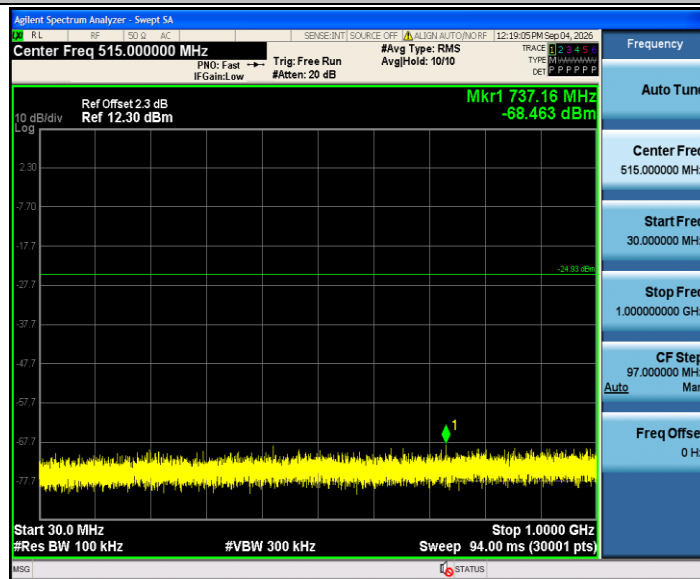
DH5_Ant1_2480_1000~26500



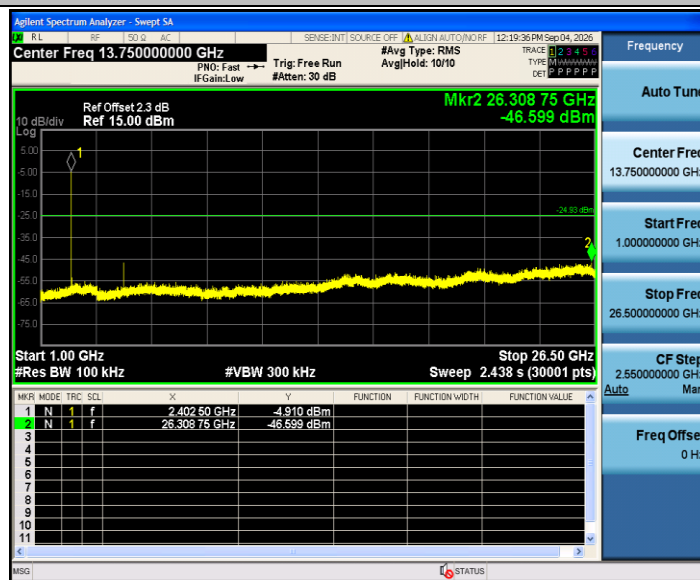
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



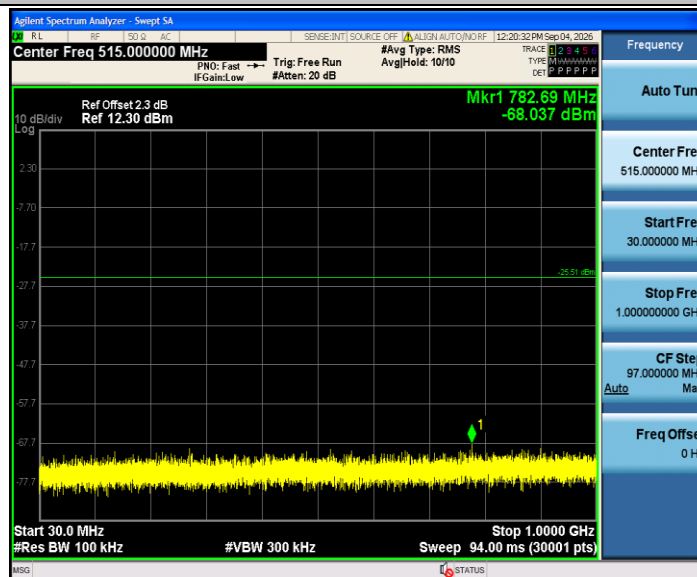
2DH5_Ant1_2402_1000~26500



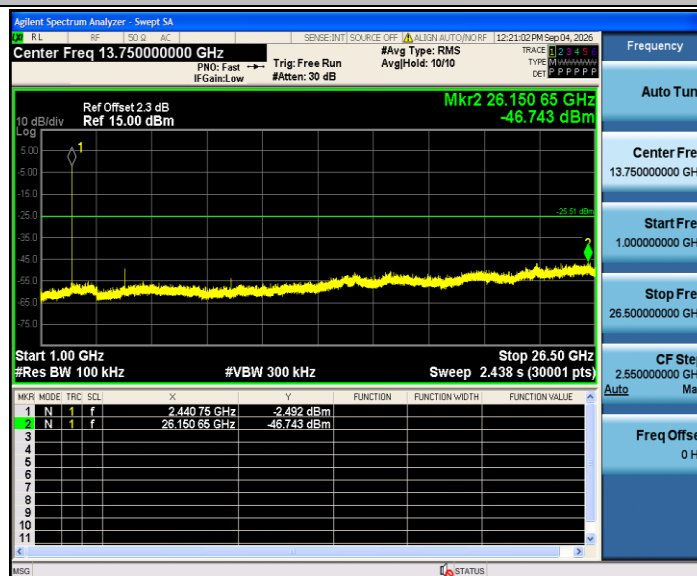
2DH5_Ant1_2441_0~Reference



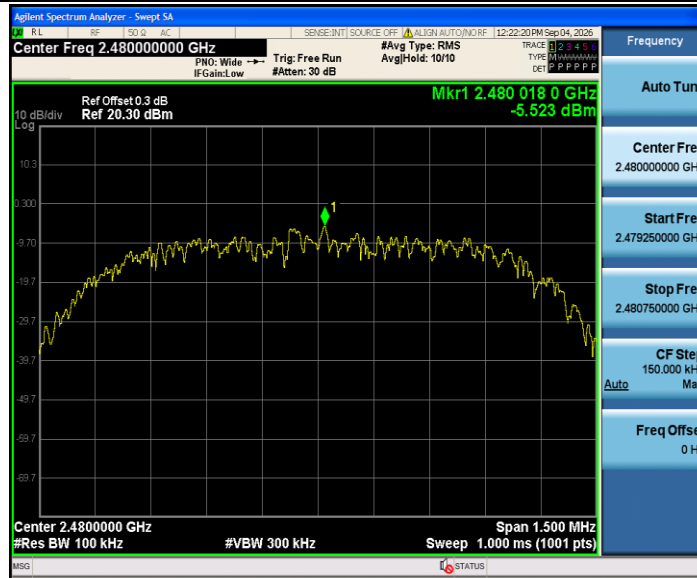
2DH5_Ant1_2441_30~1000



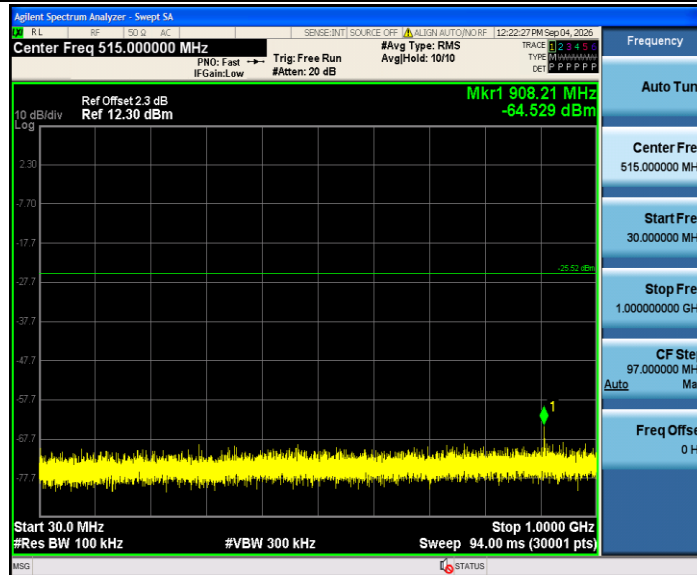
2DH5_Ant1_2441_1000~26500



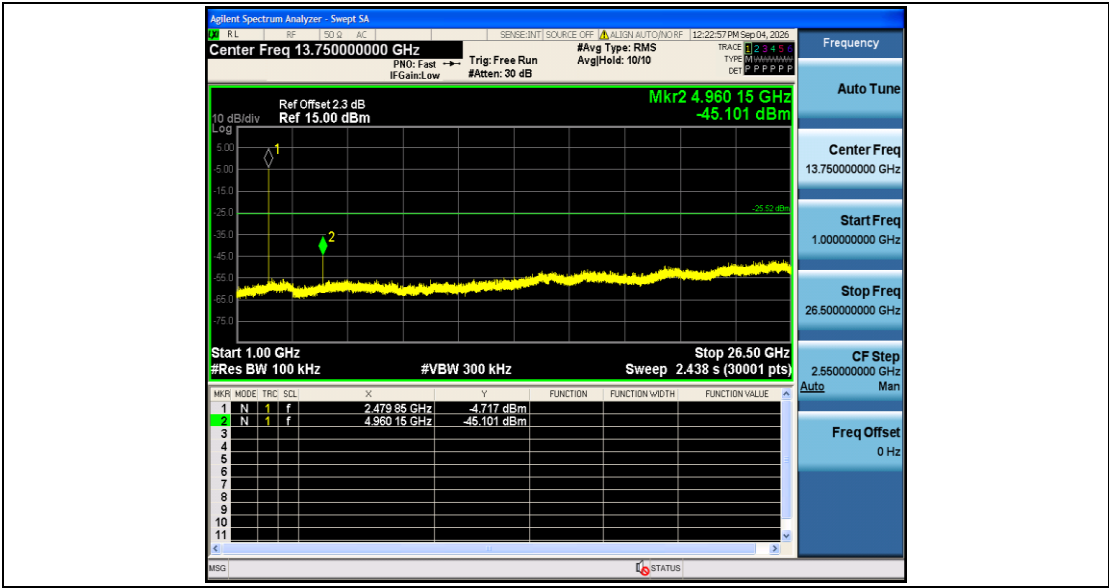
2DH5_Ant1_2480_0~Reference



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	3.74	77.81	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---