

FCC Appendix RF Test Data for BT

FCC ID : 2BX82-SYITRENEN01

Company : SHENYANG SYITREN CULTURAL COMMUNICATION CO., LTD.

EUT : SYITREN EN01 BLUETOOTH SPEAKER

Model Number : SYITREN EN01

Report No. : CTA26090700201

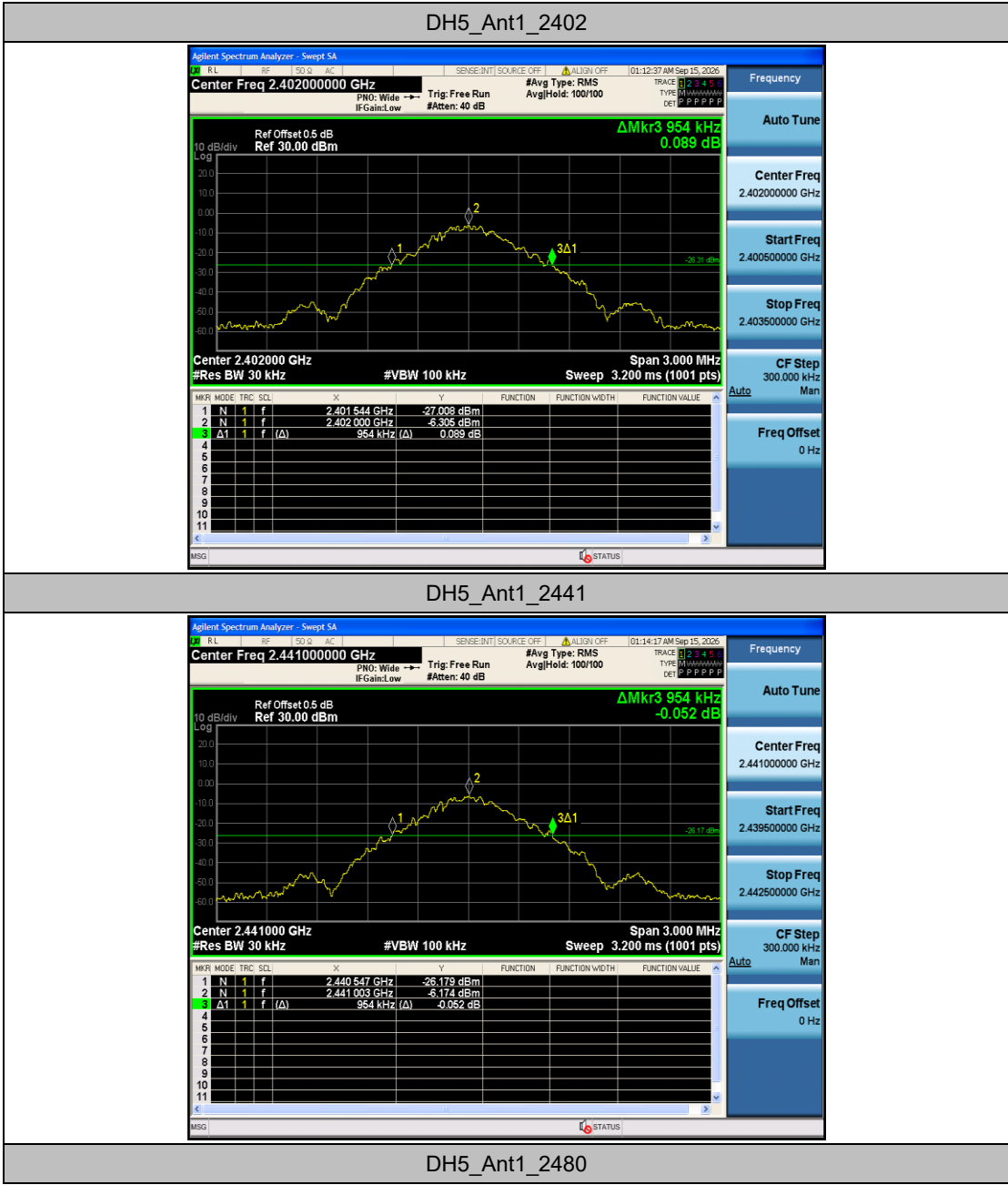
Reviewed By : Eric Wang

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	2401.544	2402.498	---	---
		2441	0.954	2440.547	2441.501	---	---
		2480	0.969	2479.541	2480.510	---	---
2DH5	Ant1	2402	1.344	2401.340	2402.684	---	---
		2441	1.278	2440.379	2441.657	---	---
		2480	1.344	2479.337	2480.681	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

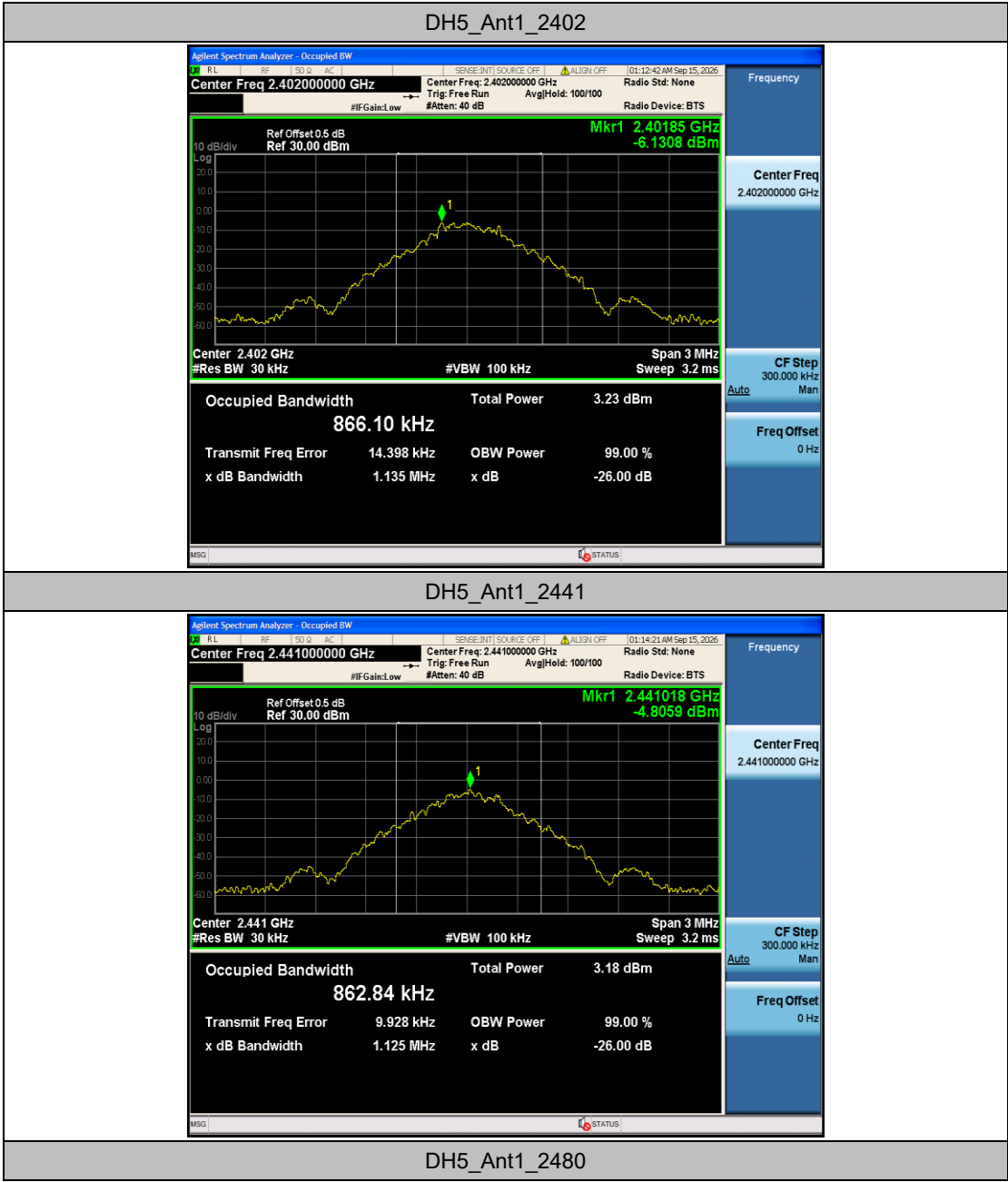


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86610	2401.5814	2402.4475	---	---
		2441	0.86284	2440.5785	2441.4414	---	---
		2480	0.86748	2479.5804	2480.4478	---	---
2DH5	Ant1	2402	1.1869	2401.4170	2402.6039	---	---
		2441	1.1797	2440.4229	2441.6026	---	---
		2480	1.1867	2479.4193	2480.6060	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

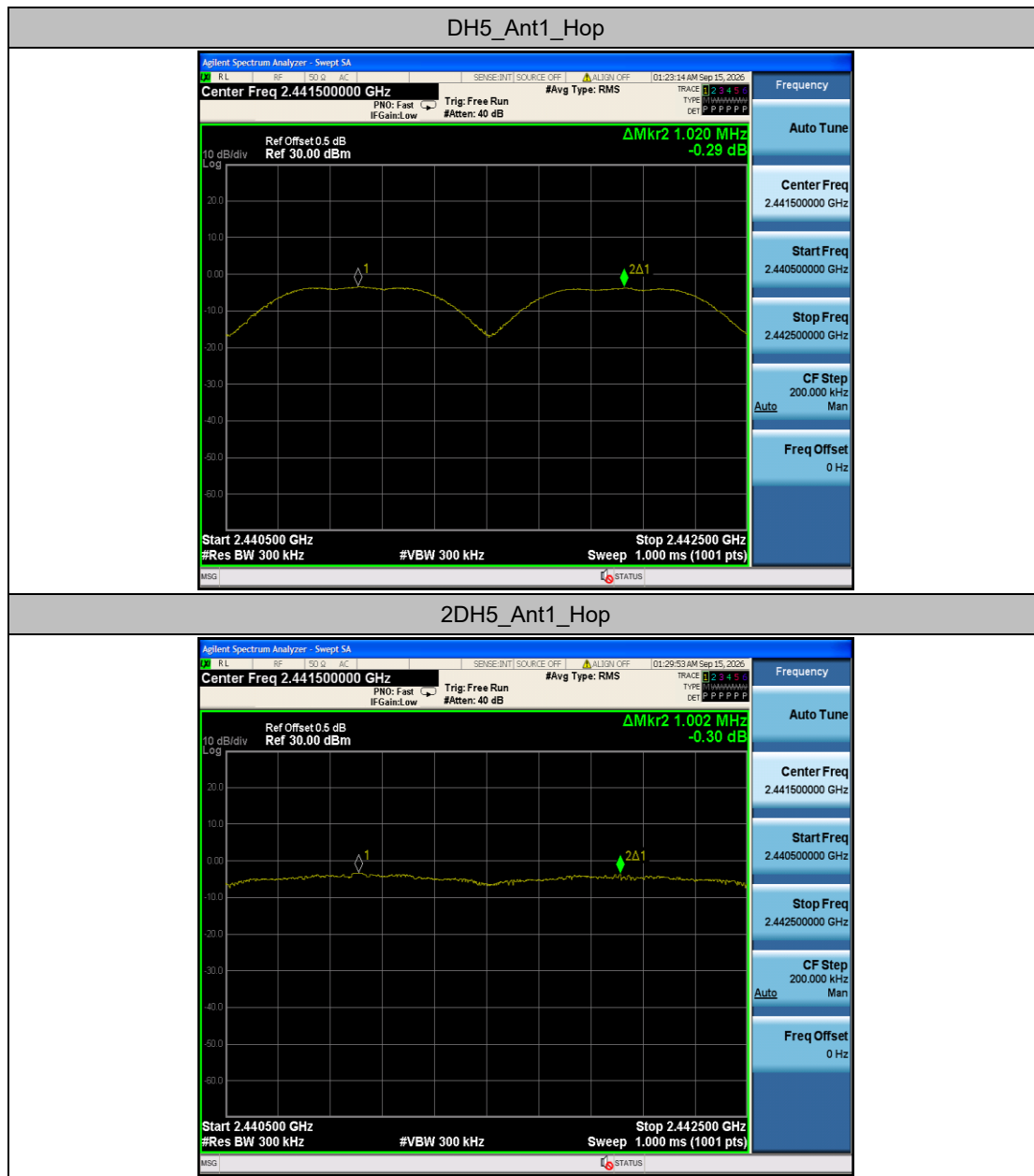
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-3.21	≤20.97	PASS
		2441	-3.34	≤20.97	PASS
		2480	-3.70	≤20.97	PASS
2DH5	Ant1	2402	-0.58	≤20.97	PASS
		2441	-0.75	≤20.97	PASS
		2480	-1.08	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.02	≥ 0.969	PASS
2DH5	Ant1	Hop	1.002	≥ 0.896	PASS

Test Graphs

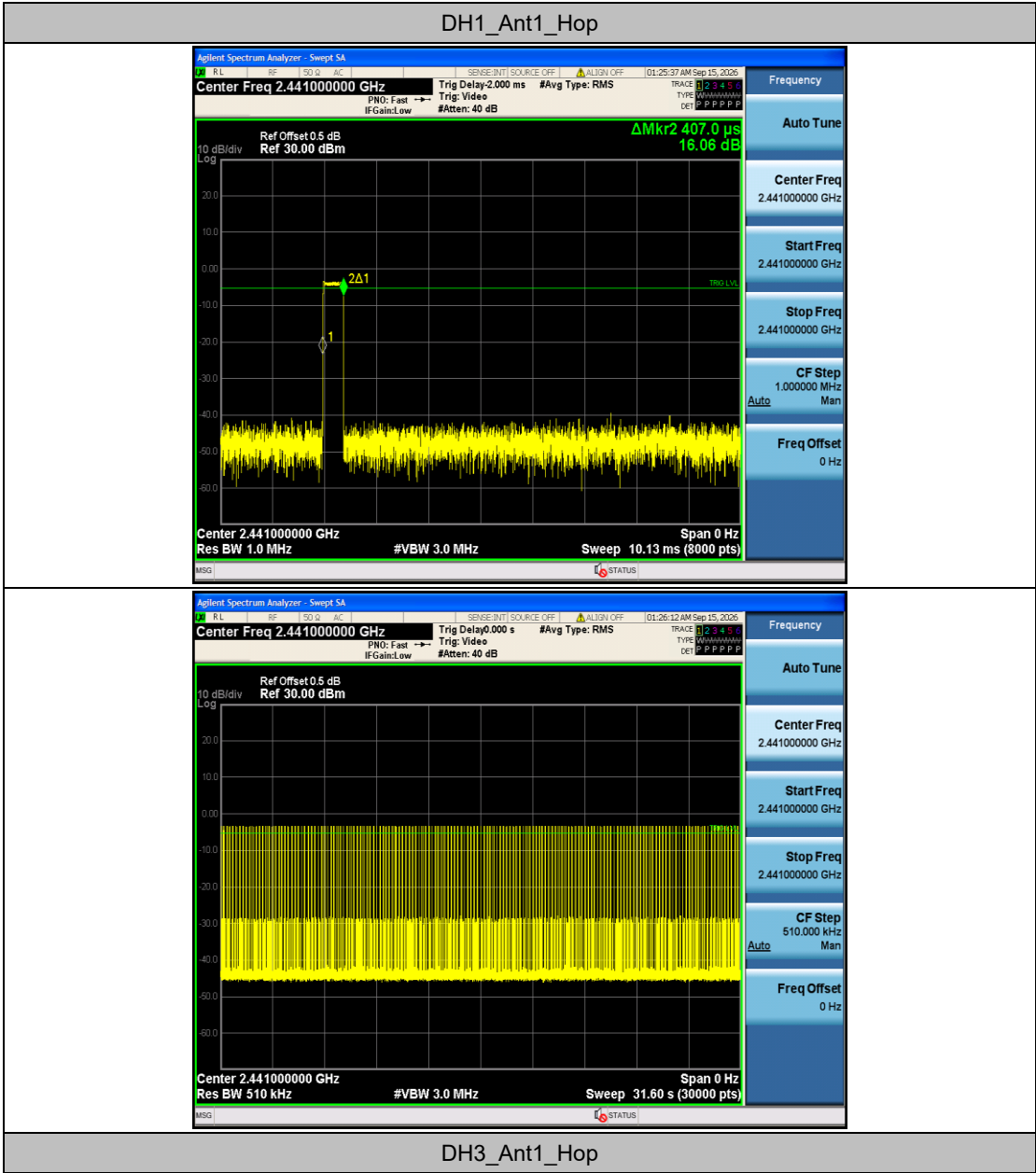


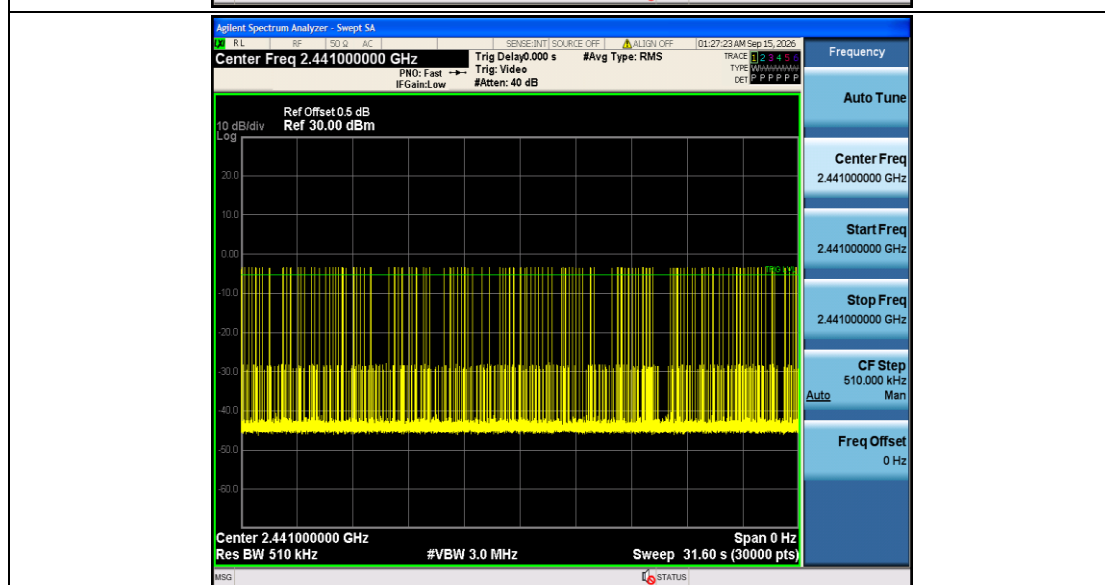
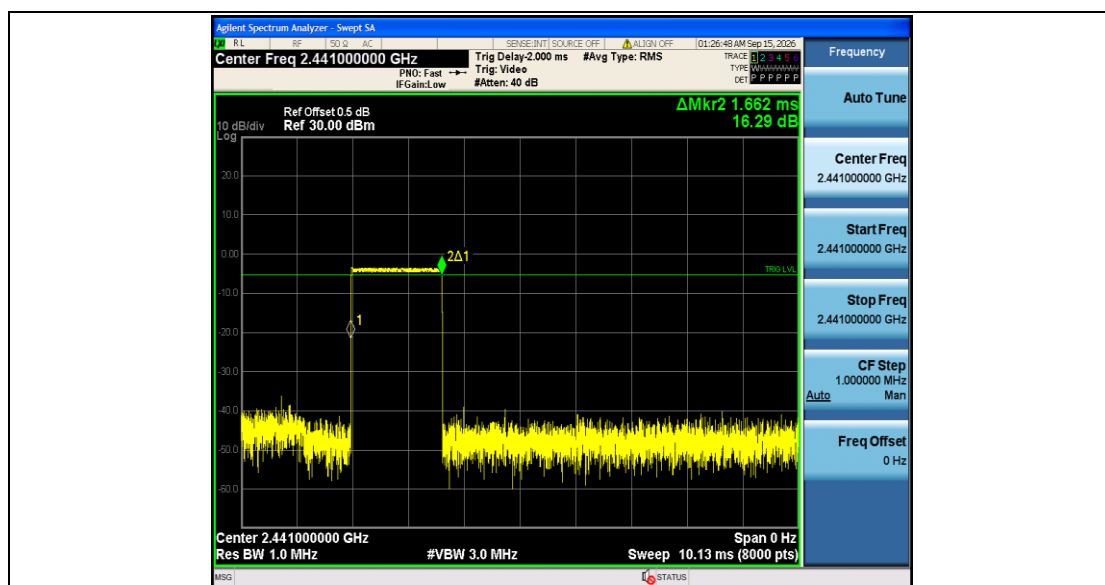
Appendix E: Time of occupancy

Test Result

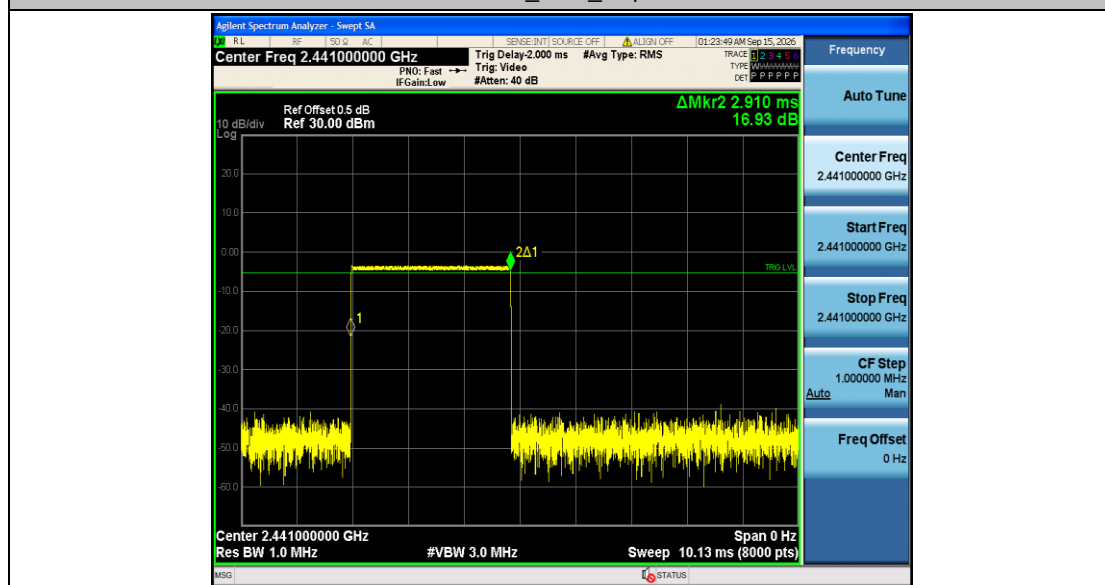
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	316	0.129	≤0.4	PASS
DH3	Ant1	Hop	1.662	152	0.253	≤0.4	PASS
DH5	Ant1	Hop	2.910	103	0.3	≤0.4	PASS
2DH1	Ant1	Hop	0.415	316	0.131	≤0.4	PASS
2DH3	Ant1	Hop	1.668	157	0.262	≤0.4	PASS
2DH5	Ant1	Hop	2.916	103	0.3	≤0.4	PASS

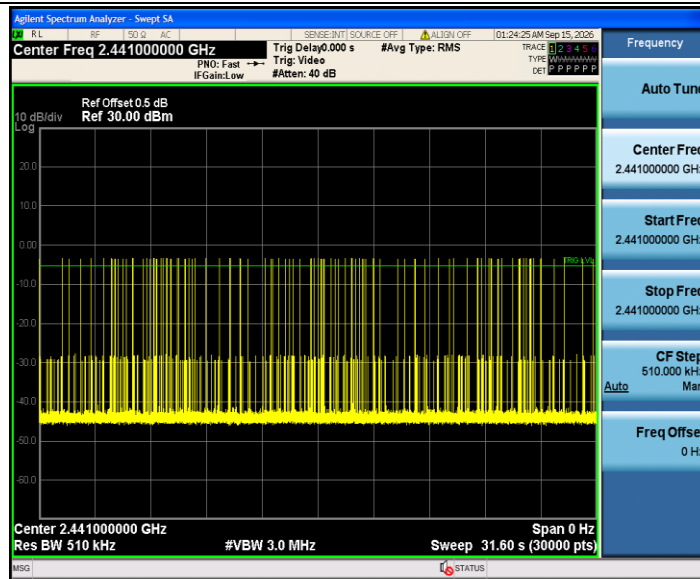
Test Graphs



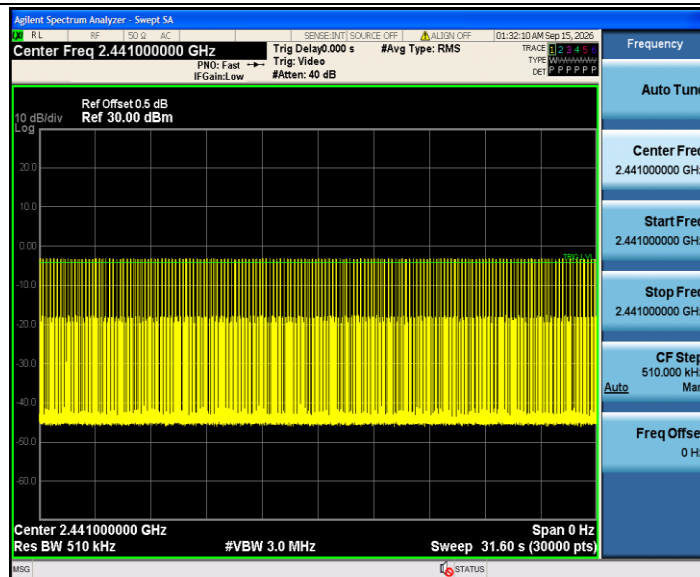
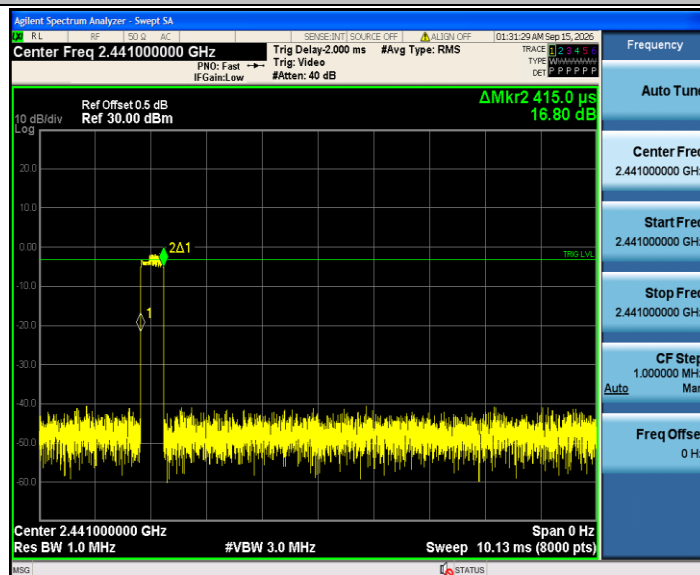


DH5_Ant1_Hop

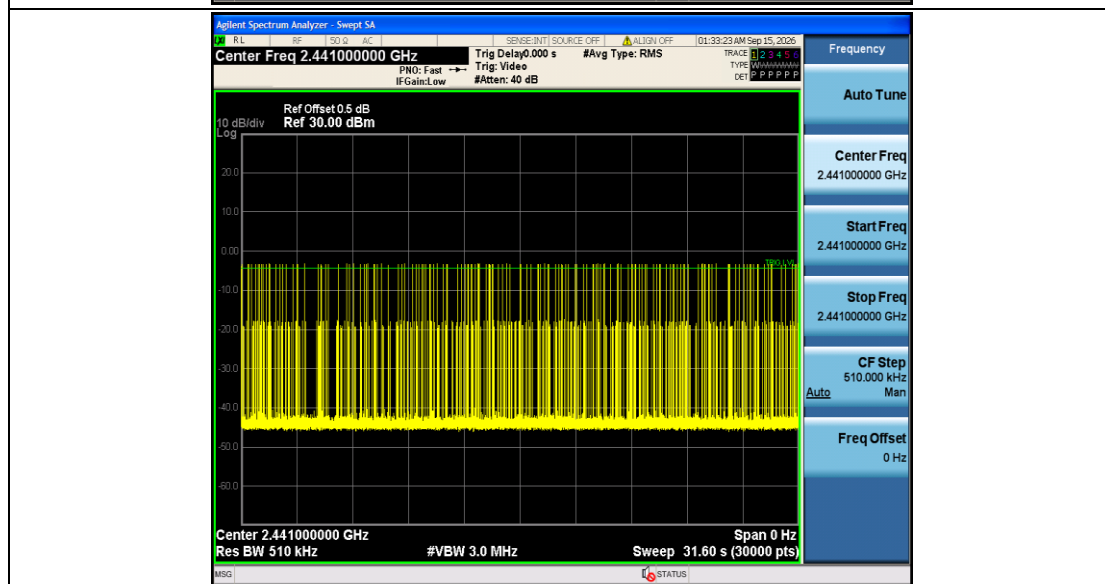
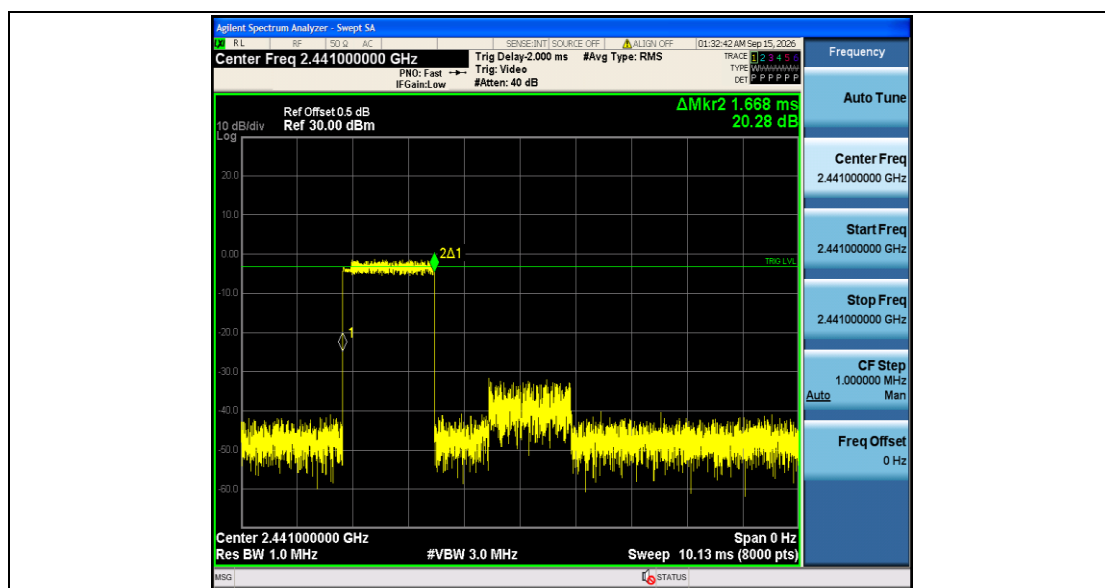




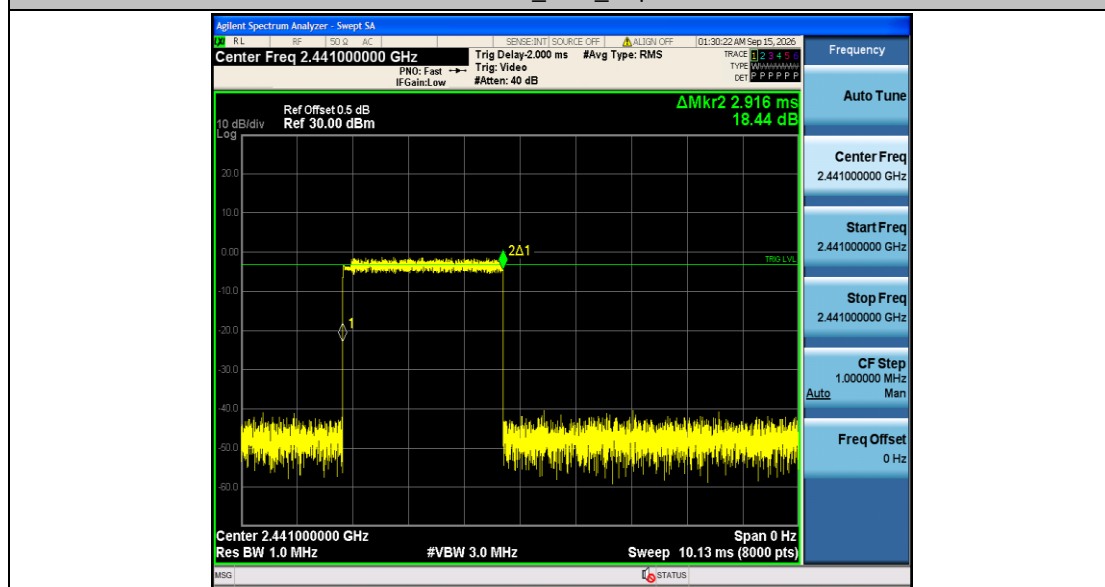
2DH1_Ant1_Hop

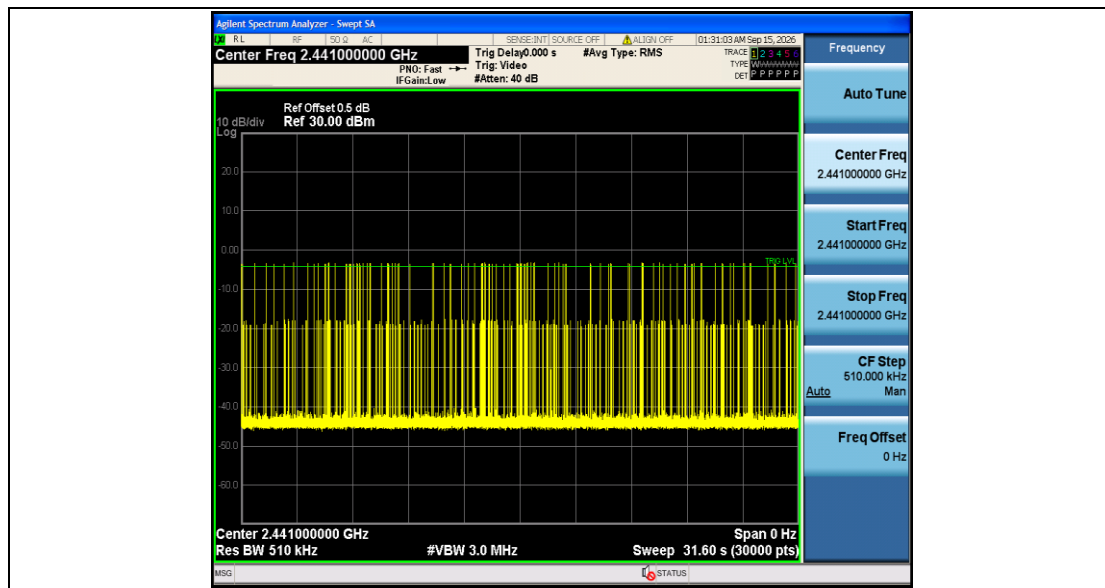


2DH3_Ant1_Hop



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

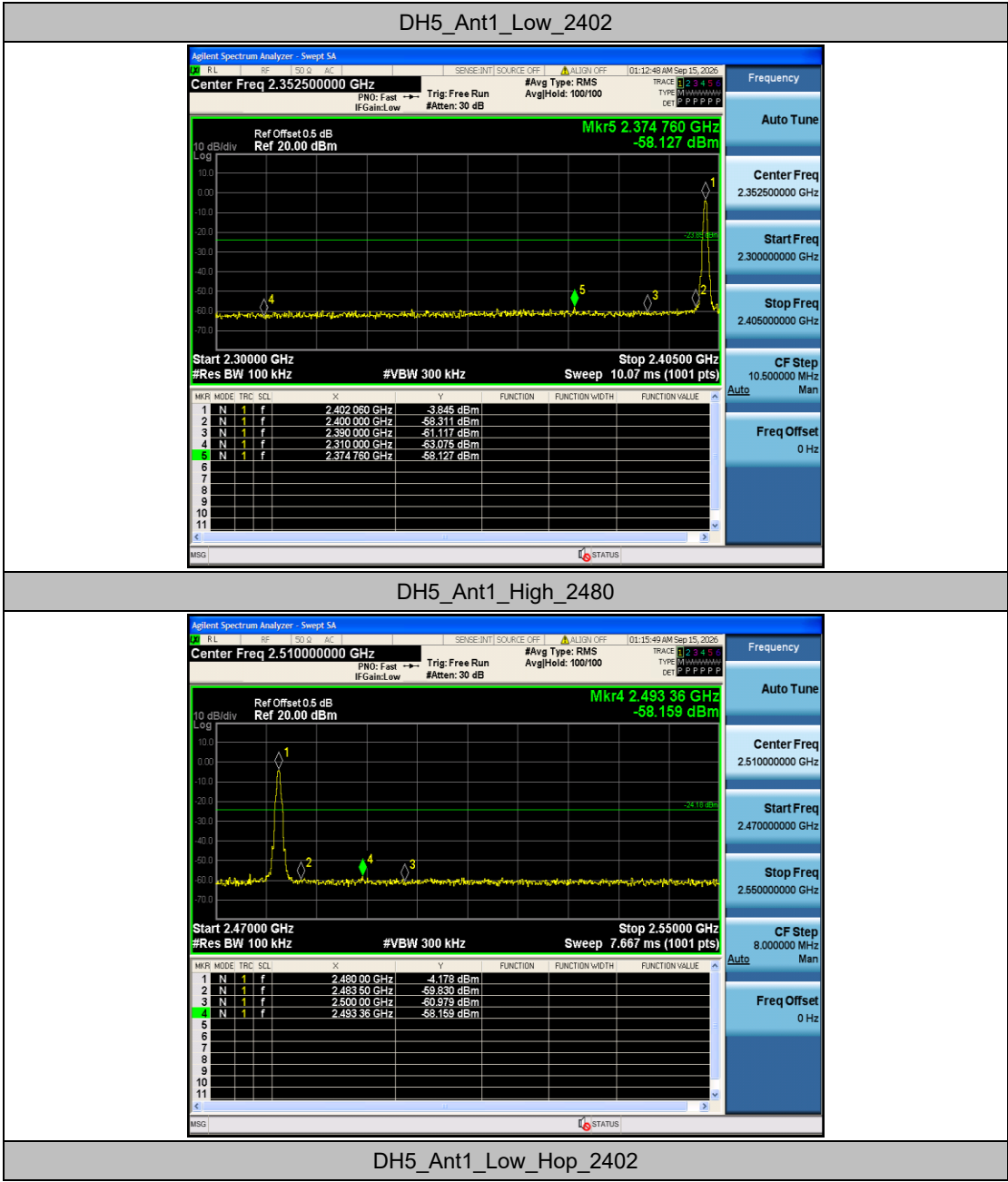


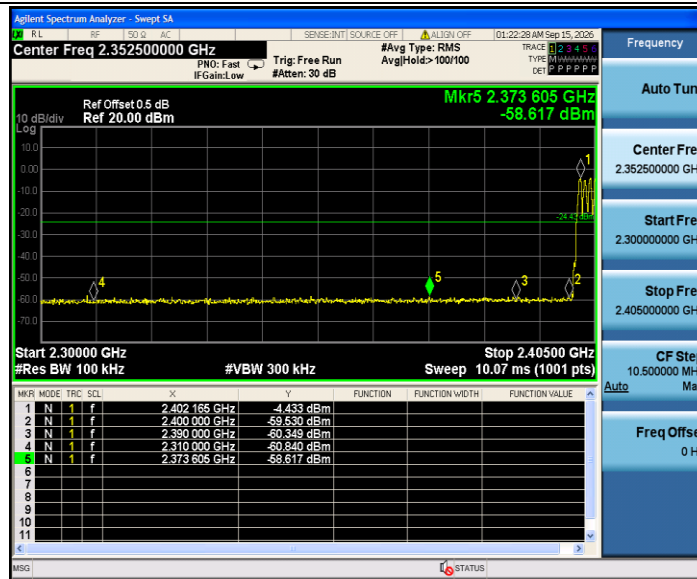
Appendix G: Band edge measurements

Test Result

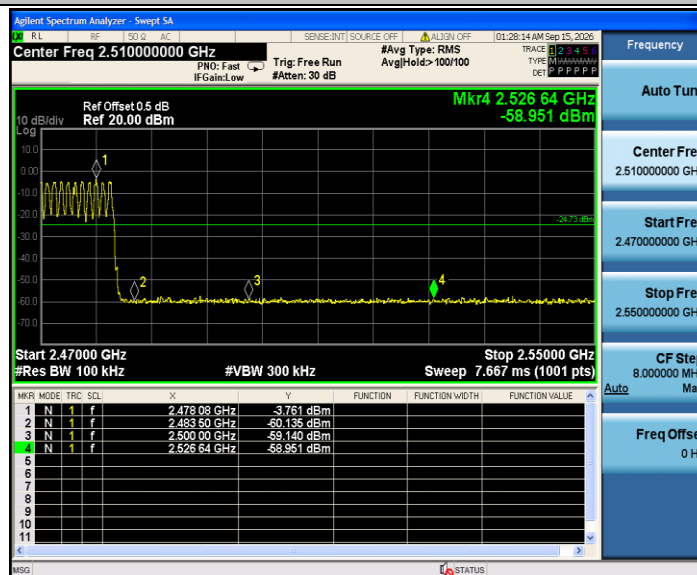
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.85	-58.13	≤-23.85	PASS
		High	2480	-4.18	-58.16	≤-24.18	PASS
		Low	Hop_2402	-4.43	-58.62	≤-24.43	PASS
		High	Hop_2480	-4.73	-58.95	≤-24.73	PASS
2DH5	Ant1	Low	2402	-5.65	-57.19	≤-25.65	PASS
		High	2480	-5.32	-57.22	≤-25.32	PASS
		Low	Hop_2402	-4.31	-58.15	≤-24.31	PASS
		High	Hop_2480	-4.50	-57.82	≤-24.5	PASS

Test Graphs

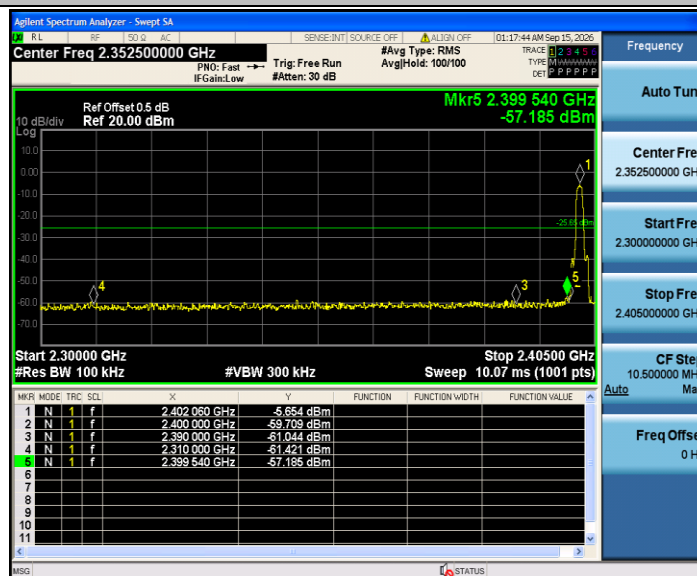




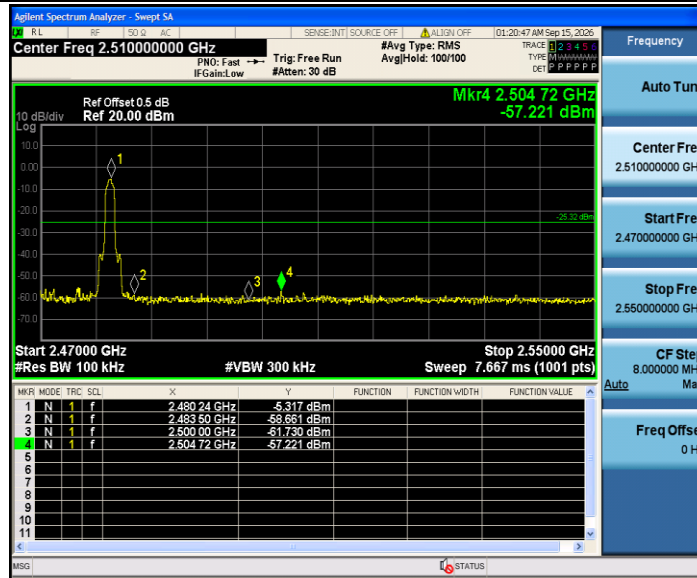
DH5_Ant1_High_Hop_2480



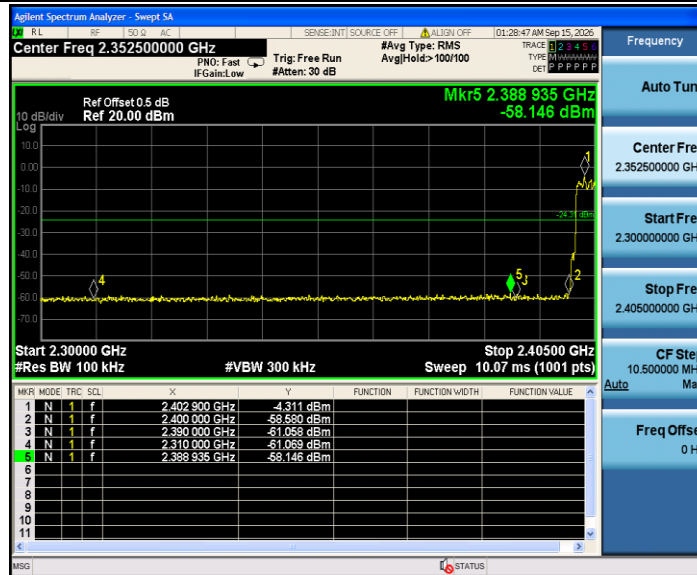
2DH5_Ant1_Low_2402



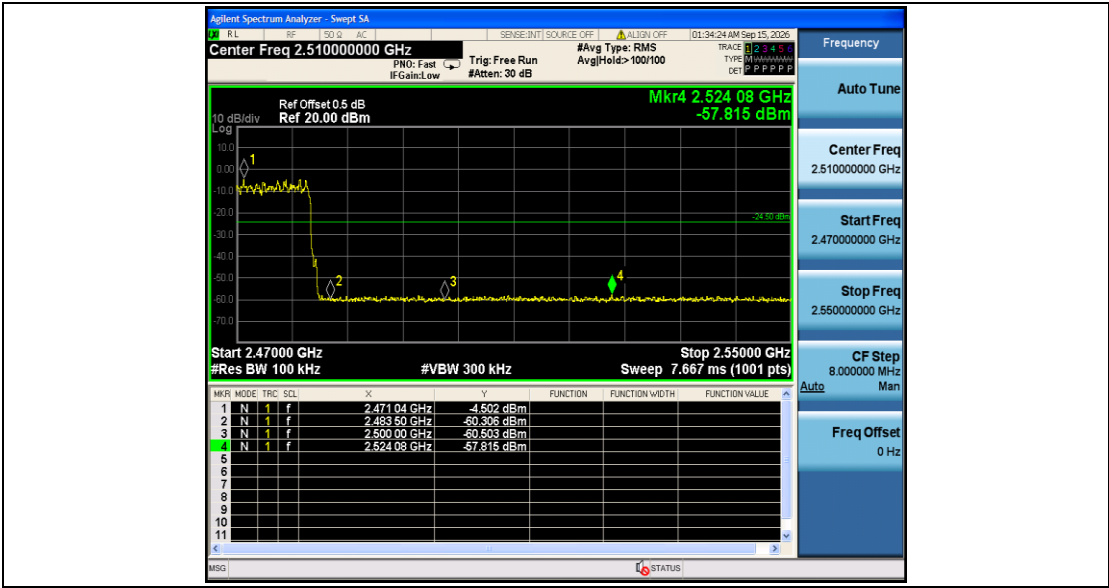
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

Test Result

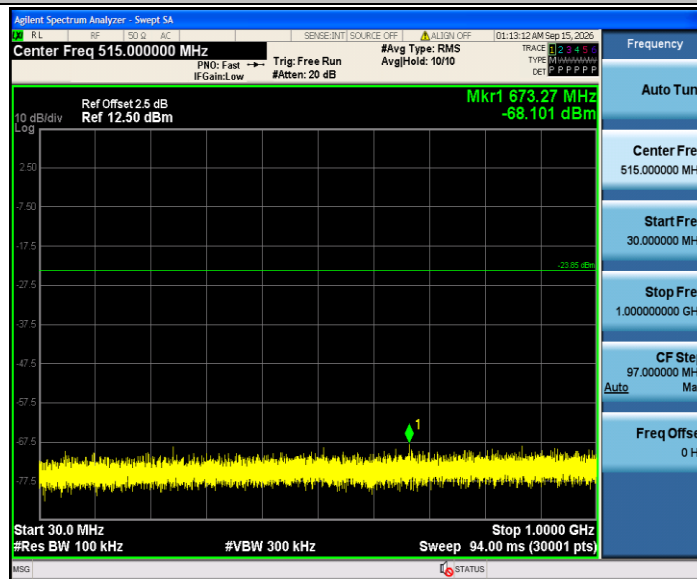
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-3.85	-3.85	---	PASS
			30~1000	-3.85	-68.1	≤-23.85	PASS
			1000~26500	-3.85	-46.83	≤-23.85	PASS
		2441	Reference	-4.21	-4.21	---	PASS
			30~1000	-4.21	-68.68	≤-24.21	PASS
			1000~26500	-4.21	-46.91	≤-24.21	PASS
		2480	Reference	-4.26	-4.26	---	PASS
			30~1000	-4.26	-68.12	≤-24.26	PASS
			1000~26500	-4.26	-46.66	≤-24.26	PASS
2DH5	Ant1	2402	Reference	-6.60	-6.60	---	PASS
			30~1000	-6.60	-68.43	≤-26.6	PASS
			1000~26500	-6.60	-47.02	≤-26.6	PASS
		2441	Reference	-4.75	-4.75	---	PASS
			30~1000	-4.75	-68.25	≤-24.75	PASS
			1000~26500	-4.75	-46.94	≤-24.75	PASS
		2480	Reference	-4.54	-4.54	---	PASS
			30~1000	-4.54	-68.22	≤-24.54	PASS
			1000~26500	-4.54	-46.6	≤-24.54	PASS

Test Graphs

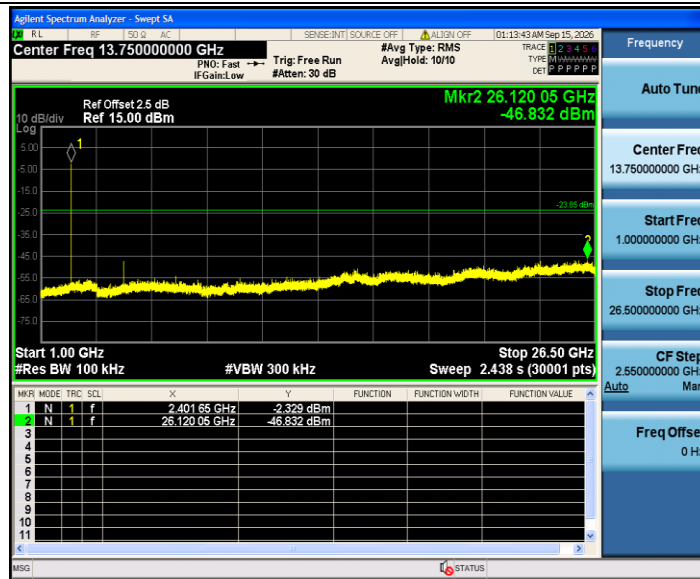
DH5_Ant1_2402_0~Reference



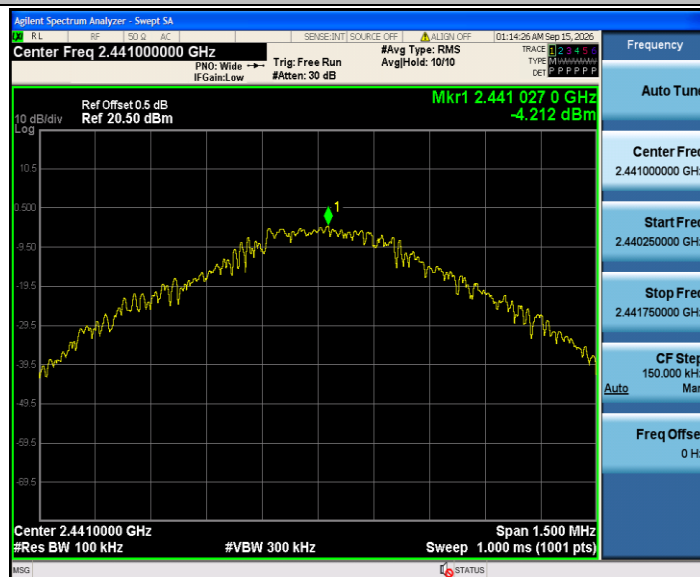
DH5_Ant1_2402_30~1000



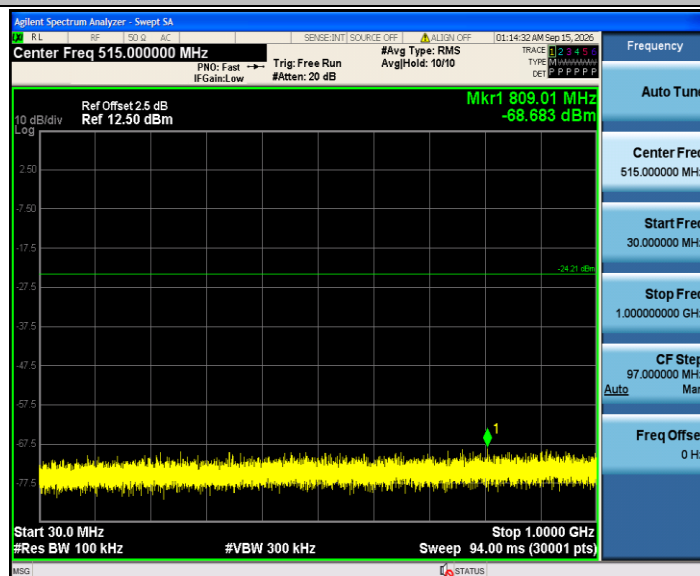
DH5_Ant1_2402_1000~26500



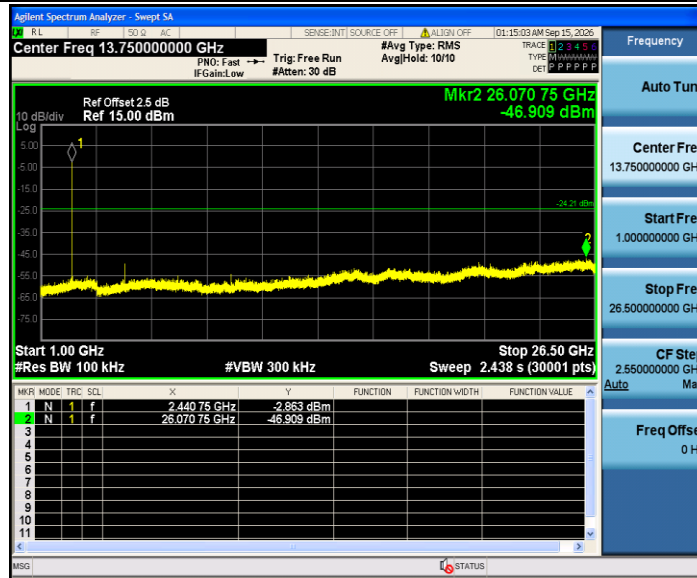
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



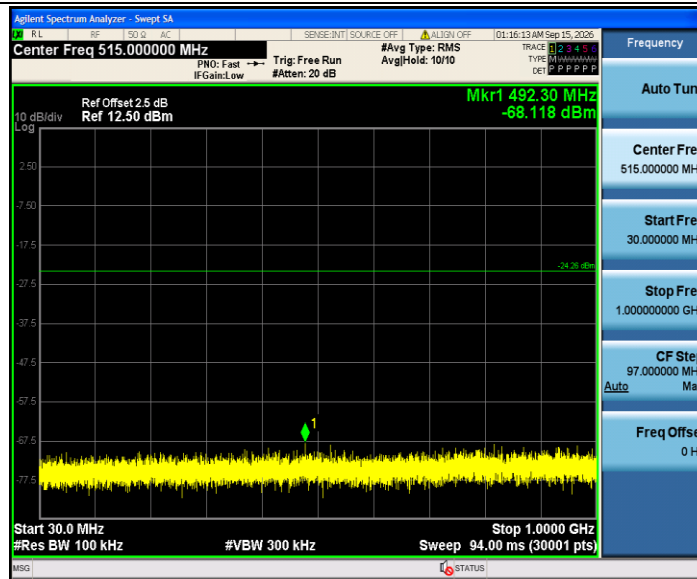
DH5_Ant1_2441_1000~26500



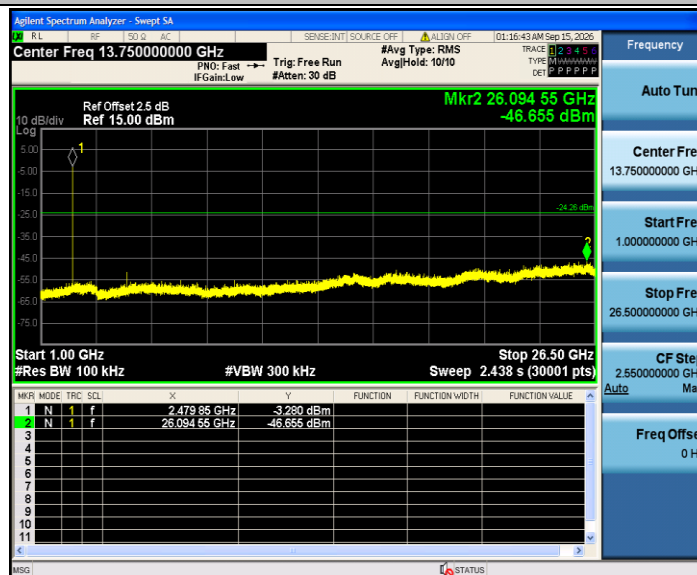
DH5_Ant1_2480_0~Reference



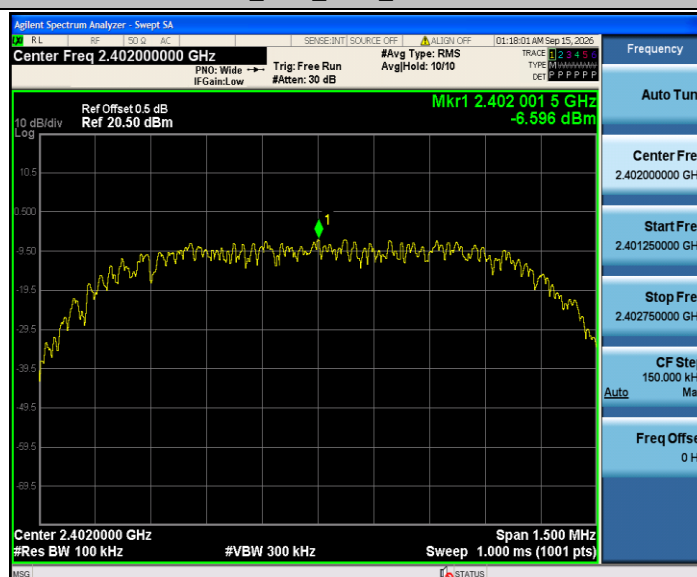
DH5_Ant1_2480_30~1000



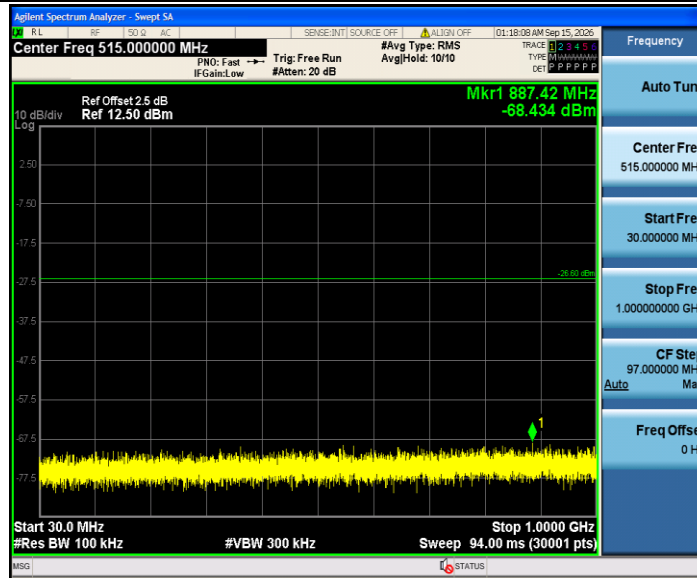
DH5_Ant1_2480_1000~26500



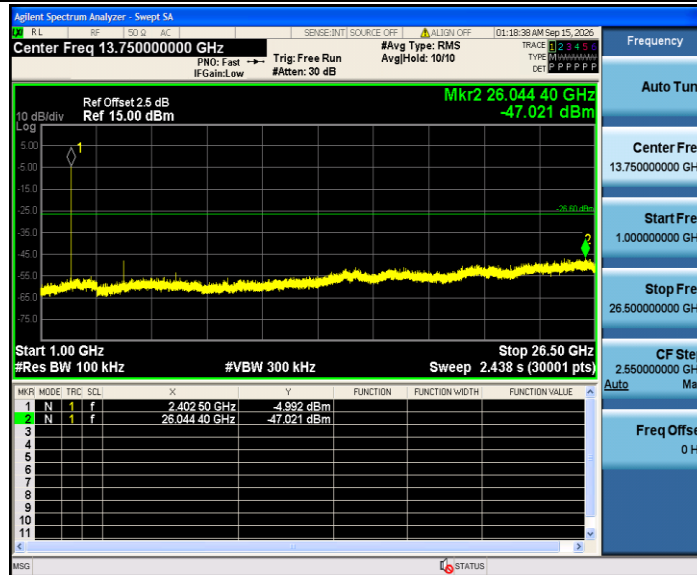
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



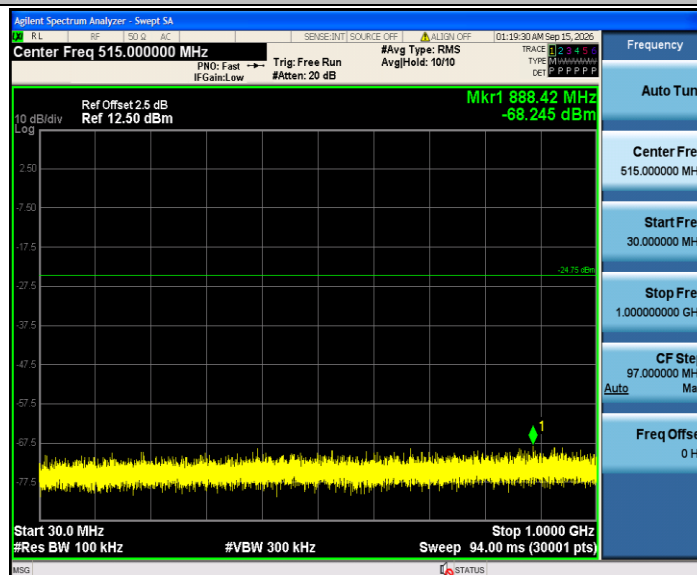
2DH5_Ant1_2402_1000~26500



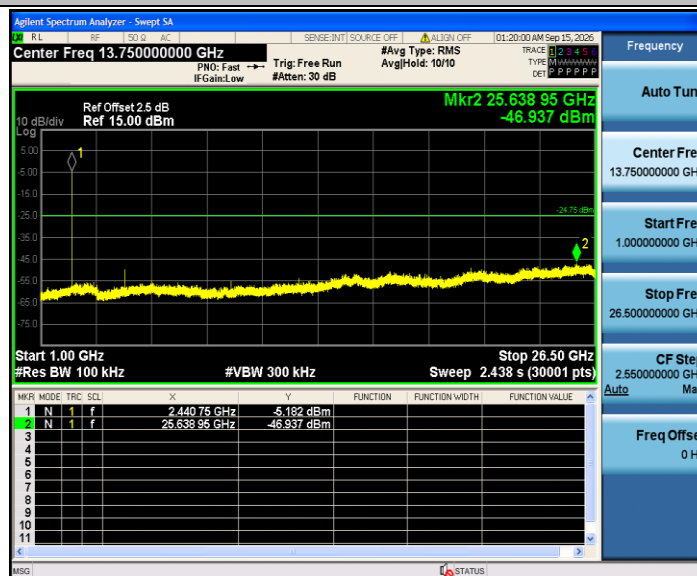
2DH5_Ant1_2441_0~Reference



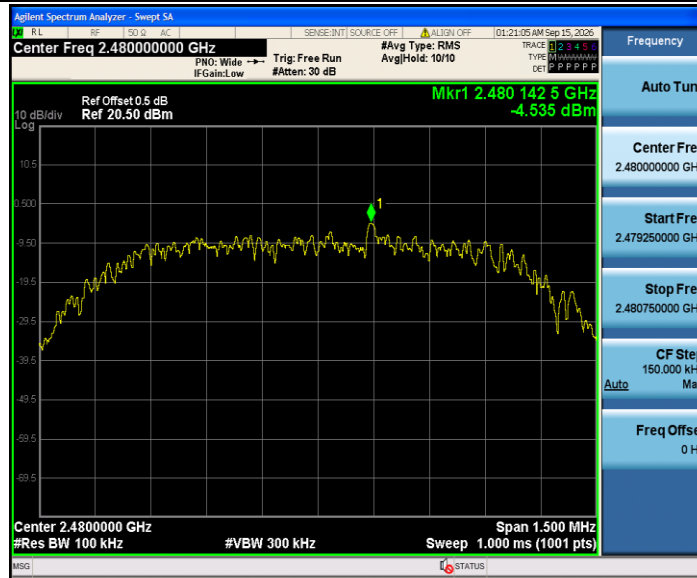
2DH5_Ant1_2441_30~1000



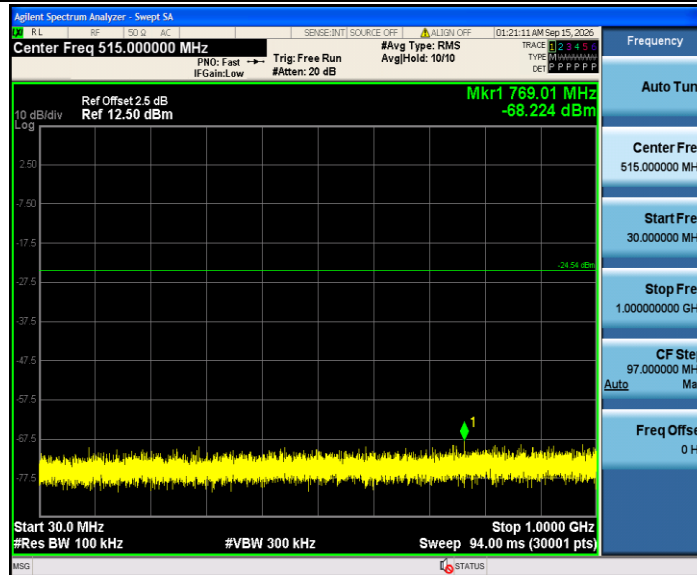
2DH5_Ant1_2441_1000~26500



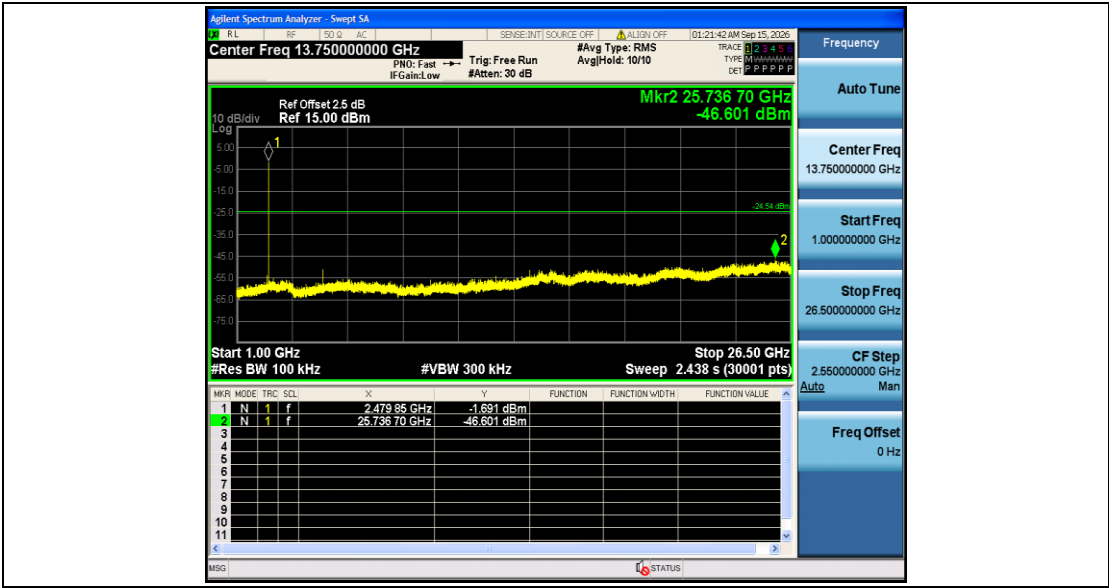
2DH5_Ant1_2480_0~Reference



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	3.74	78.07	1.08	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---