

FCC Appendix RF Test Data for BT

FCC ID : 2BDO6-X10

Company : WITSLISM TECHNOLOGY CO.,LIMITED

EUT : BLUETOOTH SPEAKER

Model Number : X10

Report No. : CTA26033003501

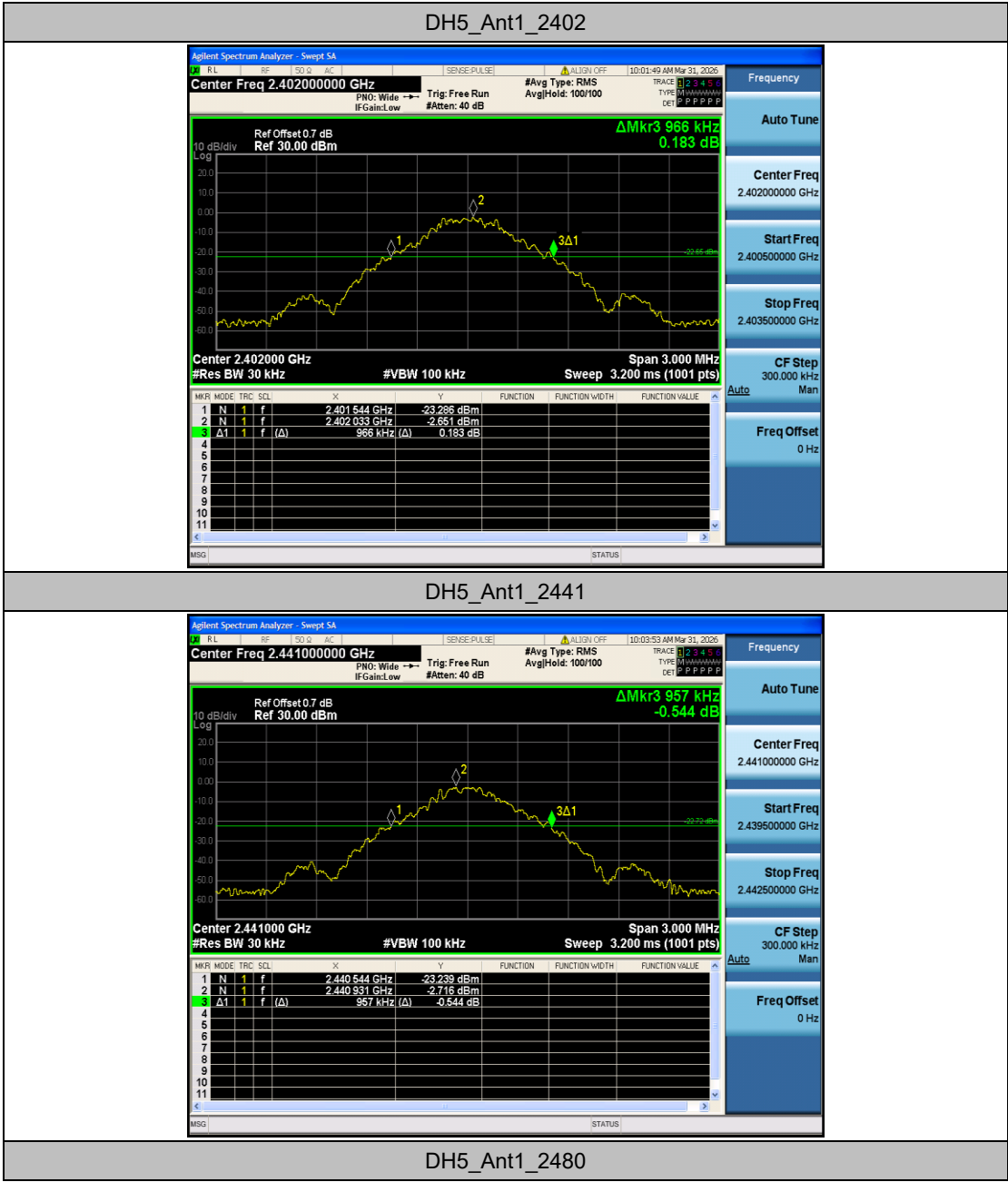
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.966	2401.544	2402.510	---	---
		2441	0.957	2440.544	2441.501	---	---
		2480	0.954	2479.541	2480.495	---	---
2DH5	Ant1	2402	1.320	2401.352	2402.672	---	---
		2441	1.323	2440.346	2441.669	---	---
		2480	1.281	2479.382	2480.663	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

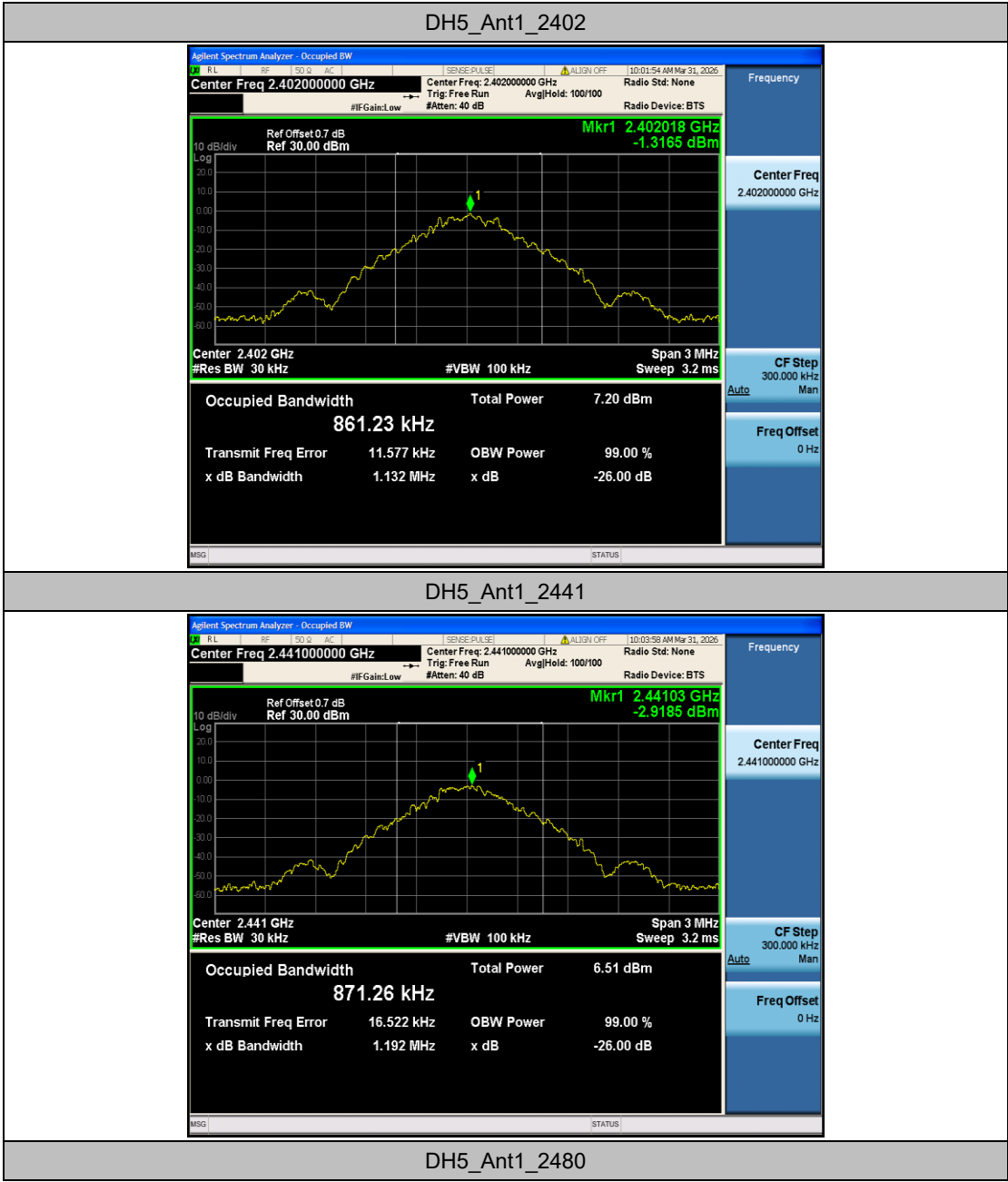


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86123	2401.5810	2402.4422	---	---
		2441	0.87126	2440.5809	2441.4522	---	---
		2480	0.86937	2479.5775	2480.4469	---	---
2DH5	Ant1	2402	1.1922	2401.4176	2402.6098	---	---
		2441	1.1934	2440.4146	2441.6080	---	---
		2480	1.1910	2479.4162	2480.6072	---	---

Test Graphs





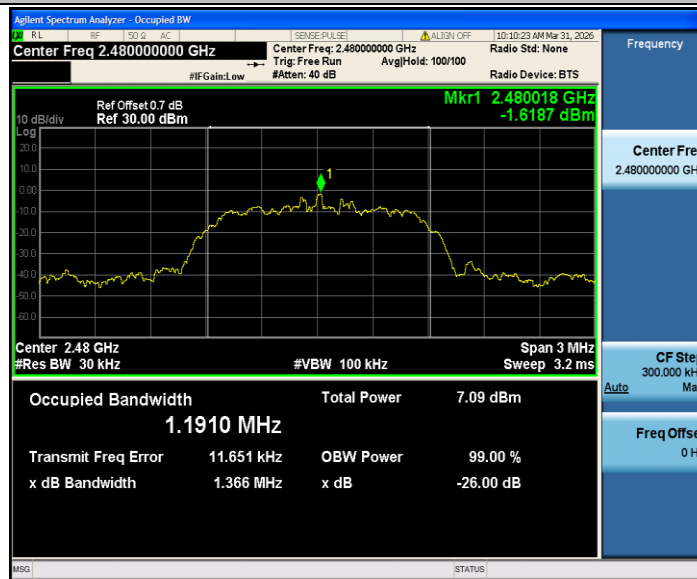
2DH5_Ant1_2402



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	0.46	≤20.97	PASS
		2441	0.14	≤20.97	PASS
		2480	0.10	≤20.97	PASS
2DH5	Ant1	2402	3.12	≤20.97	PASS
		2441	2.73	≤20.97	PASS
		2480	2.77	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.994	≥ 0.966	PASS
2DH5	Ant1	Hop	0.944	≥ 0.882	PASS

Test Graphs

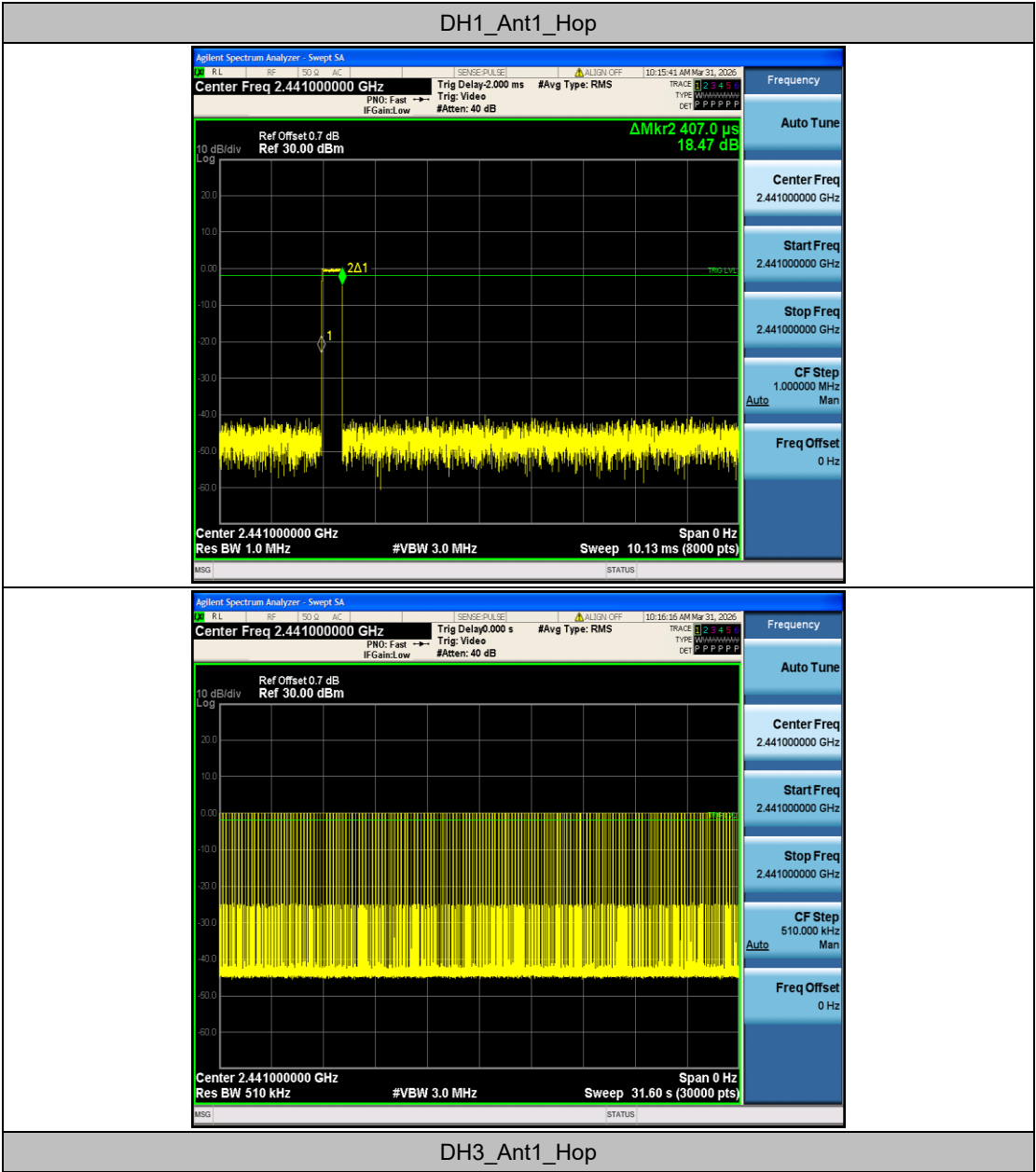


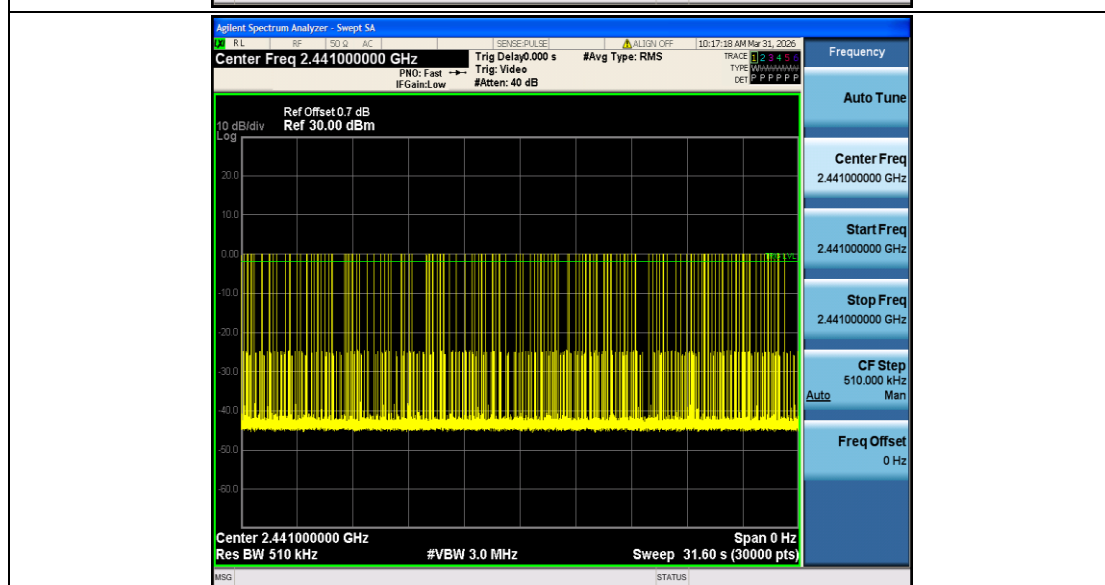
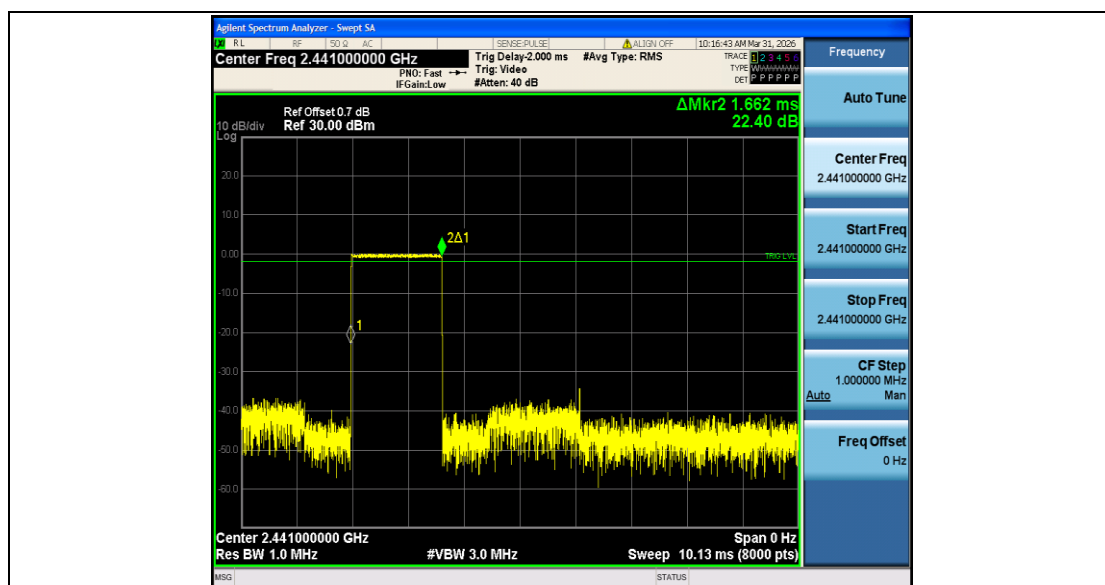
Appendix E: Time of occupancy

Test Result

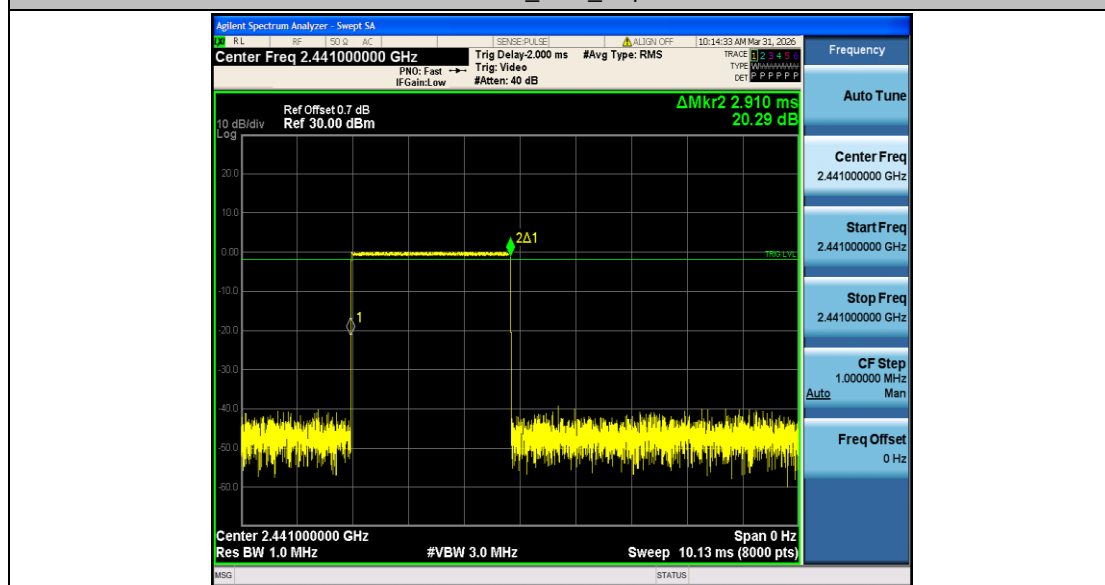
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	320	0.13	≤0.4	PASS
DH3	Ant1	Hop	1.662	159	0.264	≤0.4	PASS
DH5	Ant1	Hop	2.910	111	0.323	≤0.4	PASS
2DH1	Ant1	Hop	0.415	317	0.132	≤0.4	PASS
2DH3	Ant1	Hop	1.668	165	0.275	≤0.4	PASS
2DH5	Ant1	Hop	2.915	113	0.329	≤0.4	PASS

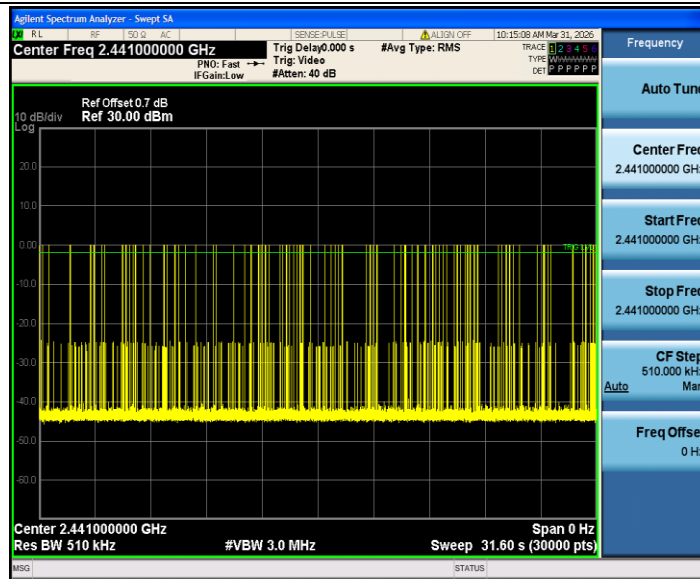
Test Graphs



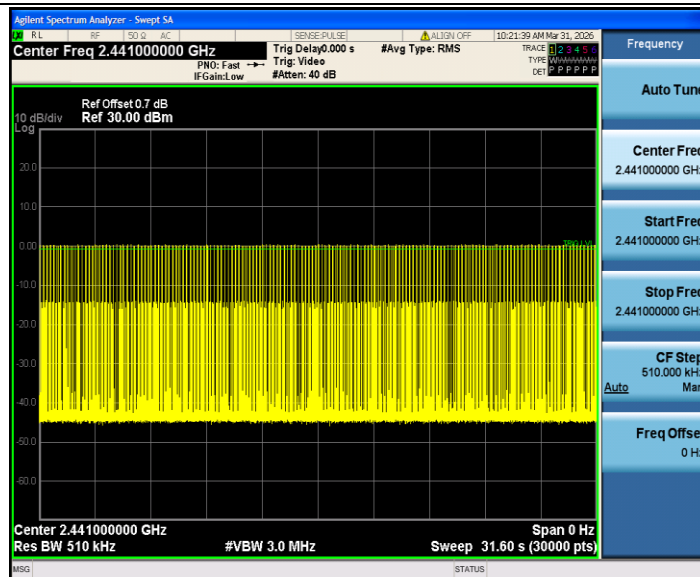
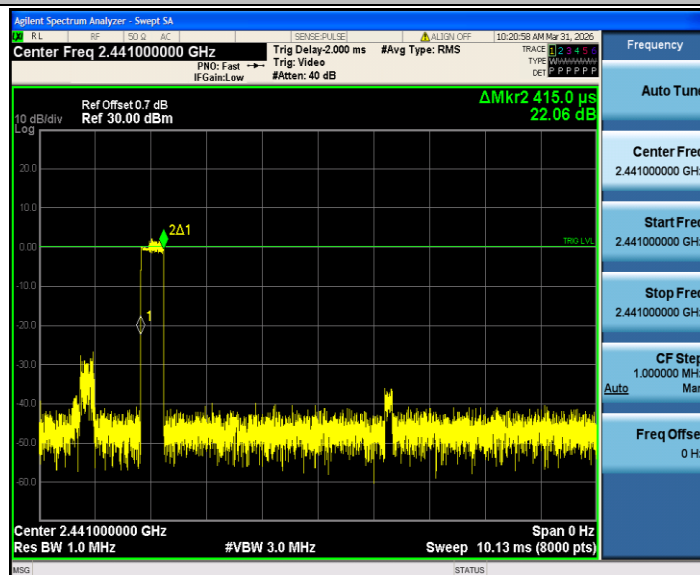


DH5_Ant1_Hop

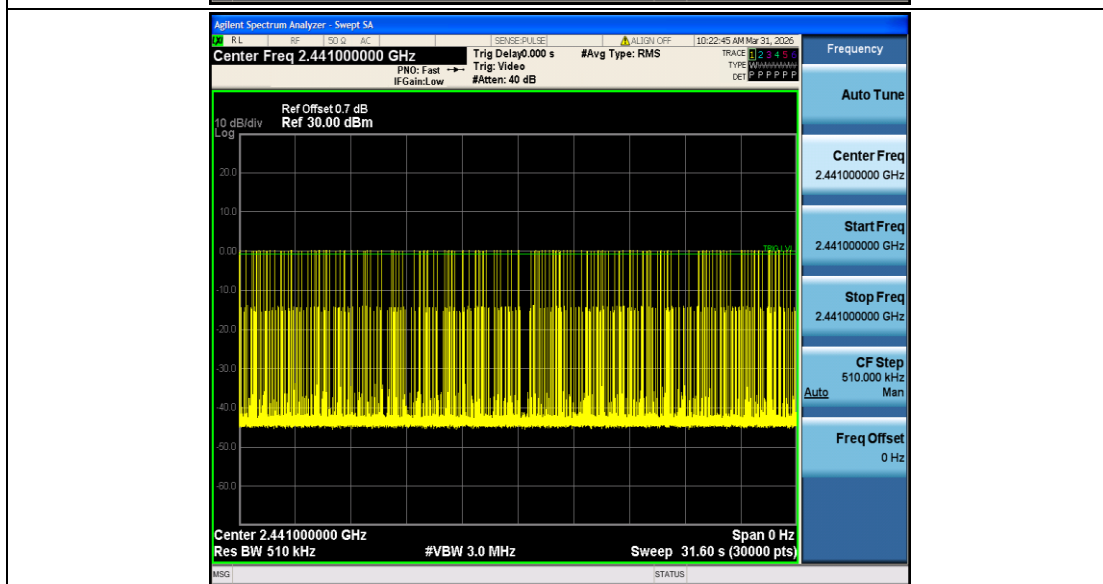
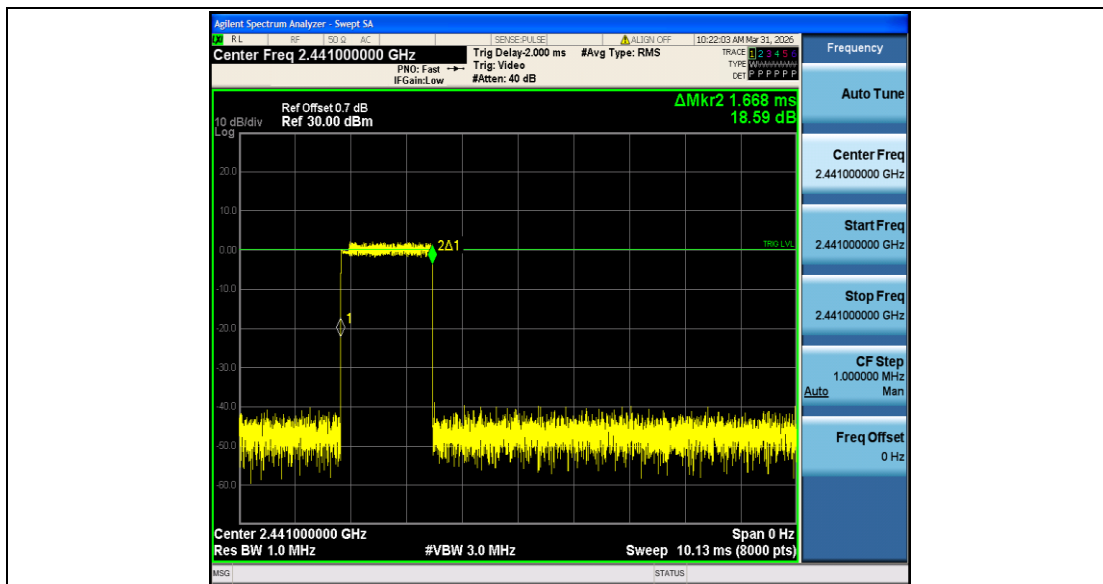




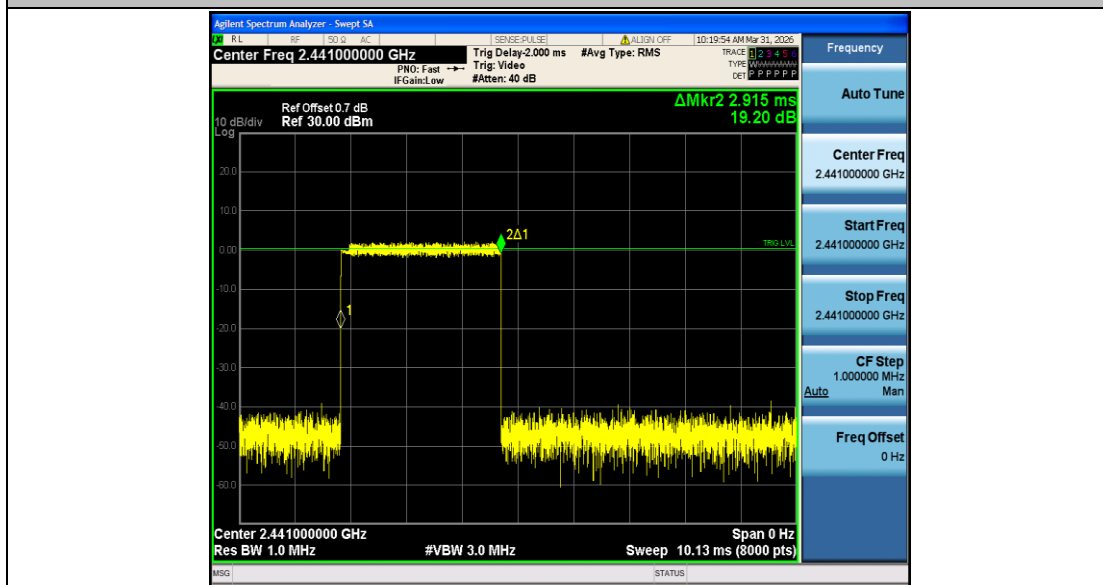
2DH1_Ant1_Hop

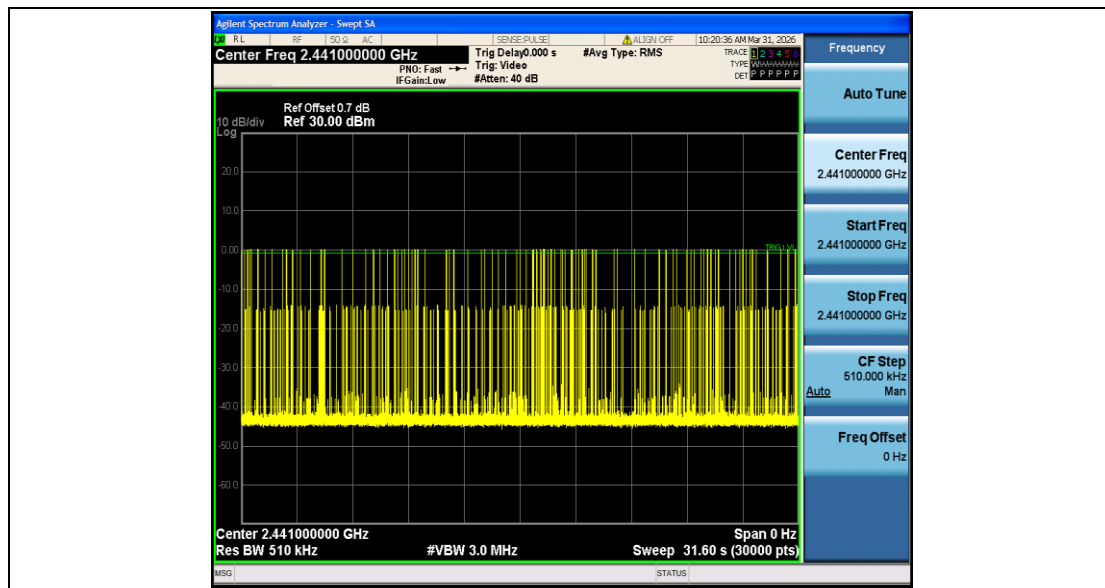


2DH3_Ant1_Hop



2DH5_Ant1_Hop



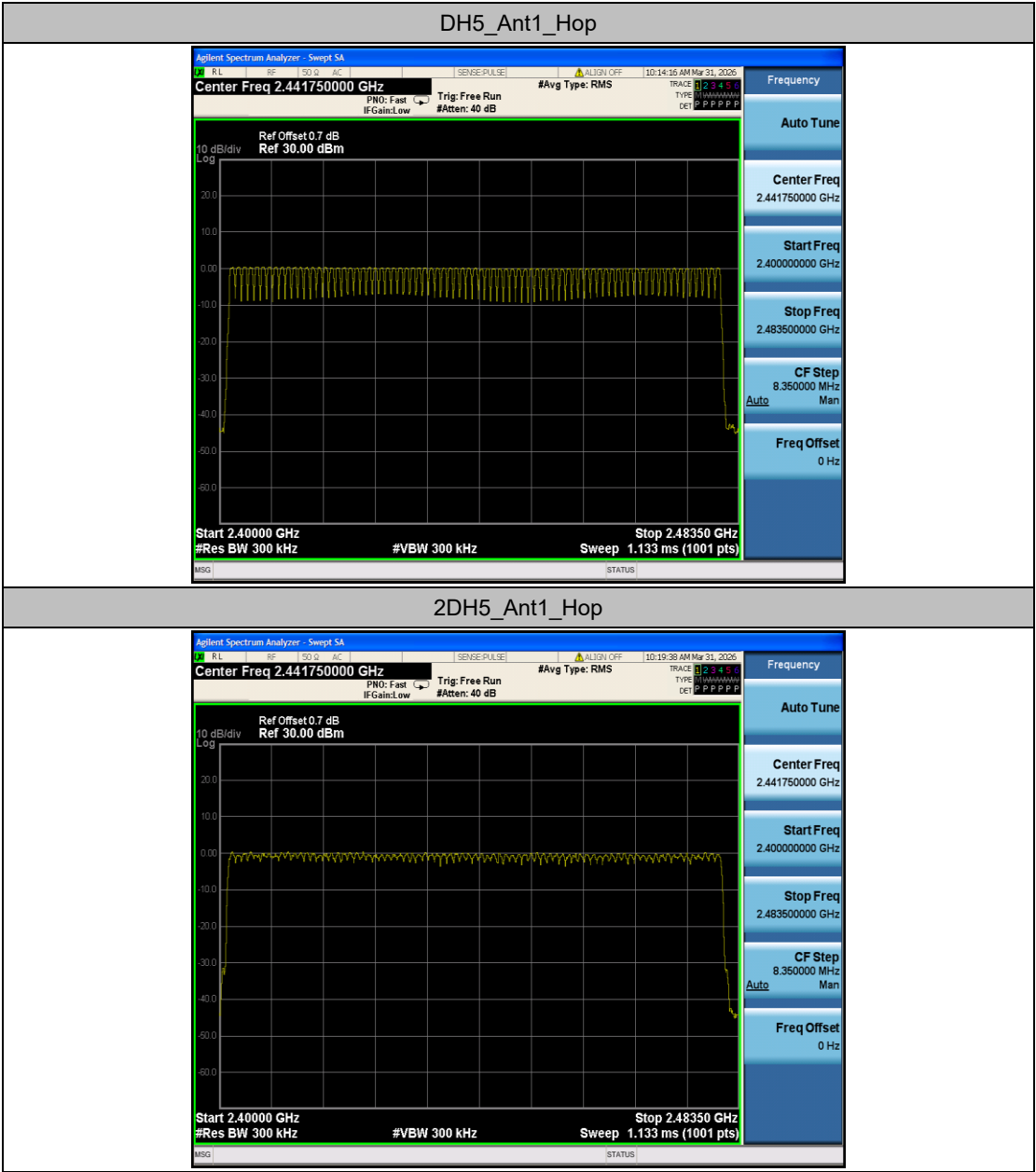


Appendix F: Number of hopping channels

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

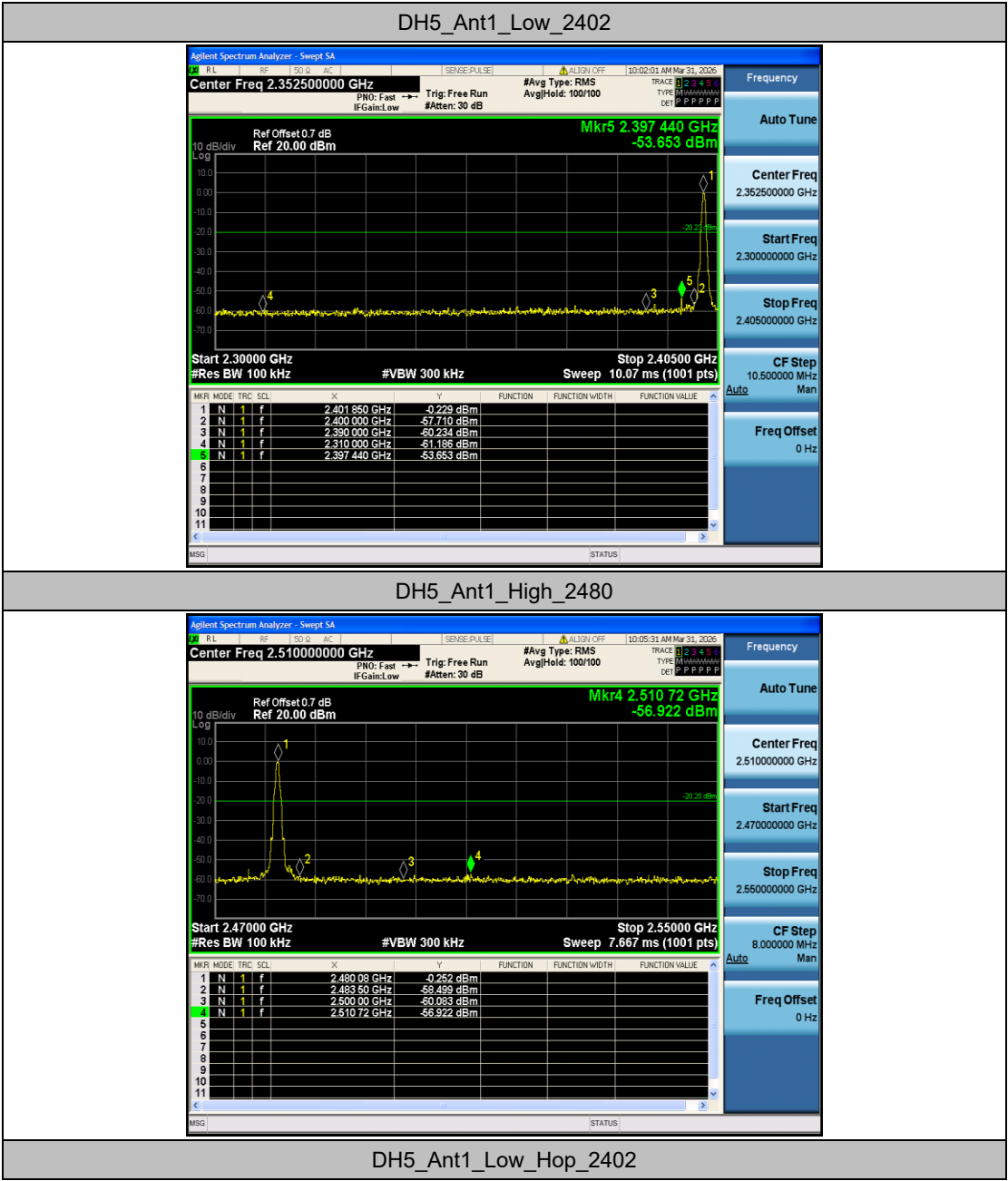


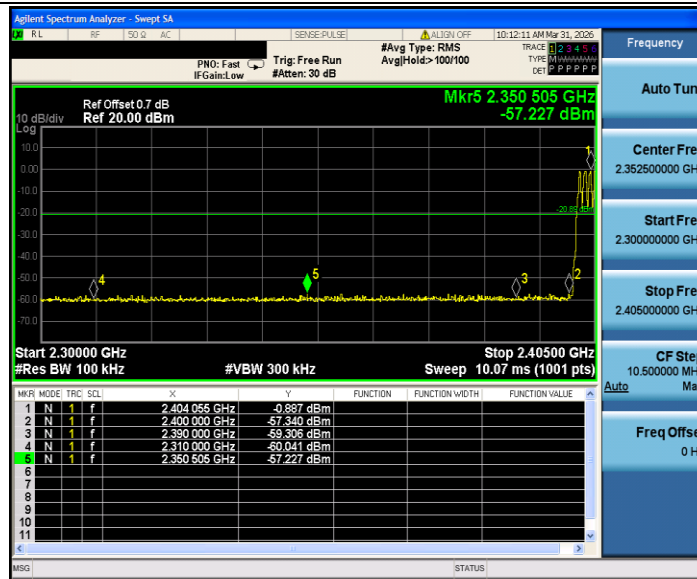
Appendix G: Band edge measurements

Test Result

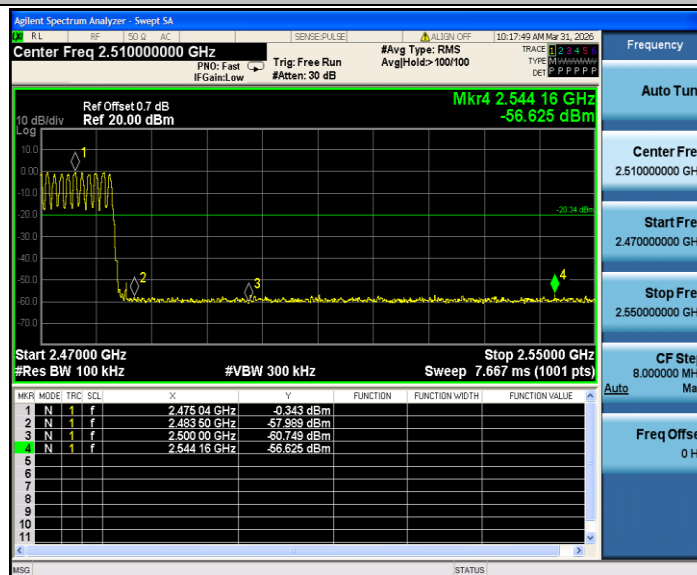
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.23	-53.65	≤-20.23	PASS
		High	2480	-0.25	-56.92	≤-20.25	PASS
		Low	Hop_2402	-0.89	-57.23	≤-20.89	PASS
		High	Hop_2480	-0.34	-56.63	≤-20.34	PASS
2DH5	Ant1	Low	2402	-0.60	-50.36	≤-20.6	PASS
		High	2480	-0.69	-56.74	≤-20.69	PASS
		Low	Hop_2402	-1.11	-51.9	≤-21.11	PASS
		High	Hop_2480	0.07	-56.84	≤-19.93	PASS

Test Graphs

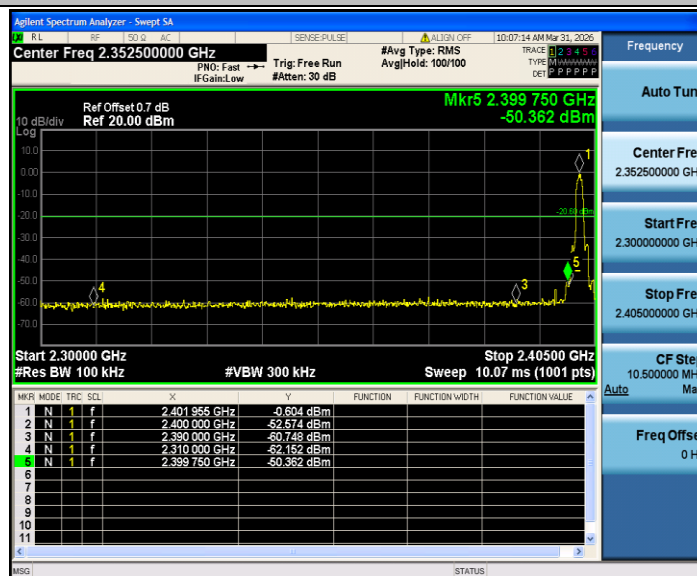




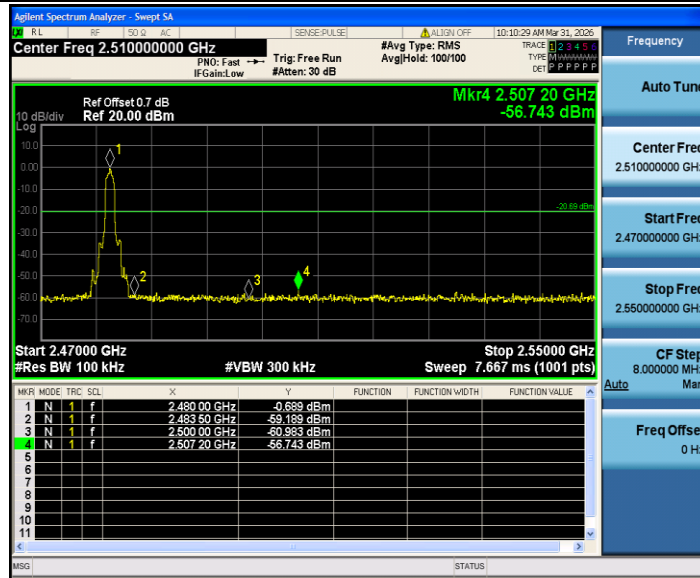
DH5_Ant1_High_Hop_2480



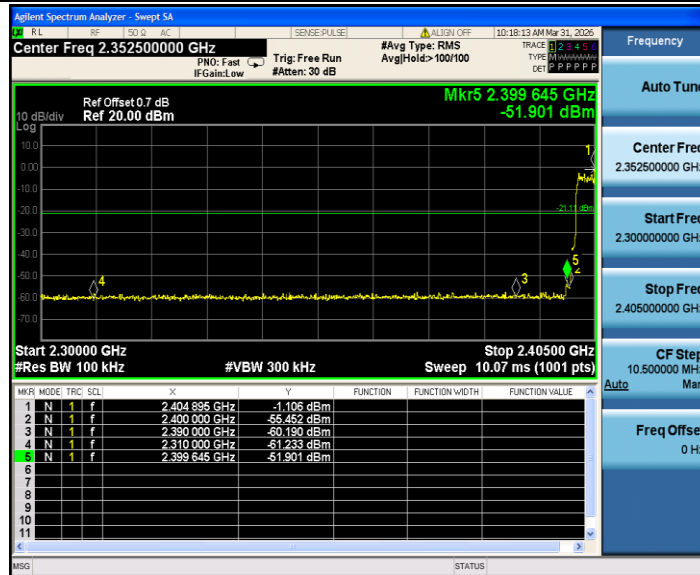
2DH5_Ant1_Low_2402



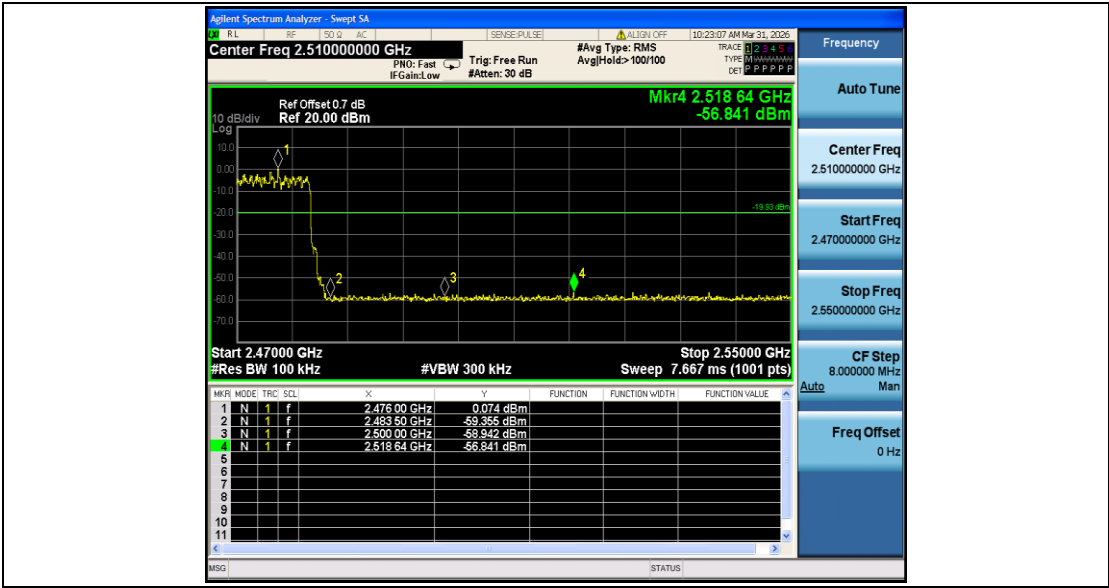
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

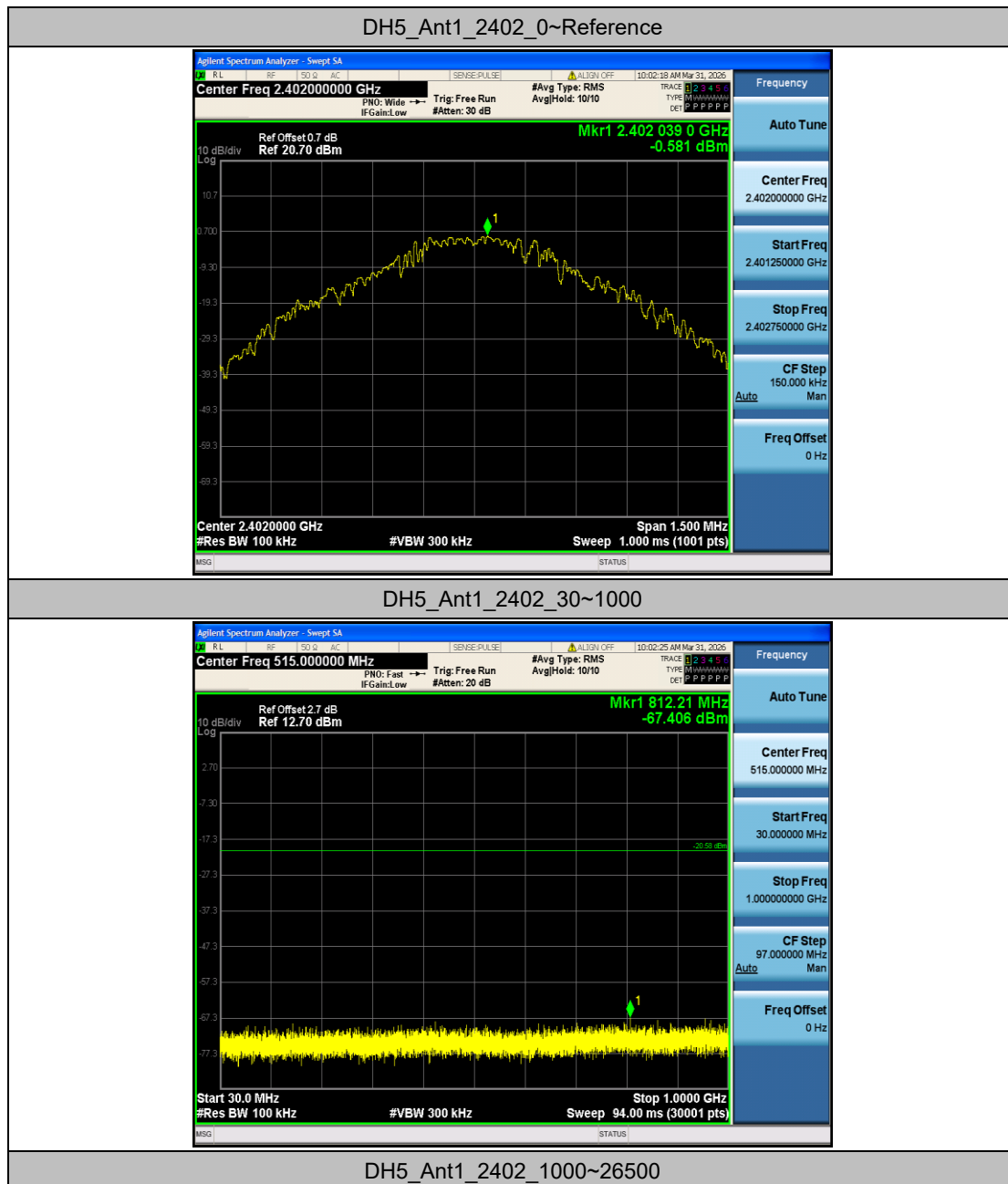


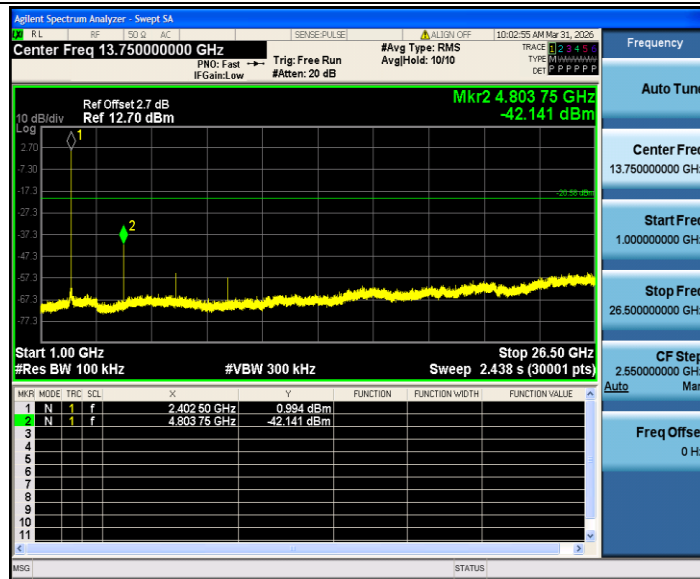
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.58	-0.58	---	PASS
			30~1000	-0.58	-67.41	≤-20.58	PASS
			1000~26500	-0.58	-42.14	≤-20.58	PASS
		2441	Reference	-0.85	-0.85	---	PASS
			30~1000	-0.85	-68.02	≤-20.85	PASS
			1000~26500	-0.85	-43.28	≤-20.85	PASS
		2480	Reference	-0.87	-0.87	---	PASS
			30~1000	-0.87	-68.28	≤-20.87	PASS
			1000~26500	-0.87	-43.62	≤-20.87	PASS
2DH5	Ant1	2402	Reference	-1.77	-1.77	---	PASS
			30~1000	-1.77	-67.37	≤-21.77	PASS
			1000~26500	-1.77	-44.12	≤-21.77	PASS
		2441	Reference	-2.25	-2.25	---	PASS
			30~1000	-2.25	-68.14	≤-22.25	PASS
			1000~26500	-2.25	-45.76	≤-22.25	PASS
		2480	Reference	-1.80	-1.80	---	PASS
			30~1000	-1.80	-67.62	≤-21.8	PASS
			1000~26500	-1.80	-46.35	≤-21.8	PASS

Test Graphs

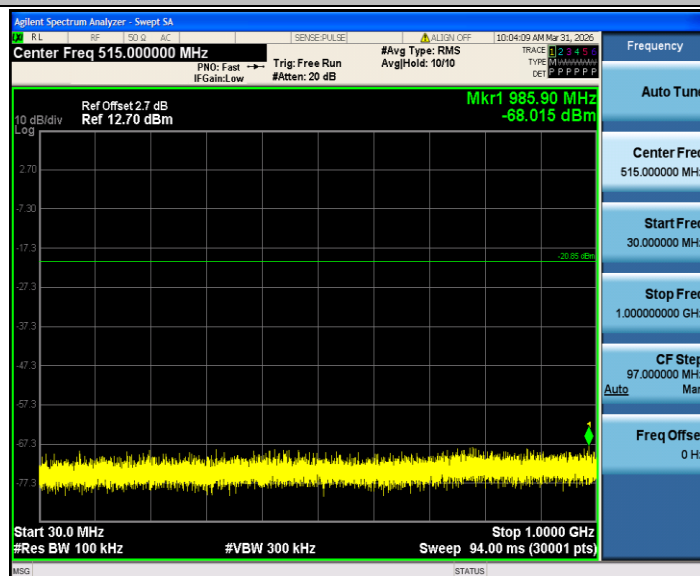




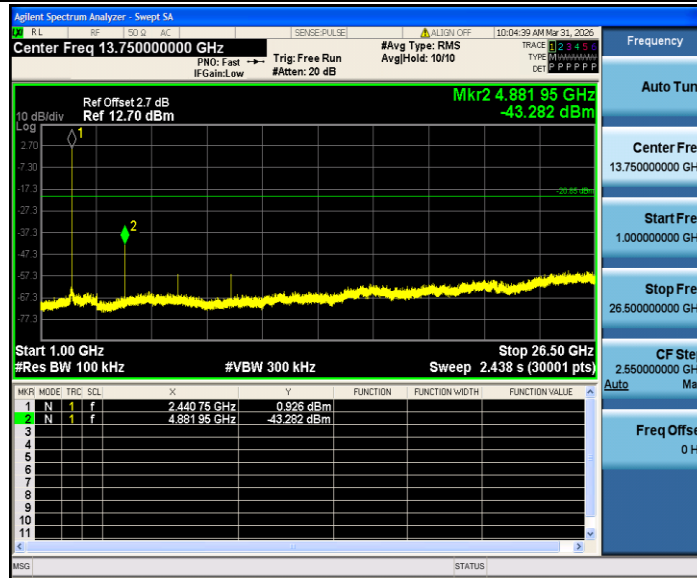
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



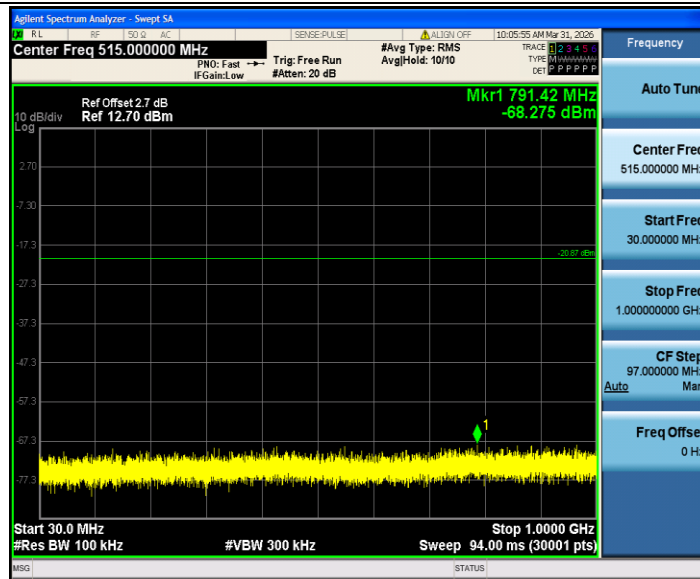
DH5_Ant1_2441_1000~26500



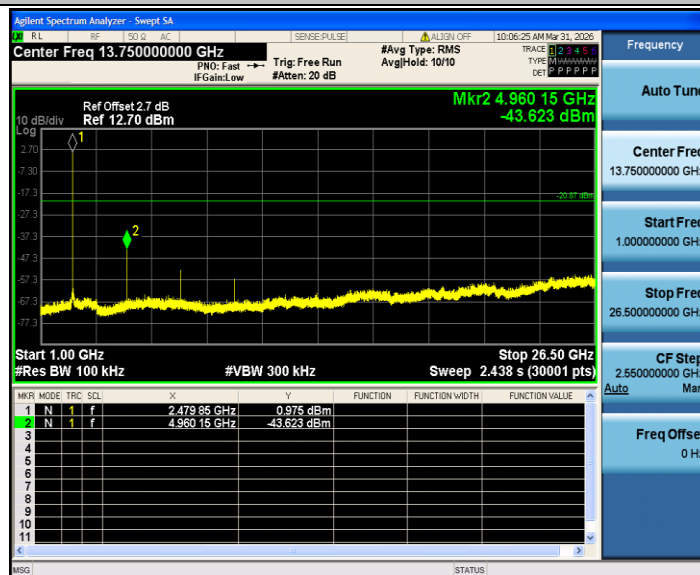
DH5_Ant1_2480_0~Reference



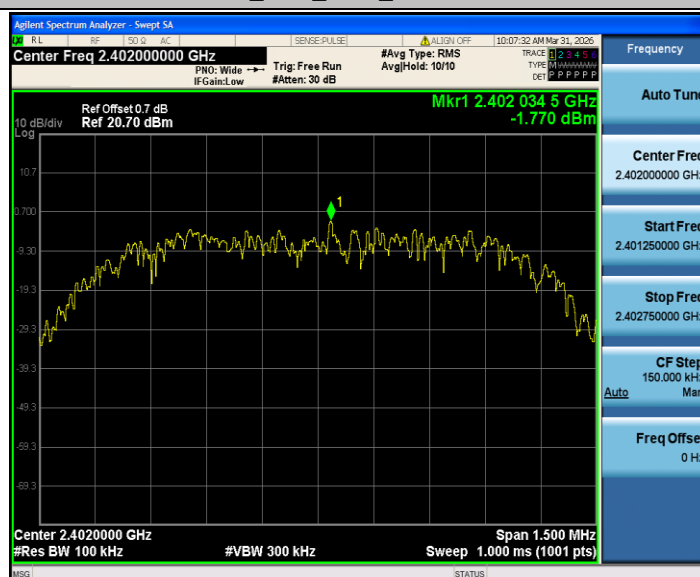
DH5_Ant1_2480_30~1000



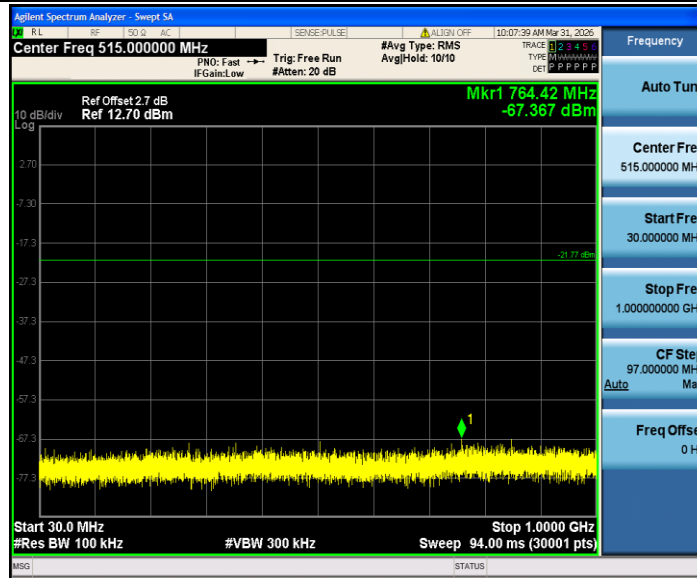
DH5_Ant1_2480_1000~26500



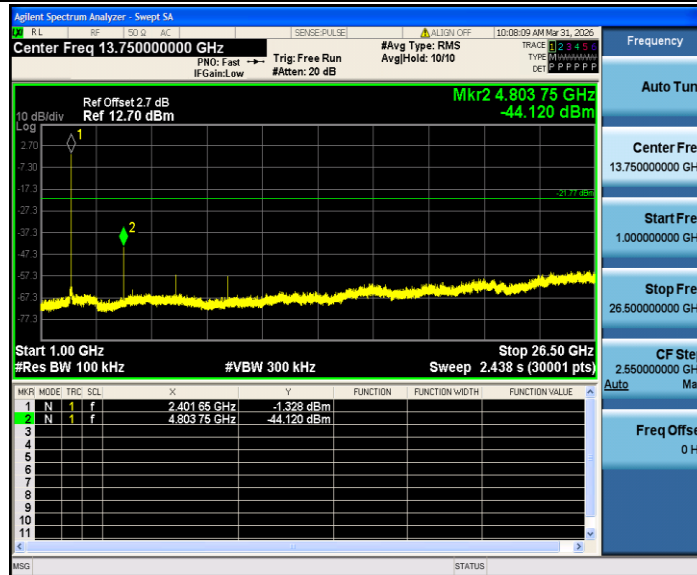
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



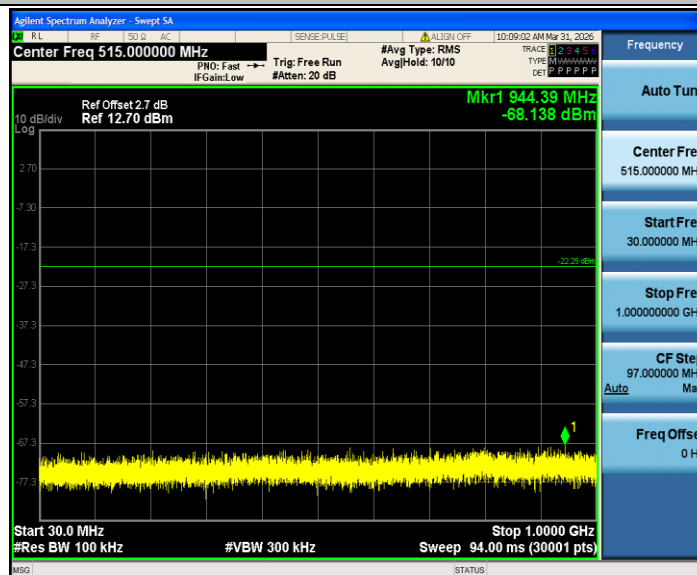
2DH5_Ant1_2402_1000~26500



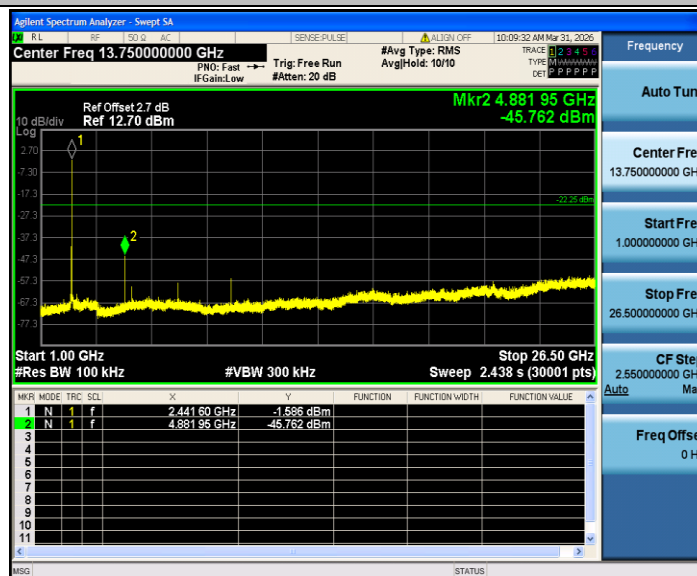
2DH5_Ant1_2441_0~Reference



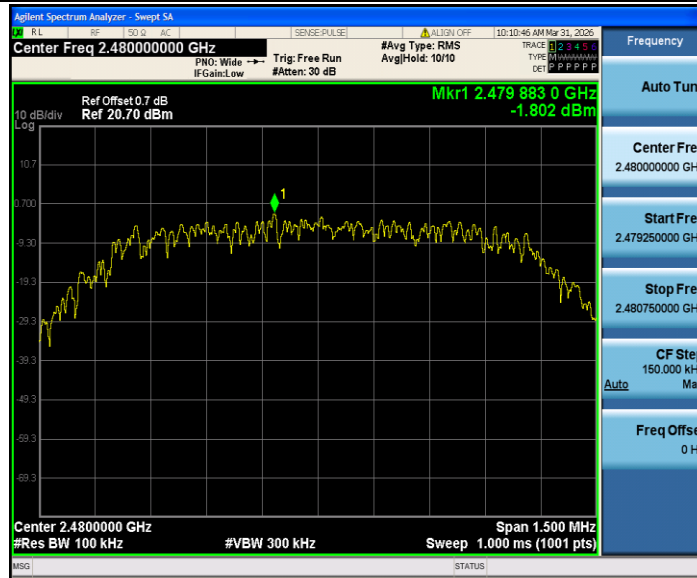
2DH5_Ant1_2441_30~1000



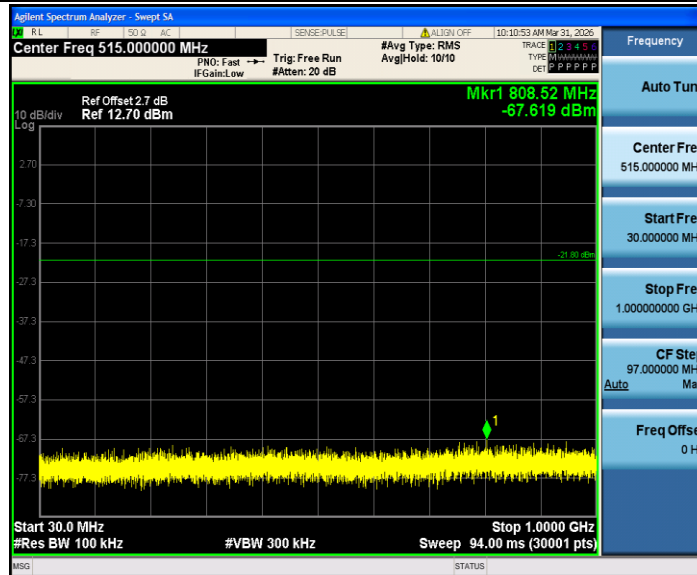
2DH5_Ant1_2441_1000~26500



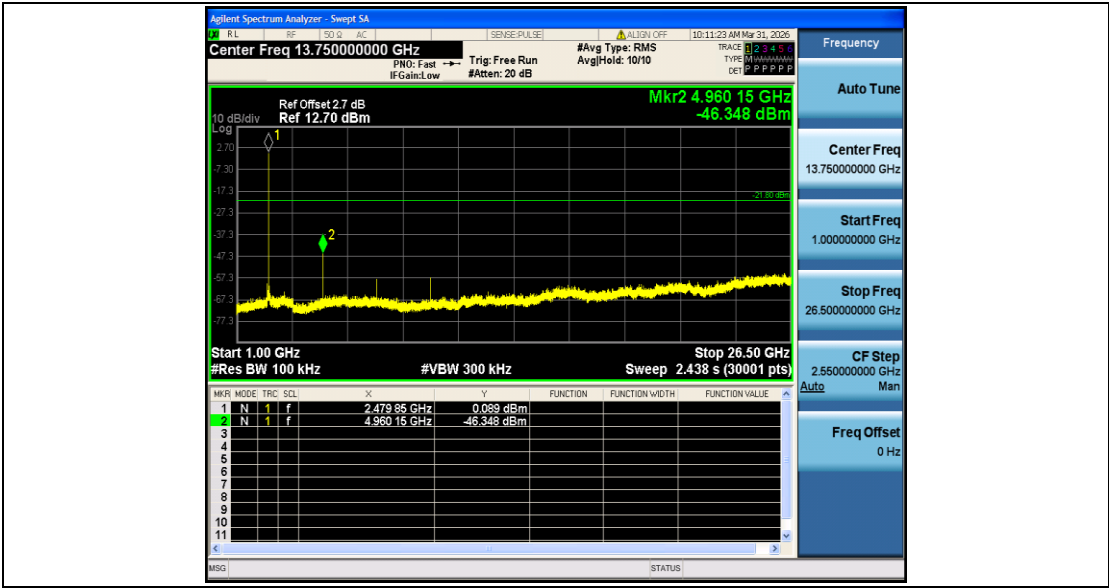
2DH5_Ant1_2480_0~Reference



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	2.91	3.74	77.81	1.09	---	---
		2441	2.91	3.74	77.81	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---