

FCC Appendix RF Test Data for BT

FCC ID : 2BX8L-Z10

Company : Gaba Enterprise LLC

EUT : Bluetooth speaker

Model Number : Z10

Report No. : CTA26090102801

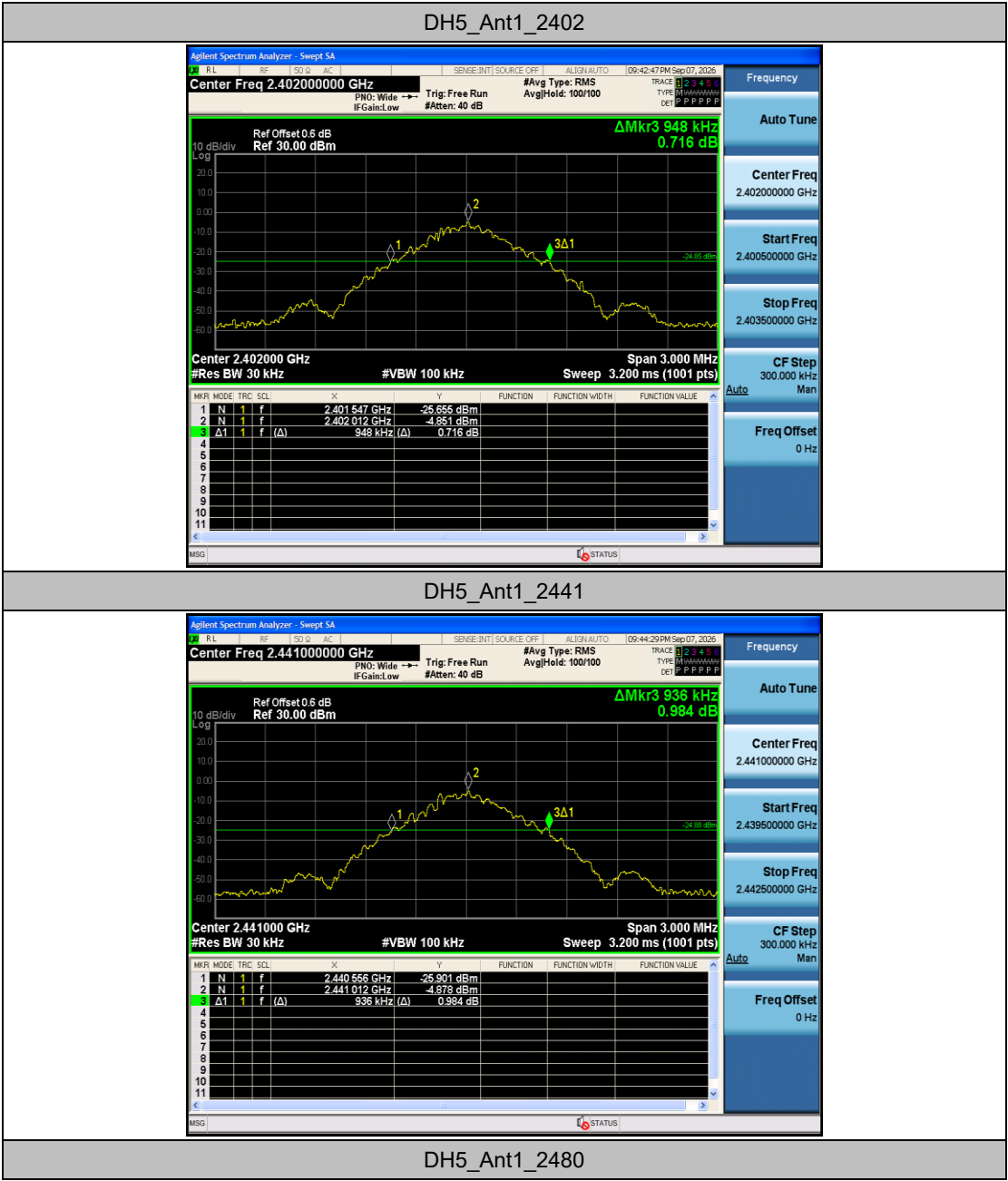
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.948	2401.547	2402.495	---	---
		2441	0.936	2440.556	2441.492	---	---
		2480	0.948	2479.547	2480.495	---	---
2DH5	Ant1	2402	1.290	2401.376	2402.666	---	---
		2441	1.287	2440.376	2441.663	---	---
		2480	1.335	2479.340	2480.675	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

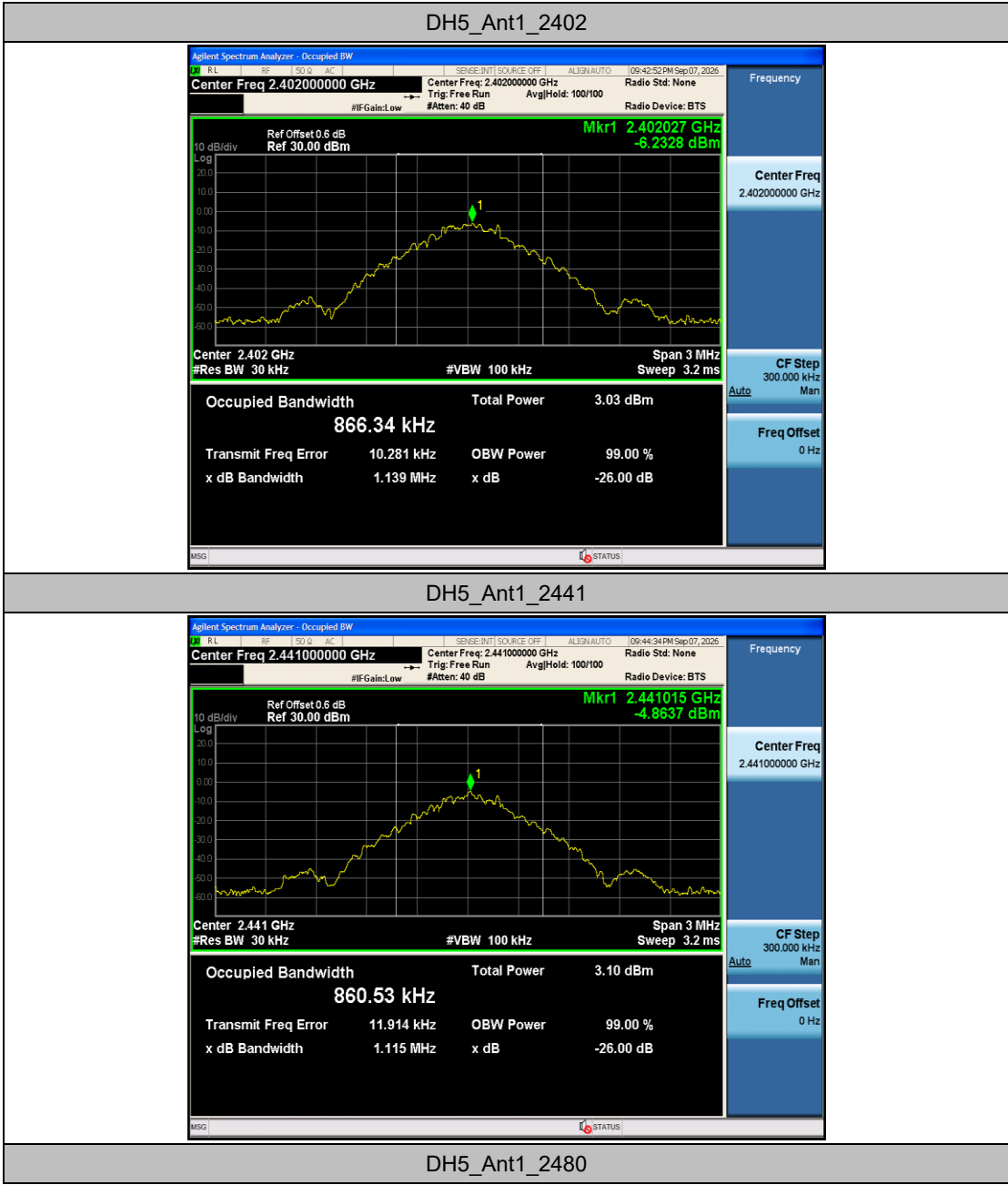


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86634	2401.5771	2402.4435	---	---
		2441	0.86053	2440.5816	2441.4422	---	---
		2480	0.87291	2479.5763	2480.4492	---	---
2DH5	Ant1	2402	1.1958	2401.4125	2402.6083	---	---
		2441	1.1901	2440.4156	2441.6057	---	---
		2480	1.1854	2479.4155	2480.6009	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

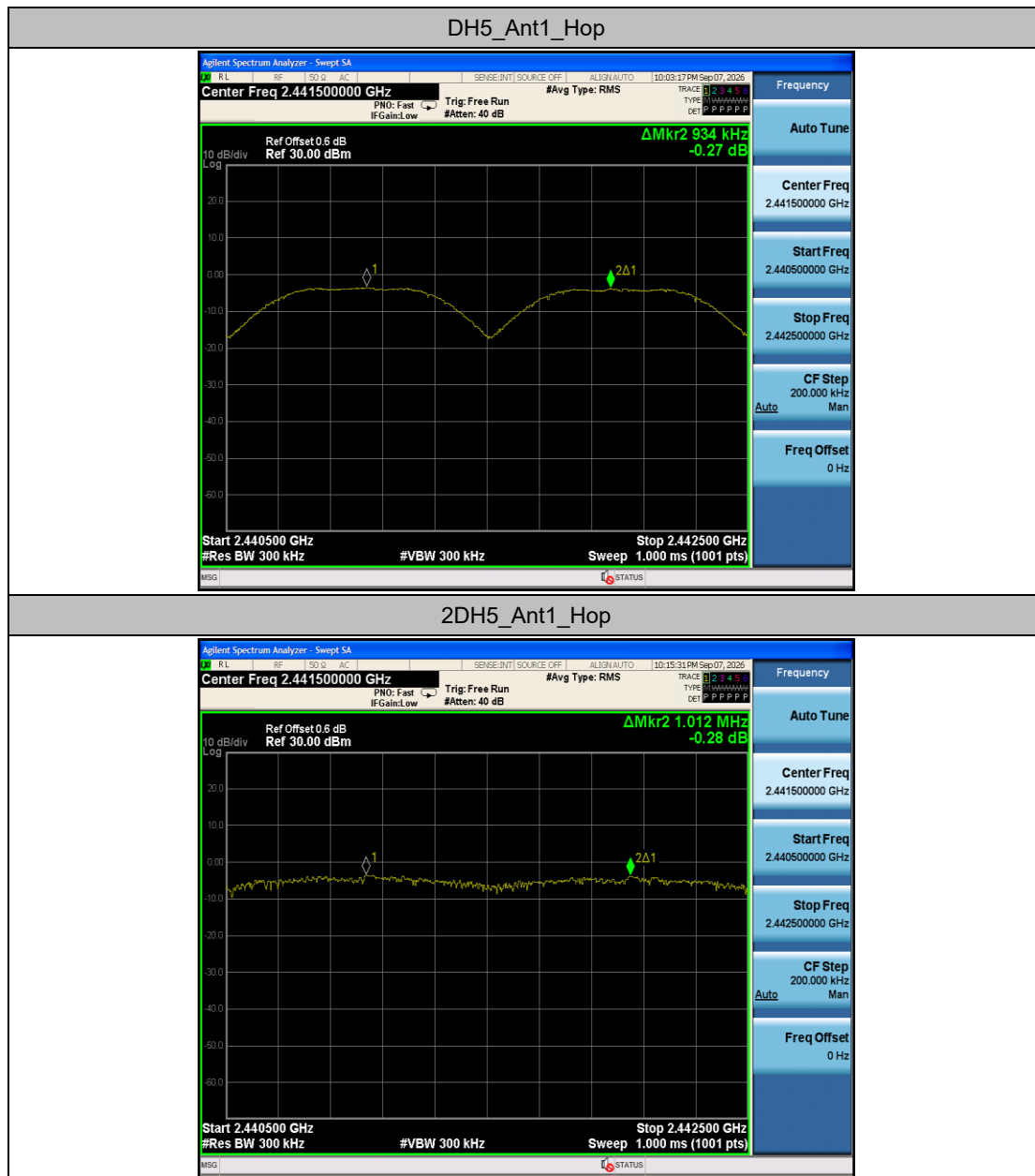
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-3.27	≤20.97	PASS
		2441	-3.34	≤20.97	PASS
		2480	-3.53	≤20.97	PASS
2DH5	Ant1	2402	-0.59	≤20.97	PASS
		2441	-0.74	≤20.97	PASS
		2480	-0.92	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.934	≥ 0.632	PASS
2DH5	Ant1	Hop	1.012	≥ 0.890	PASS

Test Graphs

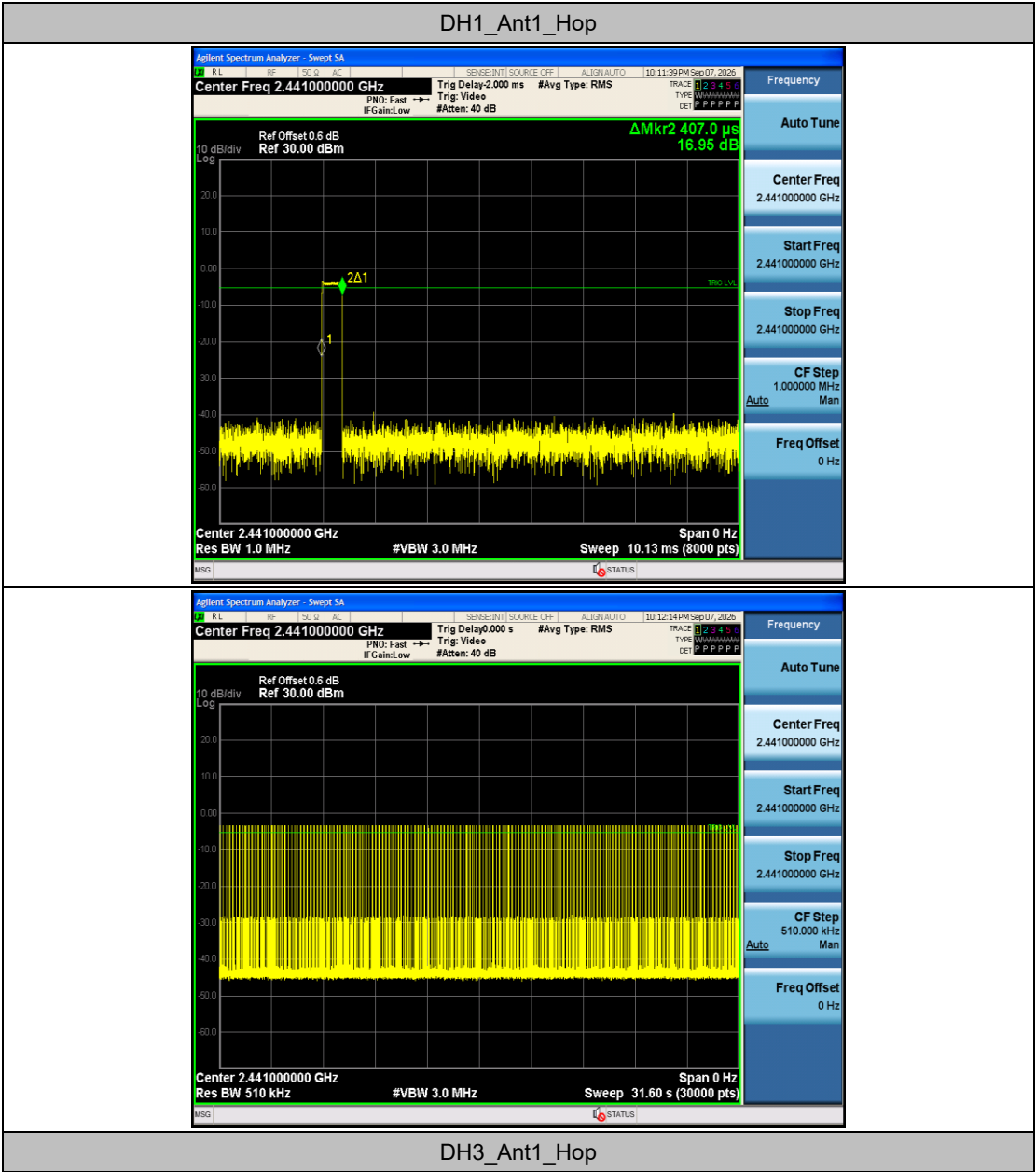


Appendix E: Time of occupancy

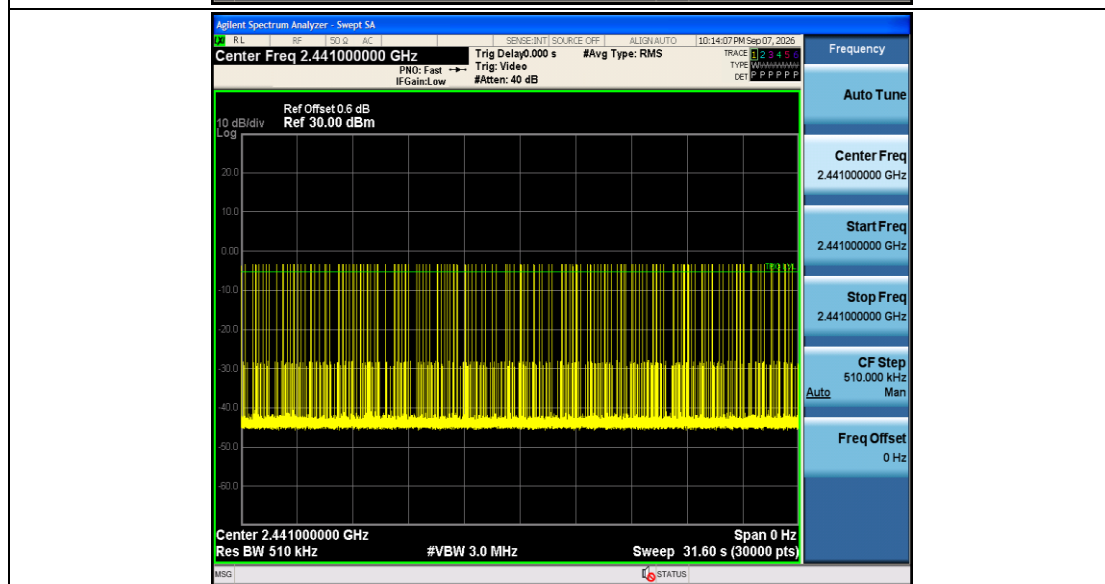
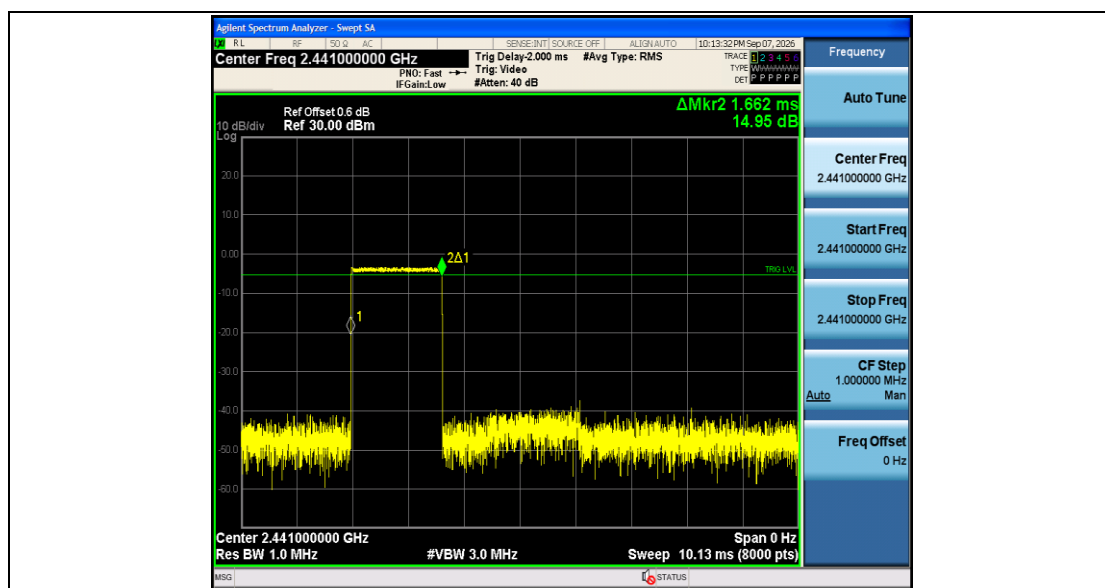
Test Result

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	160	0.266	≤0.4	PASS
DH5	Ant1	Hop	2.910	101	0.294	≤0.4	PASS
2DH1	Ant1	Hop	0.415	319	0.132	≤0.4	PASS
2DH3	Ant1	Hop	1.667	152	0.253	≤0.4	PASS
2DH5	Ant1	Hop	2.915	101	0.294	≤0.4	PASS

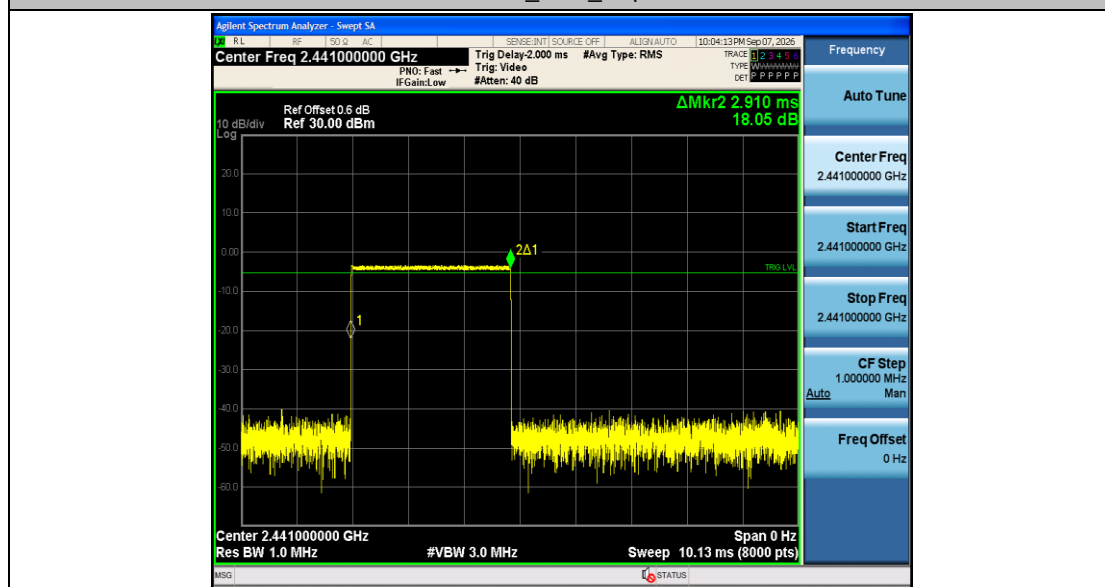
Test Graphs

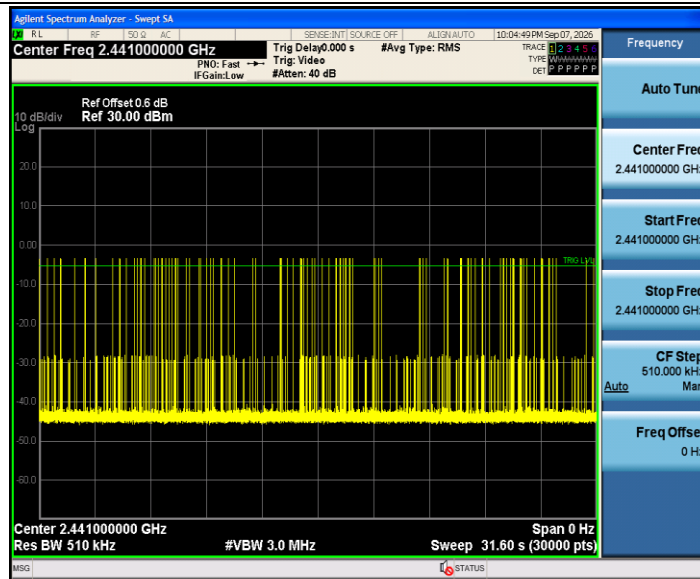


DH3_Ant1_Hop

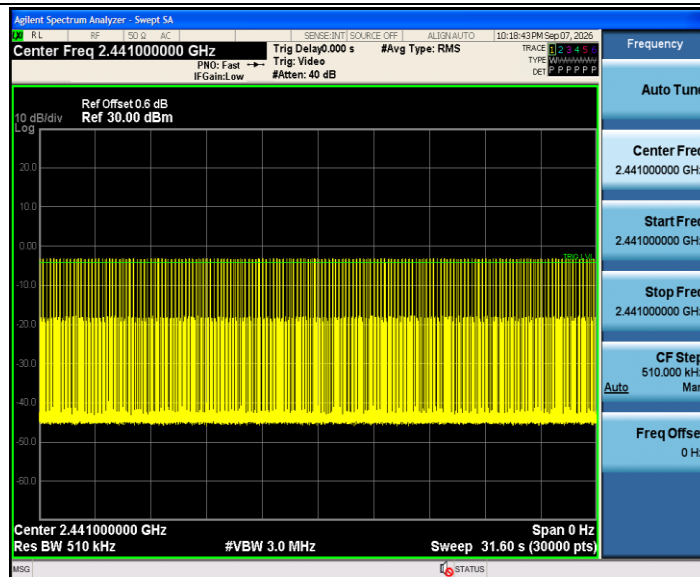
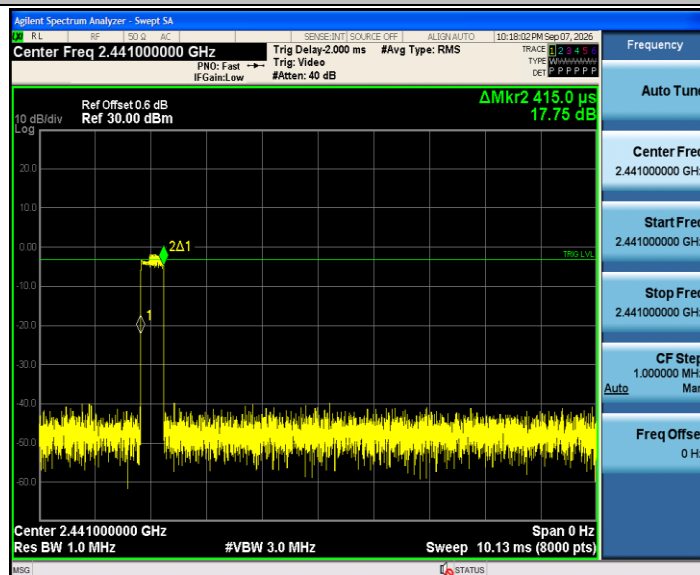


DH5_Ant1_Hop

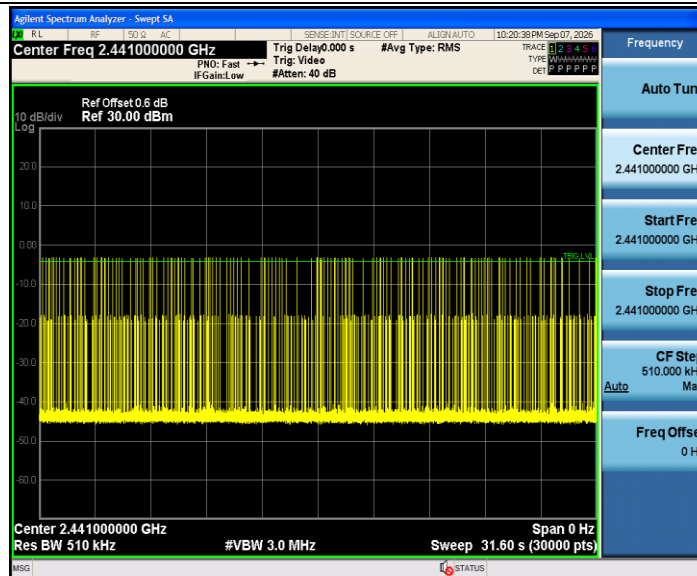
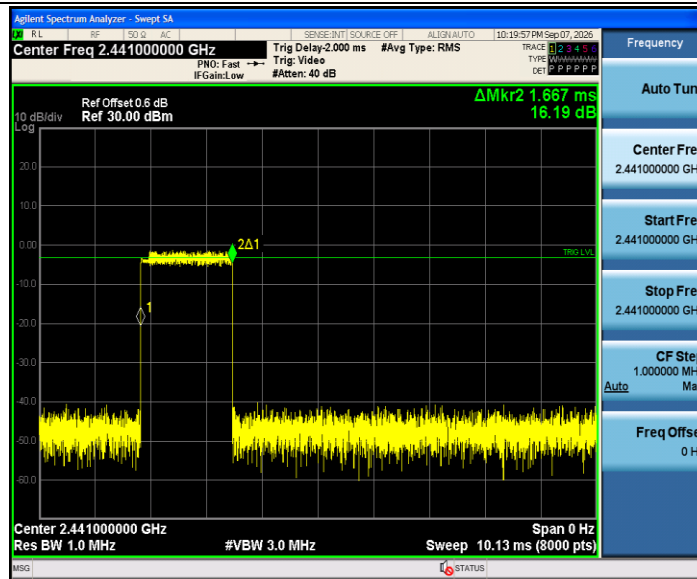




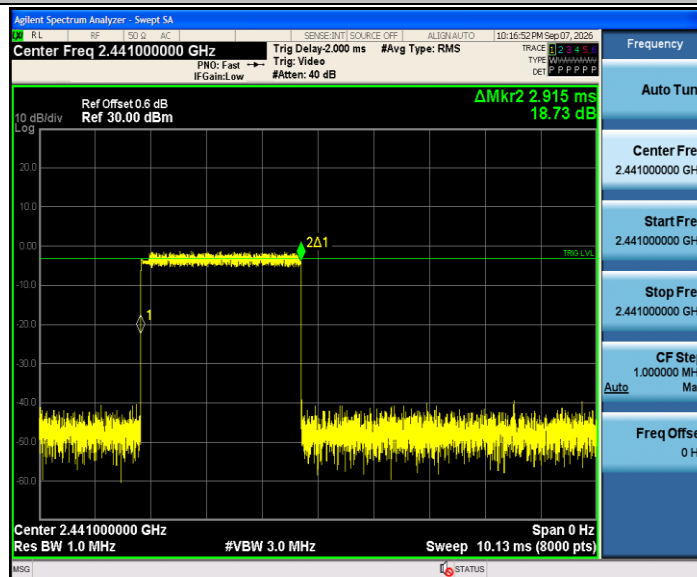
2DH1_Ant1_Hop

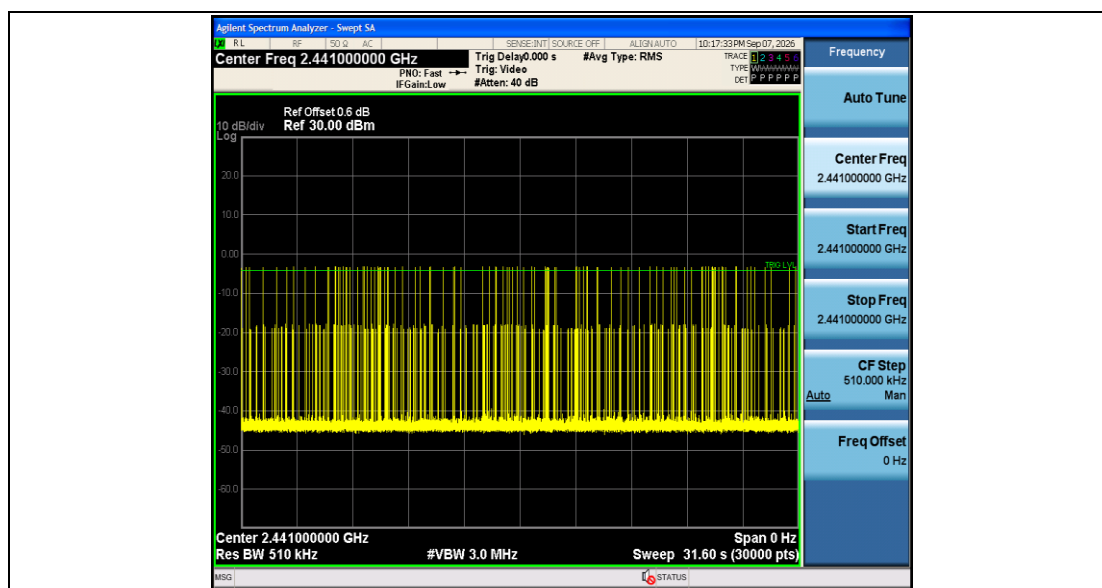


2DH3_Ant1_Hop



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

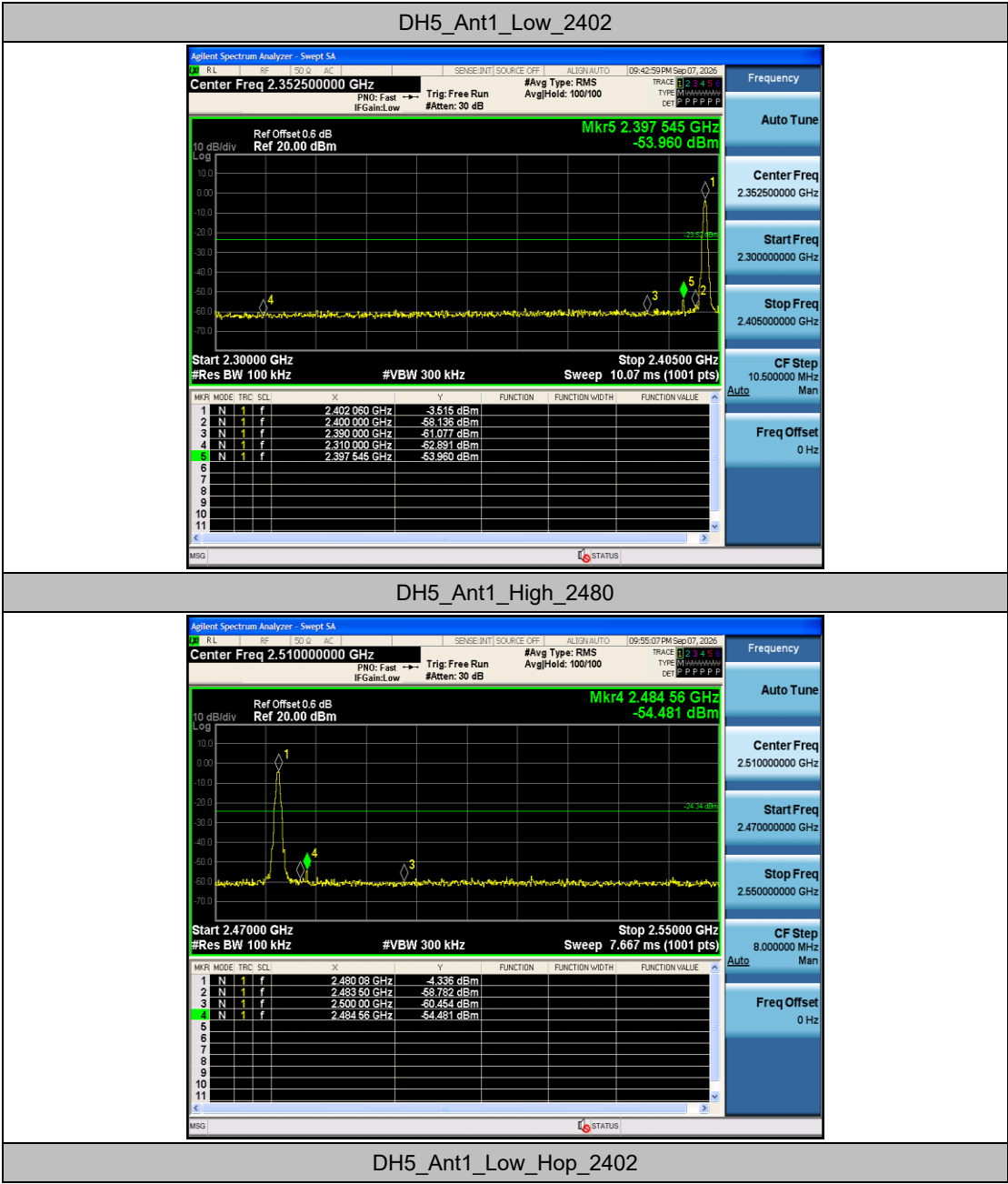


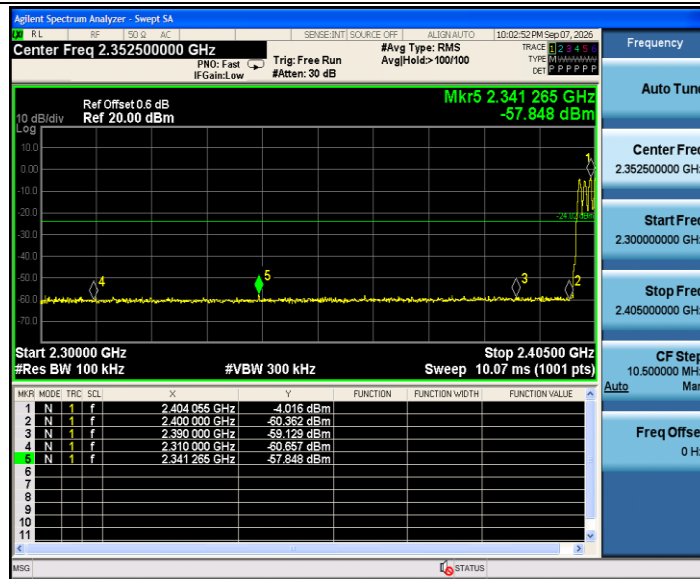
Appendix G: Band edge measurements

Test Result

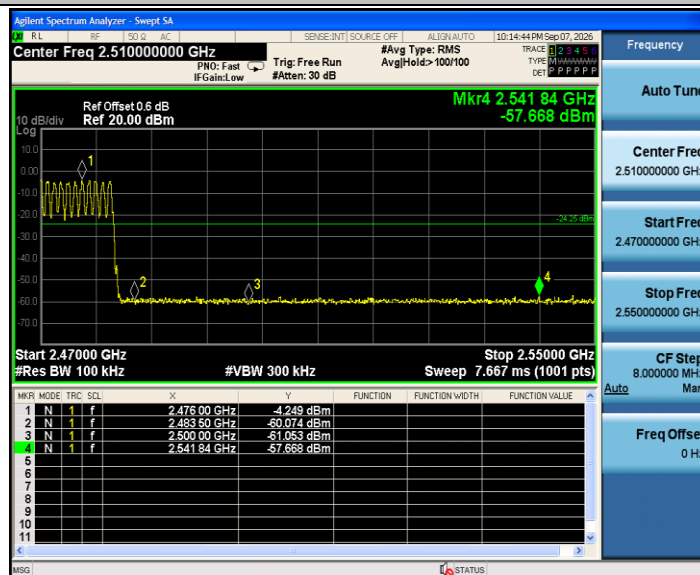
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.52	-53.96	≤-23.52	PASS
		High	2480	-4.34	-54.48	≤-24.34	PASS
		Low	Hop_2402	-4.02	-57.85	≤-24.02	PASS
		High	Hop_2480	-4.25	-57.67	≤-24.25	PASS
2DH5	Ant1	Low	2402	-4.19	-57.04	≤-24.19	PASS
		High	2480	-6.47	-57.27	≤-26.47	PASS
		Low	Hop_2402	-6.96	-57.36	≤-26.96	PASS
		High	Hop_2480	-4.31	-47.16	≤-24.31	PASS

Test Graphs

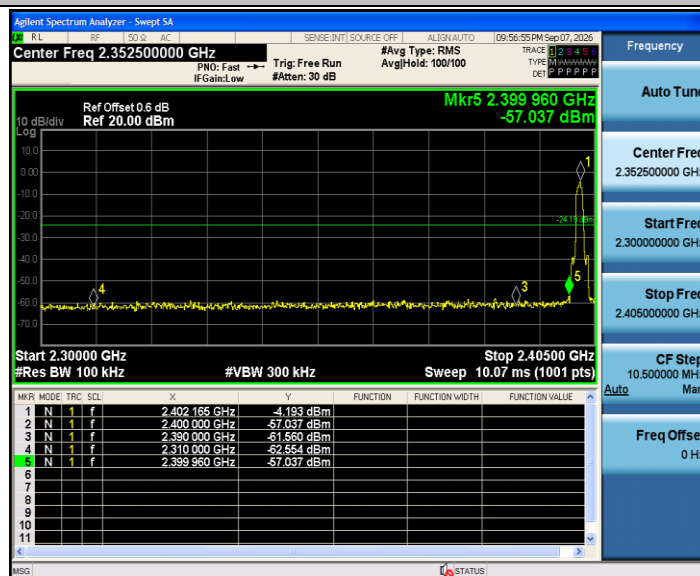




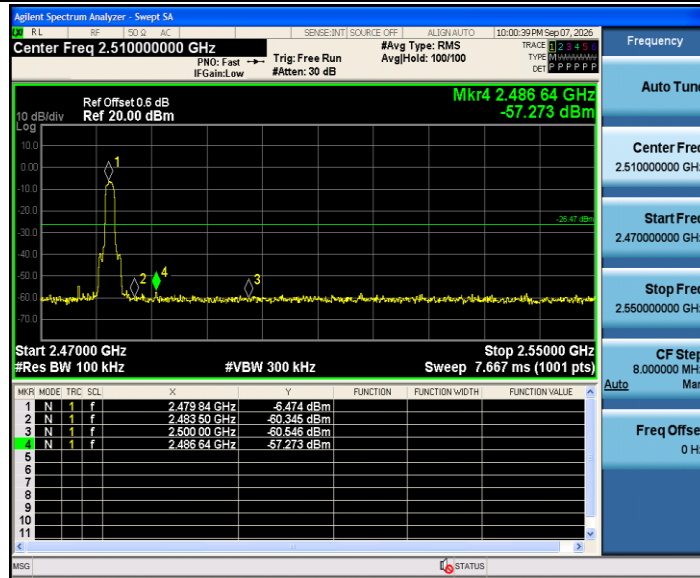
DH5_Ant1_High_Hop_2480



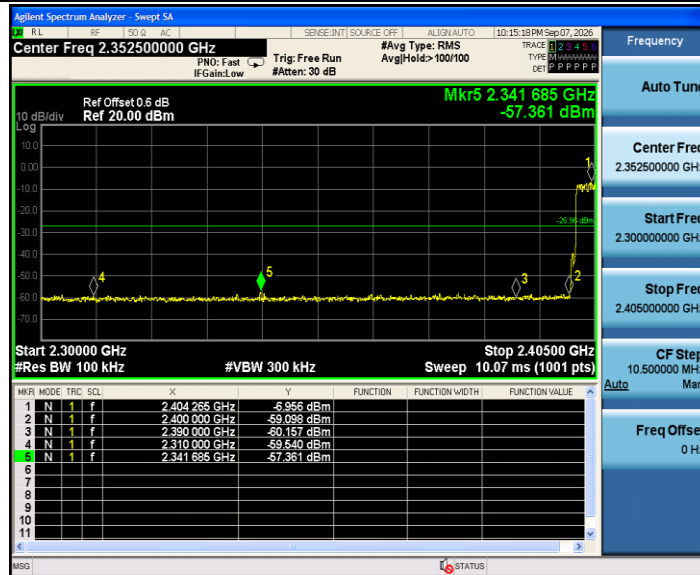
2DH5_Ant1_Low_2402



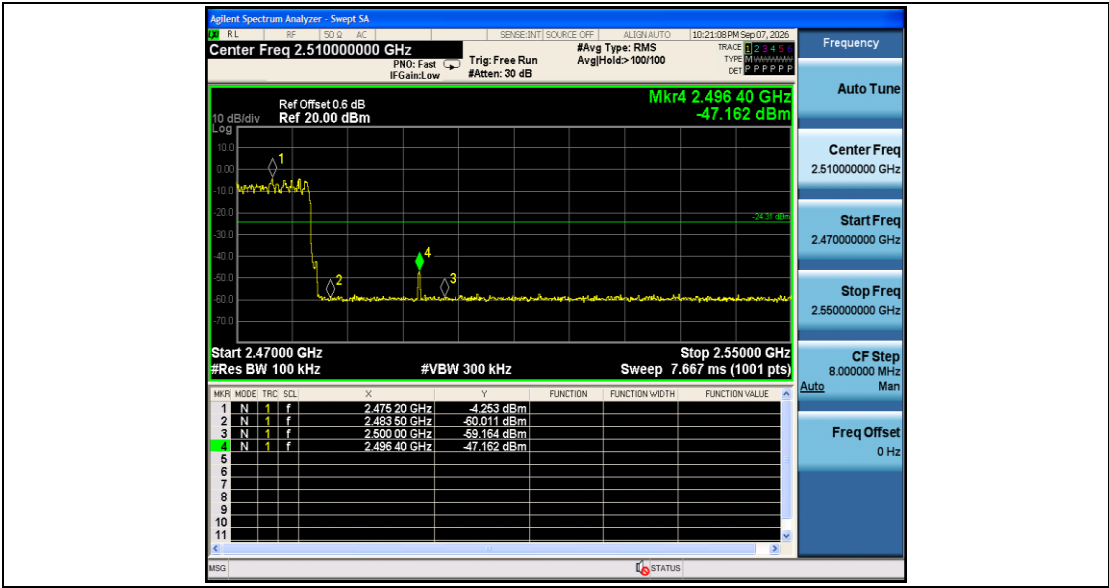
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

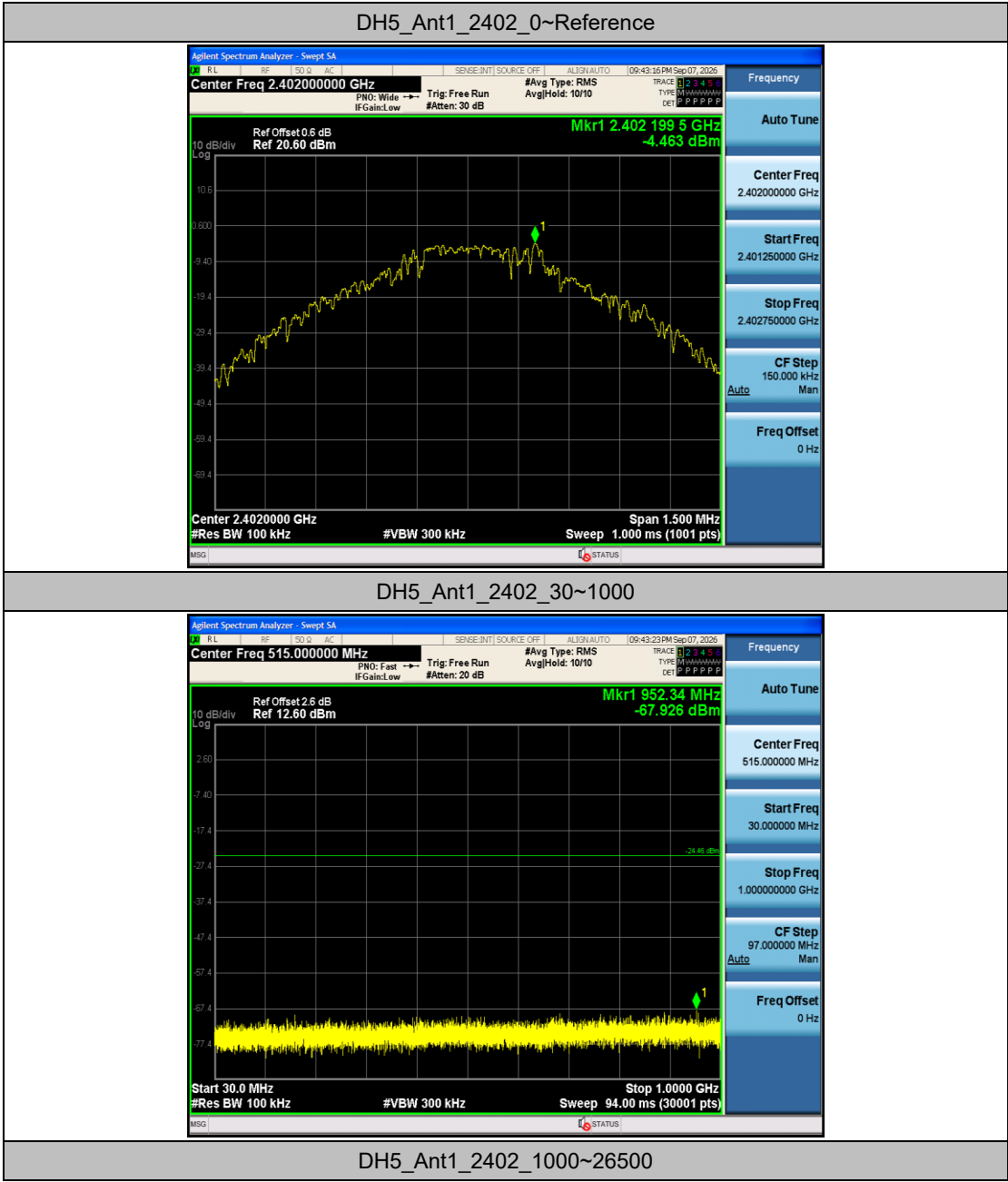


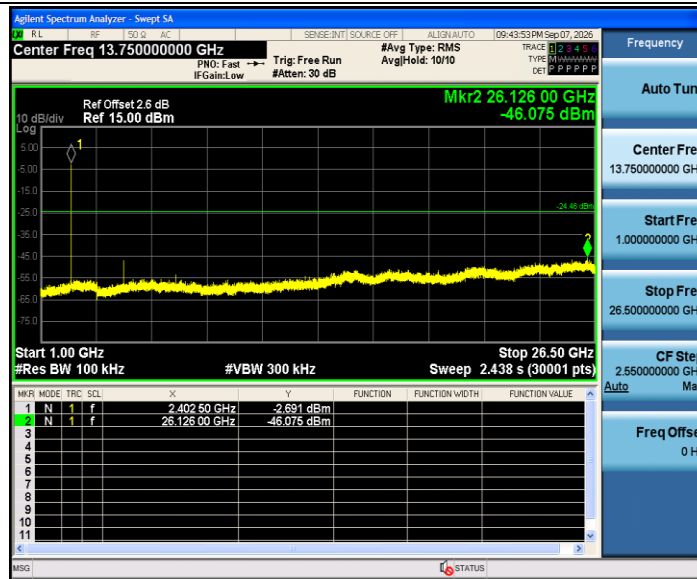
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-4.46	-4.46	---	PASS
			30~1000	-4.46	-67.93	≤-24.46	PASS
			1000~26500	-4.46	-46.08	≤-24.46	PASS
		2441	Reference	-4.58	-4.58	---	PASS
			30~1000	-4.58	-65.99	≤-24.58	PASS
			1000~26500	-4.58	-45.79	≤-24.58	PASS
		2480	Reference	-4.83	-4.83	---	PASS
			30~1000	-4.83	-46.7	≤-24.83	PASS
			1000~26500	-4.83	-46.11	≤-24.83	PASS
2DH5	Ant1	2402	Reference	-5.20	-5.20	---	PASS
			30~1000	-5.20	-67.94	≤-25.2	PASS
			1000~26500	-5.20	-46.23	≤-25.2	PASS
		2441	Reference	-6.31	-6.31	---	PASS
			30~1000	-6.31	-67.94	≤-26.31	PASS
			1000~26500	-6.31	-46.01	≤-26.31	PASS
		2480	Reference	-5.37	-5.37	---	PASS
			30~1000	-5.37	-67.58	≤-25.37	PASS
			1000~26500	-5.37	-46.06	≤-25.37	PASS

Test Graphs

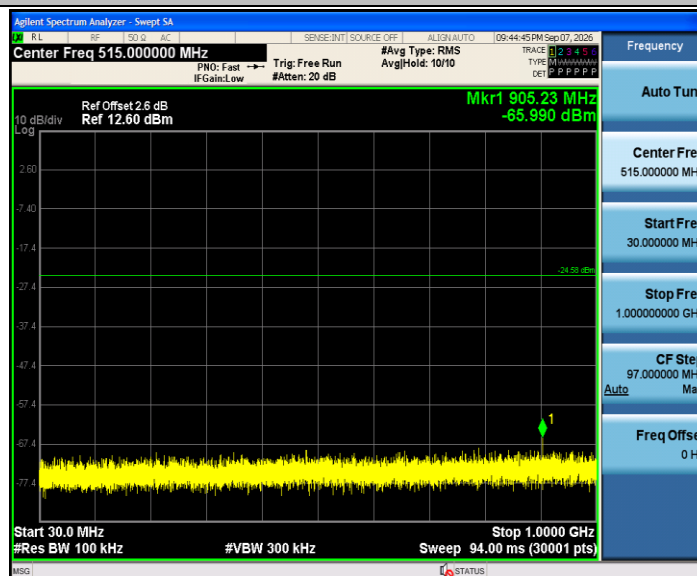




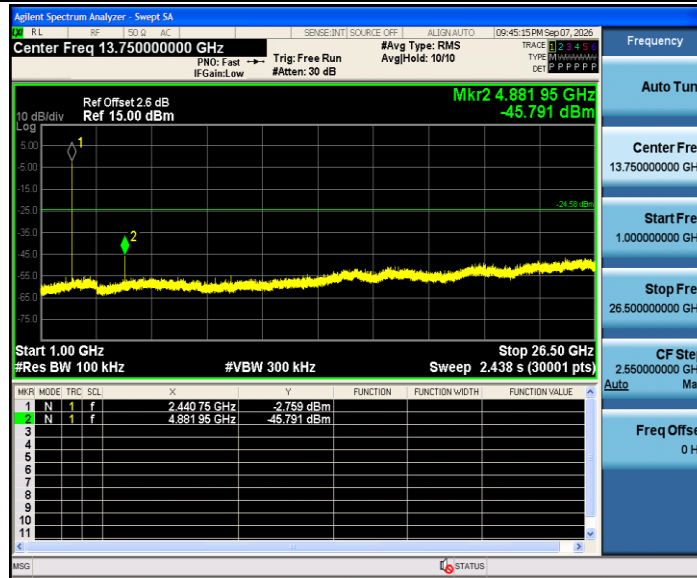
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



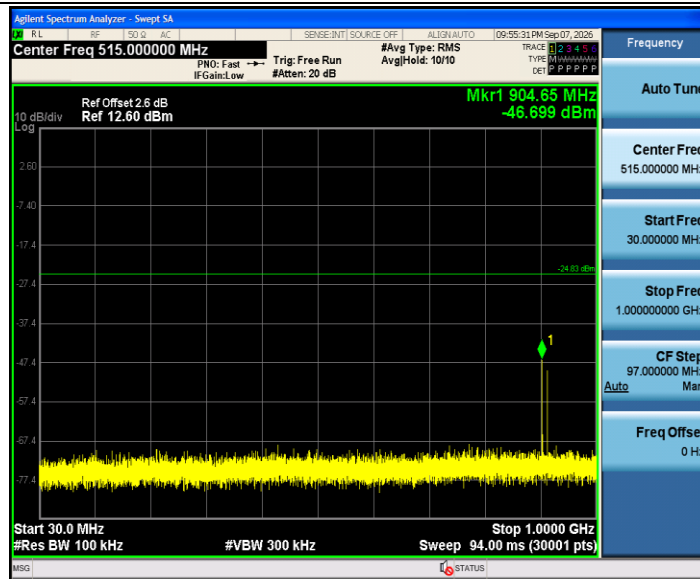
DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference



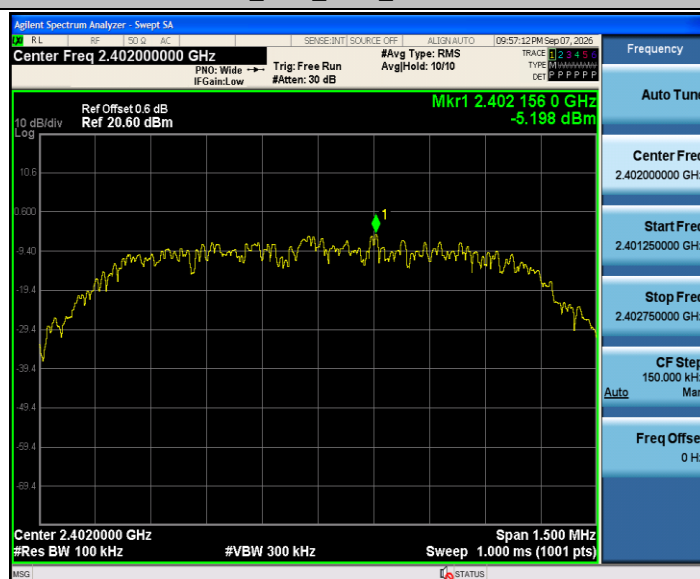
DH5_Ant1_2480_30~1000



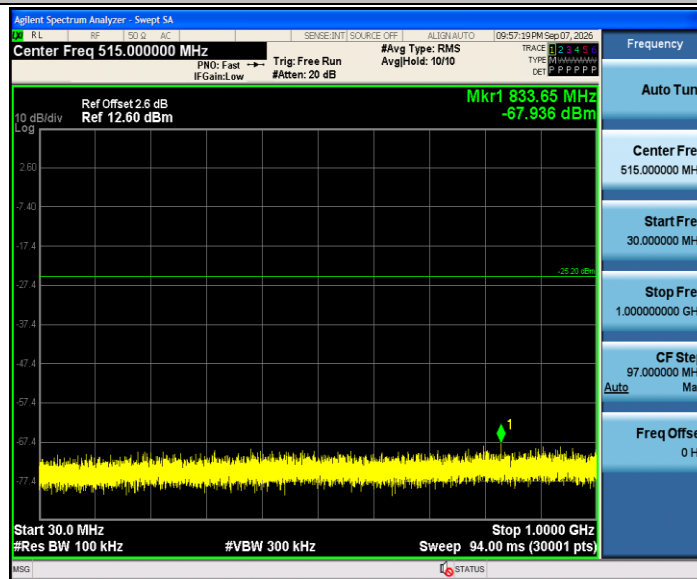
DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



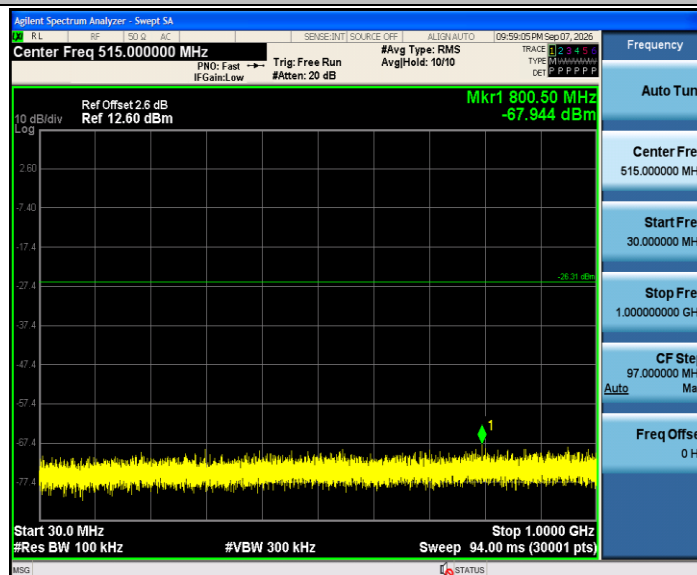
2DH5_Ant1_2402_1000~26500



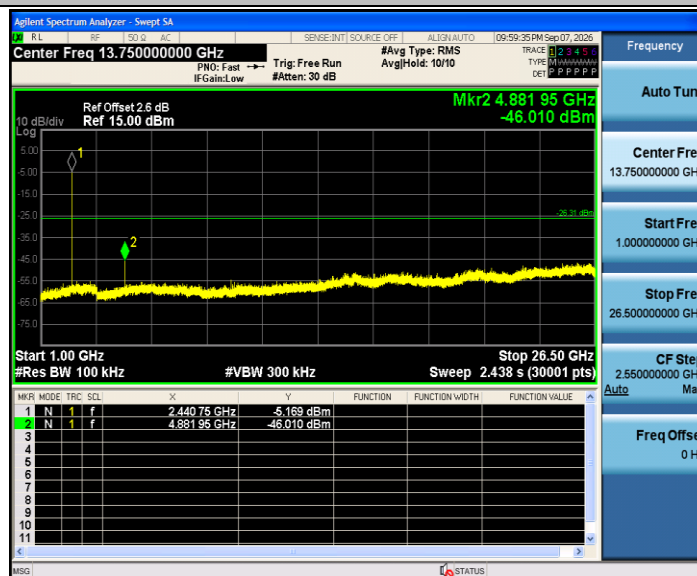
2DH5_Ant1_2441_0~Reference



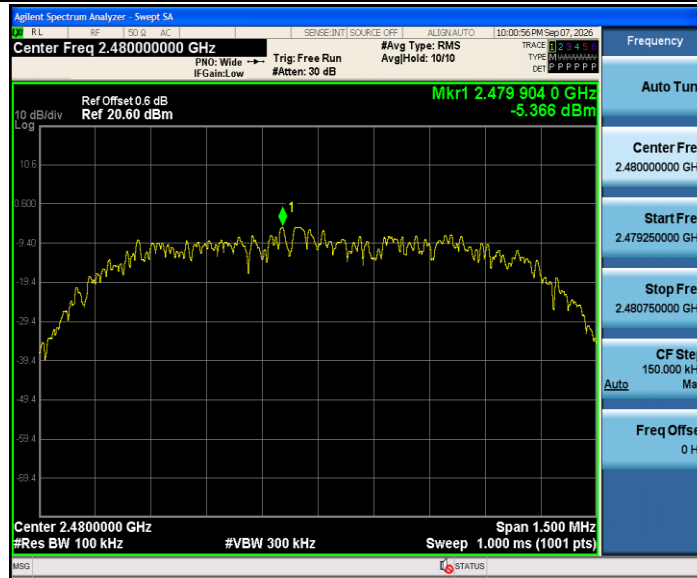
2DH5_Ant1_2441_30~1000



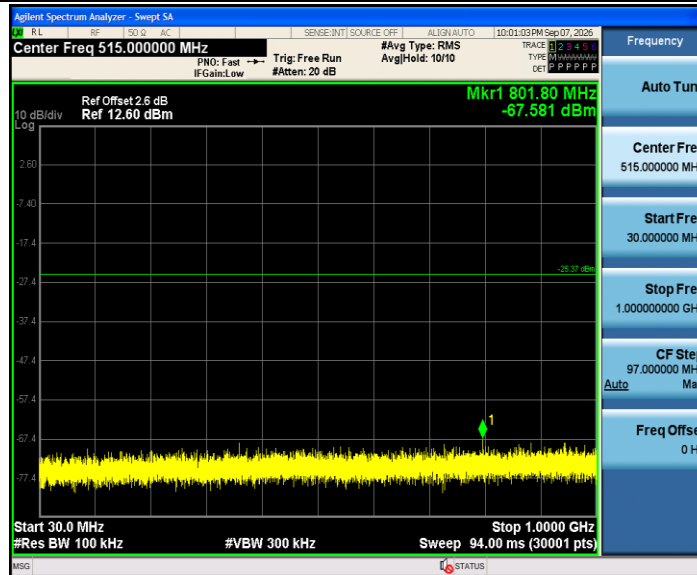
2DH5_Ant1_2441_1000~26500



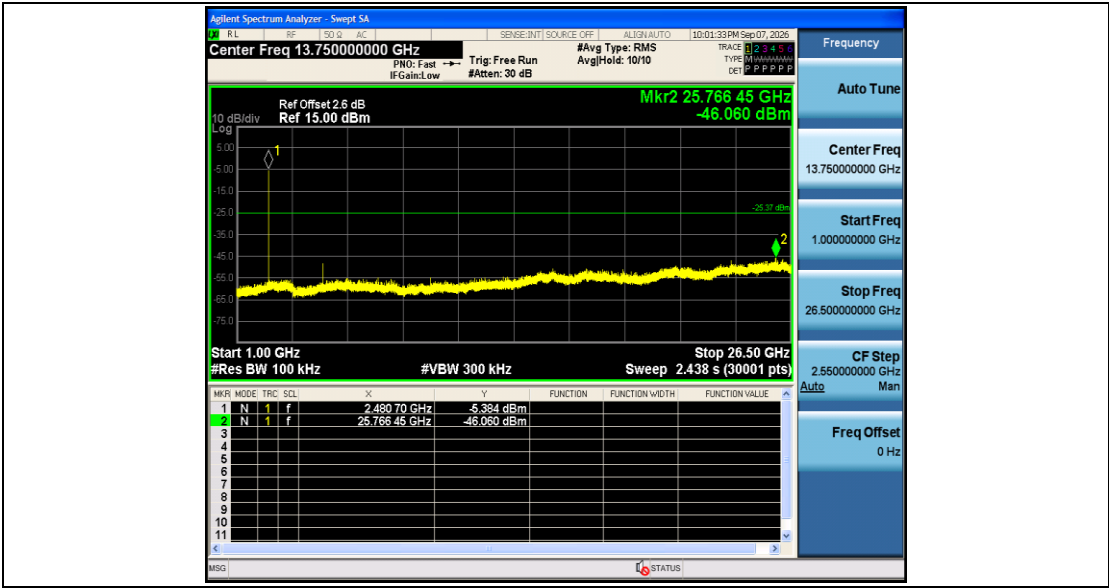
2DH5_Ant1_2480_0~Reference



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	2.92	3.76	77.66	1.10	---	---
2DH5	Ant1	2402	2.92	3.76	77.66	1.10	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---