

FCC Appendix RF Test Data for BT

FCC ID : 2BXBH-TYREIQS5

Company : Shenzhen VAPON Technology Co., Ltd.

EUT : Smart Android-Based TPMS Scan & Diagnostic Platform

Model Number : TyreIQ S5

Report No. : CTA26062401802

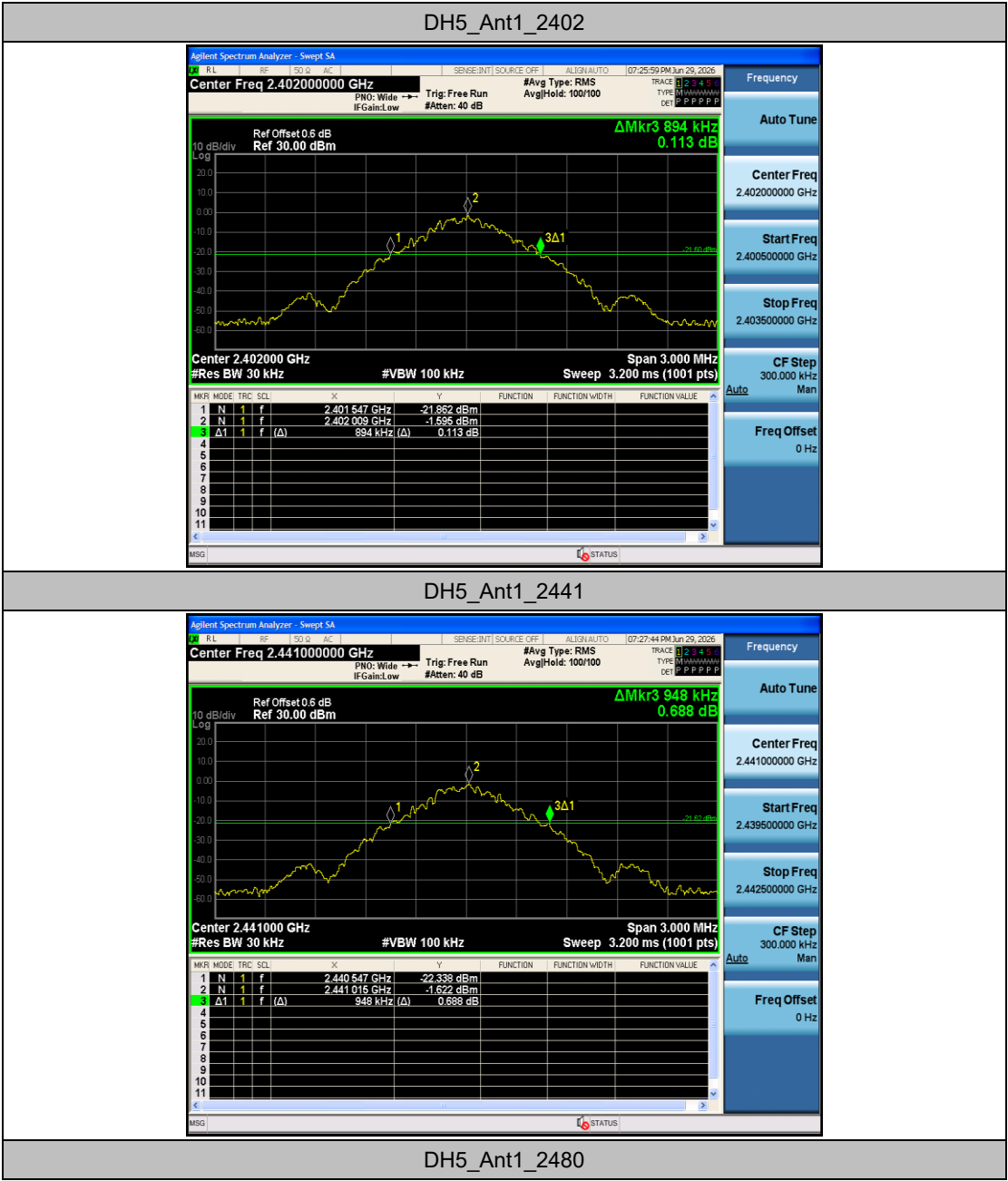
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.894	2401.547	2402.441	---	---
		2441	0.948	2440.547	2441.495	---	---
		2480	0.960	2479.544	2480.504	---	---
2DH5	Ant1	2402	1.287	2401.376	2402.663	---	---
		2441	1.287	2440.376	2441.663	---	---
		2480	1.287	2479.388	2480.675	---	---
3DH5	Ant1	2402	1.290	2401.361	2402.651	---	---
		2441	1.317	2440.355	2441.672	---	---
		2480	1.269	2479.370	2480.639	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441

Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.85199	2401.5814	2402.4334	---	---
		2441	0.86742	2440.5752	2441.4426	---	---
		2480	0.86164	2479.5765	2480.4381	---	---
2DH5	Ant1	2402	1.1893	2401.4151	2402.6044	---	---
		2441	1.1887	2440.4168	2441.6055	---	---
		2480	1.1892	2479.4163	2480.6055	---	---
3DH5	Ant1	2402	1.1974	2401.4108	2402.6082	---	---
		2441	1.1926	2440.4164	2441.6090	---	---
		2480	1.1924	2479.4158	2480.6082	---	---

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

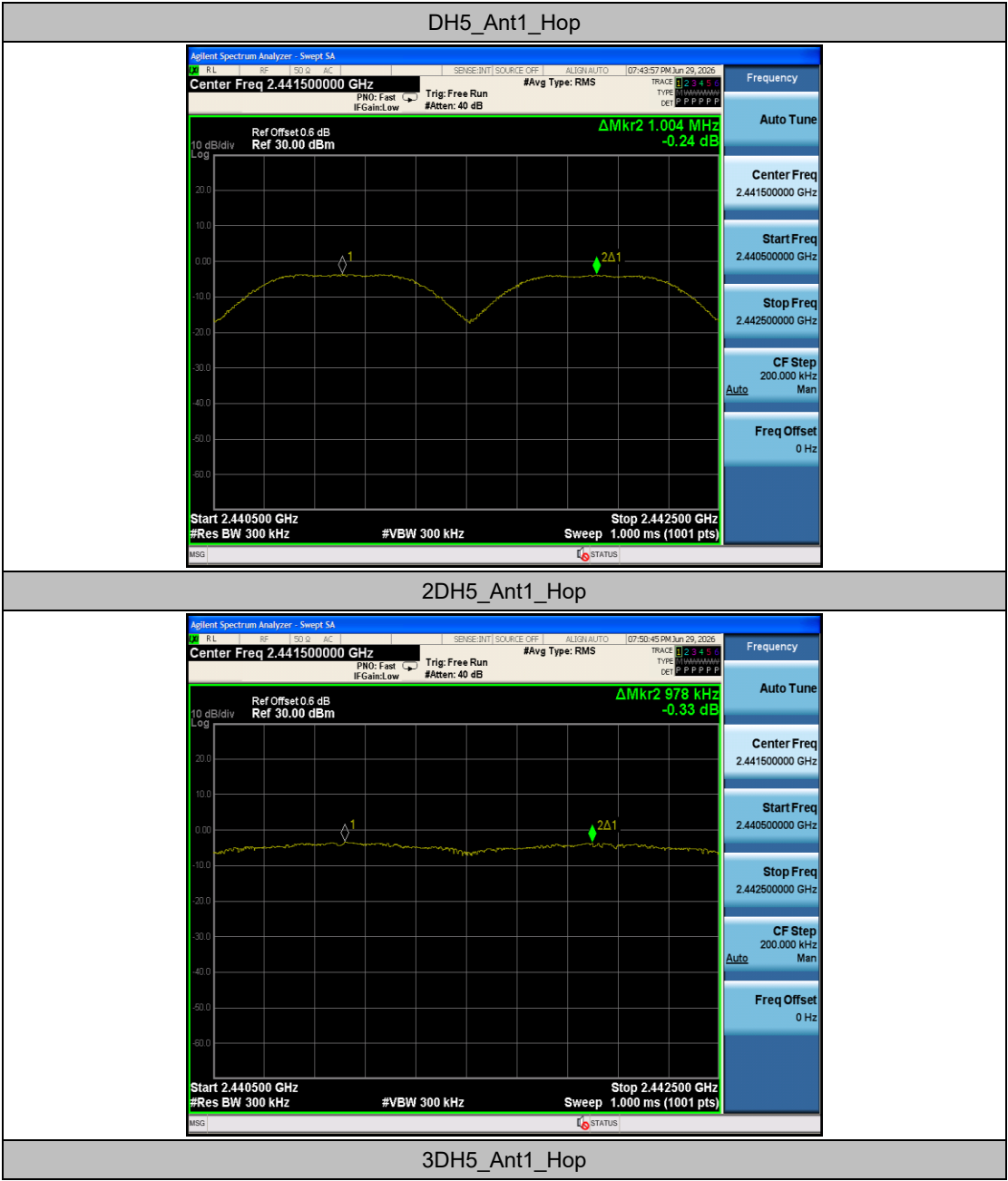
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.19	≤20.97	PASS
		2441	0.16	≤20.97	PASS
		2480	-0.06	≤20.97	PASS
2DH5	Ant1	2402	2.97	≤20.97	PASS
		2441	2.85	≤20.97	PASS
		2480	2.63	≤20.97	PASS
3DH5	Ant1	2402	3.43	≤20.97	PASS
		2441	3.24	≤20.97	PASS
		2480	3.06	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.004	≥ 0.960	PASS
2DH5	Ant1	Hop	0.978	≥ 0.858	PASS
3DH5	Ant1	Hop	1.004	≥ 0.878	PASS

Test Graphs



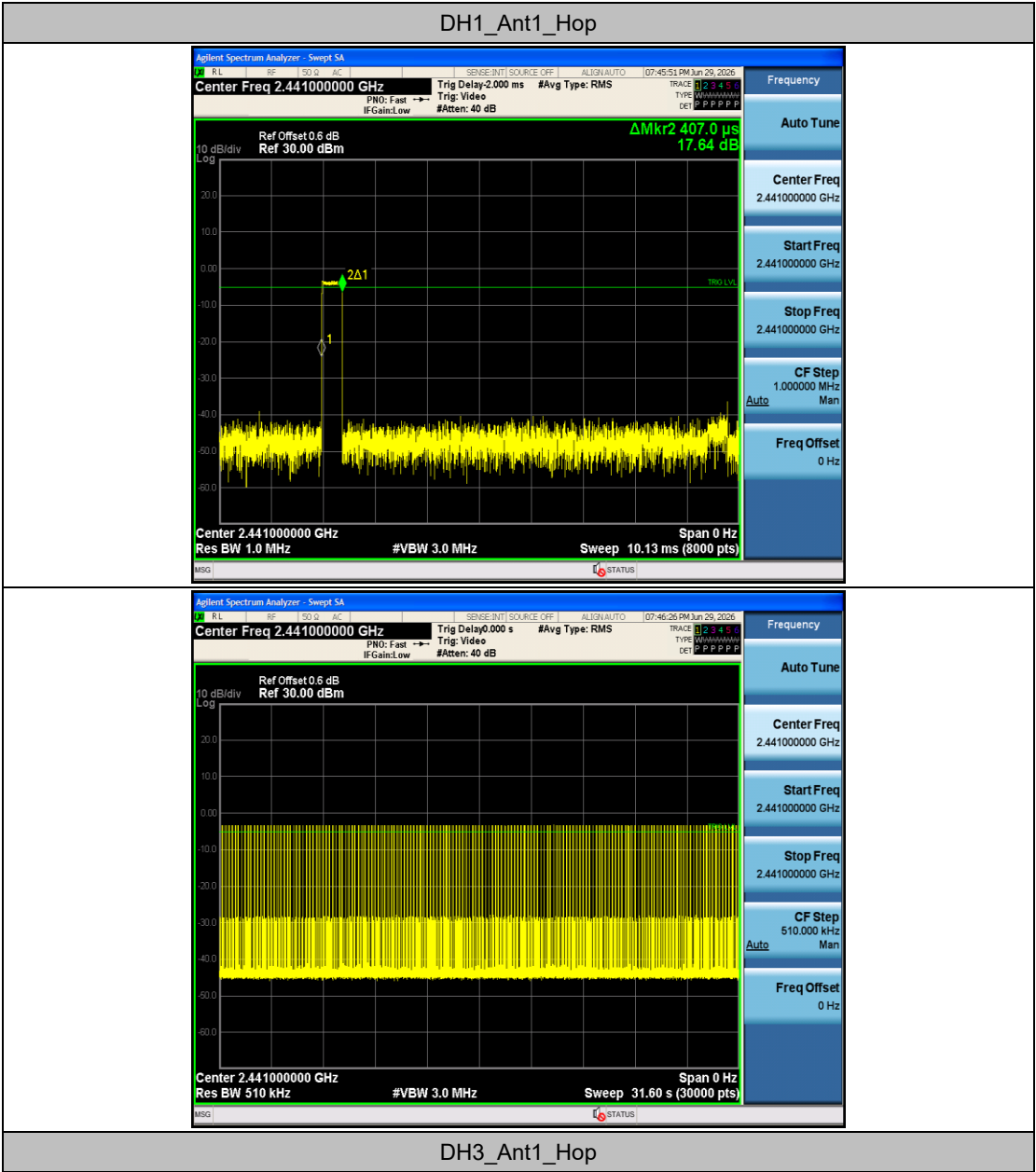


Appendix E: Time of occupancy

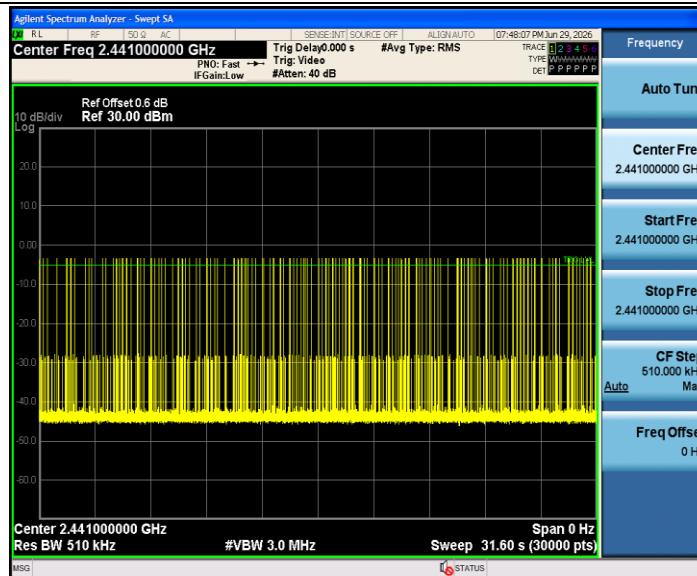
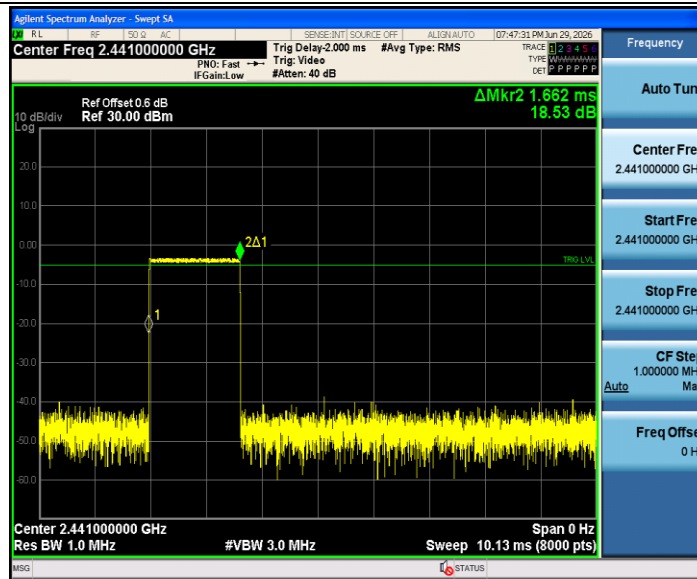
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	318	0.129	≤0.4	PASS
DH3	Ant1	Hop	1.662	162	0.269	≤0.4	PASS
DH5	Ant1	Hop	2.910	118	0.343	≤0.4	PASS
2DH1	Ant1	Hop	0.417	316	0.132	≤0.4	PASS
2DH3	Ant1	Hop	1.667	162	0.27	≤0.4	PASS
2DH5	Ant1	Hop	2.916	108	0.315	≤0.4	PASS
3DH1	Ant1	Hop	0.415	319	0.132	≤0.4	PASS
3DH3	Ant1	Hop	1.666	164	0.273	≤0.4	PASS
3DH5	Ant1	Hop	2.916	94	0.274	≤0.4	PASS

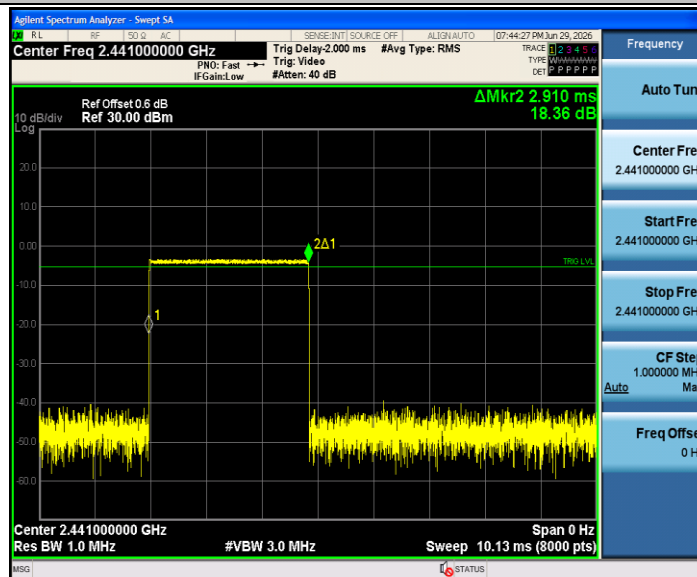
Test Graphs

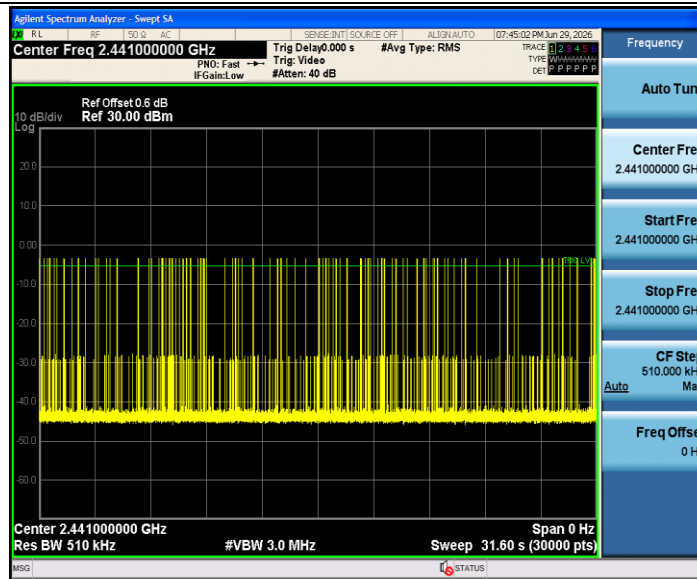


DH3_Ant1_Hop

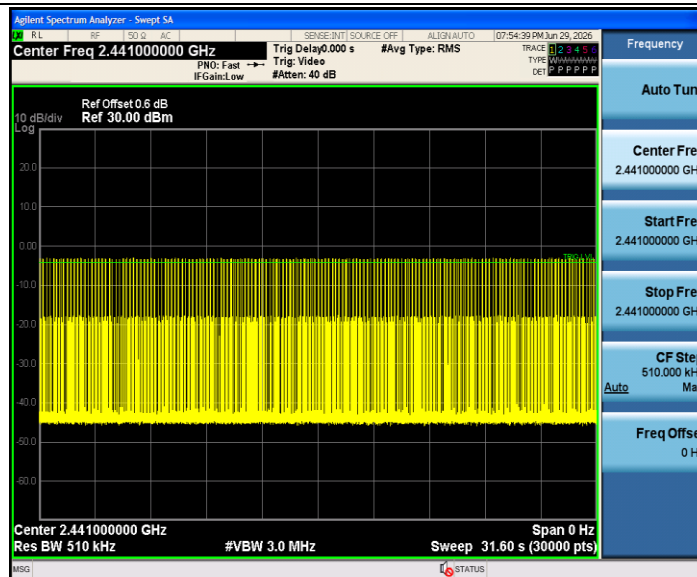
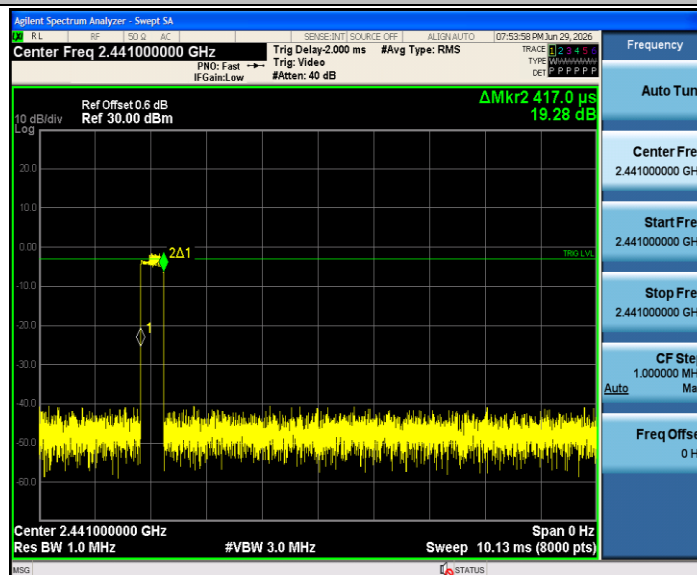


DH5_Ant1_Hop

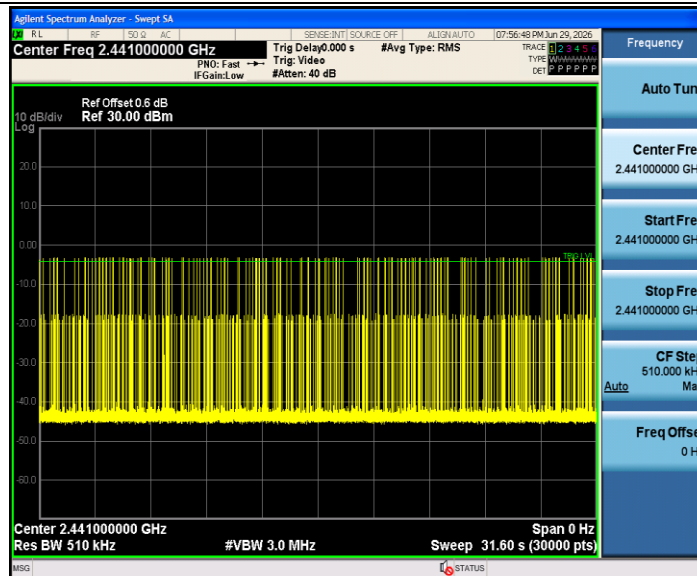
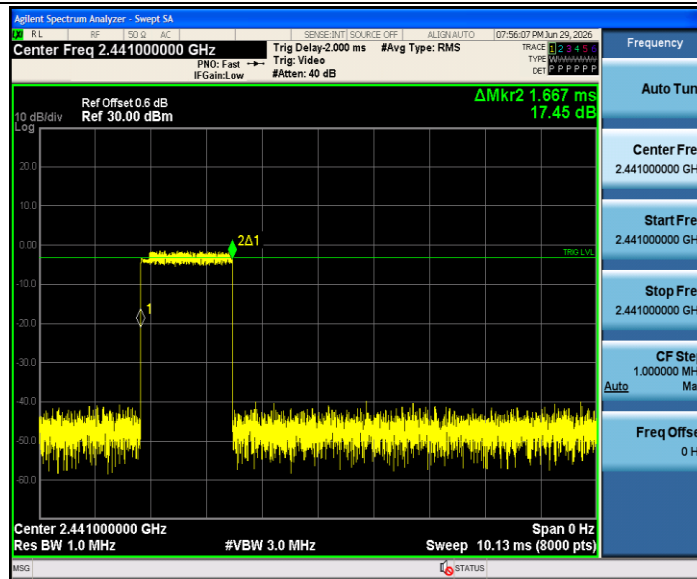




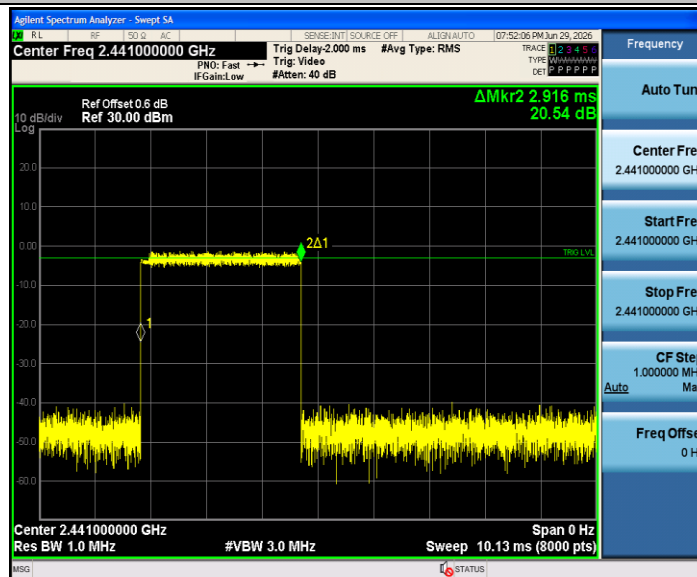
2DH1_Ant1_Hop

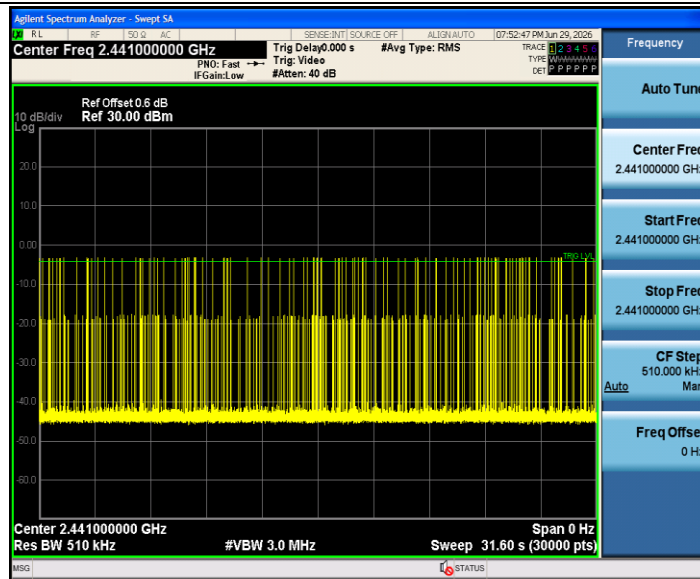


2DH3_Ant1_Hop

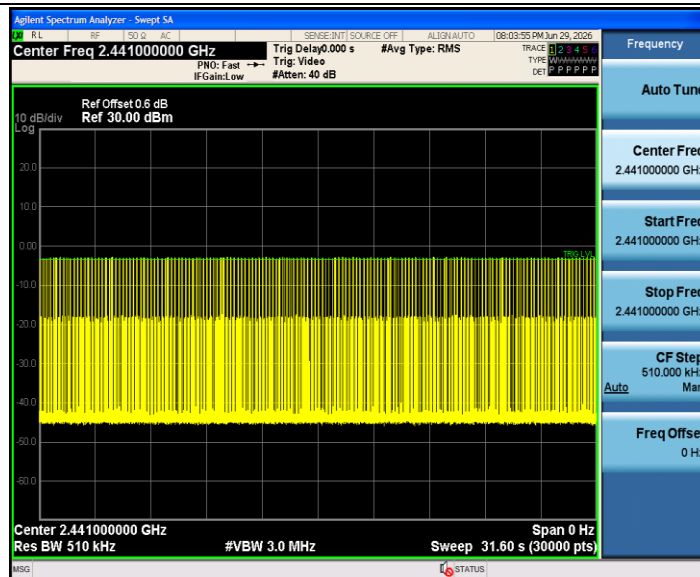
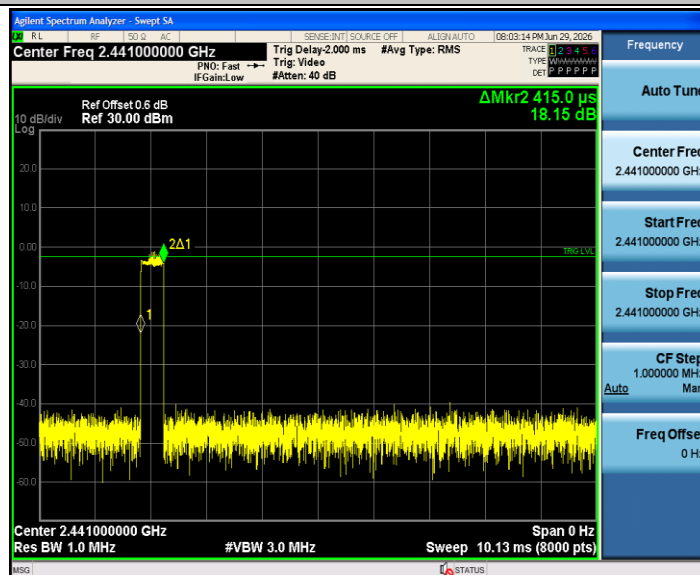


2DH5_Ant1_Hop

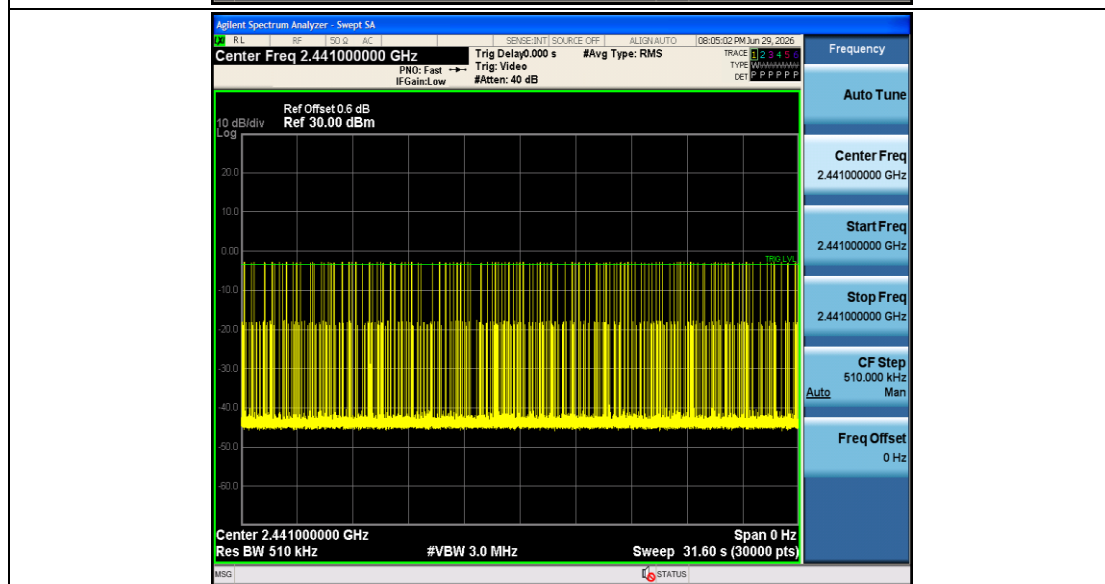
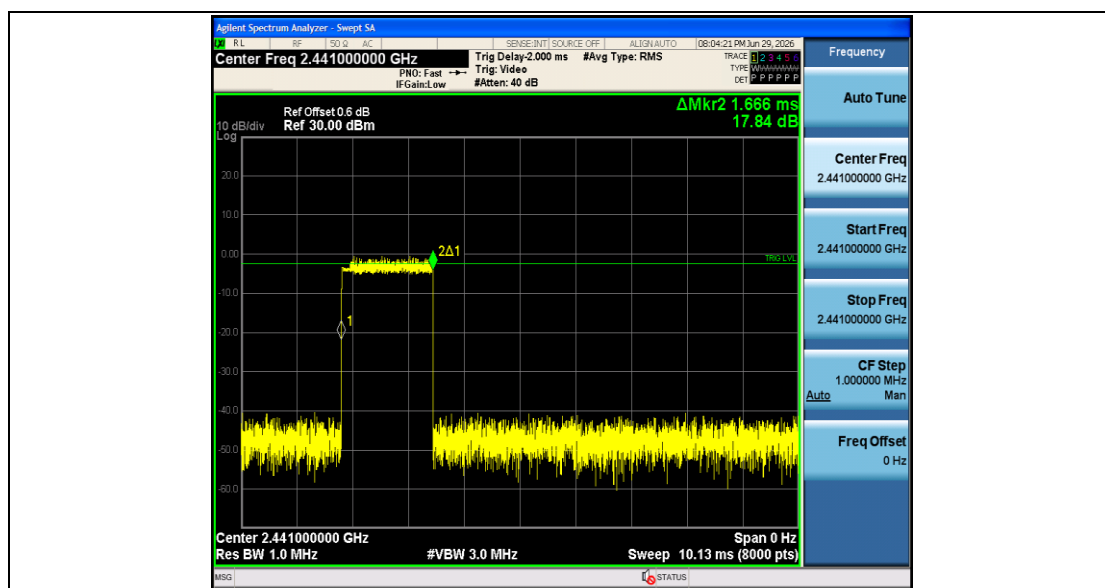




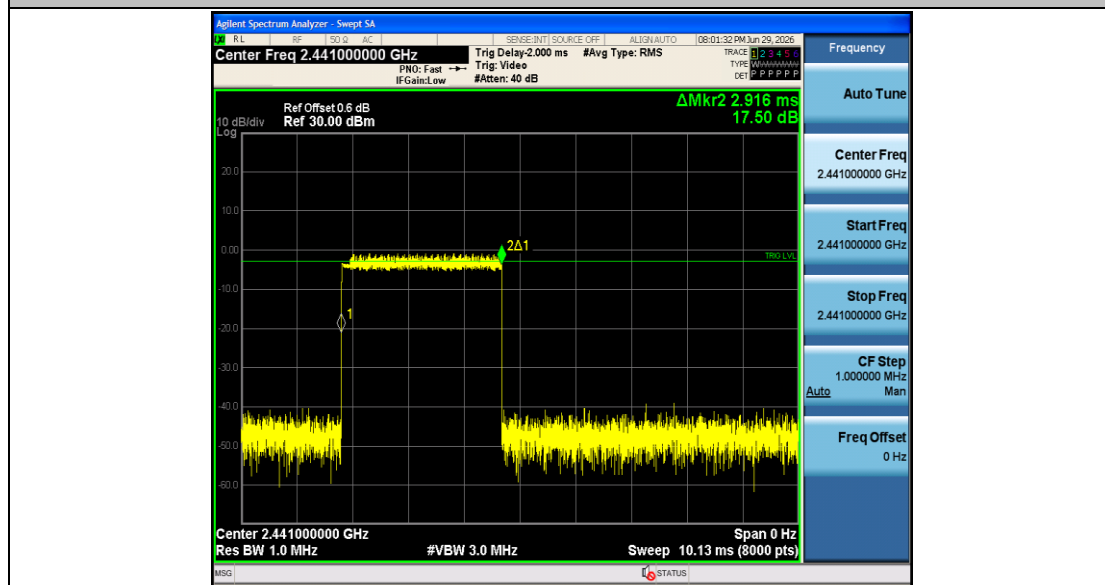
3DH1_Ant1_Hop

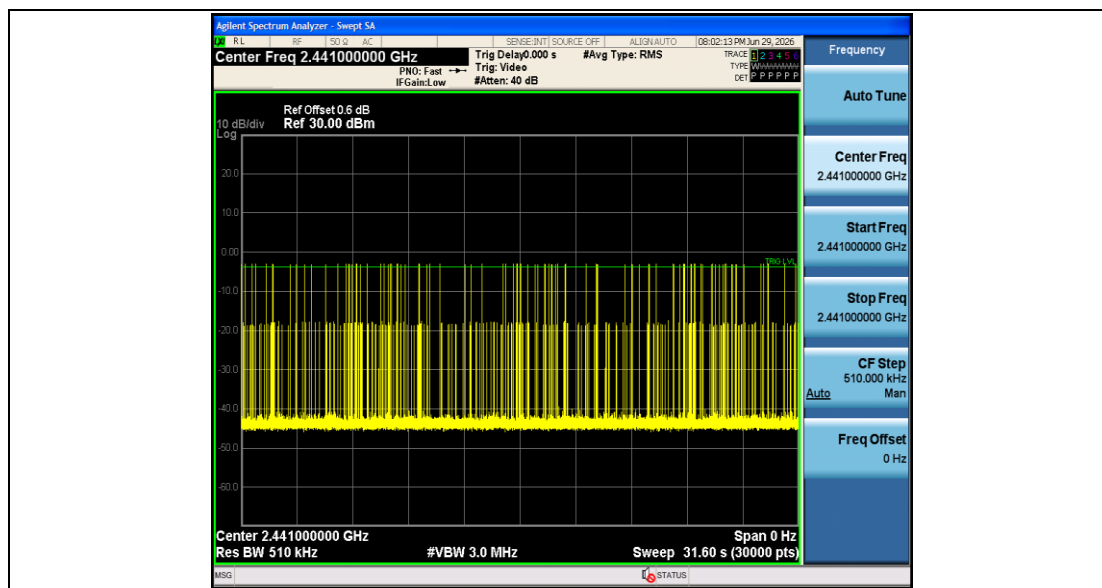


3DH3_Ant1_Hop



3DH5_Ant1_Hop



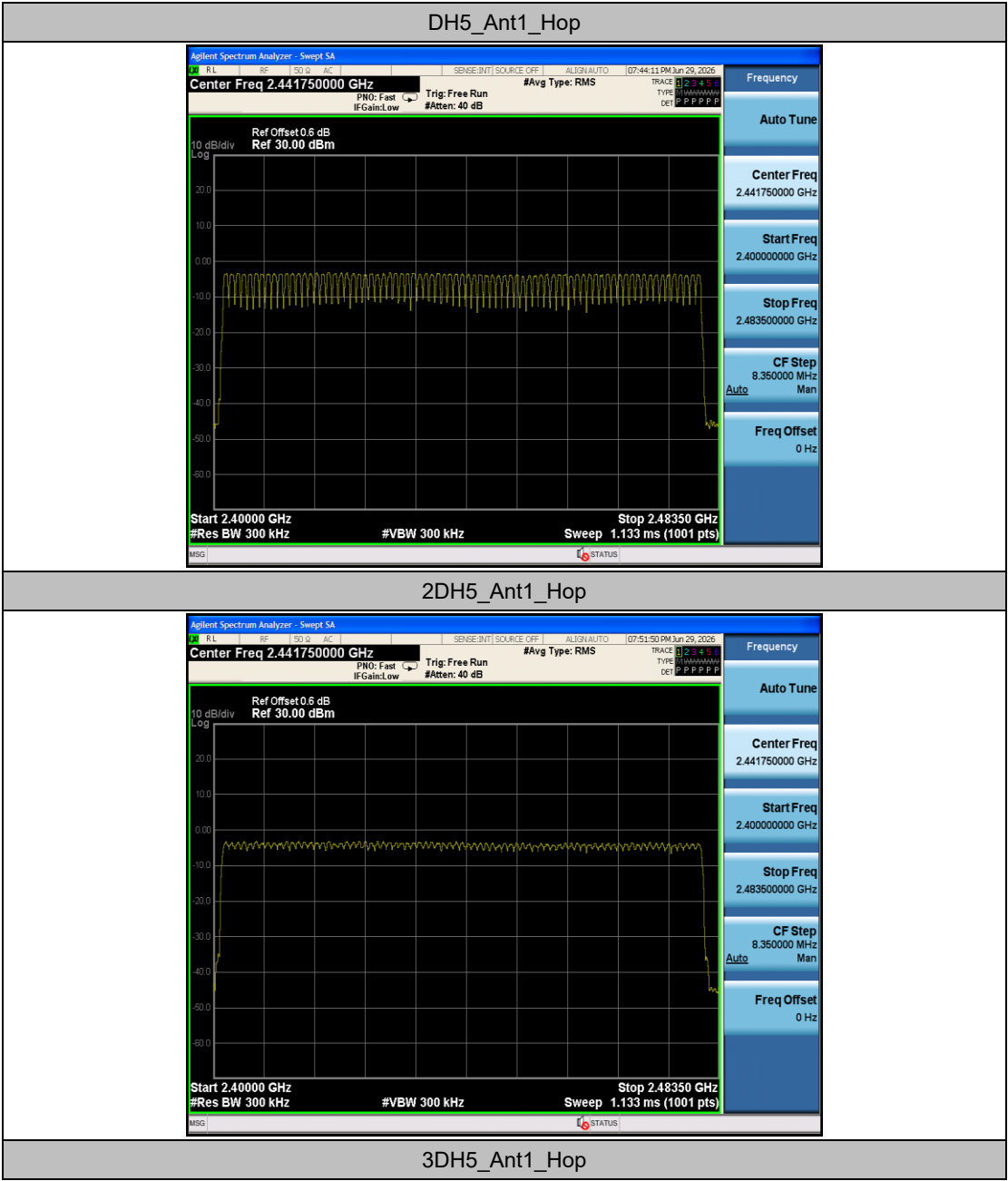


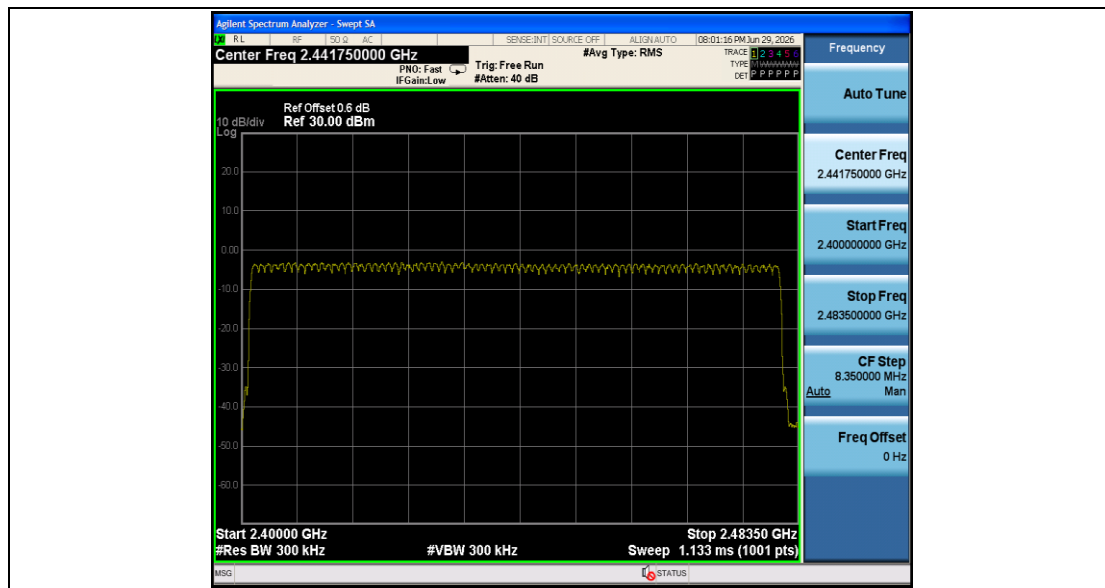
Appendix F: Number of hopping channels

Test Result

TestMode	Antenna	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs



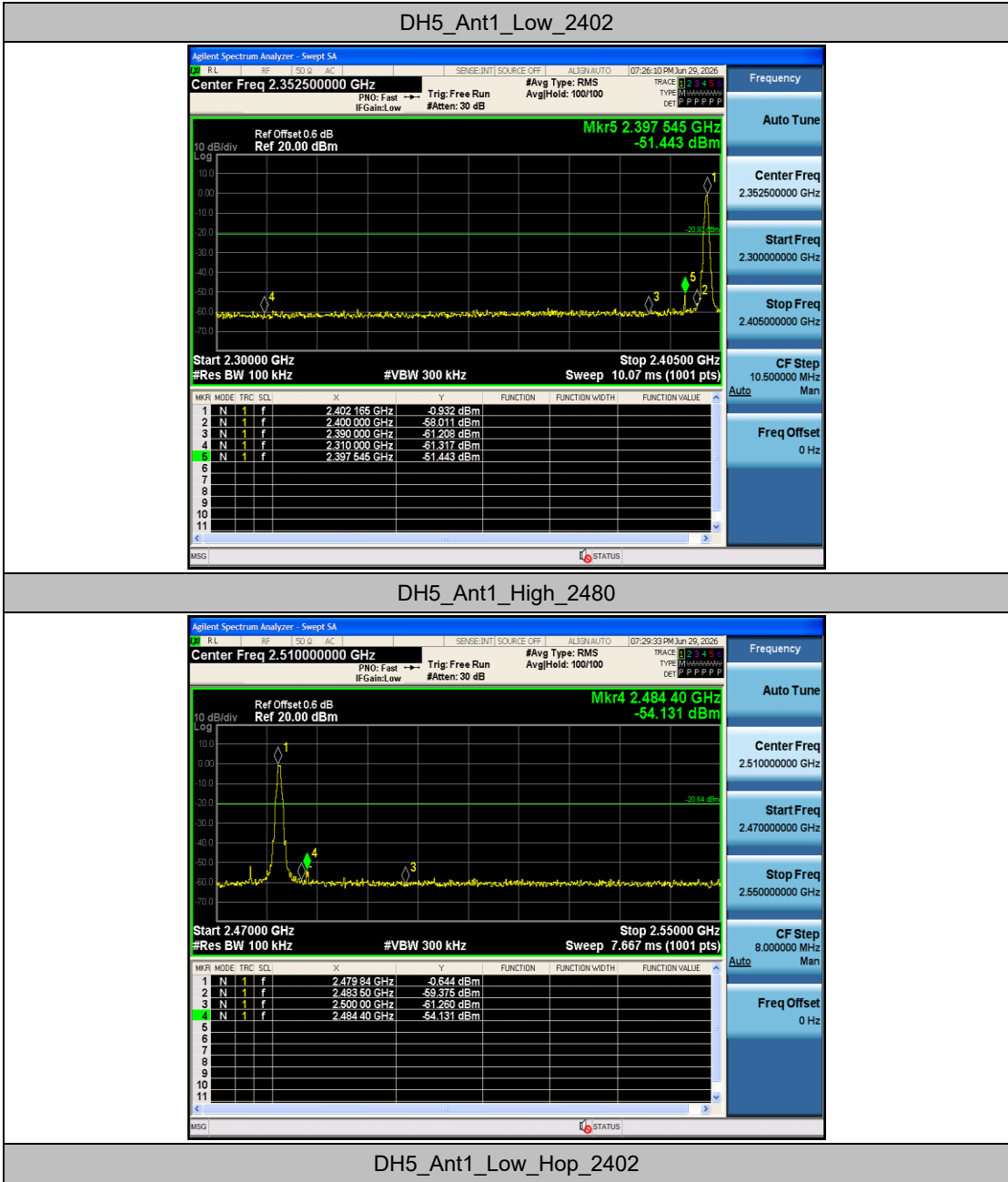


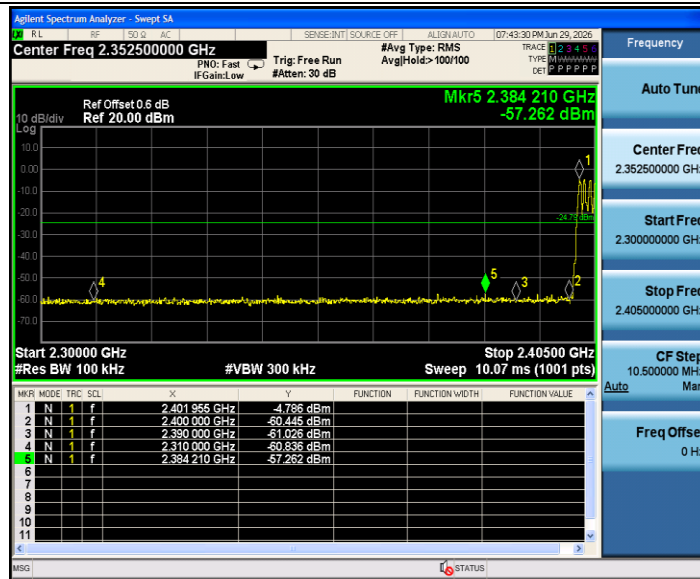
Appendix G: Band edge measurements

Test Result

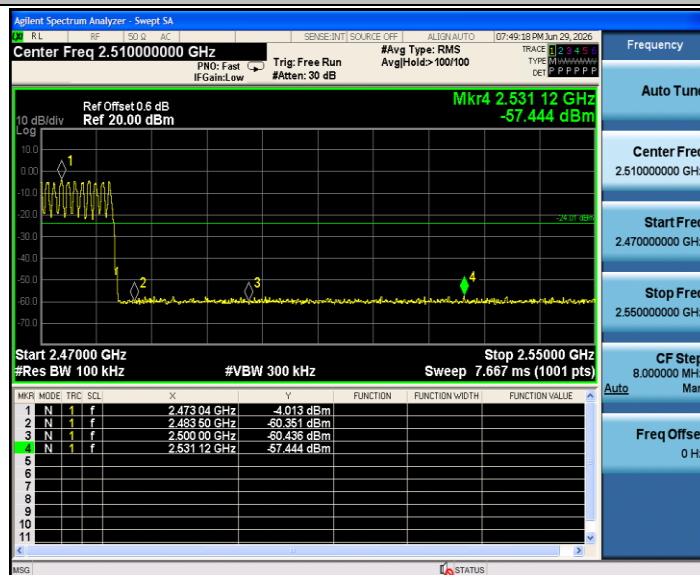
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.93	-51.44	≤-20.93	PASS
		High	2480	-0.64	-54.13	≤-20.64	PASS
		Low	Hop_2402	-4.79	-57.26	≤-24.79	PASS
		High	Hop_2480	-4.01	-57.44	≤-24.01	PASS
2DH5	Ant1	Low	2402	-1.67	-49.62	≤-21.67	PASS
		High	2480	-1.20	-55.57	≤-21.2	PASS
		Low	Hop_2402	-3.31	-57.86	≤-23.31	PASS
		High	Hop_2480	-3.70	-57.38	≤-23.7	PASS
3DH5	Ant1	Low	2402	-0.34	-49.35	≤-20.34	PASS
		High	2480	-0.72	-56.41	≤-20.72	PASS
		Low	Hop_2402	-4.70	-57.97	≤-24.7	PASS
		High	Hop_2480	-3.47	-56.92	≤-23.47	PASS

Test Graphs

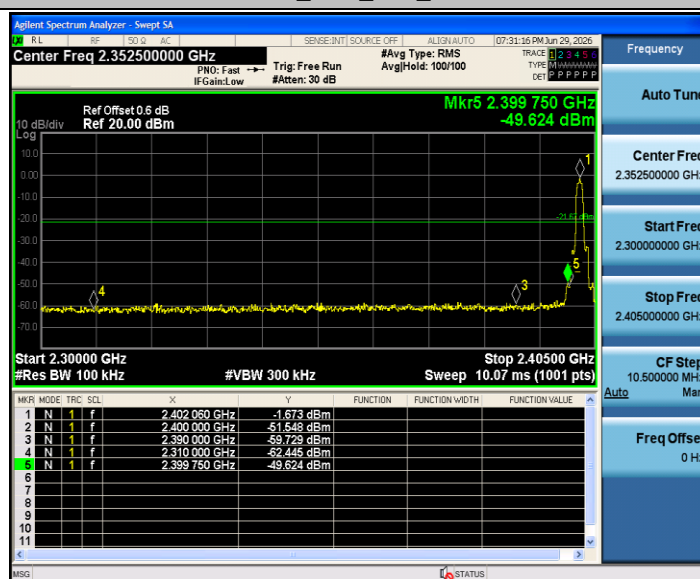




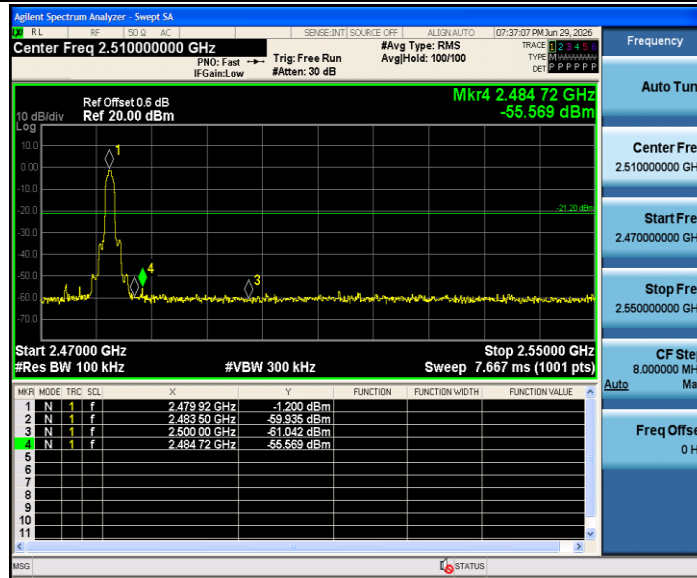
DH5_Ant1_High_Hop_2480



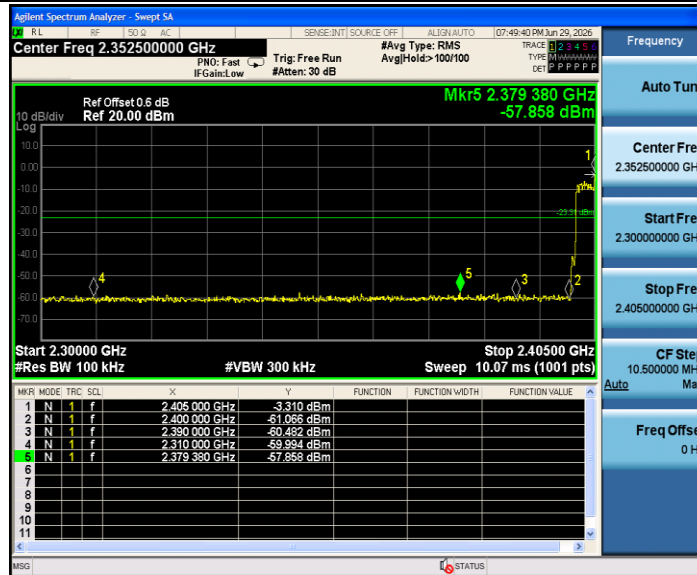
2DH5_Ant1_Low_2402



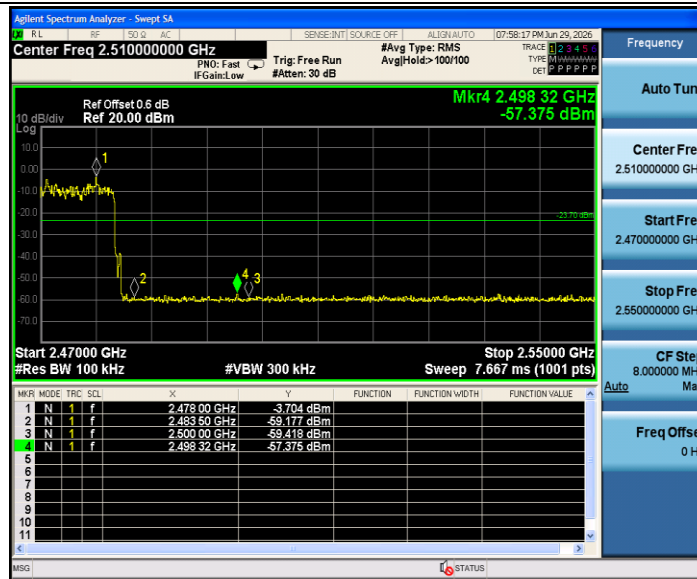
2DH5_Ant1_High_2480



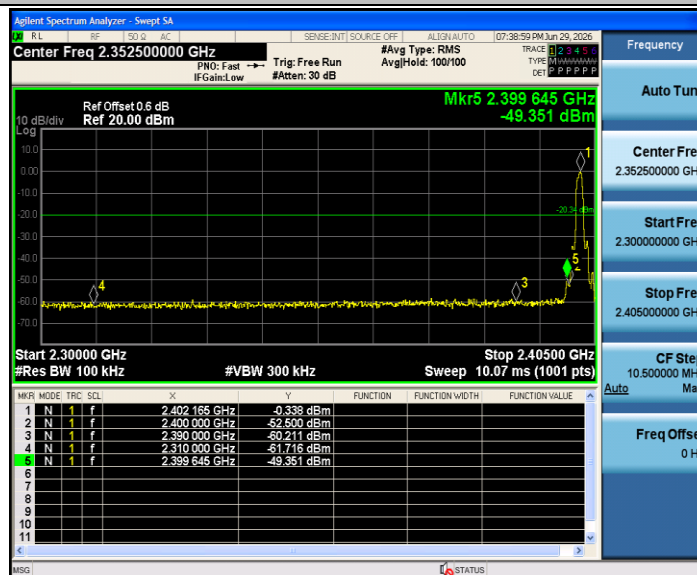
2DH5_Ant1_Low_Hop_2402



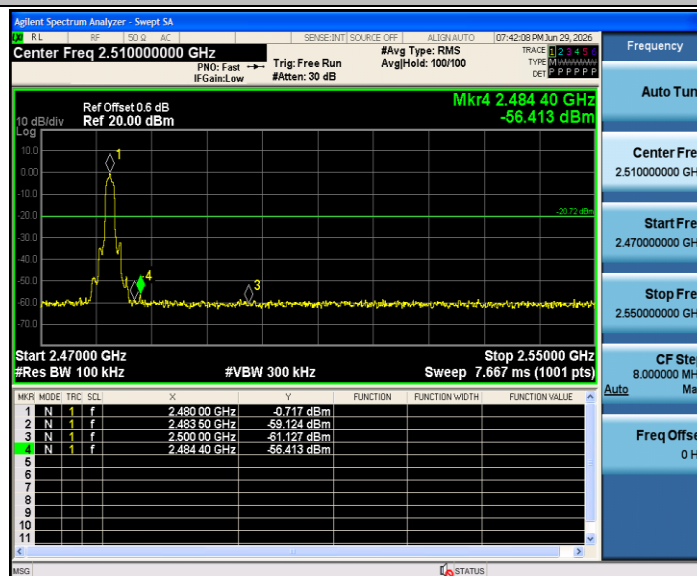
2DH5_Ant1_High_Hop_2480



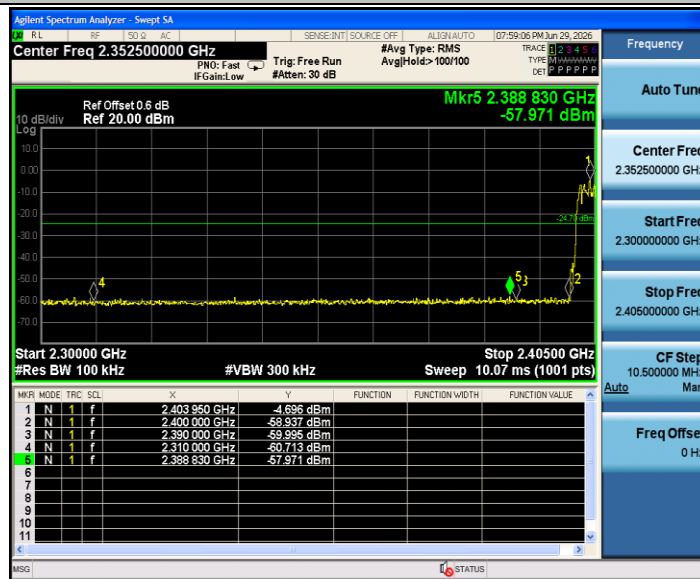
3DH5_Ant1_Low_2402



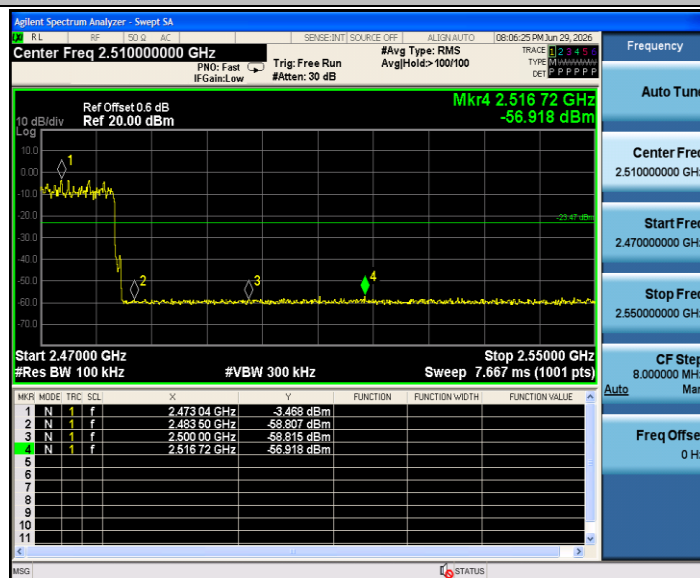
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

Test Result

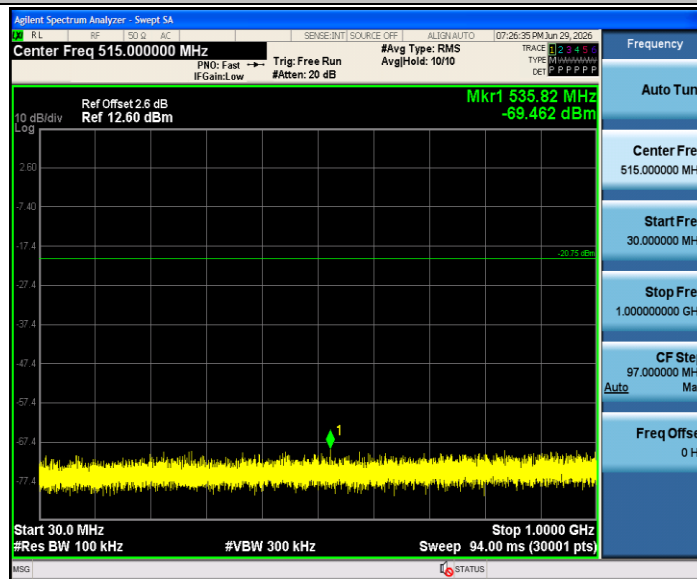
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.75	-0.75	---	PASS
			30~1000	-0.75	-69.46	≤-20.75	PASS
			1000~26500	-0.75	-41.47	≤-20.75	PASS
		2441	Reference	-1.01	-1.01	---	PASS
			30~1000	-1.01	-68.65	≤-21.01	PASS
			1000~26500	-1.01	-43.49	≤-21.01	PASS
		2480	Reference	-0.98	-0.98	---	PASS
			30~1000	-0.98	-69.1	≤-20.98	PASS
			1000~26500	-0.98	-42.3	≤-20.98	PASS
2DH5	Ant1	2402	Reference	-2.45	-2.45	---	PASS
			30~1000	-2.45	-68.62	≤-22.45	PASS
			1000~26500	-2.45	-38.13	≤-22.45	PASS
		2441	Reference	-1.56	-1.56	---	PASS
			30~1000	-1.56	-68.54	≤-21.56	PASS
			1000~26500	-1.56	-41.83	≤-21.56	PASS
		2480	Reference	-1.46	-1.46	---	PASS
			30~1000	-1.46	-69.06	≤-21.46	PASS
			1000~26500	-1.46	-43.95	≤-21.46	PASS
3DH5	Ant1	2402	Reference	-2.33	-2.33	---	PASS
			30~1000	-2.33	-69.23	≤-22.33	PASS
			1000~26500	-2.33	-42.08	≤-22.33	PASS
		2441	Reference	-0.86	-0.86	---	PASS
			30~1000	-0.86	-69.32	≤-20.86	PASS
			1000~26500	-0.86	-40.94	≤-20.86	PASS
		2480	Reference	-3.18	-3.18	---	PASS
			30~1000	-3.18	-69.04	≤-23.18	PASS
			1000~26500	-3.18	-42.39	≤-23.18	PASS

Test Graphs

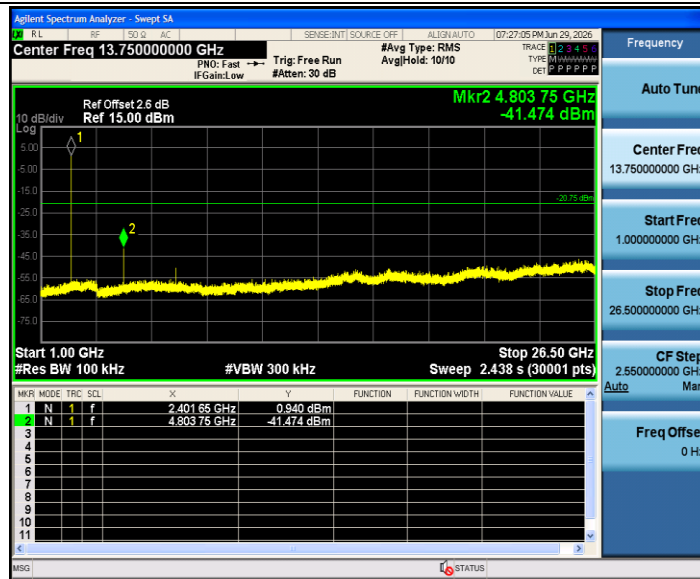
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



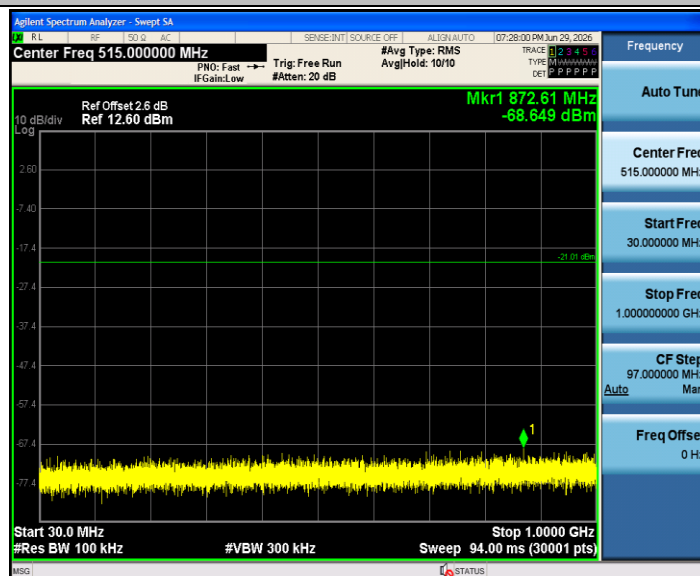
DH5_Ant1_2402_1000~26500



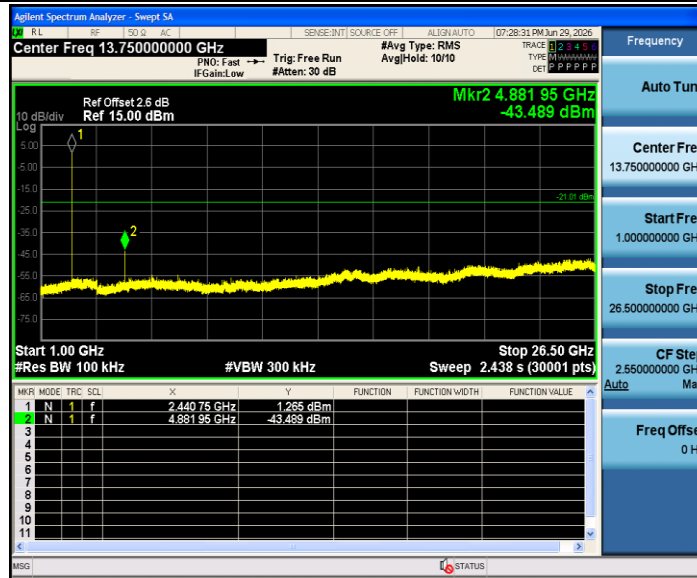
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



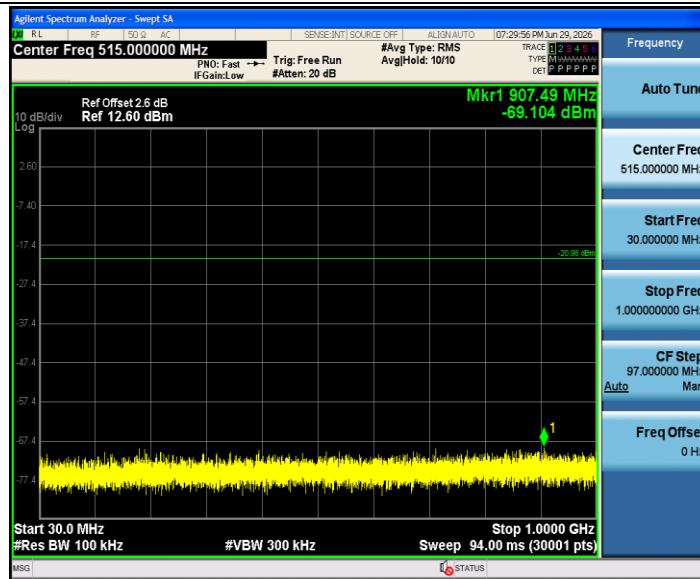
DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference

