

Applicant: Dongguan Yongfang Electronics Technology Co., Ltd.

Case No. : TH2401158-C01

EUT: Wireless Kids Headphones

M/N: BT-6085

Standard: FCC Part15 Subpart C, Section 15.247

Test Power Supply: NA

Ambient Condition: 25.4 °C, 42 %RH, 101.325 kPa

Test Date: 2024.01.18

Test Engineer: Blue

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.008	---	---		
		2441	0.972	---	---		
		2480	0.978	---	---		
2DH5	Ant1	2402	1.275	---	---		
		2441	1.287	---	---		
		2480	1.296	---	---		
3DH5	Ant1	2402	1.266	---	---		
		2441	1.233	---	---		
		2480	1.293	---	---		

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 B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.97071	2401.5022	2402.4730	---	---
		2441	0.95632	2440.5472	2441.5036	---	---
		2480	0.84455	2479.5769	2480.4215	---	---
2DH5	Ant1	2402	1.2123	2401.3851	2402.5974	---	---
		2441	1.1601	2440.4164	2441.5765	---	---
		2480	1.1688	2479.4030	2480.5718	---	---
3DH5	Ant1	2402	1.1907	2401.3973	2402.5880	---	---
		2441	1.2043	2440.3850	2441.5893	---	---
		2480	1.2008	2479.4012	2480.6020	---	---

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	Channel	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.41	≤20.97	PASS
		2441	0.72	≤20.97	PASS
		2480	1.27	≤20.97	PASS
2DH5	Ant1	2402	0.51	≤20.97	PASS
		2441	0.81	≤20.97	PASS
		2480	1.38	≤20.97	PASS
3DH5	Ant1	2402	0.59	≤20.97	PASS
		2441	0.9	≤20.97	PASS
		2480	1.46	≤20.97	PASS

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 D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Hop	1.024	≥ 0.672	PASS
2DH5	Ant1	Hop	1.314	≥ 0.864	PASS
3DH5	Ant1	Hop	1	≥ 0.862	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



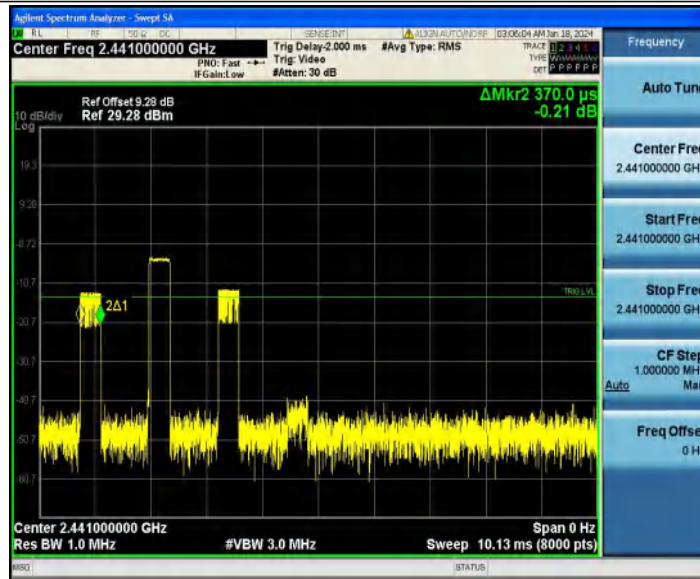
Appendix E: Time of occupancy

Test Result

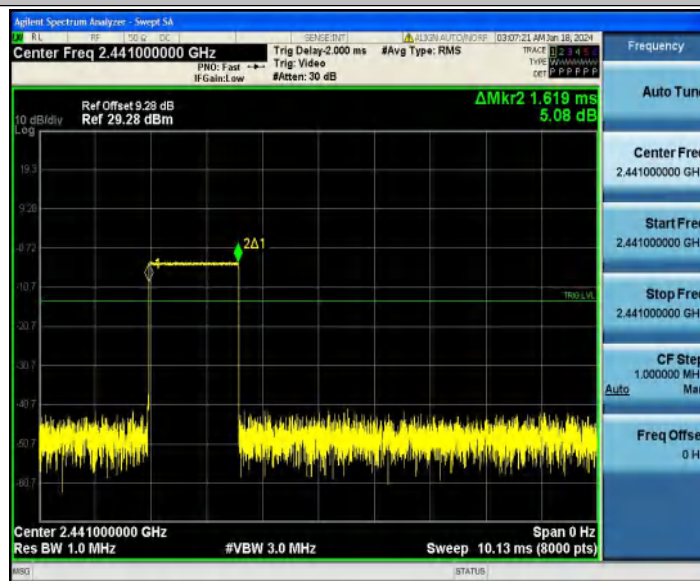
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.370	320	0.118	≤0.4	PASS
DH3	Ant1	Hop	1.619	160	0.259	≤0.4	PASS
DH5	Ant1	Hop	2.866	106.67	0.306	≤0.4	PASS
2DH1	Ant1	Hop	0.379	320	0.121	≤0.4	PASS
2DH3	Ant1	Hop	1.630	160	0.261	≤0.4	PASS
2DH5	Ant1	Hop	2.880	106.67	0.307	≤0.4	PASS
3DH1	Ant1	Hop	0.379	320	0.121	≤0.4	PASS
3DH3	Ant1	Hop	1.630	160	0.261	≤0.4	PASS
3DH5	Ant1	Hop	2.879	106.67	0.307	≤0.4	PASS

Test Graphs

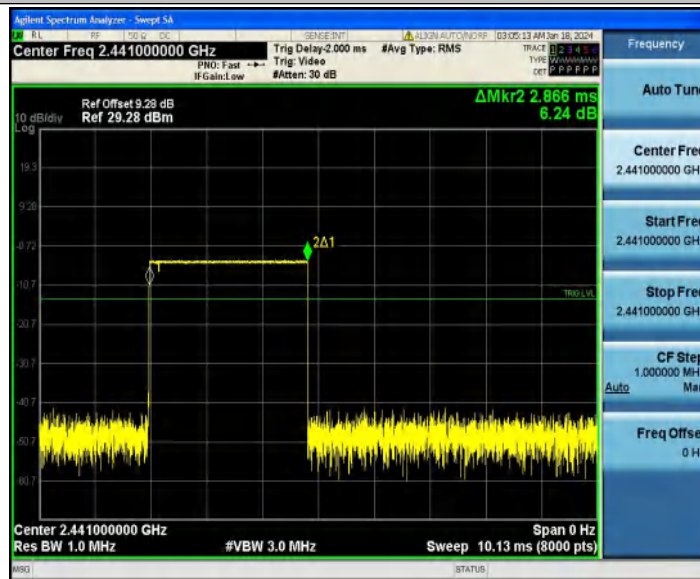
DH1_Ant1_Hop



DH3_Ant1_Hop



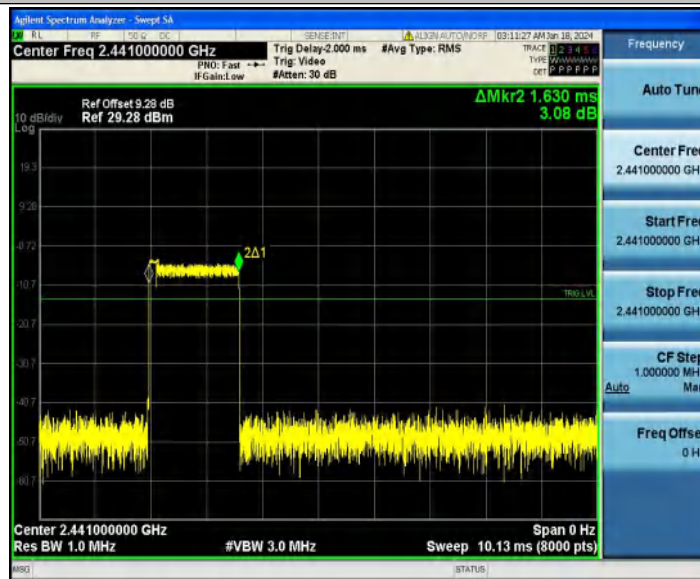
DH5_Ant1_Hop



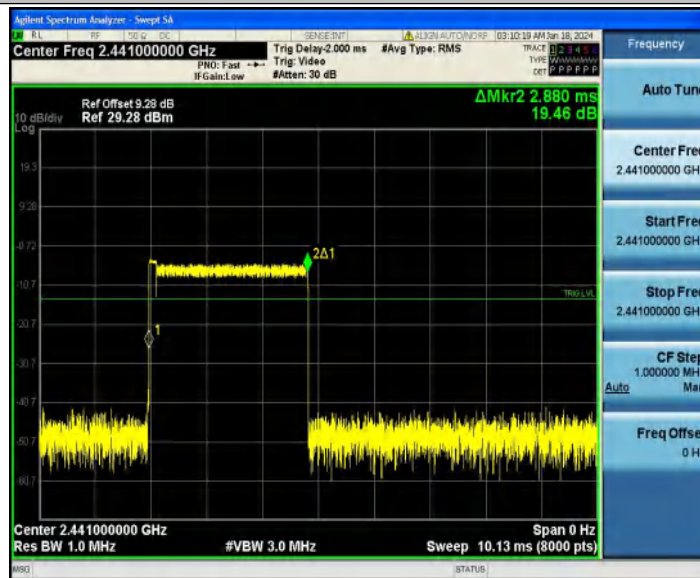
2DH1_Ant1_Hop



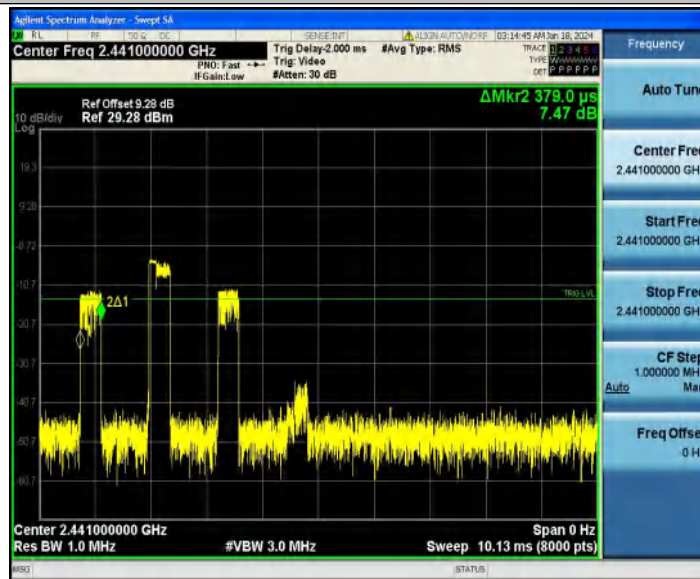
2DH3_Ant1_Hop



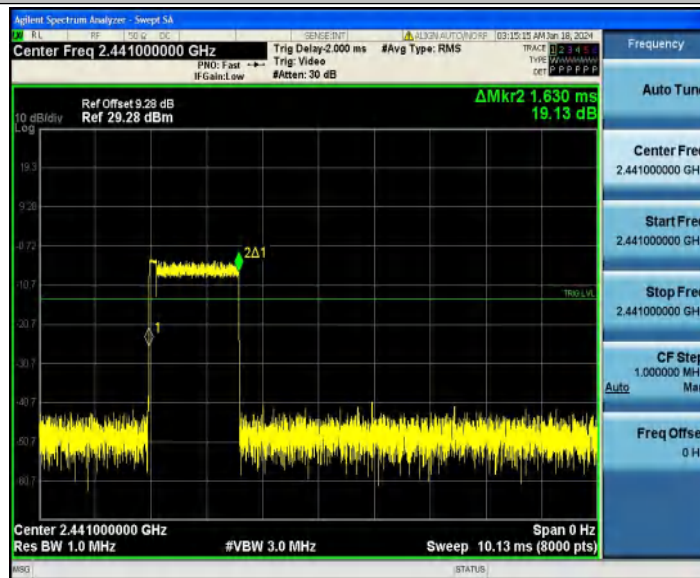
2DH5_Ant1_Hop



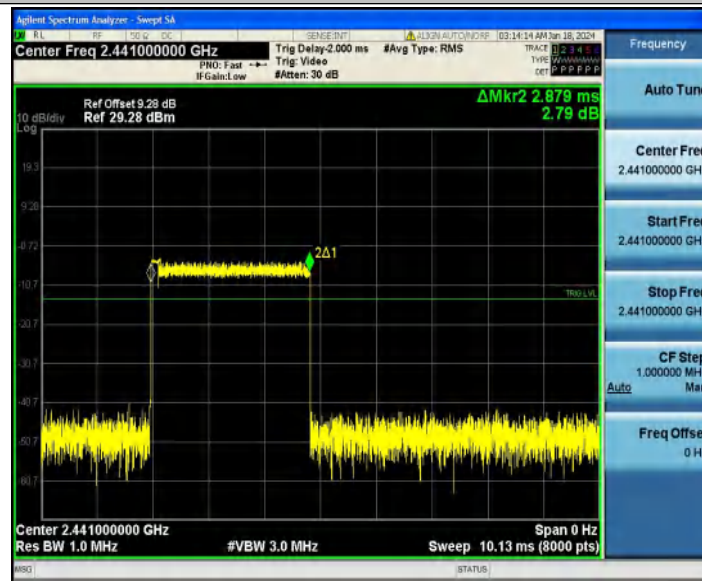
3DH1_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop



Appendix F: Number of hopping channels

Test Result

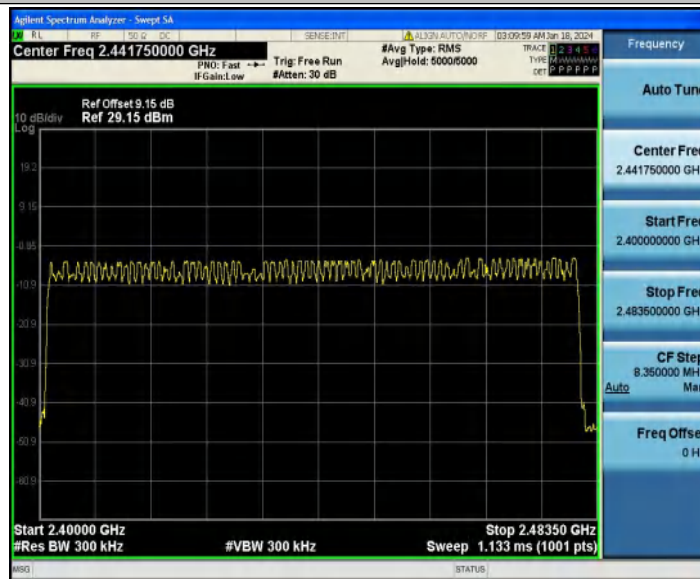
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

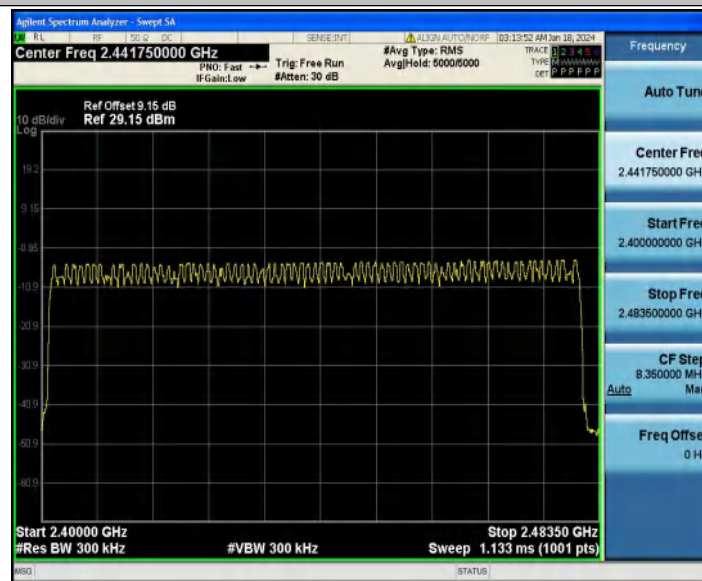
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



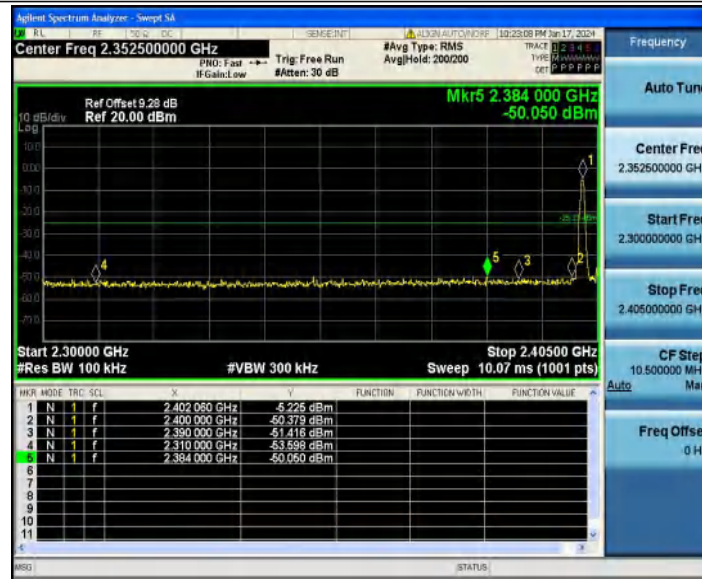
Appendix G: Band edge measurements

Test Result

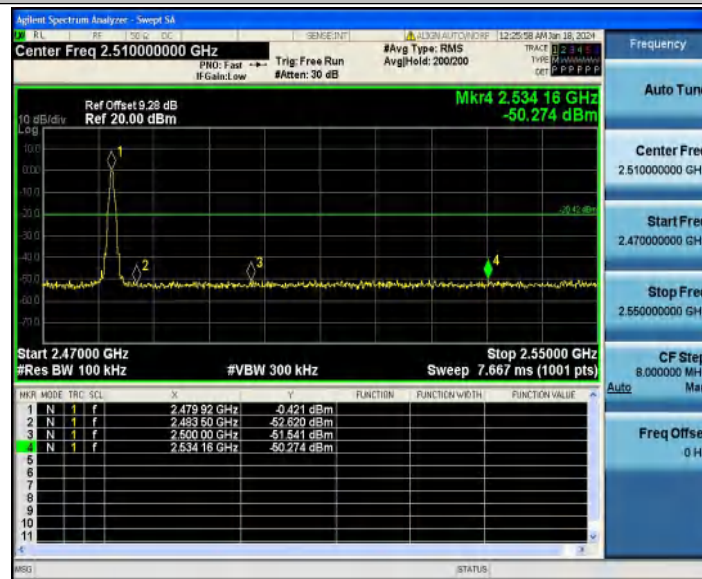
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-5.23	-50.05	≤ -25.23	PASS
		High	2480	-0.42	-50.27	≤ -20.42	PASS
		Low	Hop_2402	-5.72	-50.12	≤ -25.72	PASS
		High	Hop_2480	-4.64	-49.64	≤ -24.64	PASS
2DH5	Ant1	Low	2402	-6.48	-50	≤ -26.48	PASS
		High	2480	-5.59	-49.6	≤ -25.59	PASS
		Low	Hop_2402	-10.16	-49.96	≤ -30.16	PASS
		High	Hop_2480	-9.60	-50.31	≤ -29.6	PASS
3DH5	Ant1	Low	2402	-5.08	-50.41	≤ -25.08	PASS
		High	2480	-4.04	-48.74	≤ -24.04	PASS
		Low	Hop_2402	-10.14	-50.07	≤ -30.14	PASS
		High	Hop_2480	-9.77	-50.25	≤ -29.77	PASS

Test Graphs

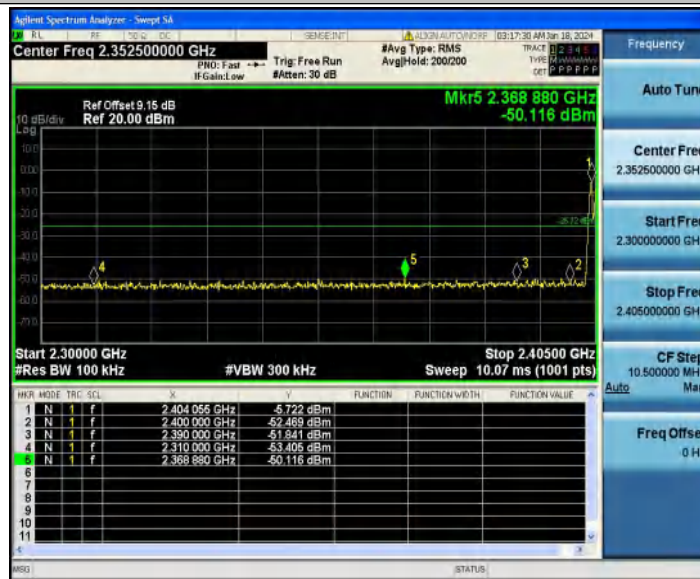
DH5_Ant1_Low_2402



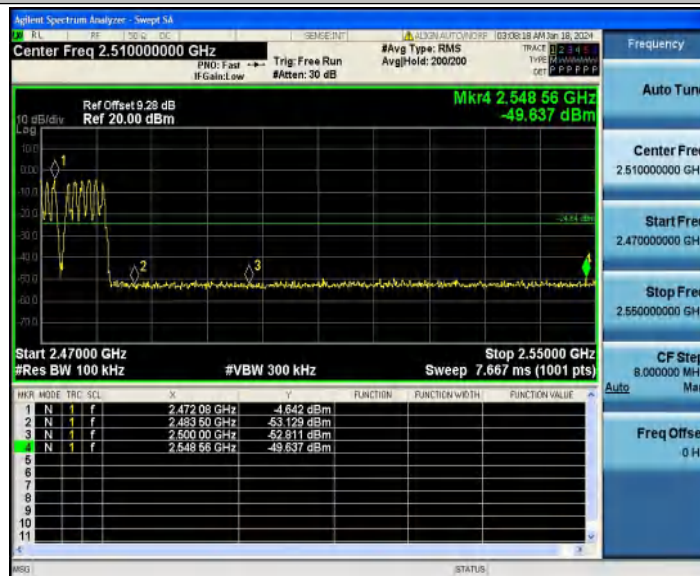
DH5_Ant1_High_2480



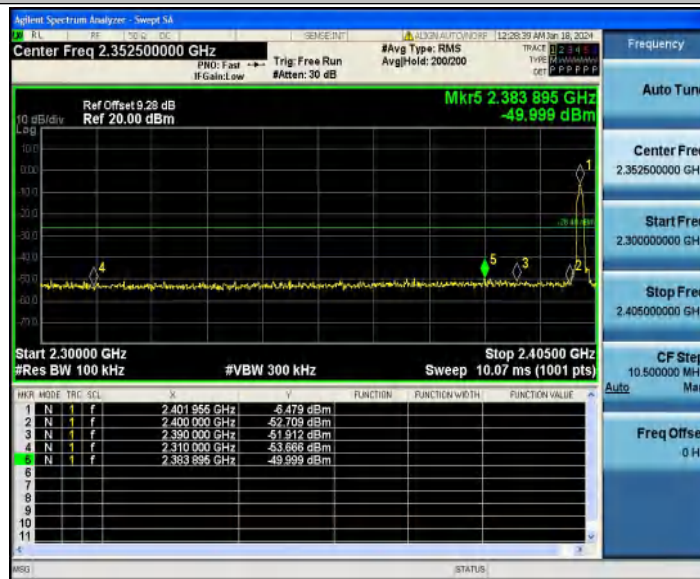
DH5_Ant1_Low_Hop_2402



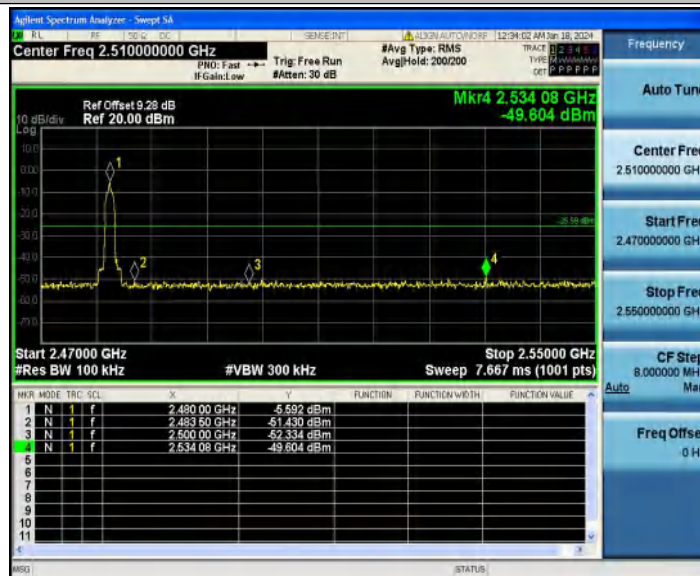
DH5_Ant1_High_Hop_2480



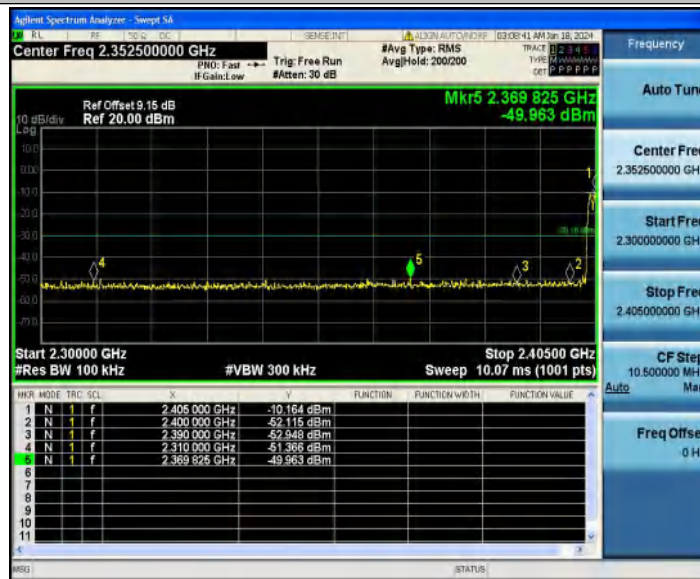
2DH5_Ant1_Low_2402



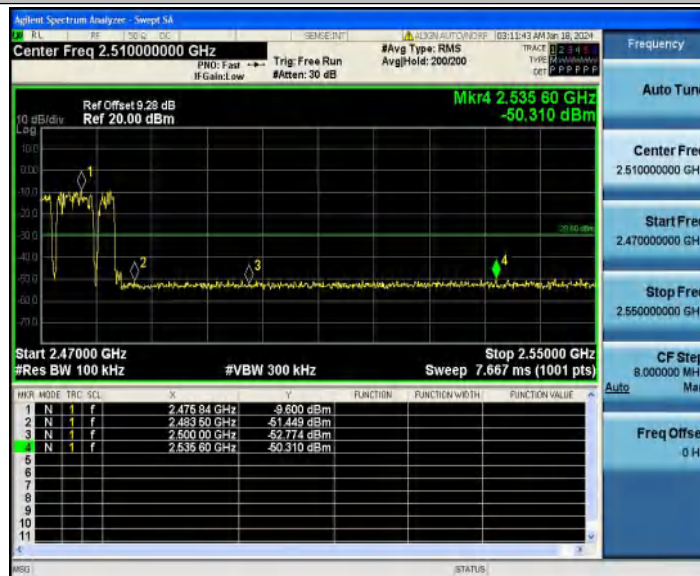
2DH5_Ant1_High_2480



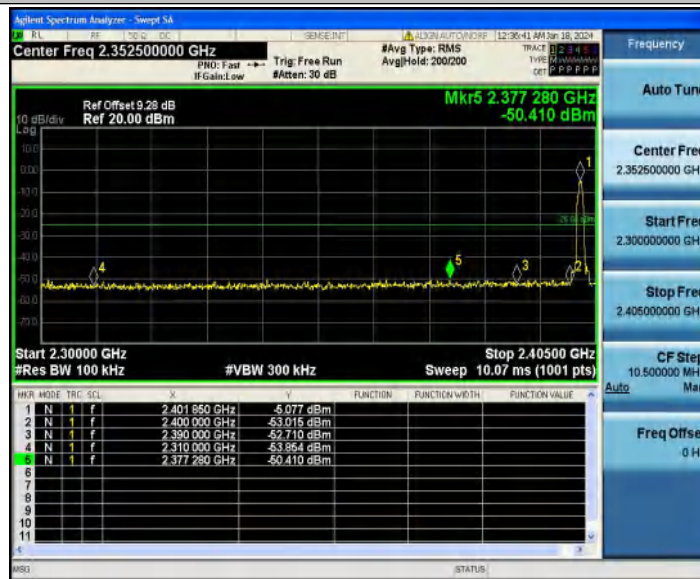
2DH5_Ant1_Low_Hop_2402



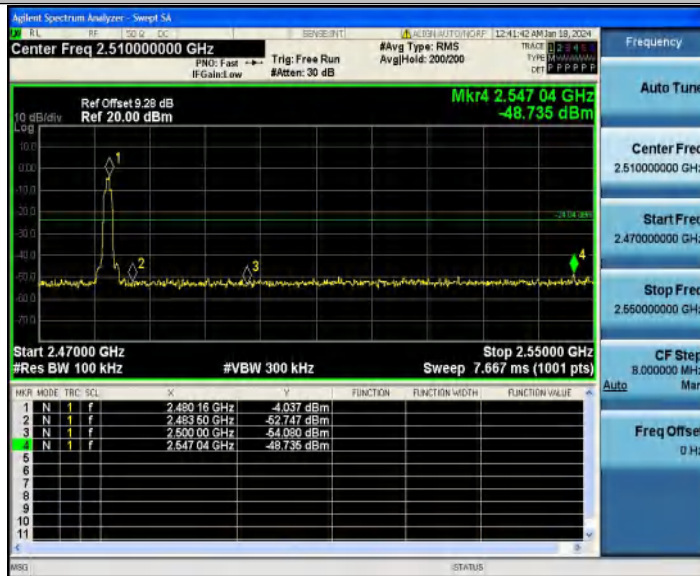
2DH5_Ant1_High_Hop_2480



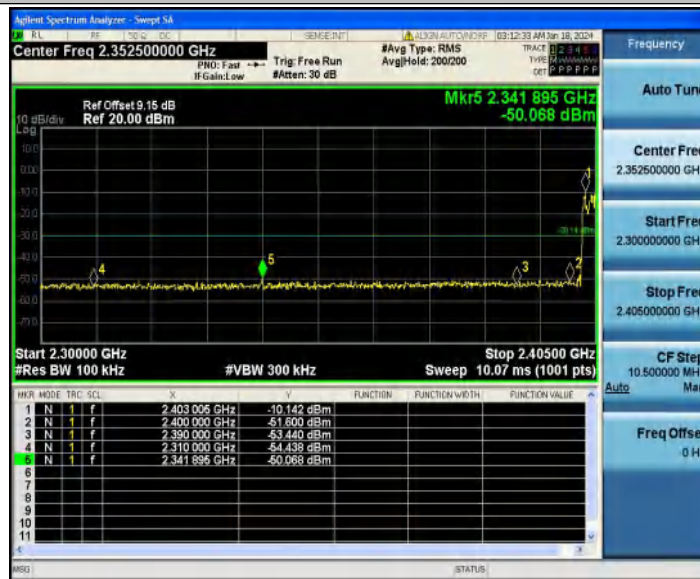
3DH5_Ant1_Low_2402



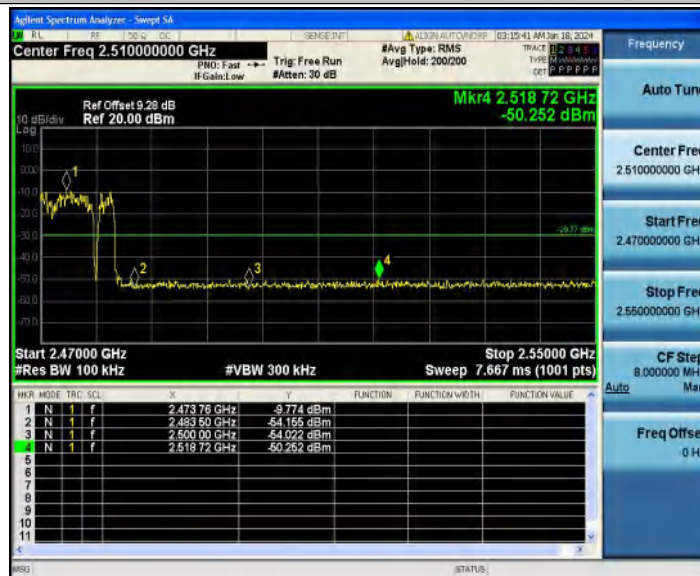
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

Test Result

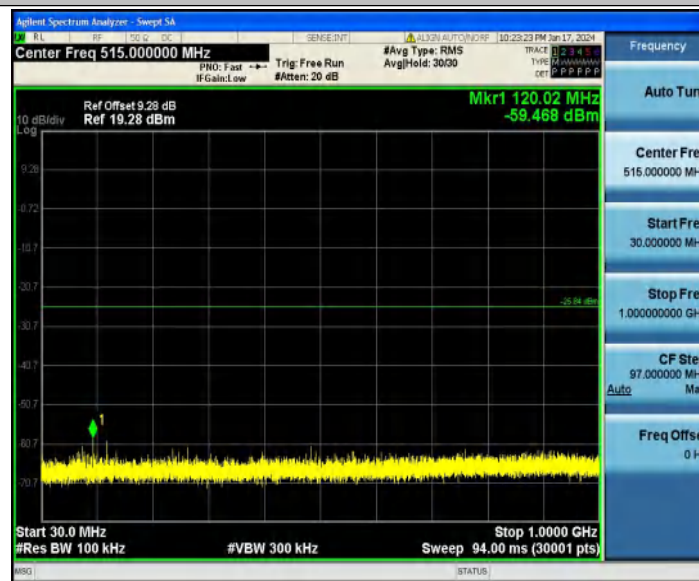
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-5.84	-5.84	---	PASS
			30~1000	-5.84	-59.47	≤-25.84	PASS
			1000~26500	-5.84	-50.13	≤-25.84	PASS
		2441	Reference	-1.24	-1.24	---	PASS
			30~1000	-1.24	-59.89	≤-21.24	PASS
			1000~26500	-1.24	-45.16	≤-21.24	PASS
		2480	Reference	-0.64	-0.64	---	PASS
			30~1000	-0.64	-60.26	≤-20.64	PASS
			1000~26500	-0.64	-46.08	≤-20.64	PASS
2DH5	Ant1	2402	Reference	-6.08	-6.08	---	PASS
			30~1000	-6.08	-60.5	≤-26.08	PASS
			1000~26500	-6.08	-49.32	≤-26.08	PASS
		2441	Reference	-5.66	-5.66	---	PASS
			30~1000	-5.66	-59.18	≤-25.66	PASS
			1000~26500	-5.66	-49.19	≤-25.66	PASS
		2480	Reference	-5.63	-5.63	---	PASS
			30~1000	-5.63	-60.26	≤-25.63	PASS
			1000~26500	-5.63	-50.88	≤-25.63	PASS
3DH5	Ant1	2402	Reference	-5.04	-5.04	---	PASS
			30~1000	-5.04	-59.39	≤-25.04	PASS
			1000~26500	-5.04	-45.19	≤-25.04	PASS
		2441	Reference	-7.59	-7.59	---	PASS
			30~1000	-7.59	-60.1	≤-27.59	PASS
			1000~26500	-7.59	-49.47	≤-27.59	PASS
		2480	Reference	-8.83	-8.83	---	PASS
			30~1000	-8.83	-55.19	≤-28.83	PASS
			1000~26500	-8.83	-49.65	≤-28.83	PASS

Test Graphs

DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



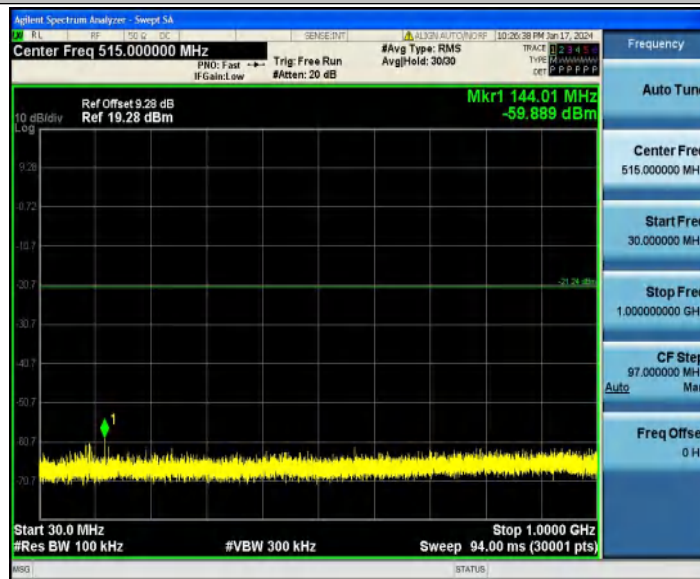
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



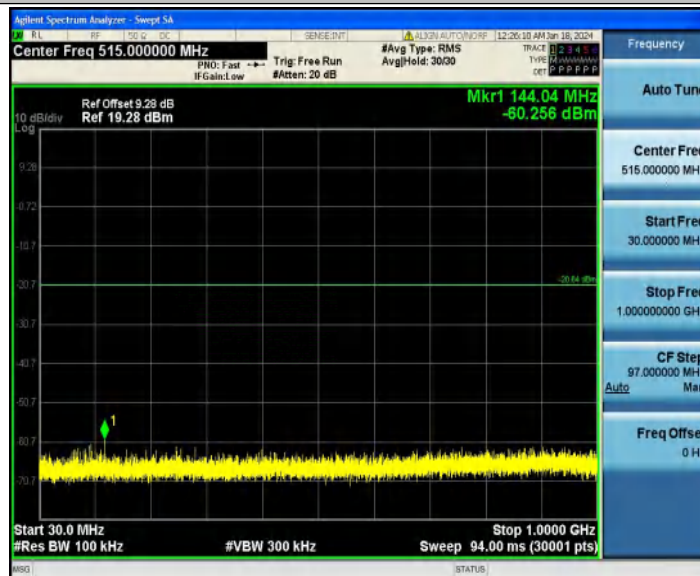
DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



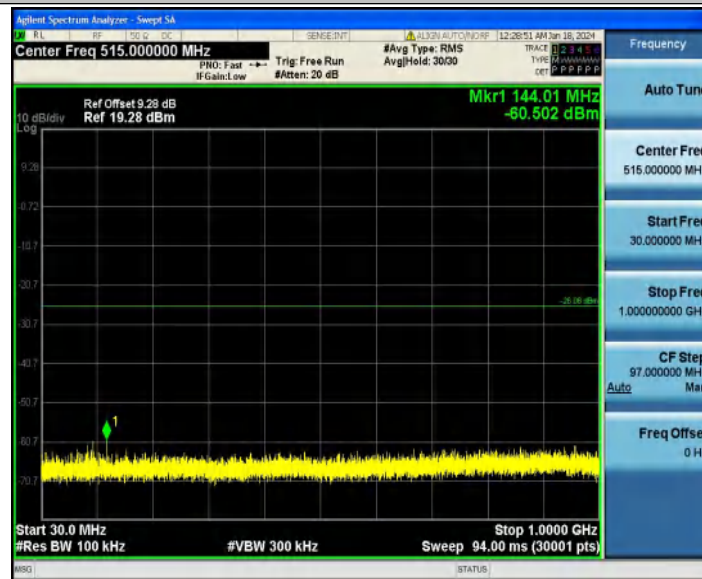
DH5_Ant1_2480_1000~26500



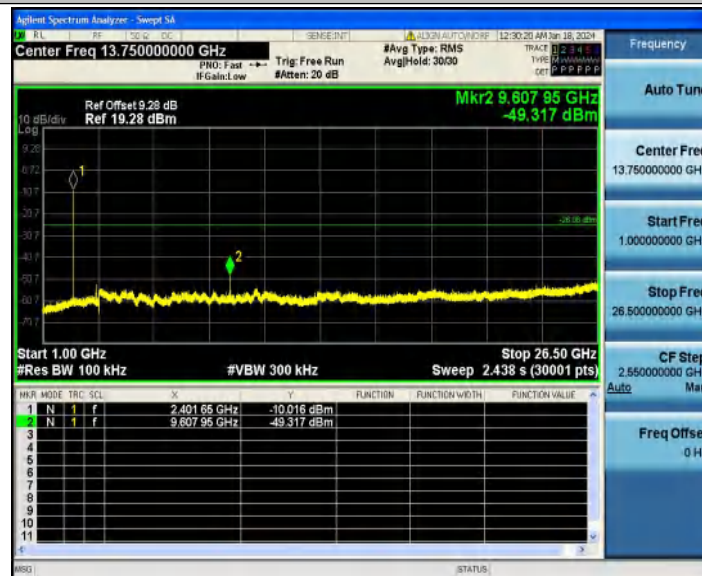
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



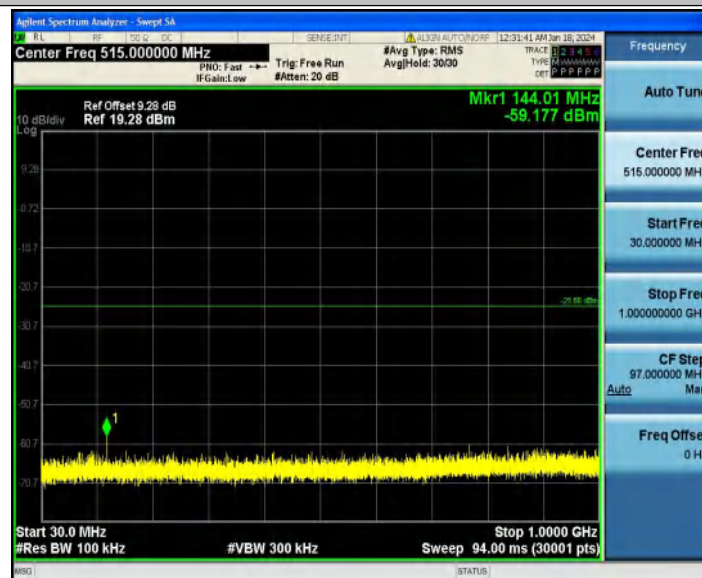
2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



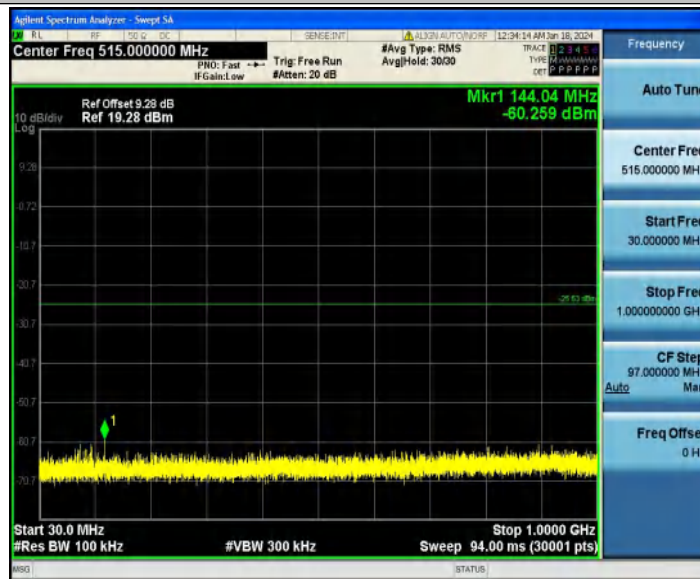
2DH5_Ant1_2441_1000~26500



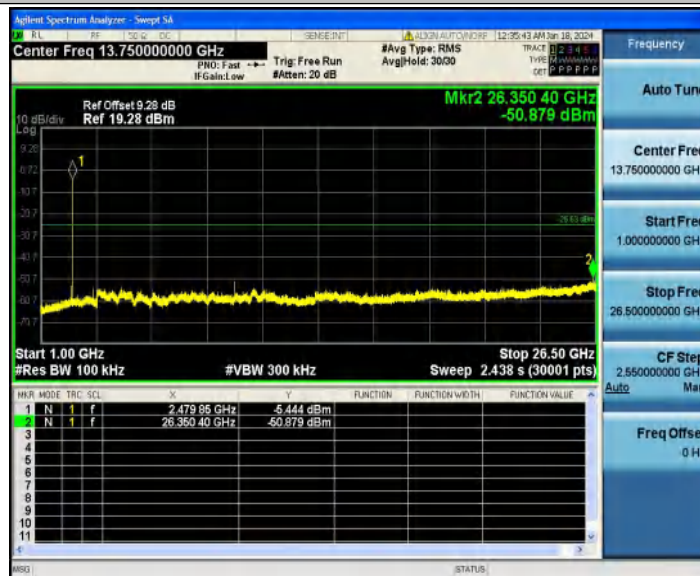
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



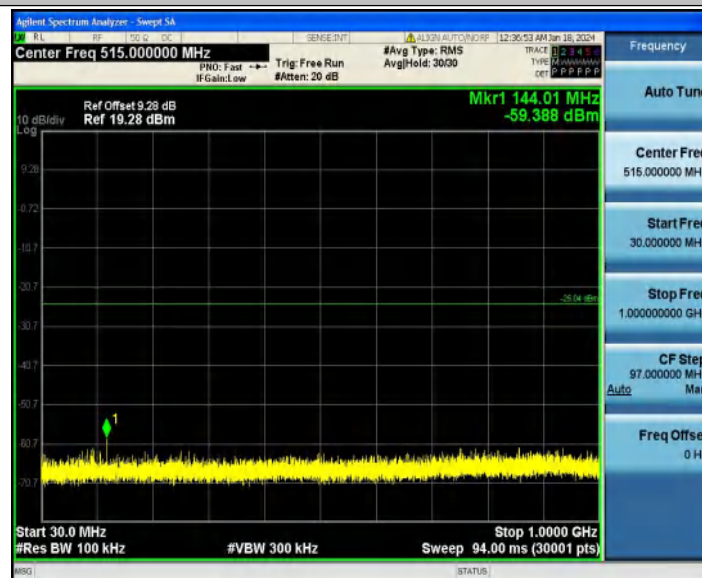
2DH5_Ant1_2480_1000~26500



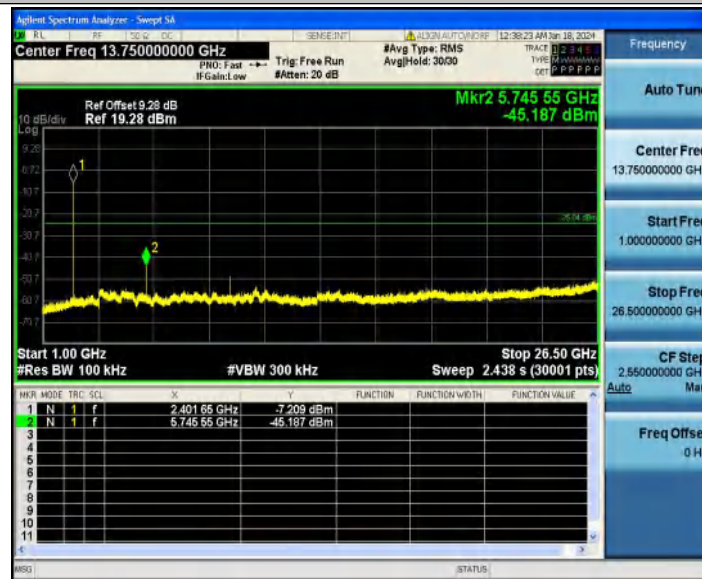
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000



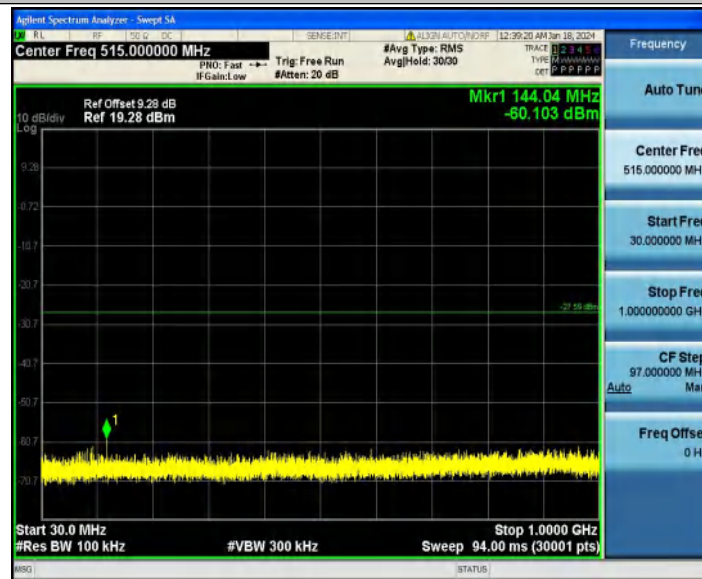
3DH5_Ant1_2402_1000~26500



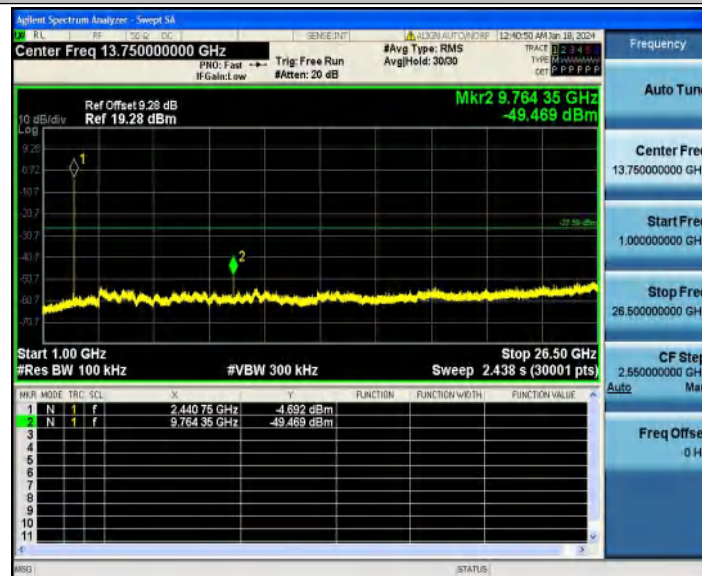
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



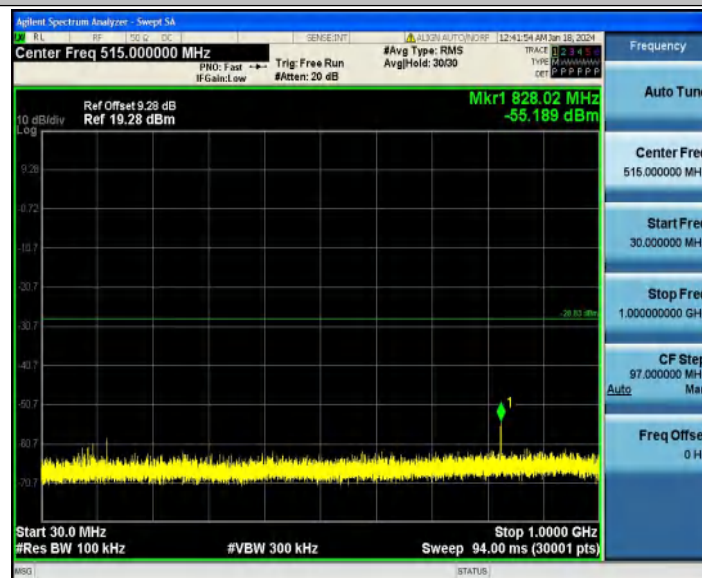
3DH5_Ant1_2441_1000~26500



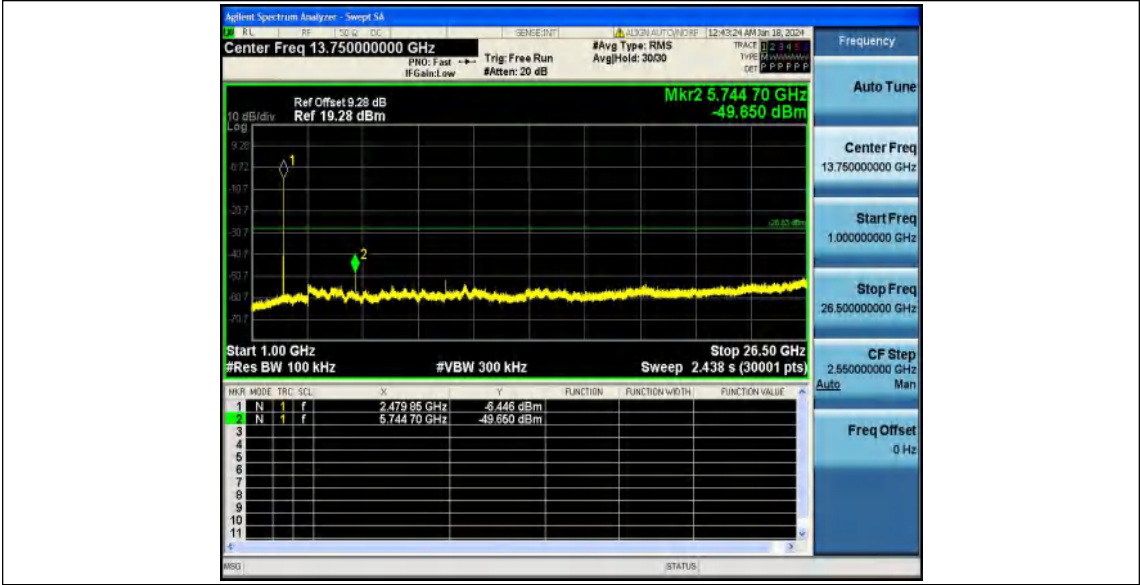
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



Appendix I: Duty Cycle

Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.87	3.75	0.7653	76.53	1.16	---	---
		2441	2.87	3.74	0.7674	76.74	1.15	---	---
		2480	2.87	3.75	0.7653	76.53	1.16	---	---
2DH5	Ant1	2402	2.88	3.76	0.7660	76.60	1.16	---	---
		2441	2.88	3.75	0.7680	76.80	1.15	---	---
		2480	2.88	3.75	0.7680	76.80	1.15	---	---
3DH5	Ant1	2402	2.88	3.75	0.7680	76.80	1.15	---	---
		2441	2.88	3.74	0.7701	77.01	1.13	---	---
		2480	2.89	3.76	0.7686	76.86	1.14	---	---

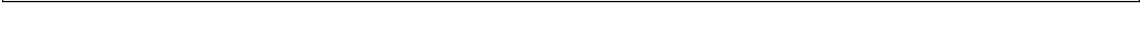
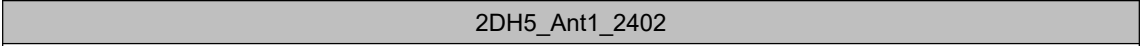
Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441

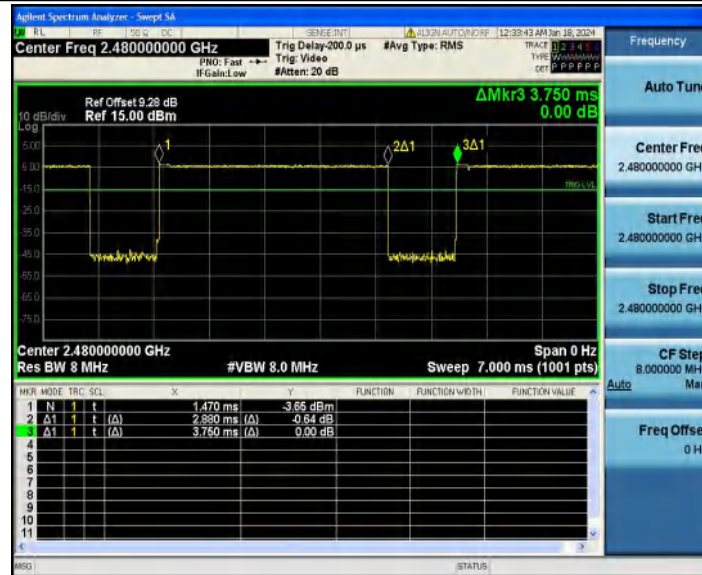




2DH5_Ant1_2441



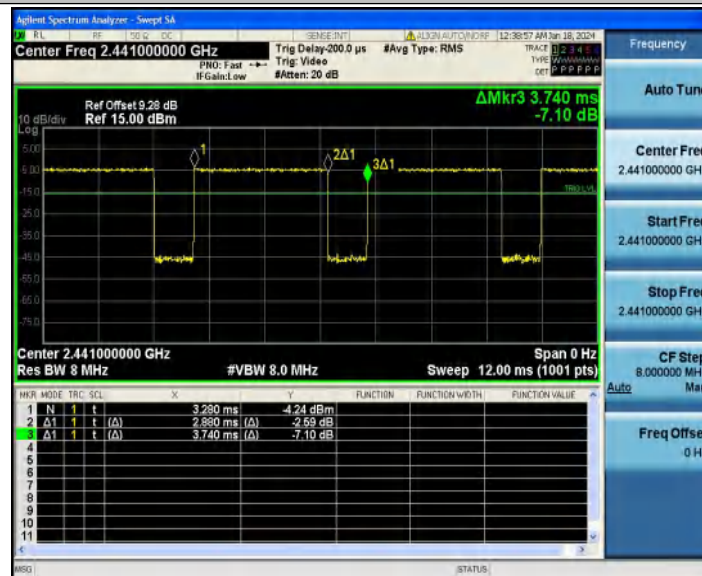
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

