

FCC Appendix RF Test Data

FCC ID : 2BMHLX1PRO

Company: : JOY MORE TRADE LIMITED

EUT : Smart Media Player

Model Number : StreamX X1Pro

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	0.945	2401.544	2402.489	---	---
		2441	0.945	2440.544	2441.489	---	---
		2480	0.948	2479.547	2480.495	---	---
2DH5	Ant1	2402	1.323	2401.340	2402.663	---	---
		2441	1.335	2440.337	2441.672	---	---
		2480	1.317	2479.346	2480.663	---	---
3DH5	Ant1	2402	1.284	2401.373	2402.657	---	---
		2441	1.314	2440.346	2441.660	---	---
		2480	1.314	2479.349	2480.663	---	---

DH5_Ant1_2402

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.40200000 GHz

Ref Offset 0.6 dB
Ref 10.60 dBm

Trig: Free Run
#Atten: 20 dB

#Avg Type: RMS
AvgHold: 100/100

Span 3.000 MHz
#Res BW 30 kHz
#VBW 100 kHz
Sweep (#Swp) 3.200 ms (1001 pts)

ΔMkr3 945 kHz
0.533 dB

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401544 GHz	-21.039 dBm			
2	N	1	f	2.402000 GHz	-1.158 dBm			
3	Δ	1	f (Δ)	945 kHz (Δ)	0.533 dB			

DH5_Ant1_2441

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 0.6 dB
Ref 10.60 dBm

Trig: Free Run
#Atten: 20 dB

#Avg Type: RMS
AvgHold: 100/100

Span 3.000 MHz
#Res BW 30 kHz
#VBW 100 kHz
Sweep (#Swp) 3.200 ms (1001 pts)

ΔMkr3 945 kHz
0.369 dB

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.440544 GHz	-21.741 dBm			
2	N	1	f	2.441003 GHz	-2.132 dBm			
3	Δ	1	f (Δ)	945 kHz (Δ)	0.369 dB			



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	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86614	2401.5686	2402.4348	---	---
		2441	0.86870	2440.5682	2441.4369	---	---
		2480	0.87562	2479.5652	2480.4409	---	---
2DH5	Ant1	2402	1.1912	2401.4099	2402.6011	---	---
		2441	1.1860	2440.4118	2441.5978	---	---
		2480	1.1846	2479.4126	2480.5972	---	---
3DH5	Ant1	2402	1.1864	2401.4116	2402.5980	---	---
		2441	1.1906	2440.4100	2441.6006	---	---
		2480	1.1854	2479.4123	2480.5977	---	---

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	0.74	≤20.97	PASS
		2441	0.18	≤20.97	PASS
		2480	-0.05	≤20.97	PASS
2DH5	Ant1	2402	-0.02	≤20.97	PASS
		2441	-0.65	≤20.97	PASS
		2480	-0.82	≤20.97	PASS
3DH5	Ant1	2402	-0.04	≤20.97	PASS
		2441	-0.66	≤20.97	PASS
		2480	-0.81	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.012	≥ 0.948	PASS
2DH5	Ant1	Hop	1.14	≥ 0.890	PASS
3DH5	Ant1	Hop	1.16	≥ 0.876	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

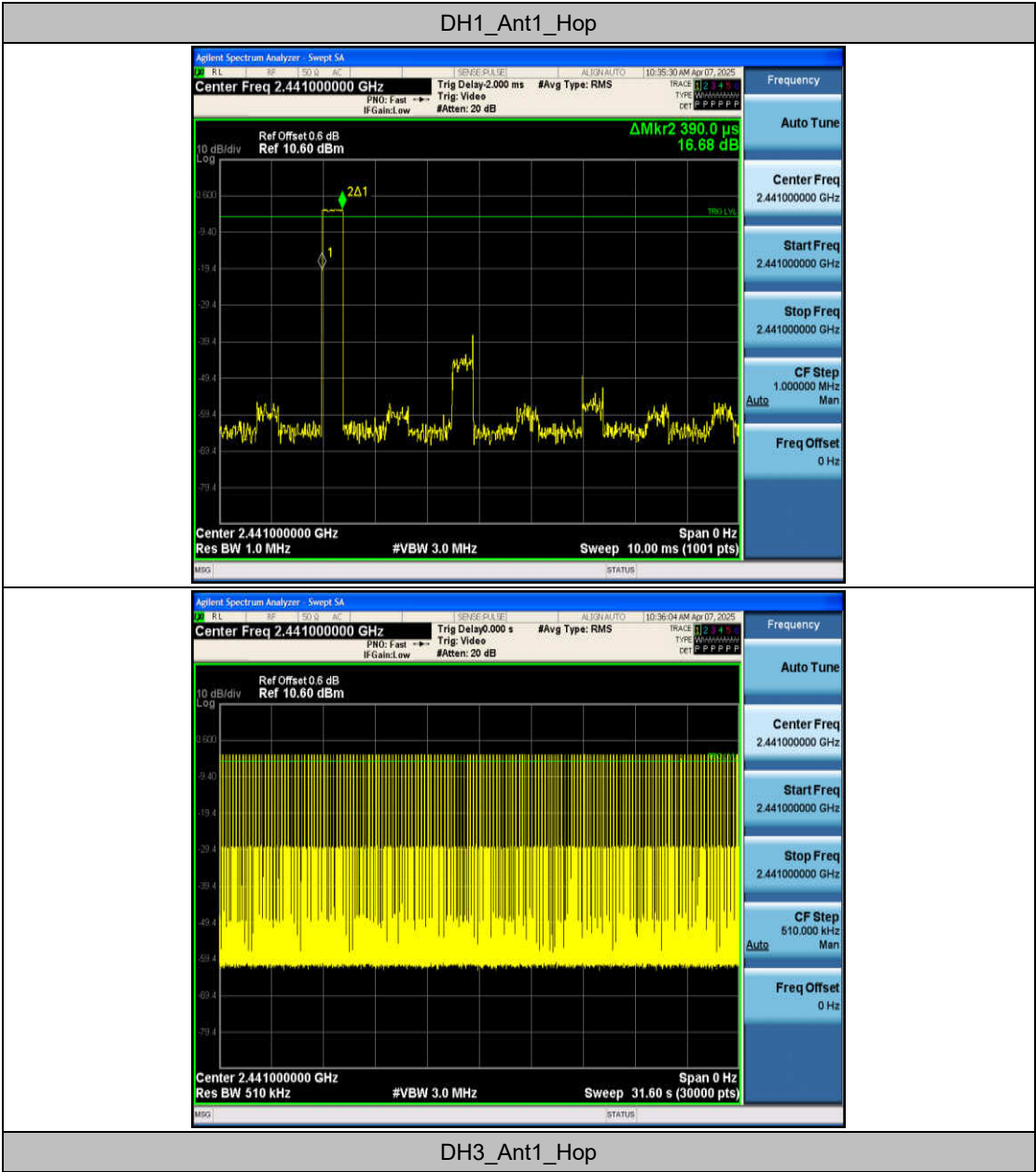


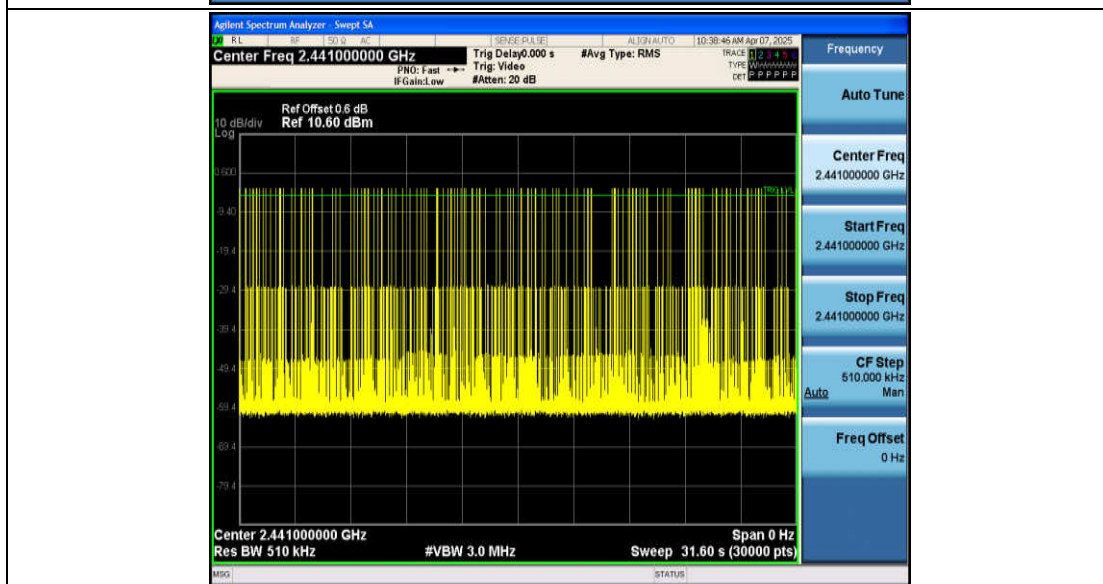
Appendix E: Time of occupancy

Test Result

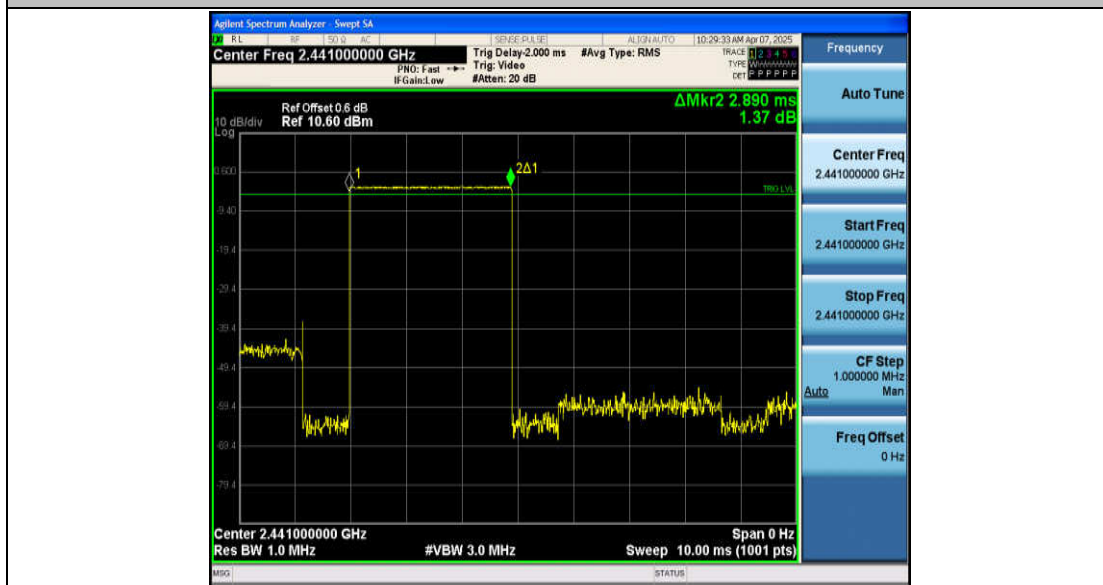
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.390	318	0.124	≤0.4	PASS
DH3	Ant1	Hop	1.640	141	0.231	≤0.4	PASS
DH5	Ant1	Hop	2.890	103	0.298	≤0.4	PASS
2DH1	Ant1	Hop	0.390	319	0.124	≤0.4	PASS
2DH3	Ant1	Hop	1.650	162	0.267	≤0.4	PASS
2DH5	Ant1	Hop	2.890	112	0.324	≤0.4	PASS
3DH1	Ant1	Hop	0.390	320	0.125	≤0.4	PASS
3DH3	Ant1	Hop	1.650	160	0.264	≤0.4	PASS
3DH5	Ant1	Hop	2.900	113	0.328	≤0.4	PASS

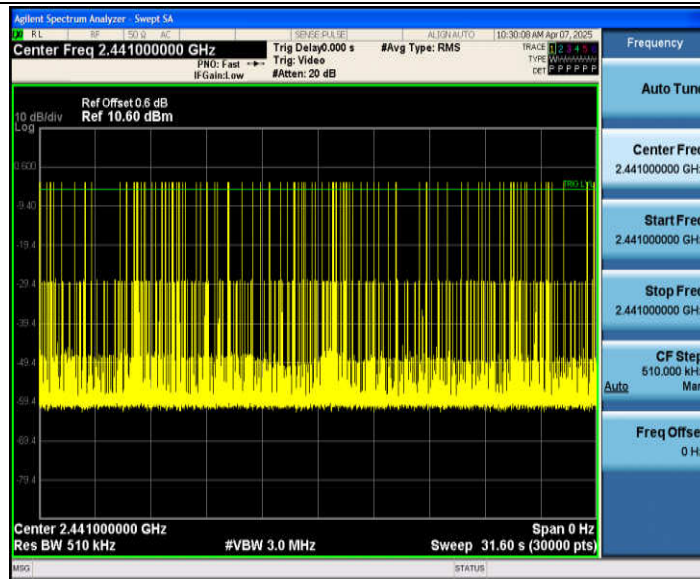
Test Graphs



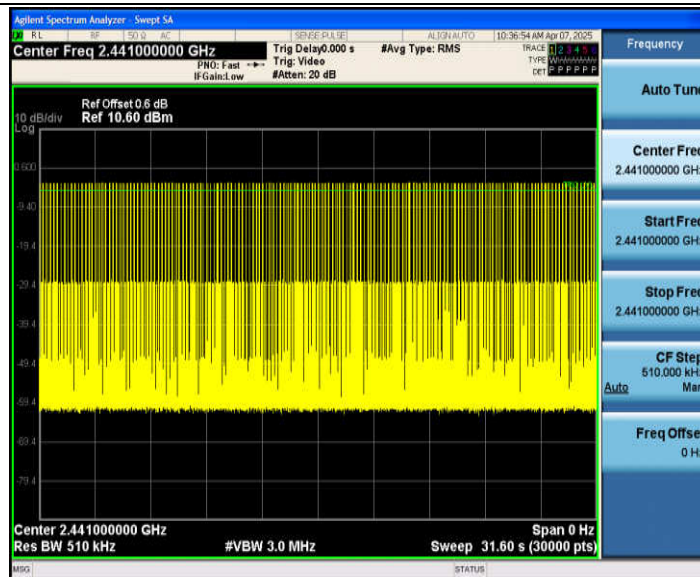
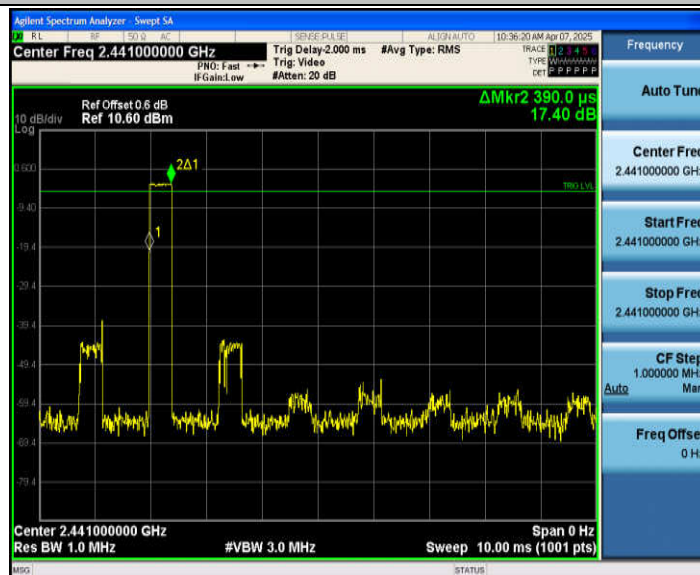


DH5_Ant1_Hop

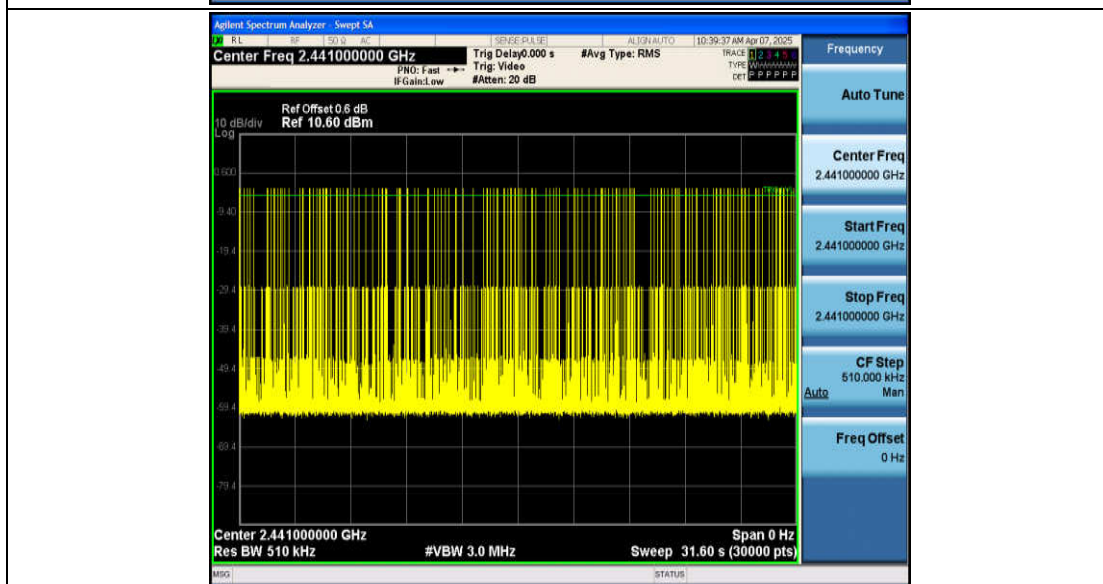




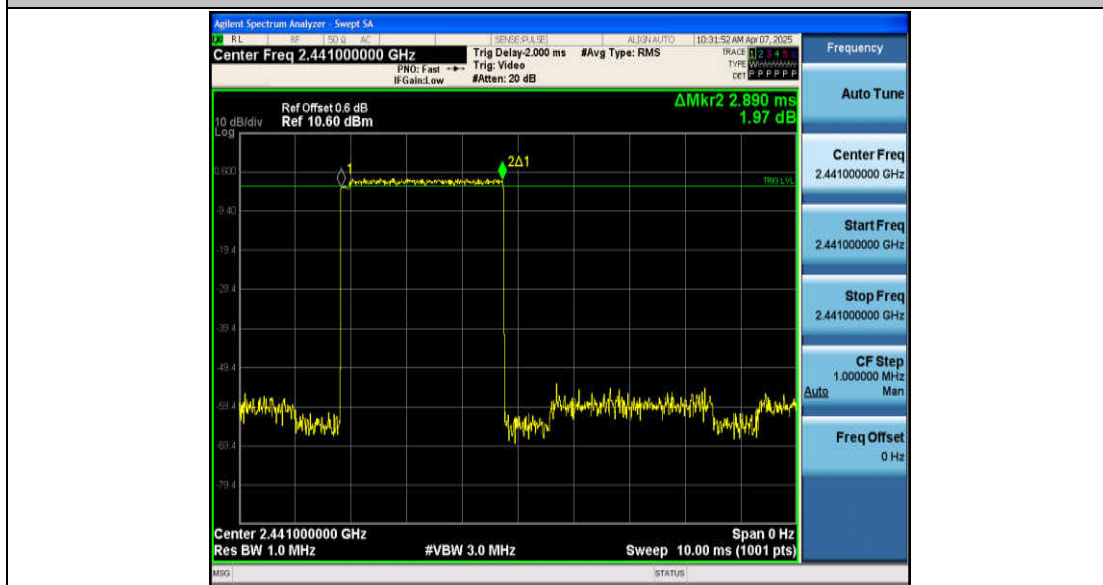
2DH1_Ant1_Hop

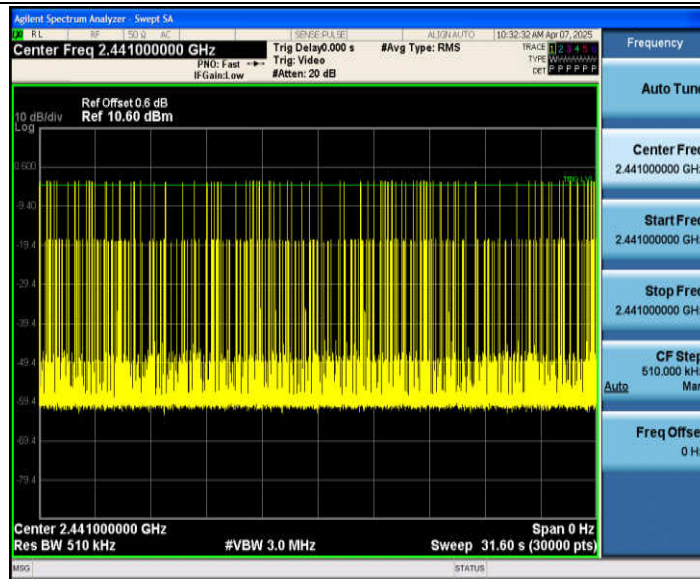


2DH3_Ant1_Hop

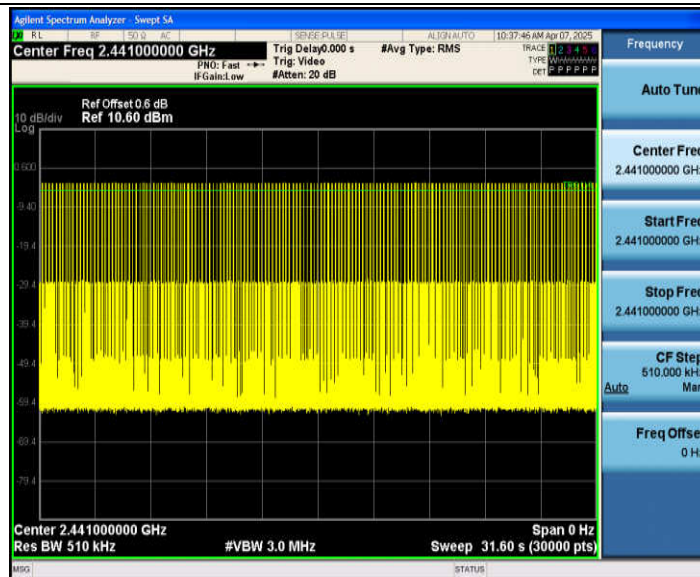


2DH5_Ant1_Hop

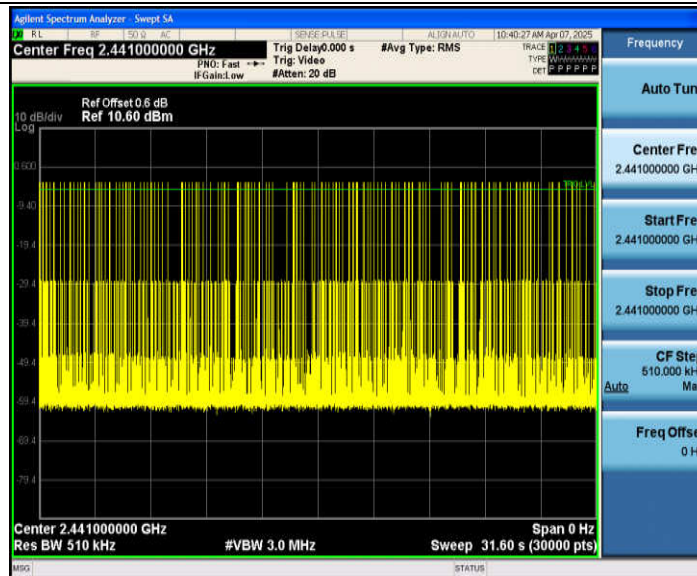




3DH1_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop

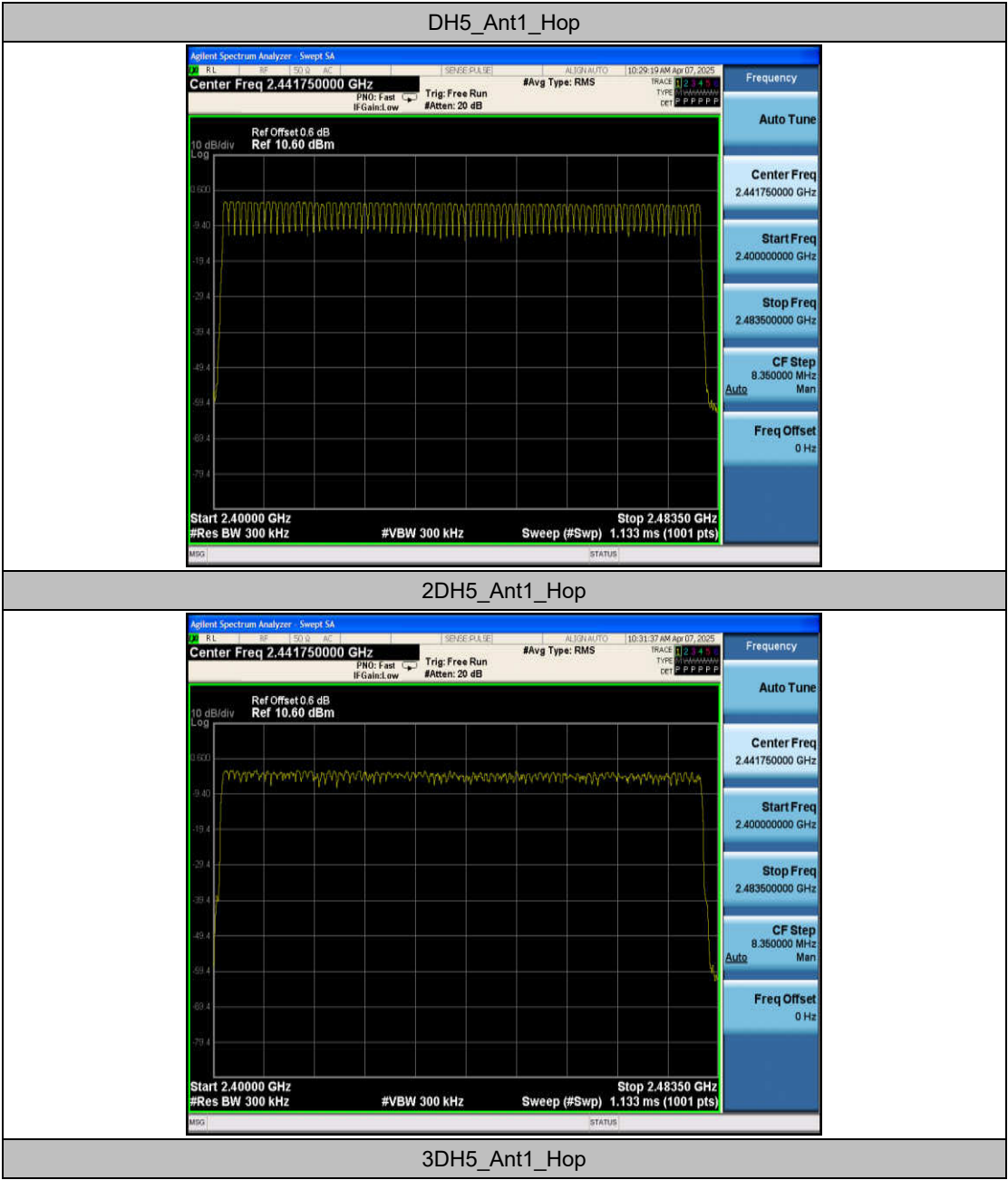


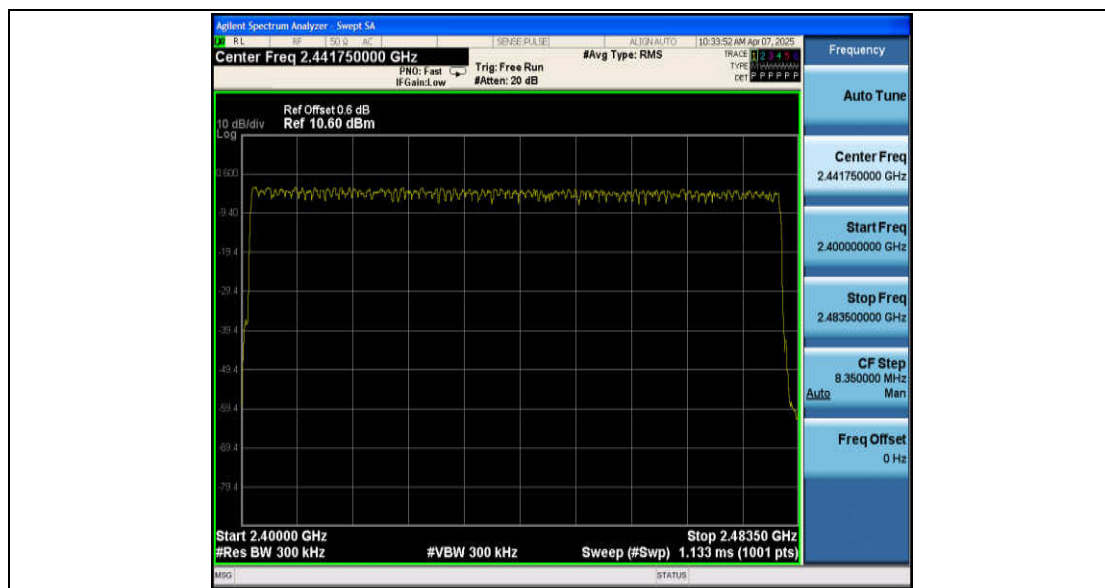
Appendix F: Number of hopping channels

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



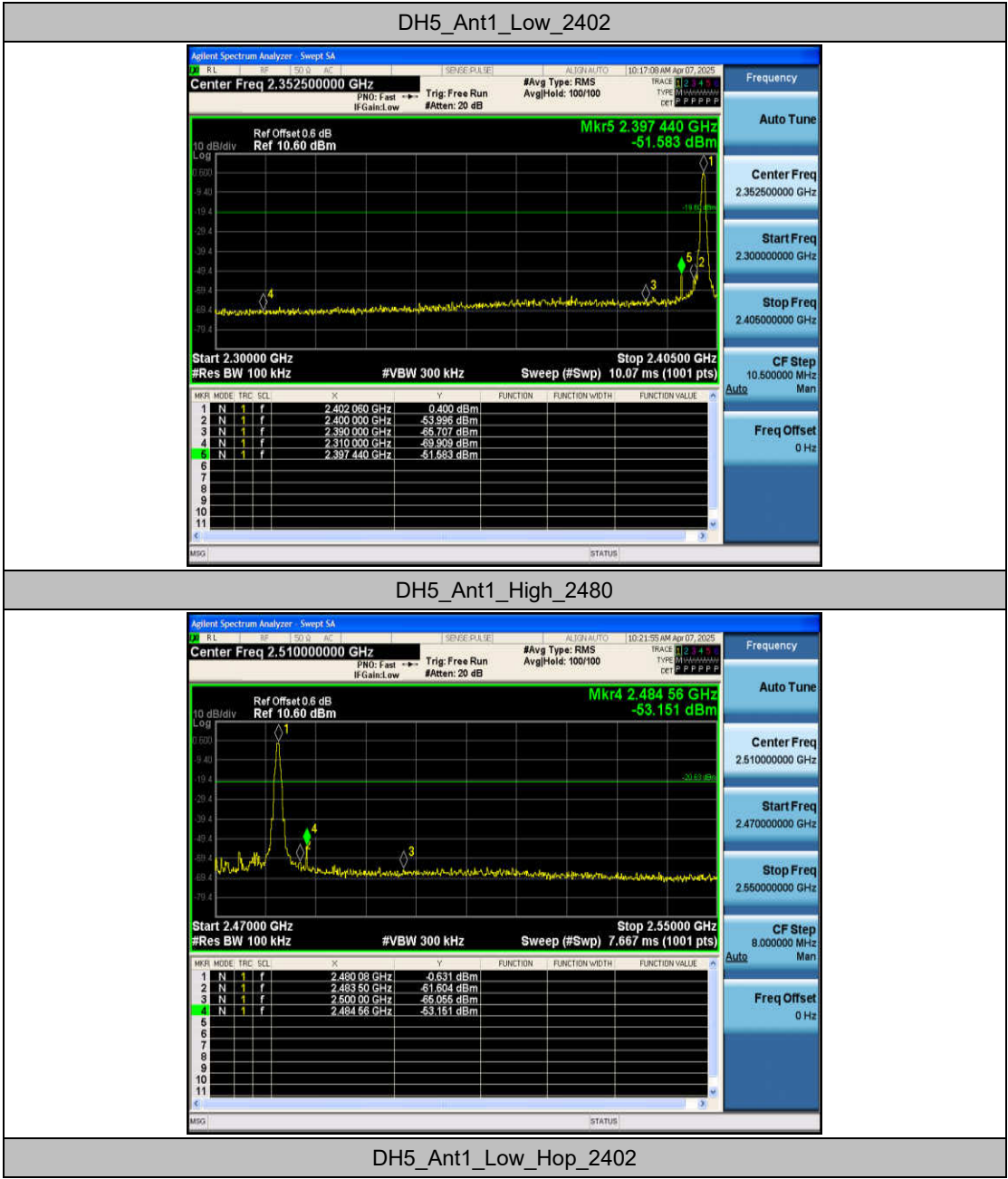


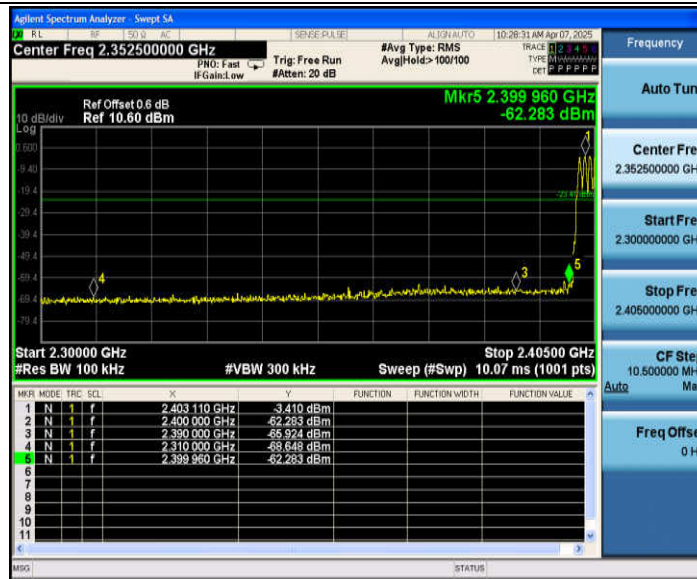
Appendix G: Band edge measurements

Test Result

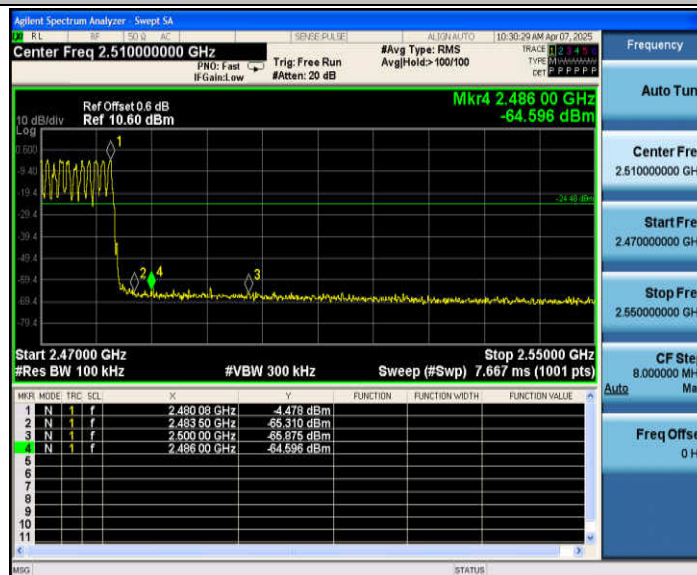
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.40	-51.58	≤-19.6	PASS
		High	2480	-0.63	-53.15	≤-20.63	PASS
		Low	Hop_2402	-3.41	-62.28	≤-23.41	PASS
		High	Hop_2480	-4.48	-64.6	≤-24.48	PASS
2DH5	Ant1	Low	2402	-3.71	-59.44	≤-23.71	PASS
		High	2480	-4.25	-55.58	≤-24.25	PASS
		Low	Hop_2402	-5.56	-62.84	≤-25.56	PASS
		High	Hop_2480	-3.77	-63.46	≤-23.77	PASS
3DH5	Ant1	Low	2402	-2.96	-58.95	≤-22.96	PASS
		High	2480	-4.57	-56.16	≤-24.57	PASS
		Low	Hop_2402	-6.40	-62.51	≤-26.4	PASS
		High	Hop_2480	-3.95	-57.18	≤-23.95	PASS

Test Graphs

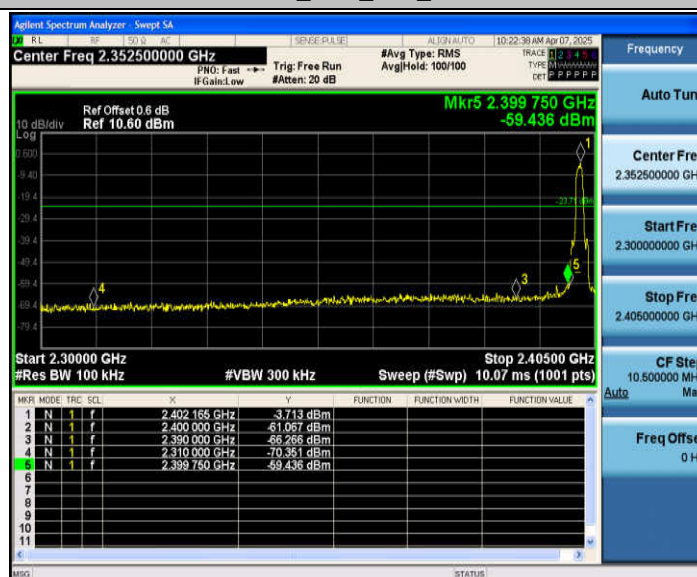




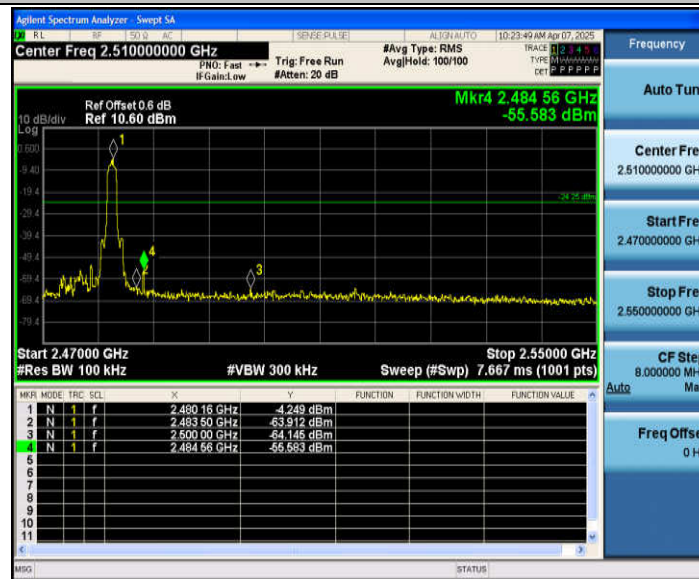
DH5_Ant1_High_Hop_2480



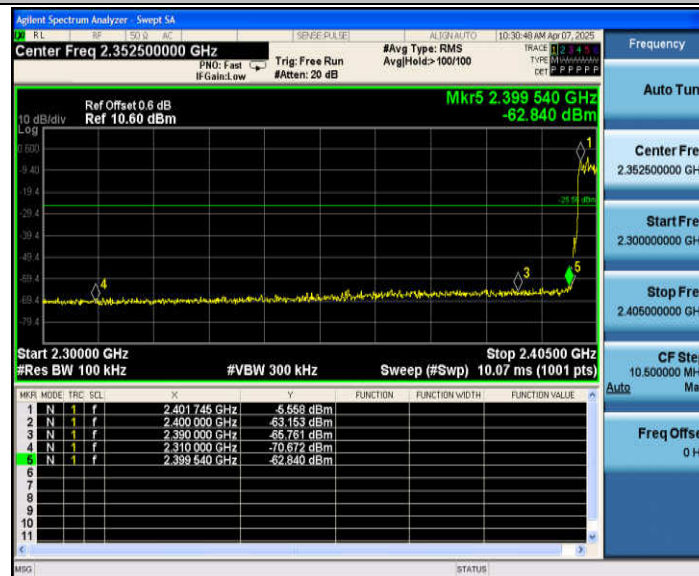
2DH5_Ant1_Low_2402



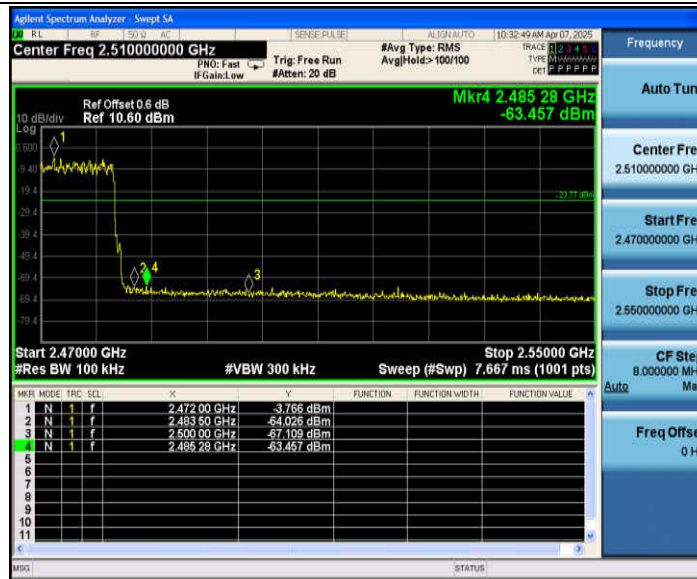
2DH5_Ant1_High_2480



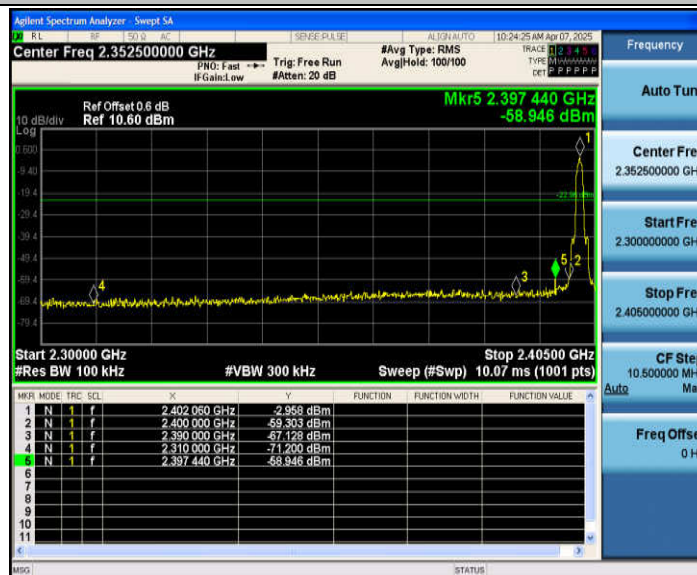
2DH5_Ant1_Low_Hop_2402



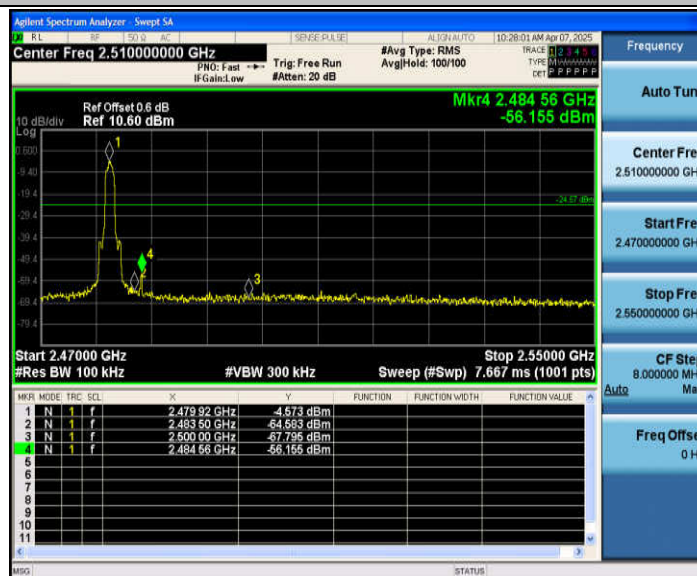
2DH5_Ant1_High_Hop_2480



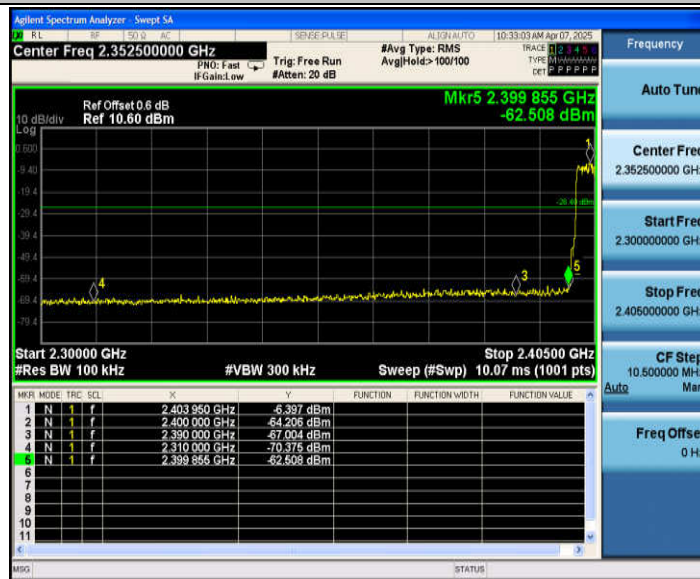
3DH5_Ant1_Low_2402



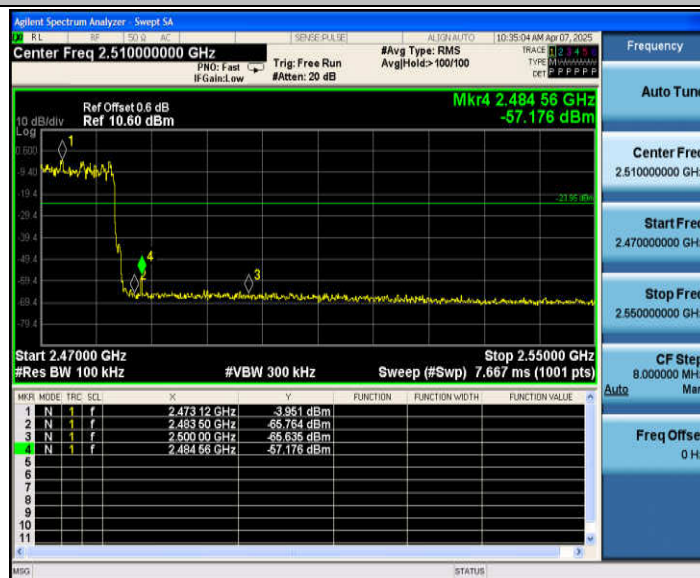
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

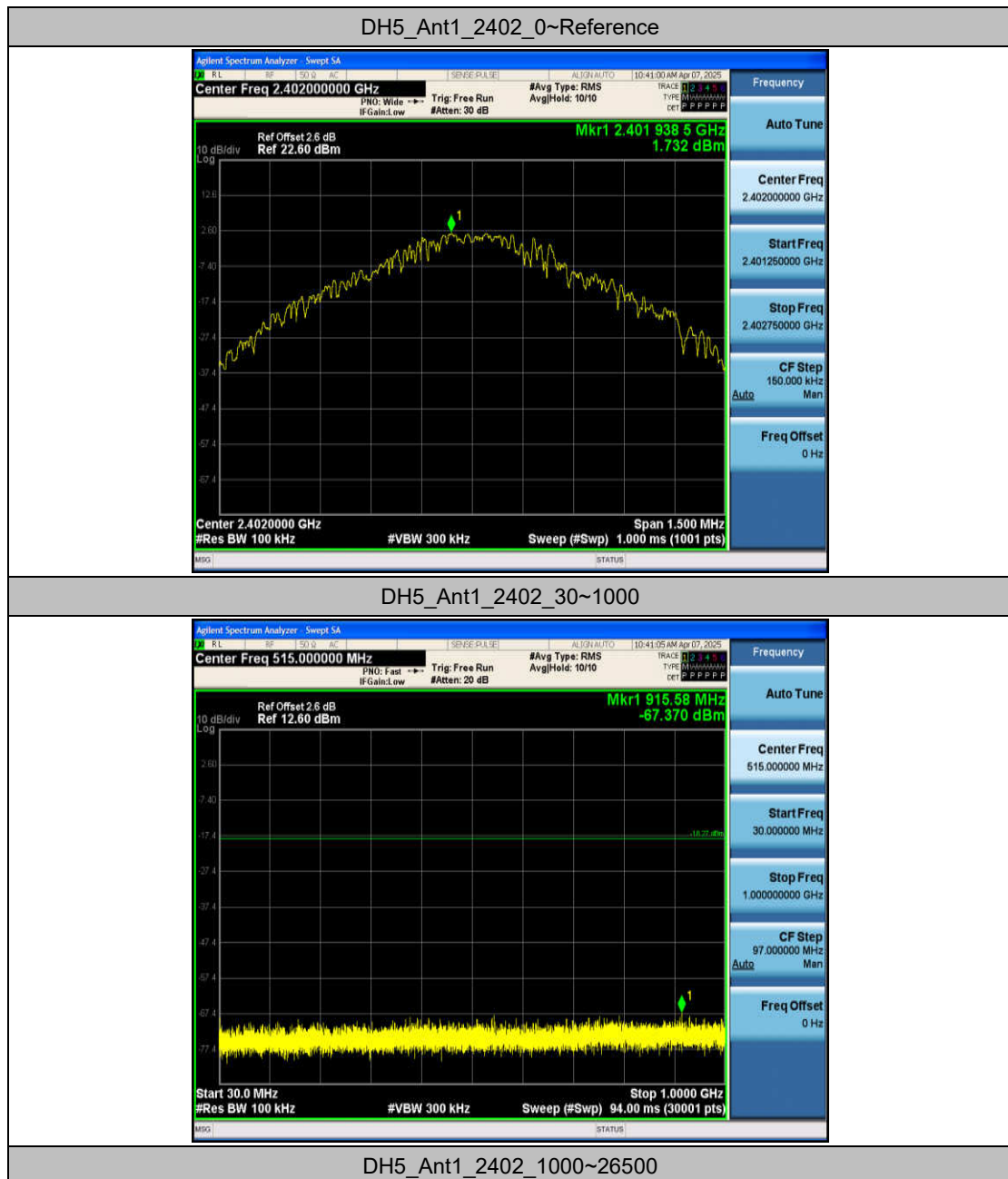


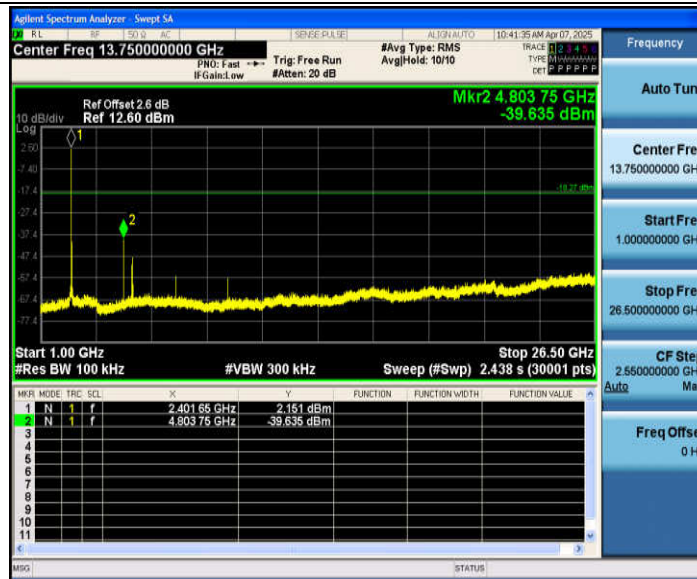
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	1.73	1.73	---	PASS
			30~1000	1.73	-67.37	≤-18.27	PASS
			1000~26500	1.73	-39.64	≤-18.27	PASS
		2441	Reference	1.21	1.21	---	PASS
			30~1000	1.21	-67.81	≤-18.79	PASS
			1000~26500	1.21	-41.59	≤-18.79	PASS
		2480	Reference	1.18	1.18	---	PASS
			30~1000	1.18	-67.94	≤-18.82	PASS
			1000~26500	1.18	-43.71	≤-18.82	PASS
2DH5	Ant1	2402	Reference	-3.62	-3.62	---	PASS
			30~1000	-3.62	-67.11	≤-23.62	PASS
			1000~26500	-3.62	-48.08	≤-23.62	PASS
		2441	Reference	-2.63	-2.63	---	PASS
			30~1000	-2.63	-68.5	≤-22.63	PASS
			1000~26500	-2.63	-47.6	≤-22.63	PASS
		2480	Reference	-2.57	-2.57	---	PASS
			30~1000	-2.57	-67.92	≤-22.57	PASS
			1000~26500	-2.57	-48.14	≤-22.57	PASS
3DH5	Ant1	2402	Reference	-2.85	-2.85	---	PASS
			30~1000	-2.85	-67.45	≤-22.85	PASS
			1000~26500	-2.85	-47.65	≤-22.85	PASS
		2441	Reference	-2.55	-2.55	---	PASS
			30~1000	-2.55	-67.39	≤-22.55	PASS
			1000~26500	-2.55	-48.37	≤-22.55	PASS
		2480	Reference	-4.96	-4.96	---	PASS
			30~1000	-4.96	-67.47	≤-24.96	PASS
			1000~26500	-4.96	-42.24	≤-24.96	PASS

Test Graphs

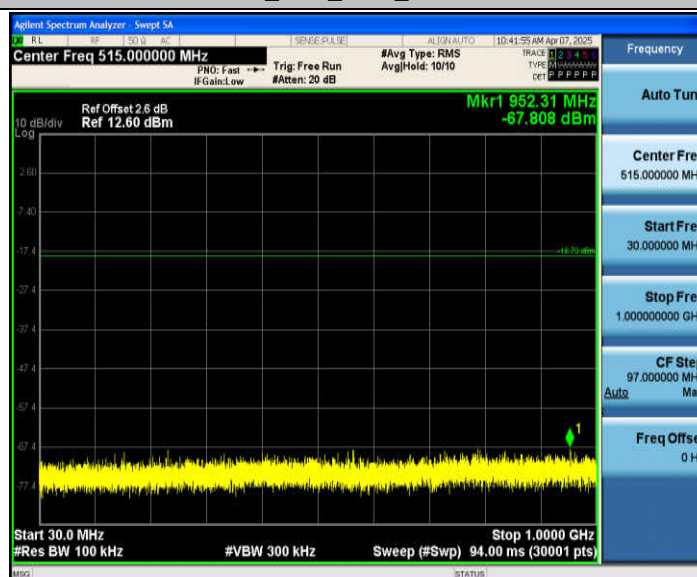




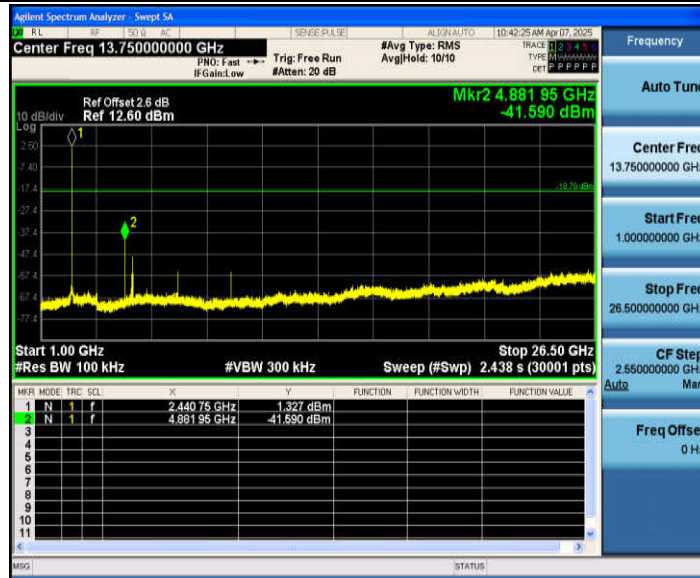
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



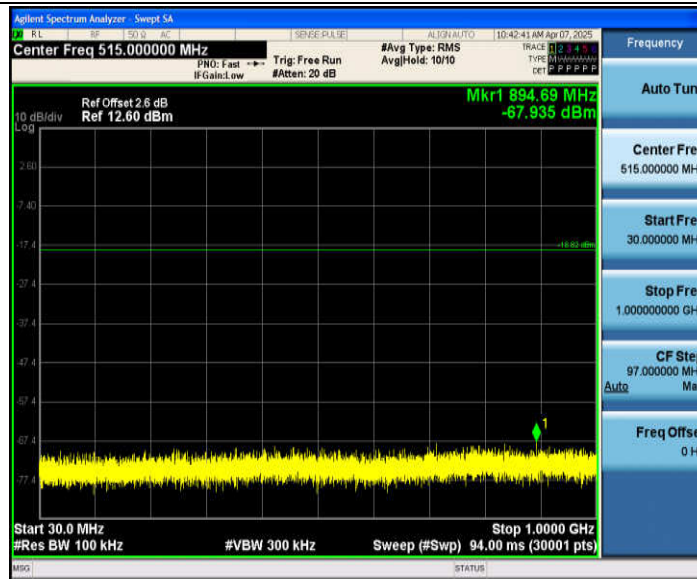
DH5_Ant1_2441_1000~26500



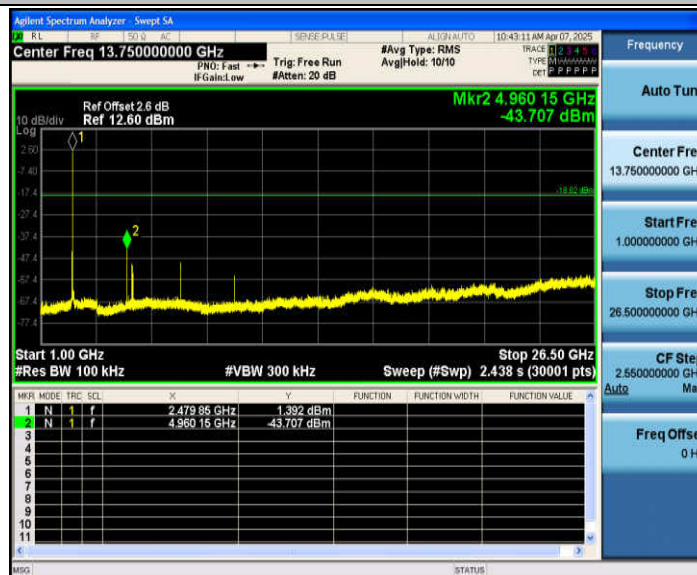
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



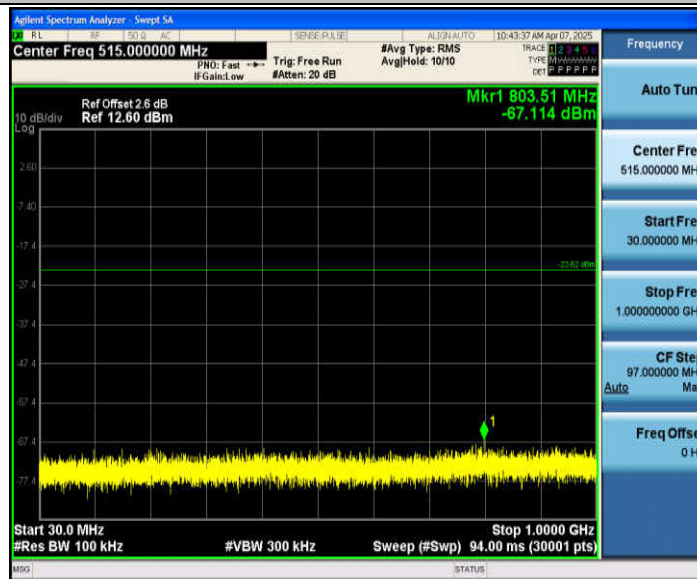
DH5_Ant1_2480_1000~26500



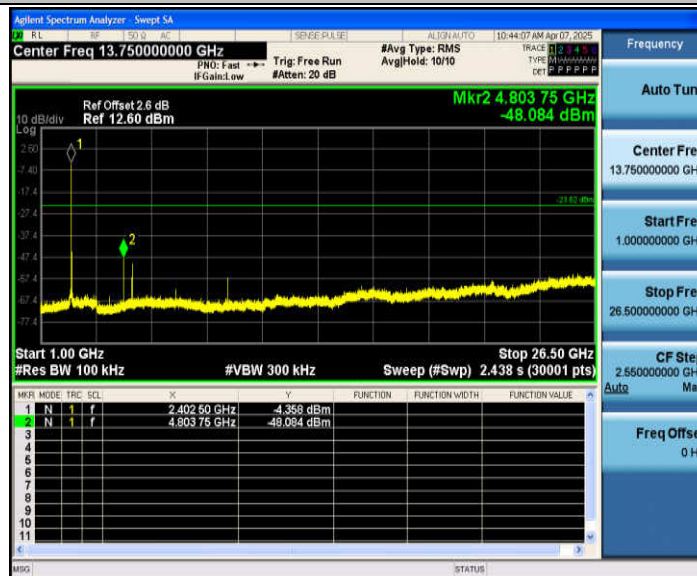
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



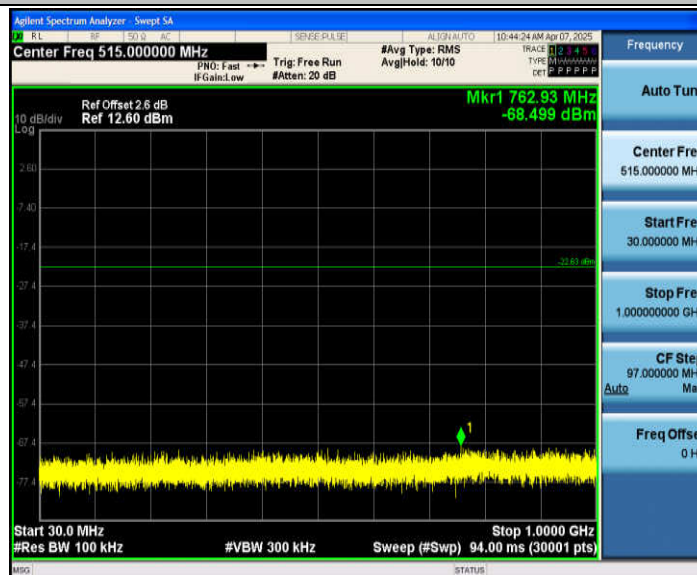
2DH5_Ant1_2402_1000~26500



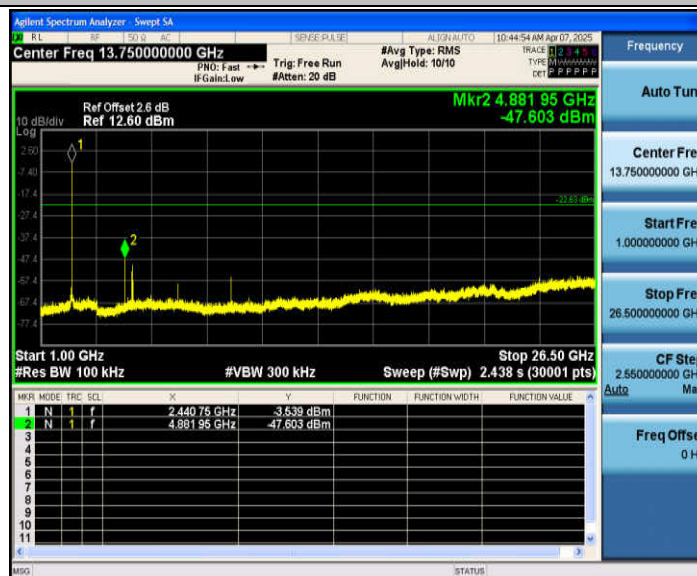
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



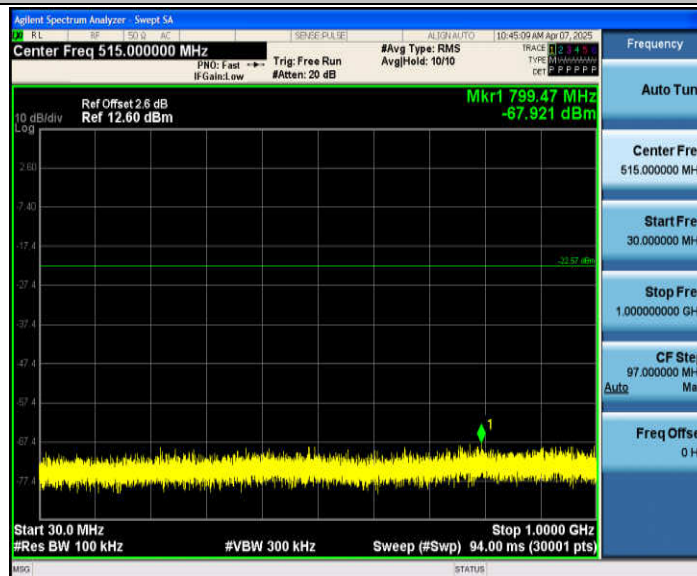
2DH5_Ant1_2441_1000~26500



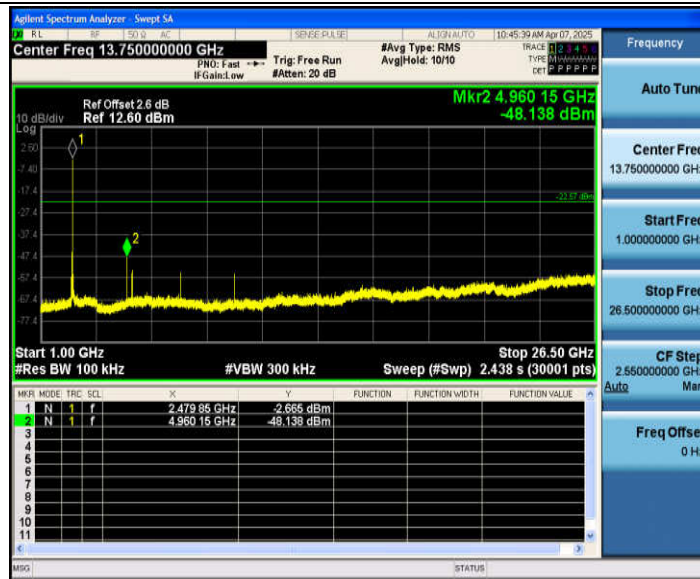
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



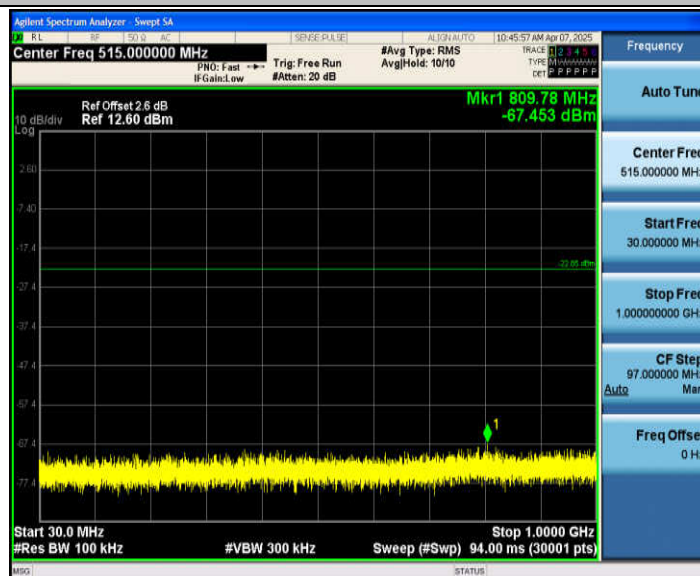
2DH5_Ant1_2480_1000~26500



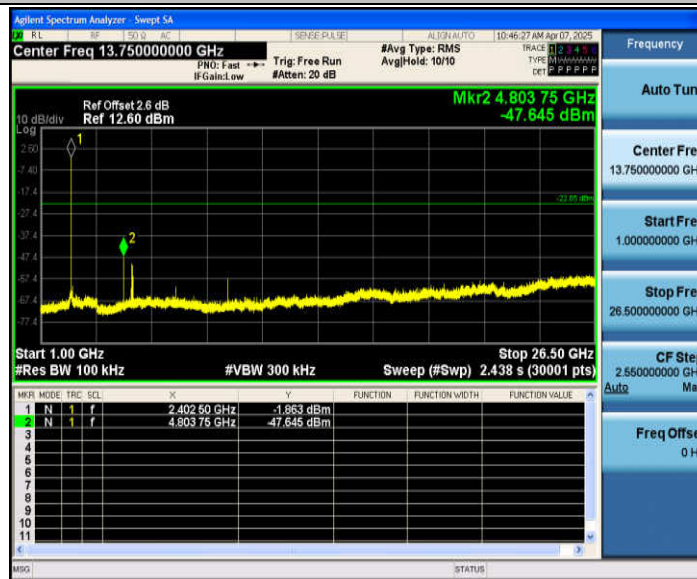
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000



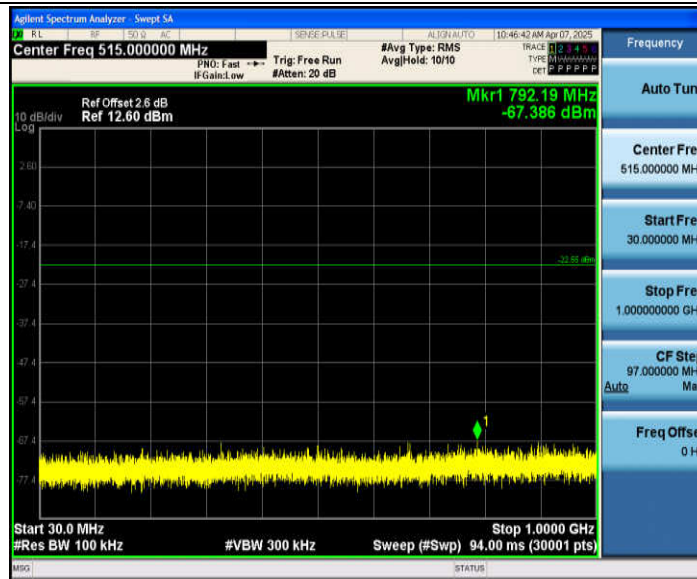
3DH5_Ant1_2402_1000~26500



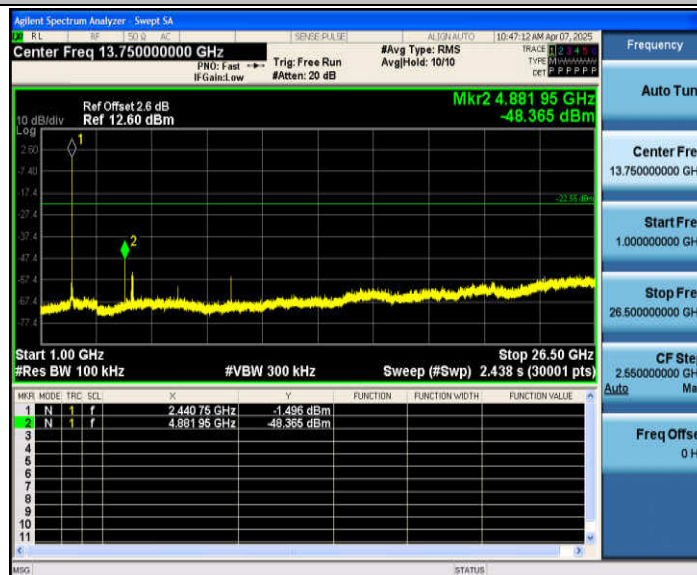
3DH5_Ant1_2441_0~Reference



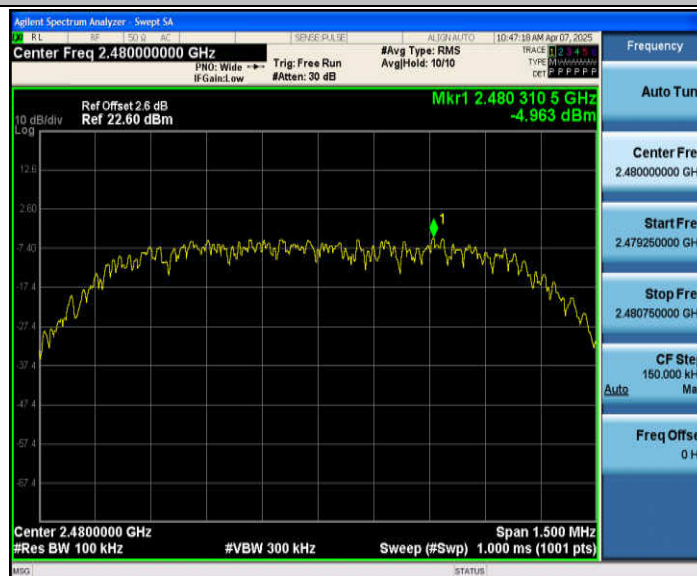
3DH5_Ant1_2441_30~1000



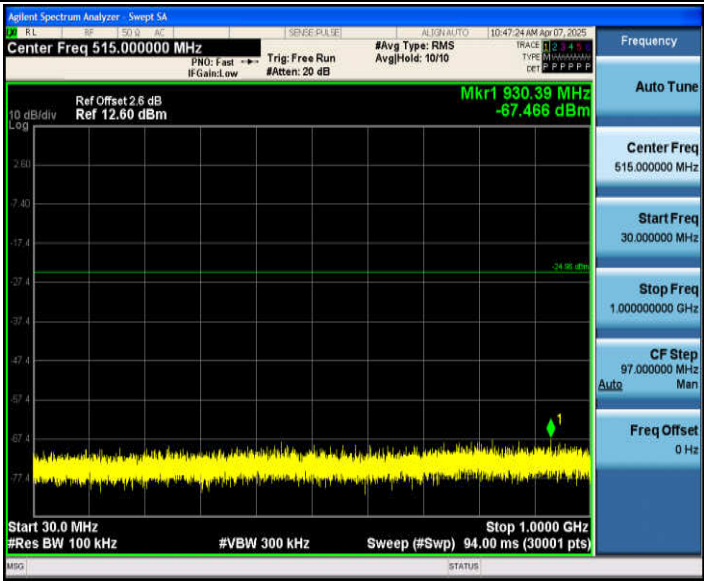
3DH5_Ant1_2441_1000~26500



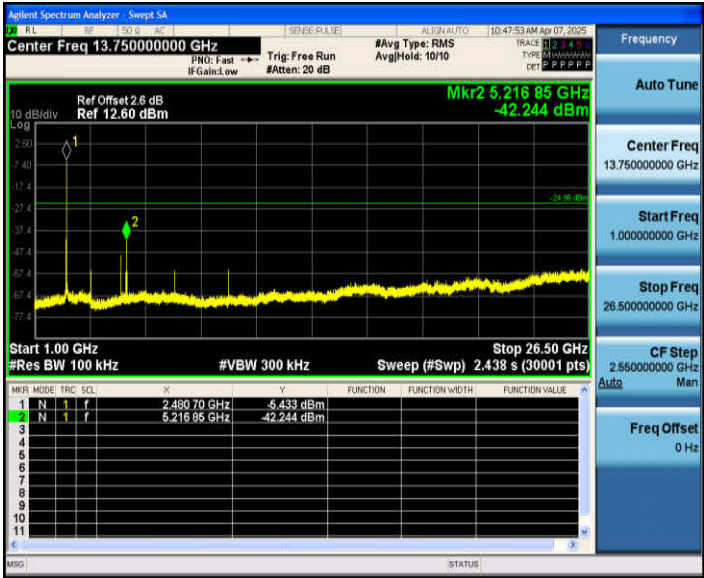
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500

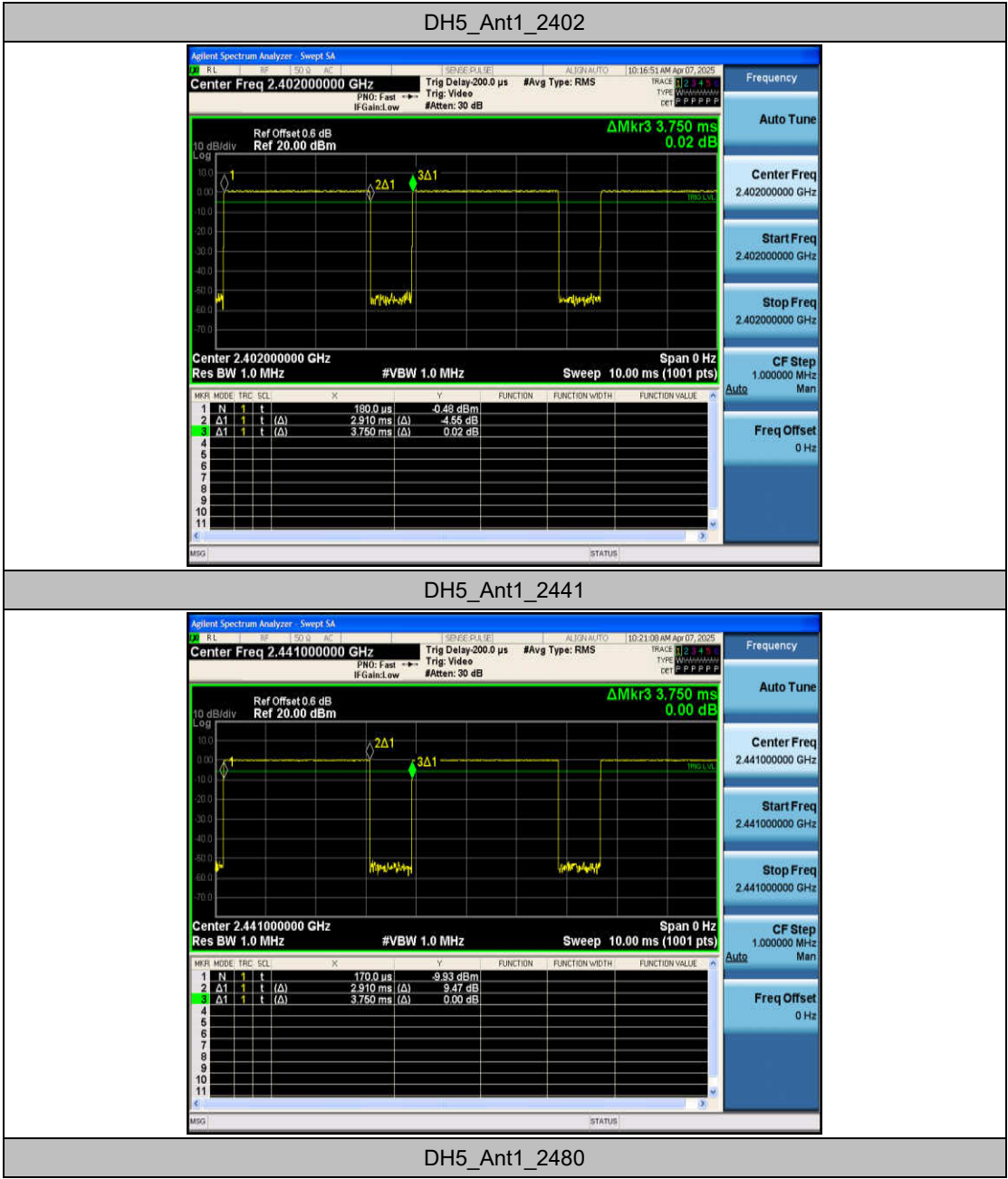


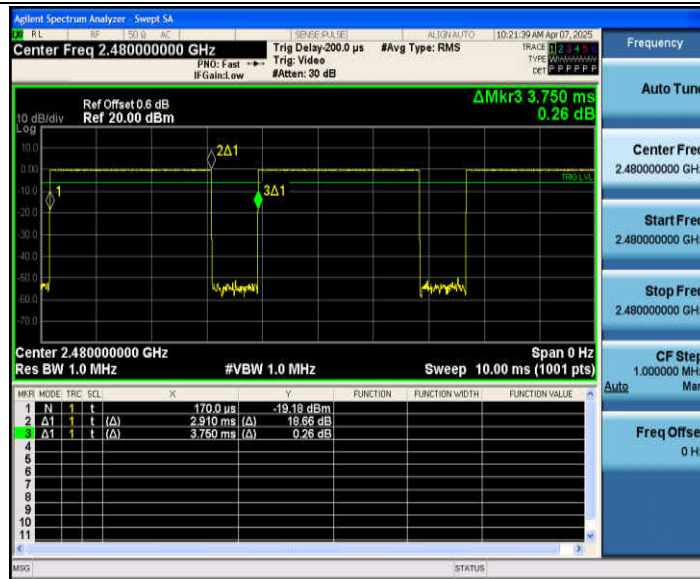
Appendix I: Duty Cycle

Test Result

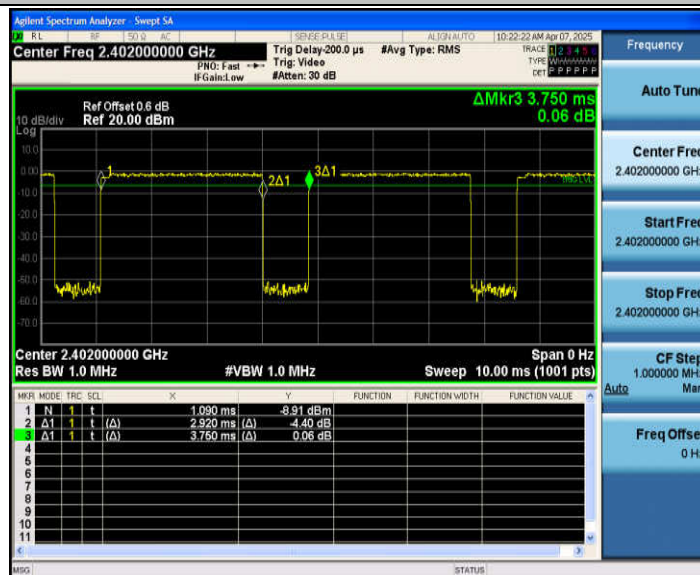
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.91	3.75	77.60	1.10	---	---
		2480	2.91	3.75	77.60	1.10	---	---
2DH5	Ant1	2402	2.92	3.75	77.87	1.09	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---
3DH5	Ant1	2402	2.92	3.75	77.87	1.09	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---

Test Graphs

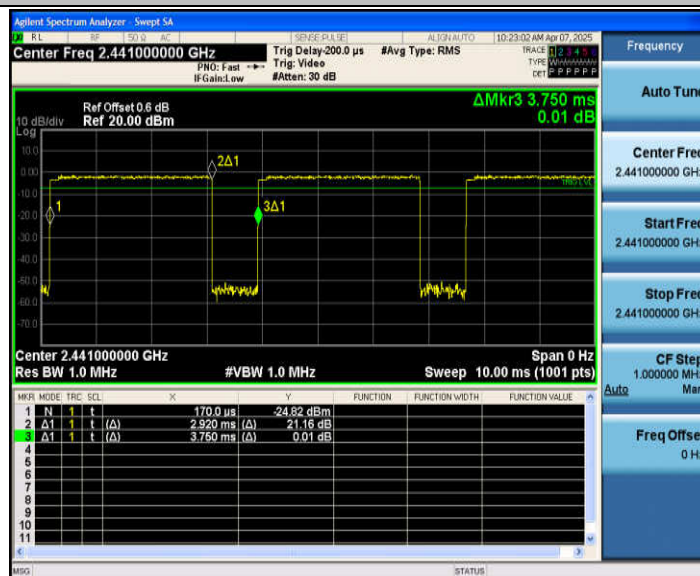




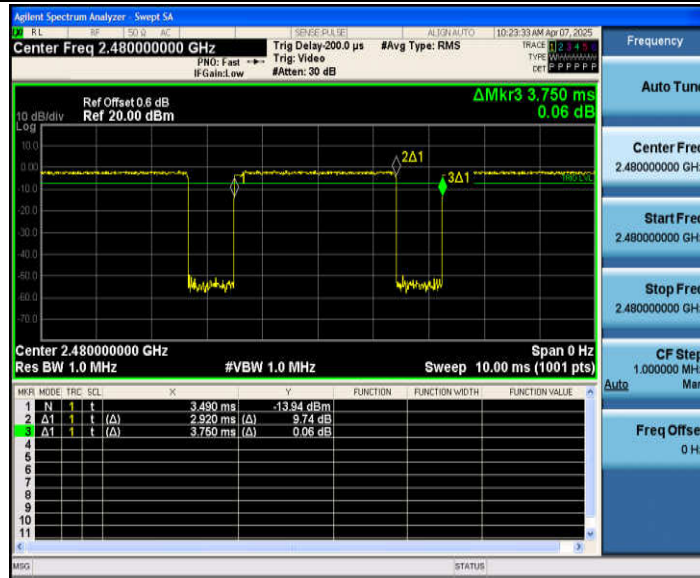
2DH5_Ant1_2402



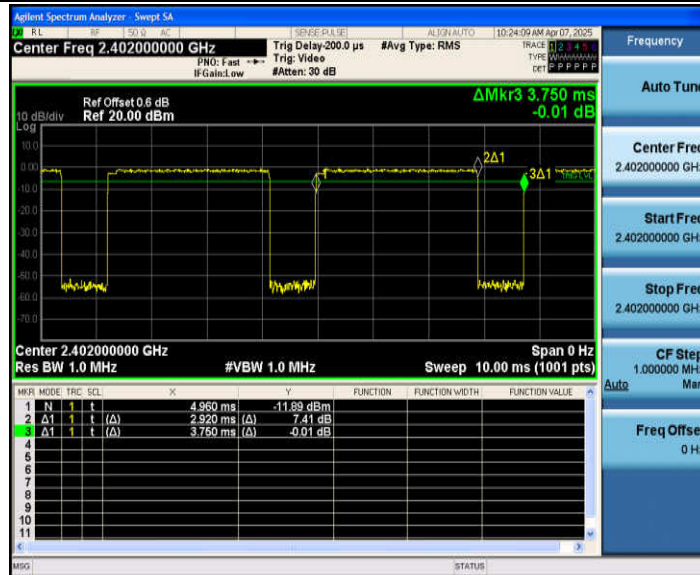
2DH5_Ant1_2441



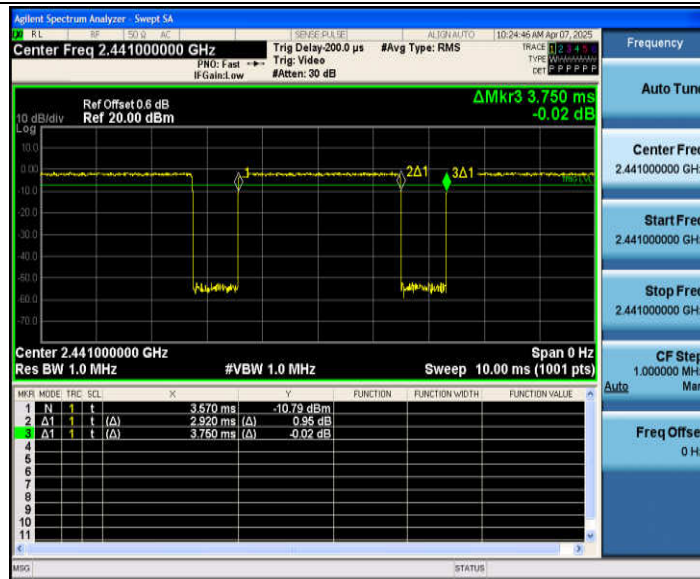
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

