

FCC Appendix RF Test Data

FCC ID : 2BPZ7-YDSNF002

Company : WUYI MINGSHI INTELLIGENT AND TECHNOLOGY
CO.,LTD

EUT : sauna room

Model Number : YDSNF002

Report No. : CTA25060601702

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	0.927	2401.553	2402.480	---	---
		2441	0.951	2440.547	2441.498	---	---
		2480	0.957	2479.544	2480.501	---	---
2DH5	Ant1	2402	1.278	2401.379	2402.657	---	---
		2441	1.269	2440.391	2441.660	---	---
		2480	1.317	2479.355	2480.672	---	---
3DH5	Ant1	2402	1.326	2401.346	2402.672	---	---
		2441	1.332	2440.343	2441.675	---	---
		2480	1.272	2479.385	2480.657	---	---

Test Graphs





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	0.86843	2401.5725	2402.4409	---	---
		2441	0.86427	2440.5749	2441.4392	---	---
		2480	0.86881	2479.5741	2480.4430	---	---
2DH5	Ant1	2402	1.1816	2401.4188	2402.6004	---	---
		2441	1.1866	2440.4158	2441.6024	---	---
		2480	1.1880	2479.4179	2480.6059	---	---
3DH5	Ant1	2402	1.1834	2401.4176	2402.6010	---	---
		2441	1.1942	2440.4136	2441.6078	---	---
		2480	1.1916	2479.4151	2480.6067	---	---

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	0.20	≤20.97	PASS
		2441	-0.06	≤20.97	PASS
		2480	-0.16	≤20.97	PASS
2DH5	Ant1	2402	-0.61	≤20.97	PASS
		2441	-0.88	≤20.97	PASS
		2480	-0.97	≤20.97	PASS
3DH5	Ant1	2402	-0.61	≤20.97	PASS
		2441	-0.89	≤20.97	PASS
		2480	-0.98	≤20.97	PASS

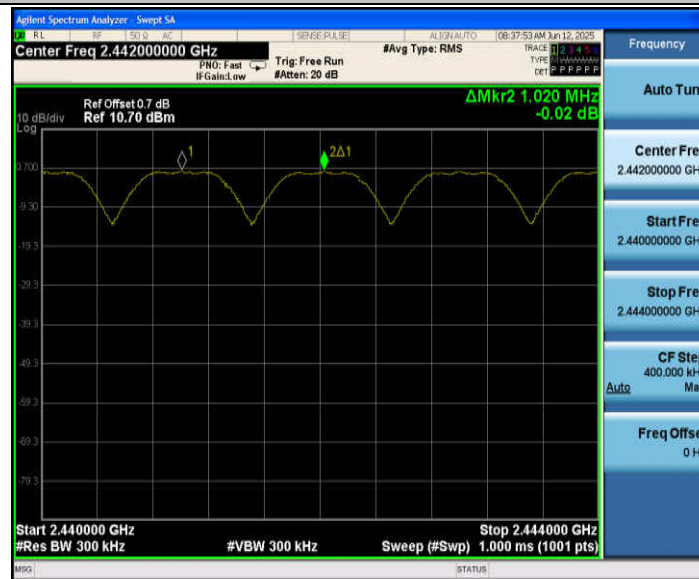
Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.02	≥ 0.957	PASS
2DH5	Ant1	Hop	1.172	≥ 0.878	PASS
3DH5	Ant1	Hop	1.312	≥ 0.888	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

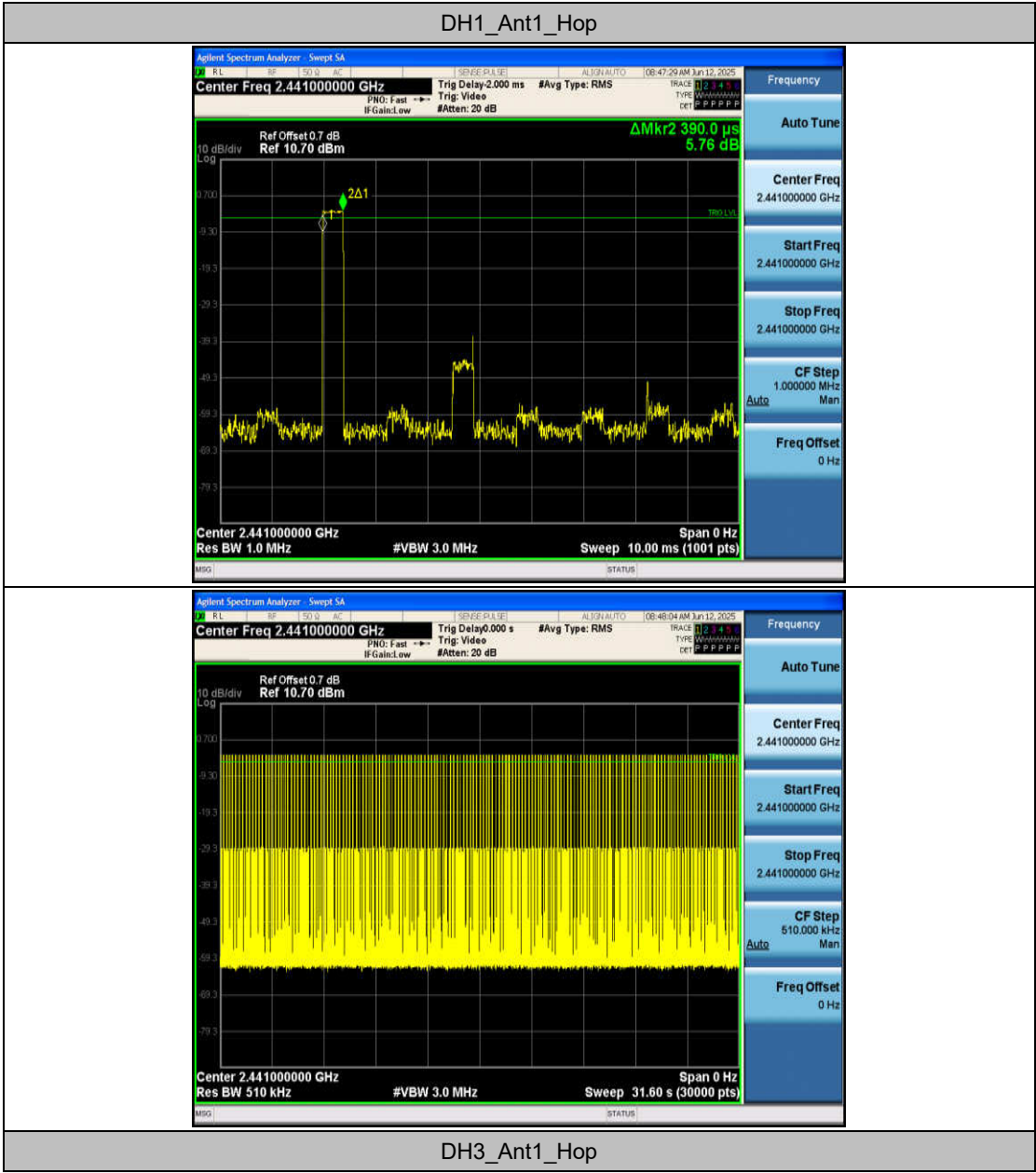


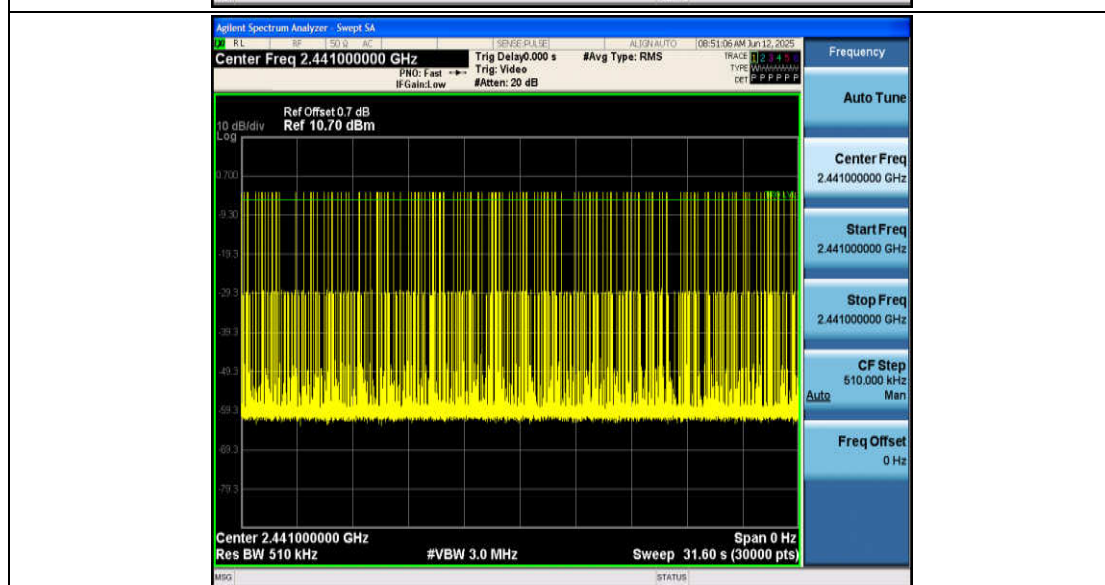
Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.390	319	0.124	≤0.4	PASS
DH3	Ant1	Hop	1.650	158	0.261	≤0.4	PASS
DH5	Ant1	Hop	2.890	111	0.321	≤0.4	PASS
2DH1	Ant1	Hop	0.390	315	0.123	≤0.4	PASS
2DH3	Ant1	Hop	1.650	155	0.256	≤0.4	PASS
2DH5	Ant1	Hop	2.900	113	0.328	≤0.4	PASS
3DH1	Ant1	Hop	0.380	319	0.121	≤0.4	PASS
3DH3	Ant1	Hop	1.640	152	0.249	≤0.4	PASS
3DH5	Ant1	Hop	2.900	116	0.336	≤0.4	PASS

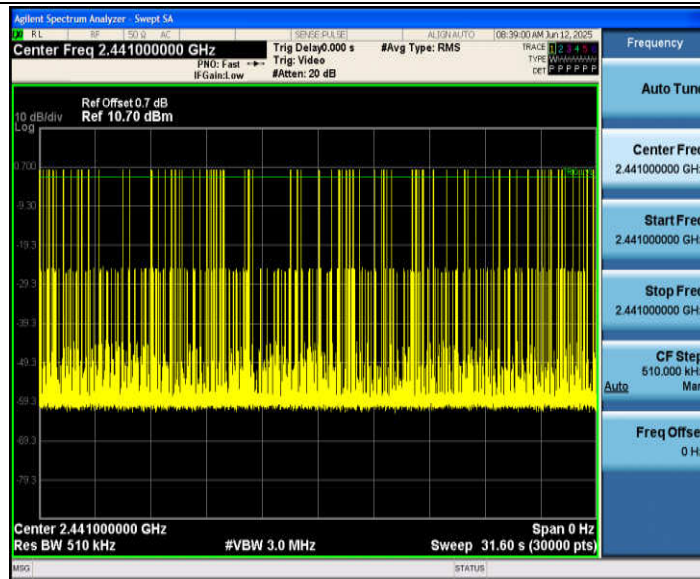
Test Graphs



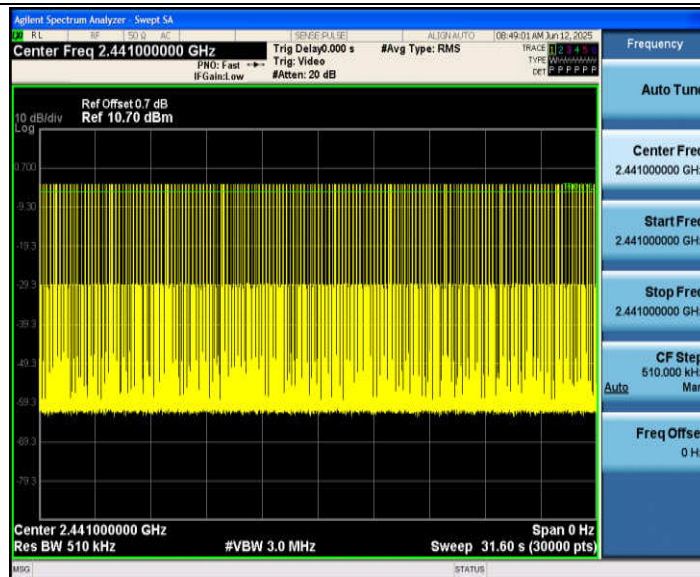


DH5_Ant1_Hop

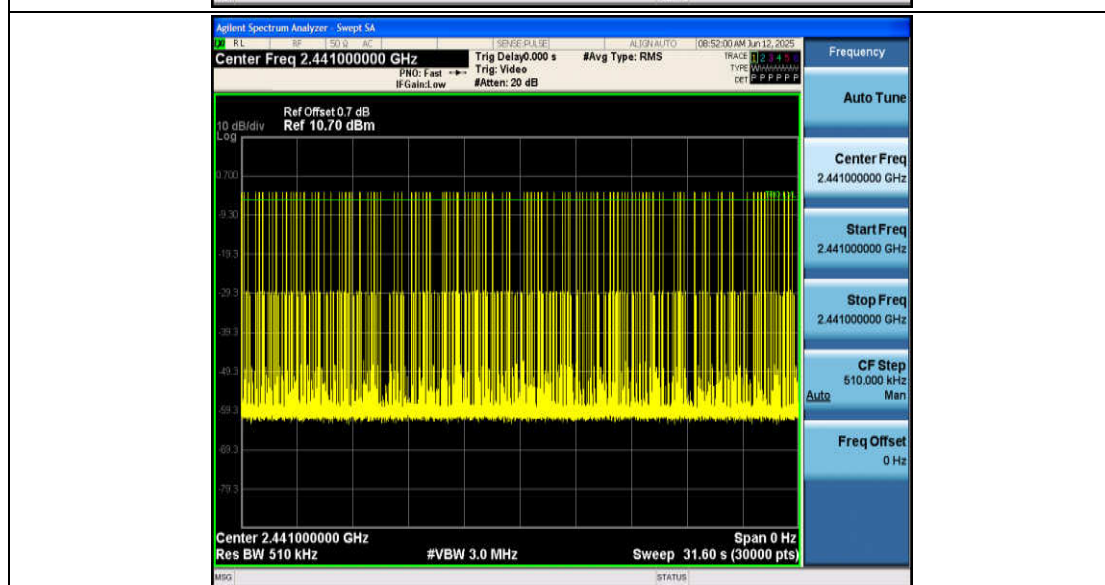




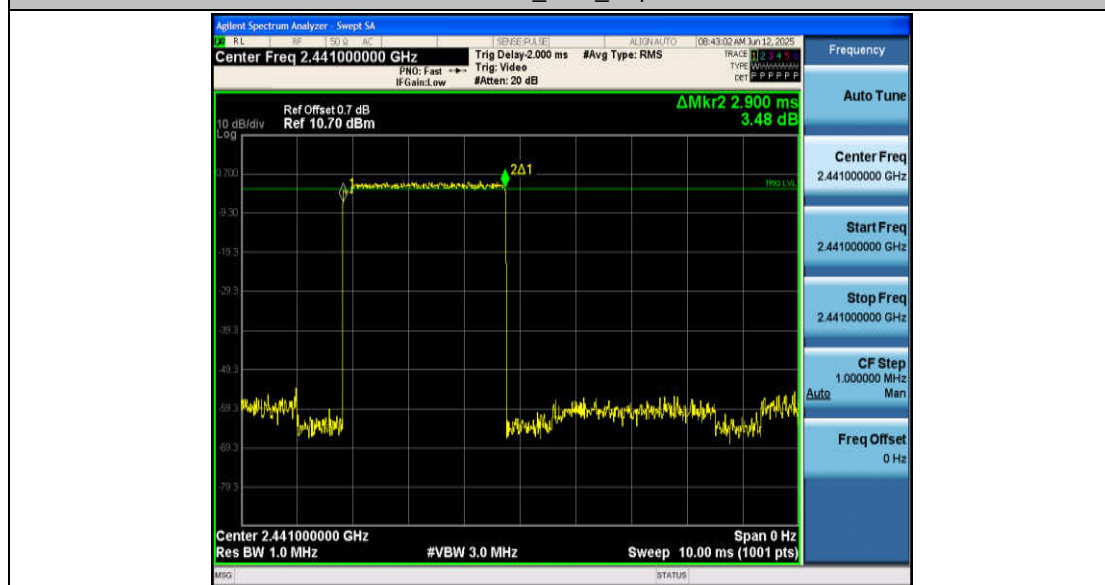
2DH1_Ant1_Hop

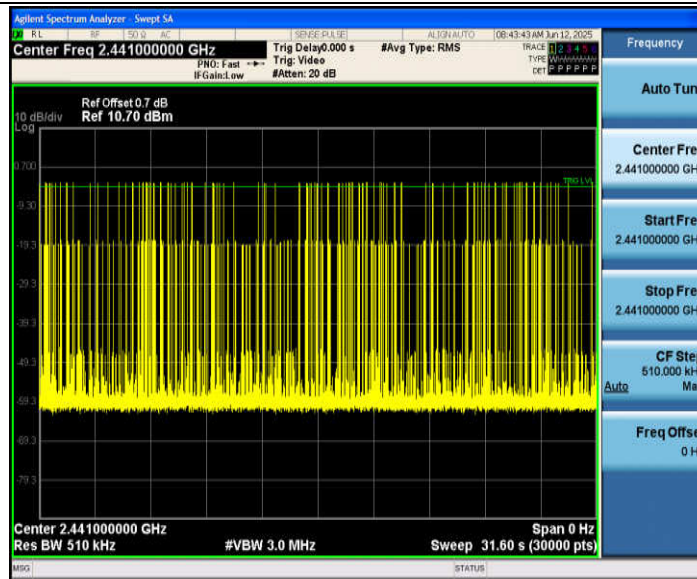


2DH3_Ant1_Hop

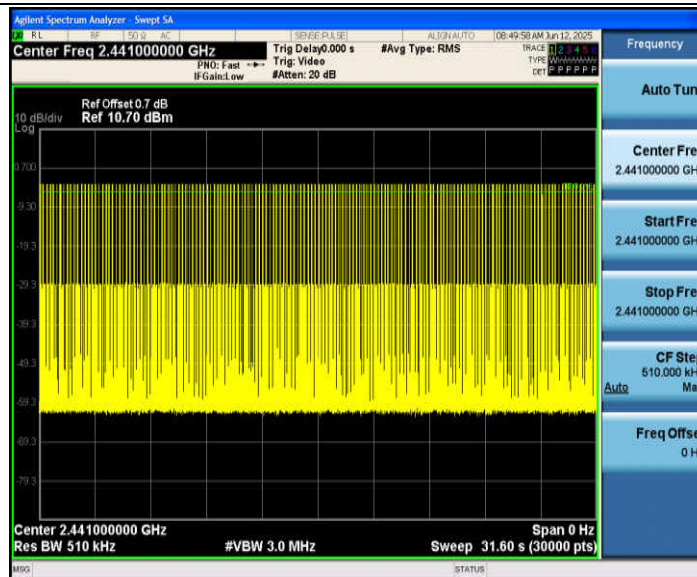
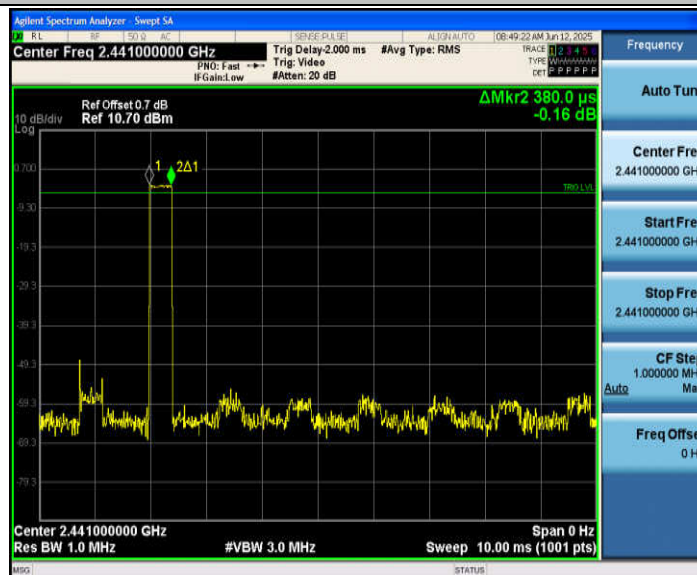


2DH5_Ant1_Hop

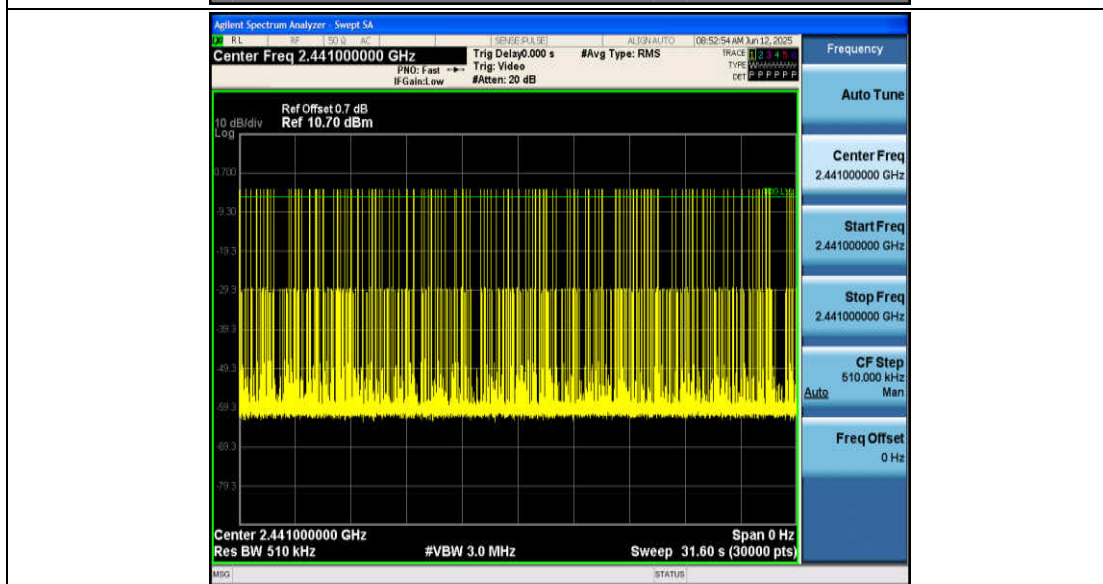




3DH1_Ant1_Hop

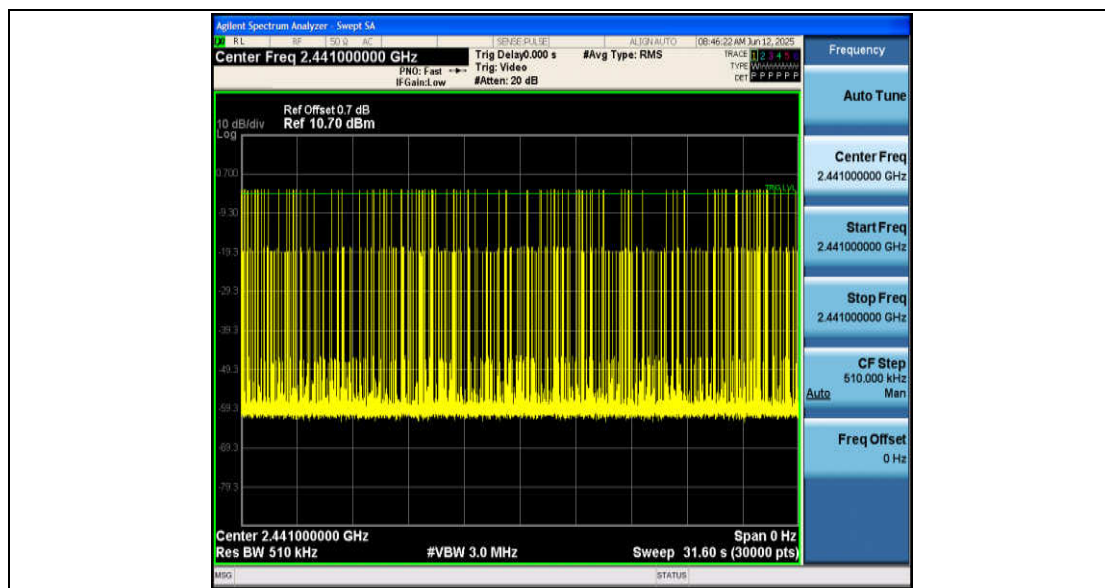


3DH3_Ant1_Hop



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

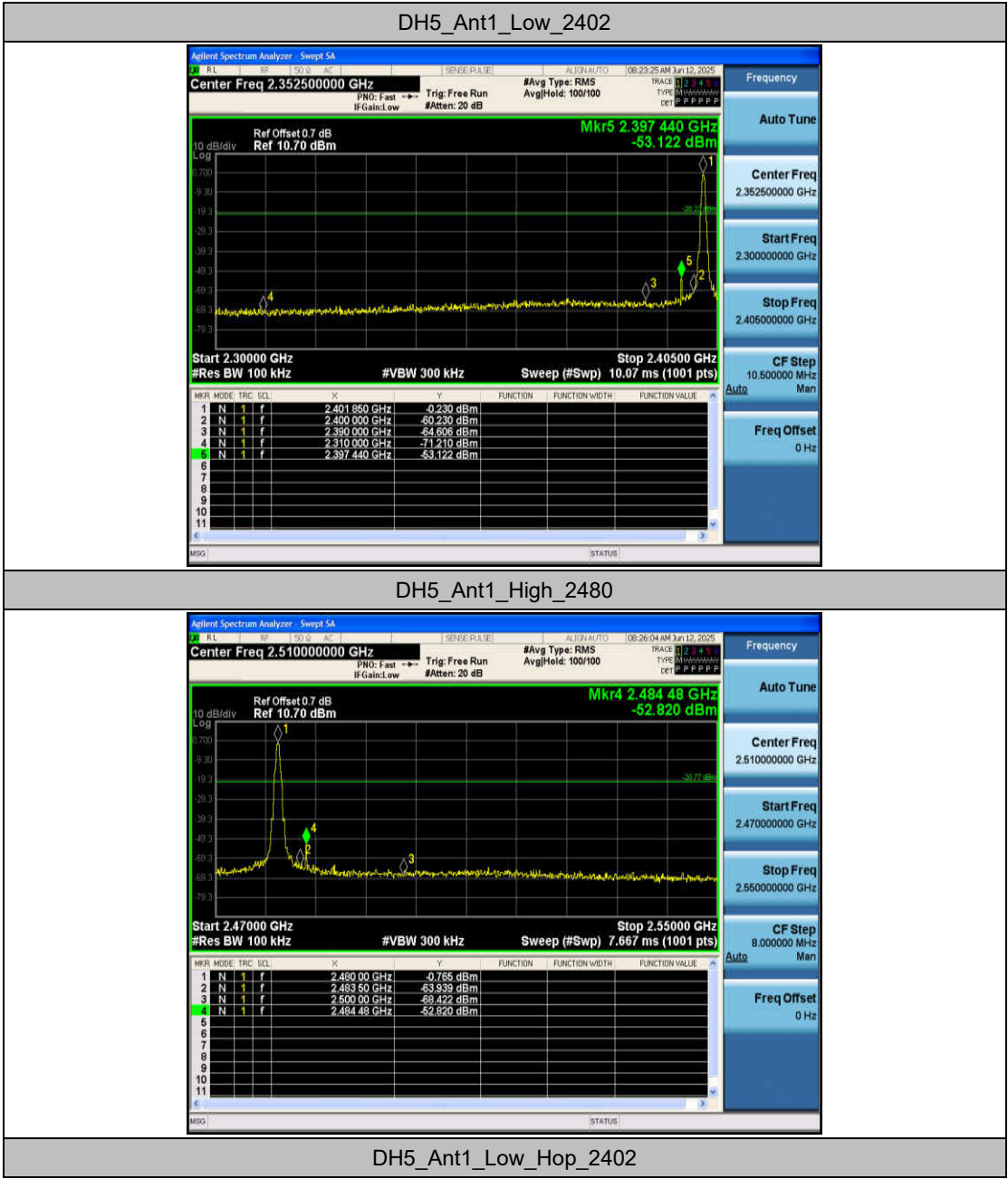


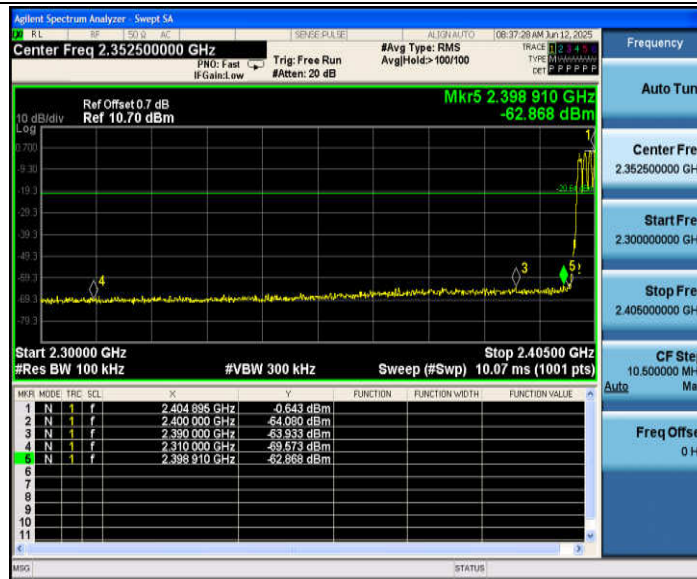
Appendix G: Band edge measurements

Test Result

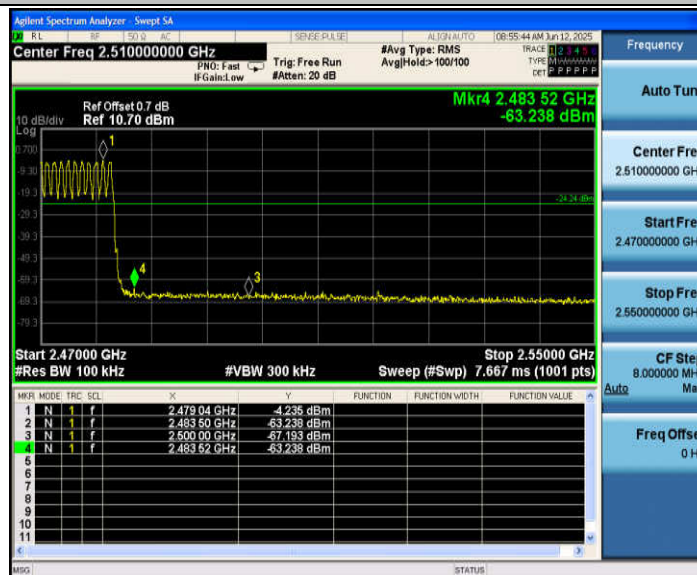
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.23	-53.12	≤-20.23	PASS
		High	2480	-0.77	-52.82	≤-20.77	PASS
		Low	Hop_2402	-0.64	-62.87	≤-20.64	PASS
		High	Hop_2480	-4.24	-63.24	≤-24.24	PASS
2DH5	Ant1	Low	2402	-5.24	-59.37	≤-25.24	PASS
		High	2480	-4.34	-63.37	≤-24.34	PASS
		Low	Hop_2402	-6.86	-60.48	≤-26.86	PASS
		High	Hop_2480	-4.96	-64.46	≤-24.96	PASS
3DH5	Ant1	Low	2402	-3.77	-59.79	≤-23.77	PASS
		High	2480	-4.73	-64.01	≤-24.73	PASS
		Low	Hop_2402	-5.79	-62.74	≤-25.79	PASS
		High	Hop_2480	-3.72	-63.81	≤-23.72	PASS

Test Graphs

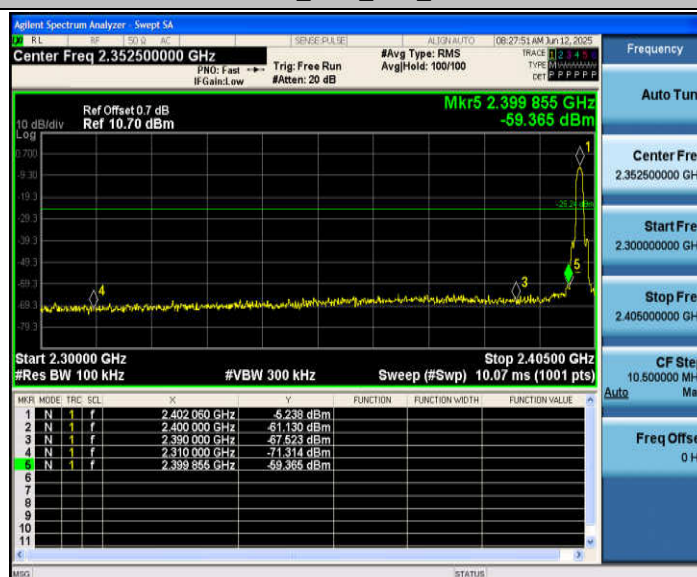




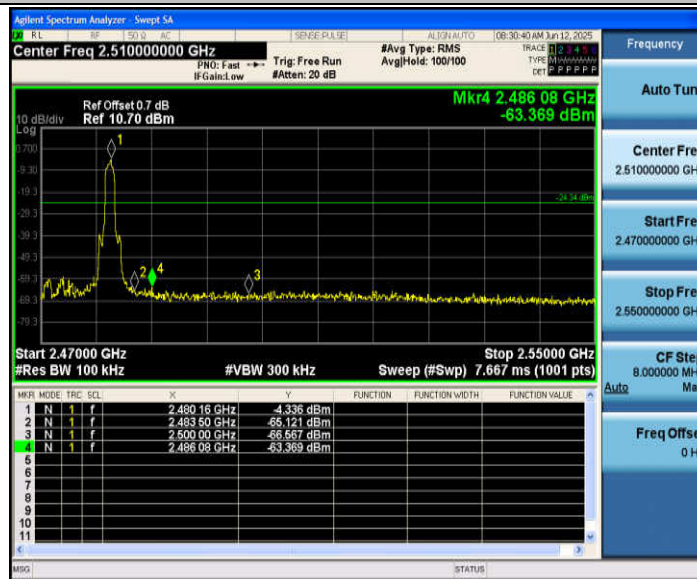
DH5_Ant1_High_Hop_2480



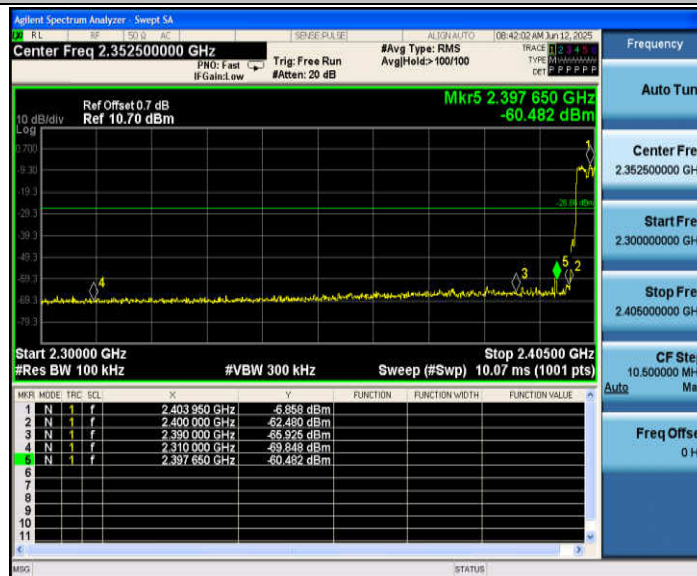
2DH5_Ant1_Low_2402



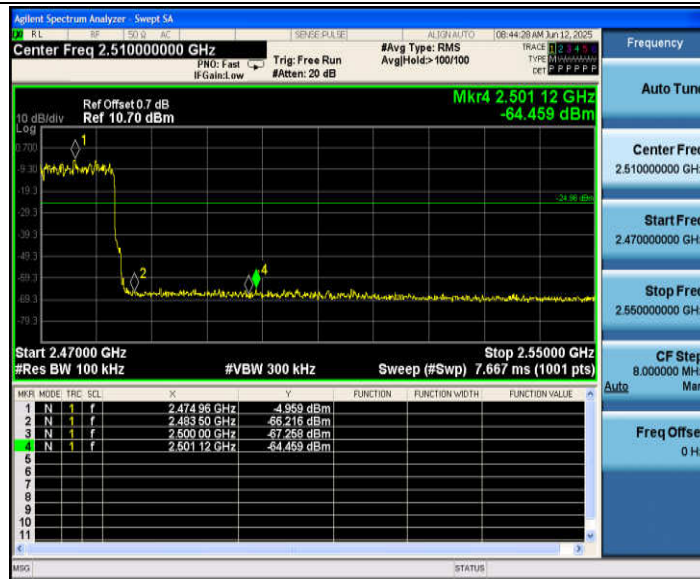
2DH5_Ant1_High_2480



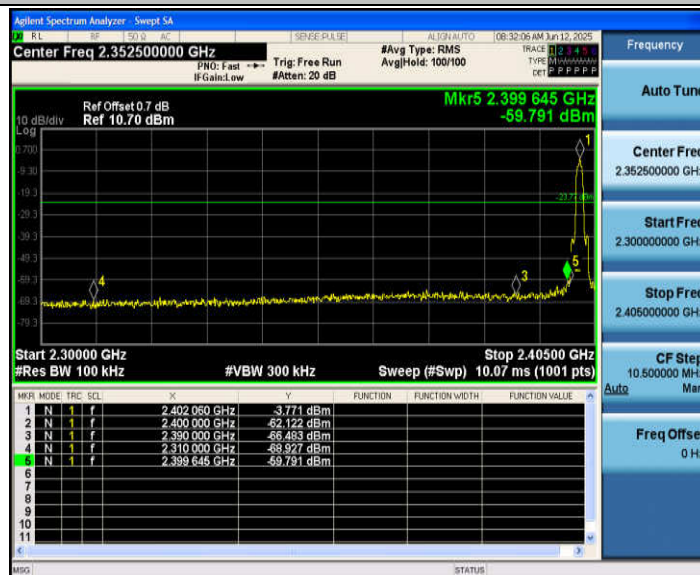
2DH5_Ant1_Low_Hop_2402



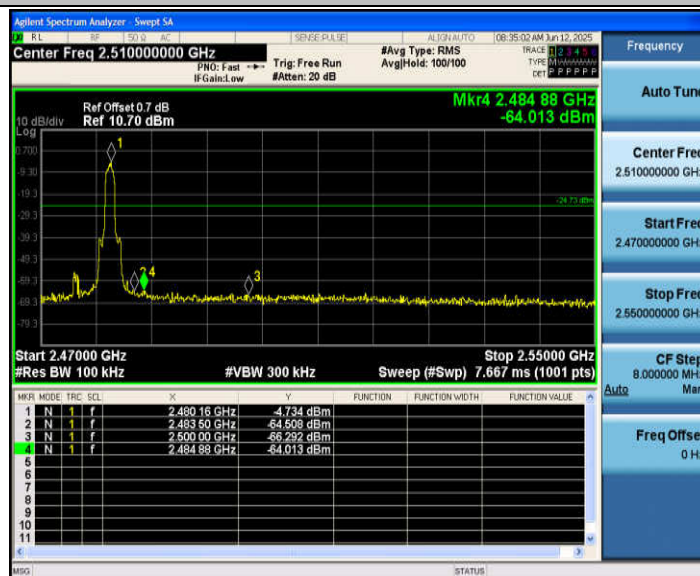
2DH5_Ant1_High_Hop_2480



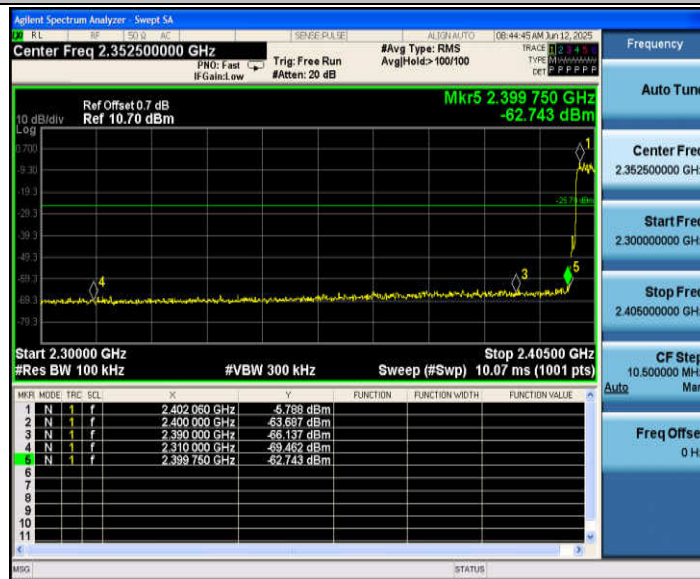
3DH5_Ant1_Low_2402



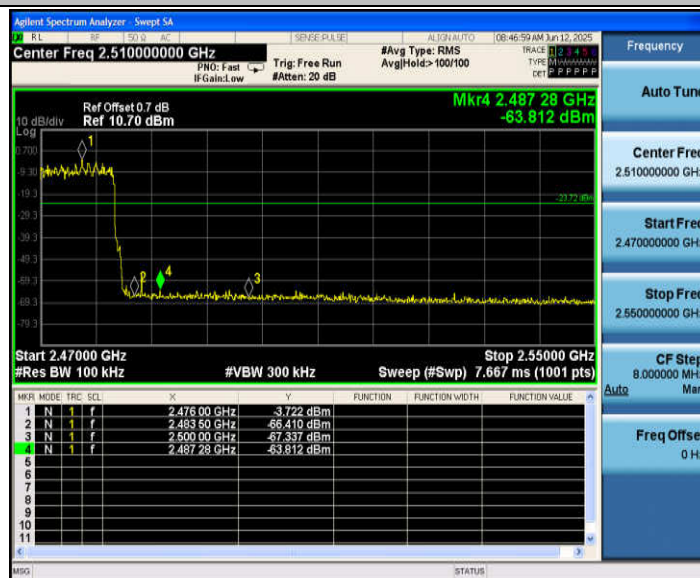
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

Test Result

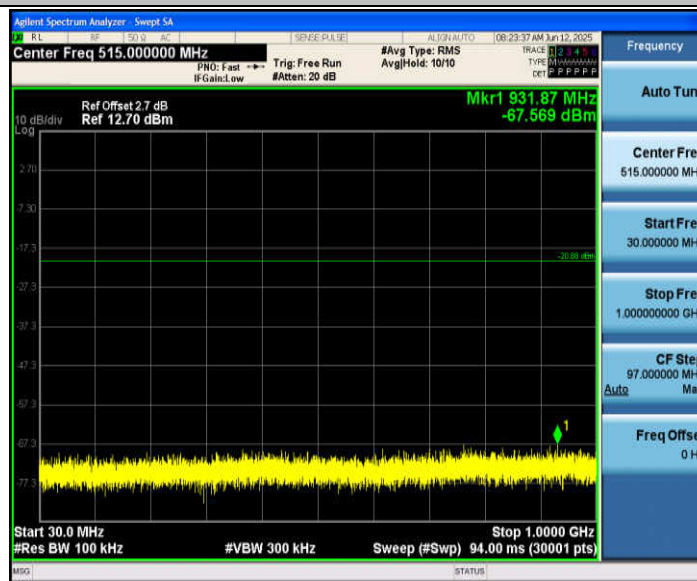
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.88	-0.88	---	PASS
			30~1000	-0.88	-67.57	≤-20.88	PASS
			1000~26500	-0.88	-43.93	≤-20.88	PASS
		2441	Reference	-1.06	-1.06	---	PASS
			30~1000	-1.06	-67.31	≤-21.06	PASS
			1000~26500	-1.06	-41.04	≤-21.06	PASS
		2480	Reference	-1.07	-1.07	---	PASS
			30~1000	-1.07	-67.75	≤-21.07	PASS
			1000~26500	-1.07	-43.1	≤-21.07	PASS
2DH5	Ant1	2402	Reference	-4.49	-4.49	---	PASS
			30~1000	-4.49	-67.42	≤-24.49	PASS
			1000~26500	-4.49	-49.07	≤-24.49	PASS
		2441	Reference	-5.38	-5.38	---	PASS
			30~1000	-5.38	-67.4	≤-25.38	PASS
			1000~26500	-5.38	-50.41	≤-25.38	PASS
		2480	Reference	-6.47	-6.47	---	PASS
			30~1000	-6.47	-67.75	≤-26.47	PASS
			1000~26500	-6.47	-51.56	≤-26.47	PASS
3DH5	Ant1	2402	Reference	-6.59	-6.59	---	PASS
			30~1000	-6.59	-66.87	≤-26.59	PASS
			1000~26500	-6.59	-44.61	≤-26.59	PASS
		2441	Reference	-5.61	-5.61	---	PASS
			30~1000	-5.61	-67.02	≤-25.61	PASS
			1000~26500	-5.61	-46.17	≤-25.61	PASS
		2480	Reference	-4.90	-4.90	---	PASS
			30~1000	-4.90	-67.63	≤-24.9	PASS
			1000~26500	-4.90	-49.9	≤-24.9	PASS

Test Graphs

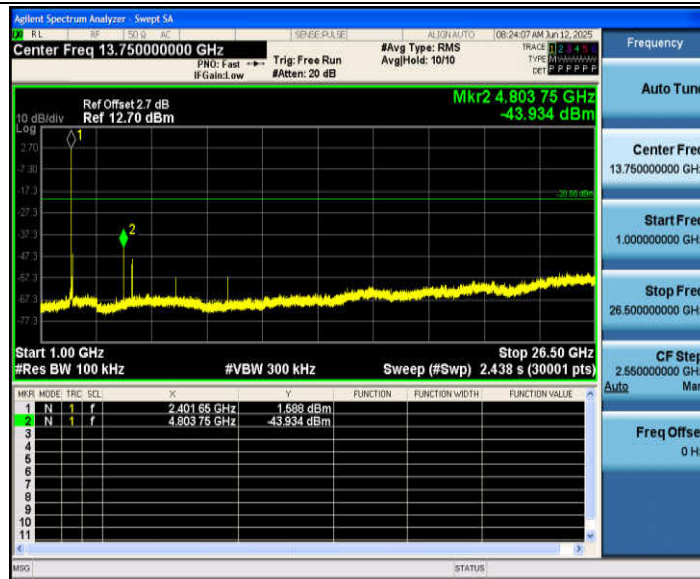
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



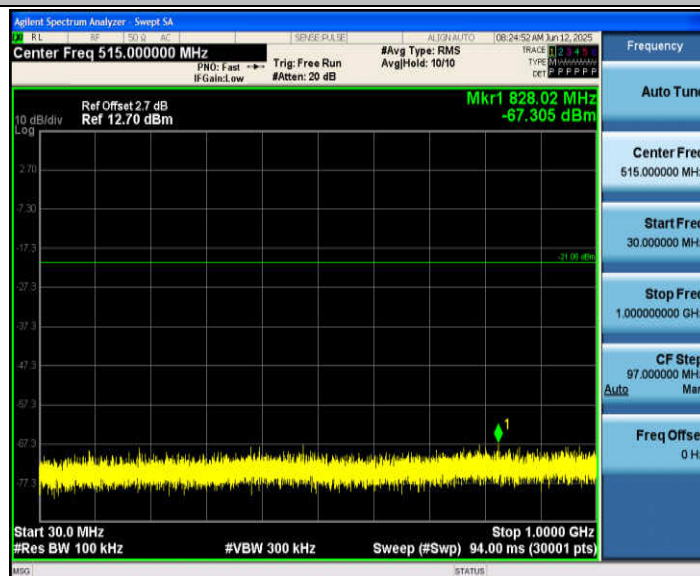
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



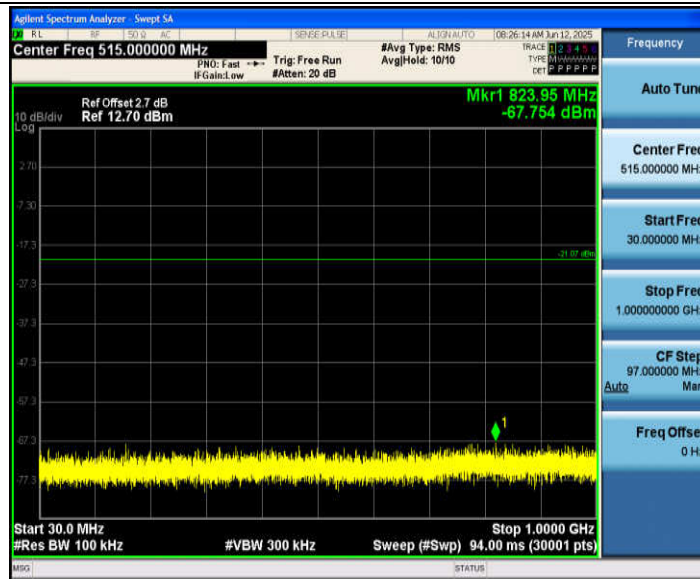
DH5_Ant1_2441_1000~26500



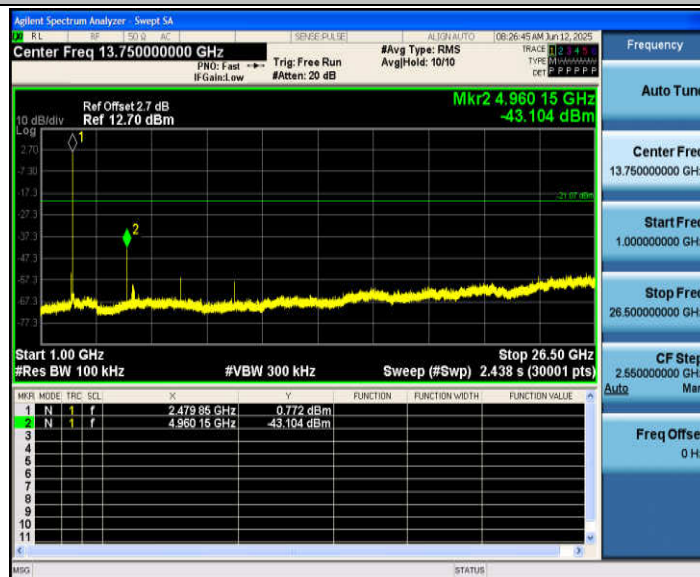
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



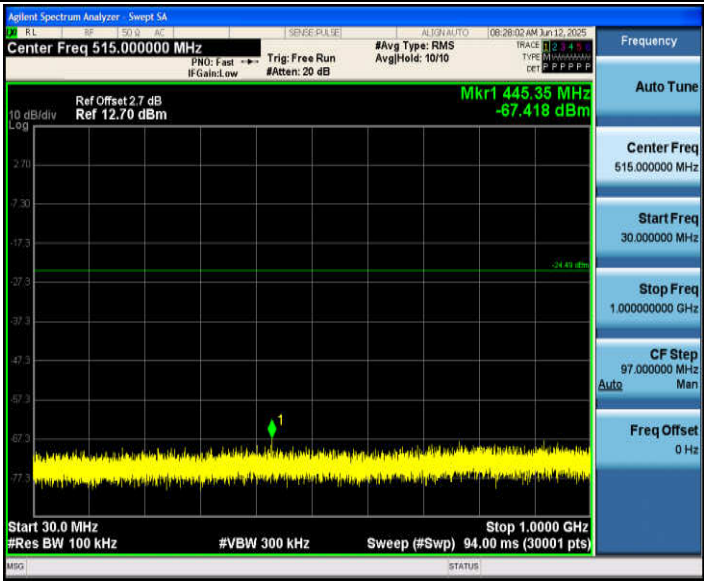
DH5_Ant1_2480_1000~26500



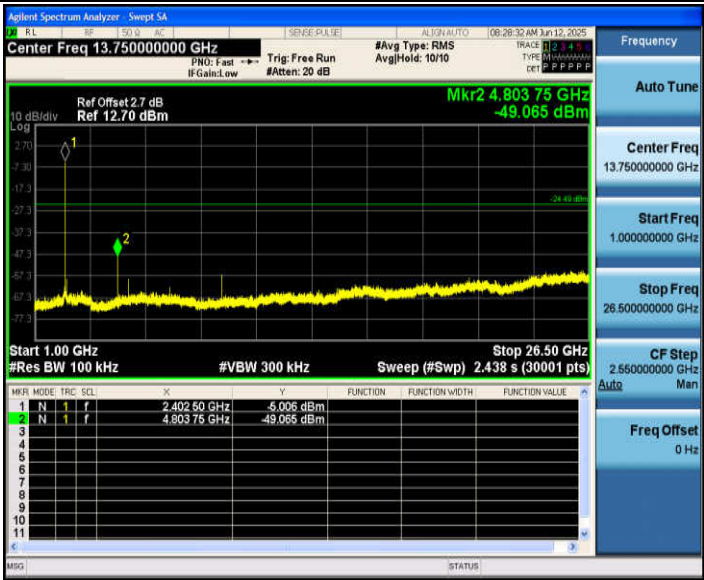
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



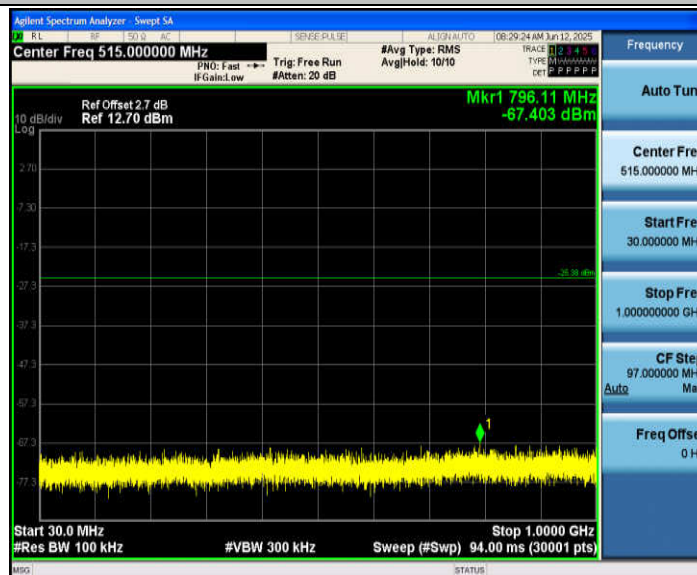
2DH5_Ant1_2402_1000~26500



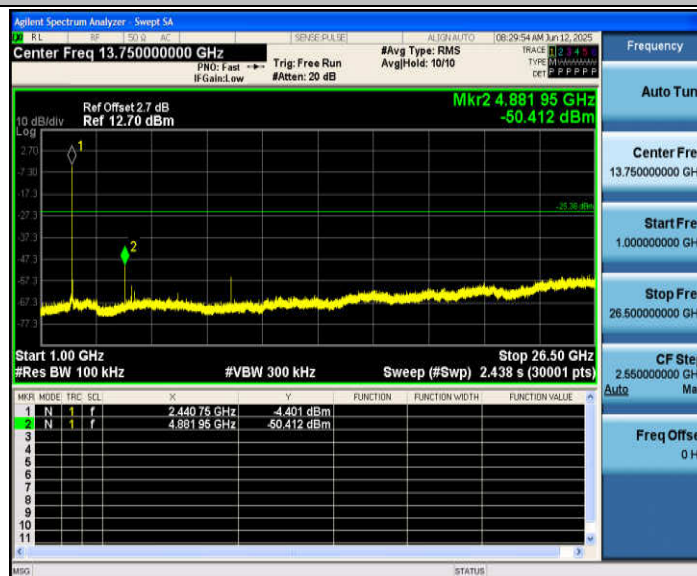
2DH5_Ant1_2441_0~Reference

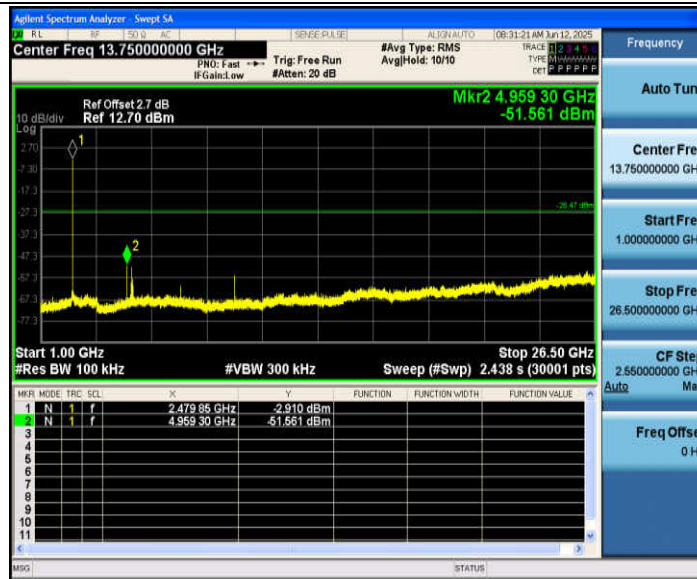


2DH5_Ant1_2441_30~1000



2DH5_Ant1_2441_1000~26500

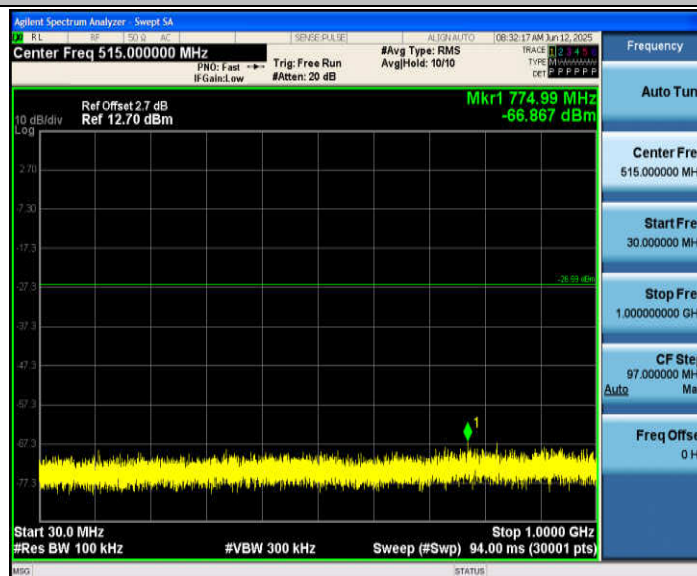




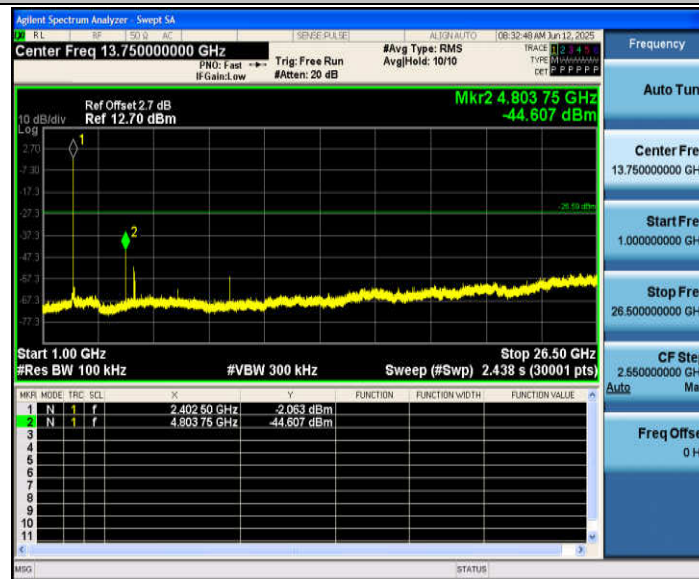
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000



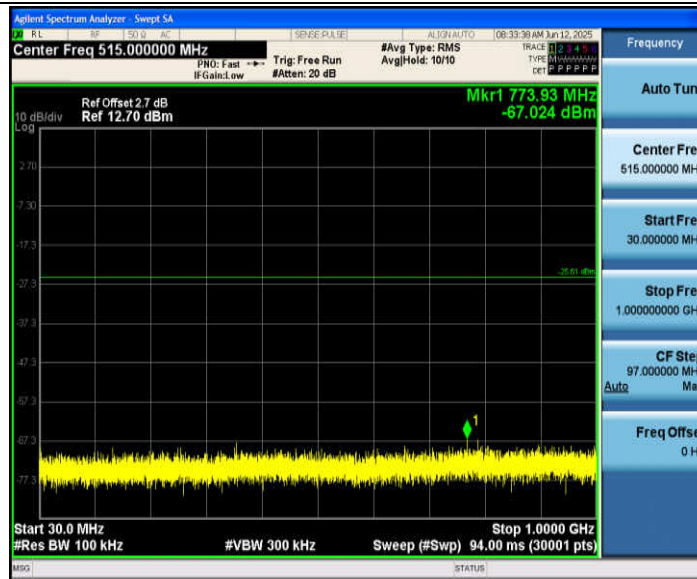
3DH5_Ant1_2402_1000~26500



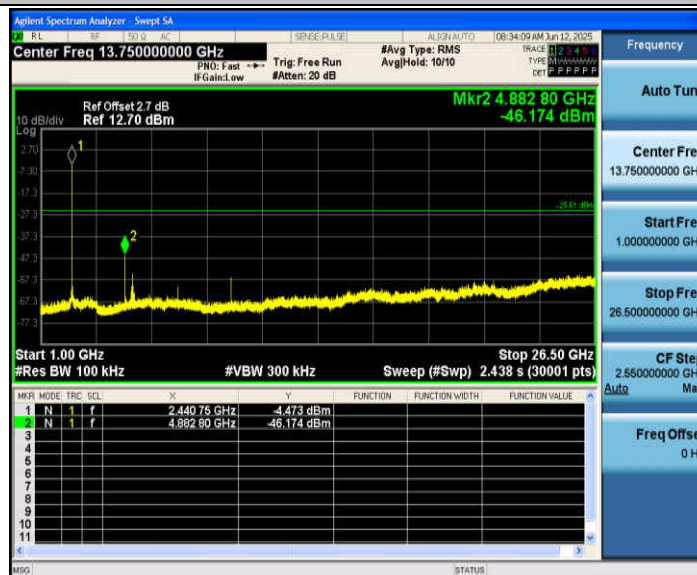
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



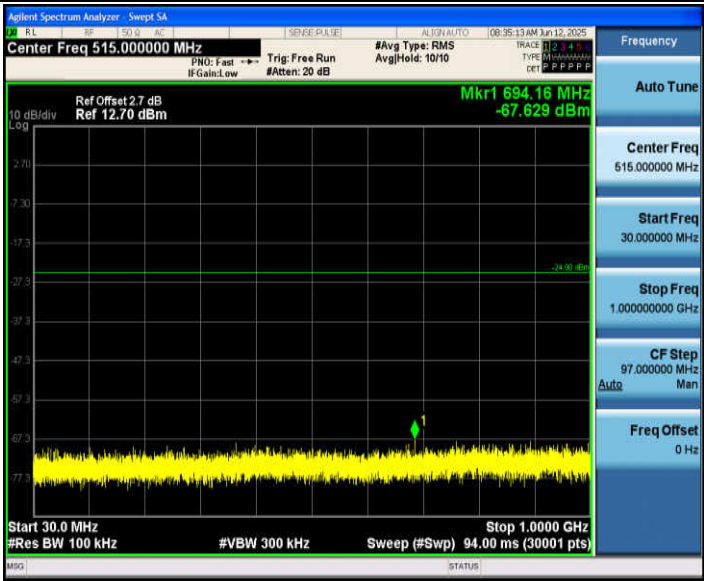
3DH5_Ant1_2441_1000~26500



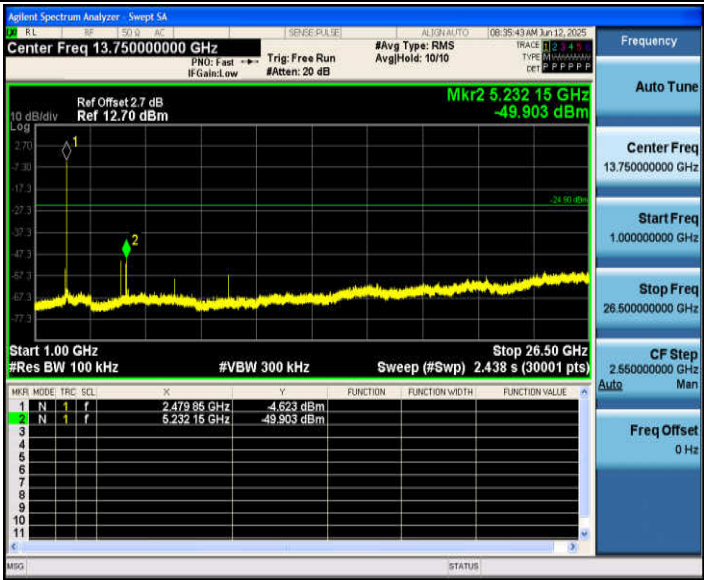
3DH5_Ant1_2480_0~Reference



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	2.92	3.75	77.87	1.09	---	---
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	2.91	3.75	77.60	1.10	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.91	3.75	77.60	1.10	---	---

DH5_Ant1_2402

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.402000000 GHz

Ref Offset 0.7 dB

Ref 20.00 dBm

Trig Delay 200.0 μ s

#Avg Type: RMS

PHO: Fast

IF Gain: Low

#Atten: 30 dB

Span 0 Hz

Center 2.402000000 GHz

Res BW 8 MHz

#VBW 8.0 MHz

Sweep 5.000 ms (1001 pts)

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	190.0 μ s	-16.34 dBm			
2	Δ 1	1	t	(Δ)	2.910 ms (Δ)	-29.07 dB		
3	Δ 1	1	t	(Δ)	3.750 ms (Δ)	0.10 dB		

DH5_Ant1_2441

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 0.7 dB

Ref 20.00 dBm

Trig Delay 200.0 μ s

#Avg Type: RMS

PHO: Fast

IF Gain: Low

#Atten: 30 dB

Span 0 Hz

Center 2.441000000 GHz

Res BW 8 MHz

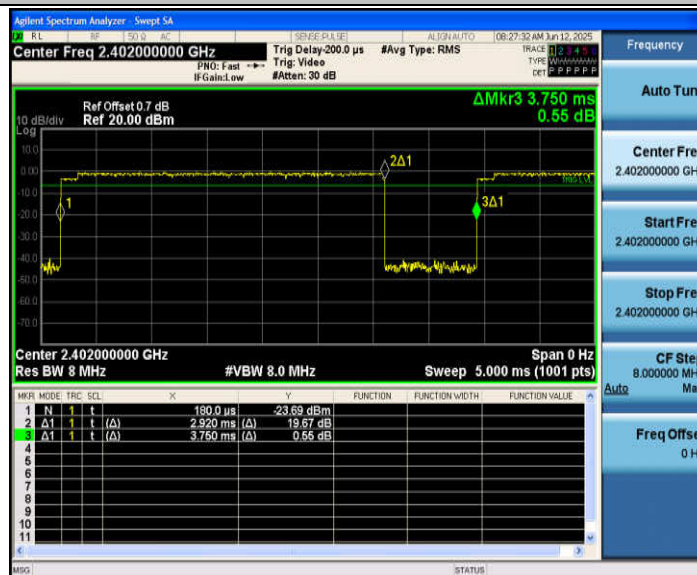
#VBW 8.0 MHz

Sweep 5.000 ms (1001 pts)

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	190.0 μ s	-16.73 dBm			
2	Δ 1	1	t	(Δ)	2.910 ms (Δ)	16.30 dB		
3	Δ 1	1	t	(Δ)	3.750 ms (Δ)	0.10 dB		



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

