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

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

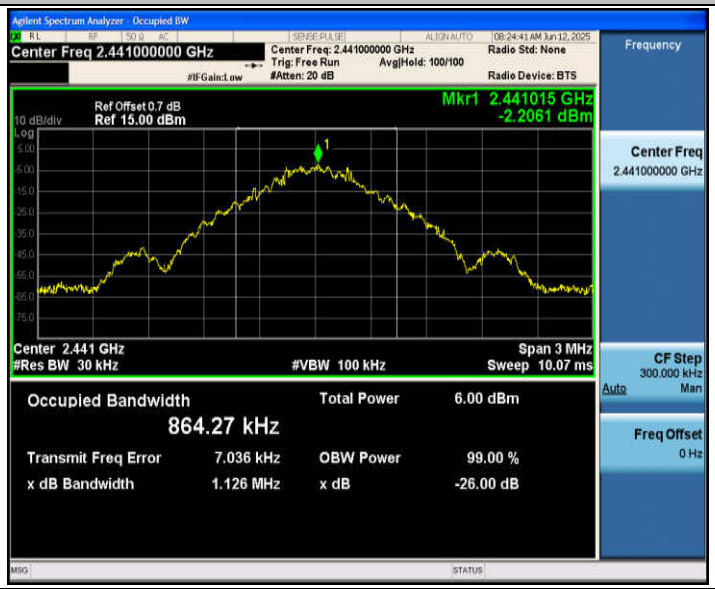
Test Result

TestMode	Antenna	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

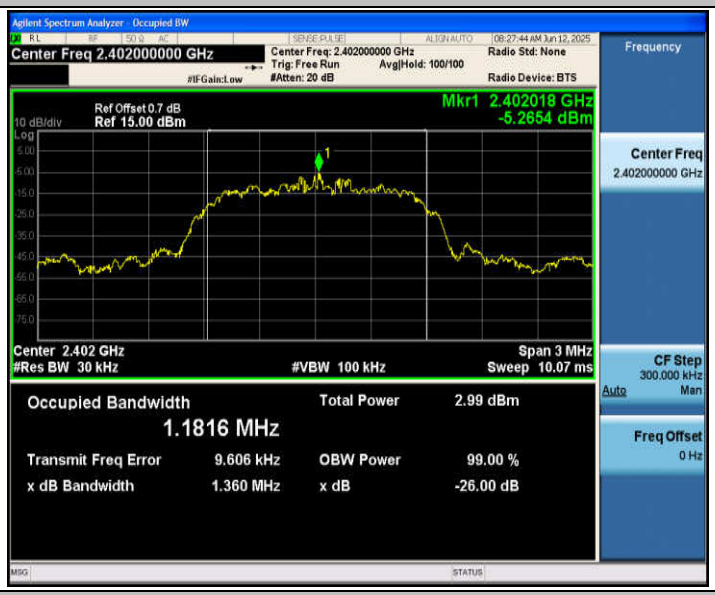
DH5_Ant1_2402

DH5_Ant1_2441



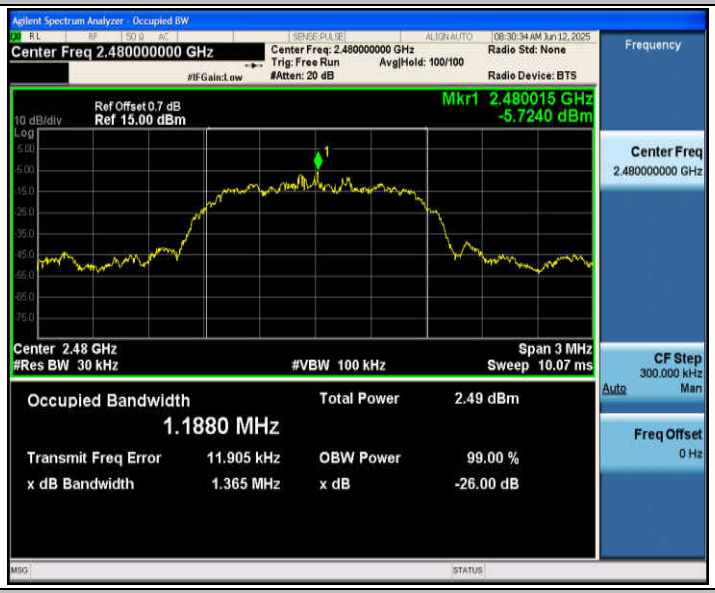
DH5_Ant1_2480

2DH5_Ant1_2402



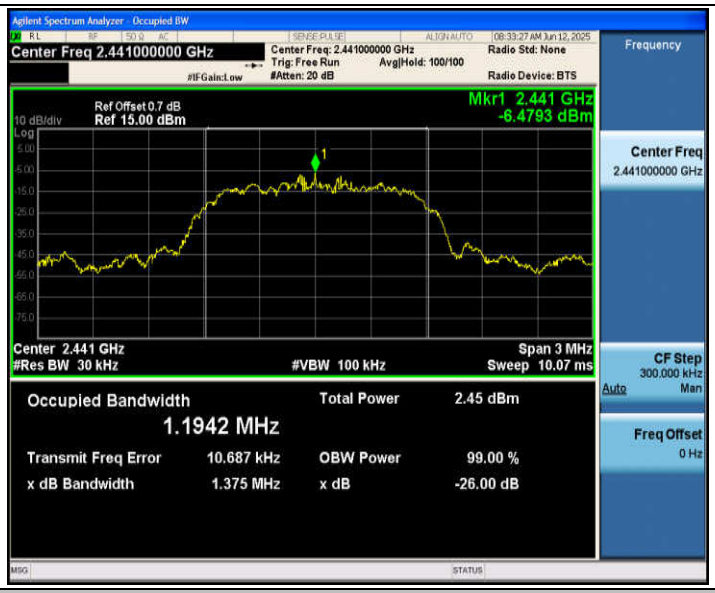
2DH5_Ant1_2441

2DH5_Ant1_2480

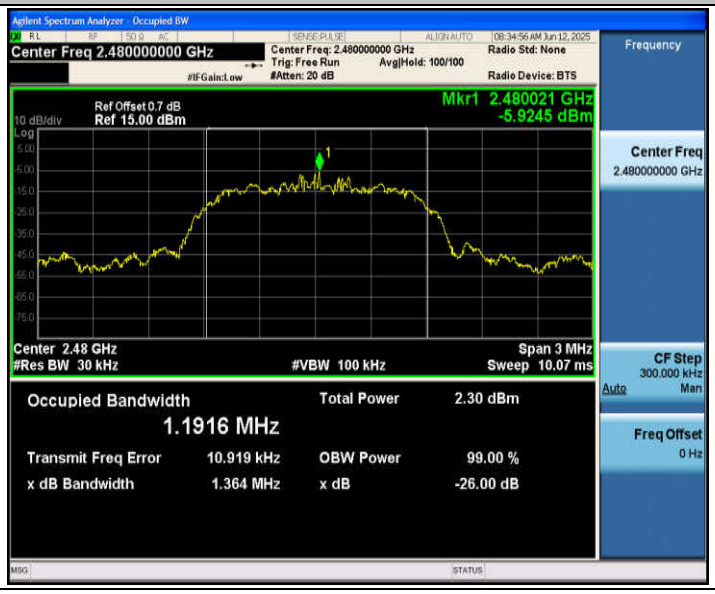


3DH5_Ant1_2402

3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

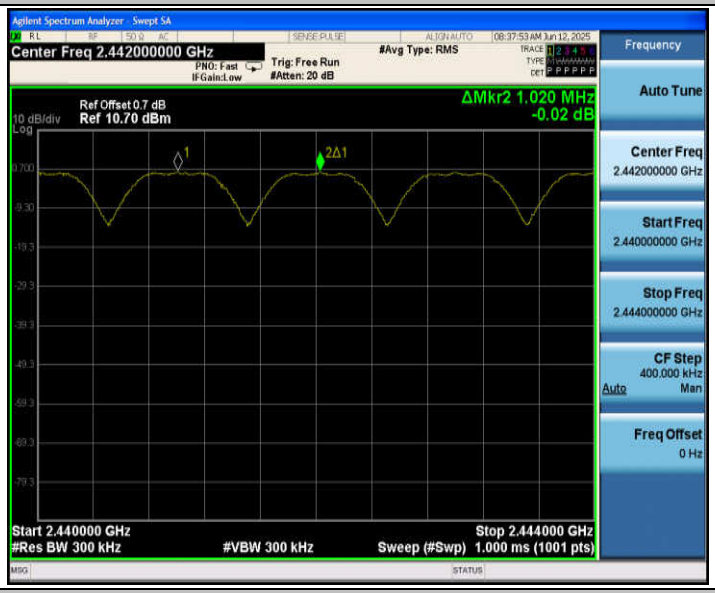
Test Mode	Antenna	Freq(MHz)	Conducted Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.20	≤20.97	PASS
		2441	-0.06	≤20.97	PASS
		2480	-0.16	≤20.97	PASS
2DH5	Ant1	2402	-0.61	≤20.97	PASS
		2441	-0.88	≤20.97	PASS
		2480	-0.97	≤20.97	PASS
3DH5	Ant1	2402	-0.61	≤20.97	PASS
		2441	-0.89	≤20.97	PASS
		2480	-0.98	≤20.97	PASS

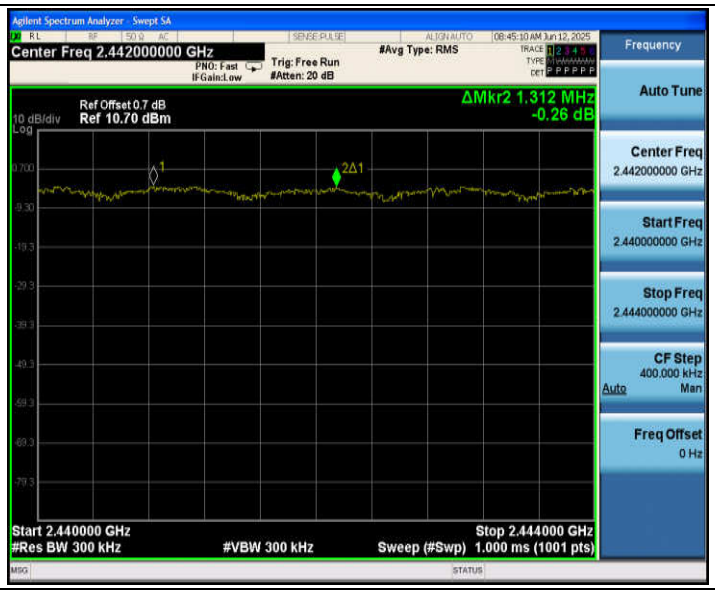
Appendix D: Carrier frequency separation

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

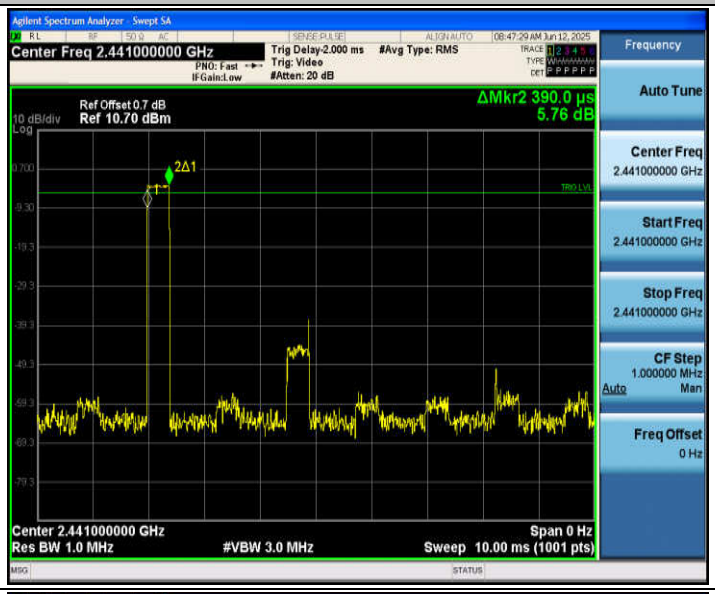
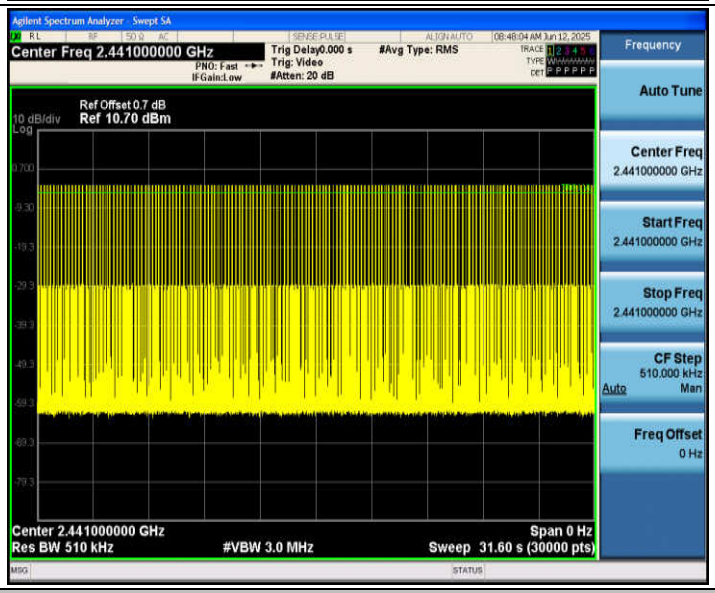

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.442000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
08:45:10 AM Jun 12, 2025
Frequency
Auto Tune
Center Freq
2.442000000 GHz
Start Freq
2.440000000 GHz
Stop Freq
2.444000000 GHz
CF Step
400.000 kHz
Auto
Man
Freq Offset
0 Hz
Ref Offset 0.7 dB
10 dB/div
Ref 10.70 dBm
Log
ΔMkr2 1.312 MHz
-0.26 dB
1
2Δ1
Start 2.440000 GHz
#Res BW 300 kHz
#VBW 300 kHz
Stop 2.444000 GHz
Sweep (#Swp) 1.000 ms (1001 pts)
MSG
STATUS

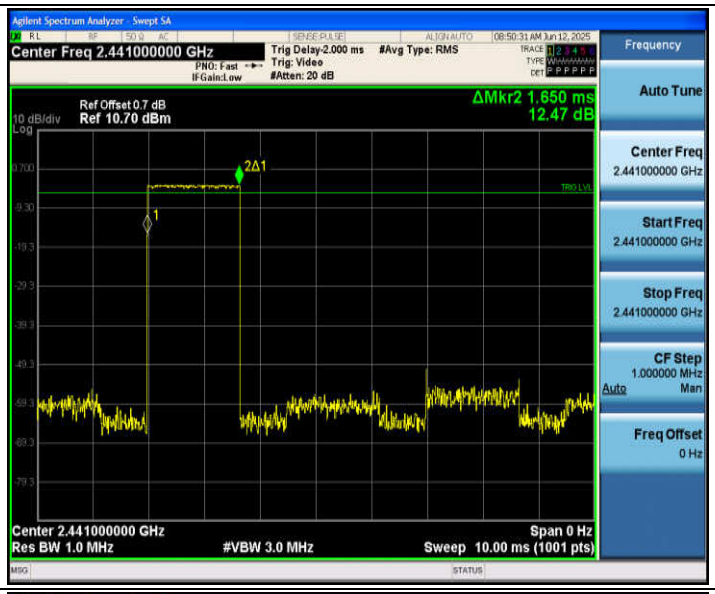
Appendix E: Time of occupancy

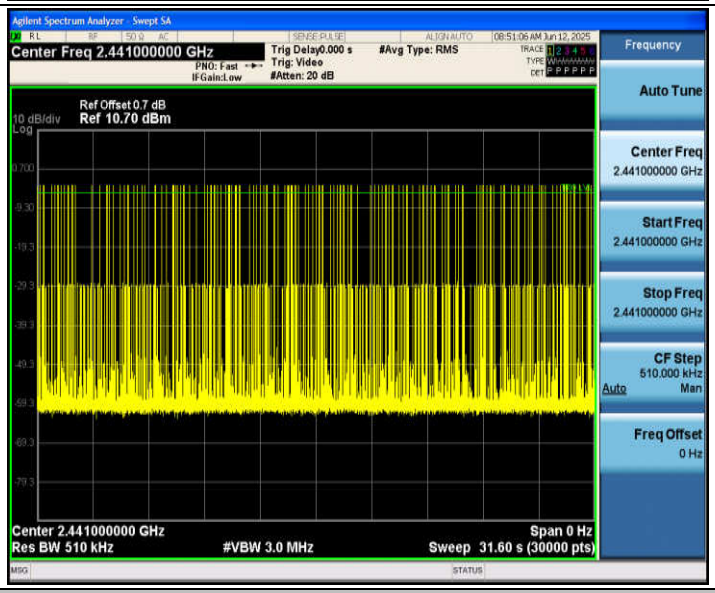
Test Result

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

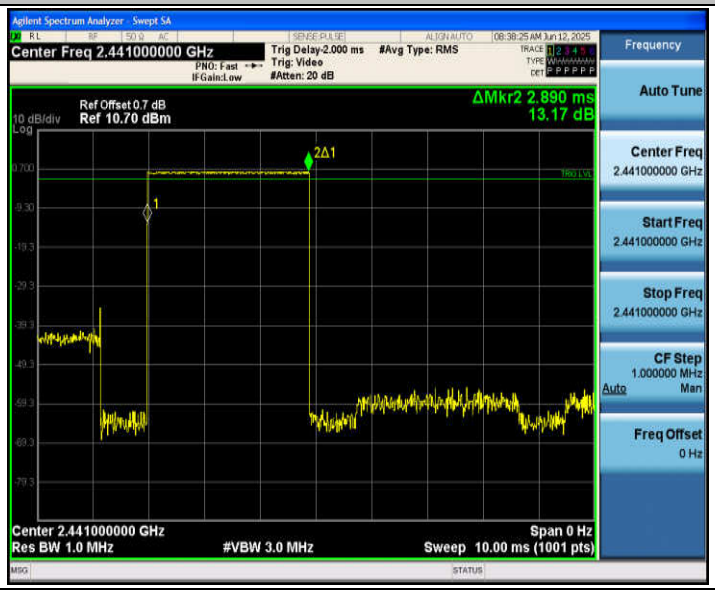
Test Graphs

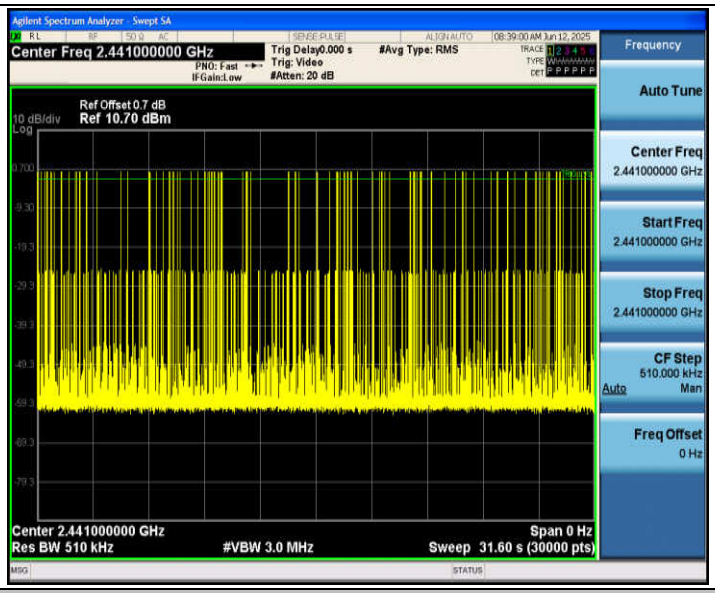
DH1_Ant1_Hop


DH3_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
Trig Delay-2.000 ms
#Avg Type: RMS
Trig: Video
#Atten: 20 dB
08:50:31 AM Jun 12, 2025
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz
Ref Offset 0.7 dB
10 dB/div
Ref 10.70 dBm
ΔMkr2 1.650 ms
12.47 dB
Center 2.441000000 GHz
Span 0 Hz
Res BW 1.0 MHz
#VBW 3.0 MHz
Sweep 10.00 ms (1001 pts)

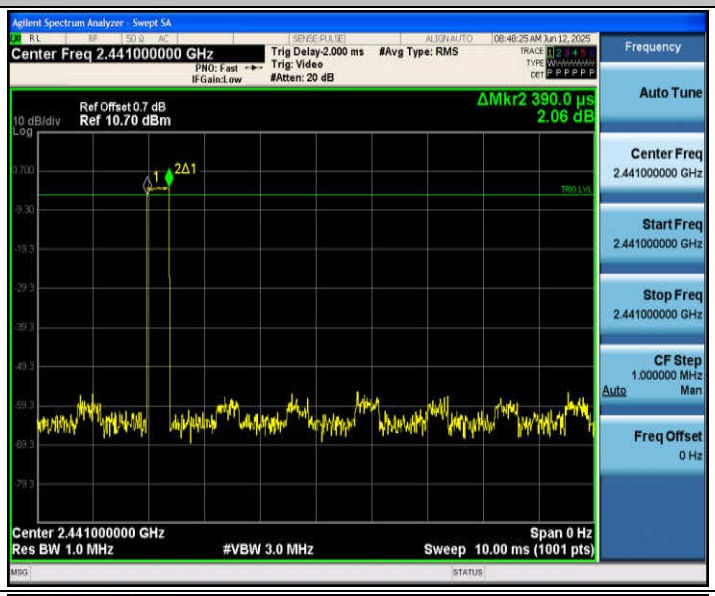

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
Trig Delay0.000 s
#Avg Type: RMS
Trig: Video
#Atten: 20 dB
08:51:06 AM Jun 12, 2025
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
CF Step
510.000 kHz
Auto
Man
Freq Offset
0 Hz
Ref Offset 0.7 dB
10 dB/div
Ref 10.70 dBm
Center 2.441000000 GHz
Span 0 Hz
Res BW 510 kHz
#VBW 3.0 MHz
Sweep 31.60 s (30000 pts)

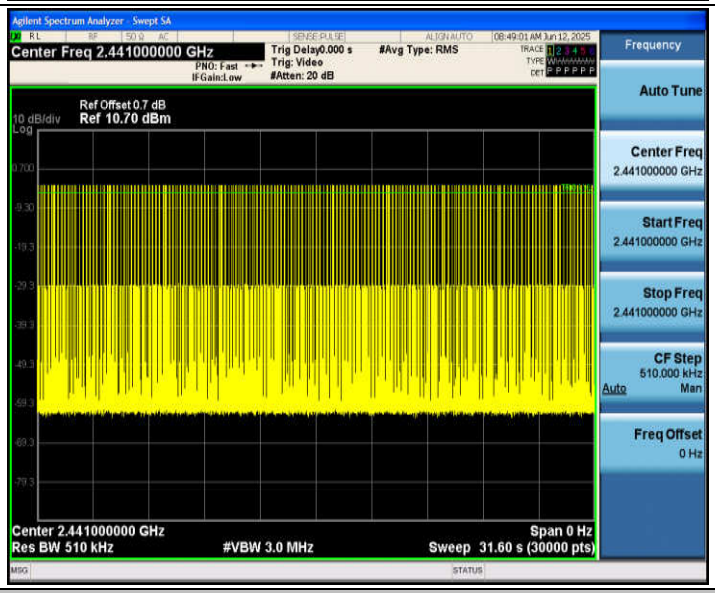
DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
Trig Delay-2.000 ms
#Avg Type: RMS
Trig: Video
#Atten: 20 dB
08:38:25 AM Jun 12, 2025
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz
Ref Offset 0.7 dB
10 dB/div
Ref 10.70 dBm
ΔMkr2 2.890 ms
13.17 dB
Center 2.441000000 GHz
Span 0 Hz
Res BW 1.0 MHz
#VBW 3.0 MHz
Sweep 10.00 ms (1001 pts)

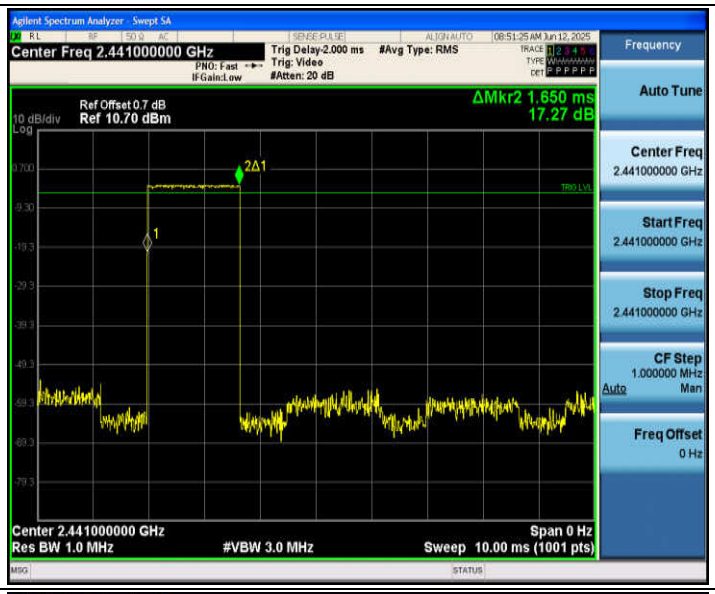


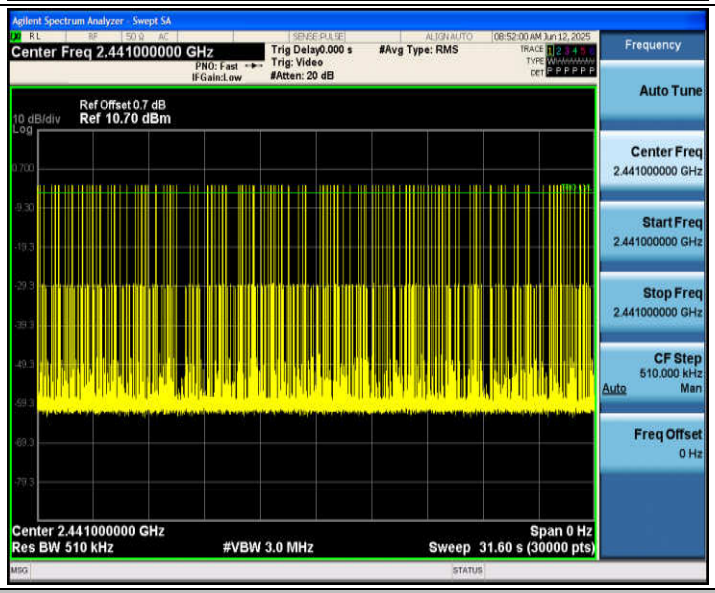
2DH1_Ant1_Hop



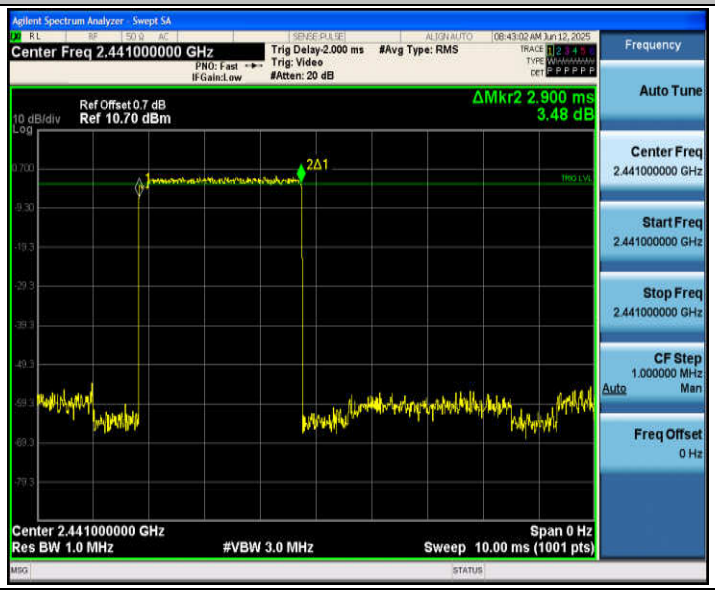


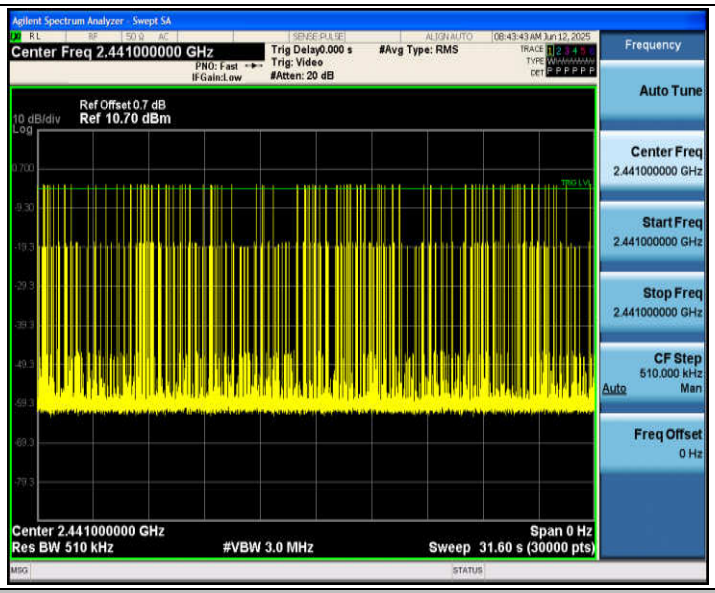
2DH3_Ant1_Hop



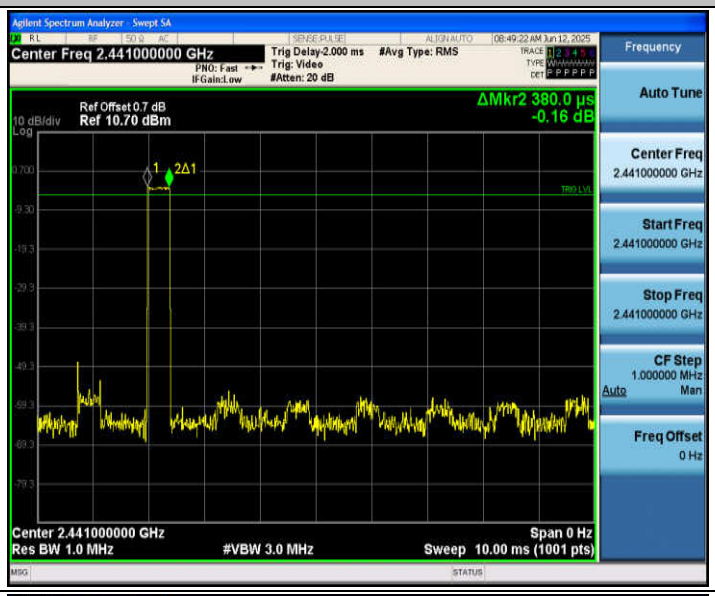


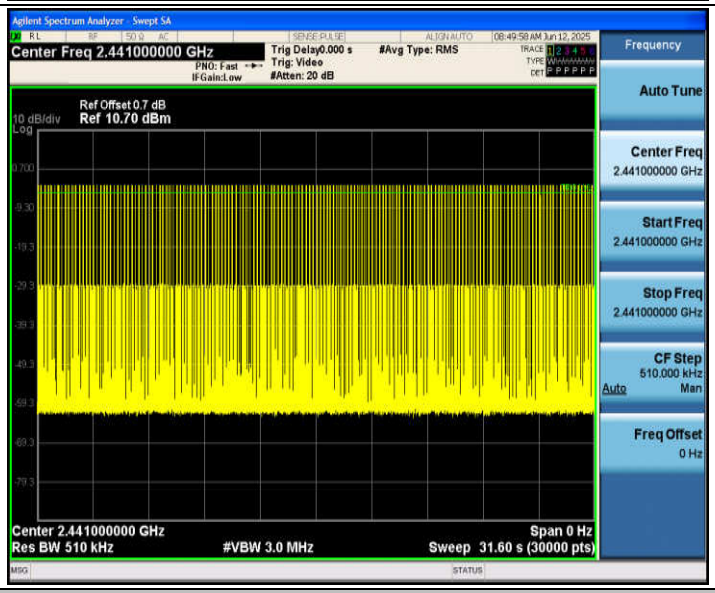
2DH5_Ant1_Hop



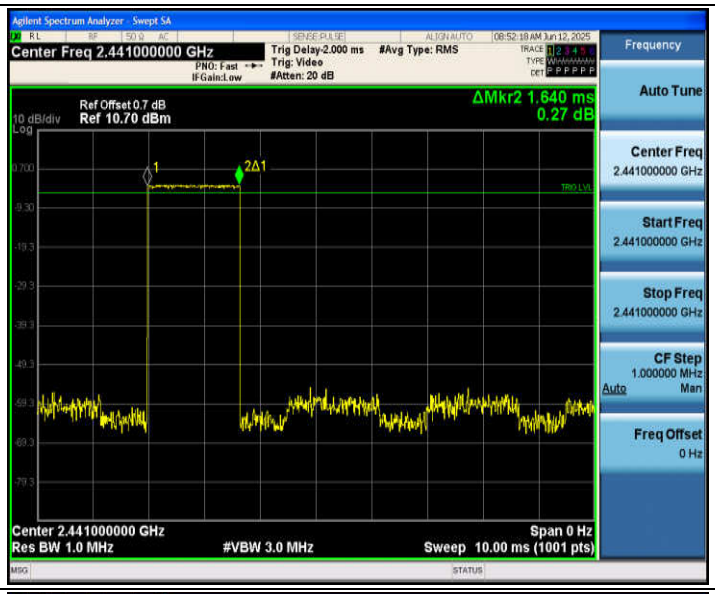


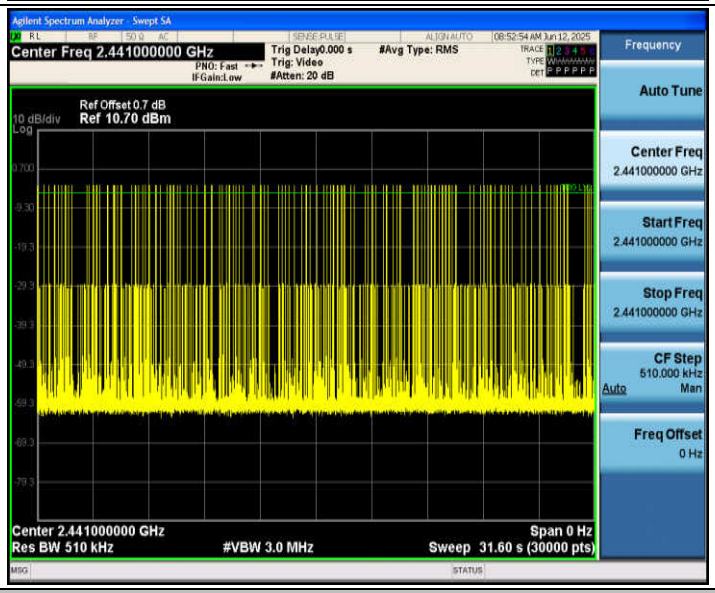
3DH1_Ant1_Hop



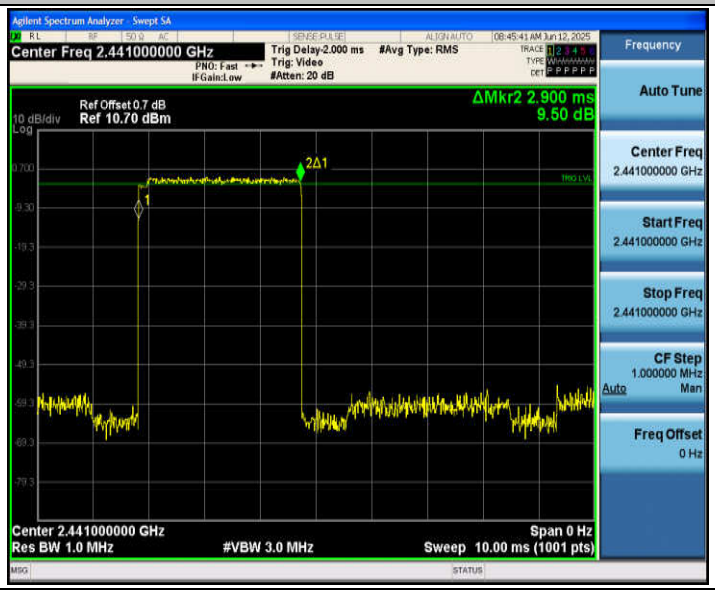


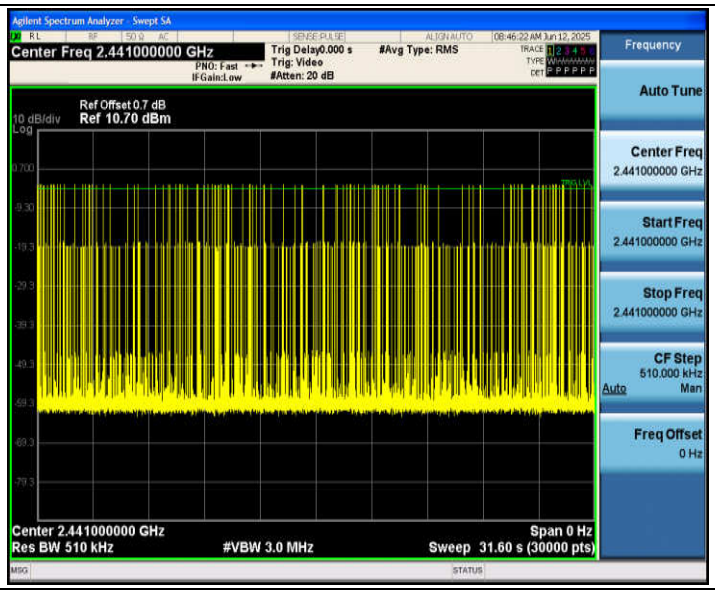
3DH3_Ant1_Hop





3DH5_Ant1_Hop



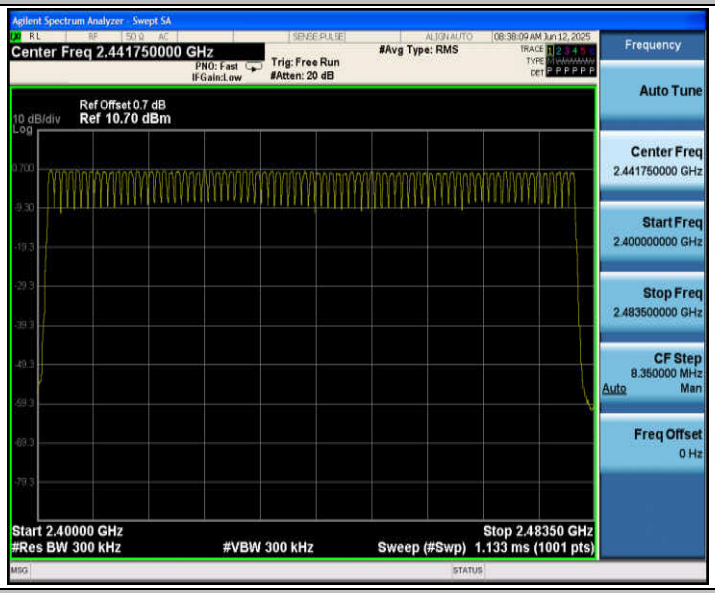
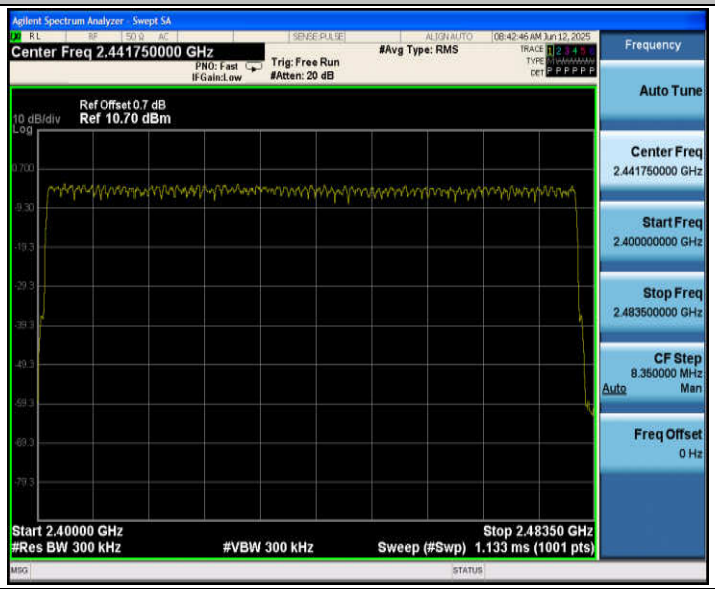

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
Trig Delay0.000 s
#Avg Type: RMS
Trig: Video
#Atten: 20 dB
Ref Offset 0.7 dB
10 dB/div
Ref 10.70 dBm
Log
Center 2.441000000 GHz
Span 0 Hz
Res BW 510 kHz
#VBW 3.0 MHz
Sweep 31.60 s (30000 pts)
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
CF Step
510.000 kHz
Auto
Man
Freq Offset
0 Hz

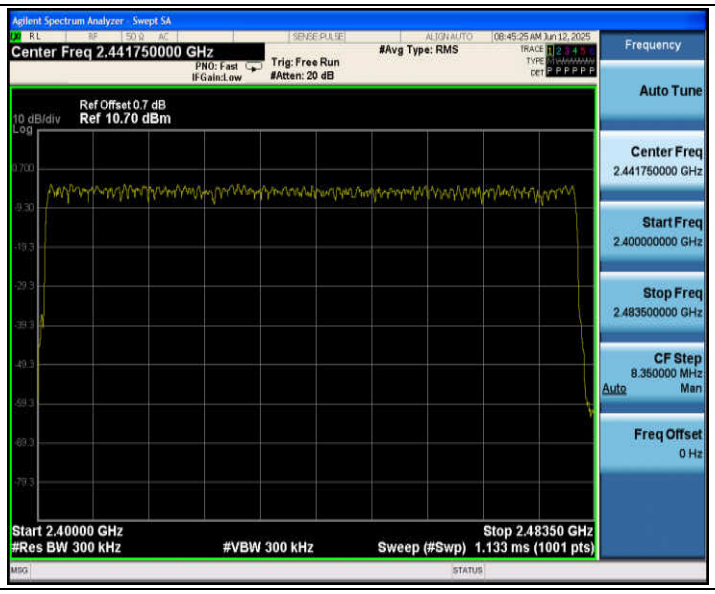
Appendix F: Number of hopping channels

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

DH5_Ant1_Hop

2DH5_Ant1_Hop

3DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441750000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
08:45:25 AM Jun 12, 2025
Frequency
Auto Tune
Center Freq
2.441750000 GHz
Start Freq
2.400000000 GHz
Stop Freq
2.483500000 GHz
CF Step
8.350000 MHz
Auto
Man
Freq Offset
0 Hz
Ref Offset 0.7 dB
10 dB/div
Ref 10.70 dBm
Log
Start 2.40000 GHz
#Res BW 300 kHz
#VBW 300 kHz
Stop 2.48350 GHz
Sweep (#Swp) 1.133 ms (1001 pts)

Appendix G: Band edge measurements

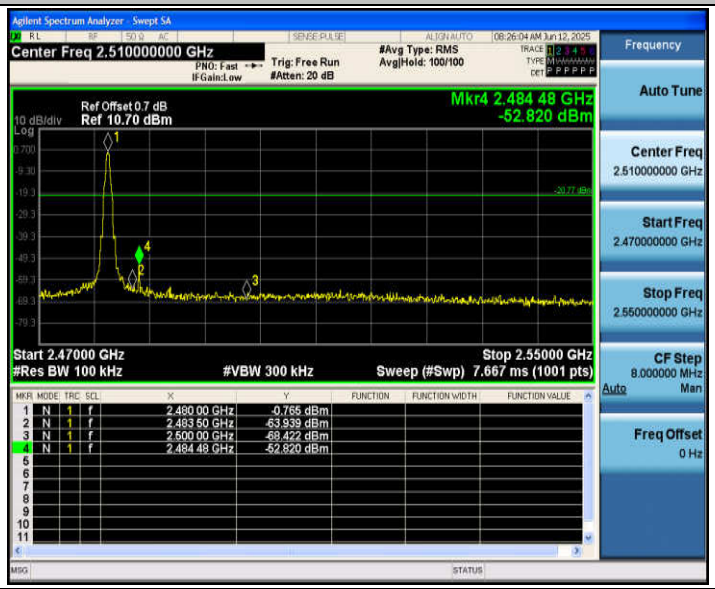
Test Result

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

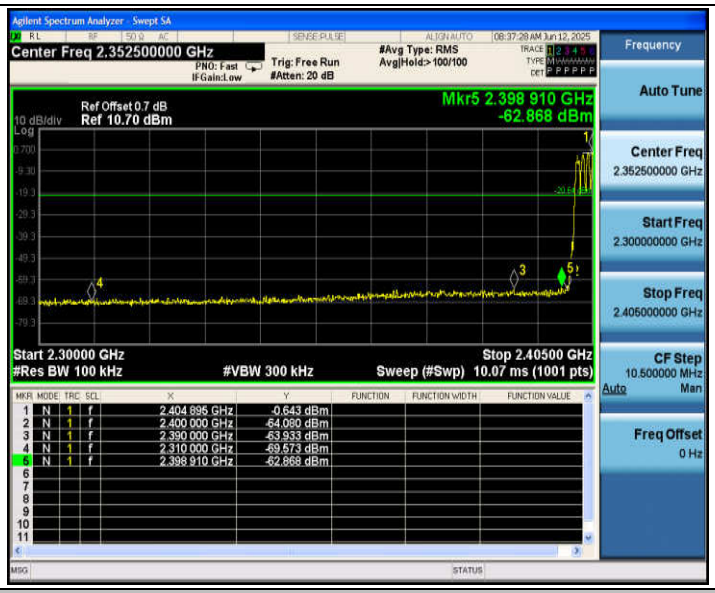
Test Graphs

DH5_Ant1_Low_2402

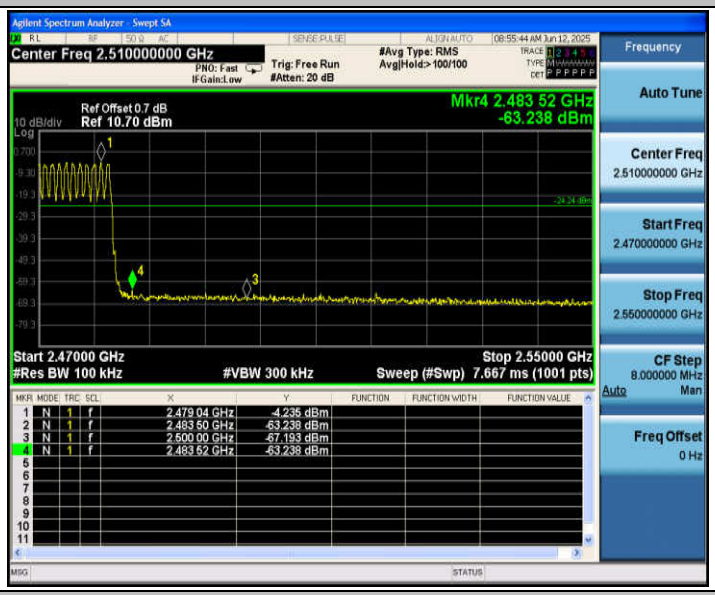
DH5_Ant1_High_2480



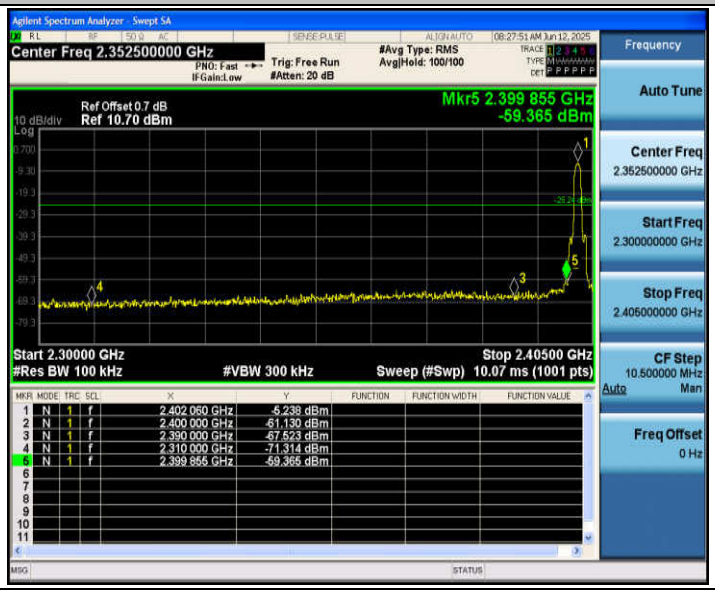
DH5_Ant1_Low_Hop_2402



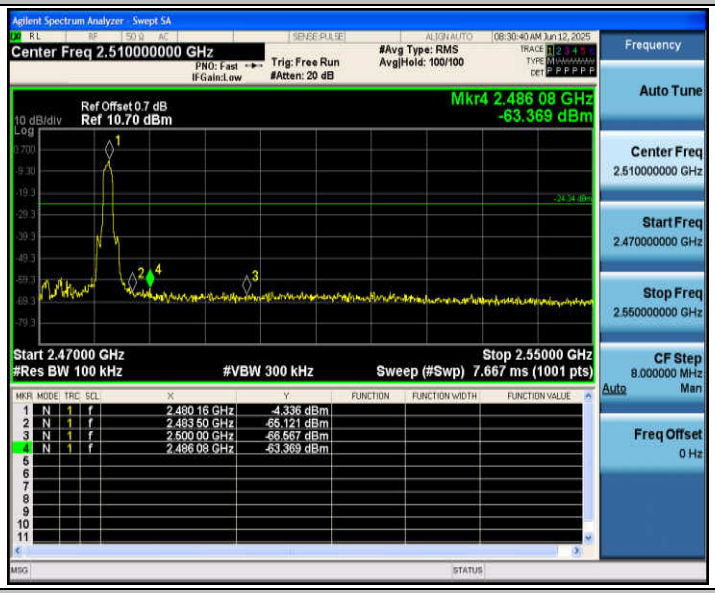
DH5_Ant1_High_Hop_2480



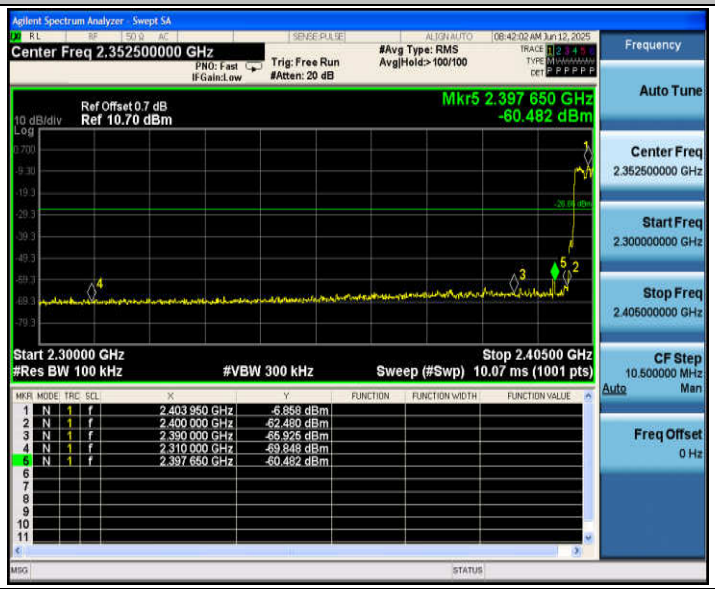
2DH5_Ant1_Low_2402



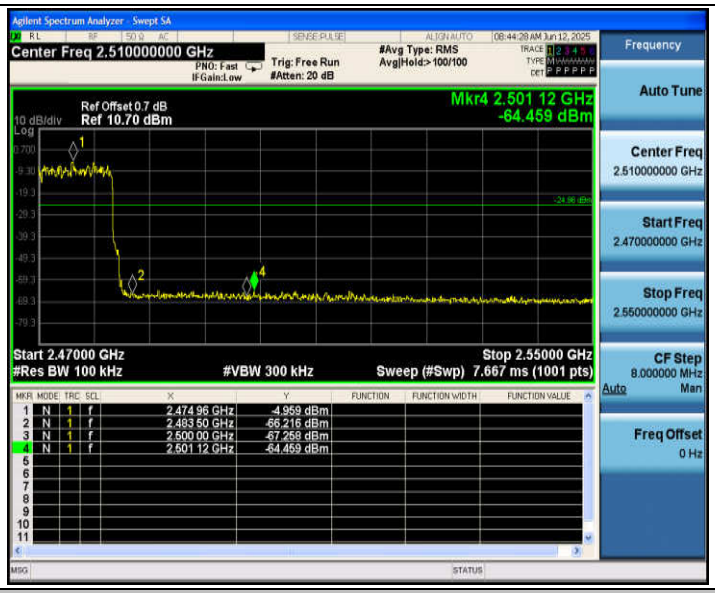
2DH5_Ant1_High_2480



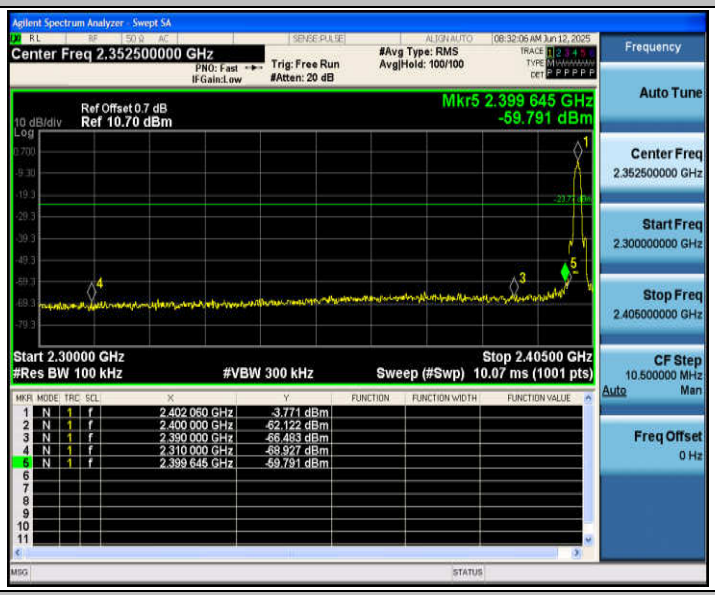
2DH5_Ant1_Low_Hop_2402



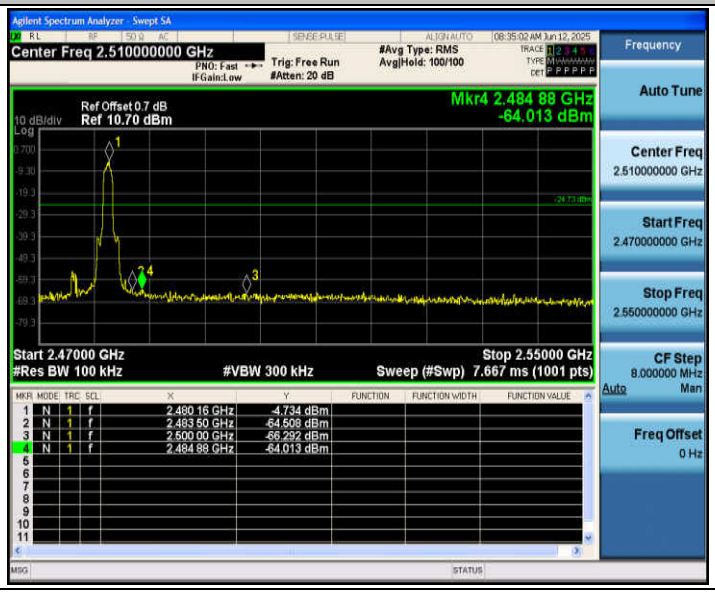
2DH5_Ant1_High_Hop_2480



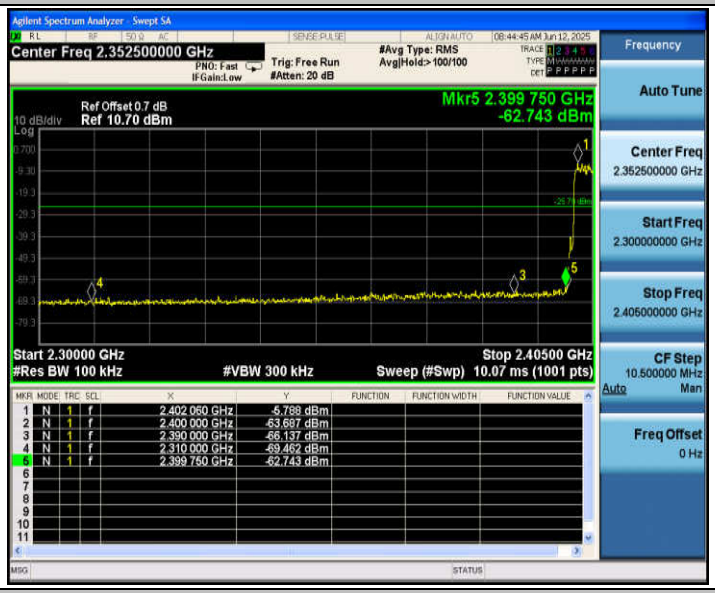
3DH5_Ant1_Low_2402



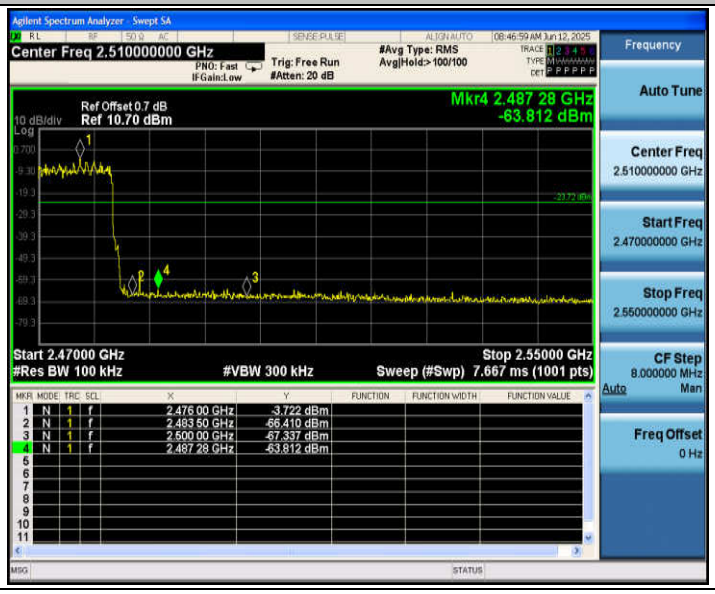
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

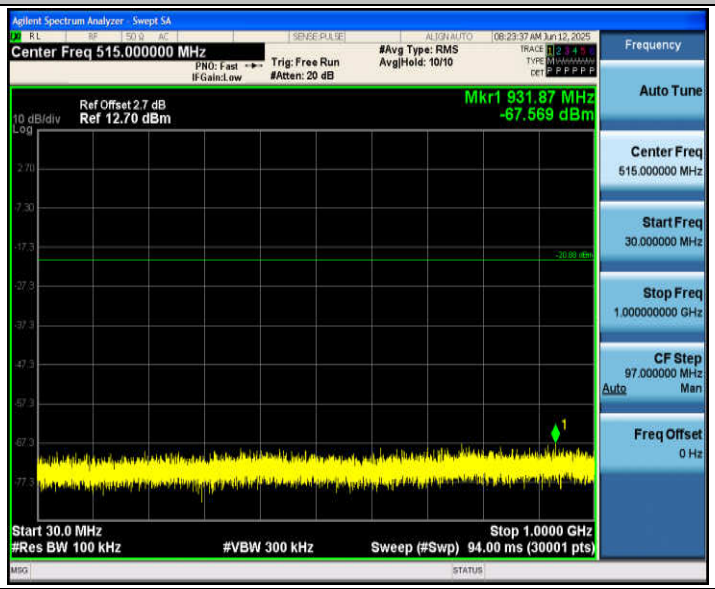
Test Result

TestMode	Antenna	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

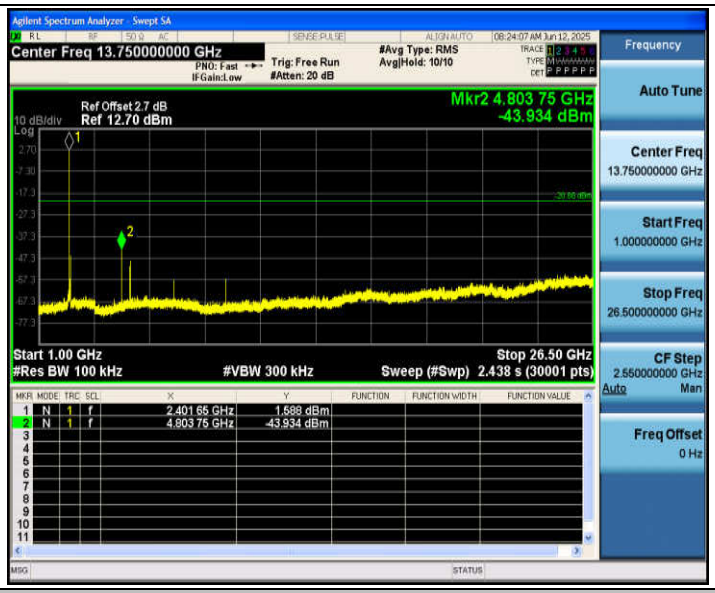
Test Graphs

DH5_Ant1_2402_0~Reference

DH5_Ant1_2402_30~1000

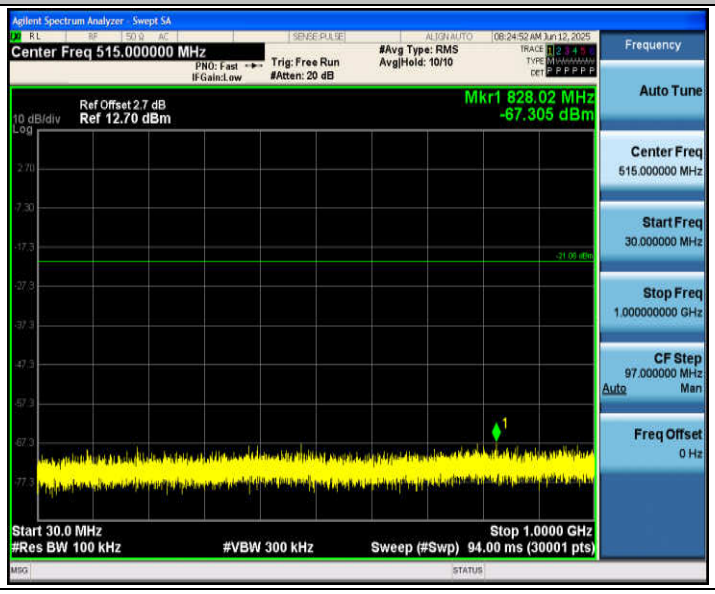


DH5_Ant1_2402_1000~26500

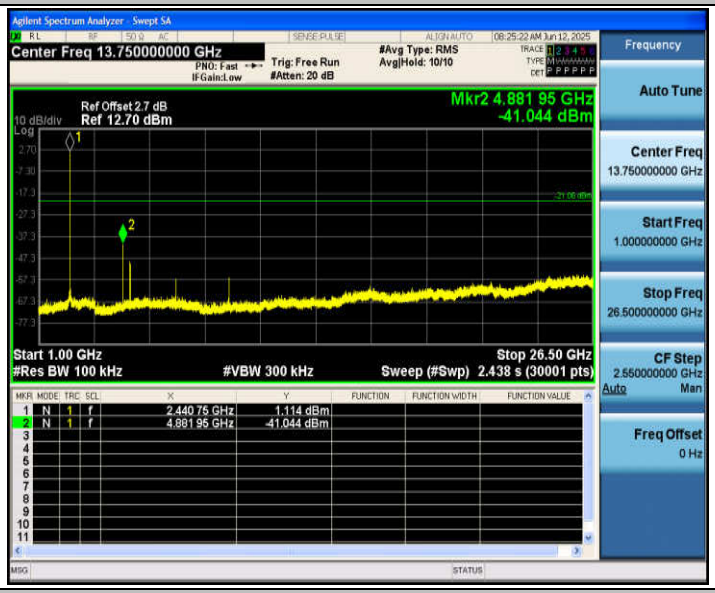


DH5_Ant1_2441_0~Reference

DH5_Ant1_2441_30~1000

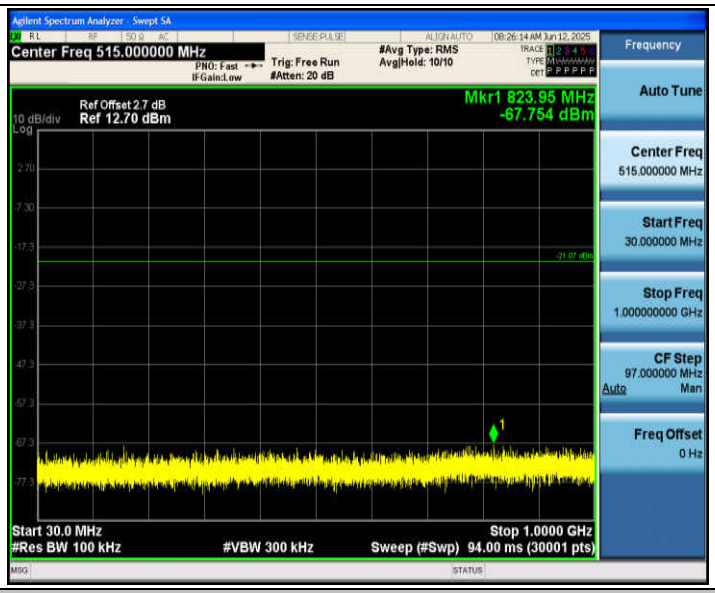


DH5_Ant1_2441_1000~26500

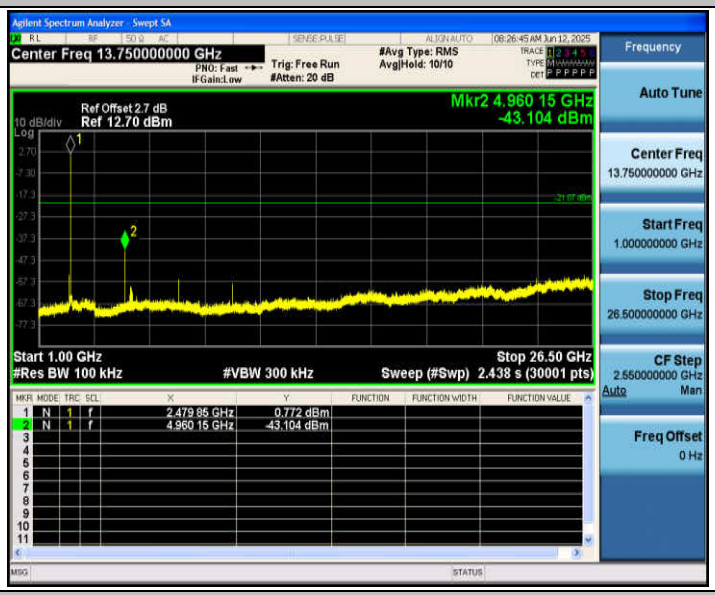


DH5_Ant1_2480_0~Reference

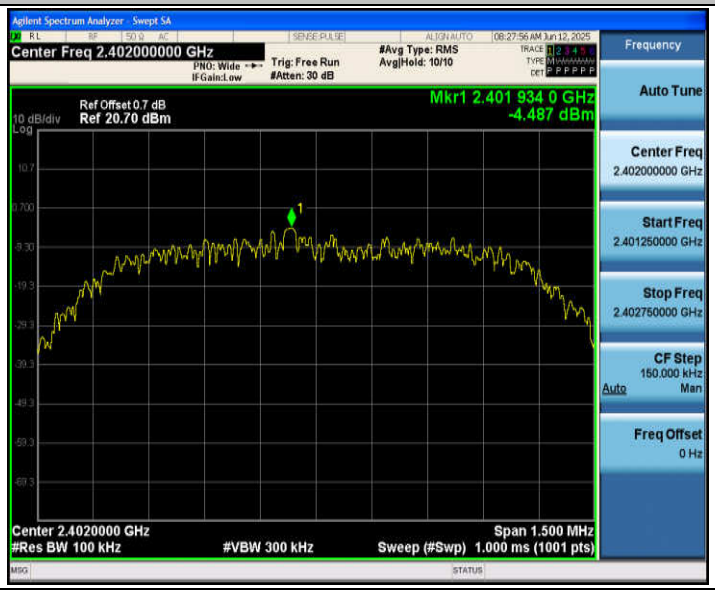
DH5_Ant1_2480_30~1000



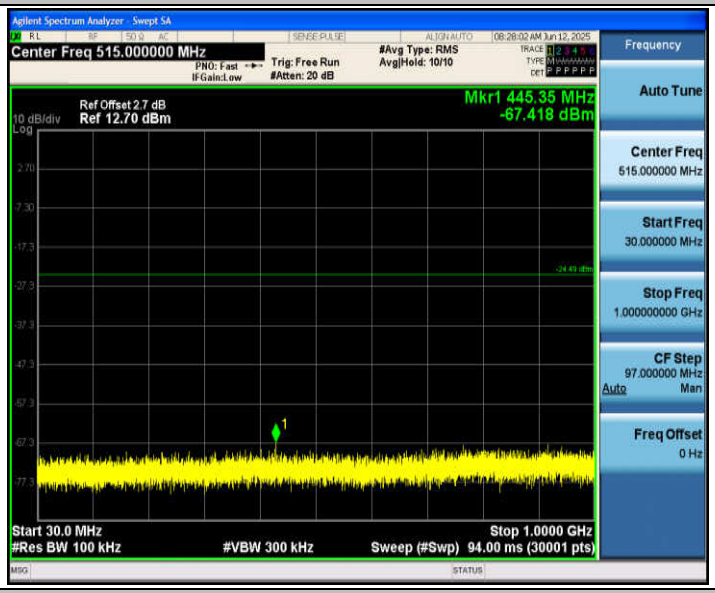
DH5_Ant1_2480_1000~26500



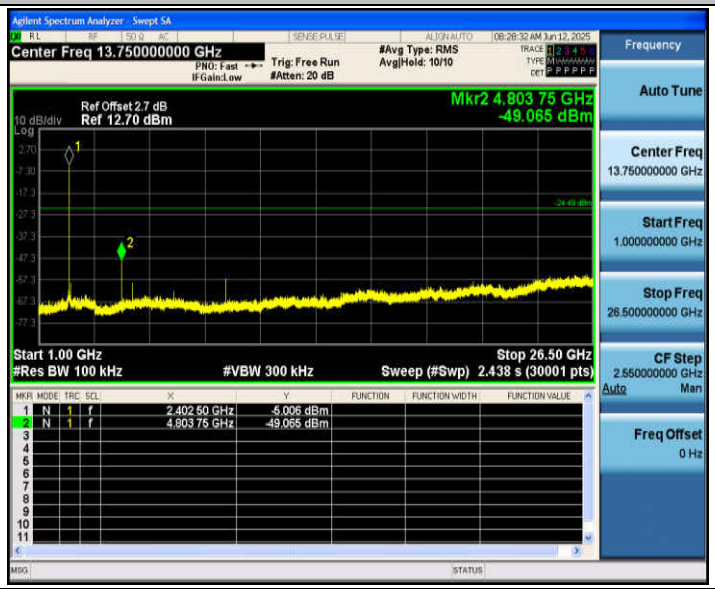
2DH5_Ant1_2402_0~Reference



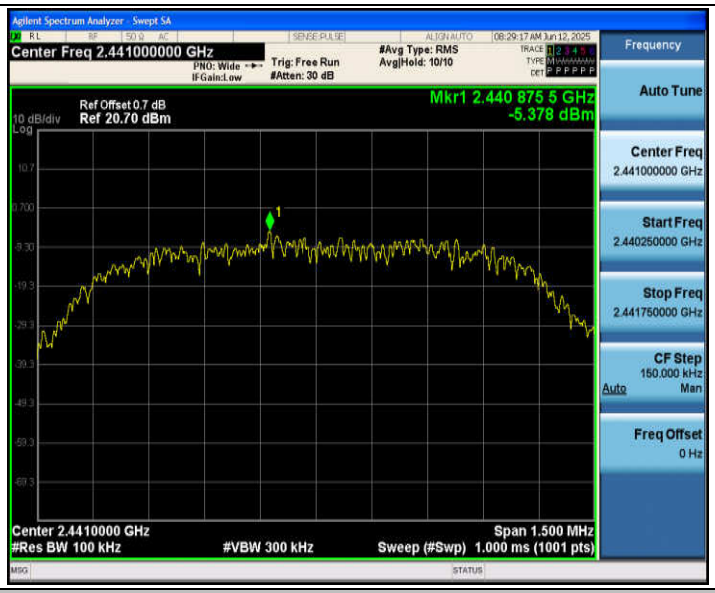
2DH5_Ant1_2402_30~1000



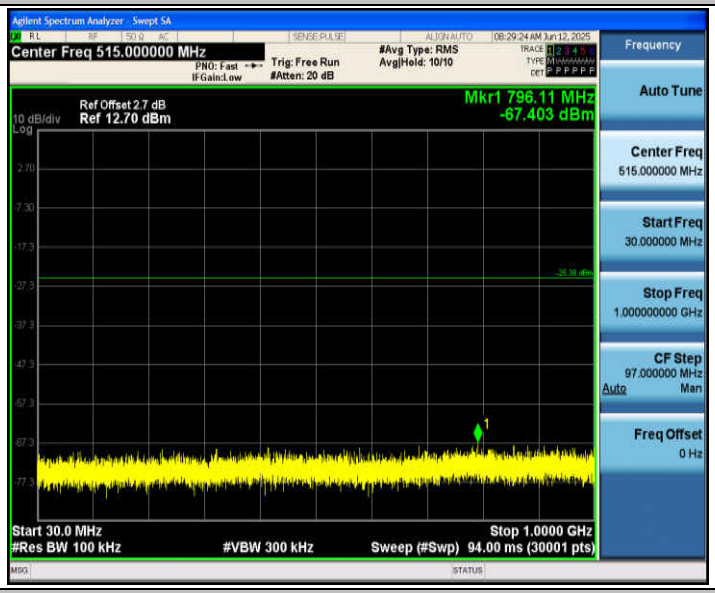
2DH5_Ant1_2402_1000~26500



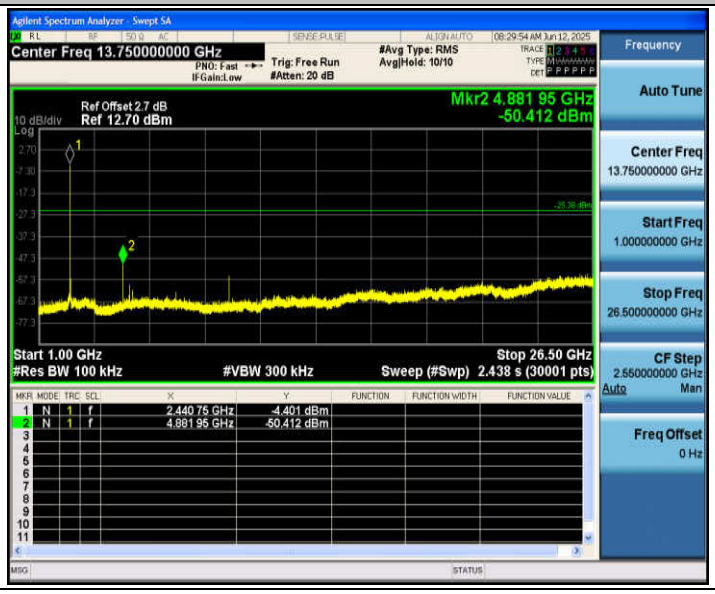
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

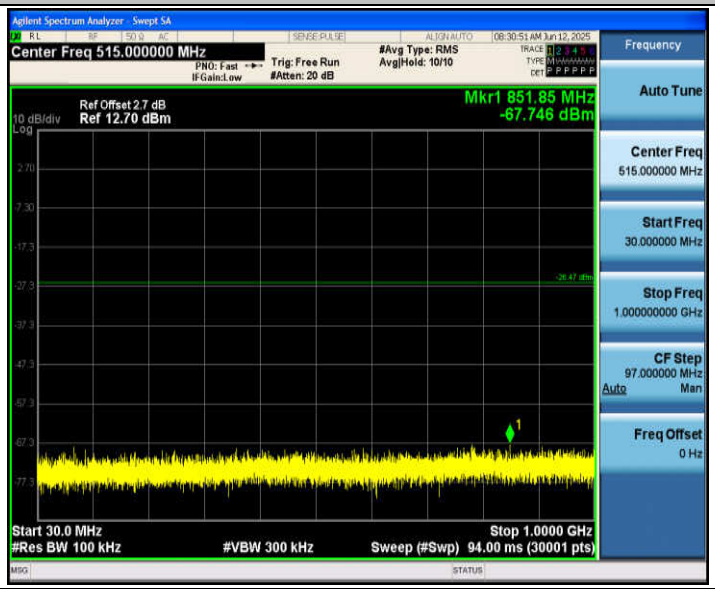


2DH5_Ant1_2441_1000~26500

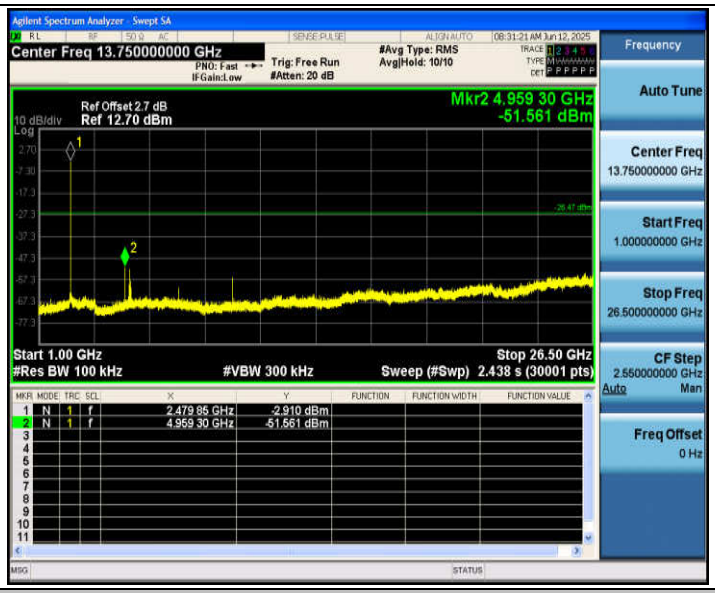


2DH5_Ant1_2480_0~Reference

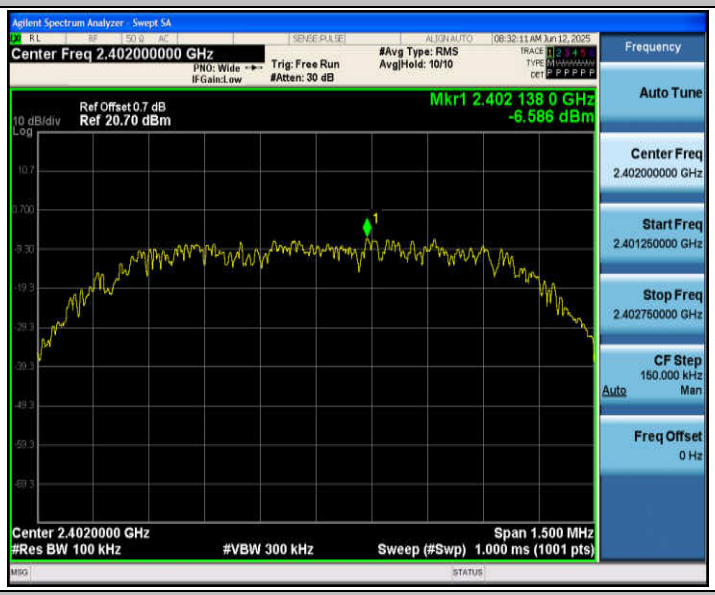
2DH5_Ant1_2480_30~1000



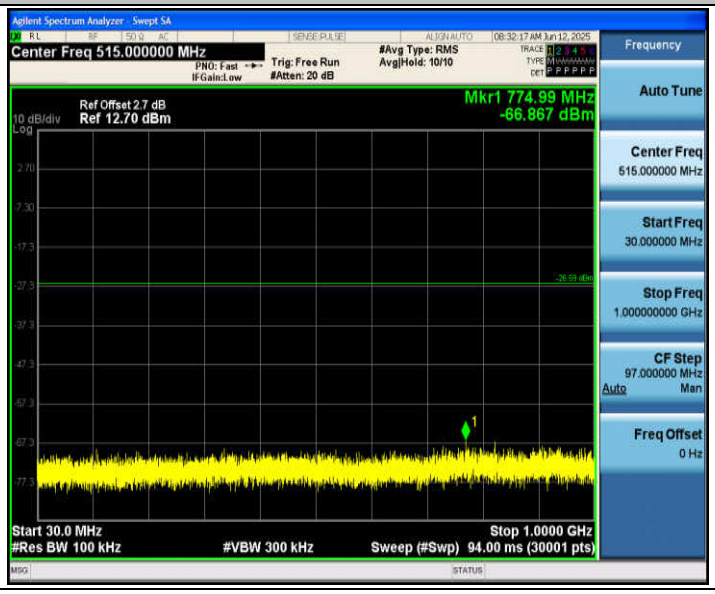
2DH5_Ant1_2480_1000~26500



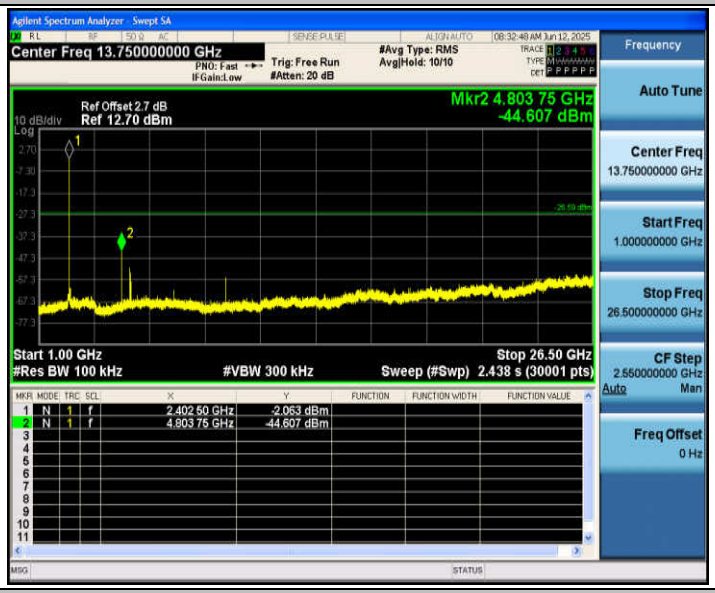
3DH5_Ant1_2402_0~Reference



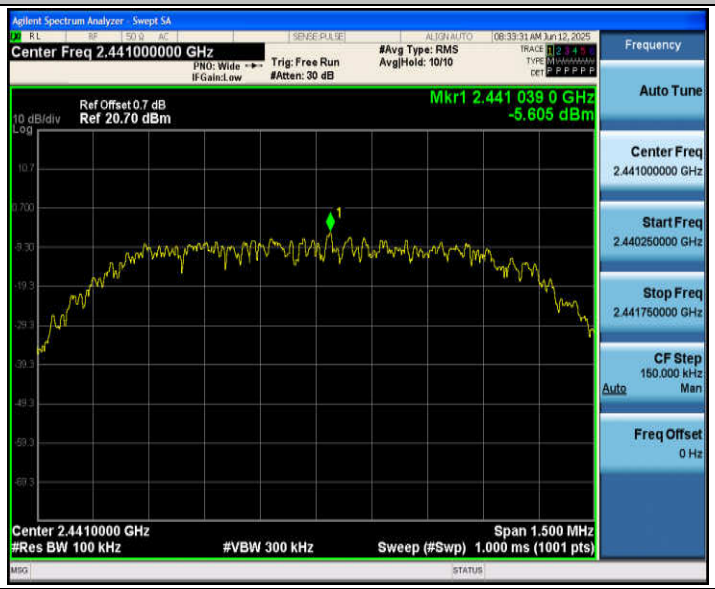
3DH5_Ant1_2402_30~1000



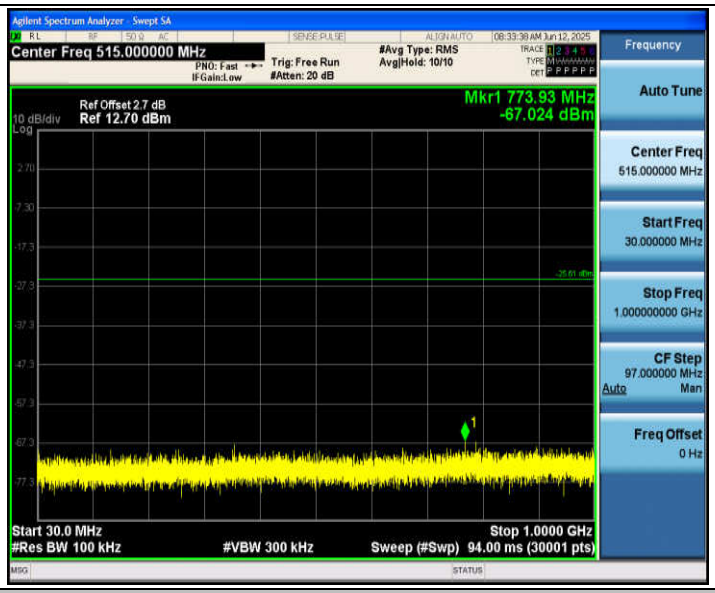
3DH5_Ant1_2402_1000~26500



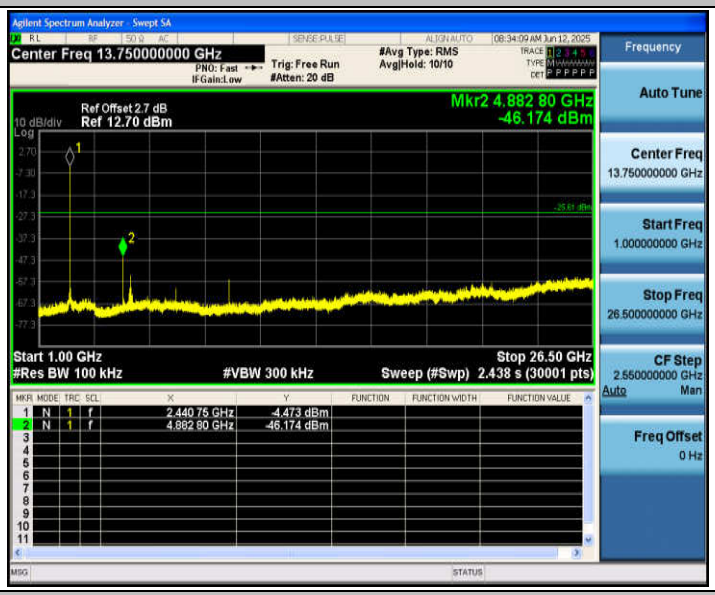
3DH5_Ant1_2441_0~Reference



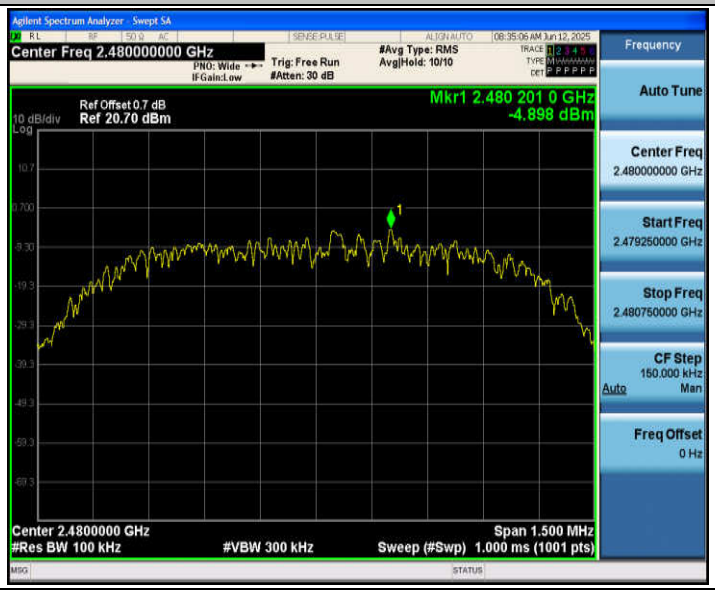
3DH5_Ant1_2441_30~1000



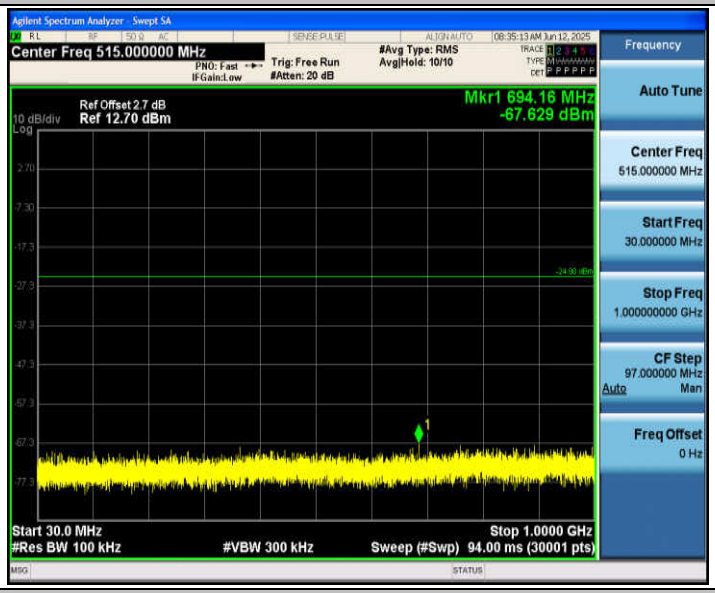
3DH5_Ant1_2441_1000~26500



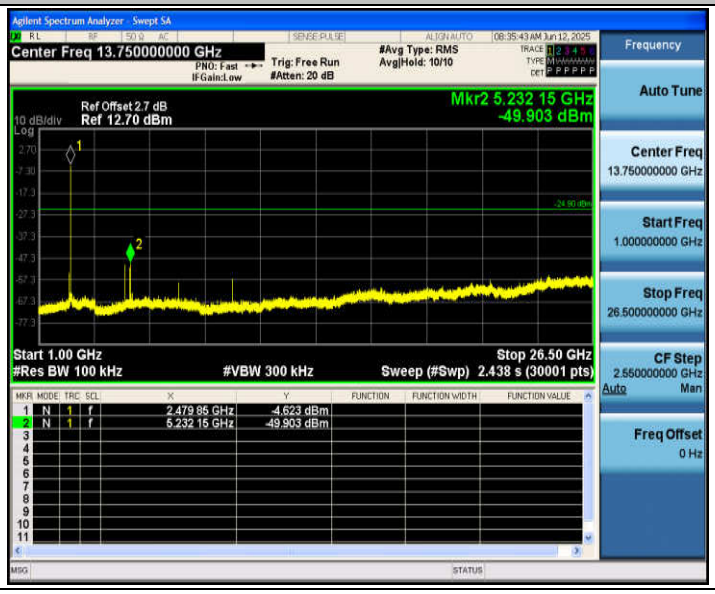
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



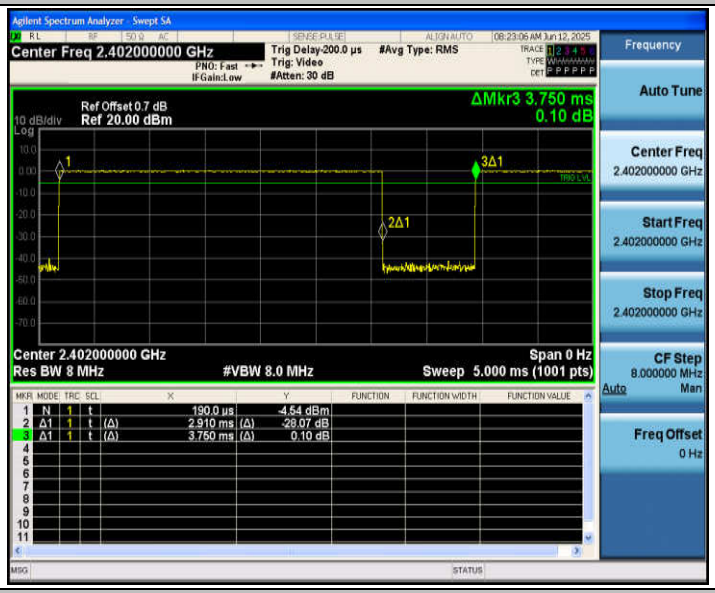
Appendix I: Duty Cycle

Test Result

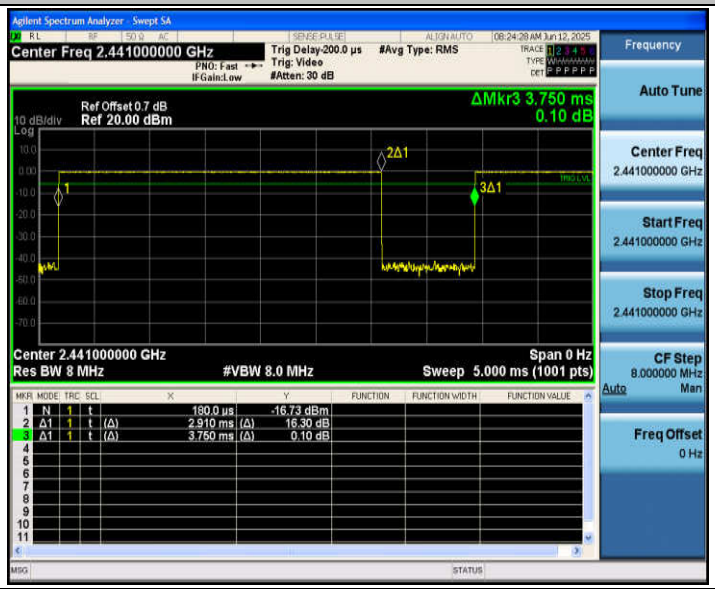
TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.91	3.75	77.60	1.10	---	---
		2480	2.92	3.75	77.87	1.09	---	---
2DH5	Ant1	2402	2.92	3.75	77.87	1.09	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09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

Test Graphs

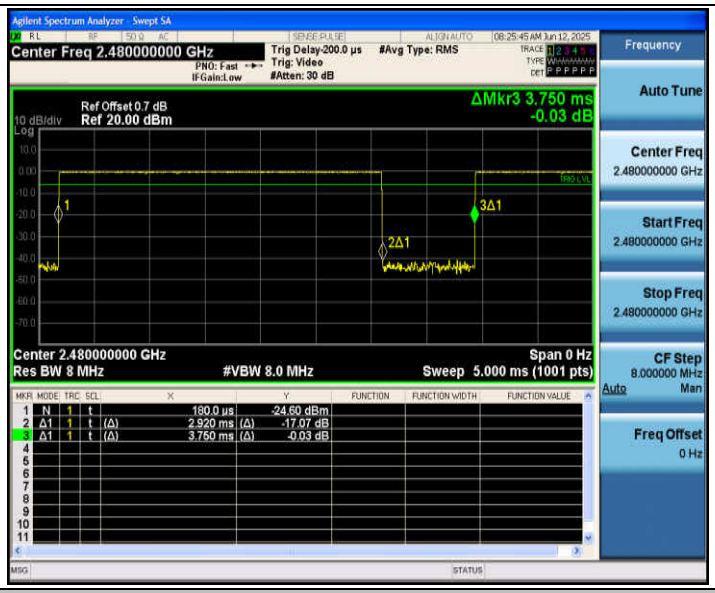
DH5_Ant1_2402



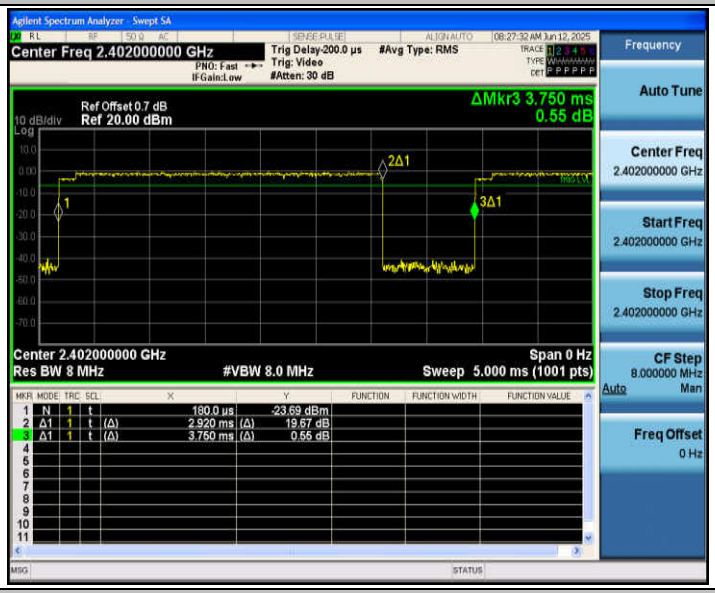
DH5_Ant1_2441



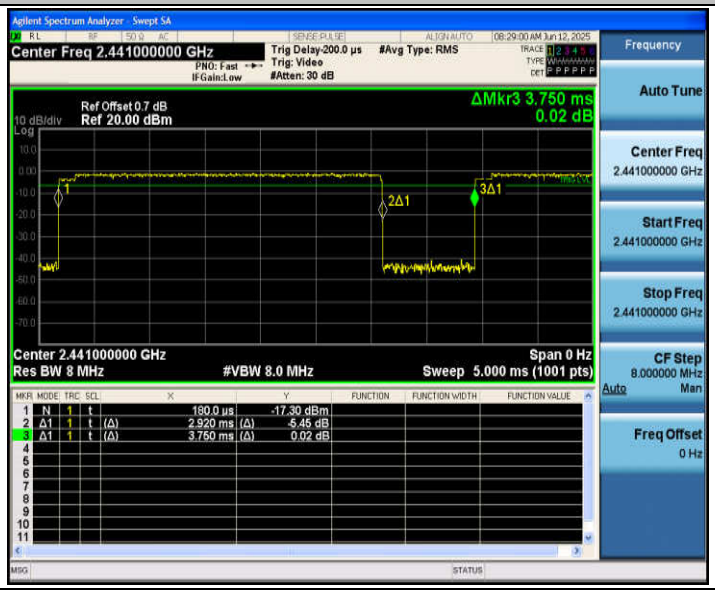
DH5_Ant1_2480

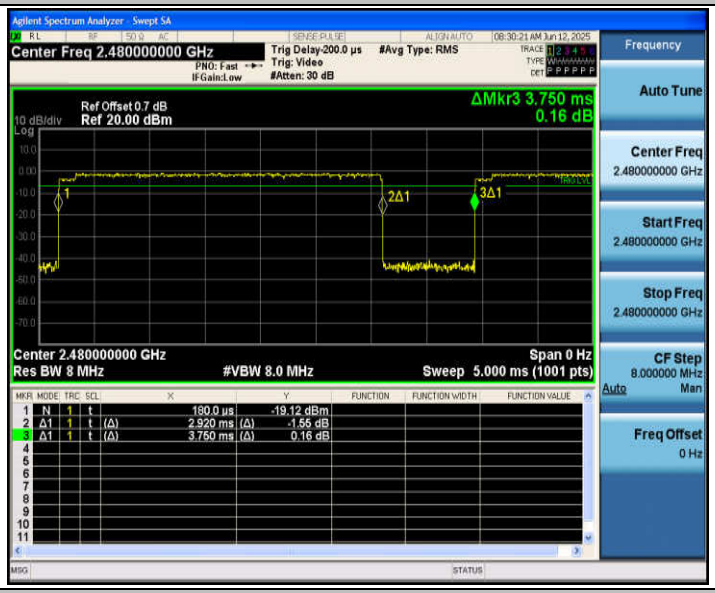
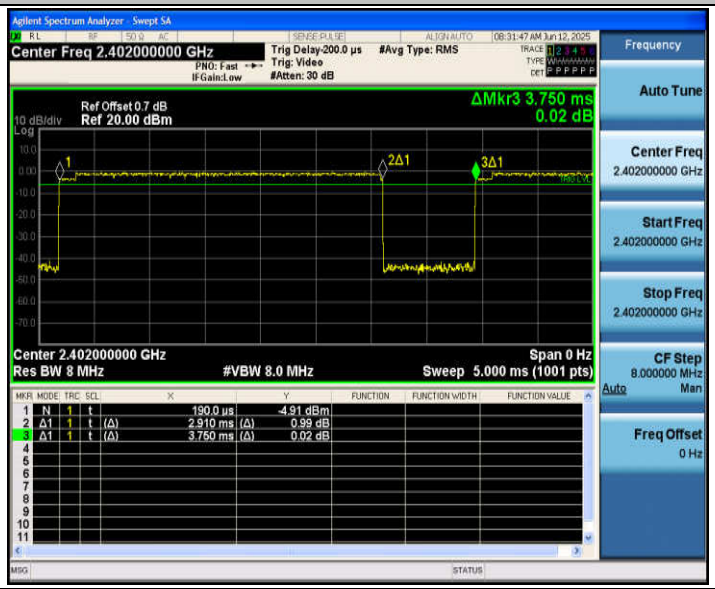


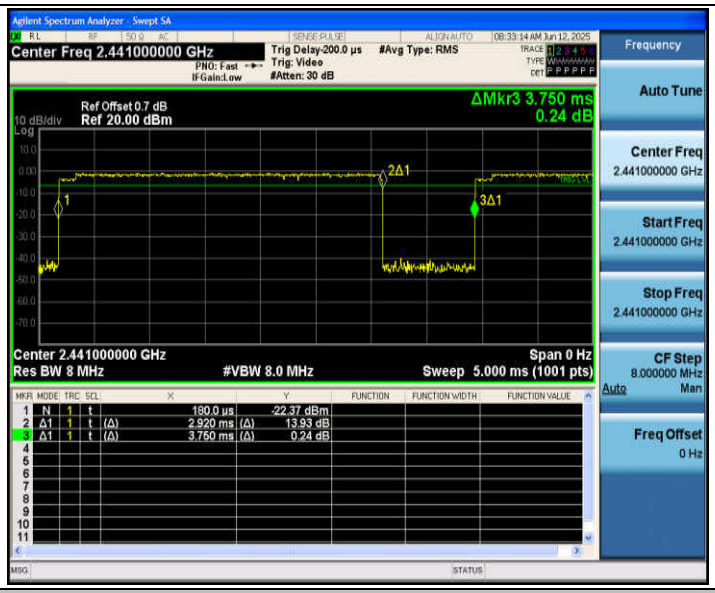
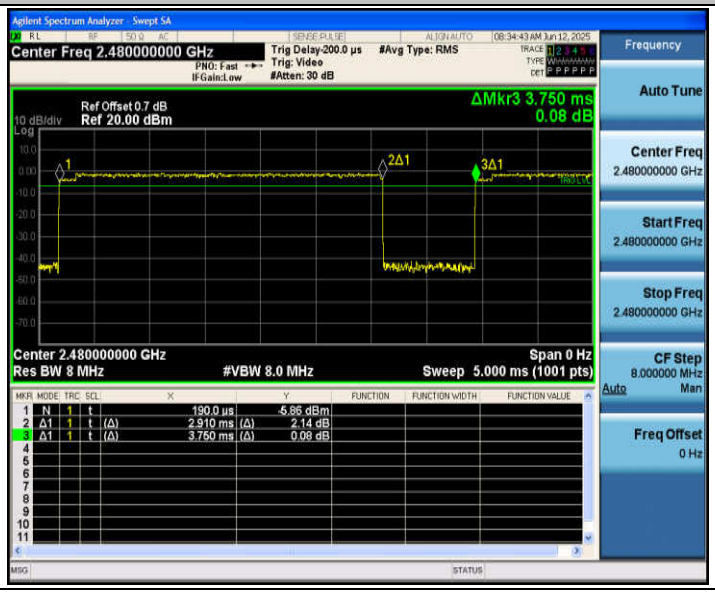
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

3DH5_Ant1_2402

3DH5_Ant1_2441



3DH5_Ant1_2480