

FCC Appendix RF Test Data for BT

FCC ID : 2A7UF-TX-0608

Company : QINGYUAN RUIMA ELECTRONICS CO.,LIMITED

EUT : Bluetooth Party Speaker

Model Number : TX-0608

Report No. : CTA26052001601

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	0.987	2401.463	2402.450	---	---
		2441	0.939	2440.508	2441.447	---	---
		2480	0.939	2479.505	2480.444	---	---
2DH5	Ant1	2402	1.215	2401.349	2402.564	---	---
		2441	1.227	2440.340	2441.567	---	---
		2480	1.230	2479.346	2480.576	---	---
3DH5	Ant1	2402	1.275	2401.322	2402.597	---	---
		2441	1.317	2440.310	2441.627	---	---
		2480	1.305	2479.310	2480.615	---	---

DH5_Ant1_2402

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.402000000 GHz

Ref Offset 0.5 dB
Ref 30.00 dBm

Trig: Free Run
#Atten: 40 dB

#Avg Type: RMS
AvgHold: 100/100

Span 3.000 MHz
Sweep 3.200 ms (1001 pts)

#Res BW 30 kHz
#VBW 100 kHz

ΔMkr3 987 kHz
-0.319 dB

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401463 GHz	-19.282 dBm			
2	N	1	f	2.401979 GHz	1.315 dBm			
3	Δ	1	f (Δ)	987 kHz (Δ)	-0.319 dB			

DH5_Ant1_2441

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 0.5 dB
Ref 30.00 dBm

Trig: Free Run
#Atten: 40 dB

#Avg Type: RMS
AvgHold: 100/100

Span 3.000 MHz
Sweep 3.200 ms (1001 pts)

#Res BW 30 kHz
#VBW 100 kHz

ΔMkr3 939 kHz
-0.401 dB

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.440508 GHz	-16.457 dBm			
2	N	1	f	2.440987 GHz	3.577 dBm			
3	Δ	1	f (Δ)	939 kHz (Δ)	-0.401 dB			



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

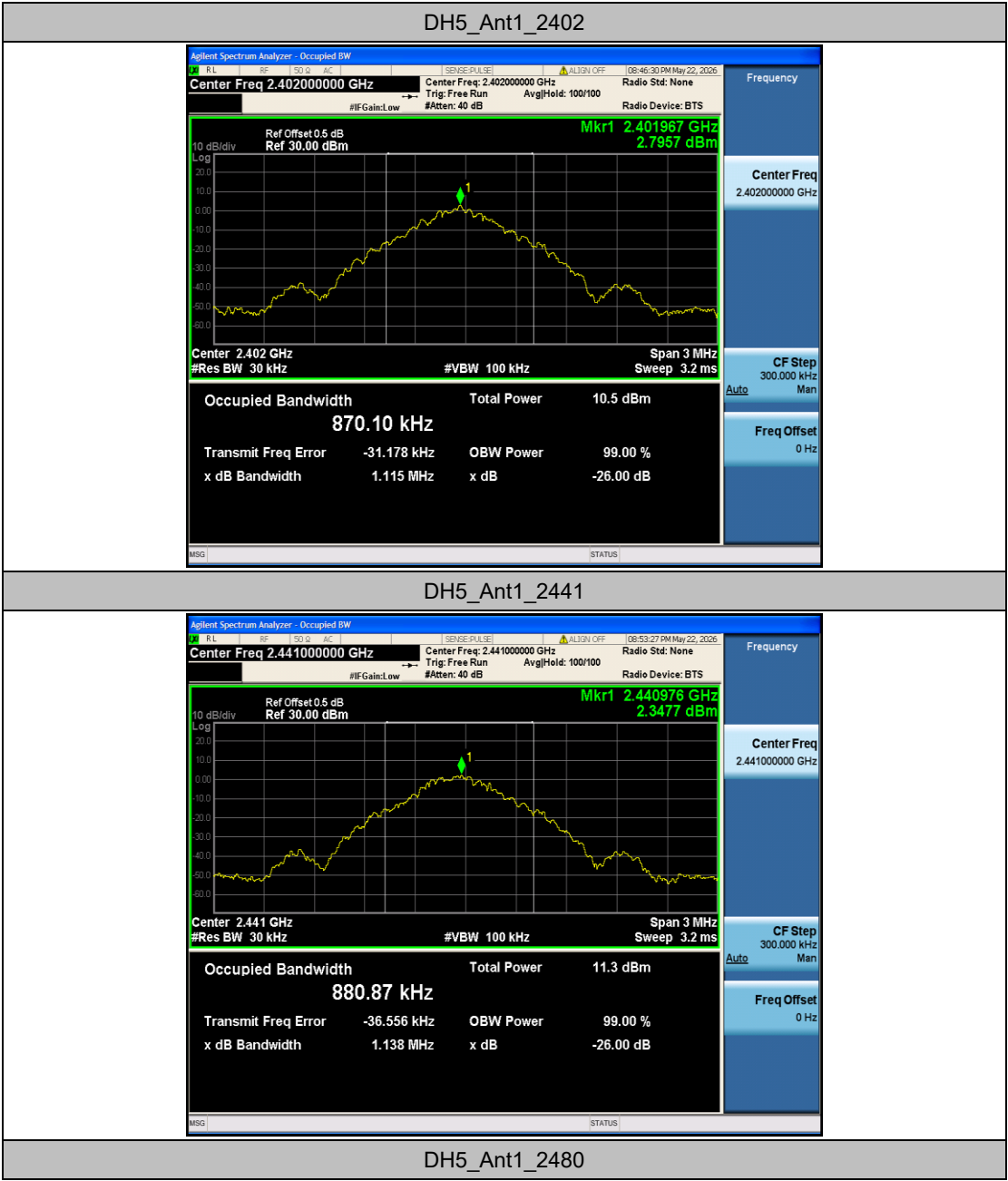


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.87010	2401.5338	2402.4039	---	---
		2441	0.88087	2440.5230	2441.4039	---	---
		2480	0.86262	2479.5278	2480.3904	---	---
2DH5	Ant1	2402	1.1802	2401.3733	2402.5535	---	---
		2441	1.1871	2440.3673	2441.5544	---	---
		2480	1.1867	2479.3677	2480.5544	---	---
3DH5	Ant1	2402	1.1835	2401.3708	2402.5543	---	---
		2441	1.1753	2440.3771	2441.5524	---	---
		2480	1.1627	2479.3824	2480.5451	---	---

Test Graphs



DH5_Ant1_2441

Agilent Spectrum Analyzer - Occupied BW

Center Freq 2.441000000 GHz

Center Freq: 2.441000000 GHz
Trig: Free Run
Avg/Hold: 100/100
Radio Std: None
Radio Device: BTS

Ref Offset 0.5 dB
Ref 30.00 dBm

10 dB/div
Log

Span 3 MHz
Sweep 3.2 ms

Occupied Bandwidth
880.87 kHz

Total Power
11.3 dBm

Transmit Freq Error
-36.556 kHz

OBW Power
99.00 %

x dB Bandwidth
1.138 MHz

x dB
-26.00 dB

MSG

STATUS

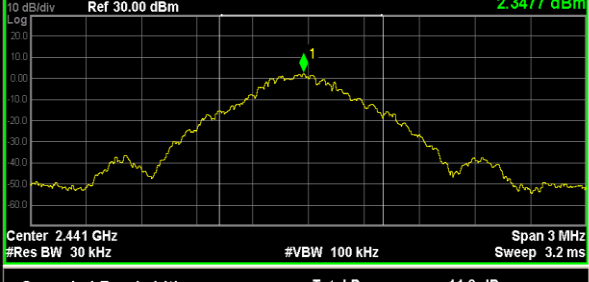
Frequency

Center Freq
2.441000000 GHz

CF Step
300.000 kHz
Man

Freq Offset
0 Hz

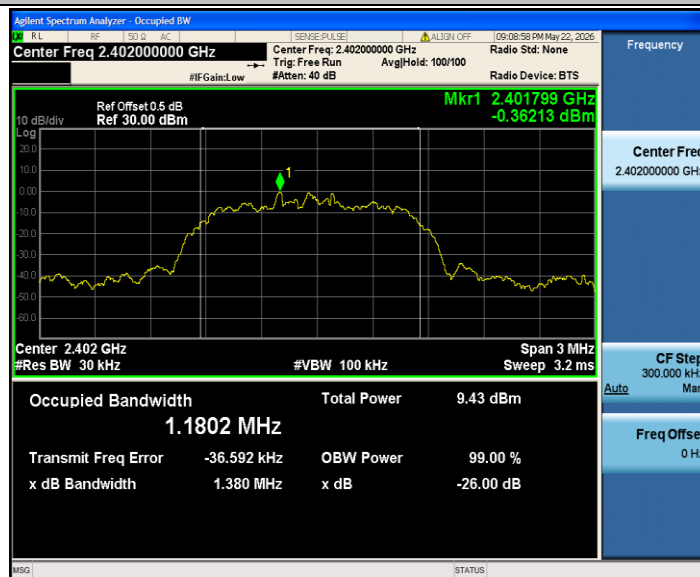
Mkr1 2.440976 GHz
2.3477 dBm



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	4.03	≤20.97	PASS
		2441	4.81	≤20.97	PASS
		2480	4.90	≤20.97	PASS
2DH5	Ant1	2402	4.90	≤20.97	PASS
		2441	5.76	≤20.97	PASS
		2480	2.43	≤20.97	PASS
3DH5	Ant1	2402	2.13	≤20.97	PASS
		2441	2.88	≤20.97	PASS
		2480	3.02	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.004	≥ 0.987	PASS
2DH5	Ant1	Hop	0.852	≥ 0.820	PASS
3DH5	Ant1	Hop	1.036	≥ 0.878	PASS

Test Graphs



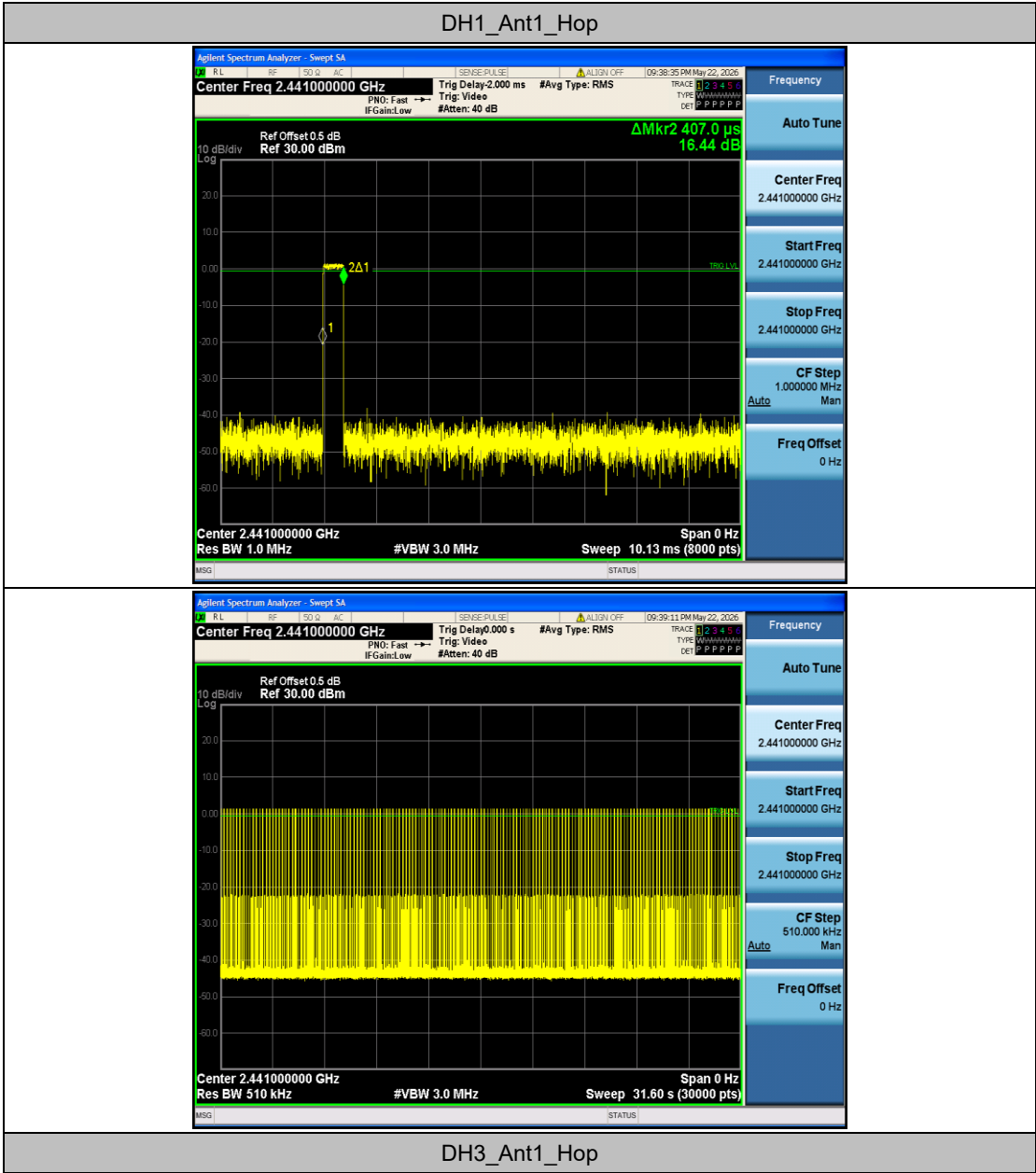


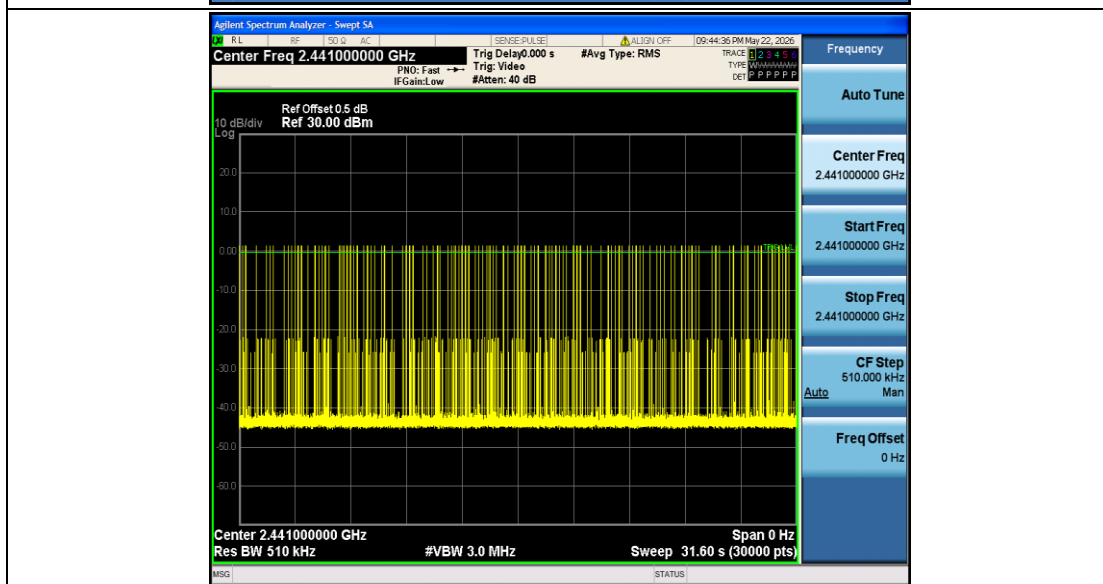
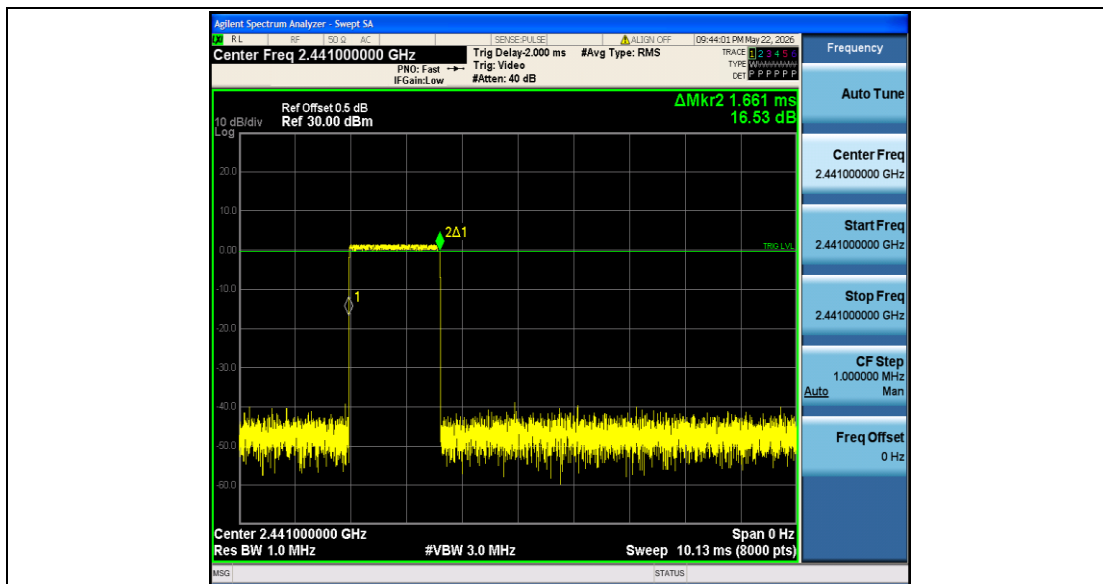
Appendix E: Time of occupancy

Test Result

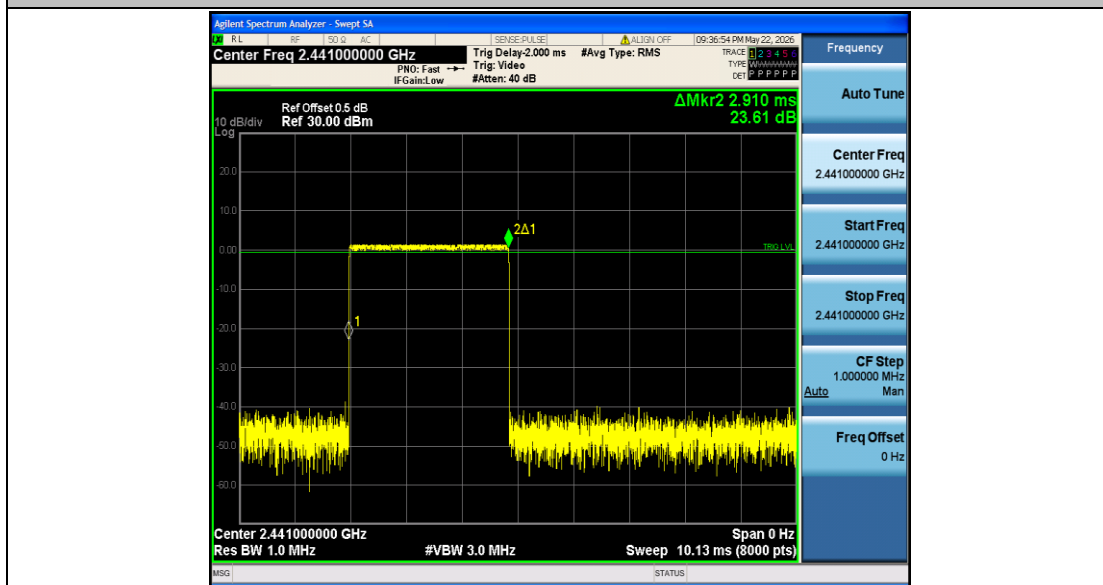
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	320	0.13	≤0.4	PASS
DH3	Ant1	Hop	1.661	159	0.264	≤0.4	PASS
DH5	Ant1	Hop	2.910	105	0.306	≤0.4	PASS
2DH1	Ant1	Hop	0.417	319	0.133	≤0.4	PASS
2DH3	Ant1	Hop	1.667	159	0.265	≤0.4	PASS
2DH5	Ant1	Hop	2.916	101	0.295	≤0.4	PASS
3DH1	Ant1	Hop	0.418	319	0.133	≤0.4	PASS
3DH3	Ant1	Hop	1.667	163	0.272	≤0.4	PASS
3DH5	Ant1	Hop	2.917	101	0.295	≤0.4	PASS

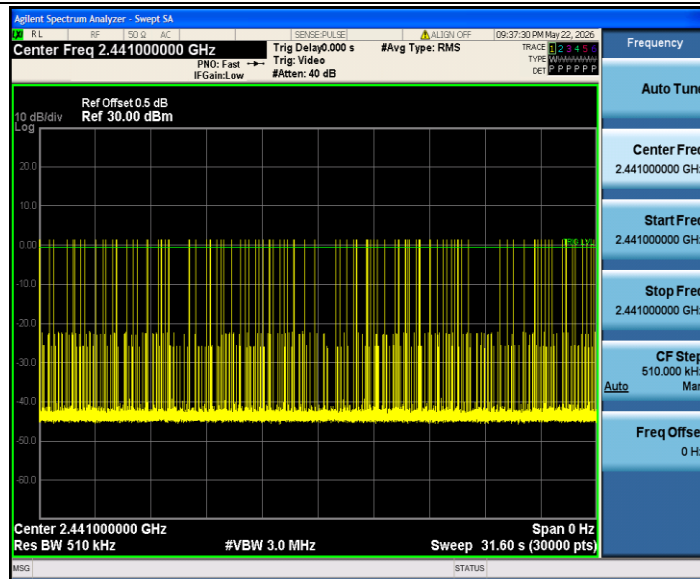
Test Graphs



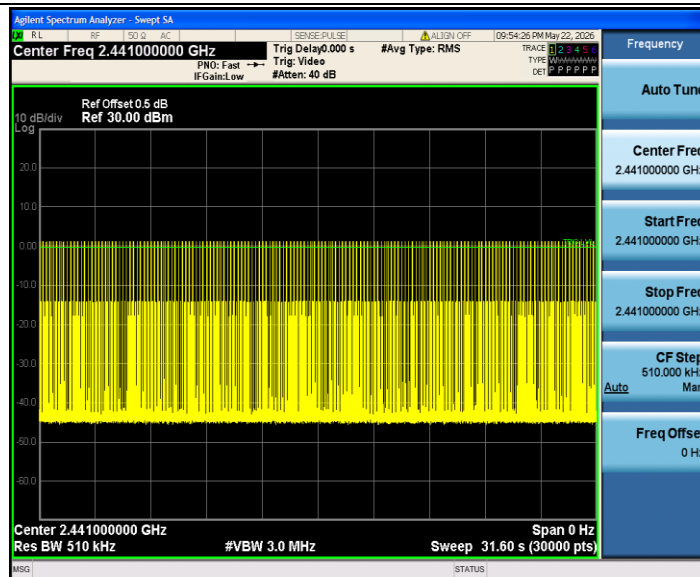
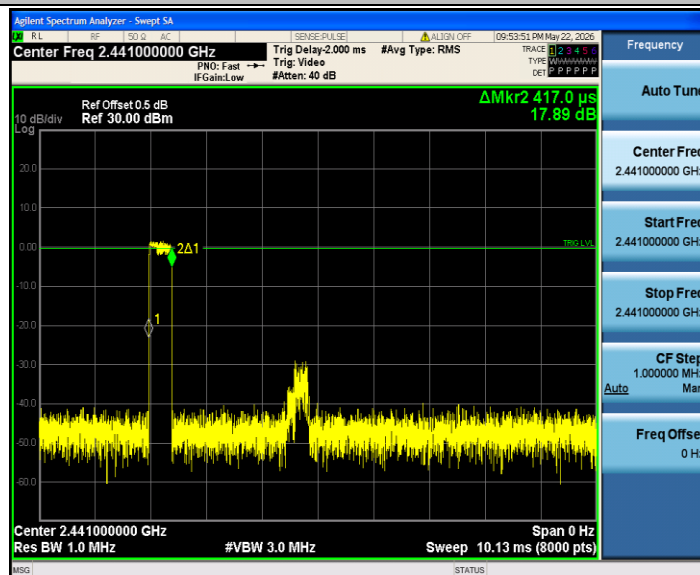


DH5_Ant1_Hop

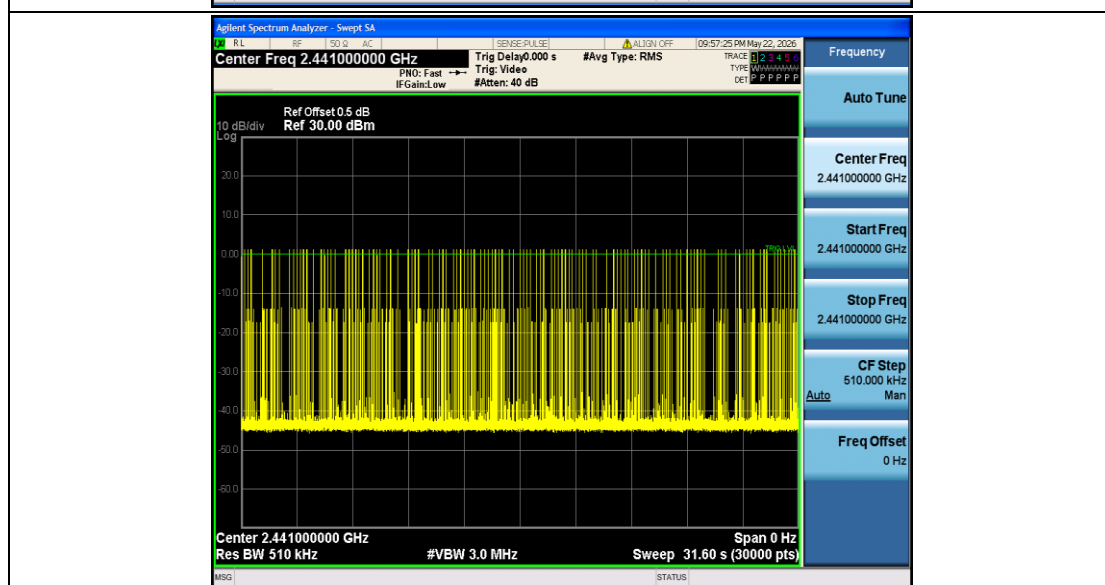
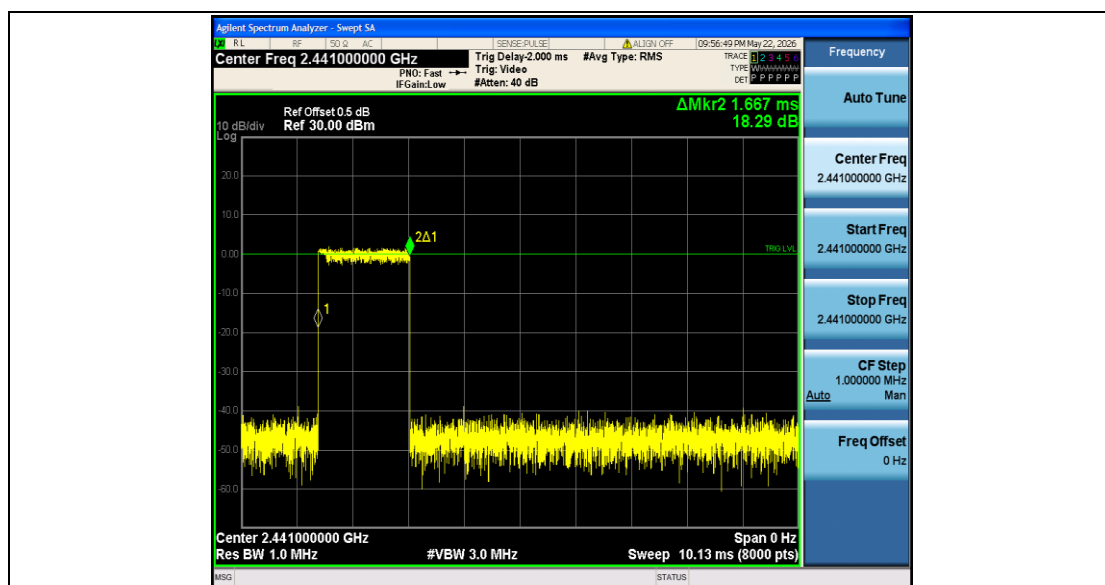




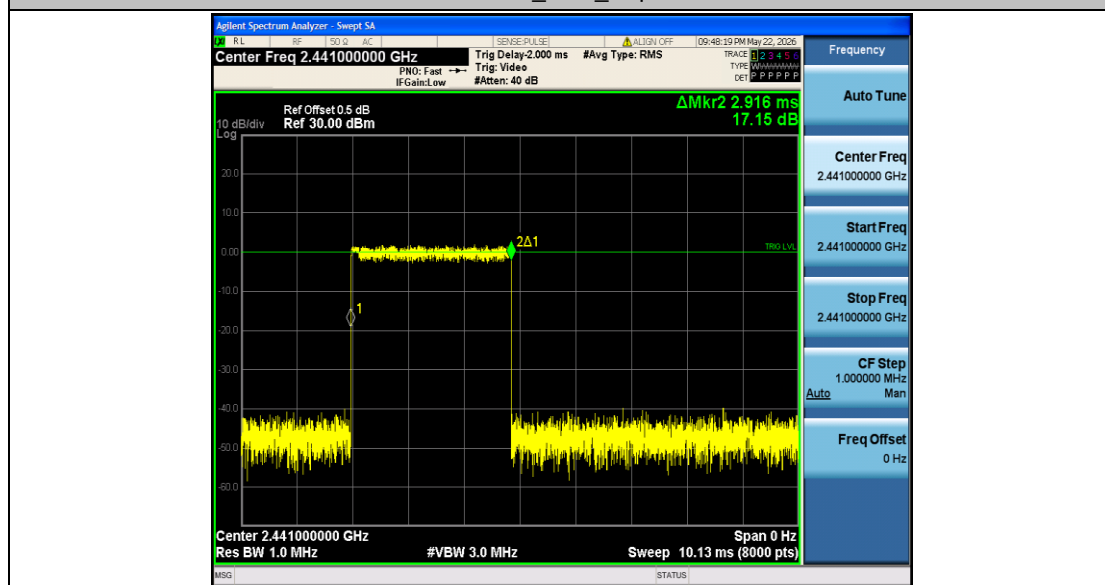
2DH1_Ant1_Hop

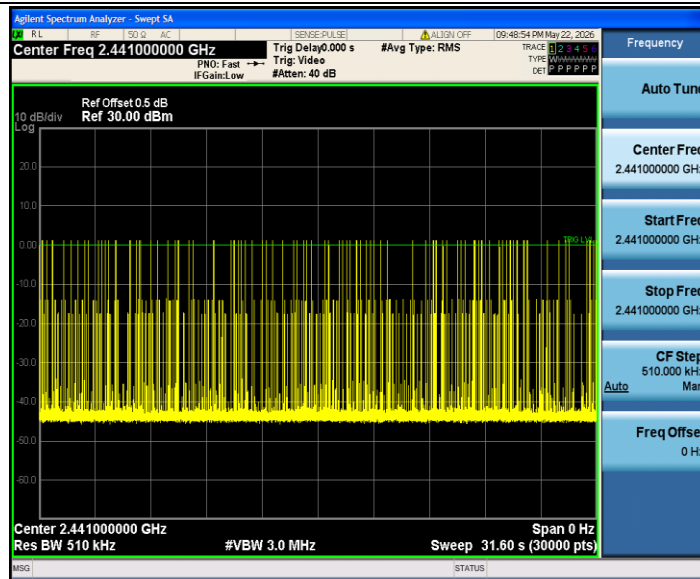


2DH3_Ant1_Hop

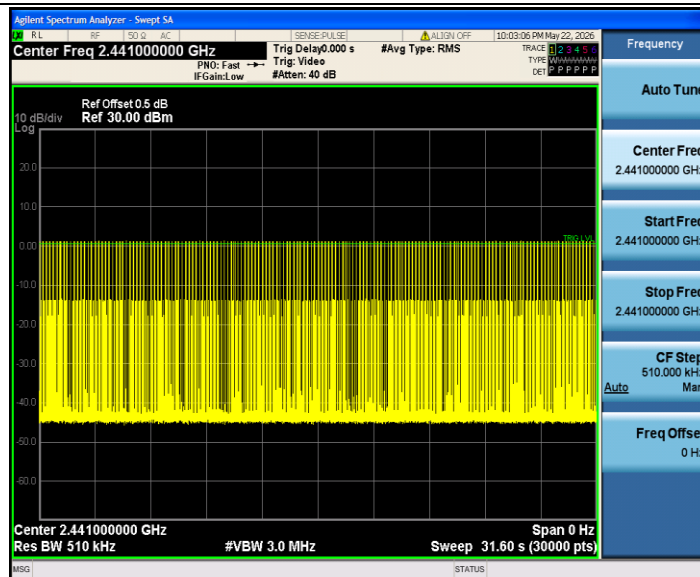
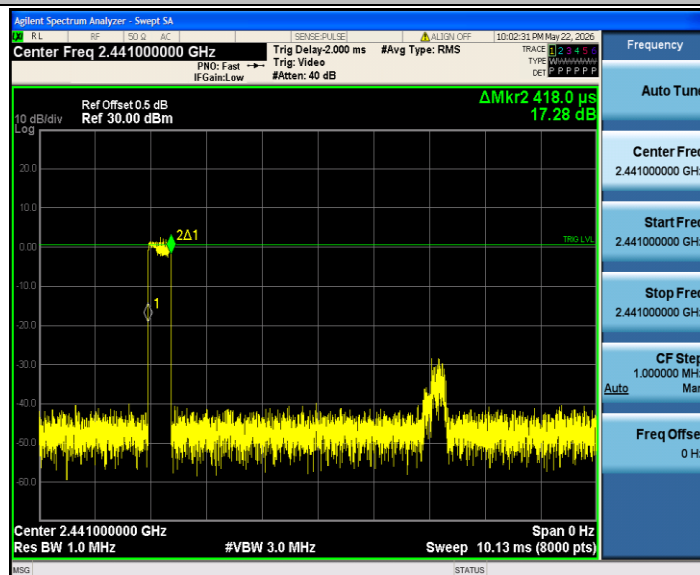


2DH5_Ant1_Hop

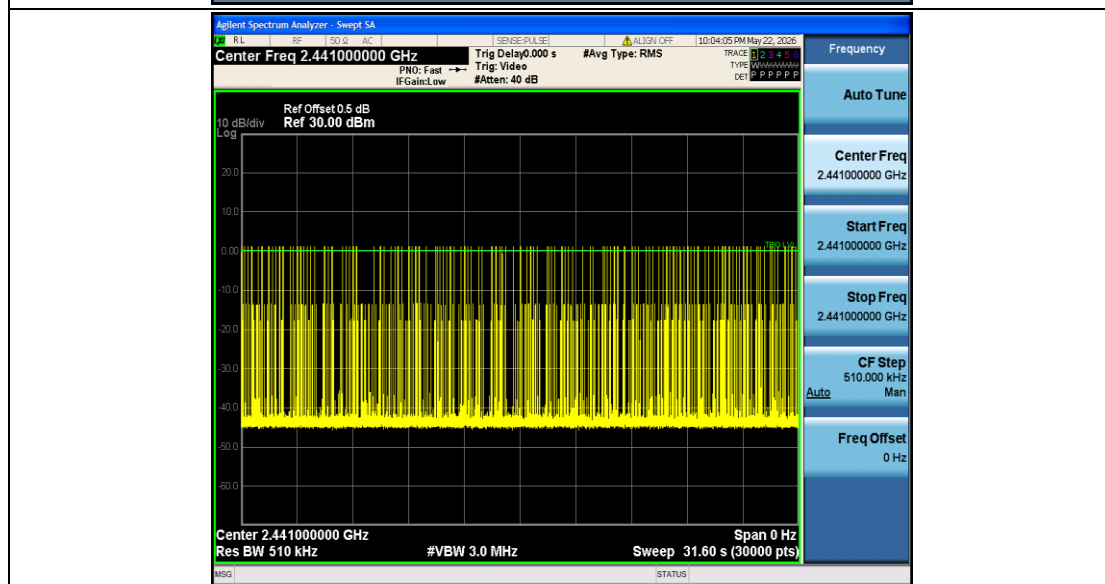
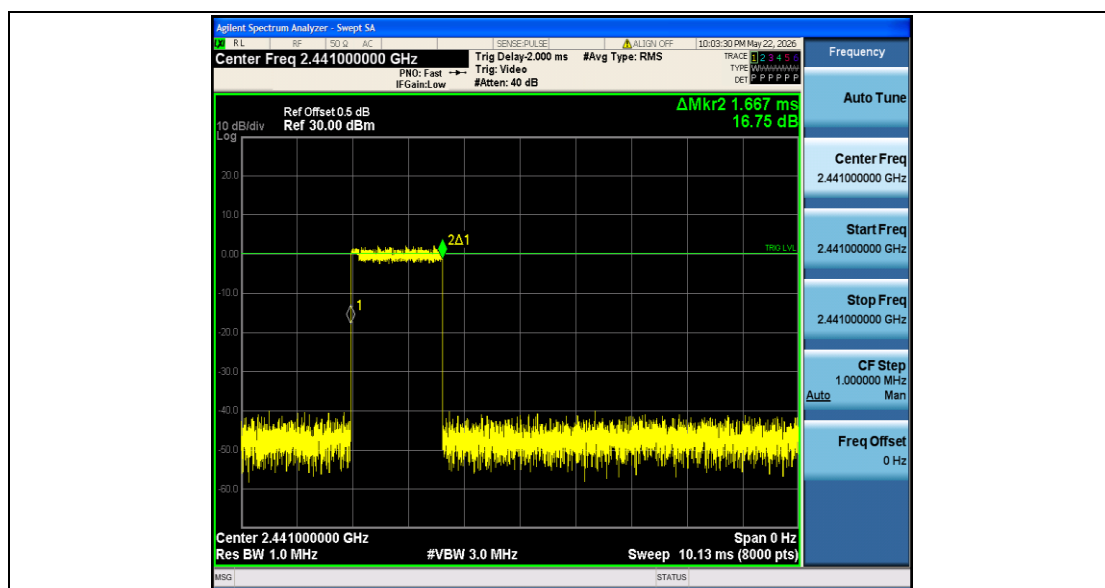




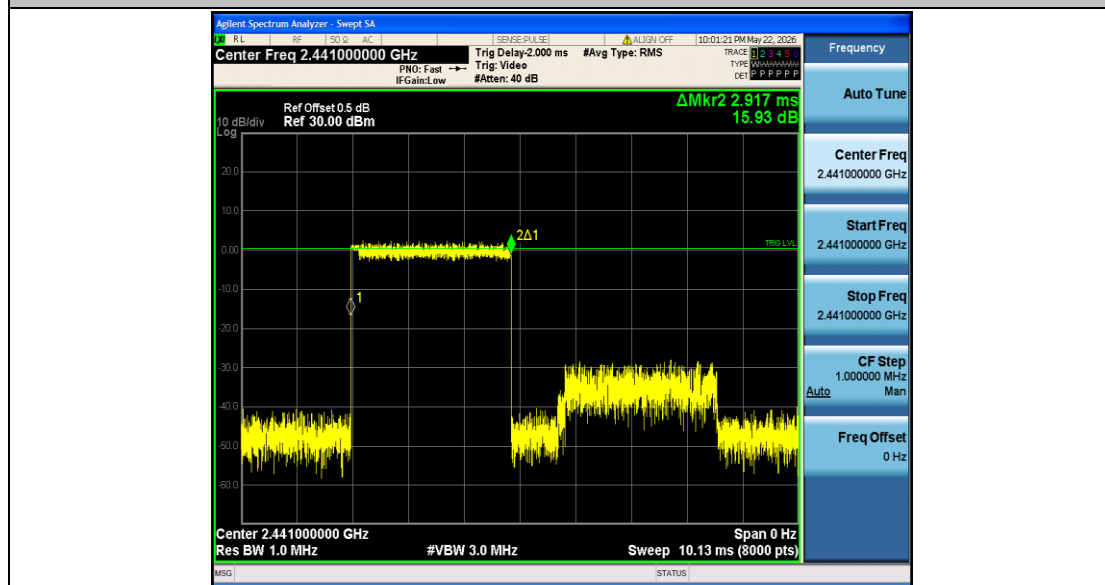
3DH1_Ant1_Hop

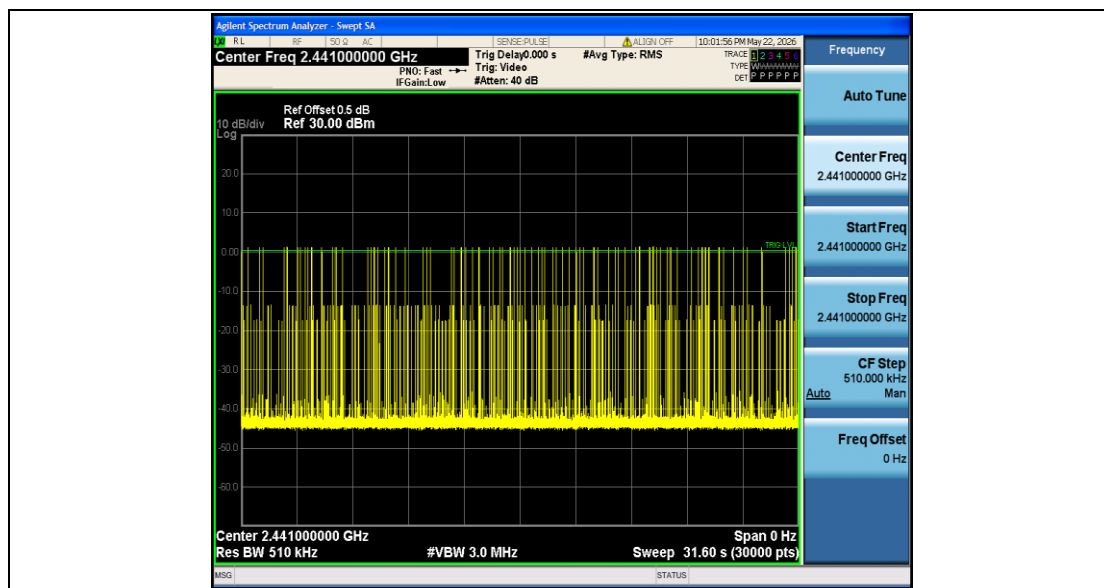


3DH3_Ant1_Hop



3DH5_Ant1_Hop



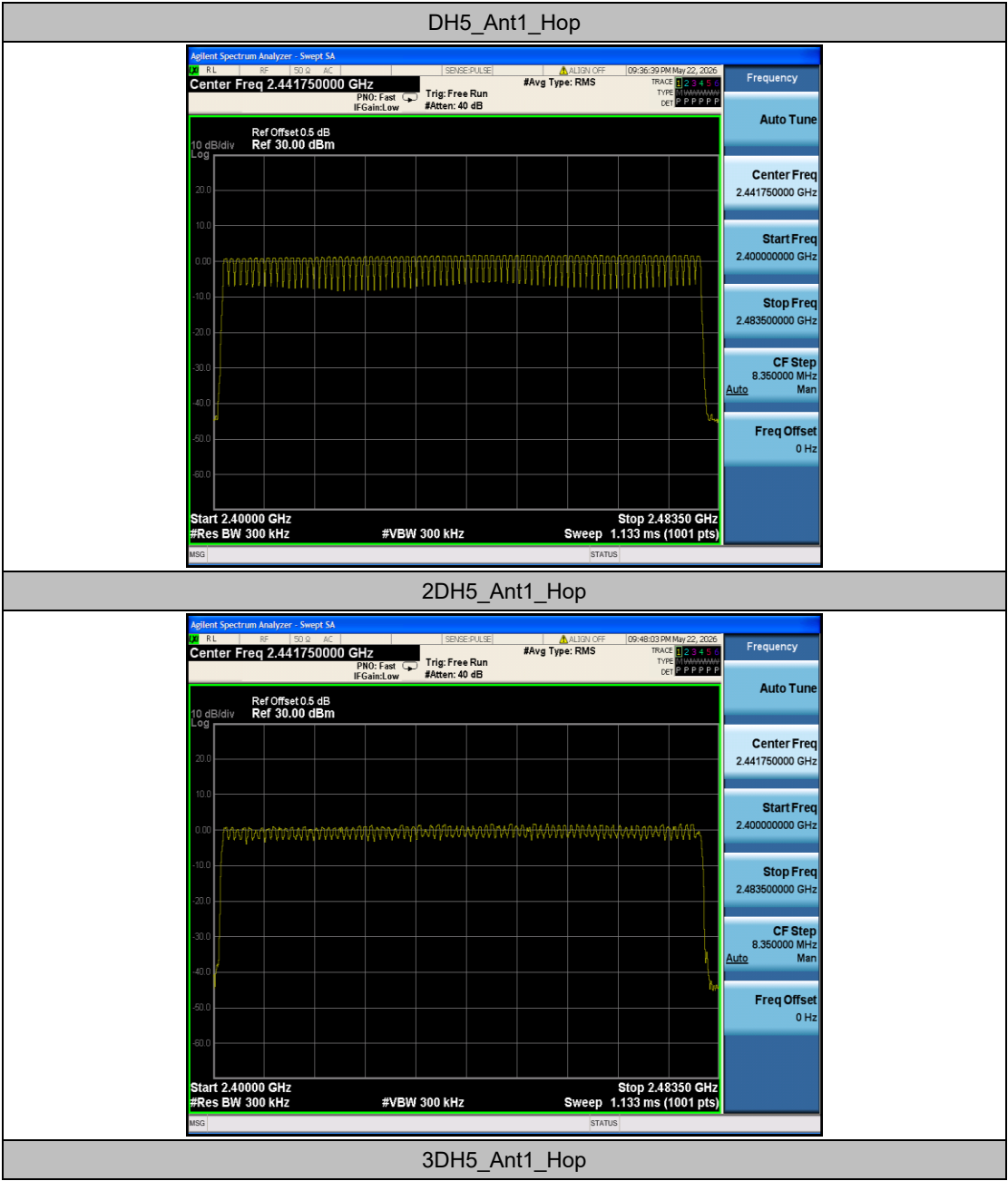


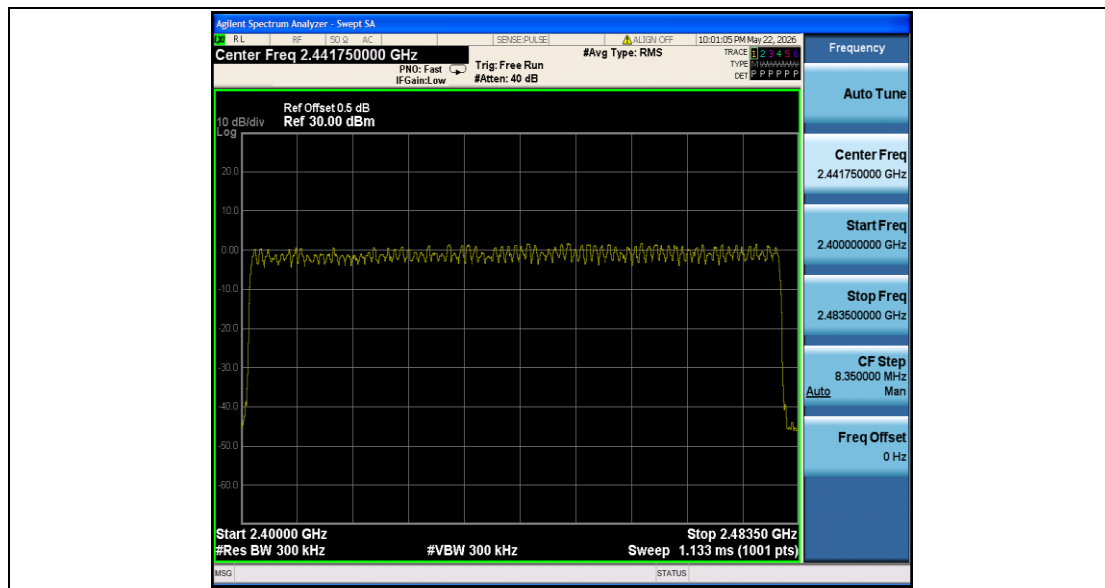
Appendix F: Number of hopping channels

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



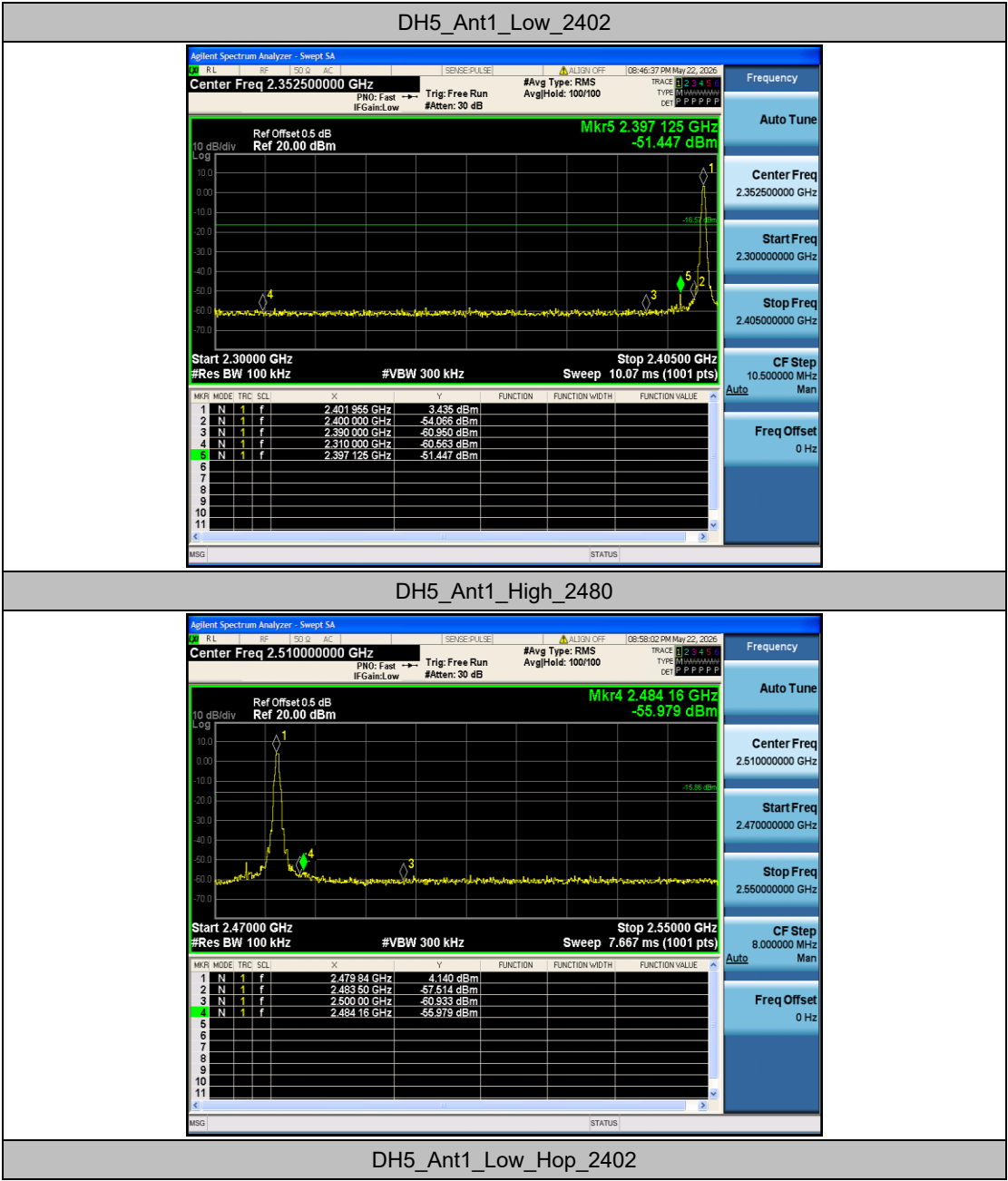


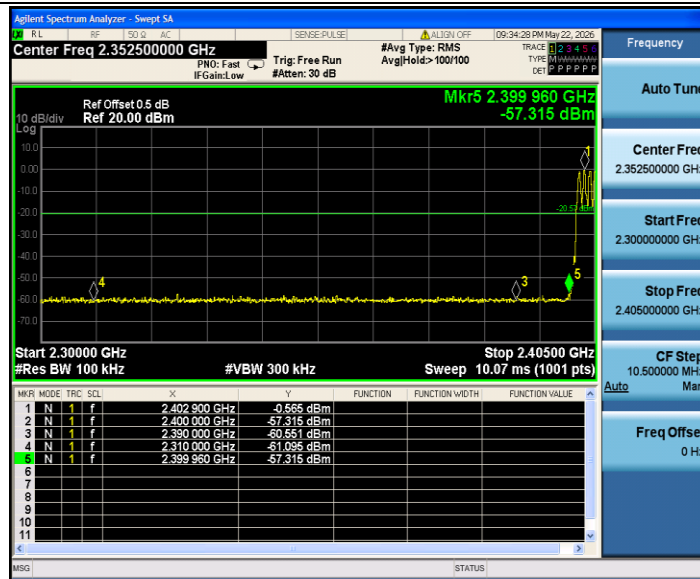
Appendix G: Band edge measurements

Test Result

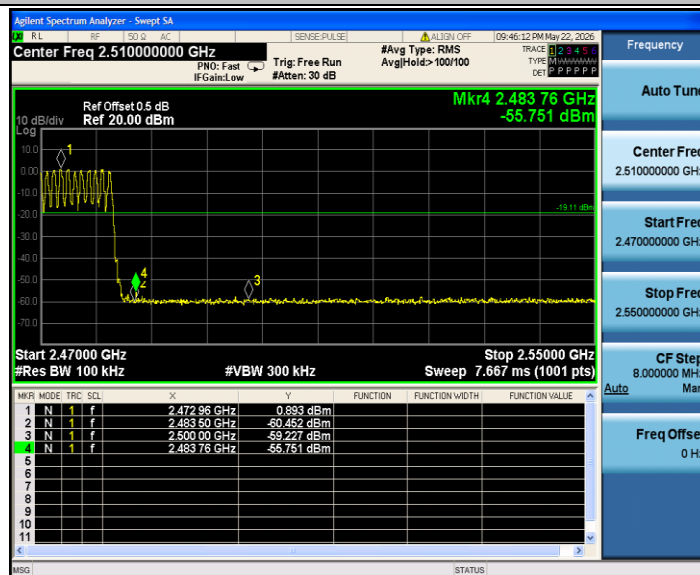
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	3.44	-51.45	≤-16.57	PASS
		High	2480	4.14	-55.98	≤-15.86	PASS
		Low	Hop_2402	-0.57	-57.32	≤-20.57	PASS
		High	Hop_2480	0.89	-55.75	≤-19.11	PASS
2DH5	Ant1	Low	2402	1.32	-47.02	≤-18.68	PASS
		High	2480	1.01	-55.08	≤-18.99	PASS
		Low	Hop_2402	-0.46	-56.61	≤-20.46	PASS
		High	Hop_2480	-0.97	-57.24	≤-20.97	PASS
3DH5	Ant1	Low	2402	-0.49	-55.9	≤-20.49	PASS
		High	2480	0.52	-57.79	≤-19.48	PASS
		Low	Hop_2402	-2.98	-57.15	≤-22.98	PASS
		High	Hop_2480	-2.16	-58.3	≤-22.16	PASS

Test Graphs

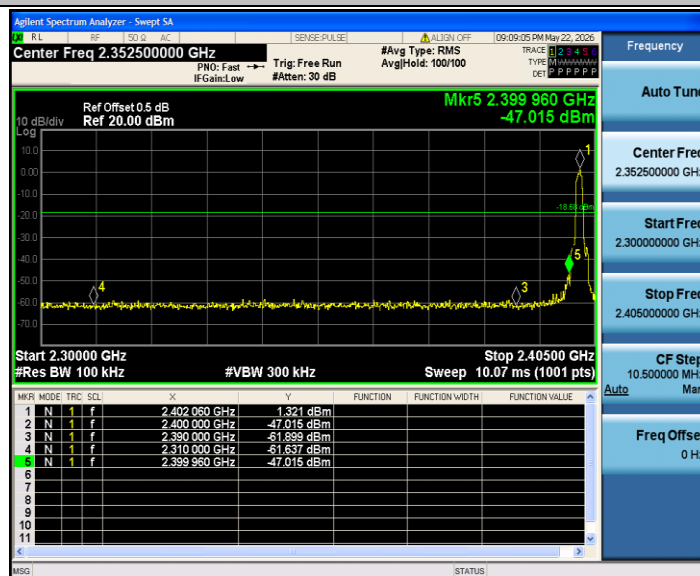




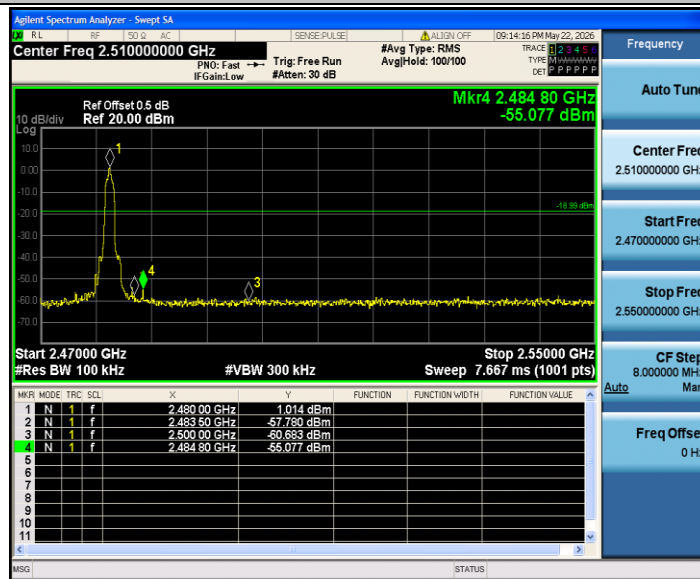
DH5_Ant1_High_Hop_2480



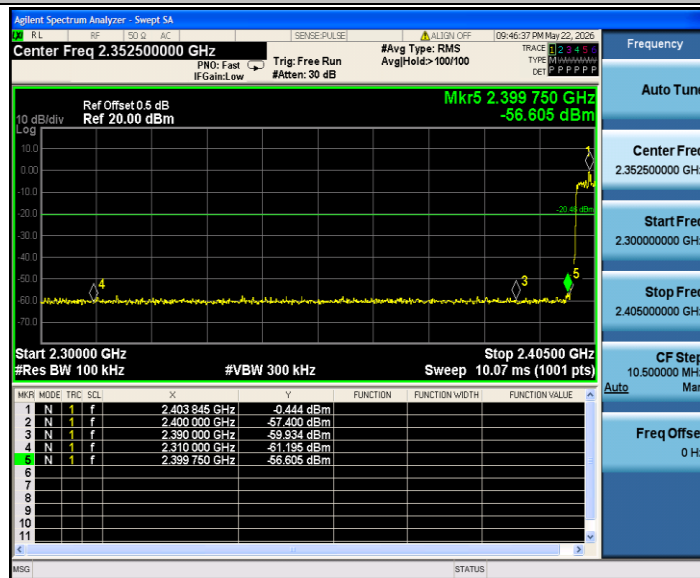
2DH5_Ant1_Low_2402



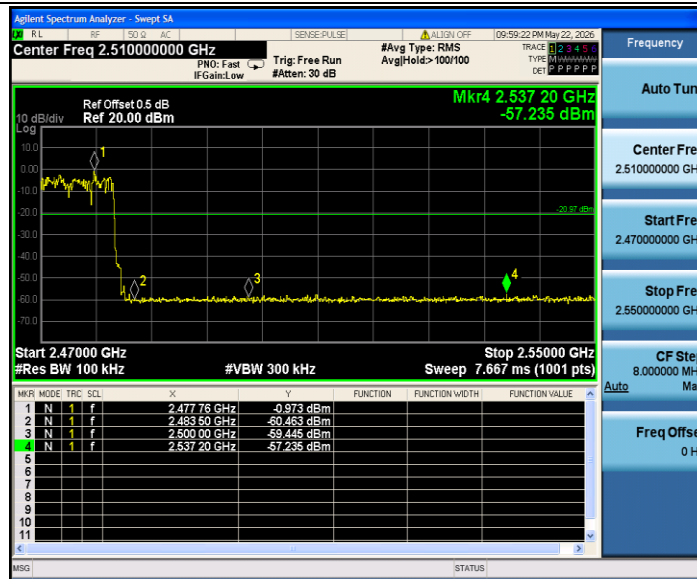
2DH5_Ant1_High_2480



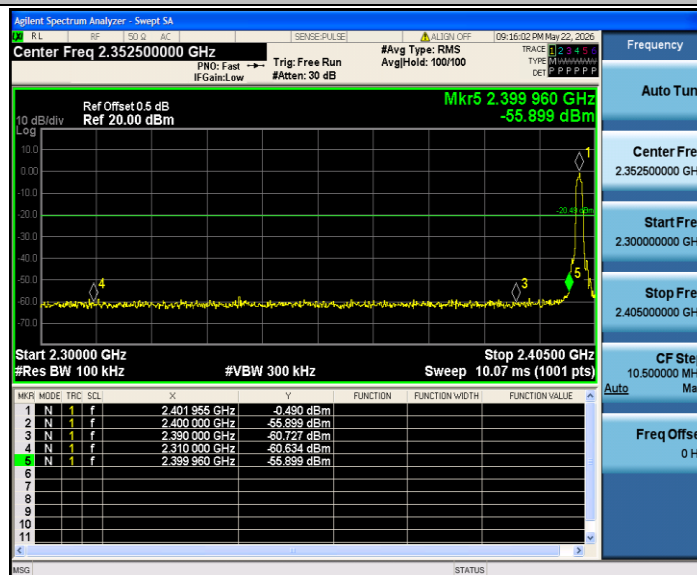
2DH5_Ant1_Low_Hop_2402



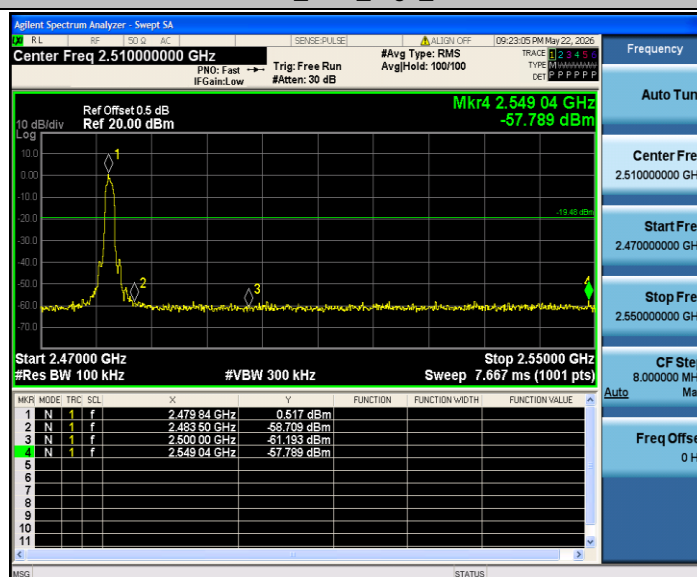
2DH5_Ant1_High_Hop_2480



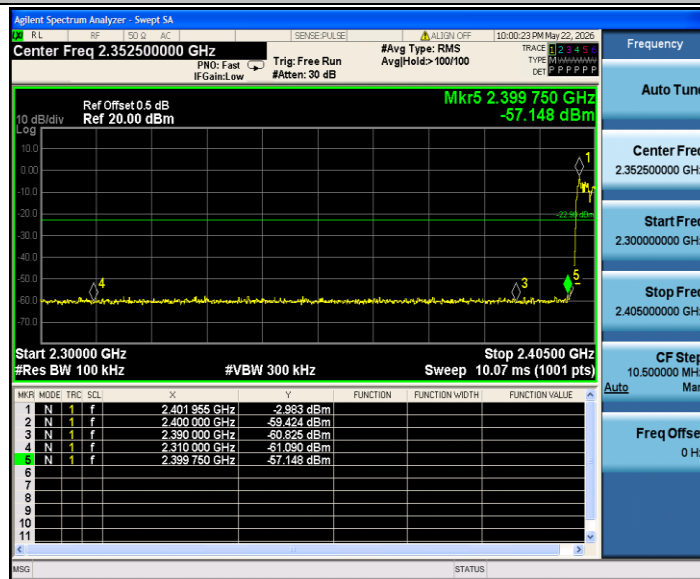
3DH5_Ant1_Low_2402



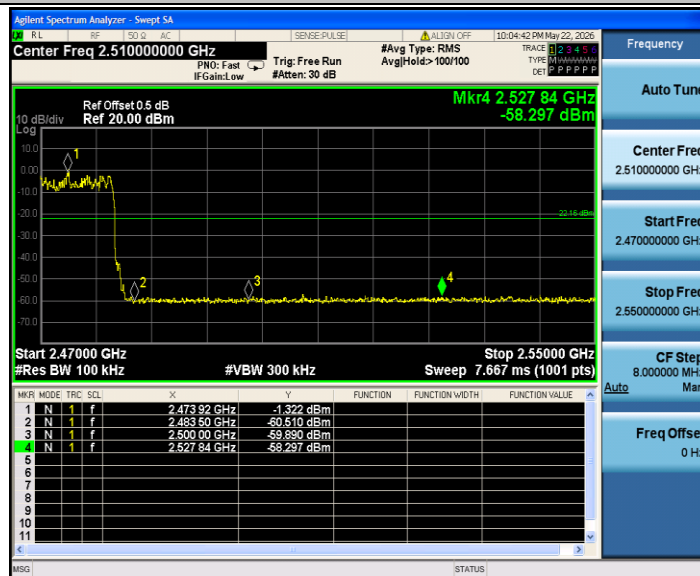
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

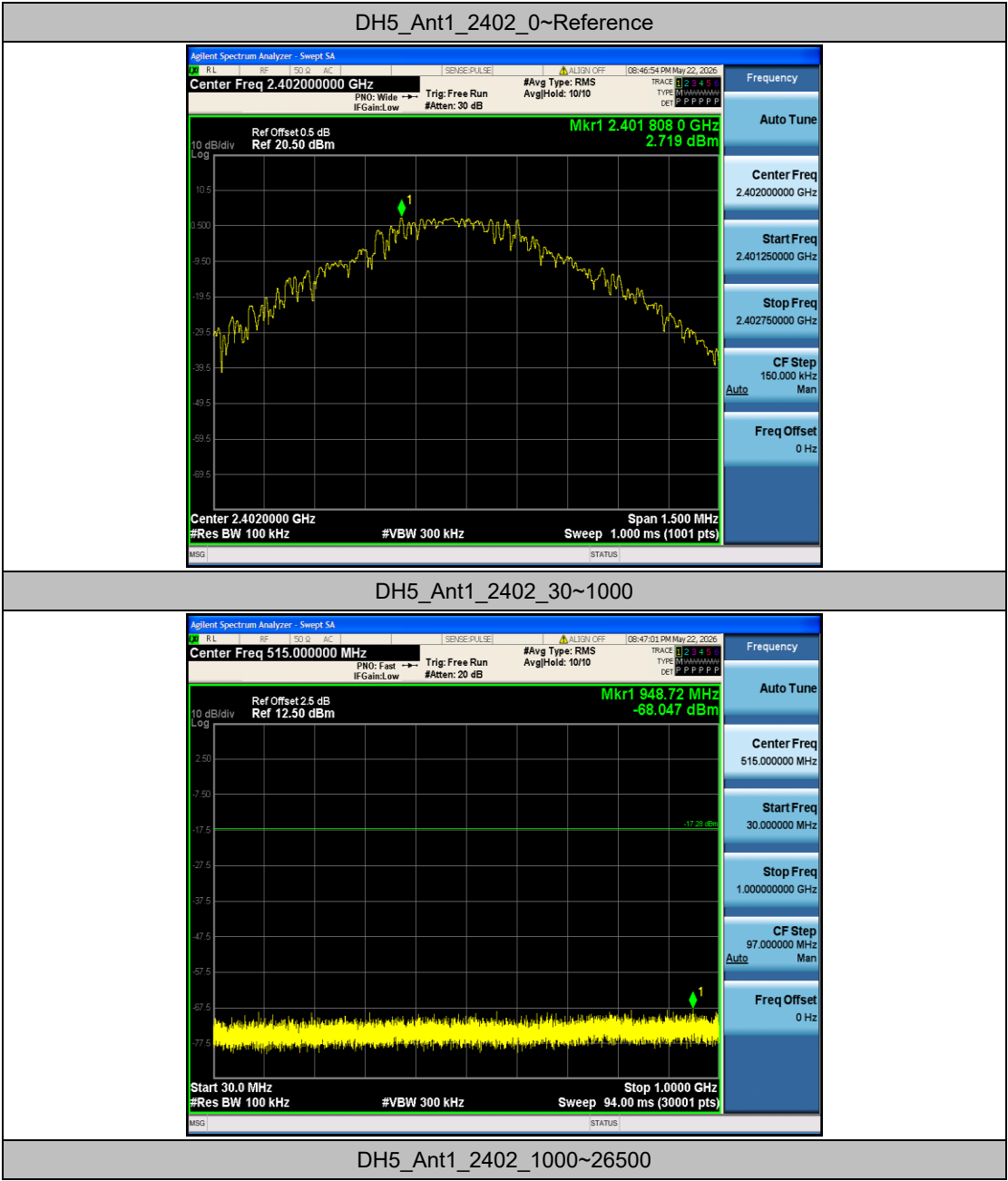


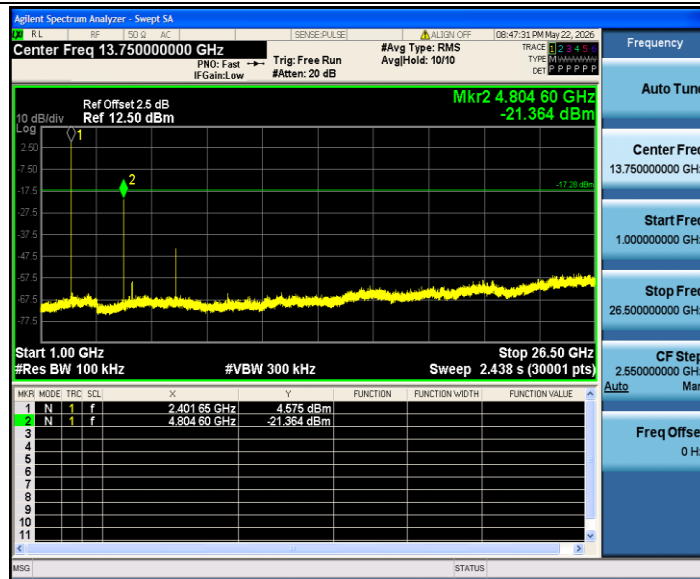
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	2.72	2.72	---	PASS
			30~1000	2.72	-68.05	≤-17.28	PASS
			1000~26500	2.72	-21.36	≤-17.28	PASS
		2441	Reference	3.90	3.90	---	PASS
			30~1000	3.90	-66.96	≤-16.1	PASS
			1000~26500	3.90	-22.94	≤-16.1	PASS
		2480	Reference	3.95	3.95	---	PASS
			30~1000	3.95	-68.12	≤-16.05	PASS
			1000~26500	3.95	-19.5	≤-16.05	PASS
2DH5	Ant1	2402	Reference	0.01	0.01	---	PASS
			30~1000	0.01	-67.06	≤-19.99	PASS
			1000~26500	0.01	-27.63	≤-19.99	PASS
		2441	Reference	-0.32	-0.32	---	PASS
			30~1000	-0.32	-67.03	≤-20.32	PASS
			1000~26500	-0.32	-22.97	≤-20.32	PASS
		2480	Reference	-2.44	-2.44	---	PASS
			30~1000	-2.44	-67.7	≤-22.44	PASS
			1000~26500	-2.44	-27.63	≤-22.44	PASS
3DH5	Ant1	2402	Reference	-2.17	-2.17	---	PASS
			30~1000	-2.17	-67.41	≤-22.17	PASS
			1000~26500	-2.17	-27.75	≤-22.17	PASS
		2441	Reference	0.04	0.04	---	PASS
			30~1000	0.04	-68.03	≤-19.96	PASS
			1000~26500	0.04	-29.85	≤-19.96	PASS
		2480	Reference	-2.06	-2.06	---	PASS
			30~1000	-2.06	-68.63	≤-22.06	PASS
			1000~26500	-2.06	-29.66	≤-22.06	PASS

Test Graphs

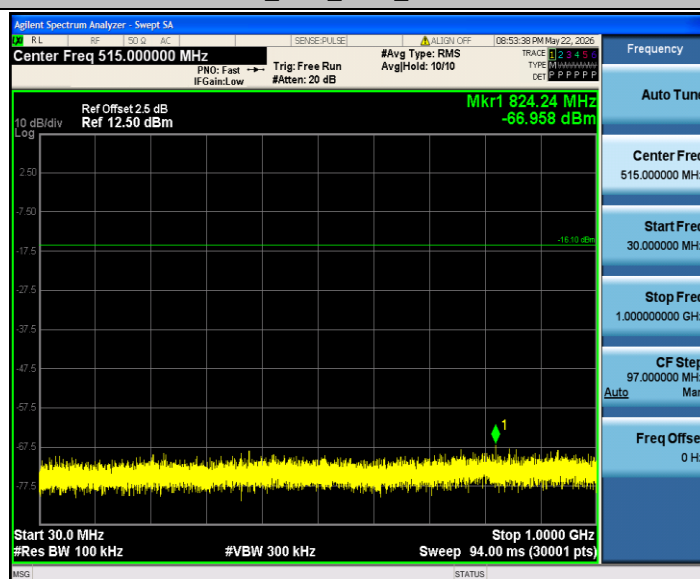




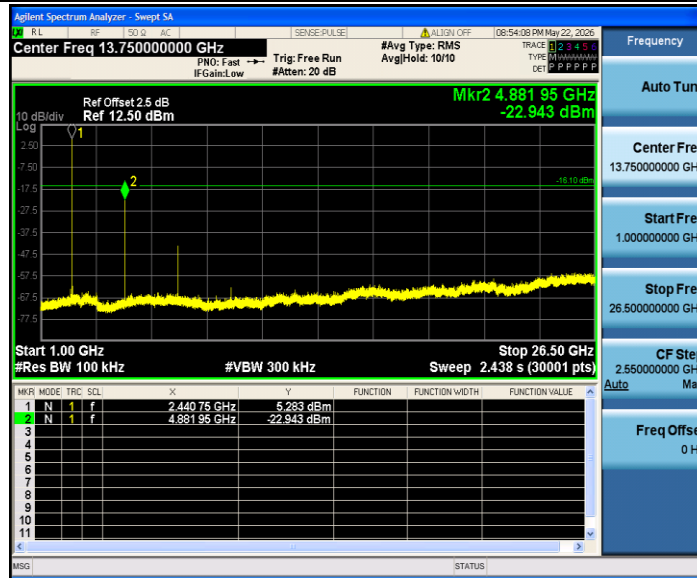
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



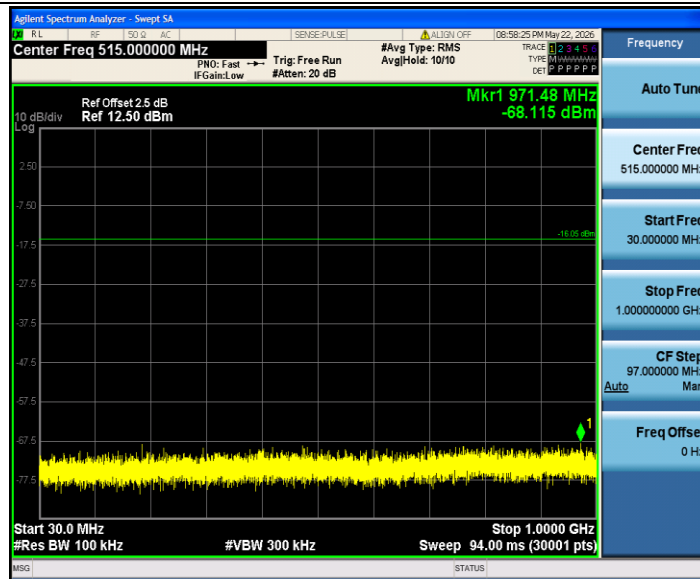
DH5_Ant1_2441_1000~26500



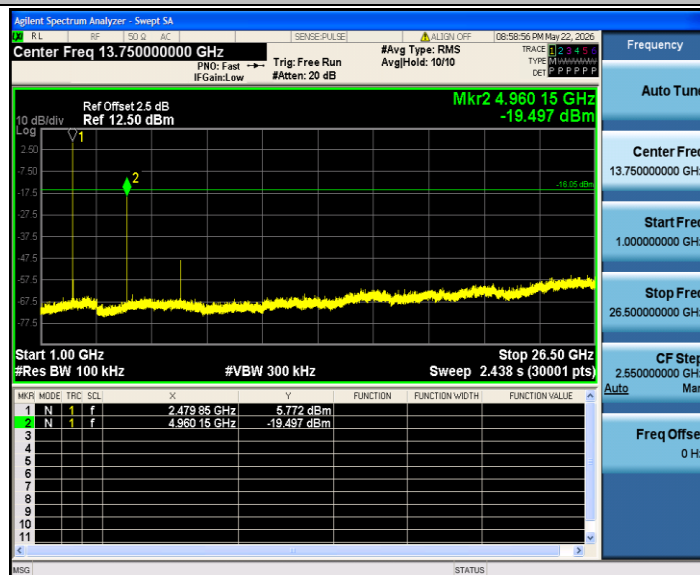
DH5_Ant1_2480_0~Reference



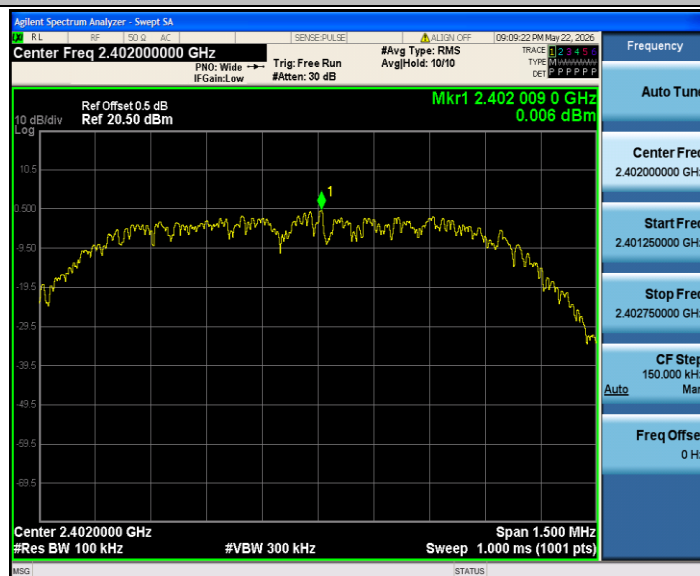
DH5_Ant1_2480_30~1000



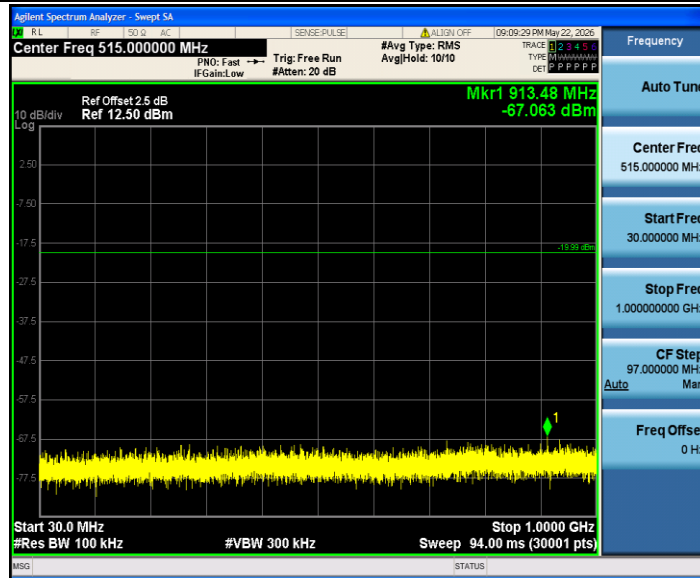
DH5_Ant1_2480_1000~26500



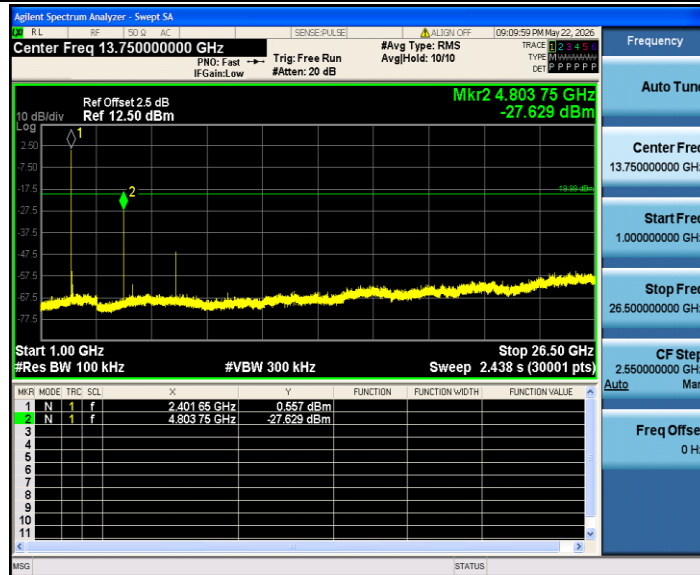
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference