

FCC Appendix RF Test Data for BT

FCC ID : 2AOQF-FS-L2310

Company : DongGuan Huahong Electrical Appliances Co.,Ltd

EUT : Professional Party Speaker

Model Number : FS-L2310

Report No. : CTA26090202001

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	0.939	2401.541	2402.480	---	---
		2441	0.954	2440.535	2441.489	---	---
		2480	0.963	2479.529	2480.492	---	---
2DH5	Ant1	2402	1.293	2401.361	2402.654	---	---
		2441	1.290	2440.364	2441.654	---	---
		2480	1.311	2479.343	2480.654	---	---
3DH5	Ant1	2402	1.302	2401.346	2402.648	---	---
		2441	1.299	2440.346	2441.645	---	---
		2480	1.314	2479.343	2480.657	---	---

DH5_Ant1_2402

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.402000000 GHz

Ref Offset 0.6 dB
Ref 30.00 dBm

Trig: Free Run
#Atten: 40 dB

#Avg Type: RMS
Avg/Hold: 100/100

Span 3.000 MHz
Sweep 3.200 ms (1001 pts)

#Res BW 30 kHz
#VBW 100 kHz

ΔMkr3 939 kHz
0.017 dB

MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401541 GHz	-23.280 dBm			
2	N	1	f	2.401932 GHz	-3.117 dBm			
3	Δ	1	f (Δ)	939 kHz (Δ)	0.017 dB			

DH5_Ant1_2441

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 0.6 dB
Ref 30.00 dBm

Trig: Free Run
#Atten: 40 dB

#Avg Type: RMS
Avg/Hold: 100/100

Span 3.000 MHz
Sweep 3.200 ms (1001 pts)

#Res BW 30 kHz
#VBW 100 kHz

ΔMkr3 954 kHz
-0.009 dB

MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.440536 GHz	-21.588 dBm			
2	N	1	f	2.441021 GHz	-1.492 dBm			
3	Δ	1	f (Δ)	954 kHz (Δ)	-0.009 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

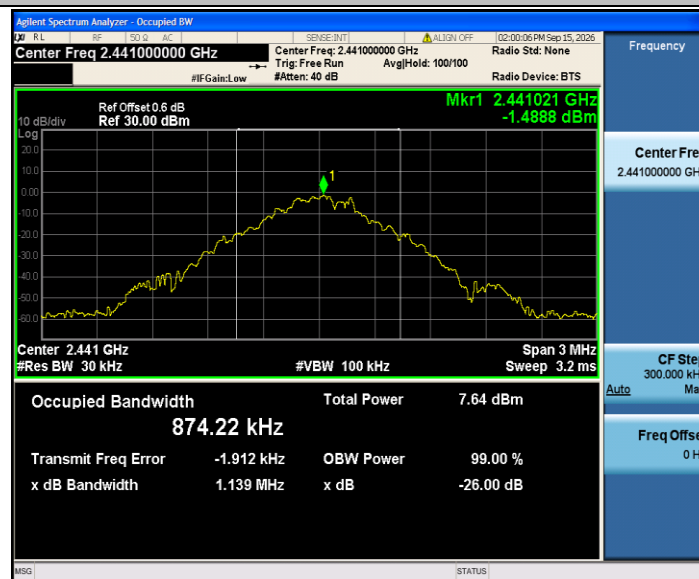
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.85507	2401.5693	2402.4243	---	---
		2441	0.87422	2440.5610	2441.4352	---	---
		2480	0.86932	2479.5689	2480.4383	---	---
2DH5	Ant1	2402	1.1845	2401.4075	2402.5920	---	---
		2441	1.1970	2440.4000	2441.5970	---	---
		2480	1.1889	2479.4046	2480.5935	---	---
3DH5	Ant1	2402	1.1897	2401.4065	2402.5962	---	---
		2441	1.1886	2440.4025	2441.5911	---	---
		2480	1.1993	2479.3960	2480.5953	---	---

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



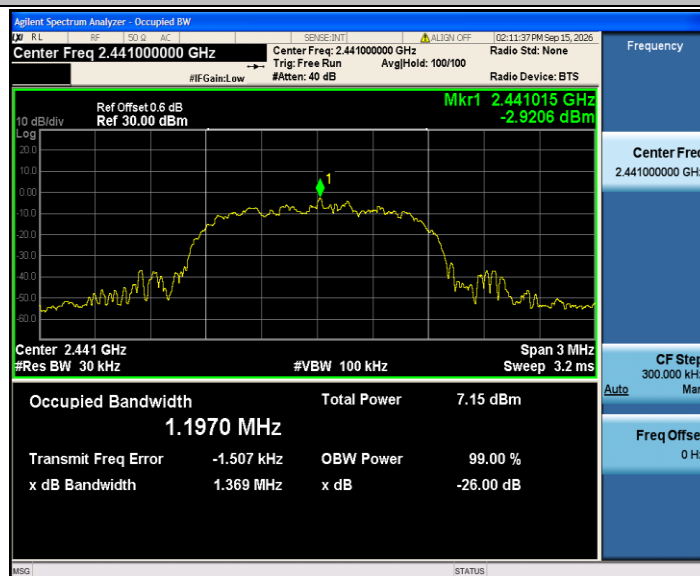
DH5_Ant1_2480



2DH5_Ant1_2402



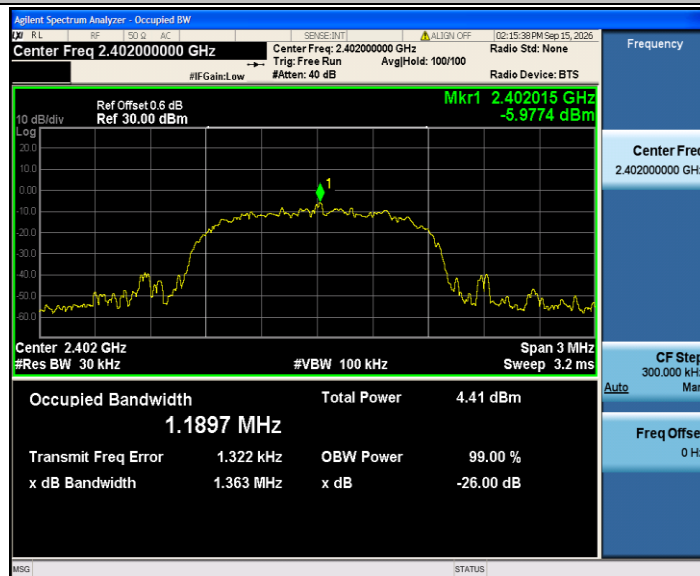
2DH5_Ant1_2441



2DH5_Ant1_2480



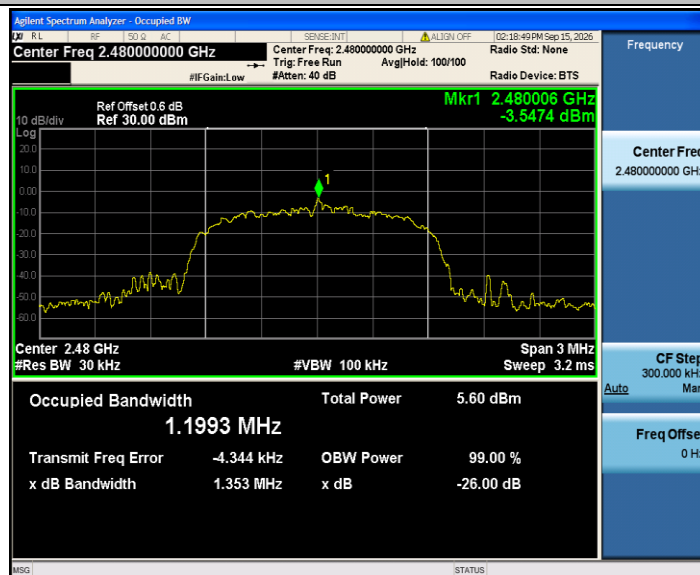
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

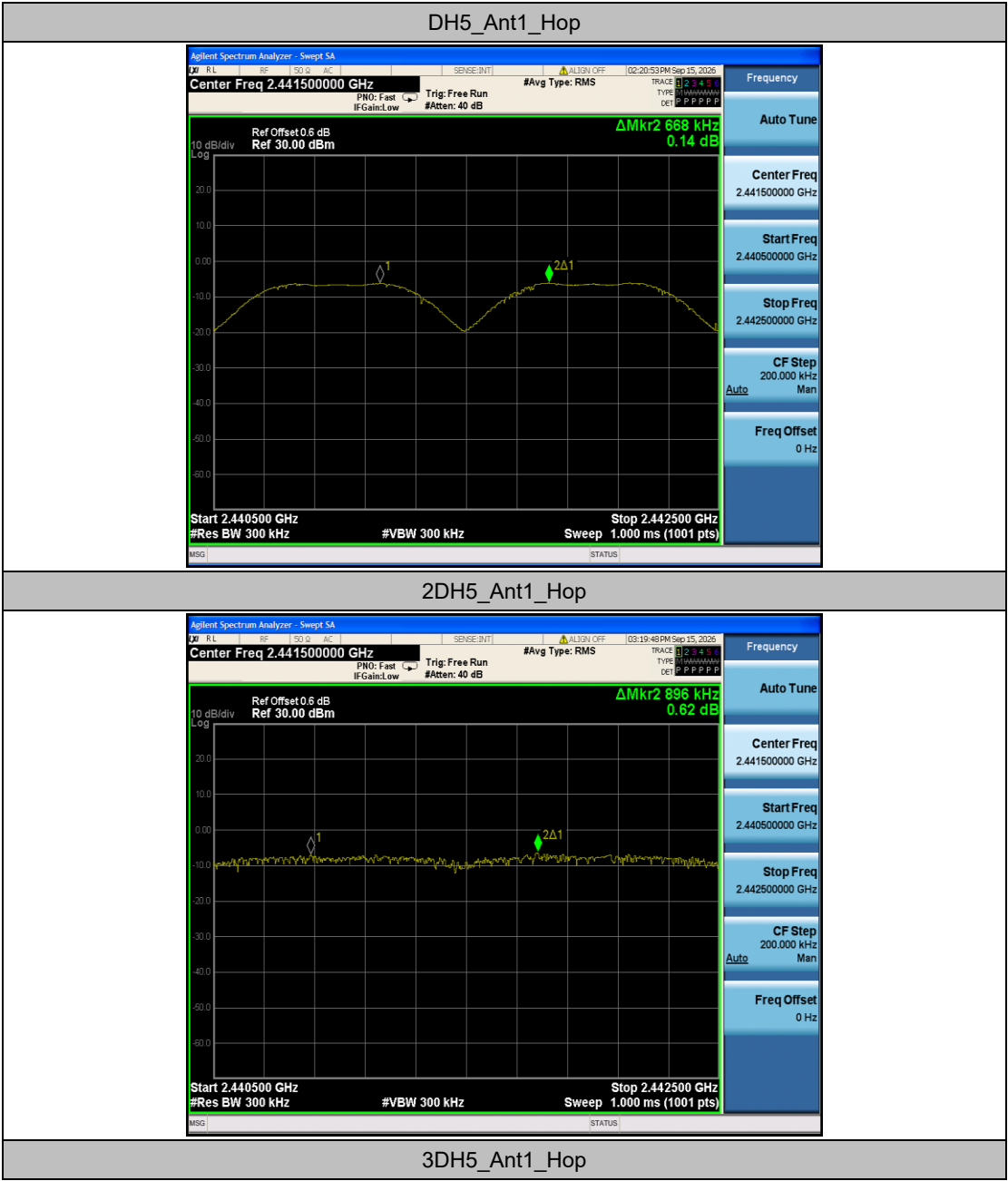
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-1.67	≤20.97	PASS
		2441	1.17	≤20.97	PASS
		2480	-0.83	≤20.97	PASS
2DH5	Ant1	2402	0.17	≤20.97	PASS
		2441	2.84	≤20.97	PASS
		2480	0.83	≤20.97	PASS
3DH5	Ant1	2402	0.59	≤20.97	PASS
		2441	3.22	≤20.97	PASS
		2480	1.11	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.668	≥ 0.642	PASS
2DH5	Ant1	Hop	0.896	≥ 0.874	PASS
3DH5	Ant1	Hop	0.954	≥ 0.876	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	0.403	317	0.128	≤0.4	PASS
DH3	Ant1	Hop	1.659	172	0.285	≤0.4	PASS
DH5	Ant1	Hop	2.907	116	0.337	≤0.4	PASS
2DH1	Ant1	Hop	0.396	318	0.126	≤0.4	PASS
2DH3	Ant1	Hop	1.648	170	0.28	≤0.4	PASS
2DH5	Ant1	Hop	2.897	106	0.307	≤0.4	PASS
3DH1	Ant1	Hop	0.395	319	0.126	≤0.4	PASS
3DH3	Ant1	Hop	1.644	160	0.263	≤0.4	PASS
3DH5	Ant1	Hop	2.894	0	0	≤0.4	PASS

DH1_Ant1_Hop

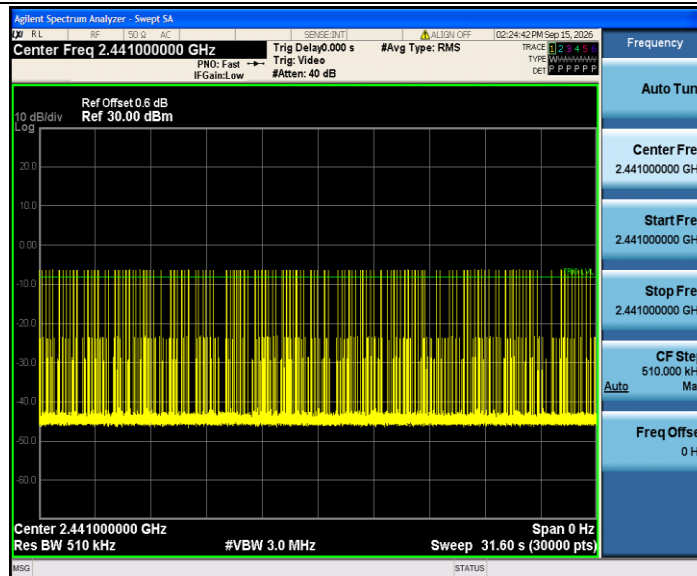
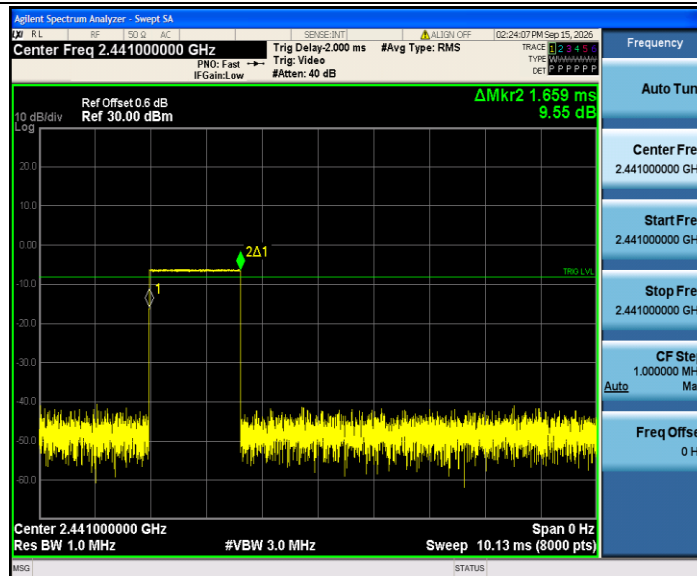
The figure displays two screenshots of an Agilent Spectrum Analyzer interface, showing signal analysis results for two different antennas, DH1_Ant1_Hop and DH3_Ant1_Hop.

Top Screenshot (DH1_Ant1_Hop):

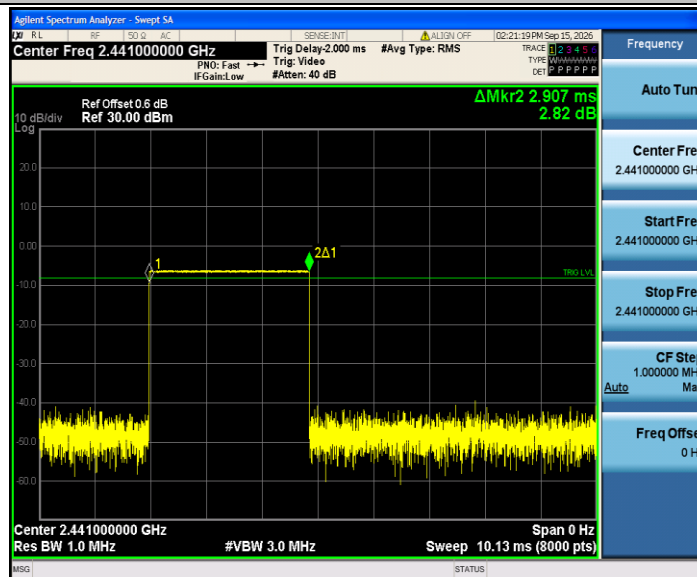
- Center Freq:** 2.441000000 GHz
- Ref Offset:** 0.6 dB
- Ref:** 30.00 dBm
- Trig Delay:** 2.000 ms
- #Avg Type:** RMS
- Trig:** Video
- #Atten:** 40 dB
- Span:** 0 Hz
- Res BW:** 1.0 MHz
- #VBW:** 3.0 MHz
- Sweep:** 10.13 ms (8000 pts)
- Frequency:** 2.441000000 GHz
- Auto Tune:** On
- CF Step:** 1.000000 MHz
- Freq Offset:** 0 Hz

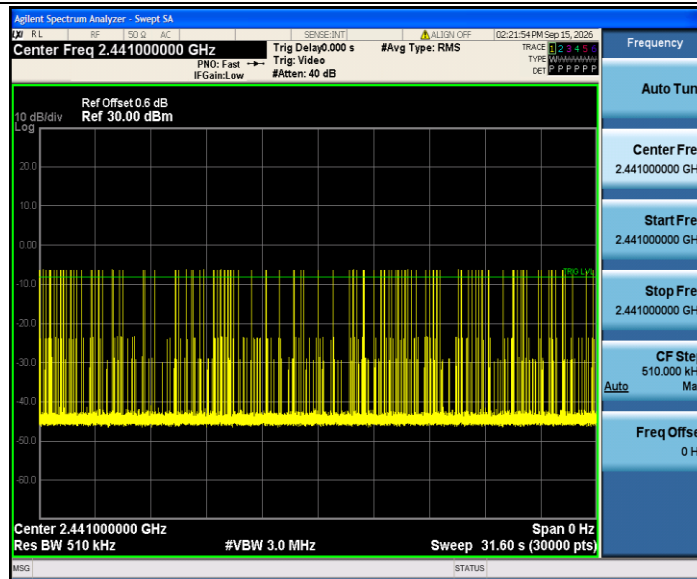
Bottom Screenshot (DH3_Ant1_Hop):

- Center Freq:** 2.441000000 GHz
- Ref Offset:** 0.6 dB
- Ref:** 30.00 dBm
- Trig Delay:** 0.000 s
- #Avg Type:** RMS
- Trig:** Video
- #Atten:** 40 dB
- Span:** 0 Hz
- Res BW:** 510 kHz
- #VBW:** 3.0 MHz
- Sweep:** 31.60 s (30000 pts)
- Frequency:** 2.441000000 GHz
- Auto Tune:** On
- CF Step:** 510.000 kHz
- Freq Offset:** 0 Hz

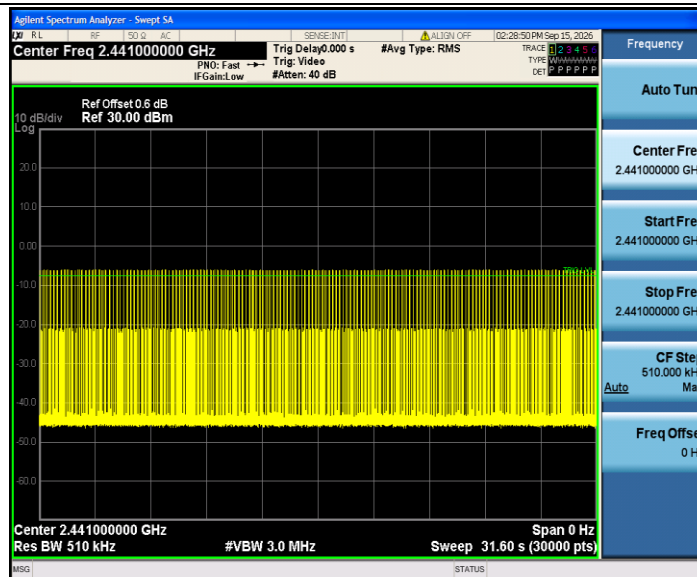
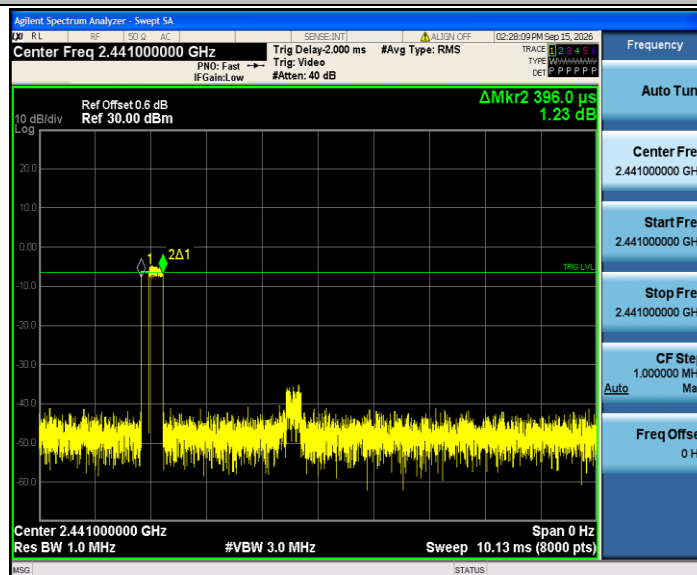


DH5_Ant1_Hop

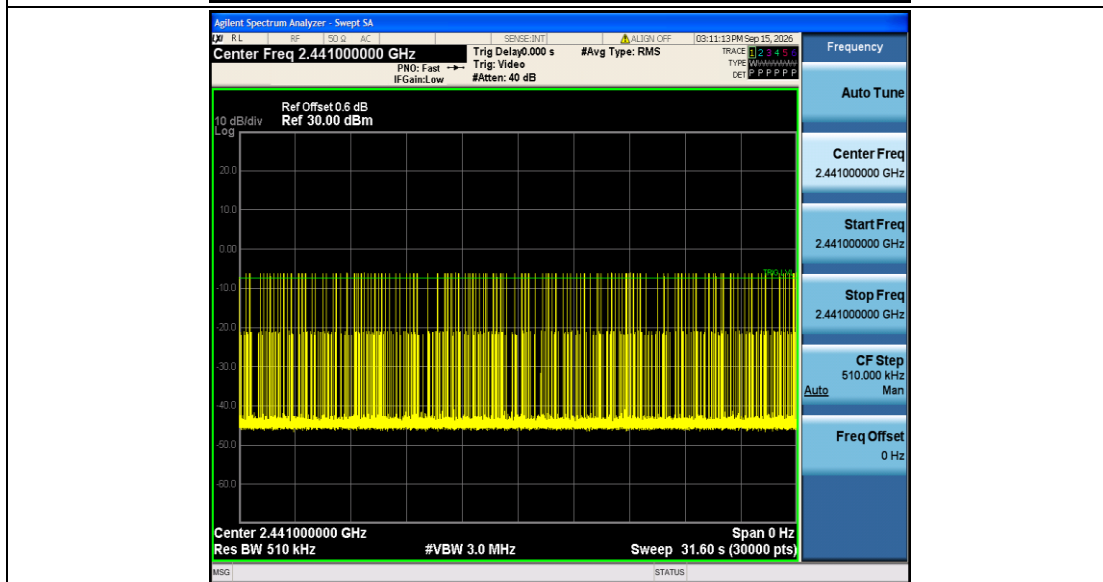
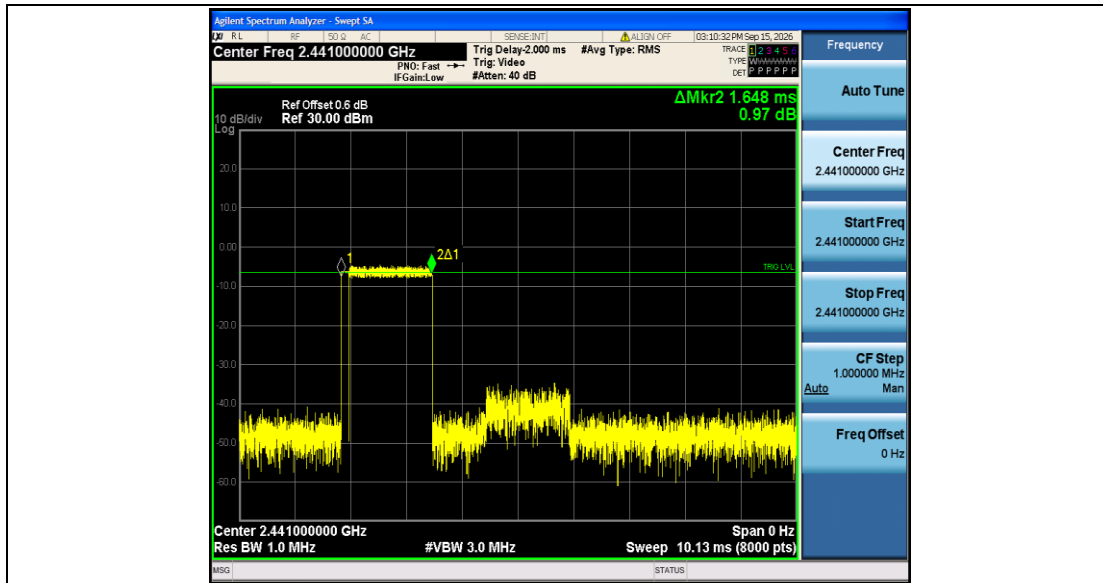




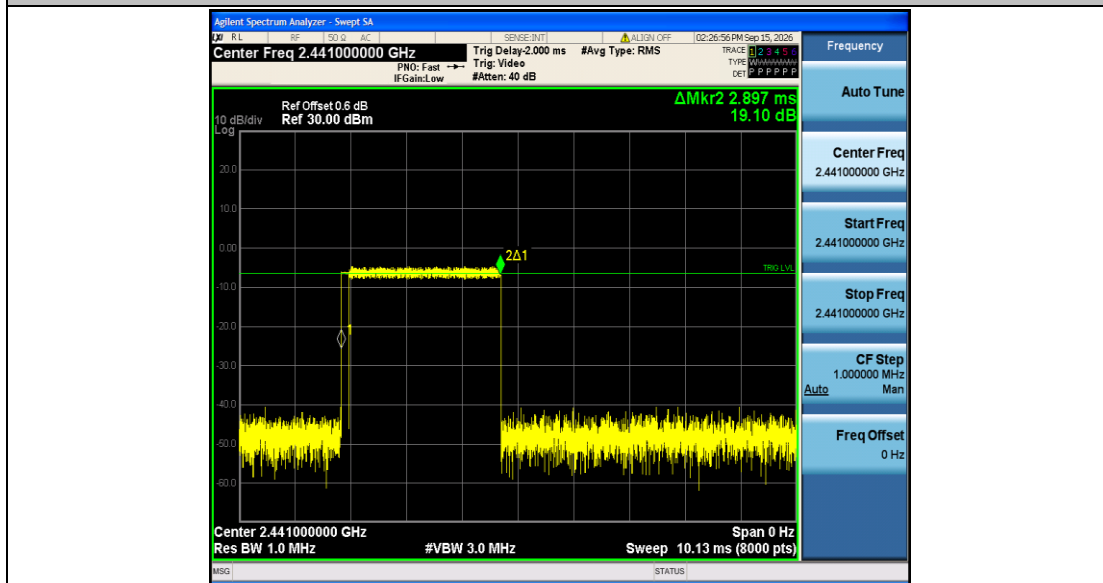
2DH1_Ant1_Hop

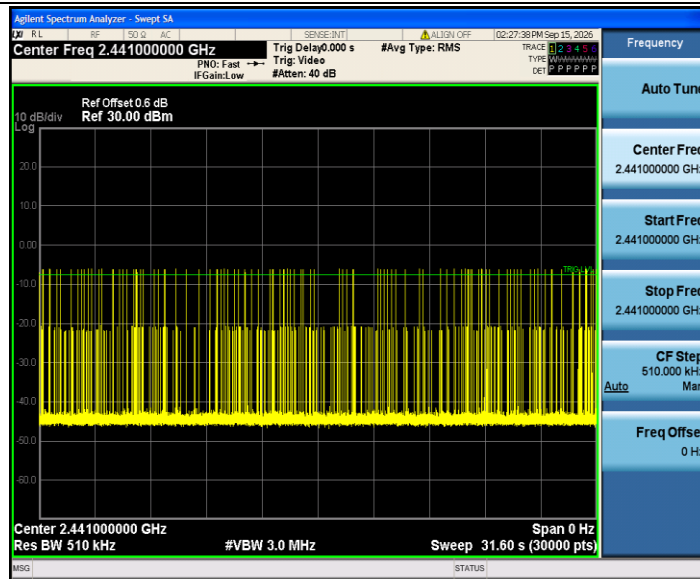


2DH3_Ant1_Hop

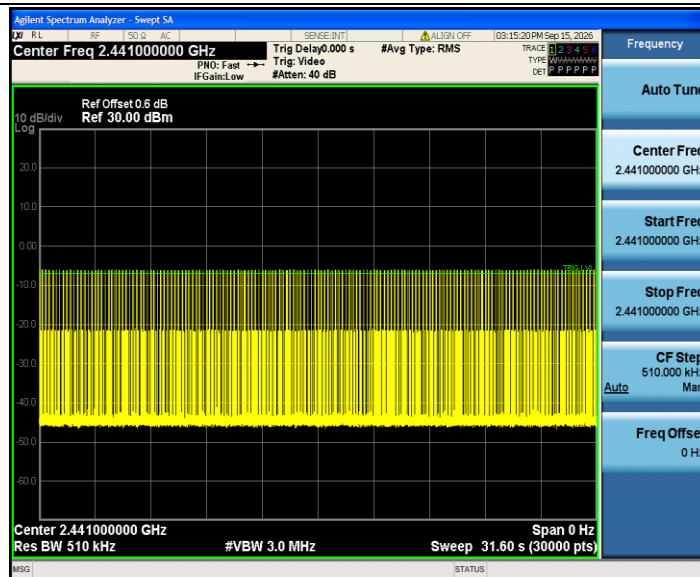
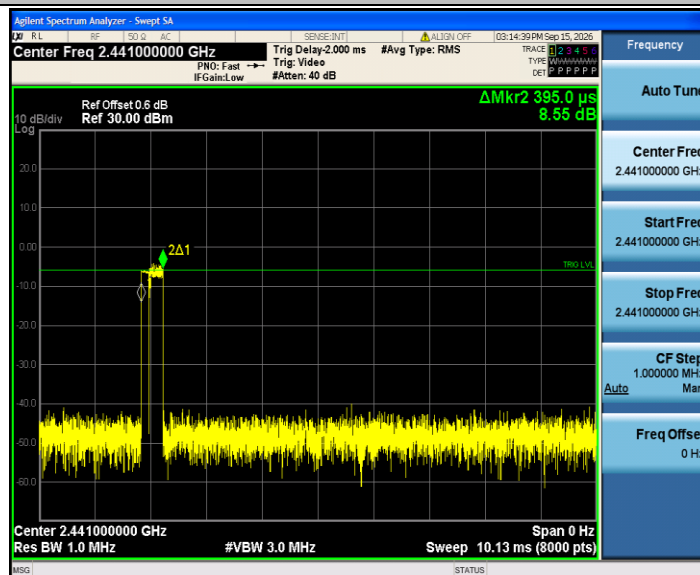


2DH5_Ant1_Hop

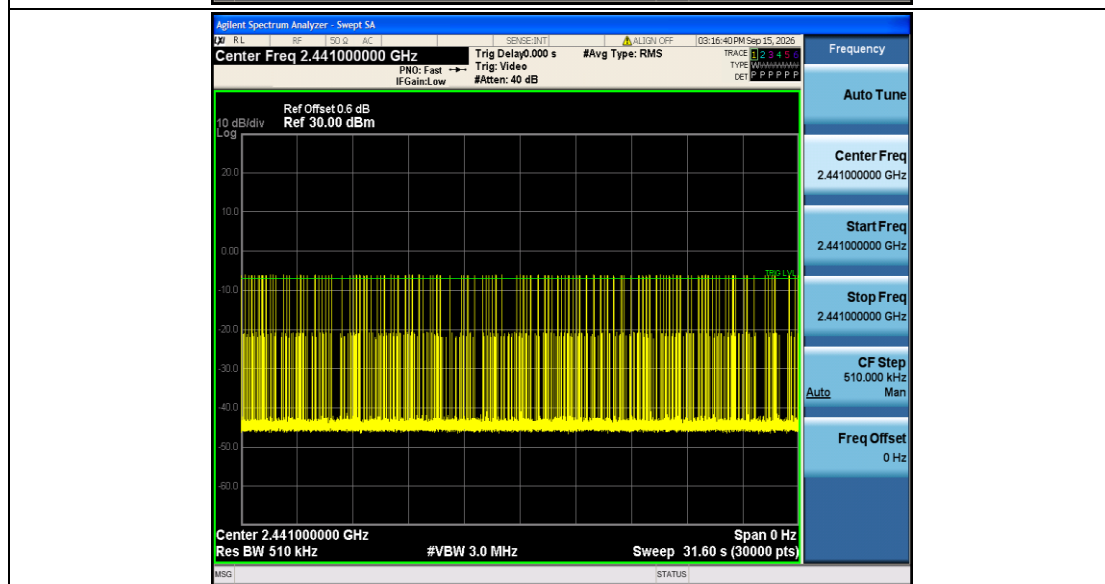
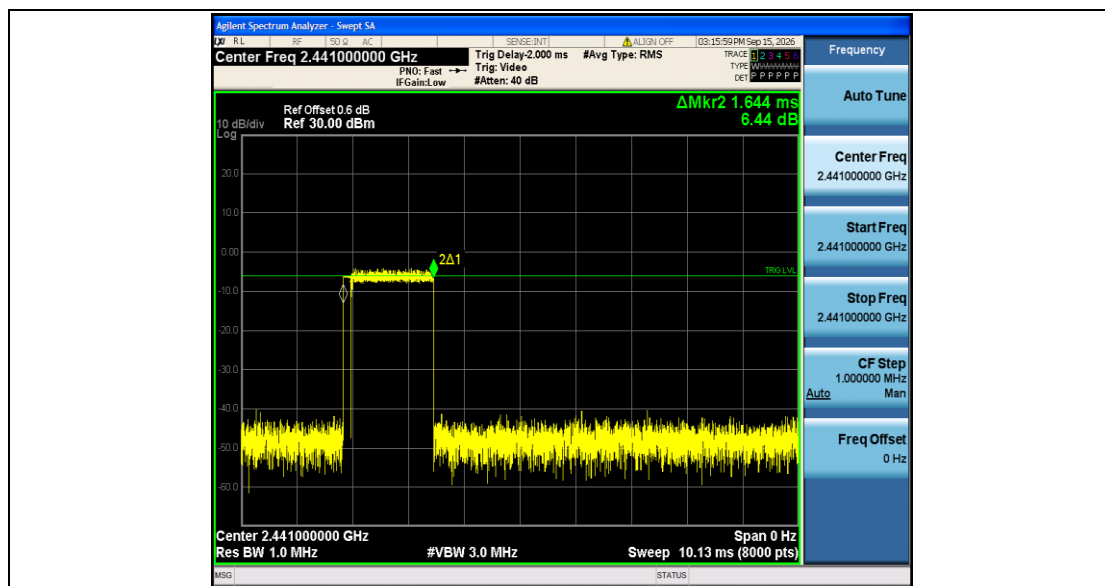




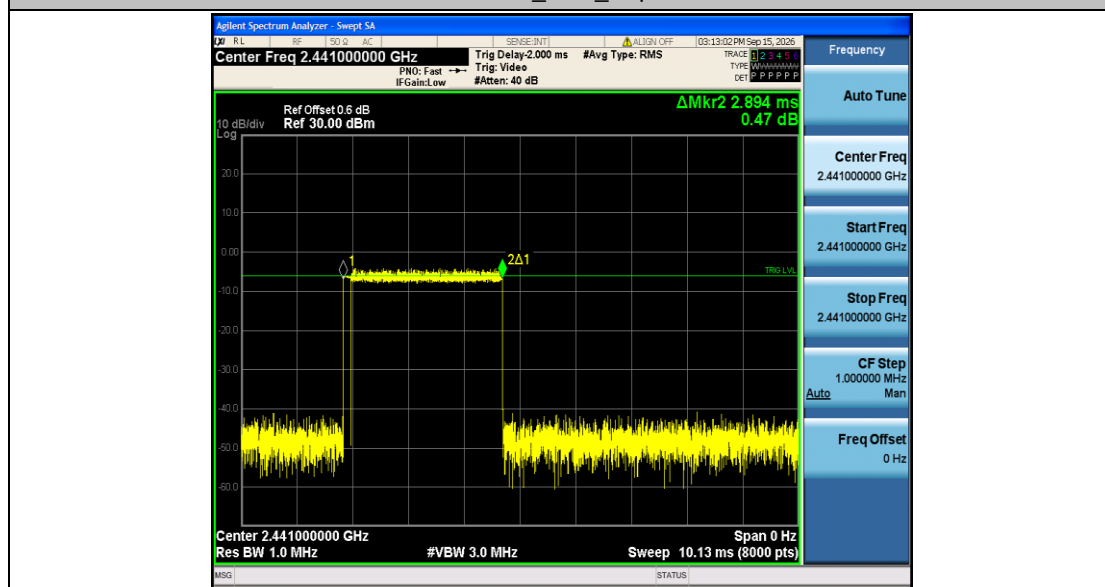
3DH1_Ant1_Hop

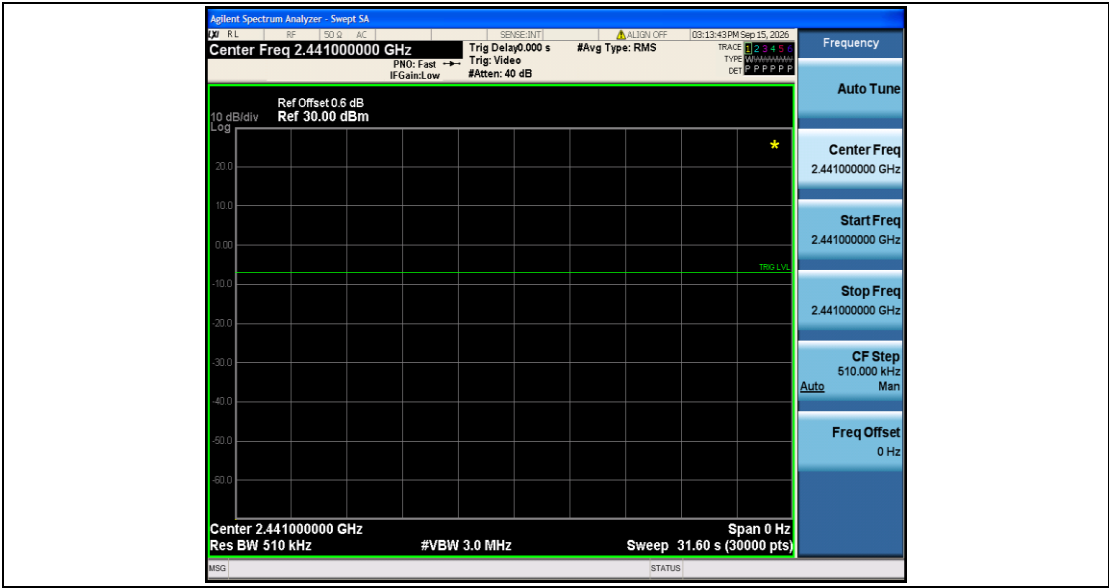


3DH3_Ant1_Hop



3DH5_Ant1_Hop



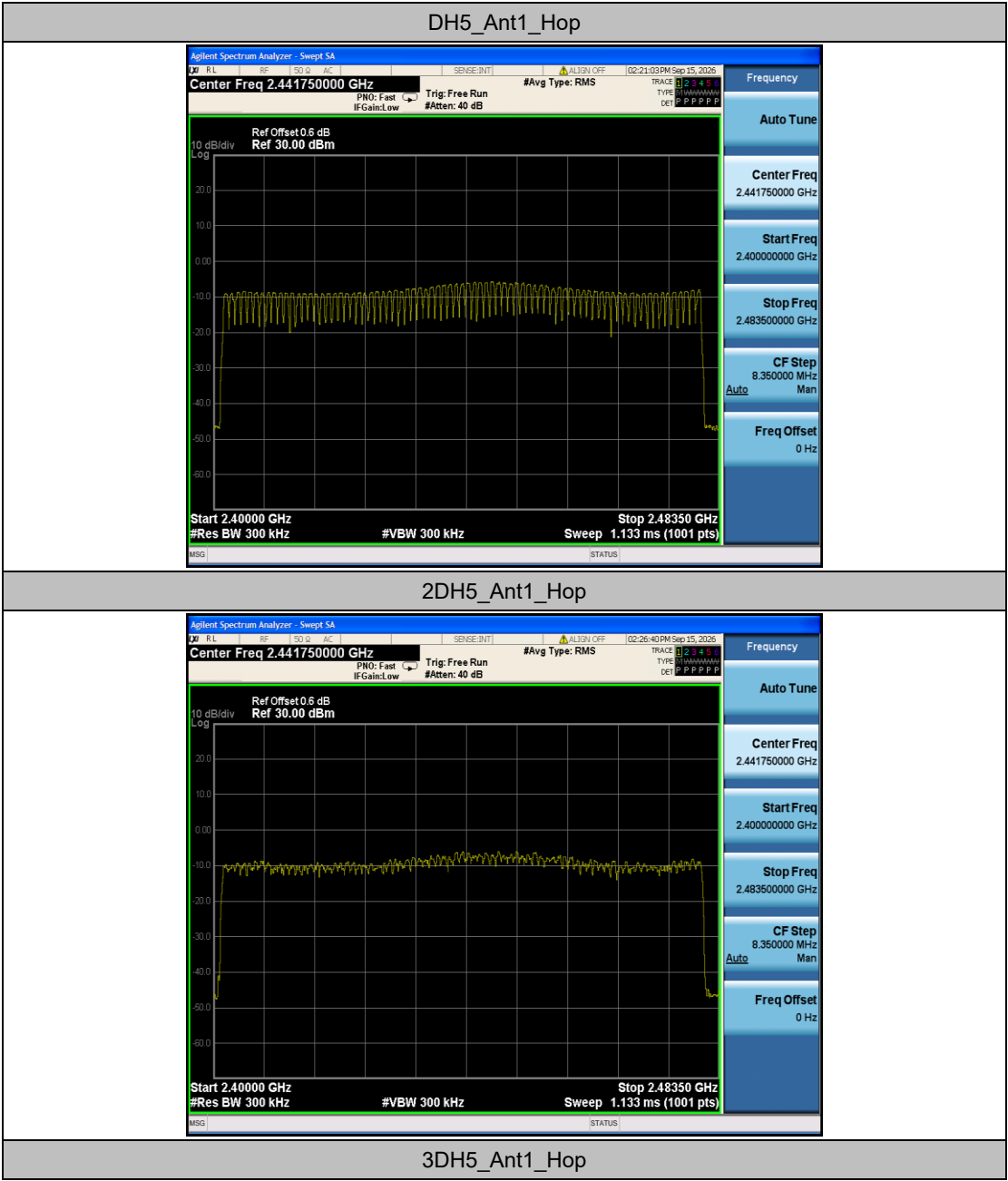


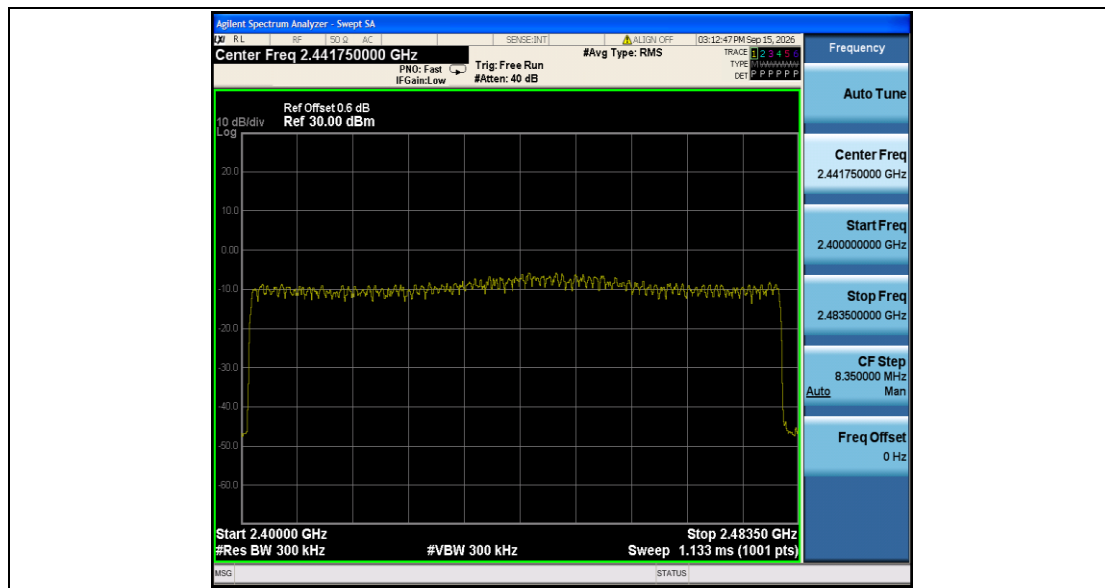
Appendix F: Number of hopping channels

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



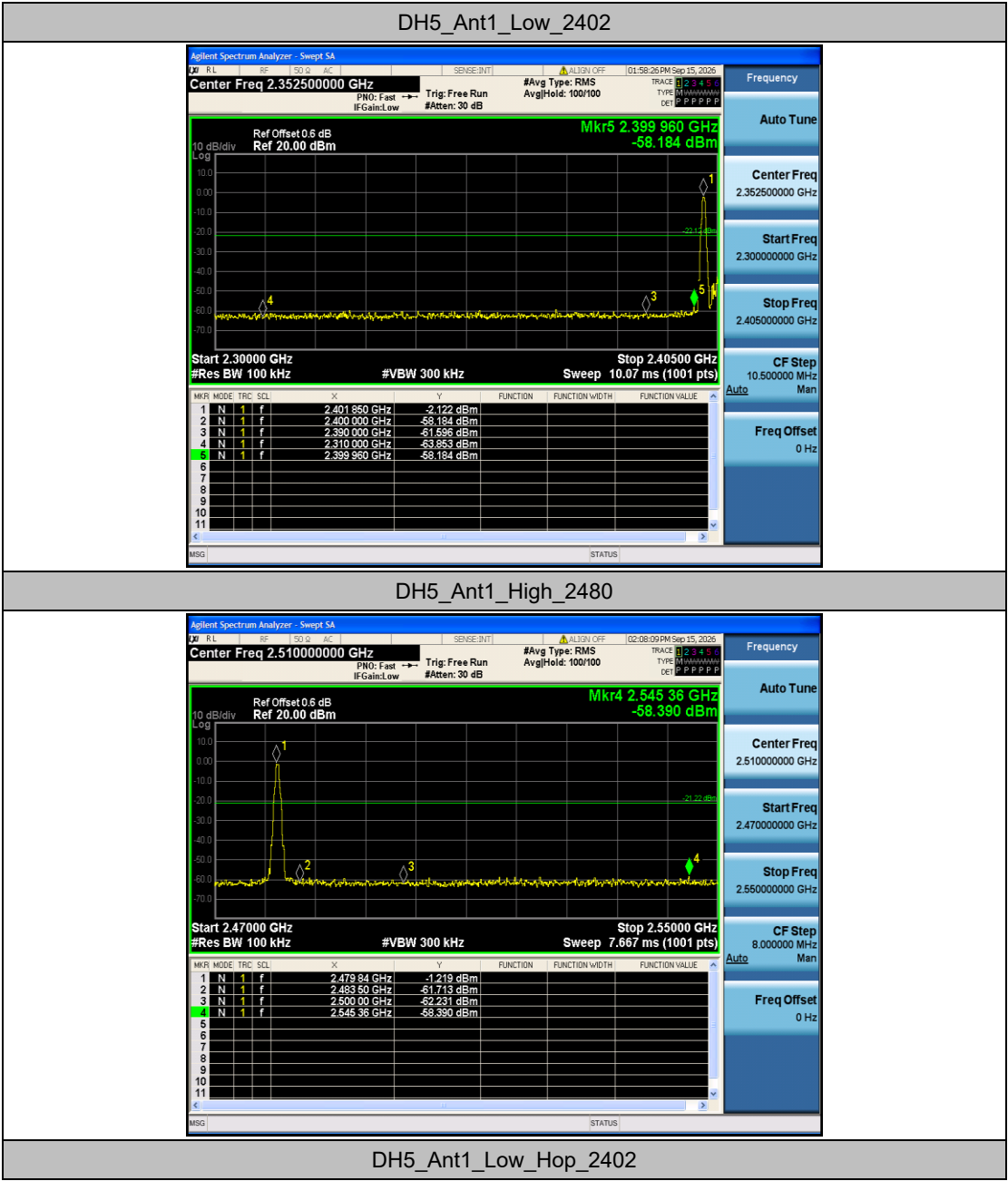


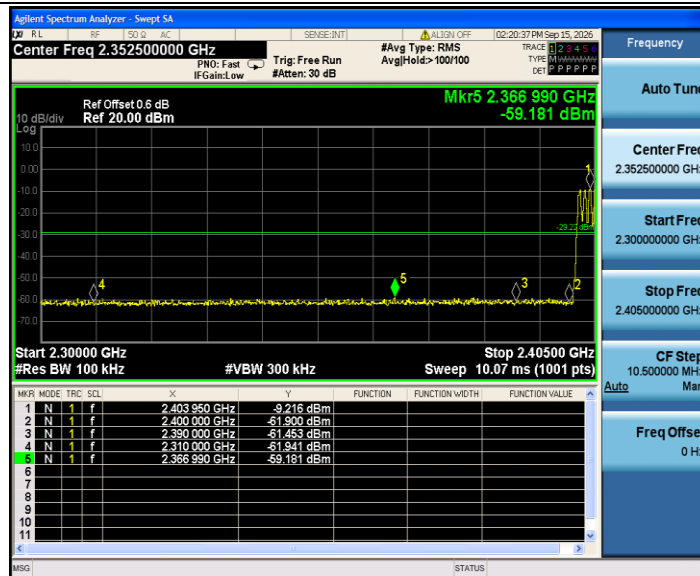
Appendix G: Band edge measurements

Test Result

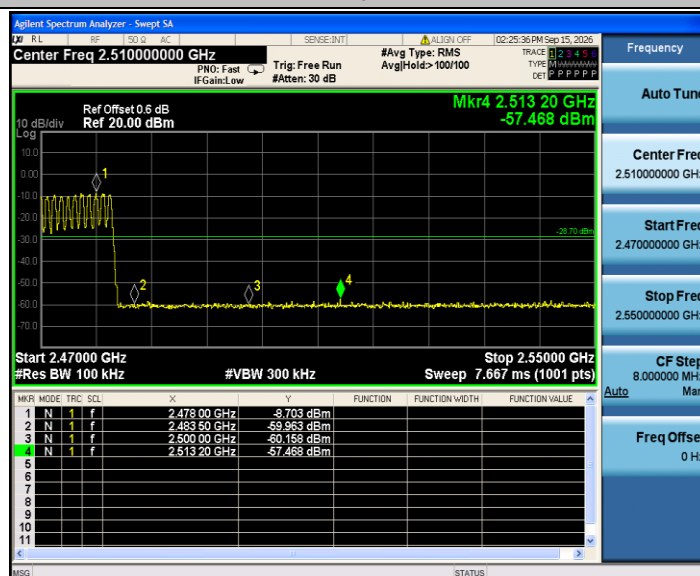
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.12	-58.18	≤ -22.12	PASS
		High	2480	-1.22	-58.39	≤ -21.22	PASS
		Low	Hop_2402	-9.22	-59.18	≤ -29.22	PASS
		High	Hop_2480	-8.70	-57.47	≤ -28.7	PASS
2DH5	Ant1	Low	2402	-3.15	-58.99	≤ -23.15	PASS
		High	2480	-2.60	-57.83	≤ -22.6	PASS
		Low	Hop_2402	-11.60	-59.08	≤ -31.6	PASS
		High	Hop_2480	-11.12	-58.19	≤ -31.12	PASS
3DH5	Ant1	Low	2402	-2.03	-58.31	≤ -22.03	PASS
		High	2480	-3.12	-58.89	≤ -23.12	PASS
		Low	Hop_2402	-10.00	-58.55	≤ -30	PASS
		High	Hop_2480	-9.15	-57.95	≤ -29.15	PASS

Test Graphs

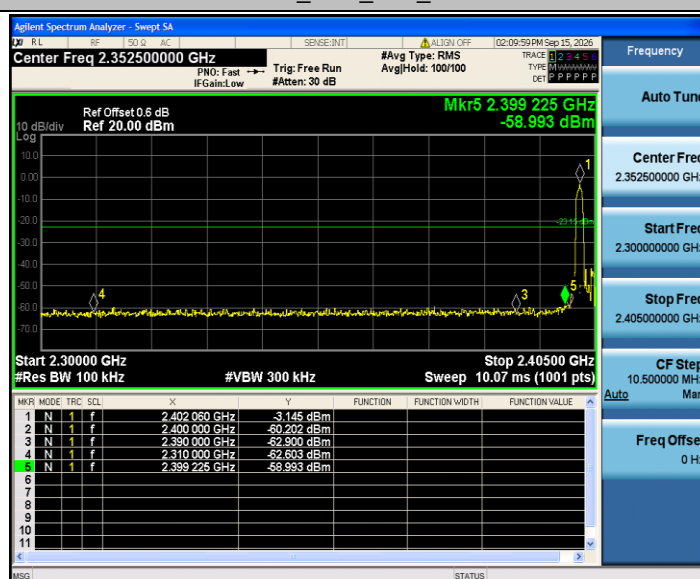




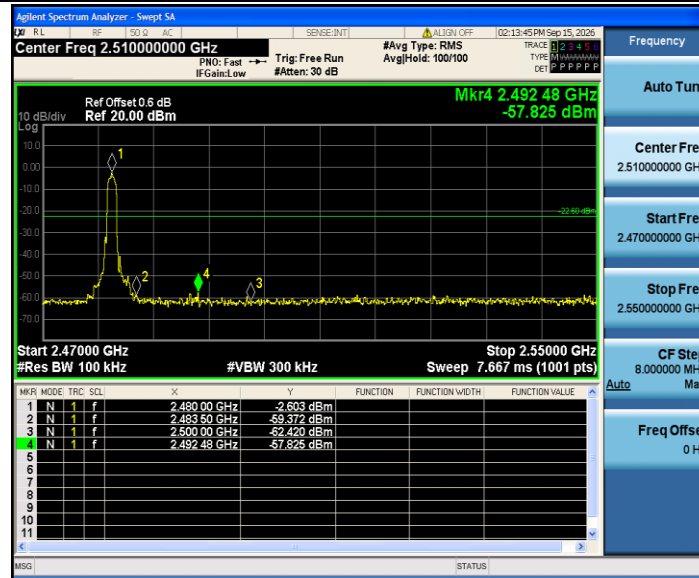
DH5_Ant1_High_Hop_2480



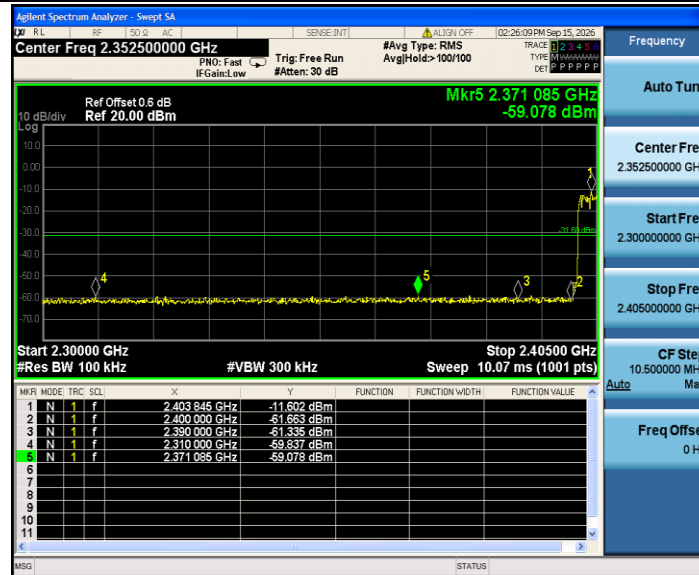
2DH5_Ant1_Low_2402



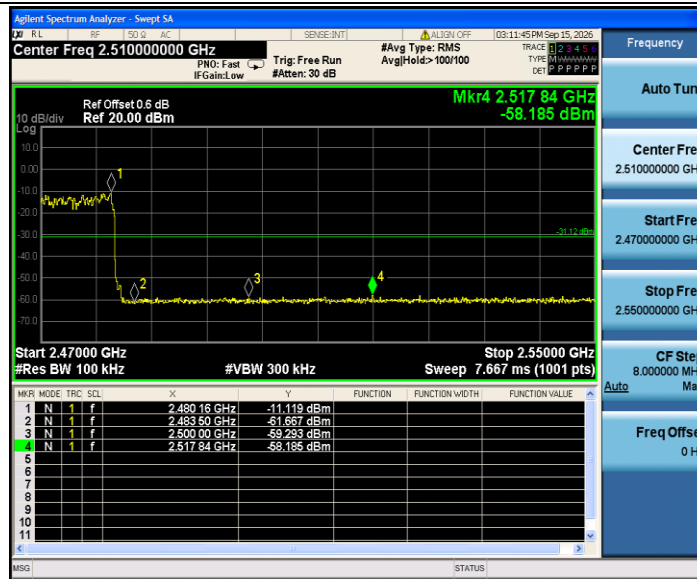
2DH5_Ant1_High_2480



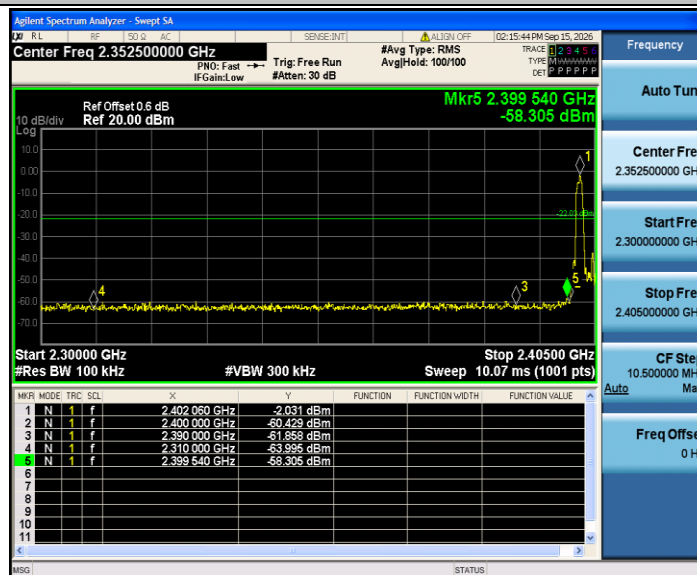
2DH5_Ant1_Low_Hop_2402



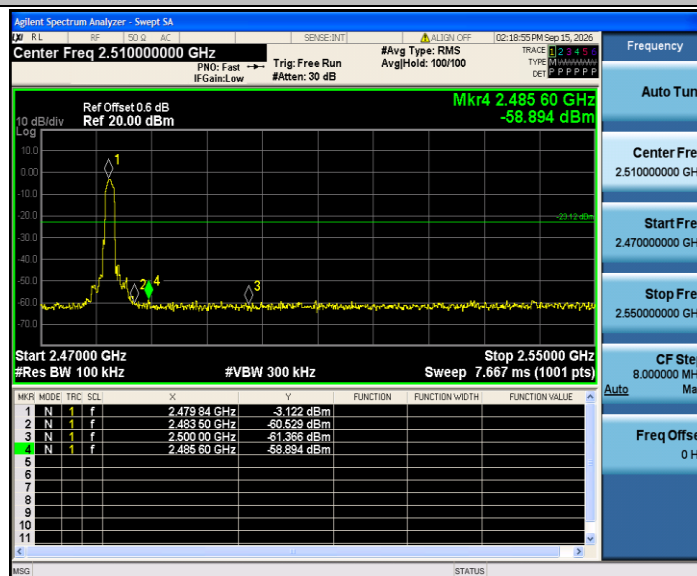
2DH5_Ant1_High_Hop_2480



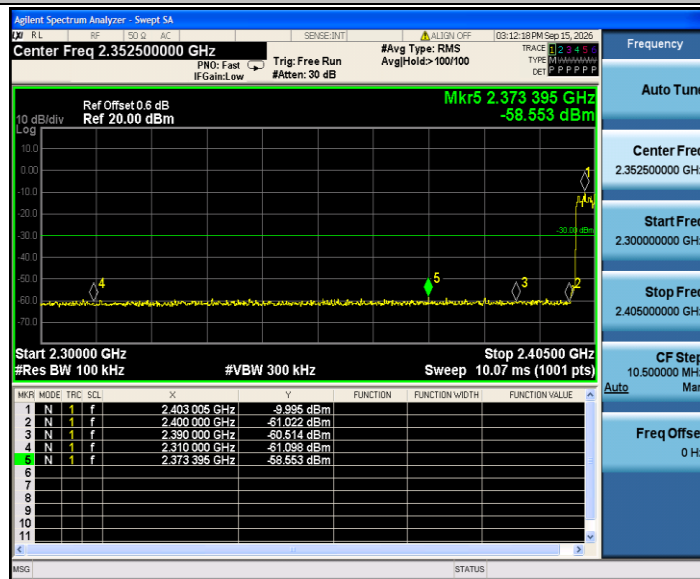
3DH5_Ant1_Low_2402



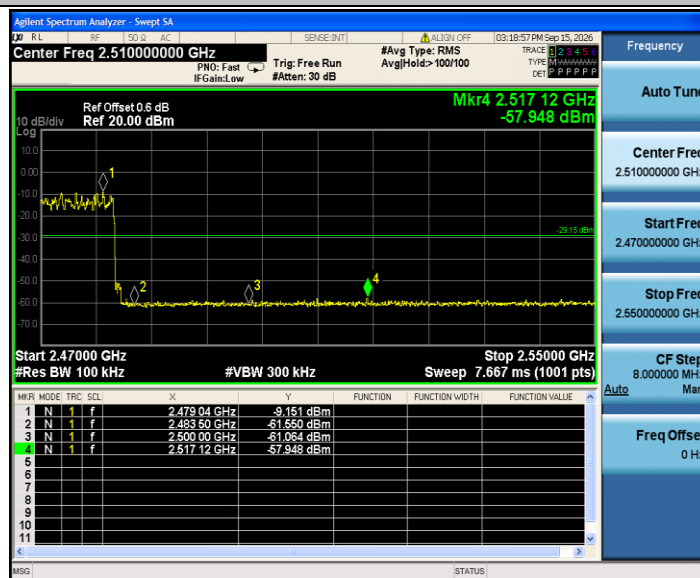
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

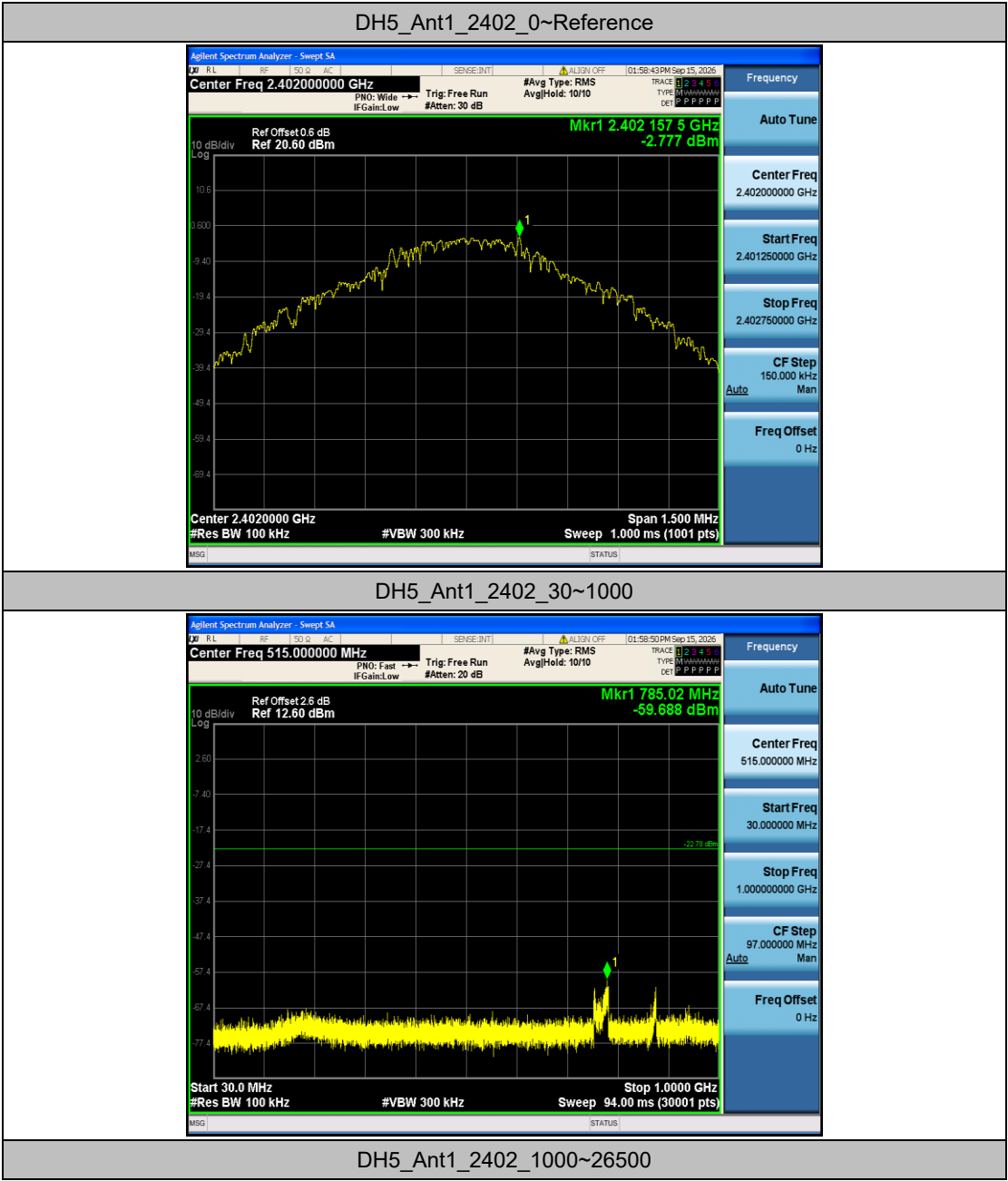


Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-2.78	-2.78	---	PASS
			30~1000	-2.78	-59.69	≤-22.78	PASS
			1000~26500	-2.78	-42.58	≤-22.78	PASS
		2441	Reference	-0.09	-0.09	---	PASS
			30~1000	-0.09	-58.96	≤-20.09	PASS
			1000~26500	-0.09	-42.48	≤-20.09	PASS
		2480	Reference	-1.98	-1.98	---	PASS
			30~1000	-1.98	-61.79	≤-21.98	PASS
			1000~26500	-1.98	-42.19	≤-21.98	PASS
2DH5	Ant1	2402	Reference	-5.58	-5.58	---	PASS
			30~1000	-5.58	-62.43	≤-25.58	PASS
			1000~26500	-5.58	-42.68	≤-25.58	PASS
		2441	Reference	0.02	0.02	---	PASS
			30~1000	0.02	-59.7	≤-19.98	PASS
			1000~26500	0.02	-43.11	≤-19.98	PASS
		2480	Reference	-1.49	-1.49	---	PASS
			30~1000	-1.49	-59.14	≤-21.49	PASS
			1000~26500	-1.49	-42.27	≤-21.49	PASS
3DH5	Ant1	2402	Reference	-4.49	-4.49	---	PASS
			30~1000	-4.49	-61.83	≤-24.49	PASS
			1000~26500	-4.49	-42.45	≤-24.49	PASS
		2441	Reference	-2.13	-2.13	---	PASS
			30~1000	-2.13	-63.23	≤-22.13	PASS
			1000~26500	-2.13	-43.24	≤-22.13	PASS
		2480	Reference	-3.91	-3.91	---	PASS
			30~1000	-3.91	-60.44	≤-23.91	PASS
			1000~26500	-3.91	-42.96	≤-23.91	PASS

Test Graphs

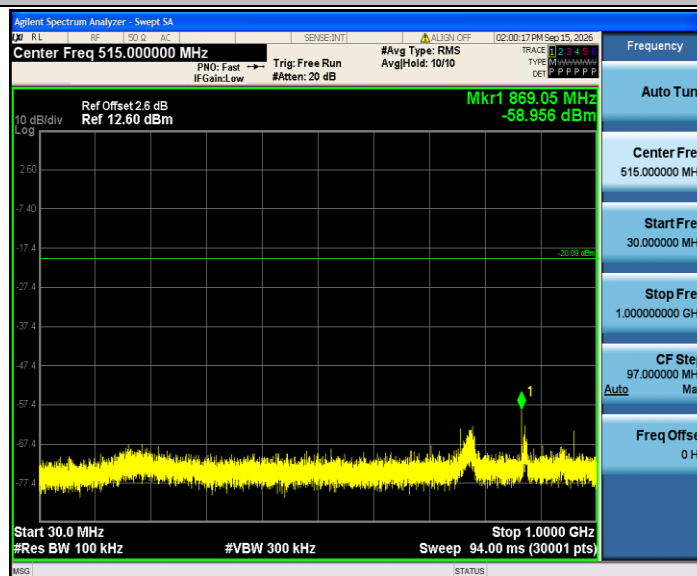




DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



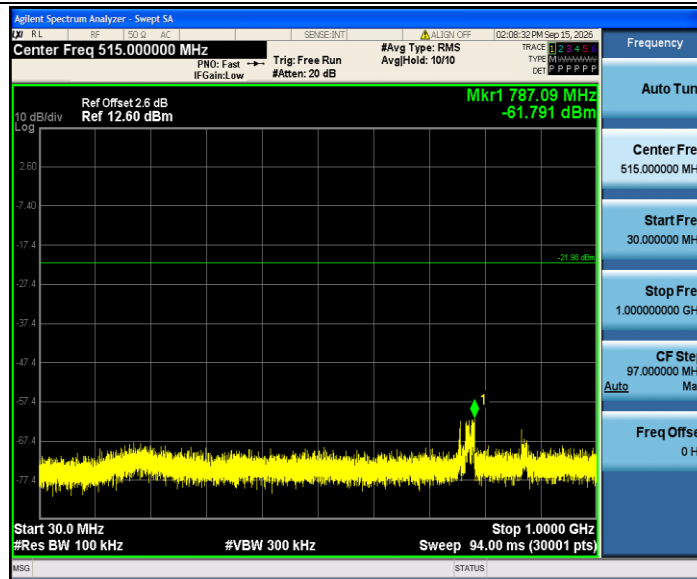
DH5_Ant1_2441_1000~26500



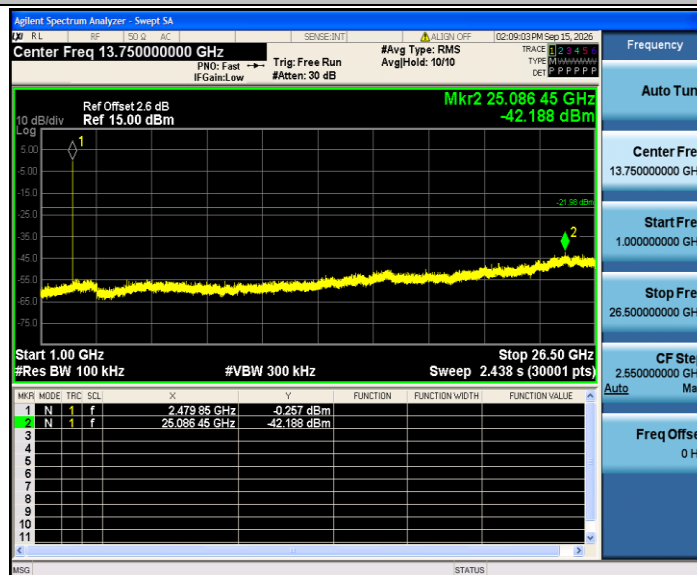
DH5_Ant1_2480_0~Reference



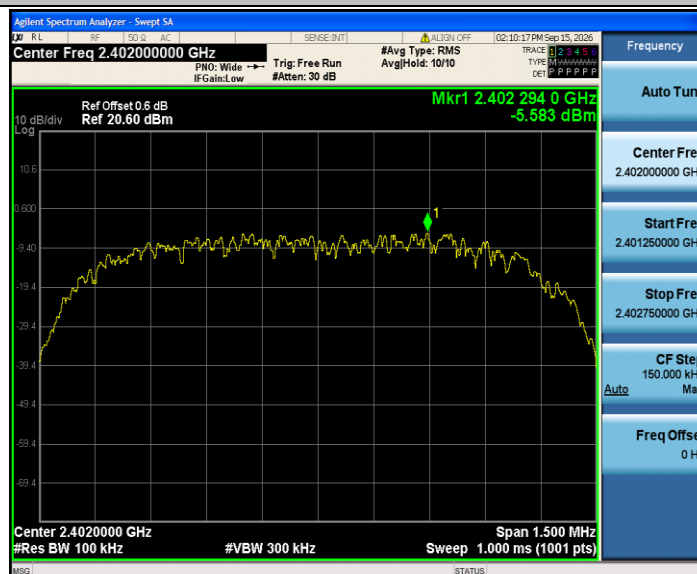
DH5_Ant1_2480_30~1000



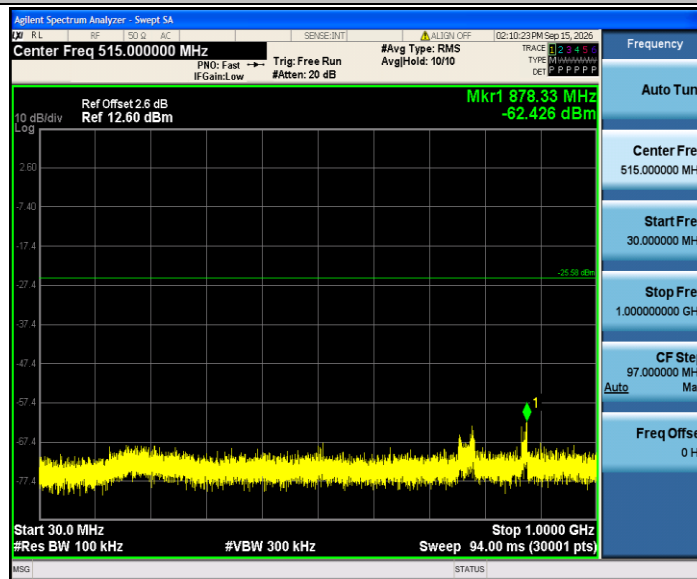
DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference