

FCC Appendix RF Test Data for BT

FCC ID : 2ASQD-PMXFR16

Company : SOUND AROUND

EUT : Audio Sound Mixer

Model Number : PMXFR16

Report No. : CTA25112502001

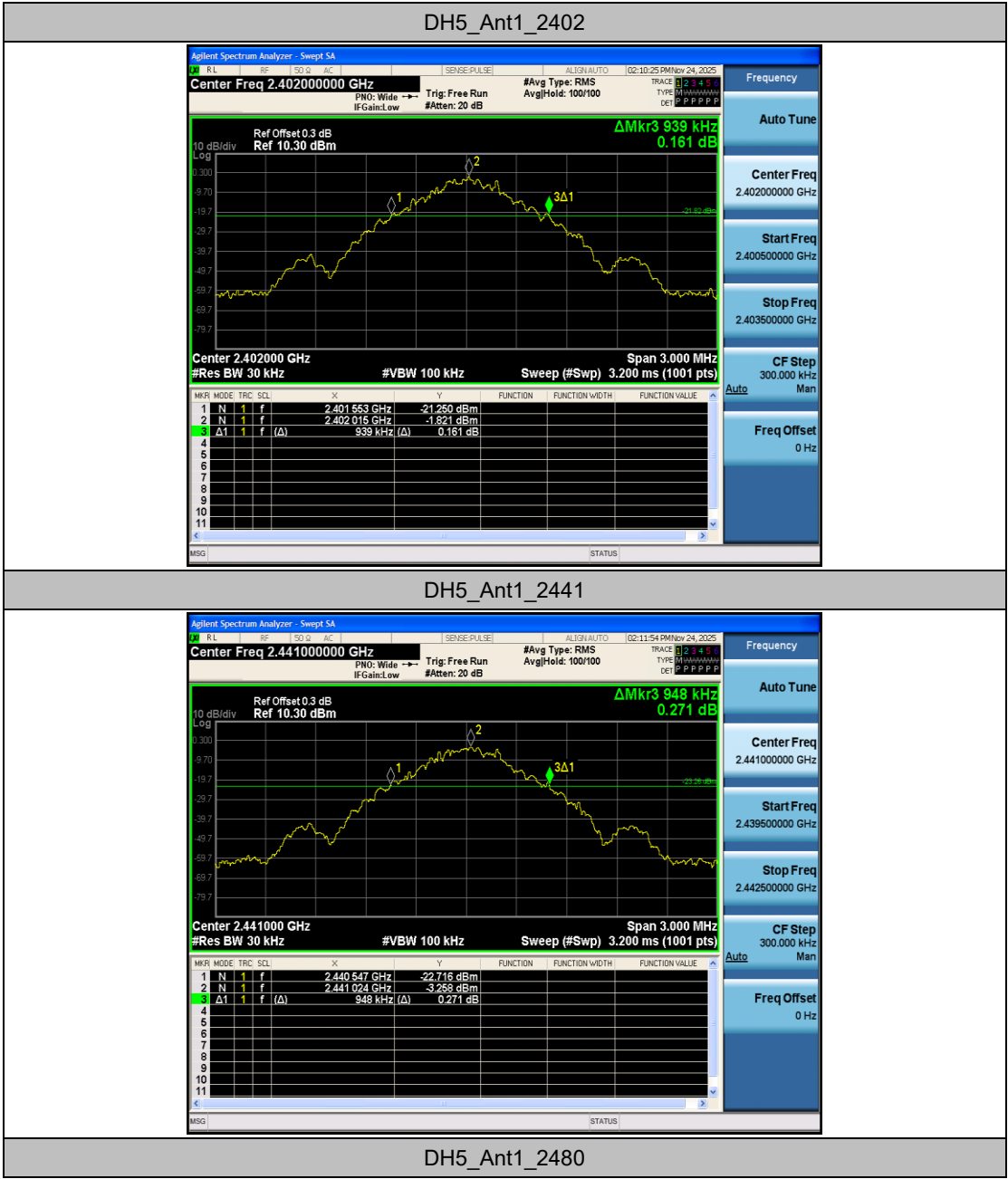
Reviewed By : Eric Wang

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	2401.553	2402.492	---	---
		2441	0.948	2440.547	2441.495	---	---
		2480	0.924	2479.550	2480.474	---	---
2DH5	Ant1	2402	1.281	2401.379	2402.660	---	---
		2441	1.317	2440.352	2441.669	---	---
		2480	1.305	2479.358	2480.663	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

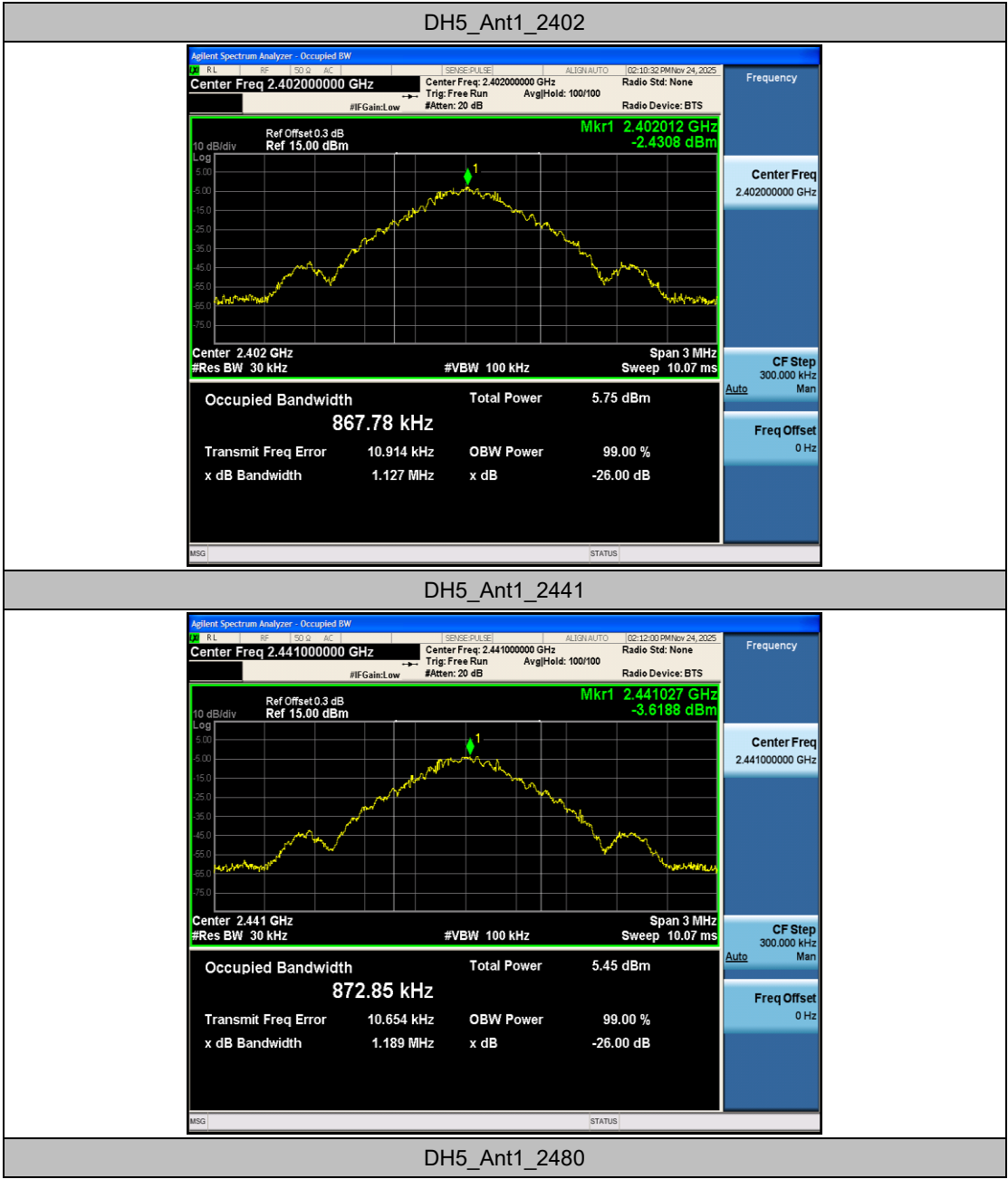


Appendix B: Occupied Channel Bandwidth

Test Result

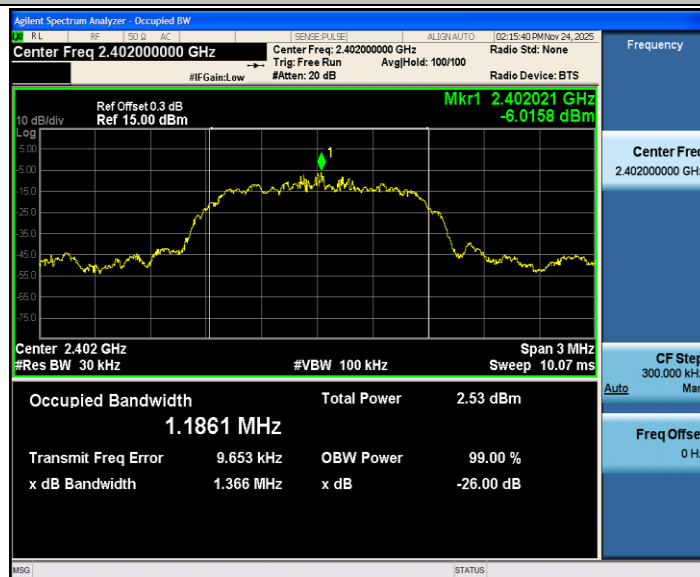
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86778	2401.5770	2402.4448	---	---
		2441	0.87285	2440.5742	2441.4471	---	---
		2480	0.86930	2479.5737	2480.4430	---	---
2DH5	Ant1	2402	1.1861	2401.4166	2402.6027	---	---
		2441	1.1842	2440.4185	2441.6027	---	---
		2480	1.1842	2479.4175	2480.6017	---	---

Test Graphs

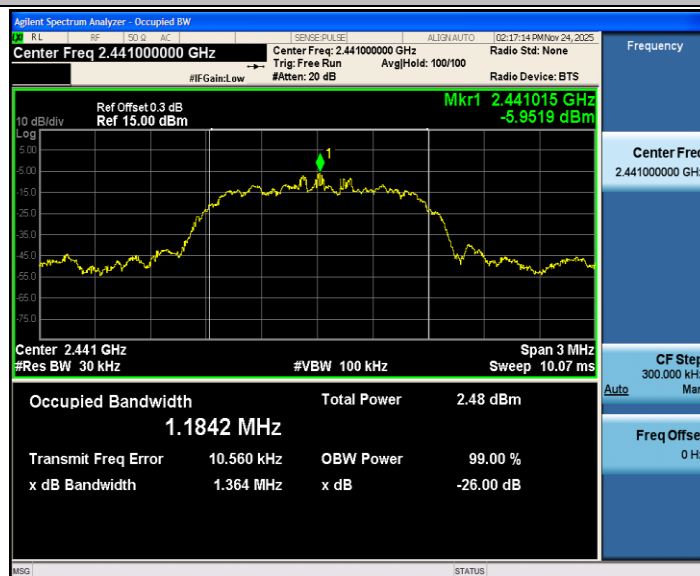




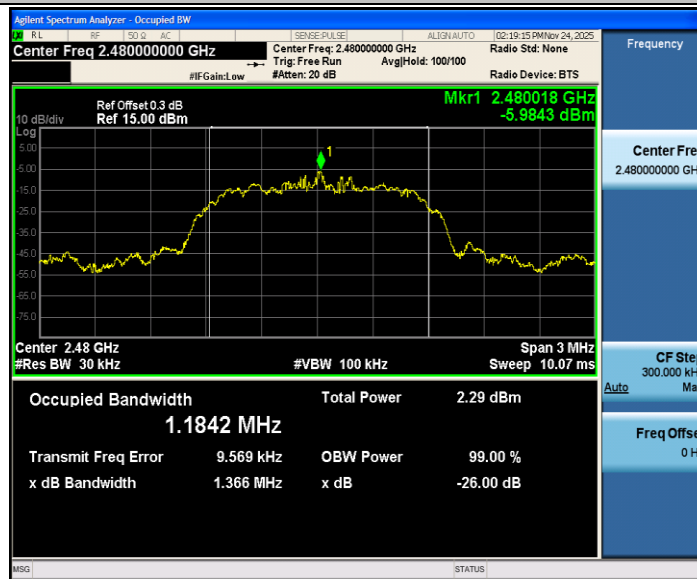
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_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	-0.19	≤20.97	PASS
		2441	-0.40	≤20.97	PASS
		2480	-0.46	≤20.97	PASS
2DH5	Ant1	2402	-1.00	≤20.97	PASS
		2441	-1.20	≤20.97	PASS
		2480	-1.29	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.176	≥ 0.948	PASS
2DH5	Ant1	Hop	1.176	≥ 0.878	PASS

Test Graphs

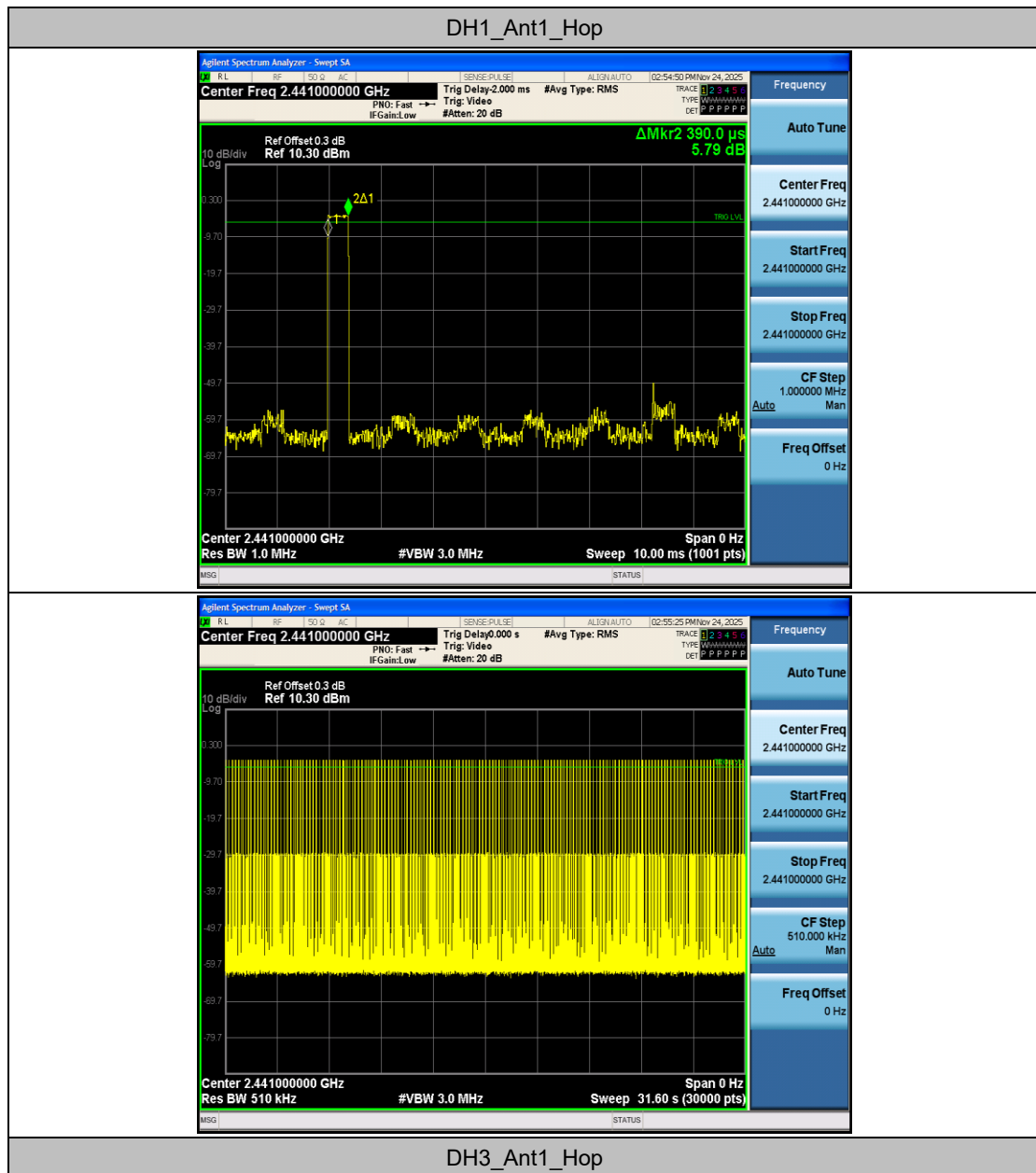


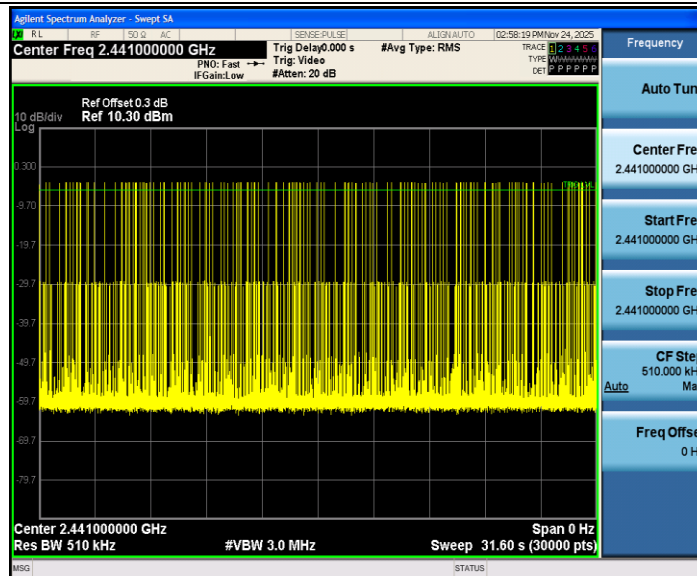
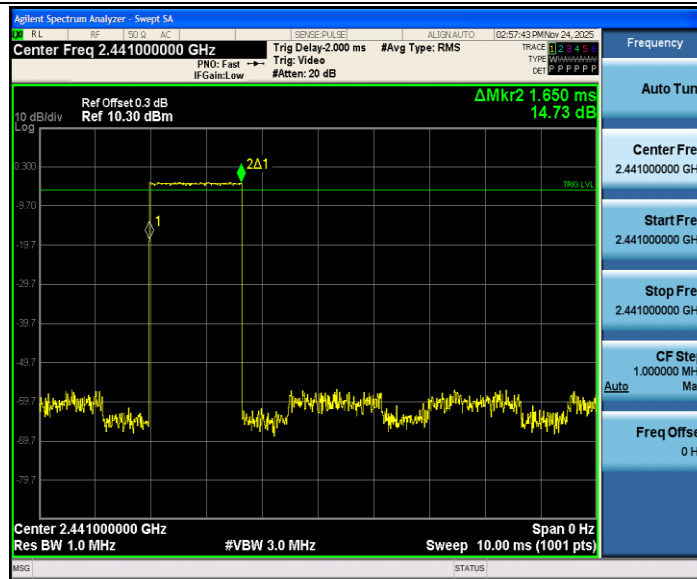
Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.390	318	0.124	≤0.4	PASS
DH3	Ant1	Hop	1.650	153	0.252	≤0.4	PASS
DH5	Ant1	Hop	2.890	113	0.327	≤0.4	PASS
2DH1	Ant1	Hop	0.390	317	0.124	≤0.4	PASS
2DH3	Ant1	Hop	1.640	174	0.285	≤0.4	PASS
2DH5	Ant1	Hop	2.900	107	0.31	≤0.4	PASS

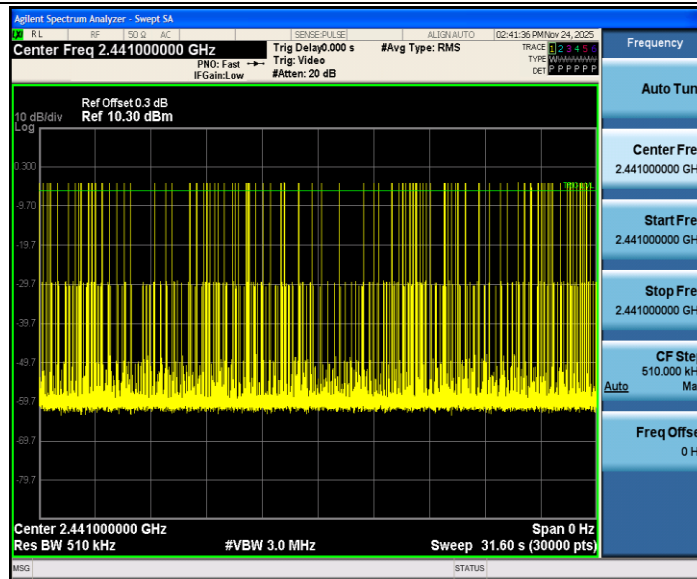
Test Graphs



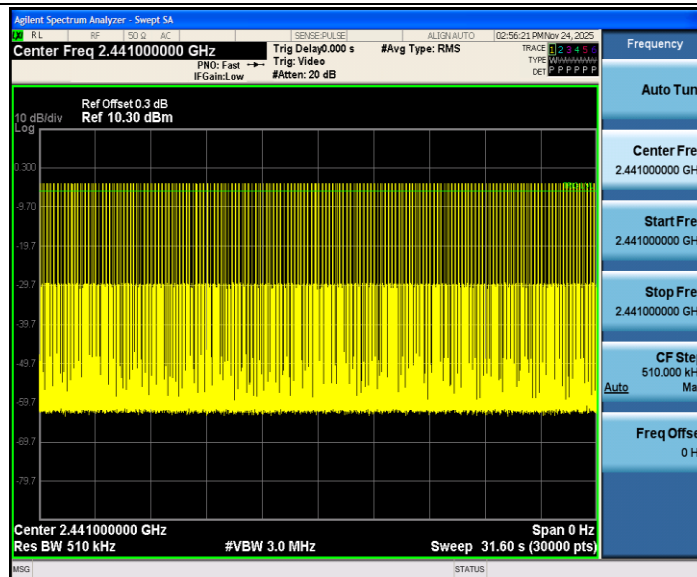
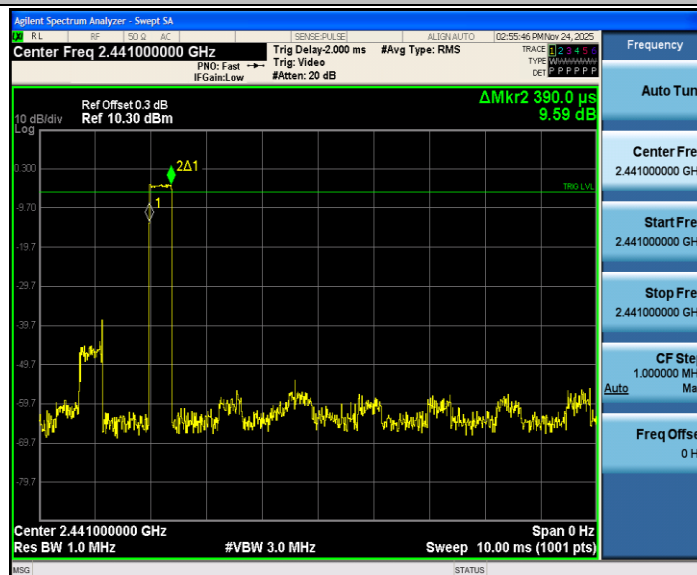


DH5_Ant1_Hop

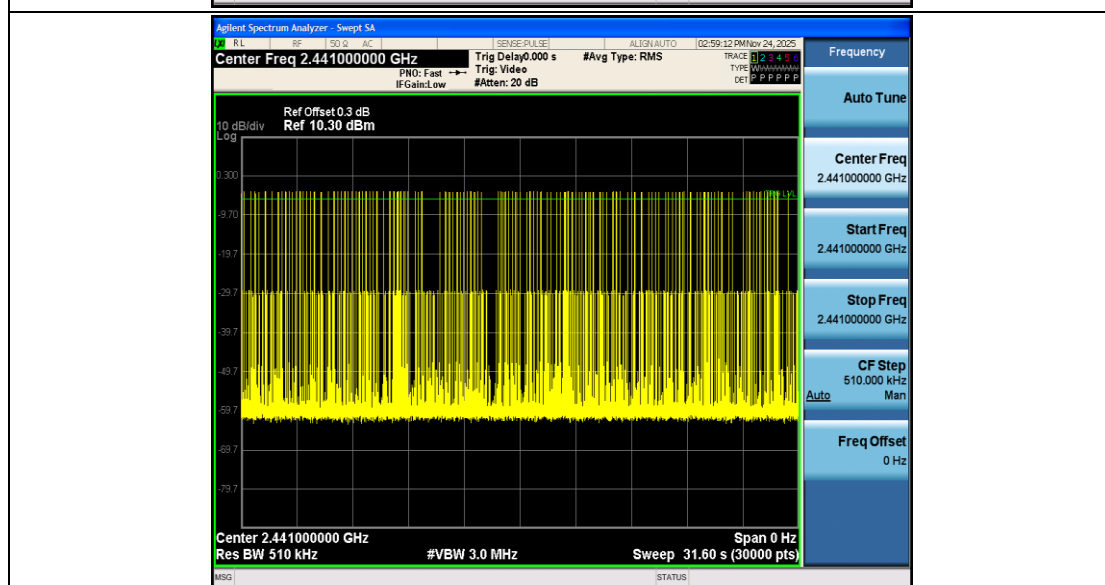




2DH1_Ant1_Hop

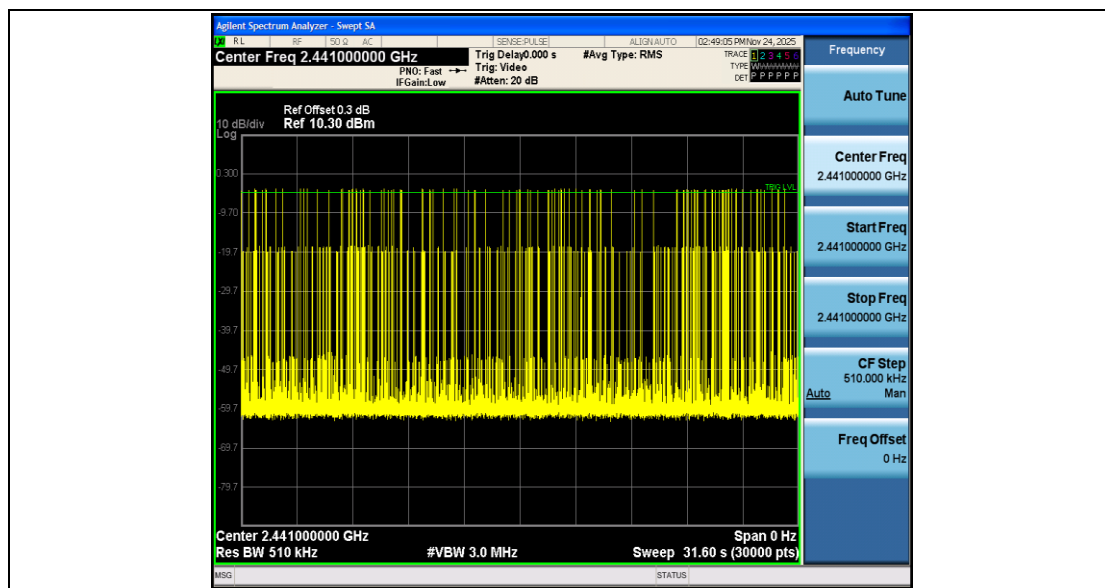


2DH3_Ant1_Hop



2DH5_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

Test Graphs

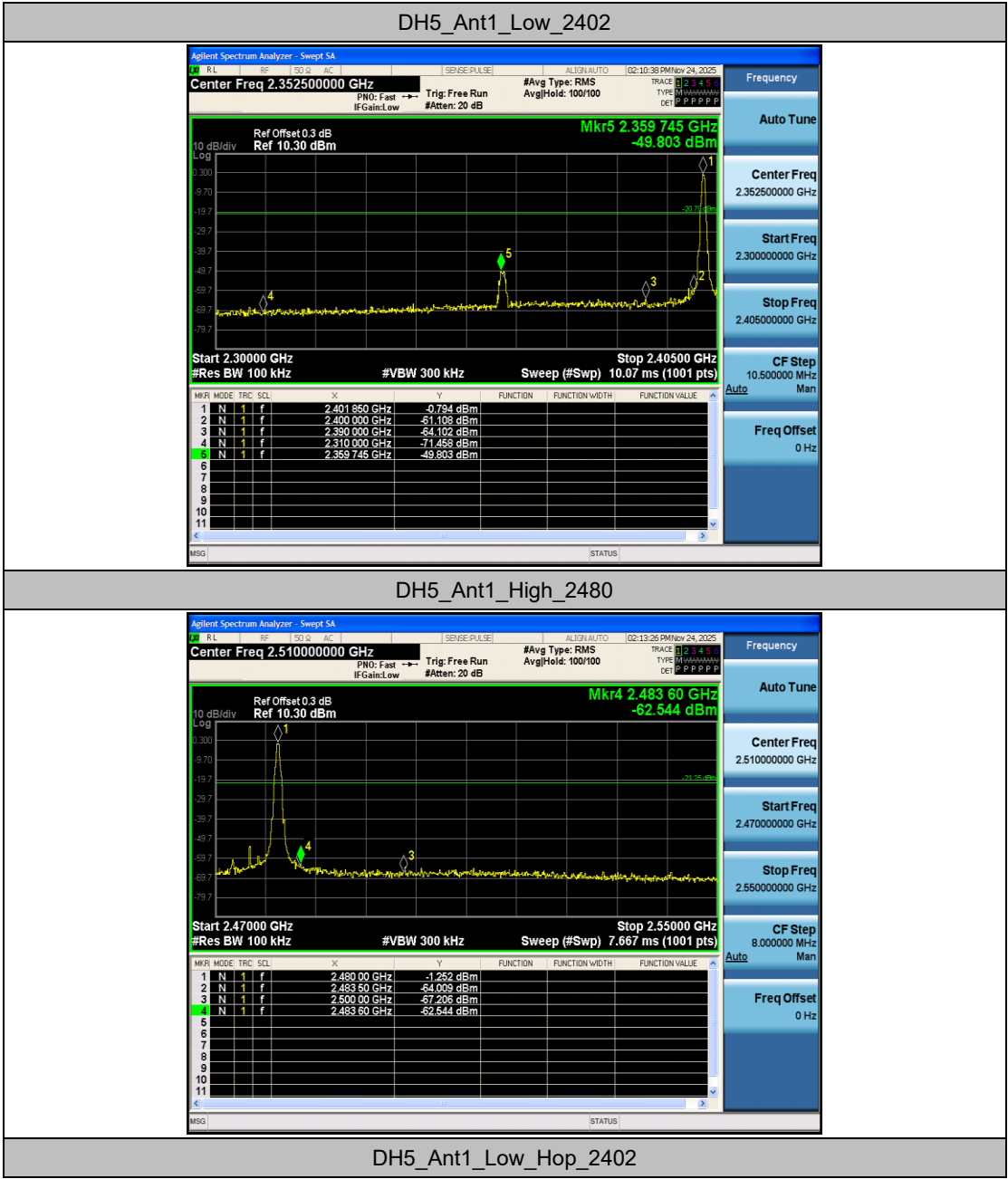


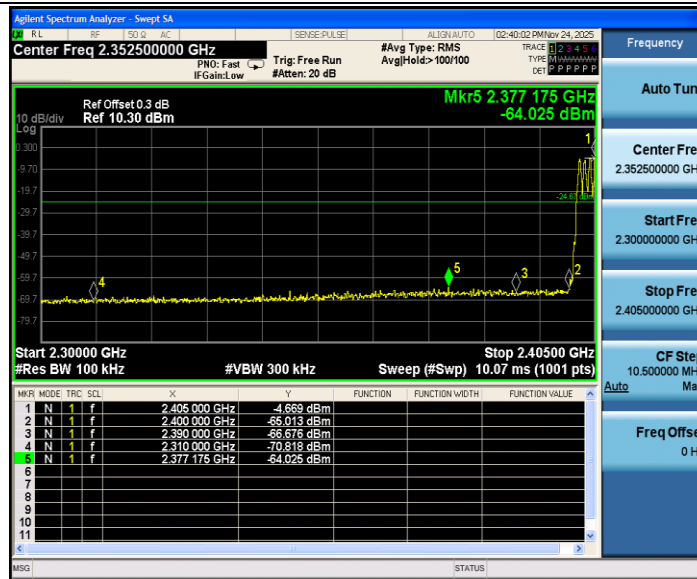
Appendix G: Band edge measurements

Test Result

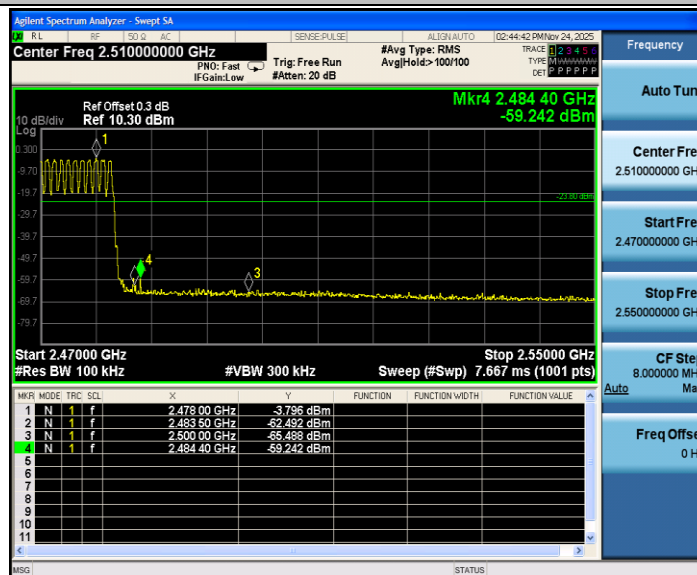
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.79	-49.8	≤-20.79	PASS
		High	2480	-1.25	-62.54	≤-21.25	PASS
		Low	Hop_2402	-4.67	-64.03	≤-24.67	PASS
		High	Hop_2480	-3.80	-59.24	≤-23.8	PASS
2DH5	Ant1	Low	2402	-4.48	-51.59	≤-24.48	PASS
		High	2480	-5.34	-55.8	≤-25.34	PASS
		Low	Hop_2402	-3.64	-58.02	≤-23.64	PASS
		High	Hop_2480	-4.13	-57.19	≤-24.13	PASS

Test Graphs

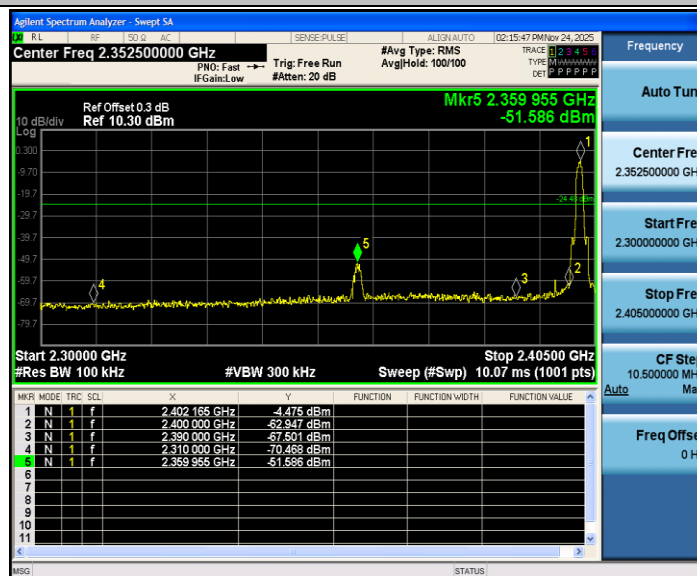




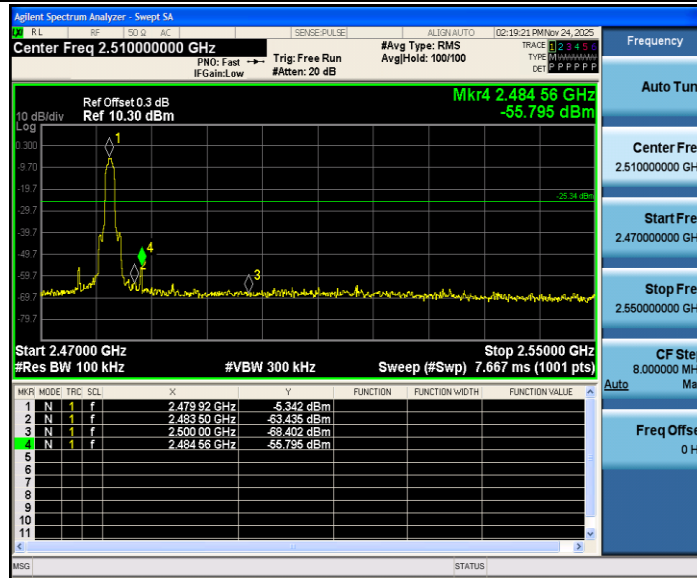
DH5_Ant1_High_Hop_2480



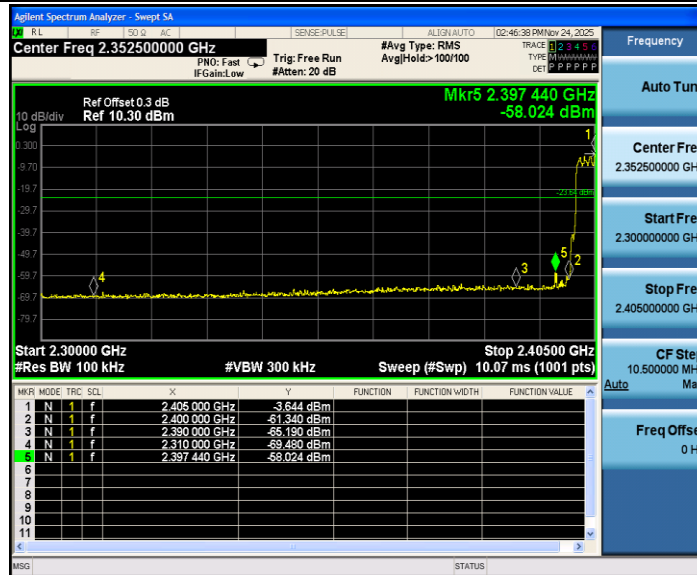
2DH5_Ant1_Low_2402



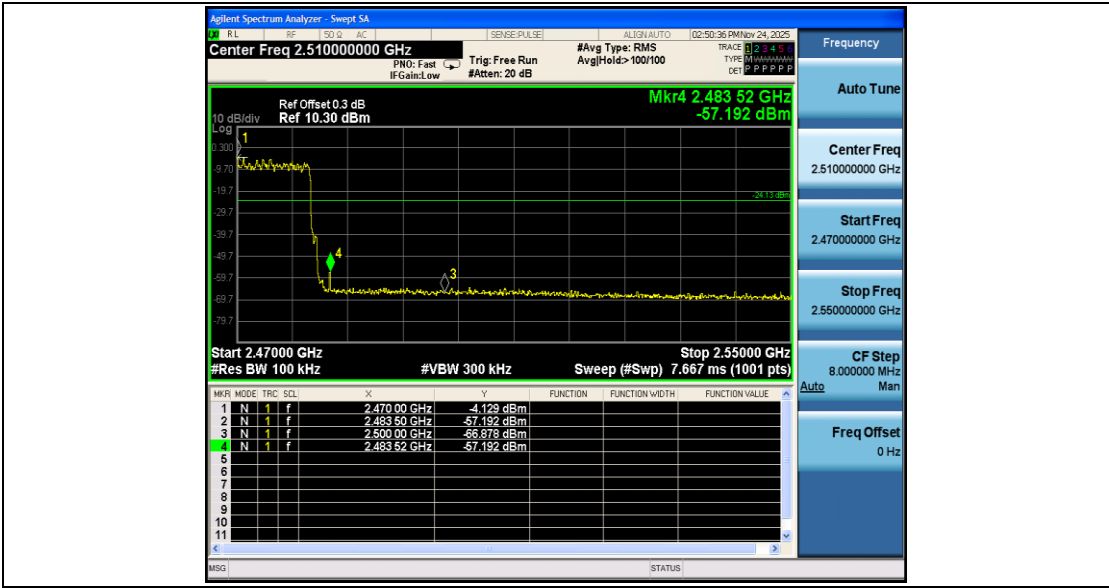
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

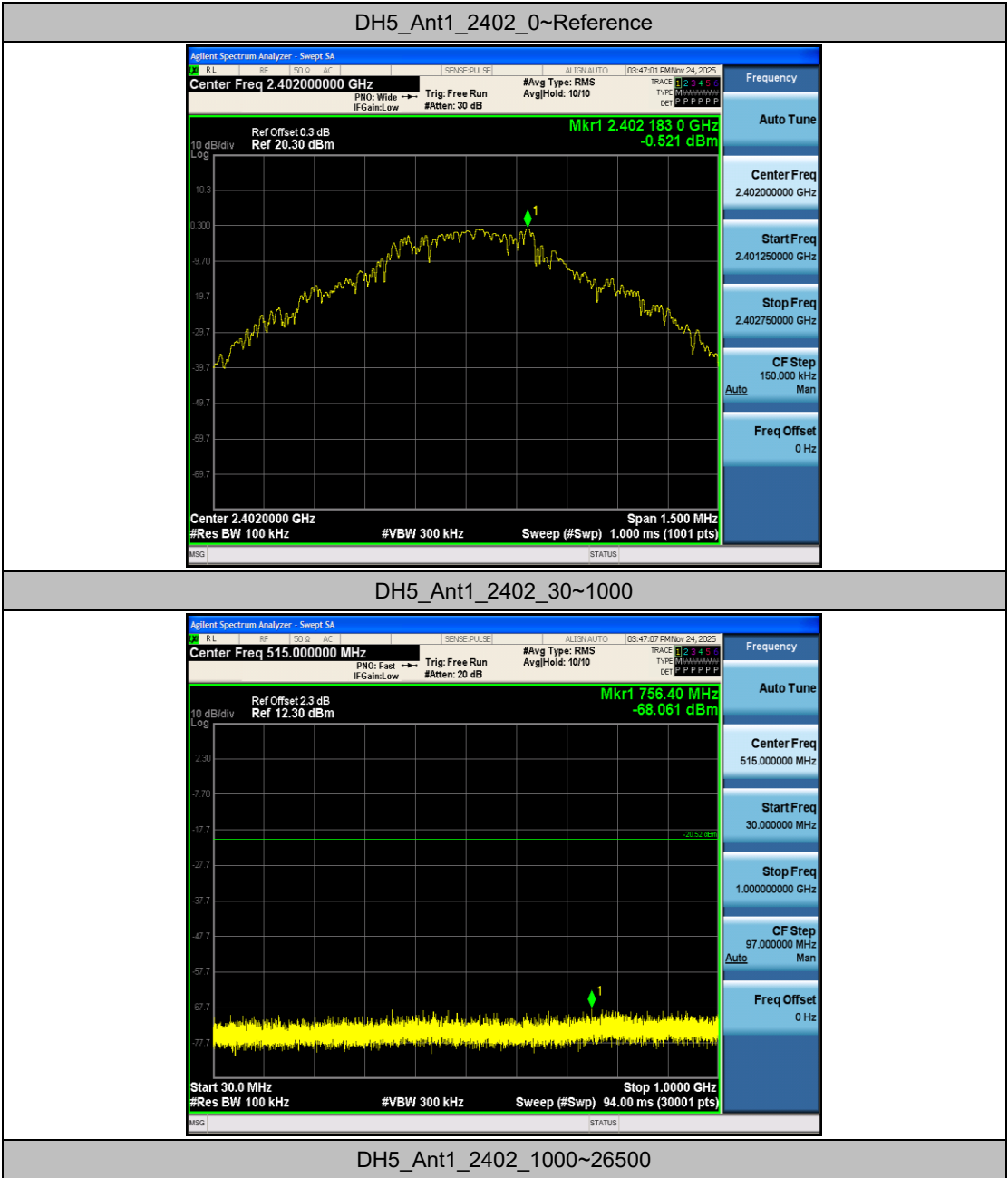


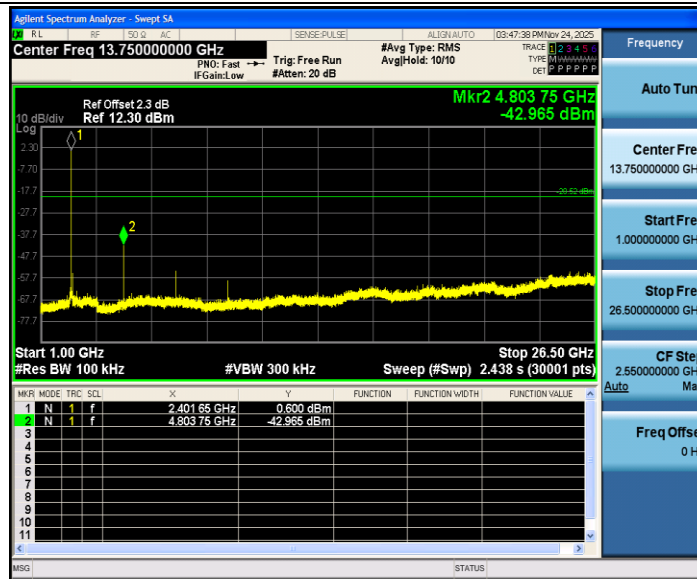
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.52	-0.52	---	PASS
			30~1000	-0.52	-68.06	≤-20.52	PASS
			1000~26500	-0.52	-42.97	≤-20.52	PASS
		2441	Reference	-1.45	-1.45	---	PASS
			30~1000	-1.45	-68.14	≤-21.45	PASS
			1000~26500	-1.45	-41.38	≤-21.45	PASS
		2480	Reference	-1.72	-1.72	---	PASS
			30~1000	-1.72	-67.79	≤-21.72	PASS
			1000~26500	-1.72	-43.97	≤-21.72	PASS
2DH5	Ant1	2402	Reference	-6.67	-6.67	---	PASS
			30~1000	-6.67	-67.9	≤-26.67	PASS
			1000~26500	-6.67	-49.86	≤-26.67	PASS
		2441	Reference	-6.12	-6.12	---	PASS
			30~1000	-6.12	-68.14	≤-26.12	PASS
			1000~26500	-6.12	-49.57	≤-26.12	PASS
		2480	Reference	-4.33	-4.33	---	PASS
			30~1000	-4.33	-68.86	≤-24.33	PASS
			1000~26500	-4.33	-50.08	≤-24.33	PASS

Test Graphs

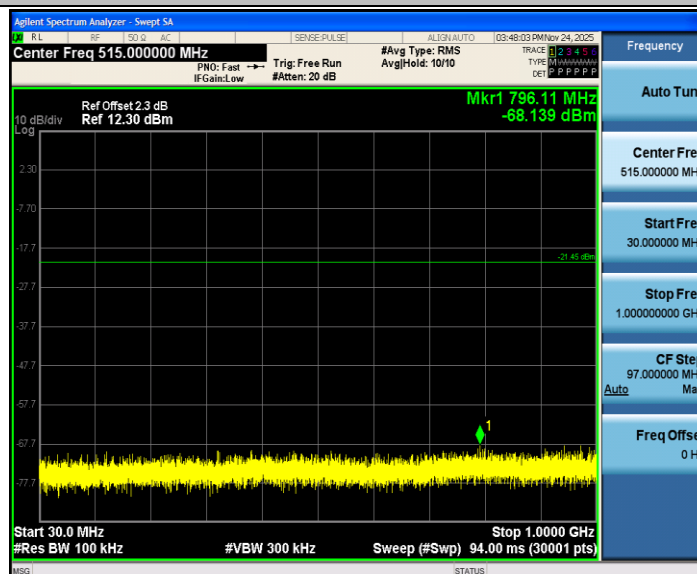




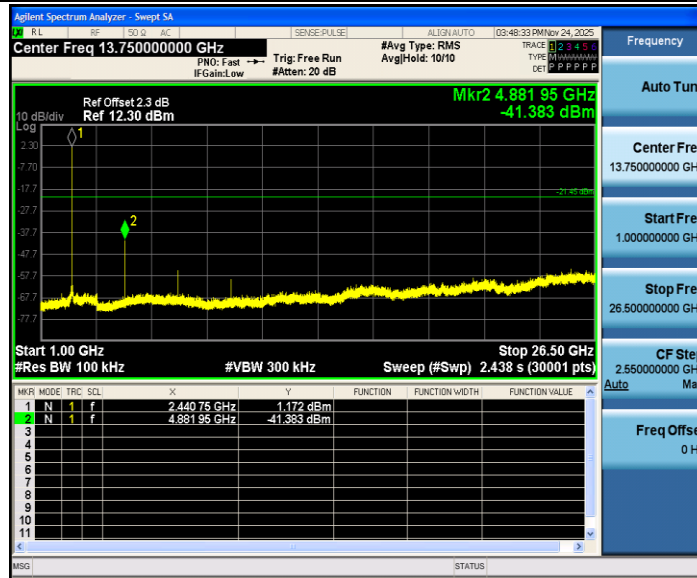
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



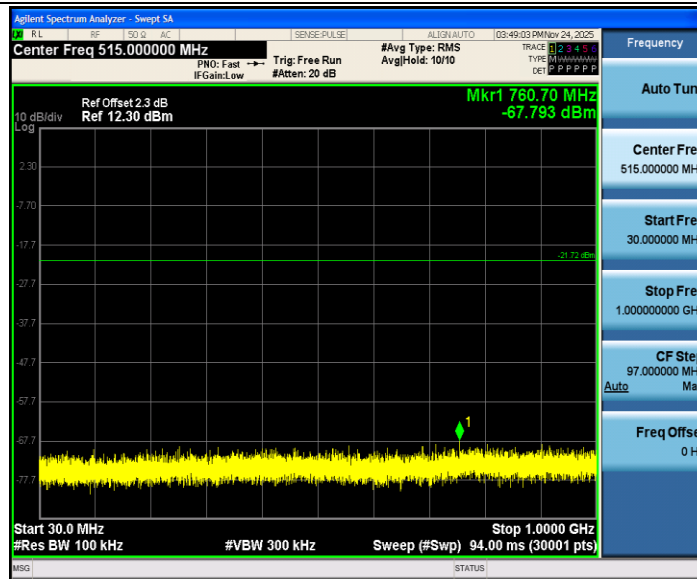
DH5_Ant1_2441_1000~26500



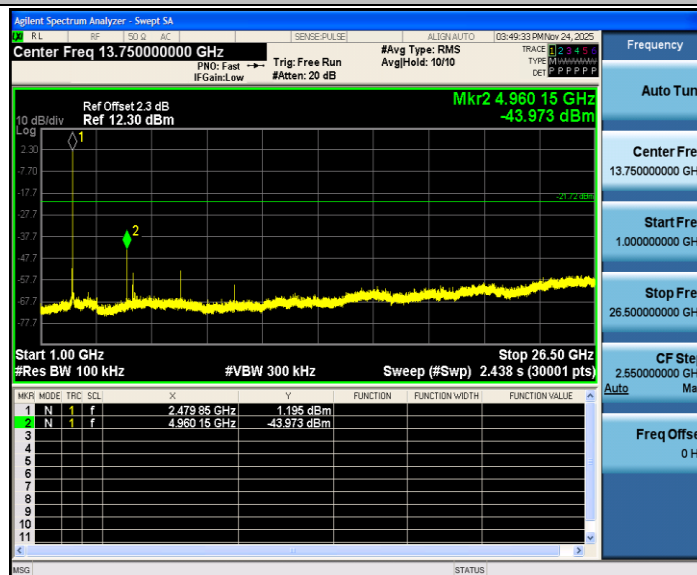
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



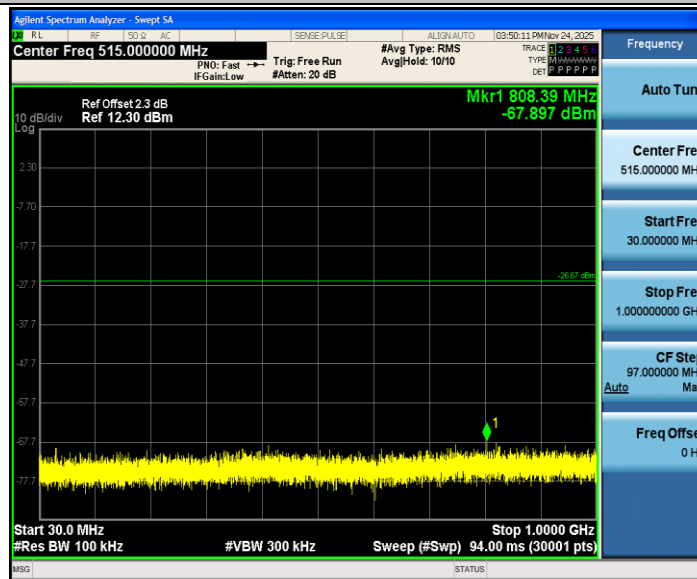
DH5_Ant1_2480_1000~26500



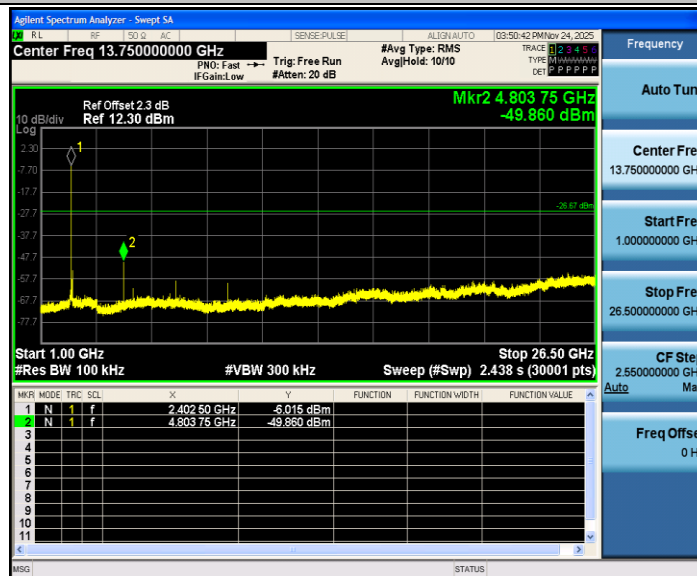
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



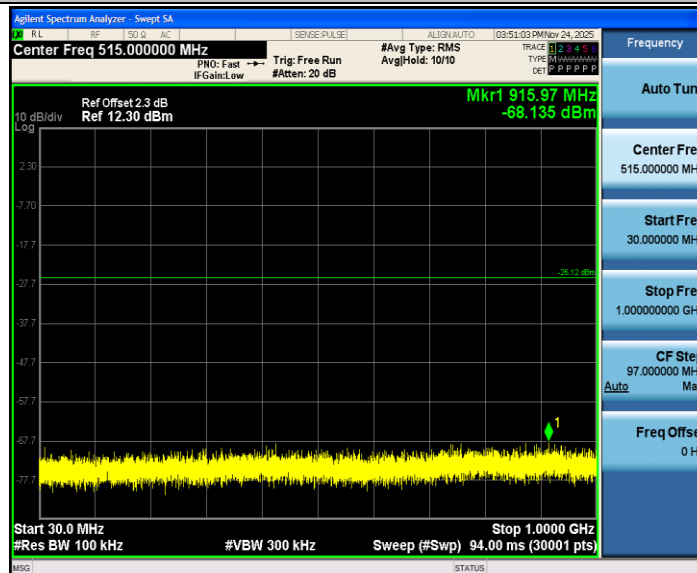
2DH5_Ant1_2402_1000~26500



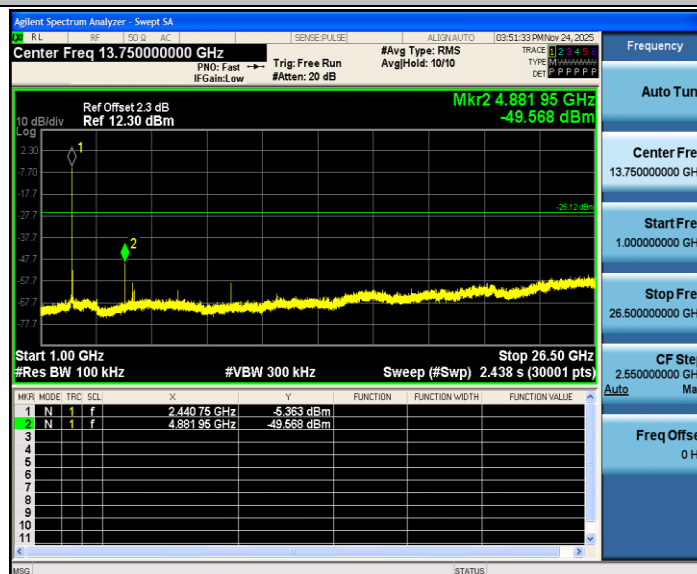
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



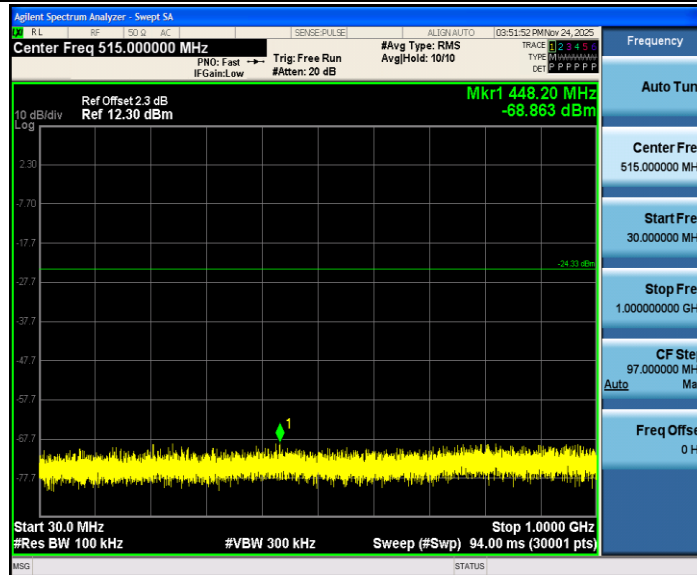
2DH5_Ant1_2441_1000~26500



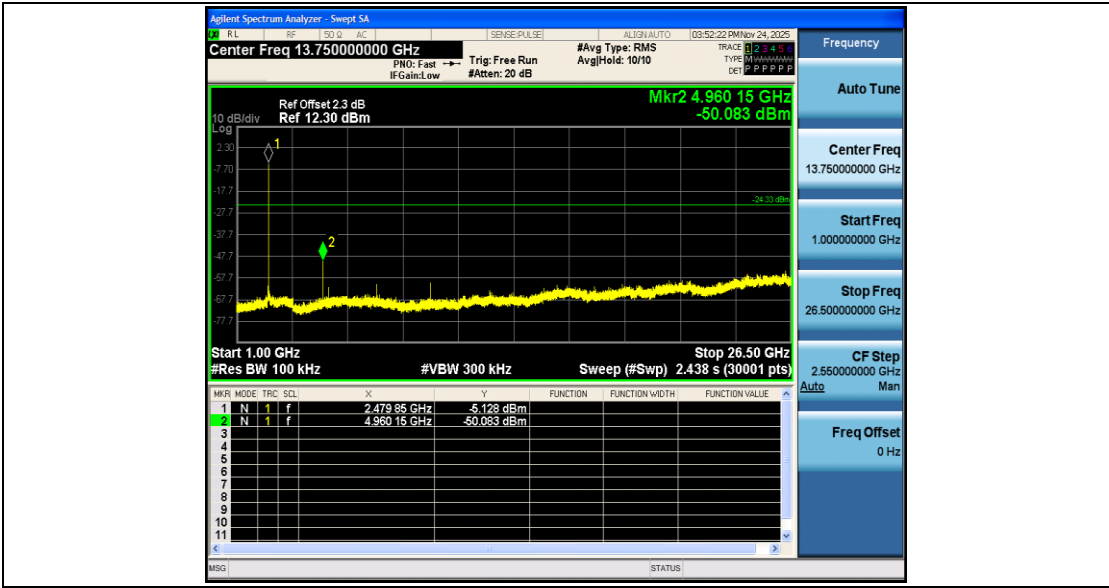
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



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	2.92	3.75	77.87	1.09	---	---
		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	---	---

DH5_Ant1_2402

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.402000000 GHz

Ref Offset 0.3 dB

Ref 20.00 dBm

ΔMkr3 3.750 ms

0.08 dB

Center 2.402000000 GHz

Res BW 8 MHz

#VBW 8.0 MHz

Sweep 5.000 ms (1001 pts)

Span 0 Hz

CF Step 8.000000 MHz

Freq Offset 0 Hz

MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	190.0 μs	-2.93 dBm			
2	Δ1	1	t	2.910 ms (Δ)	-44.22 dB			
3	Δ1	1	t	3.750 ms (Δ)	0.08 dB			

DH5_Ant1_2441

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.441000000 GHz

Ref Offset 0.3 dB

Ref 20.00 dBm

ΔMkr3 3.750 ms

0.29 dB

Center 2.441000000 GHz

Res BW 8 MHz

#VBW 8.0 MHz

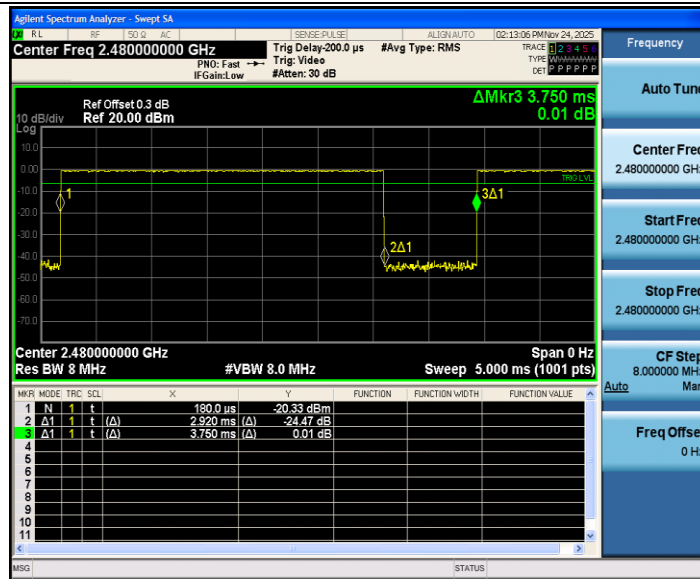
Sweep 5.000 ms (1001 pts)

Span 0 Hz

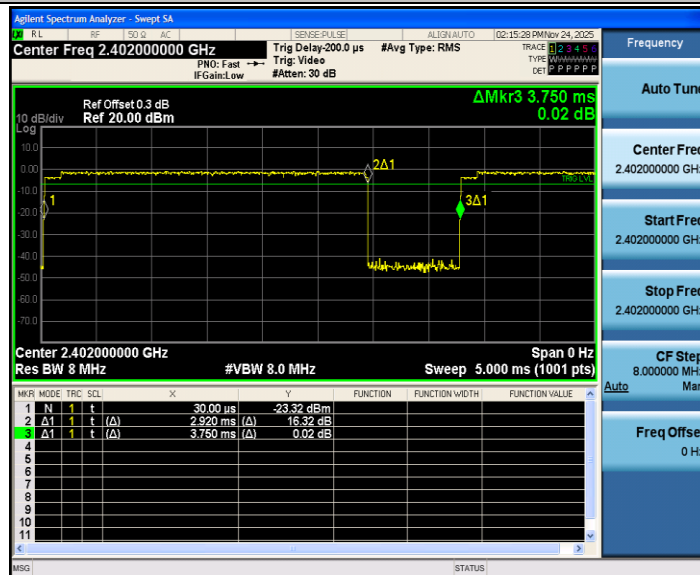
CF Step 8.000000 MHz

Freq Offset 0 Hz

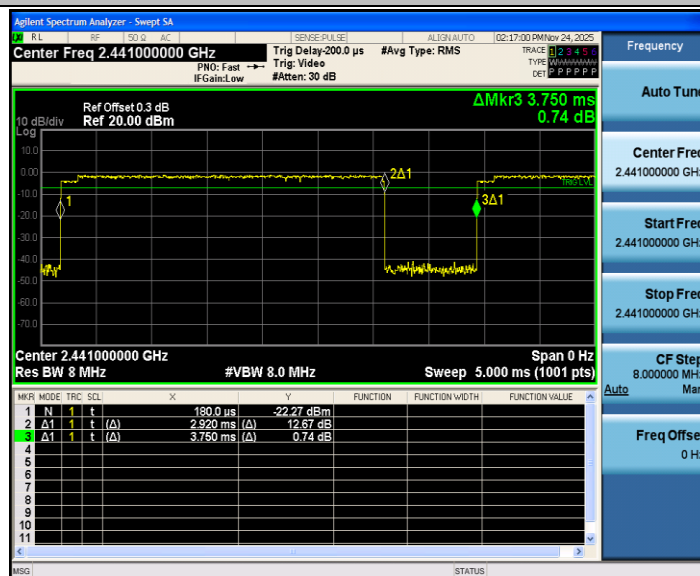
MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	180.0 μs	-19.17 dBm			
2	Δ1	1	t	2.920 ms (Δ)	-24.50 dB			
3	Δ1	1	t	3.750 ms (Δ)	0.29 dB			



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

