

FCC Appendix RF Test Data for BT

FCC ID : 2BXIG-CB-G-01

Company : Dongguan Chibon Lighting Technology Co., Ltd.

EUT : Audio ambiance lights

Model Number : CB-G-01

Report No. : CTA26071301001

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	0.972	2401.526	2402.498	---	---
		2441	0.960	2440.544	2441.504	---	---
		2480	0.960	2479.544	2480.504	---	---
2DH5	Ant1	2402	1.320	2401.349	2402.669	---	---
		2441	1.287	2440.376	2441.663	---	---
		2480	1.296	2479.373	2480.669	---	---

DH5_Ant1_2402

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.402000000 GHz

Ref Offset 0.8 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 972 kHz
0.026 dB

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401526 GHz	-22.750 dBm			
2	N	1	f	2.402021 GHz	-2.725 dBm			
3	Δ	1	f (Δ)	972 kHz (Δ)	0.026 dB			

DH5_Ant1_2441

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 0.8 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 960 kHz
-0.270 dB

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.440544 GHz	-22.730 dBm			
2	N	1	f	2.441006 GHz	-2.427 dBm			
3	Δ	1	f (Δ)	960 kHz (Δ)	-0.270 dB			



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

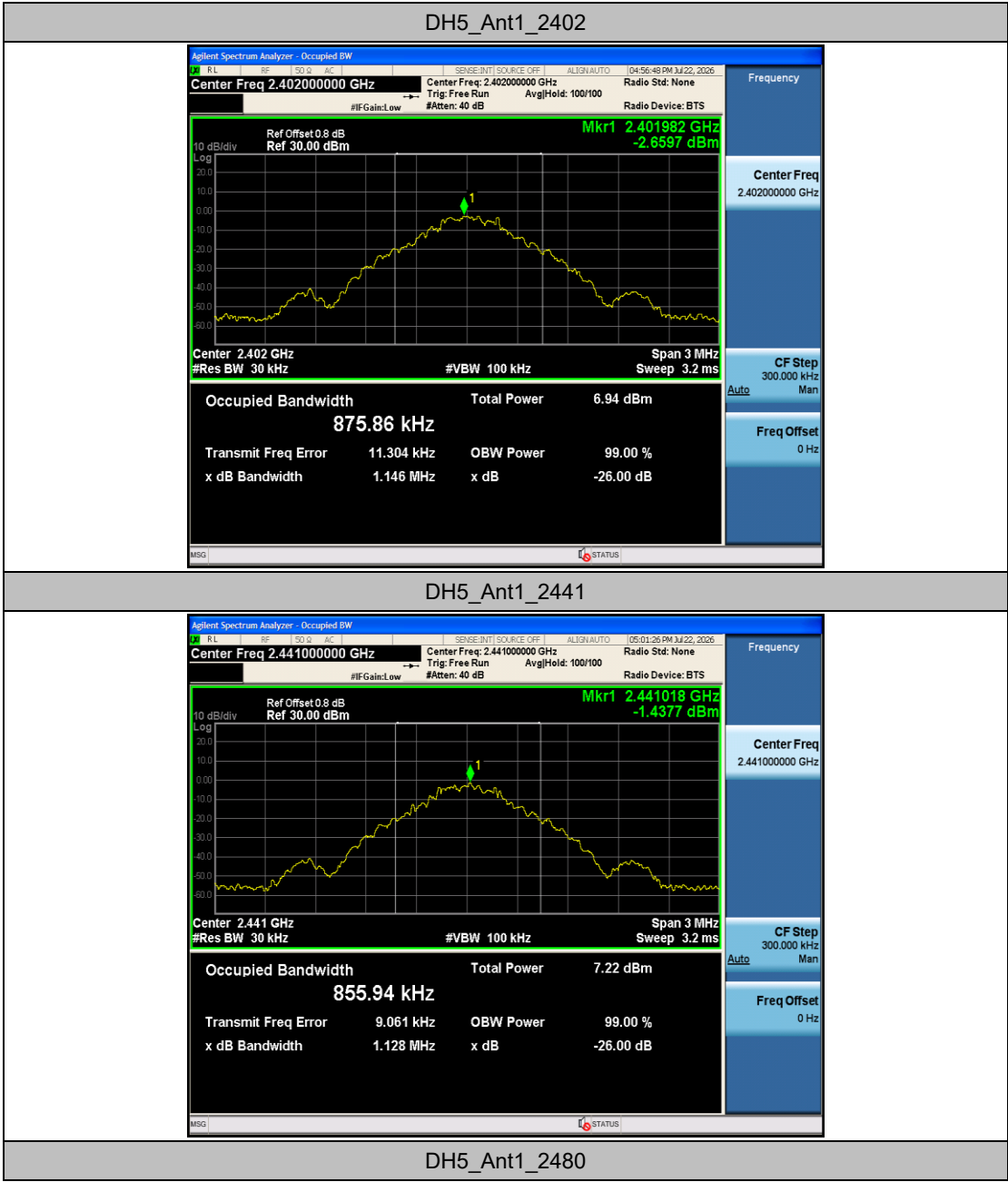


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.87586	2401.5734	2402.4492	---	---
		2441	0.85594	2440.5811	2441.4370	---	---
		2480	0.86945	2479.5741	2480.4435	---	---
2DH5	Ant1	2402	1.2050	2401.4064	2402.6114	---	---
		2441	1.1912	2440.4146	2441.6058	---	---
		2480	1.1900	2479.4159	2480.6059	---	---

Test Graphs





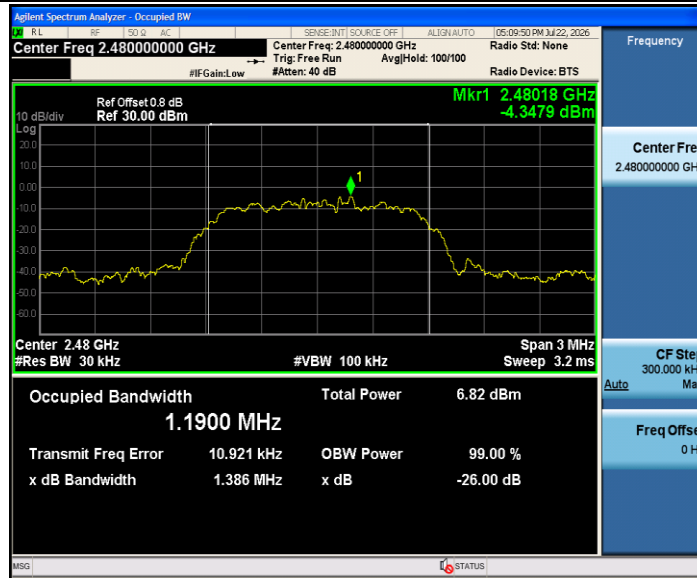
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.47	≤20.97	PASS
		2441	0.35	≤20.97	PASS
		2480	0.14	≤20.97	PASS
2DH5	Ant1	2402	3.17	≤20.97	PASS
		2441	3.00	≤20.97	PASS
		2480	2.77	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.994	≥ 0.972	PASS
2DH5	Ant1	Hop	1.16	≥ 0.880	PASS

Test Graphs

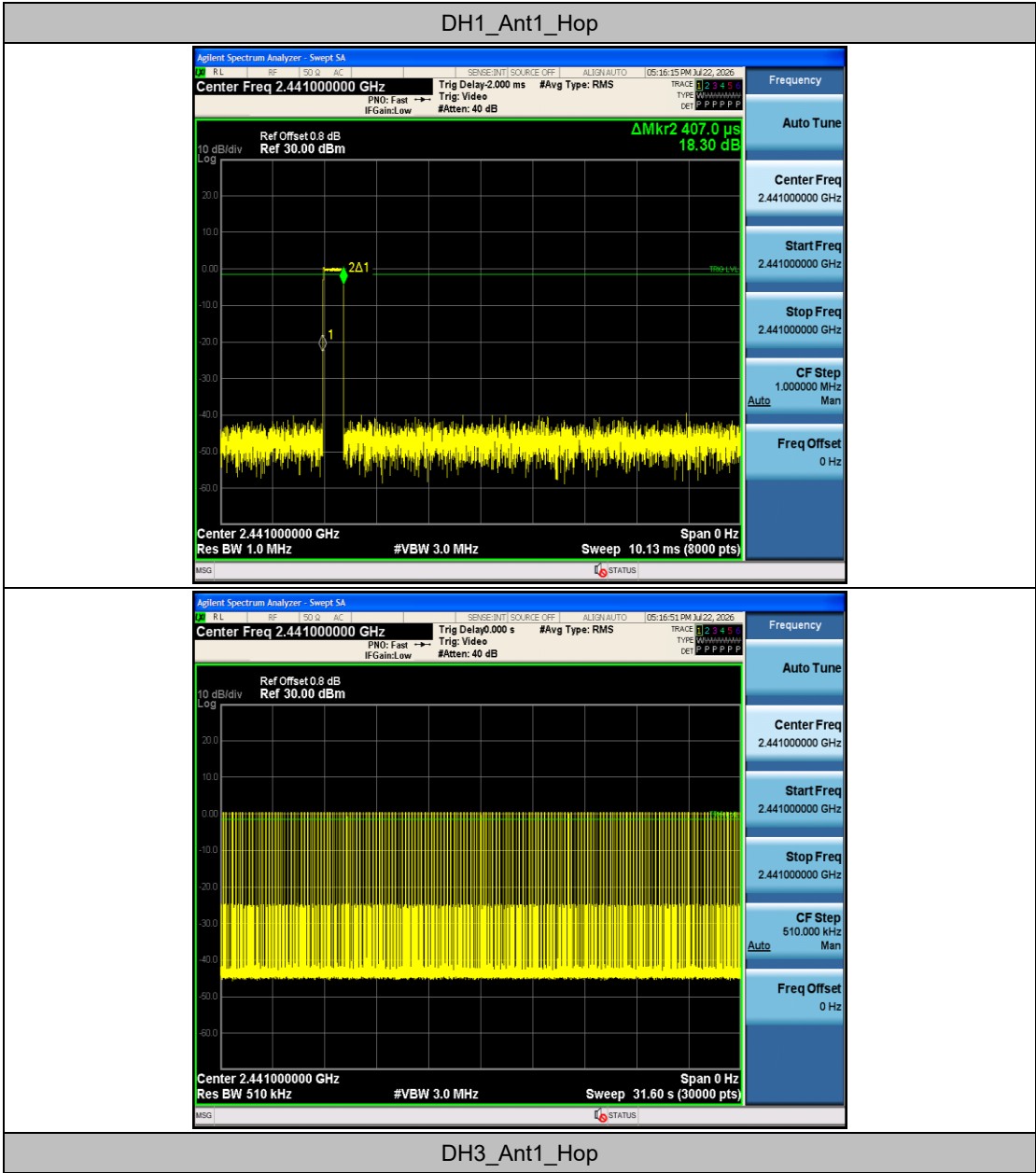


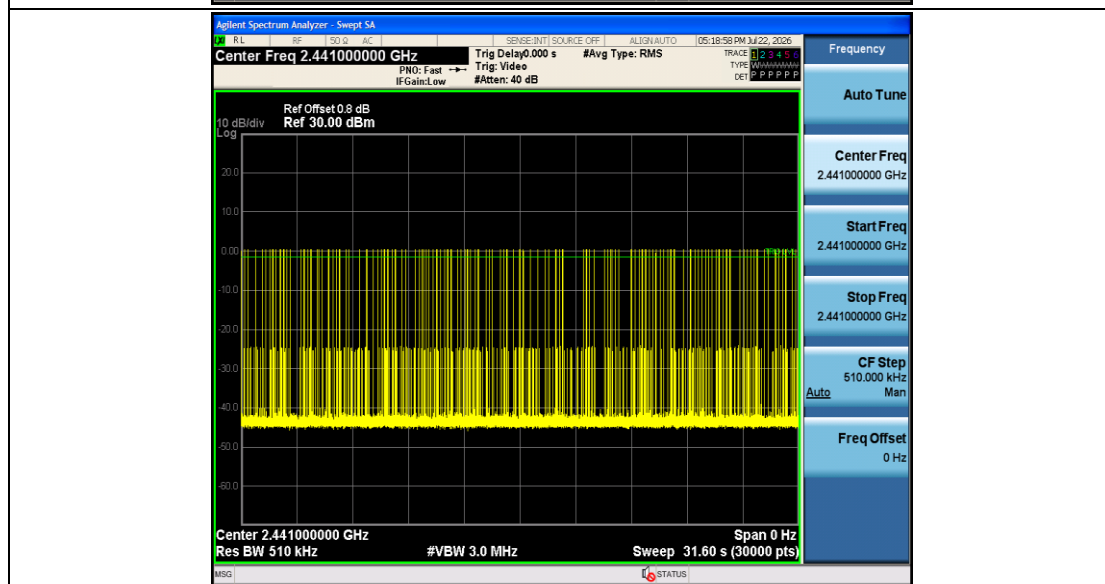
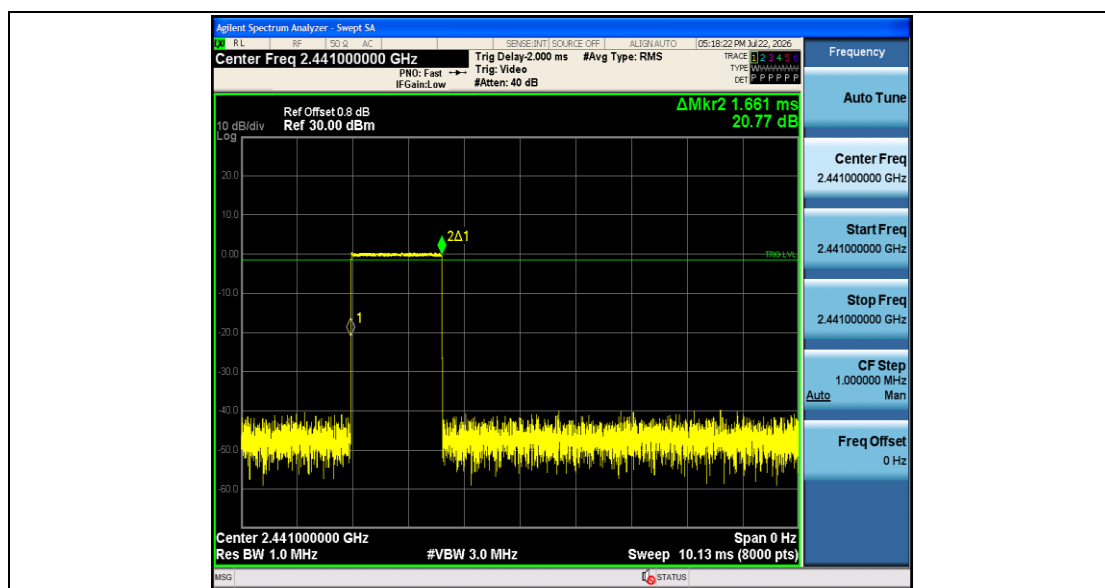
Appendix E: Time of occupancy

Test Result

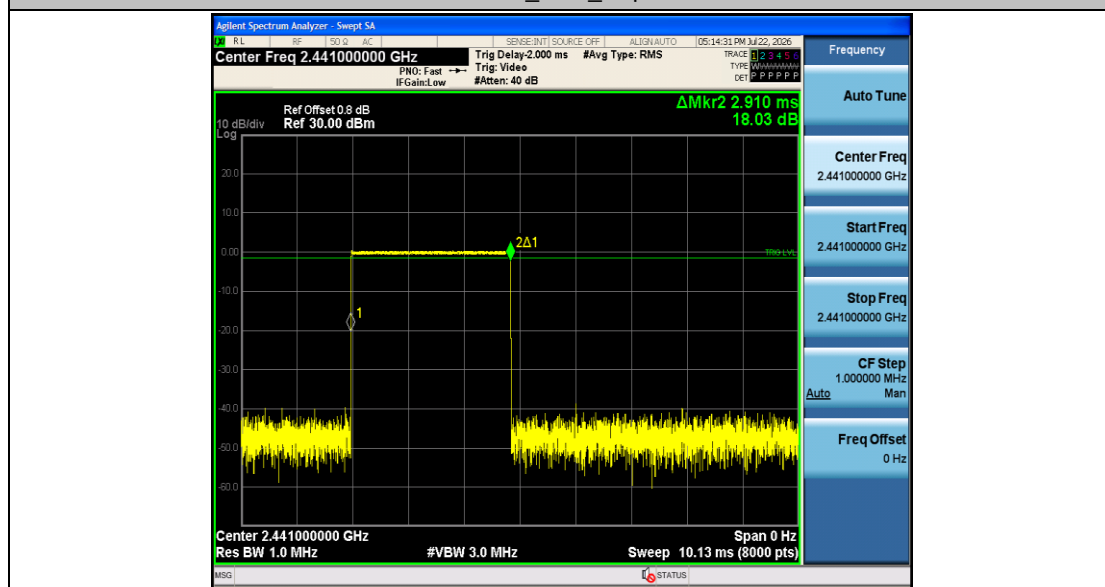
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	318	0.129	≤0.4	PASS
DH3	Ant1	Hop	1.661	156	0.259	≤0.4	PASS
DH5	Ant1	Hop	2.910	109	0.317	≤0.4	PASS
2DH1	Ant1	Hop	0.414	318	0.132	≤0.4	PASS
2DH3	Ant1	Hop	1.667	155	0.258	≤0.4	PASS
2DH5	Ant1	Hop	2.915	97	0.283	≤0.4	PASS

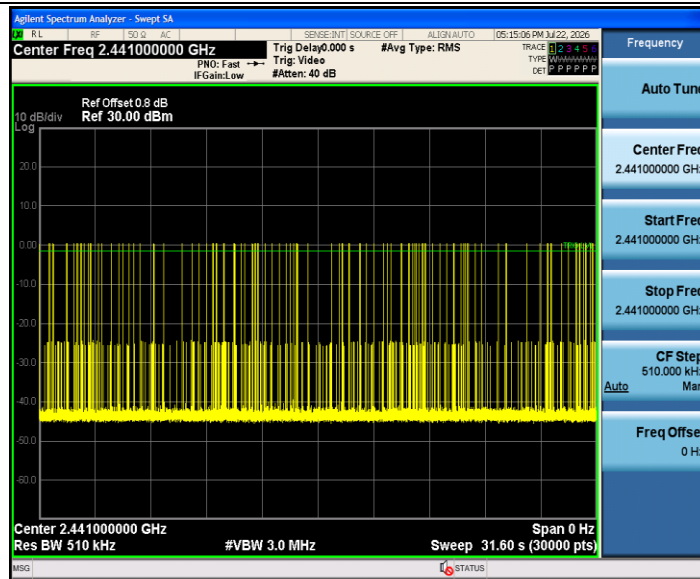
Test Graphs



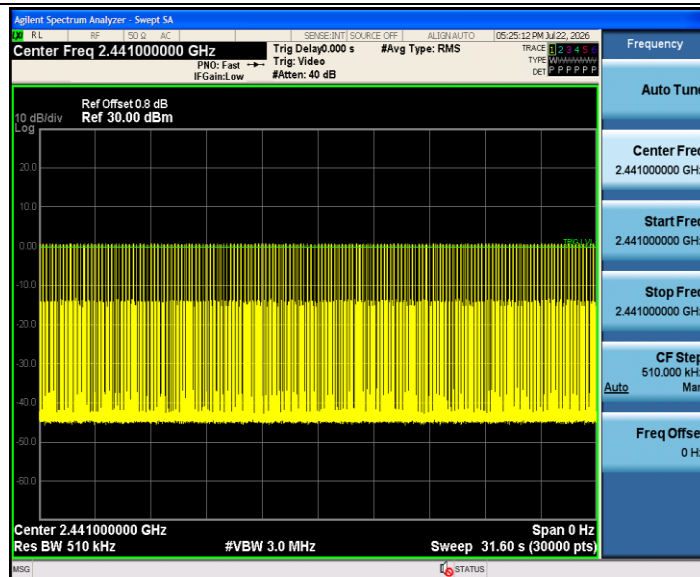
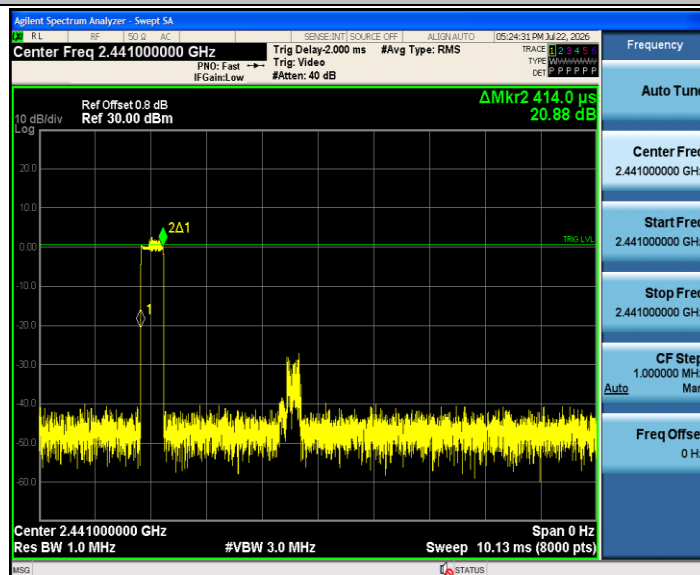


DH5_Ant1_Hop

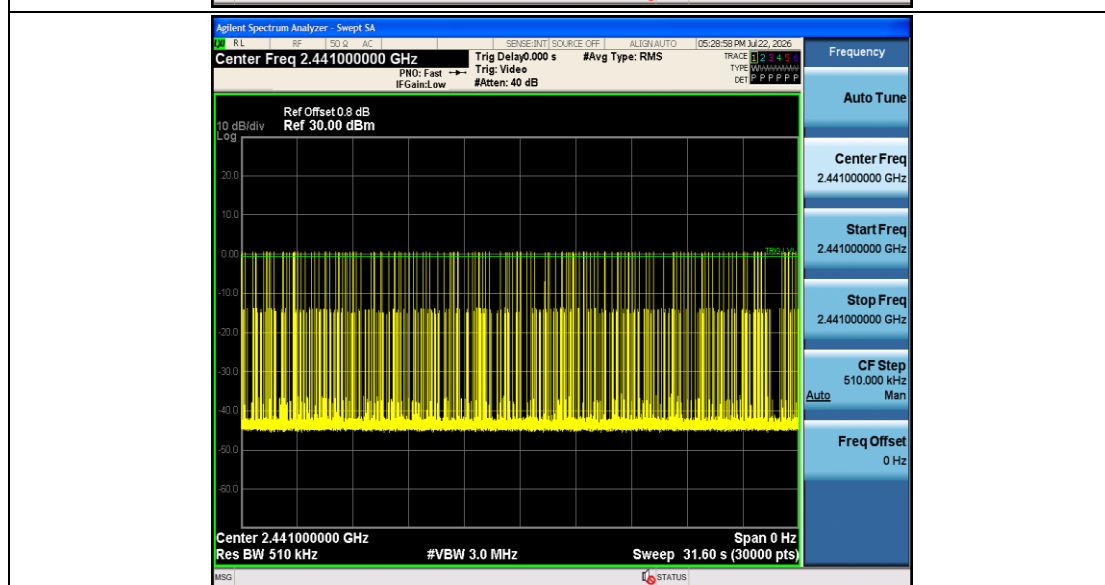
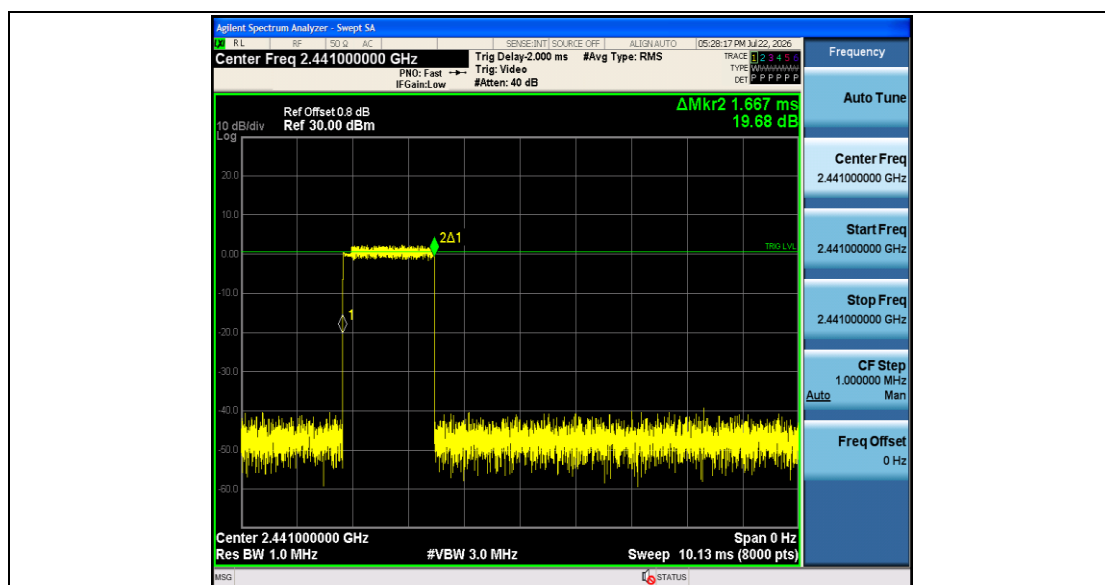




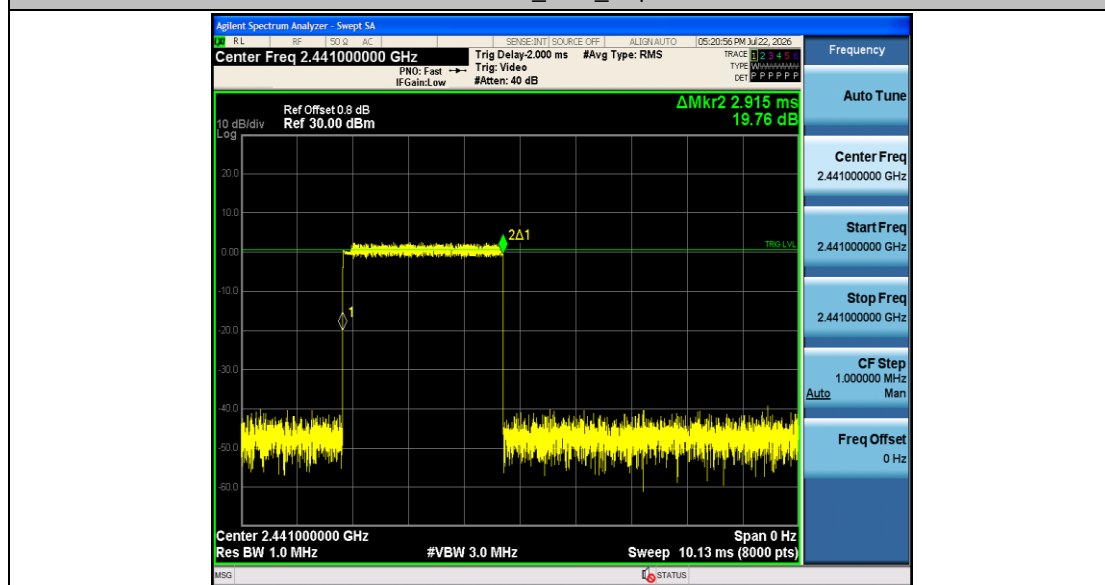
2DH1_Ant1_Hop

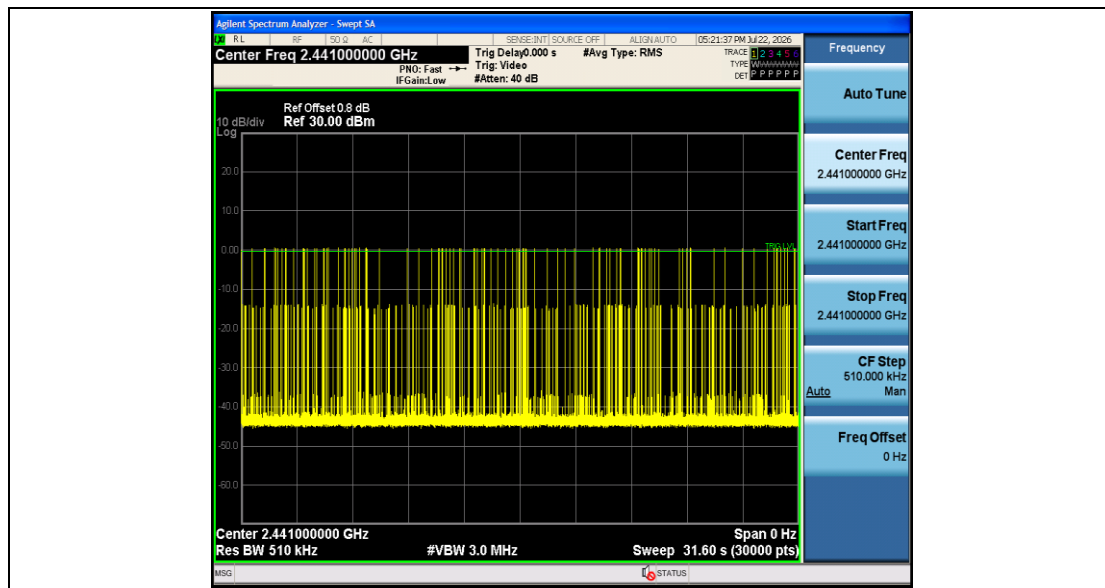


2DH3_Ant1_Hop



2DH5_Ant1_Hop



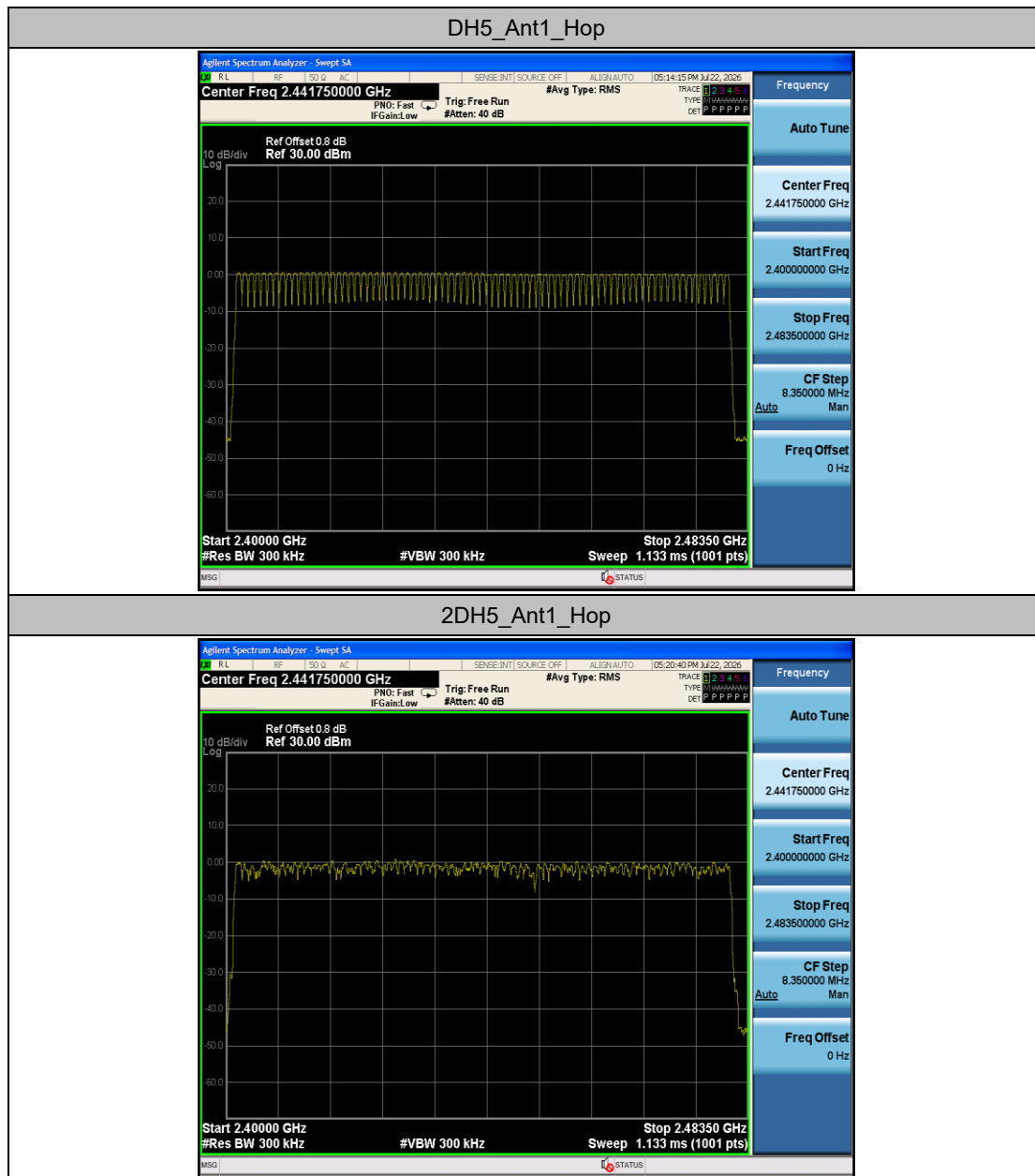


Appendix F: Number of hopping channels

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

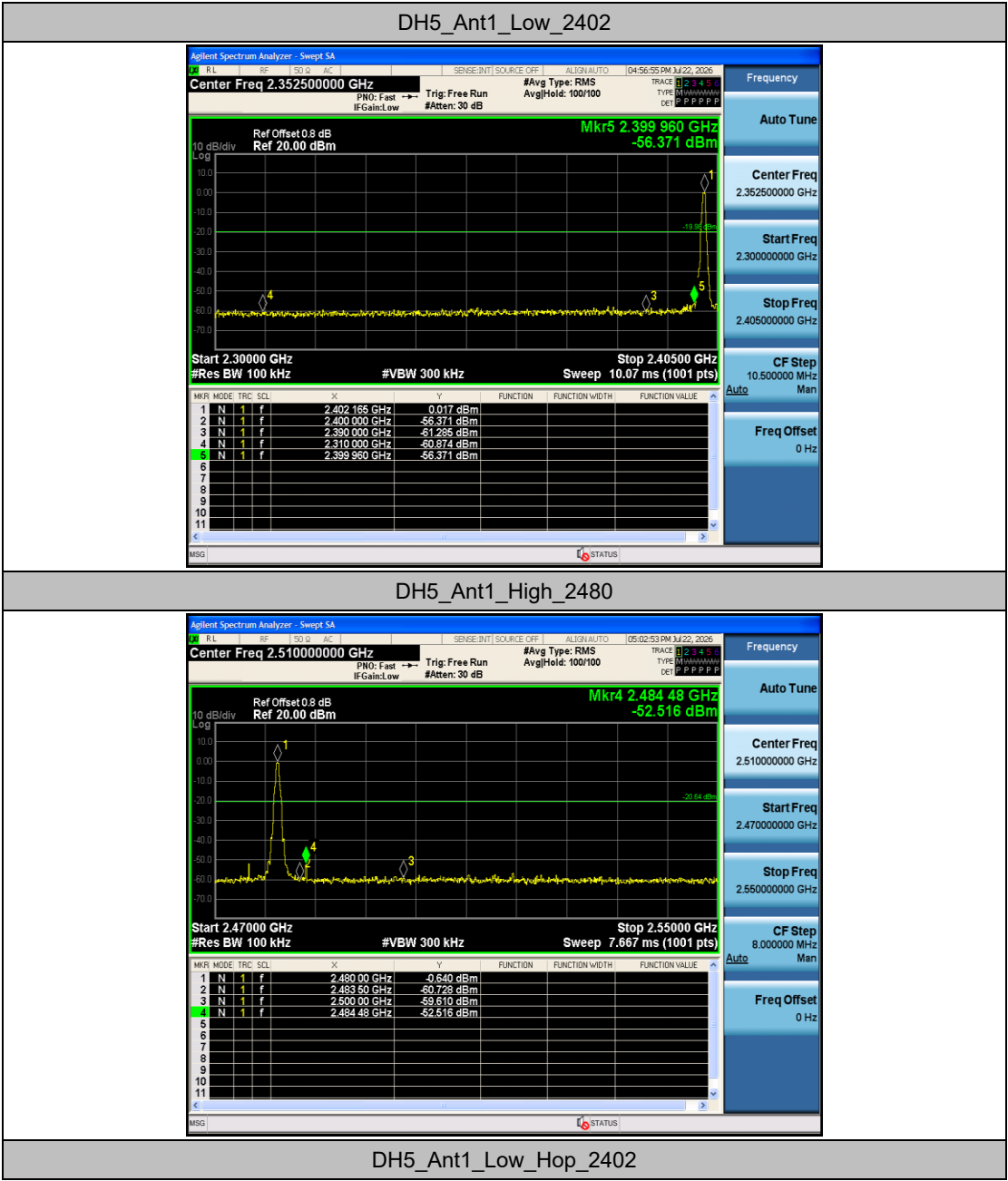


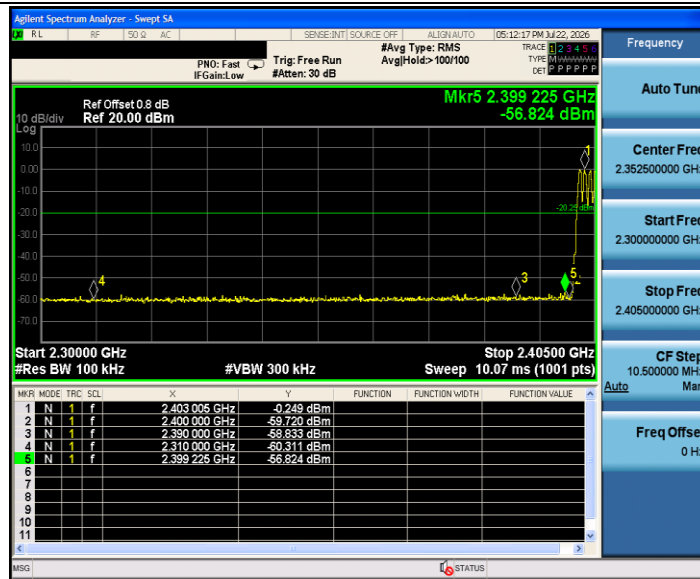
Appendix G: Band edge measurements

Test Result

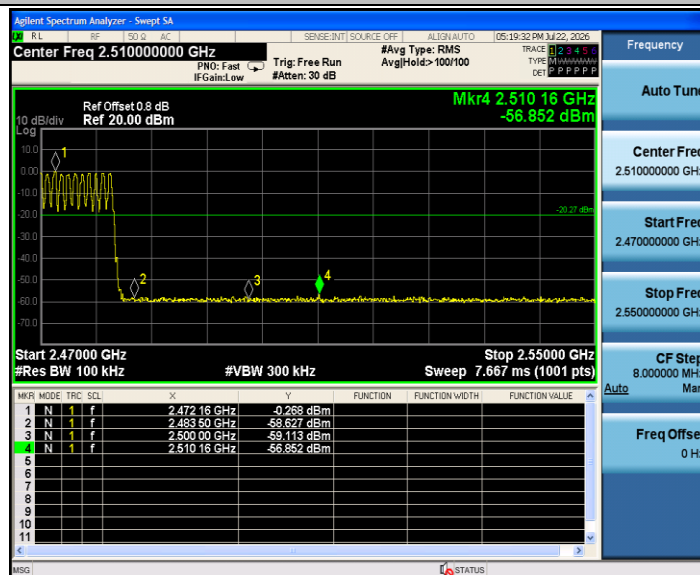
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.02	-56.37	≤-19.98	PASS
		High	2480	-0.64	-52.52	≤-20.64	PASS
		Low	Hop_2402	-0.25	-56.82	≤-20.25	PASS
		High	Hop_2480	-0.27	-56.85	≤-20.27	PASS
2DH5	Ant1	Low	2402	-0.64	-48.36	≤-20.64	PASS
		High	2480	-0.23	-55.17	≤-20.23	PASS
		Low	Hop_2402	-1.79	-50.65	≤-21.79	PASS
		High	Hop_2480	-0.55	-57.02	≤-20.55	PASS

Test Graphs

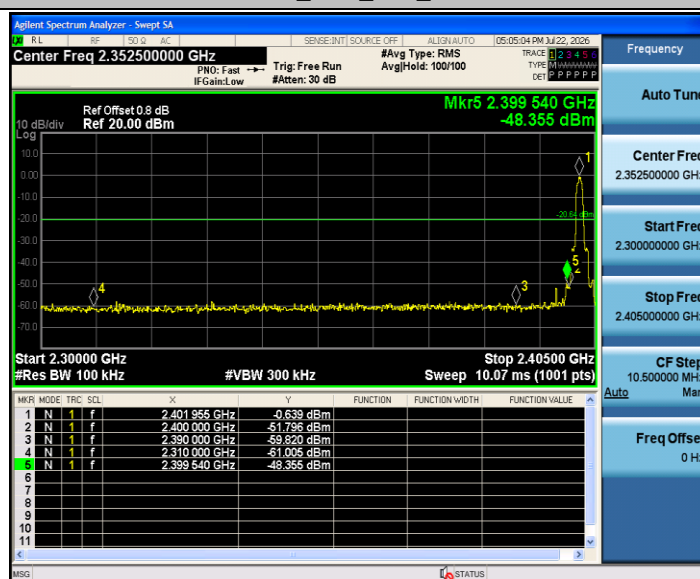




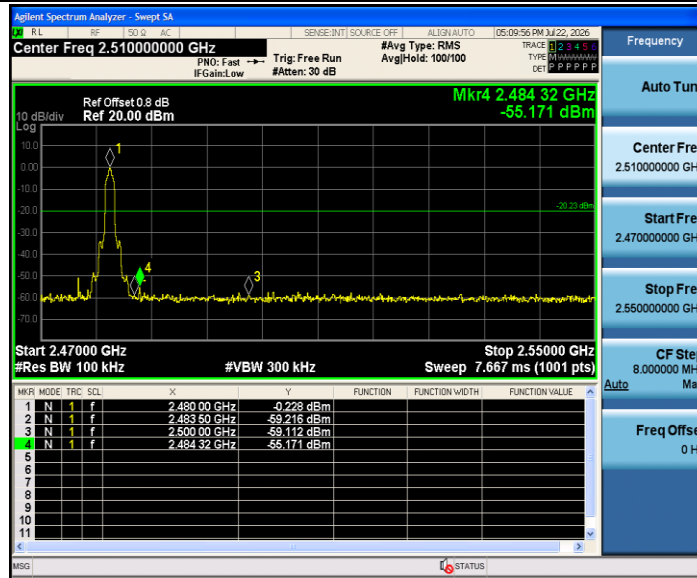
DH5_Ant1_High_Hop_2480



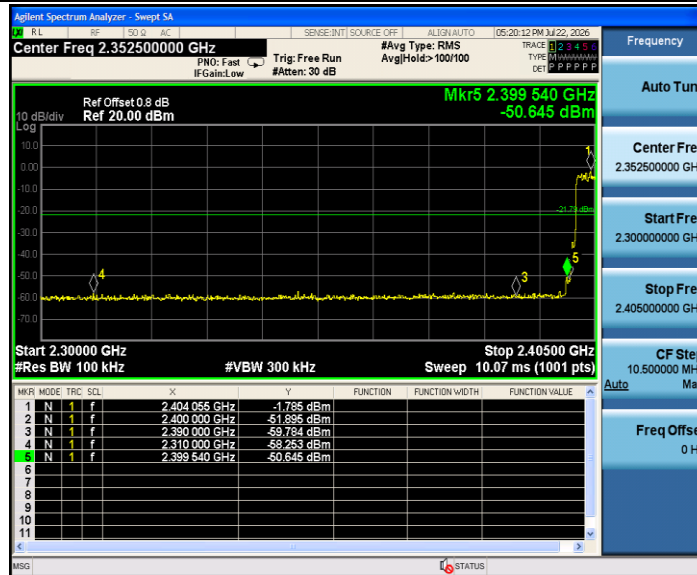
2DH5_Ant1_Low_2402



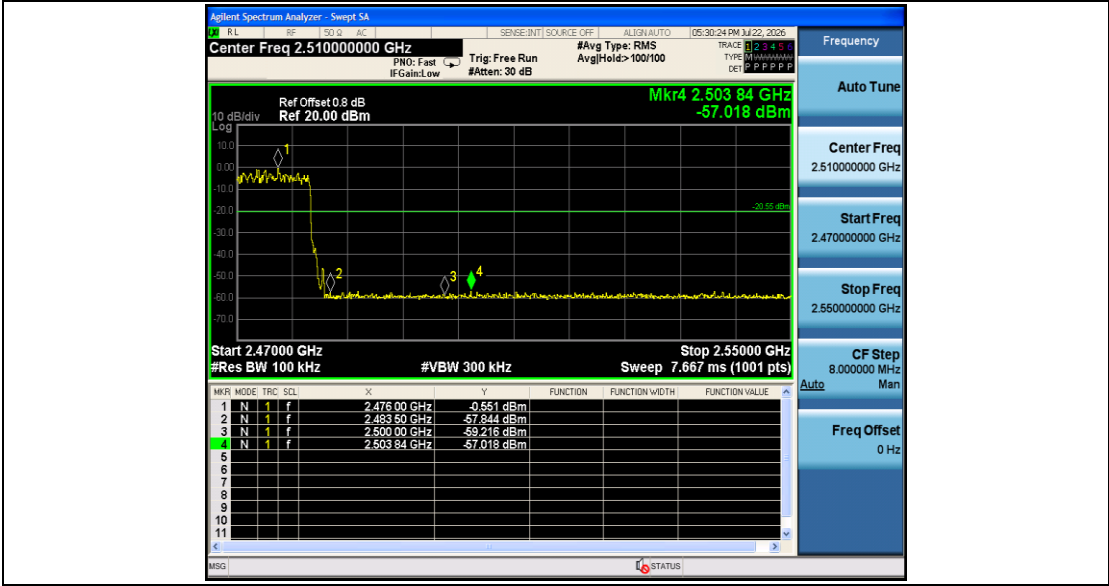
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

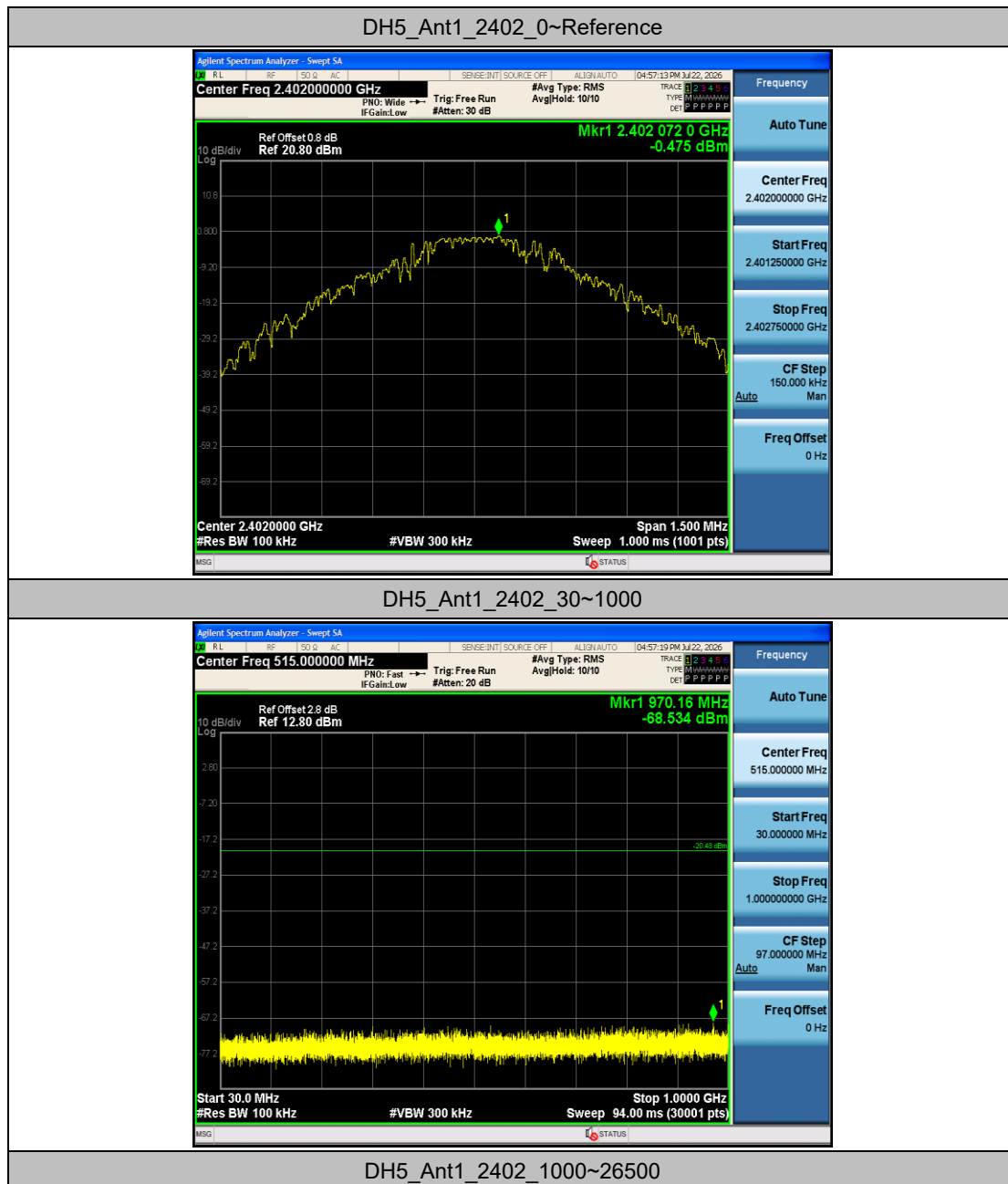


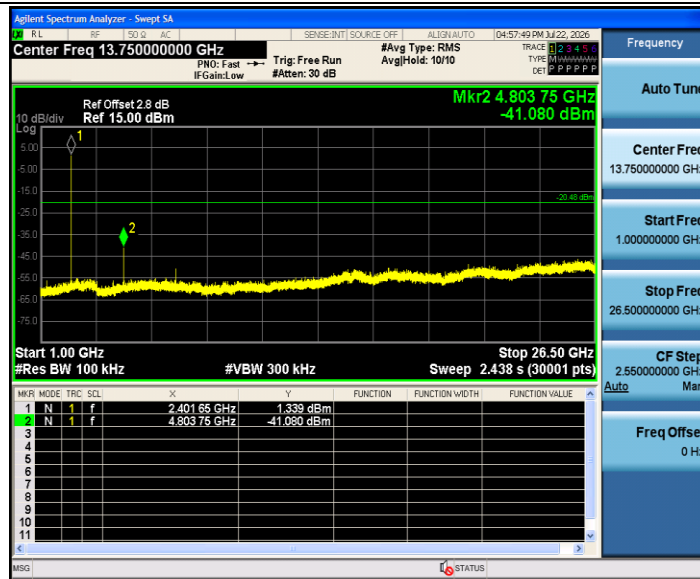
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.48	-0.48	---	PASS
			30~1000	-0.48	-68.53	≤-20.48	PASS
			1000~26500	-0.48	-41.08	≤-20.48	PASS
		2441	Reference	-0.65	-0.65	---	PASS
			30~1000	-0.65	-68.52	≤-20.65	PASS
			1000~26500	-0.65	-42.23	≤-20.65	PASS
		2480	Reference	-1.04	-1.04	---	PASS
			30~1000	-1.04	-68.52	≤-21.04	PASS
			1000~26500	-1.04	-42.78	≤-21.04	PASS
2DH5	Ant1	2402	Reference	-1.60	-1.60	---	PASS
			30~1000	-1.60	-68.58	≤-21.6	PASS
			1000~26500	-1.60	-40.84	≤-21.6	PASS
		2441	Reference	-0.67	-0.67	---	PASS
			30~1000	-0.67	-68.19	≤-20.67	PASS
			1000~26500	-0.67	-43.58	≤-20.67	PASS
		2480	Reference	-1.19	-1.19	---	PASS
			30~1000	-1.19	-67.32	≤-21.19	PASS
			1000~26500	-1.19	-43.91	≤-21.19	PASS

Test Graphs

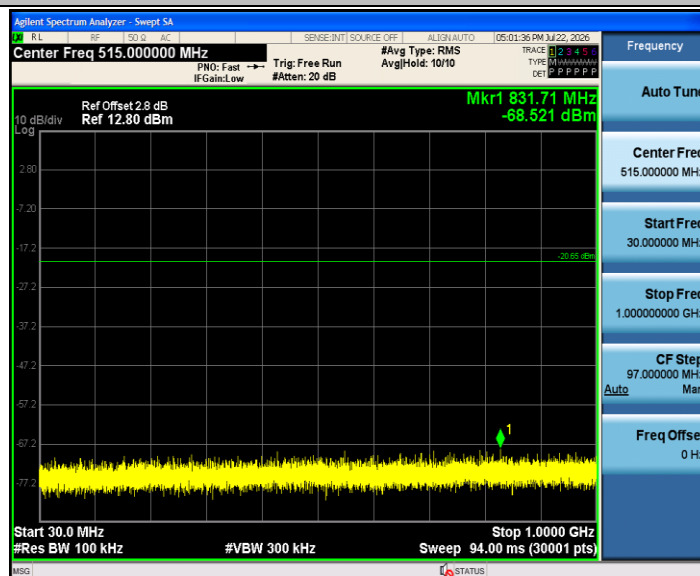




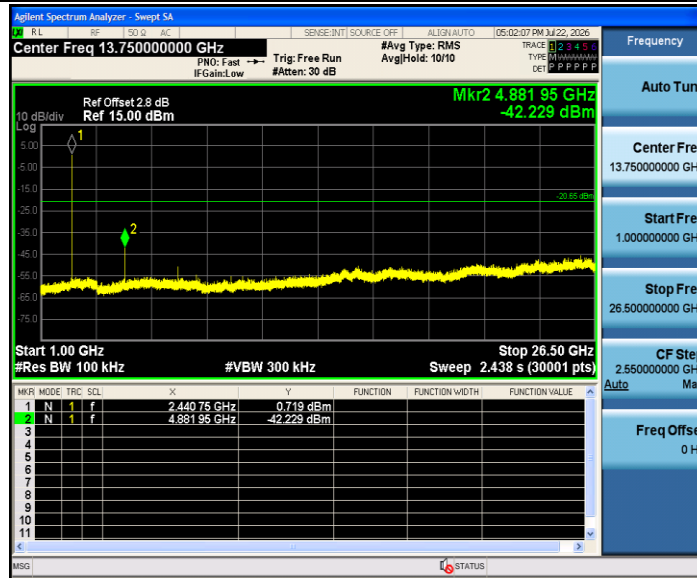
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



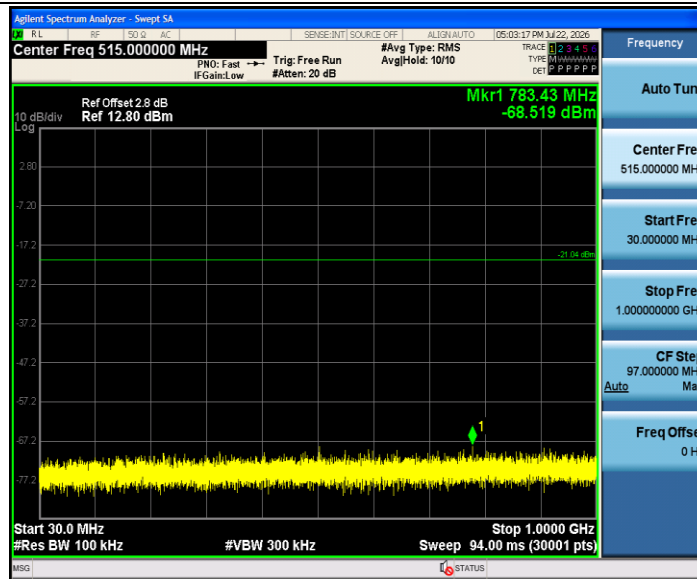
DH5_Ant1_2441_1000~26500



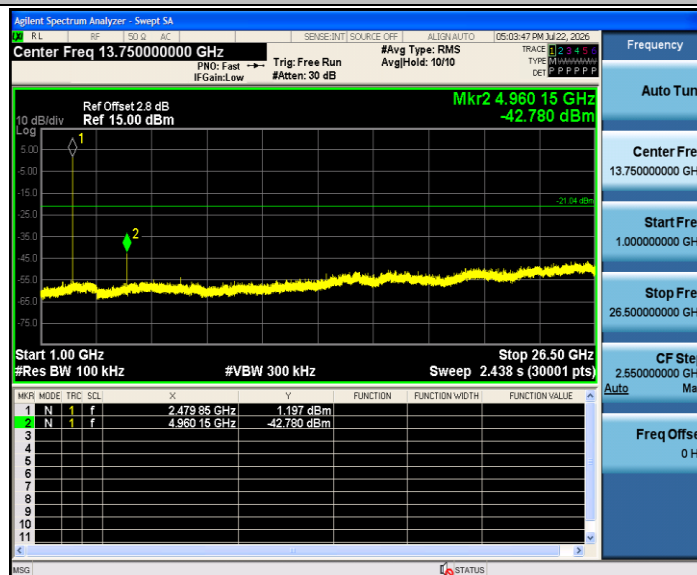
DH5_Ant1_2480_0~Reference



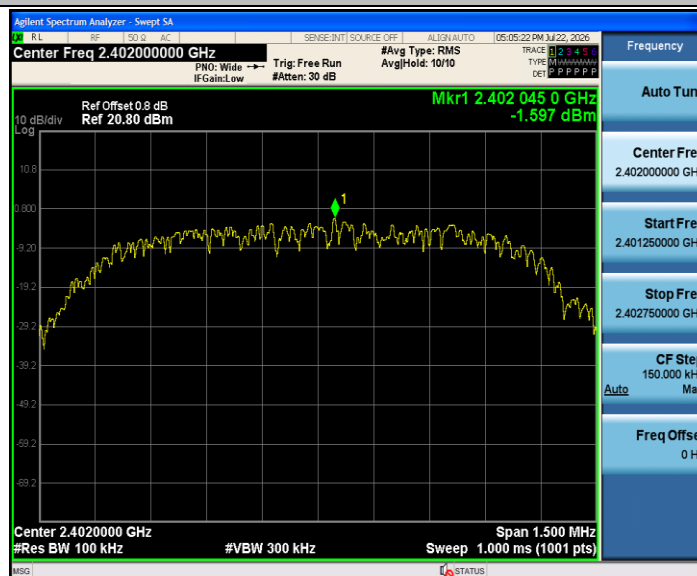
DH5_Ant1_2480_30~1000



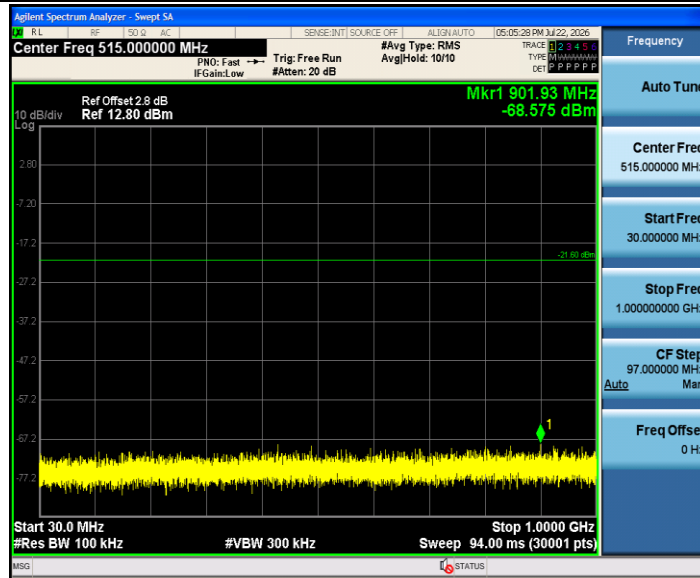
DH5_Ant1_2480_1000~26500



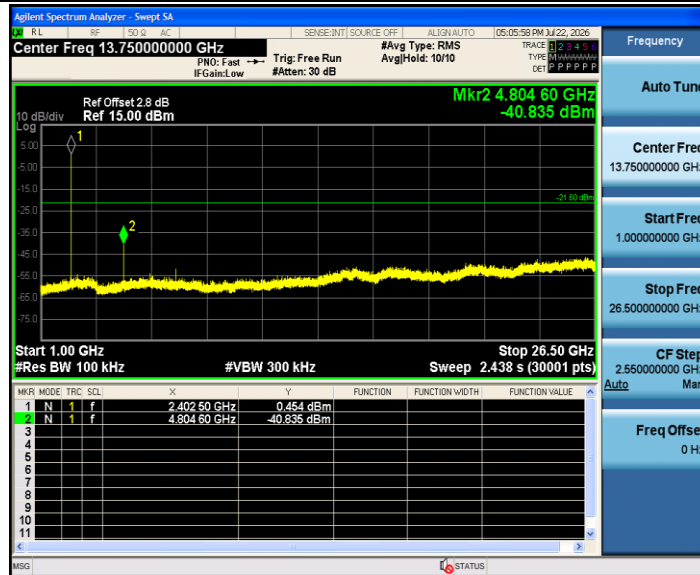
2DH5_Ant1_2402_0~Reference



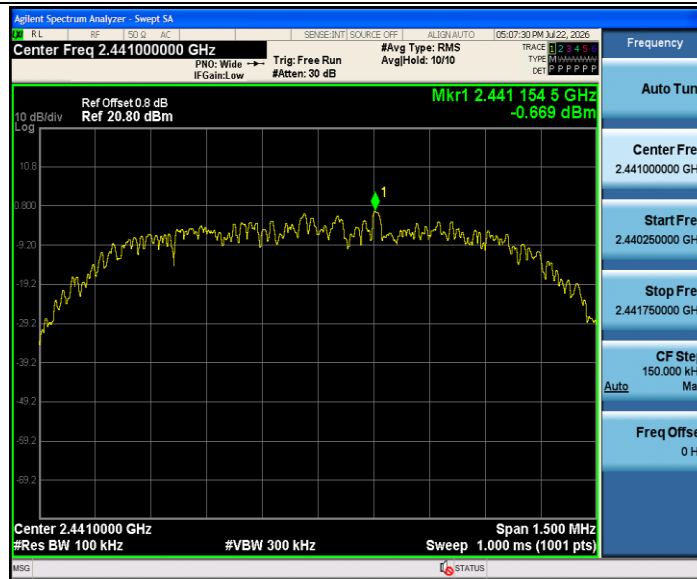
2DH5_Ant1_2402_30~1000



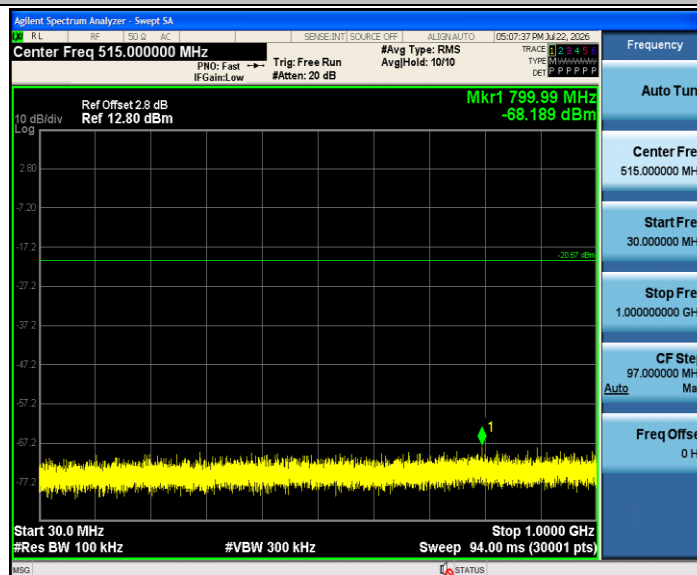
2DH5_Ant1_2402_1000~26500



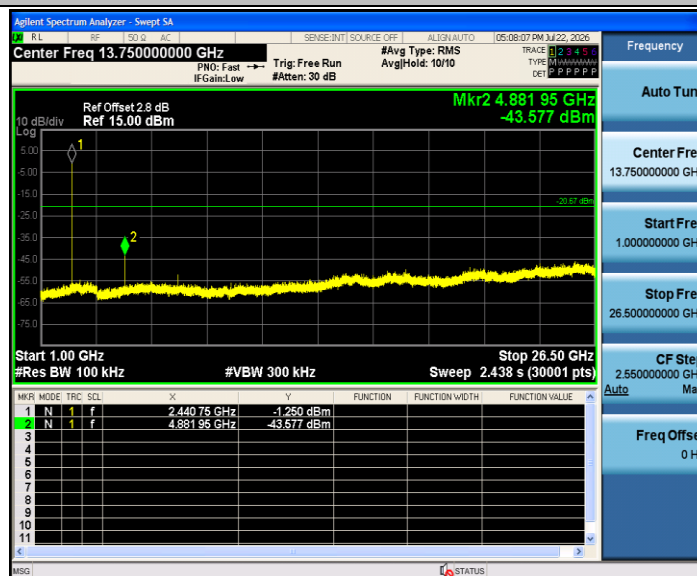
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



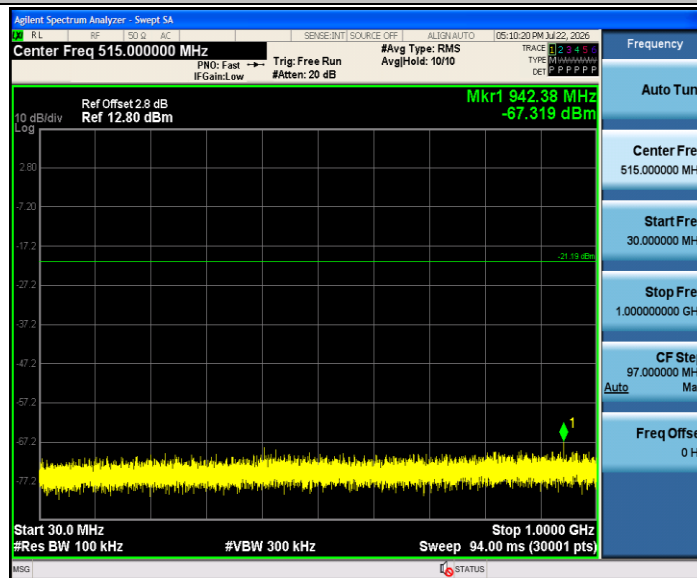
2DH5_Ant1_2441_1000~26500



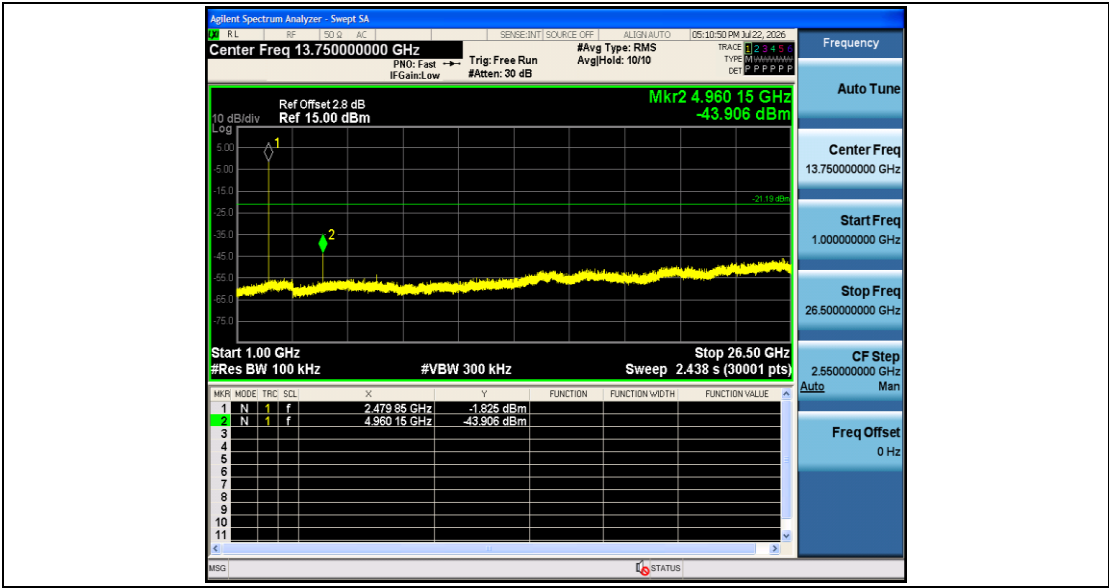
2DH5_Ant1_2480_0~Reference



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	3.76	77.66	1.10	---	---
		2480	2.91	3.75	77.60	1.10	---	---
2DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.92	3.76	77.66	1.10	---	---
		2480	2.92	3.75	77.87	1.09	---	---