

FCC Appendix RF Test Data for BT

FCC ID : 2BYNS-CY-TB01-BT

Company : Dongguan Chuangyu Technology Co., Ltd.

EUT : Rotating Base

Model Number : CY-TB01-BT

Report No. : CTA26090201101

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	1.347	2401.331	2402.678	---	---
		2441	1.359	2440.328	2441.687	---	---
		2480	1.338	2479.340	2480.678	---	---
2DH5	Ant1	2402	1.314	2401.352	2402.666	---	---
		2441	1.281	2440.376	2441.657	---	---
		2480	1.314	2479.355	2480.669	---	---

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.40200000 GHz

Ref Offset 0.4 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)

ΔMkr3 1.347 MHz
0.367 dB

Center 2.402000 GHz
#Res BW 30 kHz
#VBW 100 kHz

MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401331 GHz	-28.610 dBm			
2	N	1	f	2.401937 GHz	-9.162 dBm			
3	Δ	1	f (Δ)	1.347 MHz (Δ)	0.367 dB			

Frequency

Auto Tune

Center Freq
2.402000000 GHz

Start Freq
2.400500000 GHz

Stop Freq
2.403500000 GHz

CF Step
300.000 kHz
Man

Freq Offset
0 Hz

MSO

STATUS

DH5_Ant1_2402

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 0.4 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)

ΔMkr3 1.359 MHz
-0.022 dB

Center 2.441000 GHz
#Res BW 30 kHz
#VBW 100 kHz

MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.440328 GHz	-29.871 dBm			
2	N	1	f	2.440922 GHz	-9.229 dBm			
3	Δ	1	f (Δ)	1.359 MHz (Δ)	-0.022 dB			

Frequency

Auto Tune

Center Freq
2.441000000 GHz

Start Freq
2.439500000 GHz

Stop Freq
2.442500000 GHz

CF Step
300.000 kHz
Man

Freq Offset
0 Hz

MSO

STATUS

DH5_Ant1_2441



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

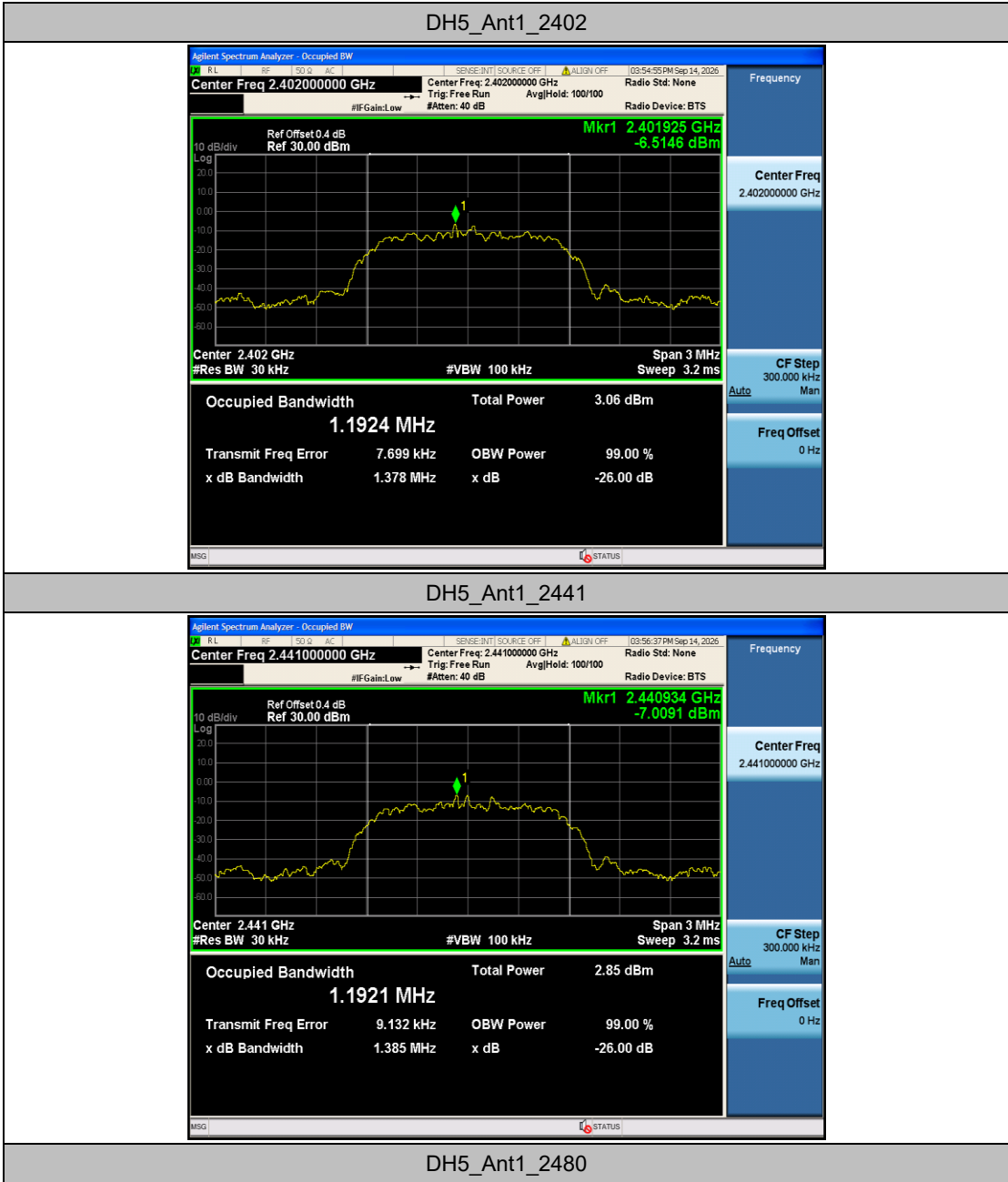


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.1924	2401.4115	2402.6039	---	---
		2441	1.1921	2440.4131	2441.6052	---	---
		2480	1.1889	2479.4166	2480.6055	---	---
2DH5	Ant1	2402	1.1895	2401.4149	2402.6044	---	---
		2441	1.1837	2440.4176	2441.6013	---	---
		2480	1.1899	2479.4136	2480.6035	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

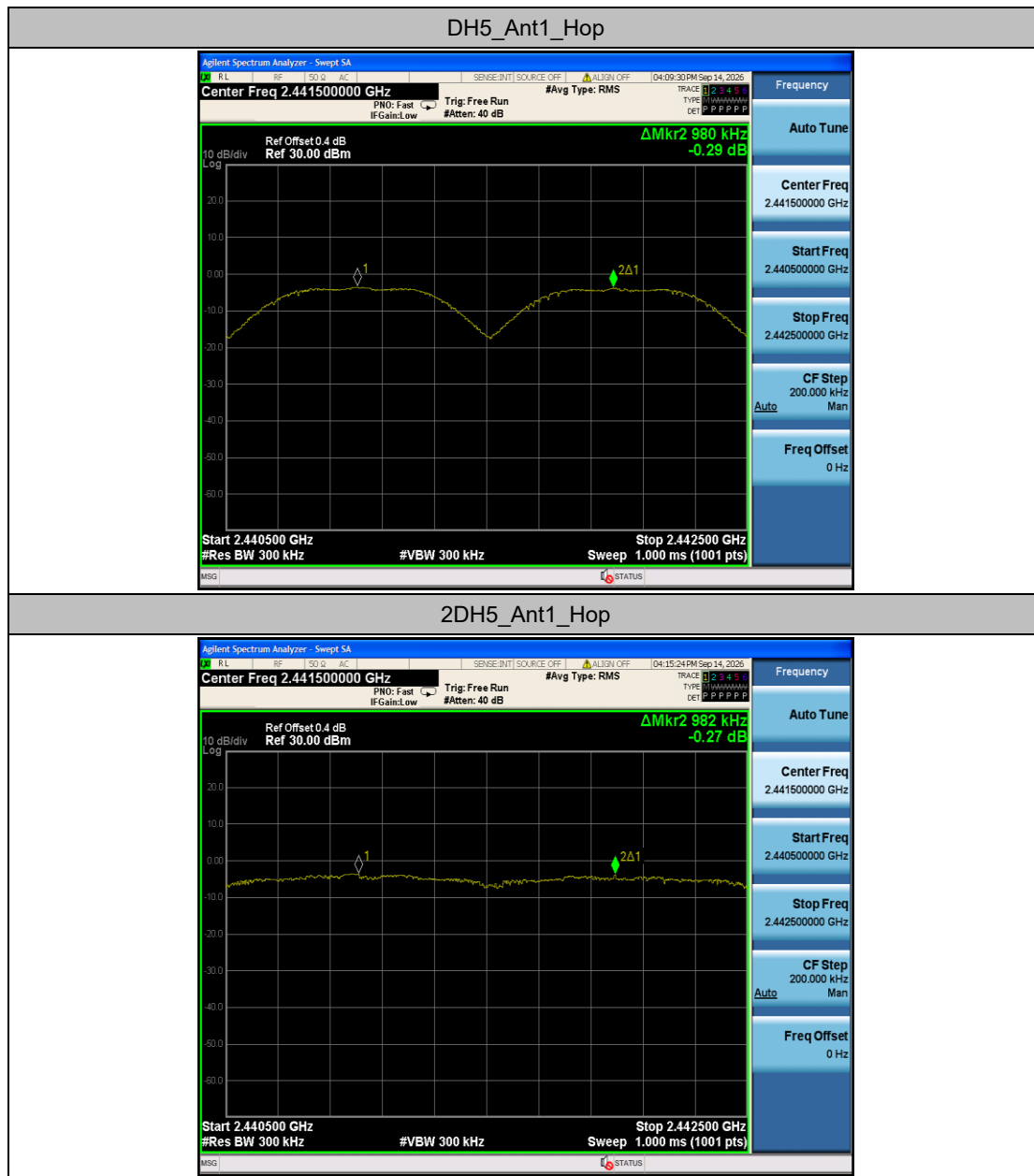
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-0.85	≤20.97	PASS
		2441	-0.95	≤20.97	PASS
		2480	-1.27	≤20.97	PASS
2DH5	Ant1	2402	-0.82	≤20.97	PASS
		2441	-1.03	≤20.97	PASS
		2480	-1.14	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.98	≥ 0.906	PASS
2DH5	Ant1	Hop	0.982	≥ 0.876	PASS

Test Graphs

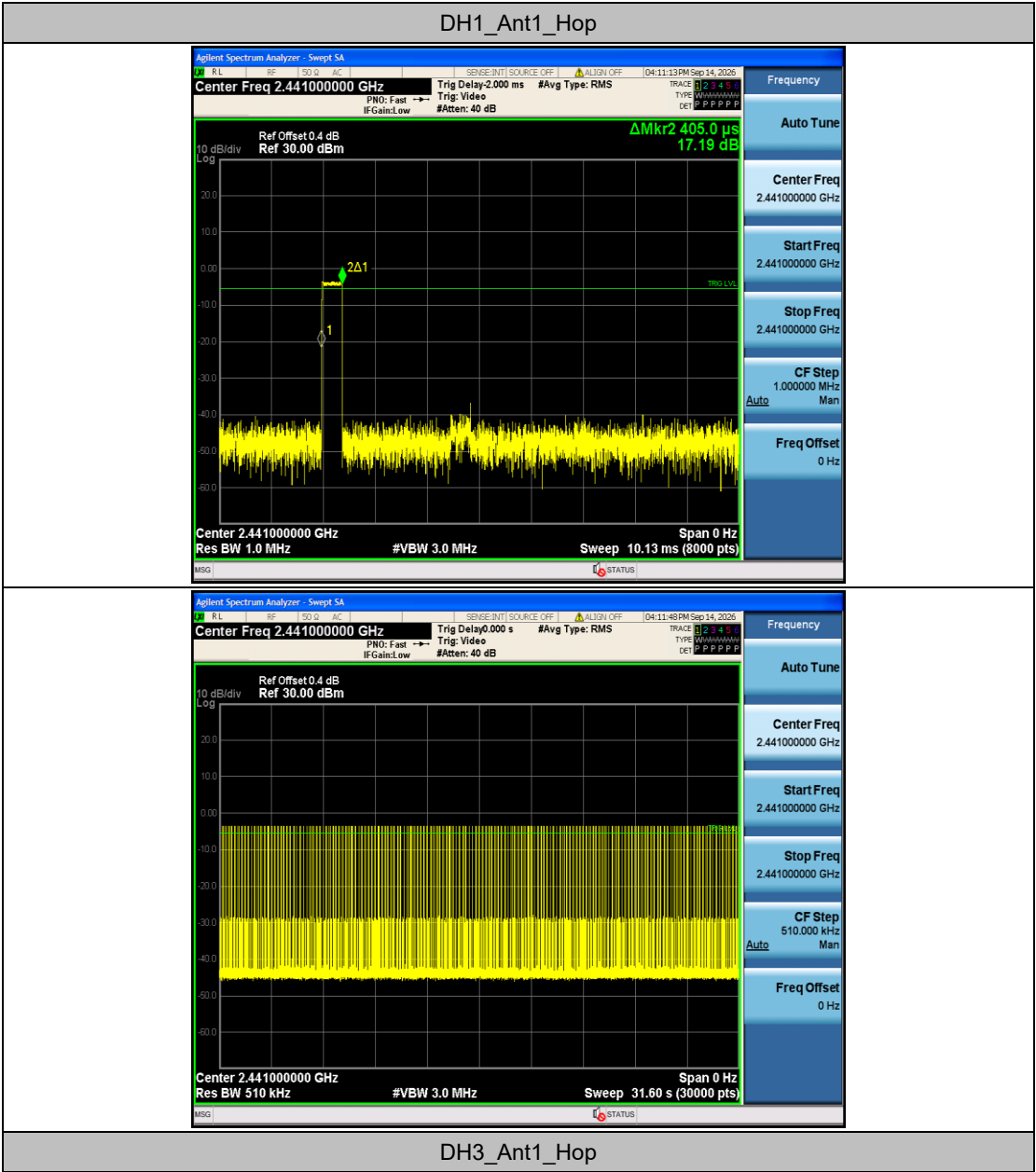


Appendix E: Time of occupancy

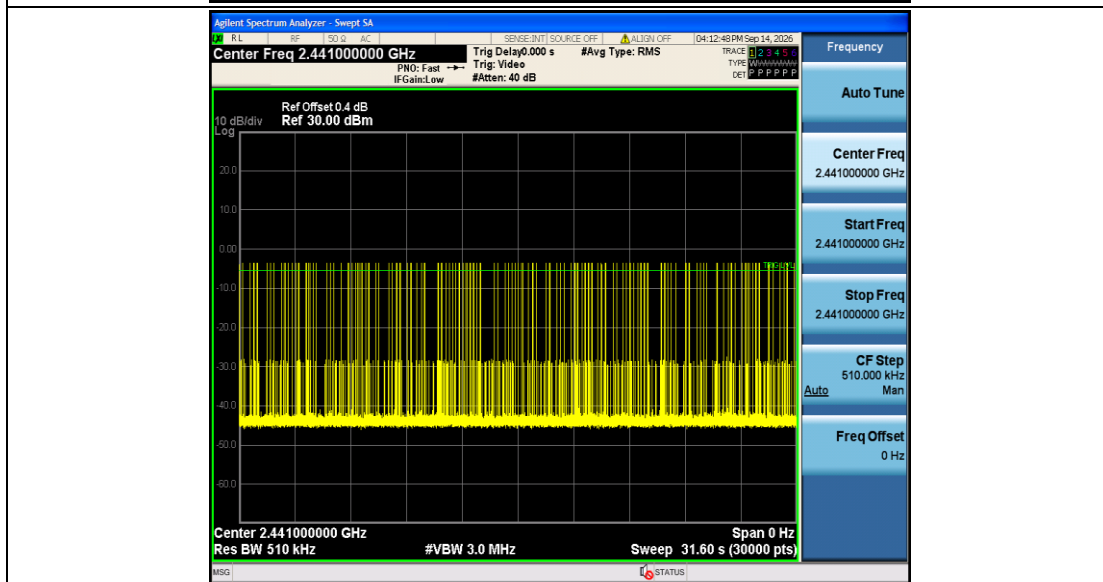
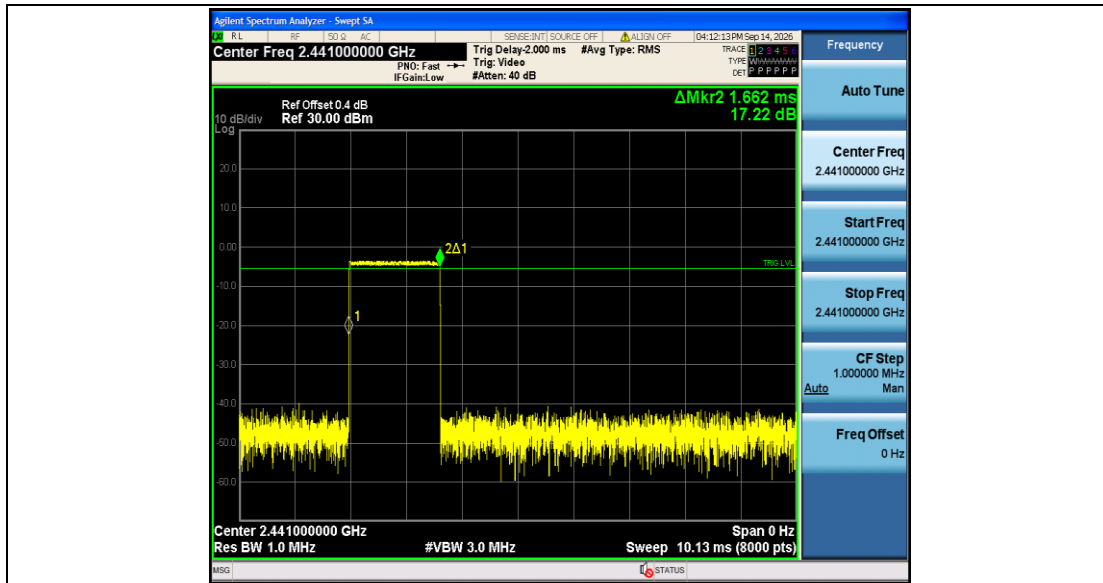
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.405	319	0.129	≤0.4	PASS
DH3	Ant1	Hop	1.662	160	0.266	≤0.4	PASS
DH5	Ant1	Hop	2.911	101	0.294	≤0.4	PASS
2DH1	Ant1	Hop	2.916	110	0.321	≤0.4	PASS
2DH3	Ant1	Hop	1.667	165	0.275	≤0.4	PASS
2DH5	Ant1	Hop	2.916	109	0.318	≤0.4	PASS

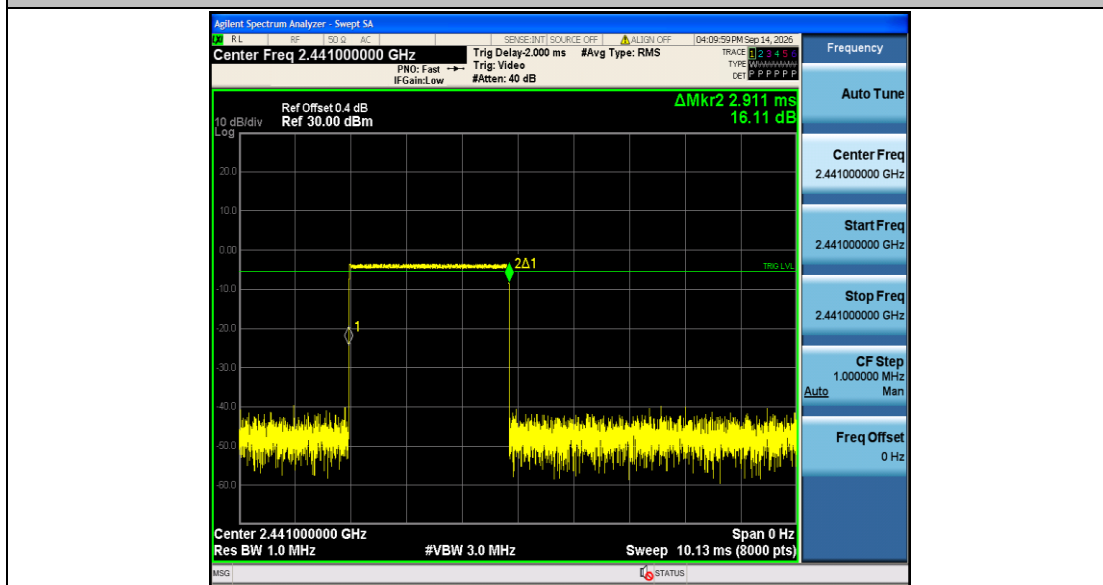
Test Graphs

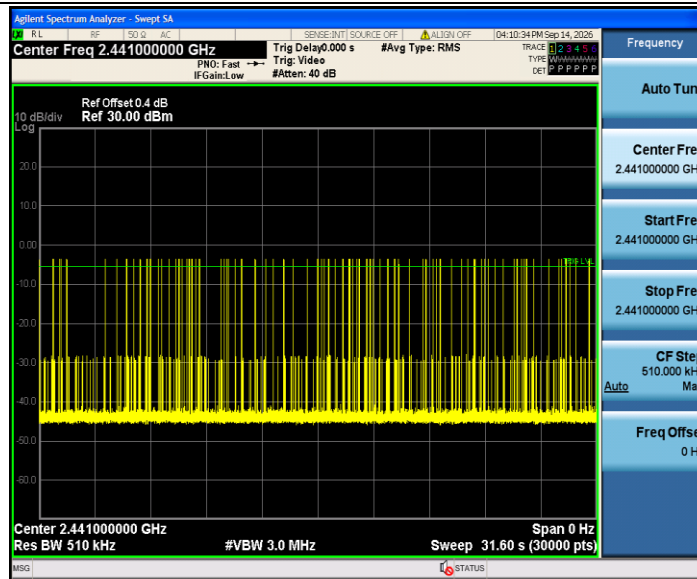


DH3_Ant1_Hop

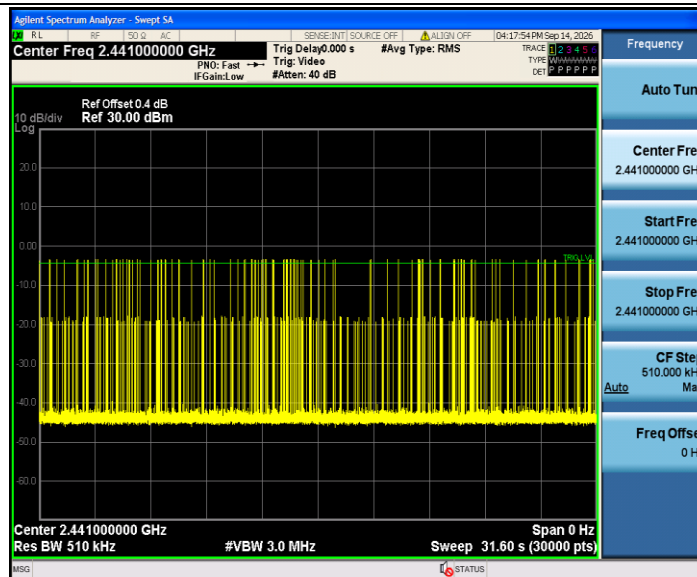
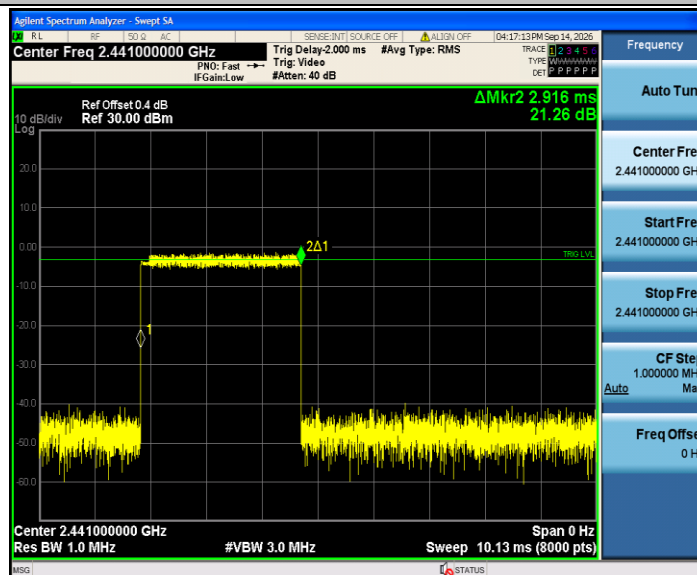


DH5_Ant1_Hop

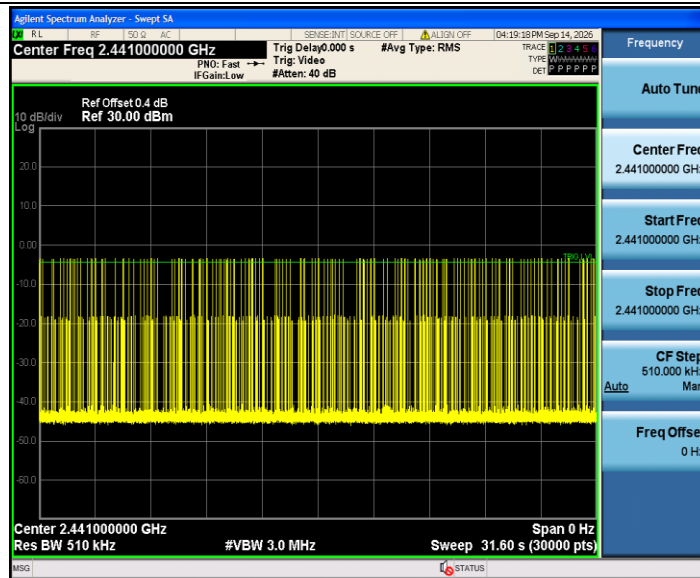
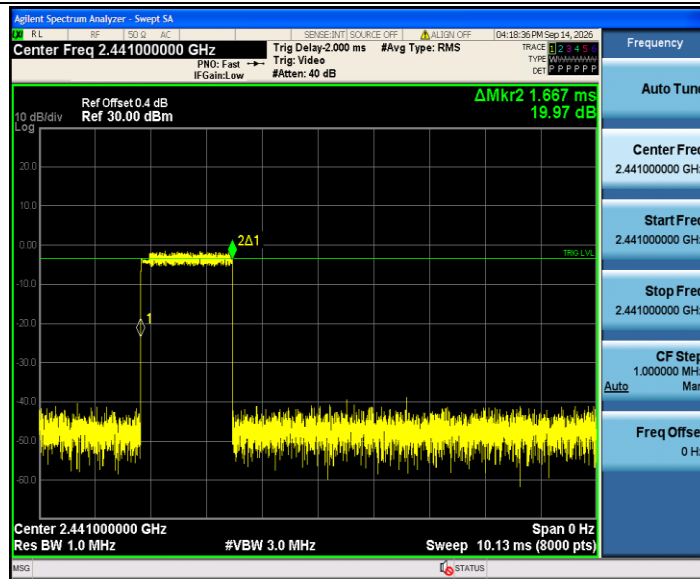




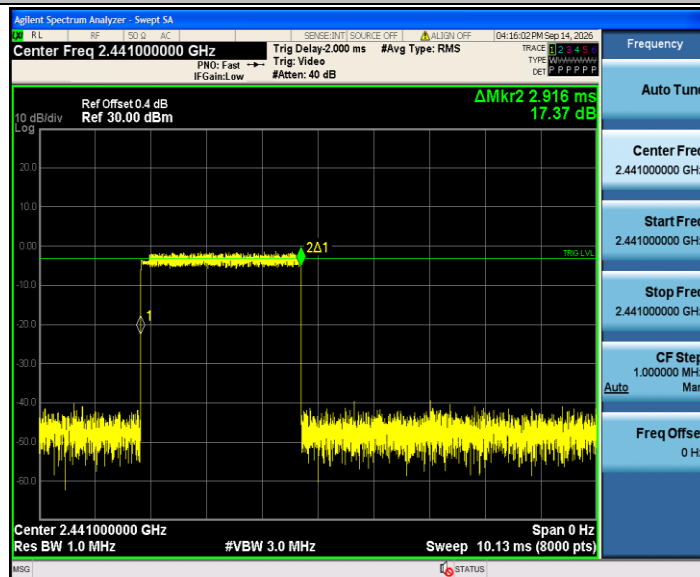
2DH1_Ant1_Hop

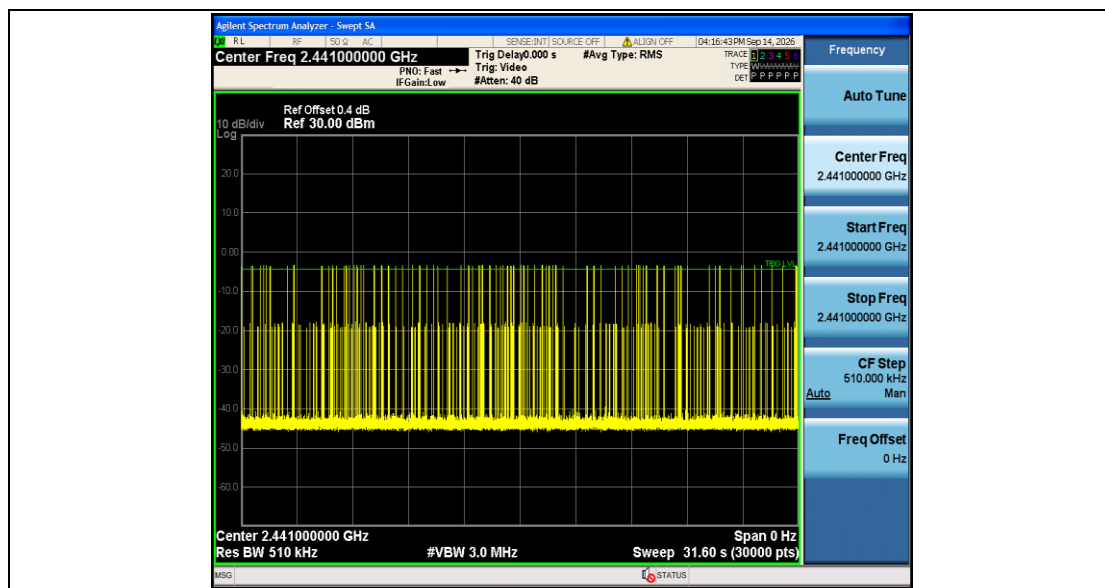


2DH3_Ant1_Hop



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



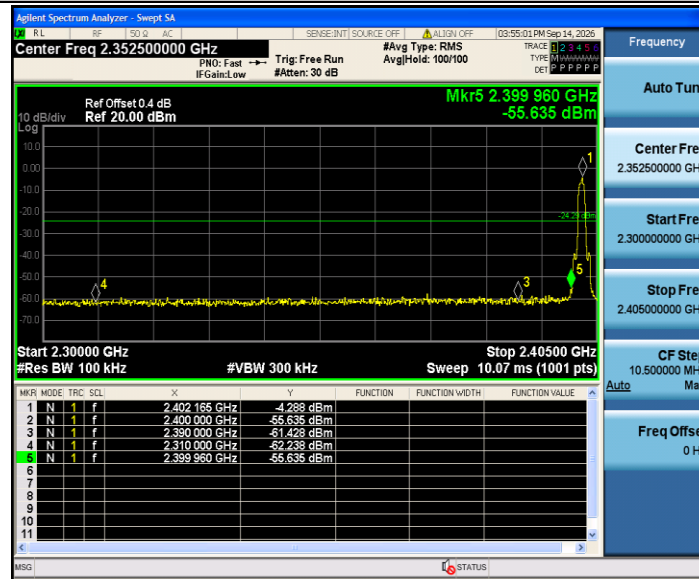
Appendix G: Band edge measurements

Test Result

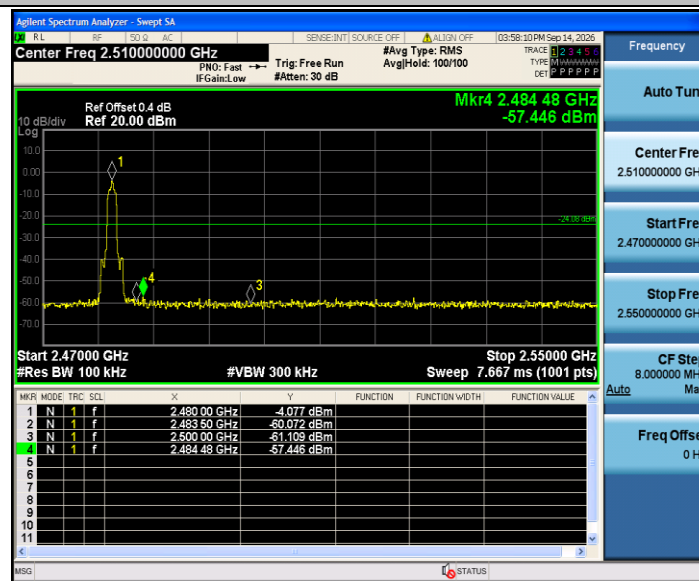
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-4.29	-55.64	≤-24.29	PASS
		High	2480	-4.08	-57.45	≤-24.08	PASS
		Low	Hop_2402	-4.17	-57.9	≤-24.17	PASS
		High	Hop_2480	-5.54	-57.85	≤-25.54	PASS
2DH5	Ant1	Low	2402	-4.49	-55.26	≤-24.49	PASS
		High	2480	-4.72	-51.7	≤-24.72	PASS
		Low	Hop_2402	-3.65	-57.89	≤-23.65	PASS
		High	Hop_2480	-6.18	-57.04	≤-26.18	PASS

Test Graphs

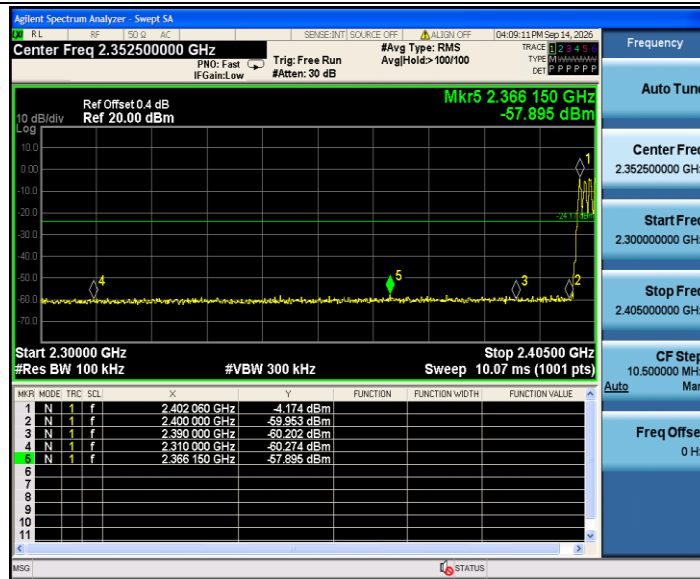
DH5_Ant1_Low_2402



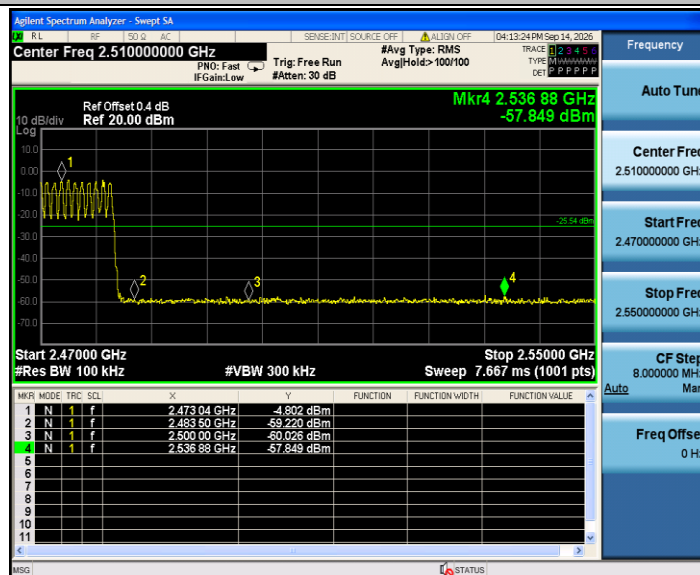
DH5_Ant1_High_2480



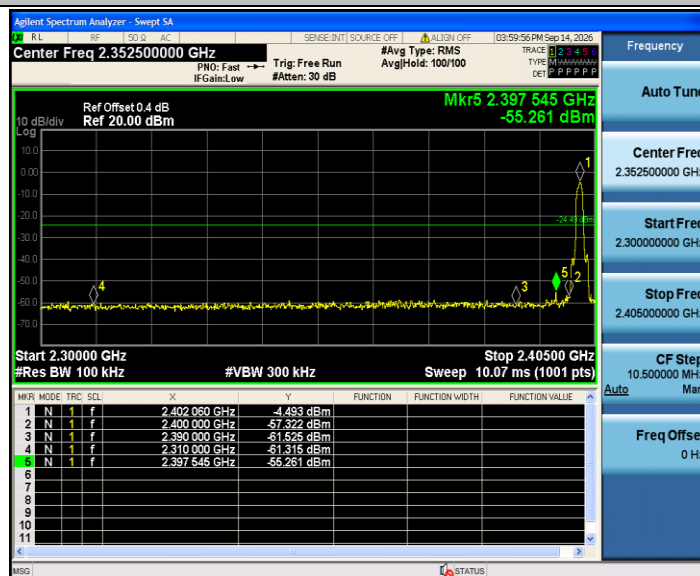
DH5_Ant1_Low_Hop_2402



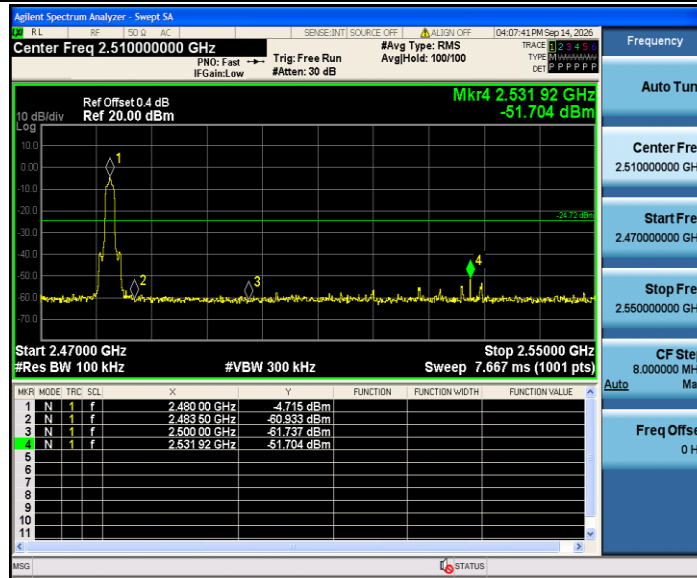
DH5_Ant1_High_Hop_2480



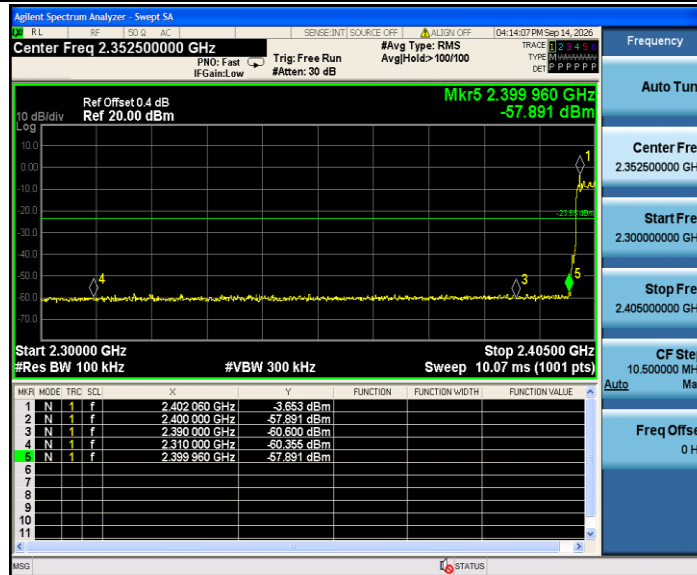
2DH5_Ant1_Low_2402



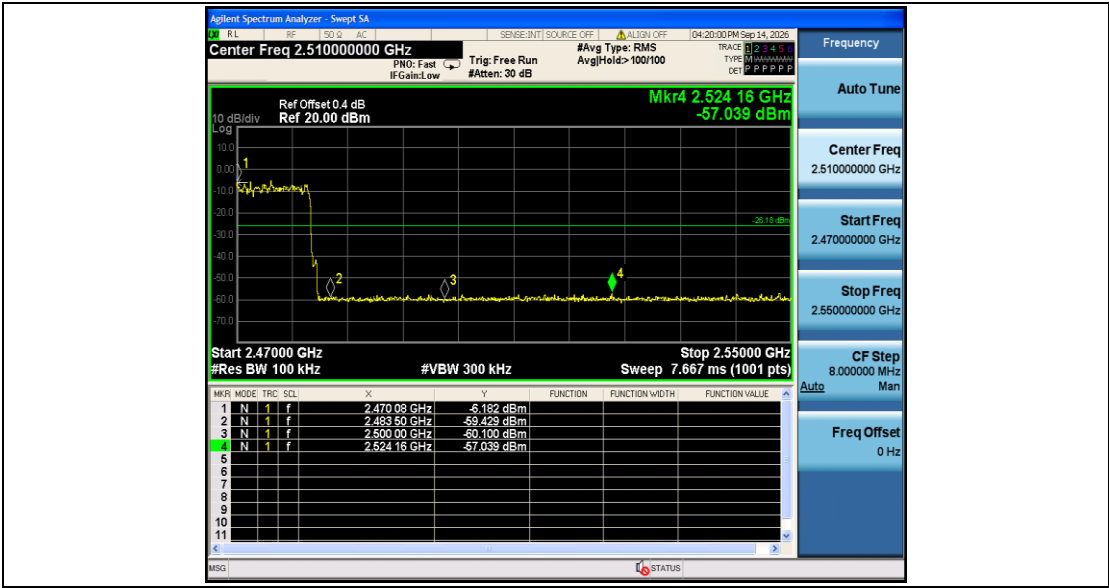
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

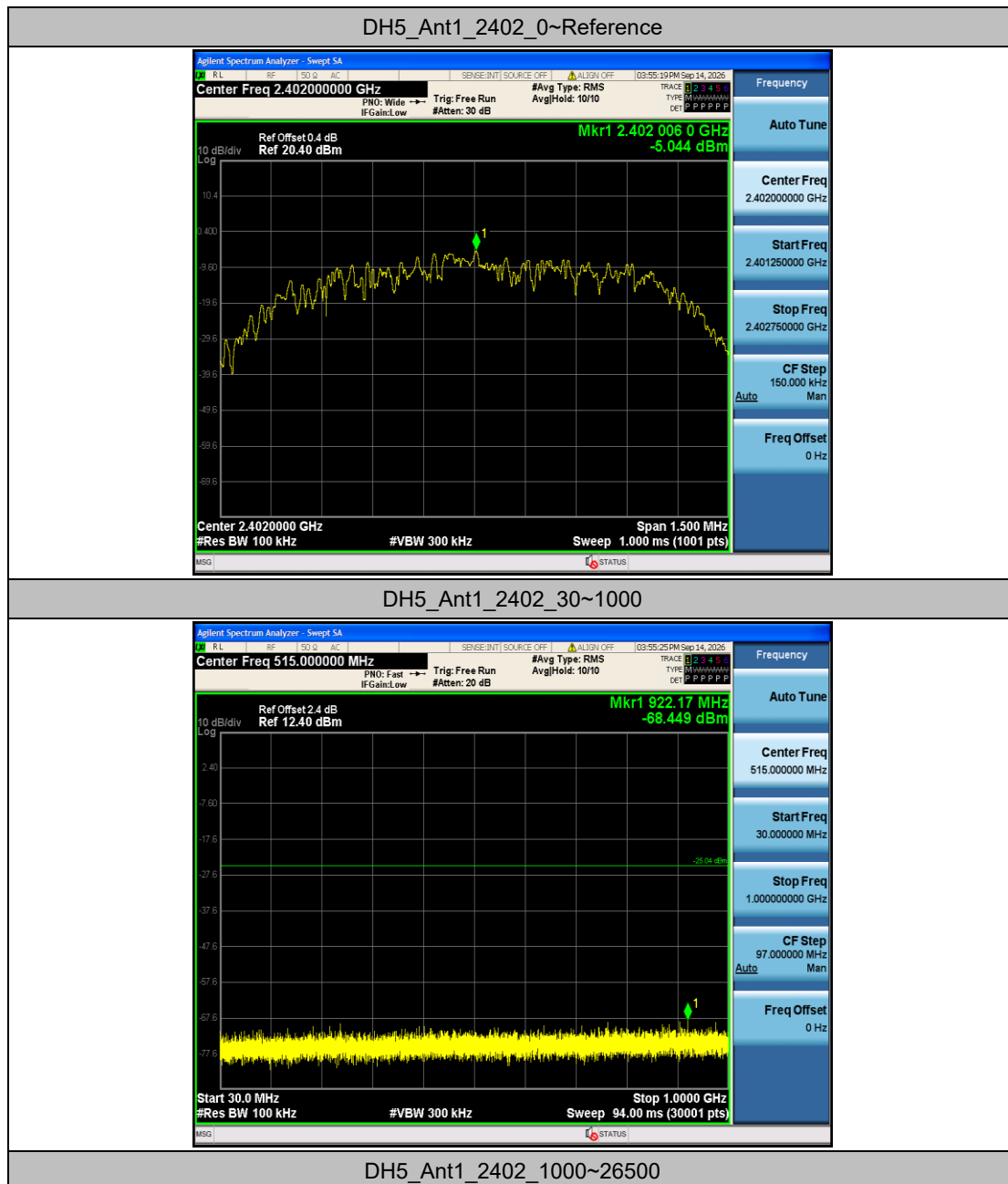


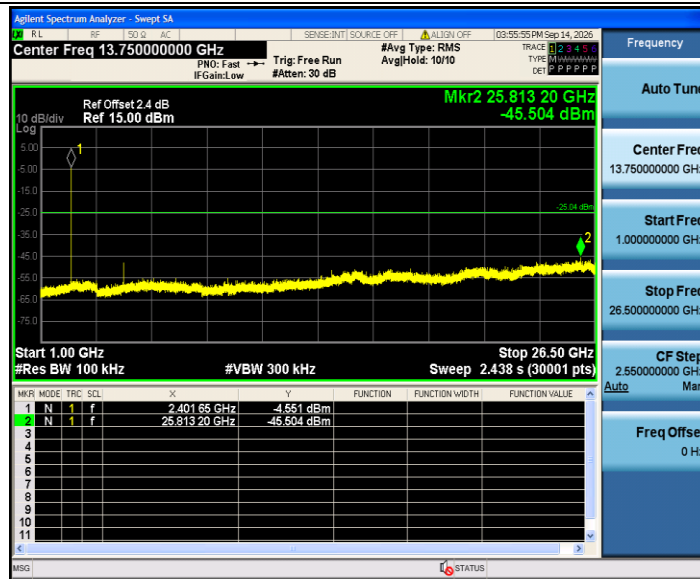
Appendix H: Conducted Spurious Emission

Test Result

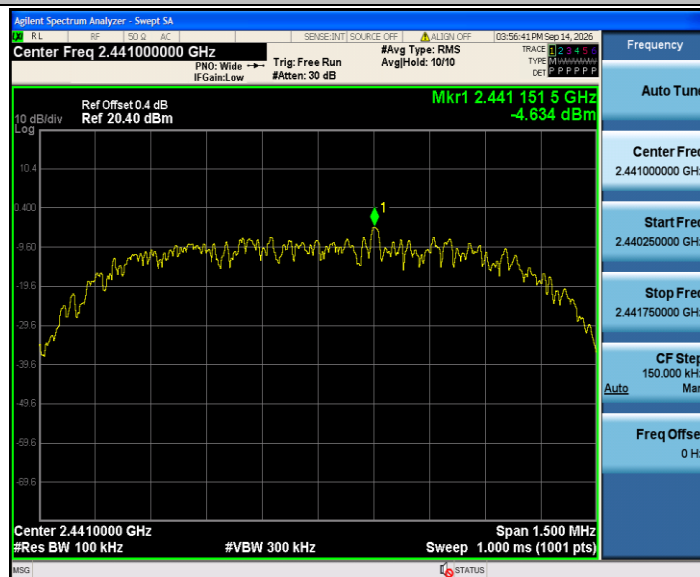
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-5.04	-5.04	---	PASS
			30~1000	-5.04	-68.45	≤-25.04	PASS
			1000~26500	-5.04	-45.5	≤-25.04	PASS
		2441	Reference	-4.63	-4.63	---	PASS
			30~1000	-4.63	-68.48	≤-24.63	PASS
			1000~26500	-4.63	-46.64	≤-24.63	PASS
		2480	Reference	-5.73	-5.73	---	PASS
			30~1000	-5.73	-68.9	≤-25.73	PASS
			1000~26500	-5.73	-46.06	≤-25.73	PASS
2DH5	Ant1	2402	Reference	-4.96	-4.96	---	PASS
			30~1000	-4.96	-68.25	≤-24.96	PASS
			1000~26500	-4.96	-46.48	≤-24.96	PASS
		2441	Reference	-4.56	-4.56	---	PASS
			30~1000	-4.56	-69.23	≤-24.56	PASS
			1000~26500	-4.56	-46.3	≤-24.56	PASS
		2480	Reference	-6.30	-6.30	---	PASS
			30~1000	-6.30	-67.95	≤-26.3	PASS
			1000~26500	-6.30	-46.86	≤-26.3	PASS

Test Graphs

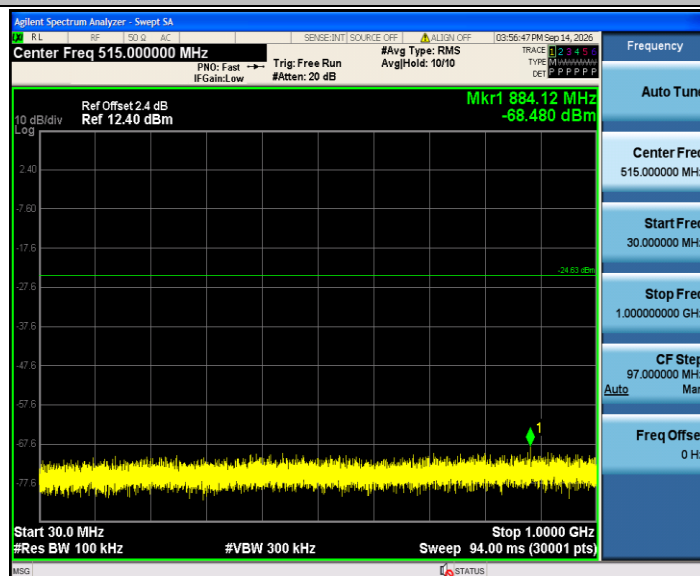




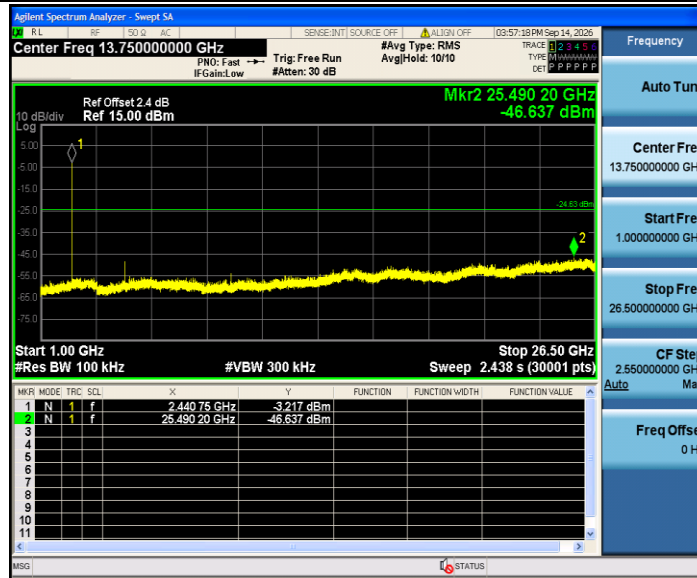
DH5_Ant1_2441_0~Reference



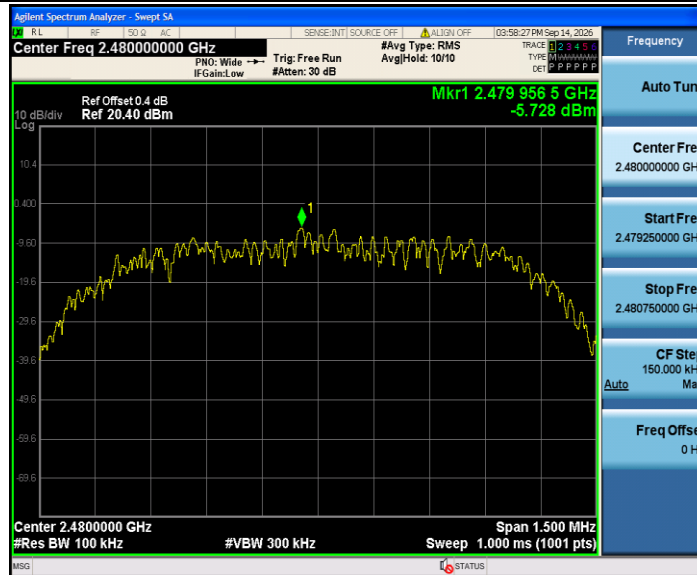
DH5_Ant1_2441_30~1000



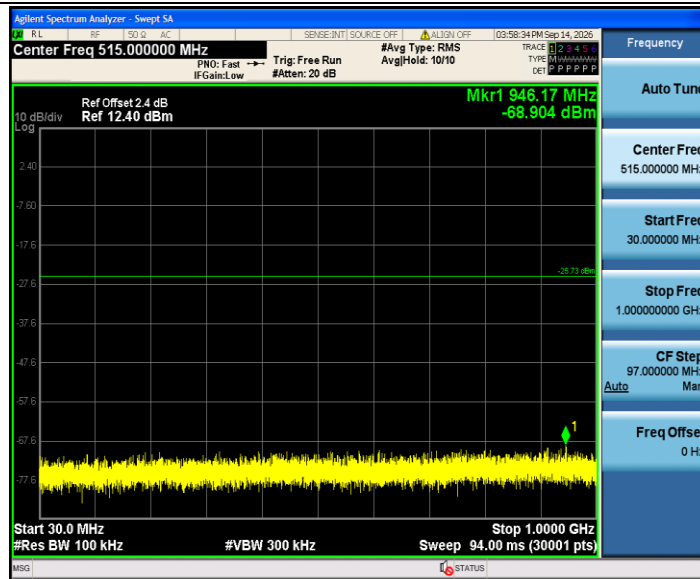
DH5_Ant1_2441_1000~26500



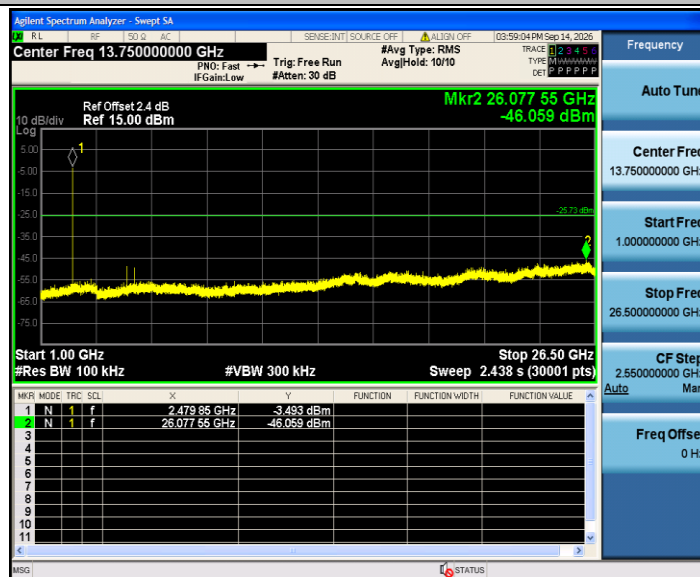
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



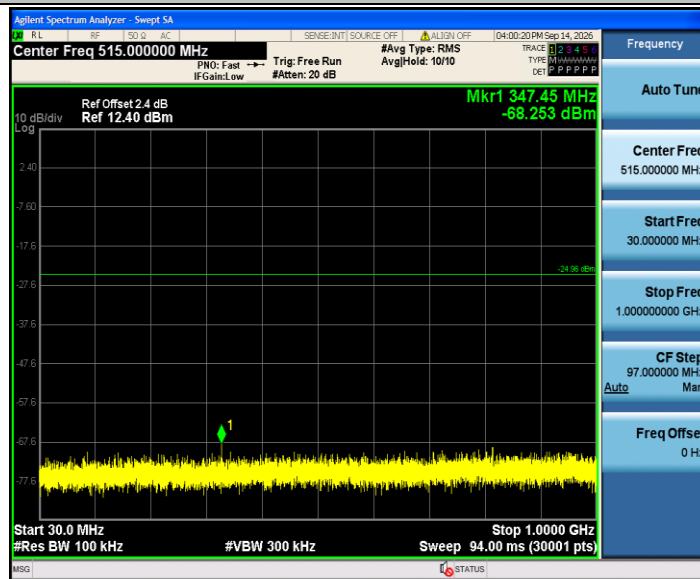
DH5_Ant1_2480_1000~26500



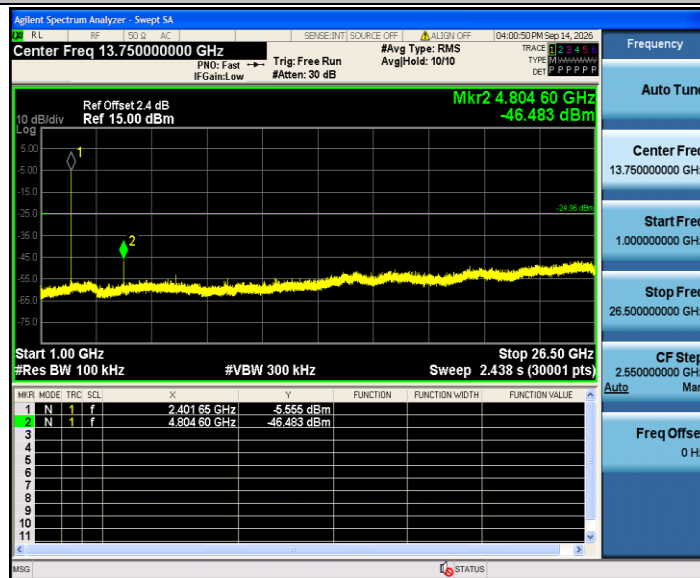
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



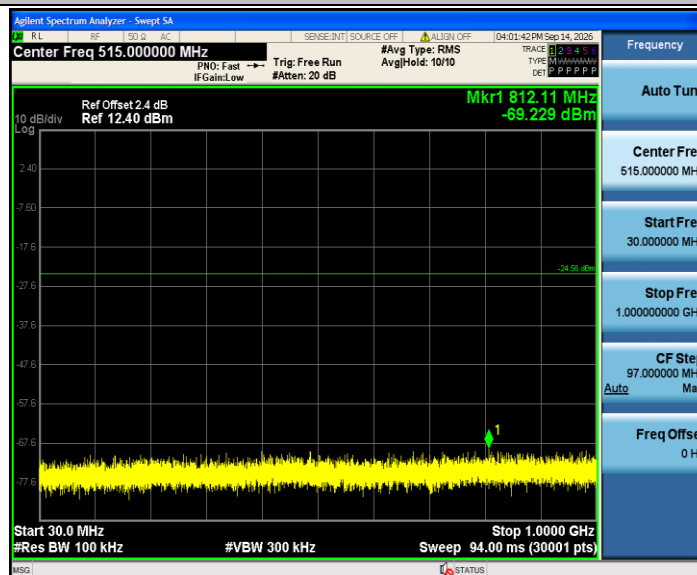
2DH5_Ant1_2402_1000~26500



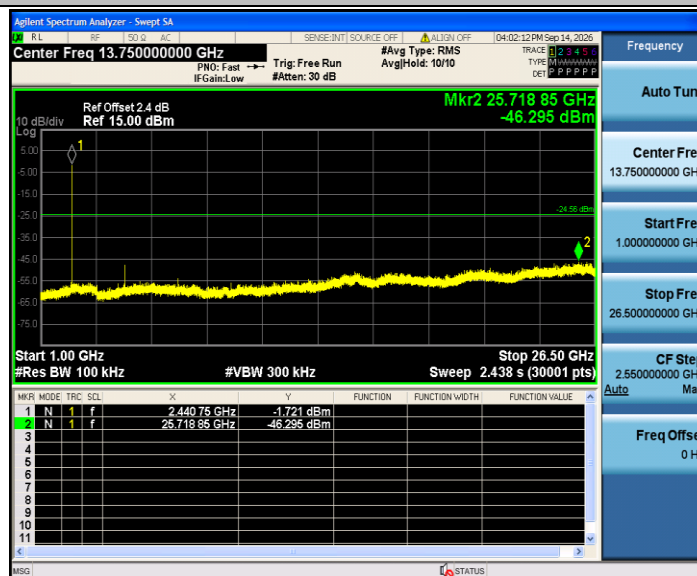
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



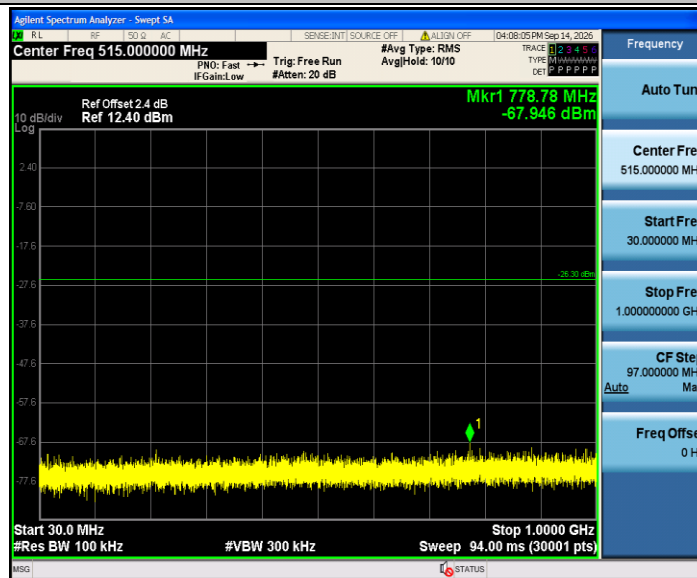
2DH5_Ant1_2441_1000~26500



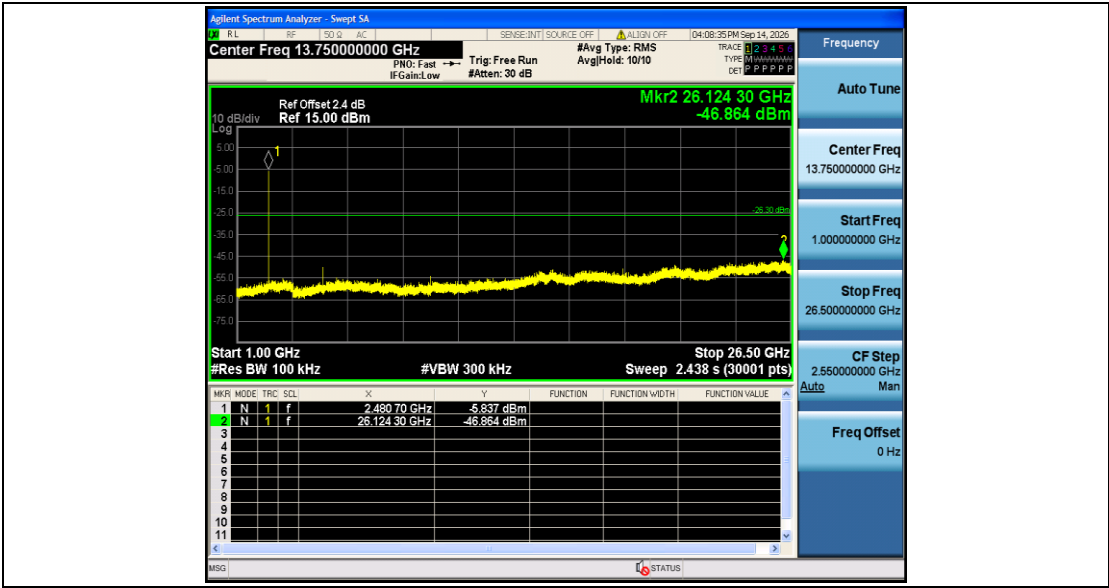
2DH5_Ant1_2480_0~Reference



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	2.92	3.75	77.87	1.09	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.76	77.66	1.10	---	---
2DH5	Ant1	2402	2.92	3.76	77.66	1.10	---	---
		2441	2.91	3.74	77.81	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---