

FCC Appendix RF Test Data

FCC ID : 2BGA5-DS310

Company: : Foshan Dashi Technology Co., Ltd.

EUT : Eye Massager

Model Number : DS-310

Report No. : CTA25051600502

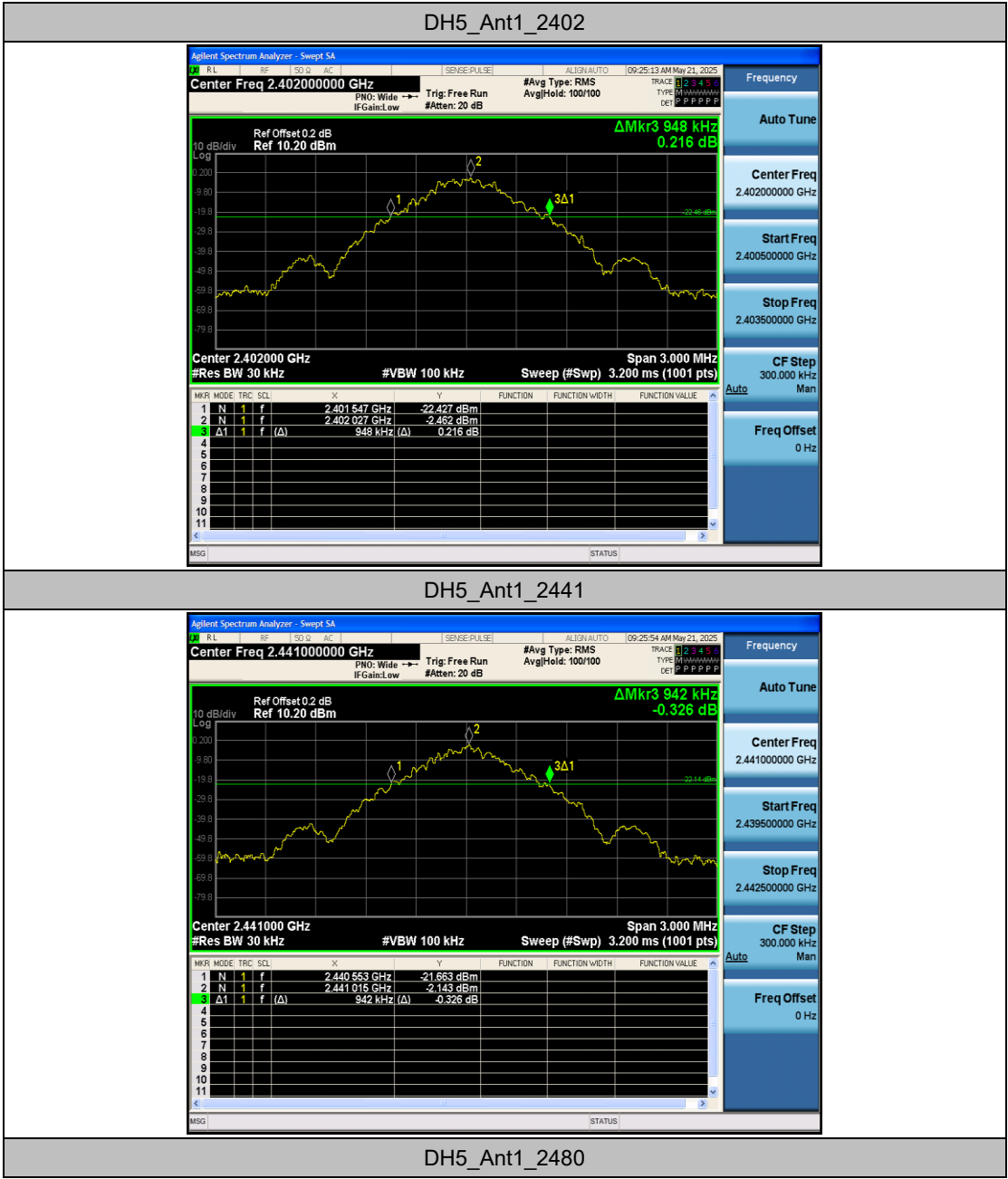
Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.948	2401.547	2402.495	---	---
		2441	0.942	2440.553	2441.495	---	---
		2480	0.951	2479.547	2480.498	---	---
2DH5	Ant1	2402	1.281	2401.379	2402.660	---	---
		2441	1.308	2440.361	2441.669	---	---
		2480	1.311	2479.355	2480.666	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

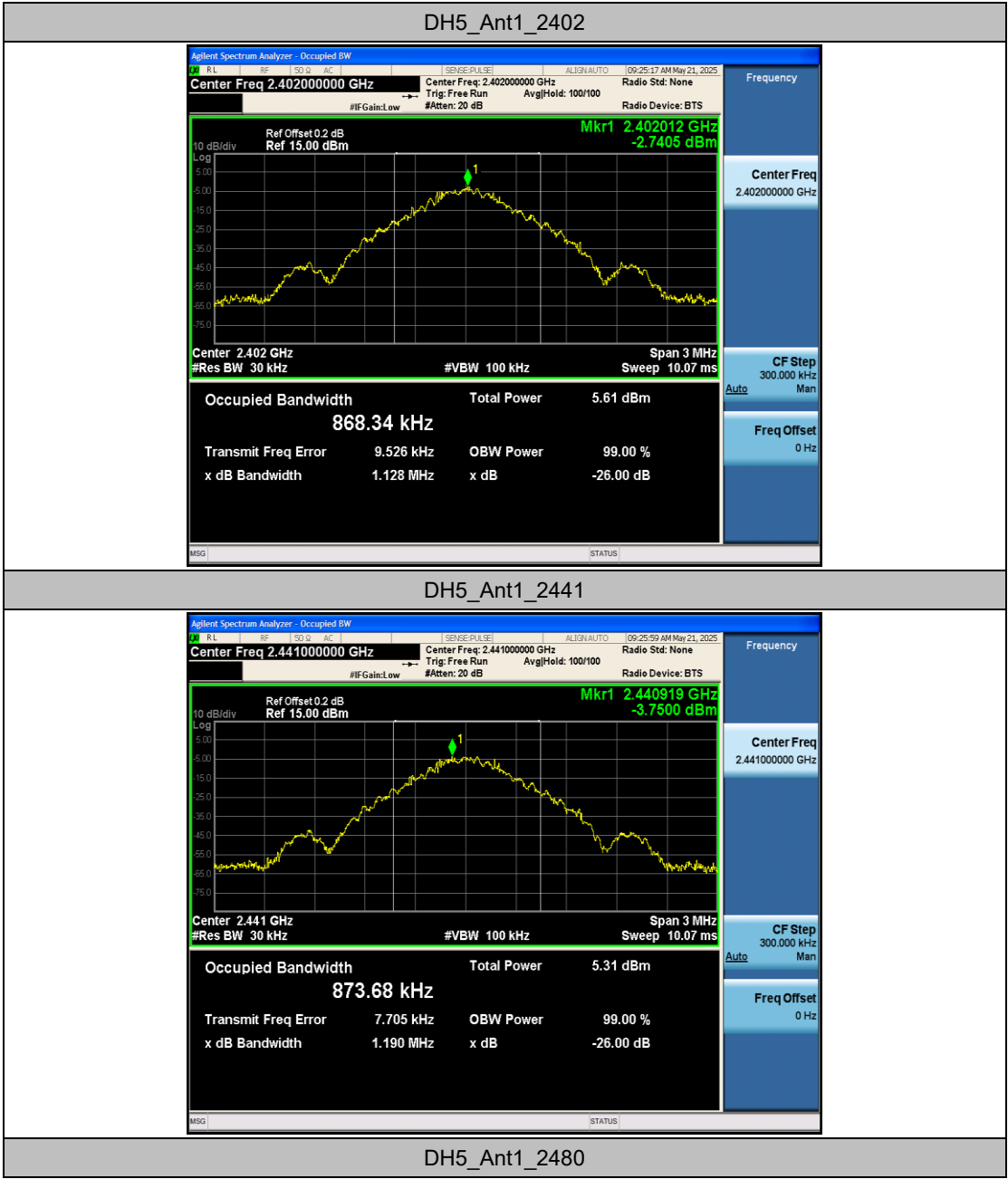


Appendix B: Occupied Channel Bandwidth

Test Result

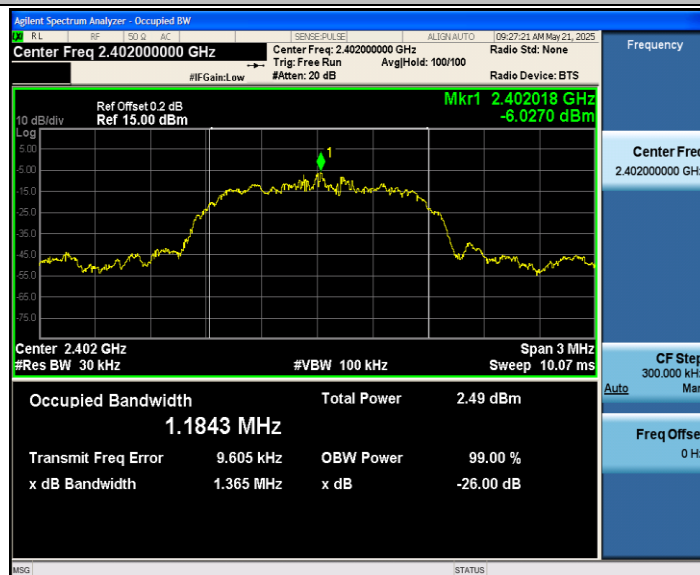
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86834	2401.5754	2402.4437	---	---
		2441	0.87368	2440.5709	2441.4445	---	---
		2480	0.86984	2479.5747	2480.4445	---	---
2DH5	Ant1	2402	1.1843	2401.4175	2402.6018	---	---
		2441	1.1804	2440.4192	2441.5996	---	---
		2480	1.1854	2479.4174	2480.6028	---	---

Test Graphs

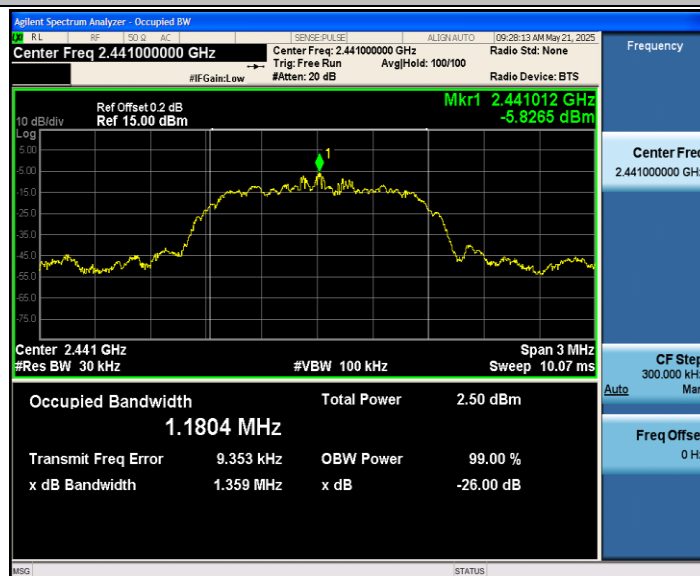




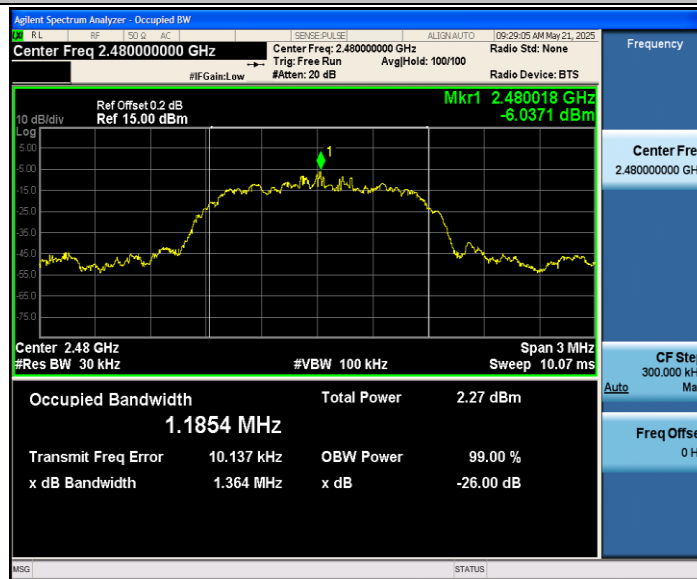
2DH5_Ant1_2402



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	-0.24	≤20.97	PASS
		2441	-0.43	≤20.97	PASS
		2480	-0.56	≤20.97	PASS
2DH5	Ant1	2402	-1.05	≤20.97	PASS
		2441	-1.27	≤20.97	PASS
		2480	-1.37	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.992	≥ 0.951	PASS
2DH5	Ant1	Hop	1.128	≥ 0.874	PASS

Test Graphs

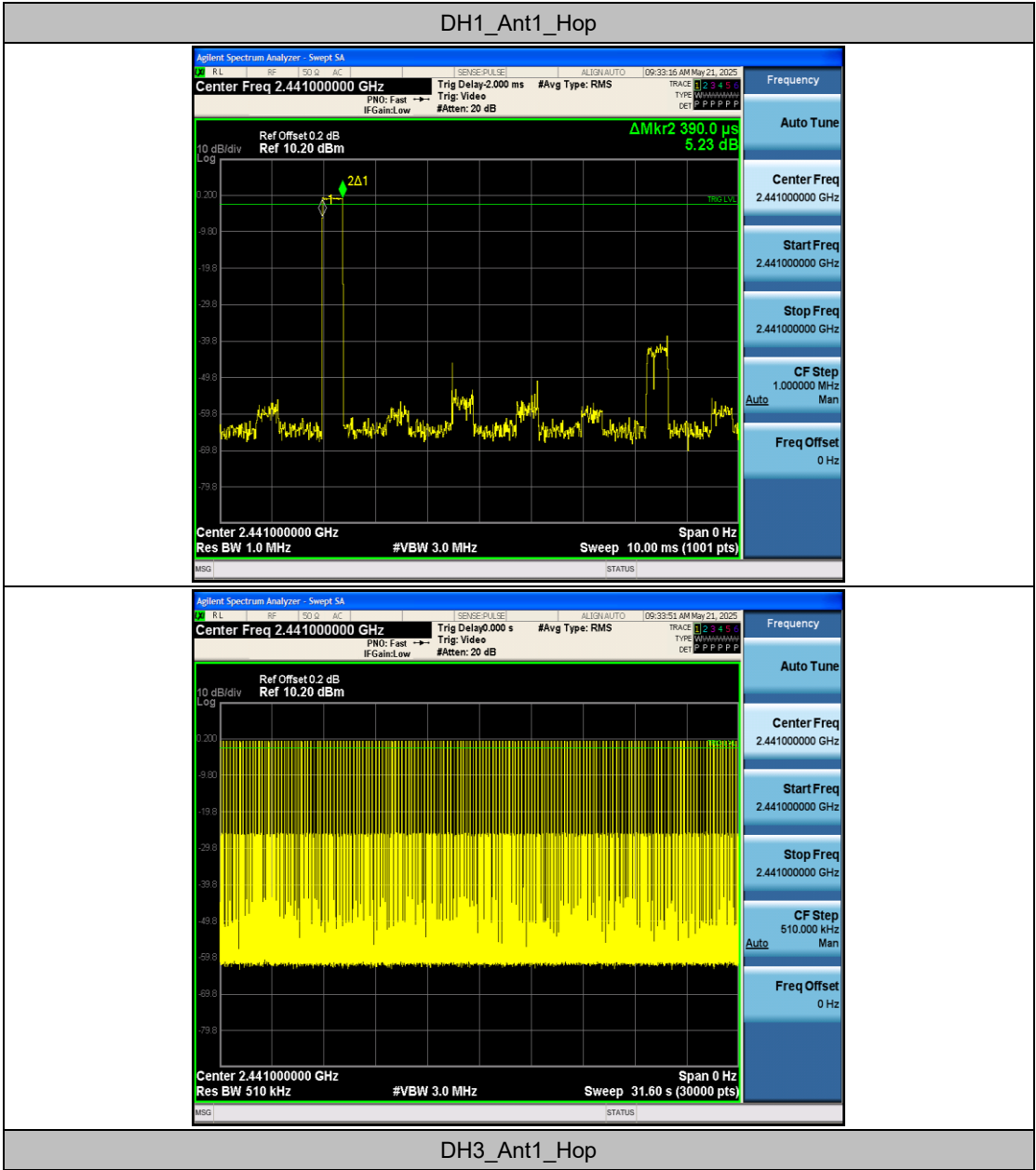


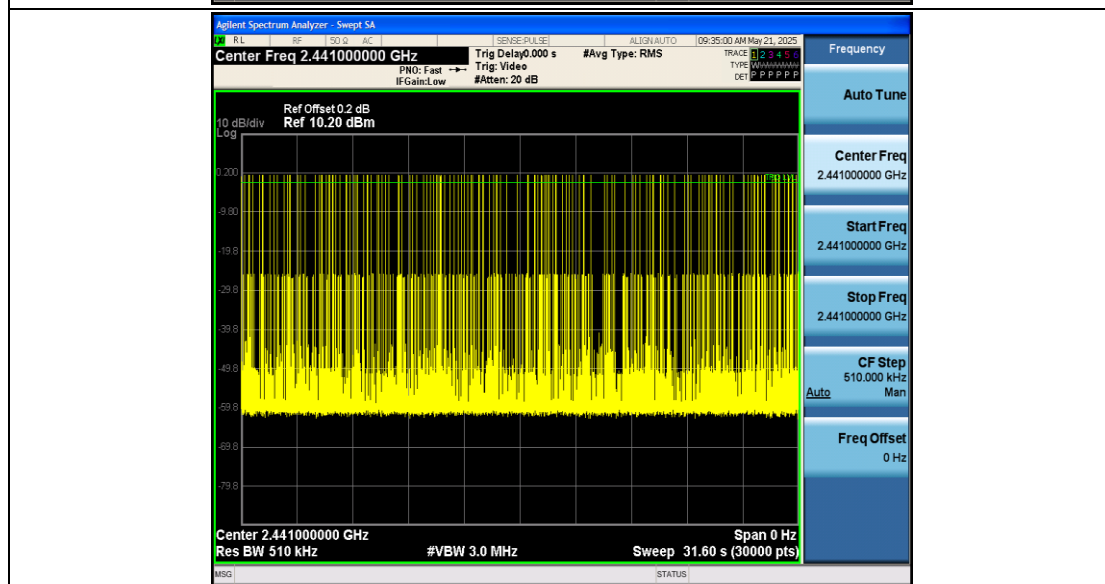
Appendix E: Time of occupancy

Test Result

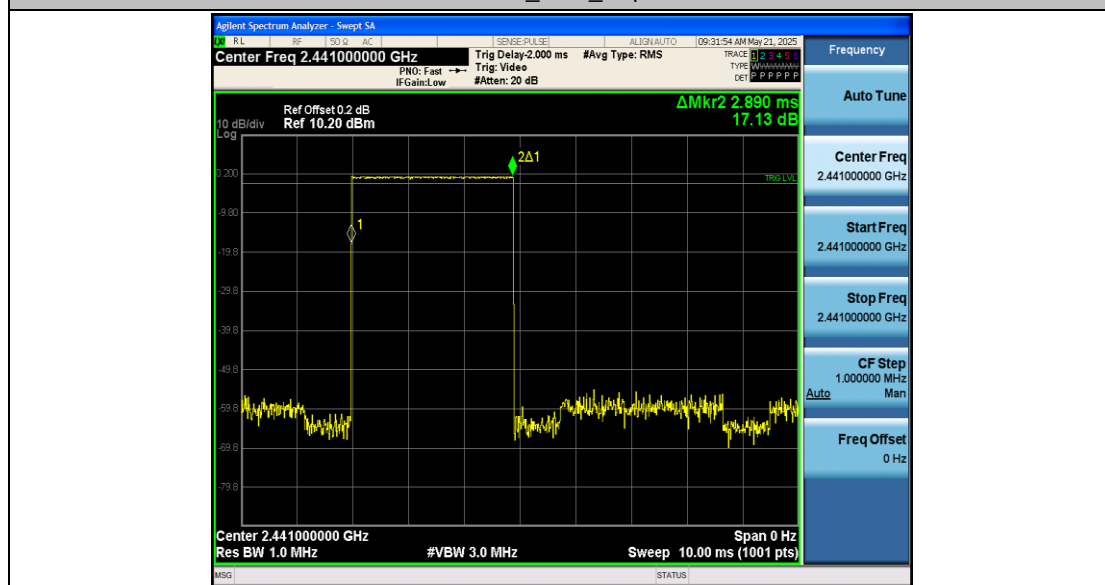
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.390	316	0.123	≤0.4	PASS
DH3	Ant1	Hop	1.640	153	0.251	≤0.4	PASS
DH5	Ant1	Hop	2.890	108	0.312	≤0.4	PASS
2DH1	Ant1	Hop	0.400	315	0.126	≤0.4	PASS
2DH3	Ant1	Hop	1.650	156	0.257	≤0.4	PASS
2DH5	Ant1	Hop	2.900	101	0.293	≤0.4	PASS

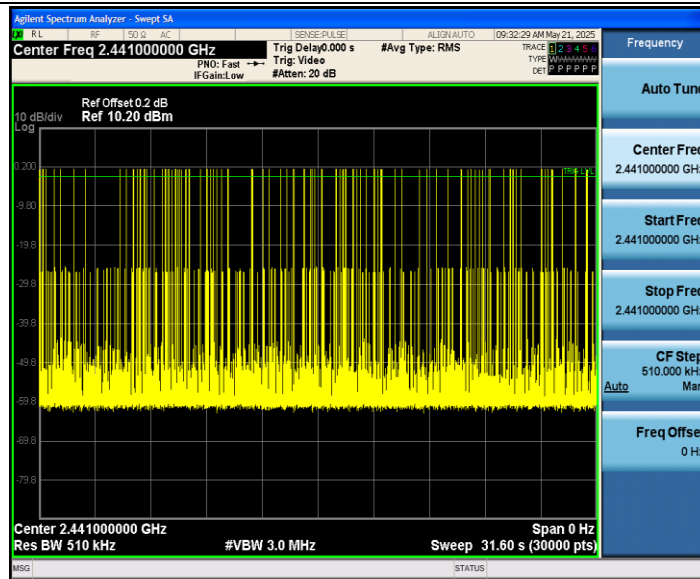
Test Graphs



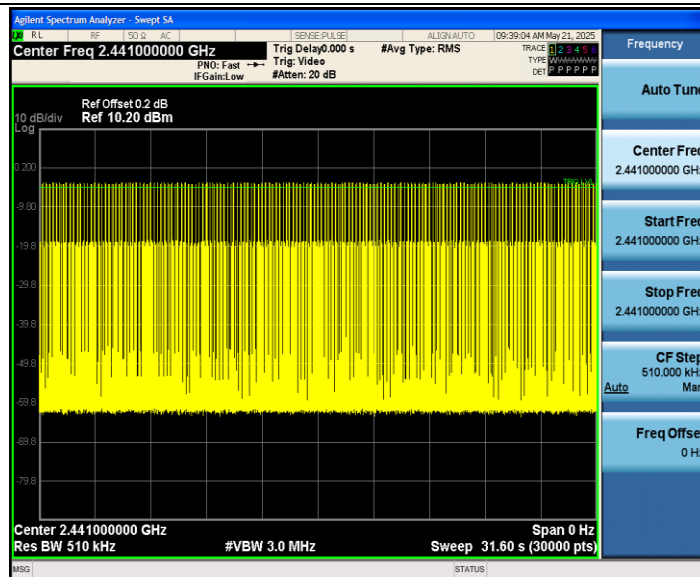
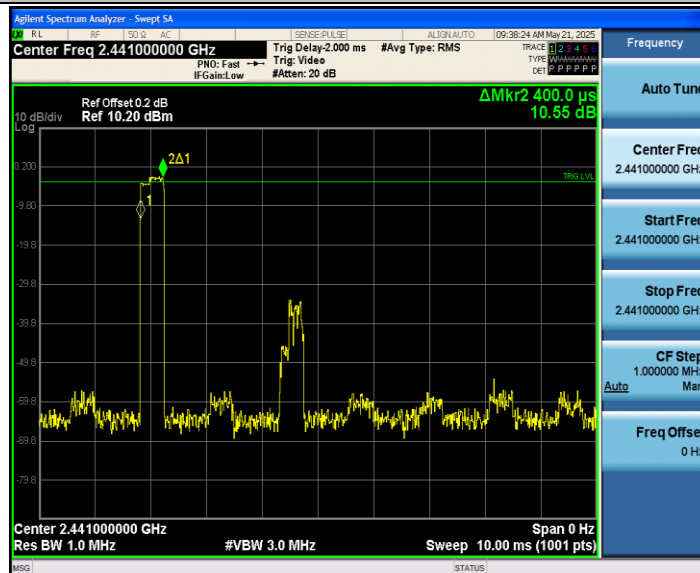


DH5_Ant1_Hop

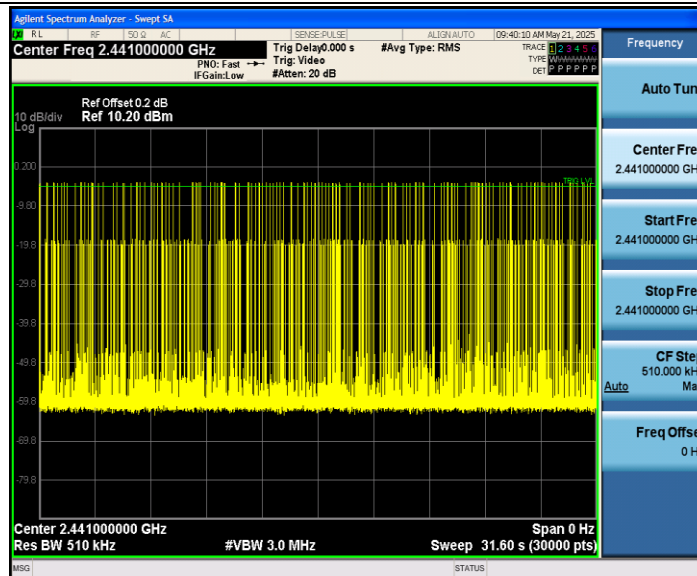
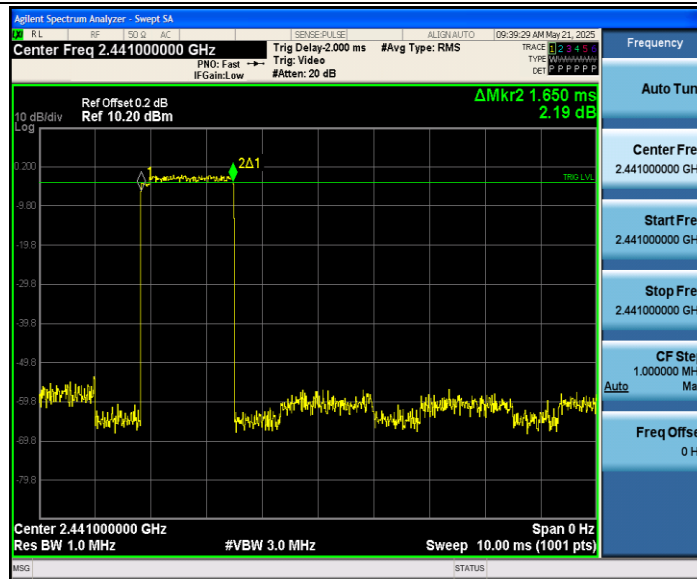




2DH1_Ant1_Hop

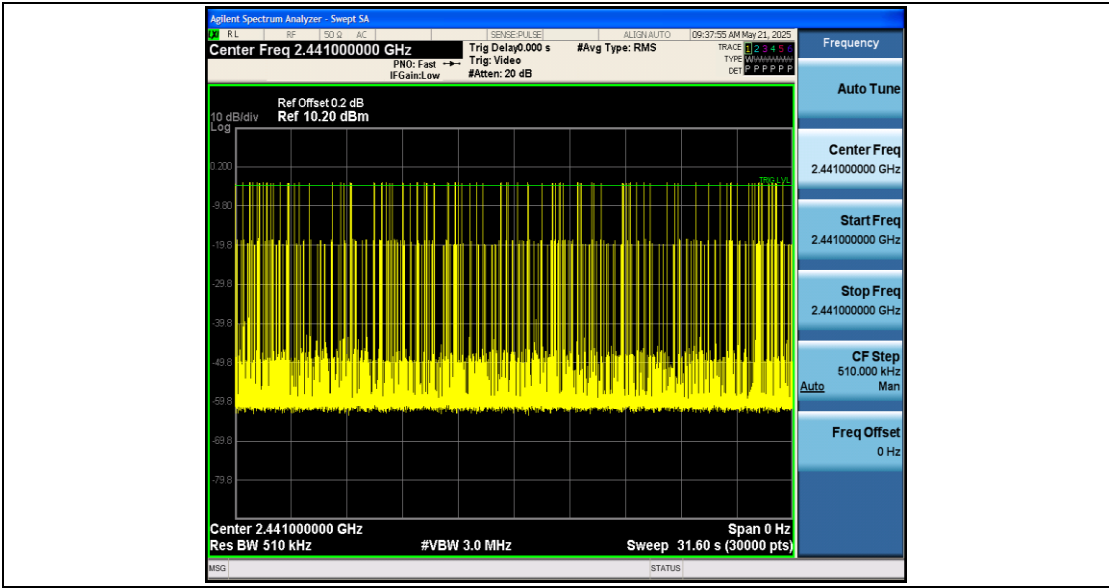


2DH3_Ant1_Hop



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

DH5_Ant1_Hop

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.441750000 GHz

Ref Offset 0.2 dB
Ref 10.20 dBm

Start 2.40000 GHz
#Res BW 300 kHz

Stop 2.48350 GHz
#VBW 300 kHz
Sweep (#Swp) 1.133 ms (1001 pts)

Frequency

Auto Tune

Center Freq
2.441750000 GHz

Start Freq
2.400000000 GHz

Stop Freq
2.483500000 GHz

CF Step
8.350000 MHz

Freq Offset
0 Hz

2DH5_Ant1_Hop

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.441750000 GHz

Ref Offset 0.2 dB
Ref 10.20 dBm

Start 2.40000 GHz
#Res BW 300 kHz

Stop 2.48350 GHz
#VBW 300 kHz
Sweep (#Swp) 1.133 ms (1001 pts)

Frequency

Auto Tune

Center Freq
2.441750000 GHz

Start Freq
2.400000000 GHz

Stop Freq
2.483500000 GHz

CF Step
8.350000 MHz

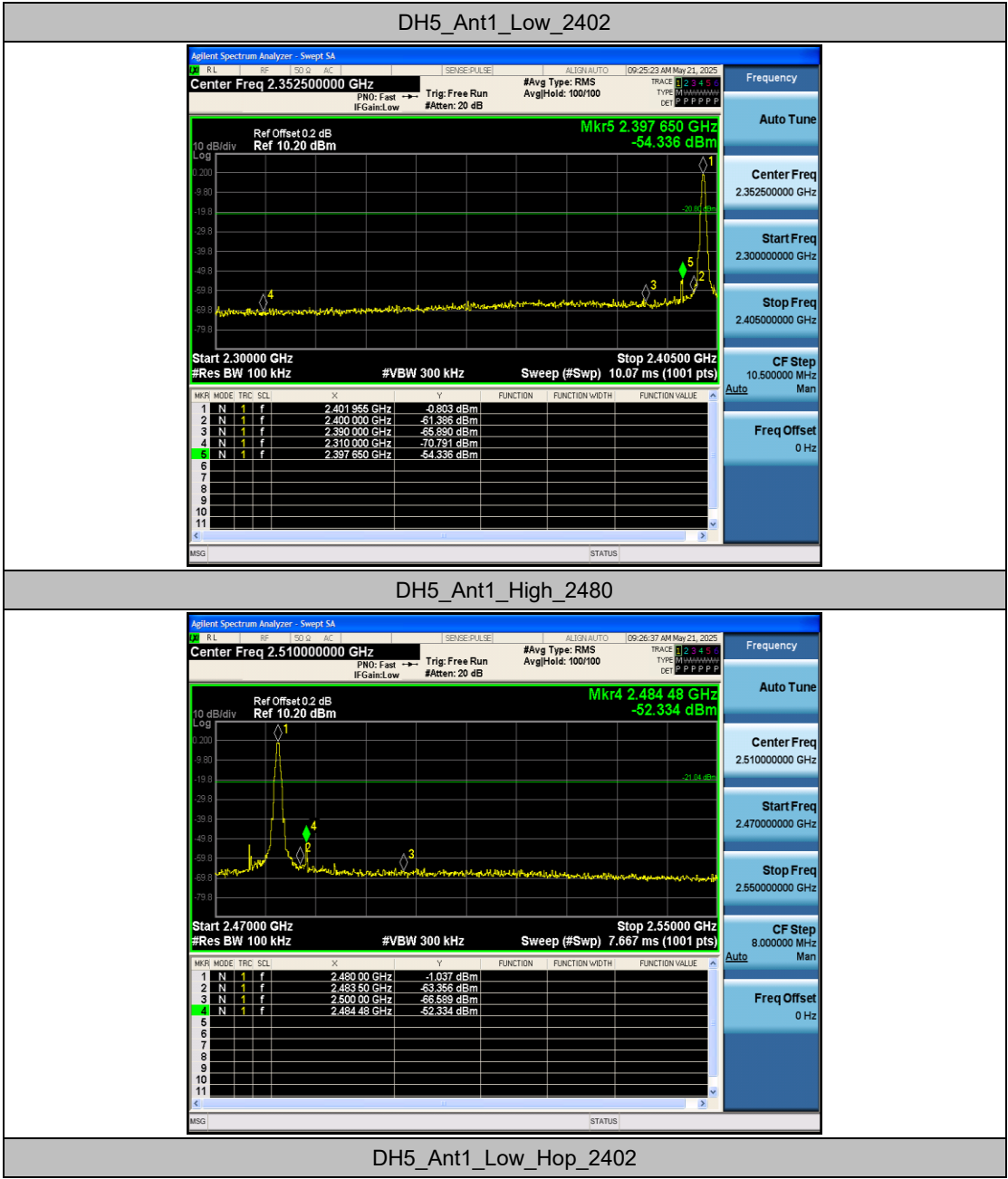
Freq Offset
0 Hz

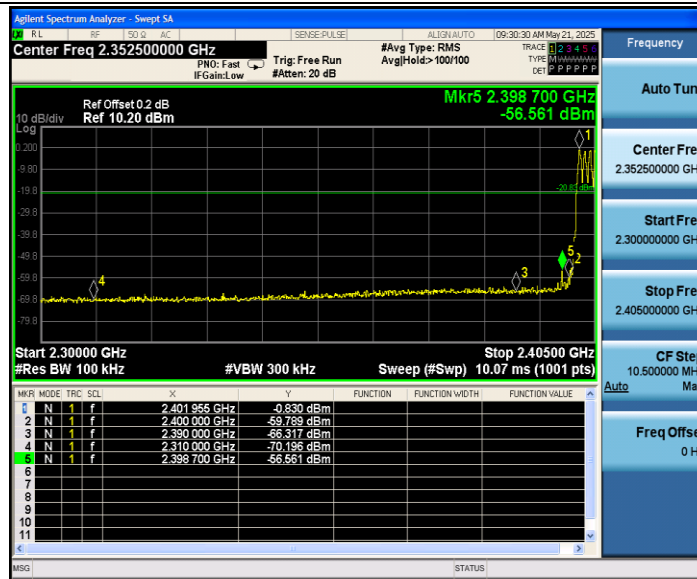
Appendix G: Band edge measurements

Test Result

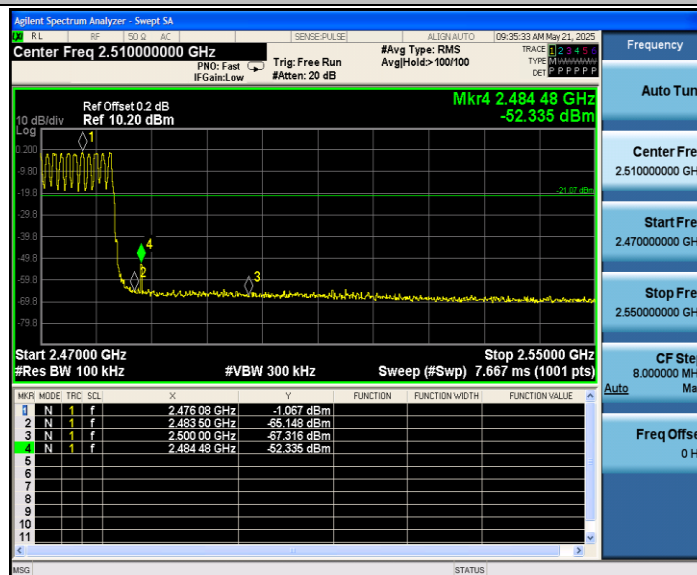
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.80	-54.34	≤-20.8	PASS
		High	2480	-1.04	-52.33	≤-21.04	PASS
		Low	Hop_2402	-0.83	-56.56	≤-20.83	PASS
		High	Hop_2480	-1.07	-52.34	≤-21.07	PASS
2DH5	Ant1	Low	2402	-4.26	-60.53	≤-24.26	PASS
		High	2480	-6.13	-63.7	≤-26.13	PASS
		Low	Hop_2402	-3.88	-63.46	≤-23.88	PASS
		High	Hop_2480	-4.84	-64.21	≤-24.84	PASS

Test Graphs

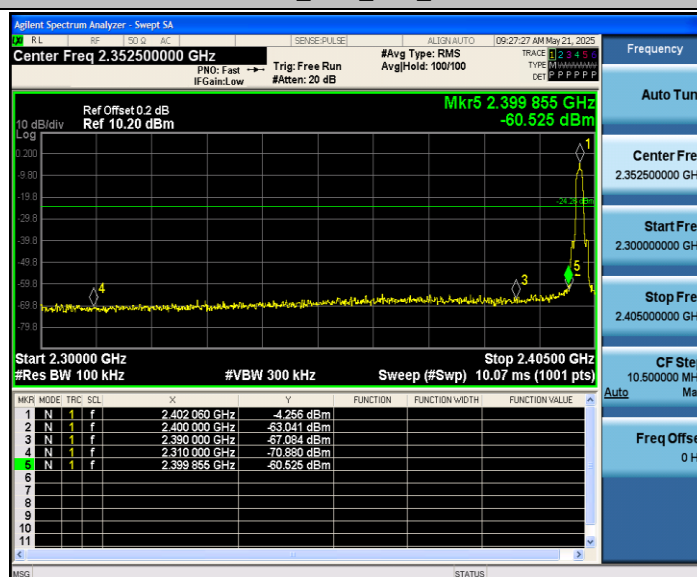




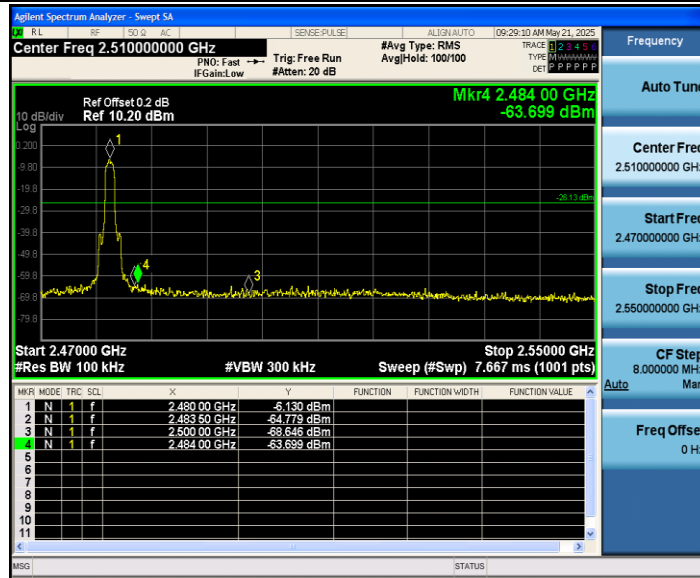
DH5_Ant1_High_Hop_2480



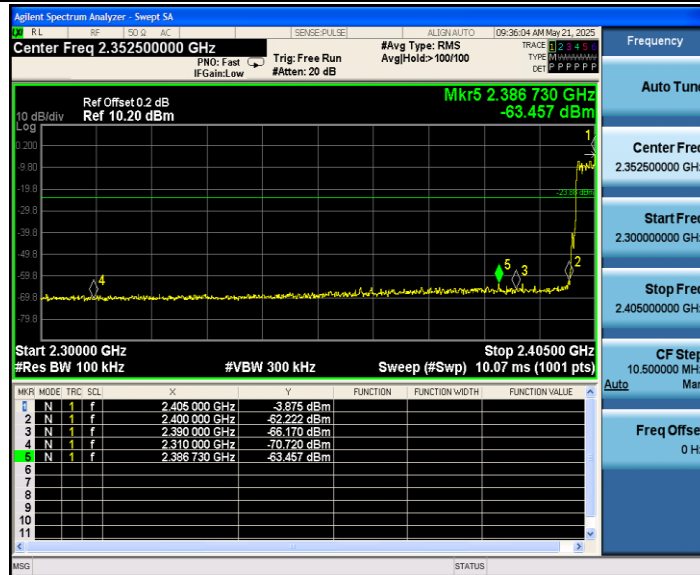
2DH5_Ant1_Low_2402



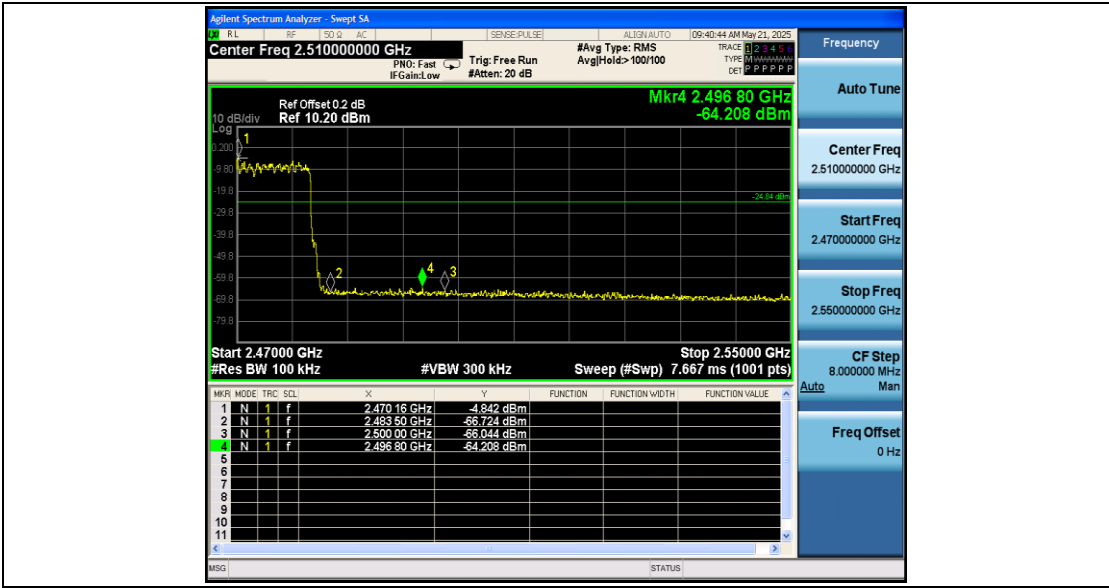
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

Test Result

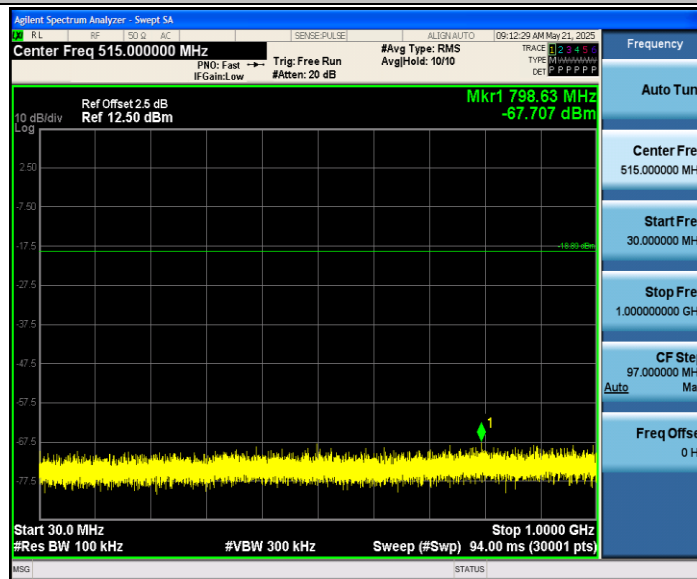
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	1.11	1.11	---	PASS
			30~1000	1.11	-67.71	≤-18.89	PASS
			1000~26500	1.11	-44.02	≤-18.89	PASS
		2441	Reference	0.71	0.71	---	PASS
			30~1000	0.71	-68.3	≤-19.29	PASS
			1000~26500	0.71	-43.12	≤-19.29	PASS
		2480	Reference	0.71	0.71	---	PASS
			30~1000	0.71	-68.05	≤-19.29	PASS
			1000~26500	0.71	-41.75	≤-19.29	PASS
2DH5	Ant1	2402	Reference	-1.61	-1.61	---	PASS
			30~1000	-1.61	-67.99	≤-21.61	PASS
			1000~26500	-1.61	-42.22	≤-21.61	PASS
		2441	Reference	-3.08	-3.08	---	PASS
			30~1000	-3.08	-67.82	≤-23.08	PASS
			1000~26500	-3.08	-45.99	≤-23.08	PASS
		2480	Reference	-2.99	-2.99	---	PASS
			30~1000	-2.99	-67.88	≤-22.99	PASS
			1000~26500	-2.99	-38.62	≤-22.99	PASS

Test Graphs

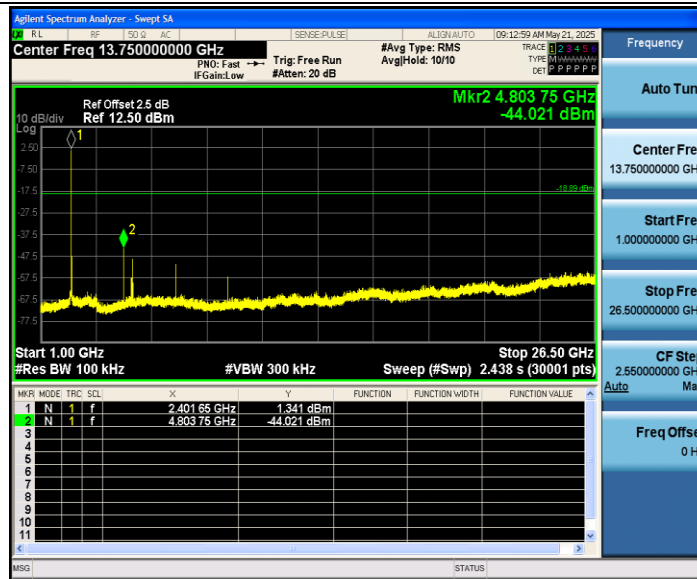
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



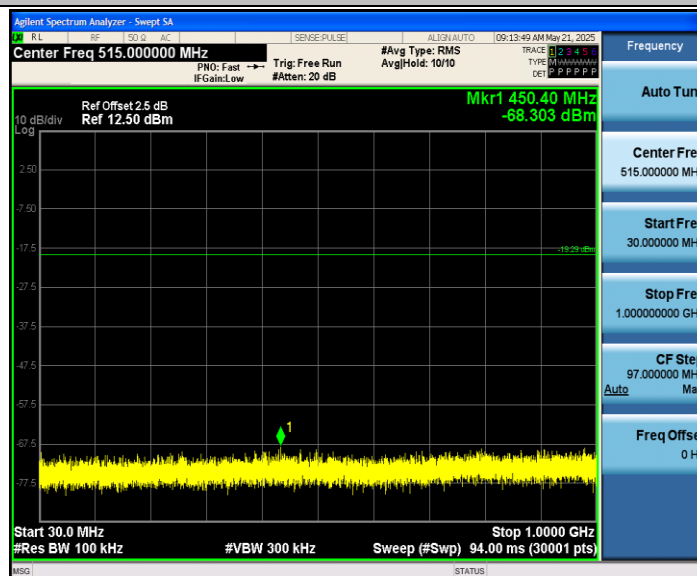
DH5_Ant1_2402_1000~26500



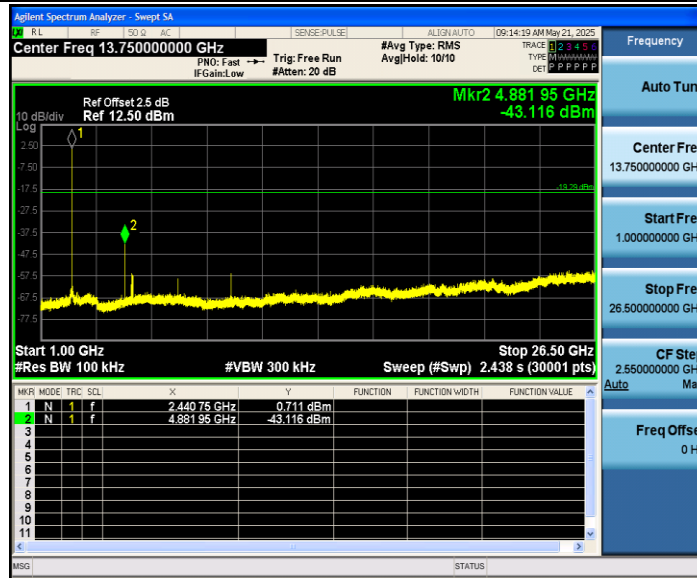
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



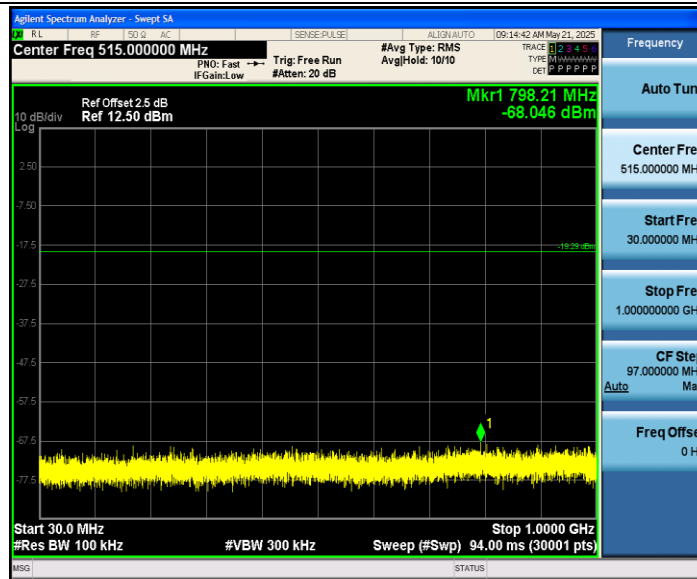
DH5_Ant1_2441_1000~26500



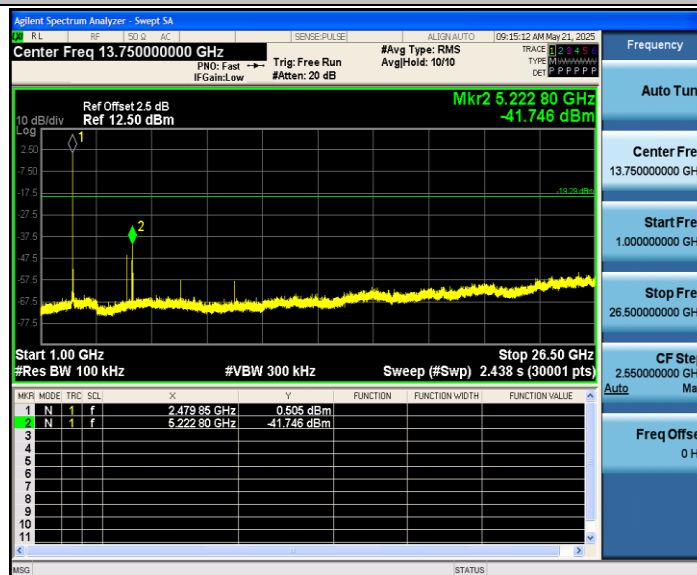
DH5_Ant1_2480_0~Reference



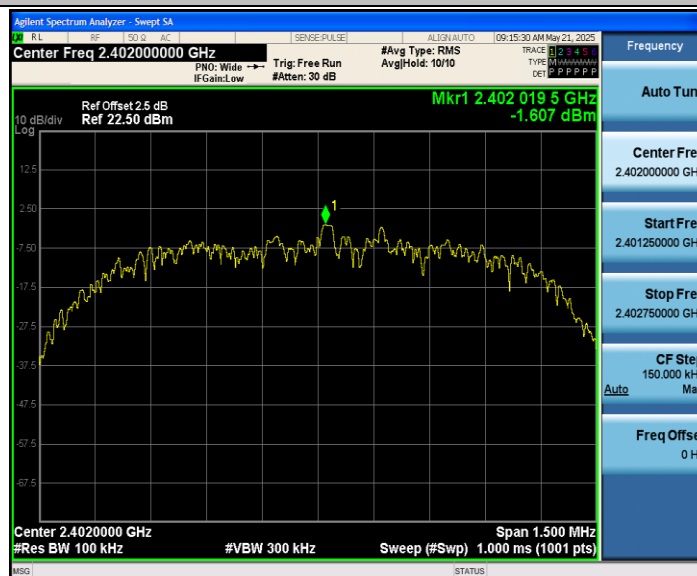
DH5_Ant1_2480_30~1000



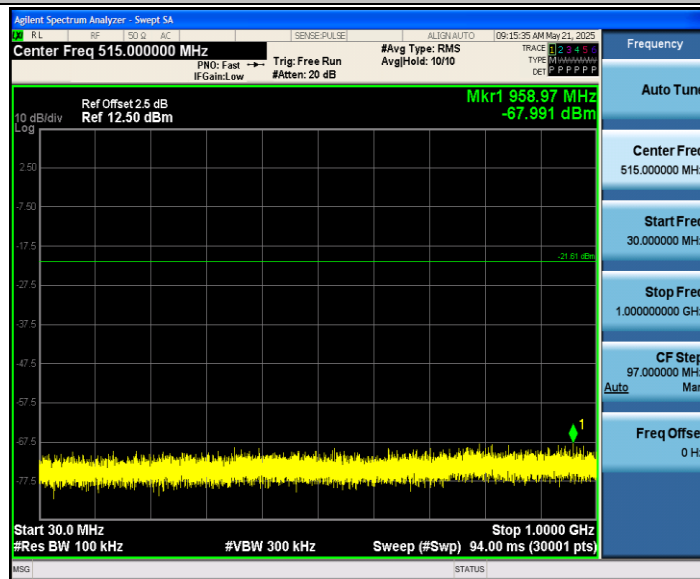
DH5_Ant1_2480_1000~26500



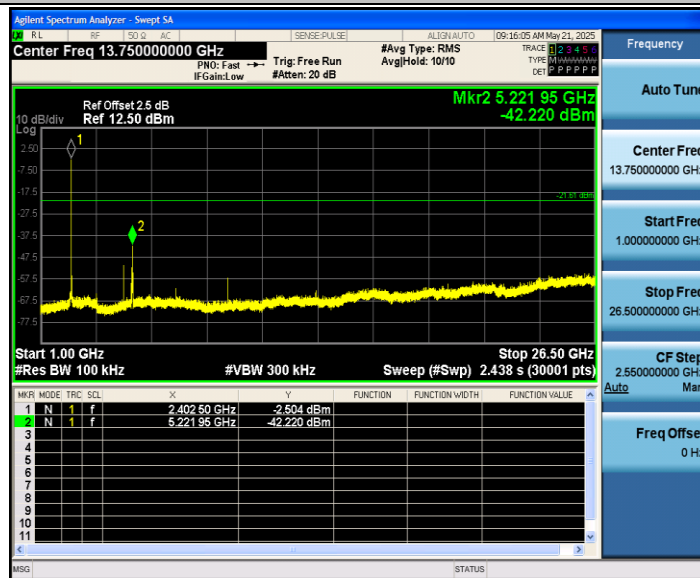
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



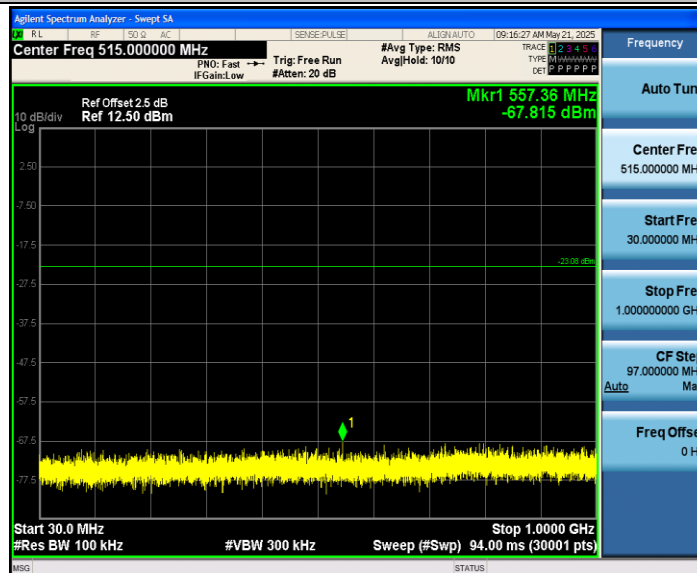
2DH5_Ant1_2402_1000~26500



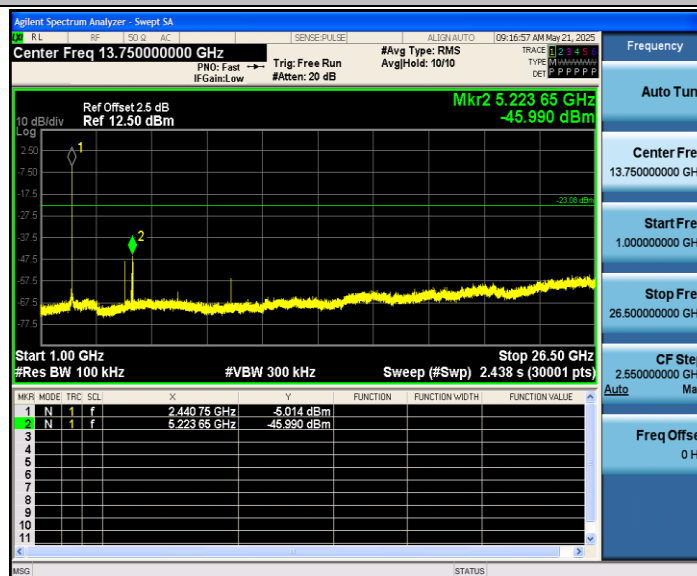
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



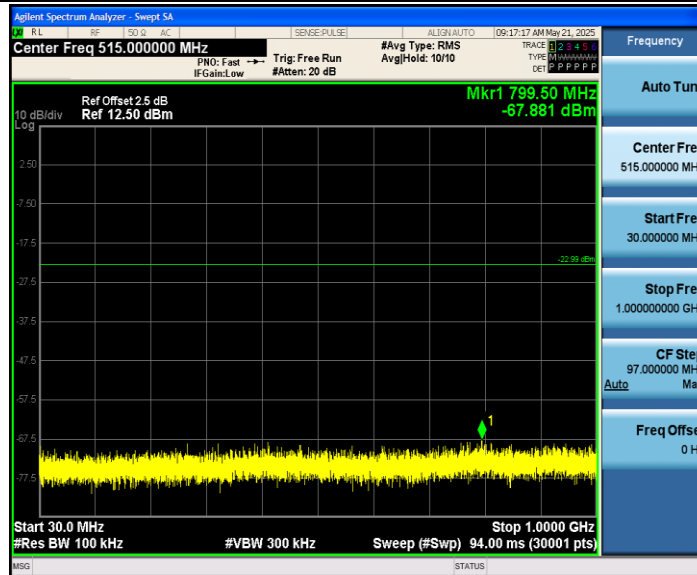
2DH5_Ant1_2441_1000~26500



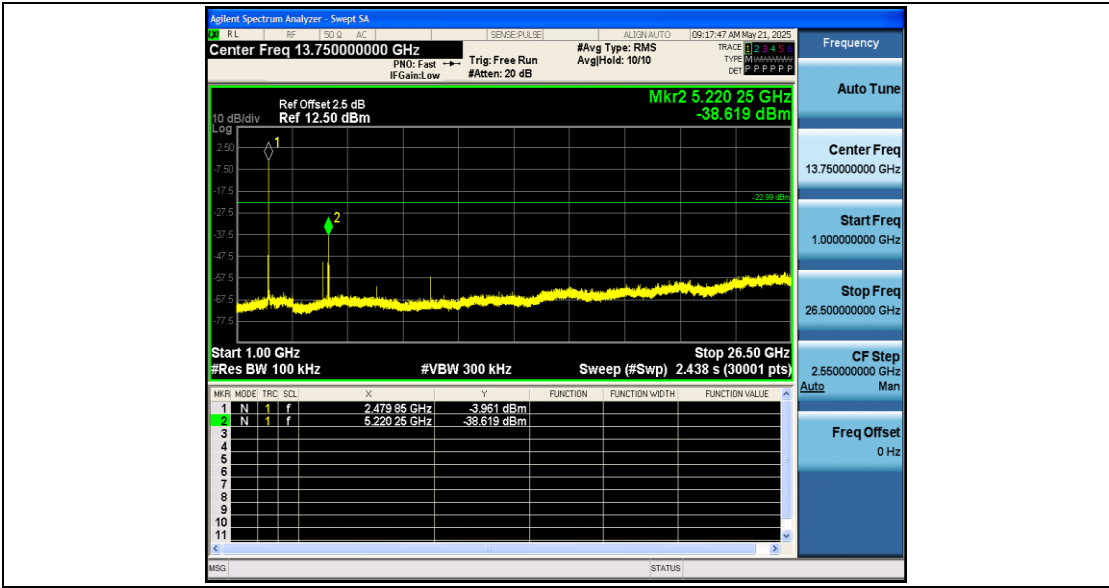
2DH5_Ant1_2480_0~Reference



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	2.91	3.75	77.60	1.10	---	---
		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 - Sweep SA

Center Freq 2.402000000 GHz

Ref Offset 0.2 dB

Ref 20.00 dBm

Trig Delay 200.0 μ s

Trig: Video

#Aver: 30 dB

Span 0 Hz

Center 2.402000000 GHz

Res BW 8 MHz

#VBW 8.0 MHz

Sweep 5.000 ms (1001 pts)

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	190.0 μ s	-5.03 dBm			
2	A1	1	t	(A)	2.910 ms (A)	-29.28 dB		
3	A1	1	t	(A)	3.750 ms (A)	0.04 dB		

DH5_Ant1_2441

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 0.2 dB

Ref 20.00 dBm

Trig Delay 200.0 μ s

Trig: Video

#Aver: 30 dB

Span 0 Hz

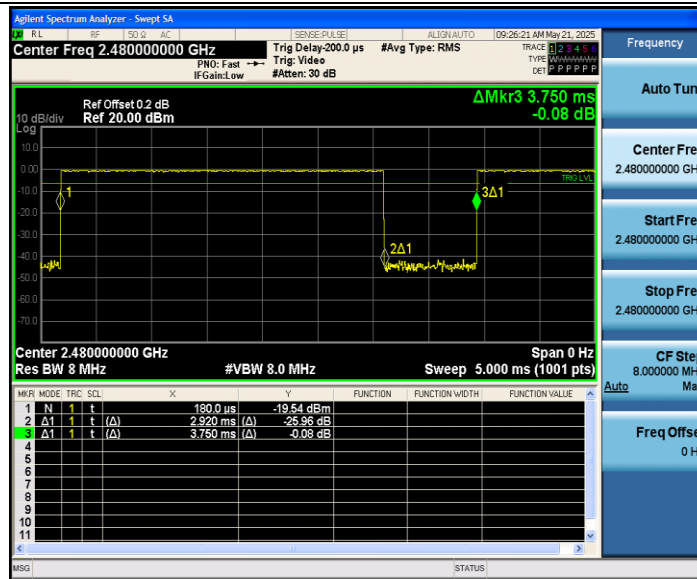
Center 2.441000000 GHz

Res BW 8 MHz

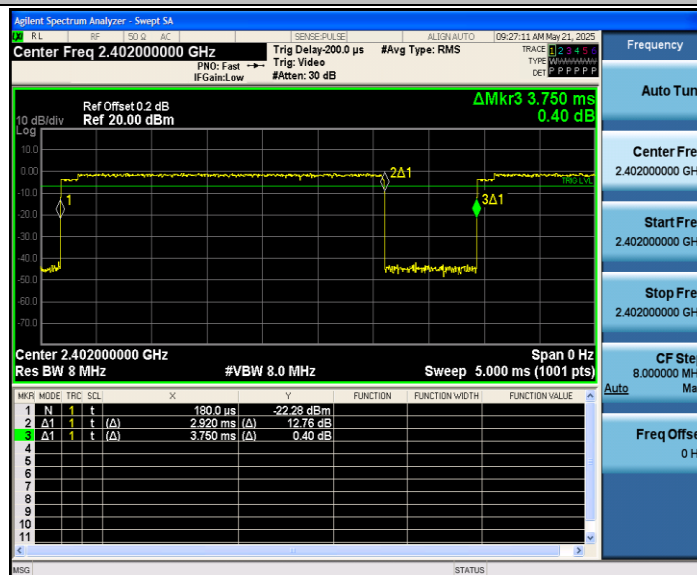
#VBW 8.0 MHz

Sweep 5.000 ms (1001 pts)

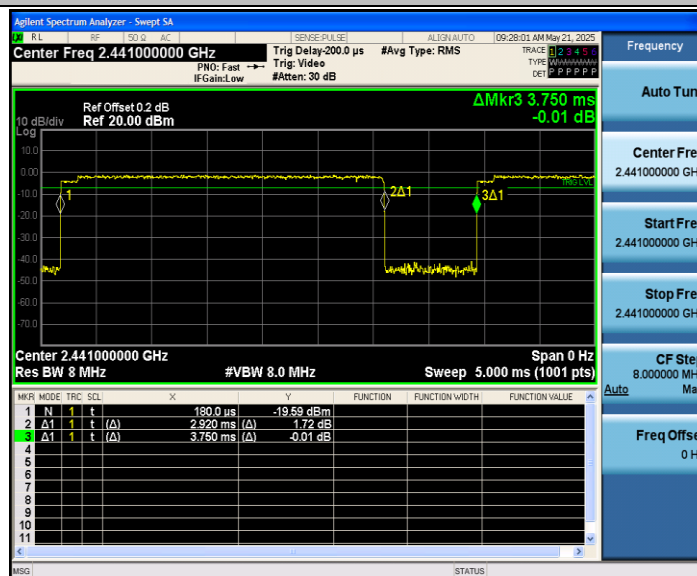
MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	180.0 μ s	-18.32 dBm			
2	A1	1	t	(A)	2.910 ms (A)	17.69 dB		
3	A1	1	t	(A)	3.750 ms (A)	-0.09 dB		



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

