

FCC Appendix RF Test Data for BT

FCC ID : 2BVWN-Y-01

Company : Shenzhen Yipingfan Technology Co., Ltd.

EUT : Sports Headband Bluetooth Headphones

Model Number : Y-01

Report No. : CTA26042700201

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	0.936	2401.553	2402.489	---	---
		2441	0.954	2440.544	2441.498	---	---
		2480	0.936	2479.556	2480.492	---	---
2DH5	Ant1	2402	1.287	2401.376	2402.663	---	---
		2441	1.338	2440.337	2441.675	---	---
		2480	1.329	2479.346	2480.675	---	---

DH5_Ant1_2402

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.402000000 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)

#Res BW 30 kHz
#VBW 100 kHz

ΔMkr3 936 kHz
0.233 dB

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401553 GHz	-28.479 dBm			
2	N	1	f	2.402021 GHz	-27.749 dBm			
3	Δ	1	f (Δ)	936 kHz (Δ)	0.233 dB			

DH5_Ant1_2441

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)

#Res BW 30 kHz
#VBW 100 kHz

ΔMkr3 954 kHz
0.139 dB

MNR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.440544 GHz	-29.874 dBm			
2	N	1	f	2.441030 GHz	-9.386 dBm			
3	Δ	1	f (Δ)	954 kHz (Δ)	0.139 dB			



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



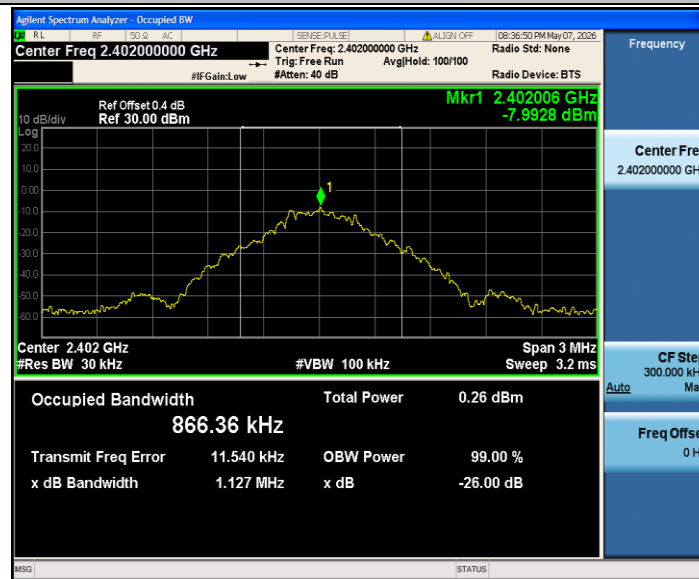
Appendix B: Occupied Channel Bandwidth

Test Result

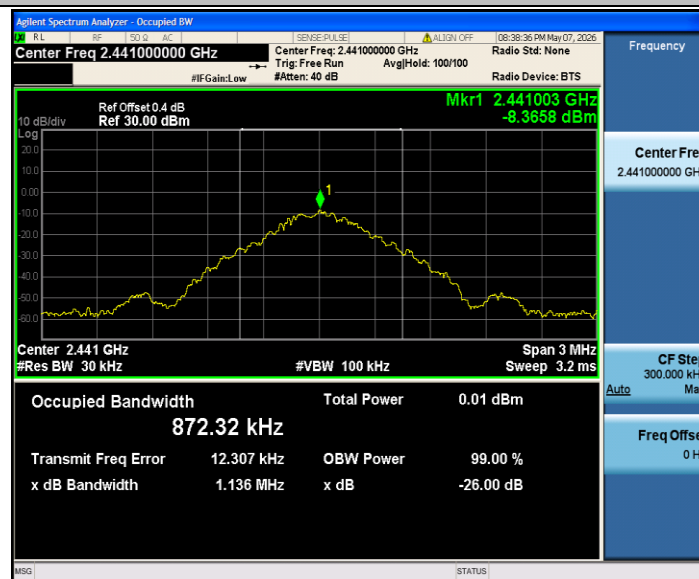
TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86636	2401.5784	2402.4447	---	---
		2441	0.87232	2440.5762	2441.4485	---	---
		2480	0.86404	2479.5828	2480.4468	---	---
2DH5	Ant1	2402	1.1983	2401.4114	2402.6097	---	---
		2441	1.1903	2440.4165	2441.6068	---	---
		2480	1.1881	2479.4174	2480.6055	---	---

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



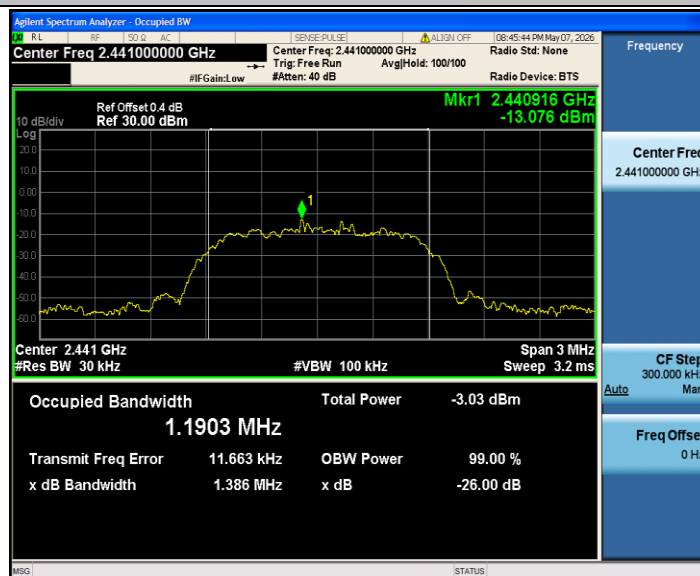
DH5_Ant1_2480



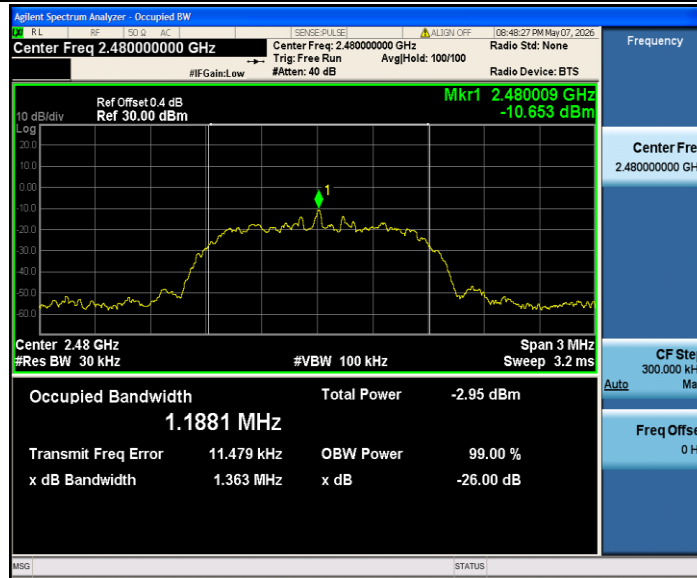
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

Left:

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-6.01	≤20.97	PASS
		2441	-6.06	≤20.97	PASS
		2480	-6.06	≤20.97	PASS
2DH5	Ant1	2402	-6.85	≤20.97	PASS
		2441	-6.84	≤20.97	PASS
		2480	-6.84	≤20.97	PASS

Right:

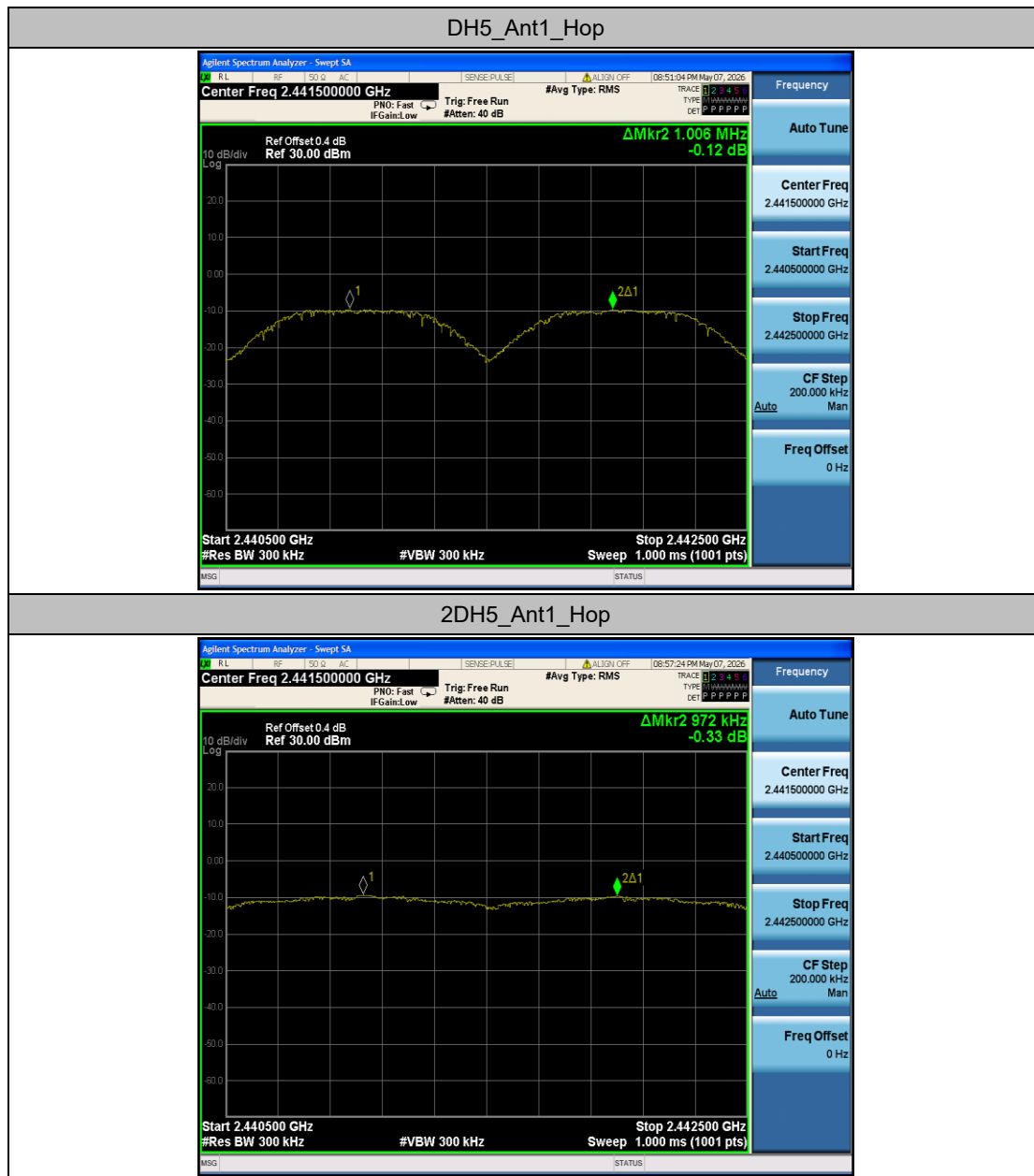
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-6.45	≤20.97	PASS
		2441	-6.18	≤20.97	PASS
		2480	-6.36	≤20.97	PASS
2DH5	Ant1	2402	-6.42	≤20.97	PASS
		2441	-6.31	≤20.97	PASS
		2480	-6.49	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.006	≥ 0.954	PASS
2DH5	Ant1	Hop	0.972	≥ 0.892	PASS

Test Graphs

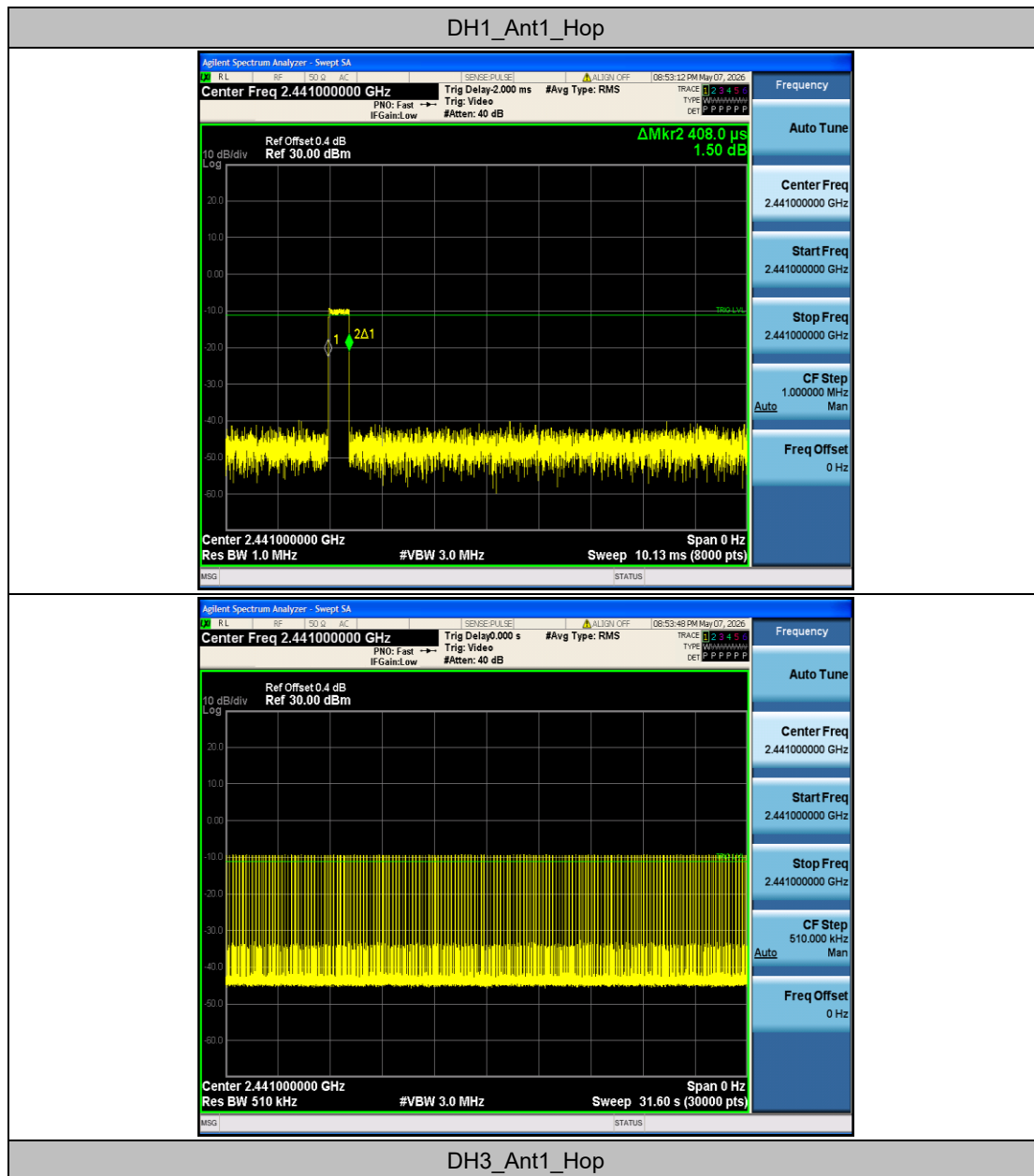


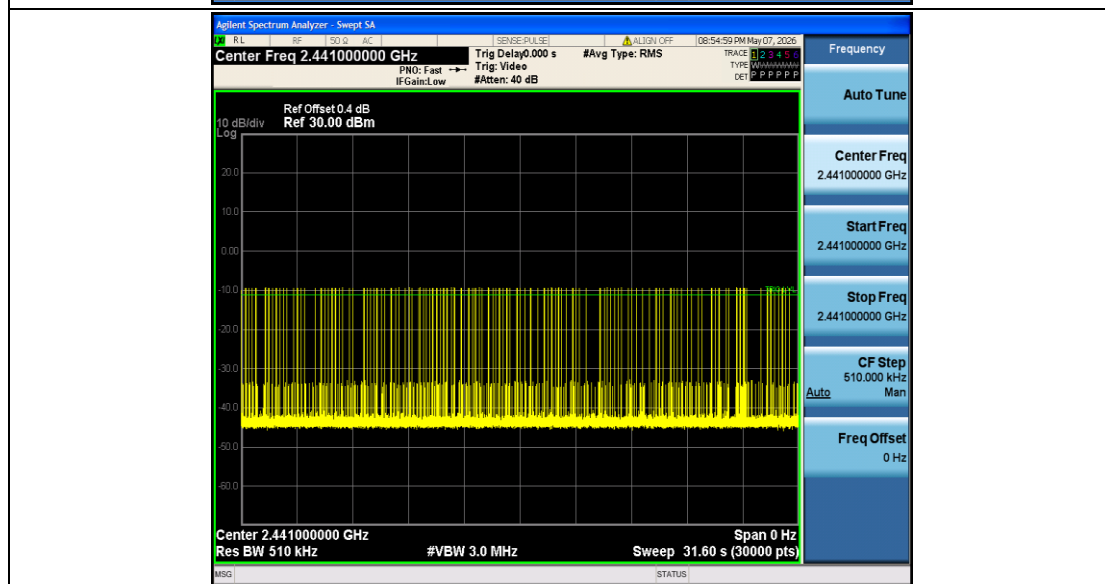
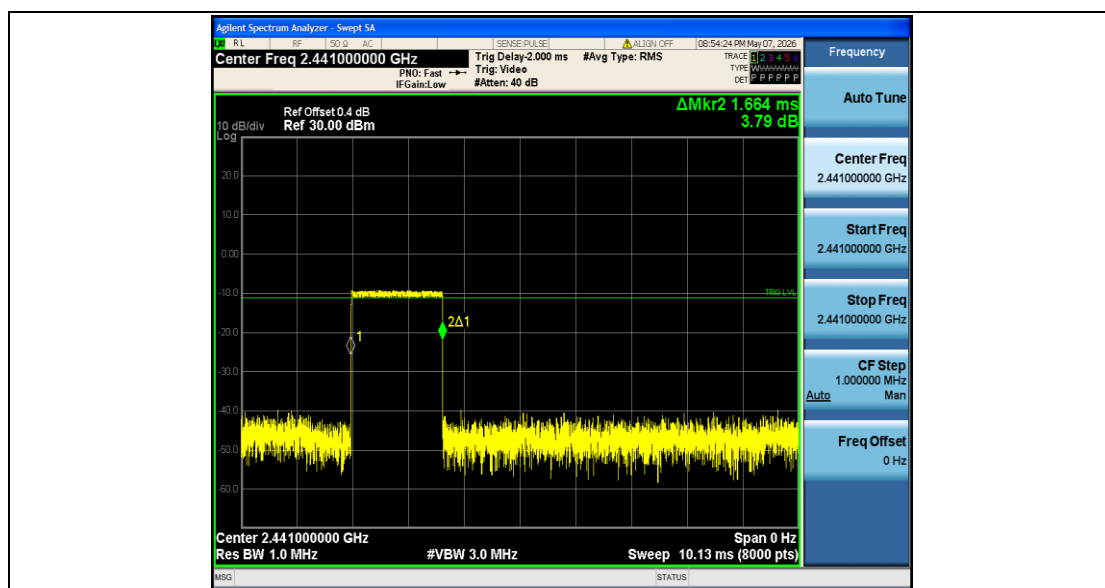
Appendix E: Time of occupancy

Test Result

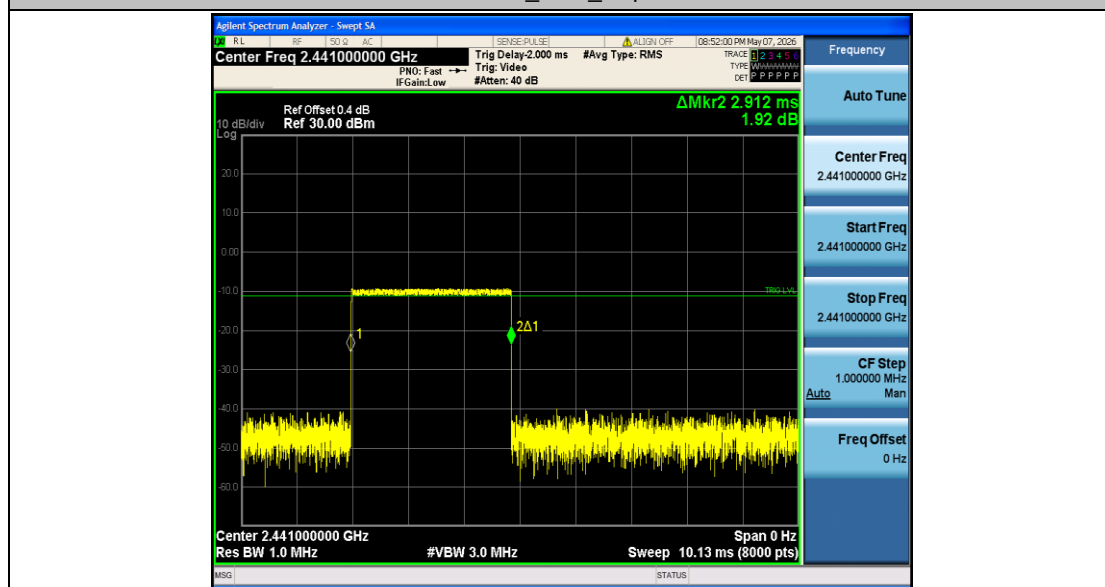
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.408	314	0.128	≤0.4	PASS
DH3	Ant1	Hop	1.664	158	0.263	≤0.4	PASS
DH5	Ant1	Hop	2.912	102	0.297	≤0.4	PASS
2DH1	Ant1	Hop	0.417	318	0.133	≤0.4	PASS
2DH3	Ant1	Hop	1.668	170	0.284	≤0.4	PASS
2DH5	Ant1	Hop	2.916	105	0.306	≤0.4	PASS

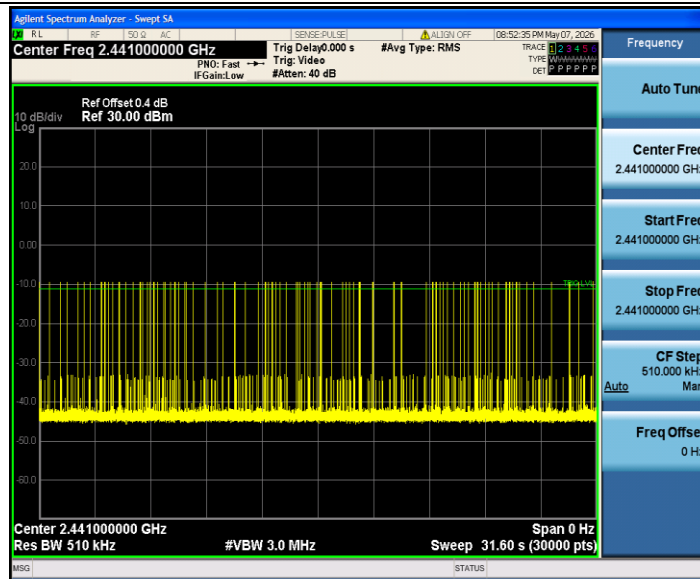
Test Graphs



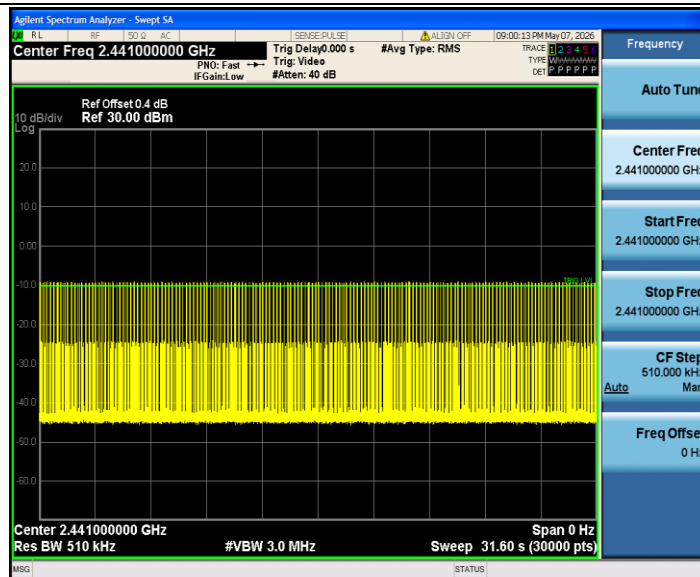
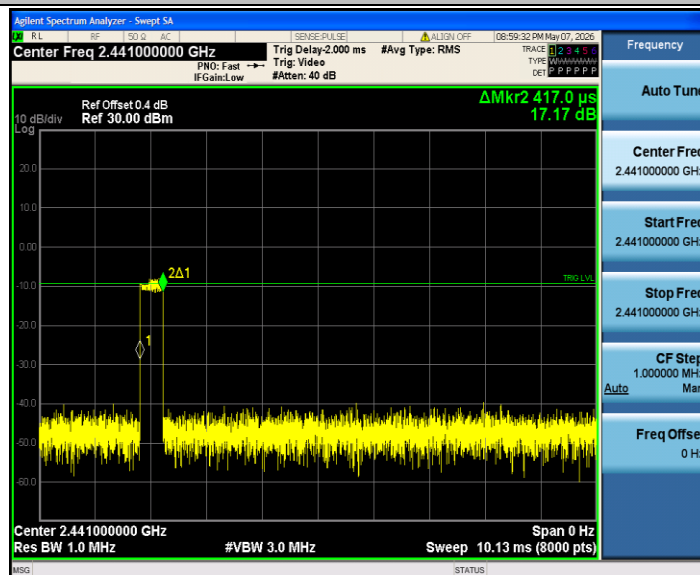


DH5_Ant1_Hop

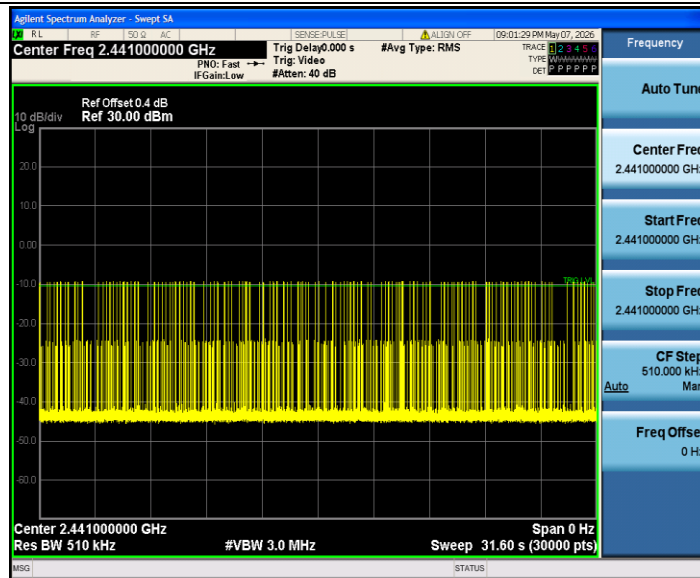
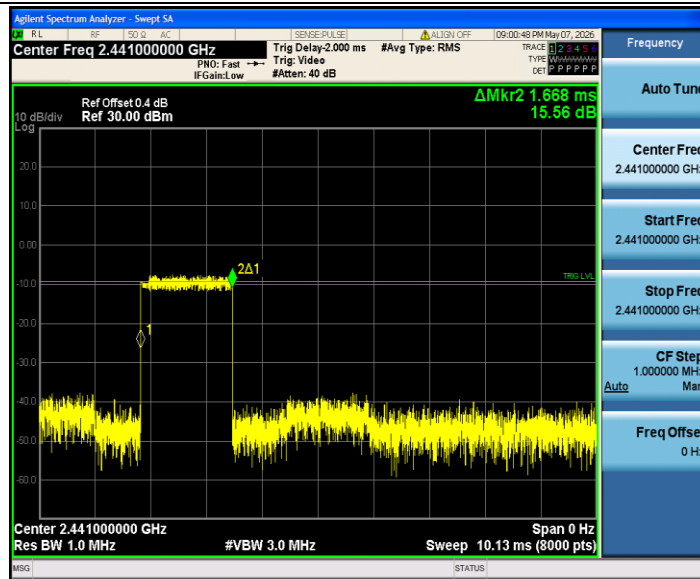




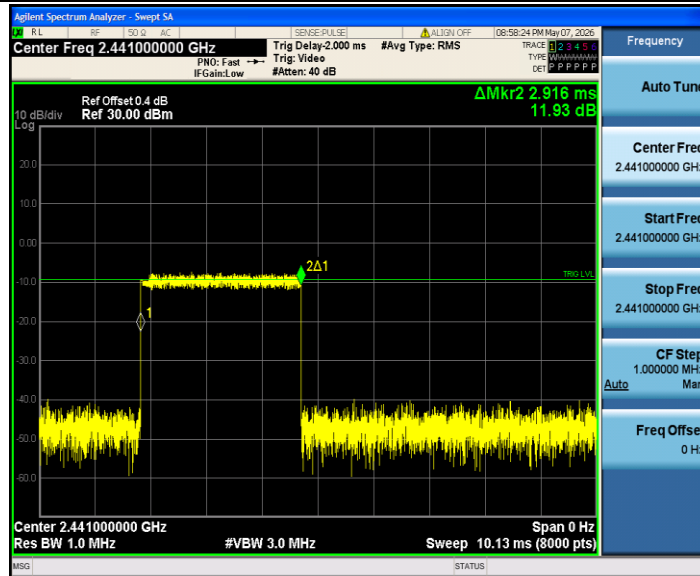
2DH1_Ant1_Hop

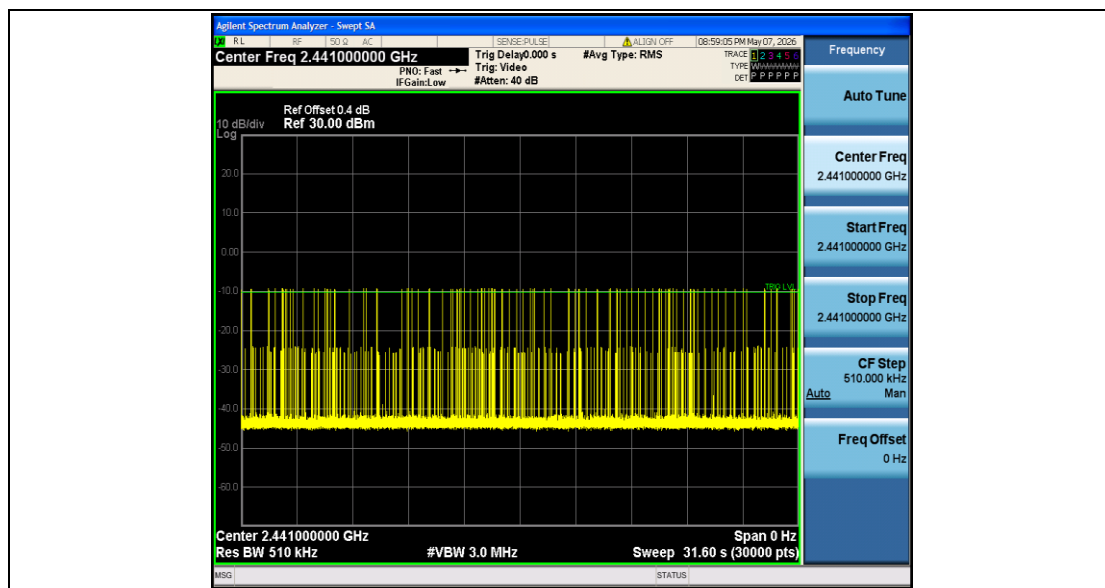


2DH3_Ant1_Hop



2DH5_Ant1_Hop



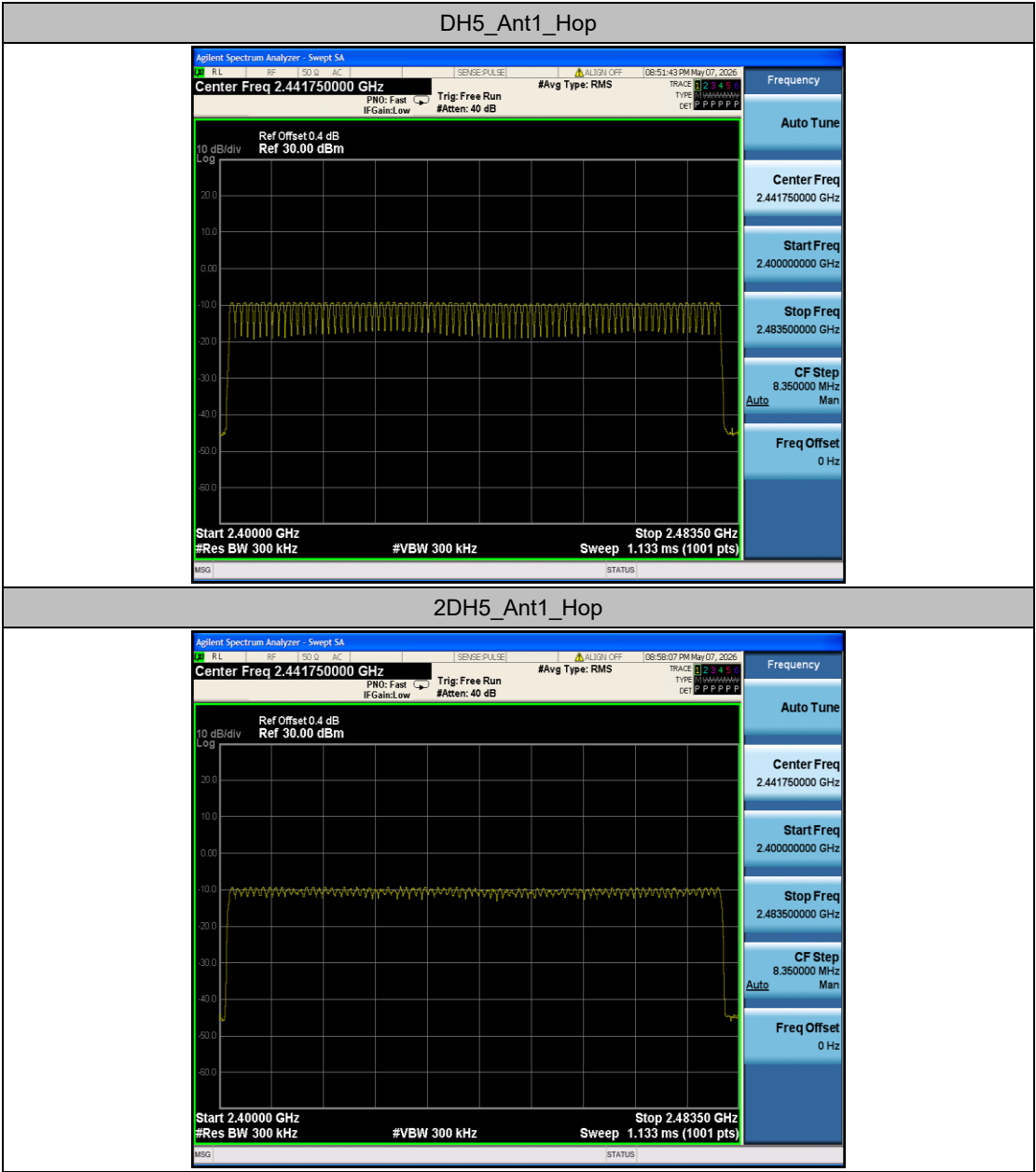


Appendix F: Number of hopping channels

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

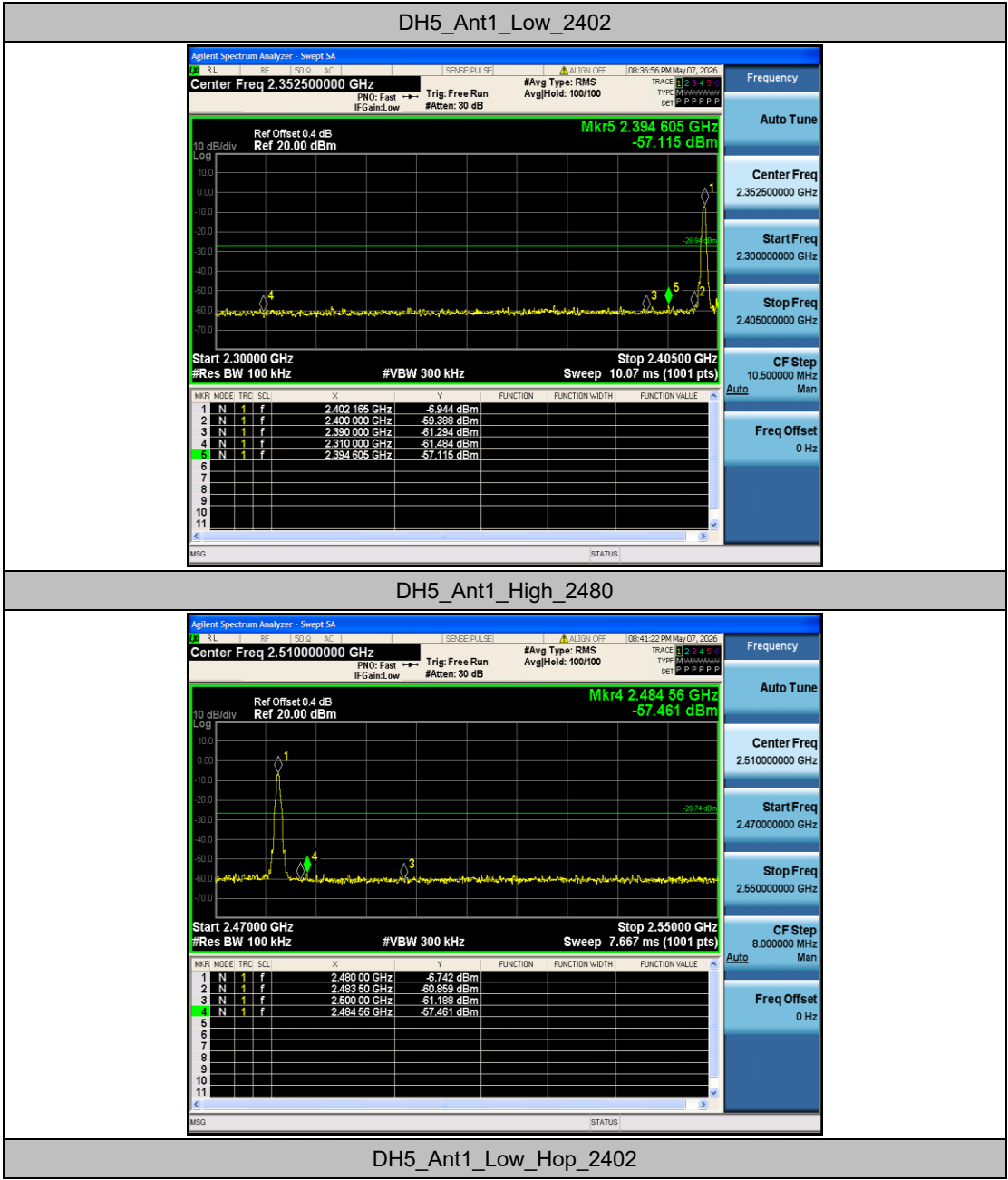


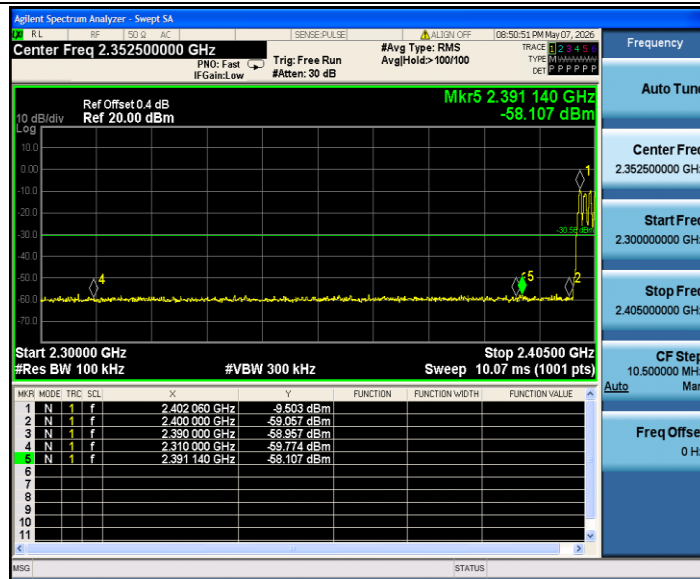
Appendix G: Band edge measurements

Test Result

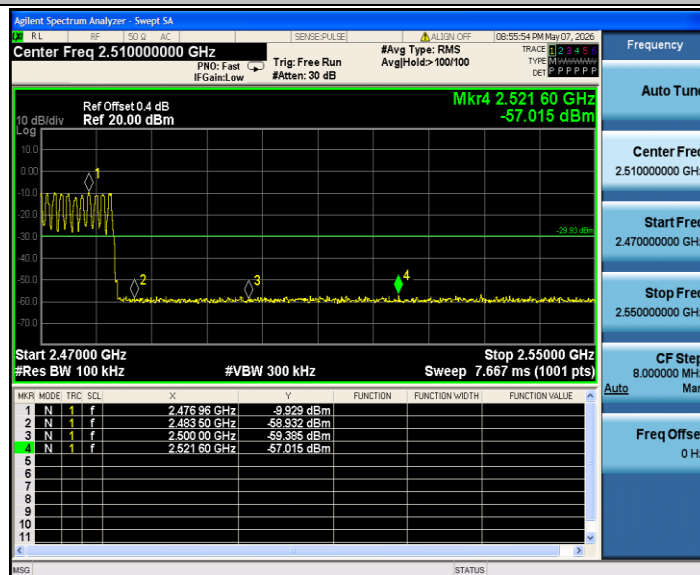
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-6.94	-57.12	≤-26.94	PASS
		High	2480	-6.74	-57.46	≤-26.74	PASS
		Low	Hop_2402	-10.56	-58.11	≤-30.56	PASS
		High	Hop_2480	-9.93	-57.02	≤-29.93	PASS
2DH5	Ant1	Low	2402	-9.46	-57.99	≤-29.46	PASS
		High	2480	-11.10	-56.92	≤-31.1	PASS
		Low	Hop_2402	-11.02	-57.67	≤-31.02	PASS
		High	Hop_2480	-9.46	-57.38	≤-29.46	PASS

Test Graphs

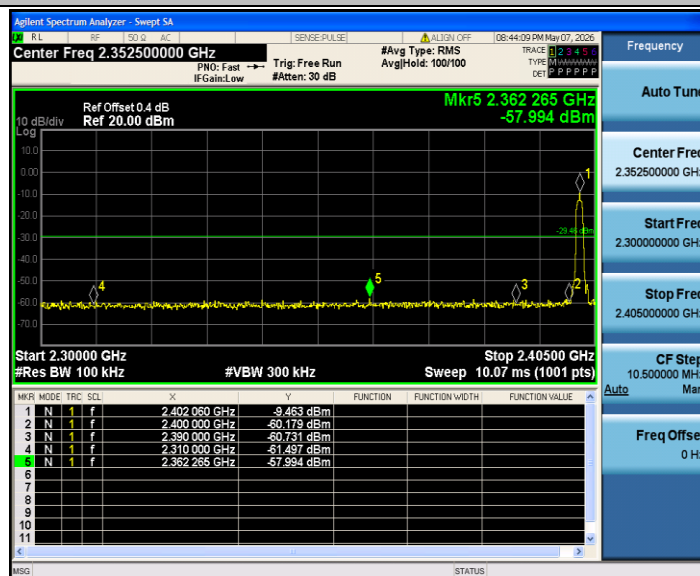




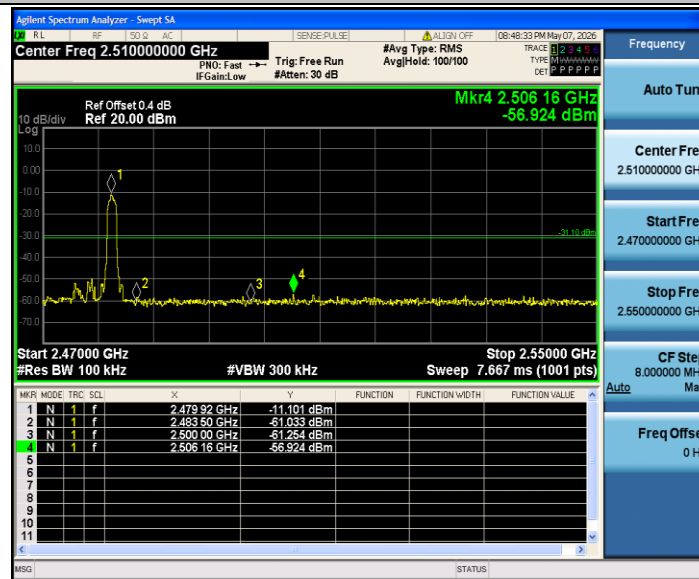
DH5_Ant1_High_Hop_2480



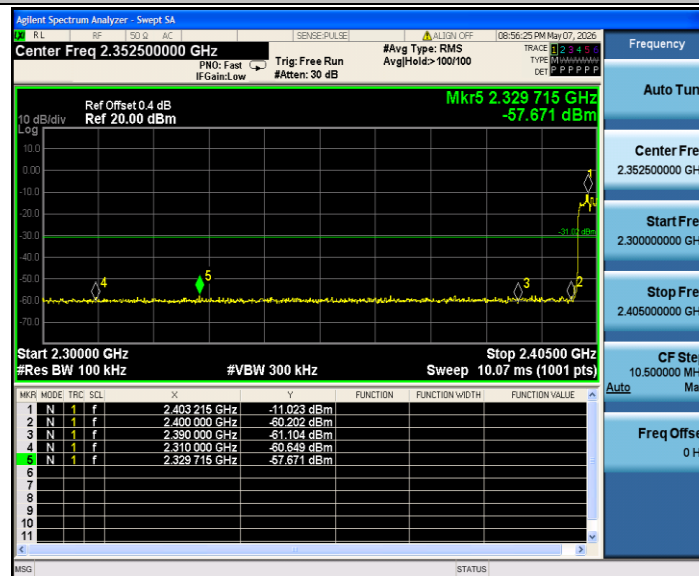
2DH5_Ant1_Low_2402



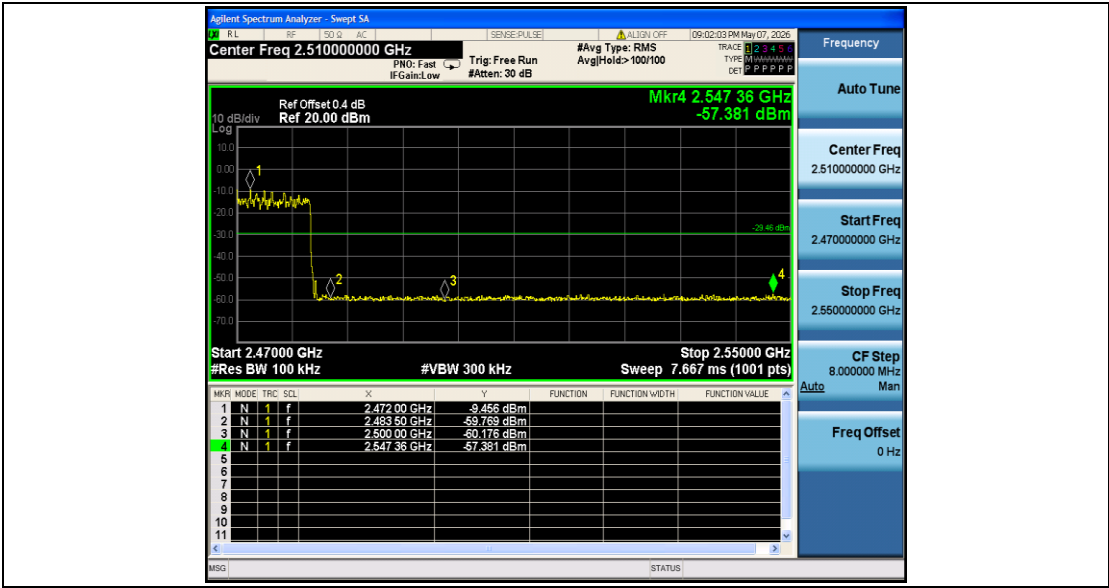
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

Test Result

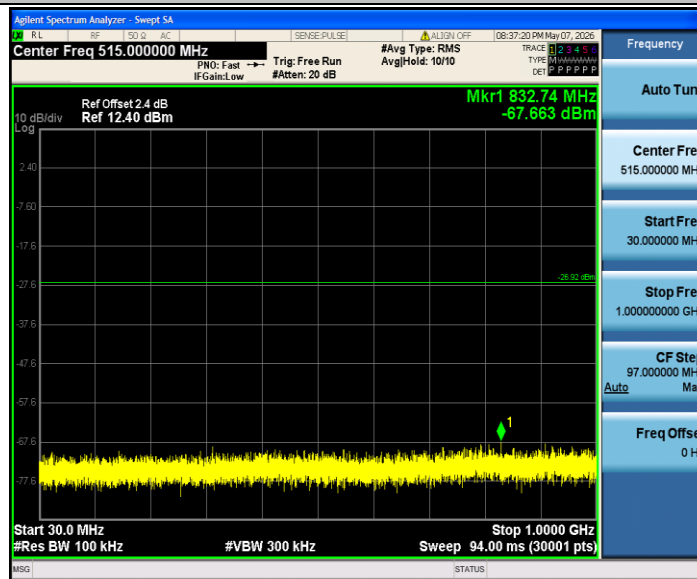
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-6.92	-6.92	---	PASS
			30~1000	-6.92	-67.66	≤-26.92	PASS
			1000~26500	-6.92	-51.86	≤-26.92	PASS
		2441	Reference	-7.21	-7.21	---	PASS
			30~1000	-7.21	-67.49	≤-27.21	PASS
			1000~26500	-7.21	-51.42	≤-27.21	PASS
		2480	Reference	-7.56	-7.56	---	PASS
			30~1000	-7.56	-67.9	≤-27.56	PASS
			1000~26500	-7.56	-50.63	≤-27.56	PASS
2DH5	Ant1	2402	Reference	-10.39	-10.39	---	PASS
			30~1000	-10.39	-67.99	≤-30.39	PASS
			1000~26500	-10.39	-56.32	≤-30.39	PASS
		2441	Reference	-10.75	-10.75	---	PASS
			30~1000	-10.75	-67.81	≤-30.75	PASS
			1000~26500	-10.75	-55.7	≤-30.75	PASS
		2480	Reference	-11.91	-11.91	---	PASS
			30~1000	-11.91	-67.6	≤-31.91	PASS
			1000~26500	-11.91	-56.29	≤-31.91	PASS

Test Graphs

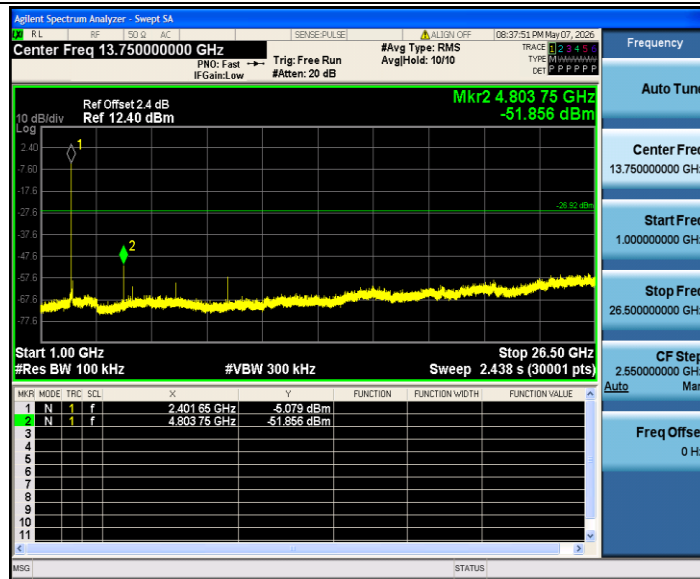
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



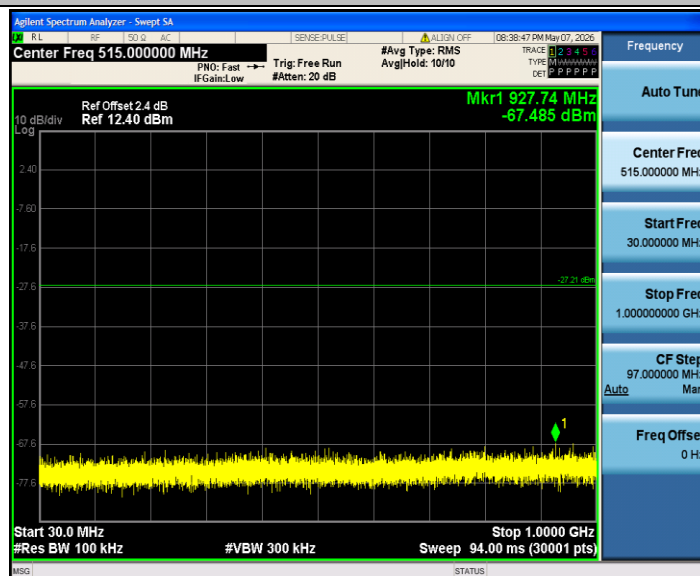
DH5_Ant1_2402_1000~26500



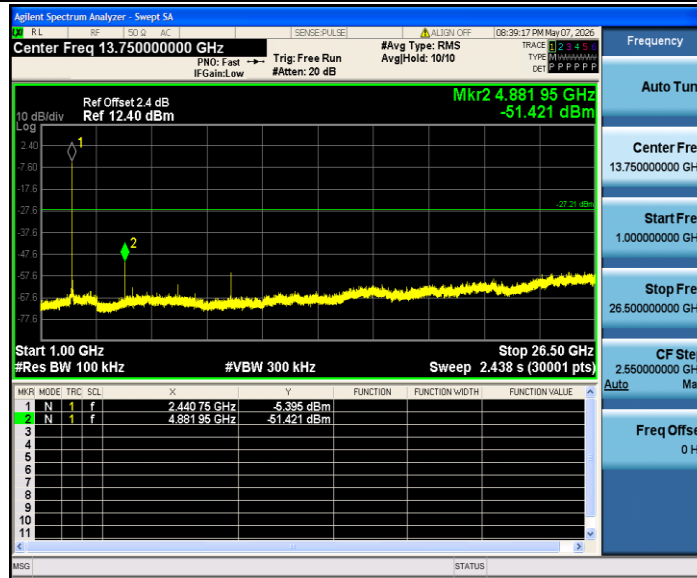
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



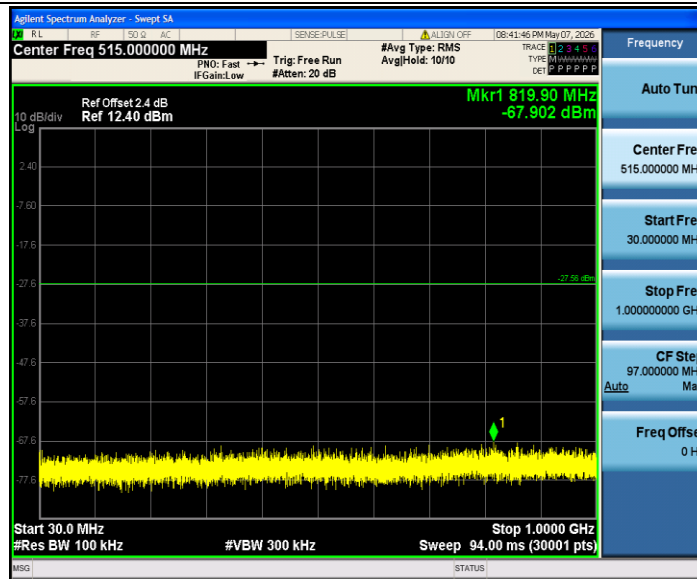
DH5_Ant1_2441_1000~26500



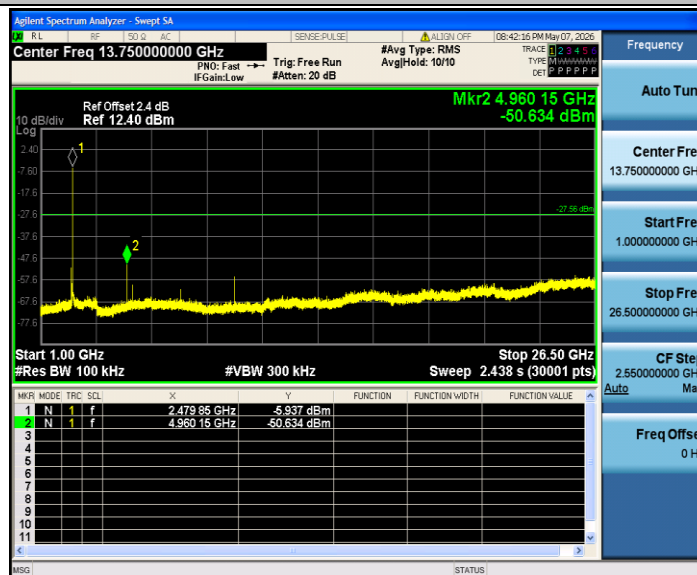
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



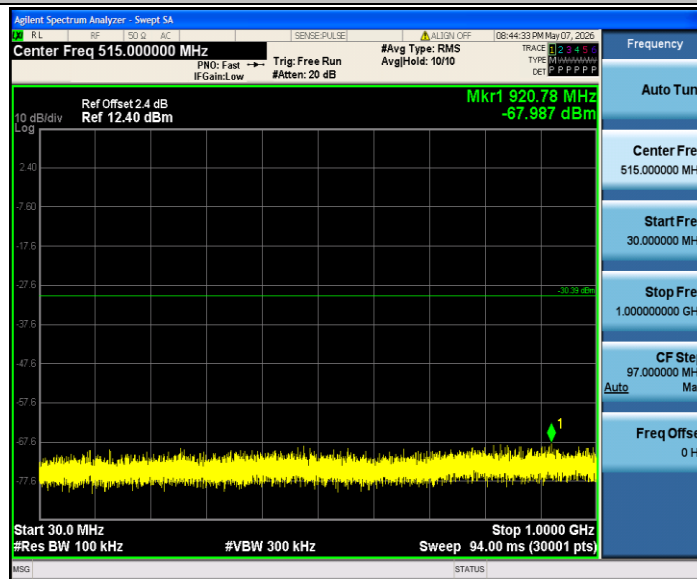
DH5_Ant1_2480_1000~26500



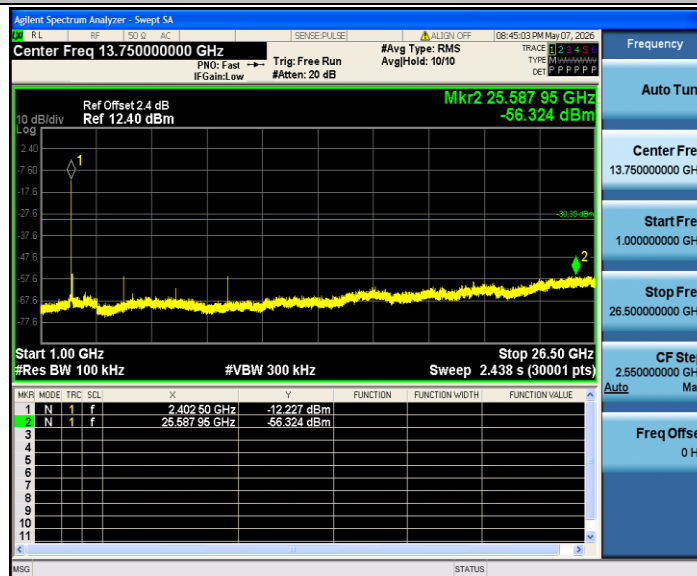
2DH5_Ant1_2402_0~Reference



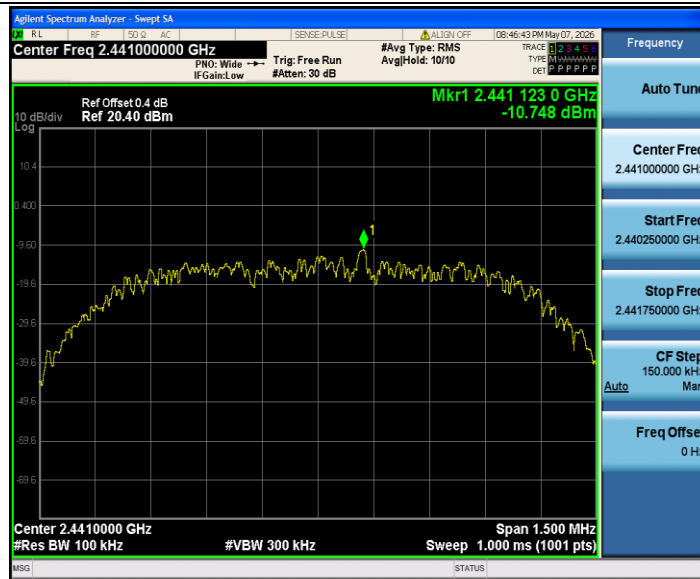
2DH5_Ant1_2402_30~1000



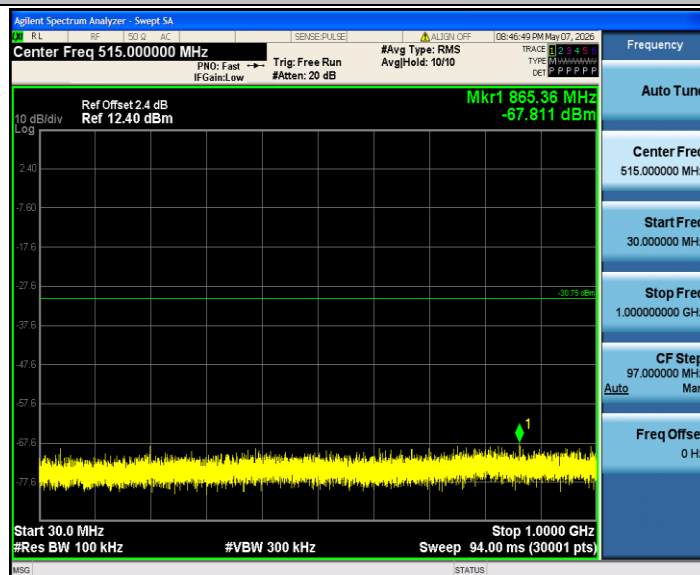
2DH5_Ant1_2402_1000~26500



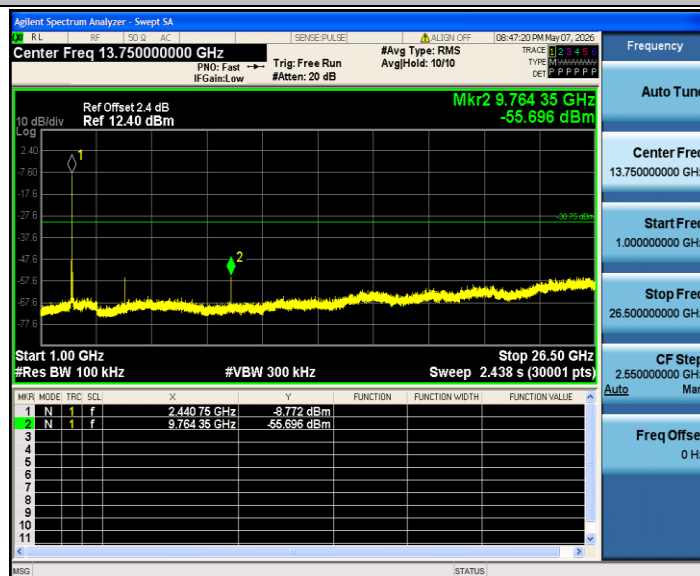
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



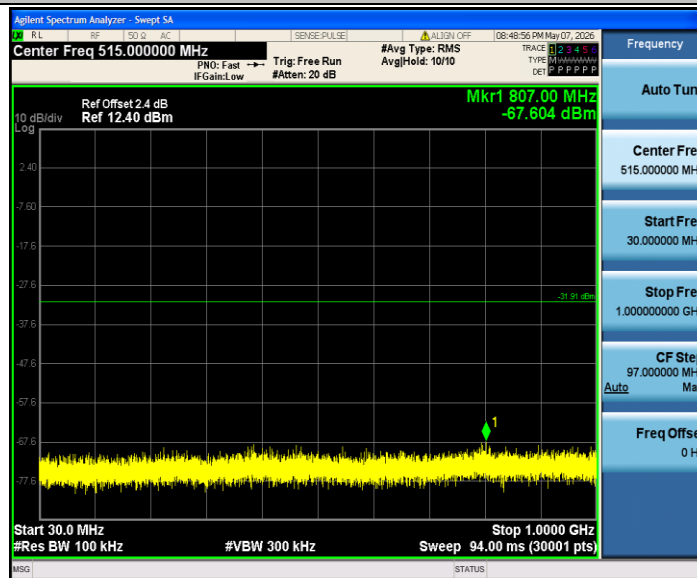
2DH5_Ant1_2441_1000~26500



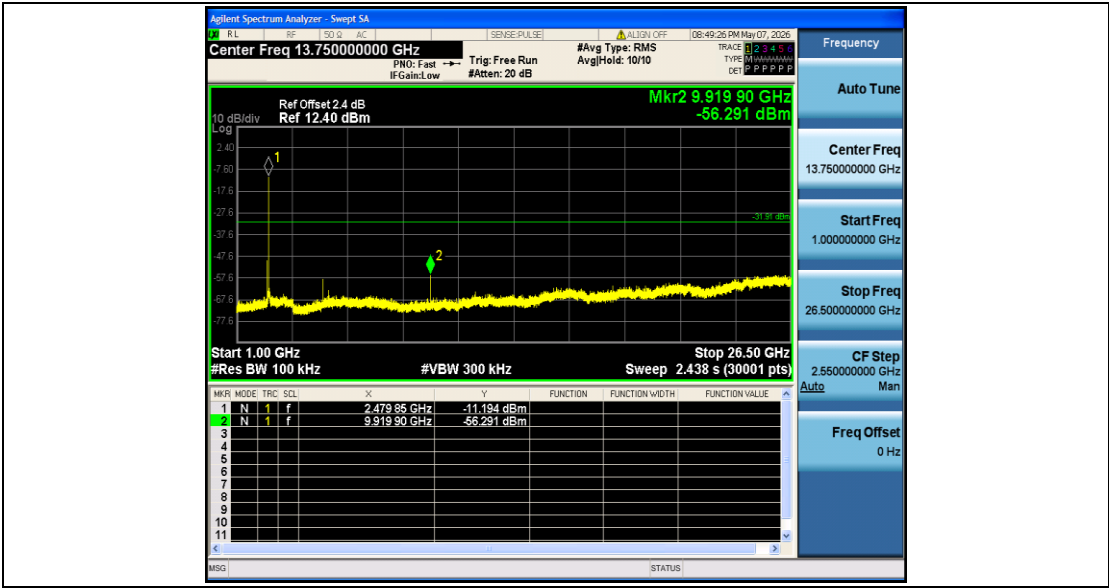
2DH5_Ant1_2480_0~Reference



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	2.91	3.75	77.60	1.10	---	---
2DH5	Ant1	2402	2.92	3.75	77.87	1.09	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.91	3.74	77.81	1.09	---	---