

## Appendix Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: Bluetooth Mechanical Keyboard

Trade Mark: Keychron

Test Model: Keychron Q1 Pro

FCC ID: 2ASF4-Q1PRO

### Environmental Conditions

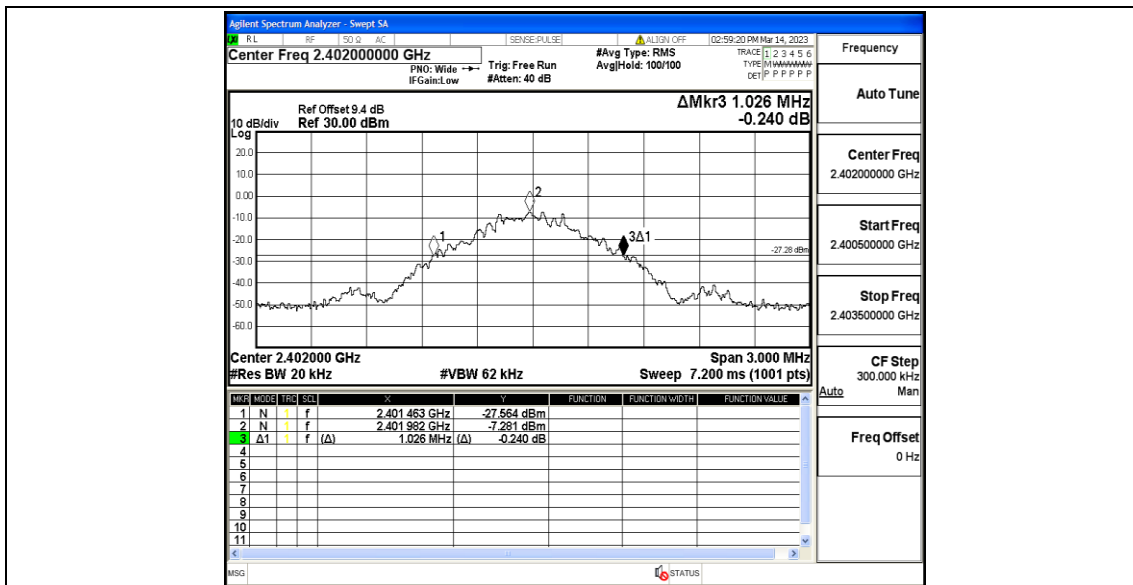
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

## Appendix A: 20dB Emission Bandwidth

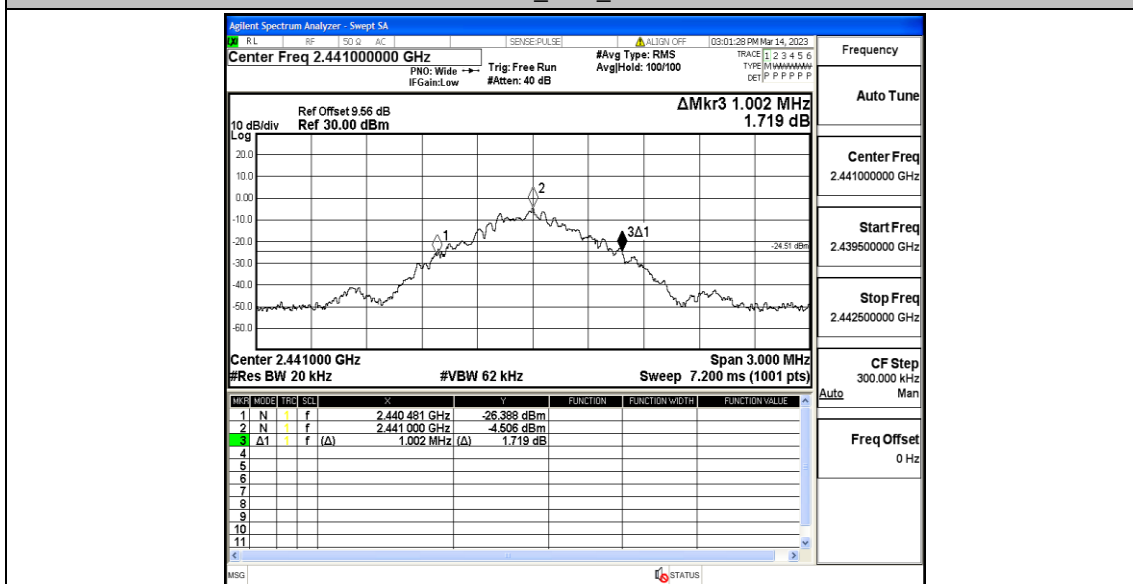
### Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.026	2401.463	2402.489	---	---
		2441	1.002	2440.481	2441.483	---	---
		2480	0.894	2479.535	2480.429	---	---

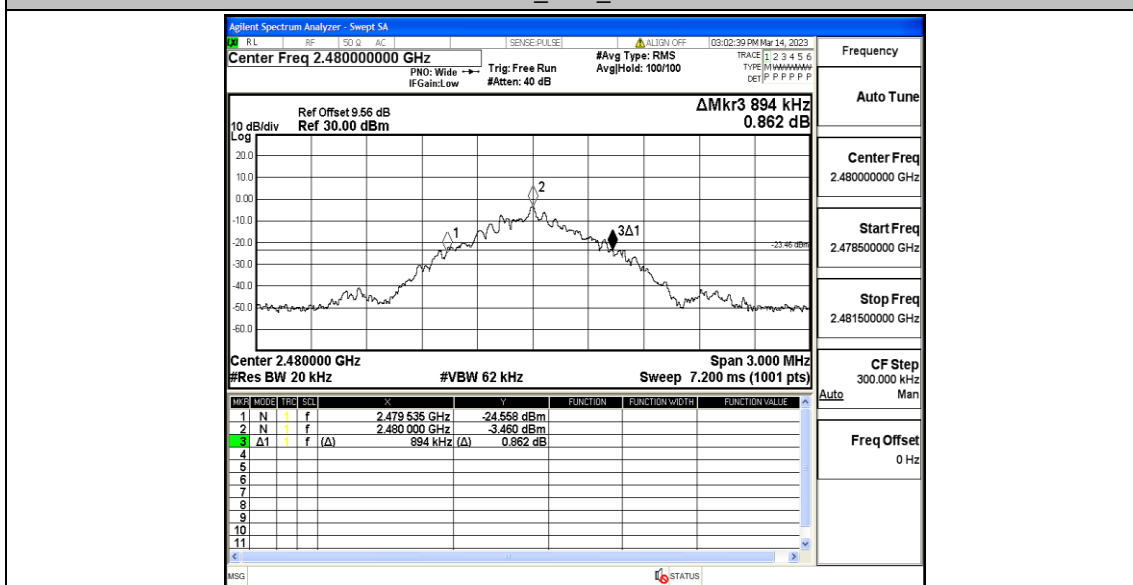
### Test Graphs



DH5\_Ant1\_2402



DH5\_Ant1\_2441



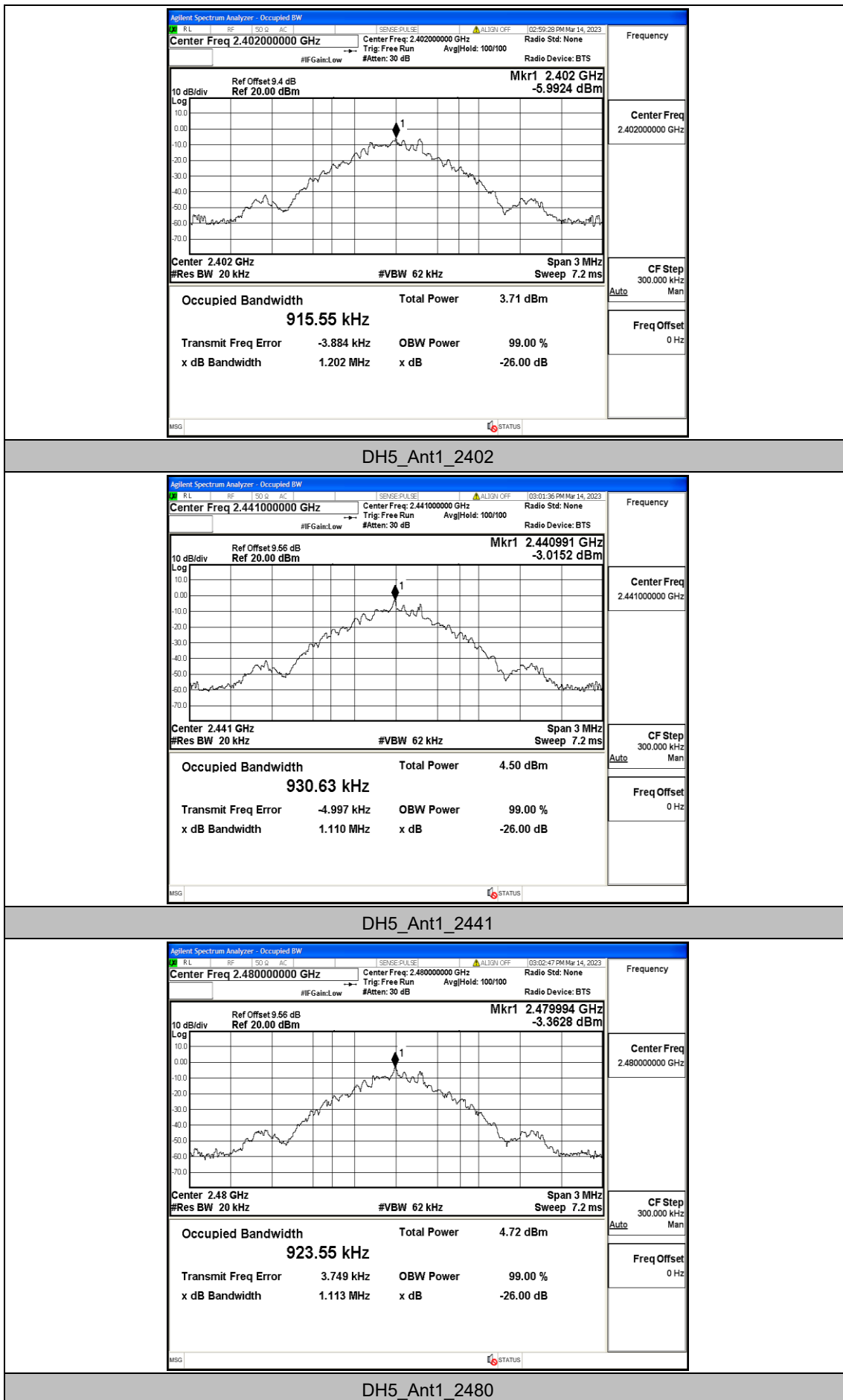
DH5\_Ant1\_2480

## Appendix B: Occupied Channel Bandwidth

### Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.91555	2401.5383	2402.4539	---	---
		2441	0.93063	2440.5297	2441.4603	---	---
		2480	0.92355	2479.5420	2480.4655	---	---

### Test Graphs

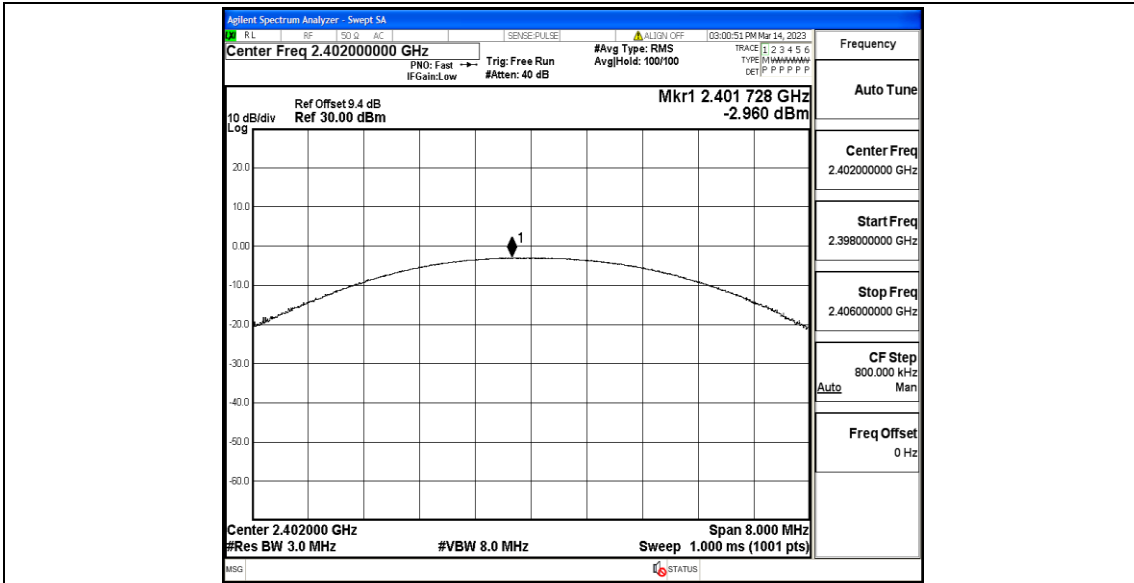


## Appendix C: Maximum Peak conducted output power

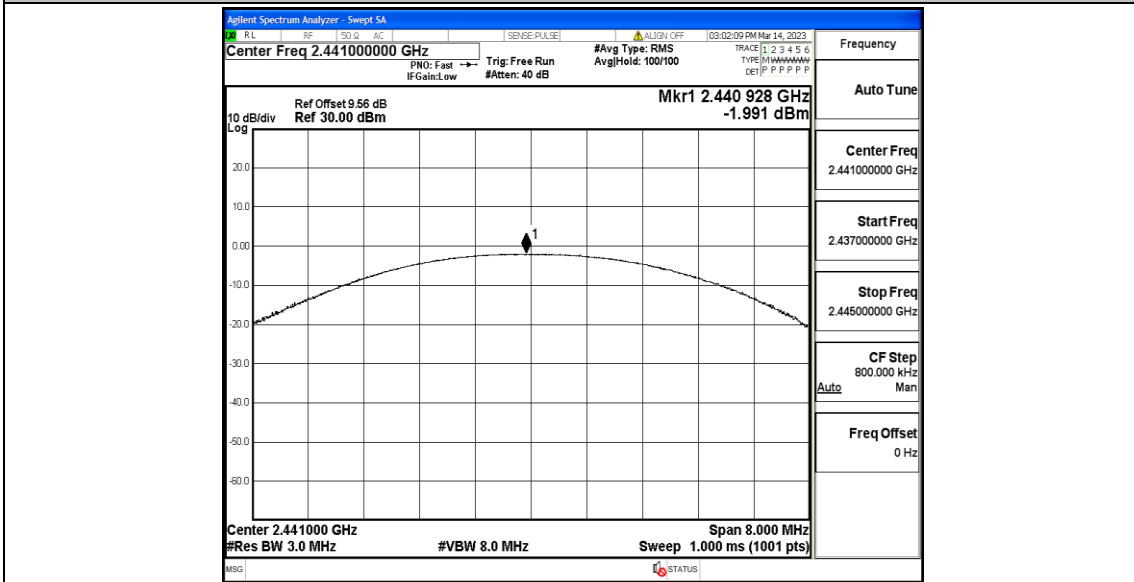
### Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-2.96	≤20.97	PASS
		2441	-1.99	≤20.97	PASS
		2480	-2.02	≤20.97	PASS

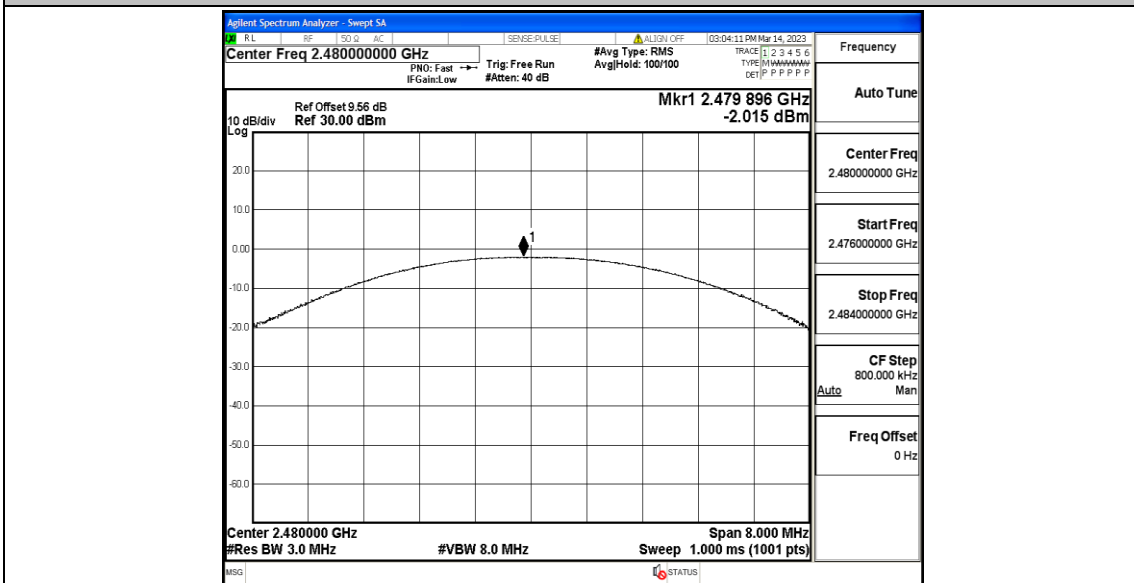
### Test Graphs



DH5\_Ant1\_2402



DH5\_Ant1\_2441



DH5\_Ant1\_2480

## Appendix D: Carrier frequency separation

### Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.008	≥0.684	PASS



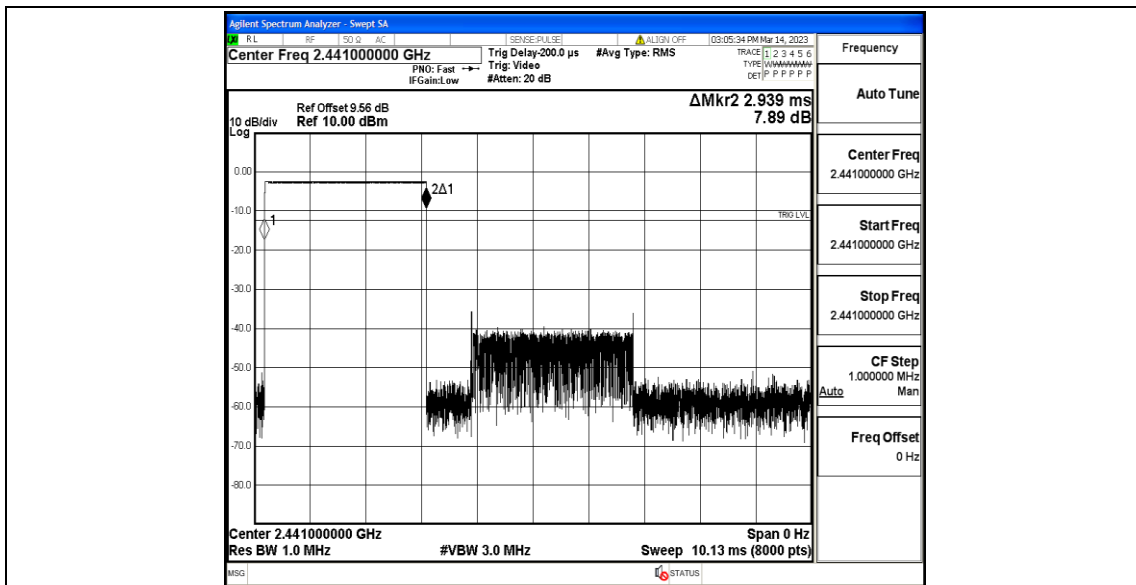


## Appendix E: Time of occupancy

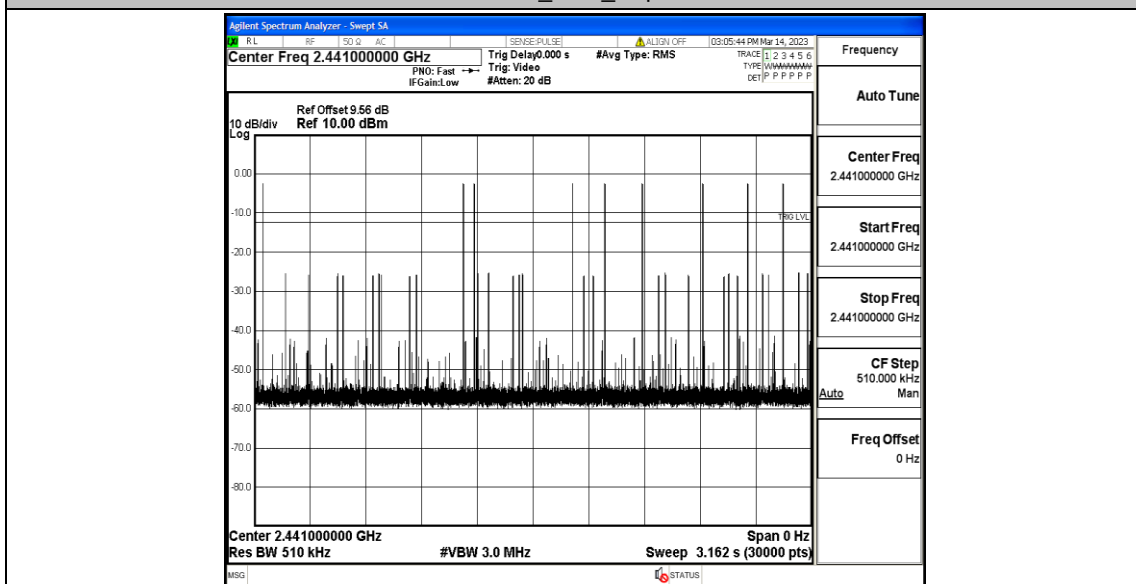
### Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.939	100	0.294	≤0.4	PASS

### Test Graphs



DH5\_Ant1\_Hop



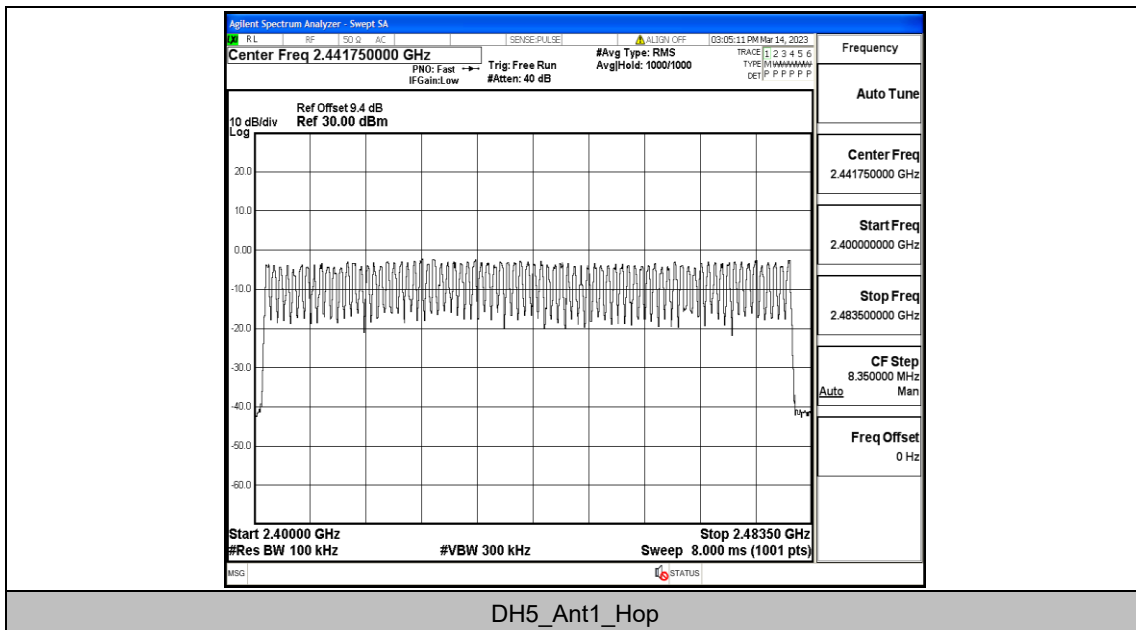
DH5\_Ant1\_Hop

## Appendix F: Number of hopping channels

### Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS

### Test Graphs

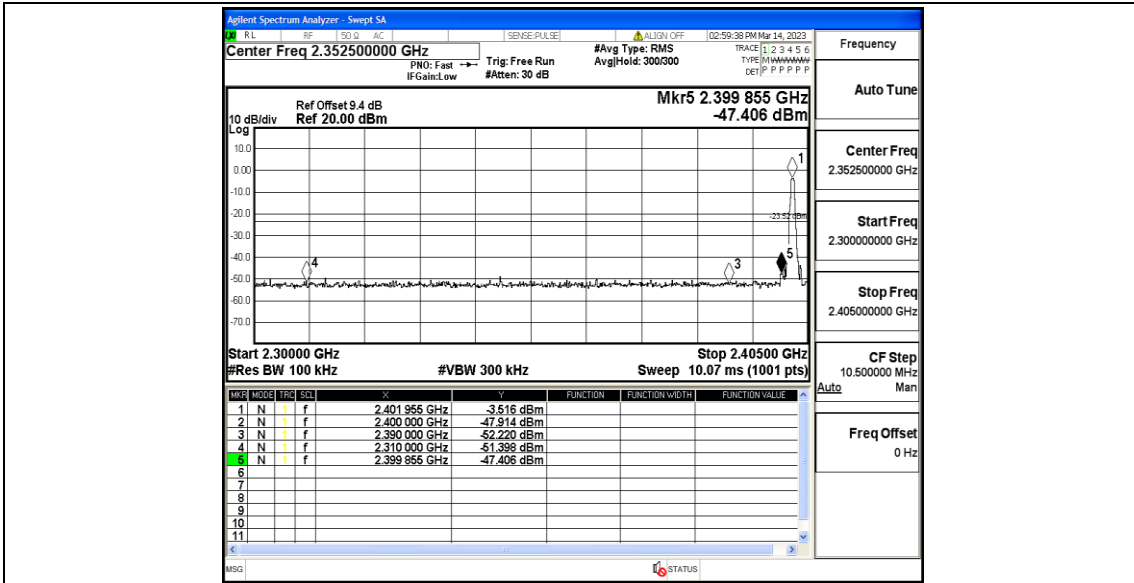


## Appendix G: Band edge measurements

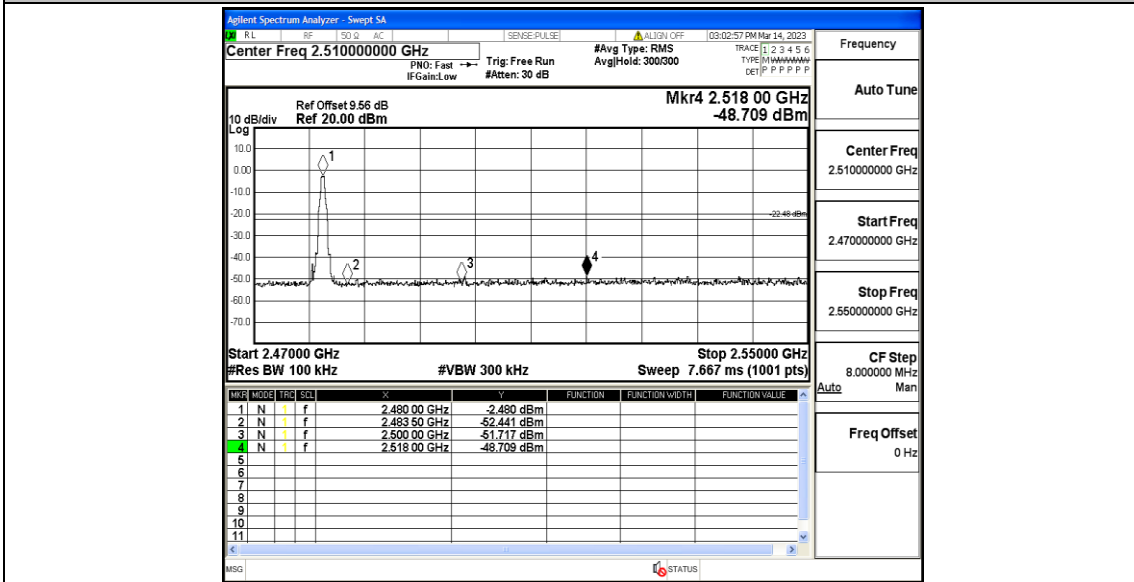
### Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.52	-47.41	≤-23.52	PASS
		High	2480	-2.48	-48.71	≤-22.48	PASS
		Low	Hop_2402	-3.71	-49.85	≤-23.71	PASS
		High	Hop_2480	-2.69	-48.7	≤-22.69	PASS

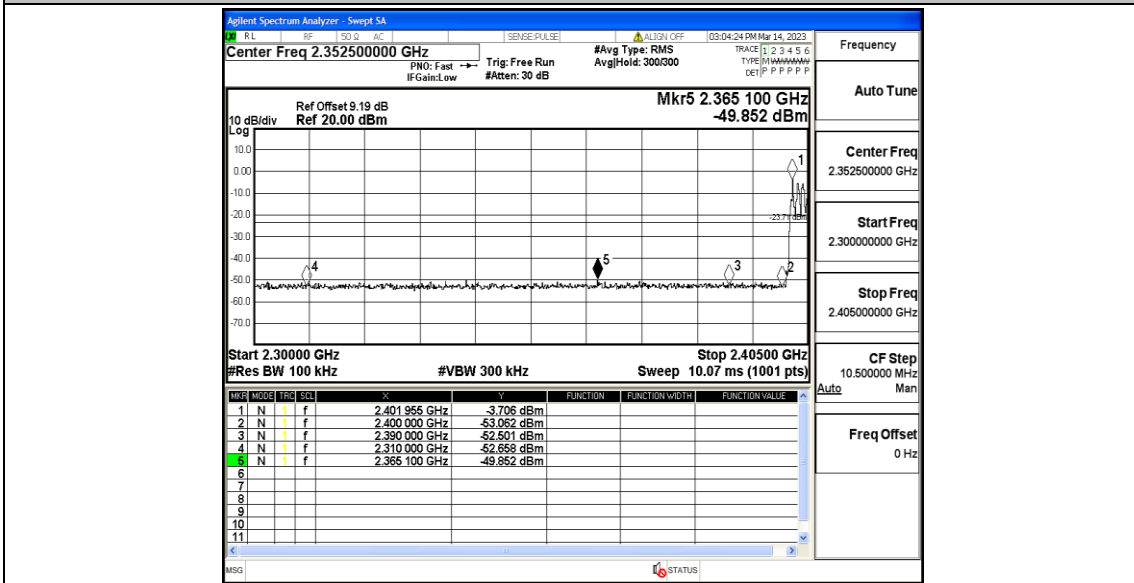
Test Graphs



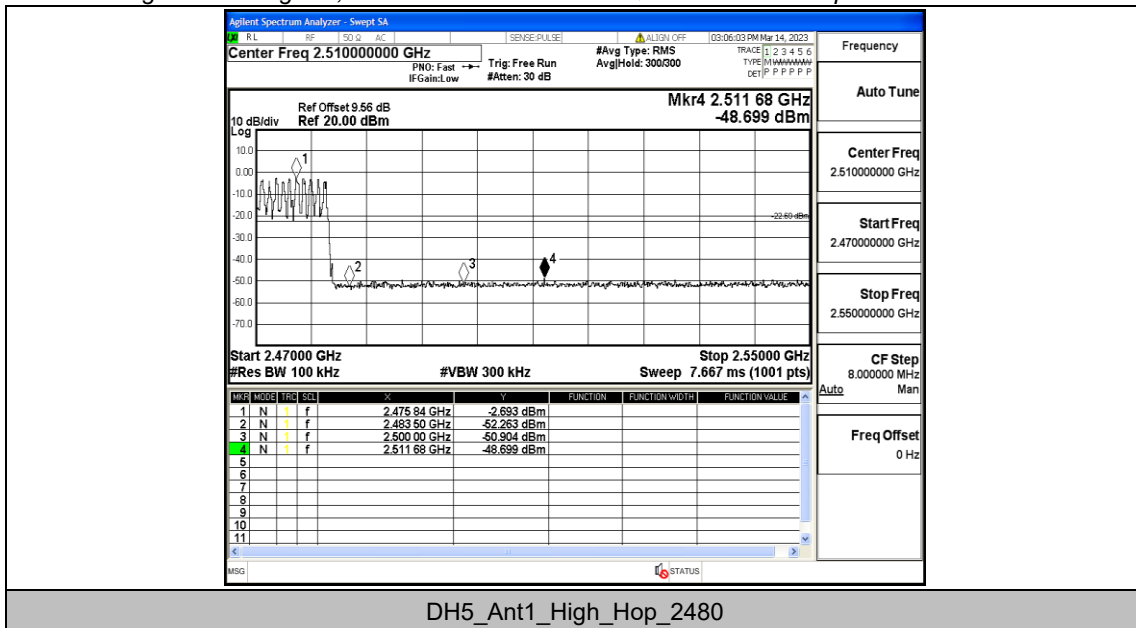
DH5\_Ant1\_Low\_2402



DH5\_Ant1\_High\_2480



DH5\_Ant1\_Low\_Hop\_2402



DH5\_Ant1\_High\_Hop\_2480

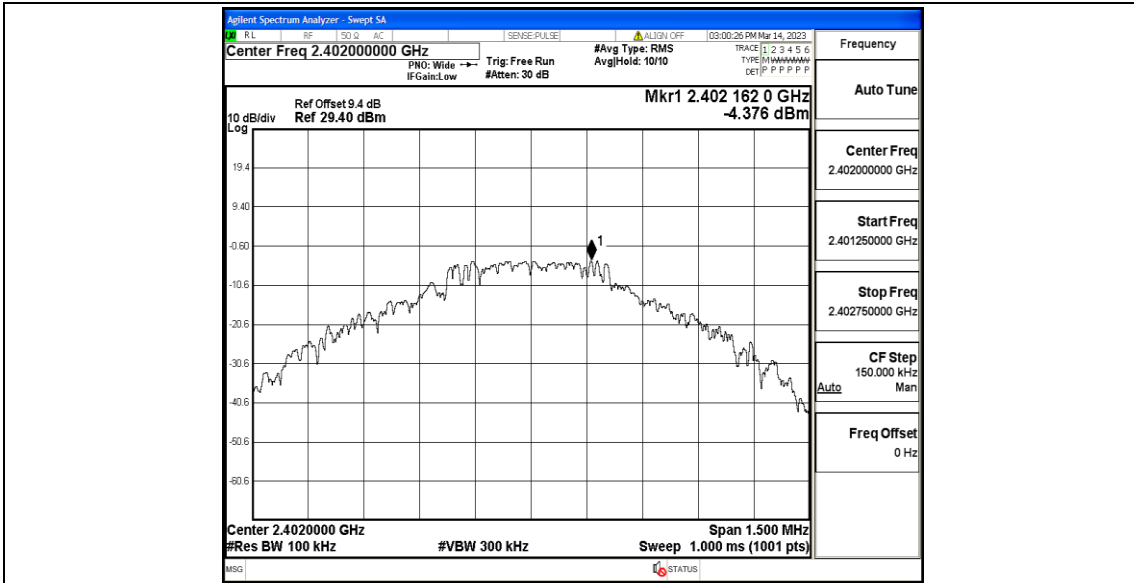
## Appendix H: Conducted Spurious Emission

### Test Result

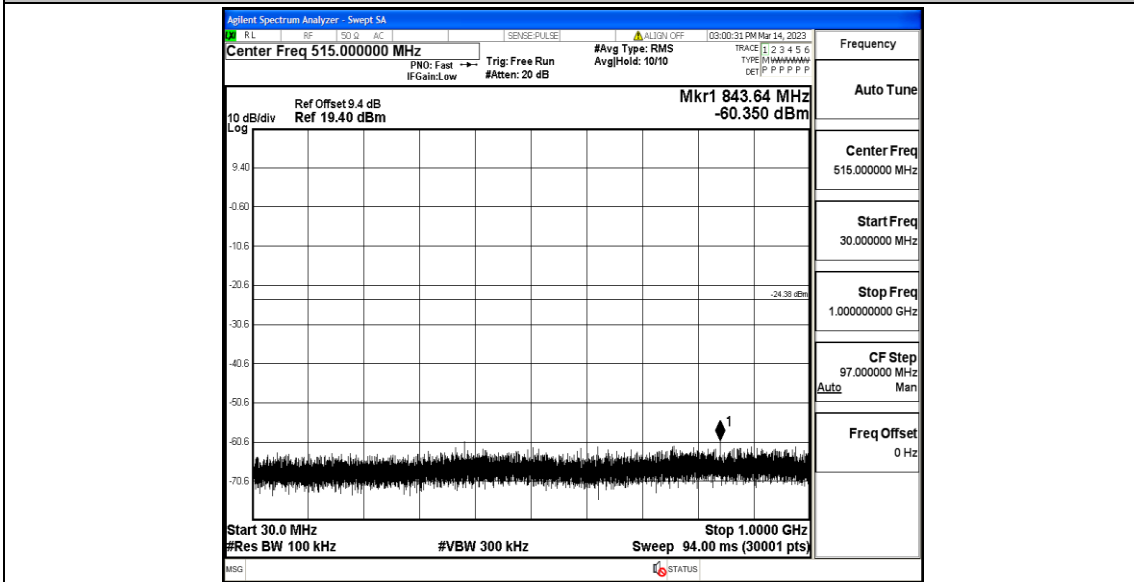
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-4.38	-4.38	---	PASS
			30~1000	-4.38	-60.35	≤-24.38	PASS
			1000~26500	-4.38	-50.69	≤-24.38	PASS
		2441	Reference	-3.32	-3.32	---	PASS
			30~1000	-3.32	-60.66	≤-23.32	PASS
			1000~26500	-3.32	-50.53	≤-23.32	PASS
		2480	Reference	-3.35	-3.35	---	PASS
			30~1000	-3.35	-61.43	≤-23.35	PASS
			1000~26500	-3.35	-50.63	≤-23.35	PASS



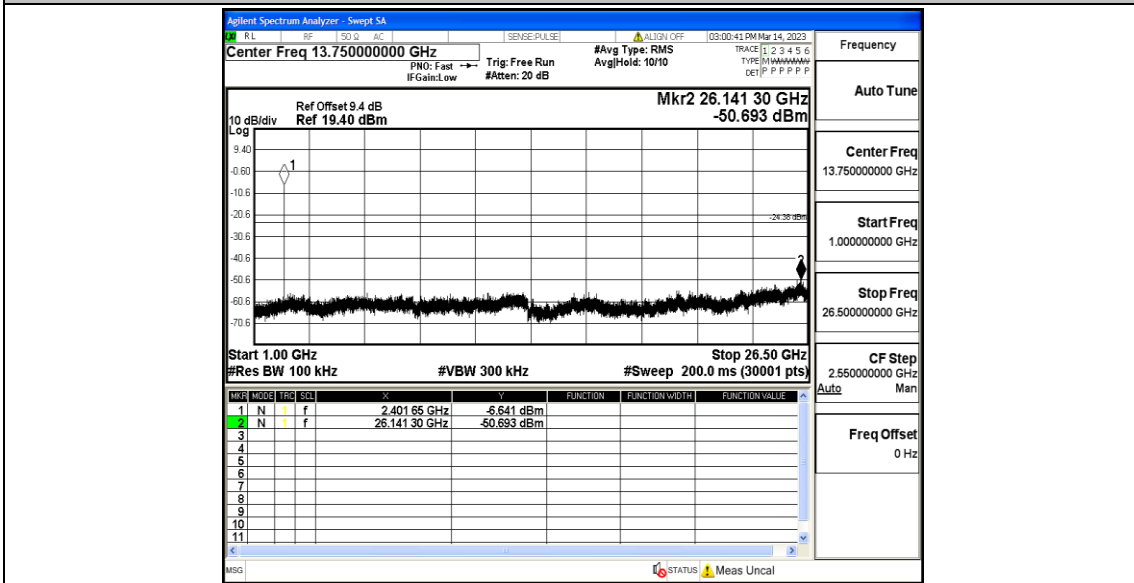
Test Graphs



DH5\_Ant1\_2402\_0~Reference



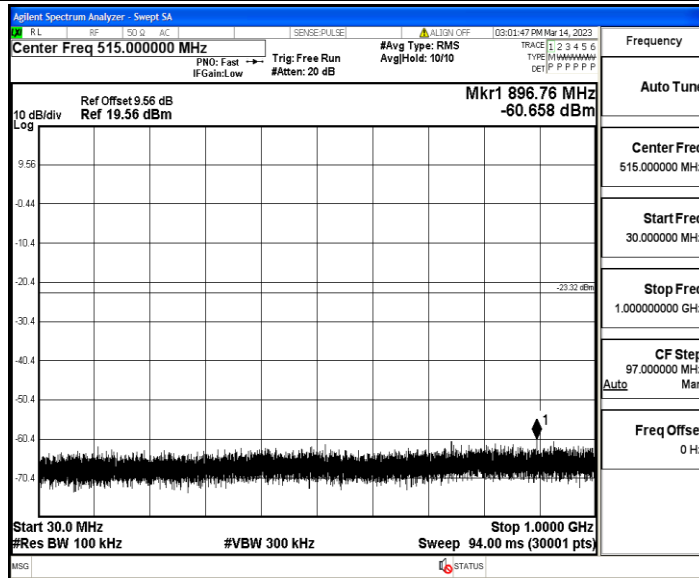
DH5\_Ant1\_2402\_30~1000



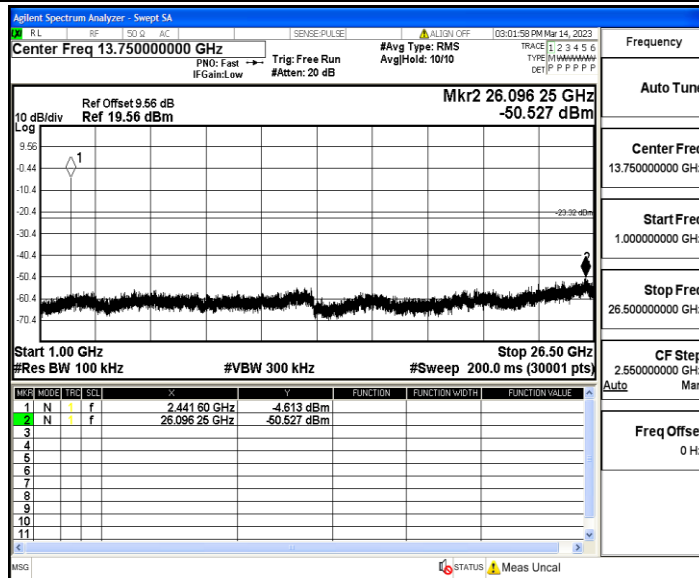
DH5\_Ant1\_2402\_1000~26500



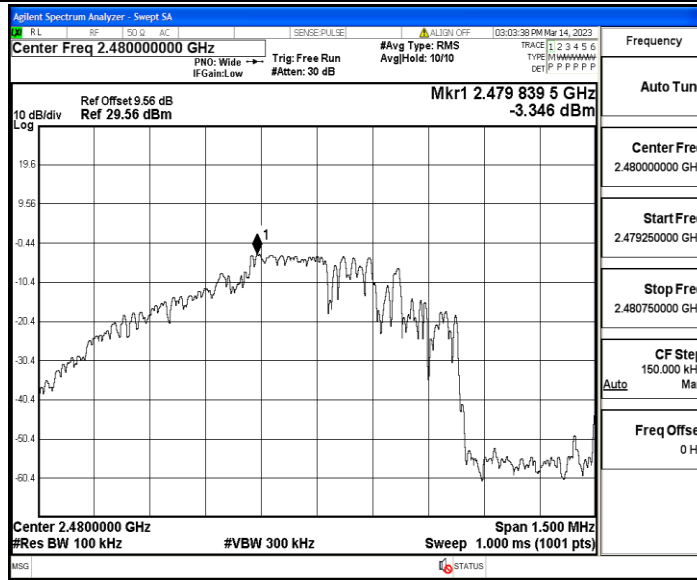
DH5\_Ant1\_2441\_0~Reference



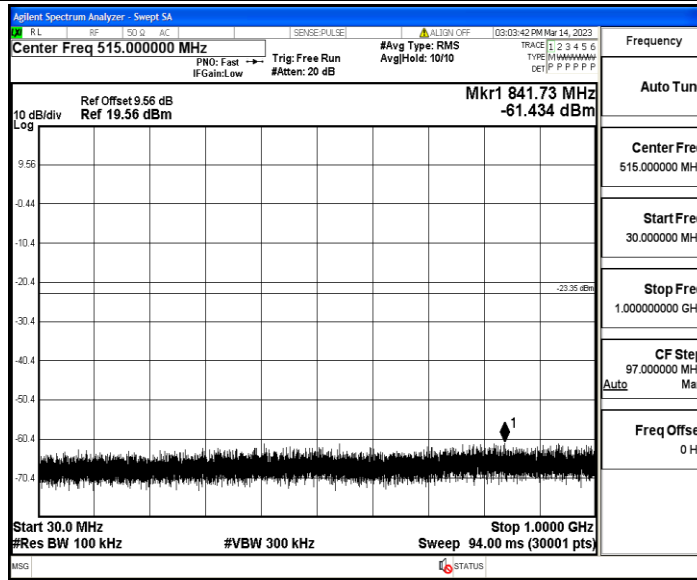
DH5\_Ant1\_2441\_30~1000



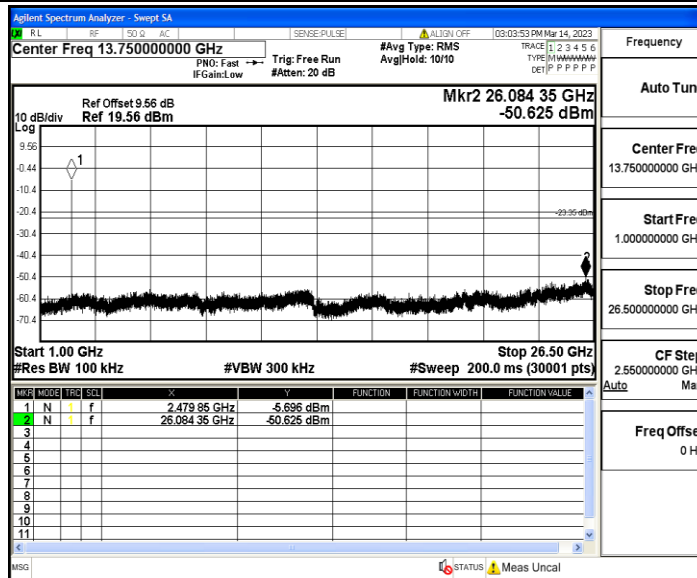
DH5\_Ant1\_2441\_1000~26500



DH5\_Ant1\_2480\_0~Reference



DH5\_Ant1\_2480\_30~1000



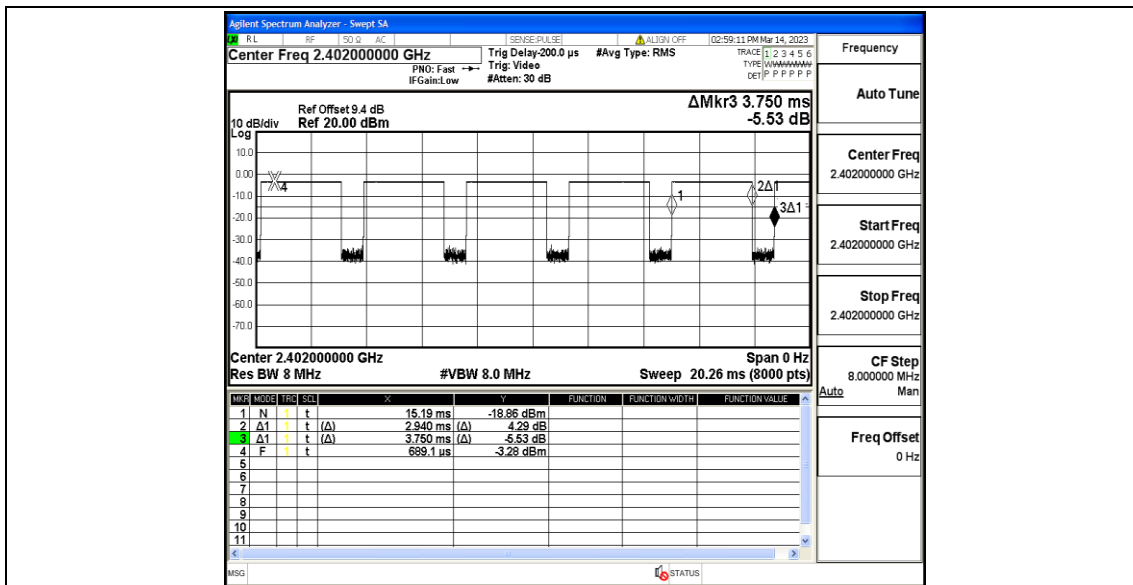
DH5\_Ant1\_2480\_1000~26500

## Appendix I: Duty Cycle

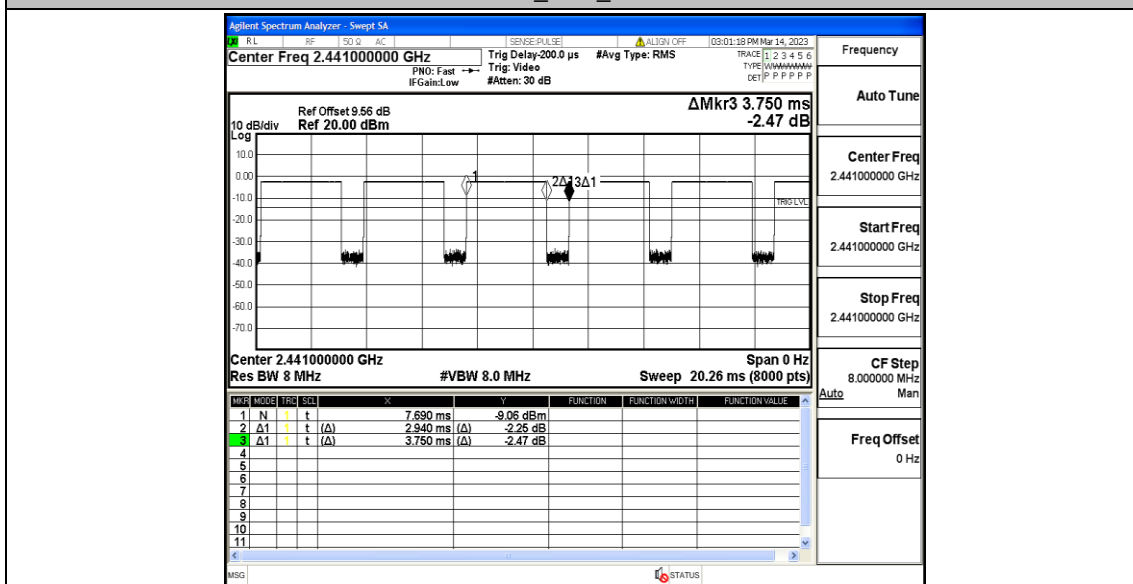
### Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
DH5	Ant1	2402	2.94	3.75	78.40	0.34
		2441	2.94	3.75	78.40	0.34
		2480	2.94	3.75	78.40	0.34

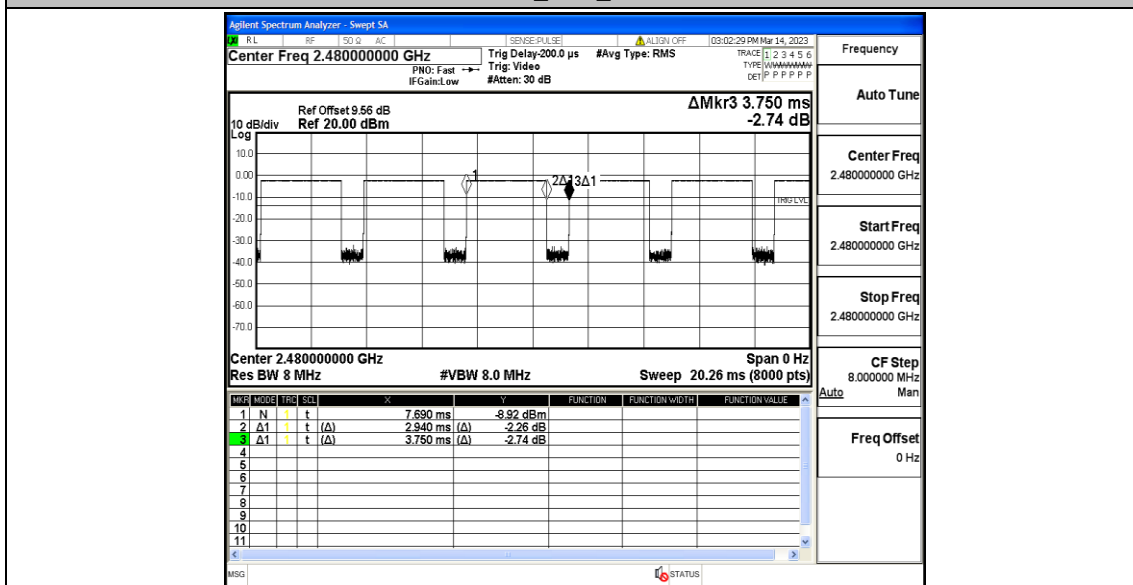
### Test Graphs



DH5\_Ant1\_2402



DH5\_Ant1\_2441



DH5\_Ant1\_2480

## Appendix J: Emissions in Restricted Bands

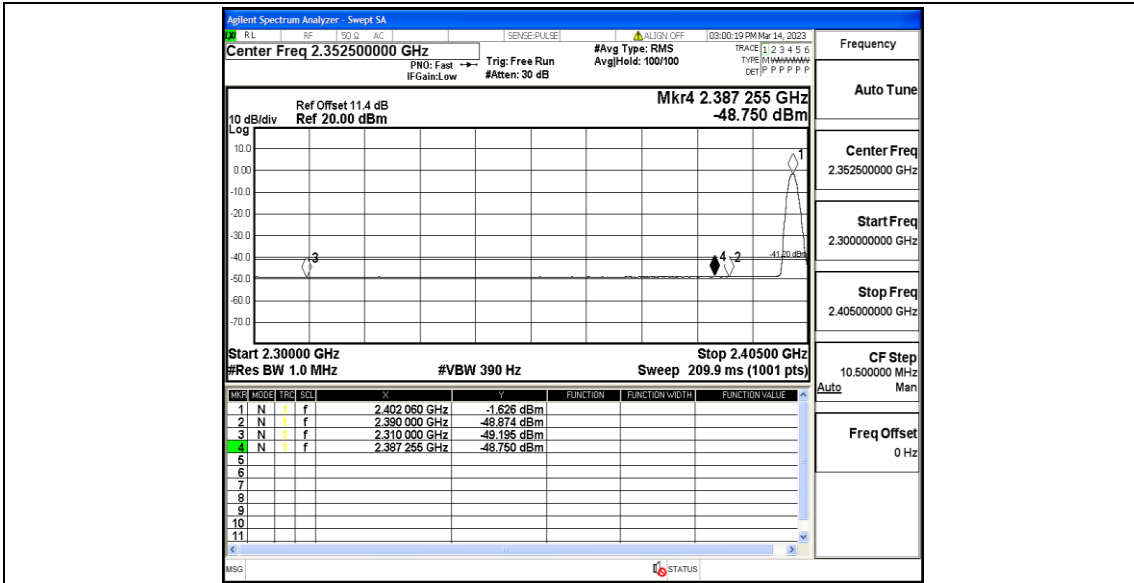
### Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-49.2	≤-41.20	PASS
				AV	2387.255	-48.75	≤-41.20	PASS
				AV	2390.000	-48.87	≤-41.20	PASS
				Peak	2310.000	-41.53	≤-21.20	PASS
				Peak	2371.190	-38.78	≤-21.20	PASS
				Peak	2390.000	-42.35	≤-21.20	PASS
		High	2480	AV	2483.500	-48.22	≤-41.20	PASS
				AV	2499.760	-48.07	≤-41.20	PASS
				AV	2500.000	-48.12	≤-41.20	PASS
				Peak	2483.500	-41.41	≤-21.20	PASS
				Peak	2485.840	-38.34	≤-21.20	PASS
				Peak	2500.000	-40.99	≤-21.20	PASS

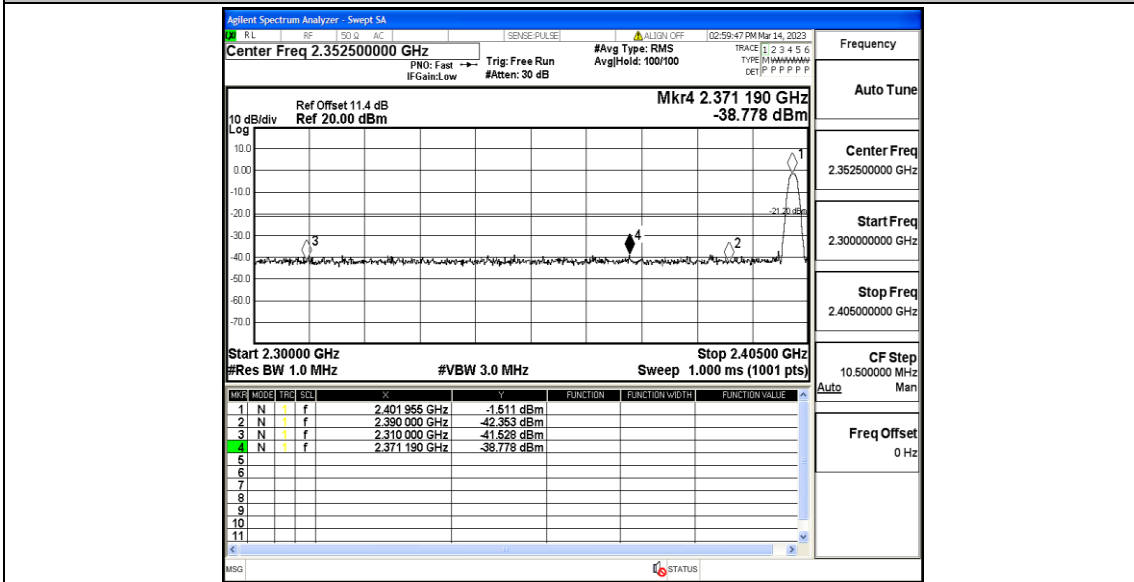
#### Note:

1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

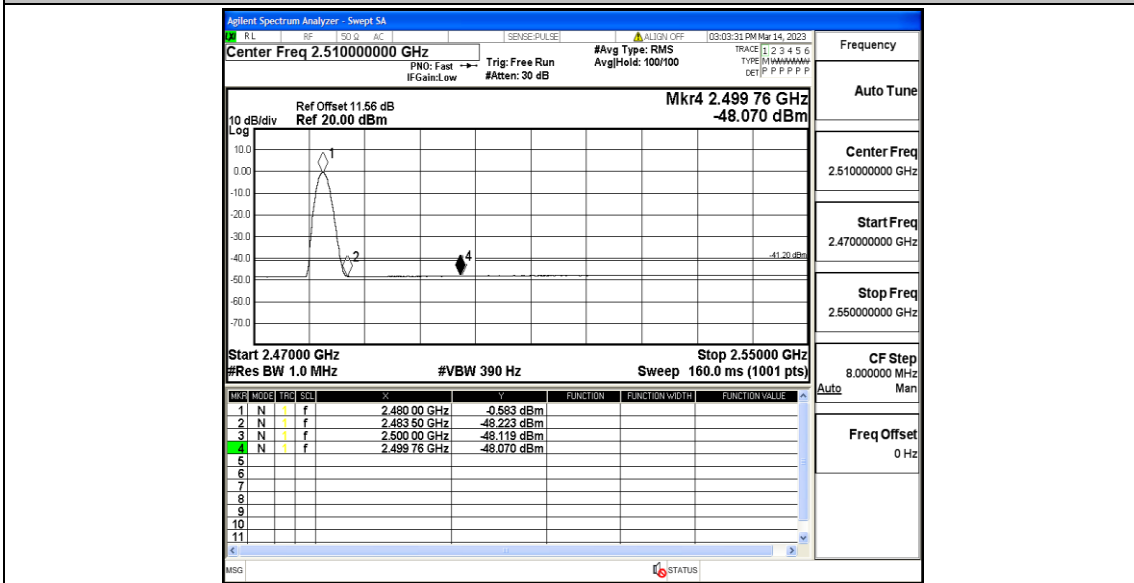
Test Graphs



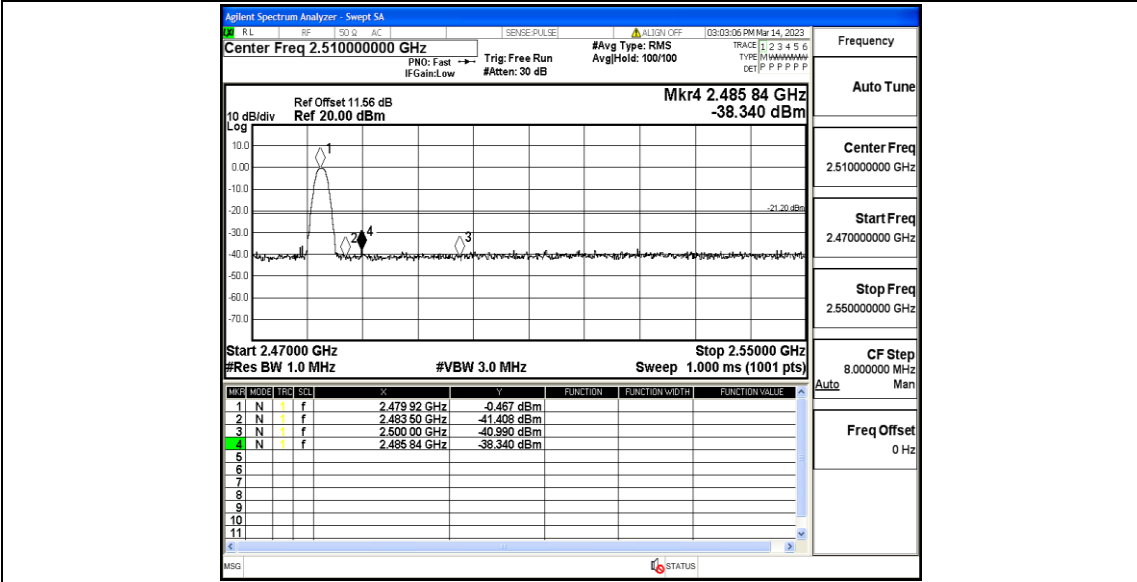
DH5\_Ant1\_Low\_2402\_AV



DH5\_Ant1\_Low\_2402\_Peak



DH5\_Ant1\_High\_2480\_AV



DH5\_Ant1\_High\_2480\_Peak