

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

Product Name: Bluetooth mechanical Keyboard

Trade Mark: Keychron

Test Model: Keychron K3 pro

FCC ID: 2ASF4-K3PRO

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

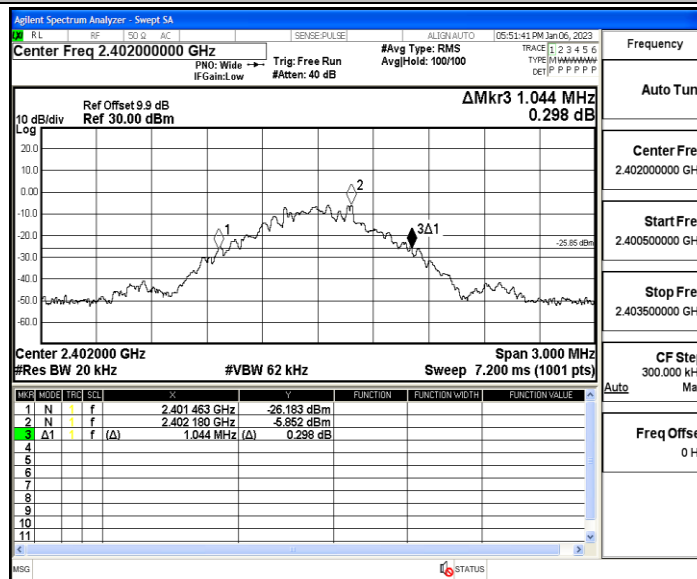
Appendix A: 20dB Emission Bandwidth

Test Result

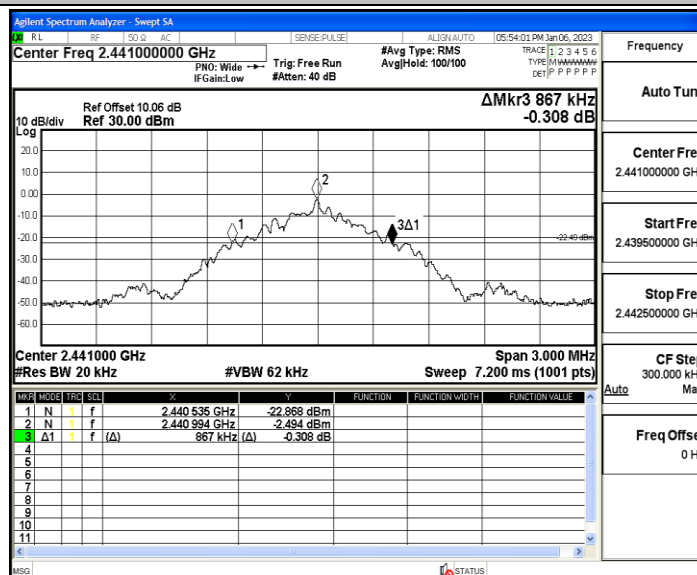
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.044	2401.463	2402.507	---	---
		2441	0.867	2440.535	2441.402	---	---
		2480	0.870	2479.538	2480.408	---	---

Test Graphs

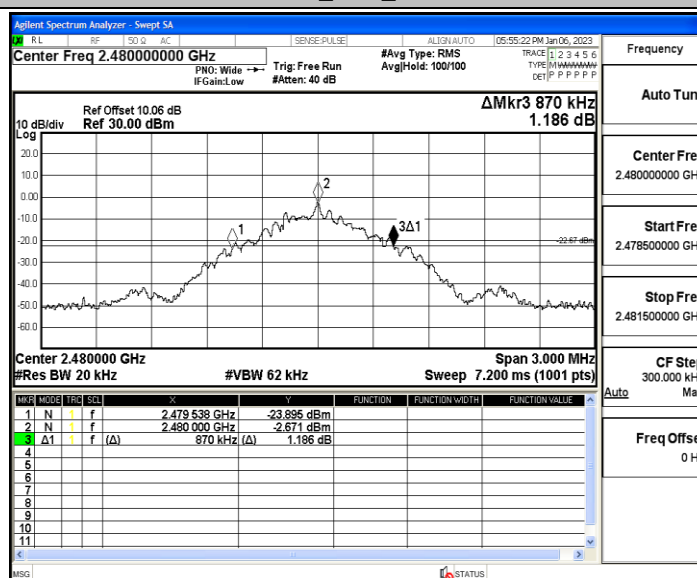
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



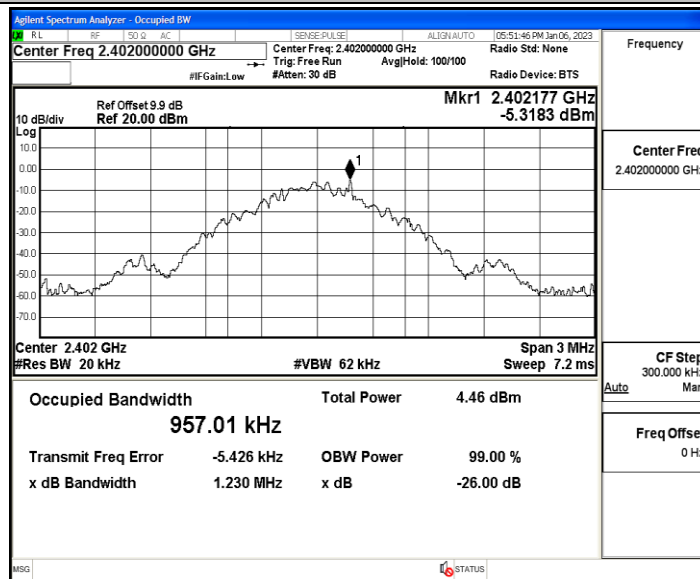
Appendix B: Occupied Channel Bandwidth

Test Result

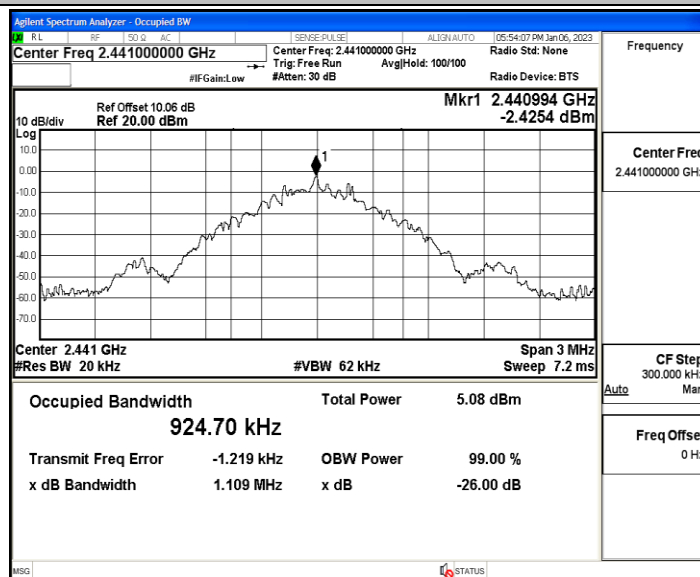
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.95701	2401.5161	2402.4731	---	---
		2441	0.92470	2440.5364	2441.4611	---	---
		2480	0.93384	2479.5441	2480.4780	---	---

Test Graphs

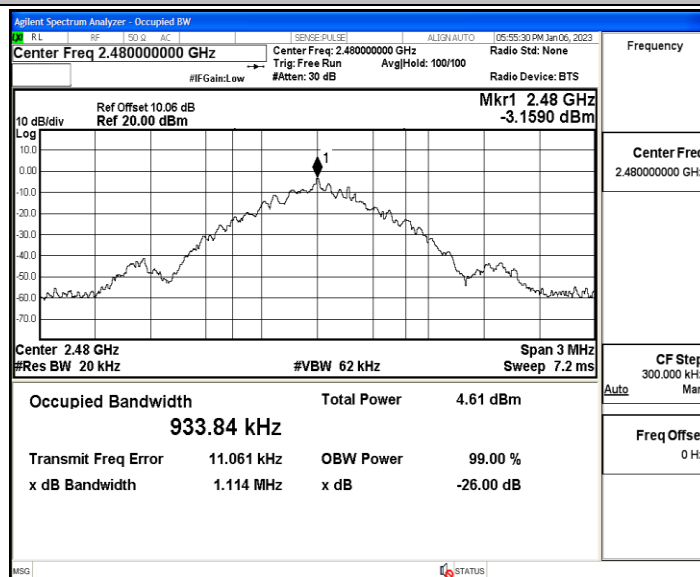
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



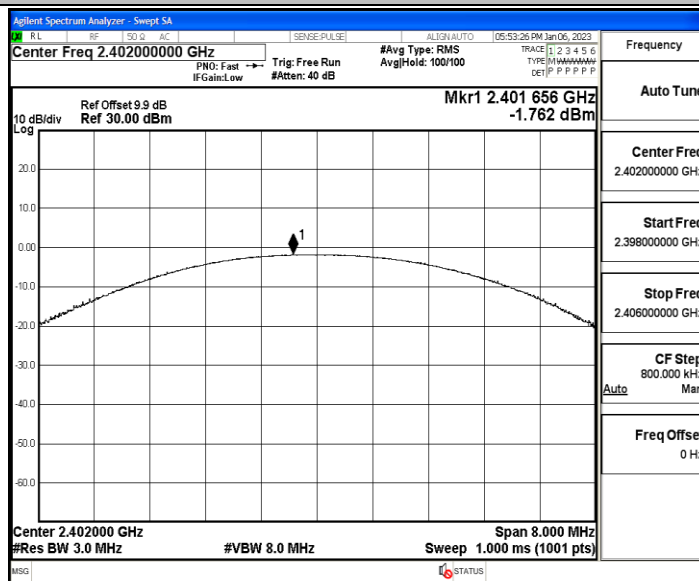
Appendix C: Maximum Peak conducted output power

Test Result

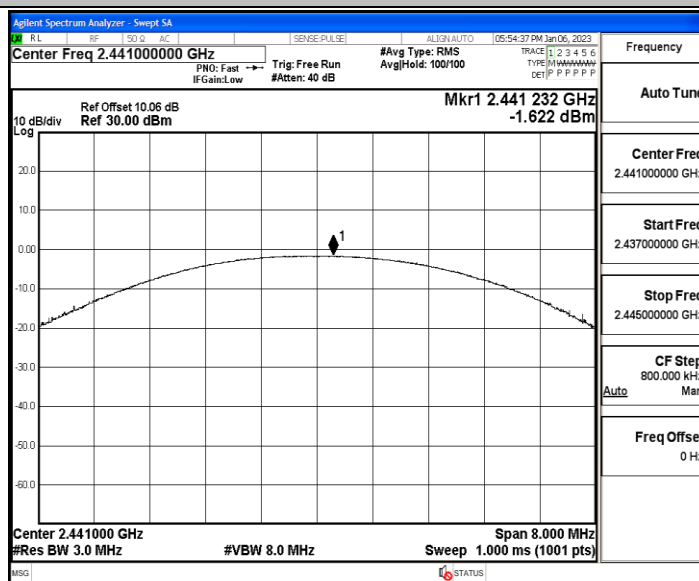
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-1.76	≤ 20.97	PASS
		2441	-1.62	≤ 20.97	PASS
		2480	-1.74	≤ 20.97	PASS

Test Graphs

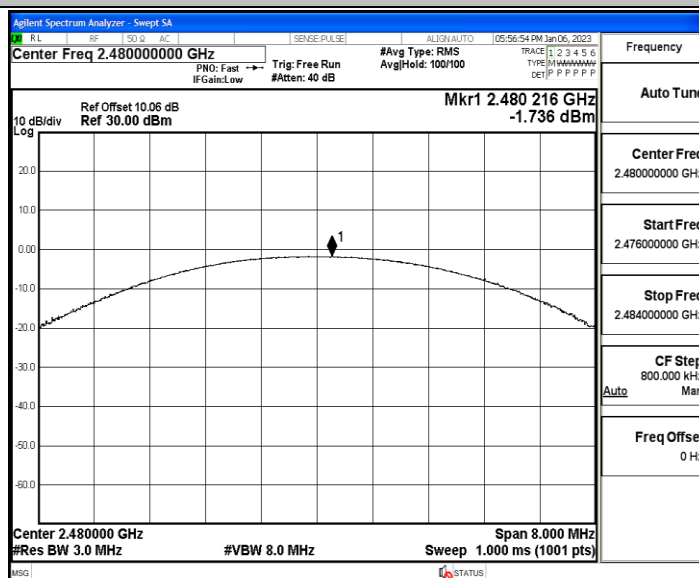
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480

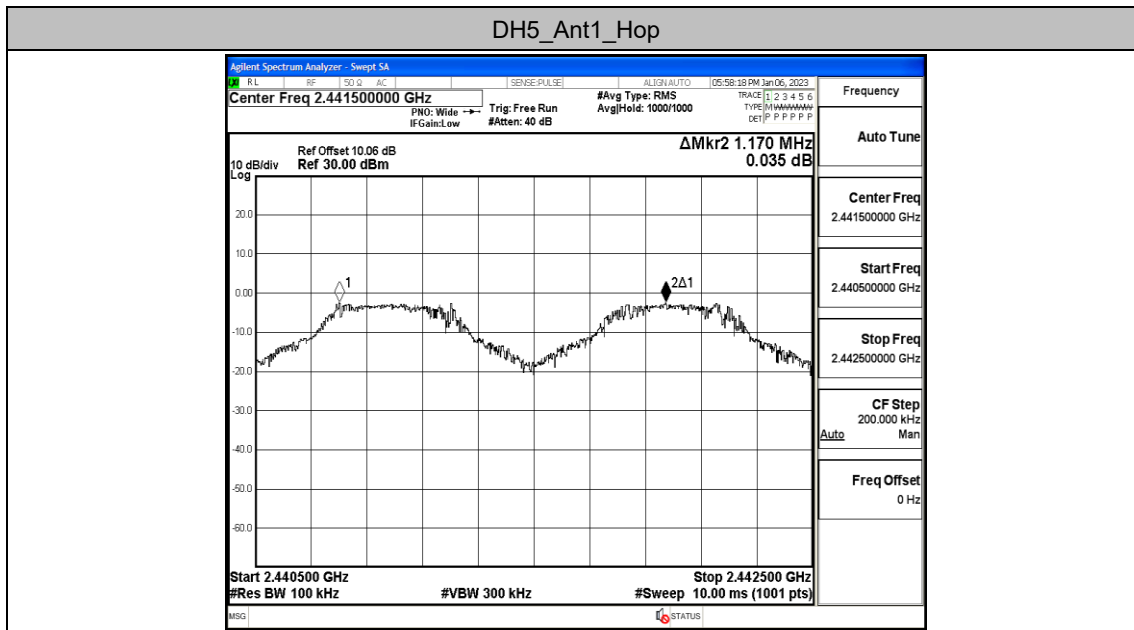


Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.17	≥ 1.044	PASS

Test Graphs

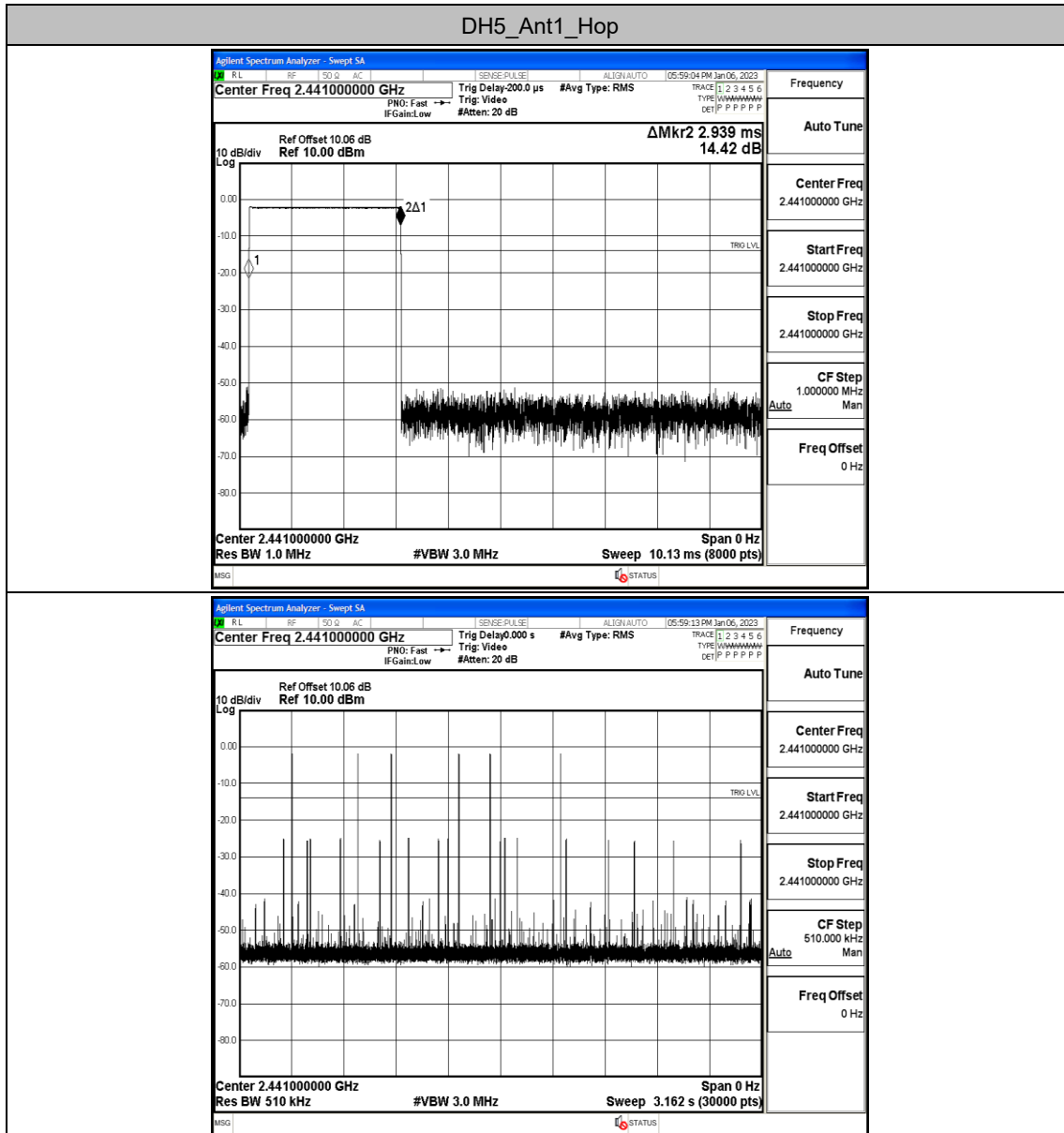


Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.939	70	0.206	≤0.4	PASS

Test Graphs

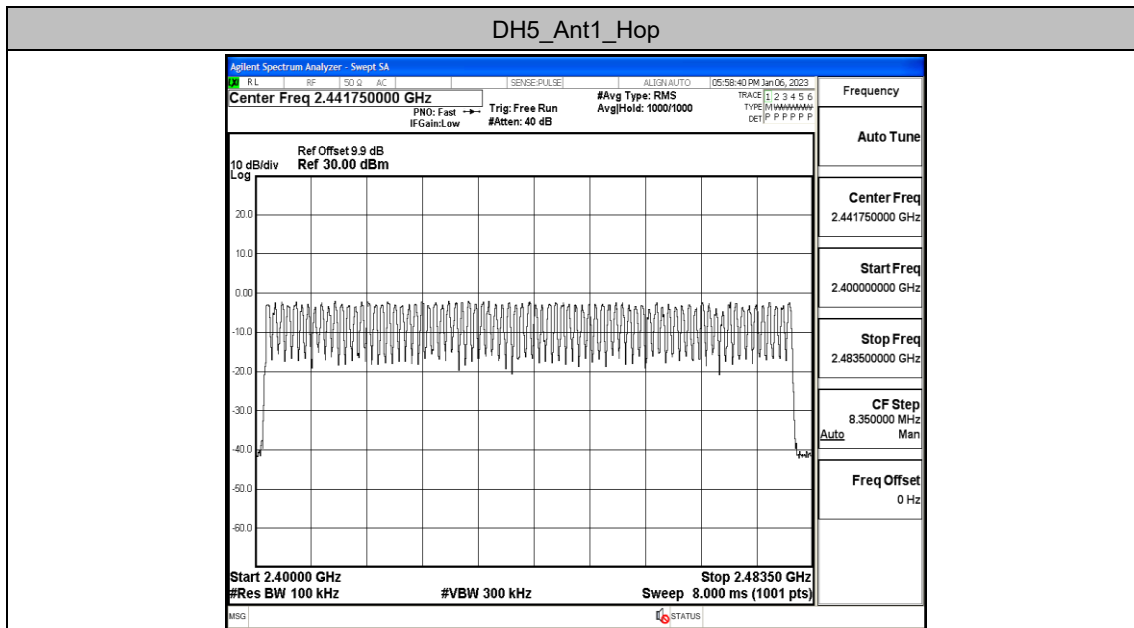


Appendix F: Number of hopping channels

Test Result

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

Test Graphs



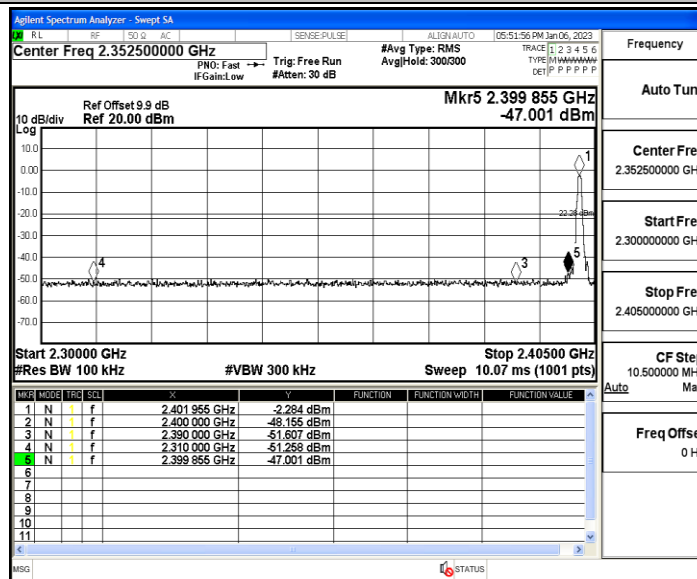
Appendix G: Band edge measurements

Test Result

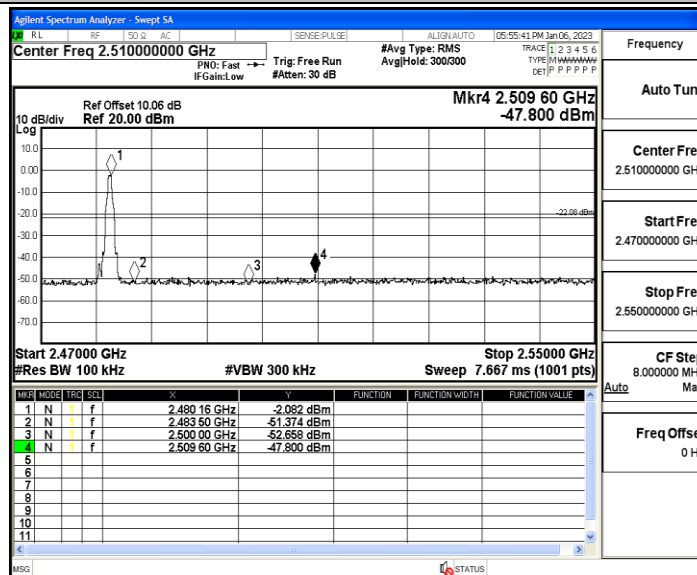
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.28	-47	≤ -22.28	PASS
		High	2480	-2.08	-47.8	≤ -22.08	PASS
		Low	Hop_2402	-2.78	-49.72	≤ -22.78	PASS
		High	Hop_2480	-2.56	-48.35	≤ -22.56	PASS

Test Graphs

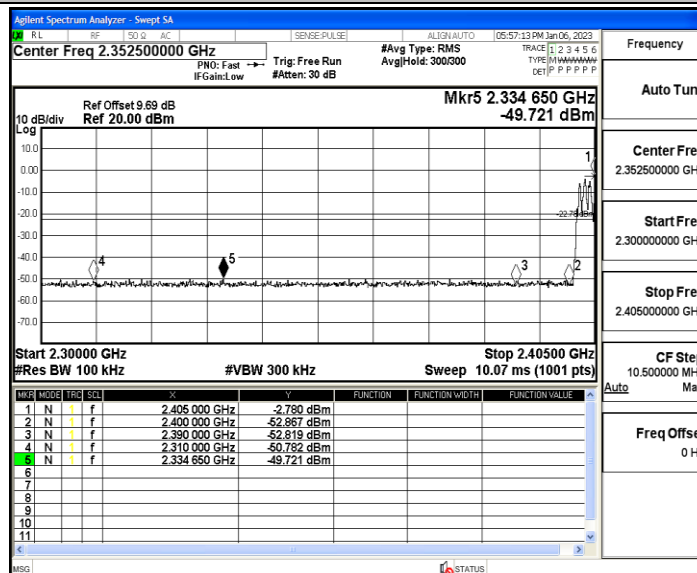
DH5_Ant1_Low_2402



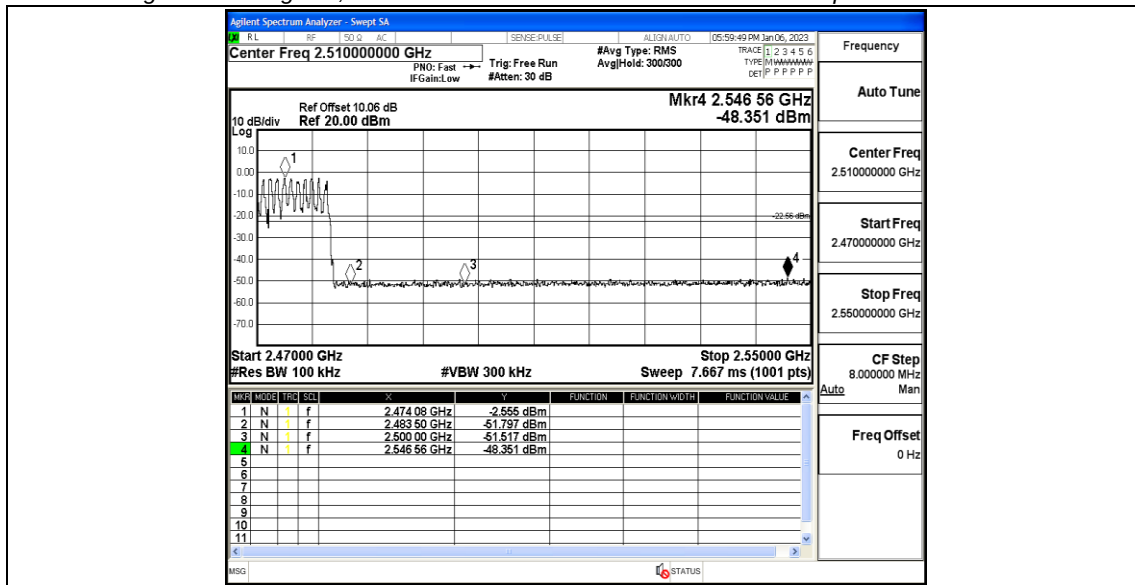
DH5_Ant1_High_2480



DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

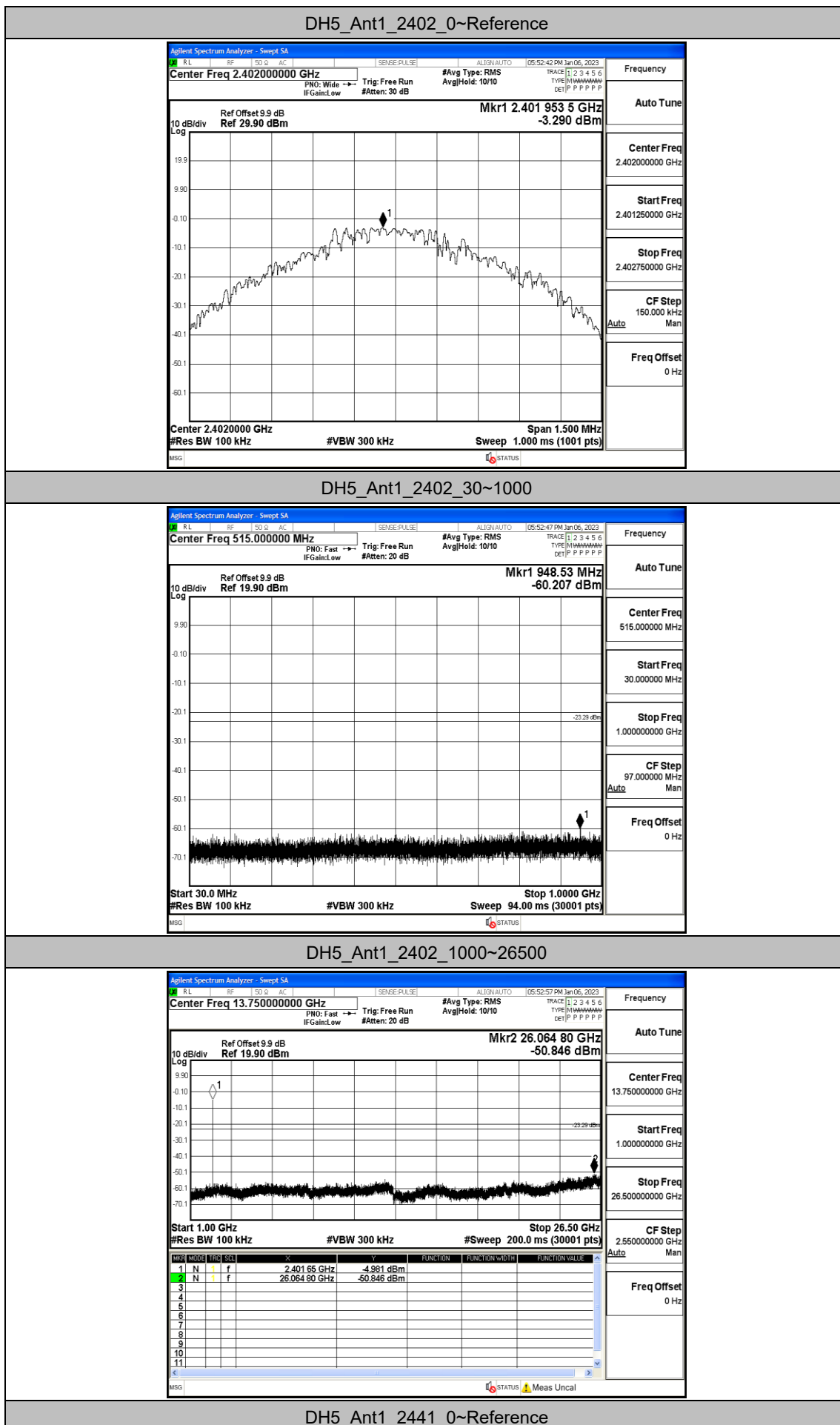


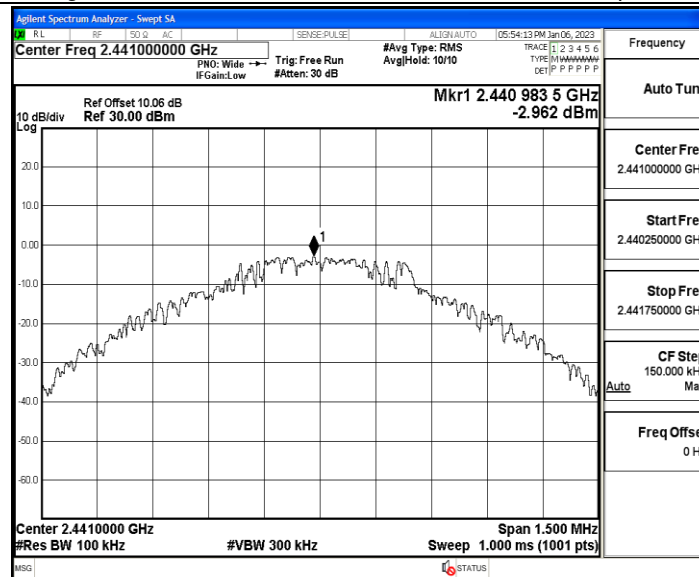
Appendix H: Conducted Spurious Emission

Test Result

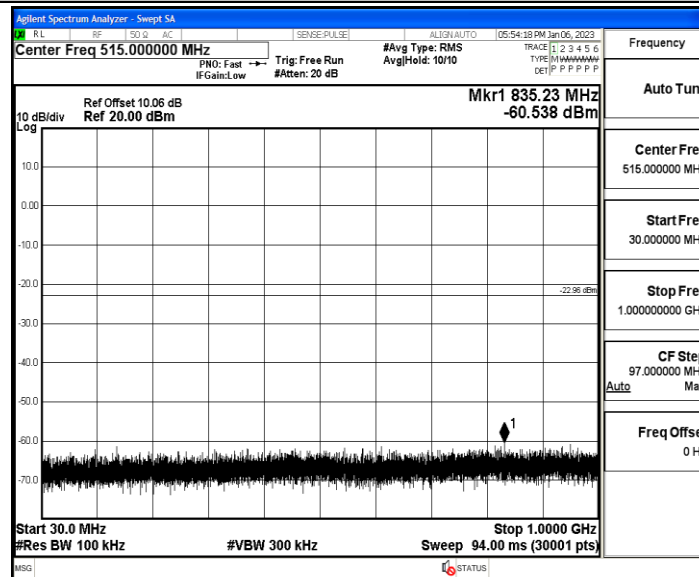
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-3.29	-3.29	---	PASS
			30~1000	-3.29	-60.21	≤-23.29	PASS
			1000~26500	-3.29	-50.85	≤-23.29	PASS
		2441	Reference	-2.96	-2.96	---	PASS
			30~1000	-2.96	-60.54	≤-22.96	PASS
			1000~26500	-2.96	-50.06	≤-22.96	PASS
		2480	Reference	-3.07	-3.07	---	PASS
			30~1000	-3.07	-60.23	≤-23.07	PASS
			1000~26500	-3.07	-49.62	≤-23.07	PASS

Test Graphs

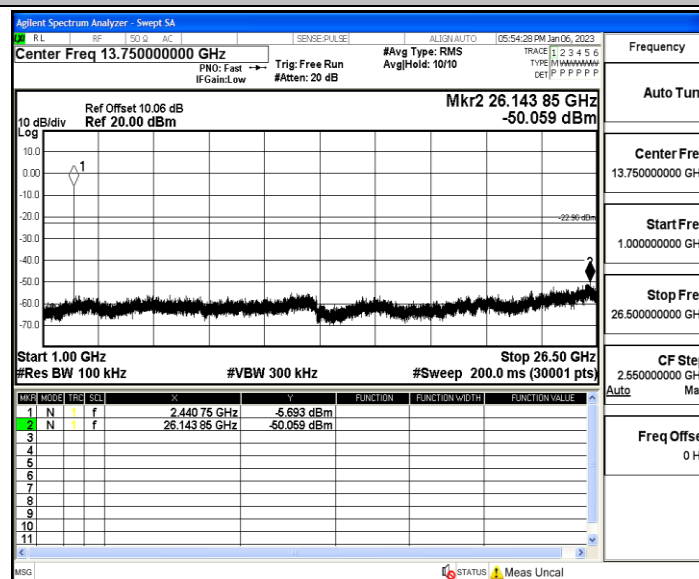




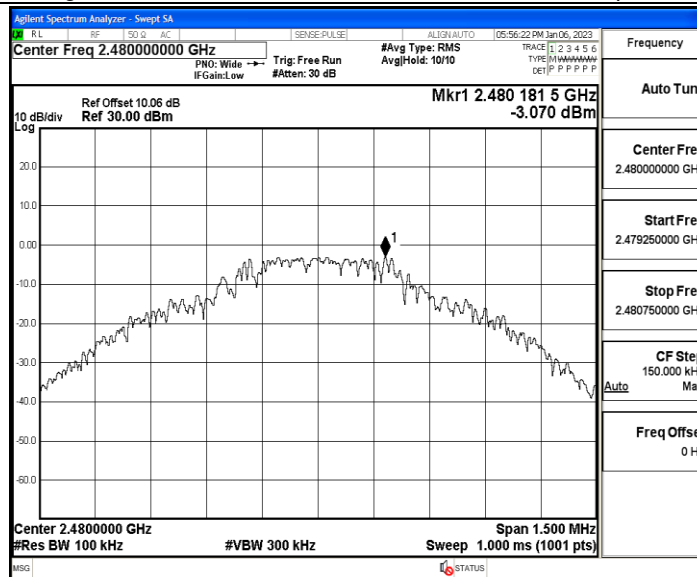
DH5_Ant1_2441_30~1000



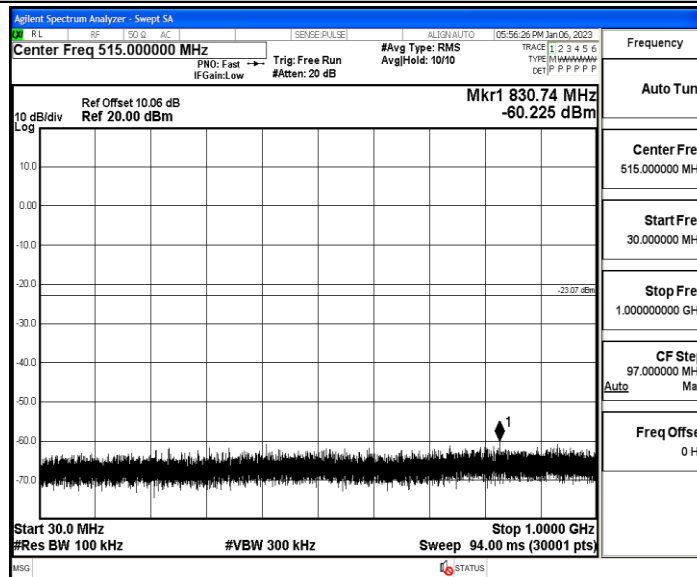
DH5_Ant1_2441_1000~26500



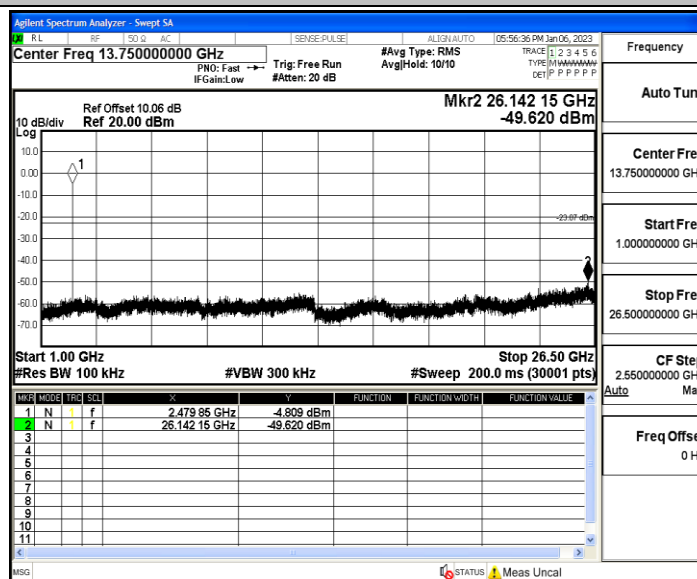
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



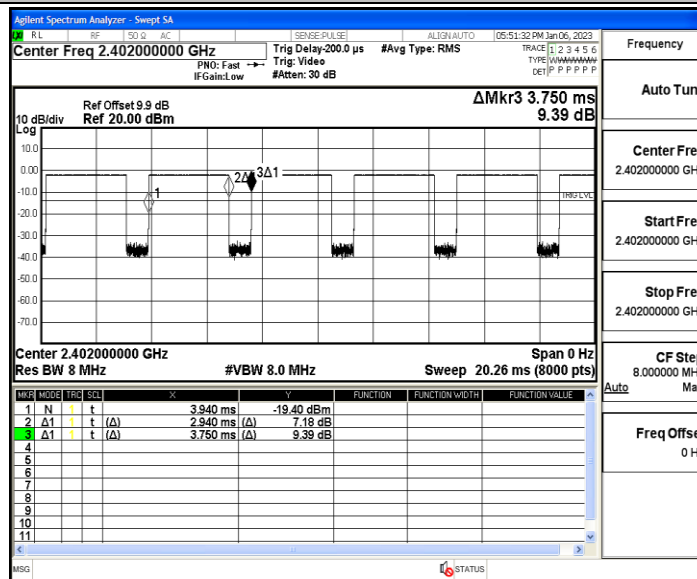
Appendix I: Duty Cycle

Test Result

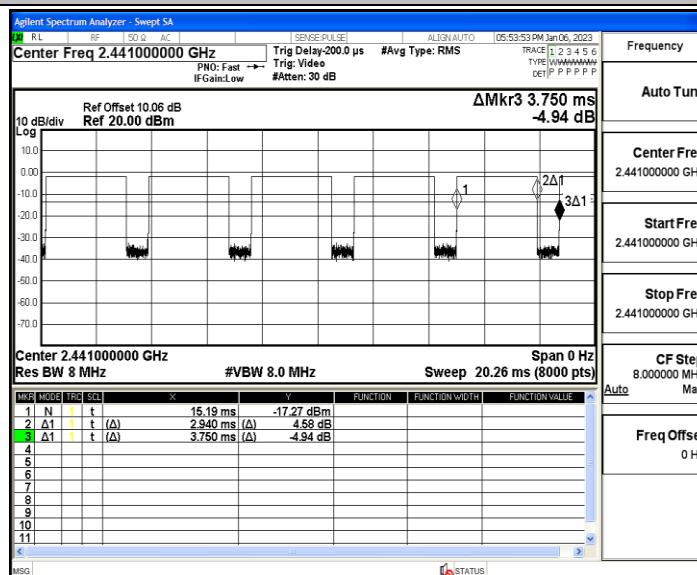
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
DH5	Ant1	2402	2.94	3.75	78.40	0.34
		2441	2.94	3.75	78.40	0.34
		2480	2.94	3.75	78.40	0.34

Test Graphs

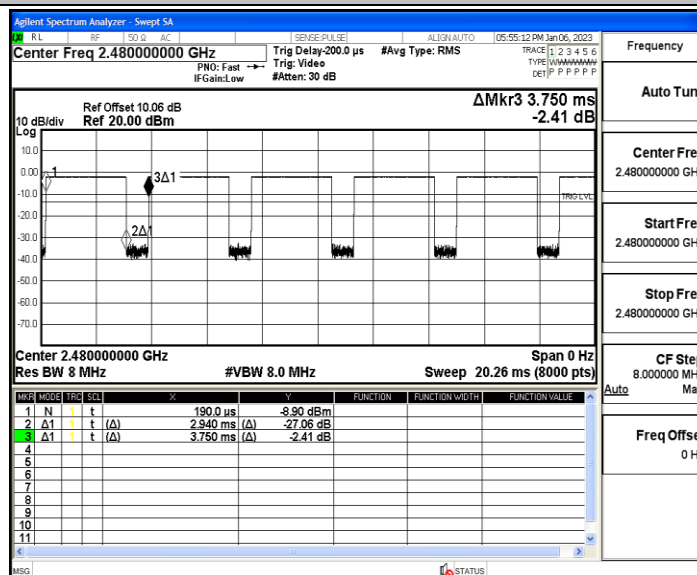
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



Appendix J: Emissions in Restricted Bands

Test Result

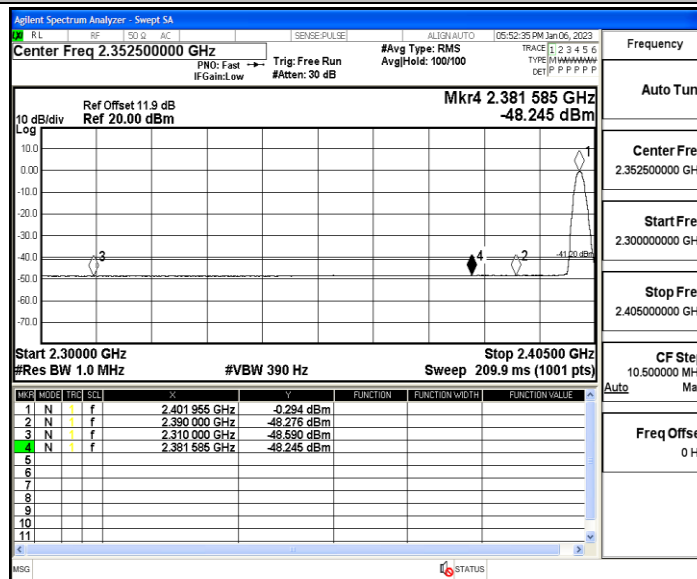
TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-48.59	≤-41.20	PASS
				AV	2381.585	-48.24	≤-41.20	PASS
				AV	2390.000	-48.28	≤-41.20	PASS
				Peak	2310.000	-40.65	≤-21.20	PASS
				Peak	2372.135	-38.44	≤-21.20	PASS
				Peak	2390.000	-41.03	≤-21.20	PASS
		High	2480	AV	2483.500	-47.77	≤-41.20	PASS
				AV	2499.200	-47.56	≤-41.20	PASS
				AV	2500.000	-47.65	≤-41.20	PASS
				Peak	2483.500	-41.51	≤-21.20	PASS
				Peak	2495.840	-37.67	≤-21.20	PASS
				Peak	2500.000	-38.22	≤-21.20	PASS

Note:

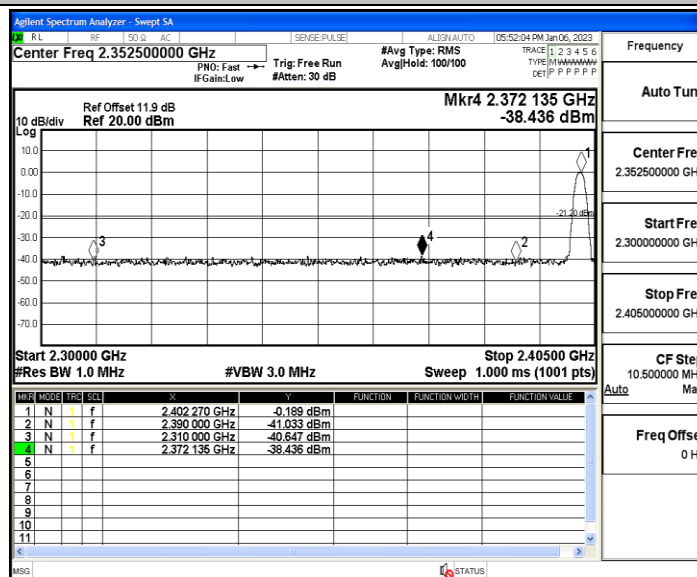
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

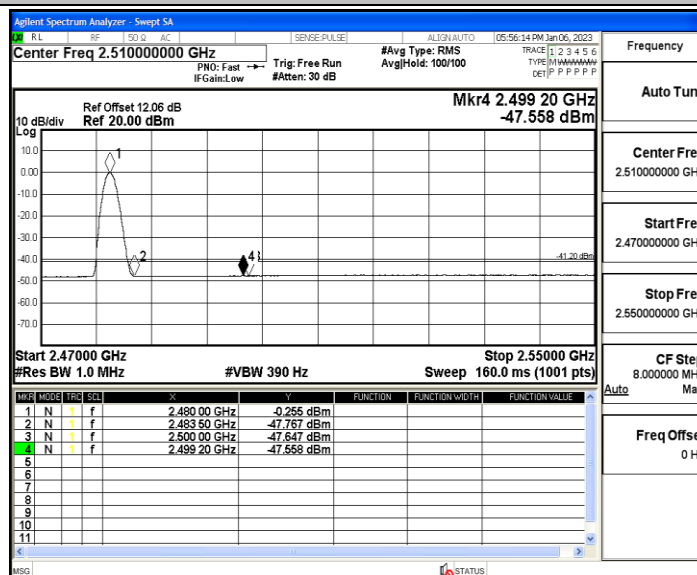
DH5_Ant1_Low_2402_AV



DH5_Ant1_Low_2402_Peak



DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

