

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

Product Name: Bluetooth Mechanical Keyboard

Trade Mark: Keychron

Test Model: K15 Pro

FCC ID: 2ASF4-K15PRO

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

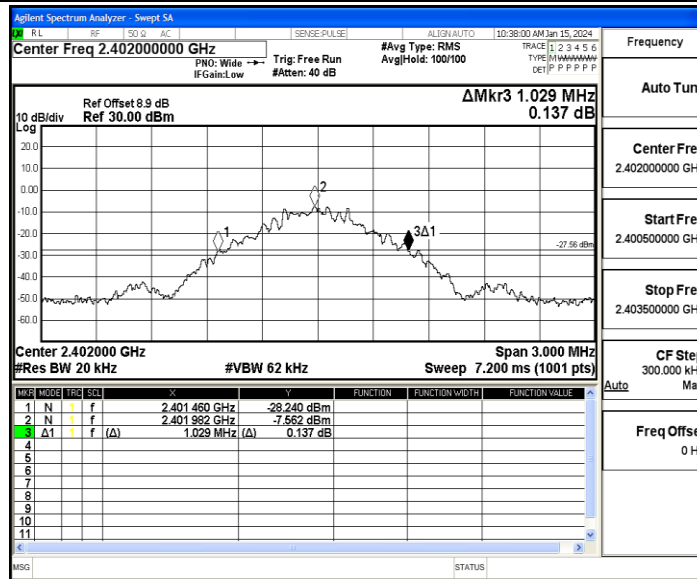
Appendix A: 20dB Emission Bandwidth

Test Result

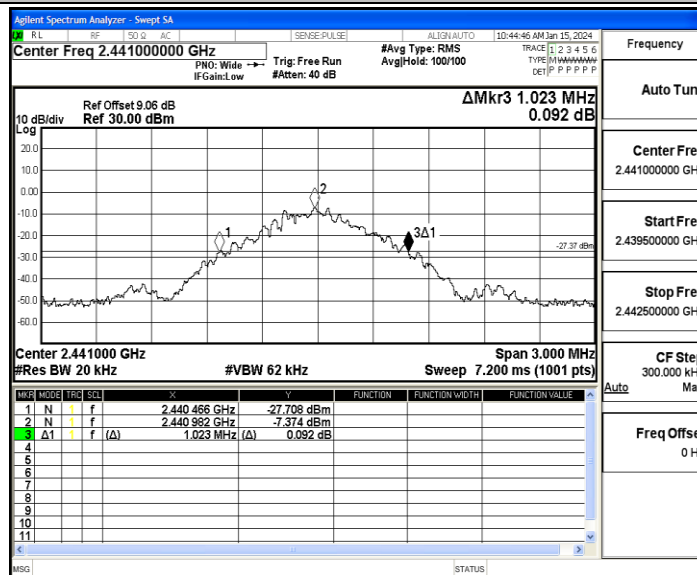
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.029	2401.460	2402.489	---	---
		2441	1.023	2440.466	2441.489	---	---
		2480	0.867	2479.538	2480.405	---	---

Test Graphs

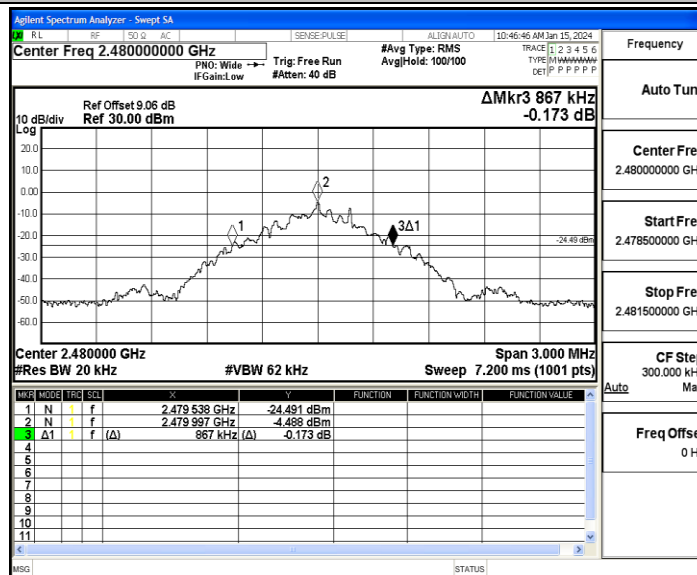
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



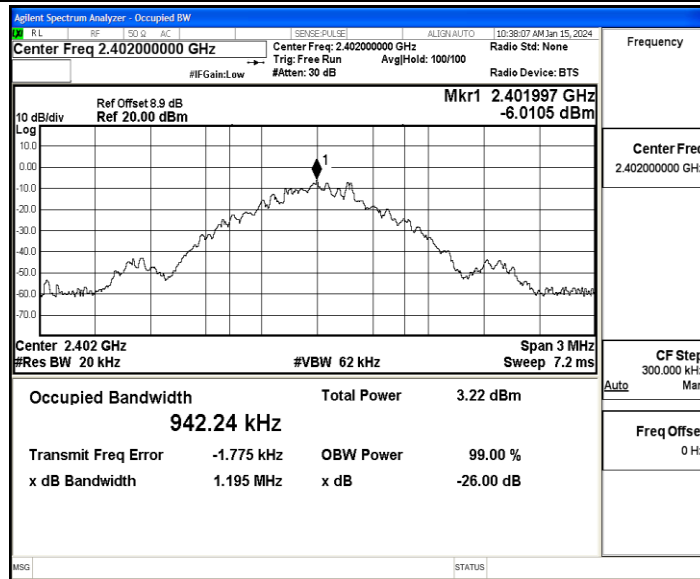
Appendix B: Occupied Channel Bandwidth

Test Result

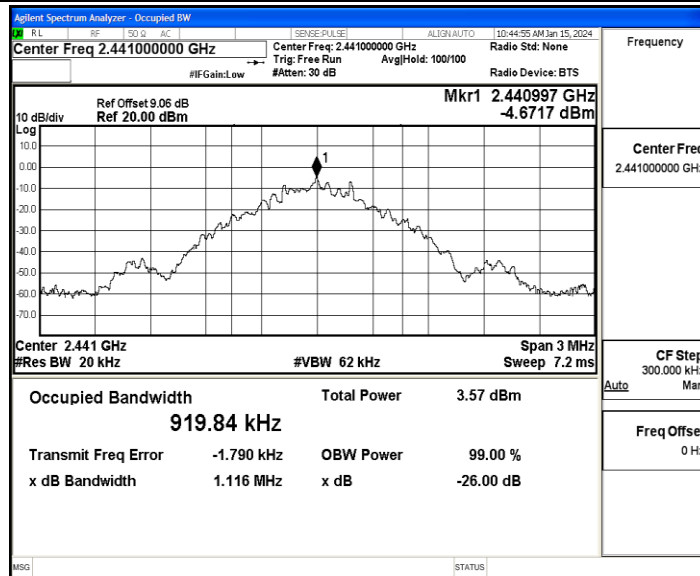
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.94224	2401.5271	2402.4693	---	---
		2441	0.91984	2440.5383	2441.4581	---	---
		2480	0.91965	2479.5442	2480.4639	---	---

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



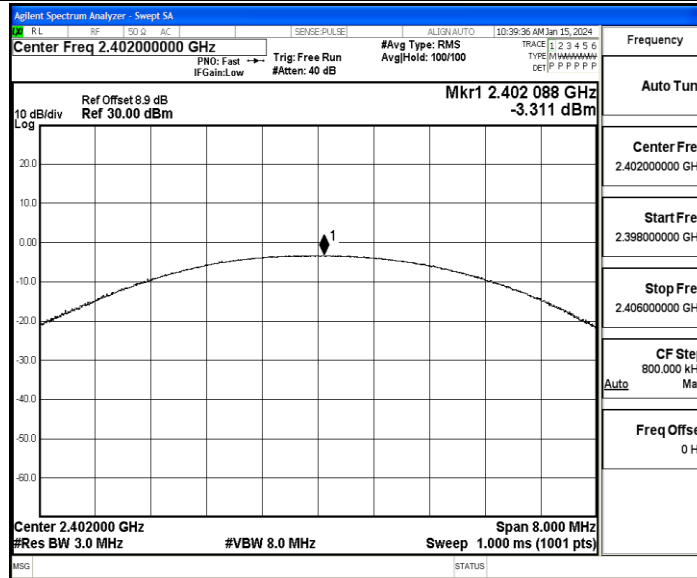
Appendix C: Maximum Peak conducted output power

Test Result

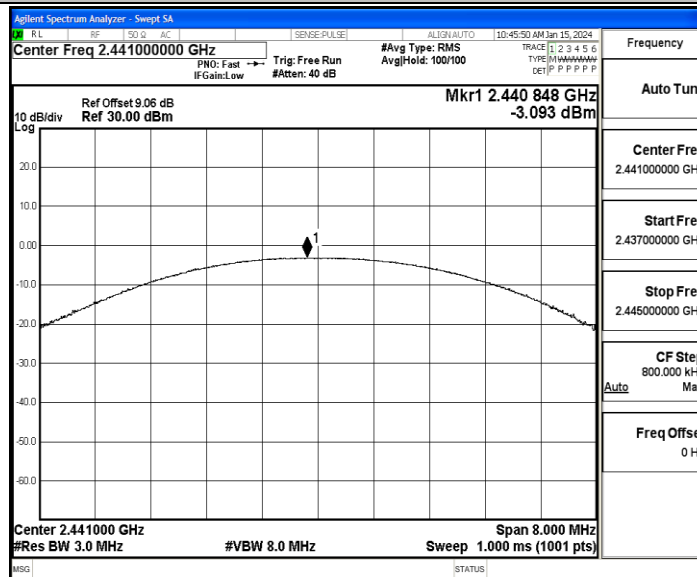
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-3.31	≤ 20.97	PASS
		2441	-3.09	≤ 20.97	PASS
		2480	-3.41	≤ 20.97	PASS

Test Graphs

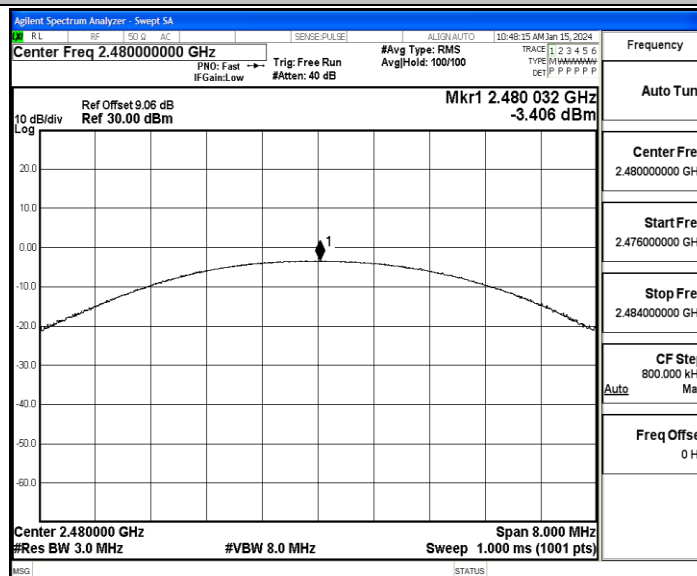
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480

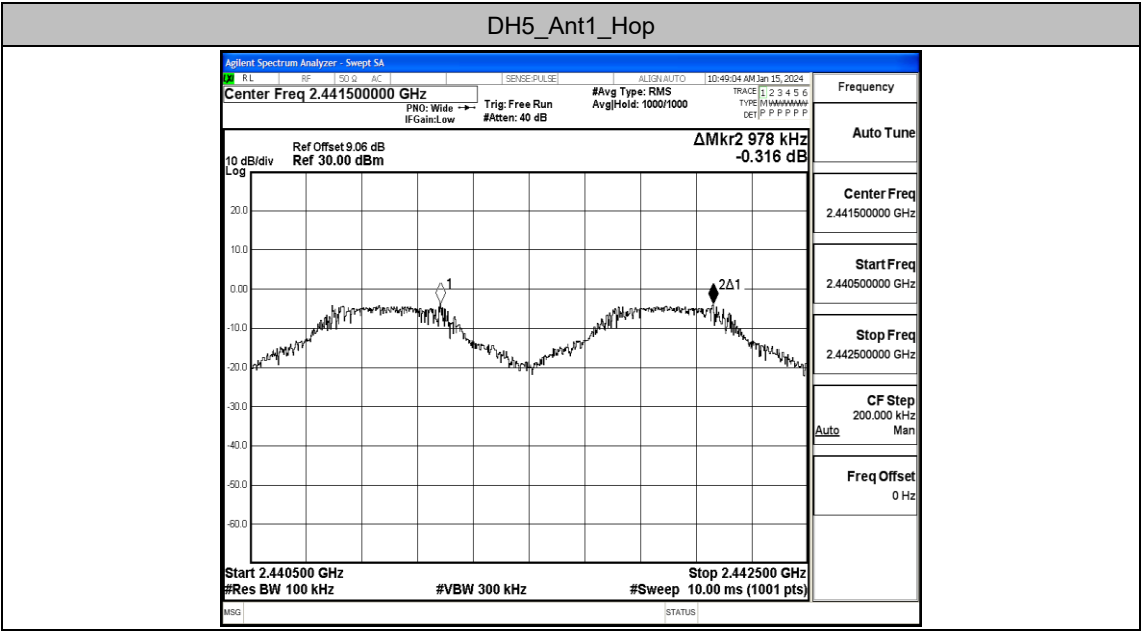


Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.978	≥ 0.686	PASS

Test Graphs

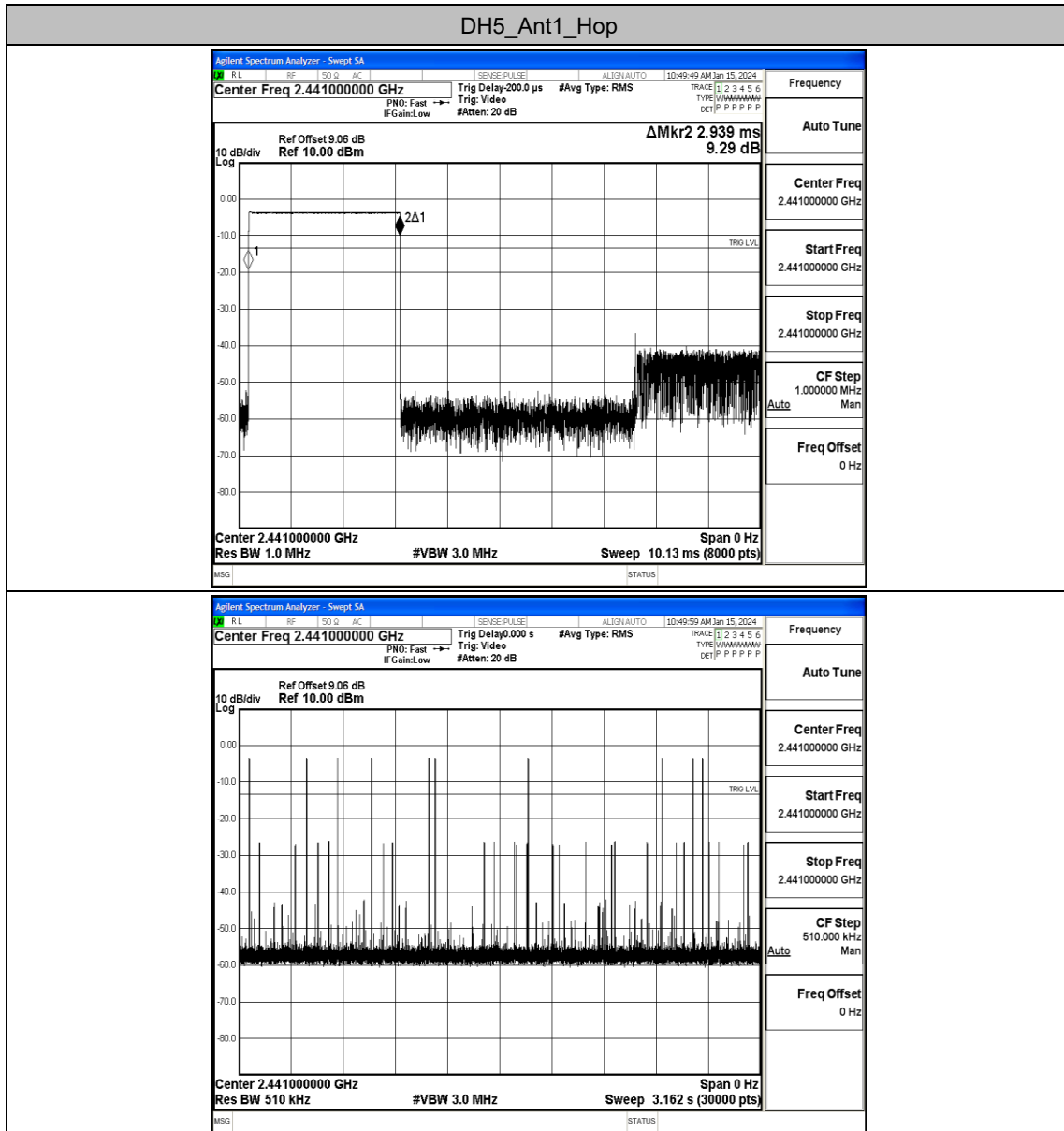


Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.939	110	0.323	≤0.4	PASS

Test Graphs

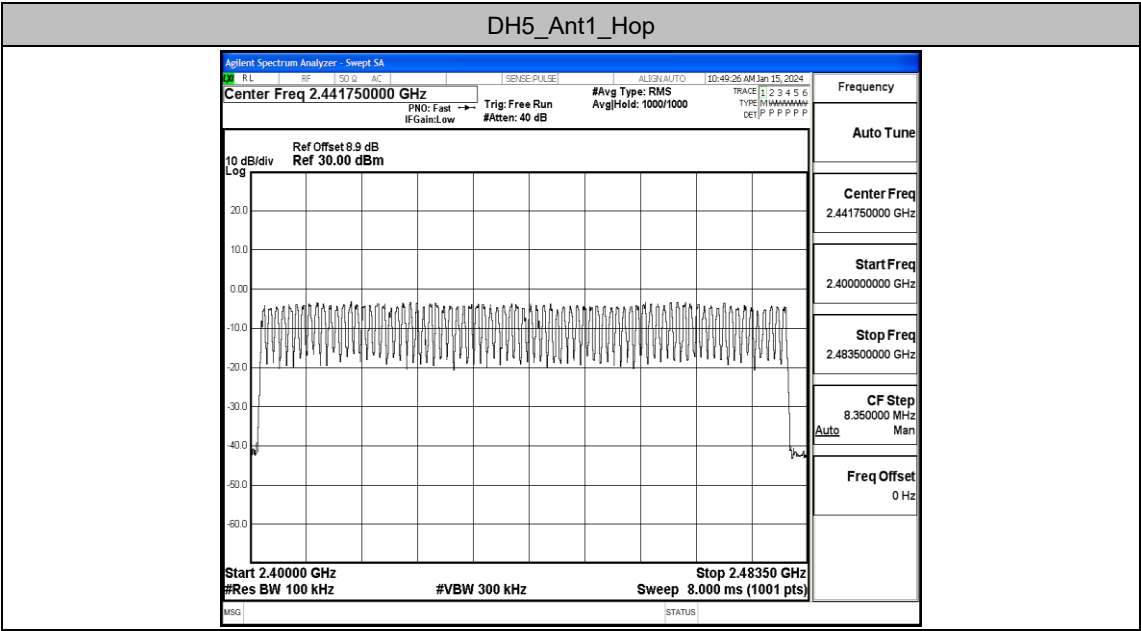


Appendix F: Number of hopping channels

Test Result

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

Test Graphs



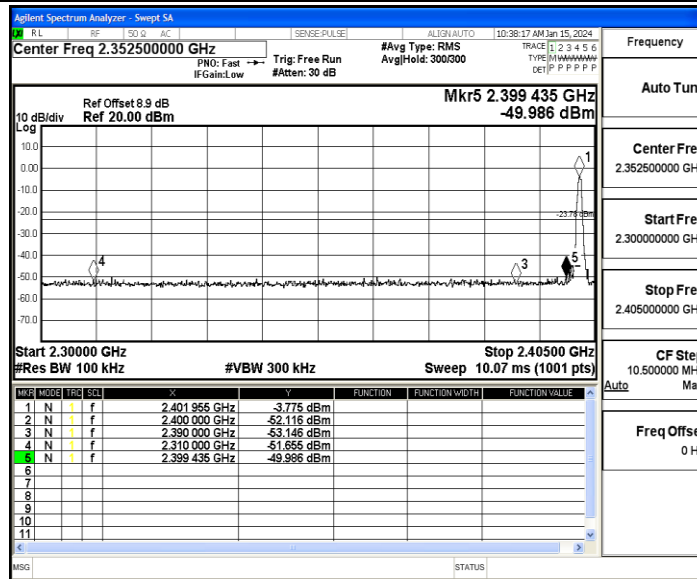
Appendix G: Band edge measurements

Test Result

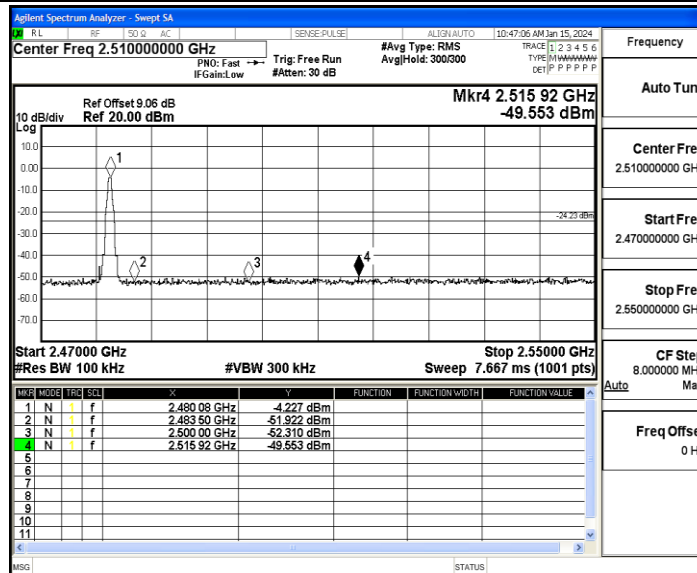
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.78	-49.99	≤ -23.78	PASS
		High	2480	-4.23	-49.55	≤ -24.23	PASS
		Low	Hop_2402	-5.06	-50.61	≤ -25.06	PASS
		High	Hop_2480	-4.02	-48.74	≤ -24.02	PASS

Test Graphs

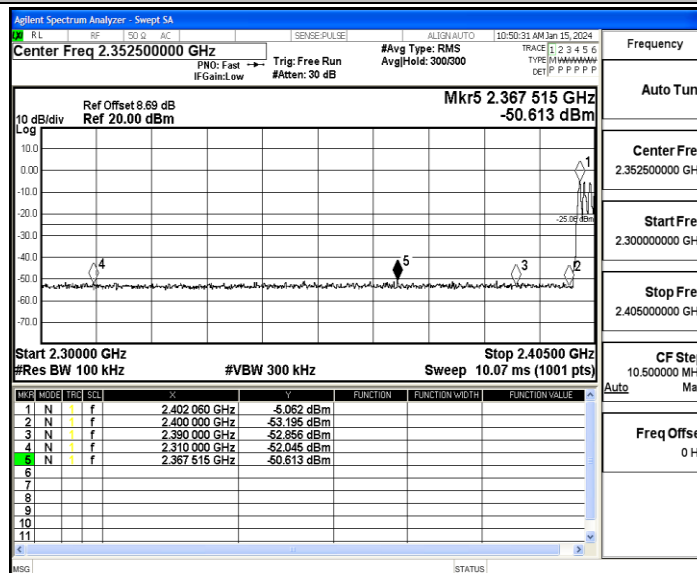
DH5_Ant1_Low_2402



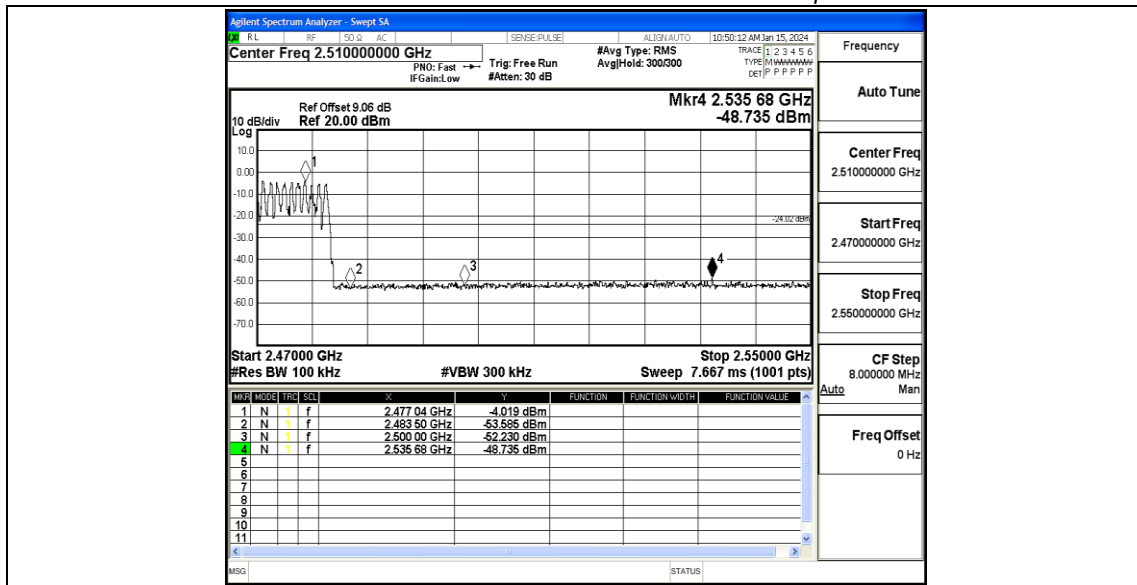
DH5_Ant1_High_2480



DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480



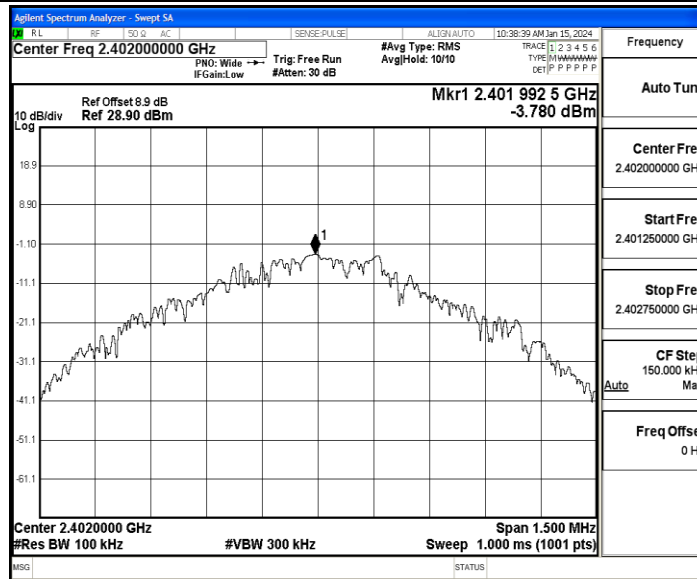
Appendix H: Conducted Spurious Emission

Test Result

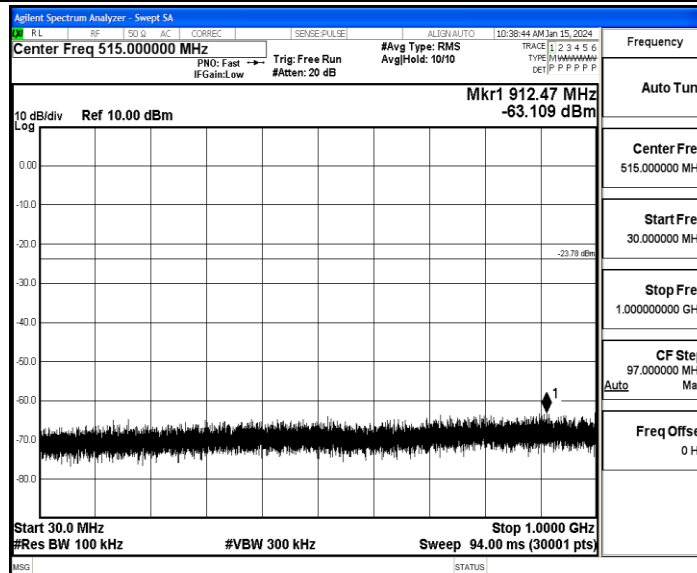
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-3.78	-3.78	---	PASS
			30~1000	-3.78	-63.11	≤-23.78	PASS
			1000~26500	-3.78	-50.39	≤-23.78	PASS
		2441	Reference	-4.58	-4.58	---	PASS
			30~1000	-4.58	-62.76	≤-24.58	PASS
			1000~26500	-4.58	-49.9	≤-24.58	PASS
		2480	Reference	-4.69	-4.69	---	PASS
			30~1000	-4.69	-62.76	≤-24.69	PASS
			1000~26500	-4.69	-49.81	≤-24.69	PASS

Test Graphs

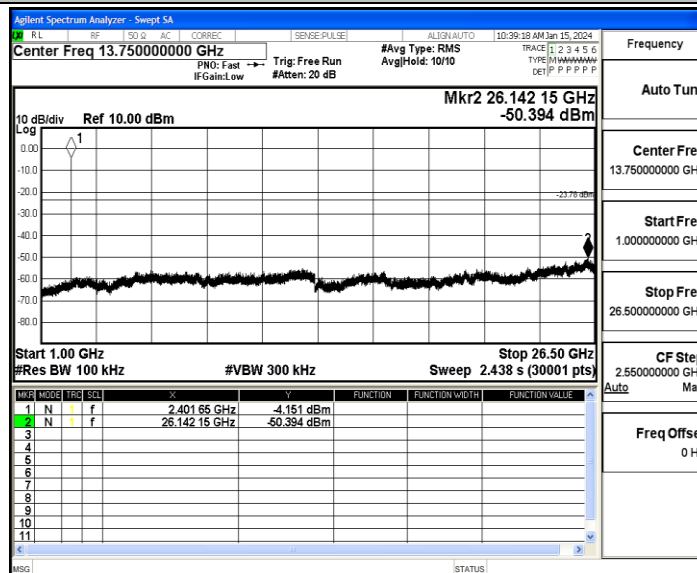
DH5_Ant1_2402_0~Reference



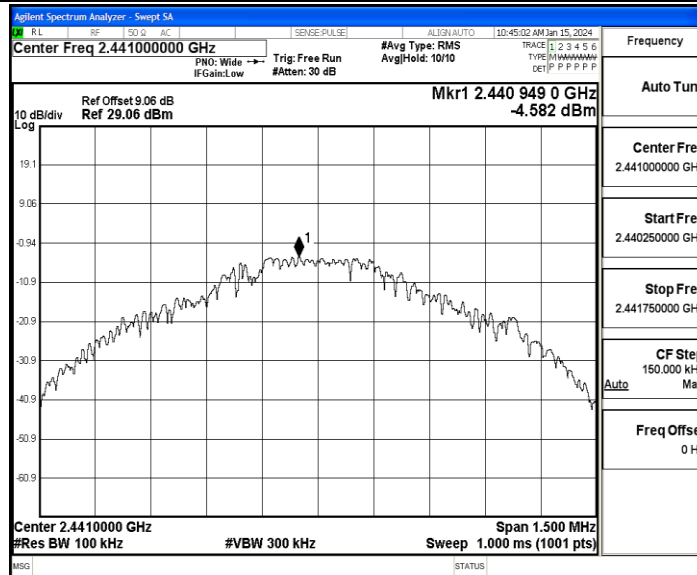
DH5_Ant1_2402_30~1000



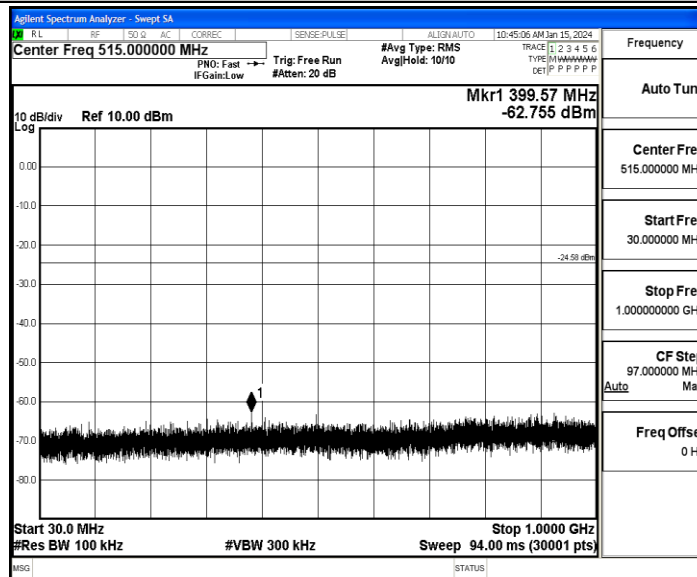
DH5_Ant1_2402_1000~26500



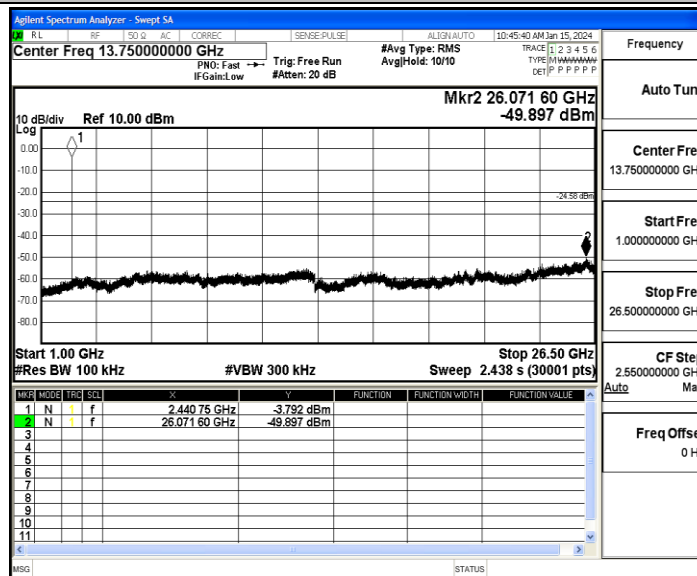
DH5_Ant1_2441_0~Reference



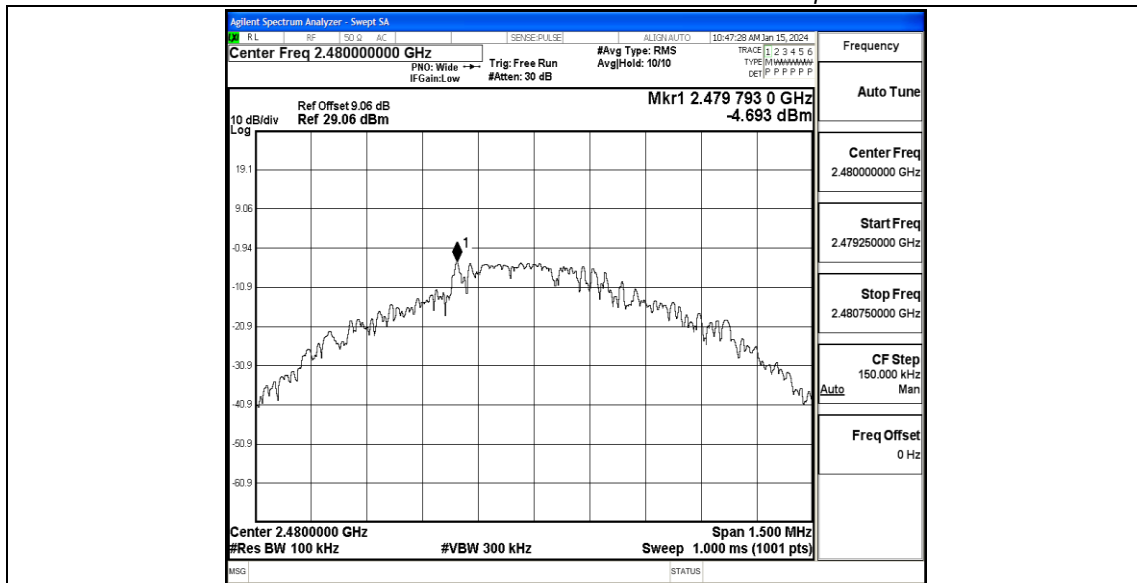
DH5_Ant1_2441_30~1000



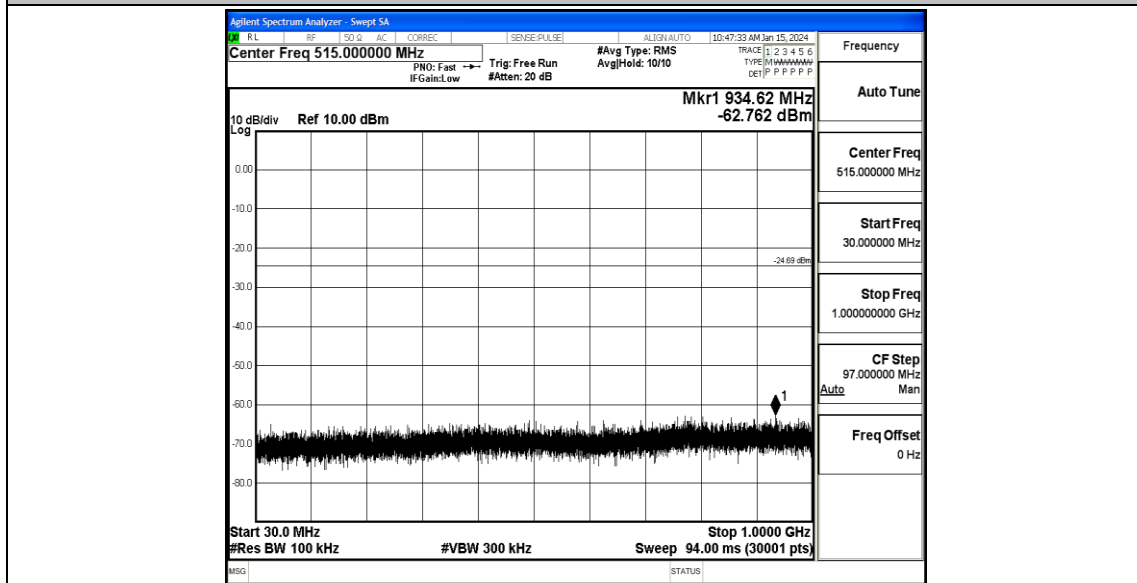
DH5_Ant1_2441_1000~26500



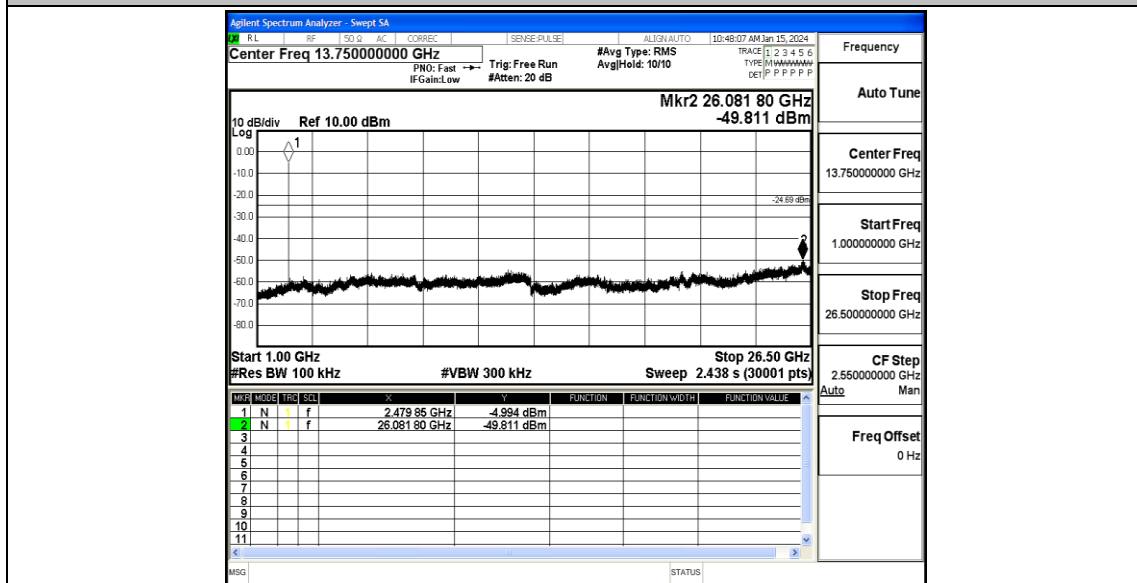
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



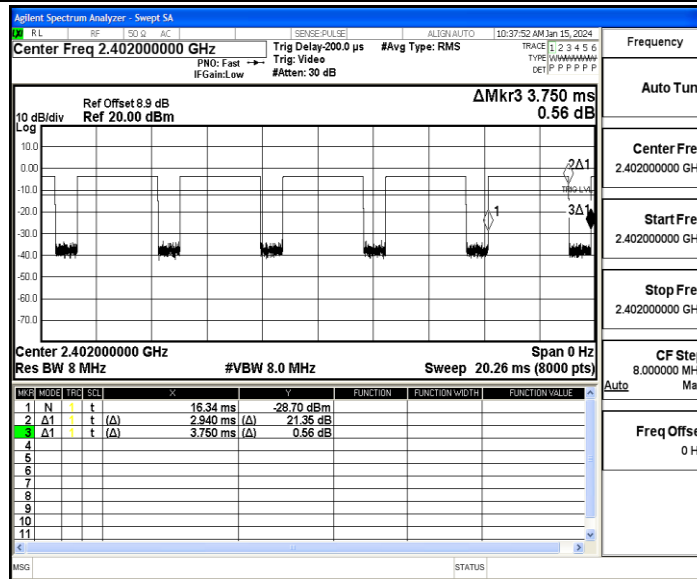
Appendix I: Duty Cycle

Test Result

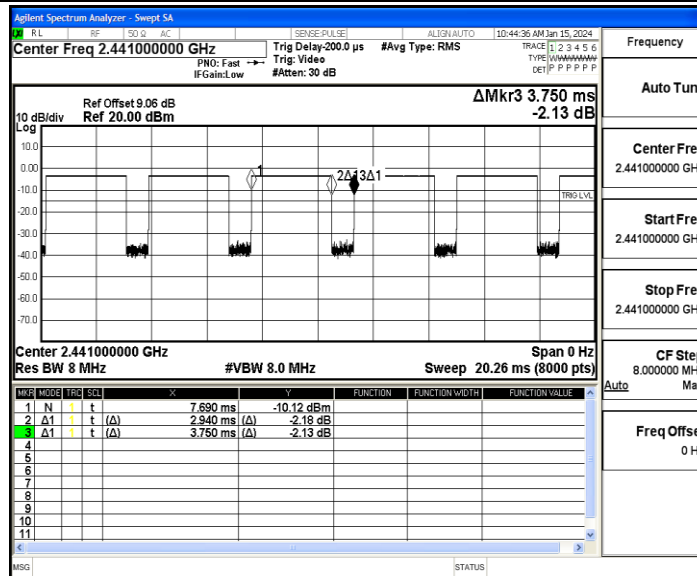
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
DH5	Ant1	2402	2.94	3.75	78.40	0.34
		2441	2.94	3.75	78.40	0.34
		2480	2.94	3.75	78.40	0.34

Test Graphs

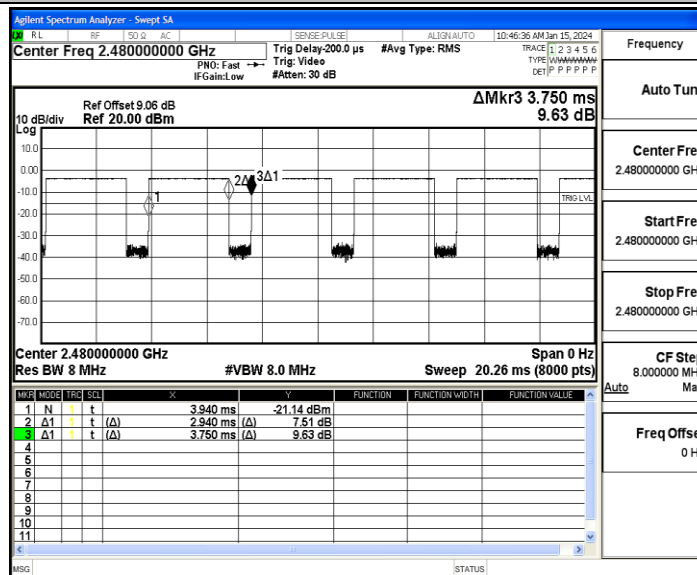
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



Appendix J: Emissions in Restricted Bands

Test Result

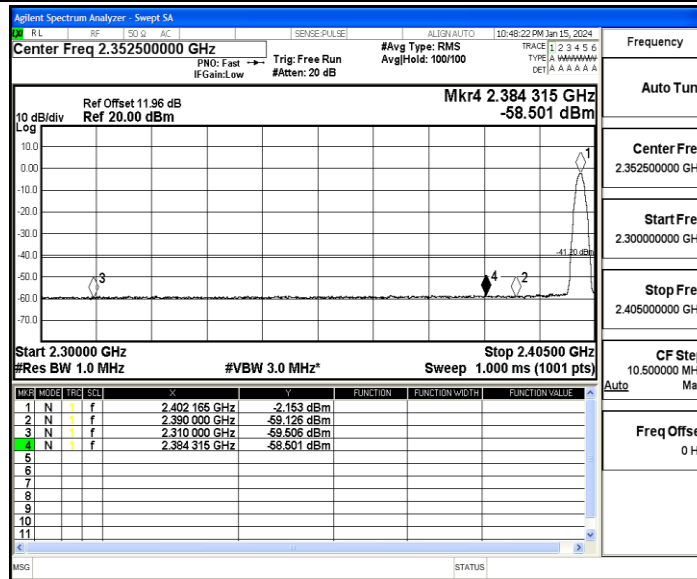
TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-59.51	≤-41.20	PASS
				AV	2384.315	-58.5	≤-41.20	PASS
				AV	2390.000	-59.13	≤-41.20	PASS
				Peak	2310.000	-58.48	≤-21.20	PASS
				Peak	2386.730	-56.64	≤-21.20	PASS
				Peak	2390.000	-57.29	≤-21.20	PASS
		High	2480	AV	2483.500	-58.1	≤-41.20	PASS
				AV	2483.760	-57.5	≤-41.20	PASS
				AV	2500.000	-58.13	≤-41.20	PASS
				Peak	2483.500	-56.57	≤-21.20	PASS
				Peak	2483.680	-55.76	≤-21.20	PASS
				Peak	2500.000	-56.48	≤-21.20	PASS

Note:

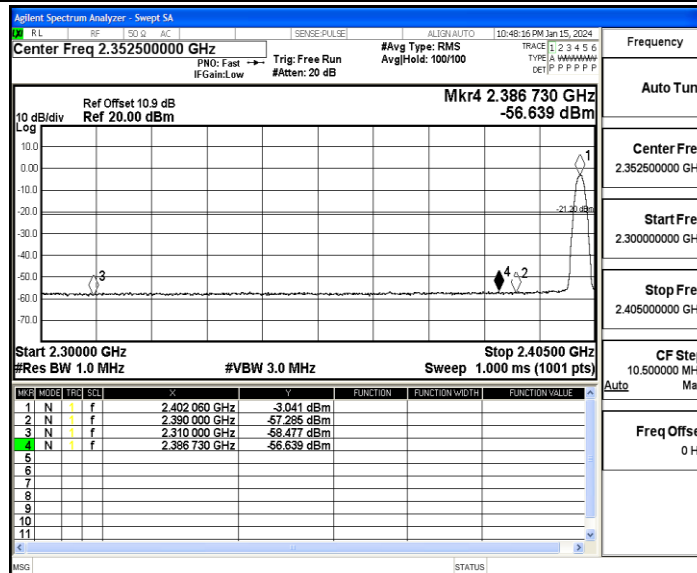
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

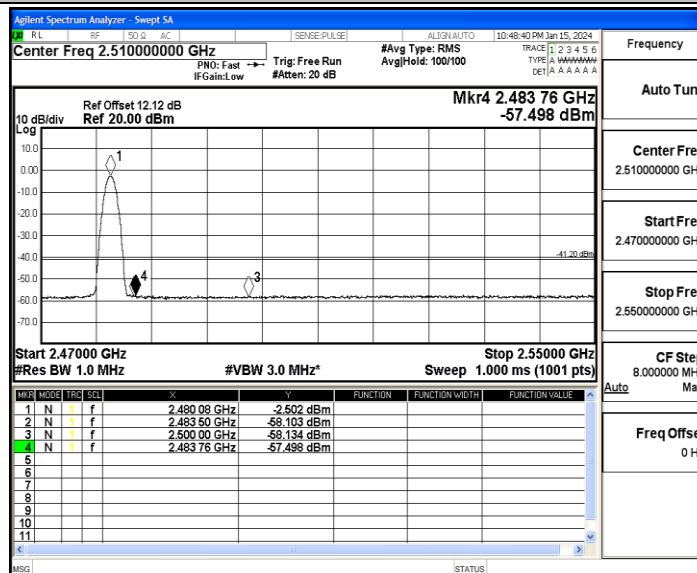
DH5_Ant1_Low_2402_AV



DH5_Ant1_Low_2402_Peak



DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

