

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

Product Name: Bluetooth Mechanical Keyboard

Trade Mark: Keychron

Test Model: K11 Pro

FCC ID: 2ASF4-K11PRO

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

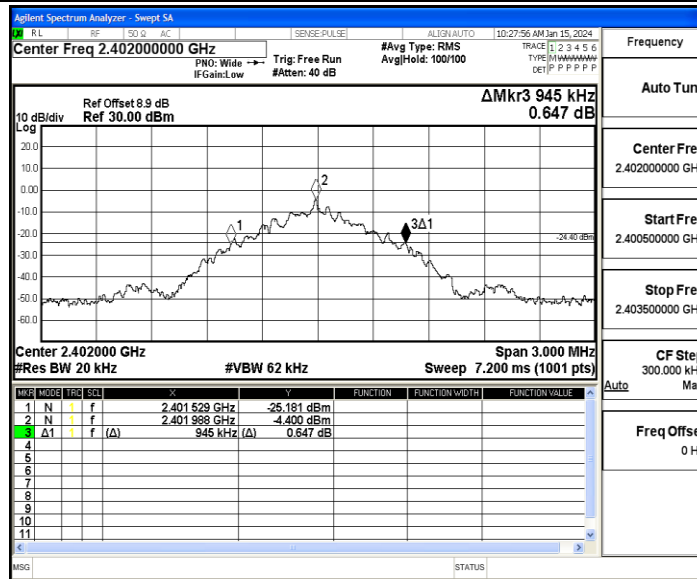
Appendix A: 20dB Emission Bandwidth

Test Result

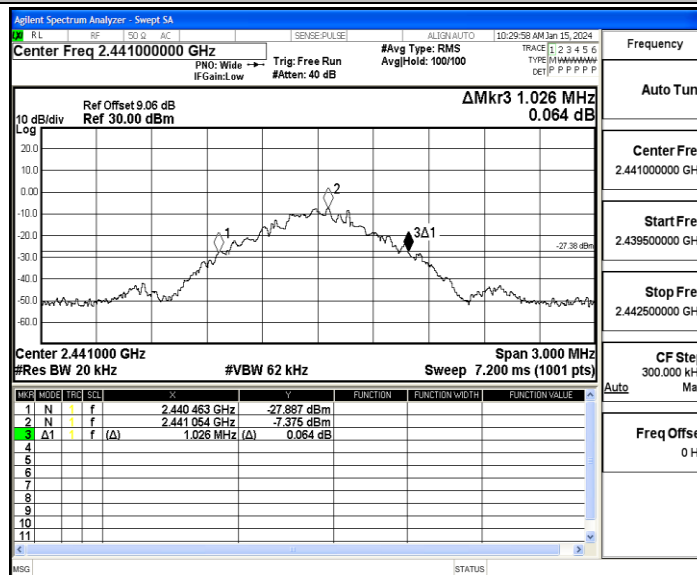
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.945	2401.529	2402.474	---	---
		2441	1.026	2440.463	2441.489	---	---
		2480	0.948	2479.535	2480.483	---	---

Test Graphs

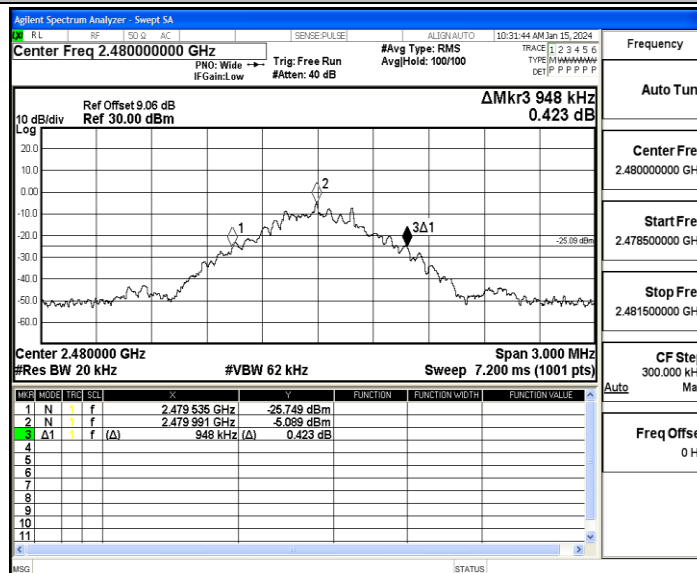
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



Appendix B: Occupied Channel Bandwidth

Test Result

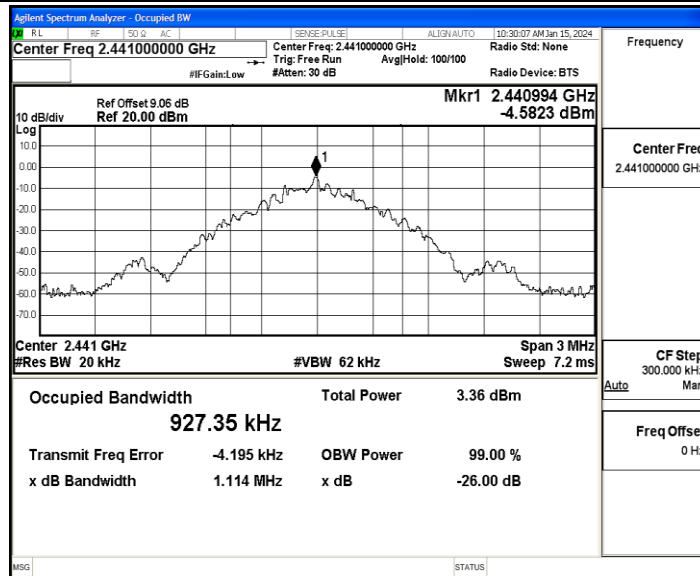
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.91928	2401.5402	2402.4595	---	---
		2441	0.92735	2440.5321	2441.4595	---	---
		2480	0.92161	2479.5407	2480.4623	---	---

Test Graphs

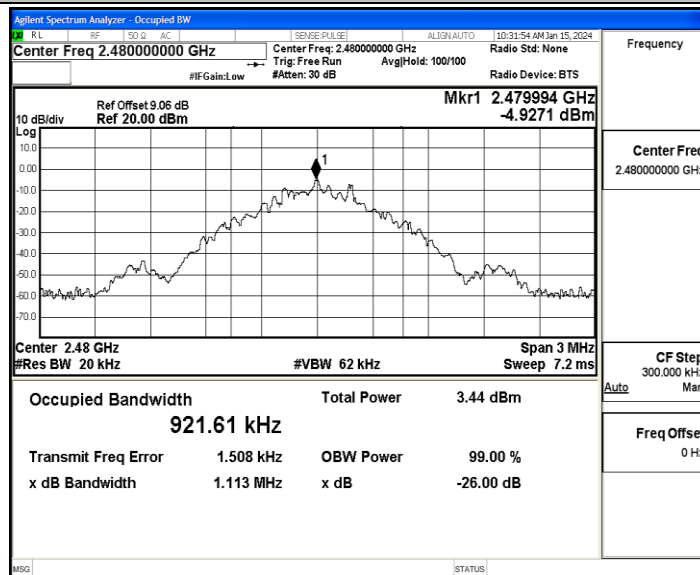
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



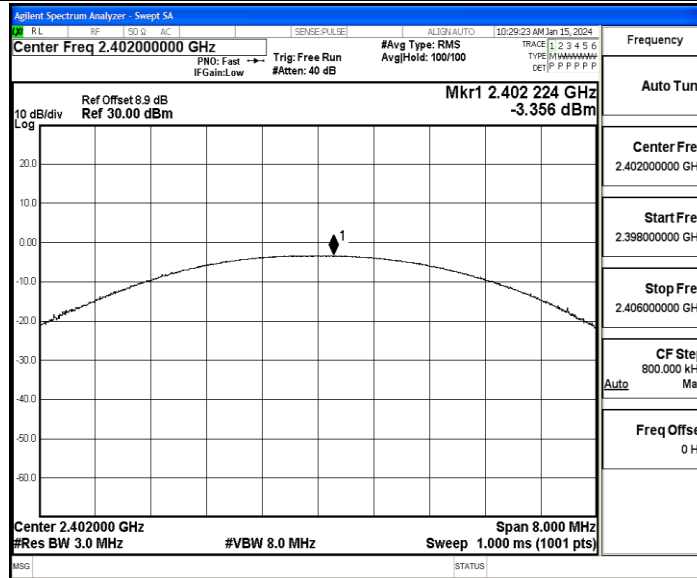
Appendix C: Maximum Peak conducted output power

Test Result

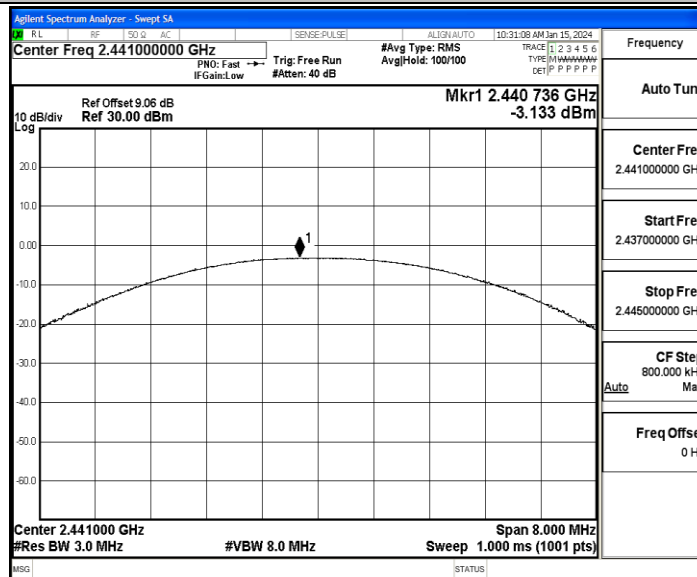
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-3.36	≤ 20.97	PASS
		2441	-3.13	≤ 20.97	PASS
		2480	-3.4	≤ 20.97	PASS

Test Graphs

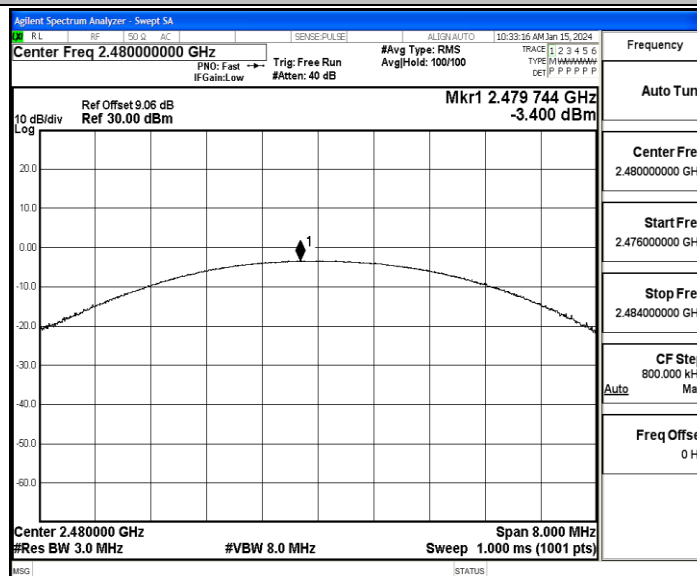
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480

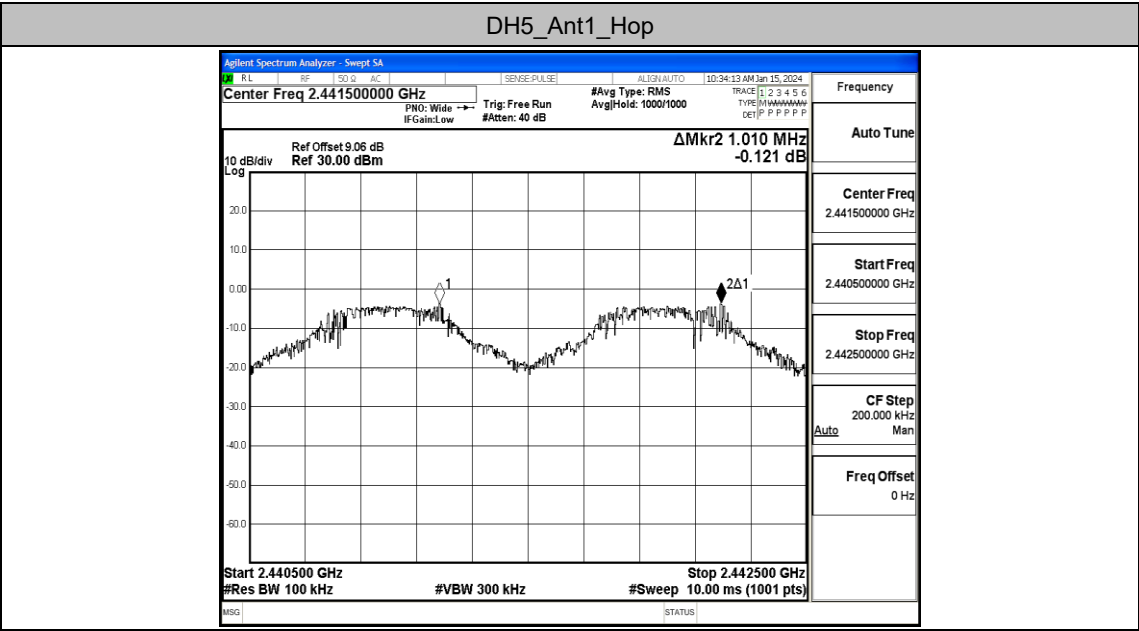


Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.01	≥ 0.684	PASS

Test Graphs

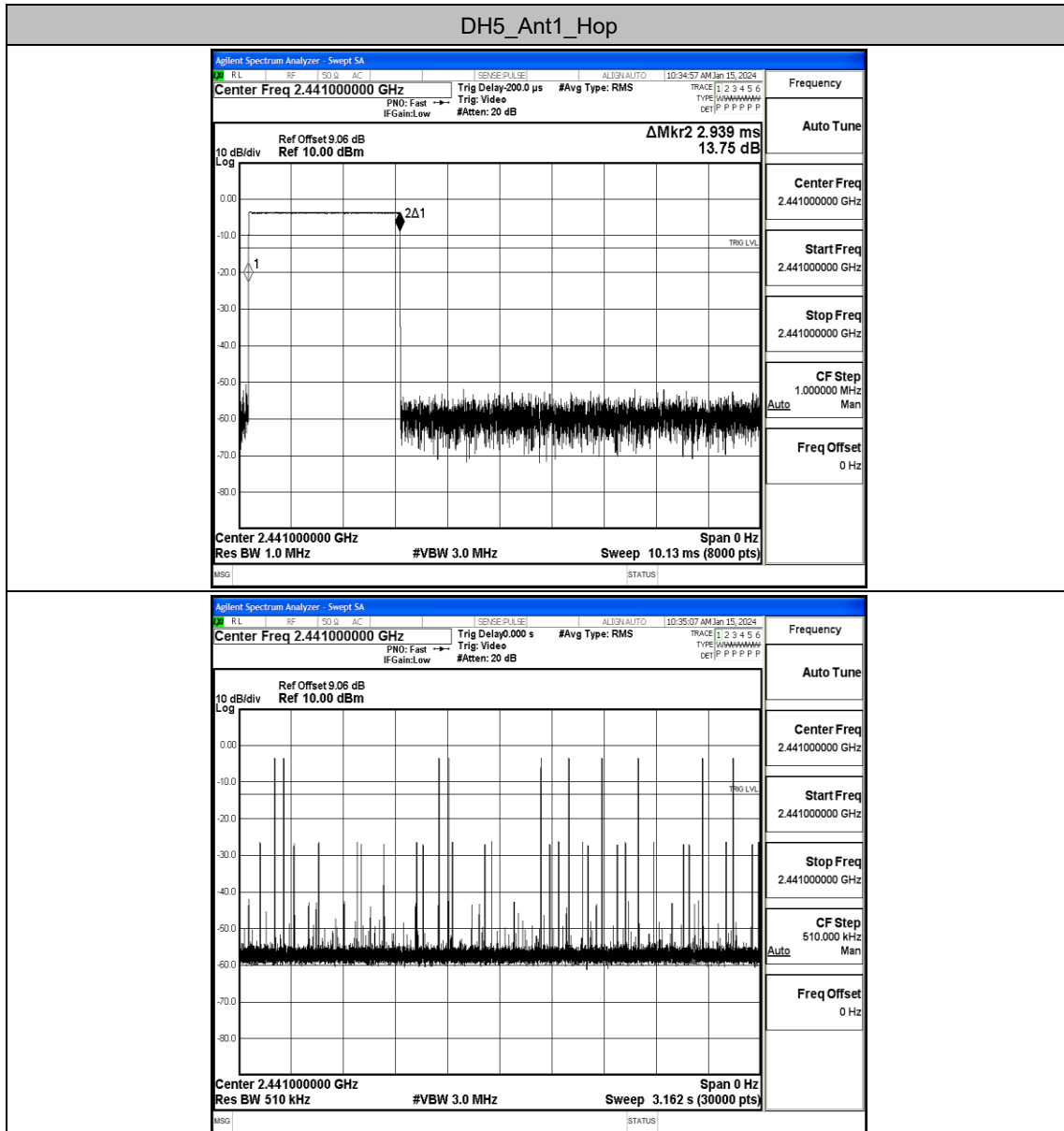


Appendix E: Time of occupancy

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

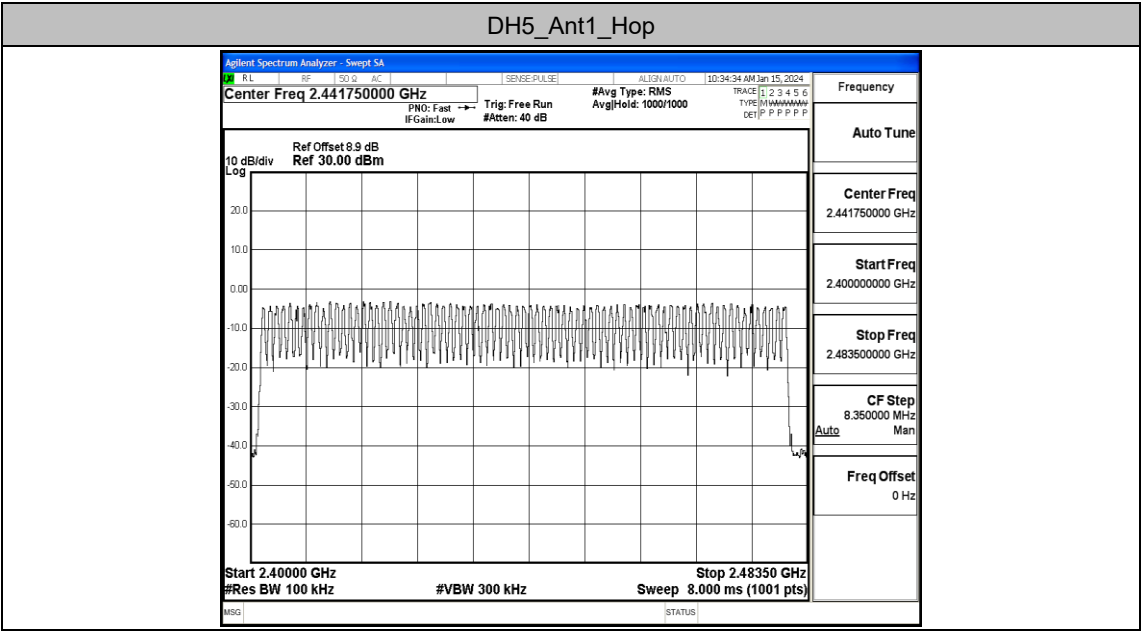


Appendix F: Number of hopping channels

Test Result

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

Test Graphs



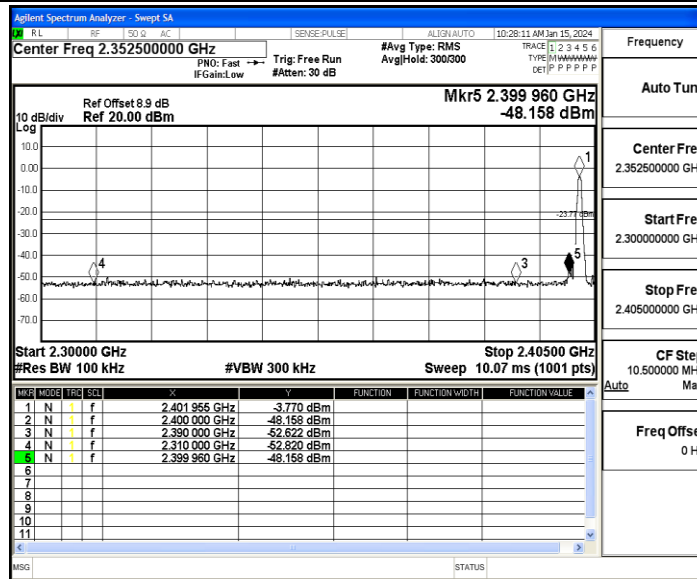
Appendix G: Band edge measurements

Test Result

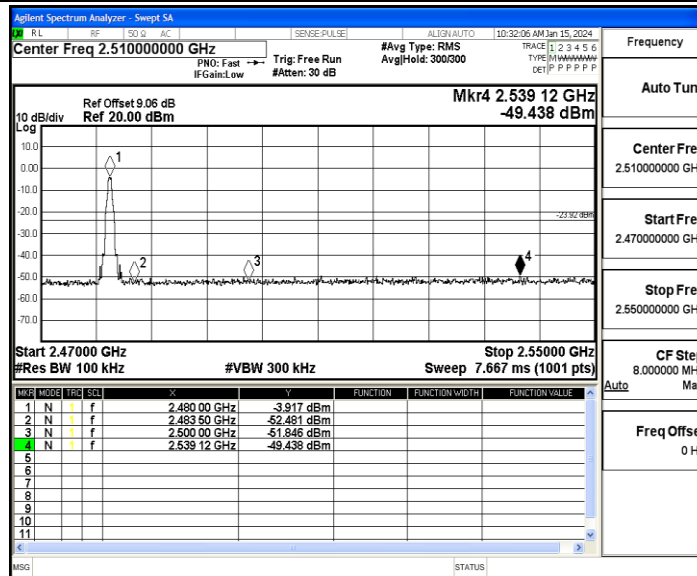
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.77	-48.16	≤ -23.77	PASS
		High	2480	-3.92	-49.44	≤ -23.92	PASS
		Low	Hop_2402	-3.88	-51.12	≤ -23.88	PASS
		High	Hop_2480	-3.87	-49.47	≤ -23.87	PASS

Test Graphs

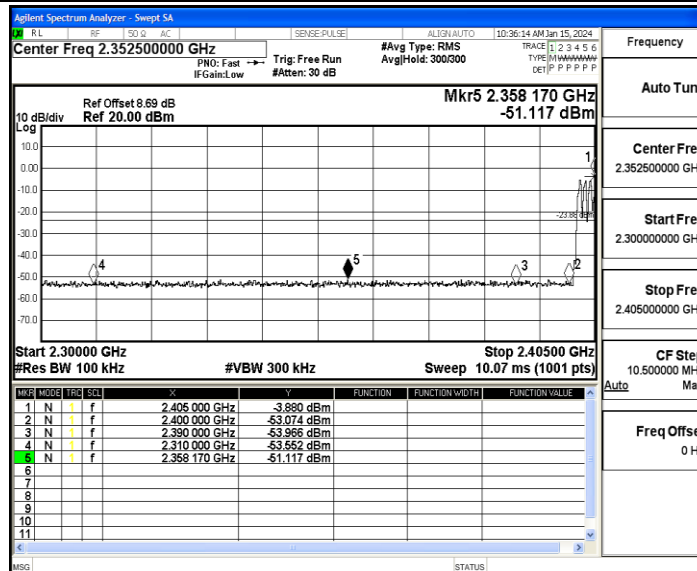
DH5_Ant1_Low_2402



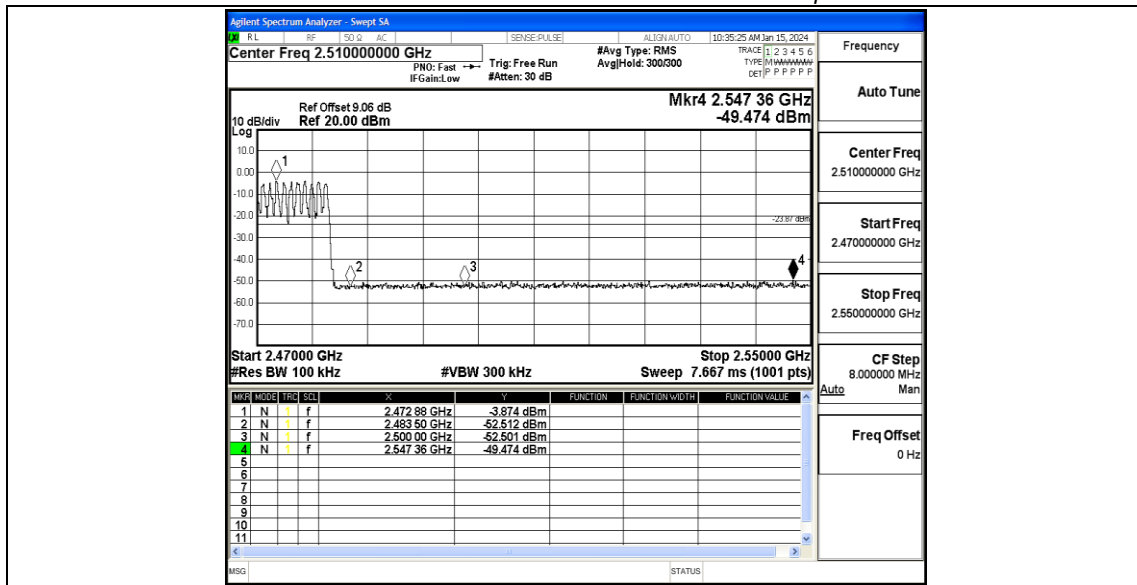
DH5_Ant1_High_2480



DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480



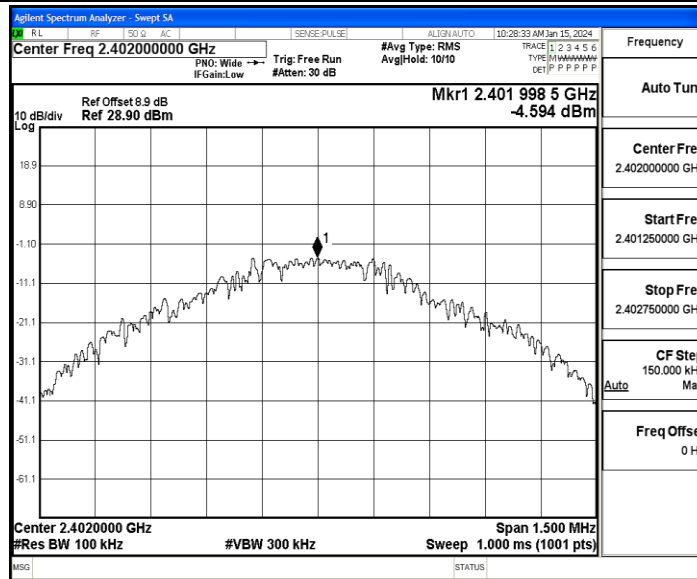
Appendix H: Conducted Spurious Emission

Test Result

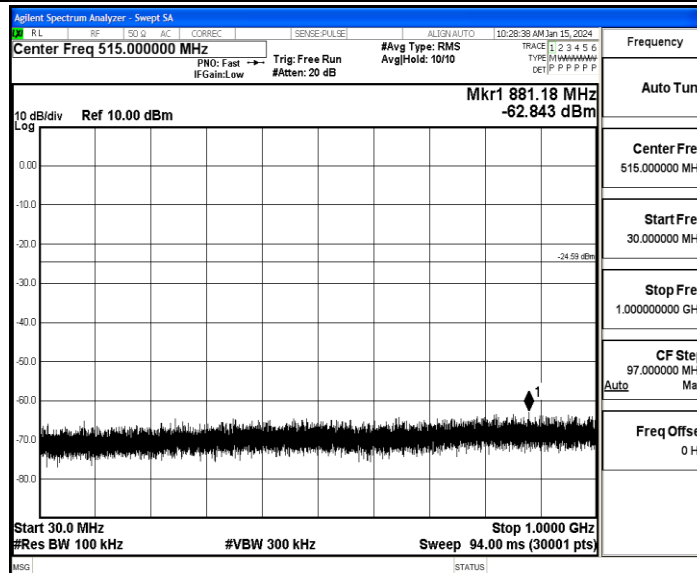
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-4.59	-4.59	---	PASS
			30~1000	-4.59	-62.84	≤ -24.59	PASS
			1000~26500	-4.59	-50.82	≤ -24.59	PASS
		2441	Reference	-4.39	-4.39	---	PASS
			30~1000	-4.39	-62.29	≤ -24.39	PASS
			1000~26500	-4.39	-49.92	≤ -24.39	PASS
		2480	Reference	-4.65	-4.65	---	PASS
			30~1000	-4.65	-63.16	≤ -24.65	PASS
			1000~26500	-4.65	-50.4	≤ -24.65	PASS

Test Graphs

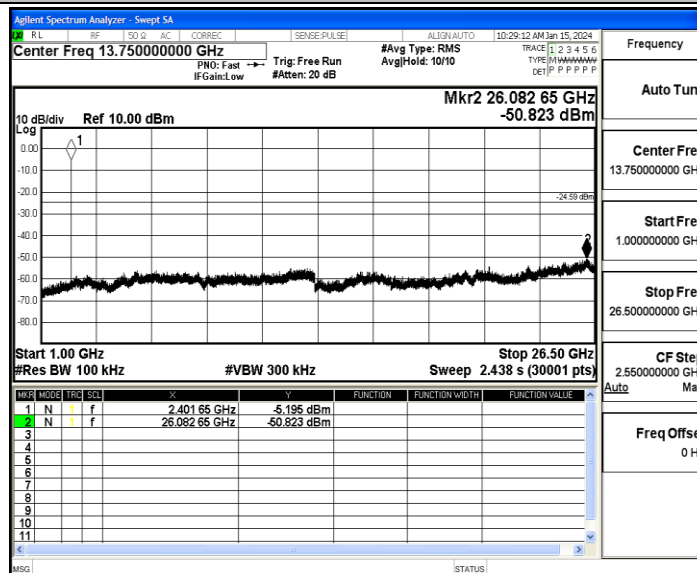
DH5_Ant1_2402_0~Reference



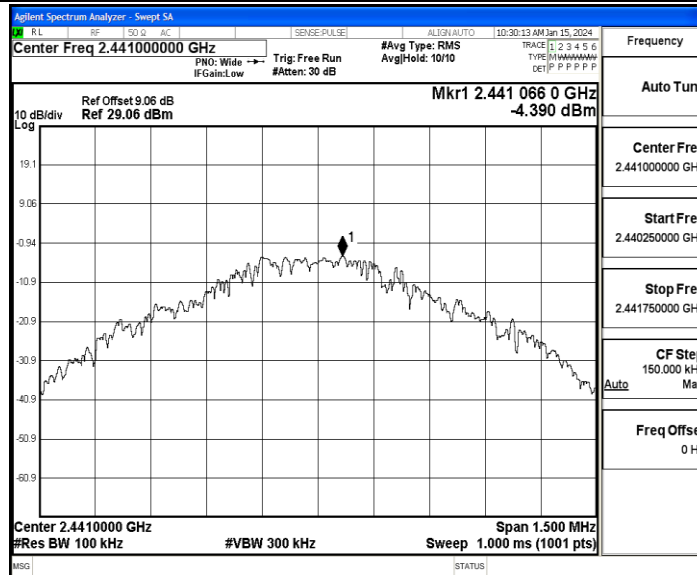
DH5_Ant1_2402_30~1000



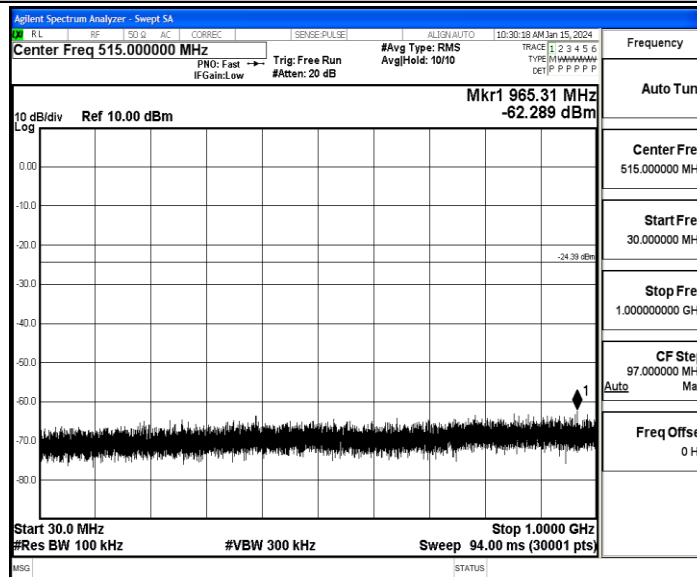
DH5_Ant1_2402_1000~26500



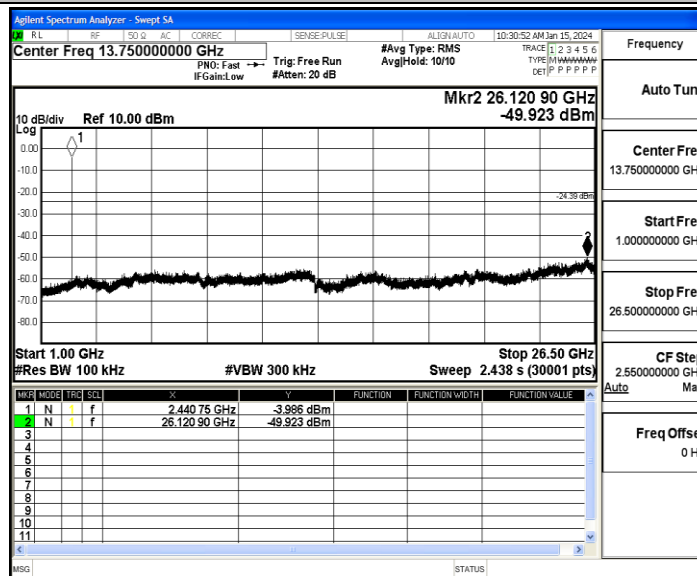
DH5_Ant1_2441_0~Reference



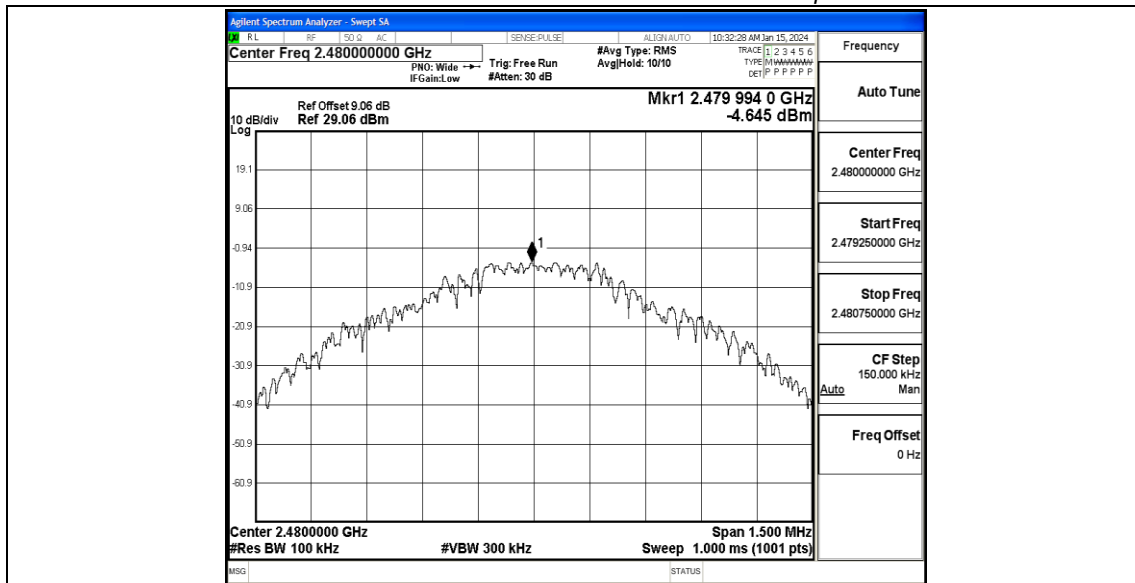
DH5_Ant1_2441_30~1000



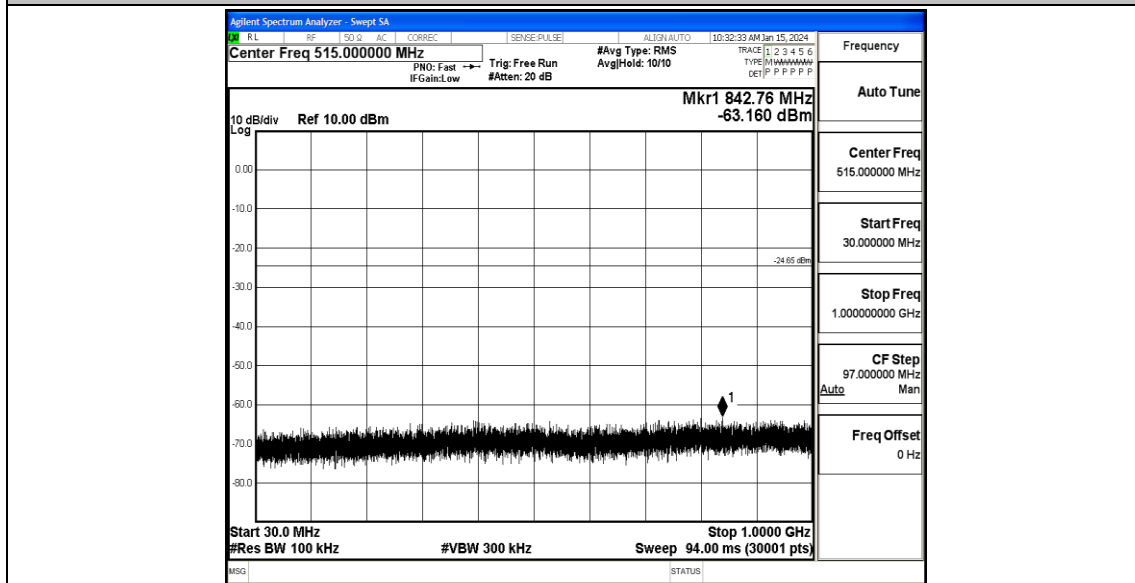
DH5_Ant1_2441_1000~26500



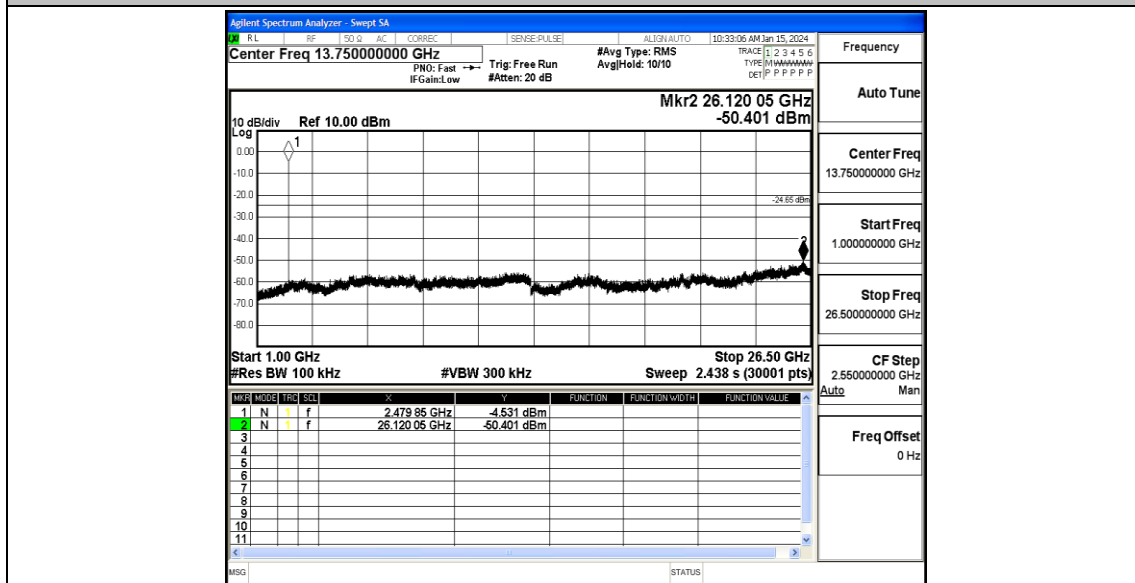
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



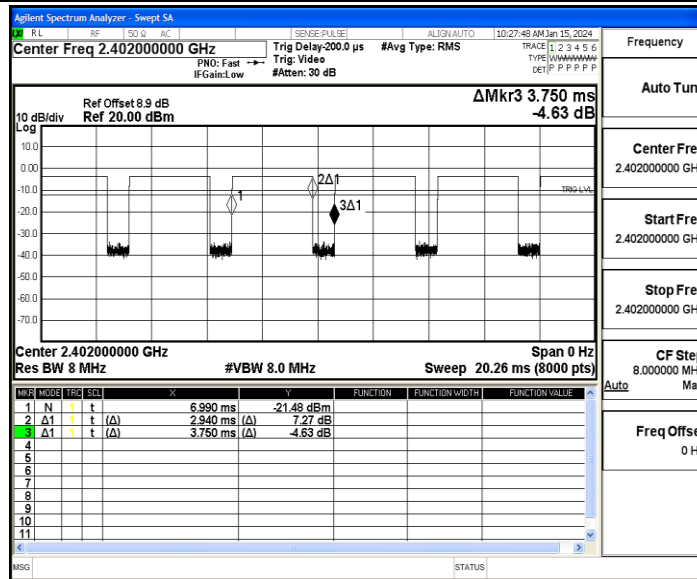
Appendix I: Duty Cycle

Test Result

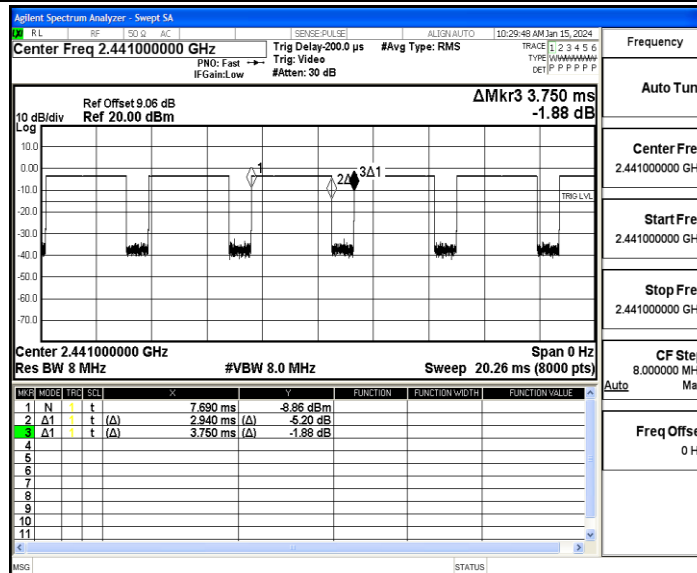
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
DH5	Ant1	2402	2.94	3.75	78.40	0.34
		2441	2.94	3.75	78.40	0.34
		2480	2.94	3.75	78.40	0.34

Test Graphs

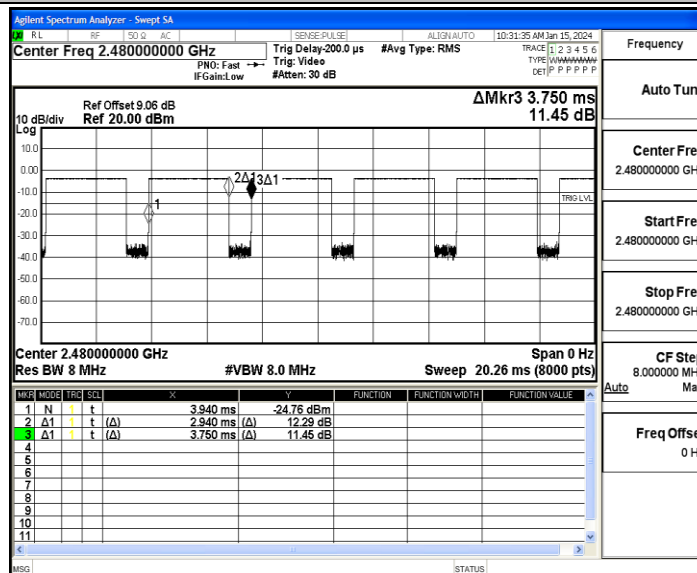
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



Appendix J: Emissions in Restricted Bands

Test Result

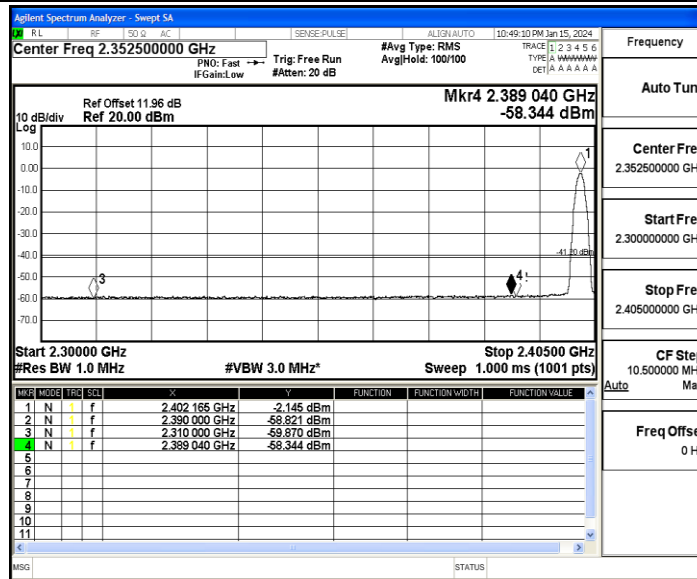
TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-59.87	≤ -41.20	PASS
				AV	2389.040	-58.34	≤ -41.20	PASS
				AV	2390.000	-58.82	≤ -41.20	PASS
				Peak	2310.000	-57.9	≤ -21.20	PASS
				Peak	2336.540	-56.74	≤ -21.20	PASS
				Peak	2390.000	-57.46	≤ -21.20	PASS
		High	2480	AV	2483.500	-57.55	≤ -41.20	PASS
				AV	2483.520	-57.55	≤ -41.20	PASS
				AV	2500.000	-58.56	≤ -41.20	PASS
				Peak	2483.500	-56.6	≤ -21.20	PASS
				Peak	2486.400	-56.04	≤ -21.20	PASS
				Peak	2500.000	-57	≤ -21.20	PASS

Note:

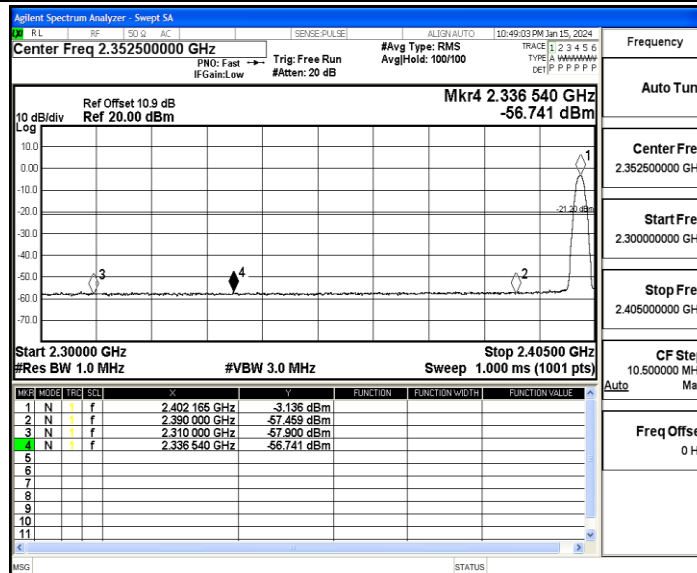
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

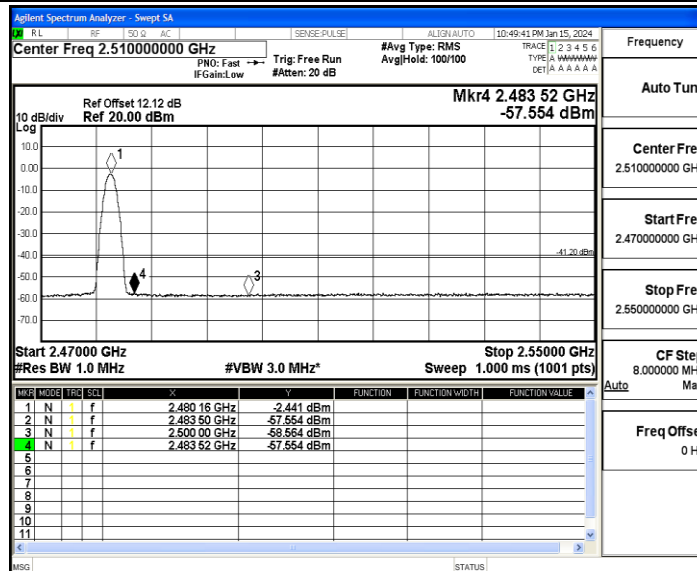
DH5_Ant1_Low_2402_AV



DH5_Ant1_Low_2402_Peak



DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

