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

Product Name: ANC Wireless Earbuds

Trade Mark: Tranya

Test Model: Tranya Nova Lite

FCC ID: 2A4AX-NOVALITE

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

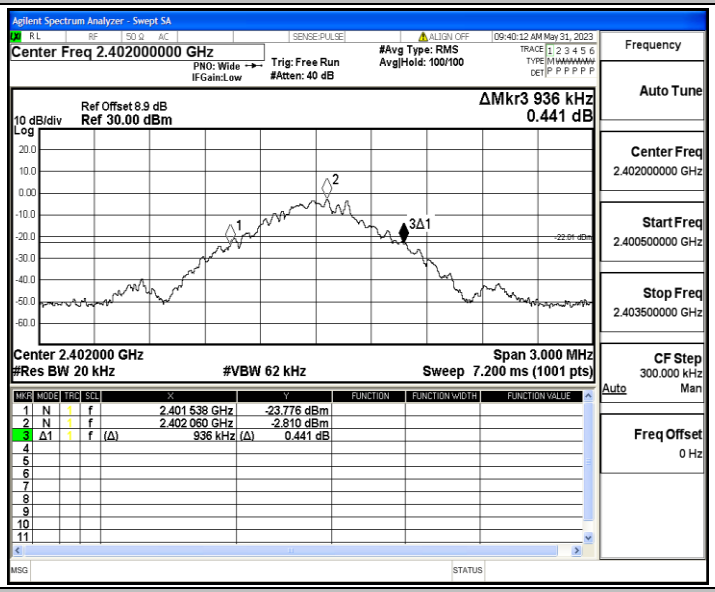
Appendix A: 20dB Emission Bandwidth

Test Result

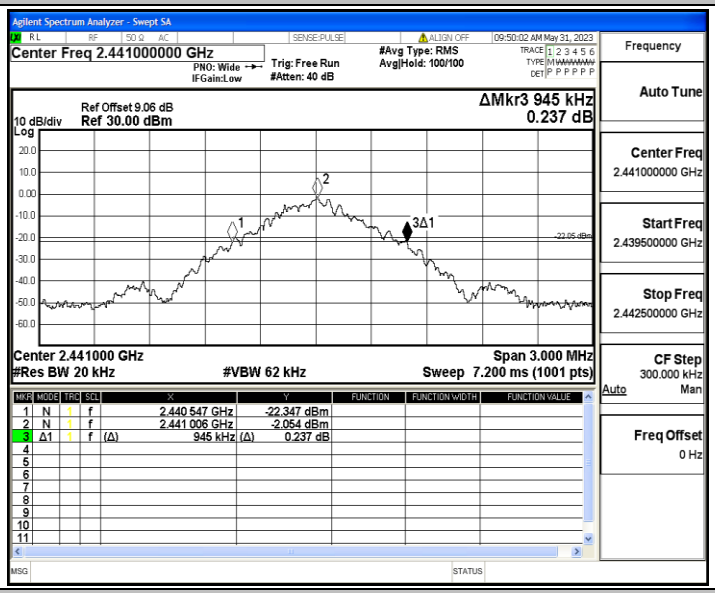
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.936	2401.538	2402.474	---	---
		2441	0.945	2440.547	2441.492	---	---
		2480	0.951	2479.544	2480.495	---	---
2DH5	Ant1	2402	1.320	2401.349	2402.669	---	---
		2441	1.314	2440.349	2441.663	---	---
		2480	1.338	2479.340	2480.678	---	---
3DH5	Ant1	2402	1.284	2401.358	2402.642	---	---
		2441	1.263	2440.367	2441.630	---	---
		2480	1.308	2479.355	2480.663	---	---

Test Graphs

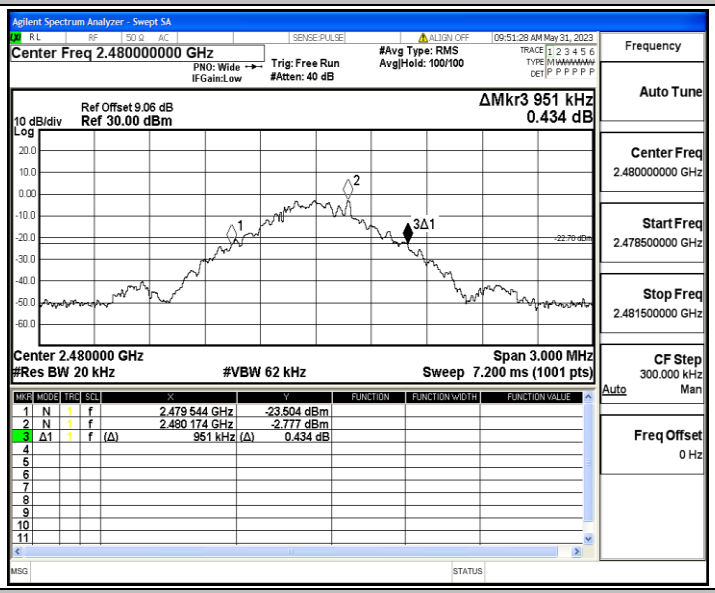
DH5_Ant1_2402



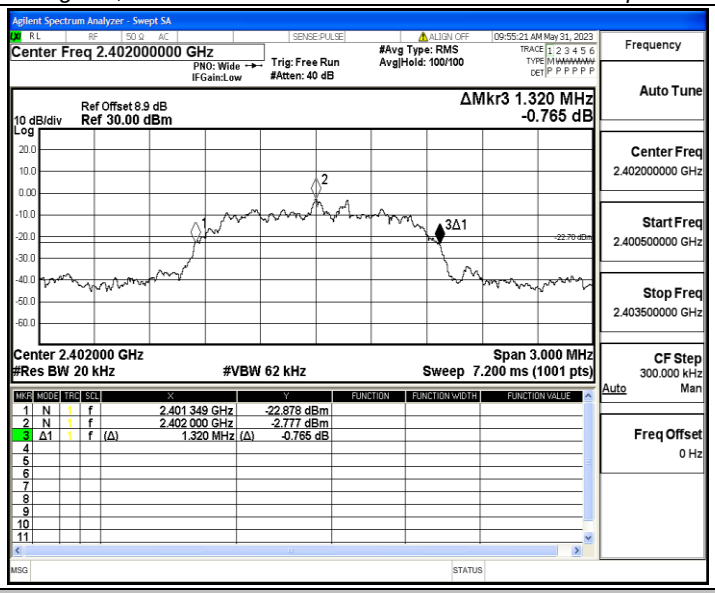
DH5_Ant1_2441



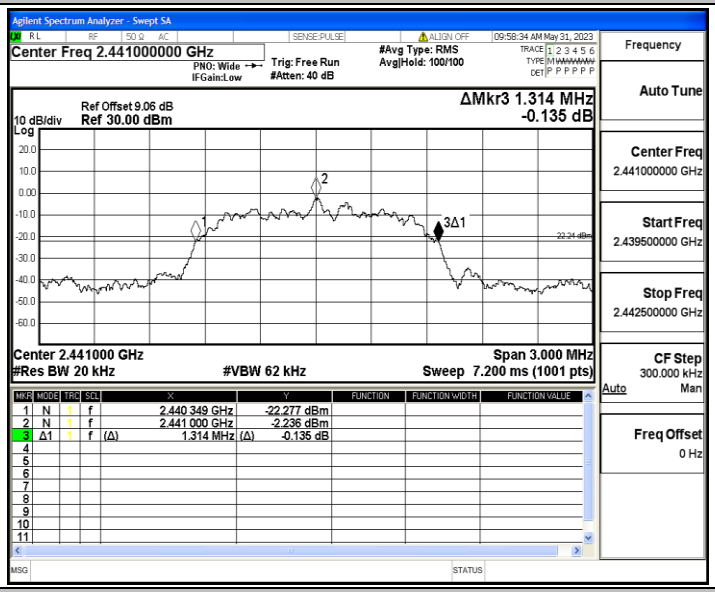
DH5_Ant1_2480



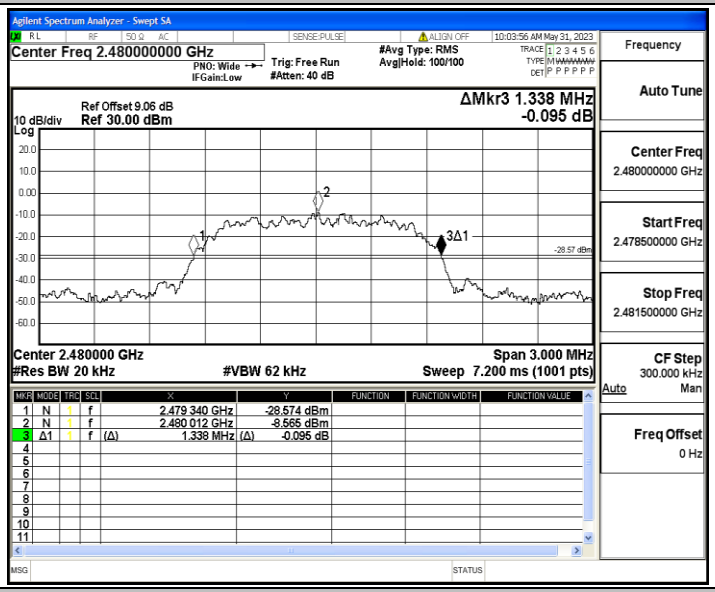
2DH5_Ant1_2402



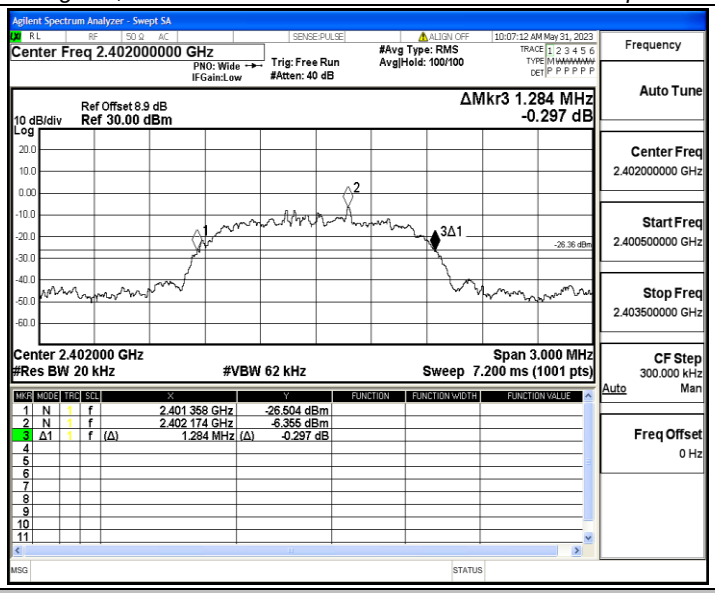
2DH5_Ant1_2441



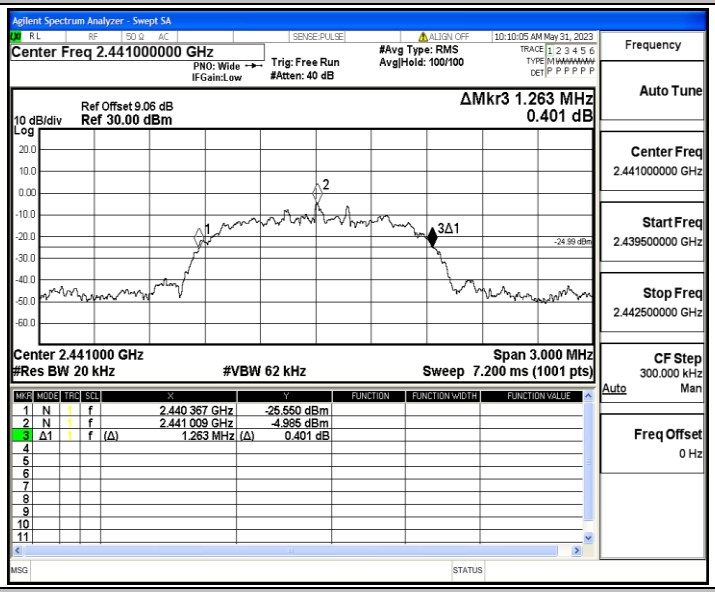
2DH5_Ant1_2480



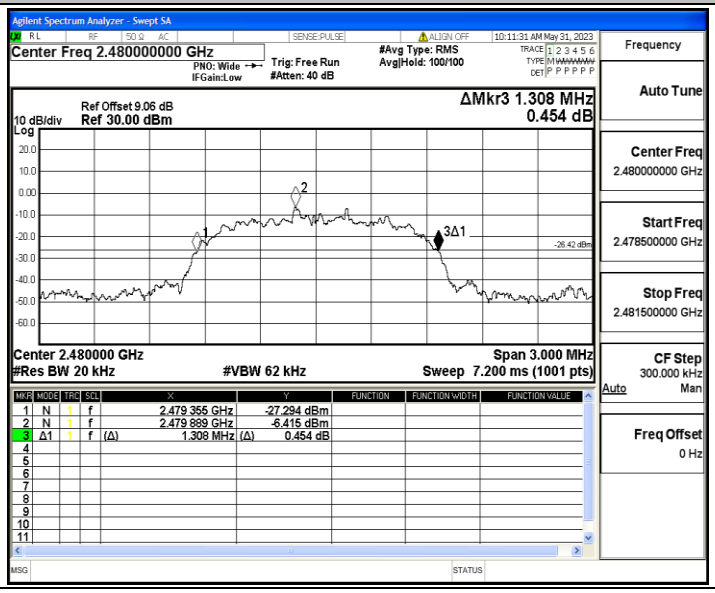
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



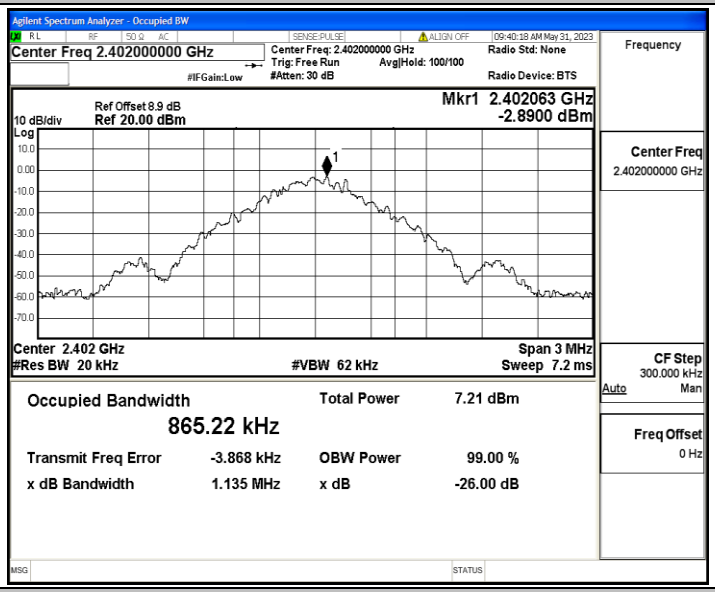
Appendix B: Occupied Channel Bandwidth

Test Result

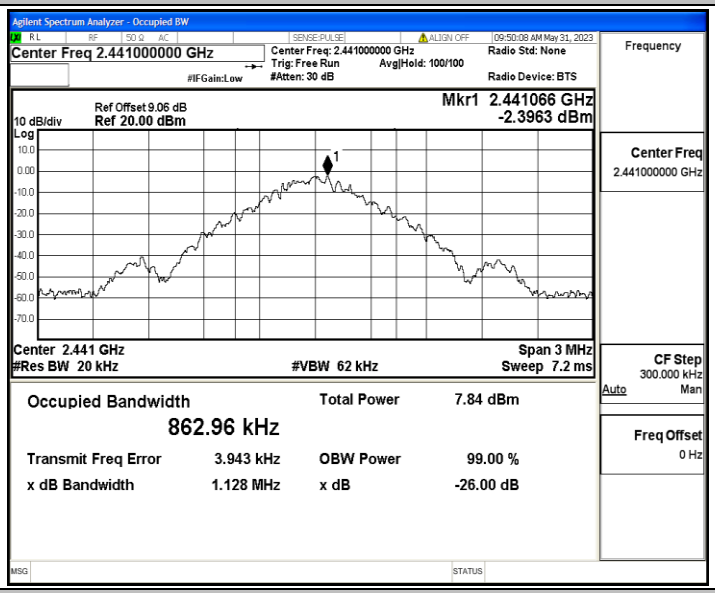
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86522	2401.5635	2402.4287	---	---
		2441	0.86296	2440.5725	2441.4354	---	---
		2480	0.85611	2479.5772	2480.4333	---	---
2DH5	Ant1	2402	1.1822	2401.4128	2402.5950	---	---
		2441	1.1916	2440.4114	2441.6030	---	---
		2480	1.1822	2479.4164	2480.5986	---	---
3DH5	Ant1	2402	1.1810	2401.4154	2402.5964	---	---
		2441	1.1845	2440.4092	2441.5937	---	---
		2480	1.1915	2479.4048	2480.5963	---	---

Test Graphs

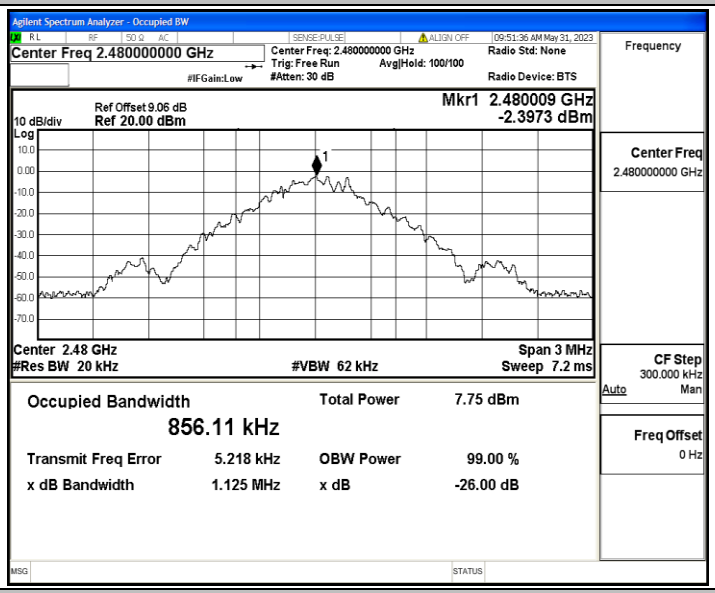
DH5_Ant1_2402



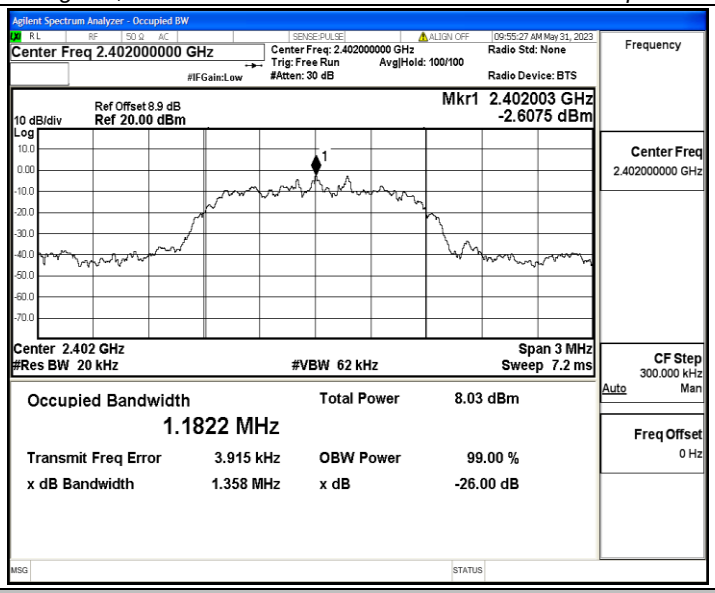
DH5_Ant1_2441



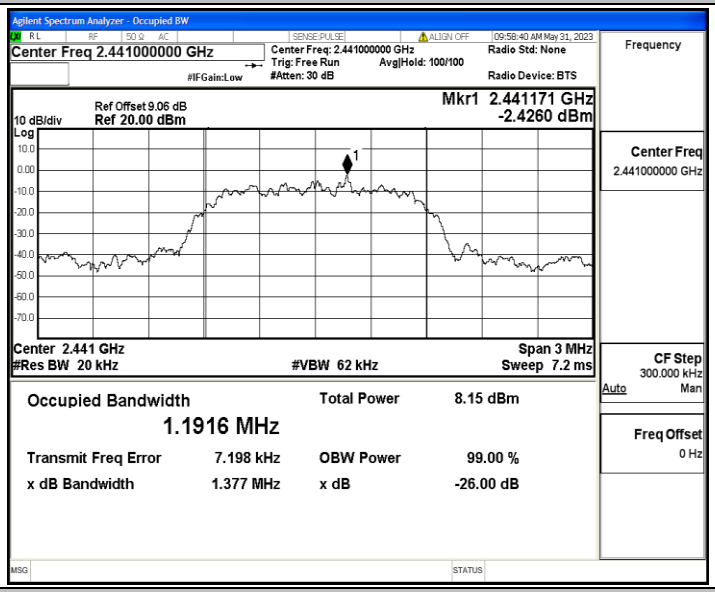
DH5_Ant1_2480



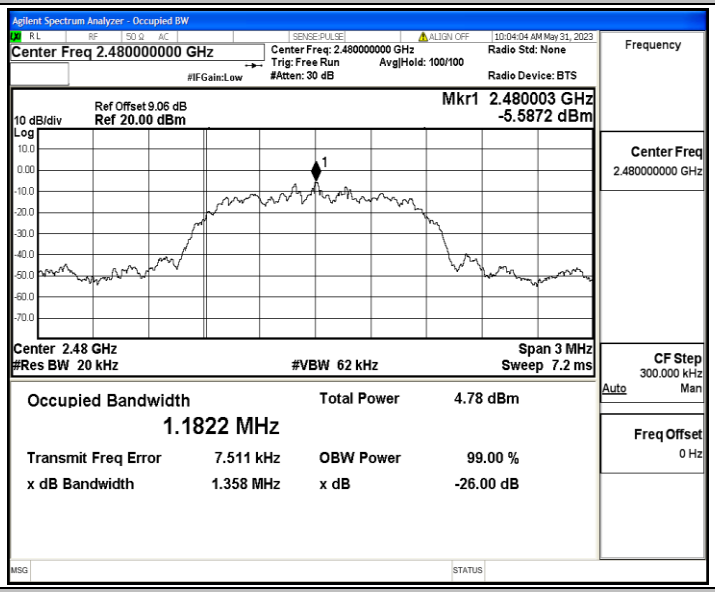
2DH5_Ant1_2402



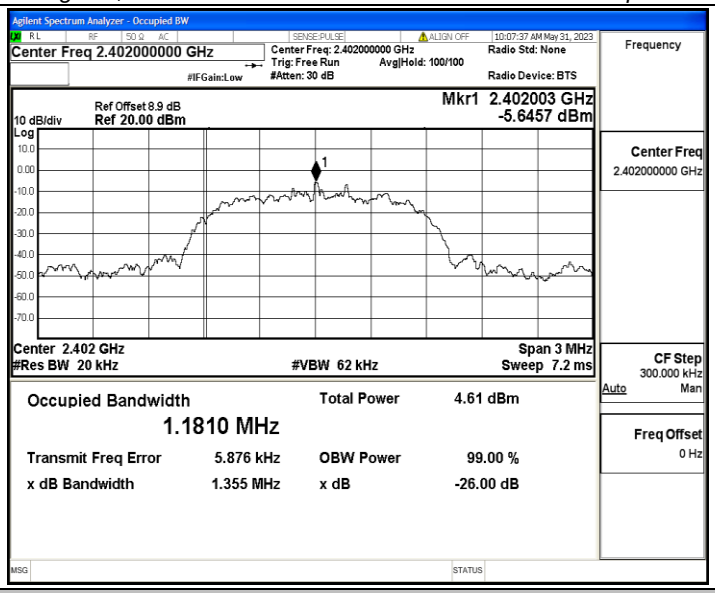
2DH5_Ant1_2441



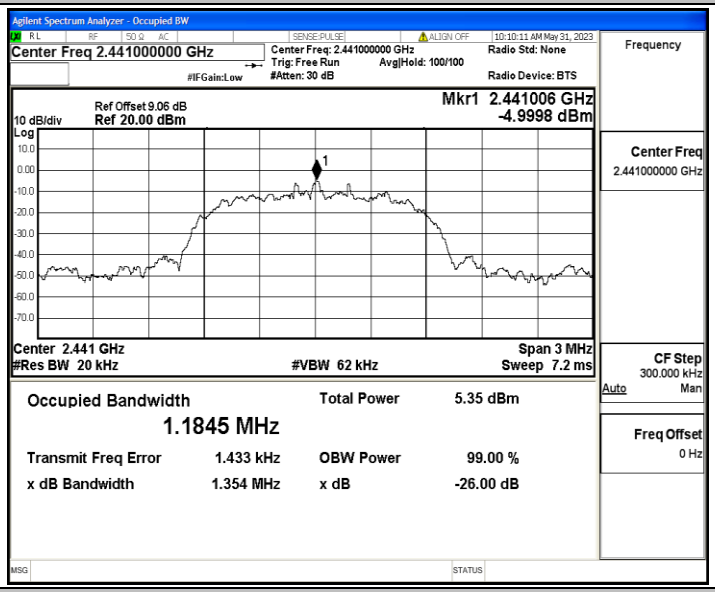
2DH5_Ant1_2480



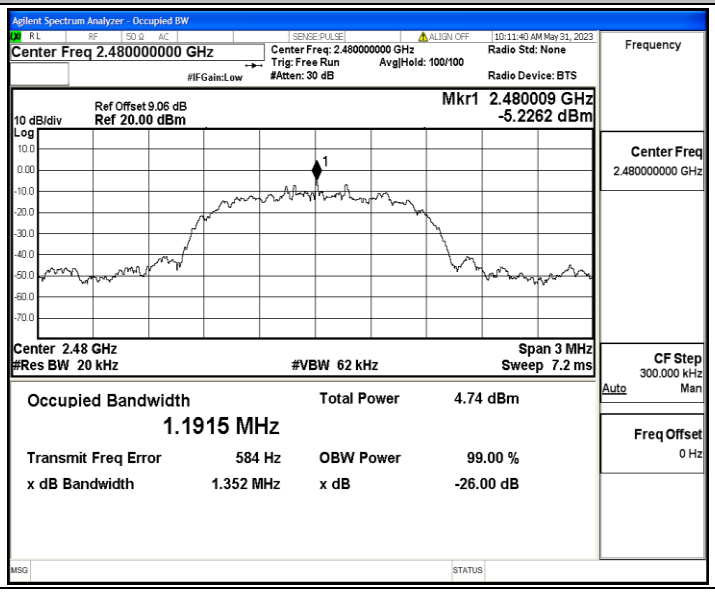
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



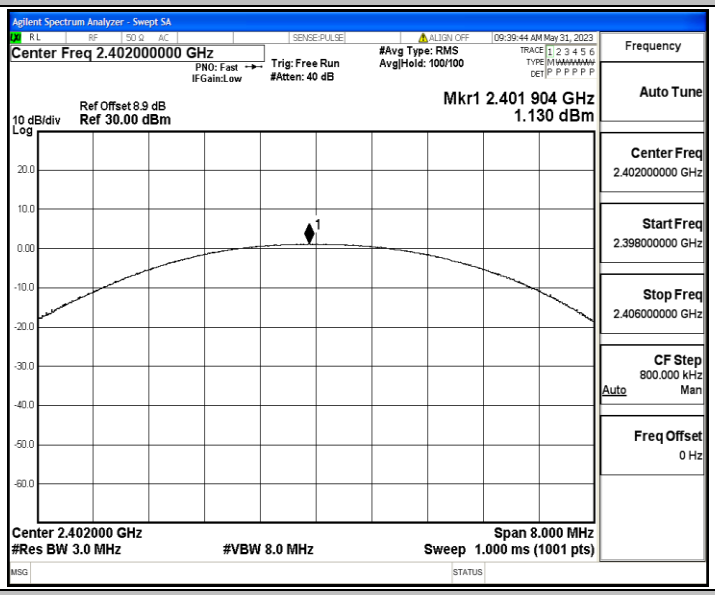
Appendix C: Maximum Peak conducted output power

Test Result

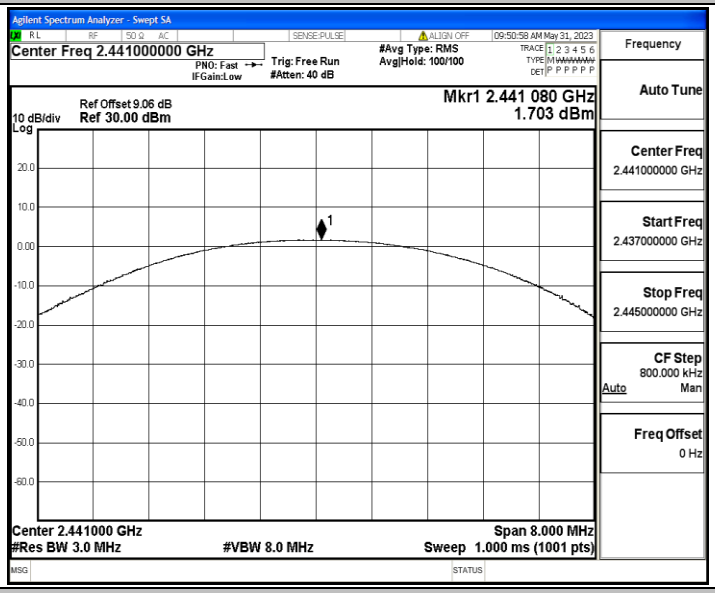
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.13	≤30	PASS
		2441	1.7	≤30	PASS
		2480	1.48	≤30	PASS
2DH5	Ant1	2402	0.44	≤20.97	PASS
		2441	0.91	≤20.97	PASS
		2480	0.49	≤20.97	PASS
3DH5	Ant1	2402	1.07	≤20.97	PASS
		2441	1.57	≤20.97	PASS
		2480	1.35	≤20.97	PASS

Test Graphs

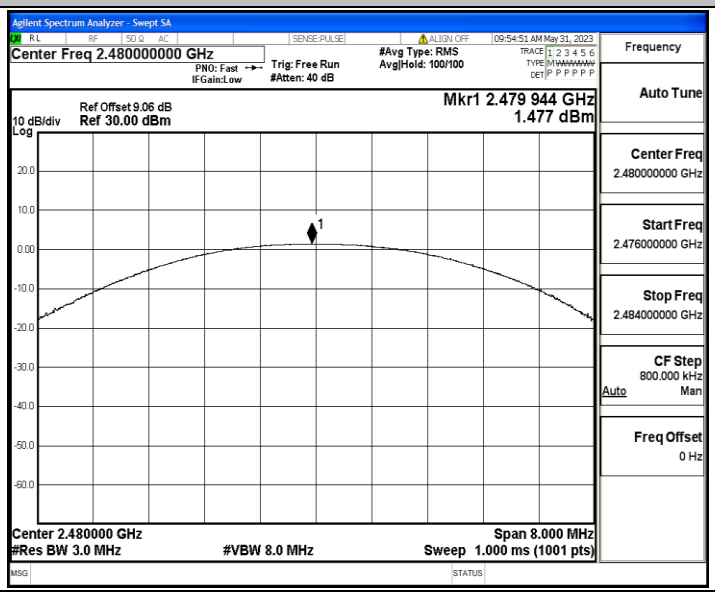
DH5_Ant1_2402



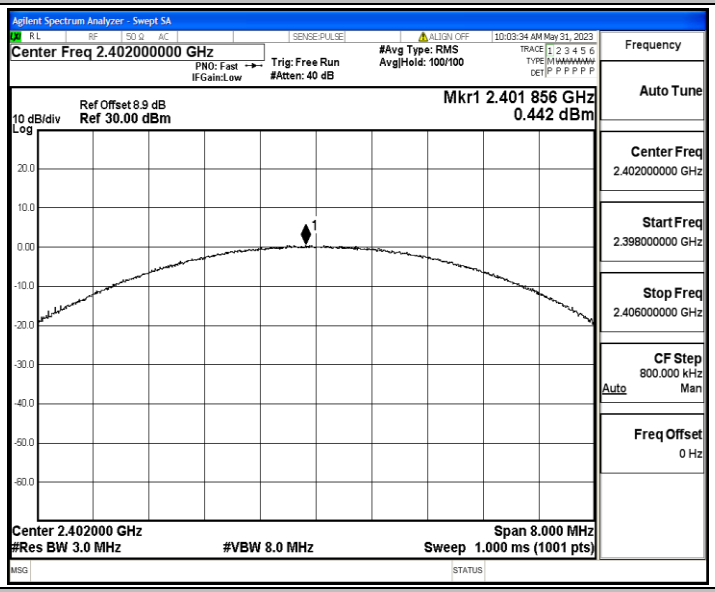
DH5_Ant1_2441



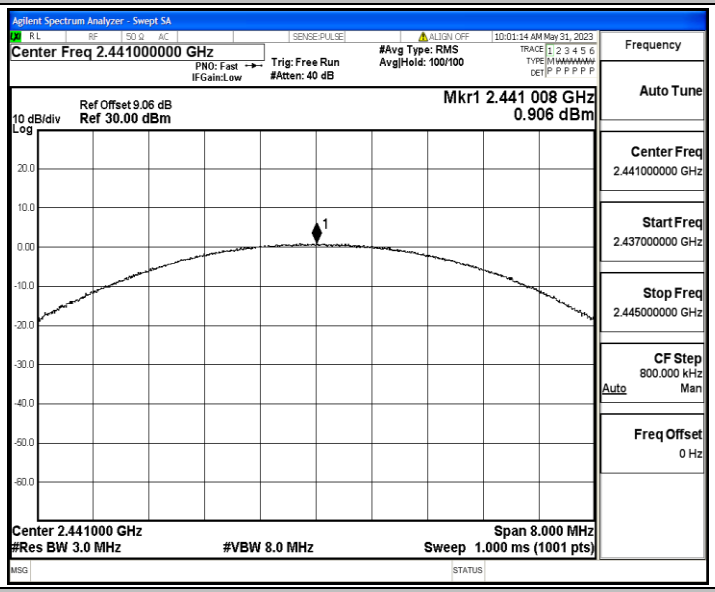
DH5_Ant1_2480



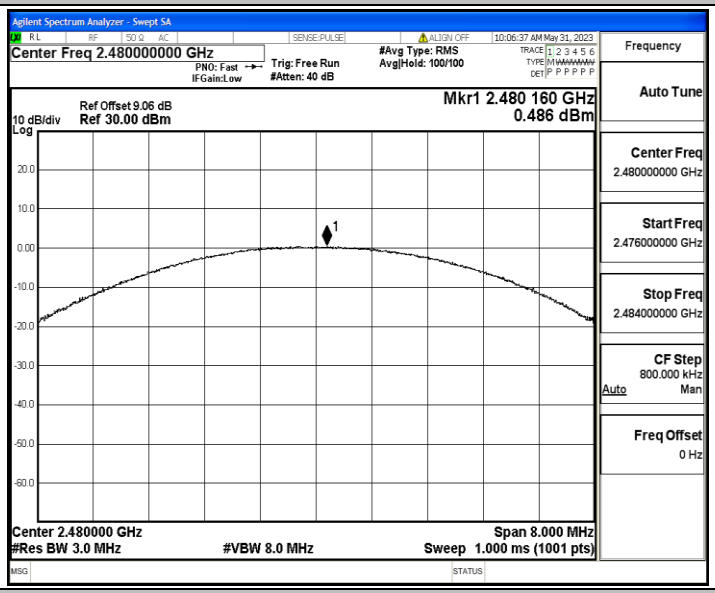
2DH5_Ant1_2402



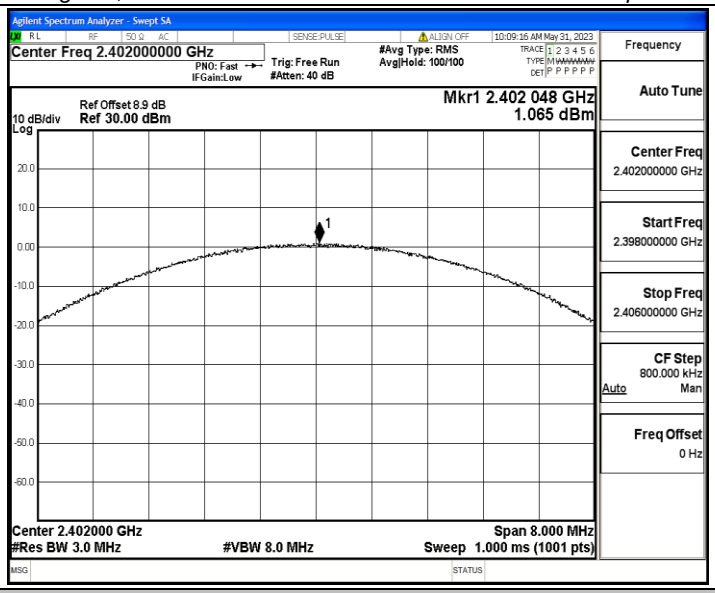
2DH5_Ant1_2441



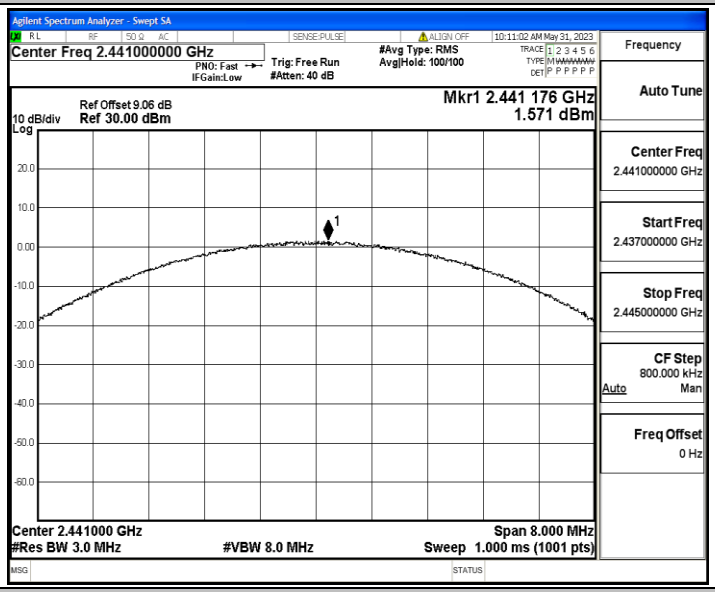
2DH5_Ant1_2480



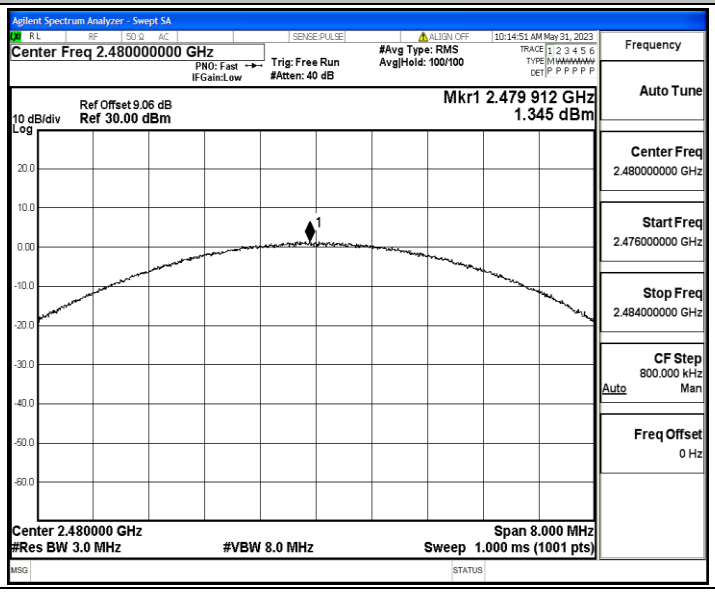
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



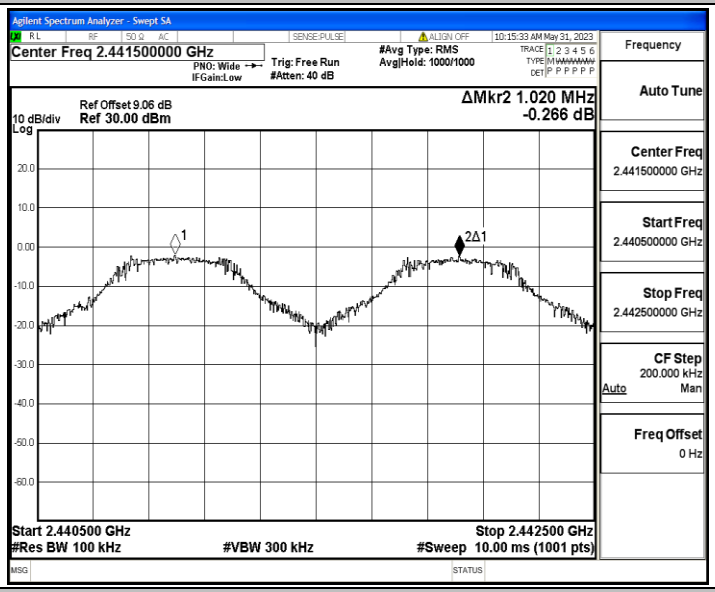
Appendix D: Carrier frequency separation

Test Result

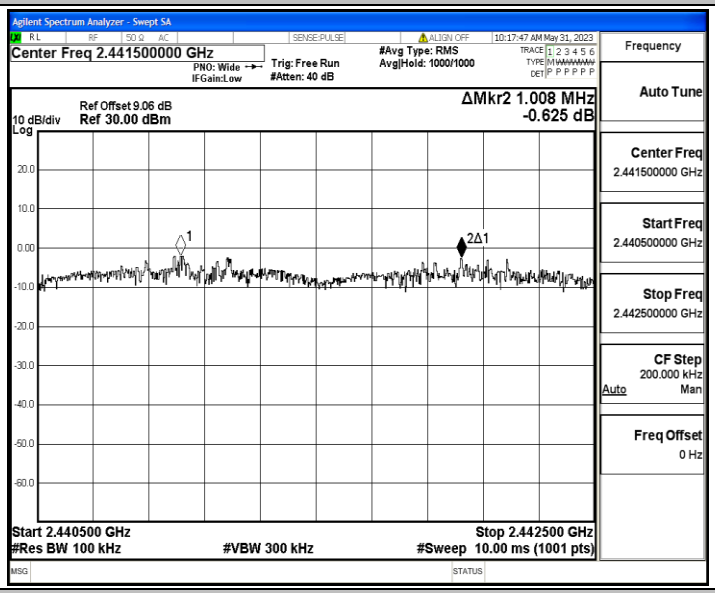
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.02	≥0.951	PASS
2DH5	Ant1	Hop	1.008	≥0.892	PASS
3DH5	Ant1	Hop	1.02	≥0.872	PASS

Test Graphs

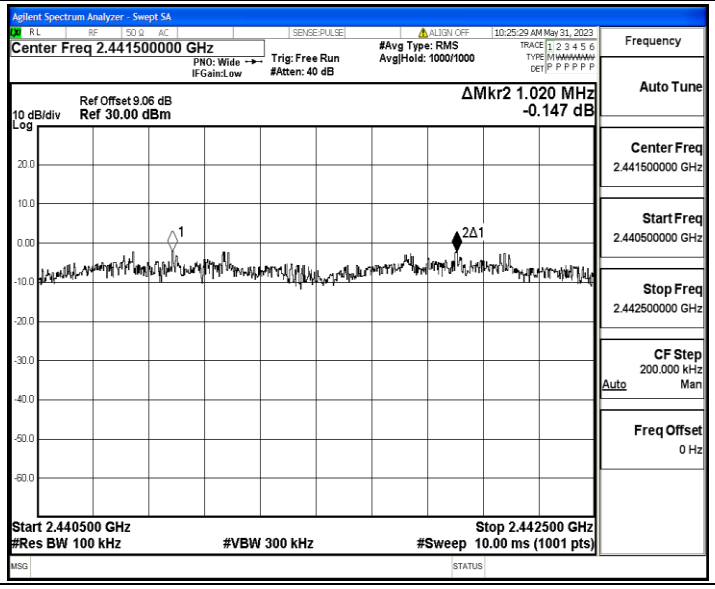
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



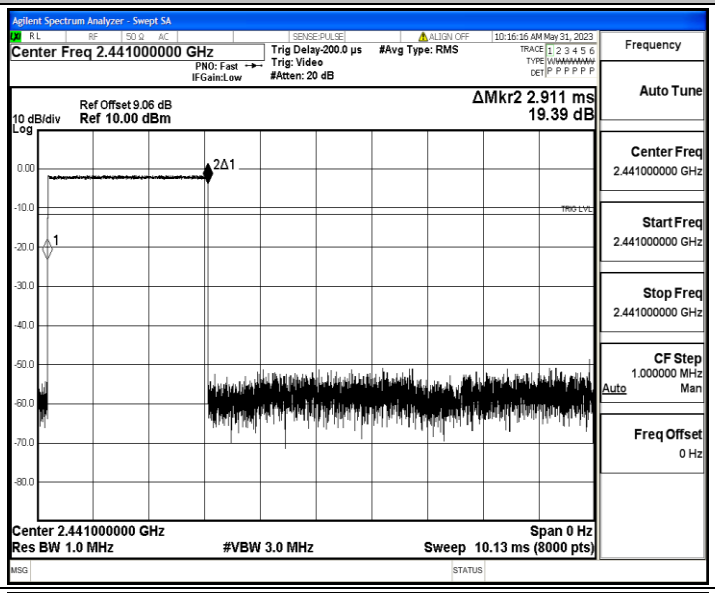
Appendix E: Time of occupancy

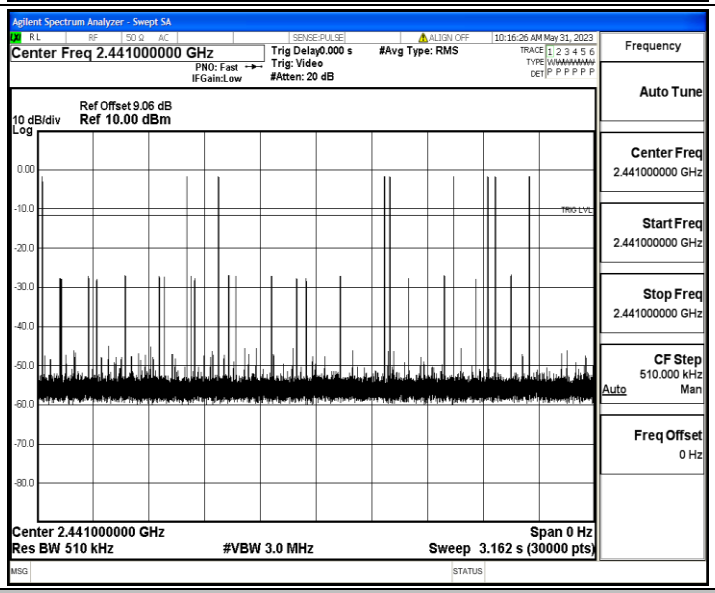
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.911	100	0.291	≤0.4	PASS
2DH5	Ant1	Hop	2.916	120	0.35	≤0.4	PASS
3DH5	Ant1	Hop	2.916	130	0.379	≤0.4	PASS

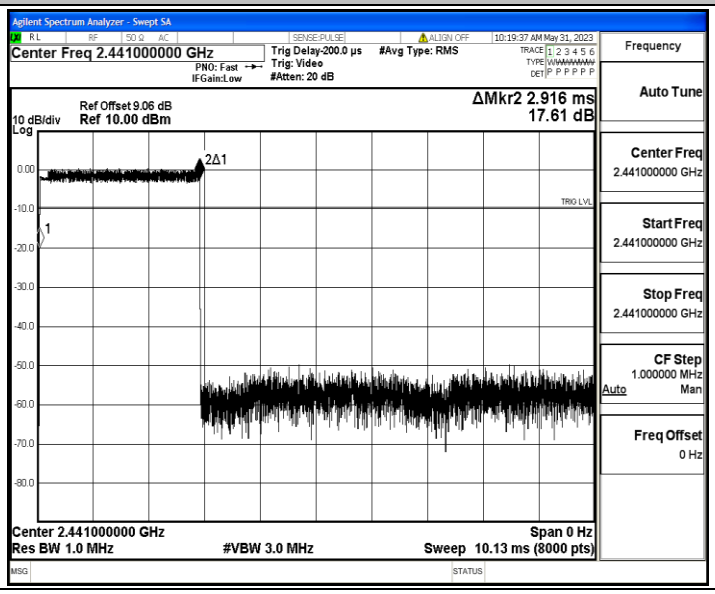
Test Graphs

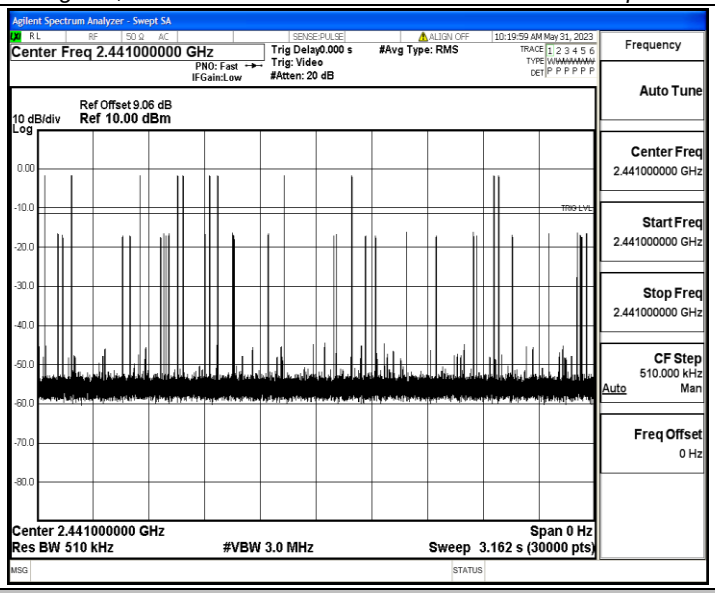
DH5_Ant1_Hop



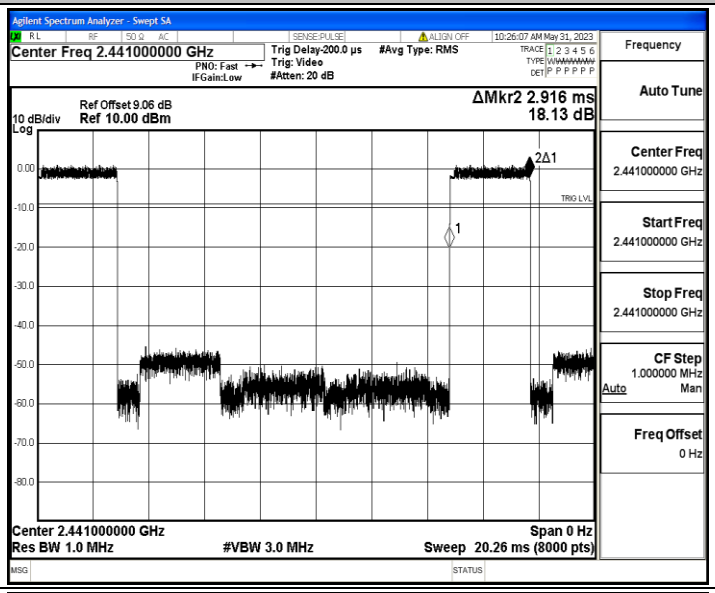


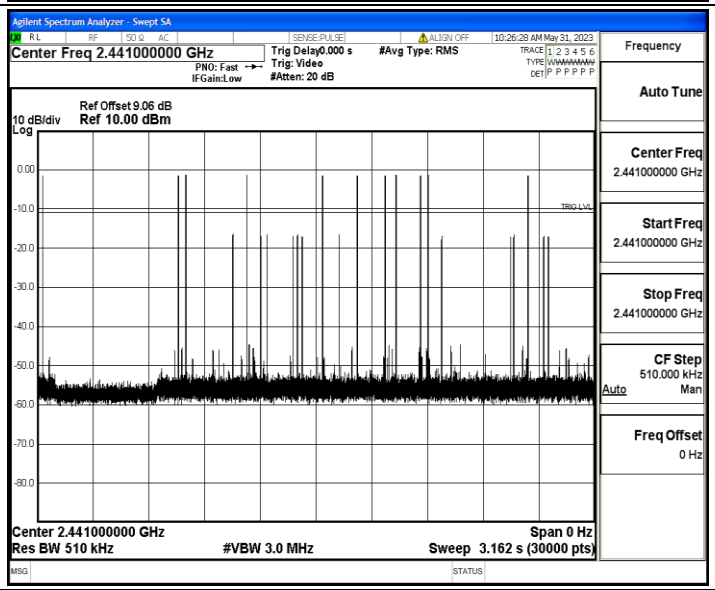
2DH5_Ant1_Hop





3DH5_Ant1_Hop





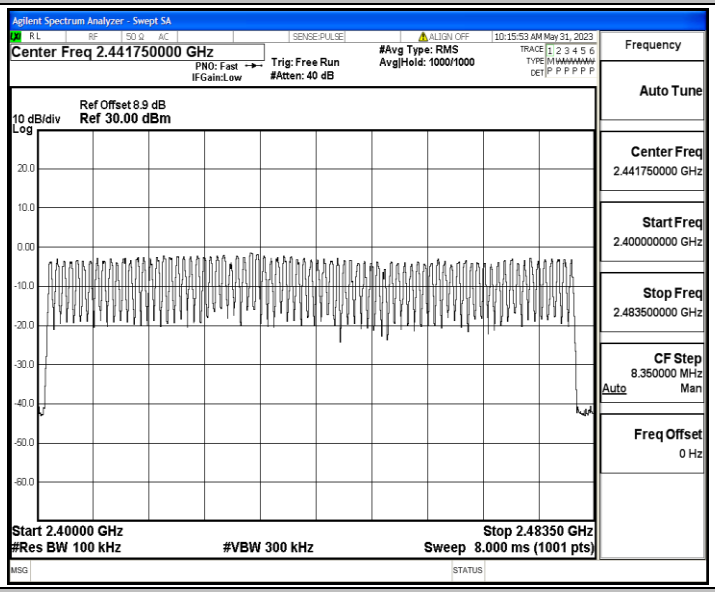
Appendix F: Number of hopping channels

Test Result

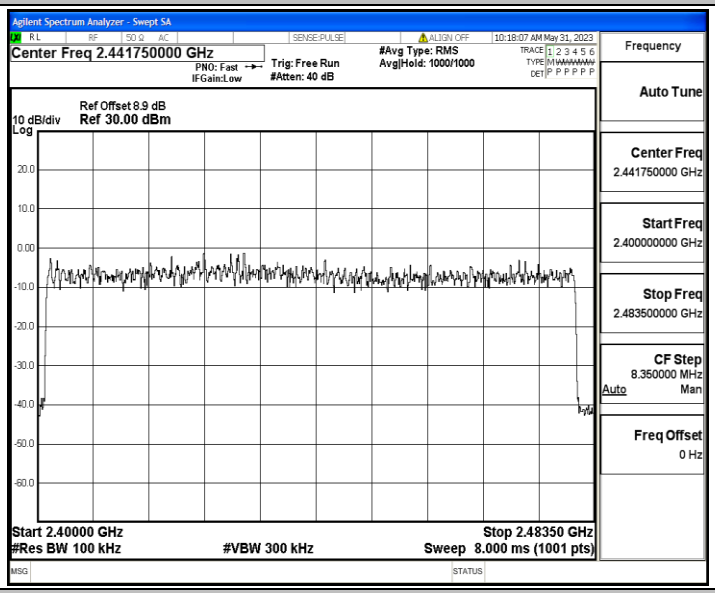
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

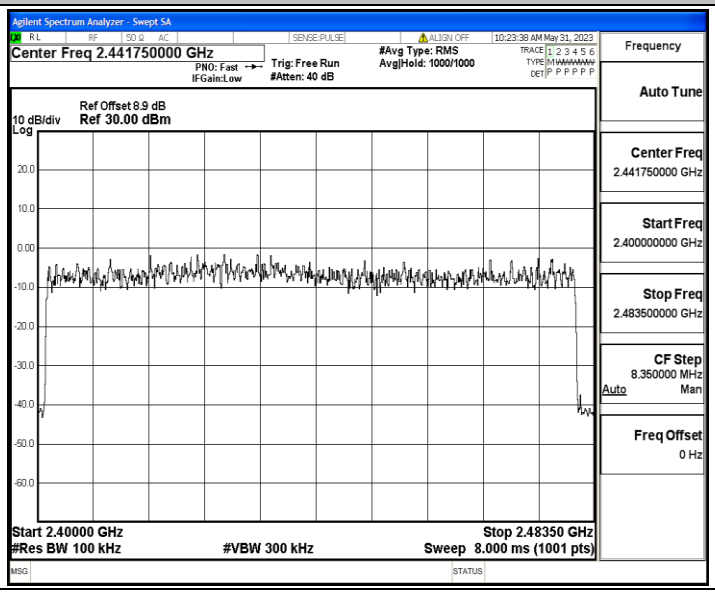
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



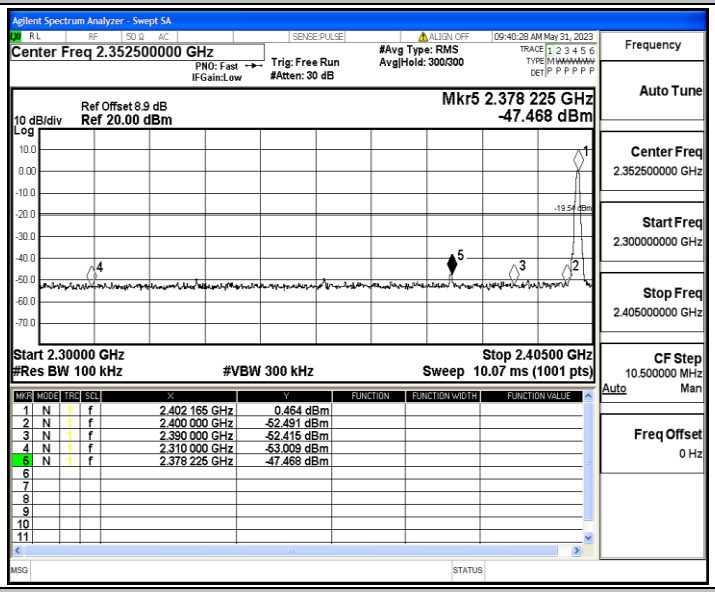
Appendix G: Band edge measurements

Test Result

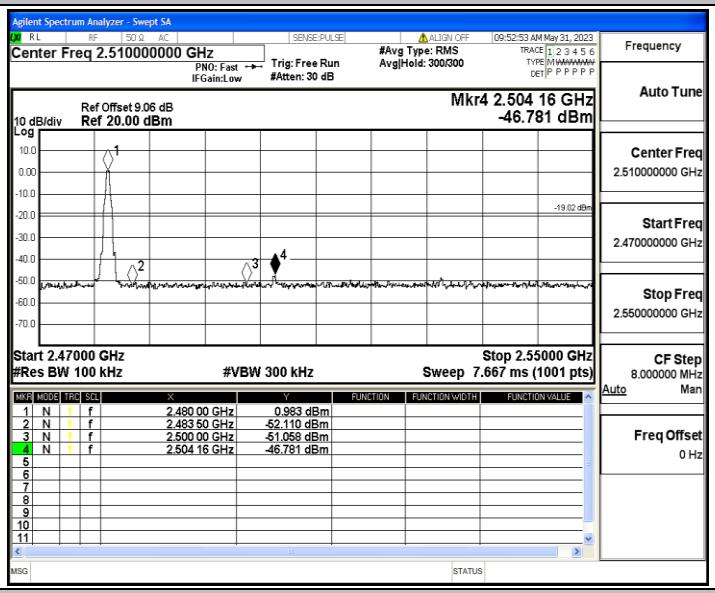
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.46	-47.47	≤-19.54	PASS
		High	2480	0.98	-46.78	≤-19.02	PASS
		Low	Hop_2402	-3.35	-50.08	≤-23.35	PASS
		High	Hop_2480	-2.65	-48.47	≤-22.65	PASS
2DH5	Ant1	Low	2402	-1.08	-46.61	≤-21.08	PASS
		High	2480	-2.24	-48.89	≤-22.24	PASS
		Low	Hop_2402	-5.08	-49.34	≤-25.08	PASS
		High	Hop_2480	-3.25	-49.37	≤-23.25	PASS
3DH5	Ant1	Low	2402	-2.63	-49.98	≤-22.63	PASS
		High	2480	-2.21	-49.11	≤-22.21	PASS
		Low	Hop_2402	-5.33	-50.42	≤-25.33	PASS
		High	Hop_2480	-4.21	-48.91	≤-24.21	PASS

Test Graphs

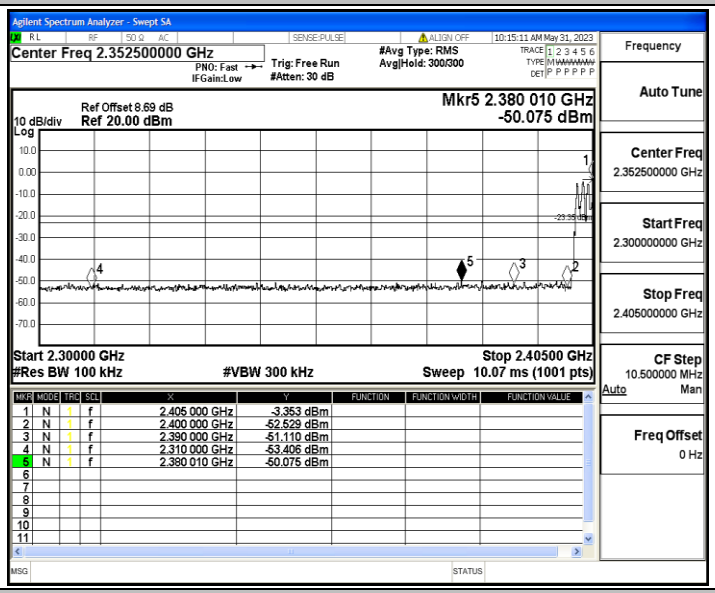
DH5_Ant1_Low_2402



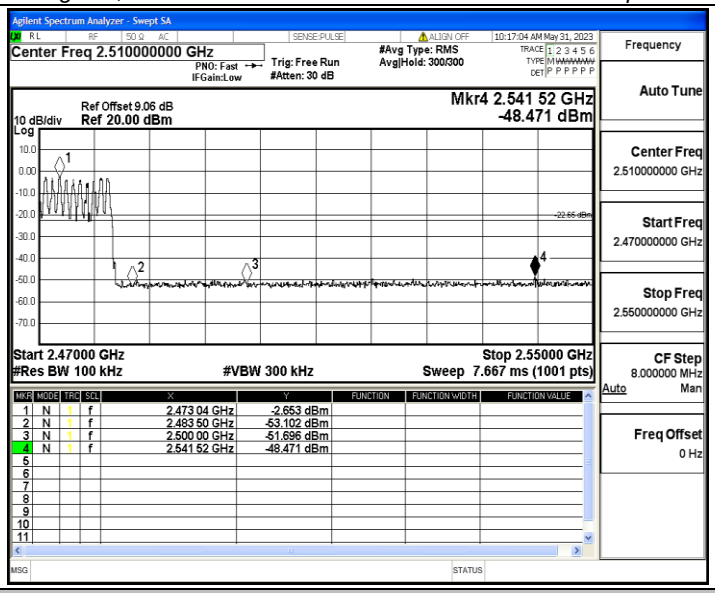
DH5_Ant1_High_2480



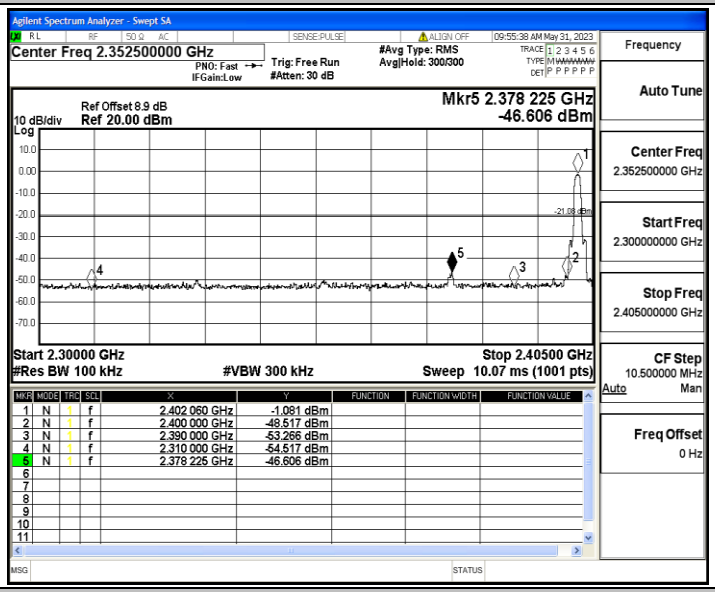
DH5_Ant1_Low_Hop_2402



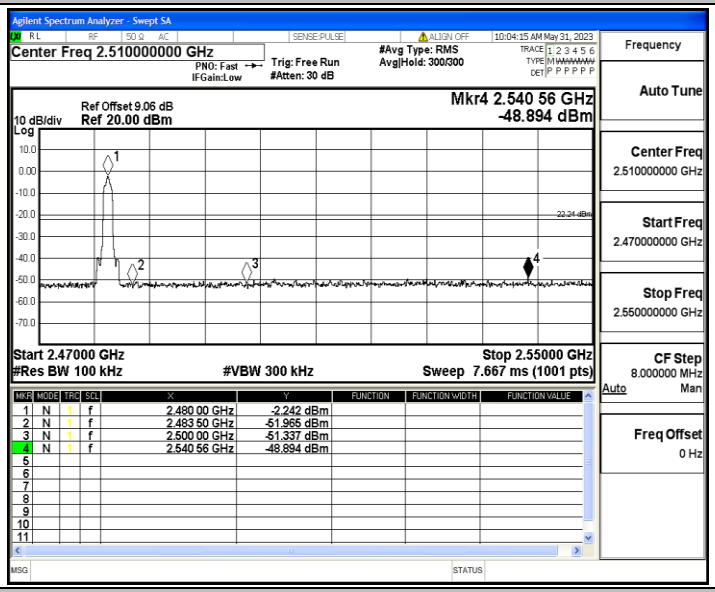
DH5_Ant1_High_Hop_2480



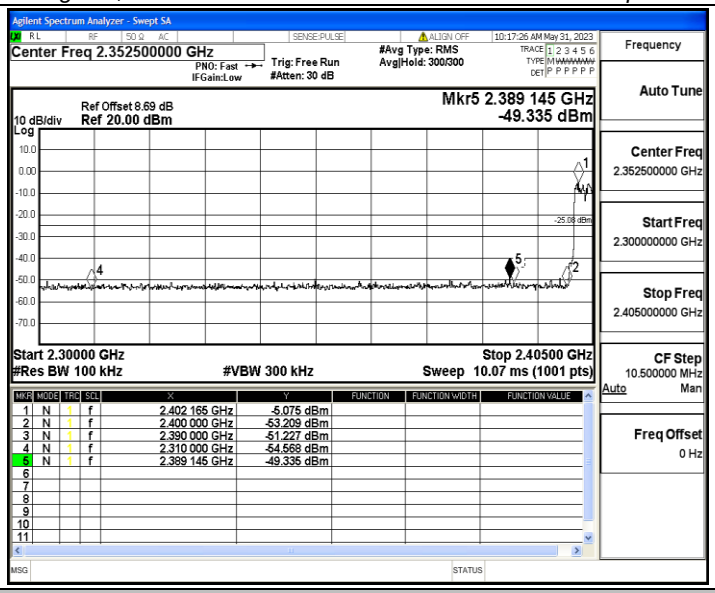
2DH5_Ant1_Low_2402



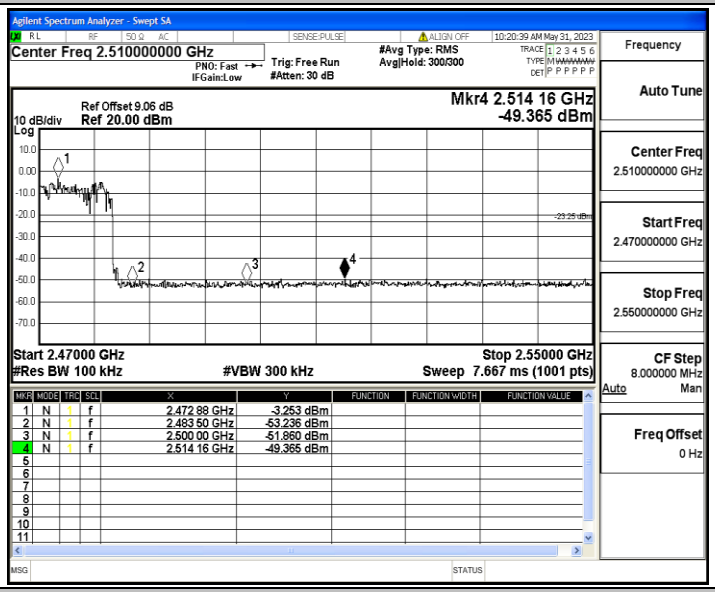
2DH5_Ant1_High_2480



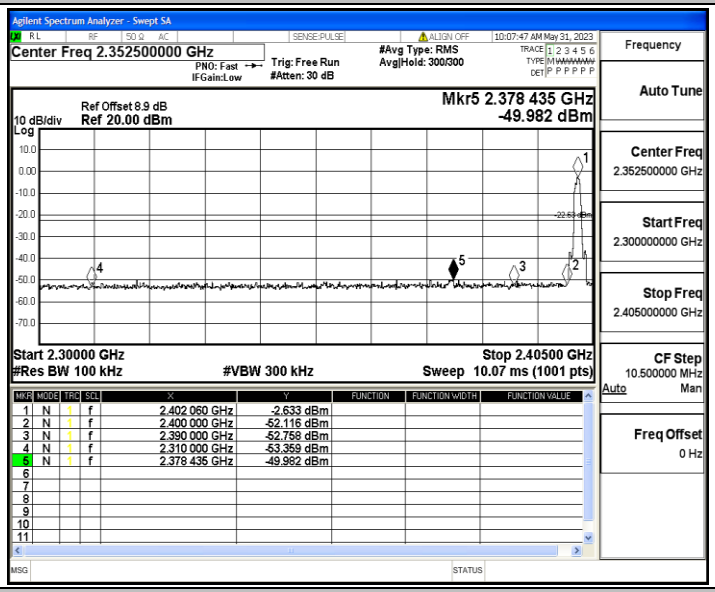
2DH5_Ant1_Low_Hop_2402



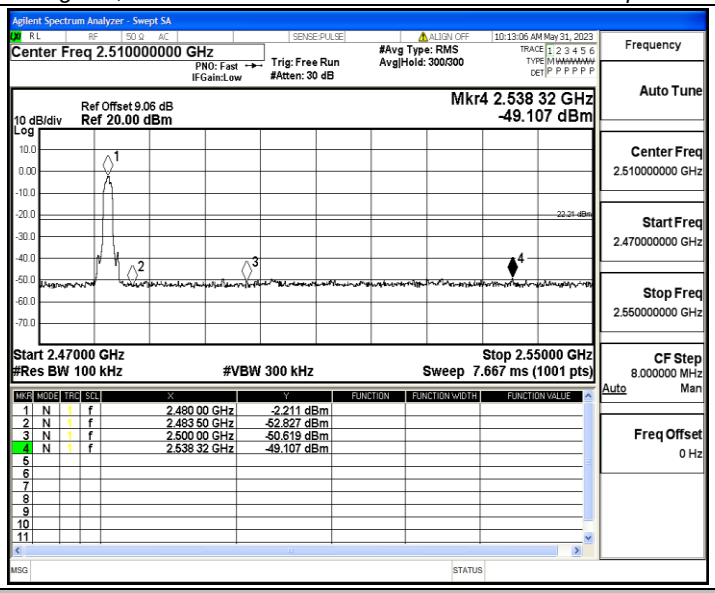
2DH5_Ant1_High_Hop_2480



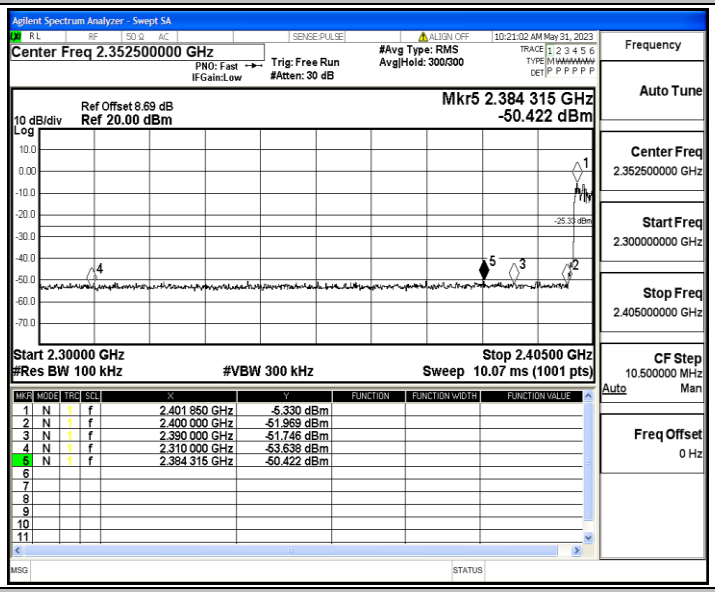
3DH5_Ant1_Low_2402



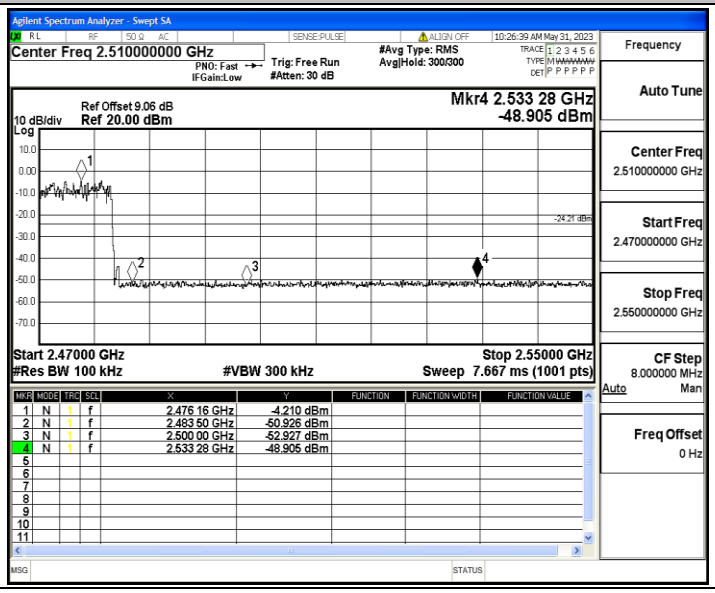
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



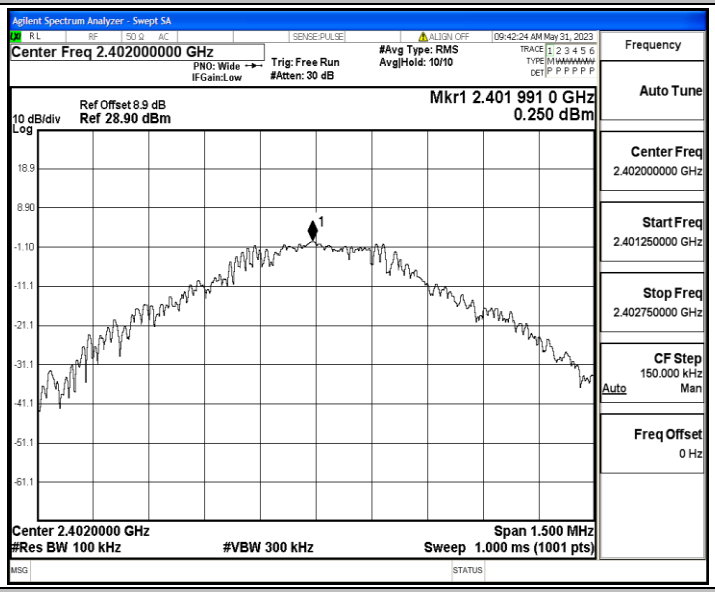
Appendix H: Conducted Spurious Emission

Test Result

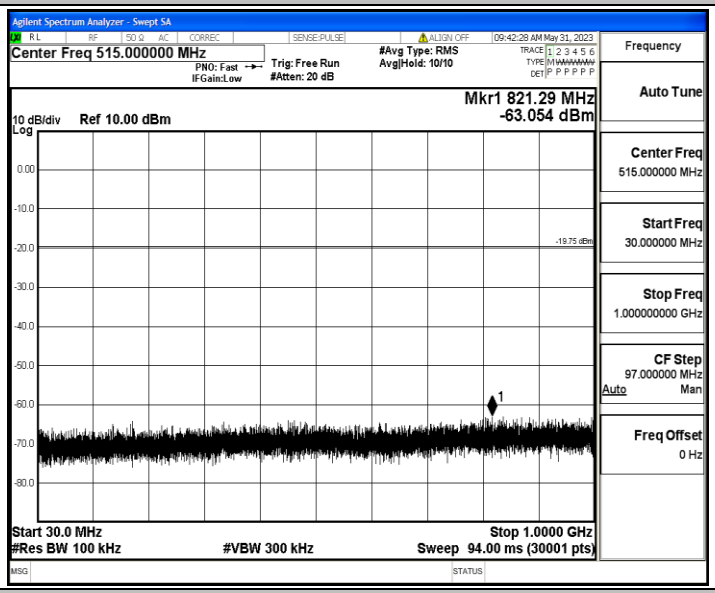
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.25	0.25	---	PASS
			30~1000	0.25	-63.05	≤-19.75	PASS
			1000~26500	0.25	-42.45	≤-19.75	PASS
		2441	Reference	0.45	0.45	---	PASS
			30~1000	0.45	-61.67	≤-19.55	PASS
			1000~26500	0.45	-40.44	≤-19.55	PASS
		2480	Reference	0.28	0.28	---	PASS
			30~1000	0.28	-62.54	≤-19.72	PASS
			1000~26500	0.28	-38.92	≤-19.72	PASS
2DH5	Ant1	2402	Reference	-3.20	-3.20	---	PASS
			30~1000	-3.20	-62.75	≤-23.2	PASS
			1000~26500	-3.20	-47.14	≤-23.2	PASS
		2441	Reference	-3.31	-3.31	---	PASS
			30~1000	-3.31	-63.04	≤-23.31	PASS
			1000~26500	-3.31	-46.97	≤-23.31	PASS
		2480	Reference	-2.44	-2.44	---	PASS
			30~1000	-2.44	-62.21	≤-22.44	PASS
			1000~26500	-2.44	-43.64	≤-22.44	PASS
3DH5	Ant1	2402	Reference	-2.76	-2.76	---	PASS
			30~1000	-2.76	-62.86	≤-22.76	PASS
			1000~26500	-2.76	-49.11	≤-22.76	PASS
		2441	Reference	-4.60	-4.60	---	PASS
			30~1000	-4.60	-62.89	≤-24.6	PASS
			1000~26500	-4.60	-45.22	≤-24.6	PASS
		2480	Reference	-2.57	-2.57	---	PASS
			30~1000	-2.57	-62.34	≤-22.57	PASS
			1000~26500	-2.57	-47.24	≤-22.57	PASS

Test Graphs

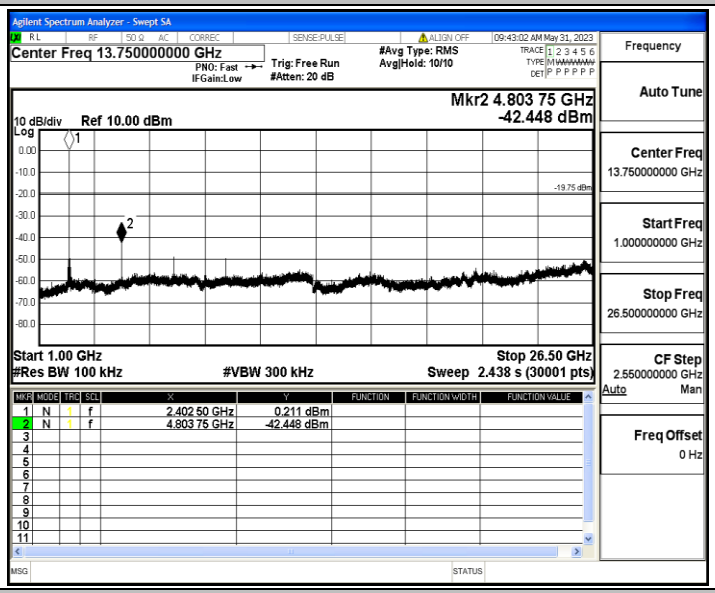
DH5_Ant1_2402_0~Reference



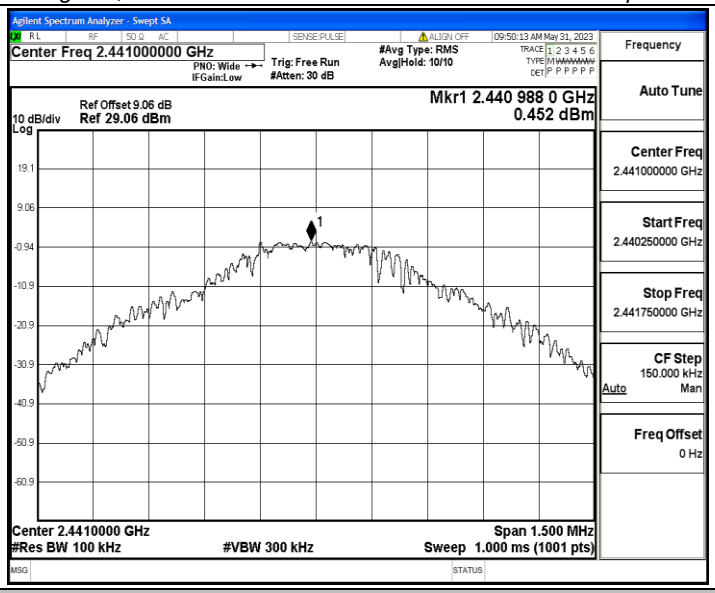
DH5_Ant1_2402_30~1000



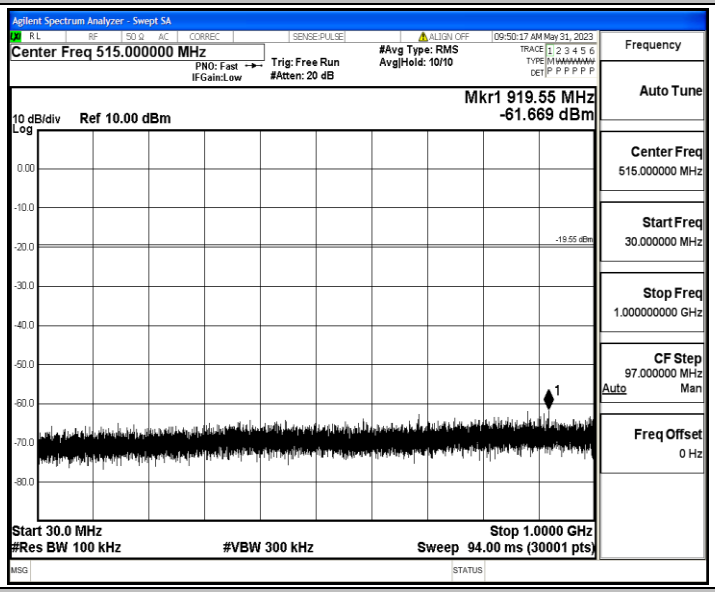
DH5_Ant1_2402_1000~26500



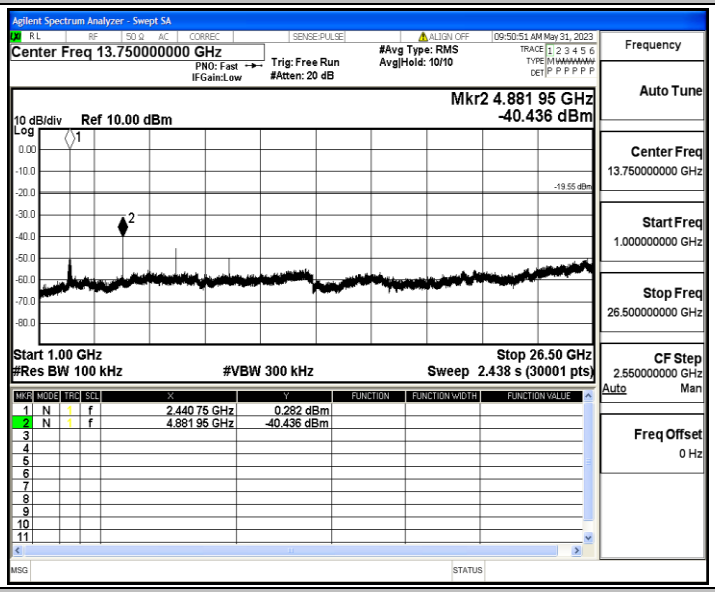
DH5_Ant1_2441_0~Reference



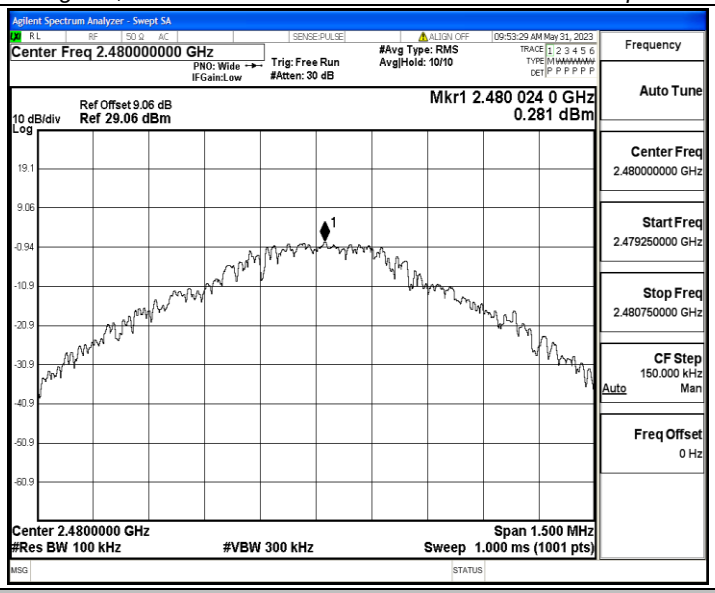
DH5_Ant1_2441_30~1000



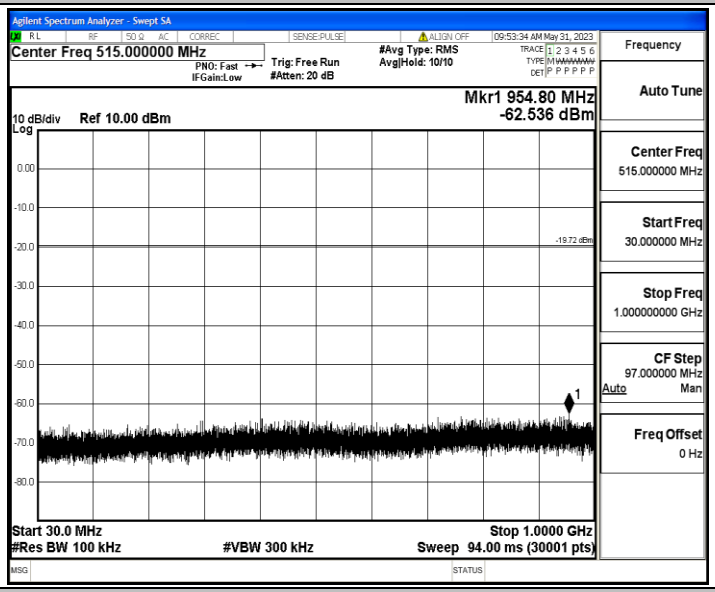
DH5_Ant1_2441_1000~26500



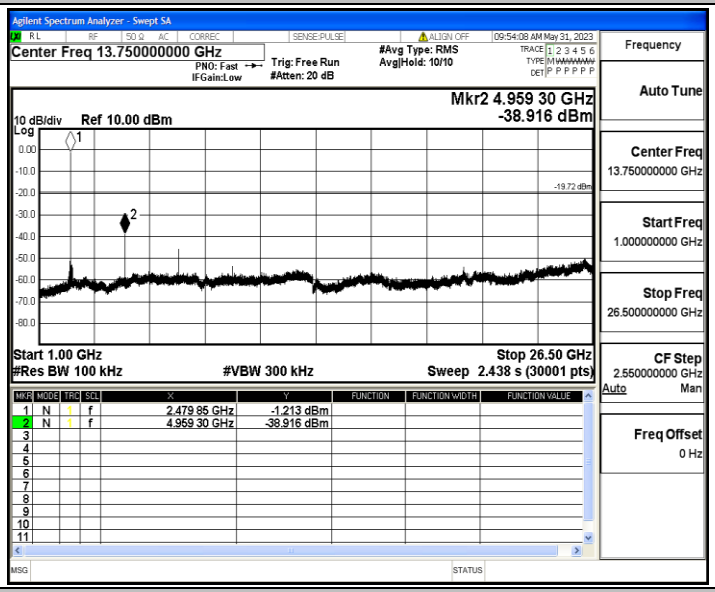
DH5_Ant1_2480_0~Reference



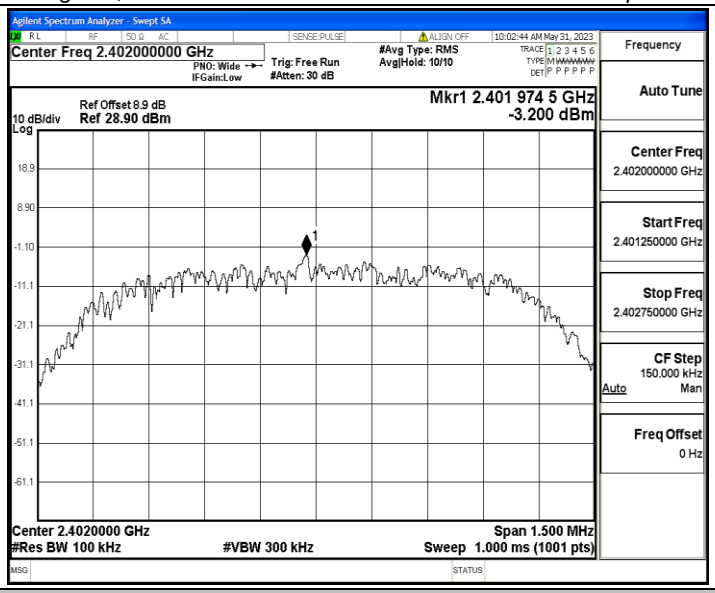
DH5_Ant1_2480_30~1000



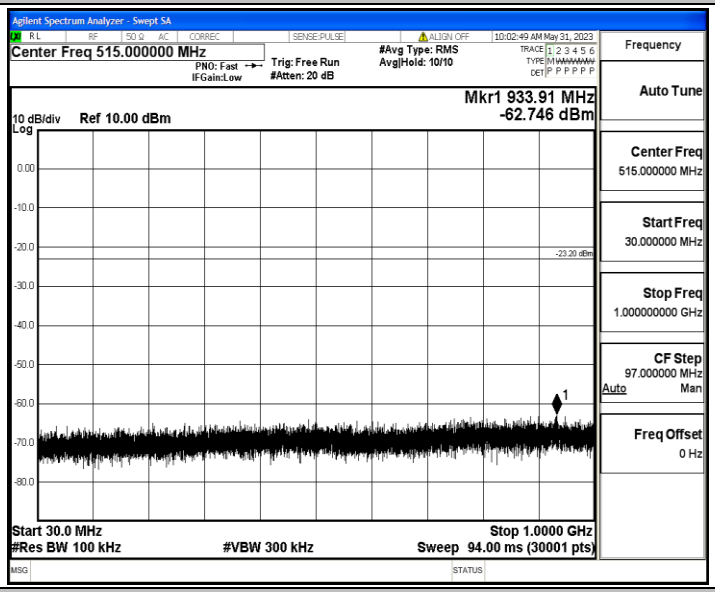
DH5_Ant1_2480_1000~26500



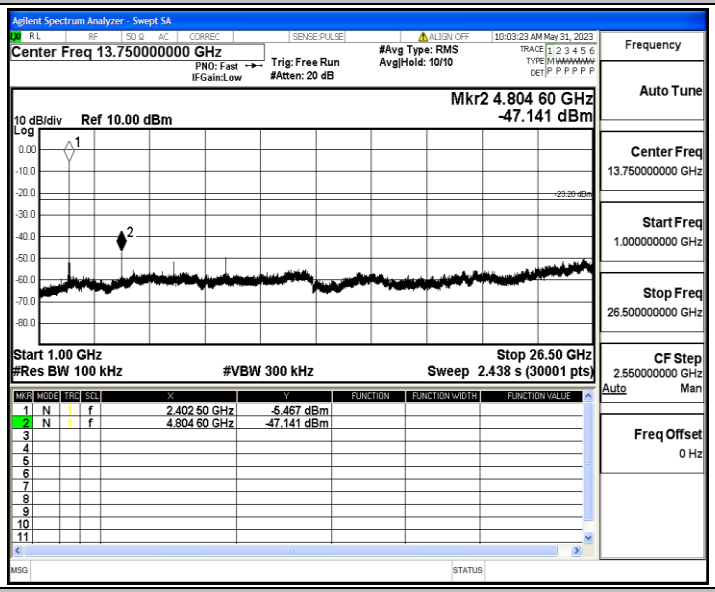
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference