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

Product Name: Bluetooth Adapter

Trade Mark: Audiopipe

Test Model: AP-BTM-1200

FCC ID: ZNGAP-BTM-1200-1

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

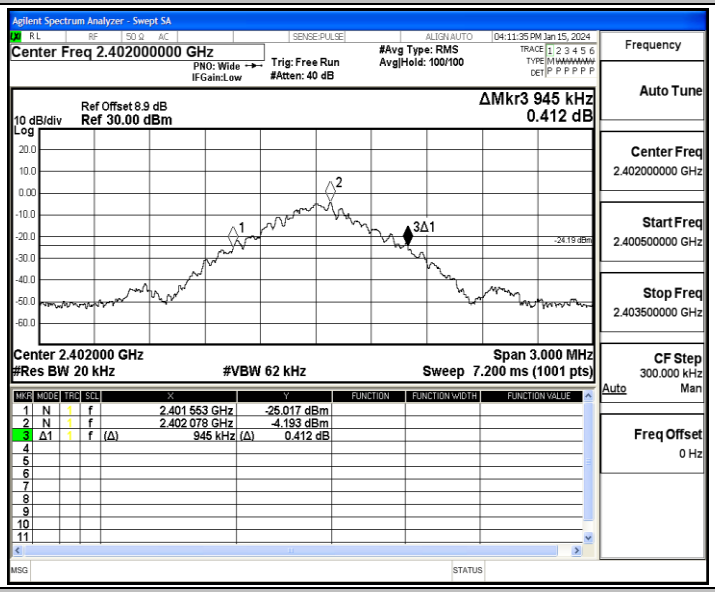
Appendix A: 20dB Emission Bandwidth

Test Result

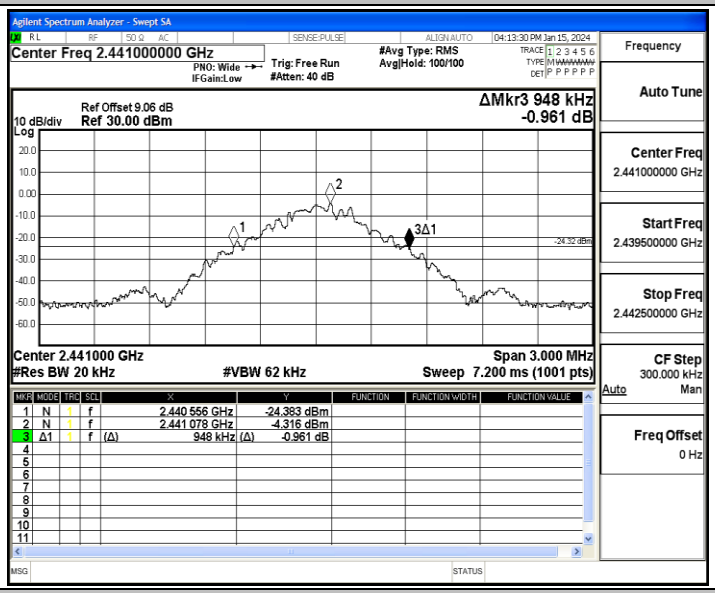
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.945	2401.553	2402.498	---	---
		2441	0.948	2440.556	2441.504	---	---
		2480	0.948	2479.556	2480.504	---	---
2DH5	Ant1	2402	1.314	2401.361	2402.675	---	---
		2441	1.320	2440.358	2441.678	---	---
		2480	1.314	2479.361	2480.675	---	---
3DH5	Ant1	2402	1.308	2401.367	2402.675	---	---
		2441	1.278	2440.373	2441.651	---	---
		2480	1.308	2479.364	2480.672	---	---

Test Graphs

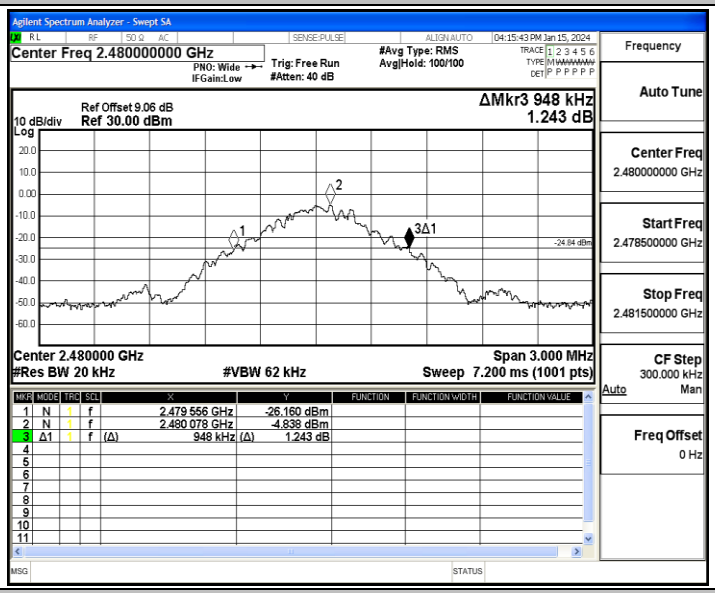
DH5_Ant1_2402



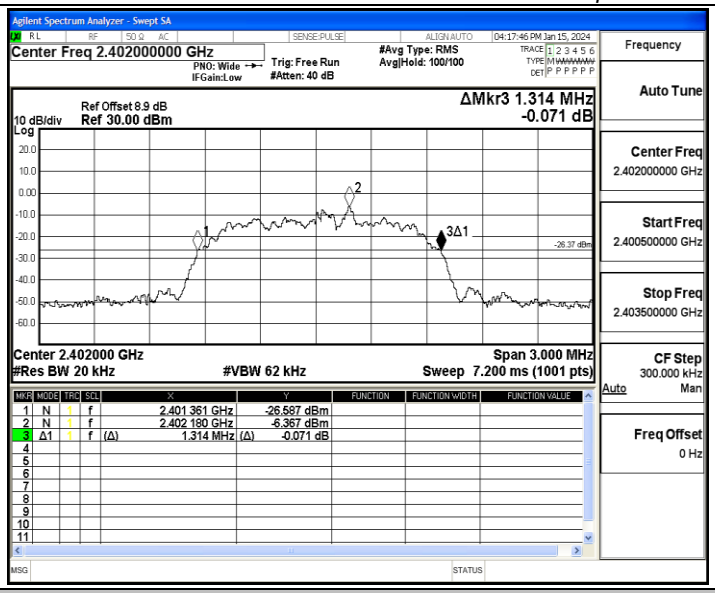
DH5_Ant1_2441



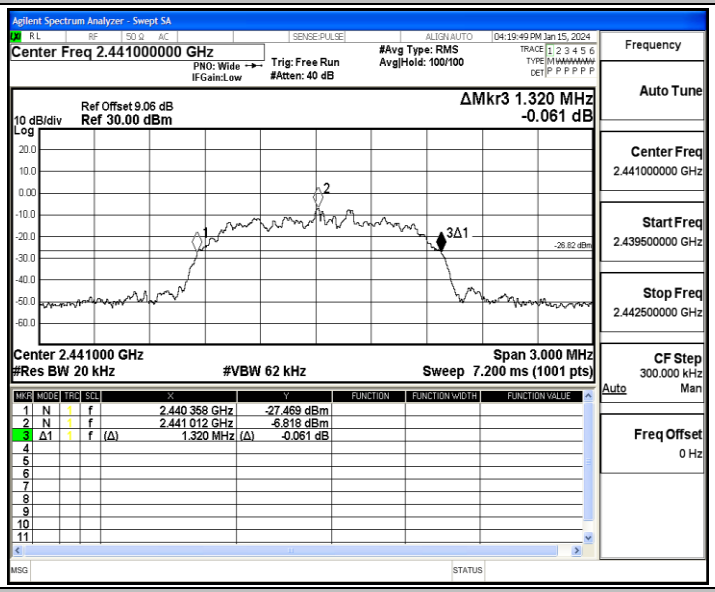
DH5_Ant1_2480



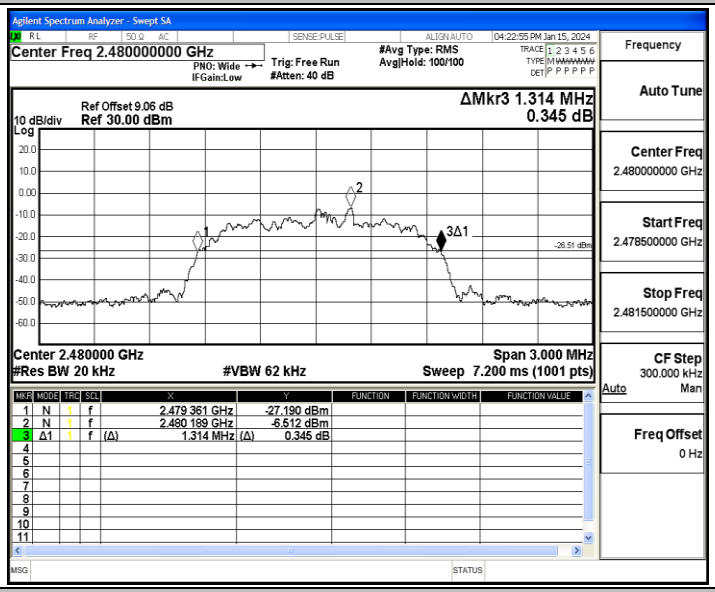
2DH5_Ant1_2402



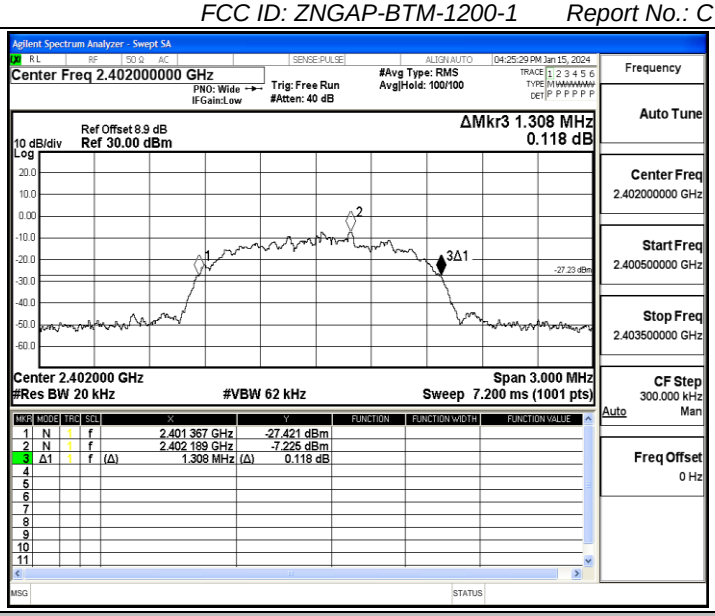
2DH5_Ant1_2441



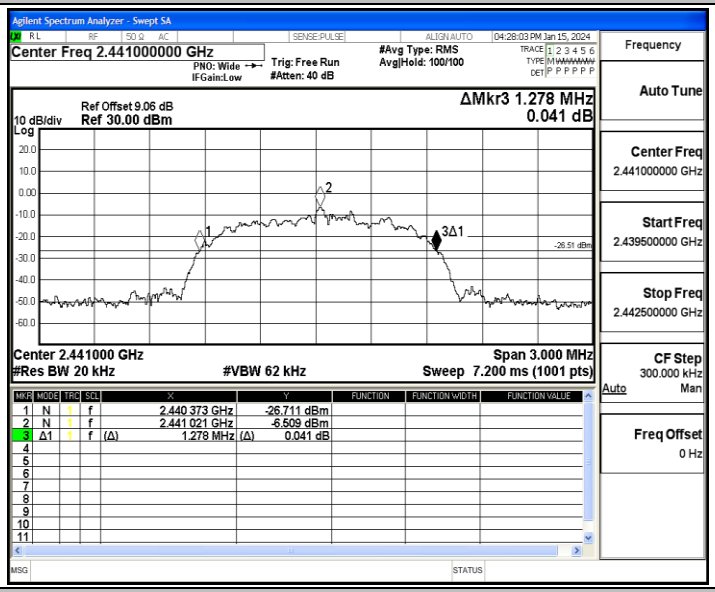
2DH5_Ant1_2480



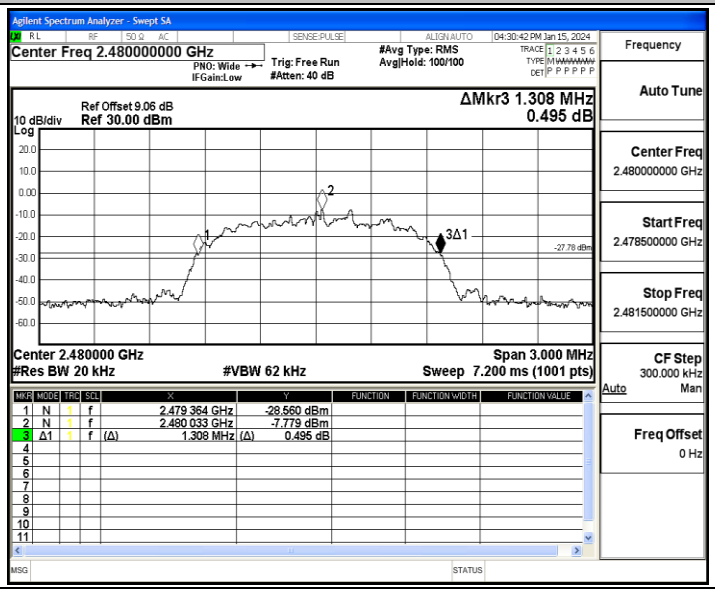
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



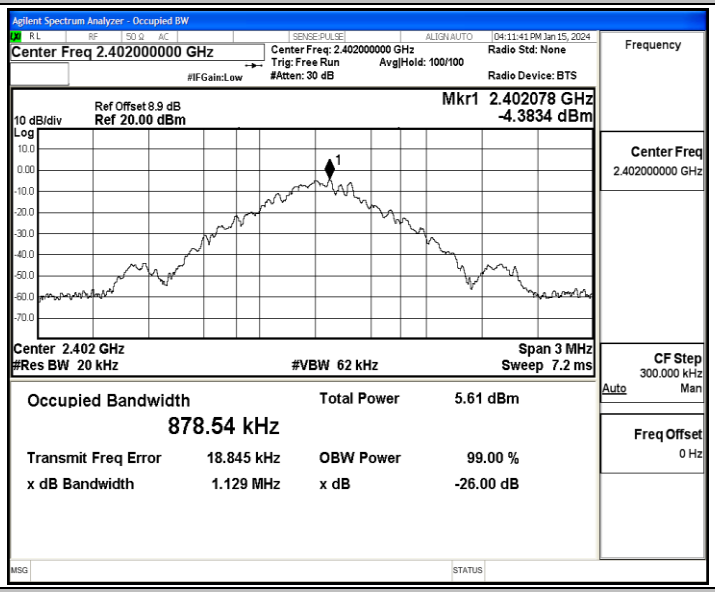
Appendix B: Occupied Channel Bandwidth

Test Result

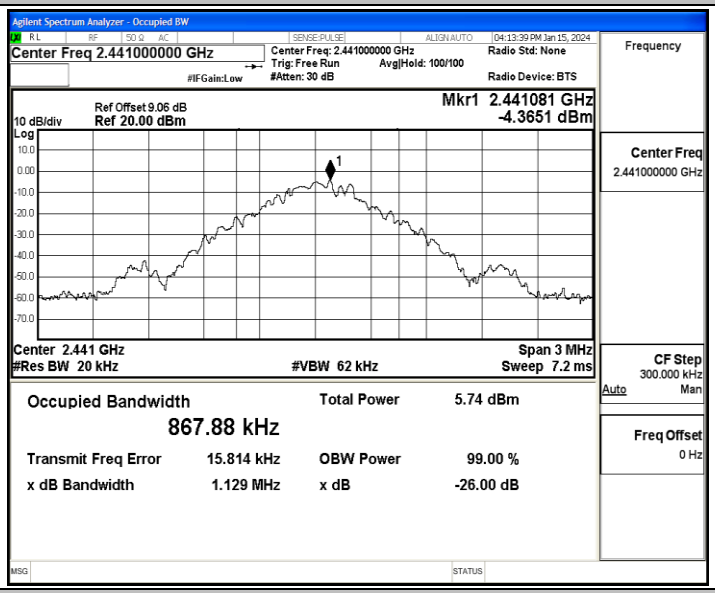
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.87854	2401.5796	2402.4581	---	---
		2441	0.86788	2440.5819	2441.4498	---	---
		2480	0.87159	2479.5798	2480.4514	---	---
2DH5	Ant1	2402	1.1780	2401.4284	2402.6064	---	---
		2441	1.1720	2440.4312	2441.6032	---	---
		2480	1.1856	2479.4259	2480.6115	---	---
3DH5	Ant1	2402	1.1785	2401.4233	2402.6018	---	---
		2441	1.1778	2440.4265	2441.6043	---	---
		2480	1.1758	2479.4270	2480.6028	---	---

Test Graphs

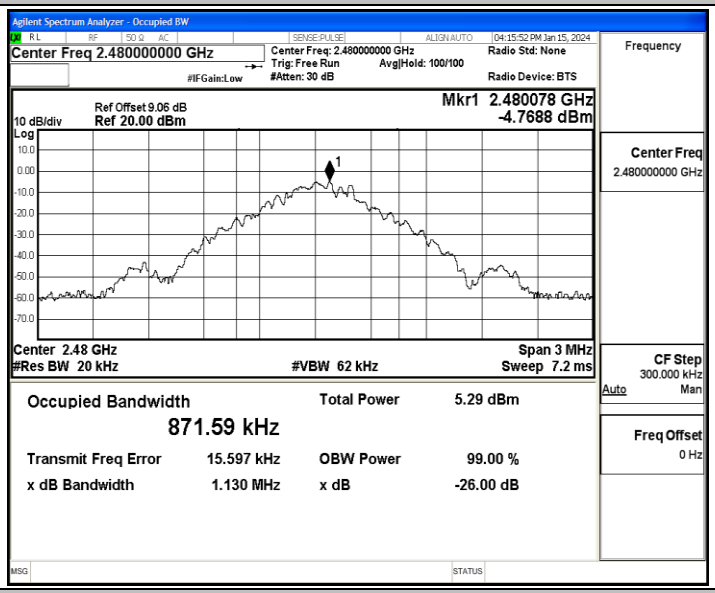
DH5_Ant1_2402



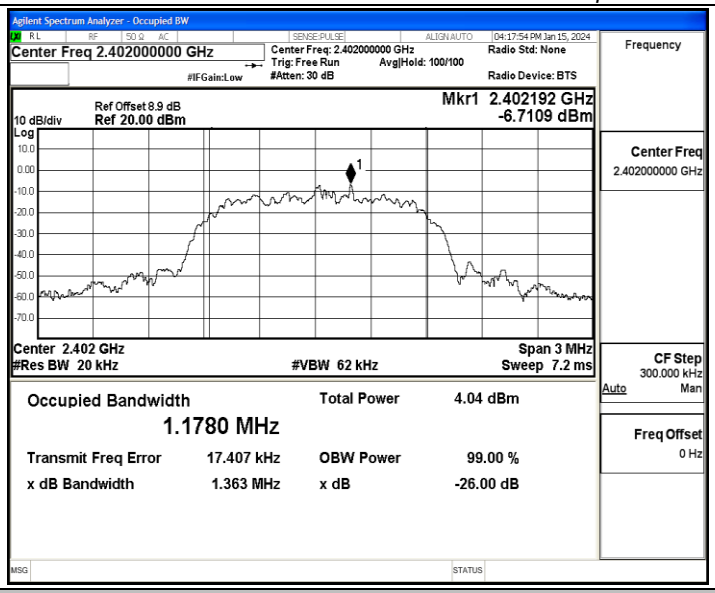
DH5_Ant1_2441



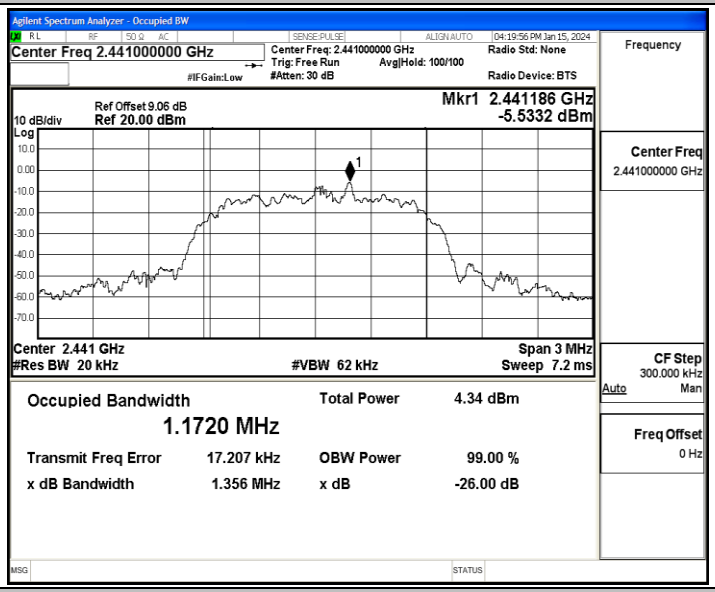
DH5_Ant1_2480



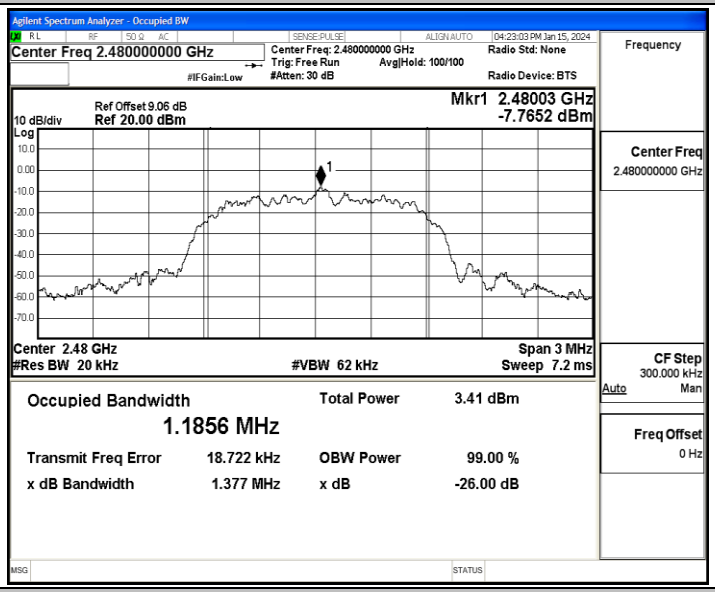
2DH5_Ant1_2402



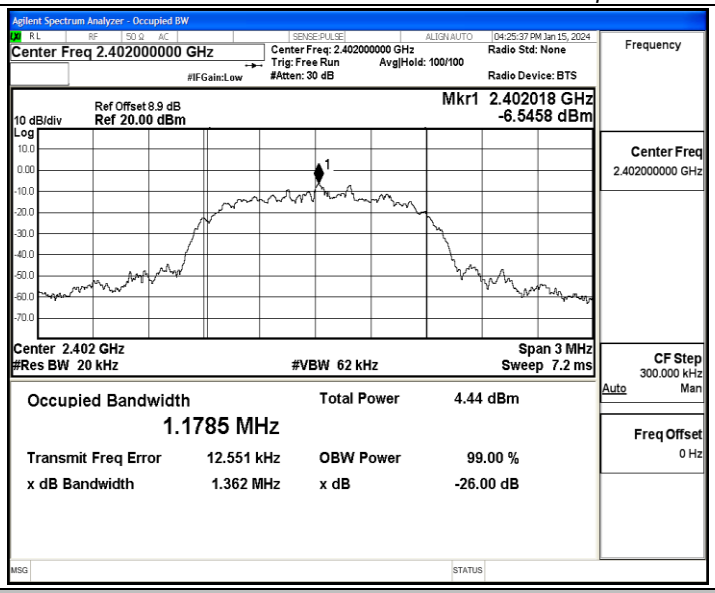
2DH5_Ant1_2441



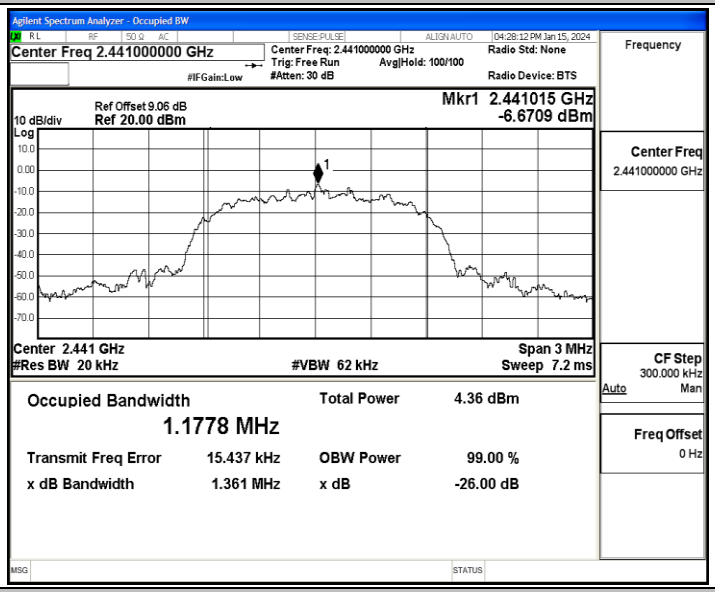
2DH5_Ant1_2480



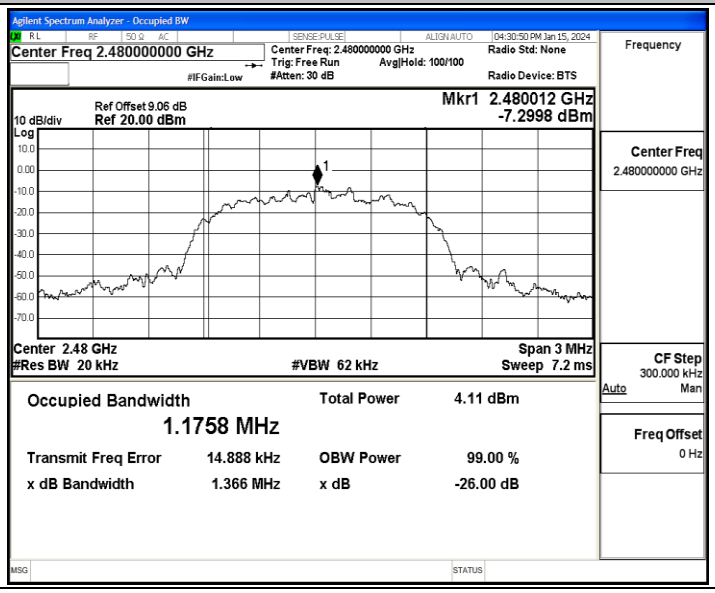
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



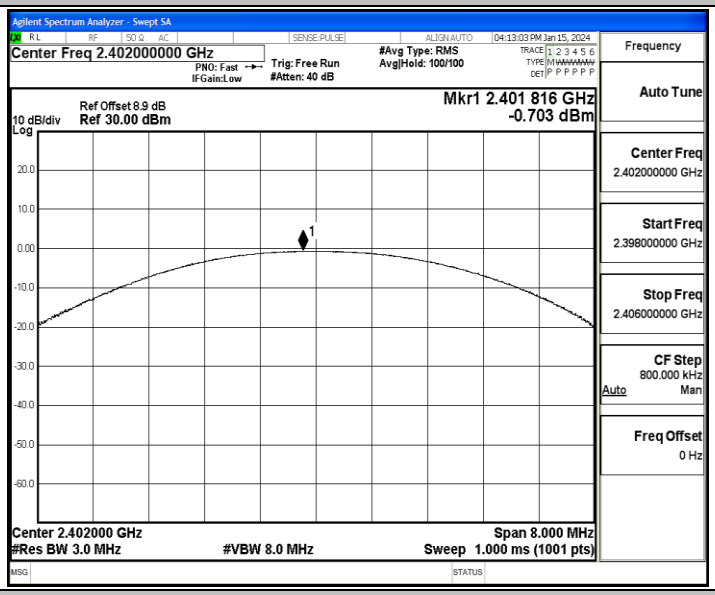
Appendix C: Maximum Peak conducted output power

Test Result

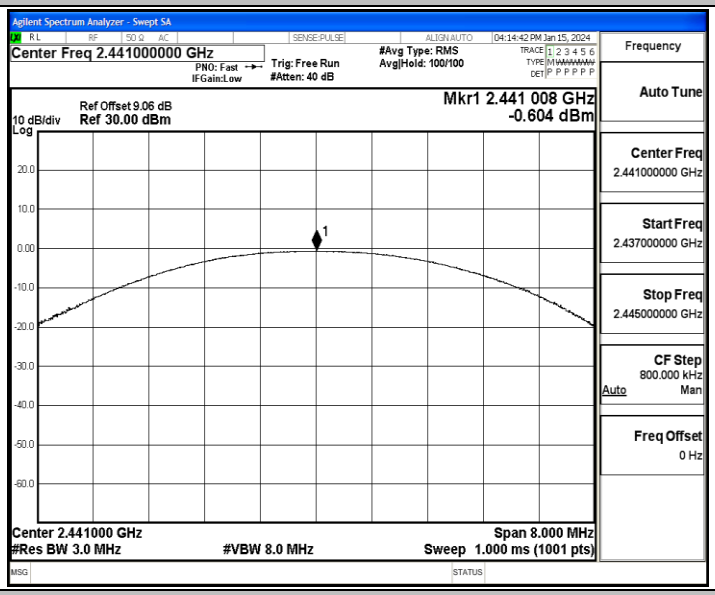
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-0.7	≤30	PASS
		2441	-0.6	≤30	PASS
		2480	-1.05	≤30	PASS
2DH5	Ant1	2402	-0.35	≤20.97	PASS
		2441	-0.38	≤20.97	PASS
		2480	-0.76	≤20.97	PASS
3DH5	Ant1	2402	0.15	≤20.97	PASS
		2441	0.02	≤20.97	PASS
		2480	-0.16	≤20.97	PASS

Test Graphs

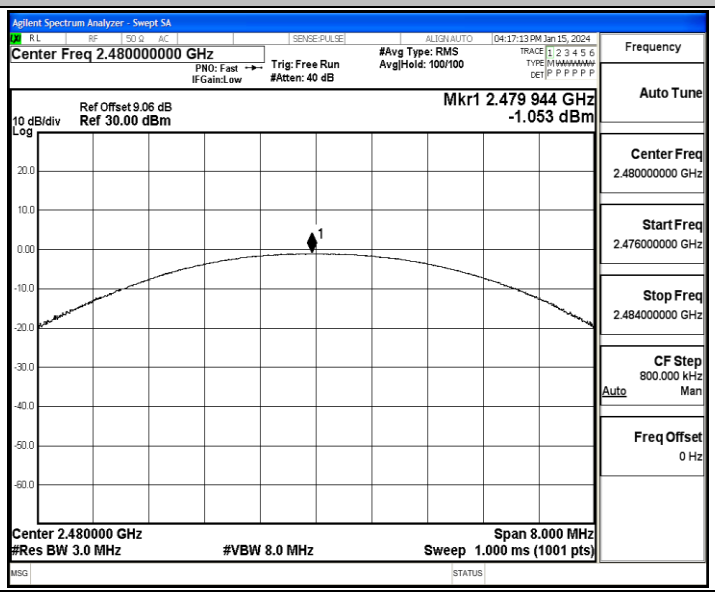
DH5_Ant1_2402



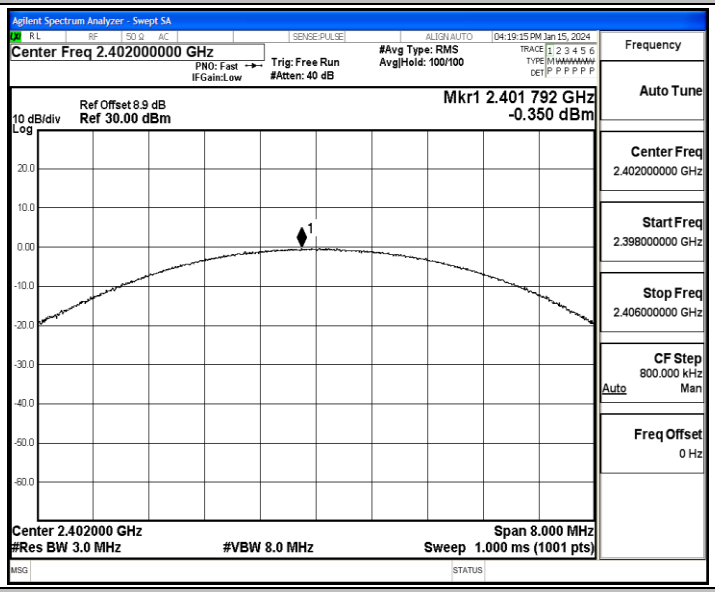
DH5_Ant1_2441



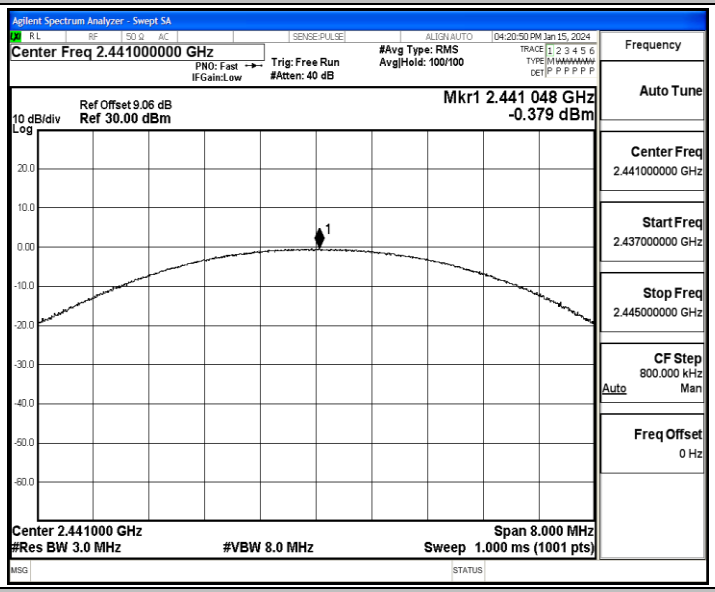
DH5_Ant1_2480



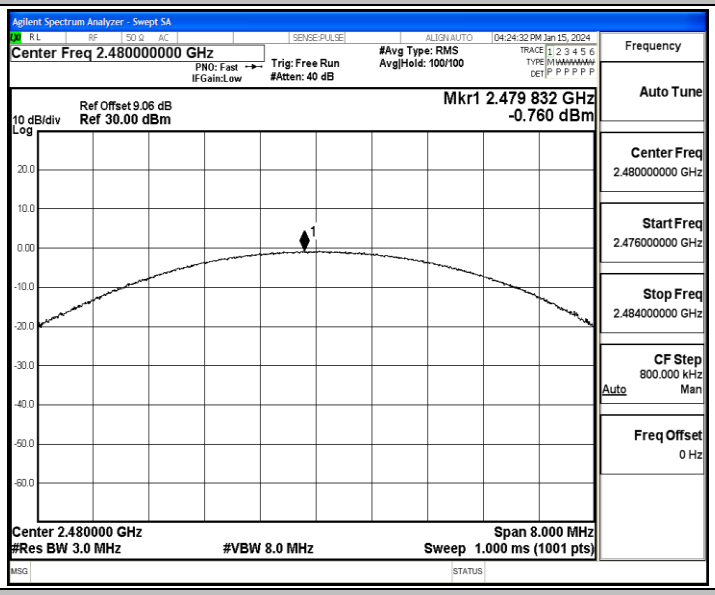
2DH5_Ant1_2402



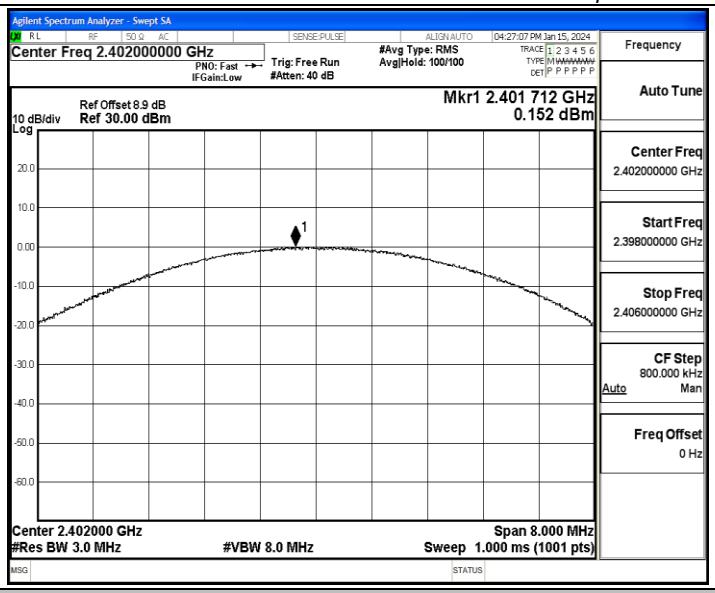
2DH5_Ant1_2441



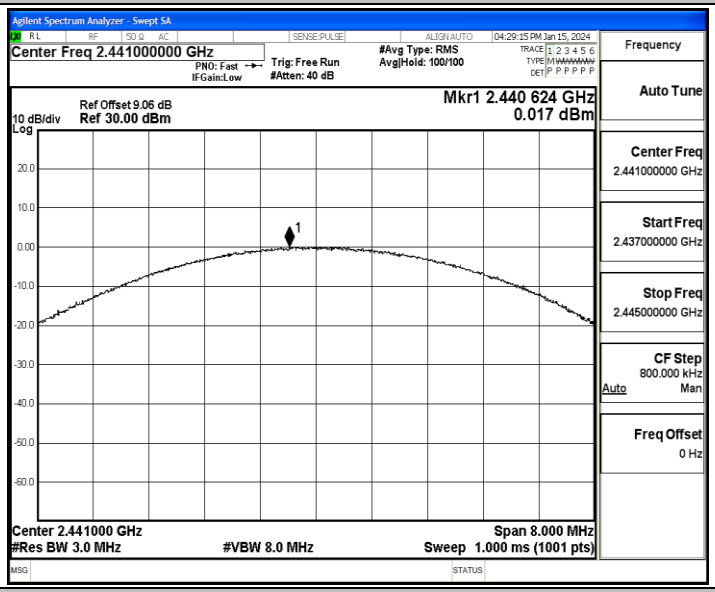
2DH5_Ant1_2480



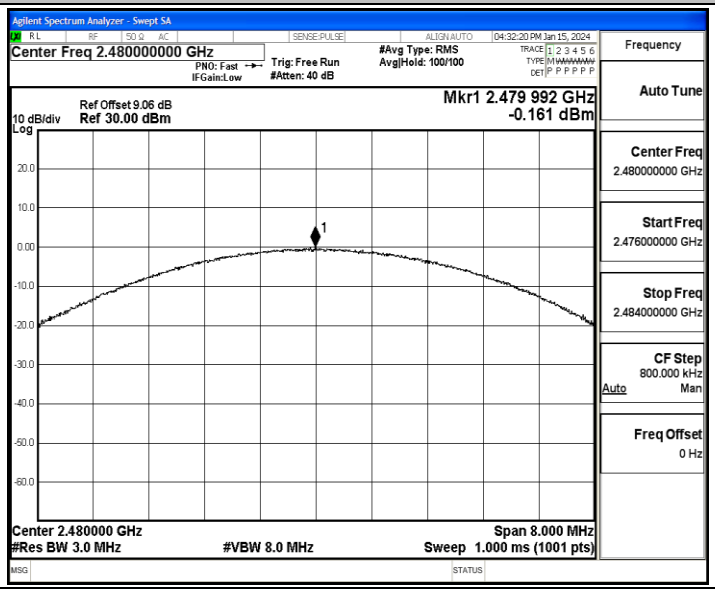
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



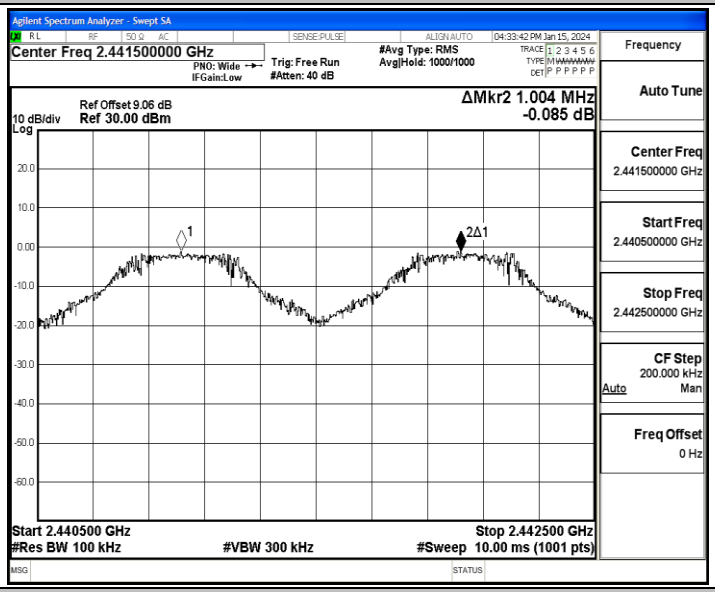
Appendix D: Carrier frequency separation

Test Result

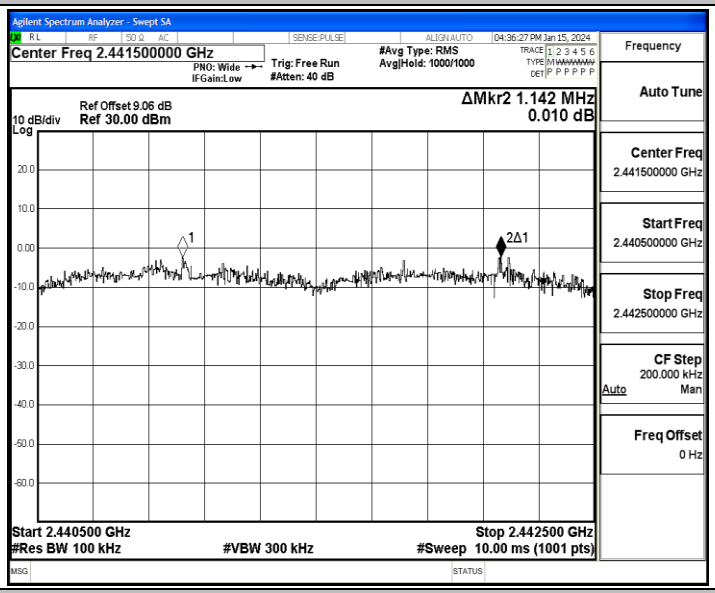
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.004	≥0.948	PASS
2DH5	Ant1	Hop	1.142	≥0.880	PASS
3DH5	Ant1	Hop	1.022	≥0.872	PASS

Test Graphs

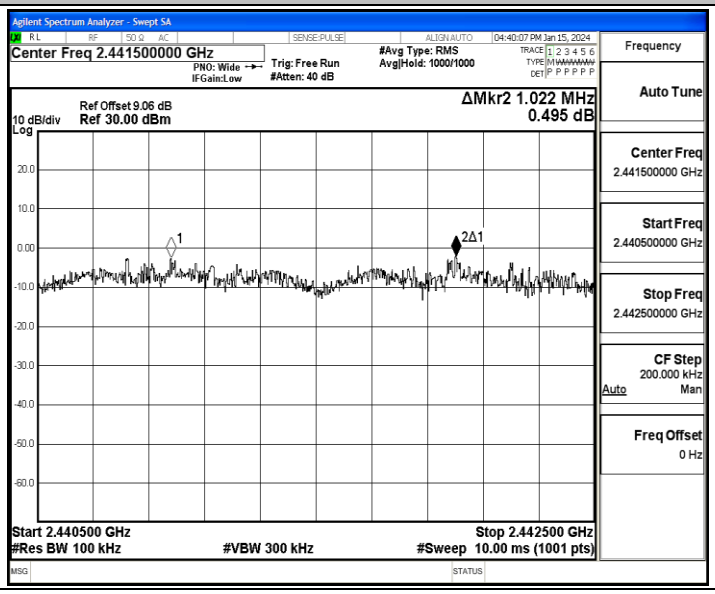
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



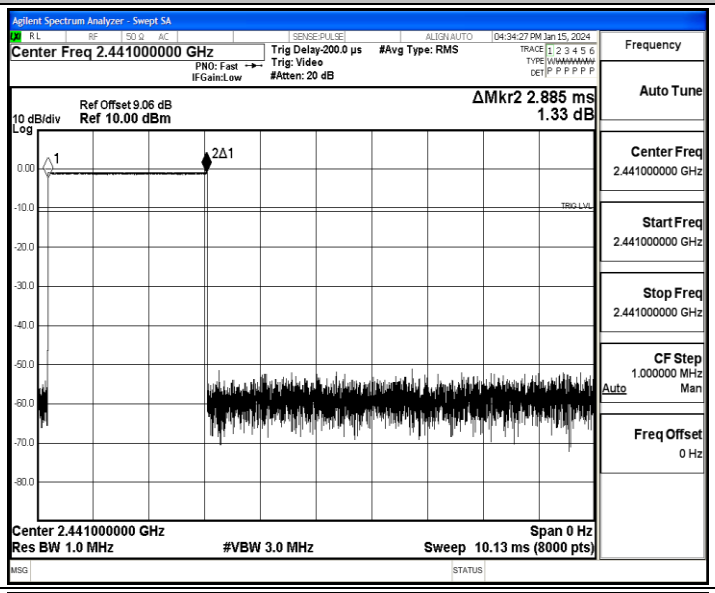
Appendix E: Time of occupancy

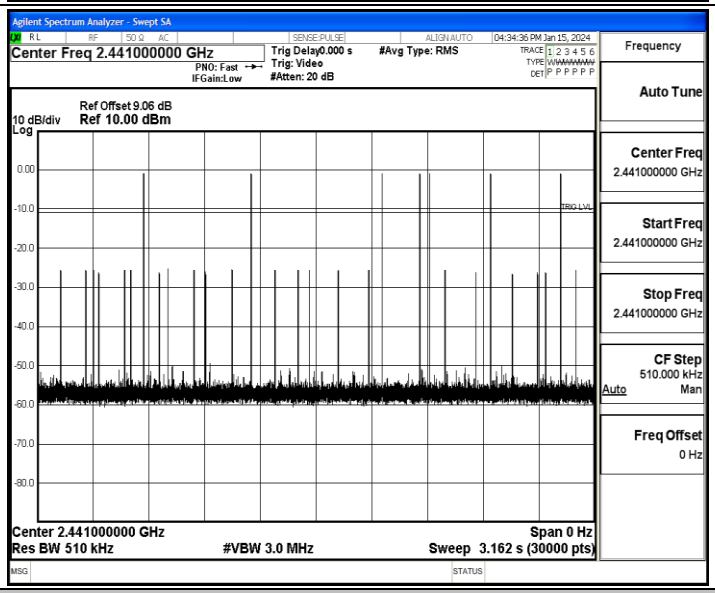
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.885	80	0.231	≤0.4	PASS
2DH5	Ant1	Hop	2.889	70	0.202	≤0.4	PASS
3DH5	Ant1	Hop	2.892	100	0.289	≤0.4	PASS

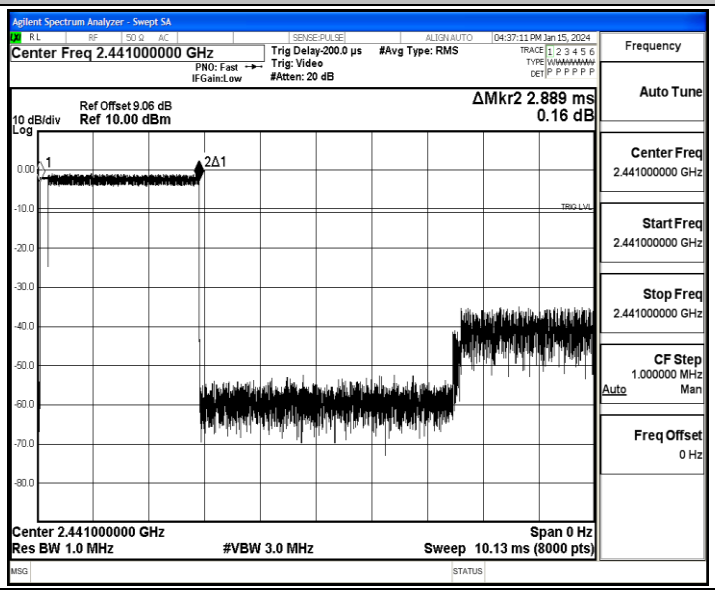
Test Graphs

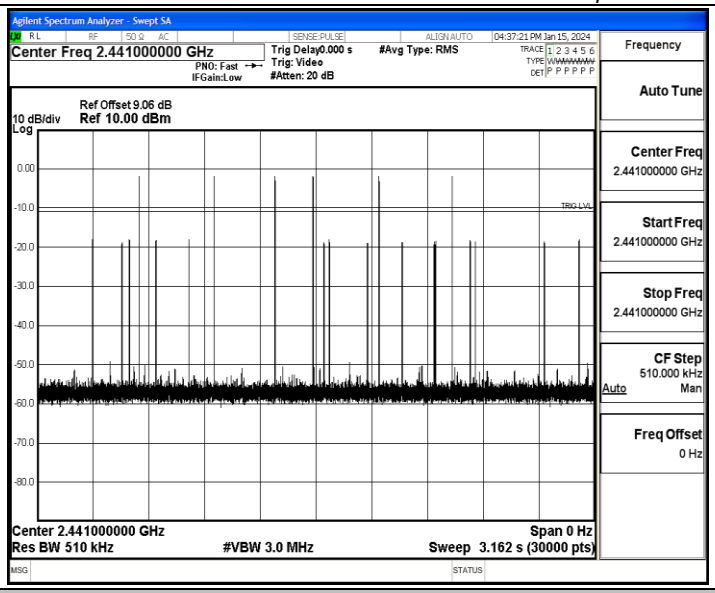
DH5_Ant1_Hop



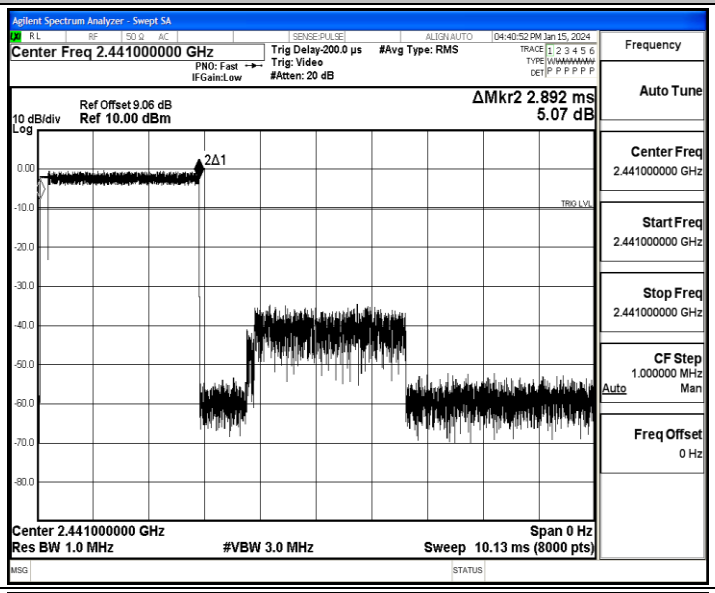


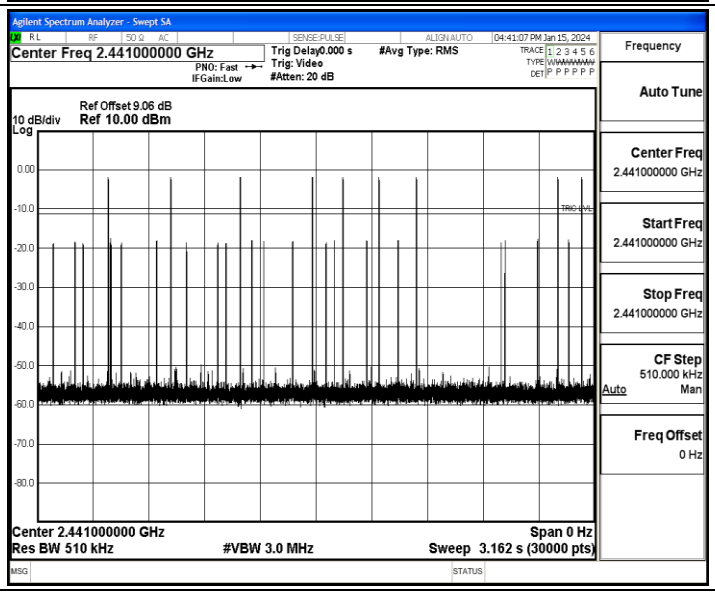
2DH5_Ant1_Hop





3DH5_Ant1_Hop





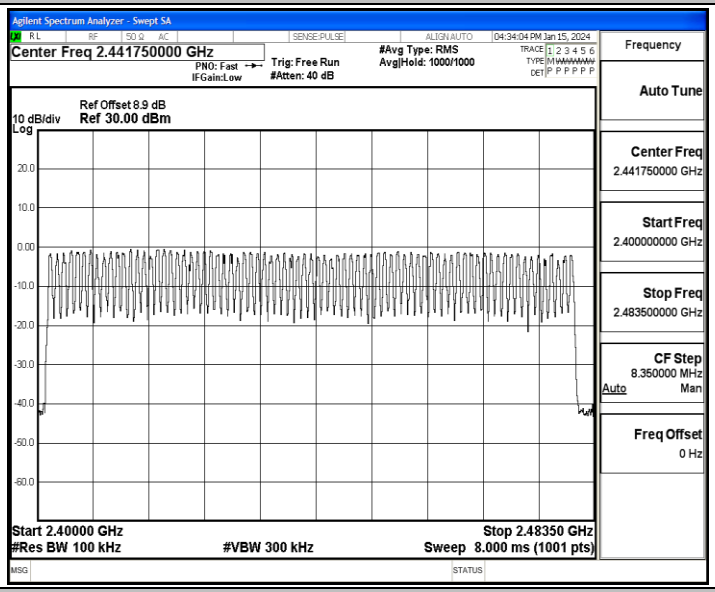
Appendix F: Number of hopping channels

Test Result

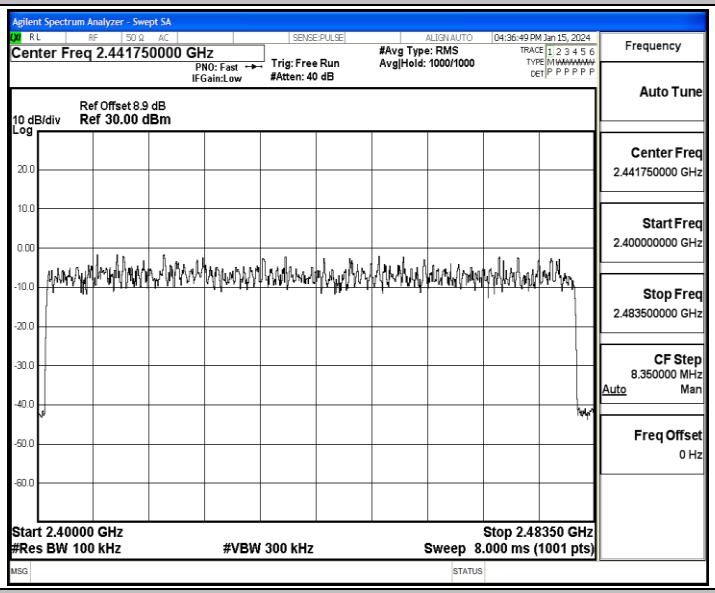
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

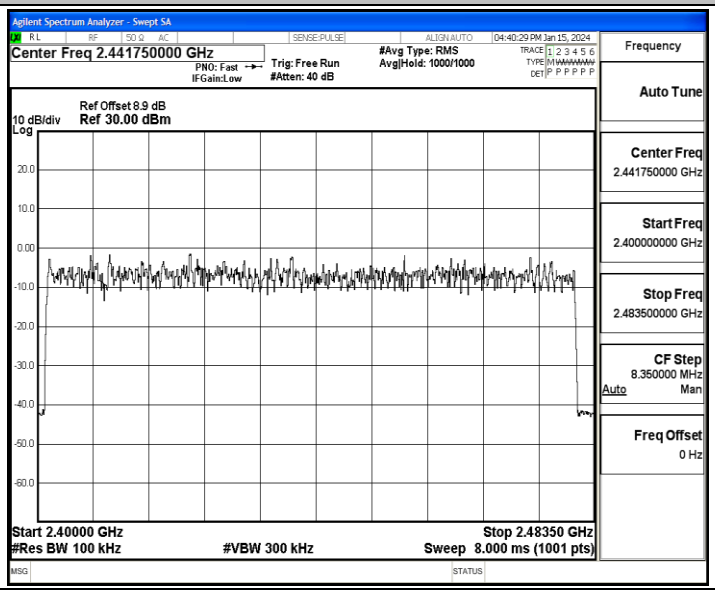
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



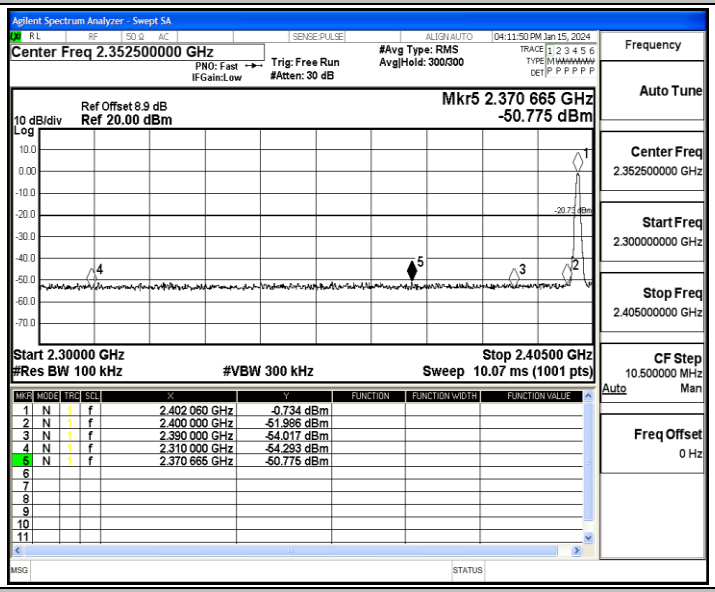
Appendix G: Band edge measurements

Test Result

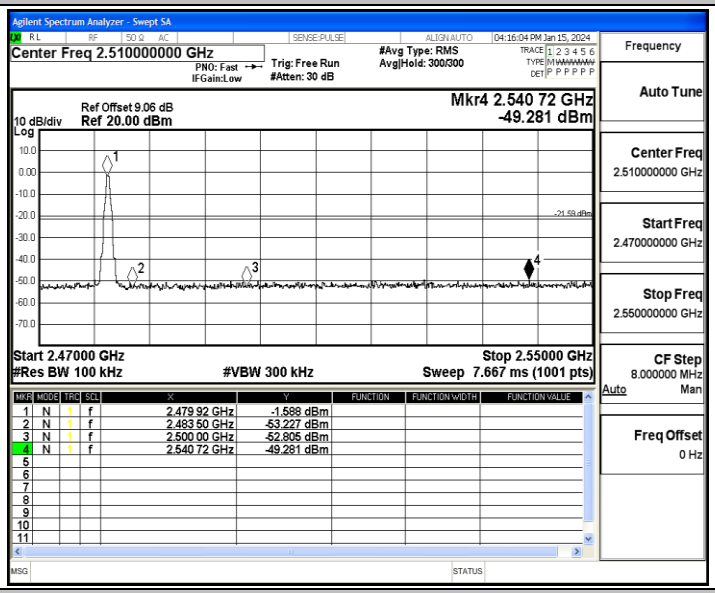
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.73	-50.78	≤-20.73	PASS
		High	2480	-1.59	-49.28	≤-21.59	PASS
		Low	Hop_2402	-1.47	-50.24	≤-21.47	PASS
		High	Hop_2480	-1.42	-49.73	≤-21.42	PASS
2DH5	Ant1	Low	2402	-2.63	-50.99	≤-22.63	PASS
		High	2480	-2.46	-49.5	≤-22.46	PASS
		Low	Hop_2402	-2.23	-51.2	≤-22.23	PASS
		High	Hop_2480	-3.14	-49.39	≤-23.14	PASS
3DH5	Ant1	Low	2402	-2.10	-49.51	≤-22.1	PASS
		High	2480	-2.74	-49.53	≤-22.74	PASS
		Low	Hop_2402	-5.30	-50.8	≤-25.3	PASS
		High	Hop_2480	-5.13	-49.24	≤-25.13	PASS

Test Graphs

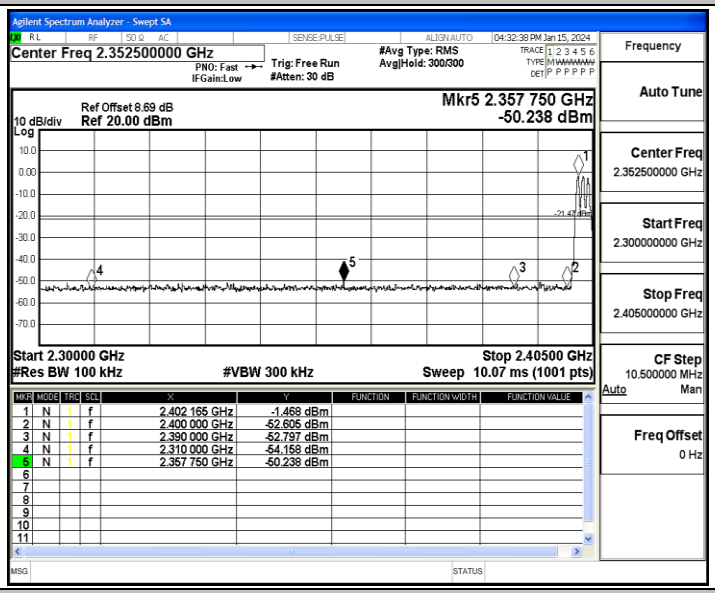
DH5_Ant1_Low_2402



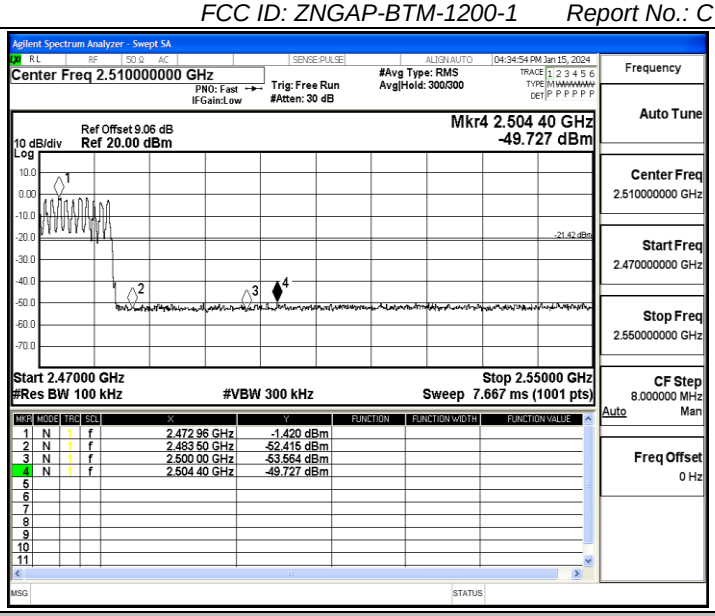
DH5_Ant1_High_2480



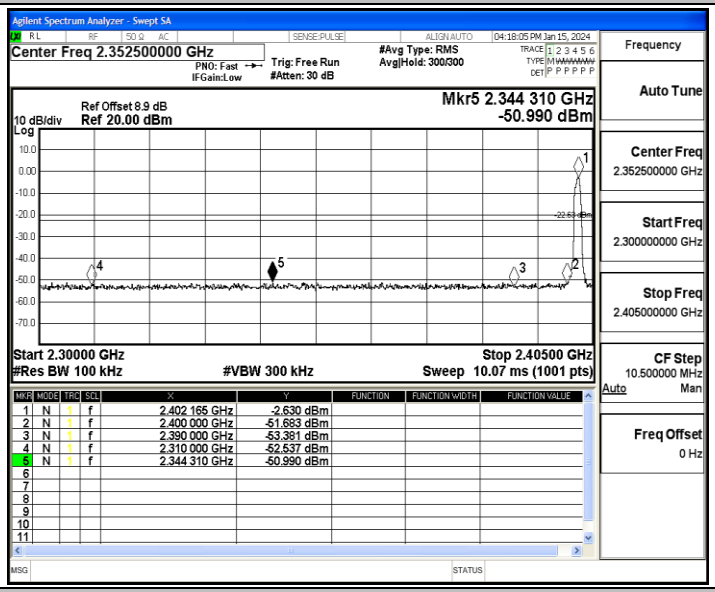
DH5_Ant1_Low_Hop_2402



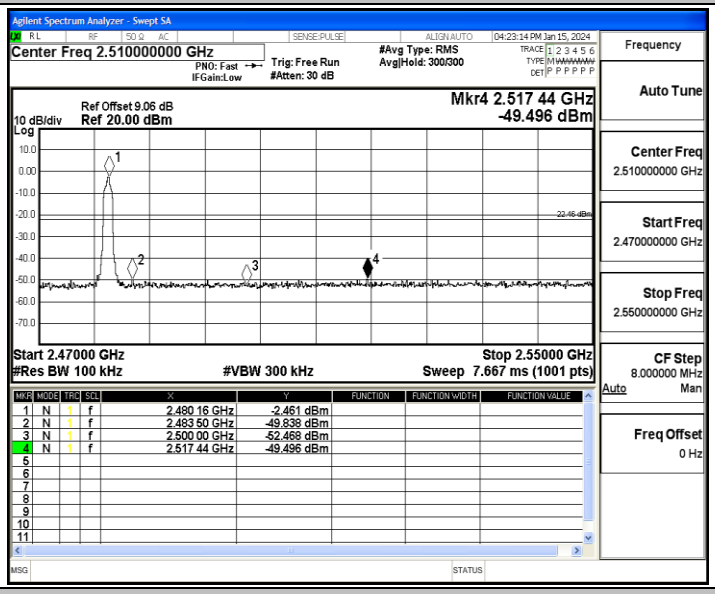
DH5_Ant1_High_Hop_2480



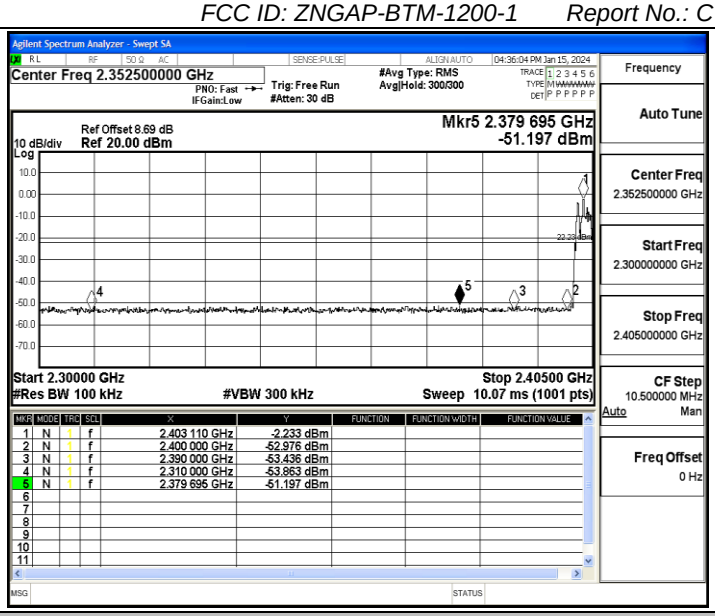
2DH5_Ant1_Low_2402



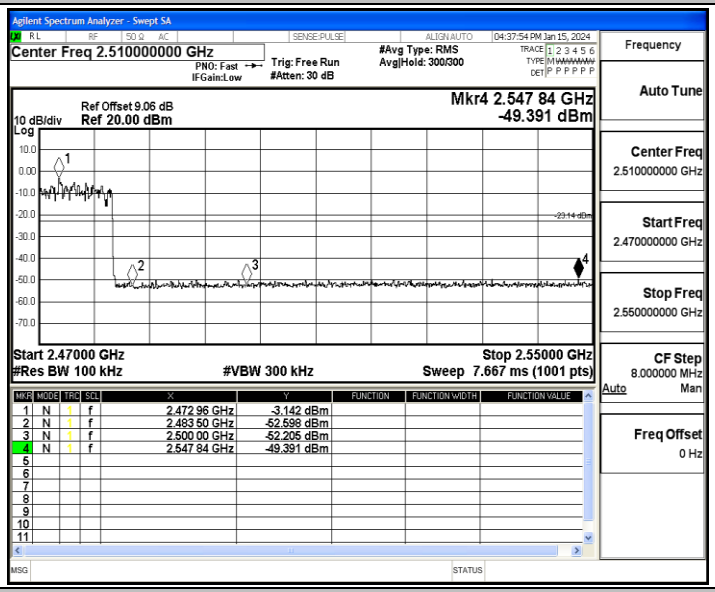
2DH5_Ant1_High_2480



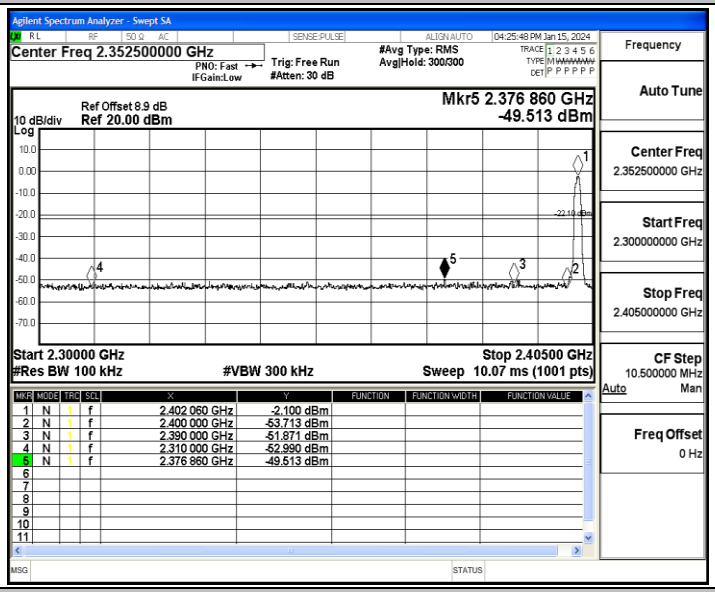
2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402



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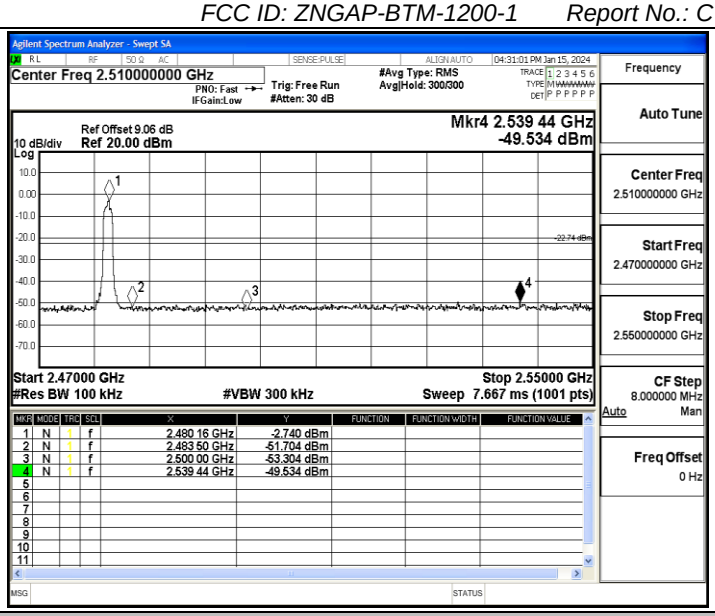

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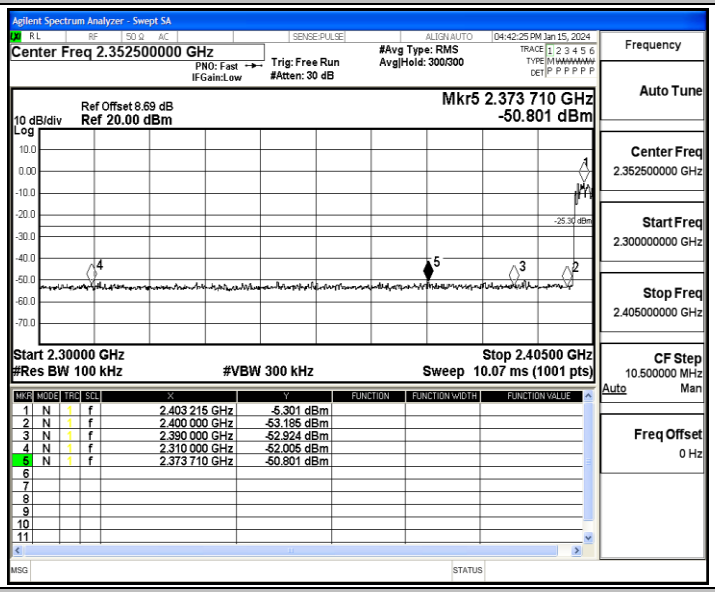
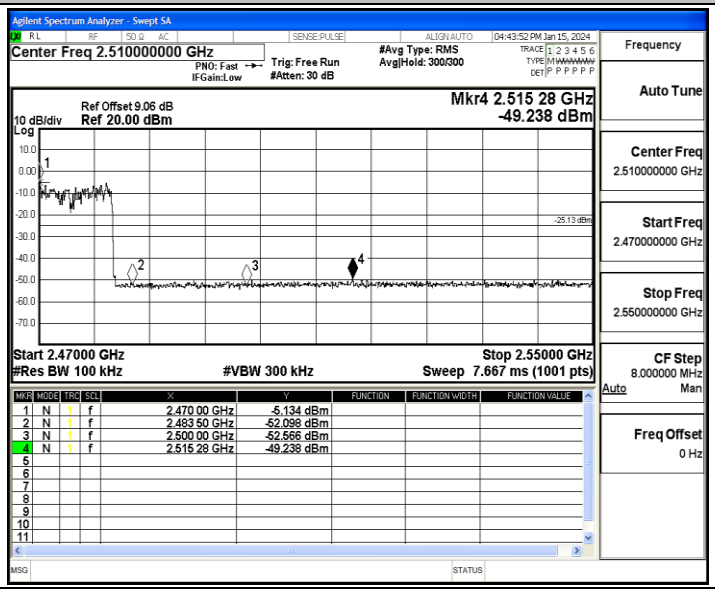


3DH5_Ant1_High_Hop_2480



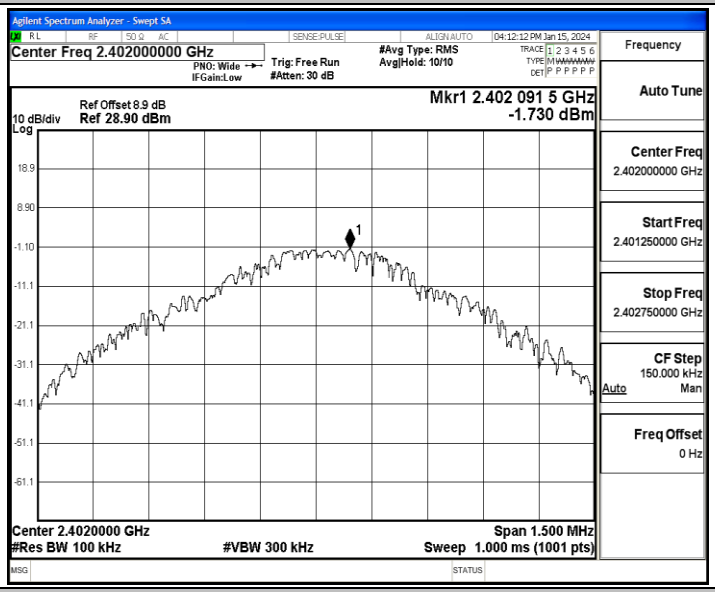
Appendix H: Conducted Spurious Emission

Test Result

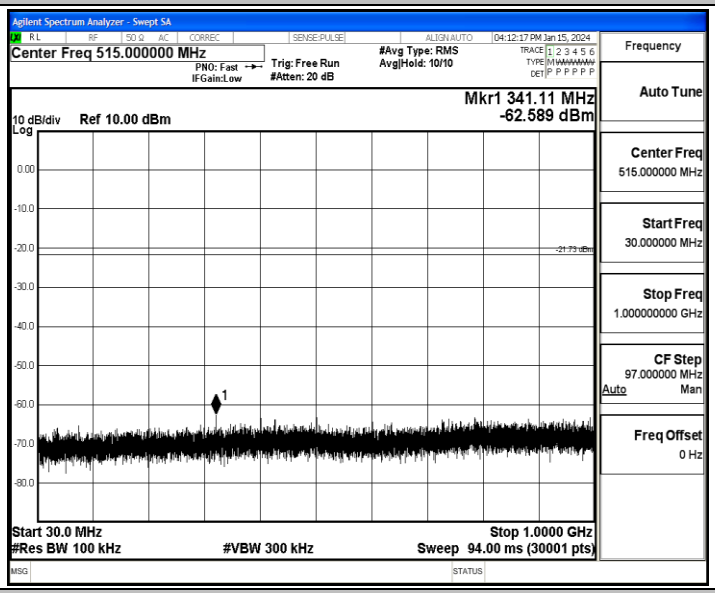
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-1.73	-1.73	---	PASS
			30~1000	-1.73	-62.59	≤-21.73	PASS
			1000~26500	-1.73	-50.34	≤-21.73	PASS
		2441	Reference	-1.80	-1.80	---	PASS
			30~1000	-1.80	-62.78	≤-21.8	PASS
			1000~26500	-1.80	-50.25	≤-21.8	PASS
		2480	Reference	-2.04	-2.04	---	PASS
			30~1000	-2.04	-62.97	≤-22.04	PASS
			1000~26500	-2.04	-50.07	≤-22.04	PASS
2DH5	Ant1	2402	Reference	-6.23	-6.23	---	PASS
			30~1000	-6.23	-62.72	≤-26.23	PASS
			1000~26500	-6.23	-50.61	≤-26.23	PASS
		2441	Reference	-4.16	-4.16	---	PASS
			30~1000	-4.16	-62.73	≤-24.16	PASS
			1000~26500	-4.16	-49.7	≤-24.16	PASS
		2480	Reference	-6.32	-6.32	---	PASS
			30~1000	-6.32	-62.2	≤-26.32	PASS
			1000~26500	-6.32	-50.14	≤-26.32	PASS
3DH5	Ant1	2402	Reference	-5.42	-5.42	---	PASS
			30~1000	-5.42	-62.87	≤-25.42	PASS
			1000~26500	-5.42	-50.58	≤-25.42	PASS
		2441	Reference	-2.06	-2.06	---	PASS
			30~1000	-2.06	-39.34	≤-22.06	PASS
			1000~26500	-2.06	-49.91	≤-22.06	PASS
		2480	Reference	-3.24	-3.24	---	PASS
			30~1000	-3.24	-62.22	≤-23.24	PASS
			1000~26500	-3.24	-50.84	≤-23.24	PASS

Test Graphs

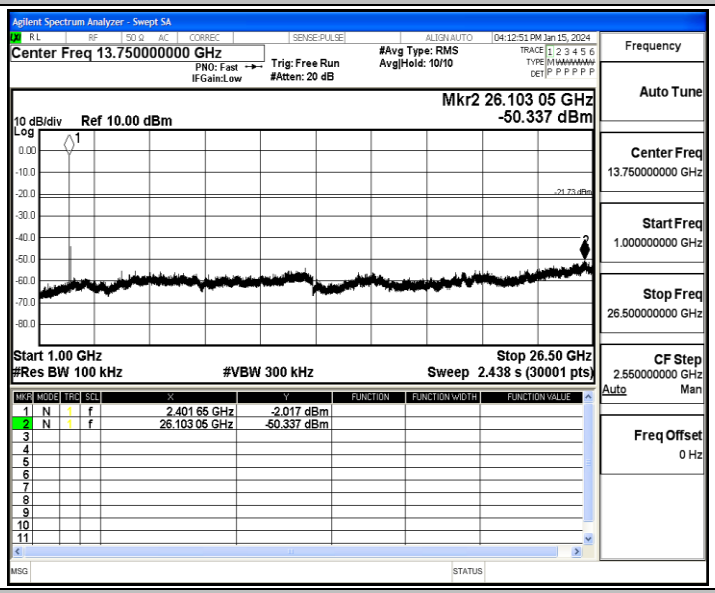
DH5_Ant1_2402_0~Reference



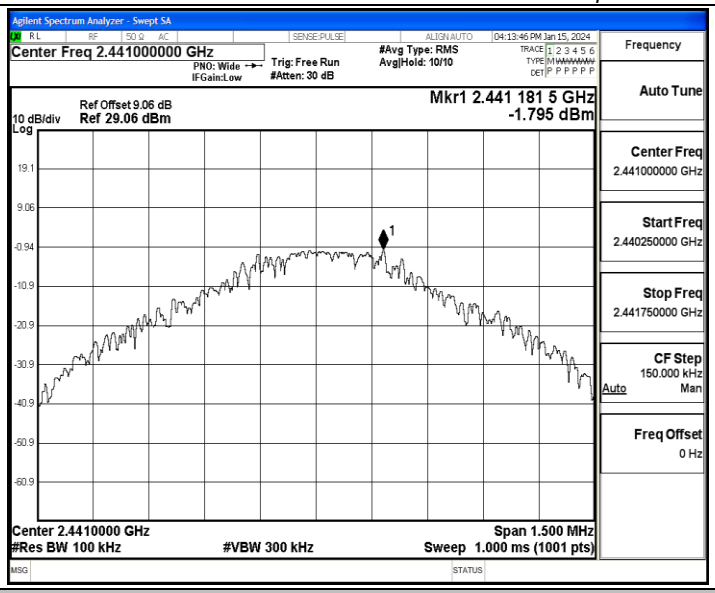
DH5_Ant1_2402_30~1000



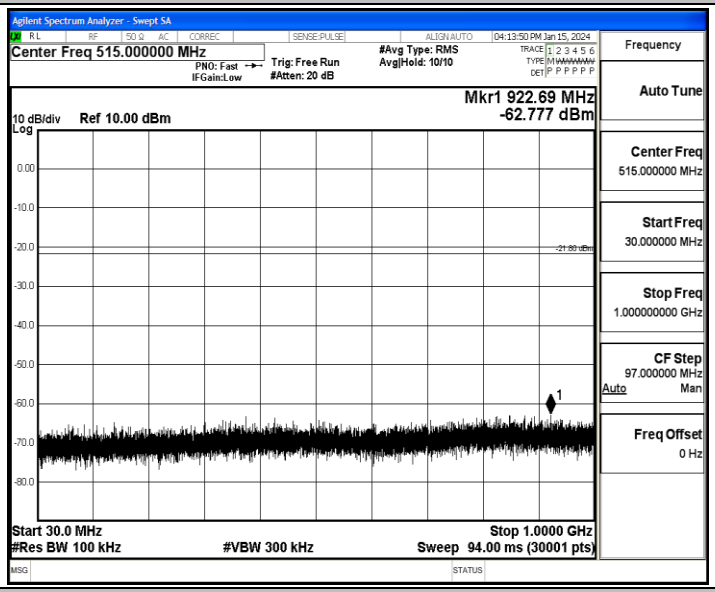
DH5_Ant1_2402_1000~26500



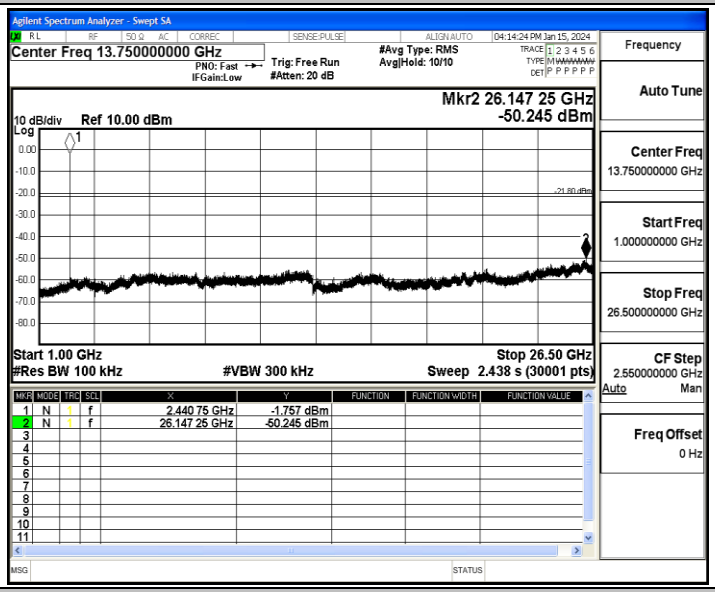
DH5_Ant1_2441_0~Reference



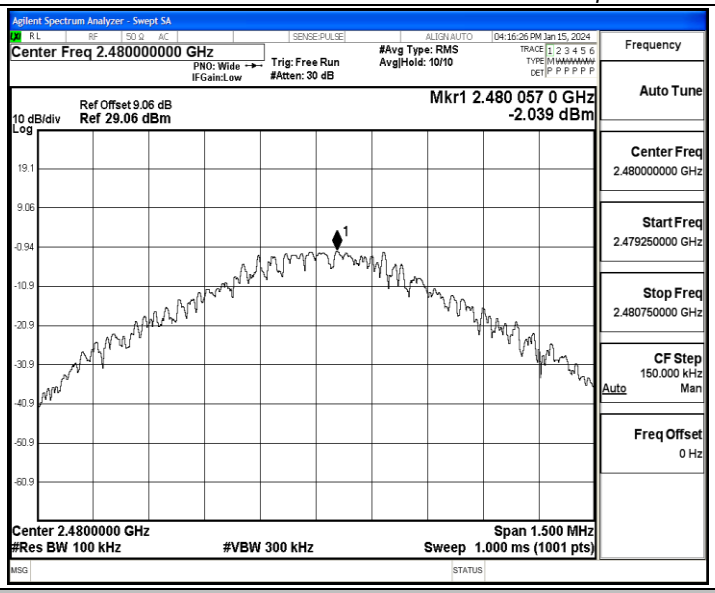
DH5_Ant1_2441_30~1000



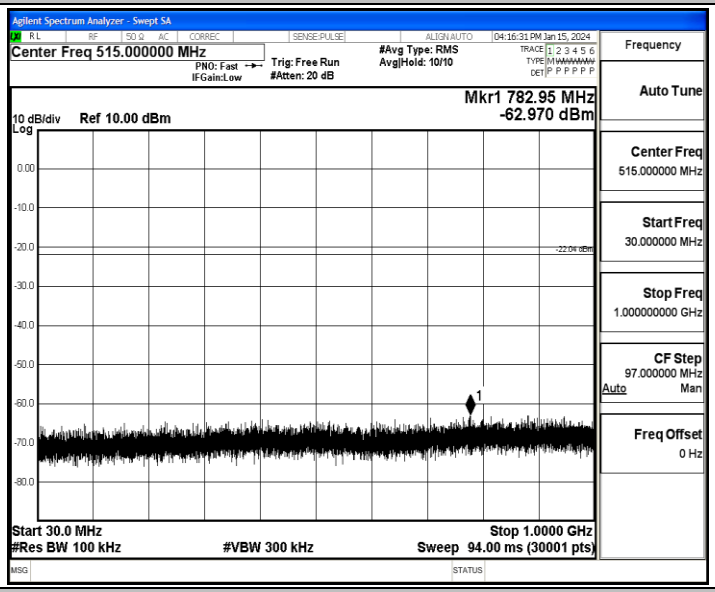
DH5_Ant1_2441_1000~26500



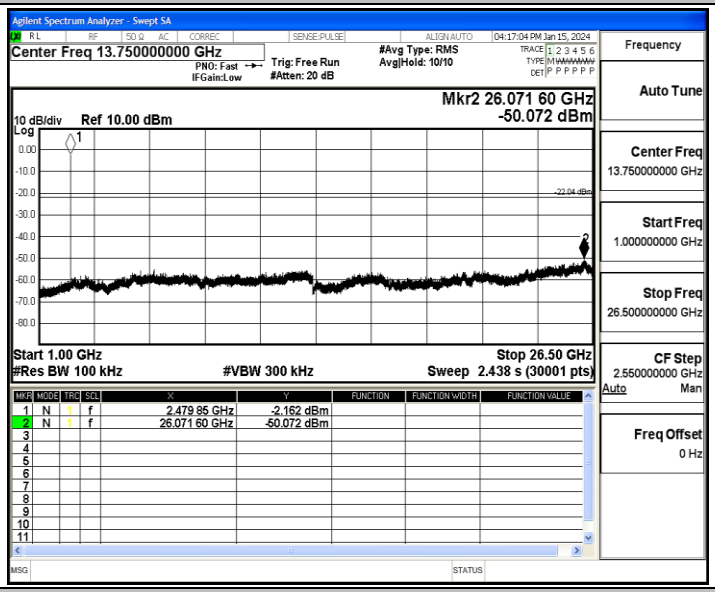
DH5_Ant1_2480_0~Reference



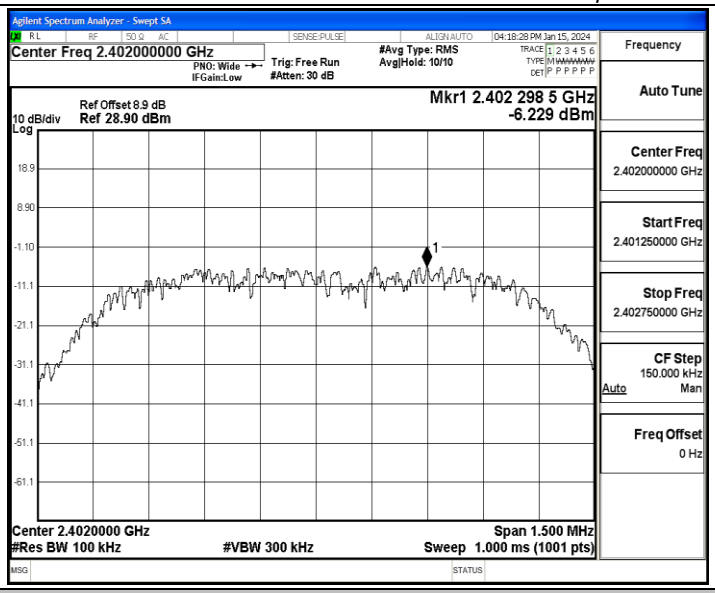
DH5_Ant1_2480_30~1000



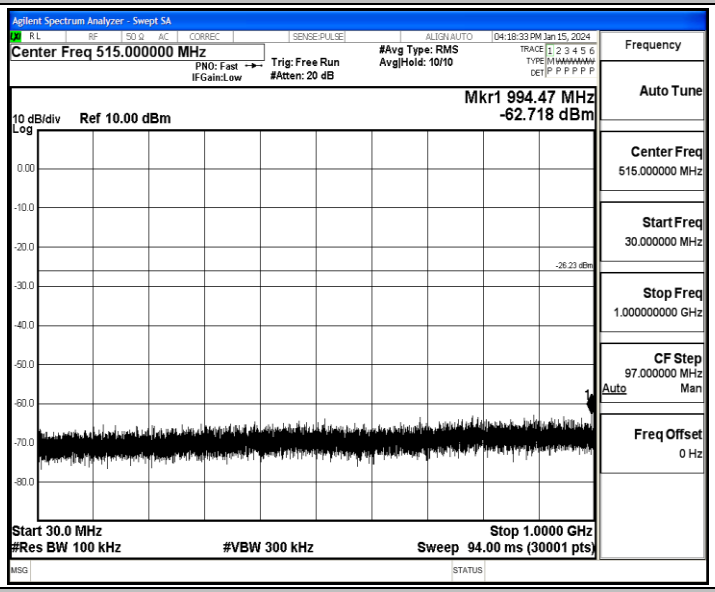
DH5_Ant1_2480_1000~26500



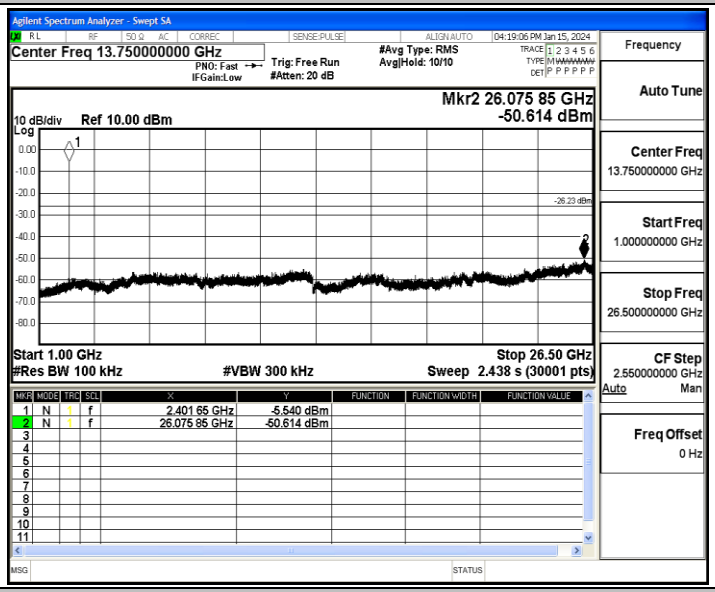
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference