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

Product Name: projector

Trade Mark: umiio

Test Model: A007

FCC ID: 2BAHIA007

Environmental Conditions

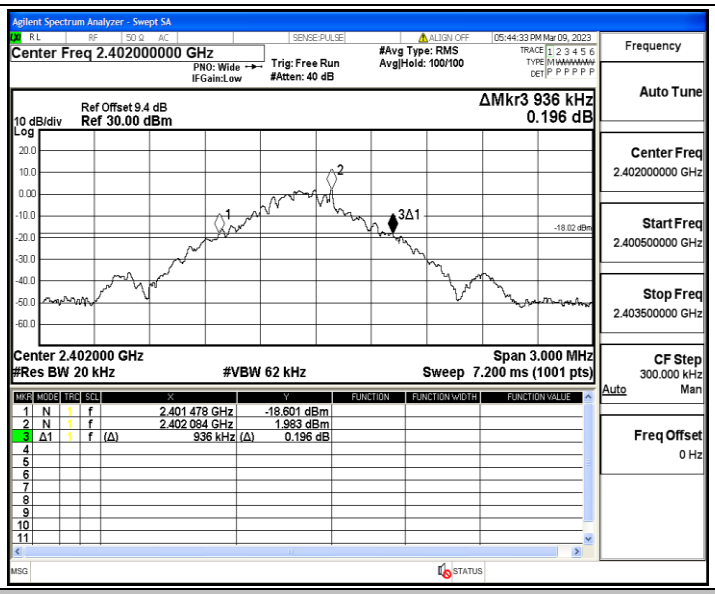
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: 20dB Emission Bandwidth

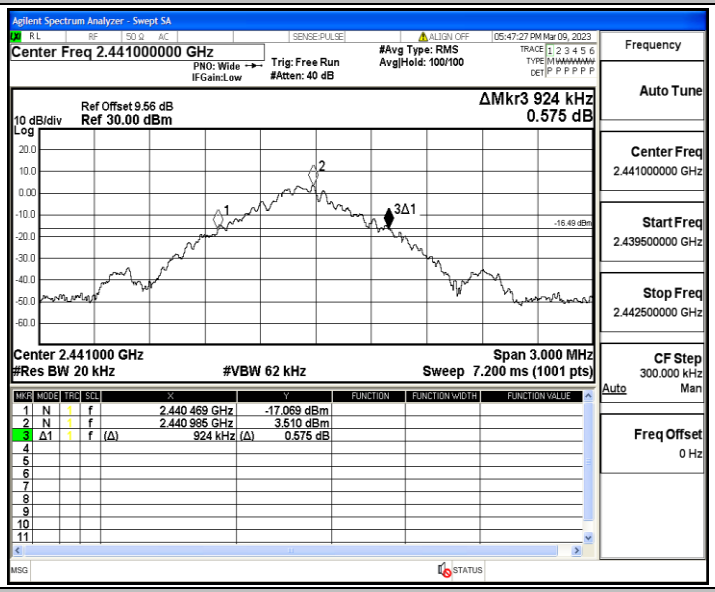
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.936	2401.478	2402.414	---	---
		2441	0.924	2440.469	2441.393	---	---
		2480	0.930	2479.460	2480.390	---	---
2DH5	Ant1	2402	1.359	2401.262	2402.621	---	---
		2441	1.335	2440.262	2441.597	---	---
		2480	1.323	2479.259	2480.582	---	---
3DH5	Ant1	2402	1.347	2401.259	2402.606	---	---
		2441	1.341	2440.256	2441.597	---	---
		2480	1.338	2479.247	2480.585	---	---

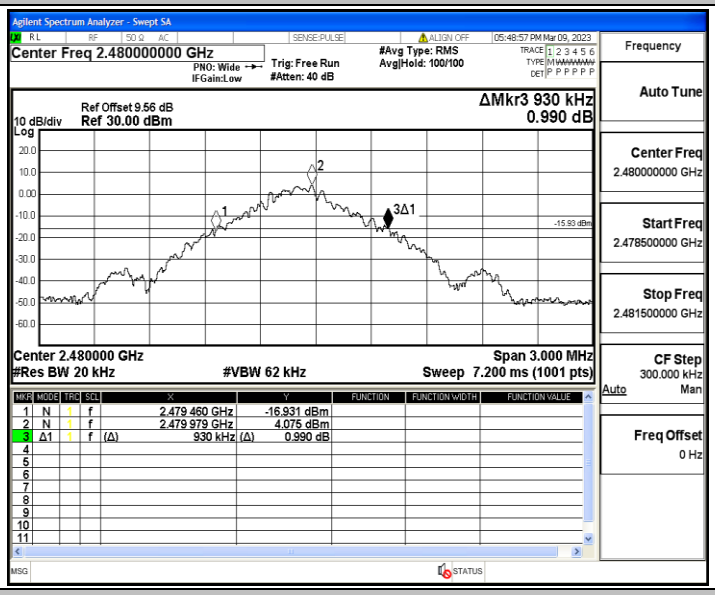
Test Graphs



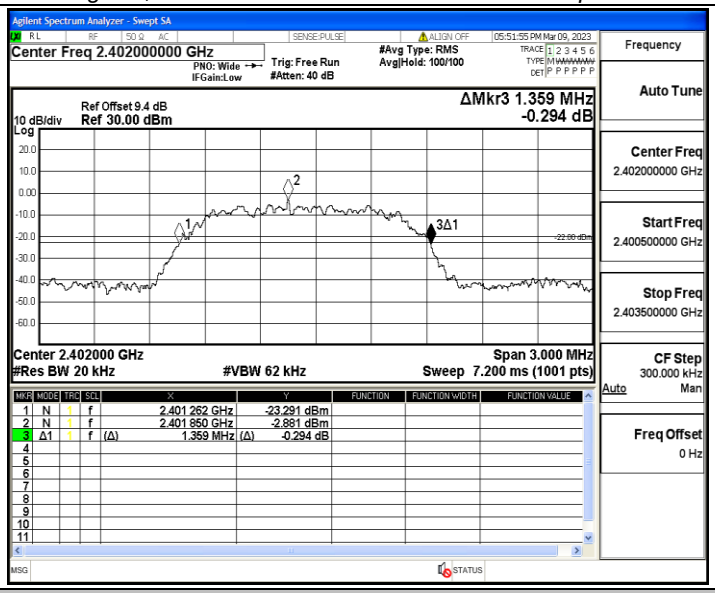
DH5_Ant1_2402



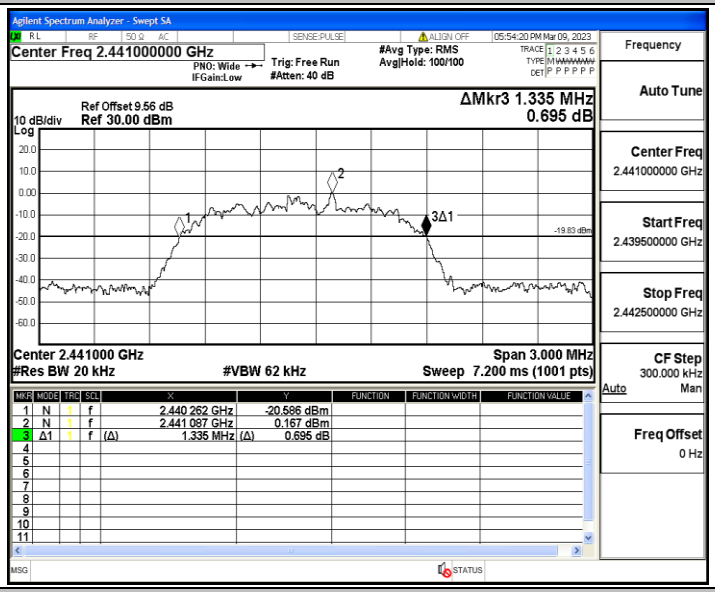
DH5_Ant1_2441



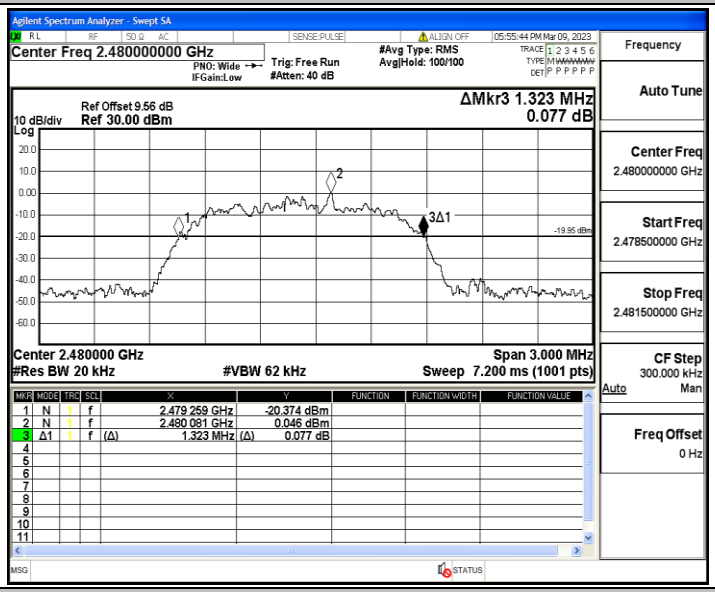
DH5_Ant1_2480



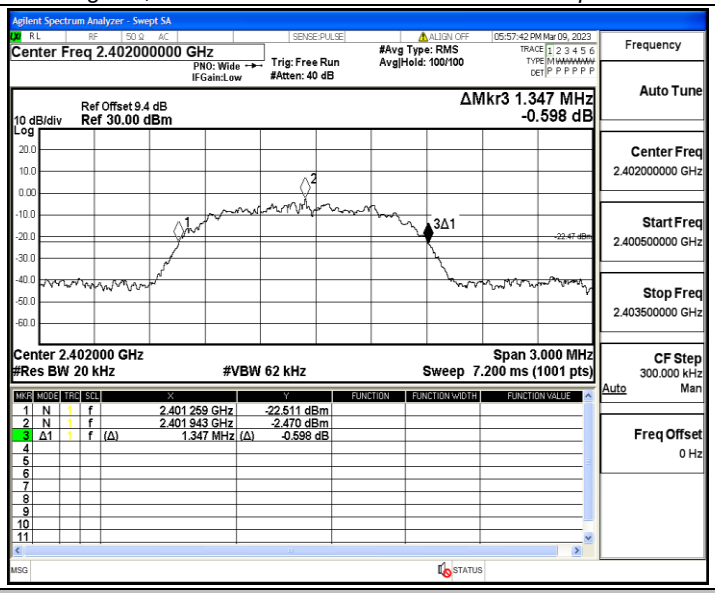
2DH5_Ant1_2402



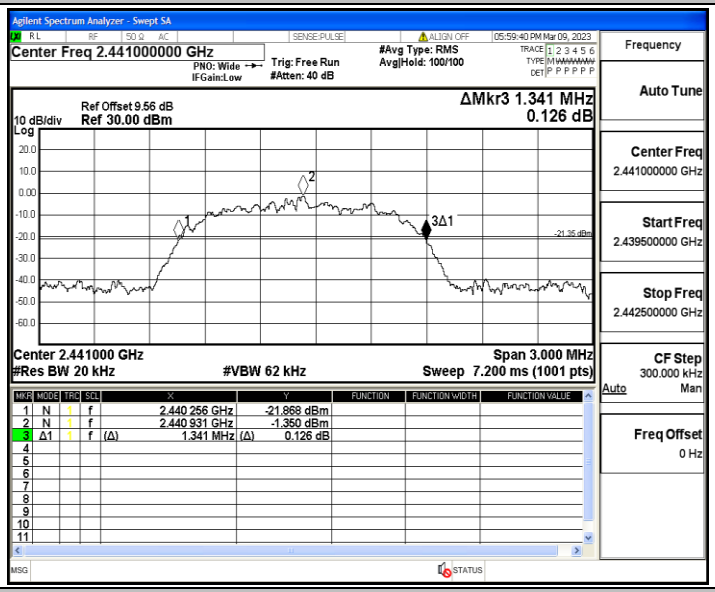
2DH5_Ant1_2441



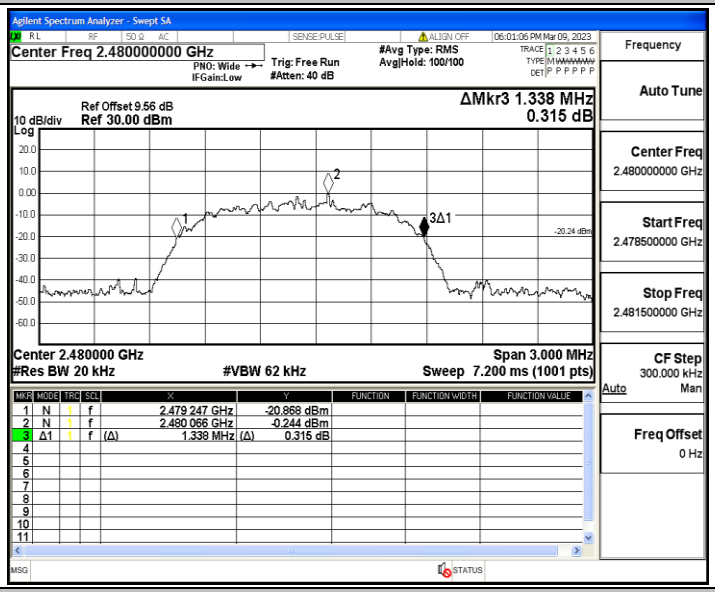
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



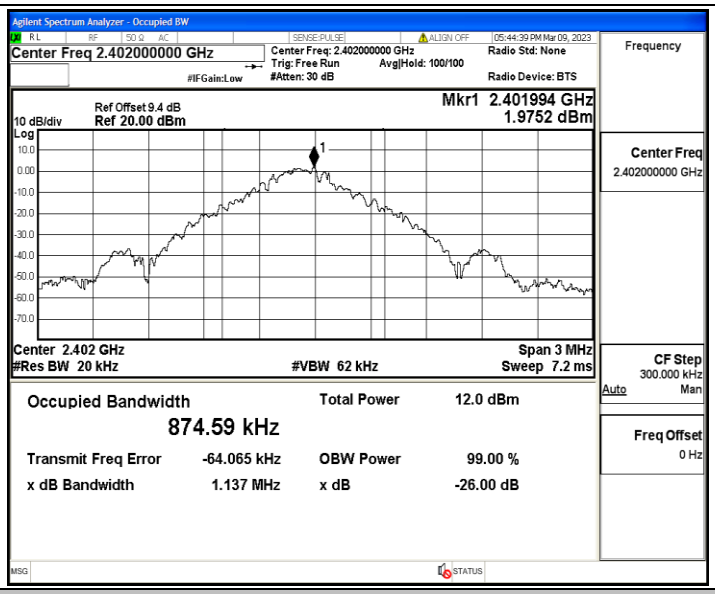
3DH5_Ant1_2480

Appendix B: Occupied Channel Bandwidth

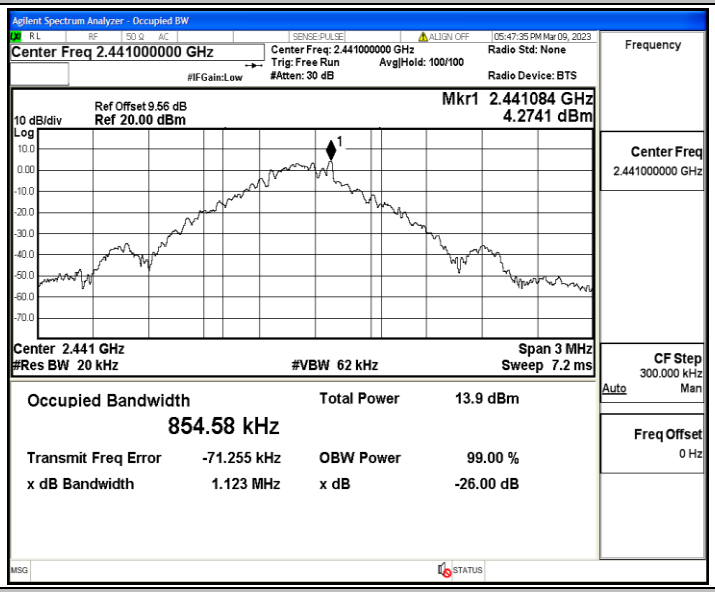
Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.87459	2401.4986	2402.3732	---	---
		2441	0.85458	2440.5015	2441.3560	---	---
		2480	0.87280	2479.4792	2480.3520	---	---
2DH5	Ant1	2402	1.2091	2401.3316	2402.5407	---	---
		2441	1.2168	2440.3184	2441.5352	---	---
		2480	1.2090	2479.3152	2480.5242	---	---
3DH5	Ant1	2402	1.2053	2401.3252	2402.5305	---	---
		2441	1.2153	2440.3105	2441.5258	---	---
		2480	1.2064	2479.3092	2480.5156	---	---

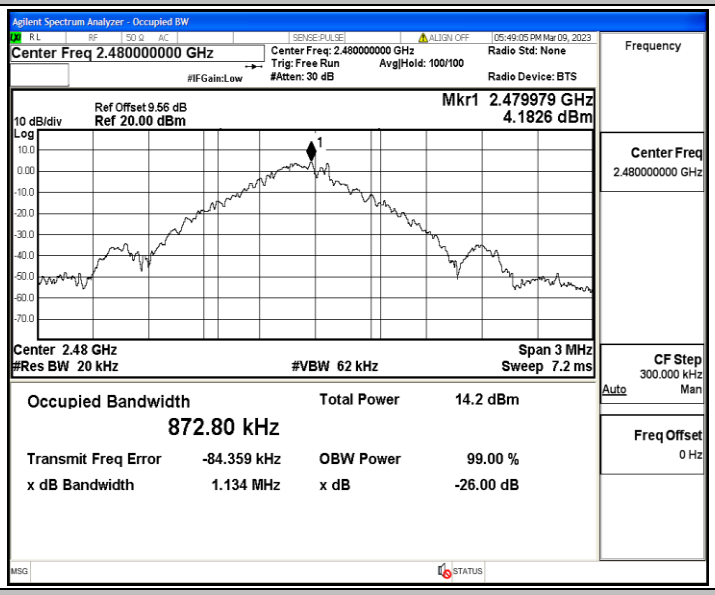
Test Graphs



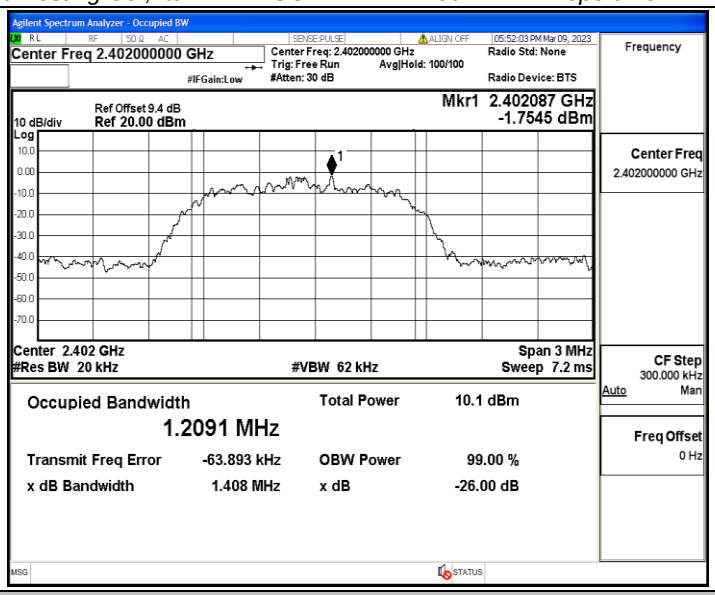
DH5_Ant1_2402



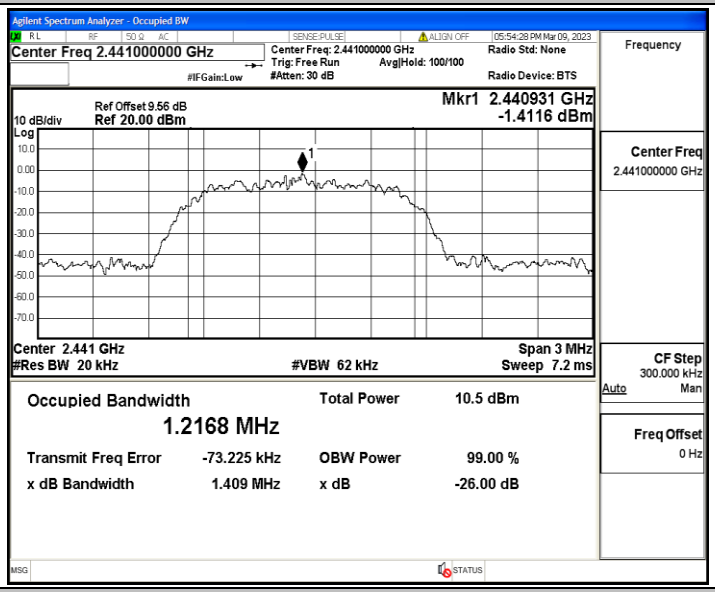
DH5_Ant1_2441



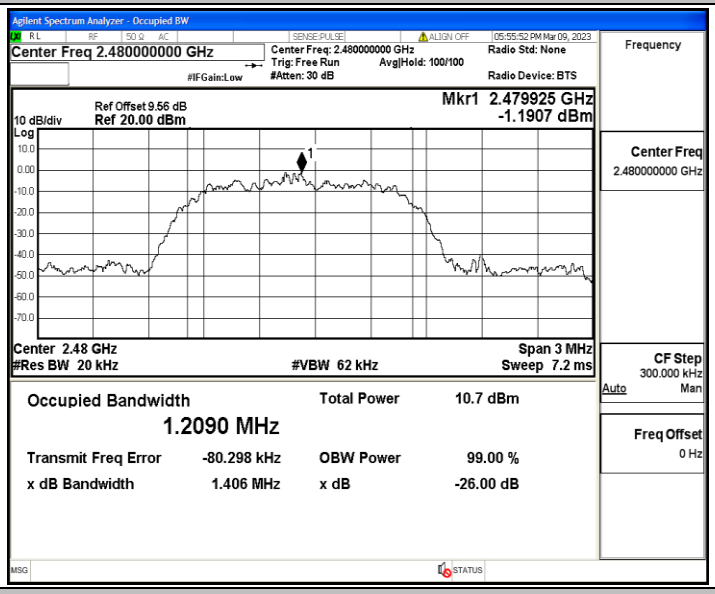
DH5_Ant1_2480



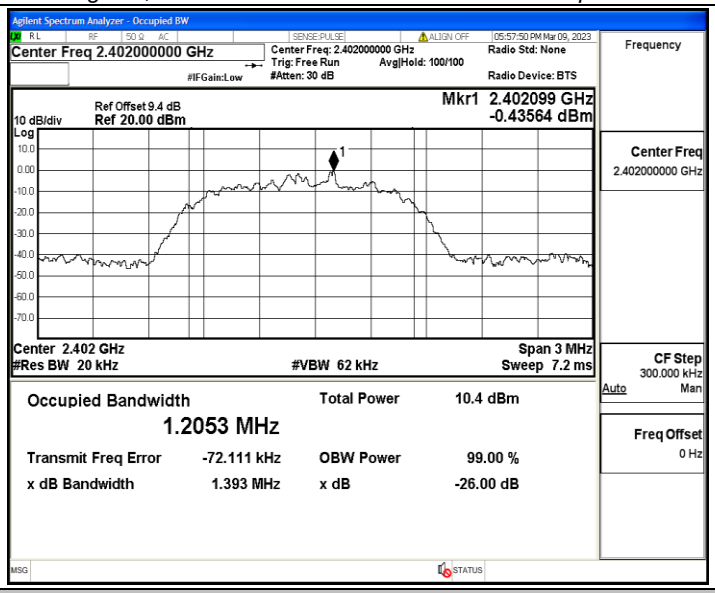
2DH5_Ant1_2402



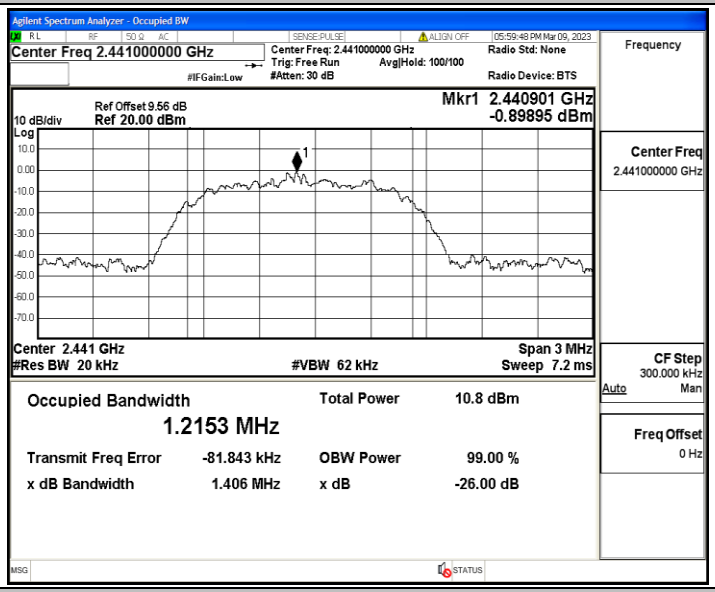
2DH5_Ant1_2441



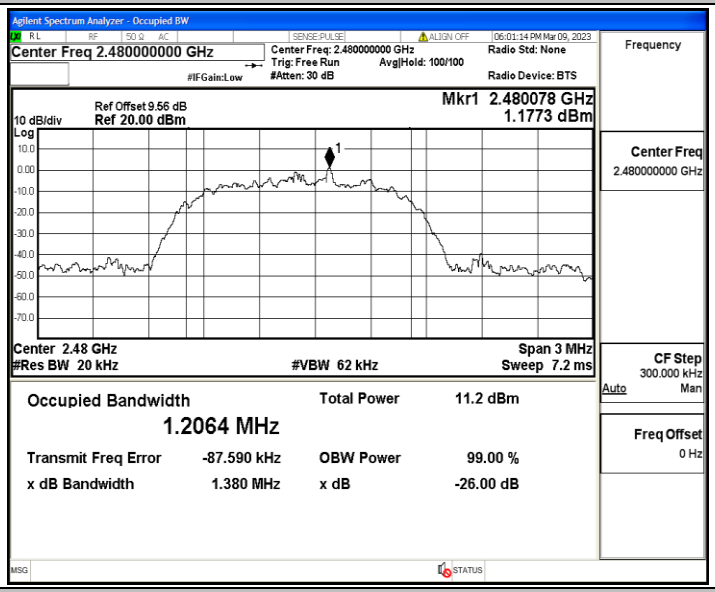
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



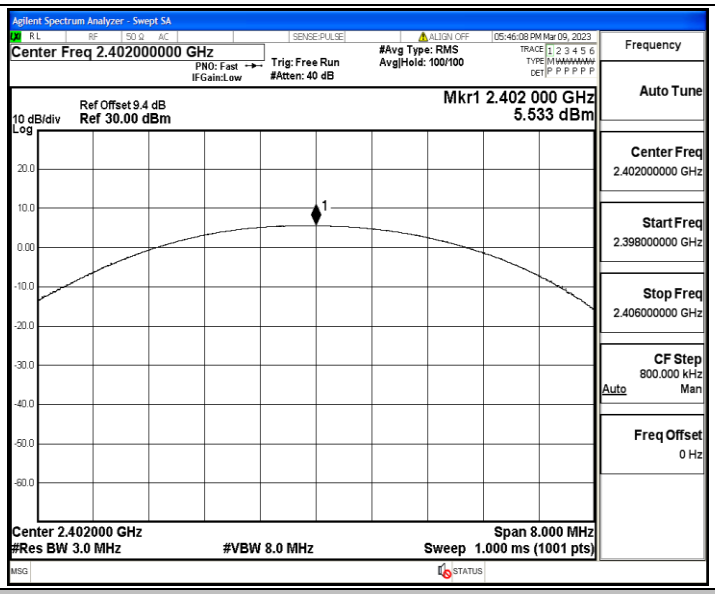
3DH5_Ant1_2480

Appendix C: Maximum Peak conducted output power

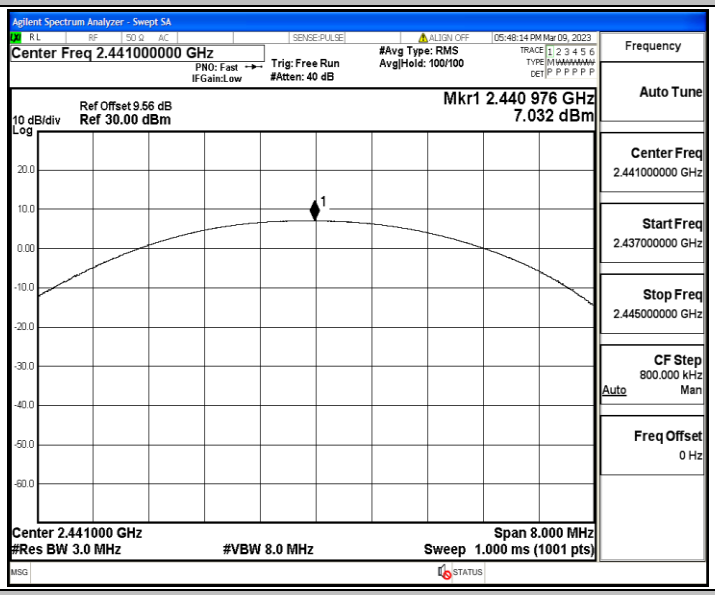
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	5.53	≤30.00	PASS
		2441	7.03	≤30.00	PASS
		2480	7.63	≤30.00	PASS
2DH5	Ant1	2402	4.95	≤20.97	PASS
		2441	5.95	≤20.97	PASS
		2480	6.14	≤20.97	PASS
3DH5	Ant1	2402	5.29	≤20.97	PASS
		2441	6.33	≤20.97	PASS
		2480	6.48	≤20.97	PASS

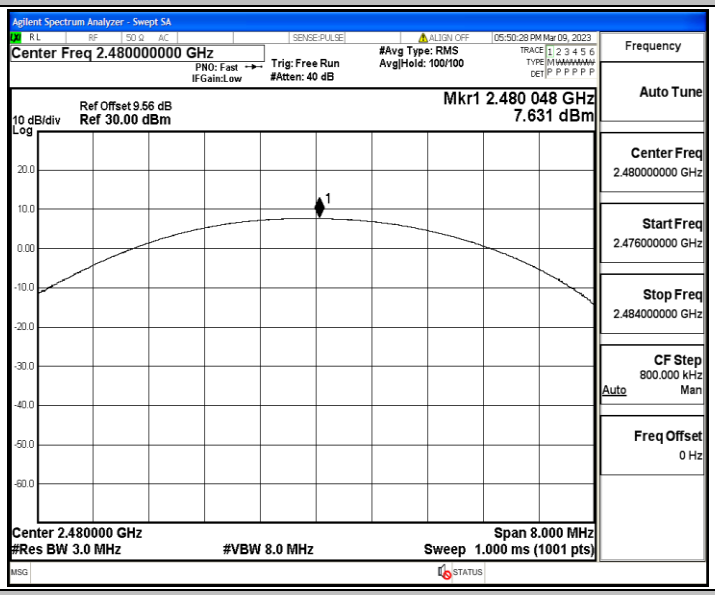
Test Graphs



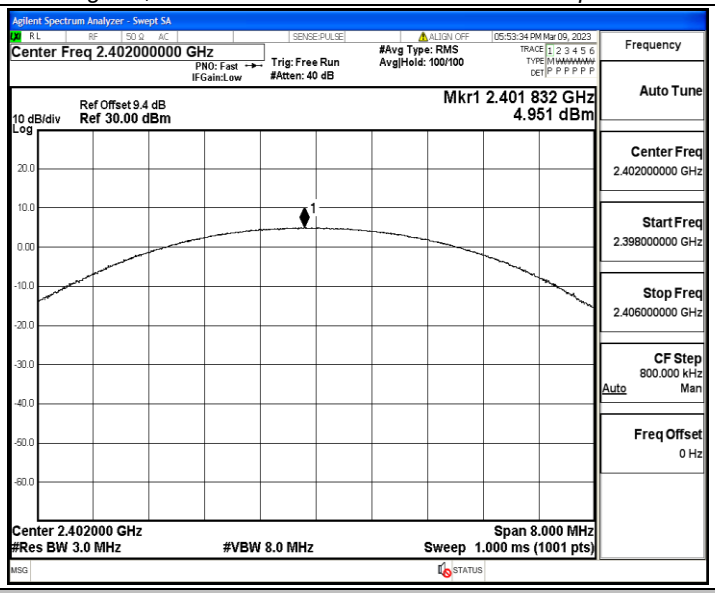
DH5_Ant1_2402



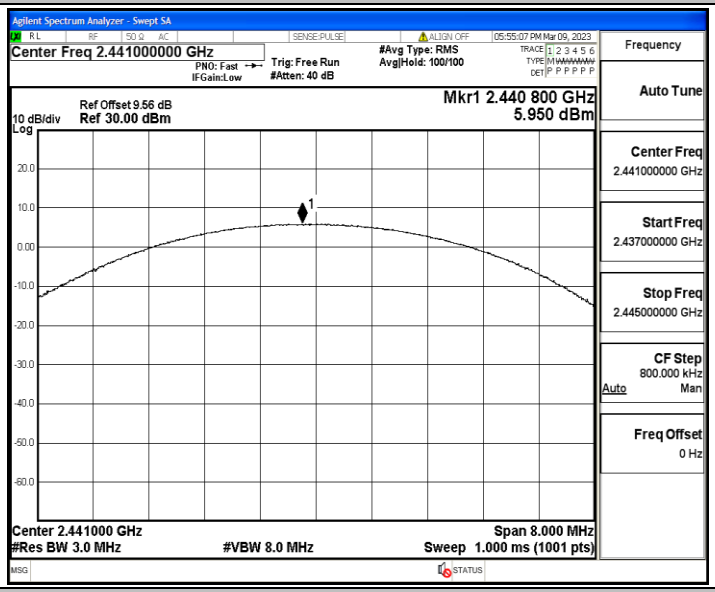
DH5_Ant1_2441



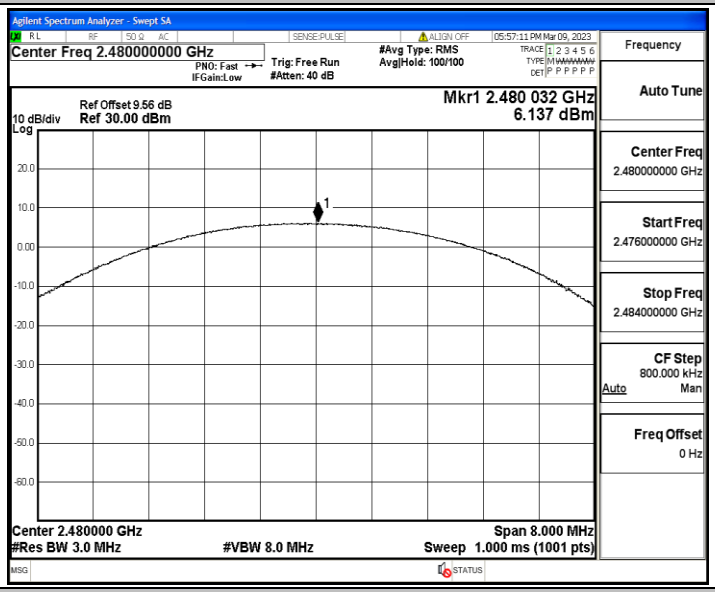
DH5_Ant1_2480



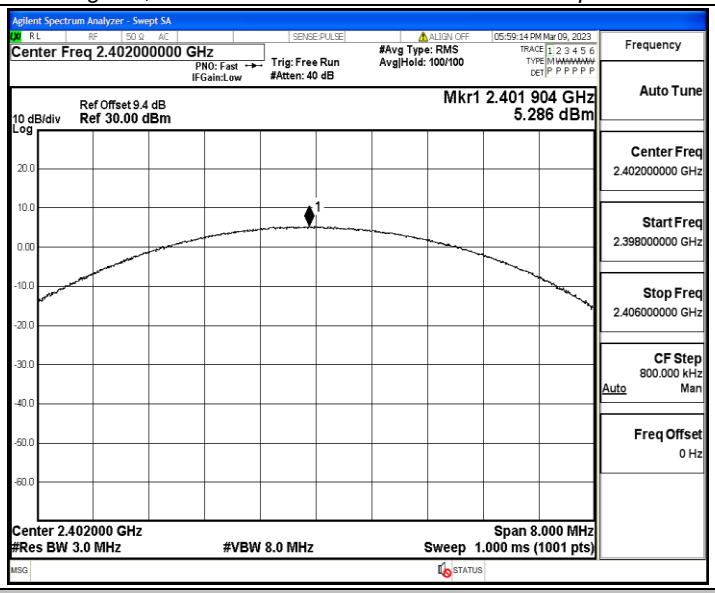
2DH5_Ant1_2402



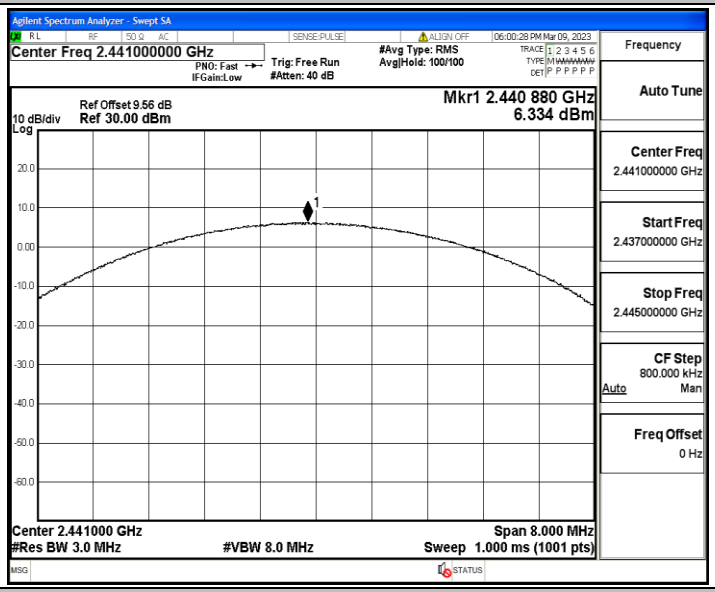
2DH5_Ant1_2441



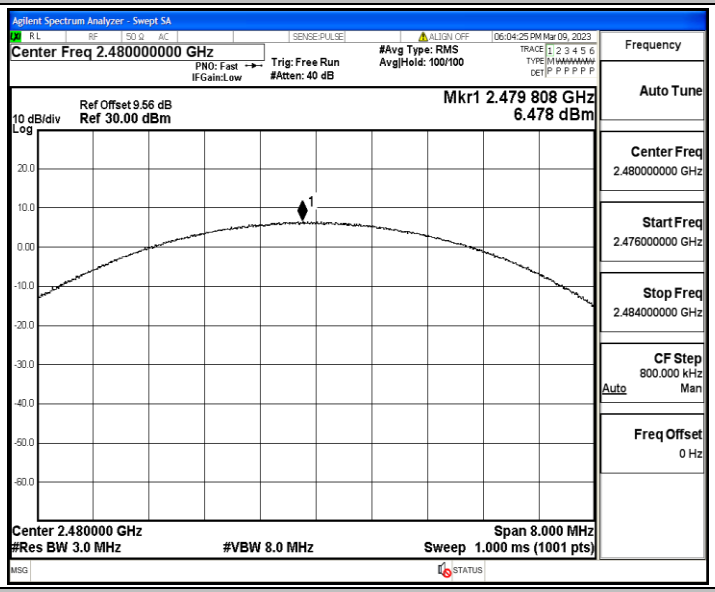
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



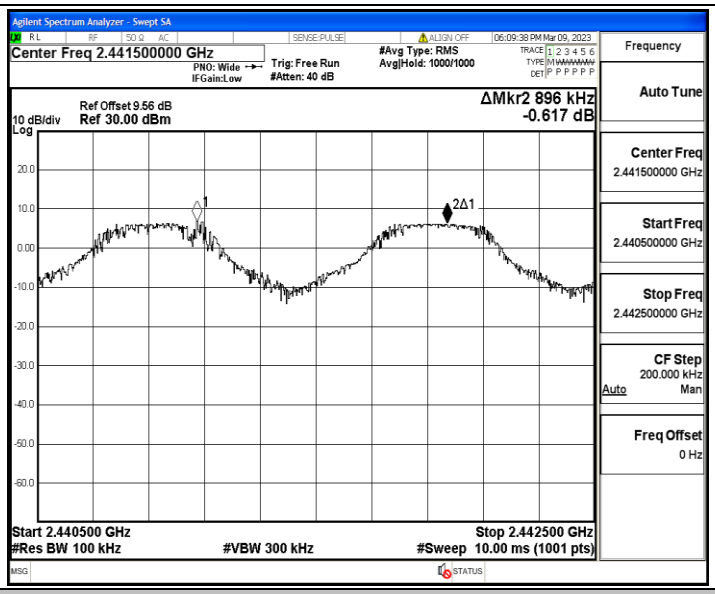
3DH5_Ant1_2480

Appendix D: Carrier frequency separation

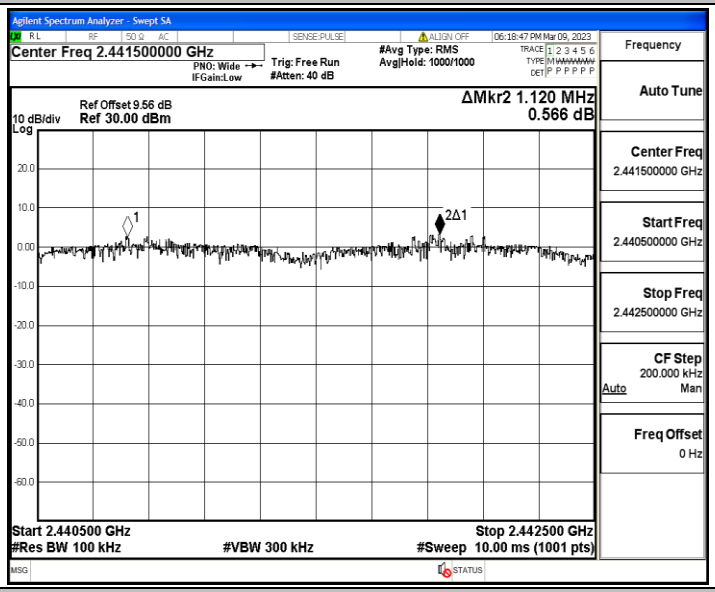
Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.896	≥0.624	PASS
2DH5	Ant1	Hop	1.12	≥0.906	PASS
3DH5	Ant1	Hop	0.958	≥0.898	PASS

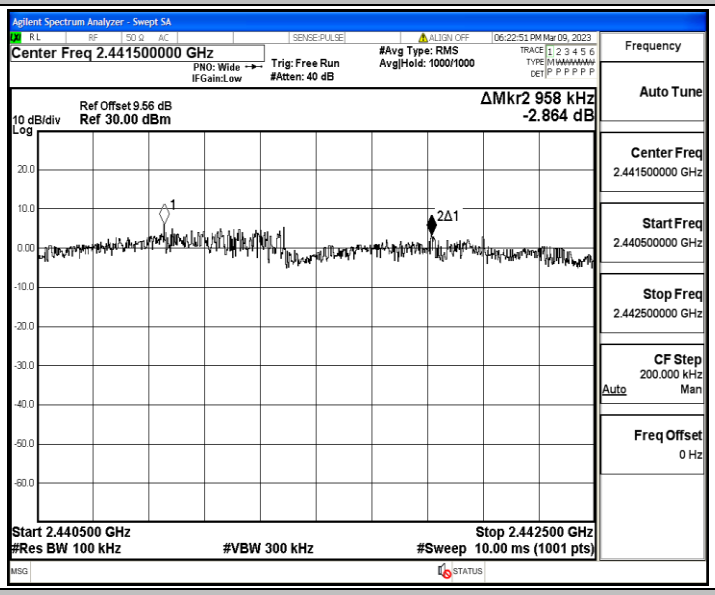
Test Graphs



DH5_Ant1_Hop



2DH5_Ant1_Hop



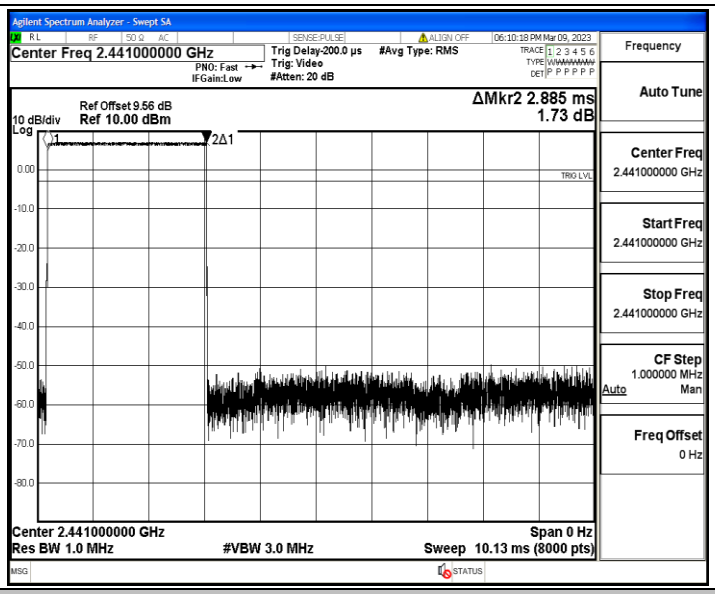
3DH5_Ant1_Hop

Appendix E: Time of occupancy

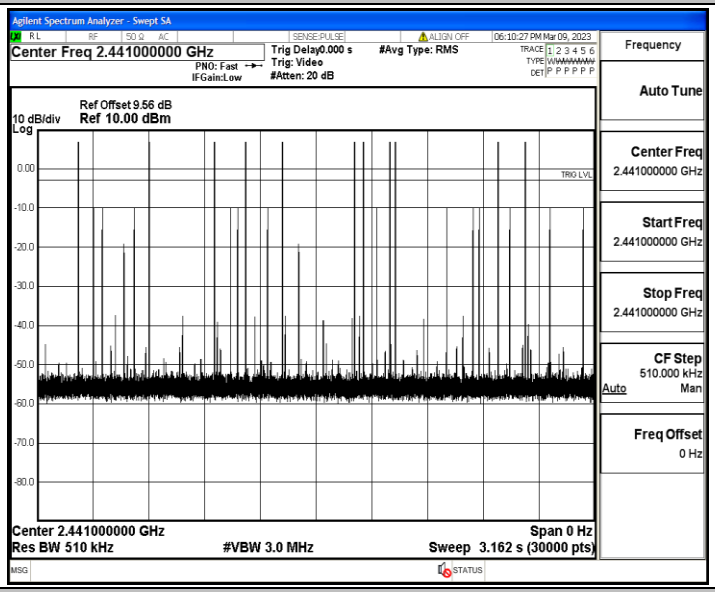
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.885	120	0.346	≤0.4	PASS
2DH5	Ant1	Hop	2.888	120	0.347	≤0.4	PASS
3DH5	Ant1	Hop	2.889	100	0.289	≤0.4	PASS

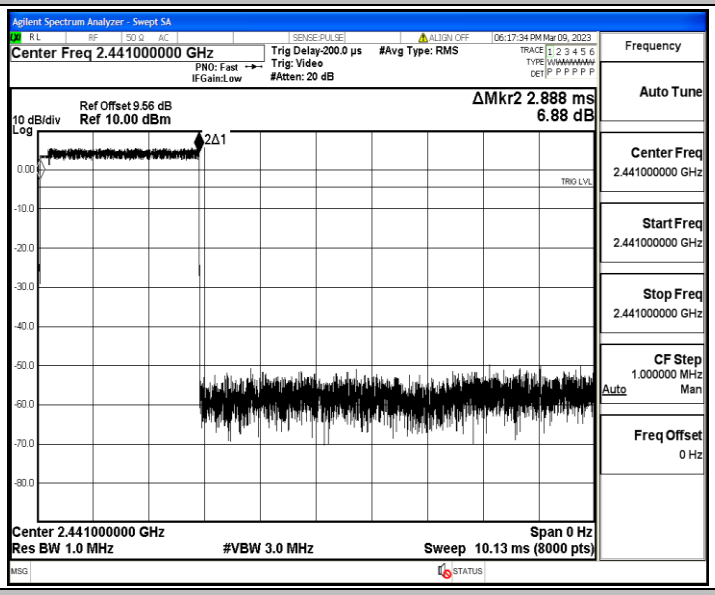
Test Graphs



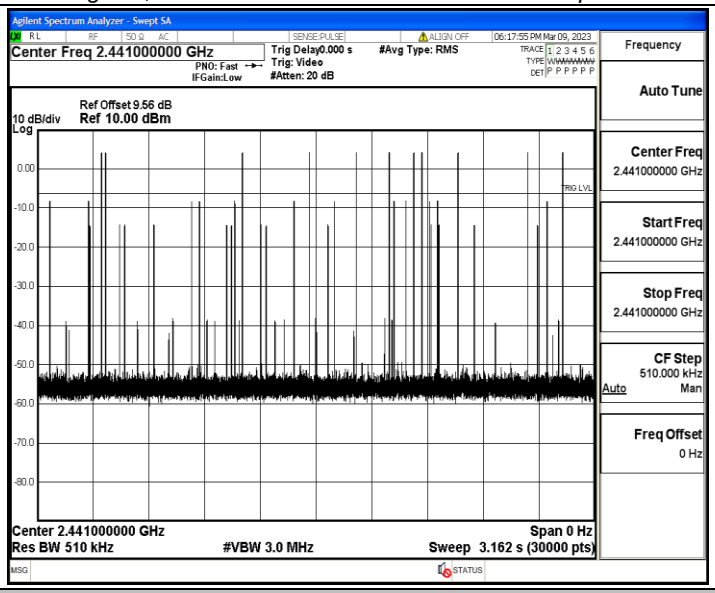
DH5_Ant1_Hop



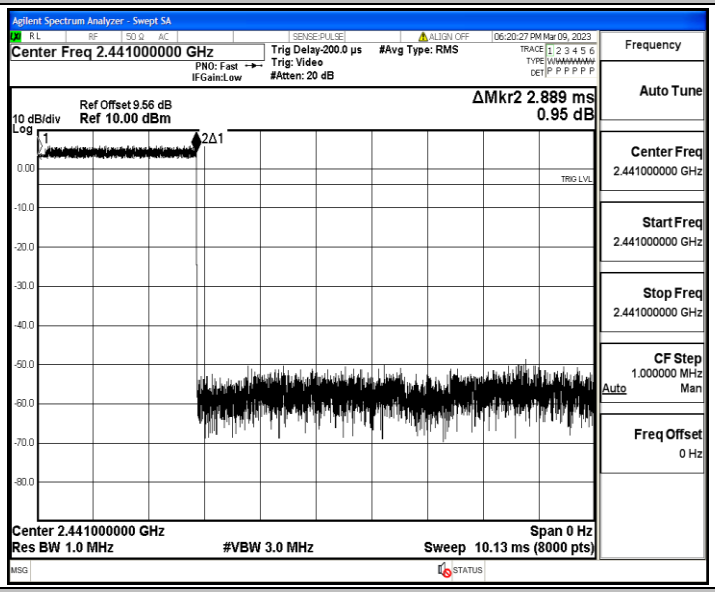
DH5_Ant1_Hop



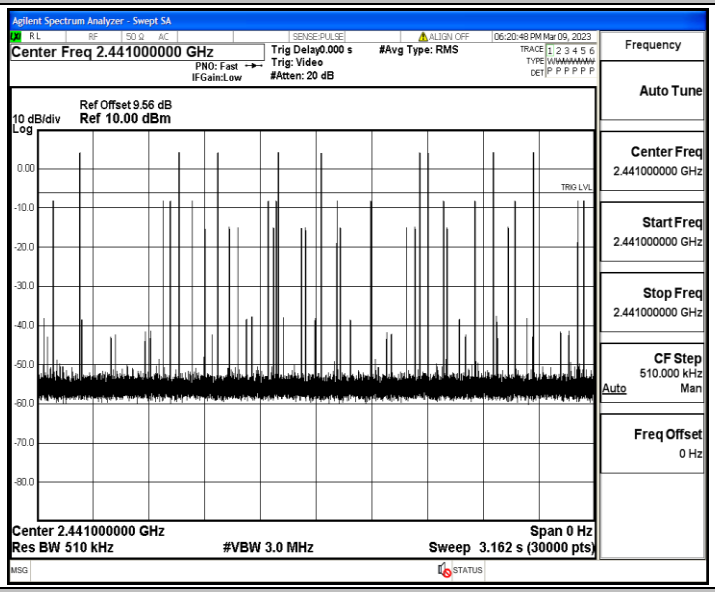
2DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



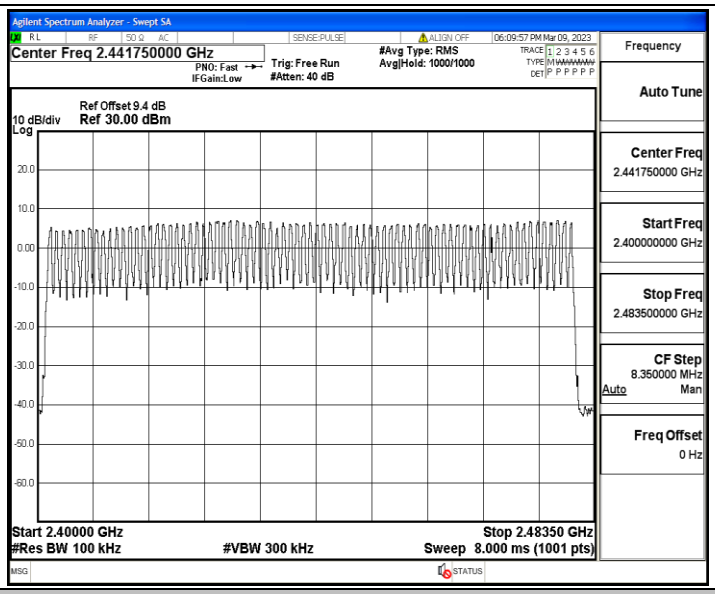
3DH5_Ant1_Hop

Appendix F: Number of hopping channels

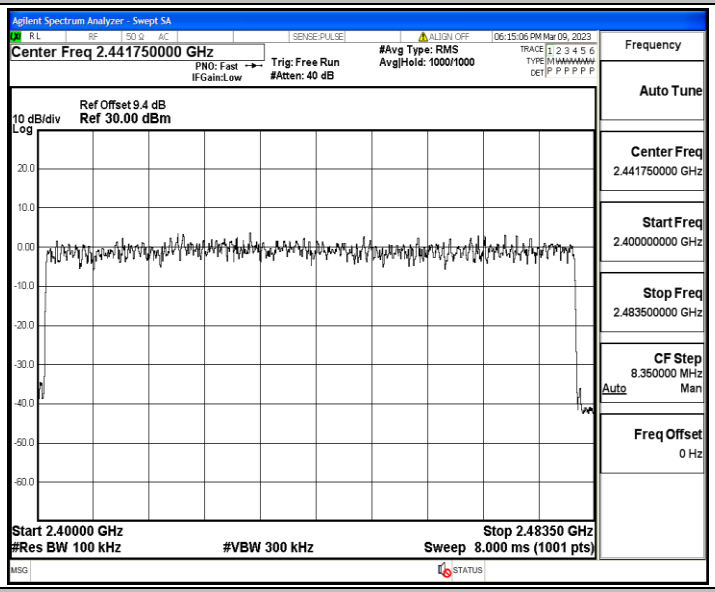
Test Result

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

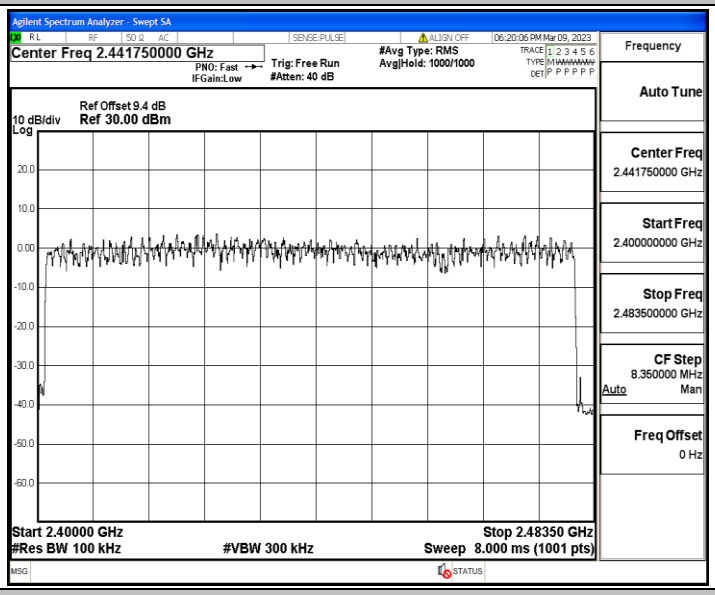
Test Graphs



DH5_Ant1_Hop



2DH5_Ant1_Hop



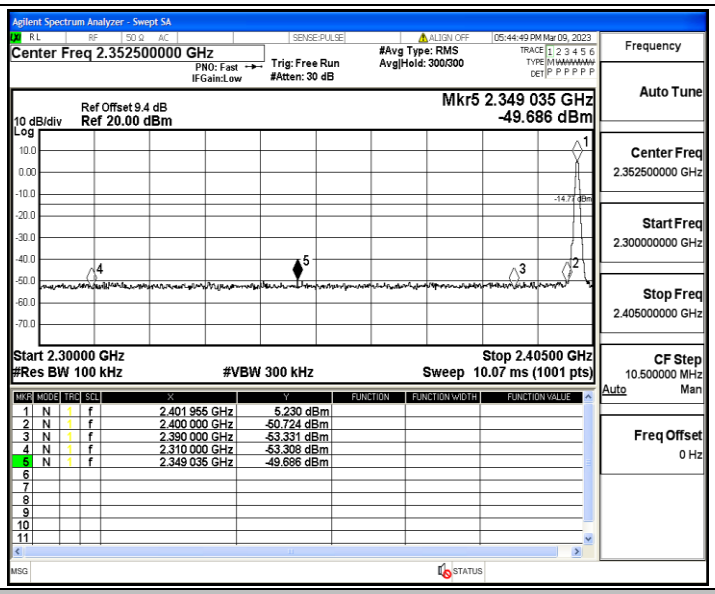
3DH5_Ant1_Hop

Appendix G: Band edge measurements

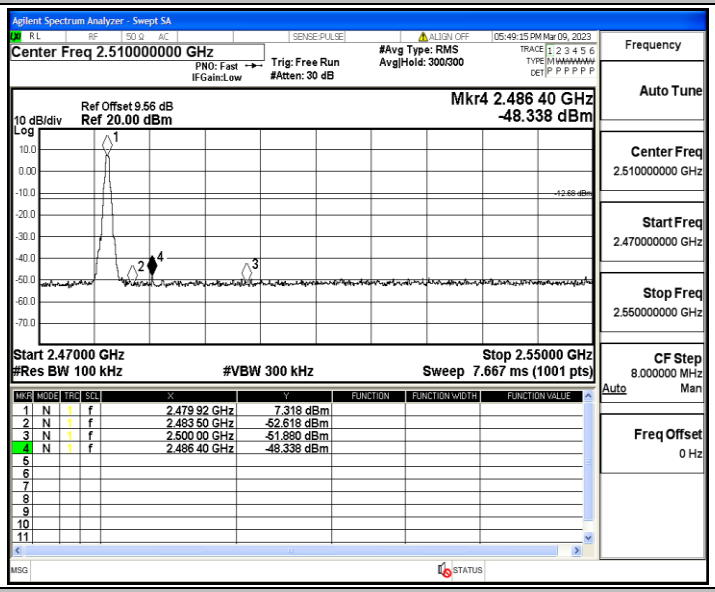
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	5.23	-49.69	≤-14.77	PASS
		High	2480	7.32	-48.34	≤-12.68	PASS
		Low	Hop_2402	5.03	-50.08	≤-14.97	PASS
		High	Hop_2480	7.28	-49.05	≤-12.72	PASS
2DH5	Ant1	Low	2402	2.58	-49.74	≤-17.42	PASS
		High	2480	3.60	-48.49	≤-16.4	PASS
		Low	Hop_2402	1.04	-48.51	≤-18.96	PASS
		High	Hop_2480	1.67	-49.24	≤-18.33	PASS
3DH5	Ant1	Low	2402	2.81	-49.1	≤-17.19	PASS
		High	2480	3.79	-48.37	≤-16.21	PASS
		Low	Hop_2402	-0.86	-50.22	≤-20.86	PASS
		High	Hop_2480	2.47	-48.82	≤-17.53	PASS

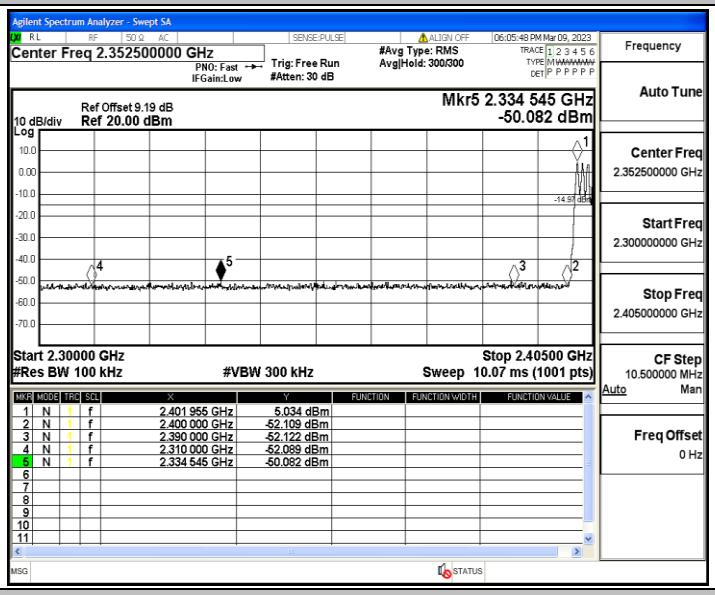
Test Graphs



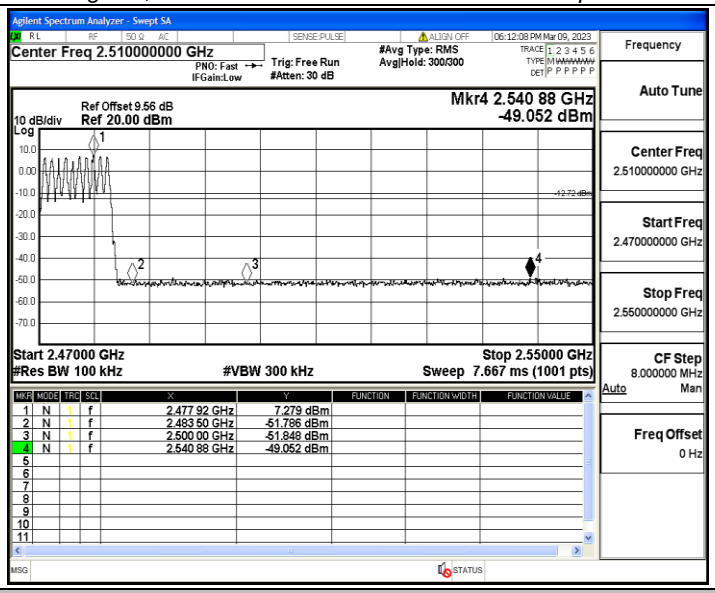
DH5_Ant1_Low_2402



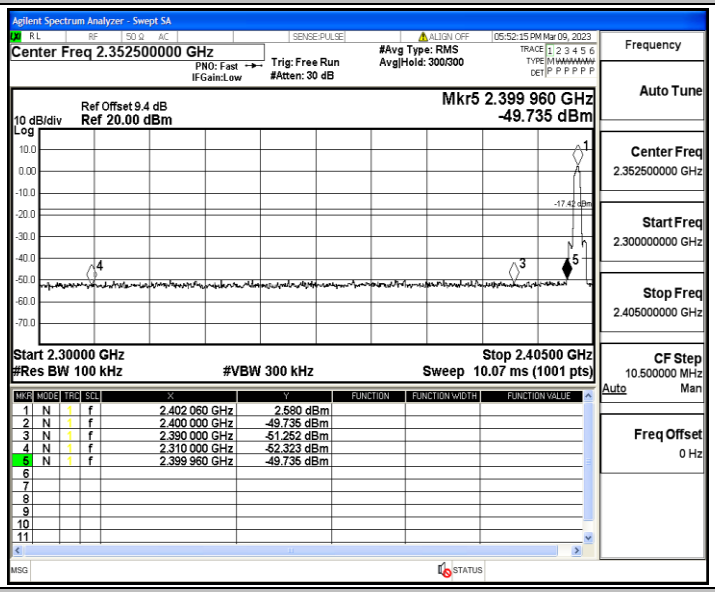
DH5_Ant1_High_2480



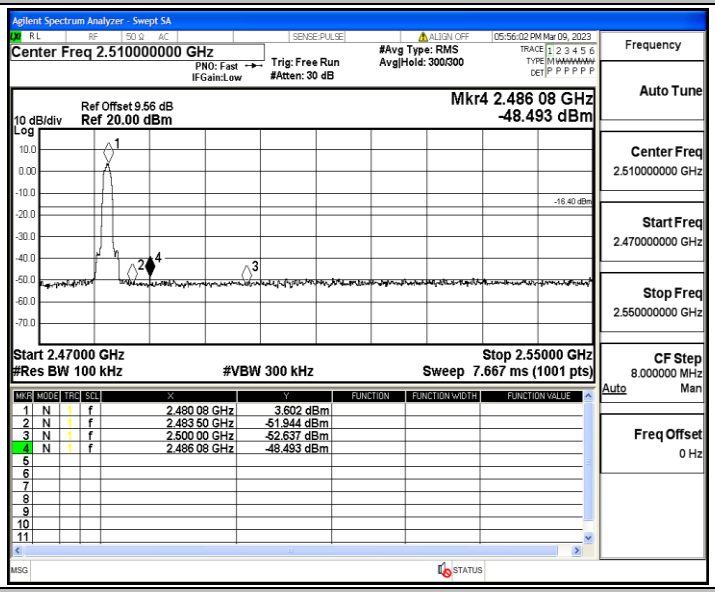
DH5_Ant1_Low_Hop_2402



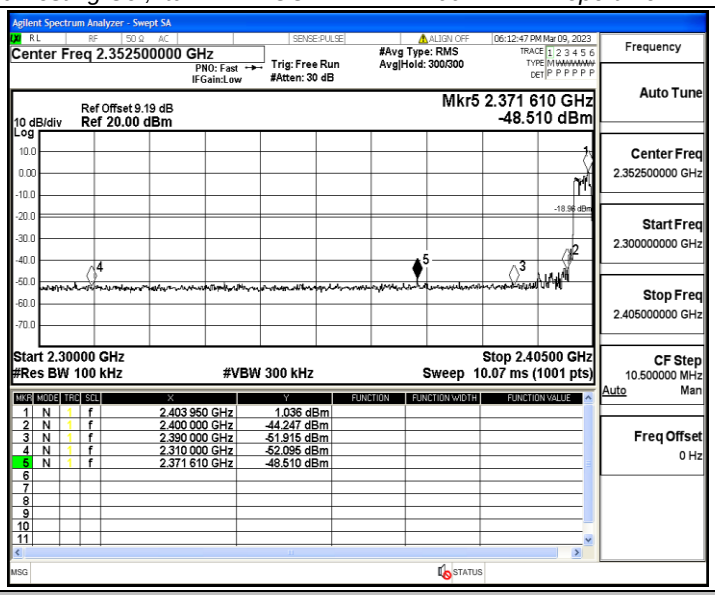
DH5_Ant1_High_Hop_2480



2DH5_Ant1_Low_2402



2DH5_Ant1_High_2480



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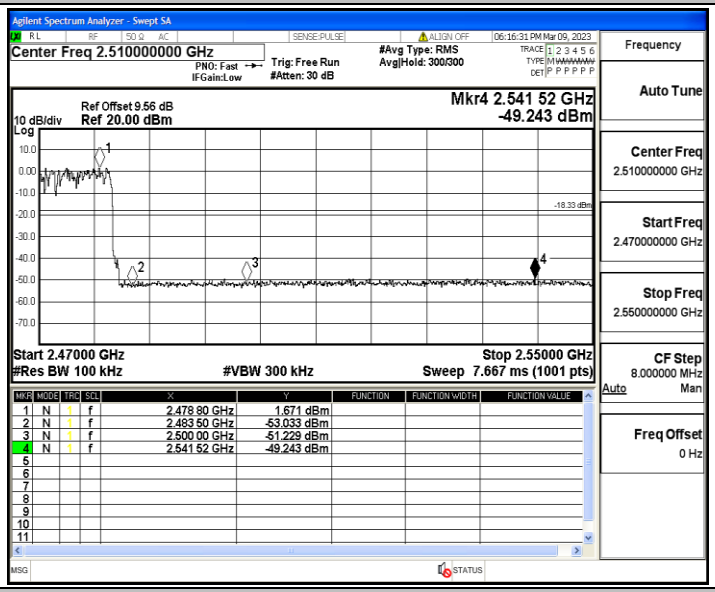
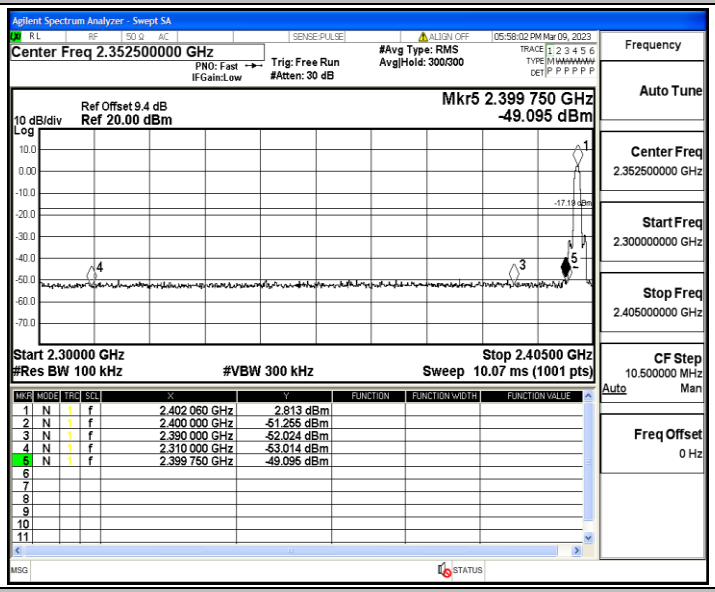
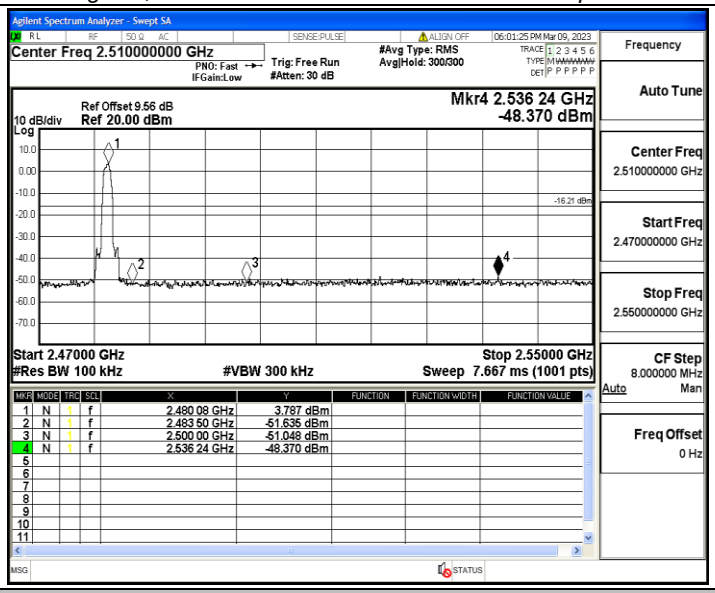


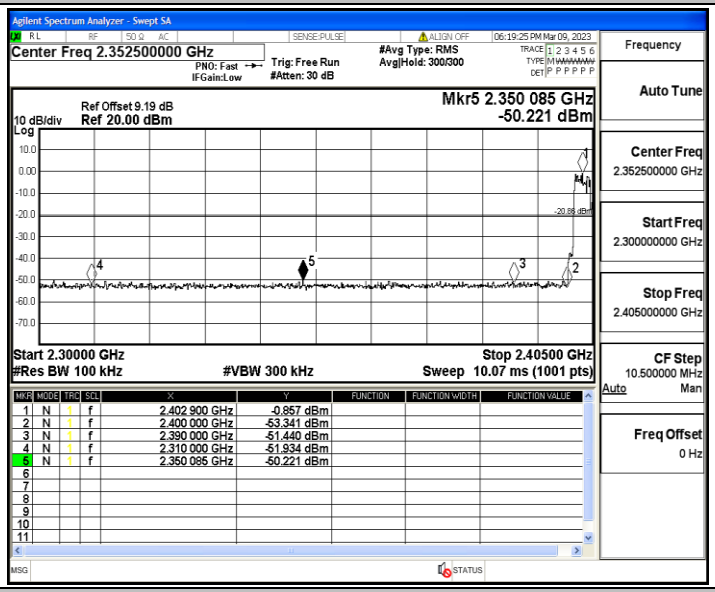
2DH5_Ant1_High_Hop_2480



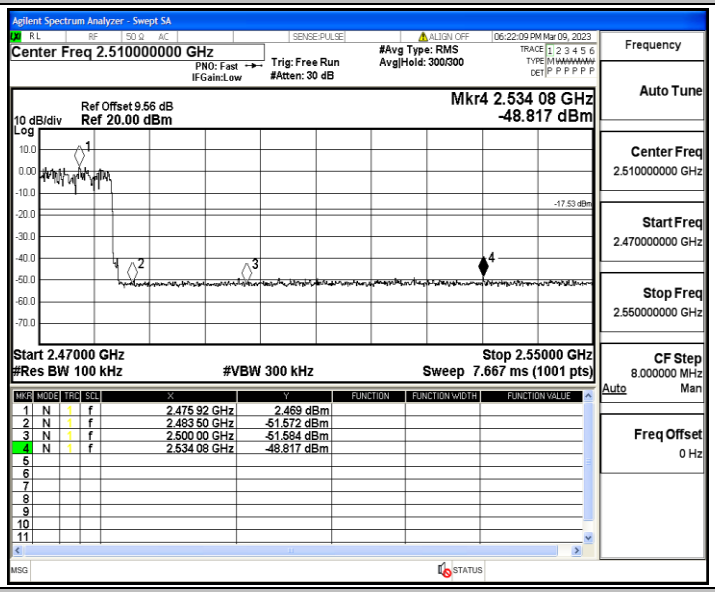
3DH5_Ant1_Low_2402



3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



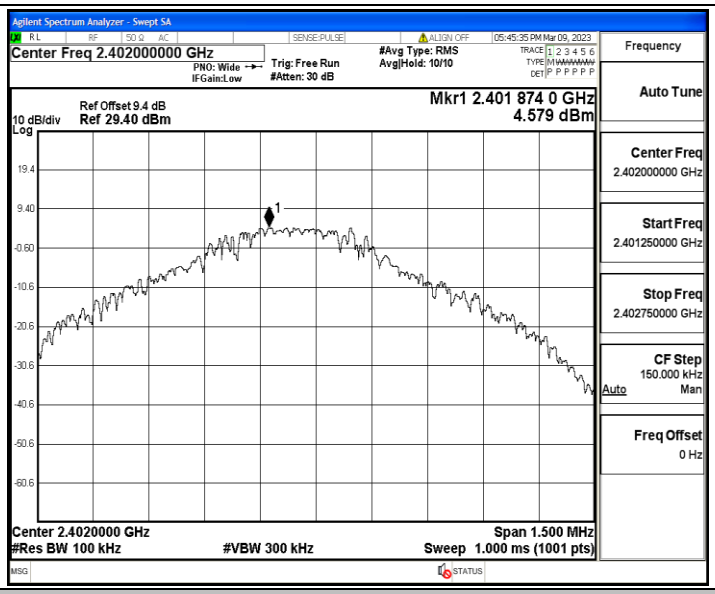
3DH5_Ant1_High_Hop_2480

Appendix H: Conducted Spurious Emission

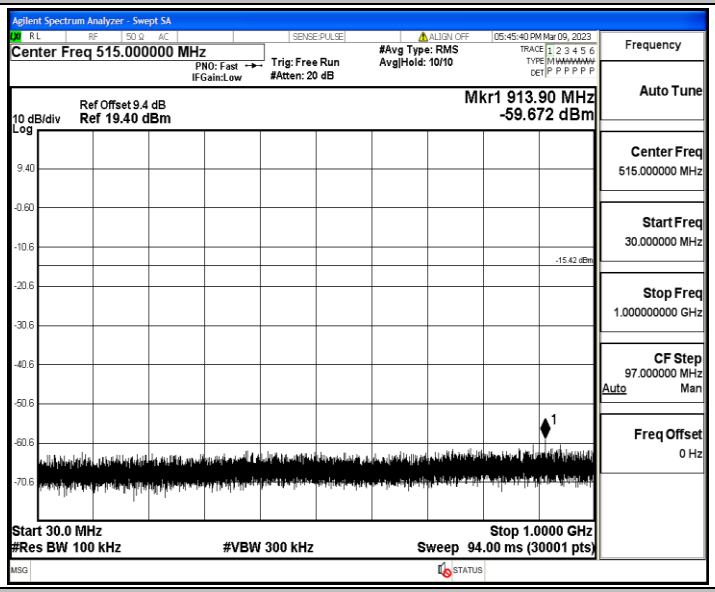
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	4.58	4.58	---	PASS
			30~1000	4.58	-59.67	≤-15.42	PASS
			1000~26500	4.58	-51	≤-15.42	PASS
		2441	Reference	6.00	6.00	---	PASS
			30~1000	6.00	-60.65	≤-14	PASS
			1000~26500	6.00	-50.97	≤-14	PASS
		2480	Reference	6.91	6.91	---	PASS
			30~1000	6.91	-61.43	≤-13.09	PASS
			1000~26500	6.91	-51.56	≤-13.09	PASS
2DH5	Ant1	2402	Reference	2.12	2.12	---	PASS
			30~1000	2.12	-61.35	≤-17.88	PASS
			1000~26500	2.12	-51.47	≤-17.88	PASS
		2441	Reference	0.98	0.98	---	PASS
			30~1000	0.98	-61.01	≤-19.02	PASS
			1000~26500	0.98	-51.01	≤-19.02	PASS
		2480	Reference	2.89	2.89	---	PASS
			30~1000	2.89	-61.3	≤-17.11	PASS
			1000~26500	2.89	-50.34	≤-17.11	PASS
3DH5	Ant1	2402	Reference	0.92	0.92	---	PASS
			30~1000	0.92	-61.15	≤-19.08	PASS
			1000~26500	0.92	-50.03	≤-19.08	PASS
		2441	Reference	0.59	0.59	---	PASS
			30~1000	0.59	-61.32	≤-19.41	PASS
			1000~26500	0.59	-50.76	≤-19.41	PASS
		2480	Reference	1.98	1.98	---	PASS
			30~1000	1.98	-61.01	≤-18.02	PASS
			1000~26500	1.98	-51.25	≤-18.02	PASS

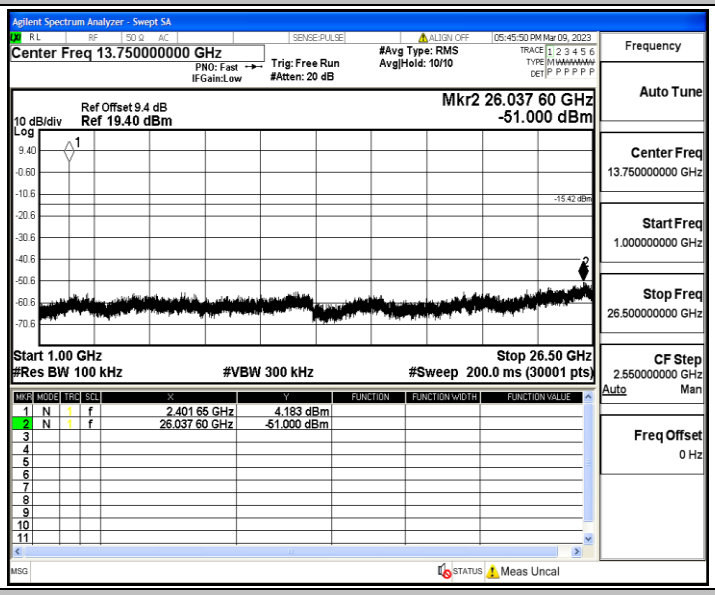
Test Graphs



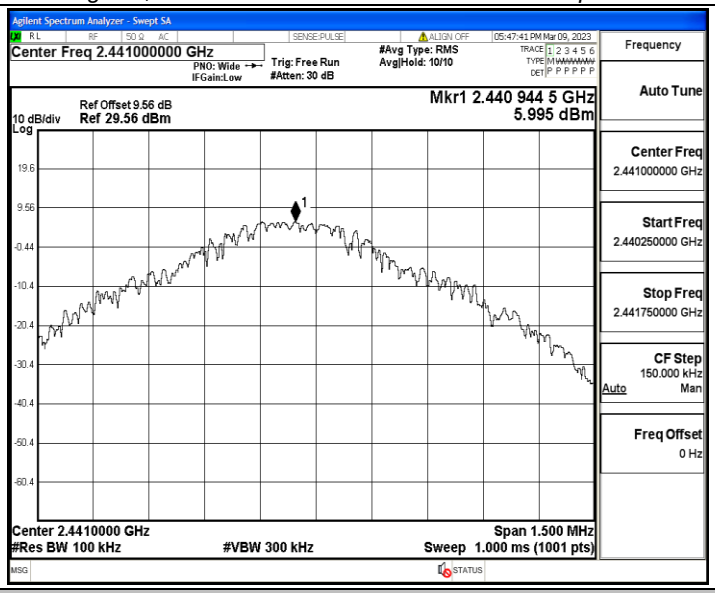
DH5_Ant1_2402_0~Reference



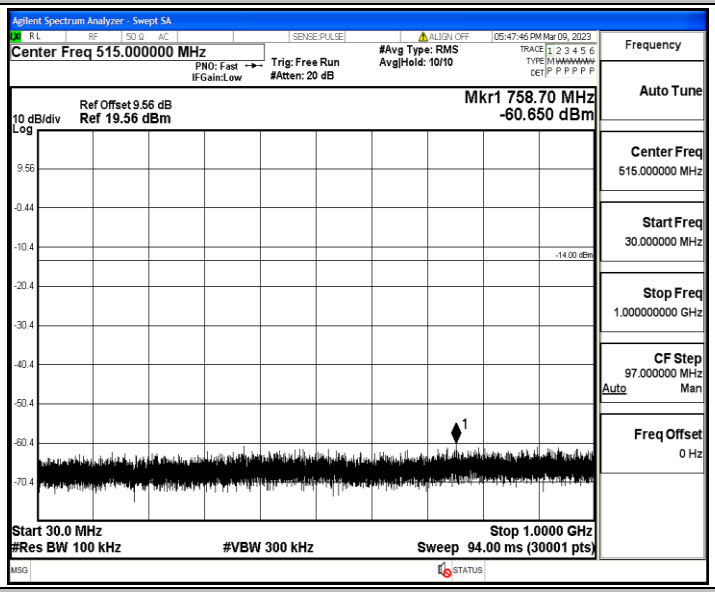
DH5_Ant1_2402_30~1000



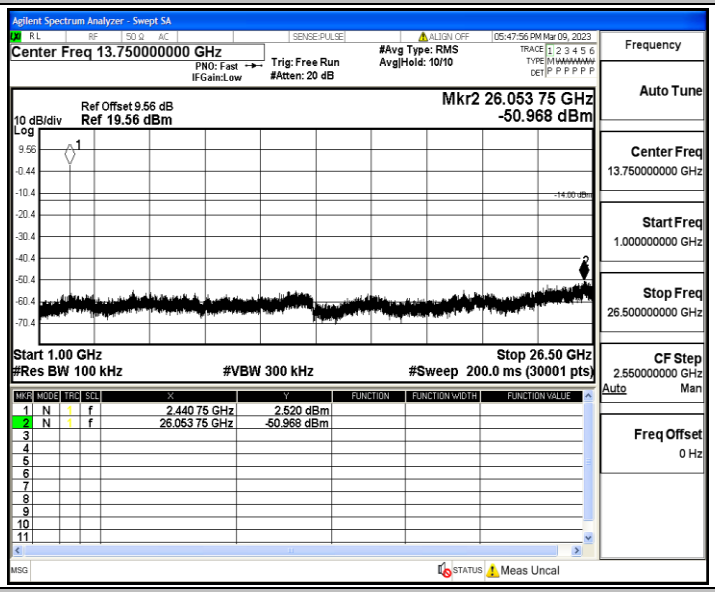
DH5_Ant1_2402_1000~26500



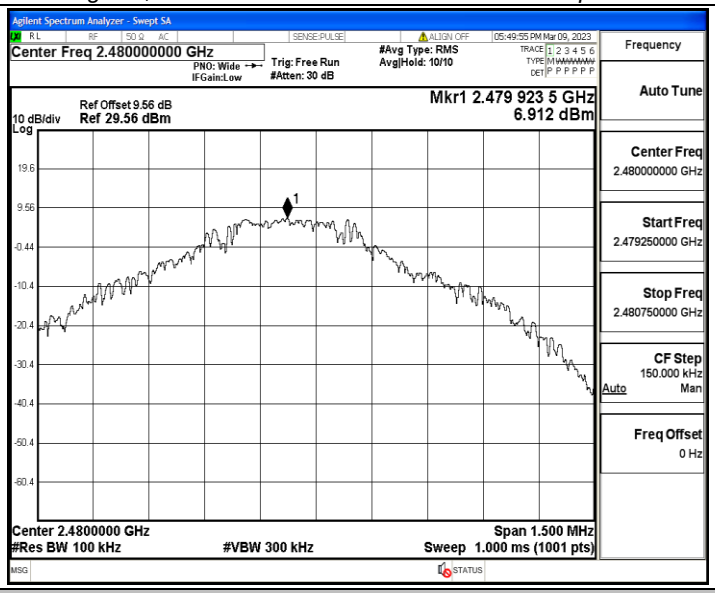
DH5_Ant1_2441_0~Reference



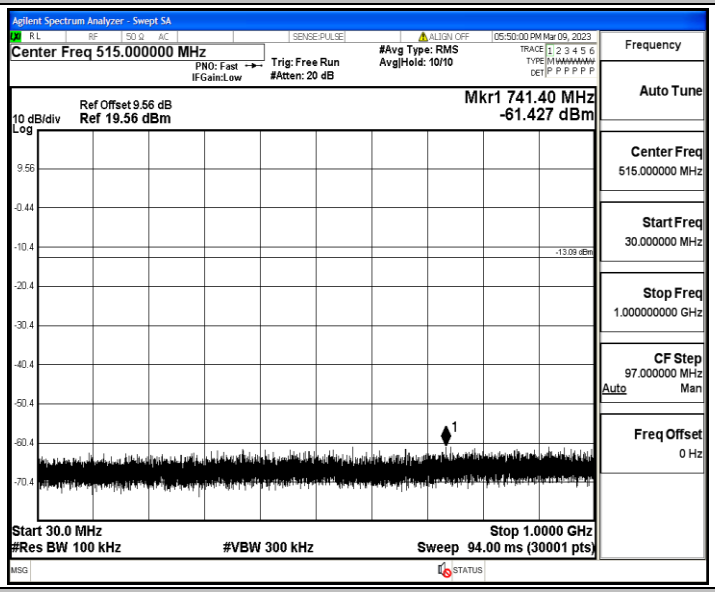
DH5_Ant1_2441_30~1000



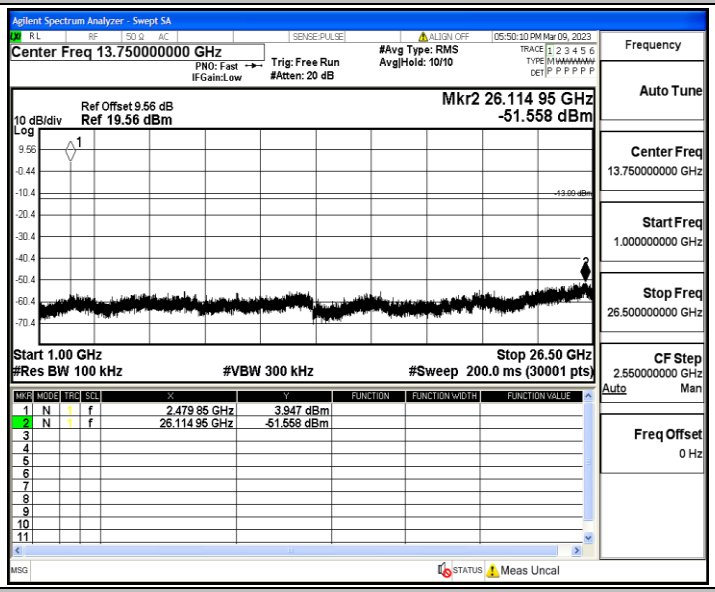
DH5_Ant1_2441_1000~26500



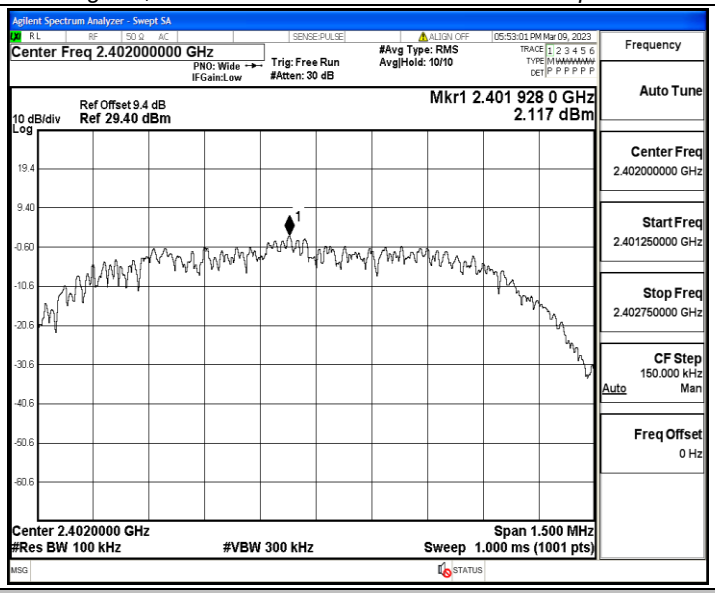
DH5_Ant1_2480_0~Reference



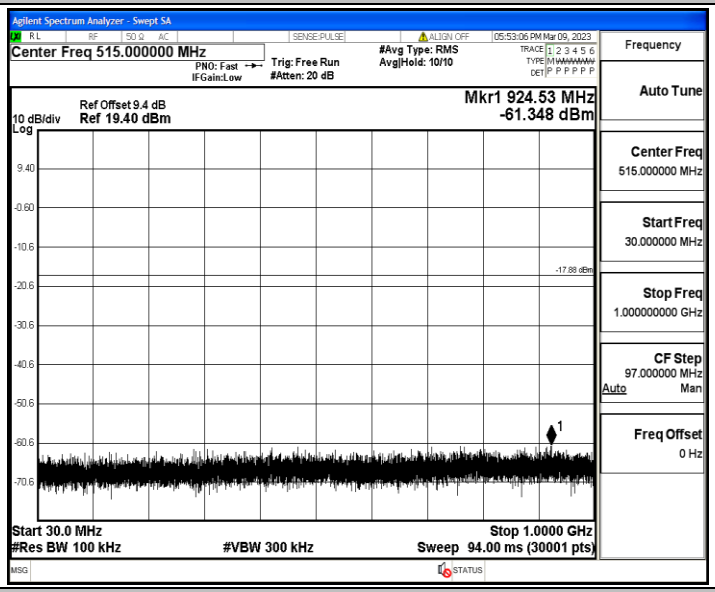
DH5_Ant1_2480_30~1000



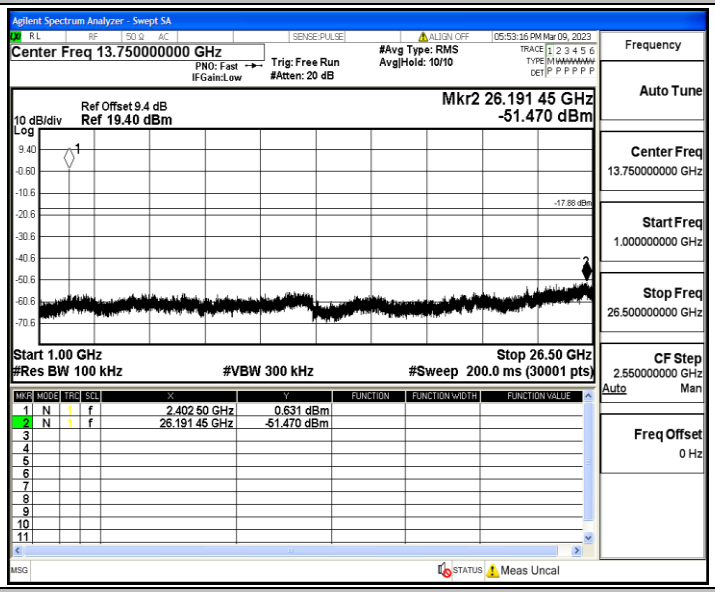
DH5_Ant1_2480_1000~26500



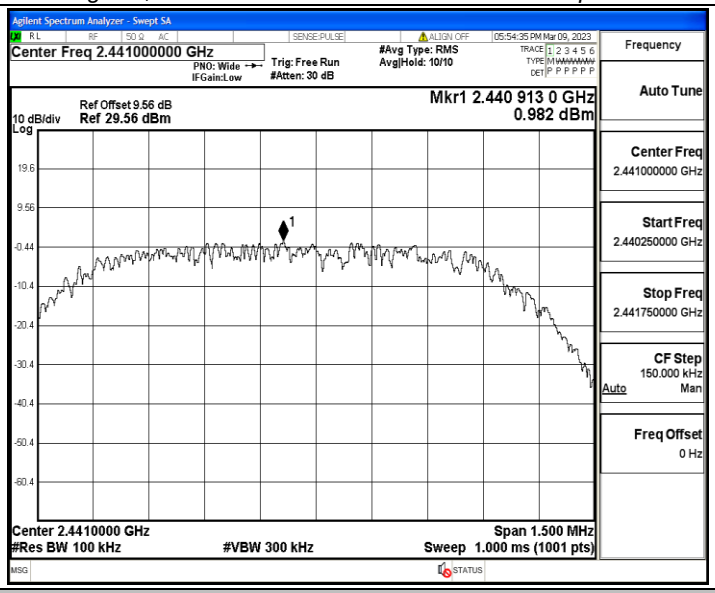
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



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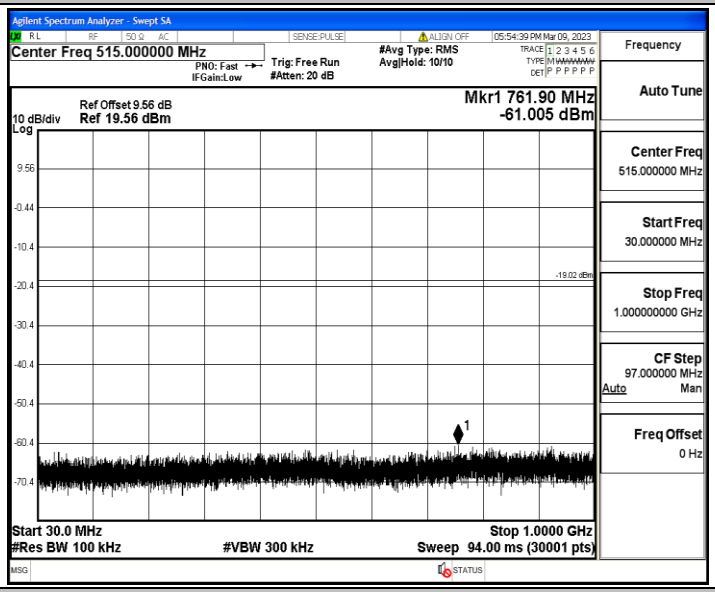
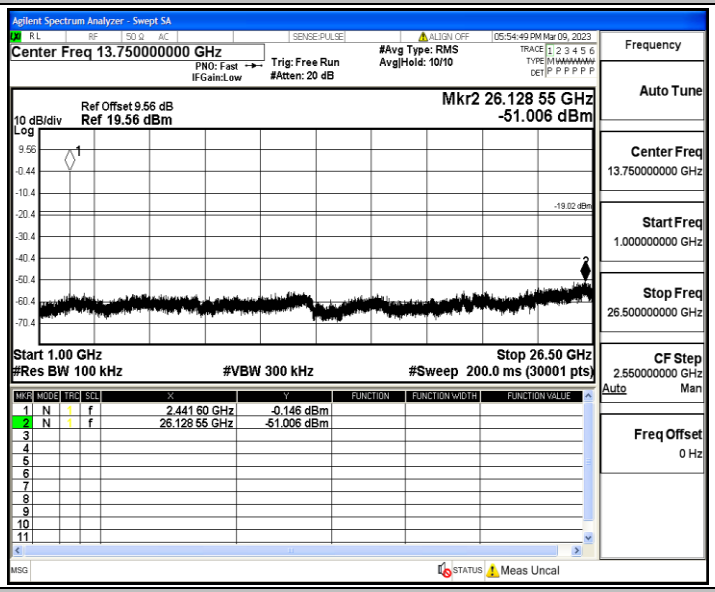
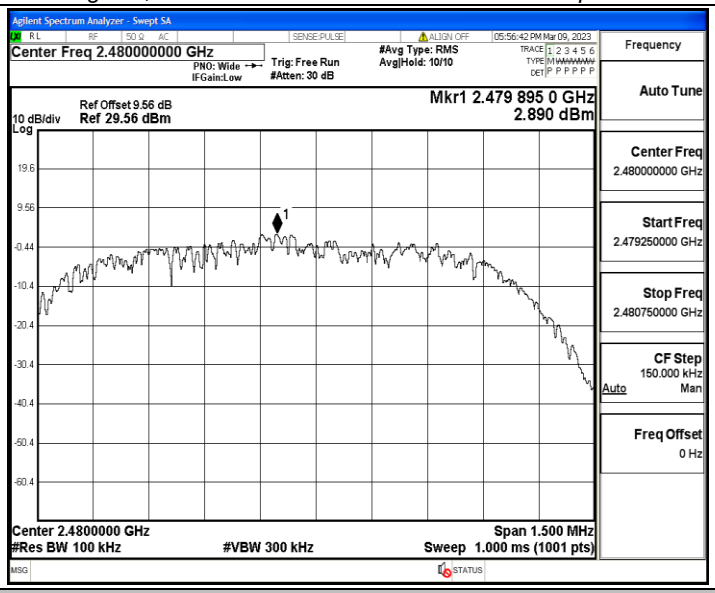


2DH5_Ant1_2441_30~1000



2DH5_Ant1_2441_1000~26500



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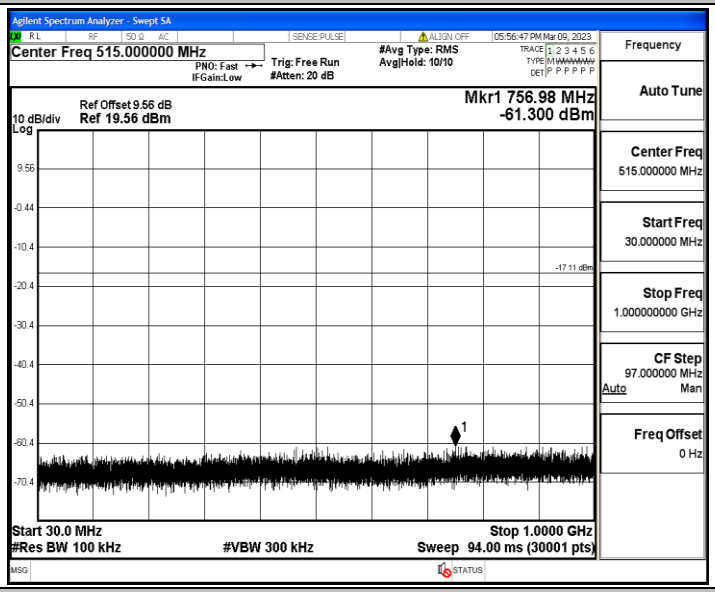
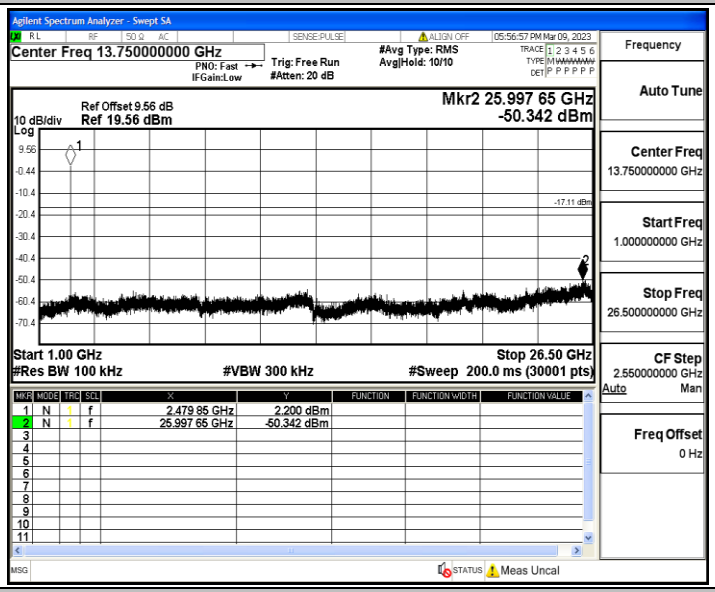
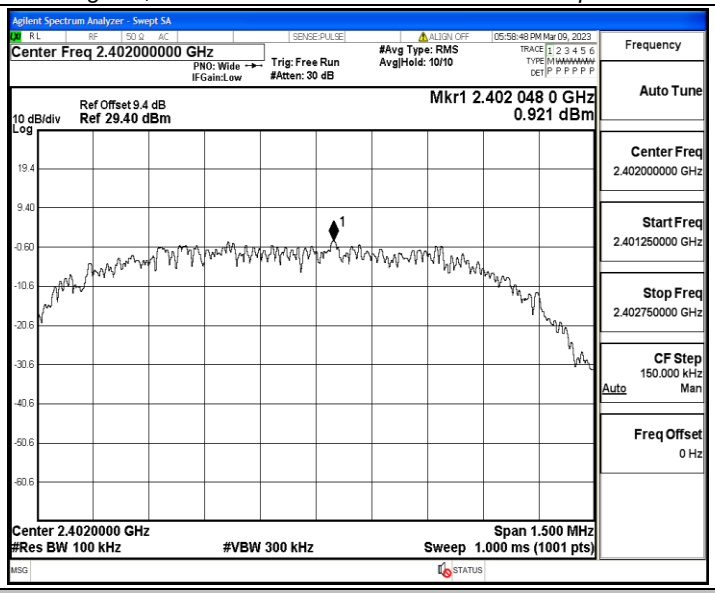


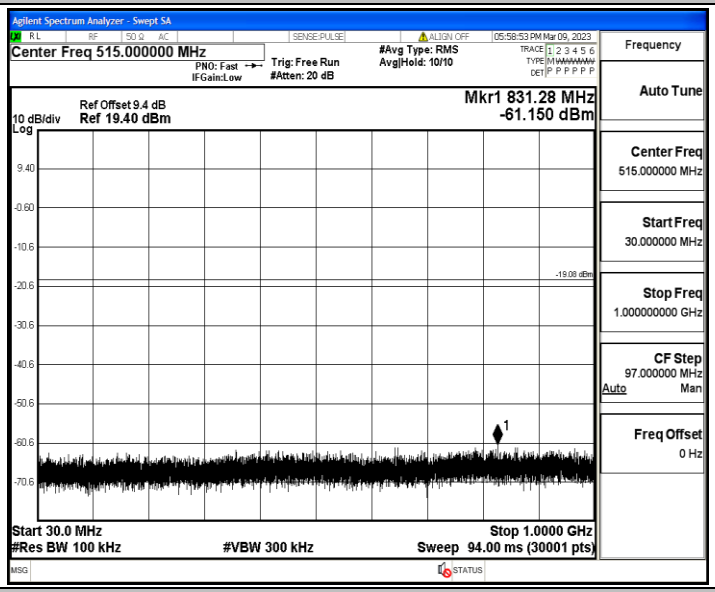
2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference



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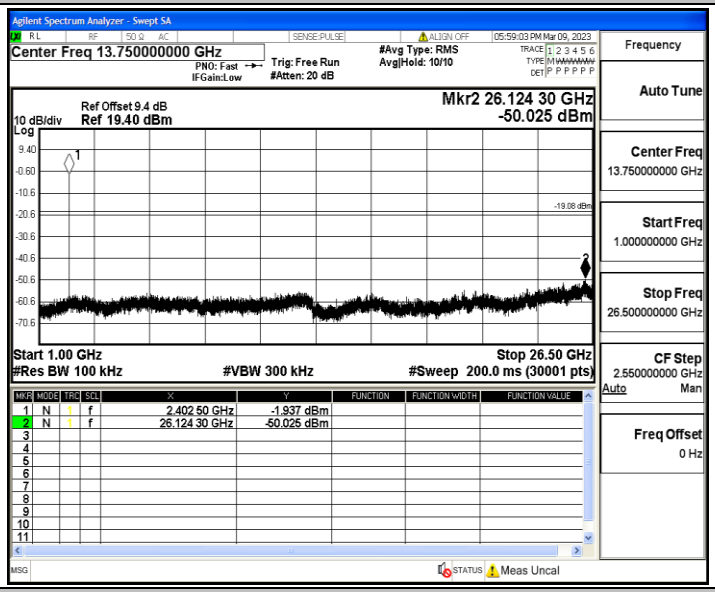
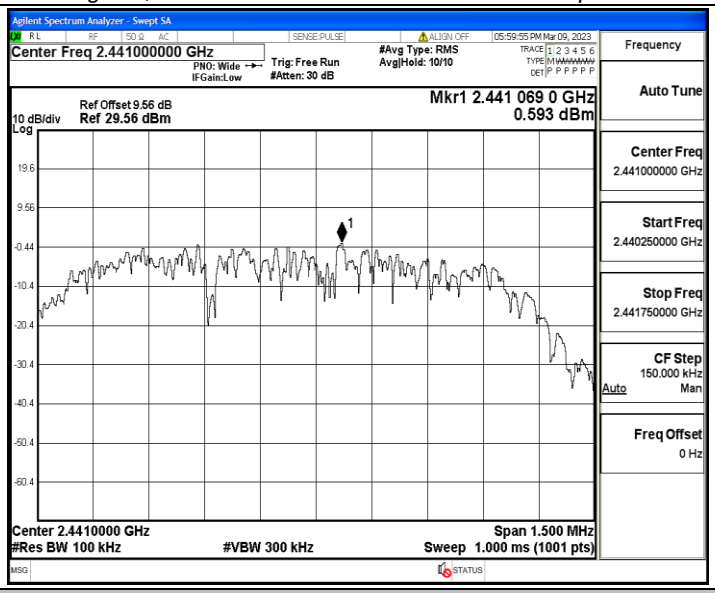
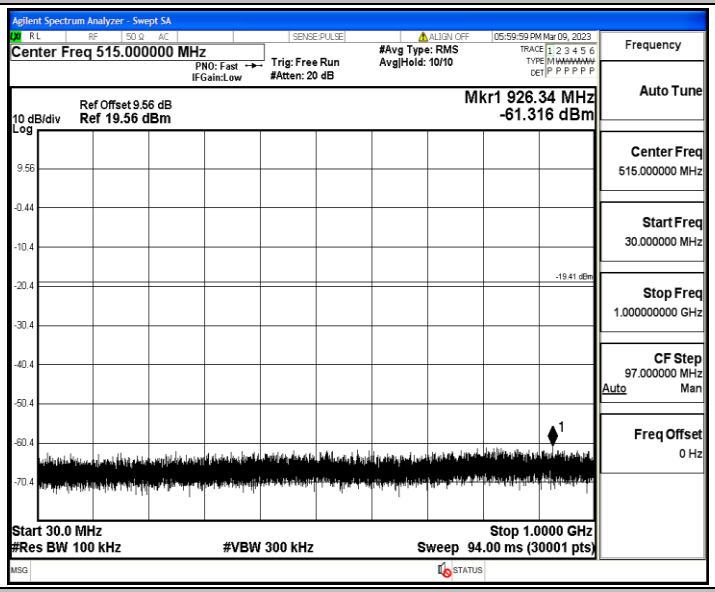


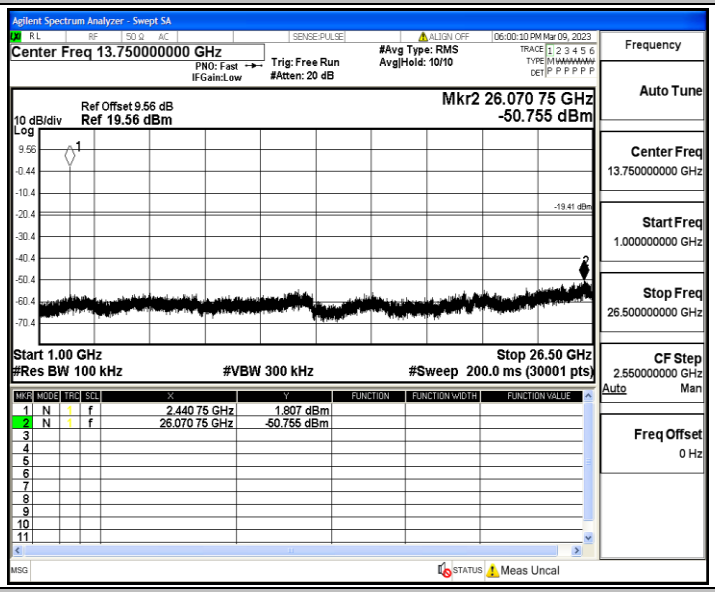
3DH5_Ant1_2402_1000~26500



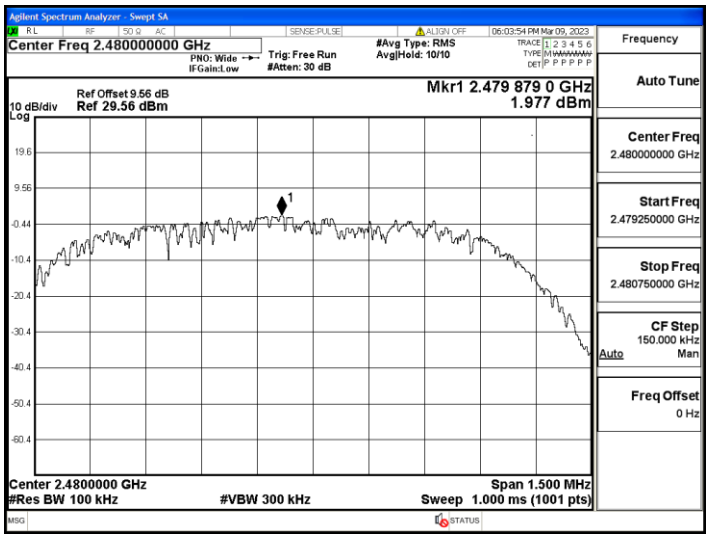
3DH5_Ant1_2441_0~Reference



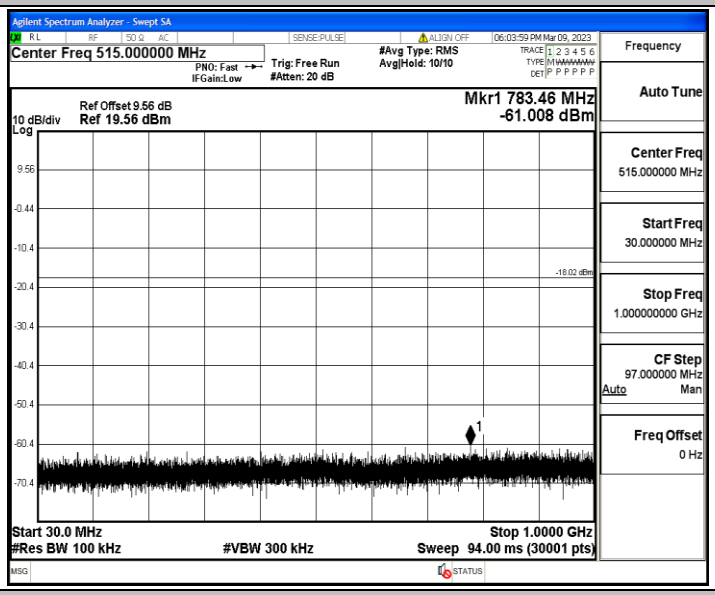
3DH5_Ant1_2441_30~1000



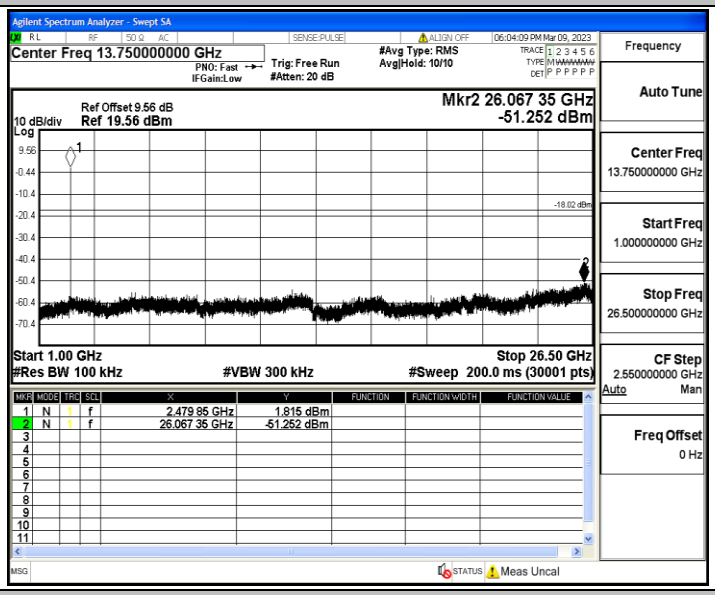
3DH5_Ant1_2441_1000~26500



3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



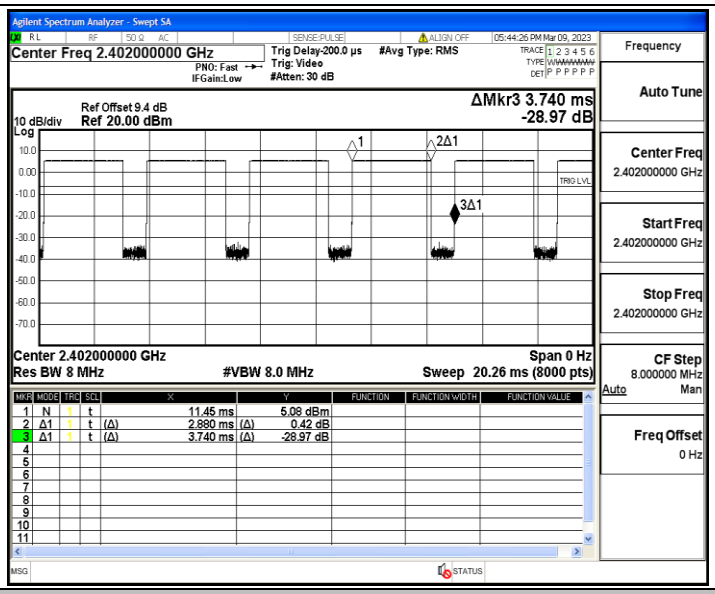
3DH5_Ant1_2480_1000~26500

Appendix I: Duty Cycle

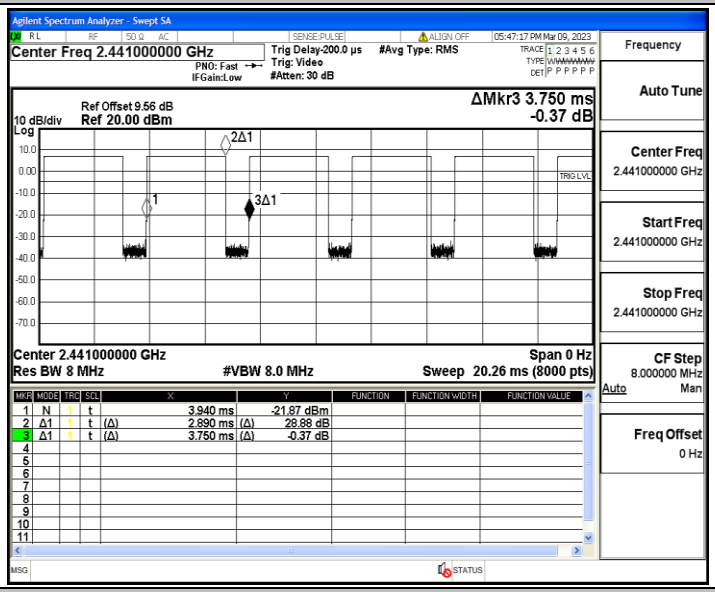
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
DH5	Ant1	2402	2.88	3.74	77.01	0.35
		2441	2.89	3.75	77.07	0.35
		2480	2.88	3.75	76.80	0.35
2DH5	Ant1	2402	2.89	3.75	77.07	0.35
		2441	2.89	3.75	77.07	0.35
		2480	2.89	3.75	77.07	0.35
3DH5	Ant1	2402	2.89	3.75	77.07	0.35
		2441	2.89	3.75	77.07	0.35
		2480	2.89	3.75	77.07	0.35

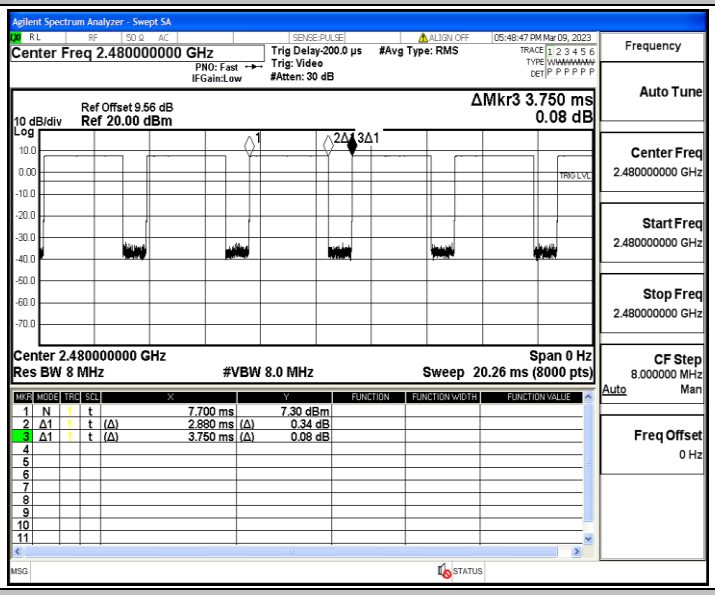
Test Graphs



DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480