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

Product Name: Car Multimedia system

Trade Mark: XTRONS

Test Model: CM116A

FCC ID: 2A66W-CM116A

Environmental Conditions

Temperature:	23.8℃
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
Supervised by:	Hugo Chen

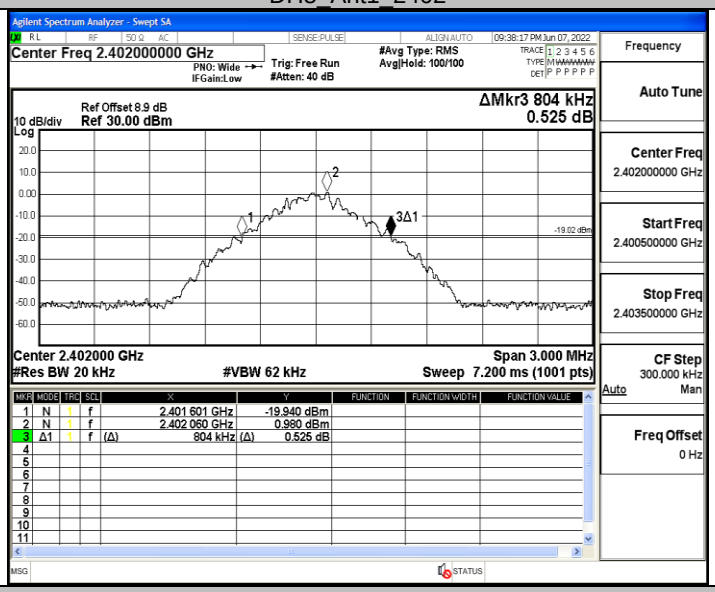
Appendix A: 20dB Emission Bandwidth

Test Result

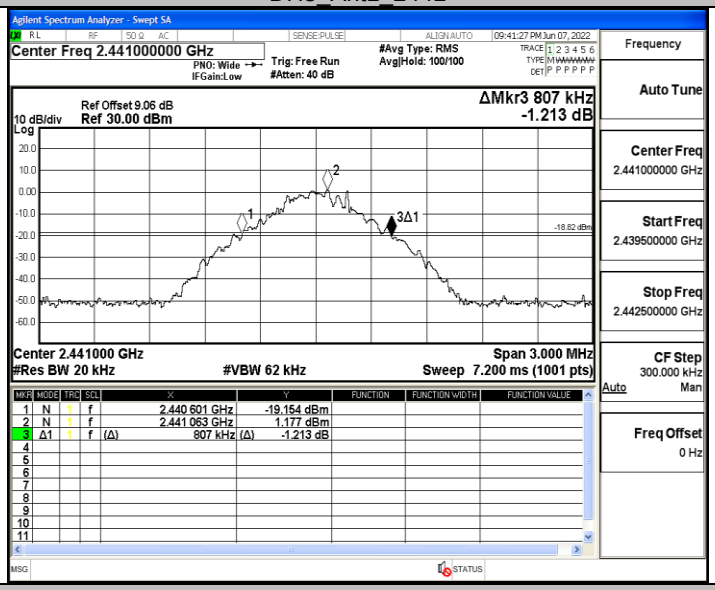
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.804	2401.601	2402.405	---	---
		2441	0.807	2440.601	2441.408	---	---
		2480	0.804	2479.604	2480.408	---	---
2DH5	Ant1	2402	1.317	2401.343	2402.660	---	---
		2441	1.212	2440.400	2441.612	---	---
		2480	1.281	2479.370	2480.651	---	---
3DH5	Ant1	2402	1.260	2401.361	2402.621	---	---
		2441	1.248	2440.370	2441.618	---	---
		2480	1.254	2479.367	2480.621	---	---

Test Graphs

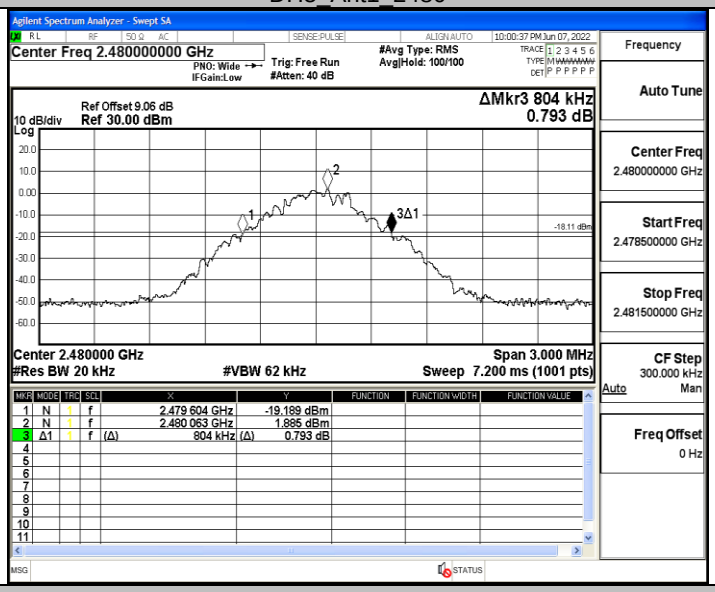
DH5_Ant1_2402



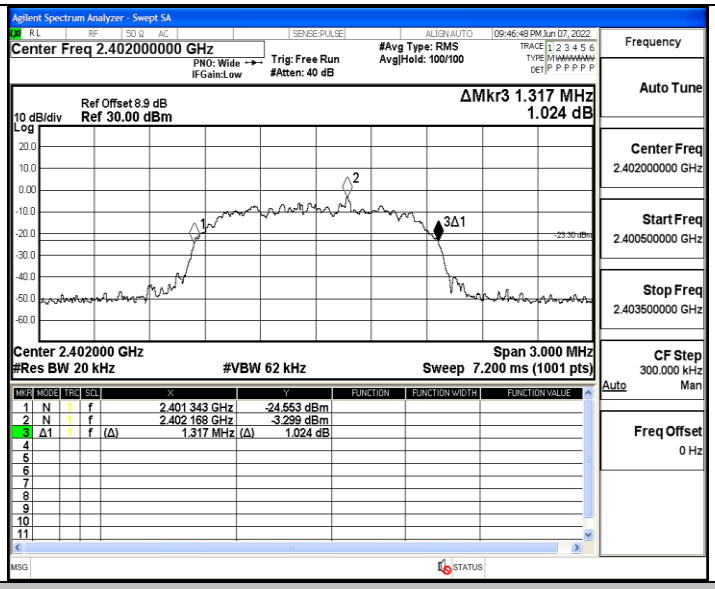
DH5_Ant1_2441



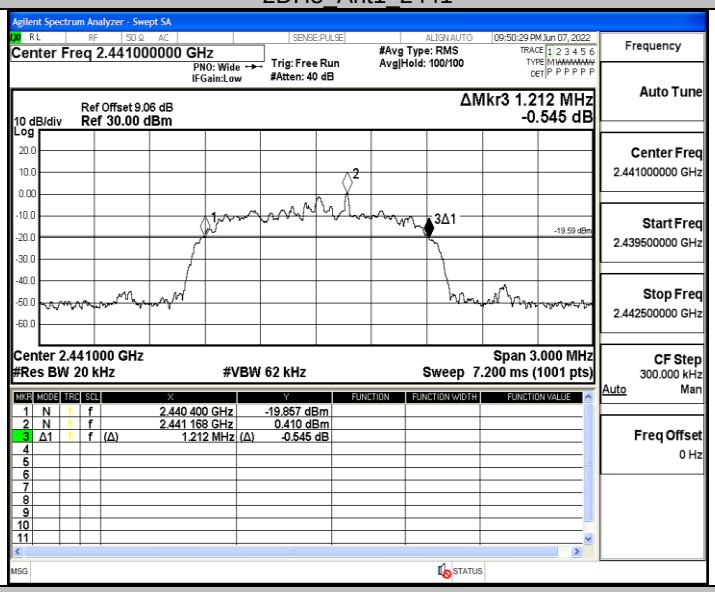
DH5_Ant1_2480



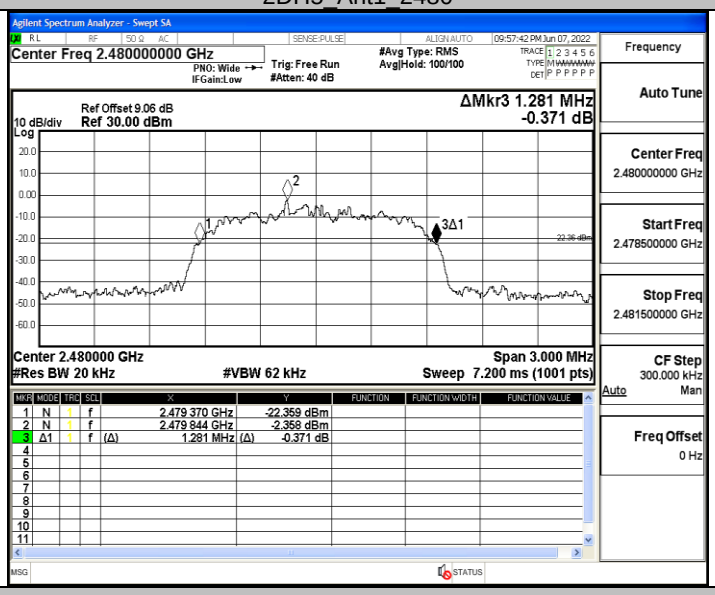
2DH5_Ant1_2402



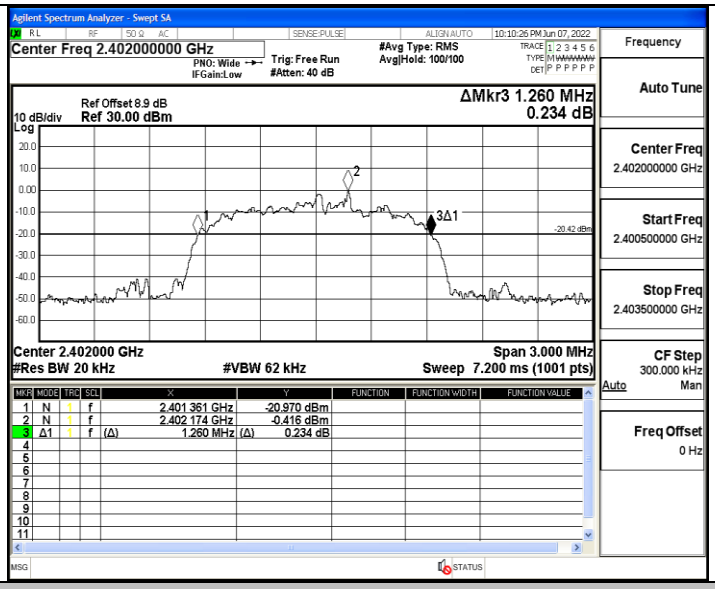
2DH5_Ant1_2441



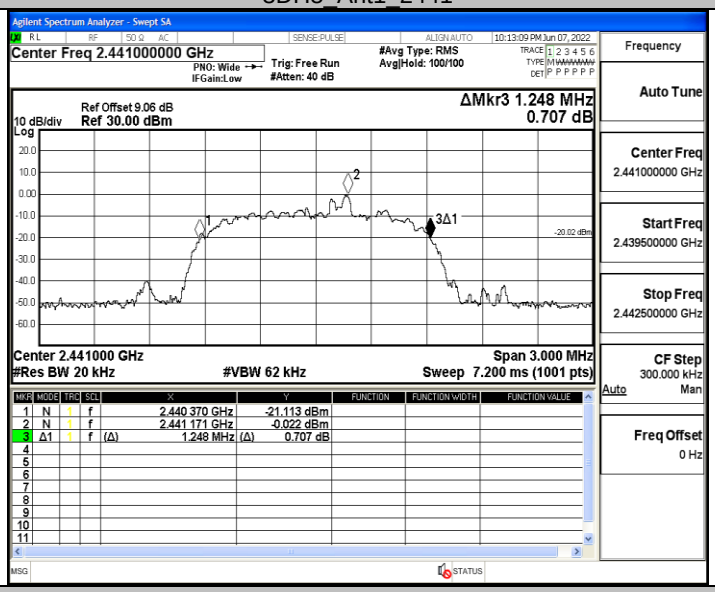
2DH5_Ant1_2480



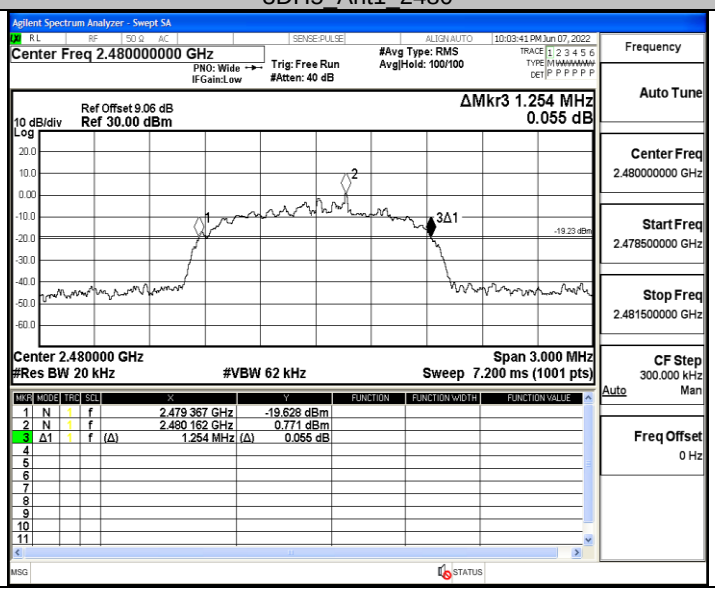
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



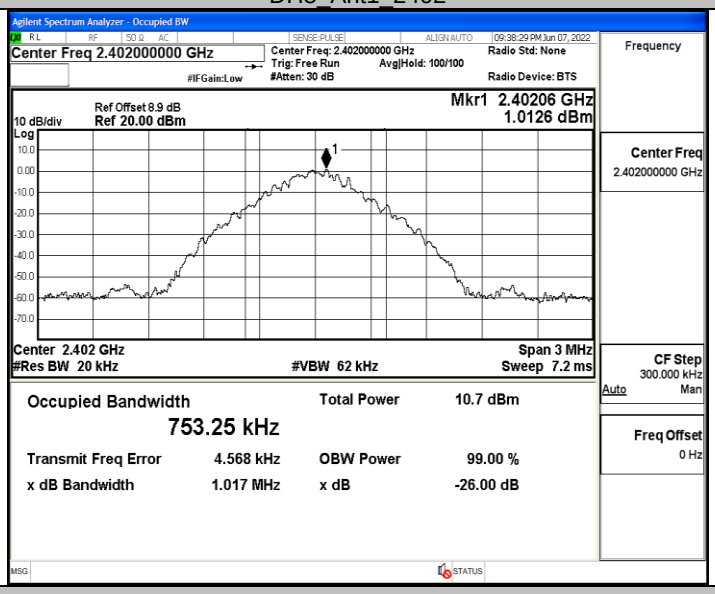
Appendix B: Occupied Channel Bandwidth

Test Result

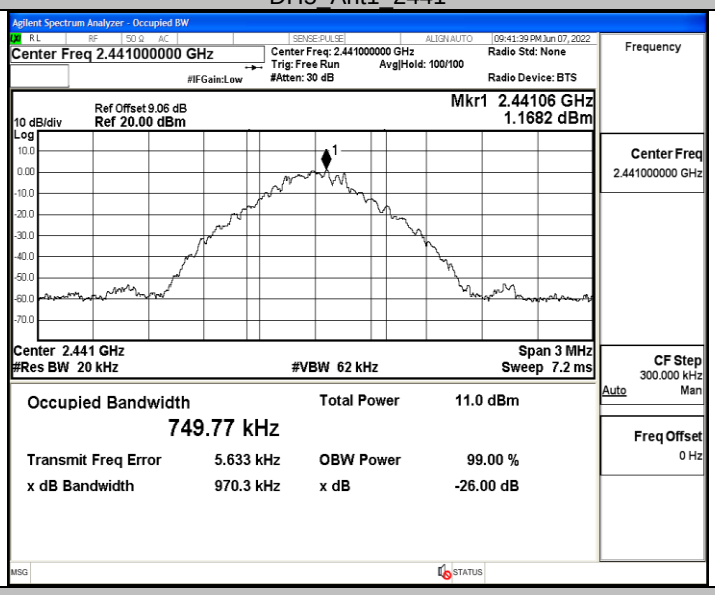
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.75325	2401.628	2402.381	---	---
		2441	0.74977	2440.631	2441.381	---	---
		2480	0.76806	2479.623	2480.391	---	---
2DH5	Ant1	2402	1.1670	2401.417	2402.584	---	---
		2441	1.1563	2440.421	2441.577	---	---
		2480	1.1659	2479.420	2480.586	---	---
3DH5	Ant1	2402	1.1635	2401.418	2402.582	---	---
		2441	1.1781	2440.411	2441.589	---	---
		2480	1.1769	2479.415	2480.592	---	---

Test Graphs

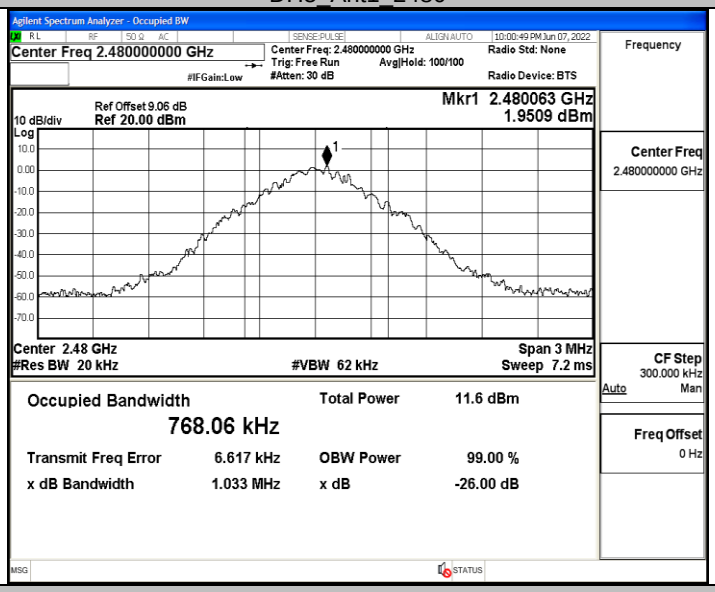
DH5_Ant1_2402



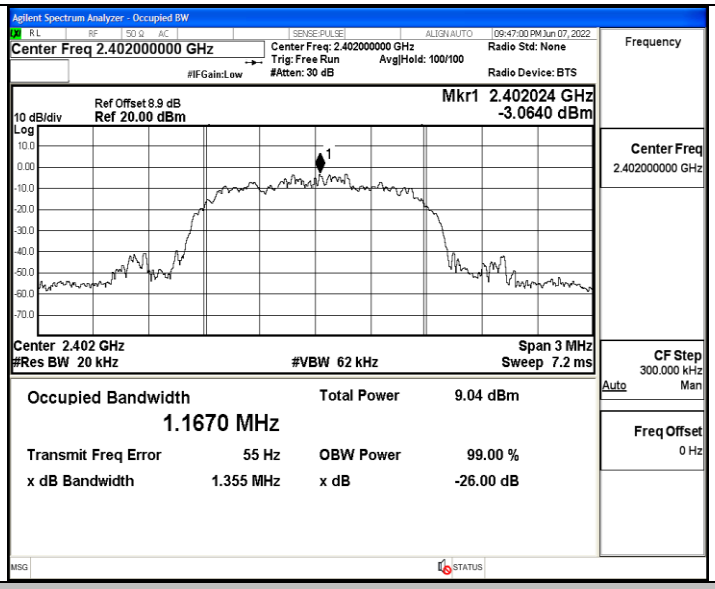
DH5_Ant1_2441



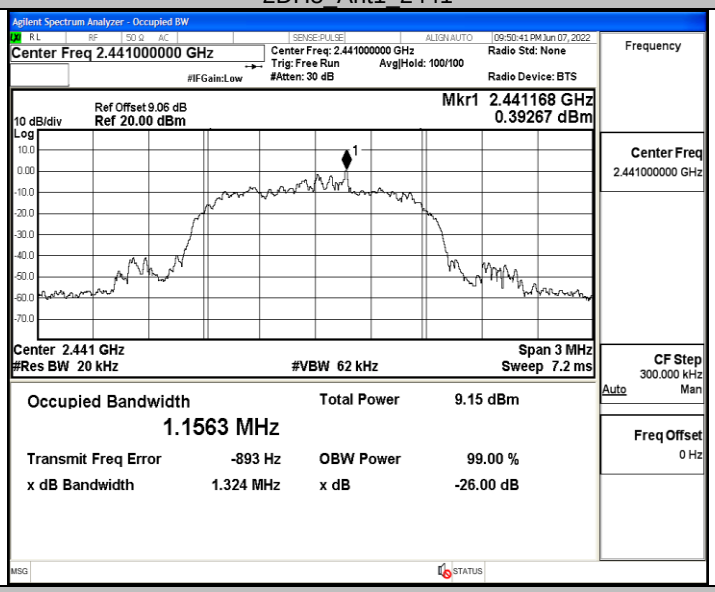
DH5_Ant1_2480



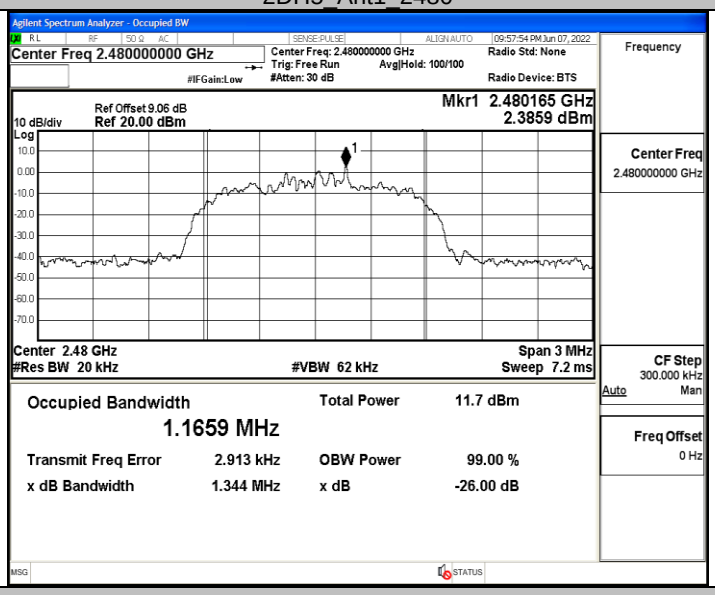
2DH5_Ant1_2402



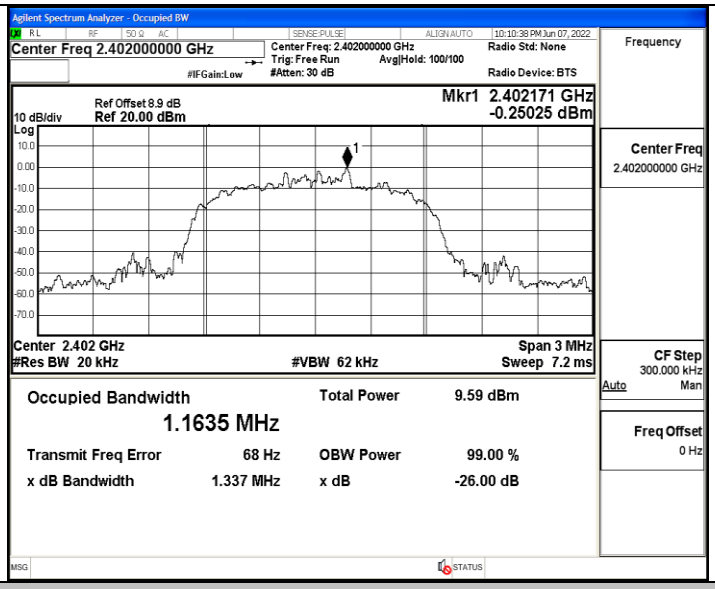
2DH5_Ant1_2441



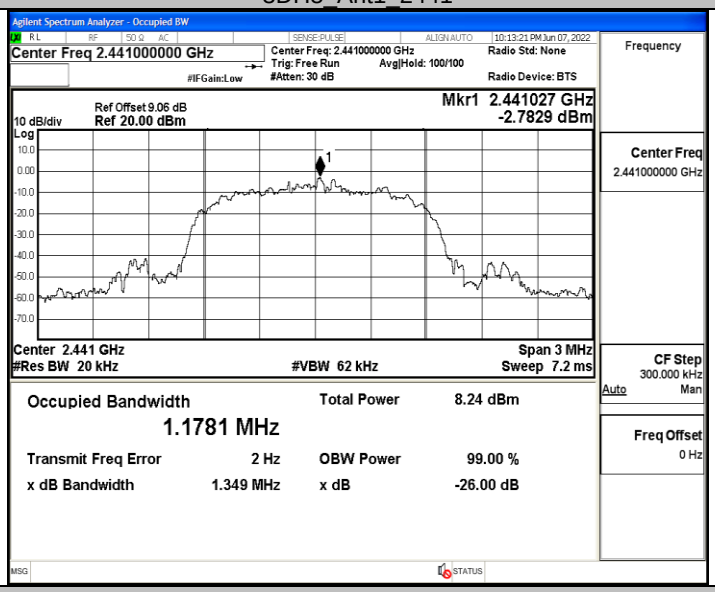
2DH5_Ant1_2480



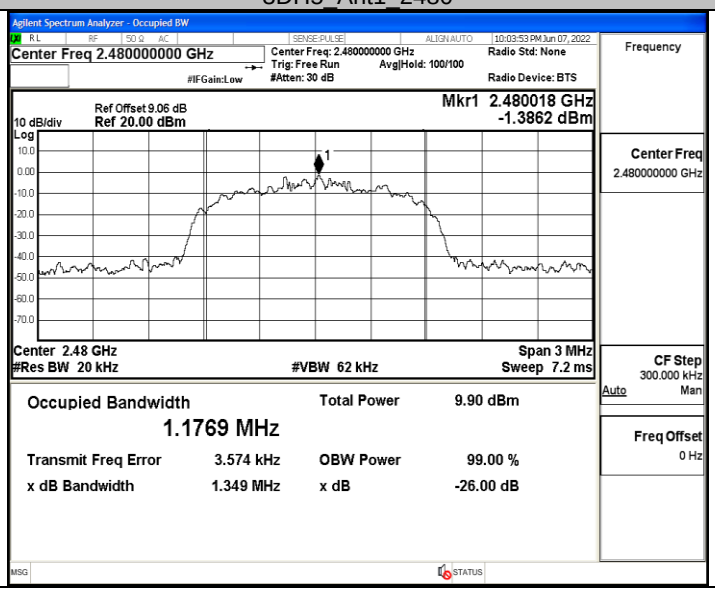
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



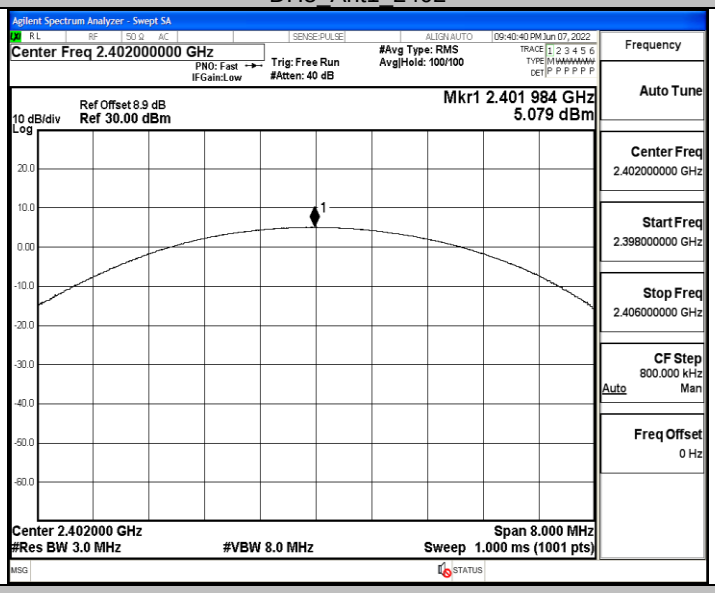
Appendix C: Maximum conducted output power

Test Result

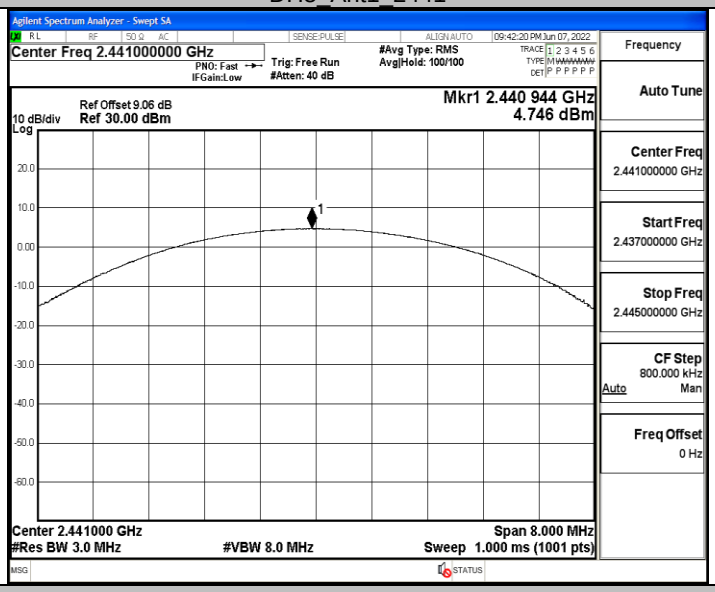
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	5.08	≤30.0	PASS
		2441	4.75	≤30.0	PASS
		2480	5.68	≤30.0	PASS
2DH5	Ant1	2402	4.01	≤20.97	PASS
		2441	4.03	≤20.97	PASS
		2480	4.99	≤20.97	PASS
3DH5	Ant1	2402	4.53	≤20.97	PASS
		2441	4.12	≤20.97	PASS
		2480	4.96	≤20.97	PASS

Test Graphs

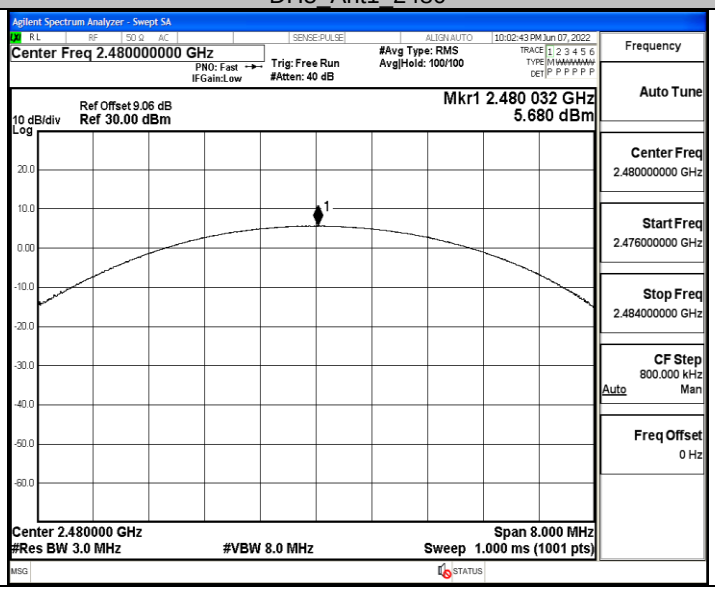
DH5_Ant1_2402



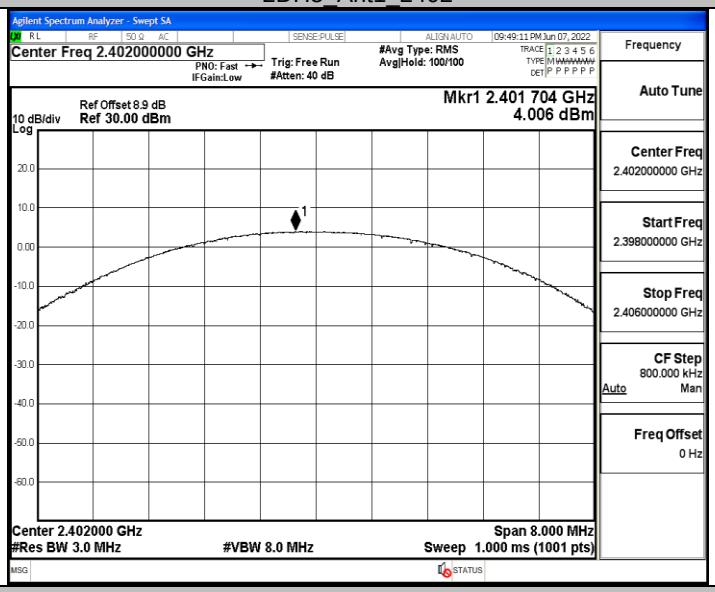
DH5_Ant1_2441



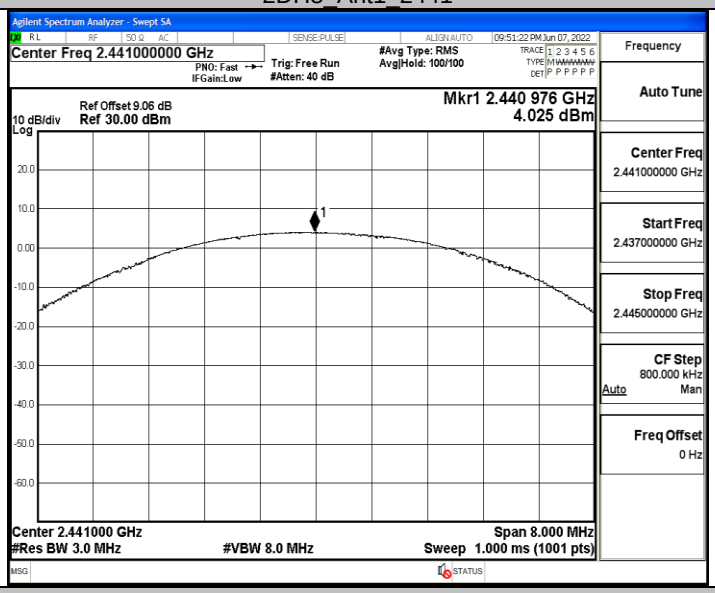
DH5_Ant1_2480



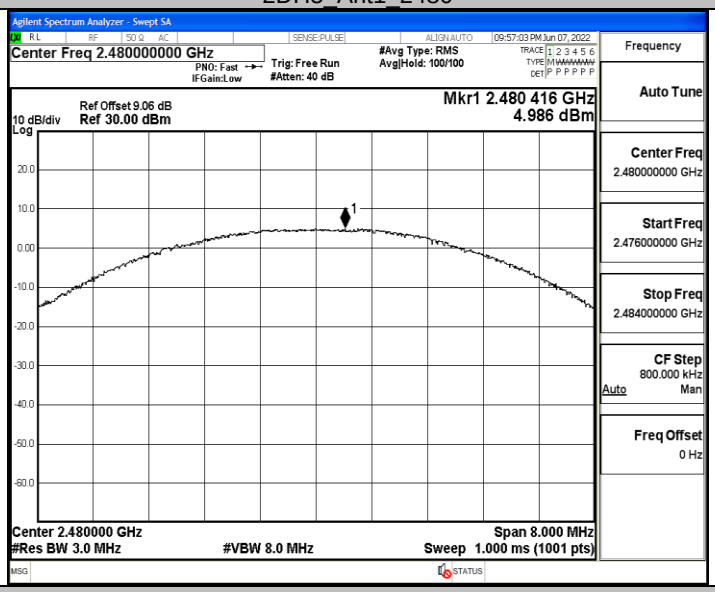
2DH5_Ant1_2402



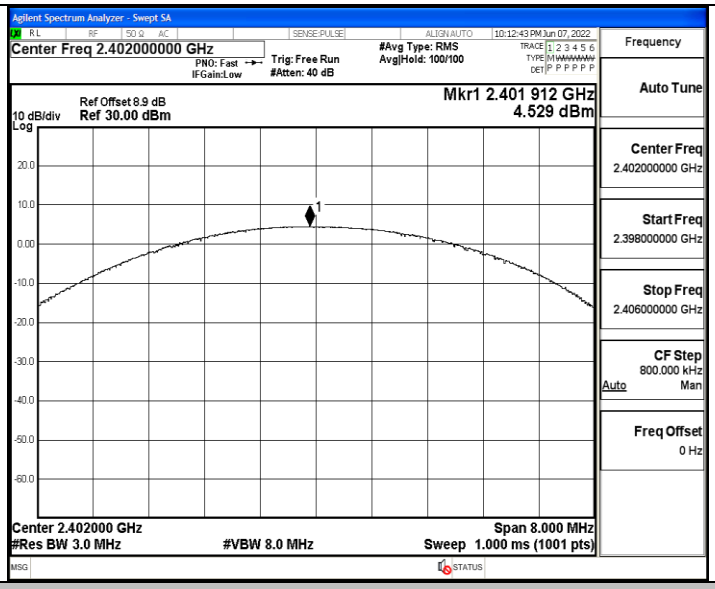
2DH5_Ant1_2441



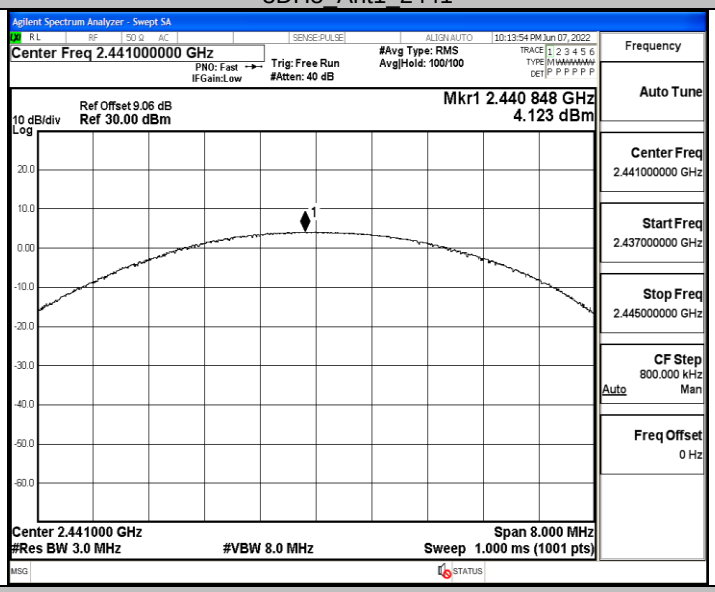
2DH5_Ant1_2480



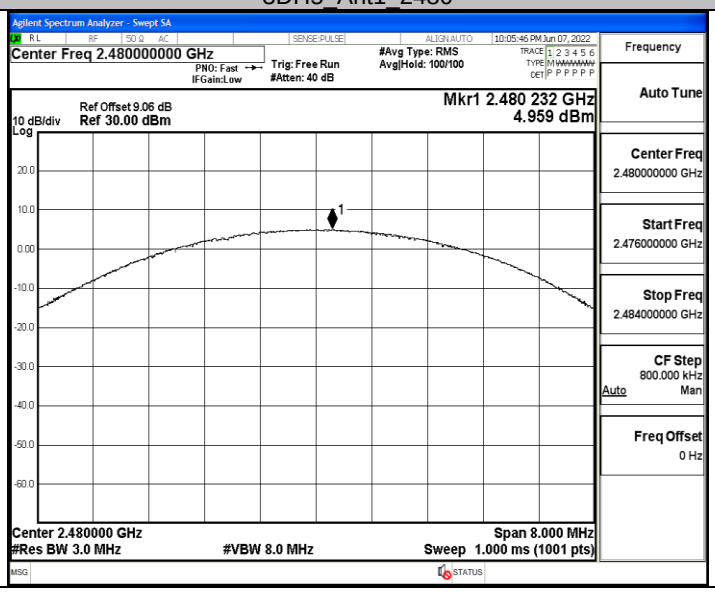
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



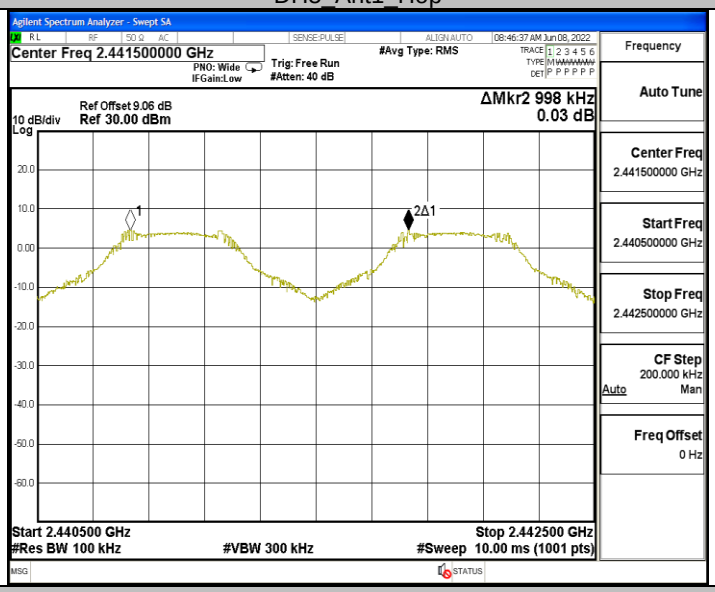
Appendix D: Carrier frequency separation

Test Result

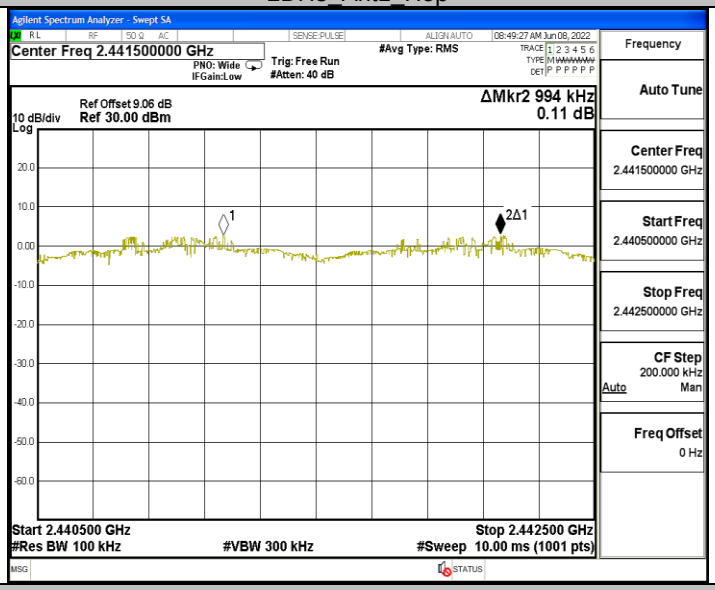
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.998	≥0.807	PASS
2DH5	Ant1	Hop	0.994	≥0.878	PASS
3DH5	Ant1	Hop	1.016	≥0.840	PASS

Test Graphs

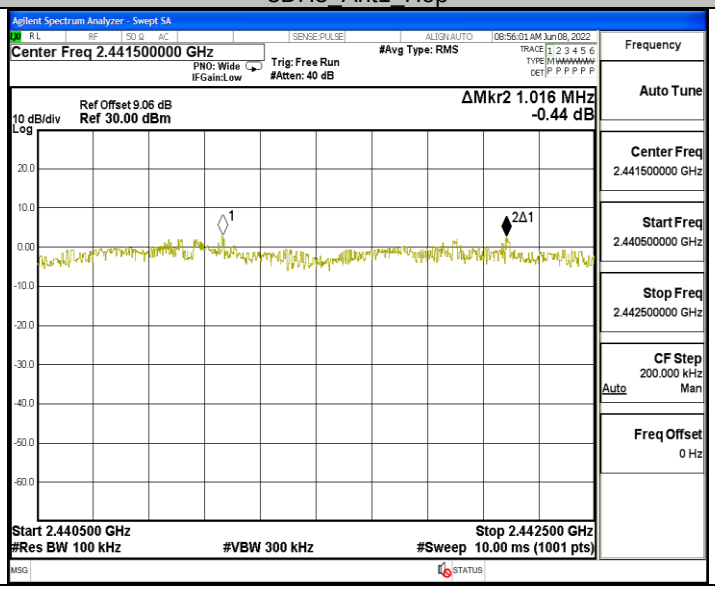
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



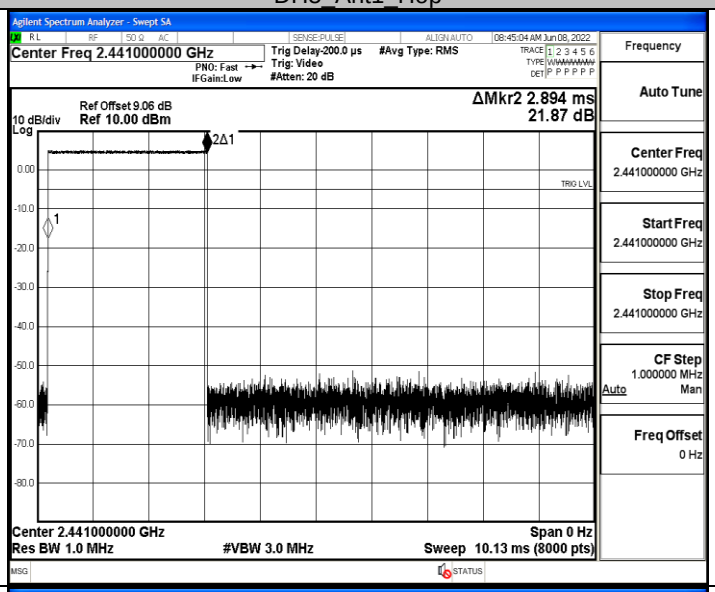
Appendix E: Time of occupancy

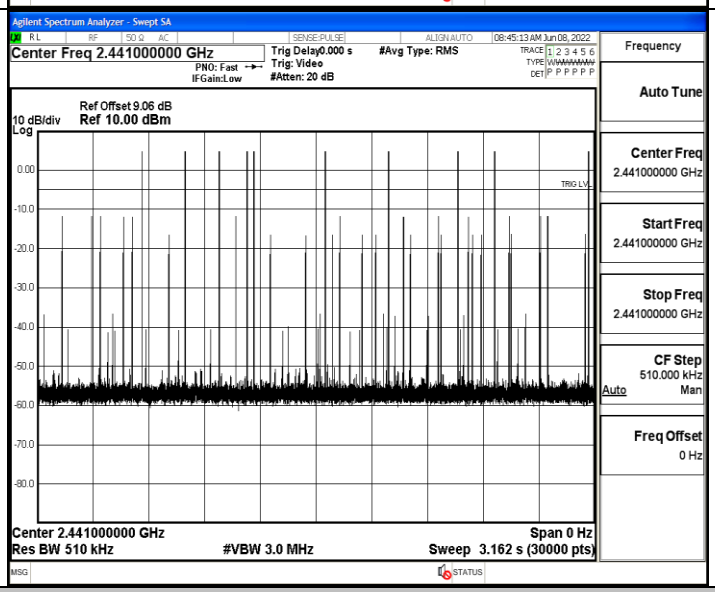
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.89	110	0.318	≤0.4	PASS
2DH5	Ant1	Hop	2.88	120	0.346	≤0.4	PASS
3DH5	Ant1	Hop	2.88	130	0.375	≤0.4	PASS

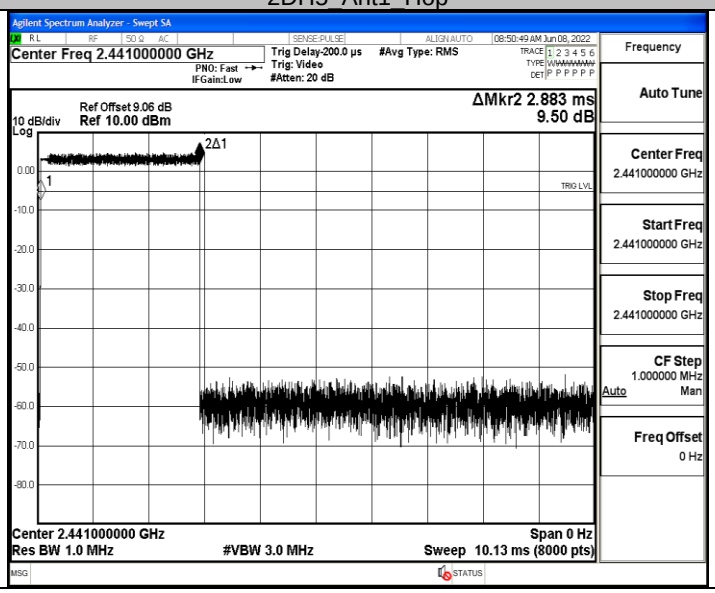
Test Graphs

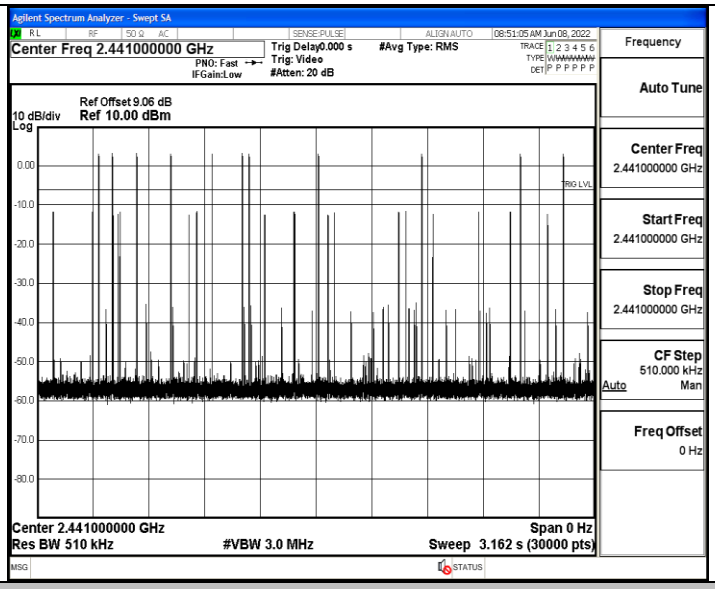
DH5_Ant1_Hop



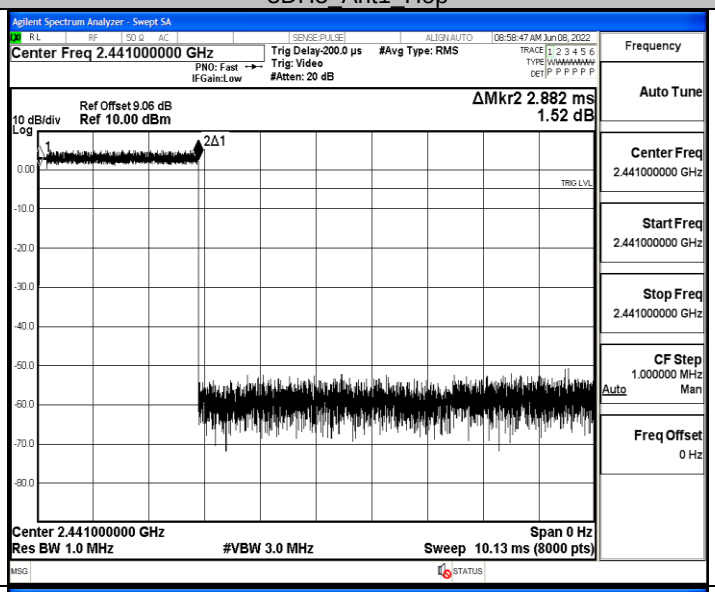


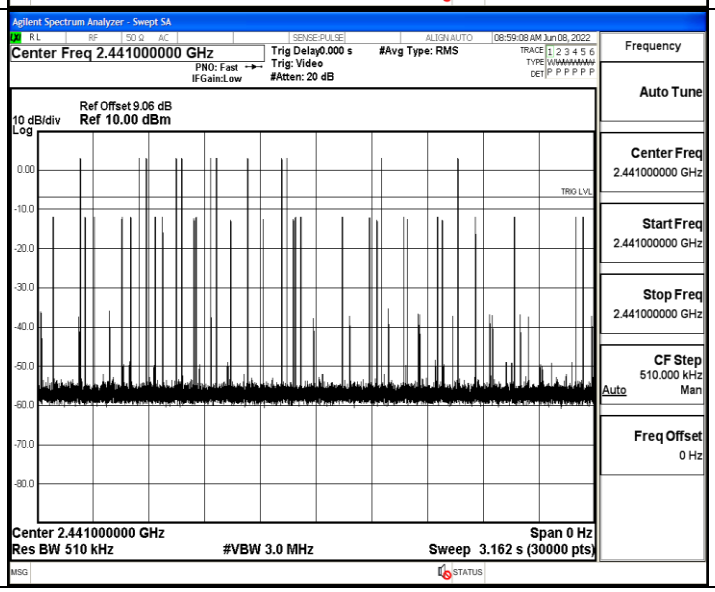
2DH5_Ant1_Hop





3DH5_Ant1_Hop





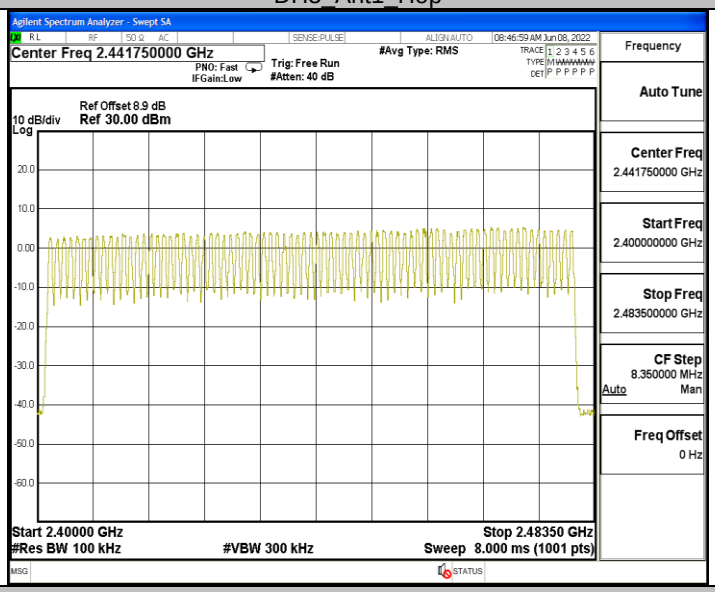
Appendix F: Number of hopping channels

Test Result

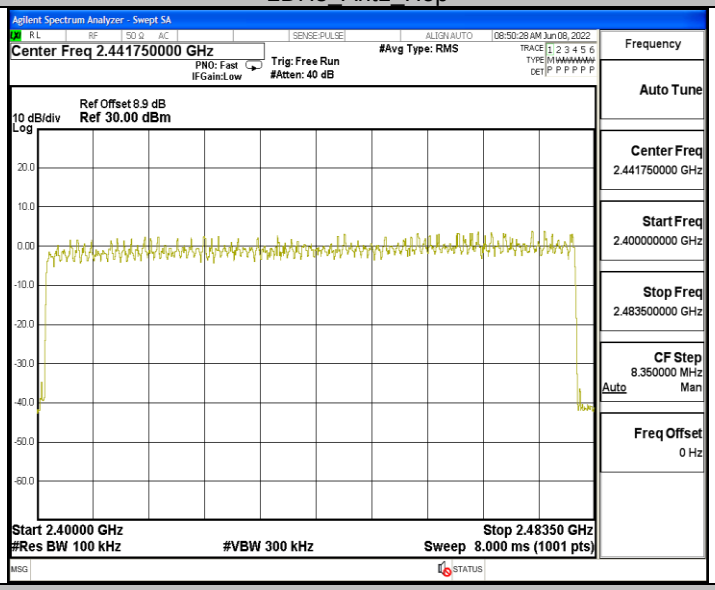
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

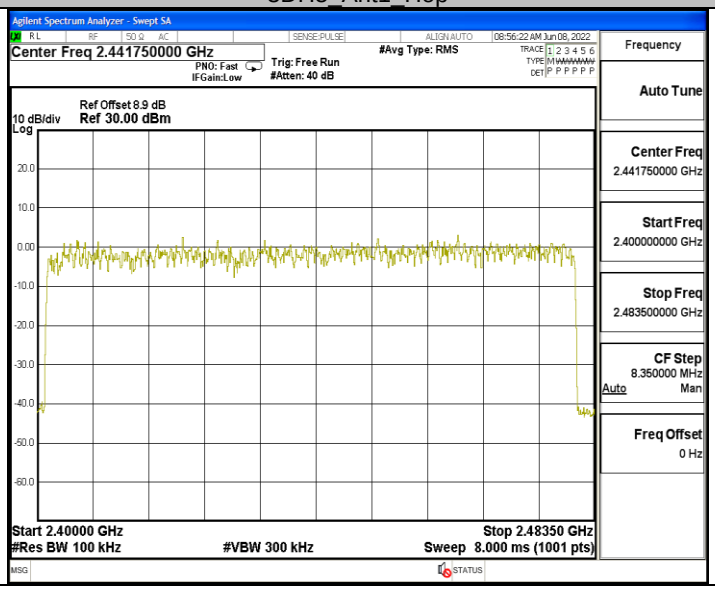
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



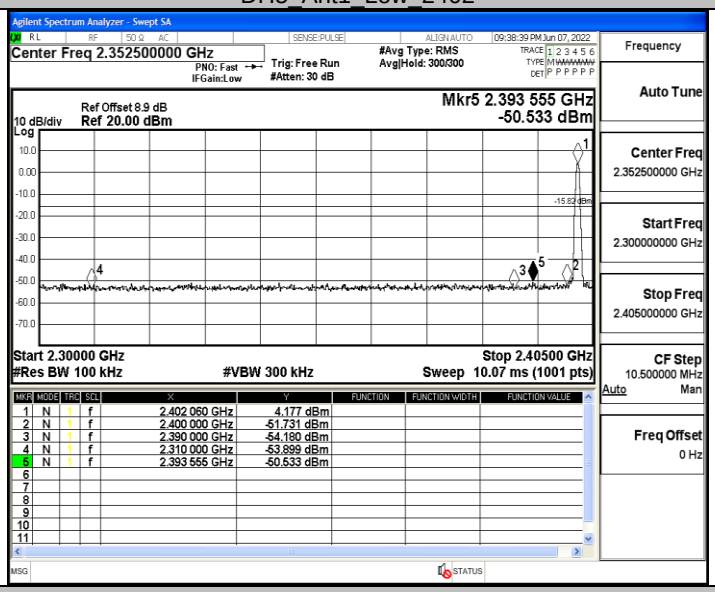
Appendix G: Band edge measurements

Test Result

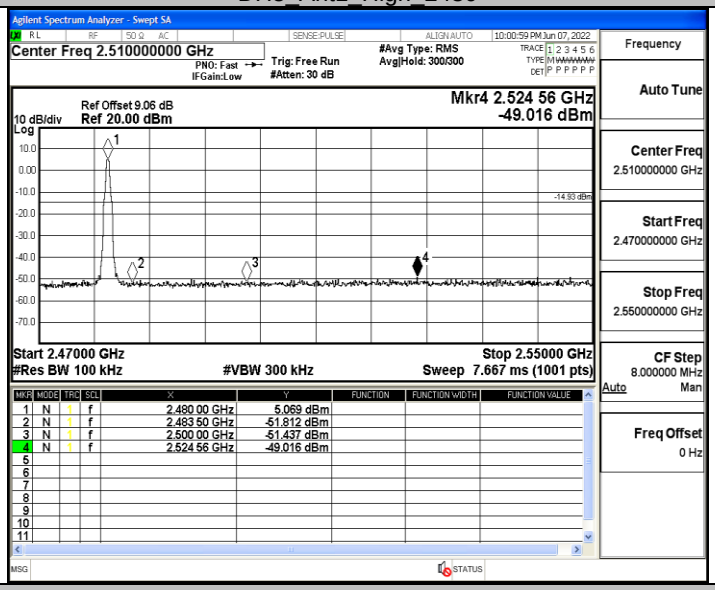
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	4.18	-50.53	≤-15.82	PASS
		High	2480	5.07	-49.02	≤-14.93	PASS
		Low	Hop_2402	2.73	-50	≤-17.27	PASS
		High	Hop_2480	5.23	-49.1	≤-14.77	PASS
2DH5	Ant1	Low	2402	2.25	-50.34	≤-17.75	PASS
		High	2480	5.98	-49.89	≤-14.02	PASS
		Low	Hop_2402	-1.68	-50.92	≤-21.68	PASS
		High	Hop_2480	1.39	-48.57	≤-18.61	PASS
3DH5	Ant1	Low	2402	4.18	-50.21	≤-15.82	PASS
		High	2480	4.13	-49.81	≤-15.87	PASS
		Low	Hop_2402	0.63	-50.83	≤-19.37	PASS
		High	Hop_2480	1.35	-50.02	≤-18.65	PASS

Test Graphs

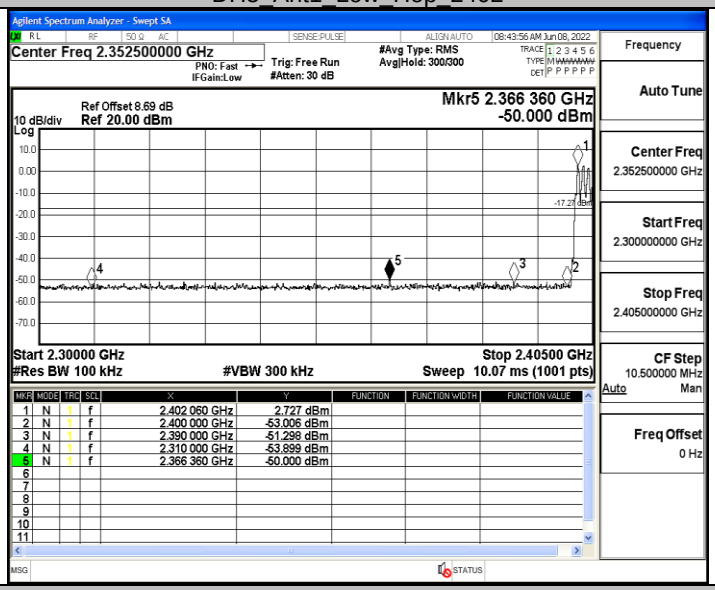
DH5_Ant1_Low_2402



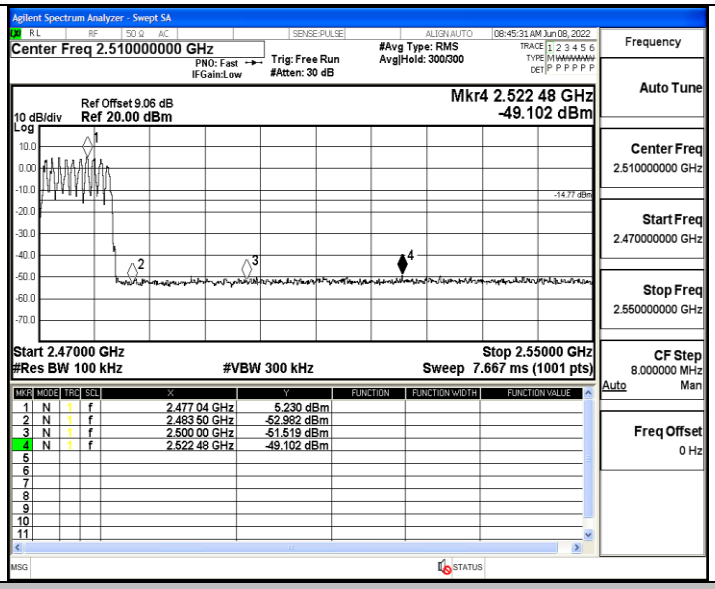
DH5_Ant1_High_2480



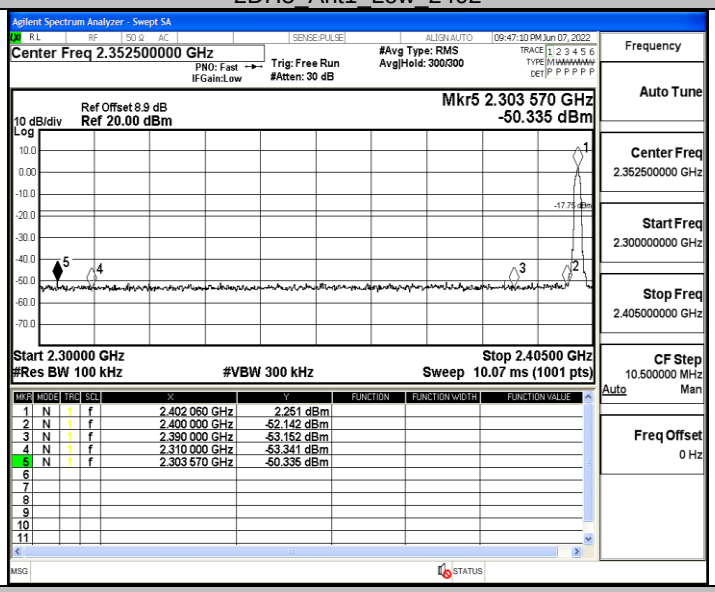
DH5_Ant1_Low_Hop_2402



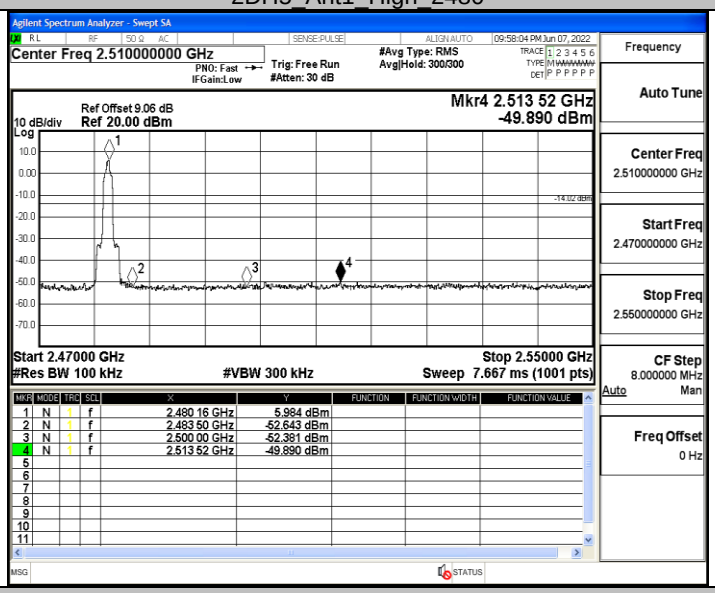
DH5_Ant1_High_Hop_2480



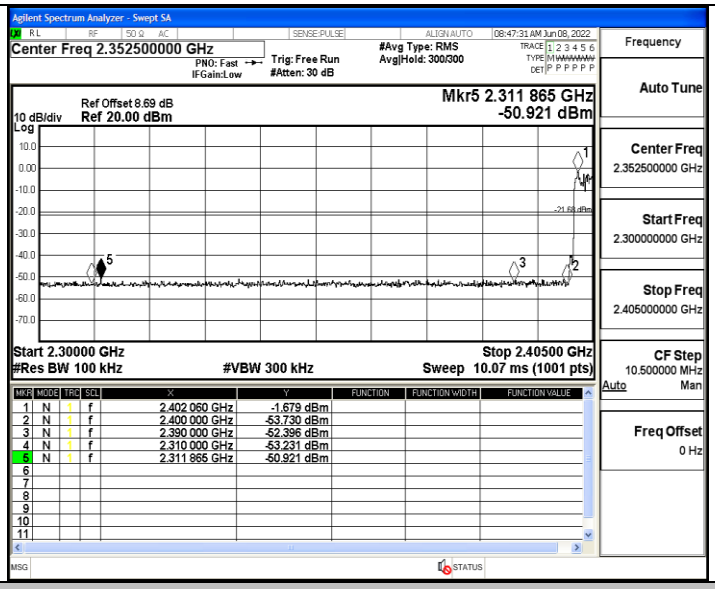
2DH5_Ant1_Low_2402



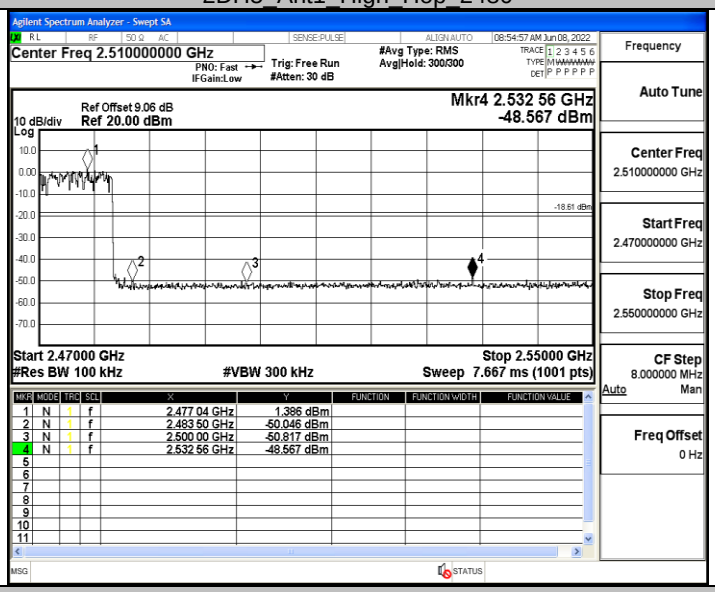
2DH5_Ant1_High_2480



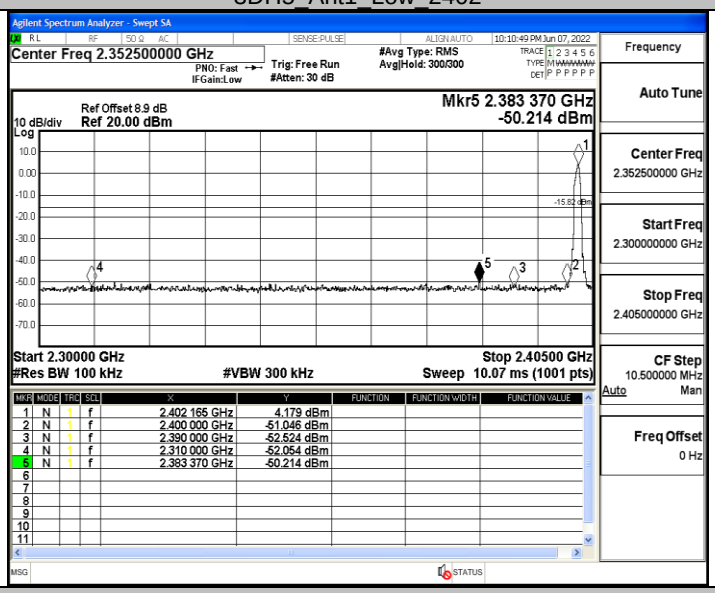
2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402



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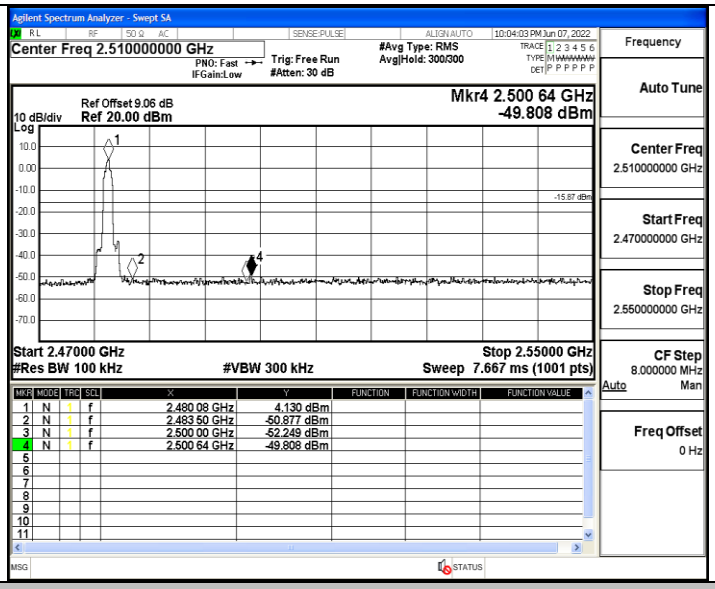
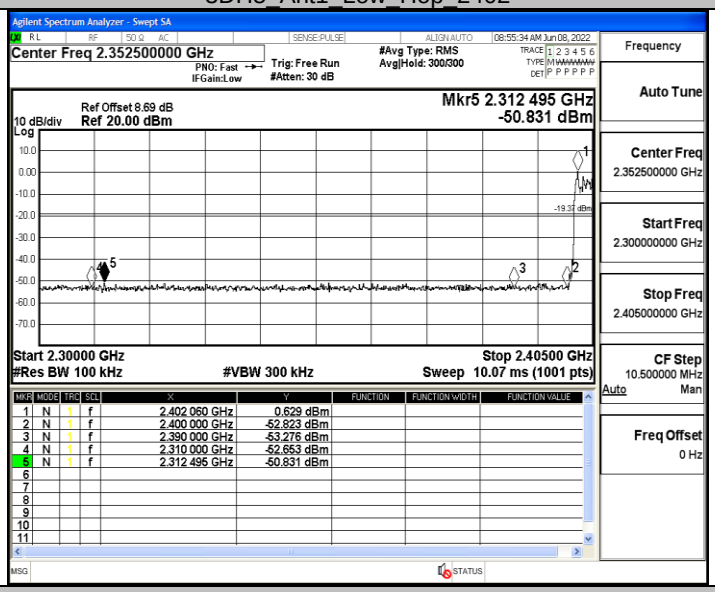
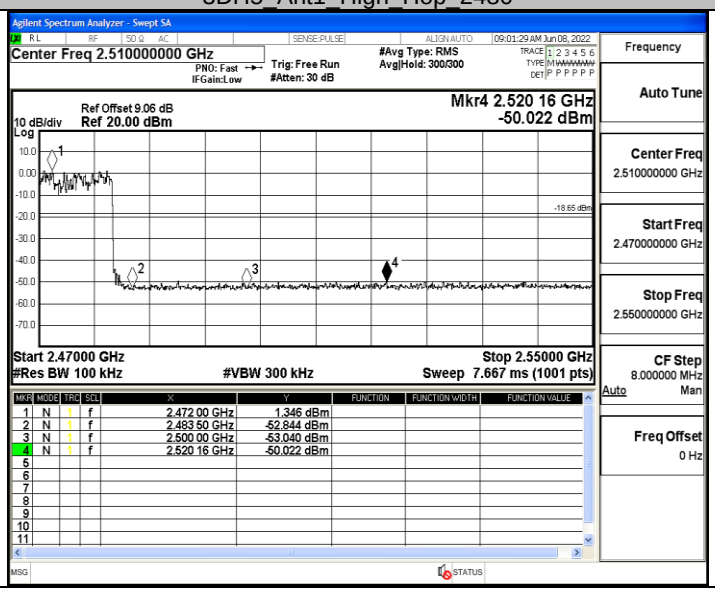


3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



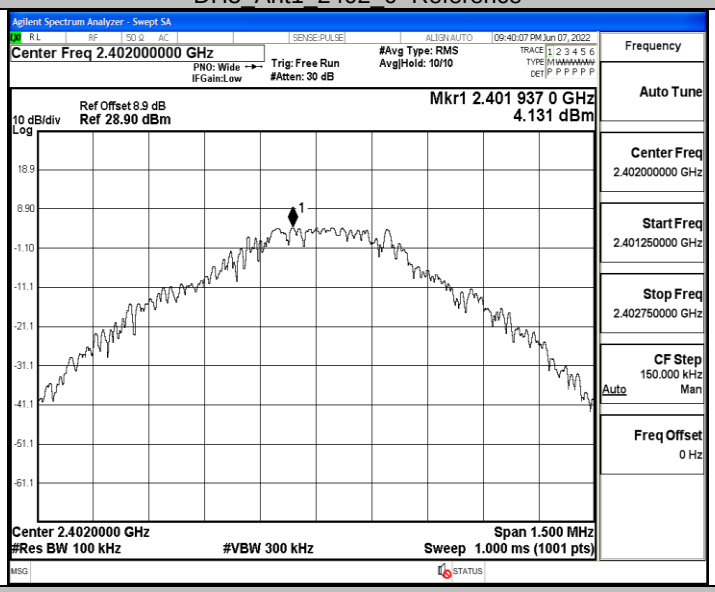
Appendix H: Conducted Spurious Emission

Test Result

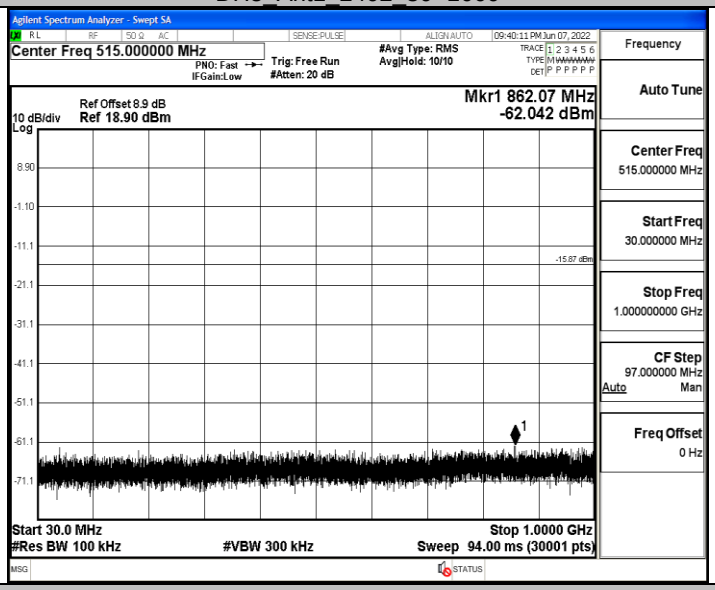
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	4.13	4.13	---	PASS
			30~1000	4.13	-62.04	≤-15.87	PASS
			1000~26500	4.13	-52.63	≤-15.87	PASS
		2441	Reference	3.75	3.75	---	PASS
			30~1000	3.75	-61.62	≤-16.25	PASS
			1000~26500	3.75	-51.38	≤-16.25	PASS
		2480	Reference	4.61	4.61	---	PASS
			30~1000	4.61	-61.15	≤-15.39	PASS
			1000~26500	4.61	-51.97	≤-15.39	PASS
2DH5	Ant1	2402	Reference	-0.83	-0.83	---	PASS
			30~1000	-0.83	-61.06	≤-20.83	PASS
			1000~26500	-0.83	-51.87	≤-20.83	PASS
		2441	Reference	0.72	0.72	---	PASS
			30~1000	0.72	-60.74	≤-19.28	PASS
			1000~26500	0.72	-50.36	≤-19.28	PASS
		2480	Reference	4.12	4.12	---	PASS
			30~1000	4.12	-61.74	≤-15.88	PASS
			1000~26500	4.12	-51.67	≤-15.88	PASS
3DH5	Ant1	2402	Reference	1.47	1.47	---	PASS
			30~1000	1.47	-61.48	≤-18.53	PASS
			1000~26500	1.47	-51.1	≤-18.53	PASS
		2441	Reference	3.33	3.33	---	PASS
			30~1000	3.33	-60.97	≤-16.67	PASS
			1000~26500	3.33	-51.76	≤-16.67	PASS
		2480	Reference	0.18	0.18	---	PASS
			30~1000	0.18	-61.69	≤-19.82	PASS
			1000~26500	0.18	-50.73	≤-19.82	PASS

Test Graphs

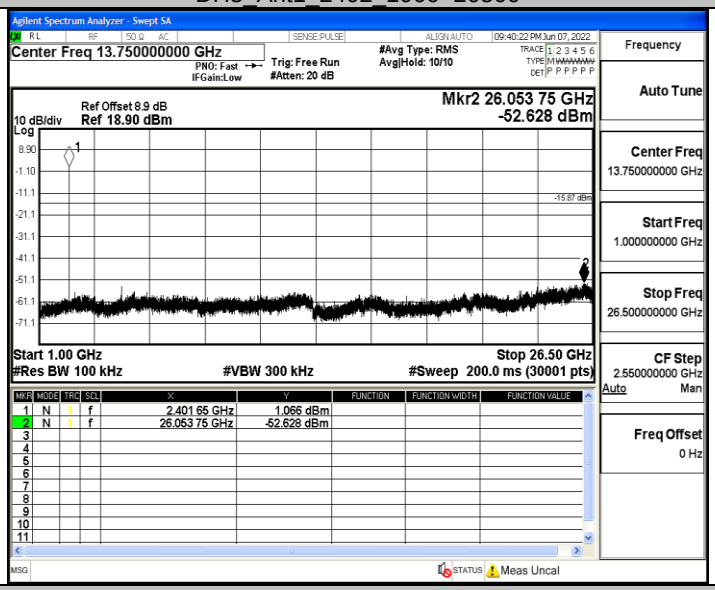
DH5_Ant1_2402_0~Reference



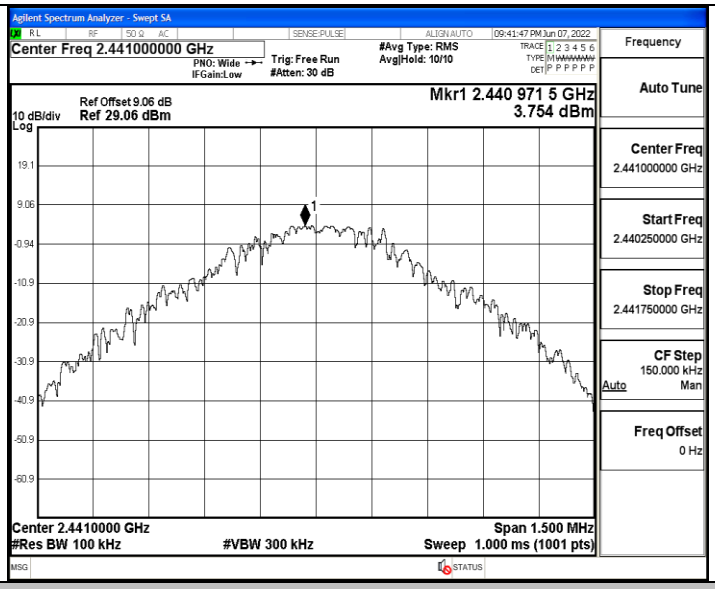
DH5_Ant1_2402_30~1000



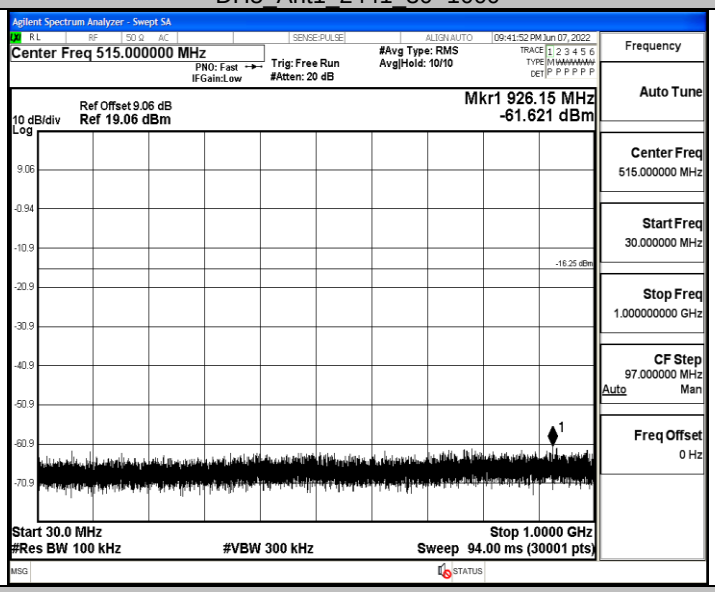
DH5_Ant1_2402_1000~26500



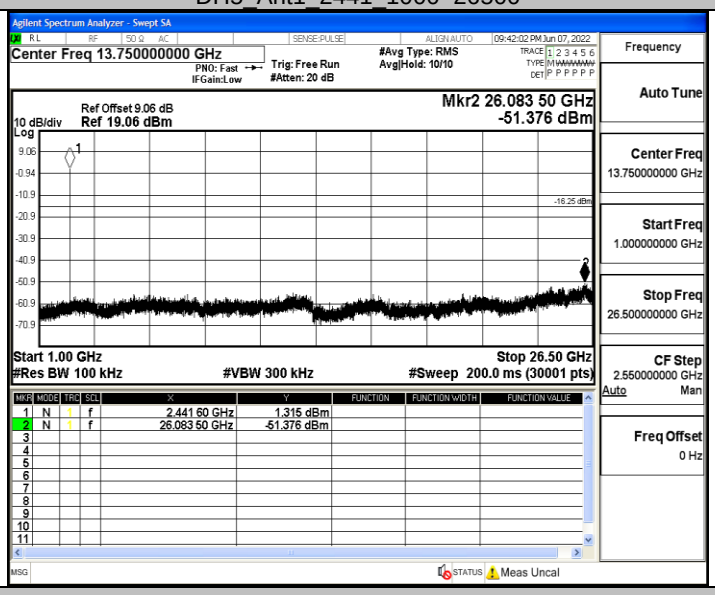
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference