

Annex for FCC Bluetooth BR&EDR

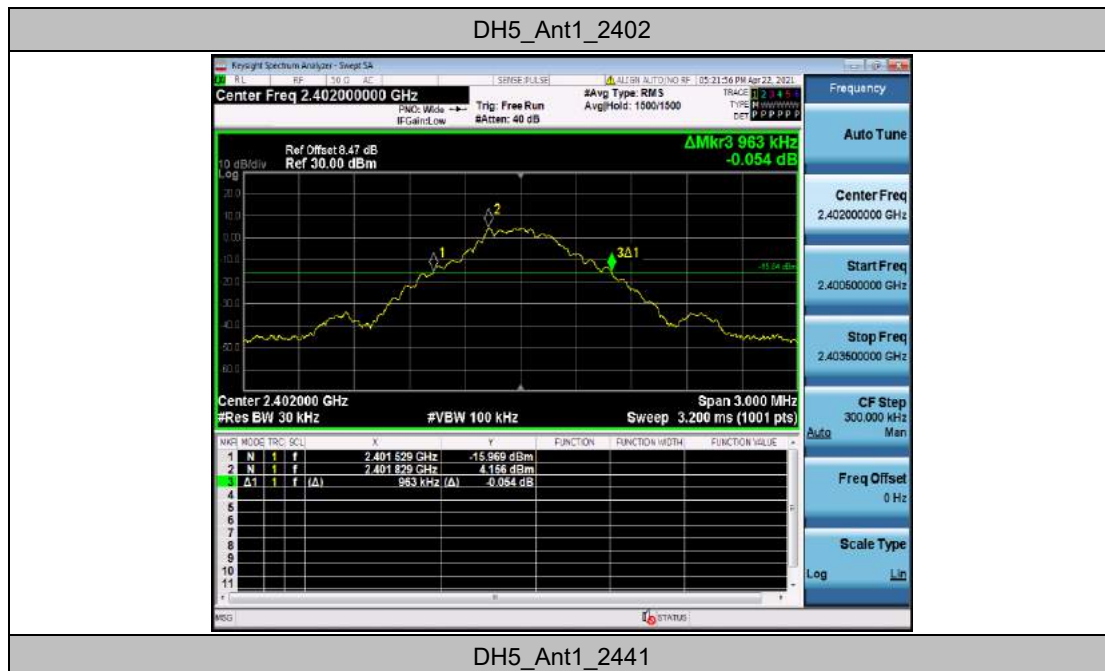
Test Report No. : CTL2104135021-WF01

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.963	2401.529	2402.492	---	PASS
		2441	0.963	2440.529	2441.492	---	PASS
		2480	0.963	2479.529	2480.492	---	PASS
2DH5	Ant1	2402	1.281	2401.367	2402.648	---	PASS
		2441	1.281	2440.367	2441.648	---	PASS
		2480	1.281	2479.367	2480.648	---	PASS
3DH5	Ant1	2402	1.299	2401.349	2402.648	---	PASS
		2441	1.299	2440.349	2441.648	---	PASS
		2480	1.299	2479.349	2480.648	---	PASS

Test Graphs





DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

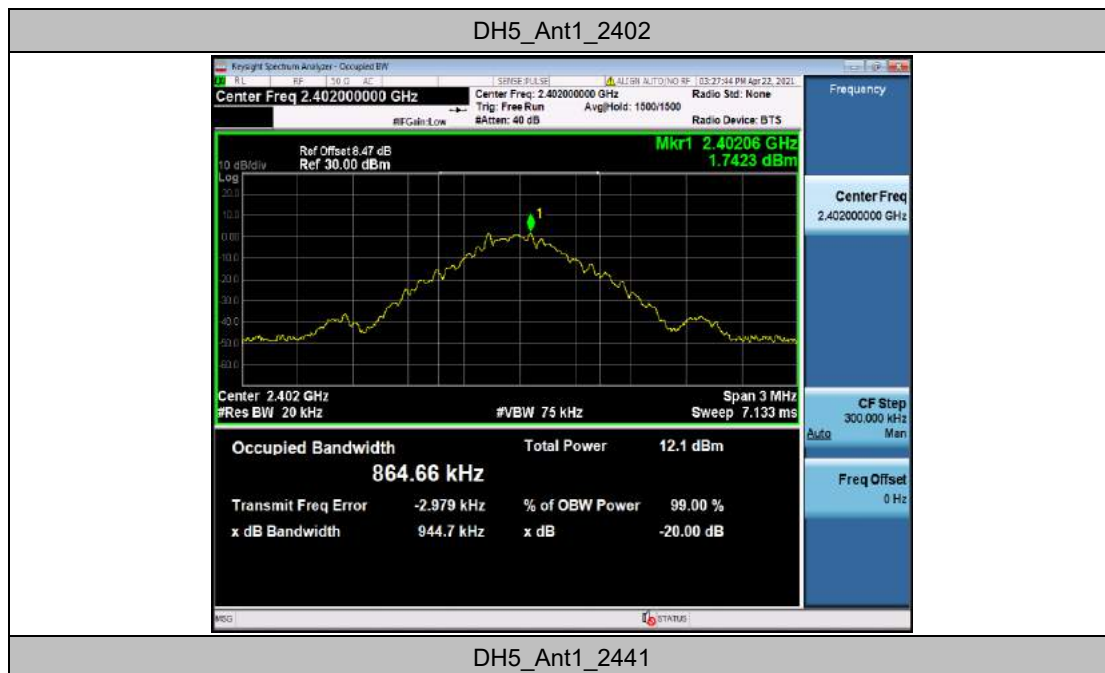


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86466	2401.565	2402.429	---	PASS
		2441	0.86437	2440.563	2441.427	---	PASS
		2480	0.86517	2479.562	2480.427	---	PASS
2DH5	Ant1	2402	1.1607	2401.416	2402.577	---	PASS
		2441	1.1608	2440.415	2441.576	---	PASS
		2480	1.1618	2479.415	2480.576	---	PASS
3DH5	Ant1	2402	1.1649	2401.413	2402.578	---	PASS
		2441	1.1655	2440.412	2441.577	---	PASS
		2480	1.1670	2479.410	2480.577	---	PASS

Test Graphs





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	6.77	<=20.97	PASS
		2441	7.72	<=20.97	PASS
		2480	7.71	<=20.97	PASS
2DH5	Ant1	2402	8.46	<=20.97	PASS
		2441	9.23	<=20.97	PASS
		2480	9.28	<=20.97	PASS
3DH5	Ant1	2402	8.89	<=20.97	PASS
		2441	9.84	<=20.97	PASS
		2480	9.8	<=20.97	PASS

Test Graphs





DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

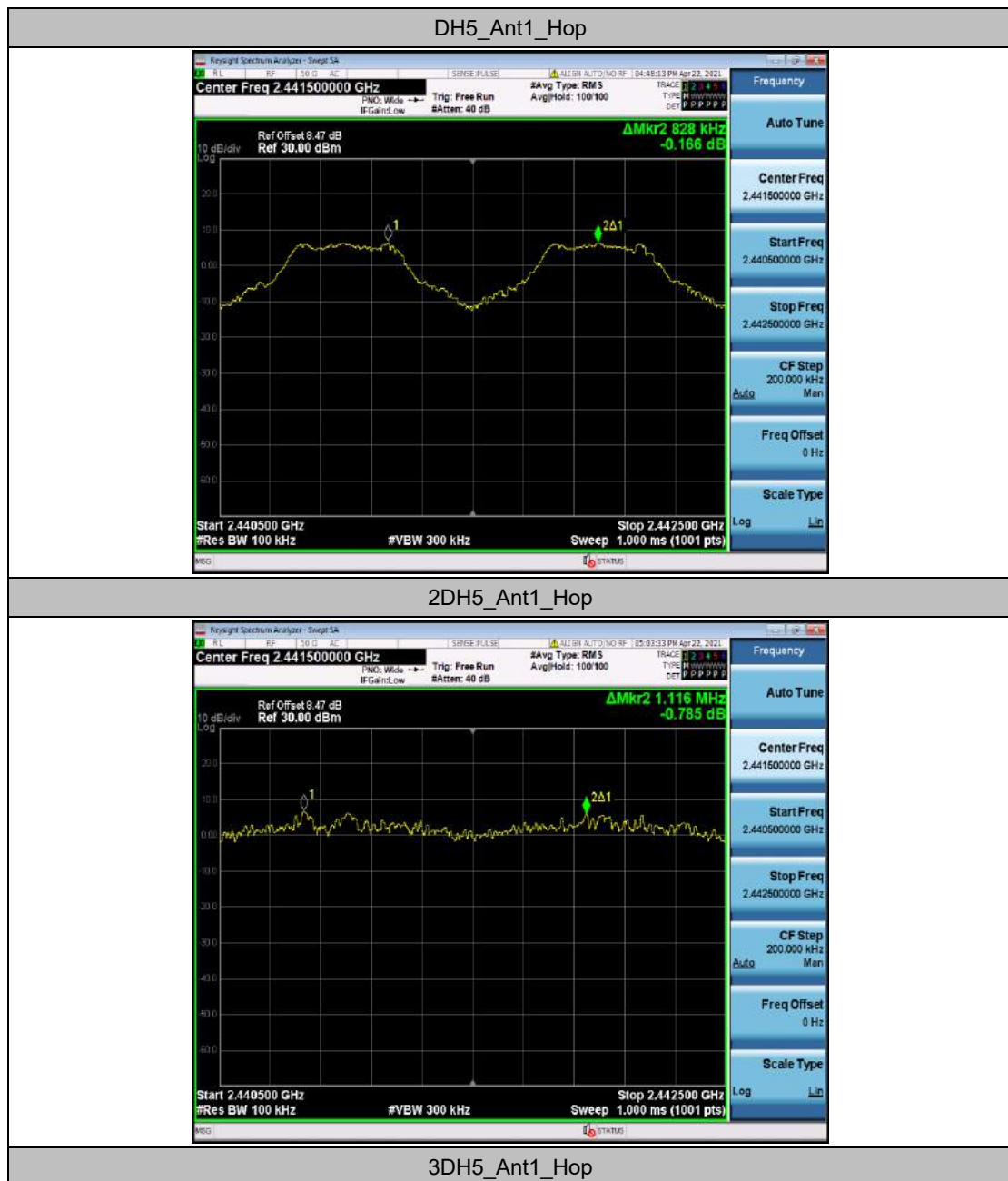


Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.828	≥ 0.642	PASS
2DH5	Ant1	Hop	1.116	≥ 0.854	PASS
3DH5	Ant1	Hop	1.012	≥ 0.866	PASS

Test Graphs



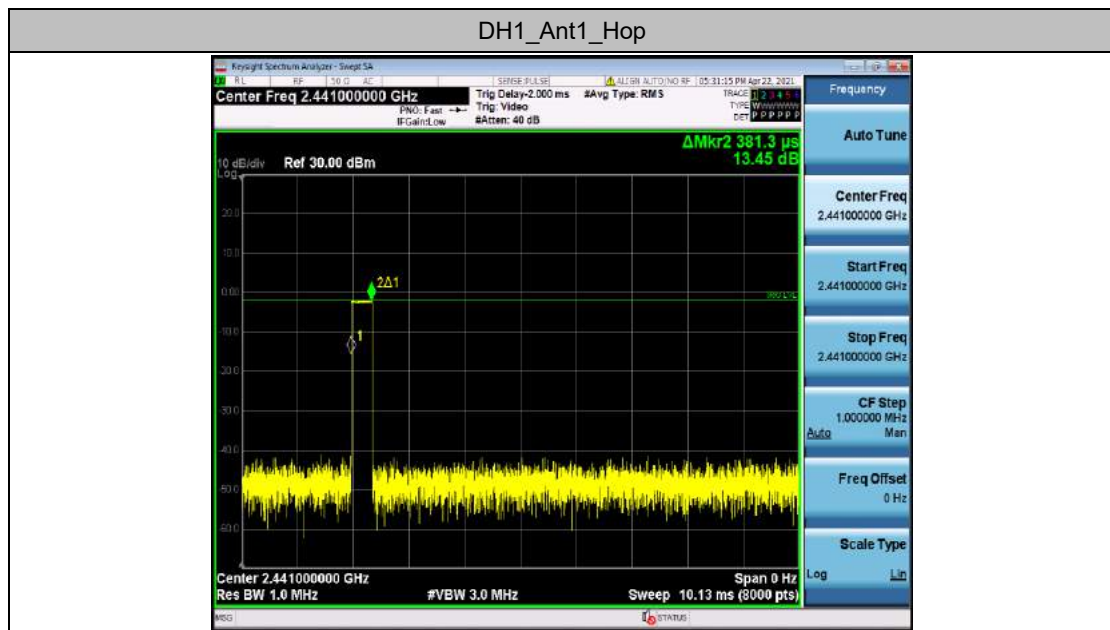


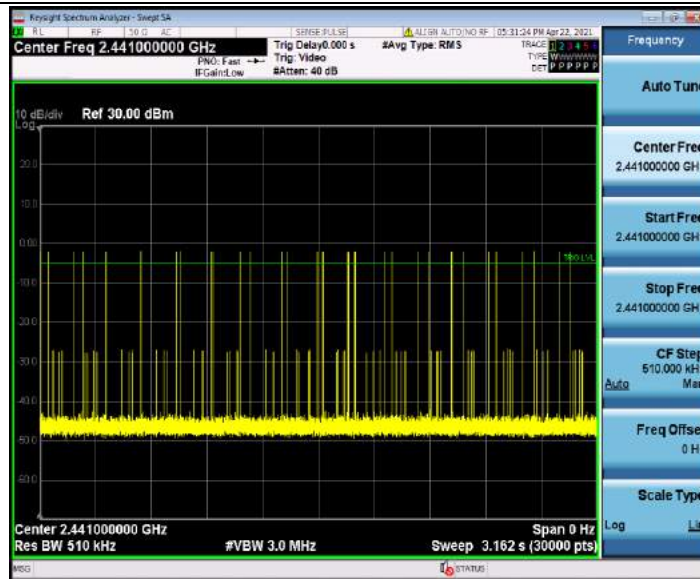
Appendix E: Time of occupancy

Test Result

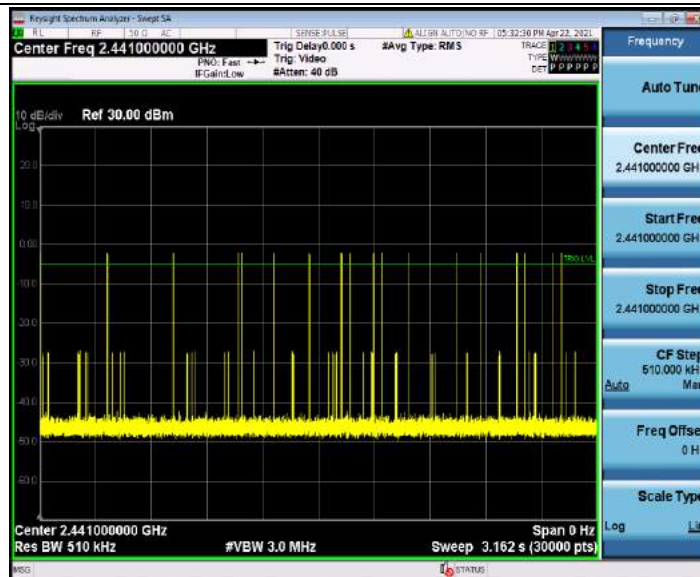
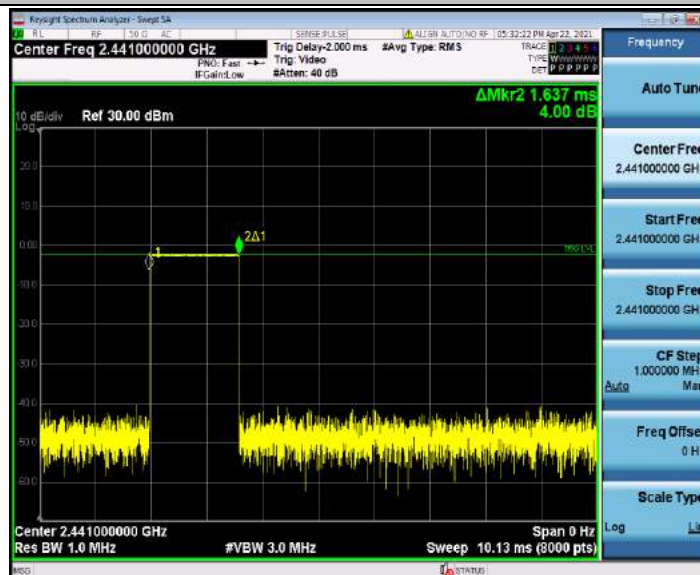
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.38	320	0.122	<=0.4	PASS
DH3	Ant1	Hop	1.64	180	0.295	<=0.4	PASS
DH5	Ant1	Hop	2.89	110	0.317	<=0.4	PASS
2DH1	Ant1	Hop	0.39	320	0.125	<=0.4	PASS
2DH3	Ant1	Hop	1.64	180	0.295	<=0.4	PASS
2DH5	Ant1	Hop	2.89	70	0.202	<=0.4	PASS
3DH1	Ant1	Hop	0.39	330	0.128	<=0.4	PASS
3DH3	Ant1	Hop	1.64	160	0.263	<=0.4	PASS
3DH5	Ant1	Hop	2.89	130	0.376	<=0.4	PASS

Test Graphs

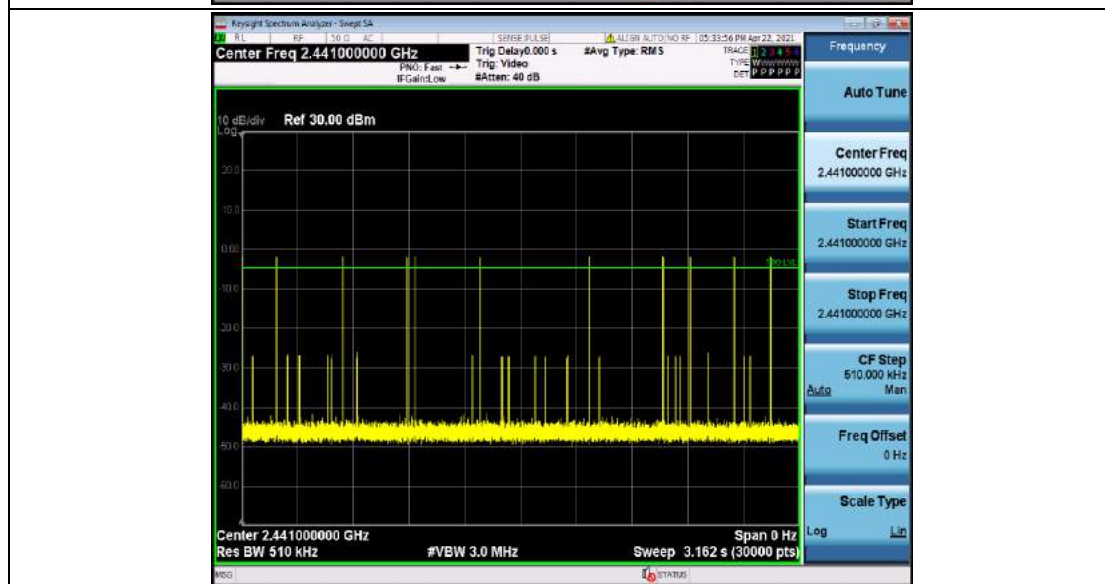
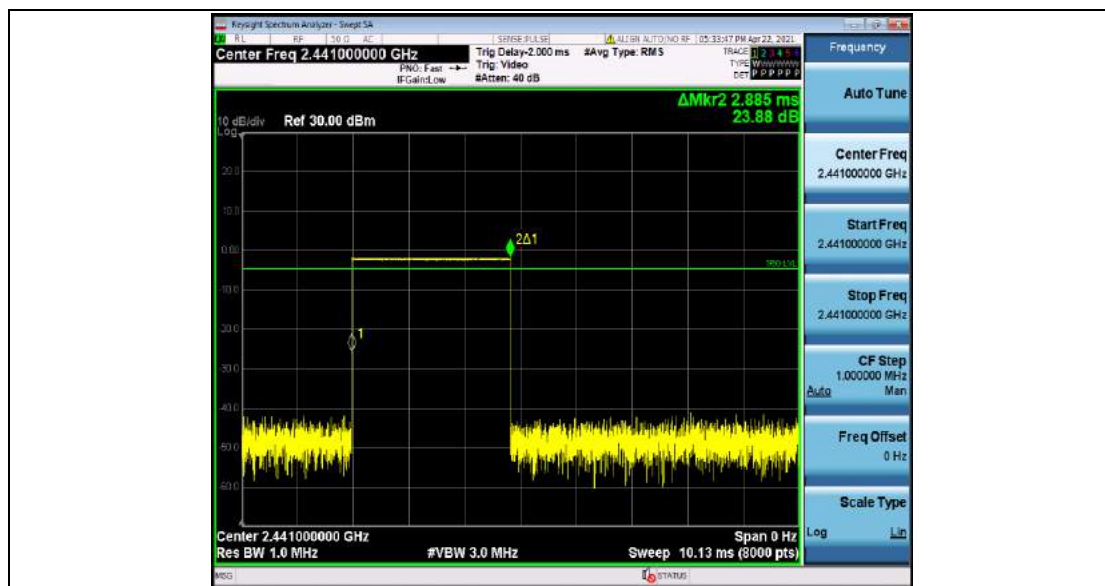




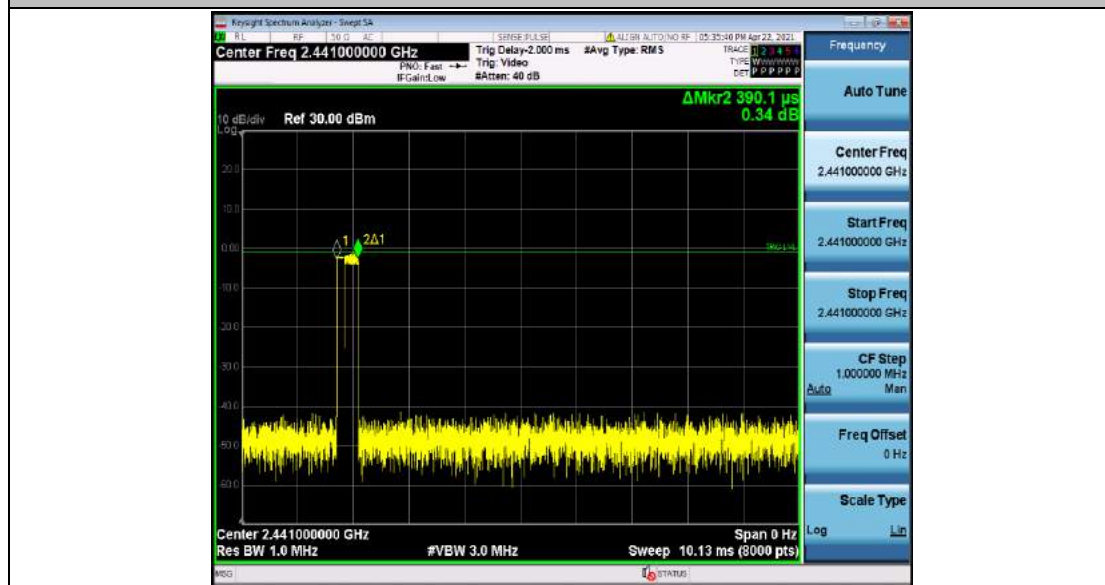
DH3_Ant1_Hop

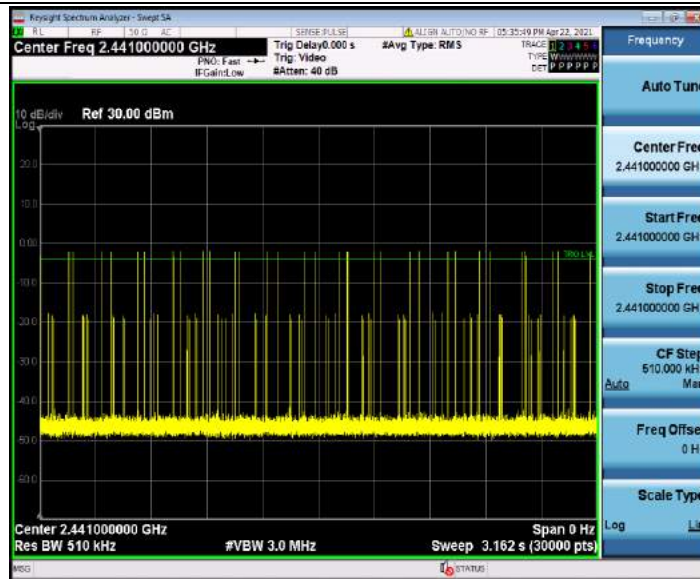


DH5_Ant1_Hop

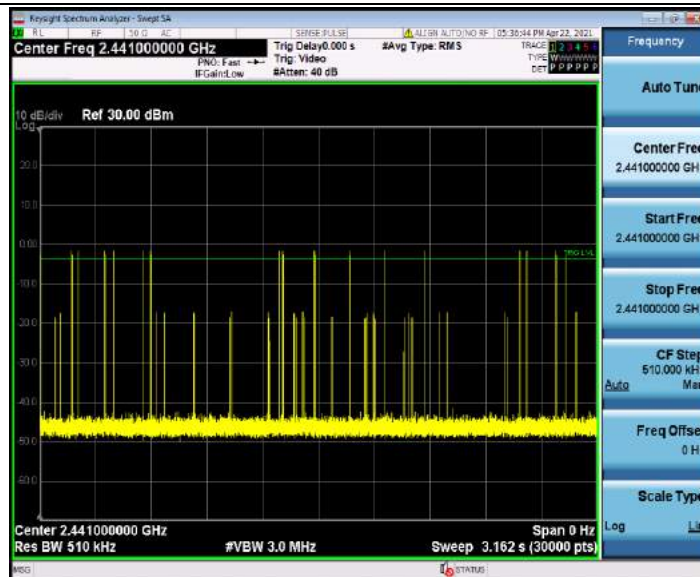
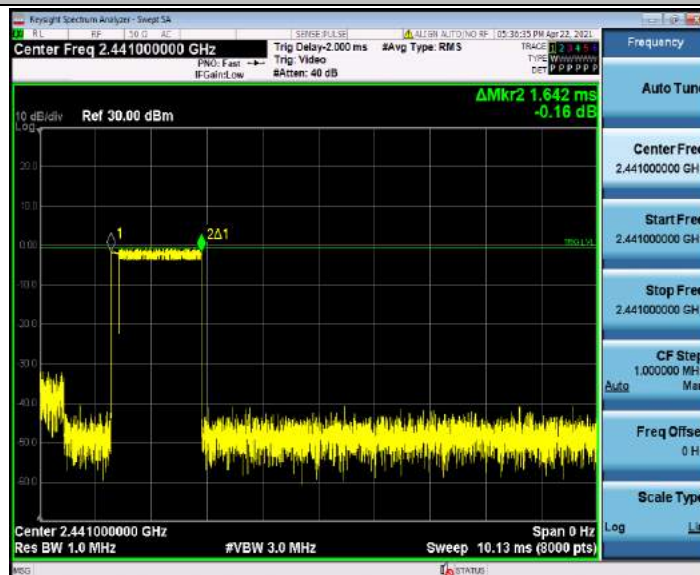


2DH1_Ant1_Hop

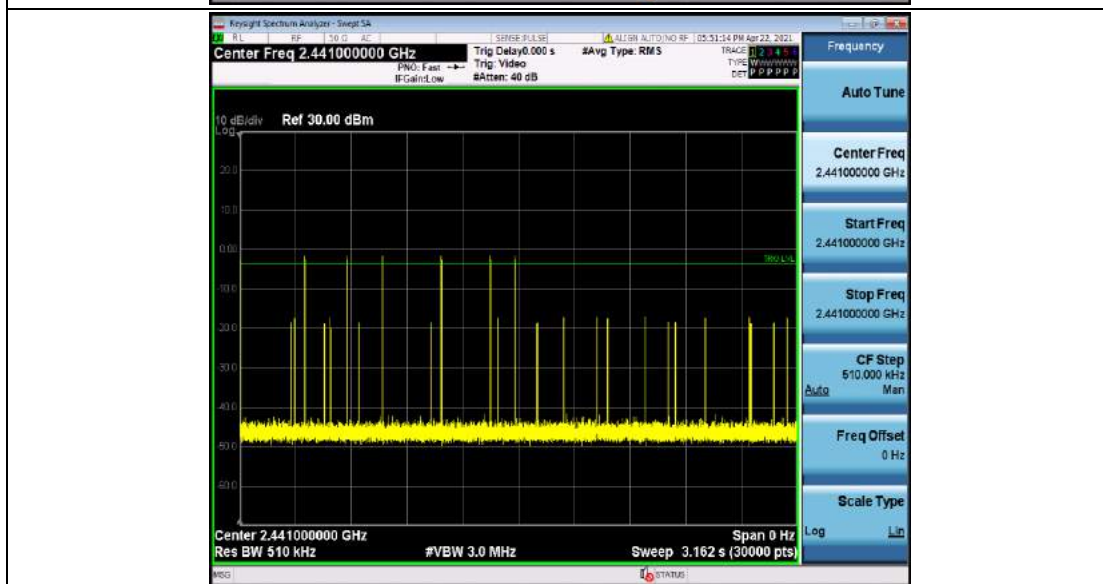
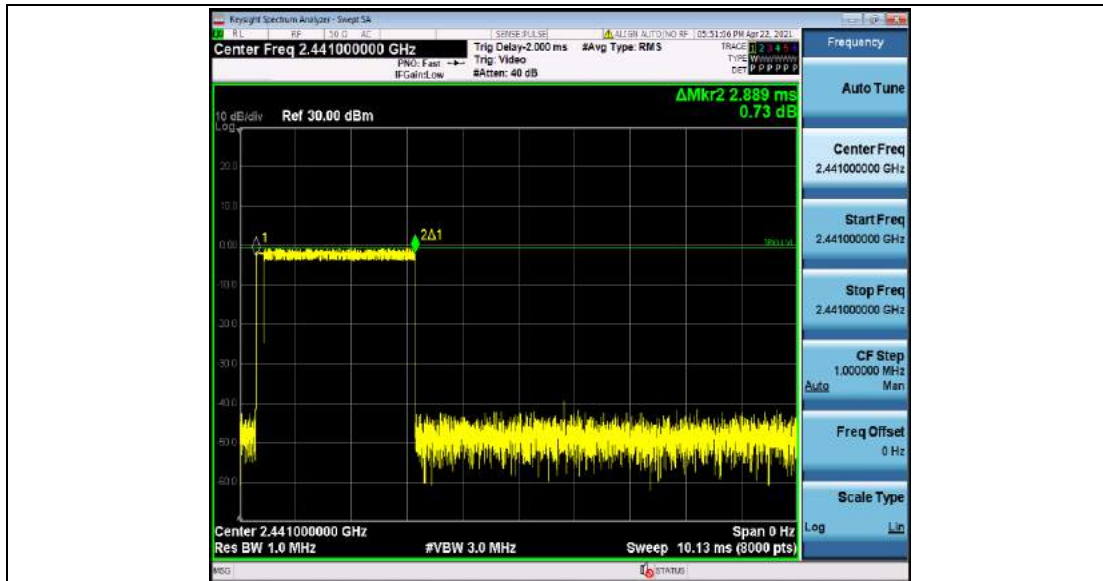




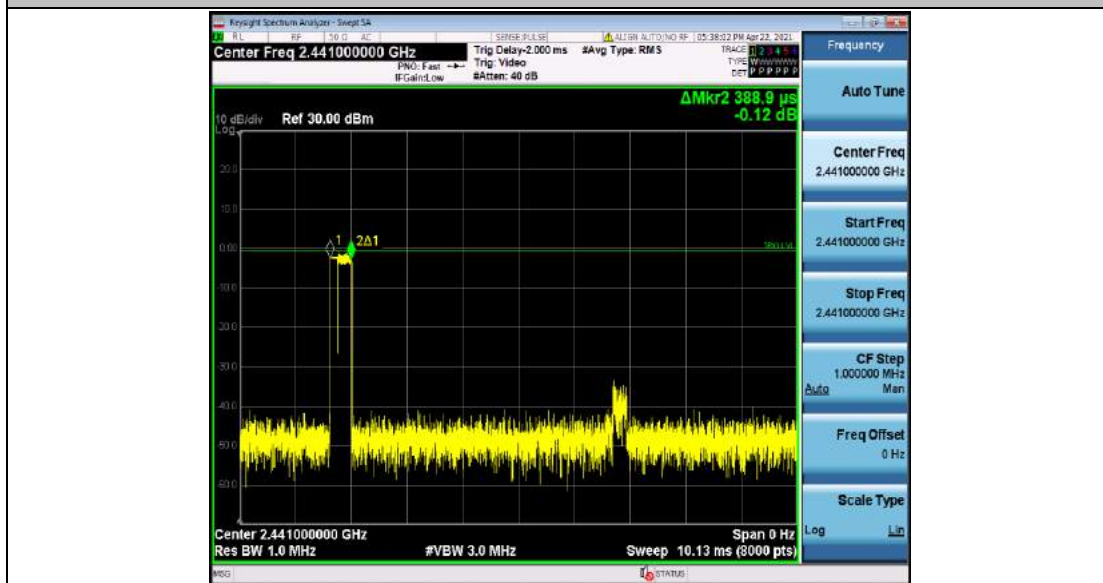
2DH3_Ant1_Hop

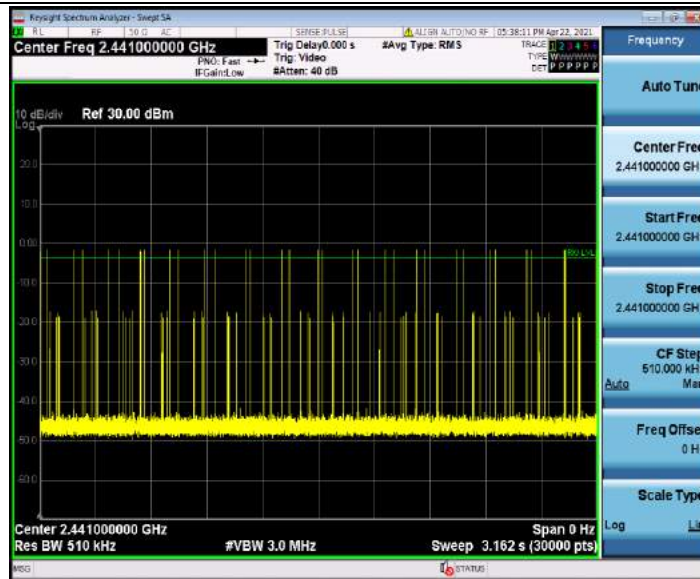


2DH5_Ant1_Hop

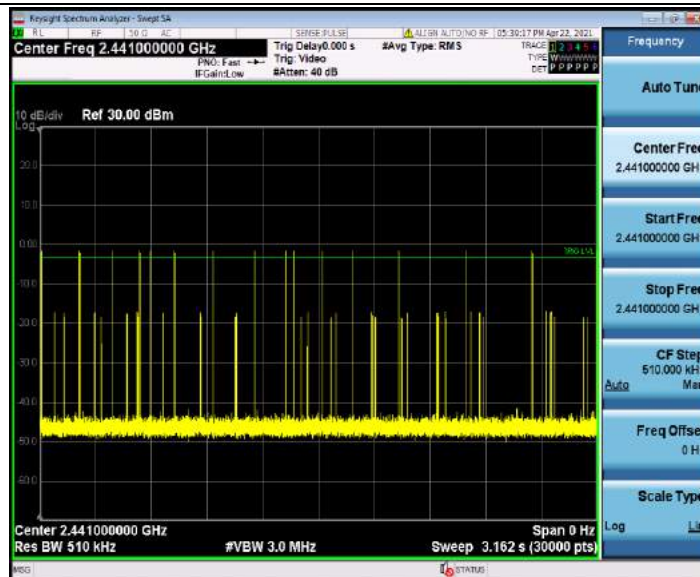
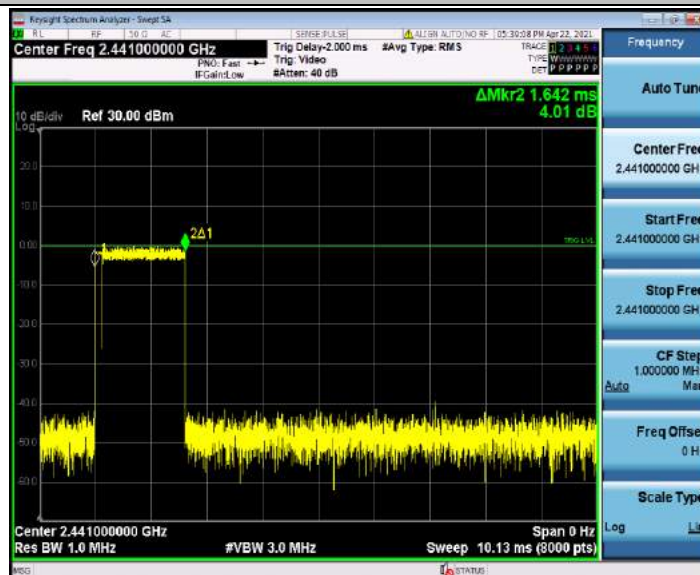


3DH1_Ant1_Hop

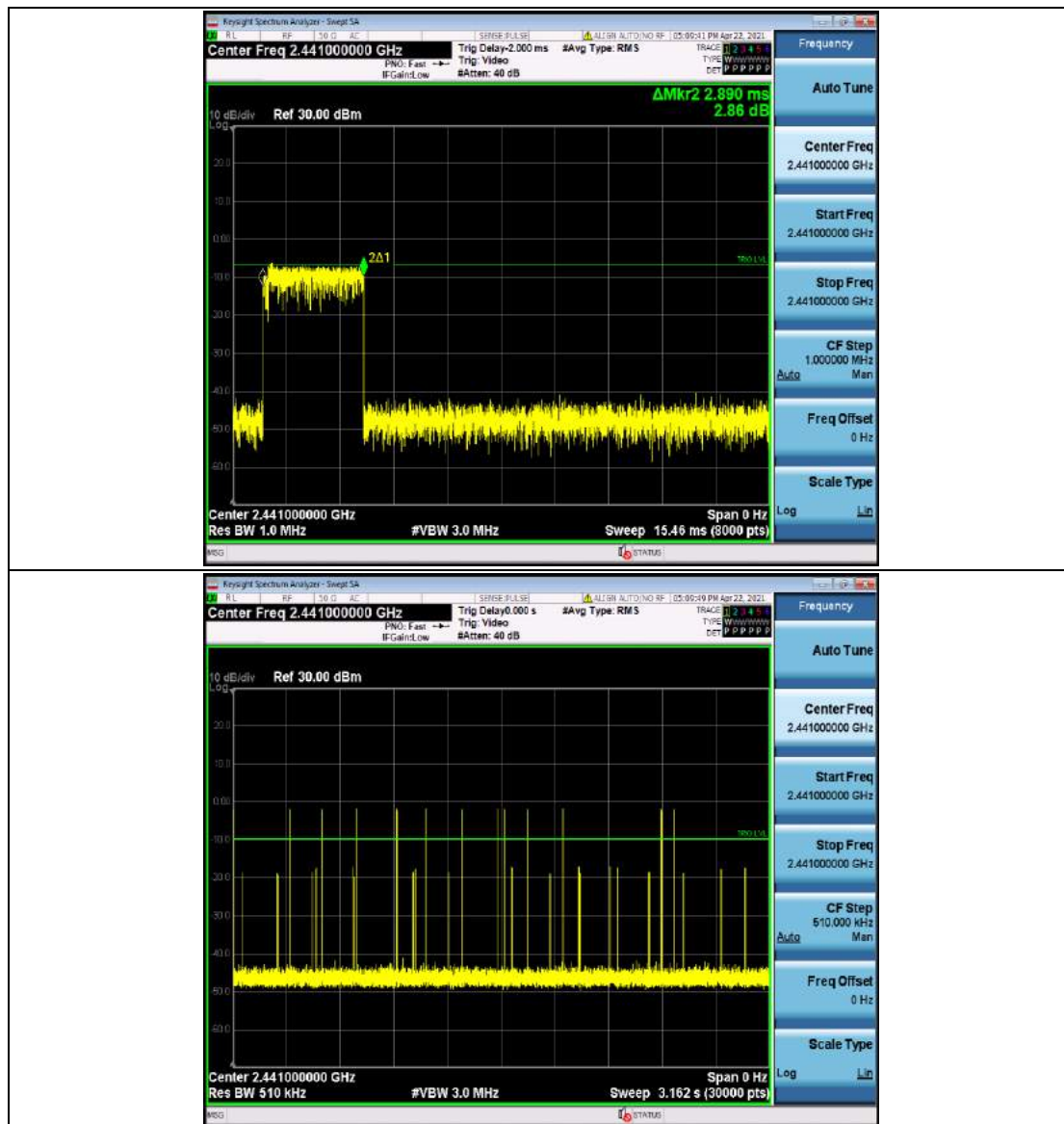




3DH3_Ant1_Hop



3DH5_Ant1_Hop

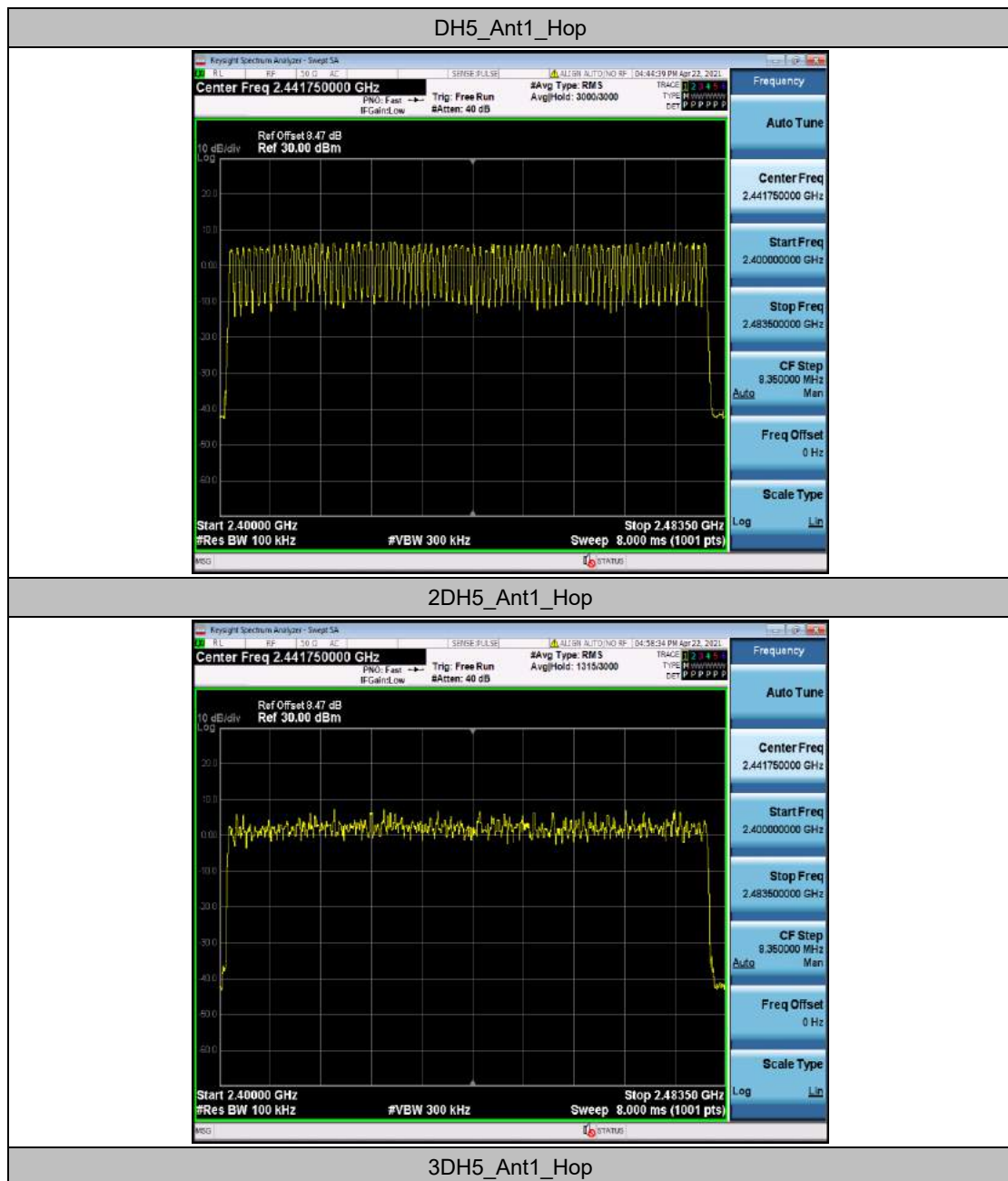


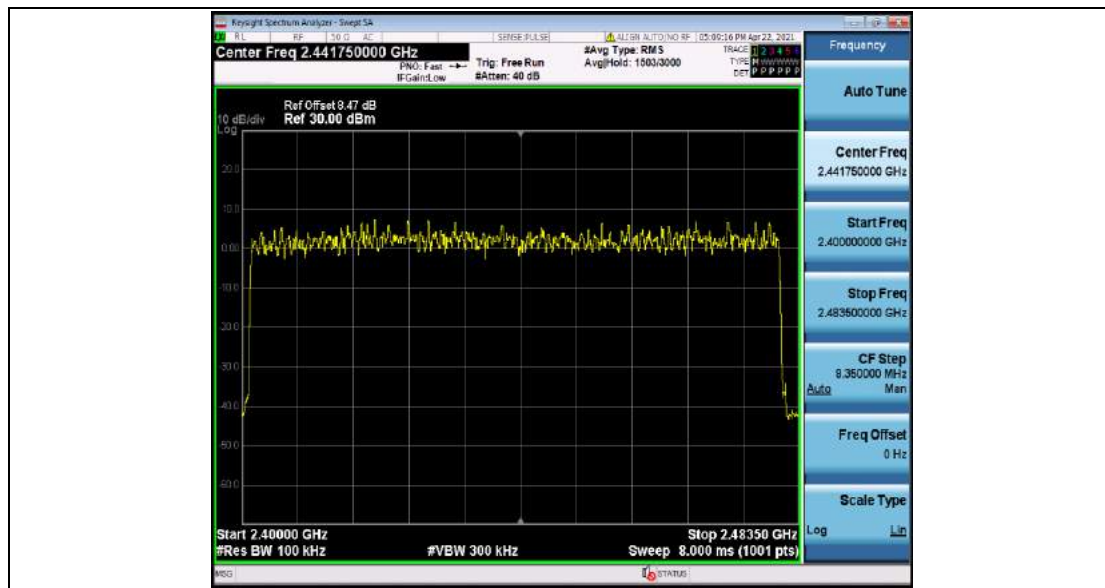
Appendix F: Number of hopping channels

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



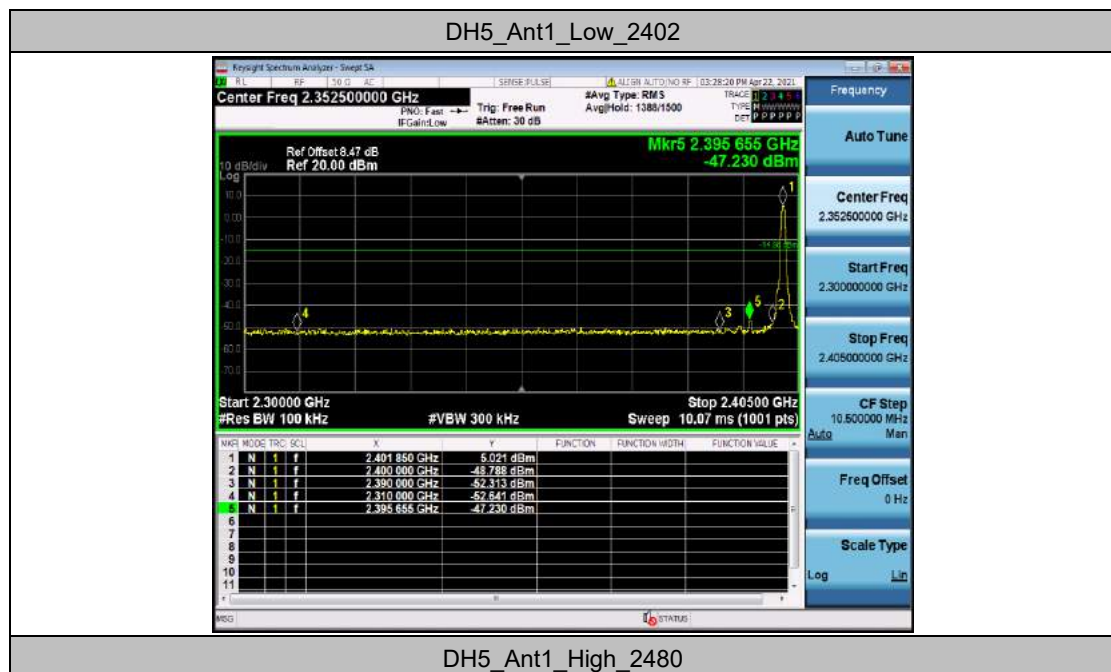


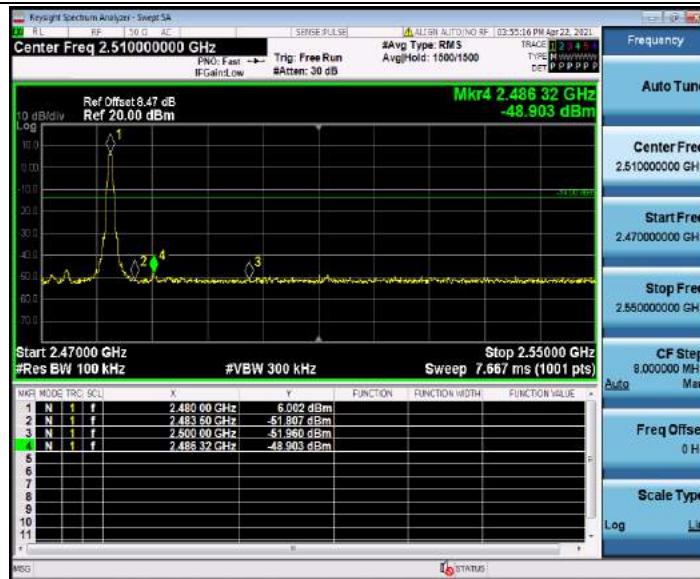
Appendix G: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	5.02	-47.23	<=-14.98	PASS
		High	2480	6.00	-48.9	<=-14	PASS
		Low	Hop_2402	5.61	-50.32	-14.39	PASS
		High	Hop_2480	6.60	-49.34	-13.4	PASS
2DH5	Ant1	Low	2402	4.87	-48.21	<=-15.13	PASS
		High	2480	6.08	-49.4	<=-13.92	PASS
		Low	Hop_2402	6.03	-50.08	-13.97	PASS
		High	Hop_2480	6.75	-49.11	-13.25	PASS
3DH5	Ant1	Low	2402	5.04	-48.54	<=-14.96	PASS
		High	2480	6.03	-48.78	<=-13.98	PASS
		Low	Hop_2402	5.44	-50.14	-14.56	PASS
		High	Hop_2480	6.96	-49.37	-13.04	PASS

Test Graphs

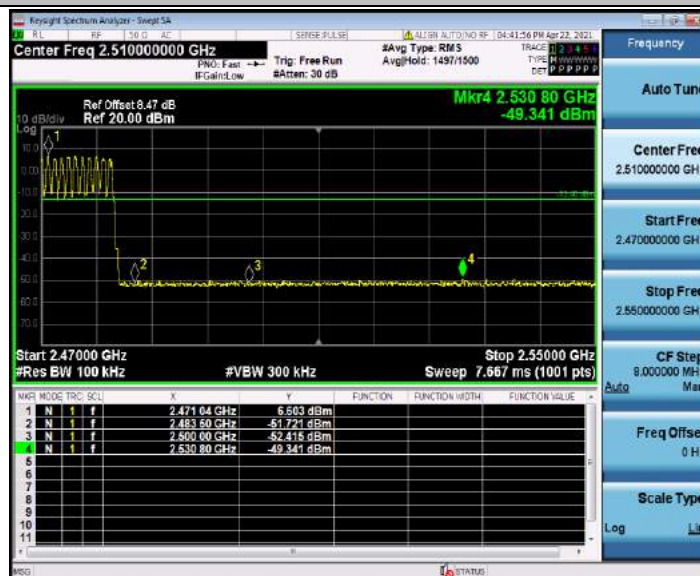




DH5_Ant1_Low_Hop_2402



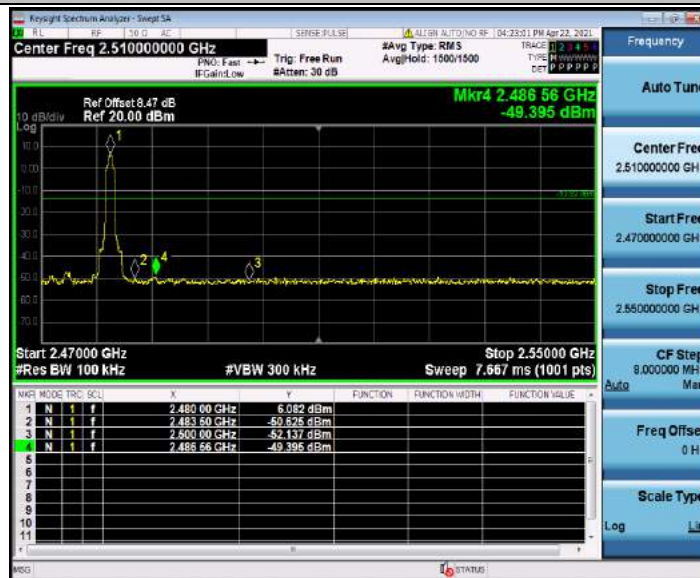
DH5_Ant1_High_Hop_2480



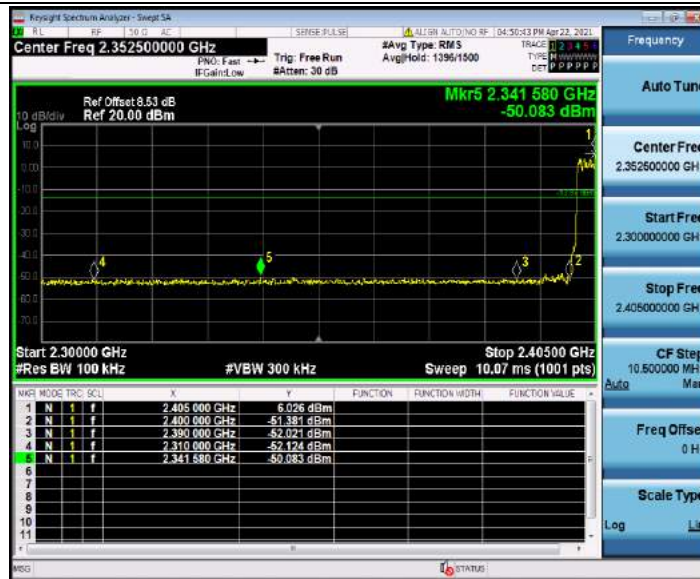
2DH5_Ant1_Low_2402



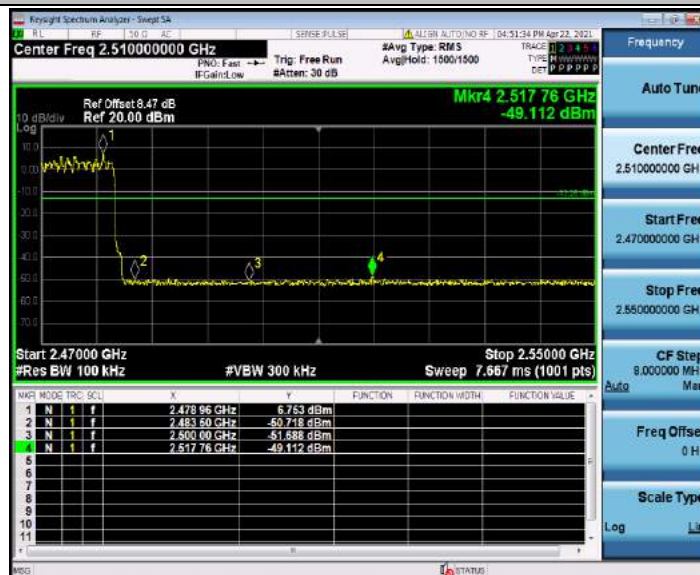
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



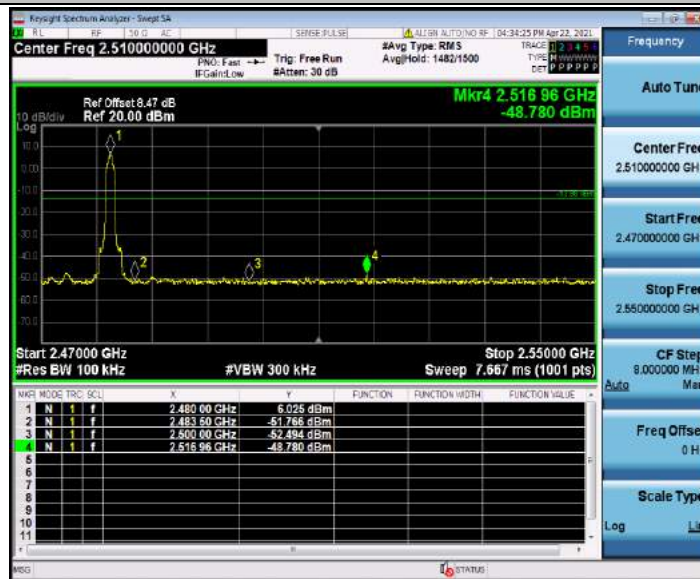
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402



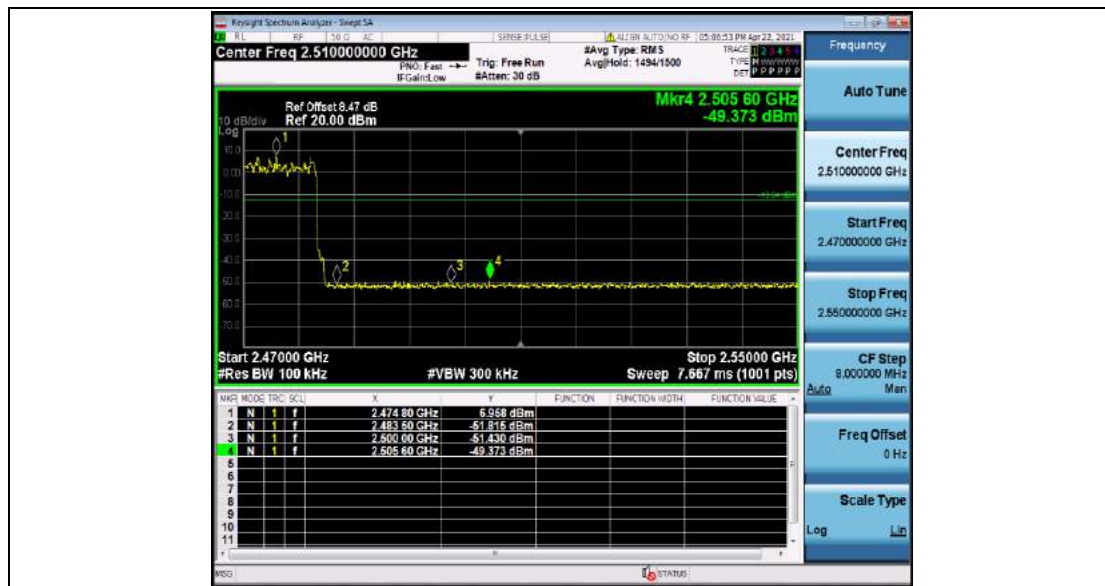
3DH5_Ant1_High_2480



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	4.81	4.81	---	PASS
			30~3000	30~3000	-46.982	<=- 15.189	PASS
			3000~26500	3000~26500	-36.937	<=- 15.189	PASS
		2441	Reference	5.70	5.70	---	PASS
			30~3000	30~3000	-47.9	<=- 14.301	PASS
			3000~26500	3000~26500	-37.584	<=- 14.301	PASS
		2480	Reference	5.72	5.72	---	PASS
			30~3000	30~3000	-47.506	<=-14.28	PASS
			3000~26500	3000~26500	-36.84	<=-14.28	PASS
2DH5	Ant1	2402	Reference	4.75	4.75	---	PASS
			30~3000	30~3000	-45.808	<=- 15.253	PASS
			3000~26500	3000~26500	-36.879	<=- 15.253	PASS
		2441	Reference	5.68	5.68	---	PASS
			30~3000	30~3000	-47.207	<=- 14.322	PASS
			3000~26500	3000~26500	-37.229	<=- 14.322	PASS
		2480	Reference	5.92	5.92	---	PASS
			30~3000	30~3000	-47.966	<=- 14.076	PASS
			3000~26500	3000~26500	-37.276	<=- 14.076	PASS
3DH5	Ant1	2402	Reference	4.94	4.94	---	PASS
			30~3000	30~3000	-47.58	<=- 15.056	PASS
			3000~26500	3000~26500	-35.878	<=- 15.056	PASS
		2441	Reference	5.55	5.55	---	PASS
			30~3000	30~3000	-47.387	<=- 14.451	PASS
			3000~26500	3000~26500	-37.419	<=- 14.451	PASS

			Reference	5.75	5.75	---	PASS
		2480	30~3000	30~3000	-48.234	<=- 14.248	PASS
			3000~26500	3000~26500	-37.171	<=- 14.248	PASS

Test Graphs

DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~3000



DH5_Ant1_2402_3000~26500



DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~3000



DH5_Ant1_2441_3000~26500



DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~3000



DH5_Ant1_2480_3000~26500



2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~3000



2DH5_Ant1_2402_3000~26500



2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~3000



2DH5_Ant1_2441_3000~26500



2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~3000



2DH5_Ant1_2480_3000~26500



3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~3000



3DH5_Ant1_2402_3000~26500



3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~3000



3DH5_Ant1_2441_3000~26500



3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~3000



3DH5_Ant1_2480_3000~26500

