

Appendix: Bluetooth Classic

Contents

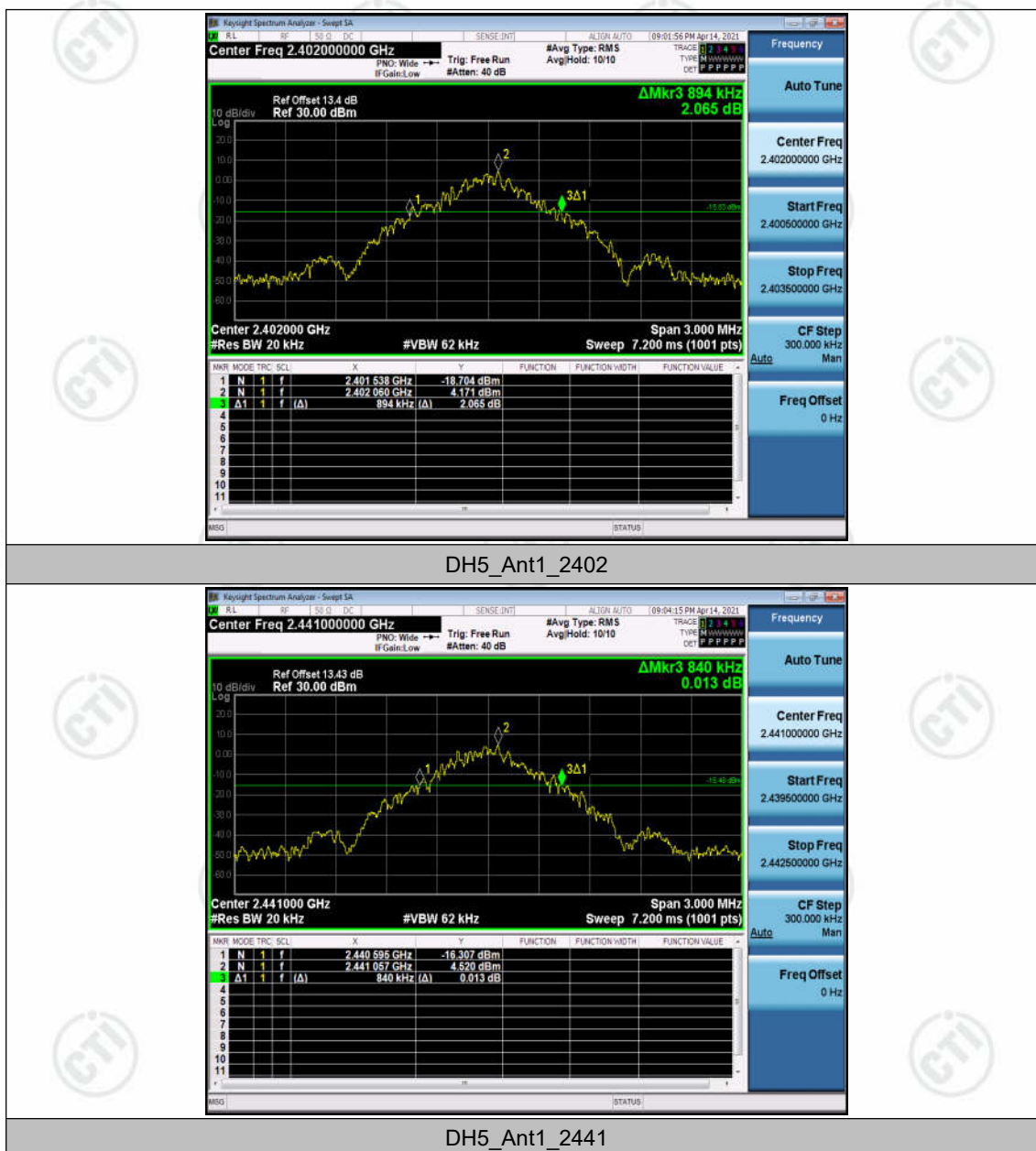
Appendix A: 20dB Emission Bandwidth.....	3
Test Result.....	3
Test Graphs.....	4
Appendix B: Occupied Channel Bandwidth.....	9
Test Result.....	9
Test Graphs.....	10
Appendix C: Maximum conducted output power.....	15
Test Result.....	15
Test Graphs.....	16
Appendix D: Carrier frequency separation.....	20
Test Result.....	20
Test Graphs.....	21
Appendix E: Time of occupancy.....	26
Test Result.....	26
Test Graphs.....	27
Appendix F: Number of hopping channels.....	36
Test Result.....	36
Test Graphs.....	37
Appendix G: Band edge measurements.....	39
Test Result.....	39
Test Graphs.....	40
Appendix H: Conducted Spurious Emission.....	47
Test Result.....	47
Test Graphs.....	48
Appendix I: Duty Cycle.....	62
Test Result.....	62
Test Graphs.....	63

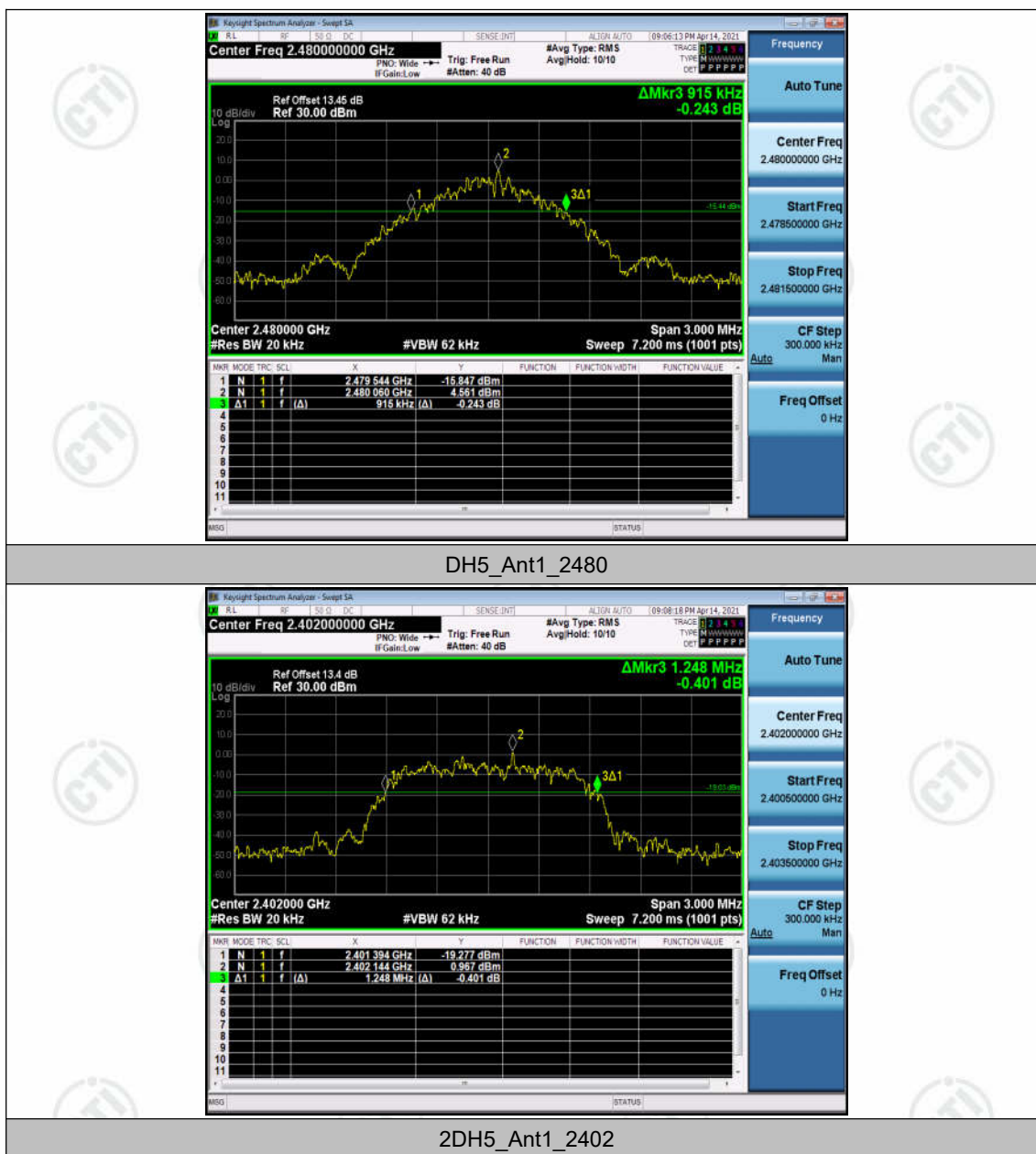
Appendix A: 20dBEmission Bandwidth

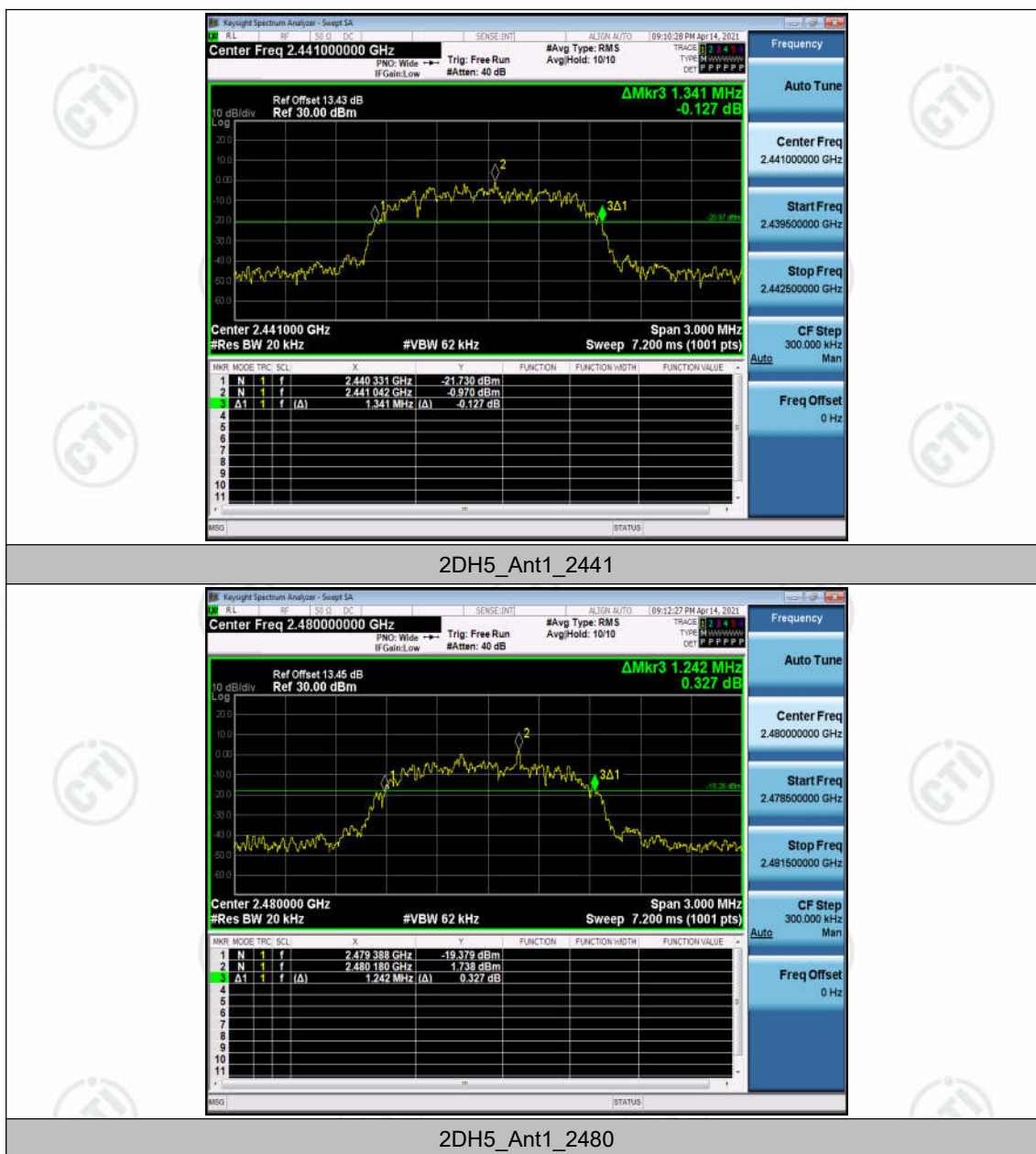
Test Result

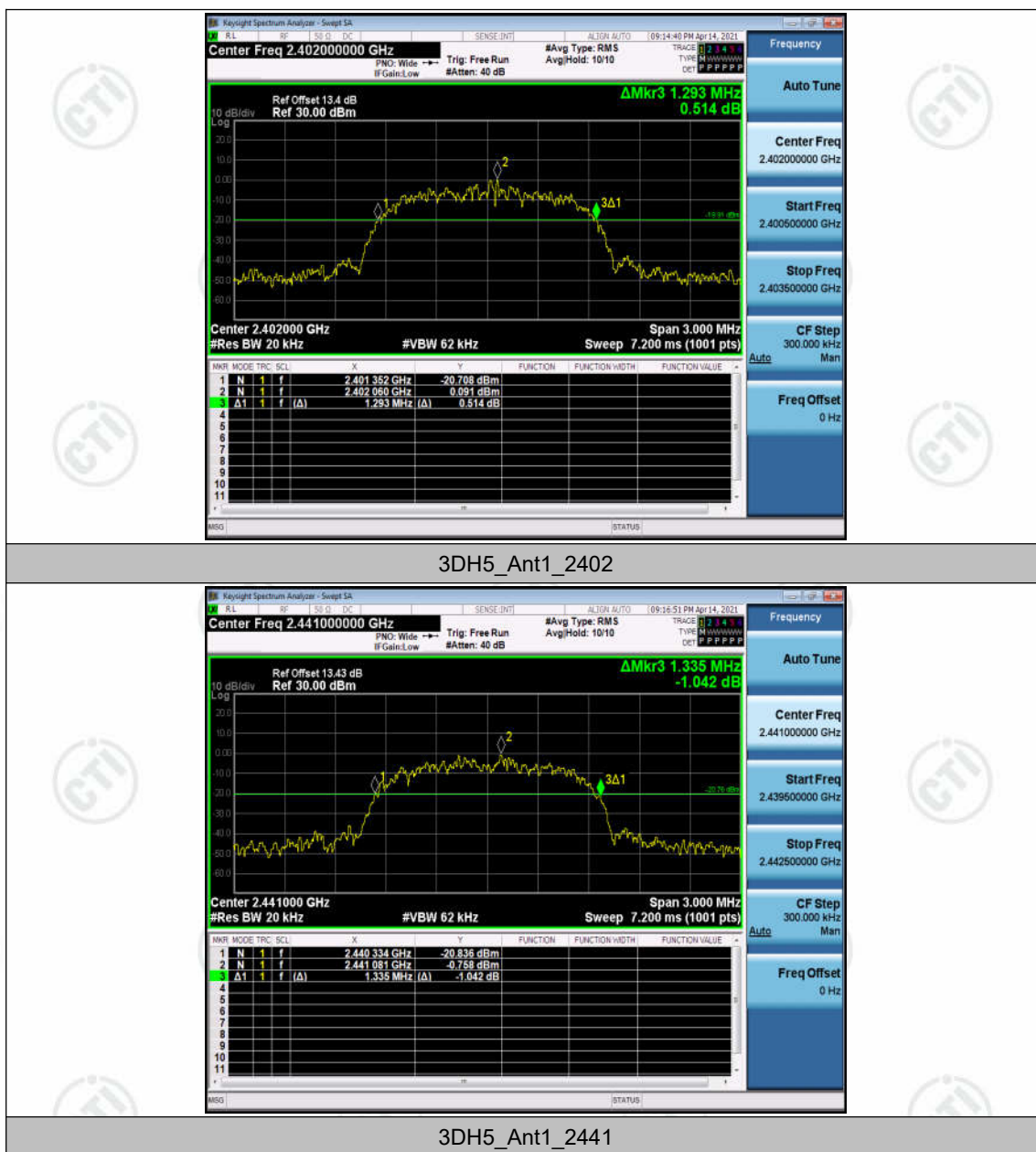
Test Mode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.894	2401.538	2402.432	---	PASS
		2441	0.840	2440.595	2441.435	---	PASS
		2480	0.915	2479.544	2480.459	---	PASS
2DH5	Ant1	2402	1.248	2401.394	2402.642	---	PASS
		2441	1.341	2440.331	2441.672	---	PASS
		2480	1.242	2479.388	2480.630	---	PASS
3DH5	Ant1	2402	1.293	2401.352	2402.645	---	PASS
		2441	1.335	2440.334	2441.669	---	PASS
		2480	1.323	2479.334	2480.657	---	PASS

Test Graphs









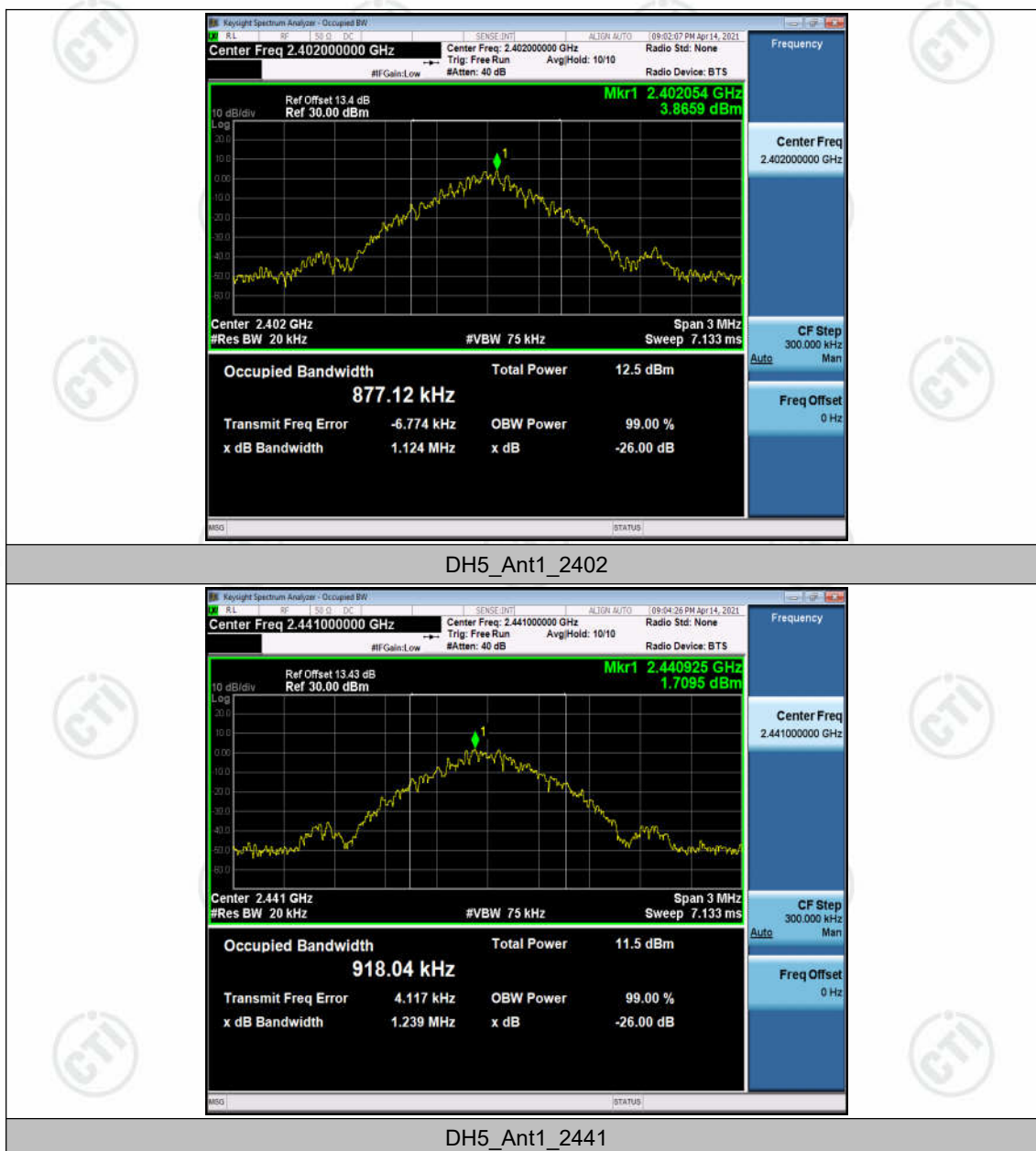


Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.87712	2401.555	2402.432	---	PASS
		2441	0.91804	2440.545	2441.463	---	PASS
		2480	0.87780	2479.572	2480.450	---	PASS
2DH5	Ant1	2402	1.1819	2401.400	2402.581	---	PASS
		2441	1.1896	2440.414	2441.603	---	PASS
		2480	1.1952	2479.403	2480.598	---	PASS
3DH5	Ant1	2402	1.2009	2401.389	2402.590	---	PASS
		2441	1.1783	2440.414	2441.592	---	PASS
		2480	1.1592	2479.427	2480.586	---	PASS

Test Graphs

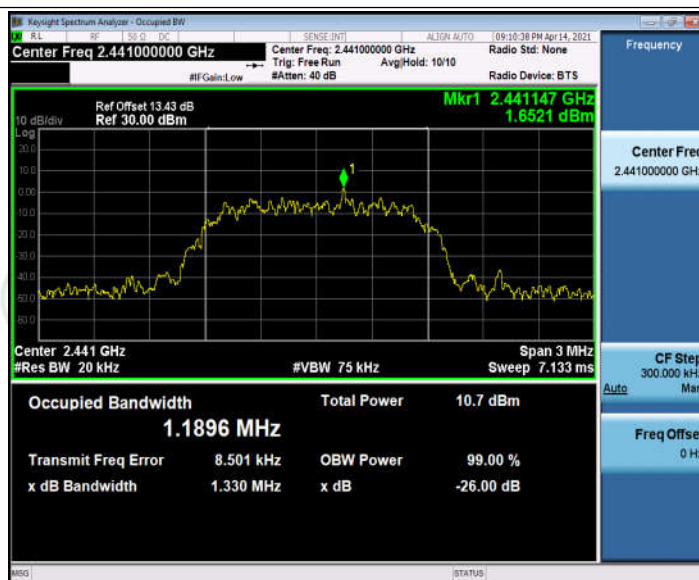




DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



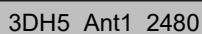
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441

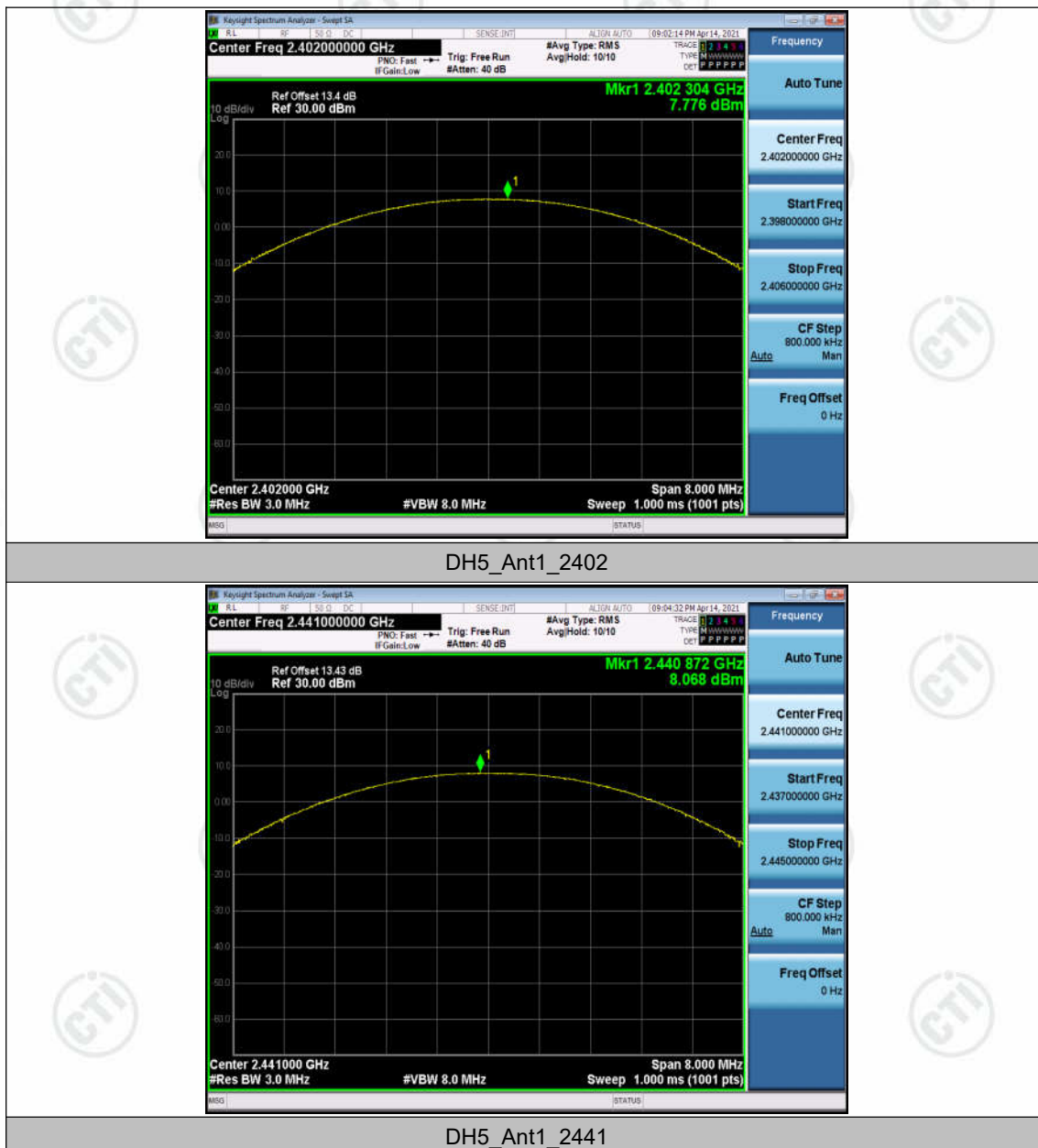


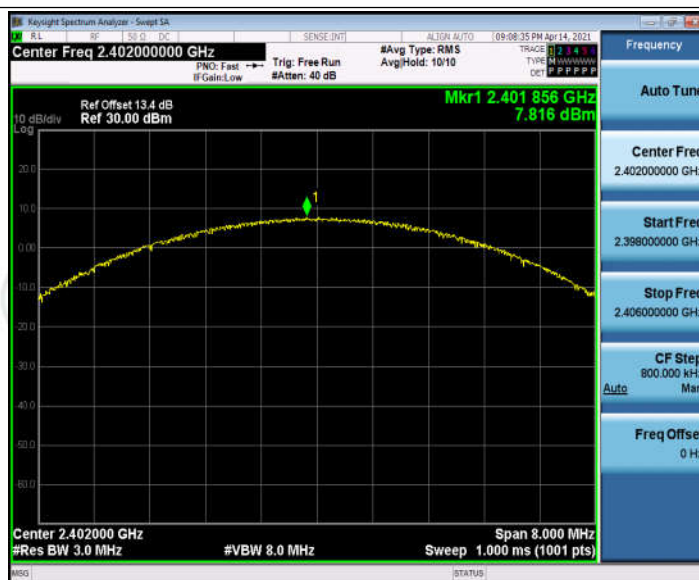
Appendix C: Maximum conducted output power

Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	7.78	<=20.97	PASS
		2441	8.07	<=20.97	PASS
2DH5	Ant1	2402	7.82	<=20.97	PASS
		2441	8.15	<=20.97	PASS
		2480	8.24	<=20.97	PASS
3DH5	Ant1	2402	8.03	<=20.97	PASS
		2441	8.34	<=20.97	PASS
		2480	8.56	<=20.97	PASS

Test Graphs

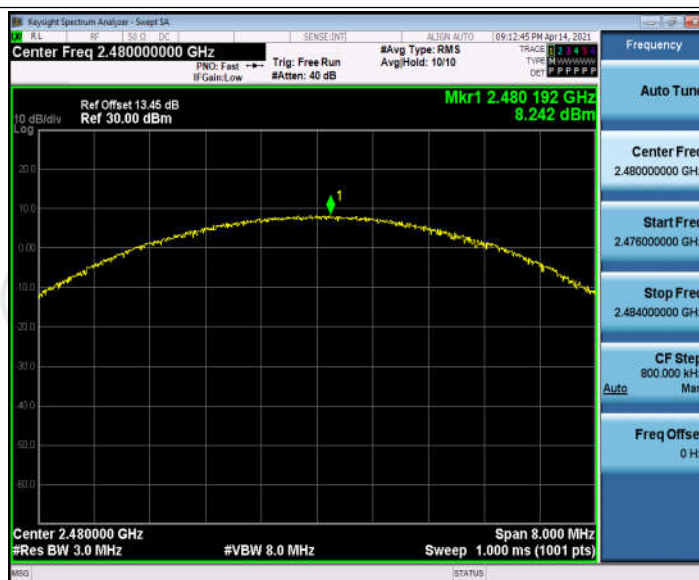




2DH5_Ant1_2402



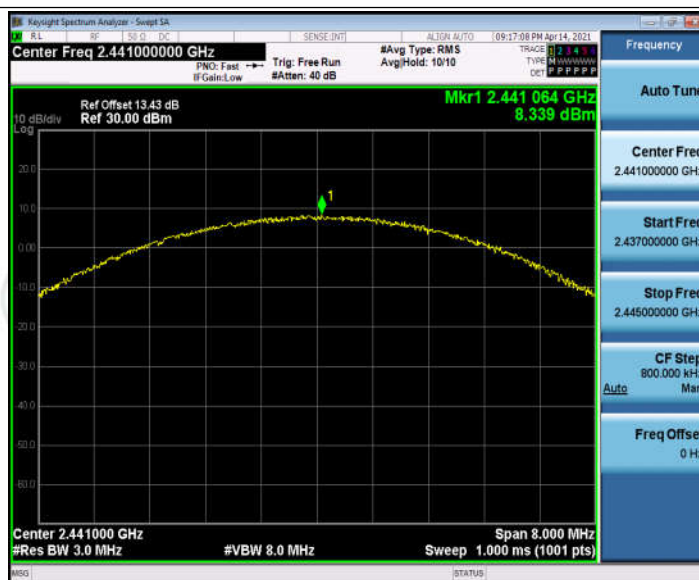
2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

Appendix D: Carrier frequency separation

Test Result

Test Mode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop_2402	0.938	≥ 0.915	PASS
		Hop_2441	0.996	≥ 0.915	PASS
		Hop_2480	1.122	≥ 0.915	PASS
2DH5	Ant1	Hop_2402	1.008	≥ 0.894	PASS
		Hop_2441	1.02	≥ 0.894	PASS
		Hop_2480	0.984	≥ 0.894	PASS
3DH5	Ant1	Hop_2402	1.032	≥ 0.890	PASS
		Hop_2441	1.112	≥ 0.890	PASS
		Hop_2480	0.988	≥ 0.890	PASS

Test Graphs





DH5_Ant1_Hop_2480



2DH5_Ant1_Hop_2402



2DH5_Ant1_Hop_2441



2DH5_Ant1_Hop_2480



3DH5_Ant1_Hop_2402



3DH5_Ant1_Hop_2441

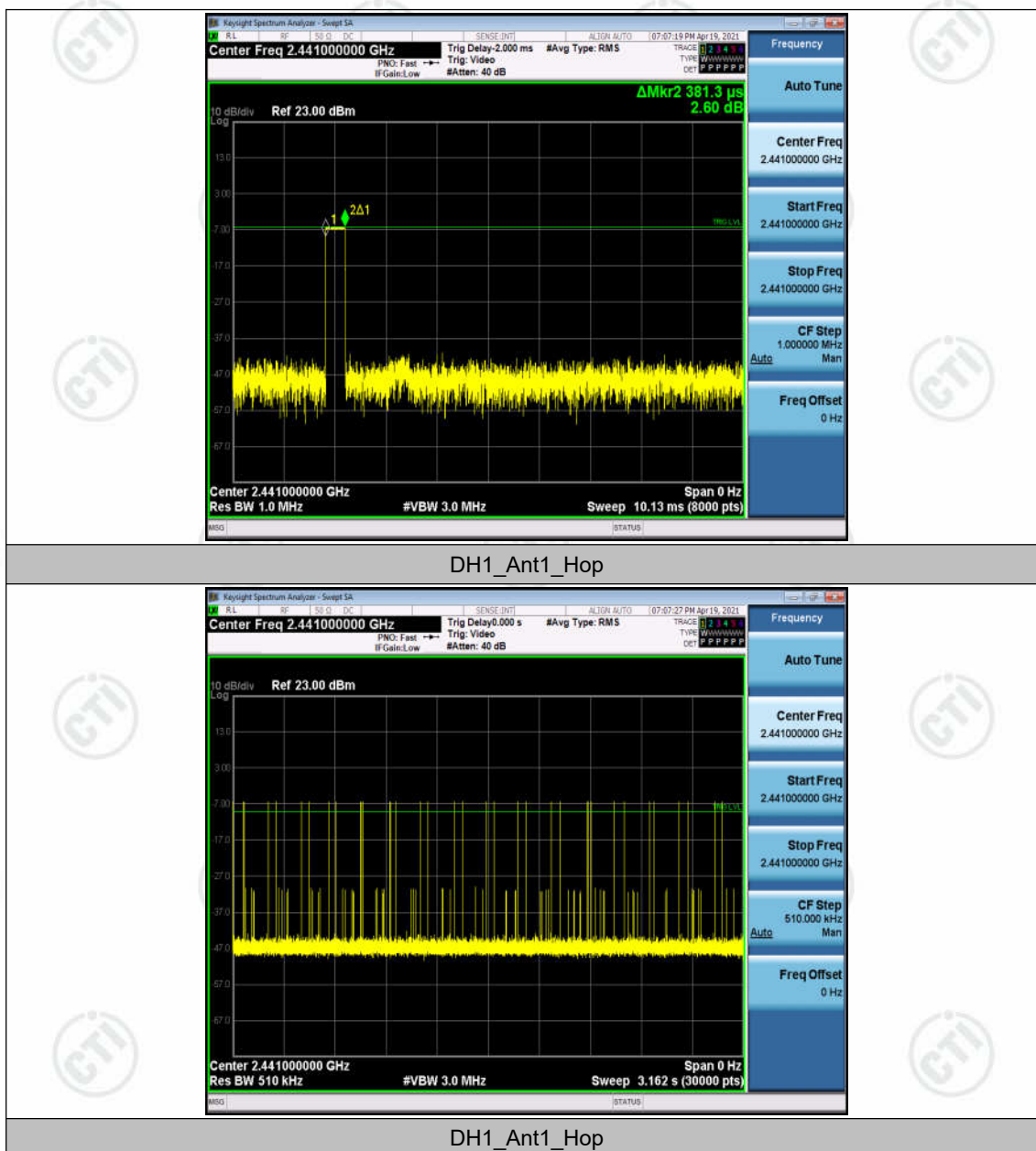


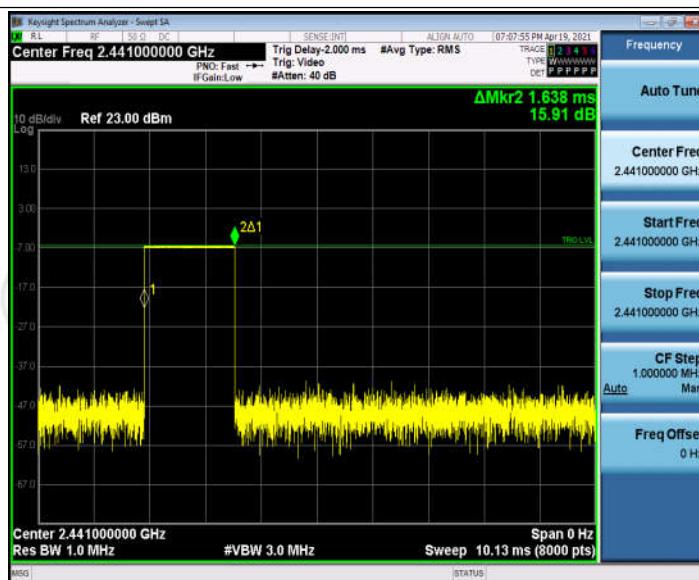
Appendix E: Time of occupancy

Test Result

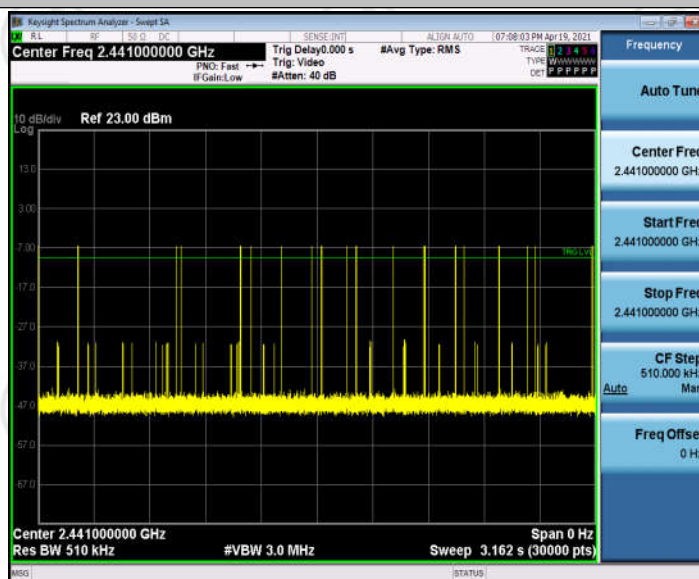
Test Mode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.38	320	0.122	<=0.4	PASS
DH3	Ant1	Hop	1.64	200	0.328	<=0.4	PASS
DH5	Ant1	Hop	2.89	130	0.375	<=0.4	PASS
2DH1	Ant1	Hop	0.39	330	0.129	<=0.4	PASS
2DH3	Ant1	Hop	1.64	170	0.279	<=0.4	PASS
2DH5	Ant1	Hop	2.89	90	0.26	<=0.4	PASS
3DH1	Ant1	Hop	0.39	320	0.125	<=0.4	PASS
3DH3	Ant1	Hop	1.64	190	0.312	<=0.4	PASS
3DH5	Ant1	Hop	2.89	70	0.202	<=0.4	PASS

Test Graphs

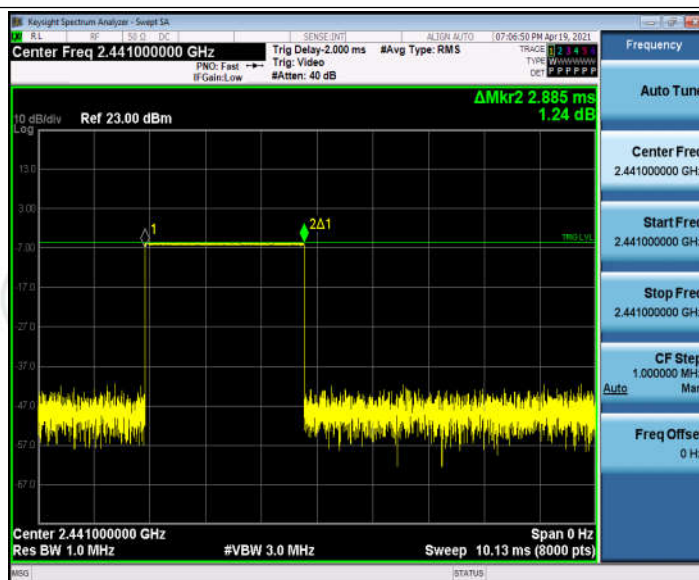




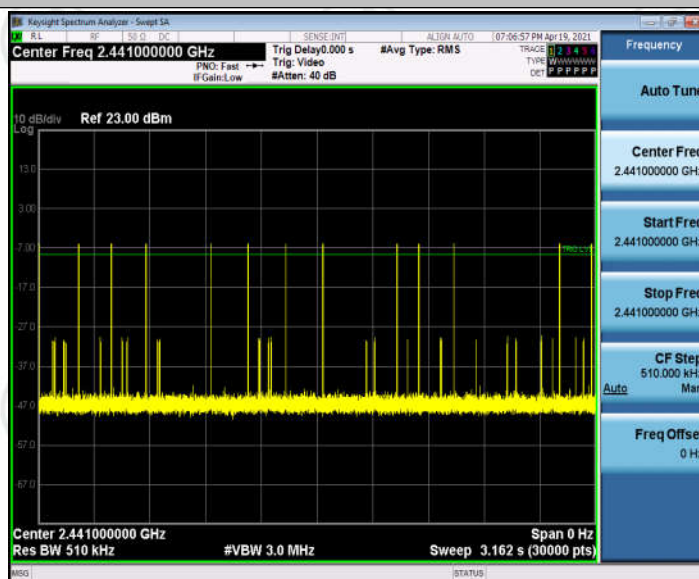
DH3_Ant1_Hop



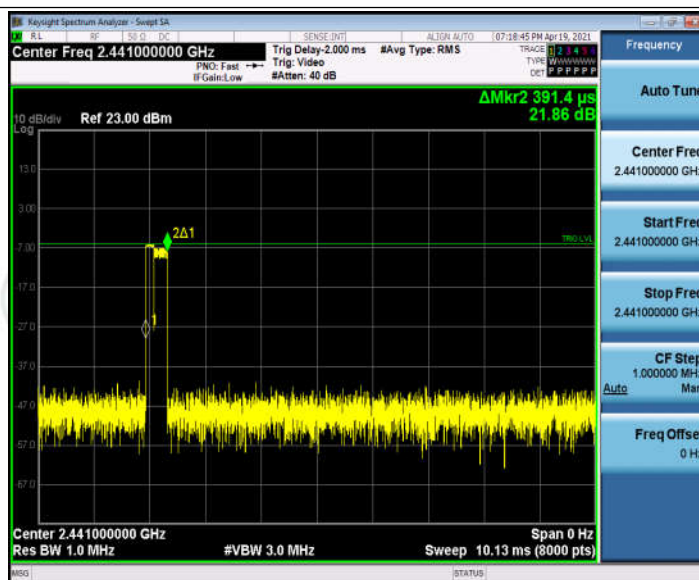
DH3_Ant1_Hop



DH5_Ant1_Hop



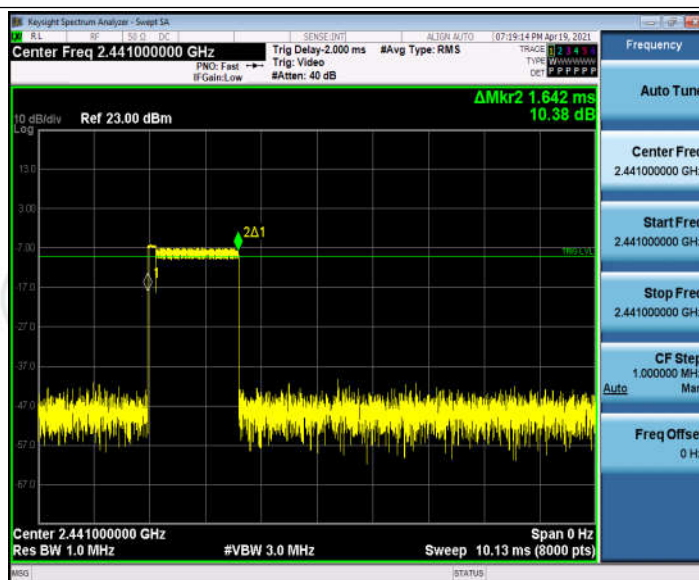
DH5_Ant1_Hop



2DH1_Ant1_Hop



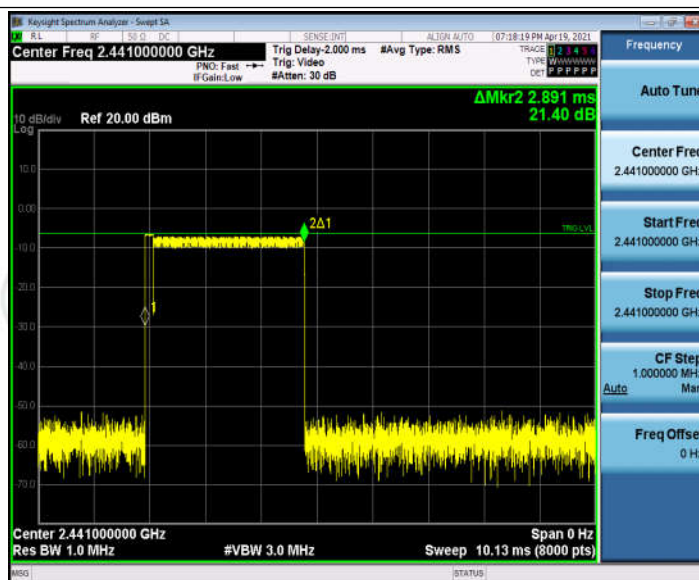
2DH1_Ant1_Hop



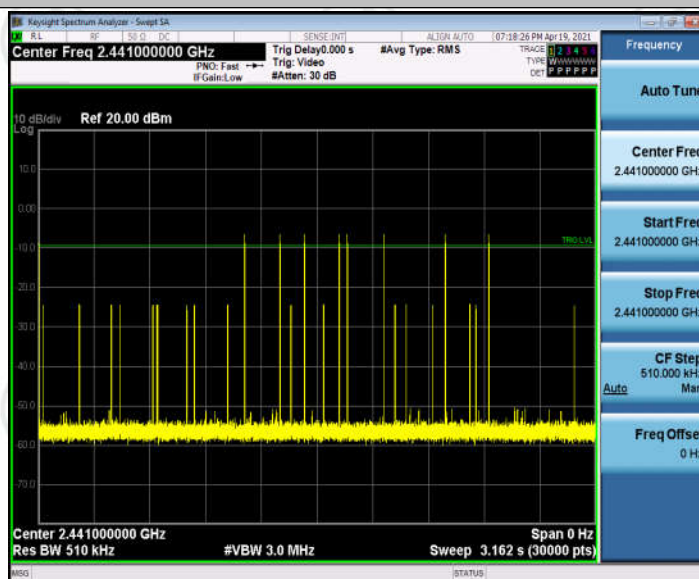
2DH3_Ant1_Hop



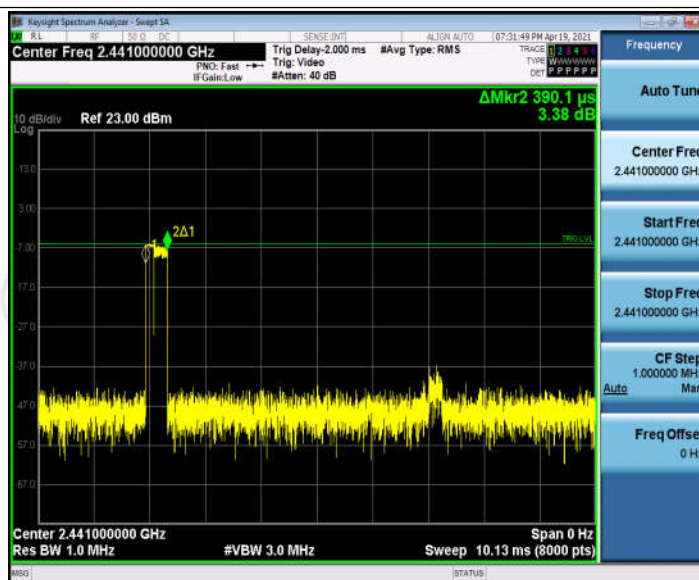
2DH3_Ant1_Hop



2DH5_Ant1_Hop



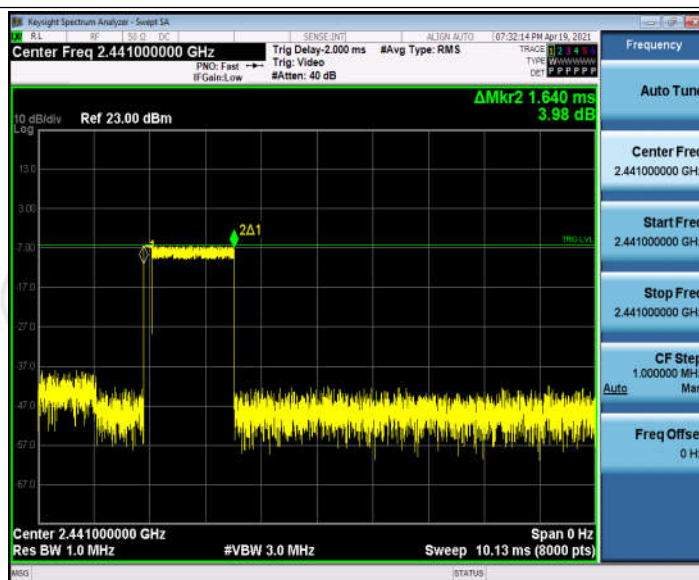
2DH5_Ant1_Hop



3DH1_Ant1_Hop



3DH1_Ant1_Hop



3DH3_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop



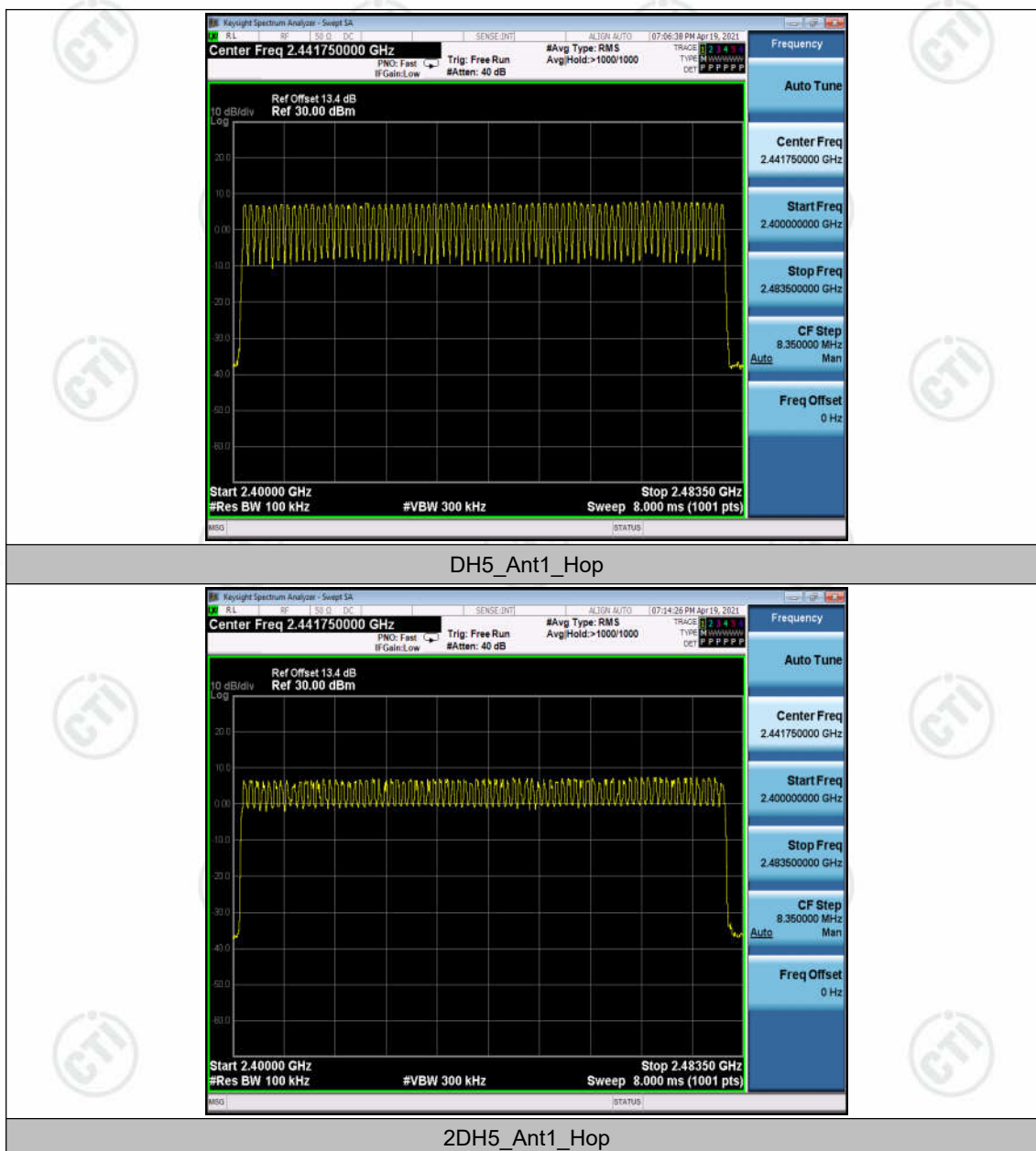
3DH5_Ant1_Hop

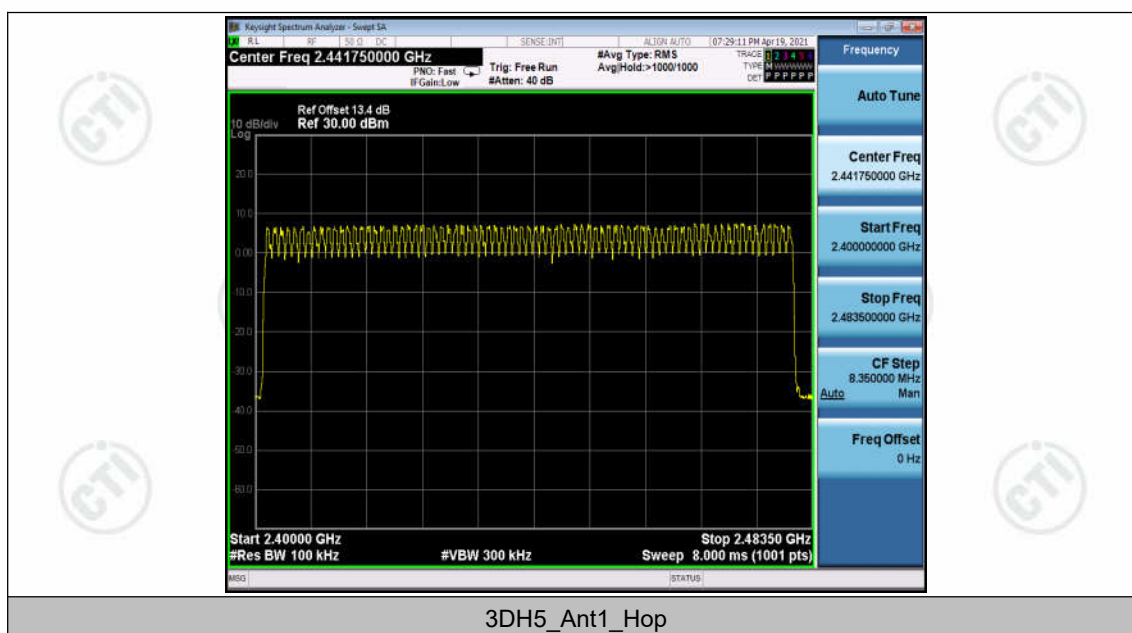
Appendix F: Number of hopping channels

Test Result

Test Mode	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



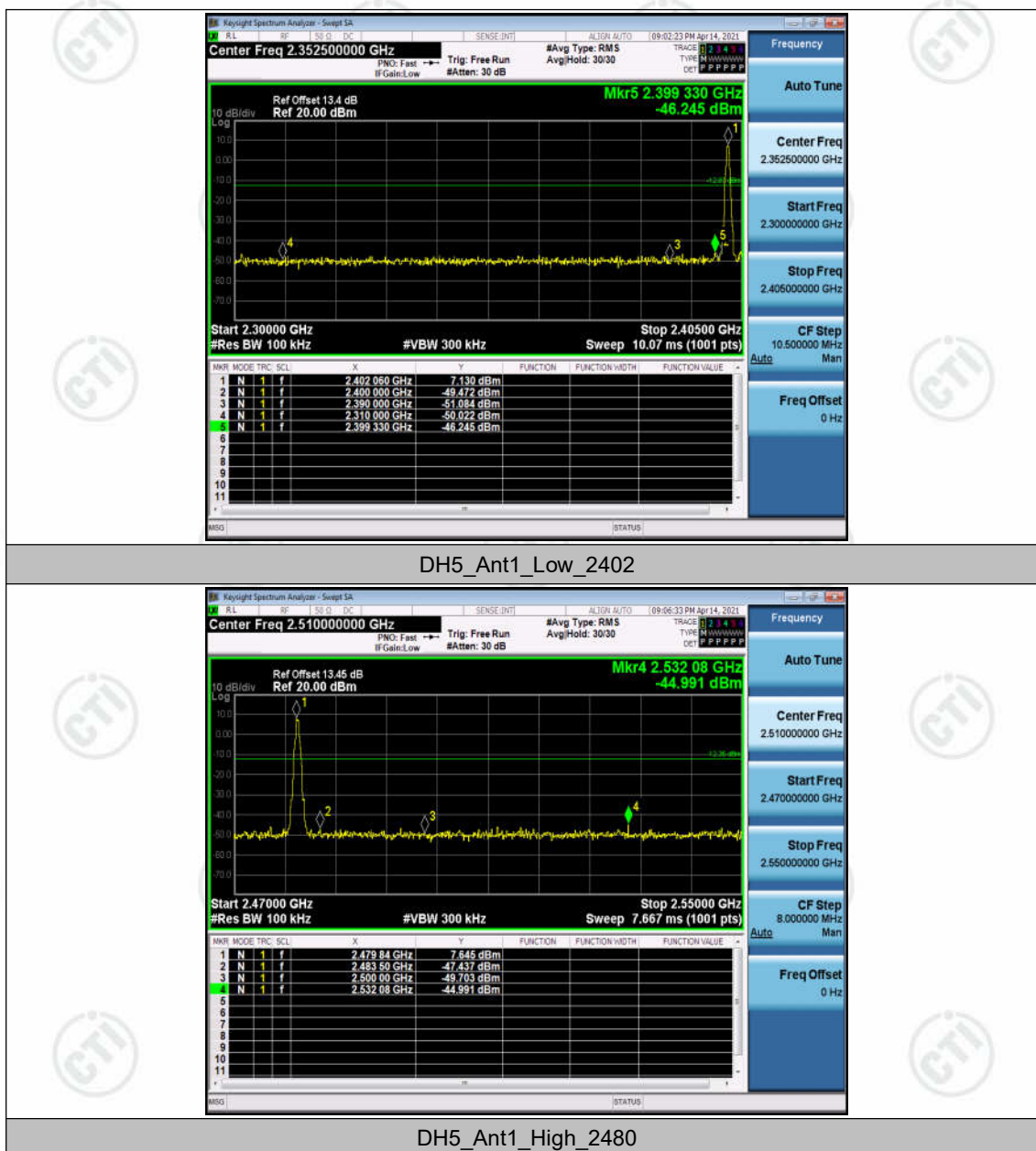


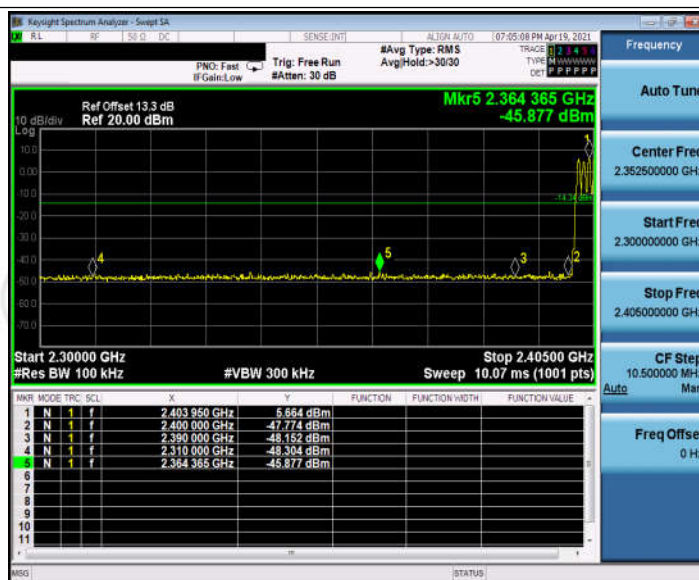
Appendix G: Band edge measurements

Test Result

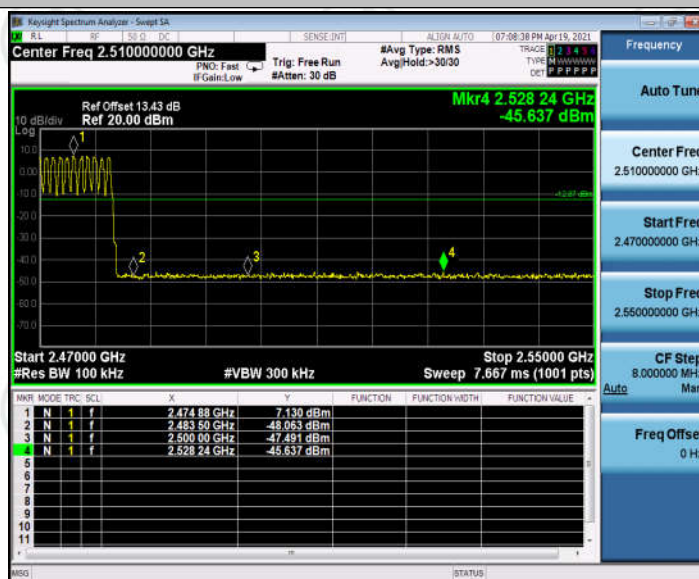
Test Mode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	7.13	-46.25	<=-12.87	PASS
		High	2480	7.65	-44.99	<=-12.36	PASS
		Low	Hop_2402	5.66	-45.88	<=-14.34	PASS
		High	Hop_2480	7.13	-45.64	<=-12.87	PASS
2DH5	Ant1	Low	2402	5.70	-46.99	<=-14.31	PASS
		High	2480	8.08	-46.69	<=-11.92	PASS
		Low	Hop_2402	6.17	-45.44	<=-13.83	PASS
		High	Hop_2480	7.25	-44.6	<=-12.75	PASS
3DH5	Ant1	Low	2402	7.39	-46.13	<=-12.61	PASS
		High	2480	3.35	-45.51	<=-16.65	PASS
		Low	Hop_2402	6.35	-44.17	<=-13.65	PASS
		High	Hop_2480	7.28	-44.44	<=-12.73	PASS

Test Graphs

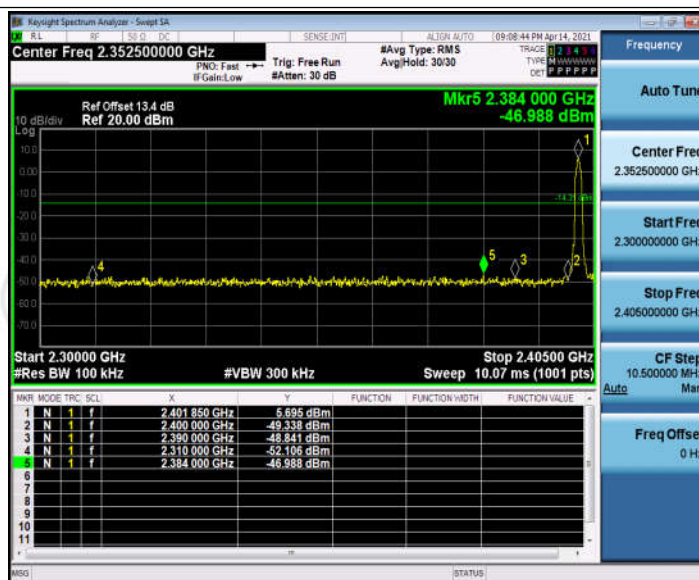




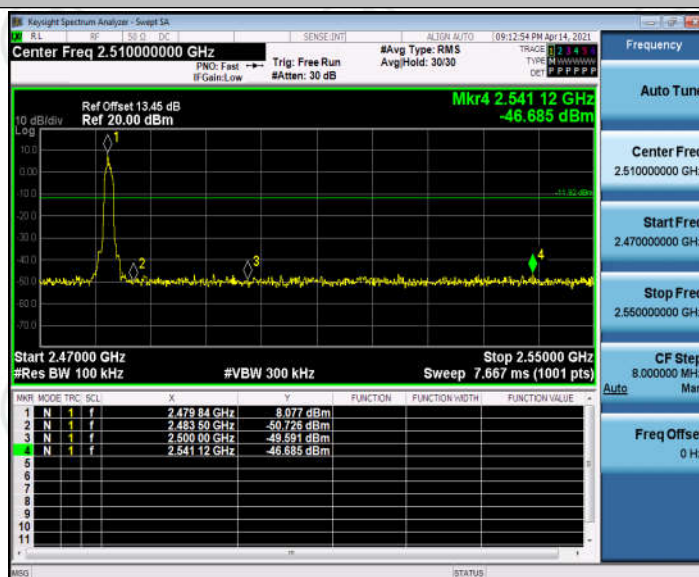
DH5_Ant1_Low_Hop_2402



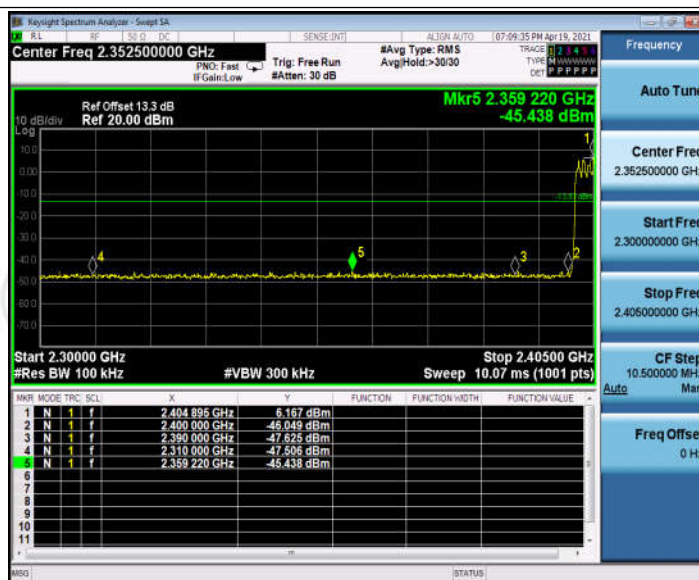
DH5_Ant1_High_Hop_2480



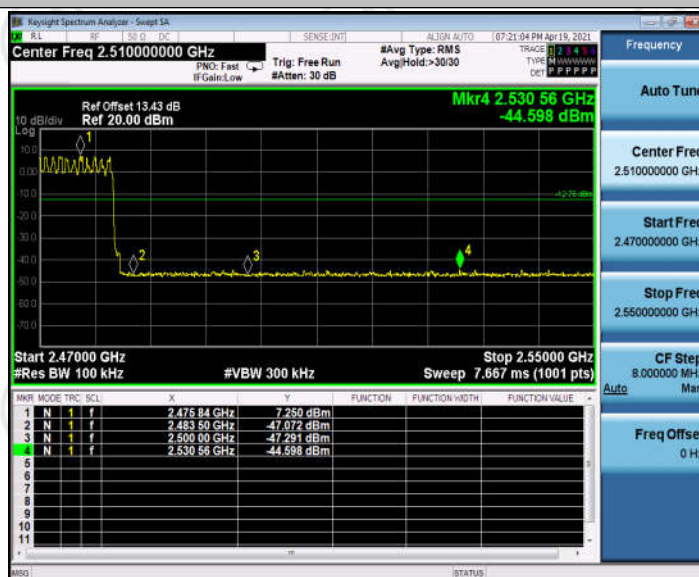
2DH5_Ant1_Low_2402



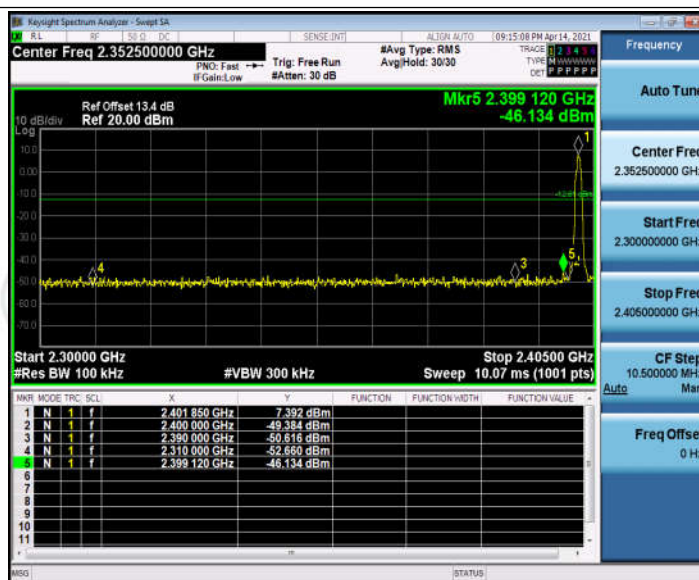
2DH5_Ant1_High_2480



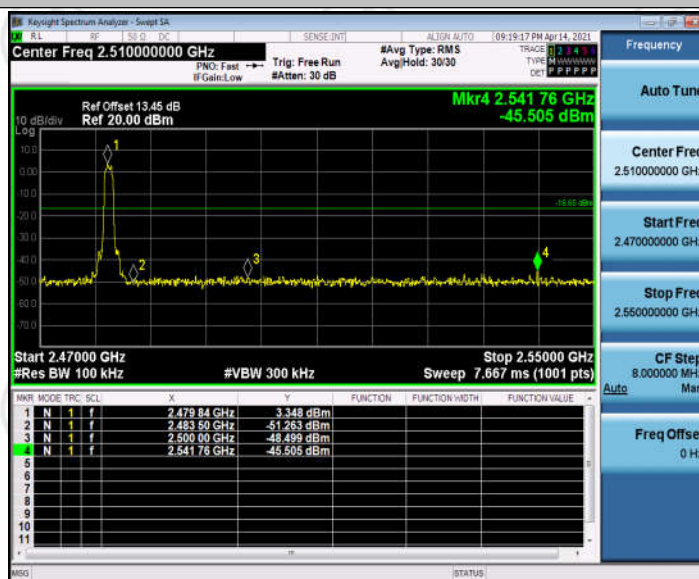
2DH5_Ant1_Low_Hop_2402



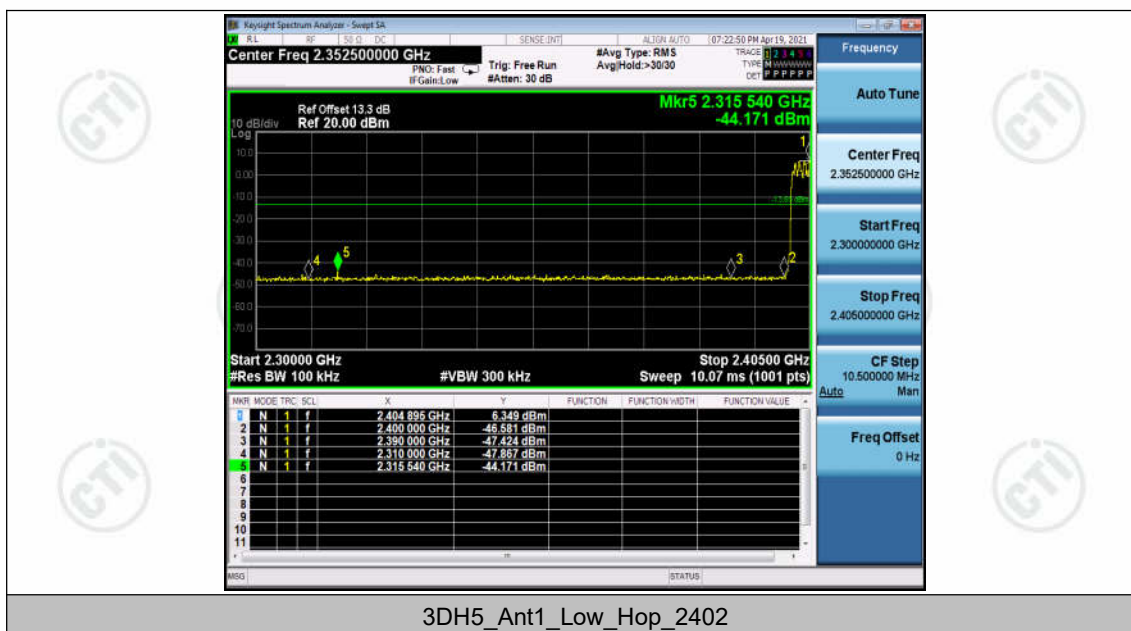
2DH5_Ant1_High_Hop_2480

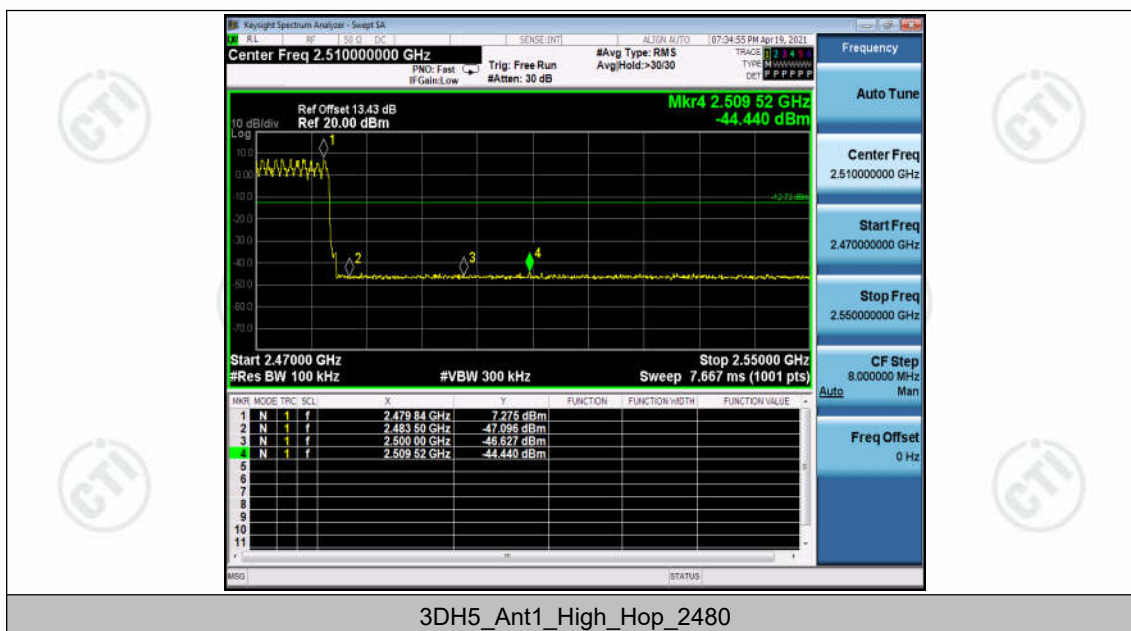


3DH5_Ant1_Low_2402



3DH5_Ant1_High_2480



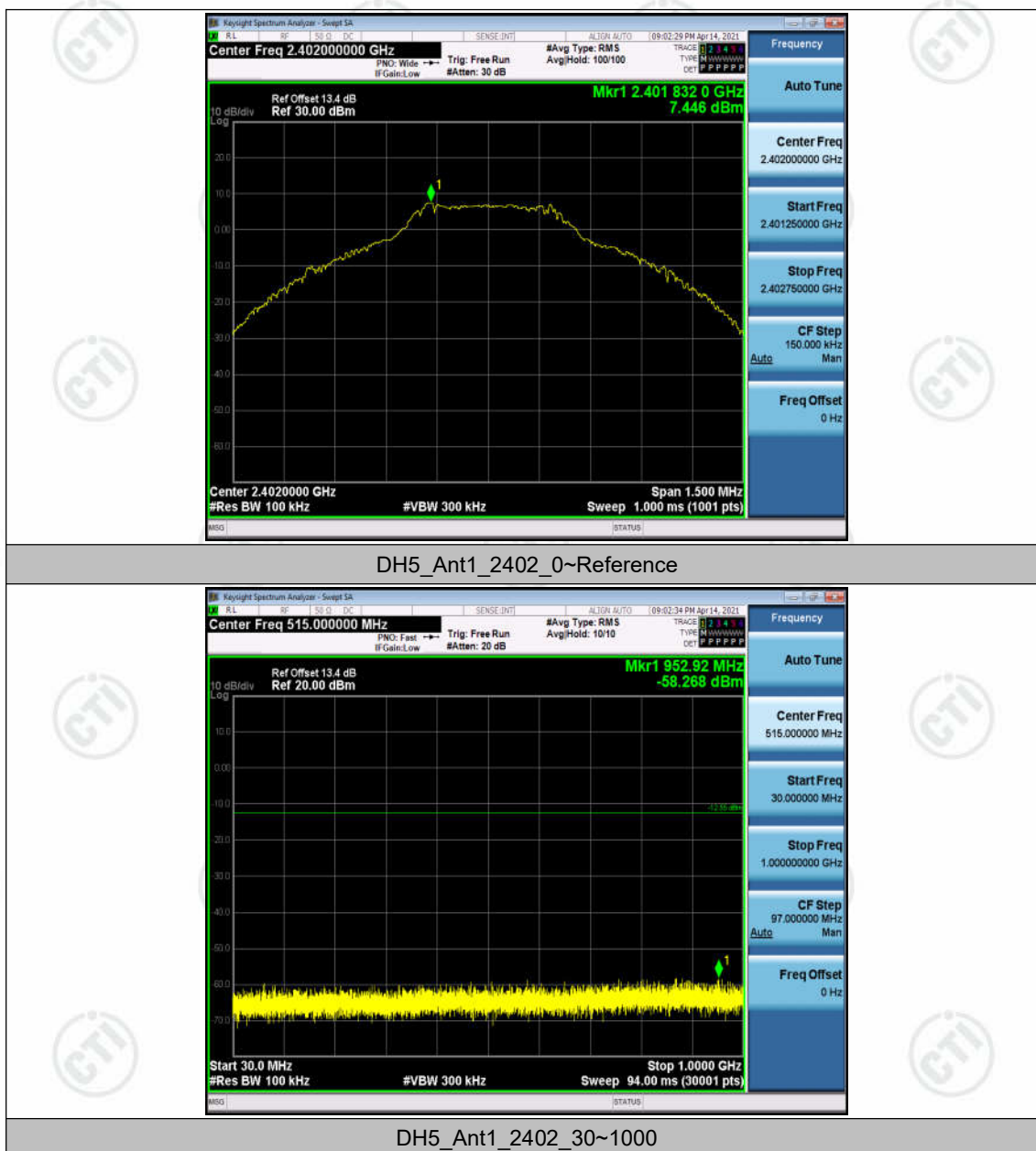


Appendix H: Conducted Spurious Emission

Test Result

Test Mode	Antenna	Channel	Freq Range [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	7.45	7.45	---	PASS
			30~1000	30~1000	-58.268	<=-12.554	PASS
			1000~26500	1000~26500	-50.013	<=-12.554	PASS
		2441	Reference	7.78	7.78	---	PASS
			30~1000	30~1000	-57.474	<=-12.221	PASS
			1000~26500	1000~26500	-49.853	<=-12.221	PASS
		2480	Reference	7.85	7.85	---	PASS
			30~1000	30~1000	-57.49	<=-12.151	PASS
			1000~26500	1000~26500	-49.864	<=-12.151	PASS
2DH5	Ant1	2402	Reference	7.46	7.46	---	PASS
			30~1000	30~1000	-57.844	<=-12.537	PASS
			1000~26500	1000~26500	-49.445	<=-12.537	PASS
		2441	Reference	7.57	7.57	---	PASS
			30~1000	30~1000	-58.243	<=-12.43	PASS
			1000~26500	1000~26500	-48.356	<=-12.43	PASS
		2480	Reference	7.96	7.96	---	PASS
			30~1000	30~1000	-57.837	<=-12.043	PASS
			1000~26500	1000~26500	-48.928	<=-12.043	PASS
3DH5	Ant1	2402	Reference	7.32	7.32	---	PASS
			30~1000	30~1000	-58.616	<=-12.683	PASS
			1000~26500	1000~26500	-49.505	<=-12.683	PASS
		2441	Reference	7.68	7.68	---	PASS
			30~1000	30~1000	-57.292	<=-12.32	PASS
			1000~26500	1000~26500	-49.732	<=-12.32	PASS
		2480	Reference	7.45	7.45	---	PASS
			30~1000	30~1000	-57.747	<=-12.547	PASS
			1000~26500	1000~26500	-49.657	<=-12.547	PASS

Test Graphs

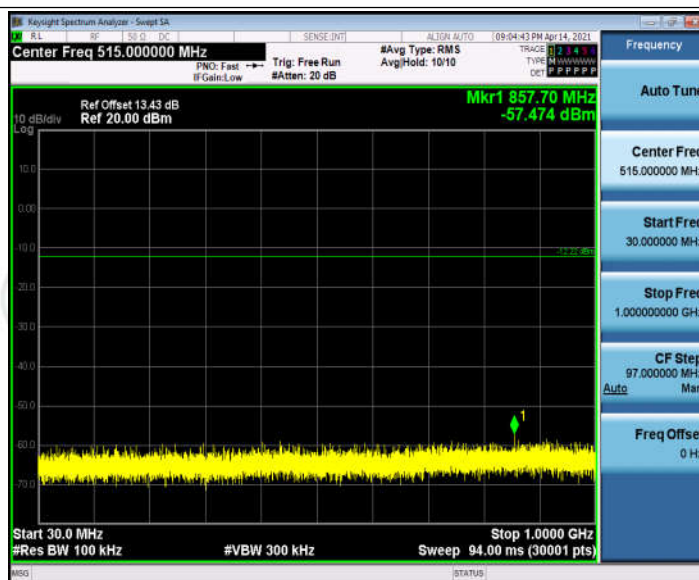




DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference



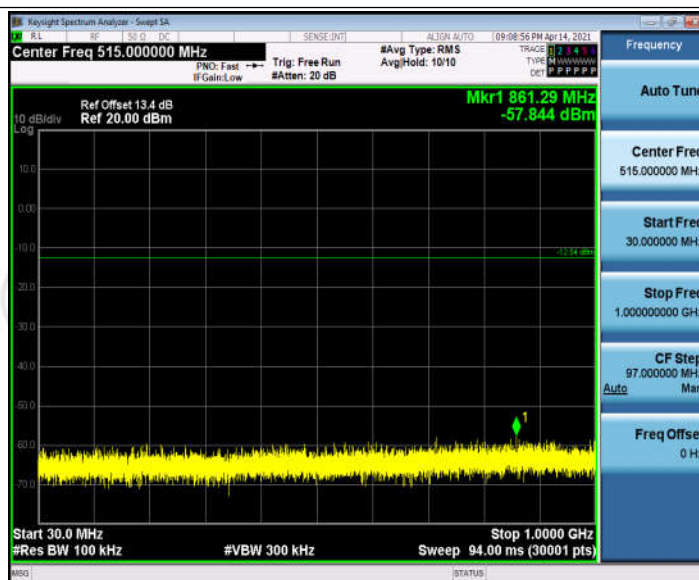
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference



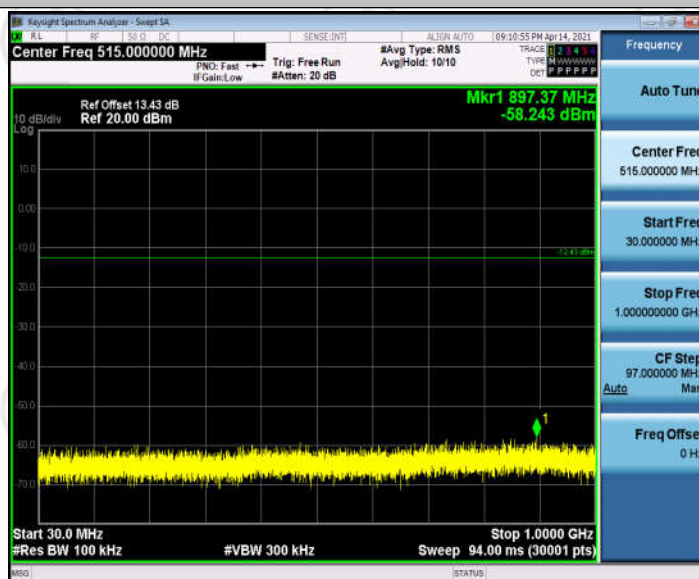
2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000



2DH5_Ant1_2441_1000~26500



2DH5_Ant1_2480_0~Reference



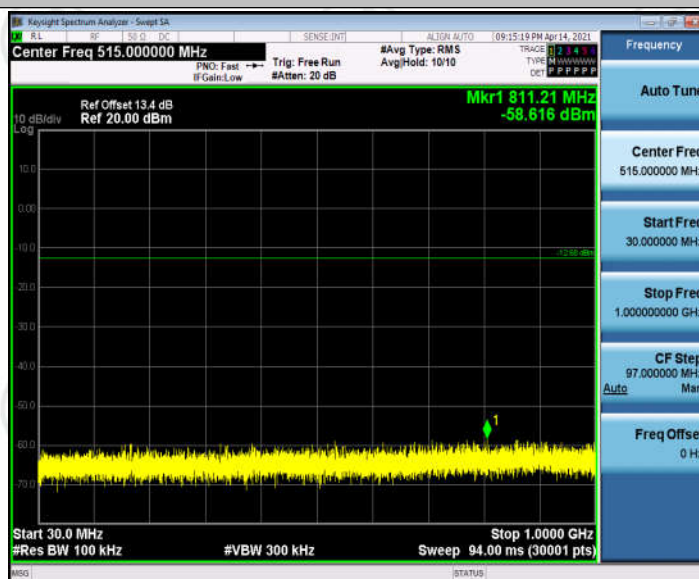
2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference



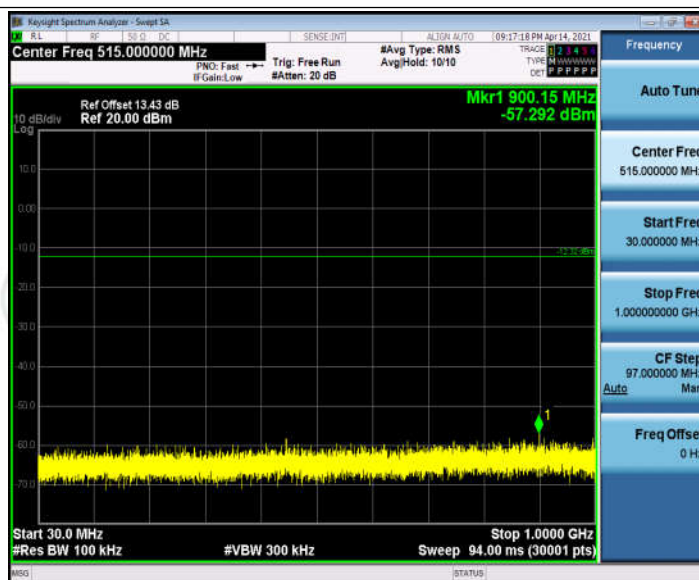
3DH5_Ant1_2402_30~1000



3DH5_Ant1_2402_1000~26500



3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



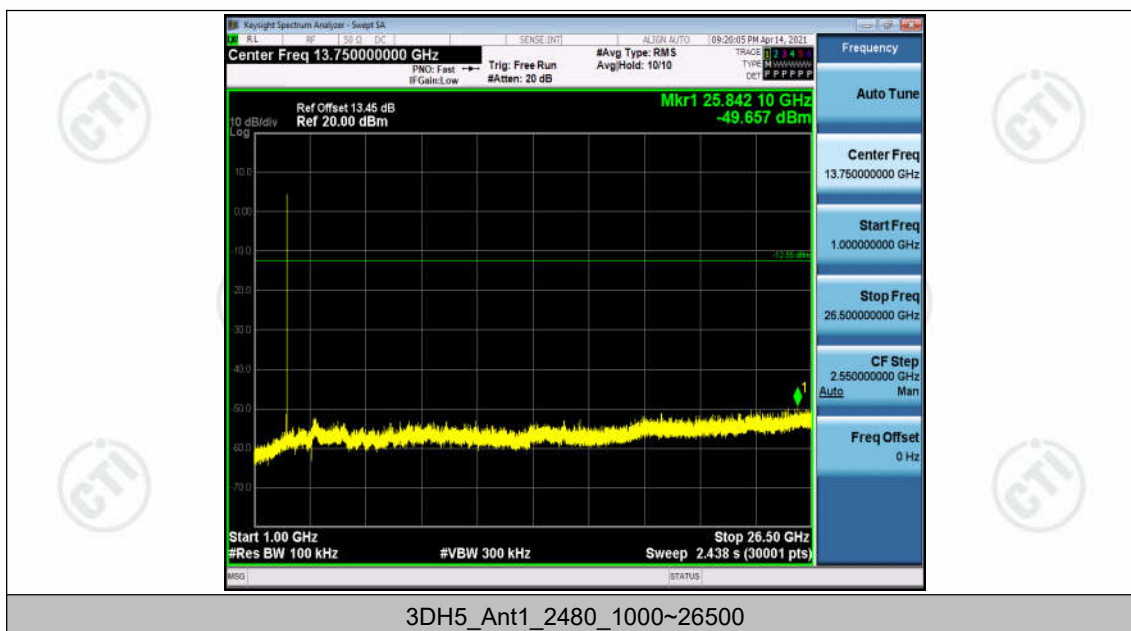
3DH5_Ant1_2441_1000~26500



3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000

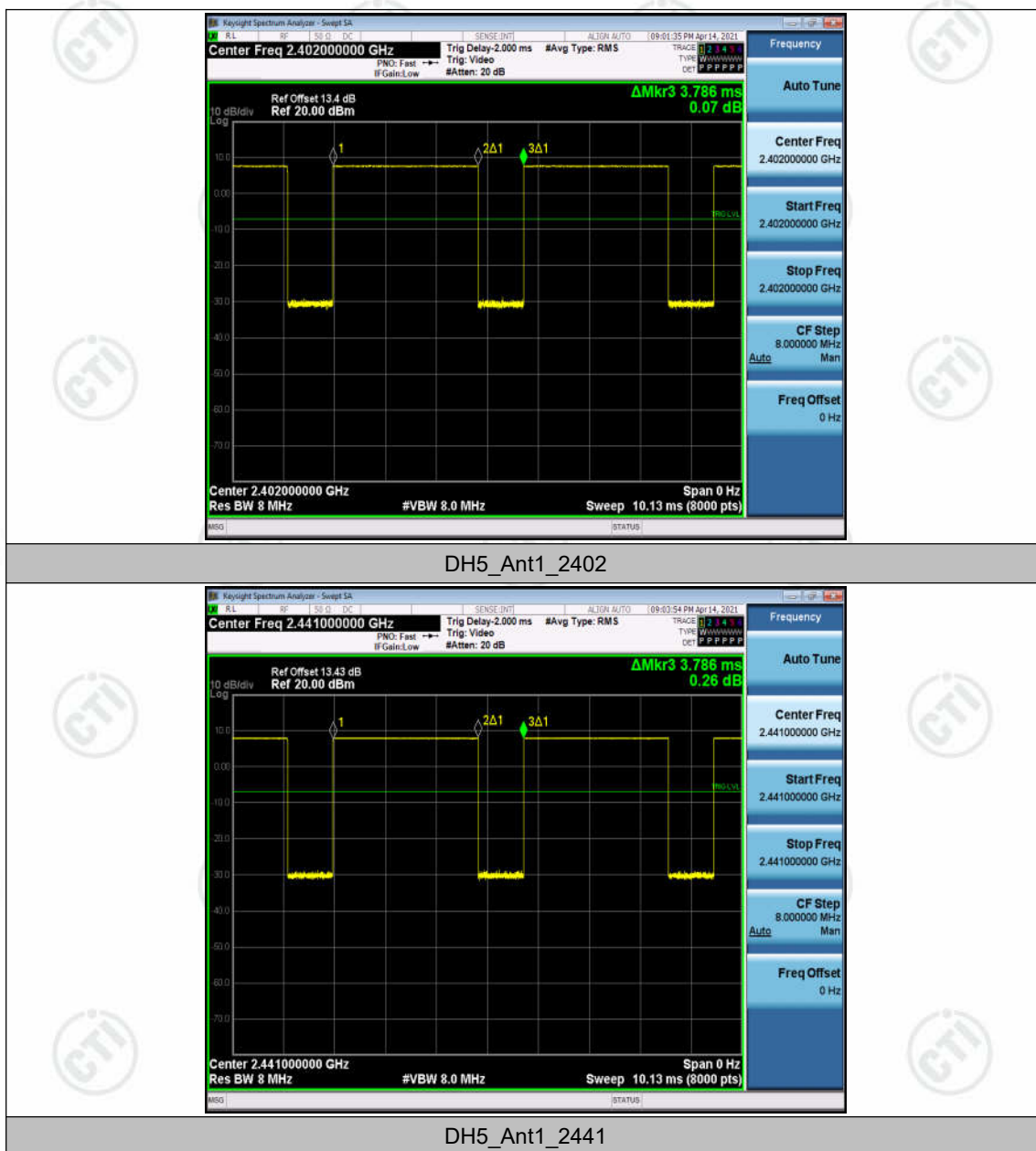


Appendix I: DutyCycle

Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
DH5	Ant1	2402	2.88	3.79	76.11	---	PASS
		2441	2.88	3.79	76.11	---	PASS
		2480	2.88	3.79	76.11	---	PASS
2DH5	Ant1	2402	2.89	3.79	76.14	---	PASS
		2441	2.89	3.79	76.11	---	PASS
		2480	2.89	3.79	76.11	---	PASS
3DH5	Ant1	2402	2.89	3.79	76.13	---	PASS
		2441	2.89	3.79	76.15	---	PASS
		2480	2.89	3.79	76.15	---	PASS

Test Graphs





DH5_Ant1_2480



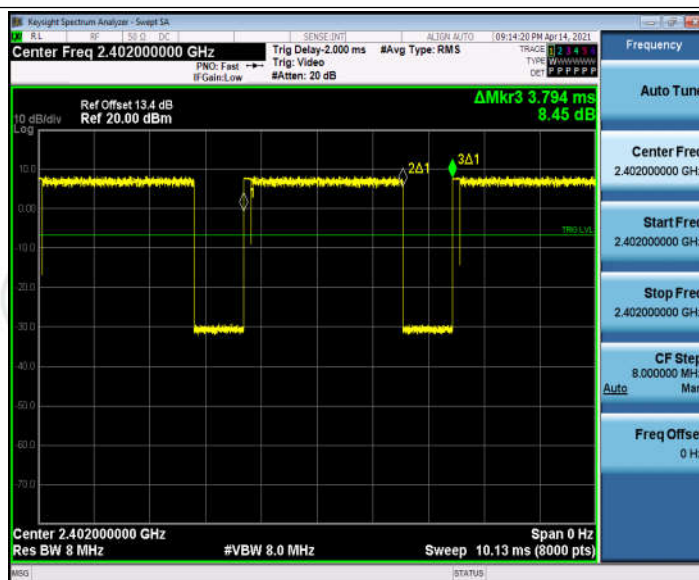
2DH5_Ant1_2402



2DH5_Ant1_2441



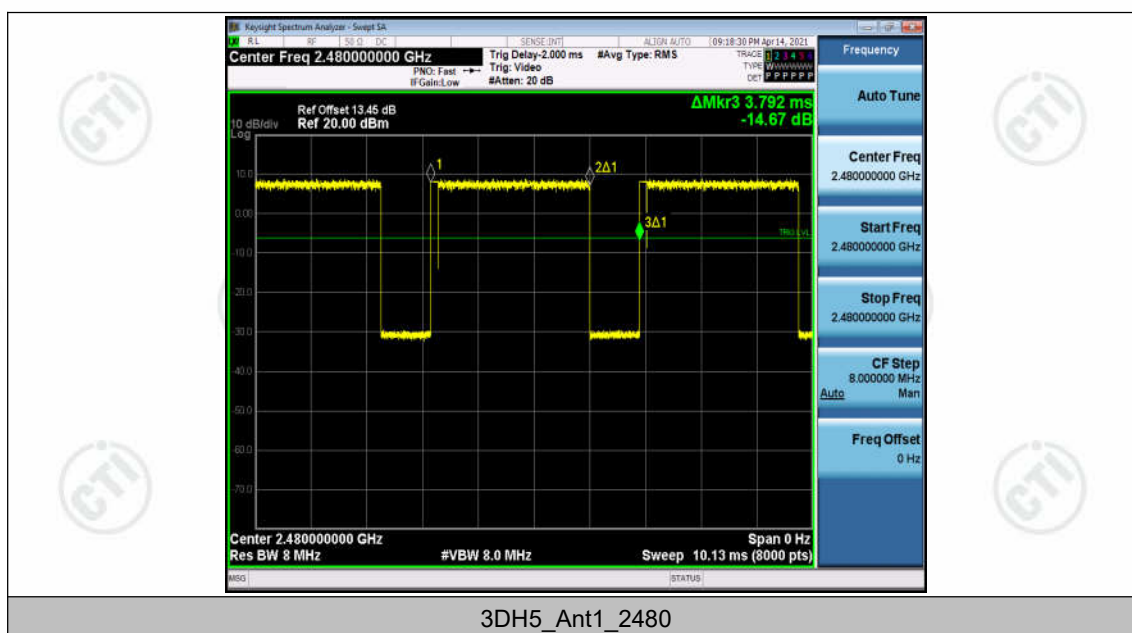
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



*** End of Report ***