

Appendix: Bluetooth BR&EDR

Contents

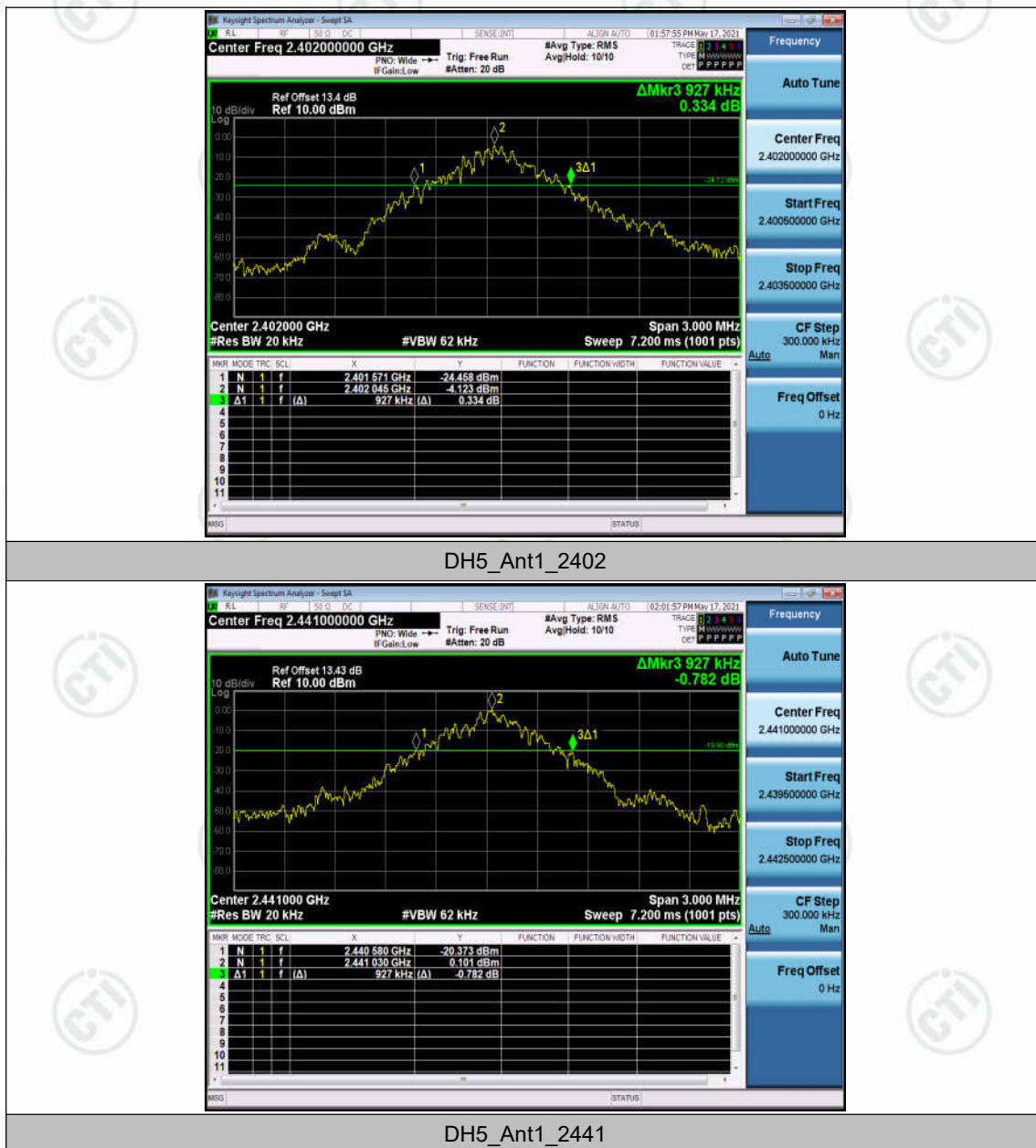
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Appendix A: 20dBEmission Bandwidth

Test Result

Test Mode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.927	2401.571	2402.498	---	PASS
		2441	0.927	2440.580	2441.507	---	PASS
		2480	0.813	2479.625	2480.438	---	PASS
2DH5	Ant1	2402	1.380	2401.337	2402.717	---	PASS
		2441	1.341	2440.364	2441.705	---	PASS
		2480	1.353	2479.361	2480.714	---	PASS
3DH5	Ant1	2402	1.344	2401.361	2402.705	---	PASS
		2441	1.272	2440.382	2441.654	---	PASS
		2480	1.341	2479.355	2480.696	---	PASS

Test Graphs





DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



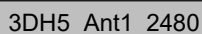
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441

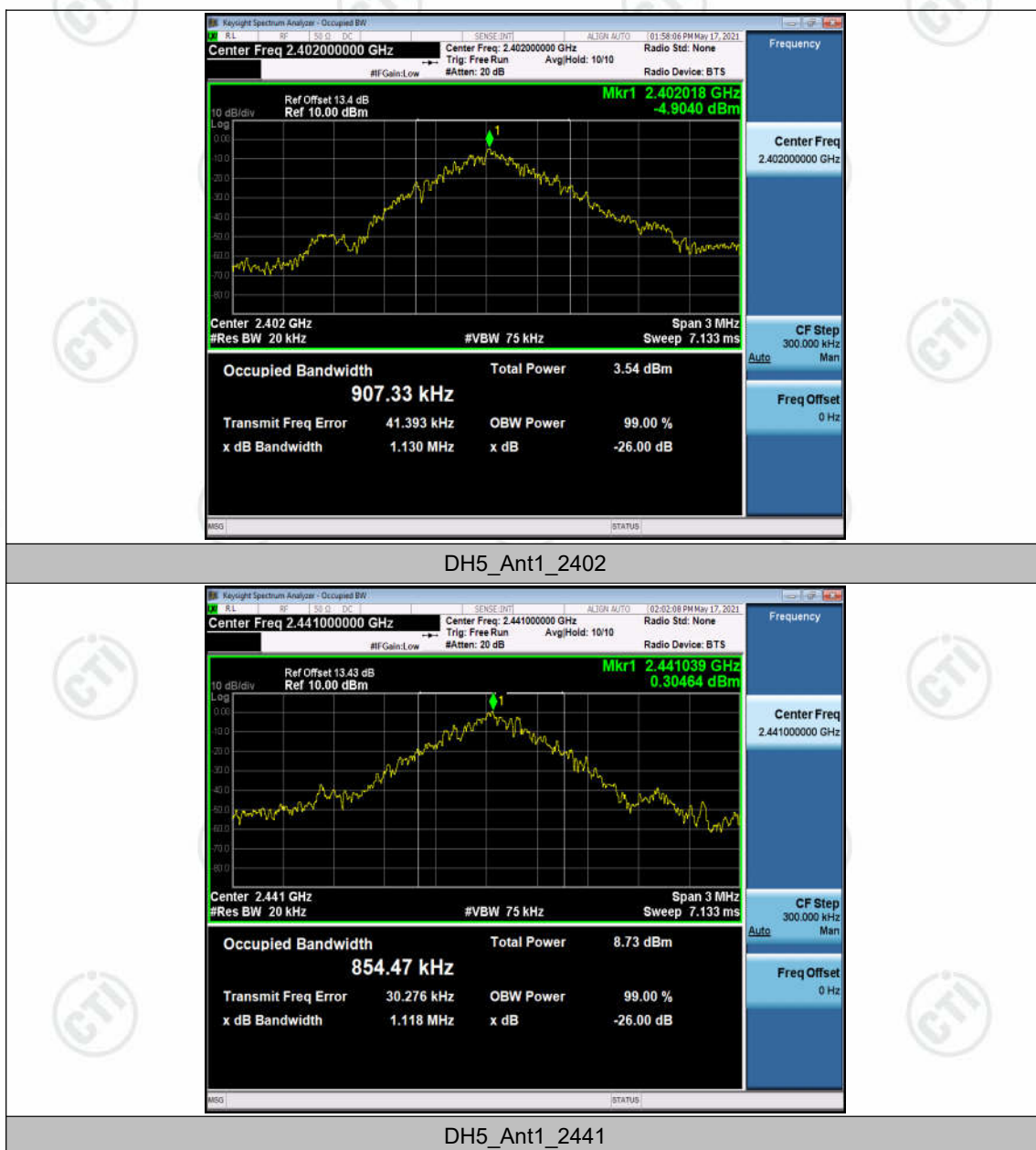


Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.90733	2401.588	2402.495	---	PASS
		2441	0.85447	2440.603	2441.458	---	PASS
		2480	0.87768	2479.589	2480.466	---	PASS
2DH5	Ant1	2402	1.1921	2401.436	2402.628	---	PASS
		2441	1.2013	2440.437	2441.639	---	PASS
		2480	1.2248	2479.414	2480.639	---	PASS
3DH5	Ant1	2402	1.1619	2401.449	2402.611	---	PASS
		2441	1.2256	2440.409	2441.635	---	PASS
		2480	1.1912	2479.439	2480.630	---	PASS

Test Graphs





DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



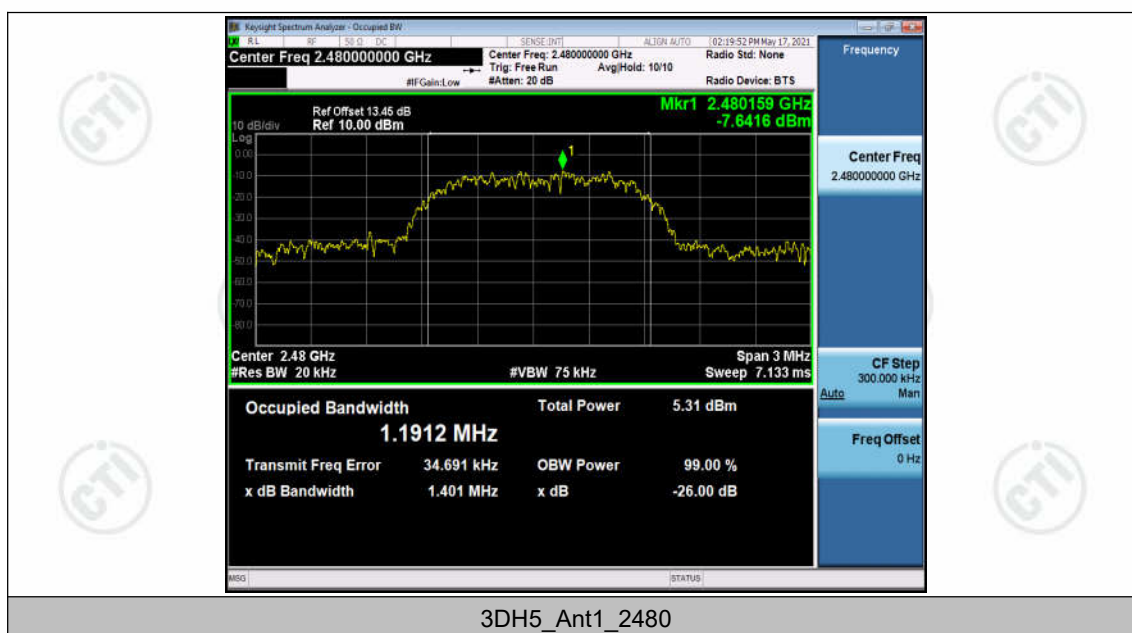
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



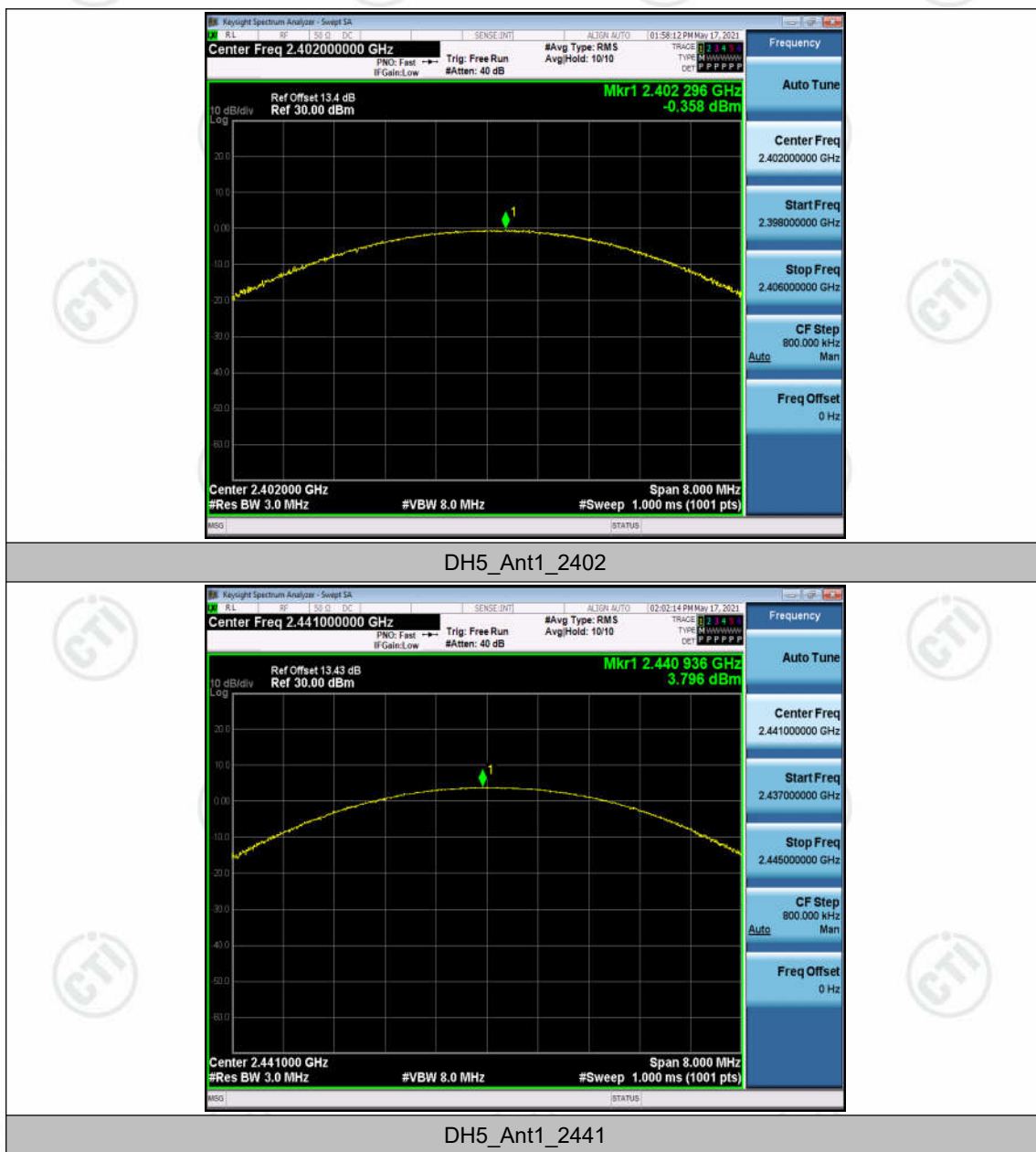
3DH5_Ant1_2480

Appendix C: Maximum conducted output power

Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-0.36	<=20.97	PASS
		2441	3.8	<=20.97	PASS
		2480	4.25	<=20.97	PASS
2DH5	Ant1	2402	0.37	<=20.97	PASS
		2441	2.47	<=20.97	PASS
		2480	3.01	<=20.97	PASS
3DH5	Ant1	2402	0.61	<=20.97	PASS
		2441	2.55	<=20.97	PASS
		2480	3.16	<=20.97	PASS

Test Graphs





DH5_Ant1_2480



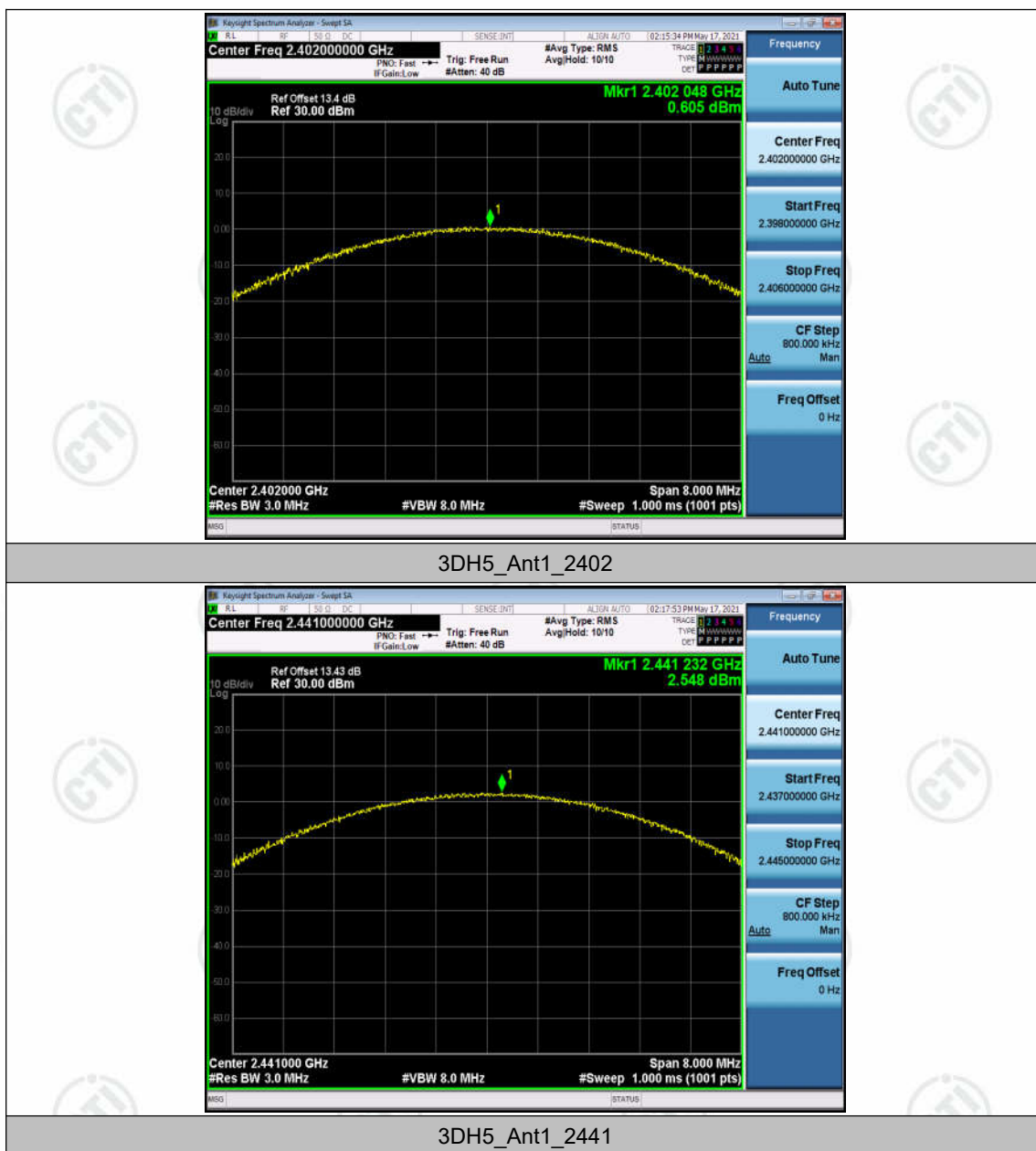
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



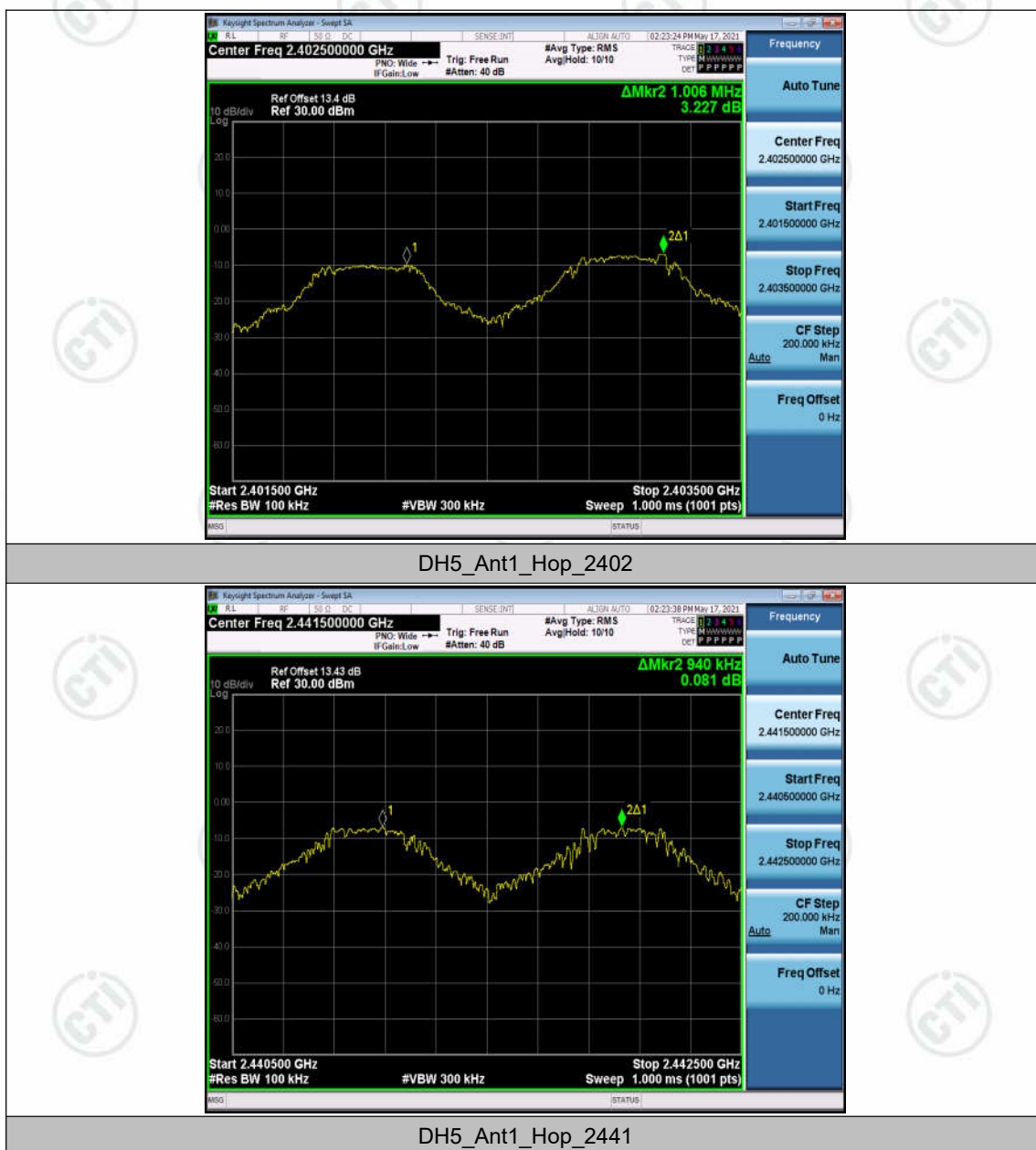


Appendix D: Carrier frequency separation

Test Result

Test Mode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop_2402	1.006	≥ 0.927	PASS
		Hop_2441	0.94	≥ 0.927	PASS
		Hop_2480	0.99	≥ 0.927	PASS
2DH5	Ant1	Hop_2402	1.178	≥ 0.920	PASS
		Hop_2441	0.998	≥ 0.920	PASS
		Hop_2480	1.318	≥ 0.920	PASS
3DH5	Ant1	Hop_2402	0.97	≥ 0.896	PASS
		Hop_2441	0.996	≥ 0.896	PASS
		Hop_2480	0.986	≥ 0.896	PASS

Test Graphs



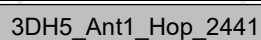
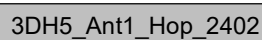


DH5_Ant1_Hop_2480



2DH5_Ant1_Hop_2402





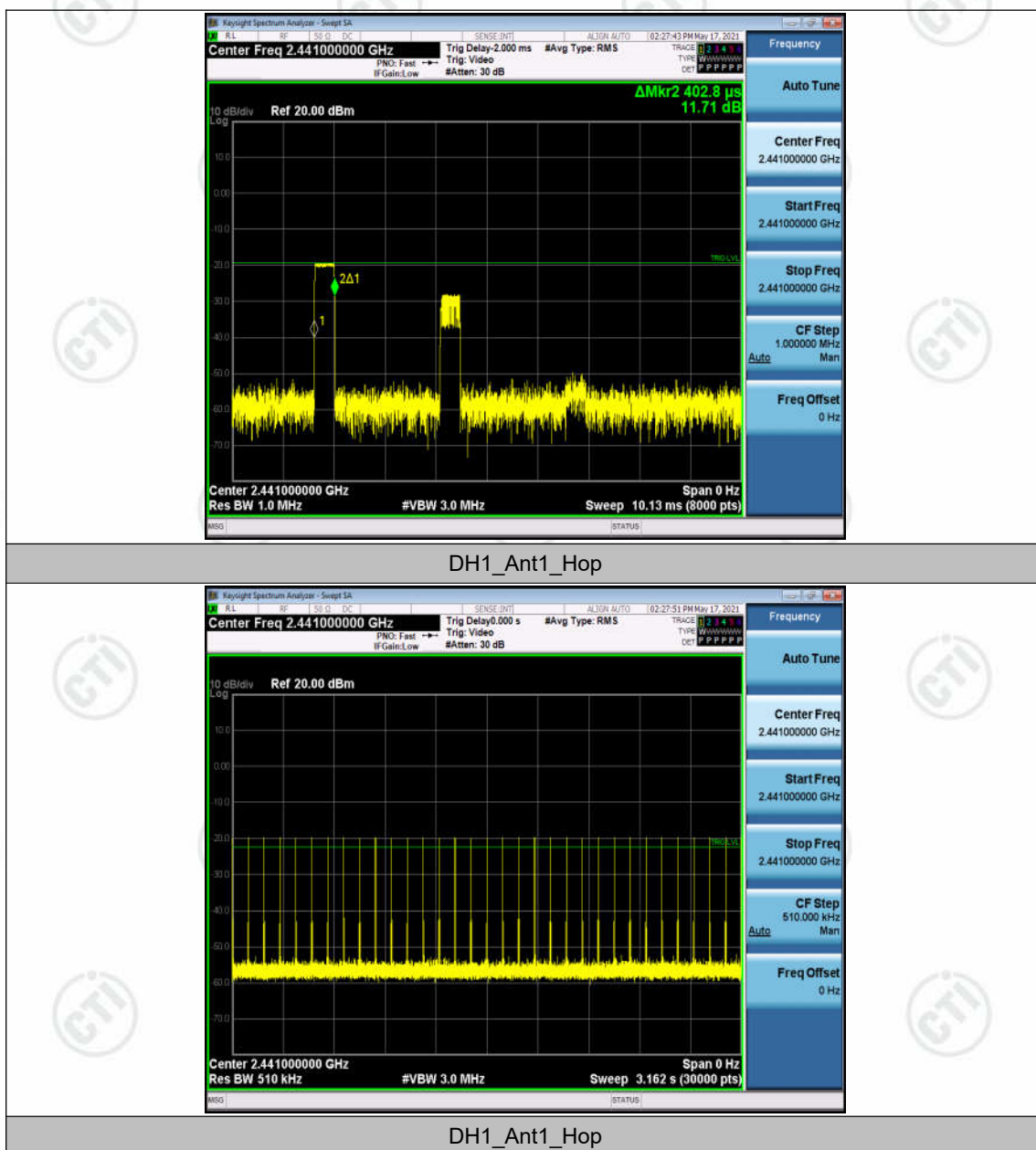


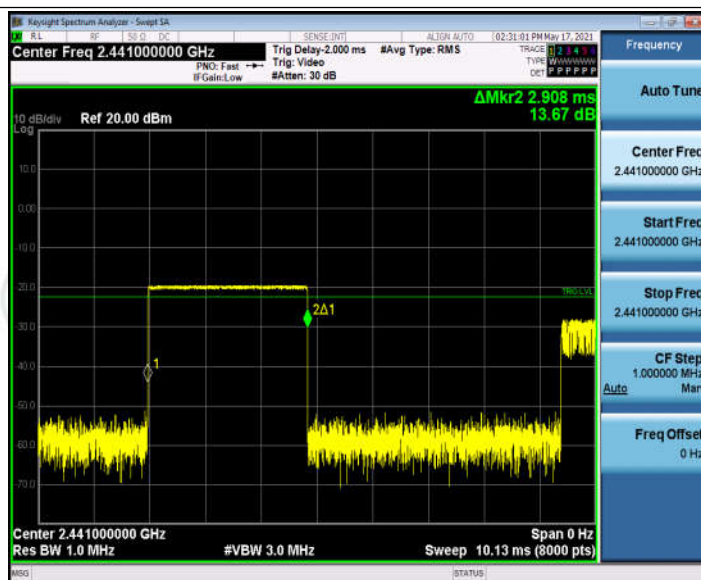
Appendix E: Time of occupancy

Test Result

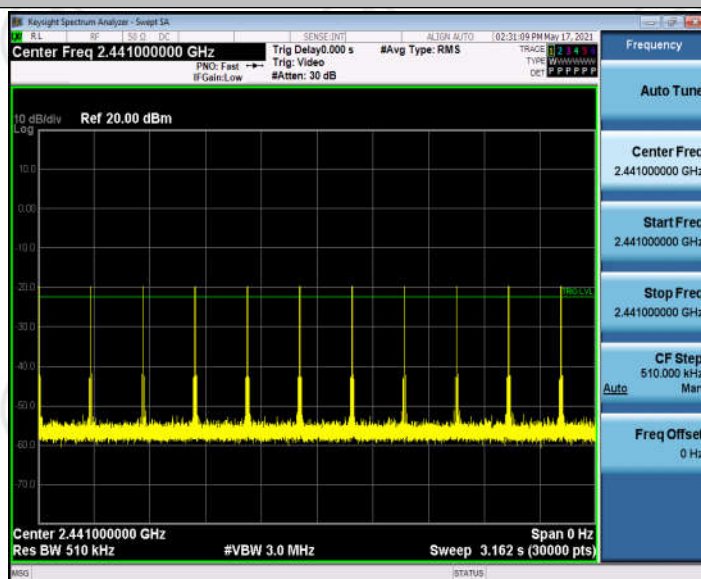
Test Mode	Antenna	Channel	Burst Width [ms]	Total Hops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.40	330	0.133	<=0.4	PASS
DH3	Ant1	Hop	2.91	110	0.32	<=0.4	PASS
DH5	Ant1	Hop	2.91	110	0.32	<=0.4	PASS
2DH1	Ant1	Hop	0.42	330	0.138	<=0.4	PASS
2DH3	Ant1	Hop	1.67	170	0.284	<=0.4	PASS
2DH5	Ant1	Hop	2.92	110	0.321	<=0.4	PASS
3DH1	Ant1	Hop	0.42	330	0.138	<=0.4	PASS
3DH3	Ant1	Hop	1.67	170	0.283	<=0.4	PASS
3DH5	Ant1	Hop	2.92	110	0.321	<=0.4	PASS

Test Graphs

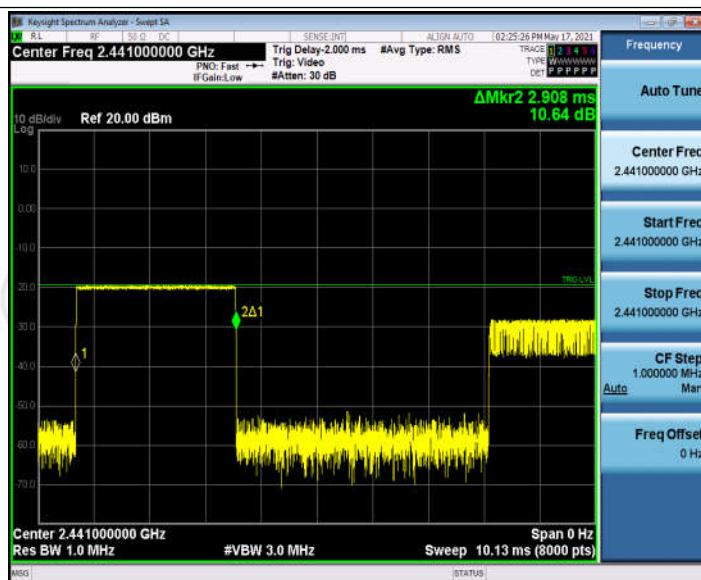




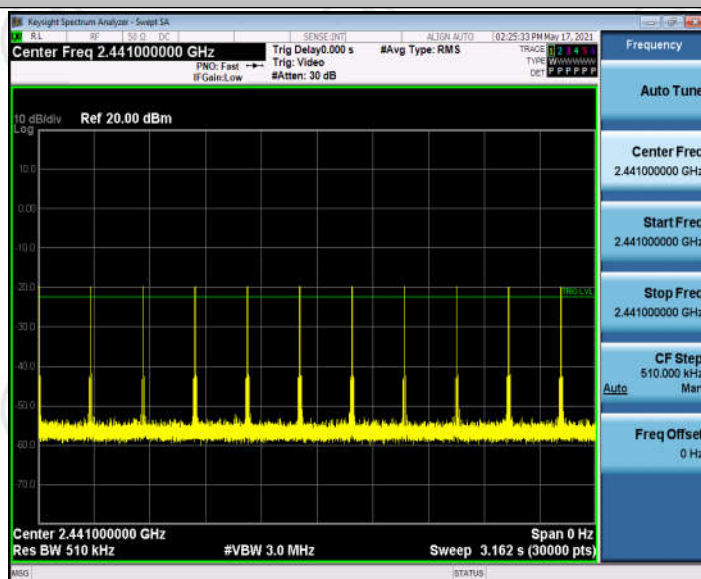
DH3_Ant1_Hop



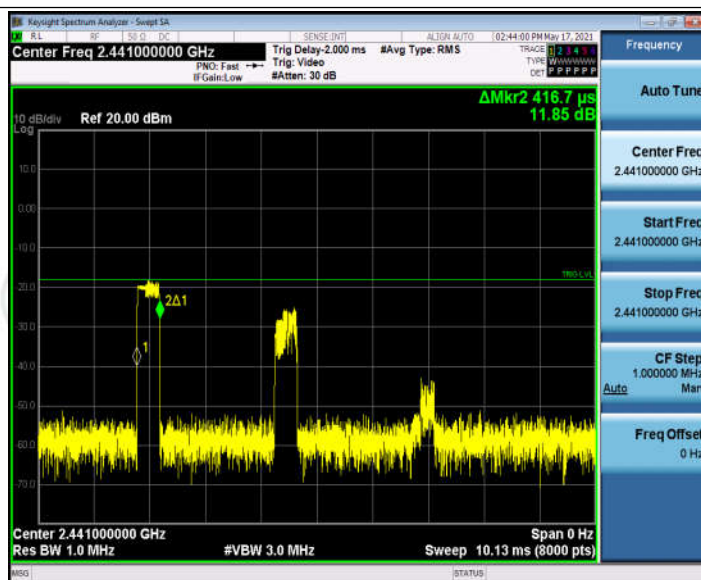
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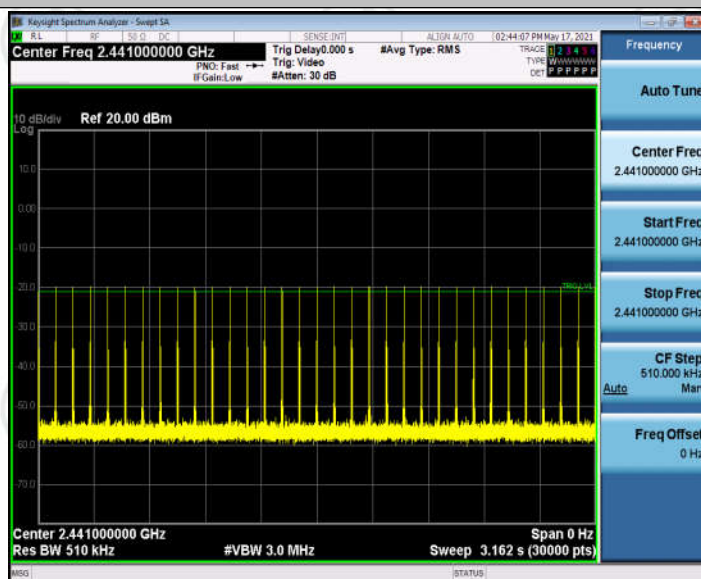
DH5_Ant1_Hop



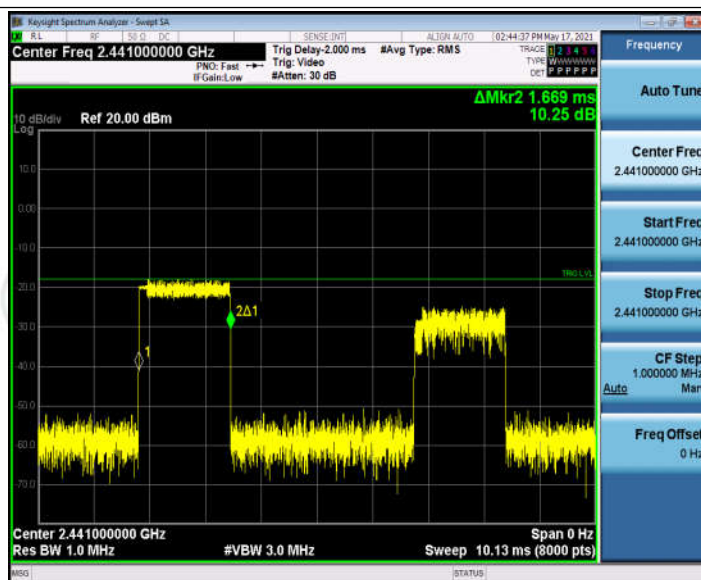
DH5_Ant1_Hop



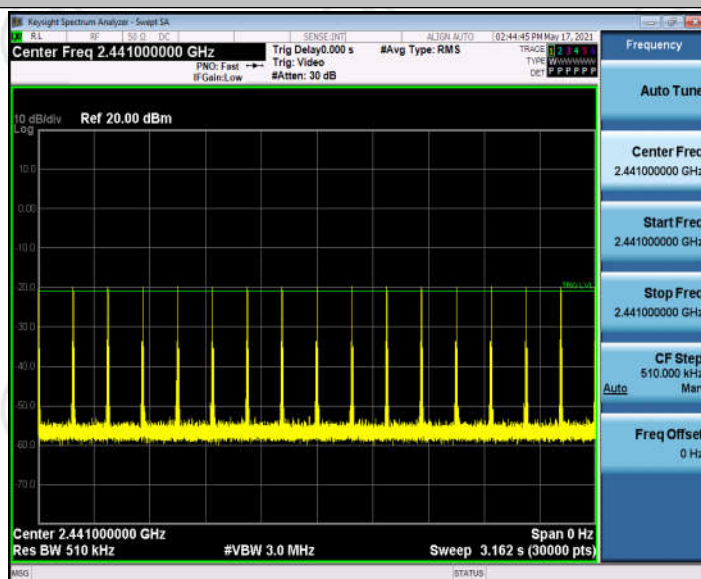
2DH1_Ant1_Hop



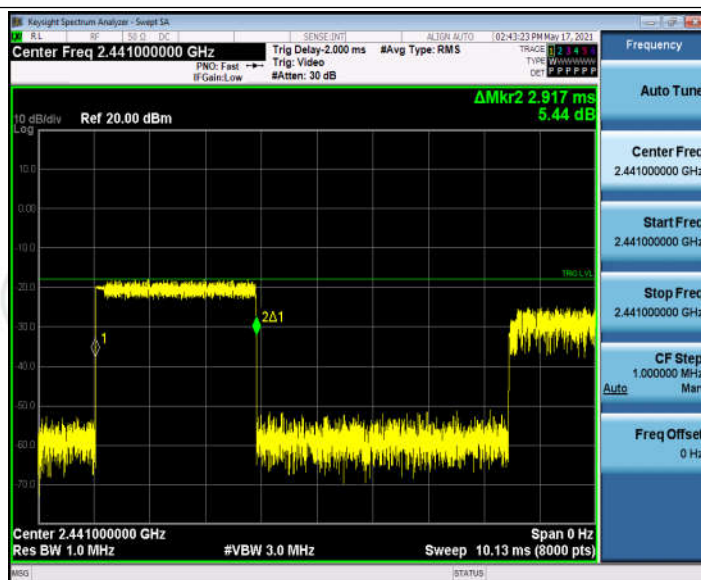
2DH1_Ant1_Hop



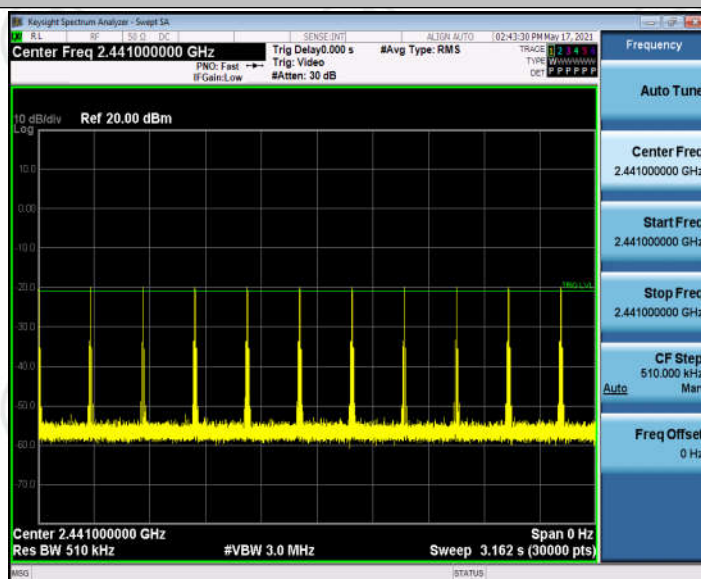
2DH3_Ant1_Hop



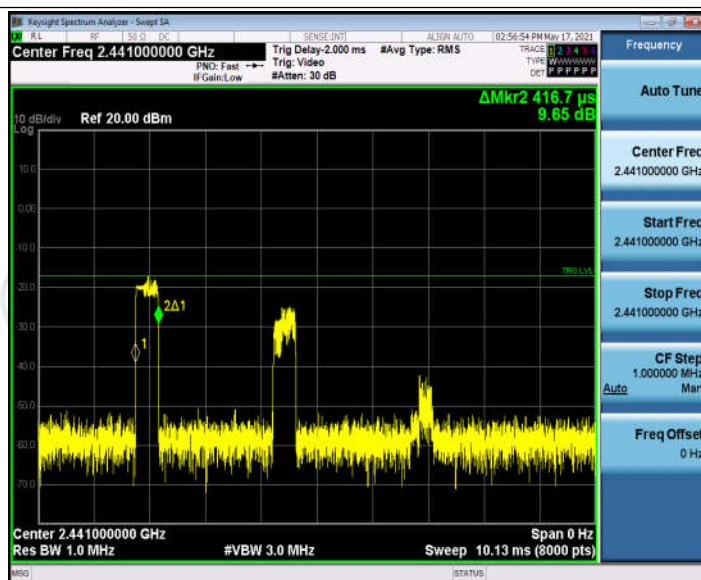
2DH3_Ant1_Hop



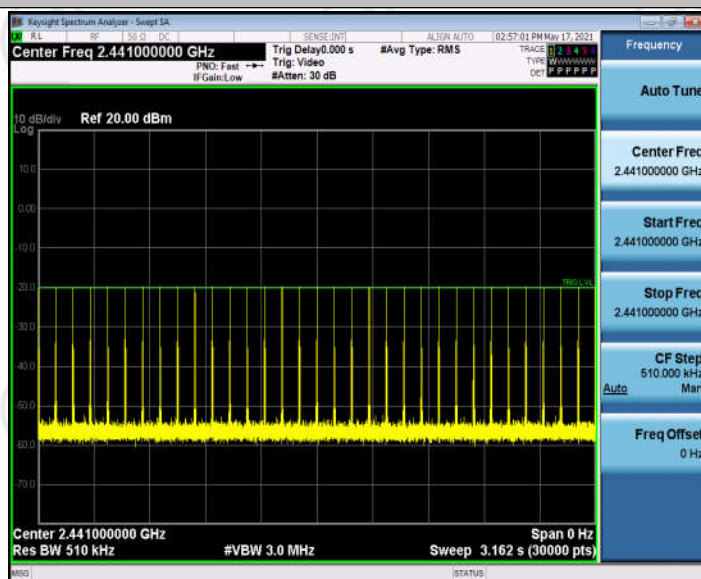
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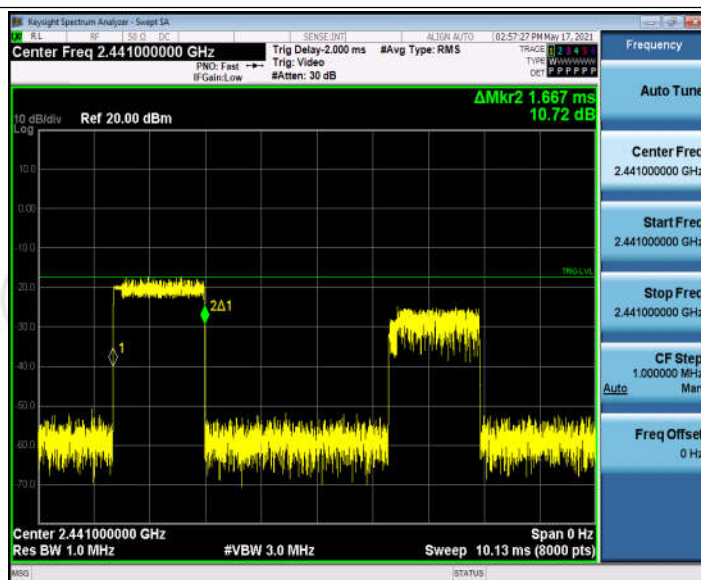
2DH5_Ant1_Hop



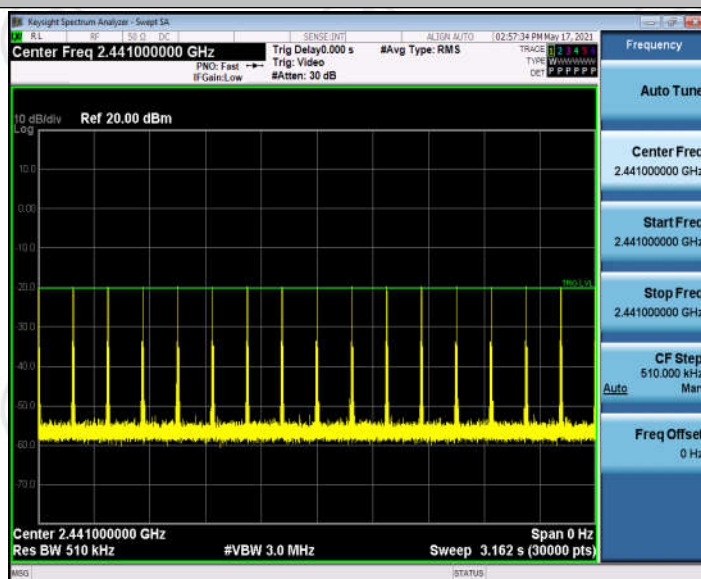
3DH1_Ant1_Hop



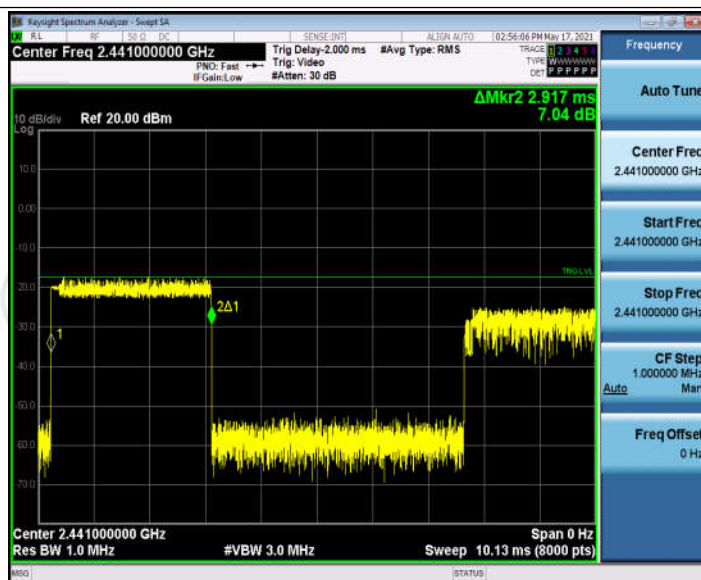
3DH1_Ant1_Hop



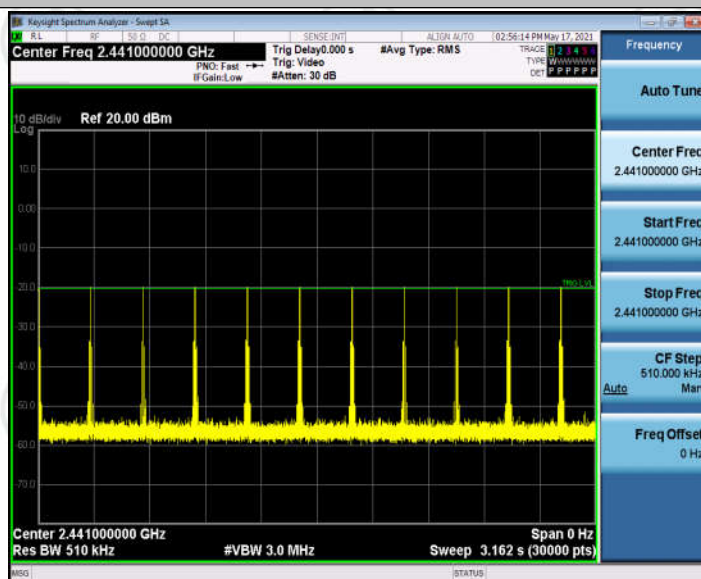
3DH3_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop



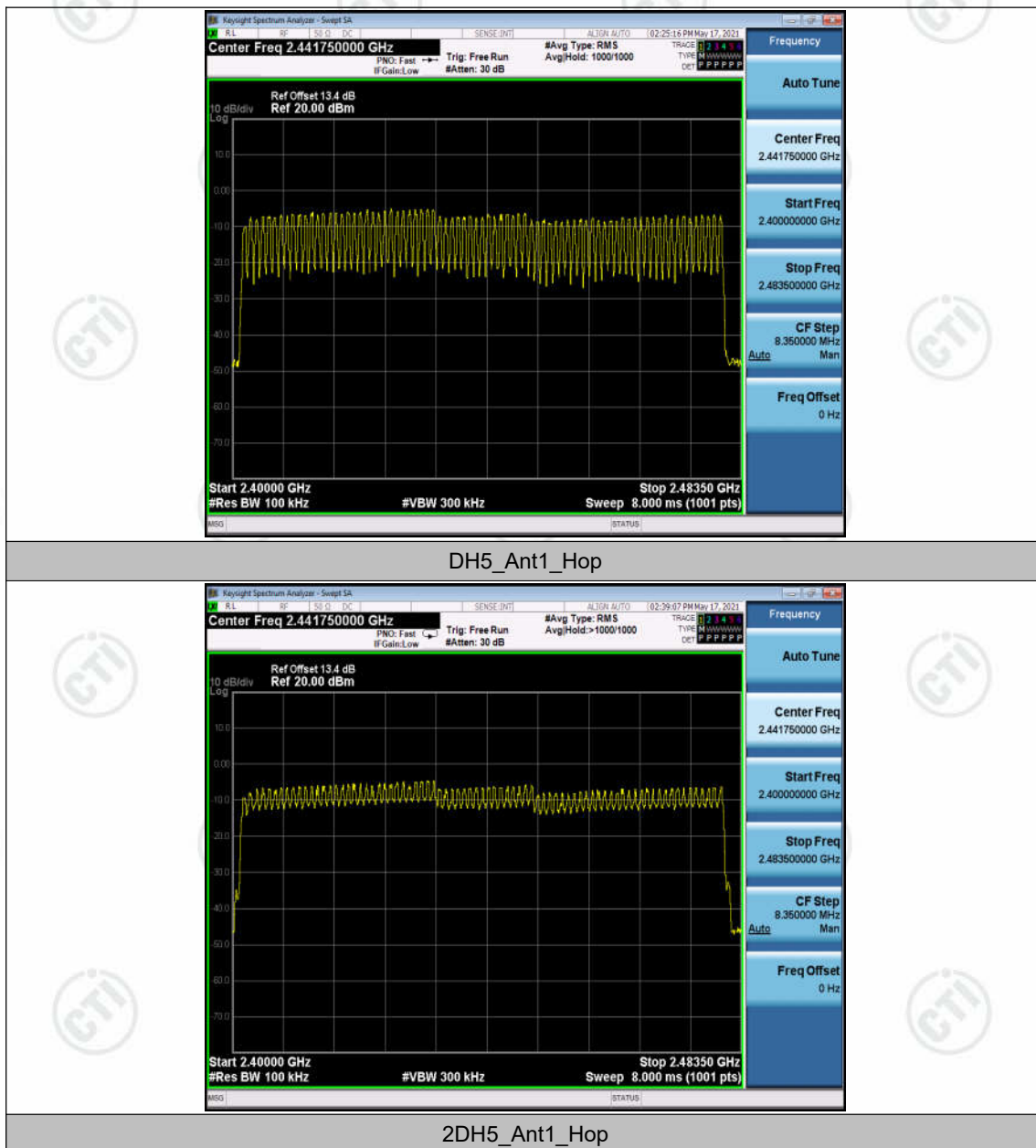
3DH5_Ant1_Hop

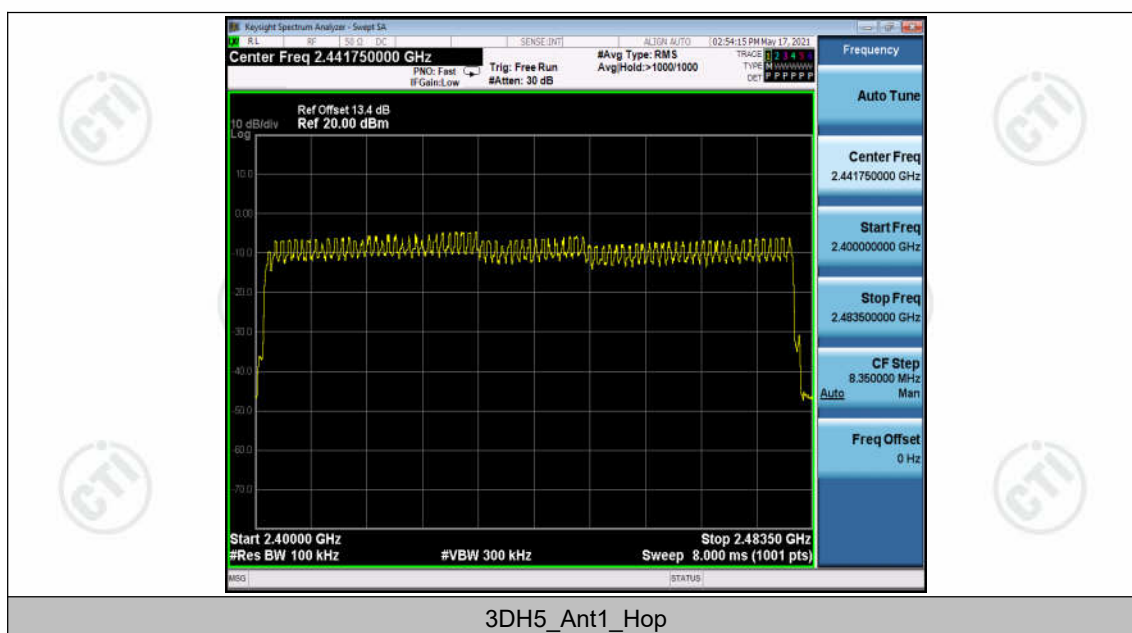
Appendix F: Number of hopping channels

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



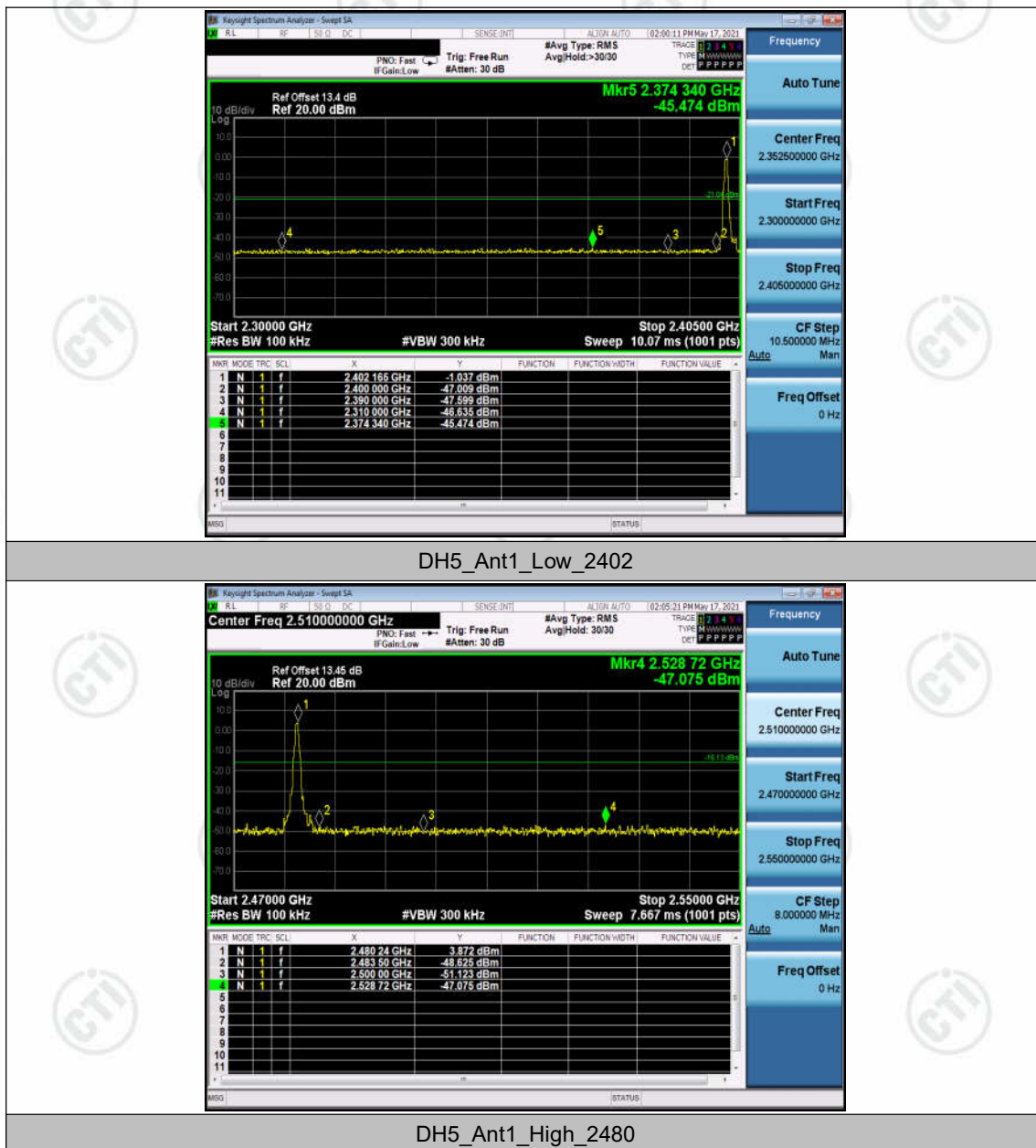


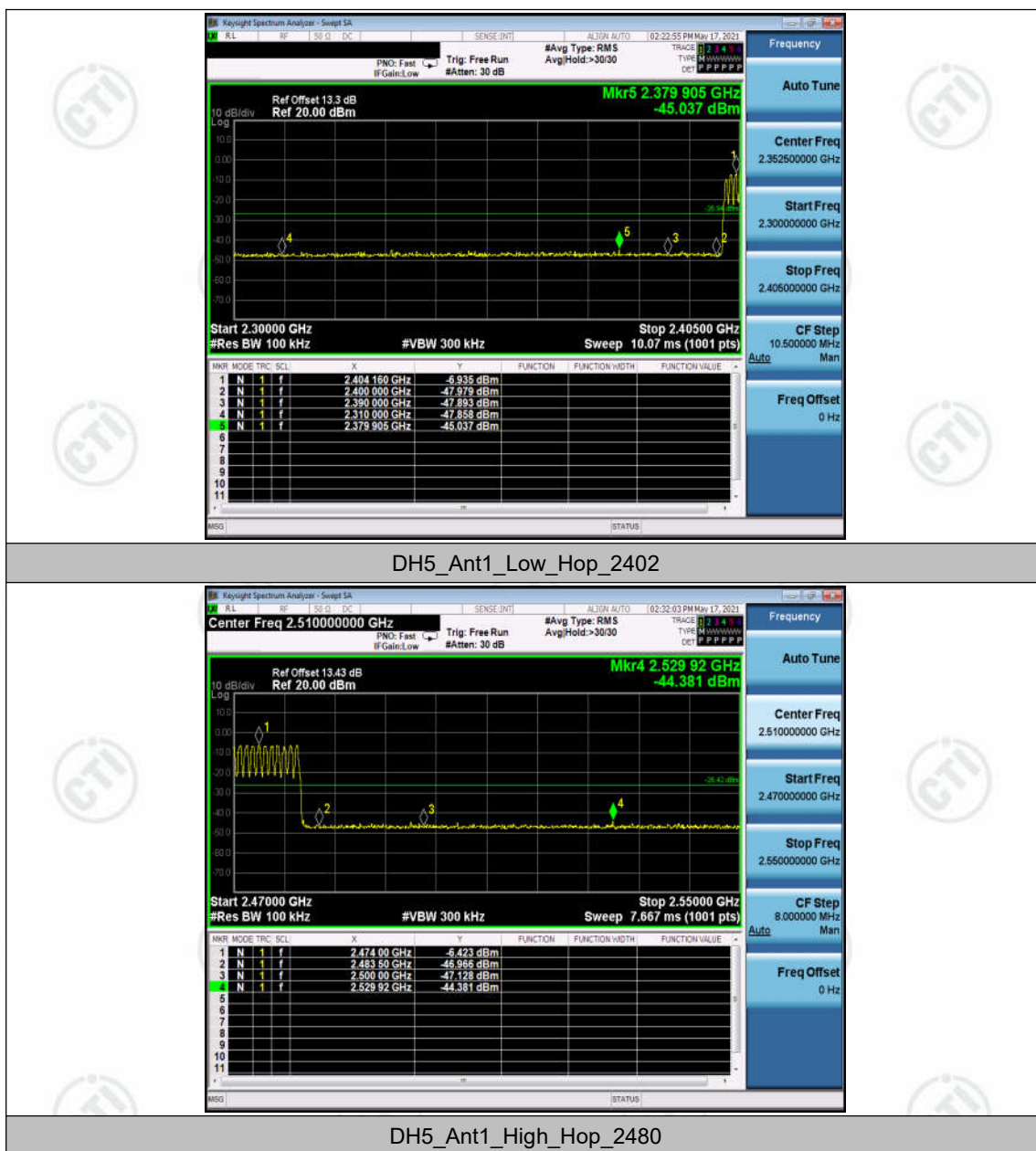
Appendix G:Band edge measurements

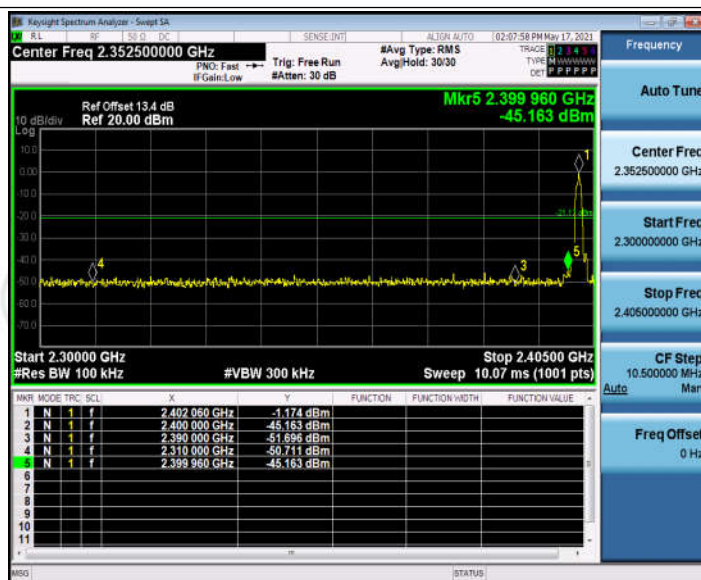
Test Result

Test Mode	Antenna	Ch Name	Channel	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.04	-45.47	<=-21.04	PASS
		High	2480	3.87	-47.08	<=-16.13	PASS
		Low	Hop_2402	-6.94	-45.04	<=-26.94	PASS
		High	Hop_2480	-6.42	-44.38	<=-26.42	PASS
2DH5	Ant1	Low	2402	-1.17	-45.16	<=-21.17	PASS
		High	2480	1.08	-46.88	<=-18.92	PASS
		Low	Hop_2402	-8.33	-45.19	<=-28.33	PASS
		High	Hop_2480	-6.42	-44.64	<=-26.42	PASS
3DH5	Ant1	Low	2402	-1.31	-46.17	<=-21.31	PASS
		High	2480	0.40	-46.4	<=-19.6	PASS
		Low	Hop_2402	-7.11	-44.63	<=-27.11	PASS
		High	Hop_2480	-6.40	-44.49	<=-26.4	PASS

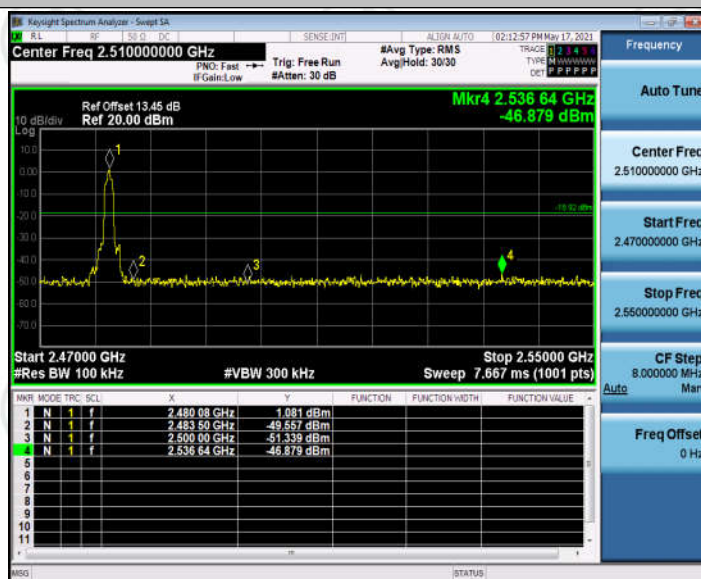
Test Graphs



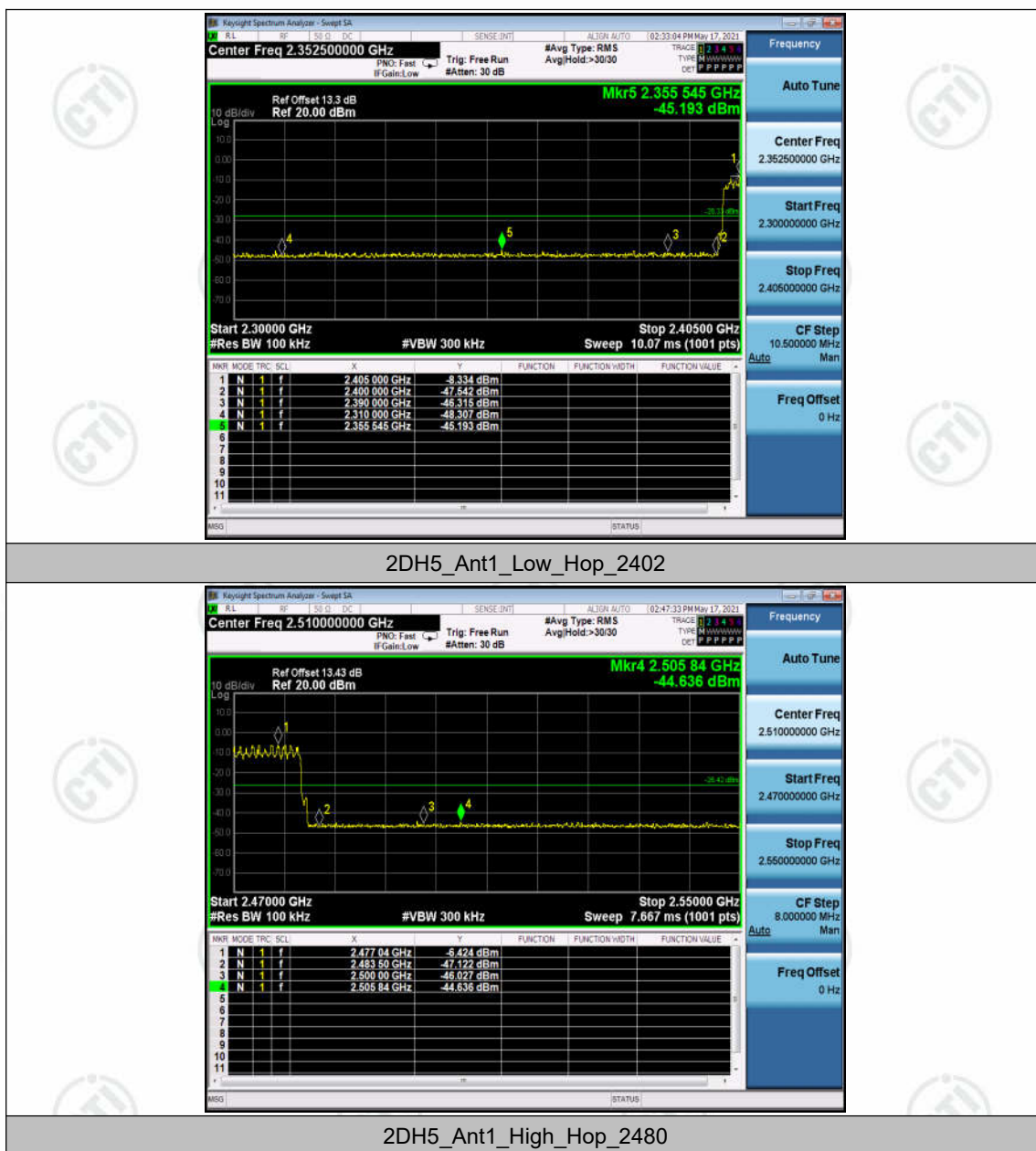


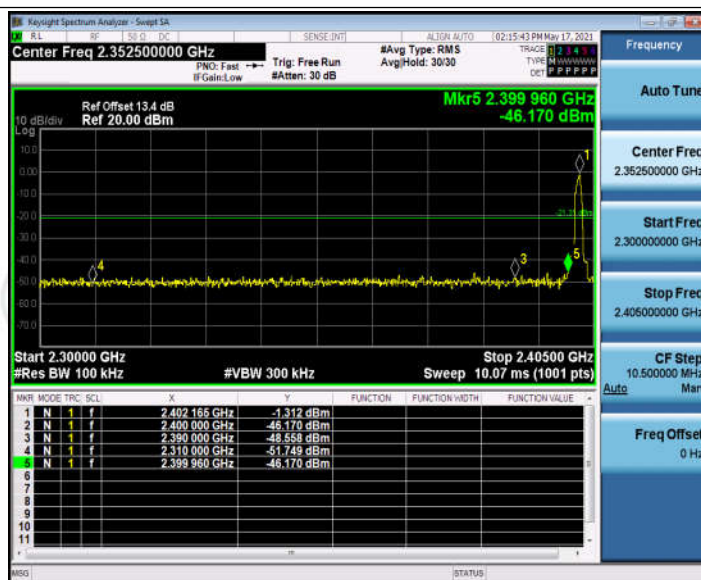


2DH5_Ant1_Low_2402

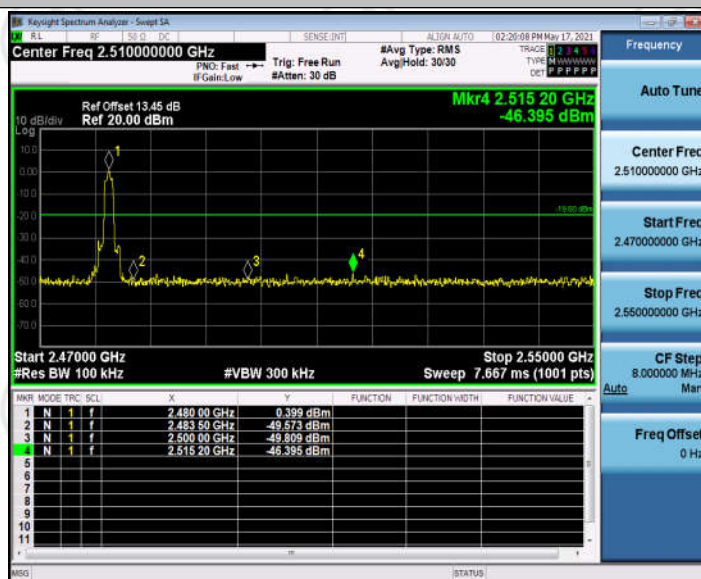


2DH5_Ant1_High_2480

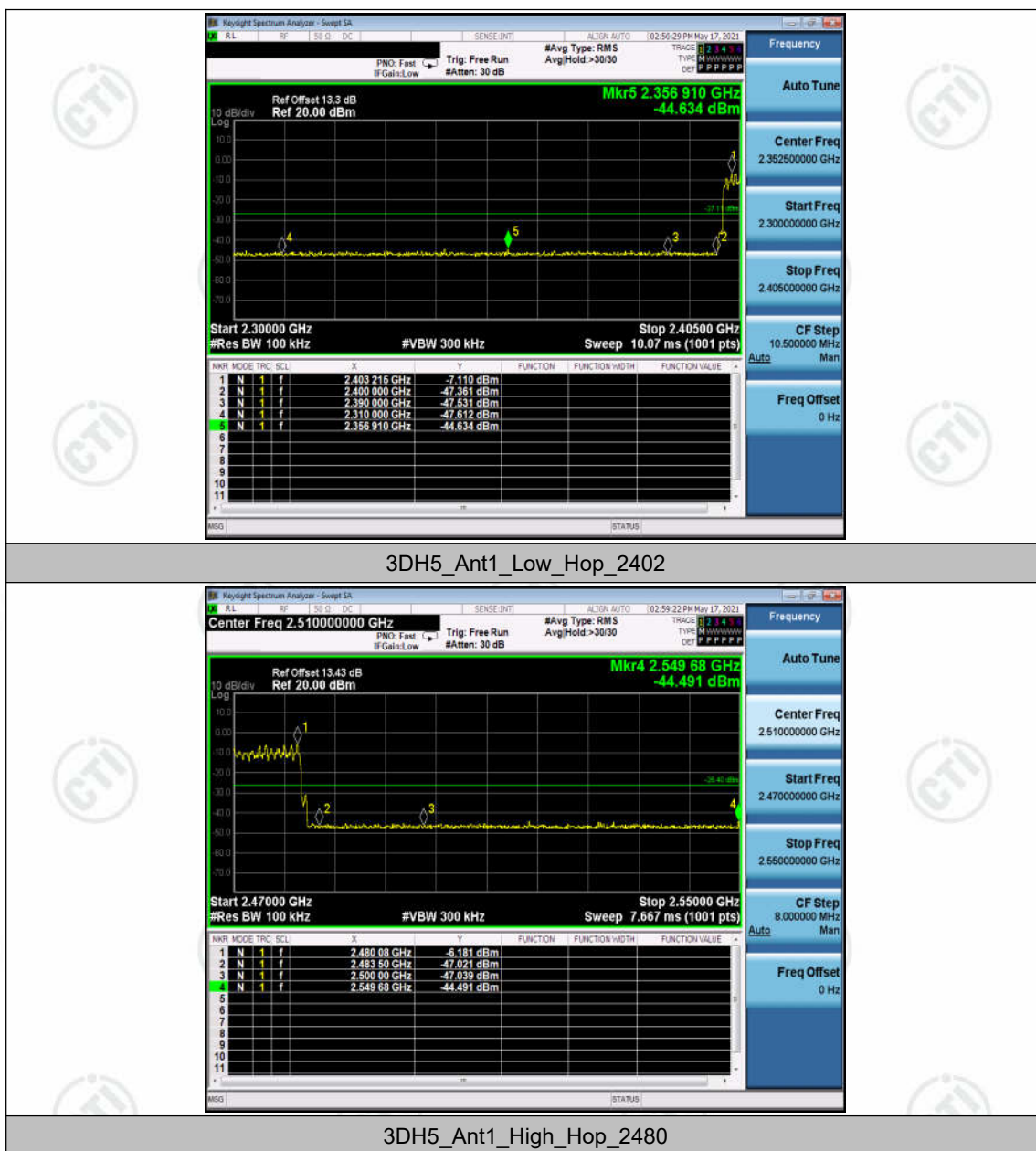




3DH5_Ant1_Low_2402



3DH5_Ant1_High_2480

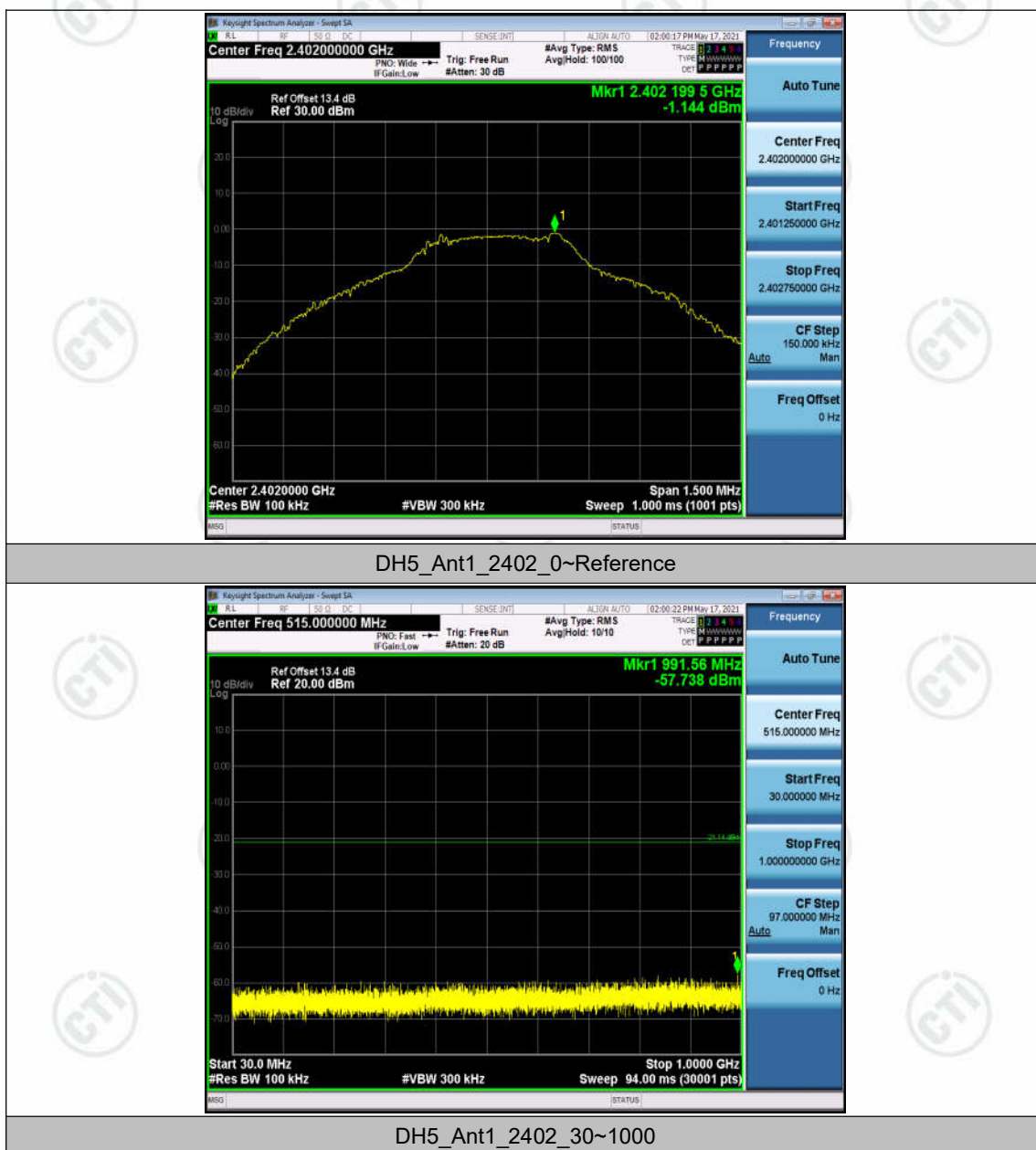


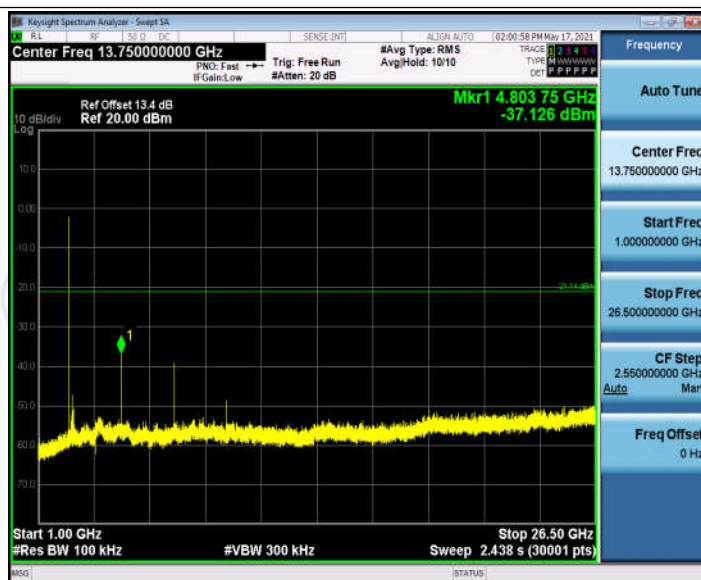
Appendix H: Conducted Spurious Emission

Test Result

Test Mode	Antenna	Channel	Freq Range [MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-1.14	-1.14	---	PASS
			30~1000	30~1000	-57.738	<=-21.144	PASS
			1000~26500	1000~26500	-37.126	<=-21.144	PASS
		2441	Reference	3.30	3.30	---	PASS
			30~1000	30~1000	-58.099	<=-16.705	PASS
			1000~26500	1000~26500	-27.485	<=-16.705	PASS
		2480	Reference	3.63	3.63	---	PASS
			30~1000	30~1000	-57.874	<=-16.375	PASS
			1000~26500	1000~26500	-30.352	<=-16.375	PASS
2DH5	Ant1	2402	Reference	-1.97	-1.97	---	PASS
			30~1000	30~1000	-57.655	<=-21.969	PASS
			1000~26500	1000~26500	-37.755	<=-21.969	PASS
		2441	Reference	0.96	0.96	---	PASS
			30~1000	30~1000	-46.399	<=-19.04	PASS
			1000~26500	1000~26500	-38.416	<=-19.04	PASS
		2480	Reference	1.55	1.55	---	PASS
			30~1000	30~1000	-57.241	<=-18.451	PASS
			1000~26500	1000~26500	-37.275	<=-18.451	PASS
3DH5	Ant1	2402	Reference	-1.52	-1.52	---	PASS
			30~1000	30~1000	-57.549	<=-21.52	PASS
			1000~26500	1000~26500	-39.067	<=-21.52	PASS
		2441	Reference	0.88	0.88	---	PASS
			30~1000	30~1000	-58.158	<=-19.124	PASS
			1000~26500	1000~26500	-37.753	<=-19.124	PASS
		2480	Reference	0.81	0.81	---	PASS
			30~1000	30~1000	-58.373	<=-19.192	PASS
			1000~26500	1000~26500	-40.623	<=-19.192	PASS

Test Graphs

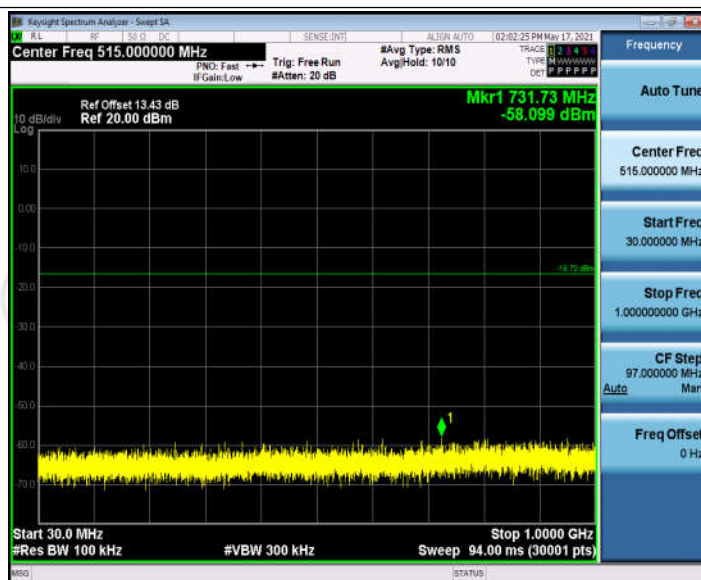




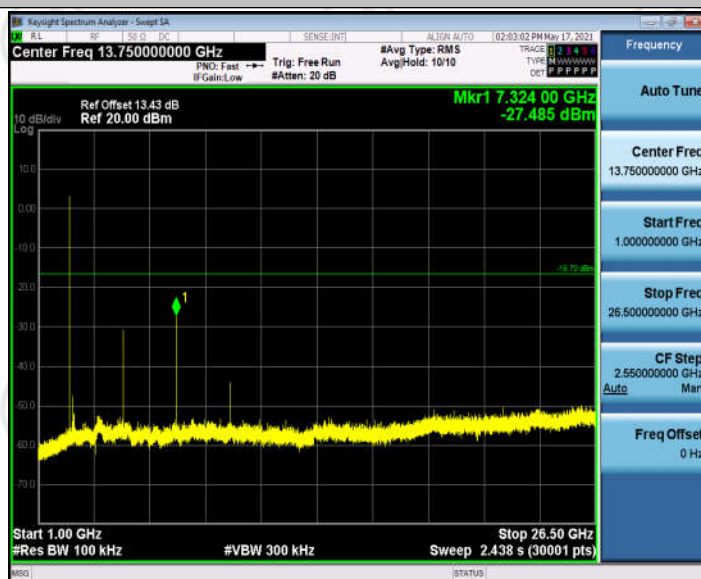
DH5_Ant1_2402_1000~26500



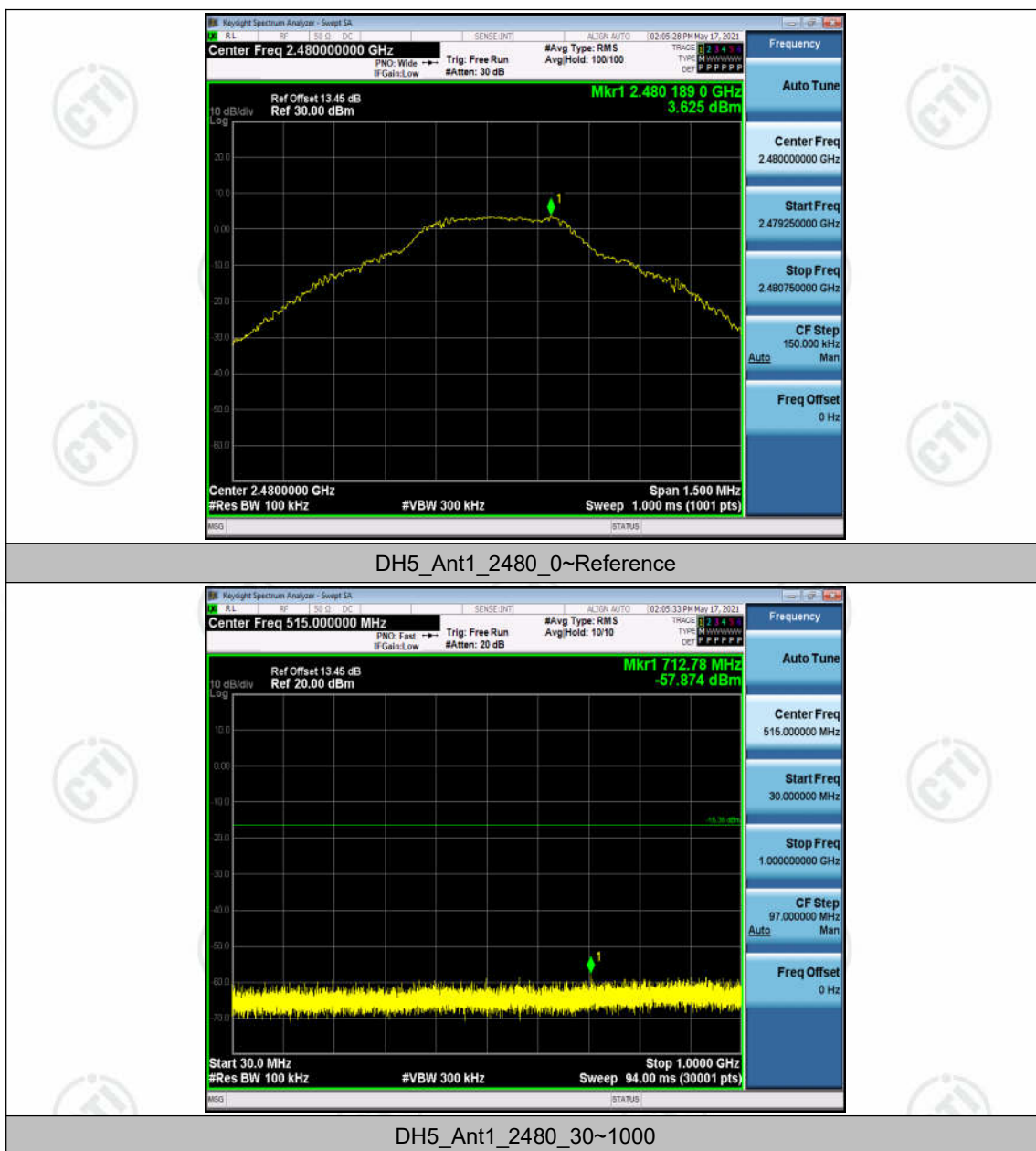
DH5_Ant1_2441_0~Reference

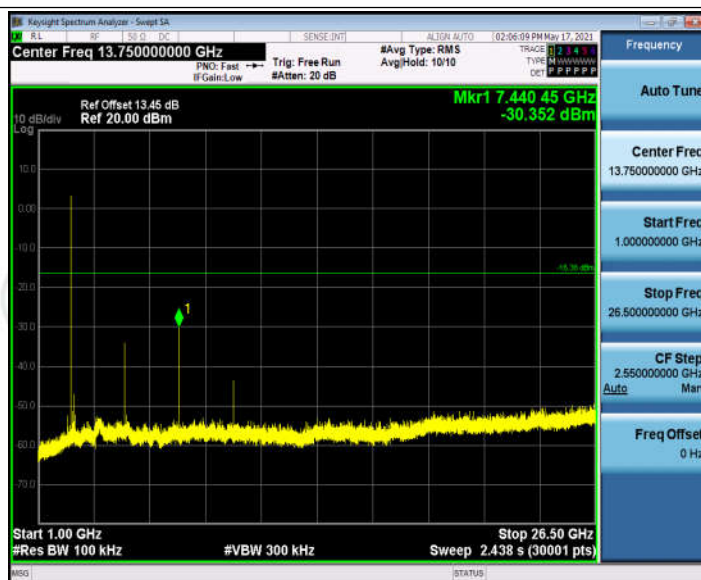


DH5_Ant1_2441_30~1000



DH5_Ant1_2441_1000~26500

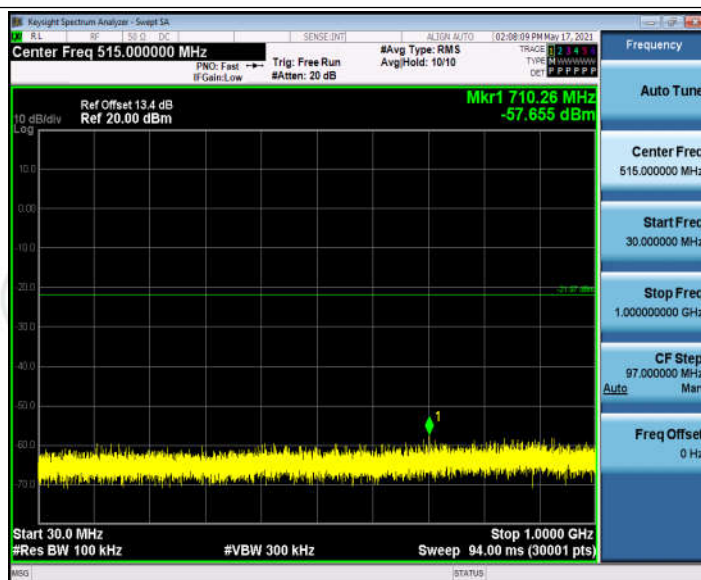




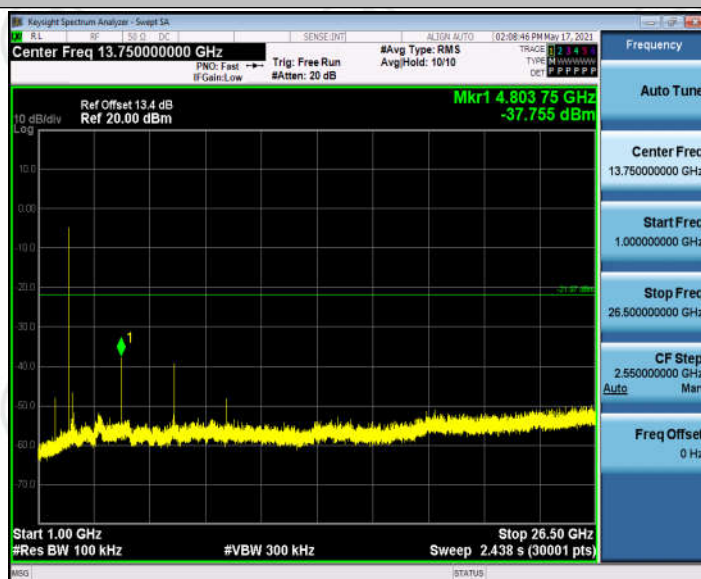
DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference



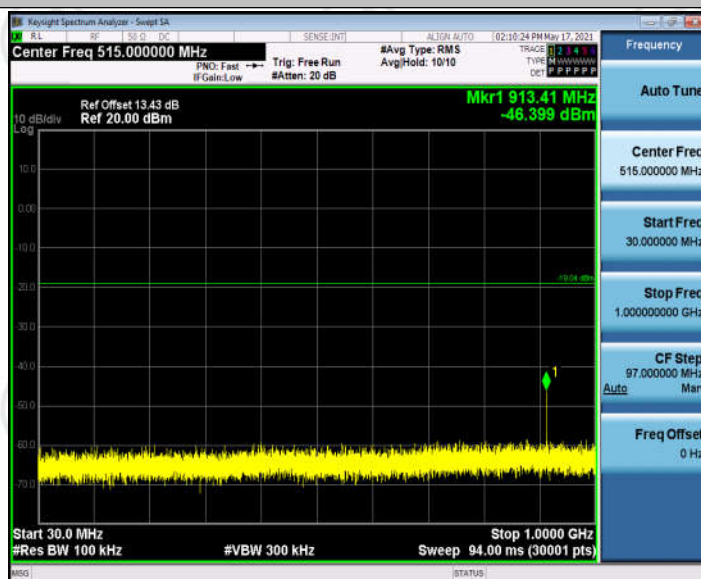
2DH5_Ant1_2402_30~1000



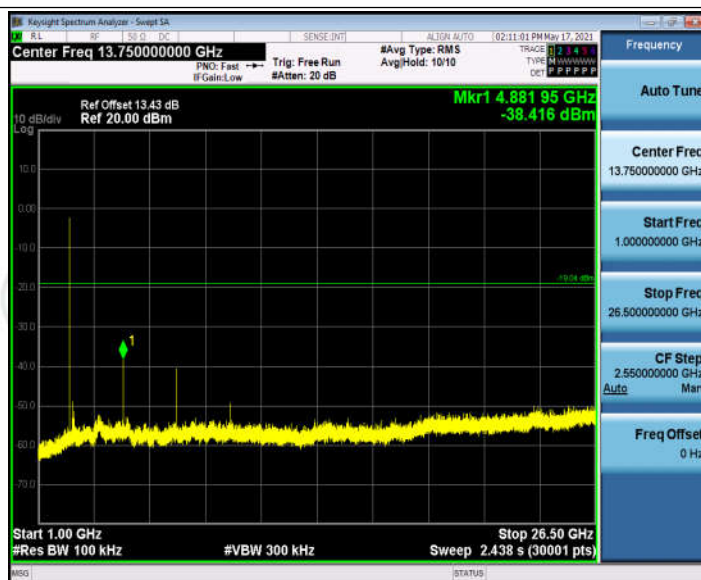
2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference



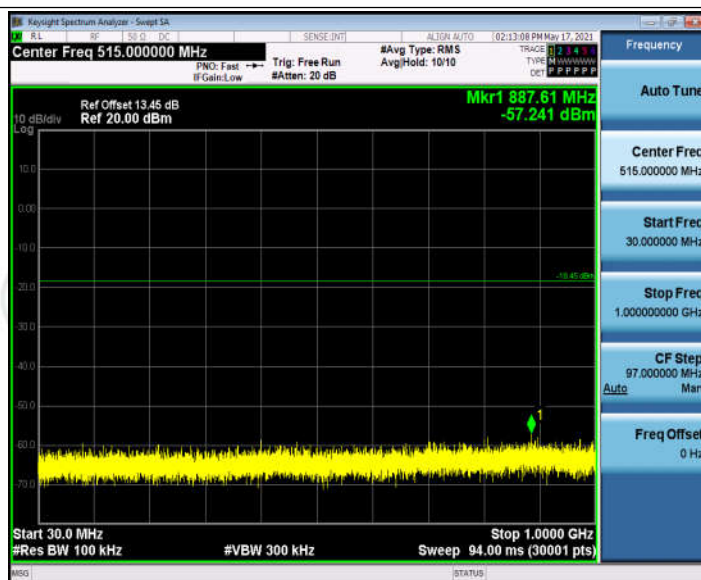
2DH5_Ant1_2441_30~1000



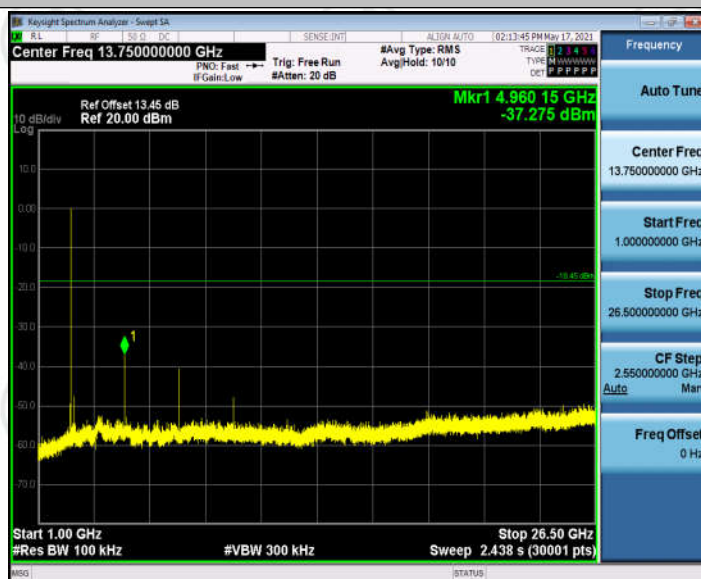
2DH5_Ant1_2441_1000~26500



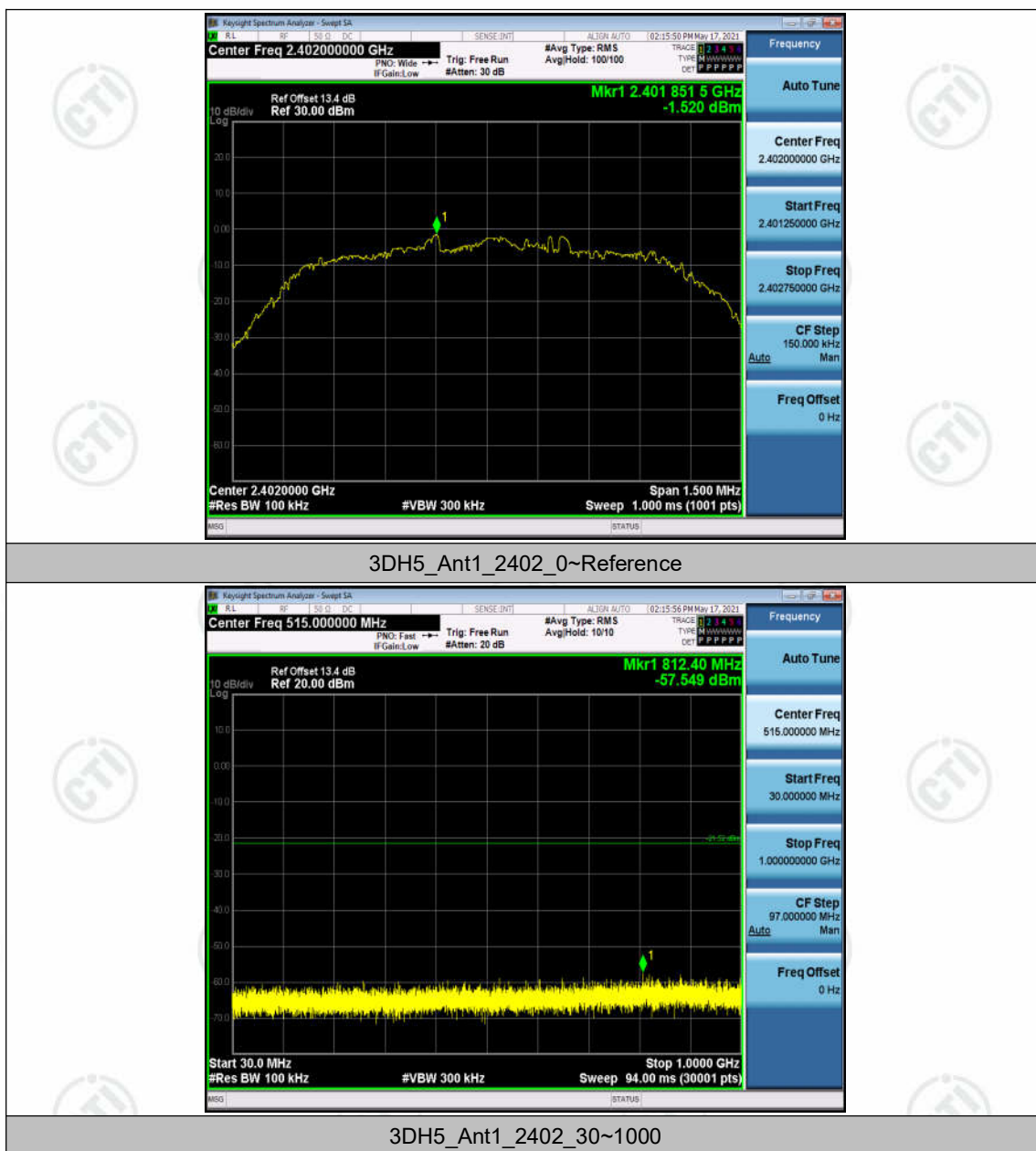
2DH5_Ant1_2480_0~Reference

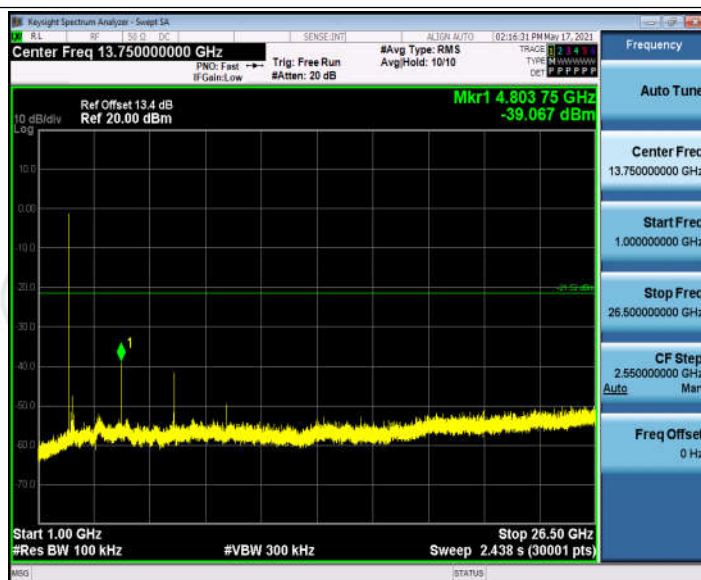


2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500

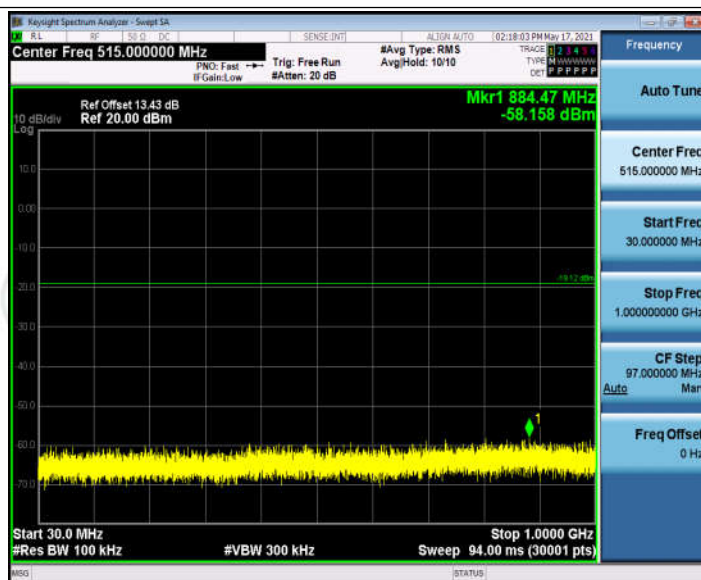




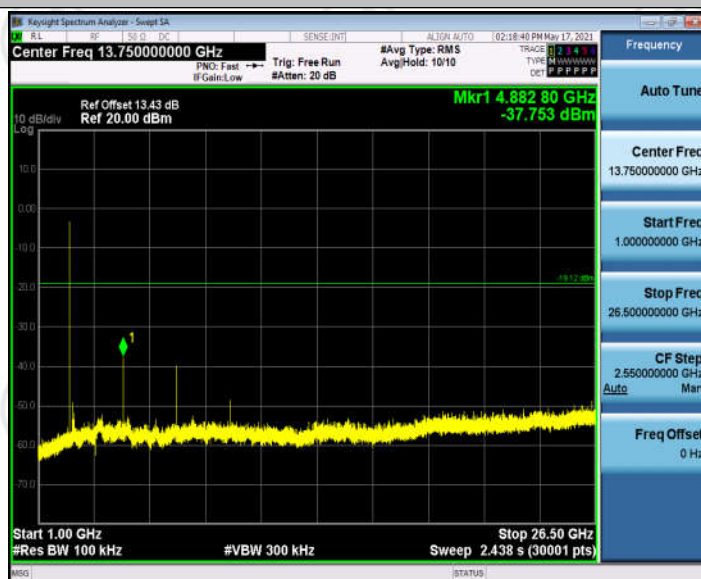
3DH5_Ant1_2402_1000~26500



3DH5_Ant1_2441_0~Reference



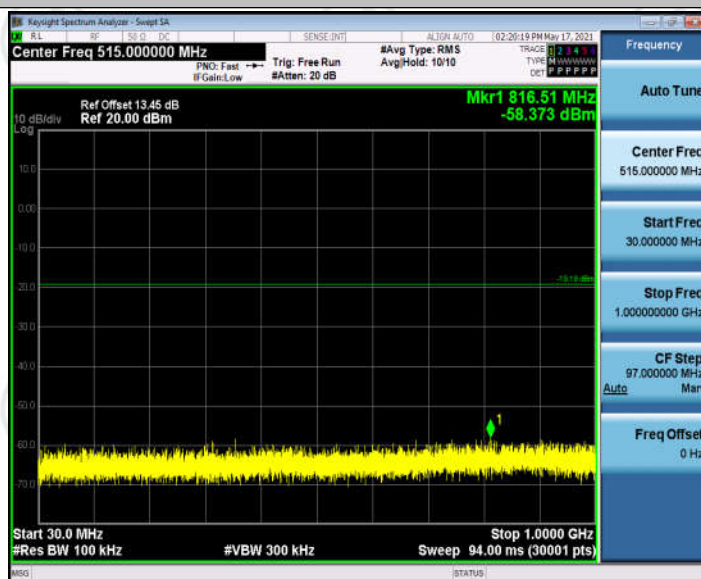
3DH5_Ant1_2441_30~1000



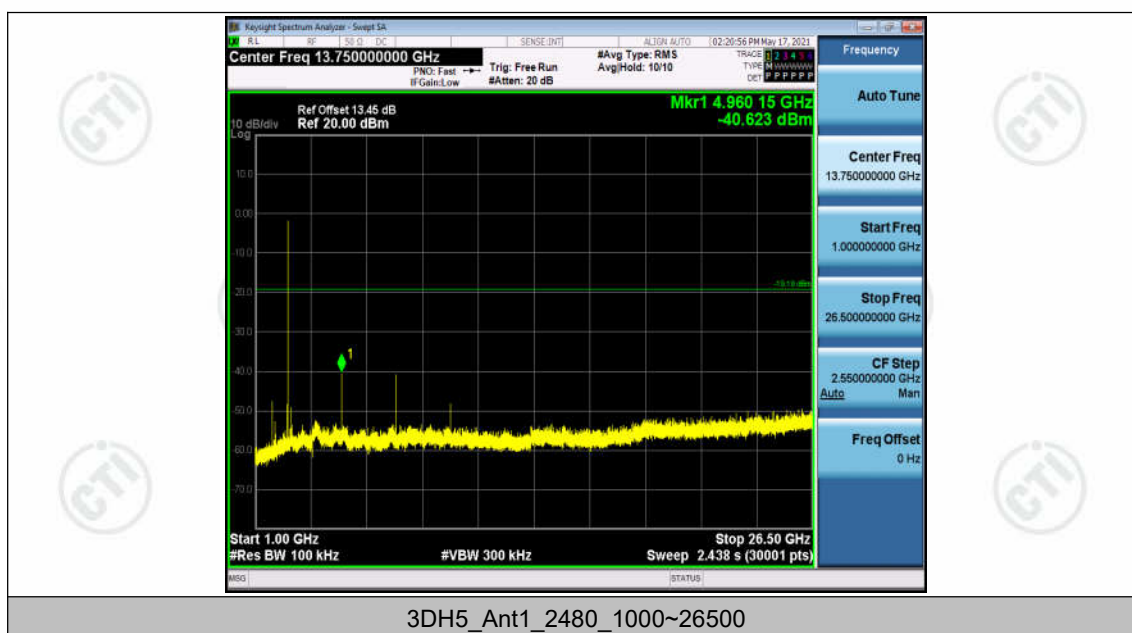
3DH5_Ant1_2441_1000~26500



3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000

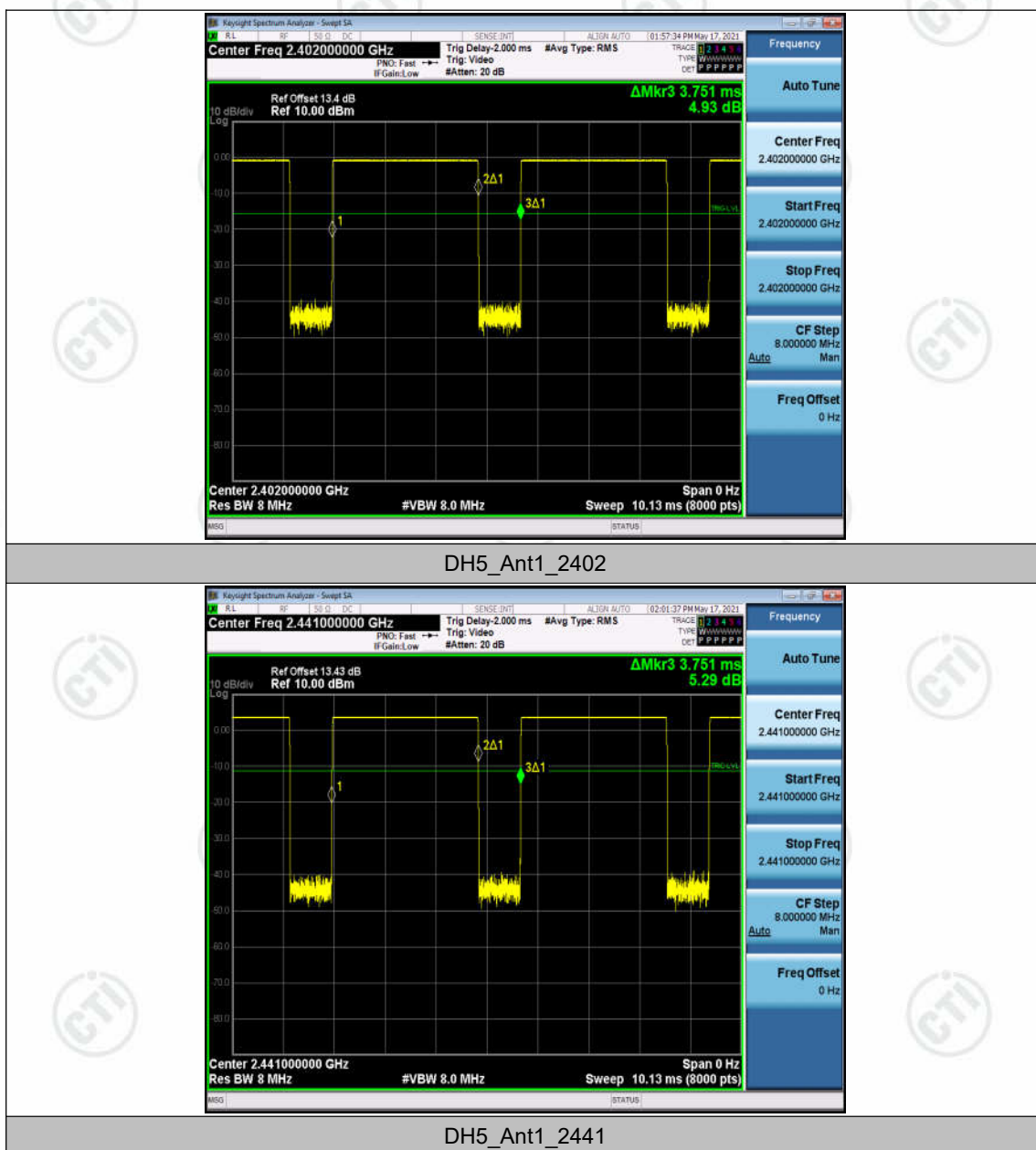


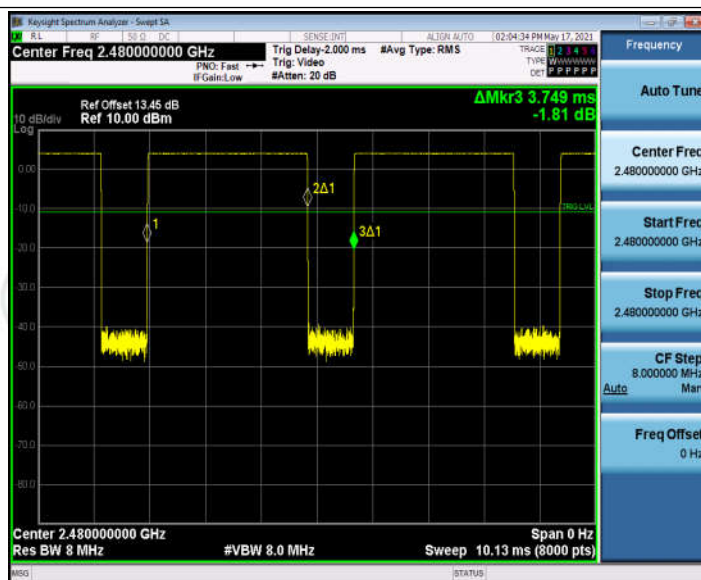
Appendix I: Duty Cycle

Test Result

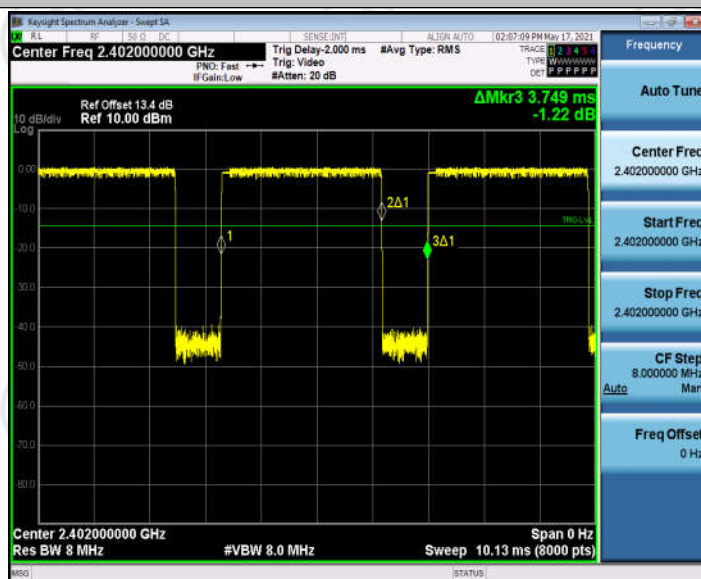
Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
DH5	Ant1	2402	2.91	3.75	77.61	---	PASS
		2441	2.91	3.75	77.71	---	PASS
		2480	2.91	3.75	77.74	---	PASS
2DH5	Ant1	2402	2.92	3.75	77.91	---	PASS
		2441	2.92	3.75	77.91	---	PASS
		2480	2.92	3.75	77.91	---	PASS
3DH5	Ant1	2402	2.92	3.75	77.91	---	PASS
		2441	2.92	3.75	77.91	---	PASS
		2480	2.92	3.75	77.94	---	PASS

Test Graphs

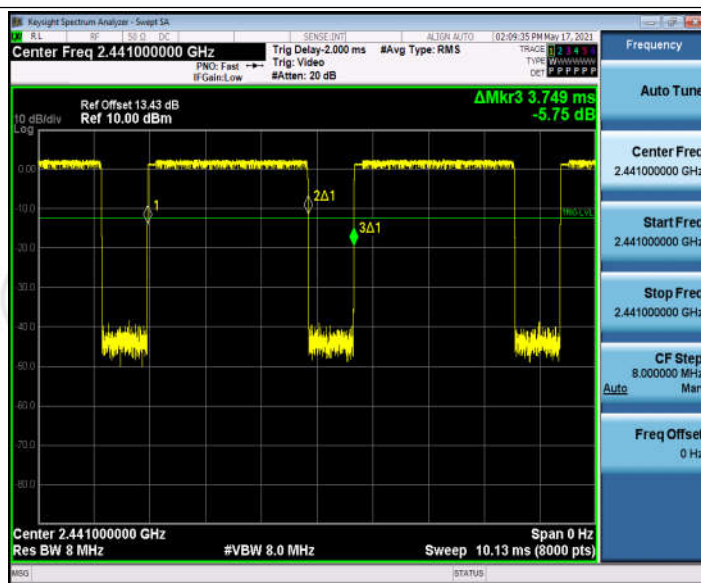




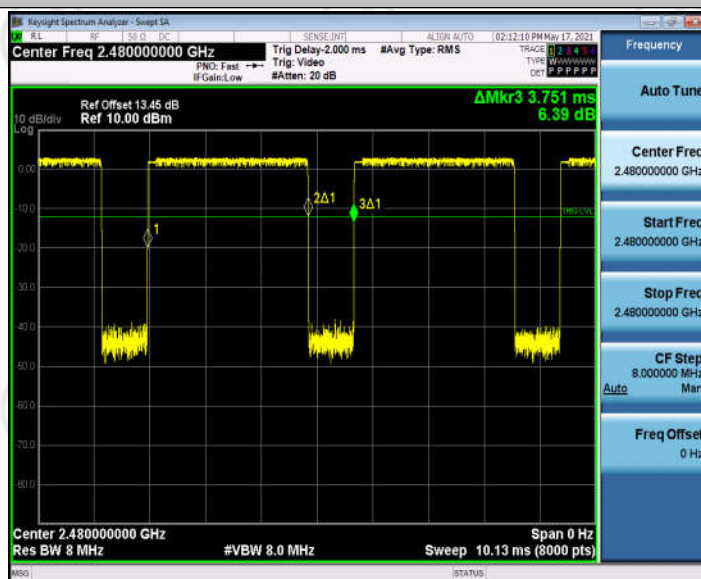
DH5_Ant1_2480



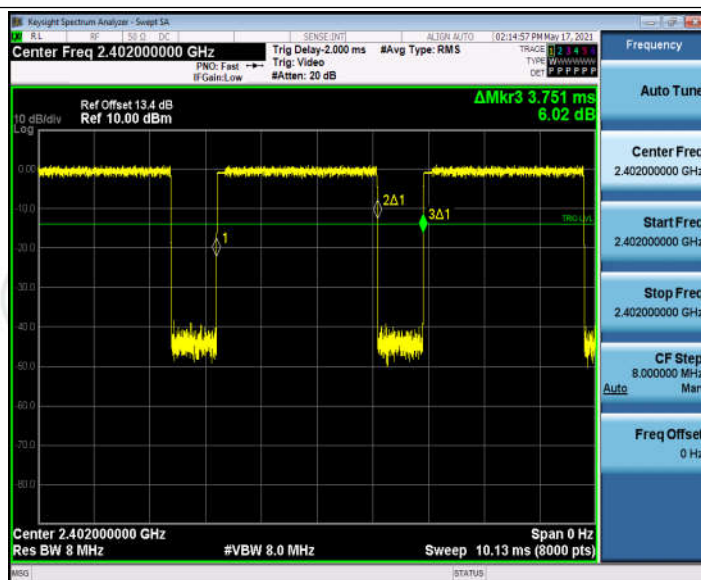
2DH5_Ant1_2402



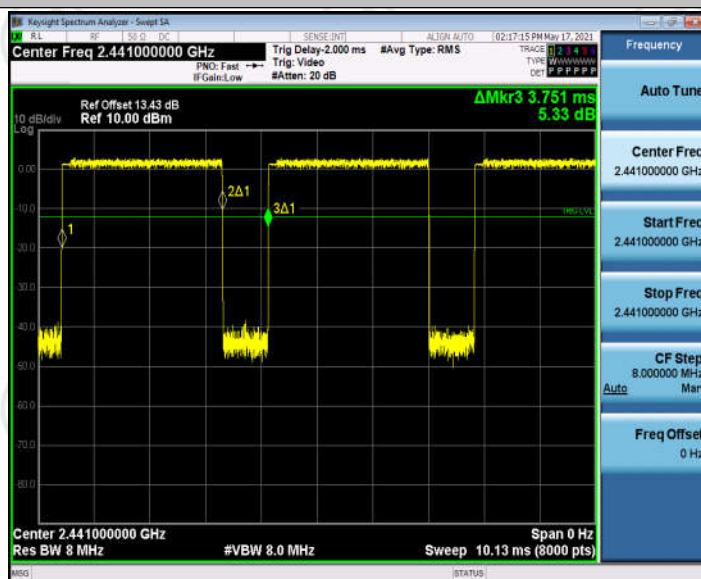
2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441

