

Appendix: Bluetooth Classic

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Appendix A: 20dB Emission Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.999	2401.442	2402.441	---	---
		2441	1.005	2440.430	2441.435	---	---
		2480	1.035	2479.436	2480.471	---	---
2DH5	Ant1	2402	1.191	2401.355	2402.546	---	---
		2441	1.230	2440.331	2441.561	---	---
		2480	1.191	2479.355	2480.546	---	---
3DH5	Ant1	2402	1.185	2401.376	2402.561	---	---
		2441	1.254	2440.322	2441.576	---	---
		2480	1.188	2479.364	2480.552	---	---

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



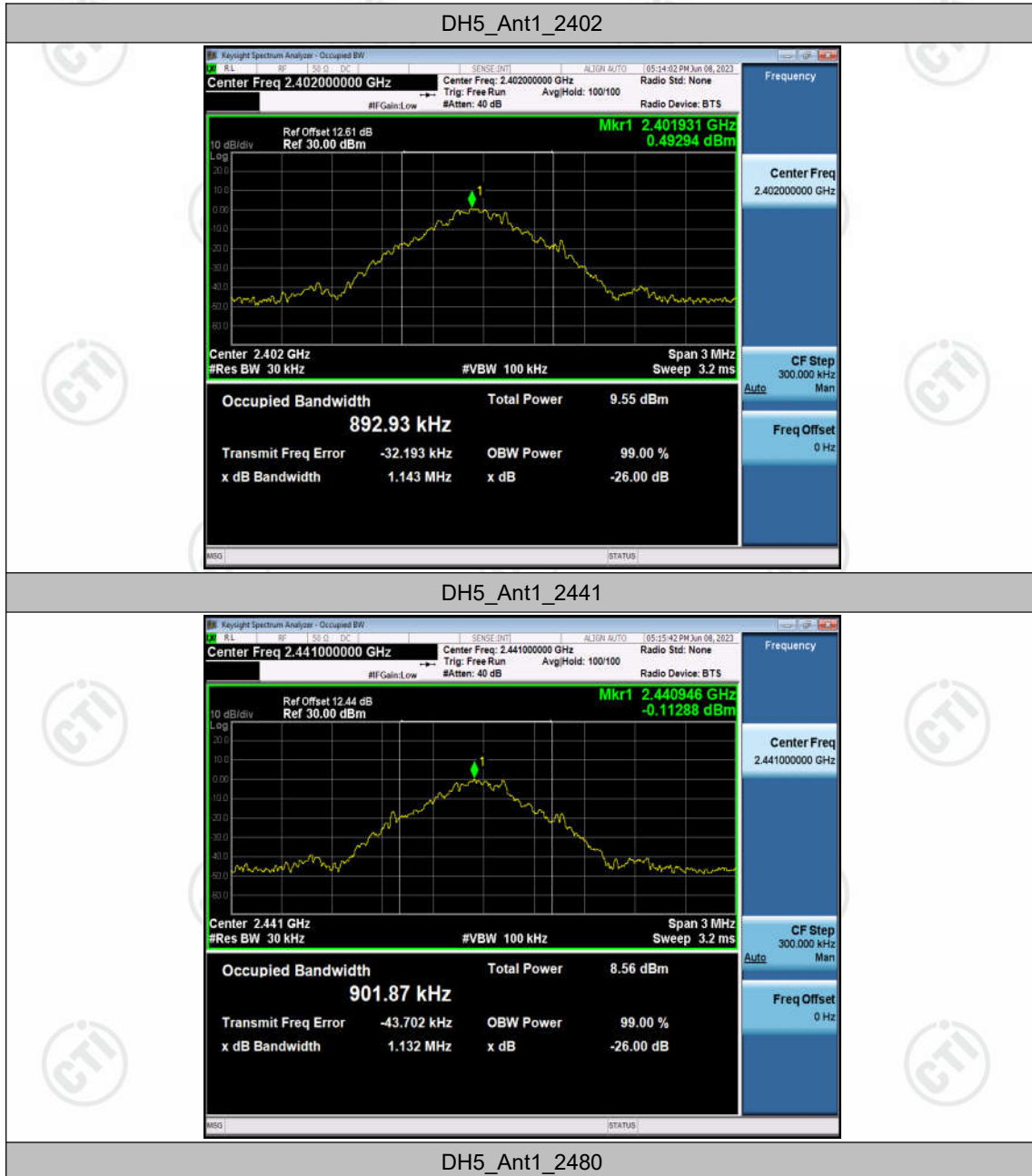
3DH5_Ant1_2480



Appendix B: Occupied Channel Bandwidth**Test Result**

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.89293	2401.5213	2402.4143	---	---
		2441	0.90187	2440.5054	2441.4072	---	---
		2480	0.89836	2479.5087	2480.4070	---	---
2DH5	Ant1	2402	1.1580	2401.3728	2402.5308	---	---
		2441	1.1479	2440.3799	2441.5278	---	---
		2480	1.1414	2479.3854	2480.5268	---	---
3DH5	Ant1	2402	1.1482	2401.3941	2402.5423	---	---
		2441	1.1489	2440.3863	2441.5352	---	---
		2480	1.1403	2479.3892	2480.5295	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



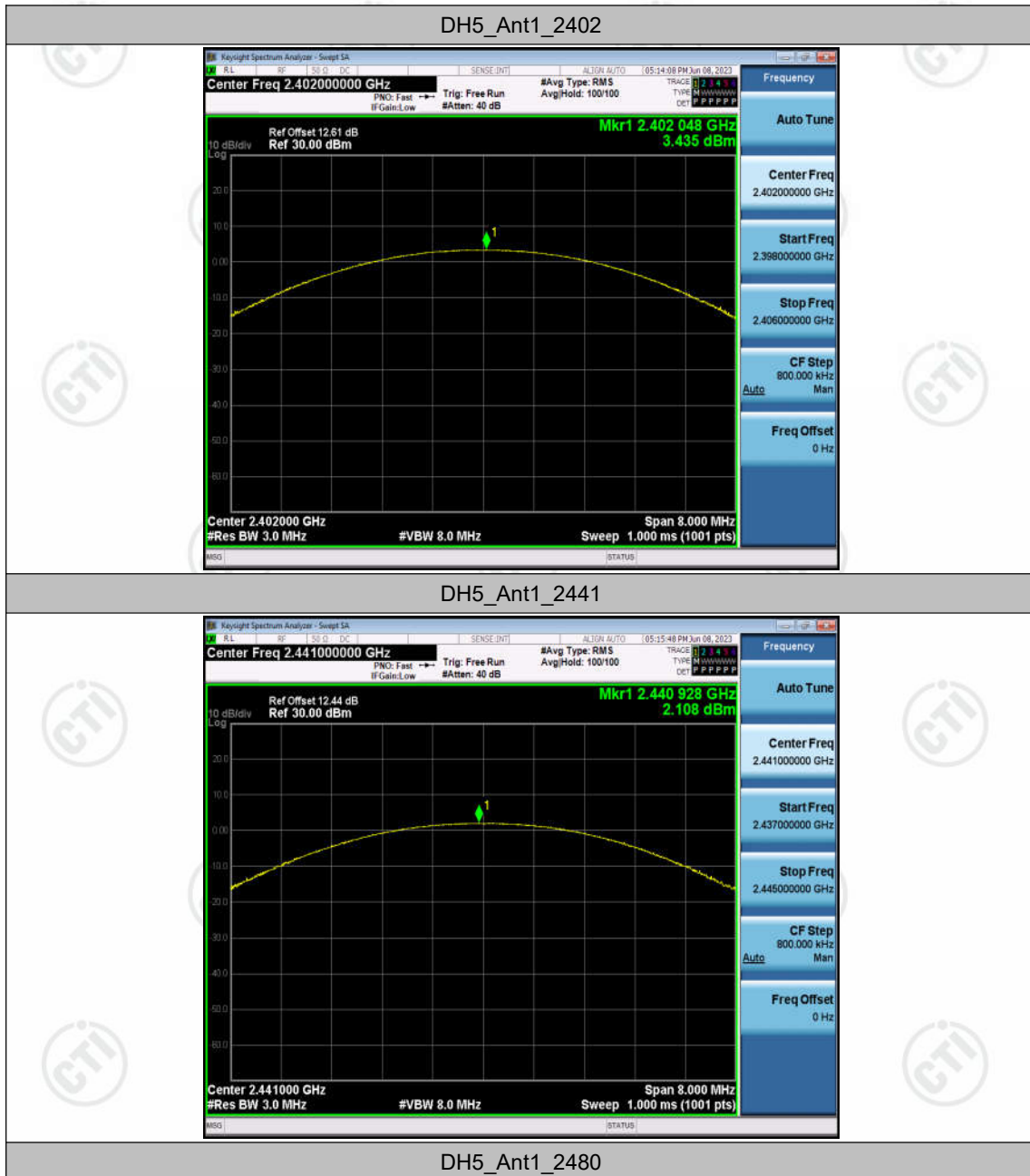
3DH5_Ant1_2480



Appendix C: Maximum conducted output power**Test Result**

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	3.44	≤20.97	PASS
		2441	2.11	≤20.97	PASS
		2480	1.79	≤20.97	PASS
2DH5	Ant1	2402	3.37	≤20.97	PASS
		2441	2.02	≤20.97	PASS
		2480	1.73	≤20.97	PASS
3DH5	Ant1	2402	3.66	≤20.97	PASS
		2441	1.93	≤20.97	PASS
		2480	2.01	≤20.97	PASS

Test Graphs

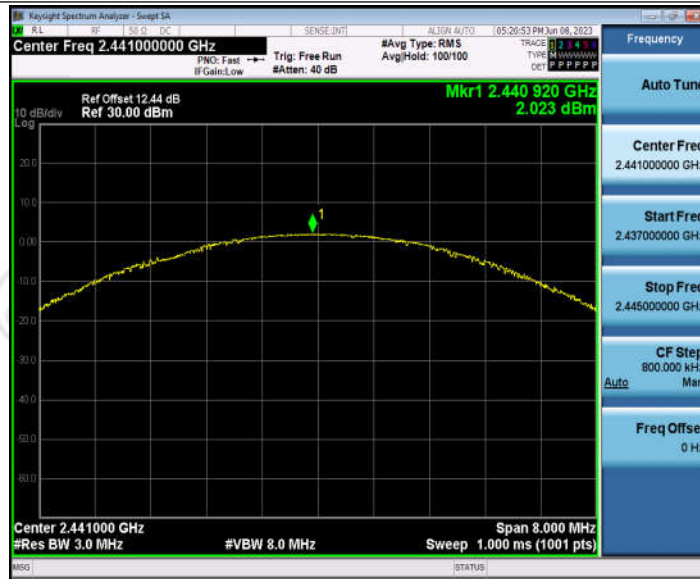




2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

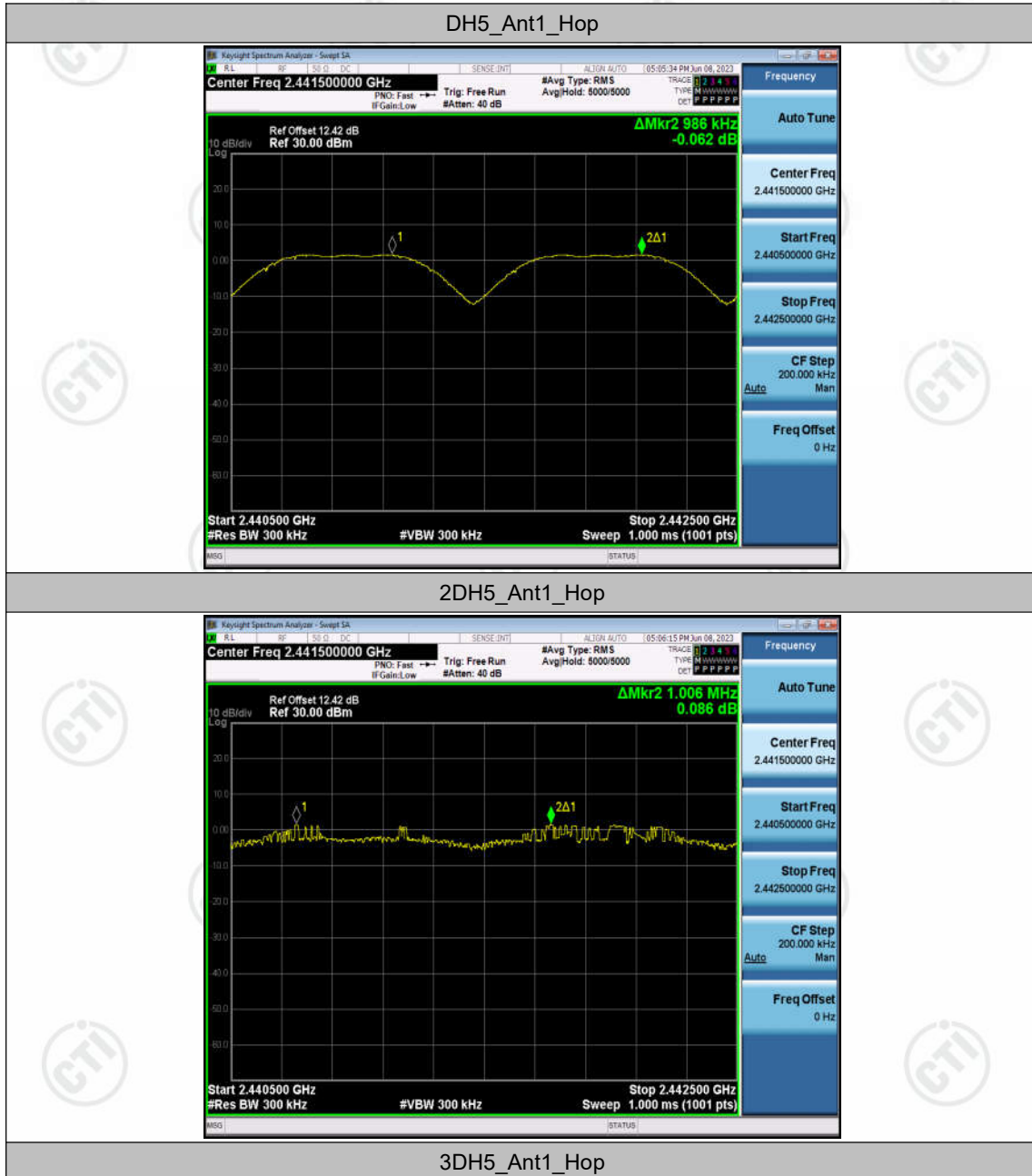


Appendix D: Carrier frequency separation

Test Result

Test Mode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.986	≥ 0.025	PASS
2DH5	Ant1	Hop	1.006	≥ 0.025	PASS
3DH5	Ant1	Hop	1.004	≥ 0.025	PASS

Test Graphs

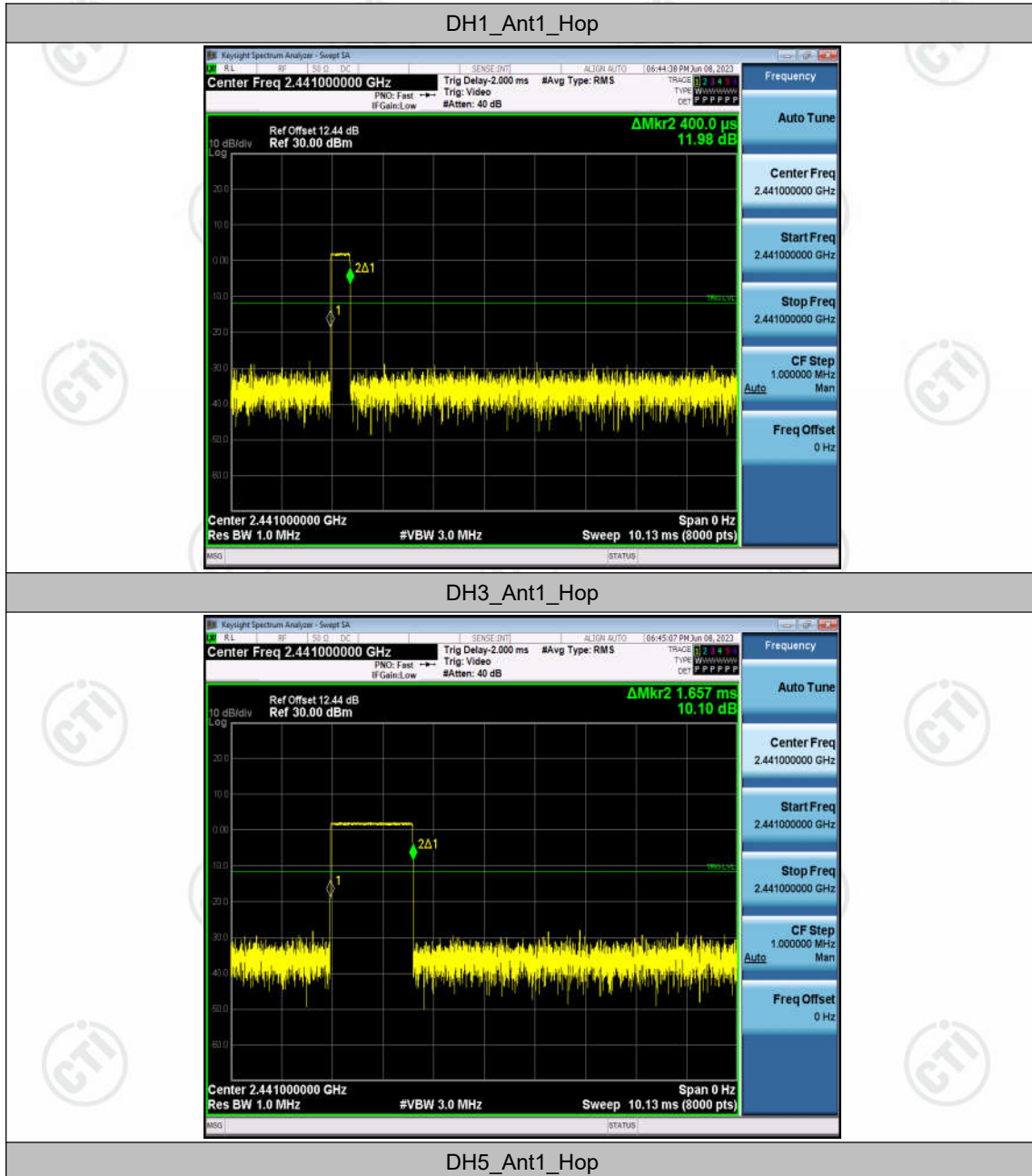


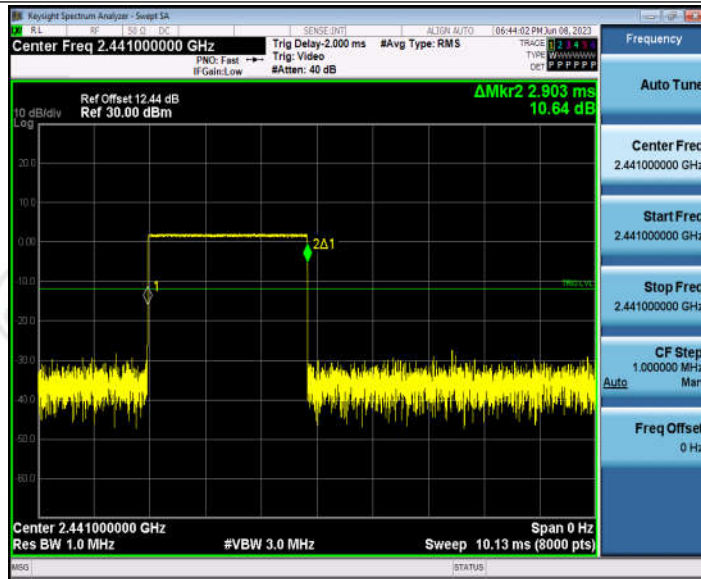


Appendix E: Time of occupancy**Test Result**

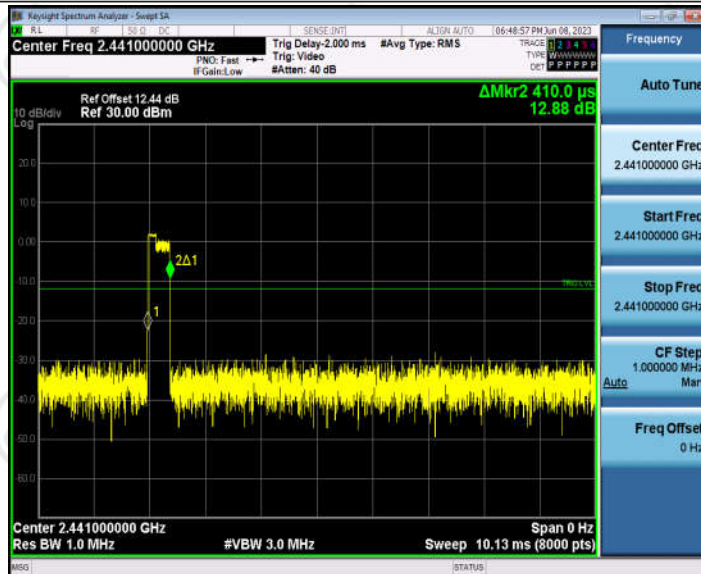
Test Mode	Antenna	Frequency[MHz]	Burst Width [ms]	Total Hops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.400	320	0.128	≤0.4	PASS
DH3	Ant1	Hop	1.657	160	0.265	≤0.4	PASS
DH5	Ant1	Hop	2.903	106.67	0.31	≤0.4	PASS
2DH1	Ant1	Hop	0.410	320	0.131	≤0.4	PASS
2DH3	Ant1	Hop	1.662	160	0.266	≤0.4	PASS
2DH5	Ant1	Hop	2.910	106.67	0.31	≤0.4	PASS
3DH1	Ant1	Hop	0.409	320	0.131	≤0.4	PASS
3DH3	Ant1	Hop	1.659	160	0.265	≤0.4	PASS
3DH5	Ant1	Hop	2.911	106.67	0.311	≤0.4	PASS

Test Graphs

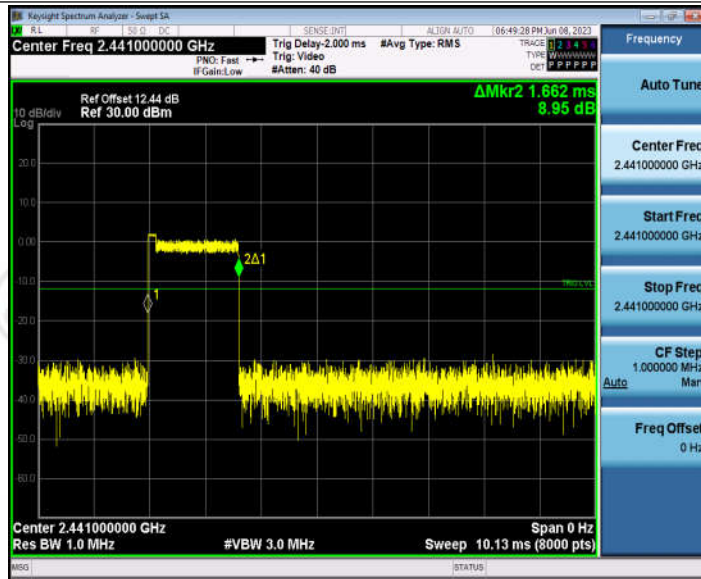




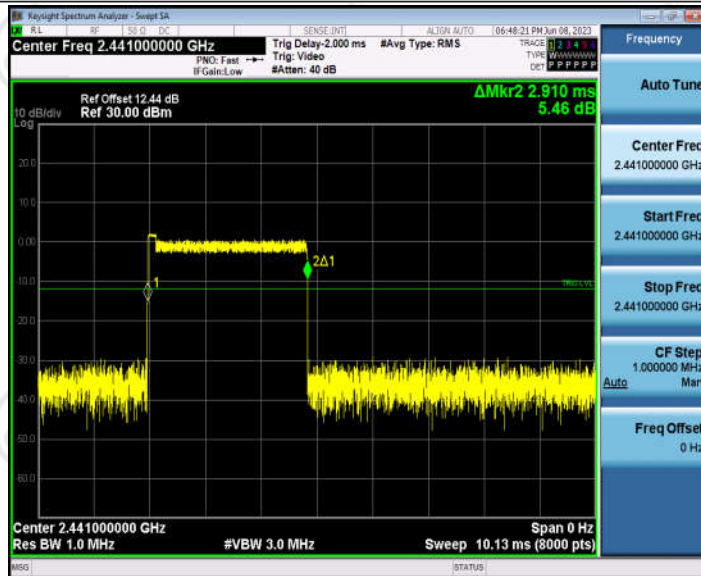
2DH1_Ant1_Hop



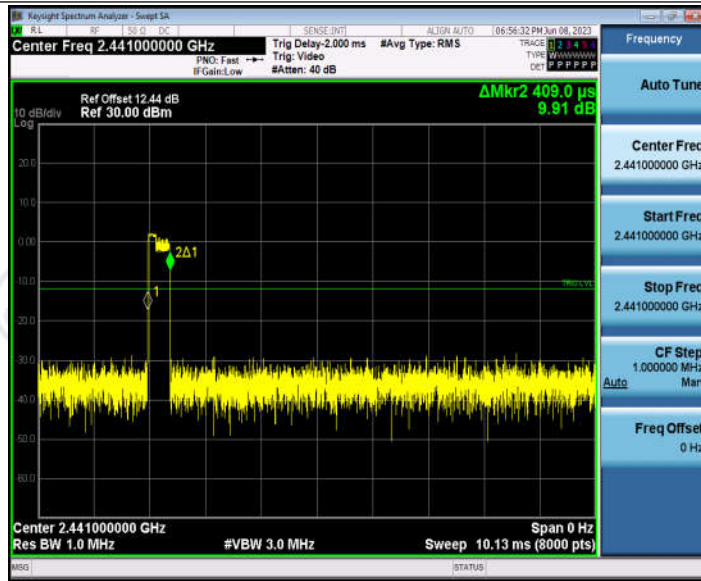
2DH3_Ant1_Hop



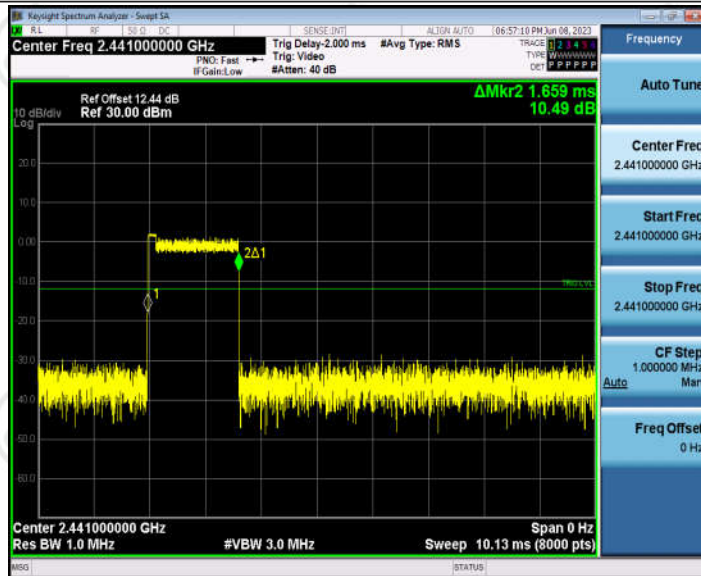
2DH5_Ant1_Hop



3DH1_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop

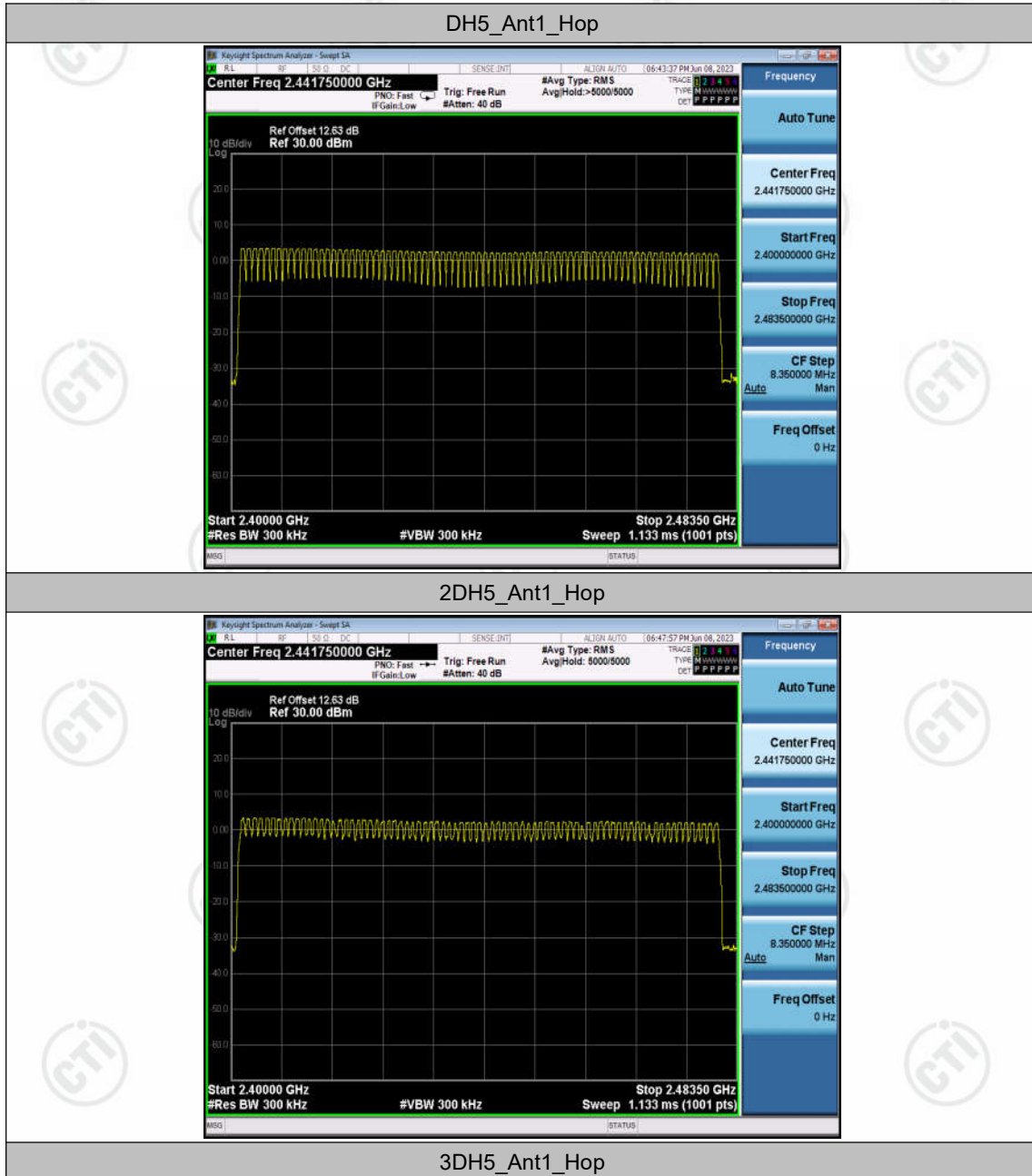


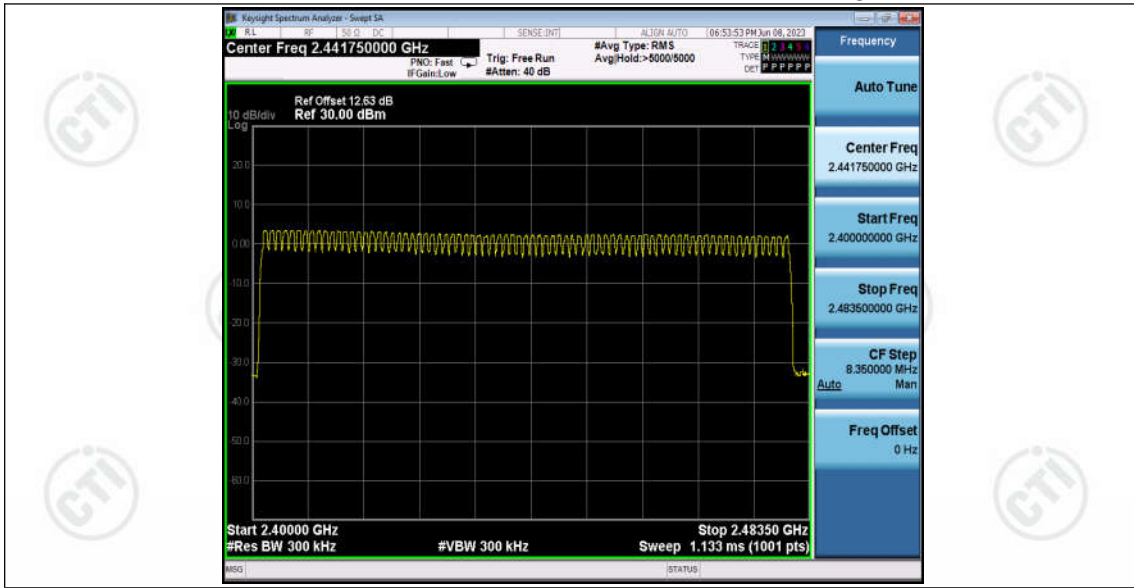
Appendix F: Number of hopping channels

Test Result

Test Mode	Antenna	Frequency[MHz]	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



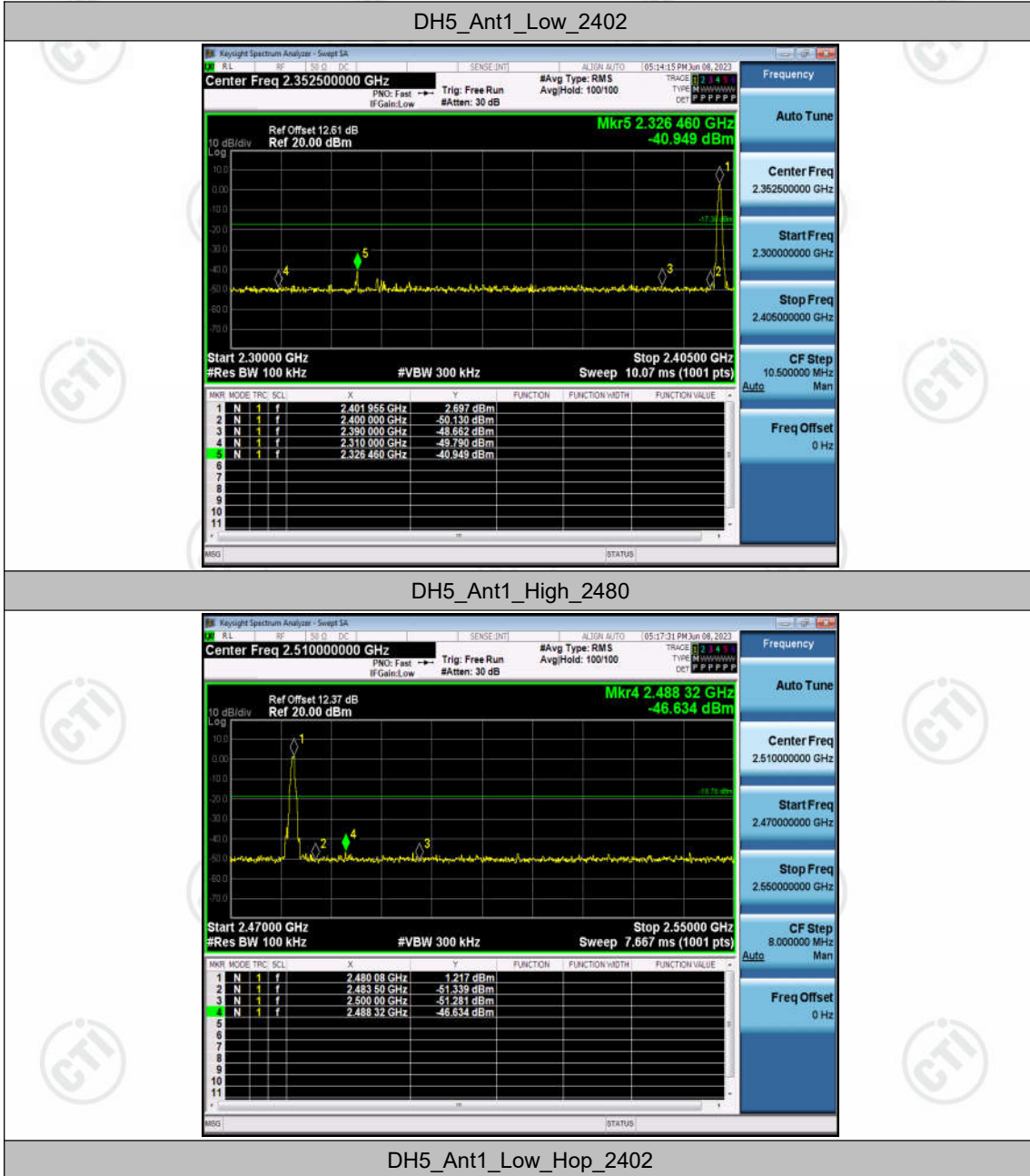


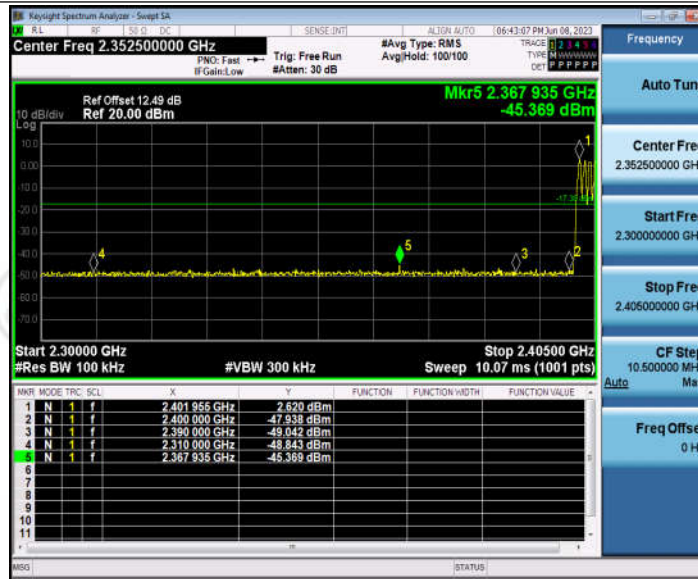
Appendix G: Band edge measurements

Test Result

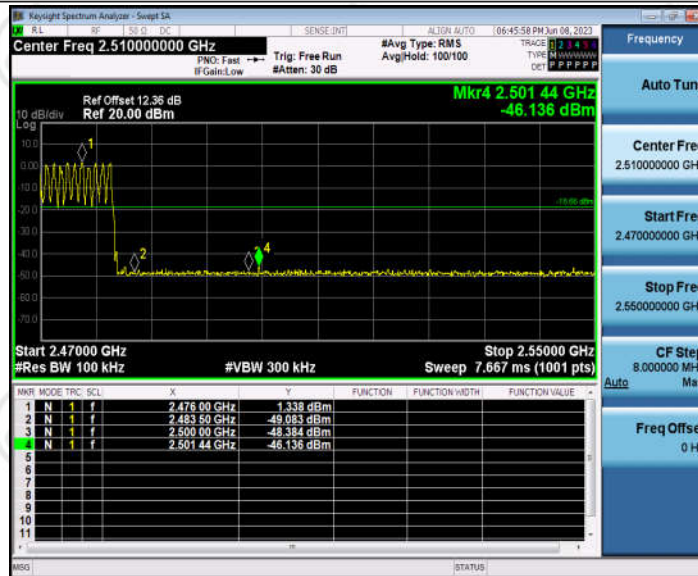
Test Mode	Antenna	Ch Name	Frequency[MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.70	-40.95	≤-17.3	PASS
		High	2480	1.22	-46.63	≤-18.78	PASS
		Low	Hop_2402	2.62	-45.37	≤-17.38	PASS
		High	Hop_2480	1.34	-46.14	≤-18.66	PASS
2DH5	Ant1	Low	2402	2.40	-46.08	≤-17.6	PASS
		High	2480	0.56	-47.41	≤-19.44	PASS
		Low	Hop_2402	3.04	-46.36	≤-16.96	PASS
		High	Hop_2480	1.49	-46.16	≤-18.51	PASS
3DH5	Ant1	Low	2402	1.81	-47.55	≤-18.19	PASS
		High	2480	-0.69	-46.37	≤-20.69	PASS
		Low	Hop_2402	2.82	-46.16	≤-17.18	PASS
		High	Hop_2480	1.65	-46.59	≤-18.35	PASS

Test Graphs

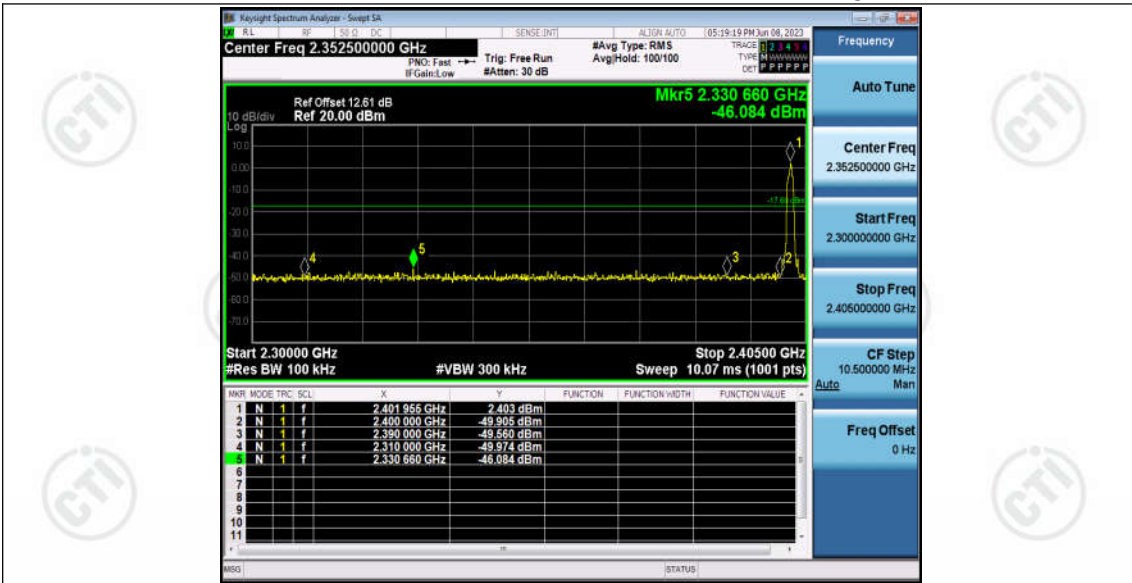




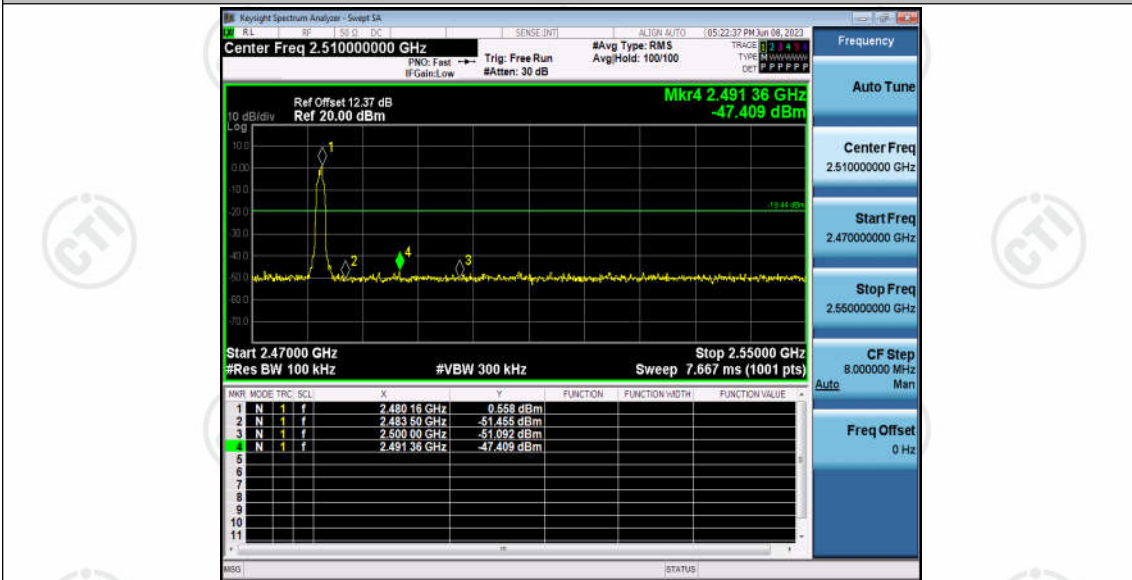
DH5_Ant1_High_Hop_2480



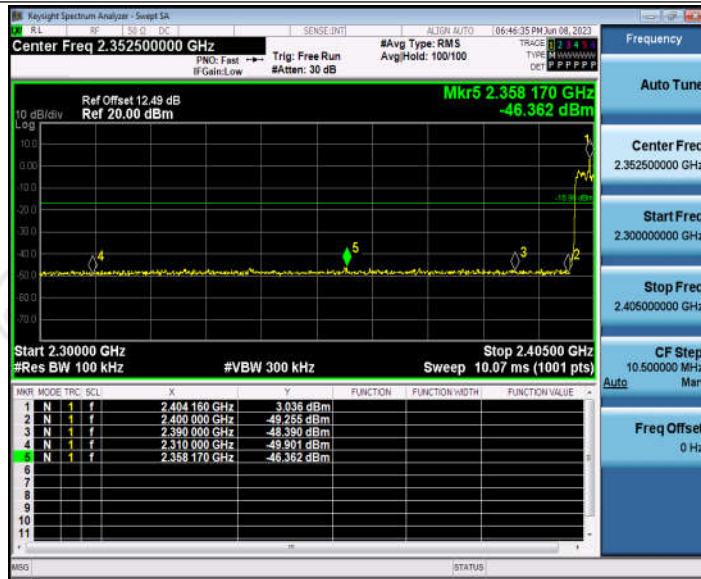
2DH5_Ant1_Low_2402



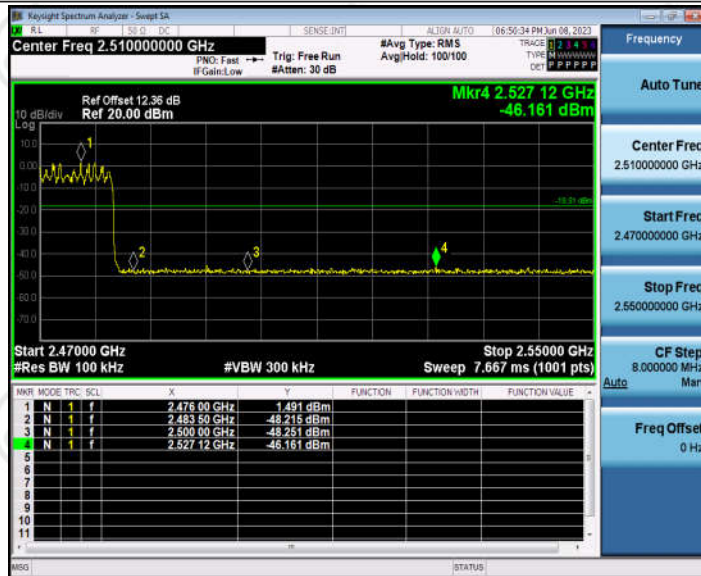
2DH5_Ant1_High_2480



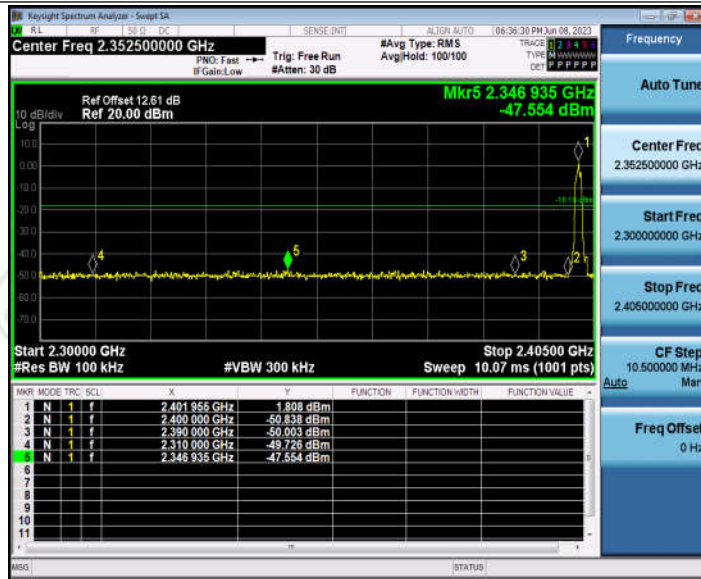
2DH5_Ant1_Low_Hop_2402



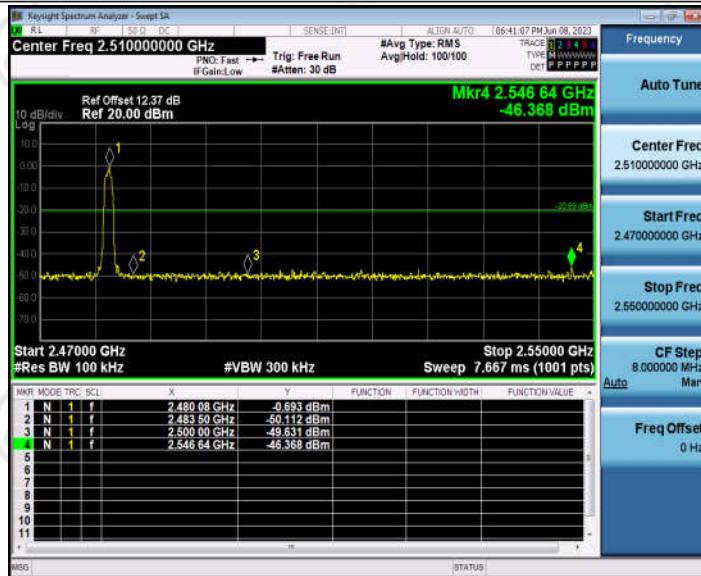
2DH5_Ant1_High_Hop_2480



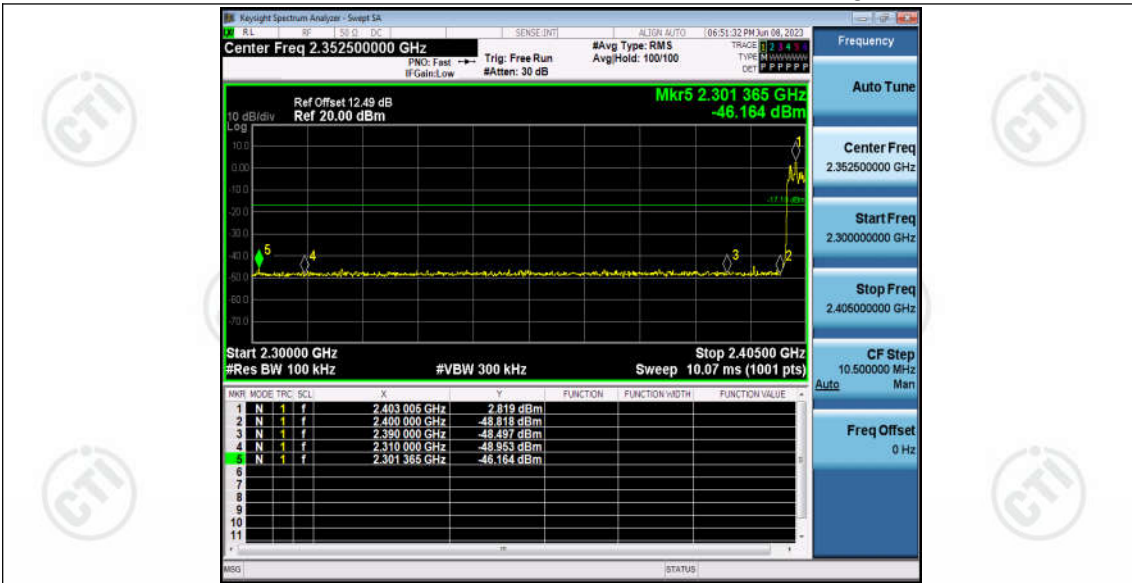
3DH5_Ant1_Low_2402



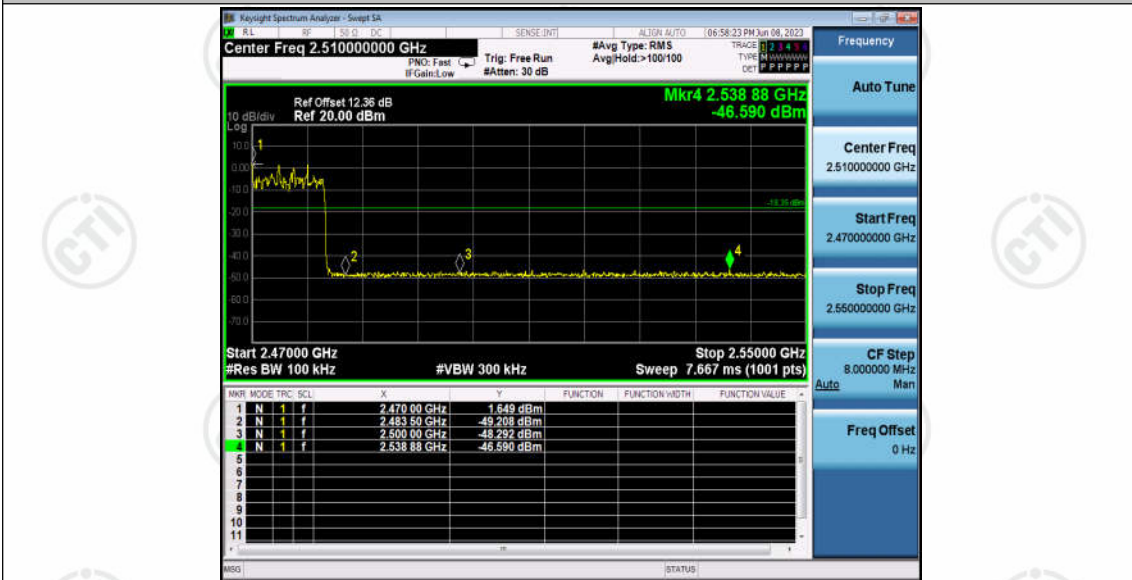
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

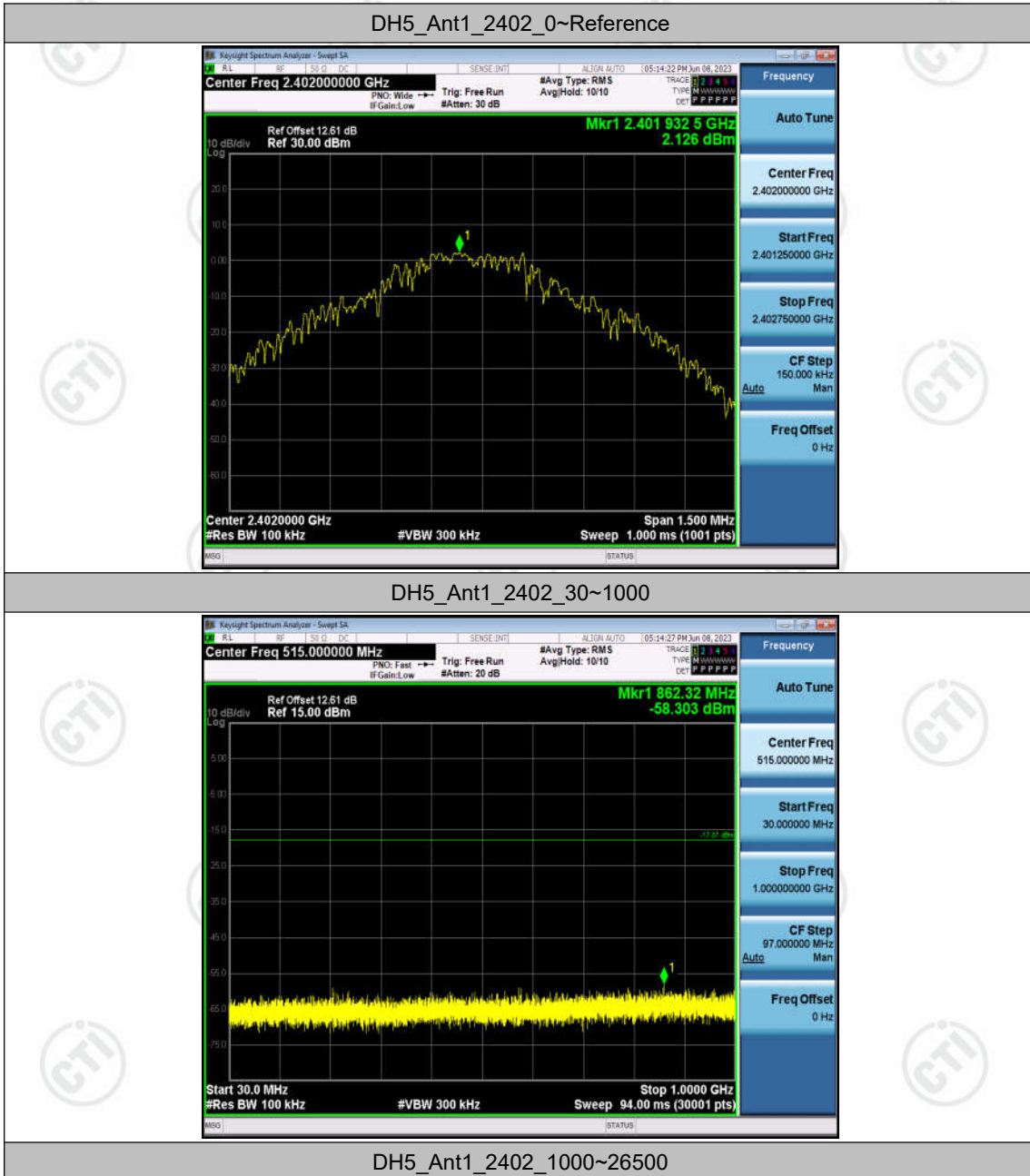


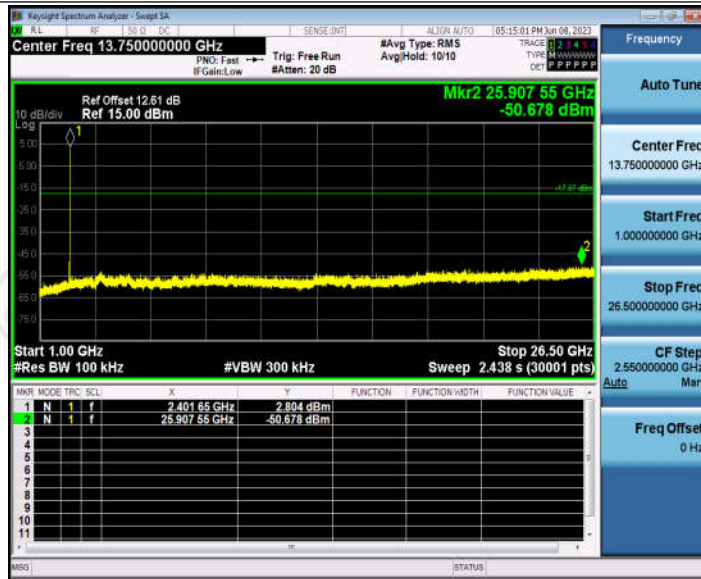
Appendix H: Conducted Spurious Emission

Test Result

Test Mode	Antenna	Frequency[MHz]	Freq Range [MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	2.13	2.13	---	PASS
			30~1000	2.13	-58.3	≤-17.87	PASS
			1000~26500	2.13	-50.68	≤-17.87	PASS
		2441	Reference	0.91	0.91	---	PASS
			30~1000	0.91	-58.79	≤-19.09	PASS
			1000~26500	0.91	-50.15	≤-19.09	PASS
		2480	Reference	0.46	0.46	---	PASS
			30~1000	0.46	-58.52	≤-19.54	PASS
			1000~26500	0.46	-50.82	≤-19.54	PASS
2DH5	Ant1	2402	Reference	-2.34	-2.34	---	PASS
			30~1000	-2.34	-58.55	≤-22.34	PASS
			1000~26500	-2.34	-50.04	≤-22.34	PASS
		2441	Reference	-3.89	-3.89	---	PASS
			30~1000	-3.89	-58.43	≤-23.89	PASS
			1000~26500	-3.89	-50.09	≤-23.89	PASS
		2480	Reference	-1.61	-1.61	---	PASS
			30~1000	-1.61	-59.1	≤-21.61	PASS
			1000~26500	-1.61	-50.51	≤-21.61	PASS
3DH5	Ant1	2402	Reference	-2.51	-2.51	---	PASS
			30~1000	-2.51	-57.63	≤-22.51	PASS
			1000~26500	-2.51	-50.18	≤-22.51	PASS
		2441	Reference	-0.72	-0.72	---	PASS
			30~1000	-0.72	-59.05	≤-20.72	PASS
			1000~26500	-0.72	-50.82	≤-20.72	PASS
		2480	Reference	-3.97	-3.97	---	PASS
			30~1000	-3.97	-58.51	≤-23.97	PASS
			1000~26500	-3.97	-50.39	≤-23.97	PASS

Test Graphs





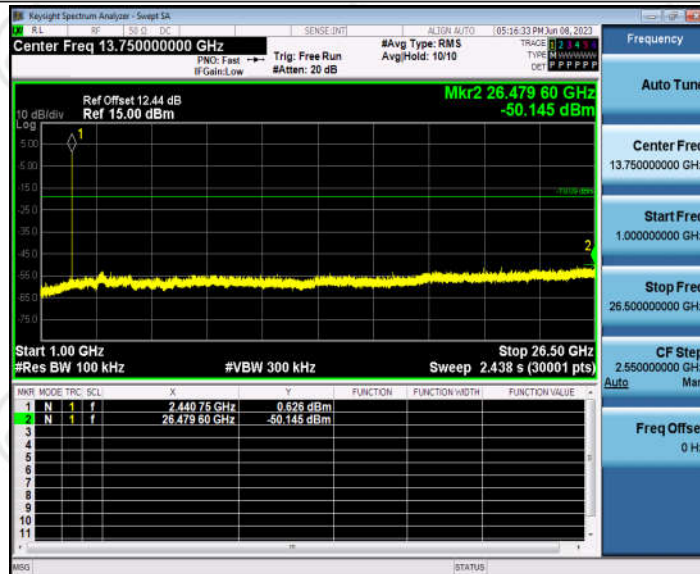
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



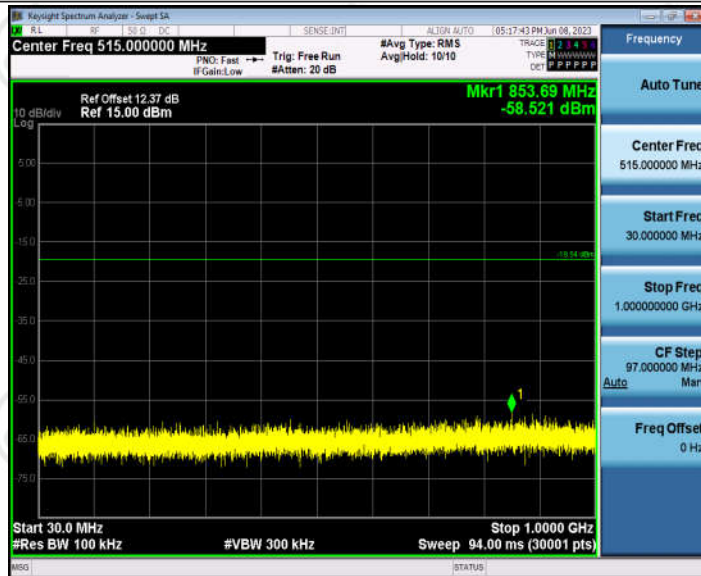
DH5_Ant1_2441_1000~26500



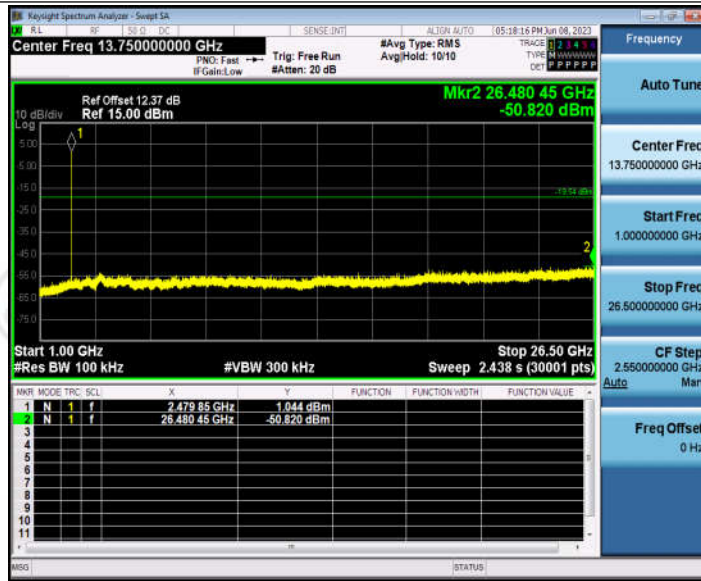
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



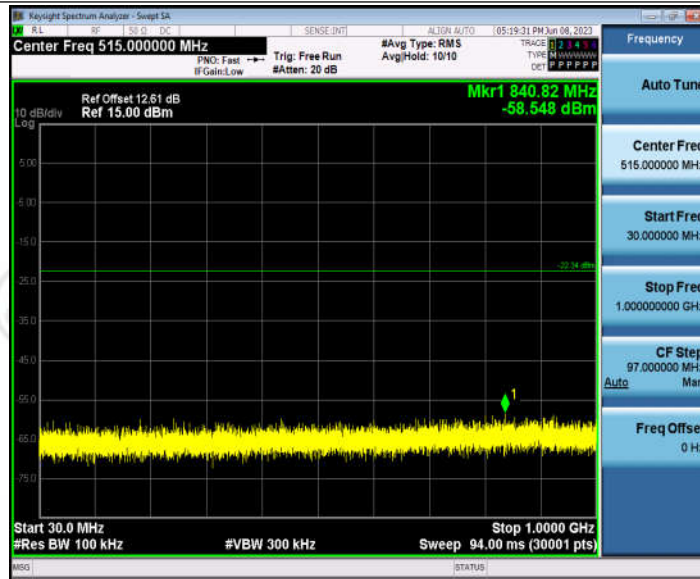
DH5_Ant1_2480_1000~26500



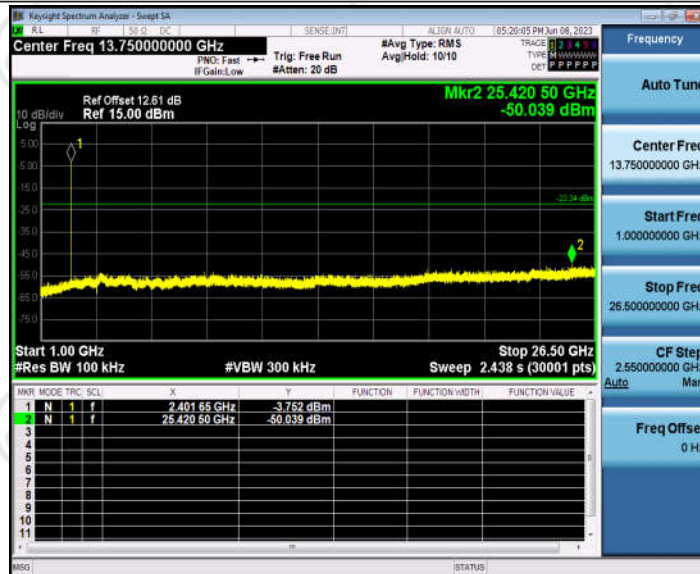
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



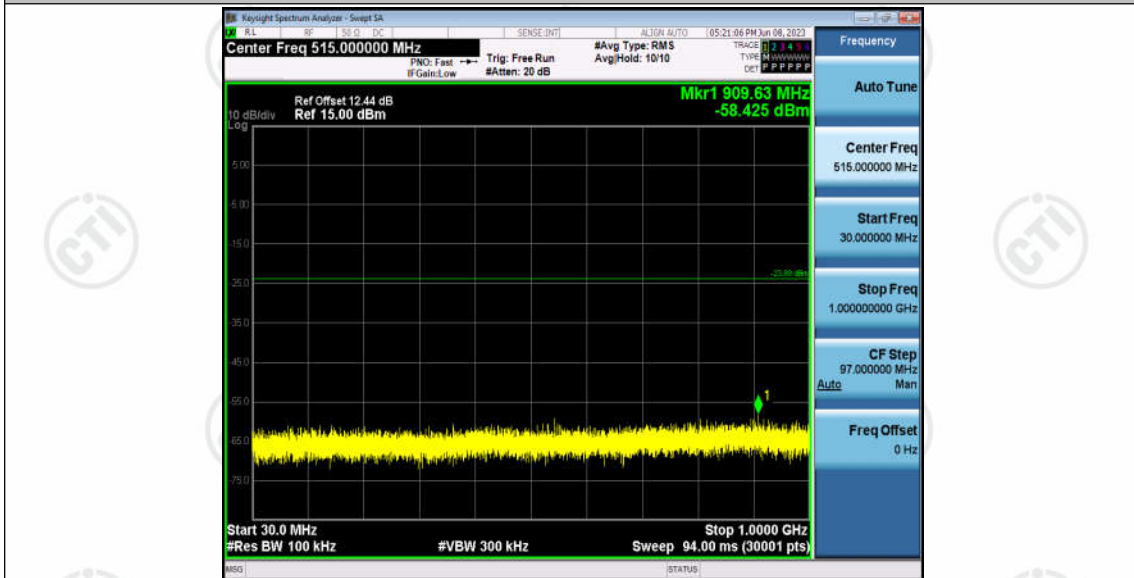
2DH5_Ant1_2402_1000~26500



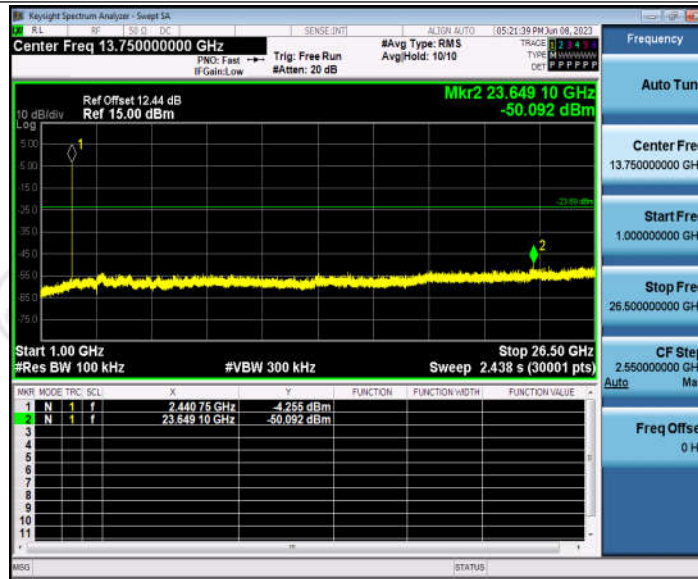
2DH5_Ant1_2441_0~Reference



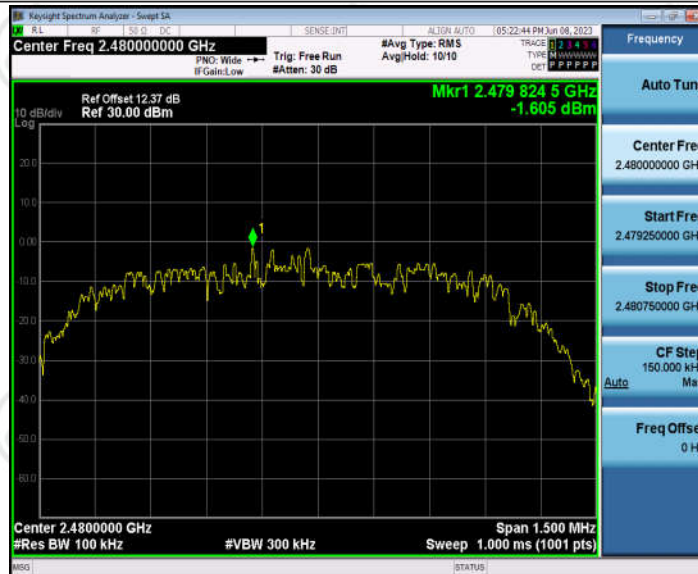
2DH5_Ant1_2441_30~1000



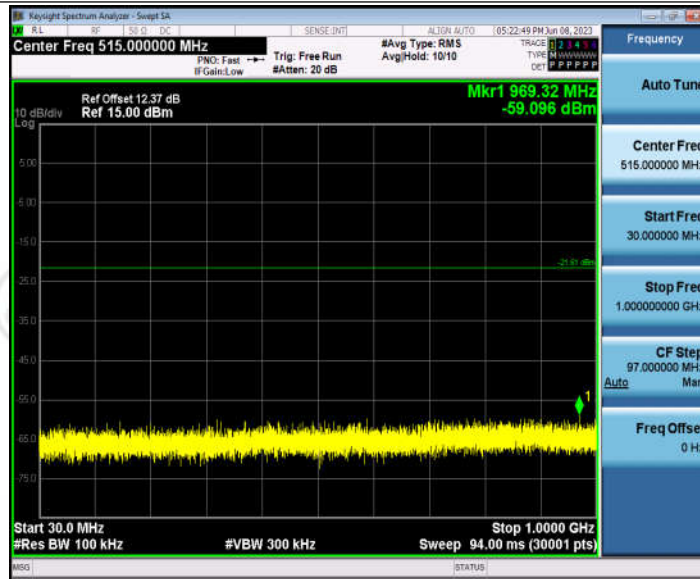
2DH5_Ant1_2441_1000~26500



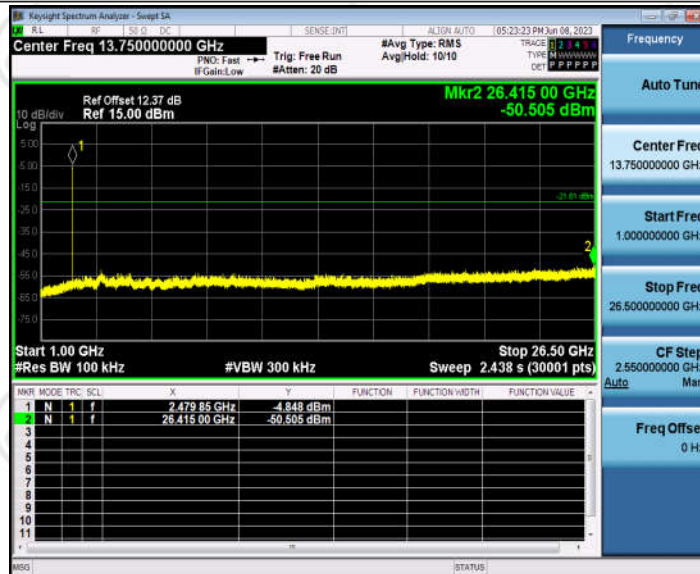
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



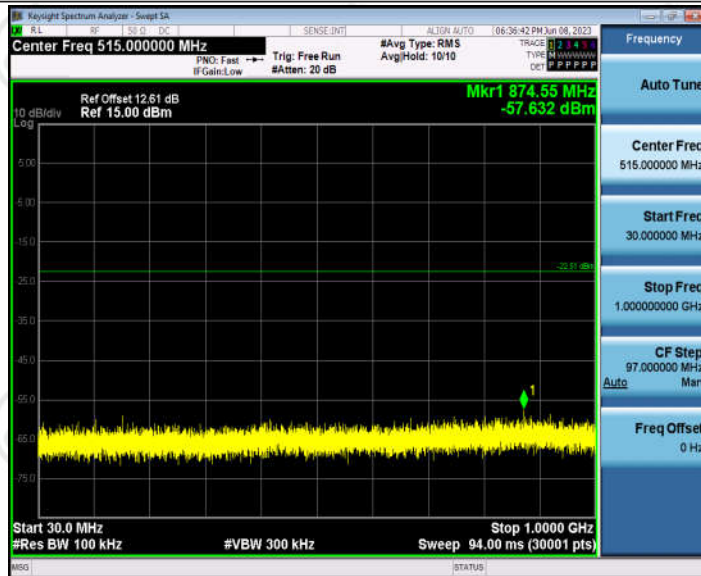
2DH5_Ant1_2480_1000~26500



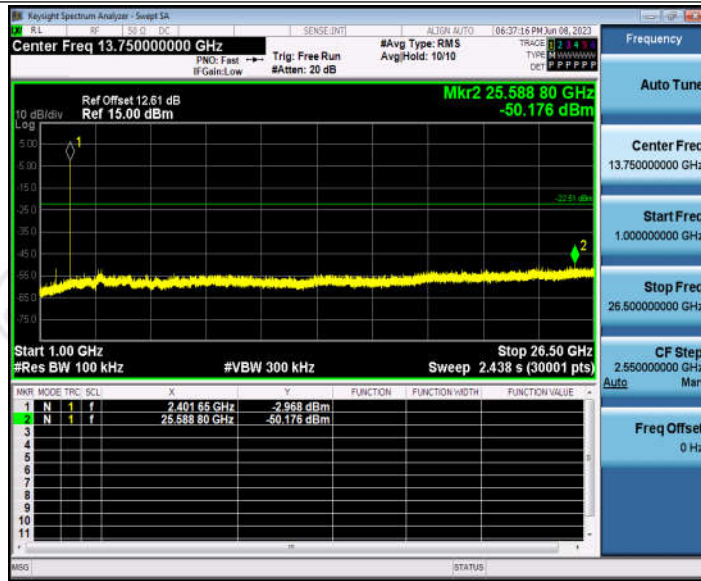
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000



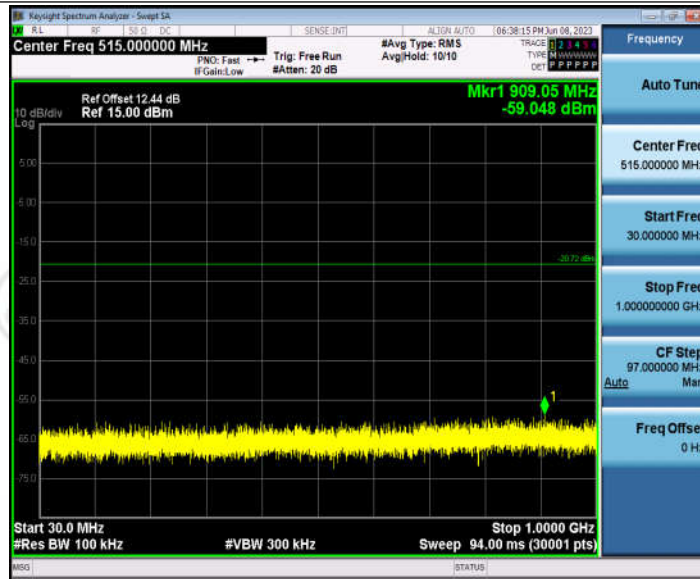
3DH5_Ant1_2402_1000~26500



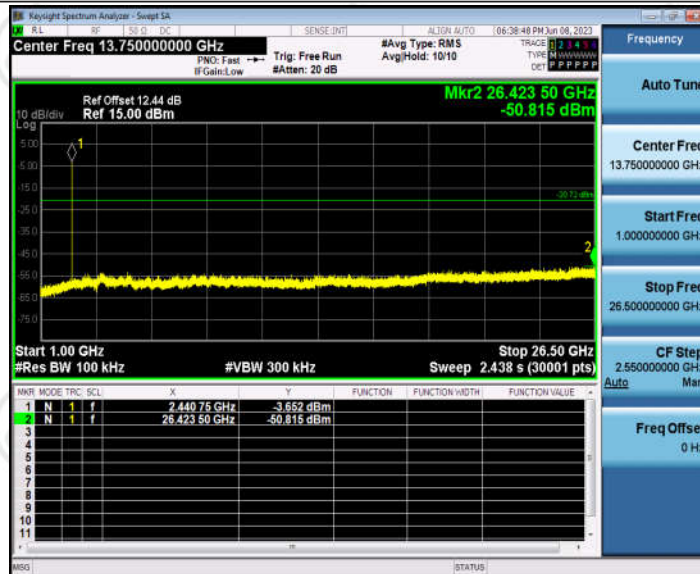
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



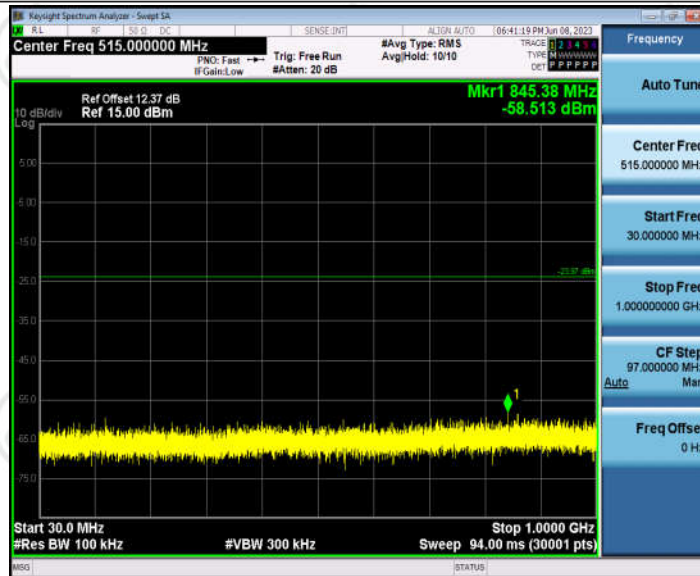
3DH5_Ant1_2441_1000~26500



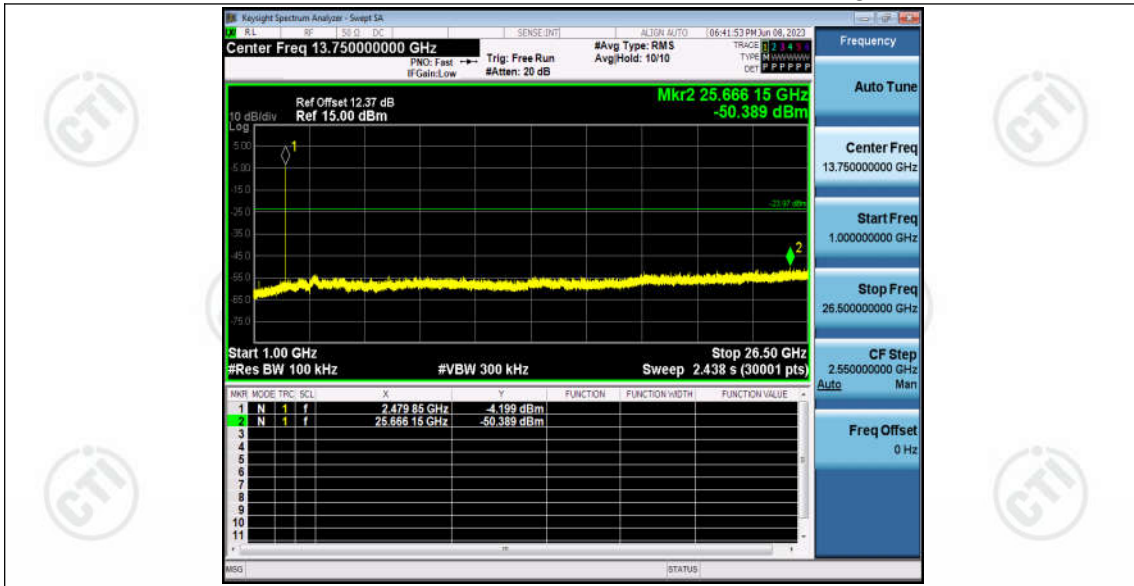
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500

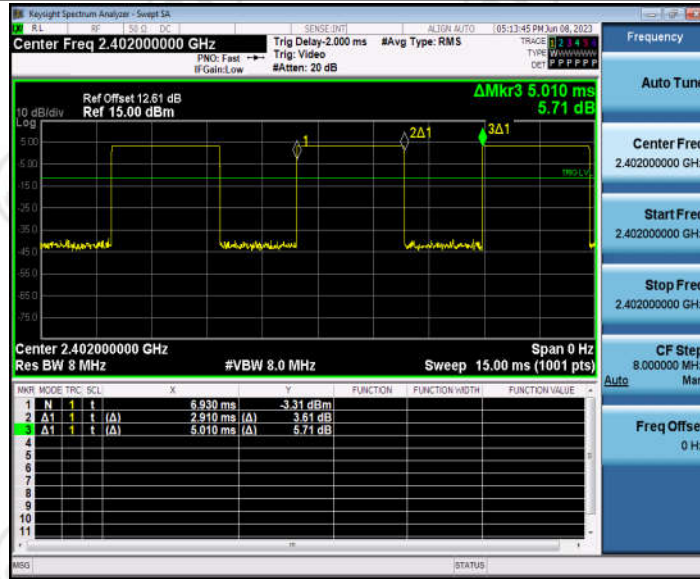


Appendix I: Duty Cycle**Test Result**

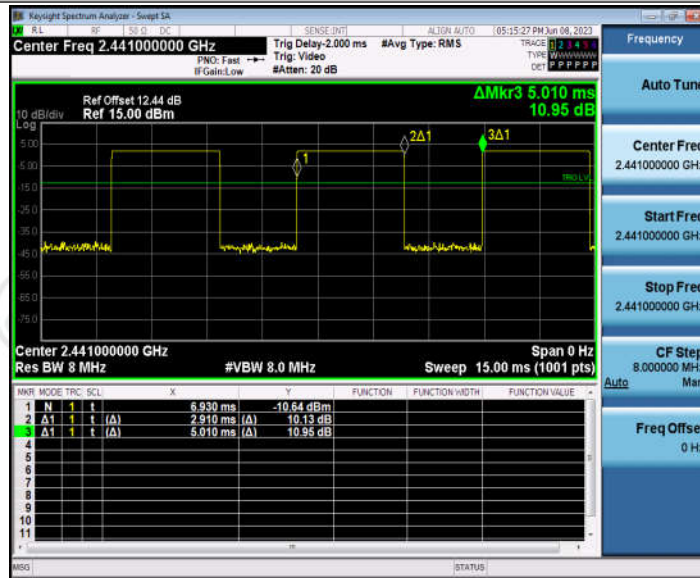
Test Mode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
DH5	Ant1	2402	2.91	5.01	58.08	2.36
		2441	2.91	5.01	58.08	2.36
		2480	2.91	5.01	58.08	2.36
2DH5	Ant1	2402	2.91	5.00	58.20	2.35
		2441	2.91	5.01	58.08	2.36
		2480	2.91	5.01	58.08	2.36
3DH5	Ant1	2402	2.91	4.99	58.32	2.34
		2441	2.91	4.99	58.32	2.34
		2480	2.91	5.01	58.08	2.36

Test Graphs

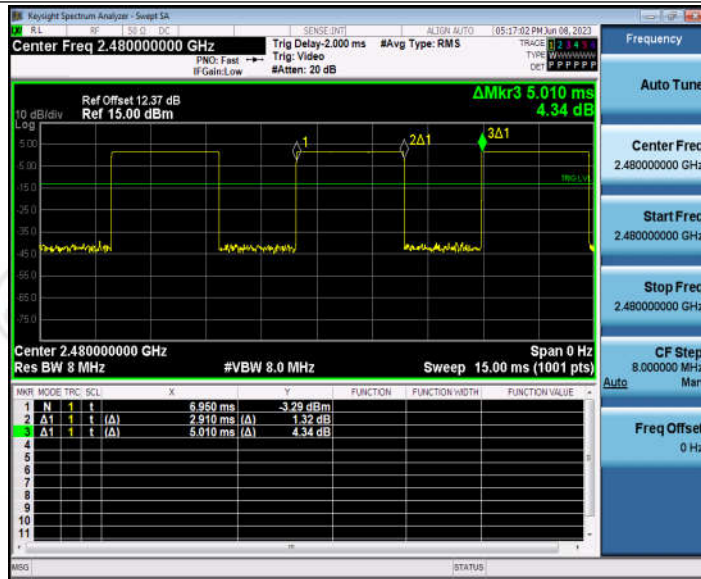
DH5_Ant1_2402



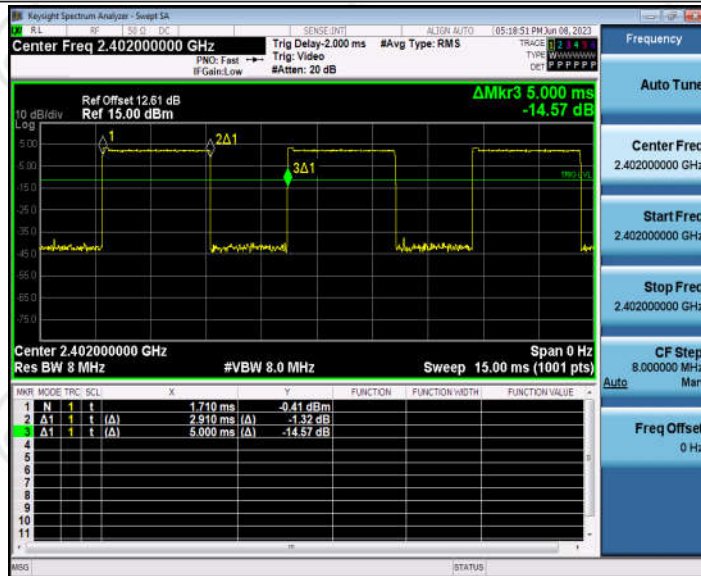
DH5_Ant1_2441



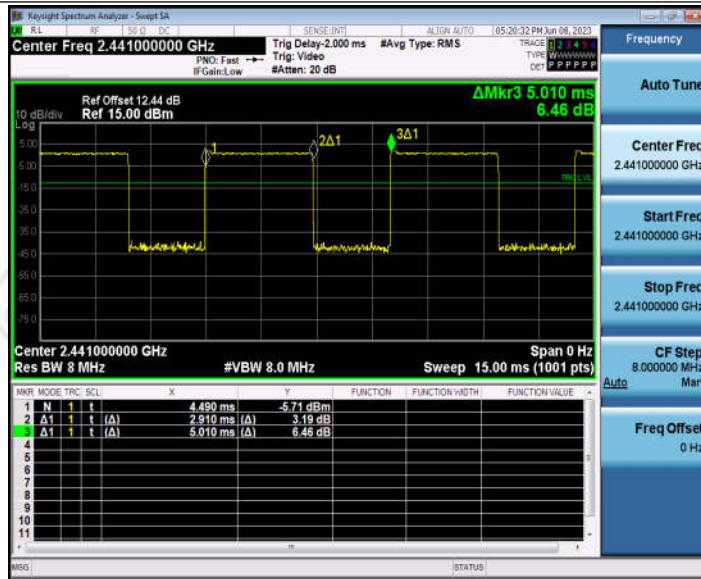
DH5_Ant1_2480



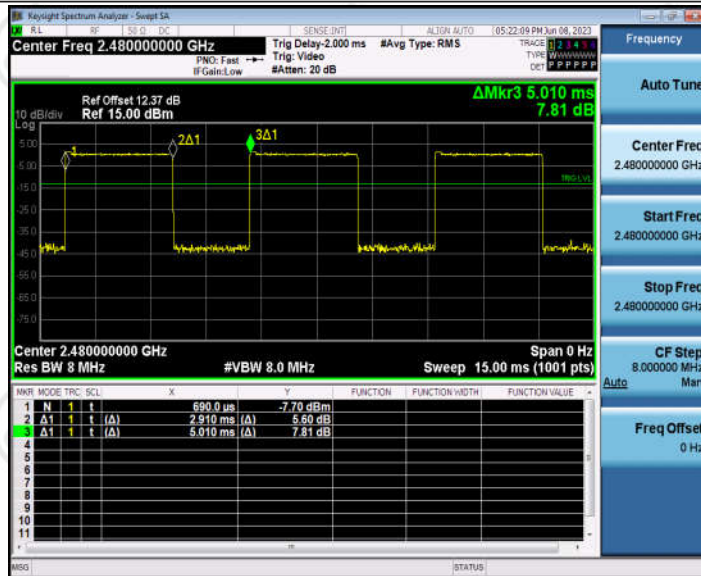
2DH5_Ant1_2402



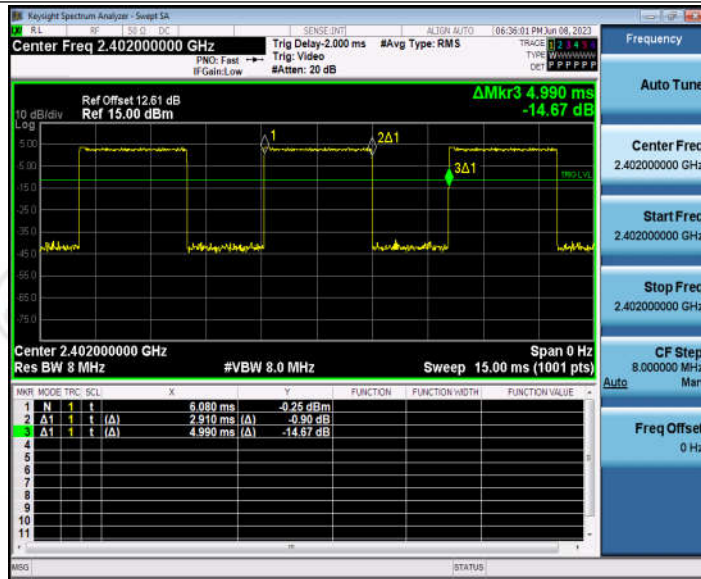
2DH5_Ant1_2441



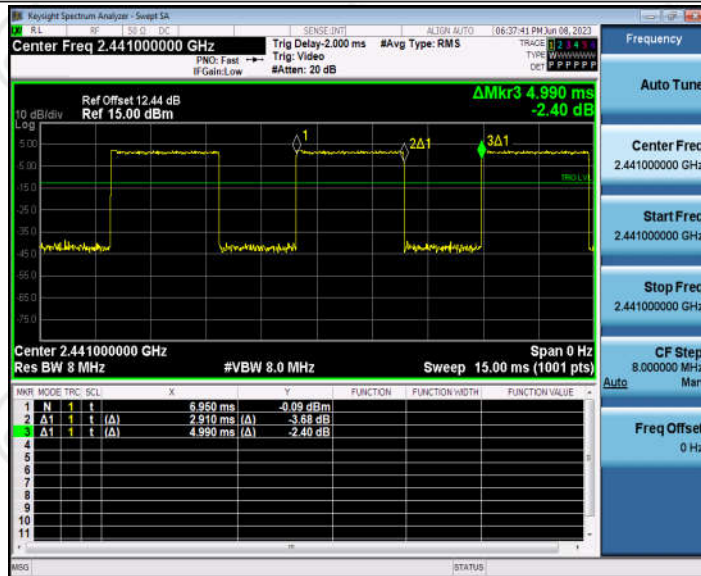
2DH5_Ant1_2480



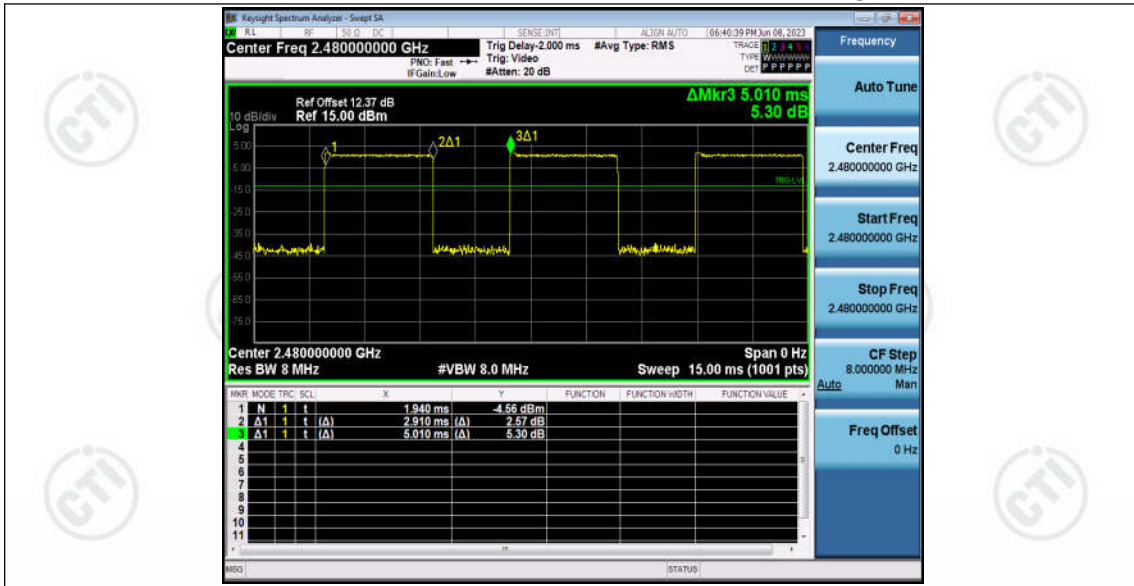
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



*** End of Report ***