

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 Peak..... 15

 Test Graphs..... 16

Appendix D: Carrier frequency separation..... 21

 Test Result..... 21

 Test Graphs..... 22

Appendix E: Time of occupancy..... 27

 Test Result..... 27

 Test Graphs..... 28

Appendix F: Number of hopping channels..... 35

 Test Result..... 35

 Test Graphs..... 36

Appendix G: Band edge measurements..... 38

 Test Result..... 38

 Test Graphs..... 39

Appendix H: Conducted Spurious Emission..... 45

 Test Result..... 45

 Test Graphs..... 46

Appendix I: Duty Cycle..... 60

 Test Result..... 60

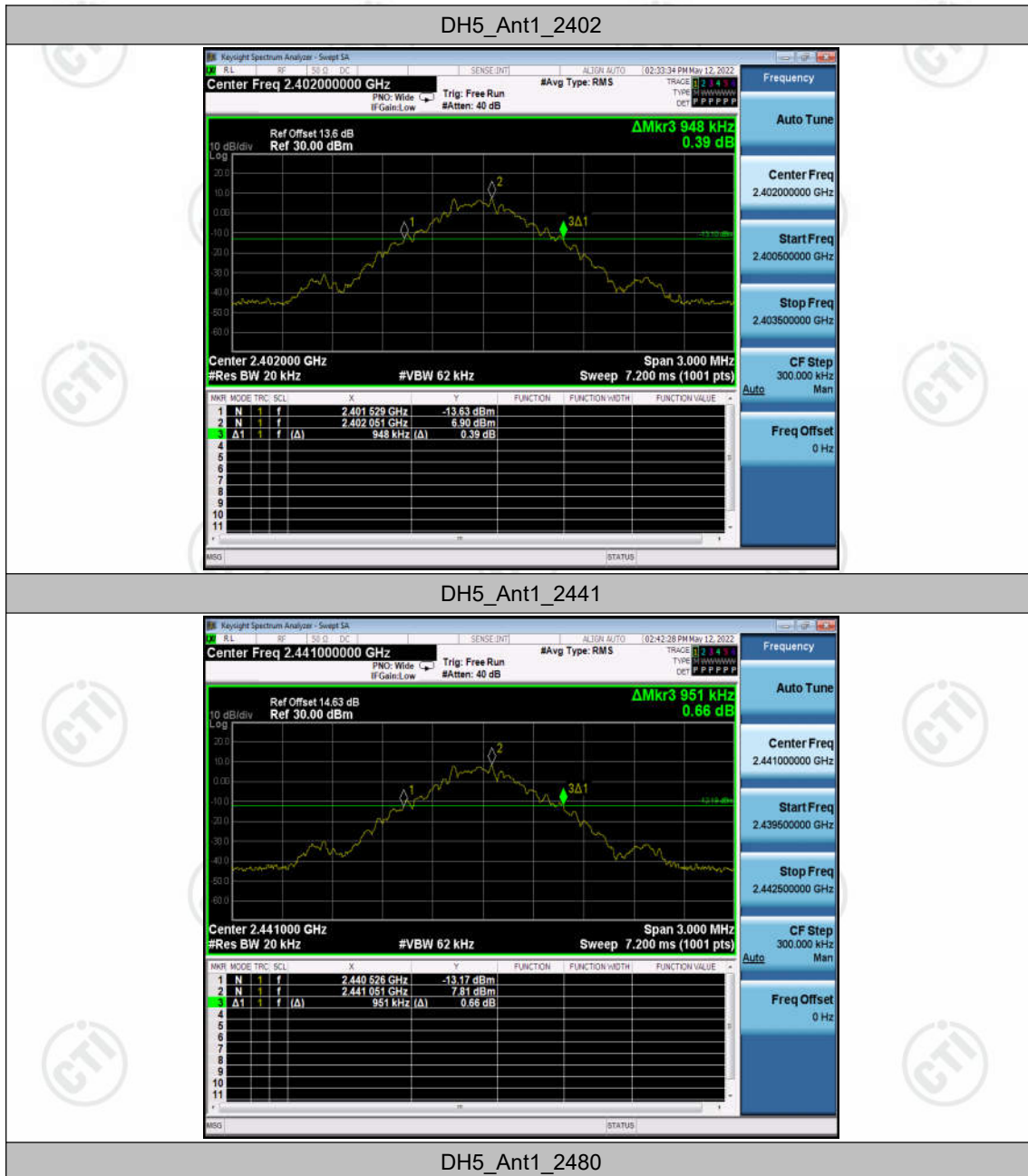
 Test Graphs..... 61

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	0.948	2401.529	2402.477	---	---
		2441	0.951	2440.526	2441.477	---	---
		2480	0.948	2479.529	2480.477	---	---
2DH5	Ant1	2402	1.260	2401.361	2402.621	---	---
		2441	1.308	2440.334	2441.642	---	---
		2480	1.308	2479.334	2480.642	---	---
3DH5	Ant1	2402	1.254	2401.352	2402.606	---	---
		2441	1.260	2440.346	2441.606	---	---
		2480	1.263	2479.346	2480.609	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

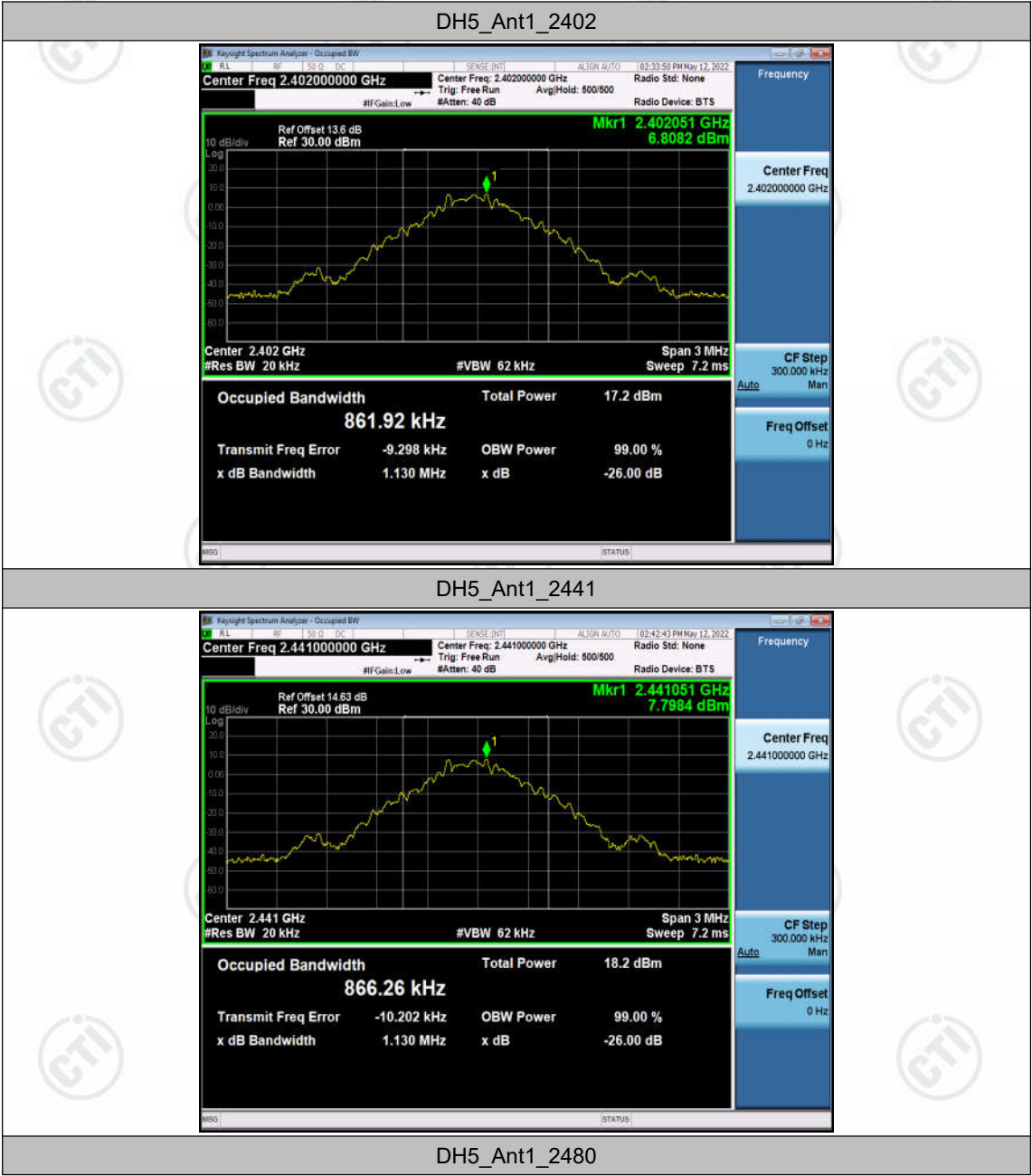


Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86192	2401.560	2402.422	---	---
		2441	0.86626	2440.557	2441.423	---	---
		2480	0.87050	2479.553	2480.423	---	---
2DH5	Ant1	2402	1.1581	2401.411	2402.569	---	---
		2441	1.1732	2440.404	2441.577	---	---
		2480	1.1745	2479.403	2480.577	---	---
3DH5	Ant1	2402	1.1520	2401.415	2402.567	---	---
		2441	1.1902	2440.390	2441.581	---	---
		2480	1.1900	2479.391	2480.581	---	---

Test Graphs

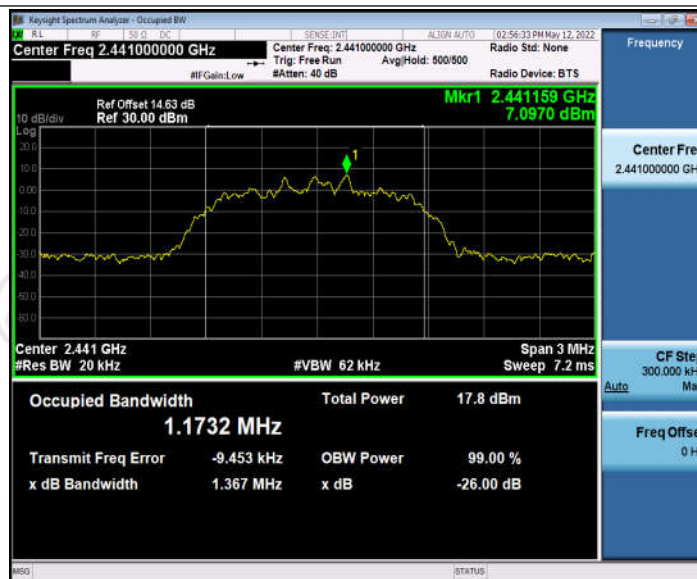




2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

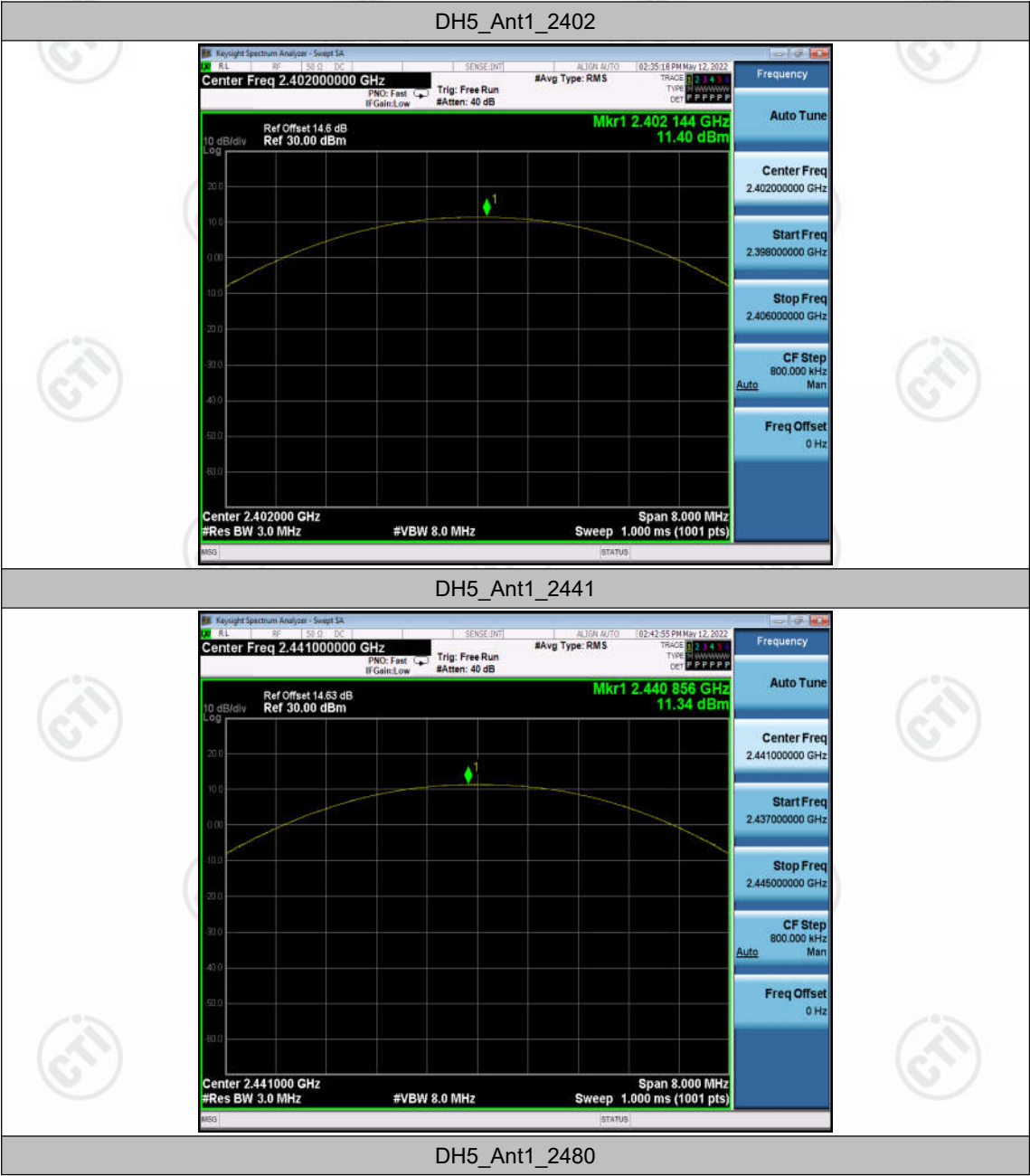


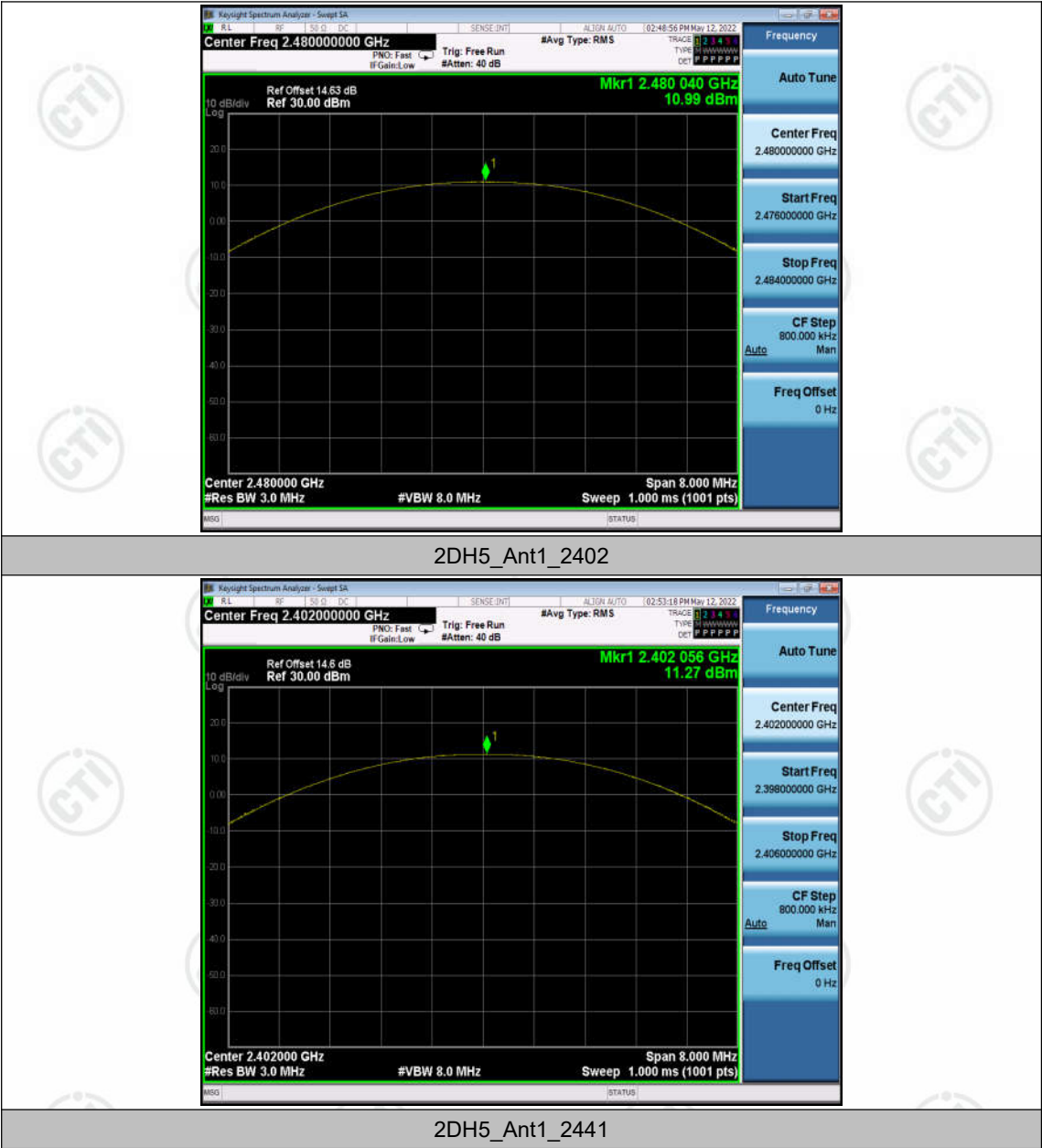
Appendix C: Maximum conducted output power

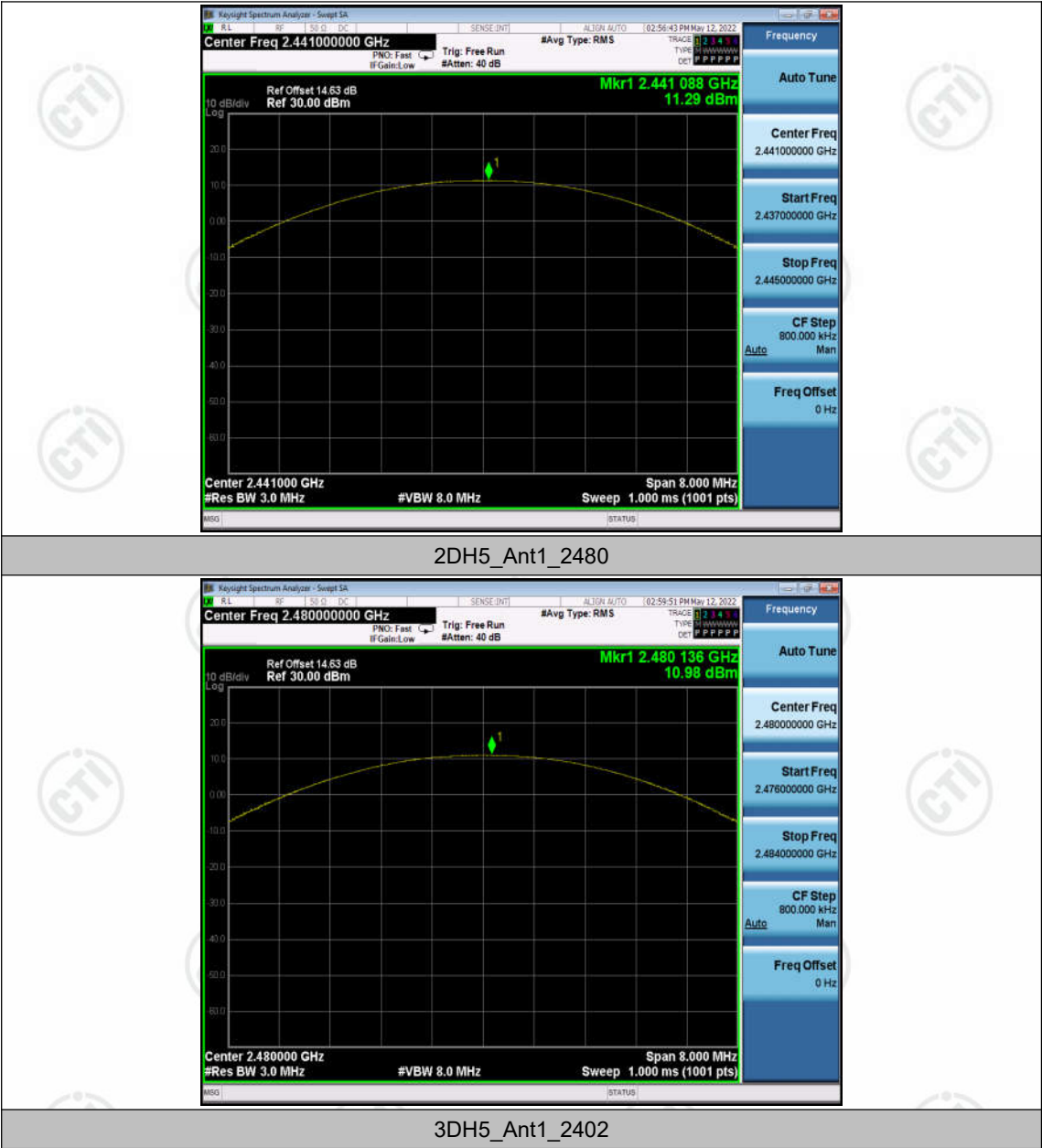
Test Result Peak

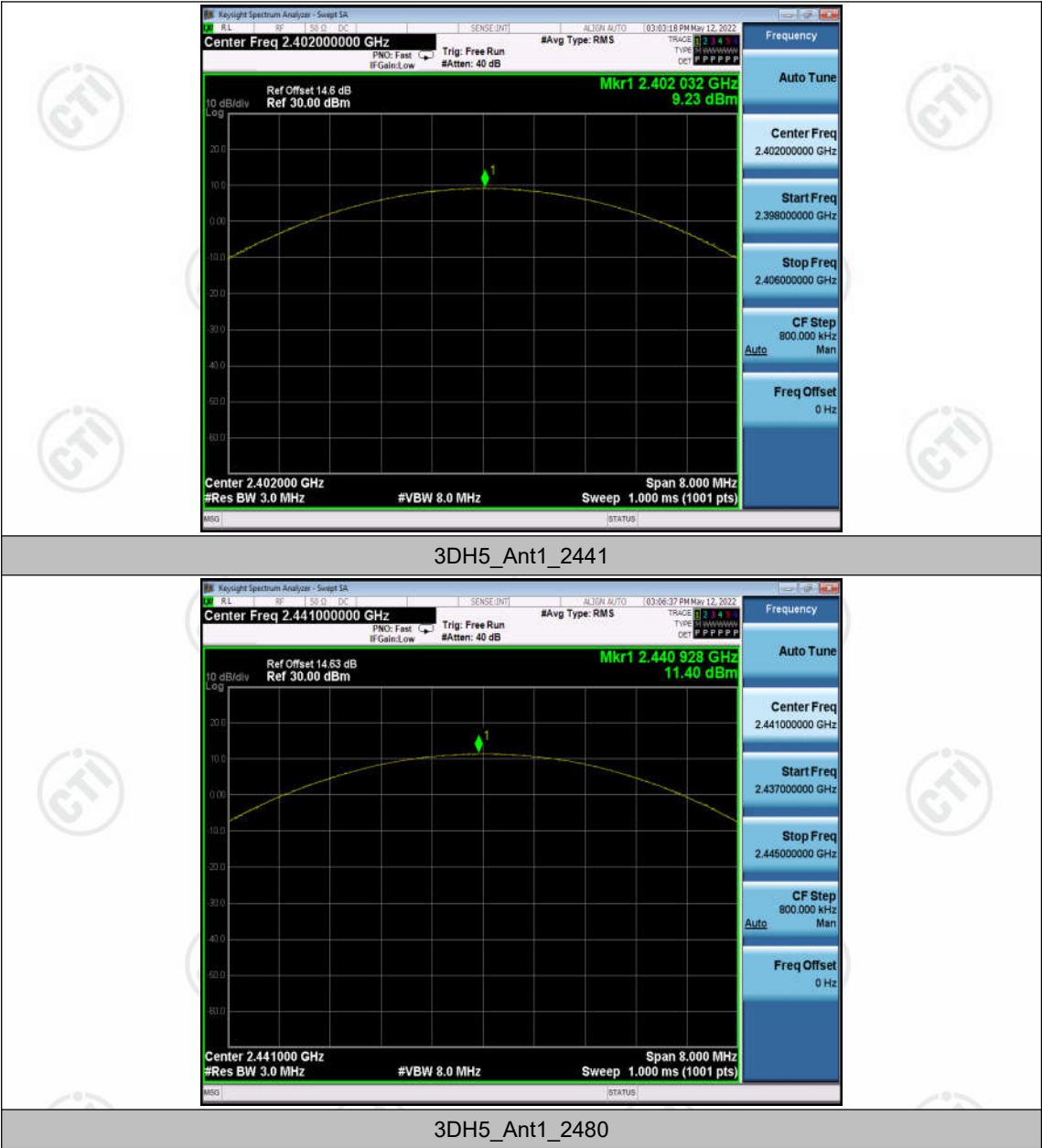
Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	11.40	≤20.97	PASS
		2441	11.34	≤20.97	PASS
		2480	10.99	≤20.97	PASS
2DH5	Ant1	2402	11.27	≤20.97	PASS
		2441	11.29	≤20.97	PASS
		2480	10.98	≤20.97	PASS
3DH5	Ant1	2402	9.23	≤20.97	PASS
		2441	11.40	≤20.97	PASS
		2480	11.06	≤20.97	PASS

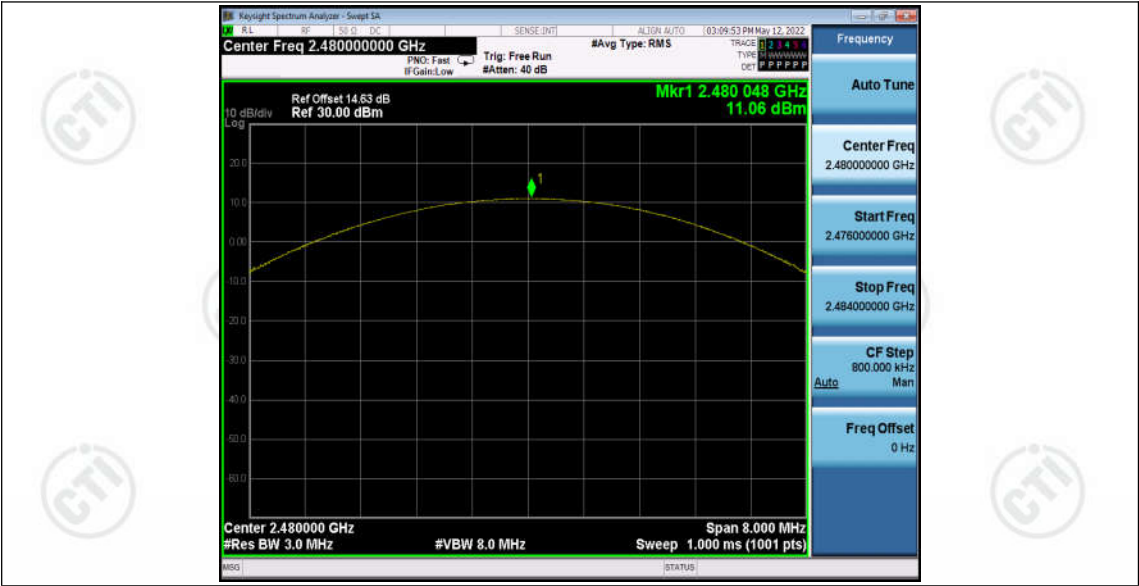
Test Graphs









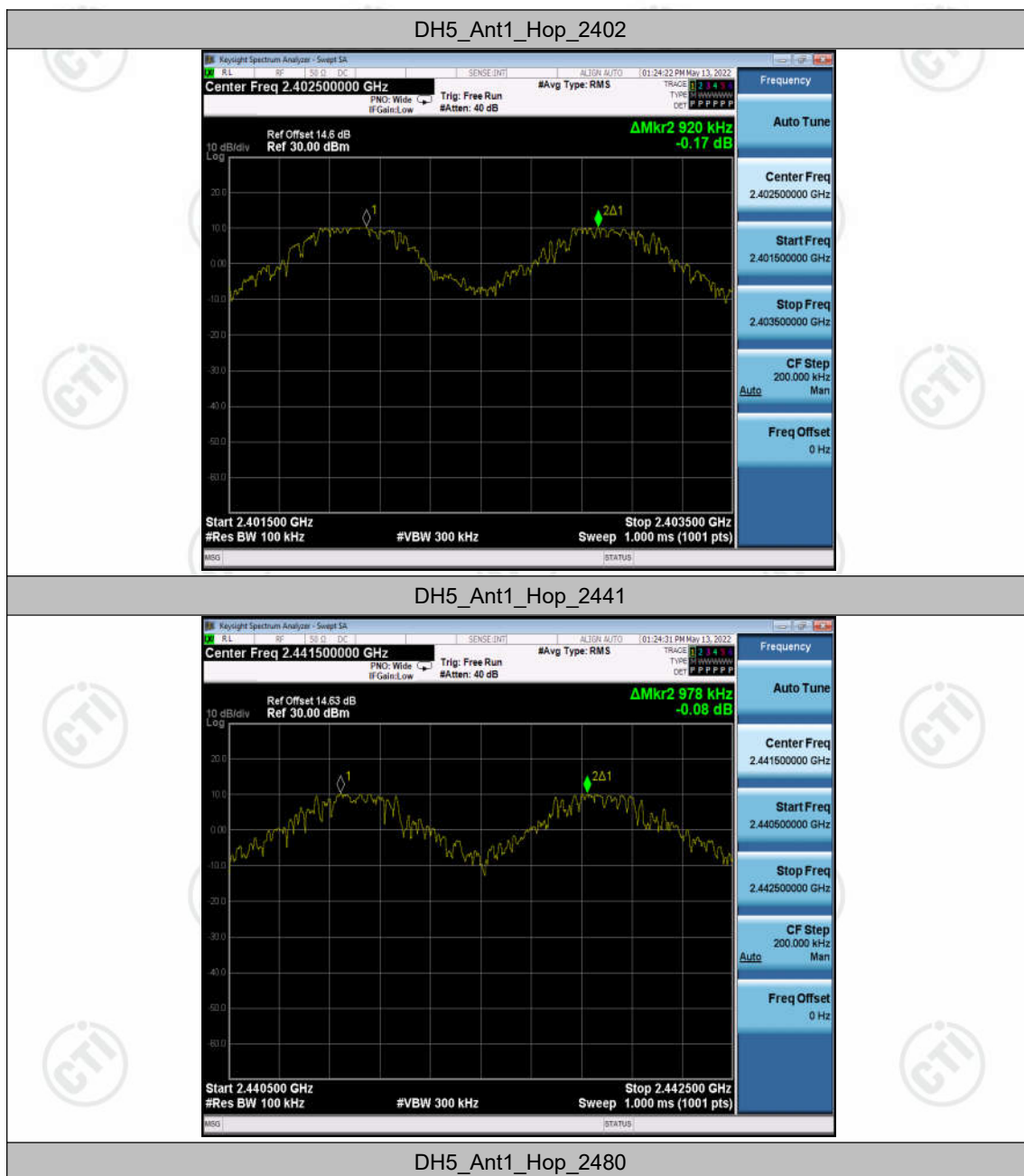


Appendix D: Carrier frequency separation

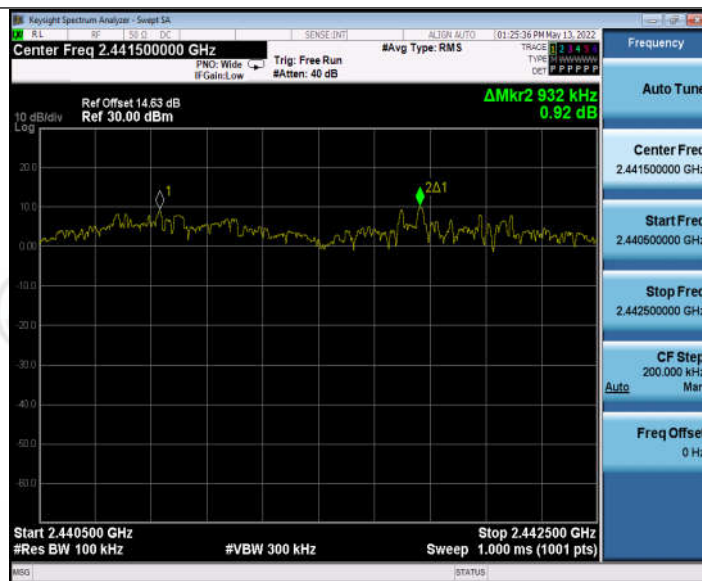
Test Result

Test Mode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop_2402	0.92	≥0.634	PASS
		Hop_2441	0.978	≥0.951	PASS
		Hop_2480	1.128	≥0.951	PASS
2DH5	Ant1	Hop_2402	0.962	≥0.872	PASS
		Hop_2441	0.932	≥0.872	PASS
		Hop_2480	1.004	≥0.872	PASS
3DH5	Ant1	Hop_2402	0.986	≥0.842	PASS
		Hop_2441	0.916	≥0.842	PASS
		Hop_2480	1.02	≥0.842	PASS

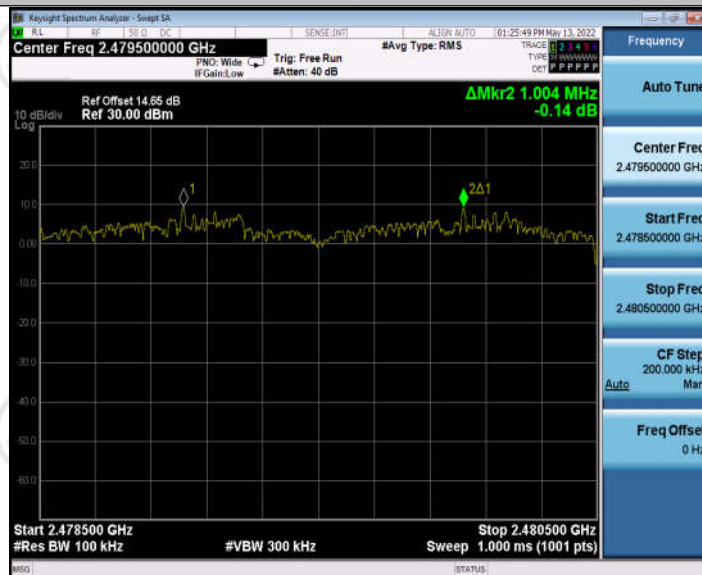
Test Graphs







2DH5_Ant1_Hop_2480



3DH5_Ant1_Hop_2402



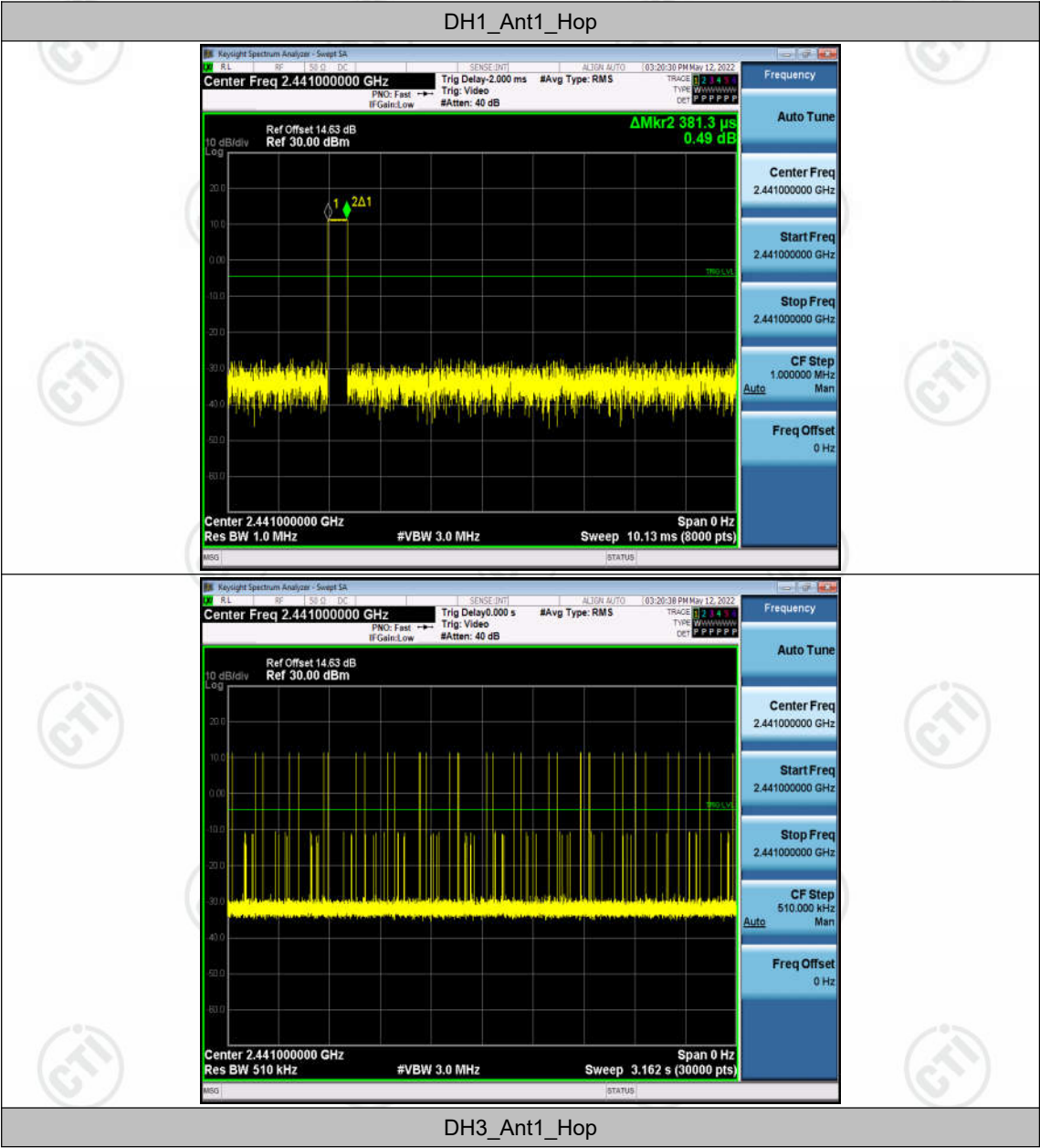


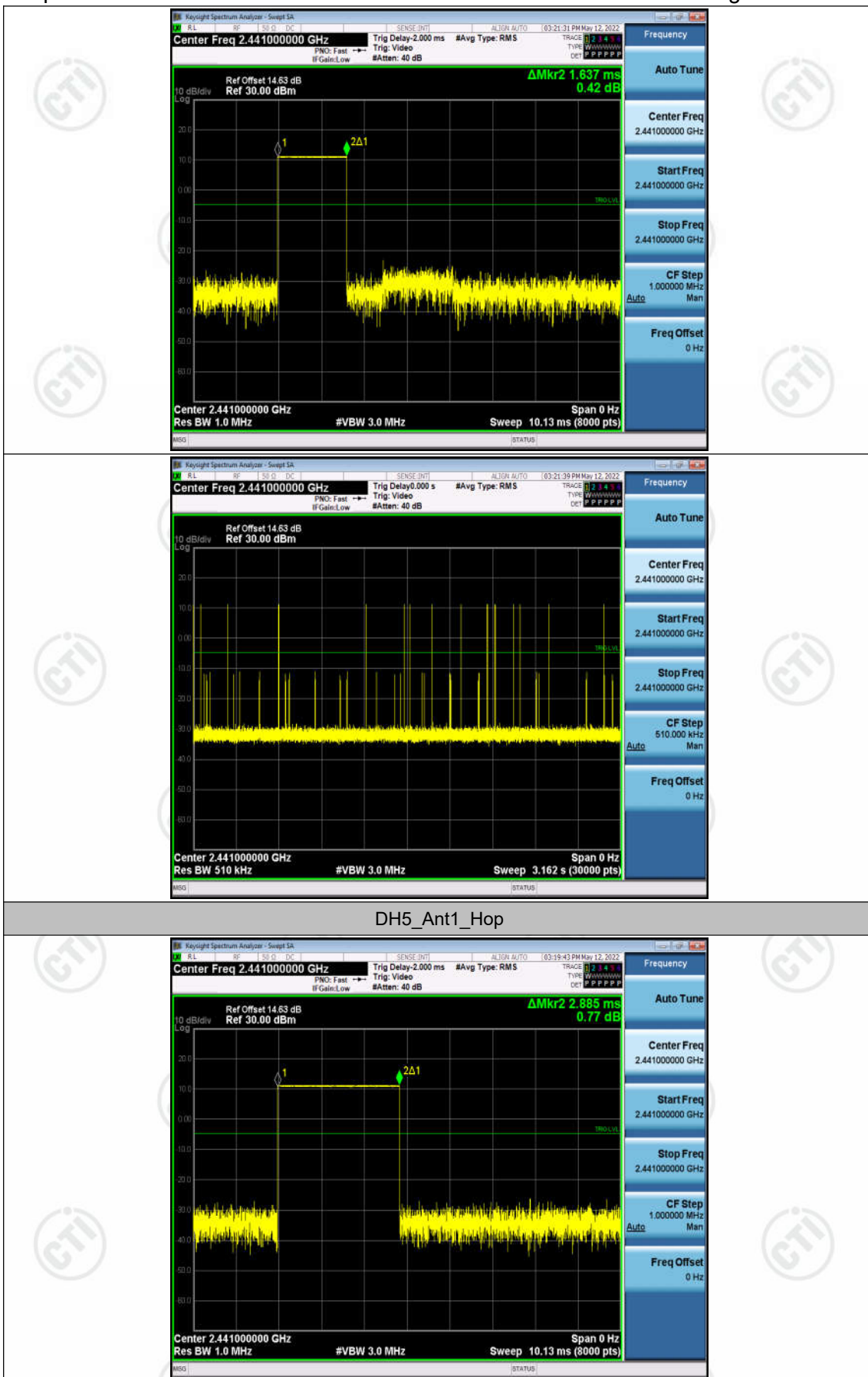
Appendix E: Time of occupancy

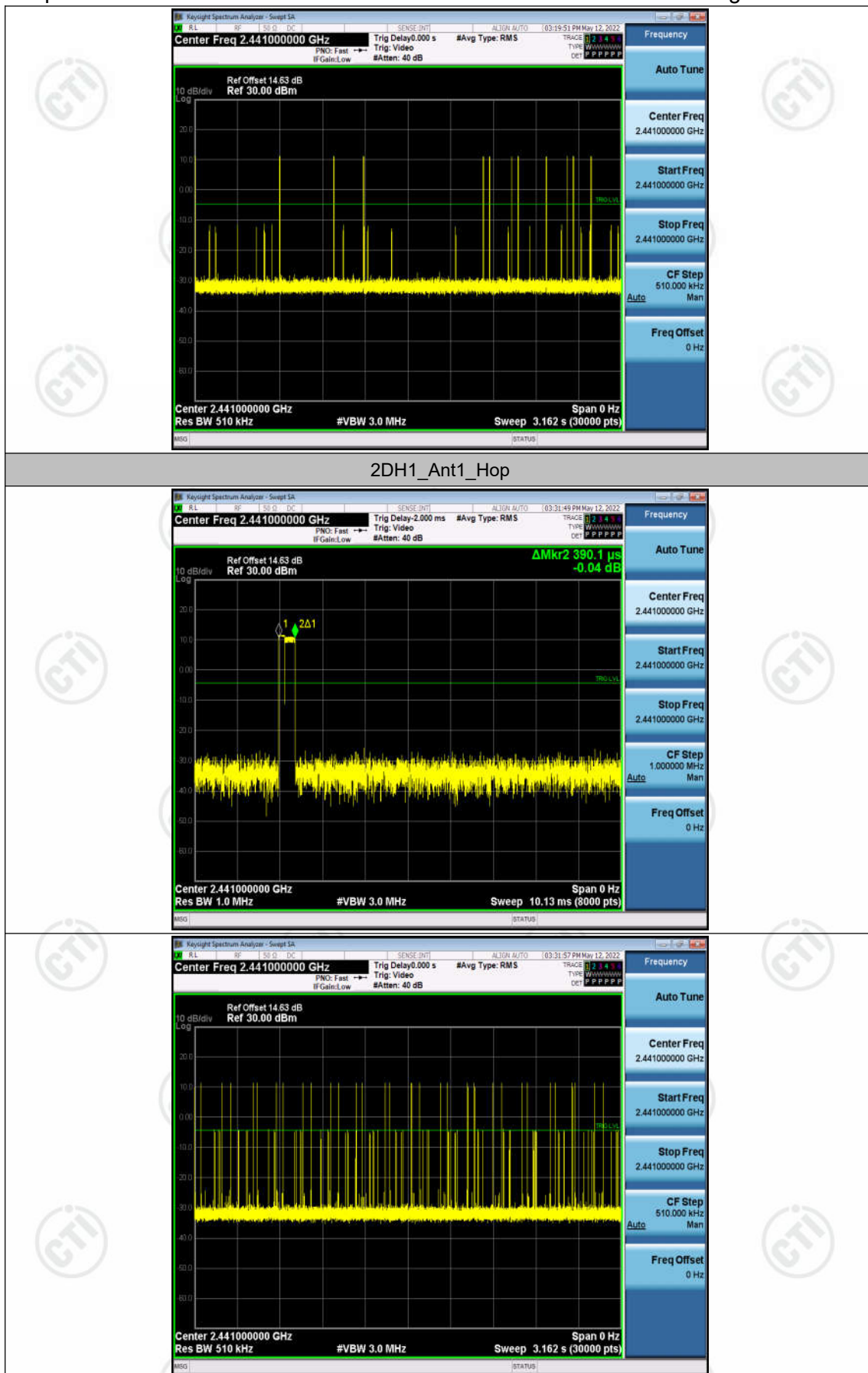
Test Result

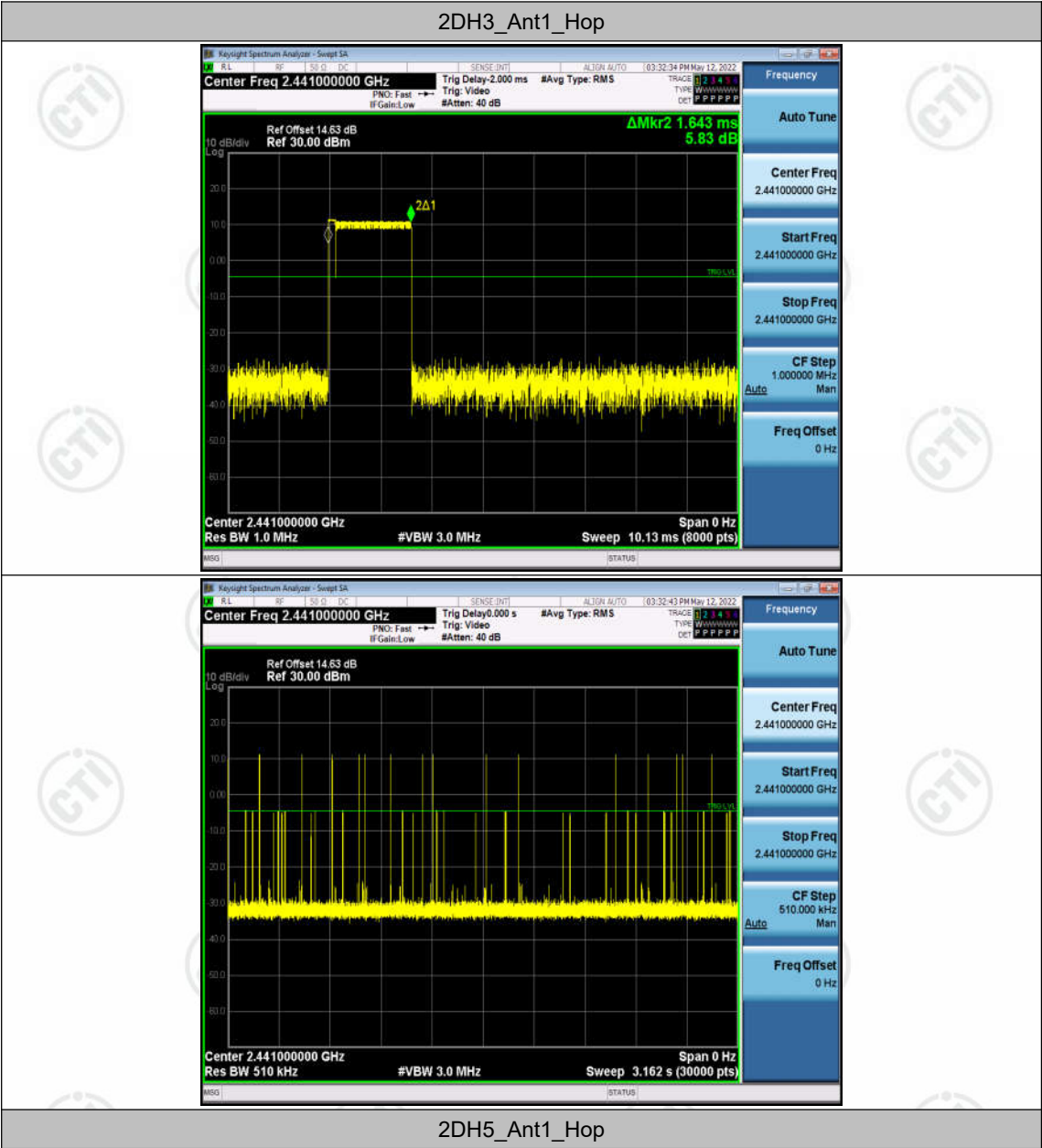
Test Mode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.38	330	0.126	≤0.4	PASS
DH3	Ant1	Hop	1.64	160	0.262	≤0.4	PASS
DH5	Ant1	Hop	2.89	120	0.346	≤0.4	PASS
2DH1	Ant1	Hop	0.39	320	0.125	≤0.4	PASS
2DH3	Ant1	Hop	1.64	160	0.263	≤0.4	PASS
2DH5	Ant1	Hop	2.89	50	0.145	≤0.4	PASS
3DH1	Ant1	Hop	0.39	330	0.129	≤0.4	PASS
3DH3	Ant1	Hop	1.64	210	0.345	≤0.4	PASS
3DH5	Ant1	Hop	2.89	110	0.318	≤0.4	PASS

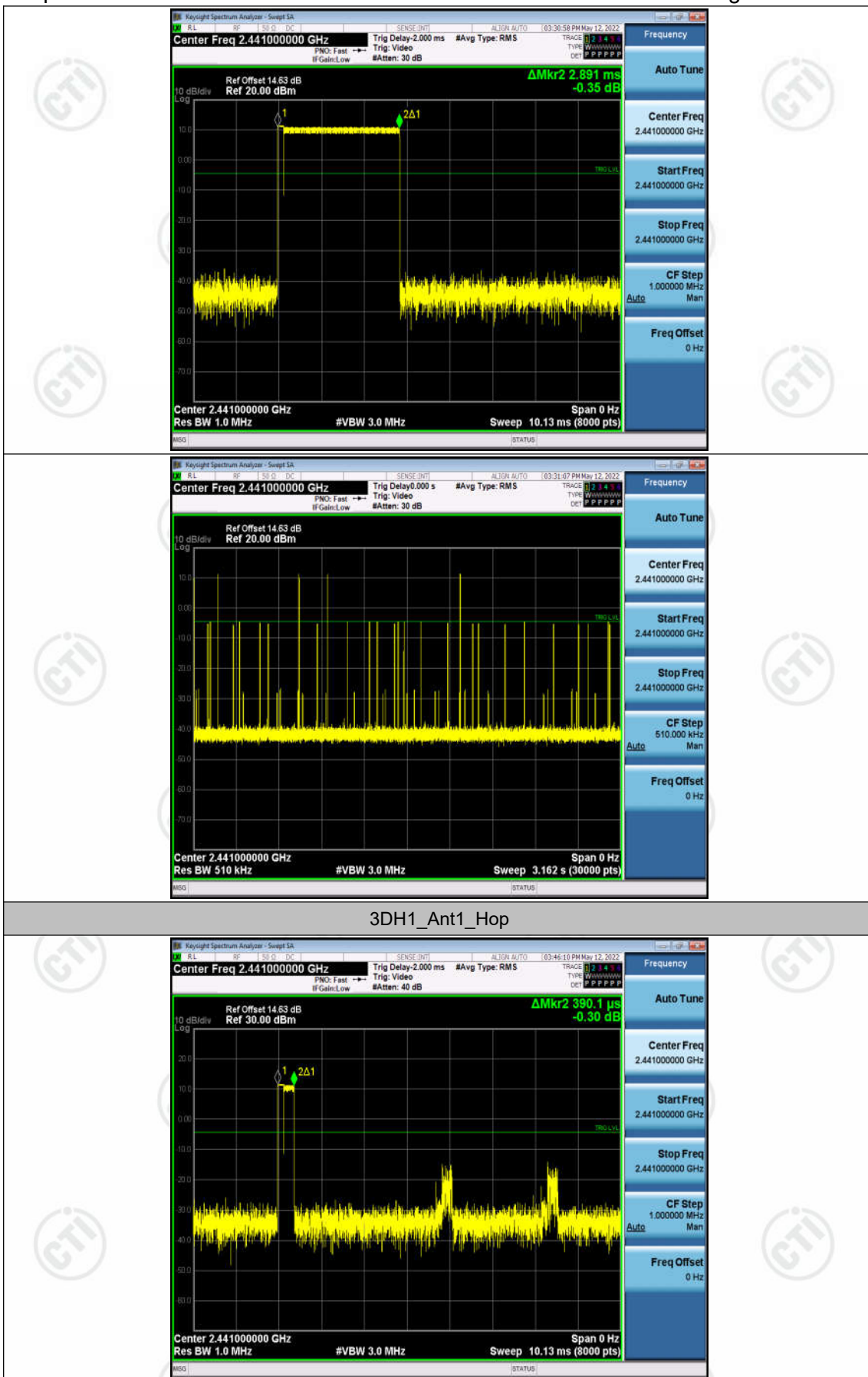
Test Graphs

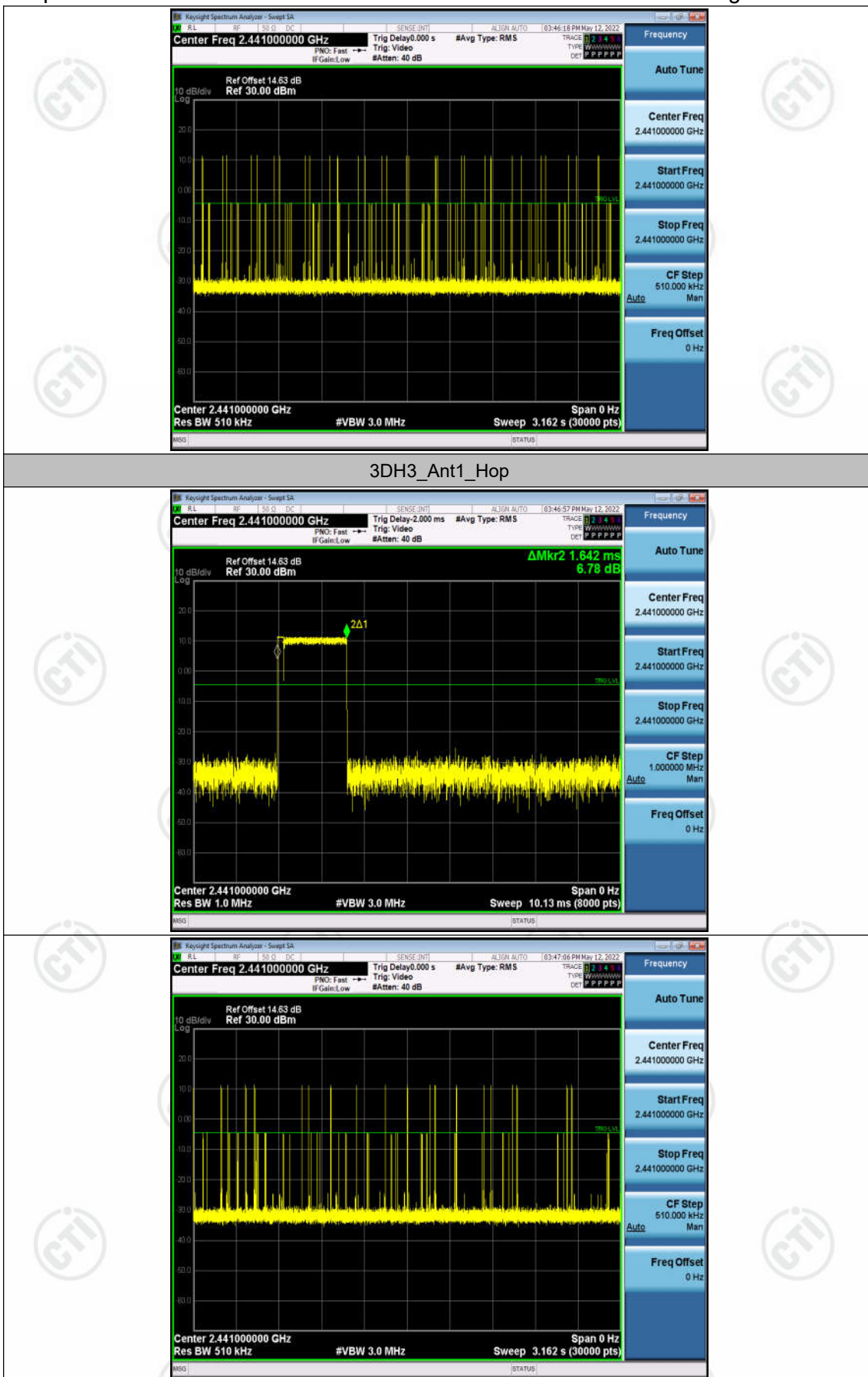


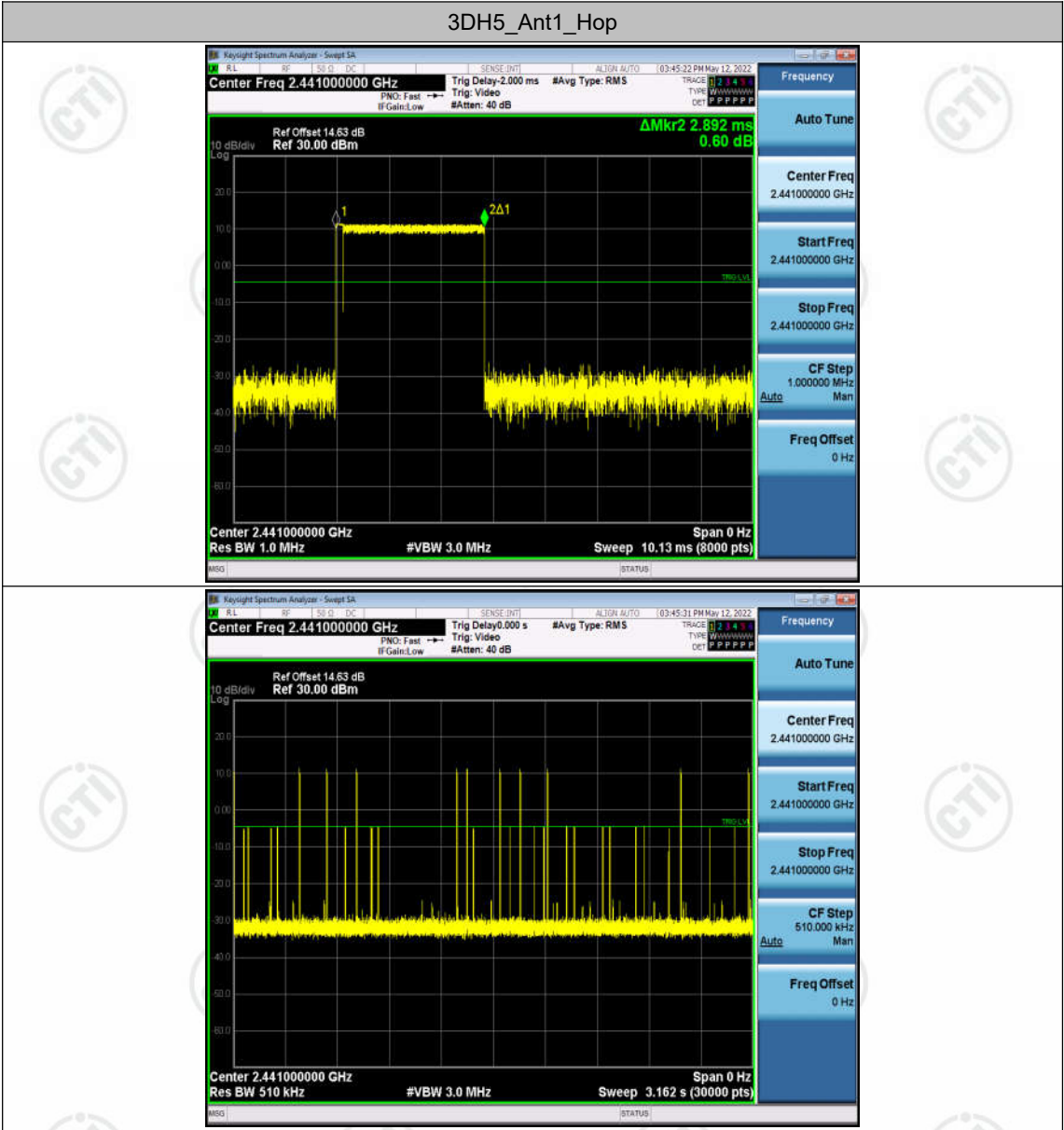










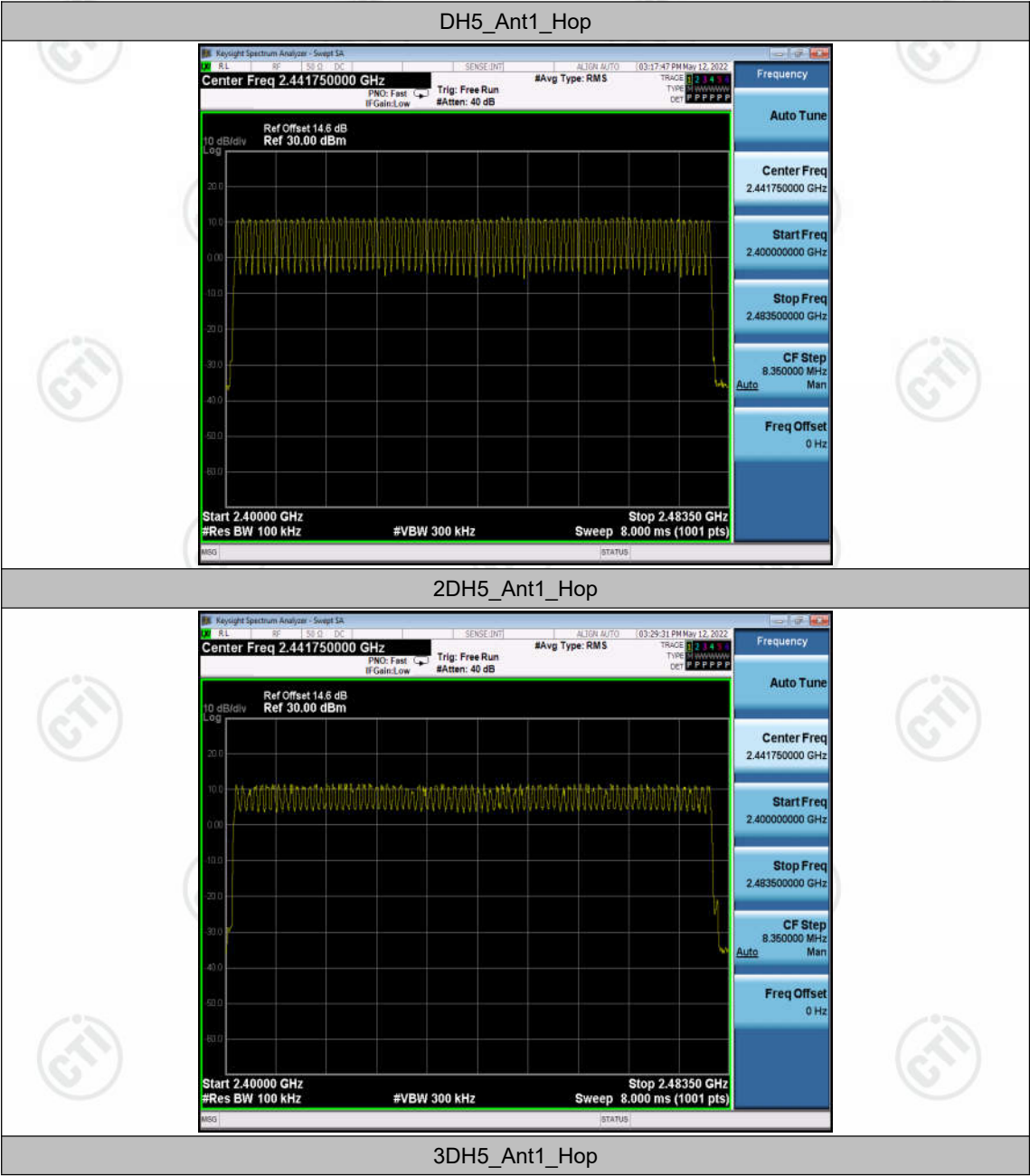


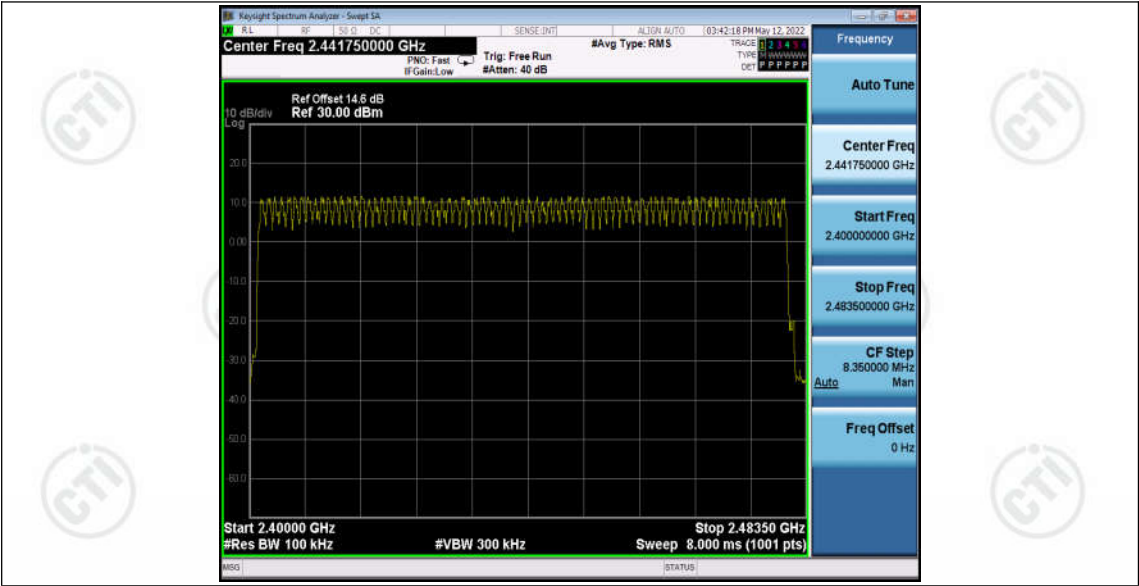
Appendix F: Number of hopping channels

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



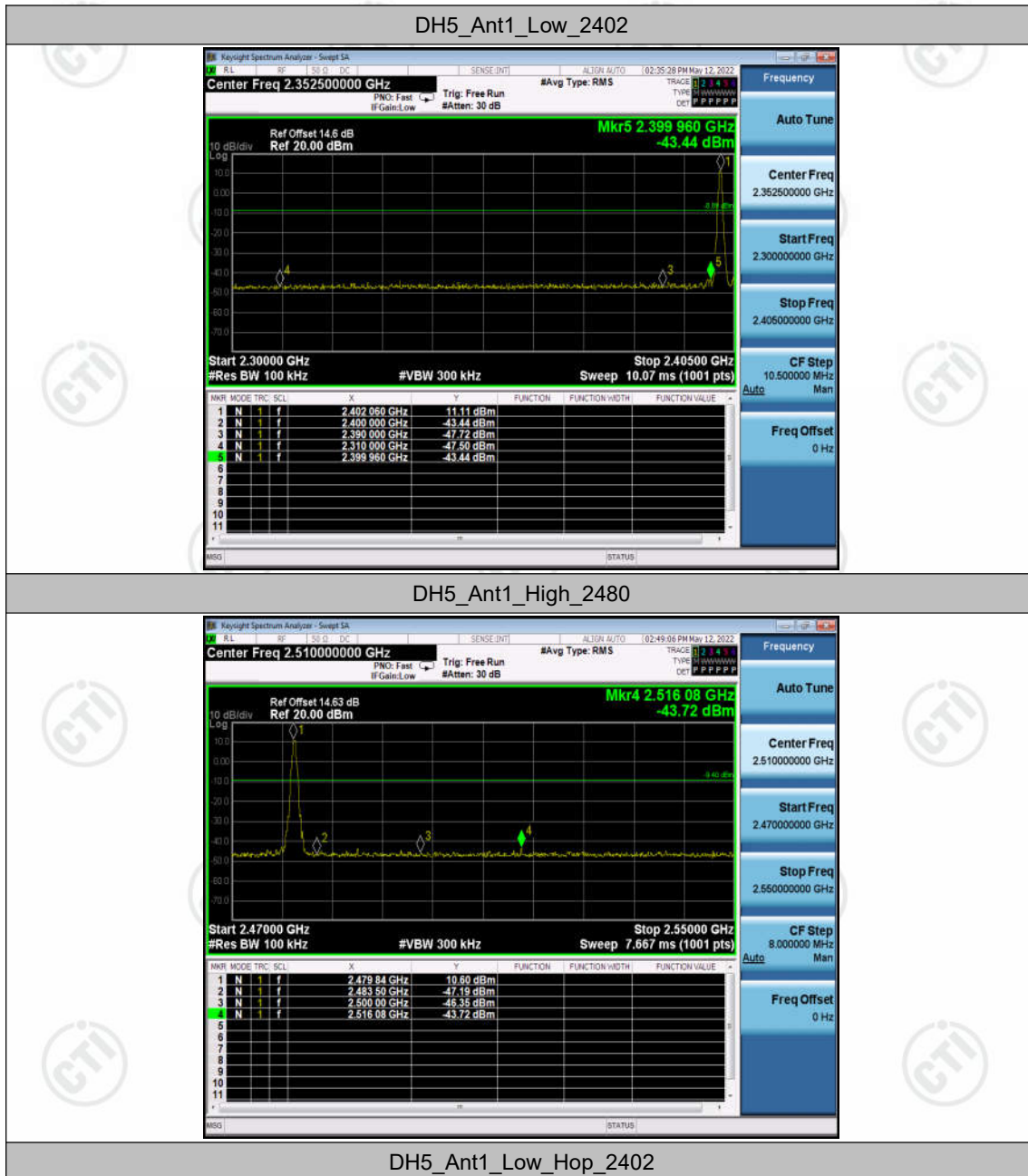


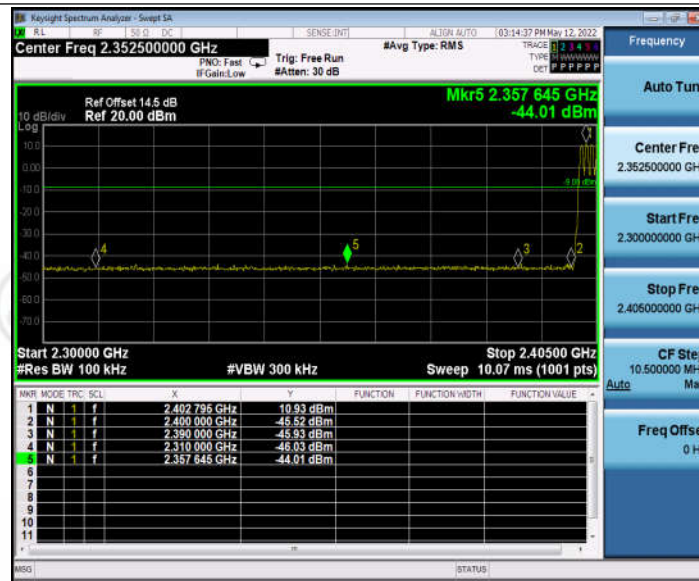
Appendix G: Band edge measurements

Test Result

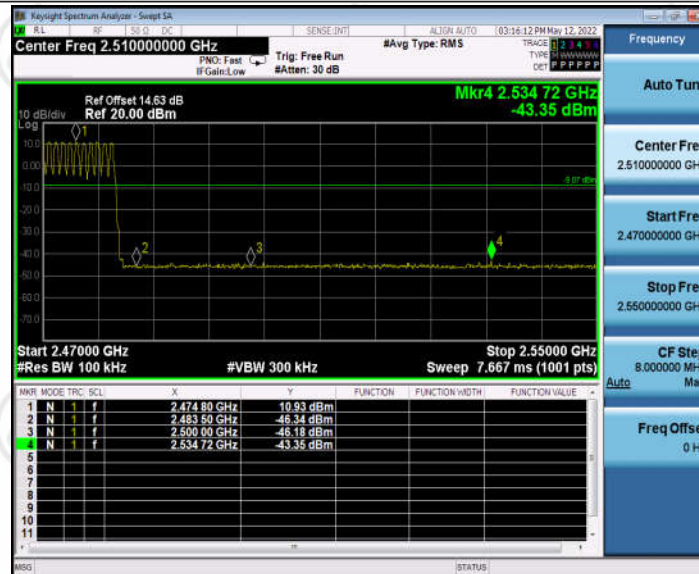
Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	11.11	-43.45	≤-8.89	PASS
		High	2480	10.60	-43.72	≤-9.4	PASS
		Low	Hop_2402	10.93	-44.01	≤-9.08	PASS
		High	Hop_2480	10.93	-43.35	≤-9.07	PASS
2DH5	Ant1	Low	2402	11.08	-41.44	≤-8.92	PASS
		High	2480	10.64	-43.77	≤-9.36	PASS
		Low	Hop_2402	11.00	-44.23	≤-9	PASS
		High	Hop_2480	10.63	-42.54	≤-9.37	PASS
3DH5	Ant1	Low	2402	8.25	-44.61	≤-11.75	PASS
		High	2480	10.45	-44.27	≤-9.55	PASS
		Low	Hop_2402	11.12	-44.35	≤-8.88	PASS
		High	Hop_2480	11.23	-43.7	≤-8.77	PASS

Test Graphs

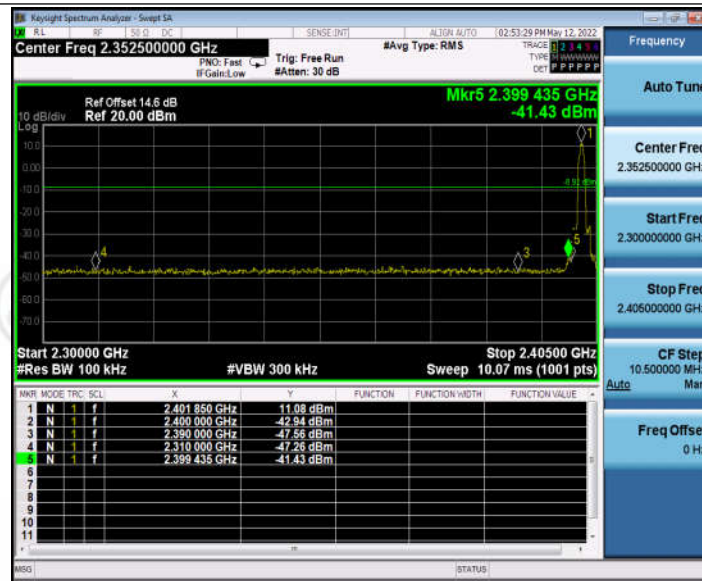




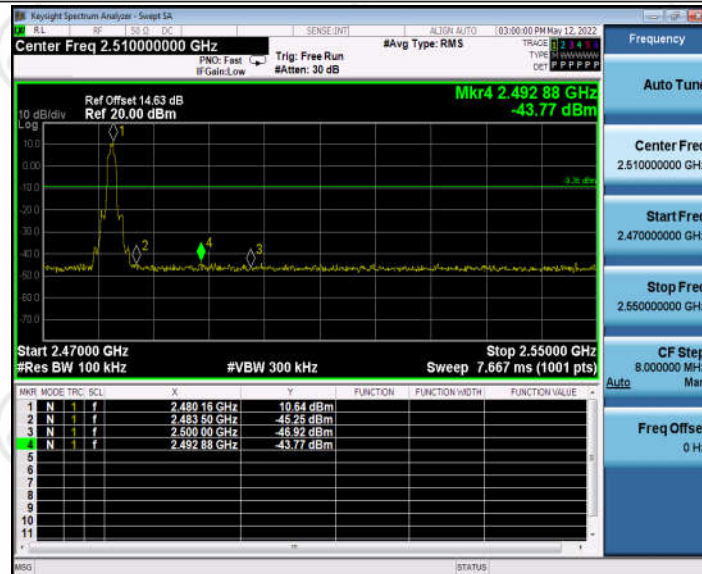
DH5_Ant1_High_Hop_2480



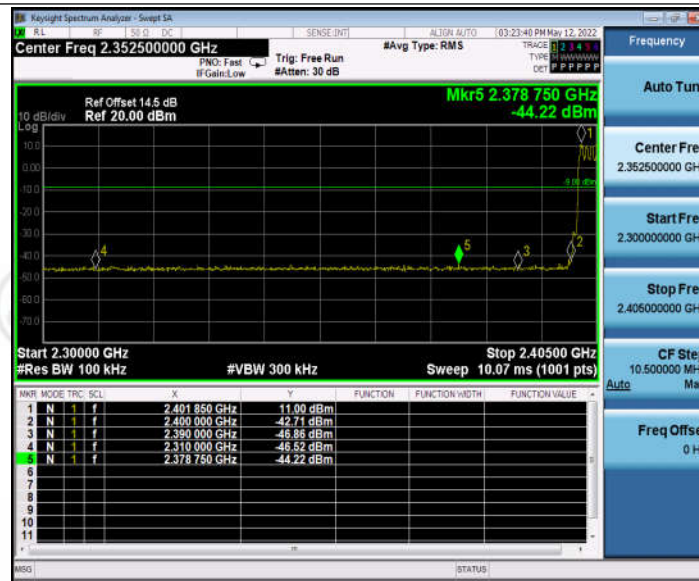
2DH5_Ant1_Low_2402



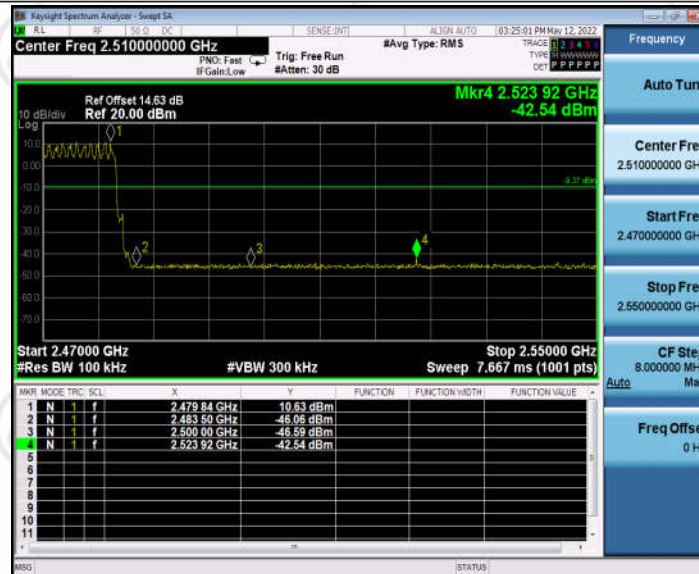
2DH5_Ant1_High_2480



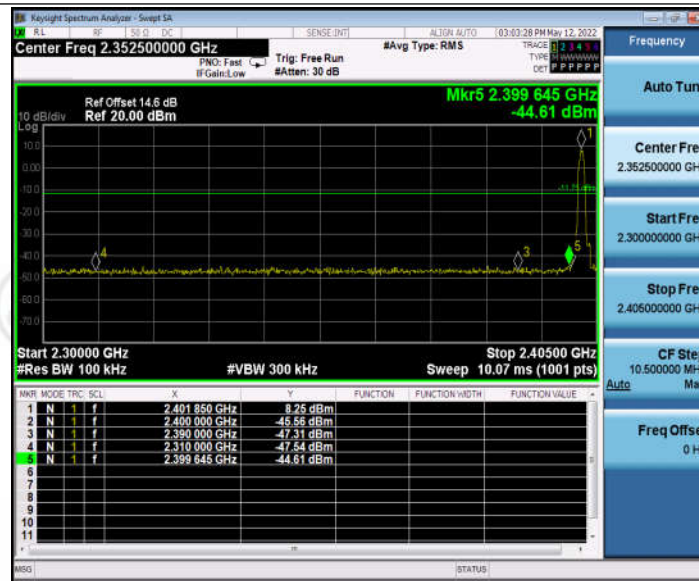
2DH5_Ant1_Low_Hop_2402



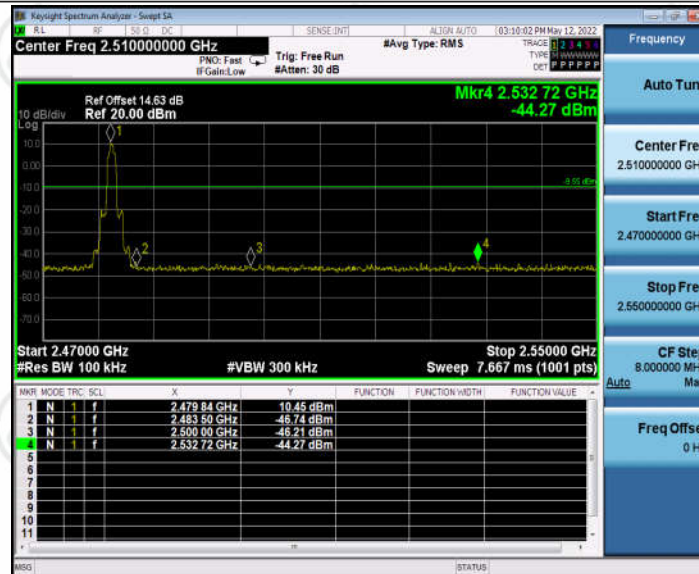
2DH5_Ant1_High_Hop_2480



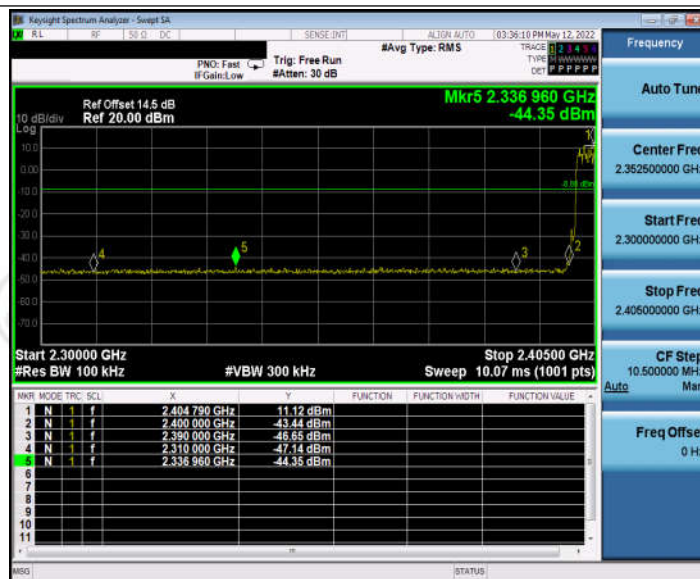
3DH5_Ant1_Low_2402



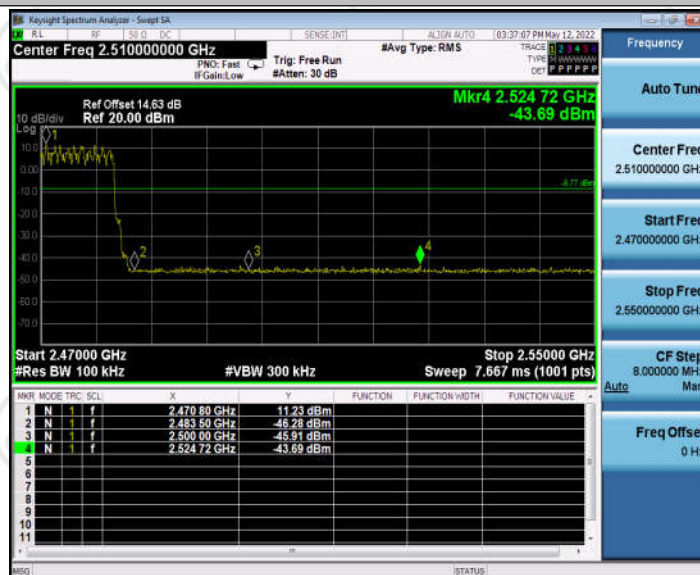
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

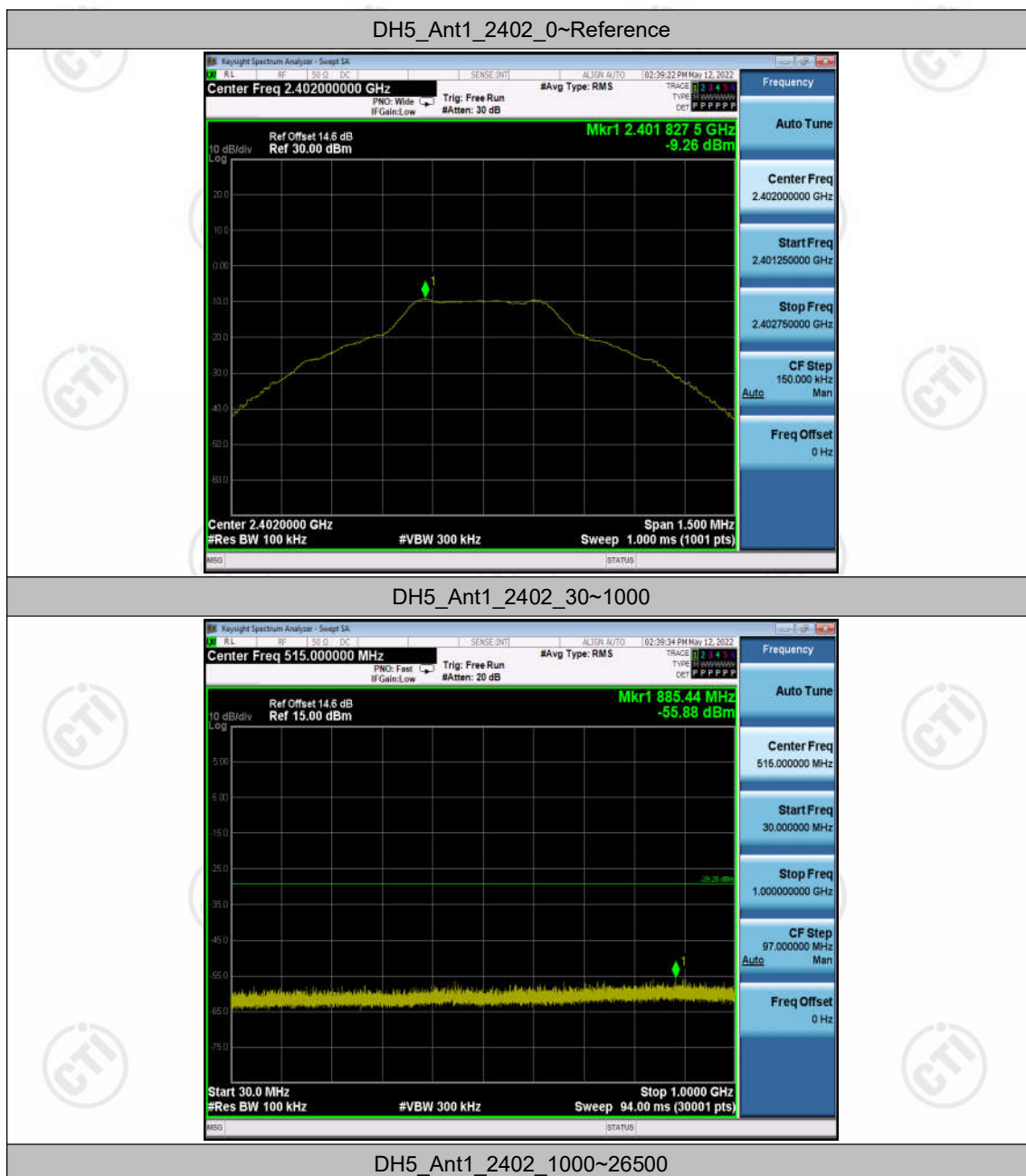


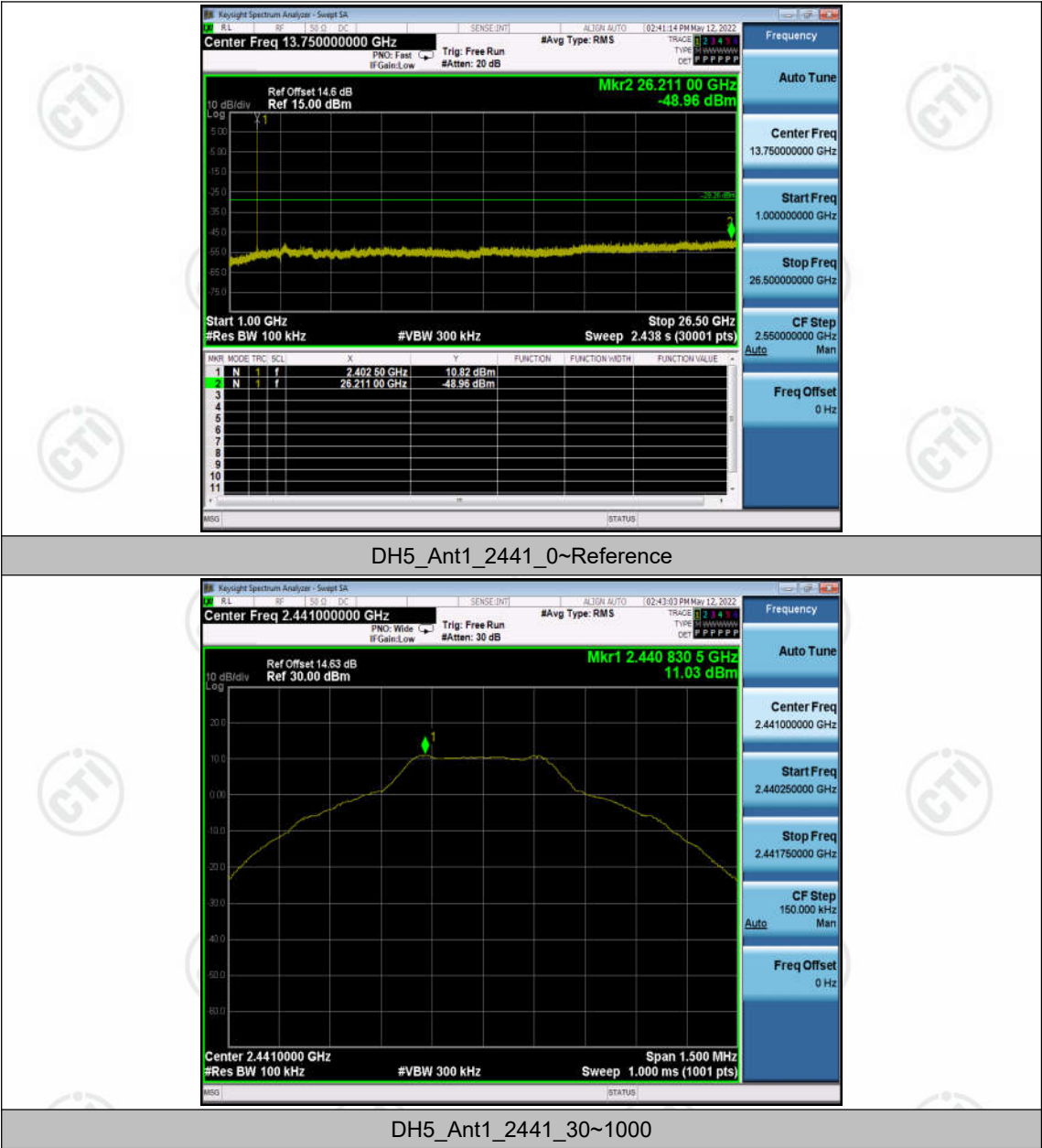
Appendix H: Conducted Spurious Emission

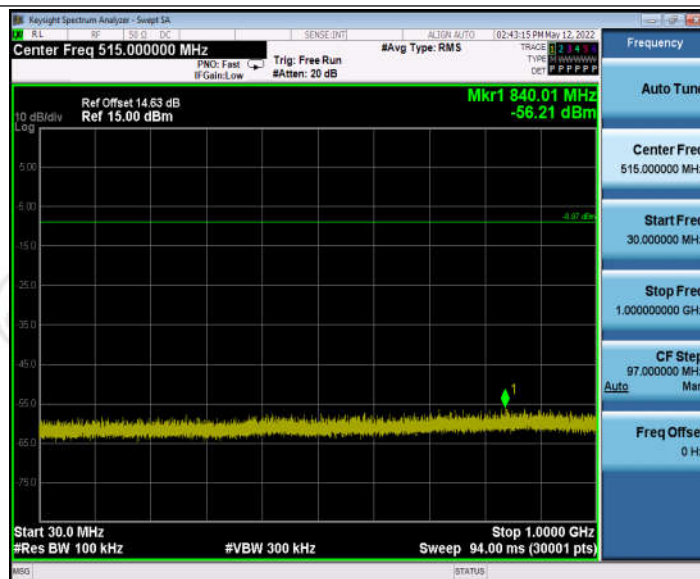
Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-9.26	-9.26	---	PASS
			30~1000	---	-55.88	≤-29.26	PASS
			1000~26500	---	-48.96	≤-29.26	PASS
		2441	Reference	11.03	11.03	---	PASS
			30~1000	---	-56.21	≤-8.97	PASS
			1000~26500	---	-47.68	≤-8.97	PASS
		2480	Reference	10.61	10.61	---	PASS
			30~1000	---	-54.76	≤-9.39	PASS
			1000~26500	---	-48.6	≤-9.39	PASS
2DH5	Ant1	2402	Reference	11.00	11.00	---	PASS
			30~1000	---	-55.55	≤-9	PASS
			1000~26500	---	-48.28	≤-9	PASS
		2441	Reference	11.07	11.07	---	PASS
			30~1000	---	-55.31	≤-8.93	PASS
			1000~26500	---	-47.58	≤-8.93	PASS
		2480	Reference	10.64	10.64	---	PASS
			30~1000	---	-52.8	≤-9.36	PASS
			1000~26500	---	-48.24	≤-9.36	PASS
3DH5	Ant1	2402	Reference	8.48	8.48	---	PASS
			30~1000	---	-56.01	≤-11.52	PASS
			1000~26500	---	-48.24	≤-11.52	PASS
		2441	Reference	11.01	11.01	---	PASS
			30~1000	---	-55.73	≤-8.99	PASS
			1000~26500	---	-48.1	≤-8.99	PASS
		2480	Reference	10.58	10.58	---	PASS
			30~1000	---	-50.49	≤-9.42	PASS
			1000~26500	---	-48.37	≤-9.42	PASS

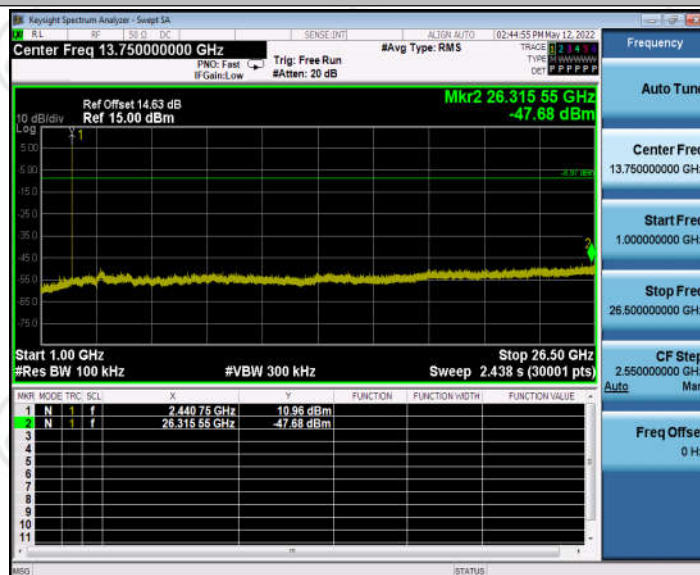
Test Graphs



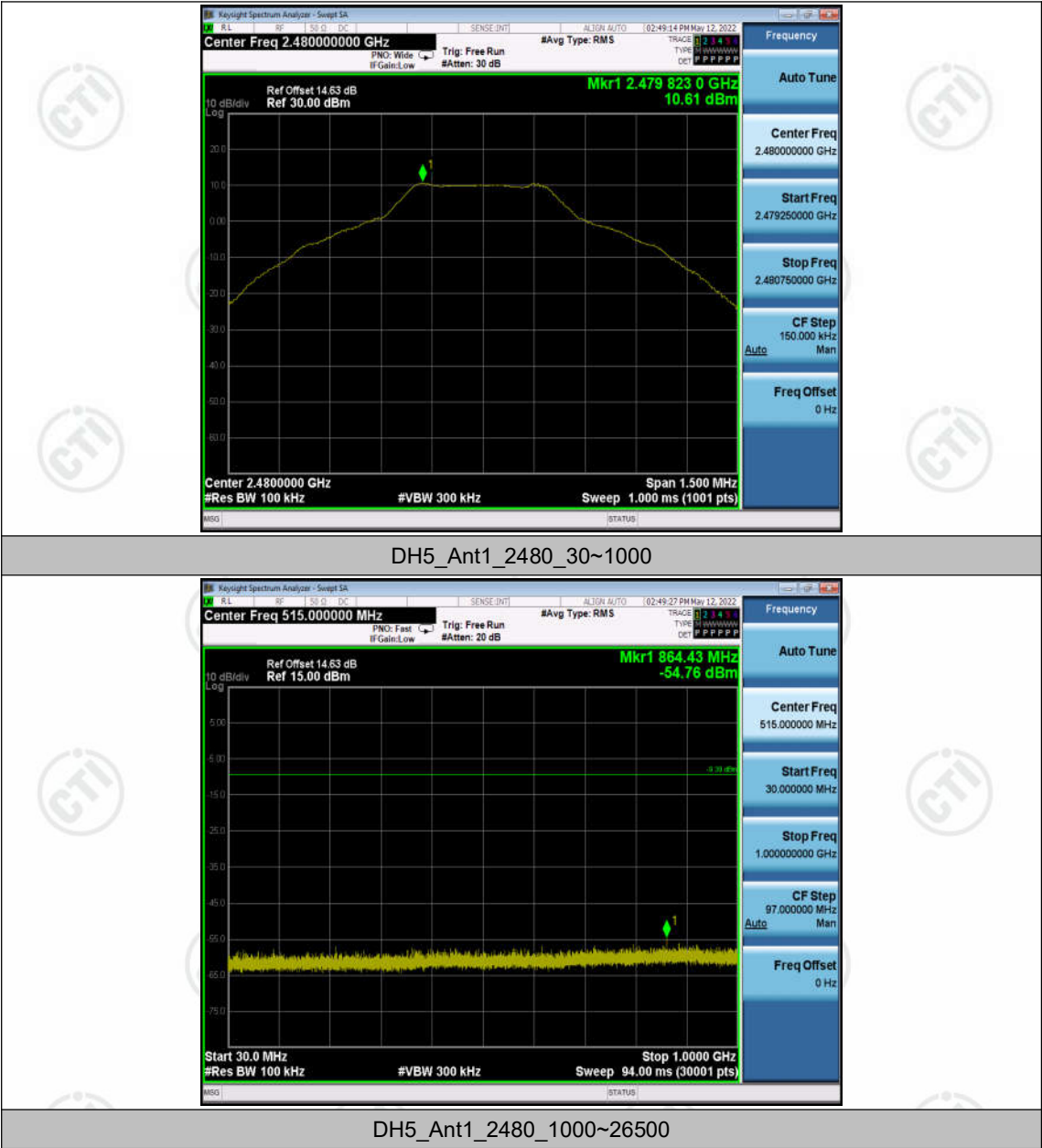


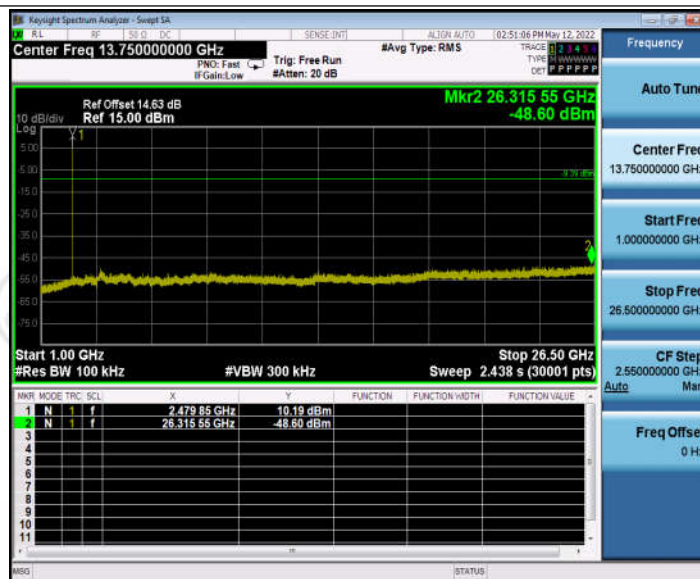


DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference

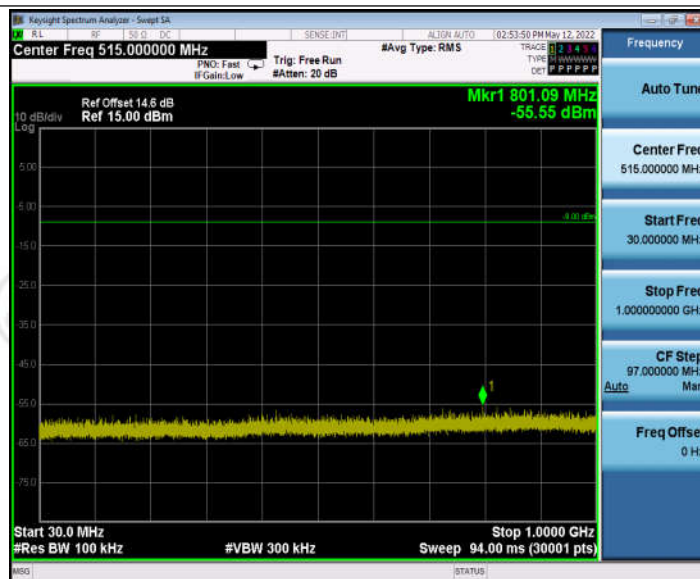




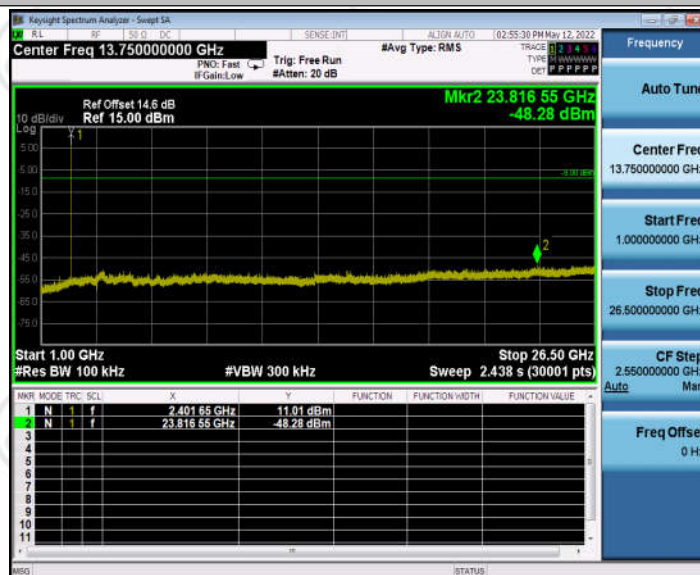
2DH5_Ant1_2402_0~Reference



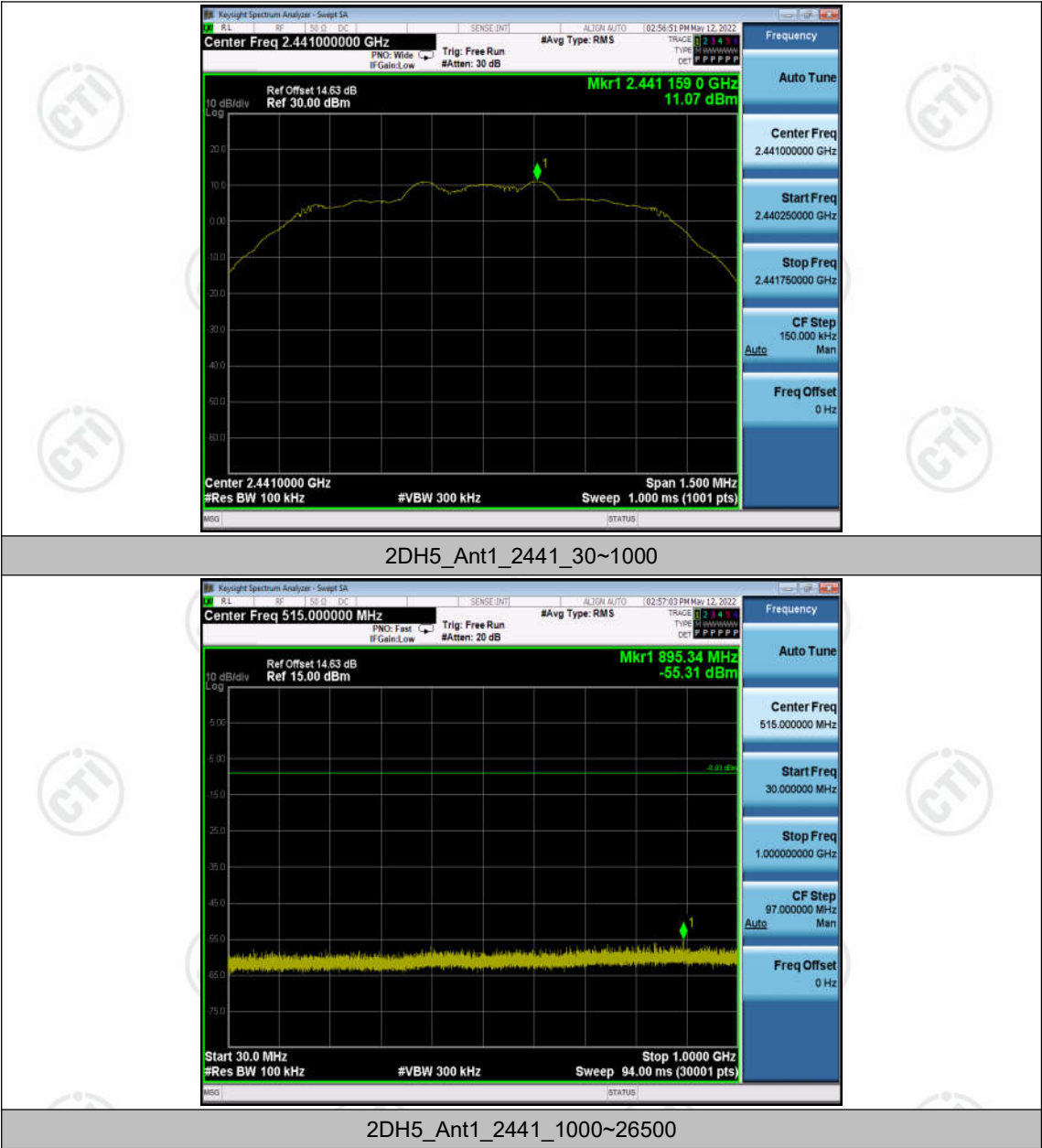
2DH5_Ant1_2402_30~1000

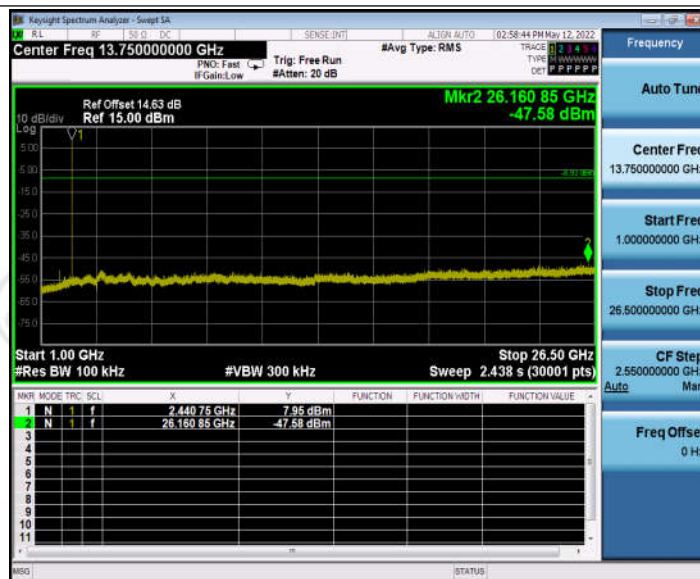


2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference

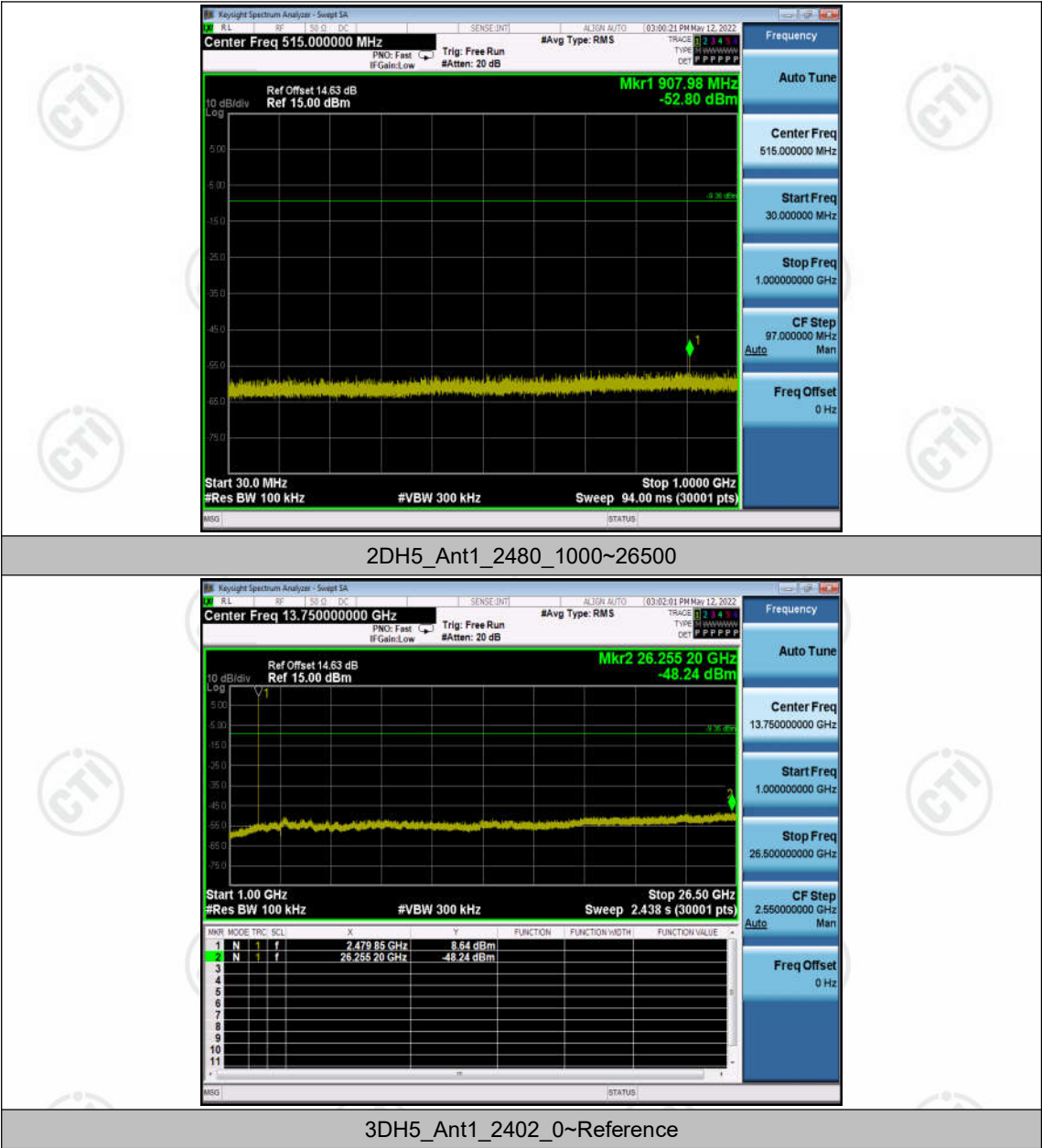


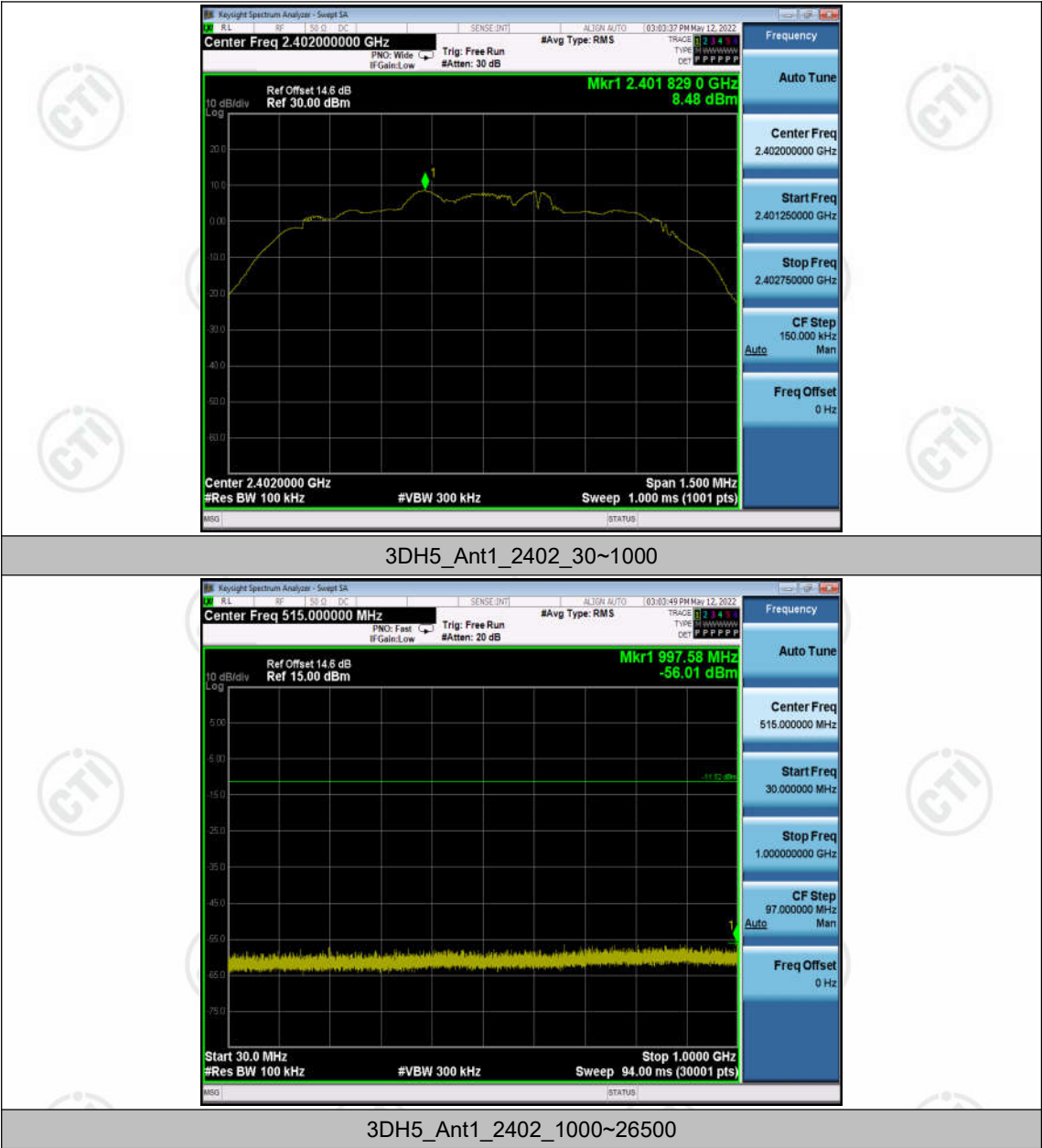


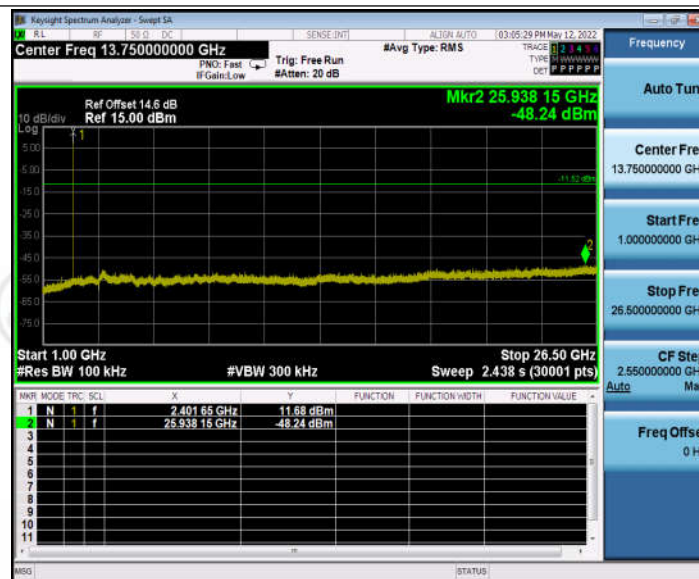
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



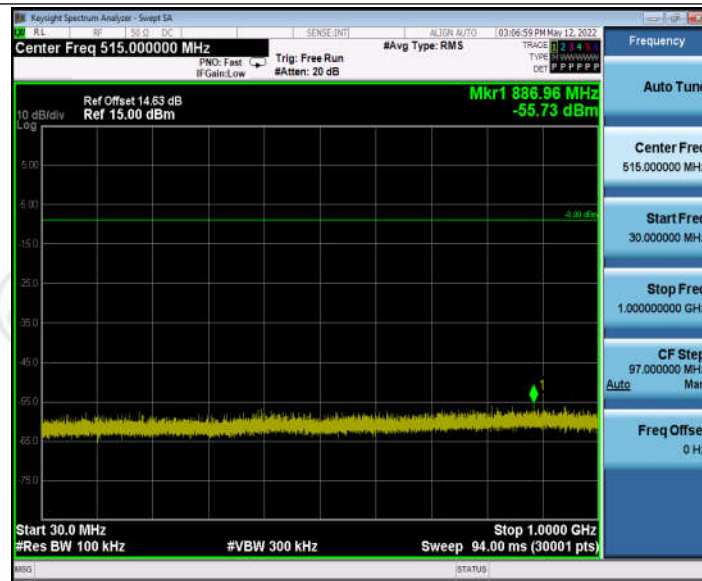




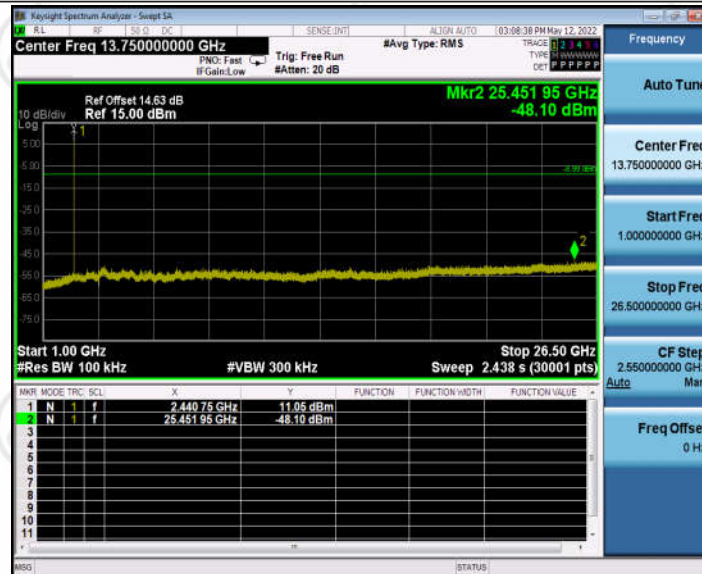
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



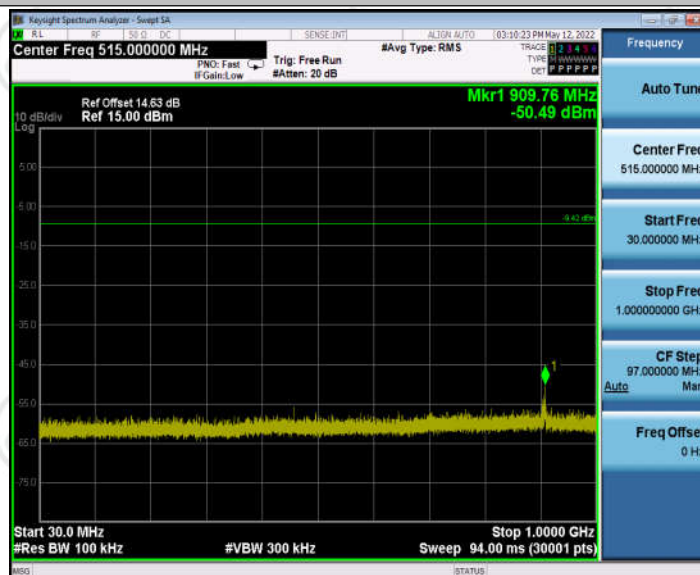
3DH5_Ant1_2441_1000~26500



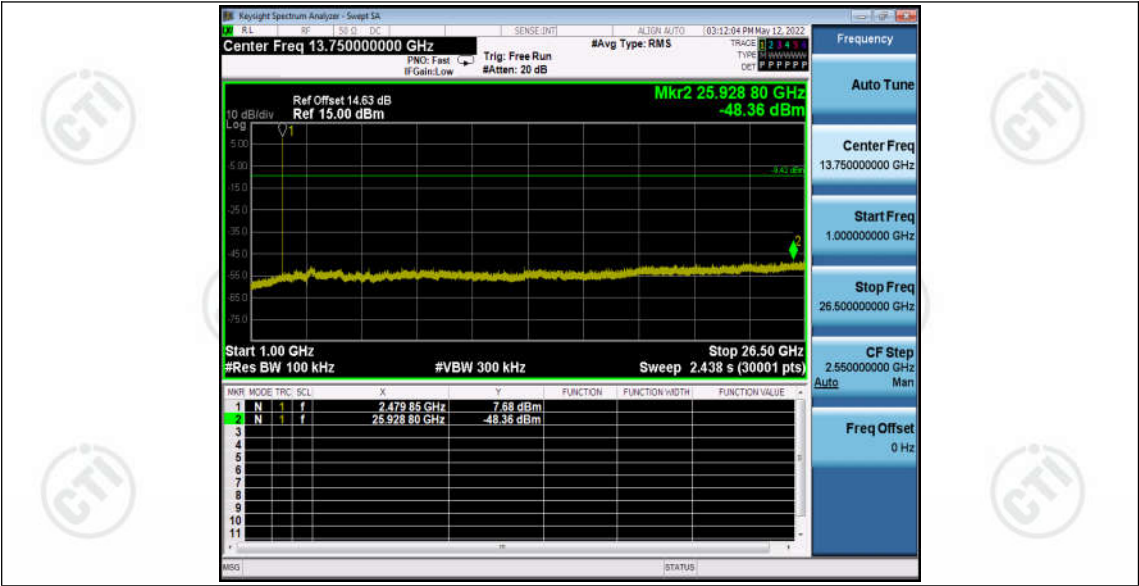
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500

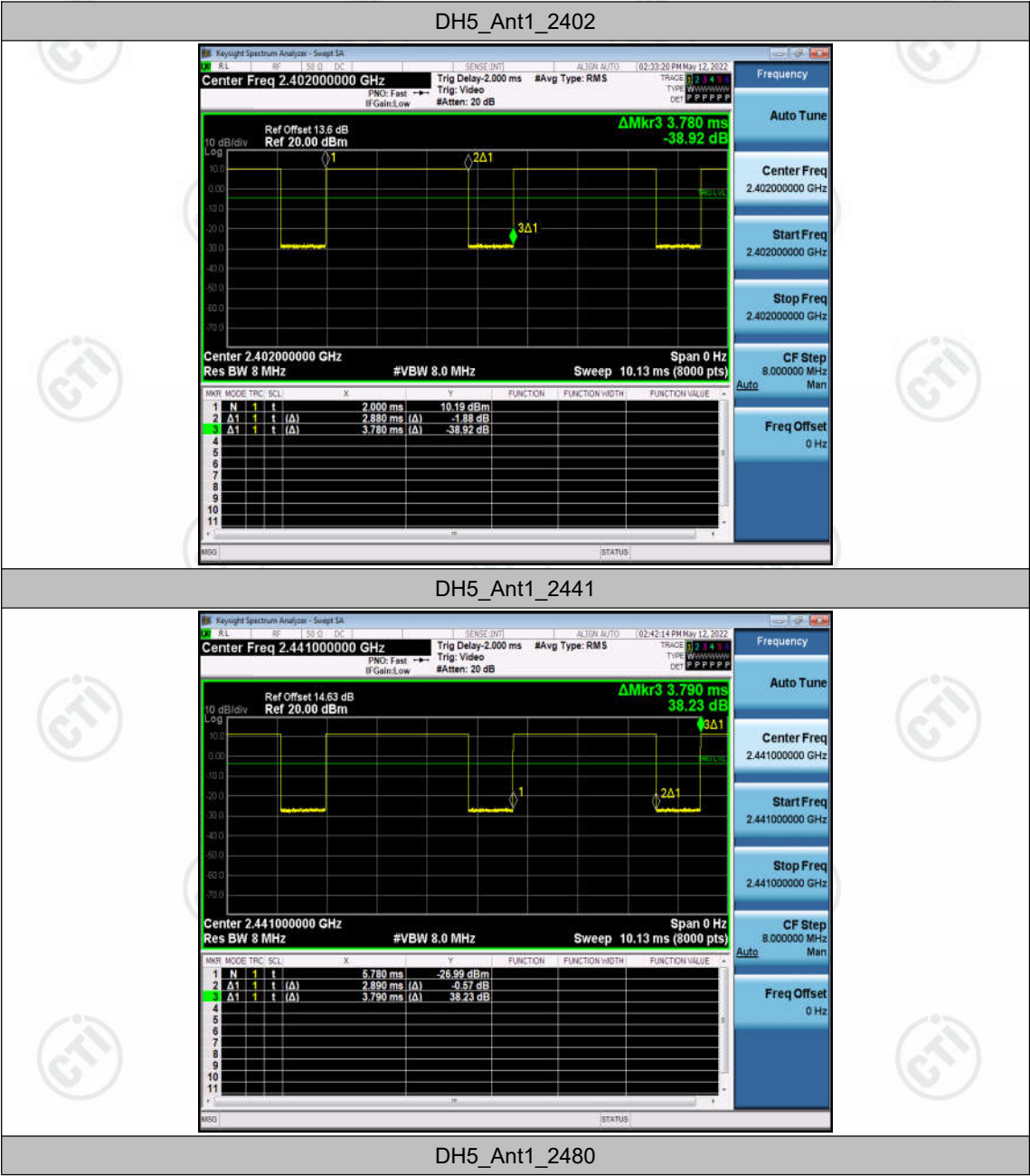


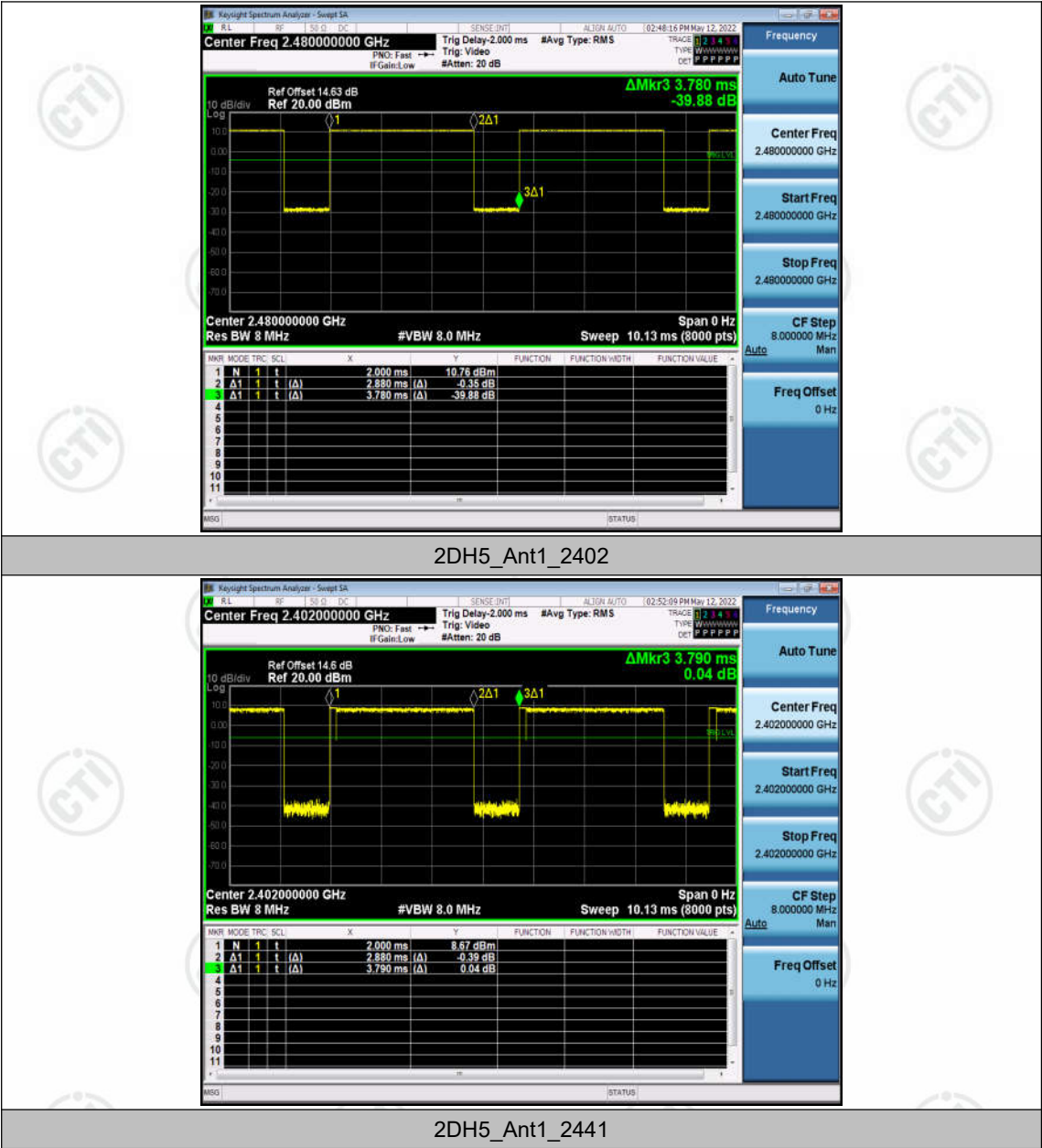
Appendix I: Duty Cycle

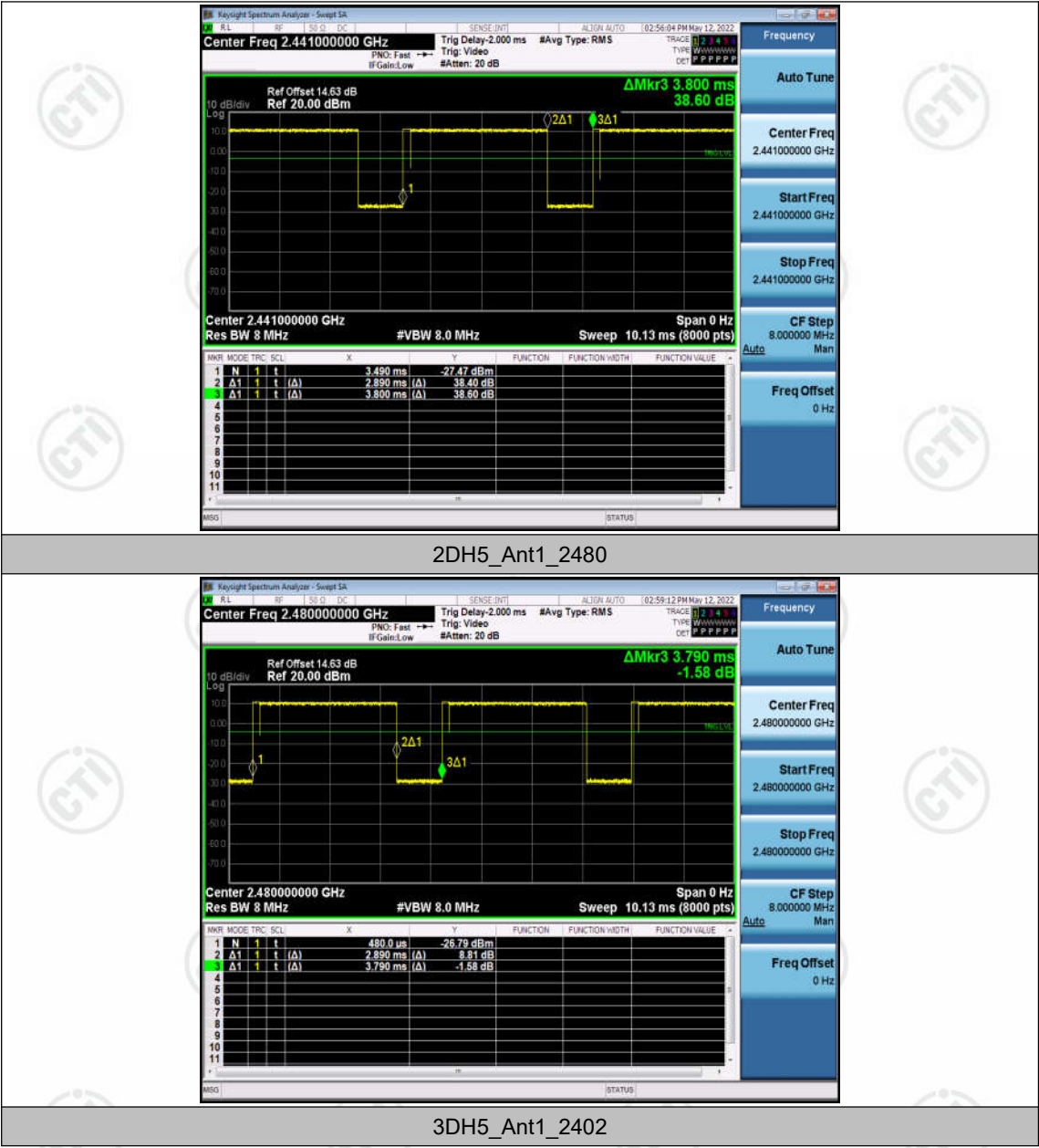
Test Result

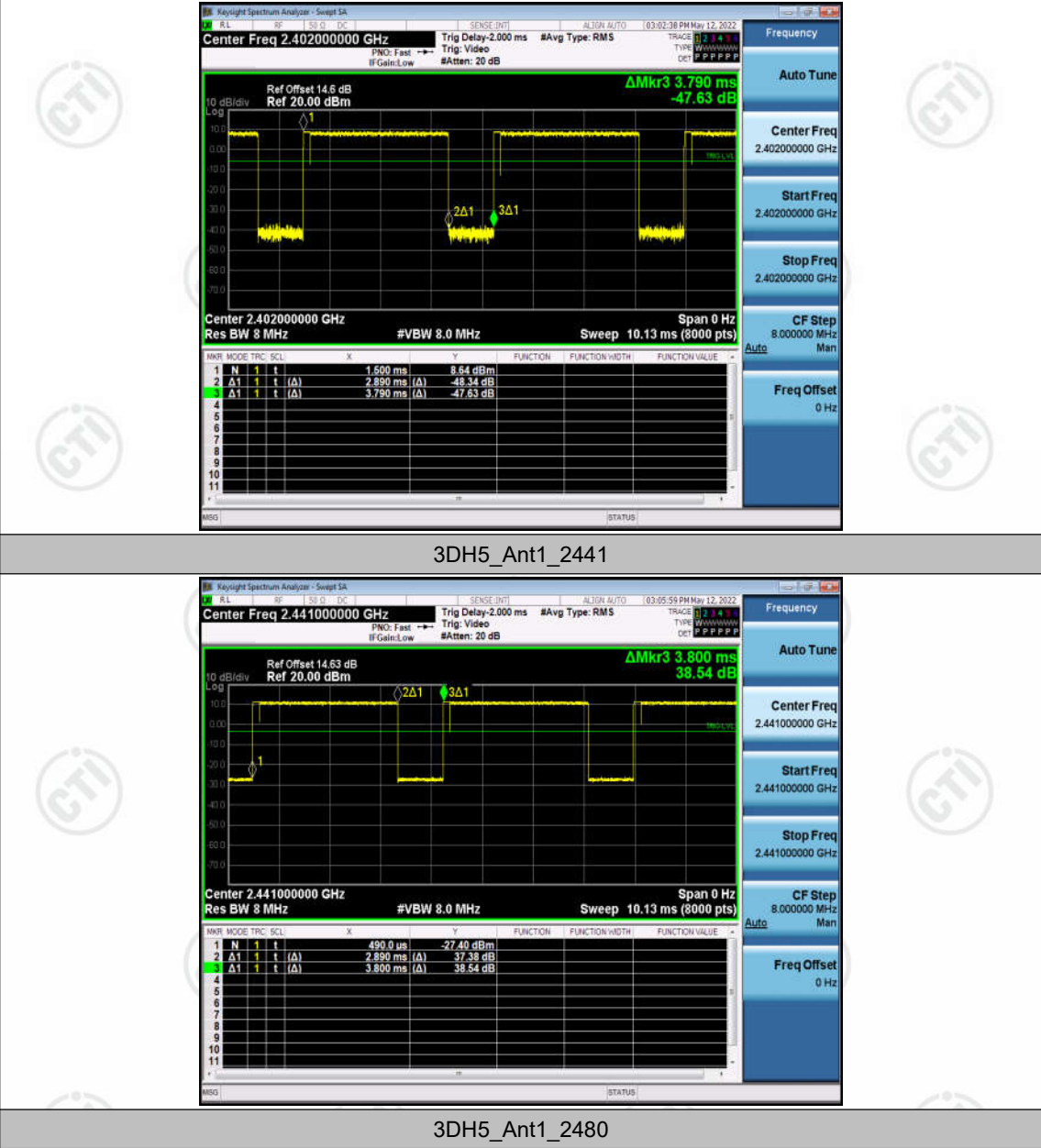
Test Mode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
DH5	Ant1	2402	2.88	3.78	76.19	1.18
		2441	2.89	3.79	76.25	1.18
		2480	2.88	3.78	76.19	1.18
2DH5	Ant1	2402	2.88	3.79	75.99	1.19
		2441	2.89	3.80	76.05	1.19
		2480	2.89	3.79	76.25	1.18
3DH5	Ant1	2402	2.89	3.79	76.25	1.18
		2441	2.89	3.80	76.05	1.19
		2480	2.89	3.79	76.25	1.18

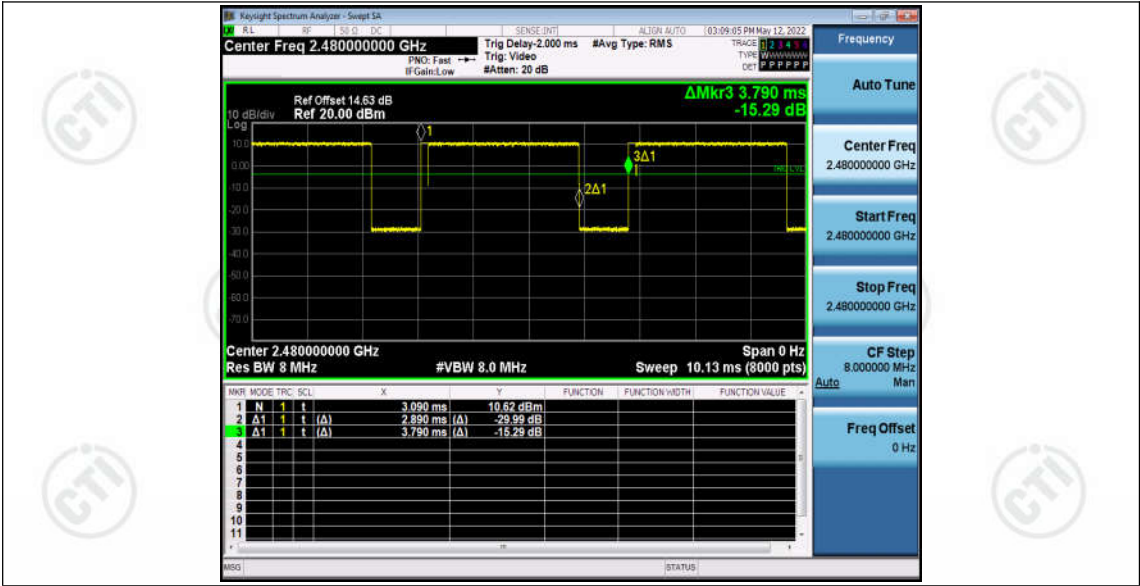
Test Graphs











*** End of Report ***