

Appendix Test Data

Report No.:	CTA23101700601	Test Sample No.:	1-2-2
Start Test Date:	2023.09.23	Finish Test Date:	2023.09.28
Temperature:	25.6°C	Relative Humidity:	49.1%
Pressure:	101kPa		

Appendix A: 20dB Emission Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]
DH5	Ant1	2402	0.942	2401.565	2402.507
		2441	0.939	2440.565	2441.504
		2480	0.948	2479.559	2480.507
2DH5	Ant1	2402	1.323	2401.361	2402.684
		2441	1.317	2440.364	2441.681
		2480	1.317	2479.358	2480.675
3DH5	Ant1	2402	1.284	2401.388	2402.672
		2441	1.302	2440.373	2441.675
		2480	1.293	2479.376	2480.669

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



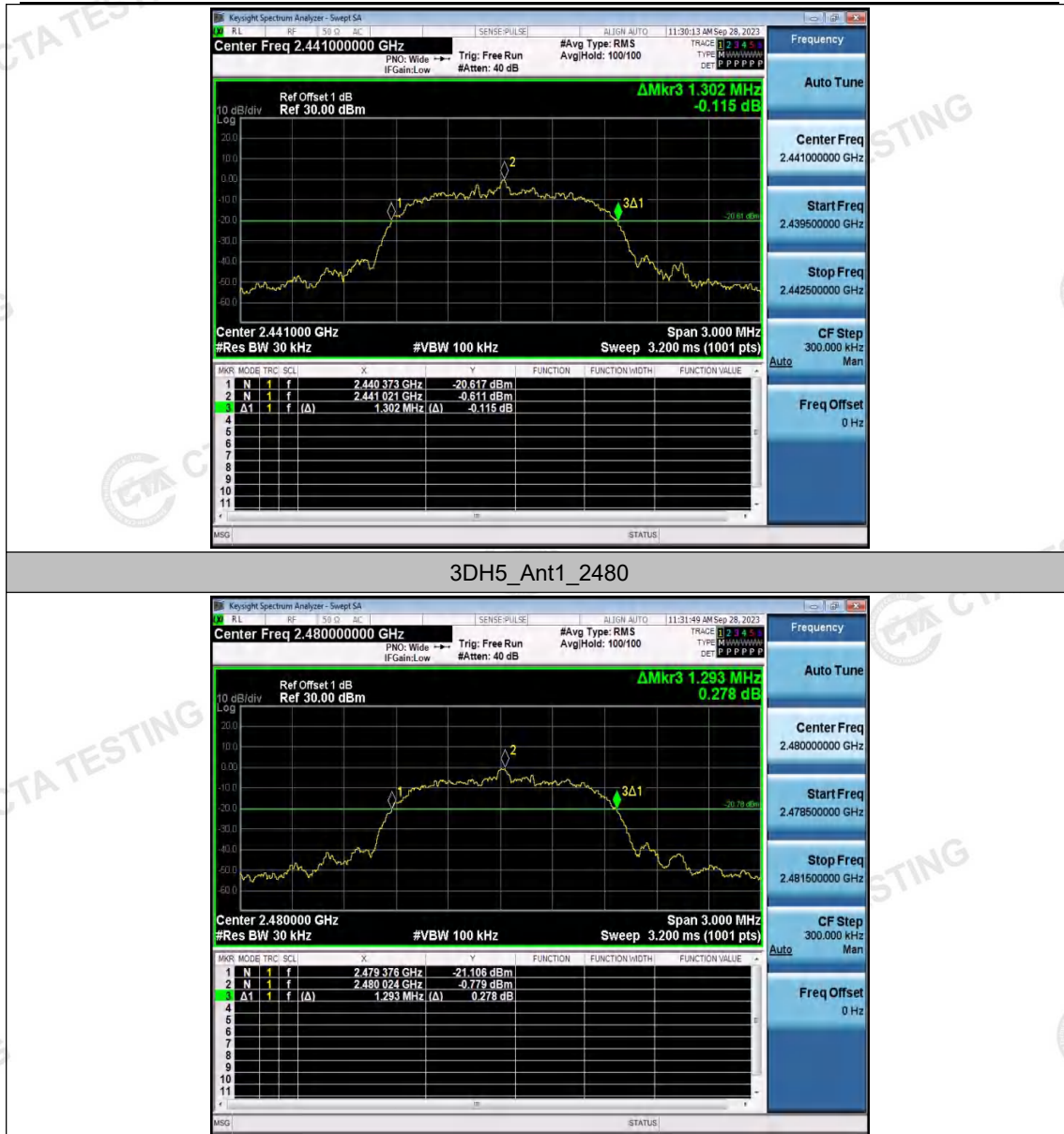
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
DH5	Ant1	2402	0.85134	2401.6006	2402.4519
		2441	0.83647	2440.6026	2441.4391
		2480	0.84941	2479.5940	2480.4434
2DH5	Ant1	2402	1.1858	2401.4309	2402.6167
		2441	1.1846	2440.4300	2441.6146
		2480	1.1849	2479.4247	2480.6096
3DH5	Ant1	2402	1.1903	2401.4273	2402.6176
		2441	1.1958	2440.4279	2441.6237
		2480	1.1837	2479.4329	2480.6166

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



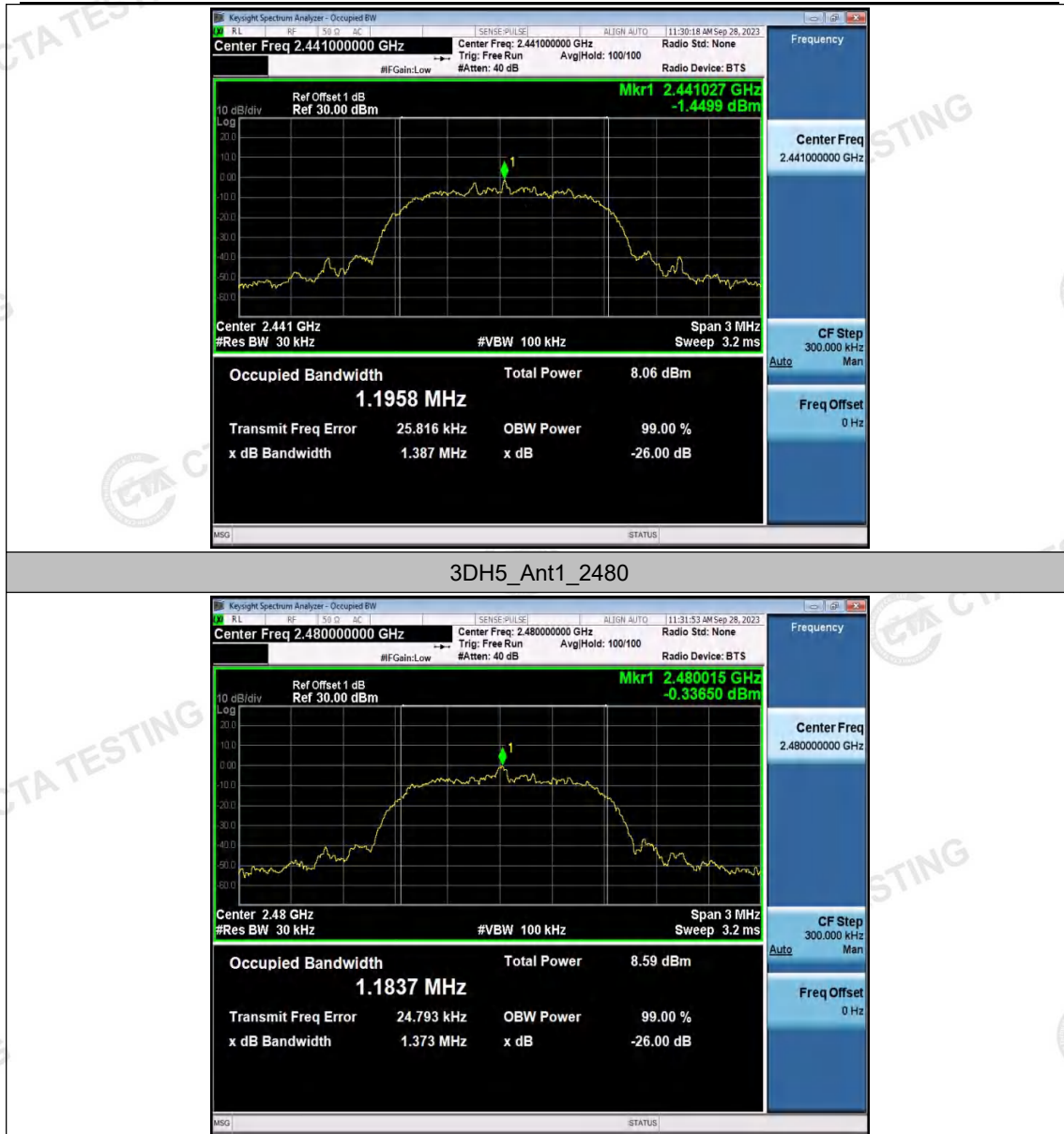
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



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	0.79	≤ 20.97	PASS
		2441	1.51	≤ 20.97	PASS
		2480	1.75	≤ 20.97	PASS
2DH5	Ant1	2402	2.80	≤ 20.97	PASS
		2441	3.59	≤ 20.97	PASS
		2480	3.86	≤ 20.97	PASS
3DH5	Ant1	2402	3.28	≤ 20.97	PASS
		2441	4.05	≤ 20.97	PASS
		2480	4.30	≤ 20.97	PASS

Test Graphs

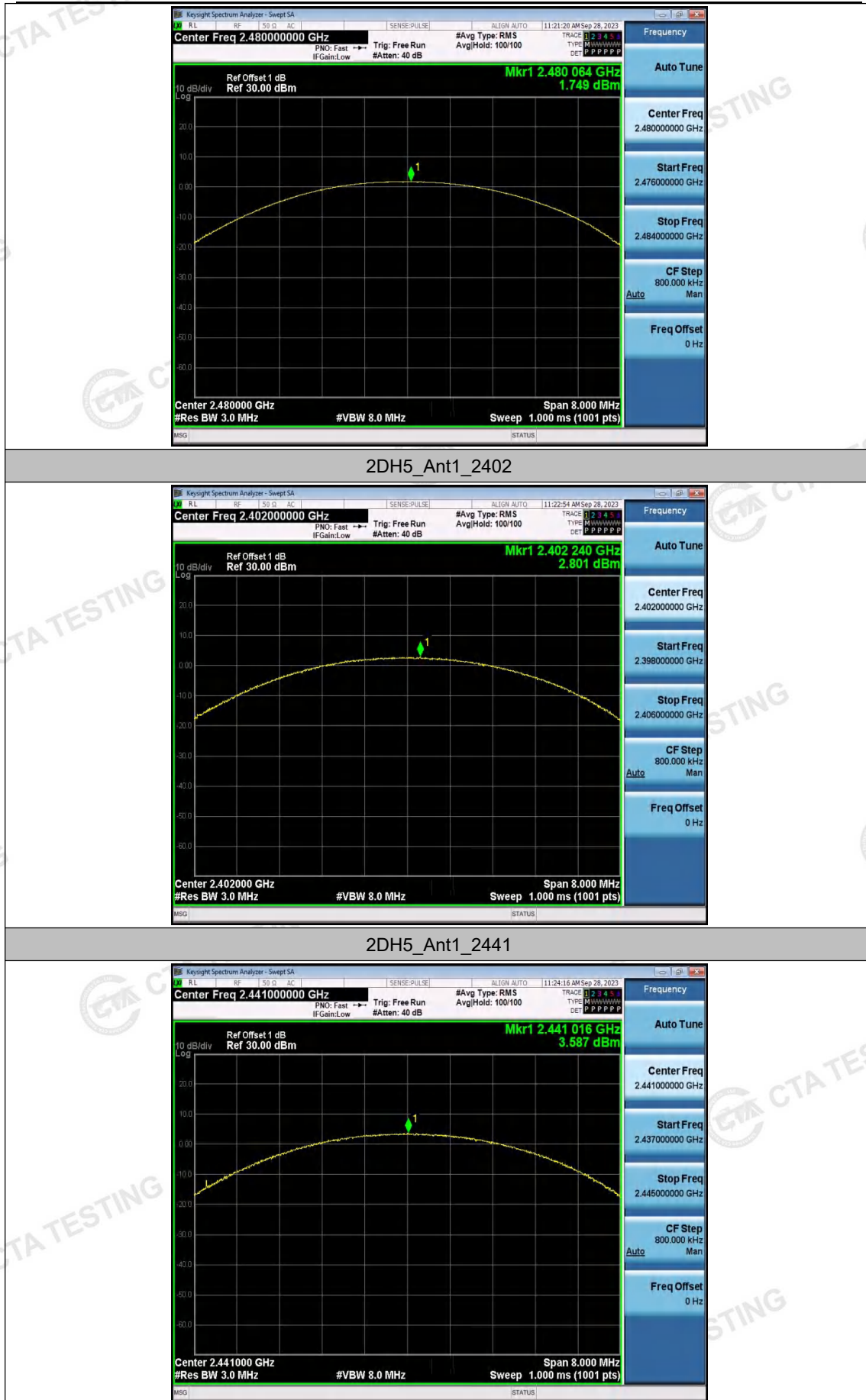
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



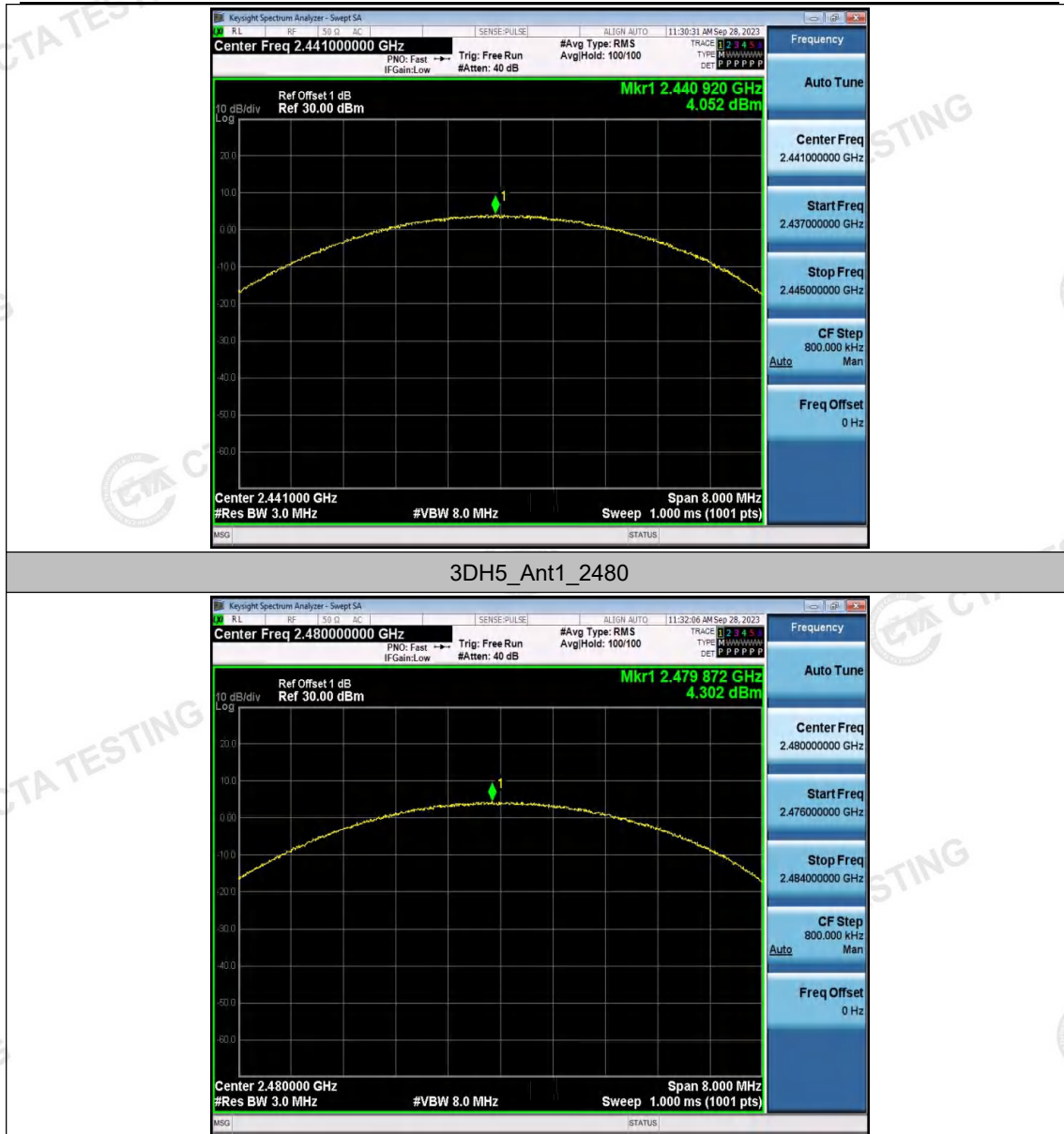
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



Appendix D: Carrier frequency separation

Test Result

Test Mode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.990	≥ 0.948	PASS
2DH5	Ant1	Hop	0.988	≥ 0.882	PASS
3DH5	Ant1	Hop	1.006	≥ 0.868	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

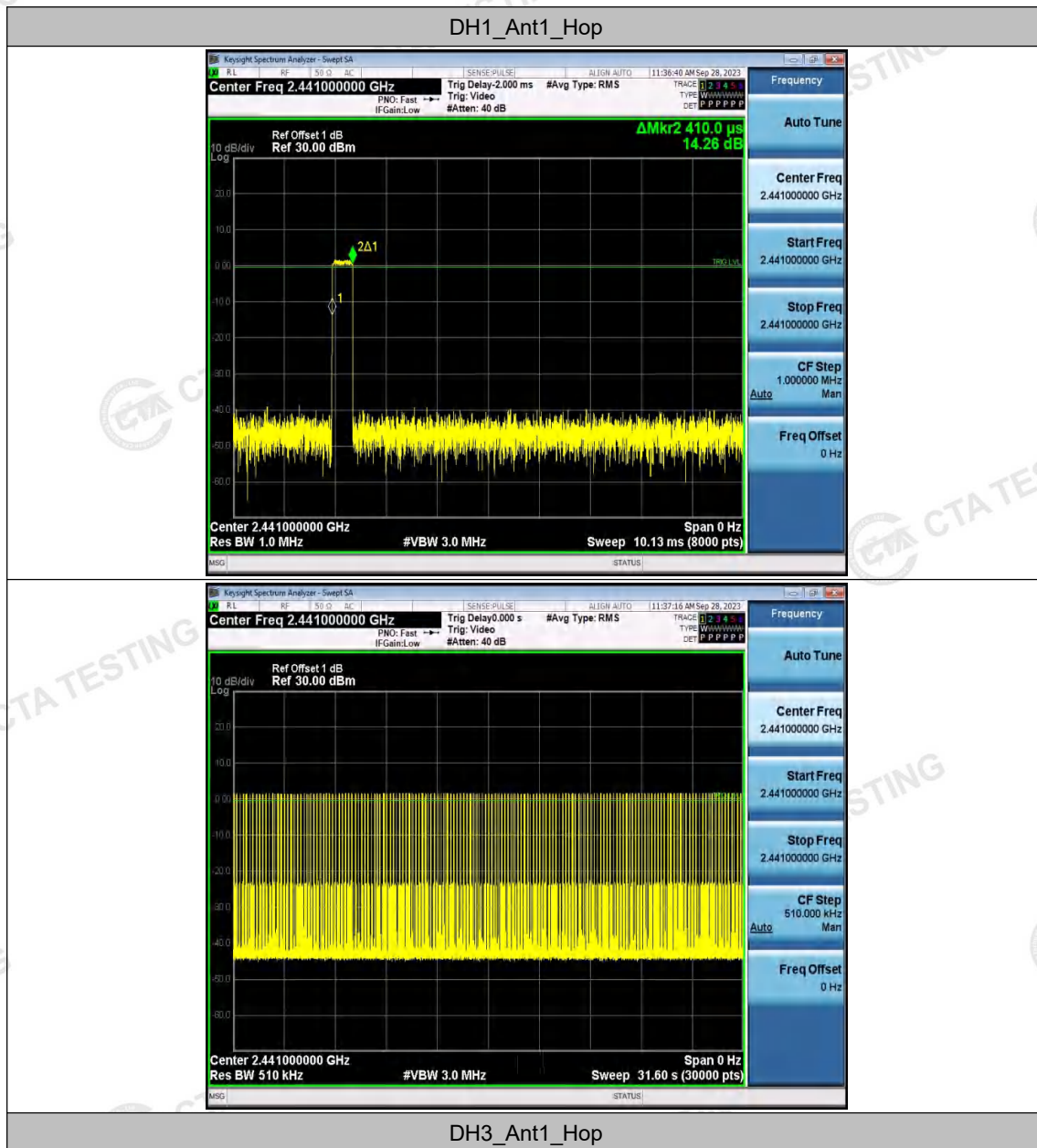


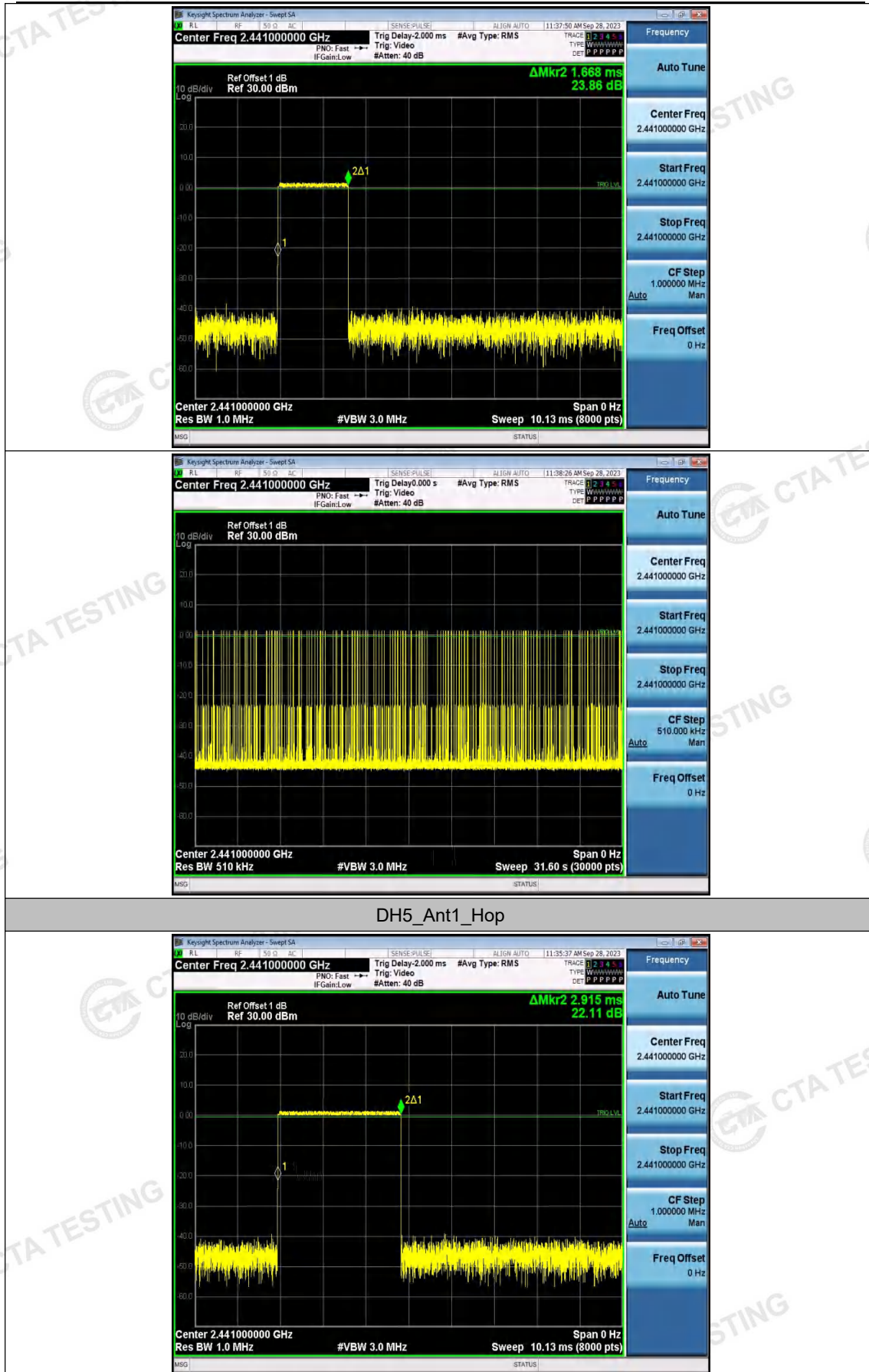
Appendix E: Time of occupancy

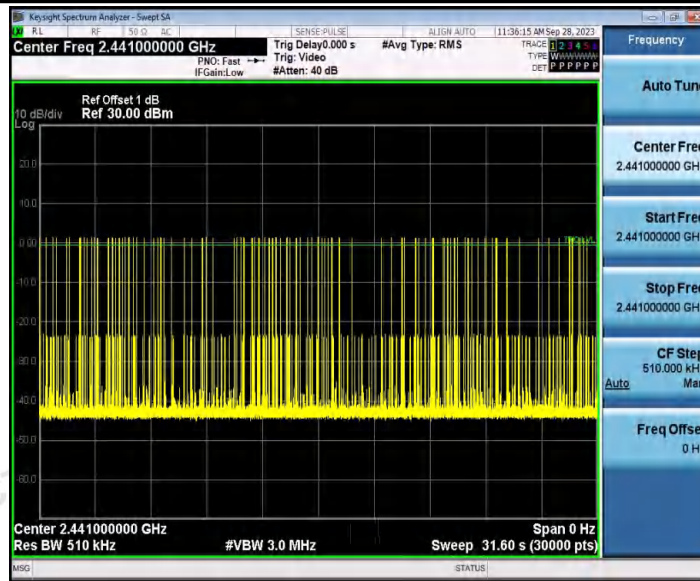
Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.410	312	0.128	≤0.4	PASS
DH3	Ant1	Hop	1.668	168	0.280	≤0.4	PASS
DH5	Ant1	Hop	2.915	111	0.324	≤0.4	PASS
2DH1	Ant1	Hop	0.421	319	0.134	≤0.4	PASS
2DH3	Ant1	Hop	1.673	161	0.269	≤0.4	PASS
2DH5	Ant1	Hop	2.921	100	0.292	≤0.4	PASS
3DH1	Ant1	Hop	0.422	319	0.135	≤0.4	PASS
3DH3	Ant1	Hop	1.672	153	0.256	≤0.4	PASS
3DH5	Ant1	Hop	2.923	108	0.316	≤0.4	PASS

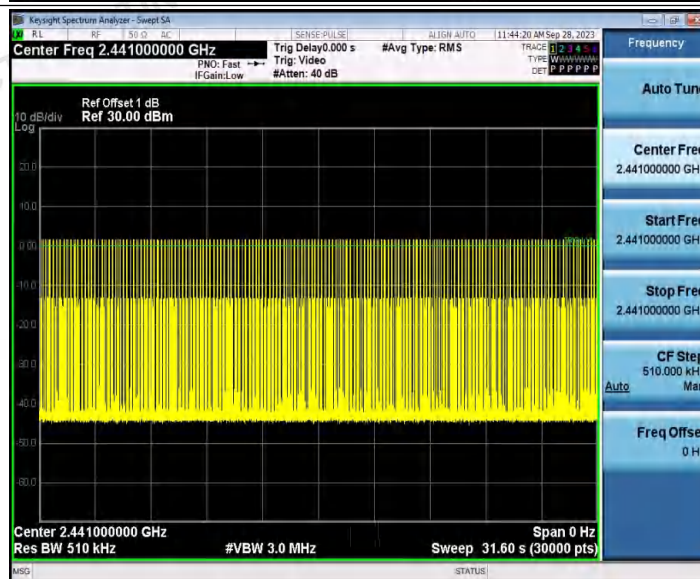
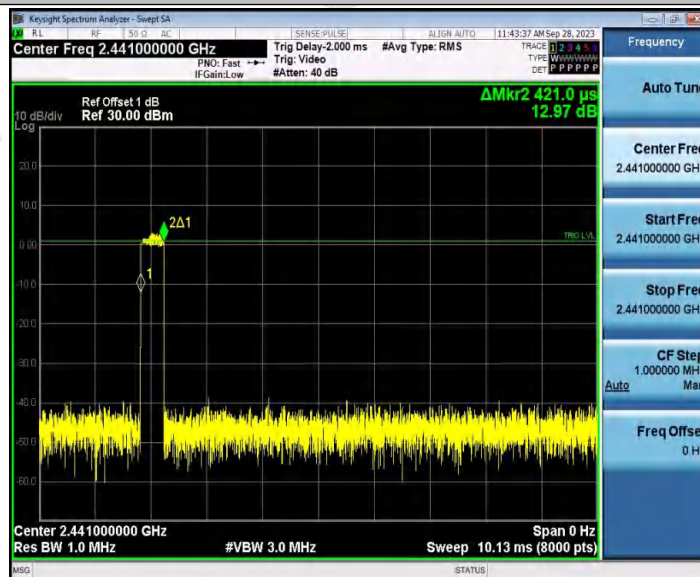
Test Graphs



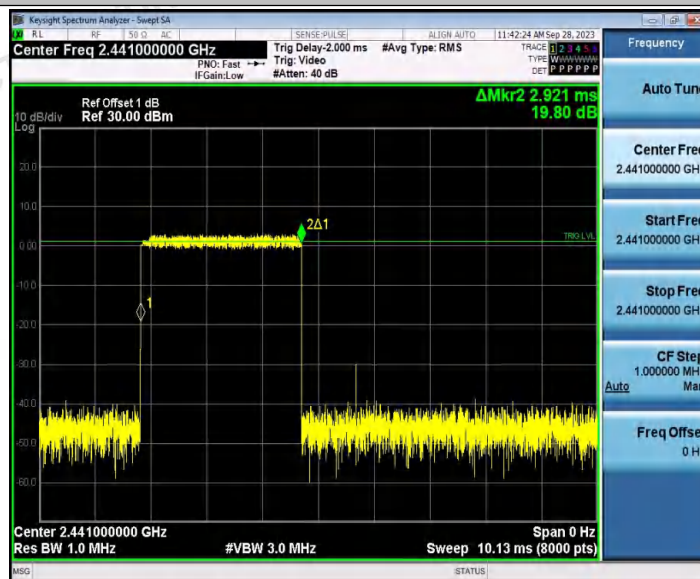


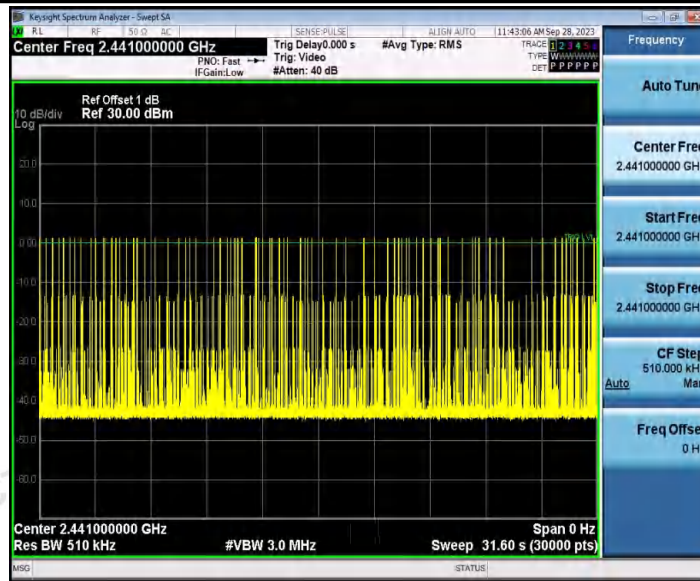


2DH1_Ant1_Hop

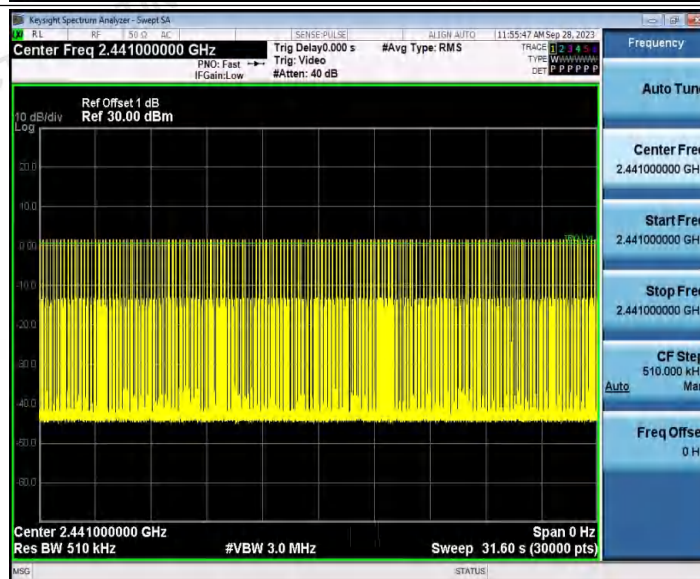
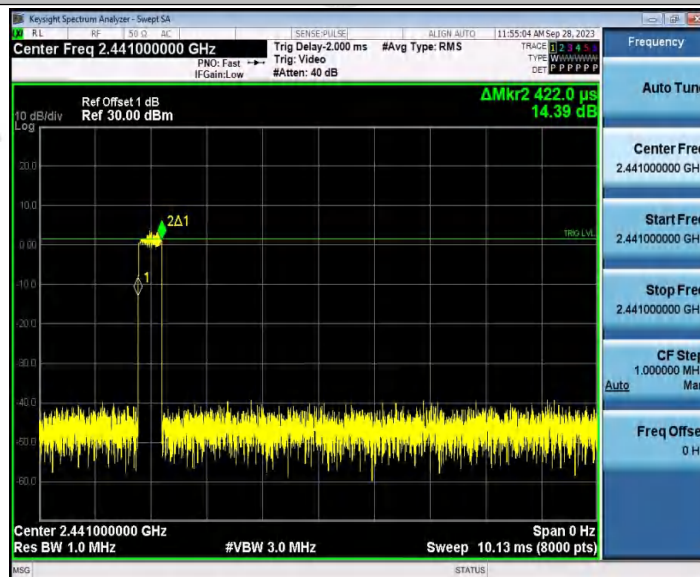


2DH3_Ant1_Hop

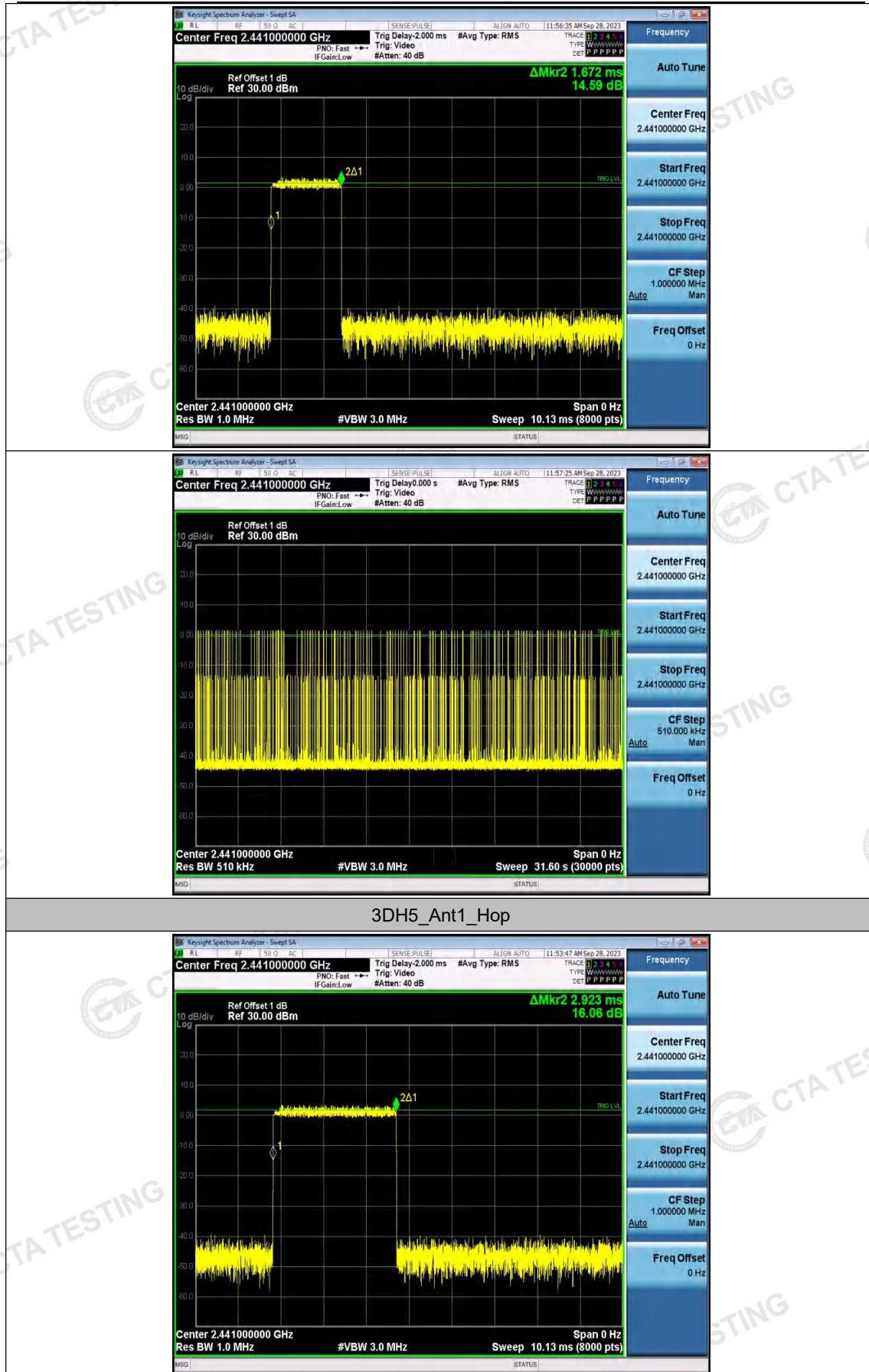


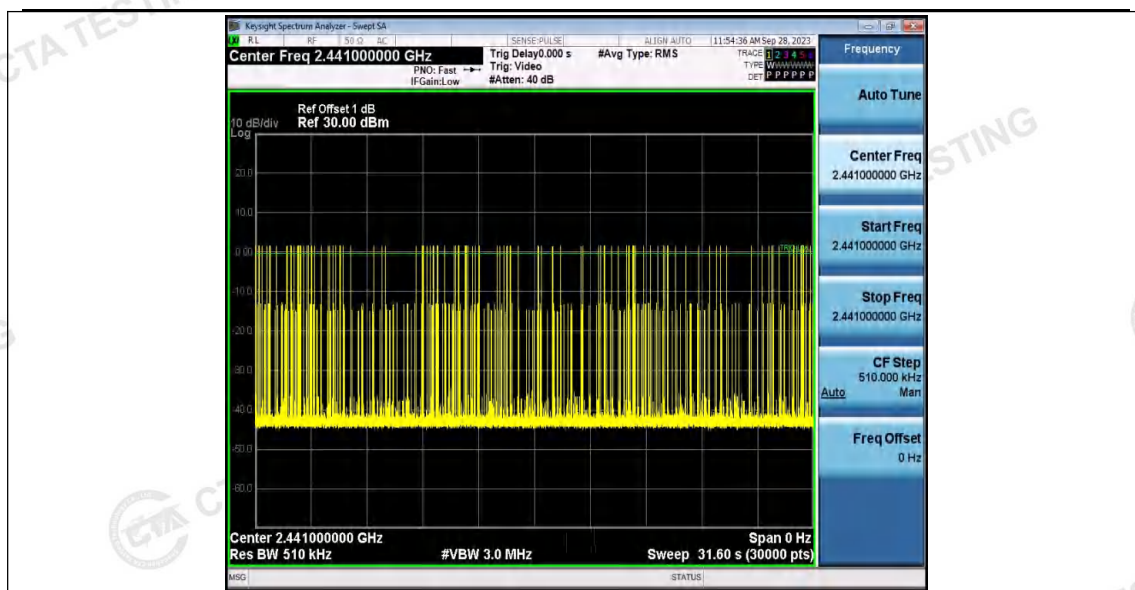


3DH1_Ant1_Hop



3DH3_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

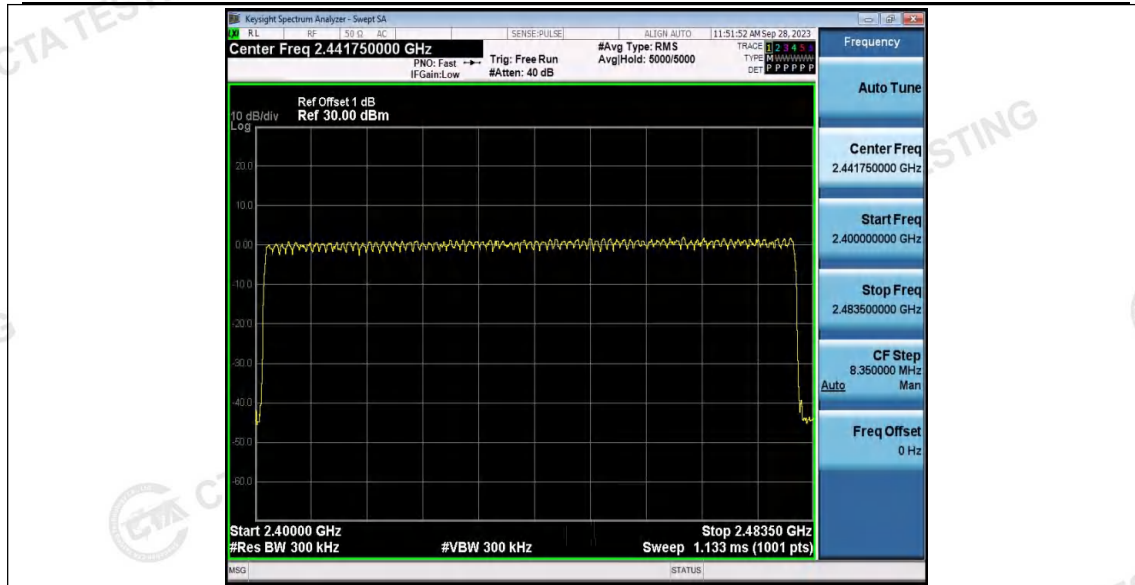
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



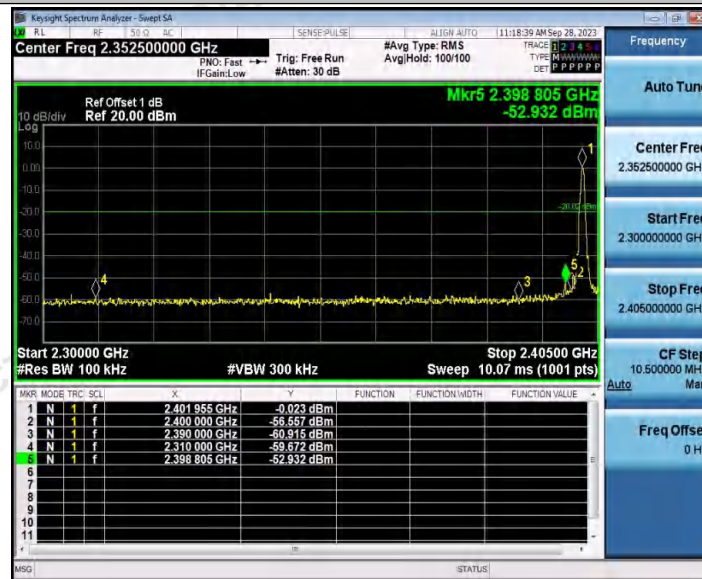
Appendix G: Band edge measurements

Test Result

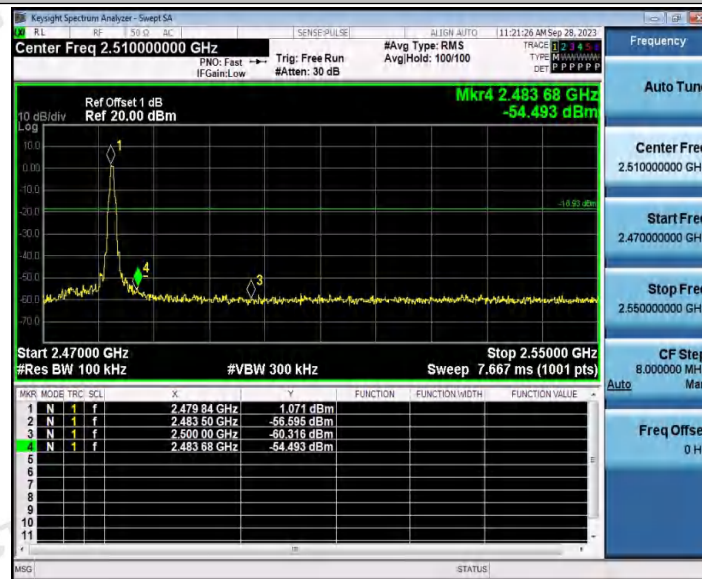
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.02	-52.93	≤-20.02	PASS
		High	2480	1.07	-54.49	≤-18.93	PASS
		Low	Hop_2402	-0.37	-57.17	≤-20.37	PASS
		High	Hop_2480	1.13	-56.97	≤-18.87	PASS
2DH5	Ant1	Low	2402	-0.54	-43.27	≤-20.54	PASS
		High	2480	0.99	-48.40	≤-19.01	PASS
		Low	Hop_2402	-0.27	-57.24	≤-20.27	PASS
		High	Hop_2480	1.12	-56.86	≤-18.88	PASS
3DH5	Ant1	Low	2402	0.17	-49.87	≤-19.83	PASS
		High	2480	0.98	-55.80	≤-19.02	PASS
		Low	Hop_2402	0.08	-57.46	≤-19.92	PASS
		High	Hop_2480	1.28	-56.66	≤-18.72	PASS

Test Graphs

DH5_Ant1_Low_2402



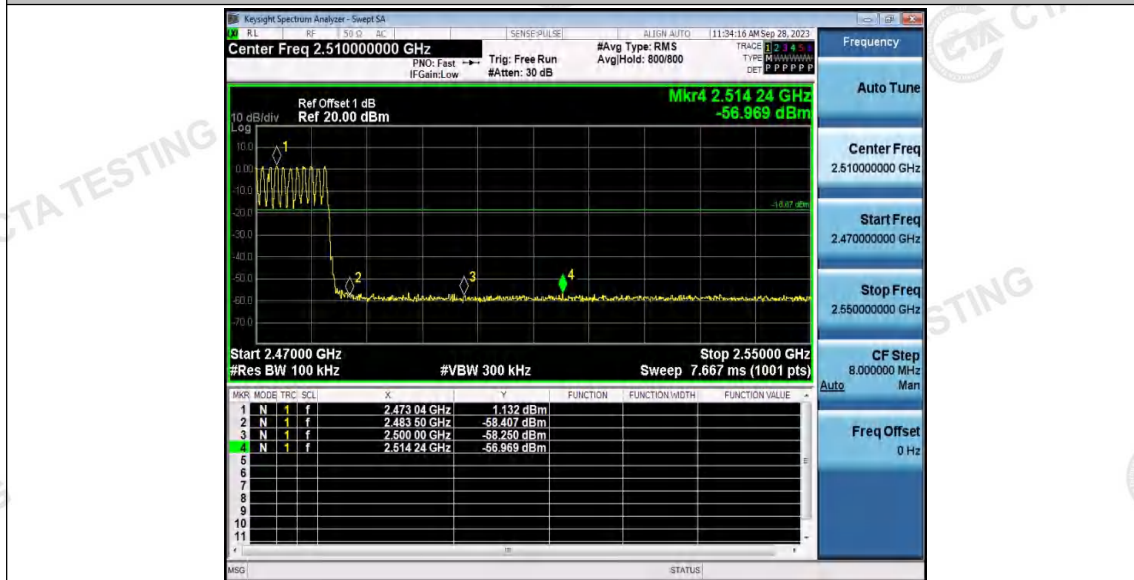
DH5_Ant1_High_2480



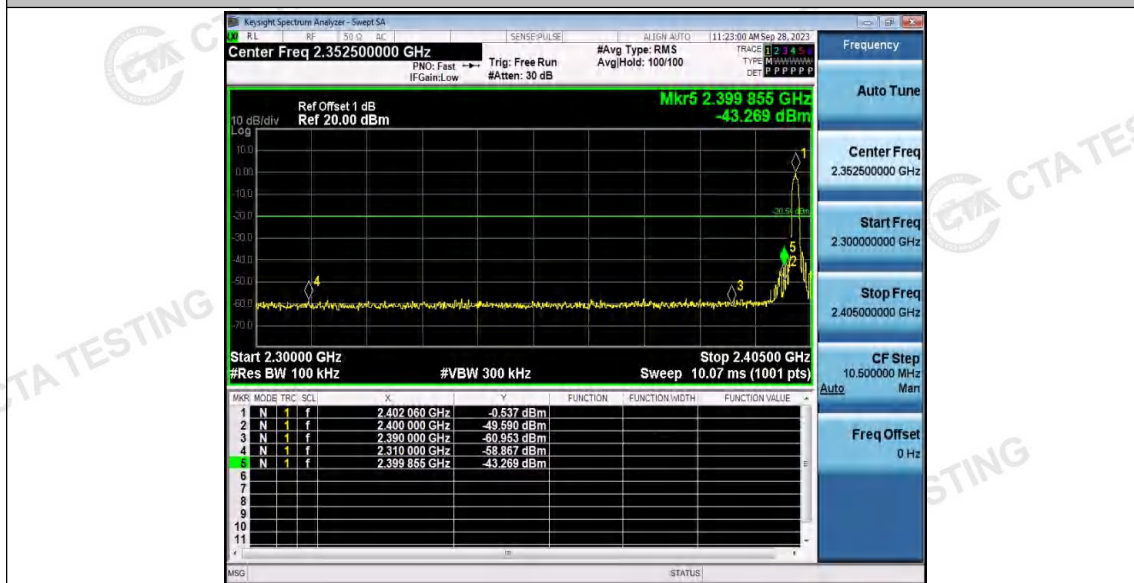
DH5_Ant1_Low_Hop_2402



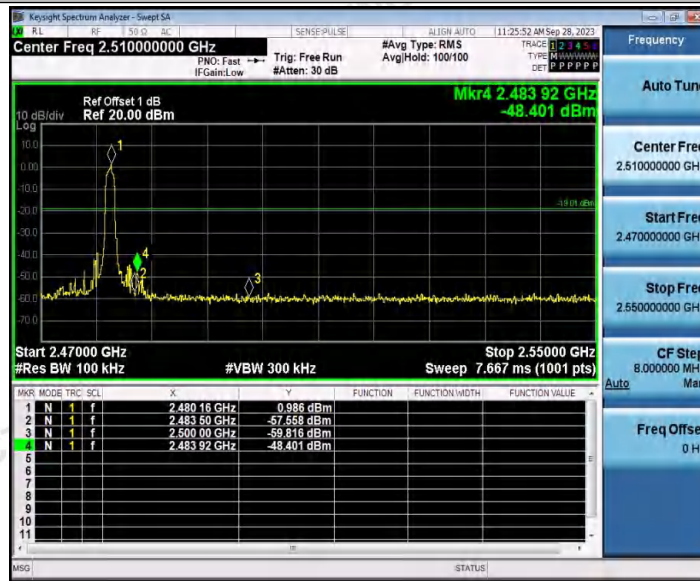
DH5_Ant1_High_Hop_2480



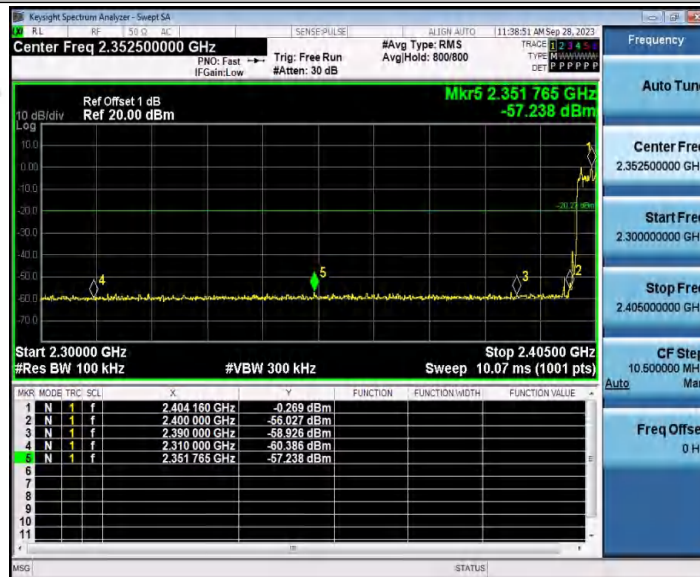
2DH5_Ant1_Low_2402



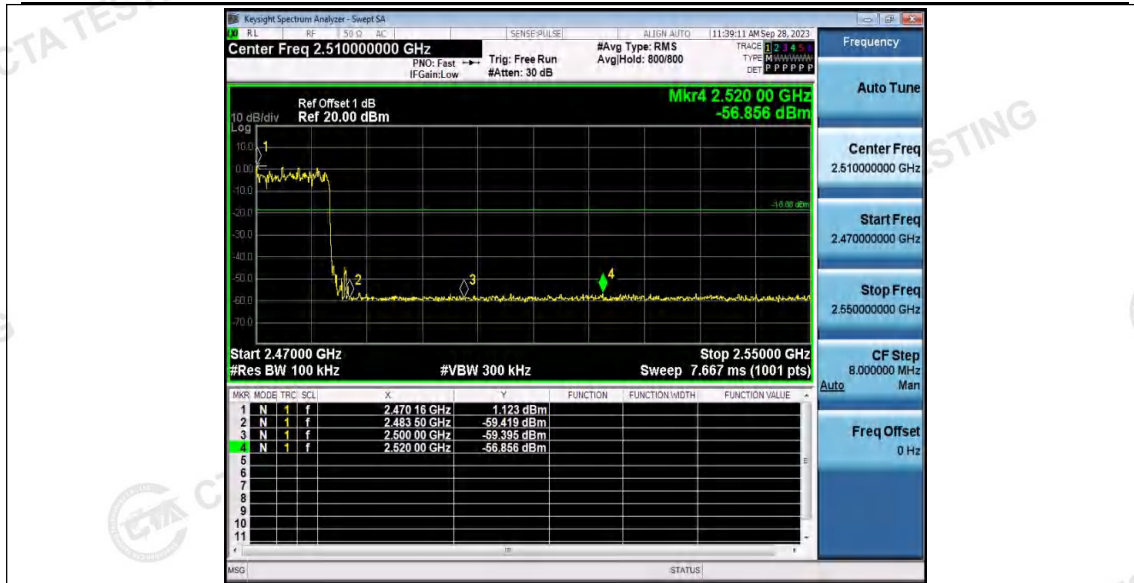
2DH5_Ant1_High_2480



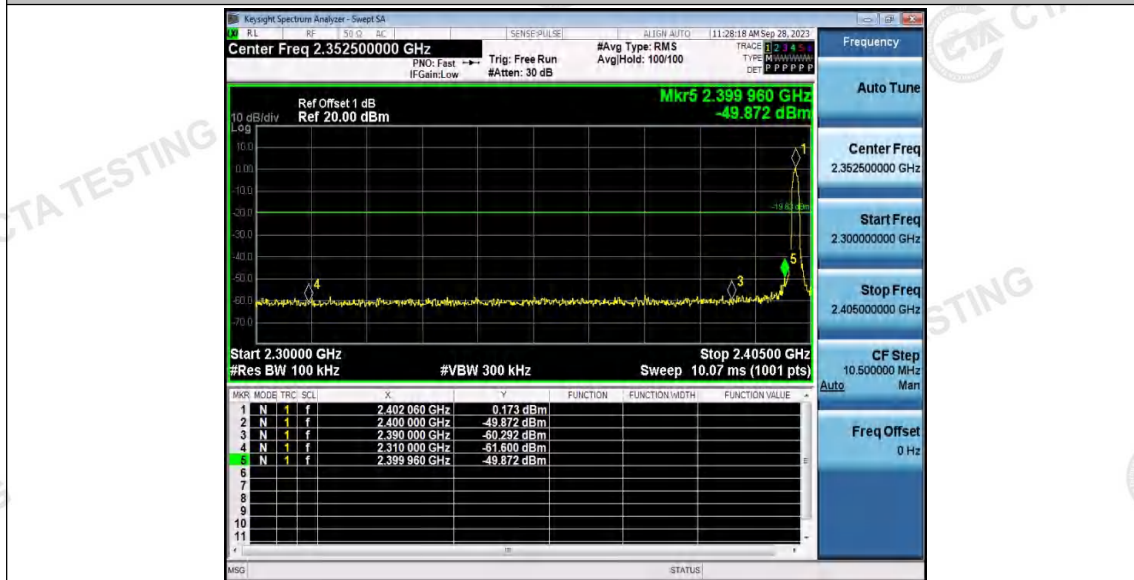
2DH5_Ant1_Low_Hop_2402



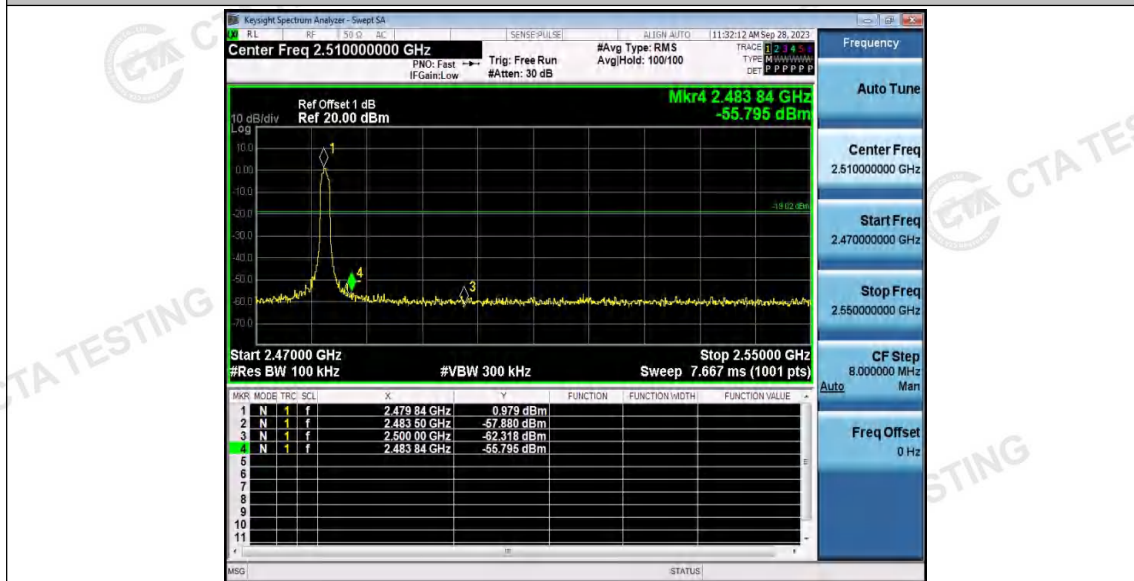
2DH5_Ant1_High_Hop_2480



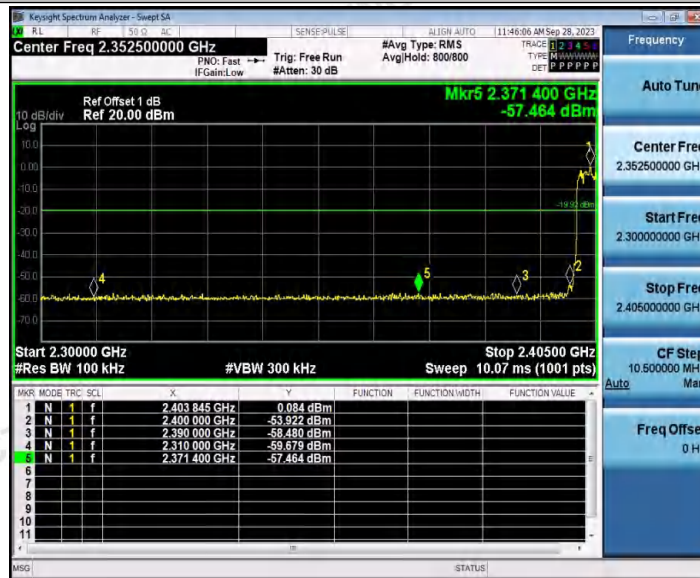
3DH5_Ant1_Low_2402



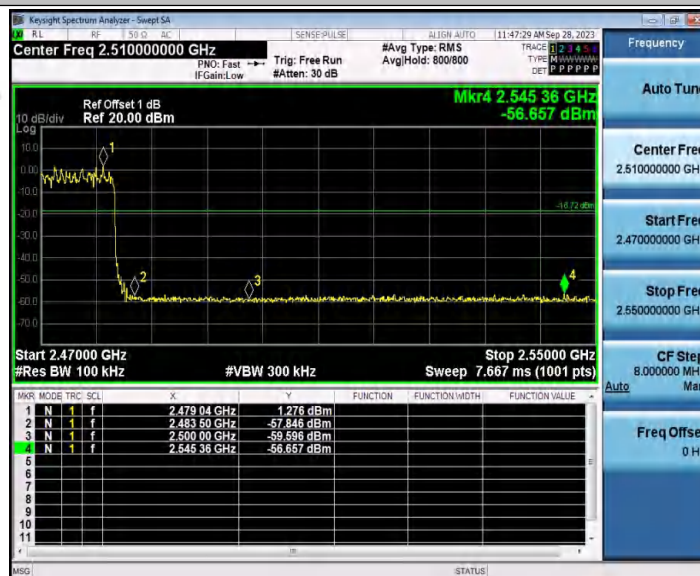
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



Appendix H: Conducted Spurious Emission

Test Result

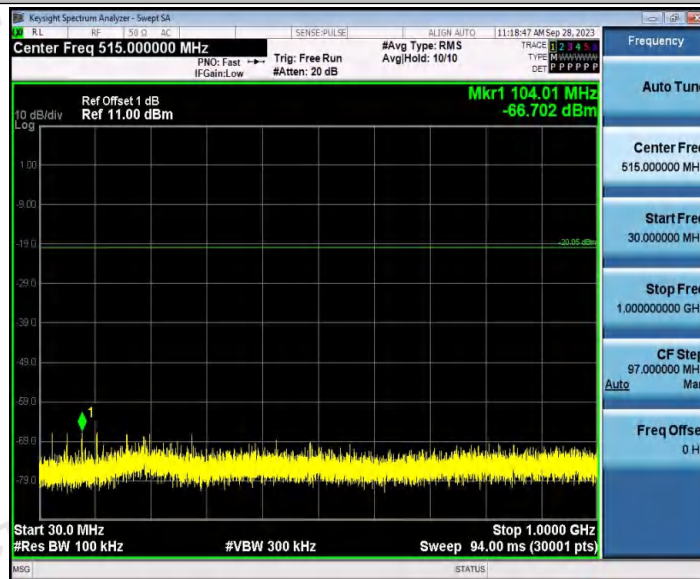
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.05	-0.05	---	PASS
			30~1000	-0.05	-66.70	≤-20.05	PASS
			1000~26500	-0.05	-31.01	≤-20.05	PASS
		2441	Reference	0.13	0.13	---	PASS
			30~1000	0.13	-65.08	≤-19.87	PASS
			1000~26500	0.13	-29.29	≤-19.87	PASS
		2480	Reference	0.30	0.30	---	PASS
			30~1000	0.30	-64.44	≤-19.7	PASS
			1000~26500	0.30	-31.77	≤-19.7	PASS
2DH5	Ant1	2402	Reference	-0.66	-0.66	---	PASS
			30~1000	-0.66	-64.47	≤-20.66	PASS
			1000~26500	-0.66	-32.90	≤-20.66	PASS
		2441	Reference	-0.65	-0.65	---	PASS
			30~1000	-0.65	-62.32	≤-20.65	PASS
			1000~26500	-0.65	-28.72	≤-20.65	PASS
		2480	Reference	-1.97	-1.97	---	PASS
			30~1000	-1.97	-65.18	≤-21.97	PASS
			1000~26500	-1.97	-33.05	≤-21.97	PASS
3DH5	Ant1	2402	Reference	-0.60	-0.60	---	PASS
			30~1000	-0.60	-62.48	≤-20.6	PASS
			1000~26500	-0.60	-32.15	≤-20.6	PASS
		2441	Reference	-0.60	-0.60	---	PASS
			30~1000	-0.60	-62.39	≤-20.6	PASS
			1000~26500	-0.60	-31.48	≤-20.6	PASS
		2480	Reference	-0.61	-0.61	---	PASS
			30~1000	-0.61	-65.29	≤-20.61	PASS
			1000~26500	-0.61	-31.95	≤-20.61	PASS

Test Graphs

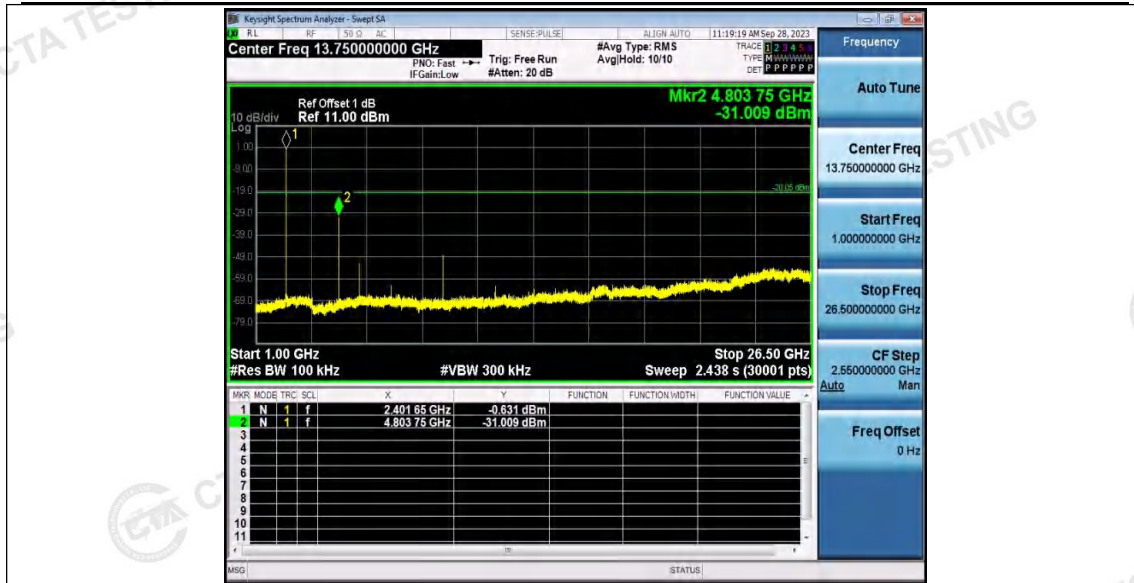
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



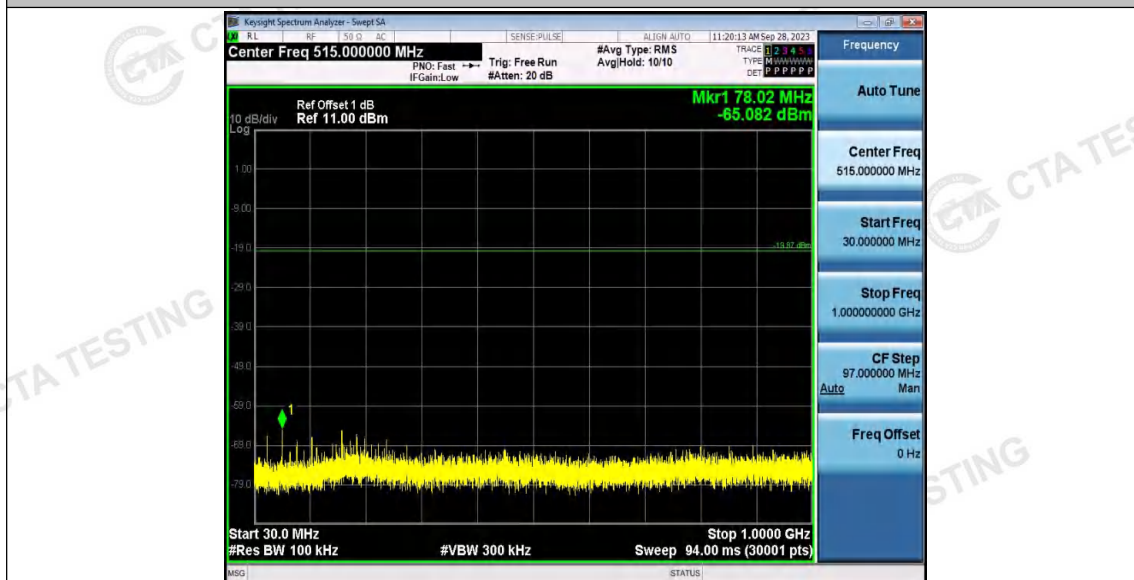
DH5_Ant1_2402_1000~26500



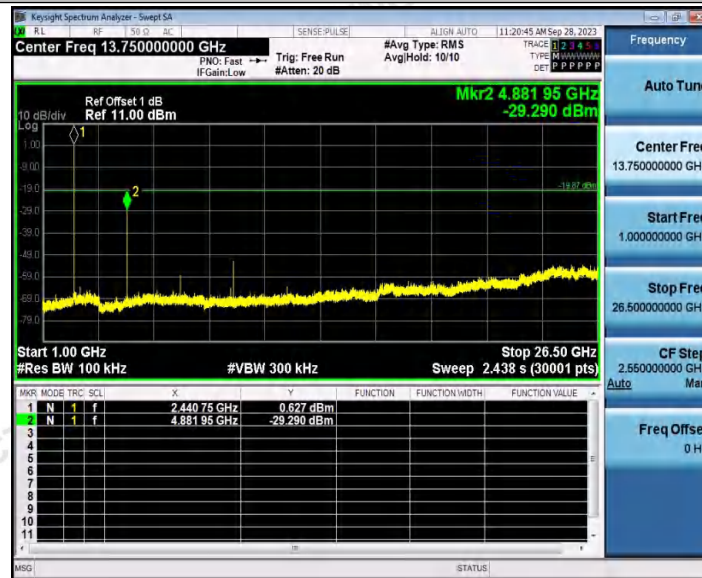
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



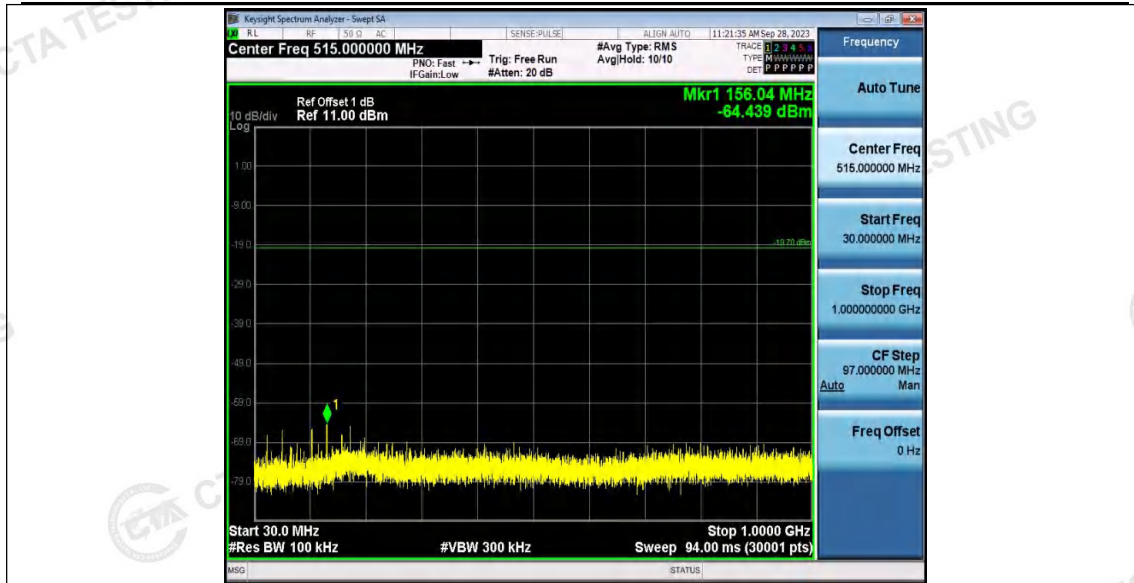
DH5_Ant1_2441_1000~26500



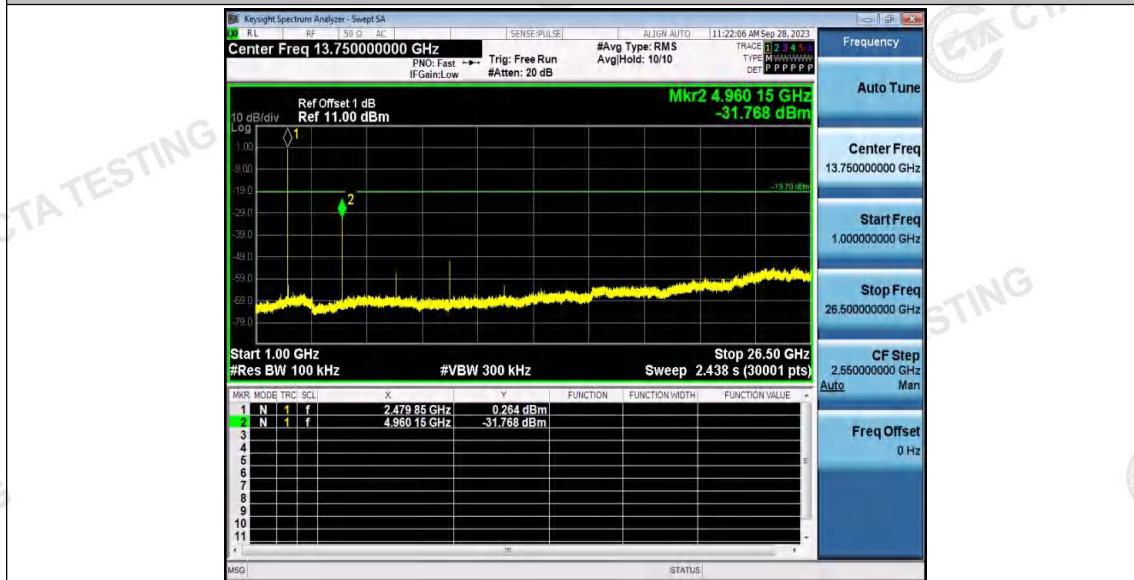
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000

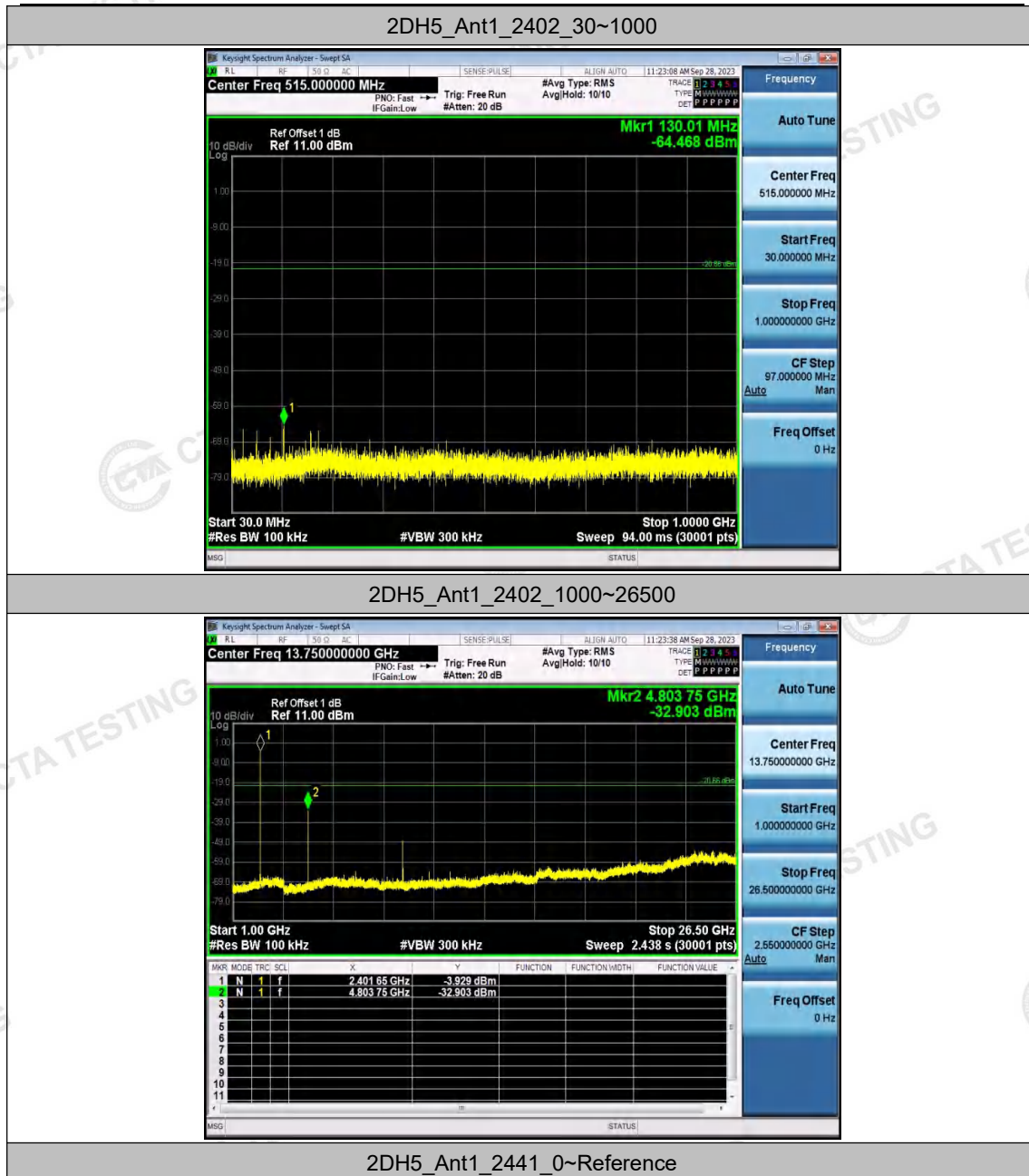


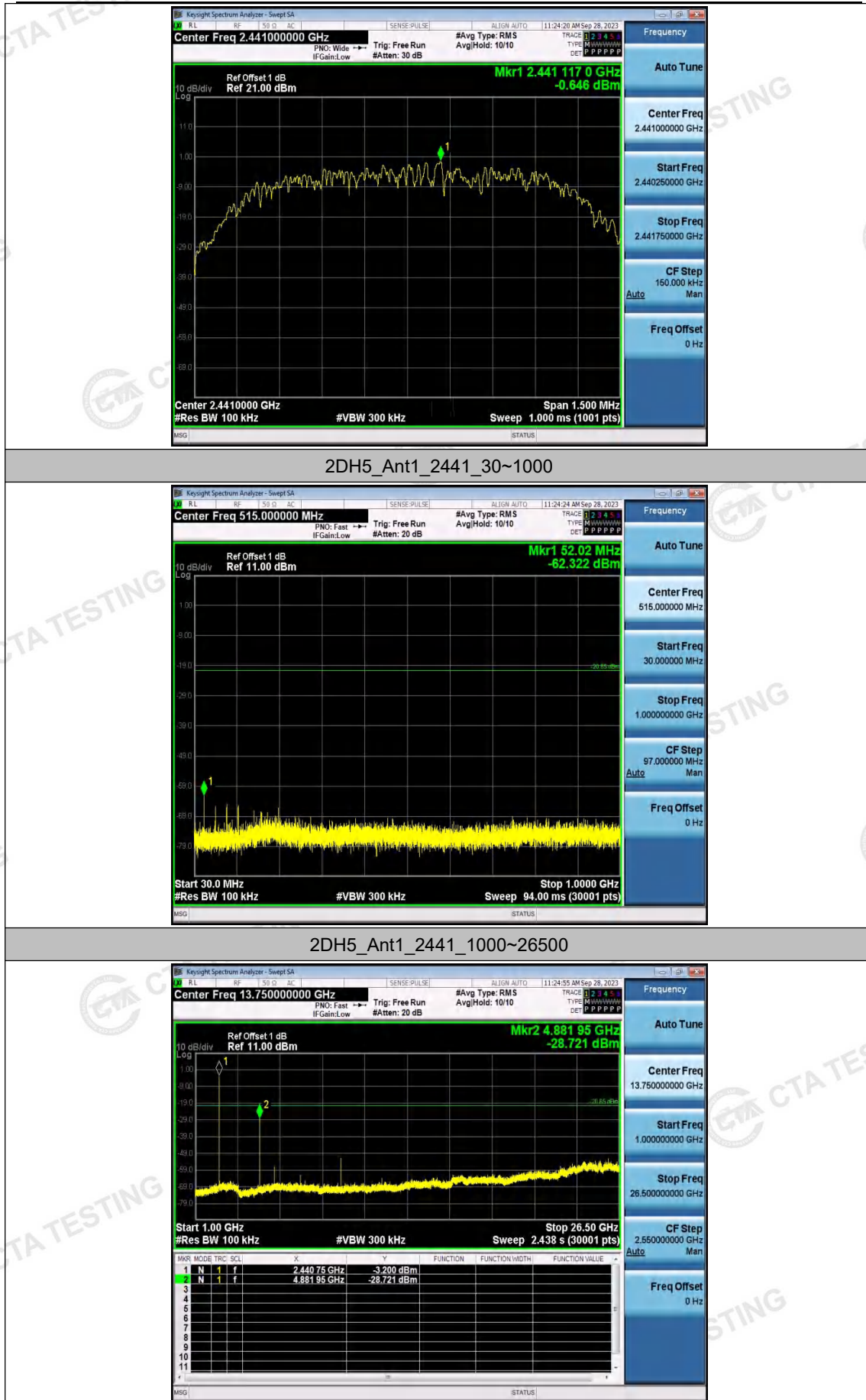
DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference



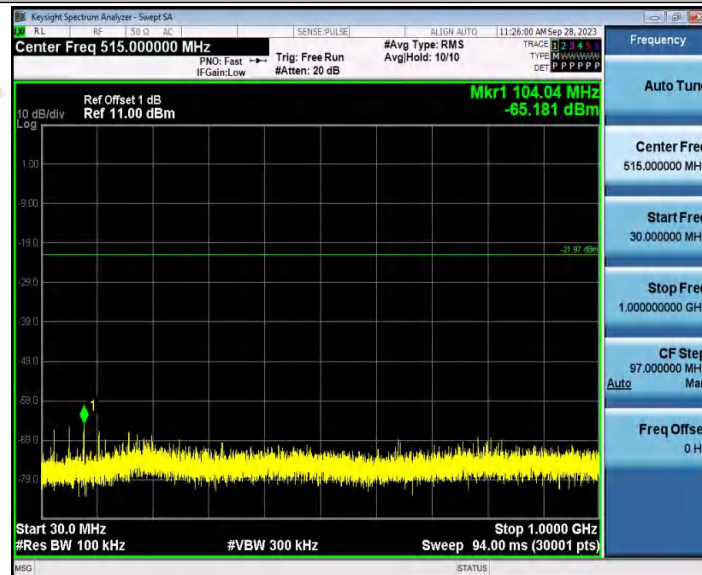




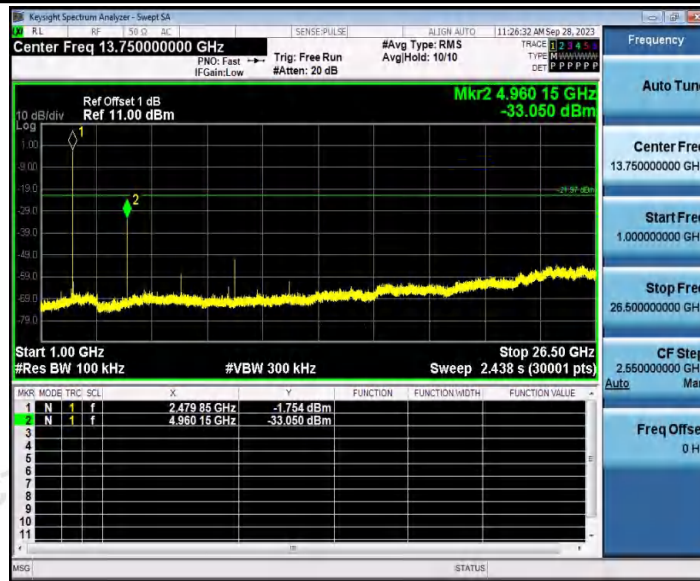
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



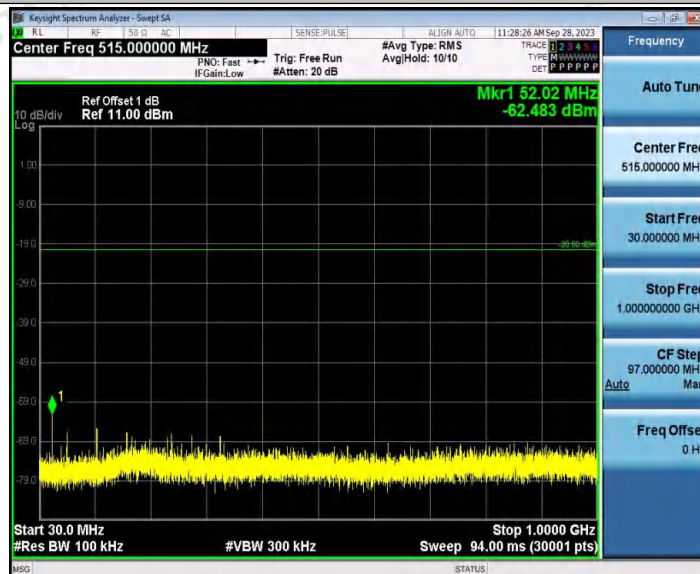
2DH5_Ant1_2480_1000~26500



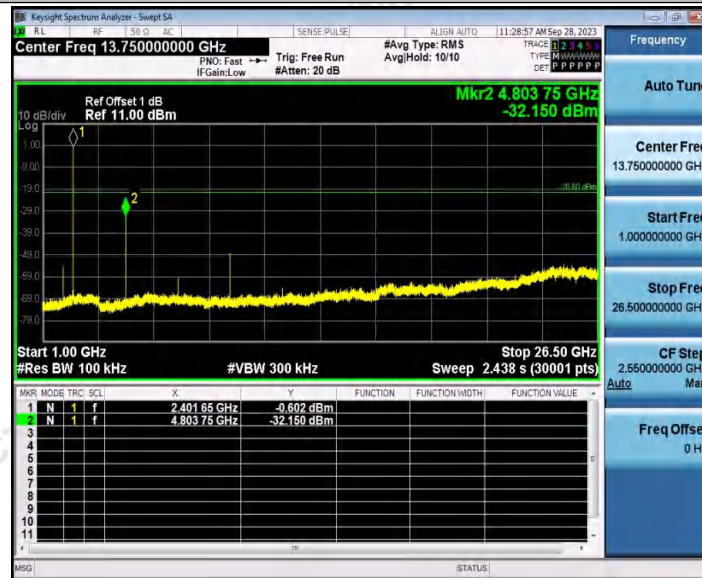
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000



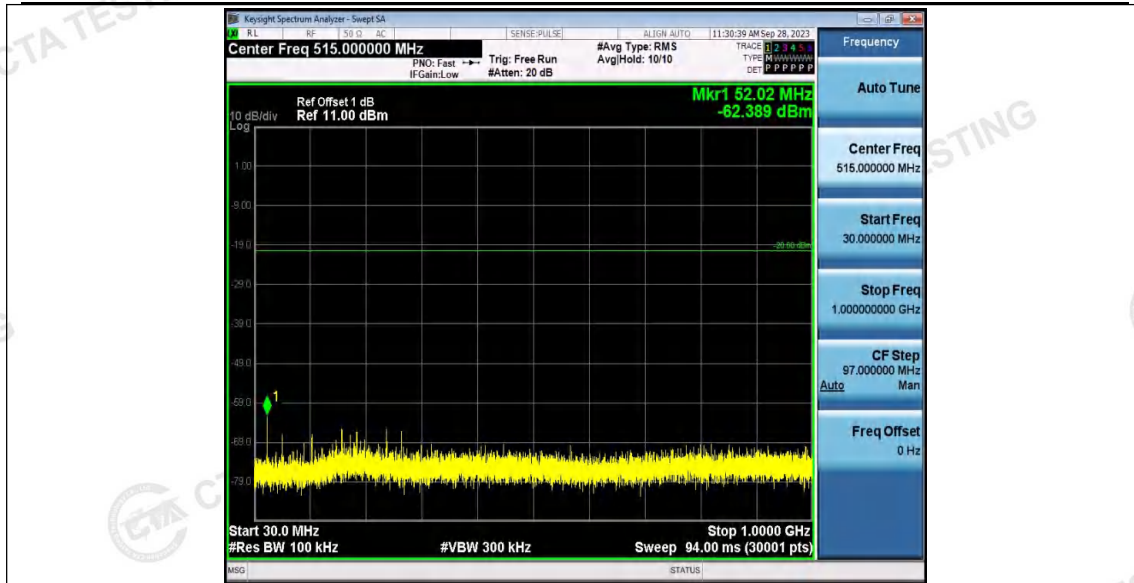
3DH5_Ant1_2402_1000~26500



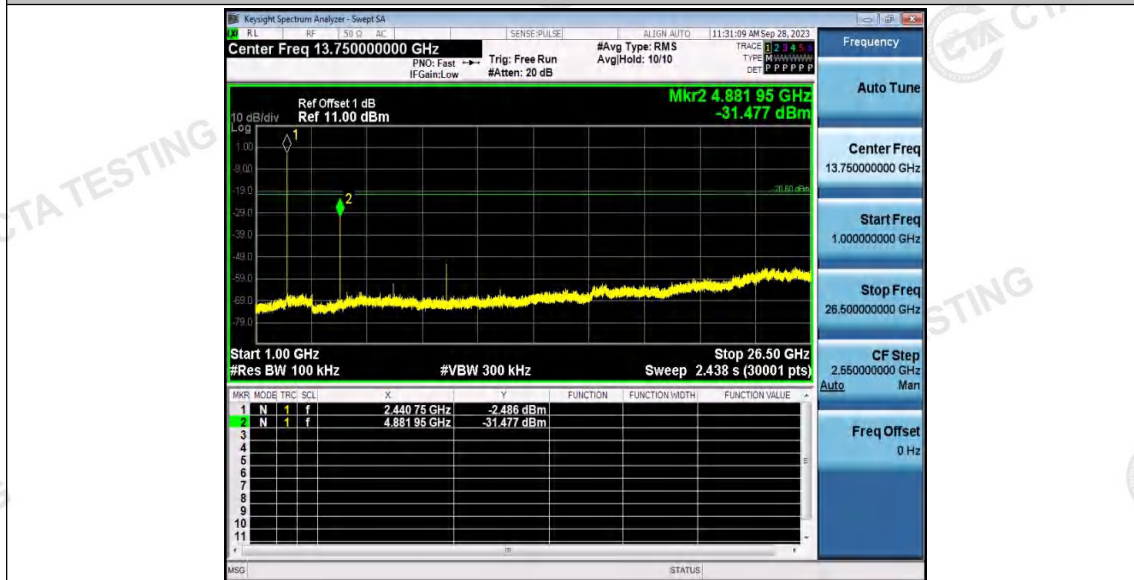
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500



3DH5_Ant1_2480_0~Reference



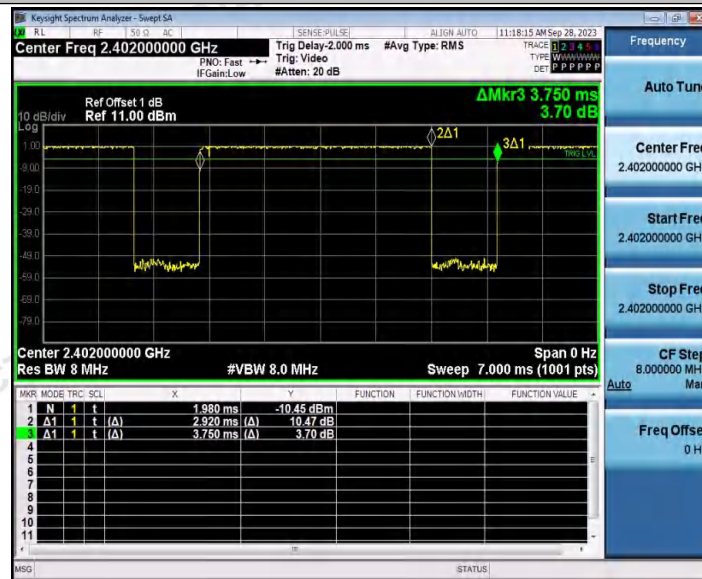
Appendix I: Duty Cycle

Test Result

Test Mode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
DH5	Ant1	2402	2.92	3.75	77.87	1.09
		2441	2.91	3.74	77.81	1.09
		2480	2.91	3.75	77.60	1.10
2DH5	Ant1	2402	2.92	3.74	78.07	1.08
		2441	2.92	3.74	78.07	1.08
		2480	2.92	3.75	77.87	1.09
3DH5	Ant1	2402	2.92	3.75	77.87	1.09
		2441	2.93	3.76	77.93	1.08
		2480	2.93	3.75	78.13	1.07

Test Graphs

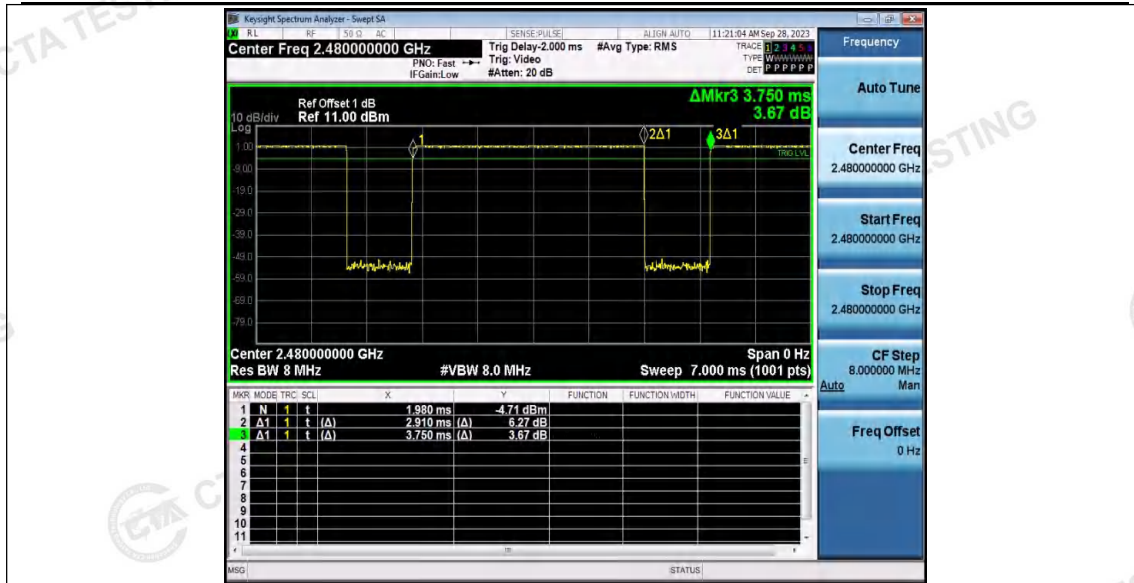
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



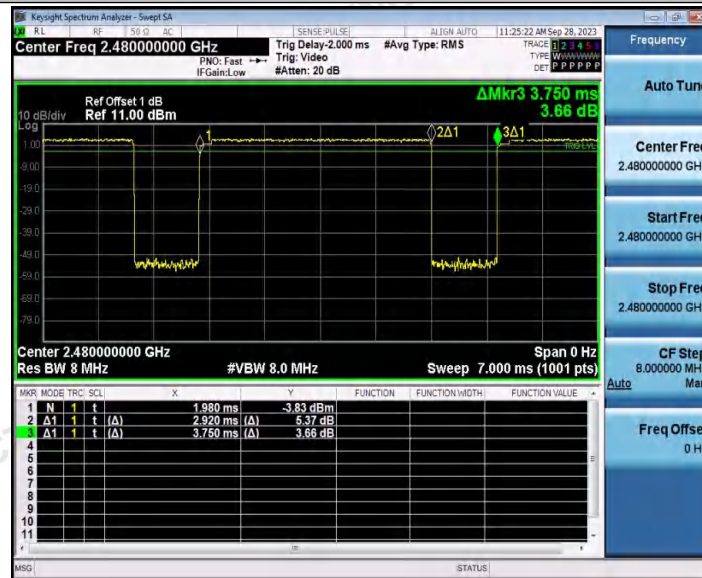
2DH5_Ant1_2402



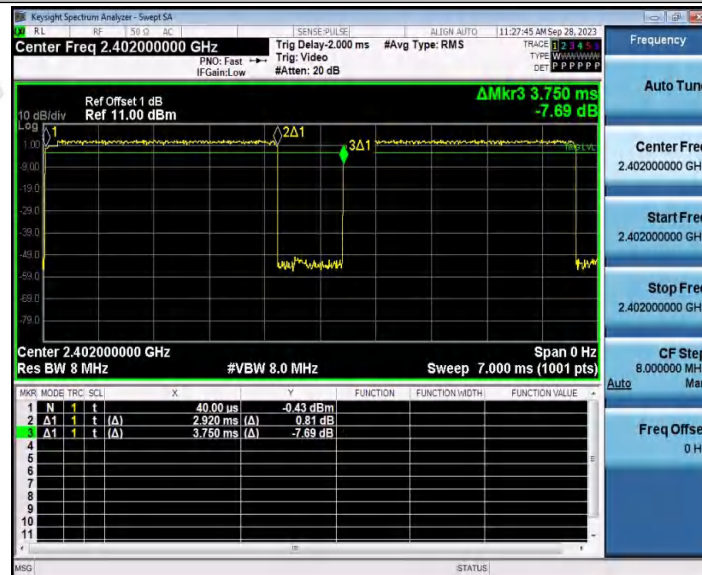
2DH5_Ant1_2441



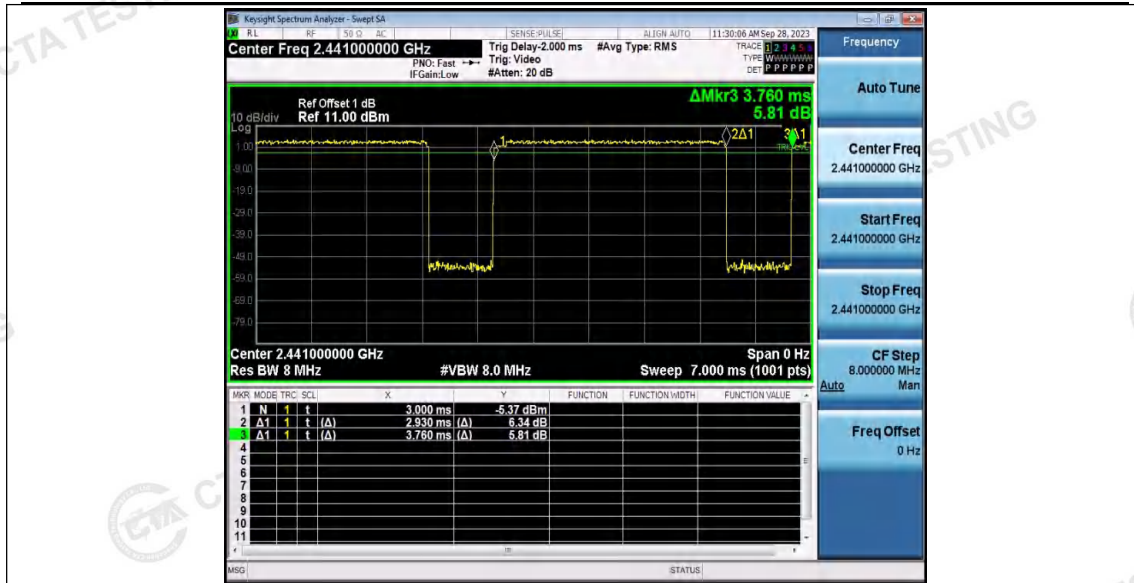
2DH5_Ant1_2480



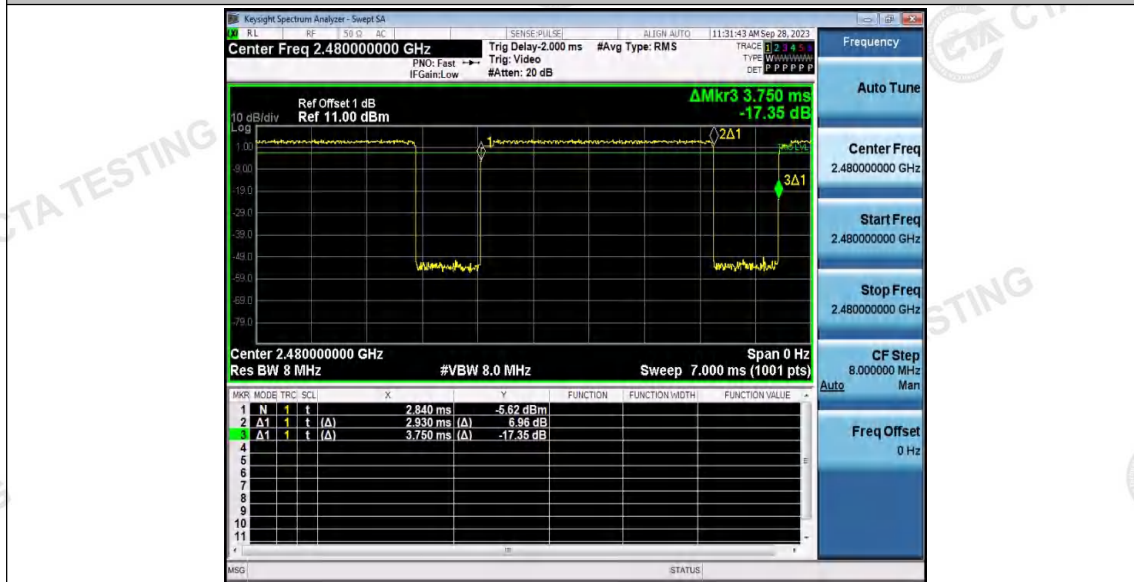
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



---End---