

Appendix: Bluetooth Classic

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## Appendix A: 20dB Emission Bandwidth

### Test Result

Test Mode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.951	2401.529	2402.480	---	PASS
		2441	0.954	2440.529	2441.483	---	PASS
		2480	0.954	2479.529	2480.483	---	PASS
2DH5	Ant1	2402	1.314	2401.334	2402.648	---	PASS
		2441	1.320	2440.331	2441.651	---	PASS
		2480	1.320	2479.331	2480.651	---	PASS
3DH5	Ant1	2402	1.278	2401.343	2402.621	---	PASS
		2441	1.278	2440.343	2441.621	---	PASS
		2480	1.281	2479.340	2480.621	---	PASS

## Test Graphs



DH5\_Ant1\_2402



DH5\_Ant1\_2441



DH5\_Ant1\_2480



2DH5\_Ant1\_2402

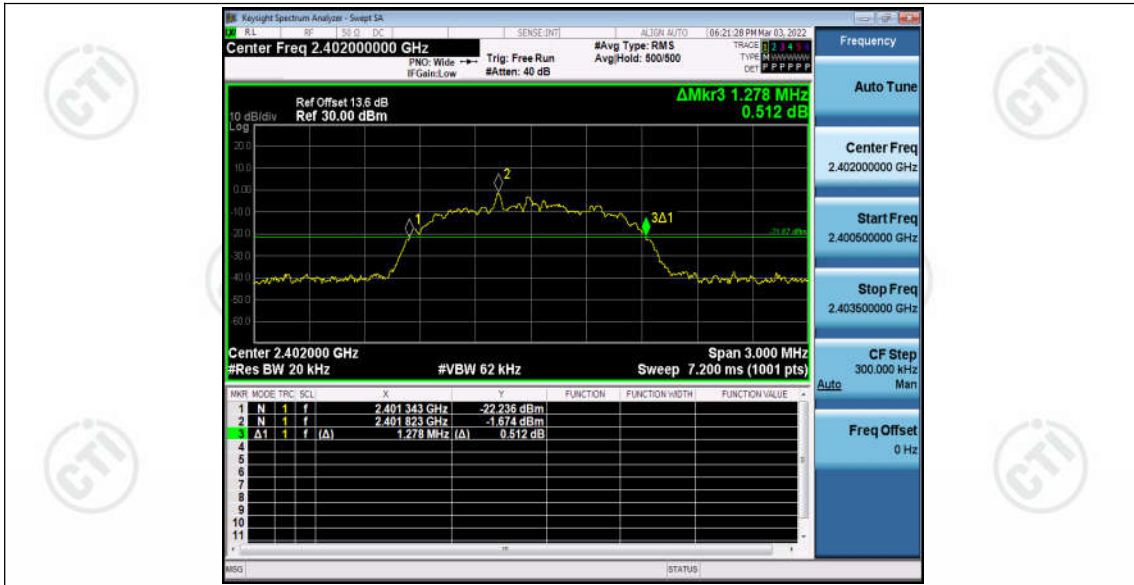




2DH5\_Ant1\_2441



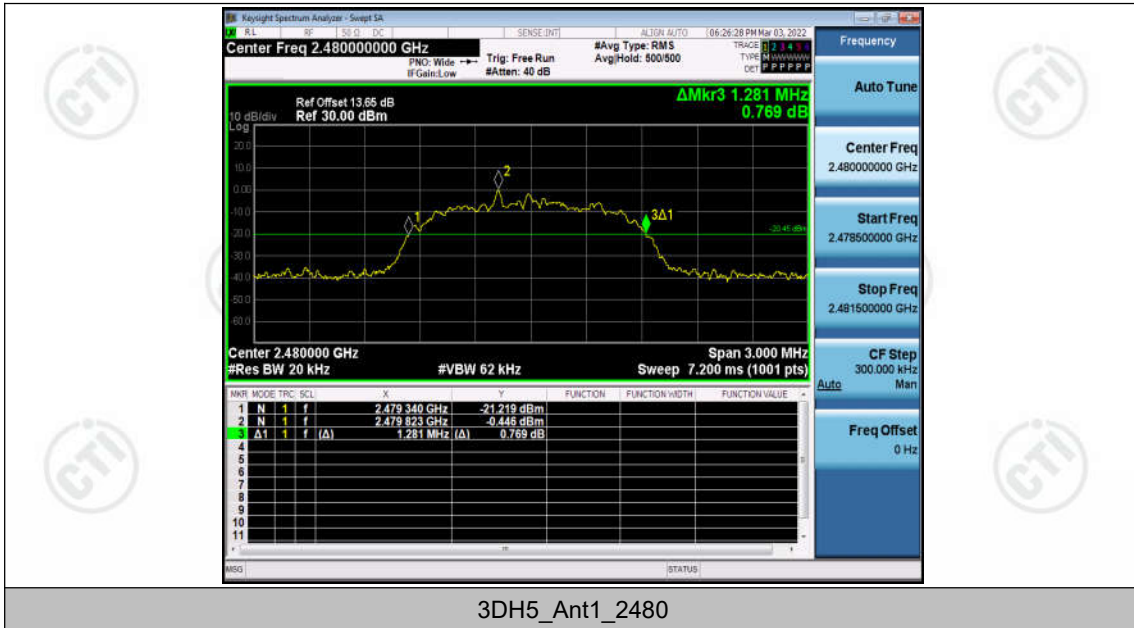
2DH5\_Ant1\_2480



3DH5\_Ant1\_2402



3DH5\_Ant1\_2441



3DH5\_Ant1\_2480



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

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86667	2401.554	2402.421	---	PASS
		2441	0.86807	2440.554	2441.422	---	PASS
		2480	0.87338	2479.550	2480.424	---	PASS
2DH5	Ant1	2402	1.1927	2401.403	2402.595	---	PASS
		2441	1.1916	2440.401	2441.593	---	PASS
		2480	1.1929	2479.400	2480.593	---	PASS
3DH5	Ant1	2402	1.1917	2401.389	2402.581	---	PASS
		2441	1.1954	2440.386	2441.581	---	PASS
		2480	1.2002	2479.383	2480.583	---	PASS

## Test Graphs



DH5\_Ant1\_2402



DH5\_Ant1\_2441



DH5\_Ant1\_2480



2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



2DH5\_Ant1\_2480

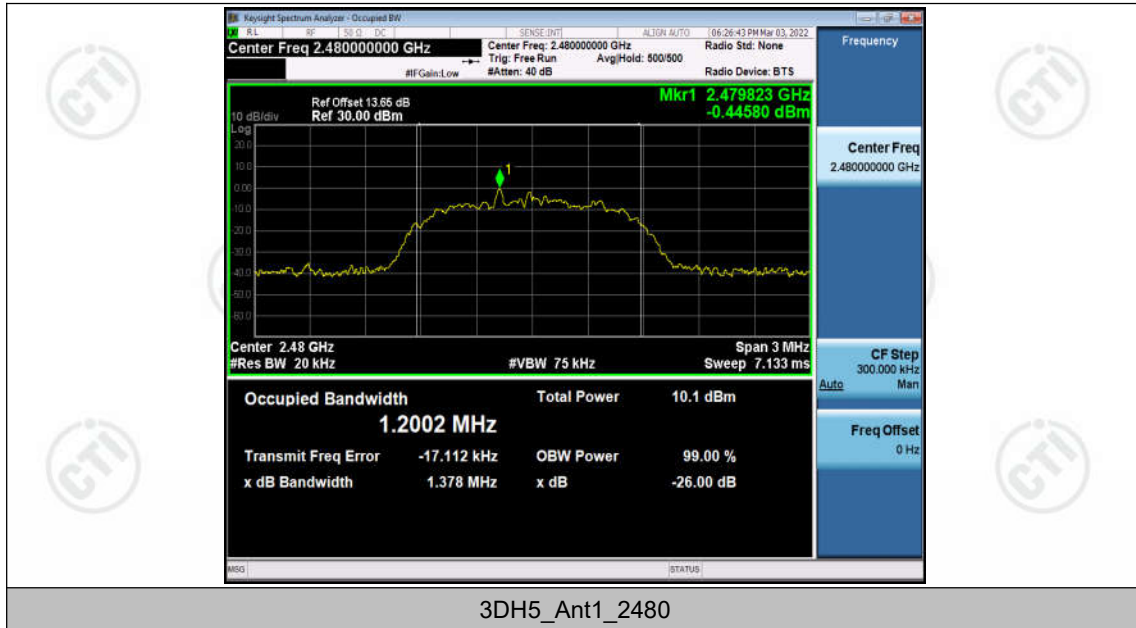


3DH5\_Ant1\_2402



3DH5\_Ant1\_2441





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

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	2.37	<=20.97	PASS
		2441	3.23	<=20.97	PASS
		2480	3.56	<=20.97	PASS
2DH5	Ant1	2402	3.81	<=20.97	PASS
		2441	4.48	<=20.97	PASS
		2480	4.82	<=20.97	PASS
3DH5	Ant1	2402	4.06	<=20.97	PASS
		2441	4.98	<=20.97	PASS
		2480	5.28	<=20.97	PASS

## Test Graphs



DH5\_Ant1\_2402



DH5\_Ant1\_2441



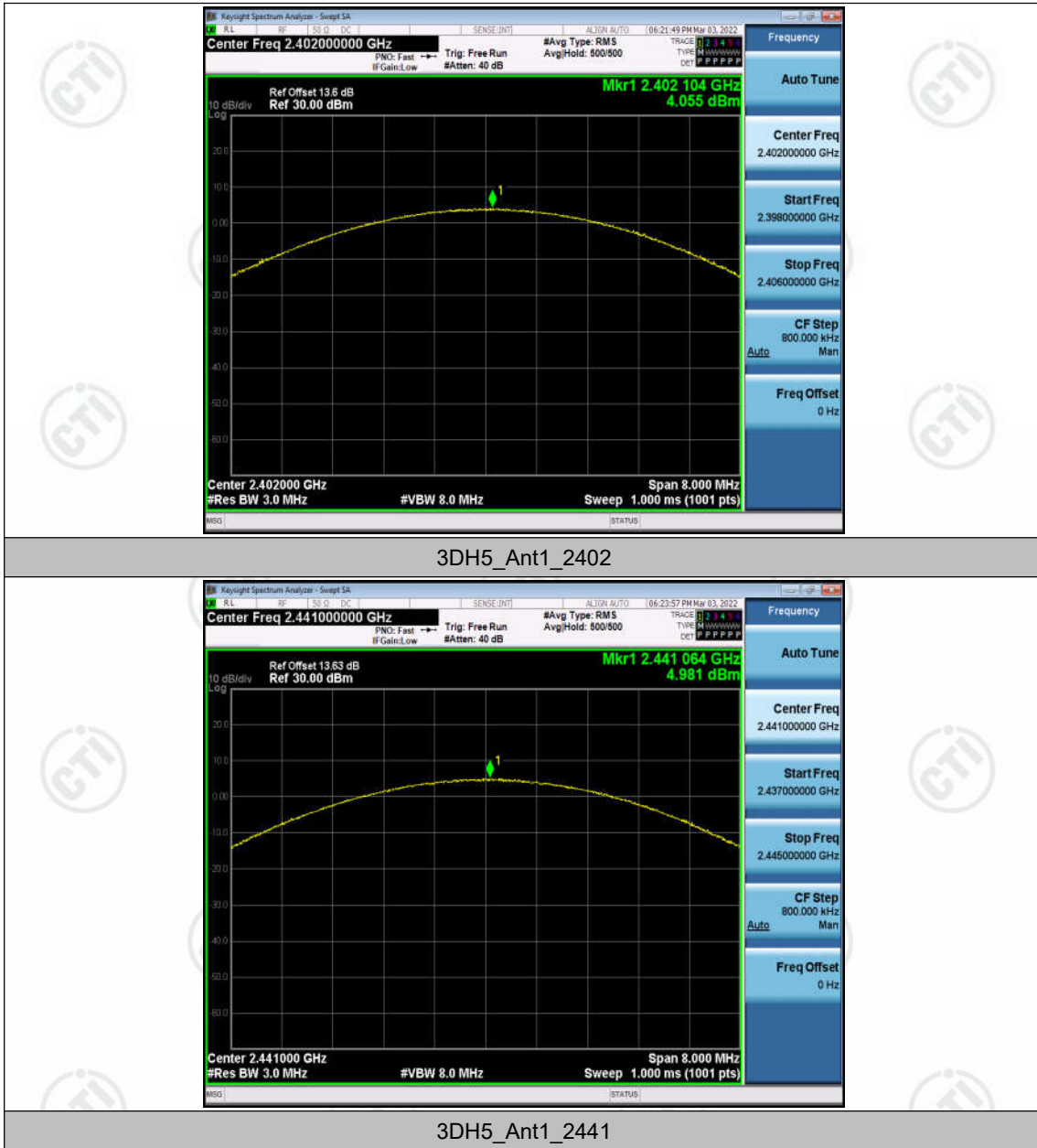
DH5\_Ant1\_2480

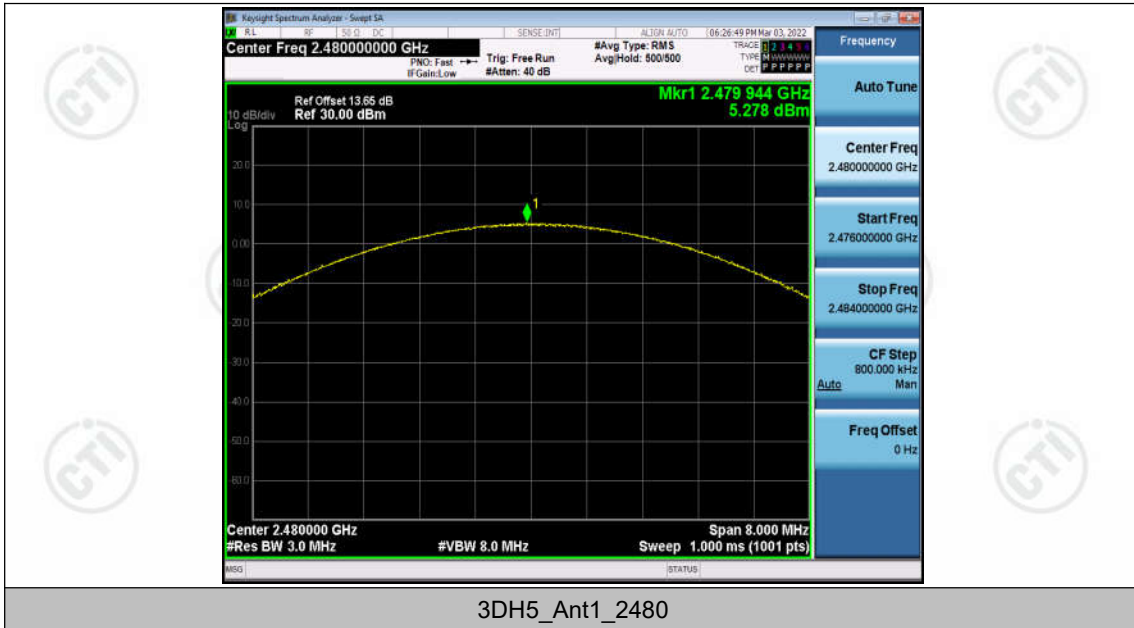


2DH5\_Ant1\_2402





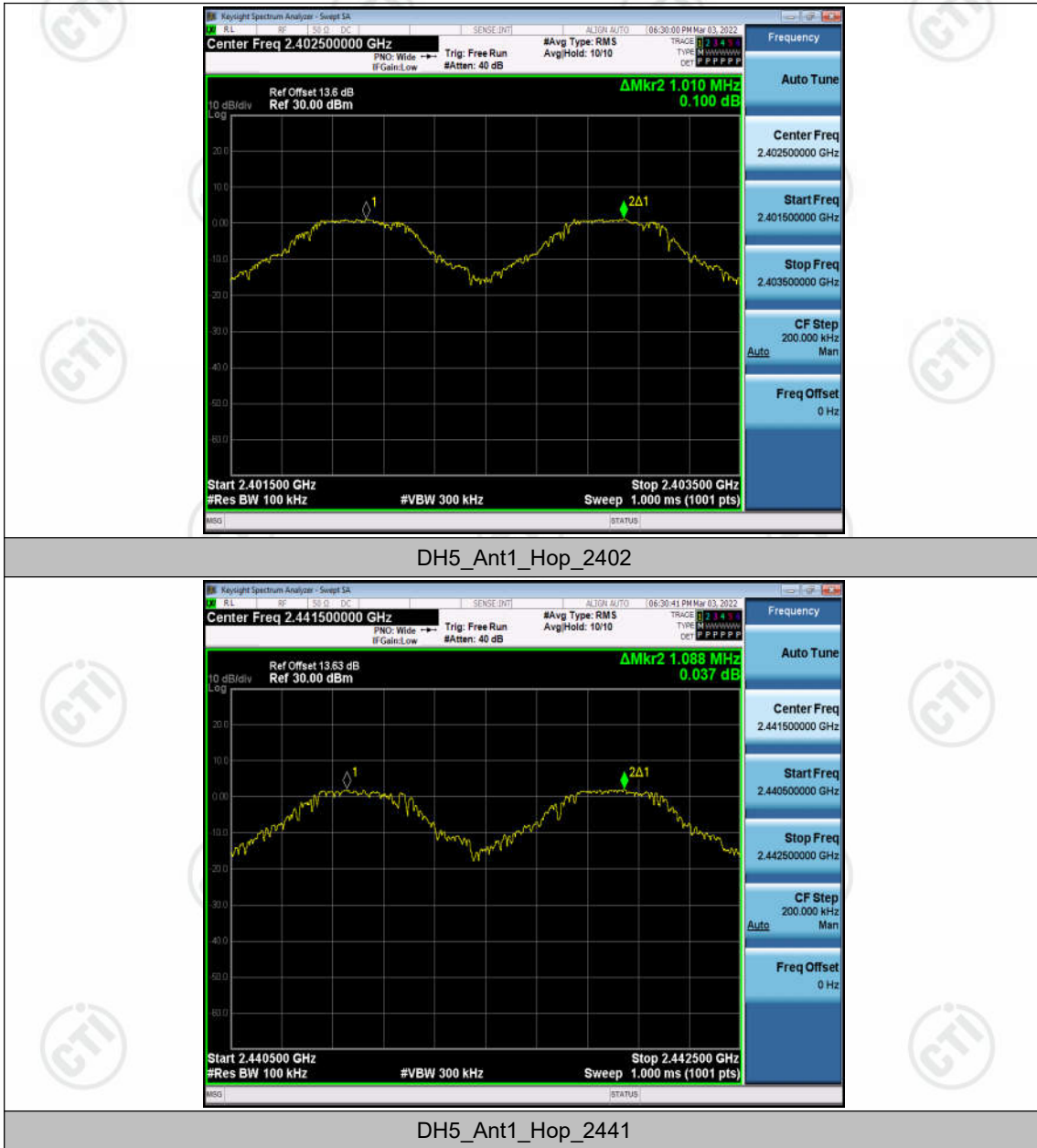




**Appendix D: Carrier frequency separation****Test Result**

Test Mode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop_2402	1.01	$\geq 0.954$	PASS
		Hop_2441	1.088	$\geq 0.954$	PASS
		Hop_2480	1.002	$\geq 0.954$	PASS
2DH5	Ant1	Hop_2402	0.99	$\geq 0.880$	PASS
		Hop_2441	0.996	$\geq 0.880$	PASS
		Hop_2480	0.964	$\geq 0.880$	PASS
3DH5	Ant1	Hop_2402	1.008	$\geq 0.854$	PASS
		Hop_2441	1	$\geq 0.854$	PASS
		Hop_2480	1.012	$\geq 0.854$	PASS

## Test Graphs



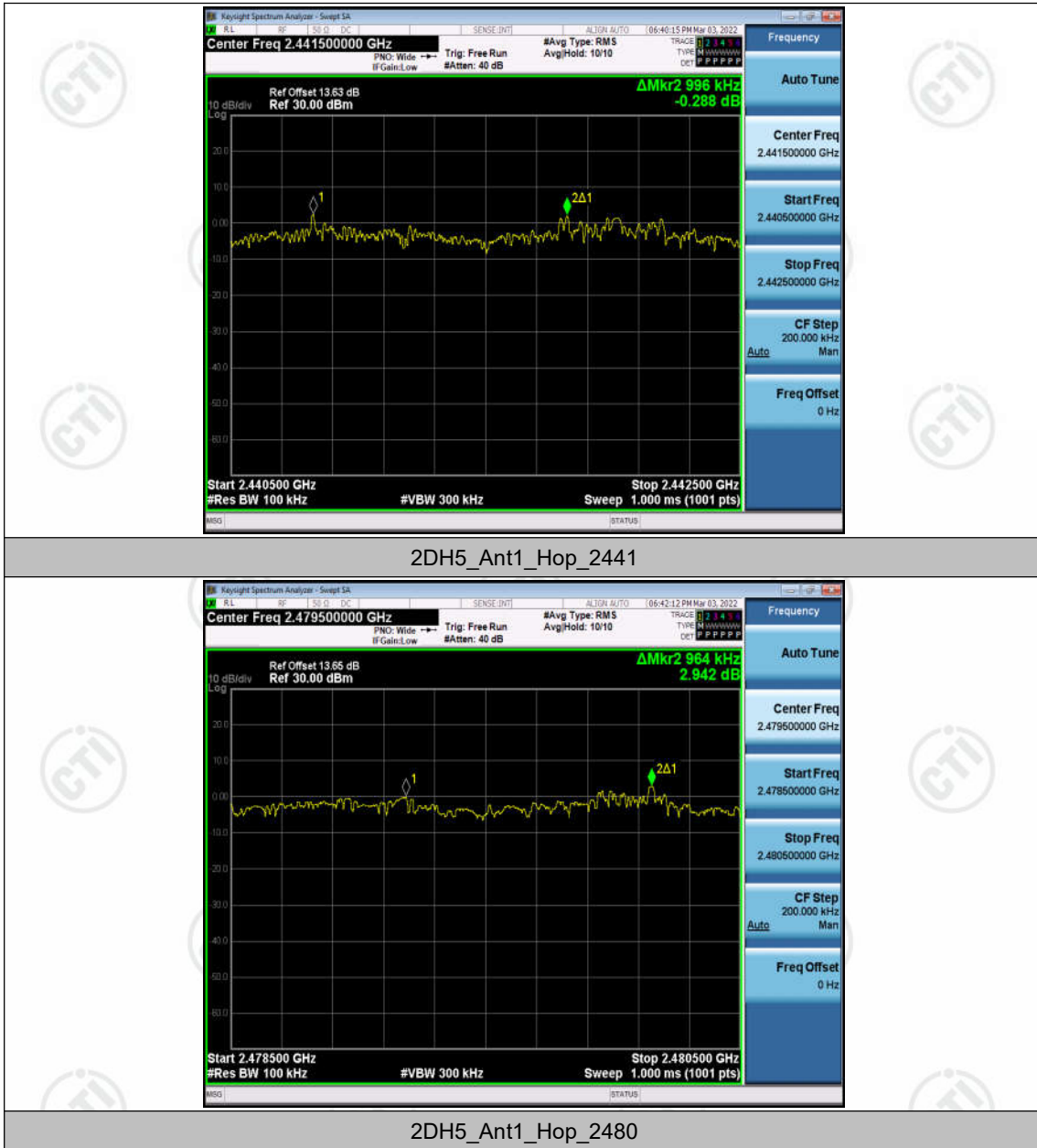


DH5\_Ant1\_Hop\_2480



2DH5\_Ant1\_Hop\_2402



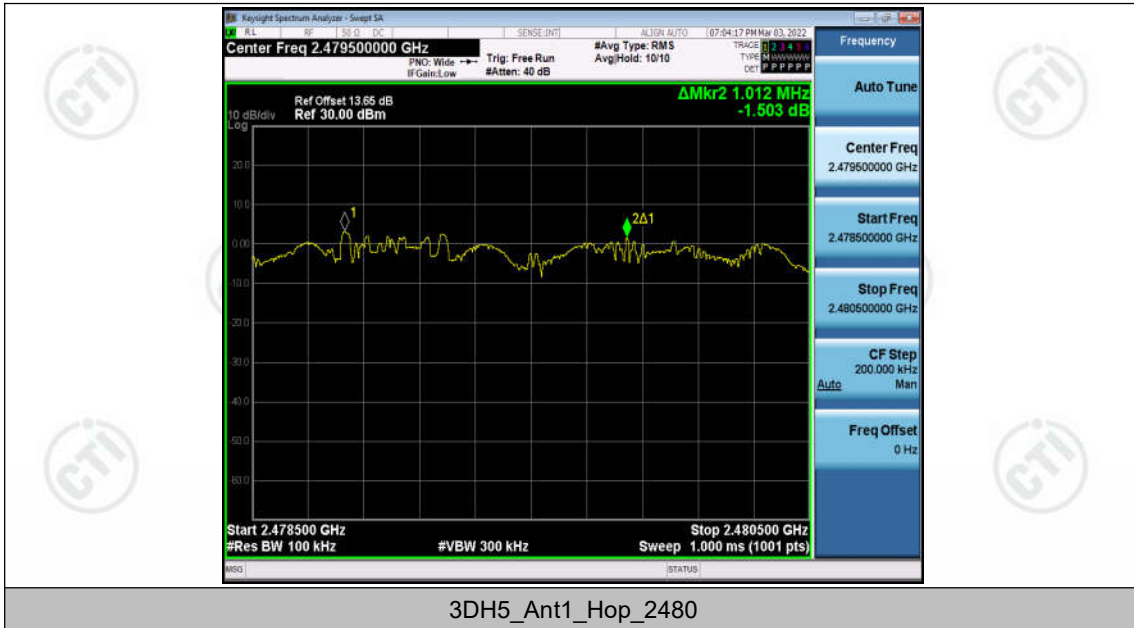




3DH5\_Ant1\_Hop\_2402



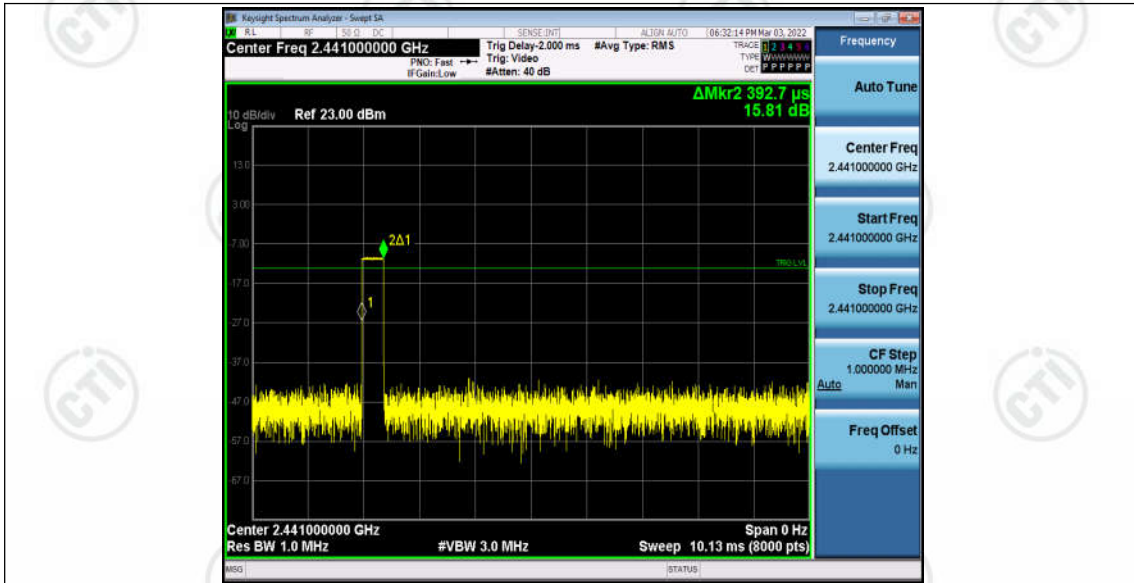
3DH5\_Ant1\_Hop\_2441



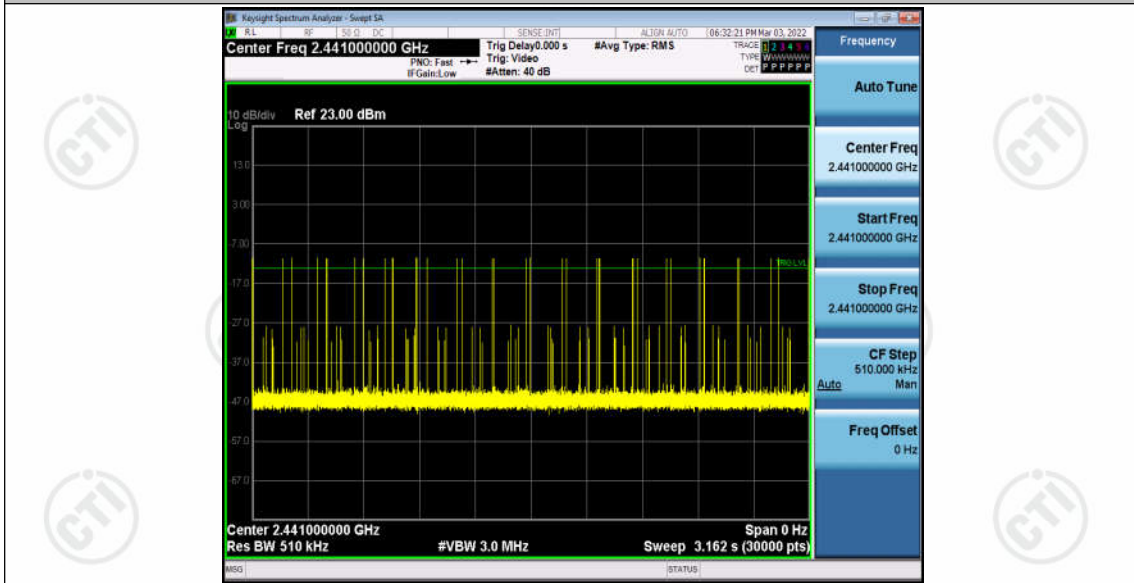
**Appendix E: Time of occupancy****Test Result**

Test Mode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.39	330	0.13	<=0.4	PASS
DH3	Ant1	Hop	1.65	160	0.264	<=0.4	PASS
DH5	Ant1	Hop	2.89	100	0.289	<=0.4	PASS
2DH1	Ant1	Hop	0.40	330	0.133	<=0.4	PASS
2DH3	Ant1	Hop	1.65	190	0.314	<=0.4	PASS
2DH5	Ant1	Hop	2.90	70	0.203	<=0.4	PASS
3DH1	Ant1	Hop	0.40	330	0.133	<=0.4	PASS
3DH3	Ant1	Hop	1.65	160	0.264	<=0.4	PASS
3DH5	Ant1	Hop	2.90	120	0.349	<=0.4	PASS

## Test Graphs

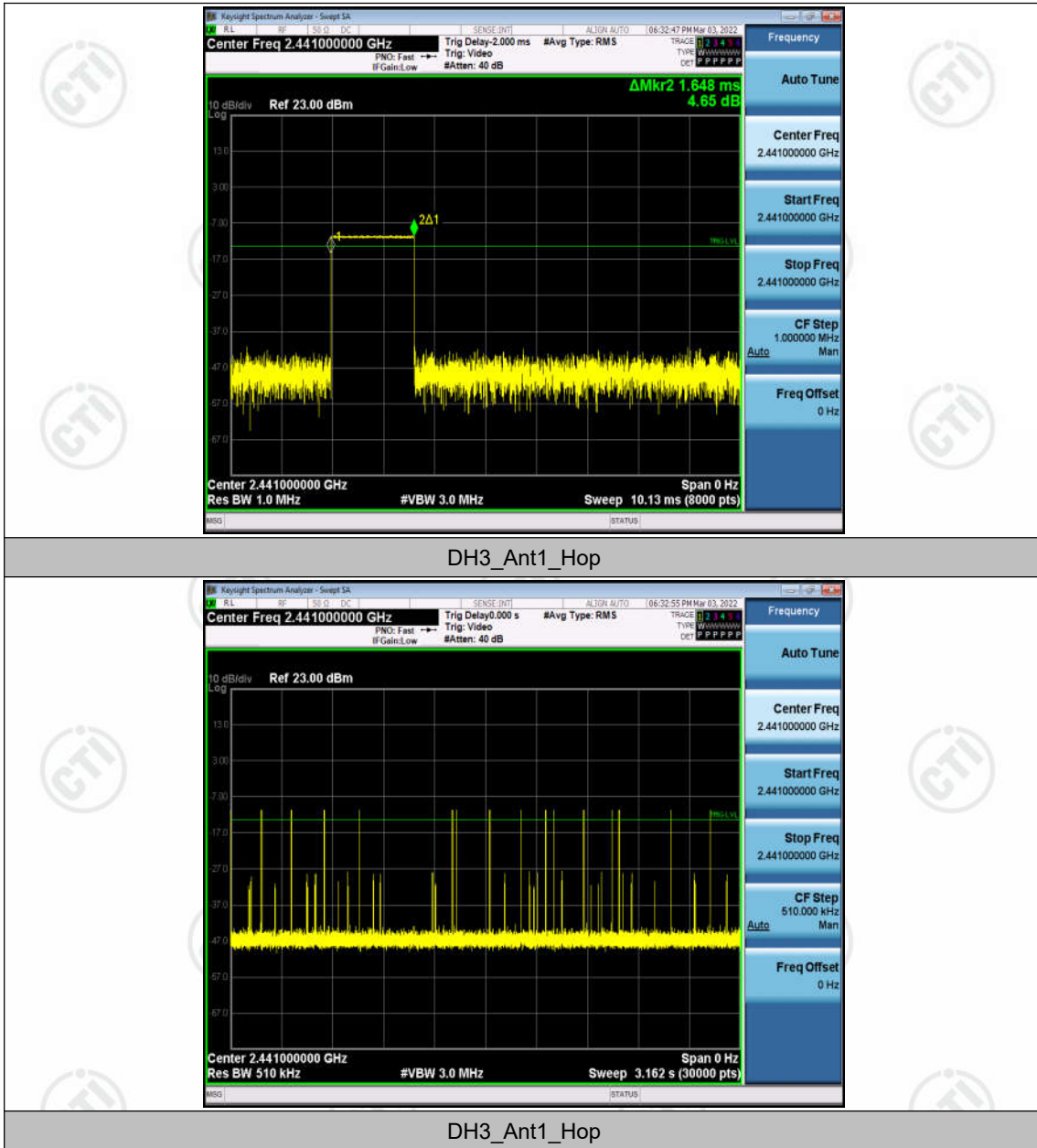


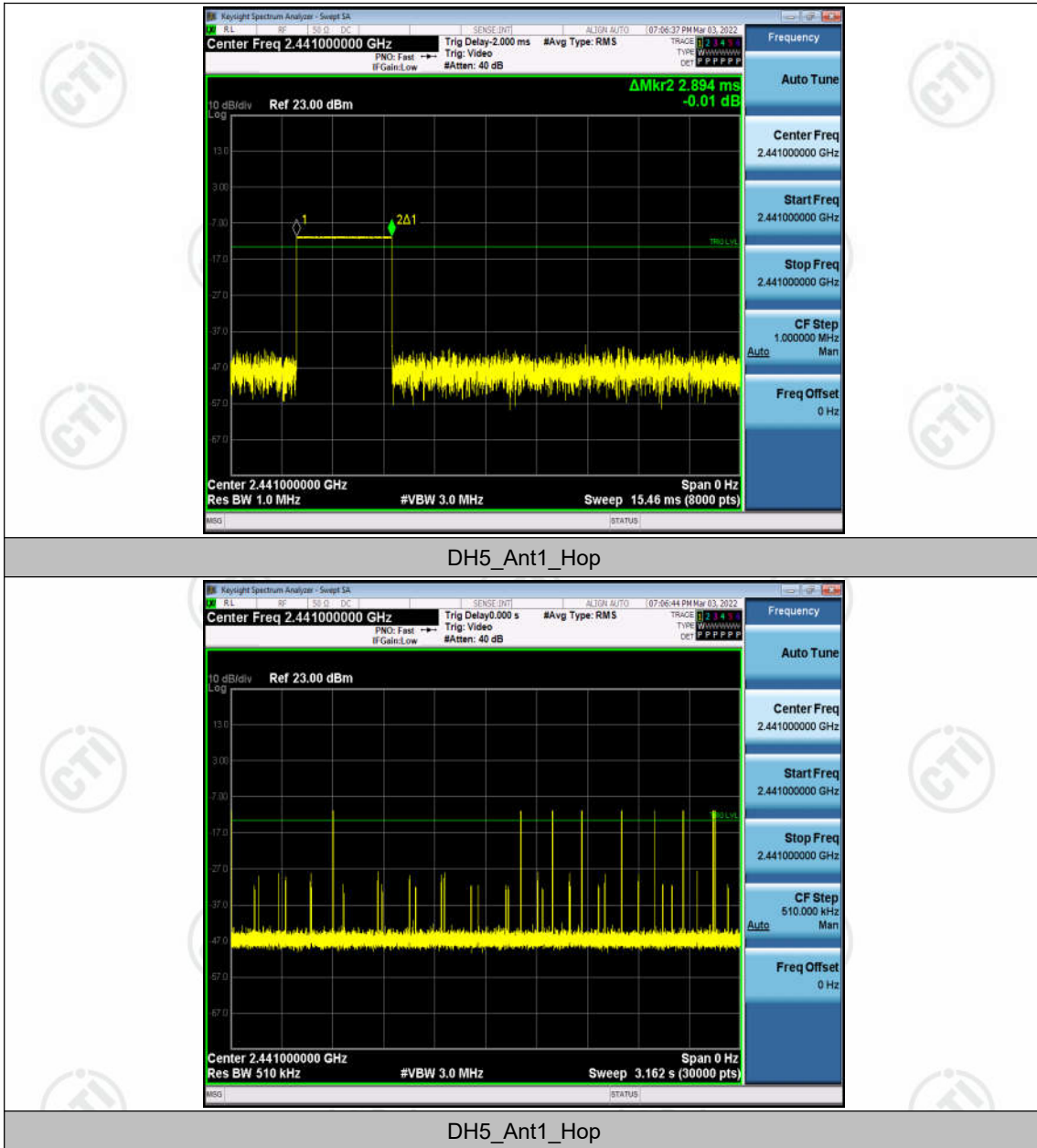
DH1\_Ant1\_Hop

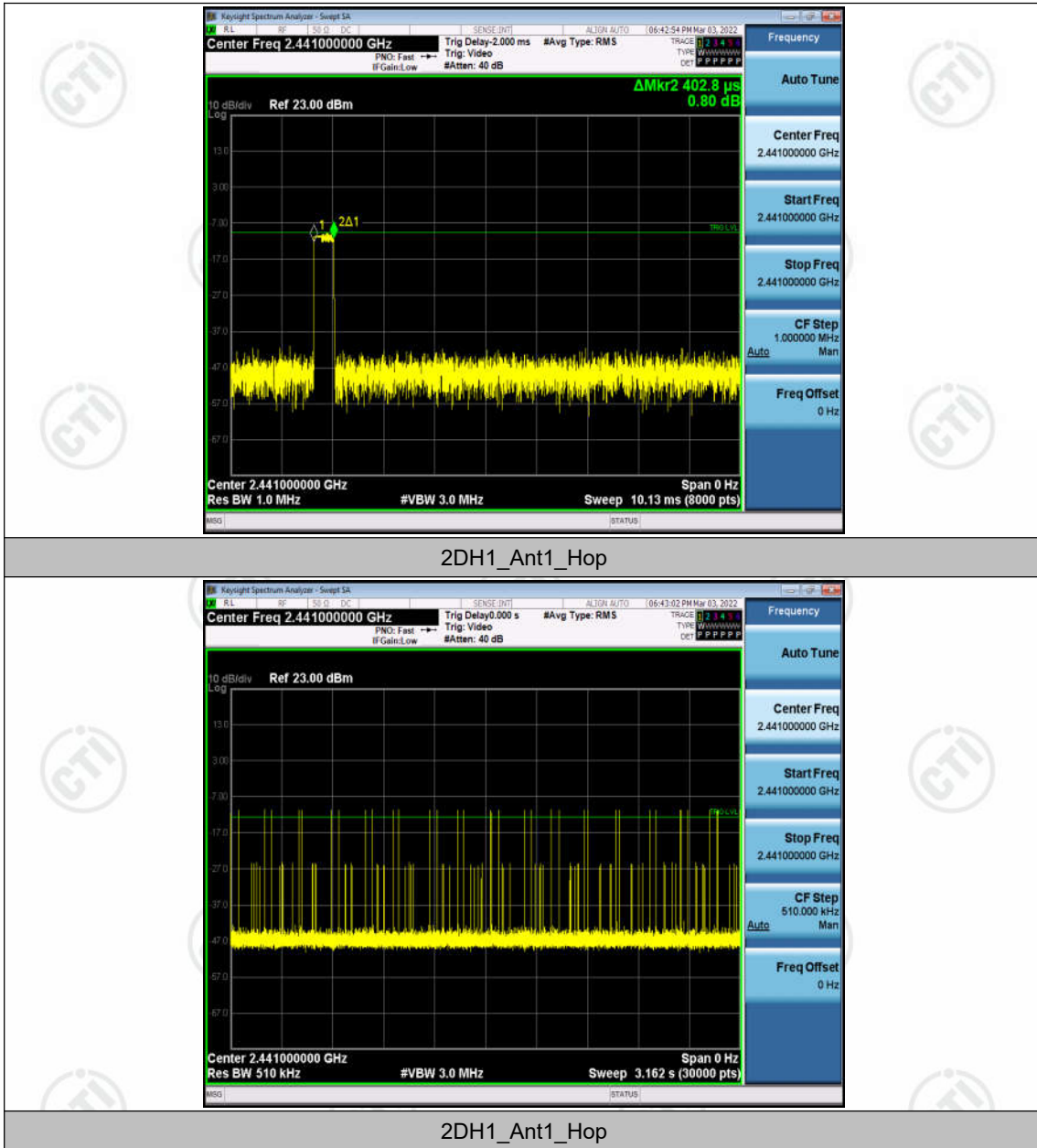


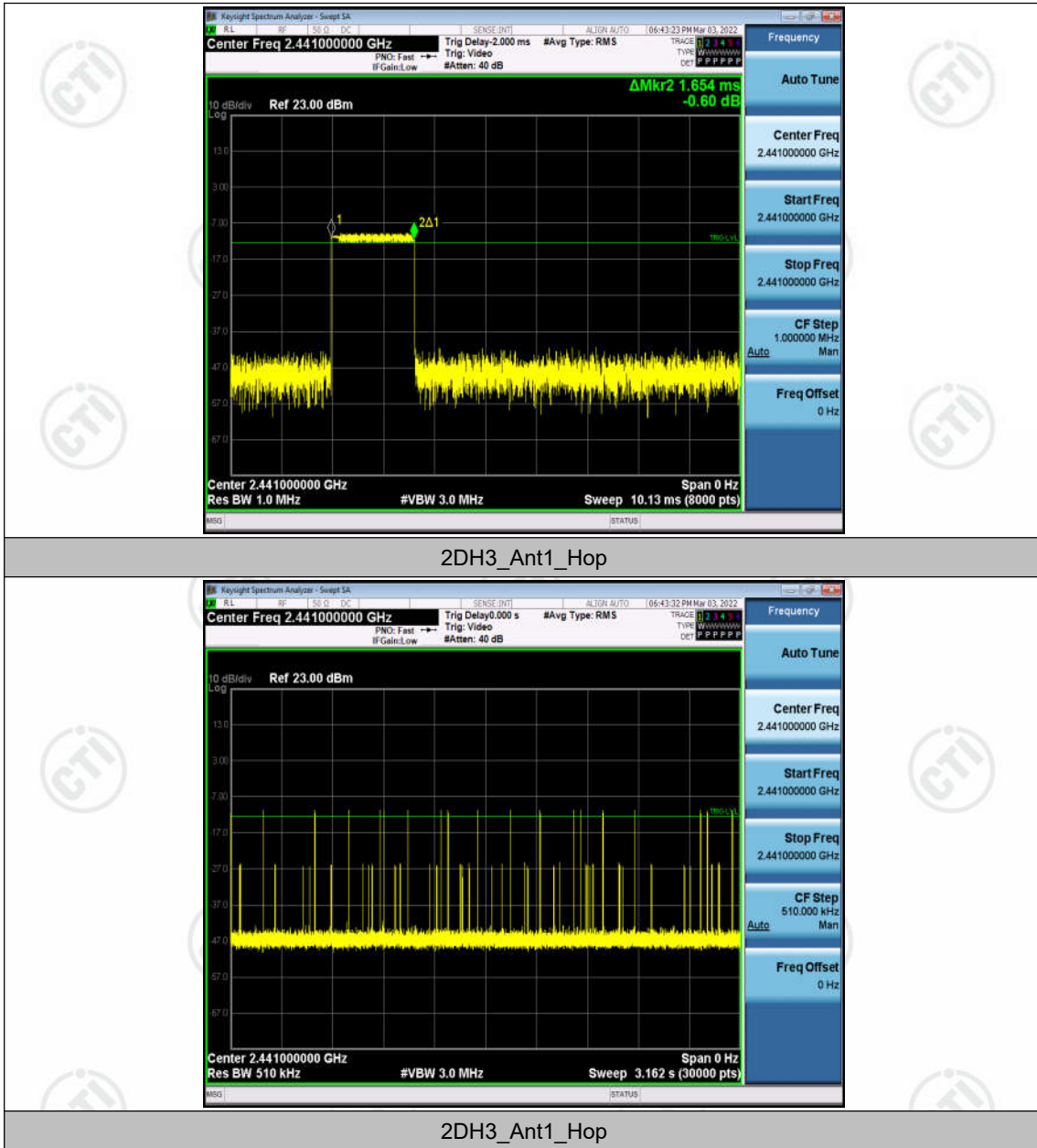
DH1\_Ant1\_Hop



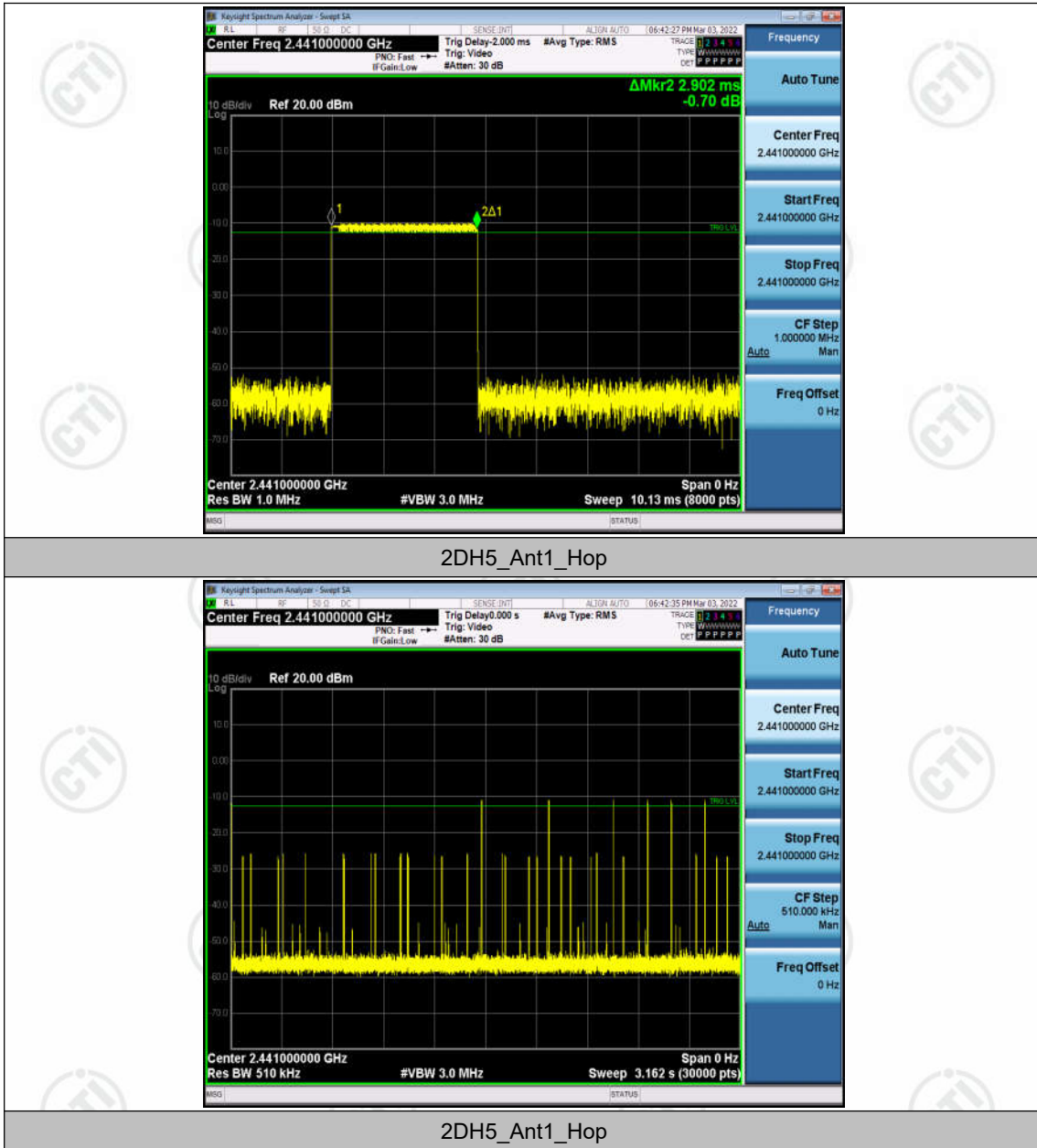




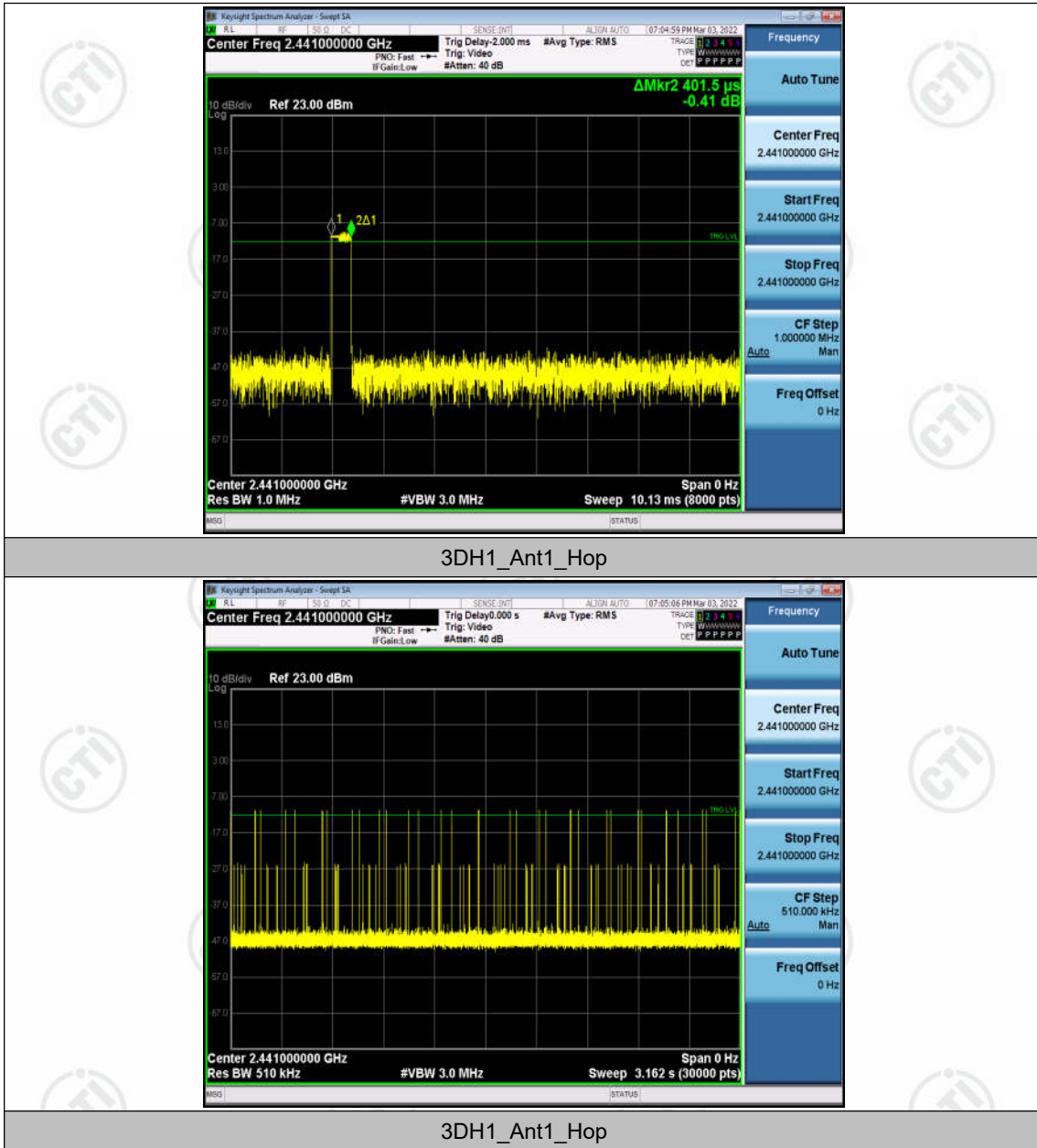






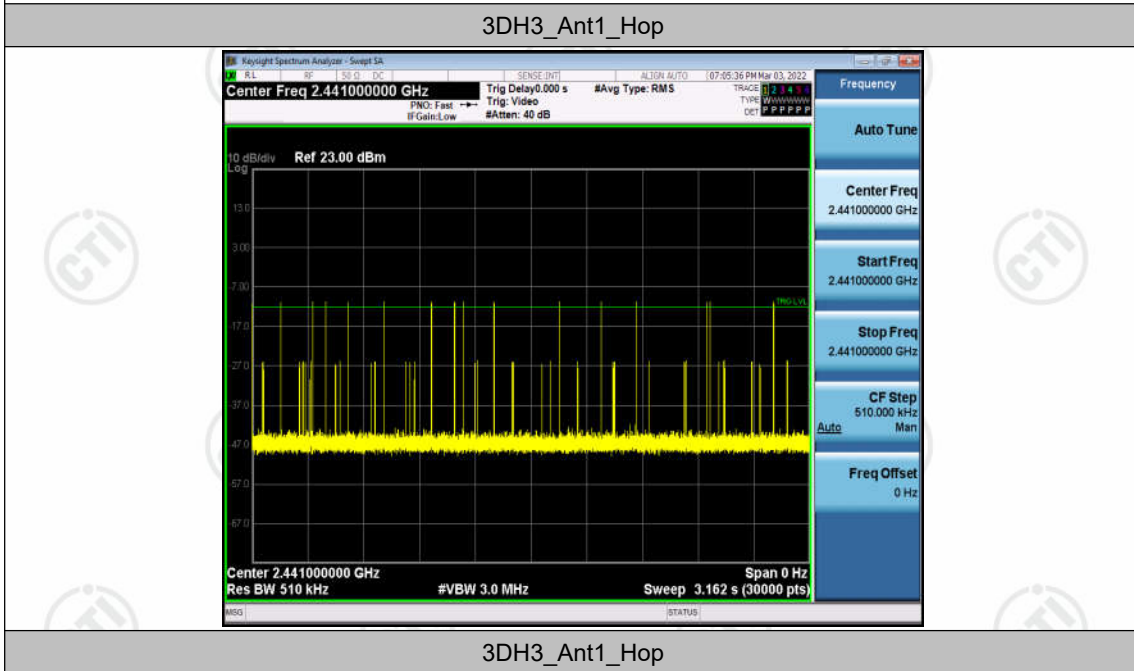
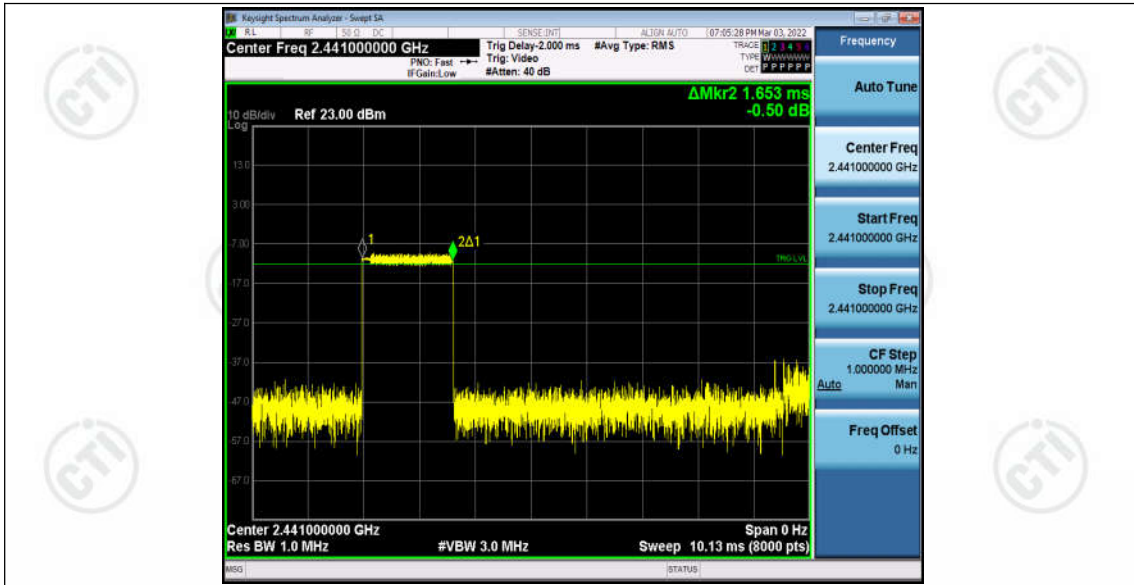


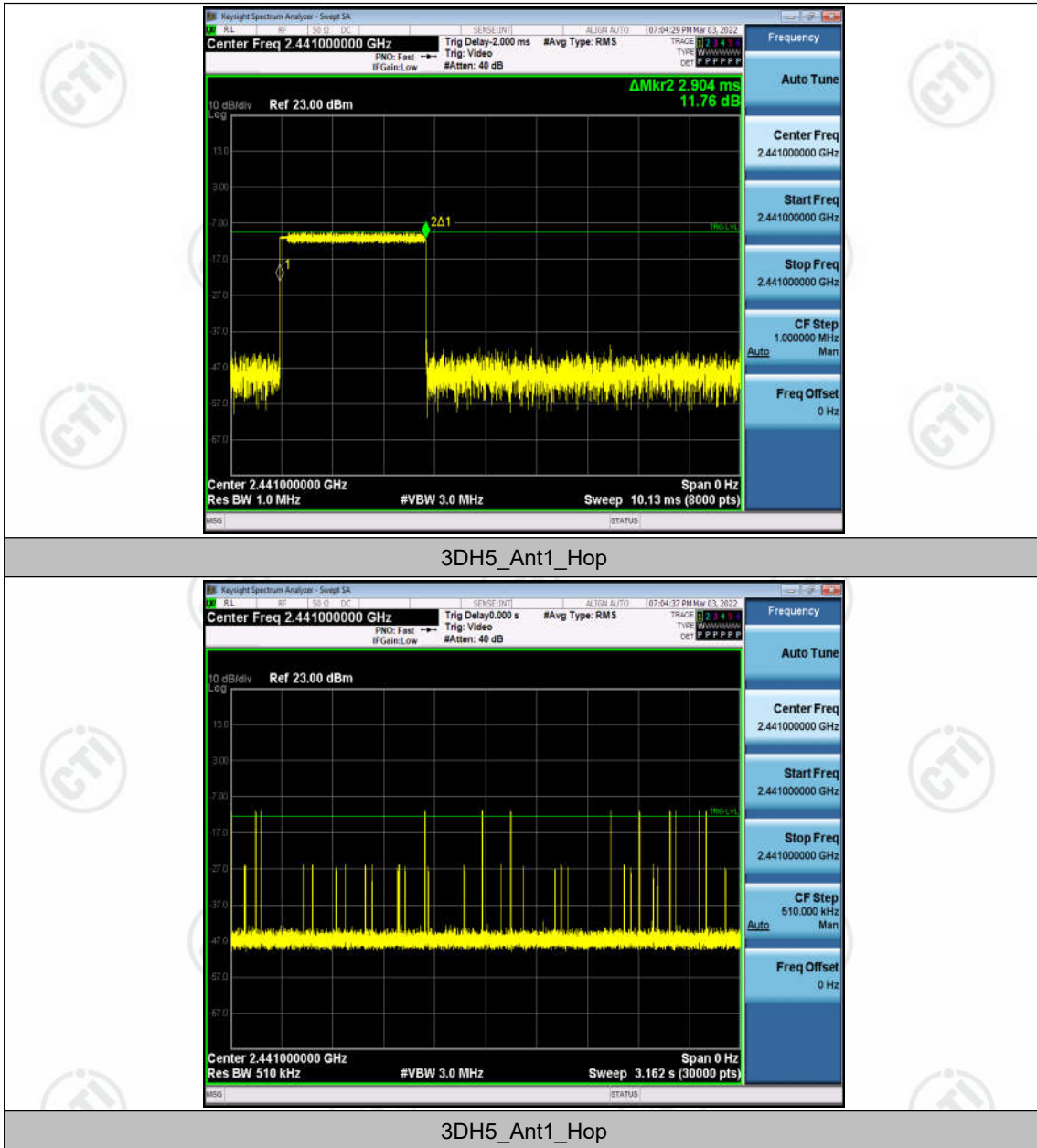




3DH1\_Ant1\_Hop

3DH1\_Ant1\_Hop

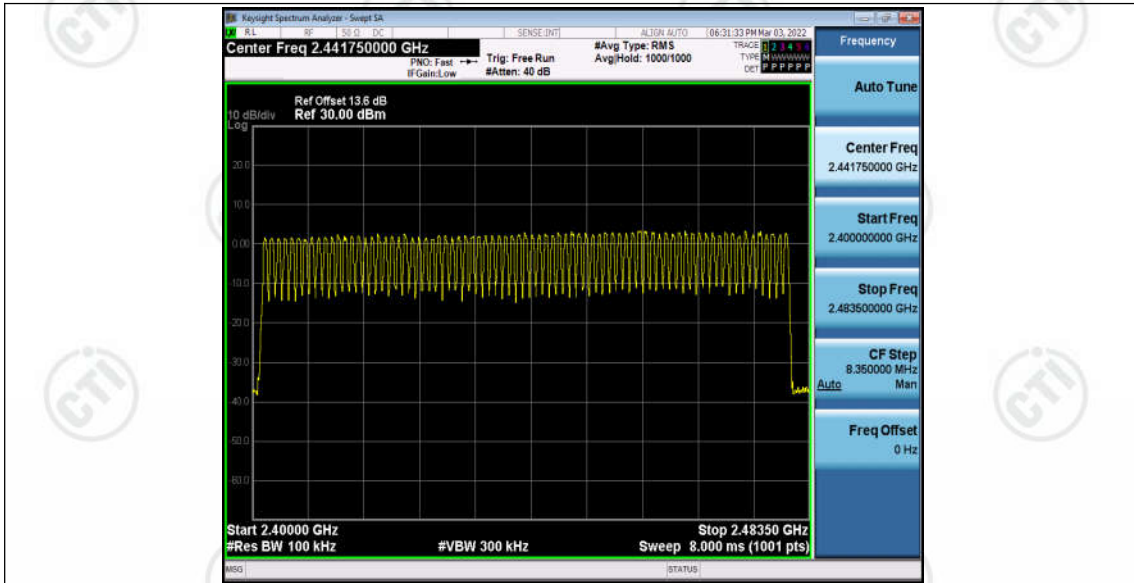




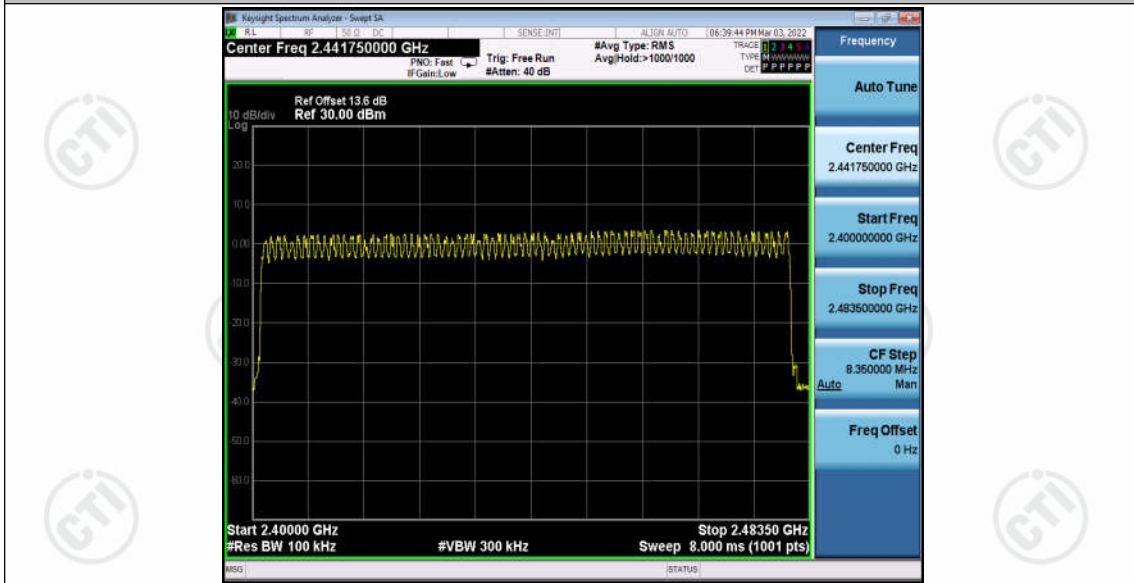
**Appendix F: Number of hopping channels****Test Result**

Test Mode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	$\geq 15$	PASS
2DH5	Ant1	Hop	79	$\geq 15$	PASS
3DH5	Ant1	Hop	79	$\geq 15$	PASS

## Test Graphs

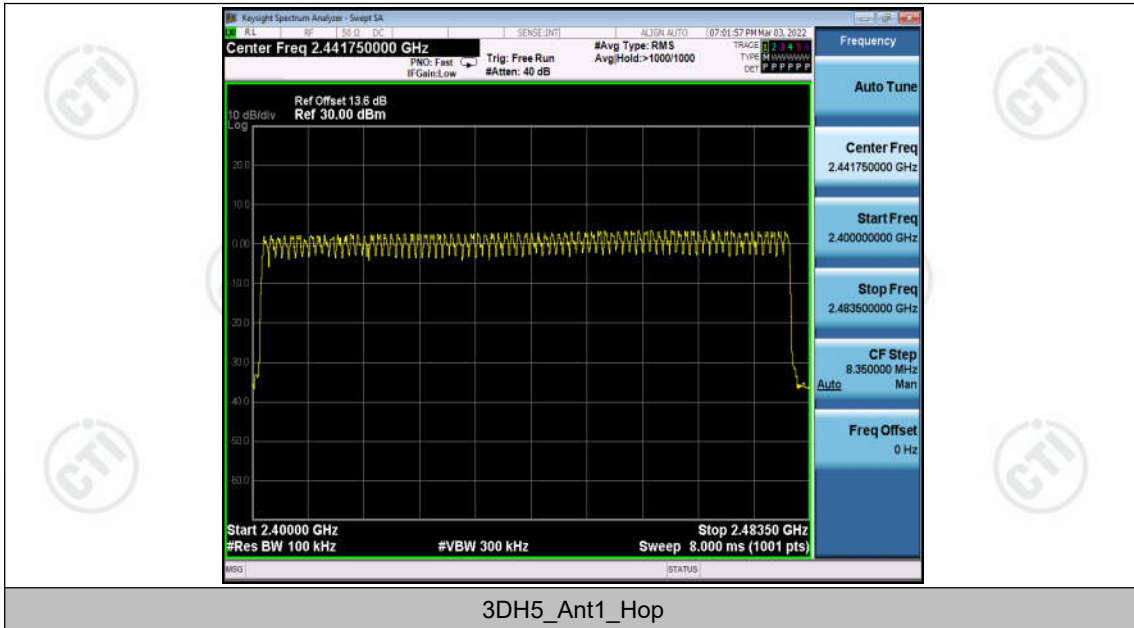


DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop





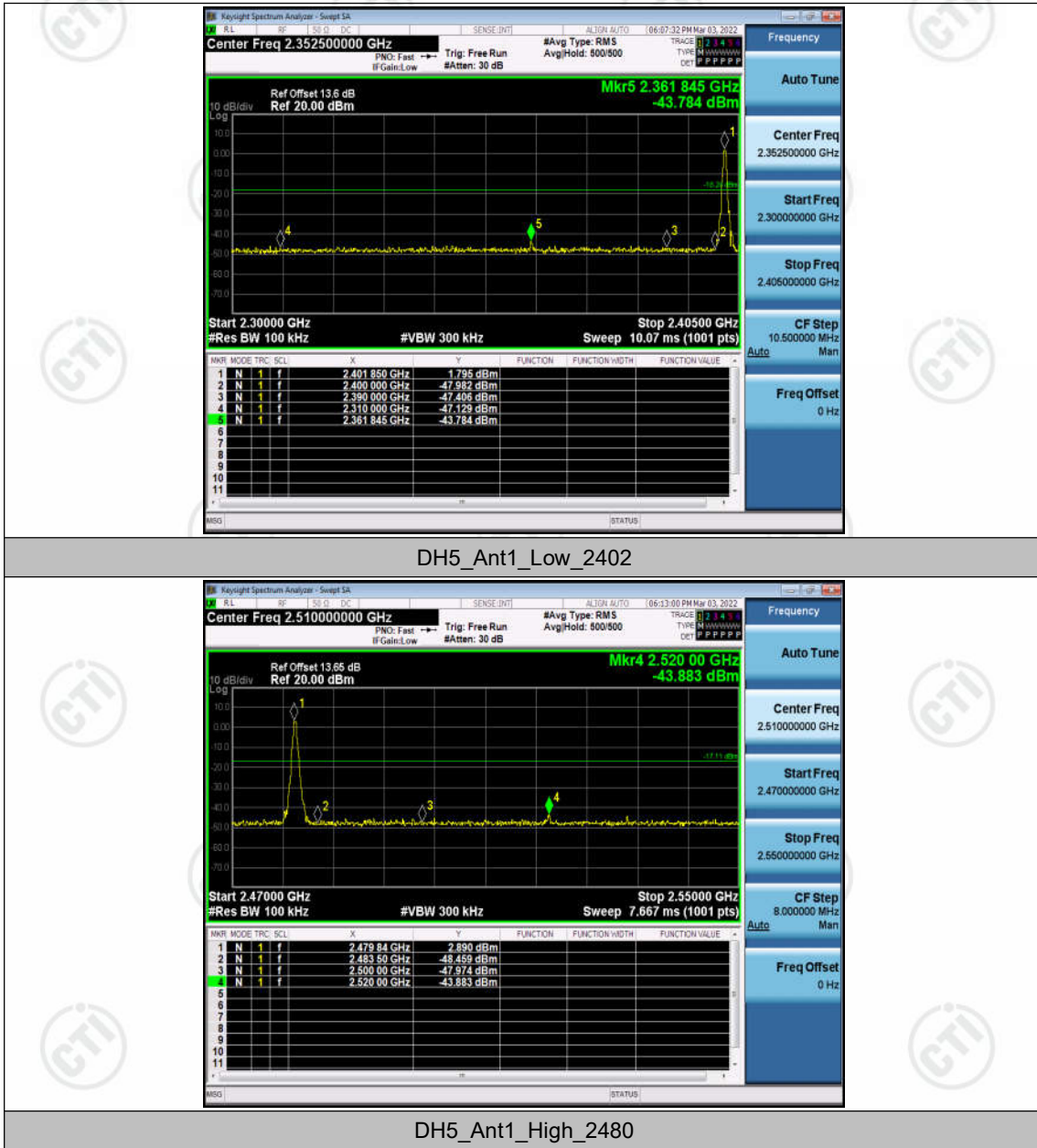
3DH5\_Ant1\_Hop

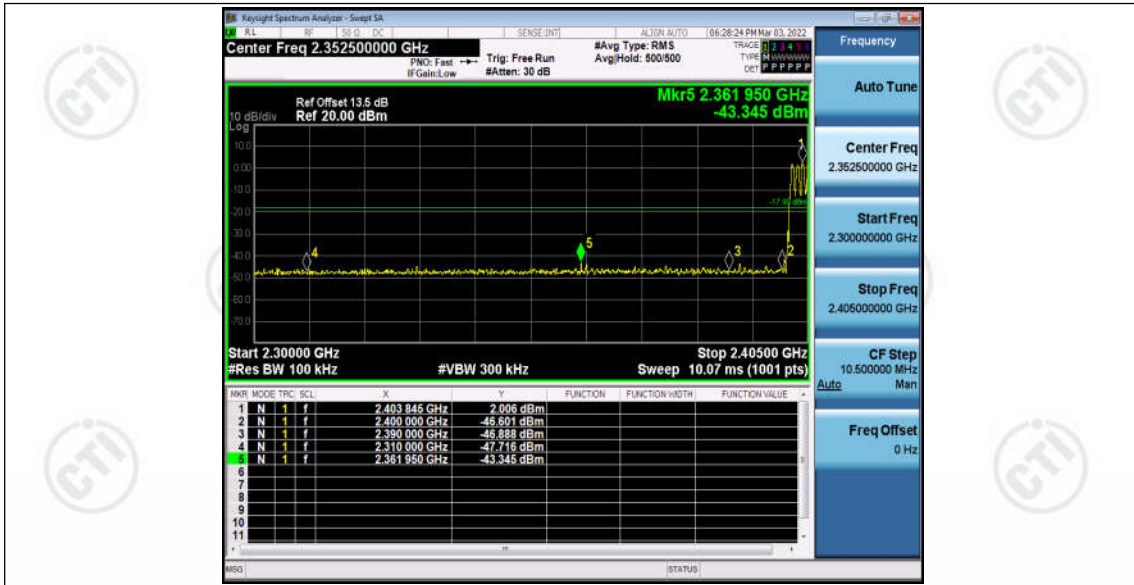
## Appendix G:Band edge measurements

### Test Result

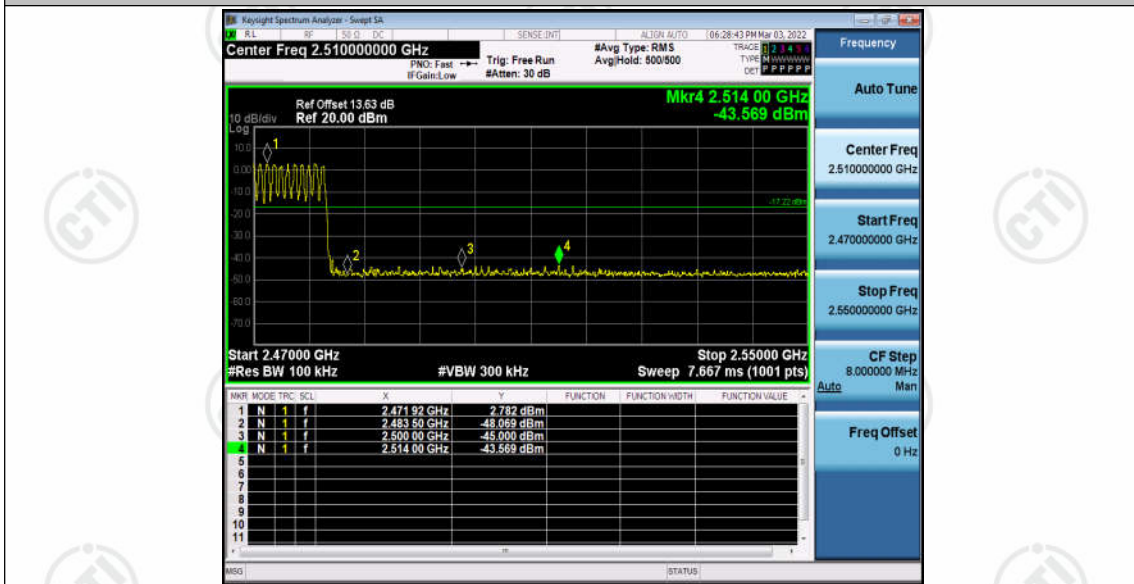
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	1.80	-43.78	<=-18.2	PASS
		High	2480	2.89	-43.88	<=-17.11	PASS
		Low	Hop_2402	2.01	-43.35	<=-17.99	PASS
		High	Hop_2480	2.78	-43.57	<=-17.22	PASS
2DH5	Ant1	Low	2402	1.77	-44.88	<=-18.24	PASS
		High	2480	3.02	-44.73	<=-16.98	PASS
		Low	Hop_2402	1.88	-44.95	<=-18.12	PASS
		High	Hop_2480	3.23	-43.97	<=-16.77	PASS
3DH5	Ant1	Low	2402	1.78	-45.18	<=-18.22	PASS
		High	2480	2.29	-45.39	<=-17.72	PASS
		Low	Hop_2402	1.89	-43.35	<=-18.11	PASS
		High	Hop_2480	3.15	-42.92	<=-16.85	PASS

## Test Graphs



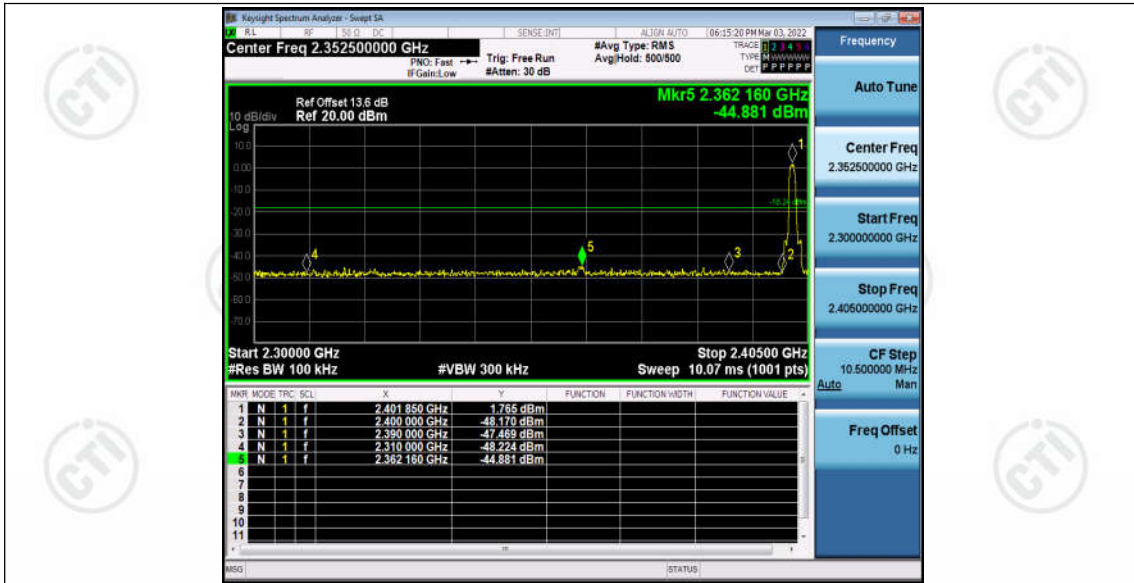


DH5\_Ant1\_Low\_Hop\_2402

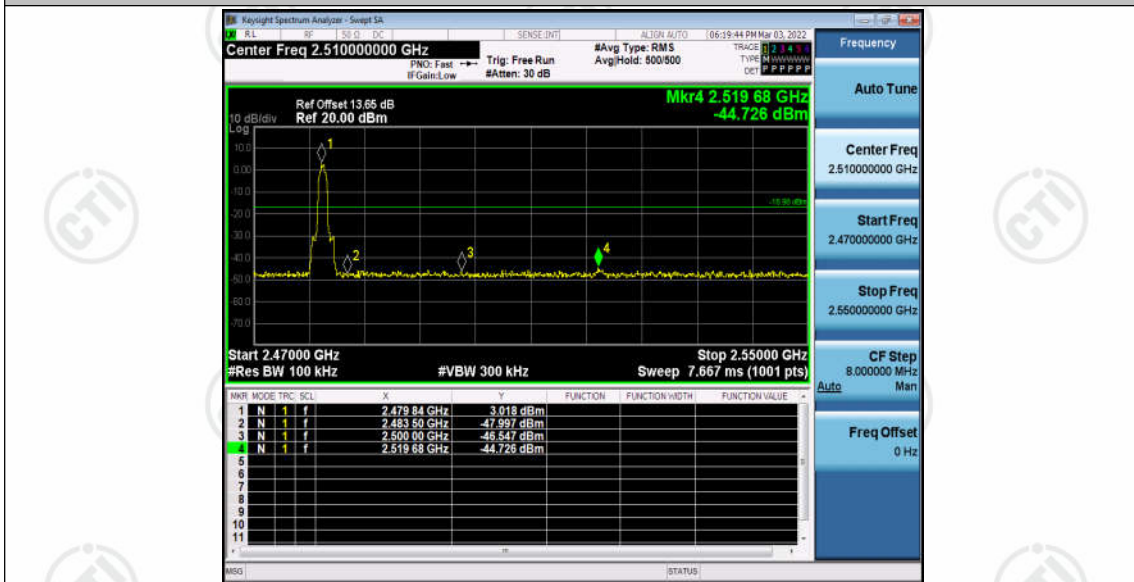


DH5\_Ant1\_High\_Hop\_2480



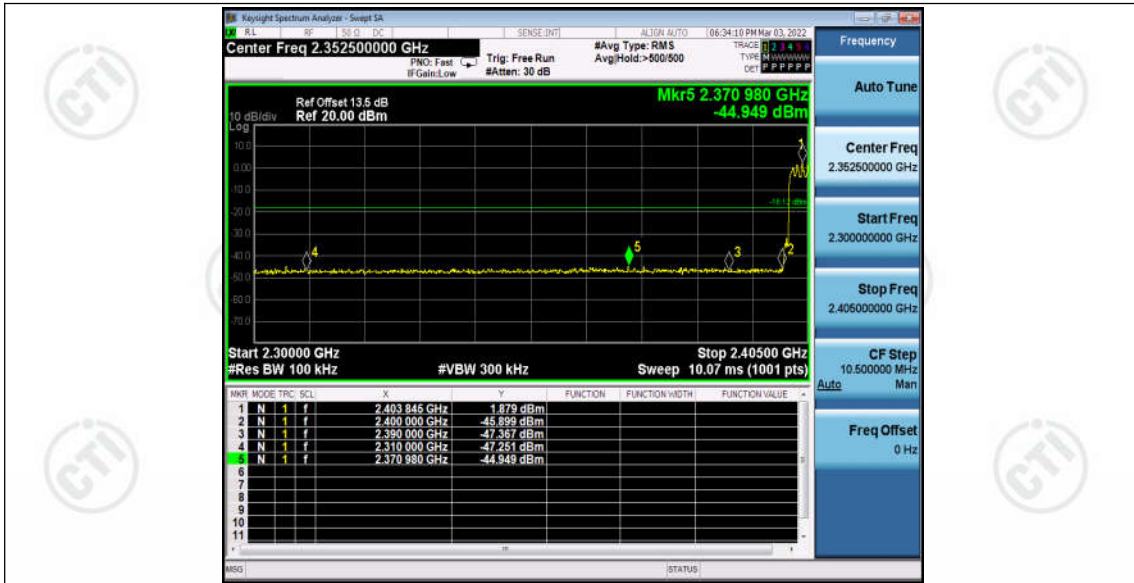


2DH5\_Ant1\_Low\_2402

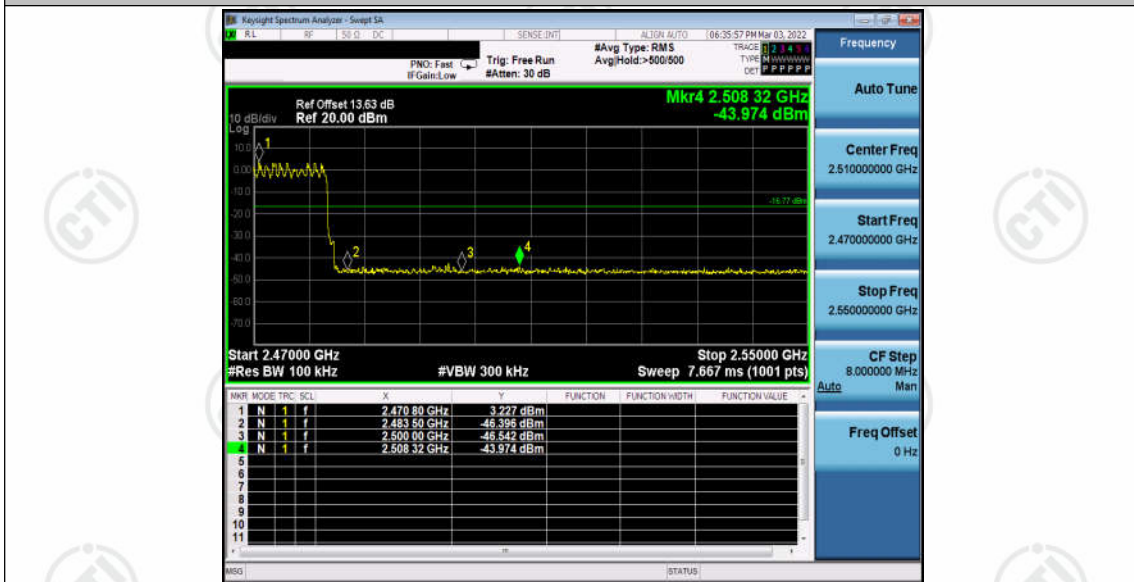


2DH5\_Ant1\_High\_2480

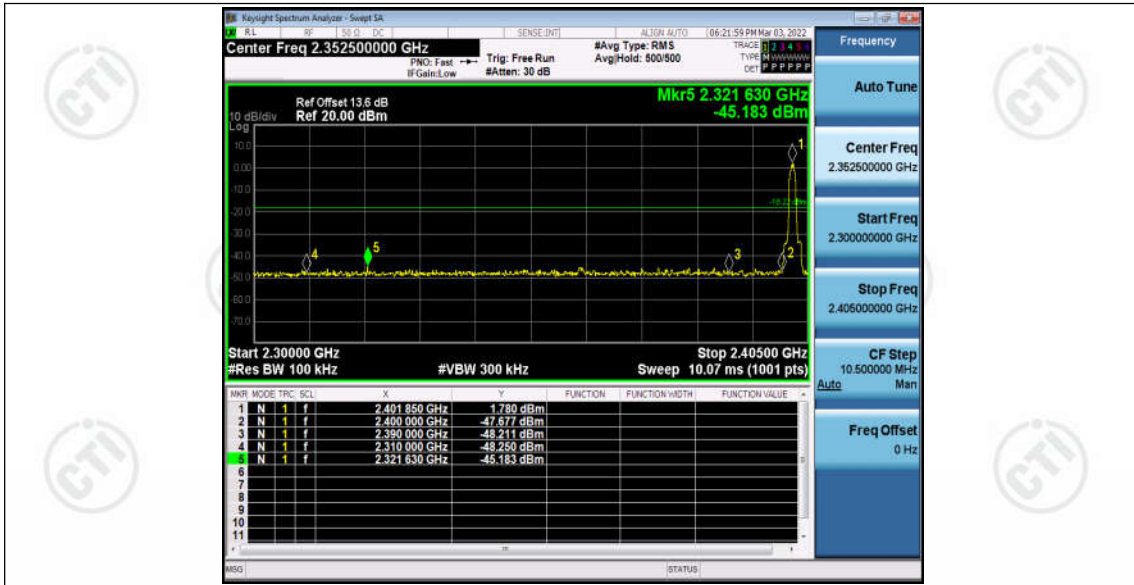




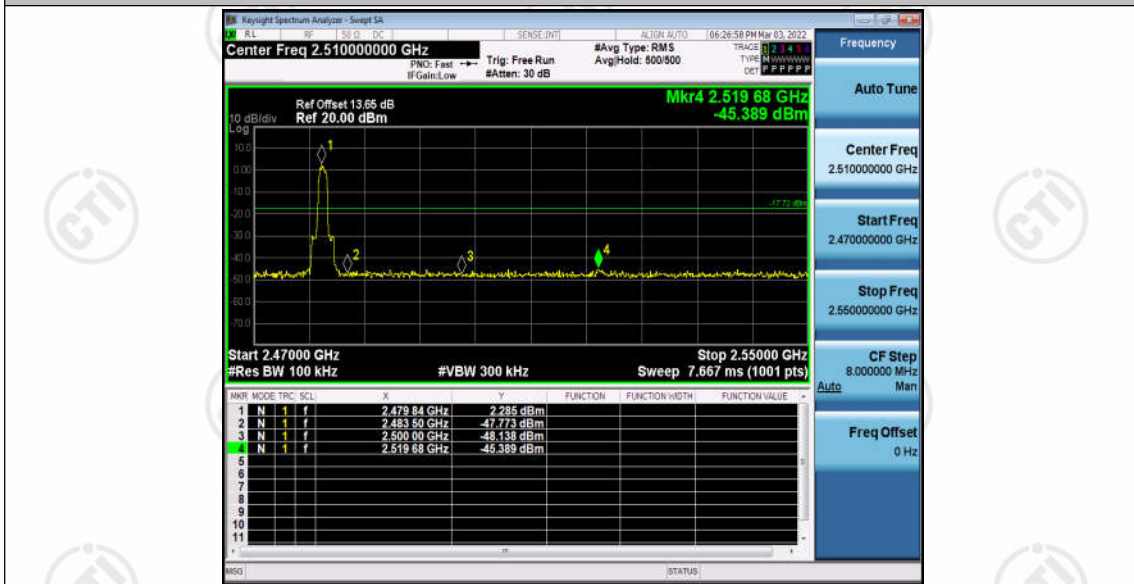
2DH5\_Ant1\_Low\_Hop\_2402



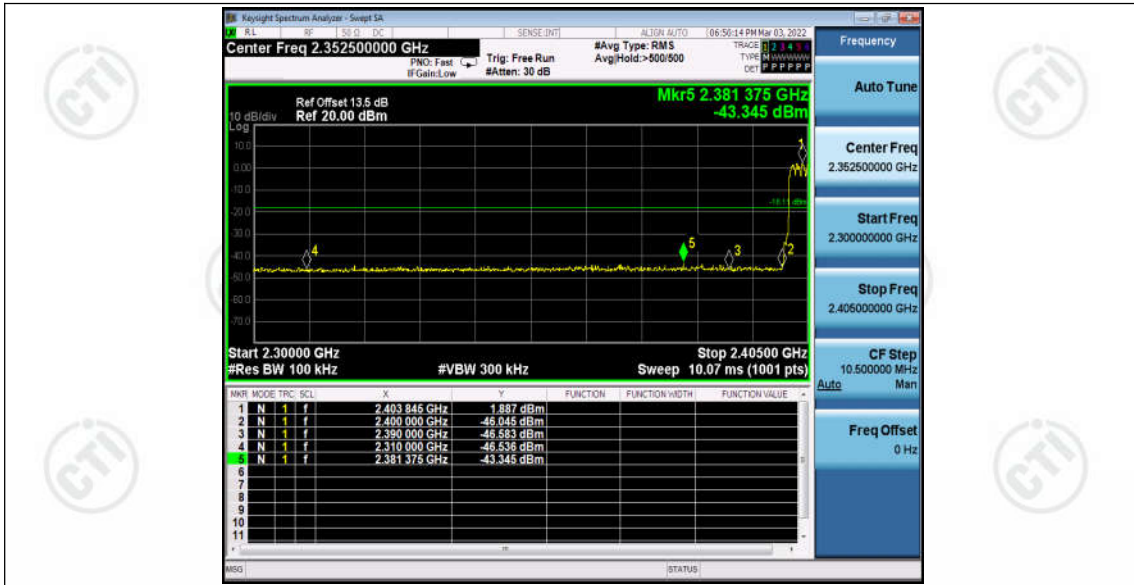
2DH5\_Ant1\_High\_Hop\_2480



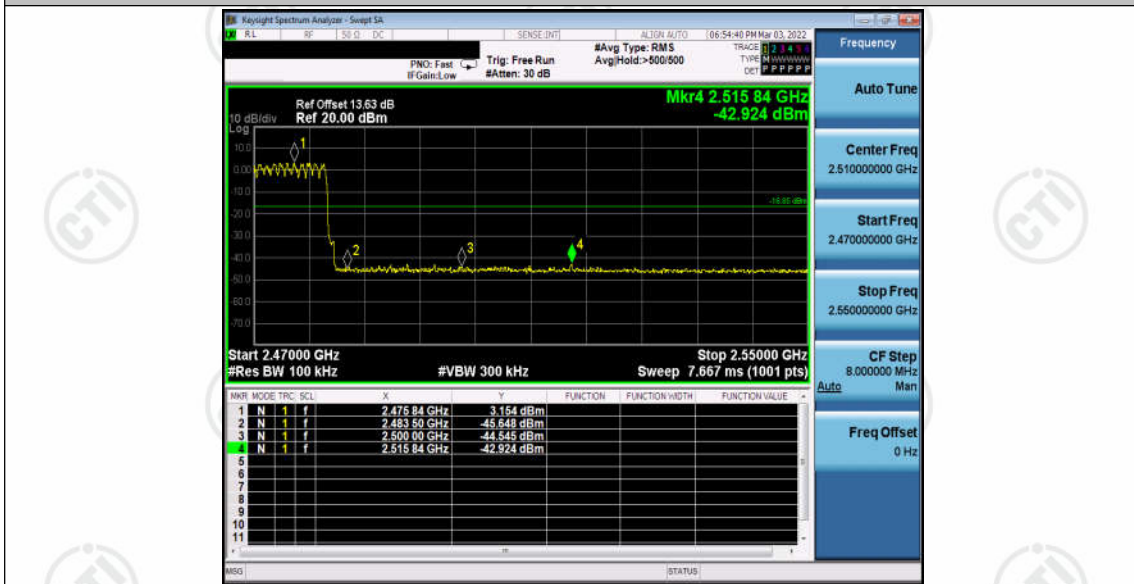
3DH5\_Ant1\_Low\_2402



3DH5\_Ant1\_High\_2480



3DH5\_Ant1\_Low\_Hop\_2402



3DH5\_Ant1\_High\_Hop\_2480

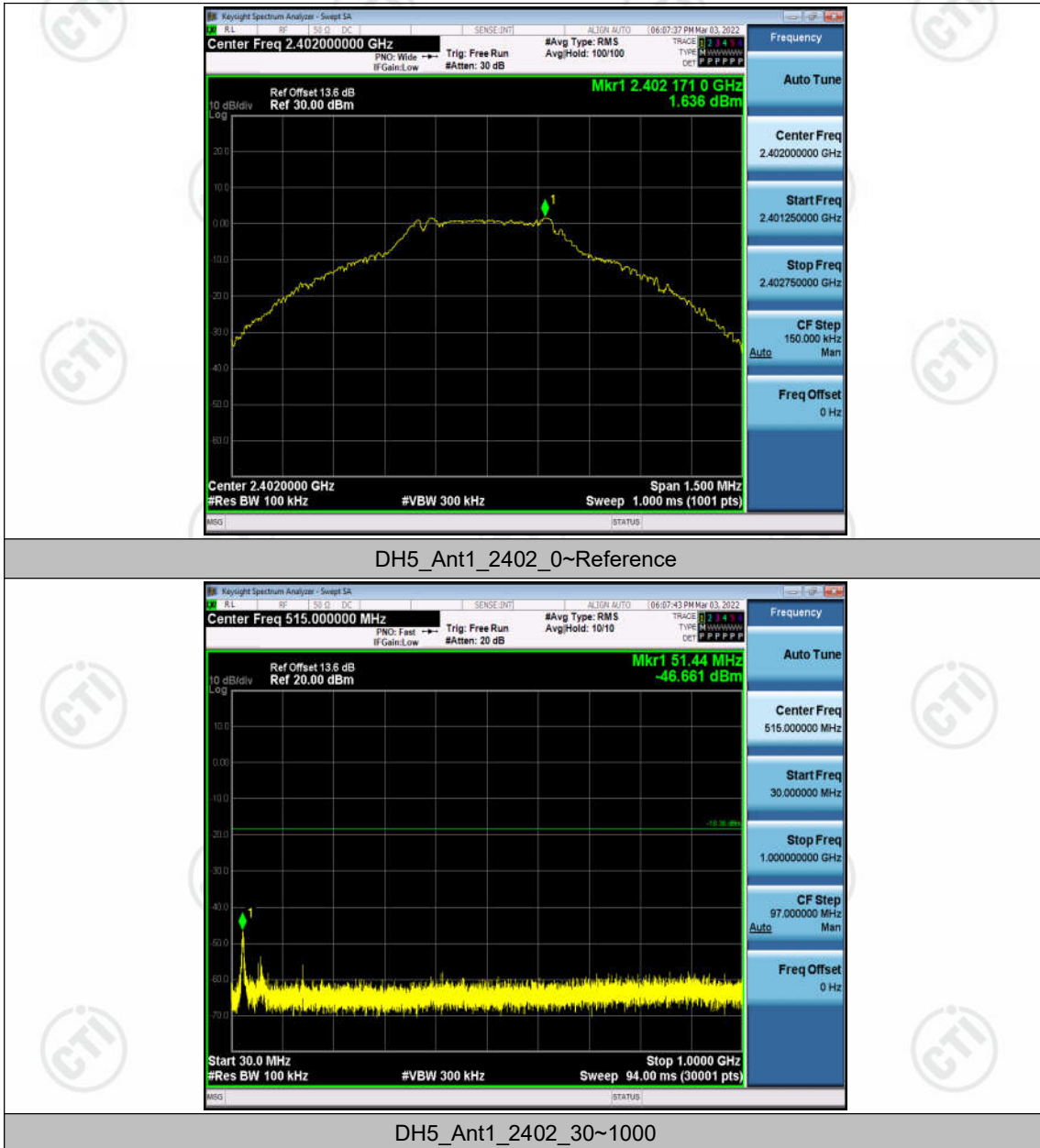
## Appendix H: Conducted Spurious Emission

### Test Result

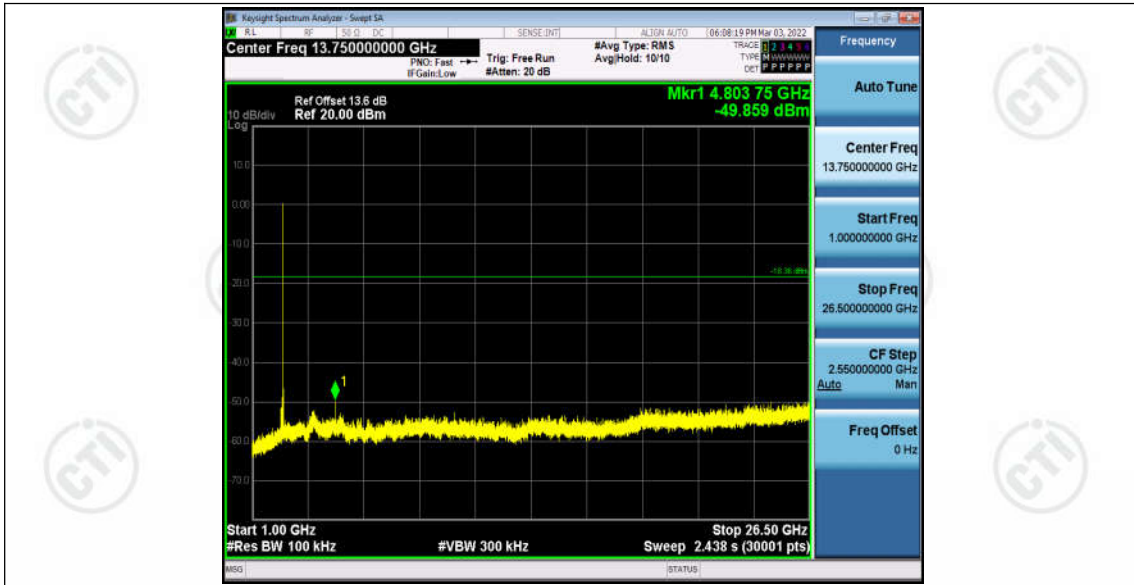
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	1.64	1.64	---	PASS
			30~1000	30~1000	-46.661	<=-18.364	PASS
			1000~26500	1000~26500	-49.859	<=-18.364	PASS
		2441	Reference	2.70	2.70	---	PASS
			30~1000	30~1000	-46.618	<=-17.3	PASS
			1000~26500	1000~26500	-49.533	<=-17.3	PASS
		2480	Reference	2.96	2.96	---	PASS
			30~1000	30~1000	-48.16	<=-17.038	PASS
			1000~26500	1000~26500	-49.672	<=-17.038	PASS
2DH5	Ant1	2402	Reference	1.74	1.74	---	PASS
			30~1000	30~1000	-46.565	<=-18.256	PASS
			1000~26500	1000~26500	-49.959	<=-18.256	PASS
		2441	Reference	2.64	2.64	---	PASS
			30~1000	30~1000	-47.724	<=-17.356	PASS
			1000~26500	1000~26500	-49.461	<=-17.356	PASS
		2480	Reference	2.92	2.92	---	PASS
			30~1000	30~1000	-46.312	<=-17.082	PASS
			1000~26500	1000~26500	-48.15	<=-17.082	PASS
3DH5	Ant1	2402	Reference	1.29	1.29	---	PASS
			30~1000	30~1000	-46.165	<=-18.715	PASS
			1000~26500	1000~26500	-49.426	<=-18.715	PASS
		2441	Reference	2.48	2.48	---	PASS
			30~1000	30~1000	-47.754	<=-17.521	PASS
			1000~26500	1000~26500	-49.591	<=-17.521	PASS
		2480	Reference	2.77	2.77	---	PASS
			30~1000	30~1000	-46.394	<=-17.231	PASS
			1000~26500	1000~26500	-49.26	<=-17.231	PASS



## Test Graphs



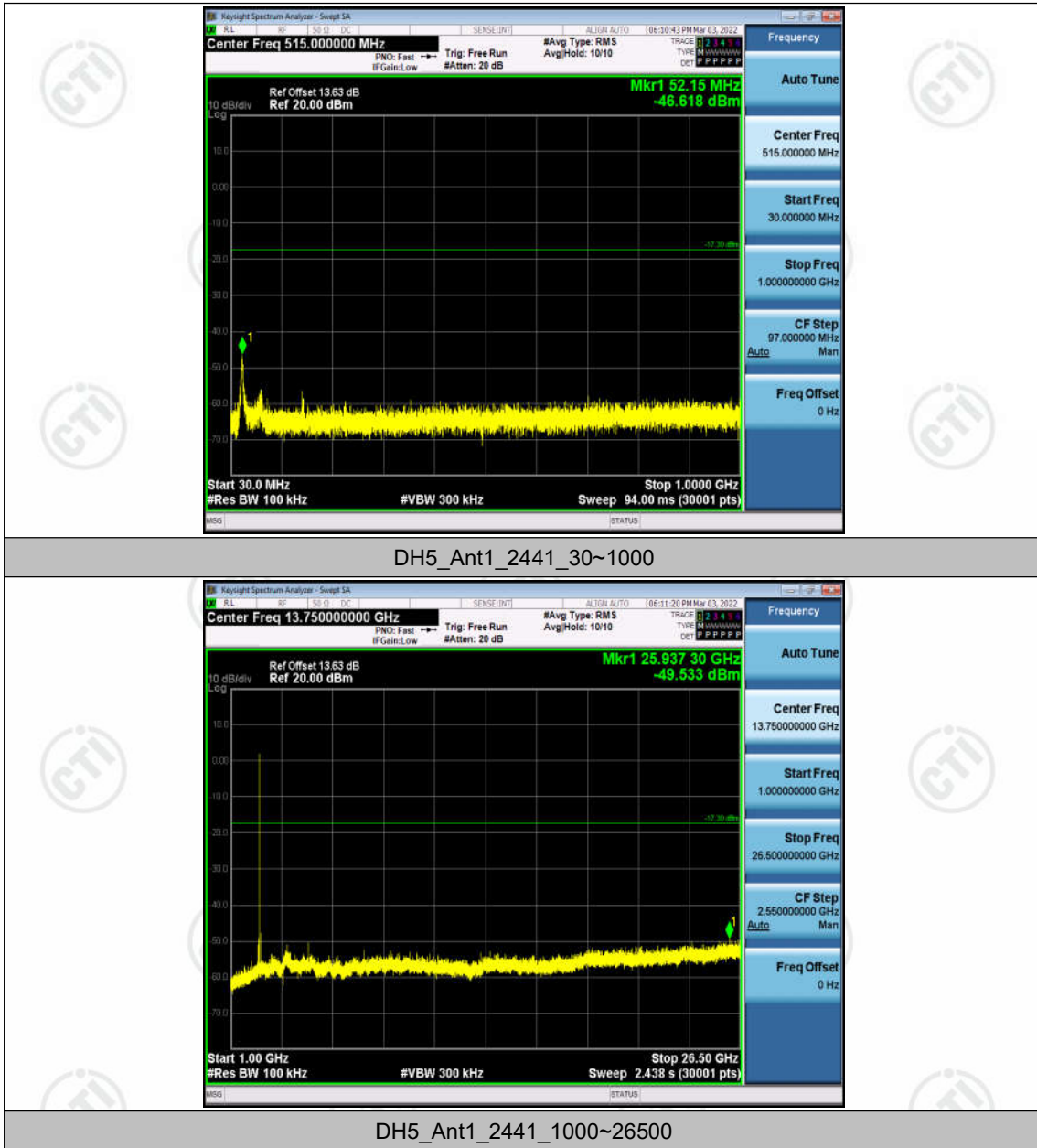


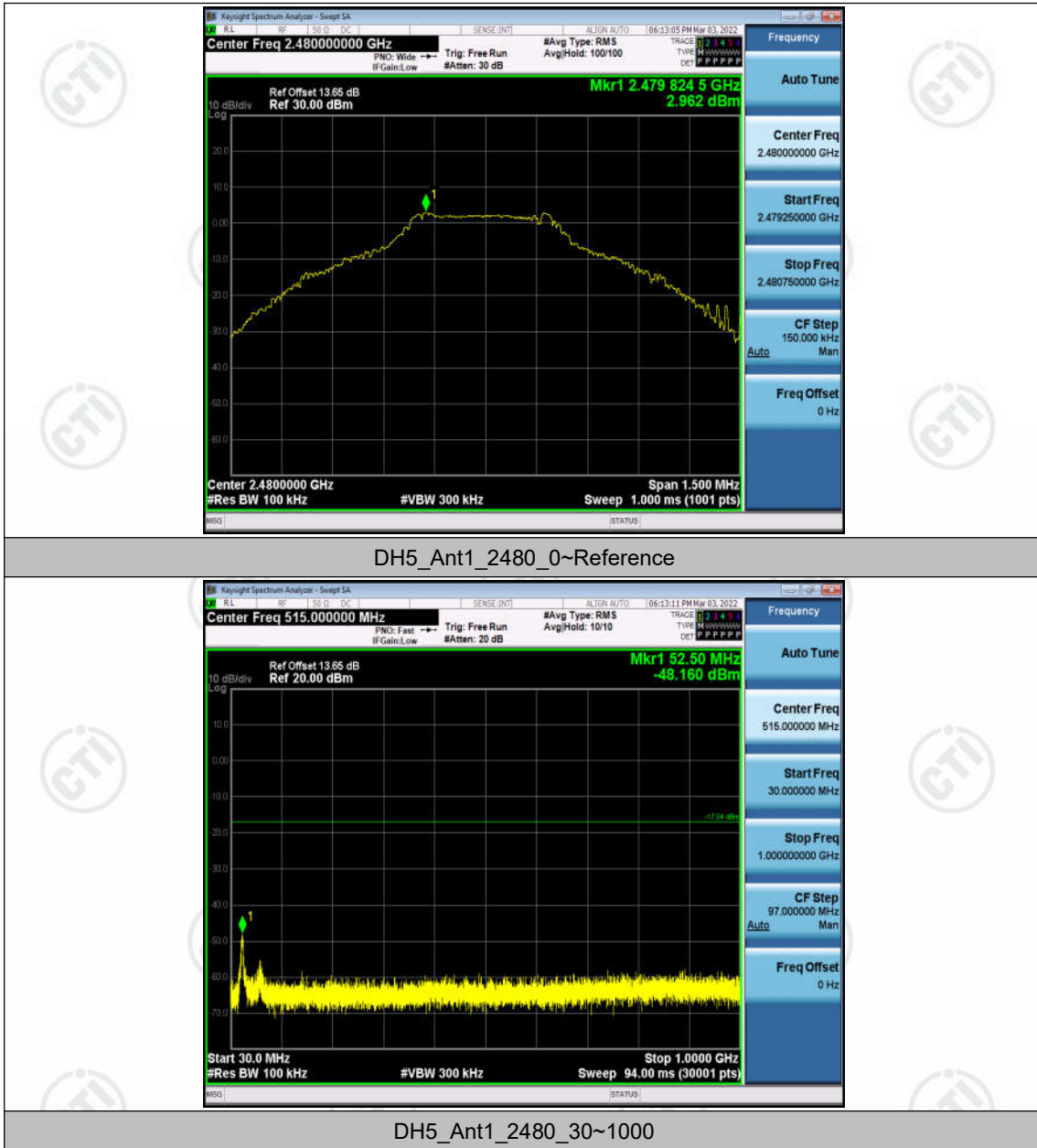


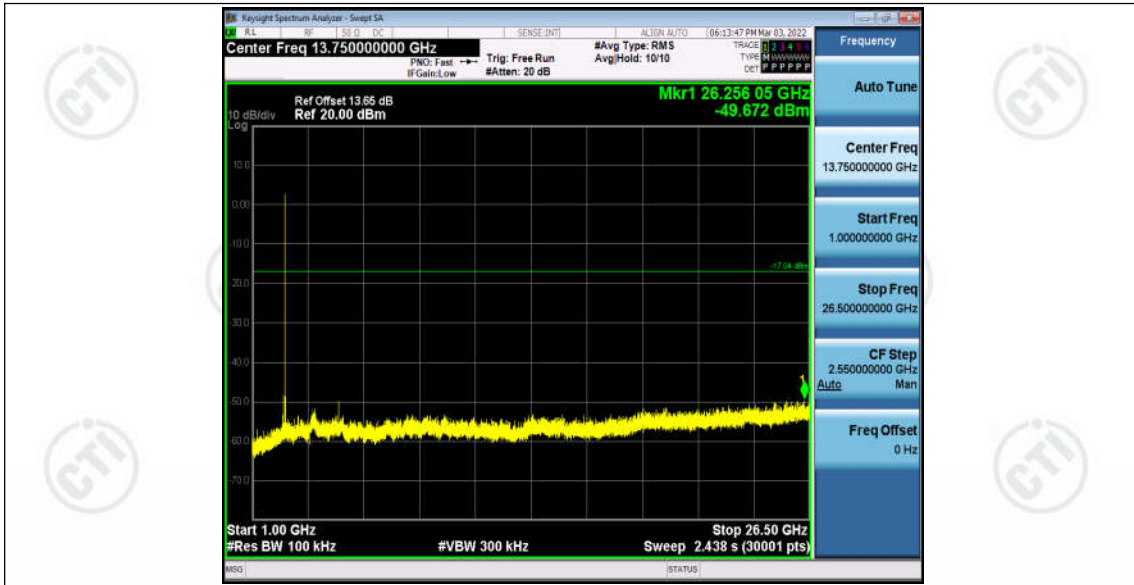
DH5\_Ant1\_2402\_1000~26500



DH5\_Ant1\_2441\_0~Reference





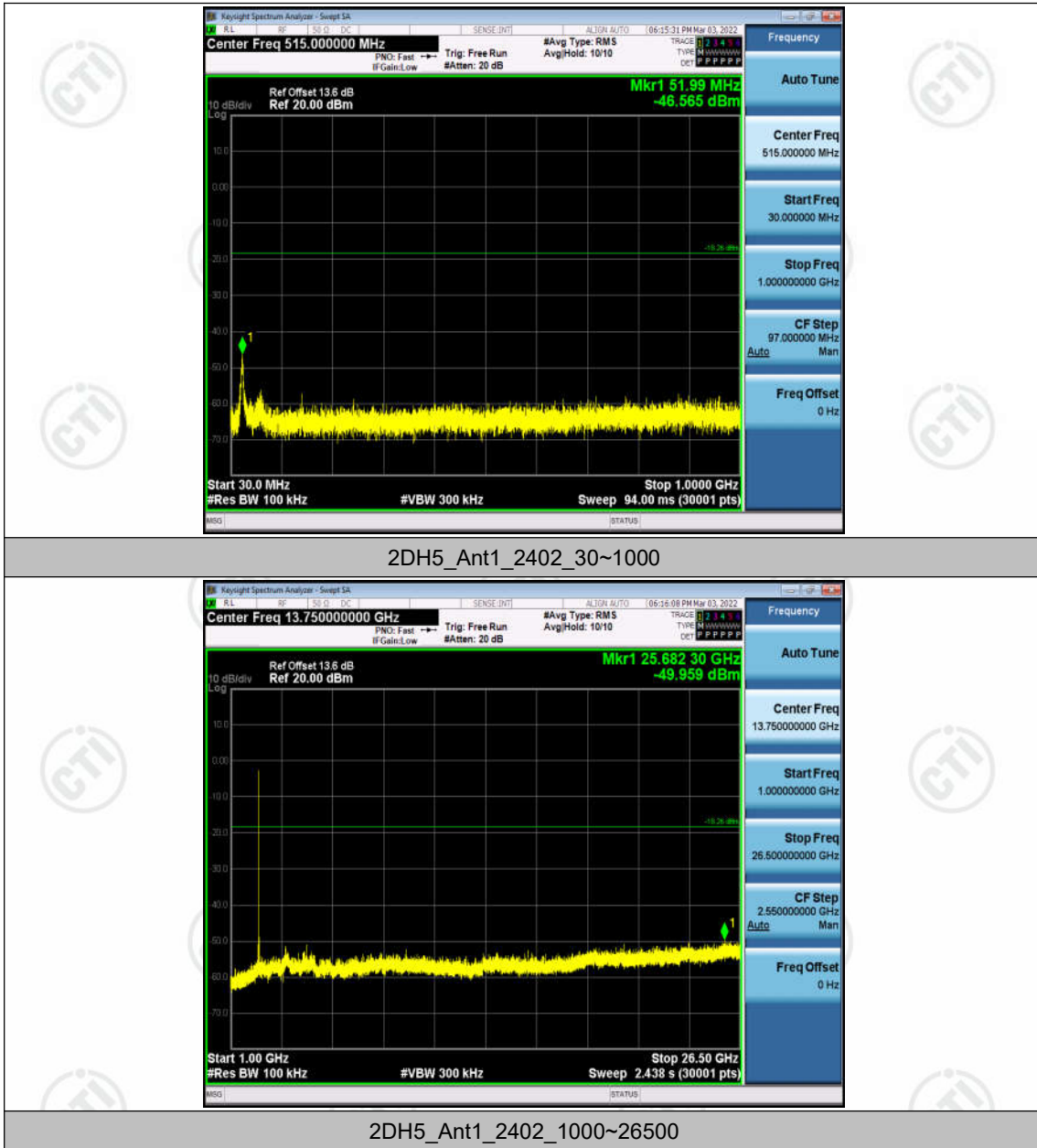


DH5\_Ant1\_2480\_1000~26500

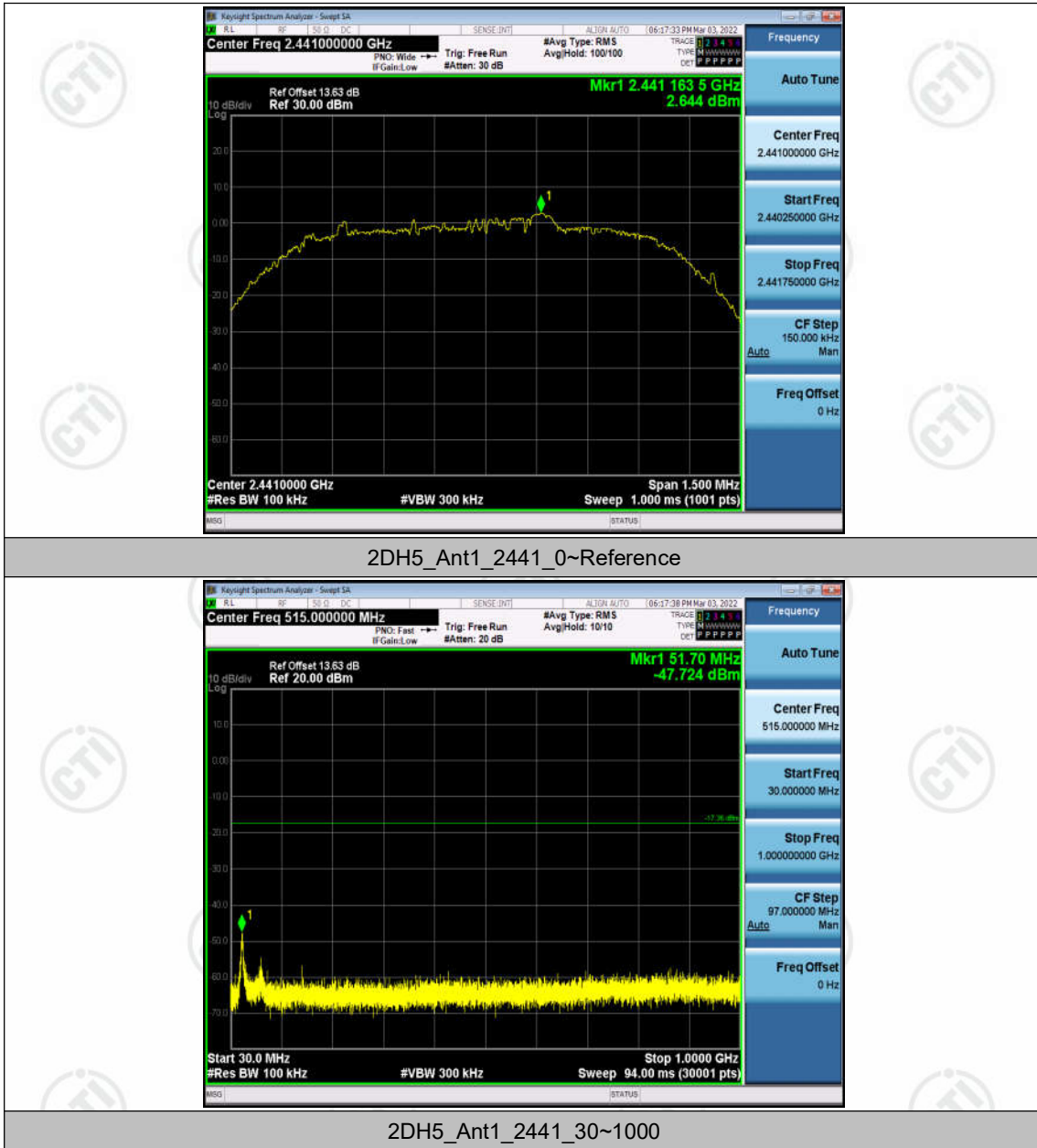


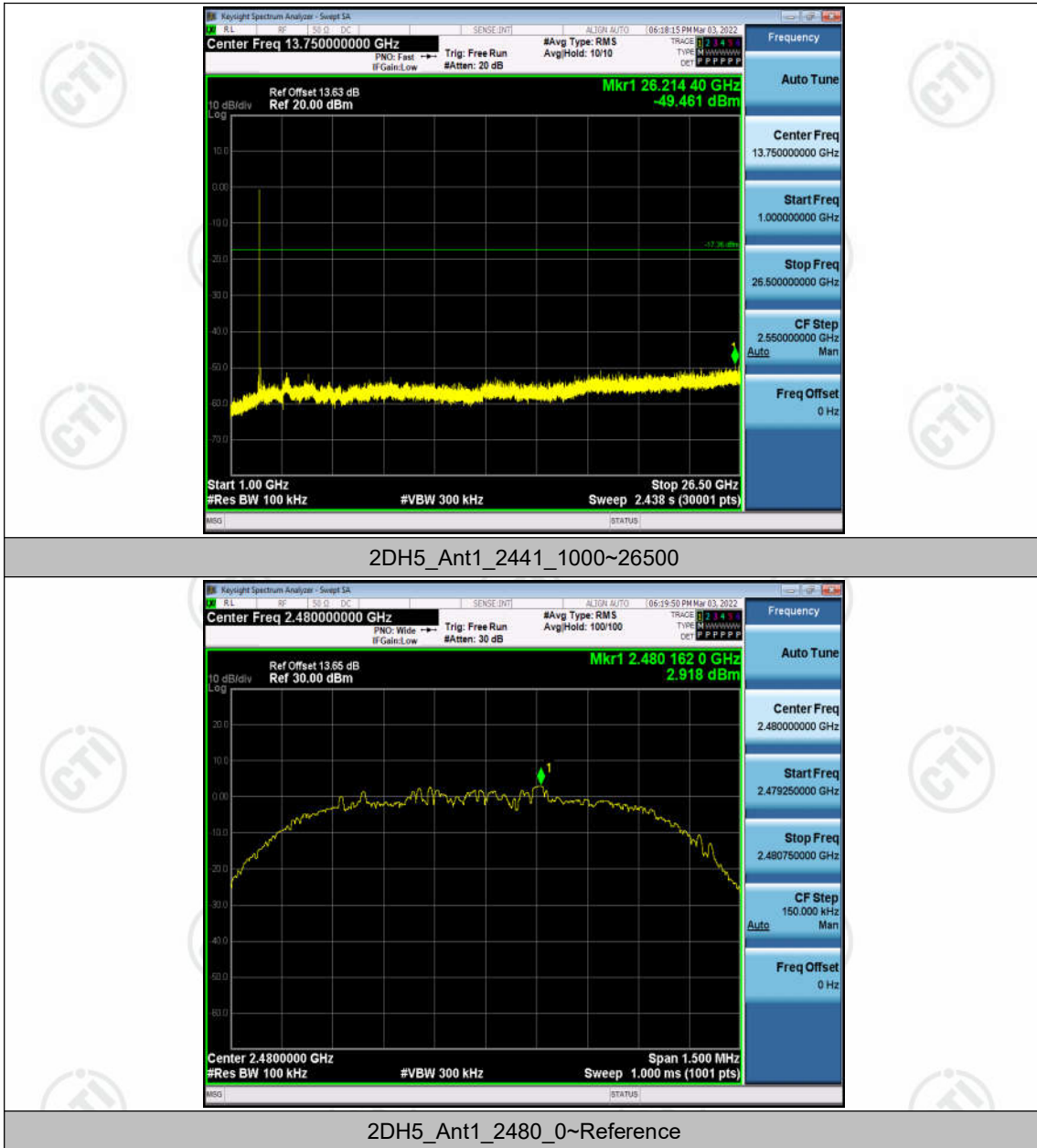
2DH5\_Ant1\_2402\_0~Reference

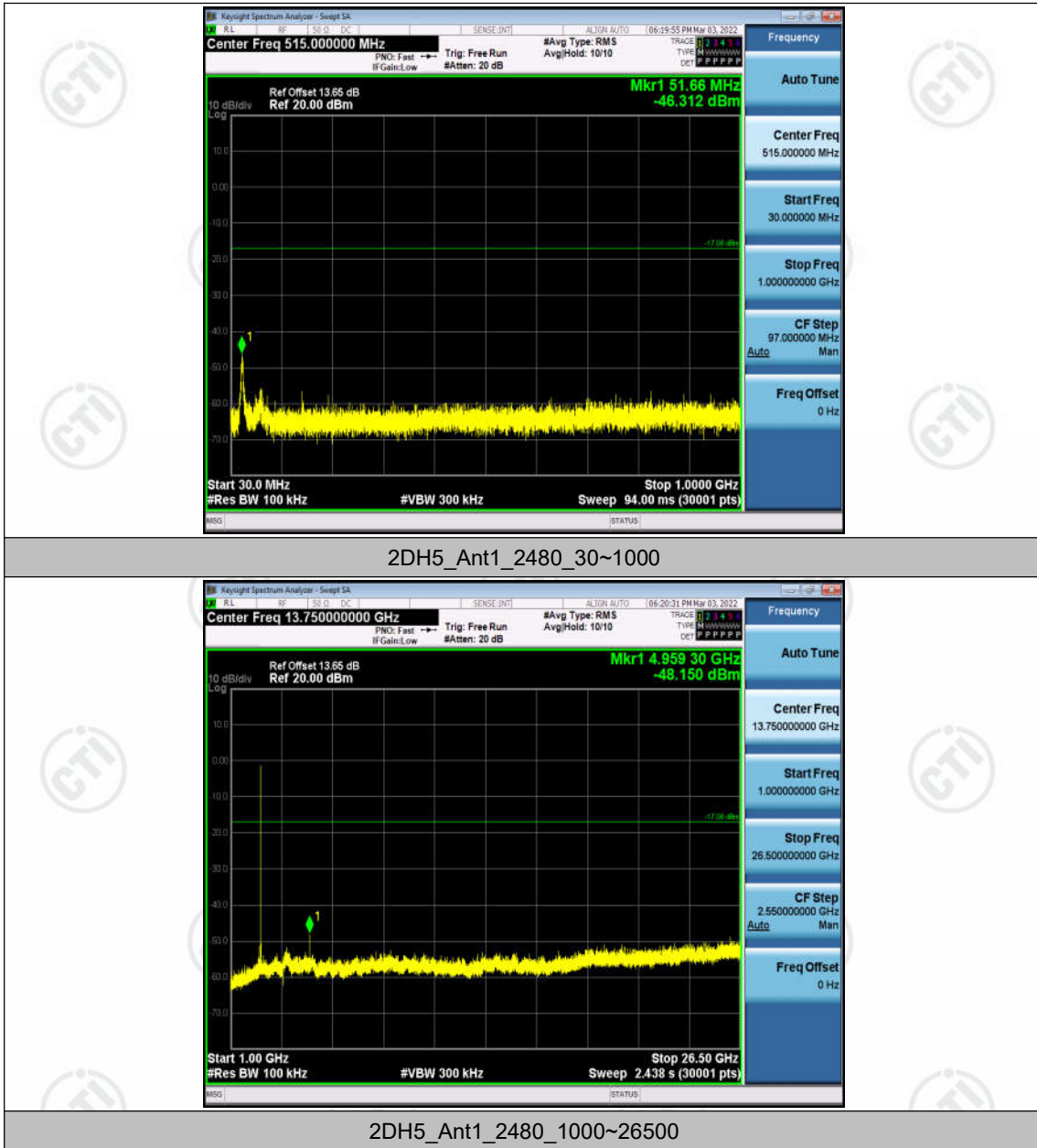


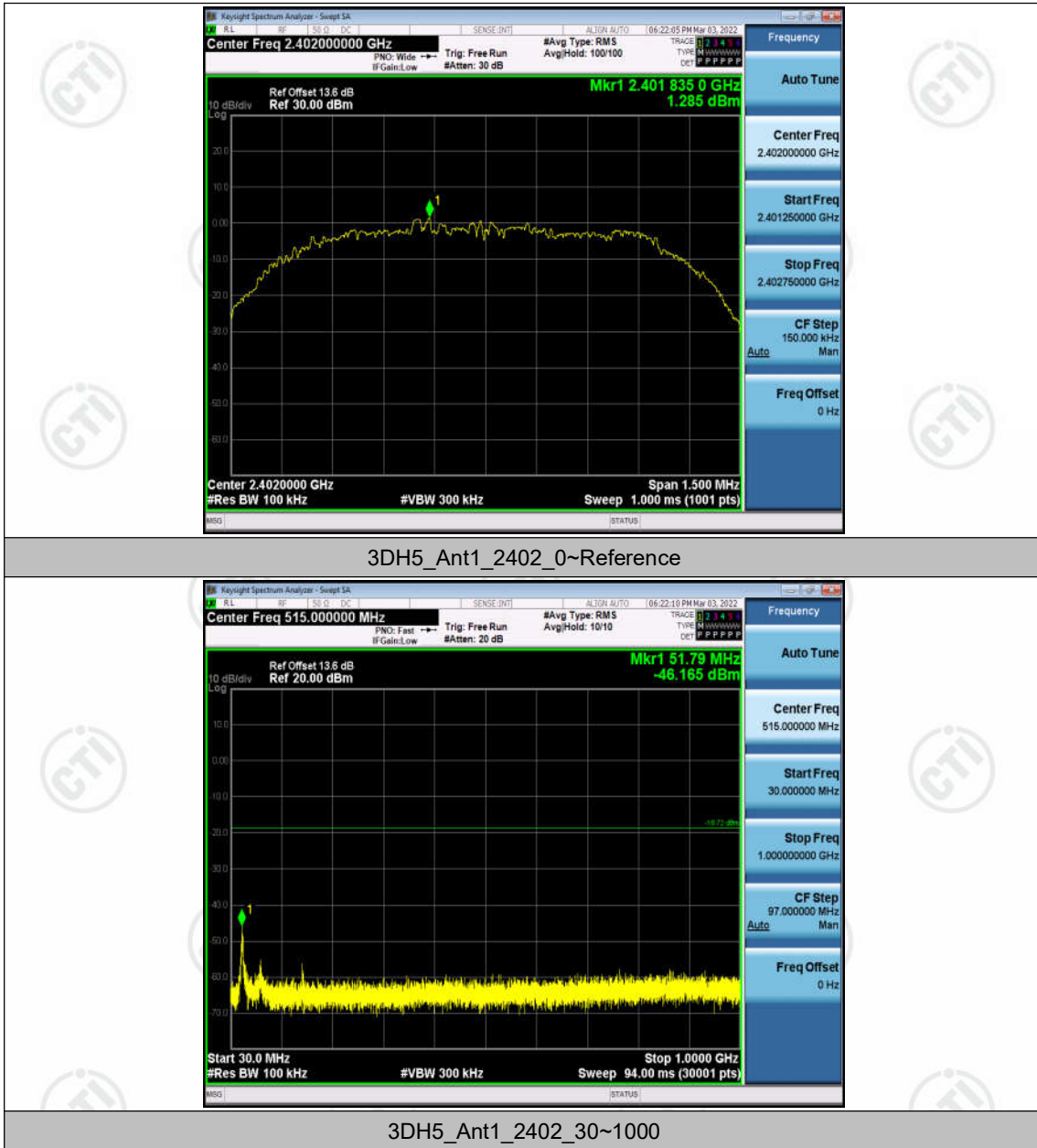




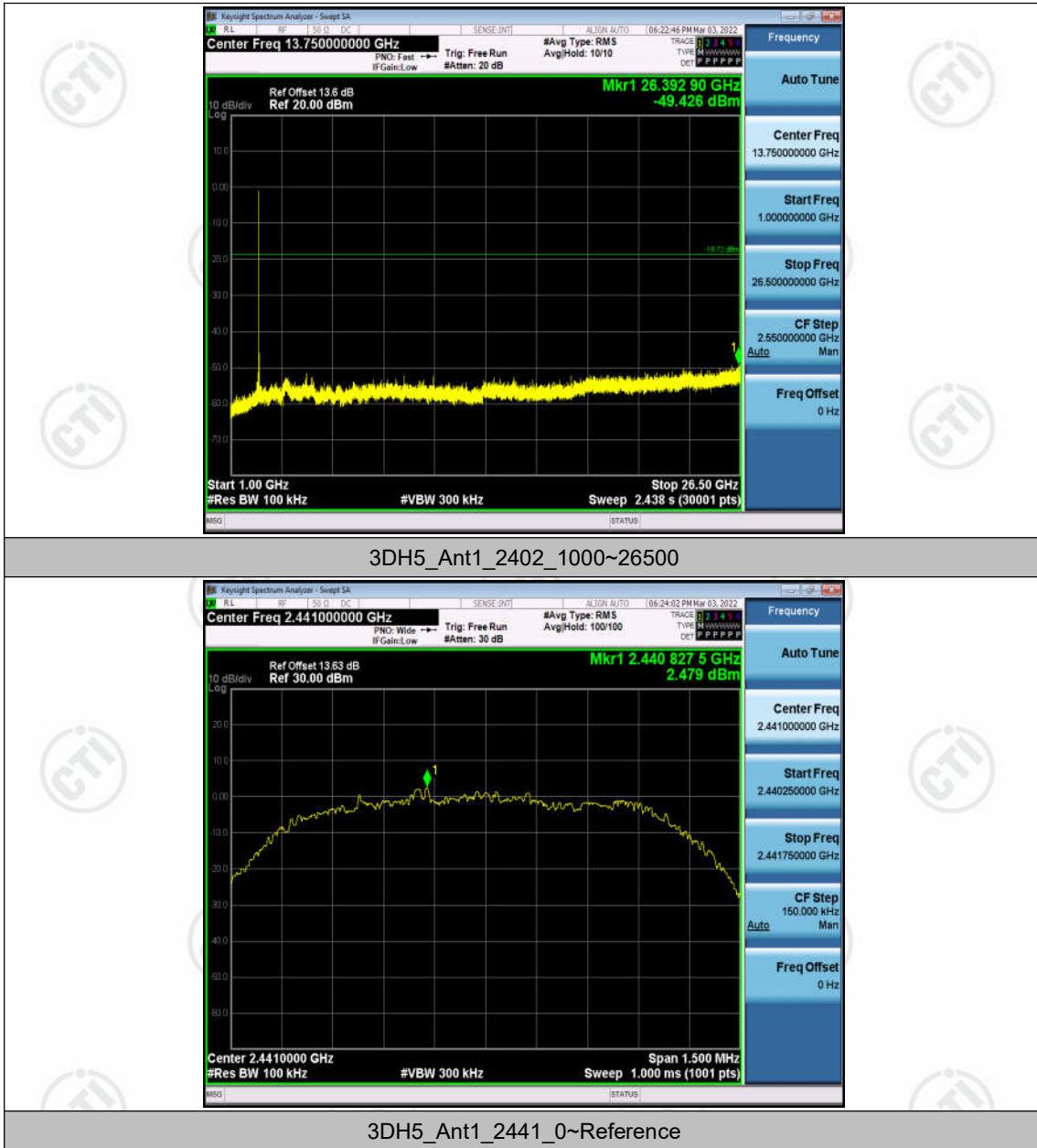




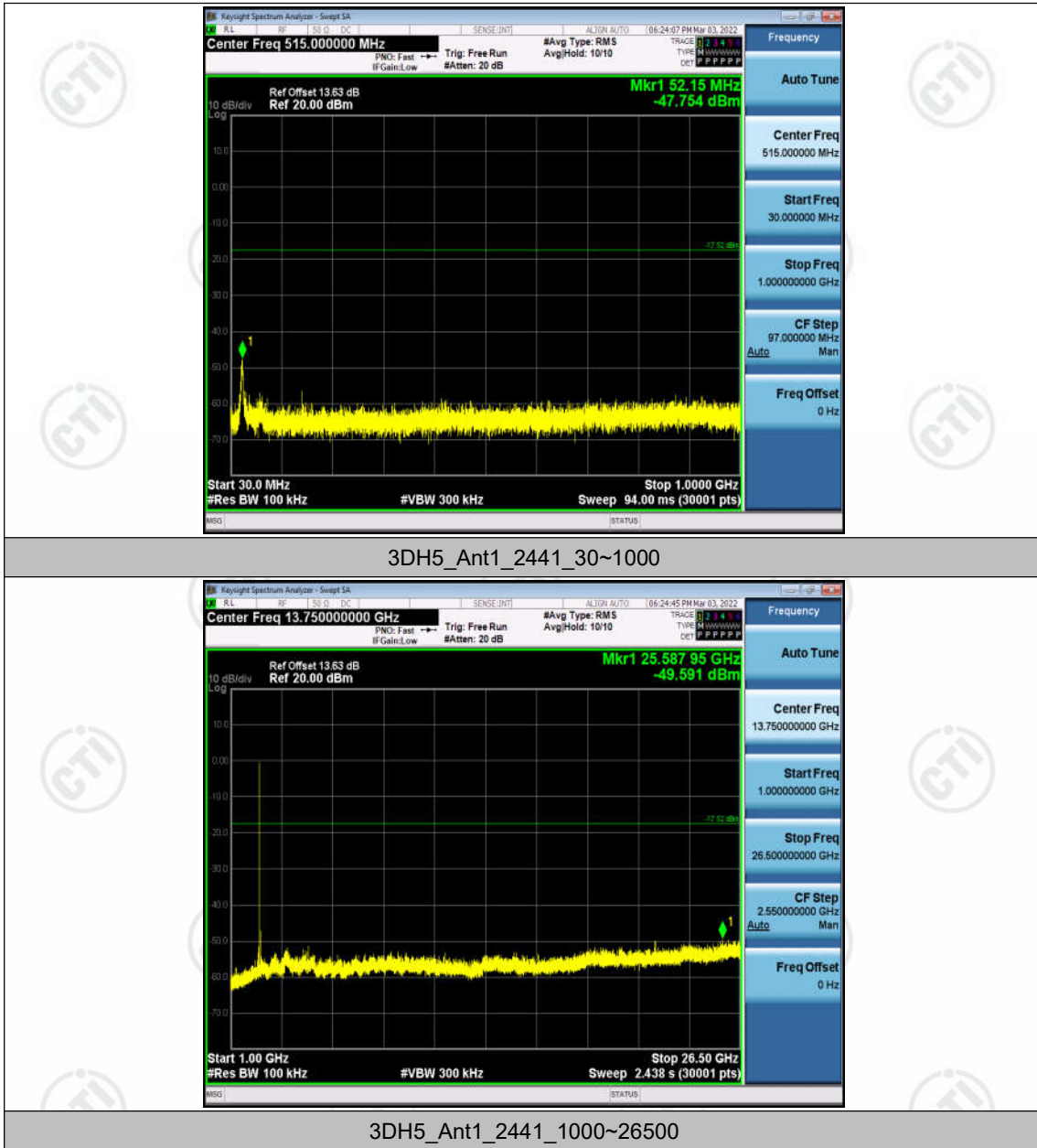


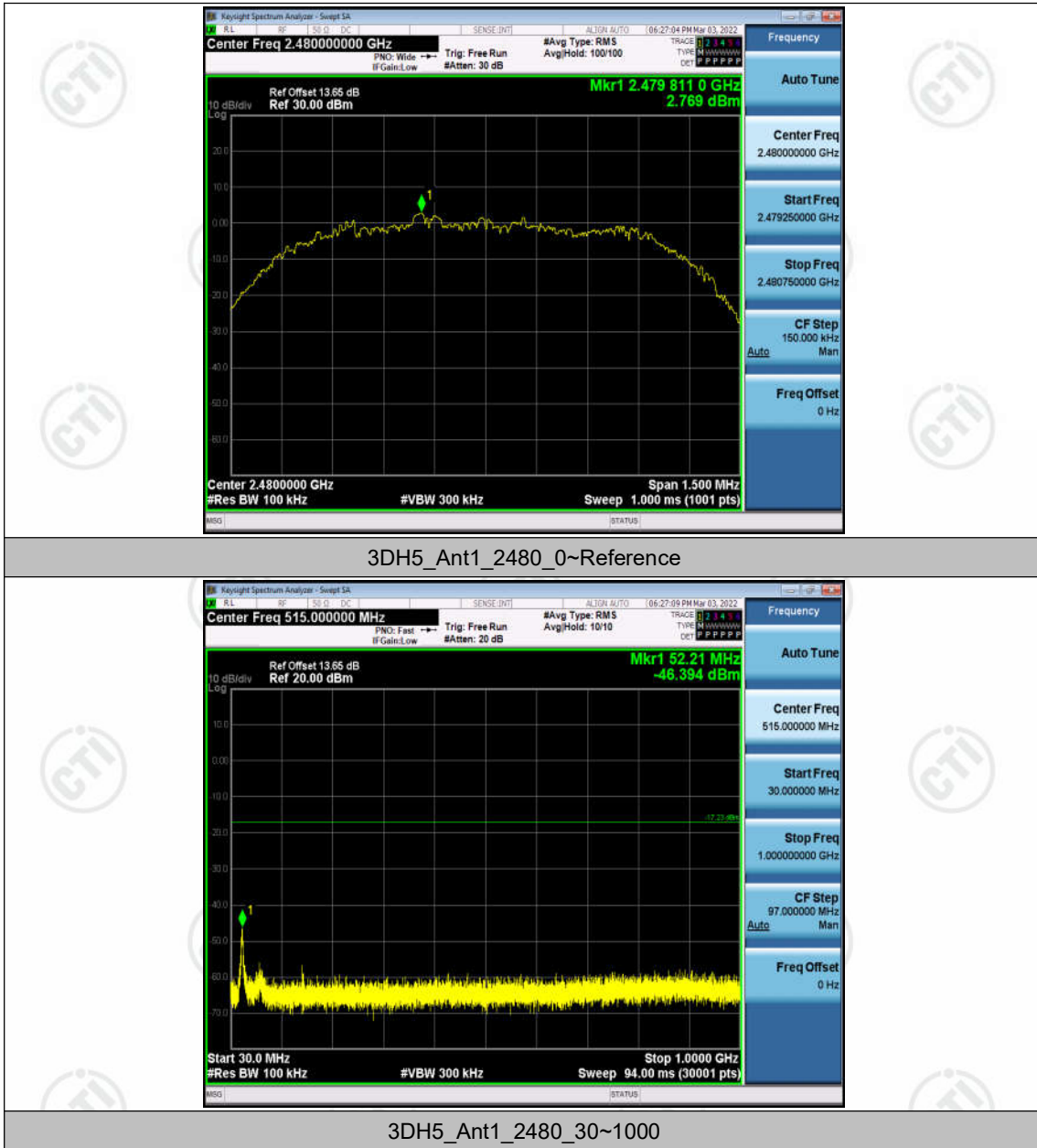


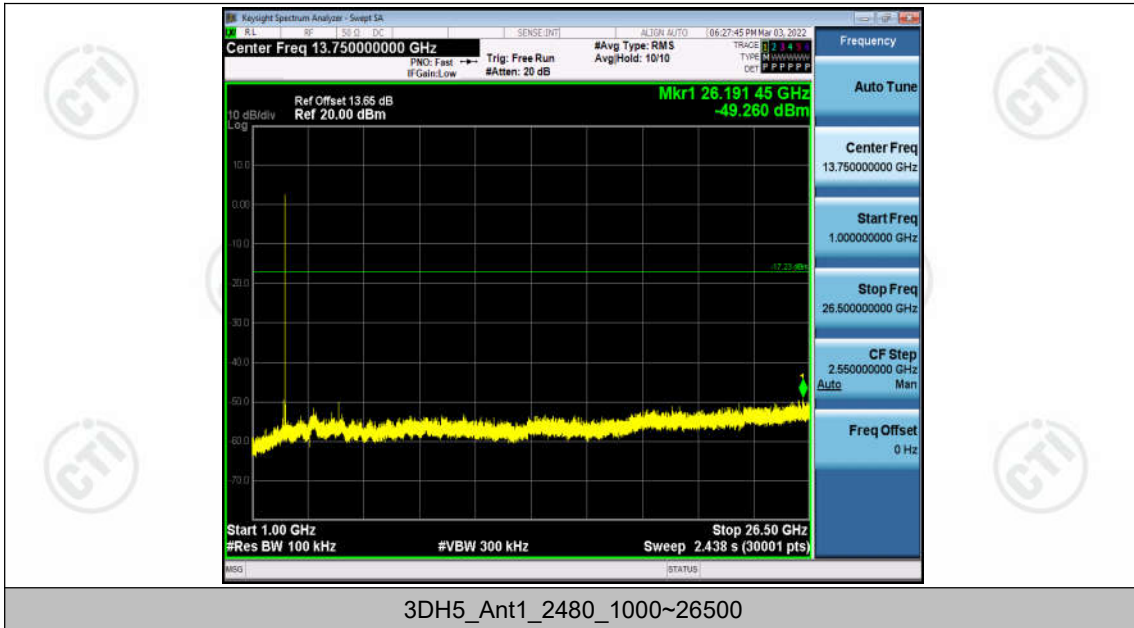












**Appendix I: Duty Cycle****Test Result**

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
DH5	Ant1	2402	2.87	3.77	76.04	---	PASS
		2441	2.87	3.77	76.08	---	PASS
		2480	2.87	3.77	76.05	---	PASS
2DH5	Ant1	2402	2.88	3.78	76.13	---	PASS
		2441	2.88	3.78	76.13	---	PASS
		2480	2.88	3.78	76.16	---	PASS
3DH5	Ant1	2402	2.88	3.79	76.15	---	PASS
		2441	2.88	3.79	76.15	---	PASS
		2480	2.88	3.79	76.15	---	PASS

## Test Graphs



DH5\_Ant1\_2402

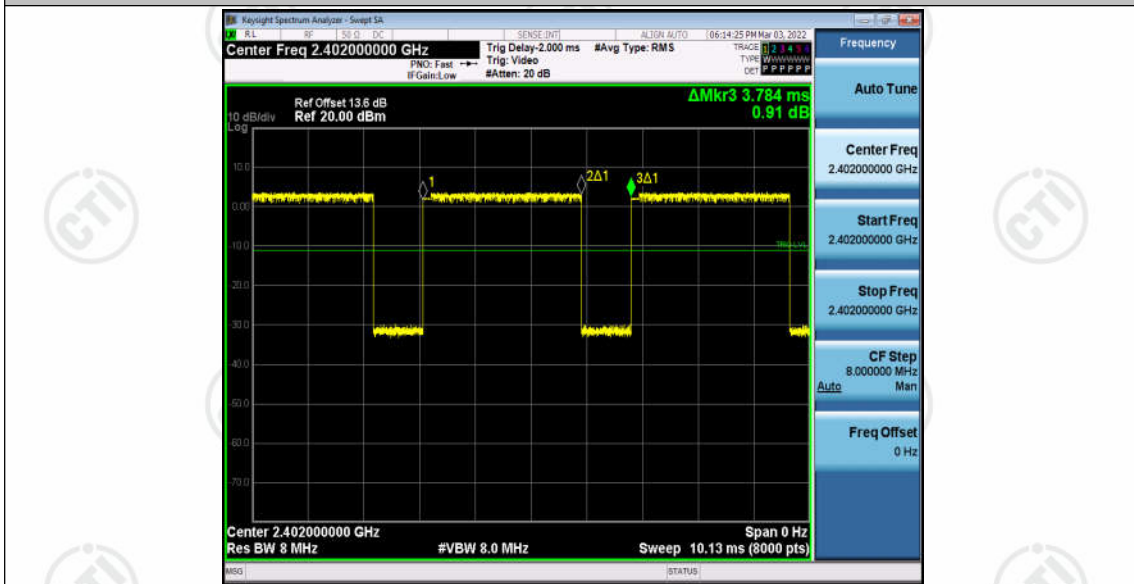


DH5\_Ant1\_2441

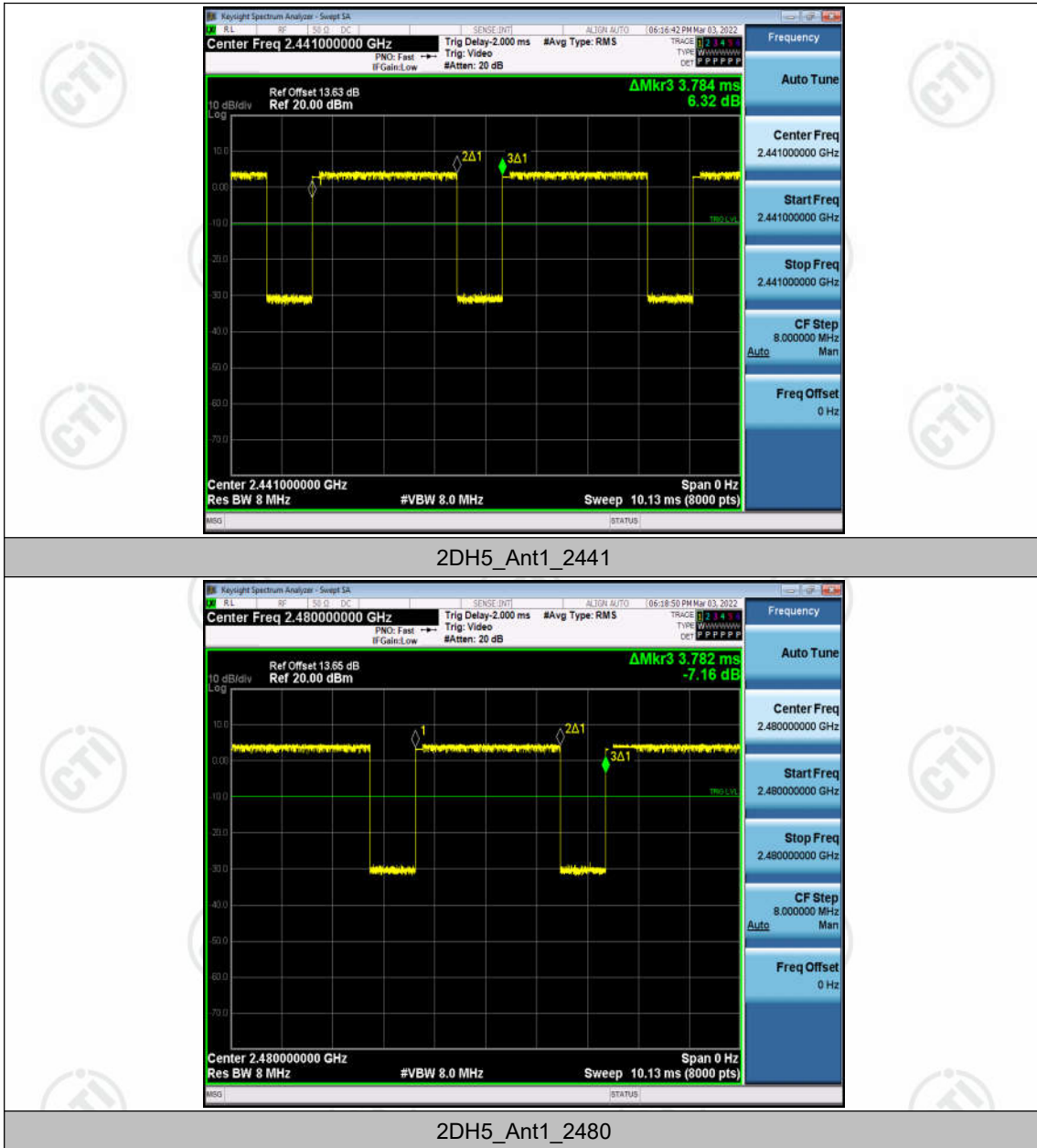


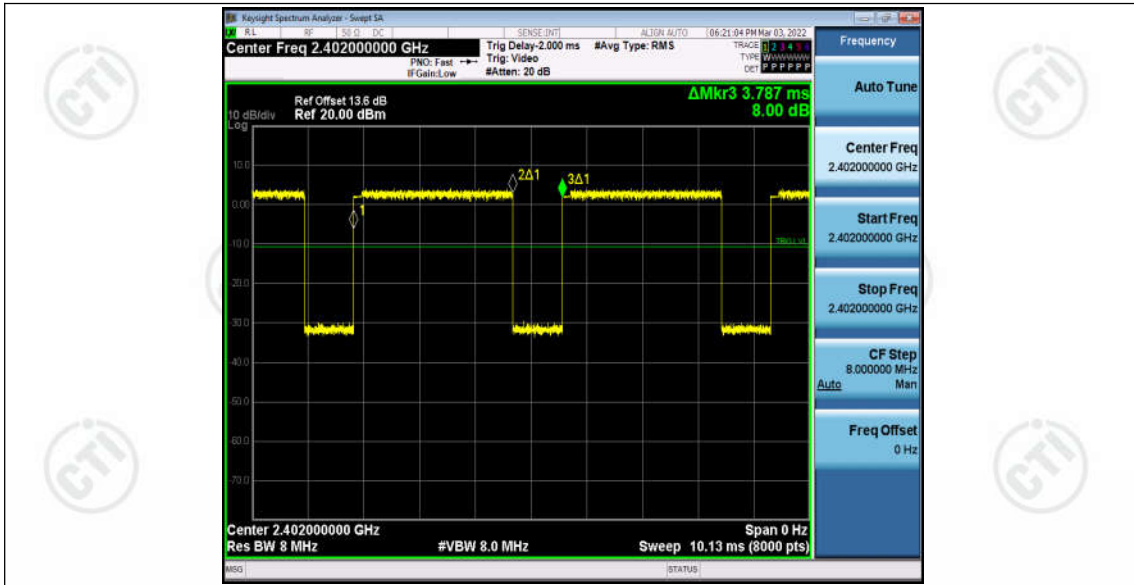


DH5\_Ant1\_2480

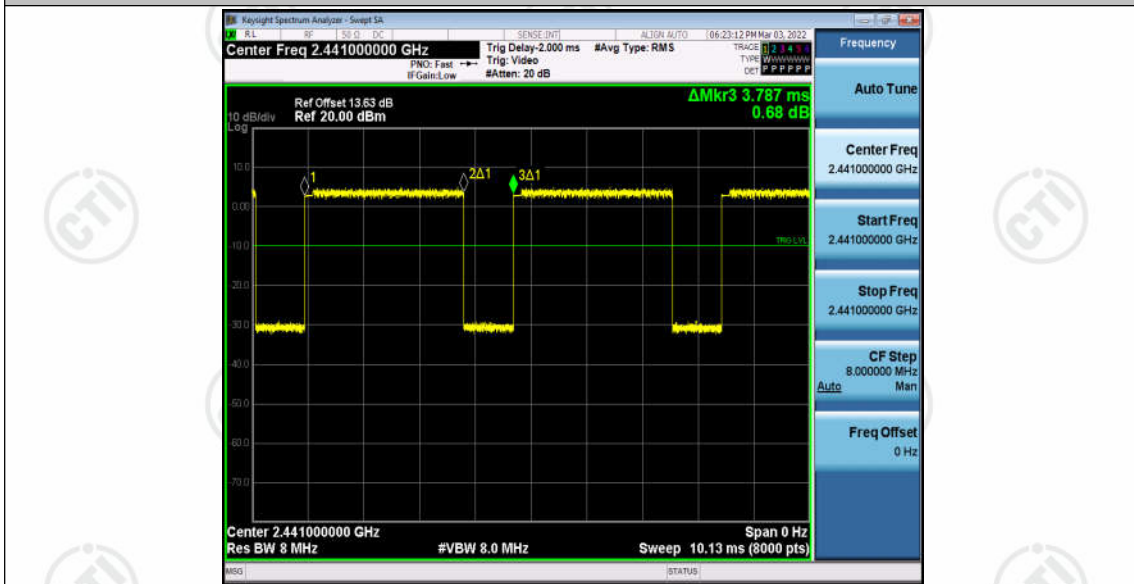


2DH5\_Ant1\_2402

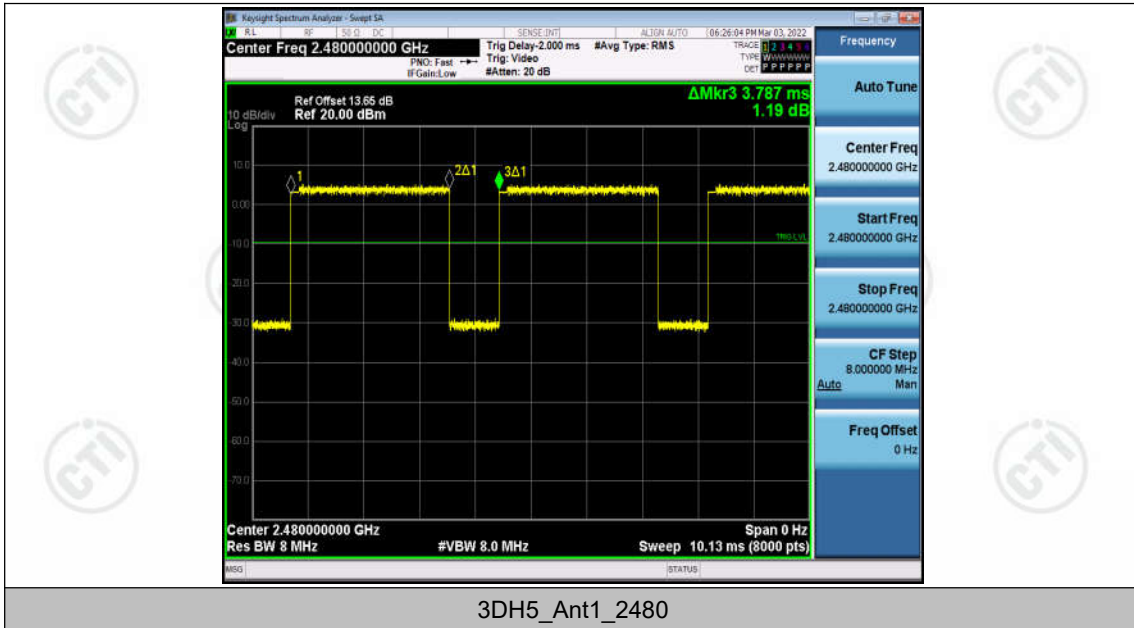




3DH5\_Ant1\_2402



3DH5\_Ant1\_2441



3DH5\_Ant1\_2480

\*\*\* End of Report \*\*\*