

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	1.041	2401.469	2402.510	---	PASS
		2441	0.972	2440.532	2441.504	---	PASS
		2480	1.032	2479.478	2480.510	---	PASS
2DH5	Ant1	2402	1.257	2401.373	2402.630	---	PASS
		2441	1.263	2440.388	2441.651	---	PASS
		2480	1.278	2479.370	2480.648	---	PASS
3DH5	Ant1	2402	1.281	2401.364	2402.645	---	PASS
		2441	1.254	2440.391	2441.645	---	PASS
		2480	1.254	2479.394	2480.648	---	PASS

## Test Graphs



DH5\_Ant1\_2402



DH5\_Ant1\_2441



DH5\_Ant1\_2480



2DH5\_Ant1\_2402





2DH5\_Ant1\_2441



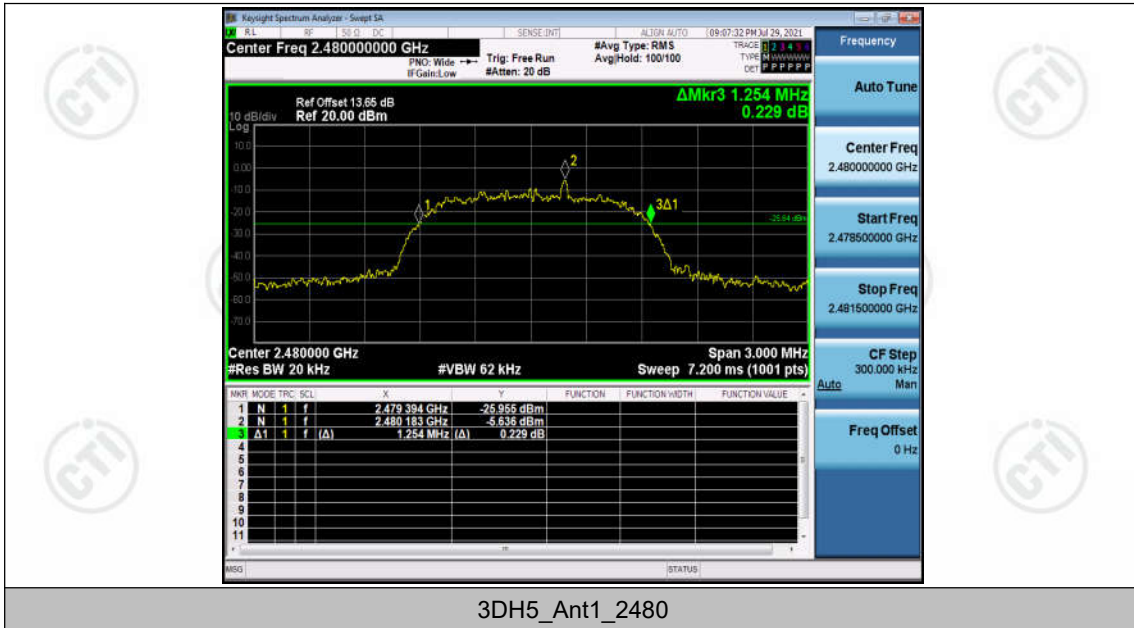
2DH5\_Ant1\_2480



3DH5\_Ant1\_2402



3DH5\_Ant1\_2441





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

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.89175	2401.561	2402.453	---	PASS
		2441	0.89297	2440.561	2441.454	---	PASS
		2480	0.90652	2479.559	2480.465	---	PASS
2DH5	Ant1	2402	1.1952	2401.410	2402.605	---	PASS
		2441	1.1900	2440.412	2441.602	---	PASS
		2480	1.1813	2479.419	2480.600	---	PASS
3DH5	Ant1	2402	1.1780	2401.427	2402.605	---	PASS
		2441	1.1823	2440.421	2441.603	---	PASS
		2480	1.1887	2479.419	2480.608	---	PASS

## Test Graphs



DH5\_Ant1\_2402



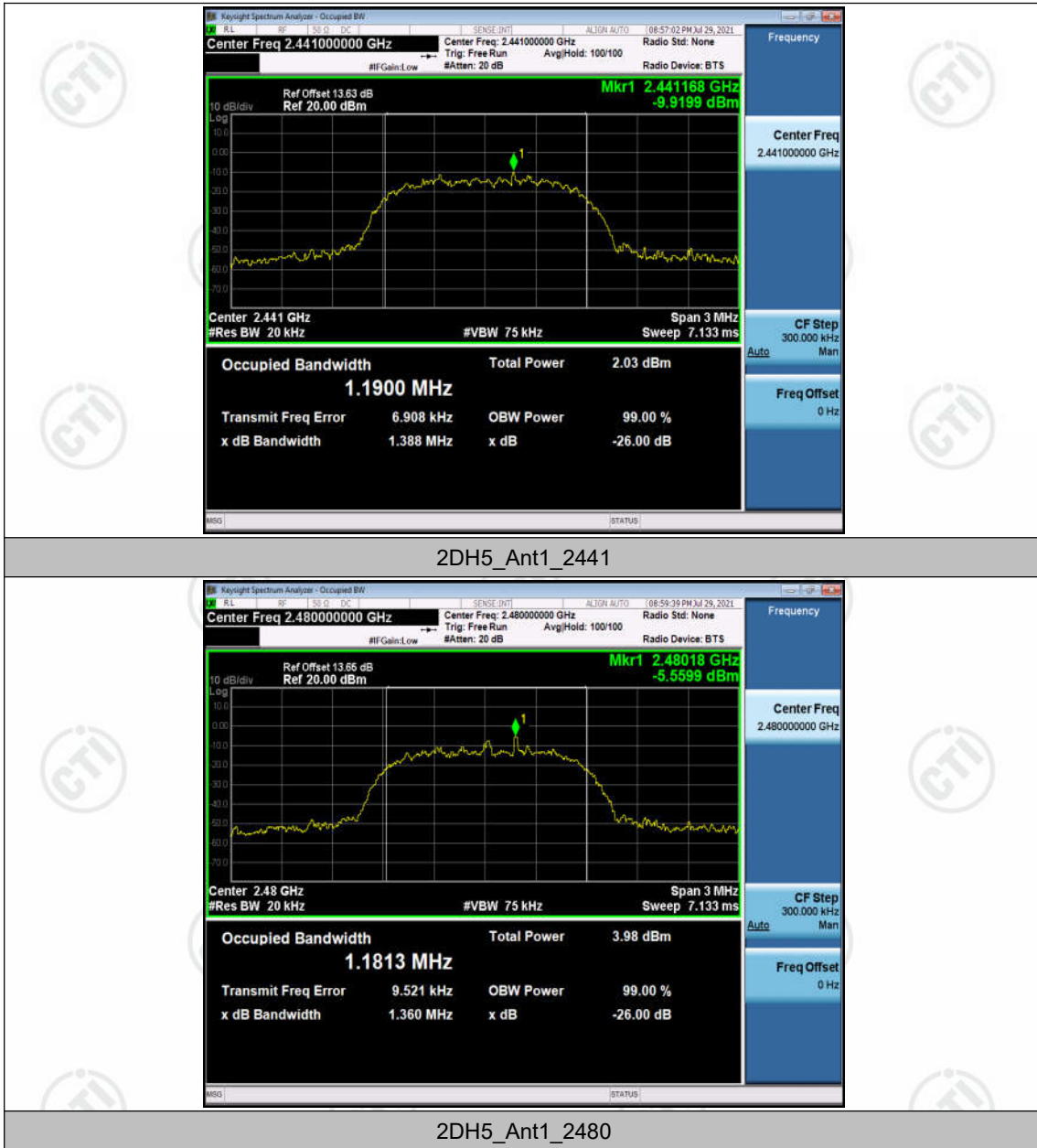
DH5\_Ant1\_2441



DH5\_Ant1\_2480

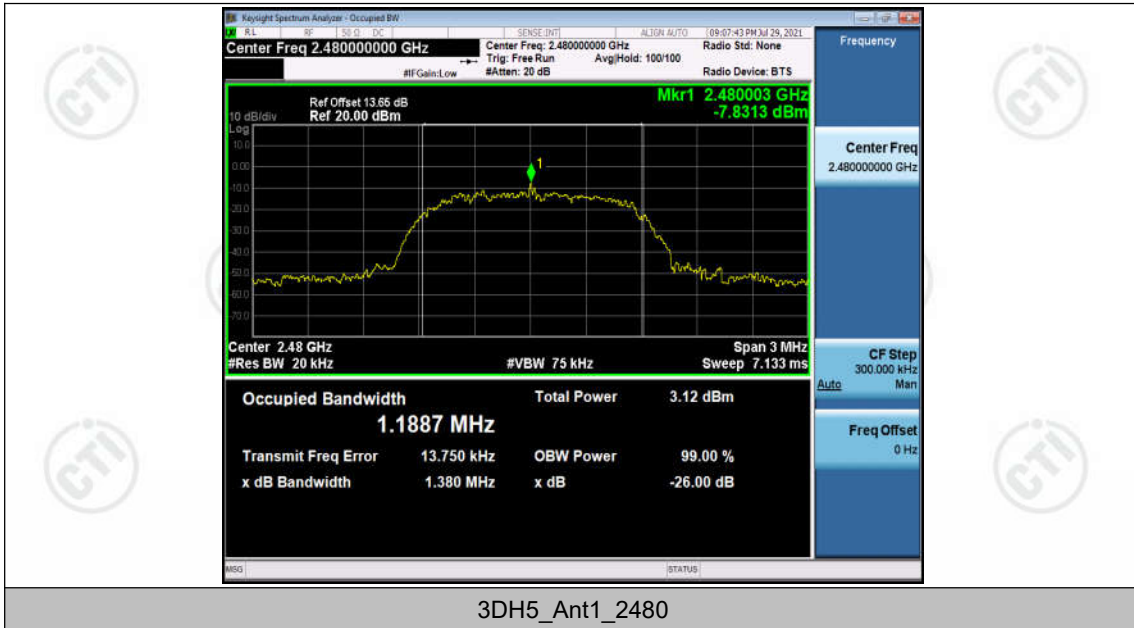


2DH5\_Ant1\_2402









3DH5\_Ant1\_2480

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

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-3.96	<=30	PASS
		2441	-3.04	<=20.97	PASS
		2480	-2.16	<=20.97	PASS
2DH5	Ant1	2402	-2.95	<=20.97	PASS
		2441	-2.23	<=20.97	PASS
		2480	-0.93	<=20.97	PASS
3DH5	Ant1	2402	-2.69	<=30	PASS
		2441	-1.98	<=20.97	PASS
		2480	-0.97	<=20.97	PASS

## Test Graphs



DH5\_Ant1\_2402



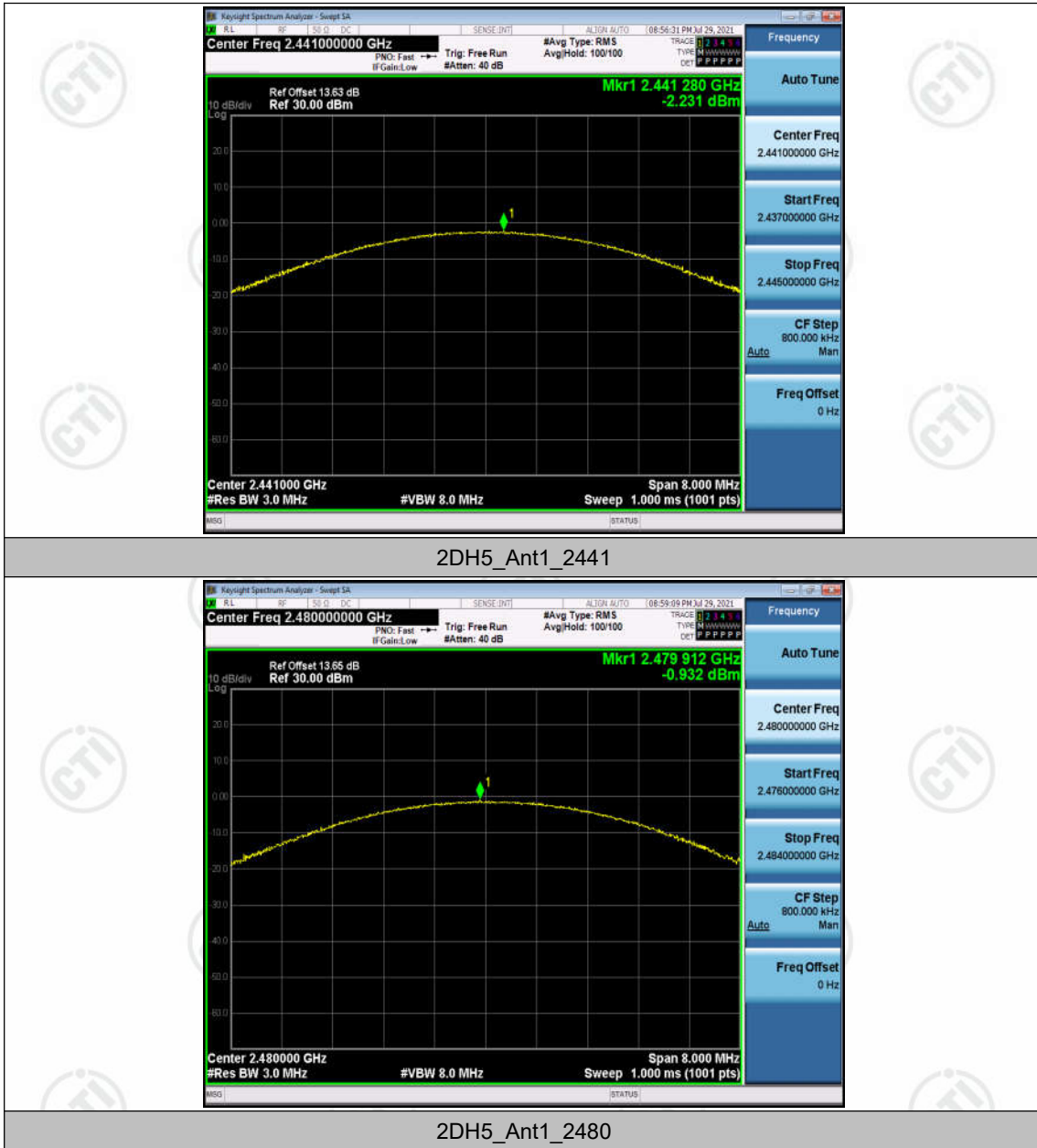
DH5\_Ant1\_2441



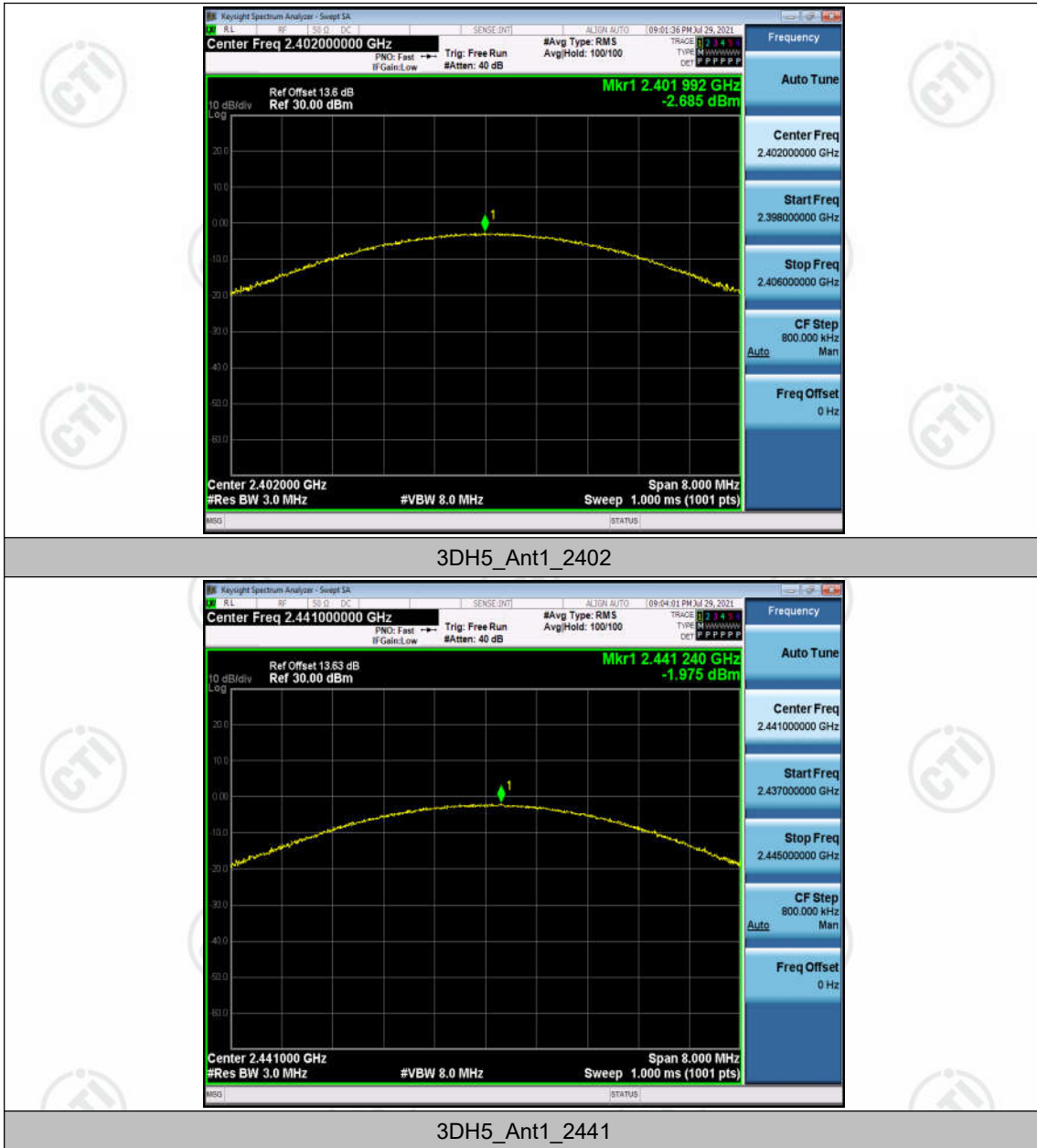
DH5\_Ant1\_2480

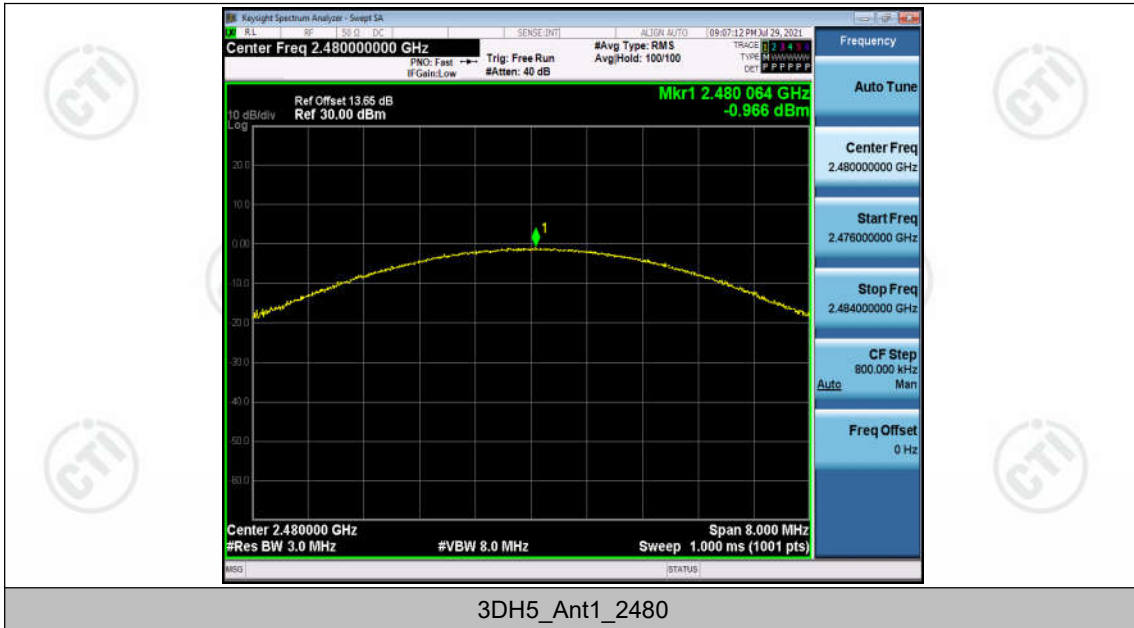


2DH5\_Ant1\_2402





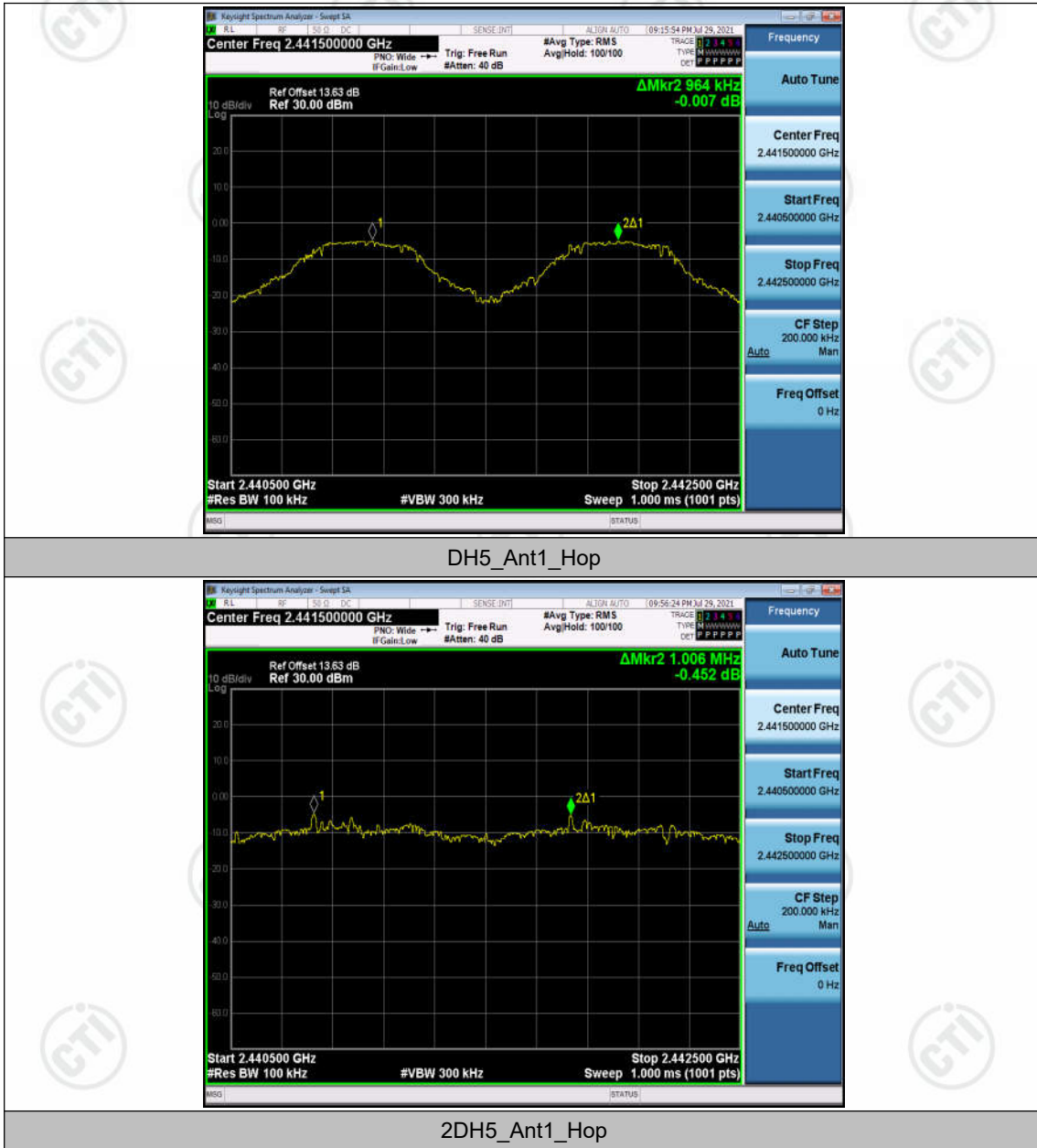


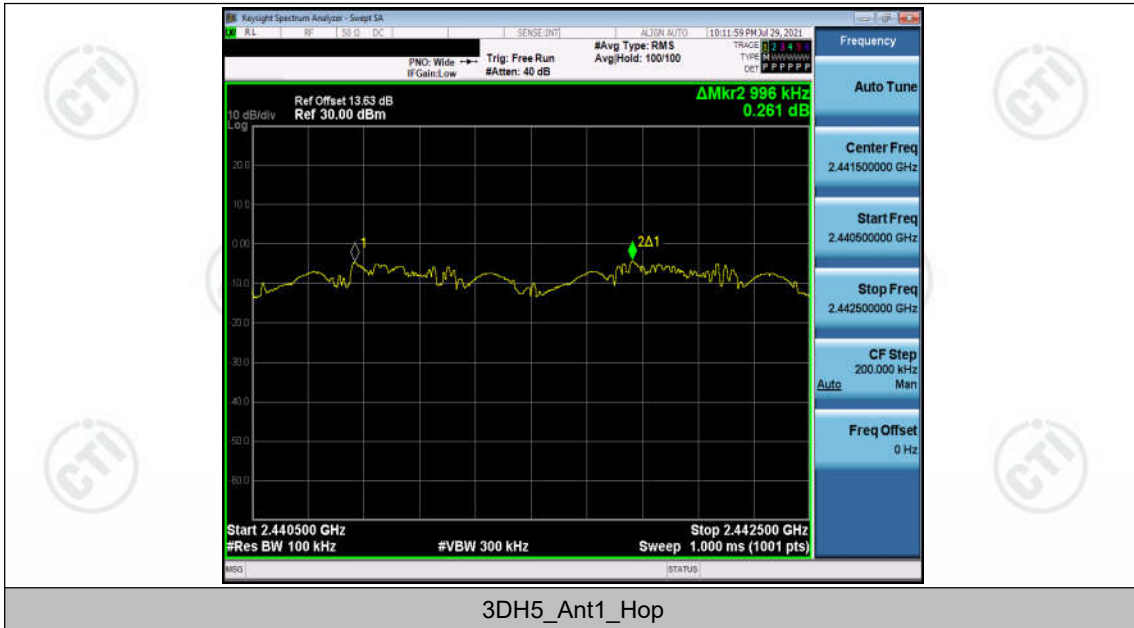


**Appendix D: Carrier frequency separation****Test Result**

Test Mode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.964	$\geq 0.694$	PASS
2DH5	Ant1	Hop	1.006	$\geq 0.852$	PASS
3DH5	Ant1	Hop	0.996	$\geq 0.854$	PASS

## Test Graphs



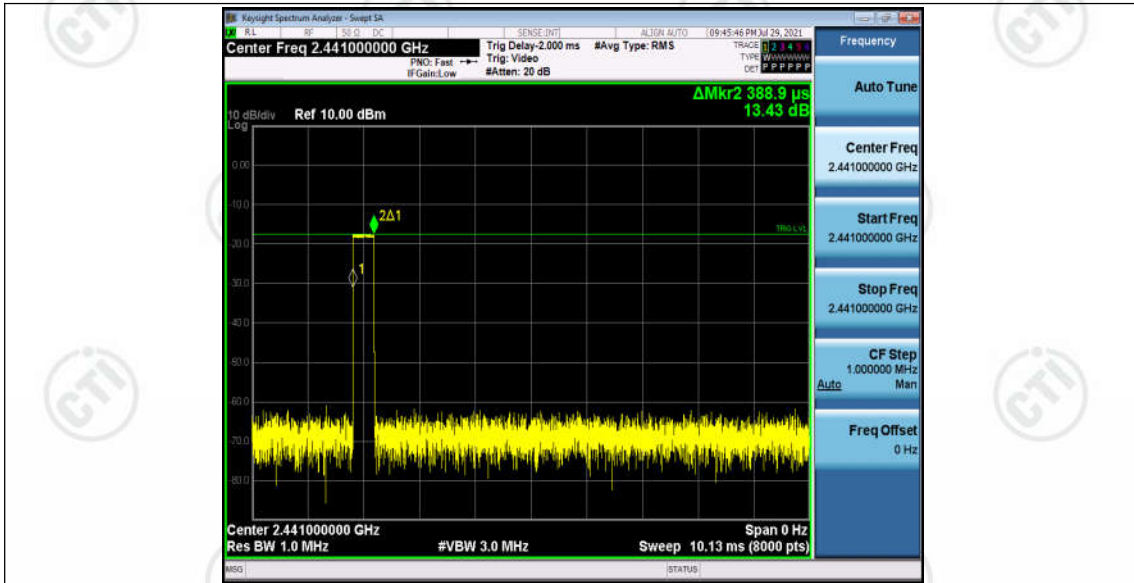




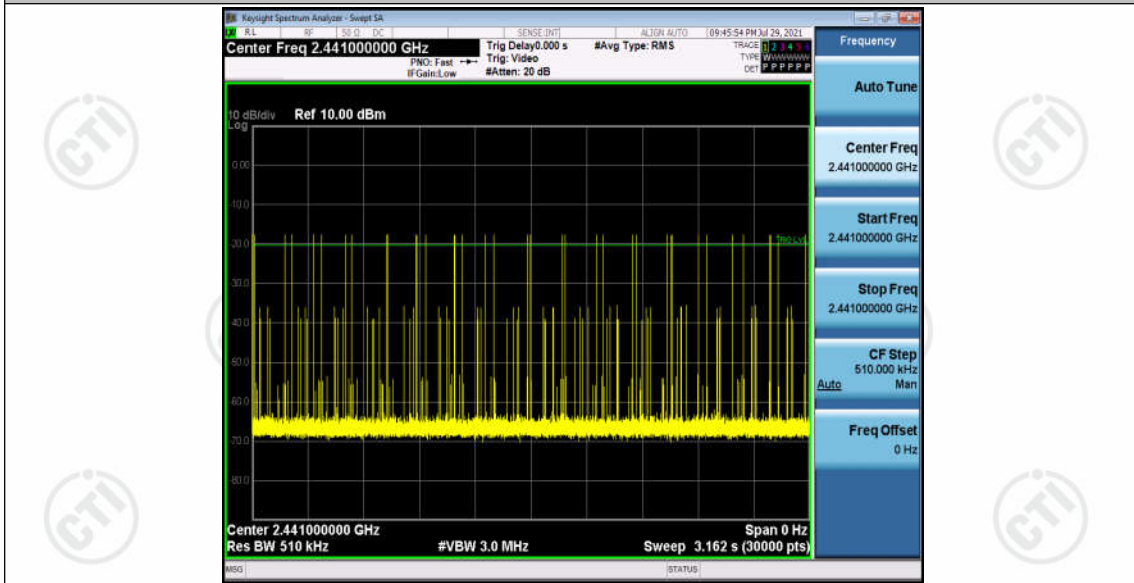
**Appendix E: Time of occupancy****Test Result**

Test Mode	Antenna	Channel	Burst Width [ms]	Total Hops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.39	330	0.129	<=0.4	PASS
DH3	Ant1	Hop	1.64	170	0.279	<=0.4	PASS
DH5	Ant1	Hop	2.91	110	0.320	<=0.4	PASS
2DH1	Ant1	Hop	0.39	330	0.129	<=0.4	PASS
2DH3	Ant1	Hop	1.65	170	0.281	<=0.4	PASS
2DH5	Ant1	Hop	2.90	110	0.319	<=0.4	PASS
3DH1	Ant1	Hop	0.40	330	0.132	<=0.4	PASS
3DH3	Ant1	Hop	1.65	170	0.281	<=0.4	PASS
3DH5	Ant1	Hop	2.90	110	0.319	<=0.4	PASS

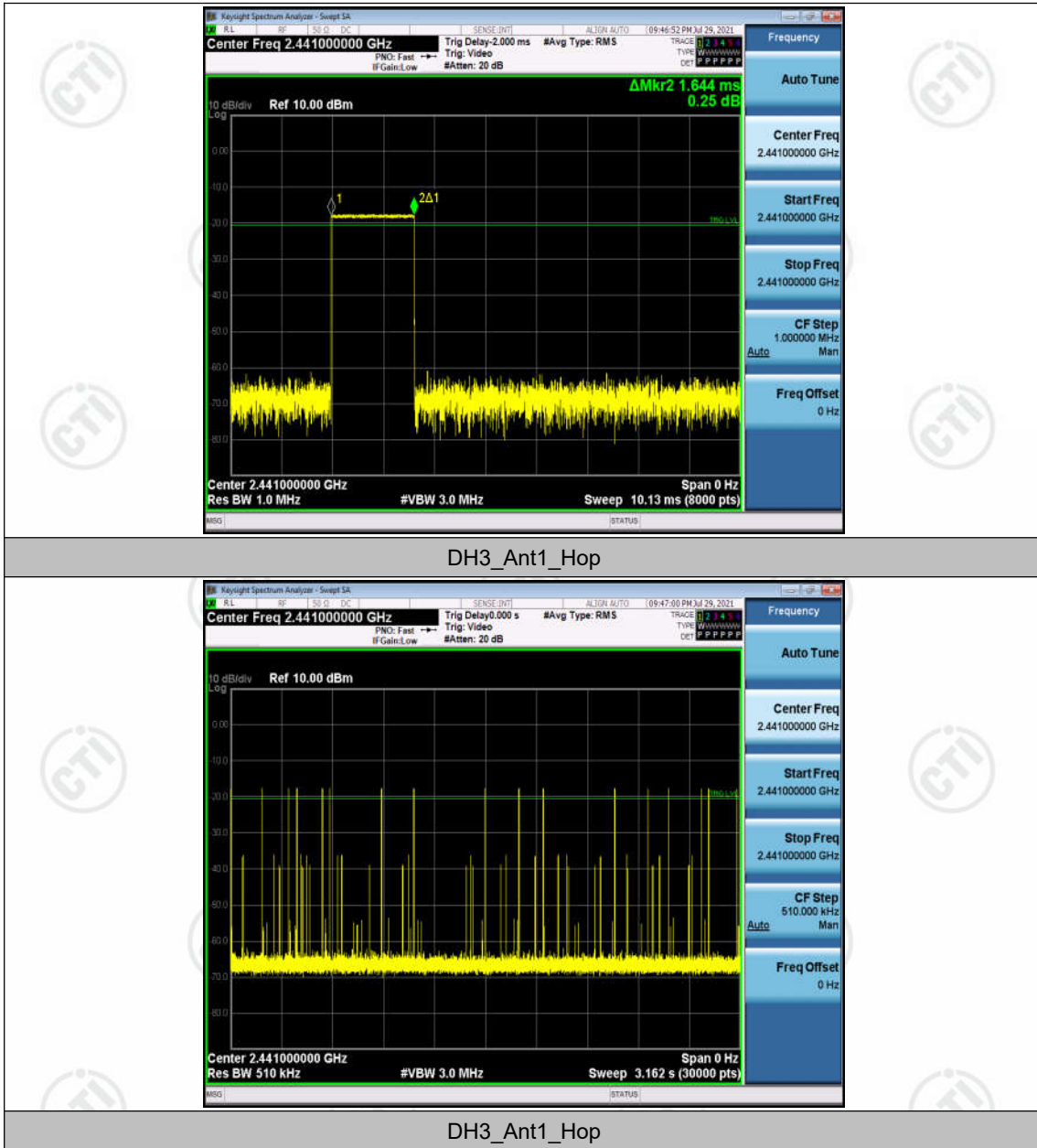
## Test Graphs

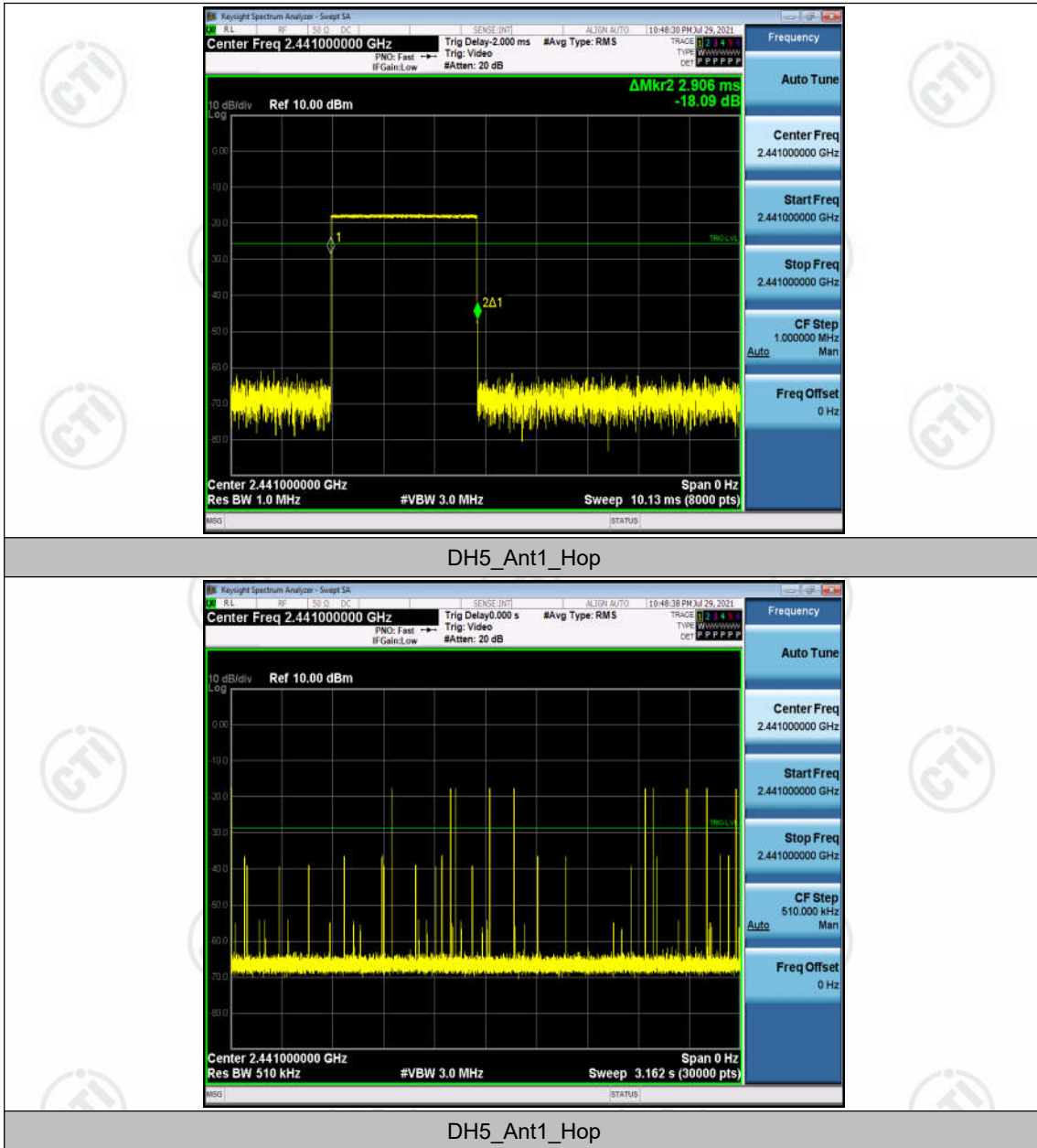


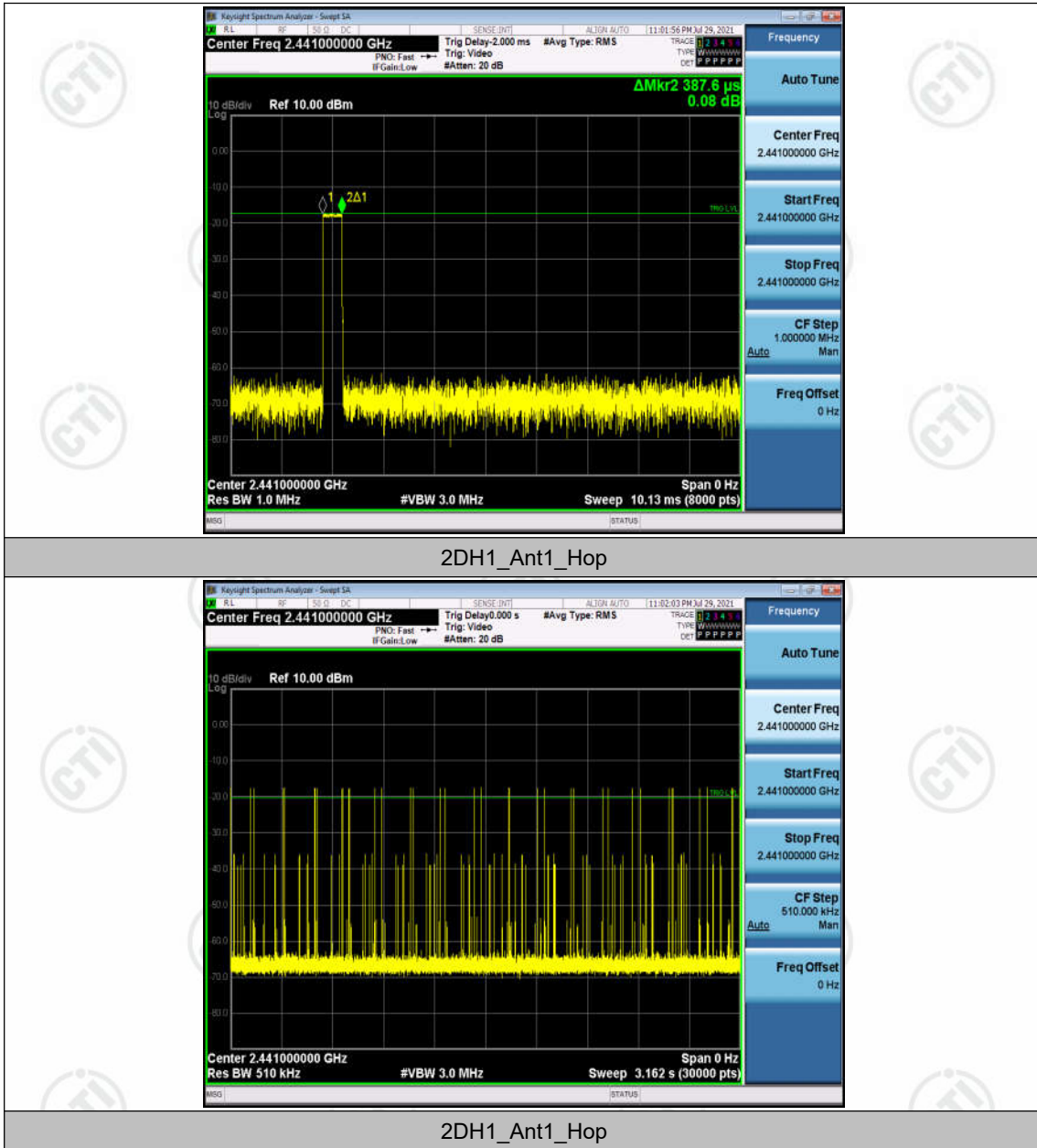
DH1\_Ant1\_Hop



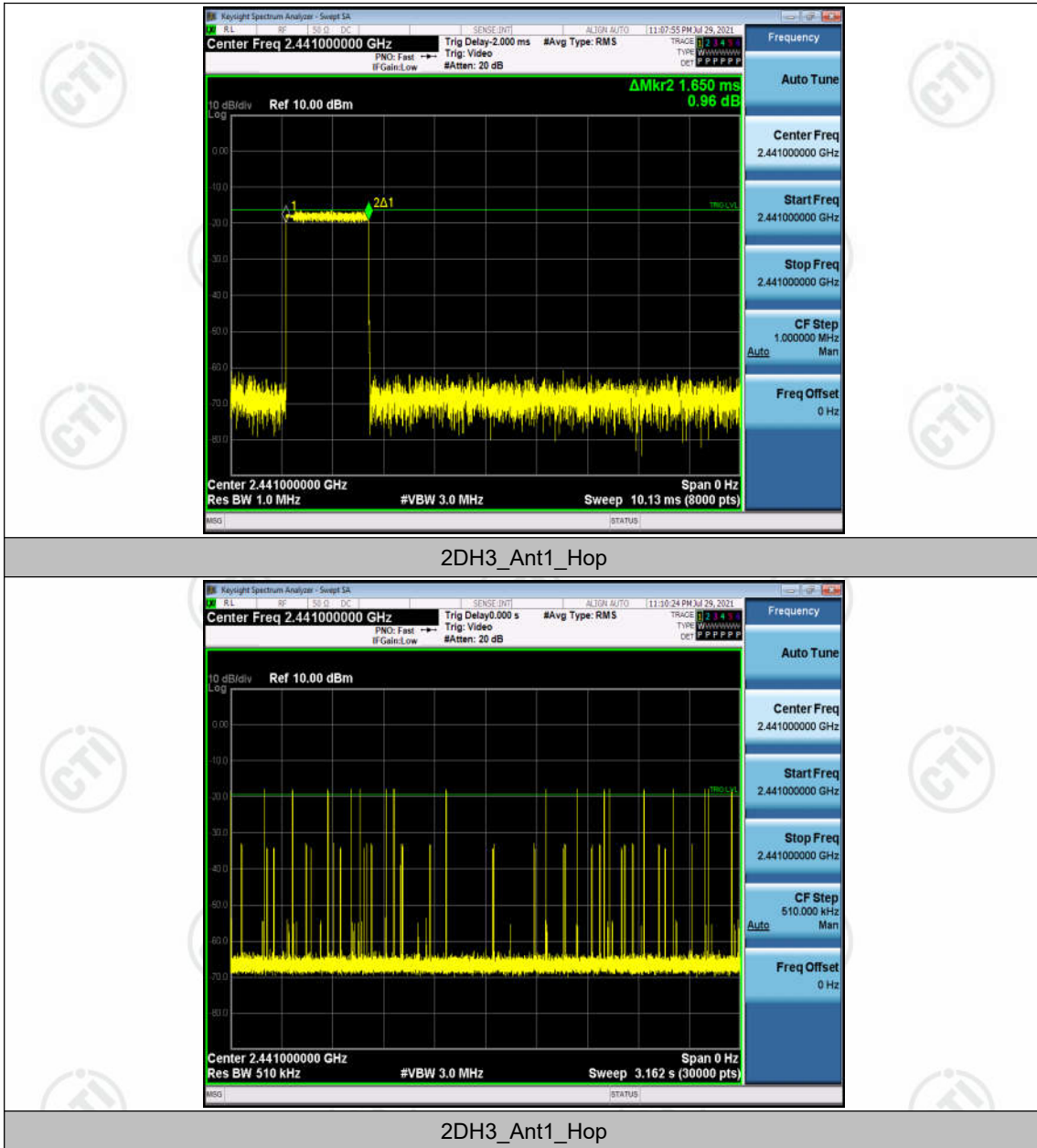
DH1\_Ant1\_Hop

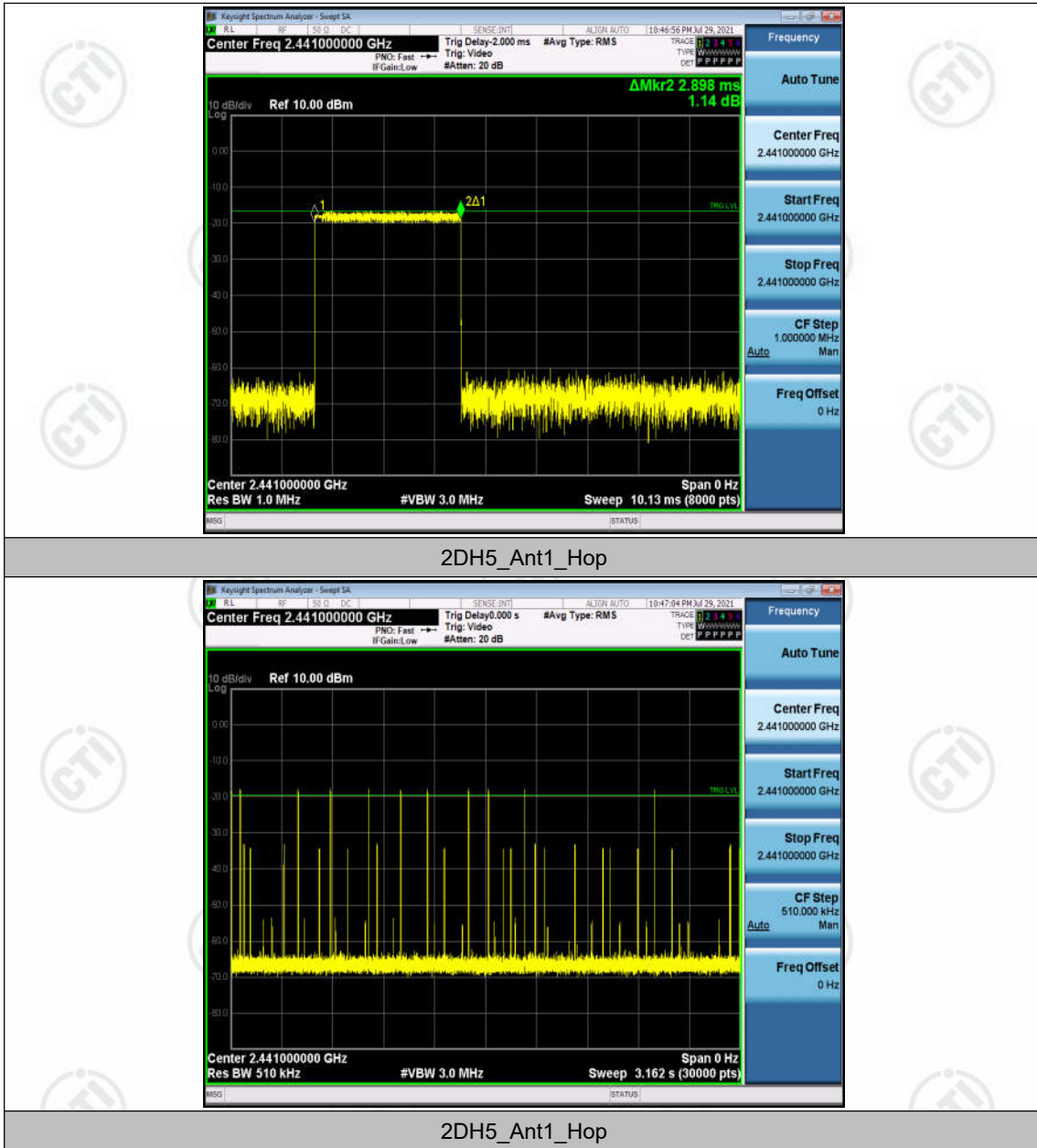


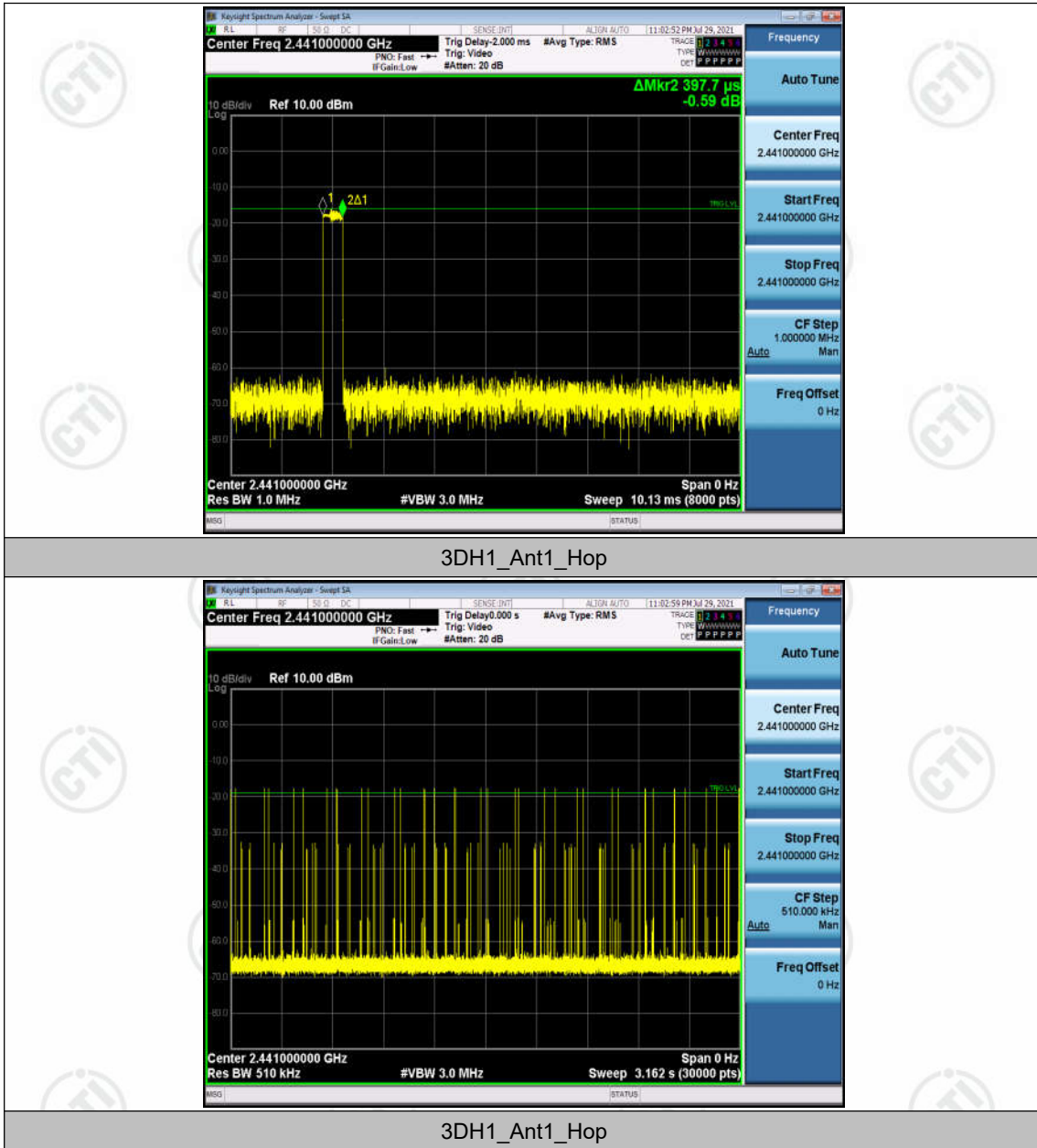


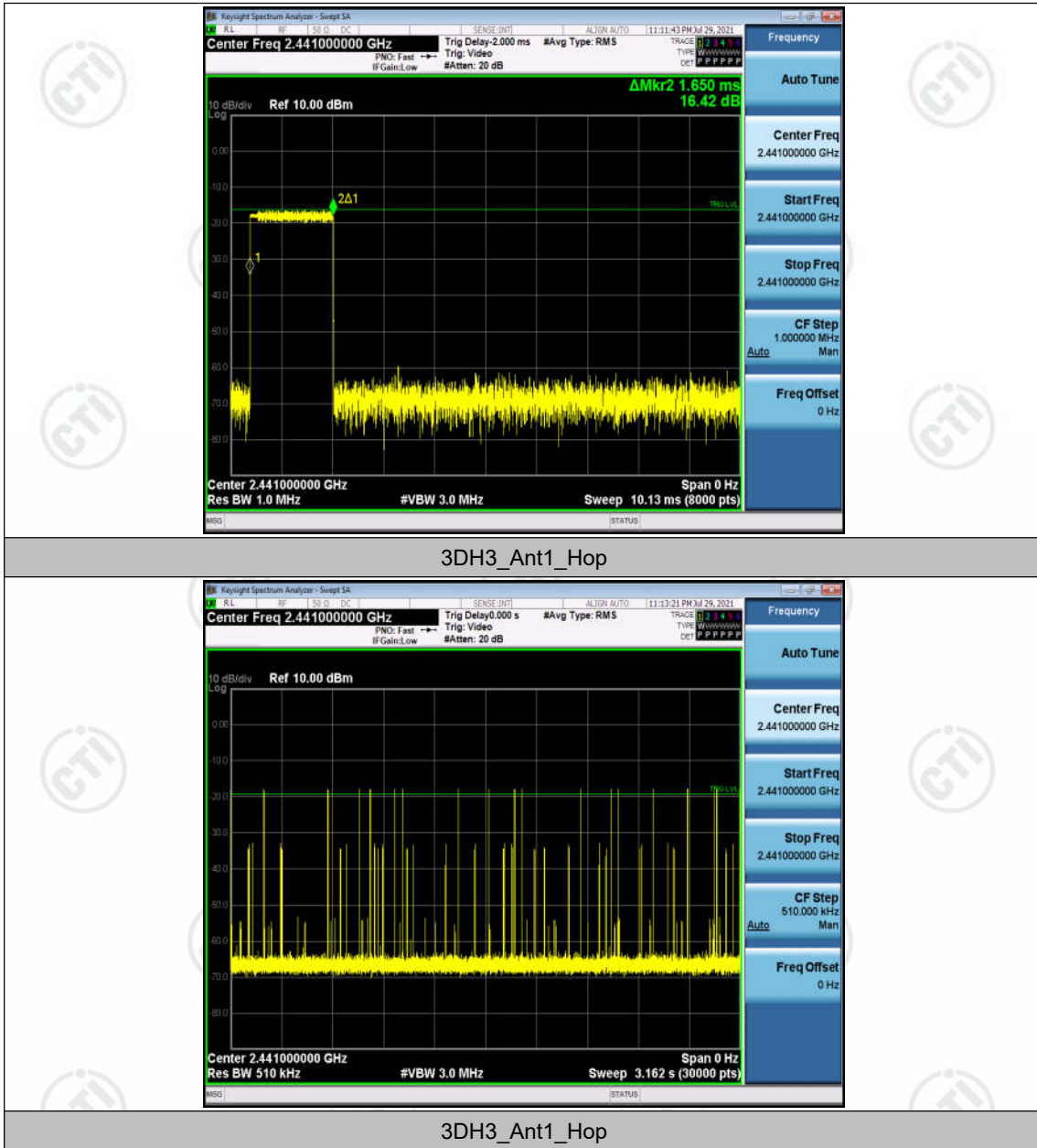




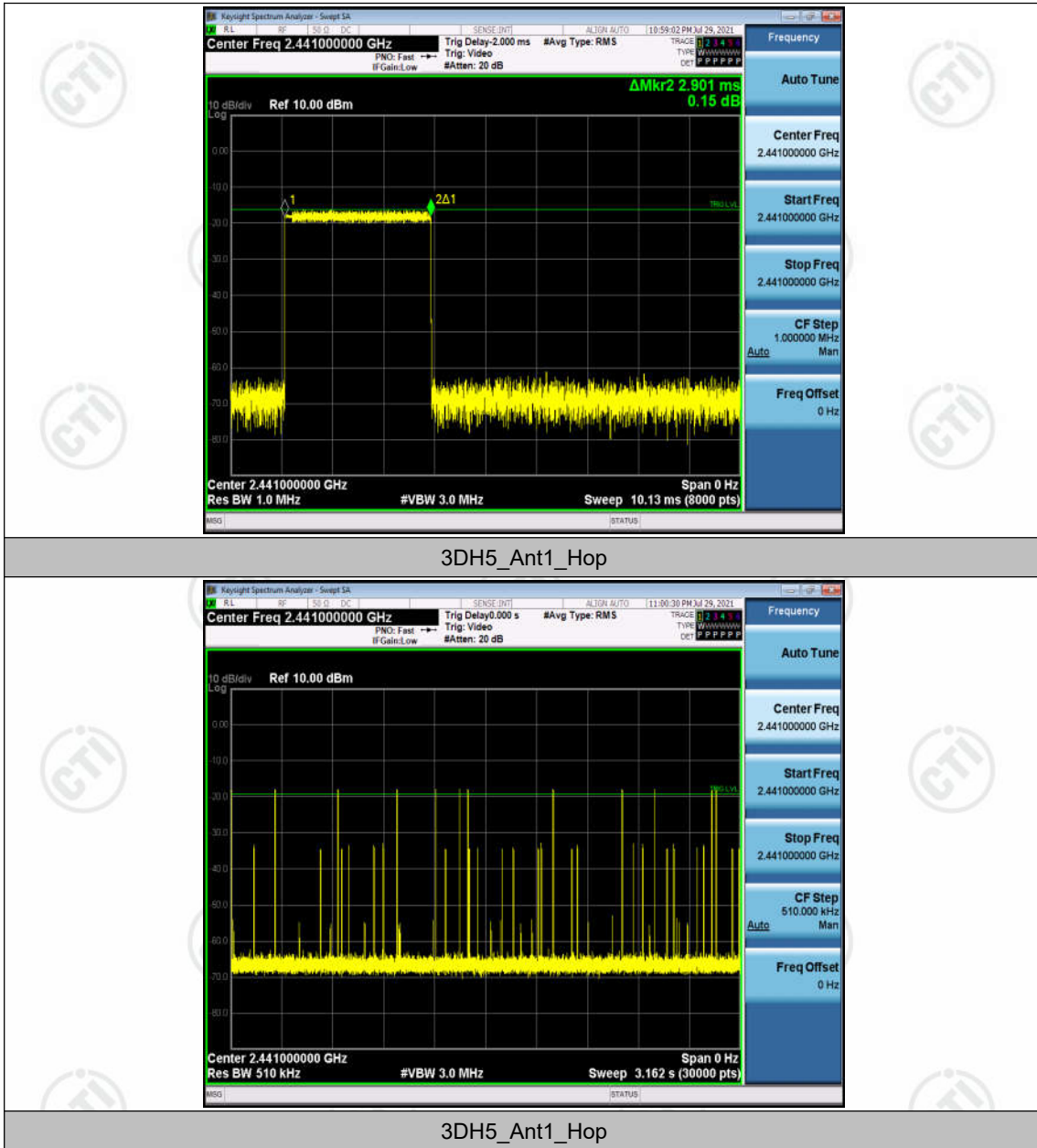










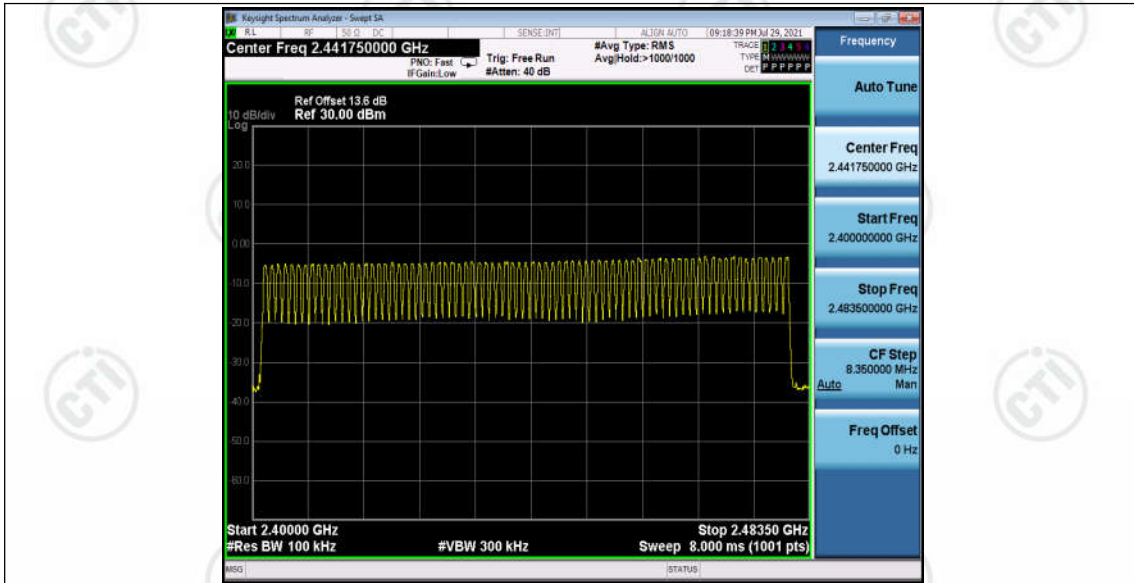




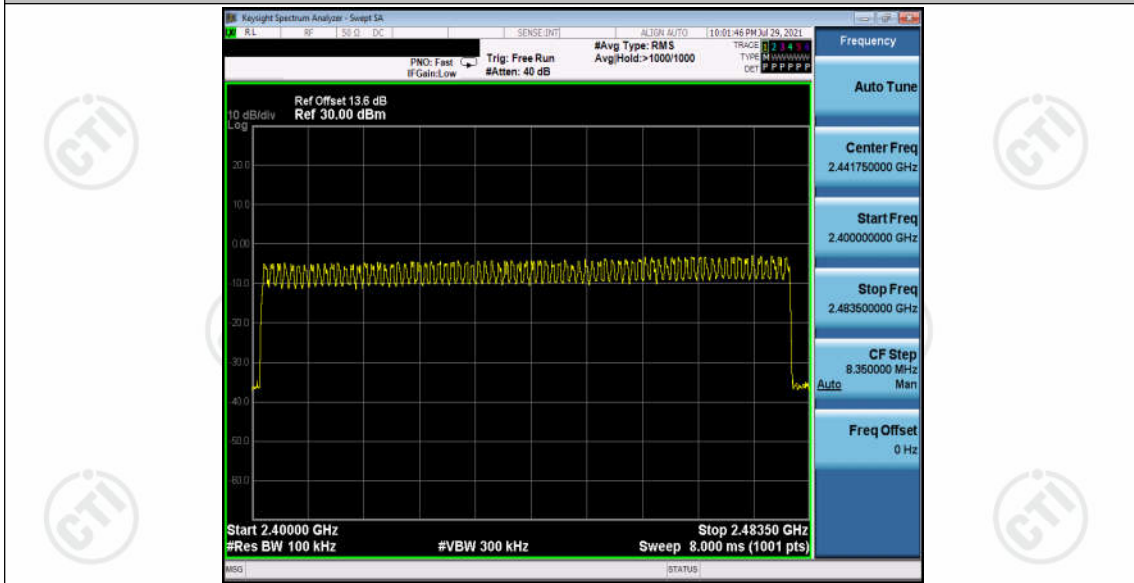
**Appendix F: Number of hopping channels****Test Result**

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

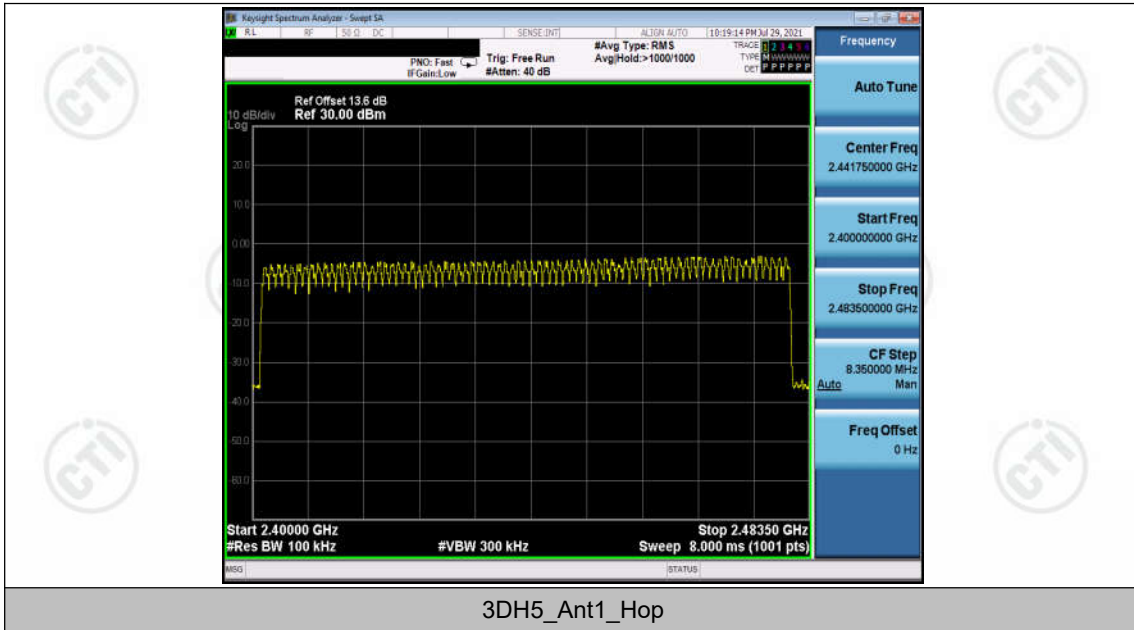
## Test Graphs



DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop

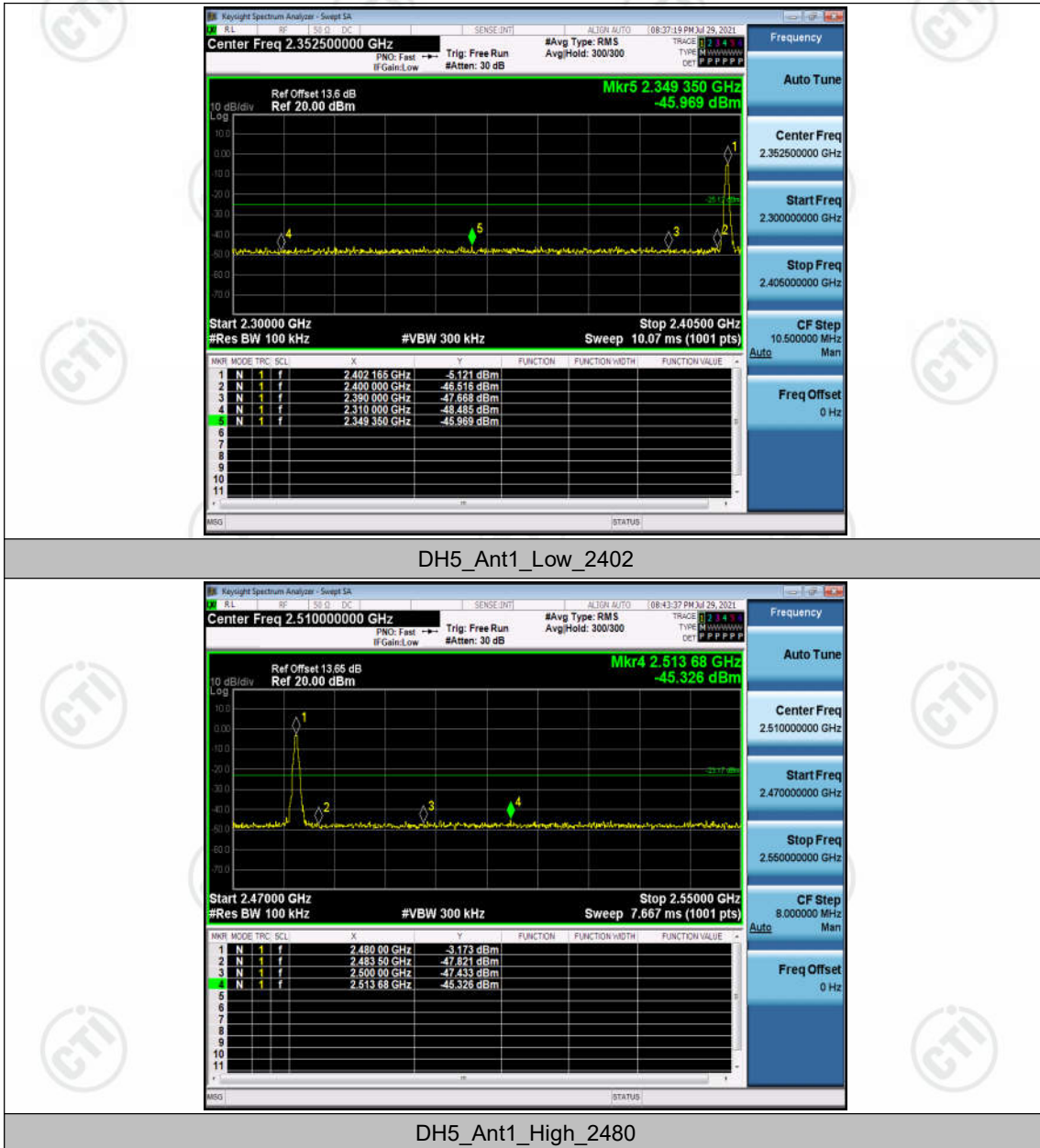


## Appendix G: Band edge measurements

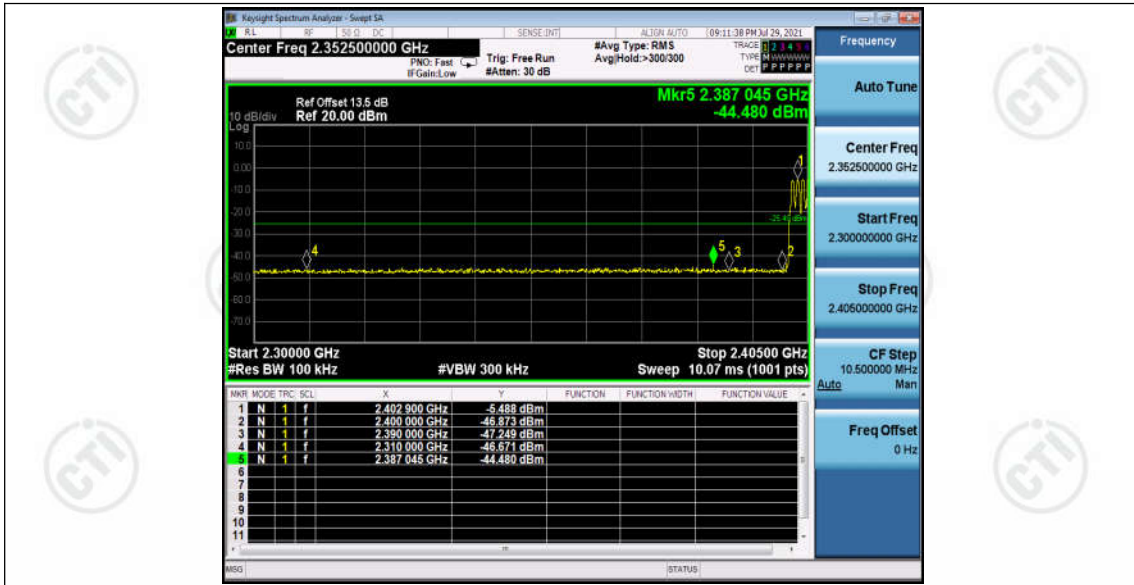
### Test Result

Test Mode	Antenna	Ch Name	Channel	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-5.12	-45.97	<=-25.12	PASS
		High	2480	-3.17	-45.33	<=-23.17	PASS
		Low	Hop_2402	-5.49	-44.48	<=-25.49	PASS
		High	Hop_2480	-3.56	-45.02	<=-23.56	PASS
2DH5	Ant1	Low	2402	-6.26	-45.5	<=-26.26	PASS
		High	2480	-3.41	-45.13	<=-23.41	PASS
		Low	Hop_2402	-5.27	-45.47	<=-25.27	PASS
		High	Hop_2480	-3.24	-44.36	<=-23.24	PASS
3DH5	Ant1	Low	2402	-5.27	-45.4	<=-25.27	PASS
		High	2480	-3.40	-44.85	<=-23.4	PASS
		Low	Hop_2402	-5.28	-45.08	<=-25.28	PASS
		High	Hop_2480	-3.03	-44.37	<=-23.03	PASS

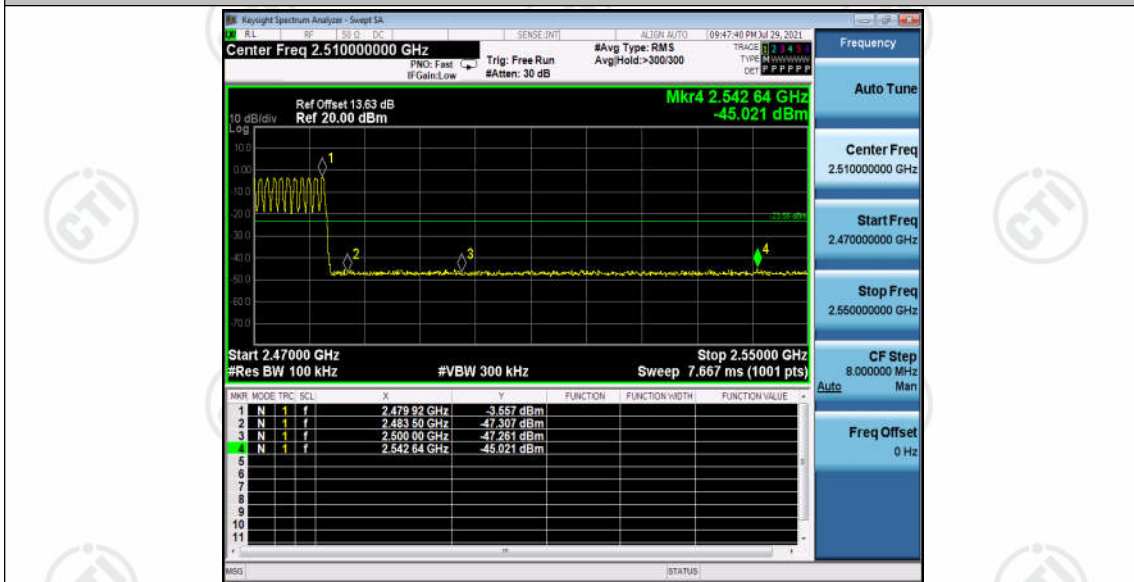
## Test Graphs



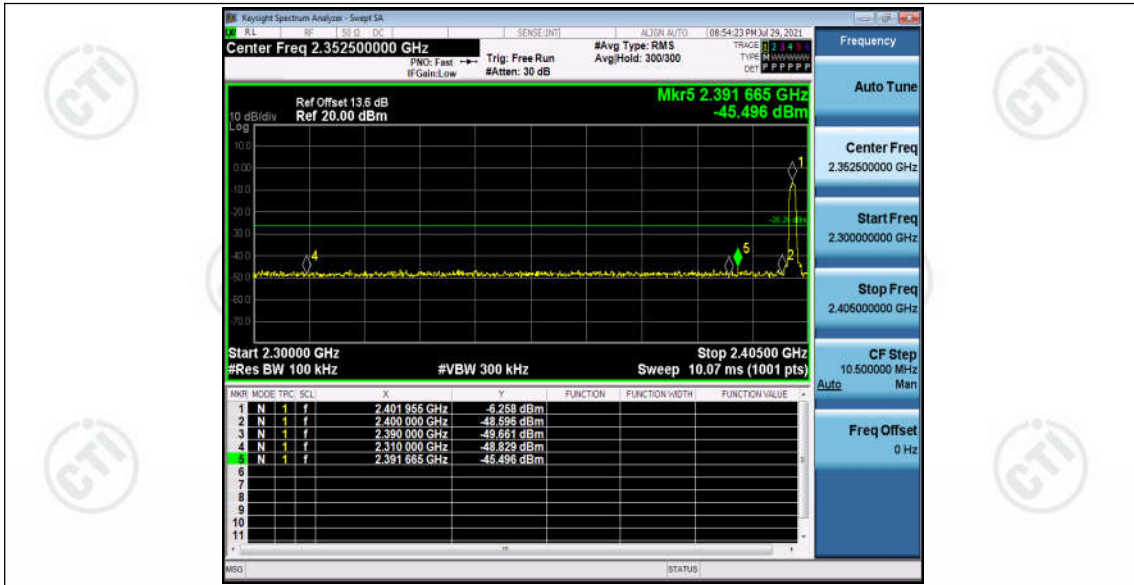




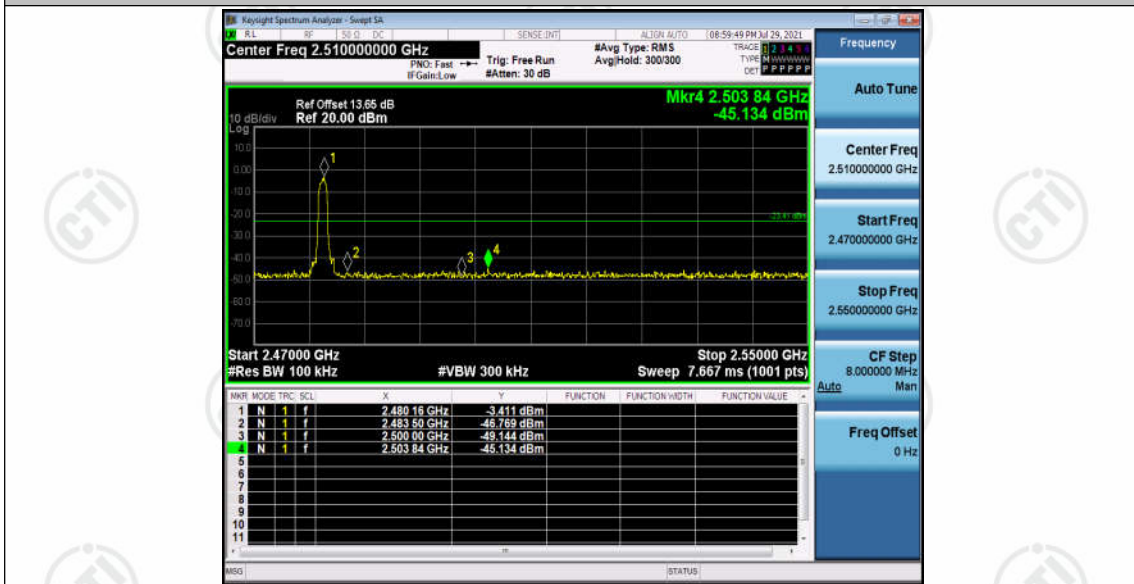
DH5\_Ant1\_Low\_Hop\_2402



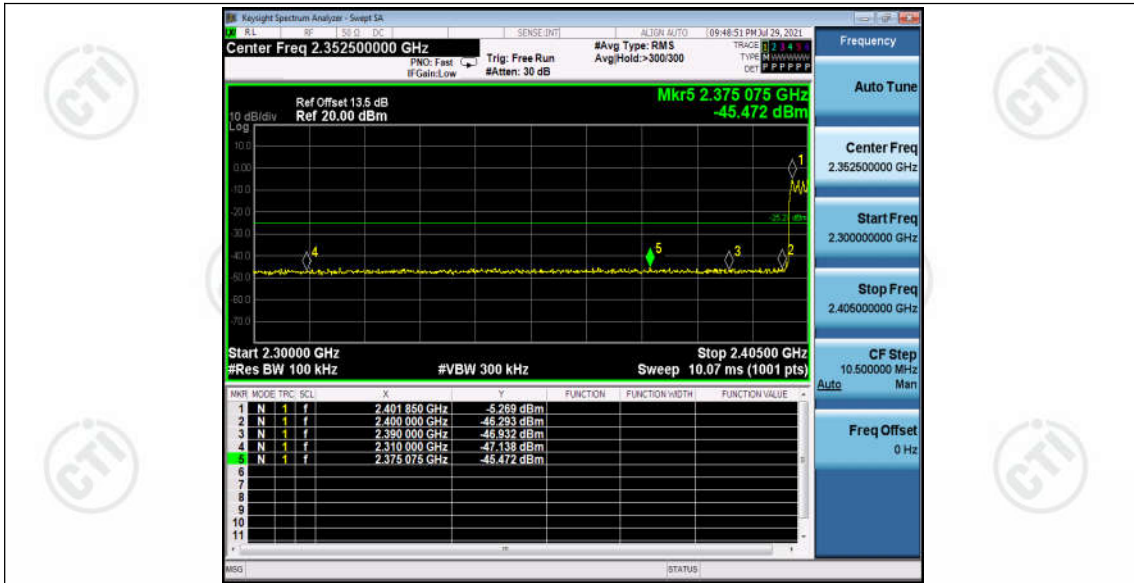
DH5\_Ant1\_High\_Hop\_2480



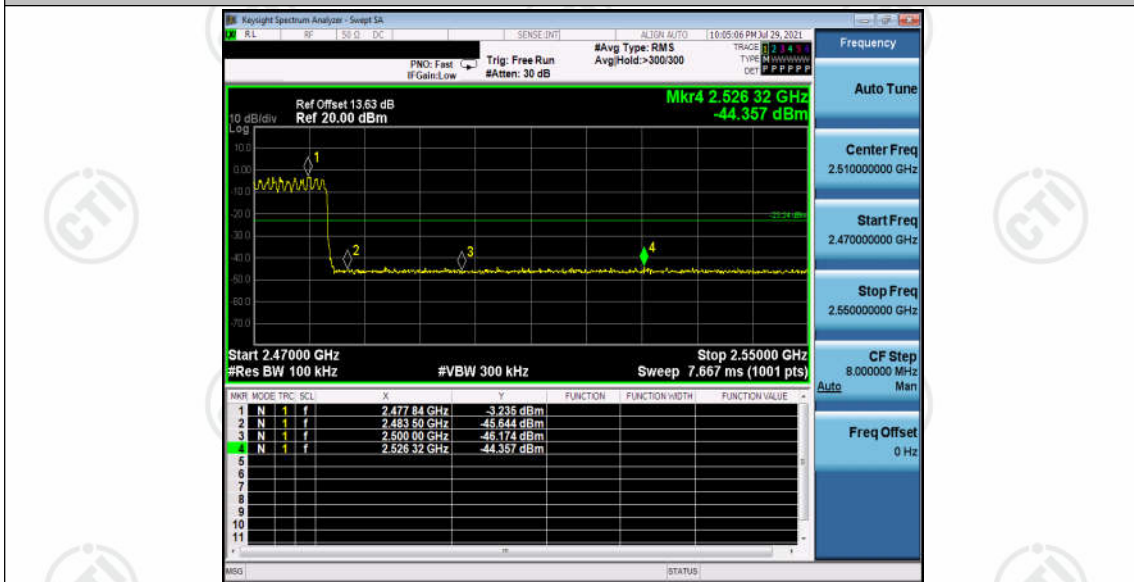
2DH5\_Ant1\_Low\_2402



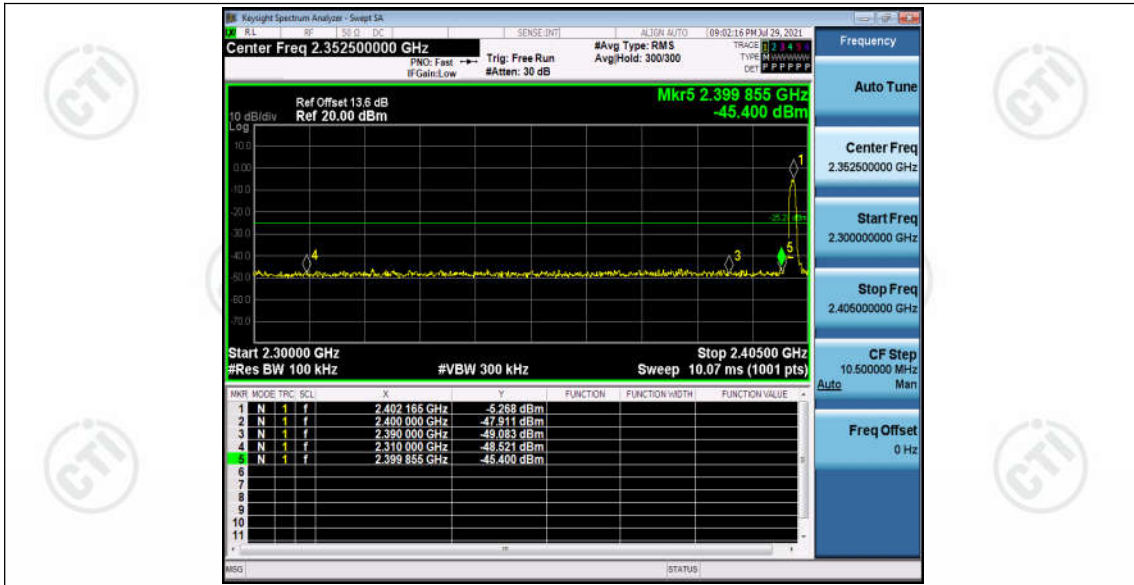
2DH5\_Ant1\_High\_2480



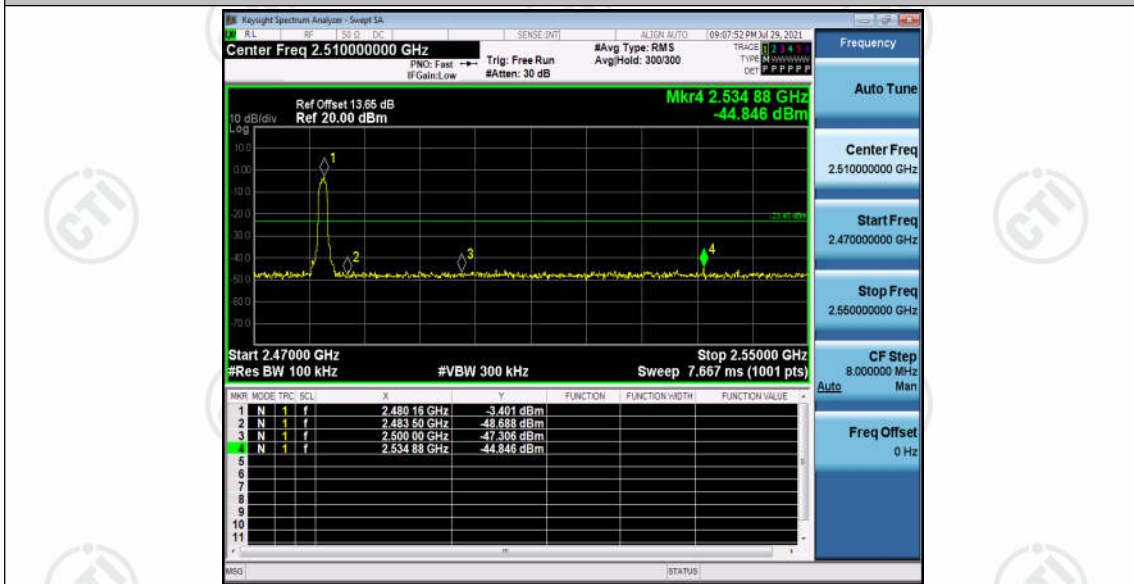
2DH5\_Ant1\_Low\_Hop\_2402



2DH5\_Ant1\_High\_Hop\_2480

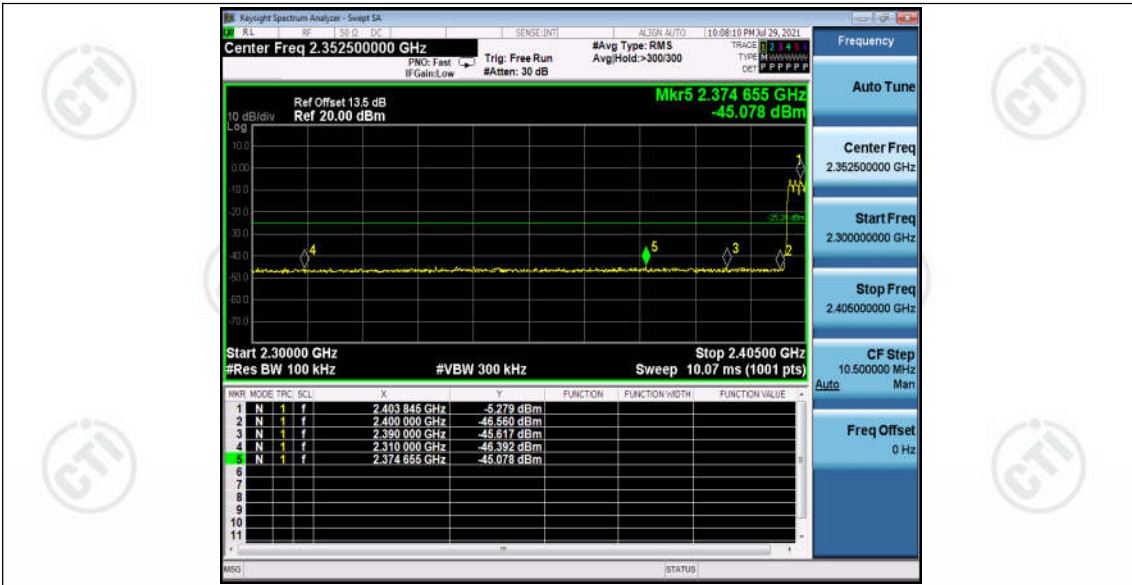


3DH5\_Ant1\_Low\_2402

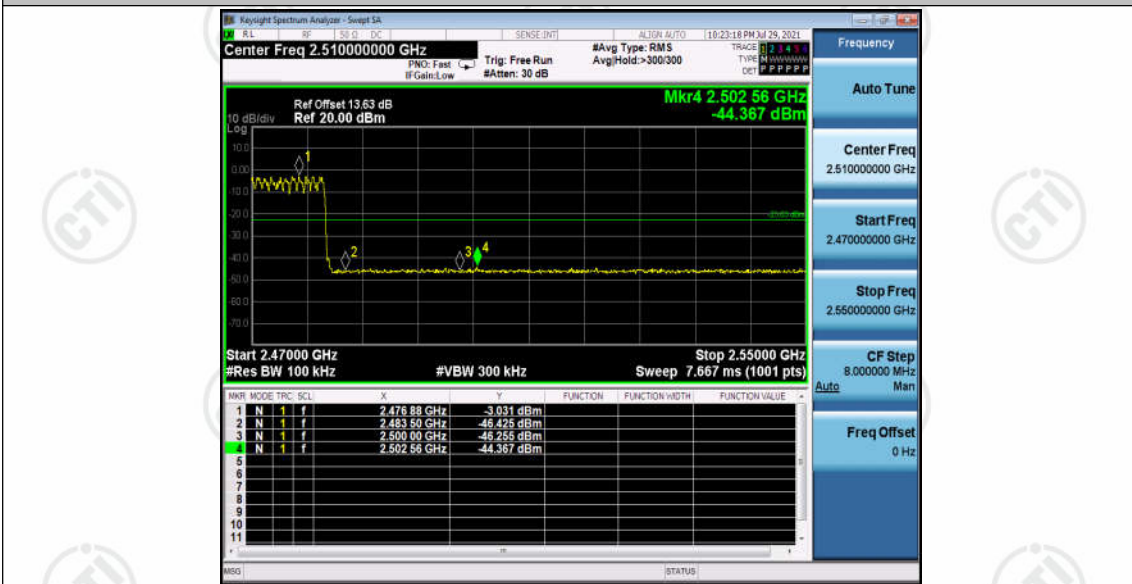


3DH5\_Ant1\_High\_2480





3DH5\_Ant1\_Low\_Hop\_2402



3DH5\_Ant1\_High\_Hop\_2480

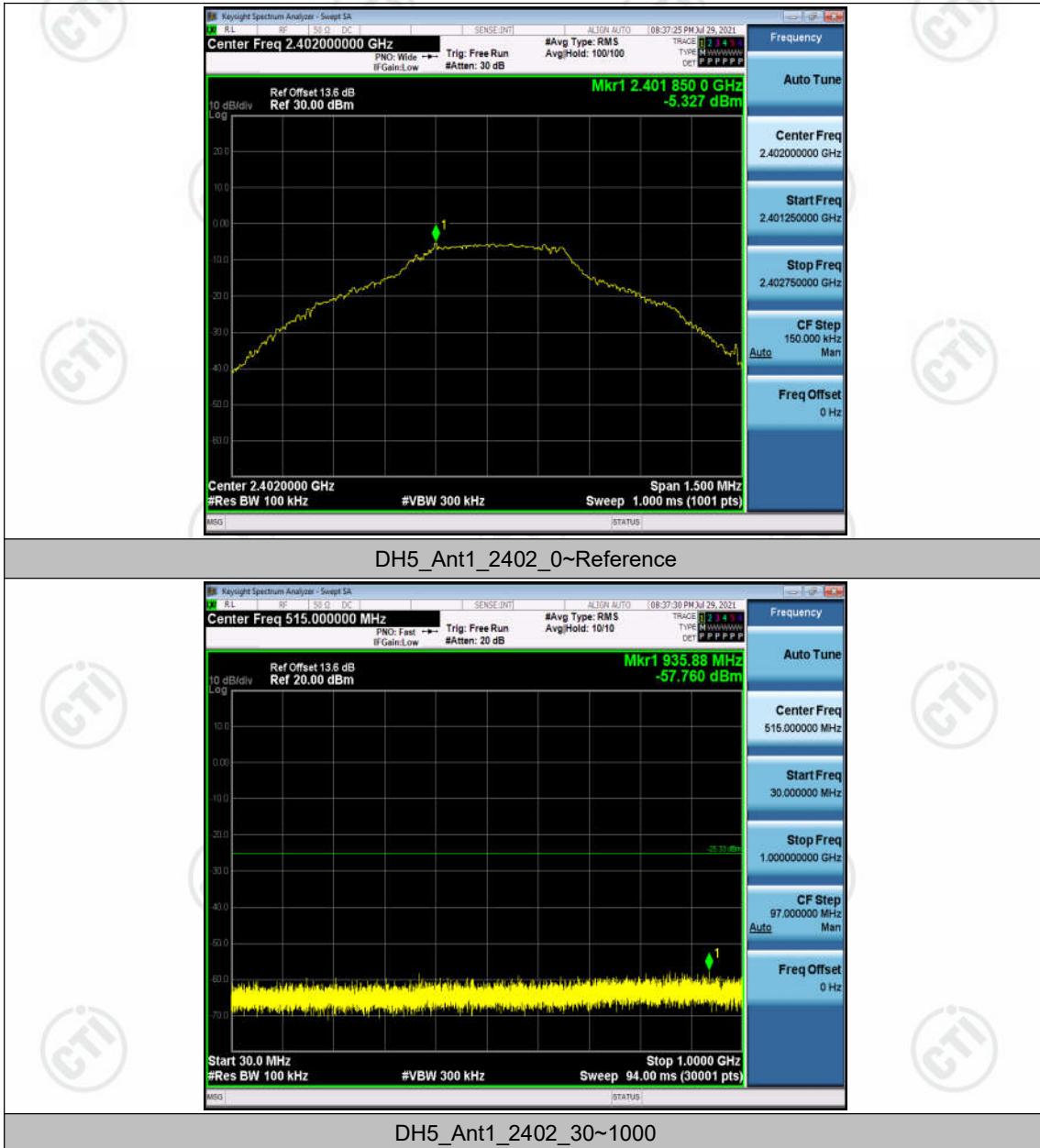


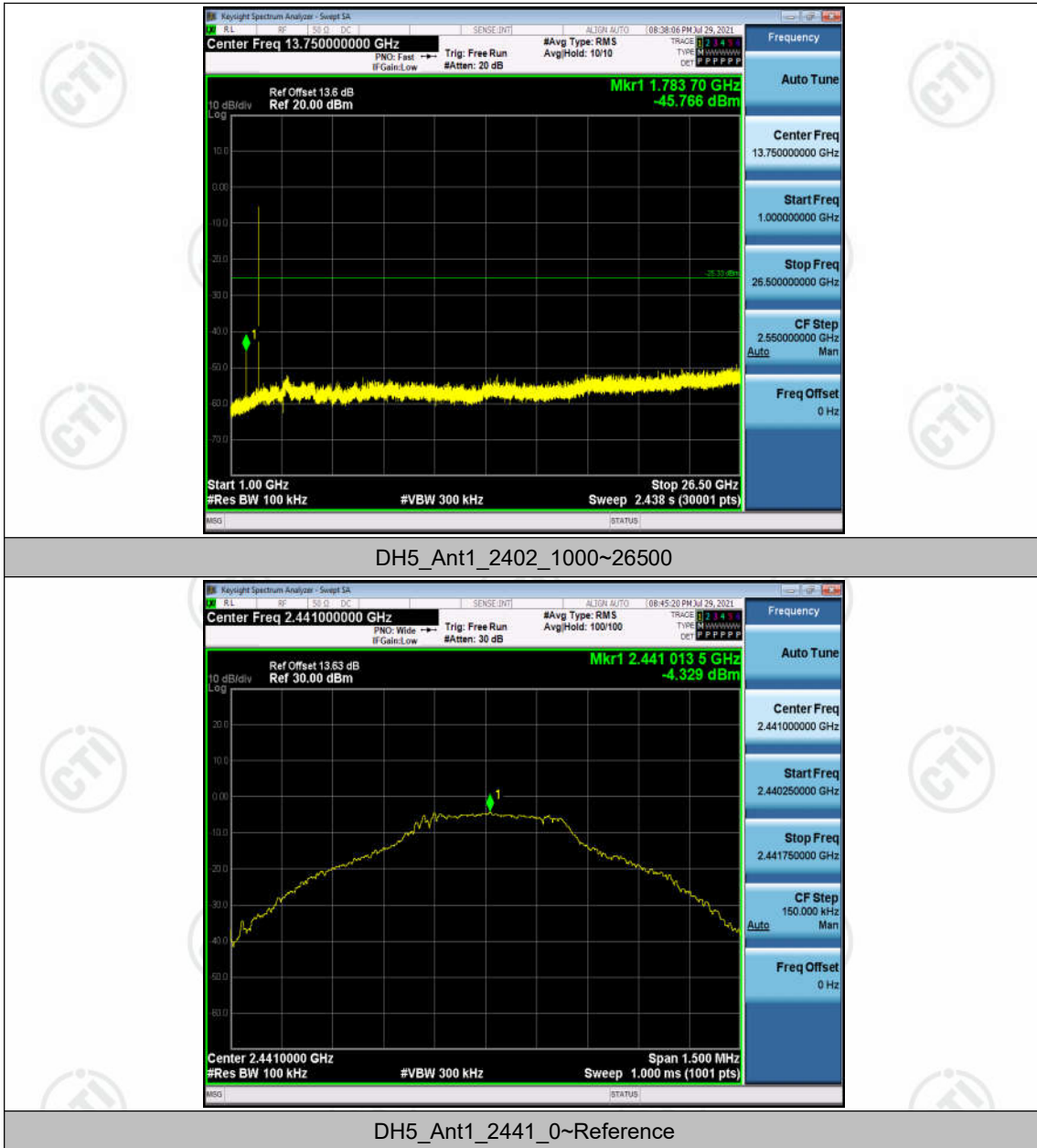
## Appendix H: Conducted Spurious Emission

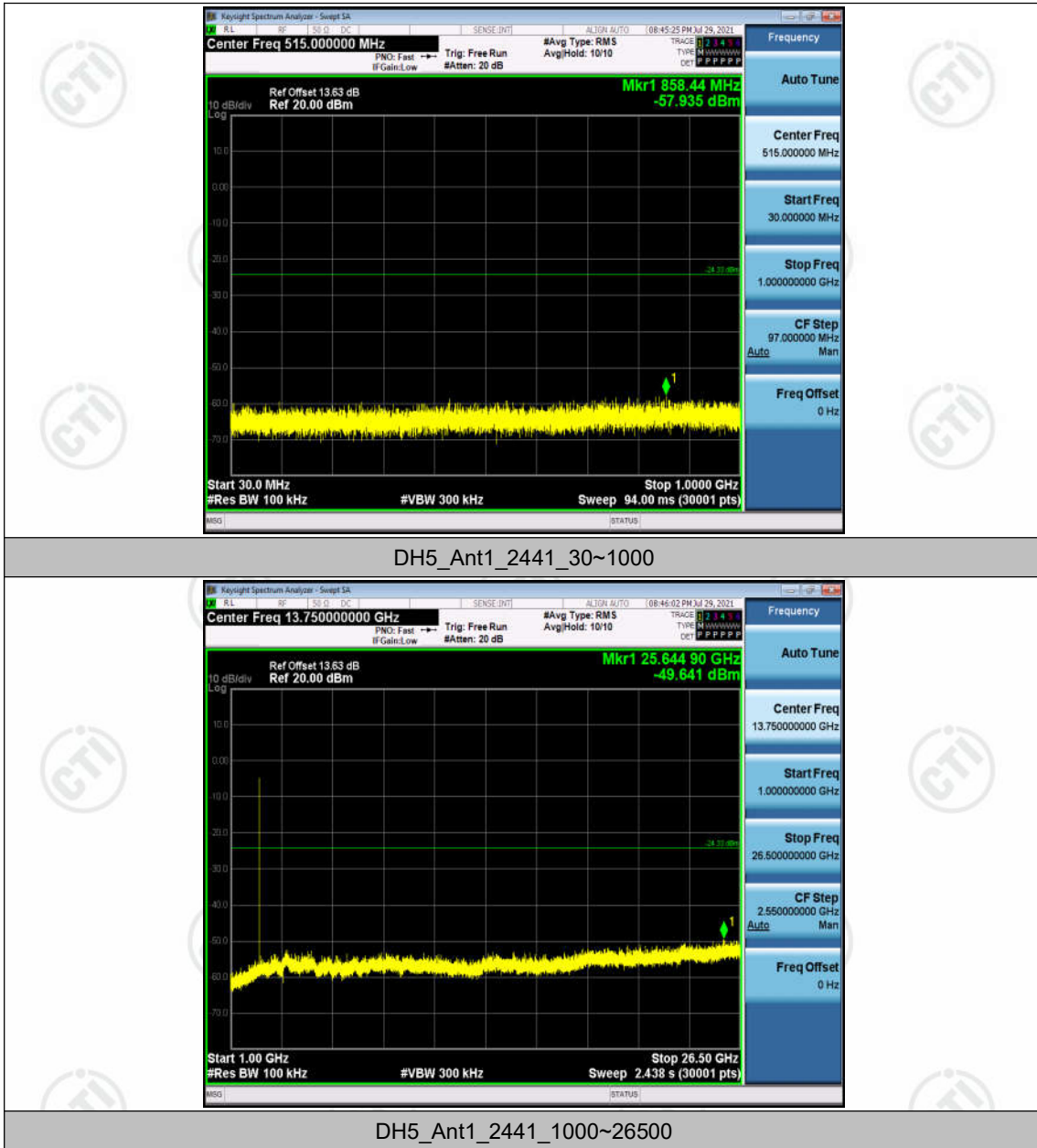
### Test Result

Test Mode	Antenna	Channel	Freq Range [MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-5.33	-5.33	---	PASS
			30~1000	30~1000	-57.76	<=-25.327	PASS
			1000~26500	1000~26500	-45.766	<=-25.327	PASS
		2441	Reference	-4.33	-4.33	---	PASS
			30~1000	30~1000	-57.935	<=-24.329	PASS
			1000~26500	1000~26500	-49.641	<=-24.329	PASS
		2480	Reference	-3.20	-3.20	---	PASS
			30~1000	30~1000	-58.003	<=-23.203	PASS
			1000~26500	1000~26500	-49.05	<=-23.203	PASS
2DH5	Ant1	2402	Reference	-5.54	-5.54	---	PASS
			30~1000	30~1000	-57.443	<=-25.537	PASS
			1000~26500	1000~26500	-49.152	<=-25.537	PASS
		2441	Reference	-4.64	-4.64	---	PASS
			30~1000	30~1000	-56.973	<=-24.636	PASS
			1000~26500	1000~26500	-49.254	<=-24.636	PASS
		2480	Reference	-3.56	-3.56	---	PASS
			30~1000	30~1000	-57.551	<=-23.56	PASS
			1000~26500	1000~26500	-48.708	<=-23.56	PASS
3DH5	Ant1	2402	Reference	-5.33	-5.33	---	PASS
			30~1000	30~1000	-57.628	<=-25.33	PASS
			1000~26500	1000~26500	-48.581	<=-25.33	PASS
		2441	Reference	-4.68	-4.68	---	PASS
			30~1000	30~1000	-57.696	<=-24.682	PASS
			1000~26500	1000~26500	-49.849	<=-24.682	PASS
		2480	Reference	-3.79	-3.79	---	PASS
			30~1000	30~1000	-57.96	<=-23.789	PASS
			1000~26500	1000~26500	-48.977	<=-23.789	PASS

## Test Graphs

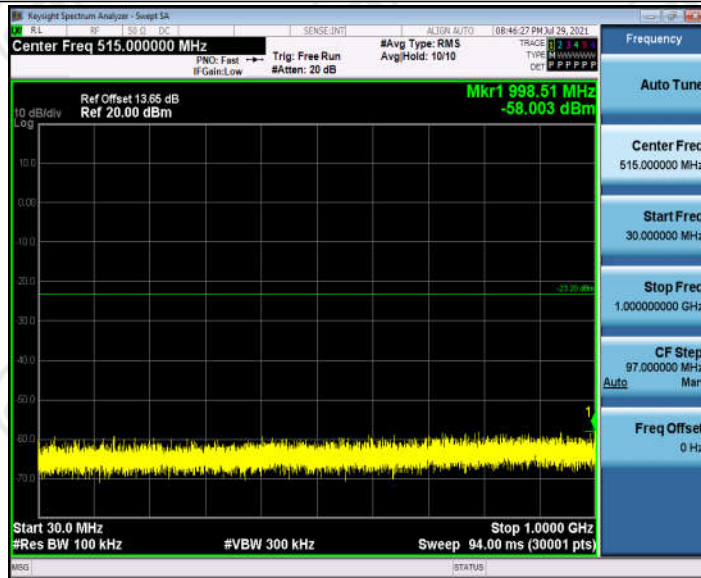






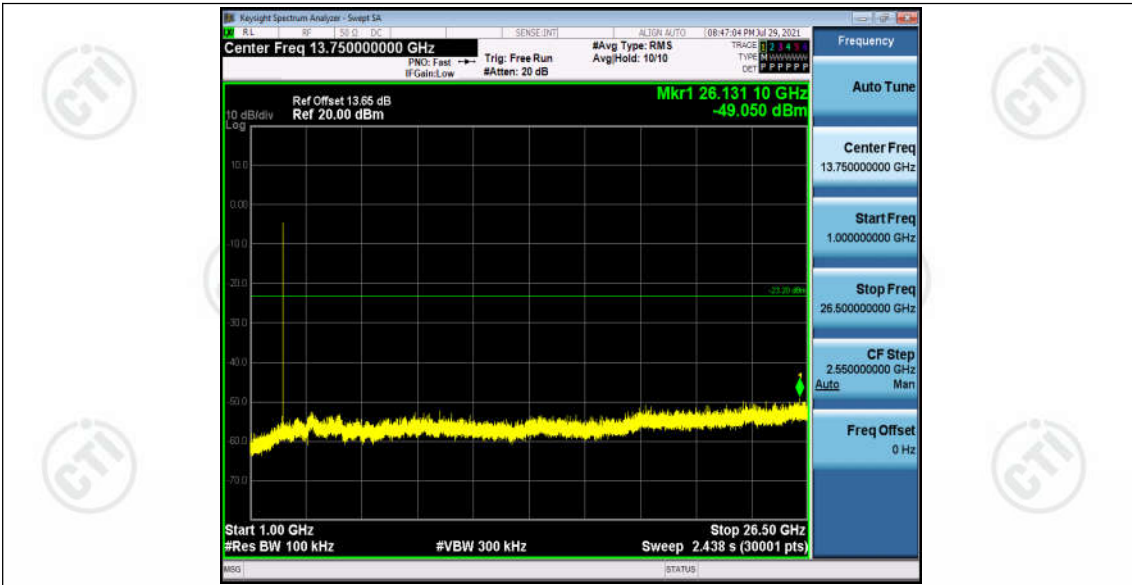


DH5\_Ant1\_2480\_0~Reference



DH5\_Ant1\_2480\_30~1000

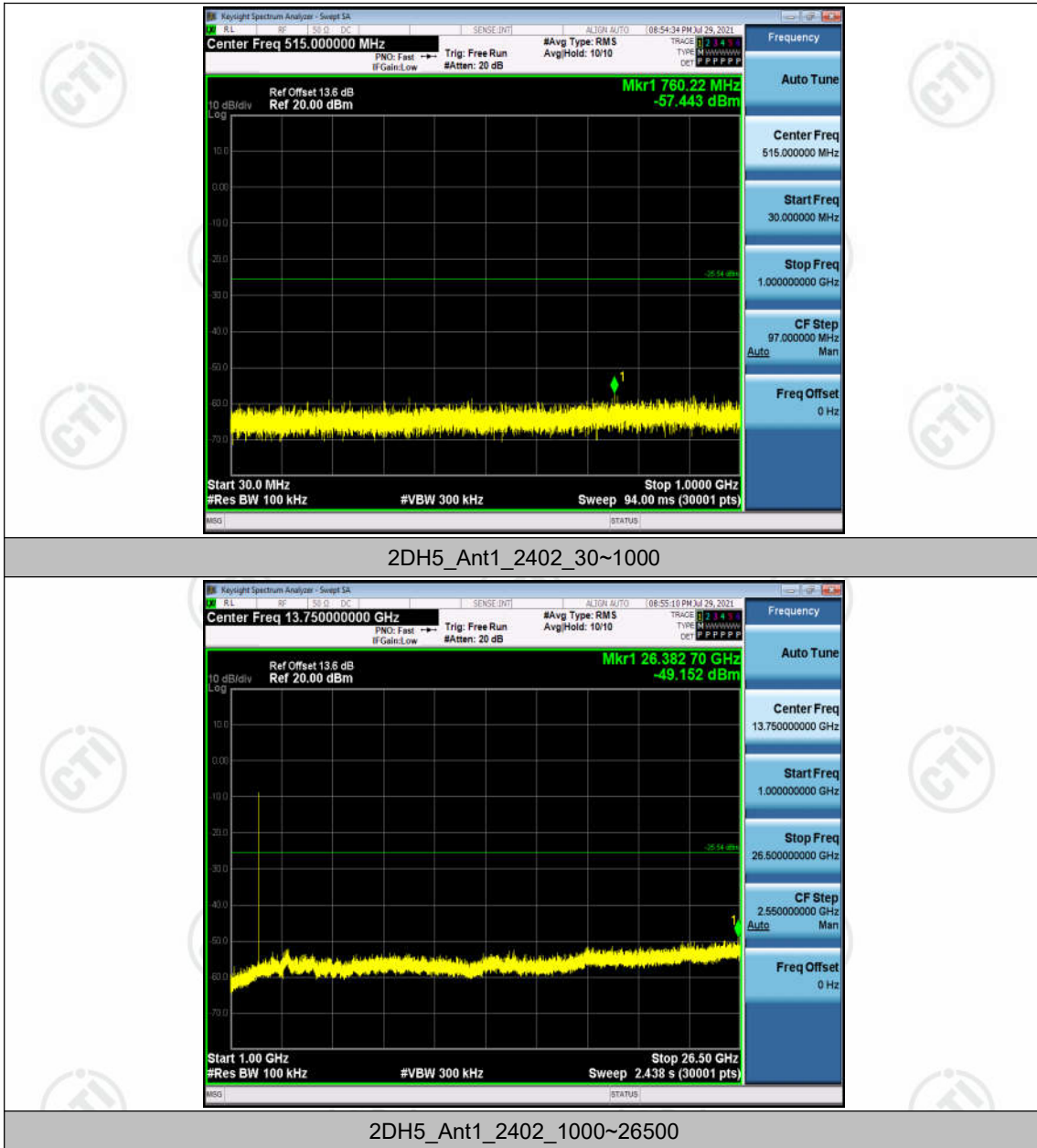


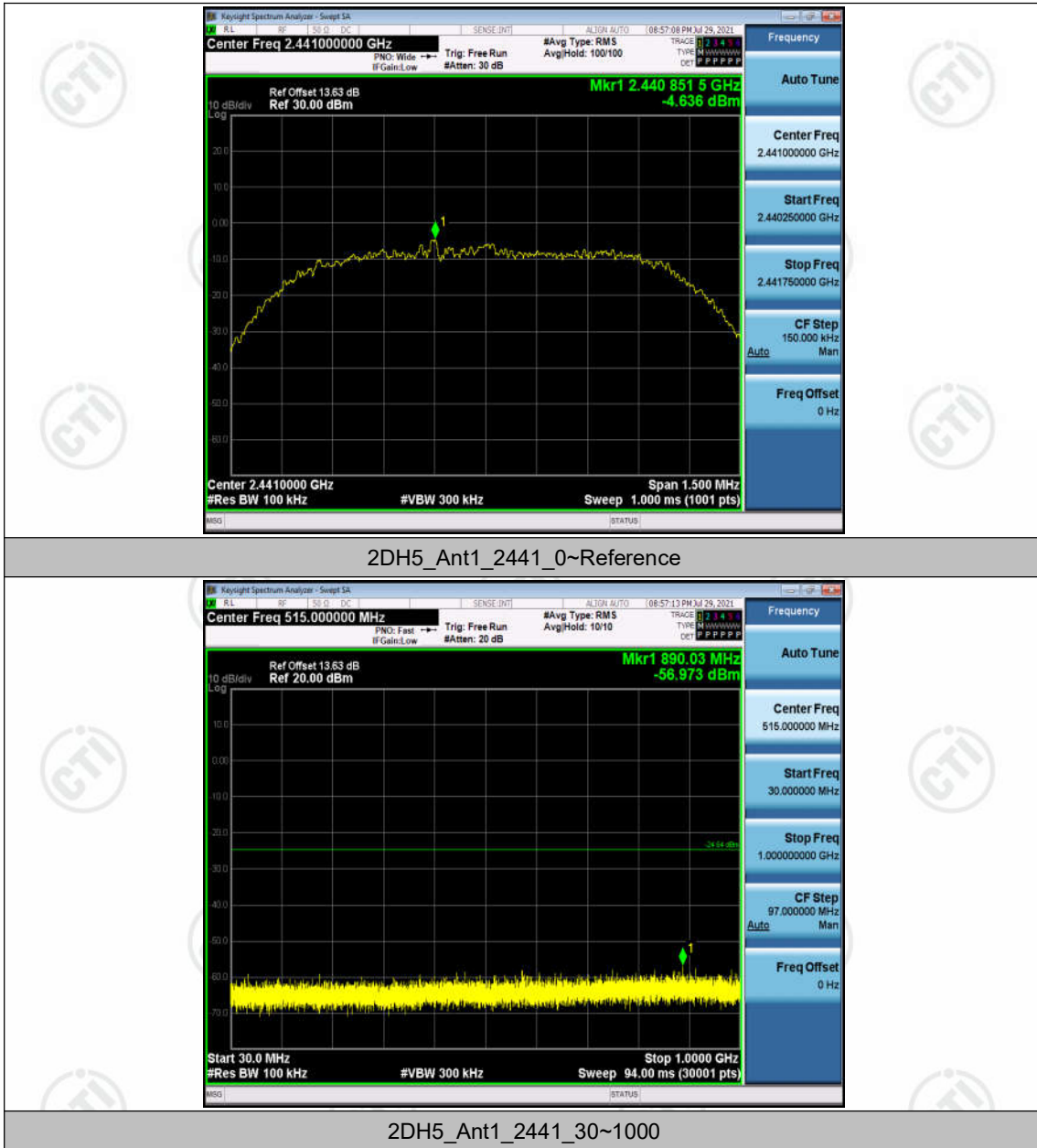


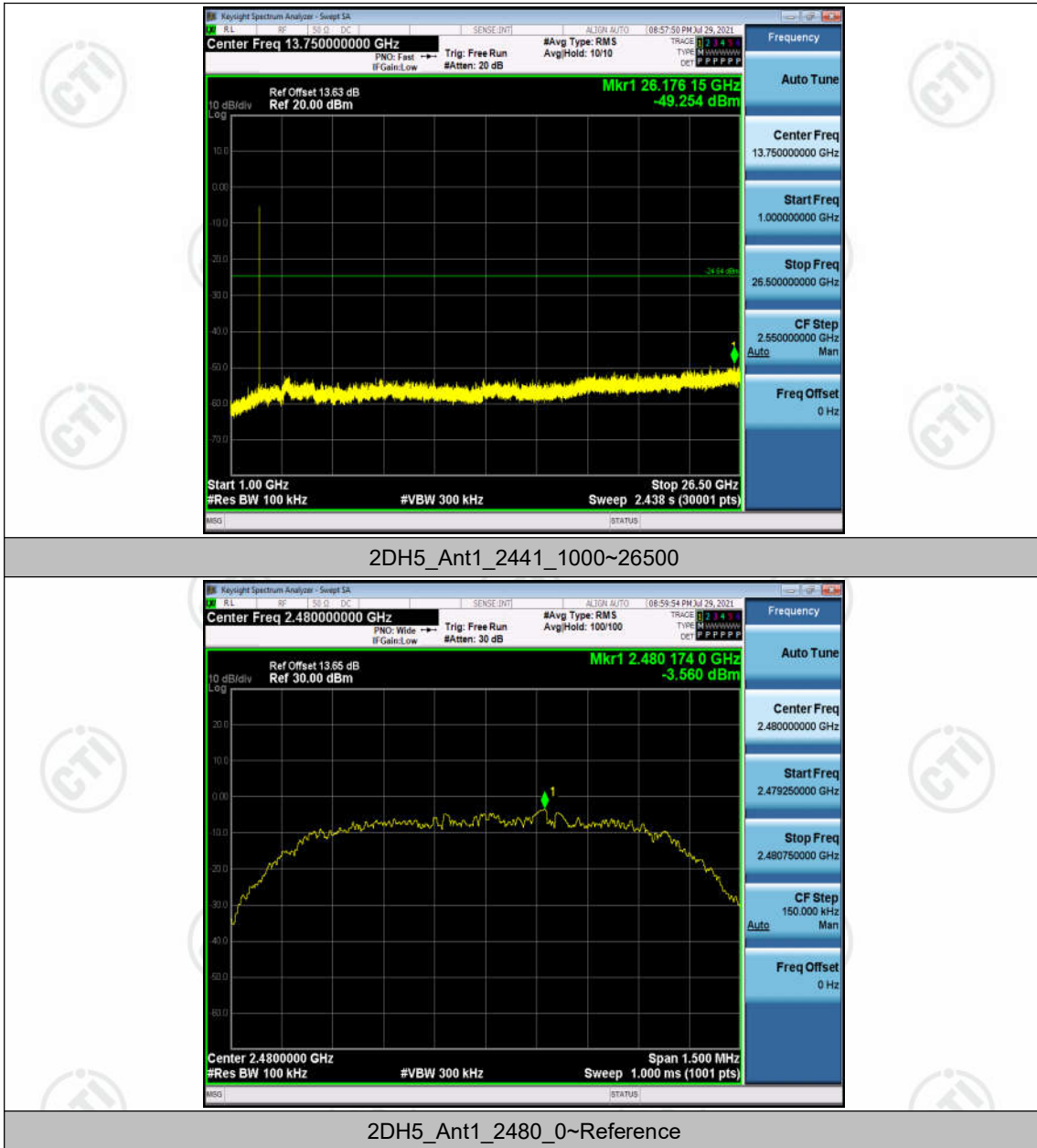
DH5\_Ant1\_2480\_1000~26500



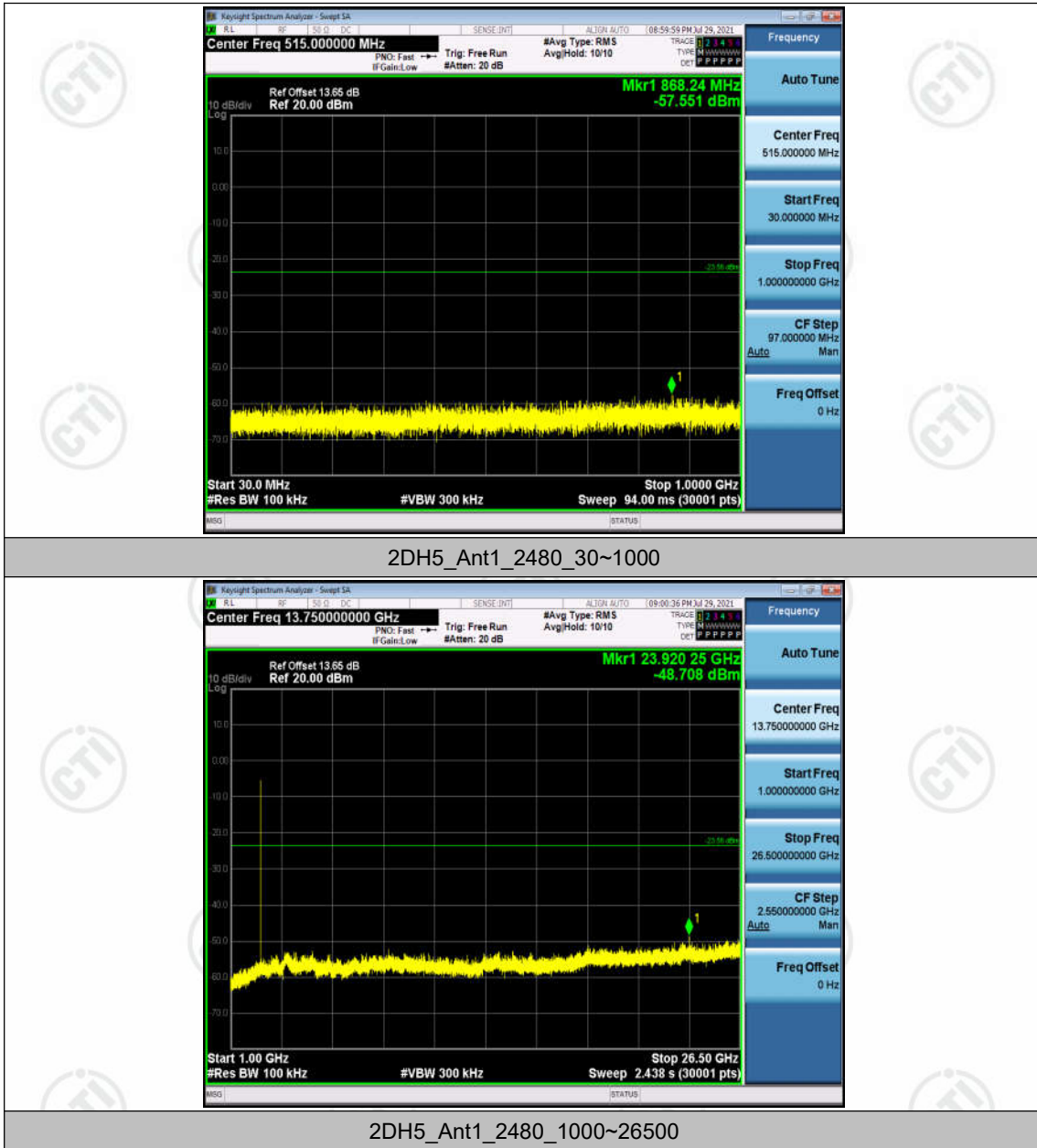
2DH5\_Ant1\_2402\_0~Reference



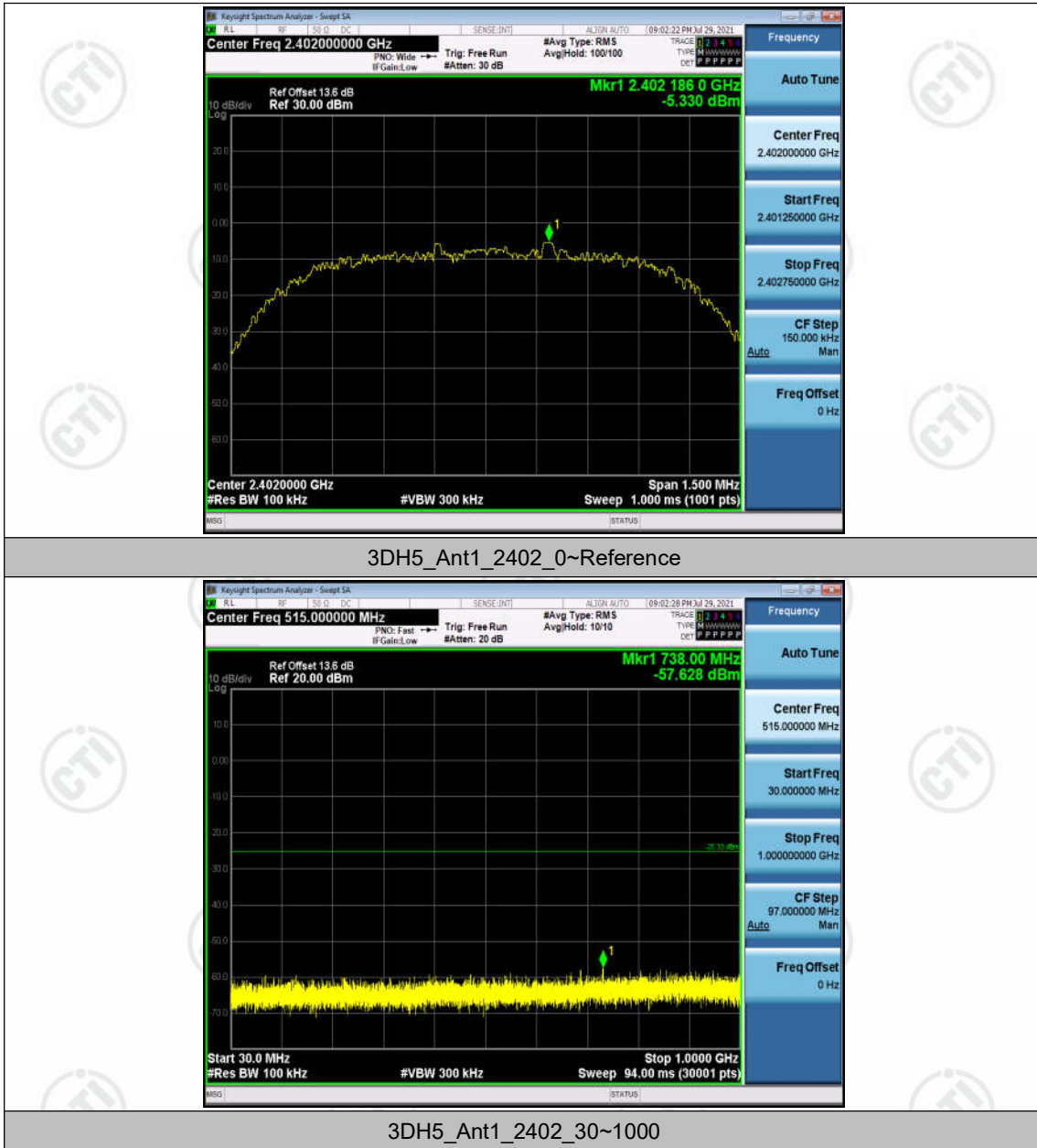


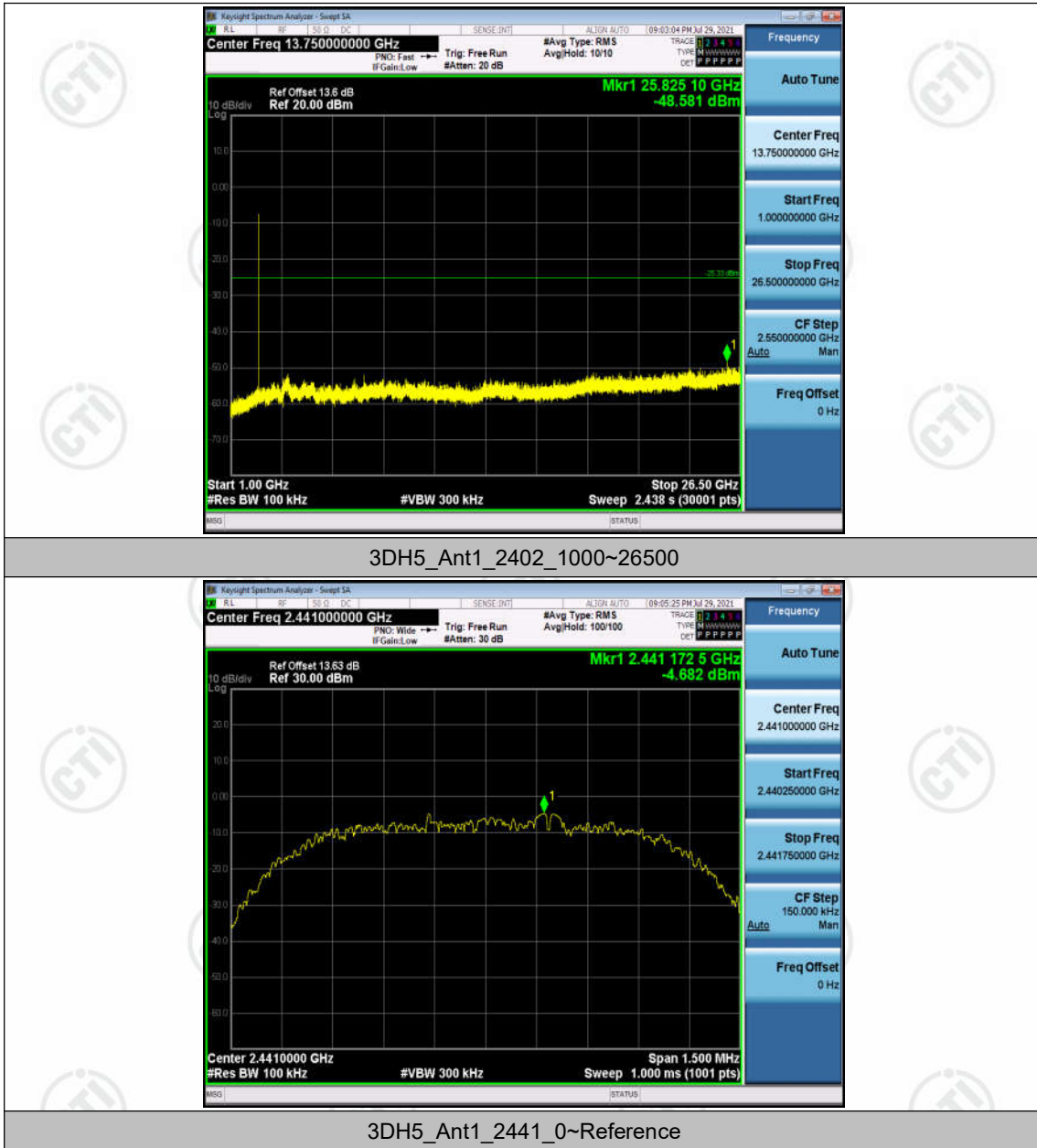


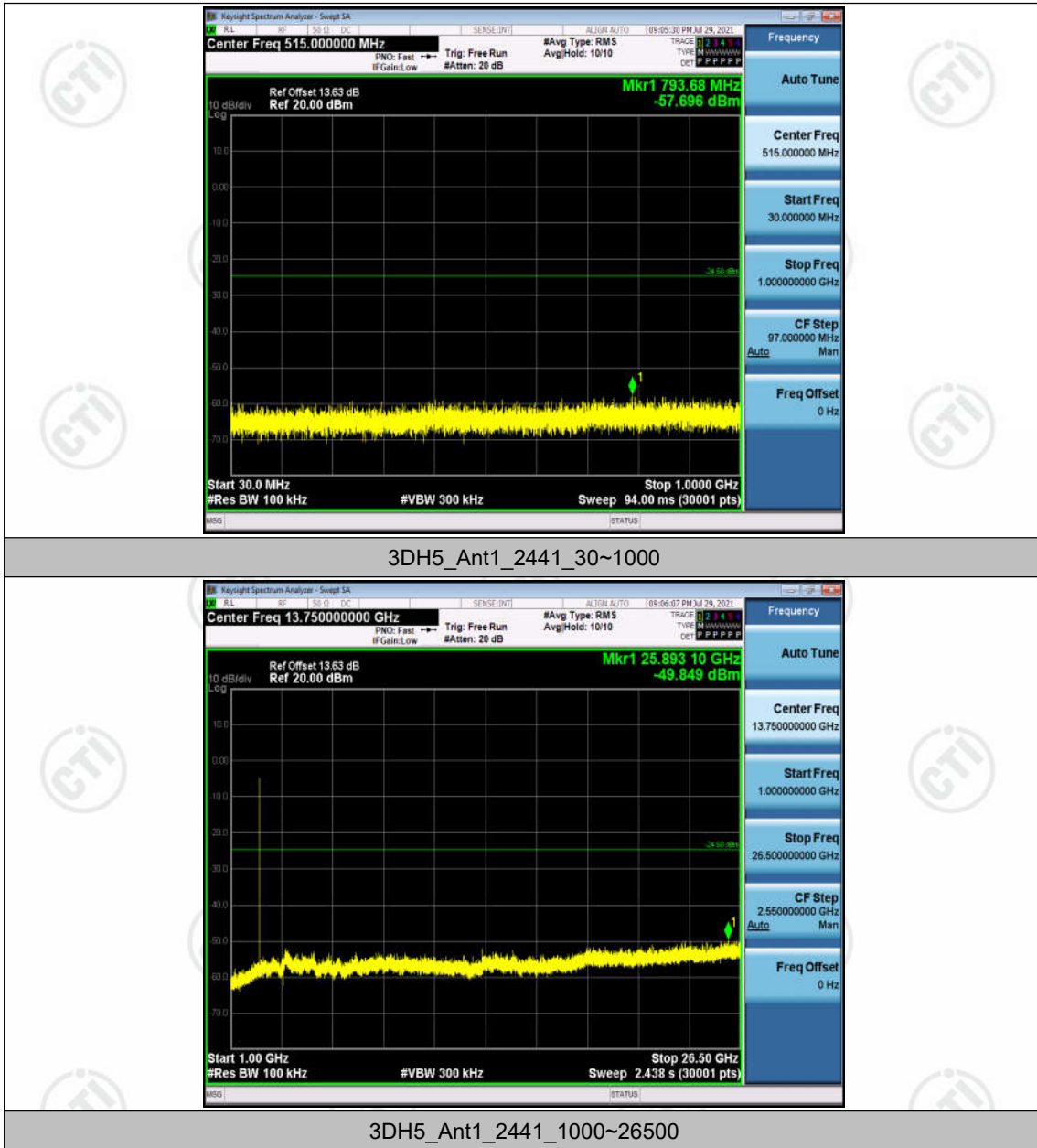


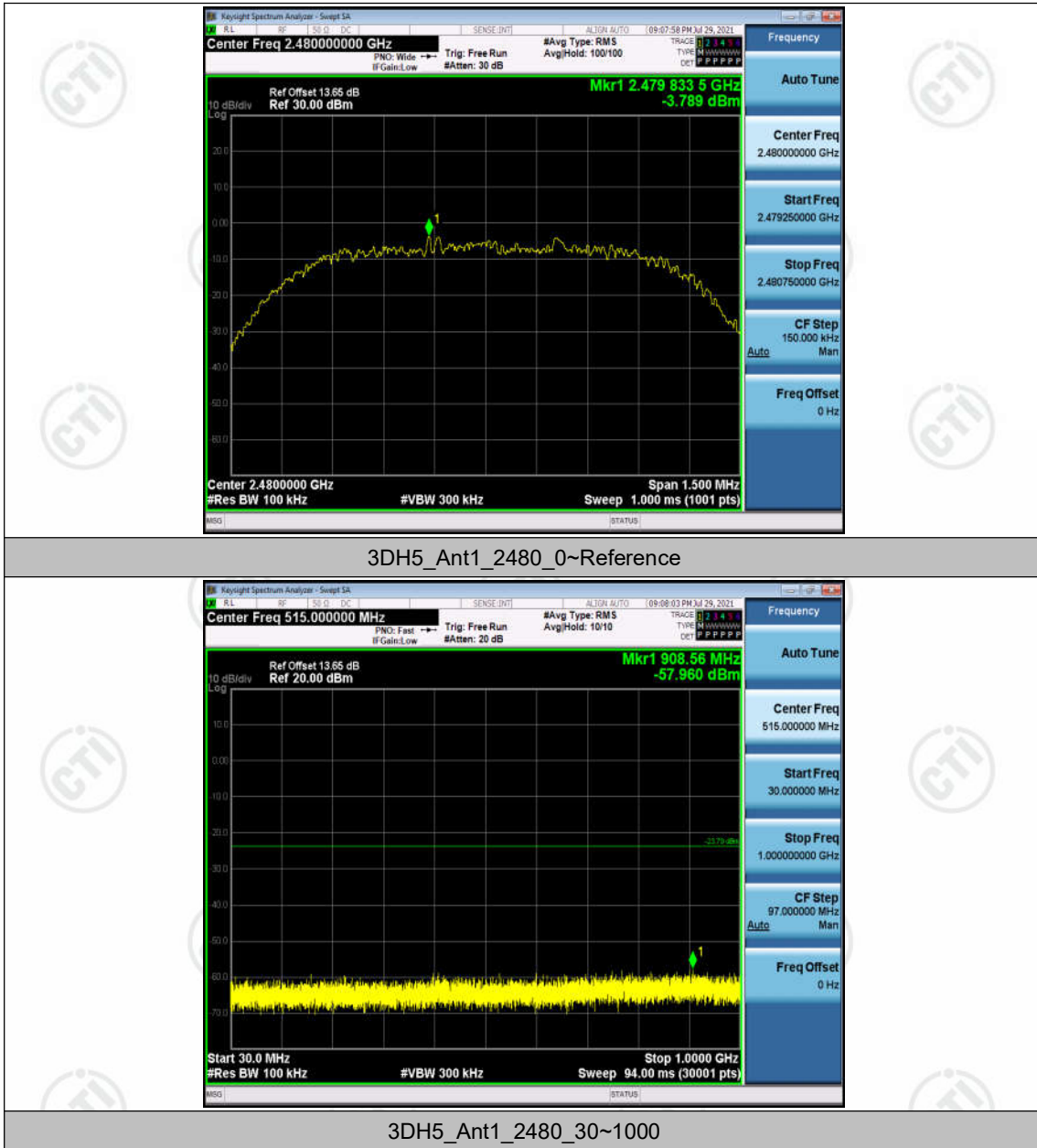


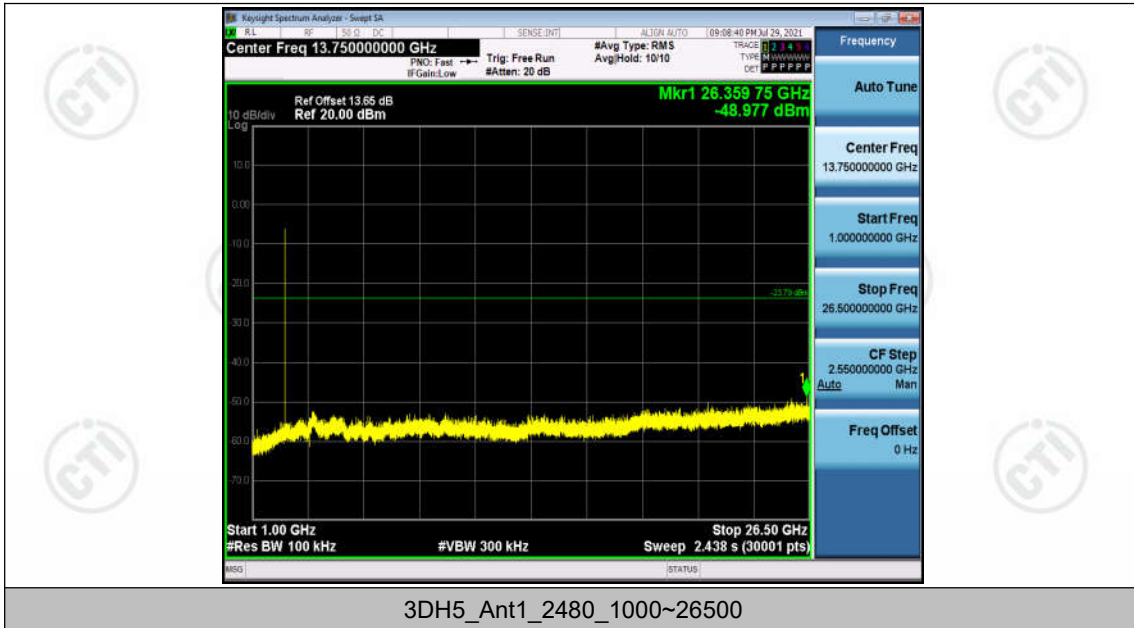












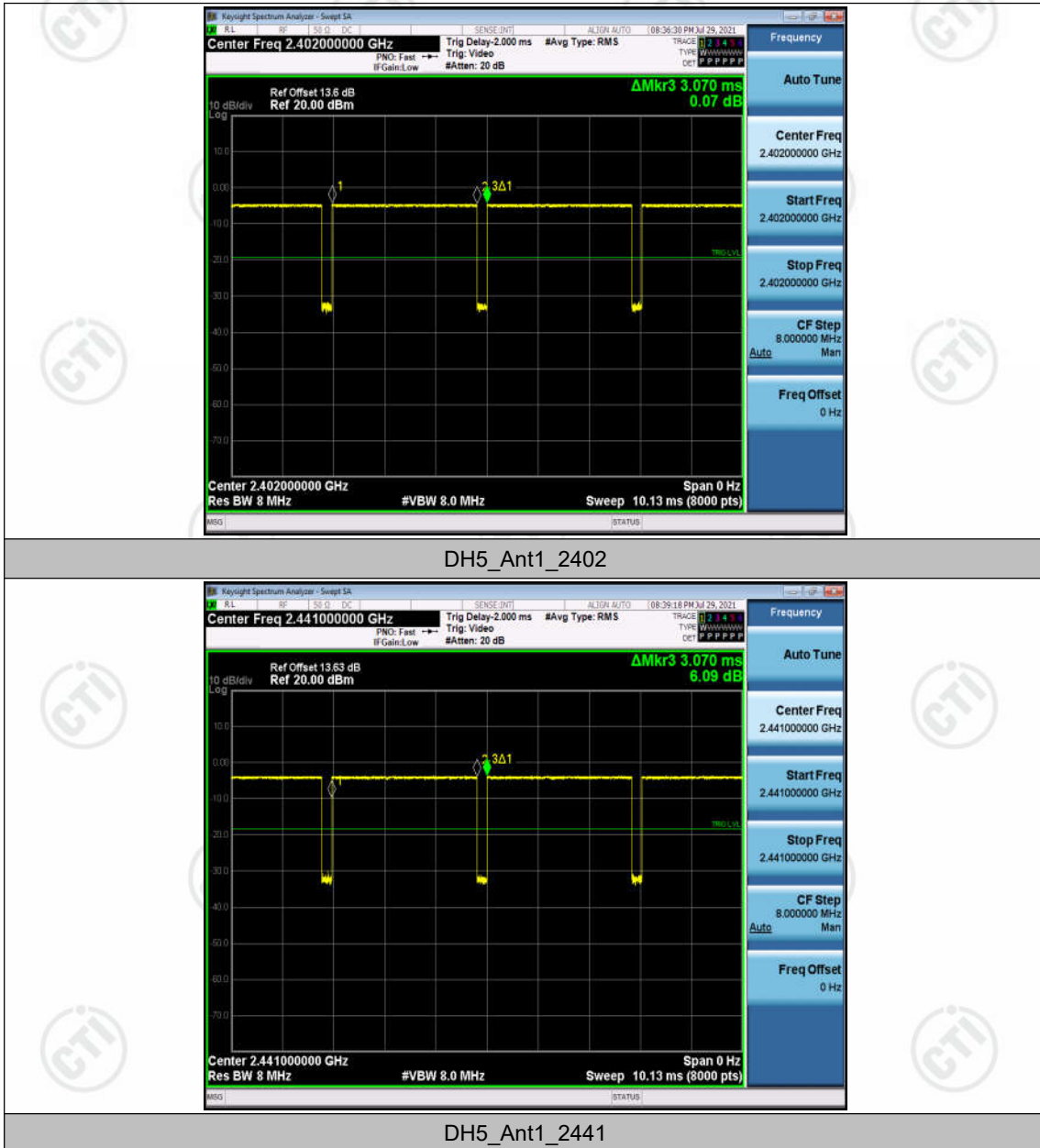


## Appendix I: Duty Cycle

### Test Result

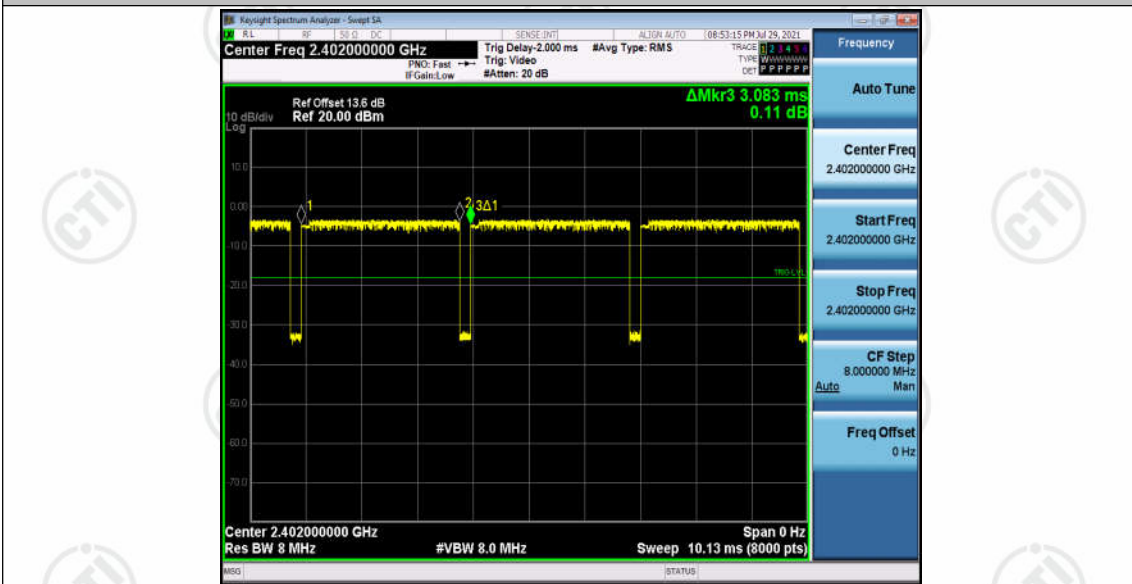
Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
DH5	Ant1	2402	2.87	3.07	93.36	---	PASS
		2441	2.87	3.07	93.40	---	PASS
		2480	2.87	3.07	93.40	---	PASS
2DH5	Ant1	2402	2.88	3.08	93.43	---	PASS
		2441	2.88	3.08	93.43	---	PASS
		2480	2.88	3.08	93.43	---	PASS
3DH5	Ant1	2402	2.88	3.09	93.43	---	PASS
		2441	2.88	3.09	93.43	---	PASS
		2480	2.88	3.09	93.43	---	PASS

## Test Graphs

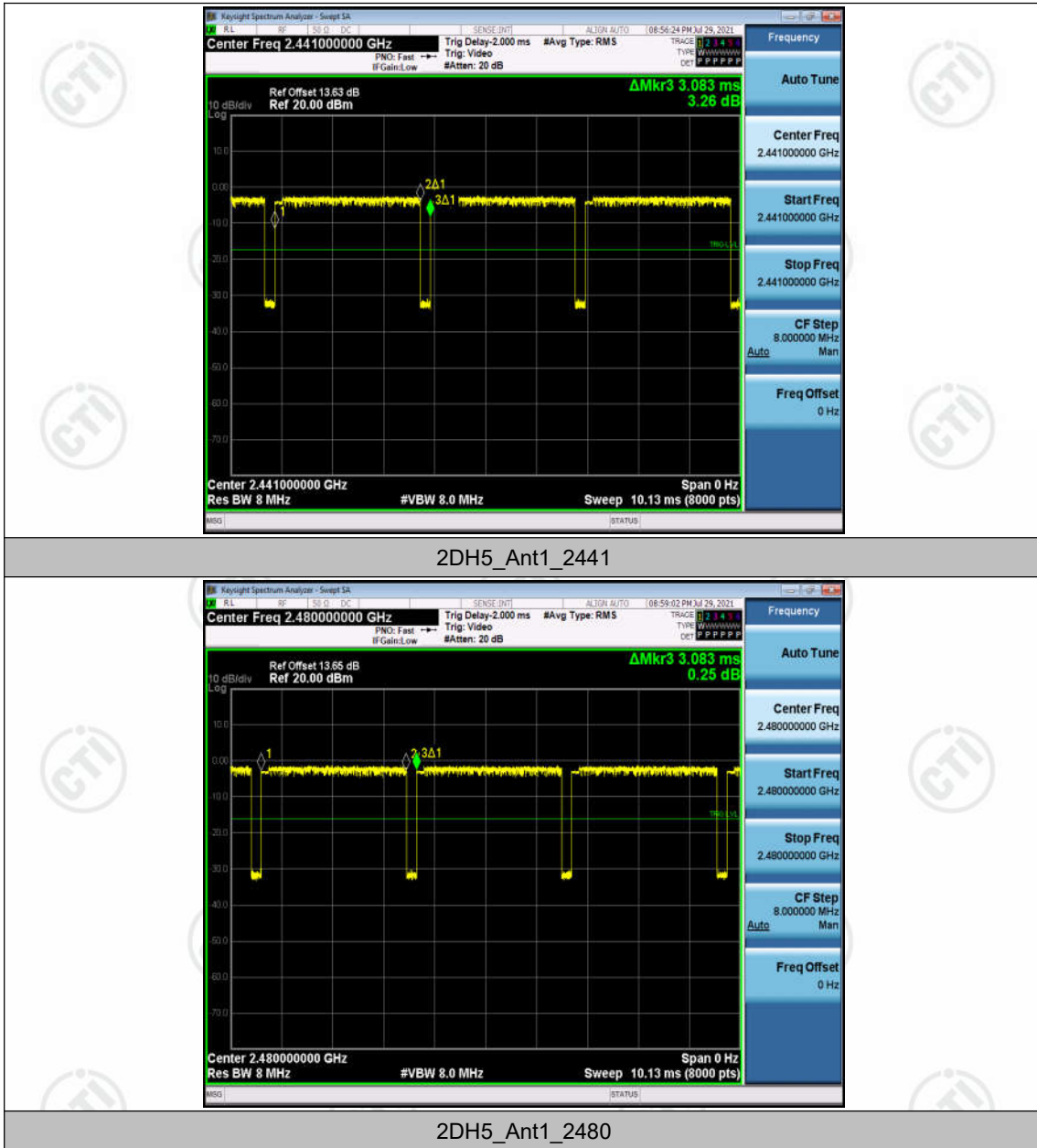


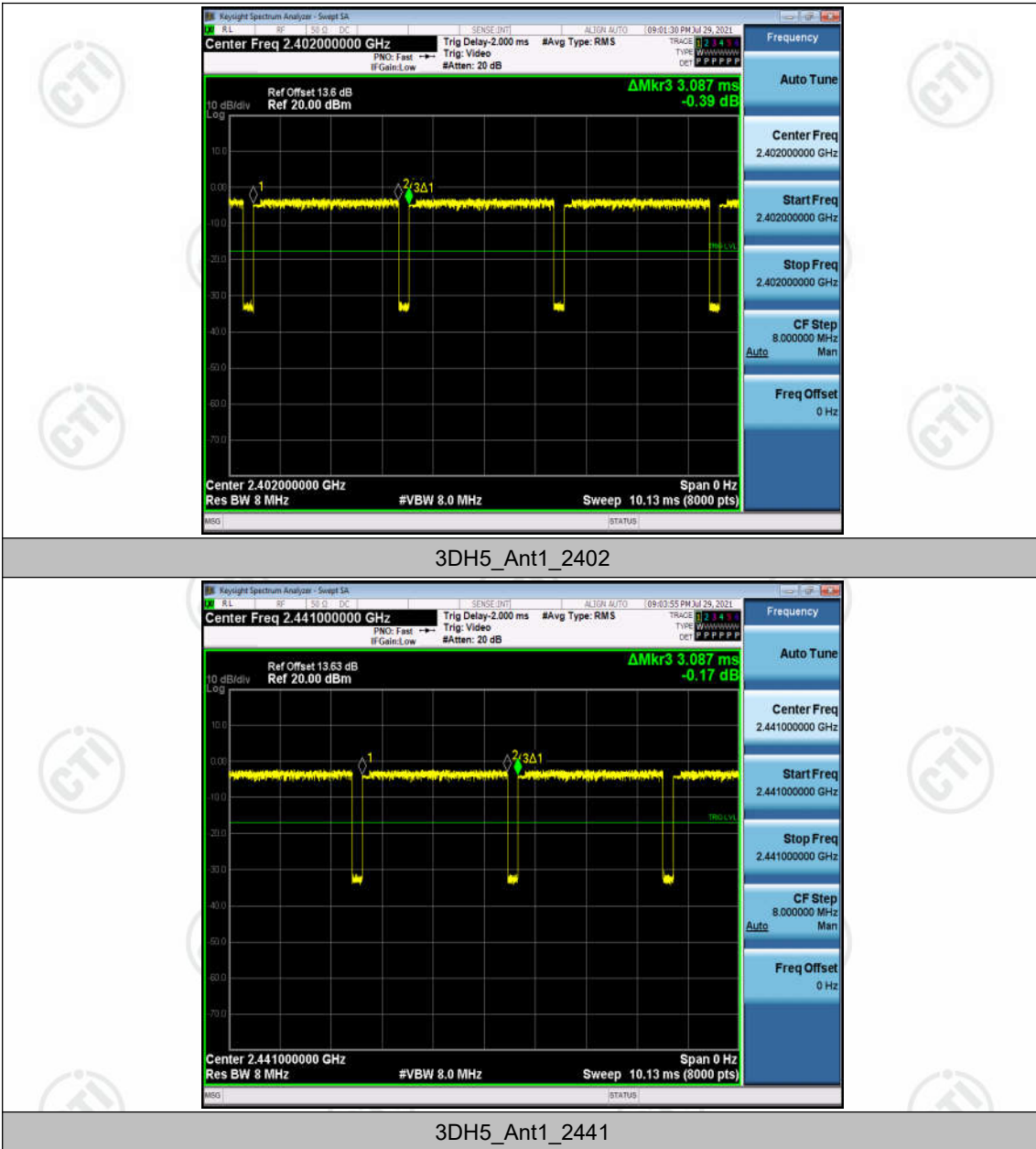


DH5\_Ant1\_2480

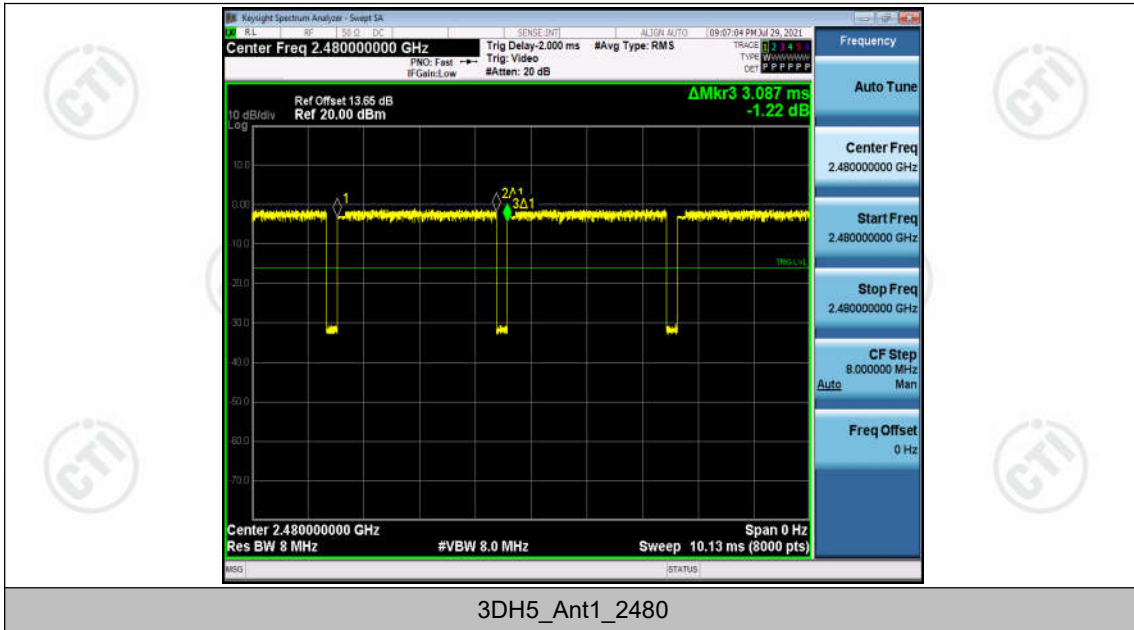


2DH5\_Ant1\_2402









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