

**Applicant:** CARPLAY TECHNOLOGY (CHINA) LIMITED

**Case No. :** TH202405493-C08

**EUT:** Wireless CarPlay / Android Auto Kits

**M/N:** CP2

**Standard:** FCC Part15 Subpart C, Section 15.247

**Test Power Supply:** NA

**Ambient Condition:** 22.5 °C, 34 %RH, 101.325 kPa

**Test Date:** 2024.06.11

**Test Engineer:** Blue

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## Appendix A: 20dB Emission Bandwidth

### Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.981	---	---	---	---
		2441	0.993	---	---	---	---
		2480	0.987	---	---	---	---
2DH5	Ant1	2402	1.365	---	---	---	---
		2441	1.371	---	---	---	---
		2480	1.377	---	---	---	---
3DH5	Ant1	2402	1.344	---	---	---	---
		2441	1.323	---	---	---	---
		2480	1.326	---	---	---	---

## 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



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## Appendix B: Occupied Channel Bandwidth

### Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.95310	2401.5004	2402.4535	---	---
		2441	0.90486	2440.5196	2441.4245	---	---
		2480	0.91035	2479.5442	2480.4545	---	---
2DH5	Ant1	2402	1.1752	2401.3944	2402.5696	---	---
		2441	1.2247	2440.3648	2441.5895	---	---
		2480	1.2204	2479.3801	2480.6005	---	---
3DH5	Ant1	2402	1.2352	2401.3634	2402.5986	---	---
		2441	1.1930	2440.3961	2441.5891	---	---
		2480	1.2069	2479.3693	2480.5762	---	---



## Test Graphs

DH5\_Ant1\_2402



DH5\_Ant1\_2441



DH5\_Ant1\_2480



2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



2DH5\_Ant1\_2480



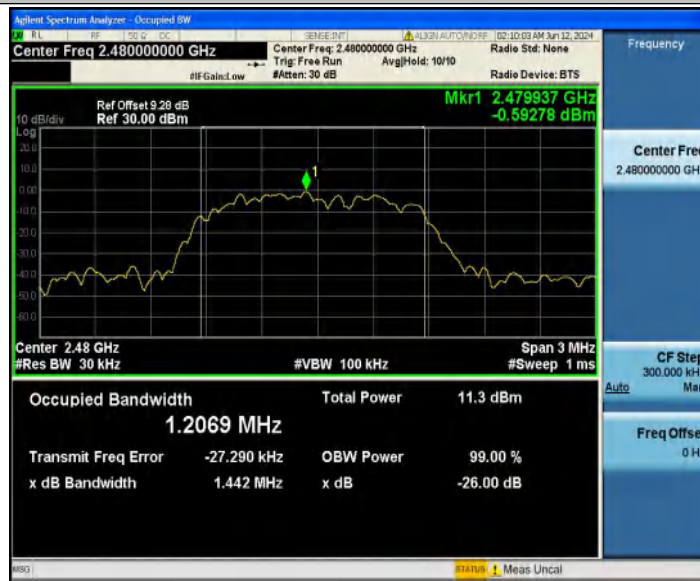
## 3DH5\_Ant1\_2402



## 3DH5\_Ant1\_2441



## 3DH5\_Ant1\_2480



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## Appendix C: Maximum conducted output power

### Test Result Peak

Test Mode	Antenna	Channel	Conducted Peak Power[MHz]	Conducted Limit[MHz]	Verdict
DH5	Ant1	2402	5.83	≤20.97	PASS
		2441	6.13	≤20.97	PASS
		2480	5.56	≤20.97	PASS
2DH5	Ant1	2402	7.41	≤20.97	PASS
		2441	7.35	≤20.97	PASS
		2480	6.85	≤20.97	PASS
3DH5	Ant1	2402	7.73	≤20.97	PASS
		2441	7.7	≤20.97	PASS
		2480	7.32	≤20.97	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 D: Carrier frequency separation

### Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.02	$\geq 0.654$	PASS
2DH5	Ant1	Hop	1	$\geq 0.918$	PASS
3DH5	Ant1	Hop	1.002	$\geq 0.896$	PASS

## Test Graphs

DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop



## 3DH5\_Ant1\_Hop



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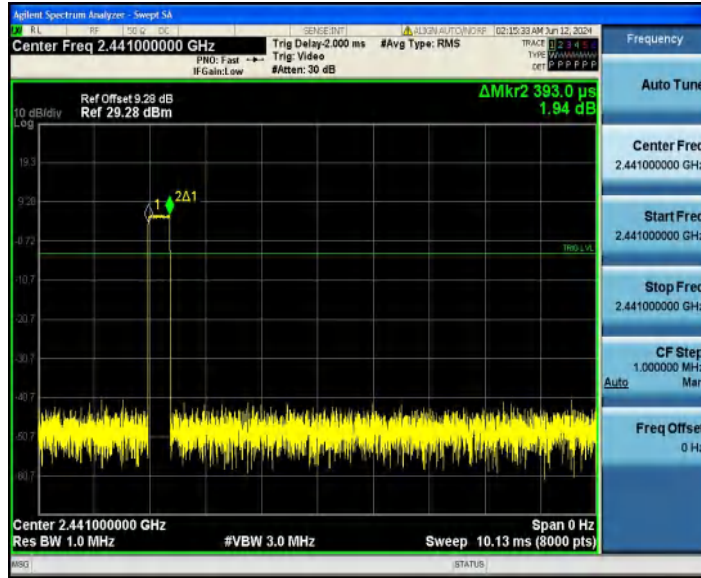
## Appendix E: Time of occupancy

### Test Result

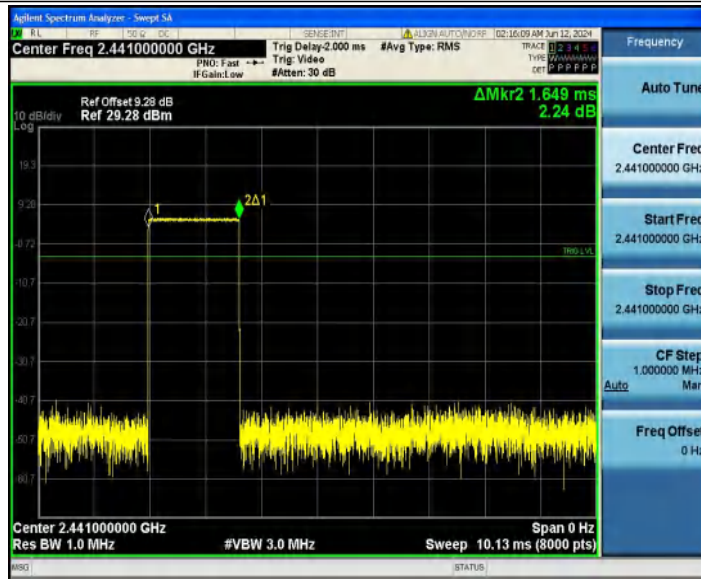
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.393	320	0.126	≤0.4	PASS
DH3	Ant1	Hop	1.649	160	0.264	≤0.4	PASS
DH5	Ant1	Hop	2.897	106.67	0.309	≤0.4	PASS
2DH1	Ant1	Hop	0.402	320	0.129	≤0.4	PASS
2DH3	Ant1	Hop	1.654	160	0.265	≤0.4	PASS
2DH5	Ant1	Hop	2.902	106.67	0.31	≤0.4	PASS
3DH1	Ant1	Hop	0.402	320	0.129	≤0.4	PASS
3DH3	Ant1	Hop	1.654	160	0.265	≤0.4	PASS
3DH5	Ant1	Hop	2.904	106.67	0.31	≤0.4	PASS

## Test Graphs

DH1\_Ant1\_Hop

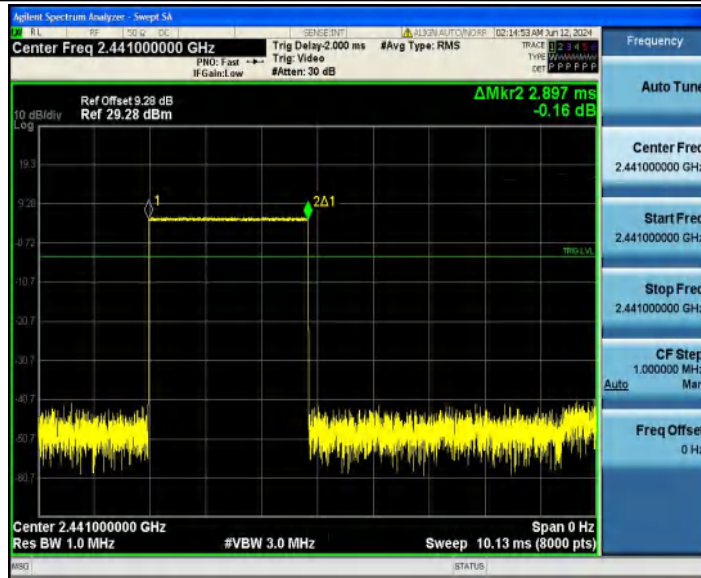


DH3\_Ant1\_Hop

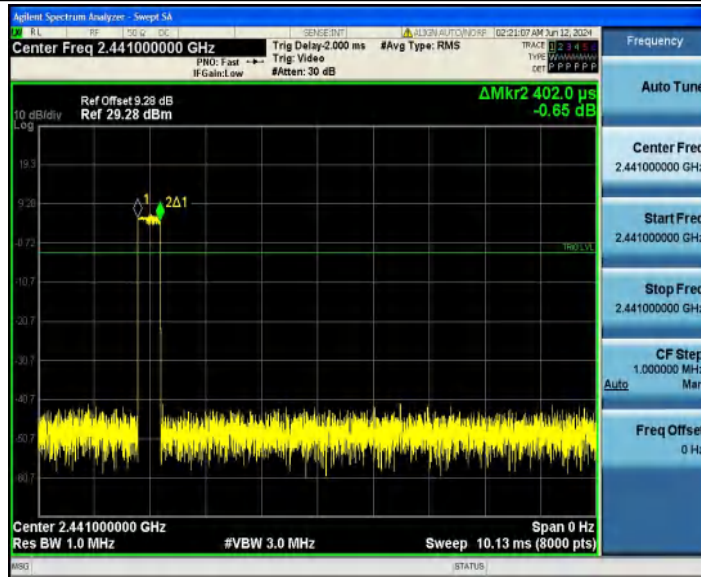




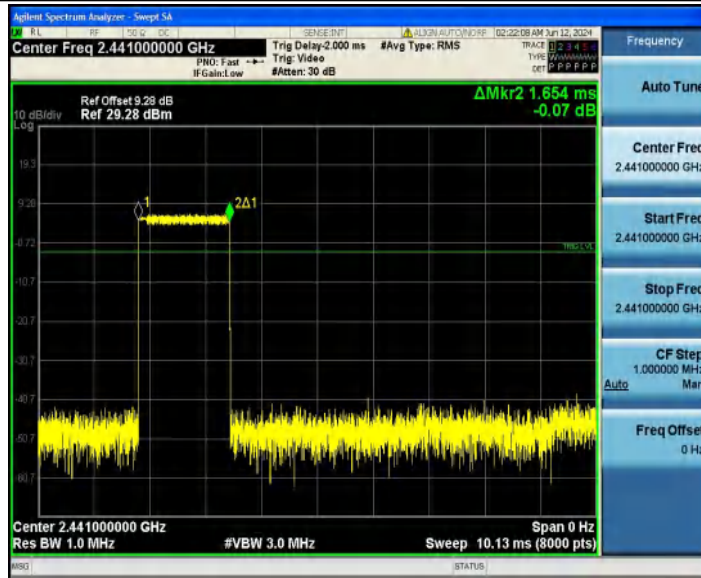
DH5\_Ant1\_Hop



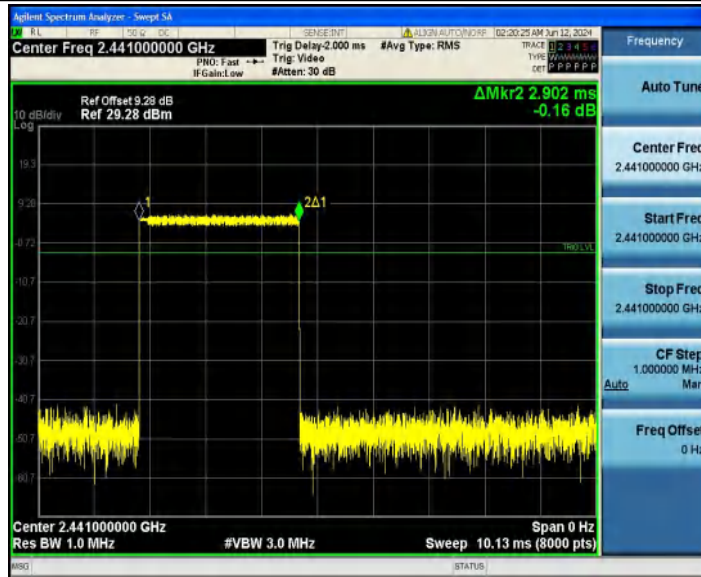
2DH1\_Ant1\_Hop



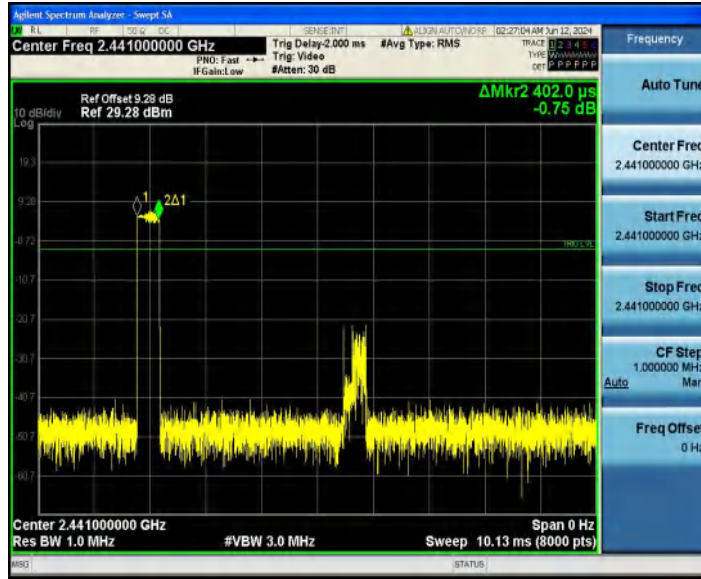
2DH3\_Ant1\_Hop



2DH5\_Ant1\_Hop



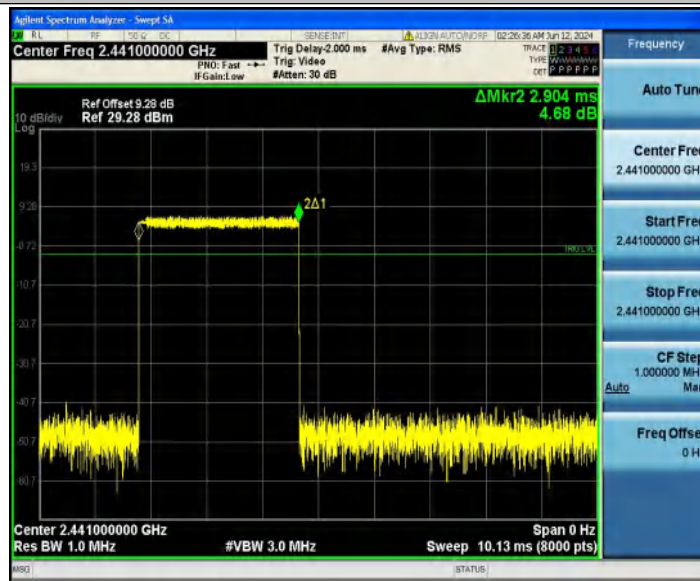
3DH1\_Ant1\_Hop



3DH3\_Ant1\_Hop



## 3DH5\_Ant1\_Hop



## Appendix F: Number of hopping channels

### Test Result

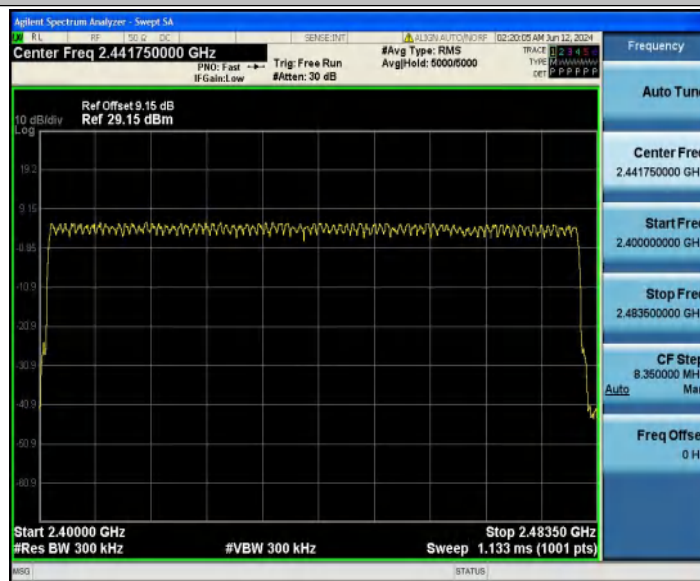
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

## Test Graphs

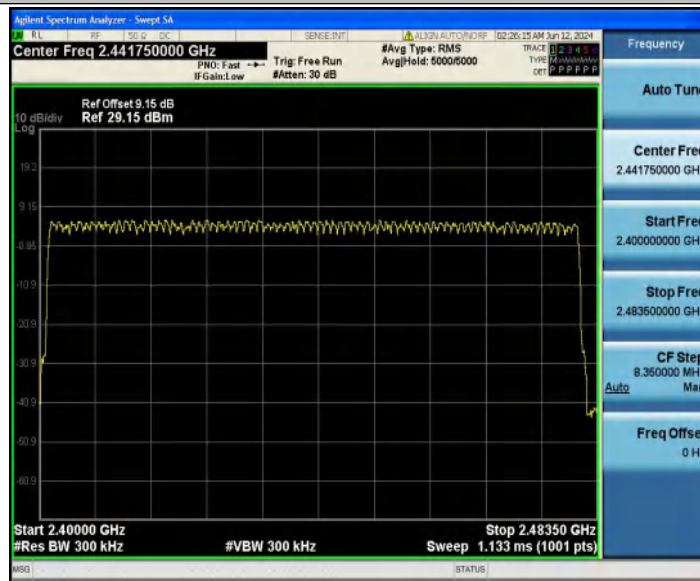
DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop



## 3DH5\_Ant1\_Hop



## Appendix G: Band edge measurements

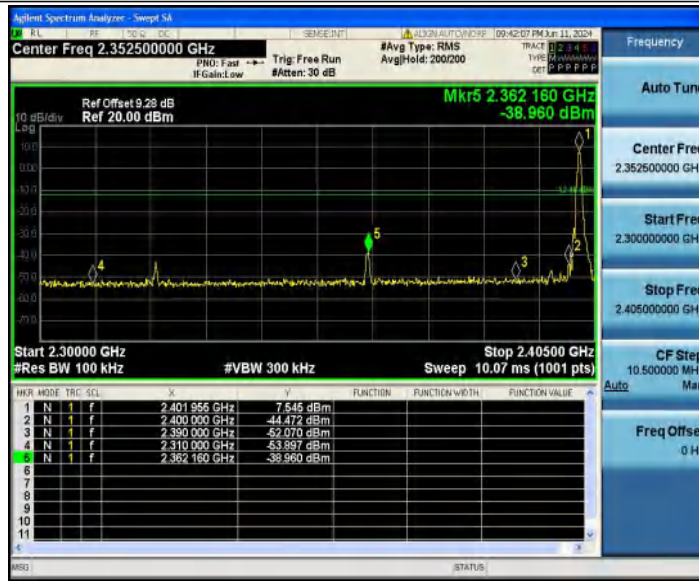
### Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	7.55	-38.96	≤-12.46	PASS
		High	2480	7.39	-40.21	≤-12.61	PASS
		Low	Hop_2402	4.55	-41.12	≤-15.45	PASS
		High	Hop_2480	4.45	-42.94	≤-15.55	PASS
2DH5	Ant1	Low	2402	7.24	-40.44	≤-12.76	PASS
		High	2480	4.53	-42.57	≤-15.47	PASS
		Low	Hop_2402	3.32	-42.44	≤-16.68	PASS
		High	Hop_2480	3.79	-42.87	≤-16.21	PASS
3DH5	Ant1	Low	2402	7.37	-38.9	≤-12.63	PASS
		High	2480	7.55	-41.51	≤-12.45	PASS
		Low	Hop_2402	2.68	-42.73	≤-17.32	PASS
		High	Hop_2480	2.10	-43.39	≤-17.9	PASS

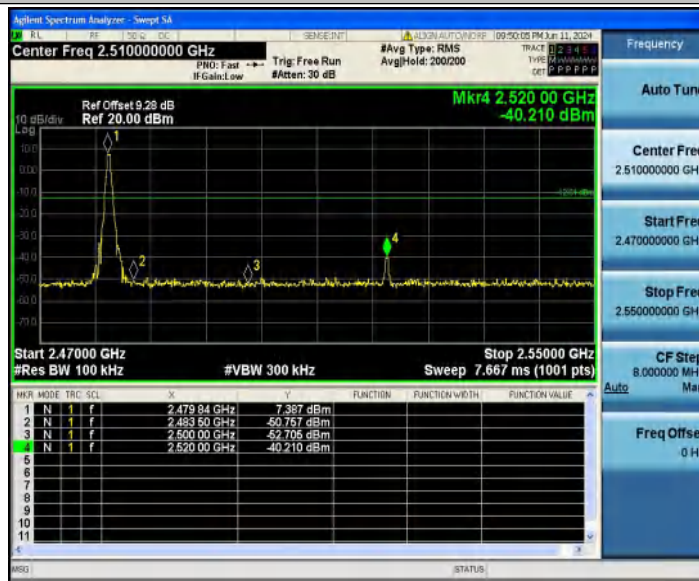


## Test Graphs

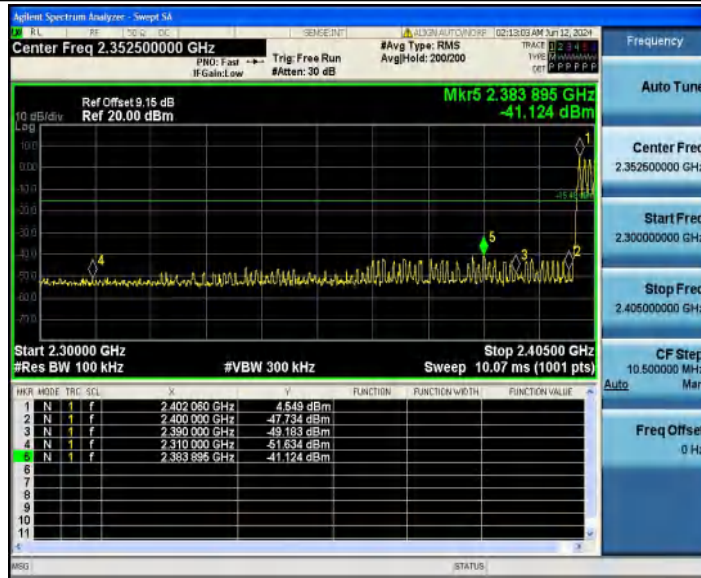
DH5\_Ant1\_Low\_2402



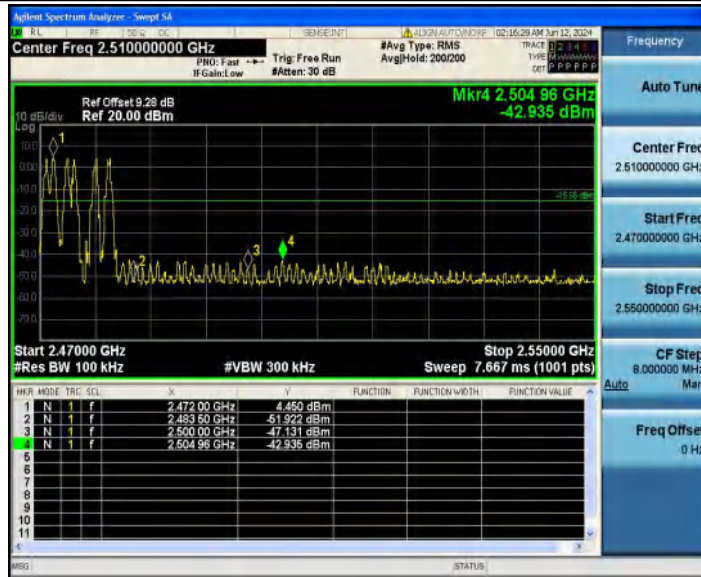
DH5\_Ant1\_High\_2480



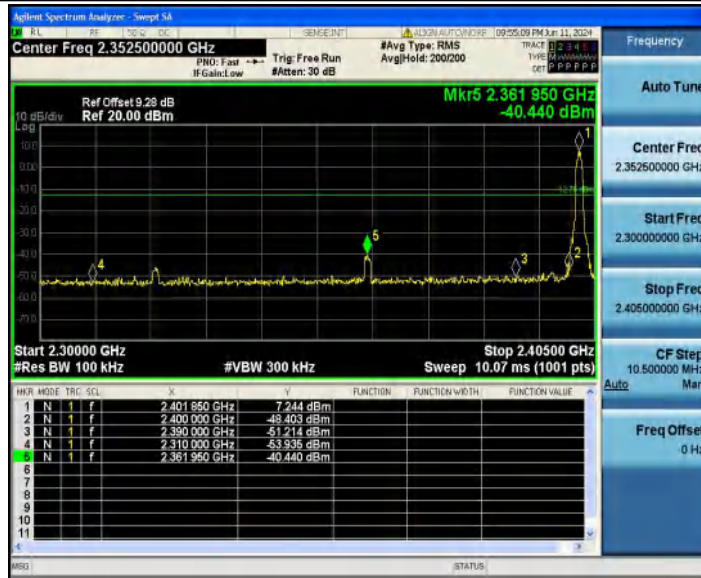
DH5\_Ant1\_Low\_Hop\_2402



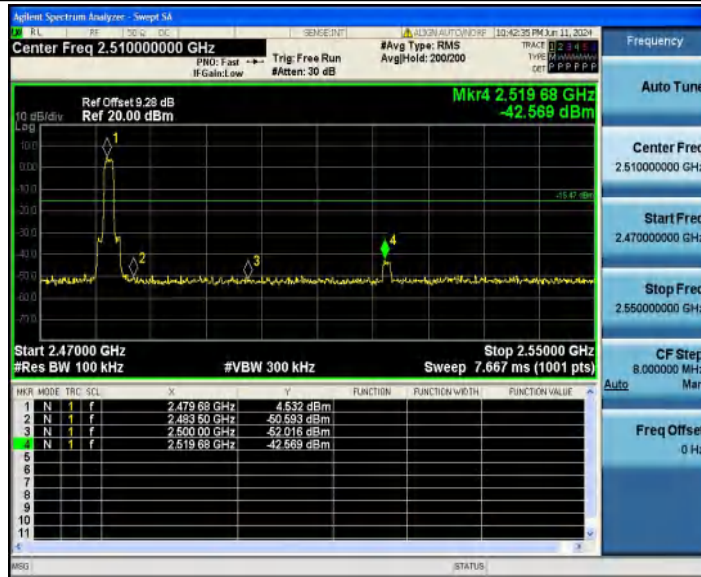
DH5\_Ant1\_High\_Hop\_2480



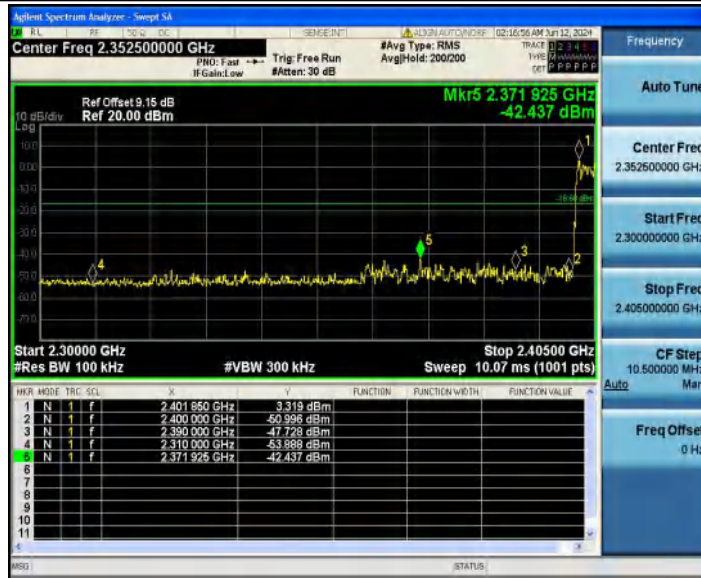
2DH5\_Ant1\_Low\_2402



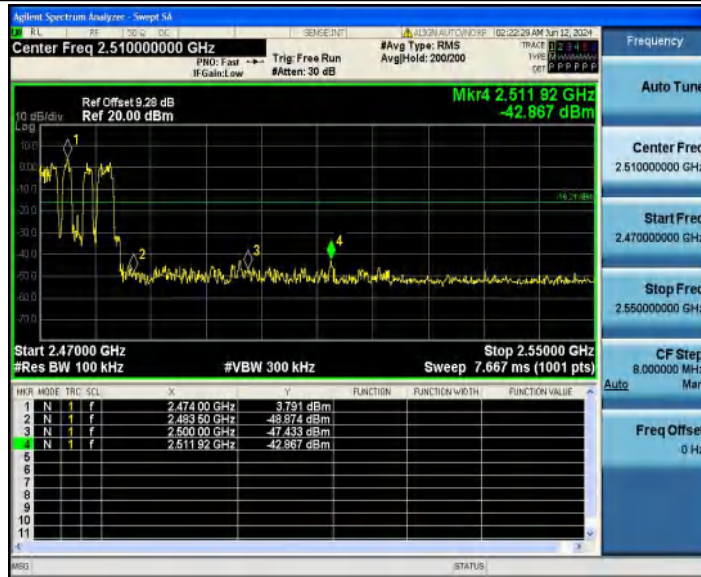
2DH5\_Ant1\_High\_2480



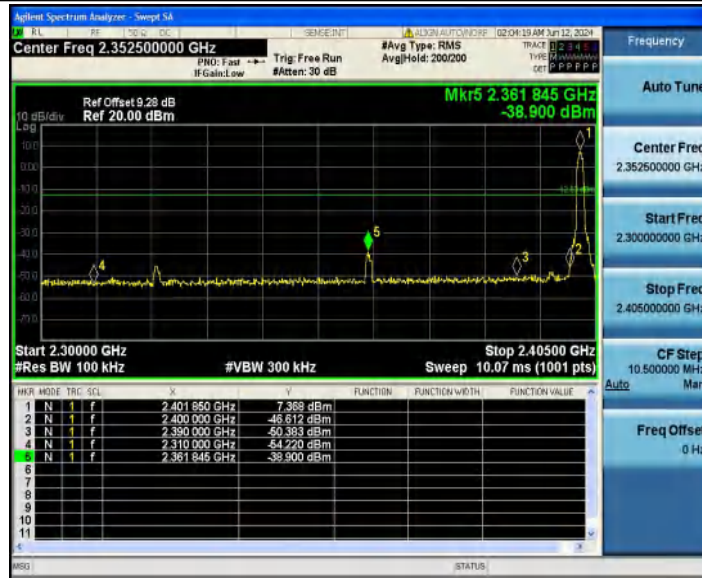
2DH5\_Ant1\_Low\_Hop\_2402



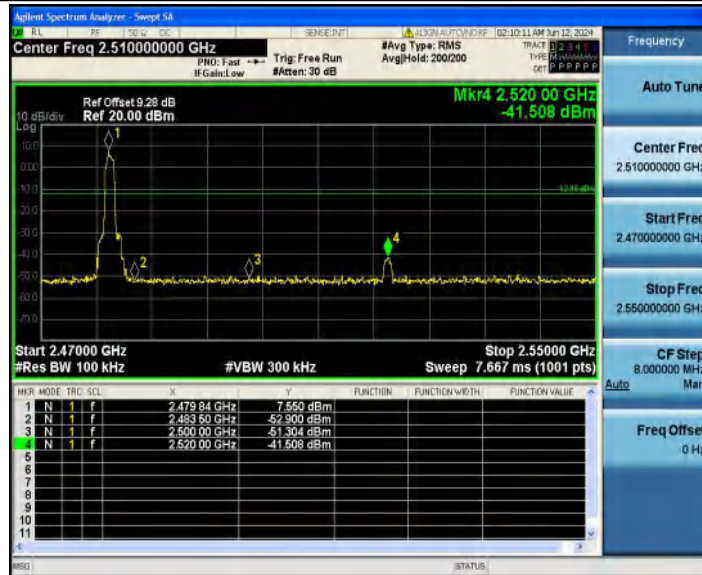
2DH5\_Ant1\_High\_Hop\_2480



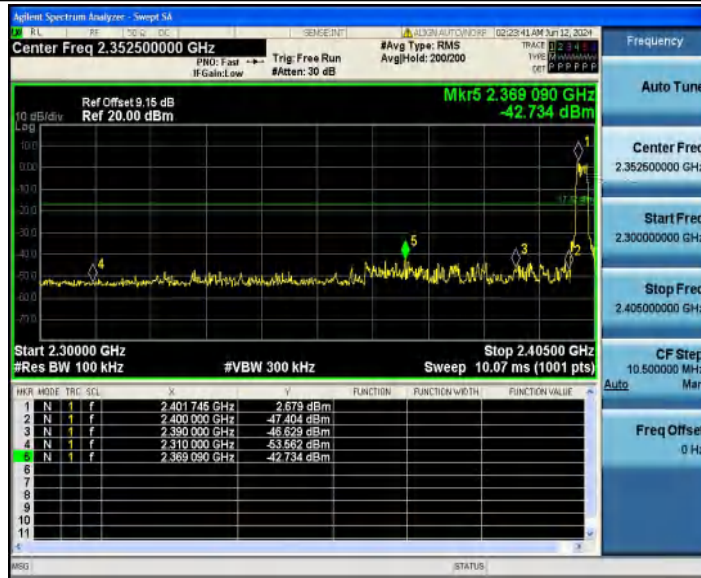
3DH5\_Ant1\_Low\_2402



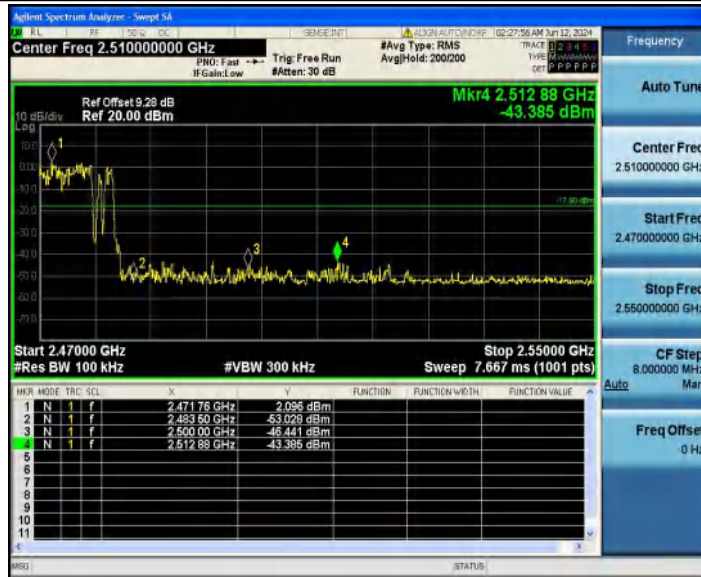
3DH5\_Ant1\_High\_2480



3DH5\_Ant1\_Low\_Hop\_2402



3DH5\_Ant1\_High\_Hop\_2480



## Appendix H: Conducted Spurious Emission

### Test Result

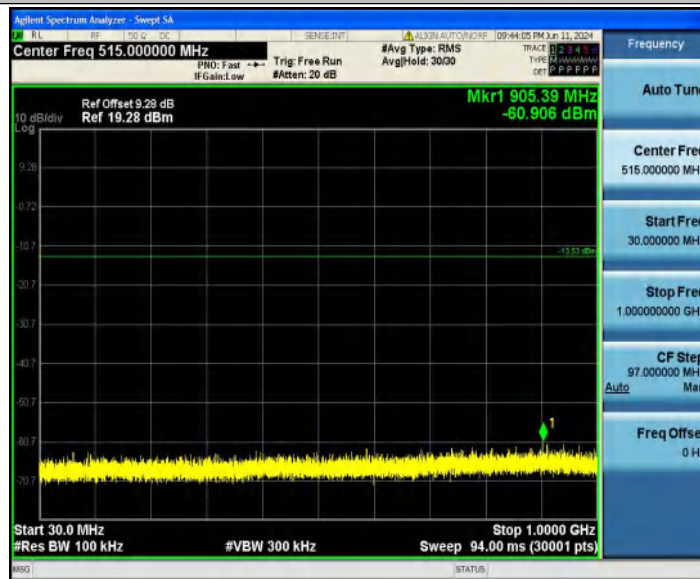
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	6.47	6.47	---	PASS
			30~1000	6.47	-60.91	≤-13.53	PASS
			1000~26500	6.47	-36.95	≤-13.53	PASS
		2441	Reference	7.35	7.35	---	PASS
			30~1000	7.35	-61.6	≤-12.65	PASS
			1000~26500	7.35	-38.2	≤-12.65	PASS
		2480	Reference	6.88	6.88	---	PASS
			30~1000	6.88	-61.3	≤-13.12	PASS
			1000~26500	6.88	-39.77	≤-13.12	PASS
2DH5	Ant1	2402	Reference	6.08	6.08	---	PASS
			30~1000	6.08	-61.8	≤-13.92	PASS
			1000~26500	6.08	-36.57	≤-13.92	PASS
		2441	Reference	7.34	7.34	---	PASS
			30~1000	7.34	-61.11	≤-12.66	PASS
			1000~26500	7.34	-36.6	≤-12.66	PASS
		2480	Reference	4.18	4.18	---	PASS
			30~1000	4.18	-61.66	≤-15.82	PASS
		3DH5	Ant1	2402	Reference	7.12	7.12
30~1000	7.12				-61.06	≤-12.88	PASS
1000~26500	7.12				-36.36	≤-12.88	PASS
2441	Reference			6.35	6.35	---	PASS
	30~1000			6.35	-60.67	≤-13.65	PASS
	1000~26500			6.35	-37.18	≤-13.65	PASS
2480	Reference			3.76	3.76	---	PASS
	30~1000			3.76	-61.57	≤-16.24	PASS
	1000~26500			3.76	-41.83	≤-16.24	PASS

## Test Graphs

DH5\_Ant1\_2402\_0~Reference

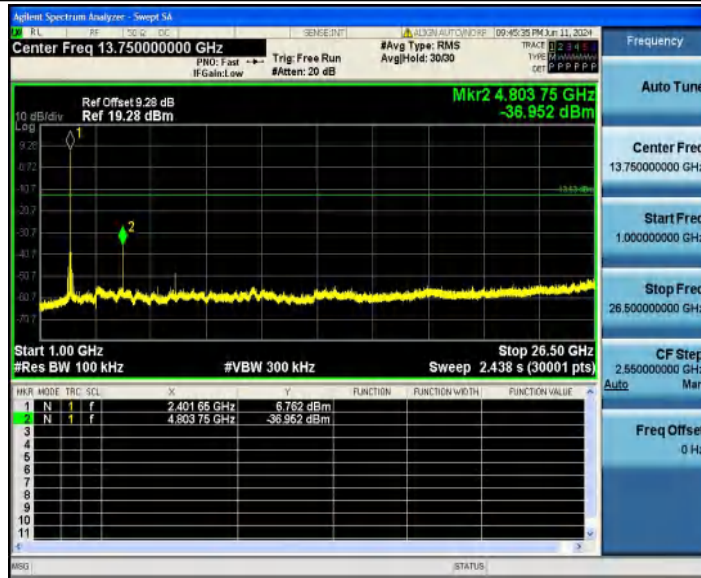


DH5\_Ant1\_2402\_30~1000





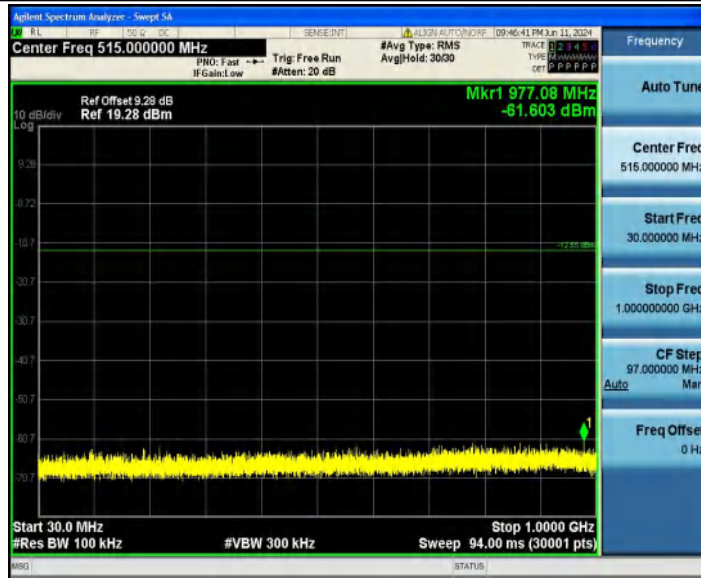
DH5\_Ant1\_2402\_1000~26500



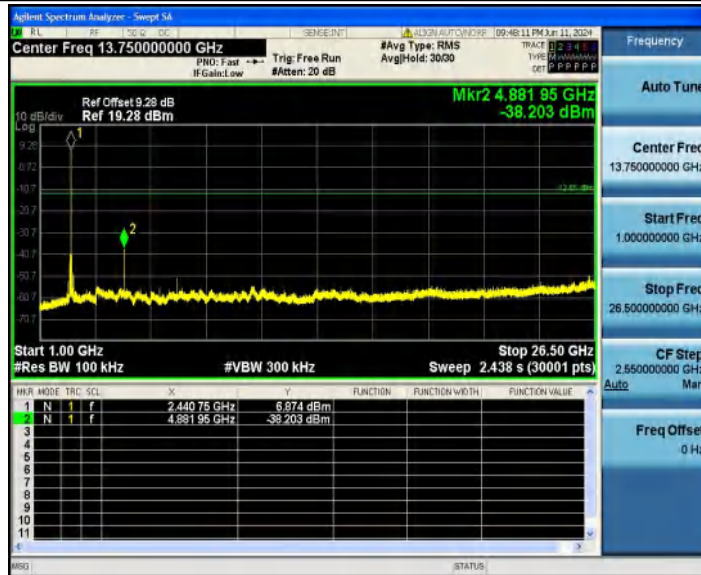
DH5\_Ant1\_2441\_0~Reference



DH5\_Ant1\_2441\_30~1000



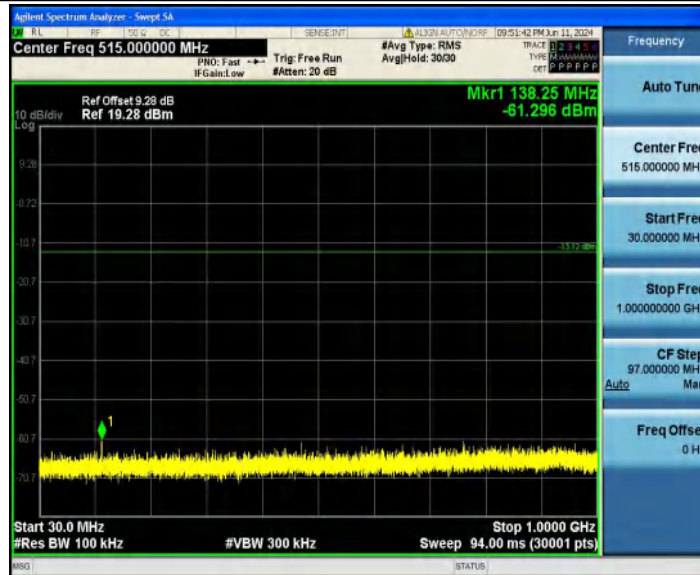
DH5\_Ant1\_2441\_1000~26500



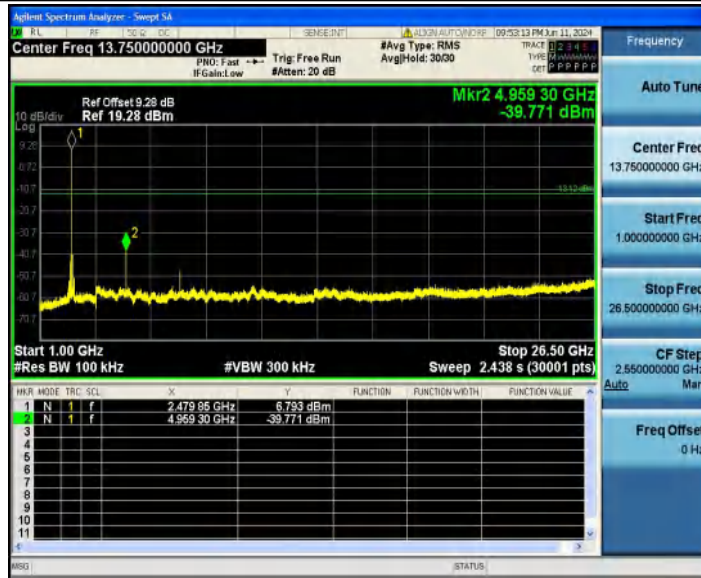
## DH5\_Ant1\_2480\_0~Reference



## DH5\_Ant1\_2480\_30~1000



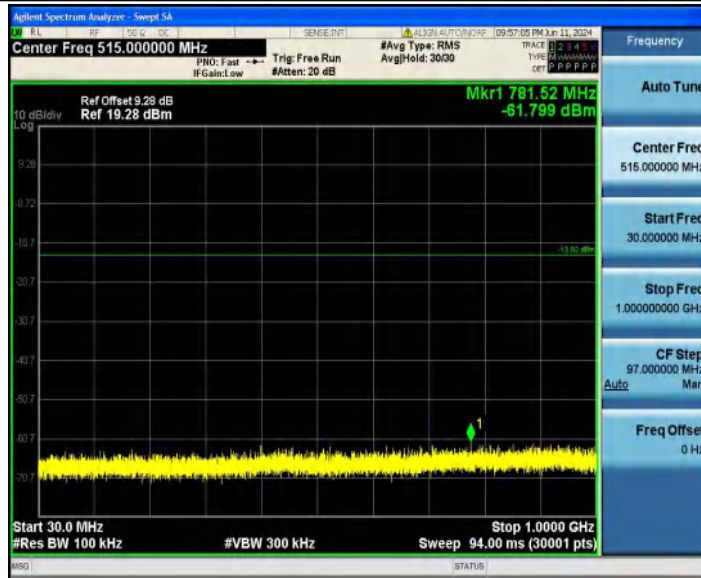
DH5\_Ant1\_2480\_1000~26500



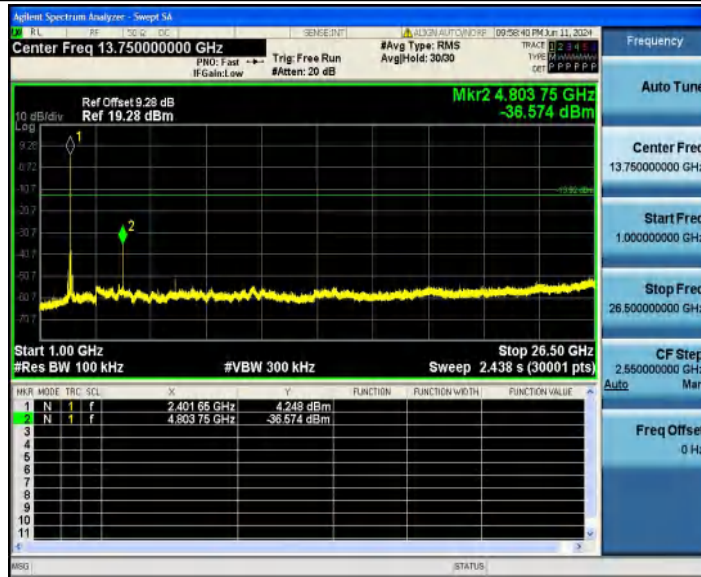
2DH5\_Ant1\_2402\_0~Reference



2DH5\_Ant1\_2402\_30~1000



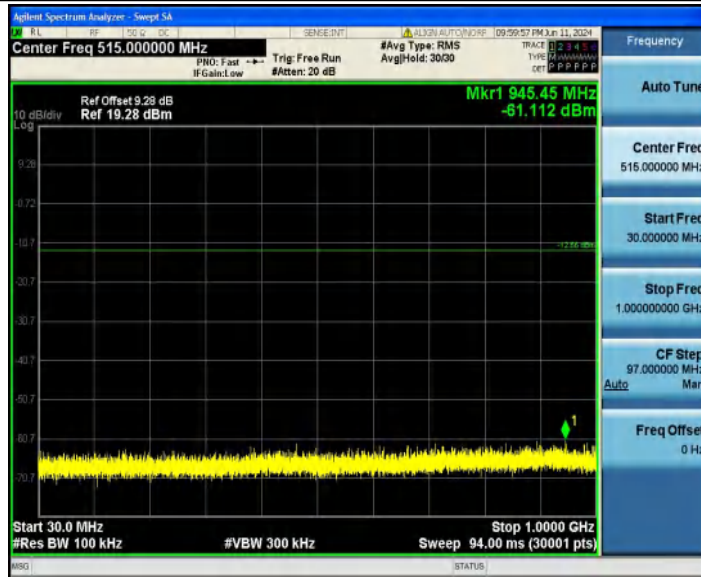
2DH5\_Ant1\_2402\_1000~26500



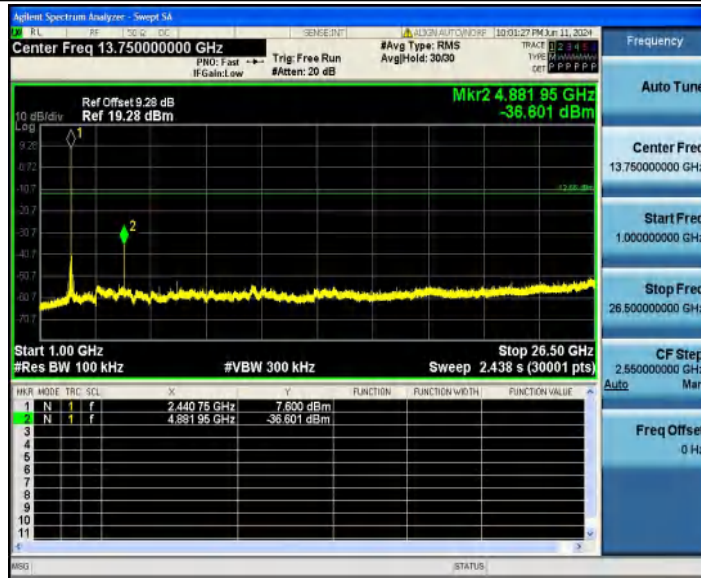
2DH5\_Ant1\_2441\_0~Reference



2DH5\_Ant1\_2441\_30~1000



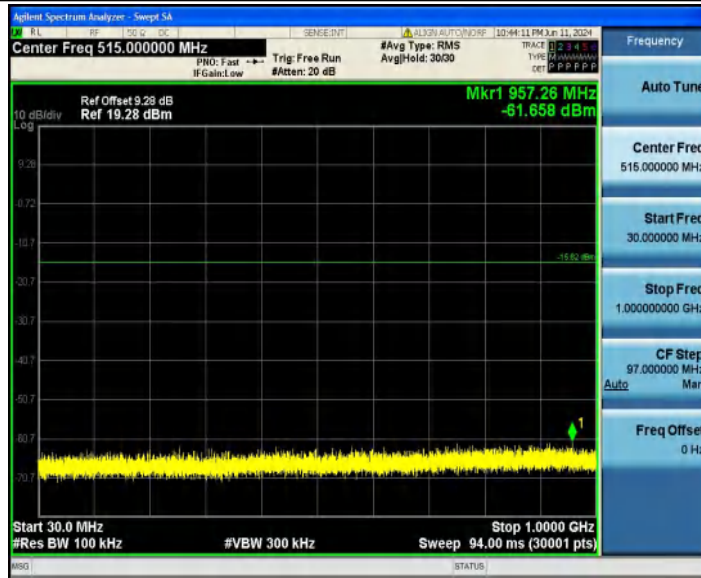
2DH5\_Ant1\_2441\_1000~26500



2DH5\_Ant1\_2480\_0~Reference



2DH5\_Ant1\_2480\_30~1000

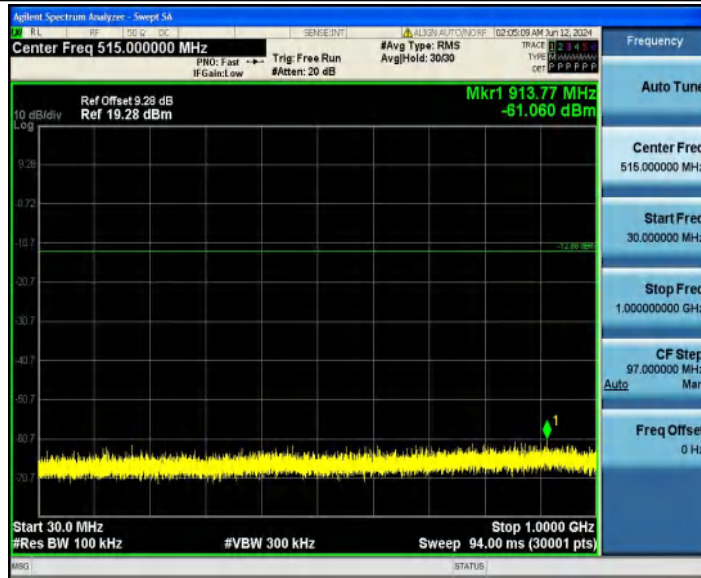


3DH5\_Ant1\_2402\_0~Reference

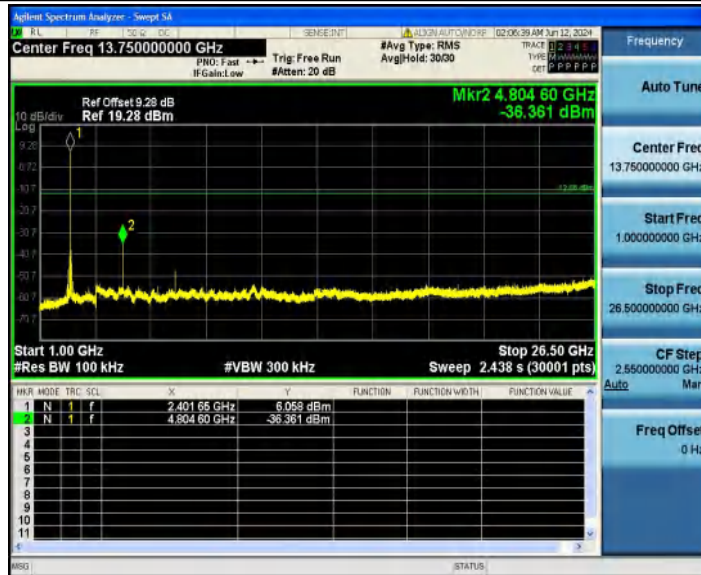




3DH5\_Ant1\_2402\_30~1000



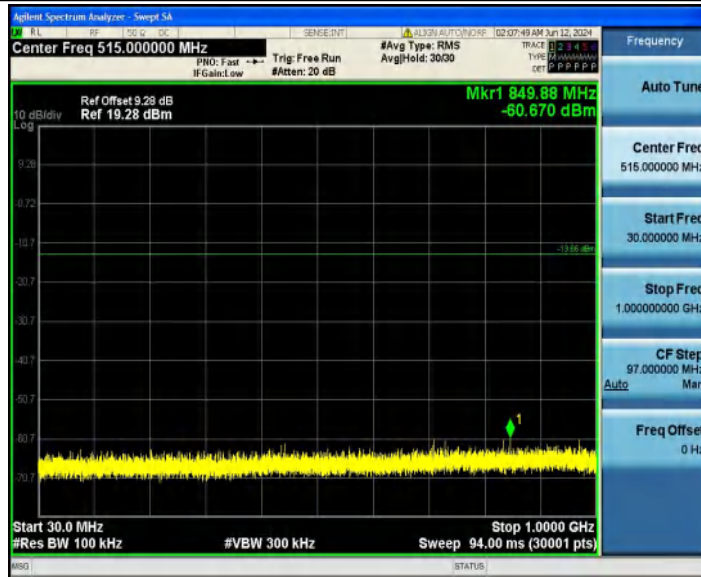
3DH5\_Ant1\_2402\_1000~26500



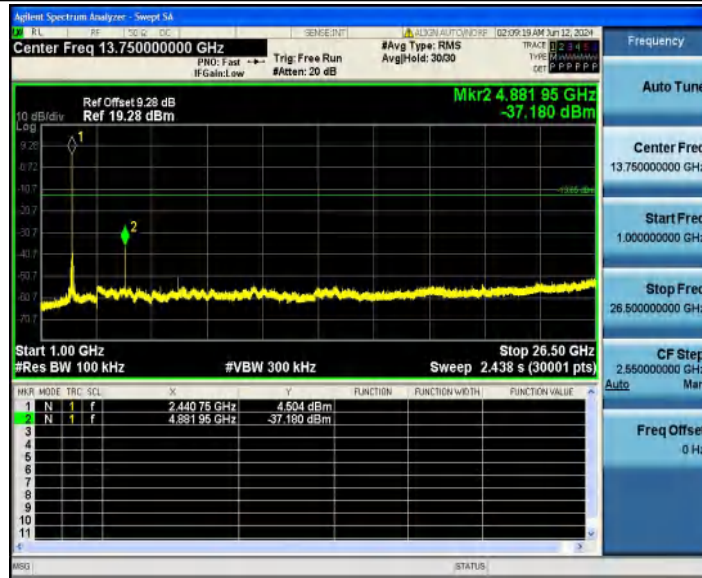
3DH5\_Ant1\_2441\_0~Reference



3DH5\_Ant1\_2441\_30~1000



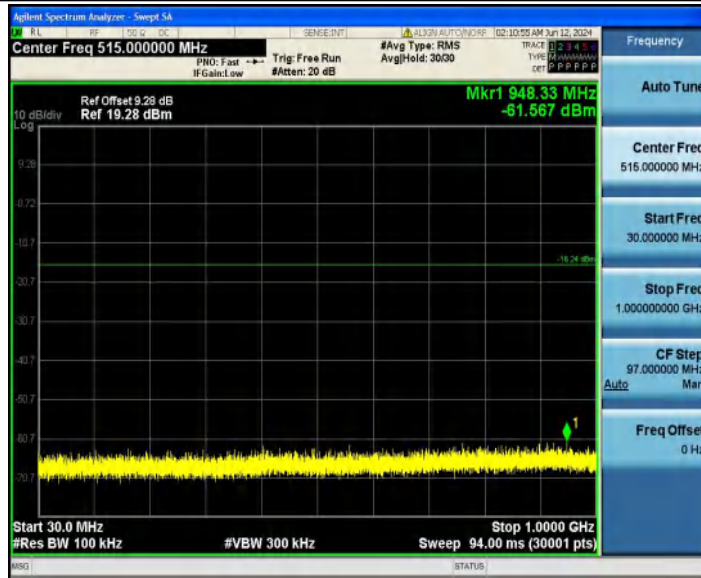
3DH5\_Ant1\_2441\_1000~26500



3DH5\_Ant1\_2480\_0~Reference



3DH5\_Ant1\_2480\_30~1000



3DH5\_Ant1\_2480\_1000~26500

