

## Appendix Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: Wireless Headphone  
 Trade Mark: Vivitar, Sonic, Paw Patrol  
 Test Model: HP401905  
 FCC ID: 2AL9B-HP401905

### Environmental Conditions

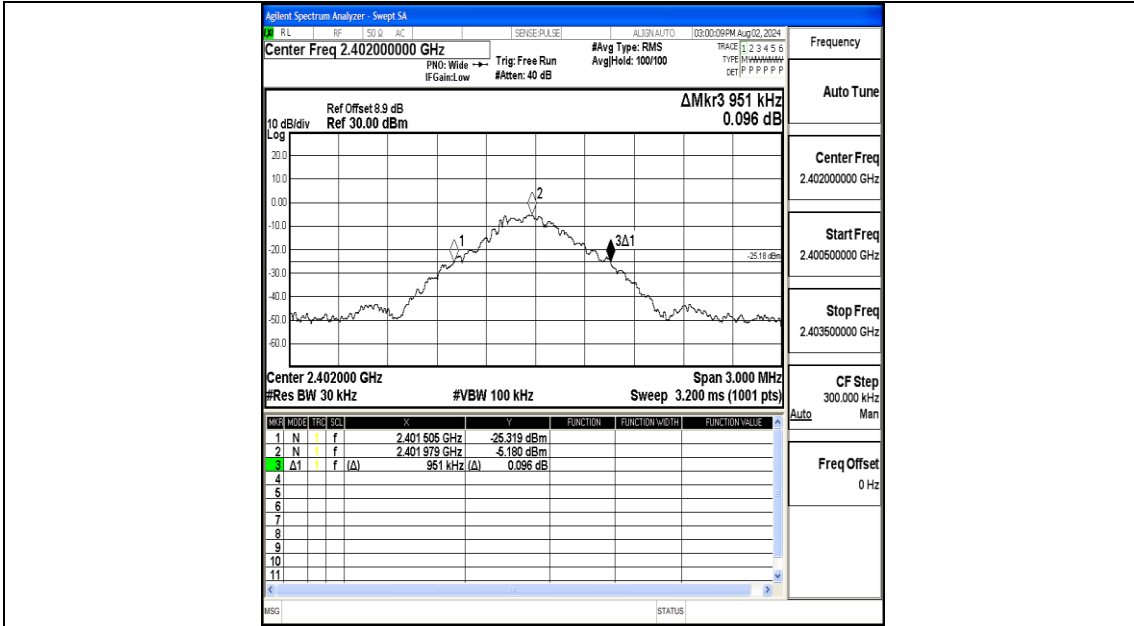
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

## Appendix A: 20dB Emission Bandwidth

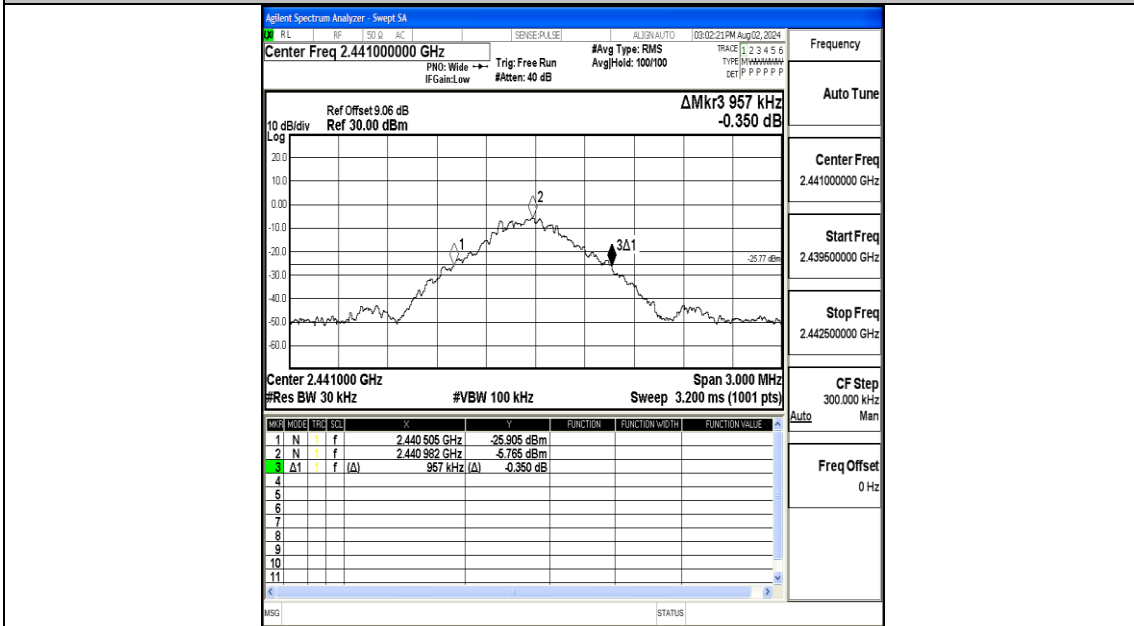
### Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.951	2401.505	2402.456	---	---
DH5	Ant1	2441	0.957	2440.505	2441.462	---	---
DH5	Ant1	2480	0.927	2479.511	2480.438	---	---
2DH5	Ant1	2402	1.233	2401.361	2402.594	---	---
2DH5	Ant1	2441	1.260	2440.340	2441.600	---	---
2DH5	Ant1	2480	1.350	2479.289	2480.639	---	---
3DH5	Ant1	2402	1.272	2401.328	2402.600	---	---
3DH5	Ant1	2441	1.260	2440.325	2441.585	---	---
3DH5	Ant1	2480	1.251	2479.331	2480.582	---	---

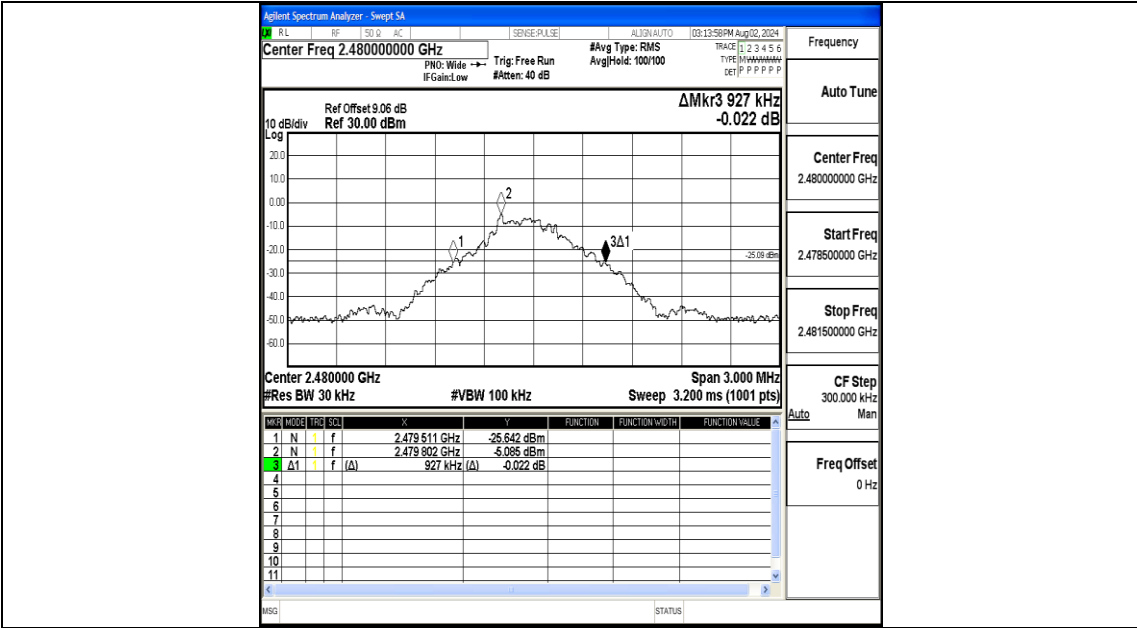
### Test Graphs



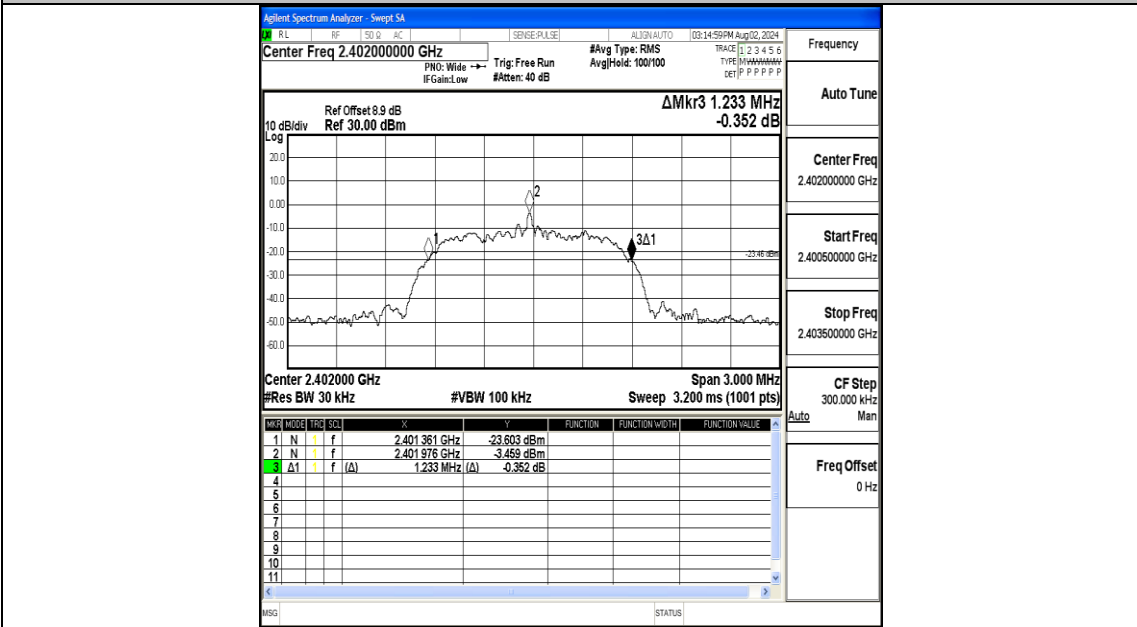
DH5-Ant1-2402



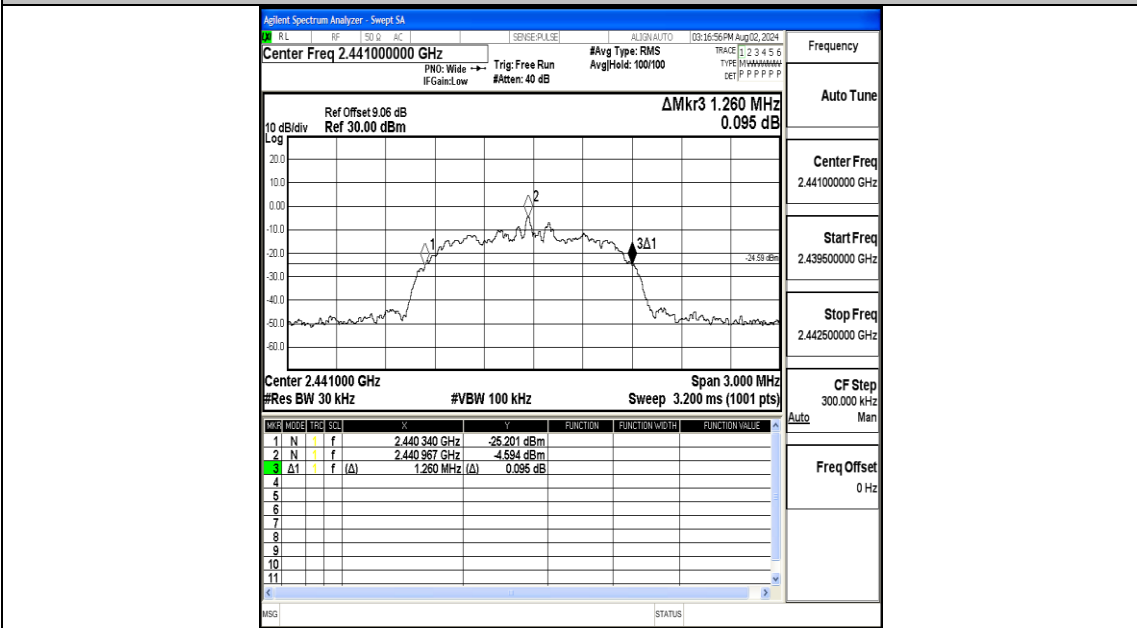
DH5-Ant1-2441



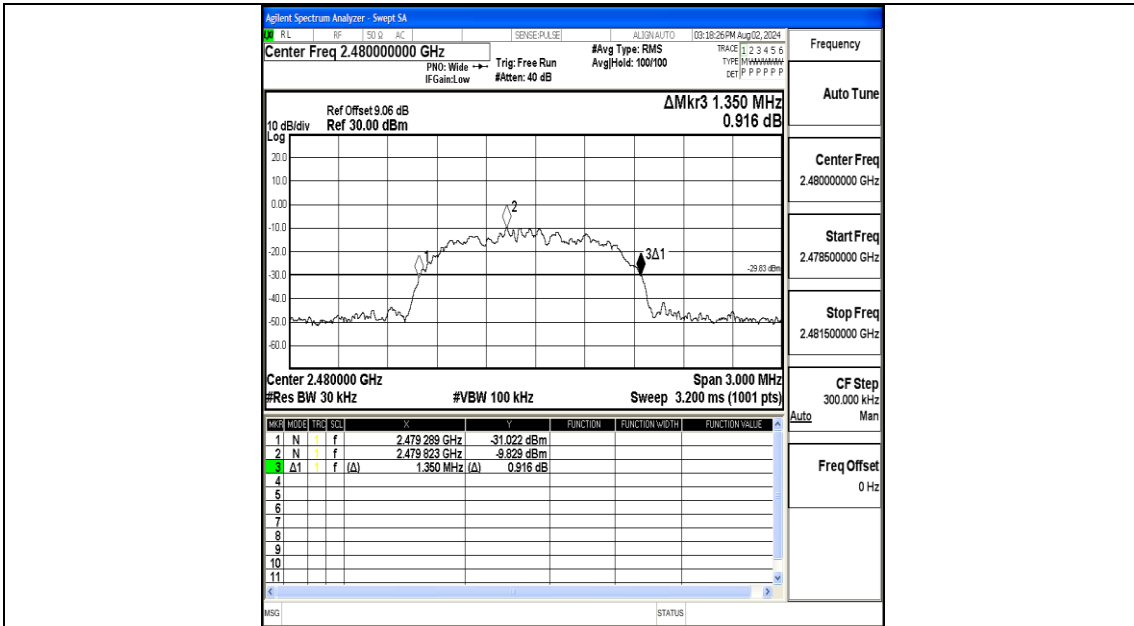
DH5-Ant1-2480



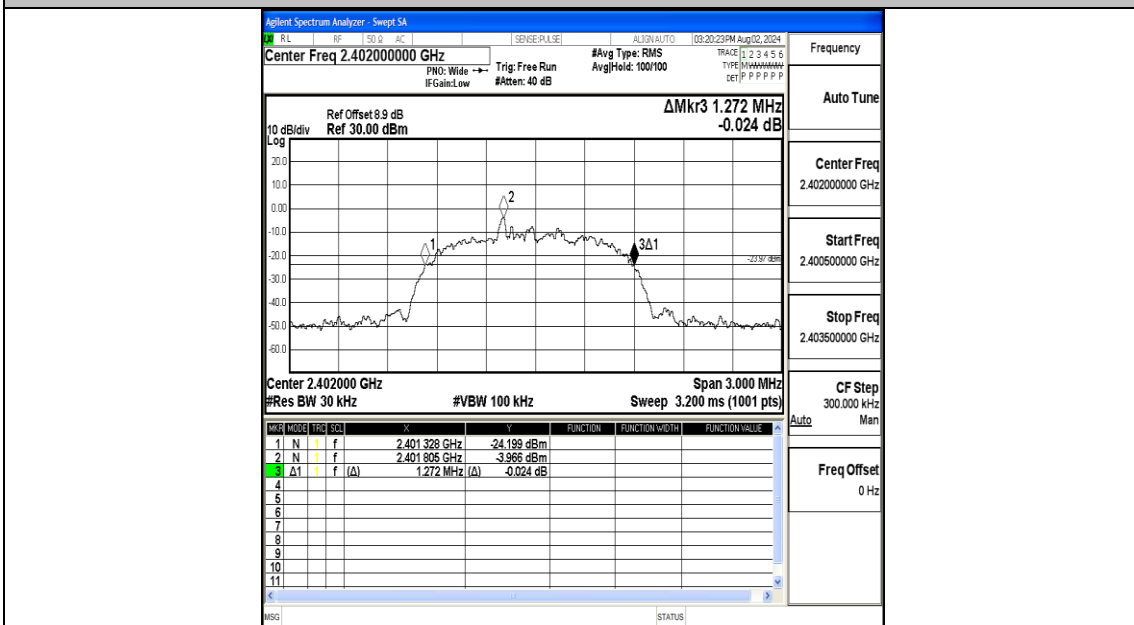
2DH5-Ant1-2402



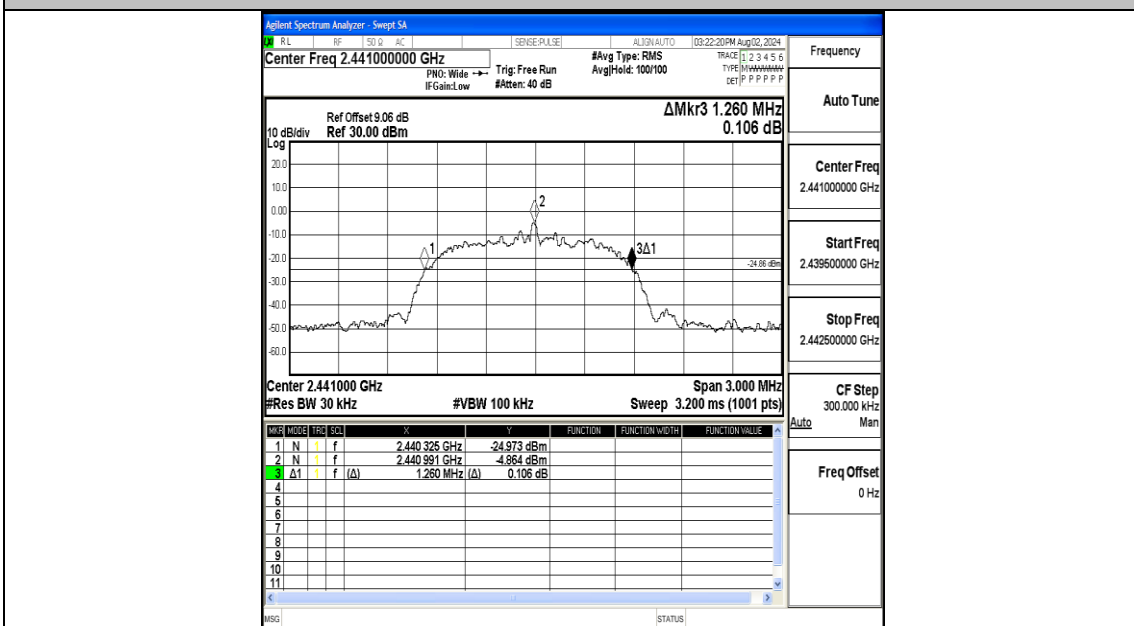
2DH5-Ant1-2441



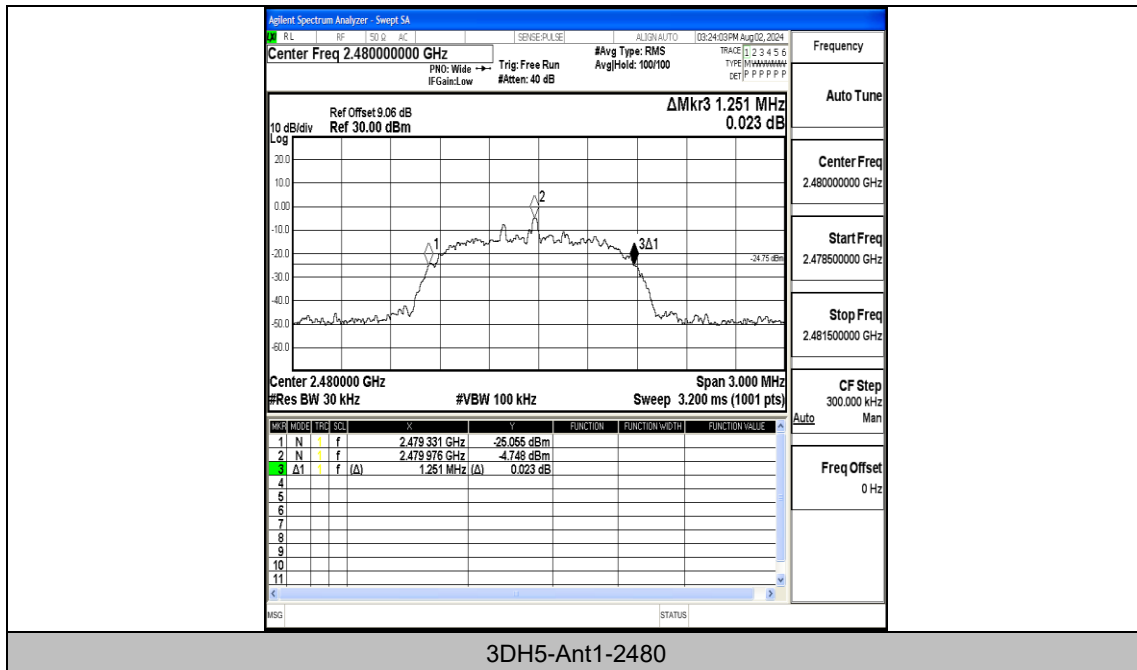
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441

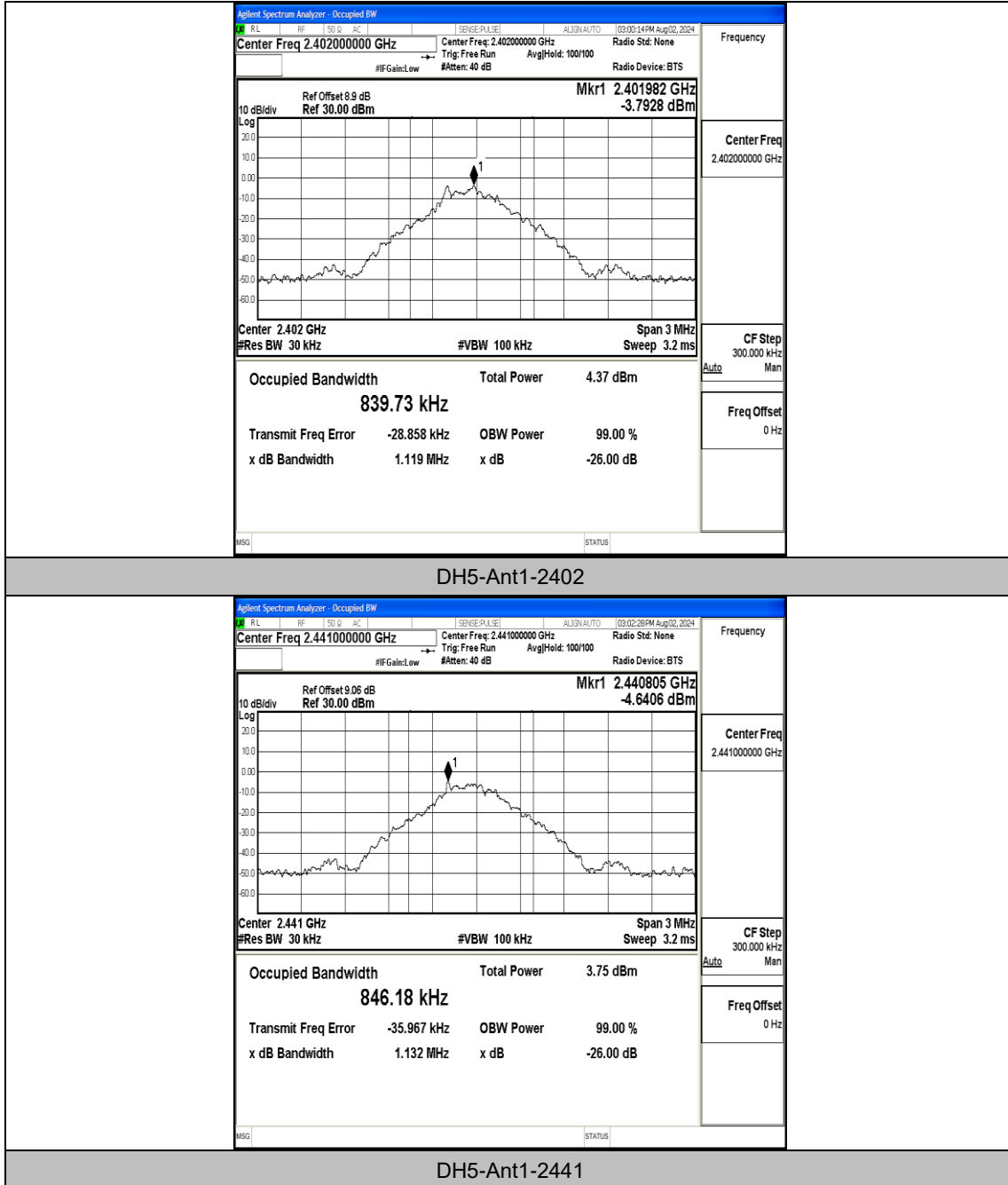


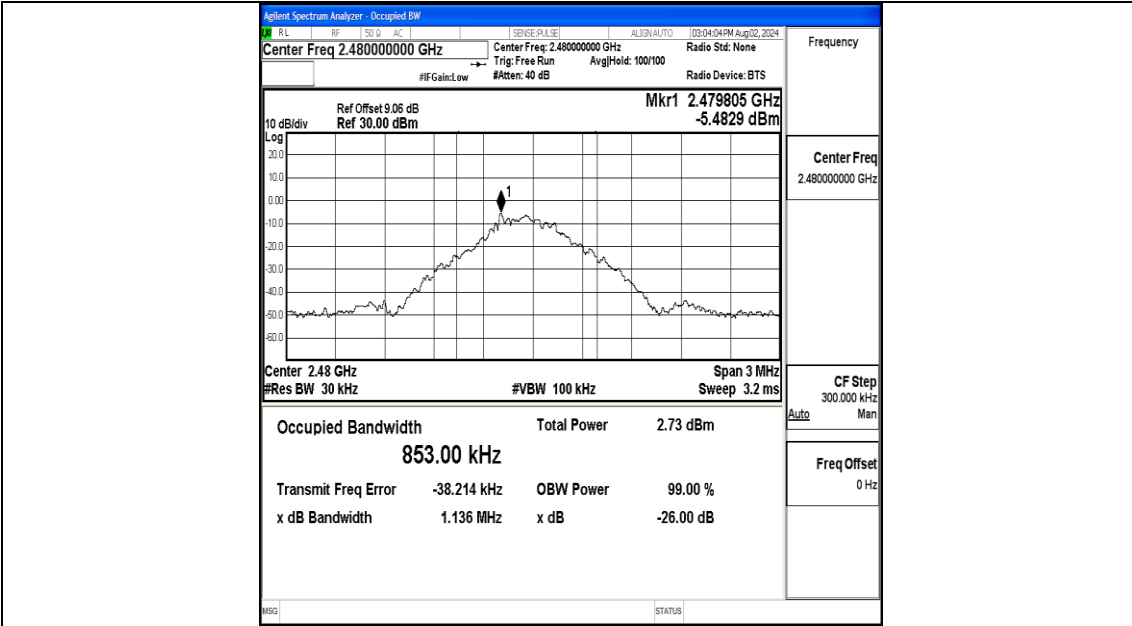
## Appendix B: Occupied Channel Bandwidth

### Test Result

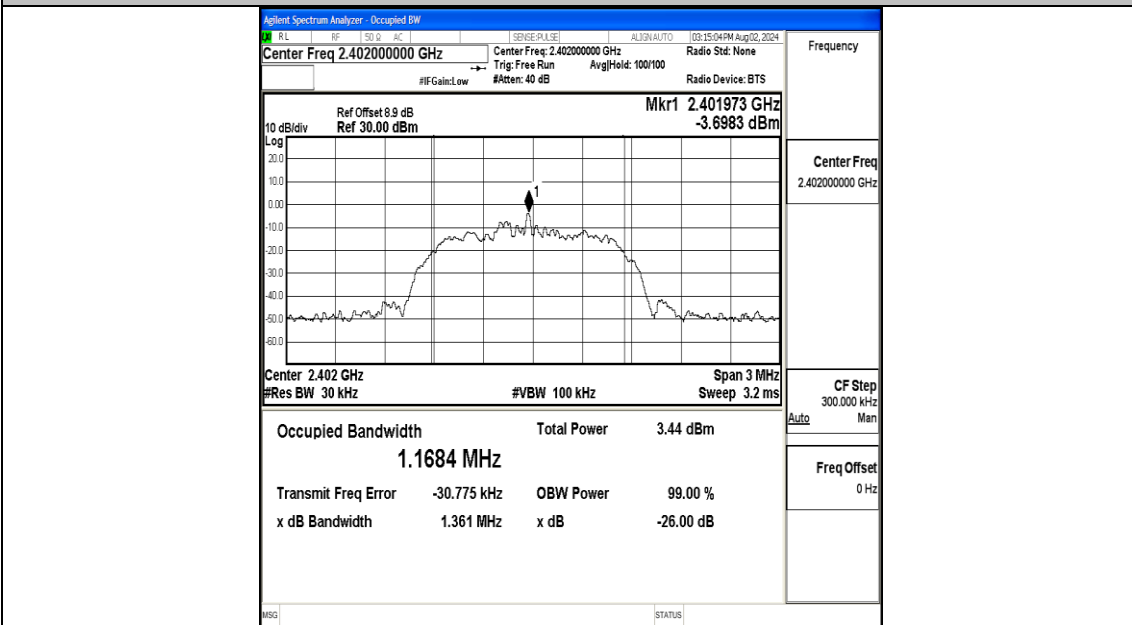
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.83973	2401.5513	2402.3910	---	---
DH5	Ant1	2441	0.84618	2440.5409	2441.3871	---	---
DH5	Ant1	2480	0.85300	2479.5353	2480.3883	---	---
2DH5	Ant1	2402	1.1684	2401.3850	2402.5534	---	---
2DH5	Ant1	2441	1.1838	2440.3763	2441.5601	---	---
2DH5	Ant1	2480	1.1689	2479.3816	2480.5505	---	---
3DH5	Ant1	2402	1.1683	2401.3886	2402.5569	---	---
3DH5	Ant1	2441	1.1921	2440.3715	2441.5636	---	---
3DH5	Ant1	2480	1.1695	2479.3817	2480.5512	---	---

### Test Graphs

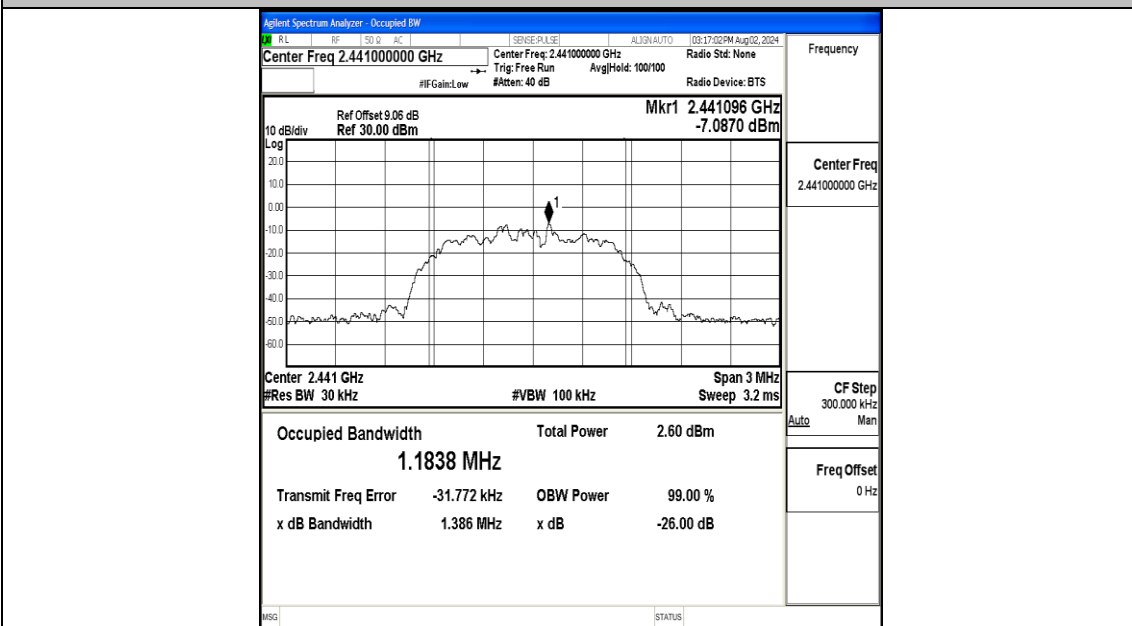




DH5-Ant1-2480

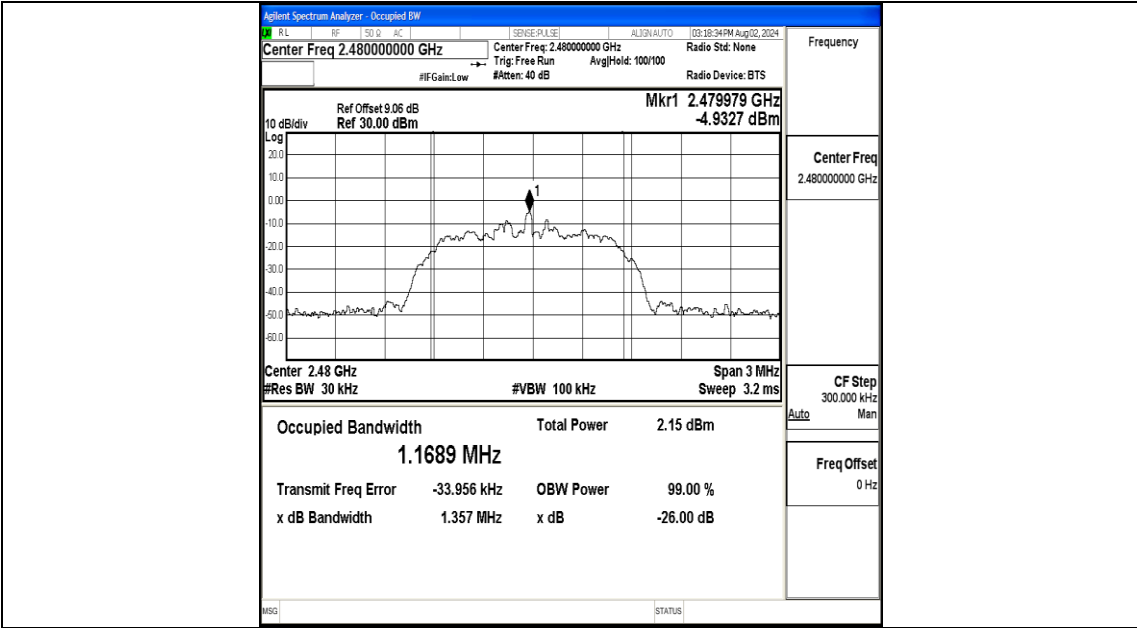


2DH5-Ant1-2402

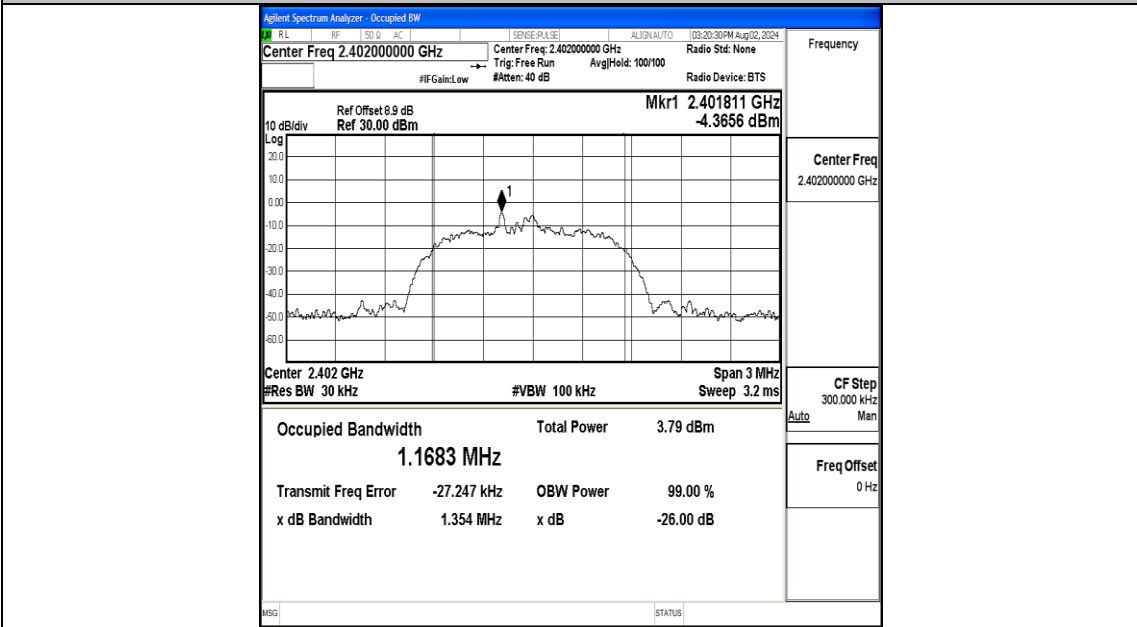


2DH5-Ant1-2441

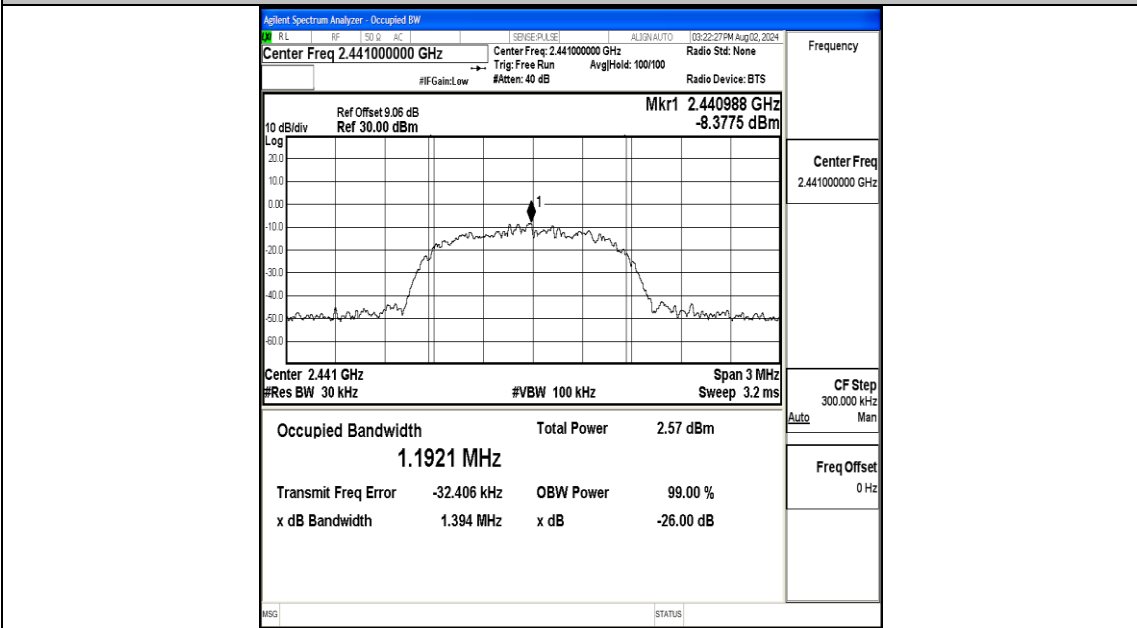




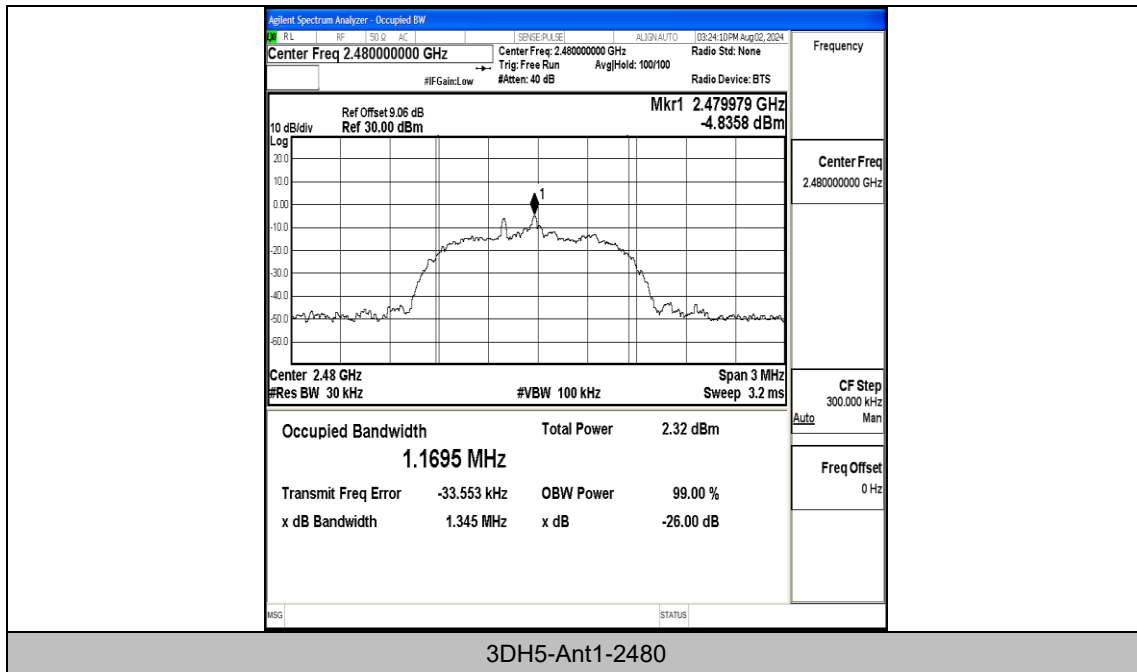
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441



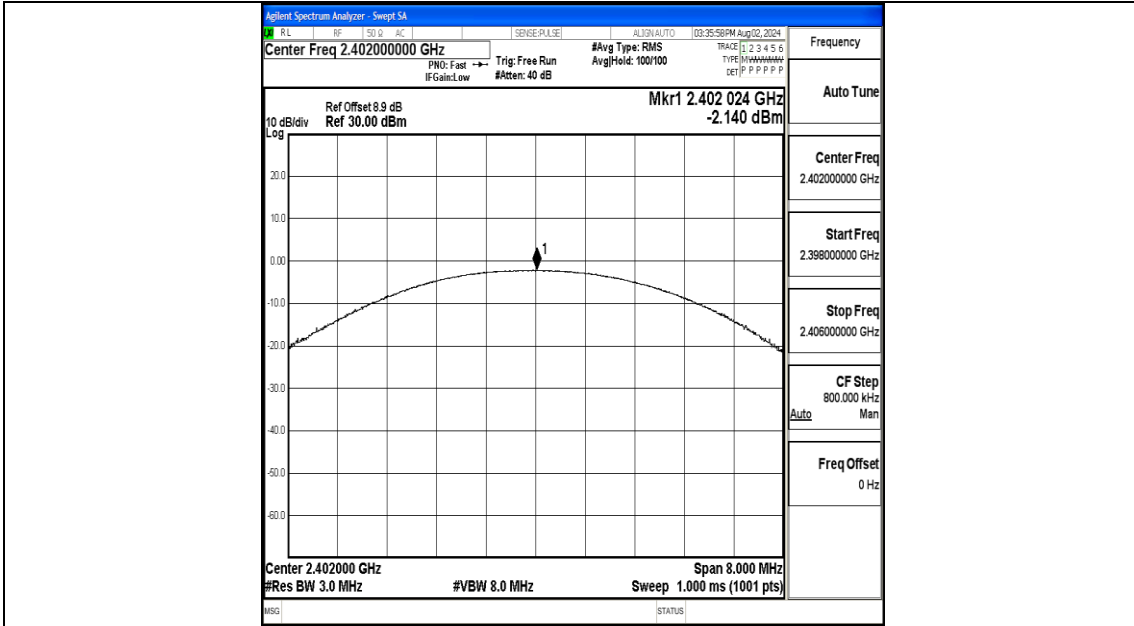
3DH5-Ant1-2480

## Appendix C: Maximum peak conducted output power

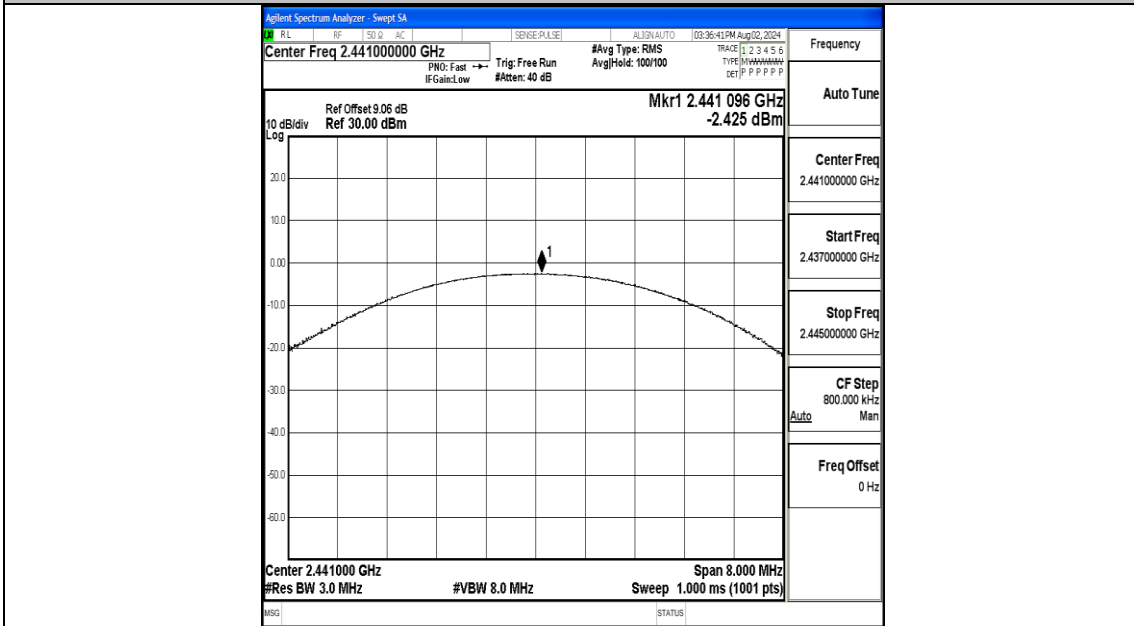
### Test Result

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-2.14	≤20.97	PASS
DH5	Ant1	2441	-2.43	≤20.97	PASS
DH5	Ant1	2480	-3.44	≤20.97	PASS
2DH5	Ant1	2402	-1.62	≤20.97	PASS
2DH5	Ant1	2441	-1.96	≤20.97	PASS
2DH5	Ant1	2480	-2.98	≤20.97	PASS
3DH5	Ant1	2402	-1.35	≤20.97	PASS
3DH5	Ant1	2441	-1.44	≤20.97	PASS
3DH5	Ant1	2480	-2.61	≤20.97	PASS

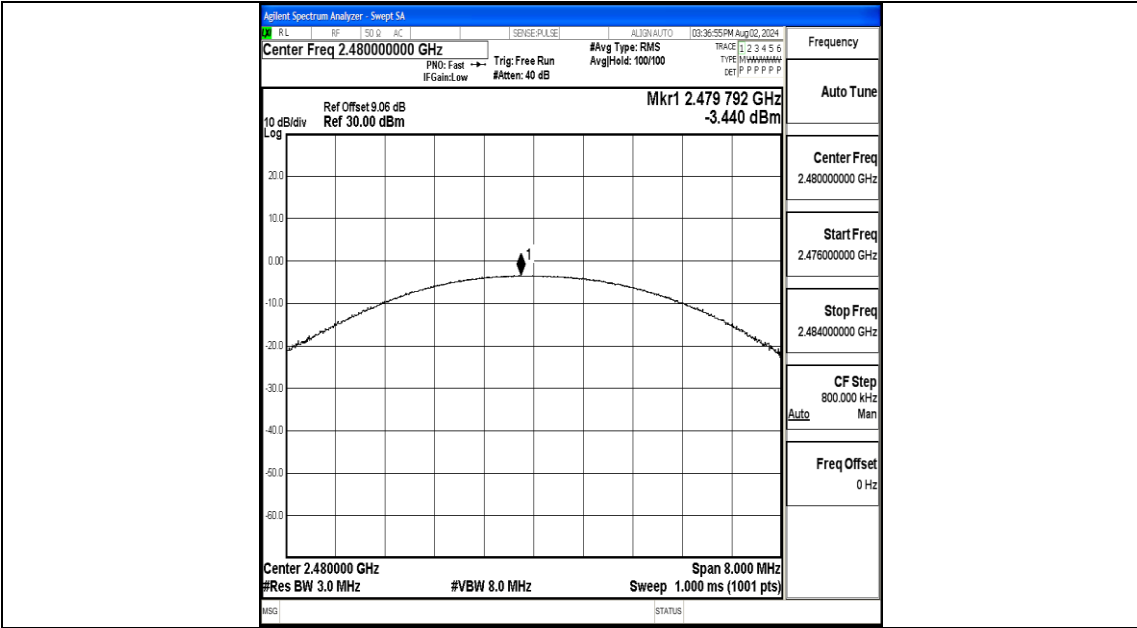
### Test Graphs



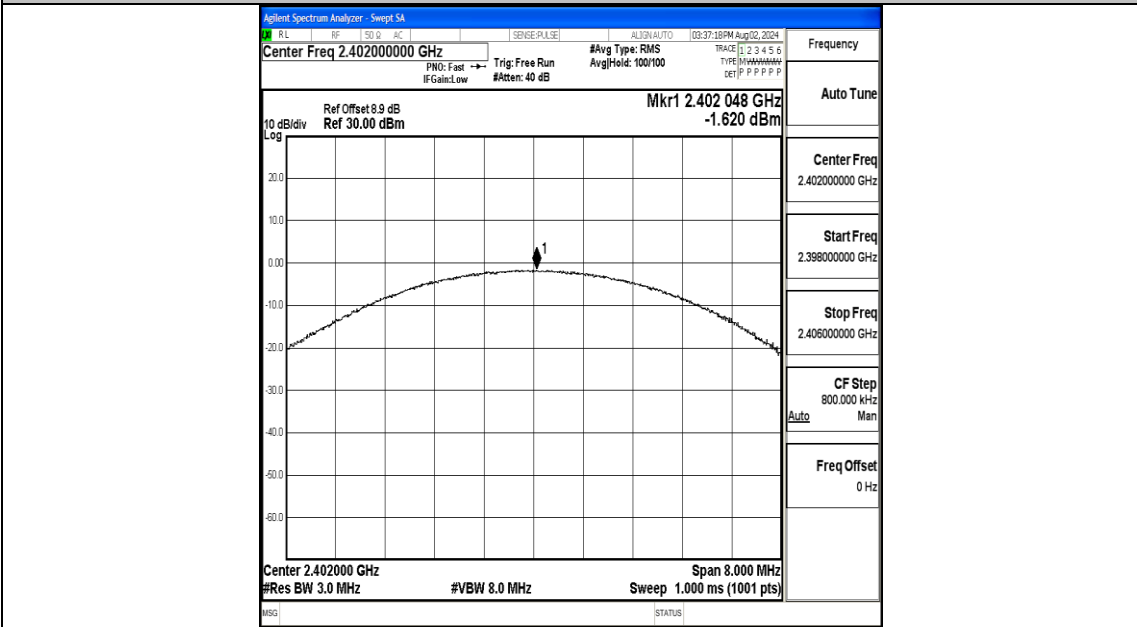
DH5-Ant1-2402-PASS



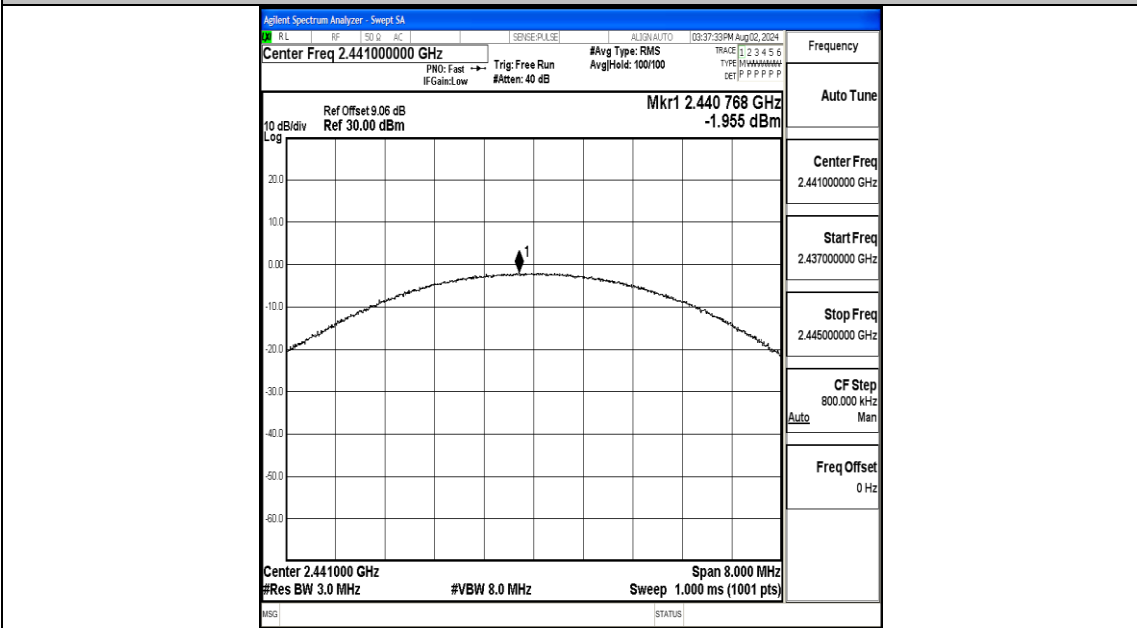
DH5-Ant1-2441-PASS



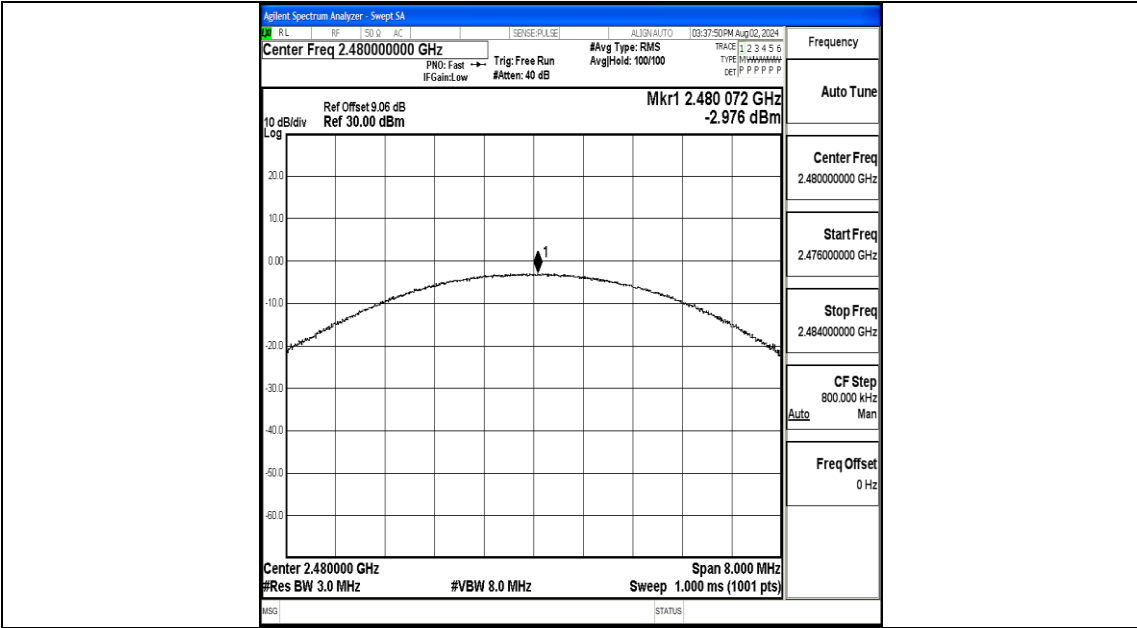
DH5-Ant1-2480-PASS



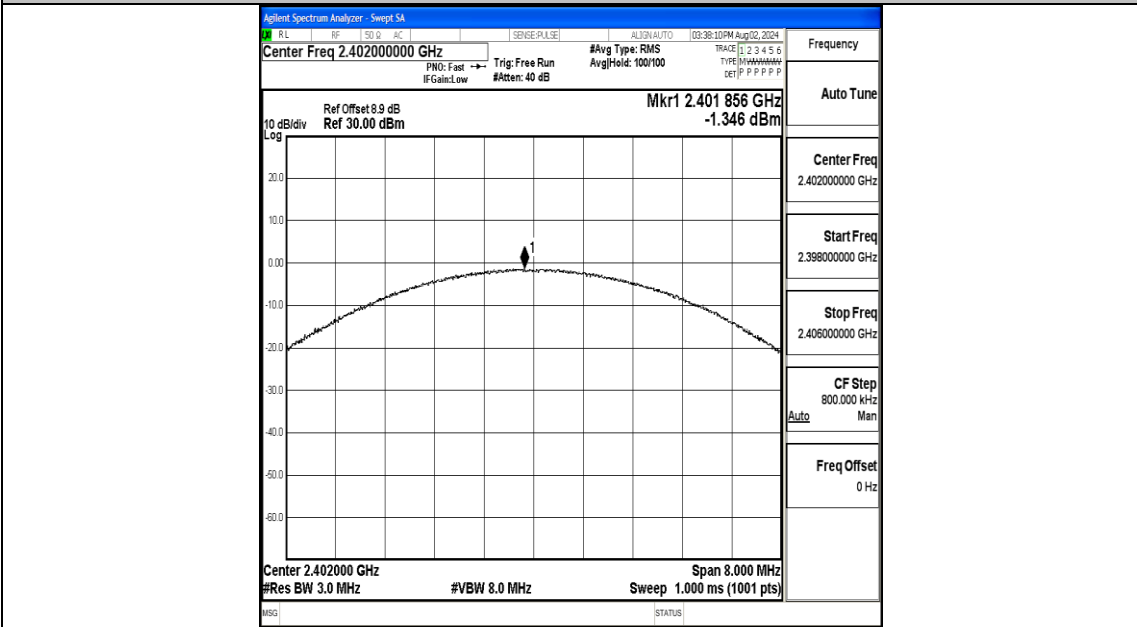
2DH5-Ant1-2402-PASS



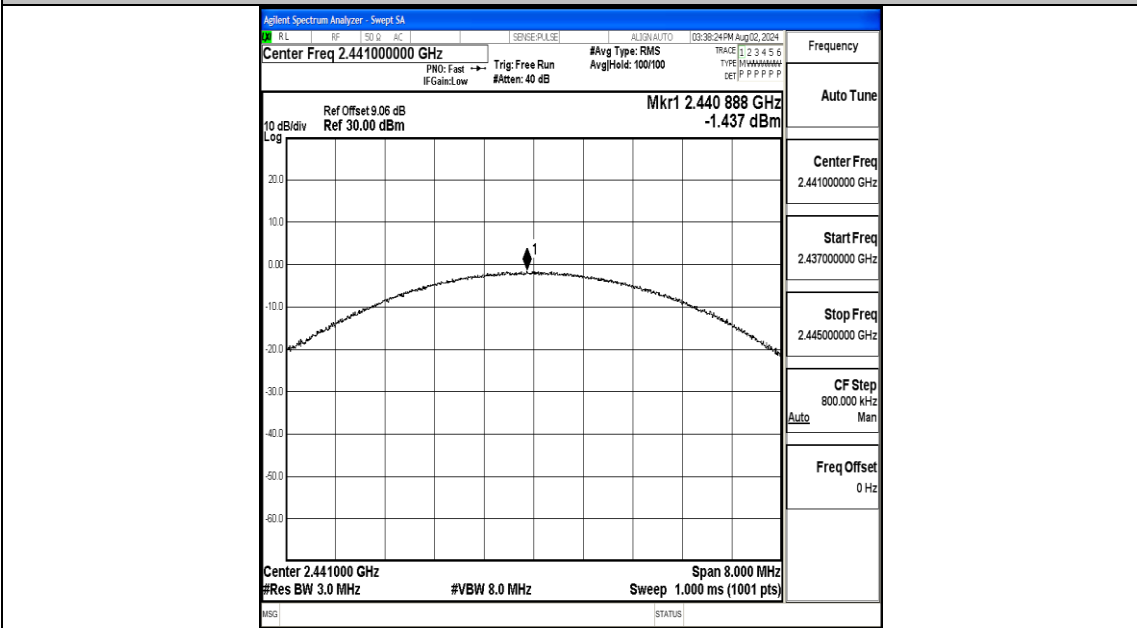
2DH5-Ant1-2441-PASS



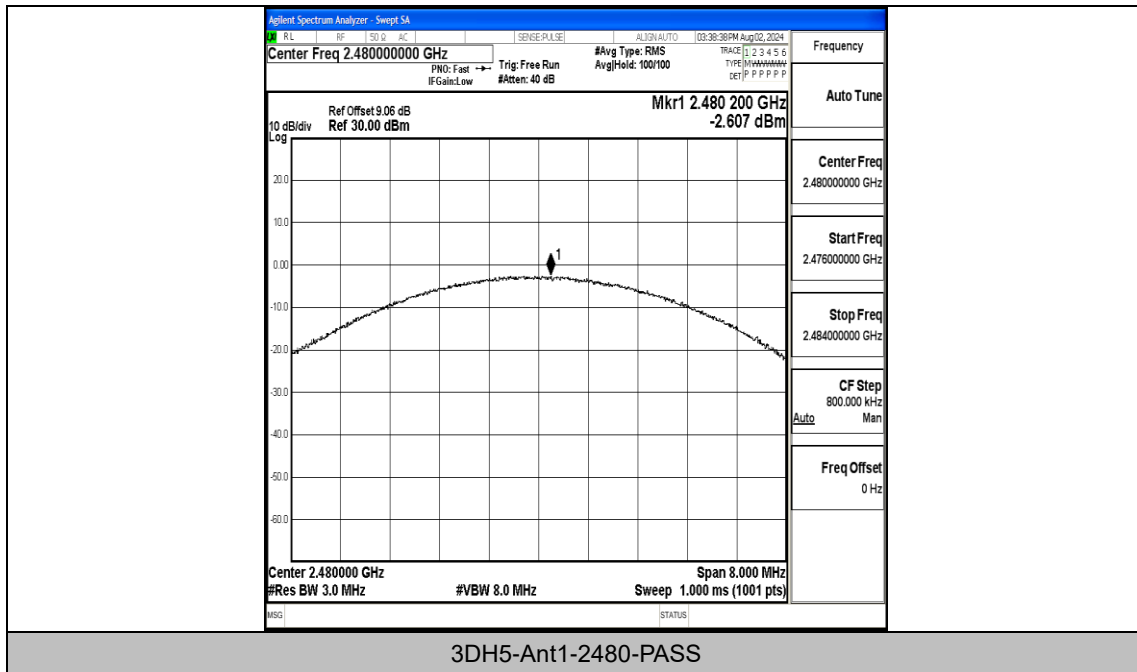
2DH5-Ant1-2480-PASS



3DH5-Ant1-2402-PASS



3DH5-Ant1-2441-PASS



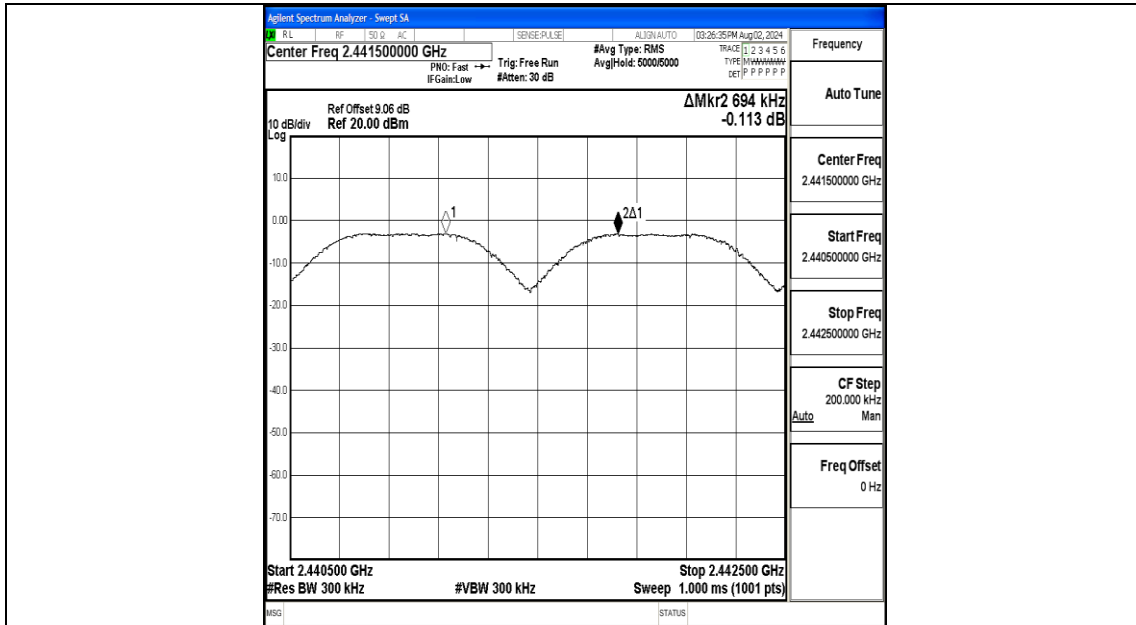
## Appendix D: Carrier frequency separation

### Test Result

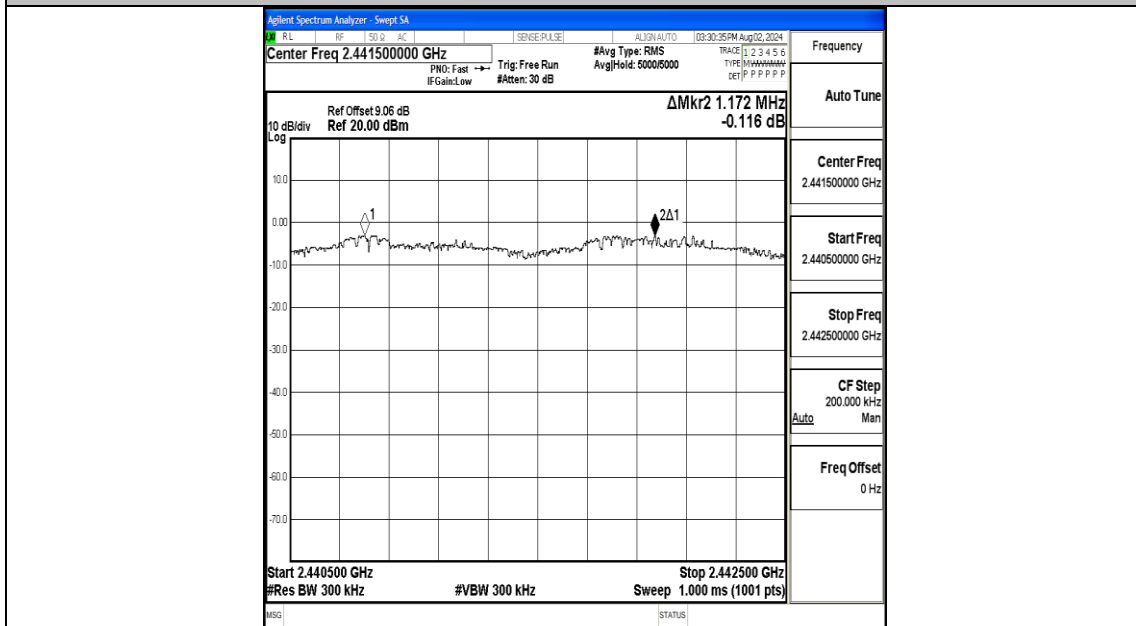
TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.694	$\geq 0.638$	PASS
2DH5	Ant1	Hop	1.172	$\geq 0.900$	PASS
3DH5	Ant1	Hop	1.13	$\geq 0.848$	PASS



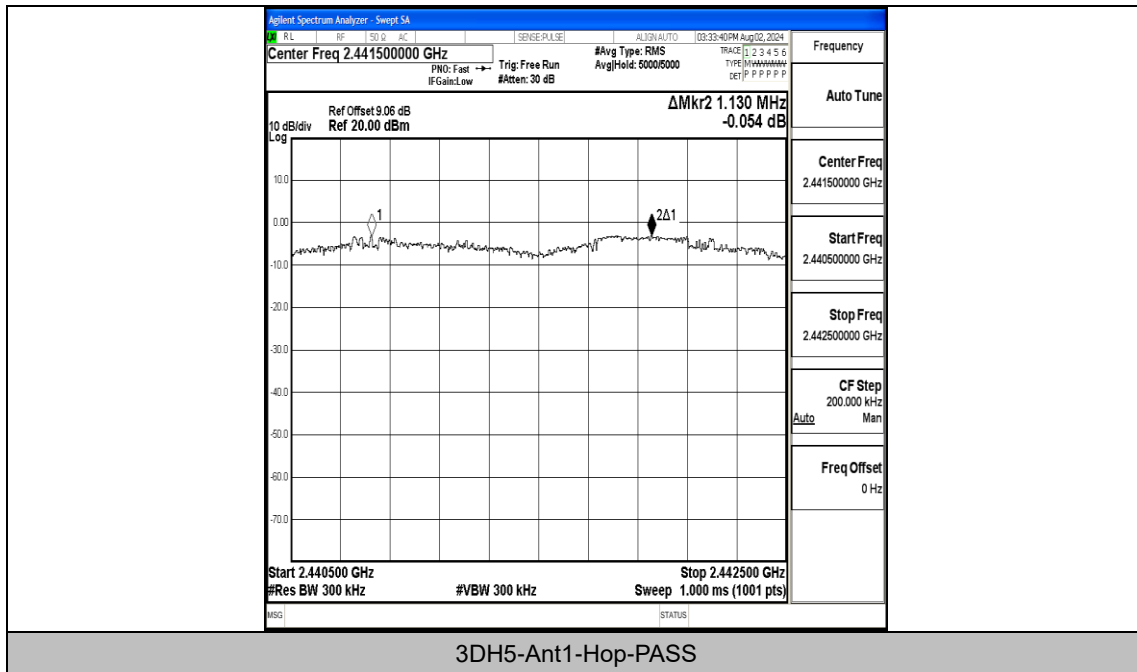
### Test Graphs



DH5-Ant1-Hop-PASS



2DH5-Ant1-Hop-PASS

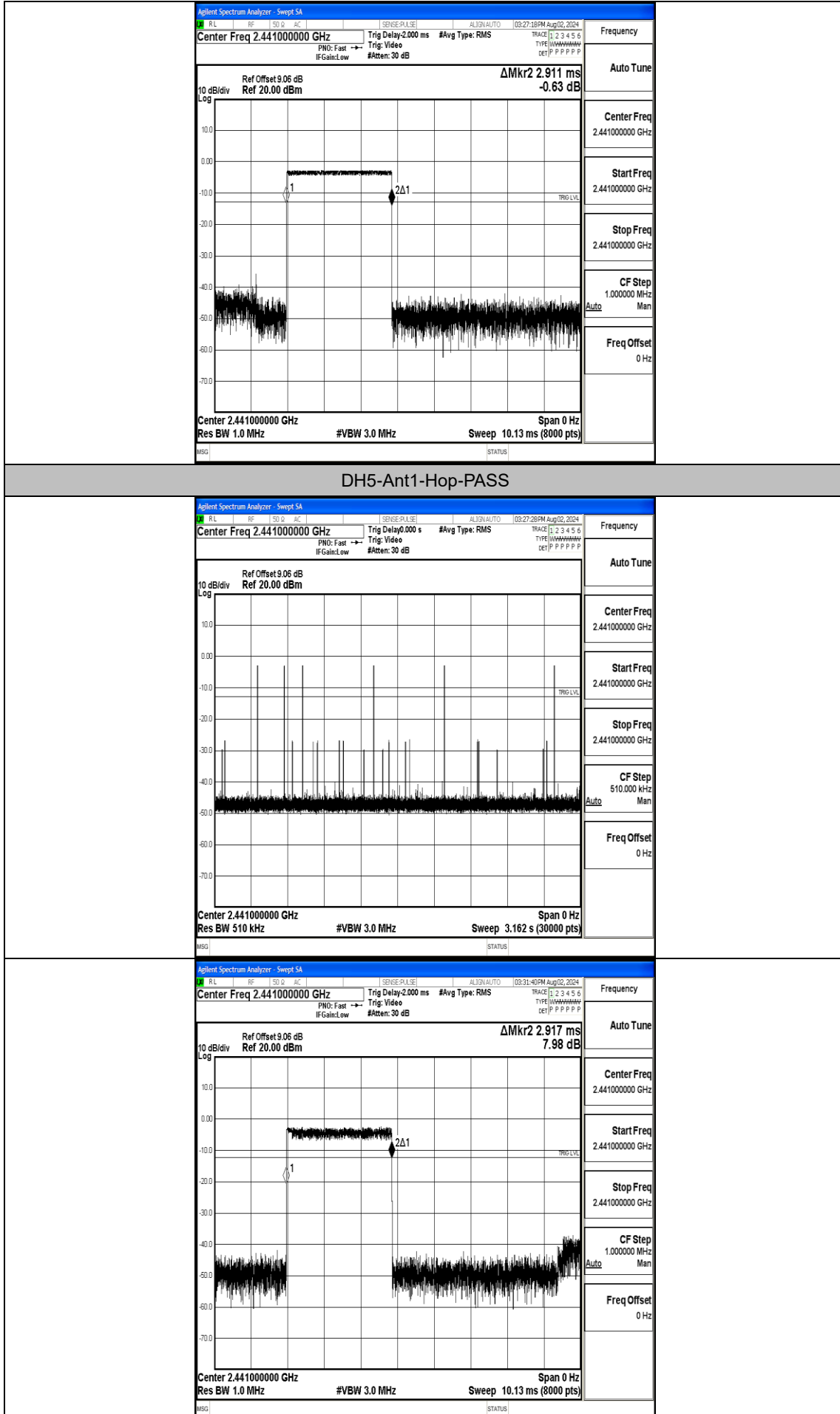


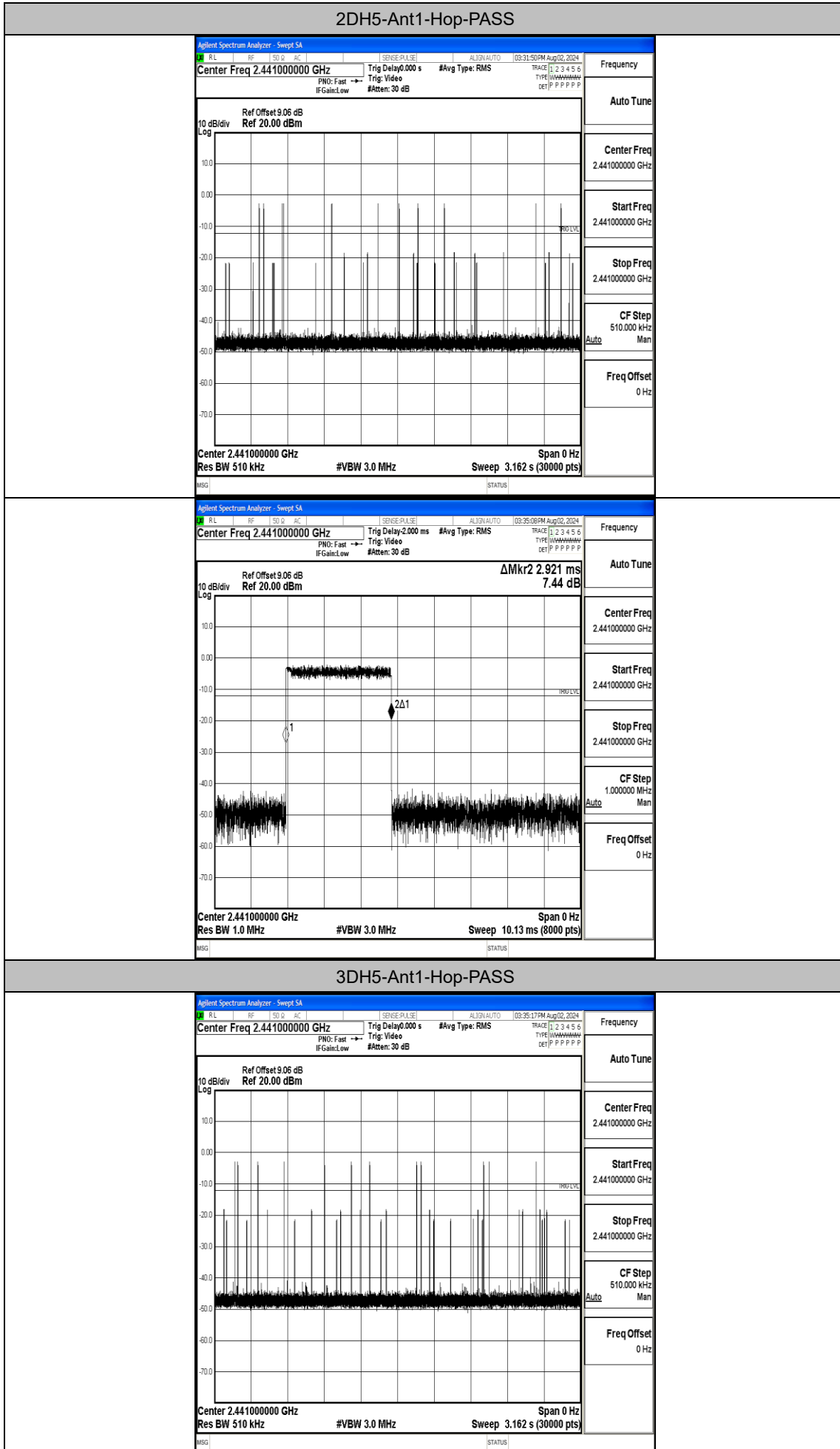
## Appendix E: Time of occupancy

### Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.911	70	0.204	≤0.4	PASS
2DH5	Ant1	Hop	2.917	120	0.35	≤0.4	PASS
3DH5	Ant1	Hop	2.921	130	0.38	≤0.4	PASS

### Test Graphs



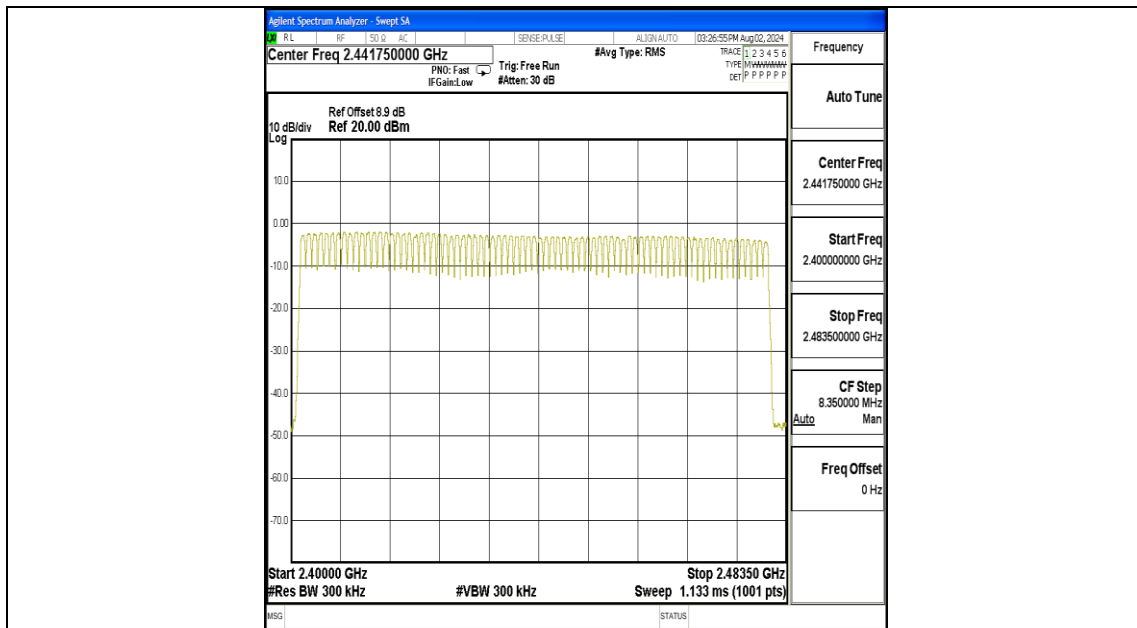


## Appendix F: Number of hopping channels

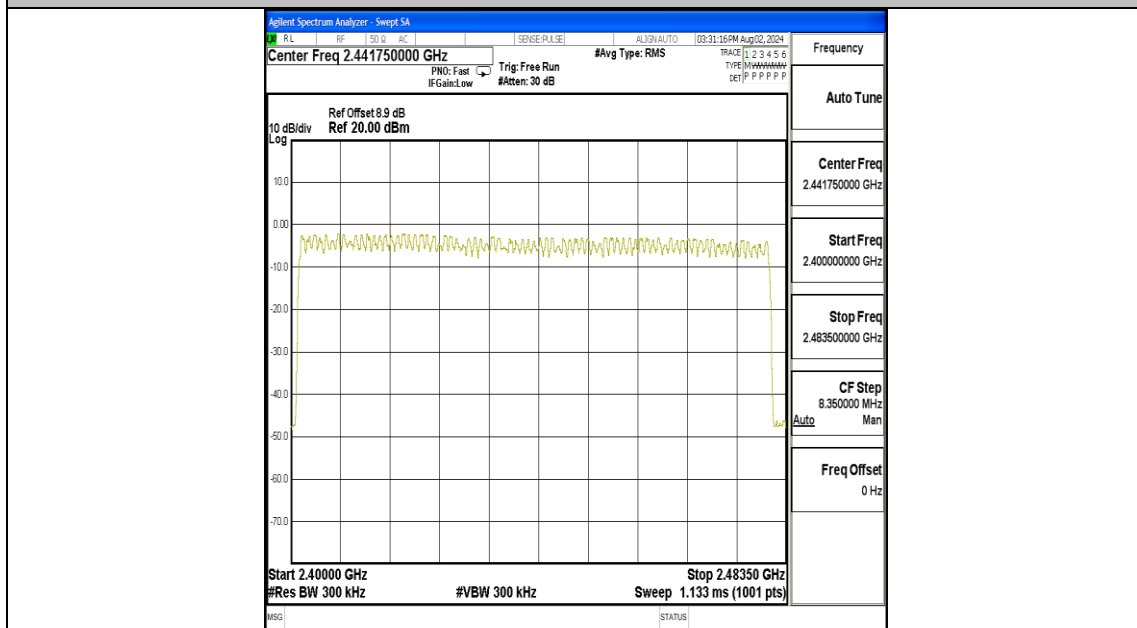
### Test Result

TestMode	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

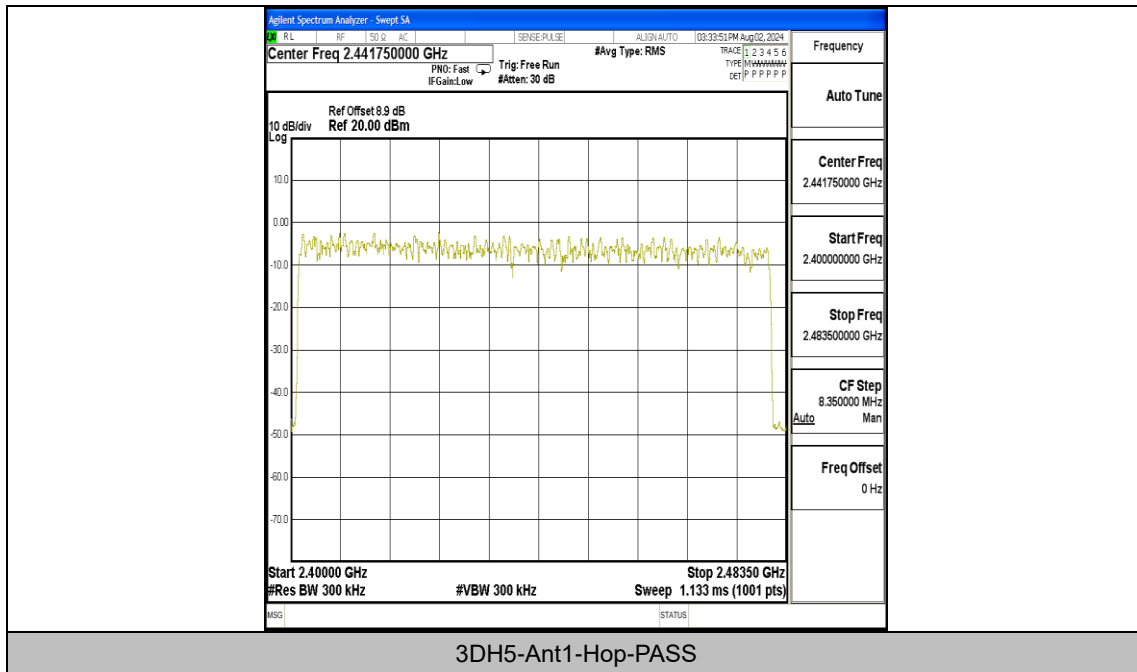
### Test Graphs



DH5-Ant1-Hop-PASS



2DH5-Ant1-Hop-PASS



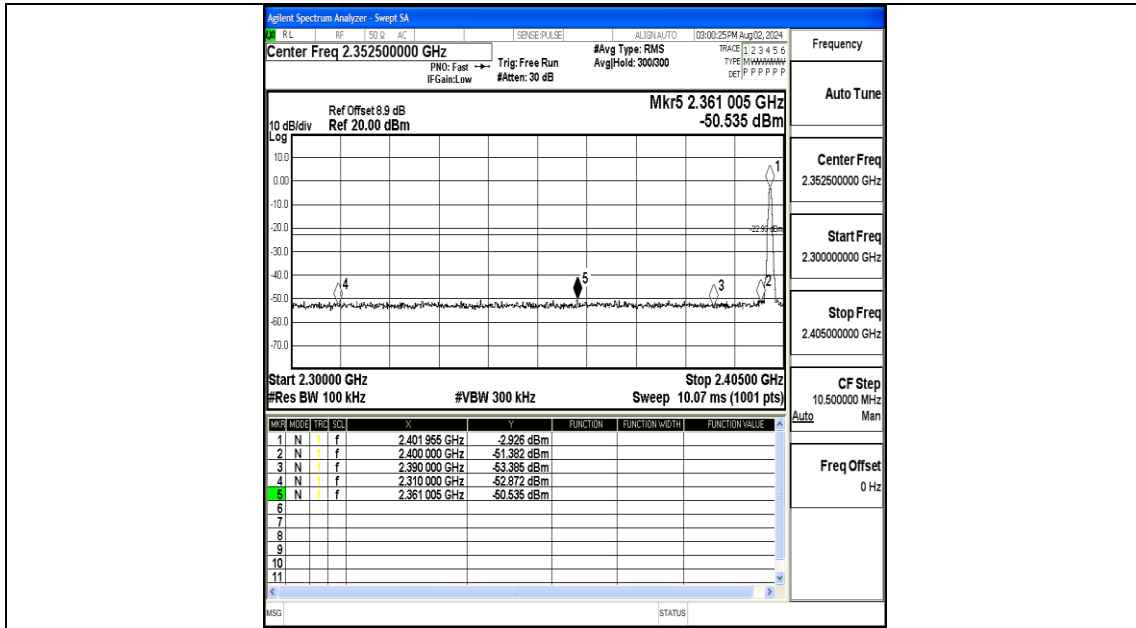


## Appendix G: Band edge measurements

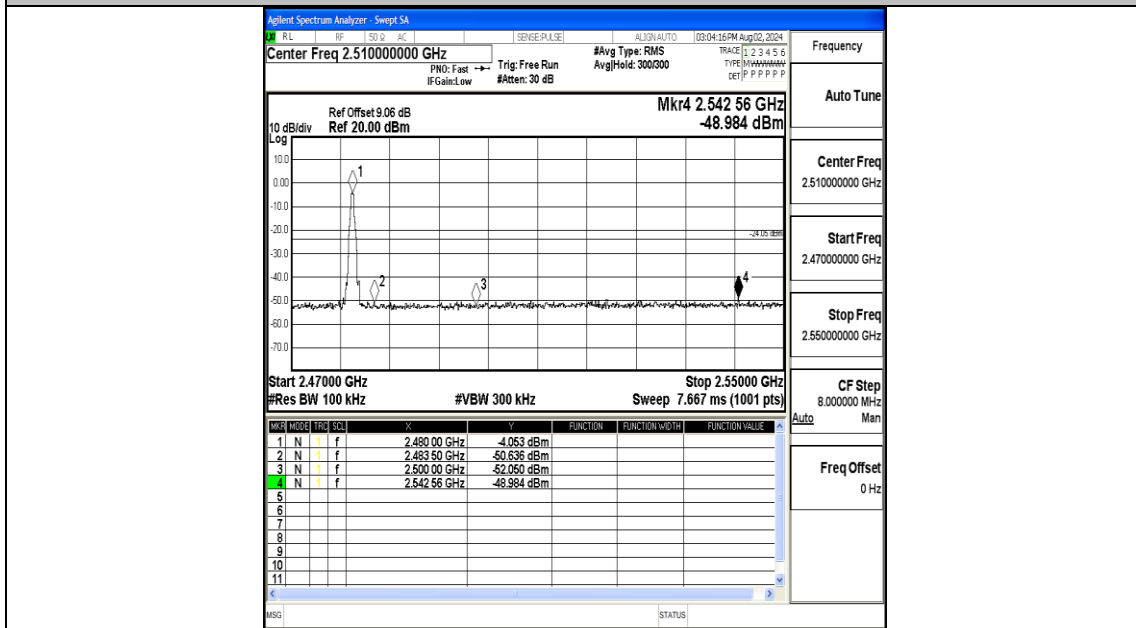
### Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.93	-50.54	≤-22.93	PASS
DH5	Ant1	High	2480	-4.05	-48.98	≤-24.05	PASS
DH5	Ant1	Low	Hop_2402	-3.46	-50.15	≤-23.46	PASS
DH5	Ant1	High	Hop_2480	-3.95	-49.58	≤-23.95	PASS
2DH5	Ant1	Low	2402	-3.21	-49.98	≤-23.21	PASS
2DH5	Ant1	High	2480	-4.37	-49.57	≤-24.37	PASS
2DH5	Ant1	Low	Hop_2402	-4.07	-50.26	≤-24.07	PASS
2DH5	Ant1	High	Hop_2480	-4.09	-48.69	≤-24.09	PASS
3DH5	Ant1	Low	2402	-2.93	-50.16	≤-22.93	PASS
3DH5	Ant1	High	2480	-4.09	-49.18	≤-24.09	PASS
3DH5	Ant1	Low	Hop_2402	-7.75	-50.72	≤-27.75	PASS
3DH5	Ant1	High	Hop_2480	-4.72	-49.66	≤-24.72	PASS

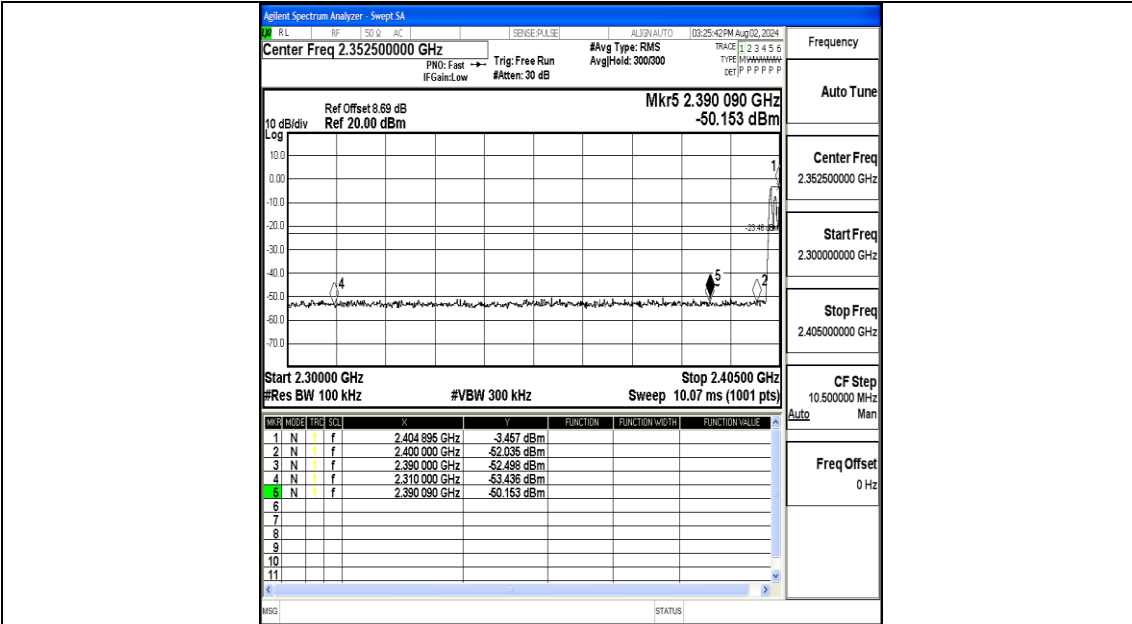
### Test Graphs



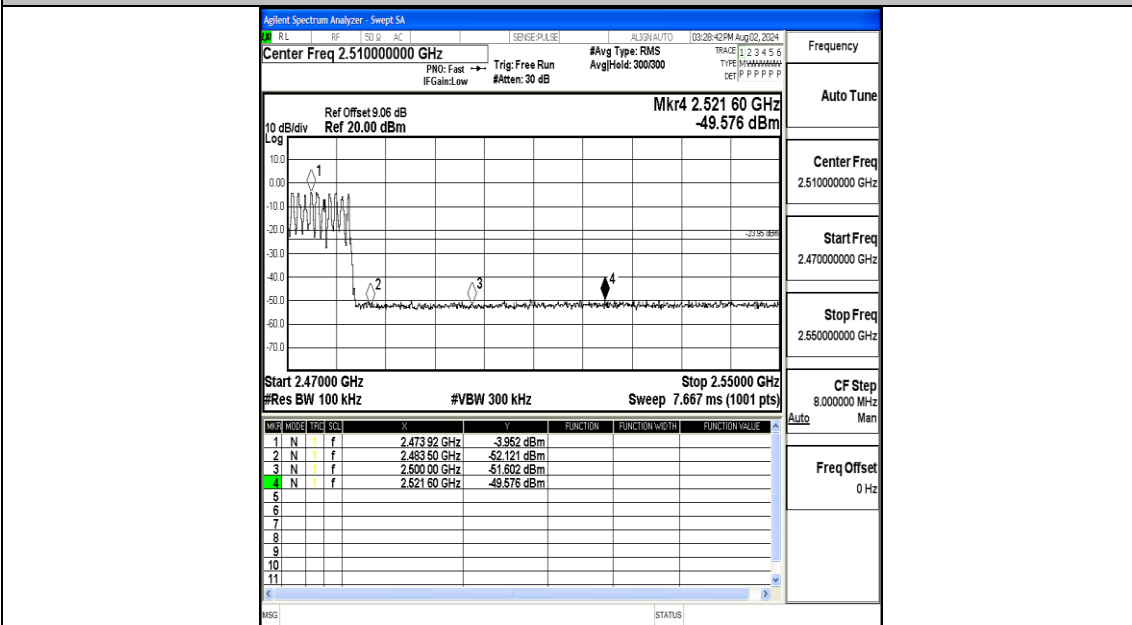
DH5-Ant1-2402-PASS



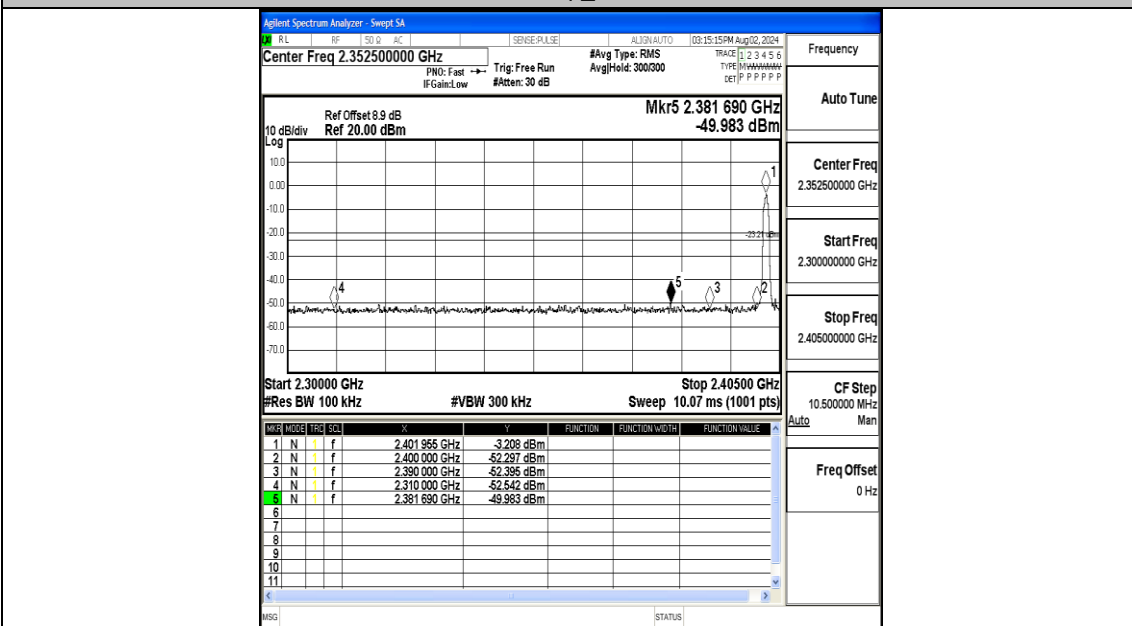
DH5-Ant1-2480-PASS



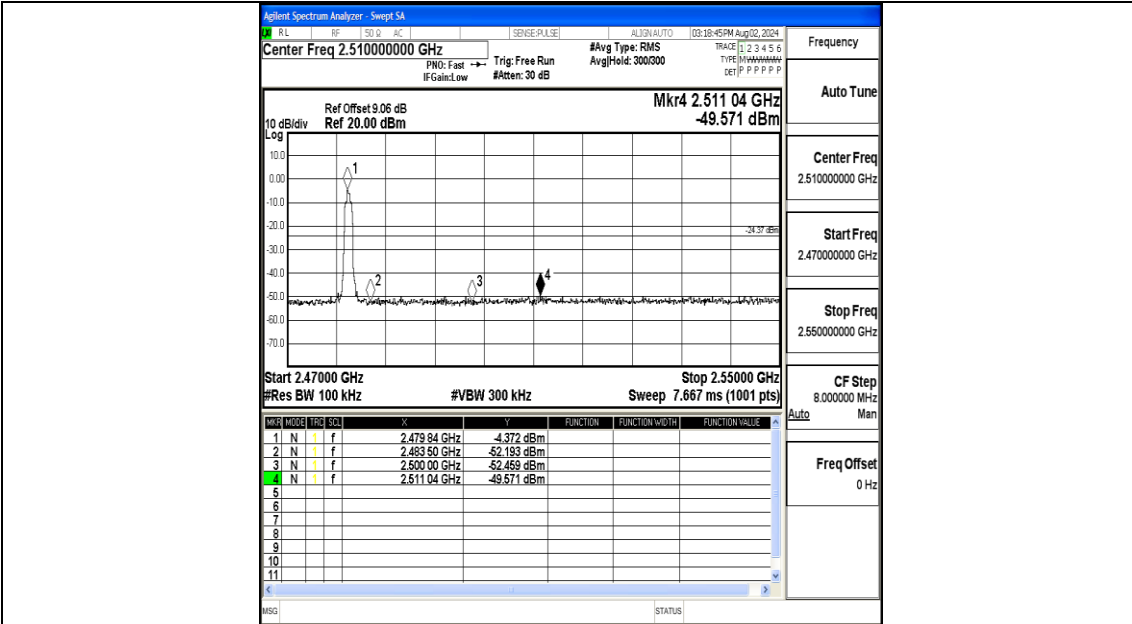
DH5-Ant1-Hop\_2402-PASS



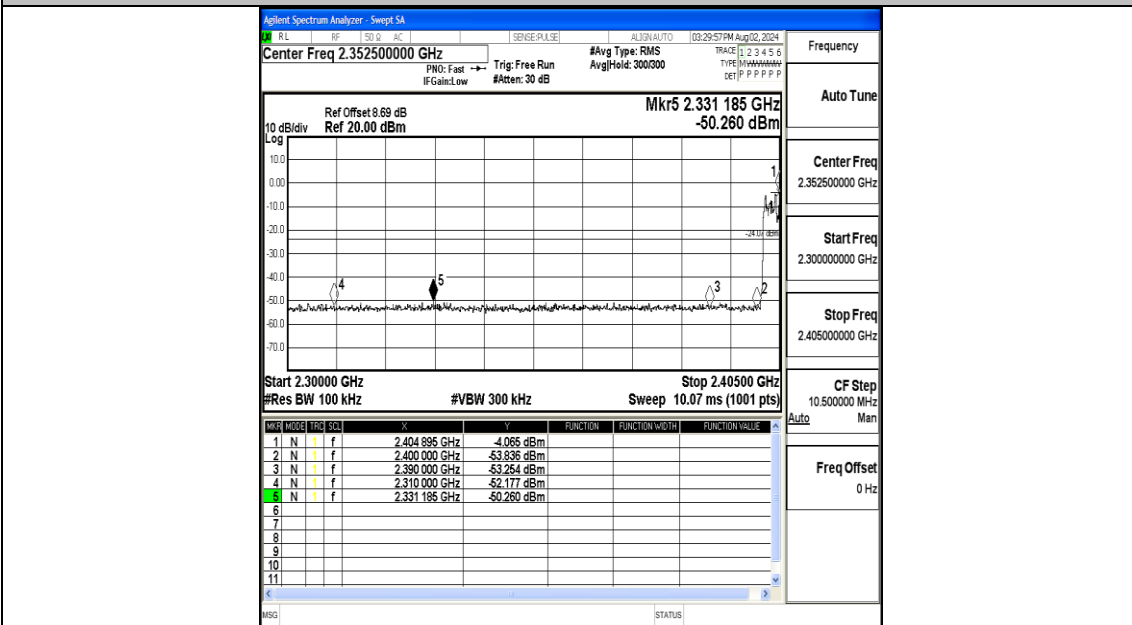
DH5-Ant1-Hop\_2480-PASS



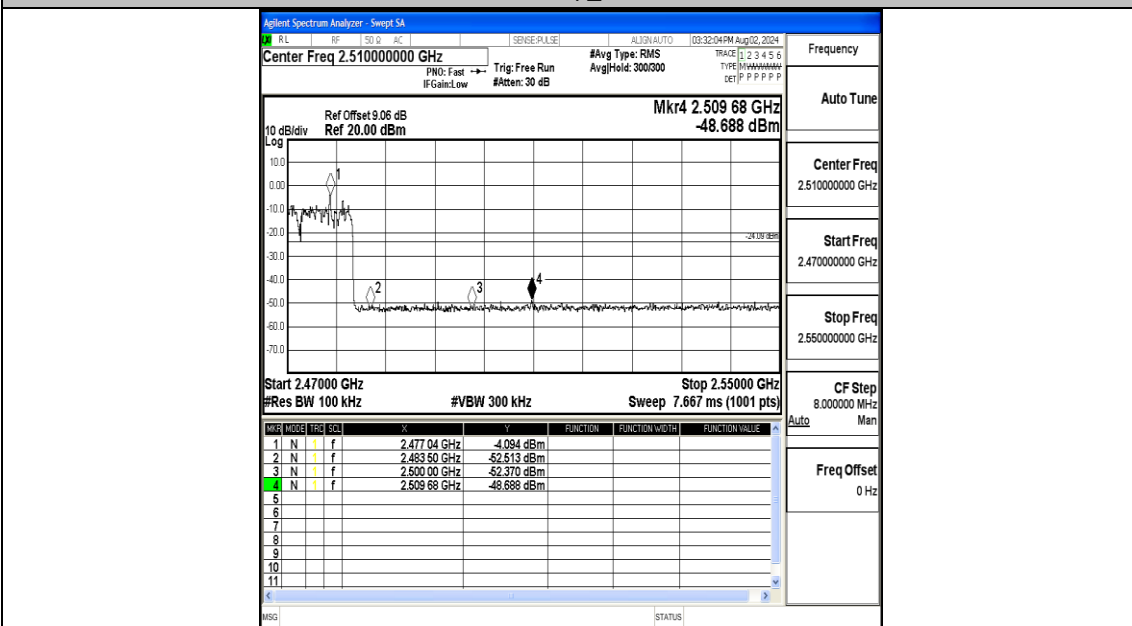
2DH5-Ant1-2402-PASS



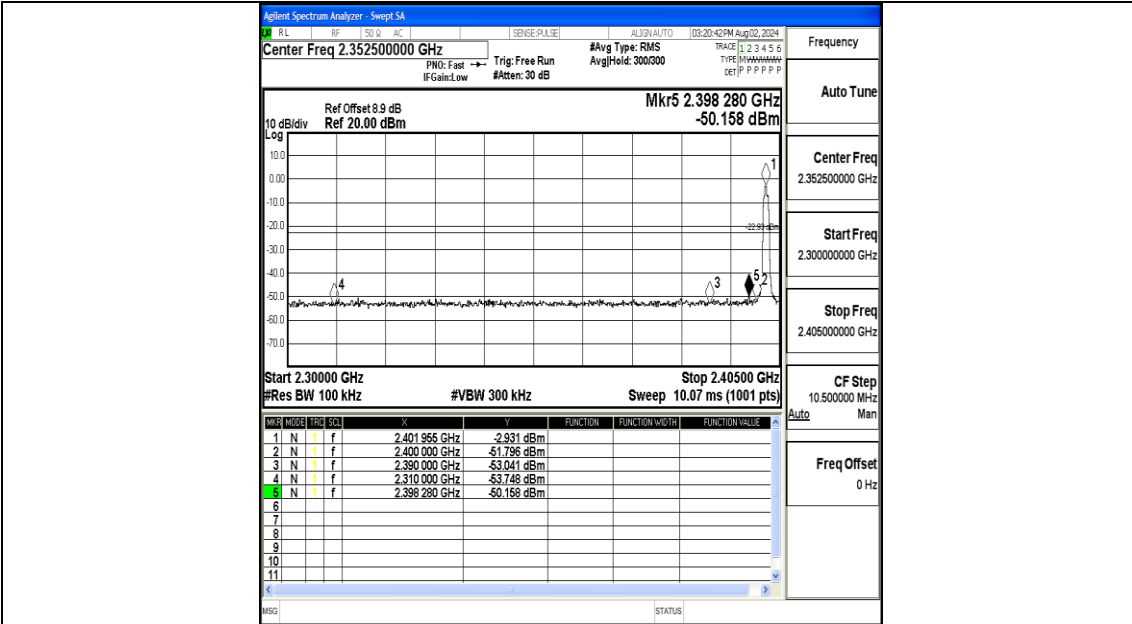
2DH5-Ant1-2480-PASS



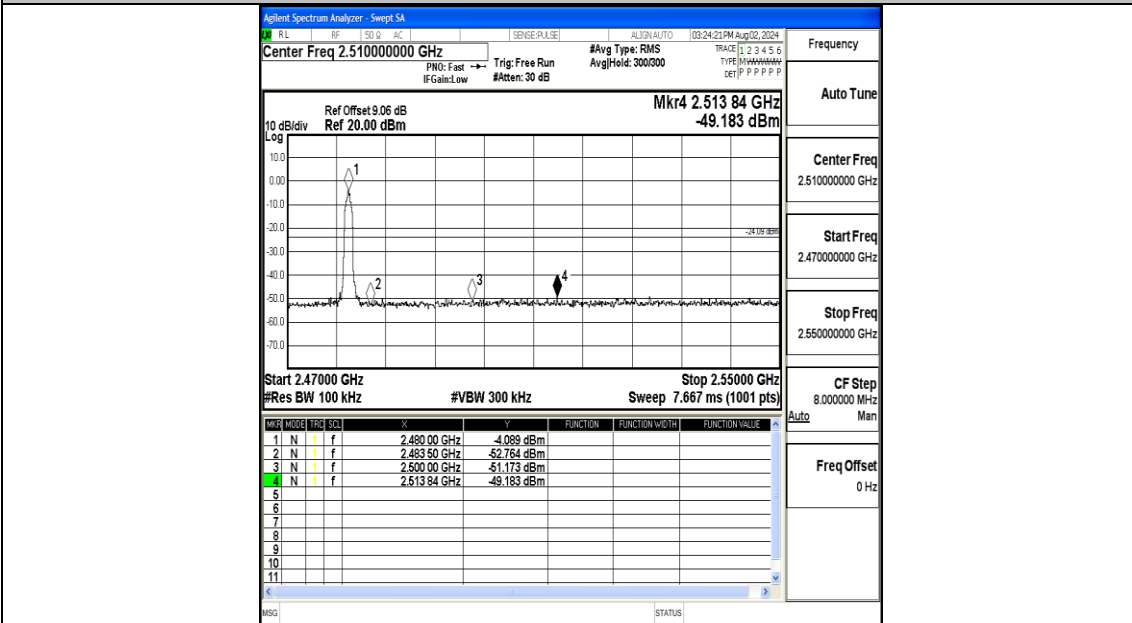
2DH5-Ant1-Hop\_2402-PASS



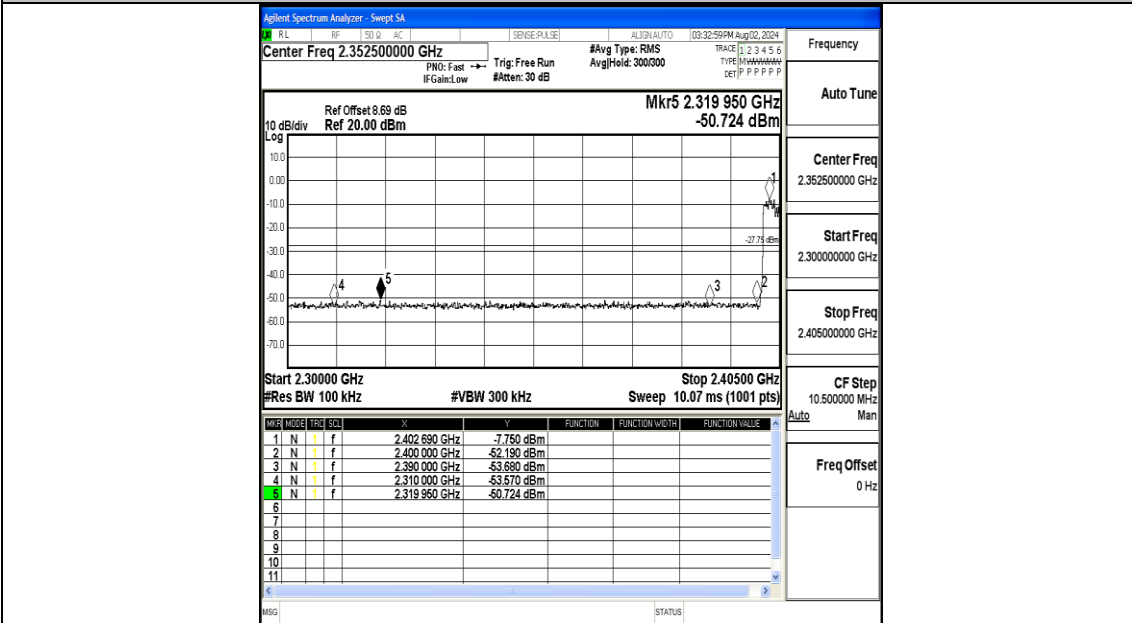
2DH5-Ant1-Hop\_2480-PASS



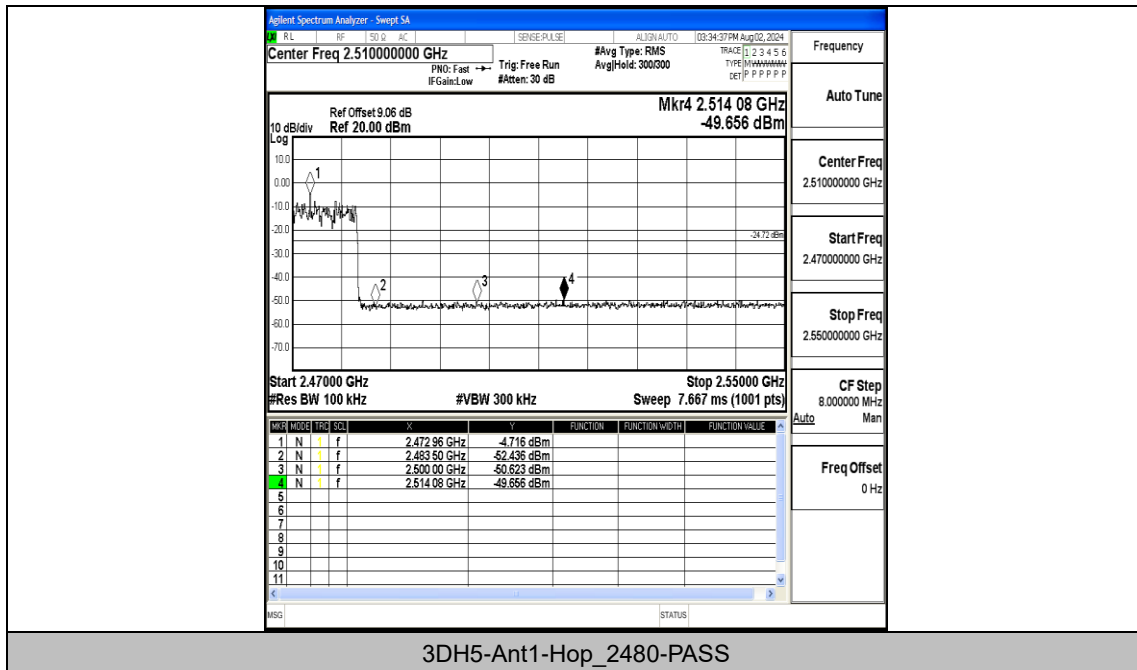
3DH5-Ant1-2402-PASS



3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop\_2402-PASS

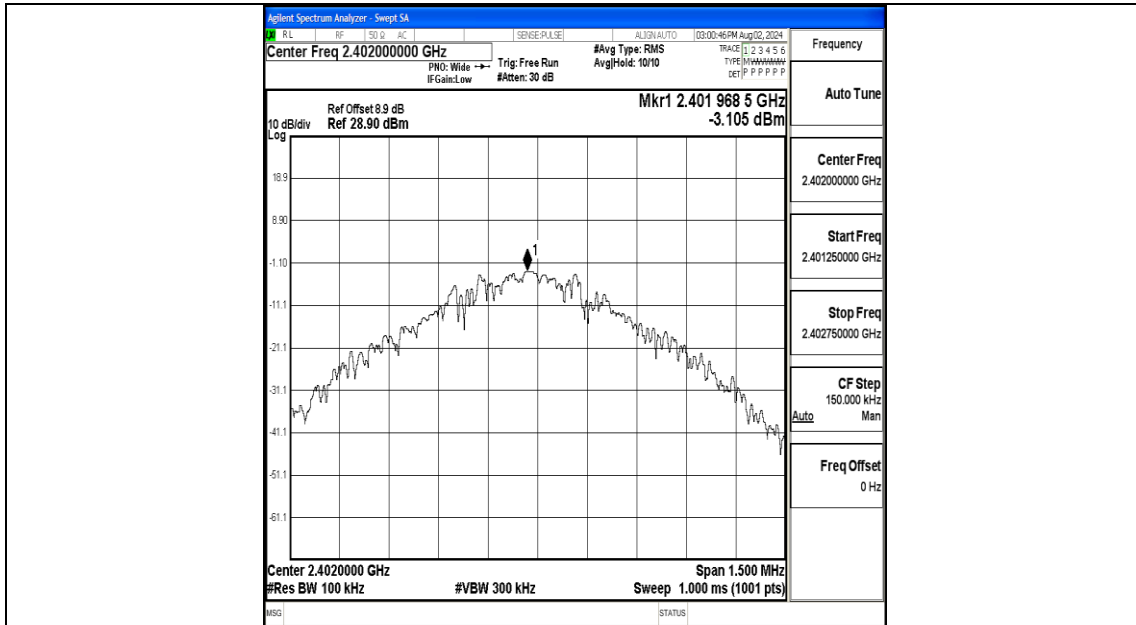


## Appendix H: Conducted Spurious Emission

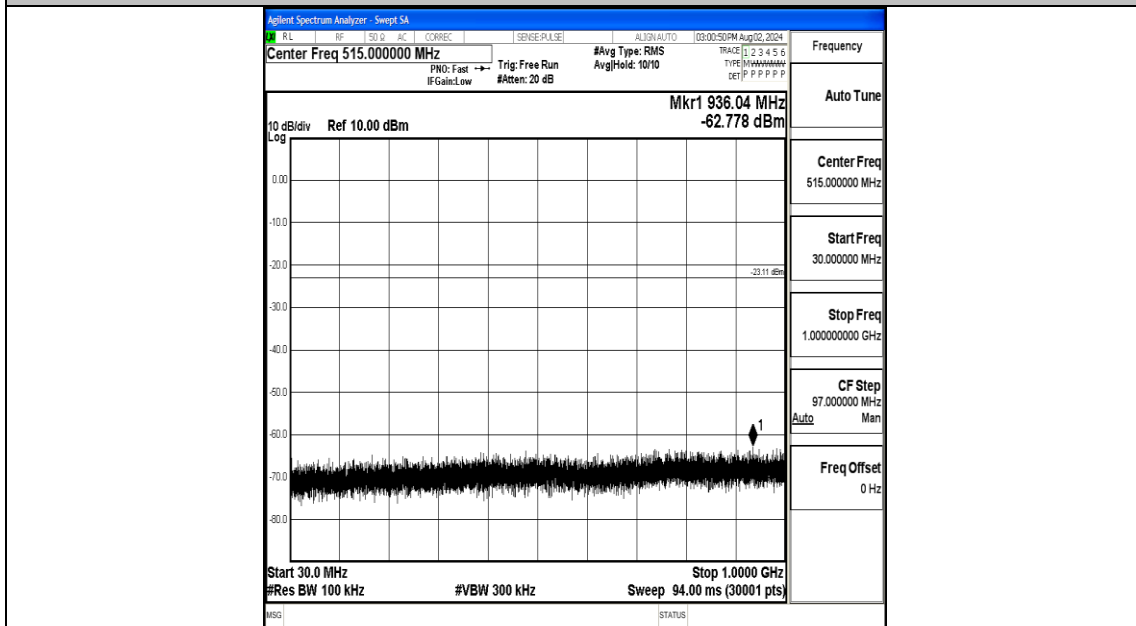
### Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-3.11	-3.11	---	PASS
DH5	Ant1	2402	30~1000	-3.11	-62.78	≤-23.11	PASS
DH5	Ant1	2402	1000~26500	-3.11	-30.1	≤-23.11	PASS
DH5	Ant1	2441	0~Reference	-3.70	-3.70	---	PASS
DH5	Ant1	2441	30~1000	-3.70	-62.31	≤-23.7	PASS
DH5	Ant1	2441	1000~26500	-3.70	-32.09	≤-23.7	PASS
DH5	Ant1	2480	0~Reference	-4.64	-4.64	---	PASS
DH5	Ant1	2480	30~1000	-4.64	-62.08	≤-24.64	PASS
DH5	Ant1	2480	1000~26500	-4.64	-34.01	≤-24.64	PASS
2DH5	Ant1	2402	0~Reference	-4.09	-4.09	---	PASS
2DH5	Ant1	2402	30~1000	-4.09	-62.29	≤-24.09	PASS
2DH5	Ant1	2402	1000~26500	-4.09	-29.27	≤-24.09	PASS
2DH5	Ant1	2441	0~Reference	-4.27	-4.27	---	PASS
2DH5	Ant1	2441	30~1000	-4.27	-63.01	≤-24.27	PASS
2DH5	Ant1	2441	1000~26500	-4.27	-37.16	≤-24.27	PASS
2DH5	Ant1	2480	0~Reference	-5.11	-5.11	---	PASS
2DH5	Ant1	2480	30~1000	-5.11	-62.94	≤-25.11	PASS
2DH5	Ant1	2480	1000~26500	-5.11	-35.78	≤-25.11	PASS
3DH5	Ant1	2402	0~Reference	-6.93	-6.93	---	PASS
3DH5	Ant1	2402	30~1000	-6.93	-63.1	≤-26.93	PASS
3DH5	Ant1	2402	1000~26500	-6.93	-35.3	≤-26.93	PASS
3DH5	Ant1	2441	0~Reference	-3.42	-3.42	---	PASS
3DH5	Ant1	2441	30~1000	-3.42	-61.88	≤-23.42	PASS
3DH5	Ant1	2441	1000~26500	-3.42	-35.32	≤-23.42	PASS
3DH5	Ant1	2480	0~Reference	-5.96	-5.96	---	PASS
3DH5	Ant1	2480	30~1000	-5.96	-62.92	≤-25.96	PASS
3DH5	Ant1	2480	1000~26500	-5.96	-34.83	≤-25.96	PASS

### Test Graphs

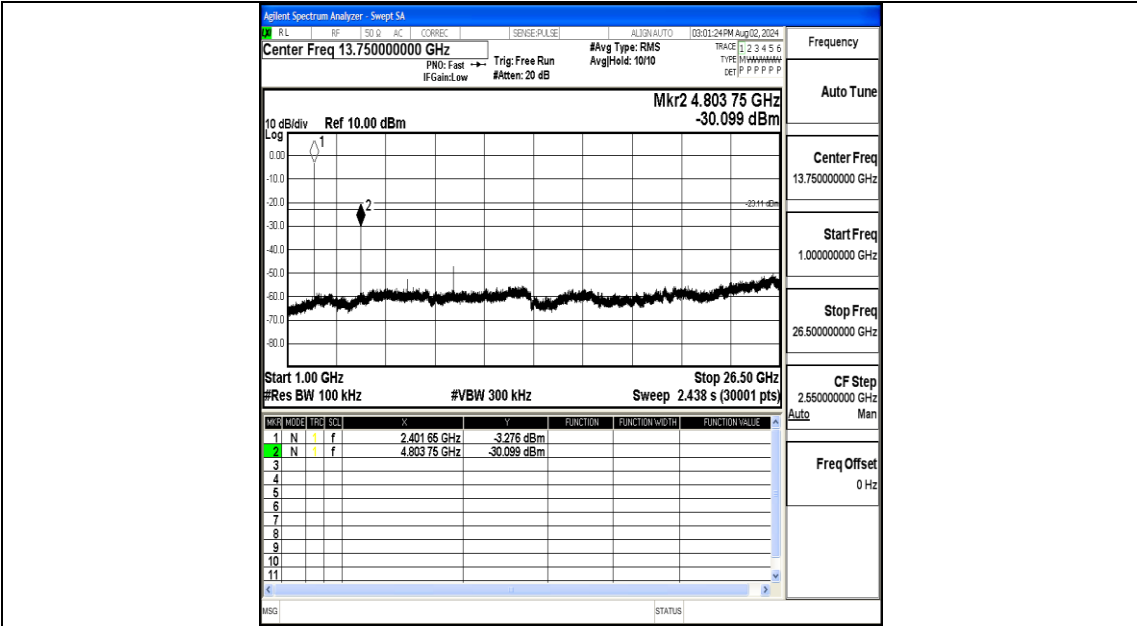


DH5-Ant1-2402-0~Reference-PASS

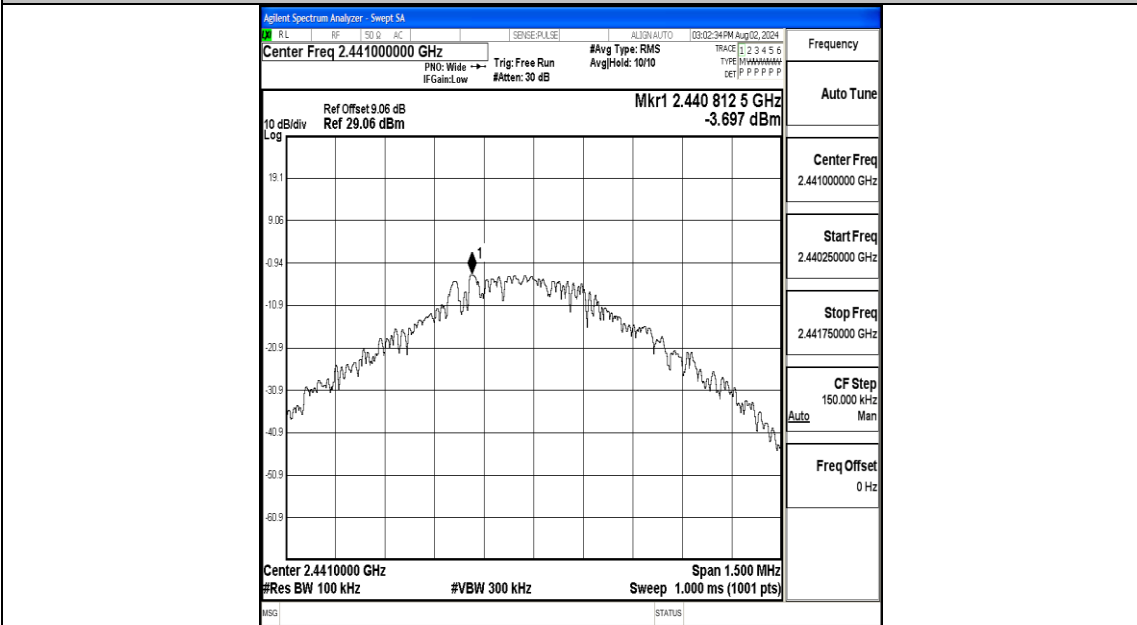


DH5-Ant1-2402-30~1000-PASS

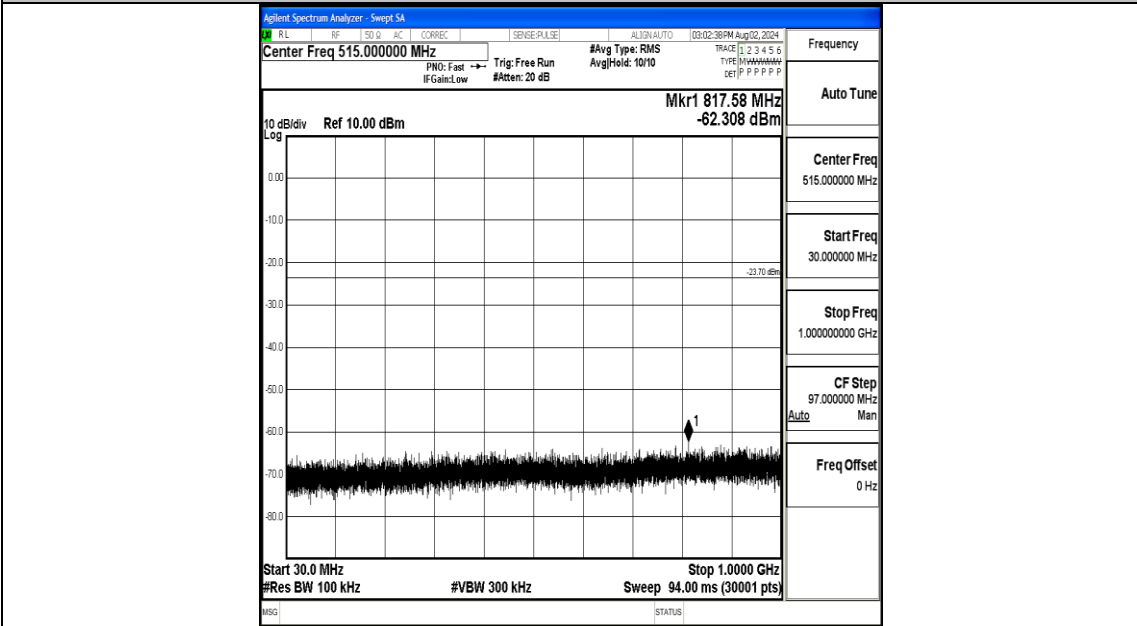




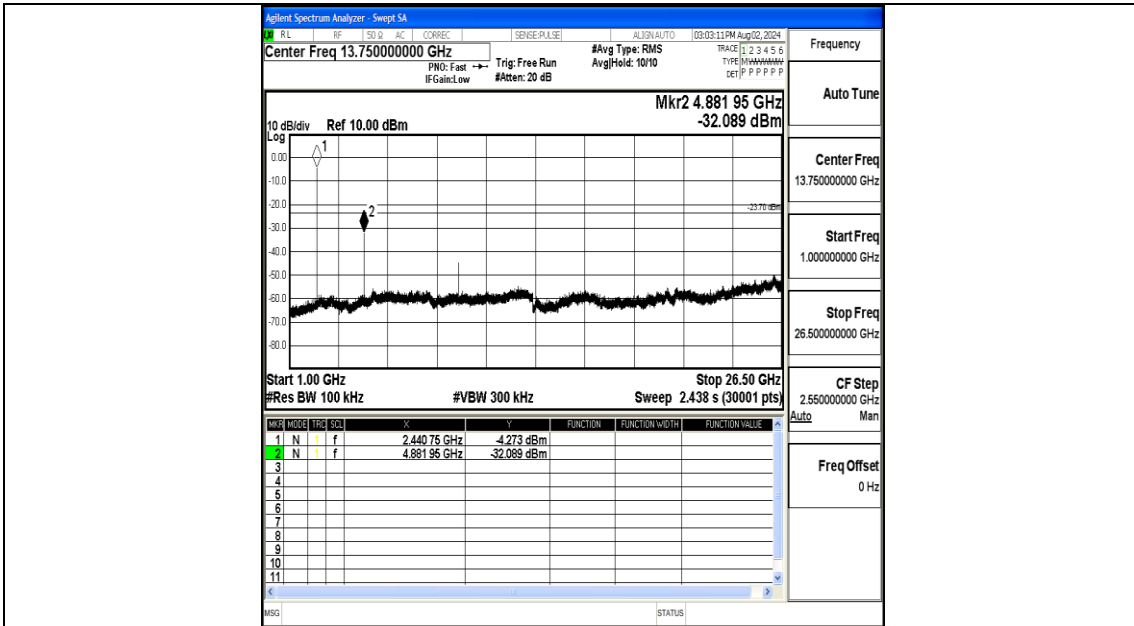
DH5-Ant1-2402-1000~26500-PASS



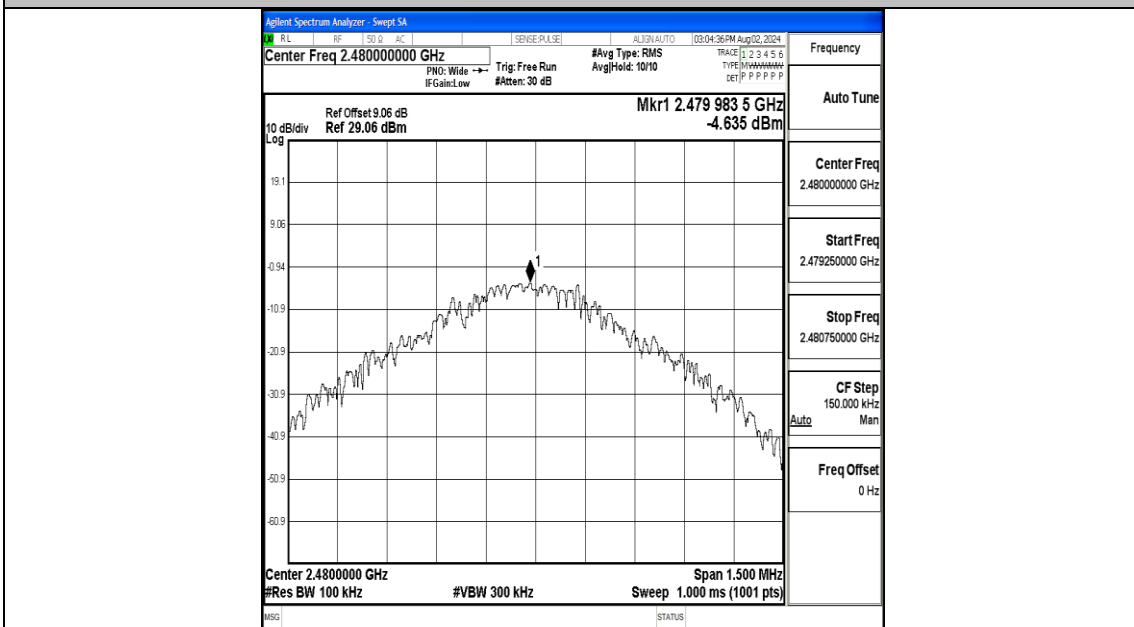
DH5-Ant1-2441-0~Reference-PASS



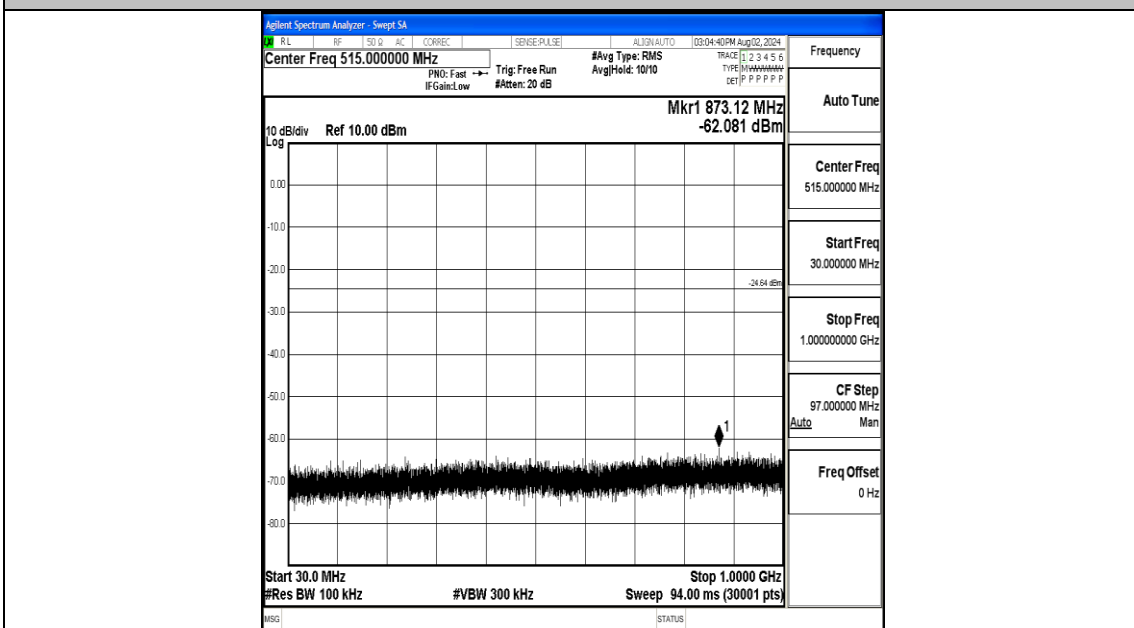
DH5-Ant1-2441-30~1000-PASS



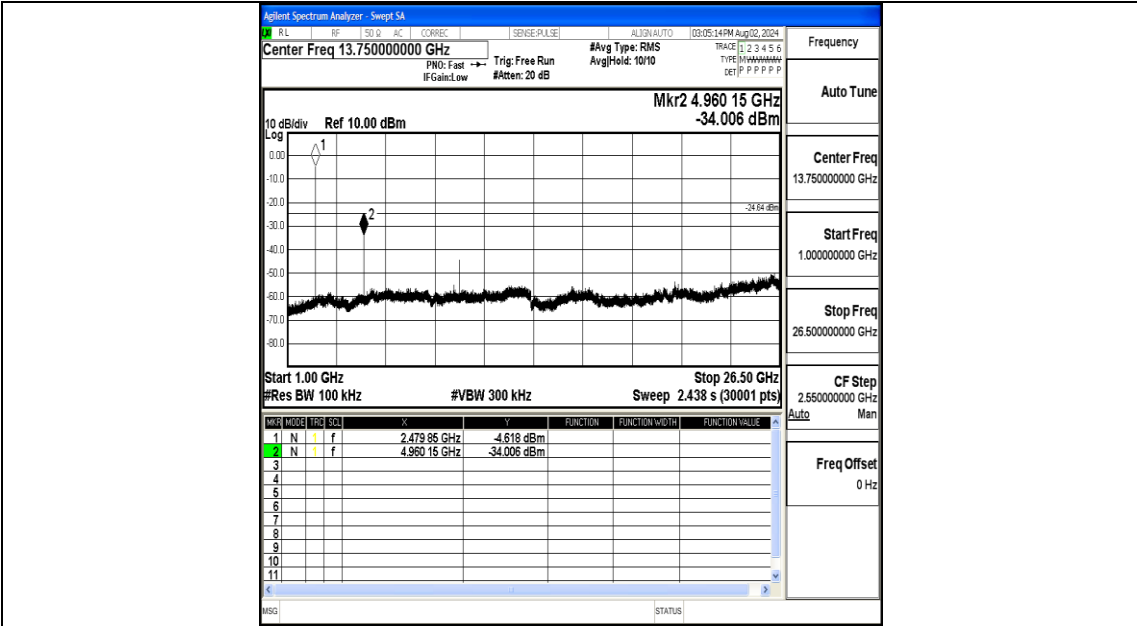
DH5-Ant1-2441-1000~26500-PASS



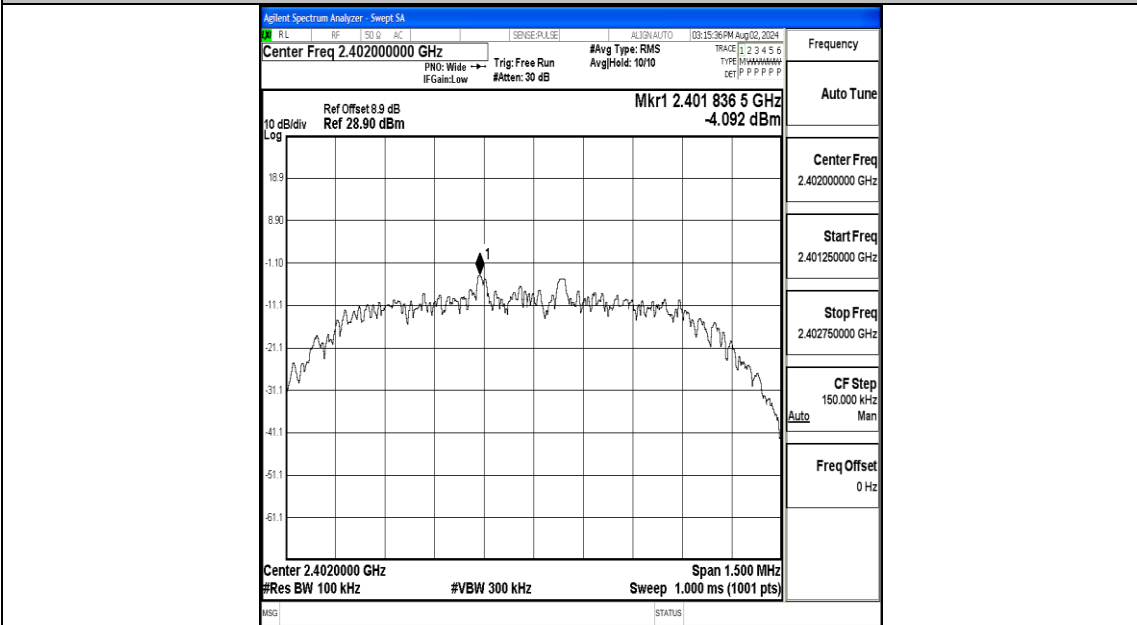
DH5-Ant1-2480-0~Reference-PASS



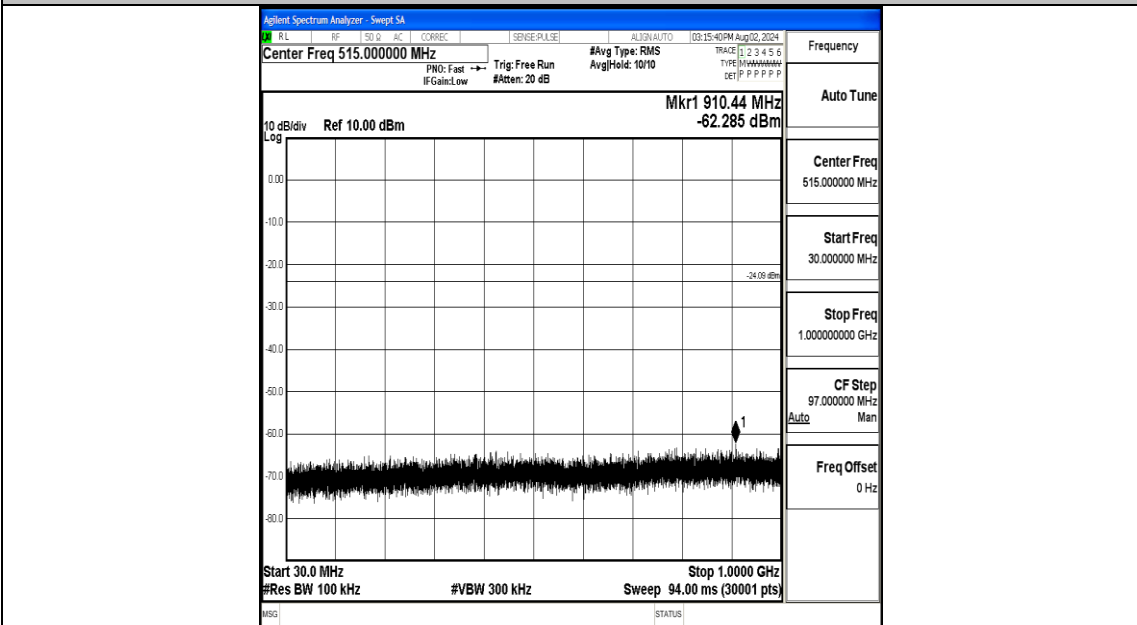
DH5-Ant1-2480-30~1000-PASS



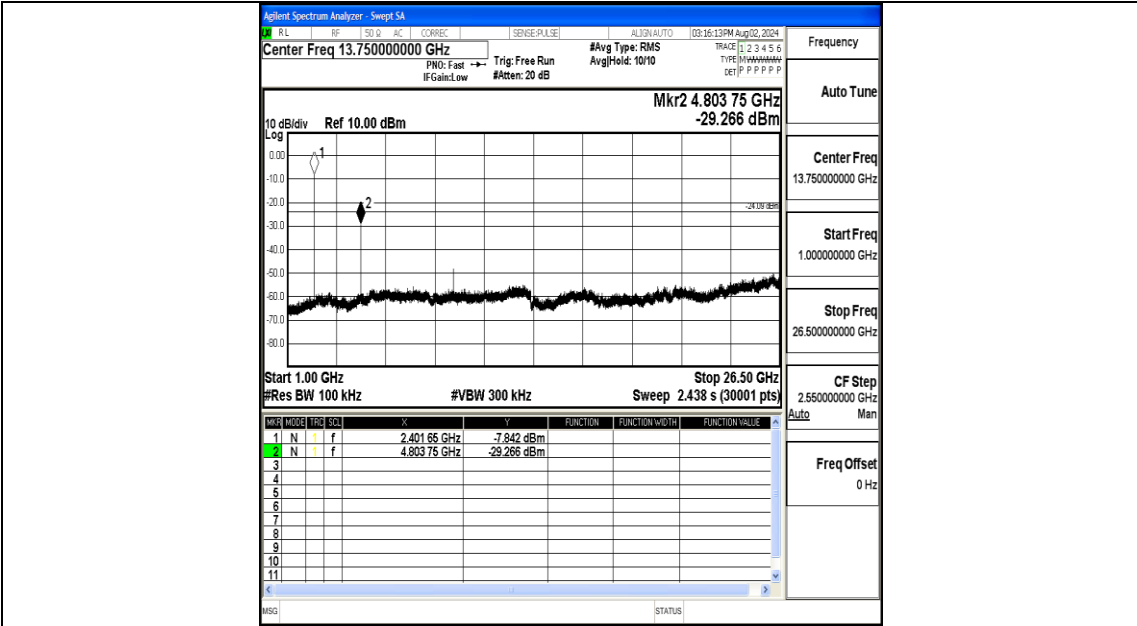
DH5-Ant1-2480-1000~26500-PASS



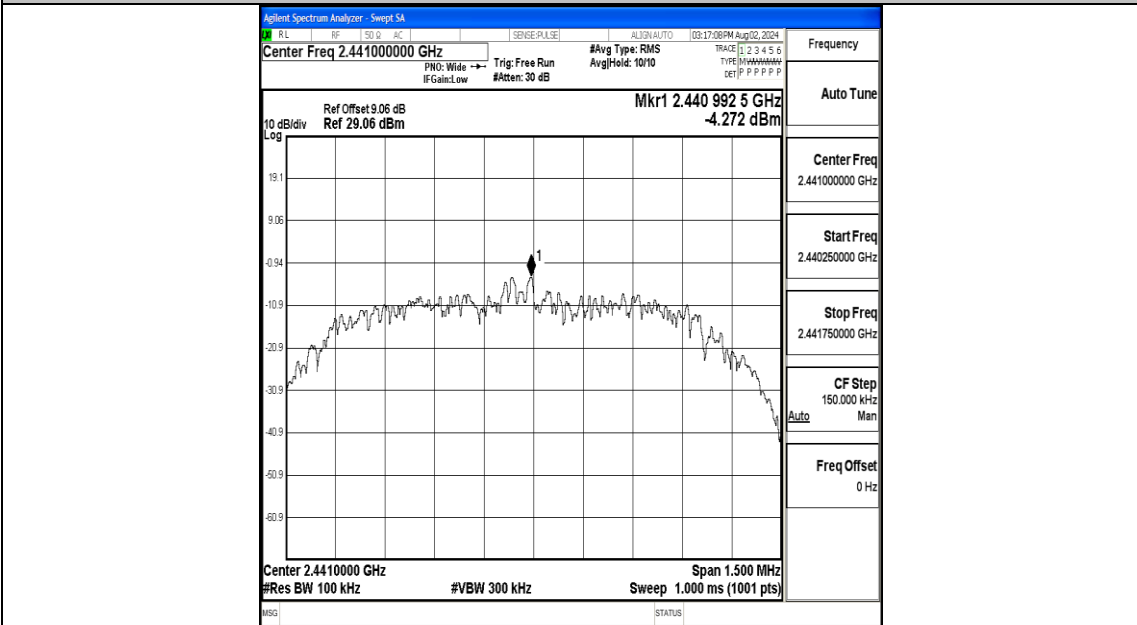
2DH5-Ant1-2402-0~Reference-PASS



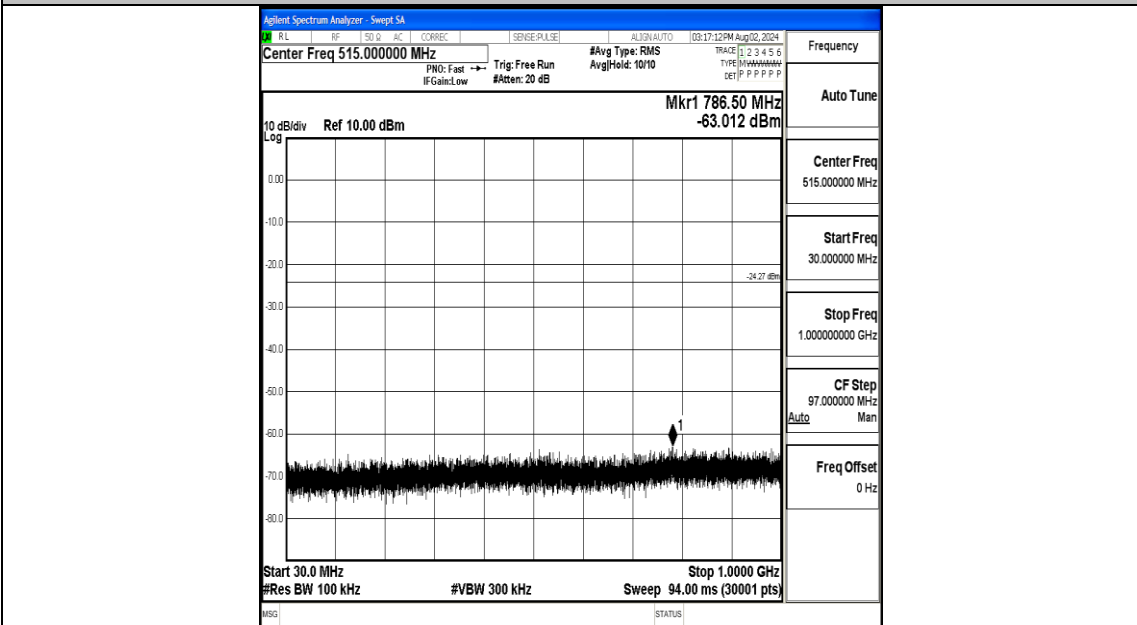
2DH5-Ant1-2402-30~1000-PASS



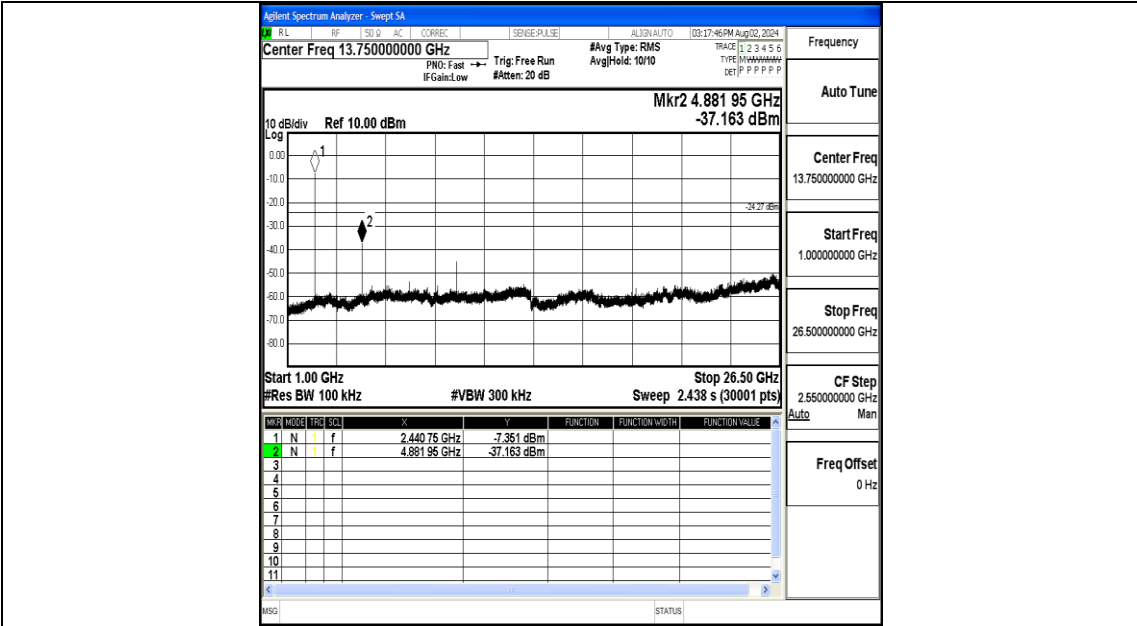
2DH5-Ant1-2402-1000~26500-PASS



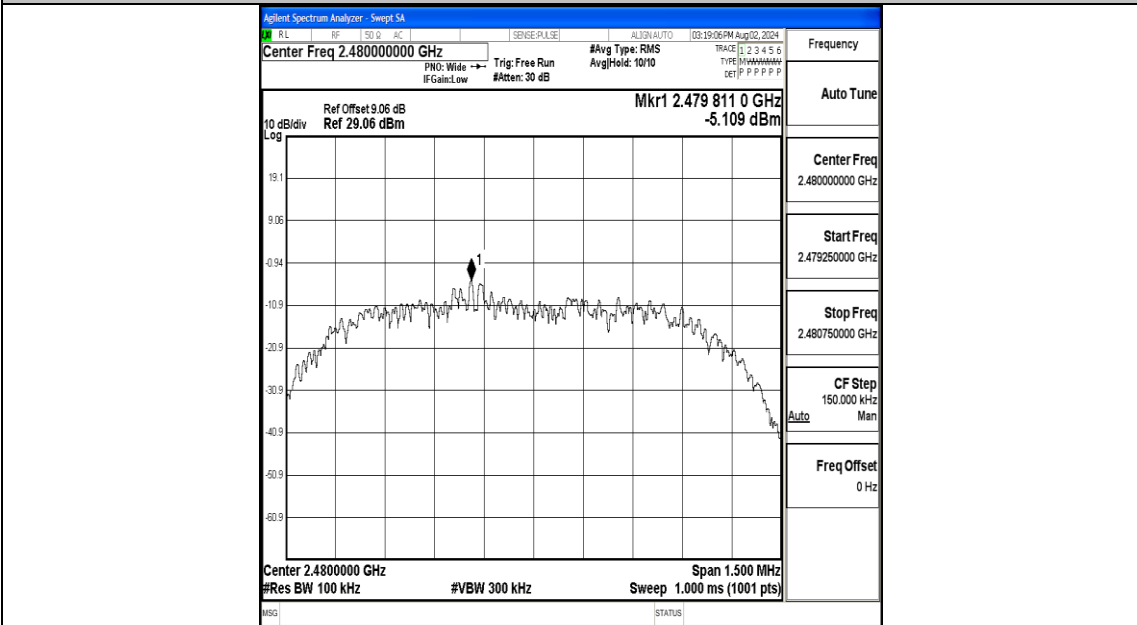
2DH5-Ant1-2441-0~Reference-PASS



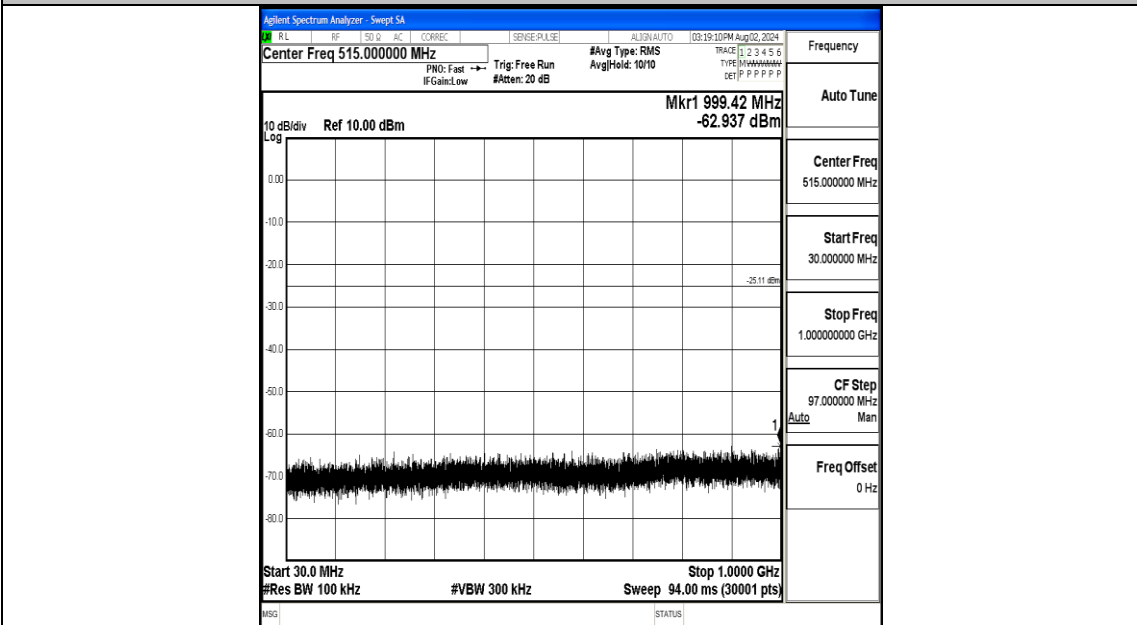
2DH5-Ant1-2441-30~1000-PASS



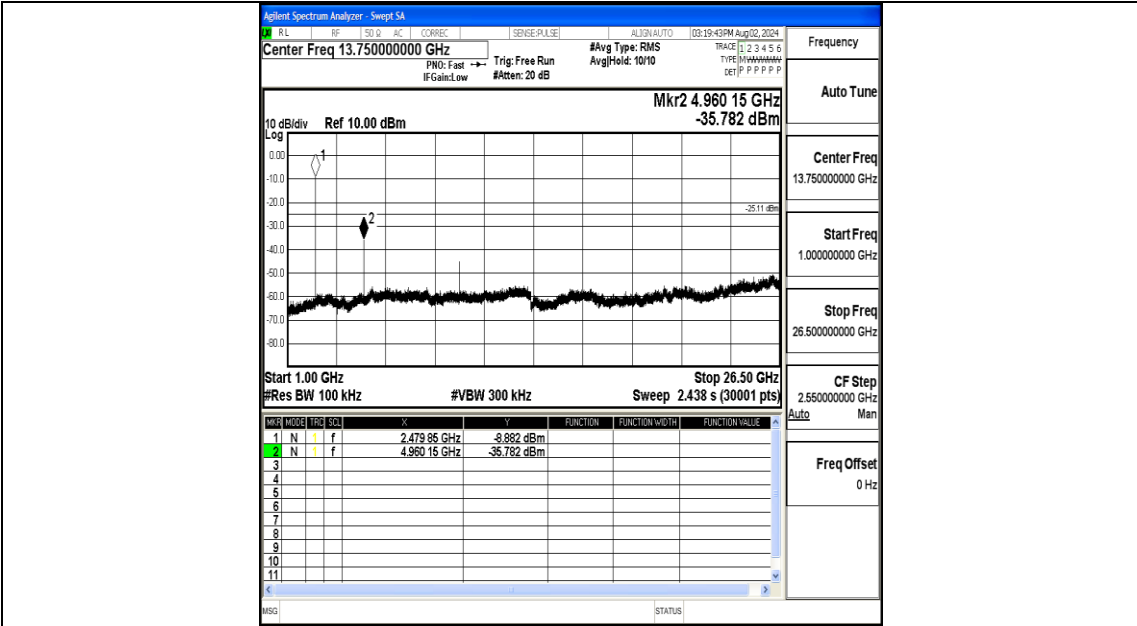
2DH5-Ant1-2441-1000~26500-PASS



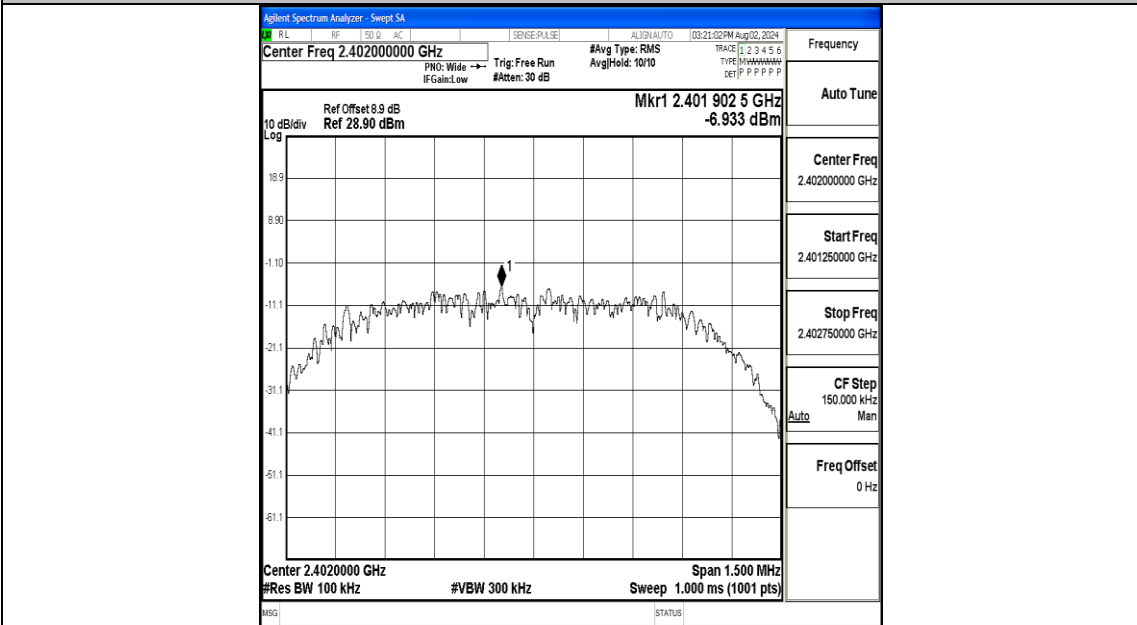
2DH5-Ant1-2480-0~Reference-PASS



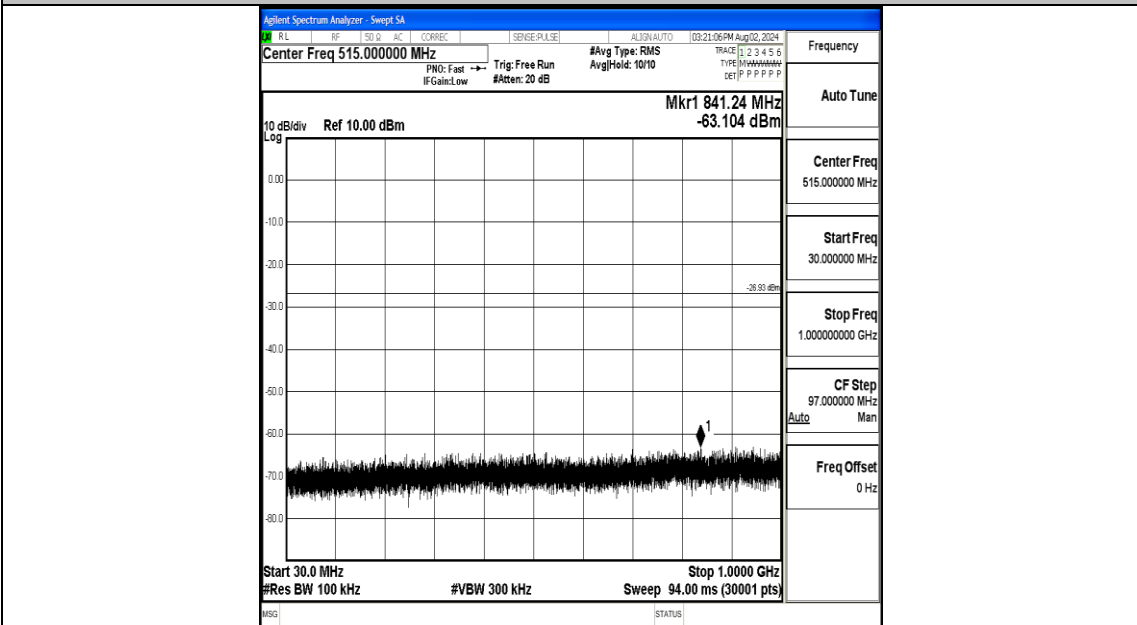
2DH5-Ant1-2480-30~1000-PASS



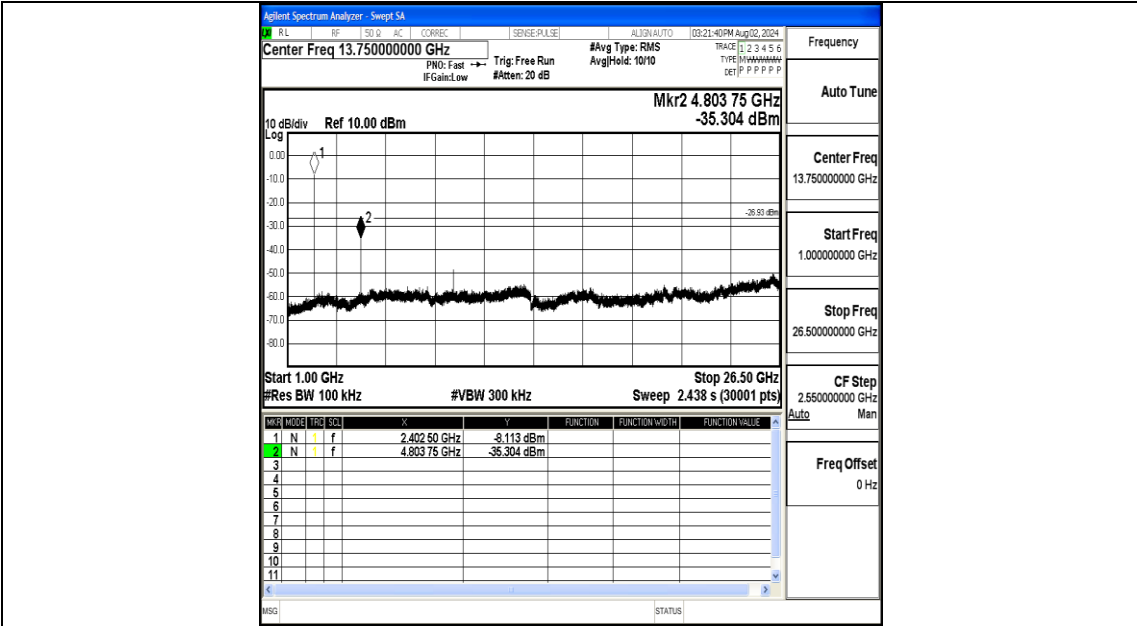
2DH5-Ant1-2480-1000~26500-PASS



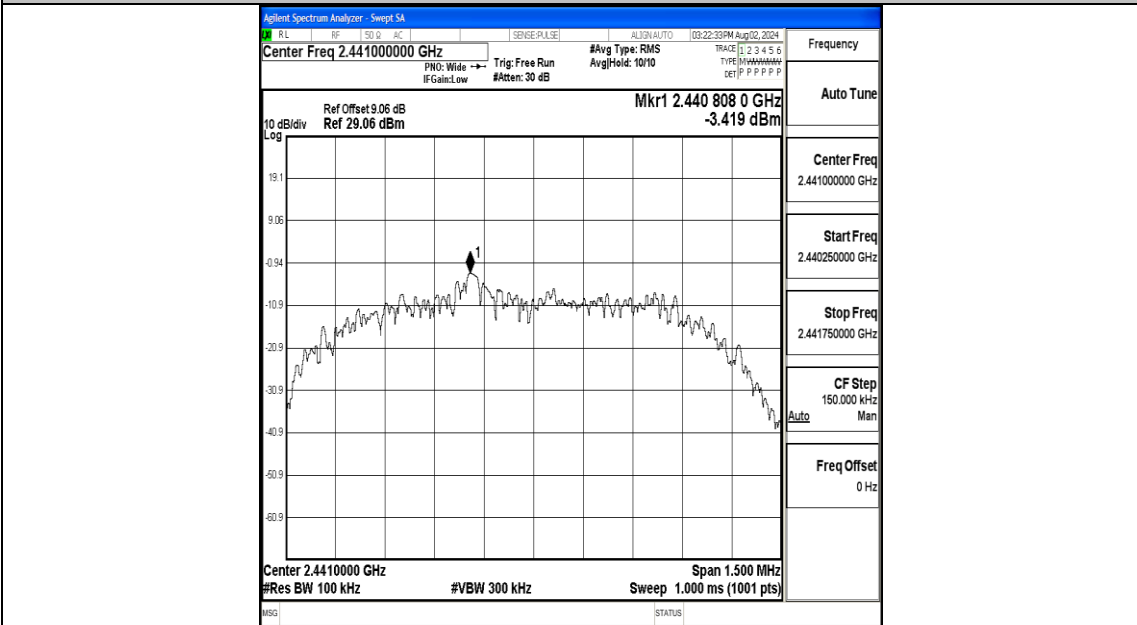
3DH5-Ant1-2402-0~Reference-PASS



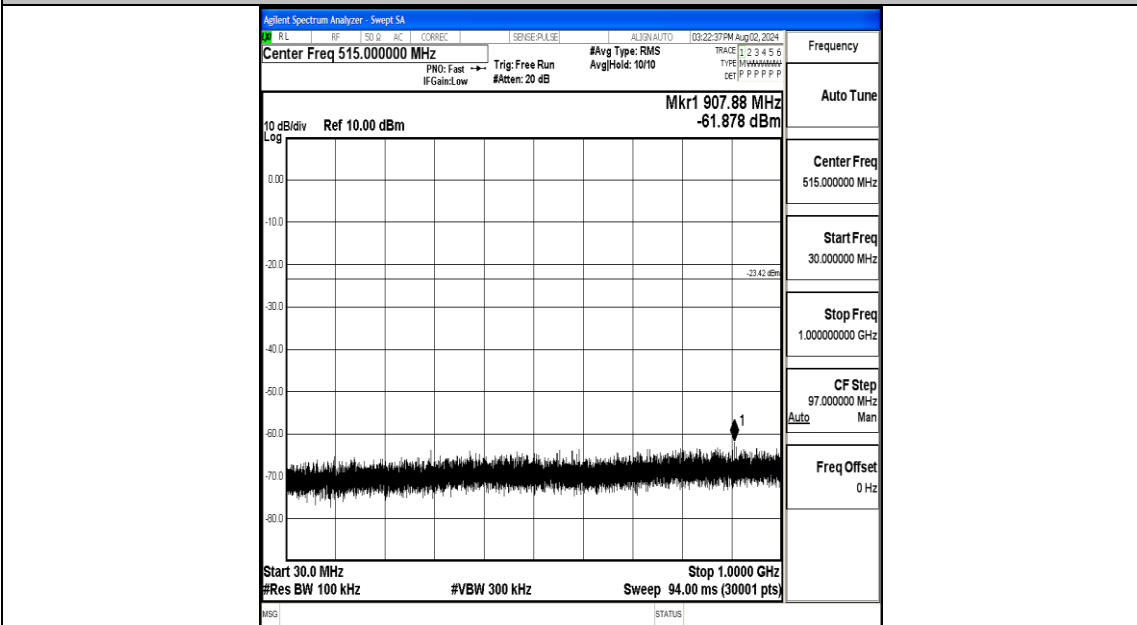
3DH5-Ant1-2402-30~1000-PASS



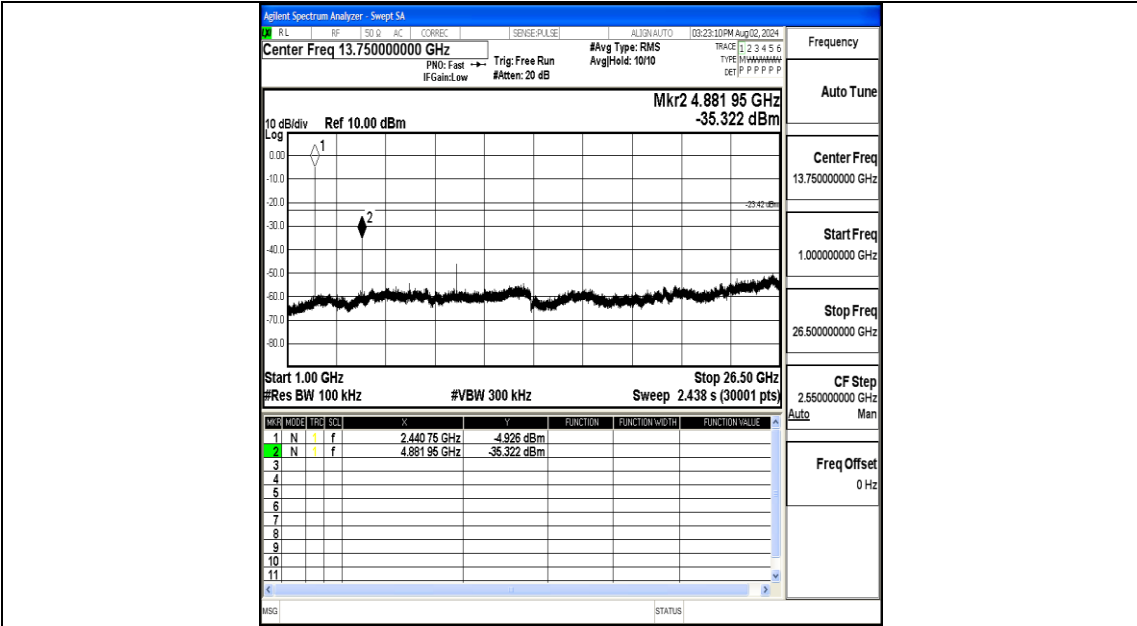
3DH5-Ant1-2402-1000~26500-PASS



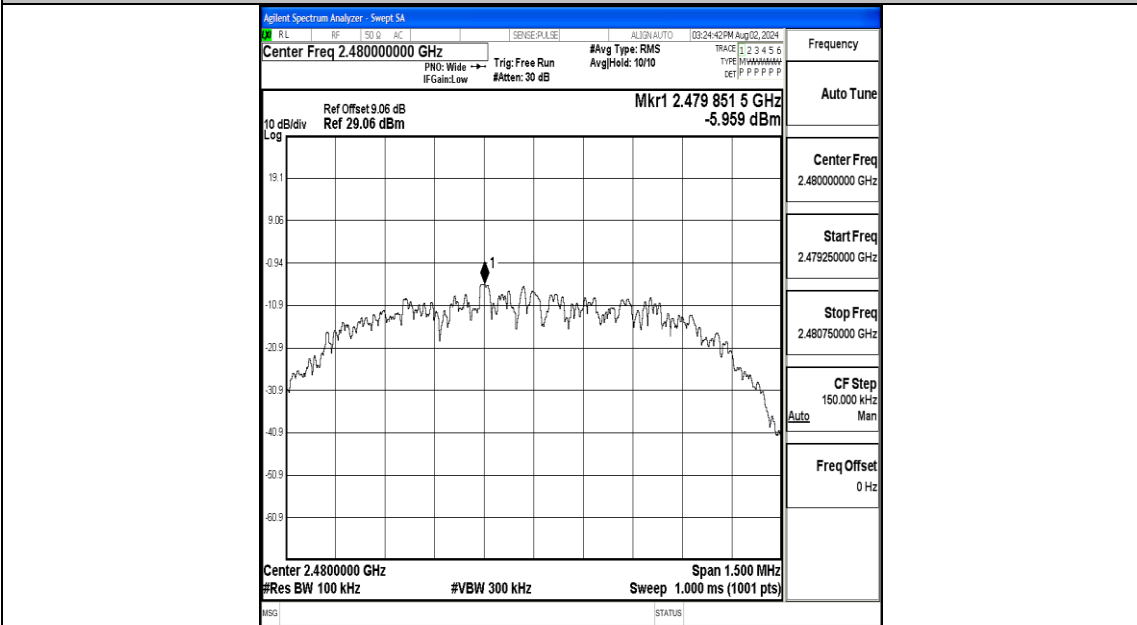
3DH5-Ant1-2441-0~Reference-PASS



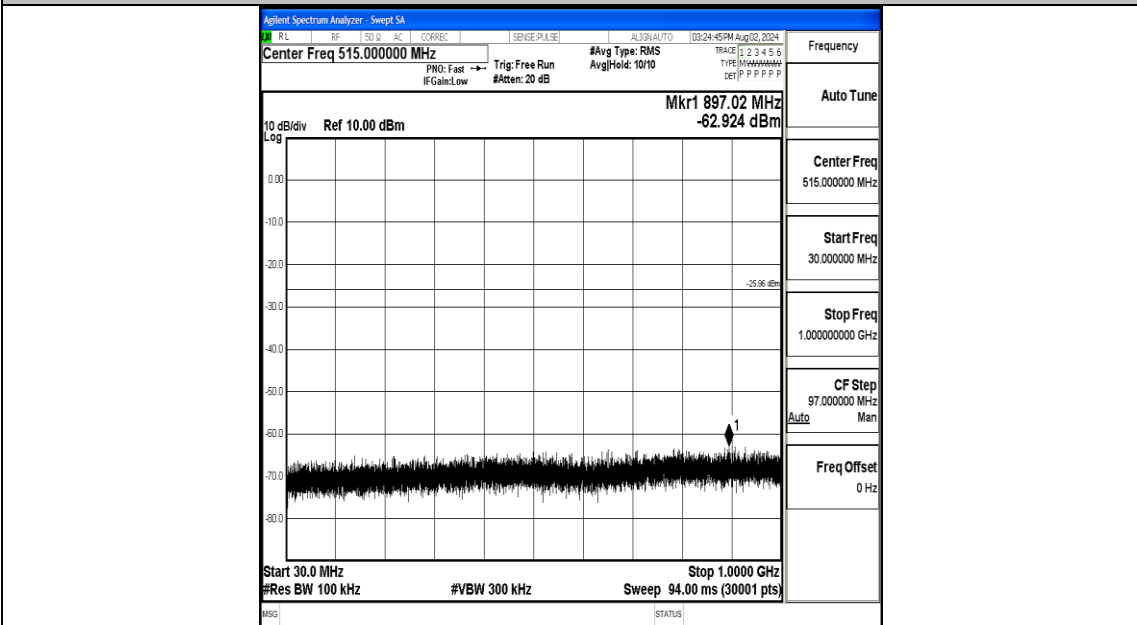
3DH5-Ant1-2441-30~1000-PASS



3DH5-Ant1-2441-1000~26500-PASS

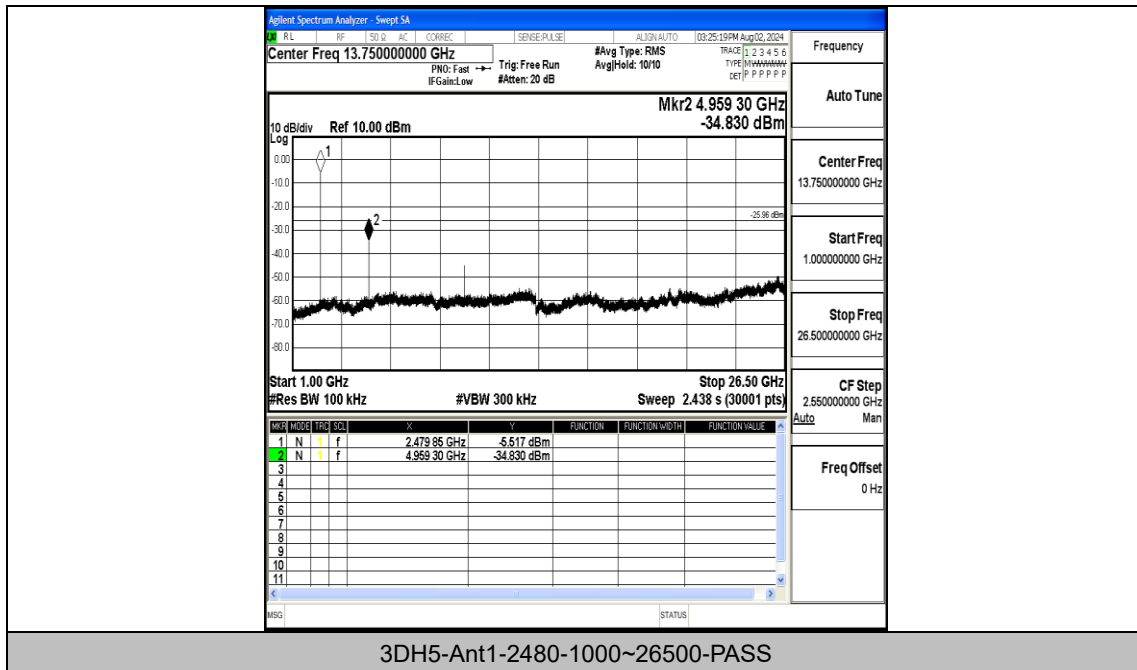


3DH5-Ant1-2480-0~Reference-PASS



3DH5-Ant1-2480-30~1000-PASS



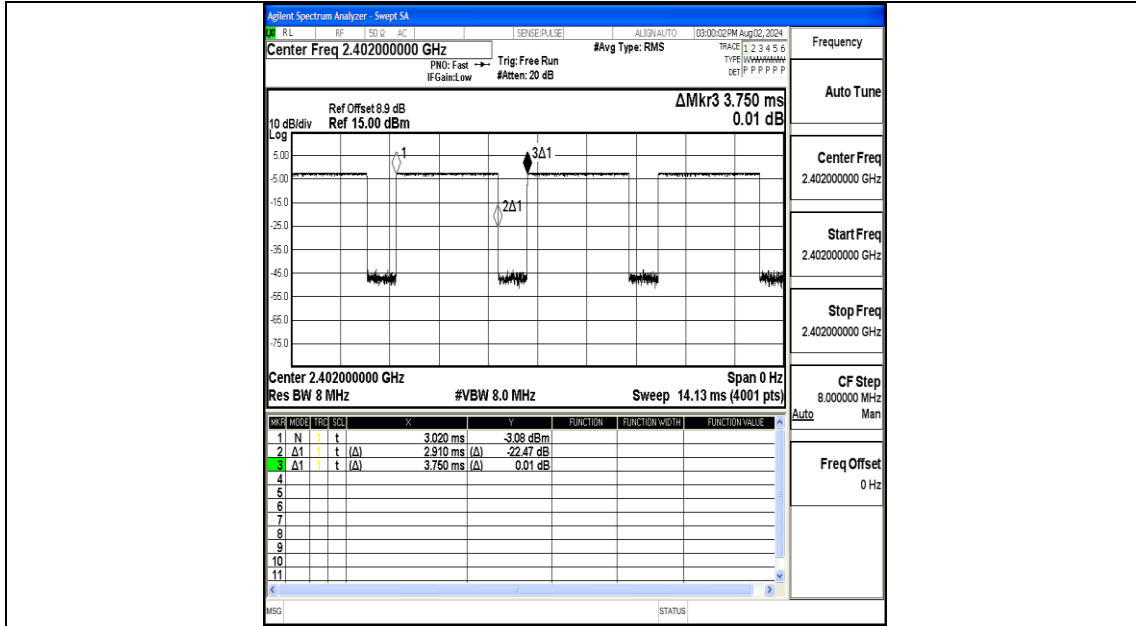


## Appendix I: Duty Cycle

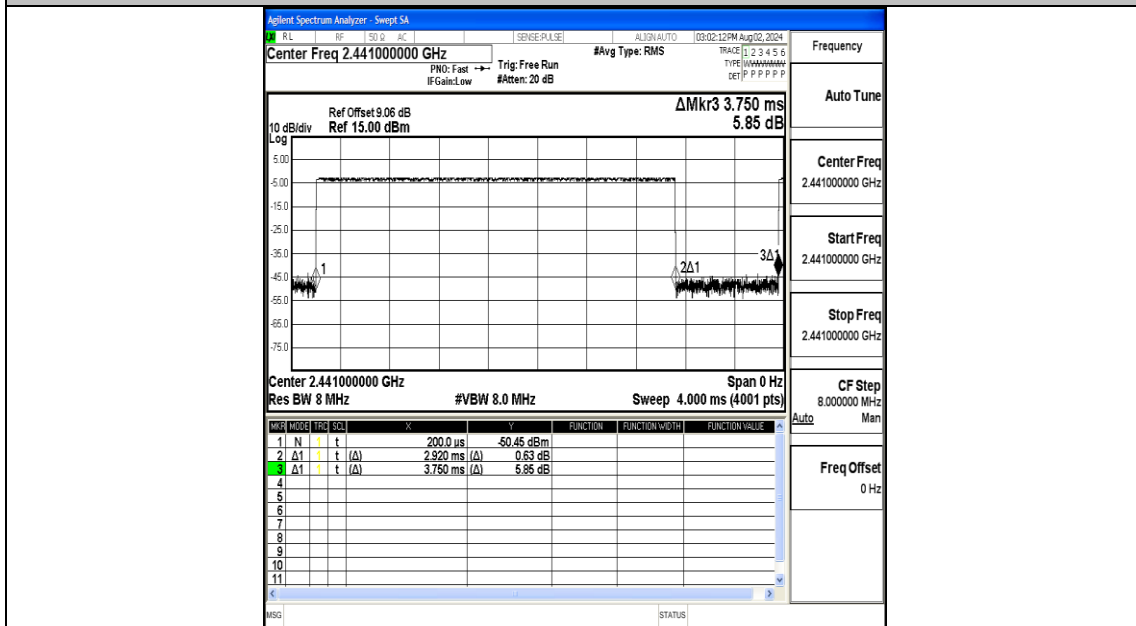
### Test Result

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

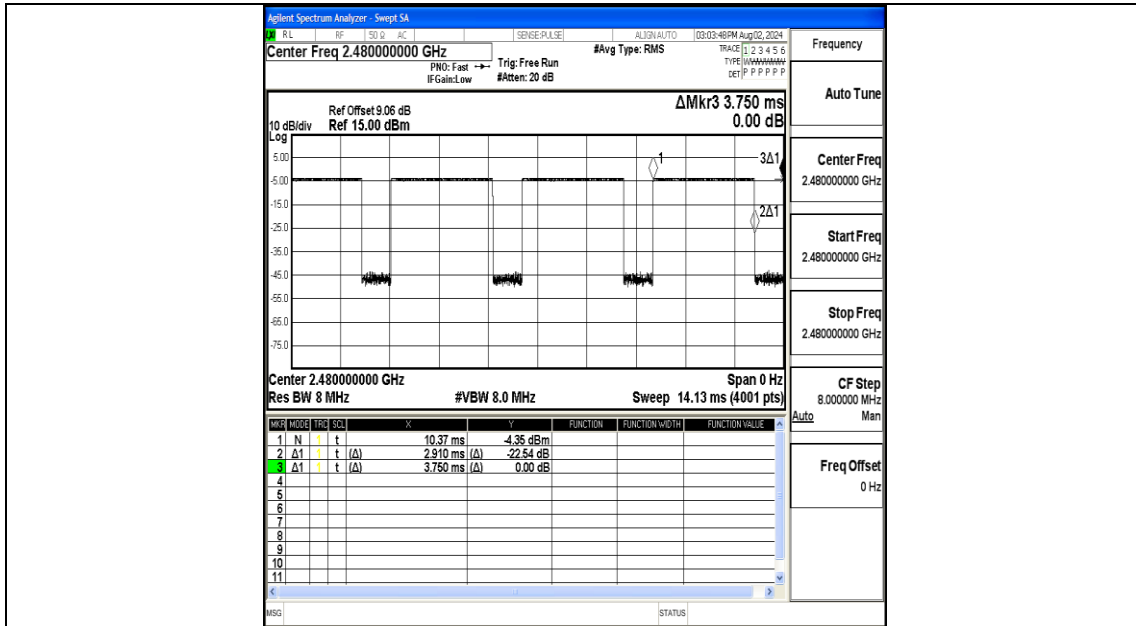
Test Graphs



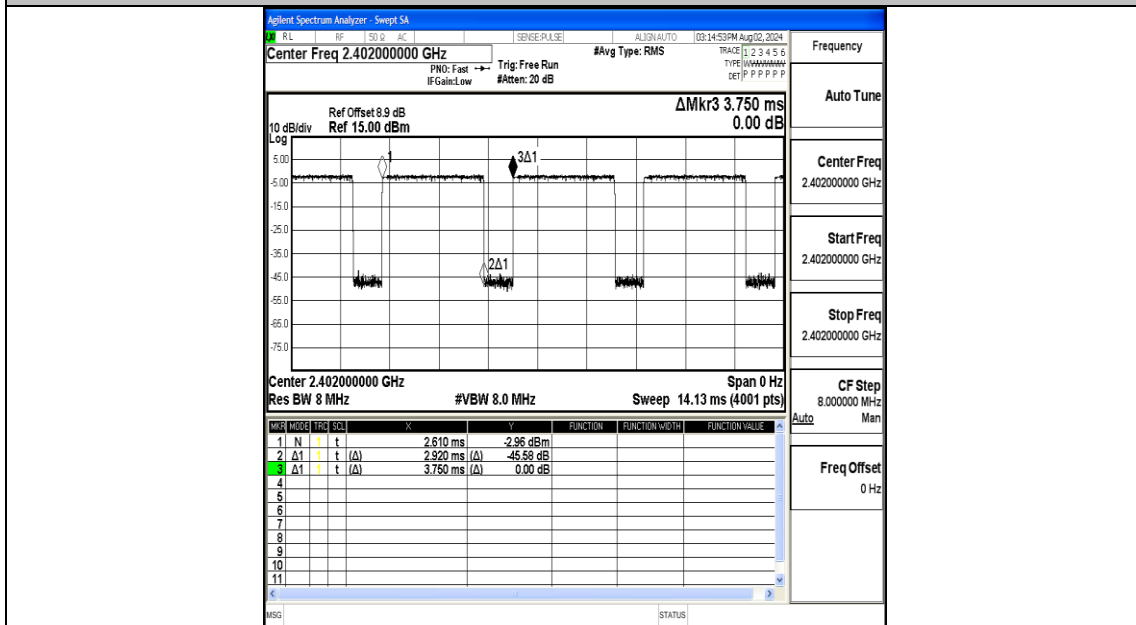
NTVN-DH5-Ant1-2402



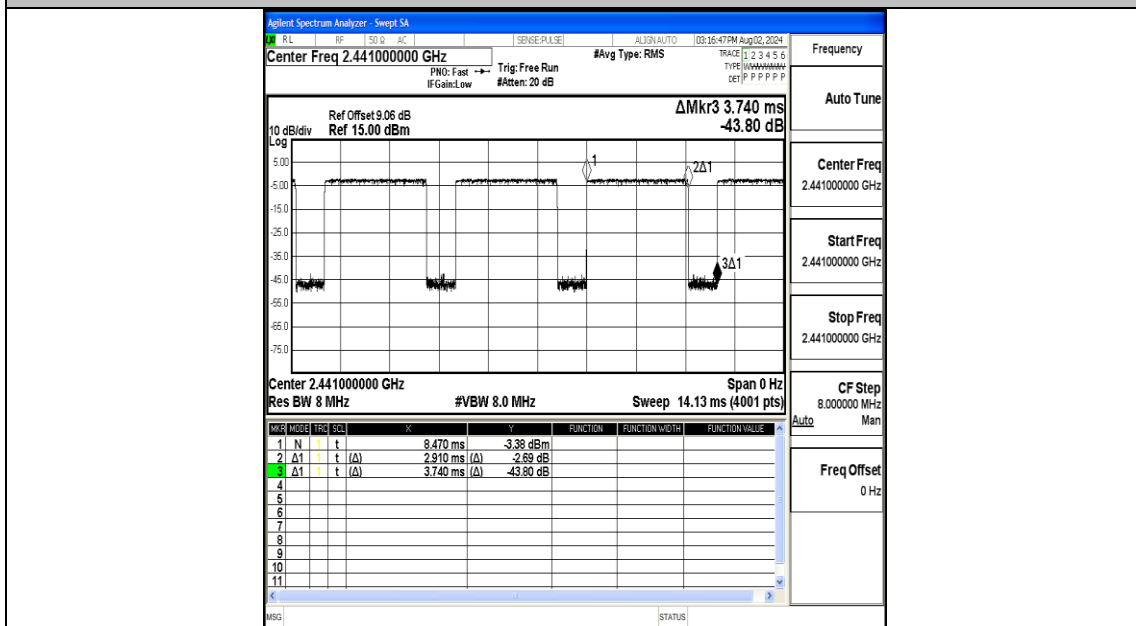
NTVN-DH5-Ant1-2441



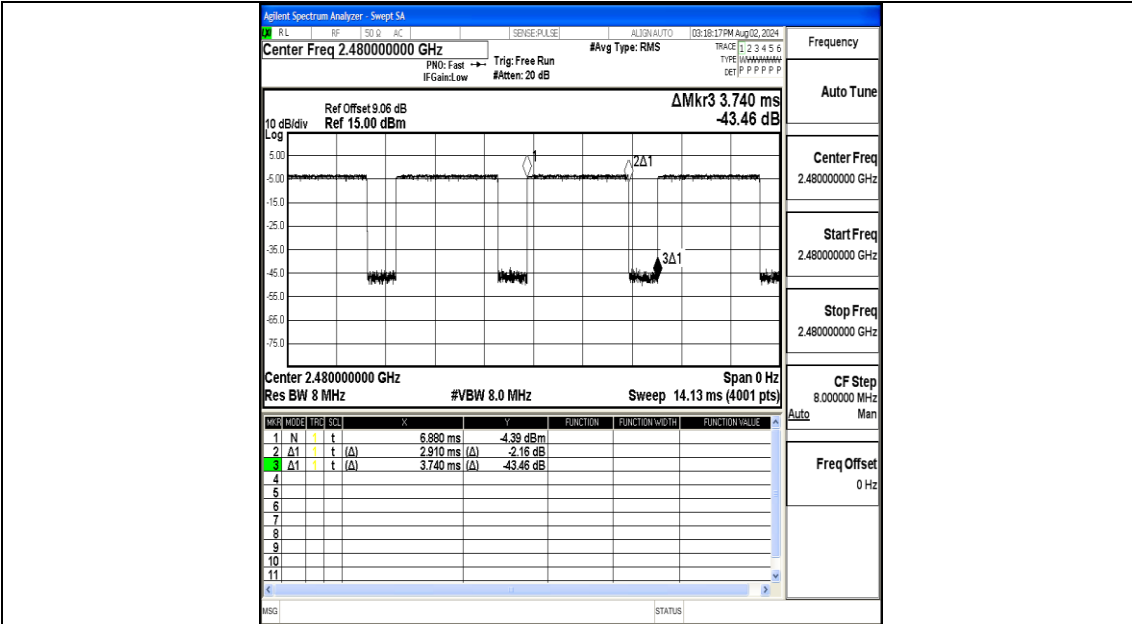
NTNV-DH5-Ant1-2480



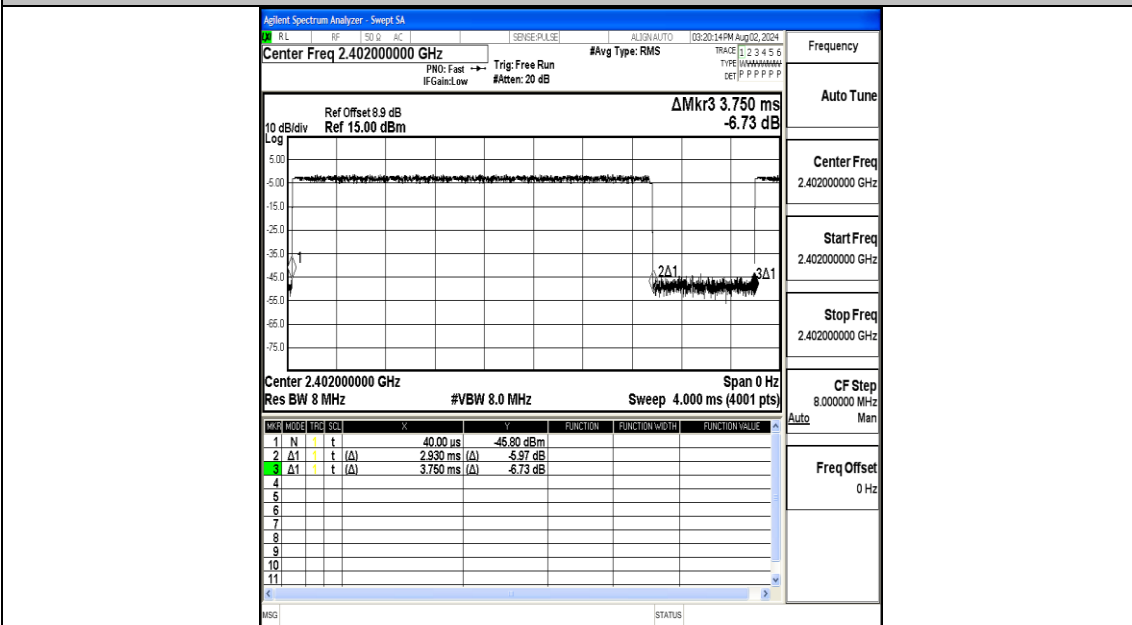
NTNV-2DH5-Ant1-2402



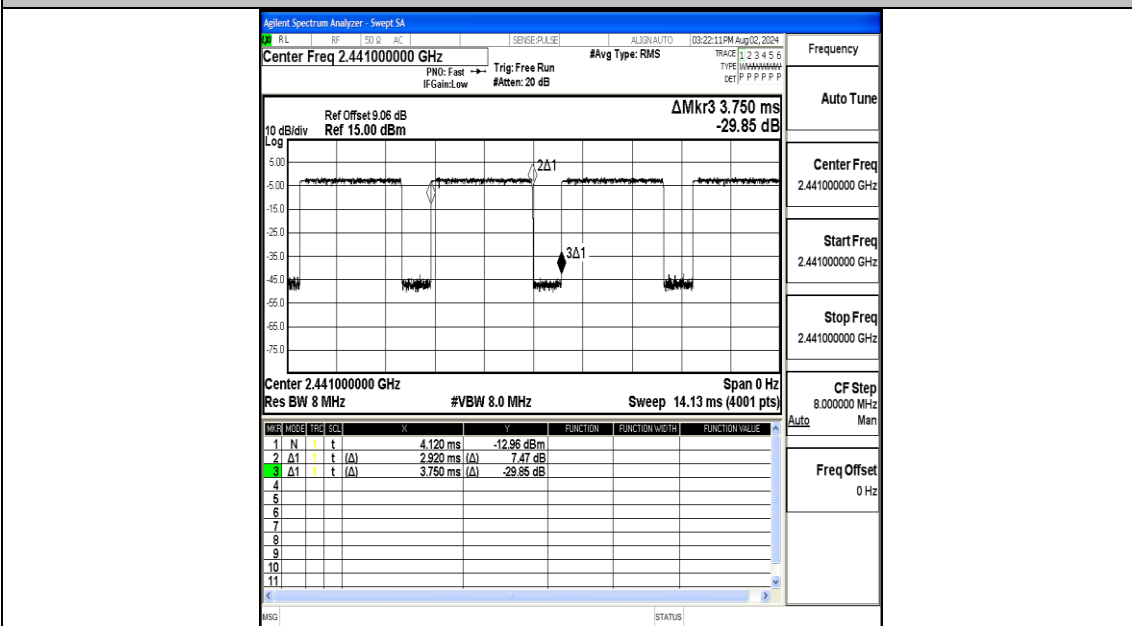
NTNV-2DH5-Ant1-2441



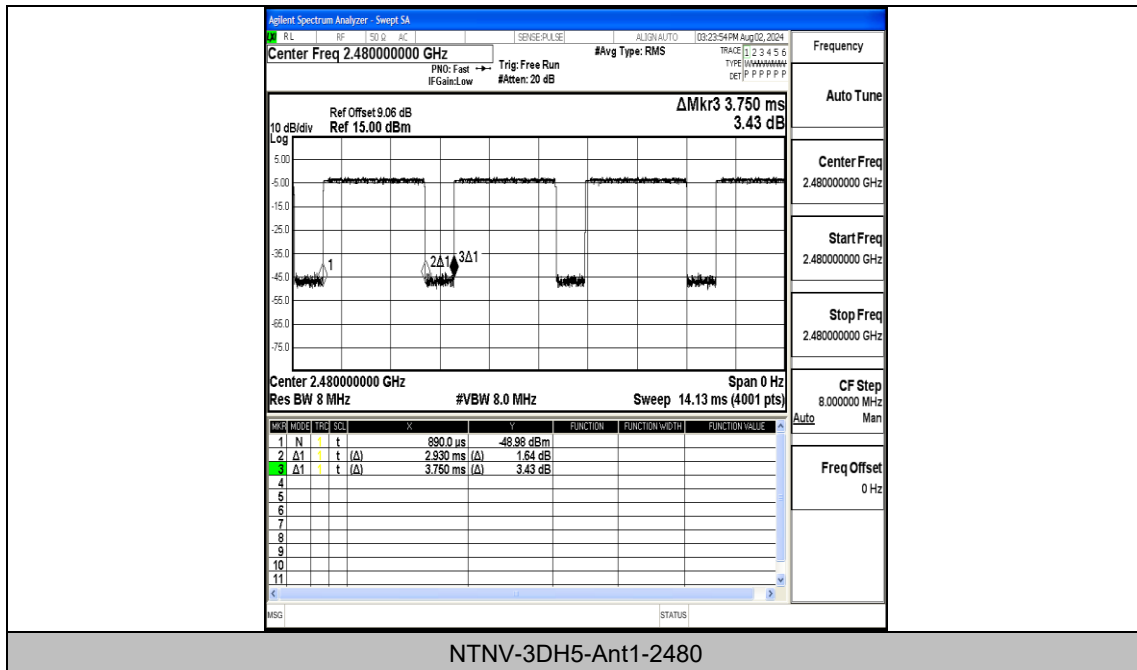
NTNV-2DH5-Ant1-2480



NTNV-3DH5-Ant1-2402



NTNV-3DH5-Ant1-2441



NTNV-3DH5-Ant1-2480