

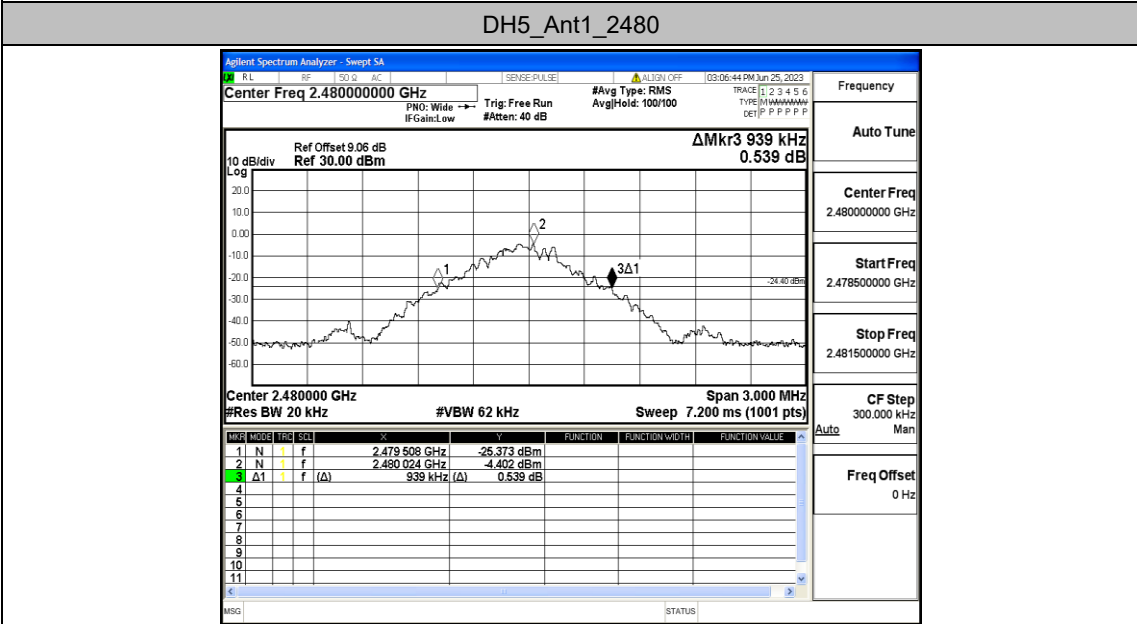
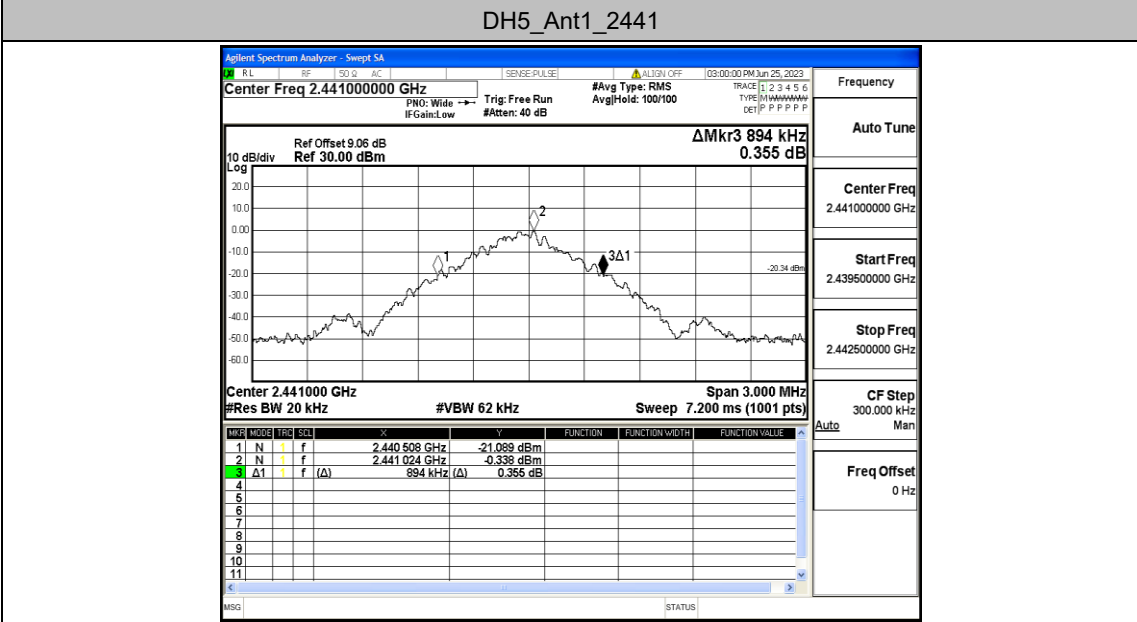
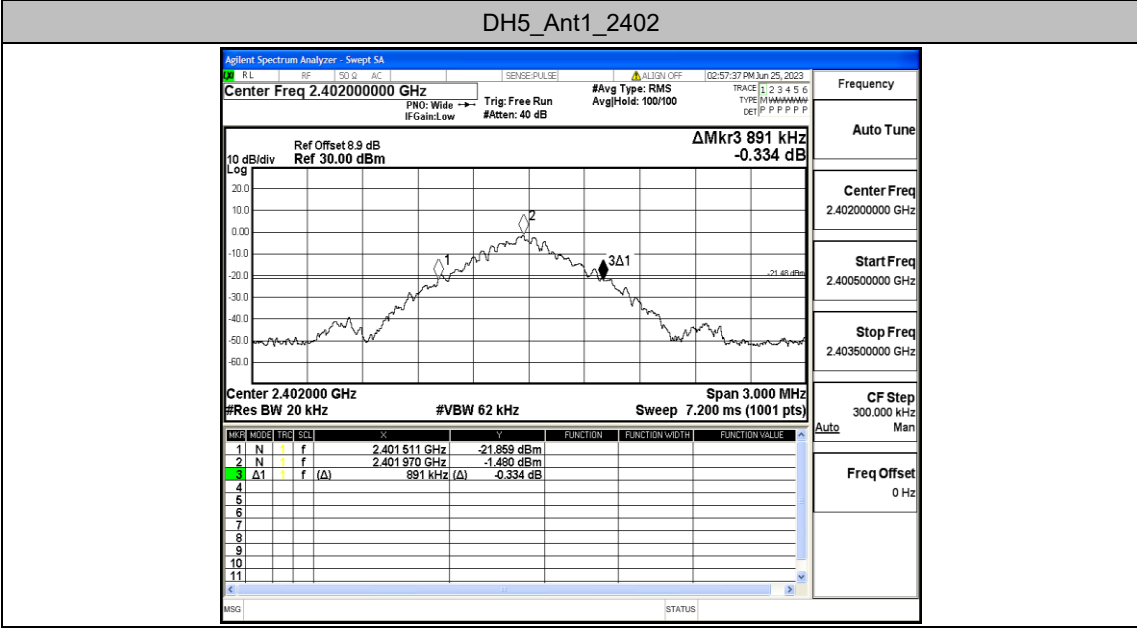
**Appendix Test Data for BT(BDR/EDR) (Conducted Measurement)****Product Name: NOSTALGIA BLUETOOTH 7 IN 1 MUSIC SYSTEM****Trade Mark: Sign****Test Model: T15****FCC ID: 2ARFH-T15****Environmental Conditions**

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

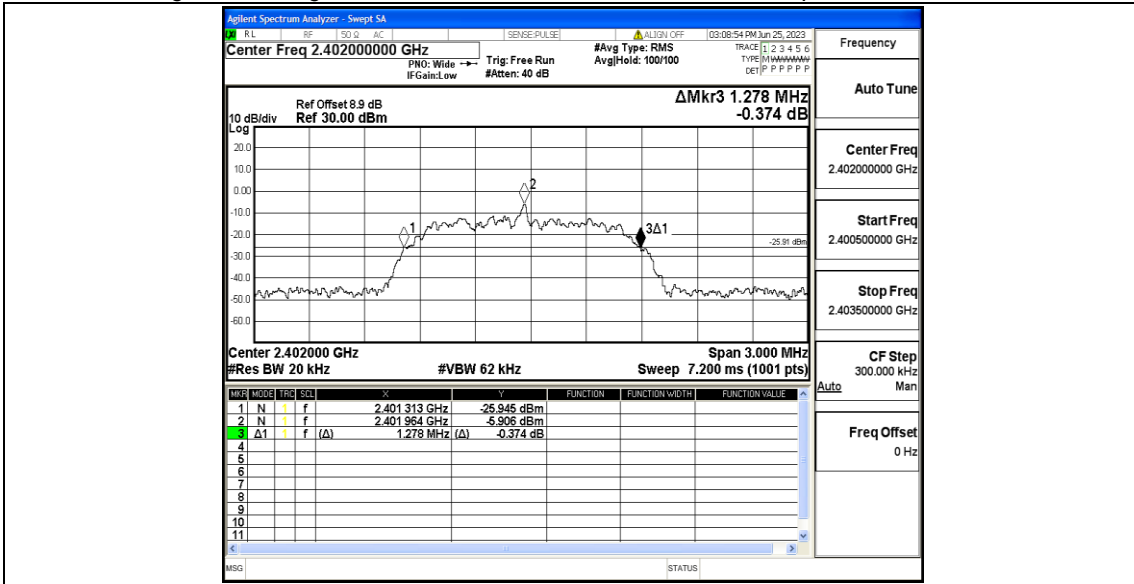
**Appendix A: 20dB Emission Bandwidth****Test Result**

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.891	2401.511	2402.402	---	---
		2441	0.894	2440.508	2441.402	---	---
		2480	0.939	2479.508	2480.447	---	---
2DH5	Ant1	2402	1.278	2401.313	2402.591	---	---
		2441	1.266	2440.310	2441.576	---	---
		2480	1.359	2479.292	2480.651	---	---

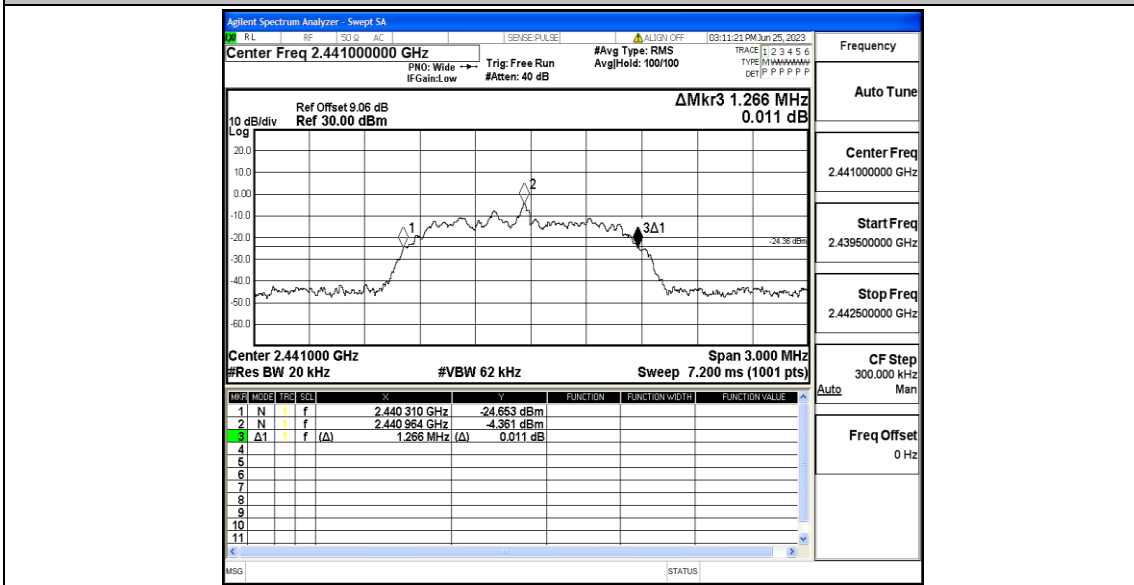
### Test Graphs



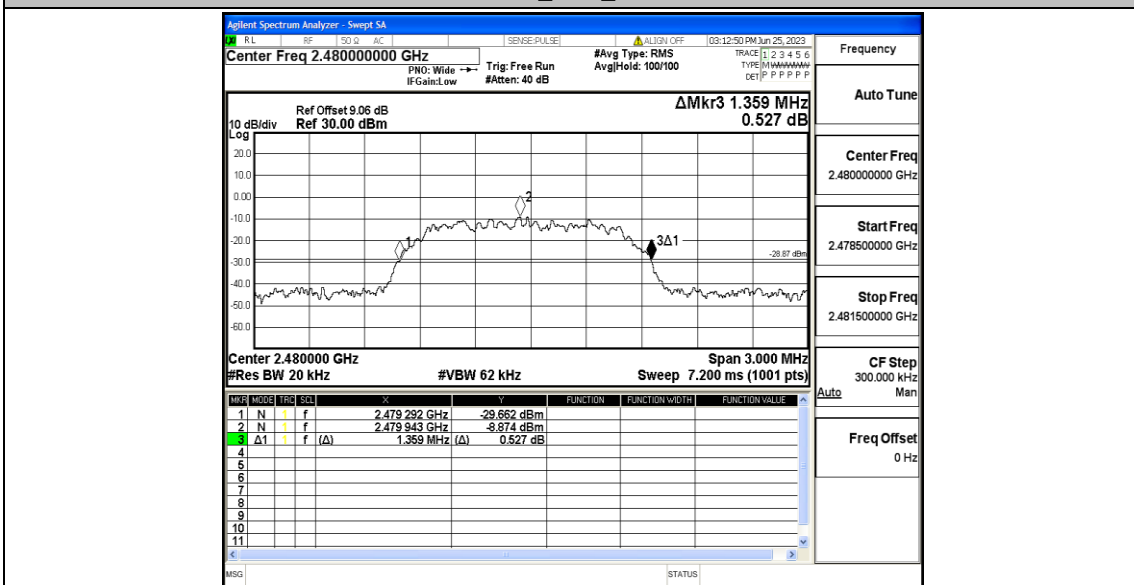
2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



2DH5\_Ant1\_2480

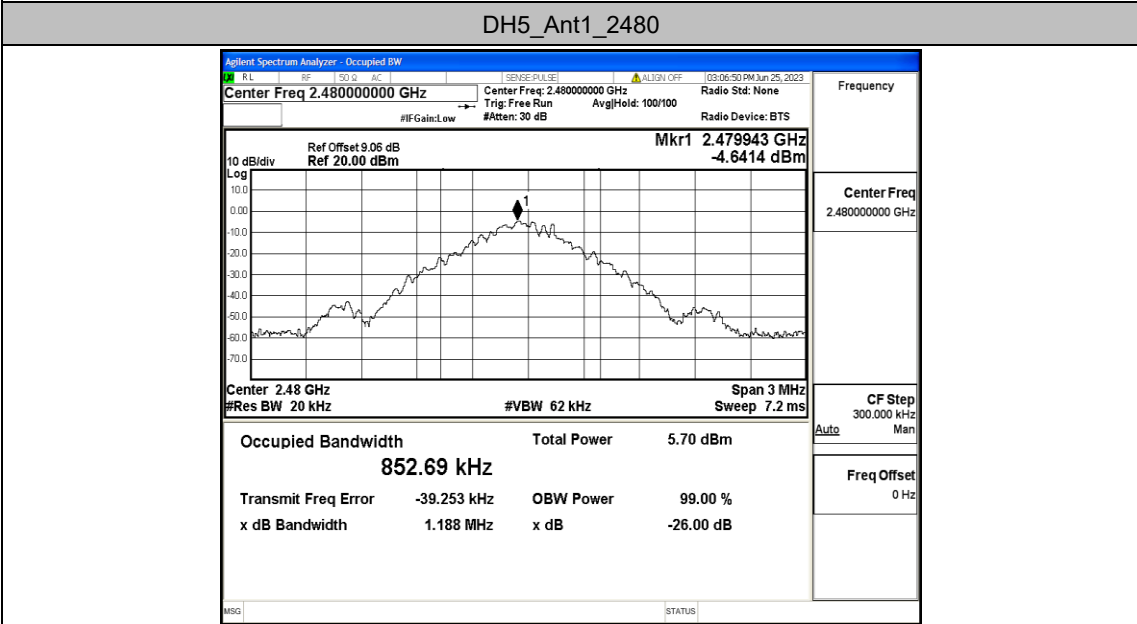
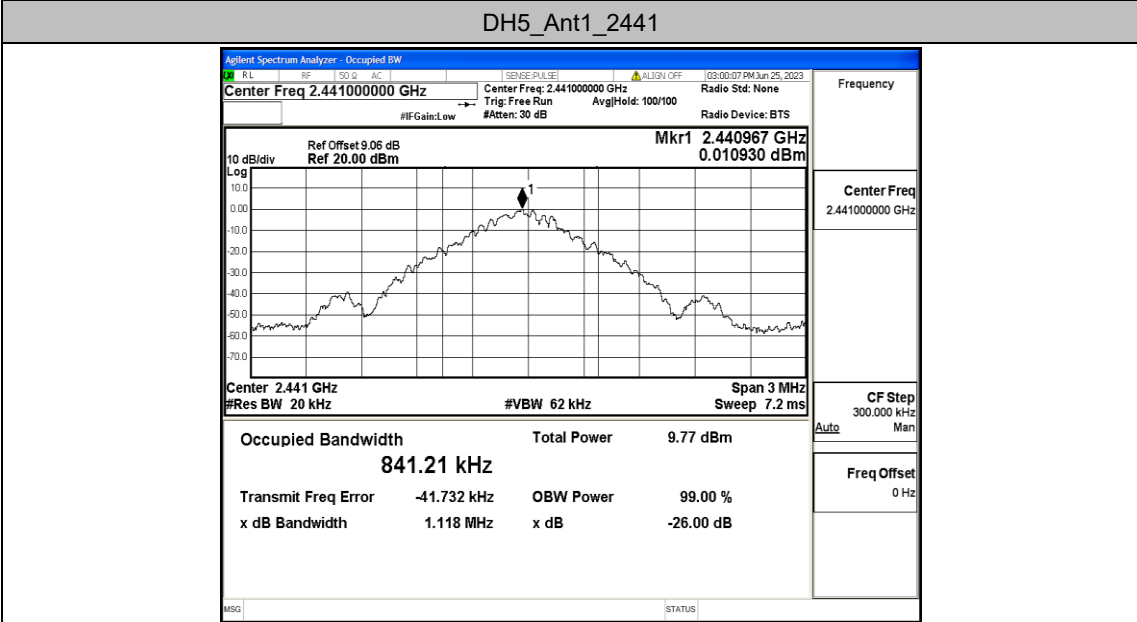
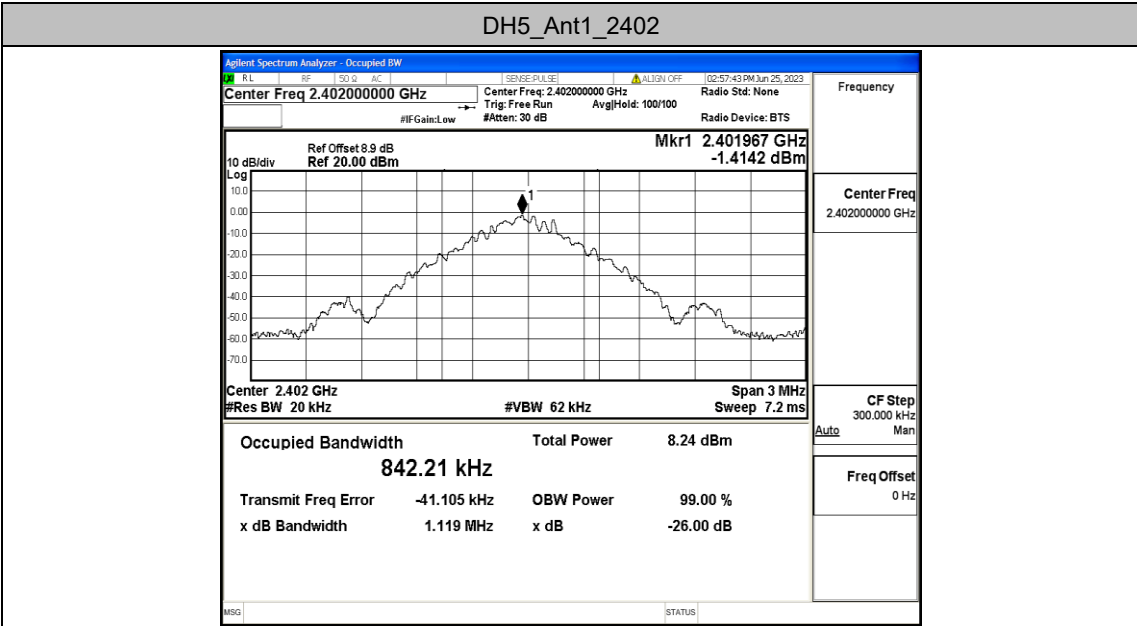


## Appendix B: Occupied Channel Bandwidth

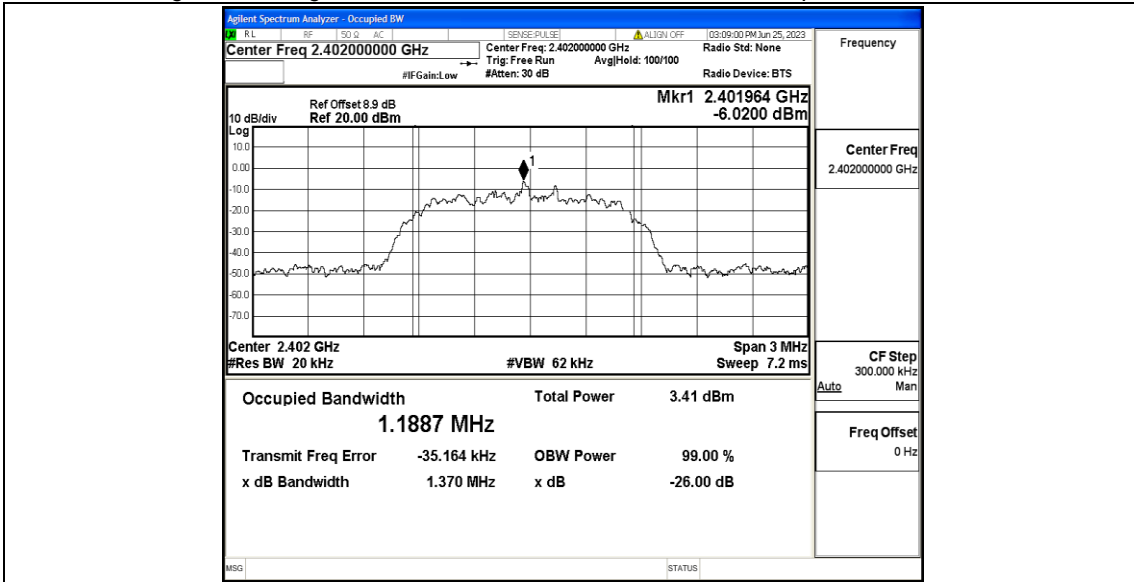
### Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.84221	2401.5378	2402.3800	---	---
		2441	0.84121	2440.5377	2441.3789	---	---
		2480	0.85269	2479.5344	2480.3871	---	---
2DH5	Ant1	2402	1.1887	2401.3705	2402.5592	---	---
		2441	1.1888	2440.3687	2441.5575	---	---
		2480	1.1886	2479.3665	2480.5551	---	---

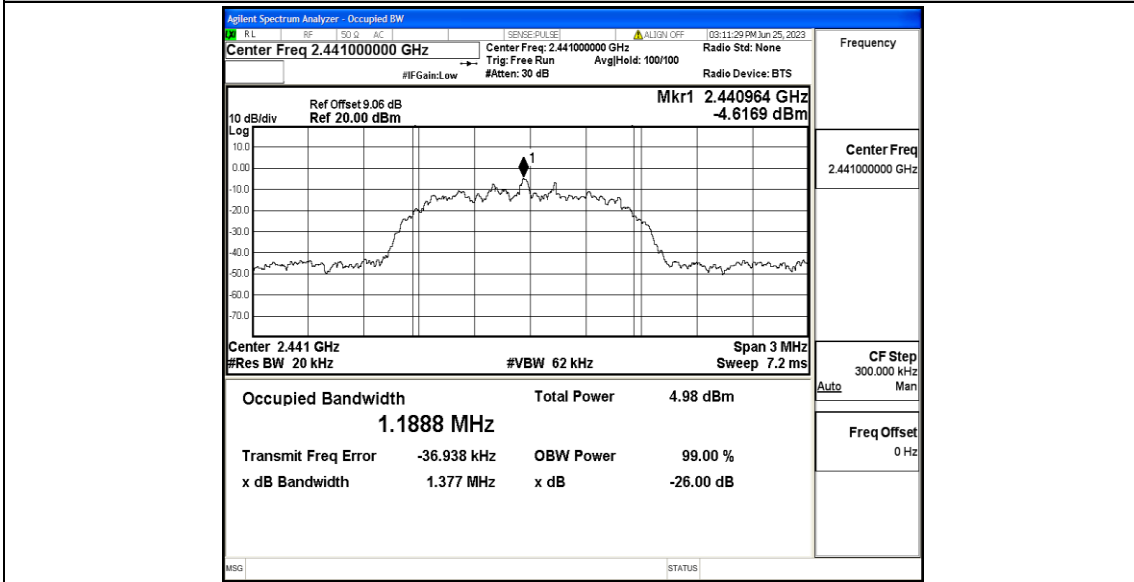
Test Graphs



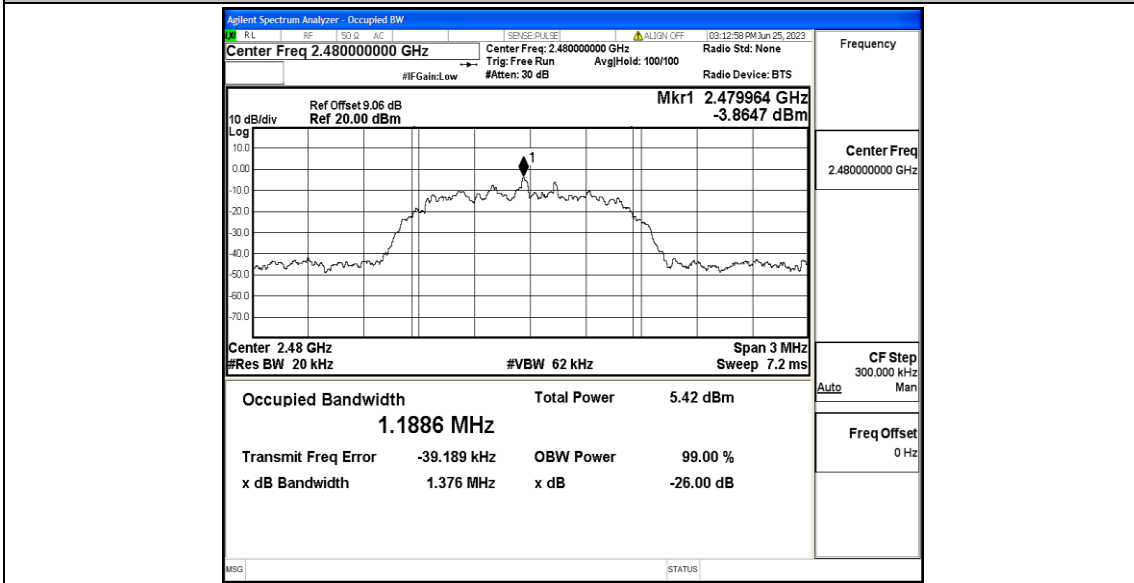
2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



2DH5\_Ant1\_2480

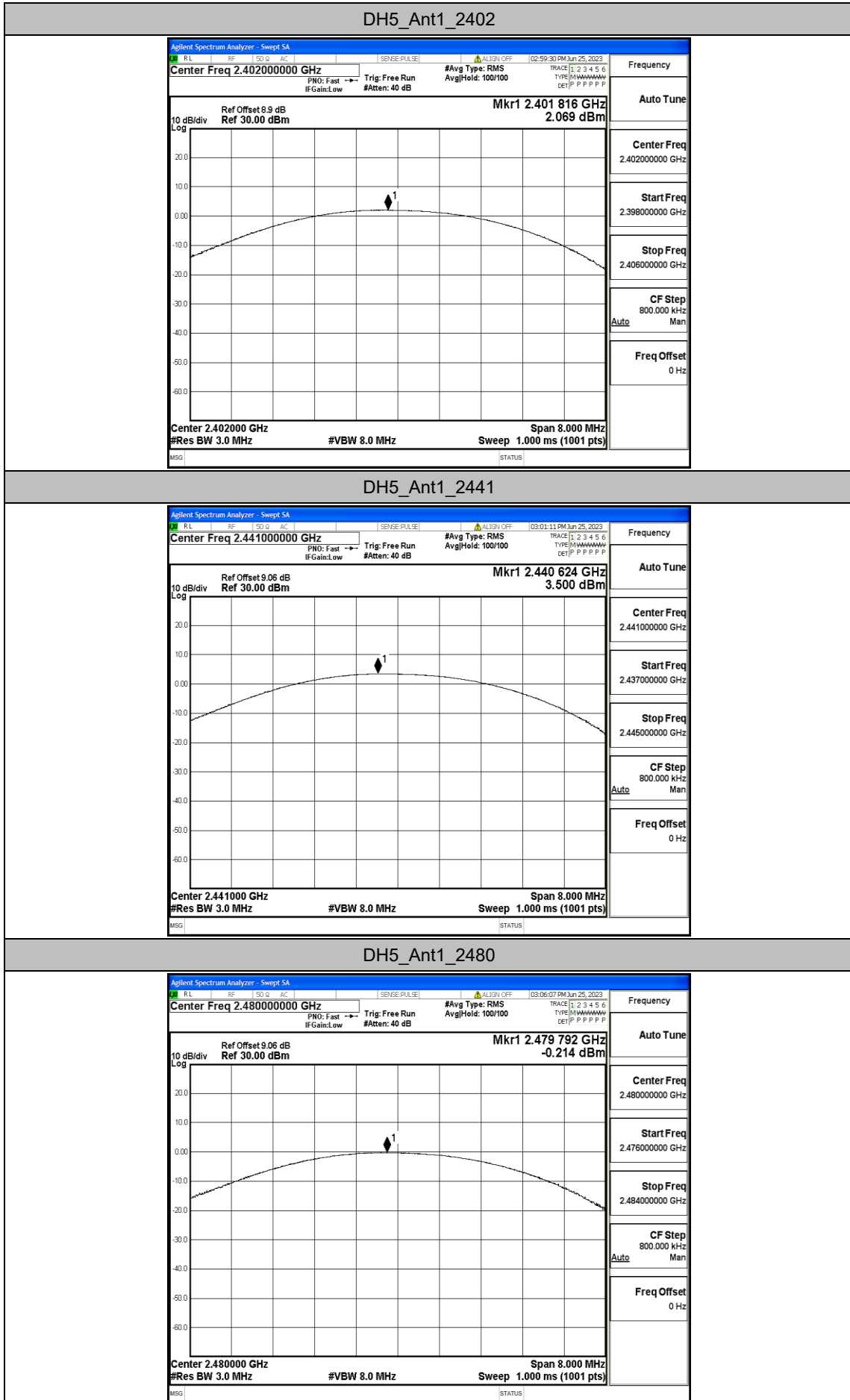


## Appendix C: Maximum Peak conducted output power

### Test Result

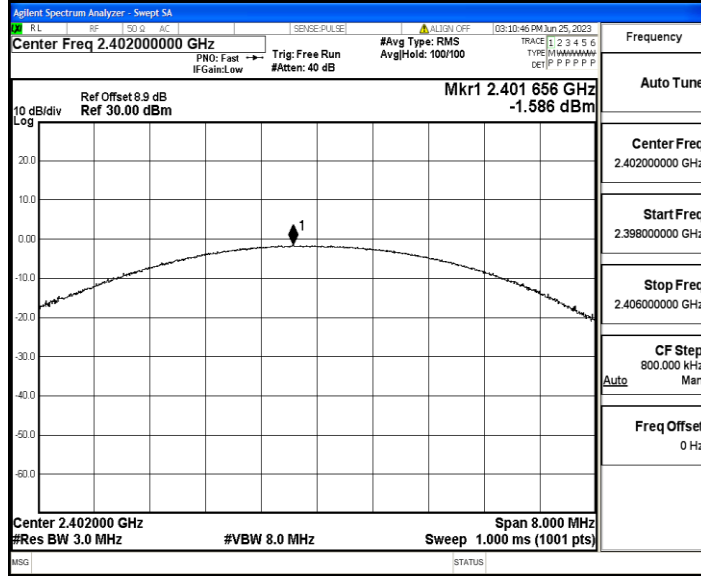
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	2.07	≤30	PASS
		2441	3.5	≤30	PASS
		2480	-0.21	≤30	PASS
2DH5	Ant1	2402	-1.59	≤20.97	PASS
		2441	-0.17	≤20.97	PASS
		2480	0.24	≤20.97	PASS

### Test Graphs

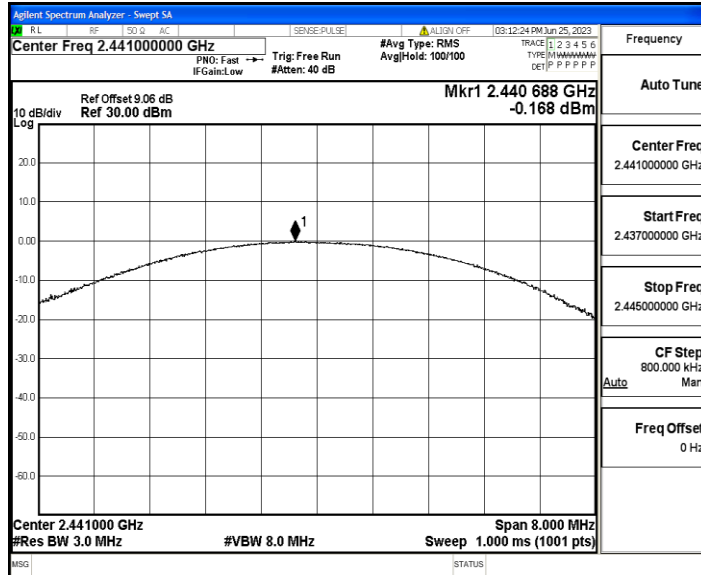




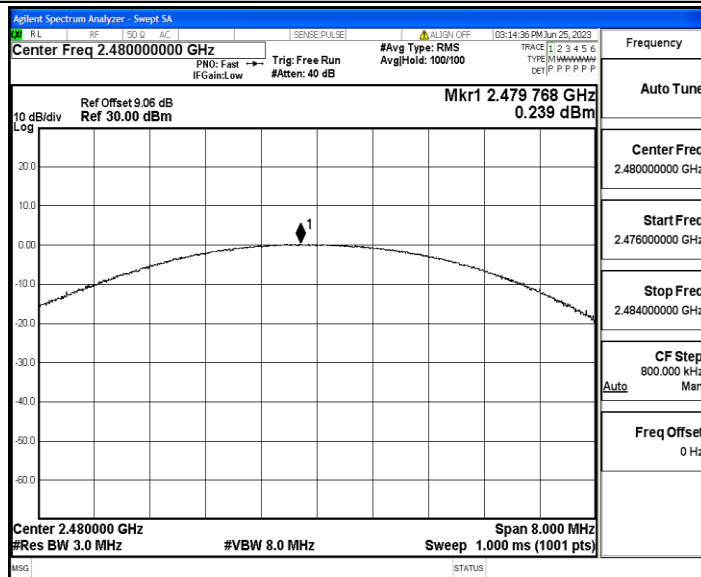
2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



2DH5\_Ant1\_2480

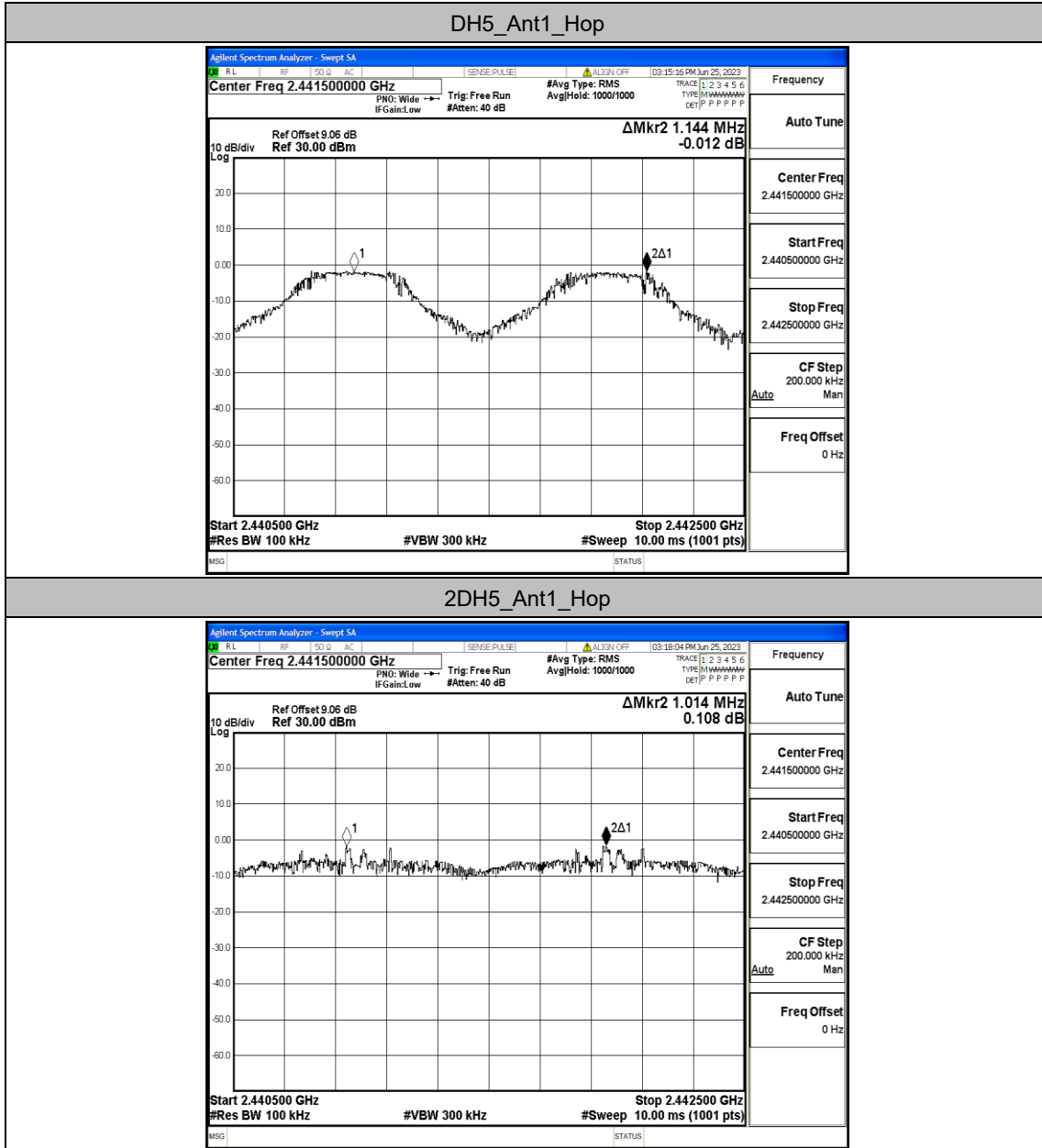


## Appendix D: Carrier frequency separation

### Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.144	$\geq 0.939$	PASS
2DH5	Ant1	Hop	1.014	$\geq 0.906$	PASS

Test Graphs

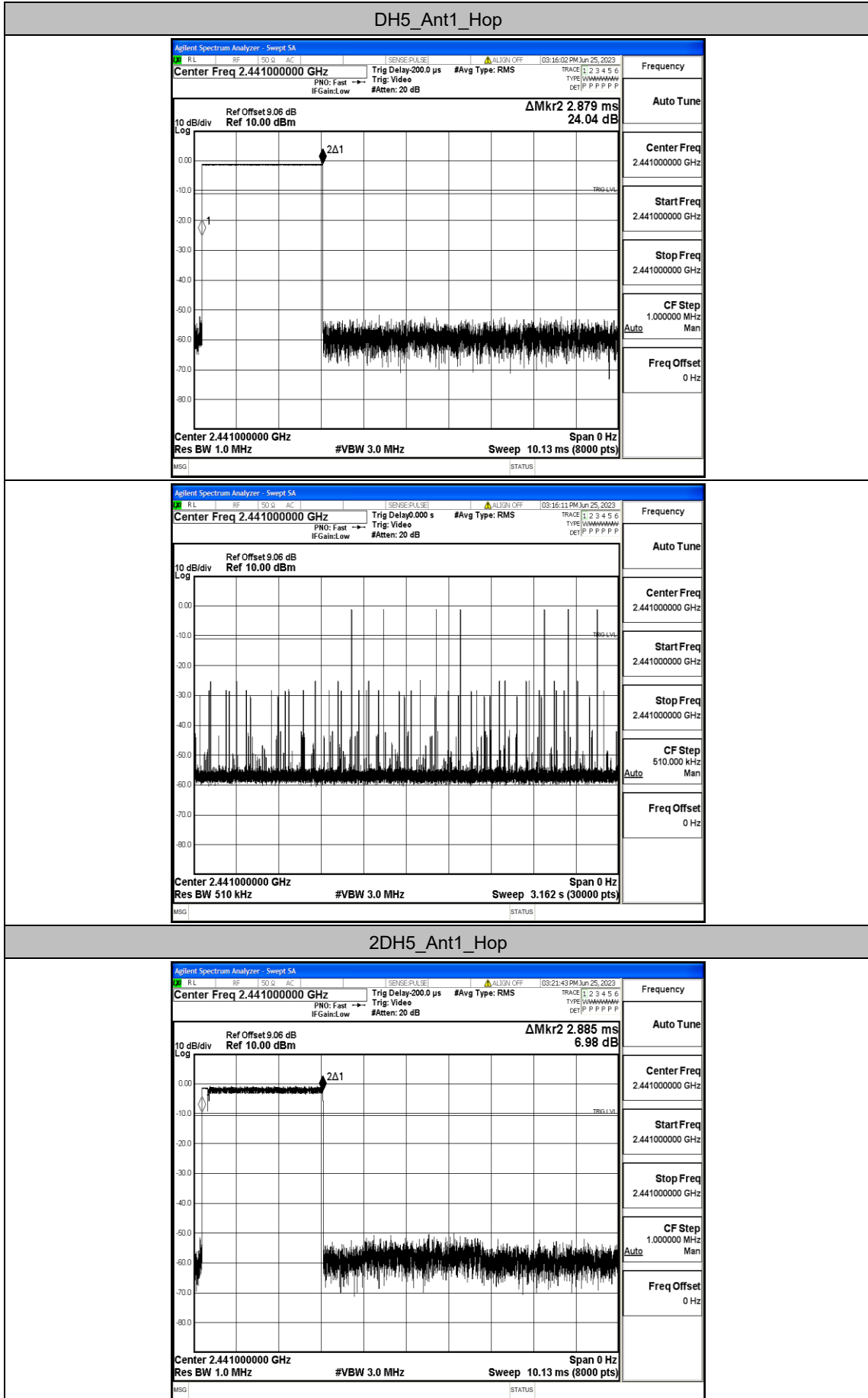


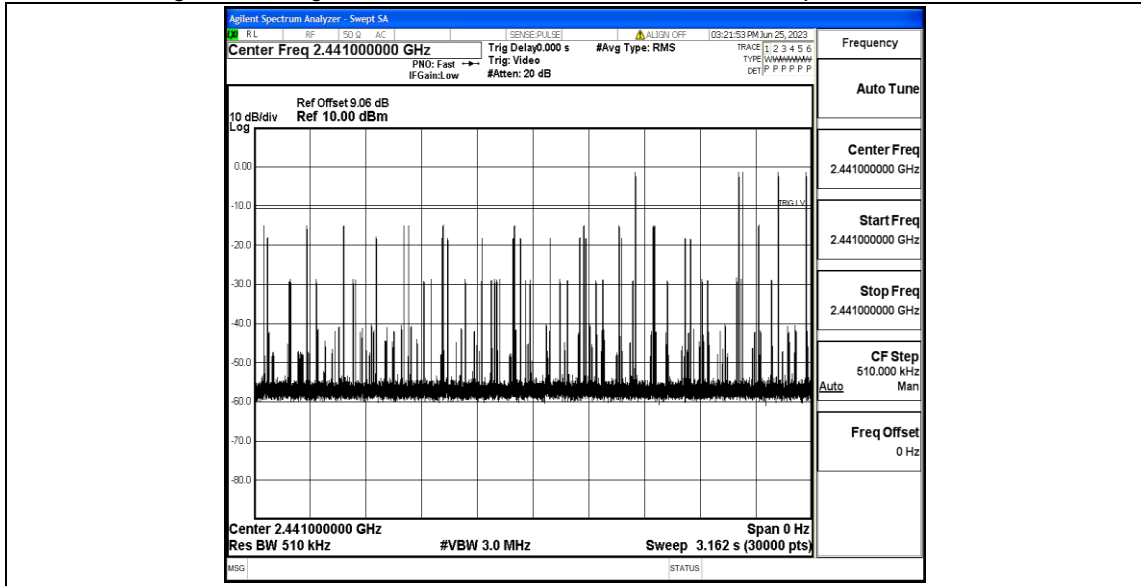
## Appendix E: Time of occupancy

### Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.879	80	0.23	≤0.4	PASS
2DH5	Ant1	Hop	2.885	60	0.173	≤0.4	PASS

### Test Graphs



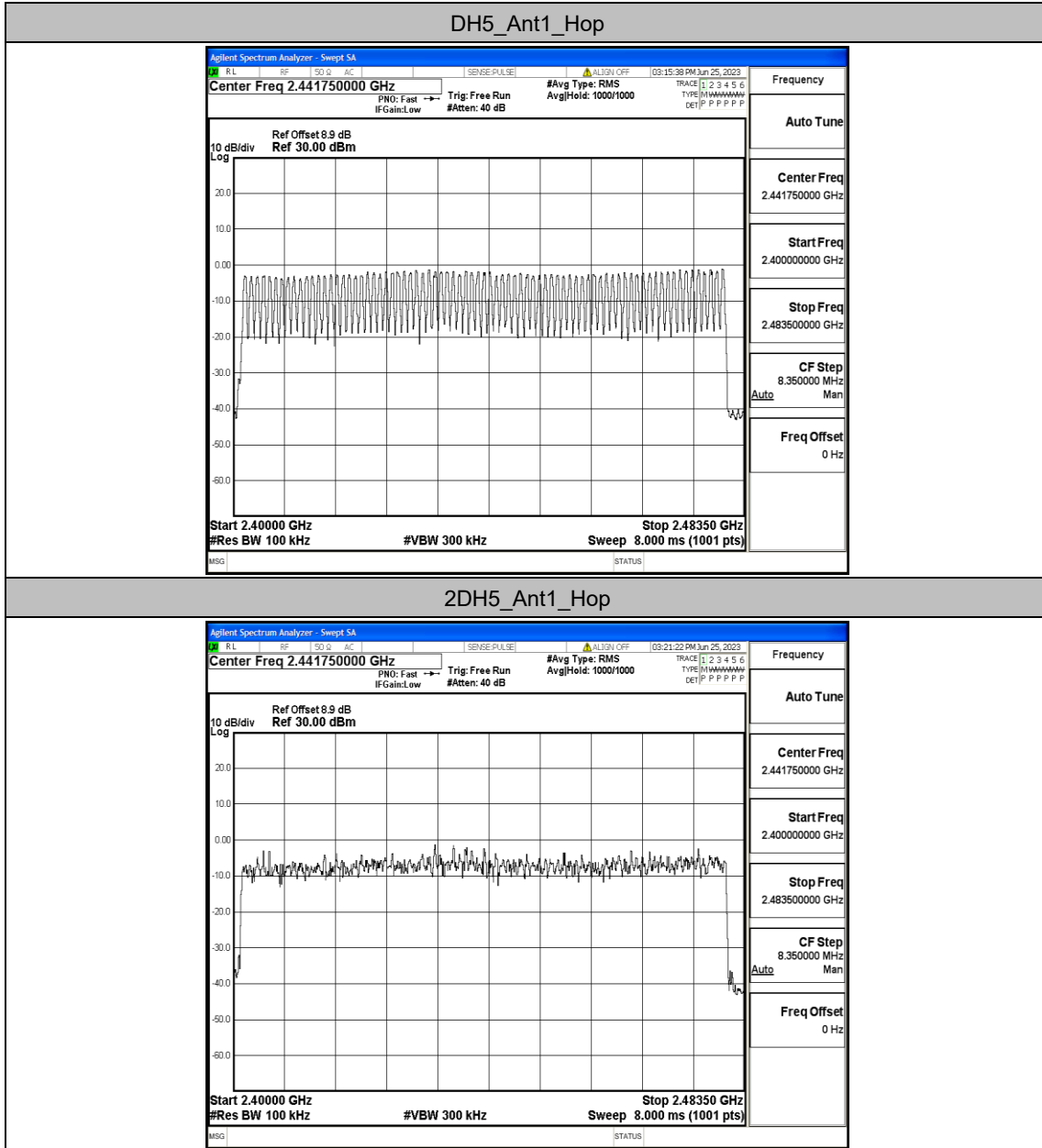


## Appendix F: Number of hopping channels

### Test Result

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

### Test Graphs





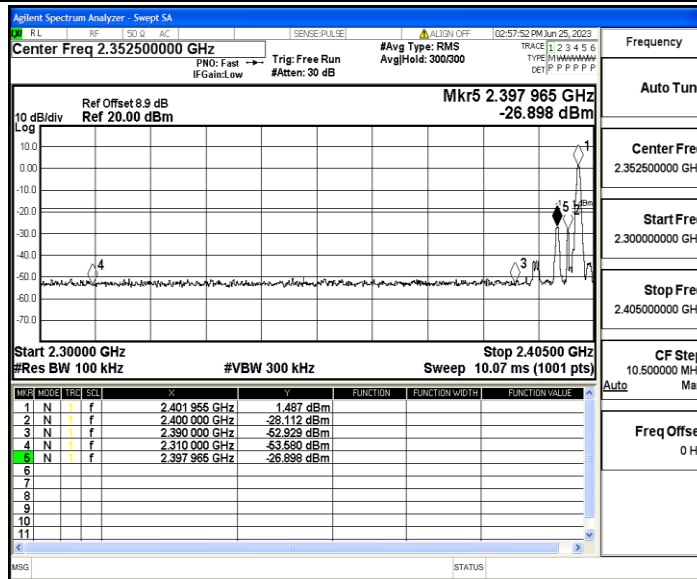
## Appendix G: Band edge measurements

### Test Result

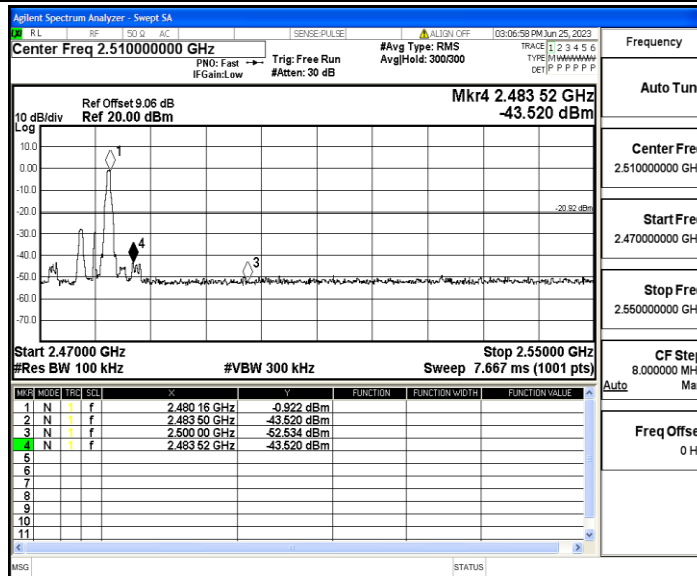
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	1.49	-26.9	≤-18.51	PASS
		High	2480	-0.92	-43.52	≤-20.92	PASS
		Low	Hop_2402	-3.98	-50.43	≤-23.98	PASS
		High	Hop_2480	-1.04	-49.29	≤-21.04	PASS
2DH5	Ant1	Low	2402	-3.83	-31.34	≤-23.83	PASS
		High	2480	-1.14	-43.58	≤-21.14	PASS
		Low	Hop_2402	-5.05	-50.27	≤-25.05	PASS
		High	Hop_2480	-2.85	-49.73	≤-22.85	PASS

Test Graphs

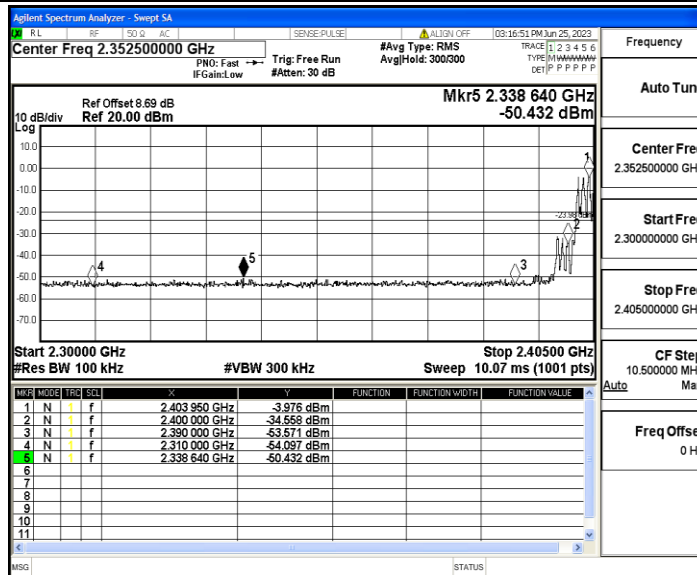
DH5\_Ant1\_Low\_2402



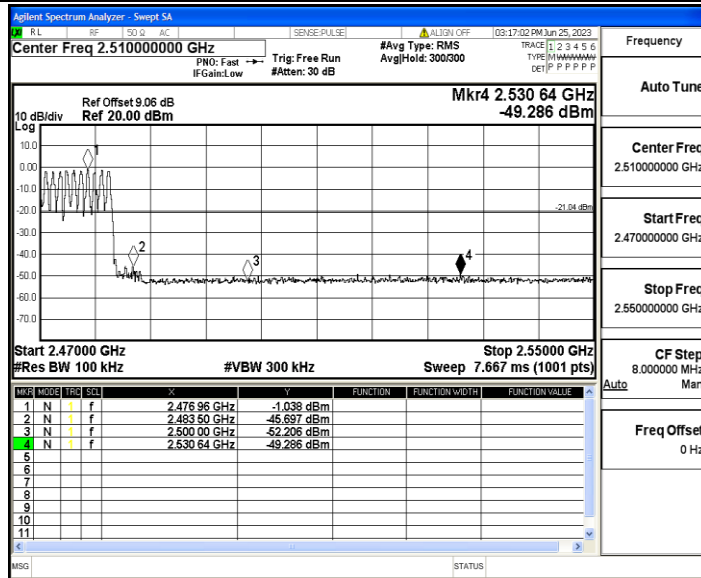
DH5\_Ant1\_High\_2480



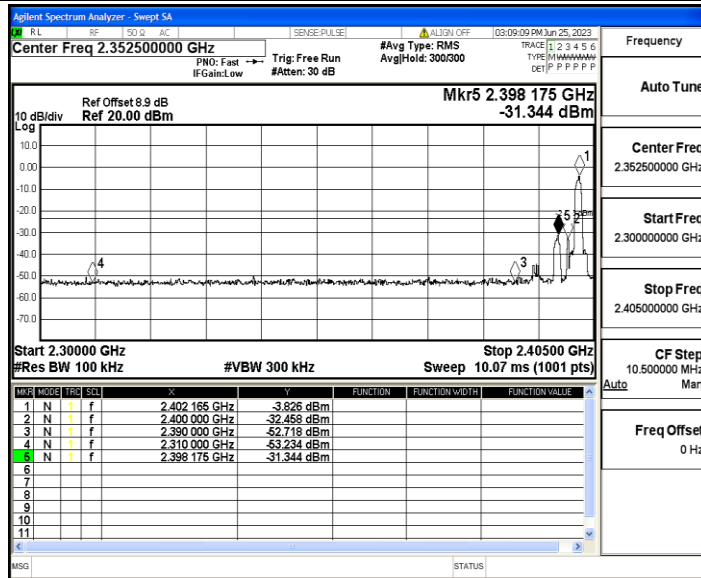
DH5\_Ant1\_Low\_Hop\_2402



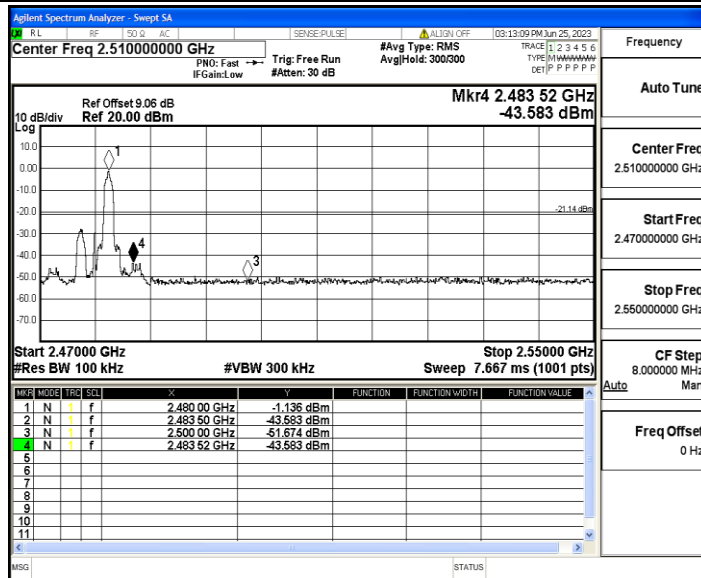
DH5\_Ant1\_High\_Hop\_2480



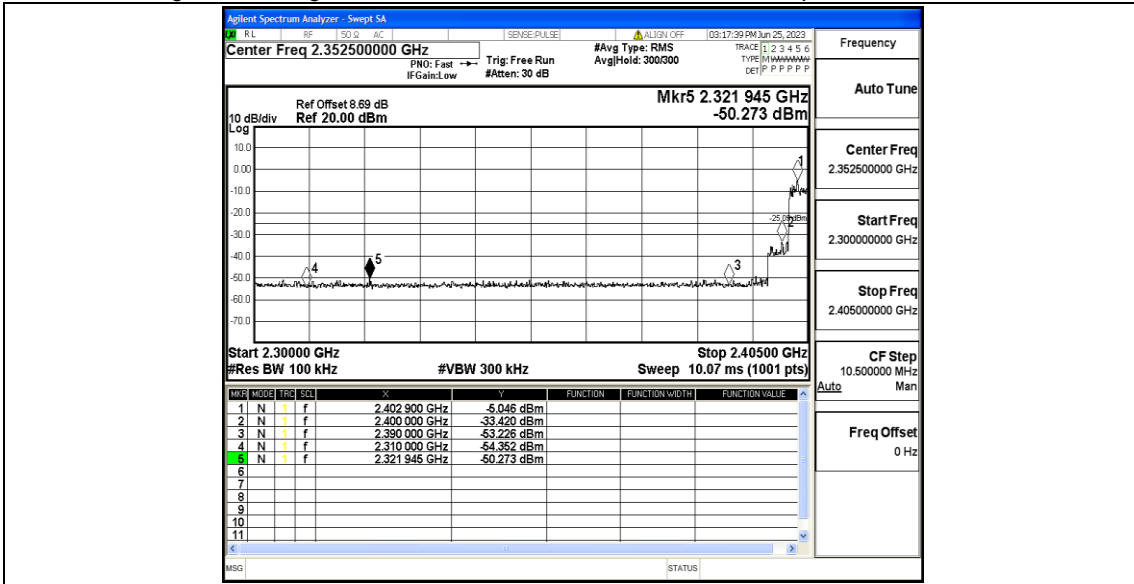
2DH5\_Ant1\_Low\_2402



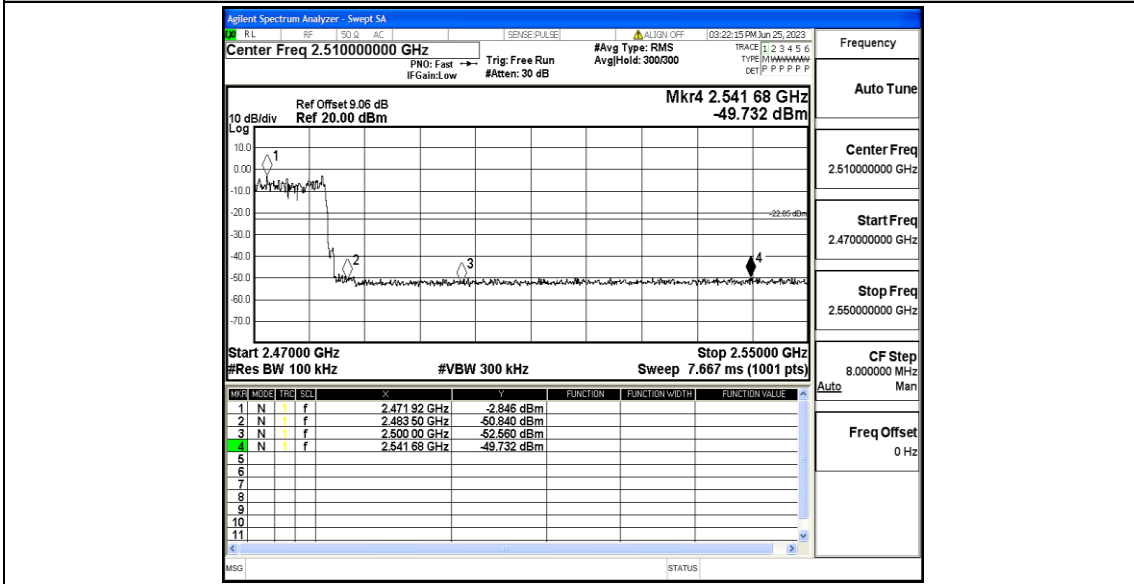
2DH5\_Ant1\_High\_2480



2DH5\_Ant1\_Low\_Hop\_2402



2DH5\_Ant1\_High\_Hop\_2480

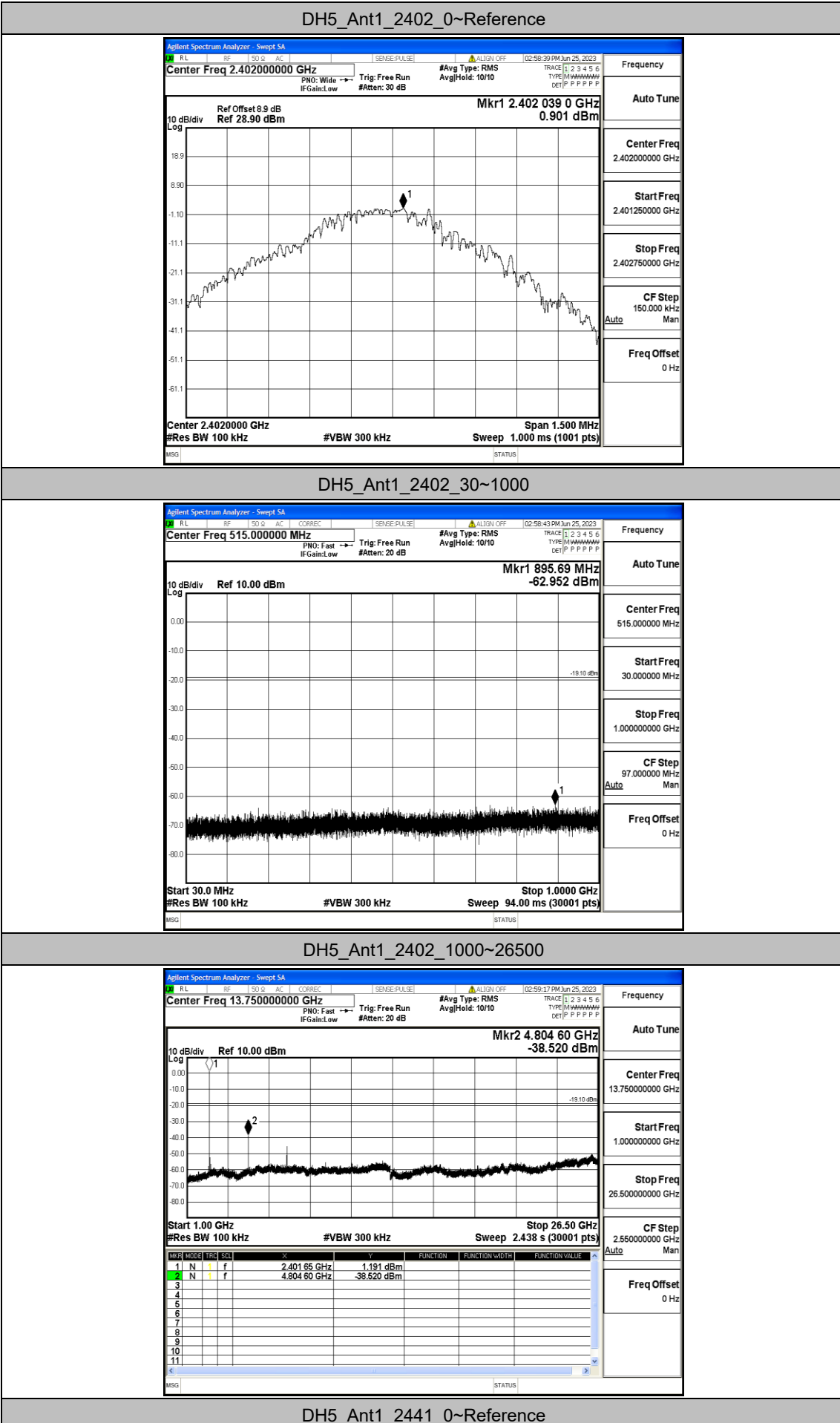


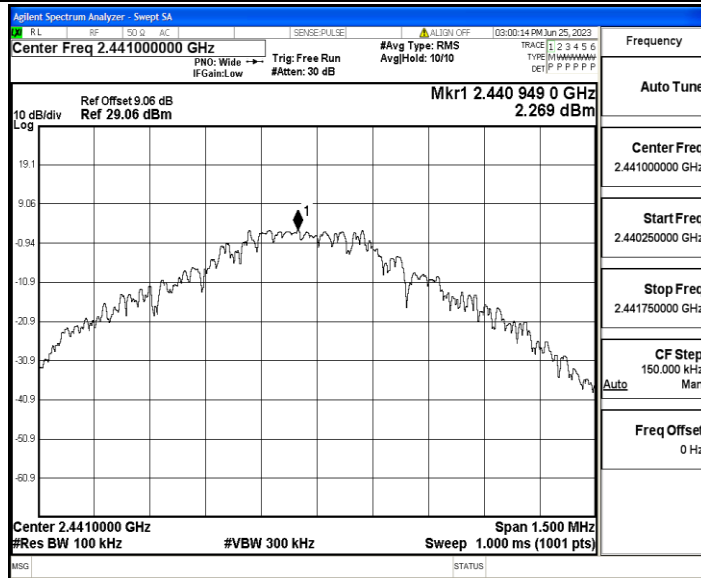
## Appendix H: Conducted Spurious Emission

### Test Result

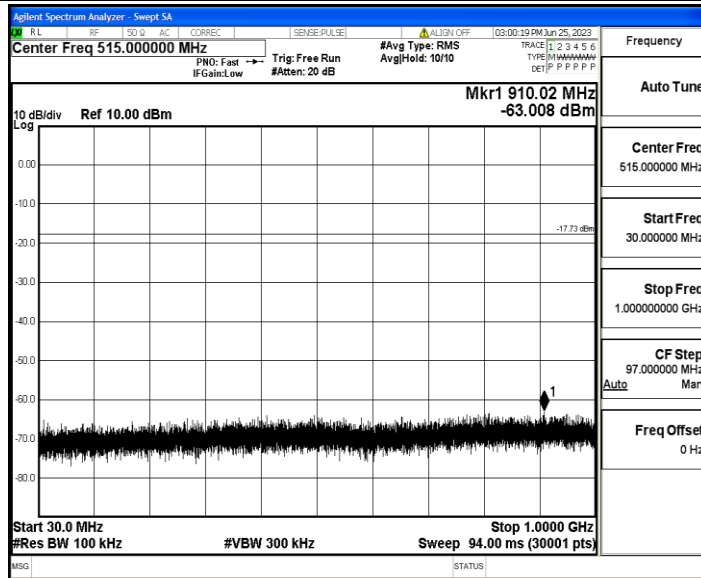
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.90	0.90	---	PASS
			30~1000	0.90	-62.95	≤-19.1	PASS
			1000~26500	0.90	-38.52	≤-19.1	PASS
		2441	Reference	2.27	2.27	---	PASS
			30~1000	2.27	-63.01	≤-17.73	PASS
			1000~26500	2.27	-39.7	≤-17.73	PASS
		2480	Reference	-1.38	-1.38	---	PASS
			30~1000	-1.38	-62.06	≤-21.38	PASS
			1000~26500	-1.38	-44.93	≤-21.38	PASS
2DH5	Ant1	2402	Reference	-6.60	-6.60	---	PASS
			30~1000	-6.60	-62.81	≤-26.6	PASS
			1000~26500	-6.60	-48.91	≤-26.6	PASS
		2441	Reference	-4.81	-4.81	---	PASS
			30~1000	-4.81	-63.04	≤-24.81	PASS
			1000~26500	-4.81	-47.34	≤-24.81	PASS
		2480	Reference	-4.78	-4.78	---	PASS
			30~1000	-4.78	-62.53	≤-24.78	PASS
			1000~26500	-4.78	-46.66	≤-24.78	PASS

Test Graphs

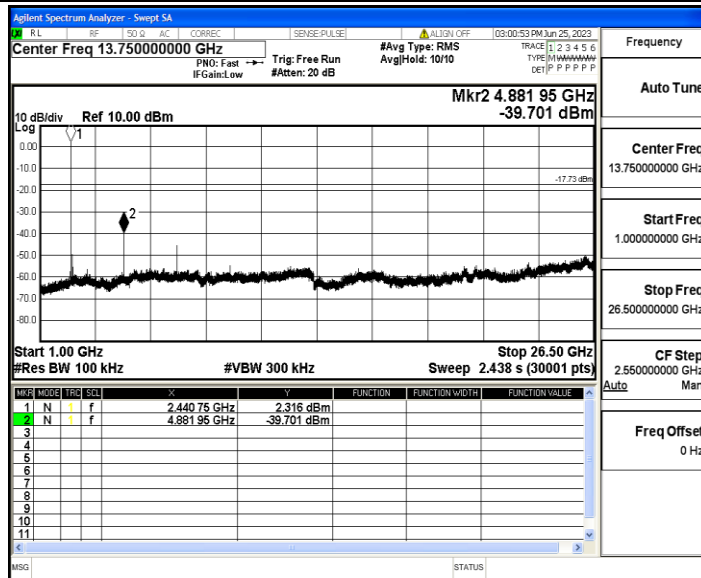




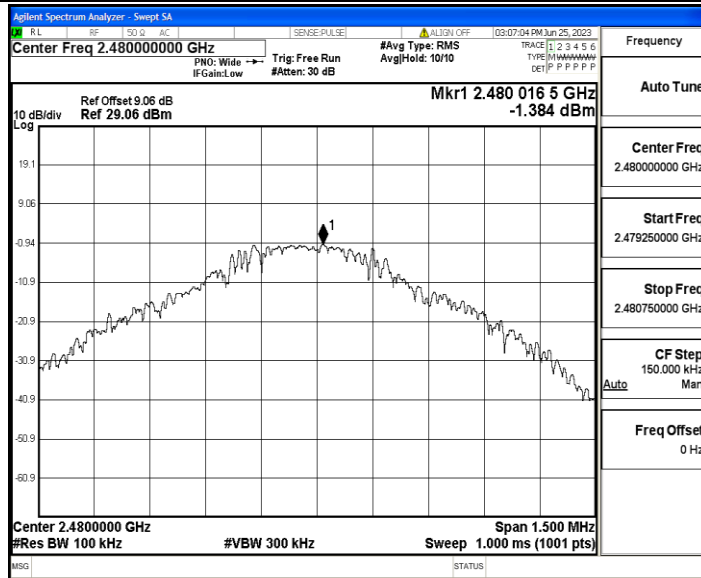
DH5\_Ant1\_2441\_30~1000



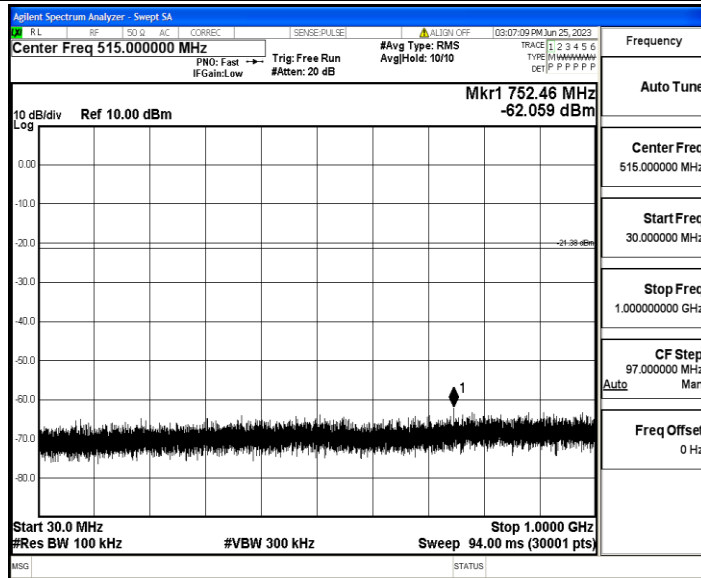
DH5\_Ant1\_2441\_1000~26500



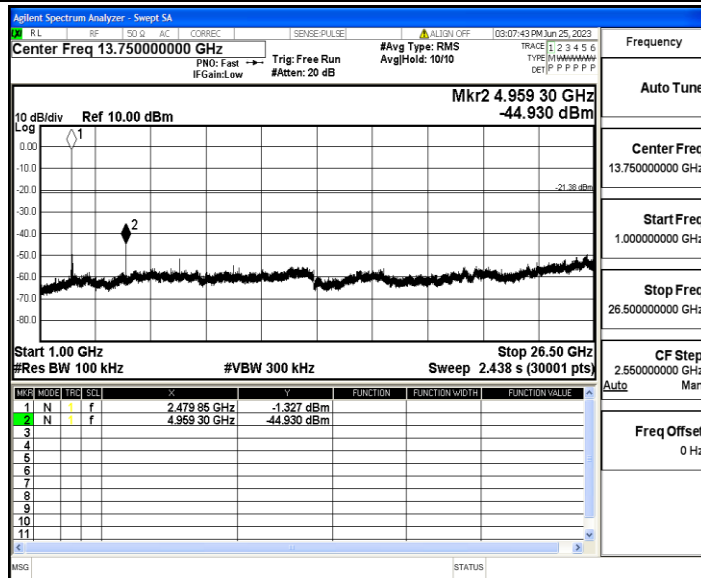
DH5\_Ant1\_2480\_0~Reference



DH5\_Ant1\_2480\_30~1000

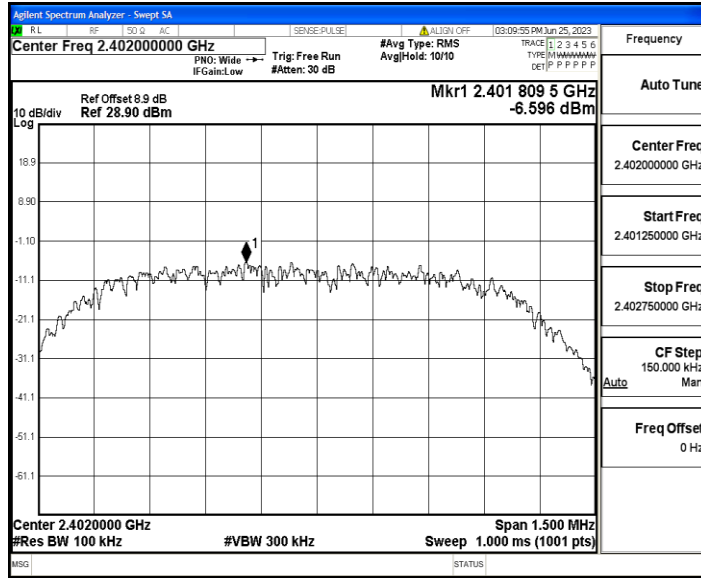


DH5\_Ant1\_2480\_1000~26500

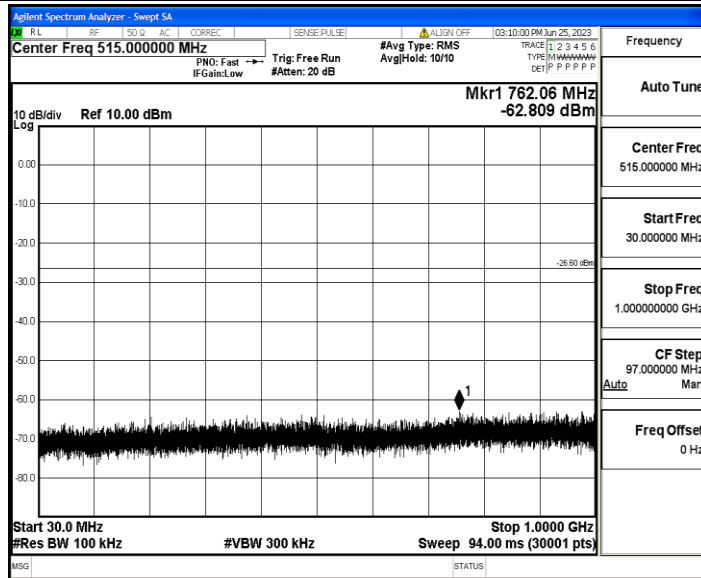


2DH5\_Ant1\_2402\_0~Reference

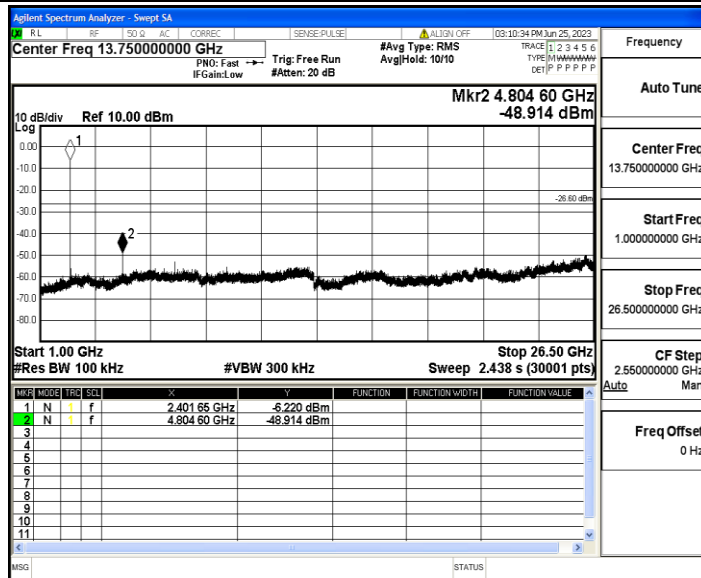




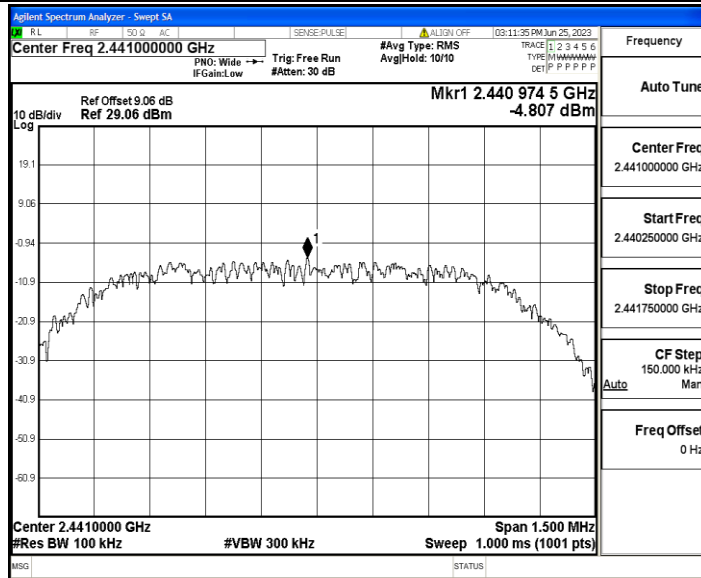
2DH5\_Ant1\_2402\_30~1000



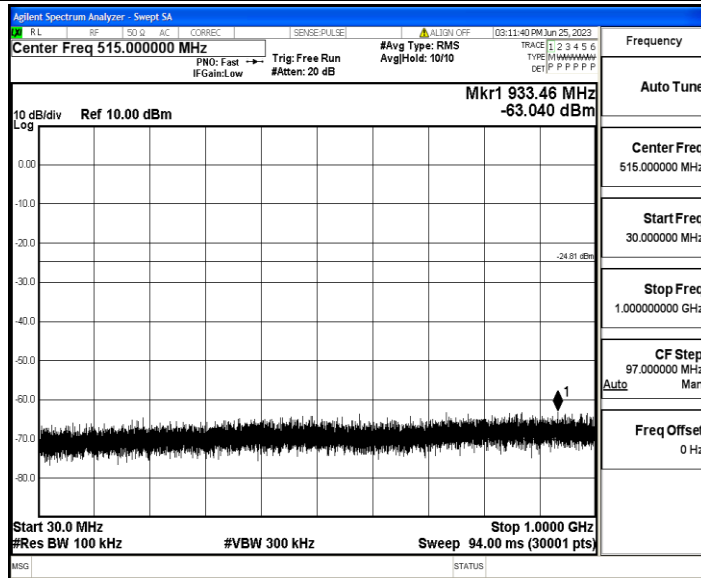
2DH5\_Ant1\_2402\_1000~26500



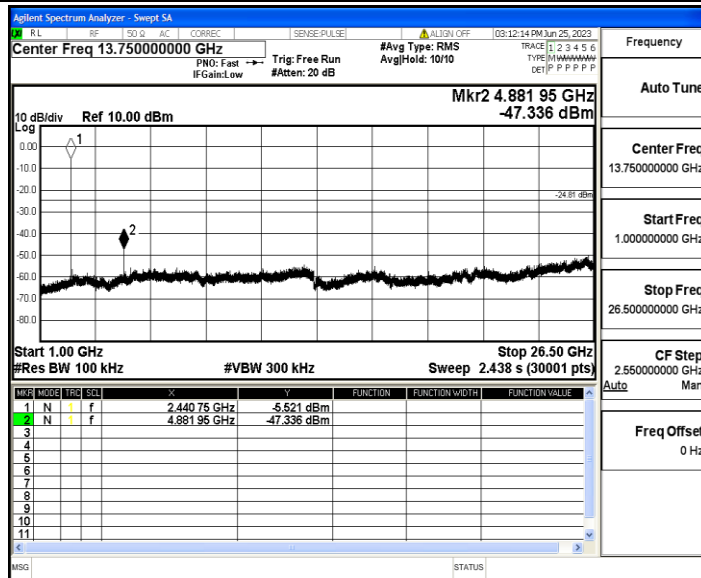
2DH5\_Ant1\_2441\_0~Reference



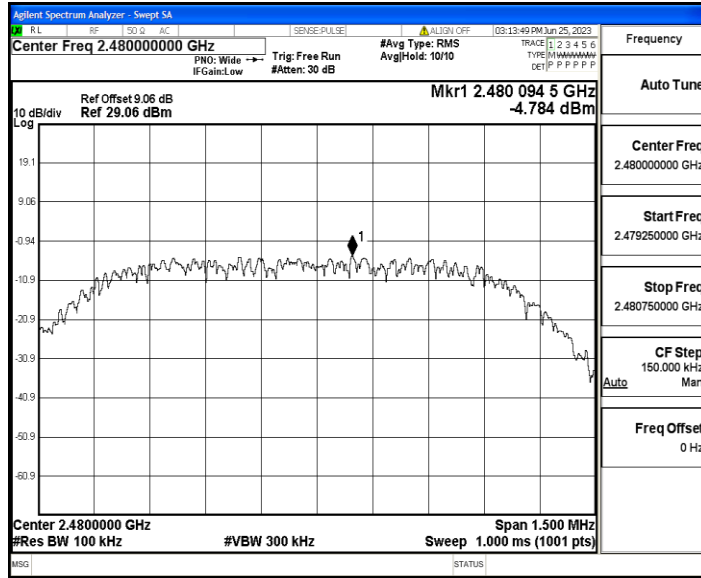
2DH5\_Ant1\_2441\_30~100



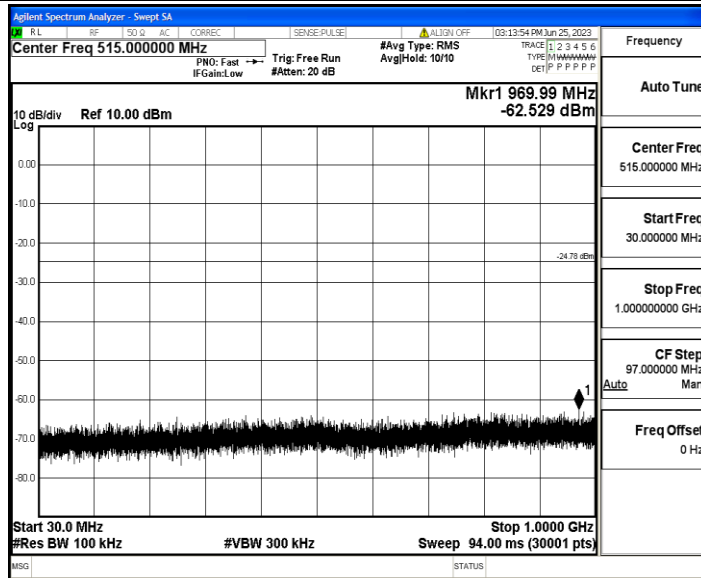
2DH5\_Ant1\_2441\_1000~26500



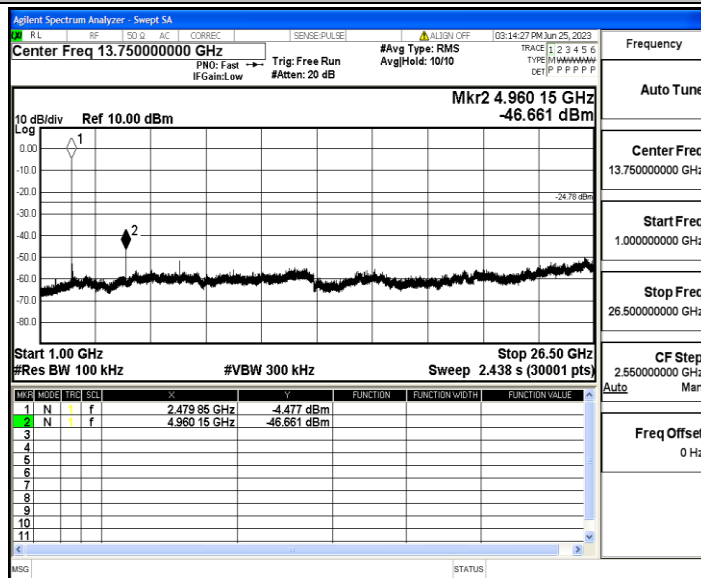
2DH5\_Ant1\_2480\_0~Reference



2DH5\_Ant1\_2480\_30~1000



2DH5\_Ant1\_2480\_1000~26500

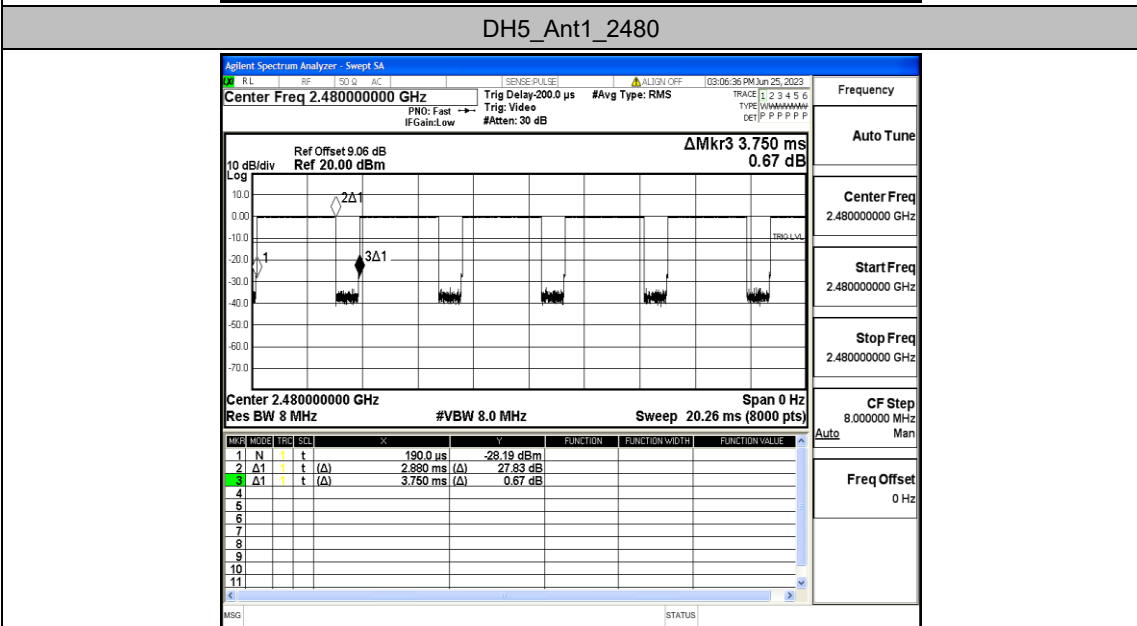
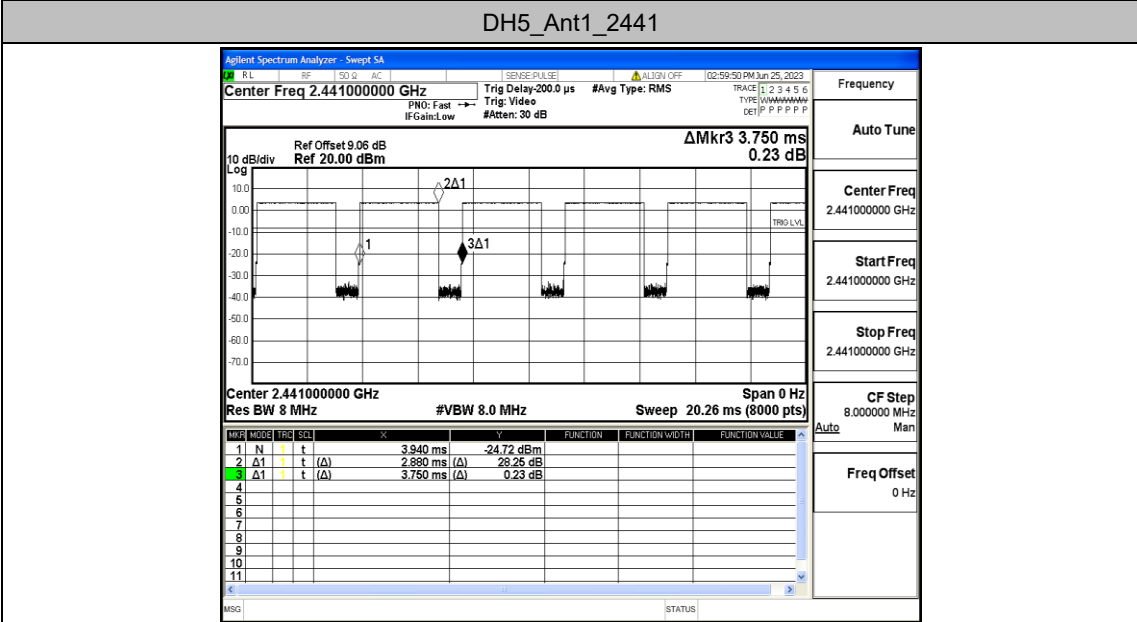
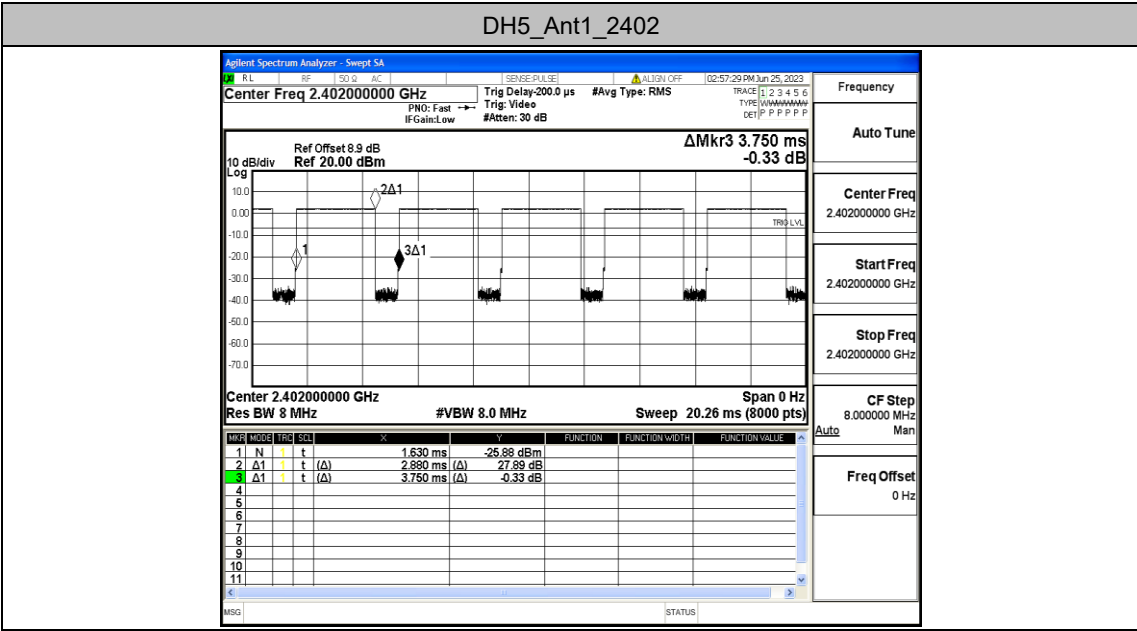


## Appendix I: Duty Cycle

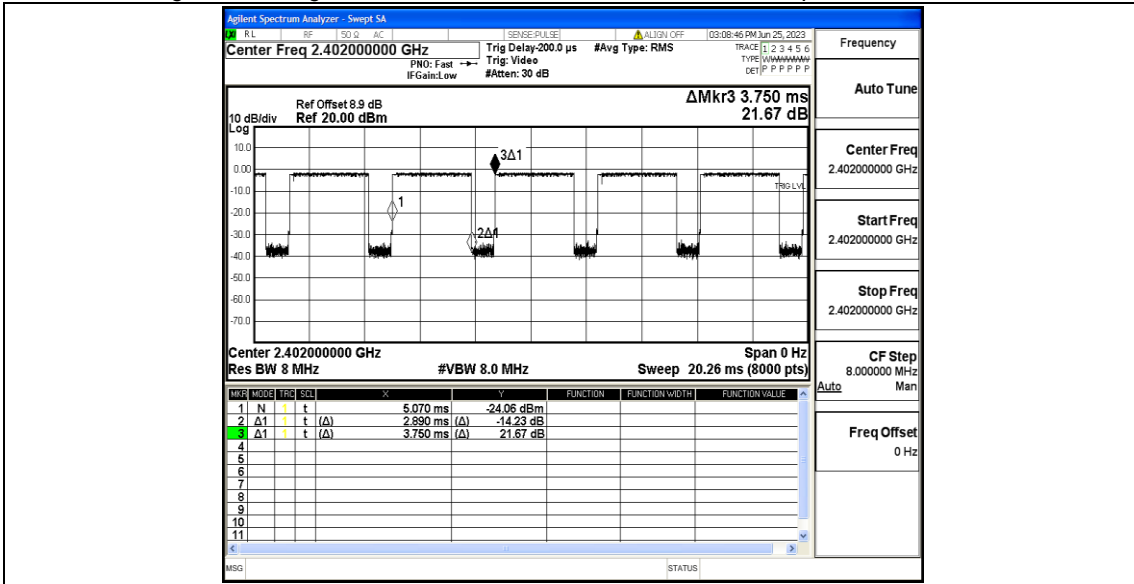
### Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
DH5	Ant1	2402	2.88	3.75	76.80	0.35
		2441	2.88	3.75	76.80	0.35
		2480	2.88	3.75	76.80	0.35
2DH5	Ant1	2402	2.89	3.75	77.07	0.35
		2441	2.89	3.75	77.07	0.35
		2480	2.89	3.75	77.07	0.35

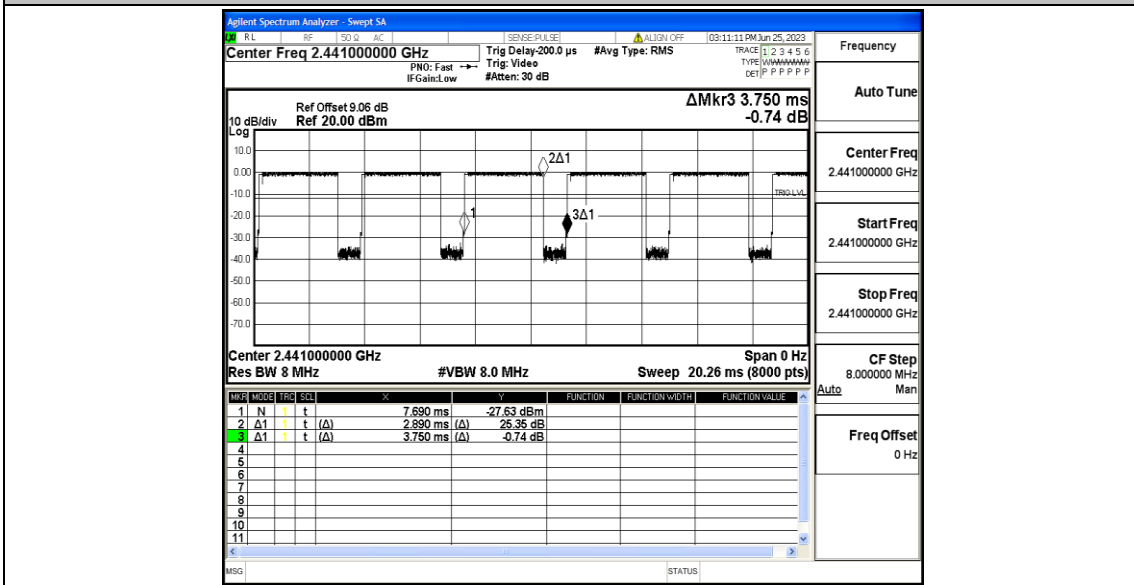
Test Graphs



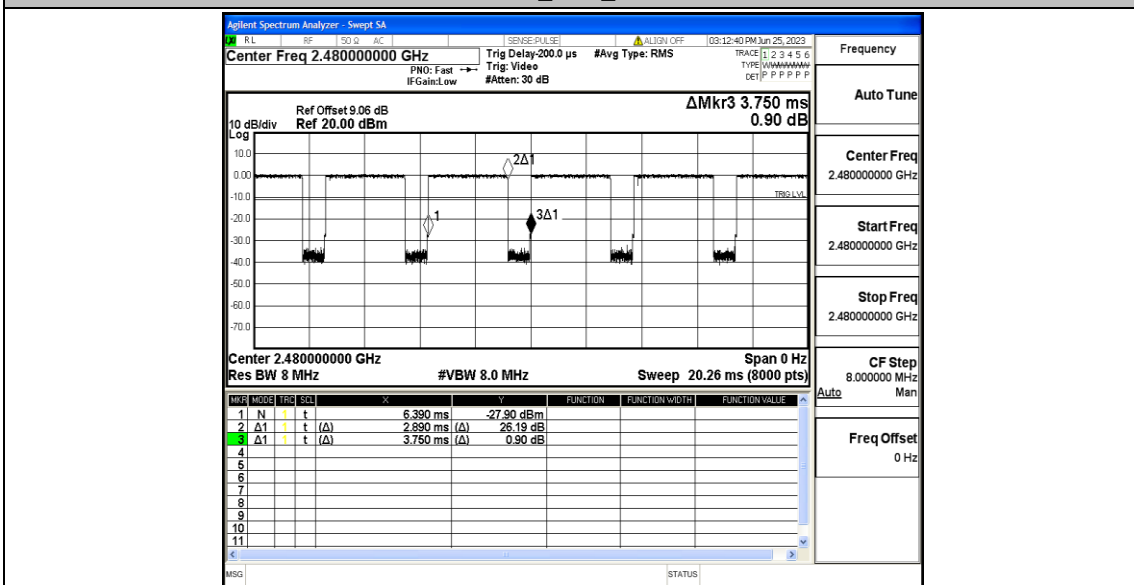
**2DH5\_Ant1\_2402**



2DH5\_Ant1\_2441



2DH5\_Ant1\_2480



## Appendix J: Emissions in Restricted Bands

### Test Result

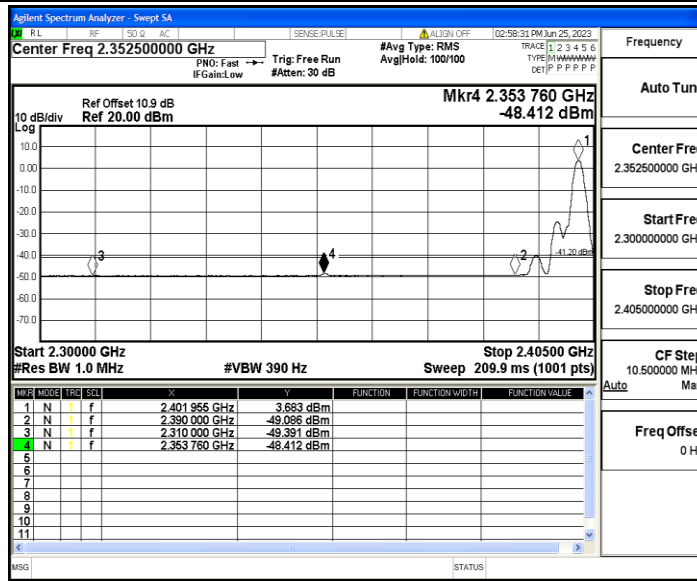
TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-49.39	≤-41.20	PASS
				AV	2353.760	-48.41	≤-41.20	PASS
				AV	2390.000	-49.09	≤-41.20	PASS
				Peak	2310.000	-42.68	≤-21.20	PASS
				Peak	2385.155	-39.15	≤-21.20	PASS
				Peak	2390.000	-41.07	≤-21.20	PASS
		High	2480	AV	2483.500	-43.23	≤-41.20	PASS
				AV	2483.920	-42.71	≤-41.20	PASS
				AV	2500.000	-58.38	≤-41.20	PASS
				Peak	2483.500	-38.86	≤-21.20	PASS
				Peak	2484.240	-38.66	≤-21.20	PASS
				Peak	2500.000	-50.97	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-59.43	≤-41.20	PASS
				AV	2353.760	-57.4	≤-41.20	PASS
				AV	2390.000	-58.83	≤-41.20	PASS
				Peak	2310.000	-52.12	≤-21.20	PASS
				Peak	2354.810	-49.01	≤-21.20	PASS
				Peak	2390.000	-51.71	≤-21.20	PASS
		High	2480	AV	2483.500	-45.46	≤-41.20	PASS
				AV	2483.840	-45.36	≤-41.20	PASS
				AV	2500.000	-58.31	≤-41.20	PASS
				Peak	2483.500	-39.14	≤-21.20	PASS
				Peak	2483.600	-38.63	≤-21.20	PASS
				Peak	2500.000	-50.14	≤-21.20	PASS

Note:

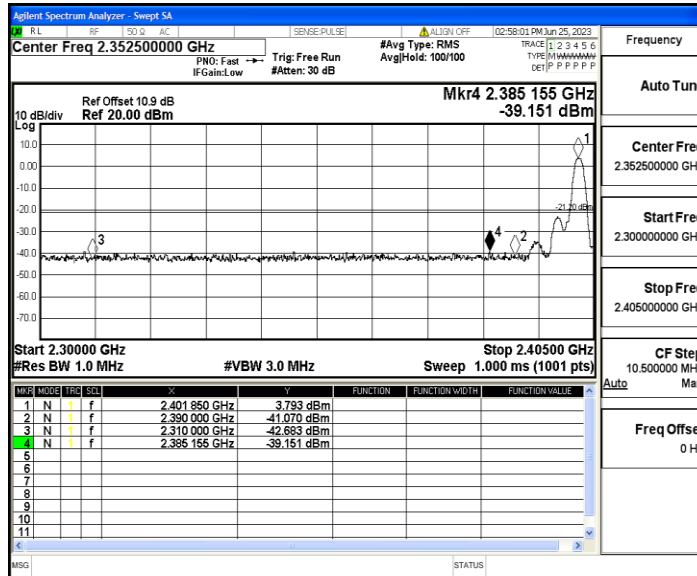
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

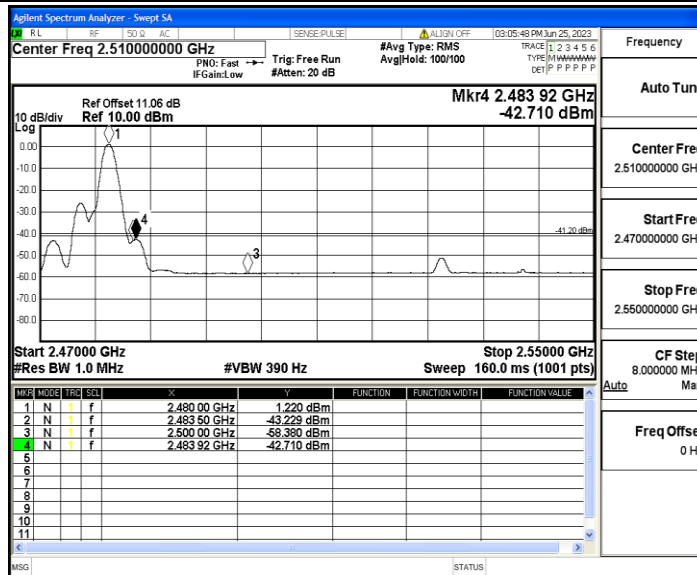
DH5\_Ant1\_Low\_2402\_AV



DH5\_Ant1\_Low\_2402\_Peak

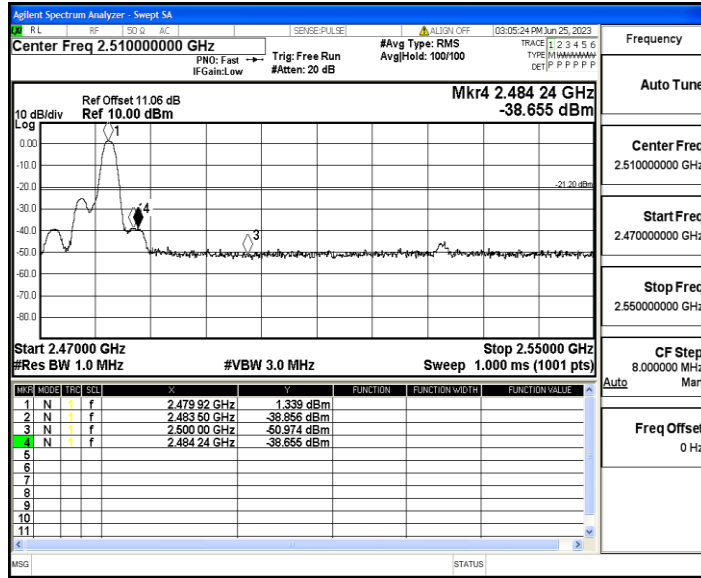


DH5\_Ant1\_High\_2480\_AV

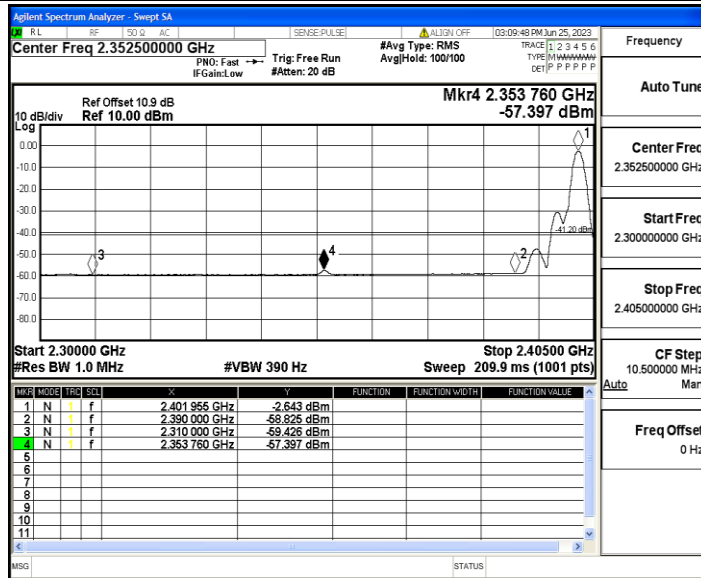


DH5\_Ant1\_High\_2480\_Peak

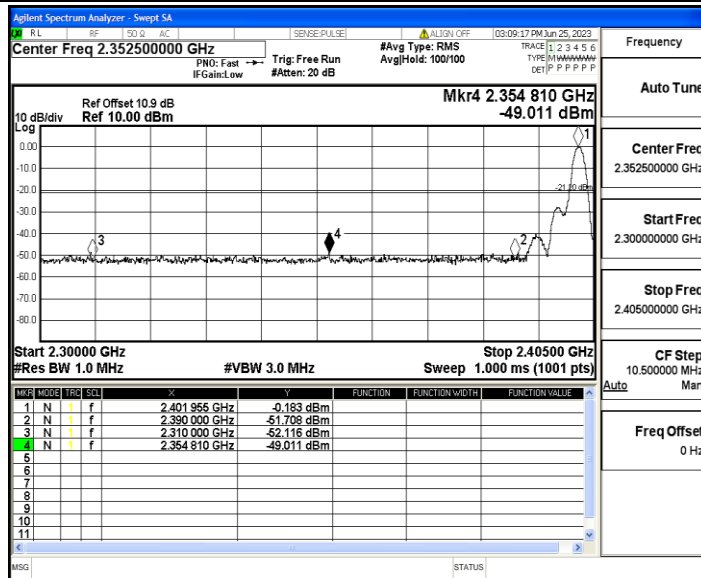




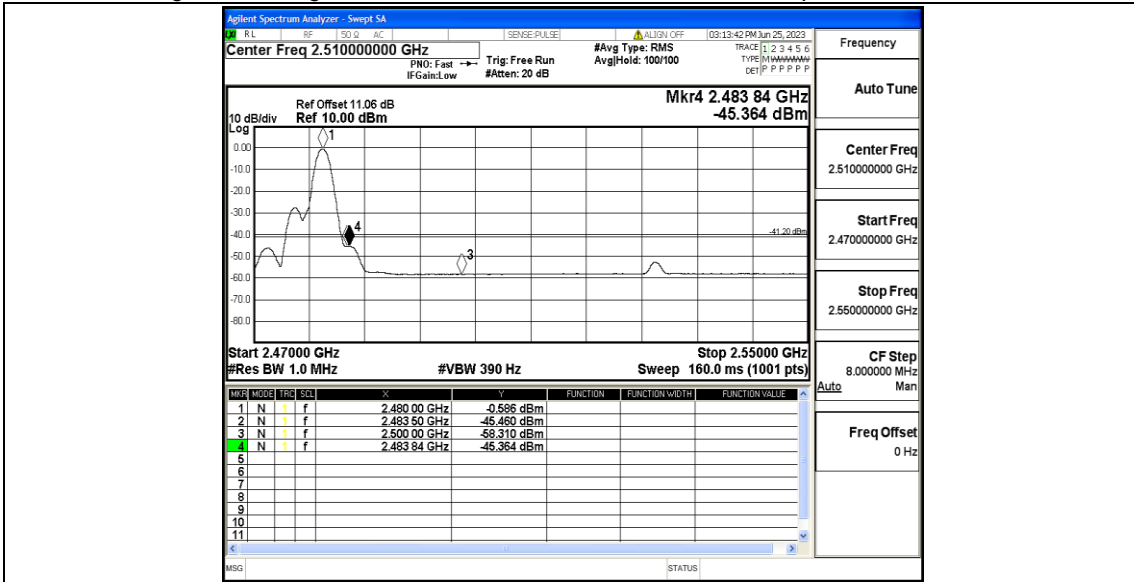
2DH5\_Ant1\_Low\_2402\_AV



2DH5\_Ant1\_Low\_2402\_Peak



2DH5\_Ant1\_High\_2480\_AV



2DH5\_Ant1\_High\_2480\_Peak

