



## Appendix A

### RF Test Data for BT (Conducted Measurement)

Product Name: HYBOOK\_PLUS

Test Model: 14CB7S01

#### Environmental Conditions

Temperature:	22.5° C
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	Li Huan

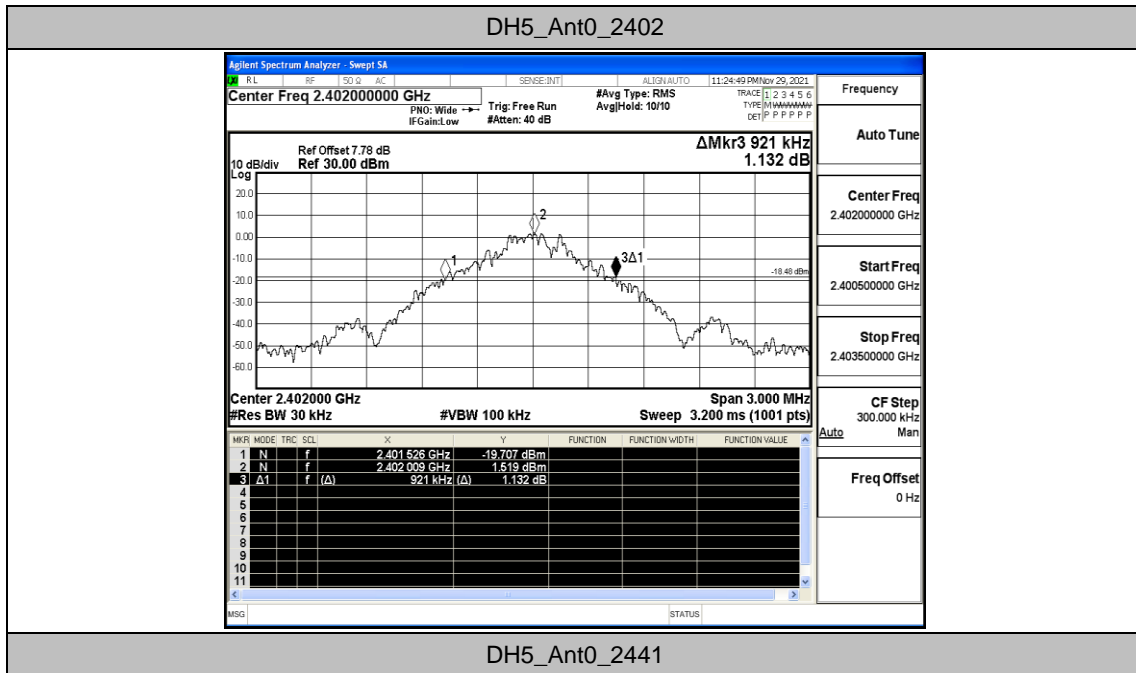


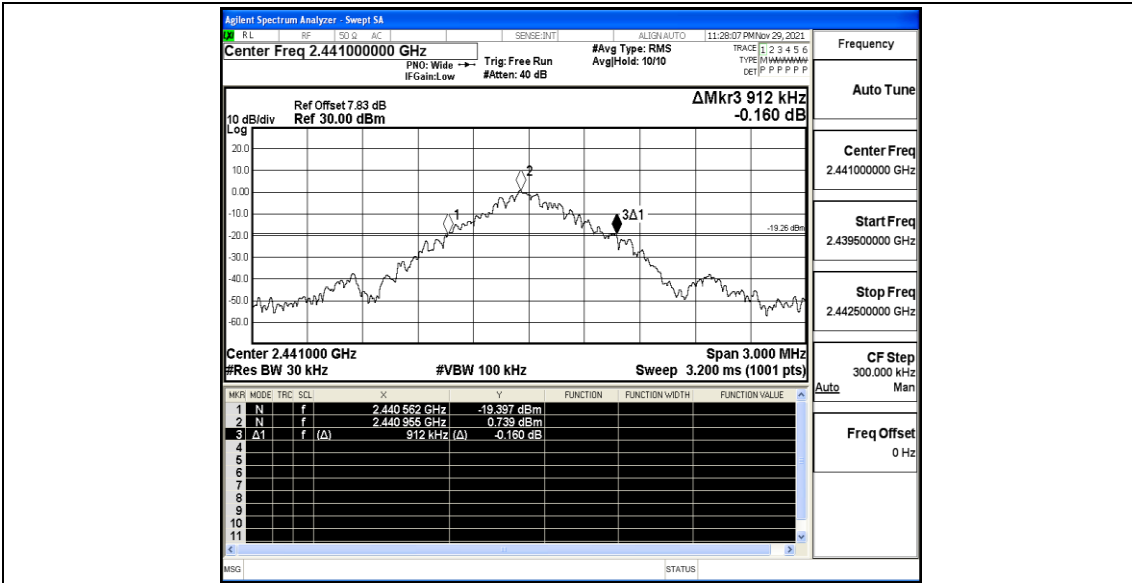
## A.1 20dB Emission Bandwidth

### Test Result

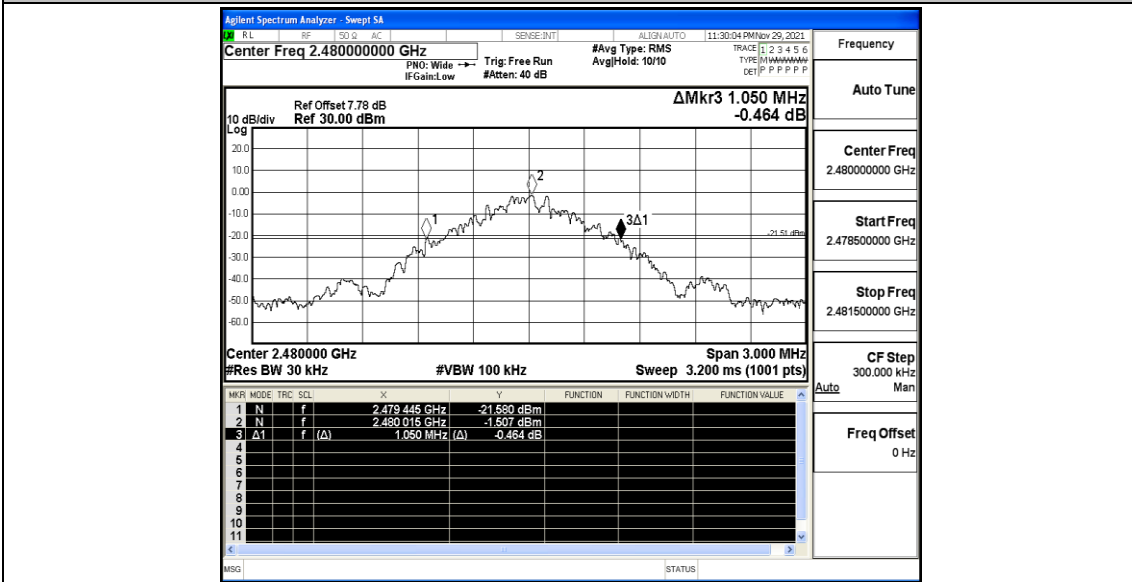
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant0	2402	0.921	2401.526	2402.447	---	PASS
		2441	0.912	2440.562	2441.474	---	PASS
		2480	1.050	2479.445	2480.495	---	PASS
2DH5	Ant0	2402	1.509	2401.229	2402.738	---	PASS
		2441	1.599	2440.214	2441.813	---	PASS
		2480	1.437	2479.265	2480.702	---	PASS
3DH5	Ant0	2402	1.485	2401.235	2402.720	---	PASS
		2441	1.401	2440.298	2441.699	---	PASS
		2480	1.479	2479.271	2480.750	---	PASS

### Test Graphs

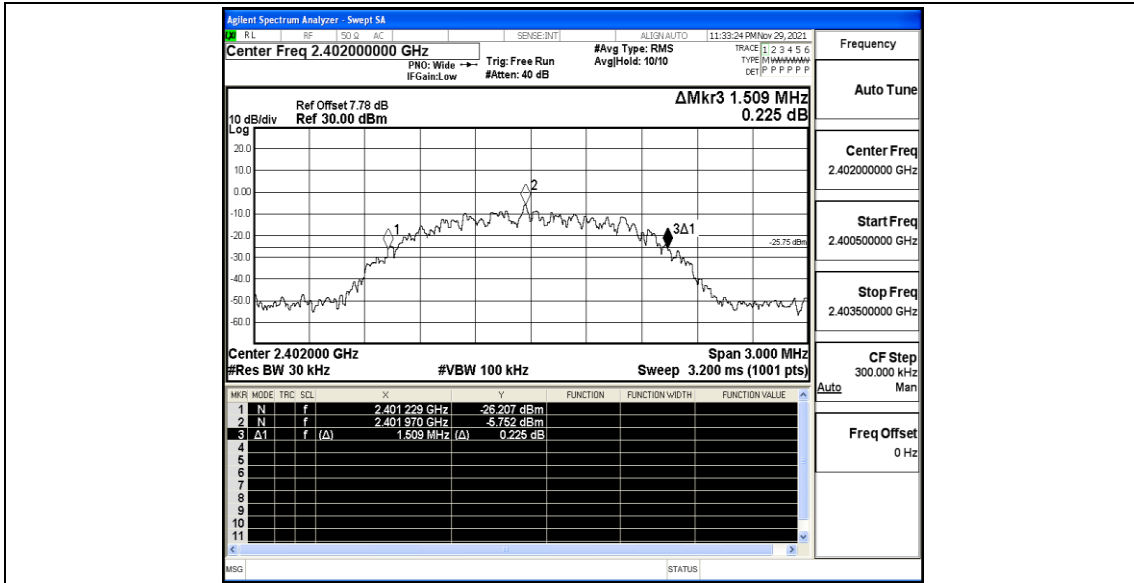




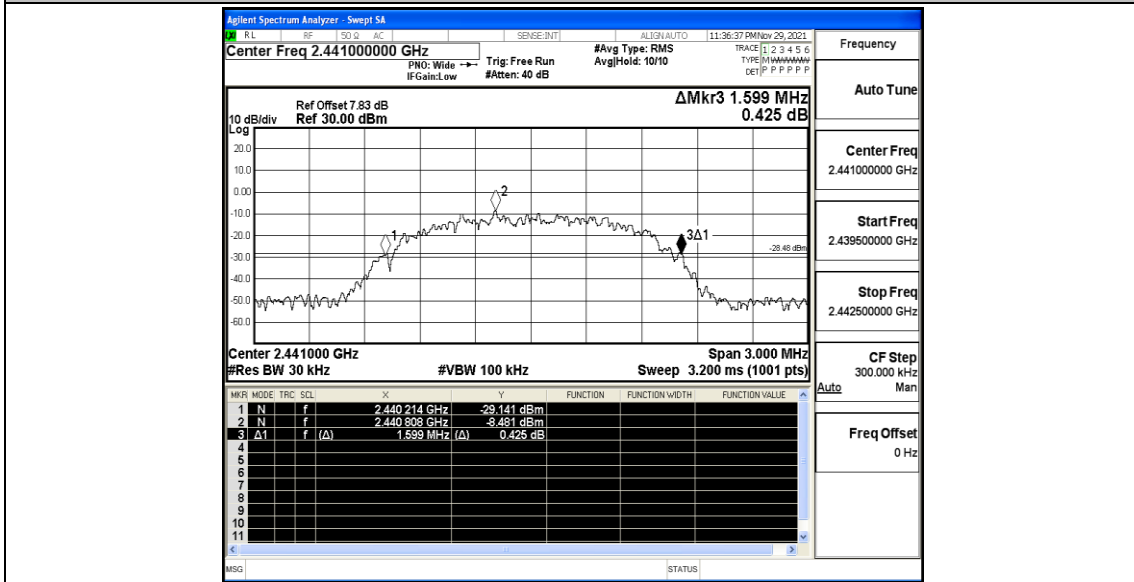
DH5\_Ant0\_2480



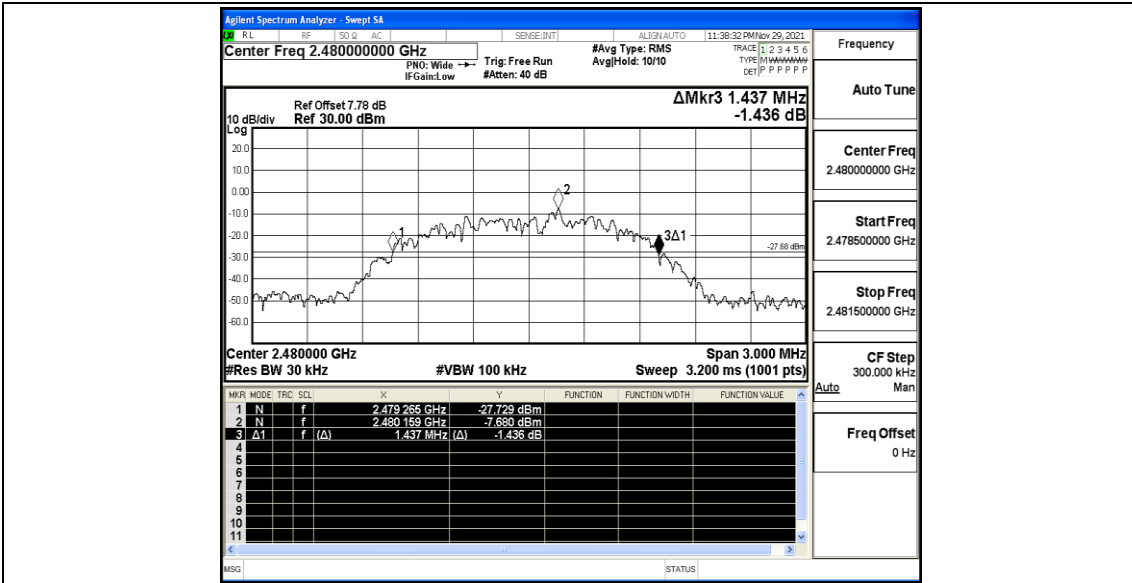
2DH5\_Ant0\_2402



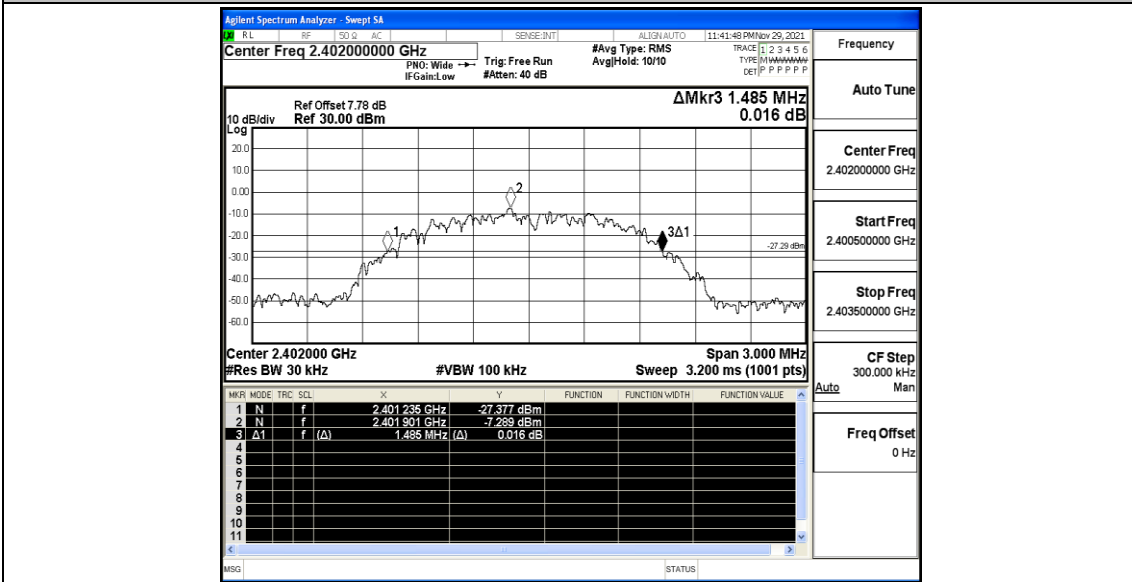
2DH5\_Ant0\_2441



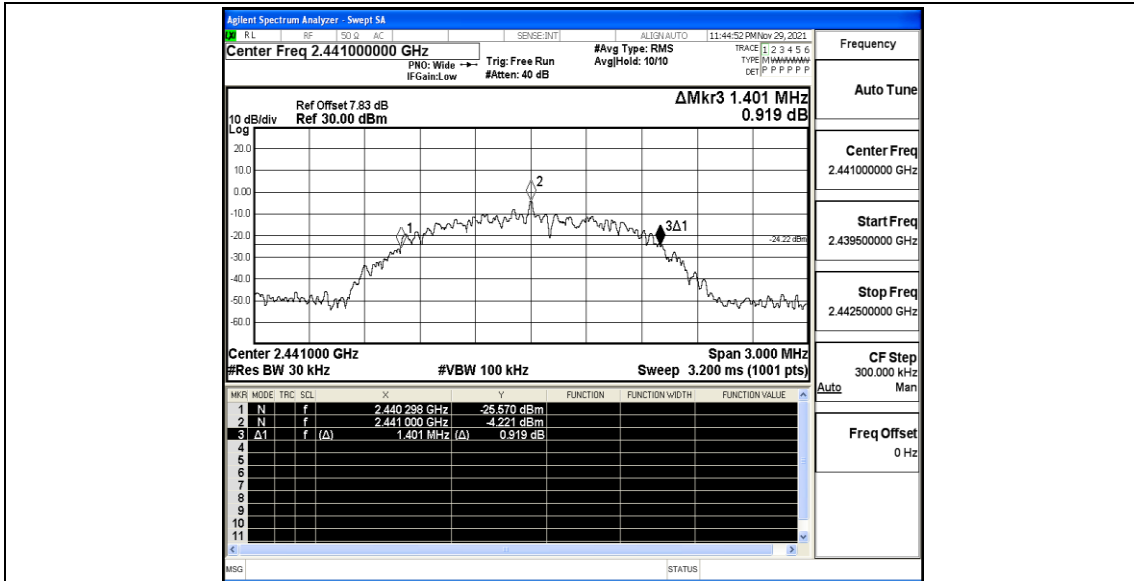
2DH5\_Ant0\_2480



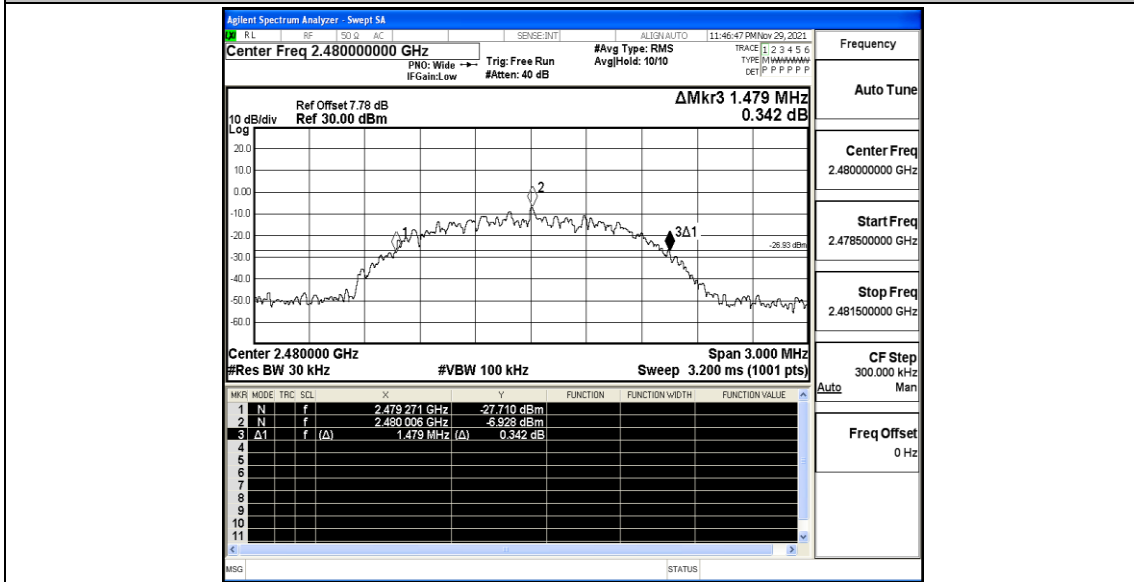
3DH5\_Ant0\_2402



3DH5\_Ant0\_2441



3DH5\_Ant0\_2480



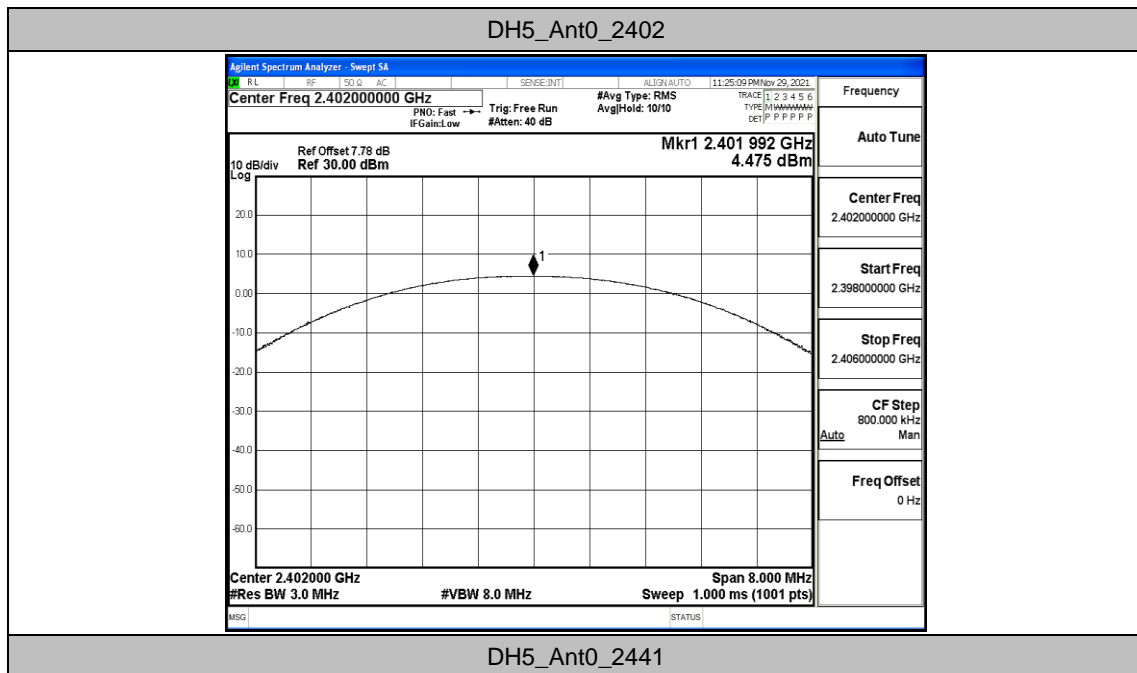


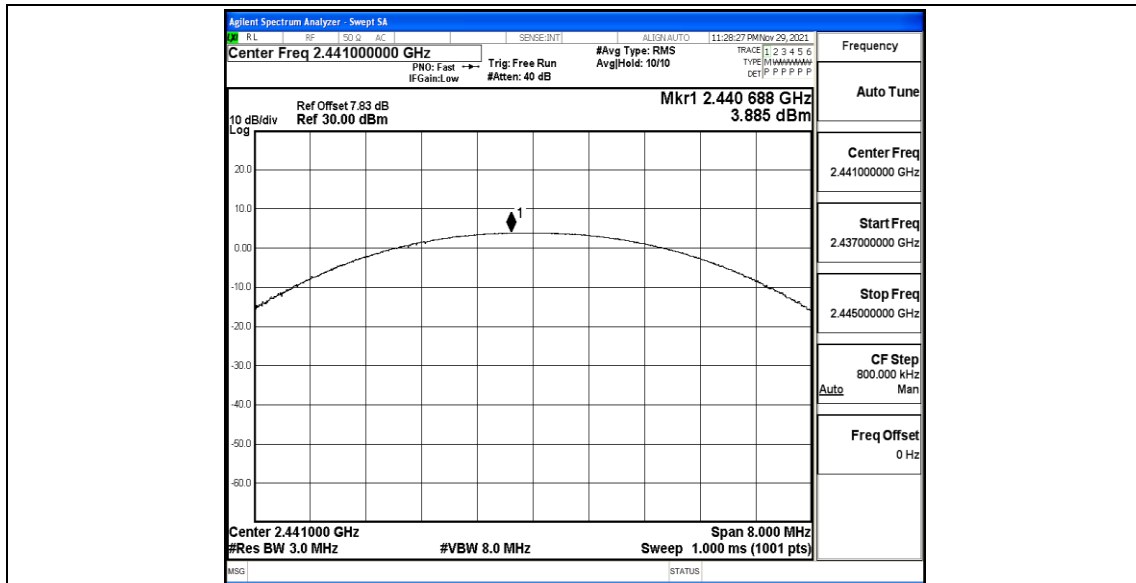
## A.2 Maximum conducted output power

### Test Result

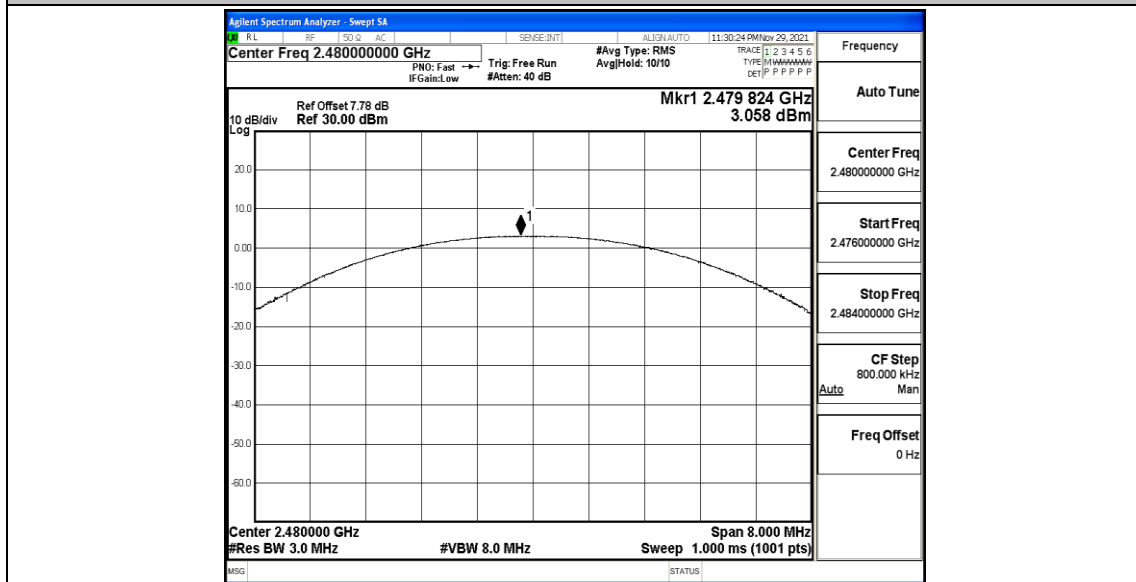
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant0	2402	4.48	≤20.97	PASS
		2441	3.89	≤20.97	PASS
		2480	3.06	≤20.97	PASS
2DH5	Ant0	2402	0.83	≤20.97	PASS
		2441	0.26	≤20.97	PASS
		2480	-0.52	≤20.97	PASS
3DH5	Ant0	2402	1.15	≤20.97	PASS
		2441	0.42	≤20.97	PASS
		2480	-0.34	≤20.97	PASS

### Test Graphs



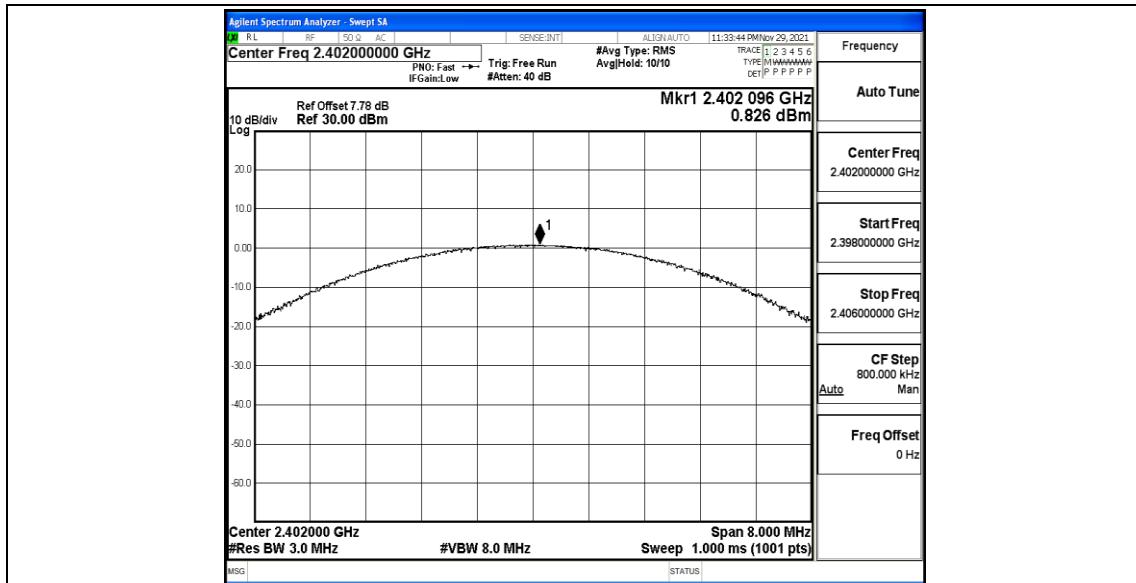


DH5\_Ant0\_2480

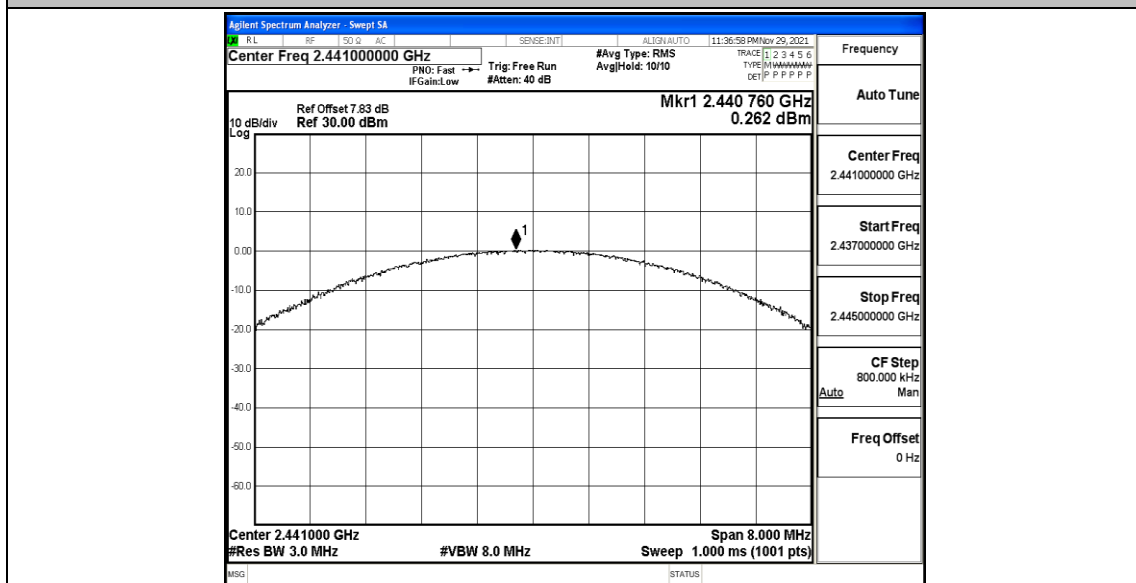


2DH5\_Ant0\_2402

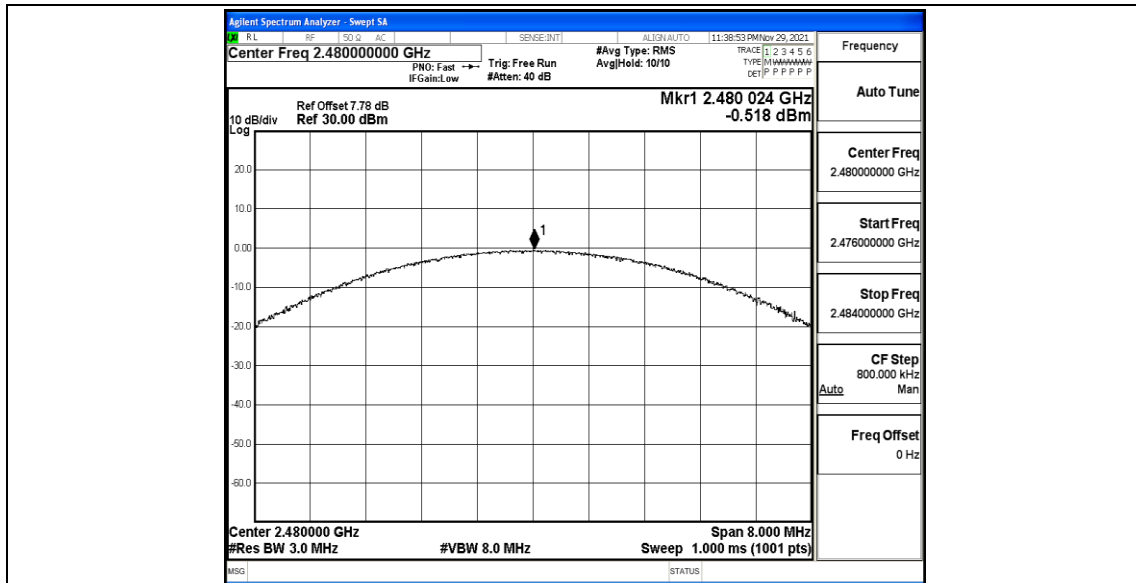




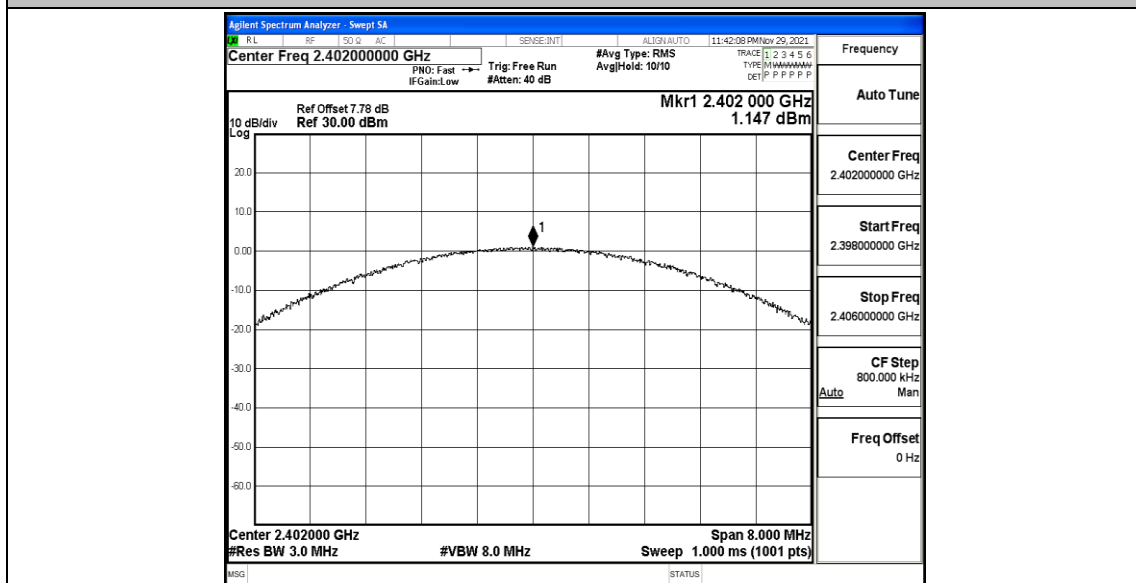
2DH5\_Ant0\_2441



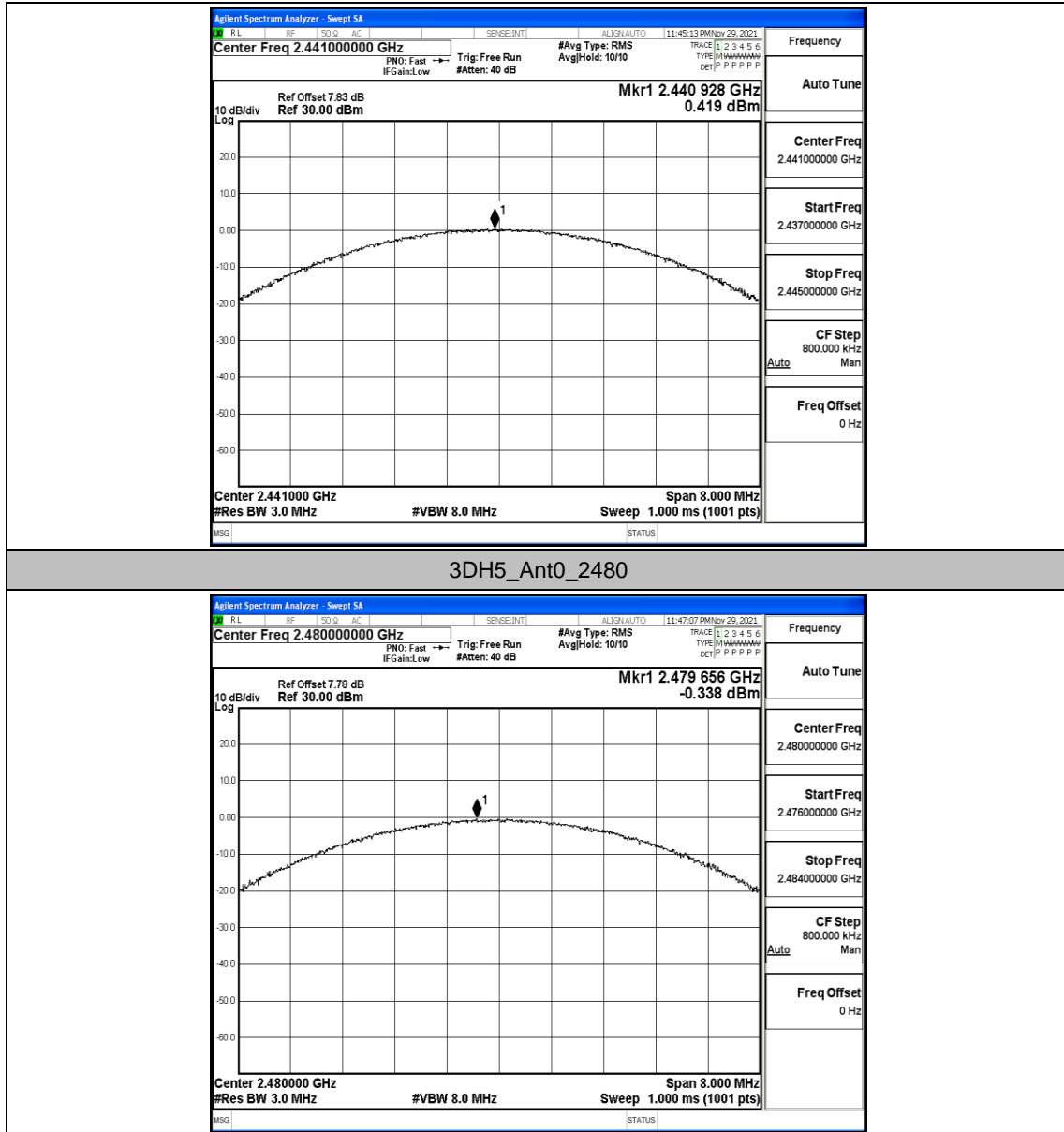
2DH5\_Ant0\_2480



3DH5\_Ant0\_2402



3DH5\_Ant0\_2441



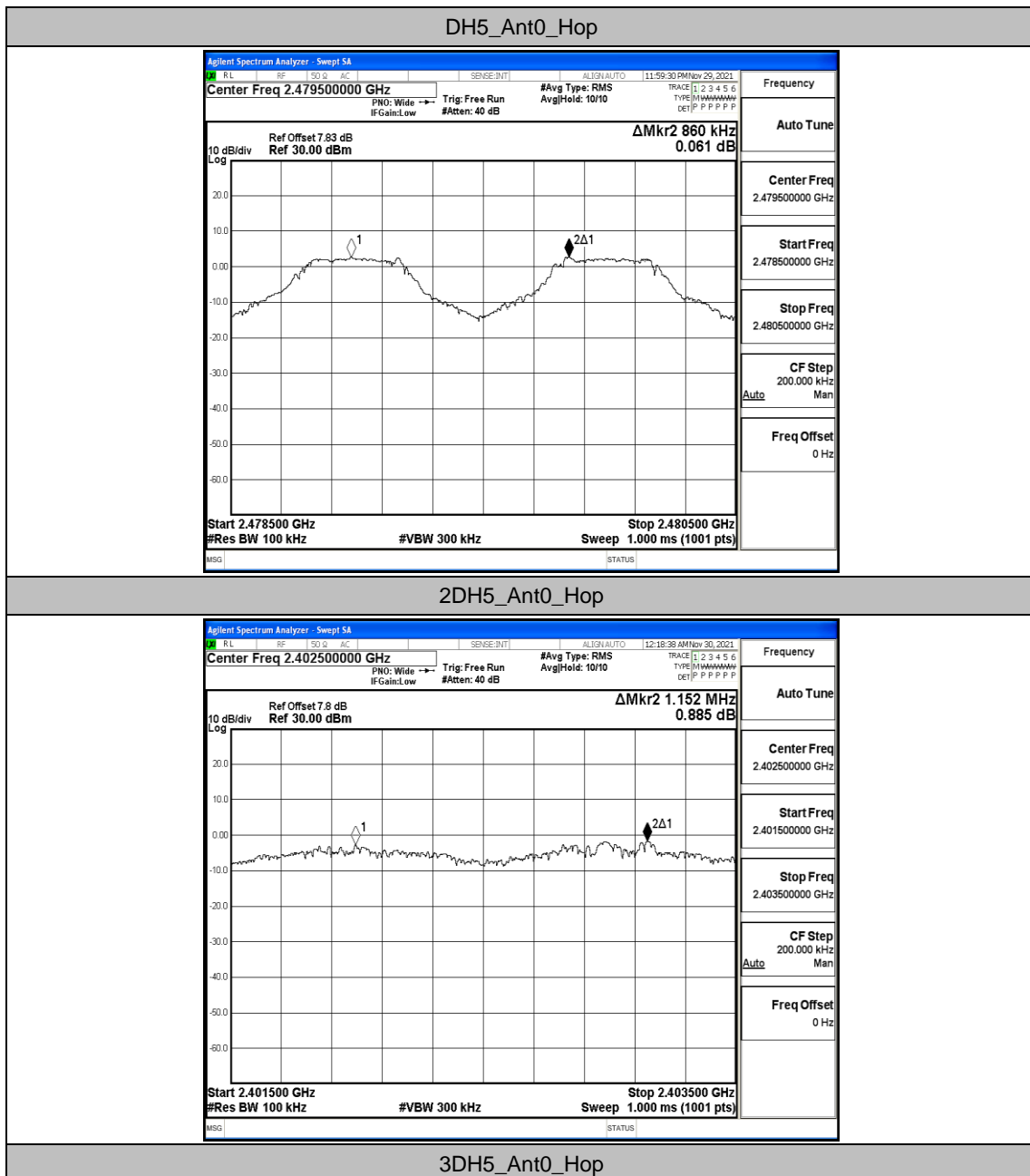


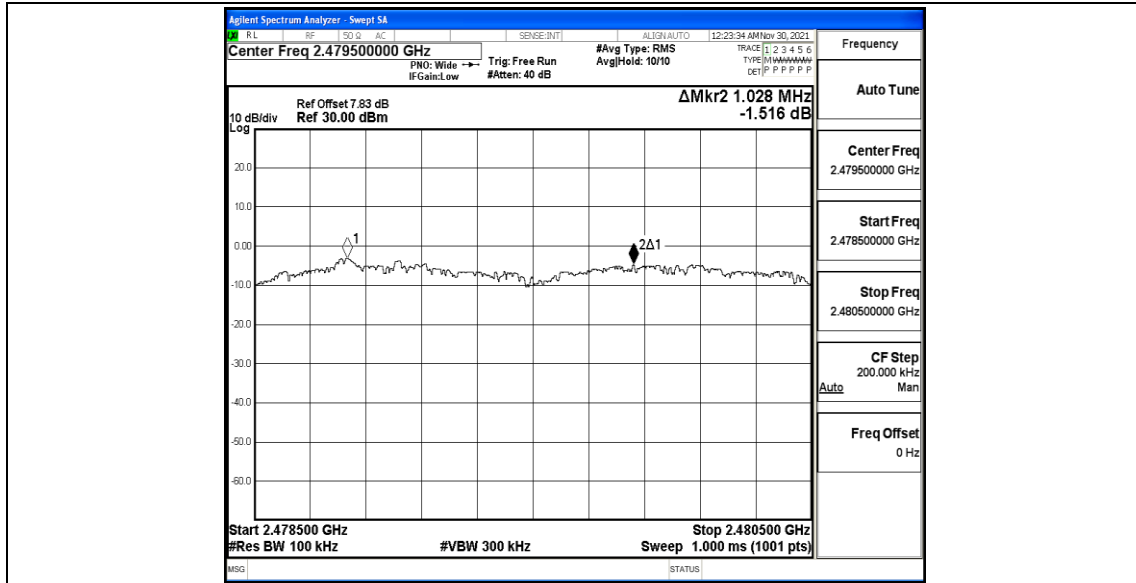
### A.3 Carrier frequency separation

#### Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant0	Hop	0.86	≥0.700	PASS
2DH5	Ant0	Hop	1.152	≥1.066	PASS
3DH5	Ant0	Hop	1.028	≥0.990	PASS

#### Test Graphs





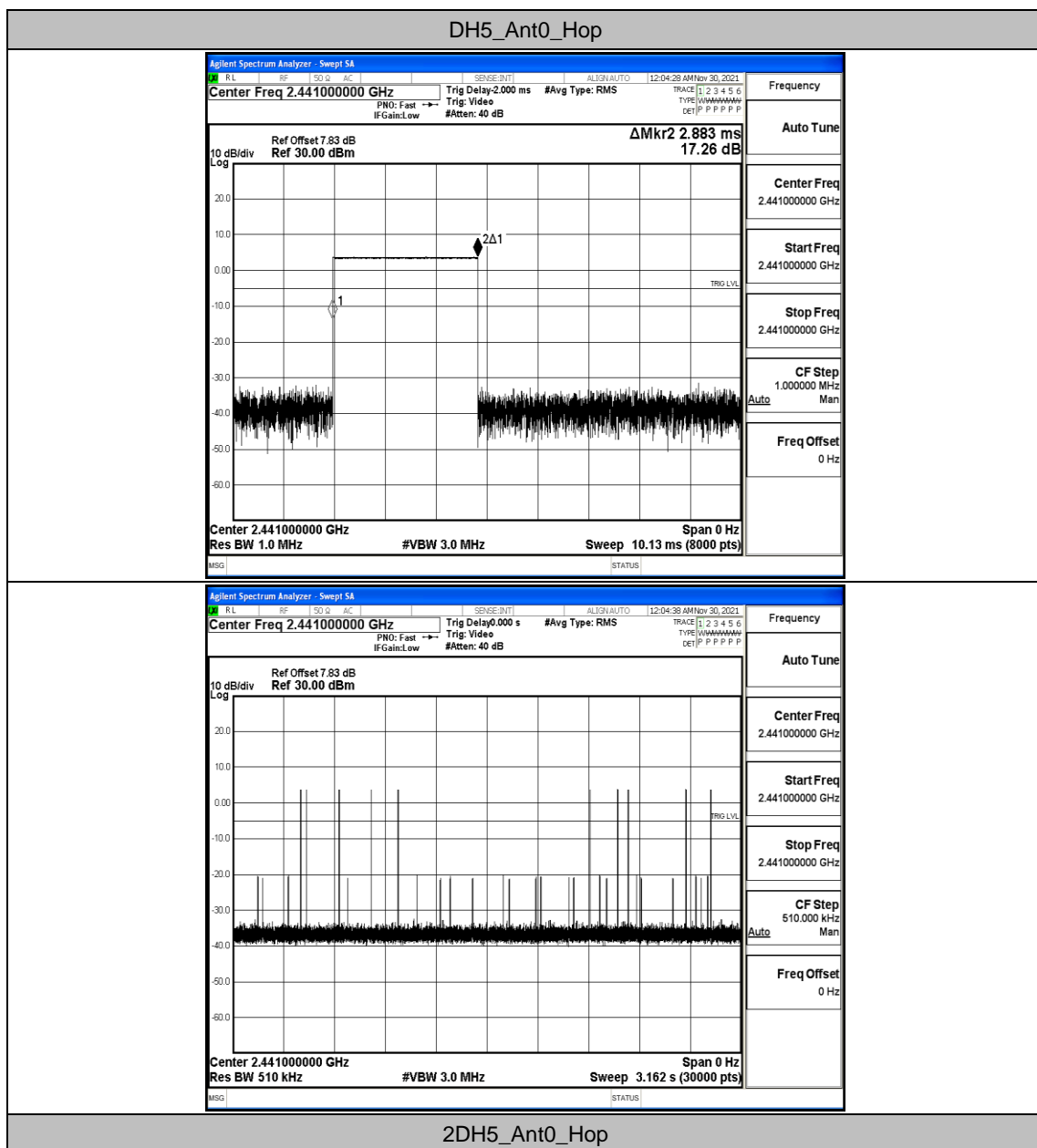


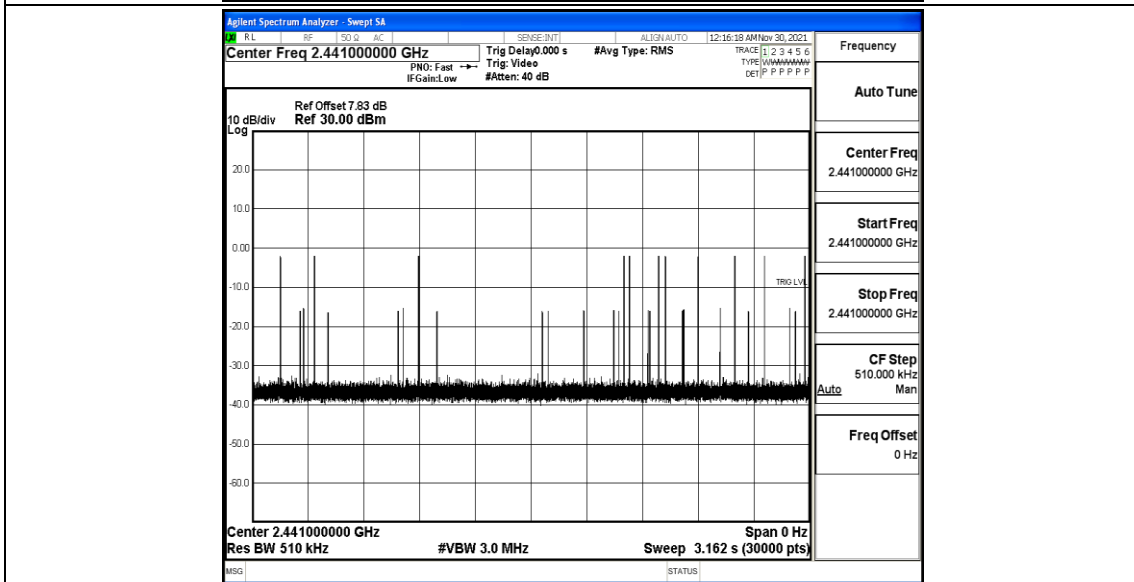
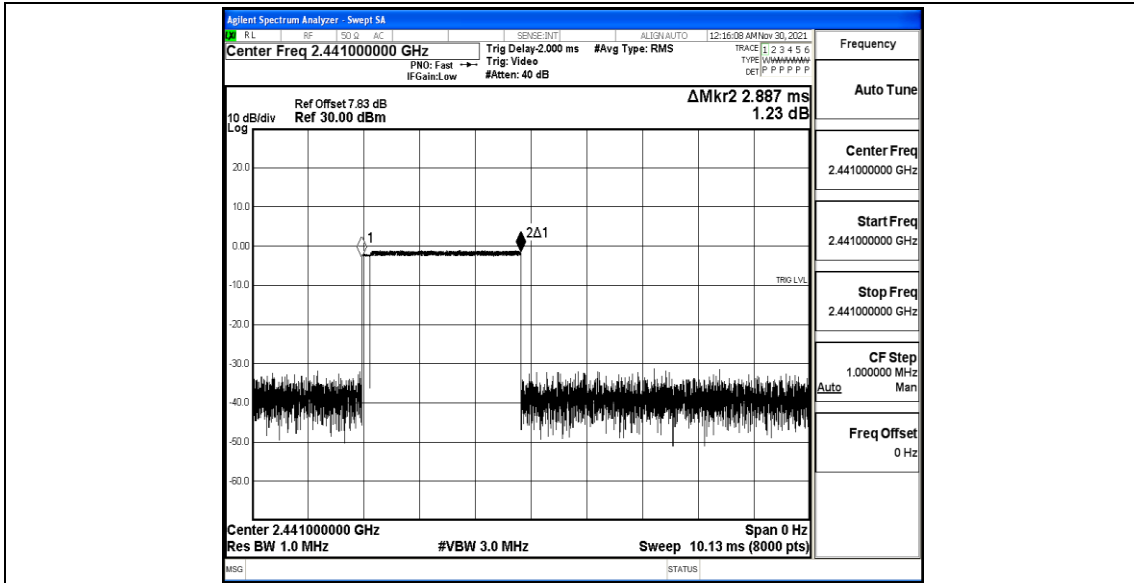
## A.4 Time of occupancy

### Test Result

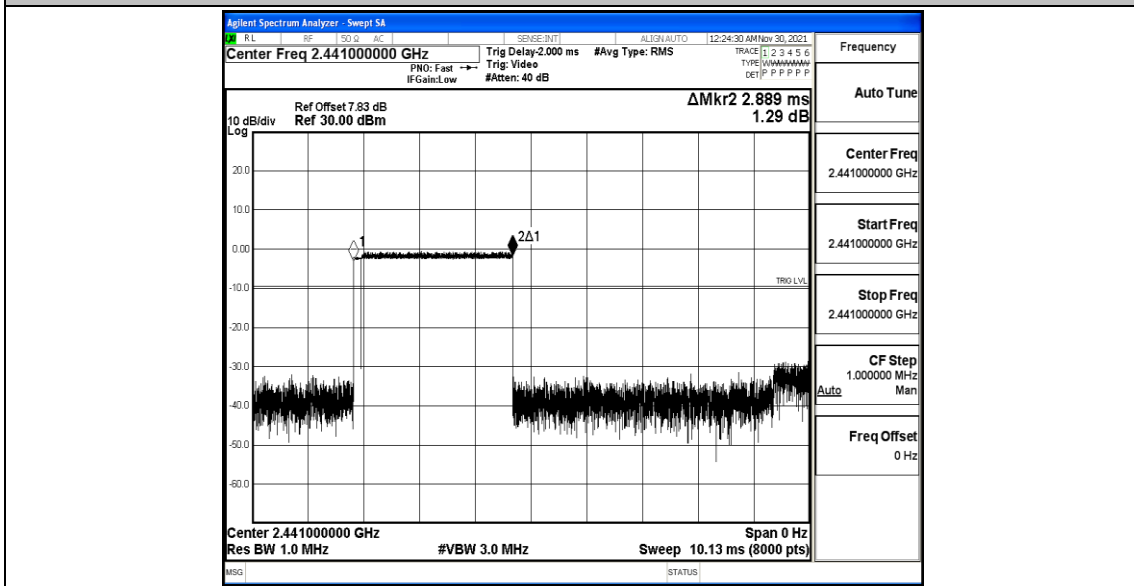
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant0	Hop	2.88	110	0.317	≤0.4	PASS
2DH5	Ant0	Hop	2.89	120	0.346	≤0.4	PASS
3DH5	Ant0	Hop	2.89	100	0.289	≤0.4	PASS

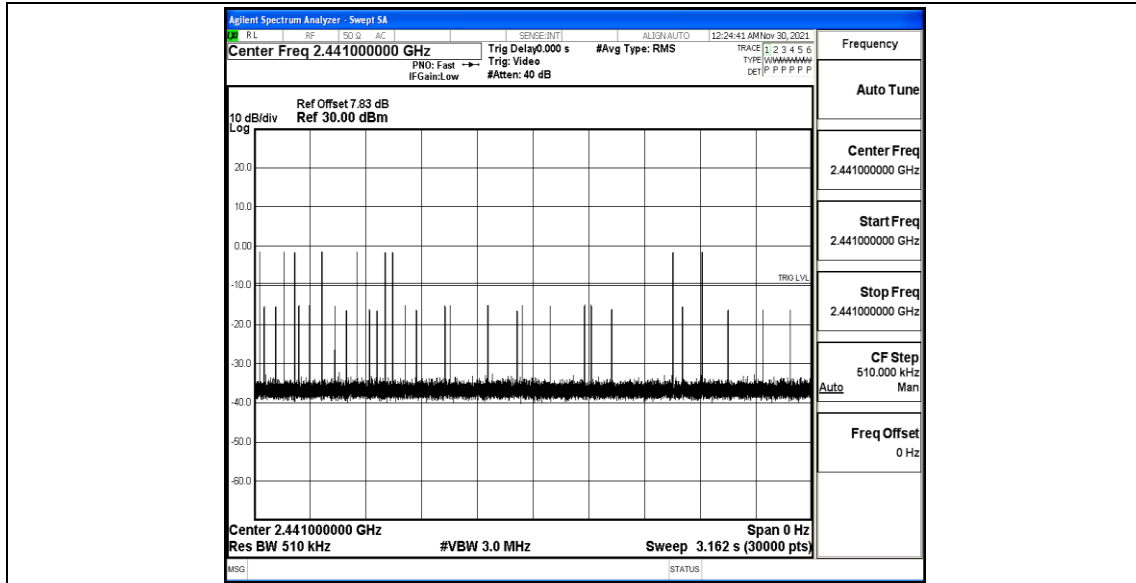
### Test Graphs





3DH5\_Ant0\_Hop







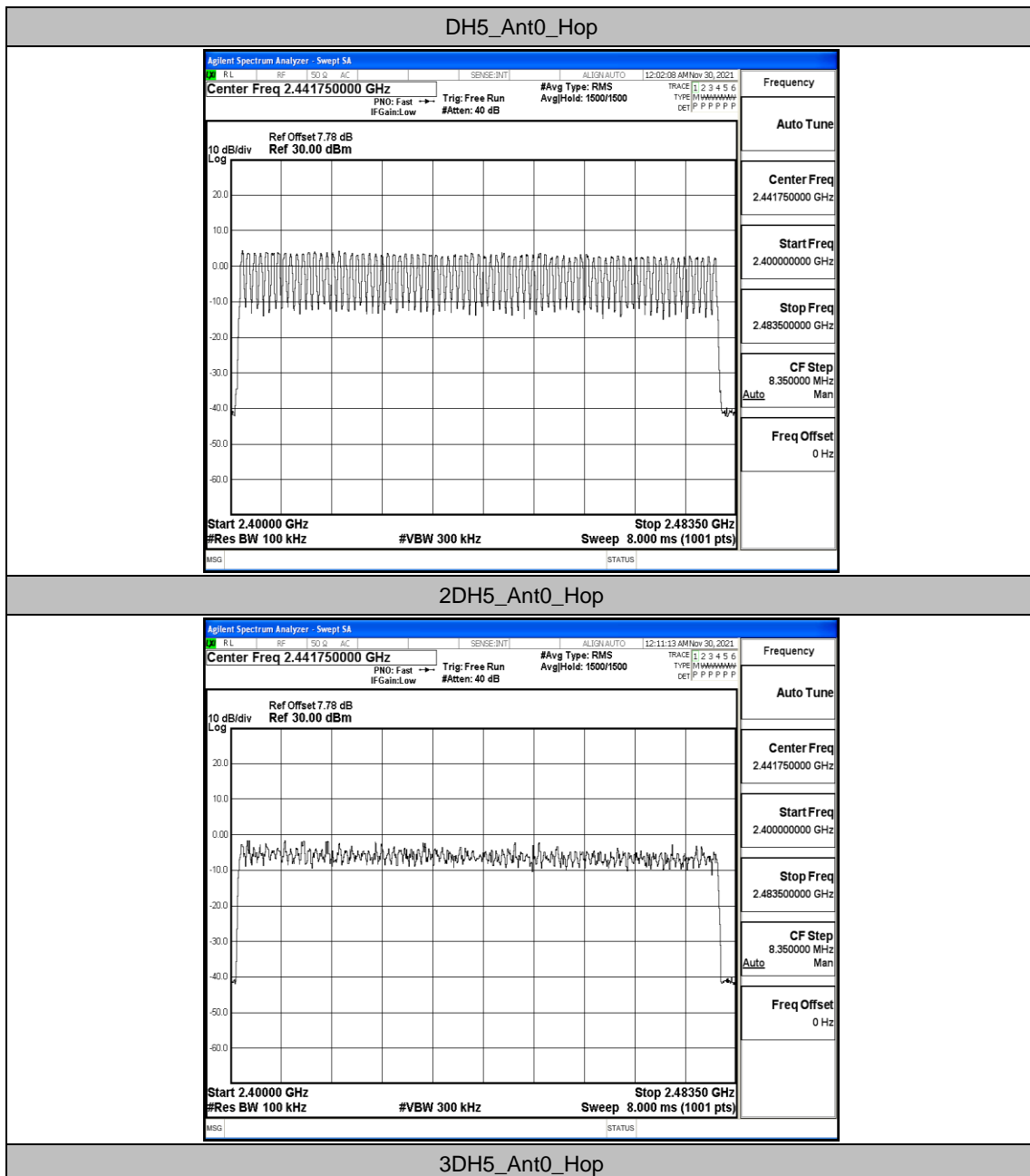


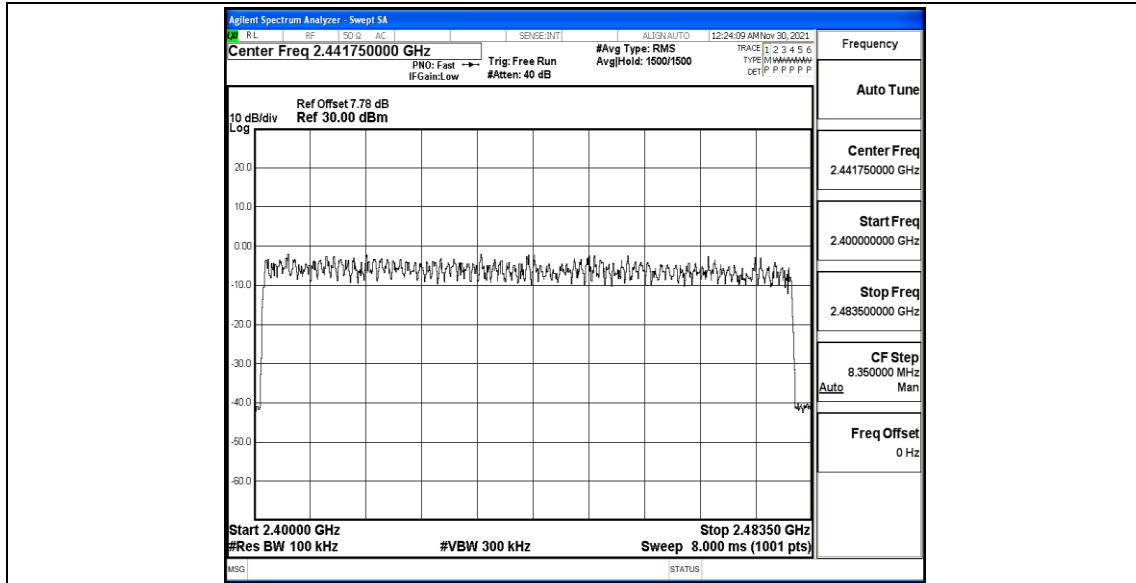
## A.5 Number of hopping channels

### Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant0	Hop	79	≥15	PASS
2DH5	Ant0	Hop	79	≥15	PASS
3DH5	Ant0	Hop	79	≥15	PASS

### Test Graphs







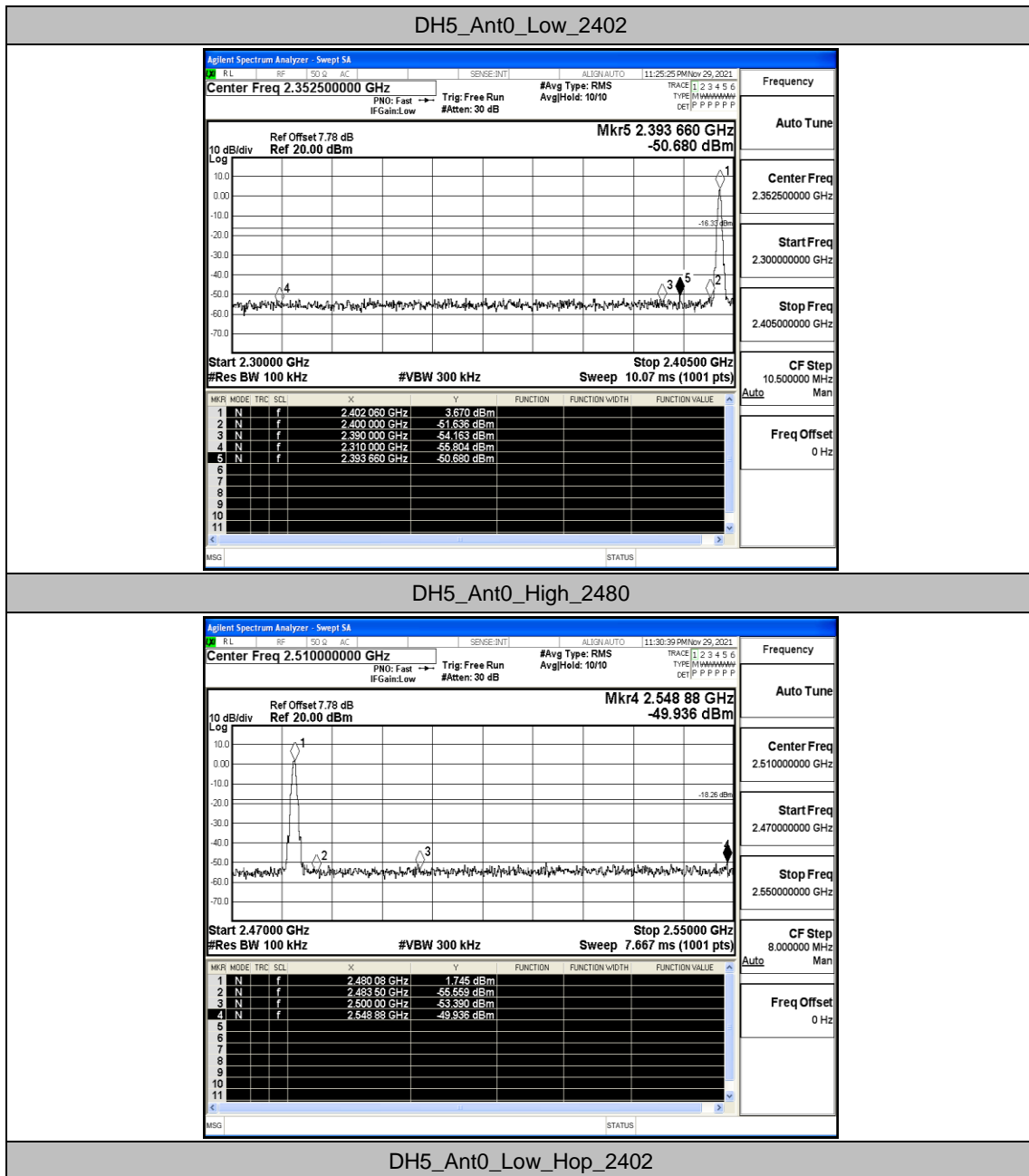
## A.6 Band edge measurements

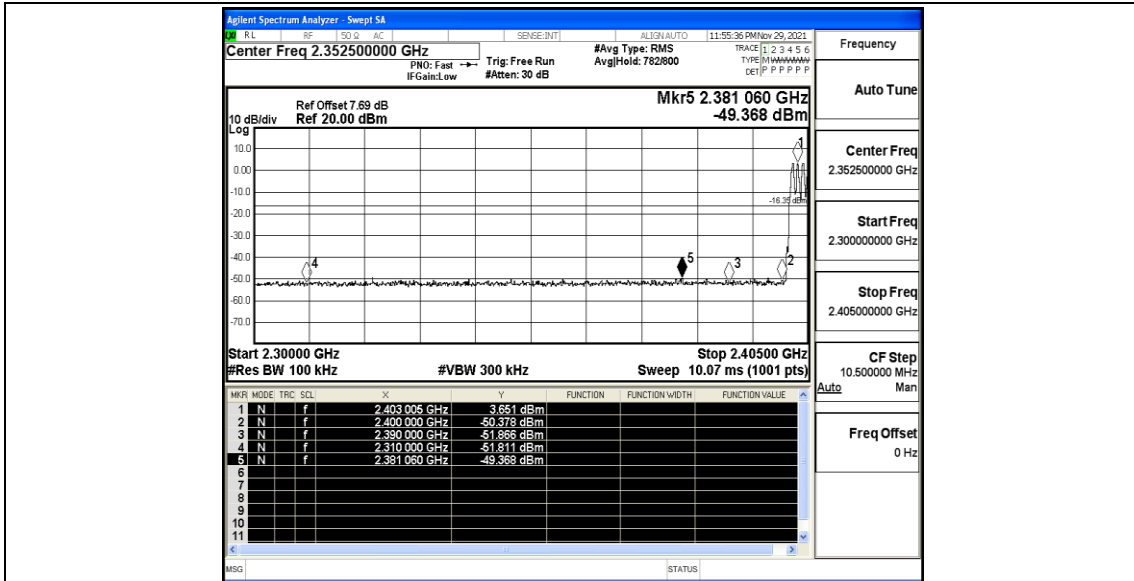
### Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant0	Low	2402	3.67	-50.68	≤-16.33	PASS
		High	2480	1.75	-49.94	≤-18.26	PASS
		Low	Hop_2402	3.65	-49.37	≤-16.35	PASS
		High	Hop_2480	2.66	-48.42	≤-17.34	PASS
2DH5	Ant0	Low	2402	-1.74	-49.9	≤-21.74	PASS
		High	2480	-5.81	-49.96	≤-25.81	PASS
		Low	Hop_2402	-2.41	-49.94	≤-22.41	PASS
		High	Hop_2480	-3.40	-48.21	≤-23.4	PASS
3DH5	Ant0	Low	2402	-2.79	-50.73	≤-22.79	PASS
		High	2480	-4.51	-50.78	≤-24.51	PASS
		Low	Hop_2402	-2.69	-49.89	≤-22.69	PASS
		High	Hop_2480	-2.80	-48.91	≤-22.8	PASS

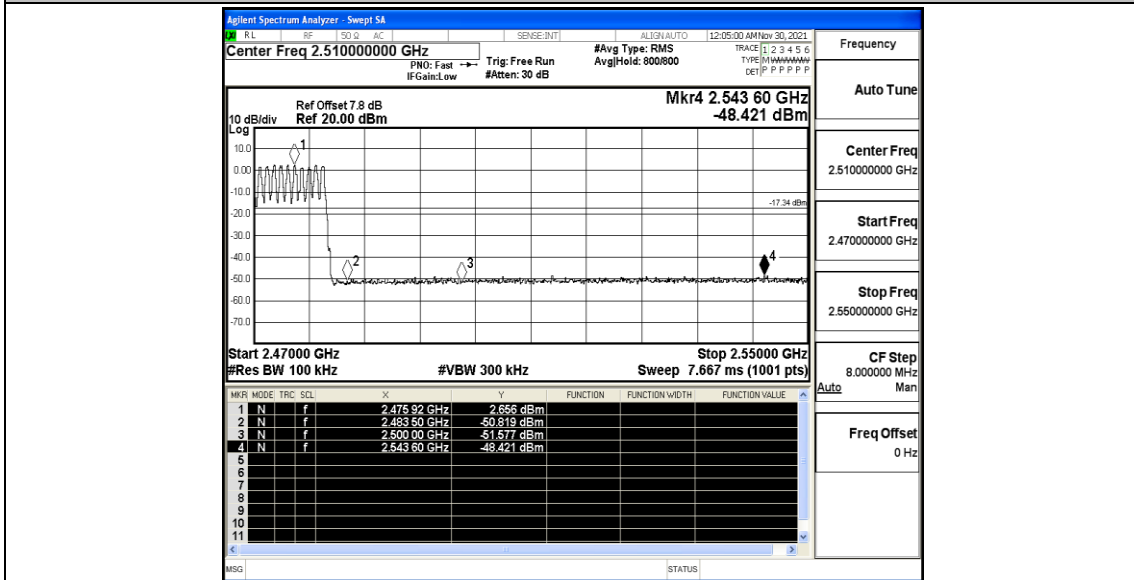


### Test Graphs

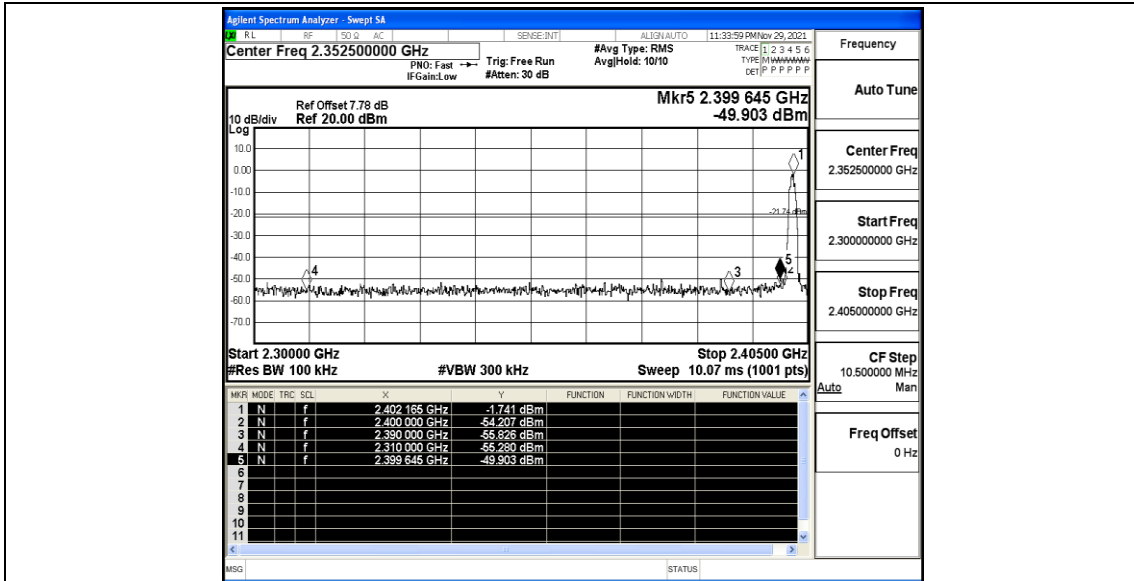




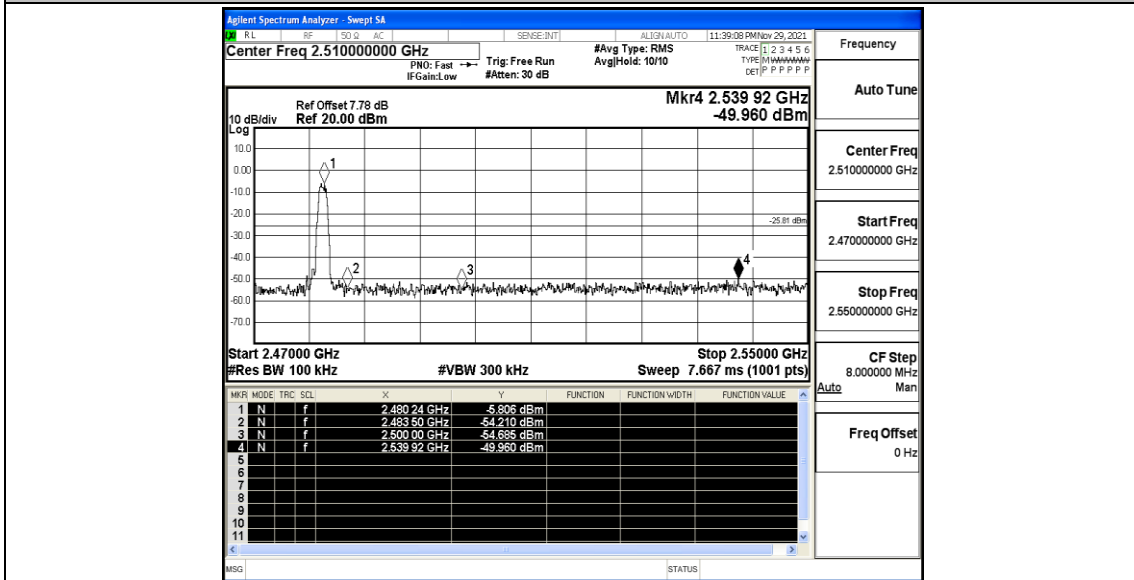
DH5\_Ant0\_High\_Hop\_2480



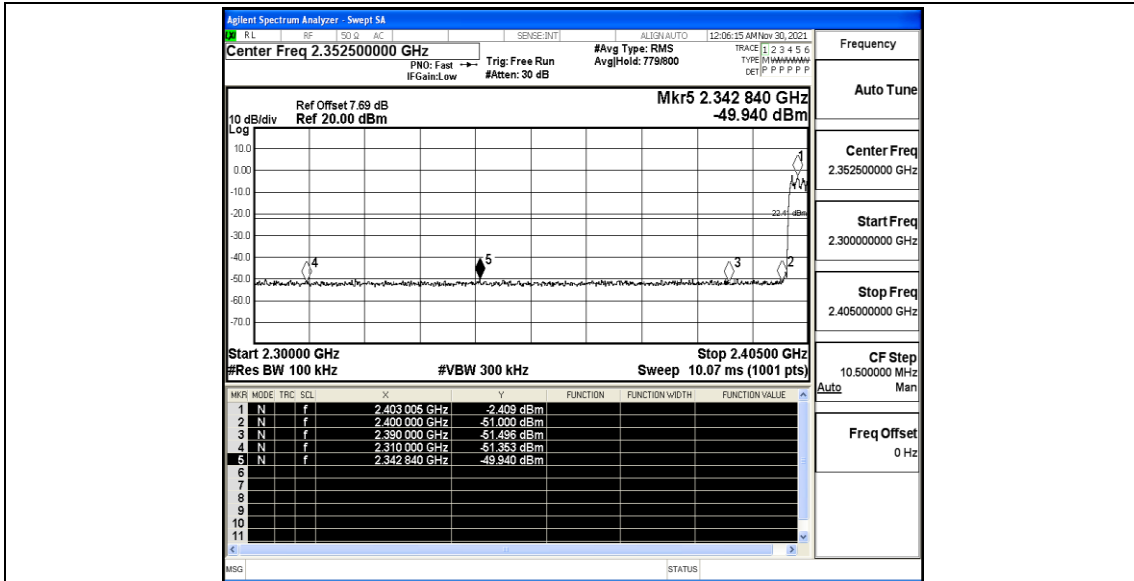
2DH5\_Ant0\_Low\_2402



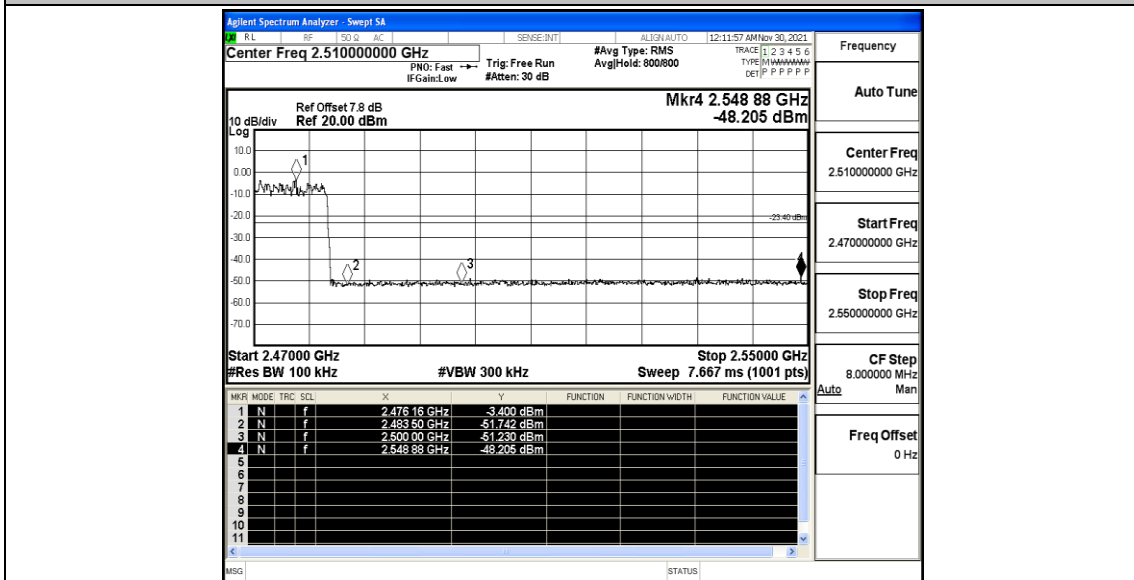
2DH5\_Ant0\_High\_2480



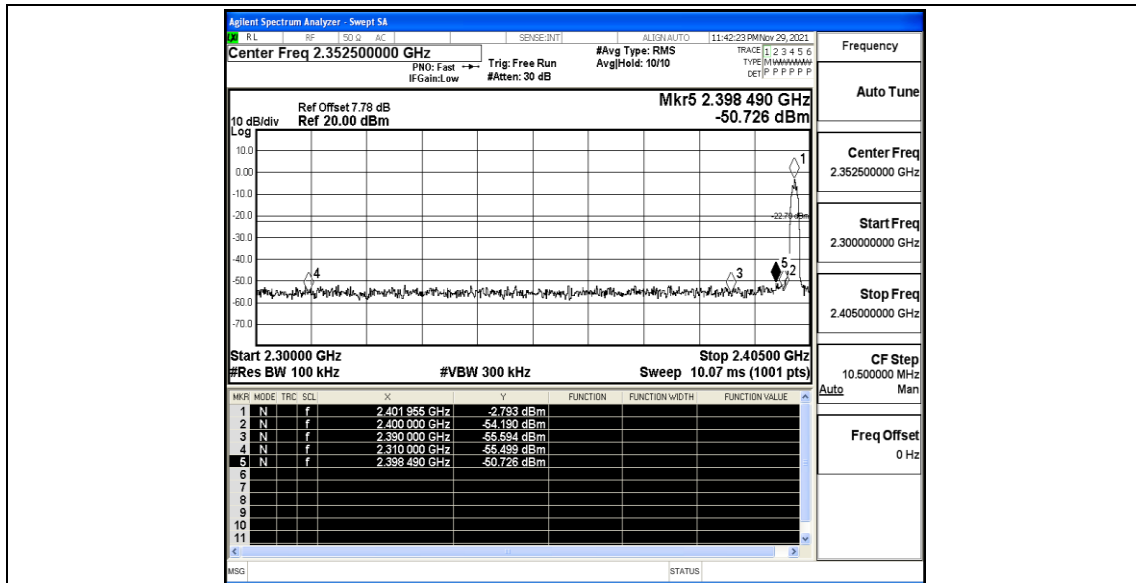
2DH5\_Ant0\_Low\_Hop\_2402



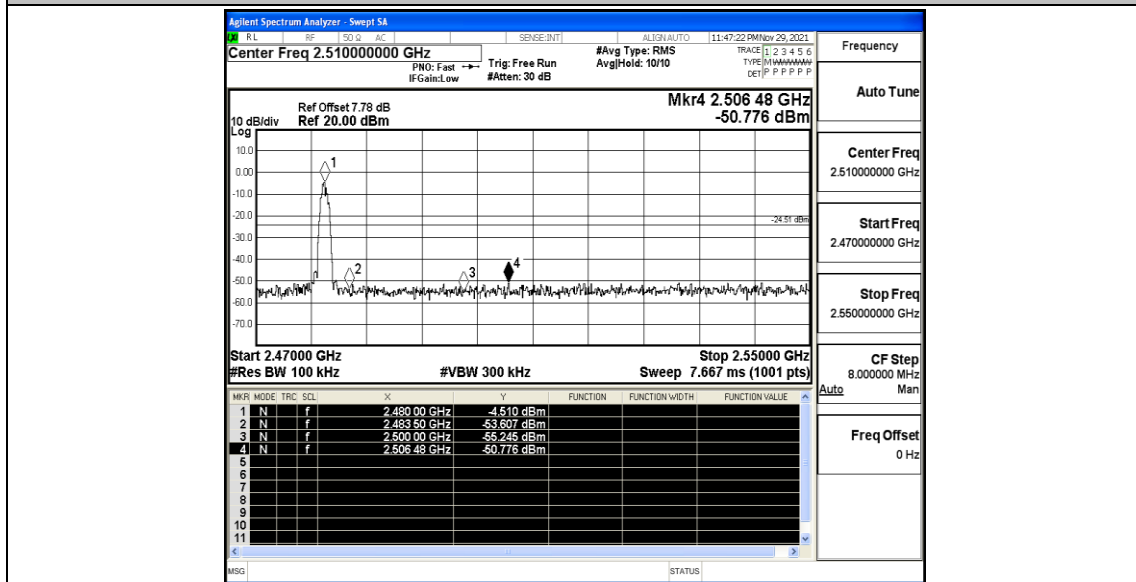
2DH5\_Ant0\_High\_Hop\_2480



3DH5\_Ant0\_Low\_2402

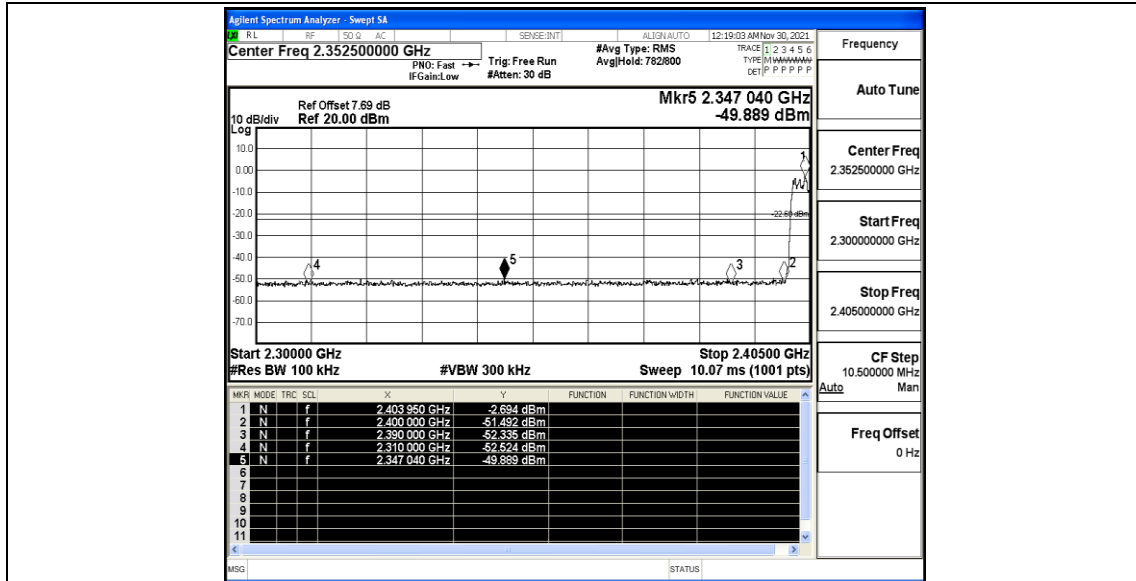


3DH5\_Ant0\_High\_2480

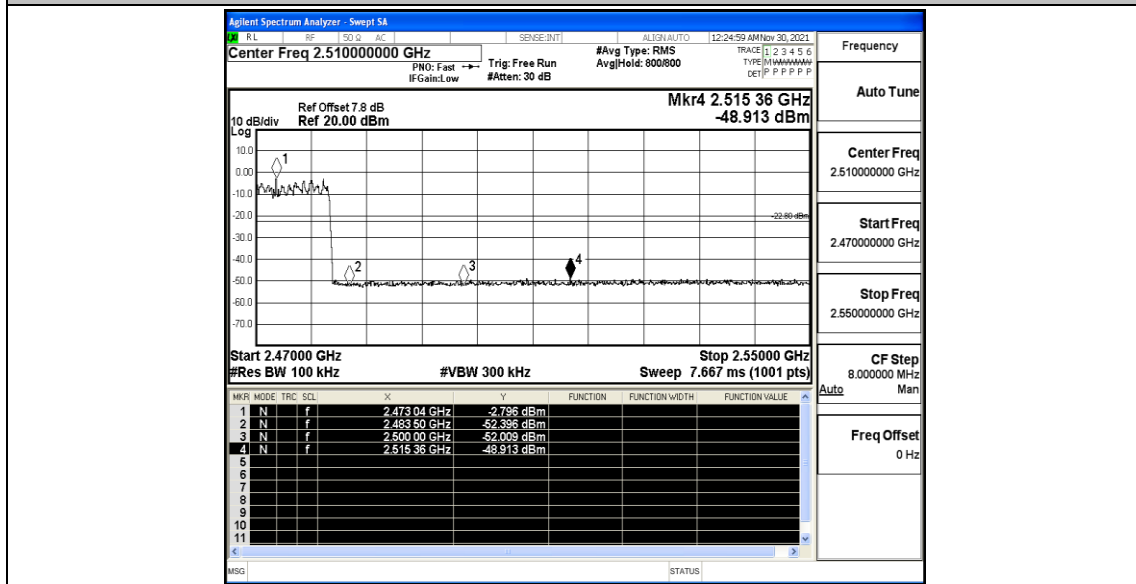


3DH5\_Ant0\_Low\_Hop\_2402





3DH5\_Ant0\_High\_Hop\_2480





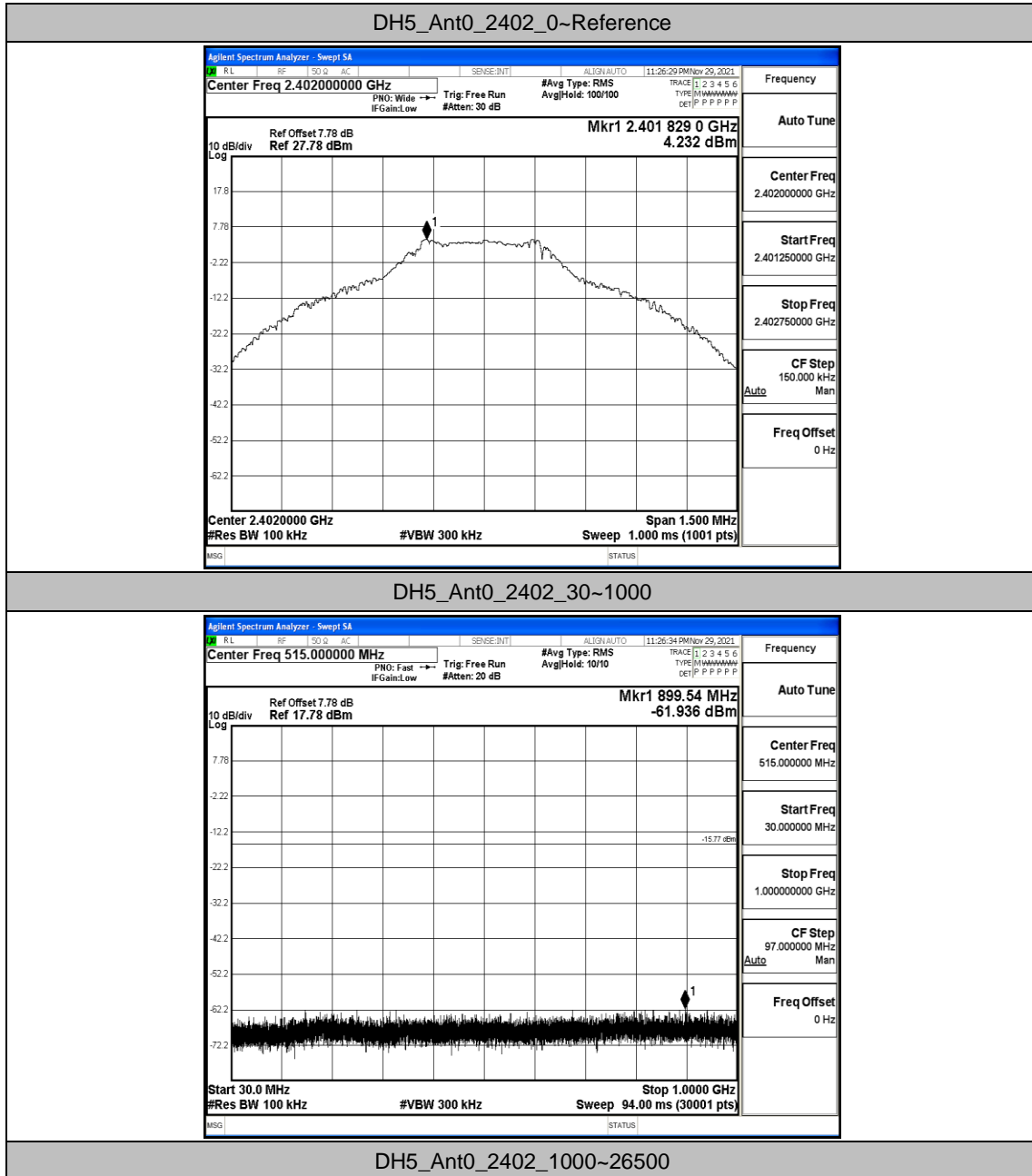
## A.7 Conducted Spurious Emission

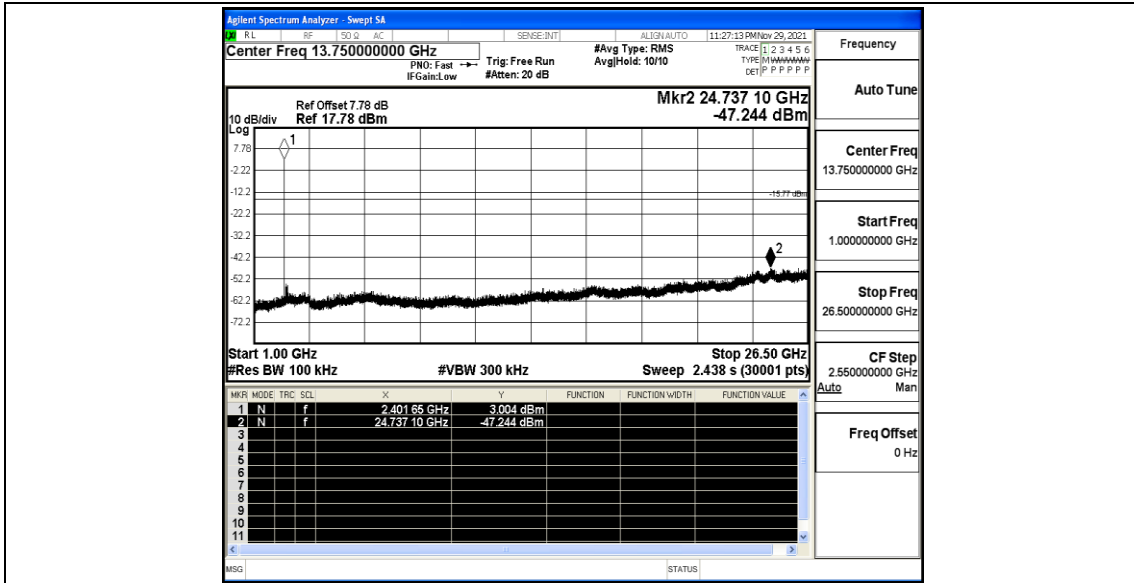
### Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant0	2402	Reference	4.23	4.23	---	PASS
			30~1000	4.23	-61.94	≤-15.77	PASS
			1000~26500	4.23	-47.24	≤-15.77	PASS
		2441	Reference	3.06	3.06	---	PASS
			30~1000	3.06	-61.48	≤-16.94	PASS
			1000~26500	3.06	-46.78	≤-16.94	PASS
		2480	Reference	2.63	2.63	---	PASS
			30~1000	2.63	-61.78	≤-17.37	PASS
			1000~26500	2.63	-46.95	≤-17.37	PASS
2DH5	Ant0	2402	Reference	-2.87	-2.87	---	PASS
			30~1000	-2.87	-62.11	≤-22.87	PASS
			1000~26500	-2.87	-47.32	≤-22.87	PASS
		2441	Reference	-4.06	-4.06	---	PASS
			30~1000	-4.06	-62.3	≤-24.06	PASS
			1000~26500	-4.06	-47.21	≤-24.06	PASS
		2480	Reference	-4.07	-4.07	---	PASS
			30~1000	-4.07	-61.37	≤-24.07	PASS
			1000~26500	-4.07	-46.75	≤-24.07	PASS
3DH5	Ant0	2402	Reference	-1.69	-1.69	---	PASS
			30~1000	-1.69	-60.94	≤-21.69	PASS
			1000~26500	-1.69	-47.3	≤-21.69	PASS
		2441	Reference	-3.95	-3.95	---	PASS
			30~1000	-3.95	-61.46	≤-23.95	PASS
			1000~26500	-3.95	-46.63	≤-23.95	PASS
		2480	Reference	-3.37	-3.37	---	PASS
			30~1000	-3.37	-61.65	≤-23.37	PASS
			1000~26500	-3.37	-47.21	≤-23.37	PASS

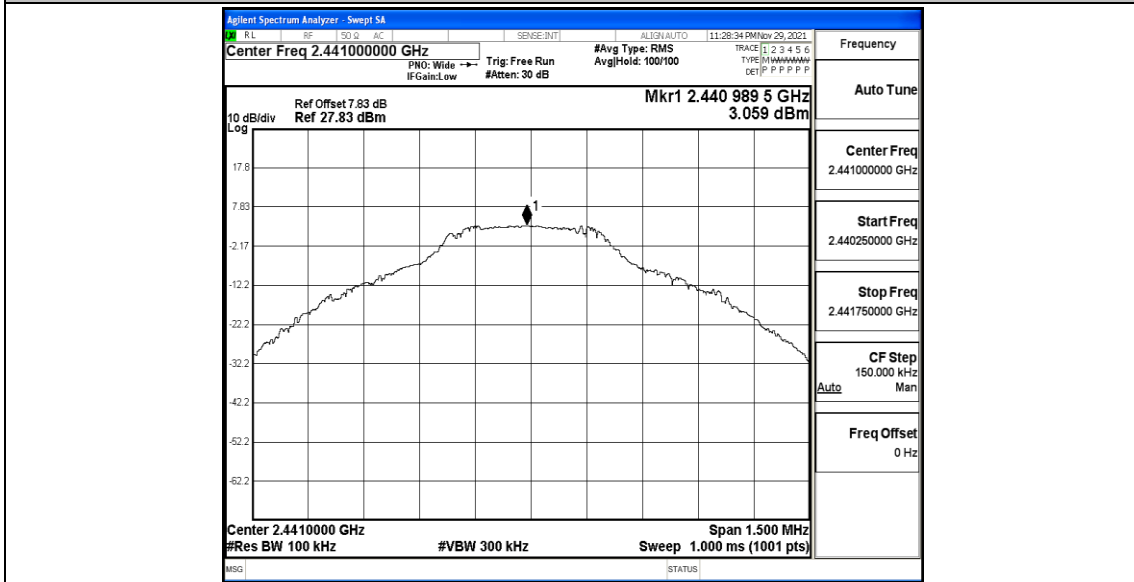


### Test Graphs

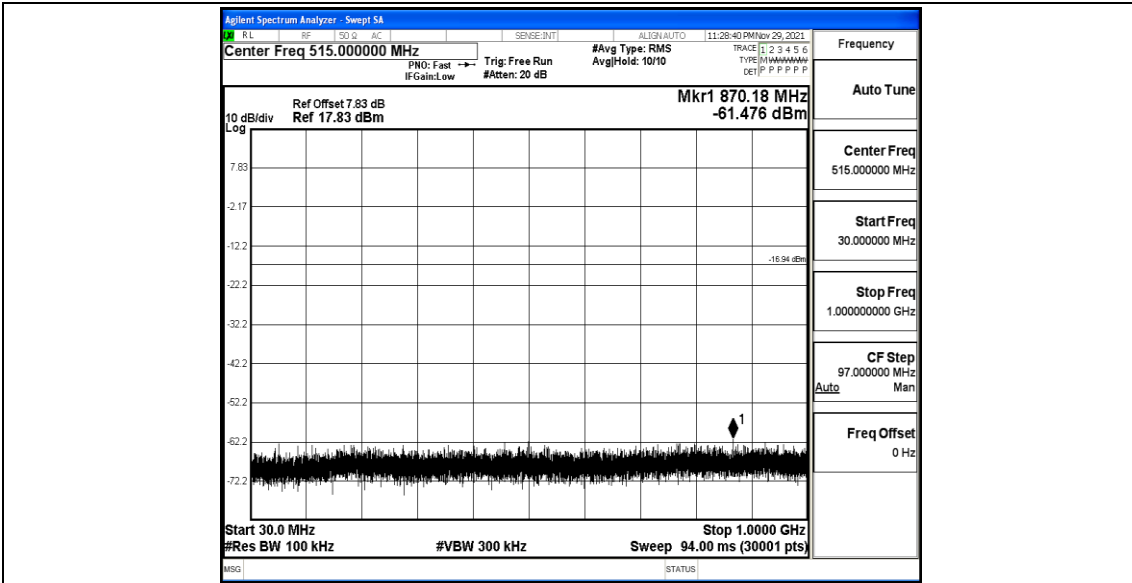




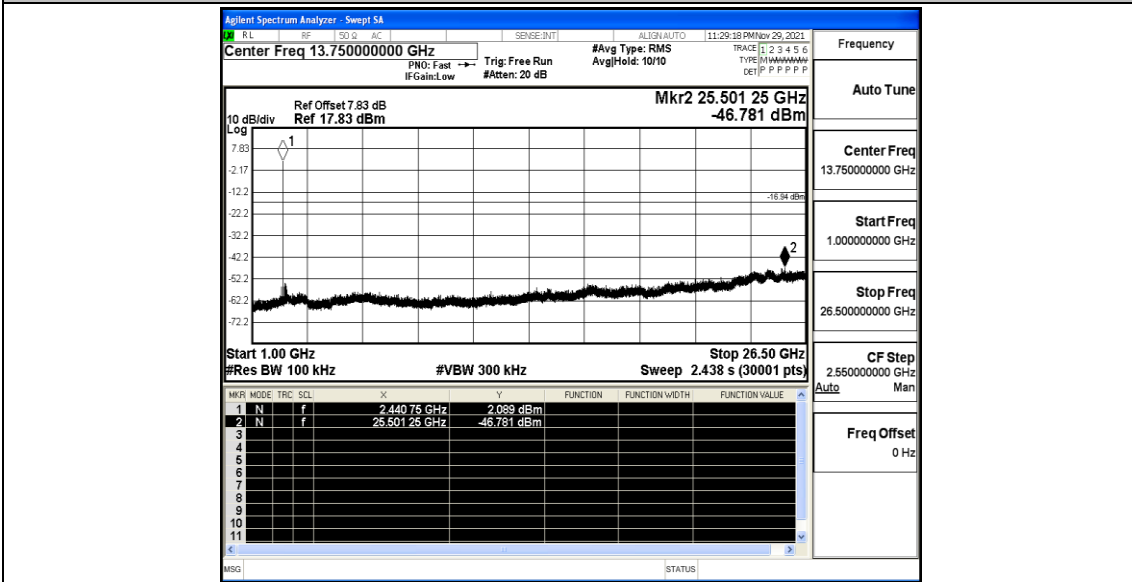
DH5\_Ant0\_2441\_0~Reference



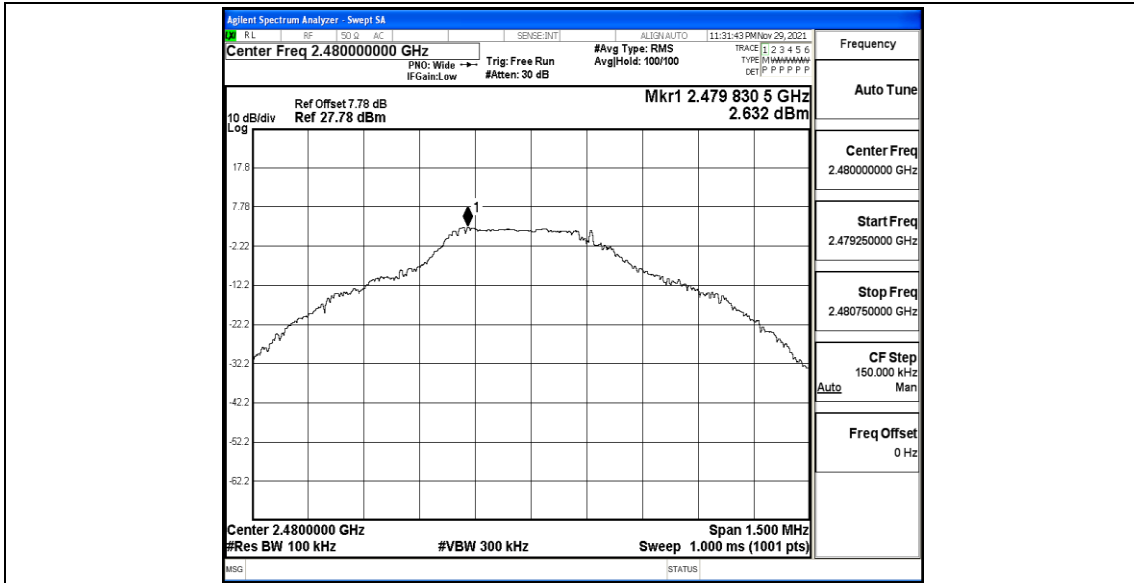
DH5\_Ant0\_2441\_30~1000



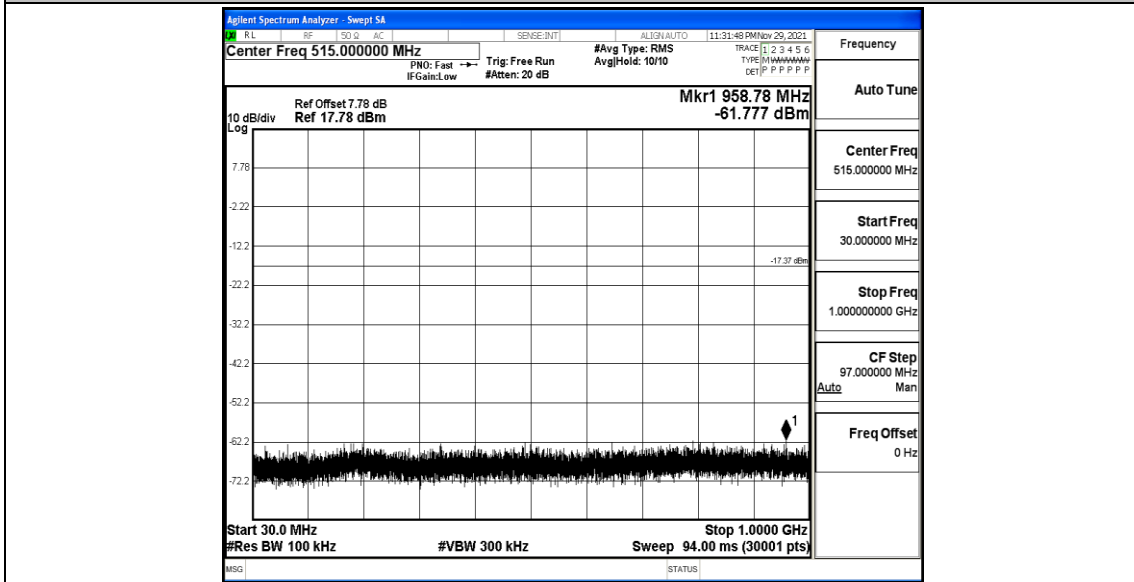
DH5\_Ant0\_2441\_1000~26500



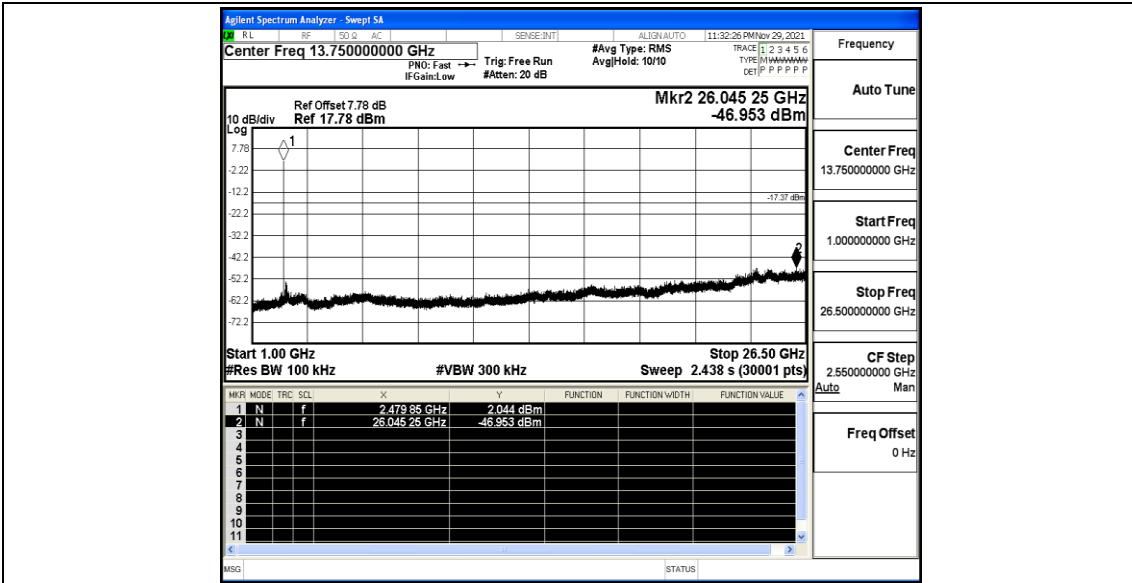
DH5\_Ant0\_2480\_0~Reference



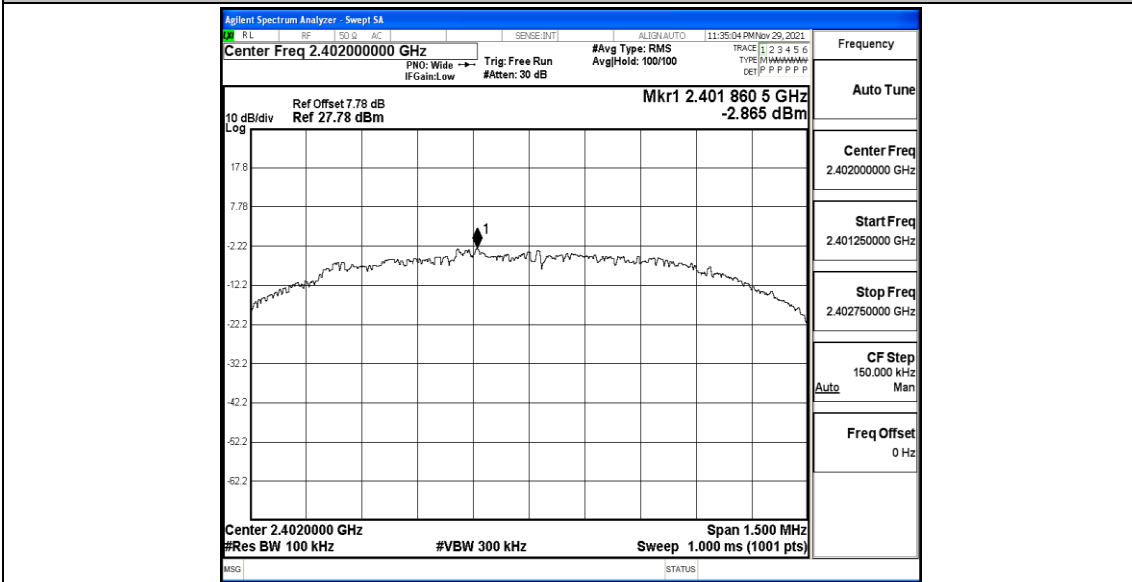
DH5\_Ant0\_2480\_30~1000



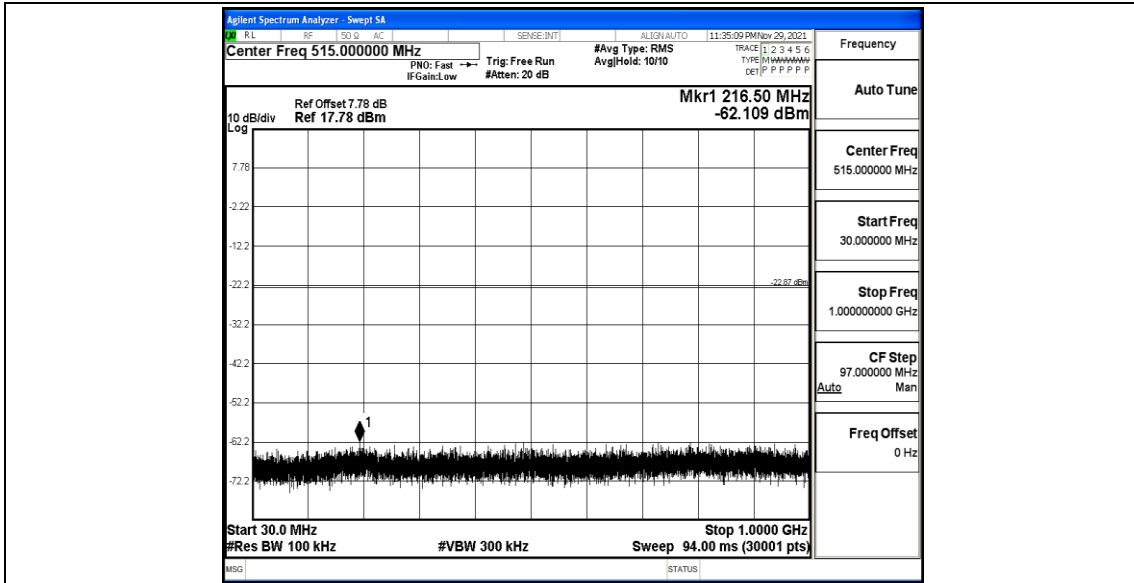
DH5\_Ant0\_2480\_1000~26500



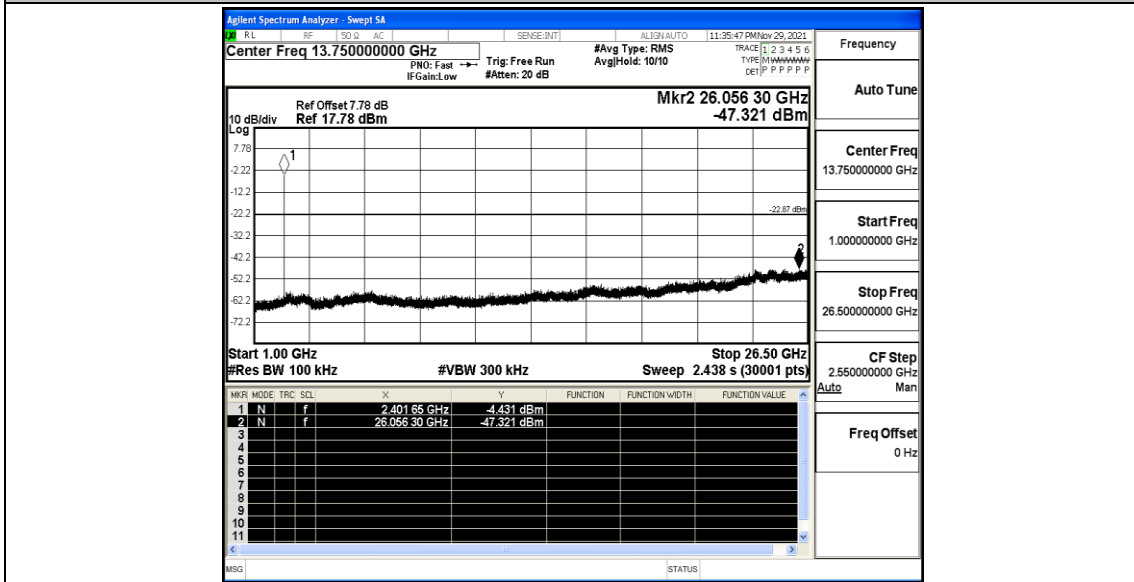
2DH5\_Ant0\_2402\_0~Reference



2DH5\_Ant0\_2402\_30~100

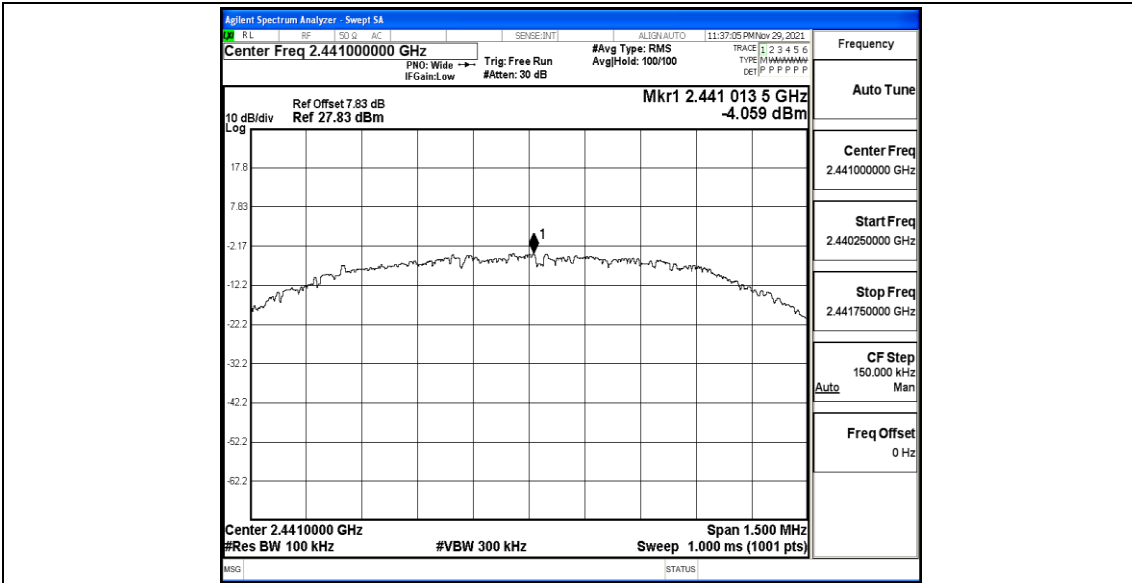


2DH5\_Ant0\_2402\_1000~26500

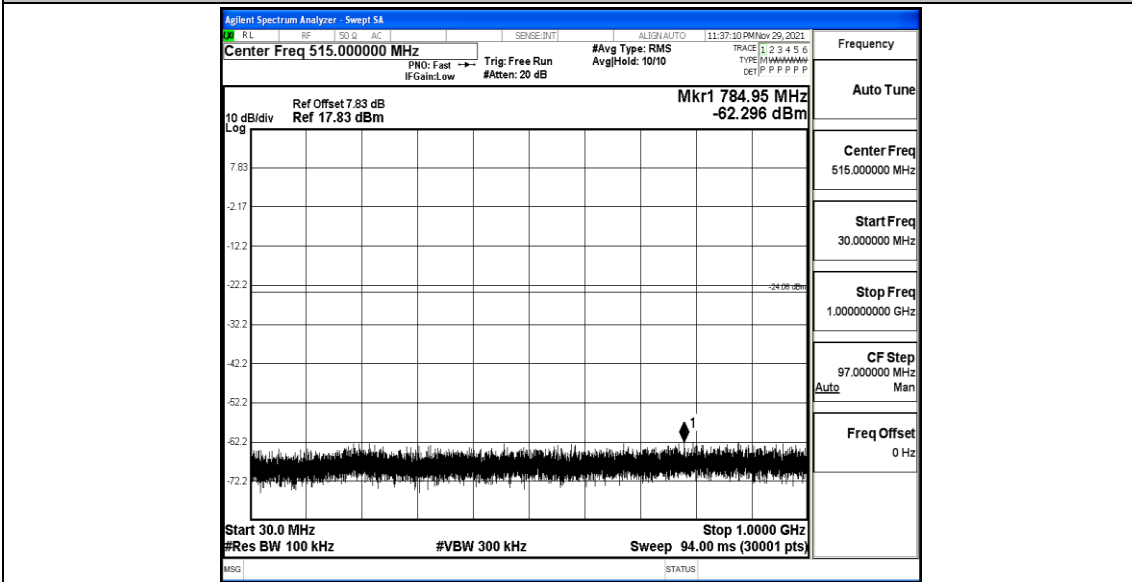


2DH5\_Ant0\_2441\_0~Reference

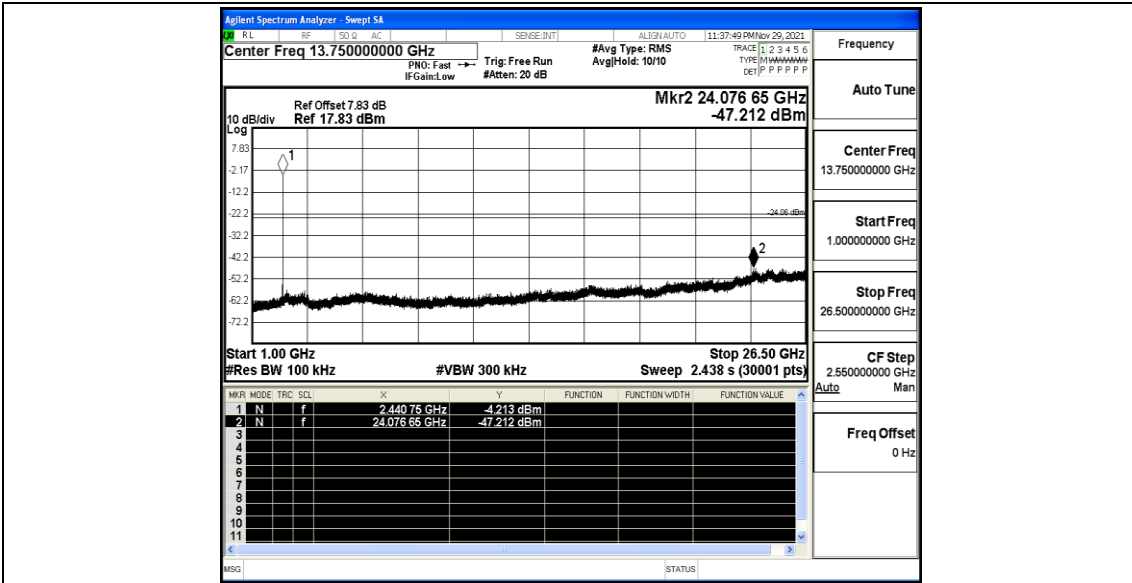




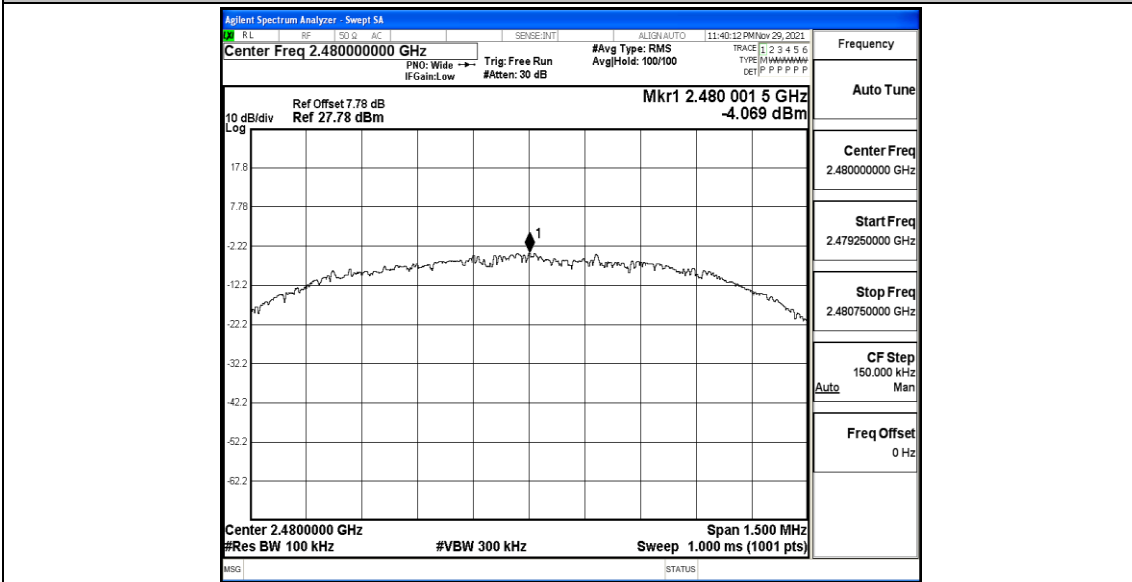
2DH5\_Ant0\_2441\_30~1000



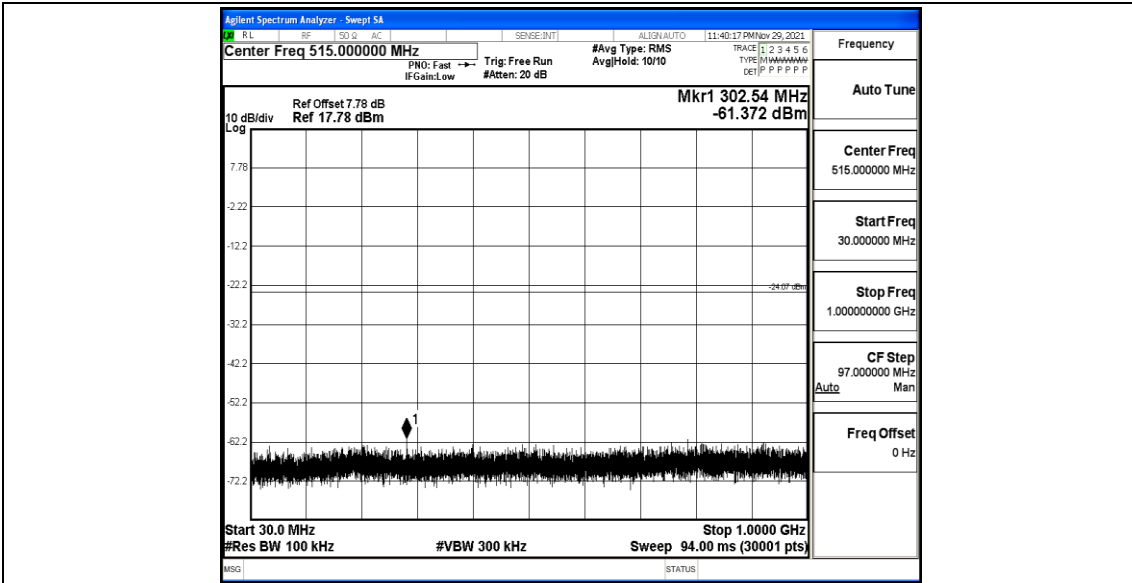
2DH5\_Ant0\_2441\_1000~26500



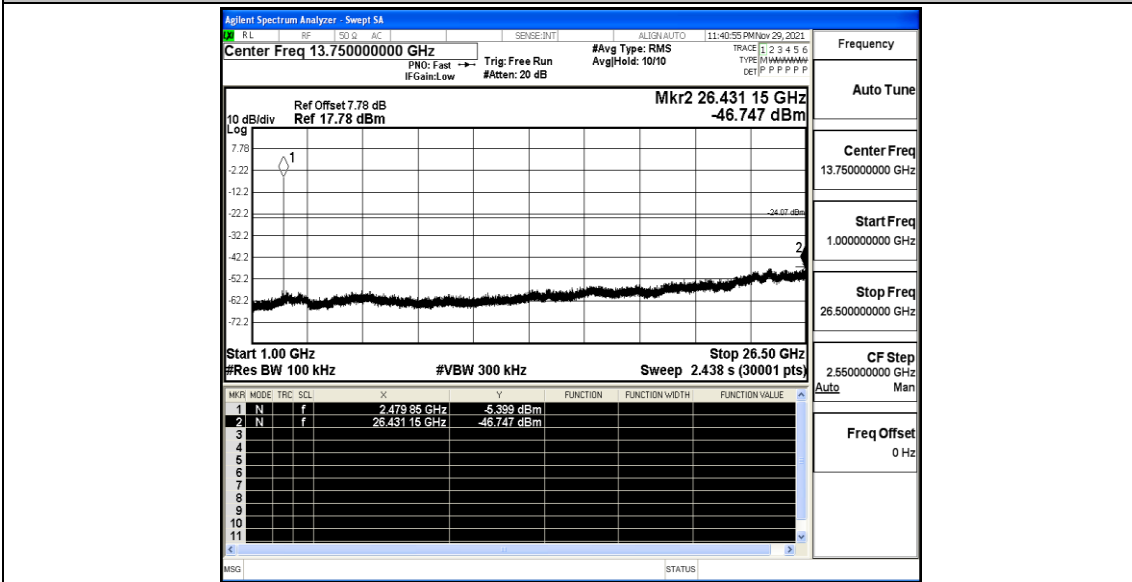
2DH5\_Ant0\_2480\_0~Reference



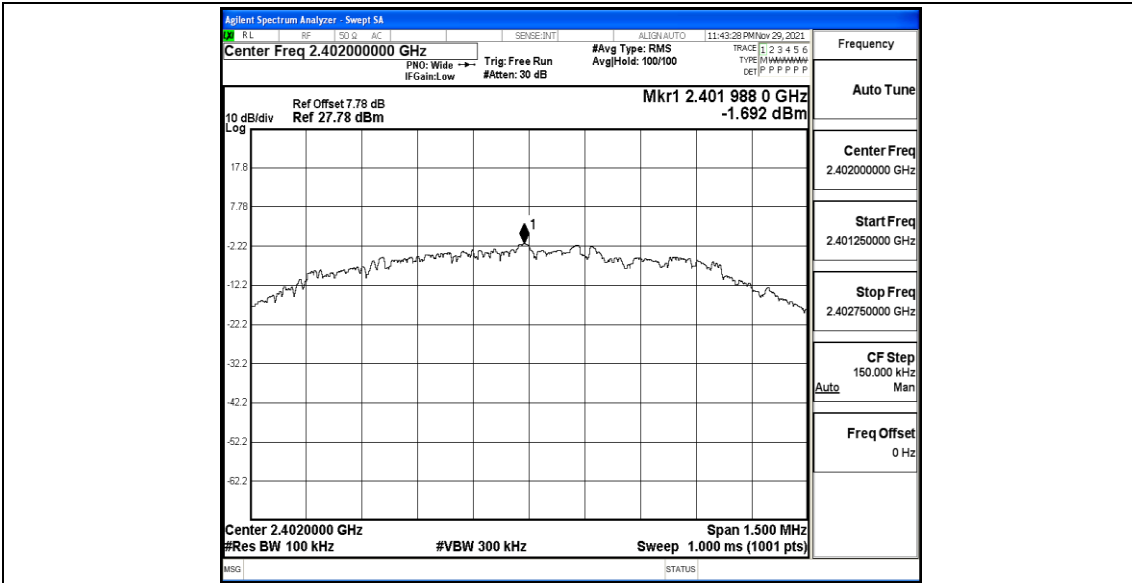
2DH5\_Ant0\_2480\_30~1000



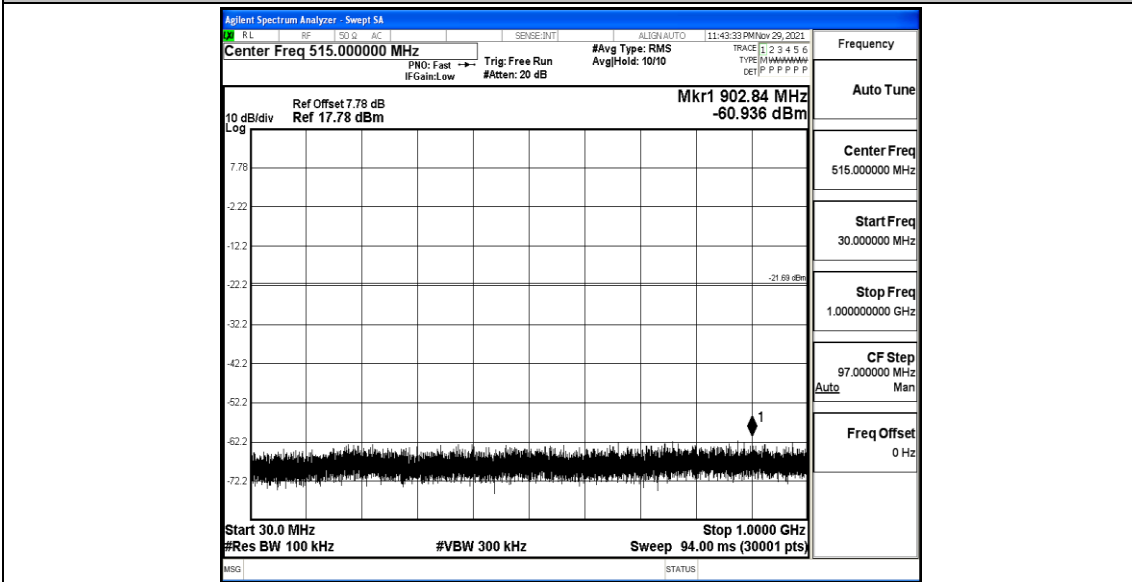
2DH5\_Ant0\_2480\_1000~26500



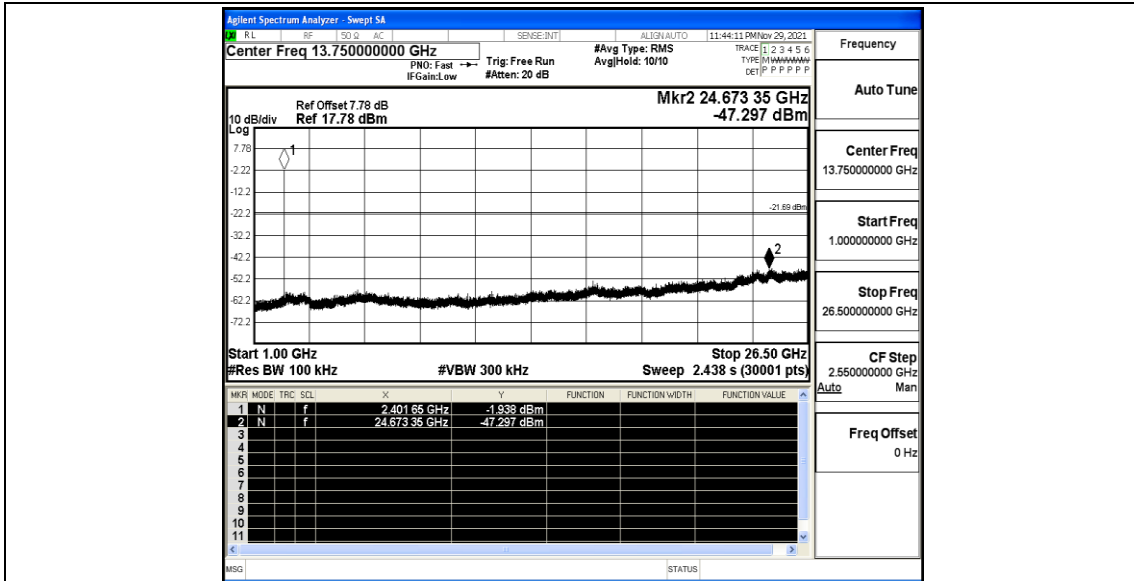
3DH5\_Ant0\_2402\_0~Reference



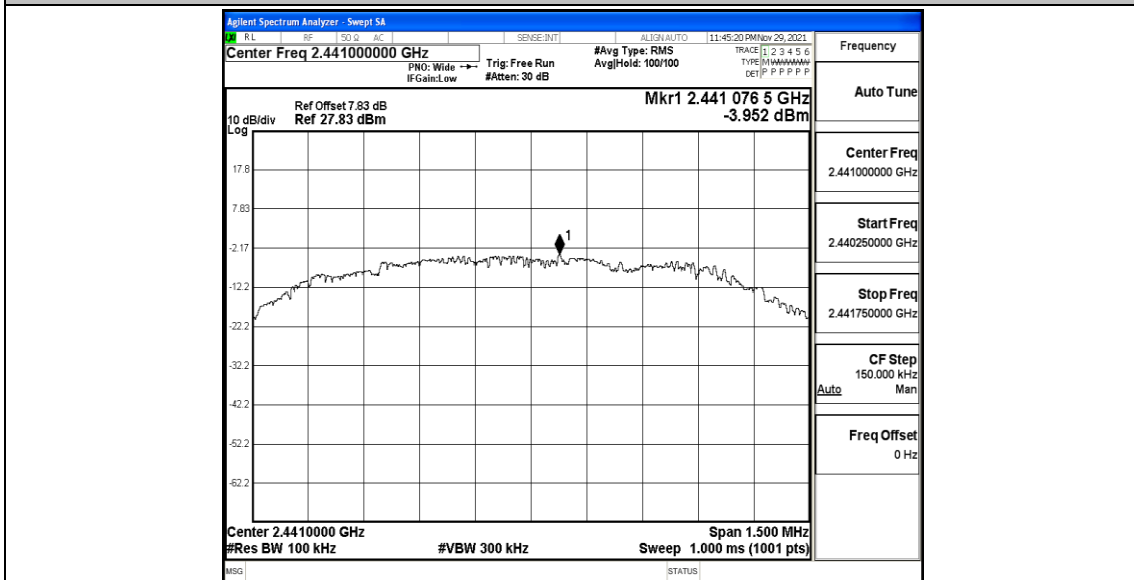
3DH5\_Ant0\_2402\_30~1000



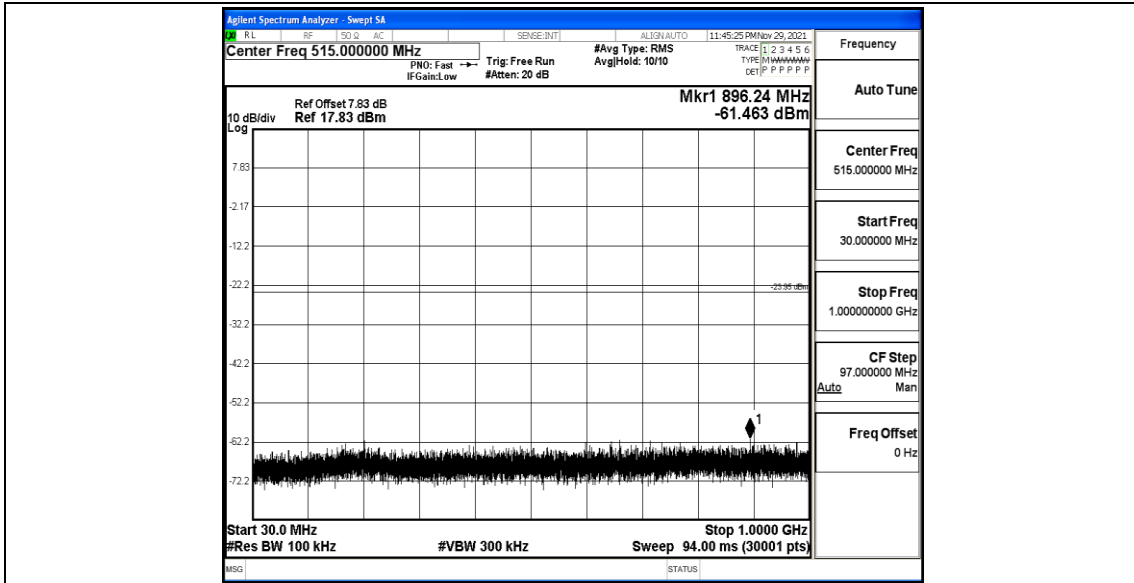
3DH5\_Ant0\_2402\_1000~26500



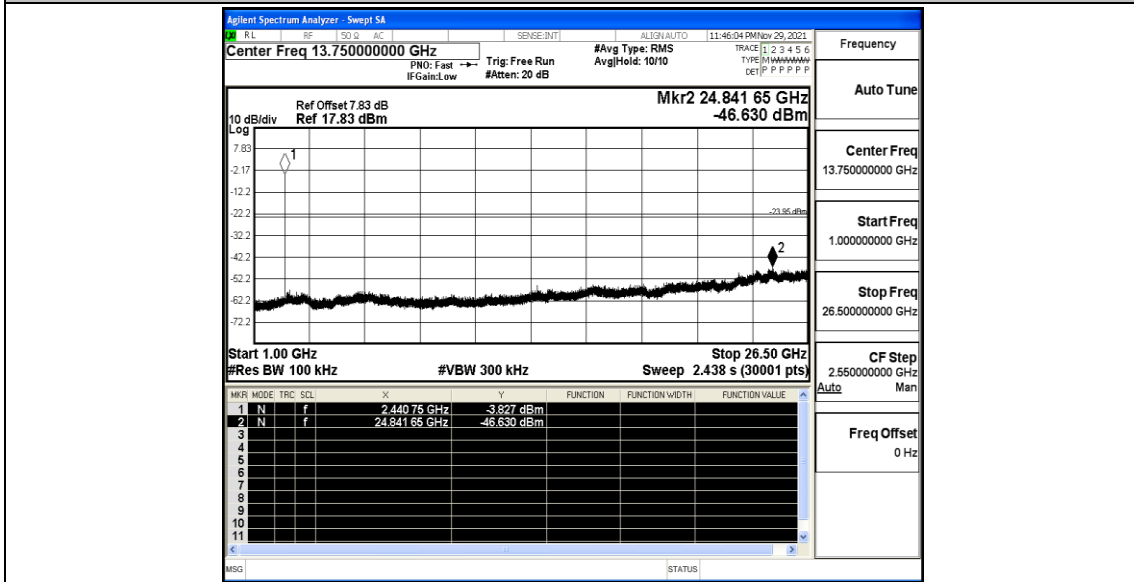
3DH5\_Ant0\_2441\_0~Reference



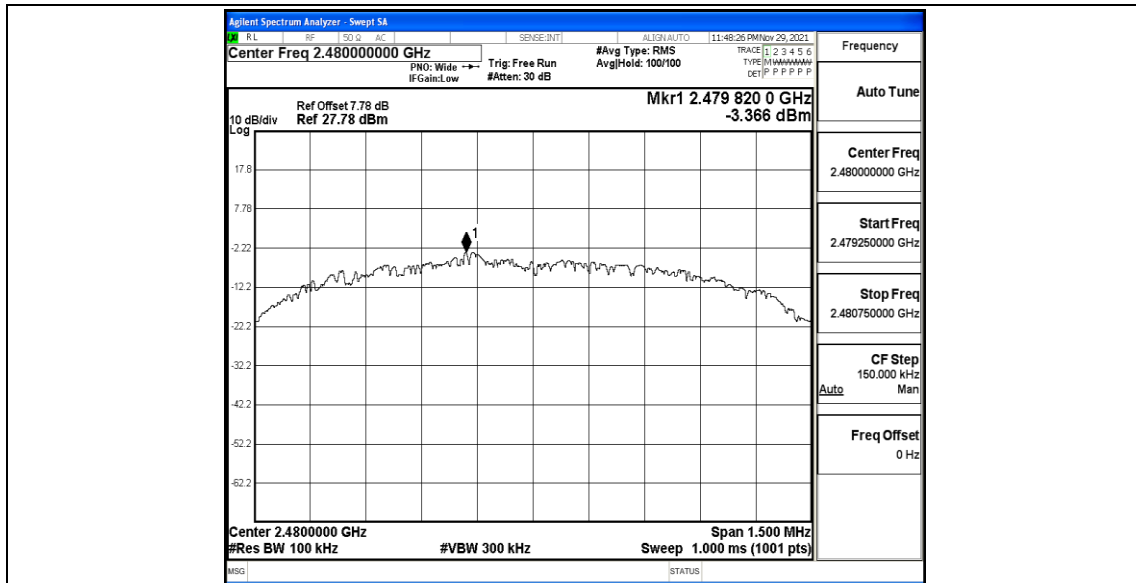
3DH5\_Ant0\_2441\_30~100



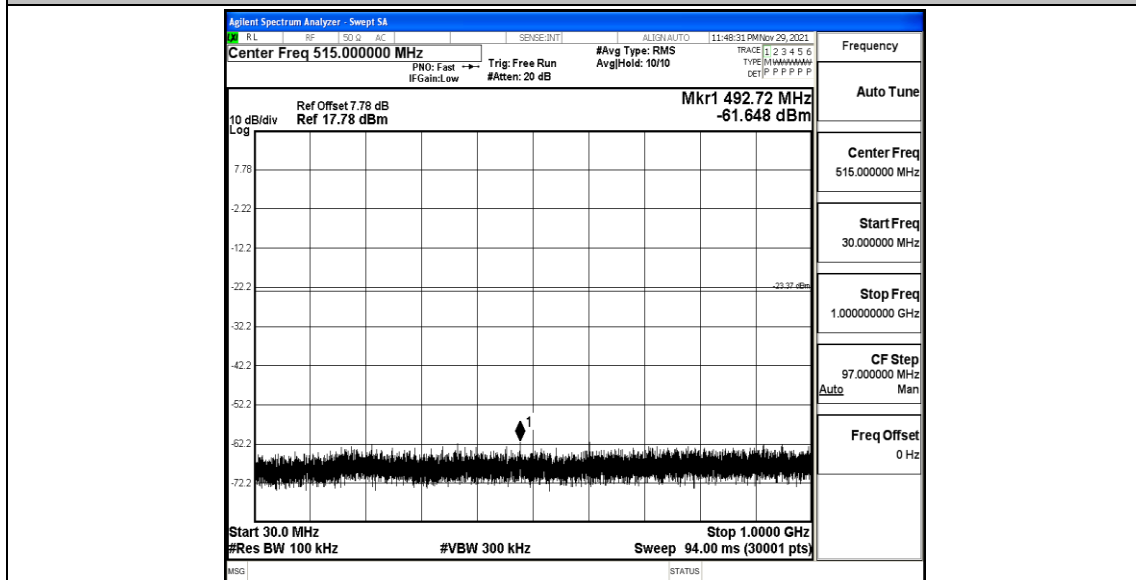
3DH5\_Ant0\_2441\_1000~26500



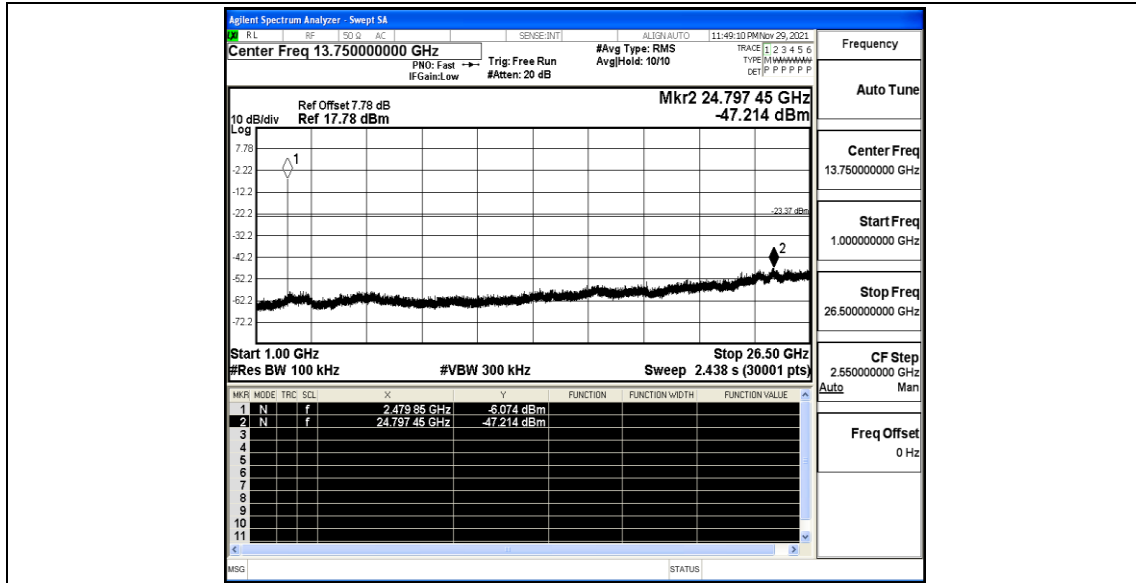
3DH5\_Ant0\_2480\_0~Reference



3DH5\_Ant0\_2480\_30~1000



3DH5\_Ant0\_2480\_1000~26500







## A.8 Emissions in Restricted Bands

### Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBUV/m]	Limit [dBUV/m]	Verdict
DH5	Ant0	Low	2402	AV	2310.000	-49.12	≤-41.20	46.08	≤54	PASS
				AV	2388.095	-48.67	≤-41.20	46.53	≤54	PASS
				AV	2390.000	-48.92	≤-41.20	46.28	≤54	PASS
				Peak	2310.000	-44.03	≤-21.20	51.17	≤74	PASS
				Peak	2327.720	-40.1	≤-21.20	55.10	≤74	PASS
				Peak	2390.000	-43.42	≤-21.20	51.78	≤74	PASS
		High	2480	AV	2483.500	-47.73	≤-41.20	47.47	≤54	PASS
				AV	2484.960	-46.98	≤-41.20	48.22	≤54	PASS
				AV	2500.000	-48.13	≤-41.20	47.07	≤54	PASS
				Peak	2483.500	-42.26	≤-21.20	52.94	≤74	PASS
				Peak	2490.560	-38.54	≤-21.20	56.66	≤74	PASS
				Peak	2500.000	-39.11	≤-21.20	56.09	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-41.21	≤-21.20	53.99	≤74	PASS
				Peak	2349.665	-37.5	≤-21.20	57.70	≤74	PASS
				Peak	2390.000	-40.55	≤-21.20	54.65	≤74	PASS
		High	Hop_2480	Peak	2483.500	-39.86	≤-21.20	55.34	≤74	PASS
				Peak	2485.360	-35.96	≤-21.20	59.24	≤74	PASS
				Peak	2500.000	-39.78	≤-21.20	55.42	≤74	PASS
2DH5	Ant0	Low	2402	AV	2310.000	-49.19	≤-41.20	46.01	≤54	PASS
				AV	2389.565	-48.58	≤-41.20	46.62	≤54	PASS
				AV	2390.000	-48.78	≤-41.20	46.42	≤54	PASS
				Peak	2310.000	-44.09	≤-21.20	51.11	≤74	PASS
				Peak	2376.755	-40.15	≤-21.20	55.05	≤74	PASS
				Peak	2390.000	-44.07	≤-21.20	51.13	≤74	PASS
		High	2480	AV	2483.500	-47.98	≤-41.20	47.22	≤54	PASS
				AV	2484.720	-47.04	≤-41.20	48.16	≤54	PASS
				AV	2500.000	-48.31	≤-41.20	46.89	≤54	PASS
				Peak	2483.500	-43.2	≤-21.20	52.00	≤74	PASS
				Peak	2487.600	-38.29	≤-21.20	56.91	≤74	PASS
				Peak	2500.000	-42.21	≤-21.20	52.99	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-42.13	≤-21.20	53.07	≤74	PASS
				Peak	2312.600	-37.79	≤-21.20	57.41	≤74	PASS
				Peak	2390.000	-39.38	≤-21.20	55.82	≤74	PASS
		High	Hop_2480	Peak	2483.500	-39.5	≤-21.20	55.70	≤74	PASS
				Peak	2499.600	-37.93	≤-21.20	57.27	≤74	PASS
				Peak	2500.000	-39.93	≤-21.20	55.27	≤74	PASS



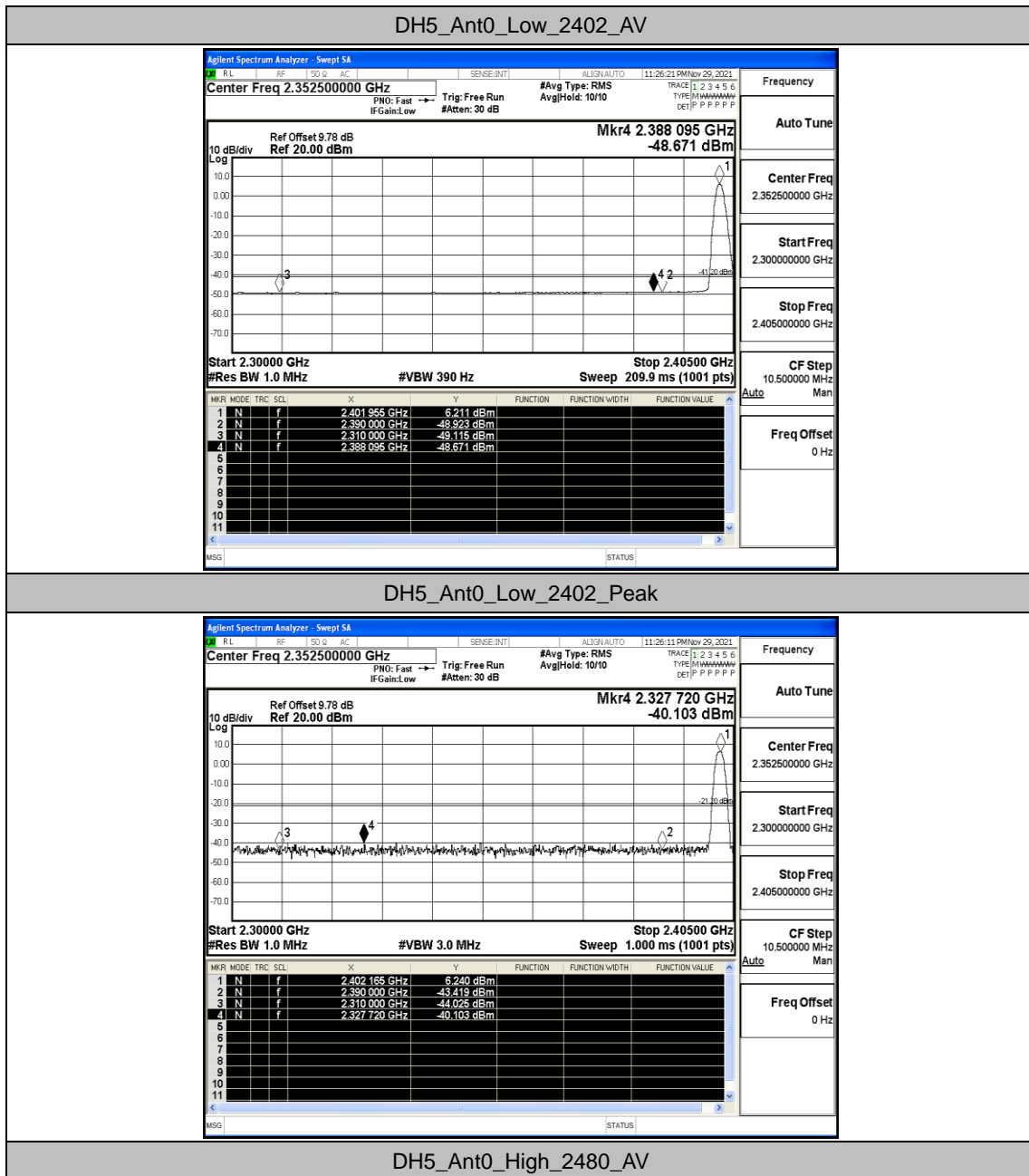
3DH5	Ant0	Low	2402	AV	2310.000	-49.21	≤-41.20	45.99	≤54	PASS
				AV	2386.730	-48.66	≤-41.20	46.54	≤54	PASS
				AV	2390.000	-48.74	≤-41.20	46.46	≤54	PASS
				Peak	2310.000	-44.14	≤-21.20	51.06	≤74	PASS
				Peak	2375.075	-39.81	≤-21.20	55.39	≤74	PASS
				Peak	2390.000	-45.12	≤-21.20	50.08	≤74	PASS
		High	2480	AV	2483.500	-47.85	≤-41.20	47.35	≤54	PASS
				AV	2484.640	-47.02	≤-41.20	48.18	≤54	PASS
				AV	2500.000	-48.12	≤-41.20	47.08	≤54	PASS
				Peak	2483.500	-43.24	≤-21.20	51.96	≤74	PASS
				Peak	2499.120	-39.87	≤-21.20	55.33	≤74	PASS
				Peak	2500.000	-44.33	≤-21.20	50.87	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-40.71	≤-21.20	54.49	≤74	PASS
				Peak	2371.610	-38.48	≤-21.20	56.72	≤74	PASS
				Peak	2390.000	-41.16	≤-21.20	54.04	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-38.61	≤-21.20	56.59	≤74	PASS
				Peak	2498.400	-37.93	≤-21.20	57.27	≤74	PASS
				Peak	2500.000	-39.57	≤-21.20	55.63	≤74	PASS

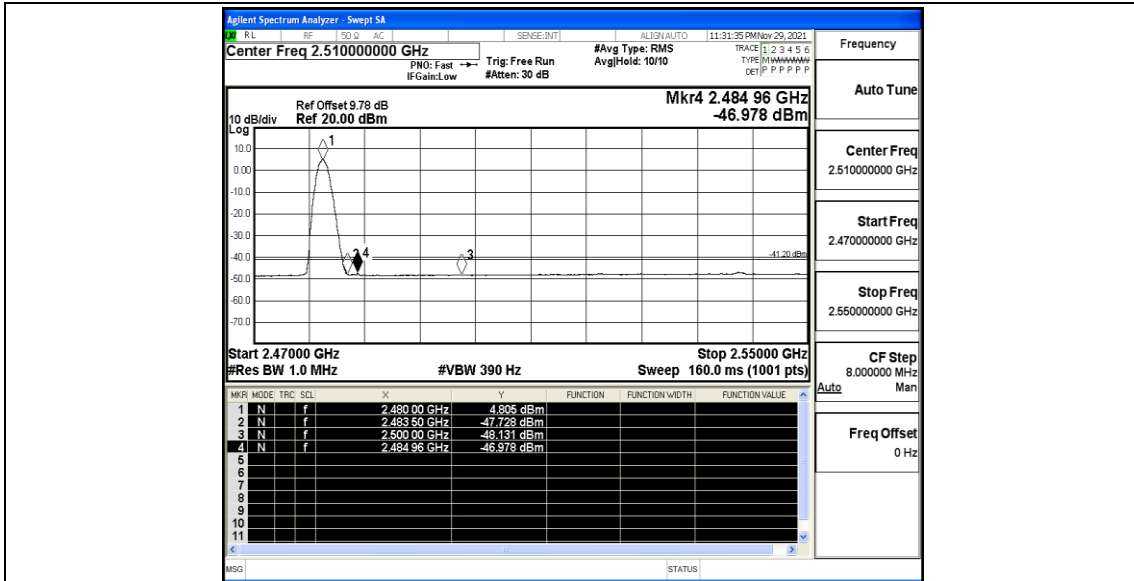
Note:

1. The Antenna Gain is compensated in the graph.
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.

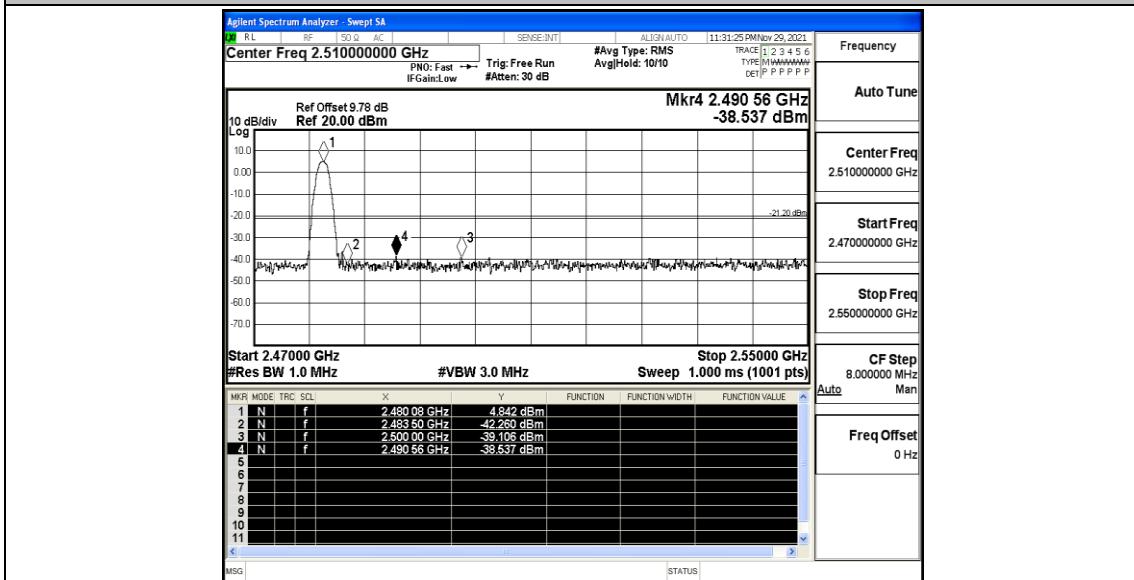


### Test Graphs

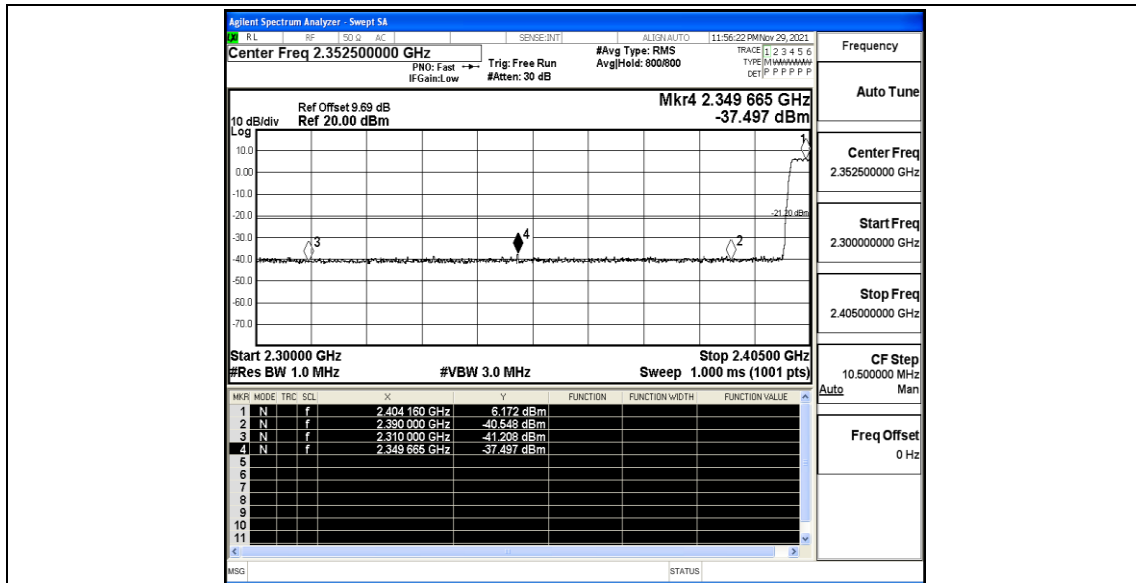




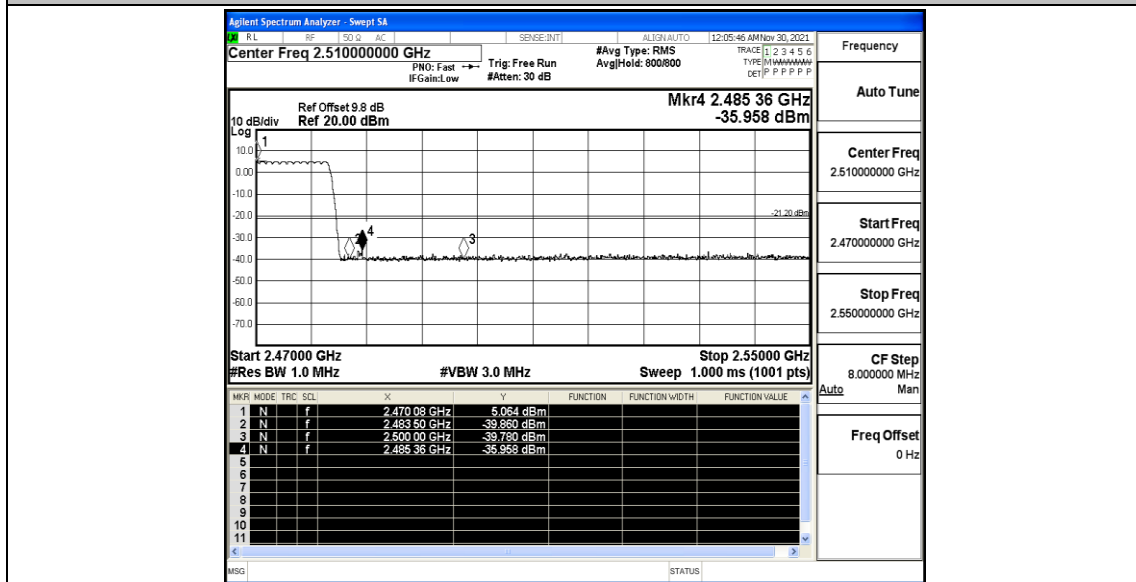
DH5\_Ant0\_High\_2480\_Peak



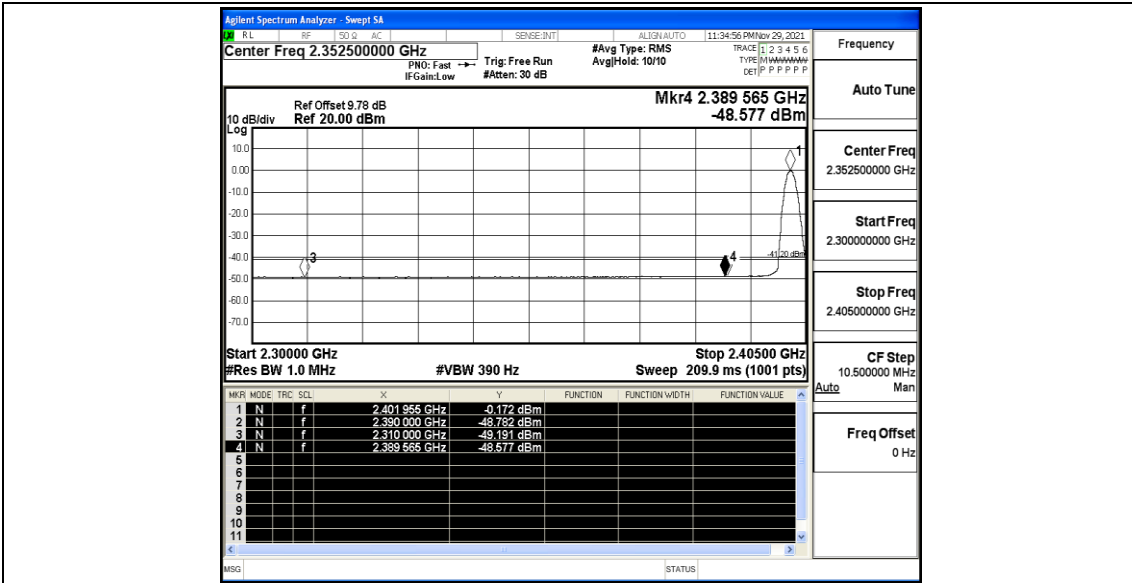
DH5\_Ant0\_Low\_Hop\_2402\_Peak



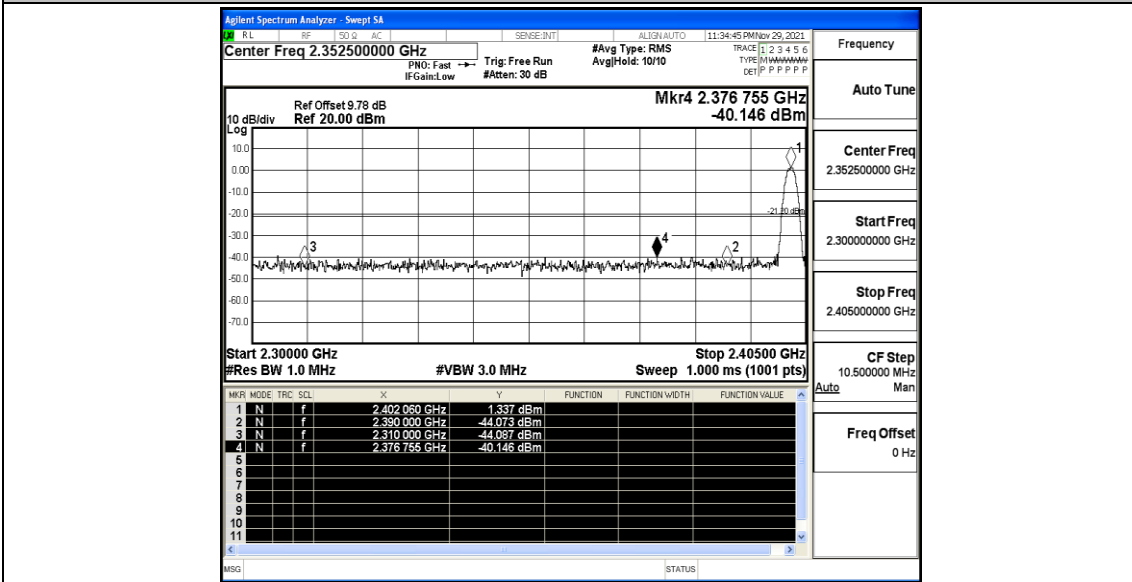
DH5\_Ant0\_High\_Hop\_2480\_Peak



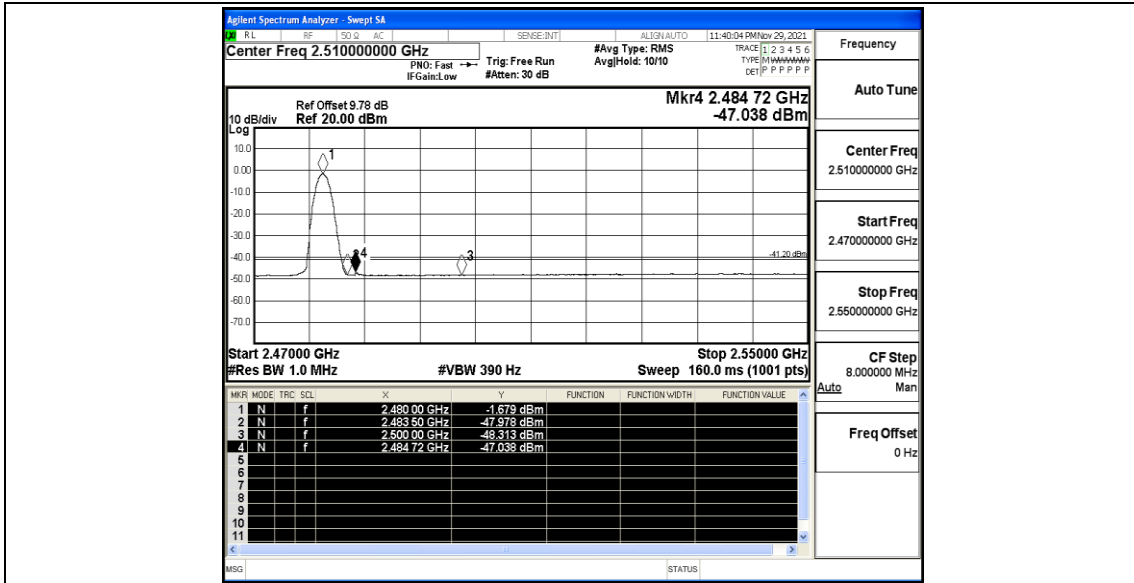
2DH5\_Ant0\_Low\_2402\_AV



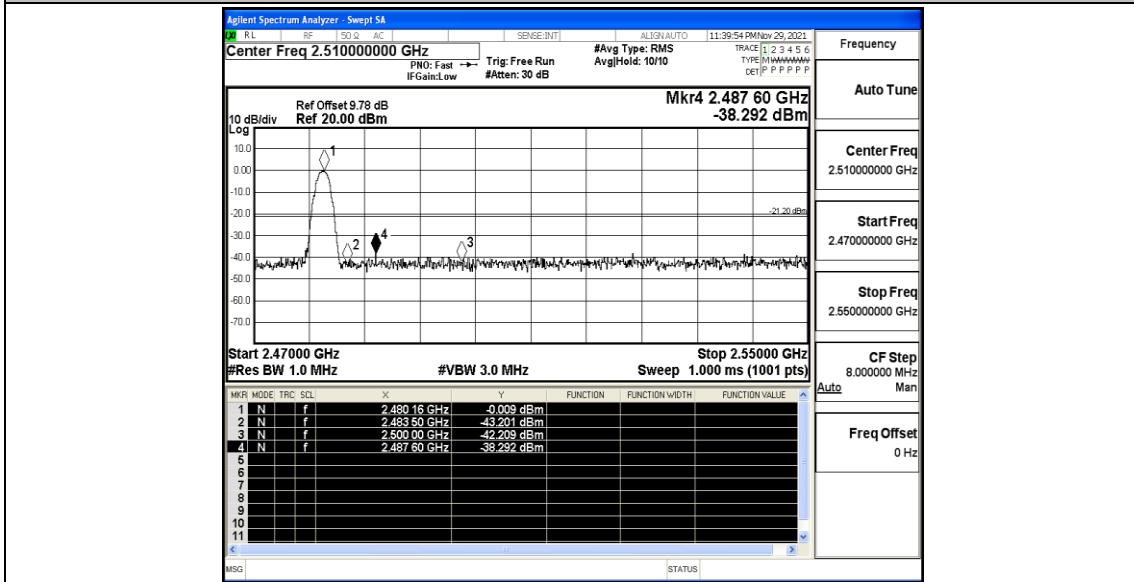
2DH5\_Ant0\_Low\_2402\_Peak



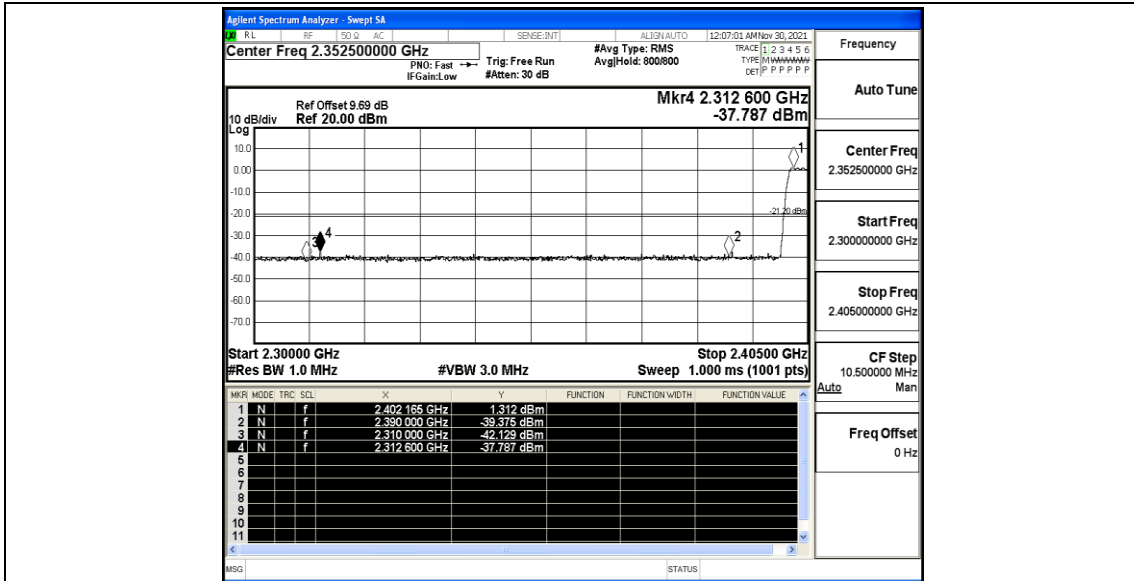
2DH5\_Ant0\_High\_2480\_AV



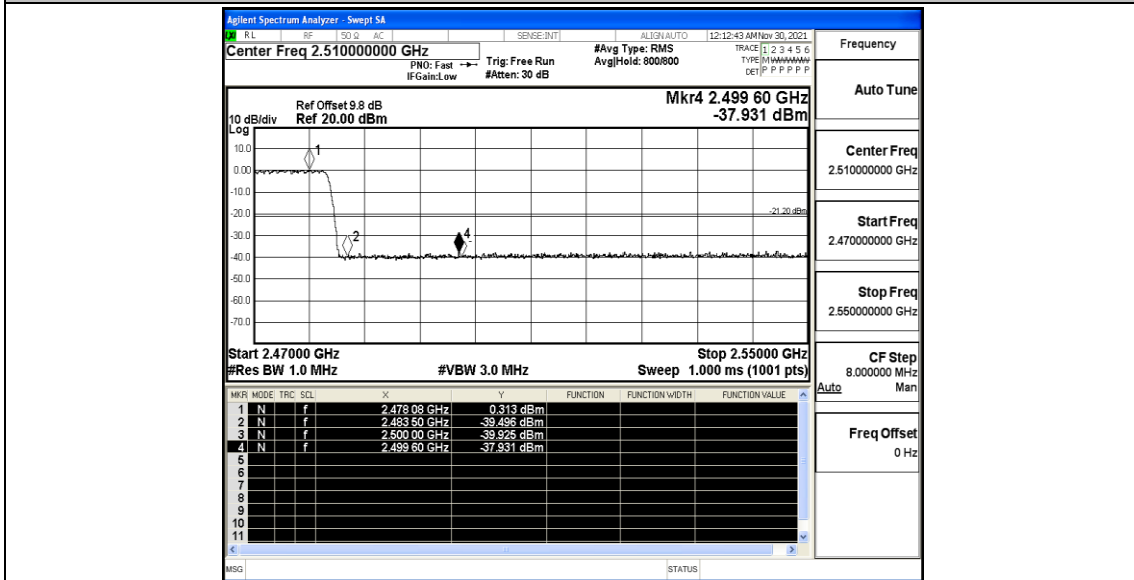
2DH5\_Ant0\_High\_2480\_Peak



2DH5\_Ant0\_Low\_Hop\_2402\_Peak

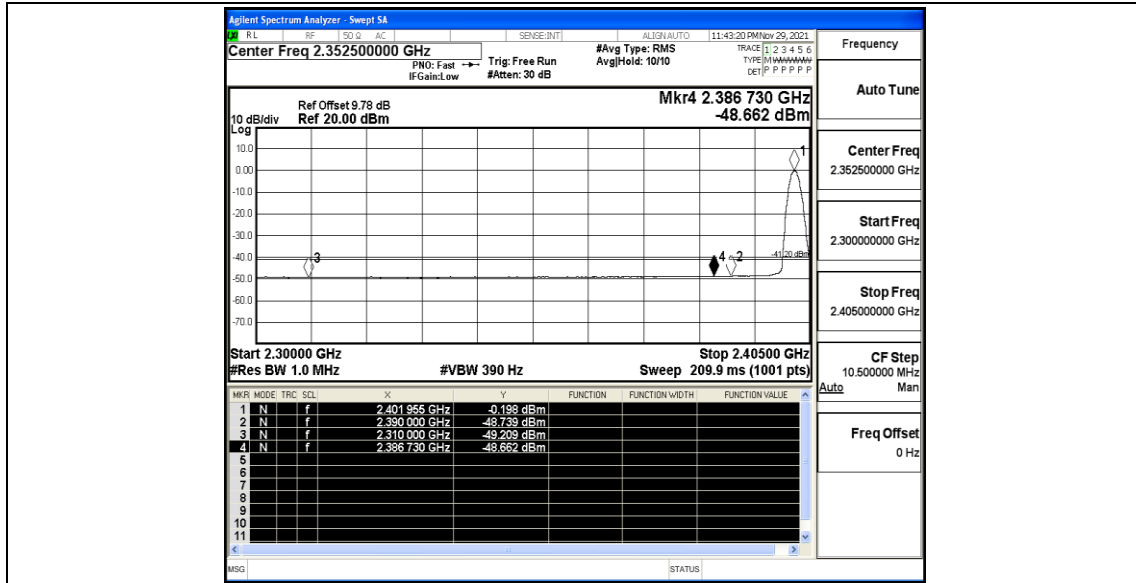


2DH5\_Ant0\_High\_Hop\_2480\_Peak

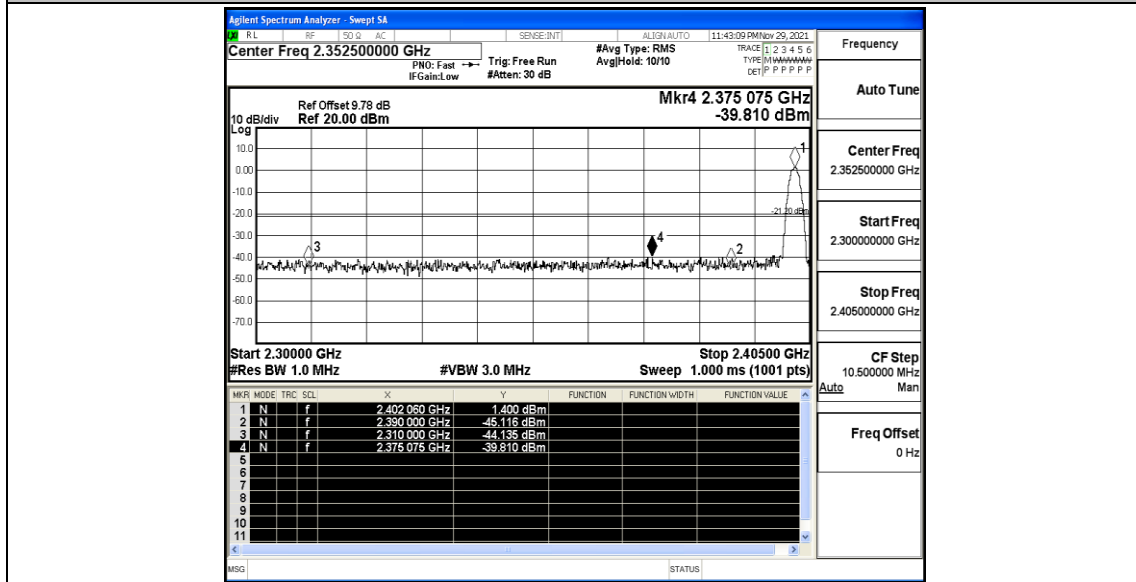


3DH5\_Ant0\_Low\_2402\_AV

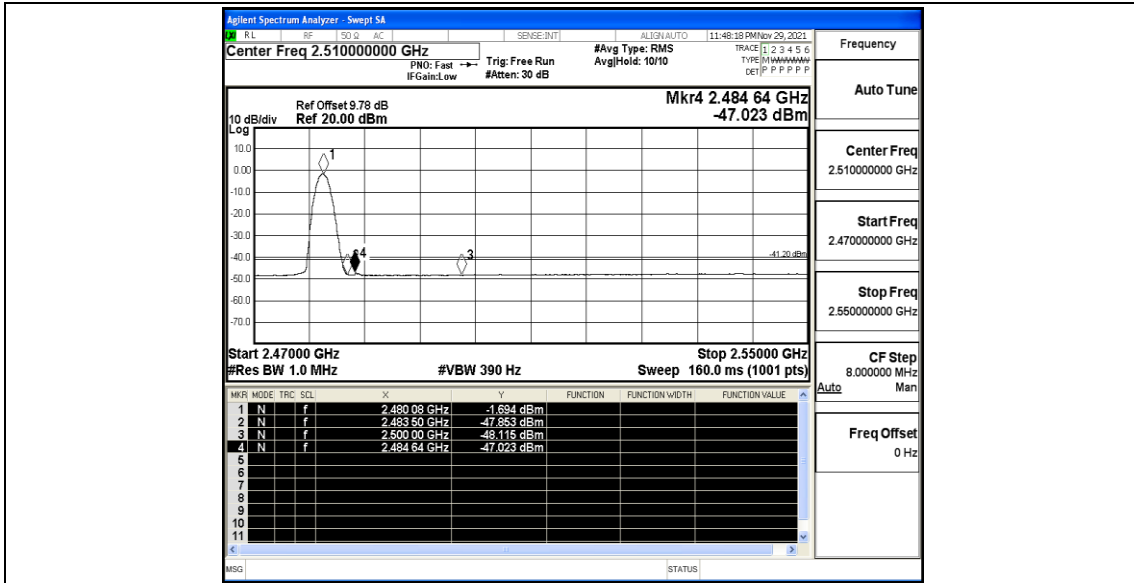




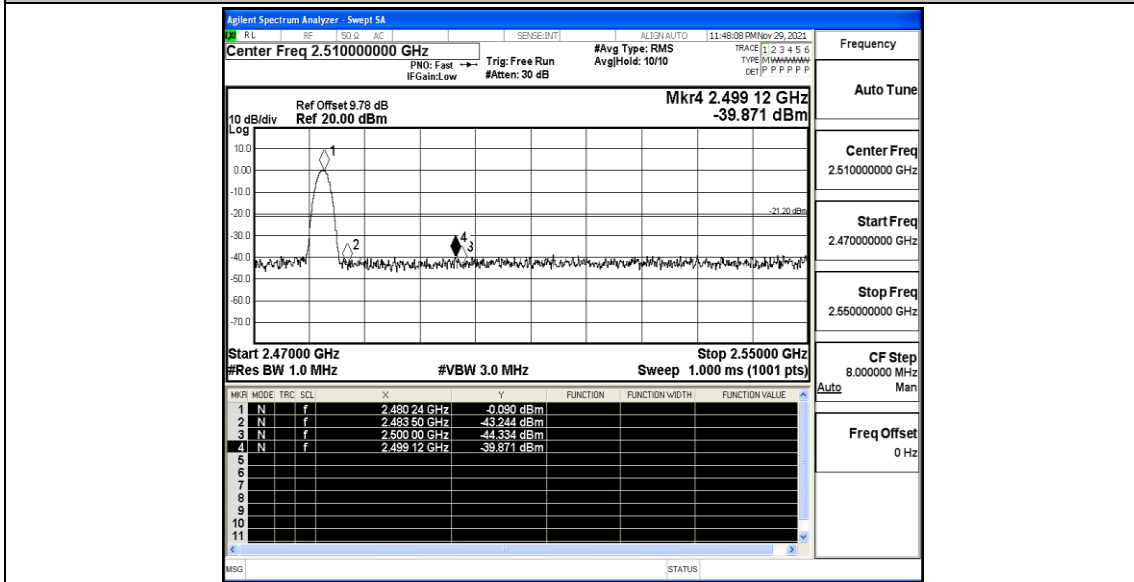
3DH5\_Ant0\_Low\_2402\_Peak



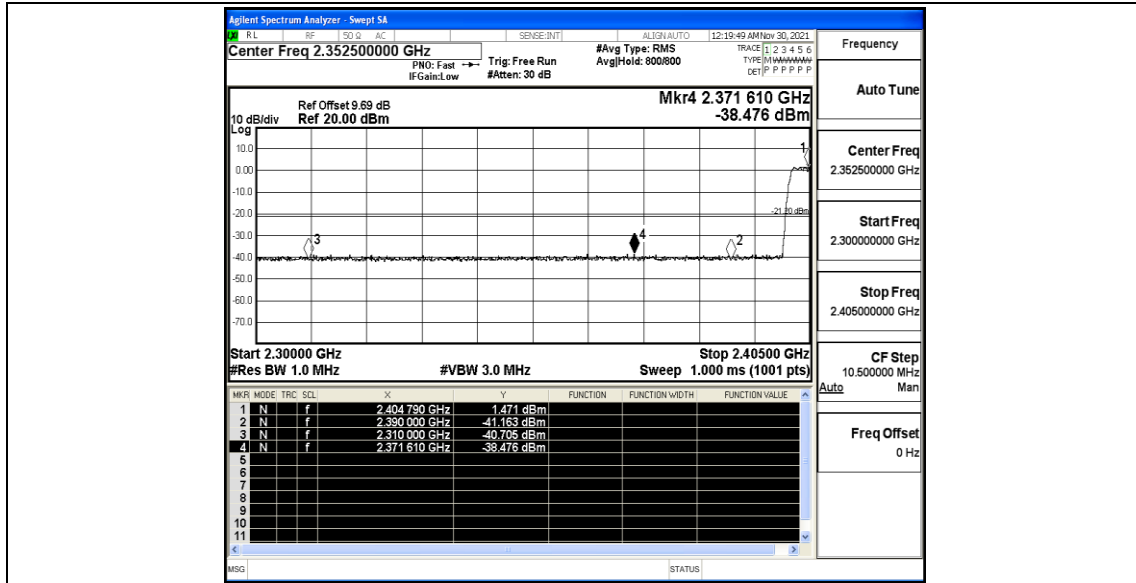
3DH5\_Ant0\_High\_2480\_AV



3DH5\_Ant0\_High\_2480\_Peak



3DH5\_Ant0\_Low\_Hop\_2402\_Peak



3DH5\_Ant0\_High\_Hop\_2480\_Peak

