



## Appendix A

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

Product Name: PROFESSIONAL SPEAKER

Test Model: MPD1530-XB

#### Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Joker Hu
Supervised by:	Jack Cheng





## A.1 20dB Emission Bandwidth

### Test Result

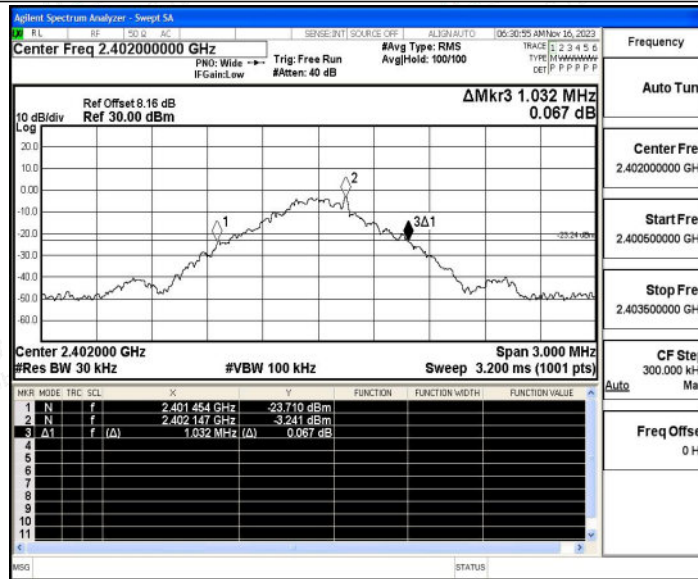
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	1.032	2401.454	2402.486	---
		2441	1.035	2440.451	2441.486	---
		2480	0.972	2479.520	2480.492	---
2DH5	Ant1	2402	1.314	2401.331	2402.645	---
		2441	1.296	2440.349	2441.645	---
		2480	1.323	2479.325	2480.648	---



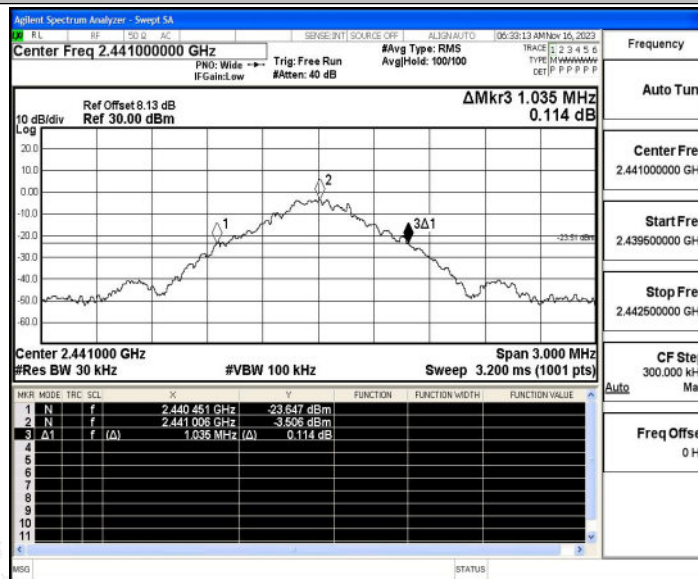


### Test Graphs

DH5\_Ant1\_2402

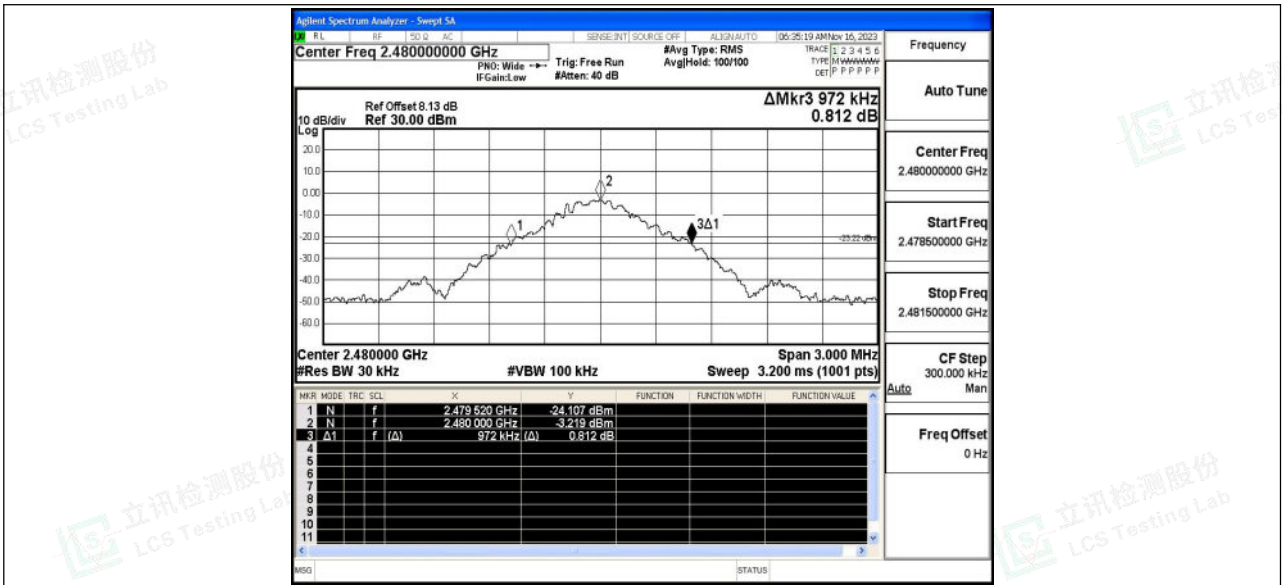


DH5\_Ant1\_2441

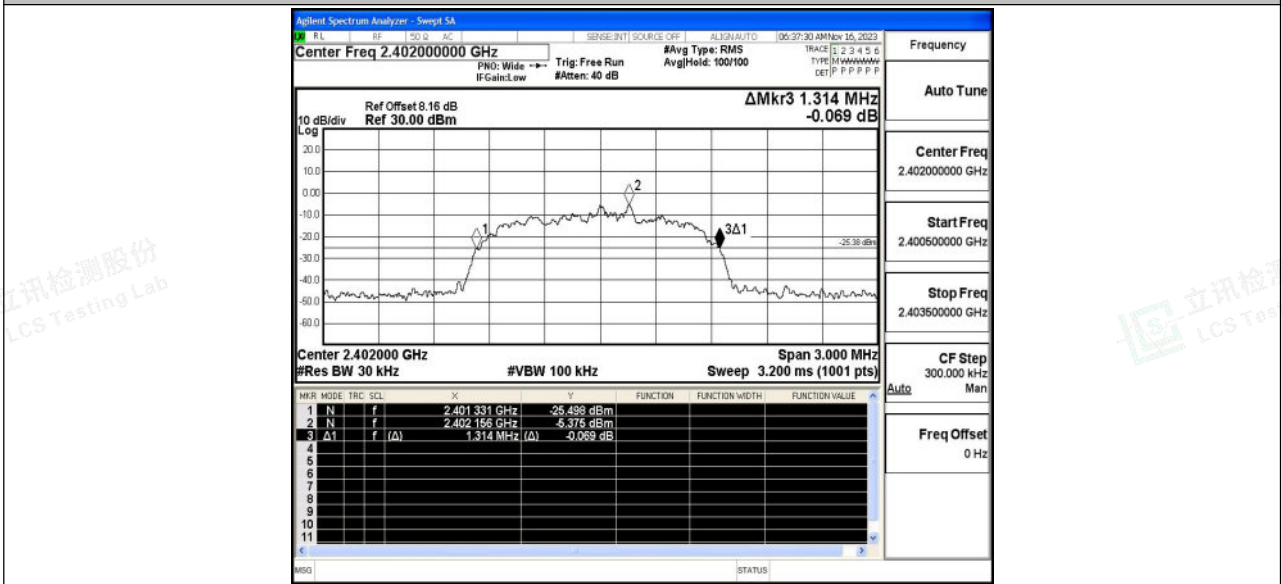


DH5\_Ant1\_2480

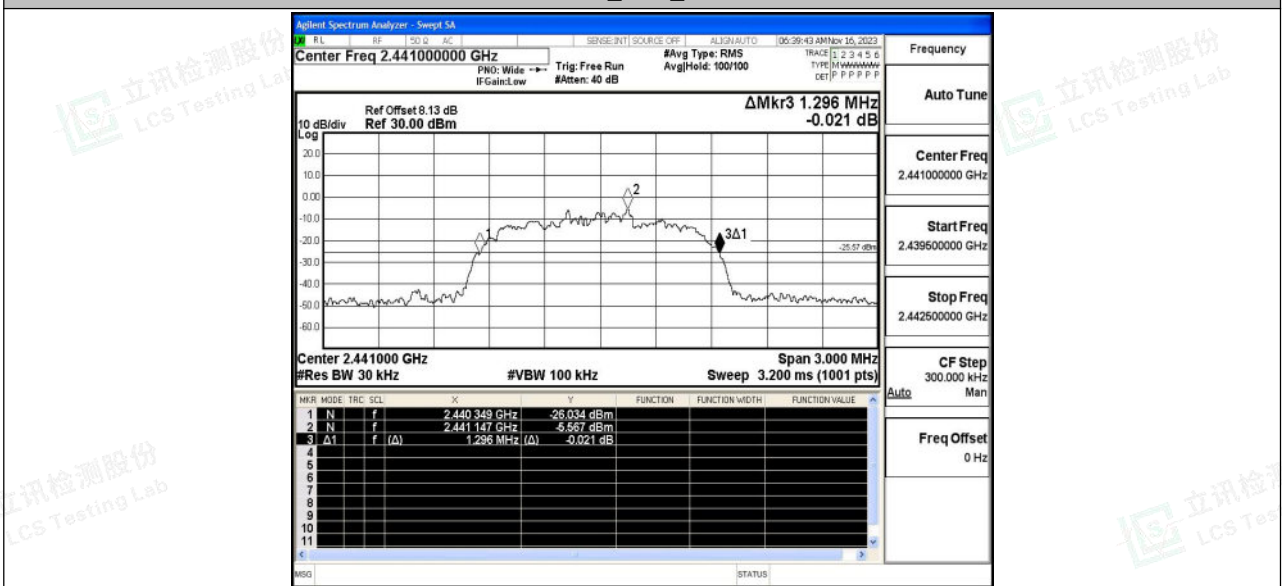




2DH5\_Ant1\_2402

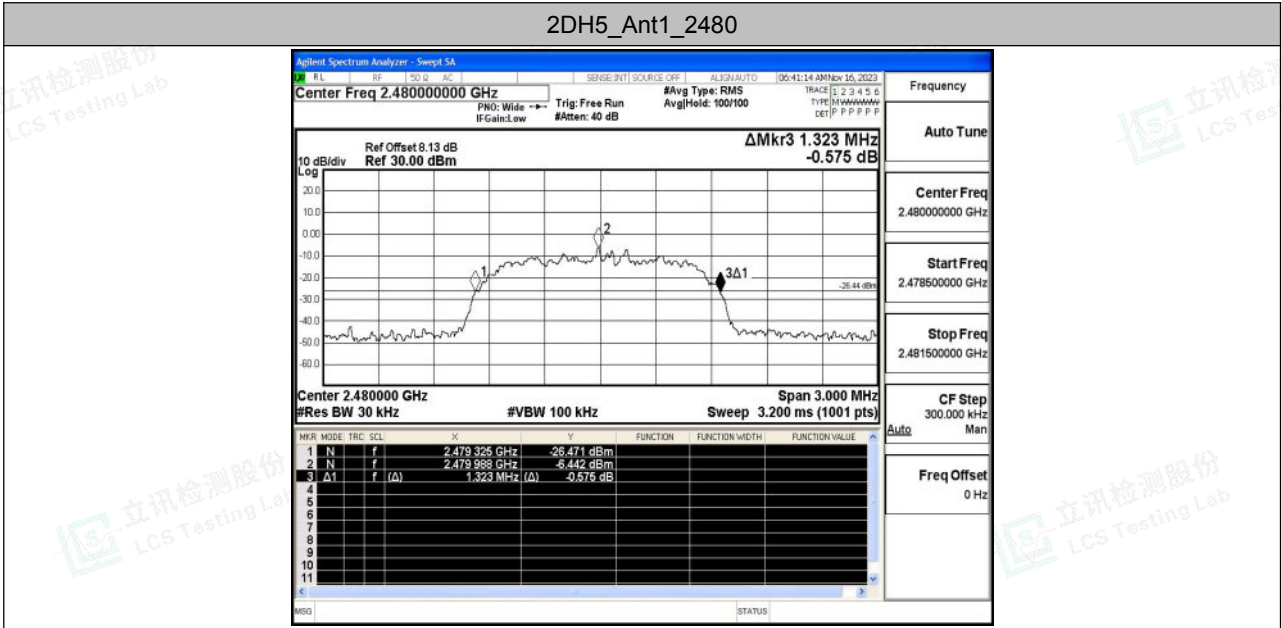


2DH5\_Ant1\_2441





2DH5\_Ant1\_2480





## A.2 Maximum conducted output power

### Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-0.06	$\leq 20.97$	PASS
		2441	-0.34	$\leq 20.97$	PASS
		2480	-0.27	$\leq 20.97$	PASS
2DH5	Ant1	2402	-0.79	$\leq 20.97$	PASS
		2441	-0.77	$\leq 20.97$	PASS
		2480	-0.51	$\leq 20.97$	PASS



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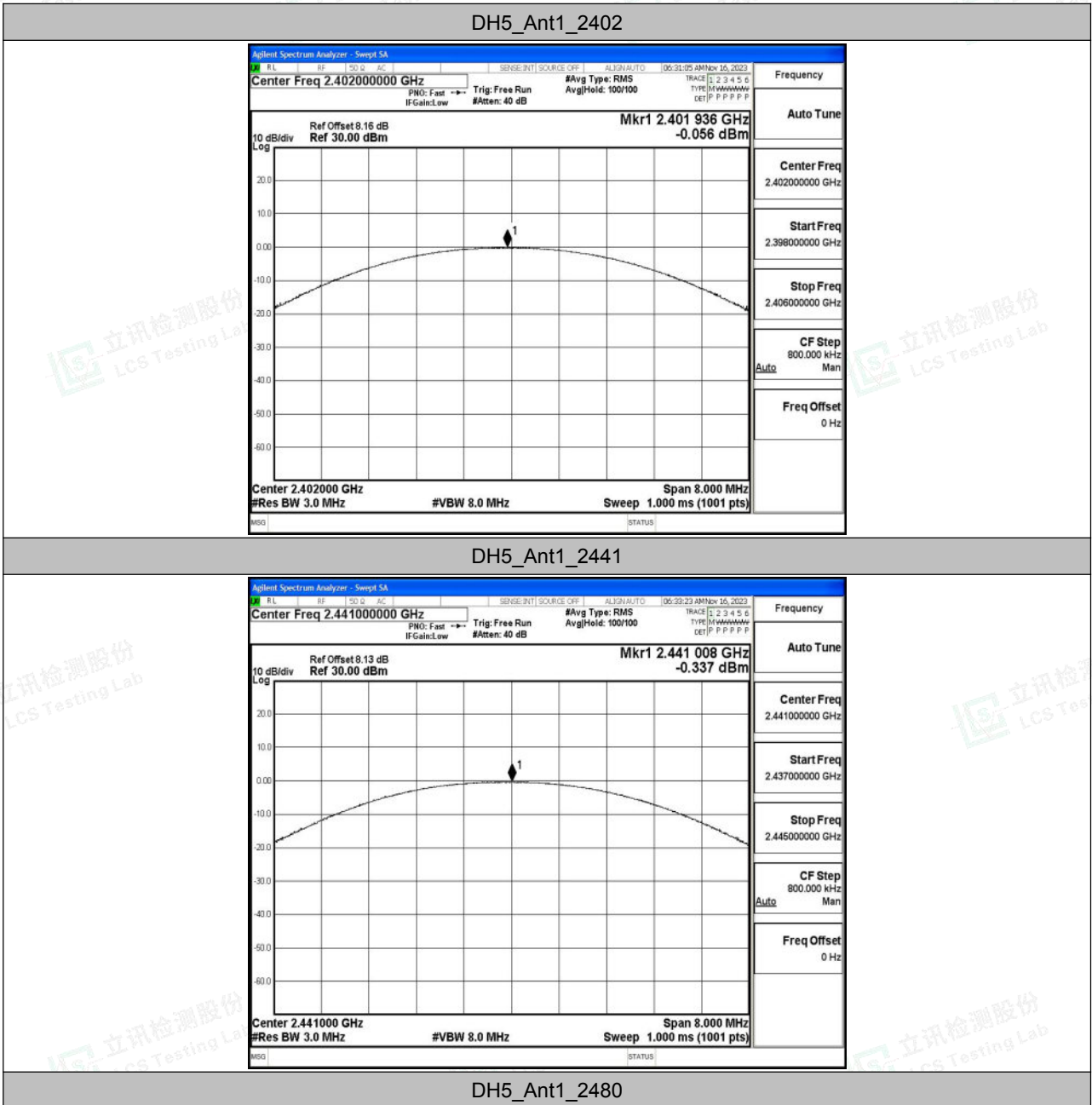
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

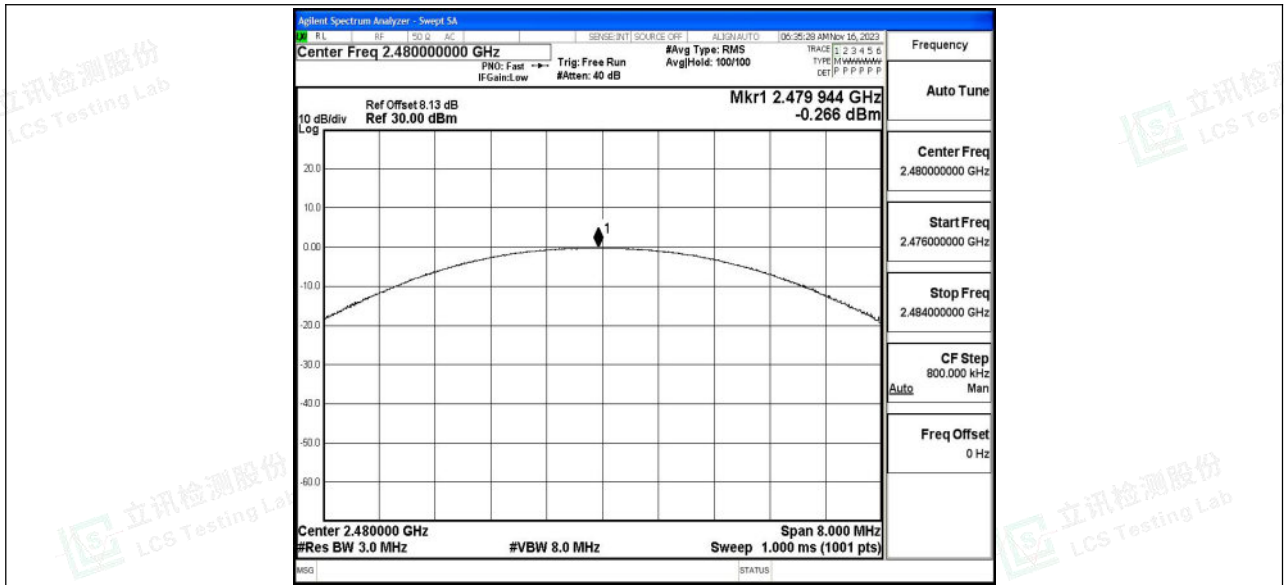
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

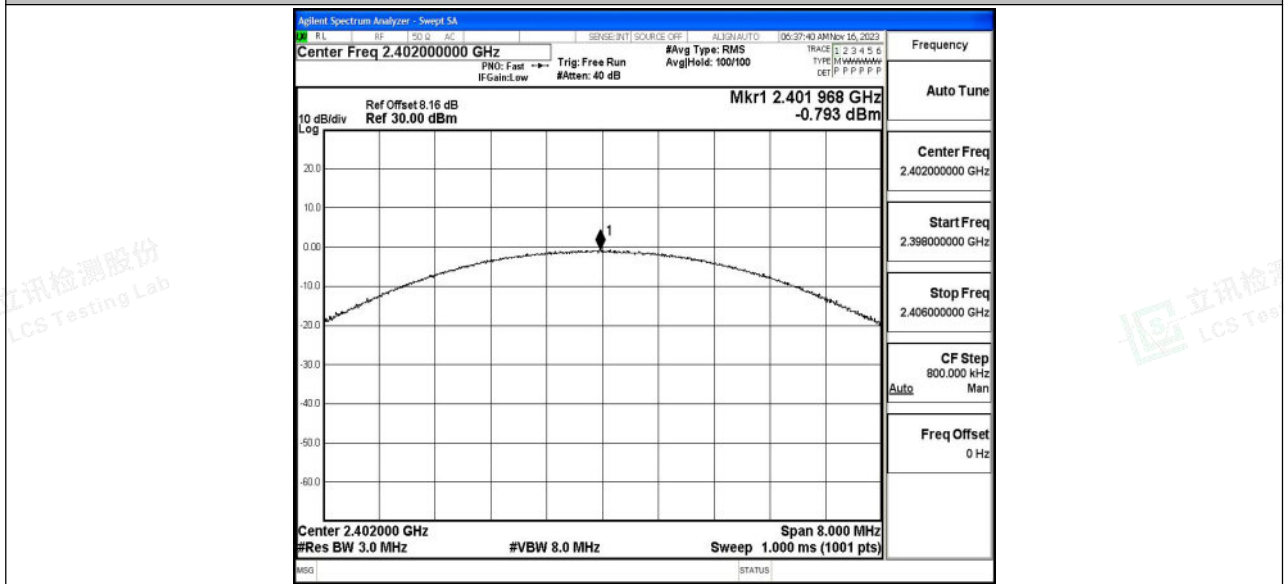


### Test Graphs

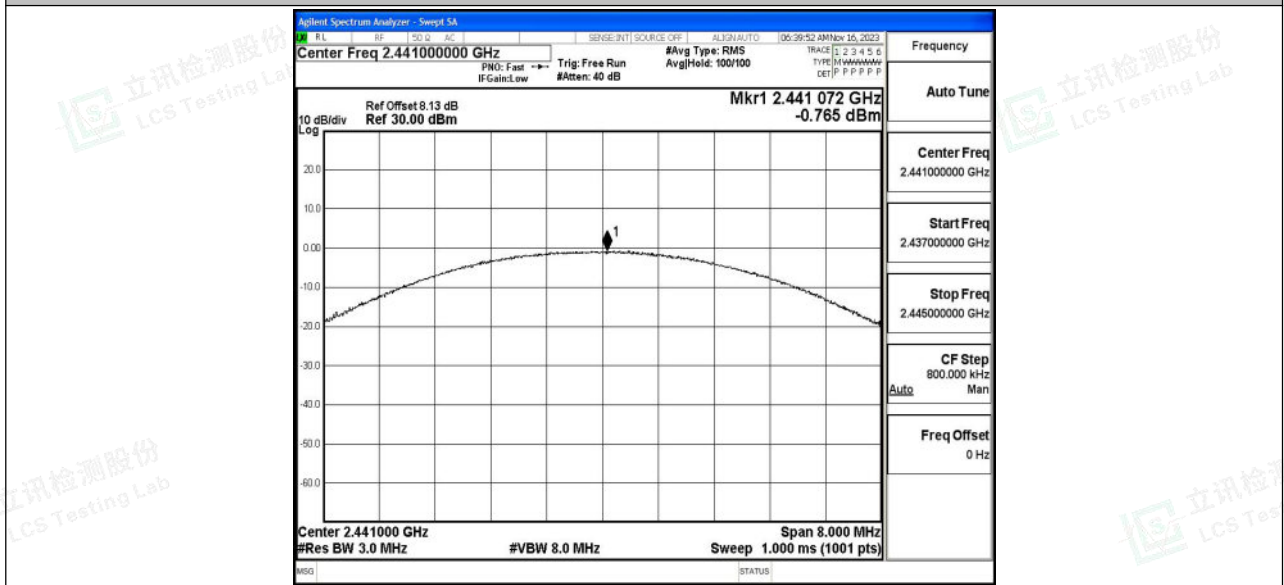




2DH5\_Ant1\_2402



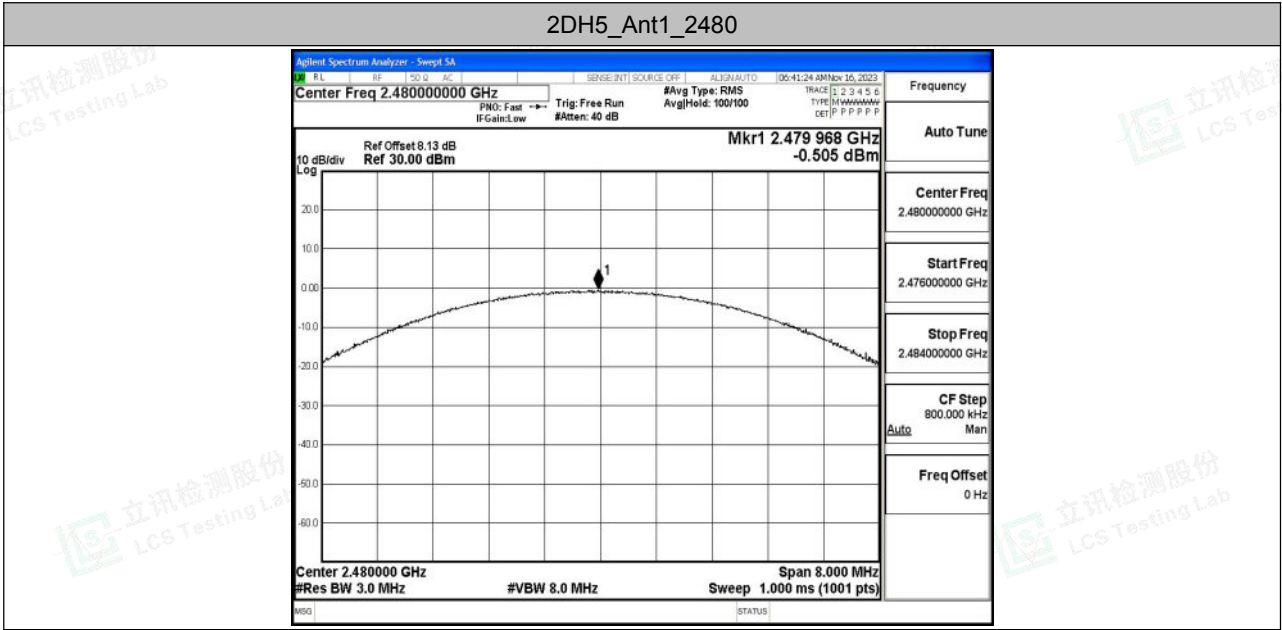
2DH5\_Ant1\_2441







2DH5\_Ant1\_2480





### A.3 Carrier frequency separation

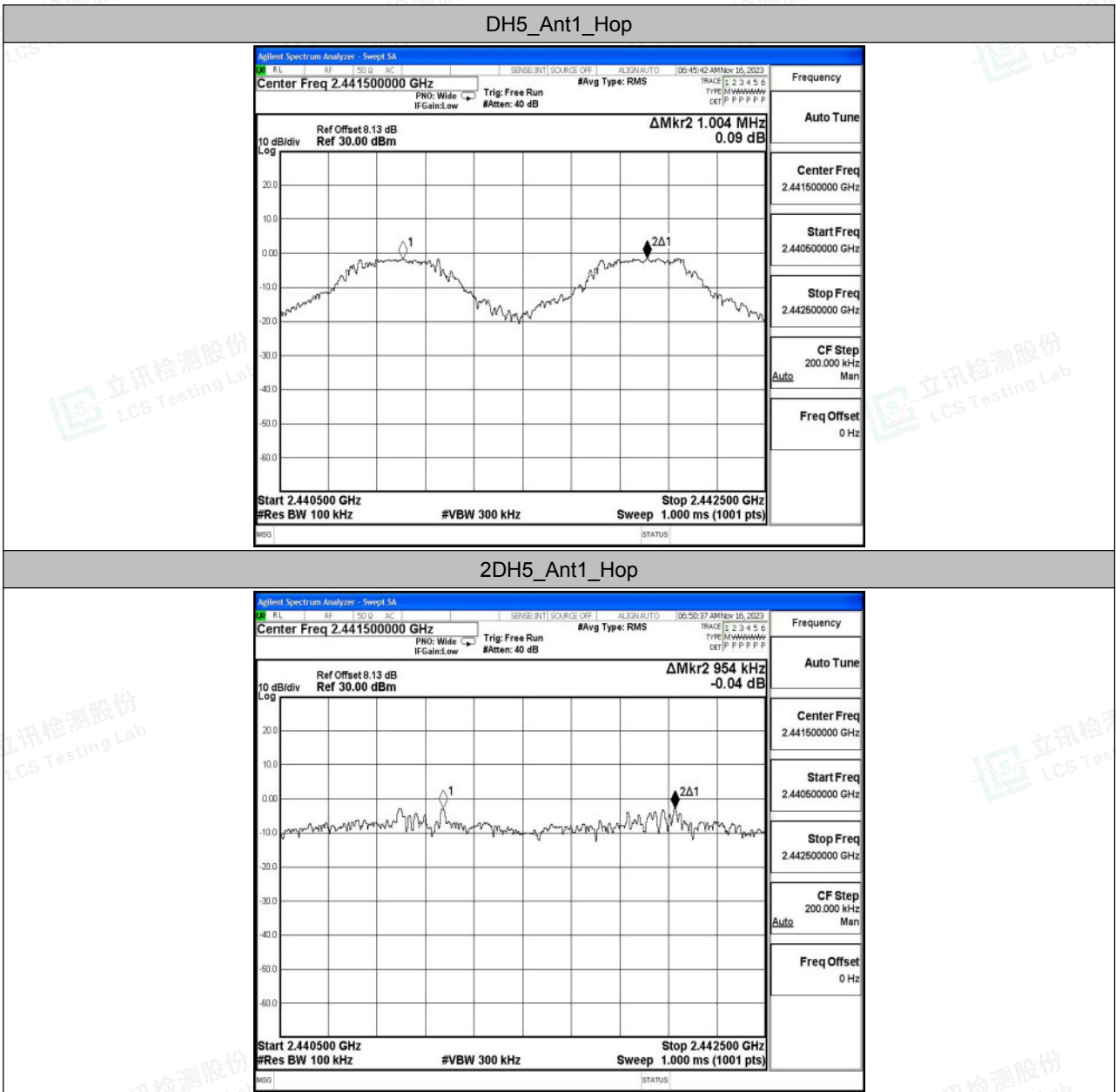
#### Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.004	≥0.690	PASS
2DH5	Ant1	Hop	0.954	≥0.882	PASS





### Test Graphs





## A.4 Time of occupancy

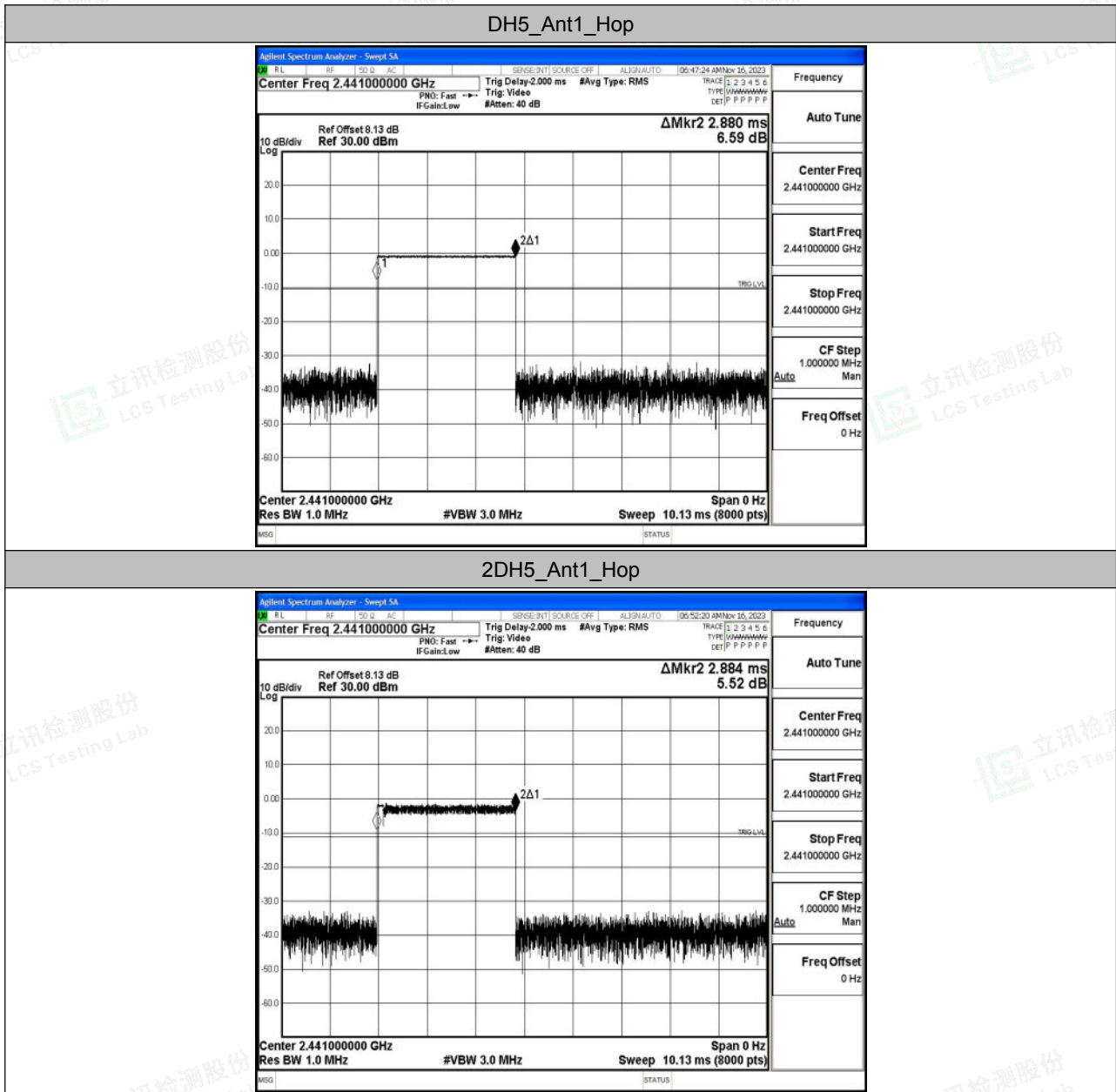
### Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.880	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.884	106.67	0.308	≤0.4	PASS





### Test Graphs





## A.5 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





## A.6 Band edge measurements

### Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.08	-50.82	$\leq -21.08$	PASS
		High	2480	-1.20	-51.05	$\leq -21.2$	PASS
		Low	Hop_2402	-1.69	-49.63	$\leq -21.69$	PASS
		High	Hop_2480	-0.90	-49.31	$\leq -20.9$	PASS
2DH5	Ant1	Low	2402	-6.31	-50.97	$\leq -26.31$	PASS
		High	2480	-6.24	-50.63	$\leq -26.24$	PASS
		Low	Hop_2402	-6.55	-50.03	$\leq -26.55$	PASS
		High	Hop_2480	-2.24	-49.62	$\leq -22.24$	PASS



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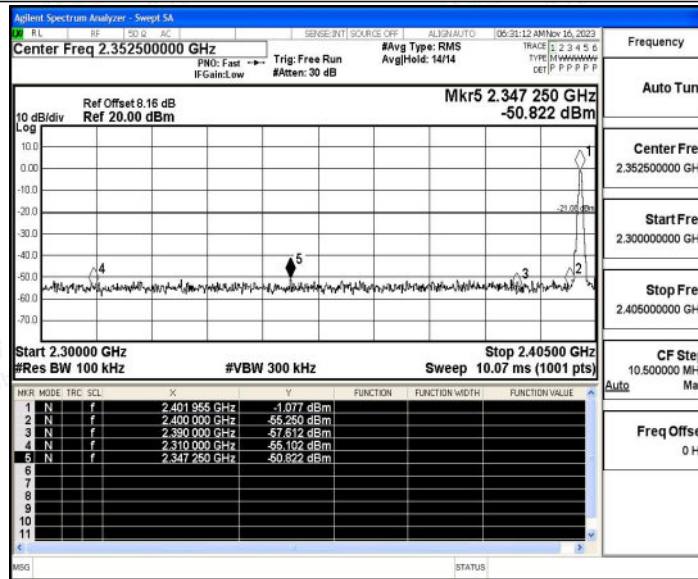
Scan code to check authenticity



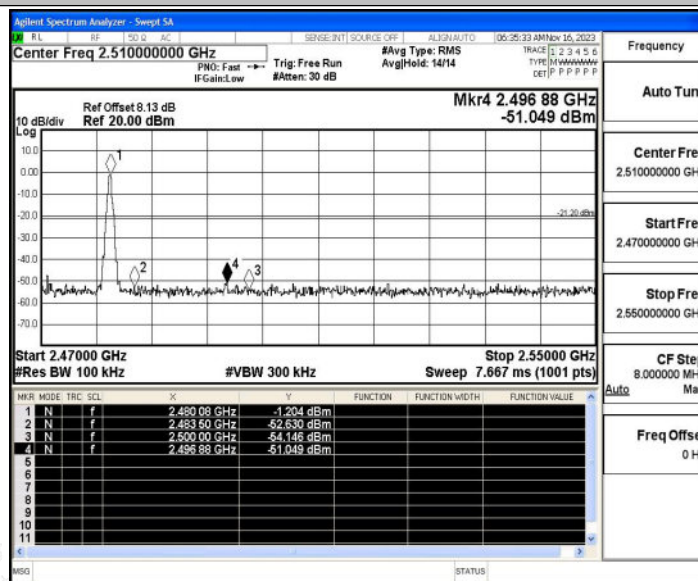


### Test Graphs

#### DH5\_Ant1\_Low\_2402

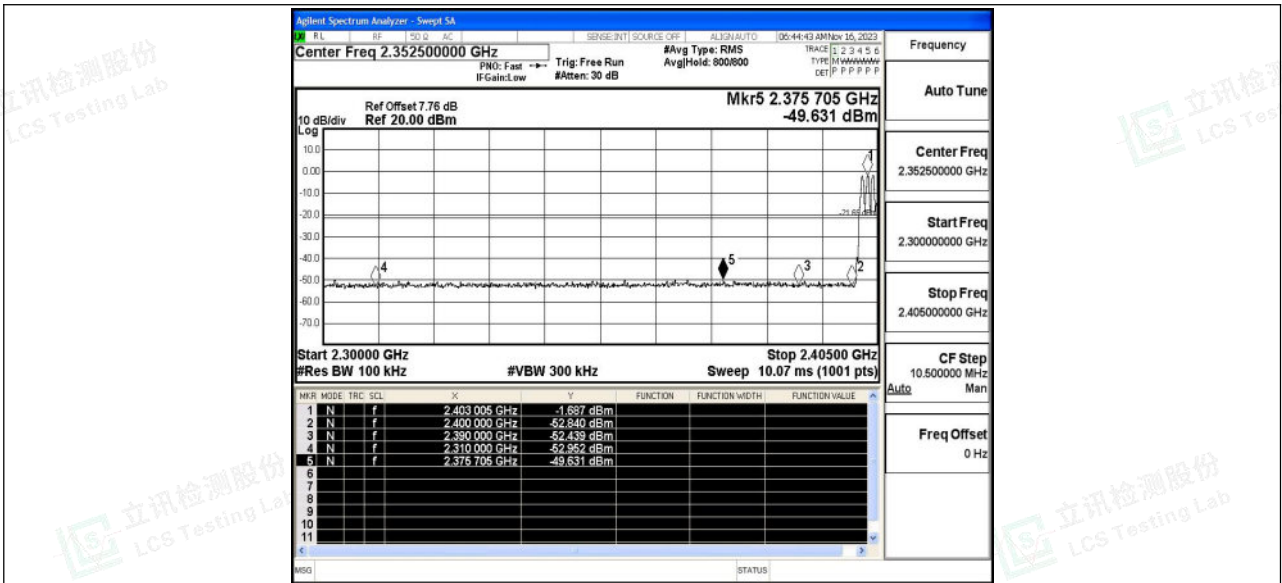


#### DH5\_Ant1\_High\_2480

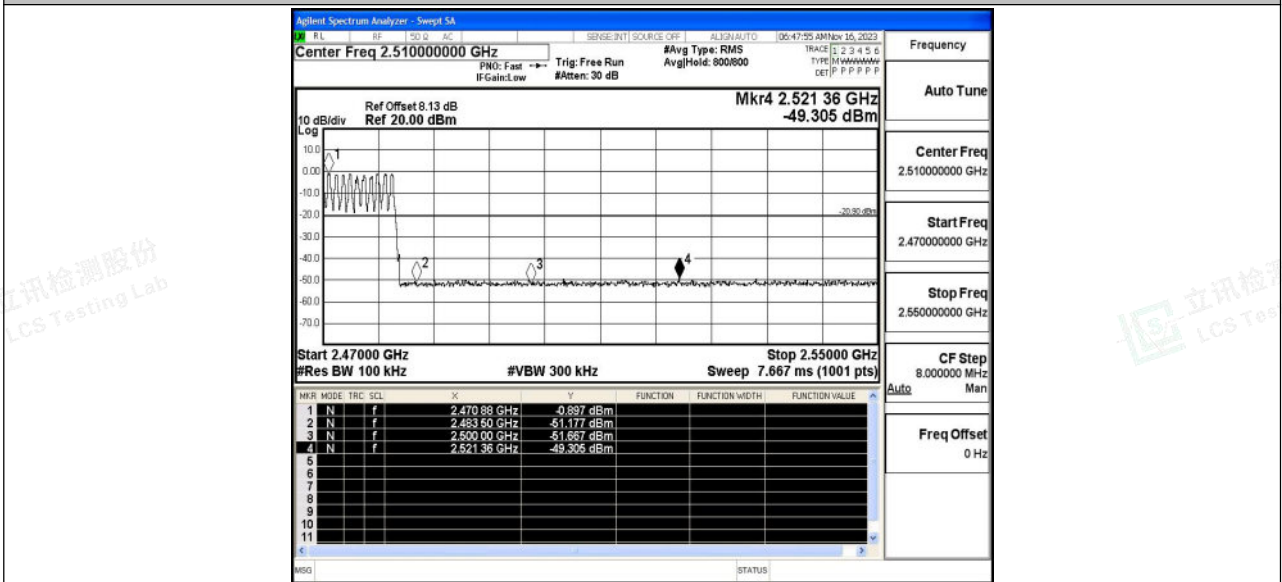


#### DH5\_Ant1\_Low\_Hop\_2402

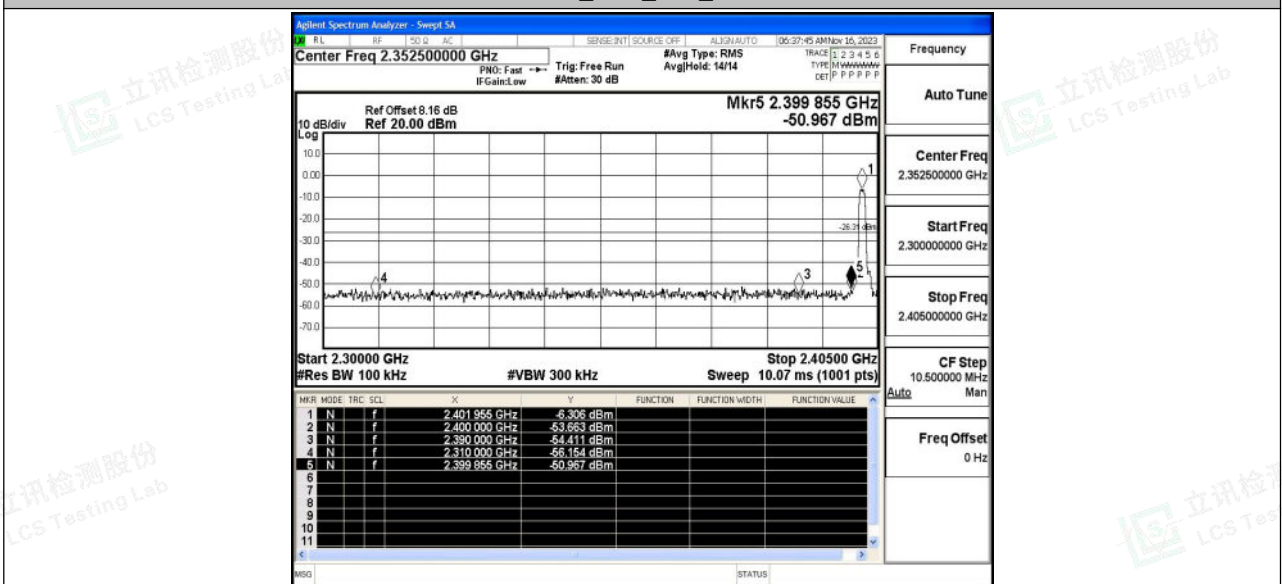




DH5\_Ant1\_High\_Hop\_2480

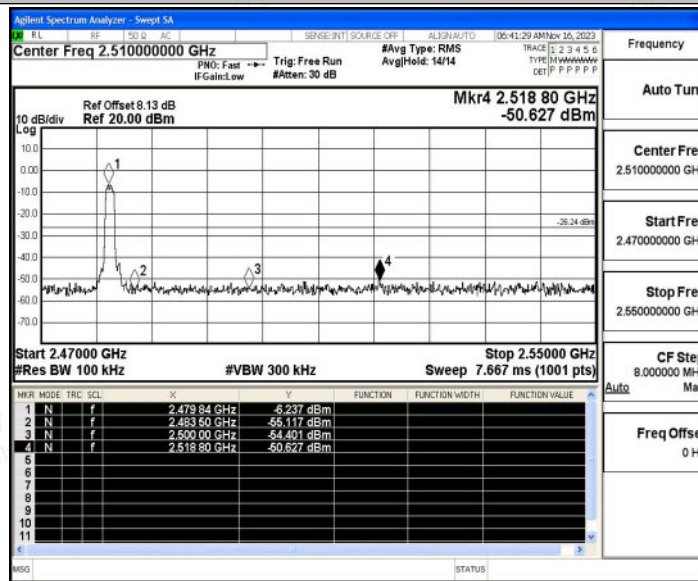


2DH5\_Ant1\_Low\_2402

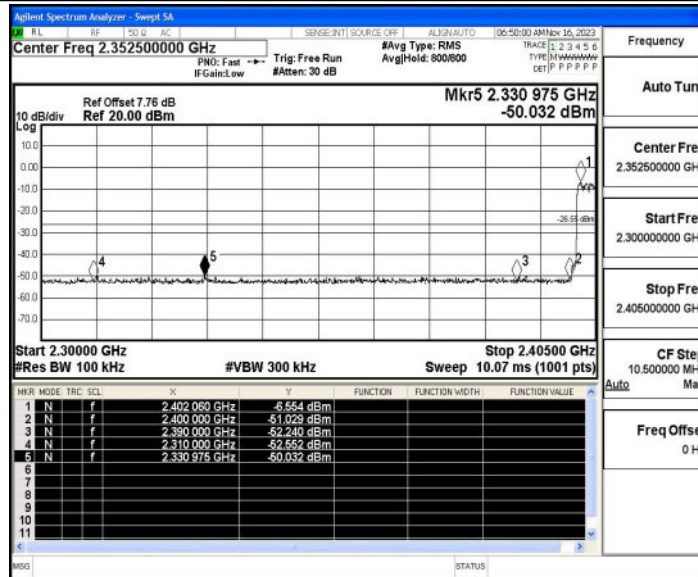




2DH5\_Ant1\_High\_2480

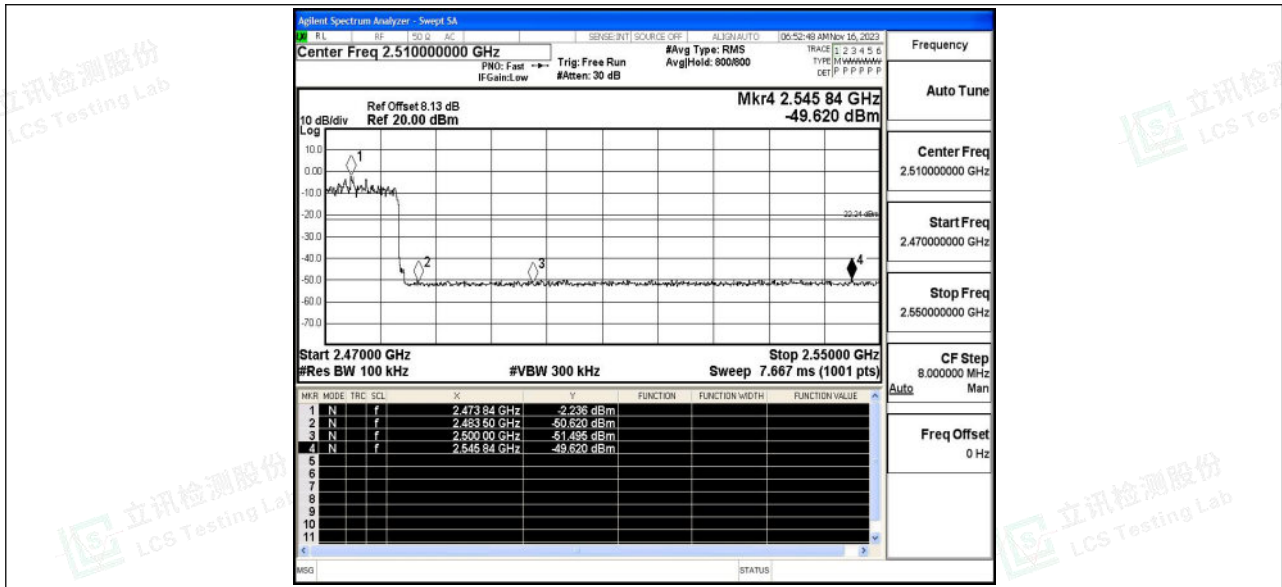


2DH5\_Ant1\_Low\_Hop\_2402



2DH5\_Ant1\_High\_Hop\_2480







## A.7 Conducted Spurious Emission

### Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-1.62	-1.62	---	PASS
			30~1000	-1.62	-61.41	≤-21.62	PASS
			1000~26500	-1.62	-48.99	≤-21.62	PASS
		2441	Reference	-0.99	-0.99	---	PASS
			30~1000	-0.99	-61.5	≤-20.99	PASS
			1000~26500	-0.99	-49.29	≤-20.99	PASS
		2480	Reference	-1.44	-1.44	---	PASS
			30~1000	-1.44	-61.46	≤-21.44	PASS
			1000~26500	-1.44	-49.44	≤-21.44	PASS
2DH5	Ant1	2402	Reference	-2.28	-2.28	---	PASS
			30~1000	-2.28	-61.6	≤-22.28	PASS
			1000~26500	-2.28	-47.98	≤-22.28	PASS
		2441	Reference	-2.17	-2.17	---	PASS
			30~1000	-2.17	-61.52	≤-22.17	PASS
			1000~26500	-2.17	-50.03	≤-22.17	PASS
		2480	Reference	-2.01	-2.01	---	PASS
			30~1000	-2.01	-62.23	≤-22.01	PASS
			1000~26500	-2.01	-48.93	≤-22.01	PASS



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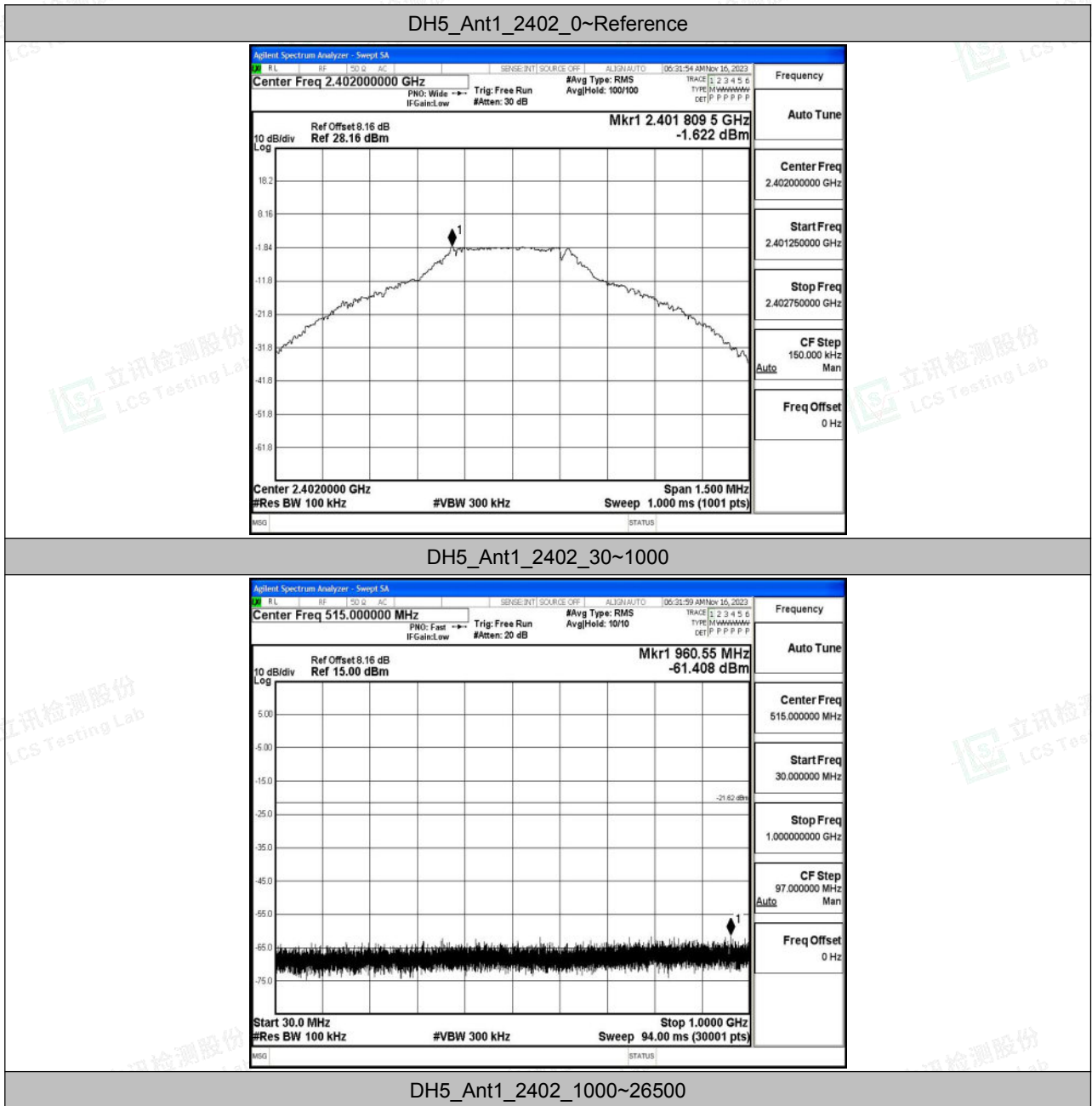
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

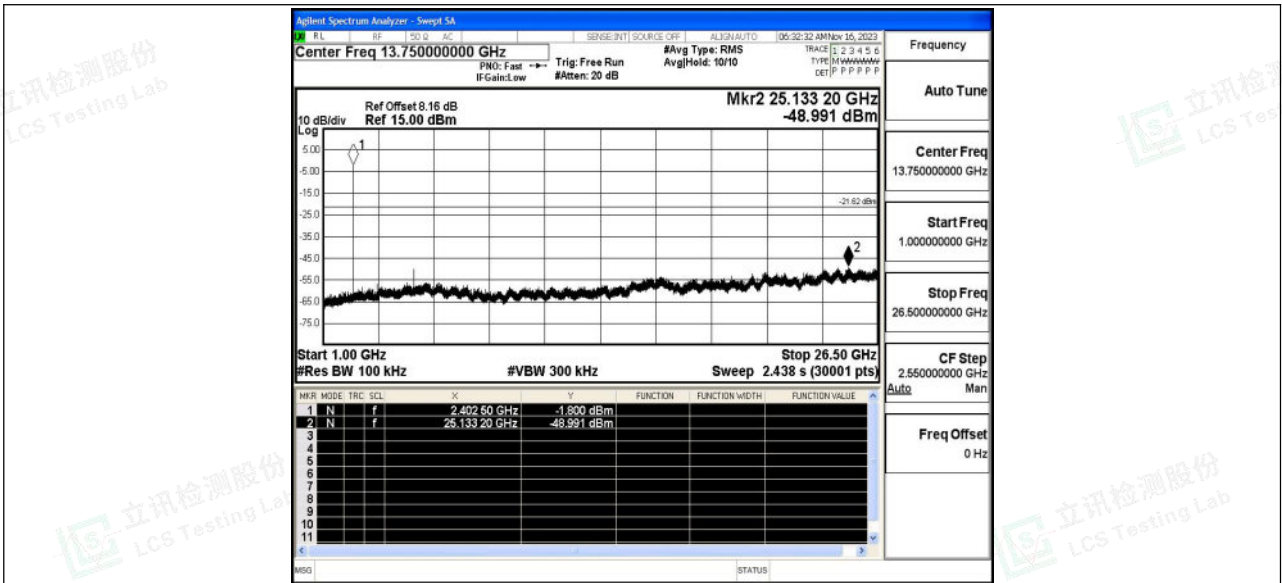
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Scan code to check authenticity

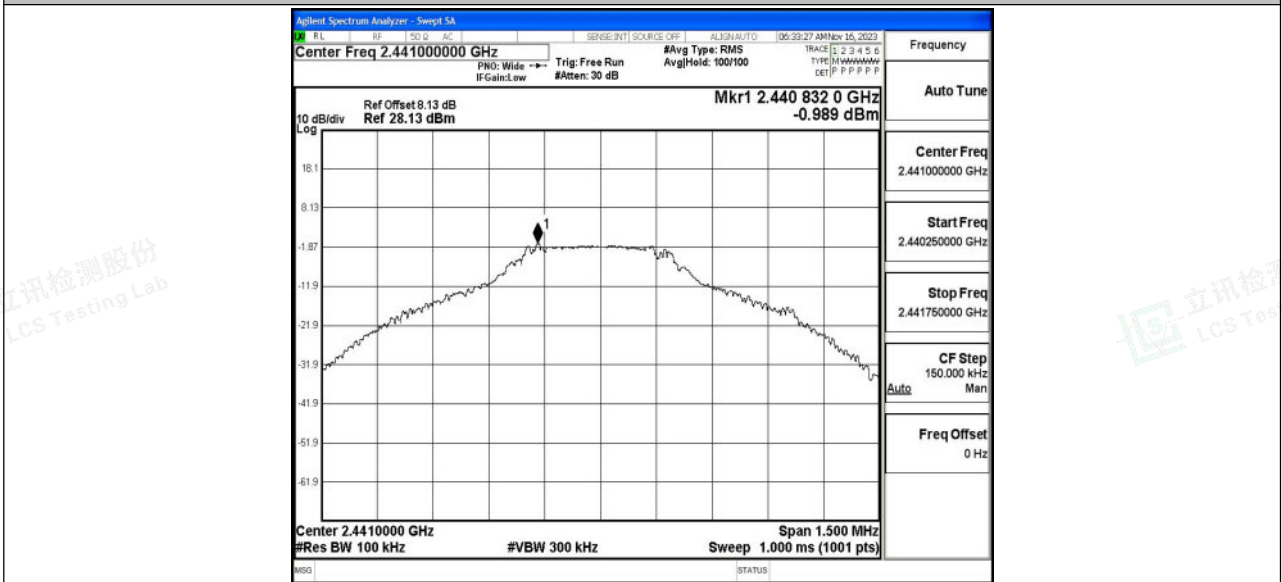


### Test Graphs

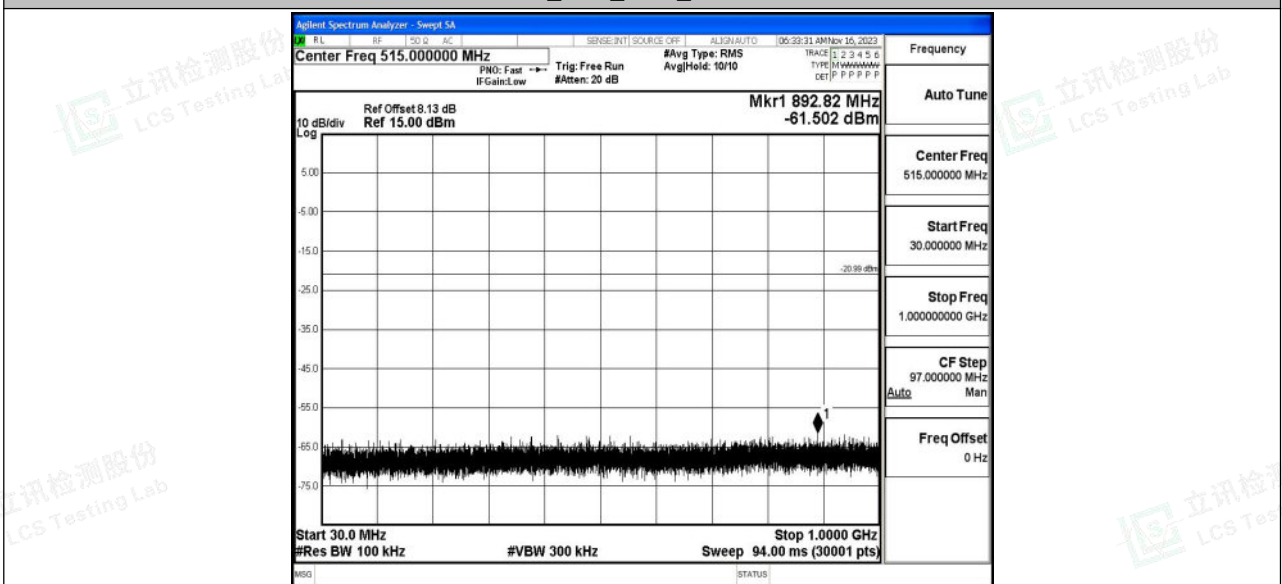




DH5\_Ant1\_2441\_0~Reference

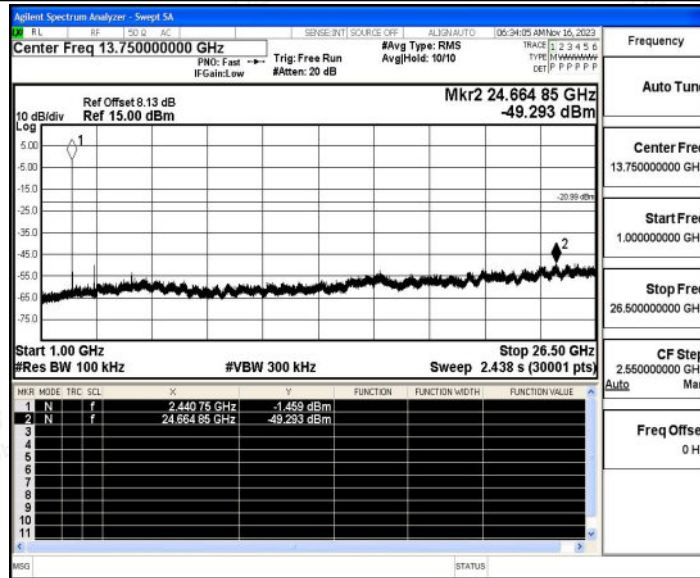


DH5\_Ant1\_2441\_30~1000

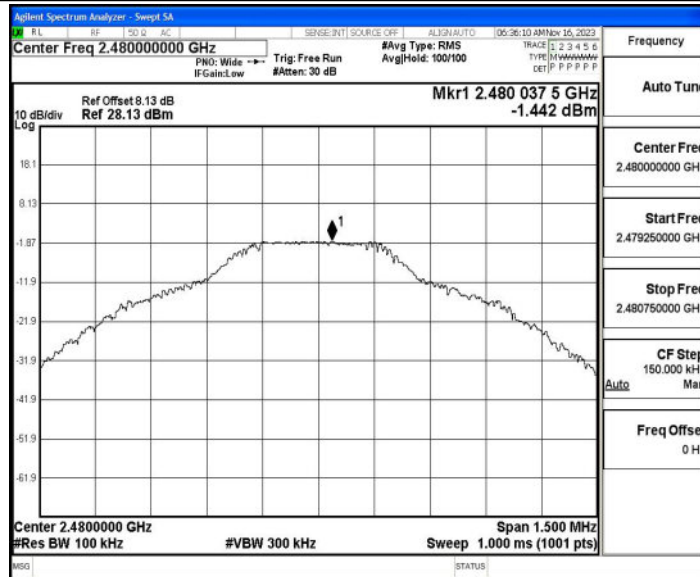




DH5\_Ant1\_2441\_1000~26500



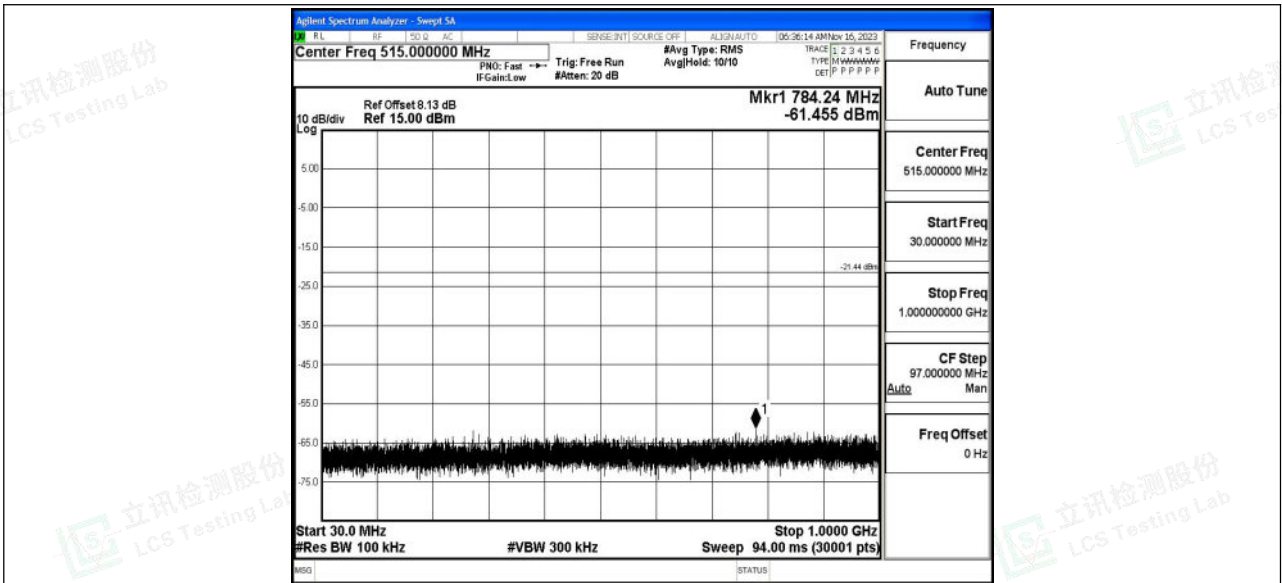
DH5\_Ant1\_2480\_0~Reference



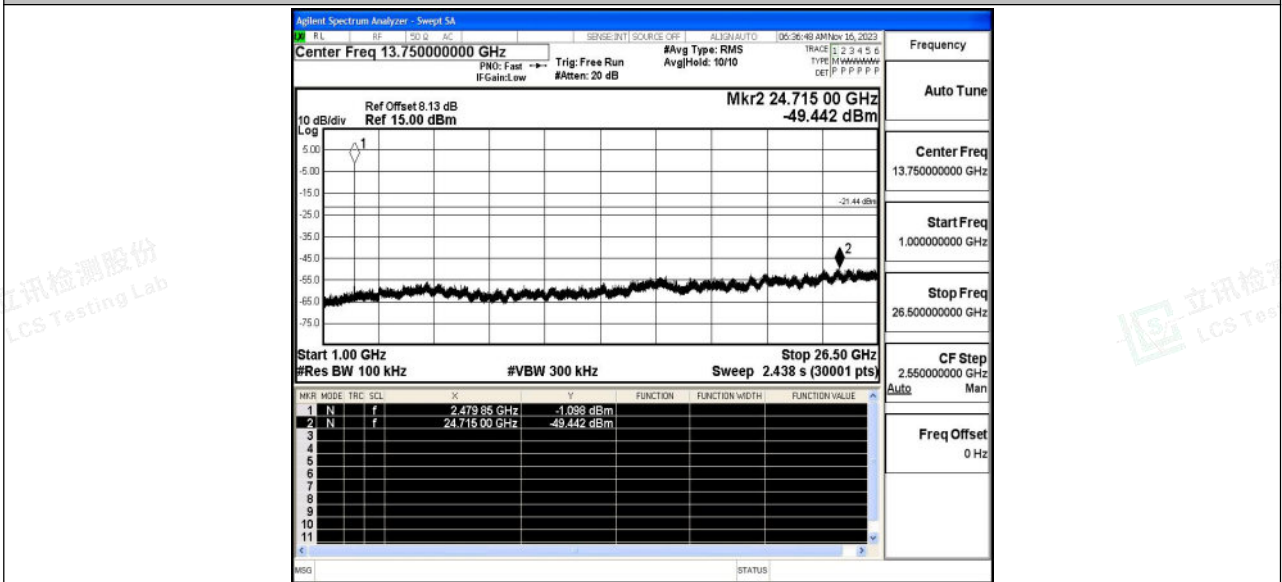
DH5\_Ant1\_2480\_30~1000



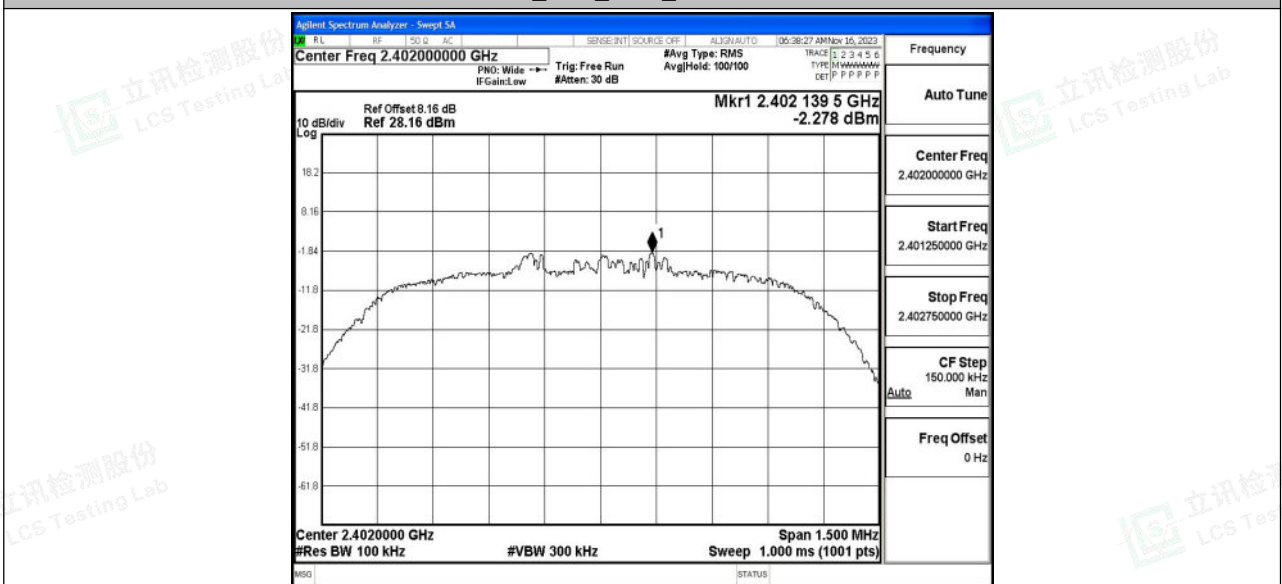




DH5\_Ant1\_2480\_1000~26500

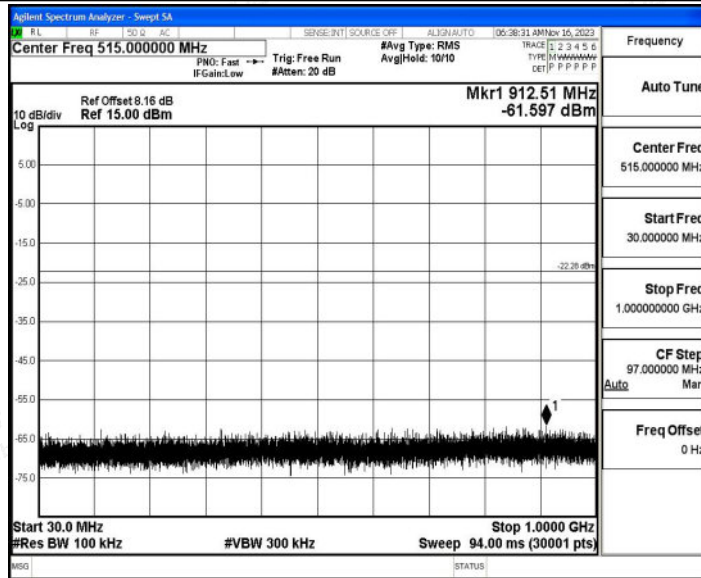


2DH5\_Ant1\_2402\_0~Reference

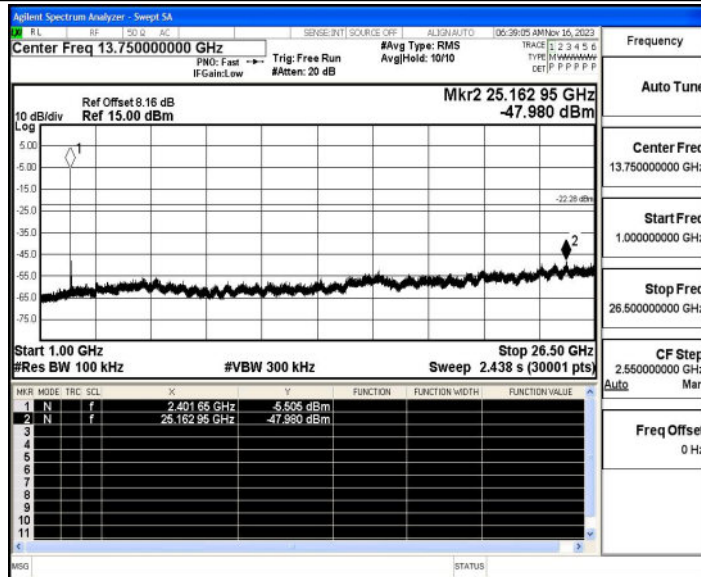




2DH5\_Ant1\_2402\_30~1000

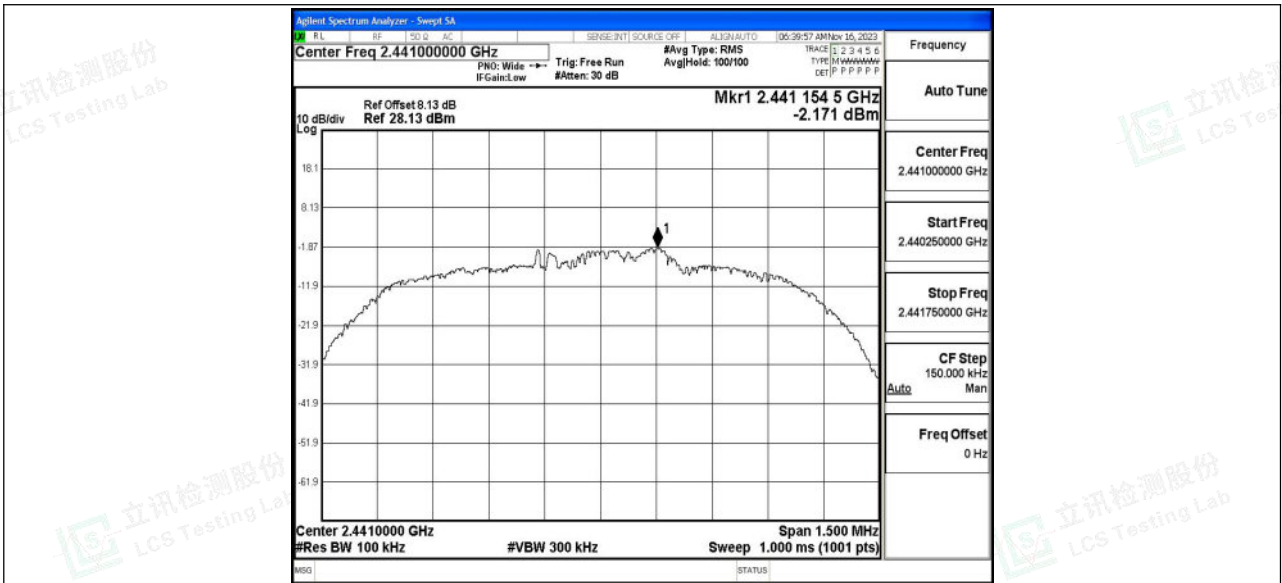


2DH5\_Ant1\_2402\_1000~26500

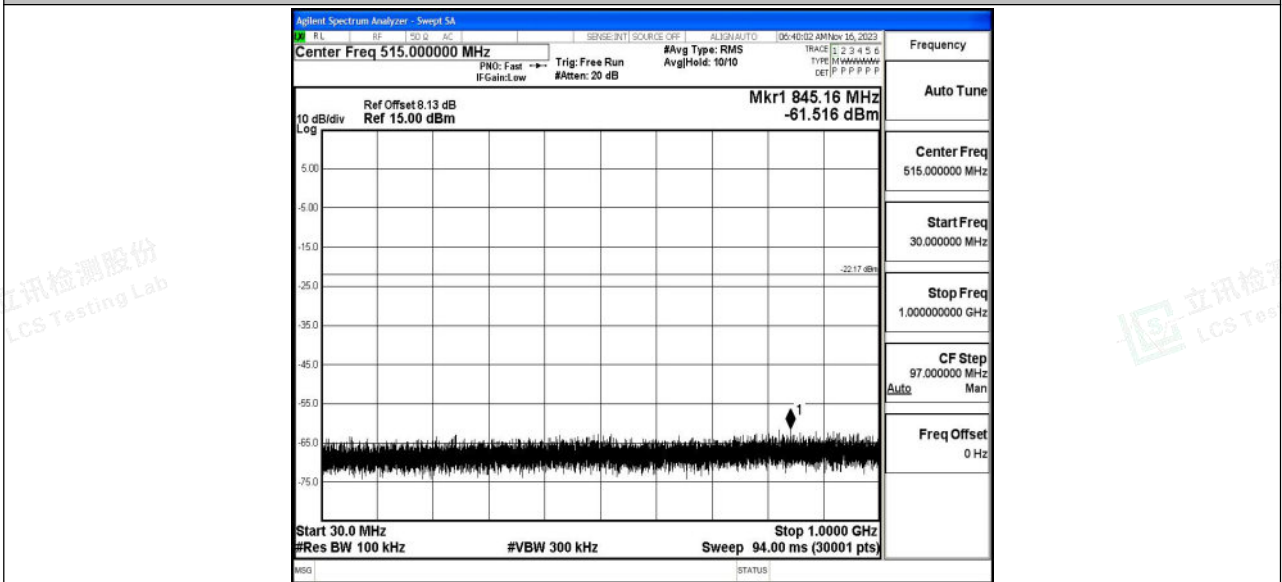


2DH5\_Ant1\_2441\_0~Reference

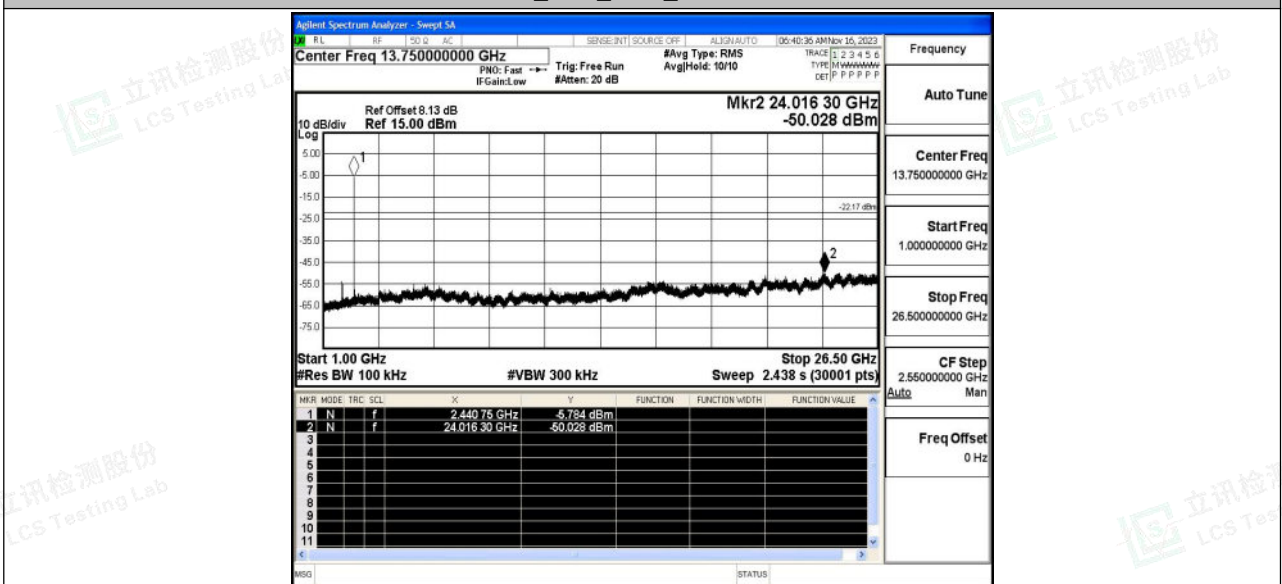




2DH5\_Ant1\_2441\_30~1000

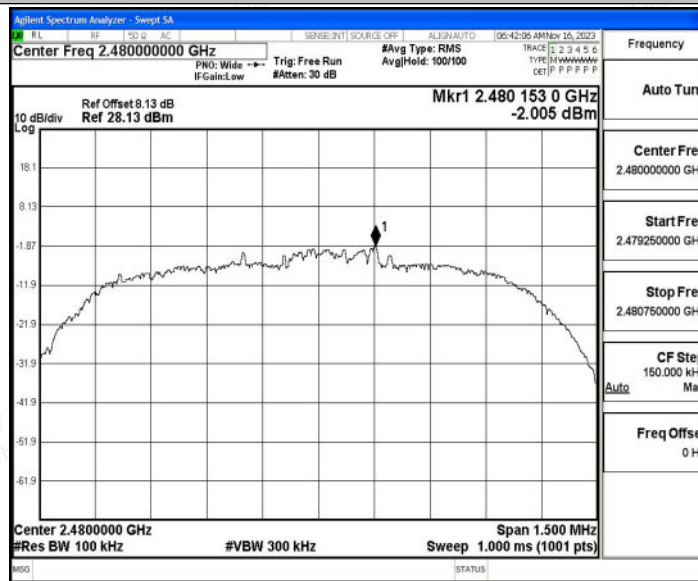


2DH5\_Ant1\_2441\_1000~26500

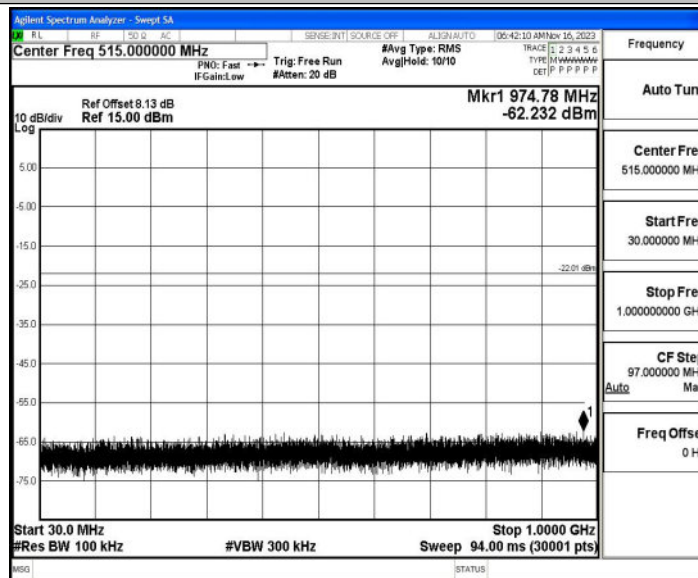




2DH5\_Ant1\_2480\_0~Reference

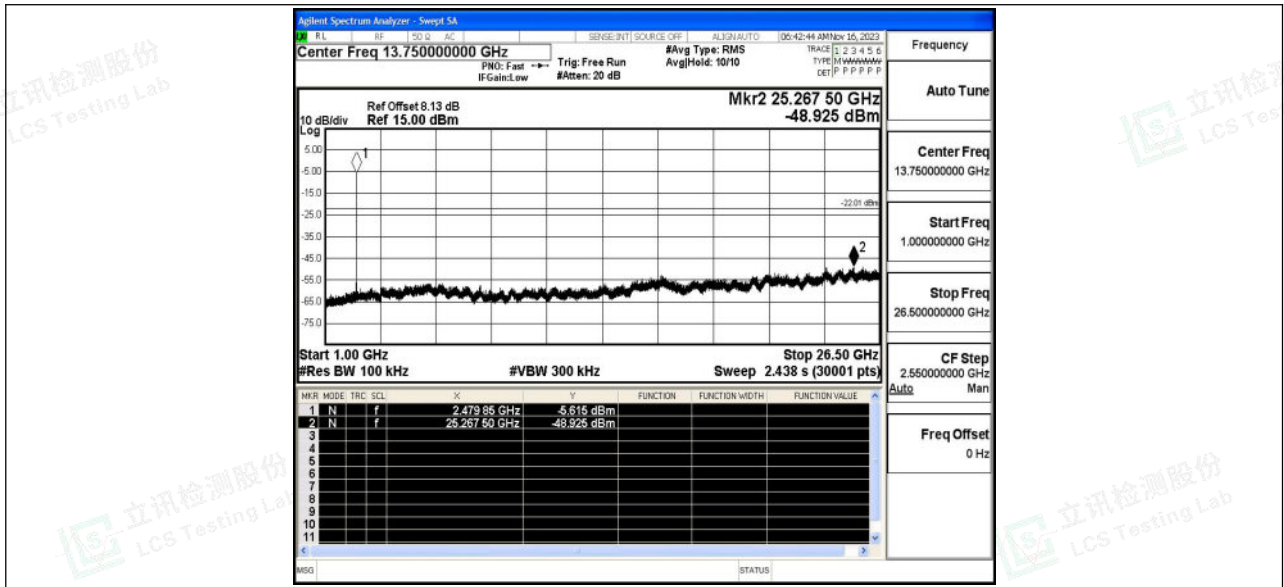


2DH5\_Ant1\_2480\_30~1000



2DH5\_Ant1\_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	Ant1	Low	2402	AV	2310.000	-49.1	≤-41.20	46.10	≤54	PASS		
				AV	2365.520	-48.54	≤-41.20	46.66	≤54	PASS		
				AV	2390.000	-48.74	≤-41.20	46.46	≤54	PASS		
				Peak	2310.000	-44.29	≤-21.20	50.91	≤74	PASS		
				Peak	2340.635	-39.51	≤-21.20	55.69	≤74	PASS		
				Peak	2390.000	-42.61	≤-21.20	52.59	≤74	PASS		
		High	2480	AV	2483.500	-48.54	≤-41.20	46.66	≤54	PASS		
				AV	2493.440	-48.42	≤-41.20	46.78	≤54	PASS		
				AV	2500.000	-48.67	≤-41.20	46.53	≤54	PASS		
				Peak	2483.500	-42.47	≤-21.20	52.73	≤74	PASS		
				Peak	2491.920	-39.96	≤-21.20	55.24	≤74	PASS		
				Peak	2500.000	-41.53	≤-21.20	53.67	≤74	PASS		
		Low	Hop_2402	Peak	2310.000	-41.64	≤-21.20	53.56	≤74	PASS		
				Peak	2338.430	-37.31	≤-21.20	57.89	≤74	PASS		
				Peak	2390.000	-41.22	≤-21.20	53.98	≤74	PASS		
		High	Hop_2480	Peak	2483.500	-40.4	≤-21.20	54.80	≤74	PASS		
				Peak	2491.840	-38.4	≤-21.20	56.80	≤74	PASS		
				Peak	2500.000	-40.44	≤-21.20	54.76	≤74	PASS		
		2DH5	Ant1	Low	2402	AV	2310.000	-49.08	≤-41.20	46.12	≤54	PASS
						AV	2379.380	-48.57	≤-41.20	46.63	≤54	PASS
						AV	2390.000	-48.72	≤-41.20	46.48	≤54	PASS
Peak	2310.000					-44.64	≤-21.20	50.56	≤74	PASS		
Peak	2386.730					-39.08	≤-21.20	56.12	≤74	PASS		
Peak	2390.000					-43.48	≤-21.20	51.72	≤74	PASS		
High	2480			AV	2483.500	-48.28	≤-41.20	46.92	≤54	PASS		
				AV	2483.520	-48.28	≤-41.20	46.92	≤54	PASS		
				AV	2500.000	-48.54	≤-41.20	46.66	≤54	PASS		
				Peak	2483.500	-43.58	≤-21.20	51.62	≤74	PASS		
				Peak	2496.560	-40.17	≤-21.20	55.03	≤74	PASS		
				Peak	2500.000	-43.46	≤-21.20	51.74	≤74	PASS		
Low	Hop_2402			Peak	2310.000	-41.39	≤-21.20	53.81	≤74	PASS		
				Peak	2387.045	-38.05	≤-21.20	57.15	≤74	PASS		
				Peak	2390.000	-41.33	≤-21.20	53.87	≤74	PASS		
High	Hop_2480			Peak	2483.500	-40.7	≤-21.20	54.50	≤74	PASS		
				Peak	2492.160	-38.07	≤-21.20	57.13	≤74	PASS		
				Peak	2500.000	-39.53	≤-21.20	55.67	≤74	PASS		



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Scan code to check authenticity



Note:

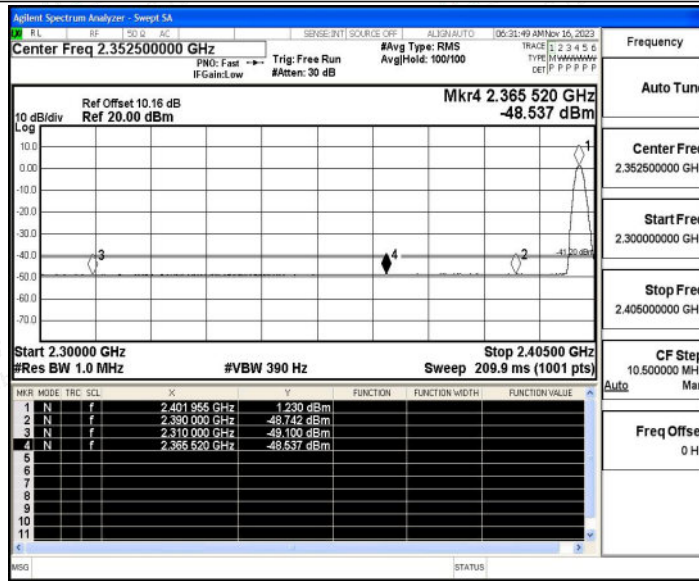
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



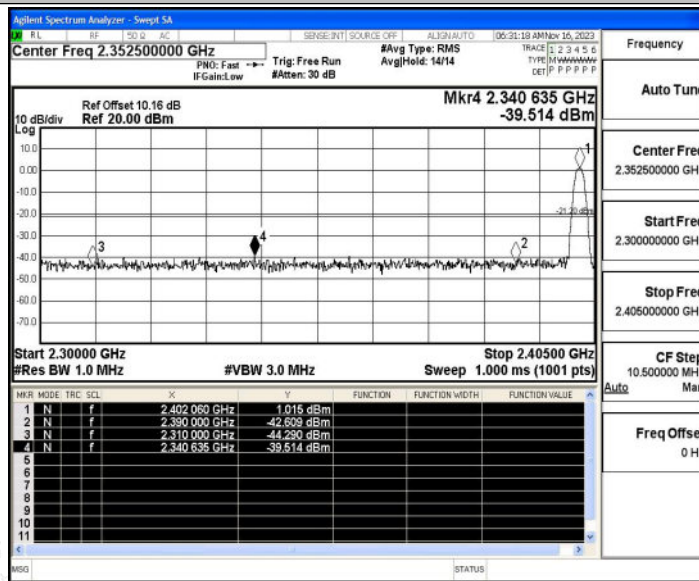


### Test Graphs

#### DH5\_Ant1\_Low\_2402\_AV



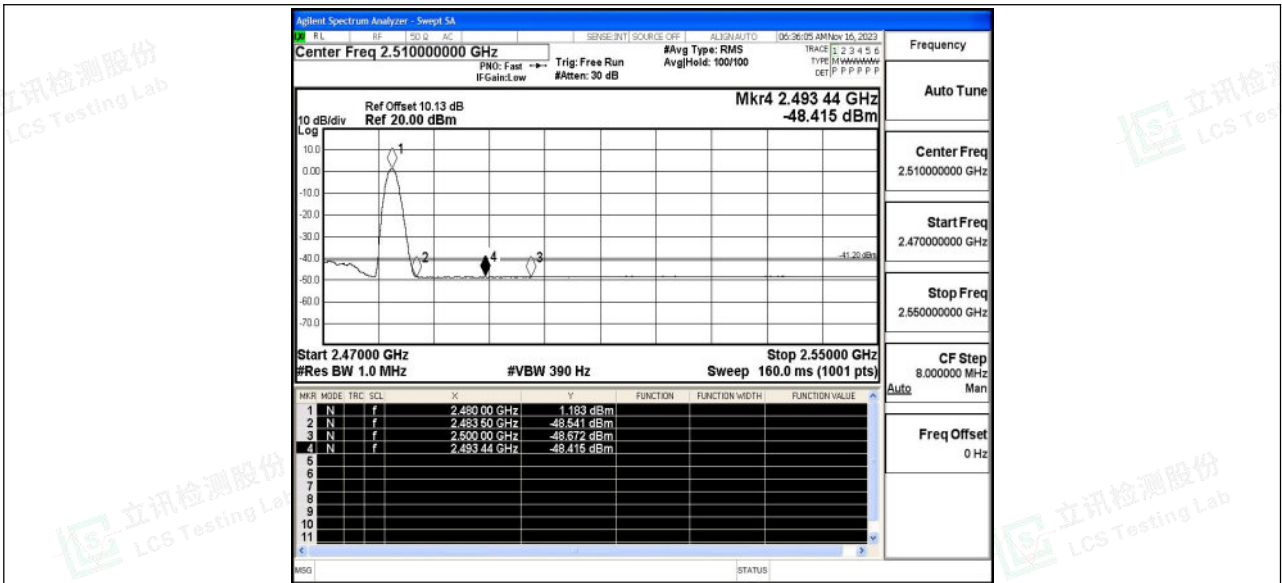
#### DH5\_Ant1\_Low\_2402\_Peak



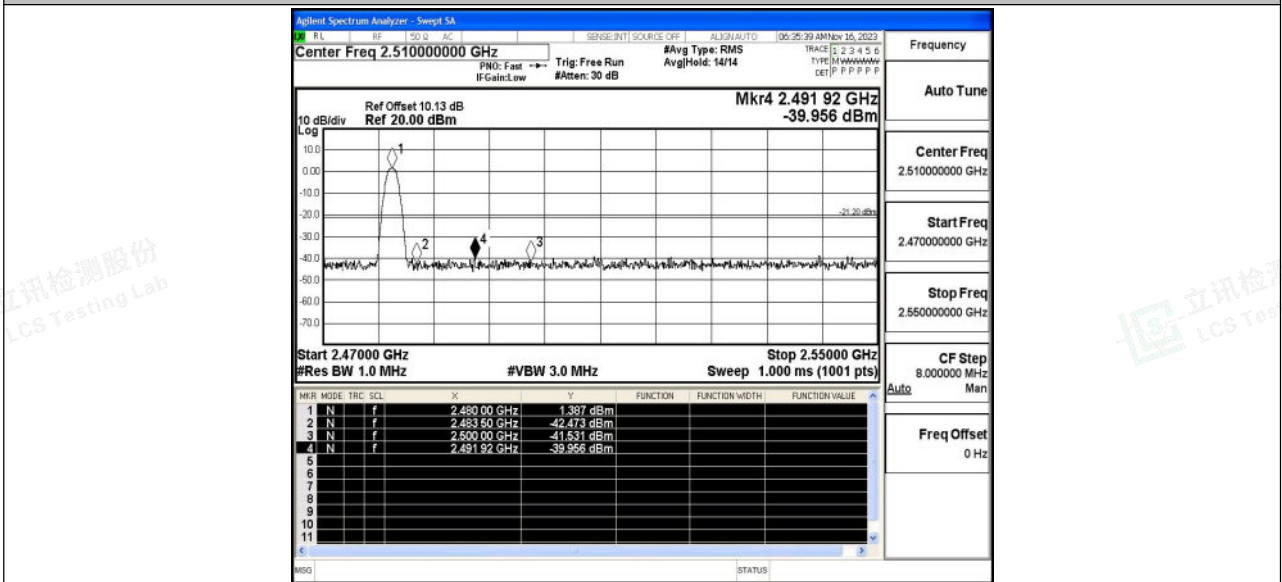
#### DH5\_Ant1\_High\_2480\_AV



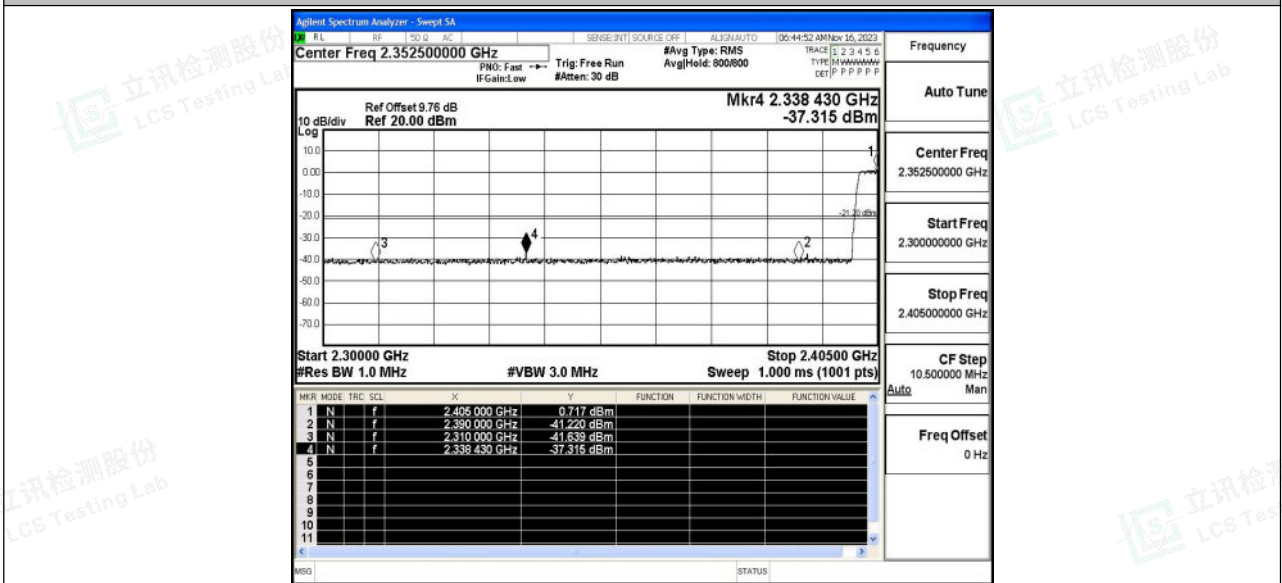




DH5\_Ant1\_High\_2480\_Peak

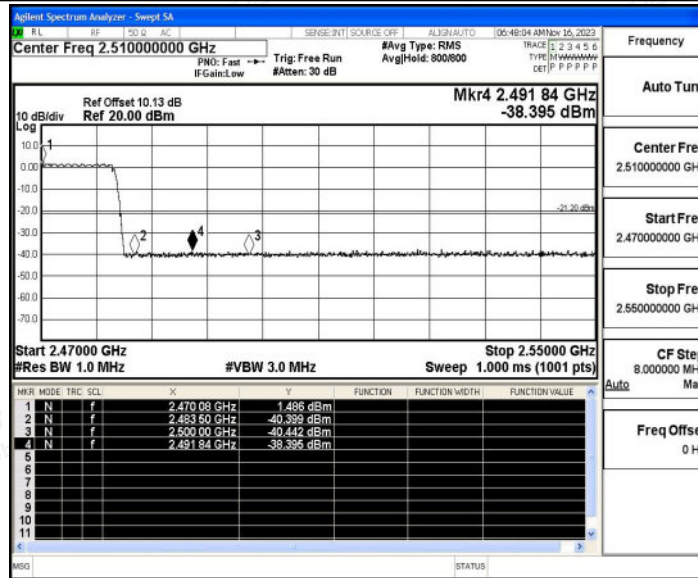


DH5\_Ant1\_Low\_Hop\_2402\_Peak

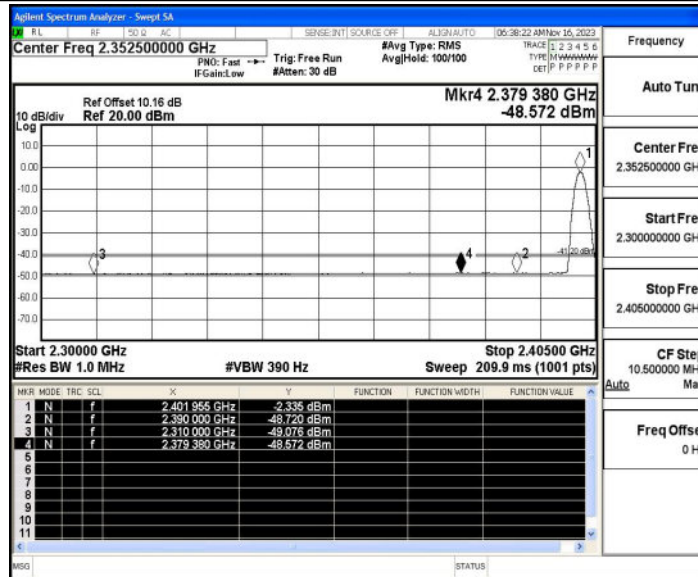




DH5\_Ant1\_High\_Hop\_2480\_Peak

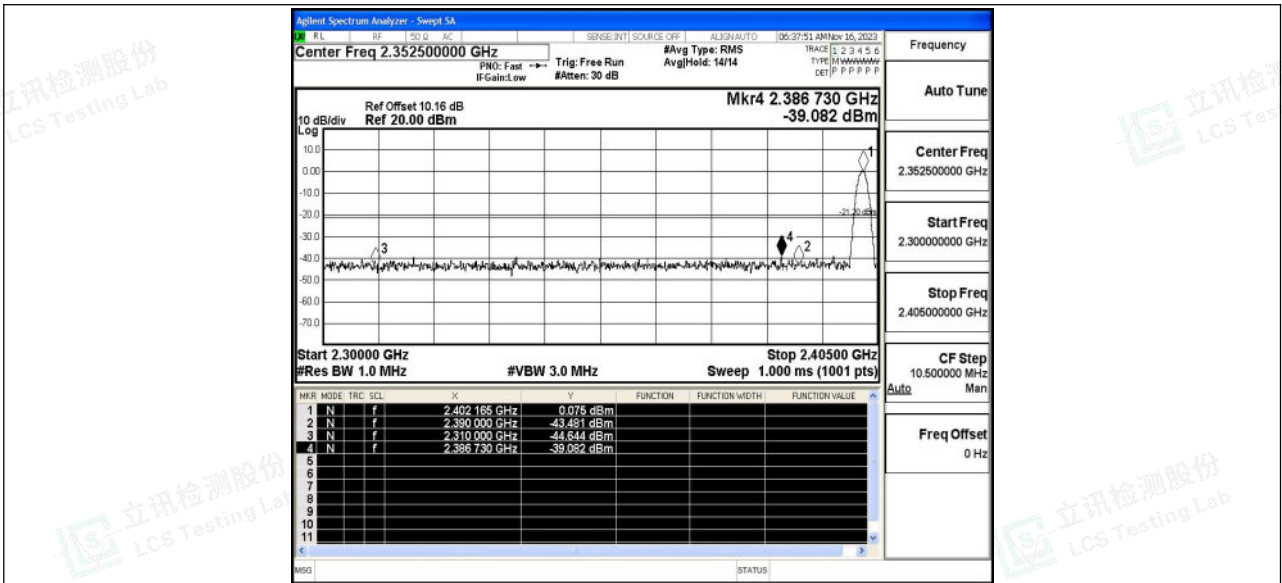


2DH5\_Ant1\_Low\_2402\_AV

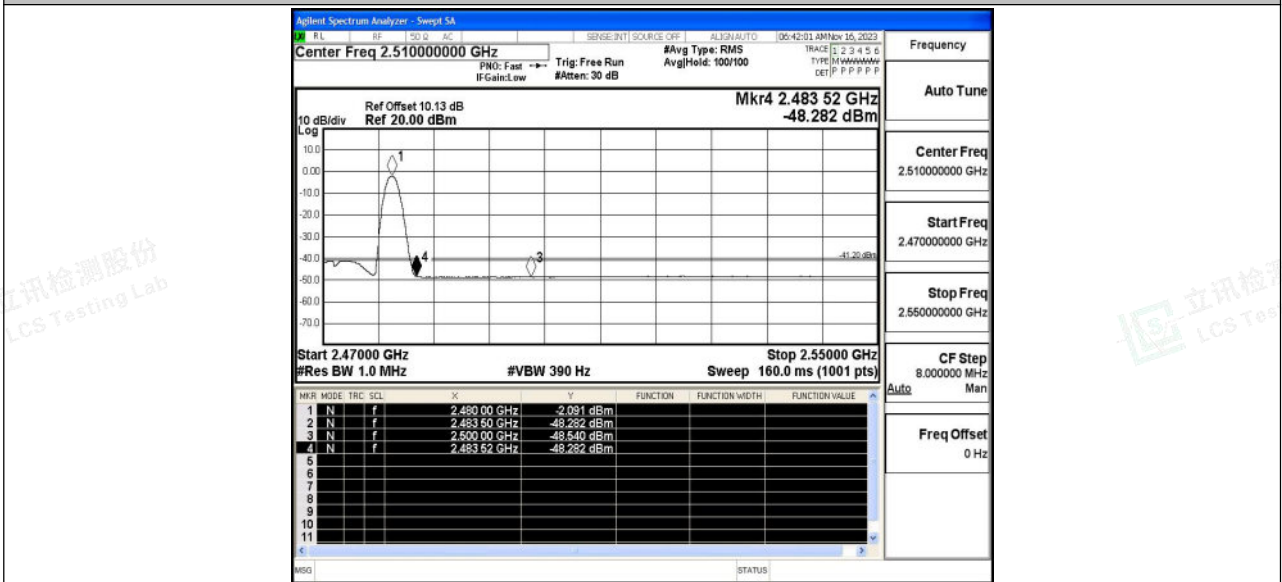


2DH5\_Ant1\_Low\_2402\_Peak

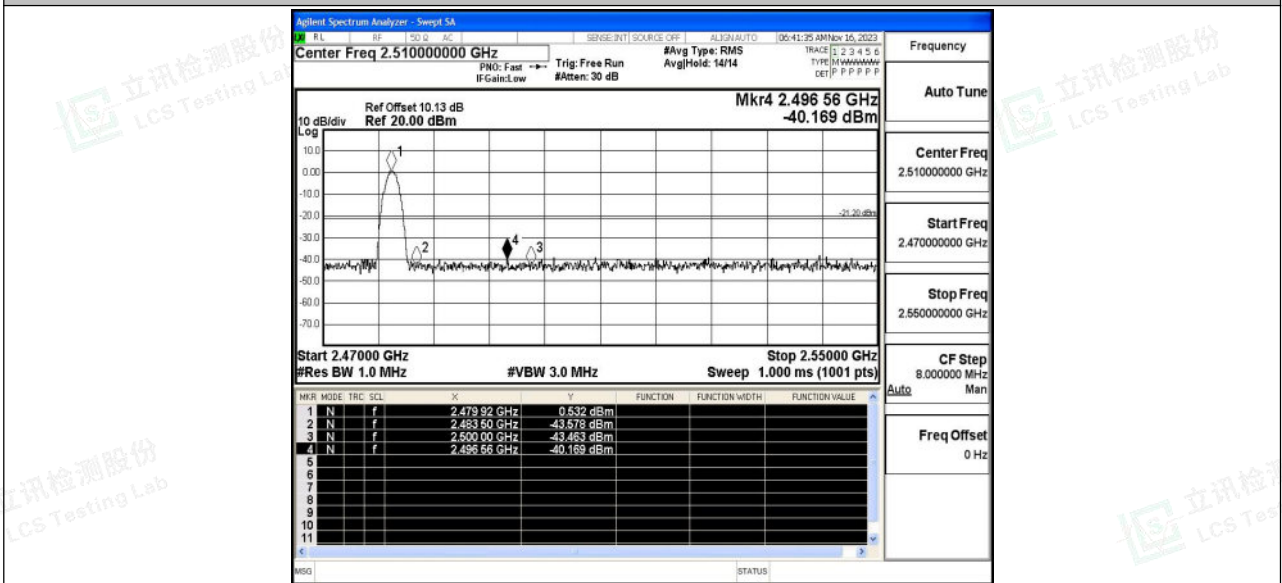




2DH5\_Ant1\_High\_2480\_AV

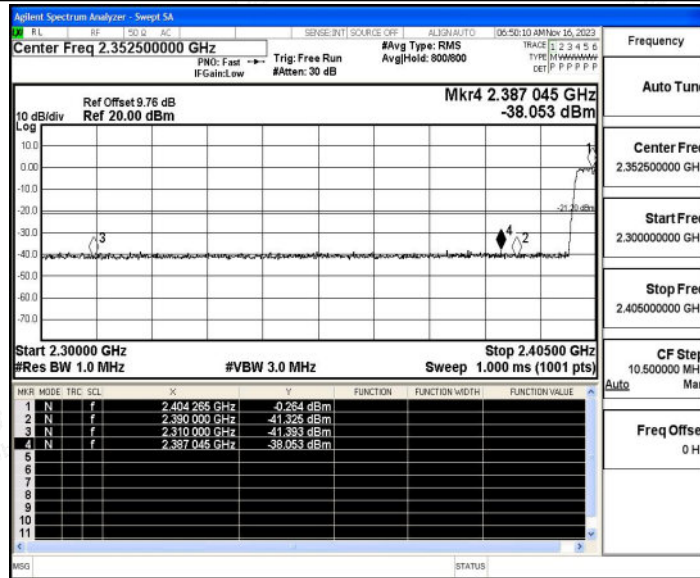


2DH5\_Ant1\_High\_2480\_Peak





2DH5\_Ant1\_Low\_Hop\_2402\_Peak



2DH5\_Ant1\_High\_Hop\_2480\_Peak

