



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: laipic

Test Model: S1

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Jack Cheng



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A.1 20dB Emission Bandwidth

Test Result

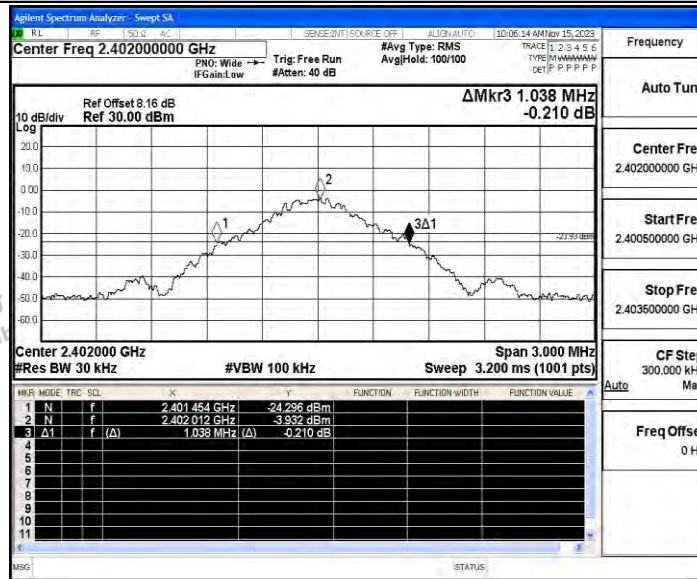
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant	2402	1.038	2401.454	2402.492	---
		2441	1.017	2440.469	2441.486	---
		2480	1.044	2479.457	2480.501	---
2DH5	Ant	2402	1.323	2401.331	2402.654	---
		2441	1.320	2440.328	2441.648	---
		2480	1.296	2479.352	2480.648	---
3DH5	Ant	2402	1.302	2401.340	2402.642	---
		2441	1.305	2440.340	2441.645	---
		2480	1.314	2479.334	2480.648	---



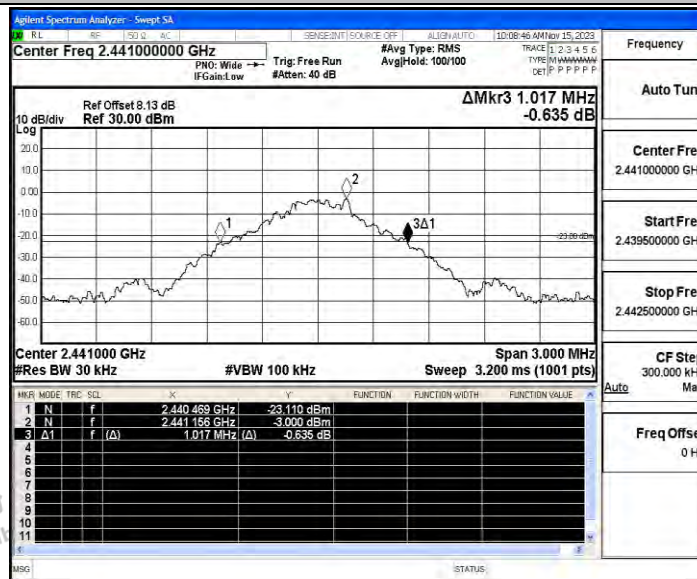


Test Graphs

DH5_Ant_2402

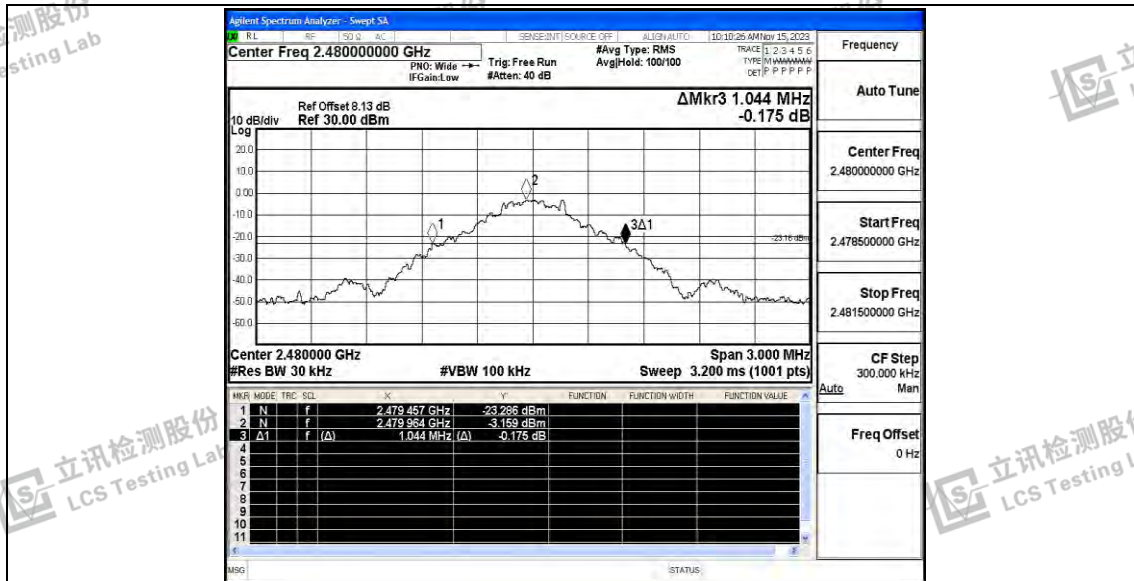


DH5_Ant_2441

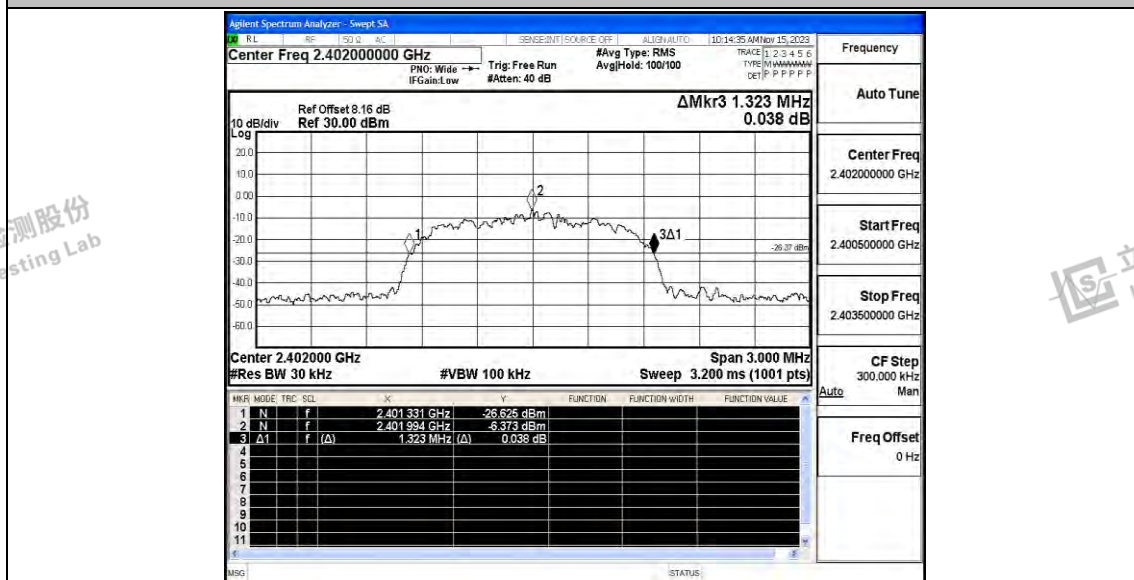


DH5_Ant_2480



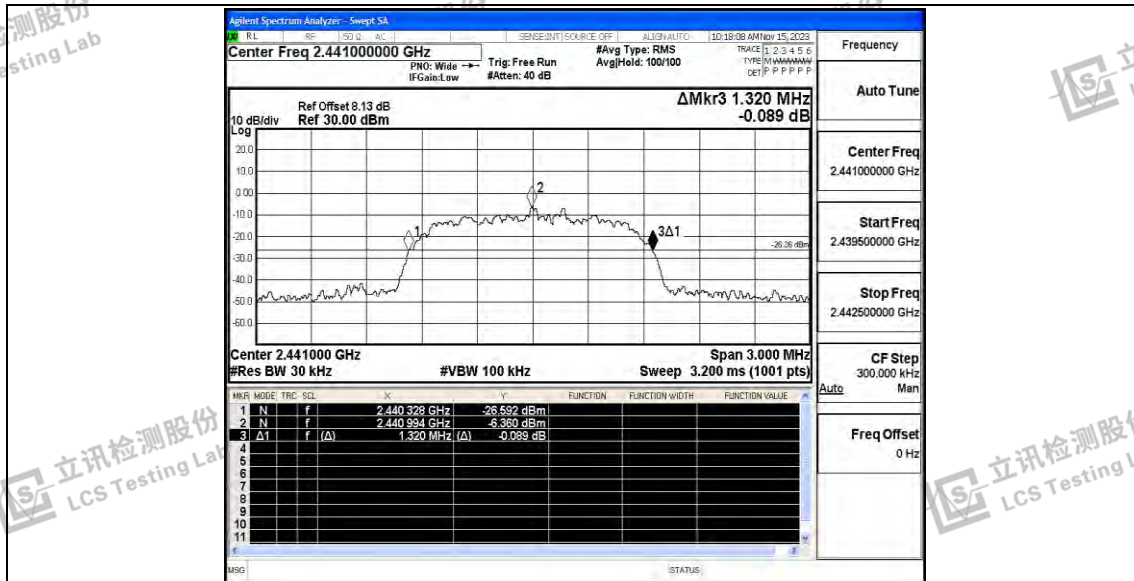


2DH5_Ant_2402

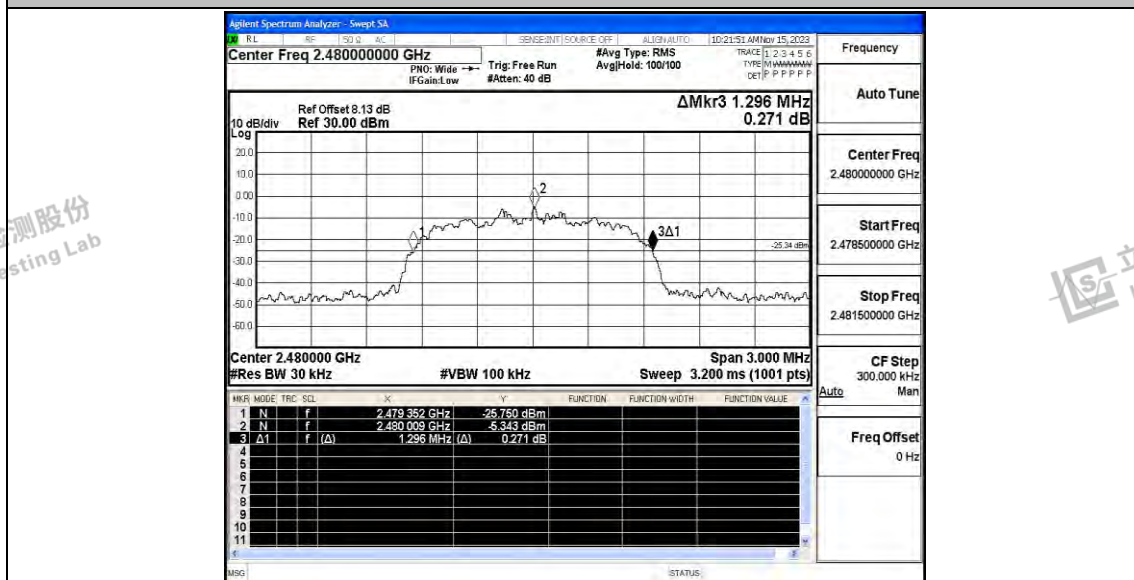


2DH5_Ant_2441



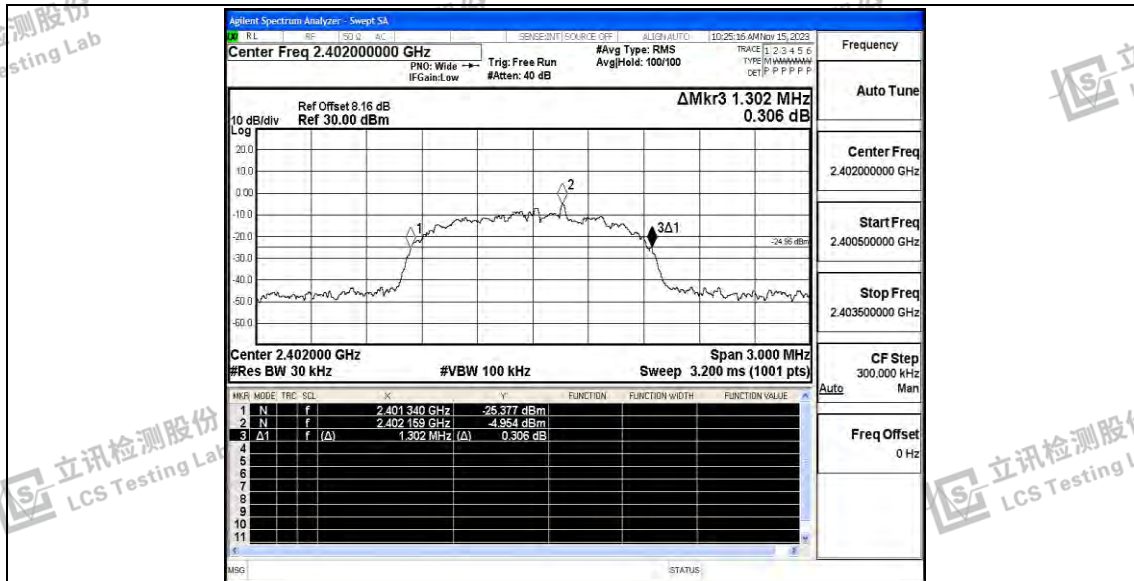


2DH5_Ant_2480

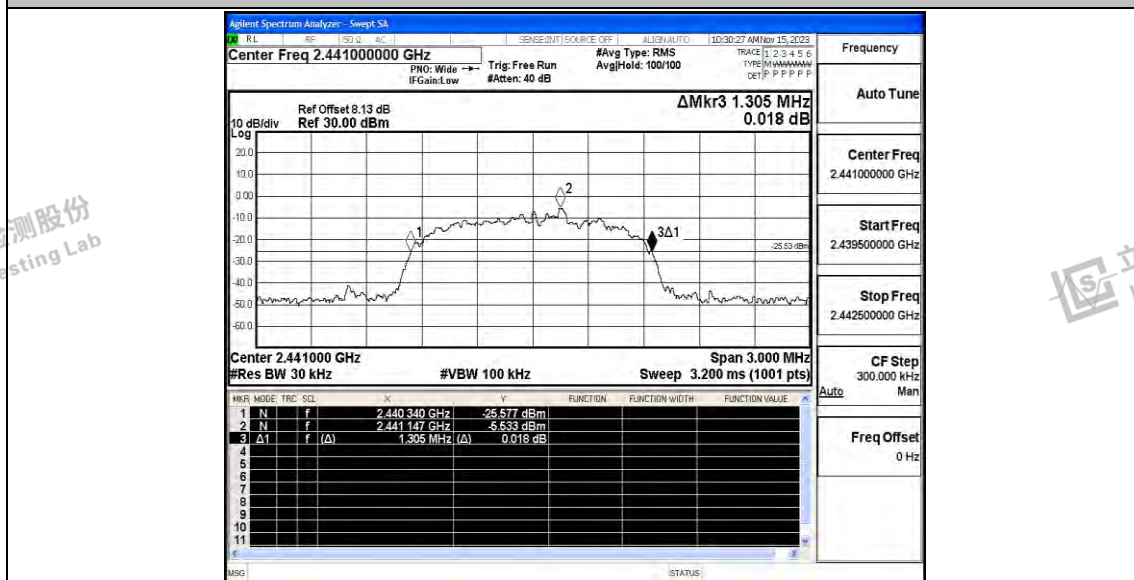


3DH5_Ant_2402



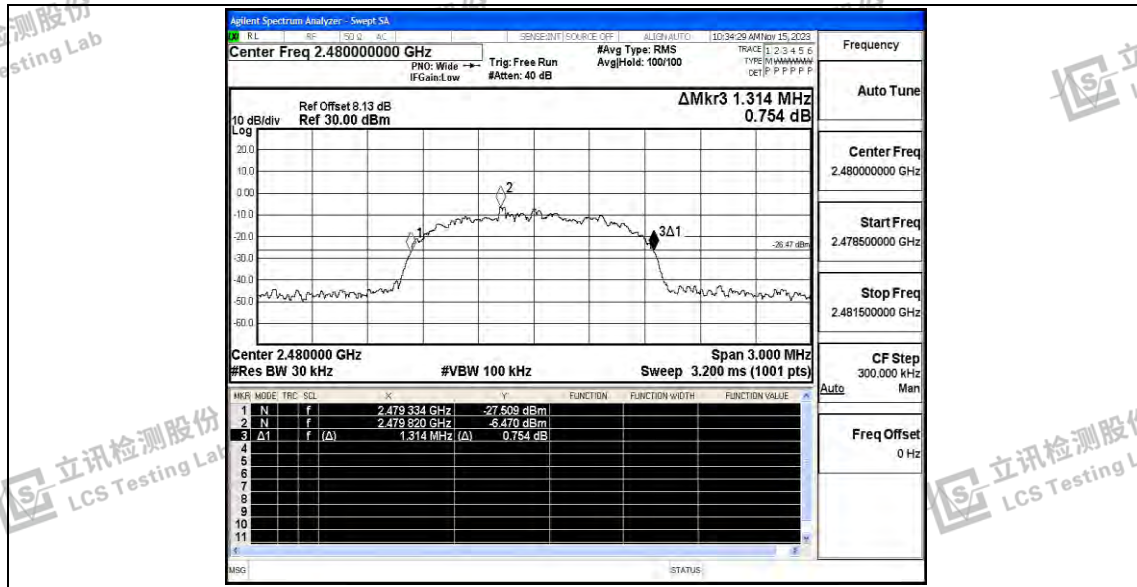


3DH5_Ant_2441



3DH5_Ant_2480







A.2 Maximum peak conducted output power

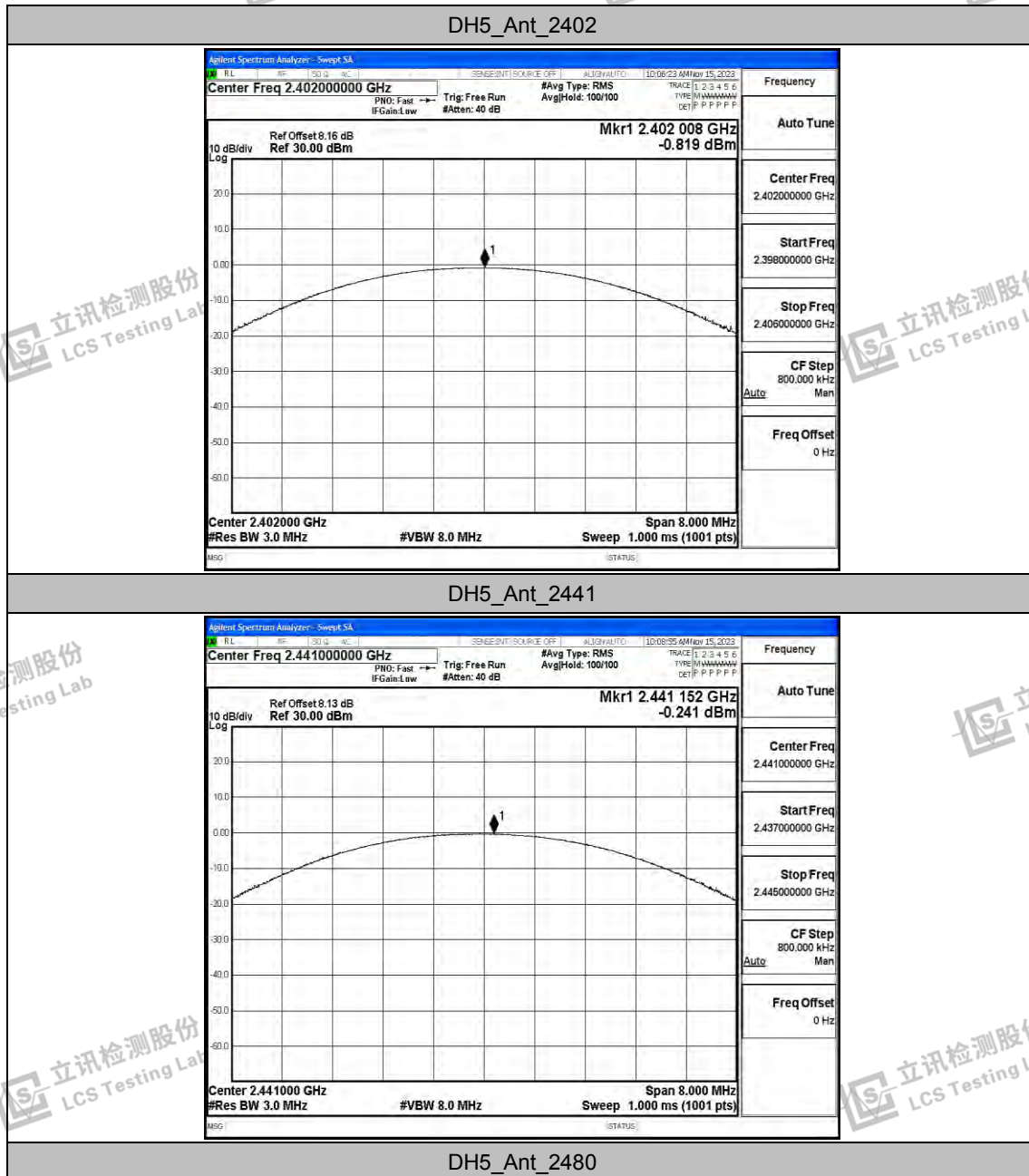
Test Result

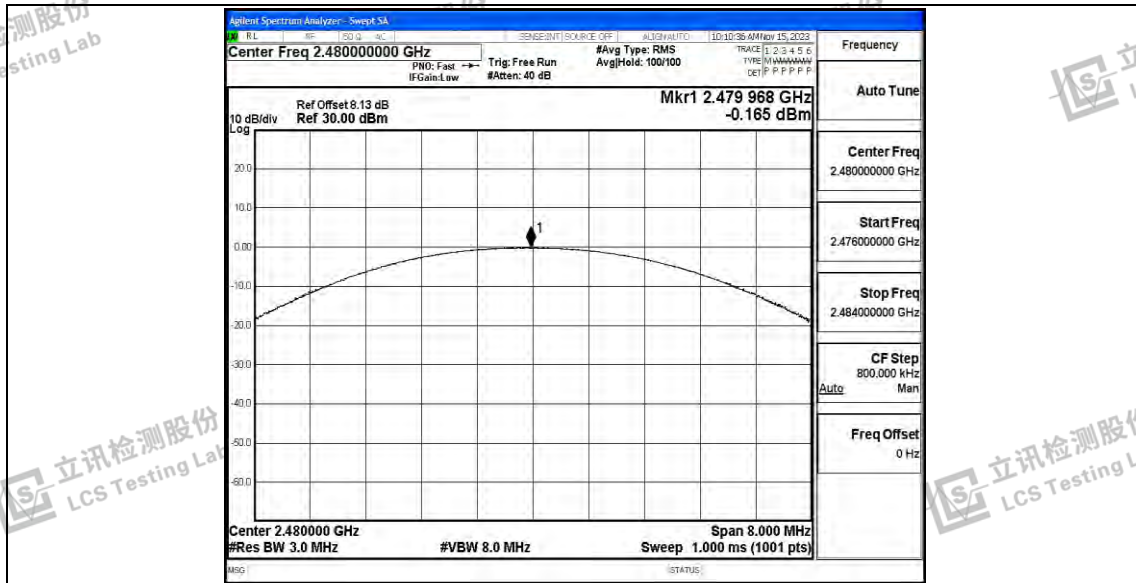
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant	2402	-0.82	≤20.97	PASS
		2441	-0.24	≤20.97	PASS
		2480	-0.17	≤20.97	PASS
2DH5	Ant	2402	-0.77	≤20.97	PASS
		2441	-0.52	≤20.97	PASS
		2480	-0.53	≤20.97	PASS
3DH5	Ant	2402	-0.67	≤20.97	PASS
		2441	-0.56	≤20.97	PASS
		2480	-0.38	≤20.97	PASS



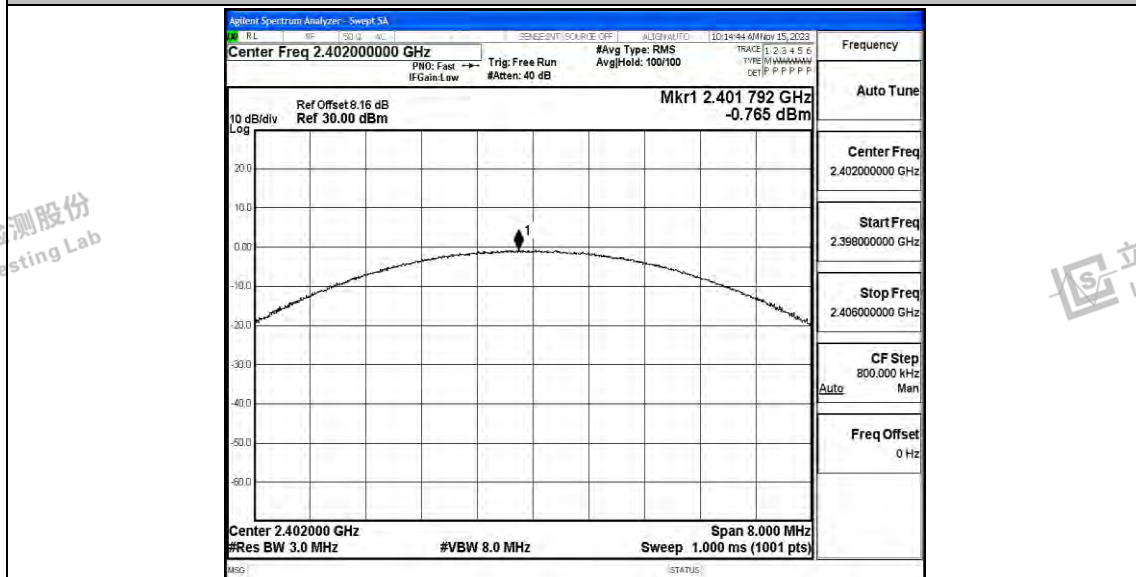


Test Graphs



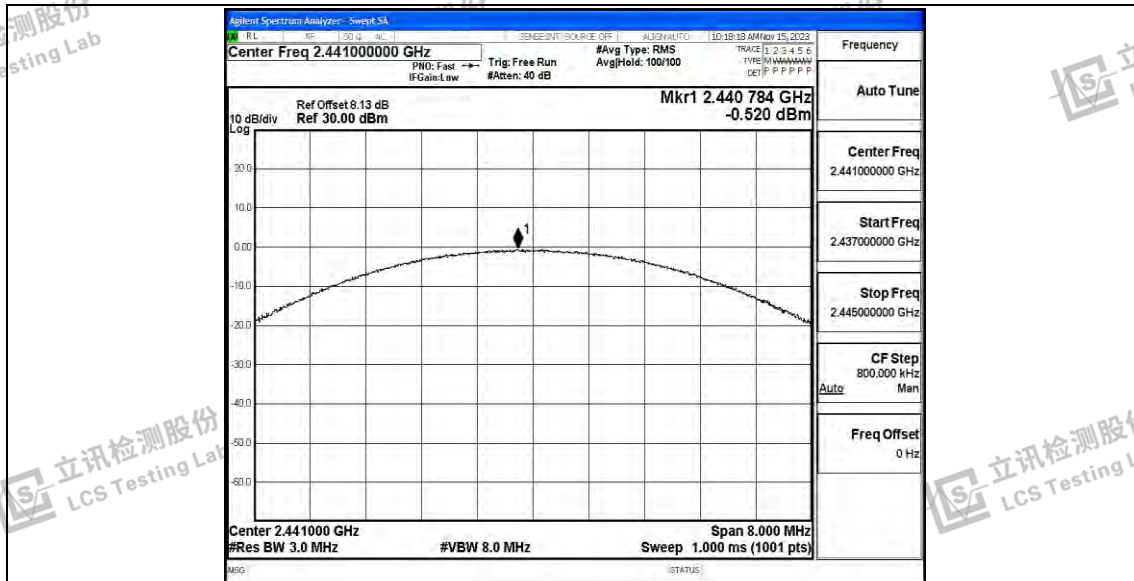


2DH5_Ant_2402

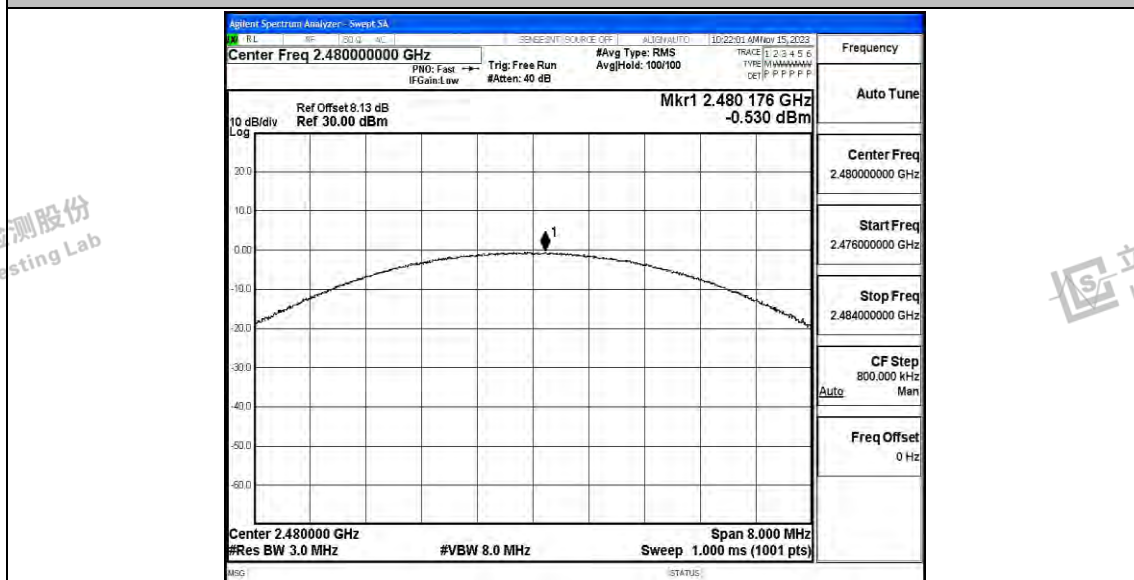


2DH5_Ant_2441



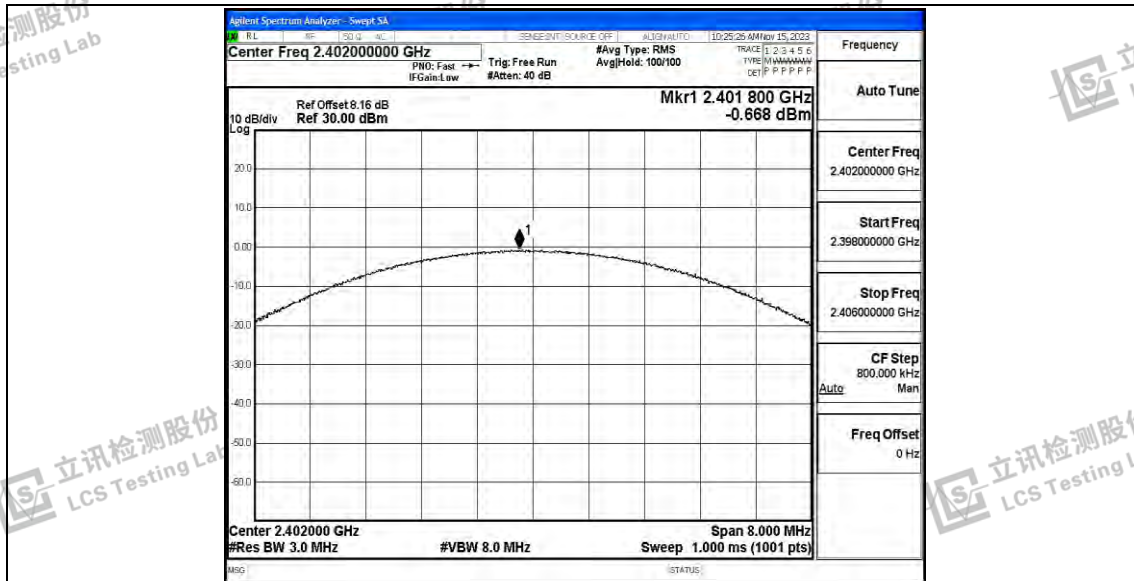


2DH5_Ant_2480

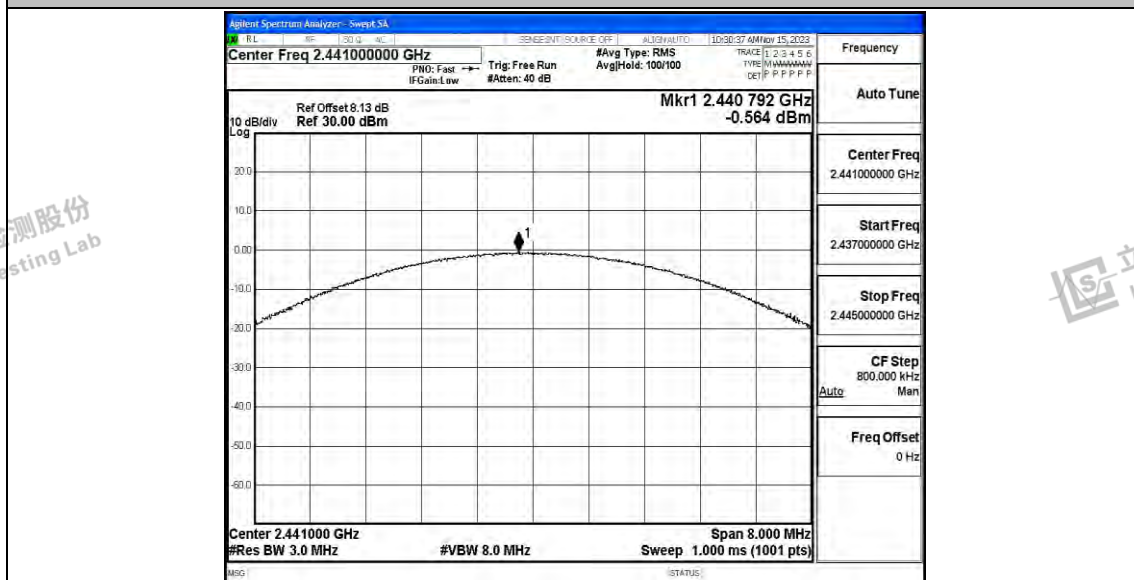


3DH5_Ant_2402



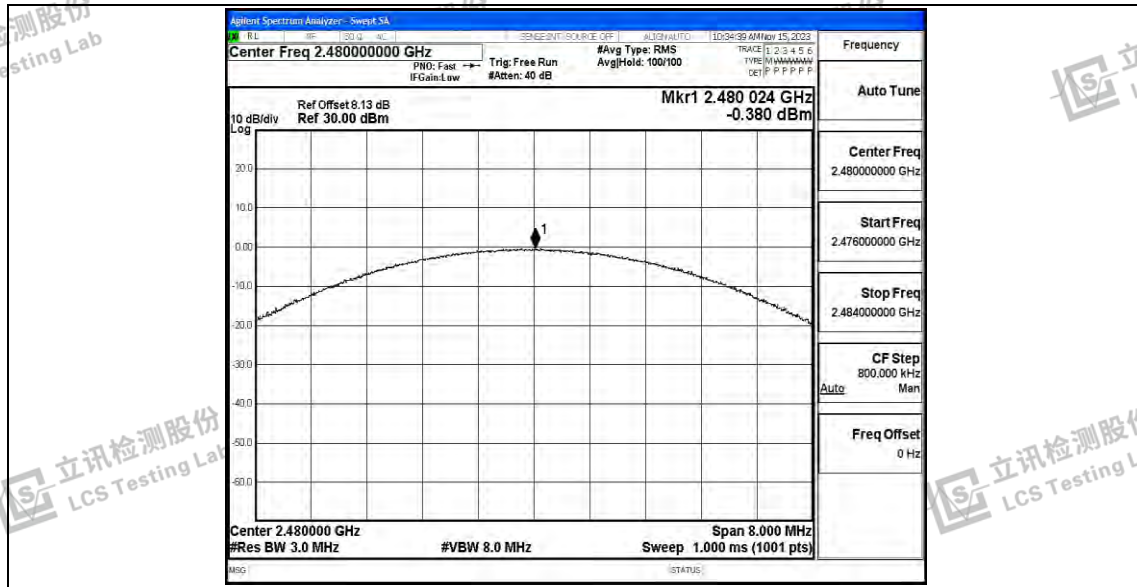


3DH5_Ant_2441



3DH5_Ant_2480







A.3 Carrier frequency separation

Test Result

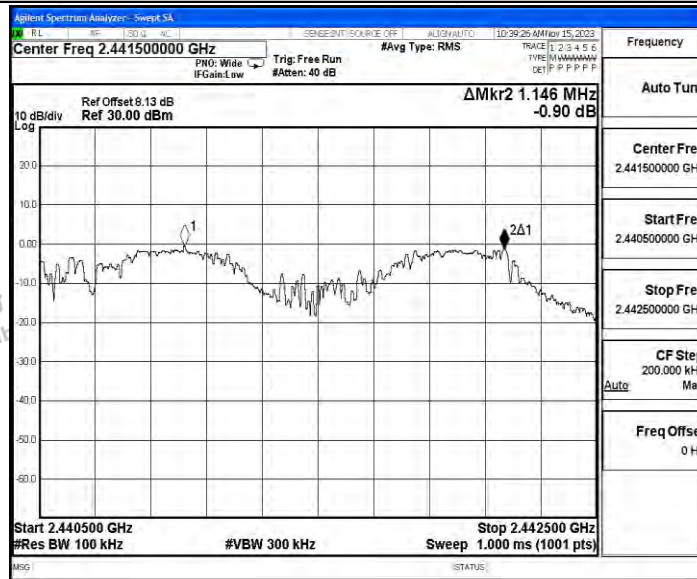
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant	Hop	1.146	≥ 0.690	PASS
2DH5	Ant	Hop	1.018	≥ 0.882	PASS
3DH5	Ant	Hop	1.044	≥ 0.876	PASS



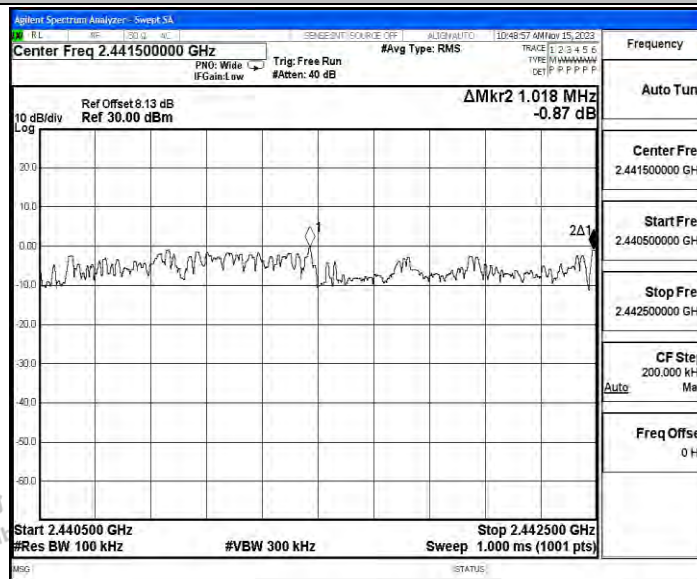


Test Graphs

DH5_Ant_Hop

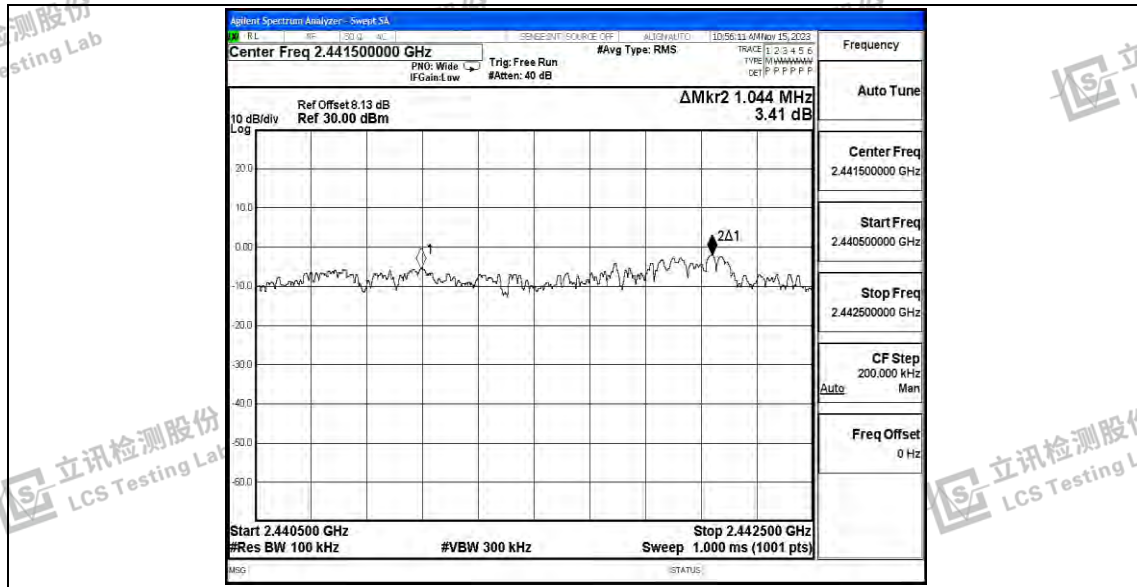


2DH5_Ant_Hop



3DH5_Ant_Hop





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A.4 Time of occupancy

Test Result

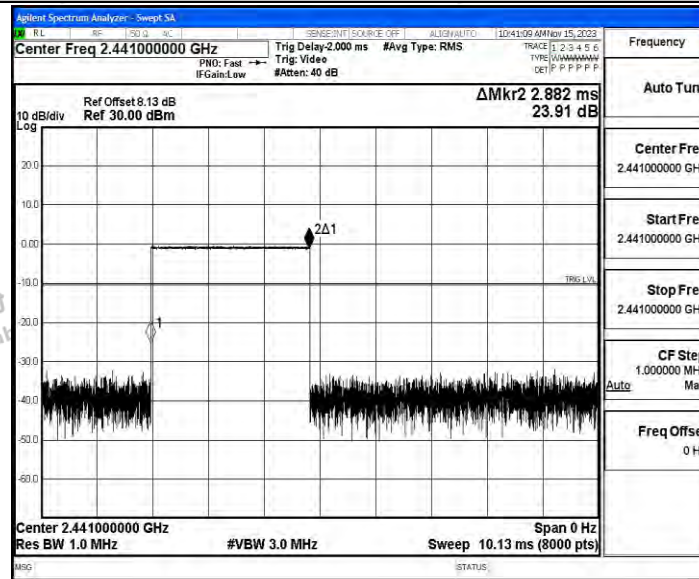
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant	Hop	2.882	106.67	0.307	≤0.4	PASS
2DH5	Ant	Hop	2.885	106.67	0.308	≤0.4	PASS
3DH5	Ant	Hop	2.887	106.67	0.308	≤0.4	PASS



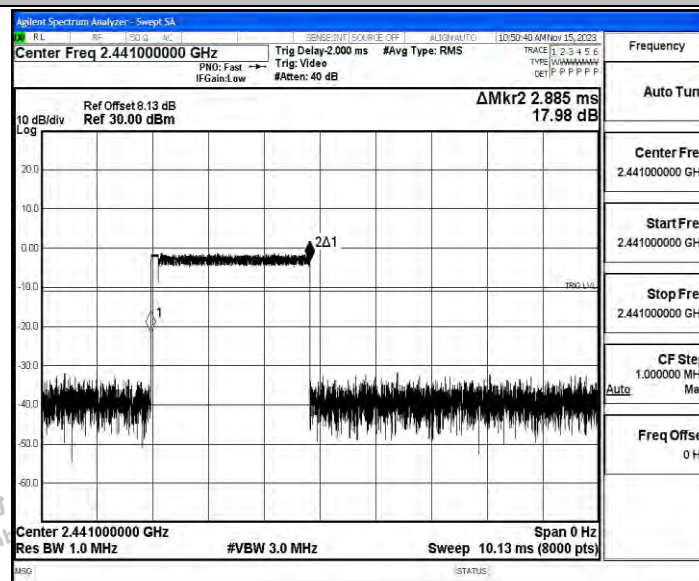


Test Graphs

DH5_Ant_Hop

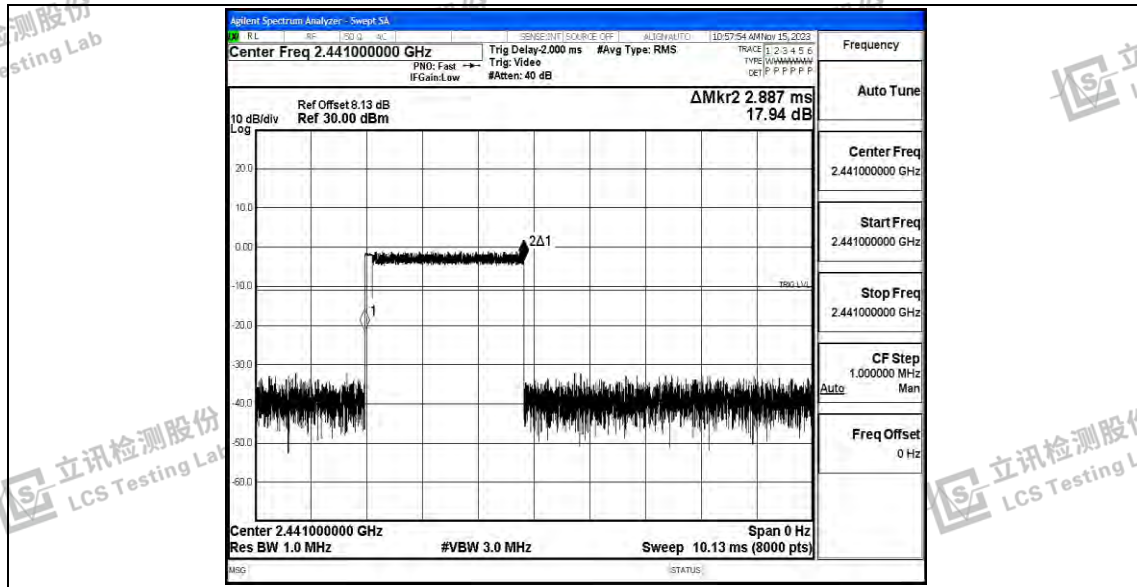


2DH5_Ant_Hop



3DH5_Ant_Hop







A.5 Number of hopping channels

Test Result

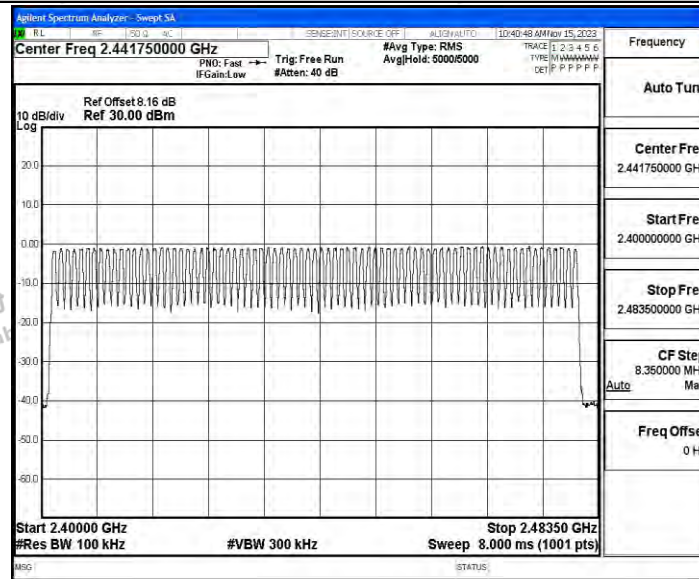
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant	Hop	79	≥15	PASS
2DH5	Ant	Hop	79	≥15	PASS
3DH5	Ant	Hop	79	≥15	PASS



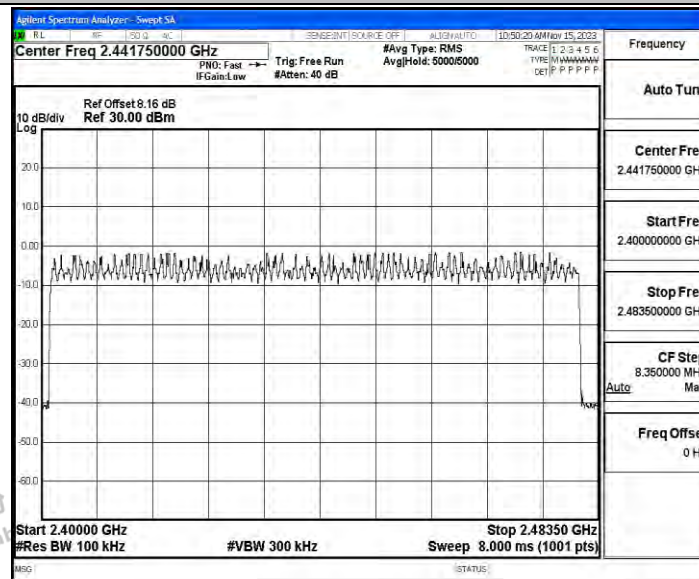


Test Graphs

DH5_Ant_Hop



2DH5_Ant_Hop



3DH5_Ant_Hop

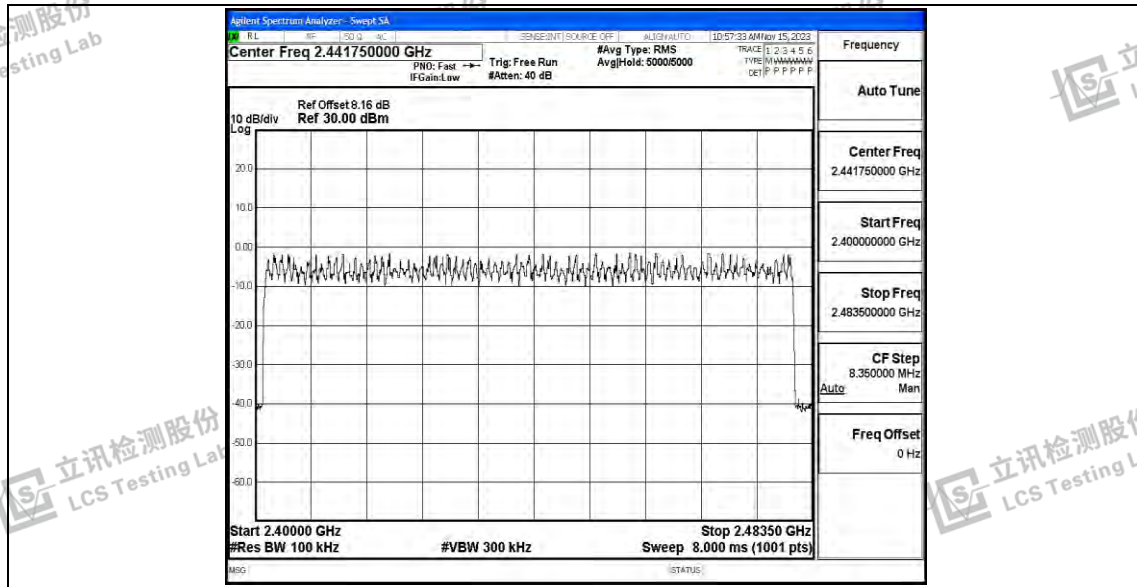


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A.6 Band edge measurements

Test Result

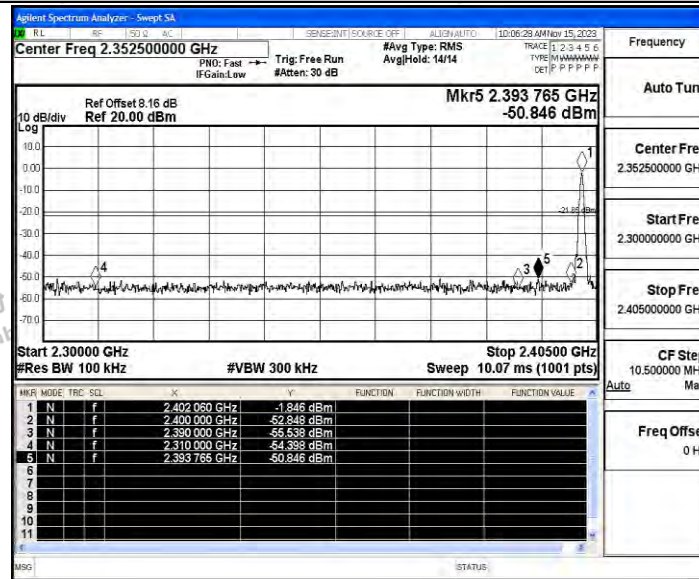
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant	Low	2402	-1.85	-50.85	≤ -21.85	PASS
		High	2480	-0.64	-50.99	≤ -20.64	PASS
		Low	Hop_2402	-1.98	-50.18	≤ -21.98	PASS
		High	Hop_2480	-1.00	-48.5	≤ -21	PASS
2DH5	Ant	Low	2402	-3.79	-49.63	≤ -23.79	PASS
		High	2480	-3.33	-50.24	≤ -23.33	PASS
		Low	Hop_2402	-2.45	-49.81	≤ -22.45	PASS
		High	Hop_2480	-2.24	-49.19	≤ -22.24	PASS
3DH5	Ant	Low	2402	-5.98	-51.12	≤ -25.98	PASS
		High	2480	-6.30	-49.48	≤ -26.3	PASS
		Low	Hop_2402	-5.63	-49.7	≤ -25.63	PASS
		High	Hop_2480	-1.89	-49.52	≤ -21.89	PASS



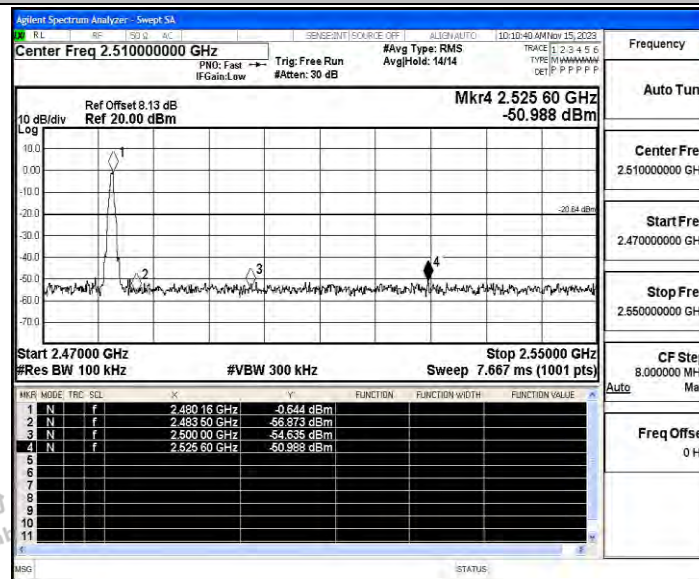


Test Graphs

DH5_Ant_Low_2402

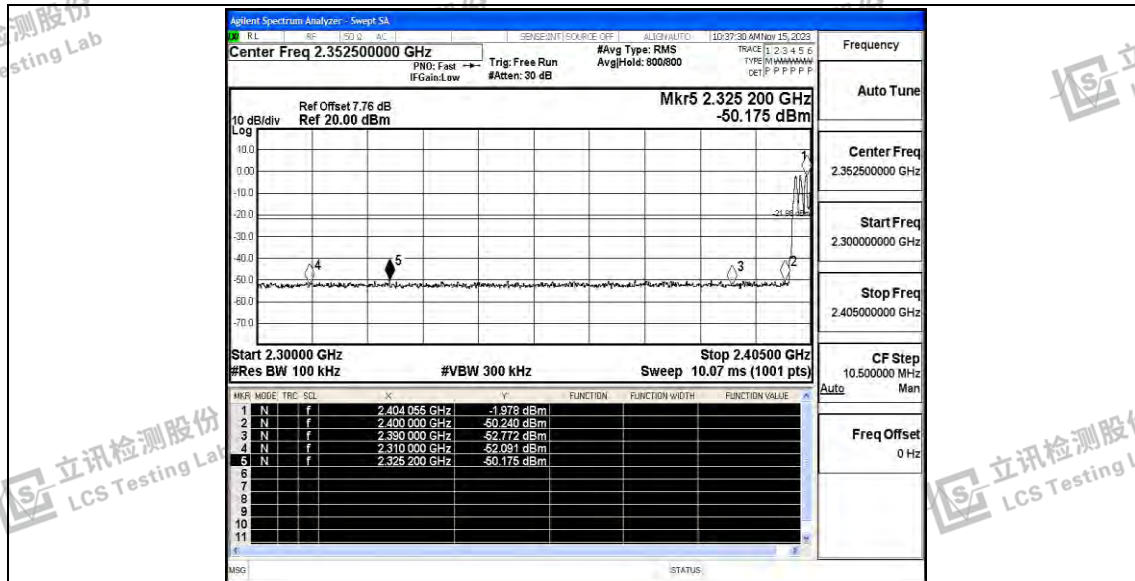


DH5_Ant_High_2480

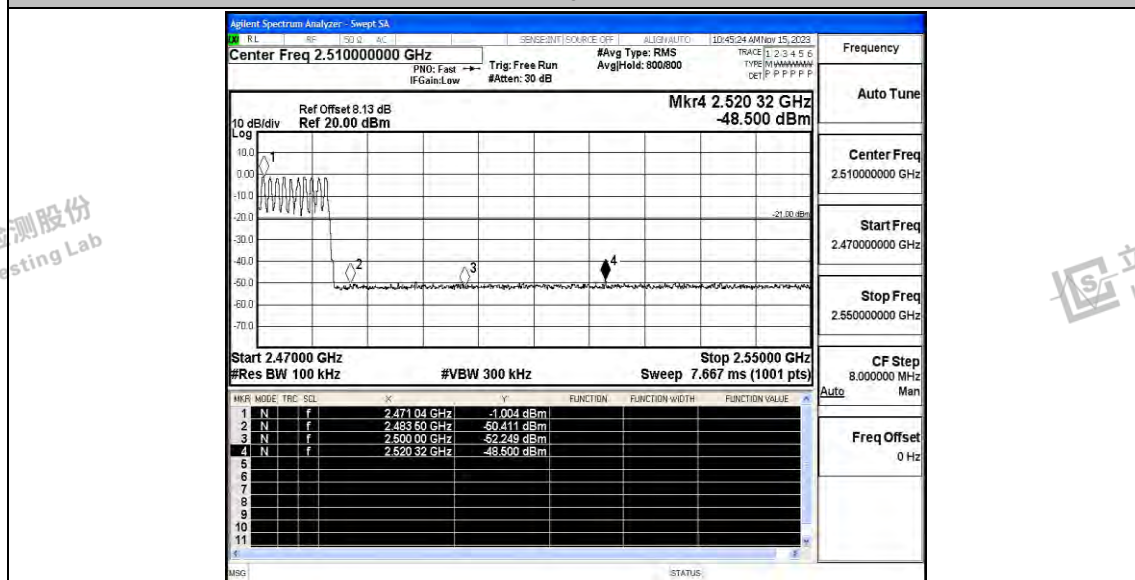


DH5_Ant_Low_Hop_2402



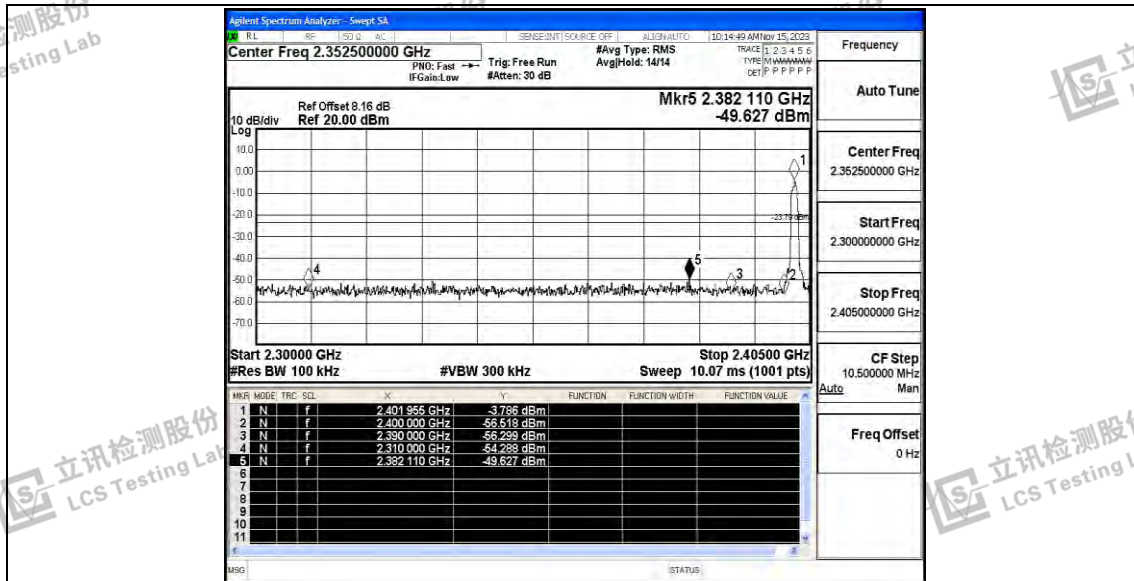


DH5_Ant_High_Hop_2480

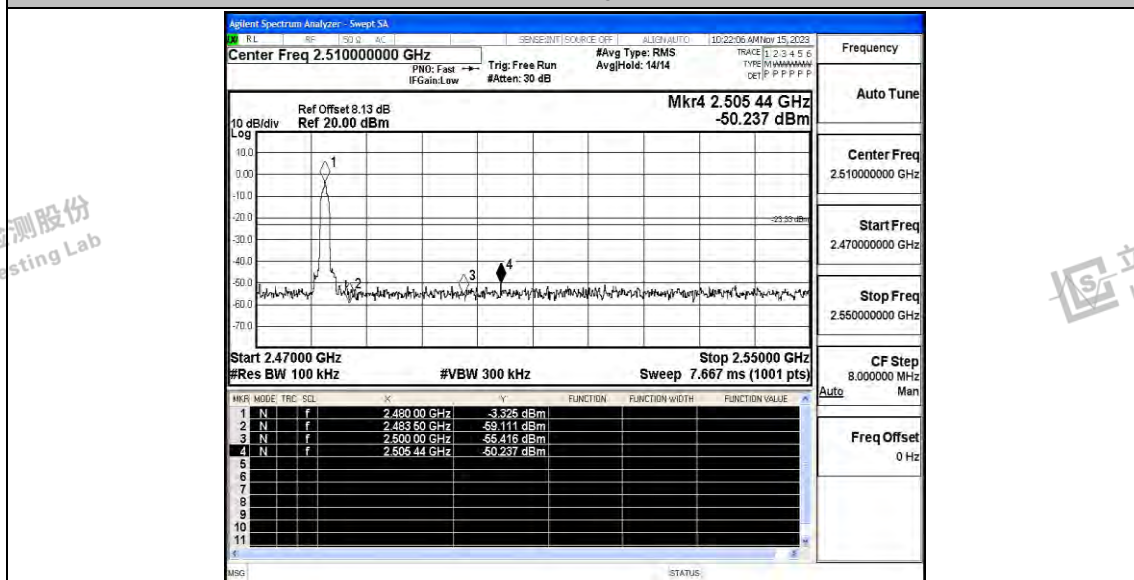


2DH5_Ant_Low_2402



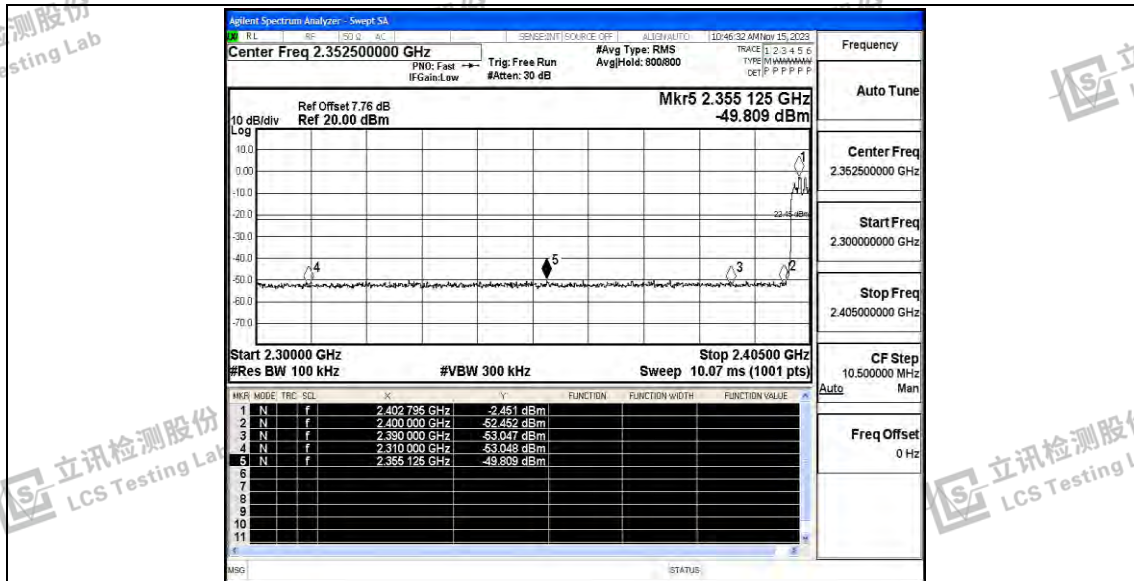


2DH5_Ant_High_2480

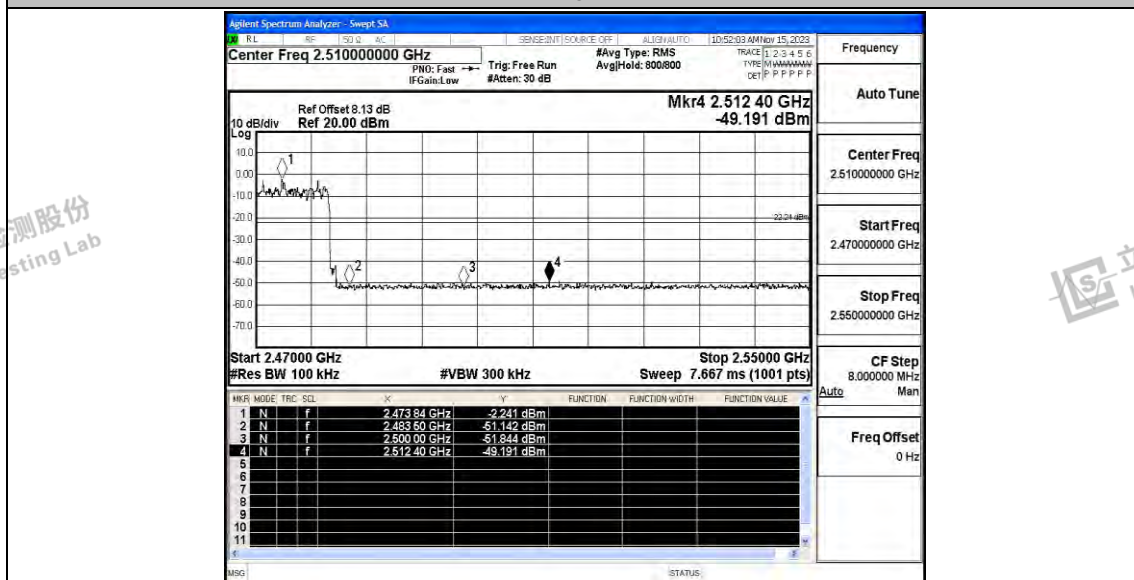


2DH5_Ant_Low_Hop_2402



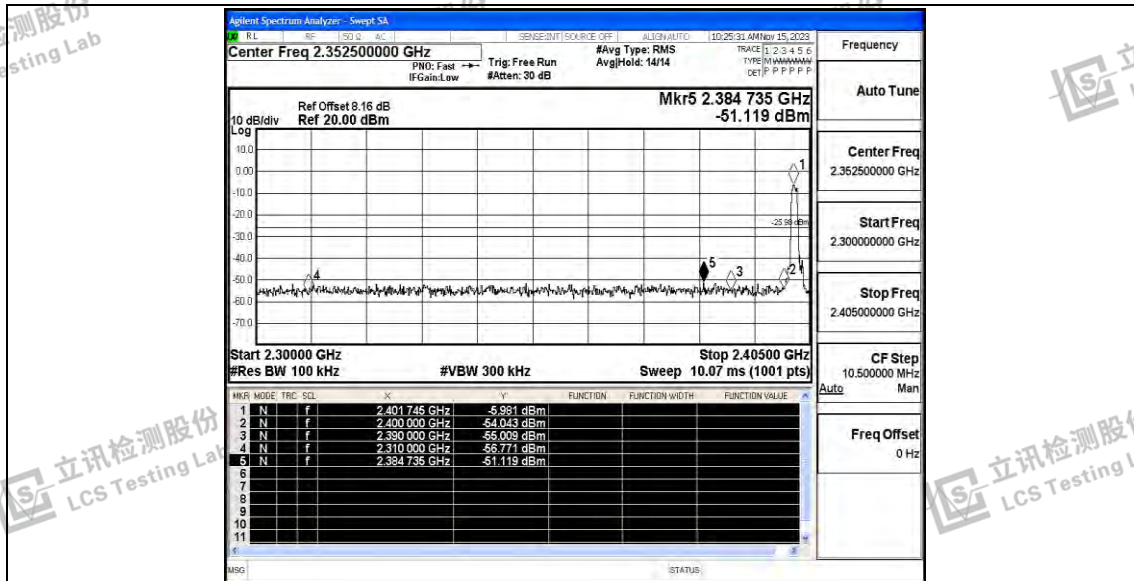


2DH5_Ant_High_Hop_2480

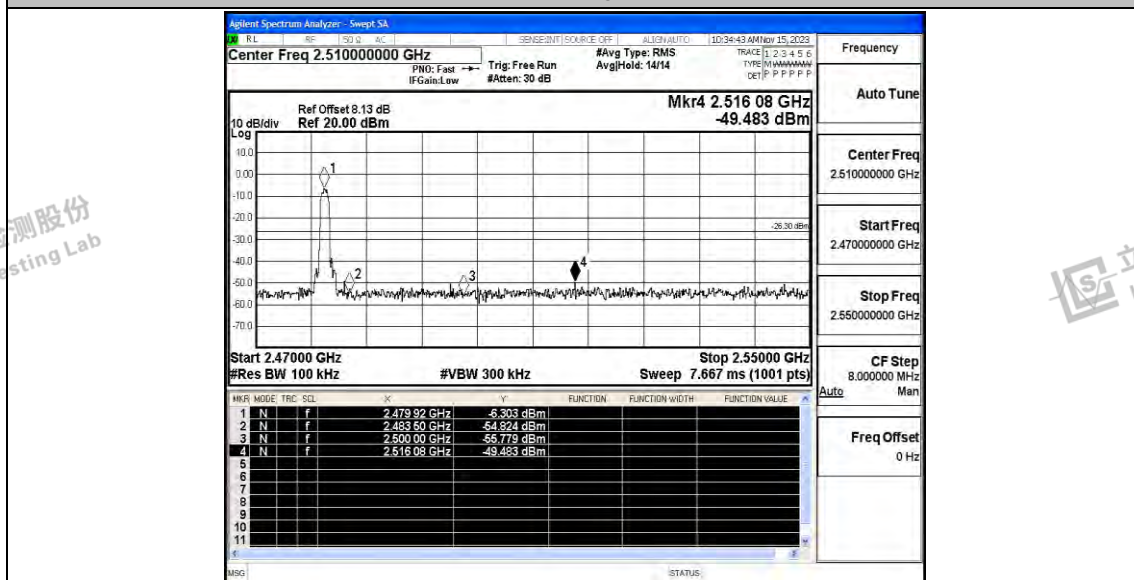


3DH5_Ant_Low_2402





3DH5_Ant_High_2480



3DH5_Ant_Low_Hop_2402





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A.7 Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant	2402	Reference	-1.90	-1.90	---	PASS
			30~1000	-1.90	-61.29	≤-21.9	PASS
			1000~26500	-1.90	-48.94	≤-21.9	PASS
		2441	Reference	-0.90	-0.90	---	PASS
			30~1000	-0.90	-61.9	≤-20.9	PASS
			1000~26500	-0.90	-48.31	≤-20.9	PASS
		2480	Reference	-0.97	-0.97	---	PASS
			30~1000	-0.97	-60.75	≤-20.97	PASS
			1000~26500	-0.97	-49.44	≤-20.97	PASS
2DH5	Ant	2402	Reference	-2.72	-2.72	---	PASS
			30~1000	-2.72	-61.72	≤-22.72	PASS
			1000~26500	-2.72	-48.3	≤-22.72	PASS
		2441	Reference	-2.70	-2.70	---	PASS
			30~1000	-2.70	-60.77	≤-22.7	PASS
			1000~26500	-2.70	-49.62	≤-22.7	PASS
		2480	Reference	-2.13	-2.13	---	PASS
			30~1000	-2.13	-61.17	≤-22.13	PASS
			1000~26500	-2.13	-49.63	≤-22.13	PASS
3DH5	Ant	2402	Reference	-2.02	-2.02	---	PASS
			30~1000	-2.02	-61.63	≤-22.02	PASS
			1000~26500	-2.02	-49	≤-22.02	PASS
		2441	Reference	-2.00	-2.00	---	PASS
			30~1000	-2.00	-61.86	≤-22	PASS
			1000~26500	-2.00	-47.46	≤-22	PASS
		2480	Reference	-2.47	-2.47	---	PASS
			30~1000	-2.47	-61.71	≤-22.47	PASS
			1000~26500	-2.47	-49.49	≤-22.47	PASS



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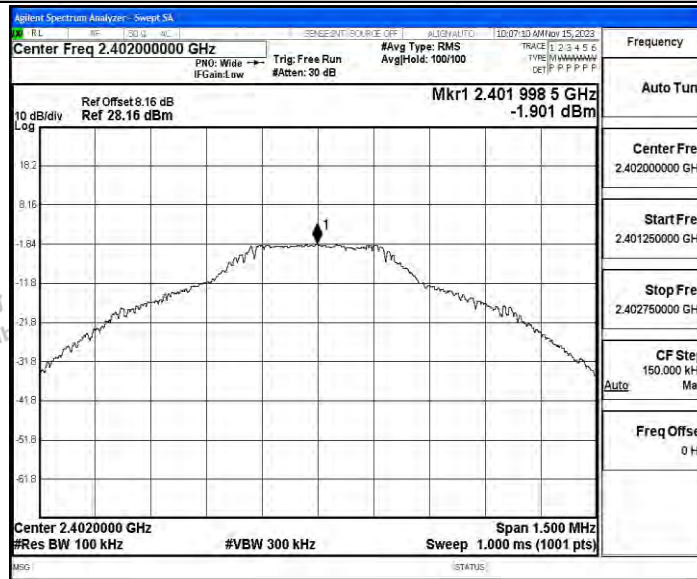
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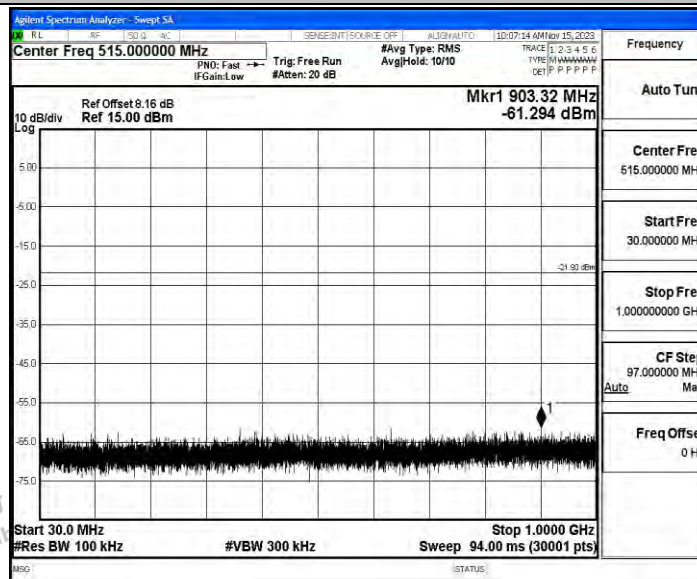


Test Graphs

DH5_Ant_2402_0~Reference



DH5_Ant_2402_30~1000



DH5_Ant_2402_1000~26500

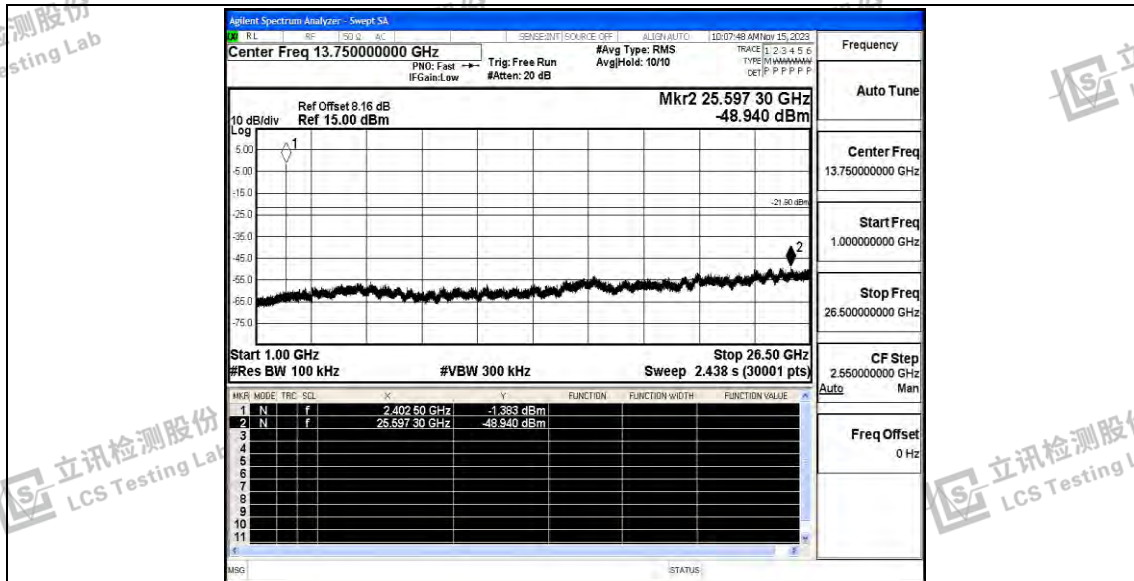


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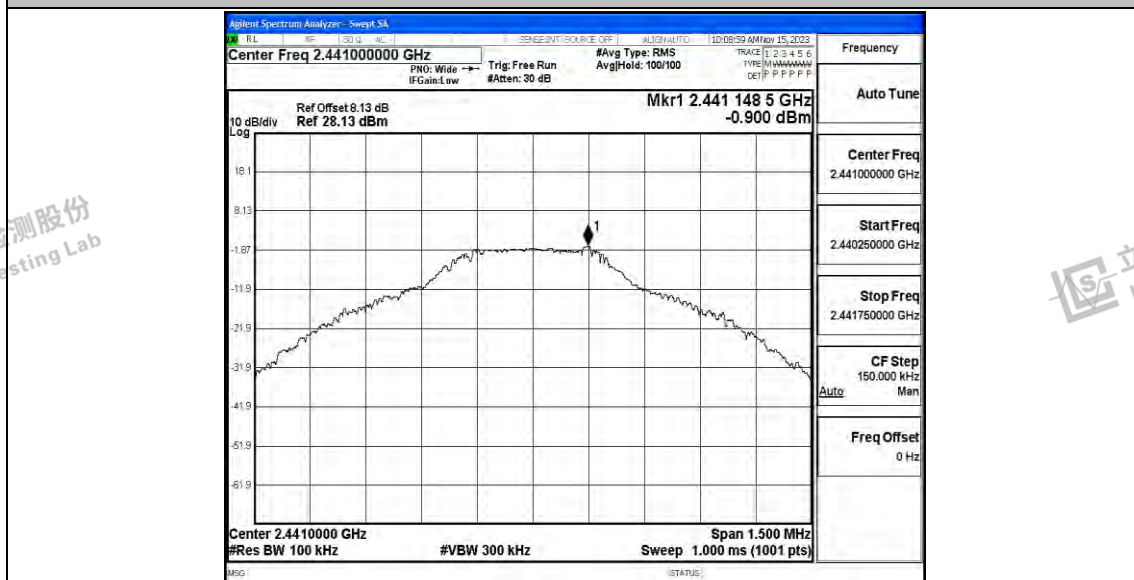
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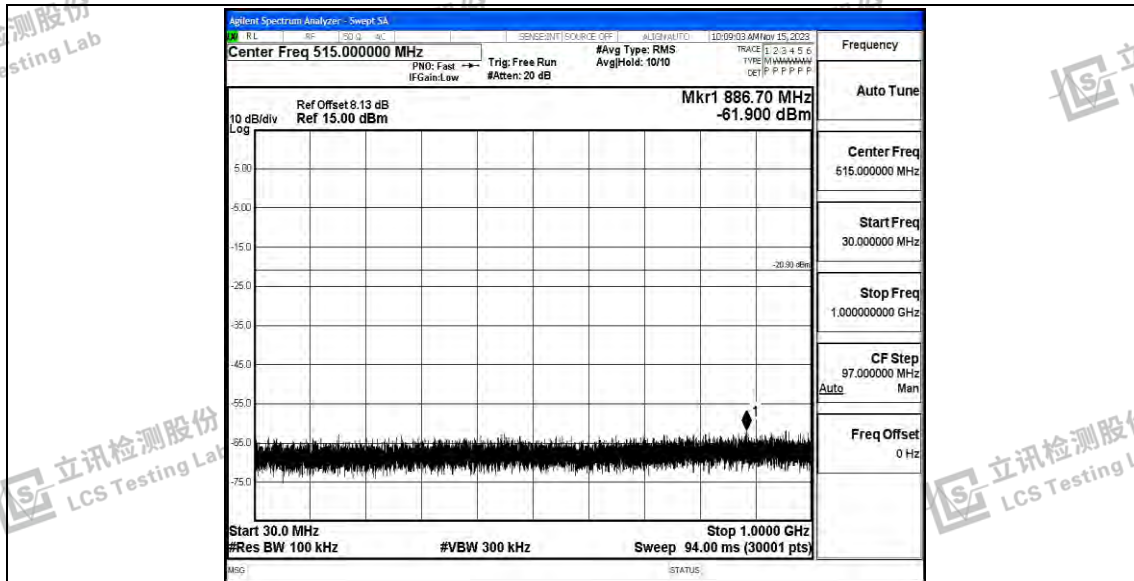


DH5_Ant_2441_0~Reference

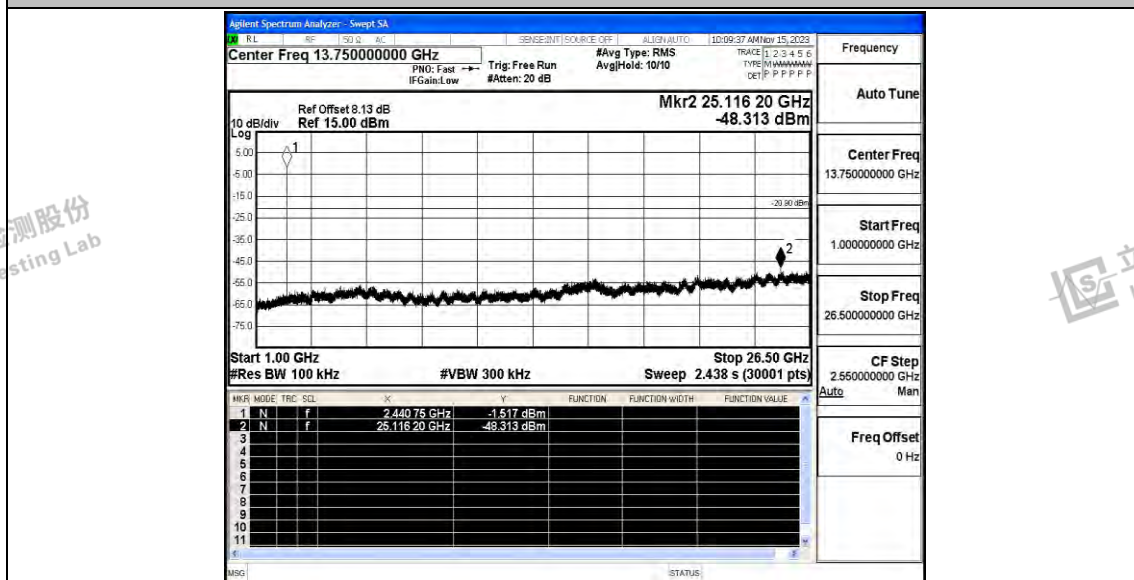


DH5_Ant_2441_30~1000



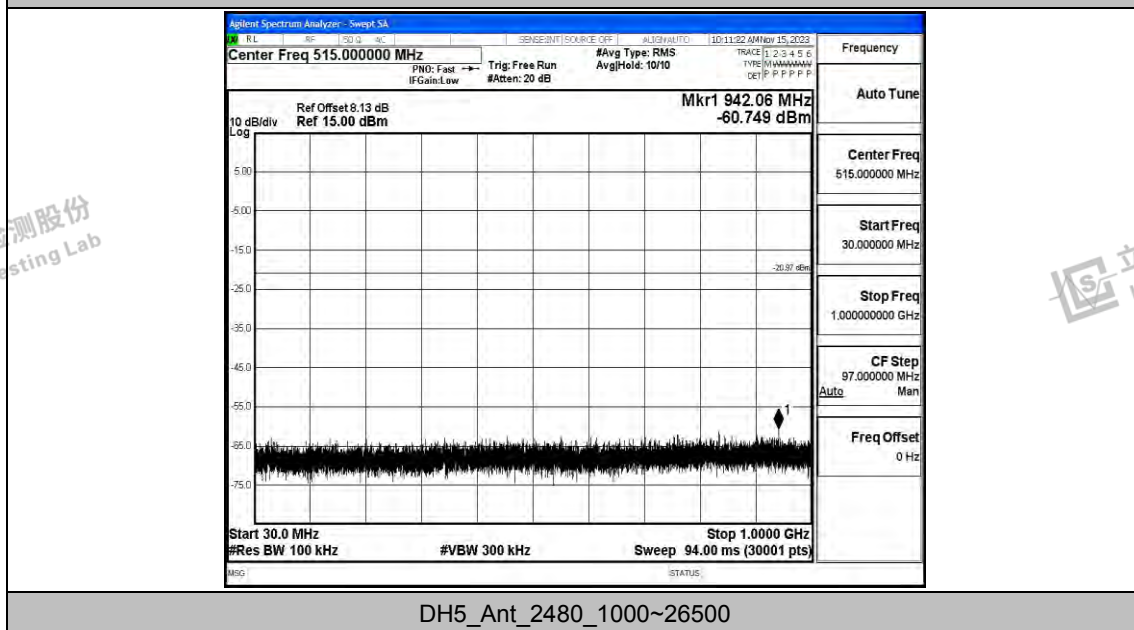
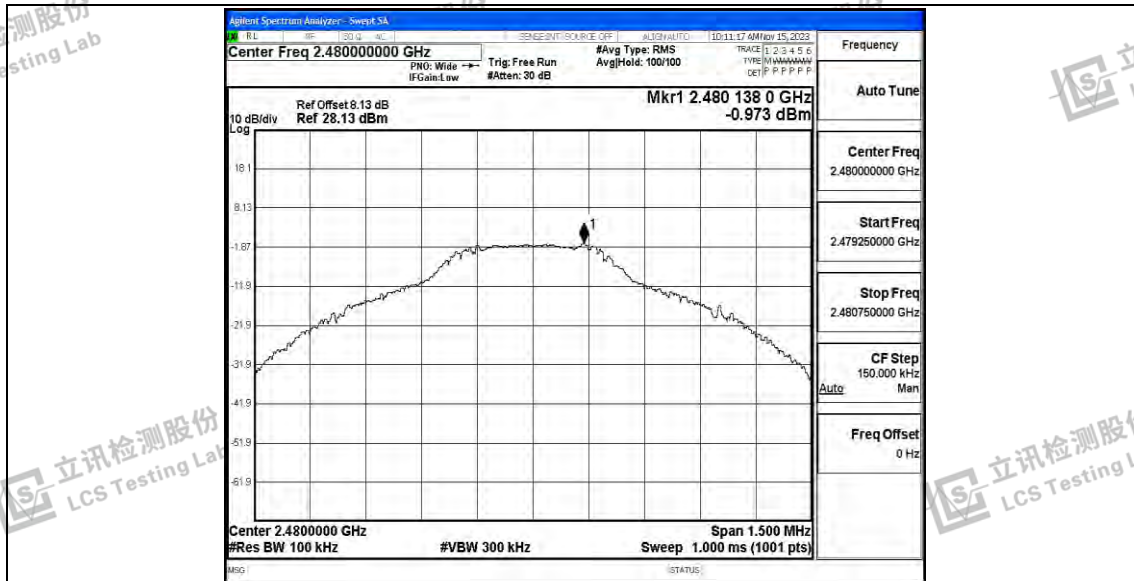


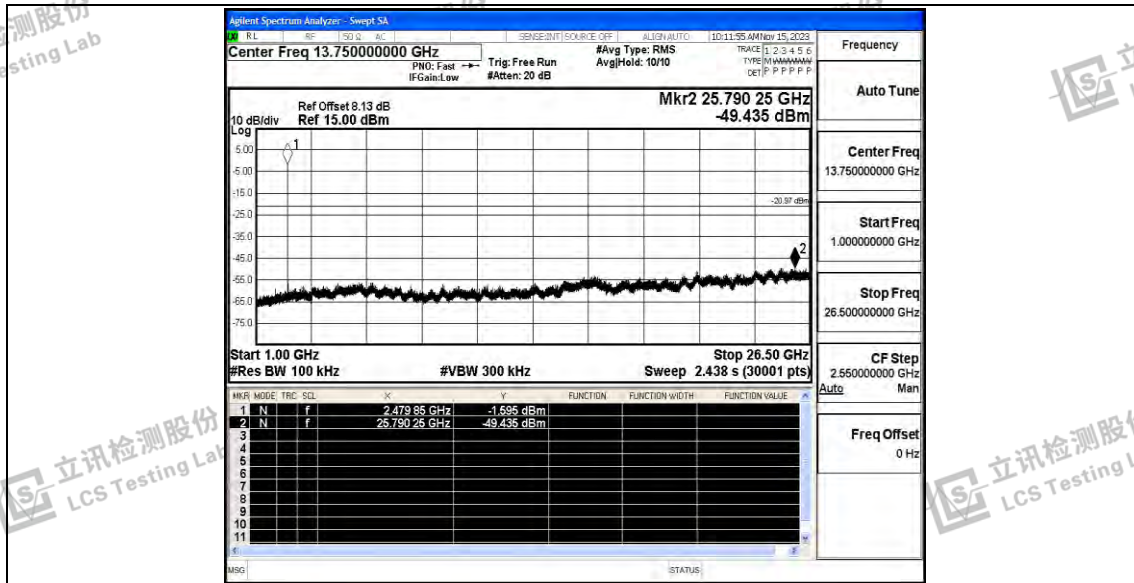
DH5_Ant_2441_1000~26500



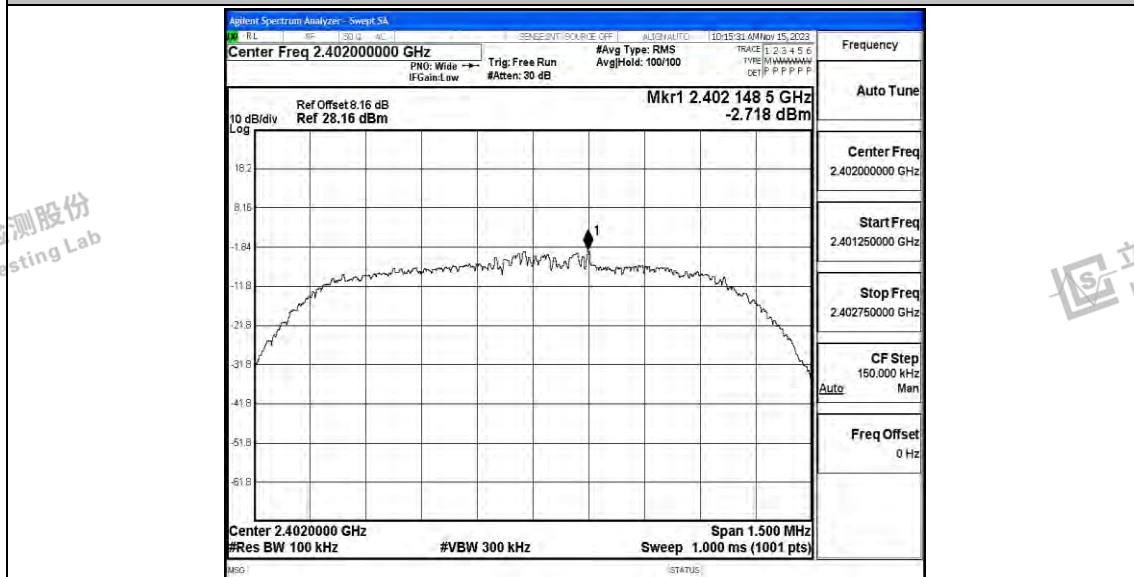
DH5_Ant_2480_0~Reference





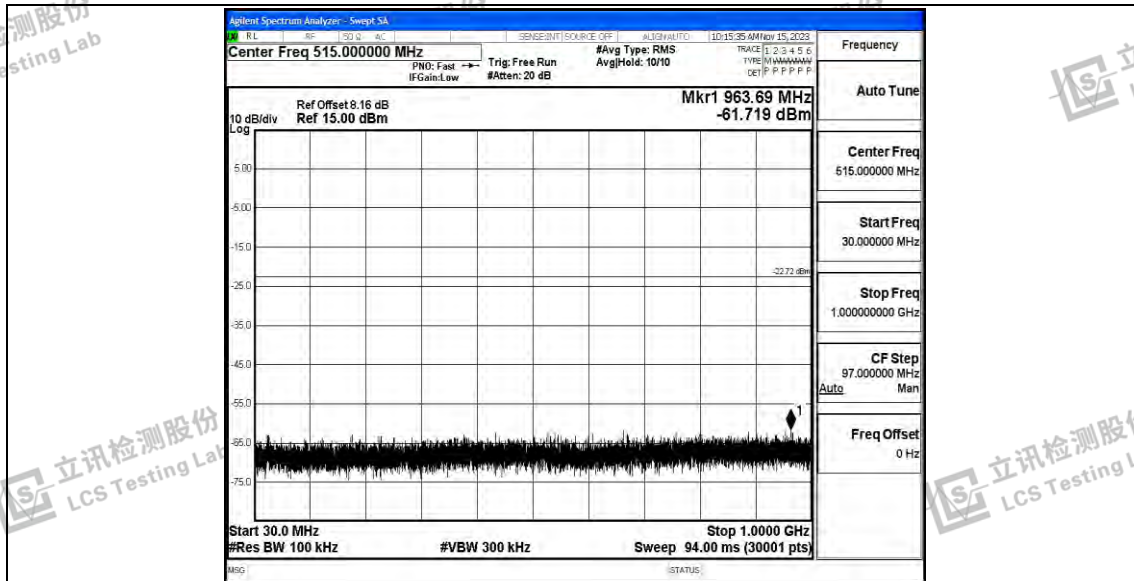


2DH5_Ant_2402_0~Reference

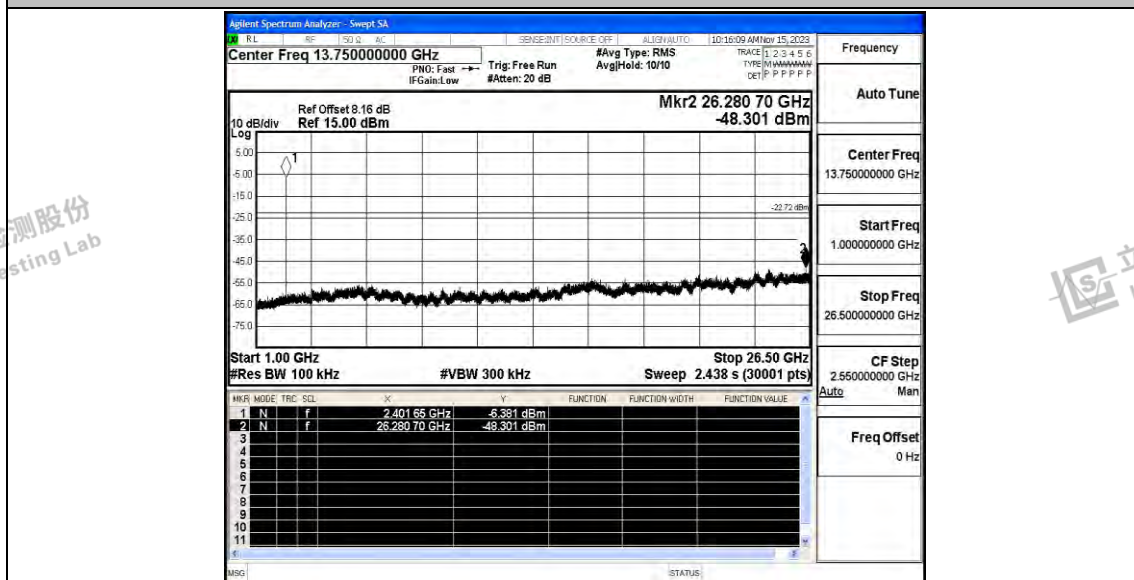


2DH5_Ant_2402_30~1000



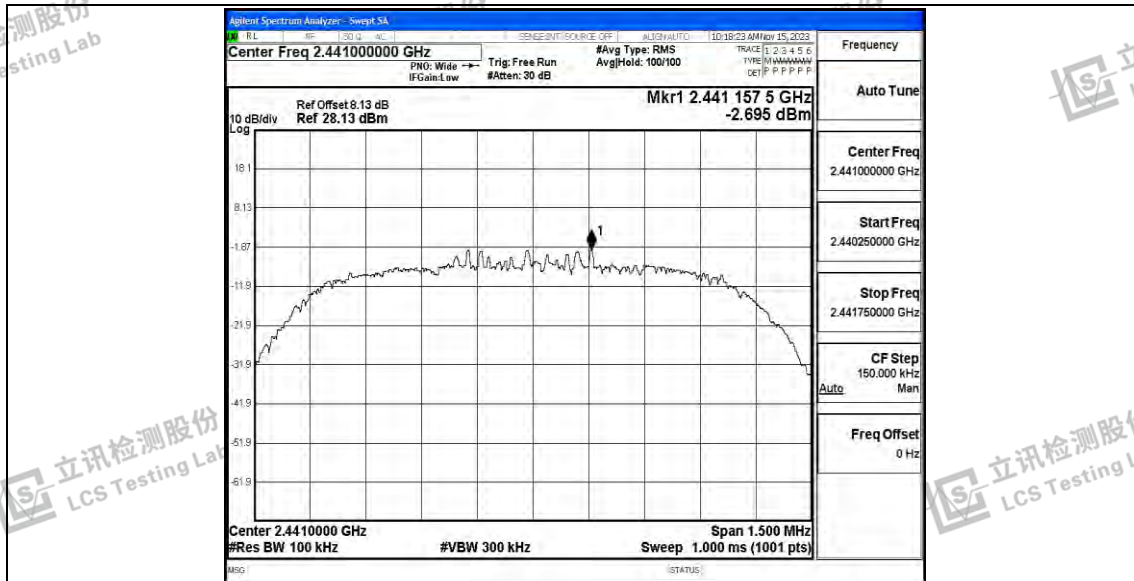


2DH5_Ant_2402_1000~26500

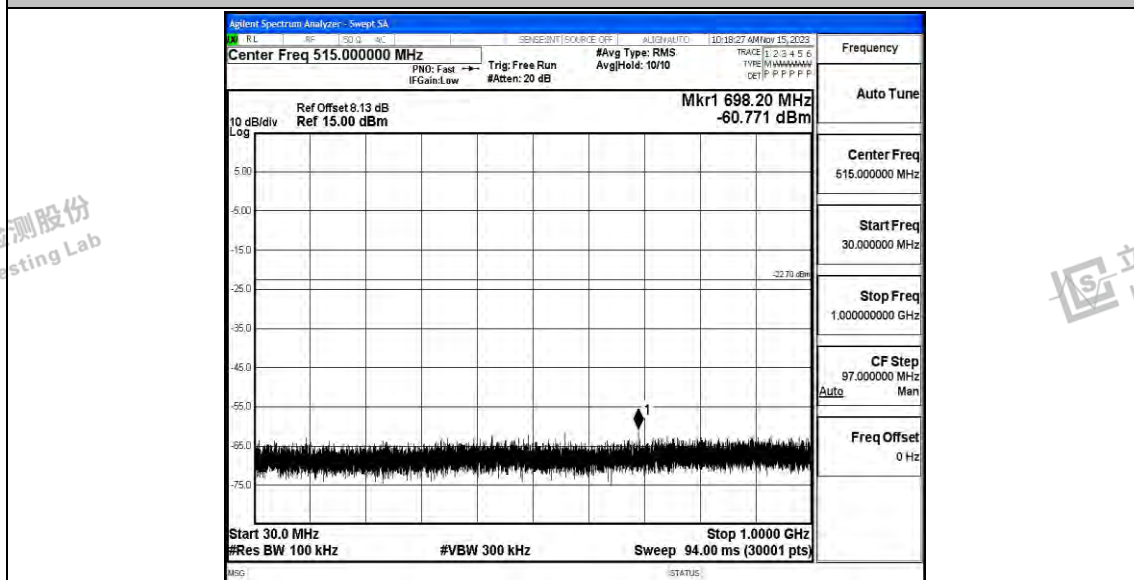


2DH5_Ant_2441_0~Reference



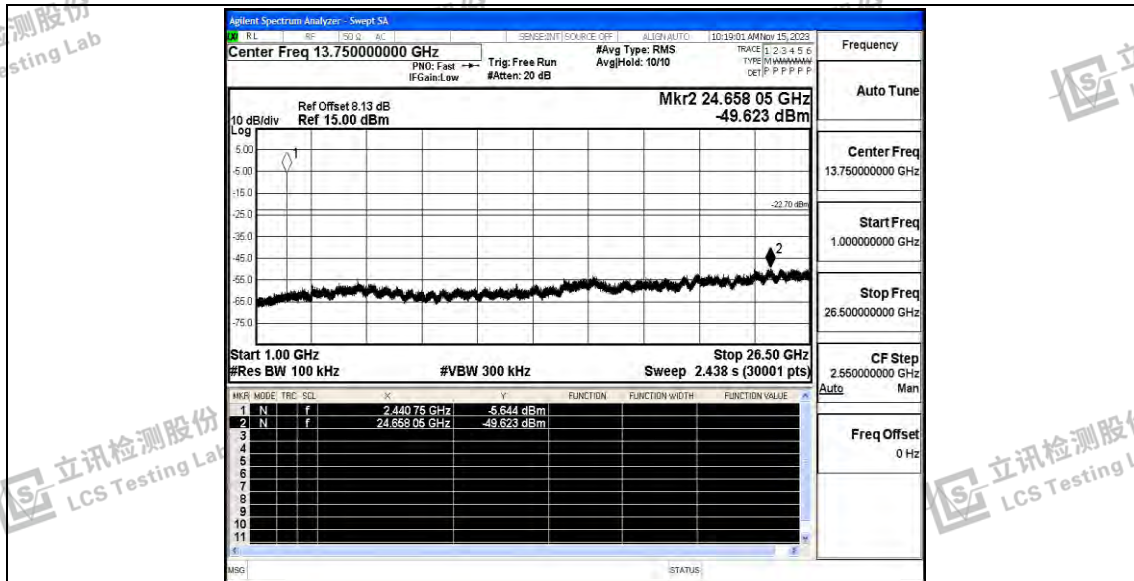


2DH5_Ant_2441_30~1000

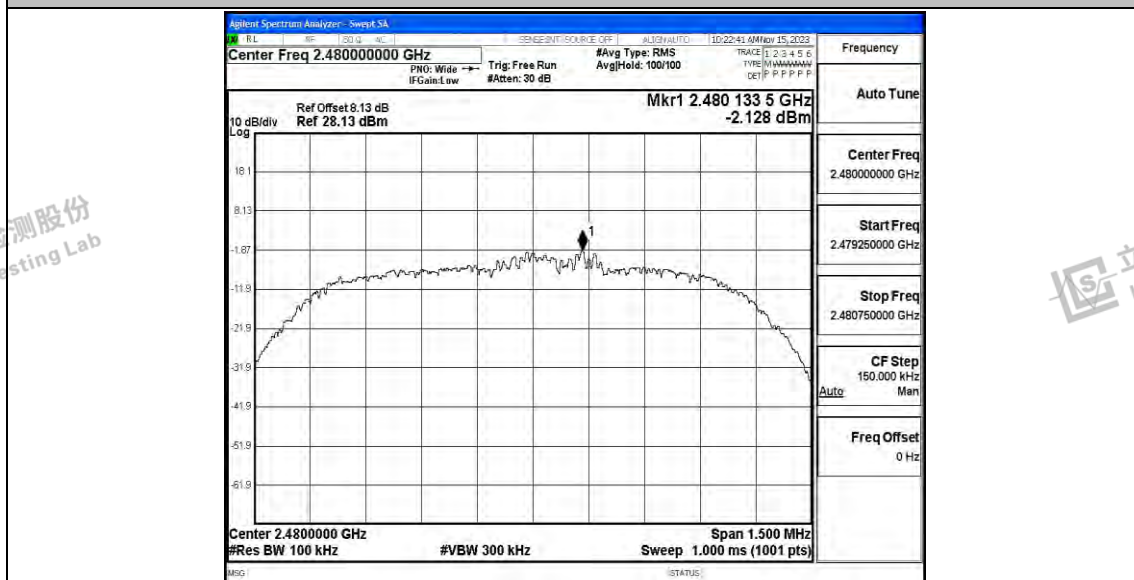


2DH5_Ant_2441_1000~26500



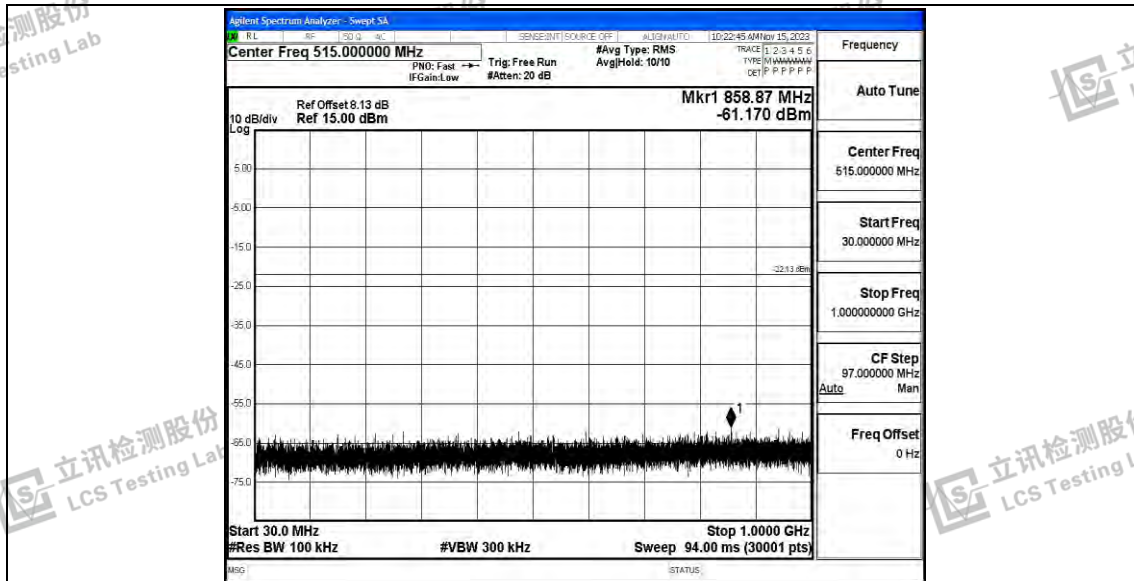


2DH5_Ant_2480_0~Reference

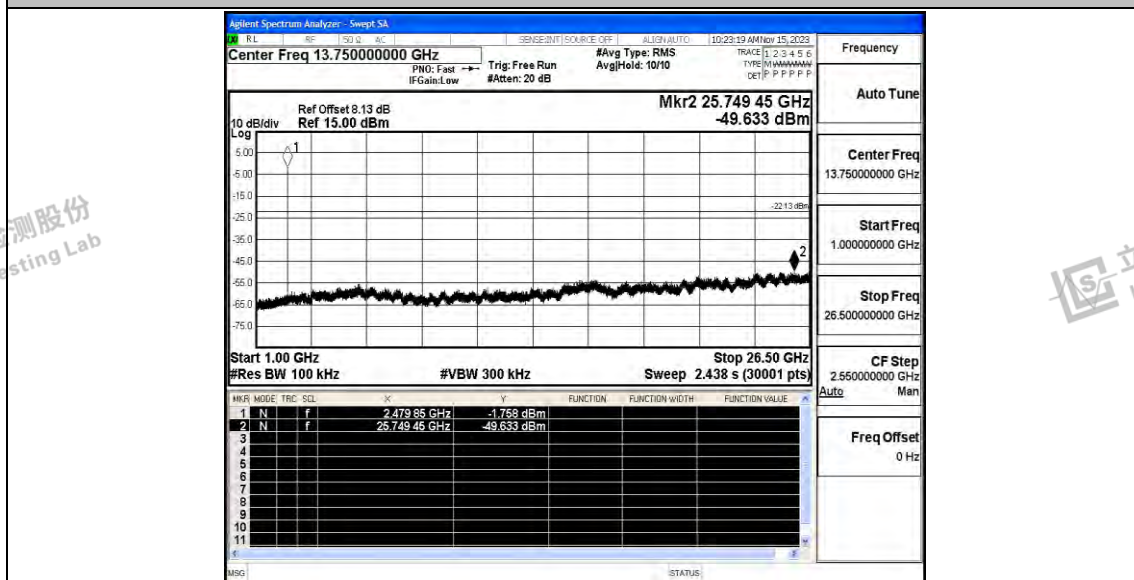


2DH5_Ant_2480_30~1000



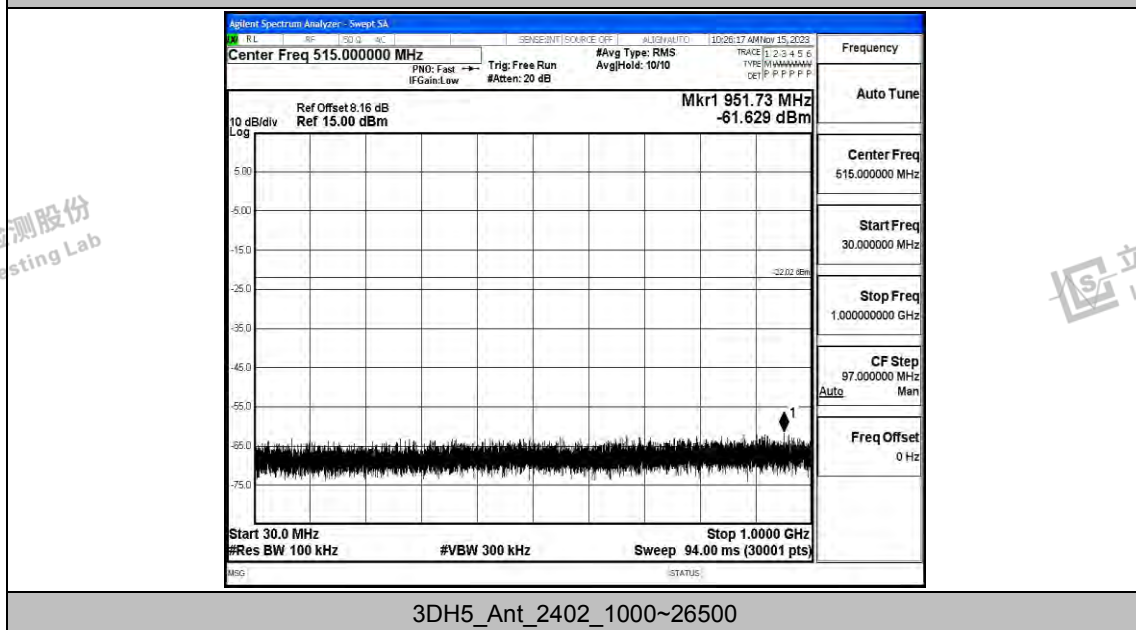
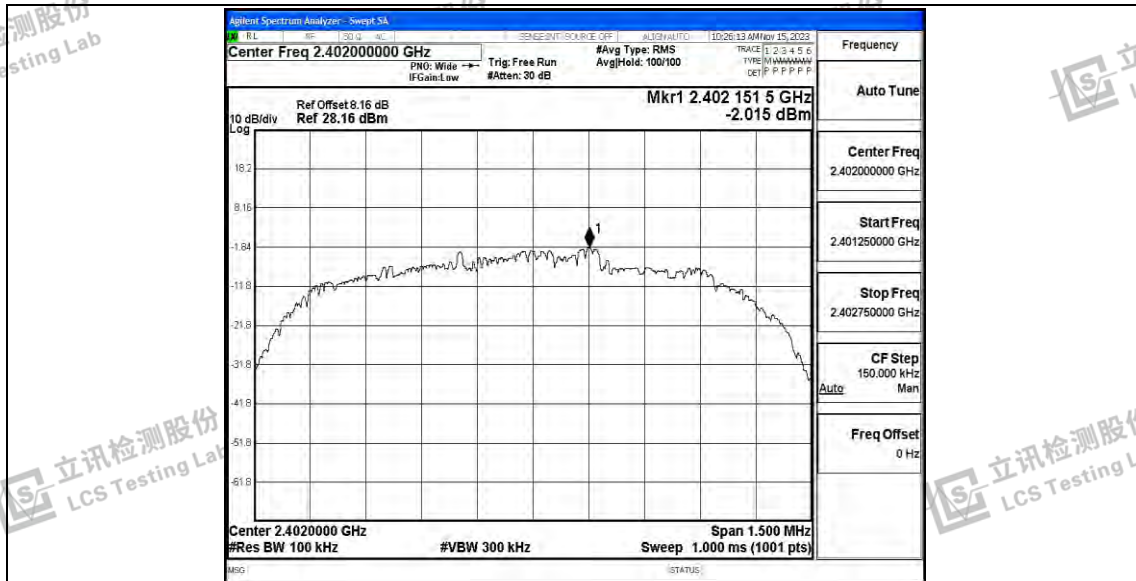


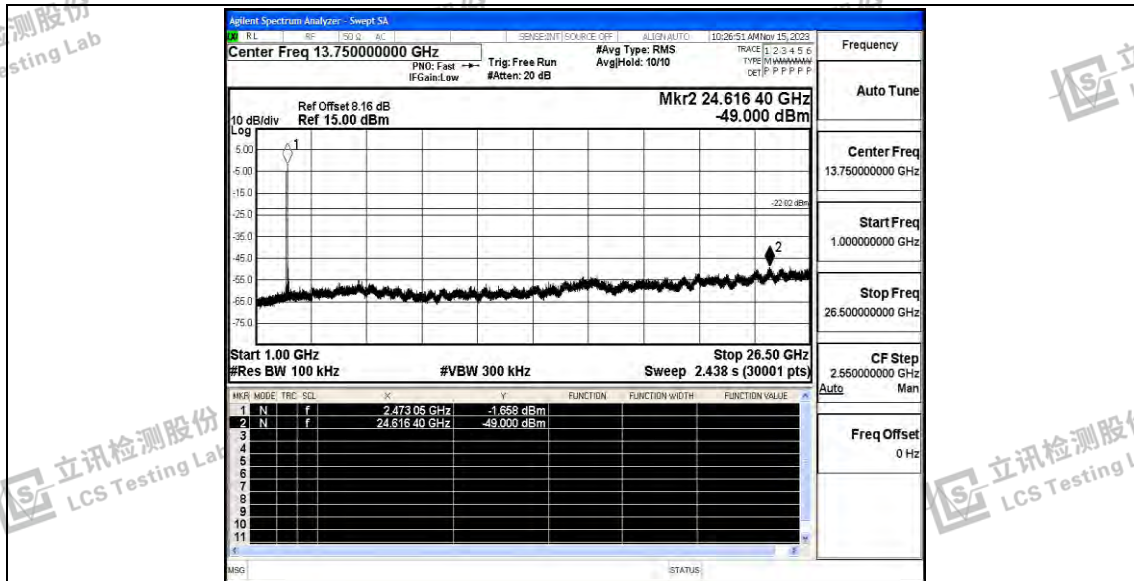
2DH5_Ant_2480_1000~26500



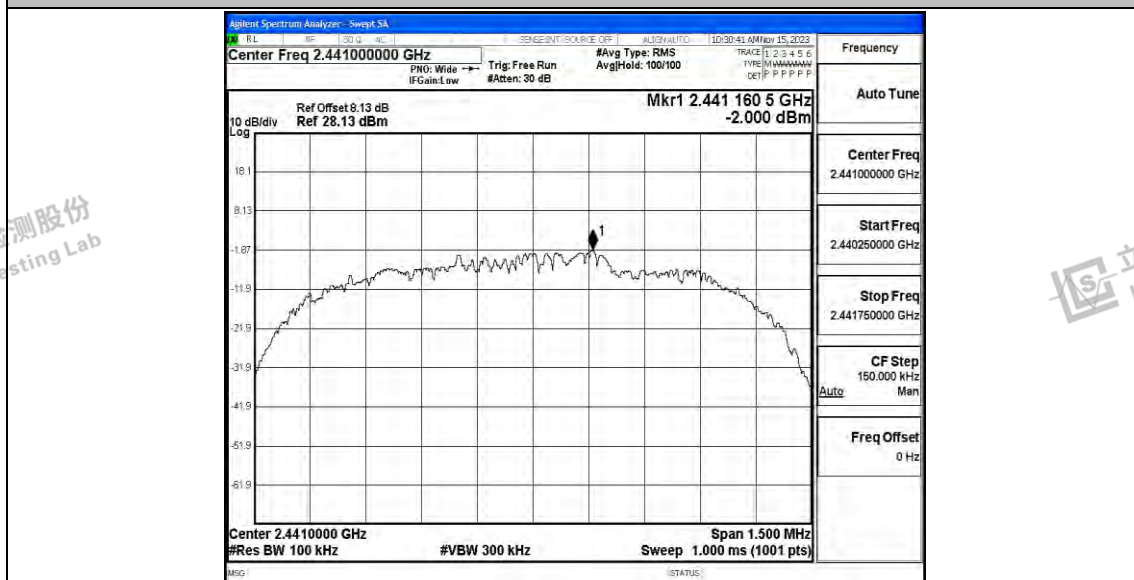
3DH5_Ant_2402_0~Reference





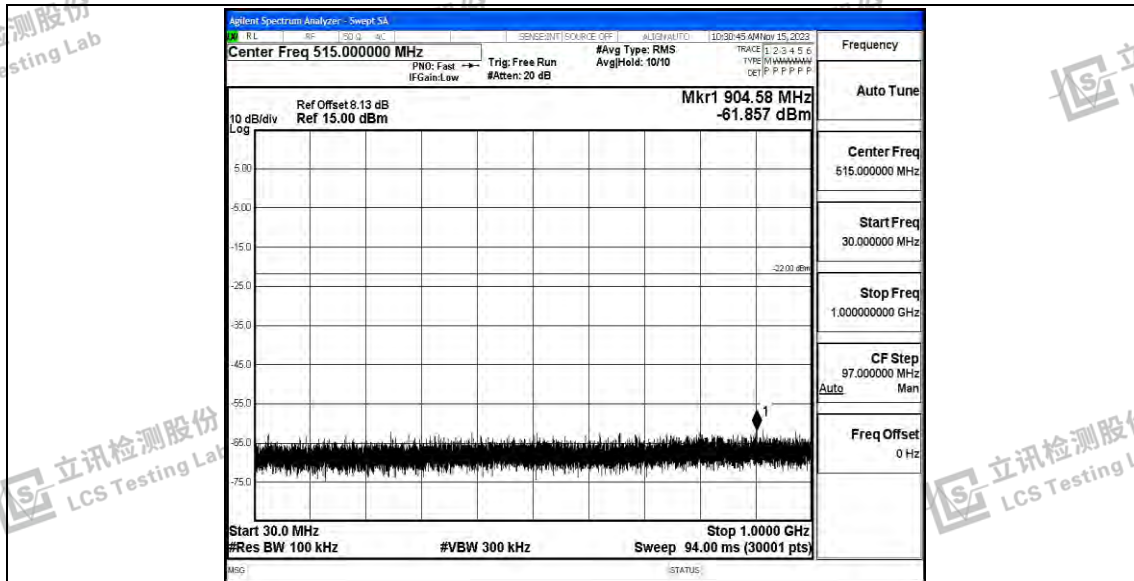


3DH5_Ant_2441_0~Reference

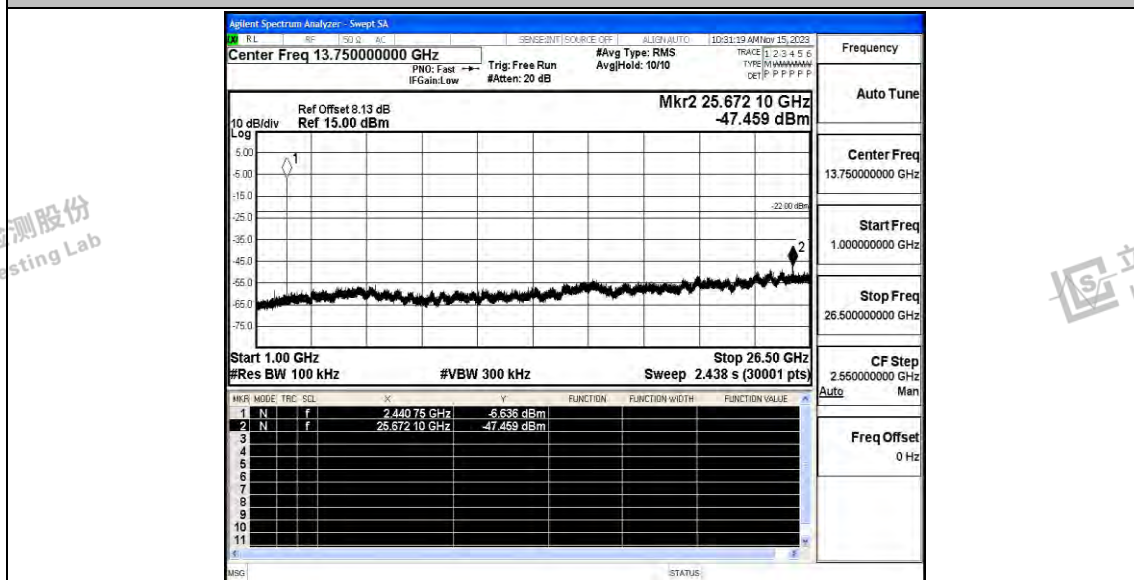


3DH5_Ant_2441_30~1000



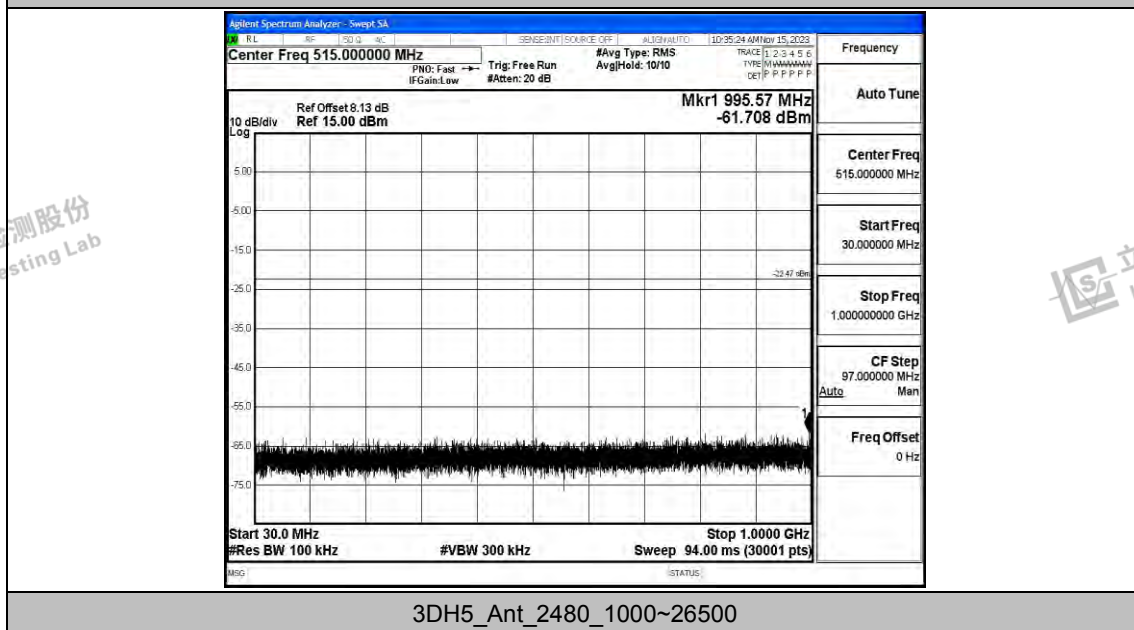
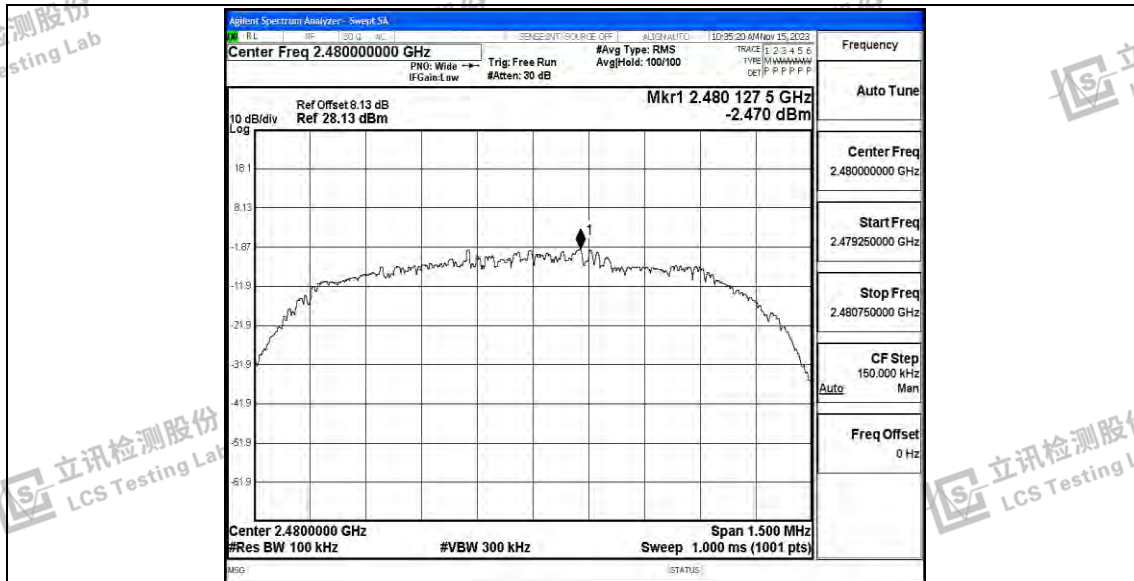


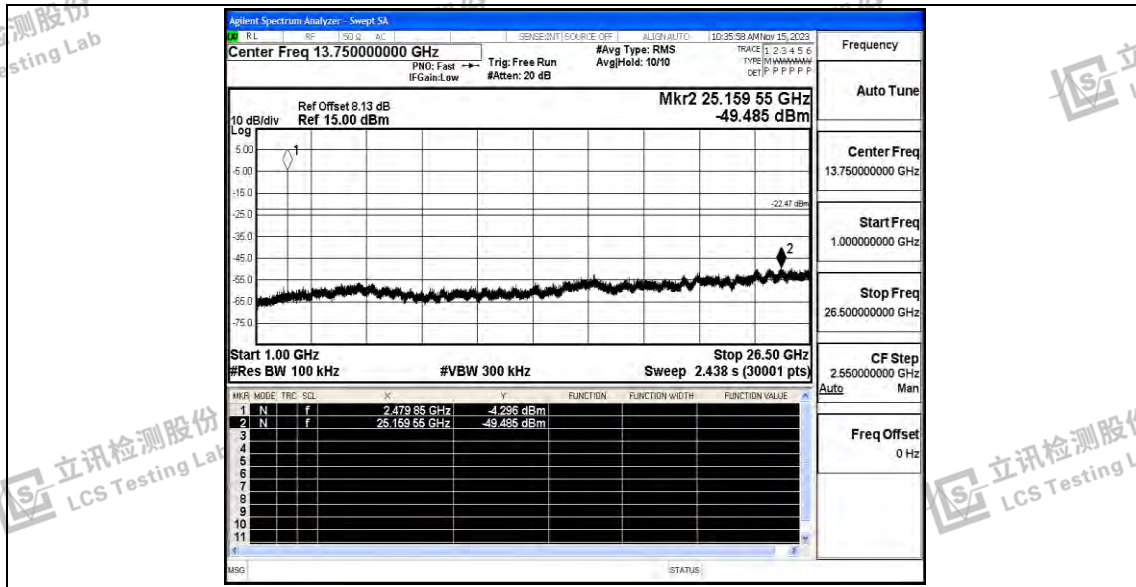
3DH5_Ant_2441_1000~26500



3DH5_Ant_2480_0~Reference









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	Ant	Low	2402	AV	2310.000	-49.08	≤-41.20	46.12	≤54	PASS
				AV	2380.010	-48.53	≤-41.20	46.67	≤54	PASS
				AV	2390.000	-48.8	≤-41.20	46.40	≤54	PASS
				Peak	2310.000	-41.49	≤-21.20	53.71	≤74	PASS
				Peak	2346.410	-39.73	≤-21.20	55.47	≤74	PASS
				Peak	2390.000	-43.38	≤-21.20	51.82	≤74	PASS
		High	2480	AV	2483.500	-48.45	≤-41.20	46.75	≤54	PASS
				AV	2496.400	-48.43	≤-41.20	46.77	≤54	PASS
				AV	2500.000	-48.62	≤-41.20	46.58	≤54	PASS
				Peak	2483.500	-44.51	≤-21.20	50.69	≤74	PASS
				Peak	2485.520	-37.76	≤-21.20	57.44	≤74	PASS
				Peak	2500.000	-42.91	≤-21.20	52.29	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-40.07	≤-21.20	55.13	≤74	PASS
				Peak	2347.775	-38.54	≤-21.20	56.66	≤74	PASS
				Peak	2390.000	-38.96	≤-21.20	56.24	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-39.02	≤-21.20	56.18	≤74	PASS
				Peak	2484.000	-37.89	≤-21.20	57.31	≤74	PASS
				Peak	2500.000	-40.71	≤-21.20	54.49	≤74	PASS
2DH5	Ant	Low	2402	AV	2310.000	-49.03	≤-41.20	46.17	≤54	PASS
				AV	2388.935	-48.1	≤-41.20	47.10	≤54	PASS
				AV	2390.000	-48.79	≤-41.20	46.41	≤54	PASS
				Peak	2310.000	-44.02	≤-21.20	51.18	≤74	PASS
				Peak	2342.735	-38.73	≤-21.20	56.47	≤74	PASS
				Peak	2390.000	-42.57	≤-21.20	52.63	≤74	PASS
		High	2480	AV	2483.500	-48.43	≤-41.20	46.77	≤54	PASS
				AV	2483.520	-48.43	≤-41.20	46.77	≤54	PASS
				AV	2500.000	-48.48	≤-41.20	46.72	≤54	PASS
				Peak	2483.500	-42.03	≤-21.20	53.17	≤74	PASS
				Peak	2489.600	-38.94	≤-21.20	56.26	≤74	PASS
				Peak	2500.000	-42.27	≤-21.20	52.93	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-41.53	≤-21.20	53.67	≤74	PASS
				Peak	2378.120	-38.5	≤-21.20	56.70	≤74	PASS
				Peak	2390.000	-41.52	≤-21.20	53.68	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-39.46	≤-21.20	55.74	≤74	PASS
				Peak	2489.760	-37.69	≤-21.20	57.51	≤74	PASS



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Scan code to check authenticity



3DH5	Ant	Low	2402	Peak	2500.000	-39.46	≤-21.20	55.74	≤74	PASS
				AV	2310.000	-49.07	≤-41.20	46.13	≤54	PASS
				AV	2386.100	-48.57	≤-41.20	46.63	≤54	PASS
				AV	2390.000	-48.71	≤-41.20	46.49	≤54	PASS
				Peak	2310.000	-42.88	≤-21.20	52.32	≤74	PASS
				Peak	2384.315	-39.48	≤-21.20	55.72	≤74	PASS
		High	2480	AV	2483.500	-48.46	≤-41.20	46.74	≤54	PASS
				AV	2483.520	-48.46	≤-41.20	46.74	≤54	PASS
				AV	2500.000	-48.64	≤-41.20	46.56	≤54	PASS
				Peak	2483.500	-43.12	≤-21.20	52.08	≤74	PASS
				Peak	2498.400	-40.25	≤-21.20	54.95	≤74	PASS
				Peak	2500.000	-44.03	≤-21.20	51.17	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-40.58	≤-21.20	54.62	≤74	PASS
				Peak	2345.885	-38.35	≤-21.20	56.85	≤74	PASS
				Peak	2390.000	-40.66	≤-21.20	54.54	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-40.26	≤-21.20	54.94	≤74	PASS
				Peak	2492.640	-37.68	≤-21.20	57.52	≤74	PASS
				Peak	2500.000	-40.66	≤-21.20	54.54	≤74	PASS

Note:

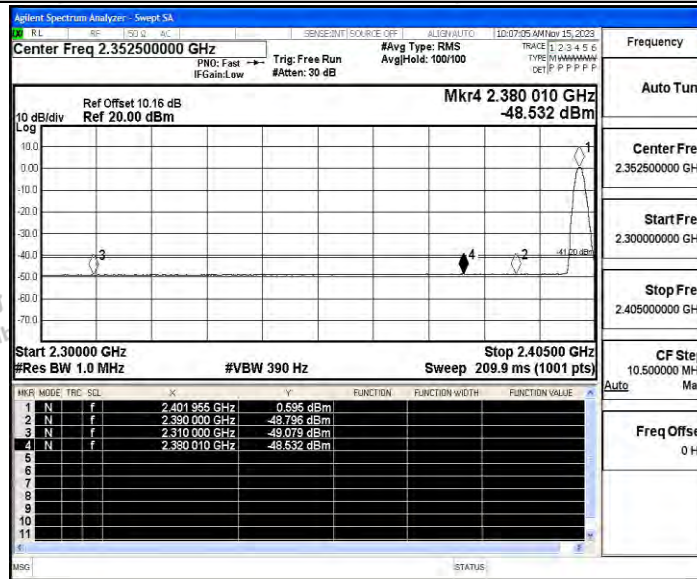
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



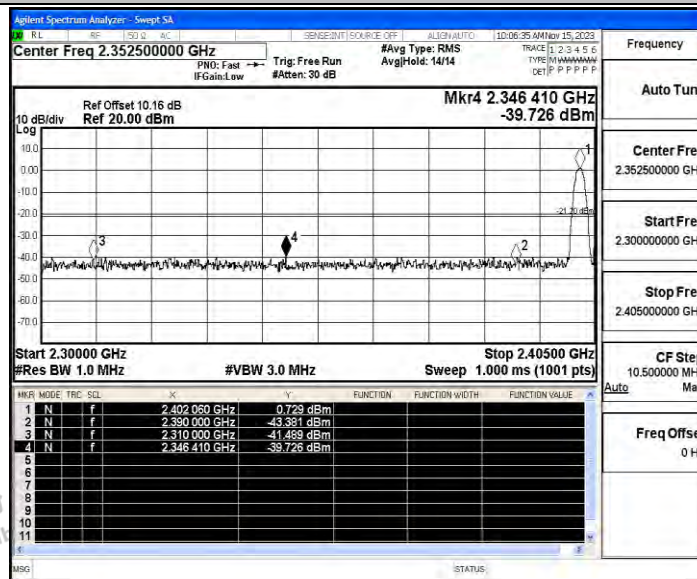


Test Graphs

DH5_Ant_Low_2402_AV



DH5_Ant_Low_2402_Peak



DH5_Ant_High_2480_AV

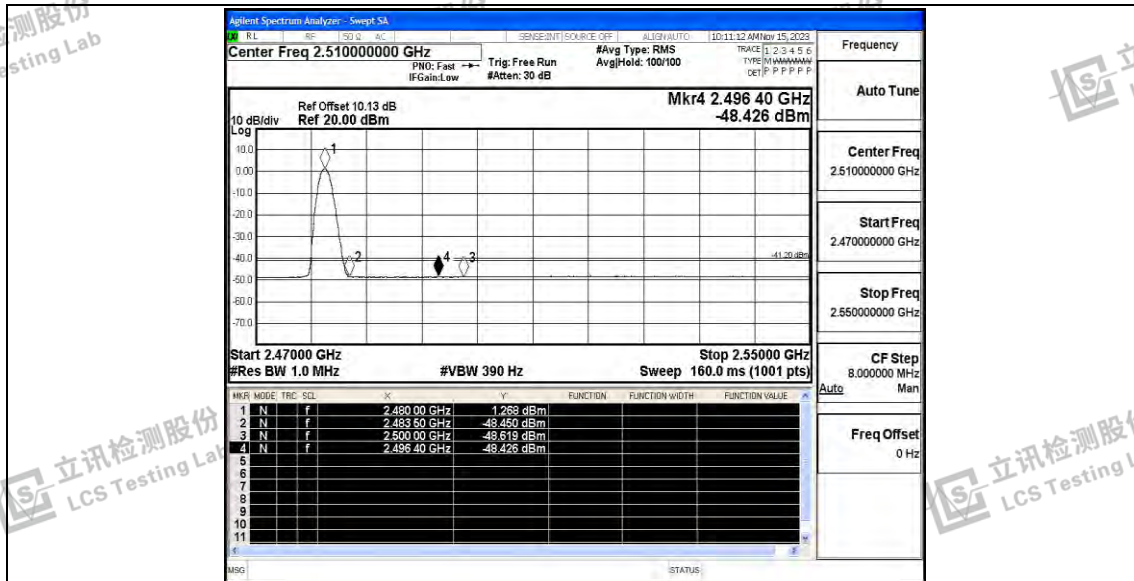


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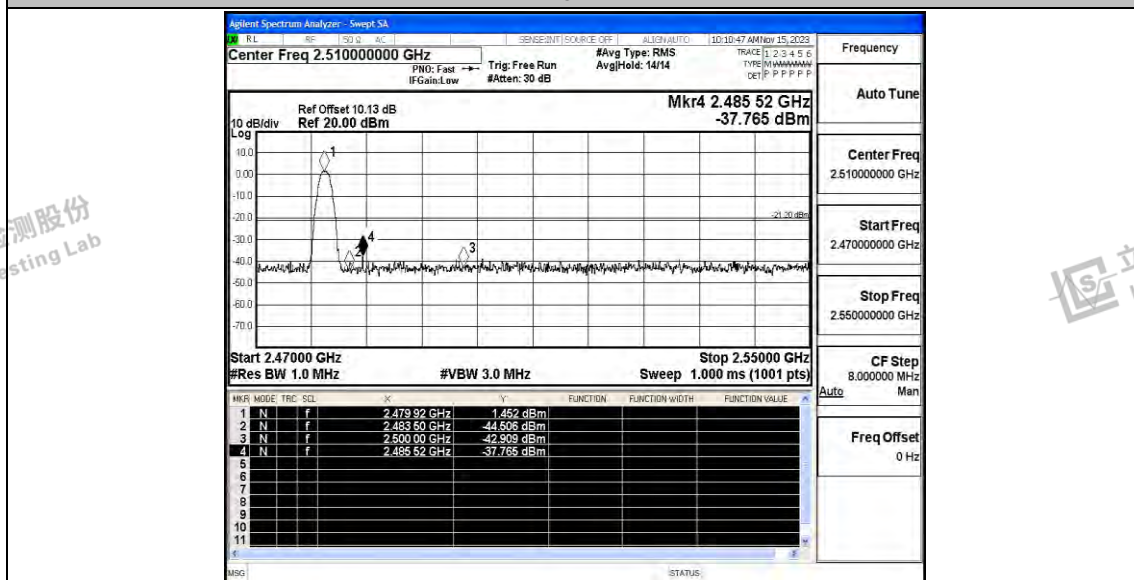
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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Scan code to check authenticity

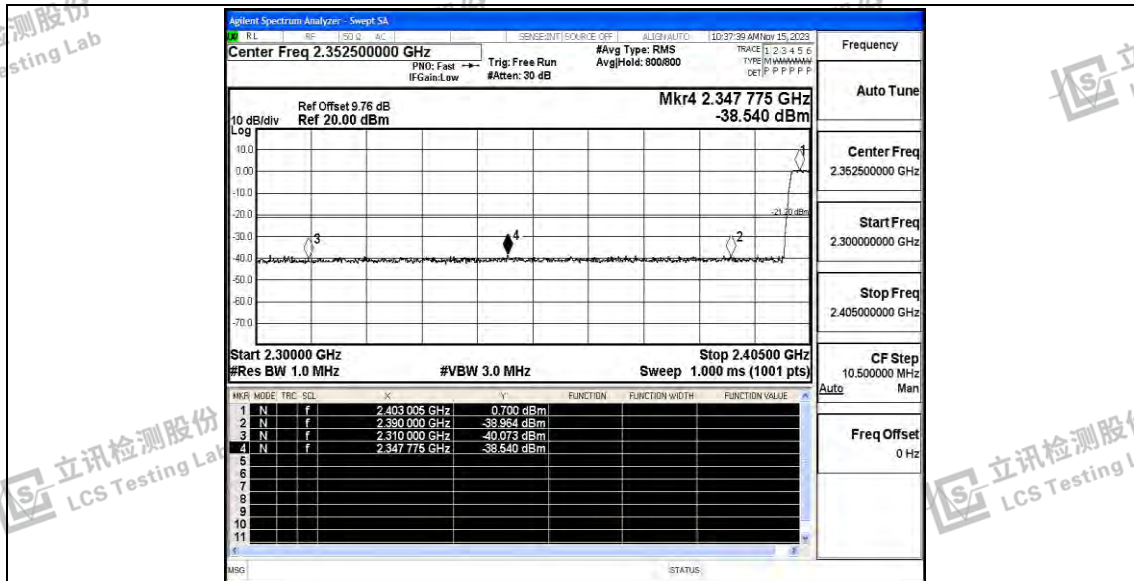


DH5_Ant_High_2480_Peak

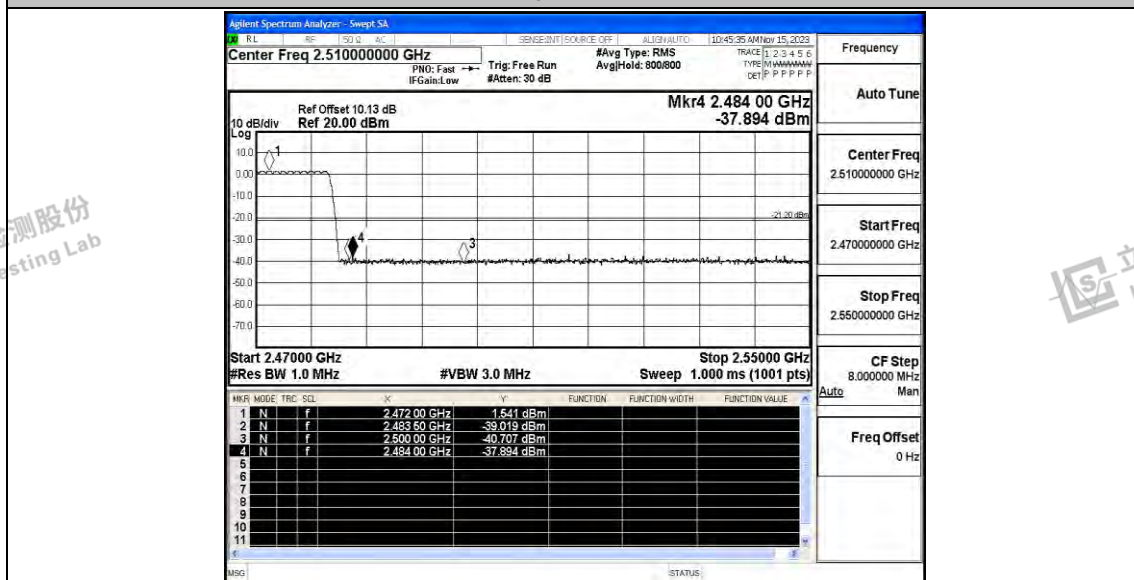


DH5_Ant_Low_Hop_2402_Peak



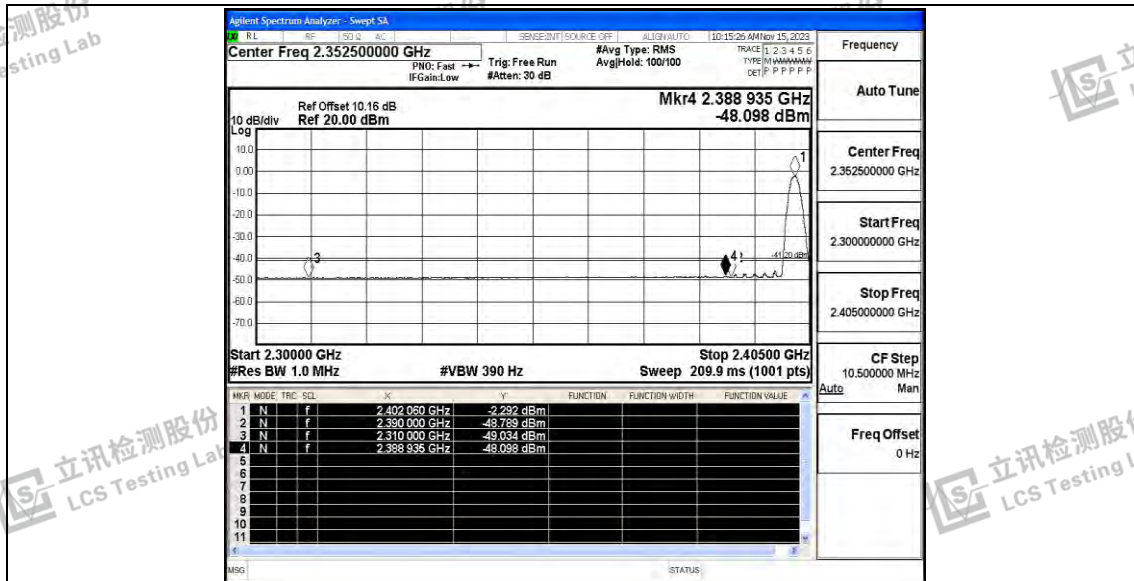


DH5_Ant_High_Hop_2480_Peak

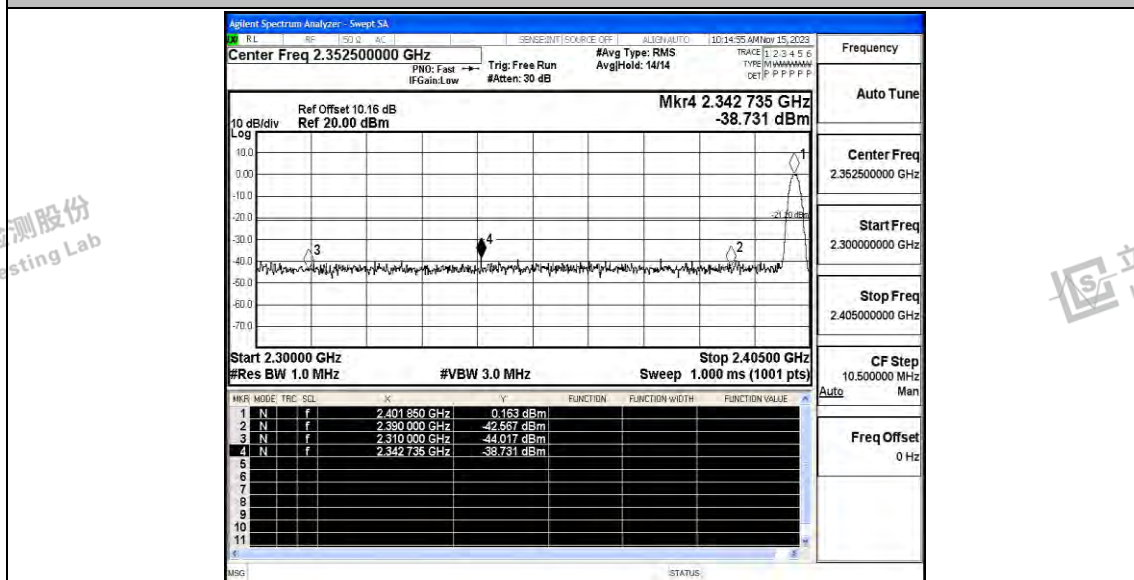


2DH5_Ant_Low_2402_AV



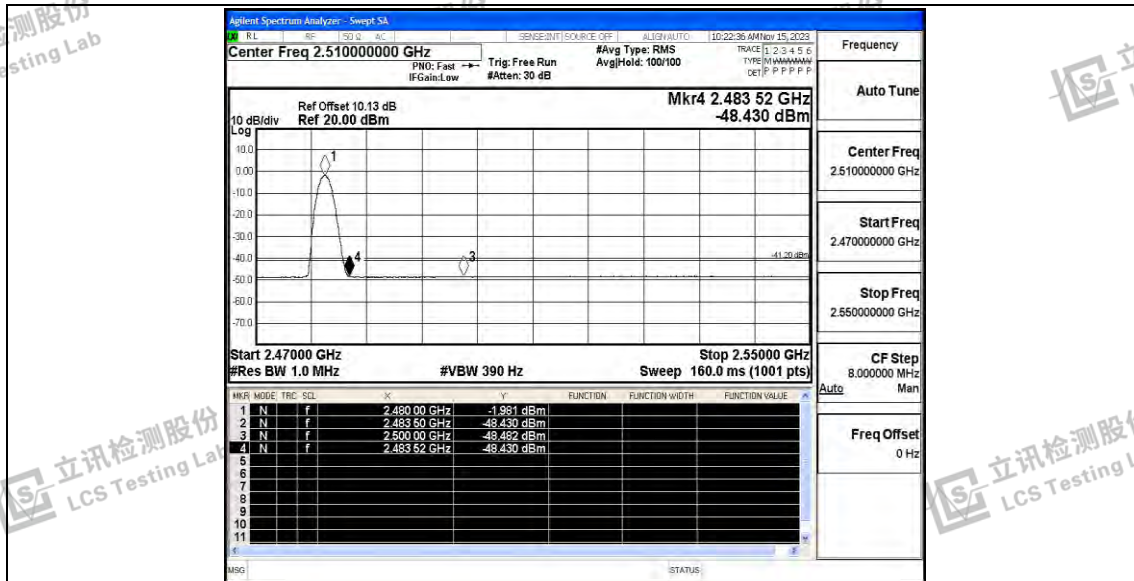


2DH5_Ant_Low_2402_Peak

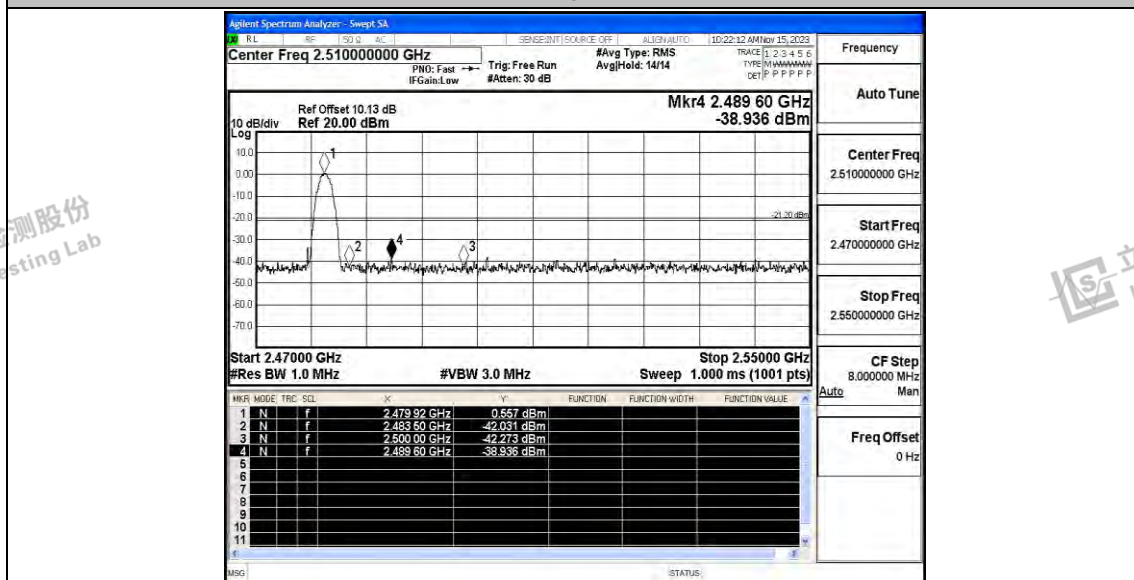


2DH5_Ant_High_2480_AV



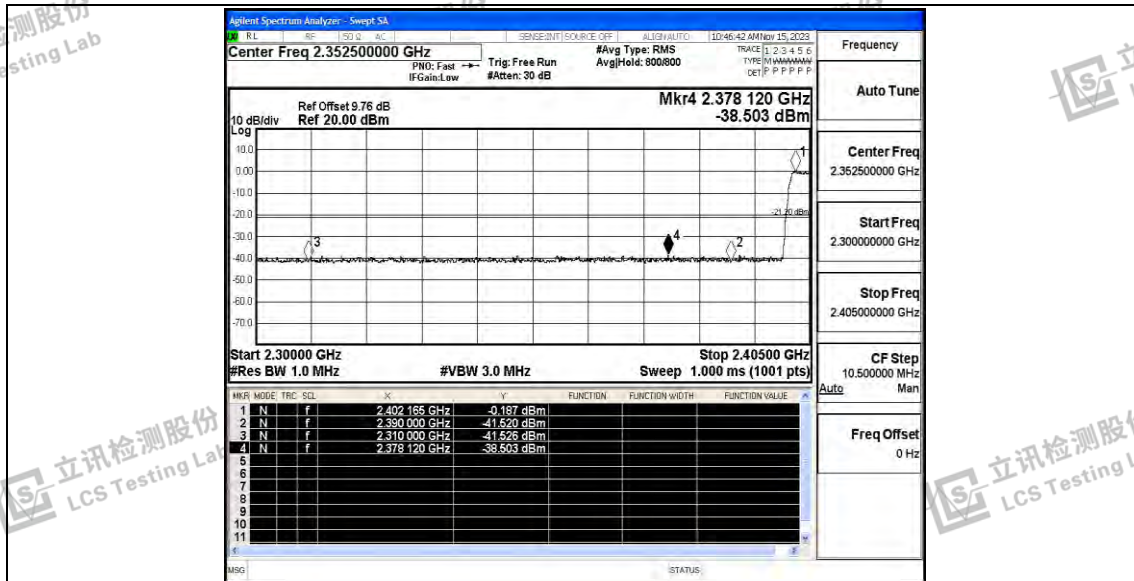


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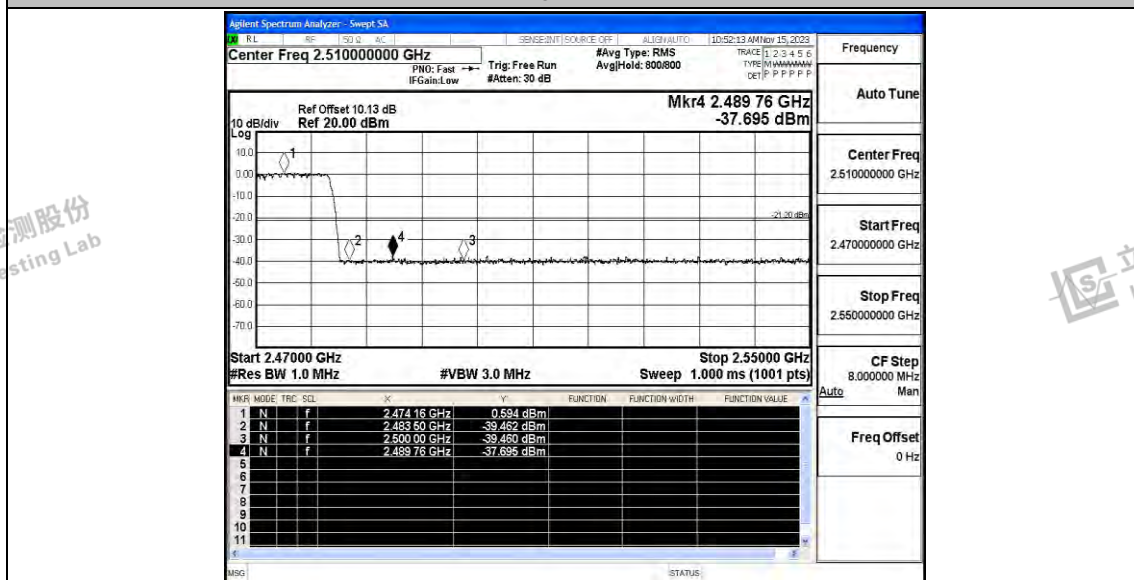


2DH5_Ant_Low_Hop_2402_Peak



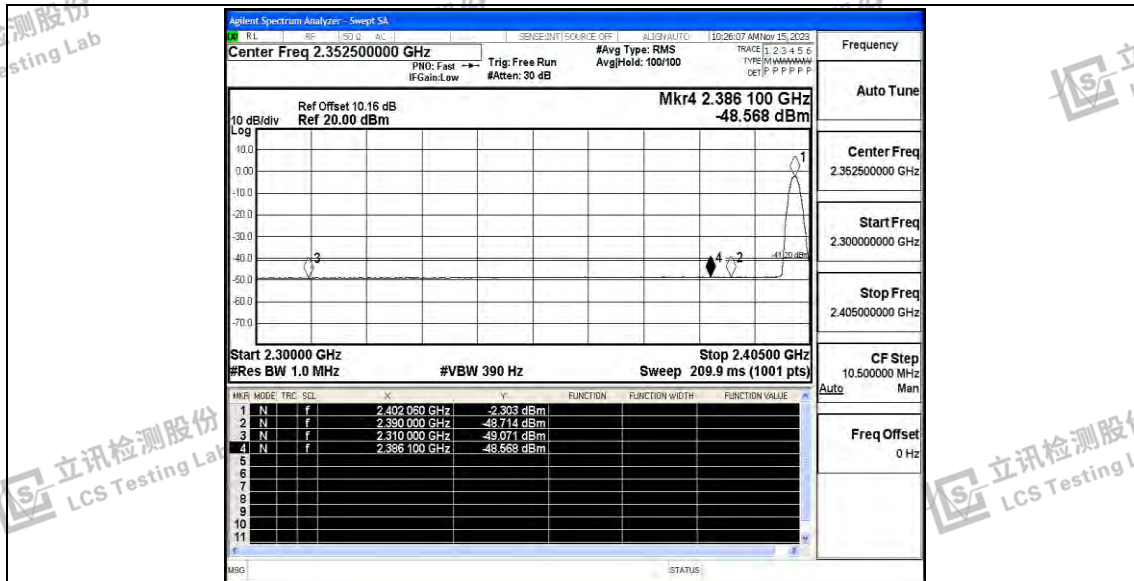


2DH5_Ant_High_Hop_2480_Peak

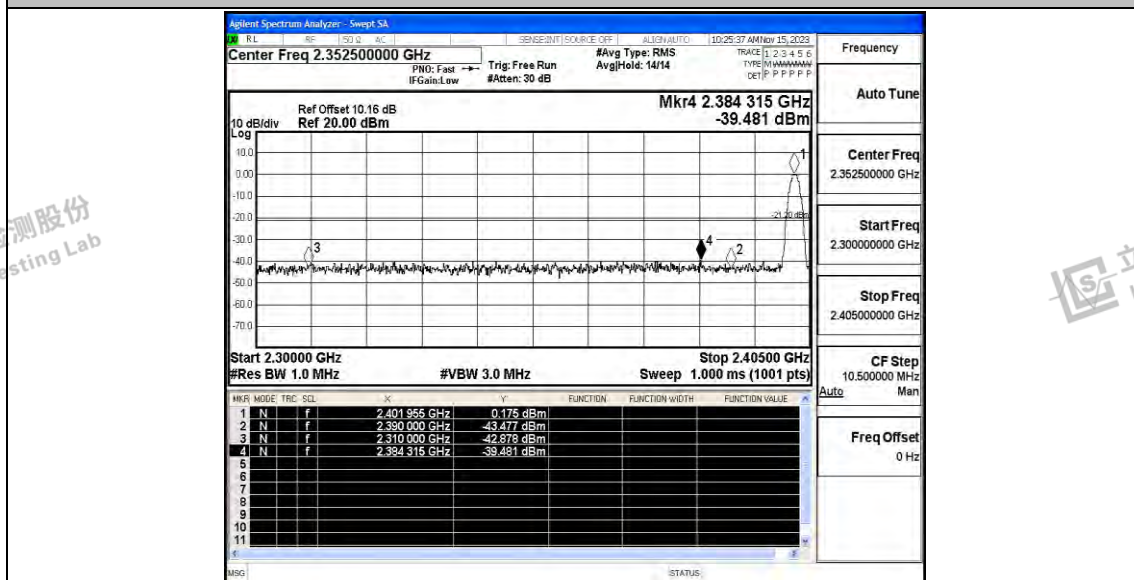


3DH5_Ant_Low_2402_AV



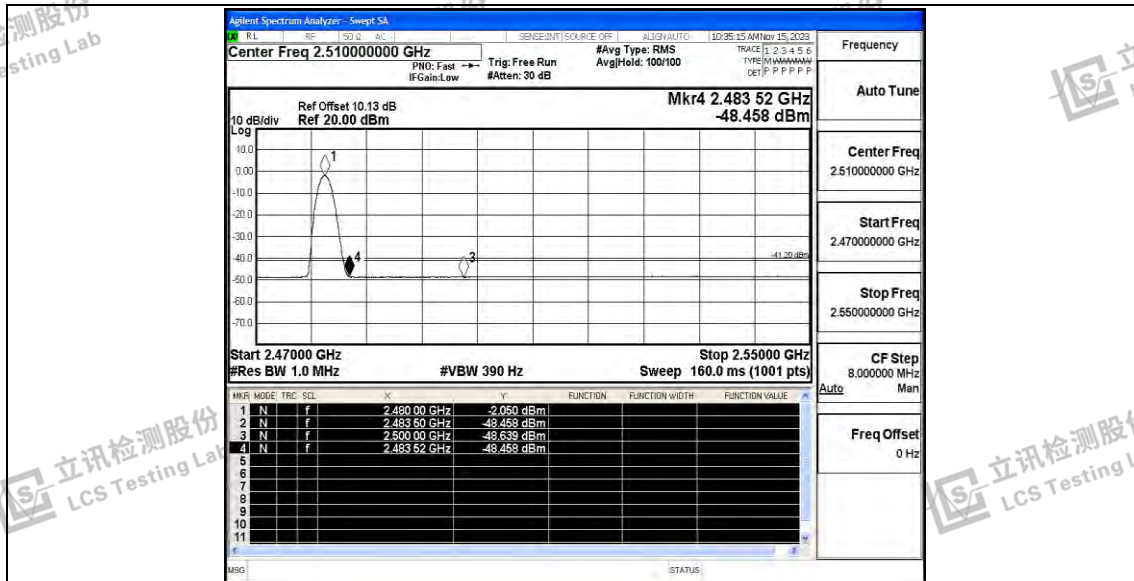


3DH5_Ant_Low_2402_Peak

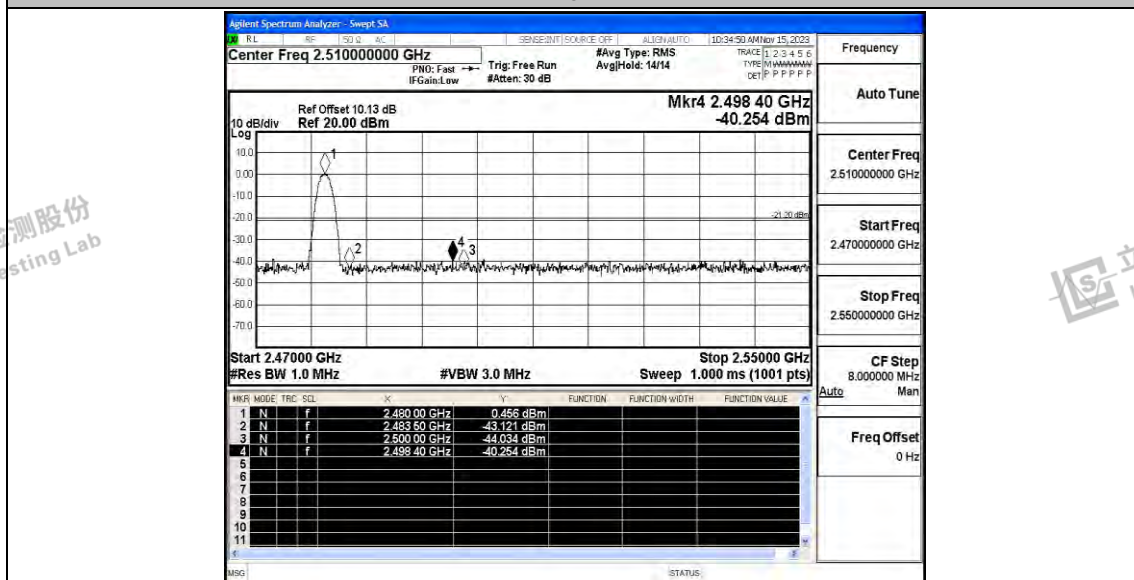


3DH5_Ant_High_2480_AV





3DH5_Ant_High_2480_Peak



3DH5_Ant_Low_Hop_2402_Peak



