



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Smartphone

Test Model: 65PA1-1

Environmental Conditions

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





A.1 20dB Emission Bandwidth

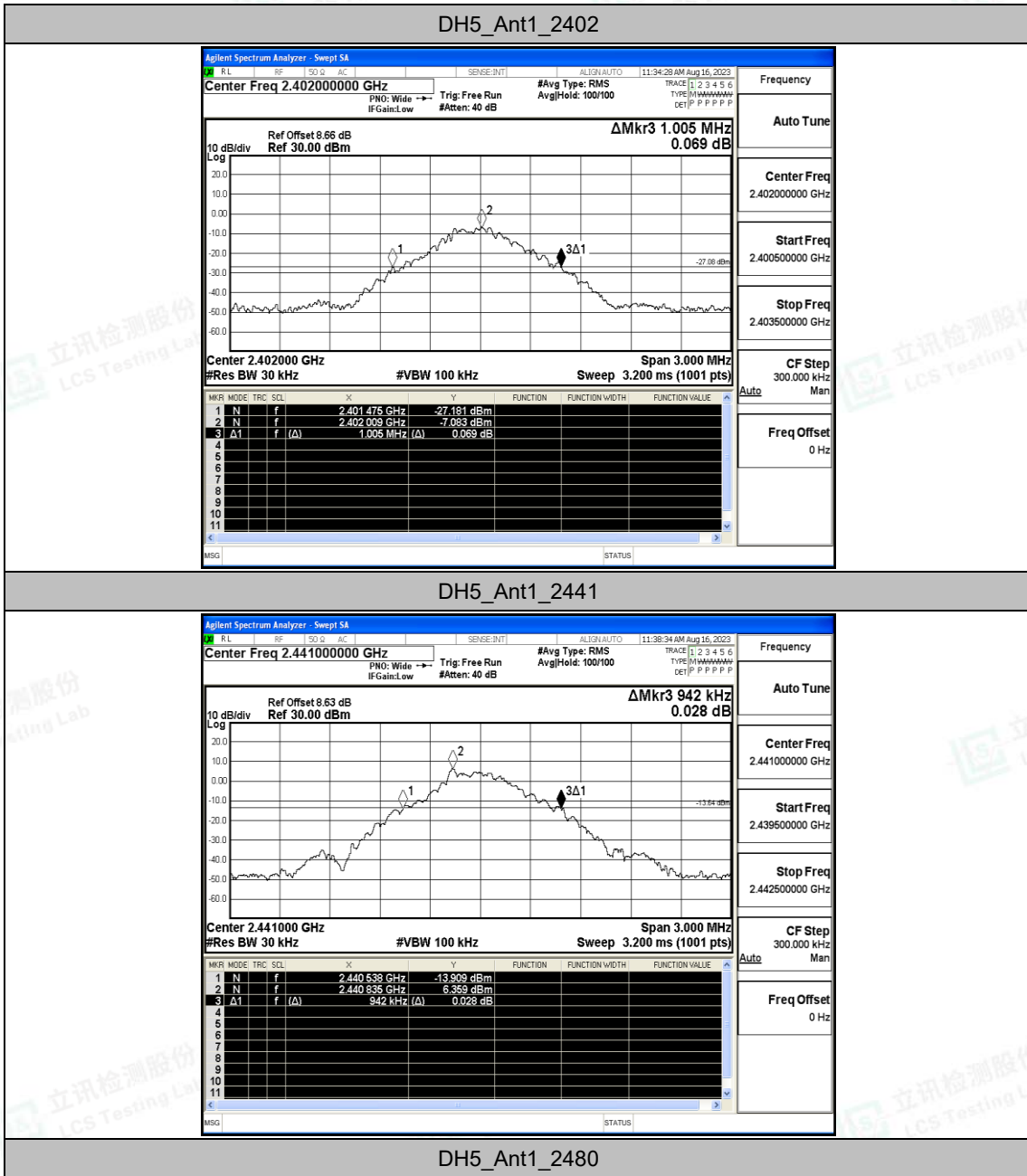
Test Result

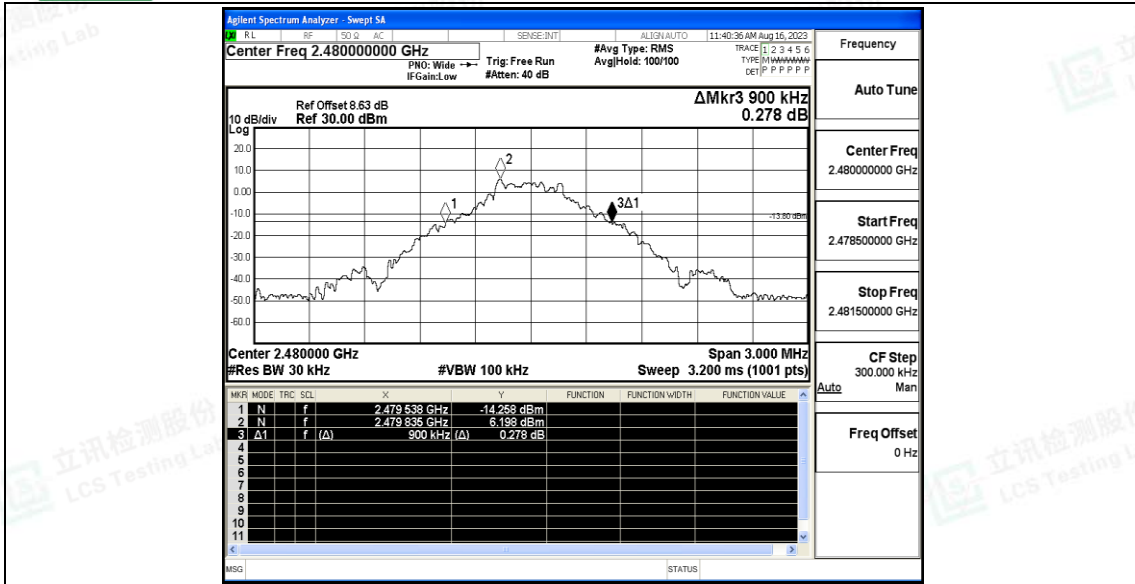
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	1.005	2401.475	2402.480	---
		2441	0.942	2440.538	2441.480	---
		2480	0.900	2479.538	2480.438	---
2DH5	Ant1	2402	1.326	2401.334	2402.660	---
		2441	1.290	2440.361	2441.651	---
		2480	1.287	2479.364	2480.651	---
3DH5	Ant1	2402	1.326	2401.337	2402.663	---
		2441	1.320	2440.340	2441.660	---
		2480	1.299	2479.346	2480.645	---



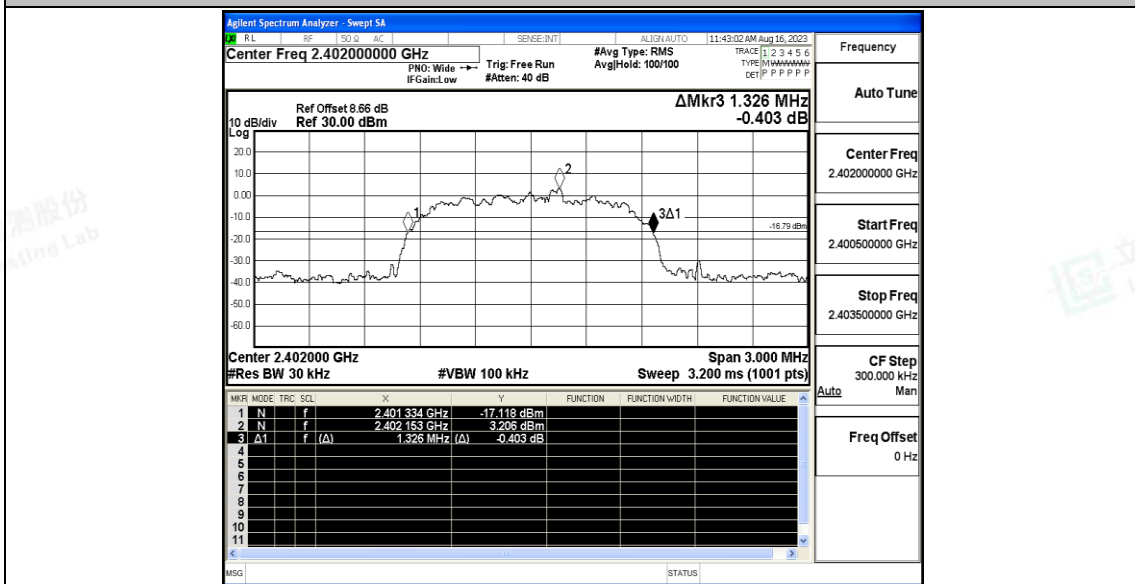


Test Graphs



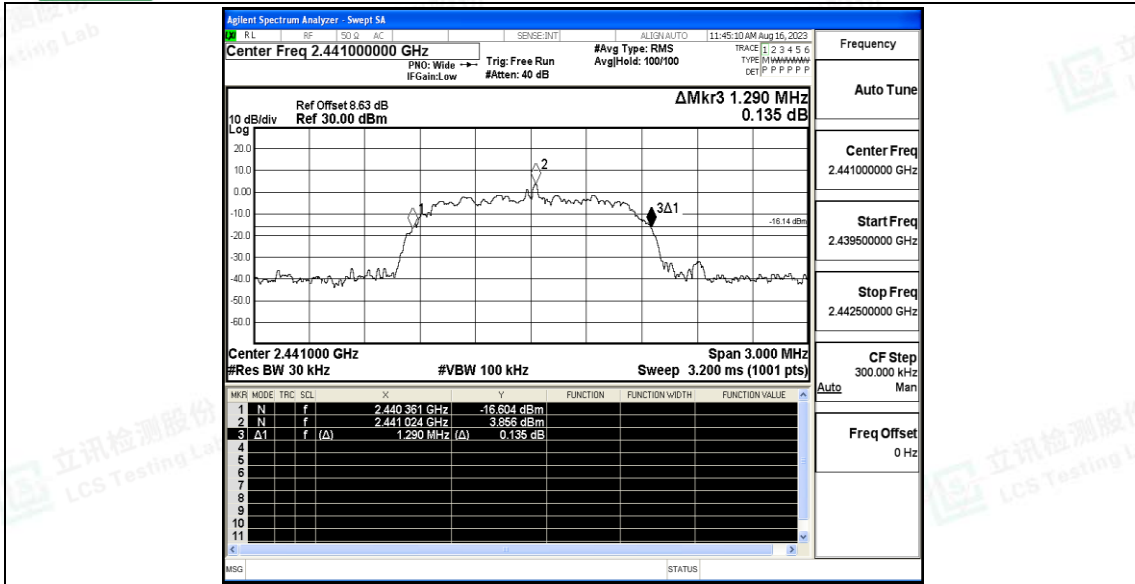


2DH5_Ant1_2402

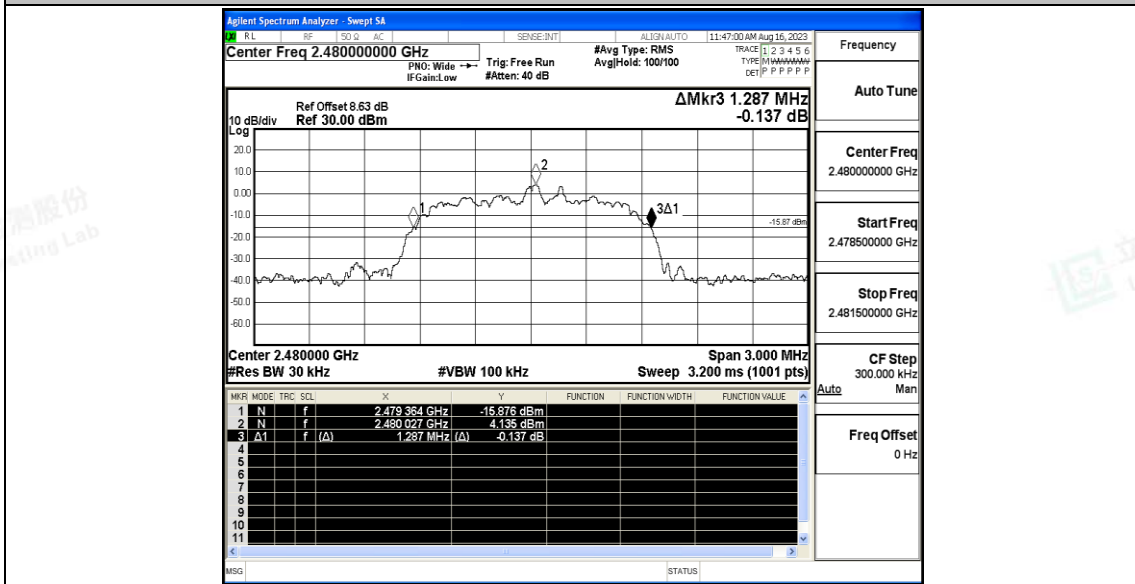


2DH5_Ant1_2441



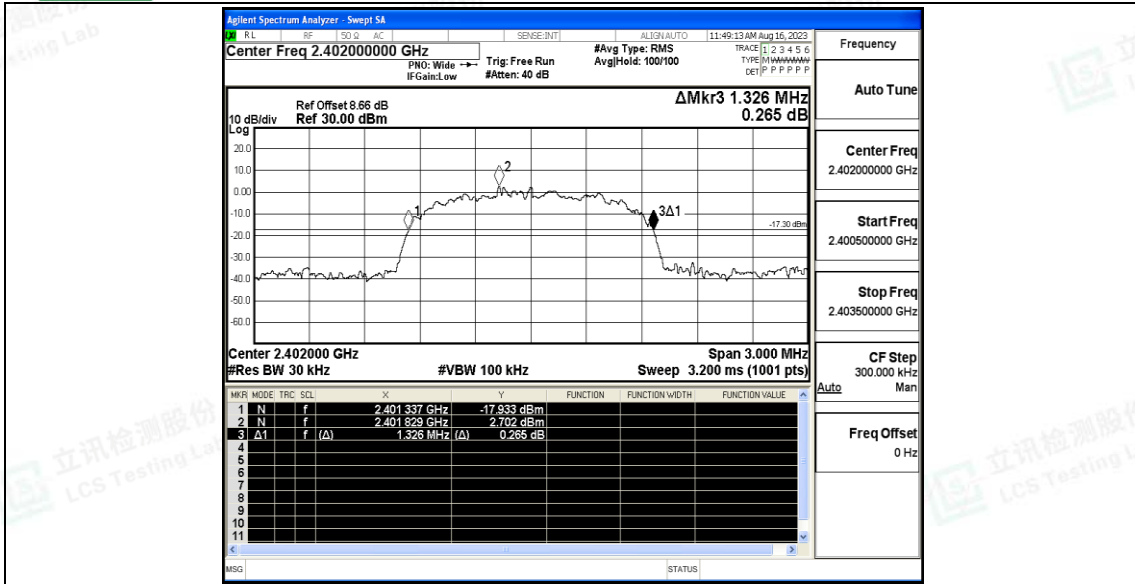


2DH5_Ant1_2480

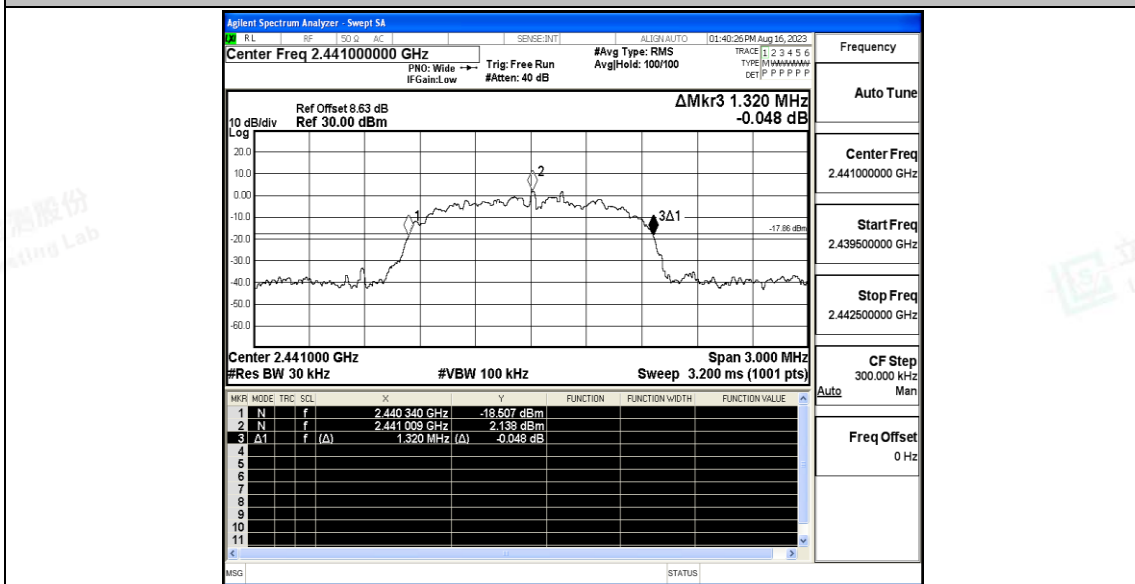


3DH5_Ant1_2402



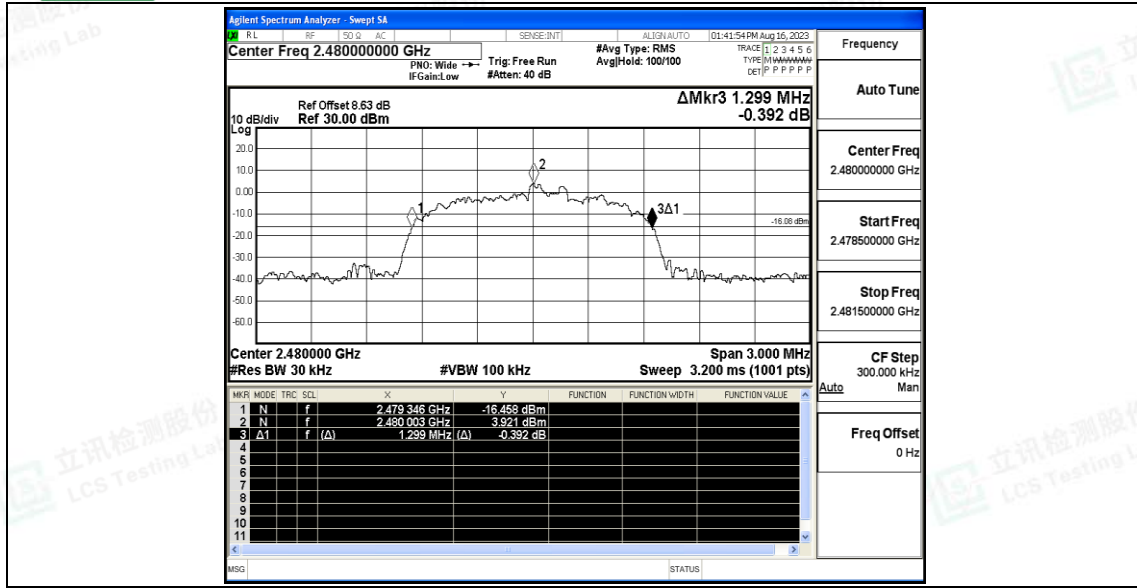


3DH5_Ant1_2441



3DH5_Ant1_2480







A.2 Maximum conducted output power

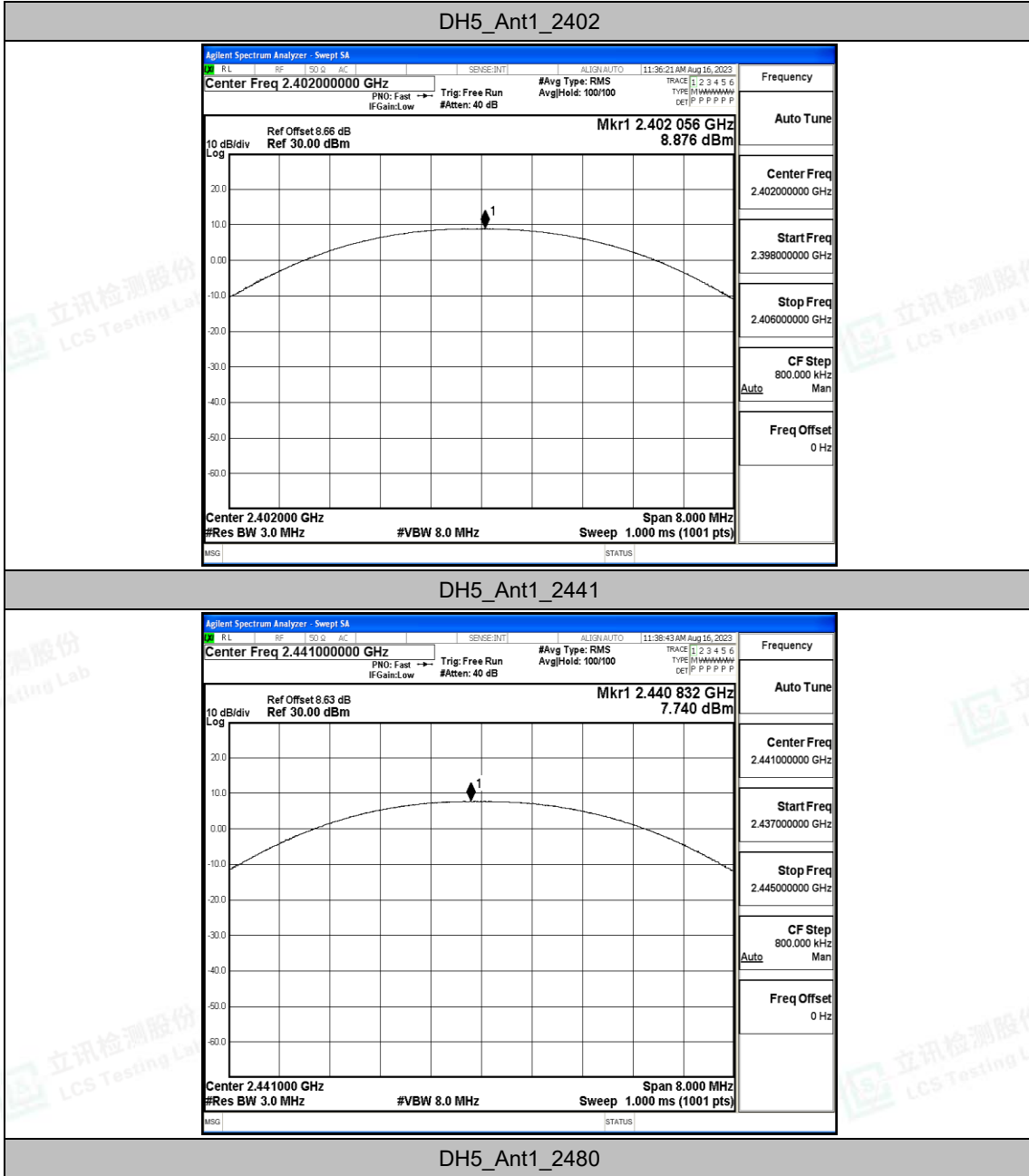
Test Result

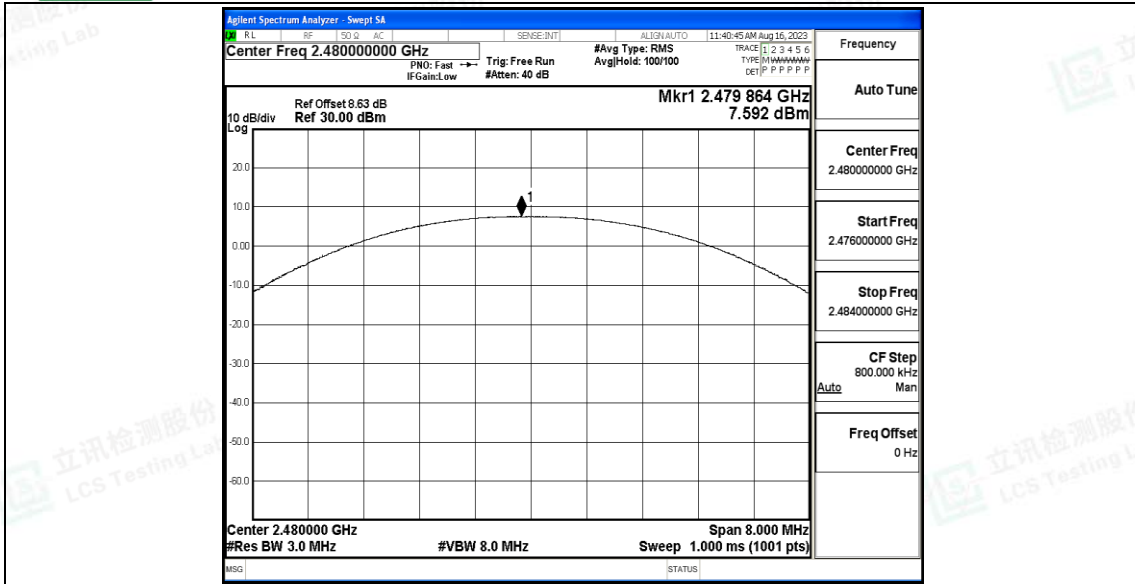
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	8.88	≤21	PASS
		2441	7.74	≤21	PASS
		2480	7.59	≤21	PASS
2DH5	Ant1	2402	9.18	≤21	PASS
		2441	7.88	≤21	PASS
		2480	8.14	≤21	PASS
3DH5	Ant1	2402	9.41	≤21	PASS
		2441	8.08	≤21	PASS
		2480	8.4	≤21	PASS



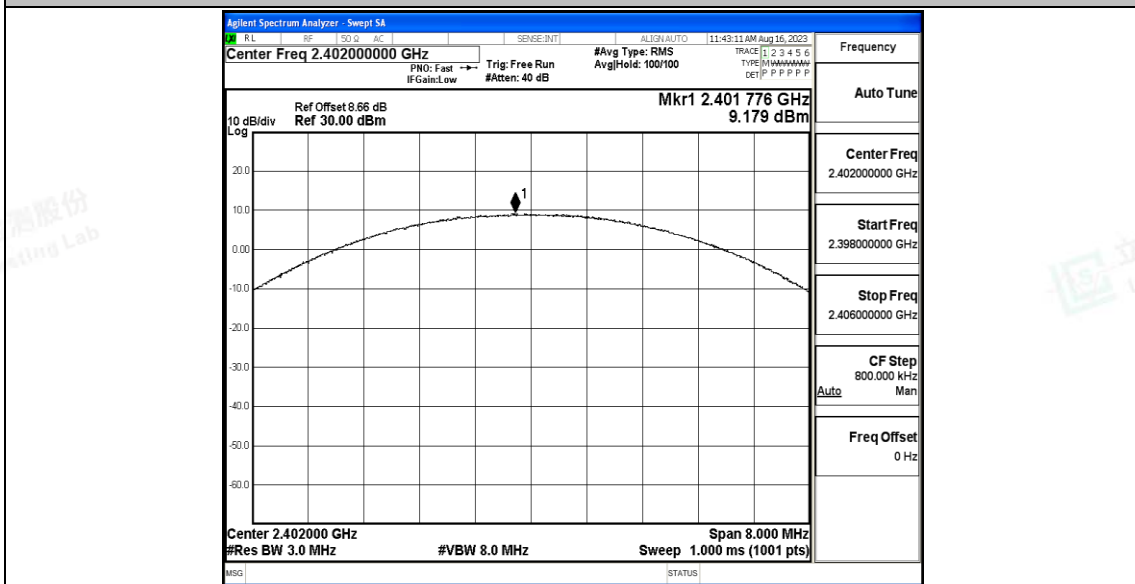


Test Graphs



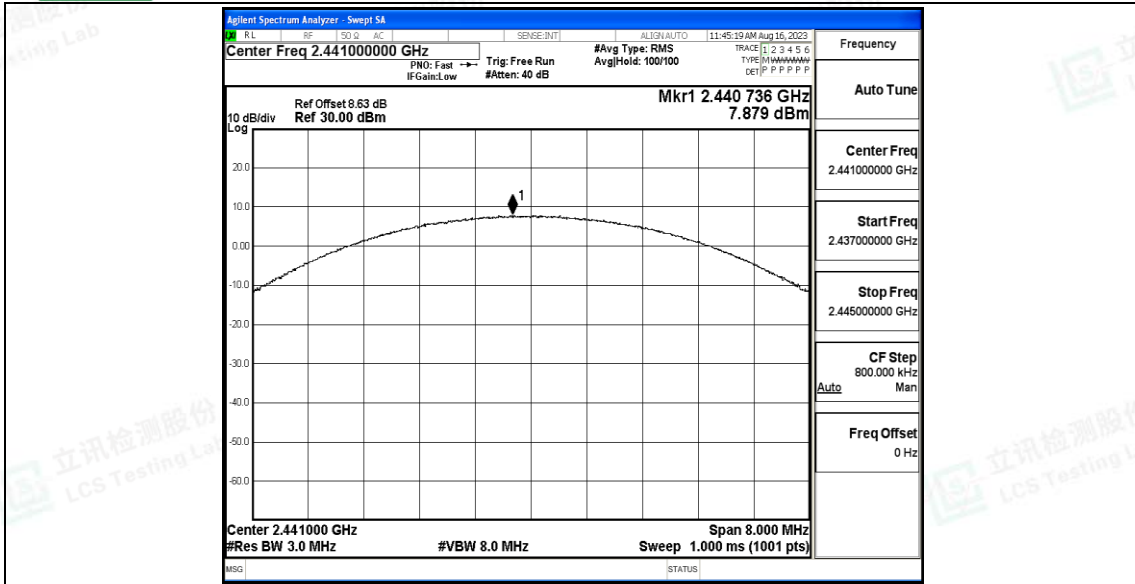


2DH5_Ant1_2402

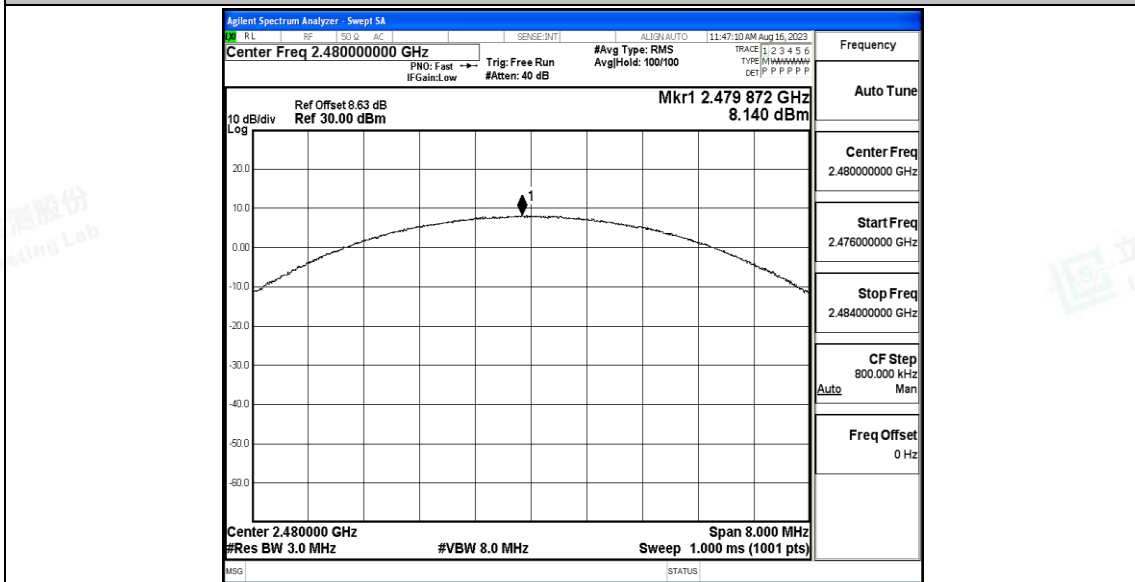


2DH5_Ant1_2441



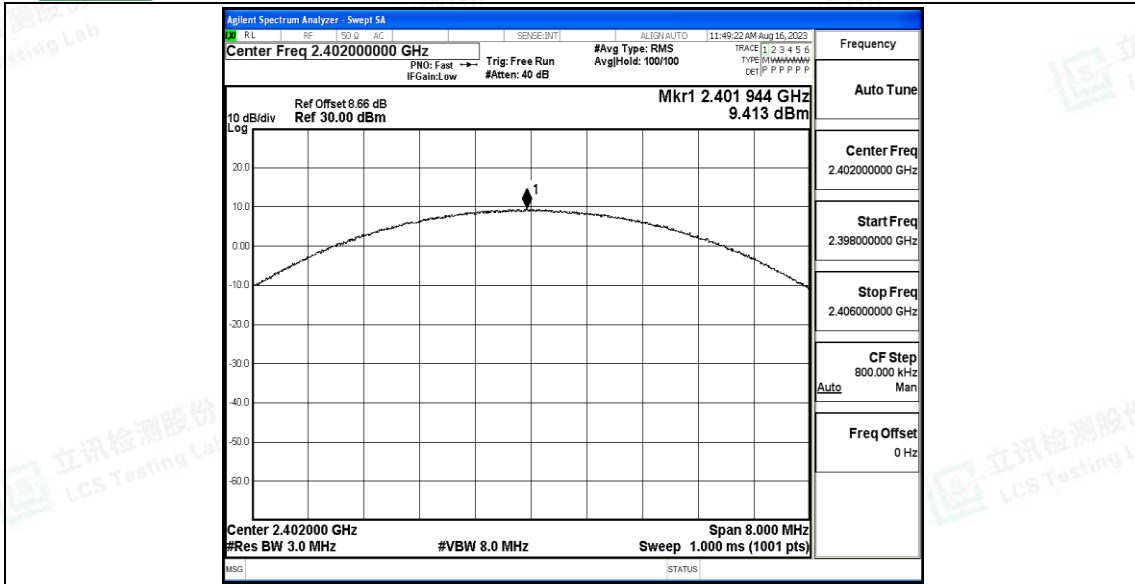


2DH5_Ant1_2480

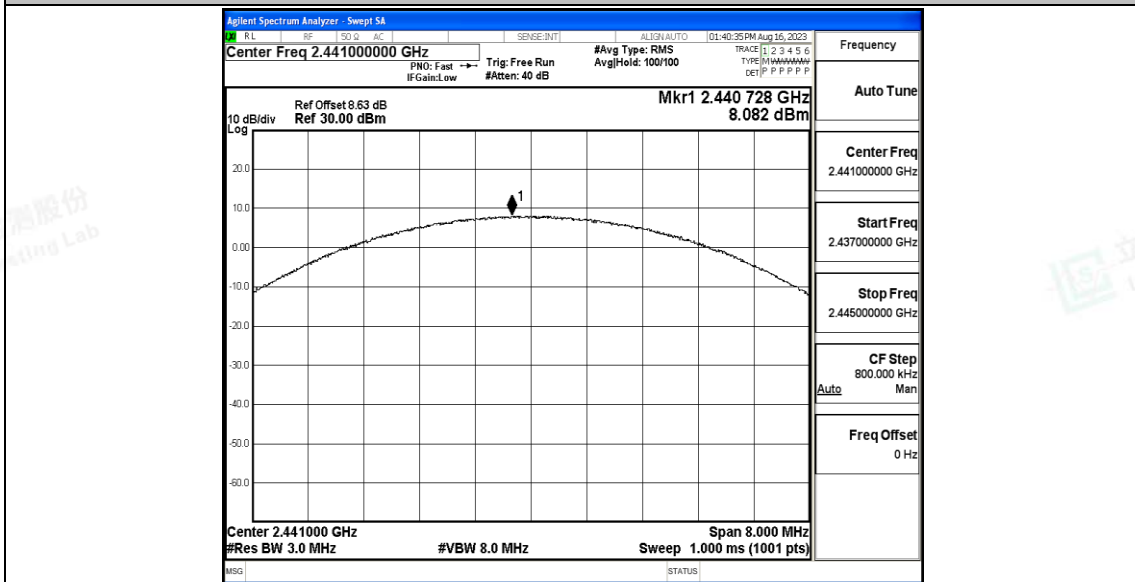


3DH5_Ant1_2402



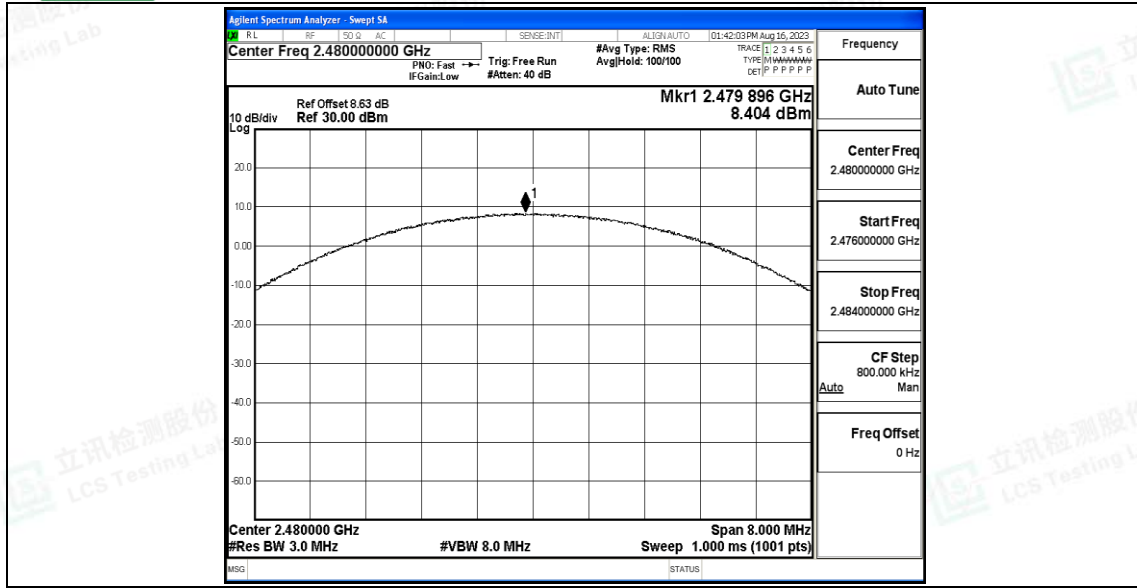


3DH5_Ant1_2441



3DH5_Ant1_2480







A.3 Carrier frequency separation

Test Result

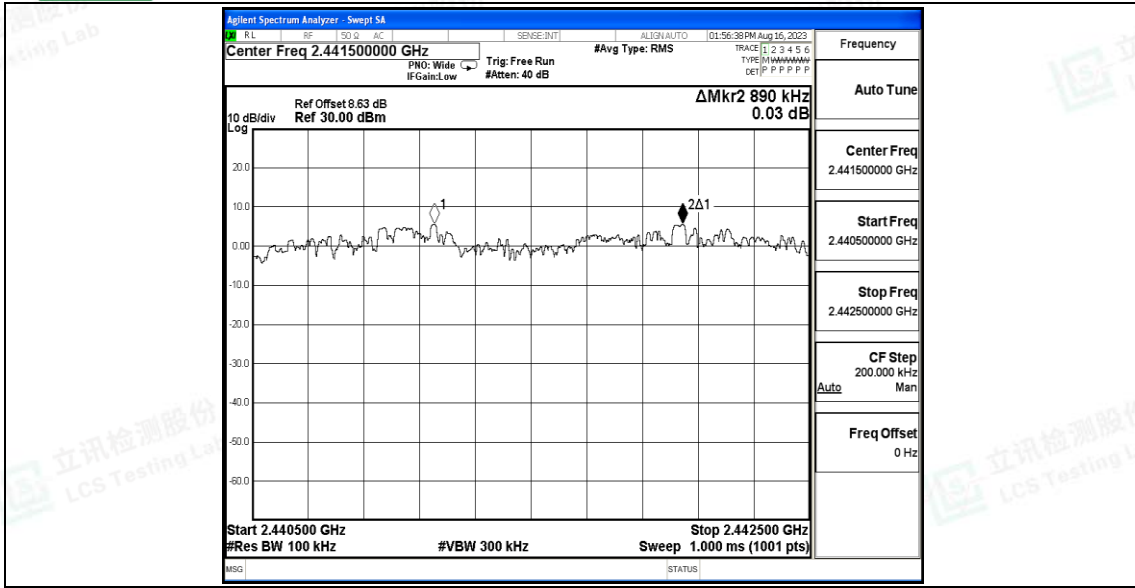
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.154	≥0.670	PASS
2DH5	Ant1	Hop	0.964	≥0.884	PASS
3DH5	Ant1	Hop	0.89	≥0.884	PASS





Test Graphs







A.4 Time of occupancy

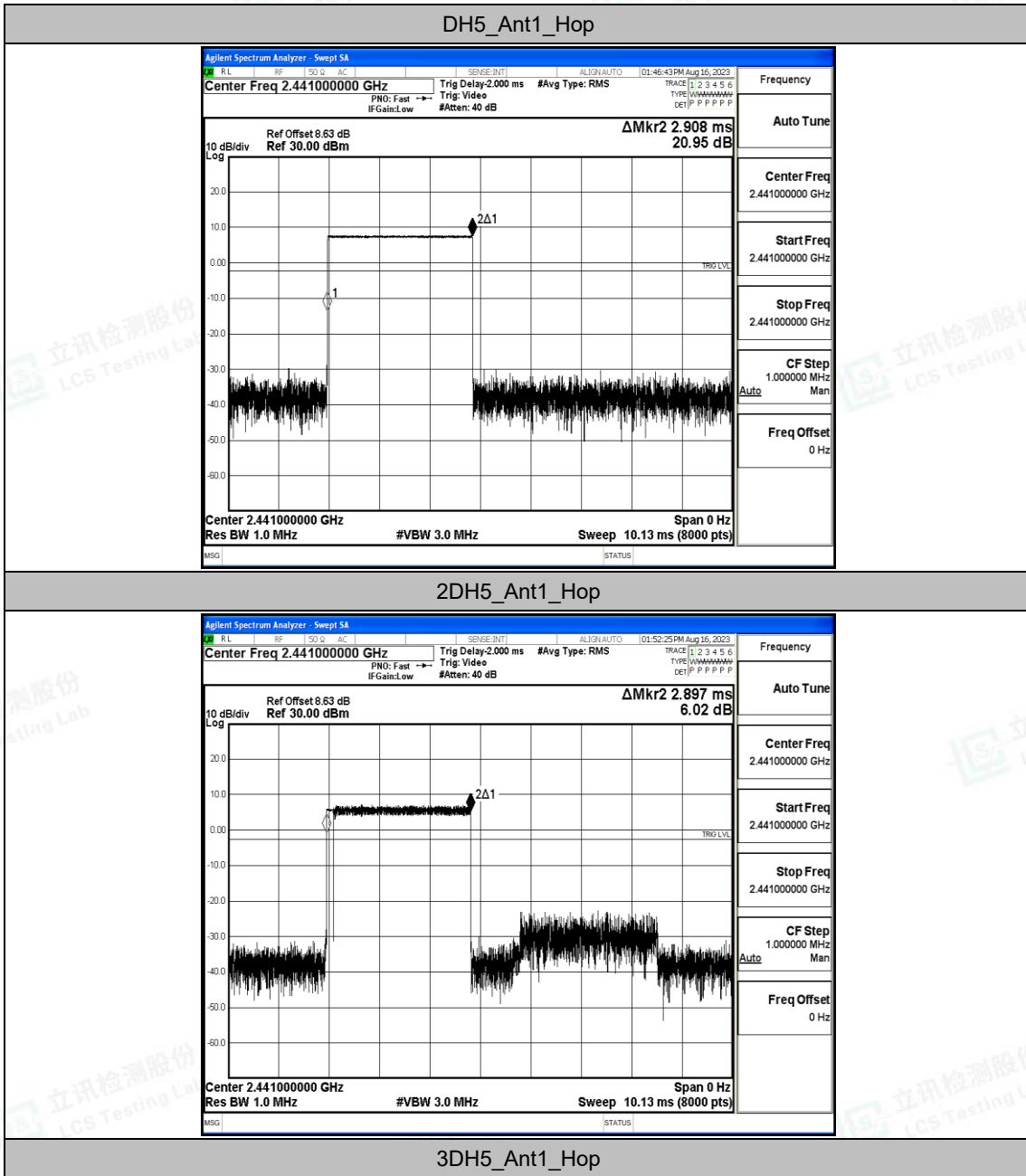
Test Result

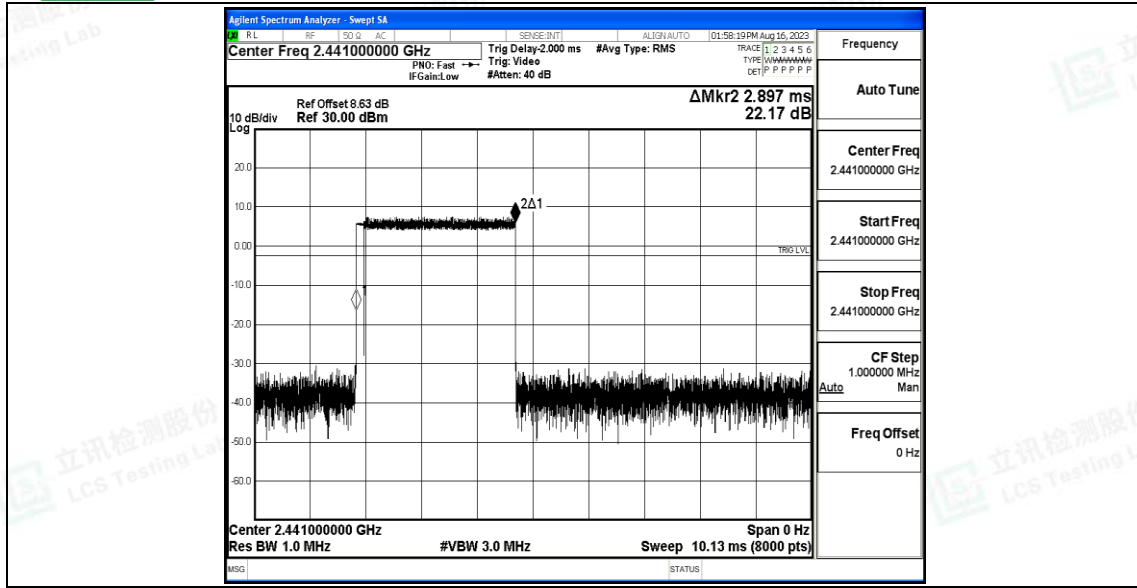
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.908	106.67	0.31	≤0.4	PASS
2DH5	Ant1	Hop	2.897	106.67	0.309	≤0.4	PASS
3DH5	Ant1	Hop	2.897	106.67	0.309	≤0.4	PASS





Test Graphs







A.5 Number of hopping channels

Test Result

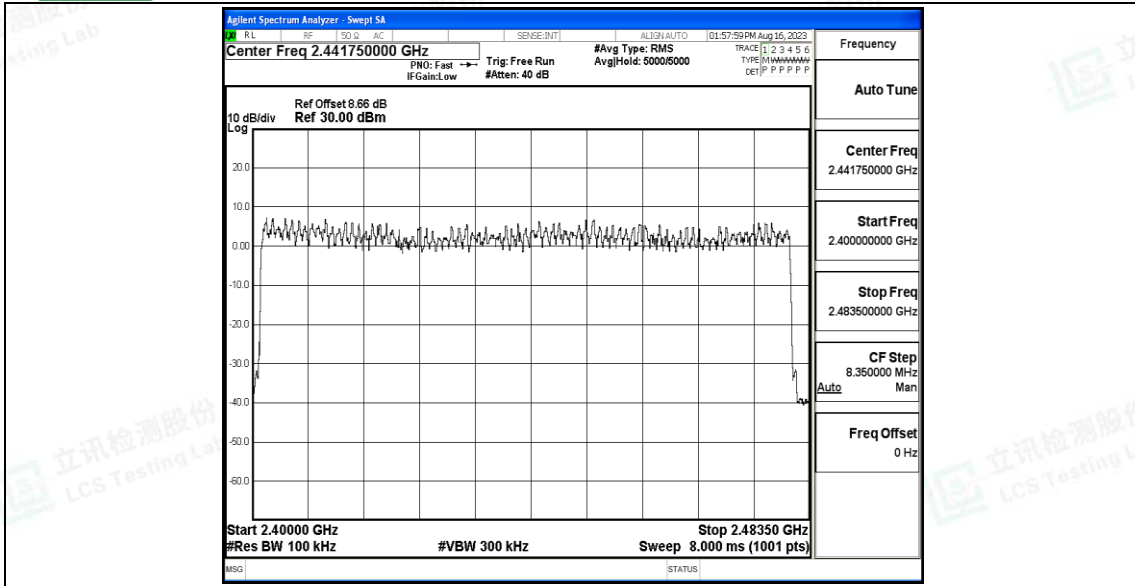
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS





Test Graphs







A.6 Band edge measurements

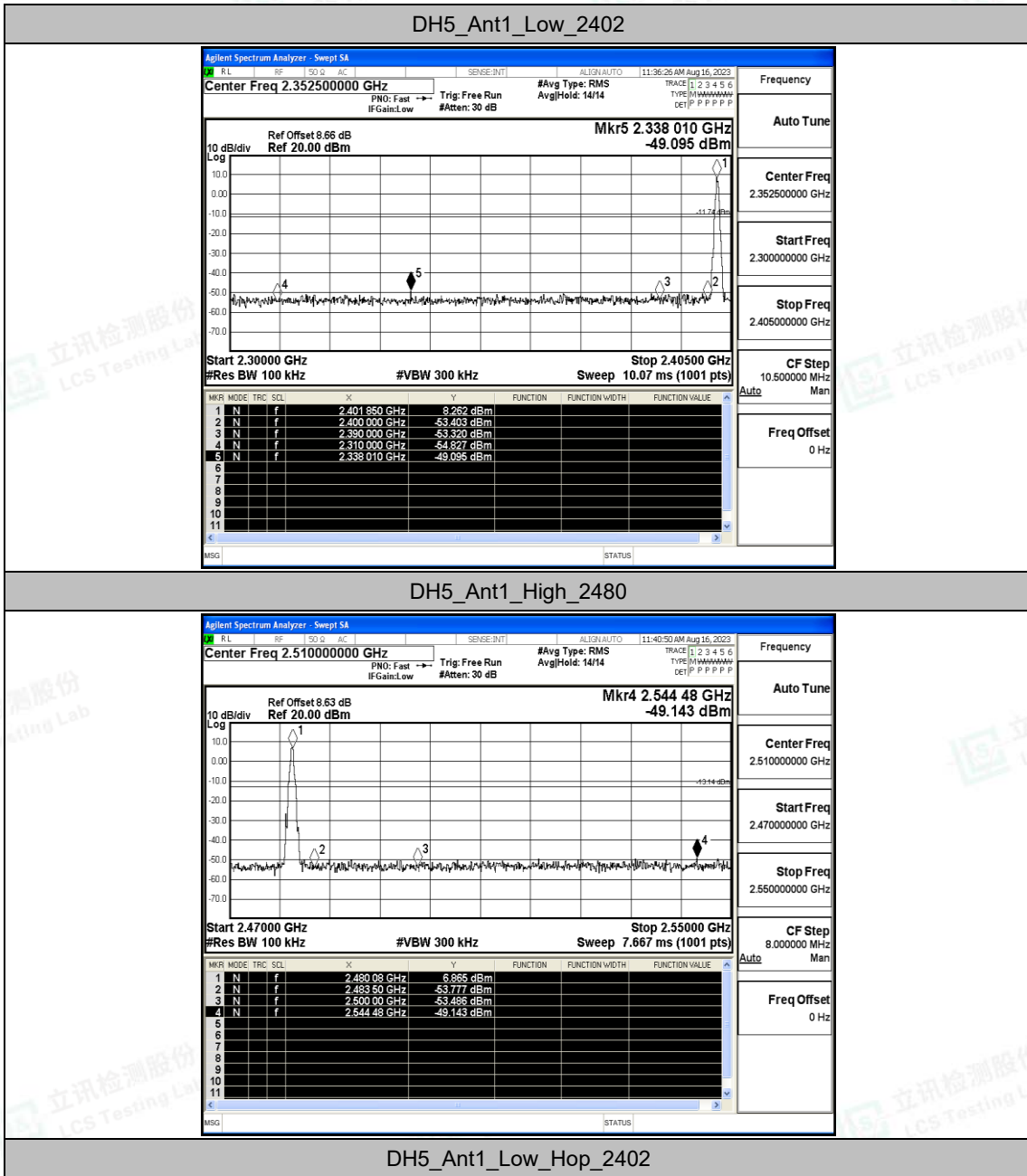
Test Result

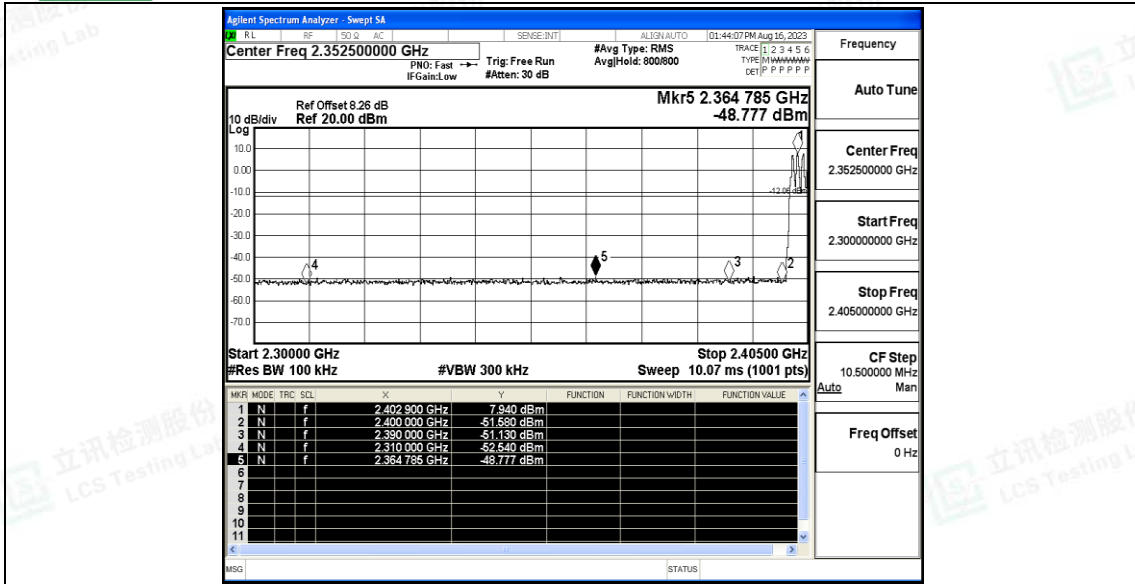
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	8.26	-49.1	≤-11.74	PASS
		High	2480	6.87	-49.14	≤-13.14	PASS
		Low	Hop_2402	7.94	-48.78	≤-12.06	PASS
		High	Hop_2480	7.12	-47.58	≤-12.89	PASS
2DH5	Ant1	Low	2402	3.89	-48.48	≤-16.11	PASS
		High	2480	3.14	-49.9	≤-16.86	PASS
		Low	Hop_2402	3.25	-49.25	≤-16.76	PASS
		High	Hop_2480	4.85	-47.92	≤-15.15	PASS
3DH5	Ant1	Low	2402	4.22	-48.08	≤-15.78	PASS
		High	2480	2.68	-49.34	≤-17.32	PASS
		Low	Hop_2402	3.53	-48.65	≤-16.47	PASS
		High	Hop_2480	3.64	-47.61	≤-16.36	PASS



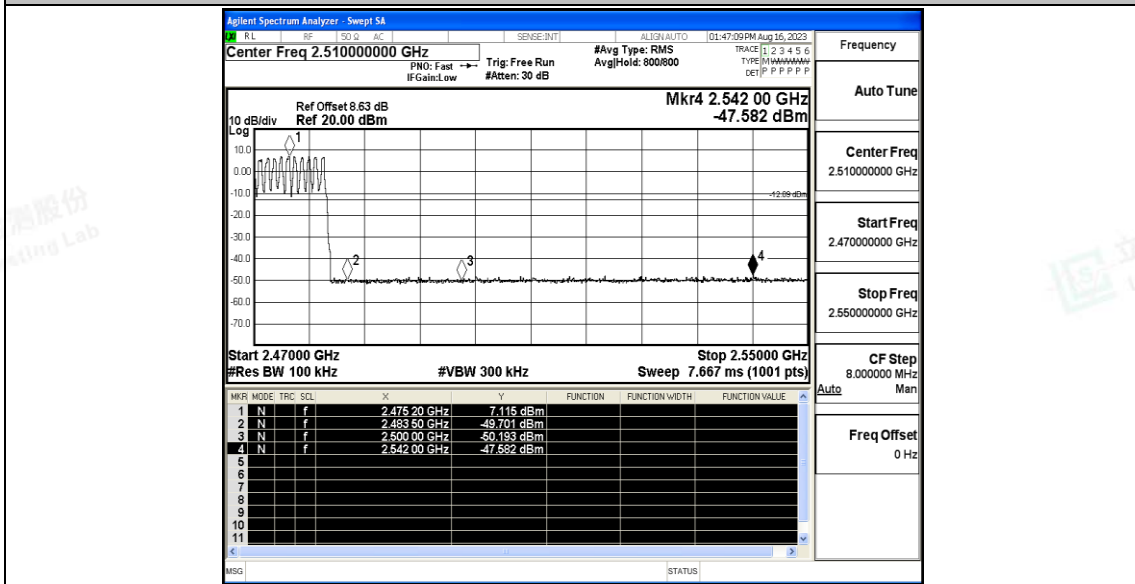


Test Graphs



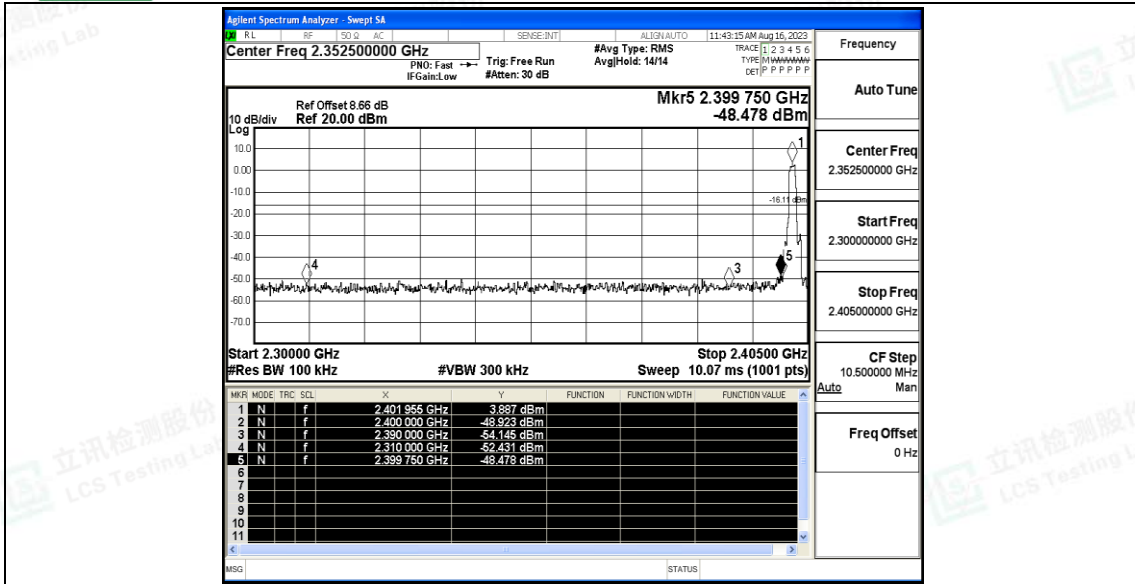


DH5_Ant1_High_Hop_2480

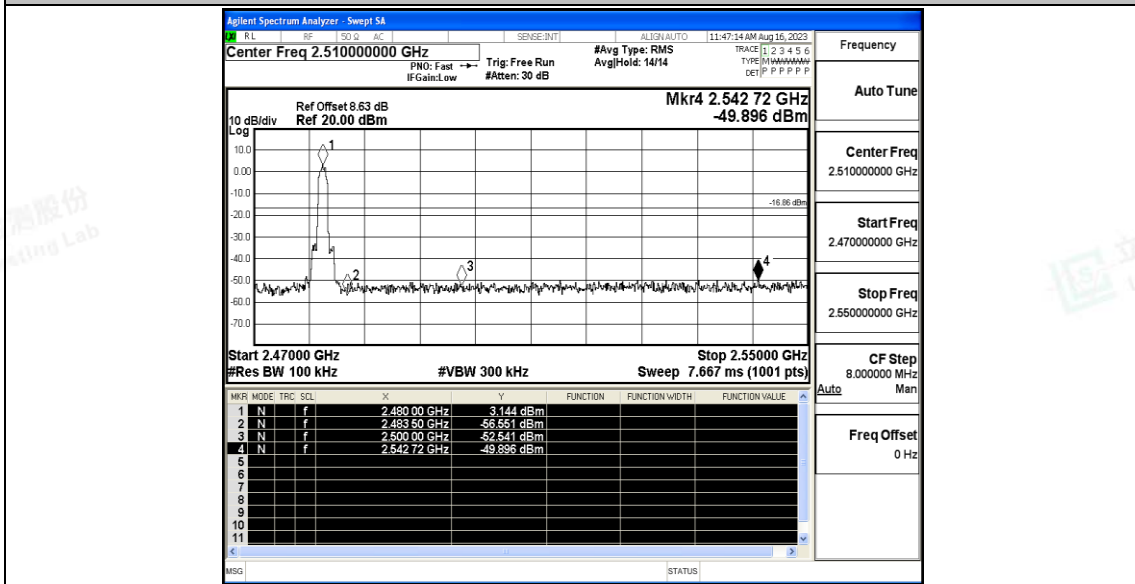


2DH5_Ant1_Low_2402



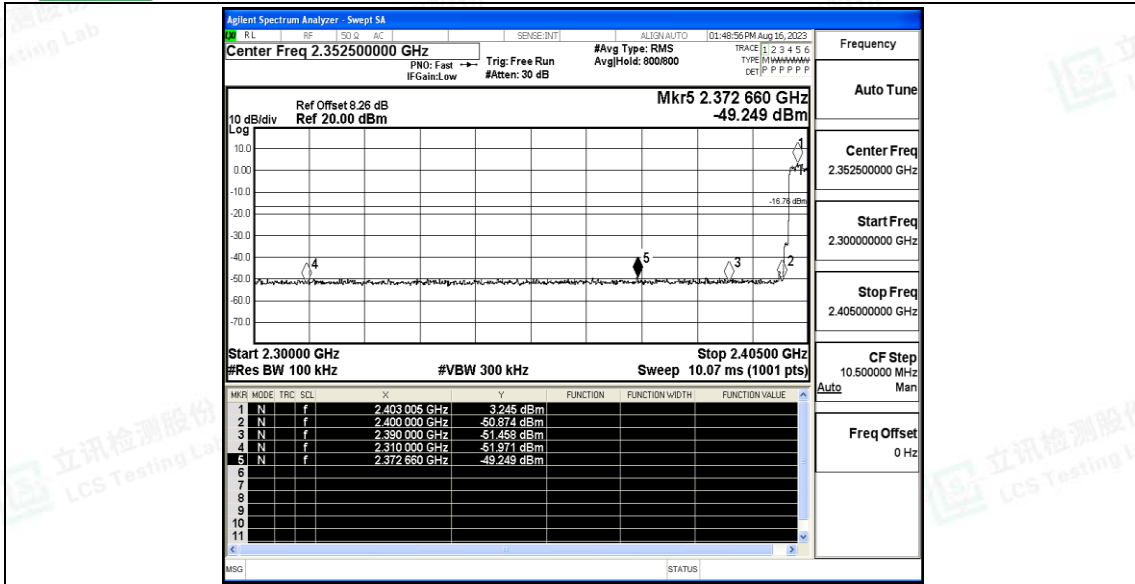


2DH5_Ant1_High_2480

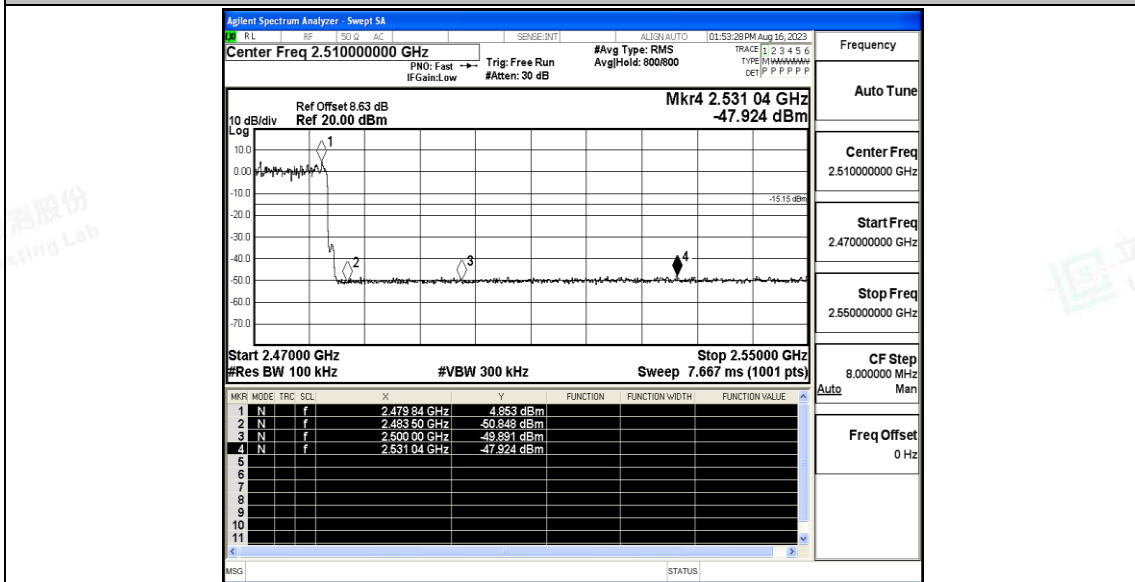


2DH5_Ant1_Low_Hop_2402



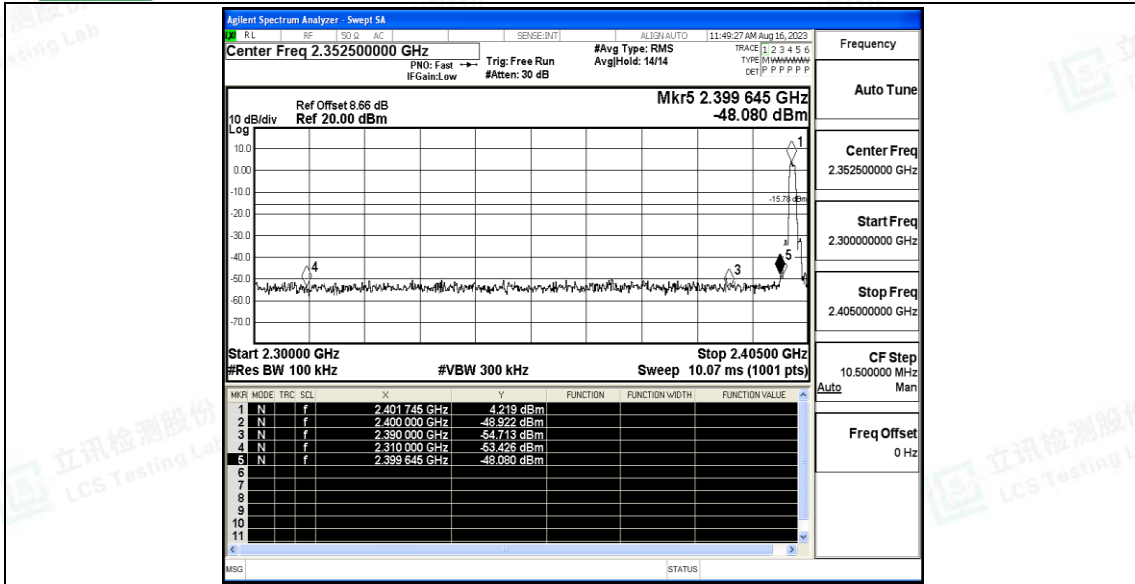


2DH5_Ant1_High_Hop_2480

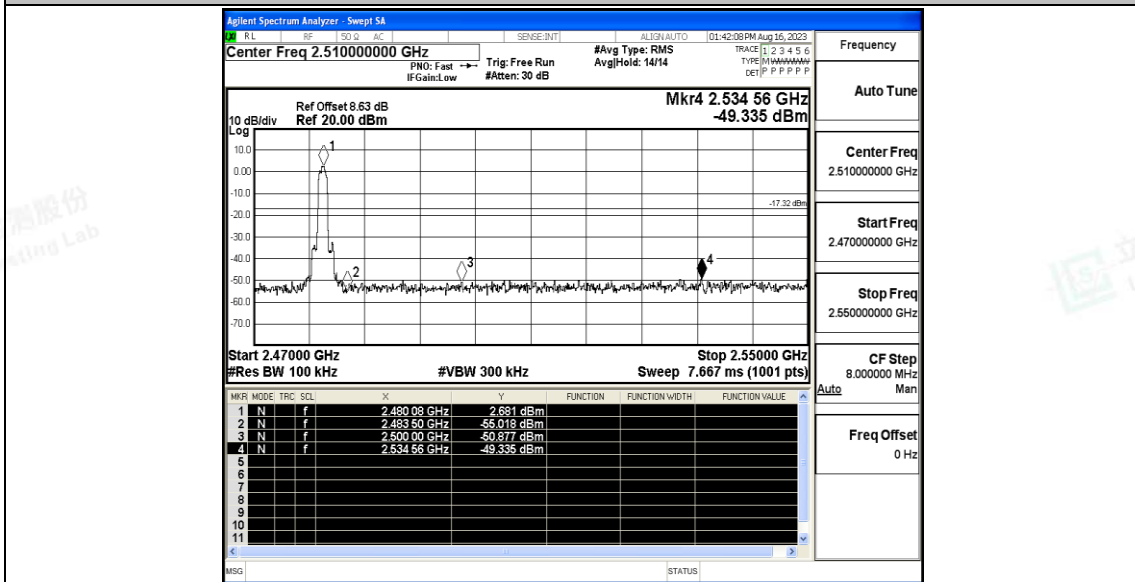


3DH5_Ant1_Low_2402



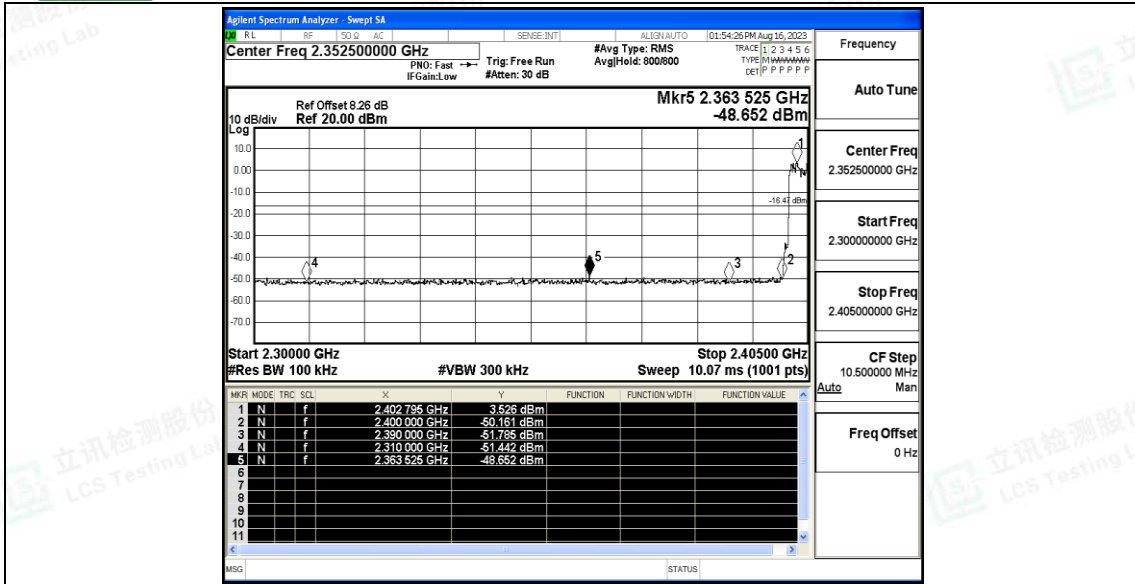


3DH5_Ant1_High_2480

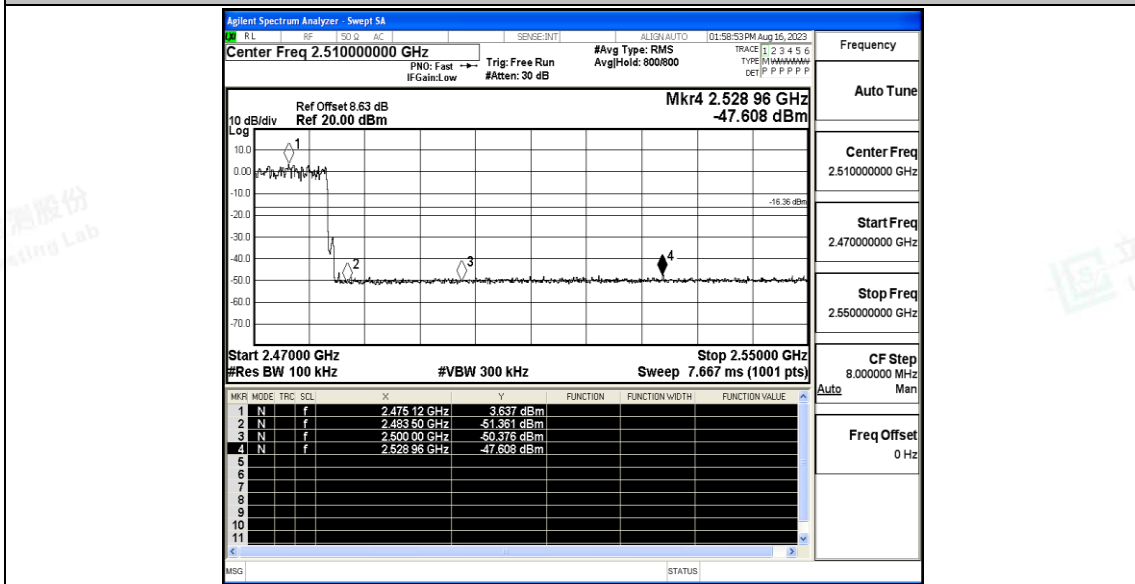


3DH5_Ant1_Low_Hop_2402





3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

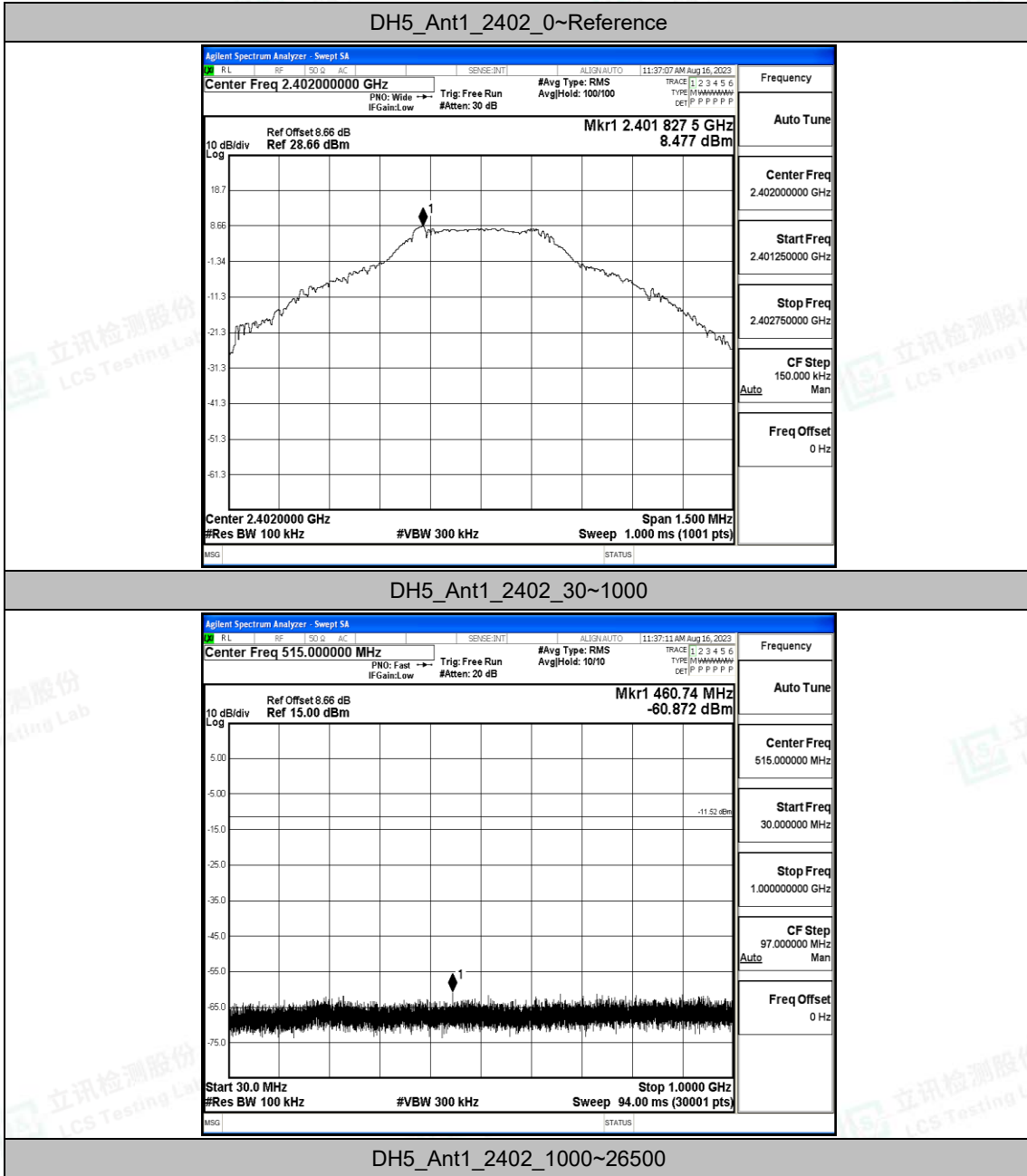
Test Result

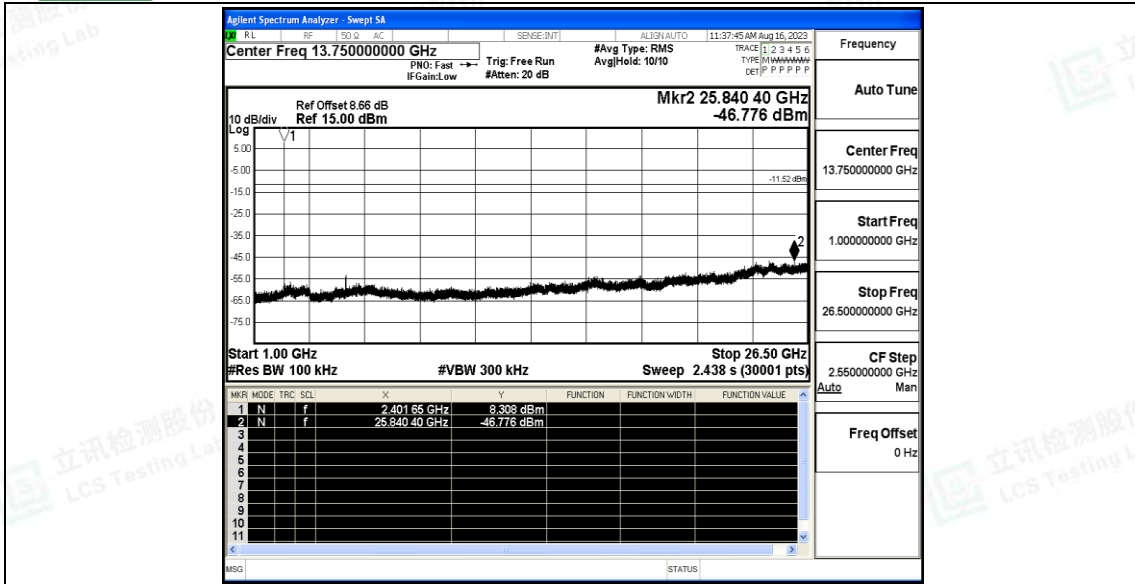
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	8.48	8.48	---	PASS
			30~1000	8.48	-60.87	≤-11.52	PASS
			1000~26500	8.48	-46.78	≤-11.52	PASS
		2441	Reference	7.33	7.33	---	PASS
			30~1000	7.33	-61.37	≤-12.67	PASS
			1000~26500	7.33	-46.43	≤-12.67	PASS
		2480	Reference	7.20	7.20	---	PASS
			30~1000	7.20	-60.63	≤-12.8	PASS
			1000~26500	7.20	-46.19	≤-12.8	PASS
2DH5	Ant1	2402	Reference	6.31	6.31	---	PASS
			30~1000	6.31	-61.49	≤-13.69	PASS
			1000~26500	6.31	-46.36	≤-13.69	PASS
		2441	Reference	5.56	5.56	---	PASS
			30~1000	5.56	-61.07	≤-14.44	PASS
			1000~26500	5.56	-46.09	≤-14.44	PASS
		2480	Reference	4.82	4.82	---	PASS
			30~1000	4.82	-61.18	≤-15.18	PASS
			1000~26500	4.82	-46.92	≤-15.18	PASS
3DH5	Ant1	2402	Reference	7.06	7.06	---	PASS
			30~1000	7.06	-61.16	≤-12.94	PASS
			1000~26500	7.06	-46.39	≤-12.94	PASS
		2441	Reference	5.75	5.75	---	PASS
			30~1000	5.75	-61.17	≤-14.25	PASS
			1000~26500	5.75	-46.31	≤-14.25	PASS
		2480	Reference	6.05	6.05	---	PASS
			30~1000	6.05	-60.91	≤-13.95	PASS
			1000~26500	6.05	-46.91	≤-13.95	PASS



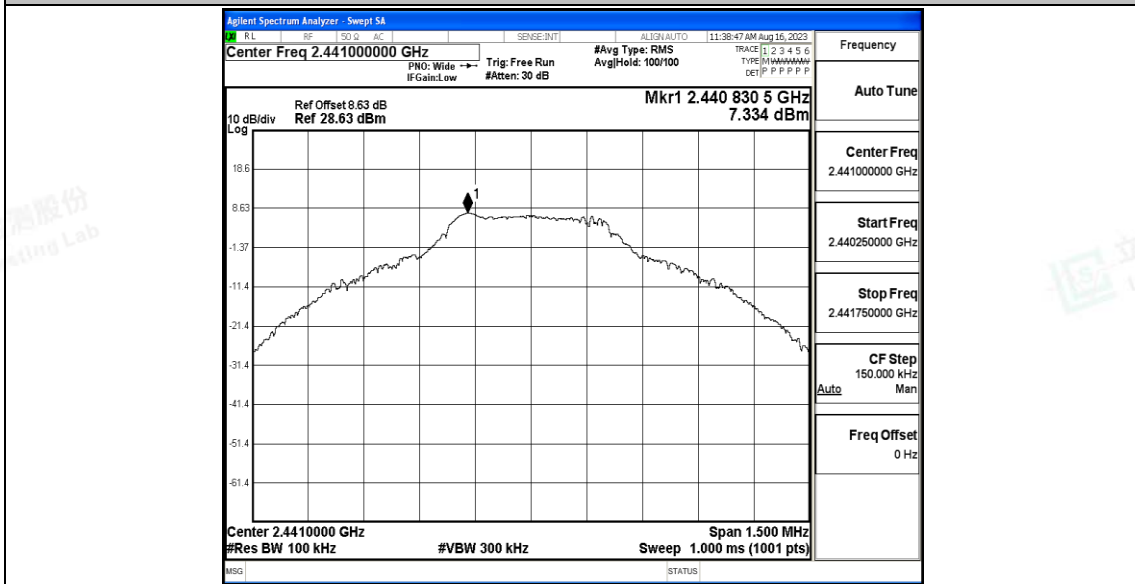


Test Graphs



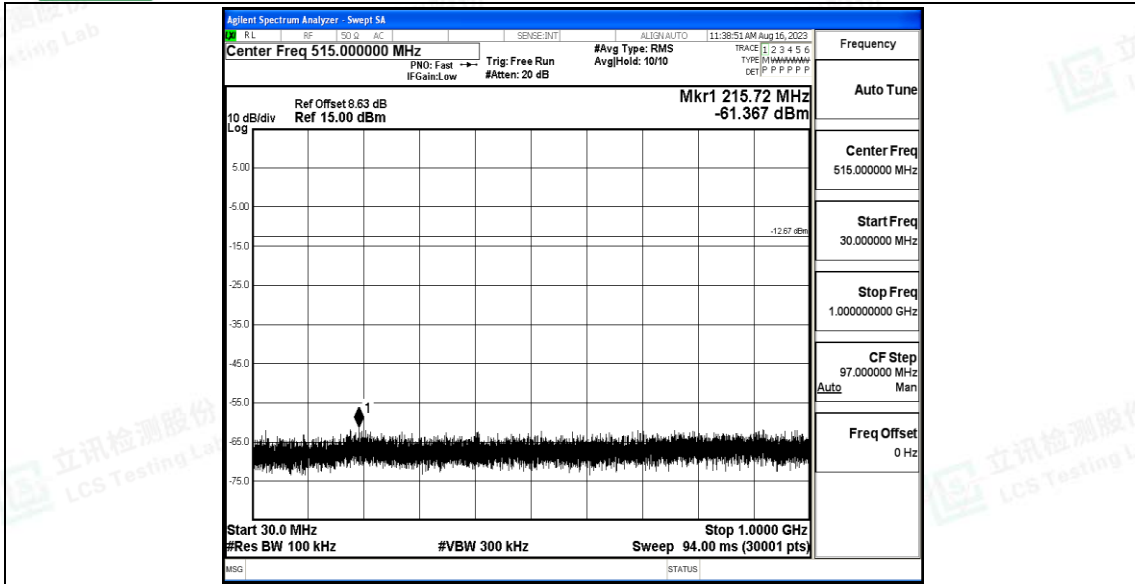


DH5_Ant1_2441_0~Reference

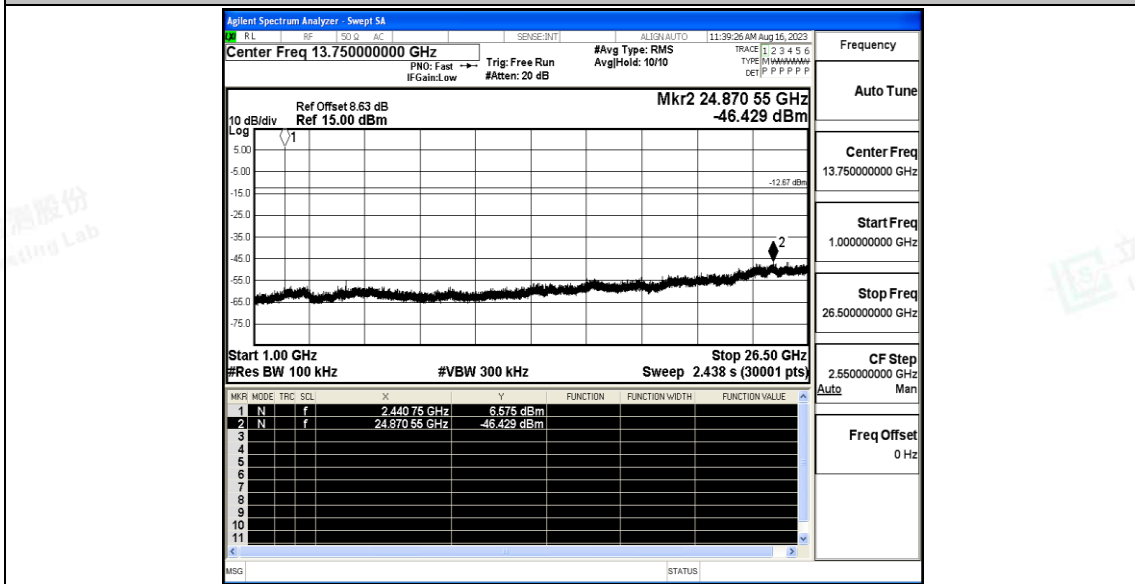


DH5_Ant1_2441_30~1000



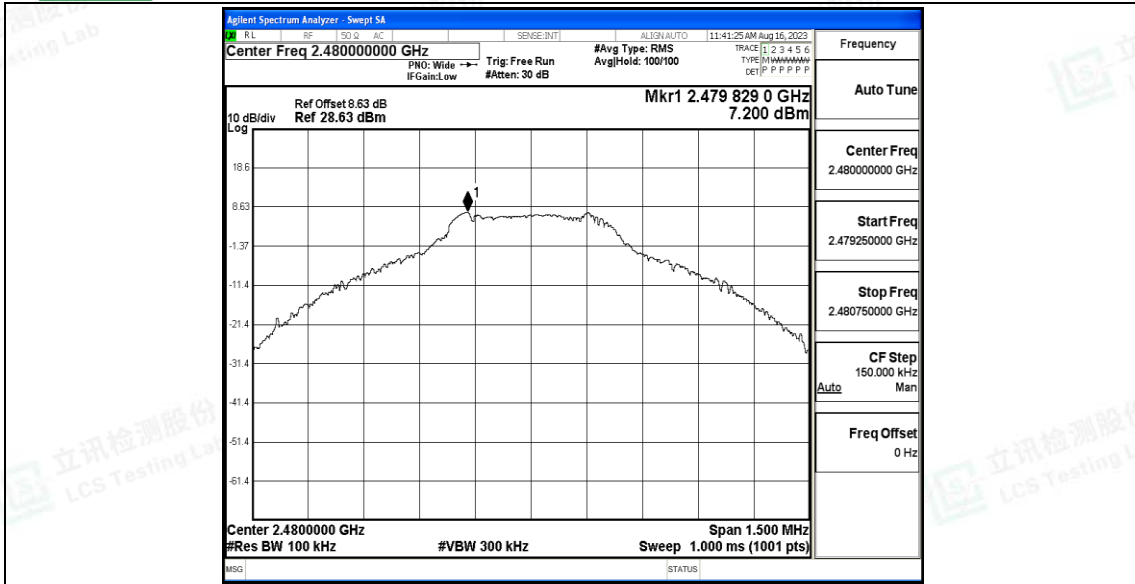


DH5_Ant1_2441_1000~26500

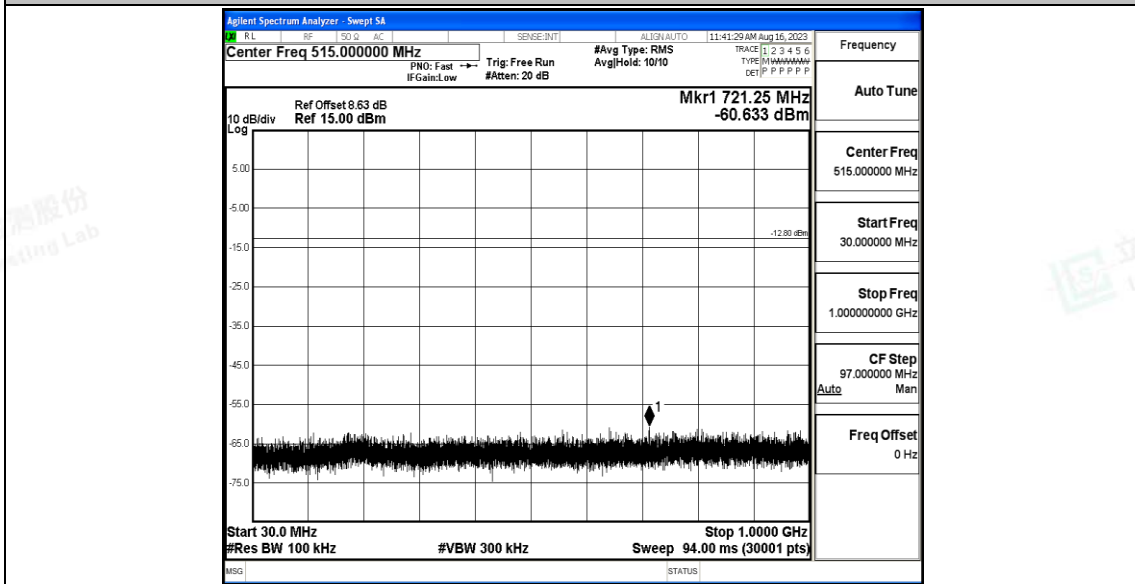


DH5_Ant1_2480_0~Reference



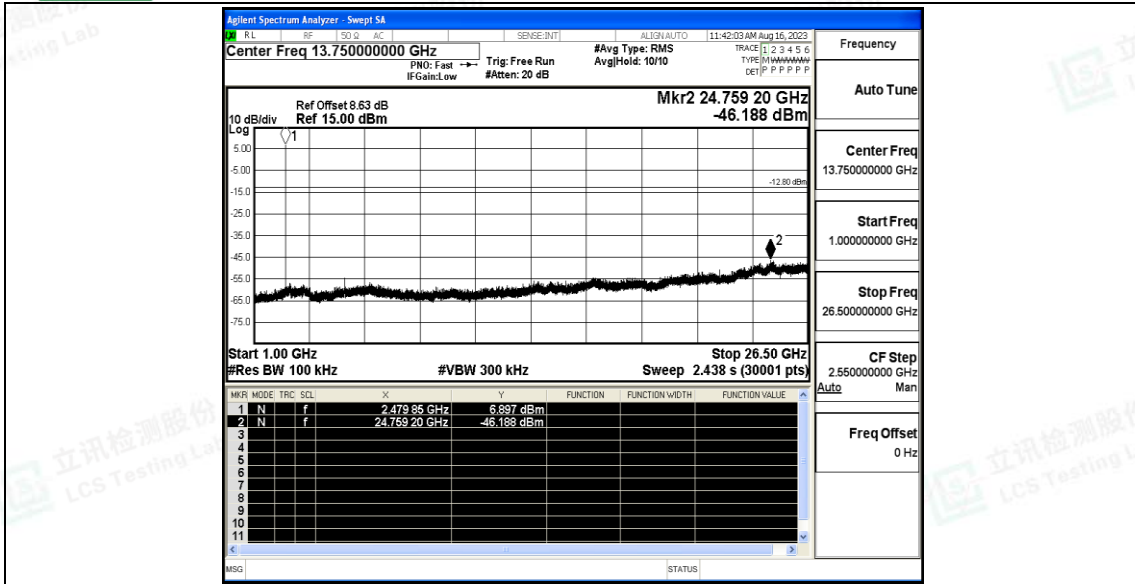


DH5_Ant1_2480_30~1000

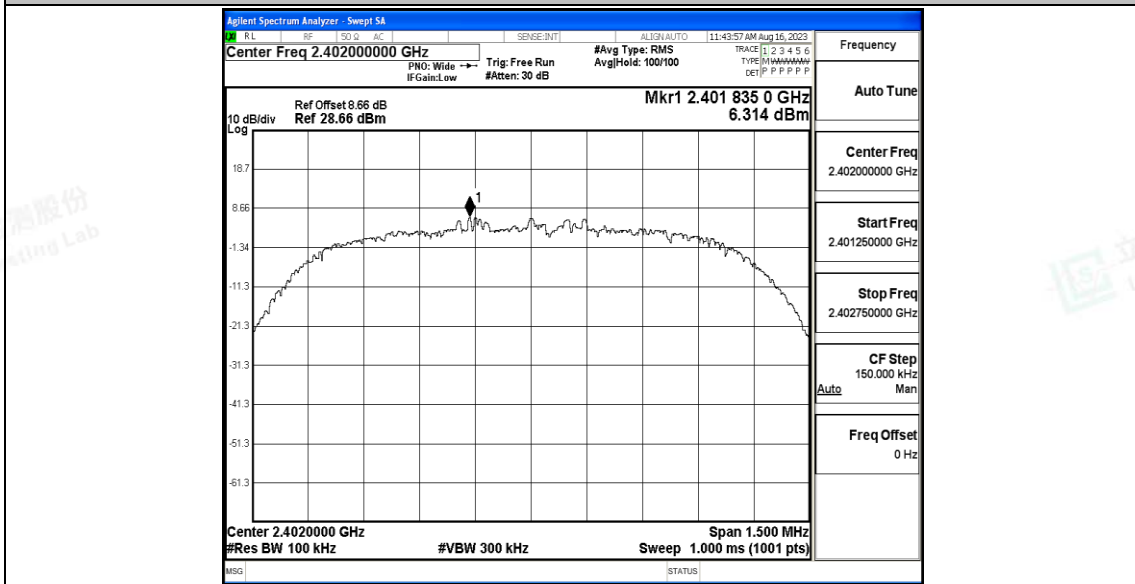


DH5_Ant1_2480_1000~26500



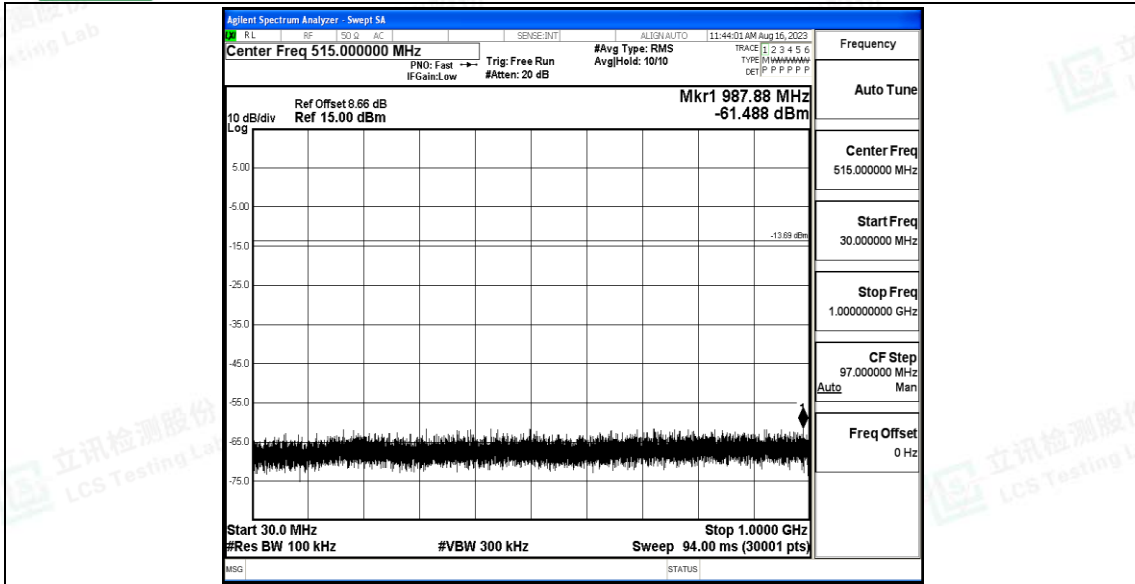


2DH5_Ant1_2402_0~Reference

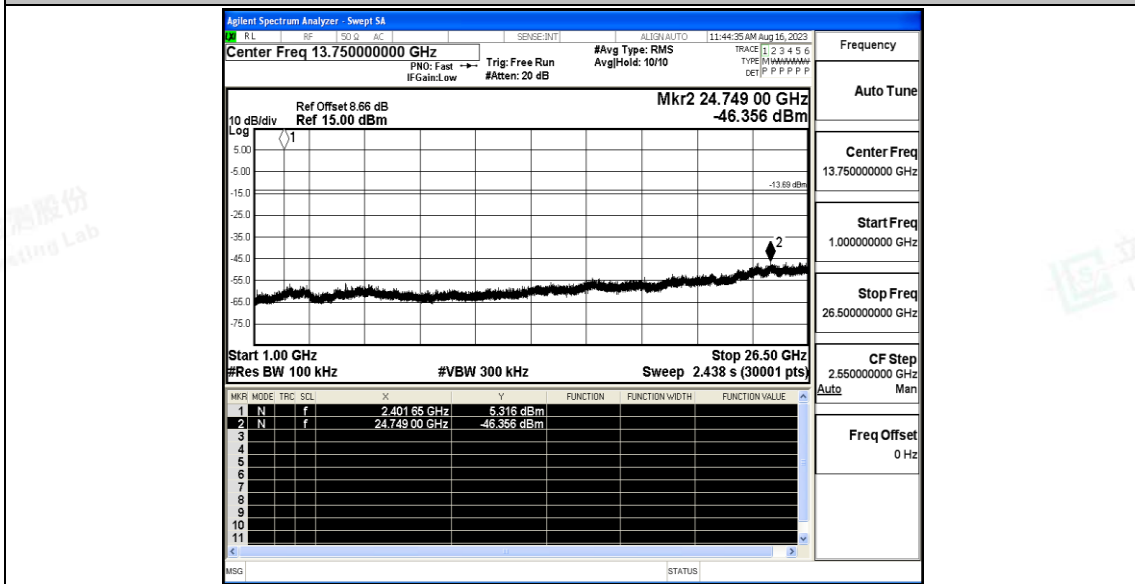


2DH5_Ant1_2402_30~1000



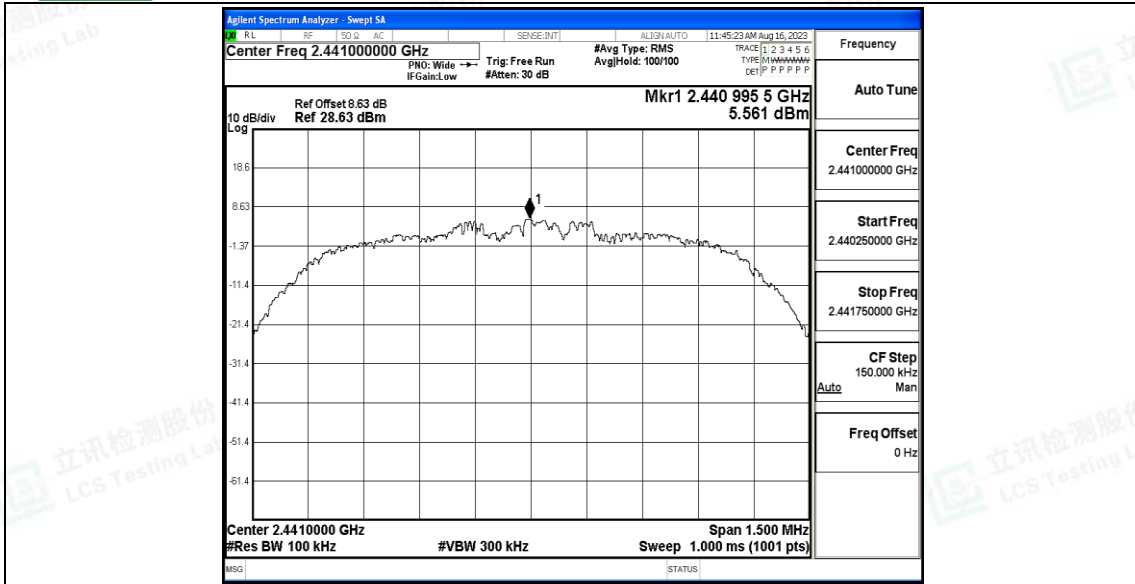


2DH5_Ant1_2402_1000~26500

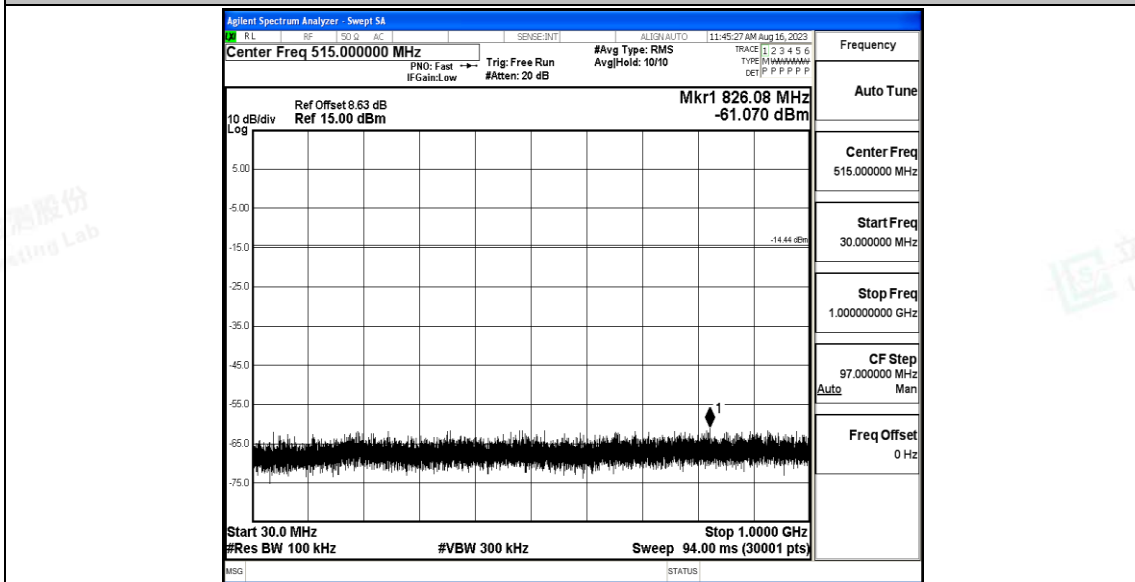


2DH5_Ant1_2441_0~Reference



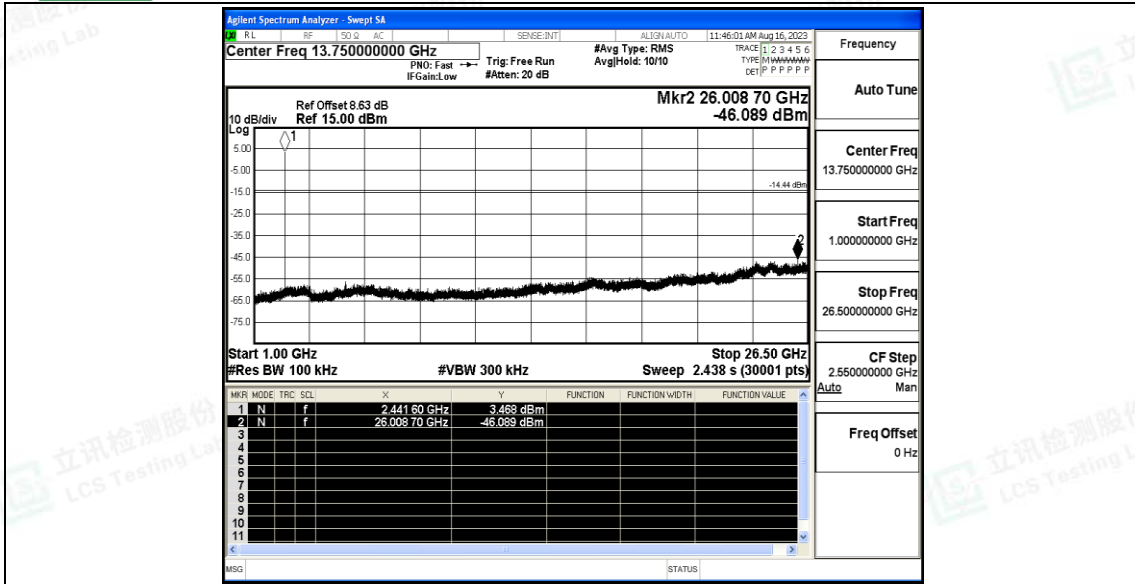


2DH5_Ant1_2441_30~1000

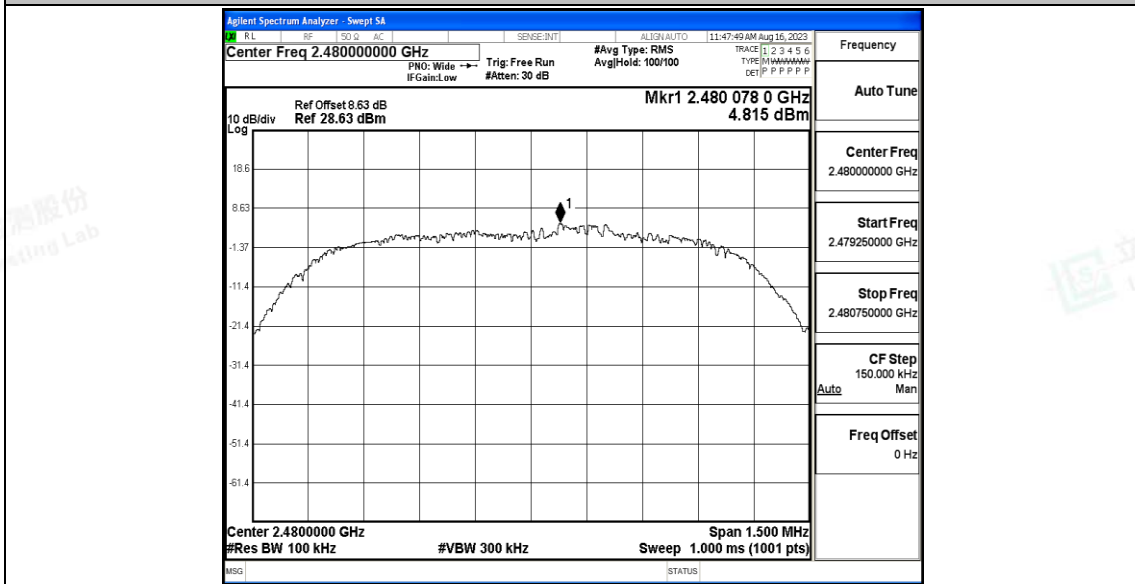


2DH5_Ant1_2441_1000~26500



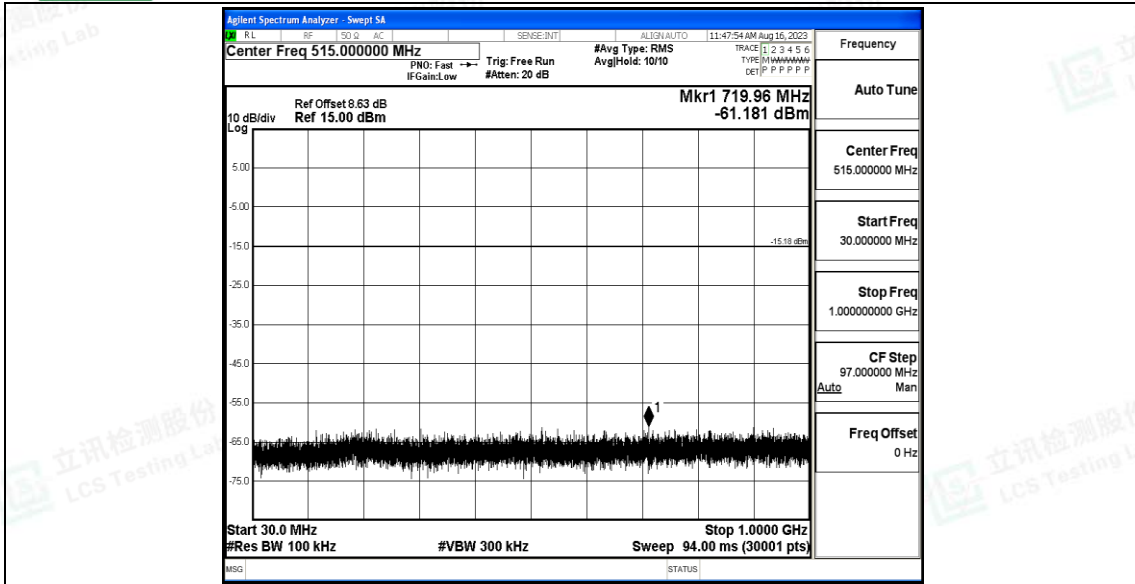


2DH5_Ant1_2480_0~Reference

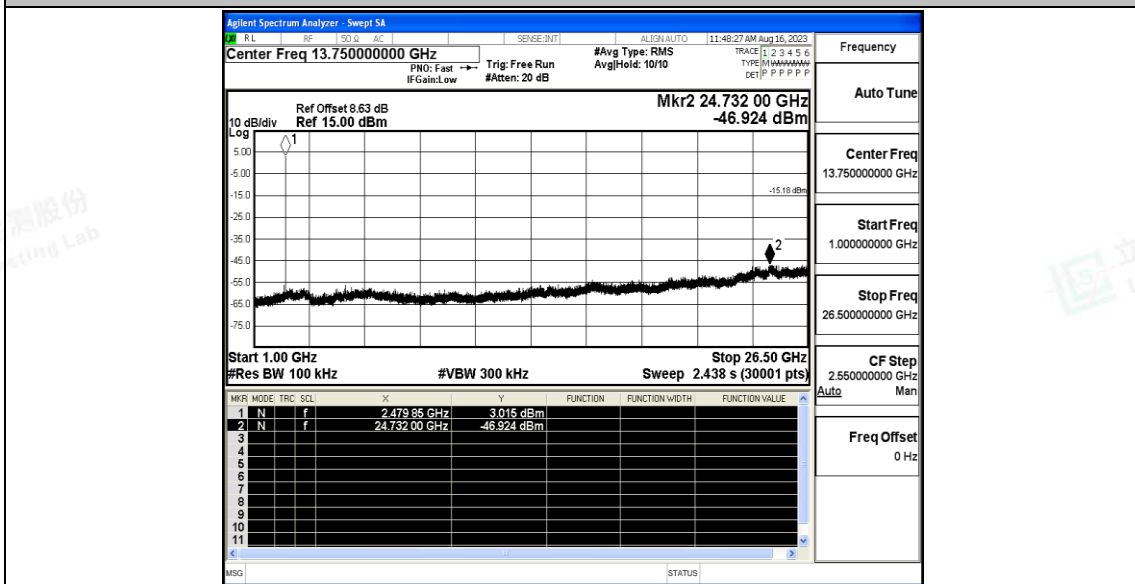


2DH5_Ant1_2480_30~1000



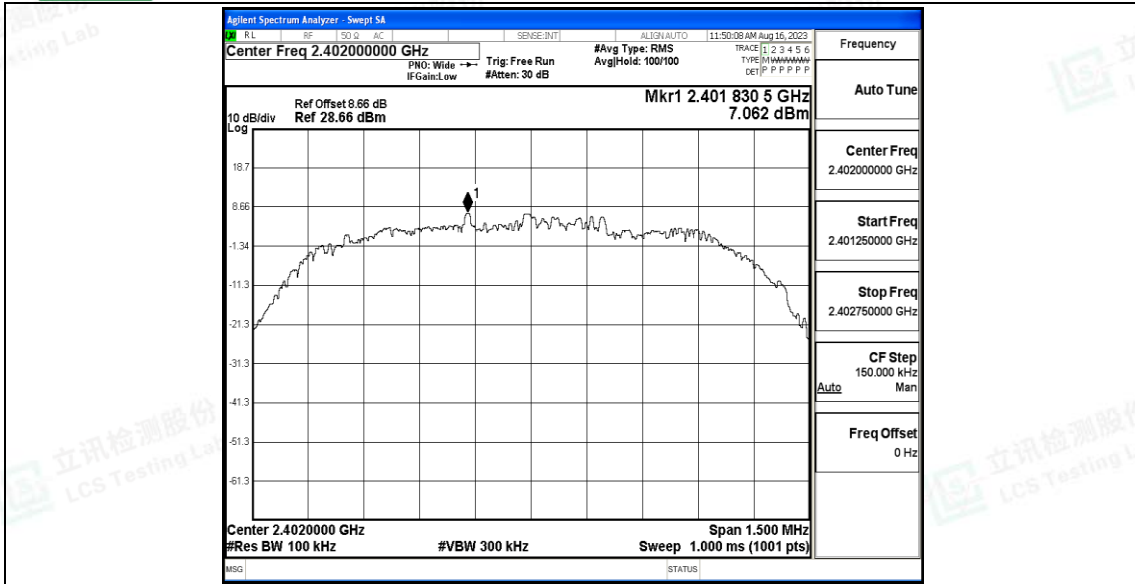


2DH5_Ant1_2480_1000~26500

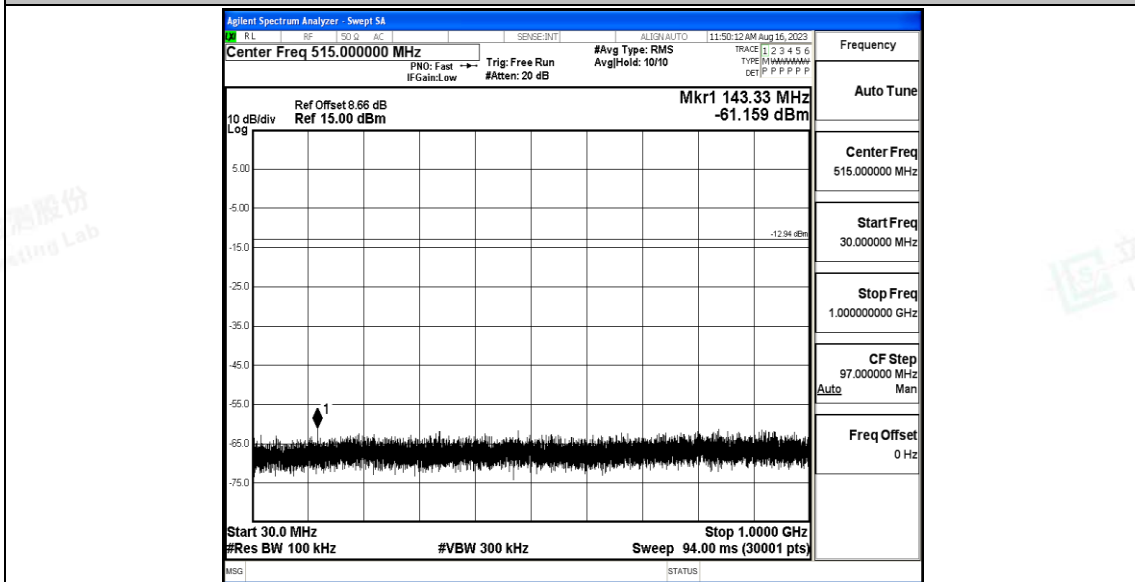


3DH5_Ant1_2402_0~Reference



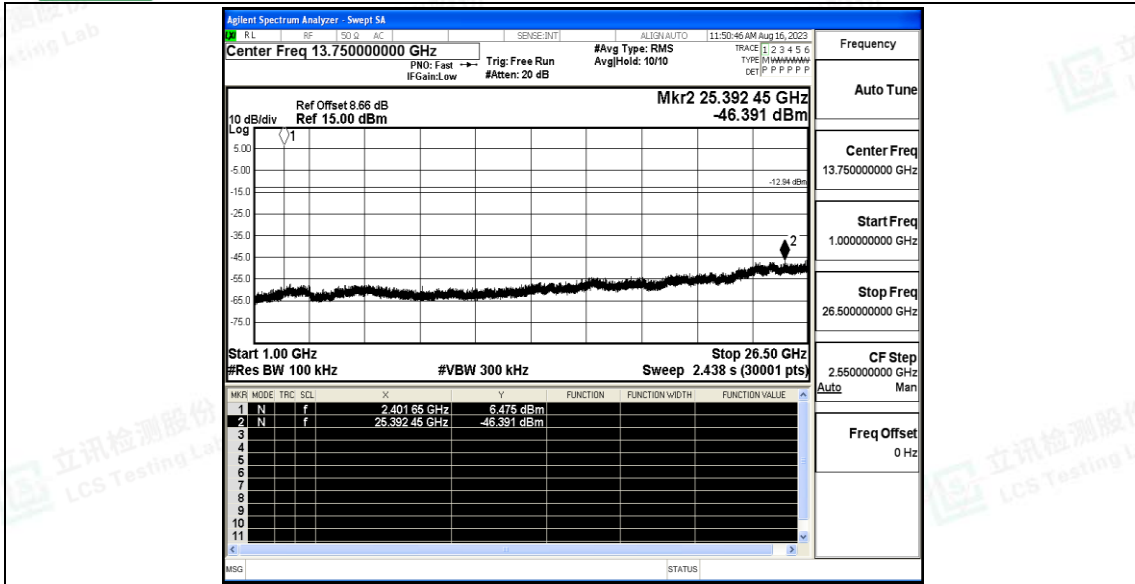


3DH5_Ant1_2402_30~1000

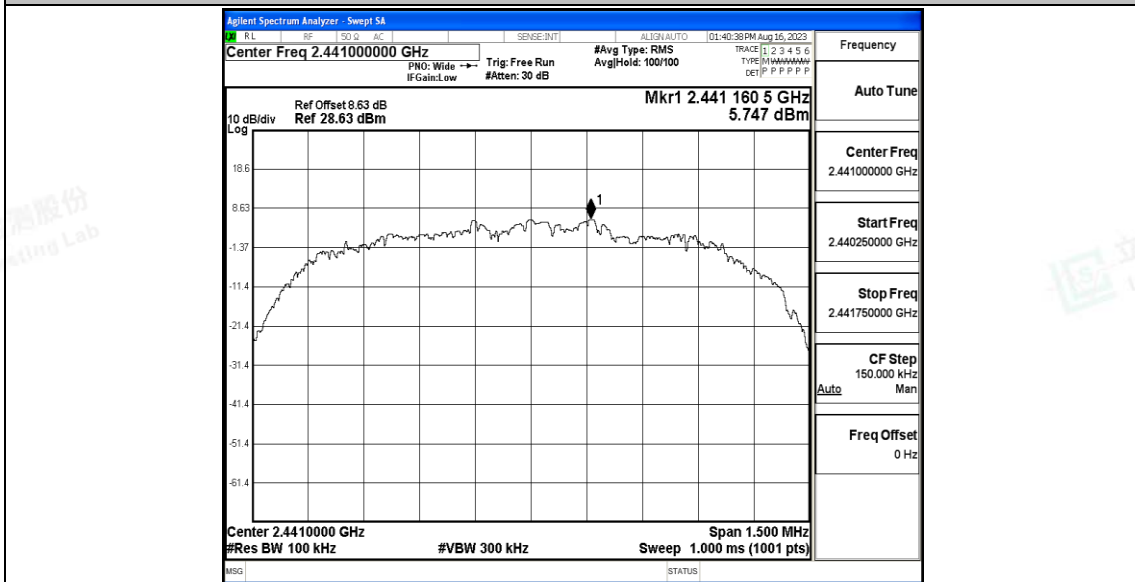


3DH5_Ant1_2402_1000~26500



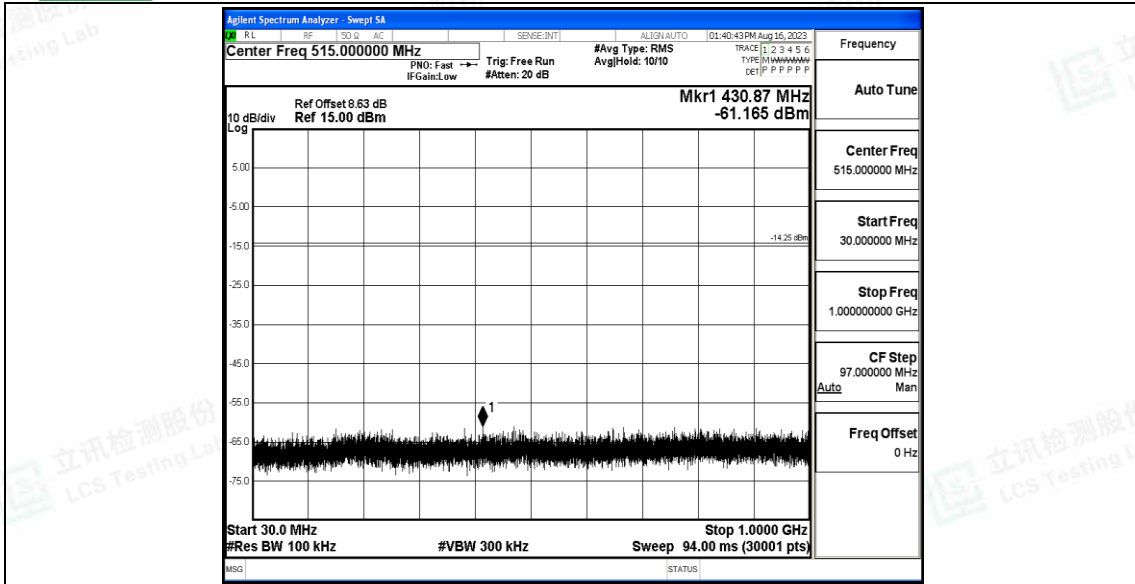


3DH5_Ant1_2441_0~Reference

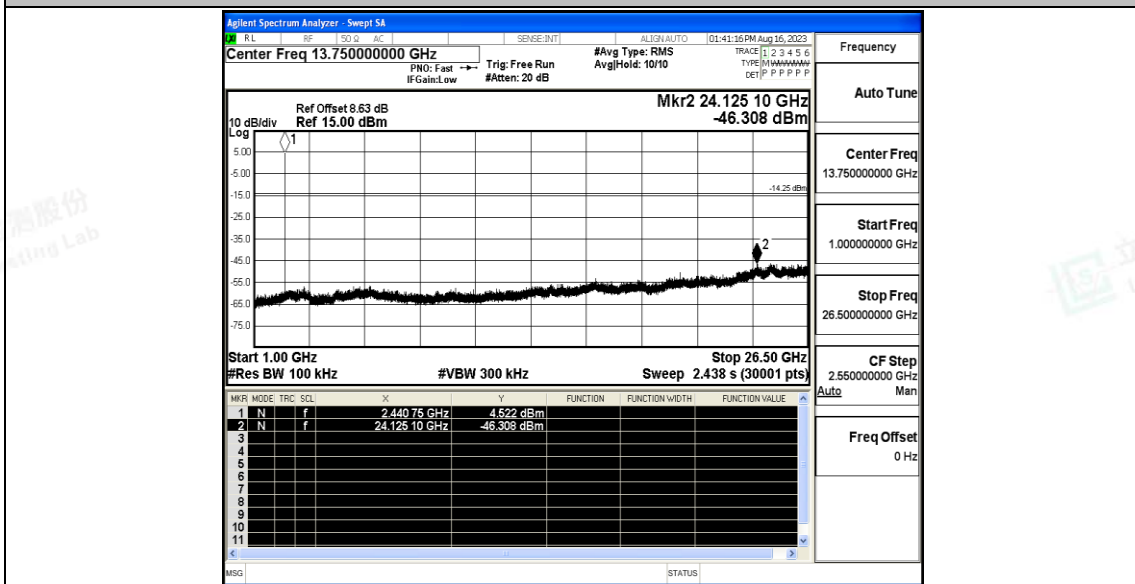


3DH5_Ant1_2441_30~1000



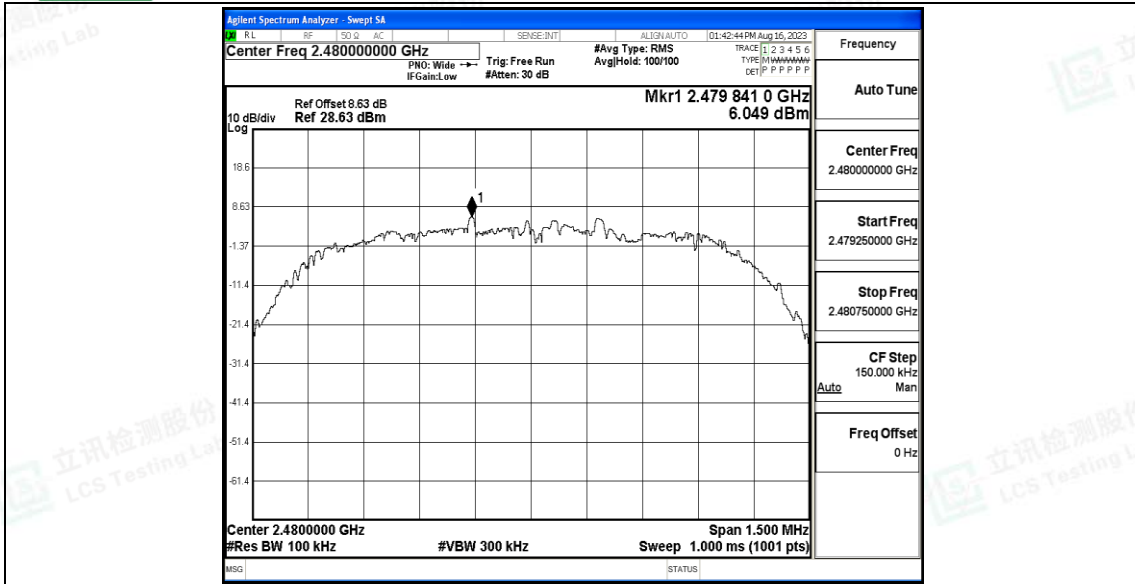


3DH5_Ant1_2441_1000~26500

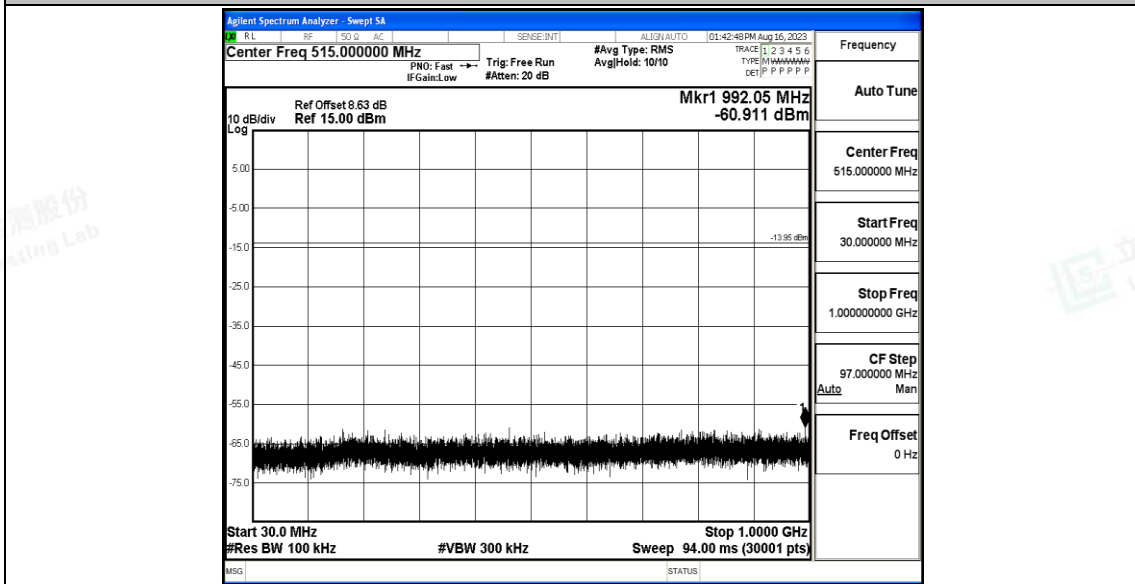


3DH5_Ant1_2480_0~Reference



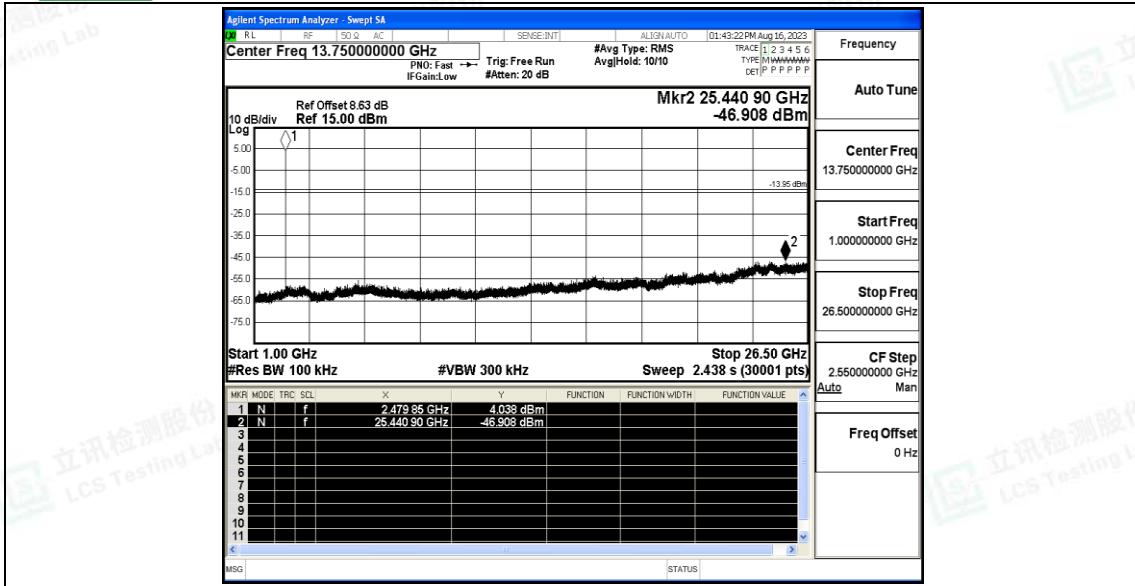


3DH5_Ant1_2480_30~1000



3DH5_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	-48.25	≤-41.20	46.95	≤54	PASS		
				AV	2370.245	-47.62	≤-41.20	47.58	≤54	PASS		
				AV	2390.000	-47.81	≤-41.20	47.39	≤54	PASS		
				Peak	2310.000	-42.61	≤-21.20	52.59	≤74	PASS		
				Peak	2315.435	-39.13	≤-21.20	56.07	≤74	PASS		
				Peak	2390.000	-44.23	≤-21.20	50.97	≤74	PASS		
		High	2480	AV	2483.500	-46.12	≤-41.20	49.08	≤54	PASS		
				AV	2483.520	-46.12	≤-41.20	49.08	≤54	PASS		
				AV	2500.000	-47.29	≤-41.20	47.91	≤54	PASS		
				Peak	2483.500	-41.42	≤-21.20	53.78	≤74	PASS		
				Peak	2497.200	-38.05	≤-21.20	57.15	≤74	PASS		
				Peak	2500.000	-41.32	≤-21.20	53.88	≤74	PASS		
		Low	Hop_2402	Peak	2310.000	-40.47	≤-21.20	54.73	≤74	PASS		
				Peak	2368.880	-36.13	≤-21.20	59.07	≤74	PASS		
				Peak	2390.000	-40.17	≤-21.20	55.03	≤74	PASS		
		High	Hop_2480	Peak	2483.500	-38.64	≤-21.20	56.56	≤74	PASS		
				Peak	2496.560	-36.49	≤-21.20	58.71	≤74	PASS		
				Peak	2500.000	-39.07	≤-21.20	56.13	≤74	PASS		
		2DH5	Ant1	Low	2402	AV	2310.000	-48.27	≤-41.20	46.93	≤54	PASS
						AV	2370.035	-47.67	≤-41.20	47.53	≤54	PASS
						AV	2390.000	-47.9	≤-41.20	47.30	≤54	PASS
Peak	2310.000					-44.83	≤-21.20	50.37	≤74	PASS		
Peak	2372.135					-37.98	≤-21.20	57.22	≤74	PASS		
Peak	2390.000					-41.41	≤-21.20	53.79	≤74	PASS		
High	2480			AV	2483.500	-45.82	≤-41.20	49.38	≤54	PASS		
				AV	2483.520	-45.82	≤-41.20	49.38	≤54	PASS		
				AV	2500.000	-47.29	≤-41.20	47.91	≤54	PASS		
				Peak	2483.500	-39.38	≤-21.20	55.82	≤74	PASS		
				Peak	2495.840	-38.28	≤-21.20	56.92	≤74	PASS		
				Peak	2500.000	-42.71	≤-21.20	52.49	≤74	PASS		
Low	Hop_2402			Peak	2310.000	-38.97	≤-21.20	56.23	≤74	PASS		
				Peak	2341.685	-37.99	≤-21.20	57.21	≤74	PASS		
				Peak	2390.000	-40.08	≤-21.20	55.12	≤74	PASS		
High	Hop_2480			Peak	2483.500	-39.83	≤-21.20	55.37	≤74	PASS		
				Peak	2484.080	-36.92	≤-21.20	58.28	≤74	PASS		





3DH5	Ant1	Low	2402	Peak	2500.000	-39.23	≤-21.20	55.97	≤74	PASS		
				AV	2310.000	-48.24	≤-41.20	46.96	≤54	PASS		
				AV	2383.265	-47.59	≤-41.20	47.61	≤54	PASS		
				AV	2390.000	-47.87	≤-41.20	47.33	≤54	PASS		
				Peak	2310.000	-41.71	≤-21.20	53.49	≤74	PASS		
				Peak	2368.985	-38.99	≤-21.20	56.21	≤74	PASS		
		High	2480	Peak	2390.000	-42.55	≤-21.20	52.65	≤74	PASS		
				AV	2483.500	-45.63	≤-41.20	49.57	≤54	PASS		
				AV	2483.520	-45.63	≤-41.20	49.57	≤54	PASS		
				AV	2500.000	-47.06	≤-41.20	48.14	≤54	PASS		
				Peak	2483.500	-40.63	≤-21.20	54.57	≤74	PASS		
				Peak	2489.040	-38.12	≤-21.20	57.08	≤74	PASS		
		Low	Hop_2402	Peak	2500.000	-40.49	≤-21.20	54.71	≤74	PASS		
				Peak	2310.000	-39.69	≤-21.20	55.51	≤74	PASS		
				Peak	2362.370	-37.87	≤-21.20	57.33	≤74	PASS		
		High	Hop_2480	Peak	2390.000	-39.89	≤-21.20	55.31	≤74	PASS		
				Peak	2483.500	-37.71	≤-21.20	57.49	≤74	PASS		
				Peak	2491.360	-36.92	≤-21.20	58.28	≤74	PASS		
						Peak	2500.000	-39.37	≤-21.20	55.83	≤74	PASS

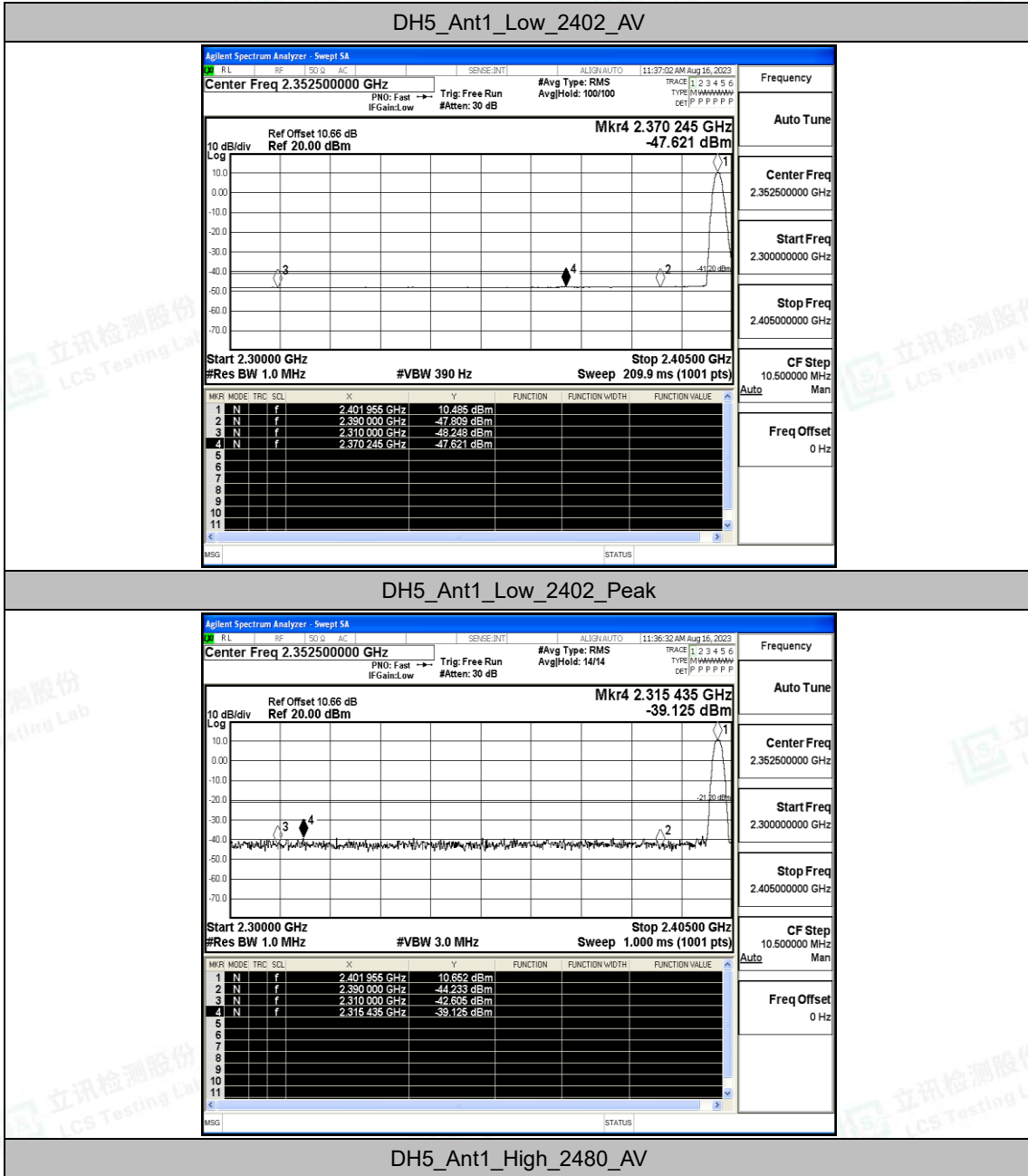
Note:

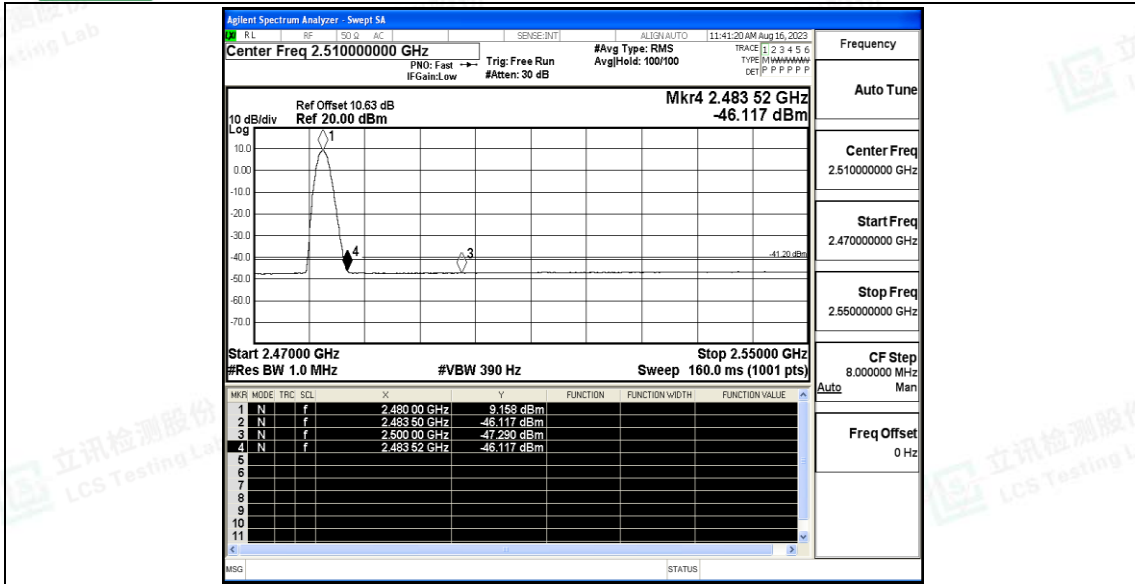
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



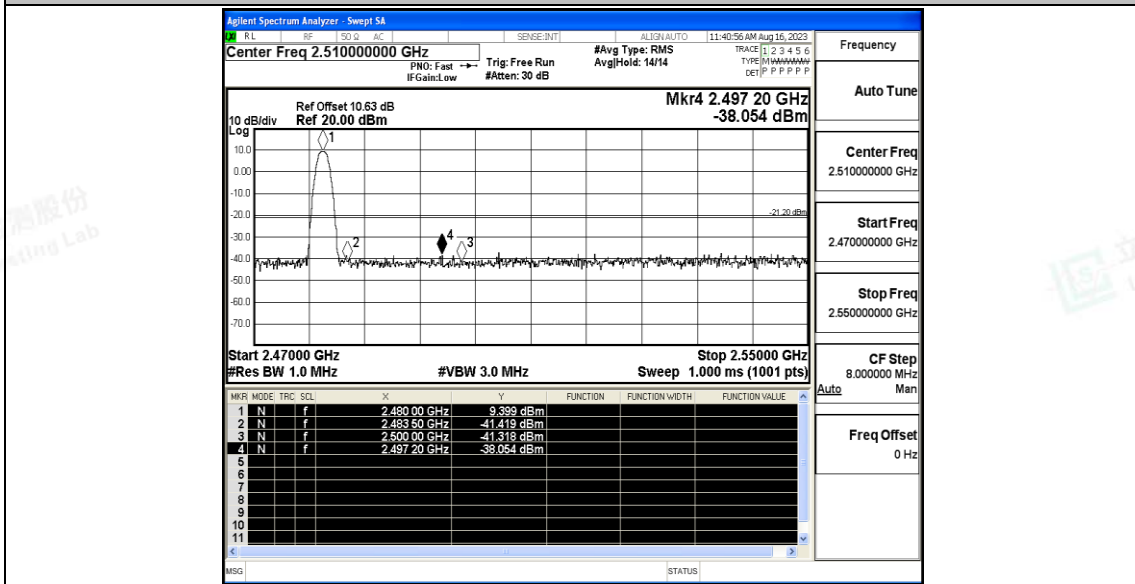


Test Graphs



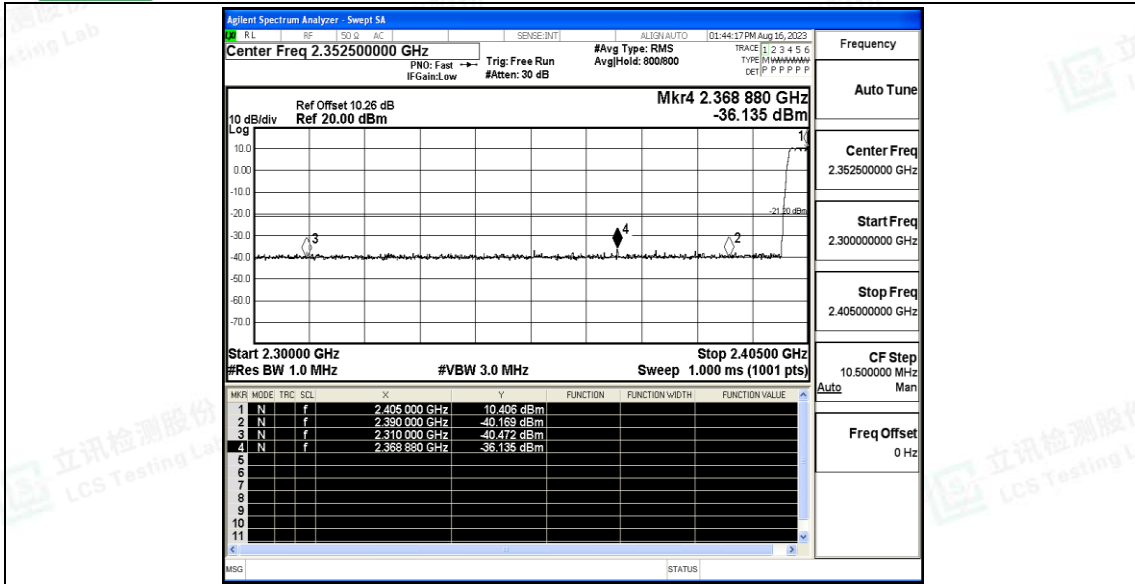


DH5_Ant1_High_2480_Peak

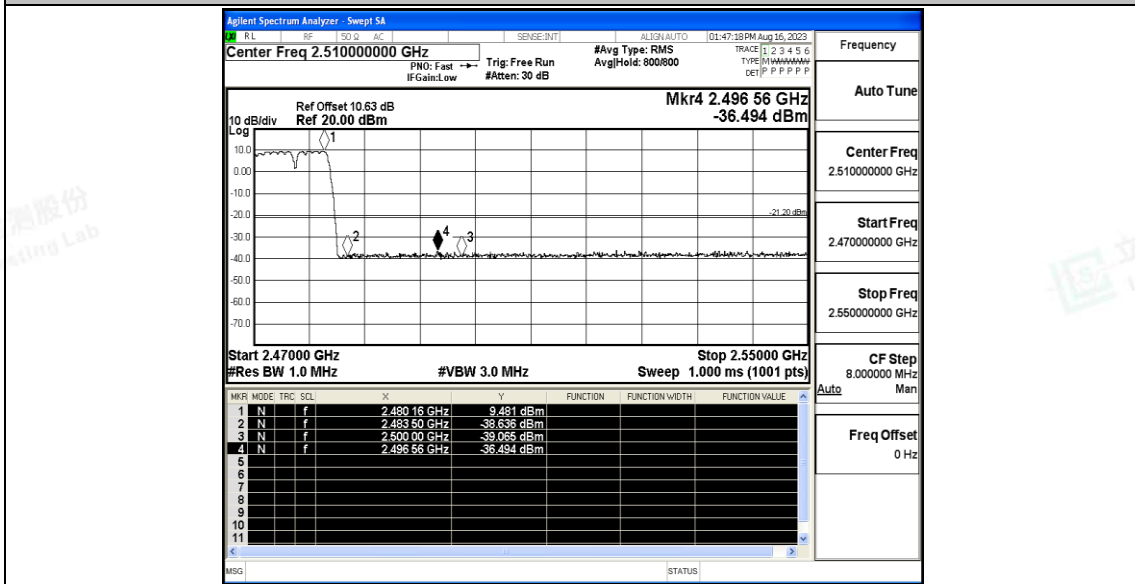


DH5_Ant1_Low_Hop_2402_Peak



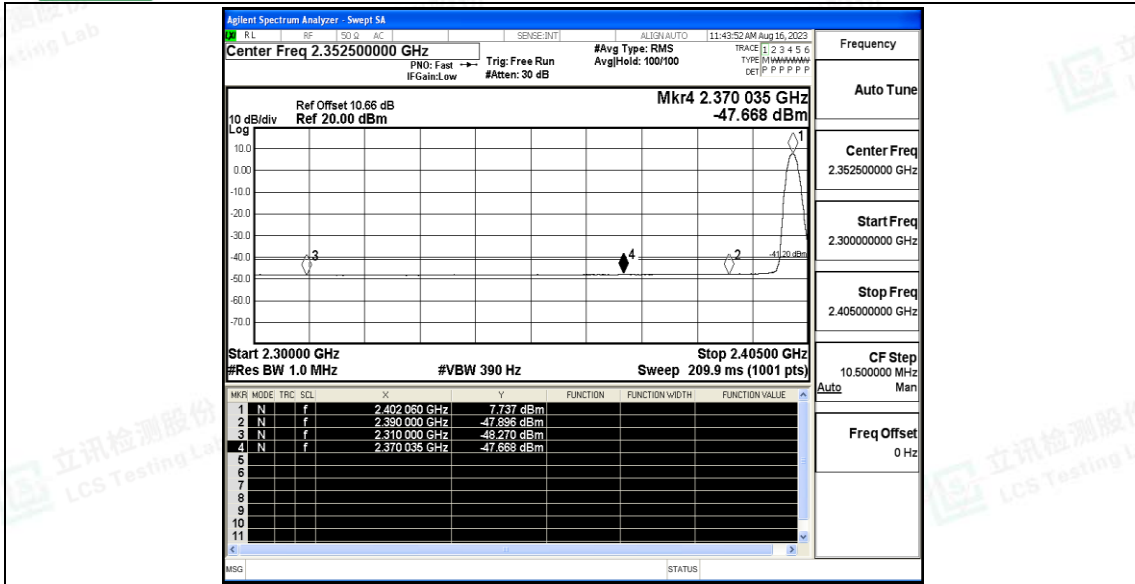


DH5_Ant1_High_Hop_2480_Peak

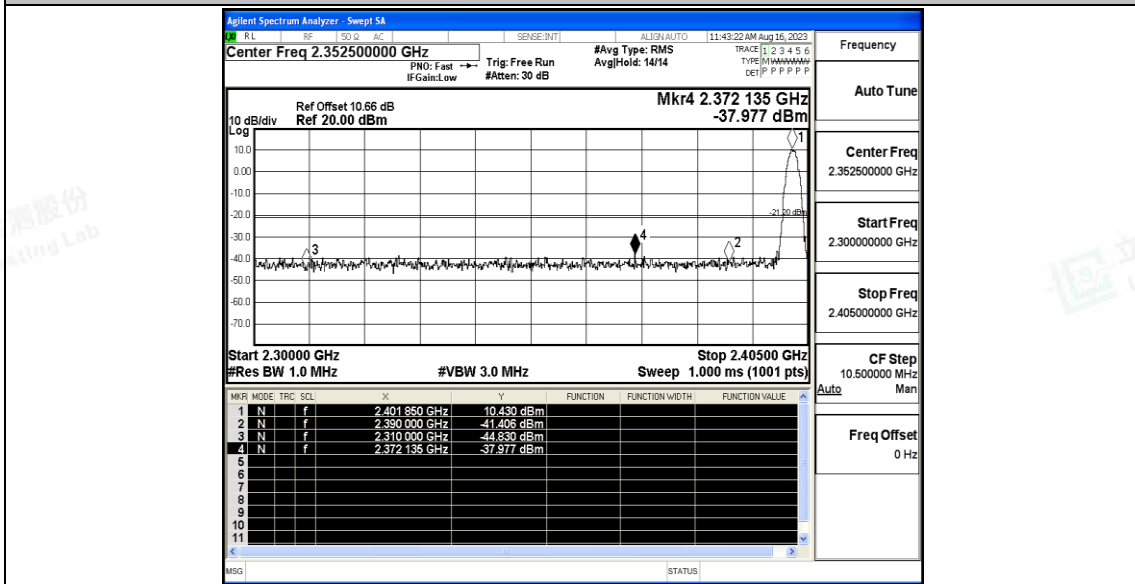


2DH5_Ant1_Low_2402_AV



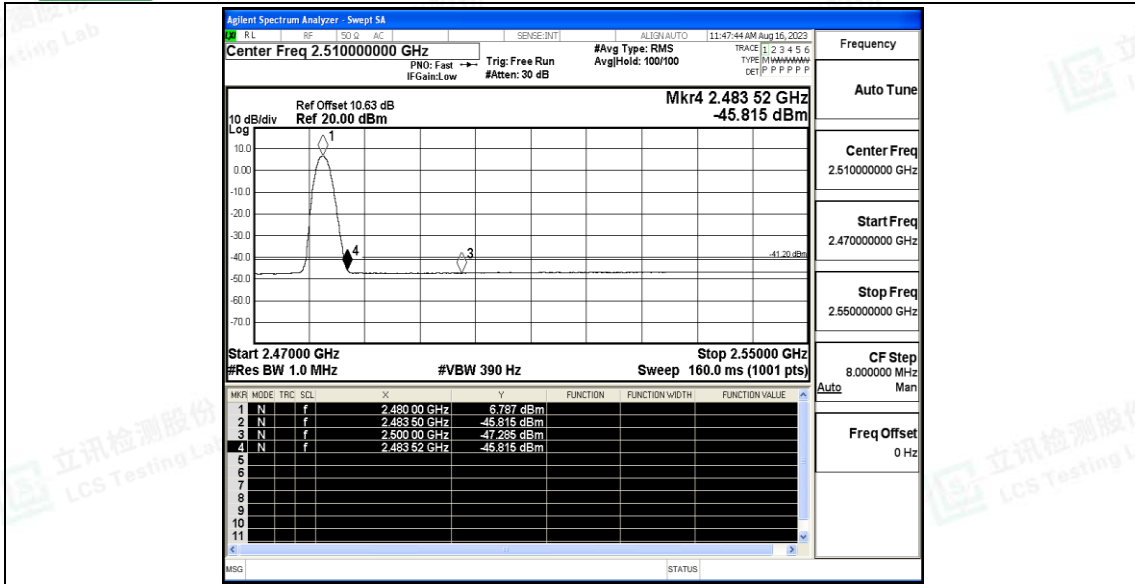


2DH5_Ant1_Low_2402_Peak

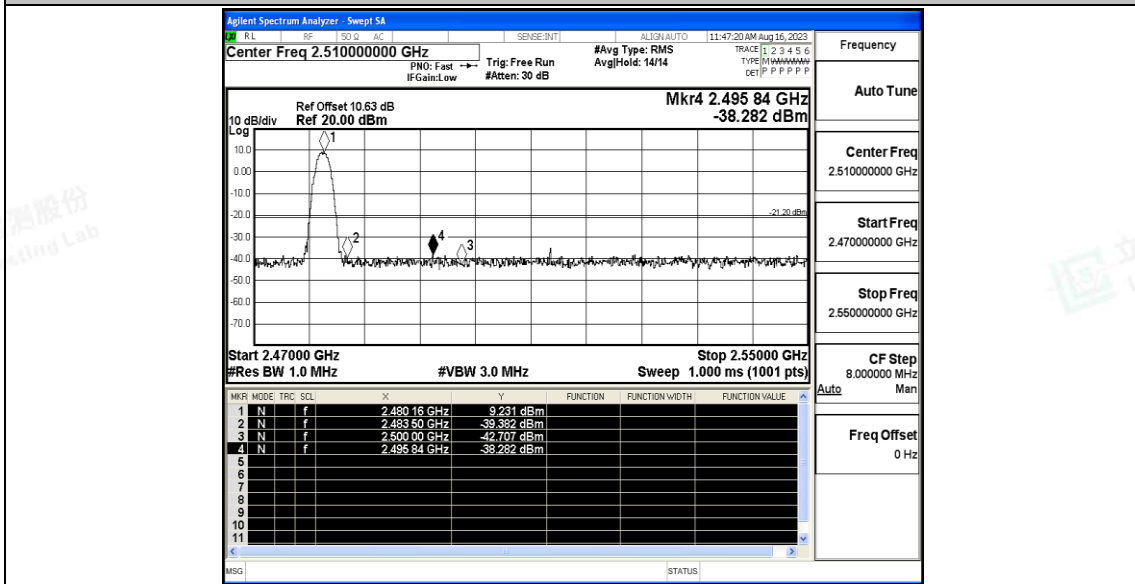


2DH5_Ant1_High_2480_AV



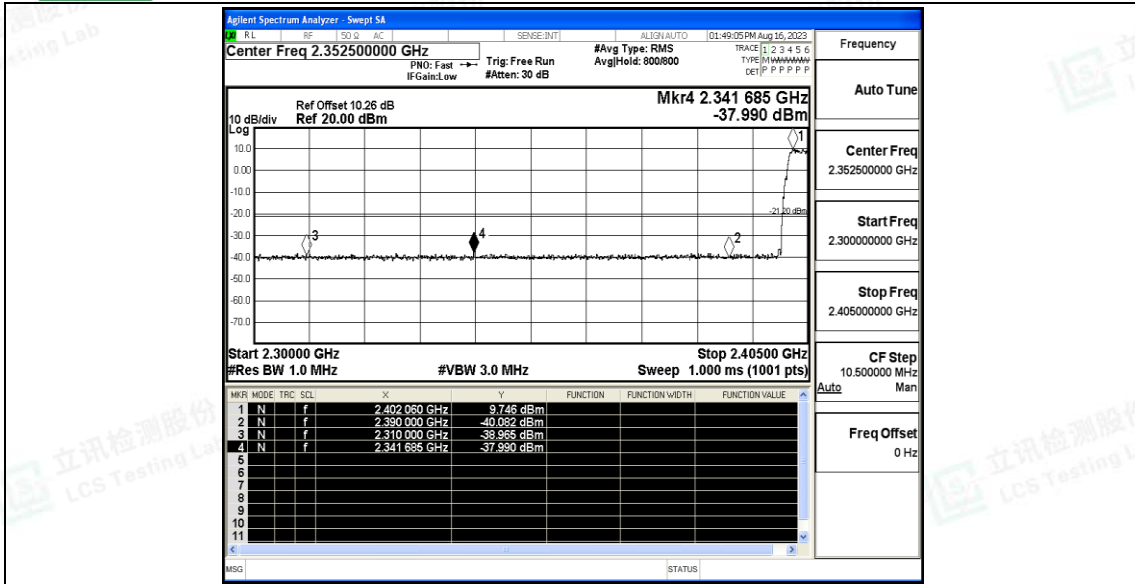


2DH5_Ant1_High_2480_Peak

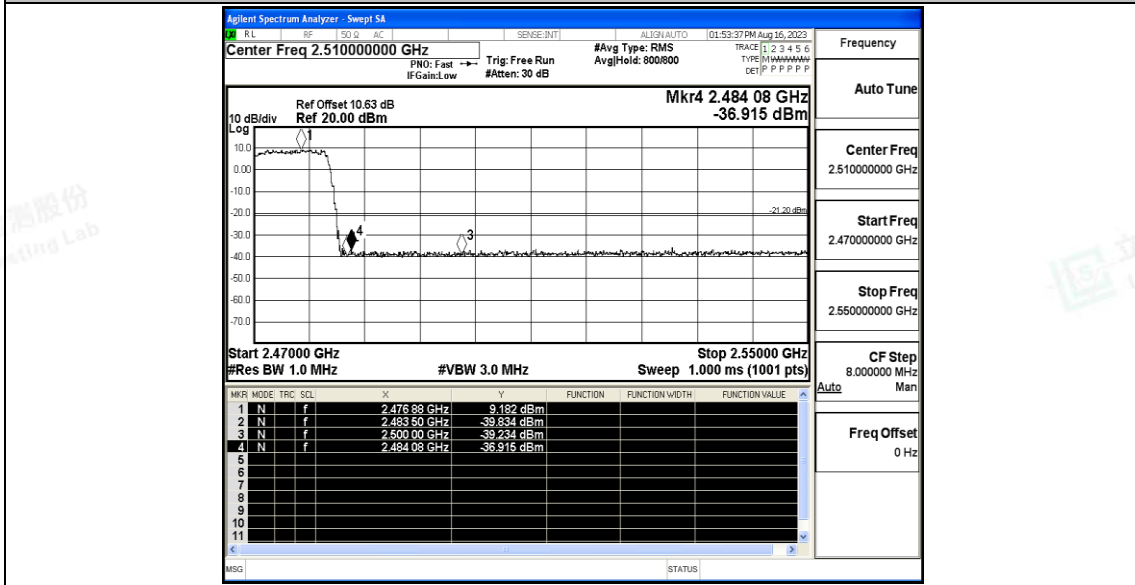


2DH5_Ant1_Low_Hop_2402_Peak



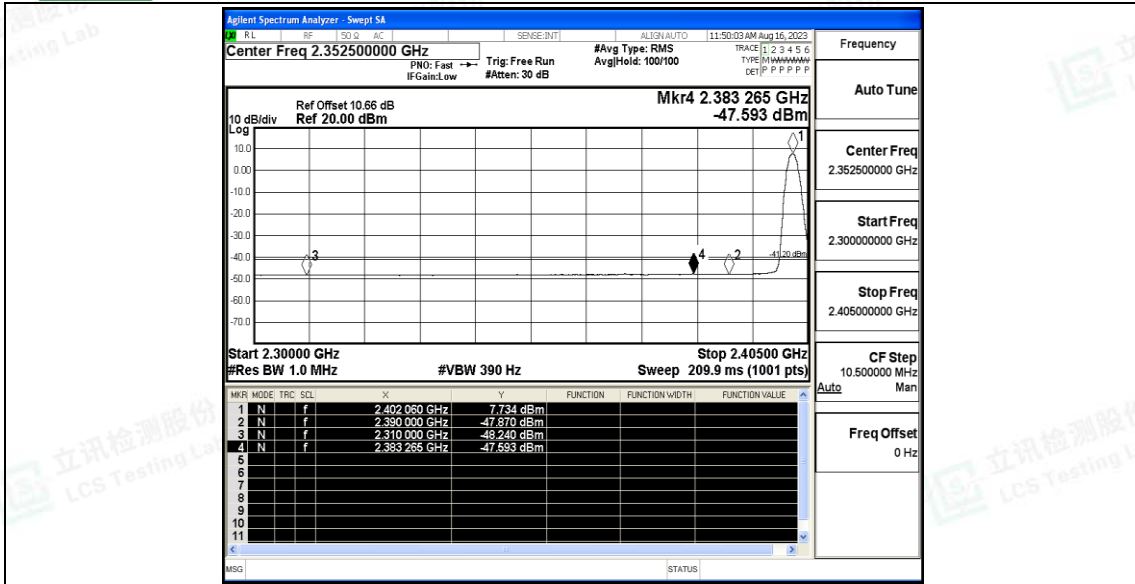


2DH5_Ant1_High_Hop_2480_Peak

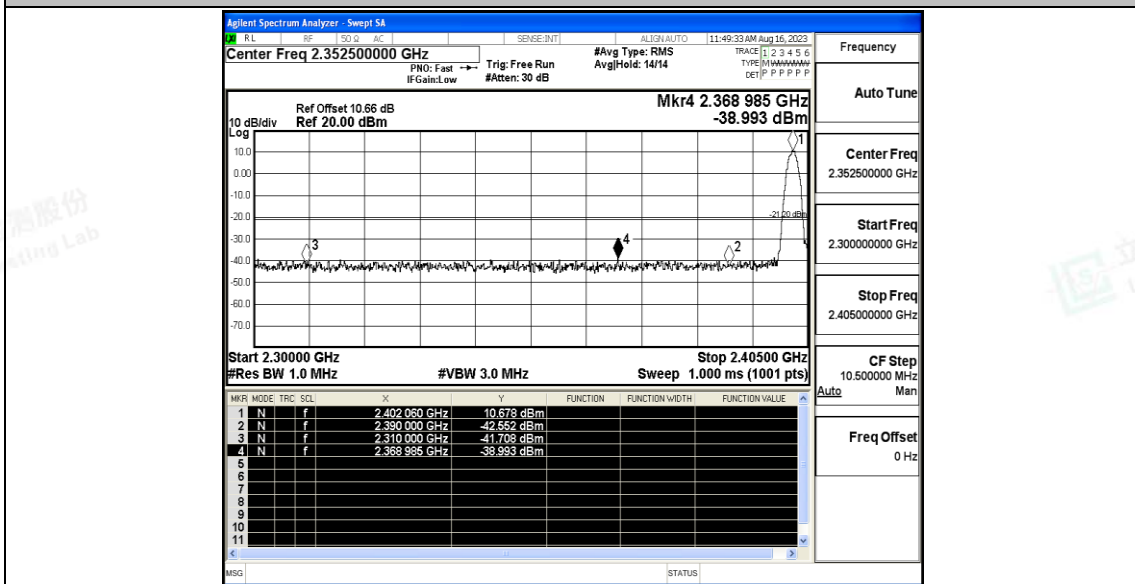


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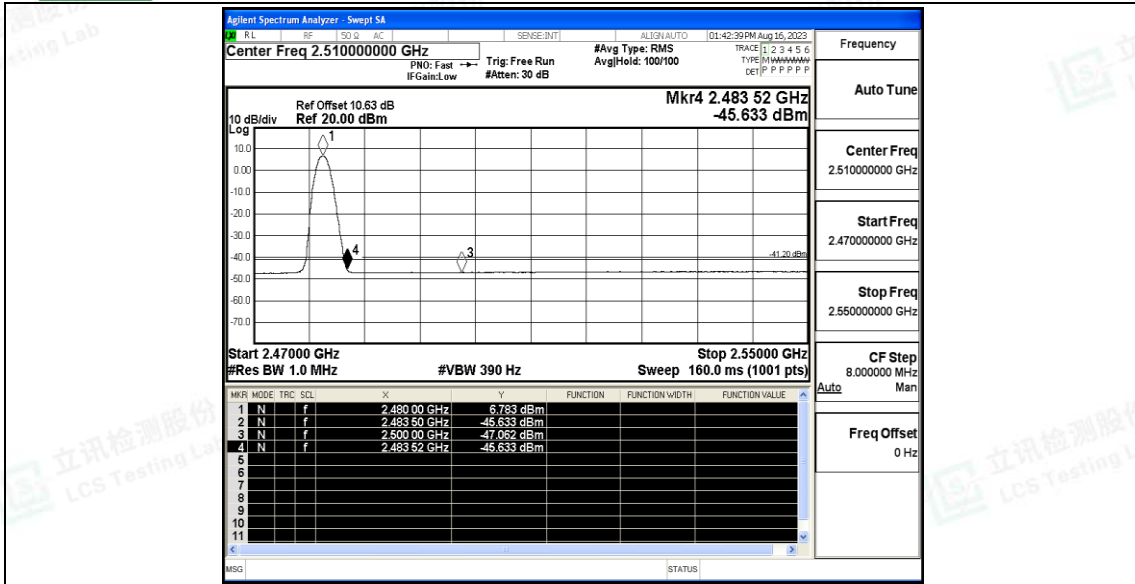


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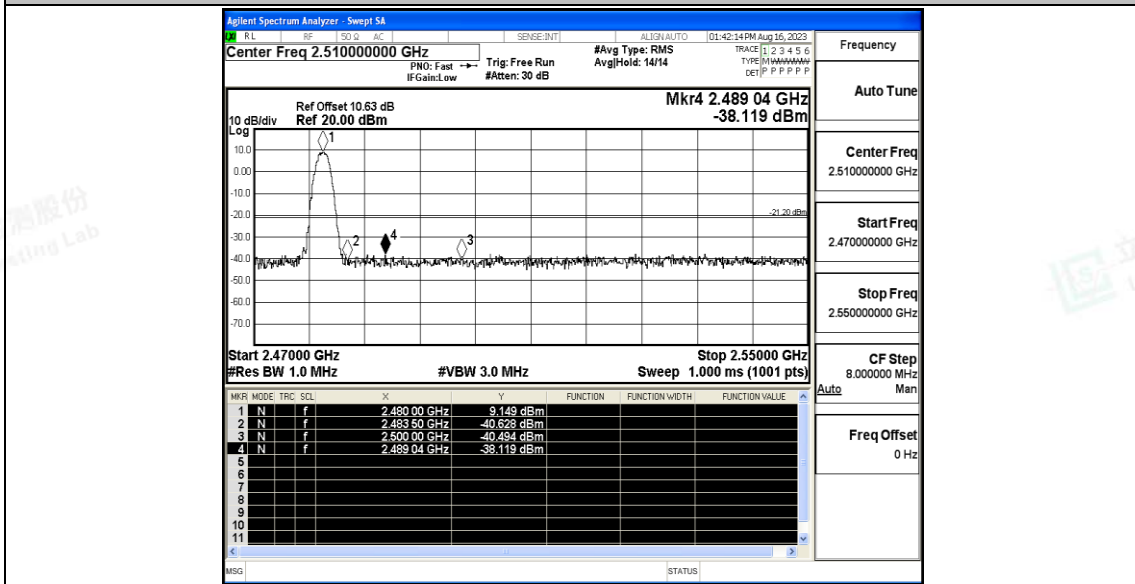


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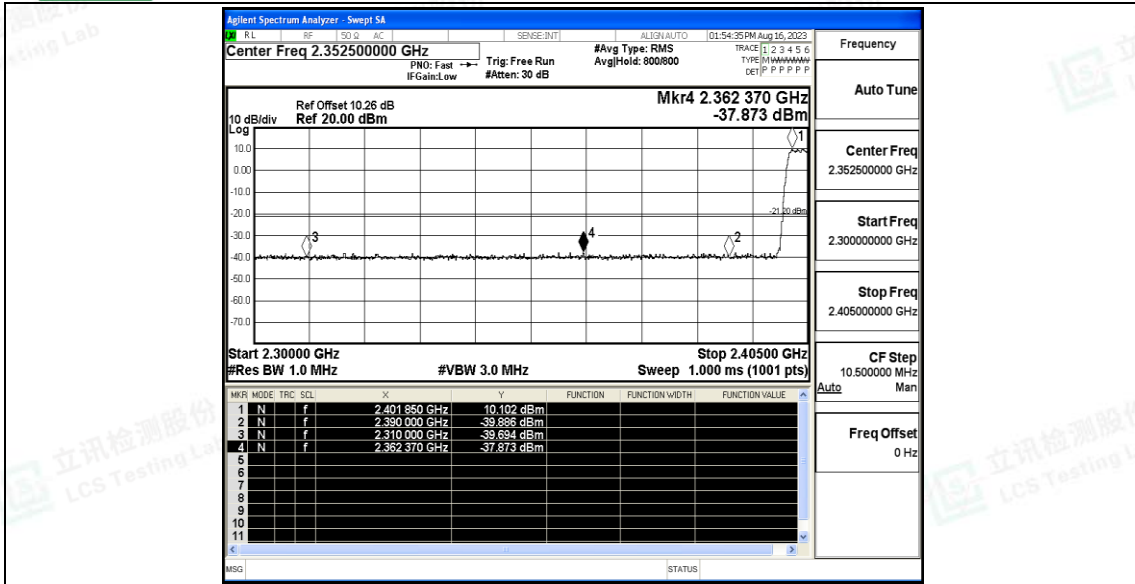


3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak





3DH5_Ant1_High_Hop_2480_Peak

