



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Digital combined Power amplifier

Test Model: T-B240DTB

Environmental Conditions

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





A.1 20dB Emission Bandwidth

Test Result

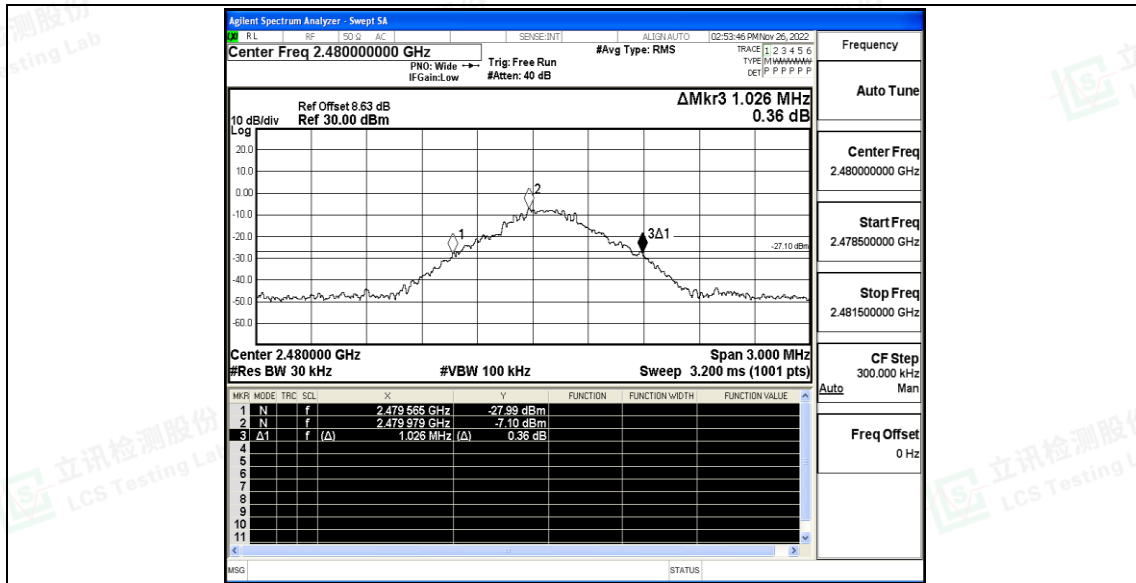
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	0.987	2401.580	2402.567	PASS
		2441	0.957	2440.589	2441.546	PASS
		2480	1.026	2479.565	2480.591	PASS
2DH5	Ant1	2402	1.371	2401.400	2402.771	PASS
		2441	1.386	2440.385	2441.771	PASS
		2480	1.362	2479.391	2480.753	PASS
3DH5	Ant1	2402	1.299	2401.430	2402.729	PASS
		2441	1.305	2440.430	2441.735	PASS
		2480	1.323	2479.400	2480.723	PASS



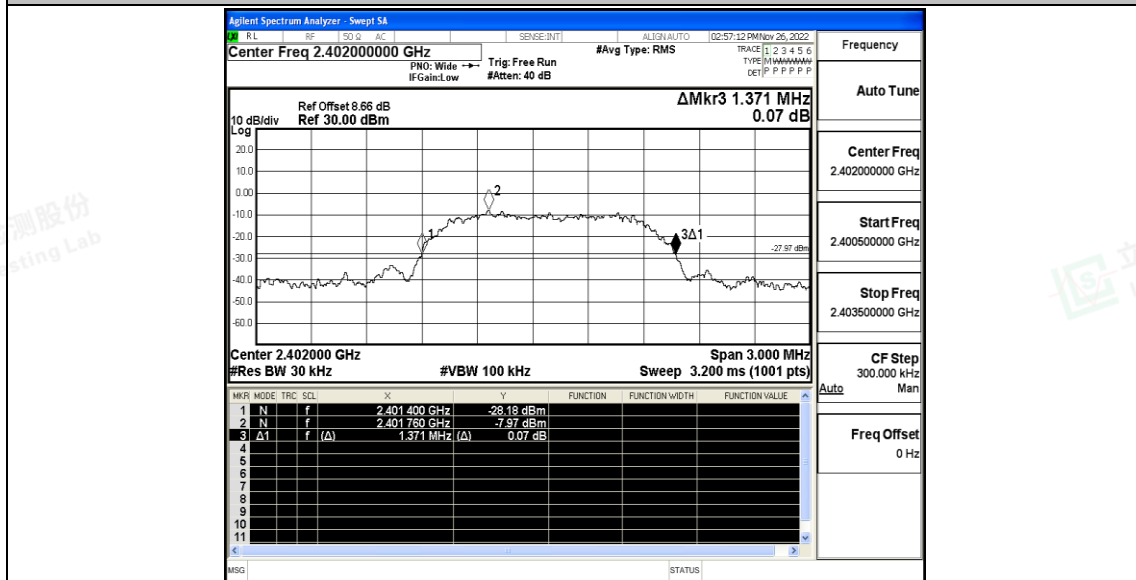


Test Graphs



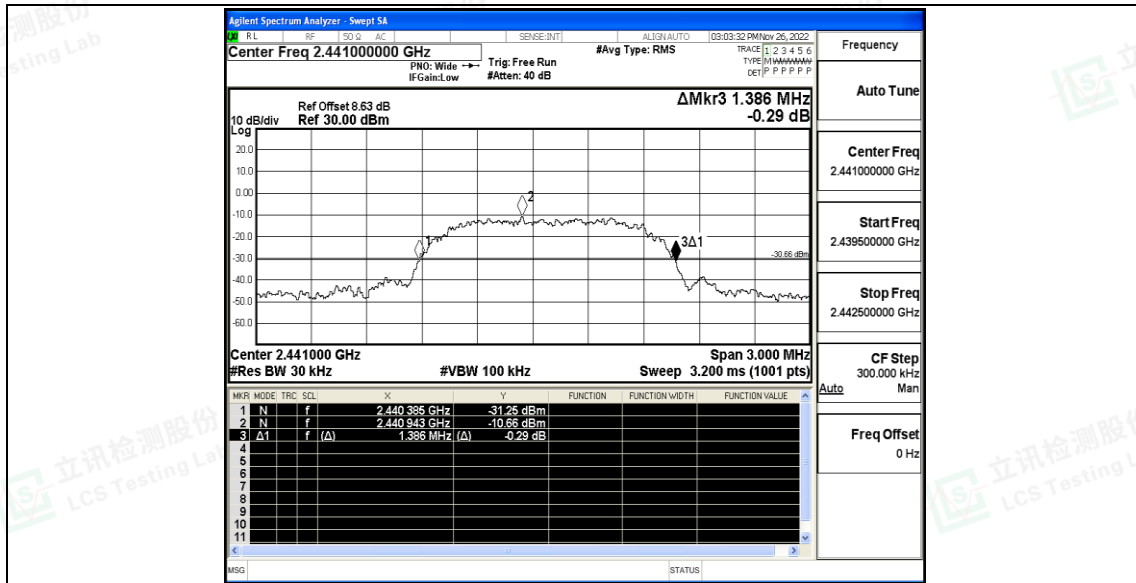


2DH5_Ant1_2402

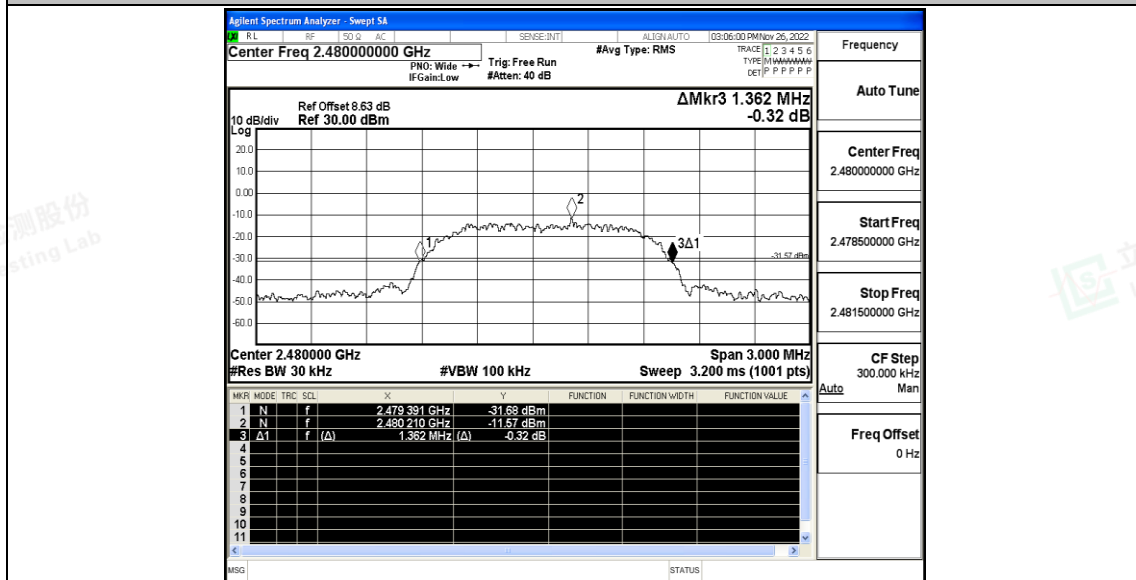


2DH5_Ant1_2441



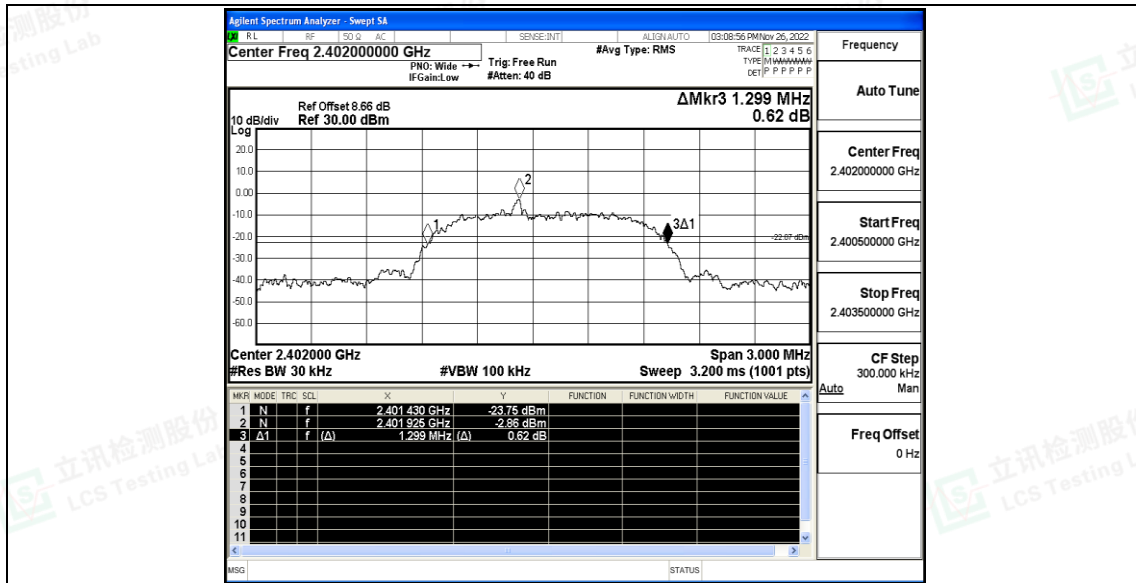


2DH5_Ant1_2480

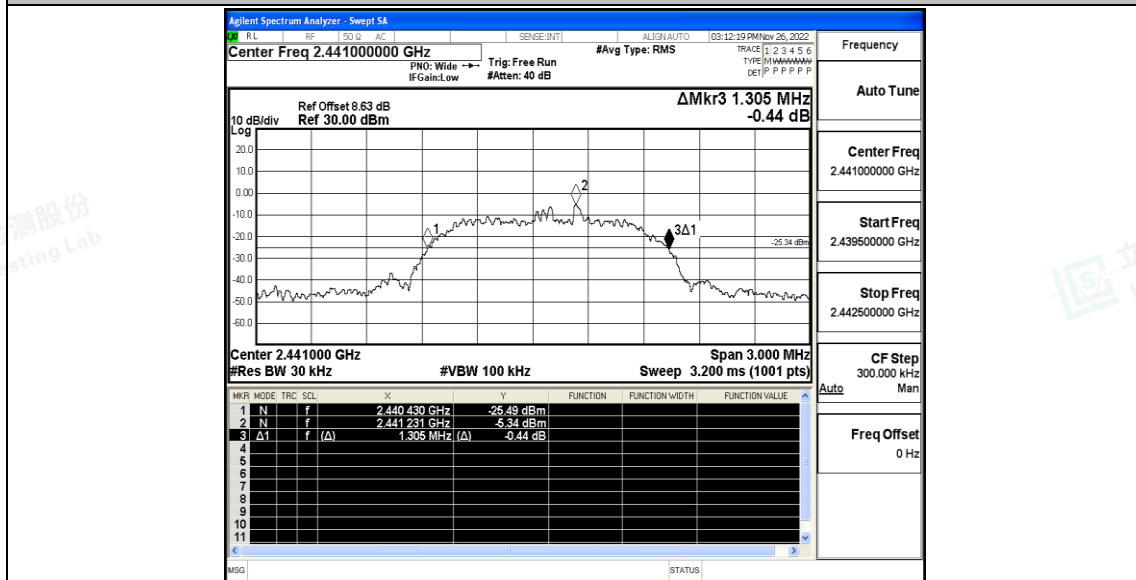


3DH5_Ant1_2402



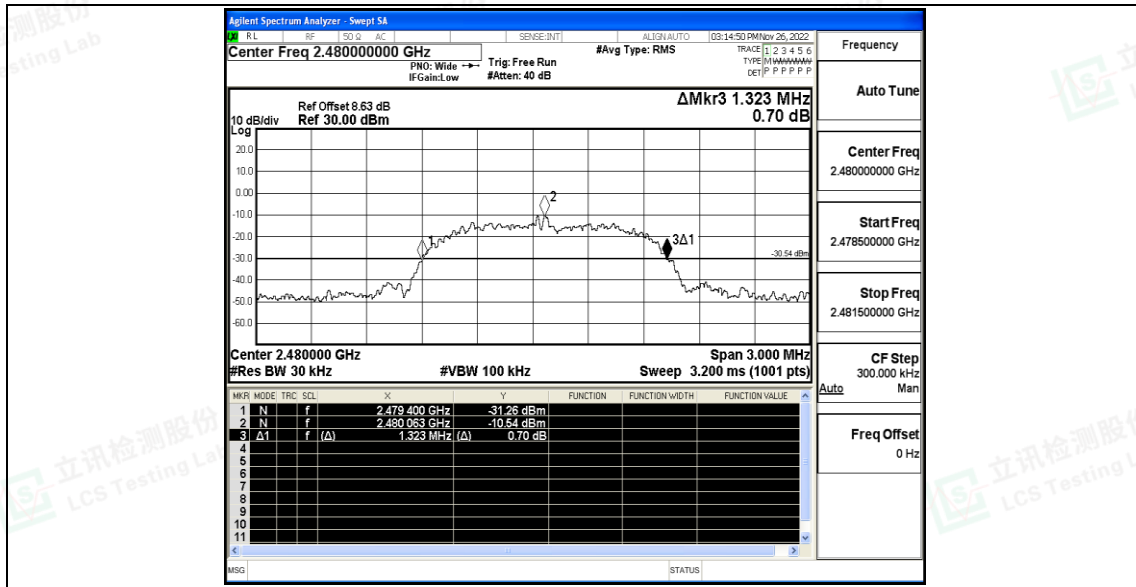


3DH5_Ant1_2441



3DH5_Ant1_2480







A.2 Maximum conducted output power

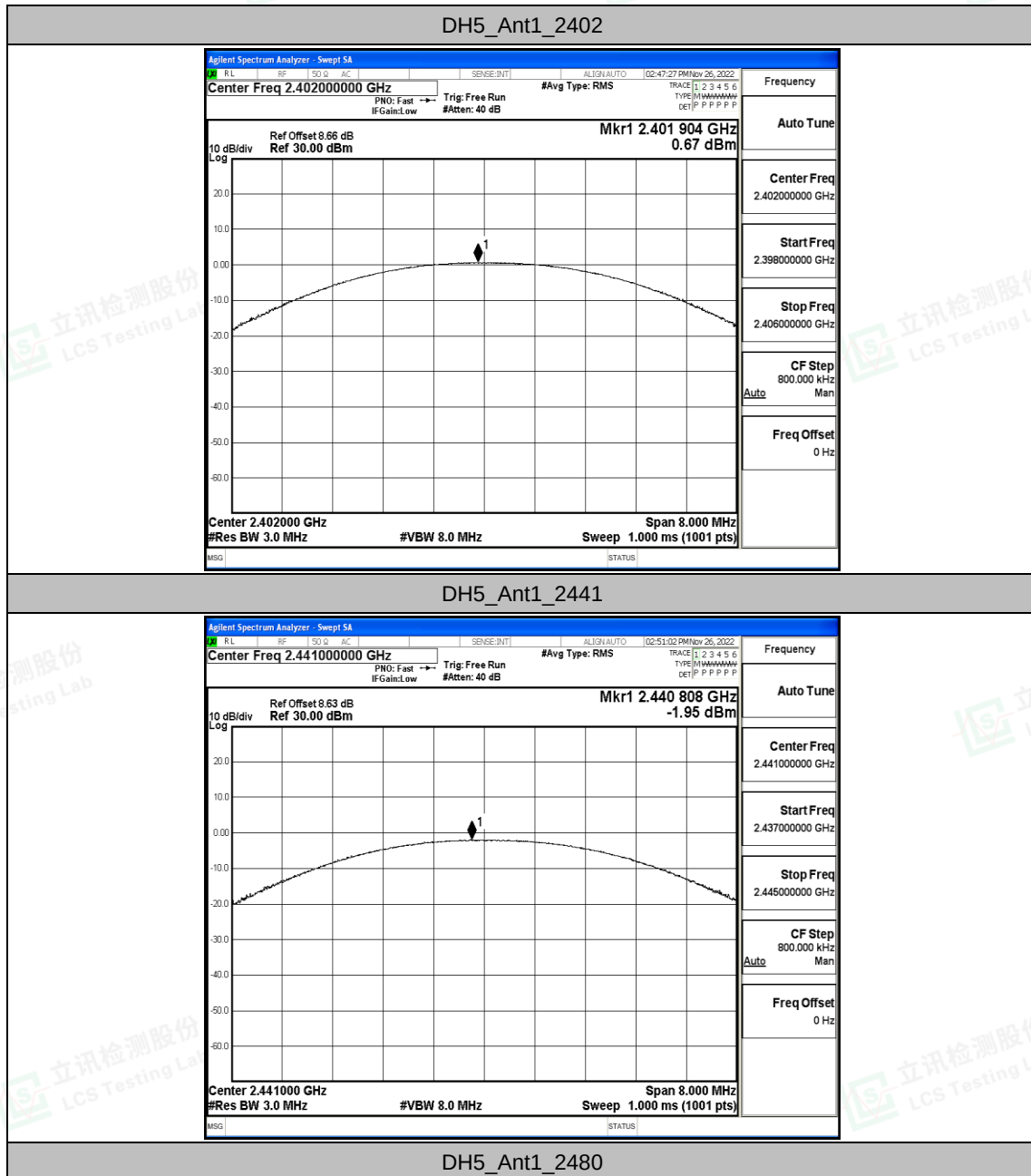
Test Result

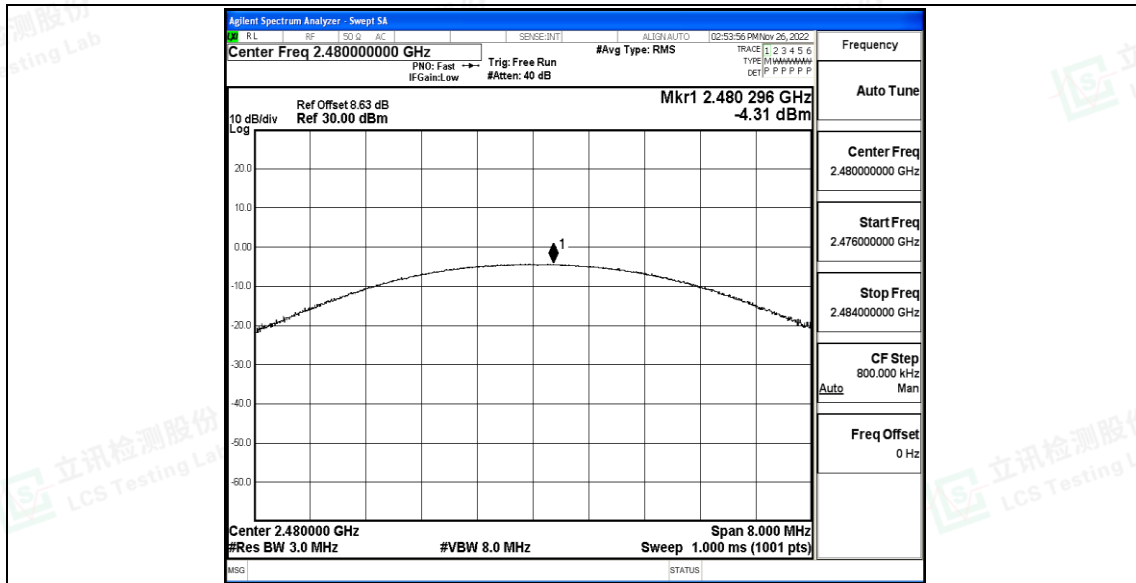
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	0.67	≤20.97	PASS
		2441	-1.95	≤20.97	PASS
		2480	-4.31	≤20.97	PASS
2DH5	Ant1	2402	0.75	≤20.97	PASS
		2441	-1.94	≤20.97	PASS
		2480	-4.24	≤20.97	PASS
3DH5	Ant1	2402	1.36	≤20.97	PASS
		2441	-1.66	≤20.97	PASS
		2480	-4.21	≤20.97	PASS



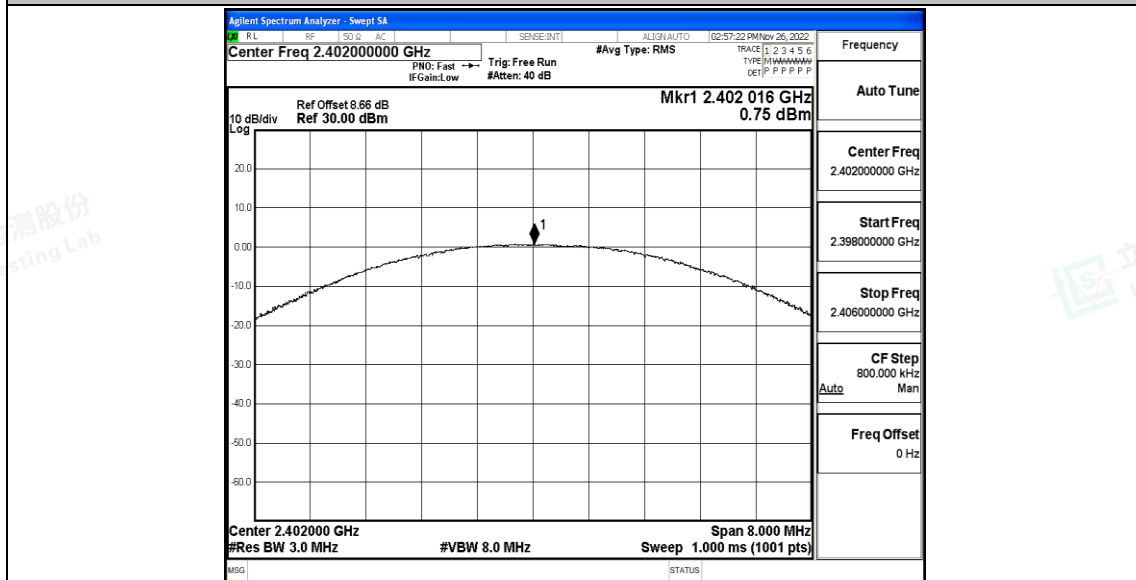


Test Graphs



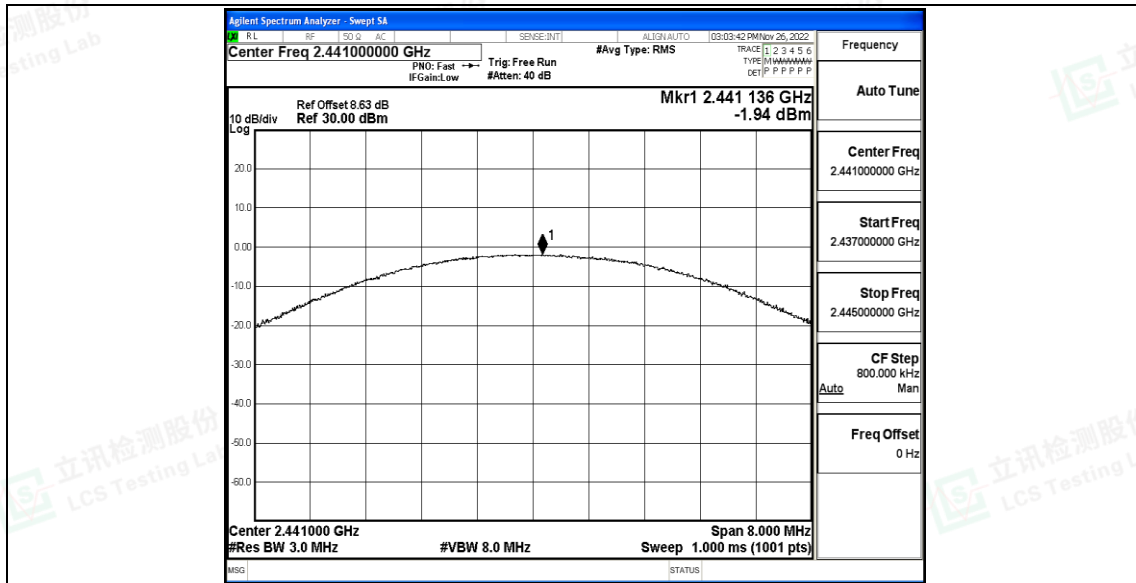


2DH5_Ant1_2402

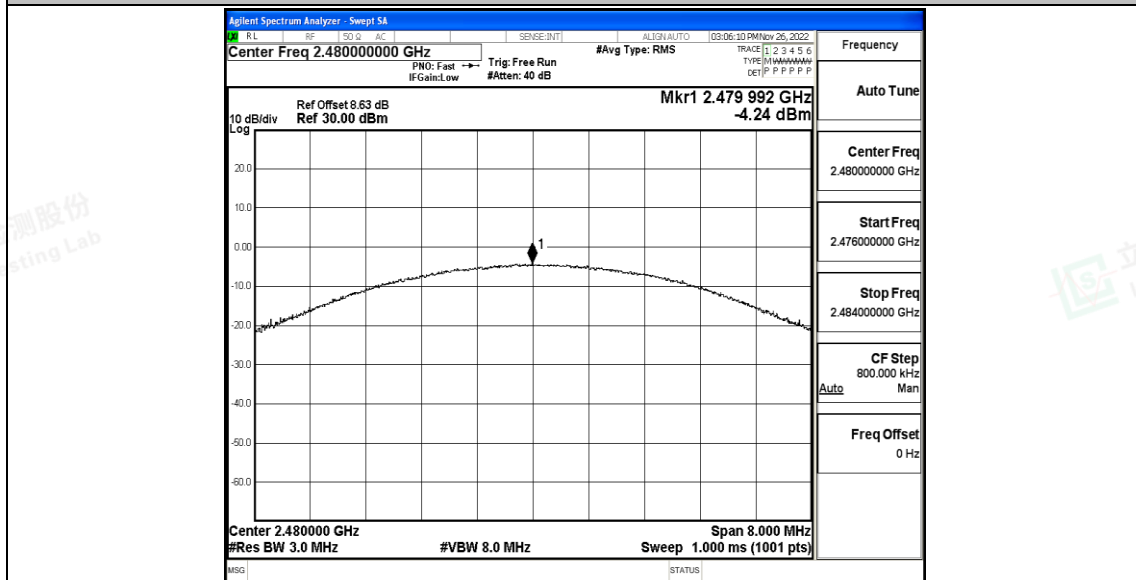


2DH5_Ant1_2441



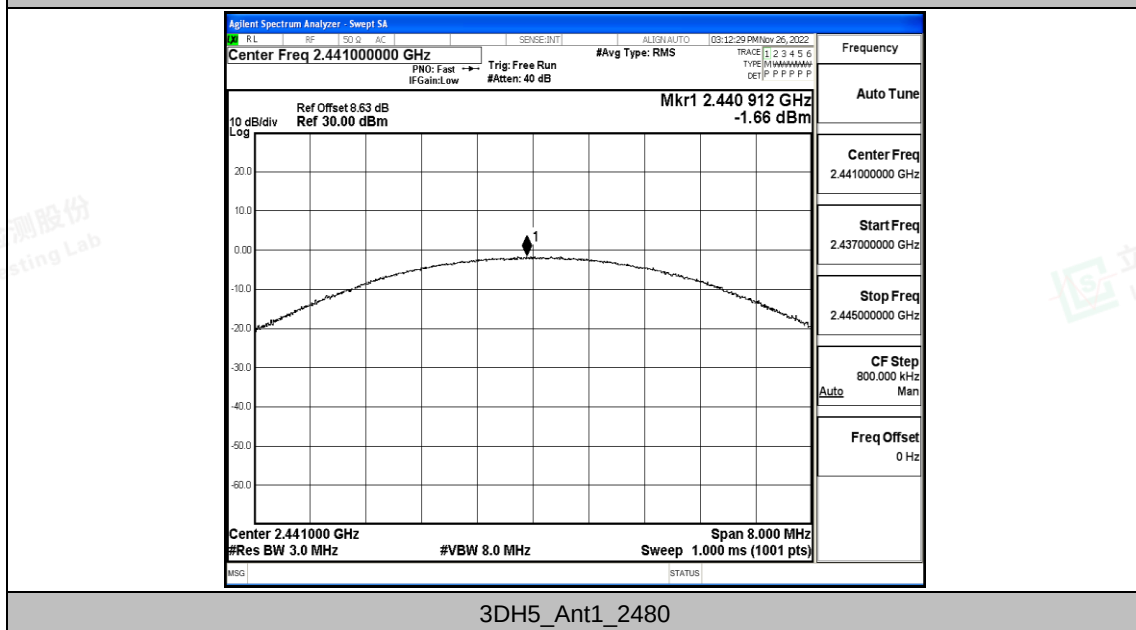
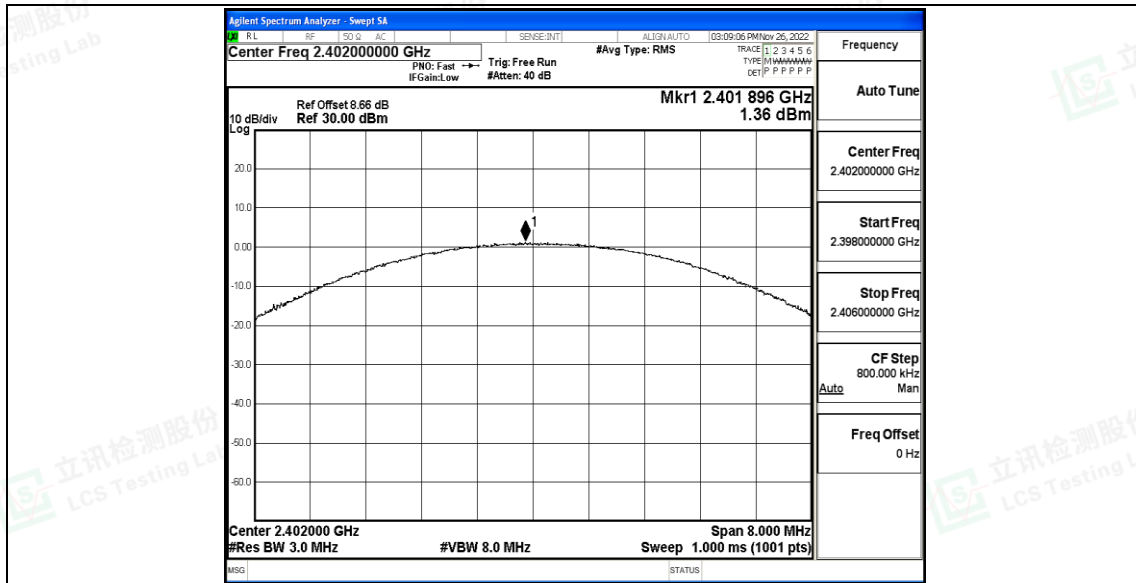


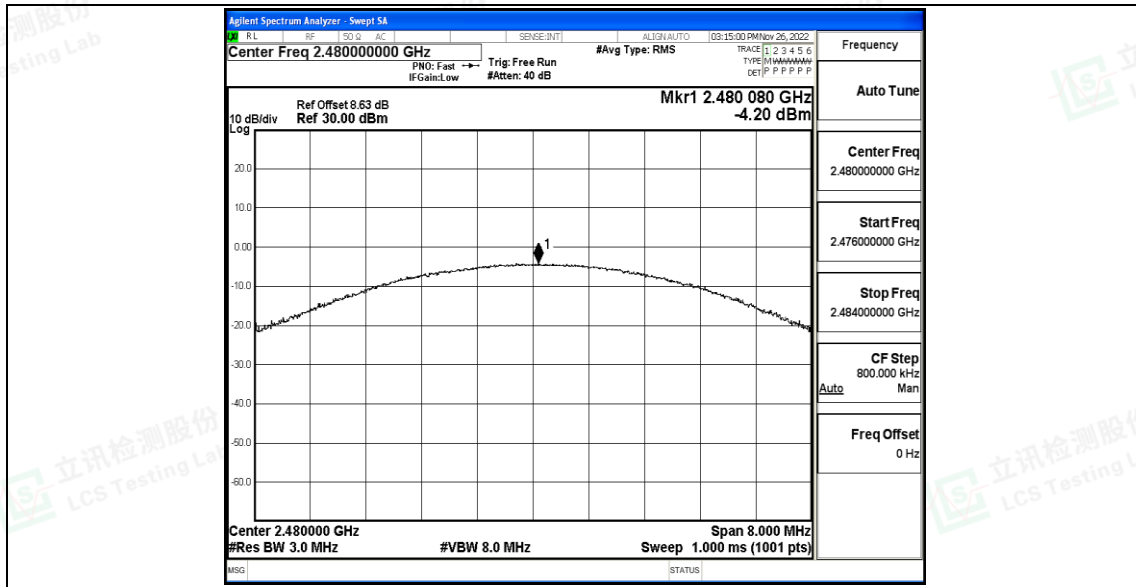
2DH5_Ant1_2480



3DH5_Ant1_2402









A.3 Carrier frequency separation

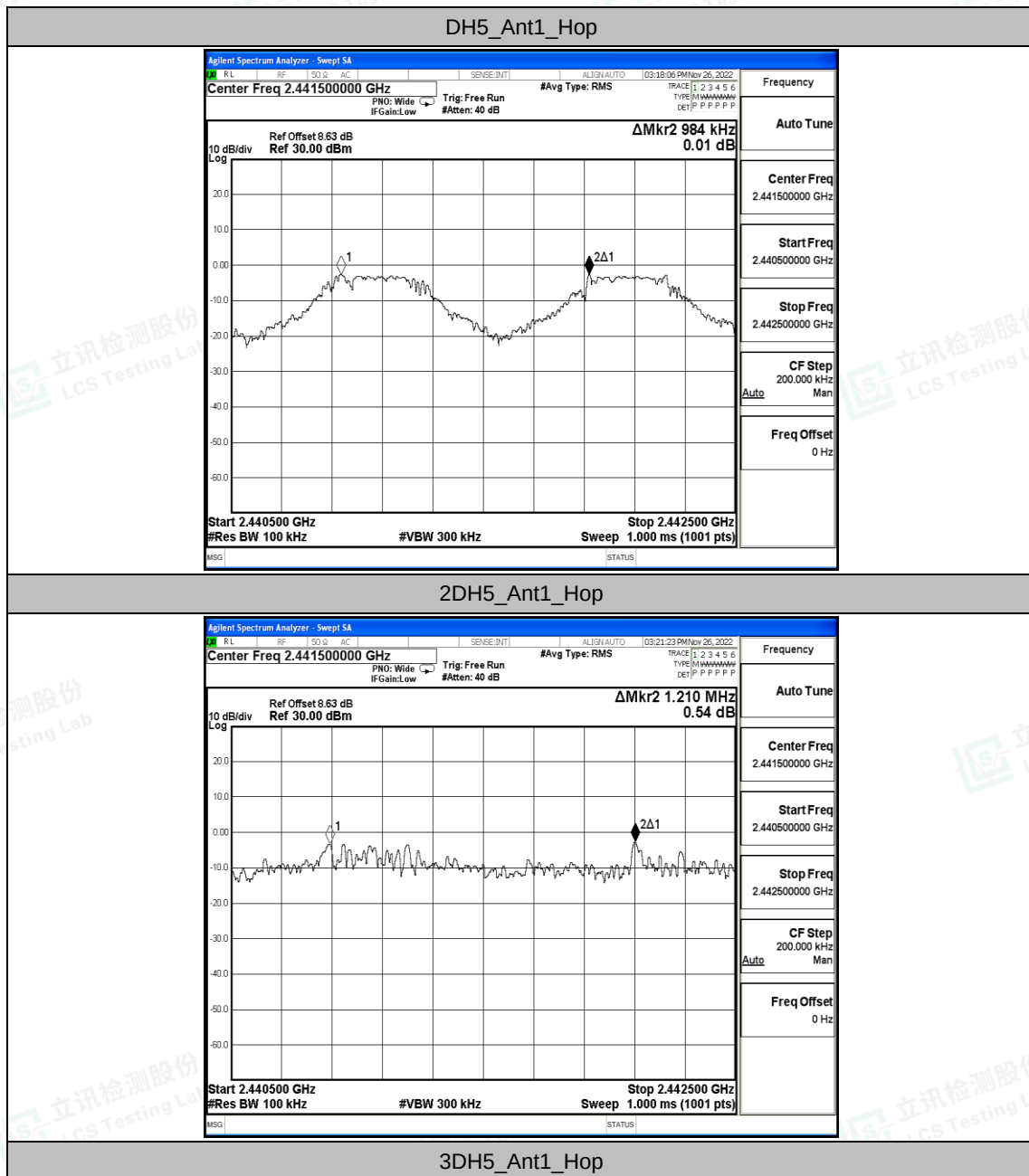
Test Result

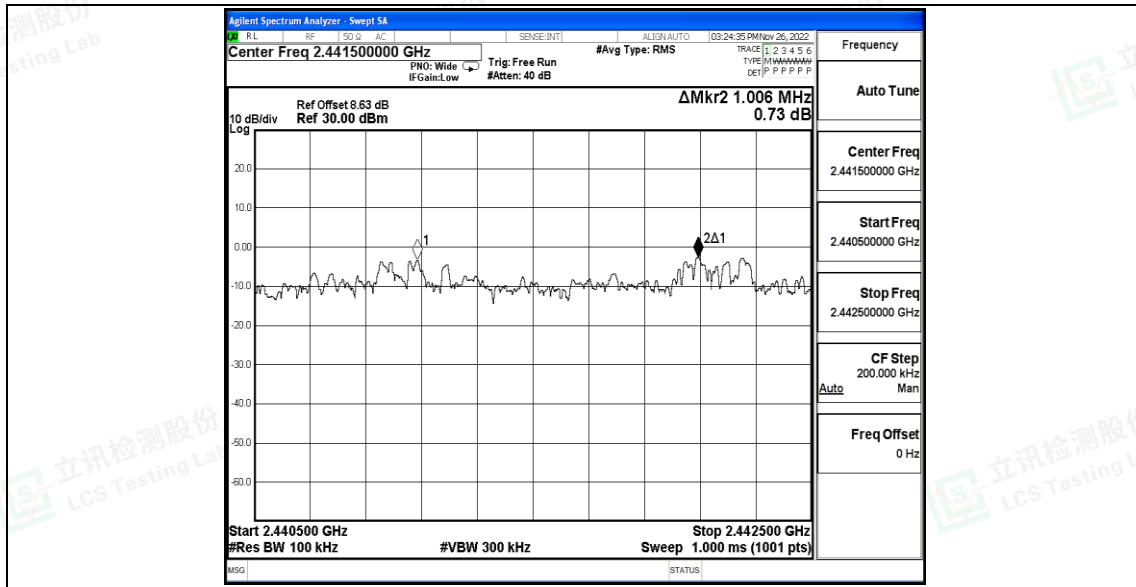
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.984	≥ 0.684	PASS
2DH5	Ant1	Hop	1.21	≥ 0.924	PASS
3DH5	Ant1	Hop	1.006	≥ 0.882	PASS





Test Graphs







A.4 Time of occupancy

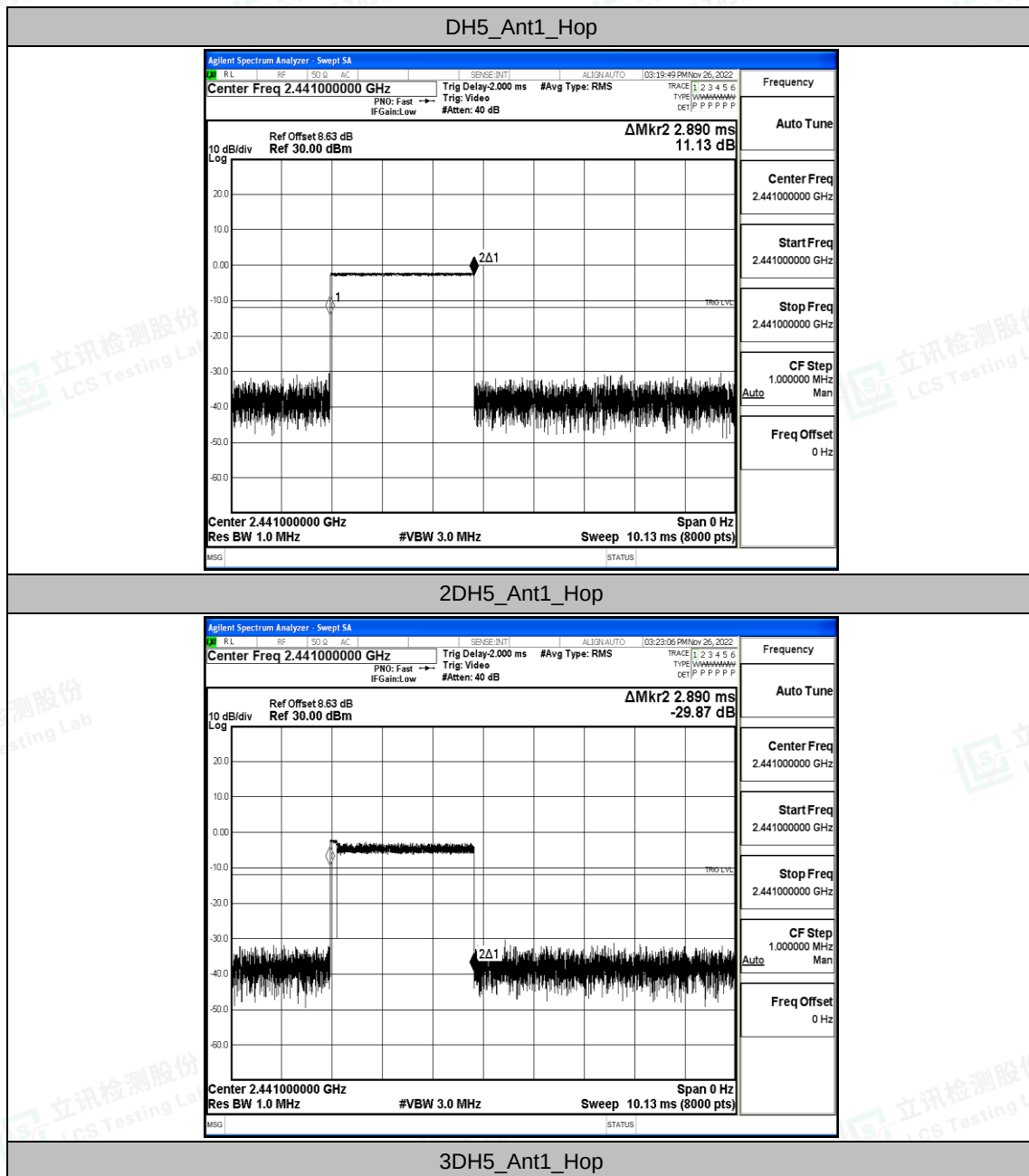
Test Result

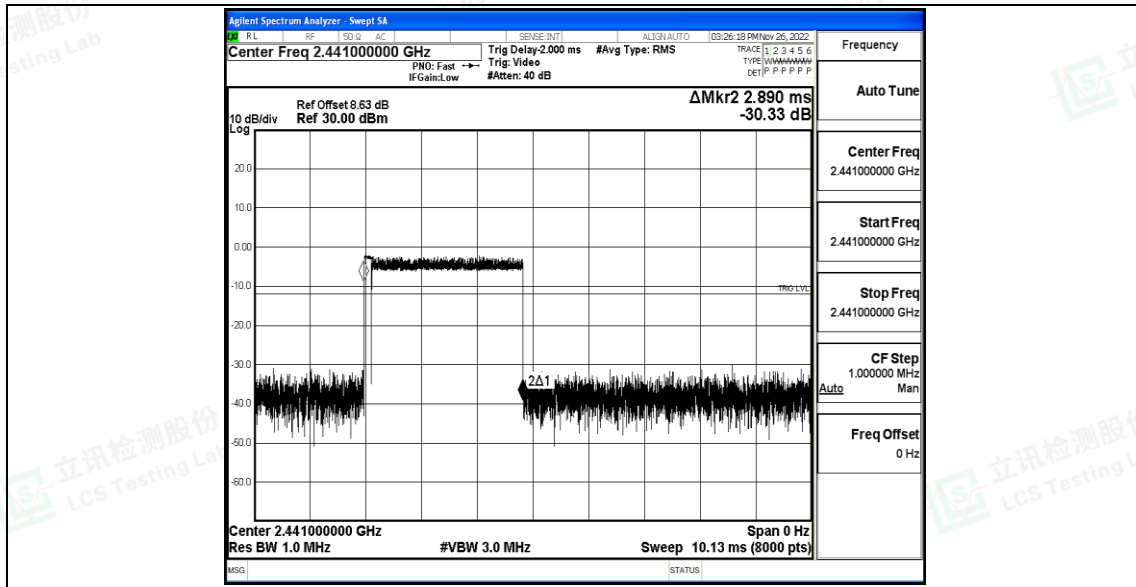
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.89	106.67	0.308	≤0.4	PASS
2DH5	Ant1	Hop	2.89	106.67	0.308	≤0.4	PASS
3DH5	Ant1	Hop	2.89	106.67	0.308	≤0.4	PASS





Test Graphs







A.5 Number of hopping channels

Test Result

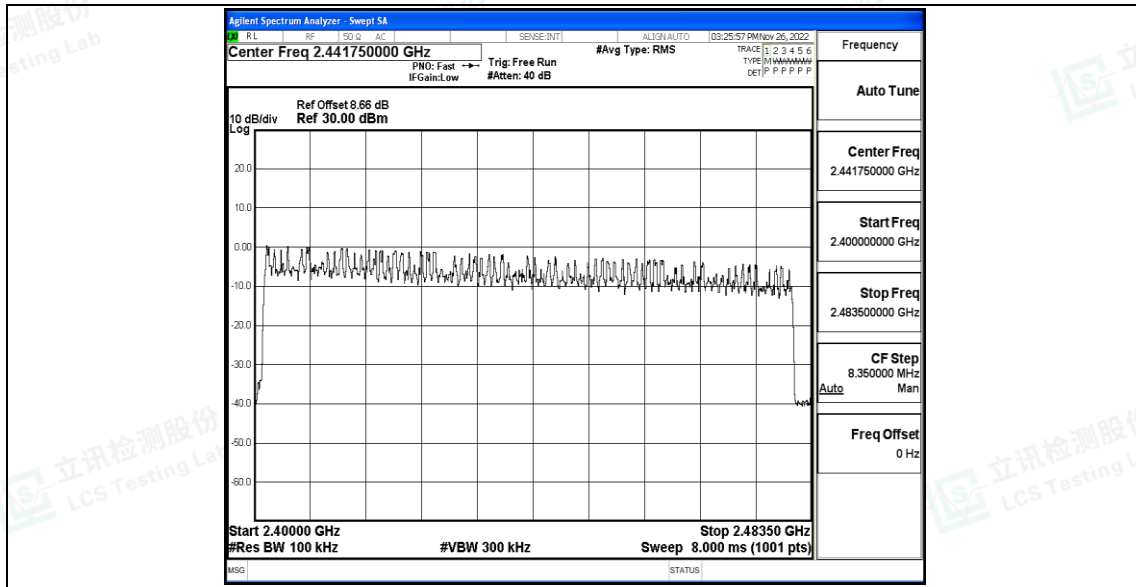
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS





Test Graphs







A.6 Band edge measurements

Test Result

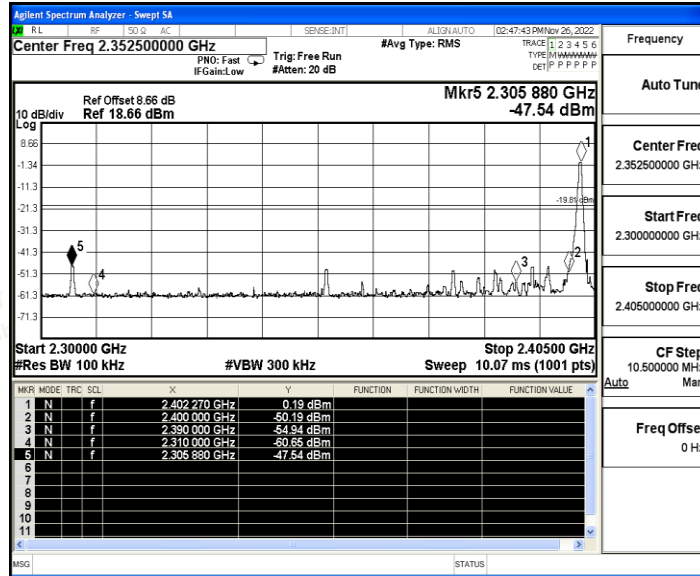
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.19	-47.54	≤ -19.81	PASS
		High	2480	-5.06	-54.4	≤ -25.06	PASS
		Low	Hop_2402	-0.15	-45.81	≤ -20.15	PASS
		High	Hop_2480	-4.48	-52.38	≤ -24.48	PASS
2DH5	Ant1	Low	2402	-3.12	-49.79	≤ -23.12	PASS
		High	2480	-10.29	-58.15	≤ -30.29	PASS
		Low	Hop_2402	-4.27	-46.57	≤ -24.27	PASS
		High	Hop_2480	-4.79	-53.69	≤ -24.79	PASS
3DH5	Ant1	Low	2402	-5.27	-50.83	≤ -25.27	PASS
		High	2480	-10.73	-56.98	≤ -30.73	PASS
		Low	Hop_2402	-5.17	-45.27	≤ -25.17	PASS
		High	Hop_2480	-6.66	-54.28	≤ -26.66	PASS



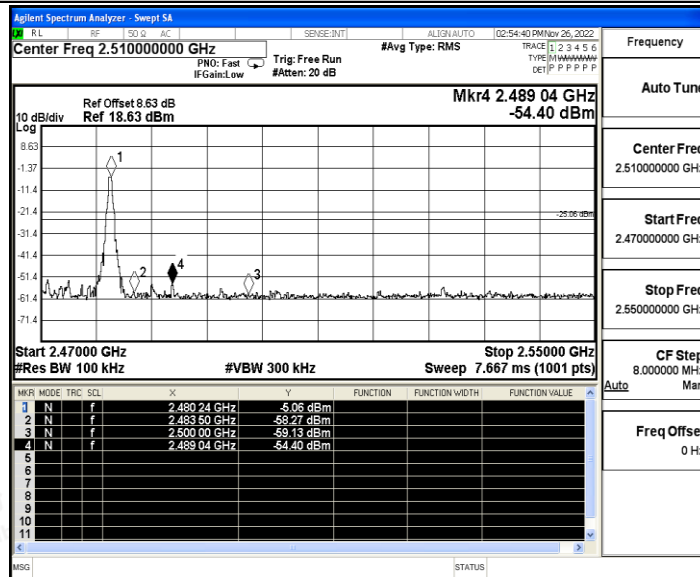


Test Graphs

DH5_Ant1_Low_2402

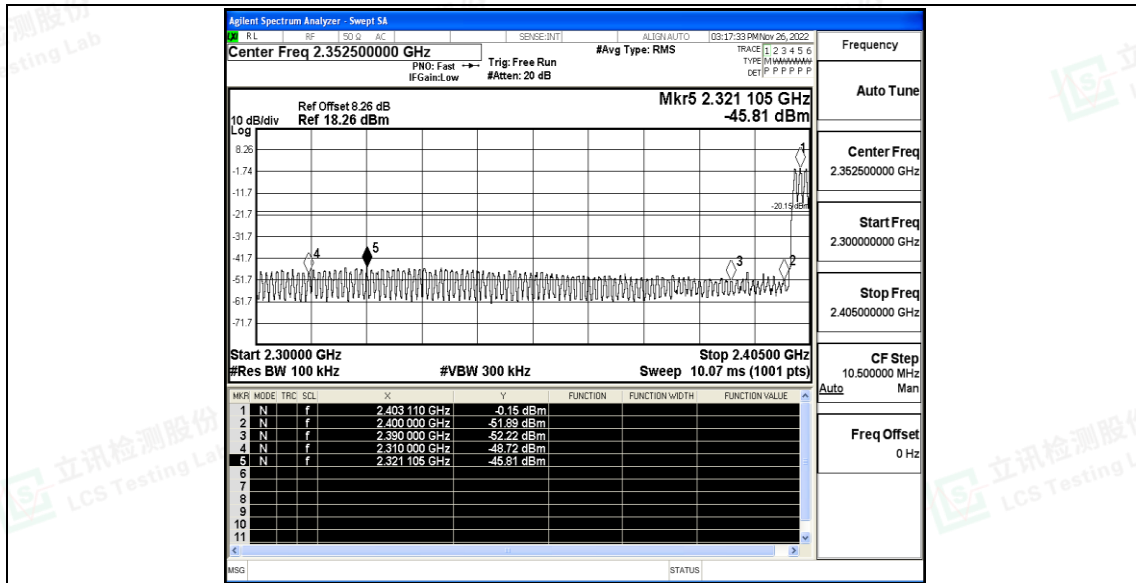


DH5_Ant1_High_2480

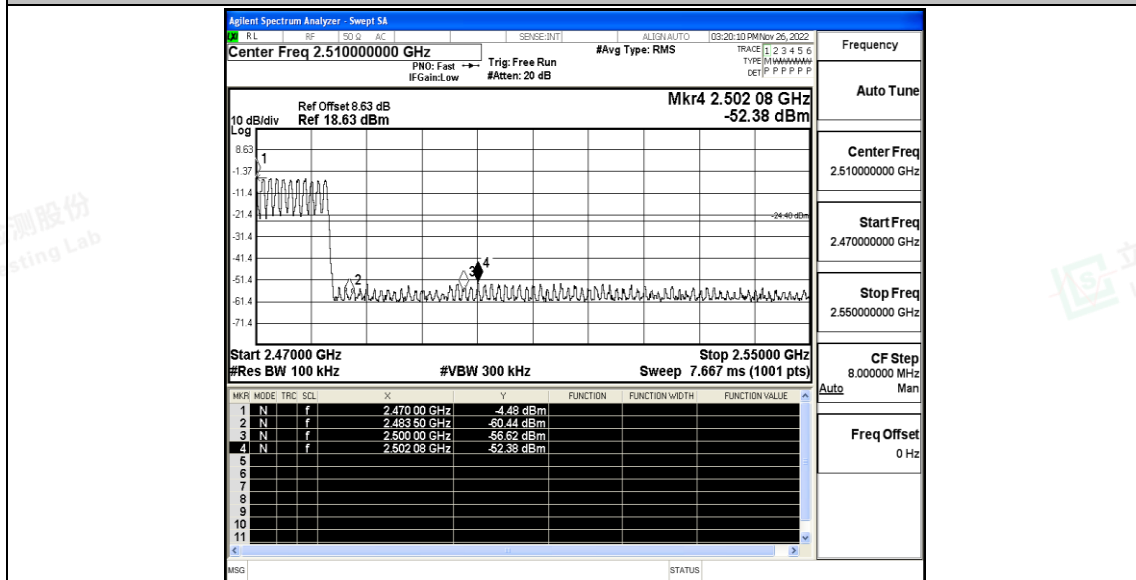


DH5_Ant1_Low_Hop_2402



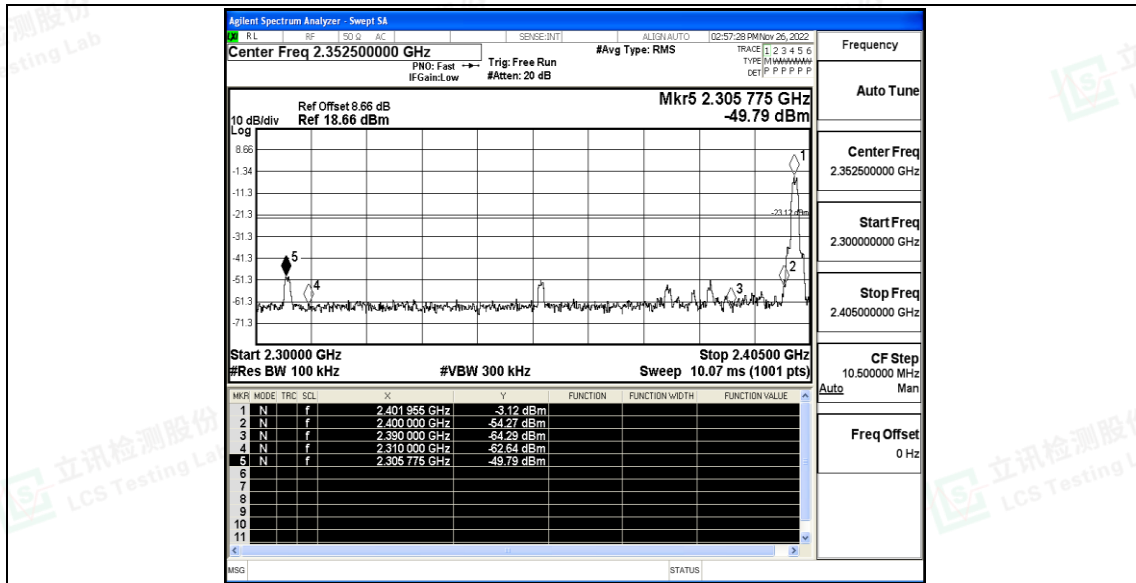


DH5_Ant1_High_Hop_2480

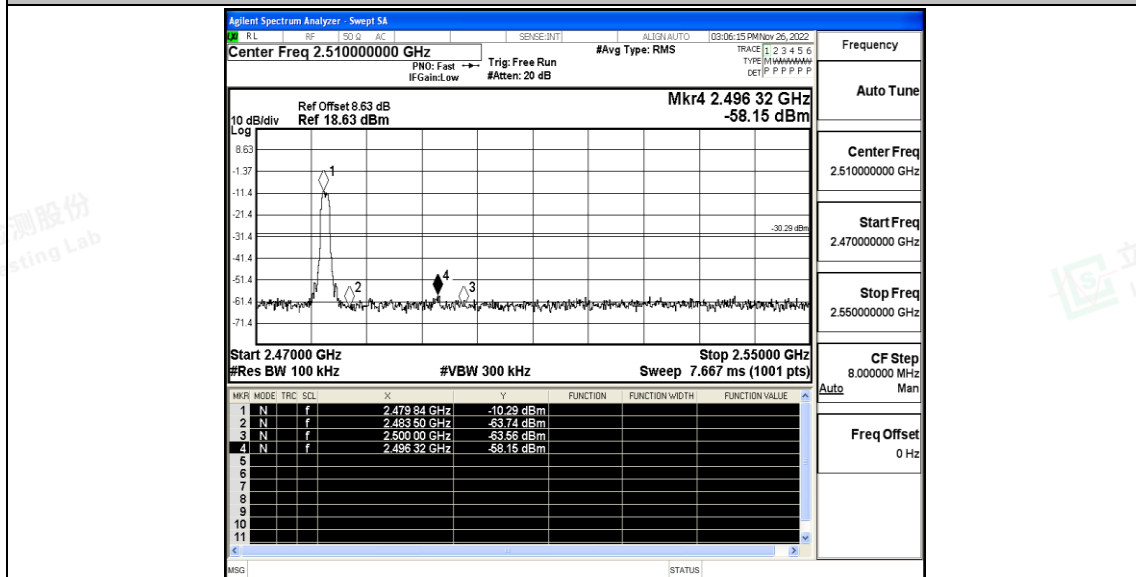


2DH5_Ant1_Low_2402



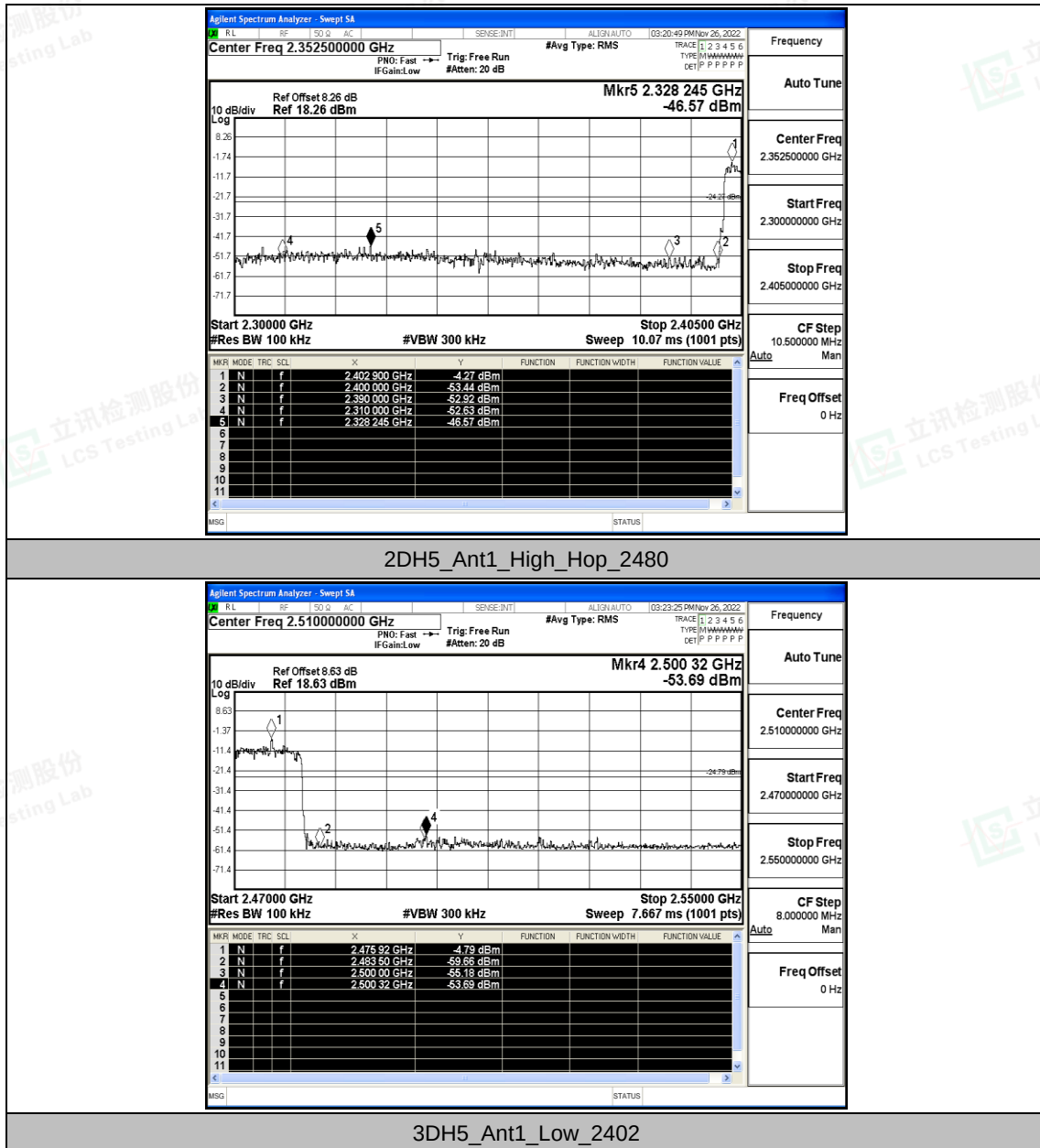


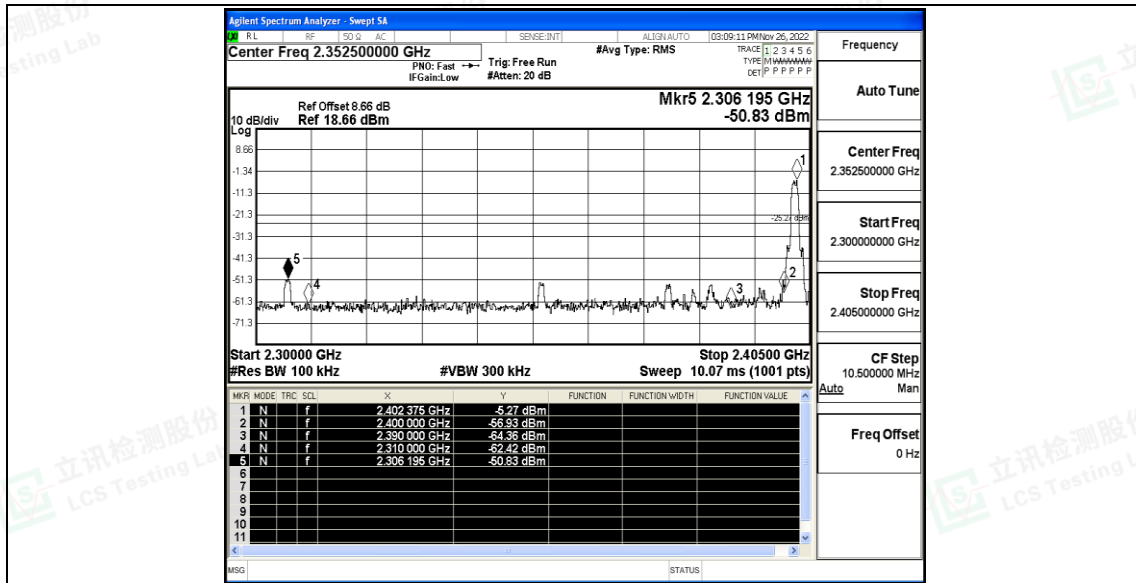
2DH5_Ant1_High_2480



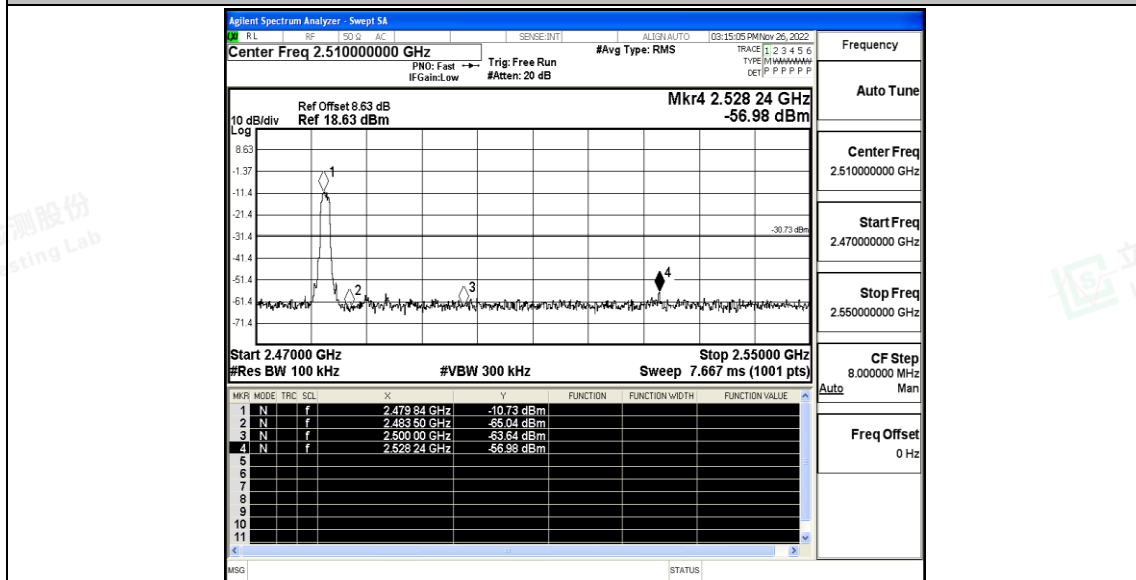
2DH5_Ant1_Low_Hop_2402







3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402

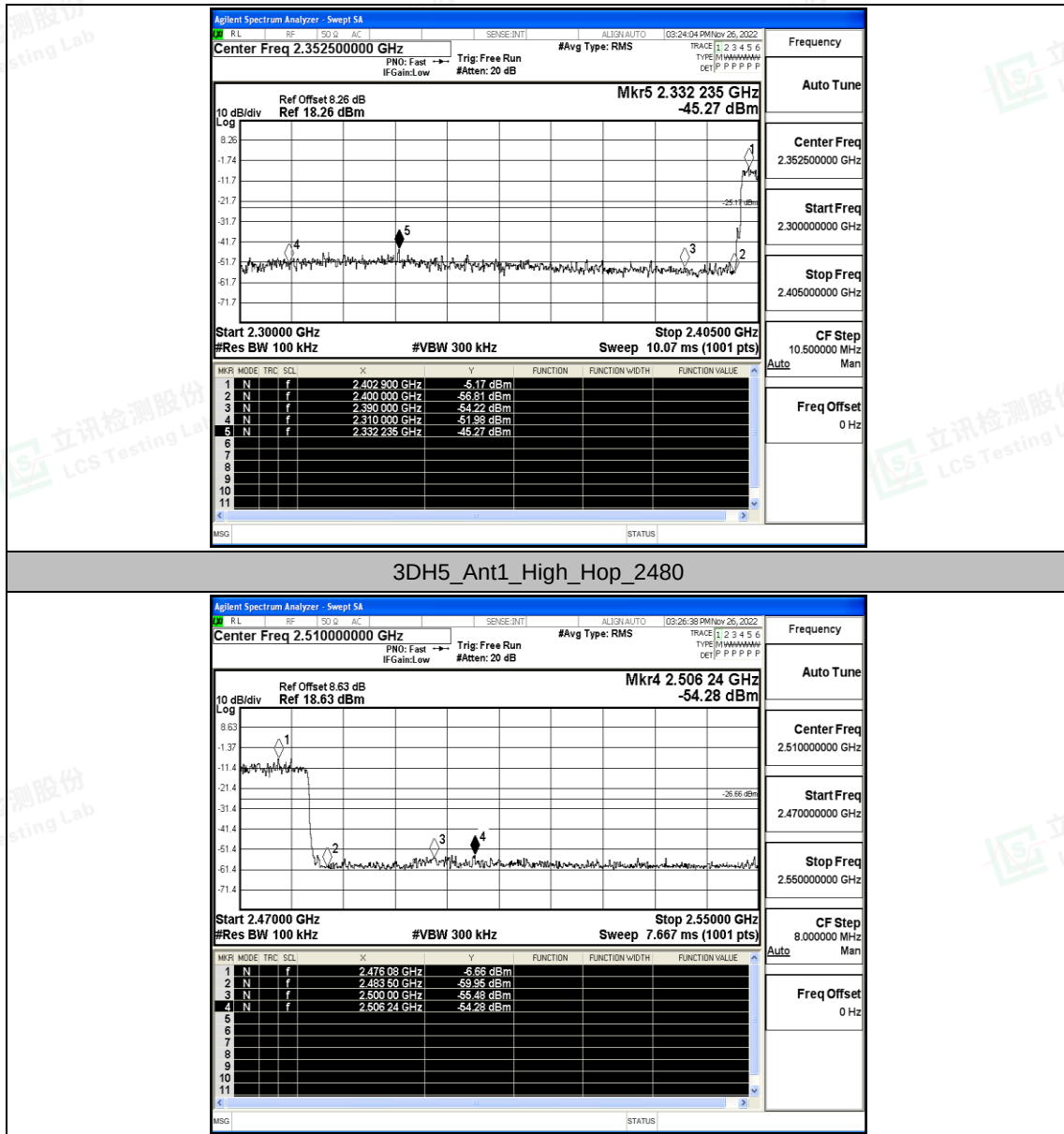


Shenzhen LCS Compliance Testing Laboratory Ltd.

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Scan code to check authenticity





A.7 Conducted Spurious Emission

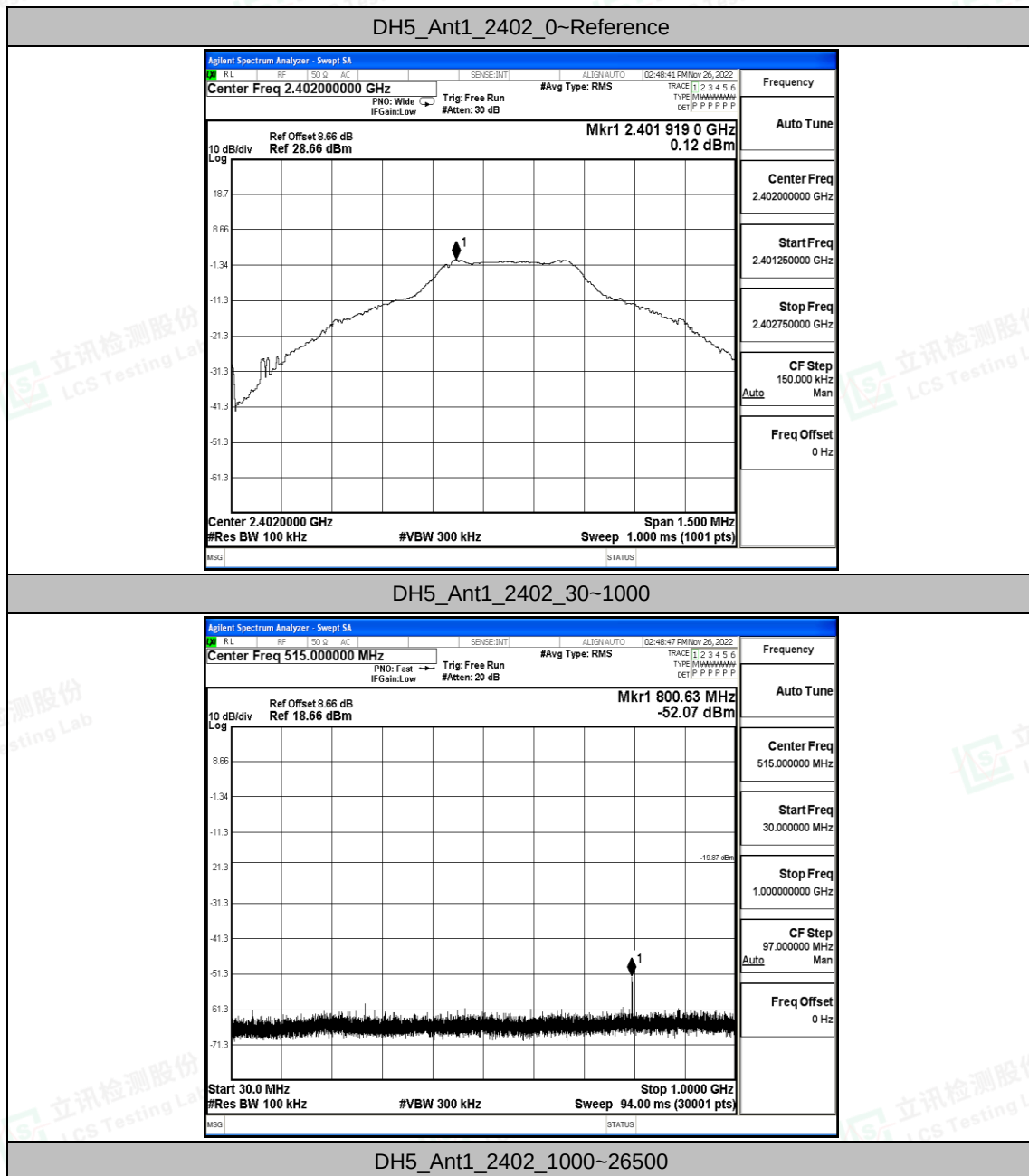
Test Result

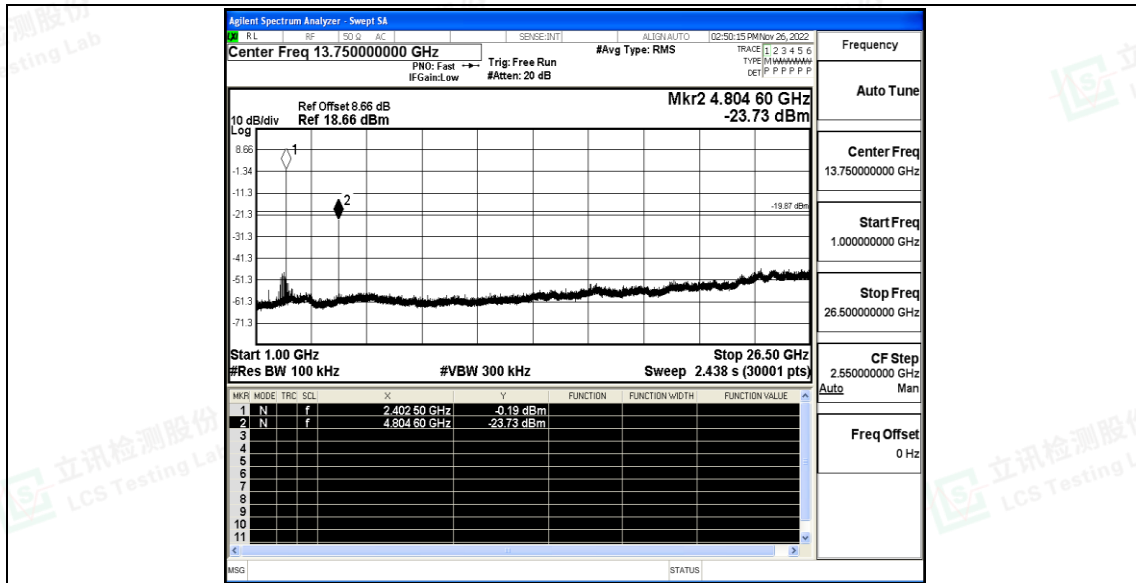
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.13	0.13	---	PASS
			30~1000	0.13	-52.07	≤-19.87	PASS
			1000~26500	0.13	-23.73	≤-19.87	PASS
		2441	Reference	-2.73	-2.73	---	PASS
			30~1000	-2.73	-54.37	≤-22.73	PASS
			1000~26500	-2.73	-34.98	≤-22.73	PASS
		2480	Reference	-5.75	-5.75	---	PASS
			30~1000	-5.75	-56.48	≤-25.75	PASS
			1000~26500	-5.75	-39.76	≤-25.75	PASS
2DH5	Ant1	2402	Reference	-7.06	-7.06	---	PASS
			30~1000	-7.06	-54.41	≤-27.06	PASS
			1000~26500	-7.06	-34.72	≤-27.06	PASS
		2441	Reference	-7.88	-7.88	---	PASS
			30~1000	-7.88	-58.27	≤-27.88	PASS
			1000~26500	-7.88	-33.79	≤-27.88	PASS
		2480	Reference	-5.87	-5.87	---	PASS
			30~1000	-5.87	-58.16	≤-25.87	PASS
			1000~26500	-5.87	-45.47	≤-25.87	PASS
3DH5	Ant1	2402	Reference	-1.72	-1.72	---	PASS
			30~1000	-1.72	-52.1	≤-21.72	PASS
			1000~26500	-1.72	-23.92	≤-21.72	PASS
		2441	Reference	-6.82	-6.82	---	PASS
			30~1000	-6.82	-58.5	≤-26.82	PASS
			1000~26500	-6.82	-38.68	≤-26.82	PASS
		2480	Reference	-9.24	-9.24	---	PASS
			30~1000	-9.24	-59	≤-29.24	PASS
			1000~26500	-9.24	-41.4	≤-29.24	PASS



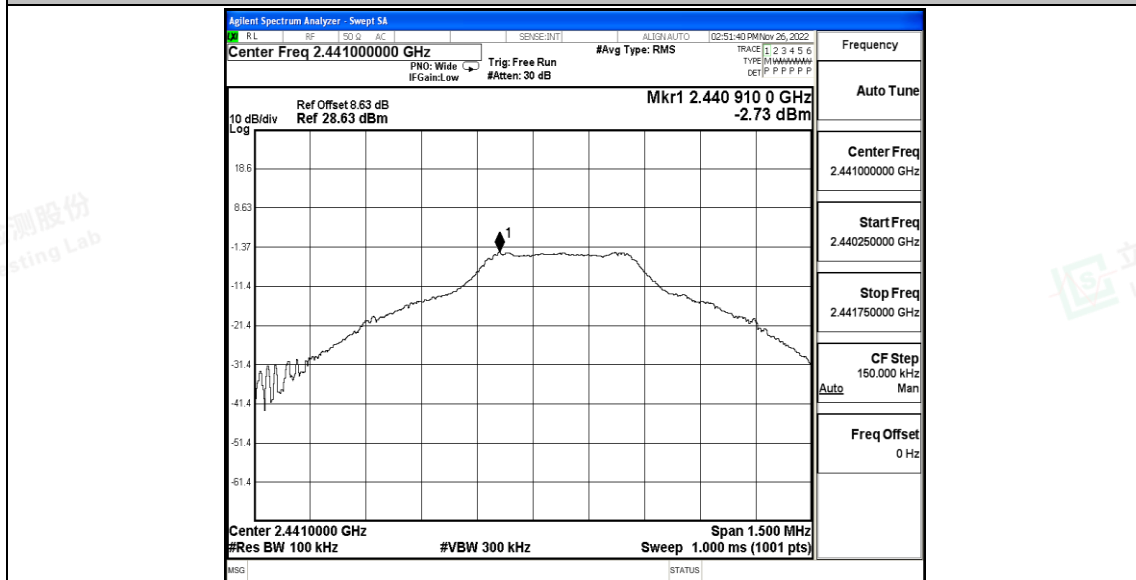


Test Graphs





DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000

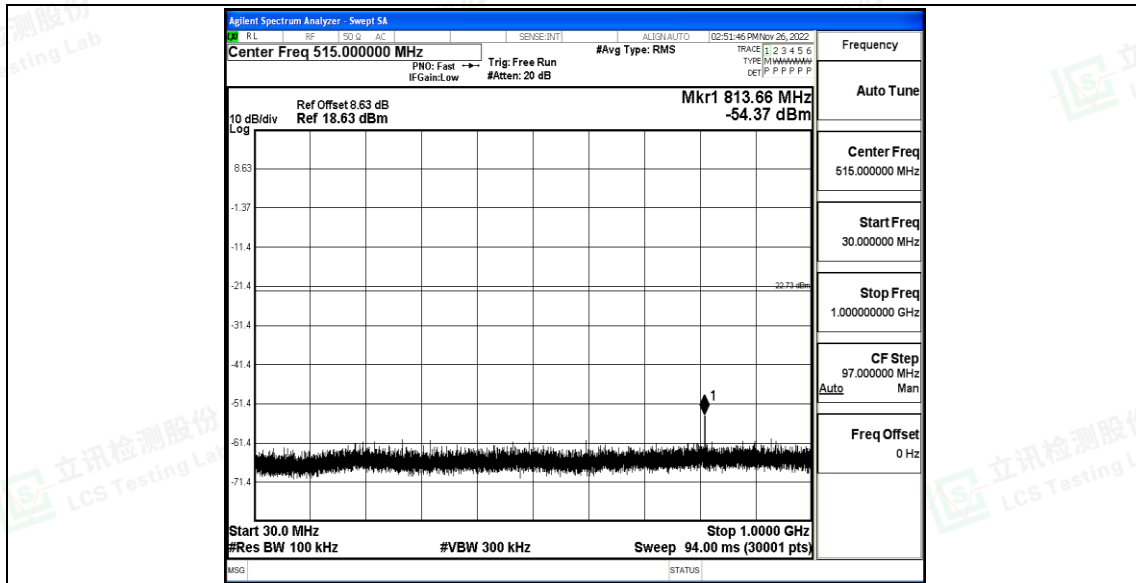


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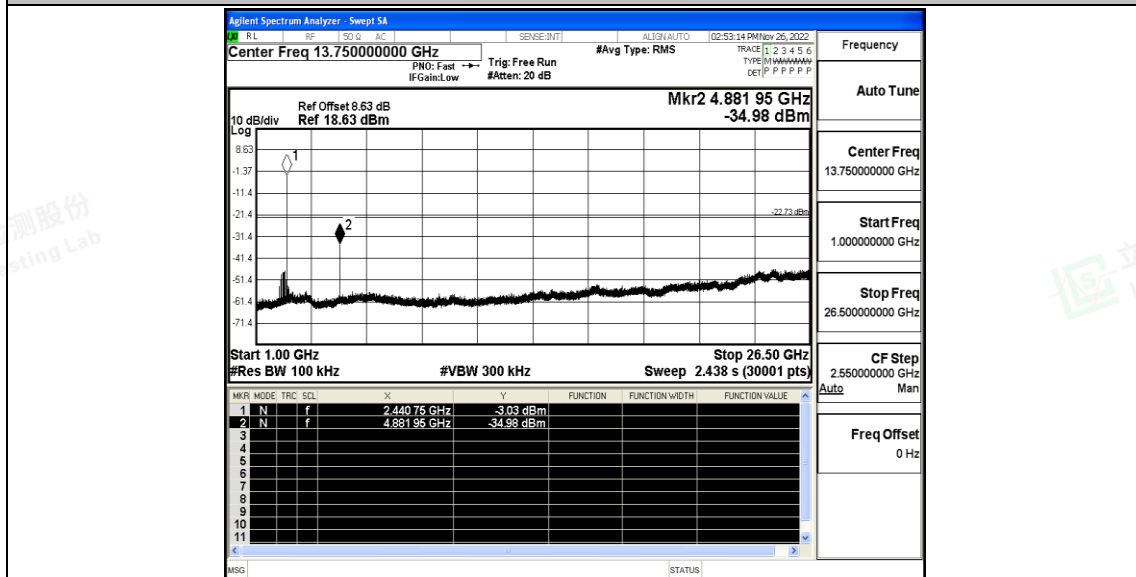
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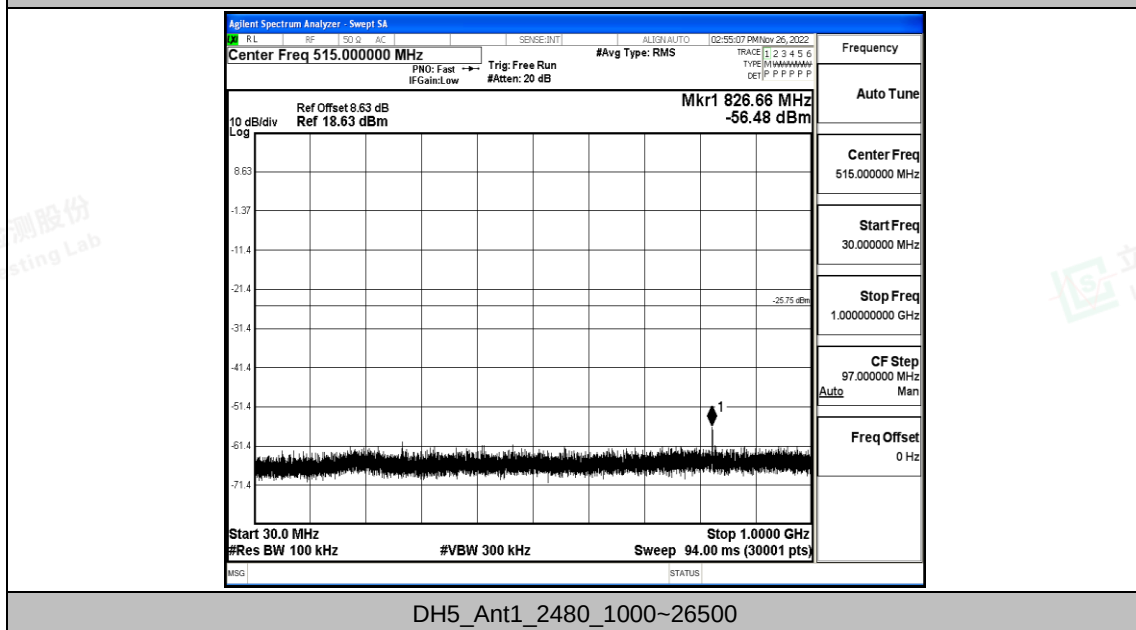
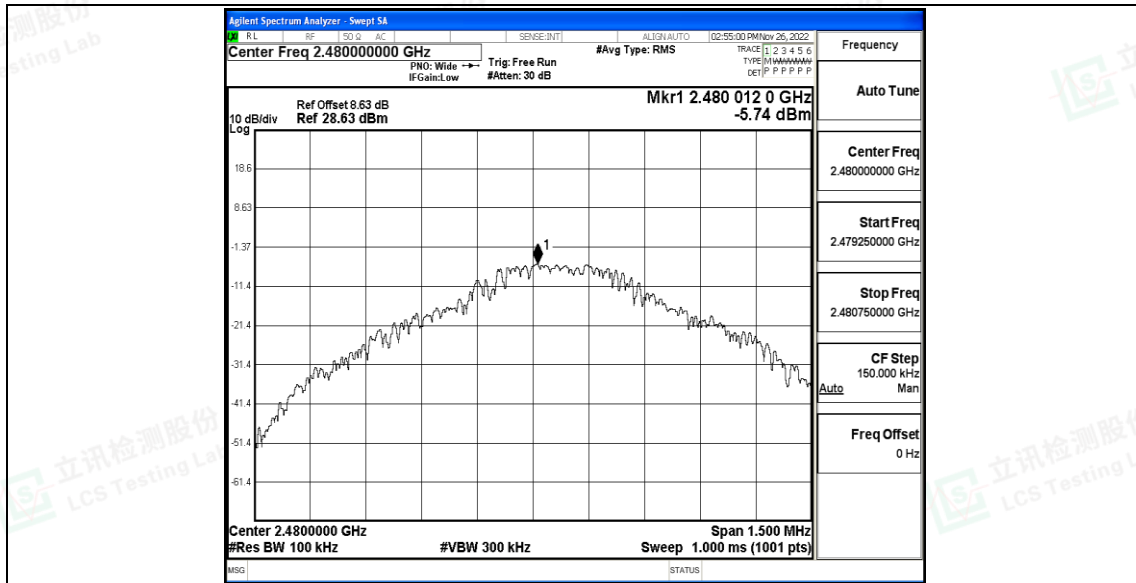


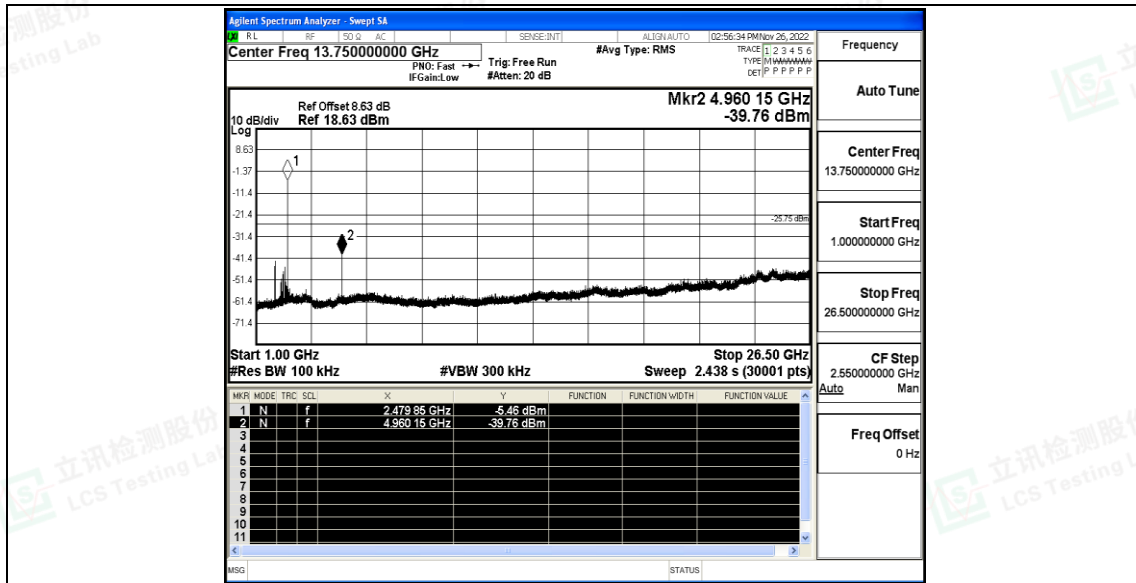
DH5_Ant1_2441_1000~26500



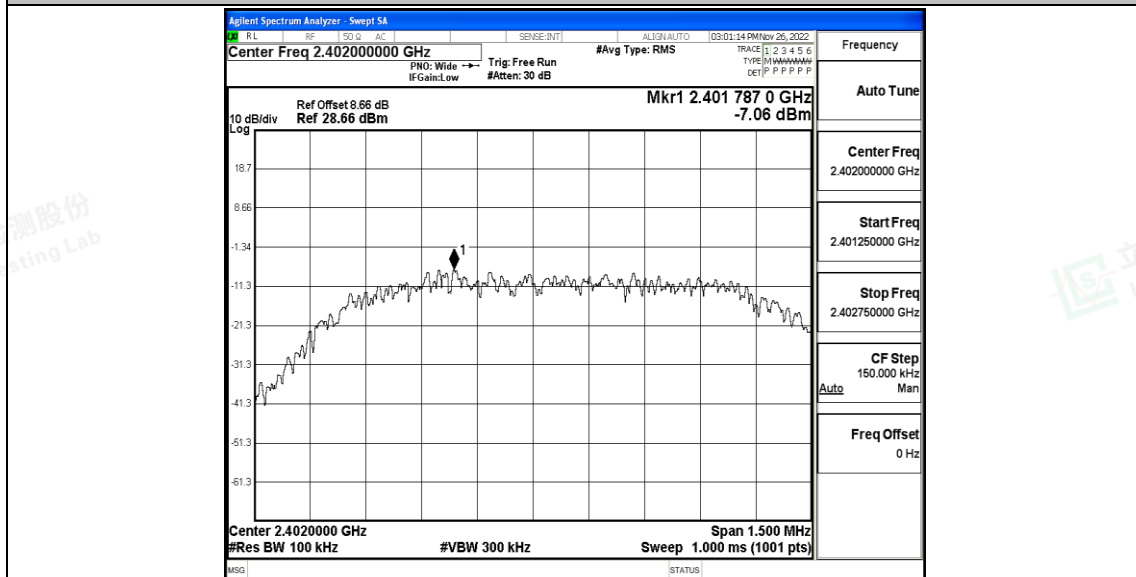
DH5_Ant1_2480_0~Reference







2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000

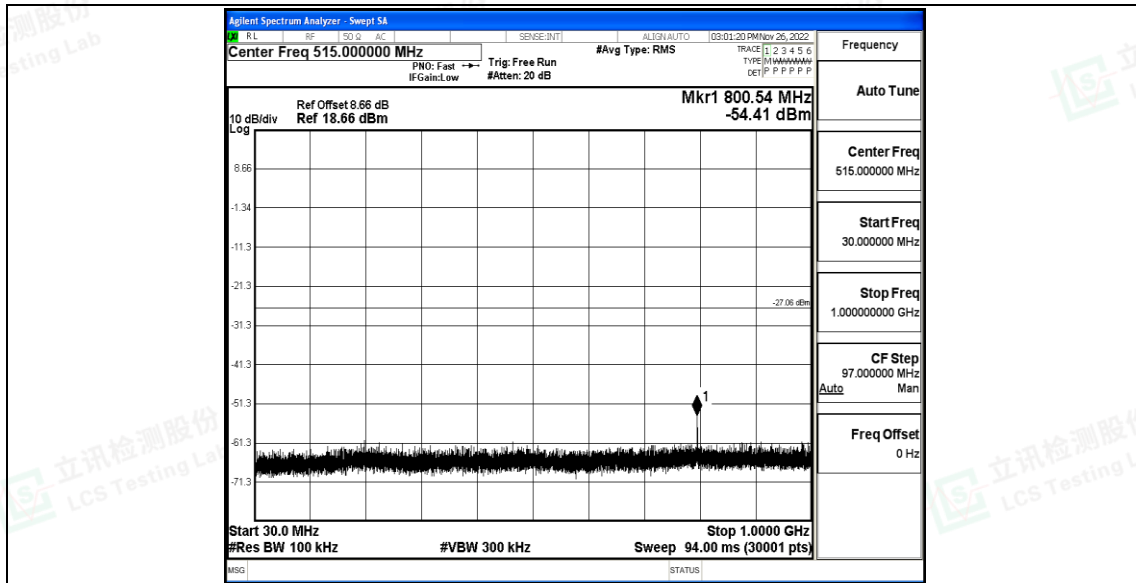


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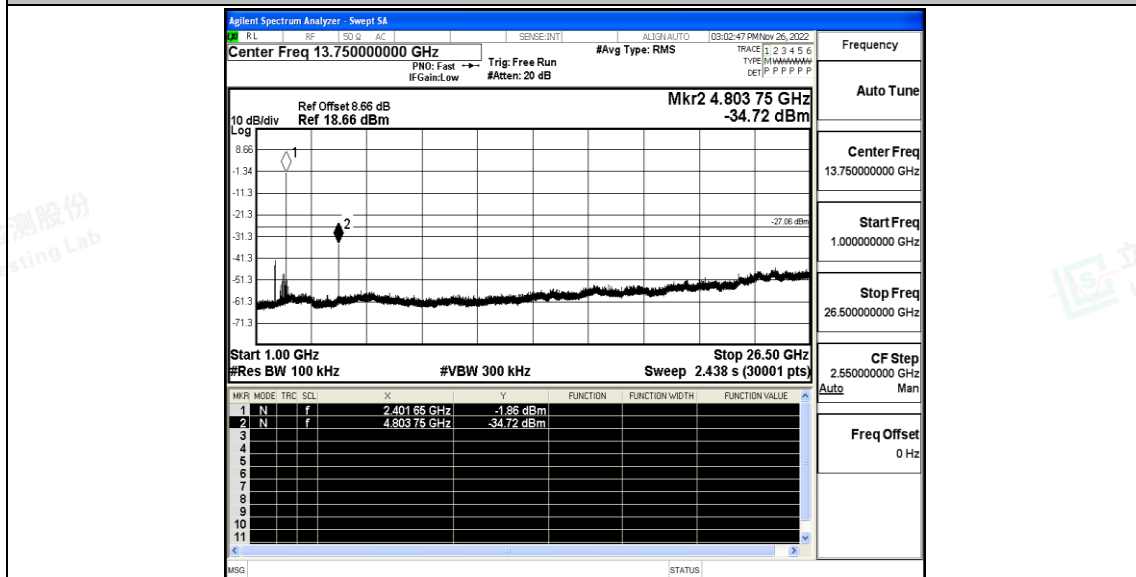
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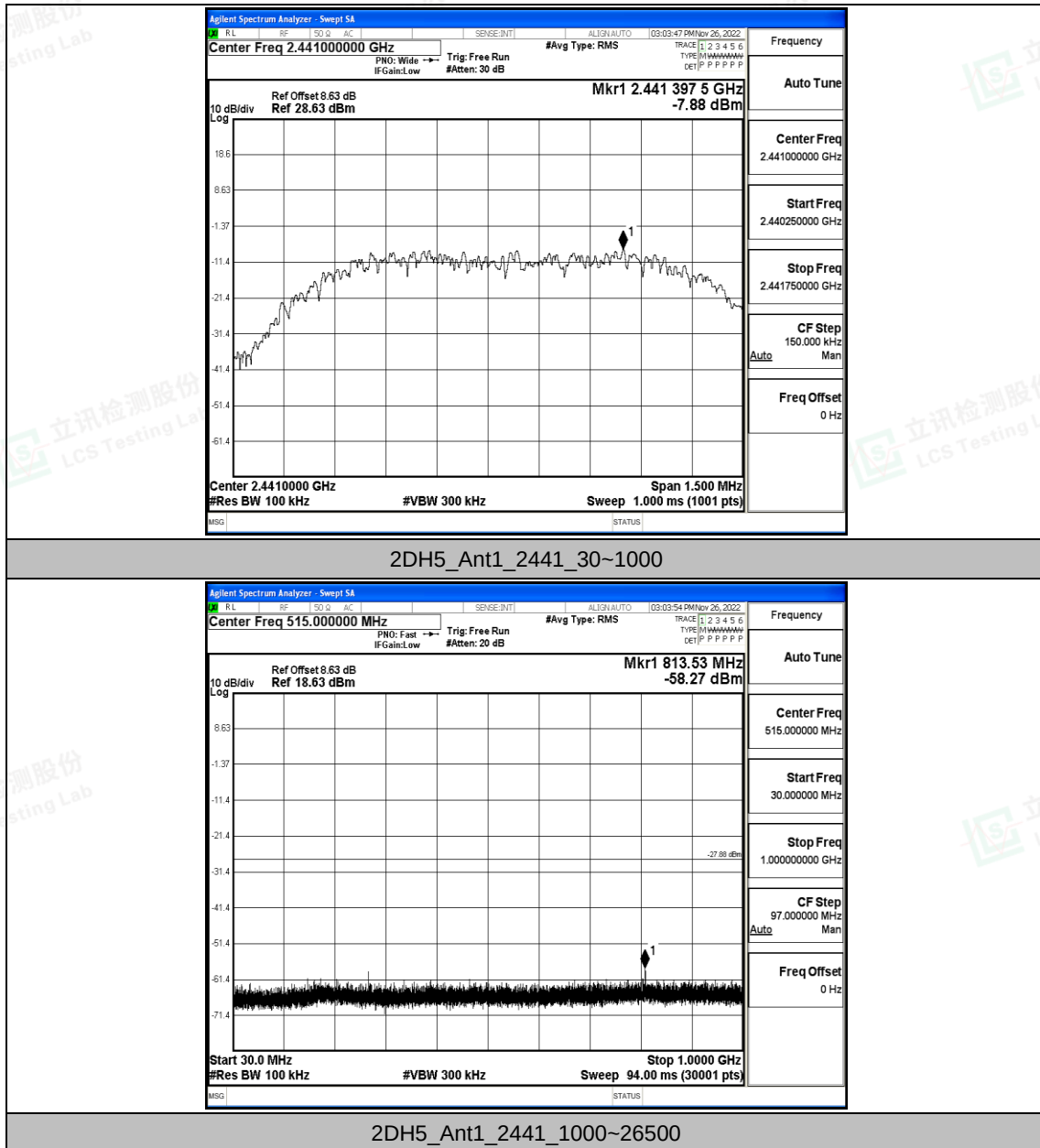


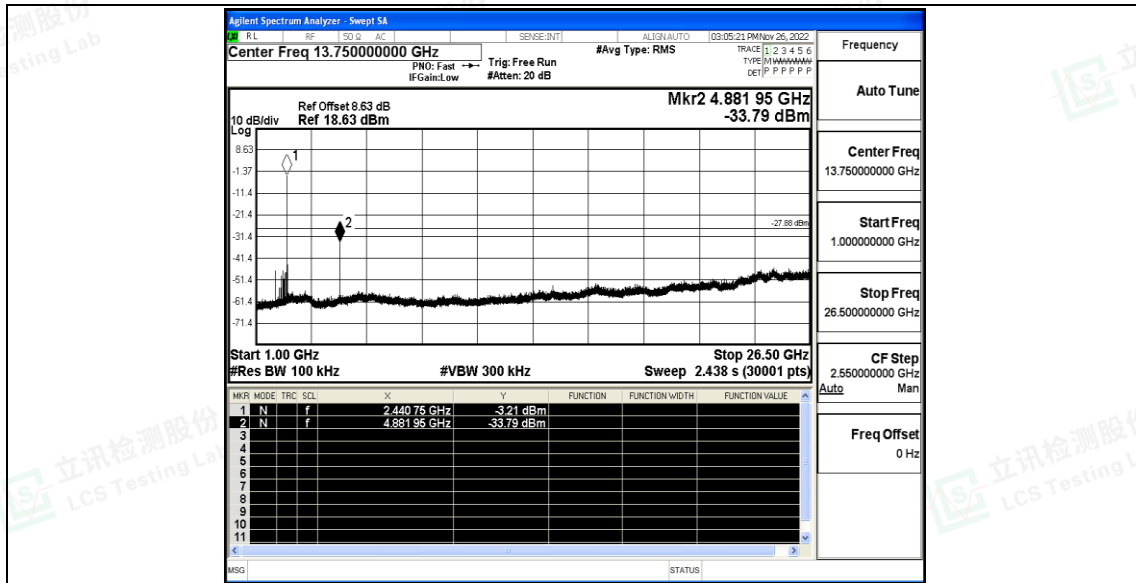
2DH5_Ant1_2402_1000~26500



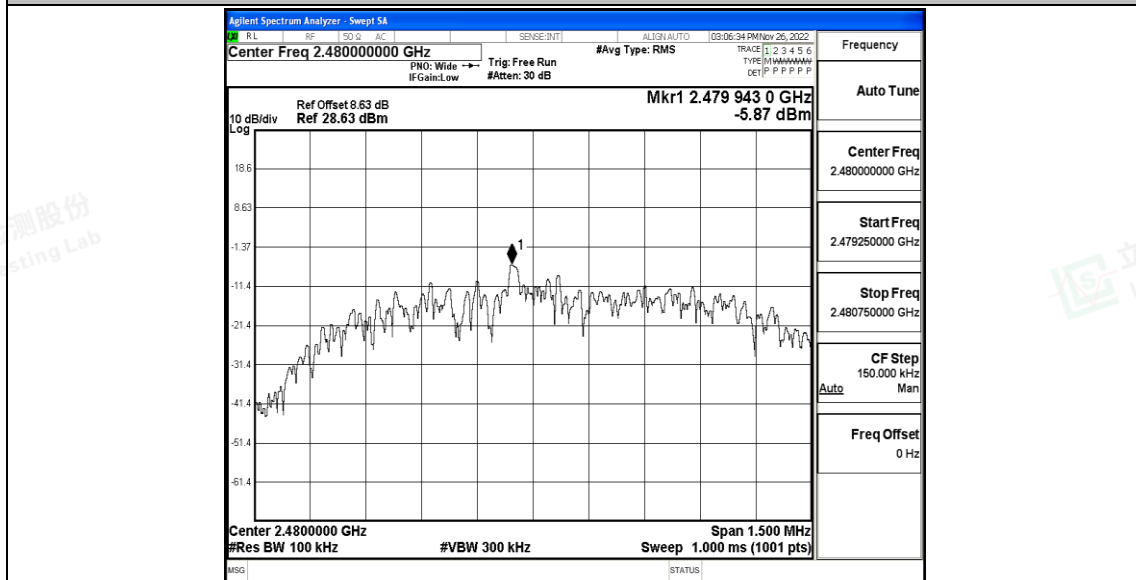
2DH5_Ant1_2441_0~Reference





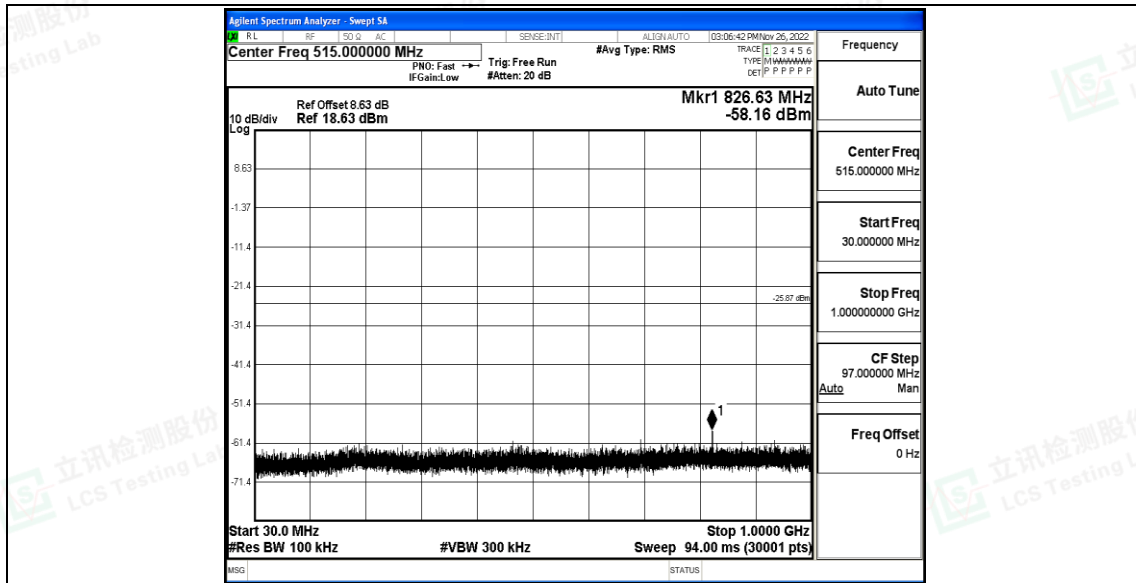


2DH5_Ant1_2480_0~Reference

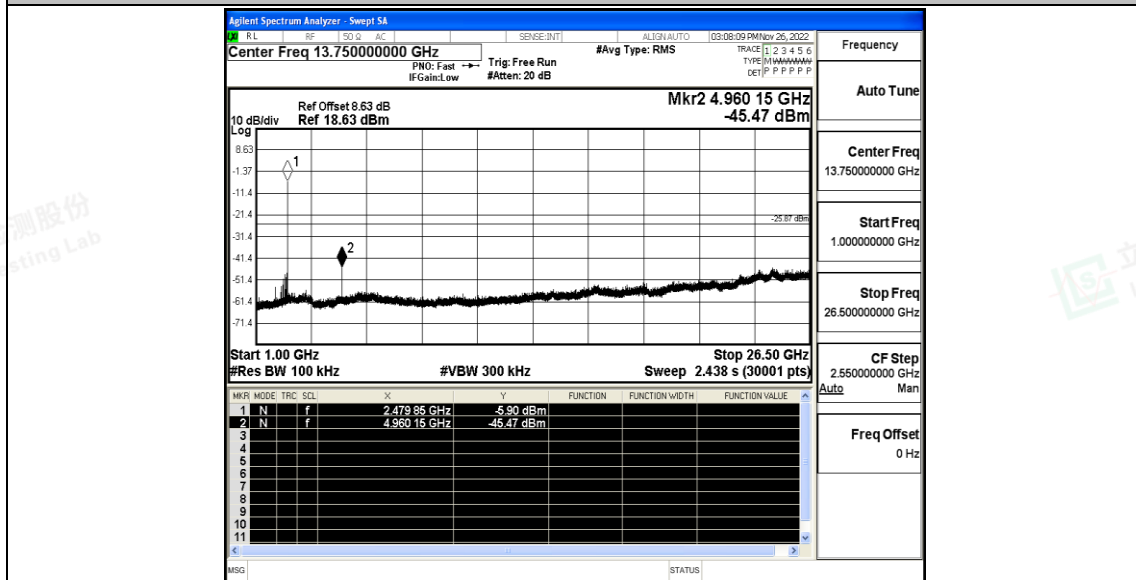


2DH5_Ant1_2480_30~1000



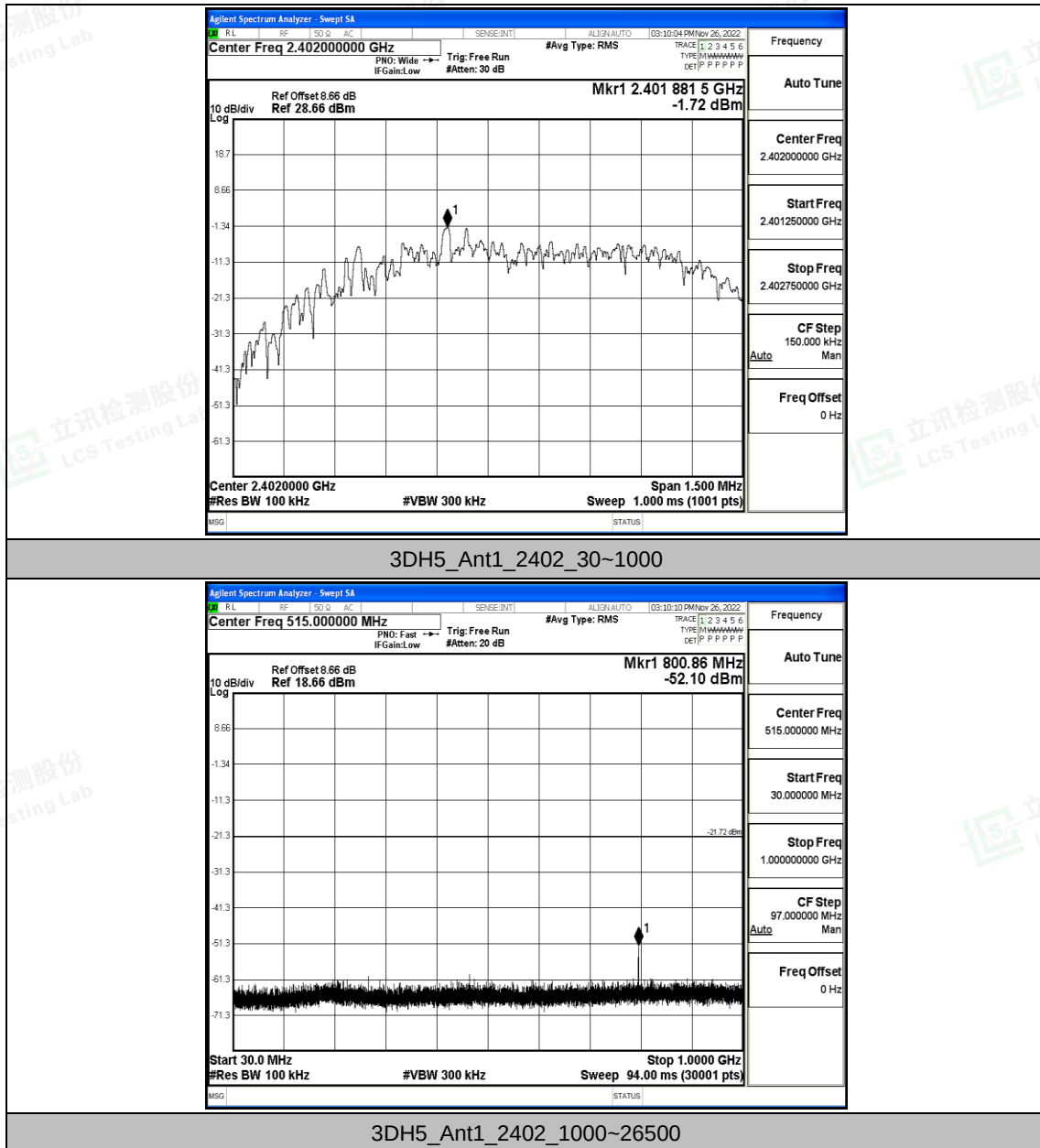


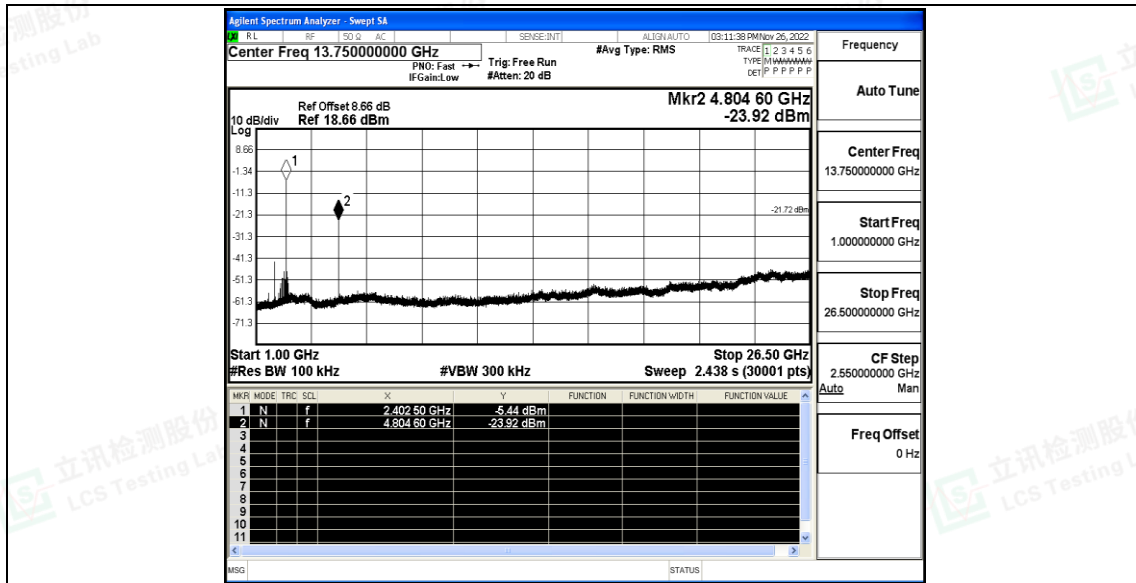
2DH5_Ant1_2480_1000~26500



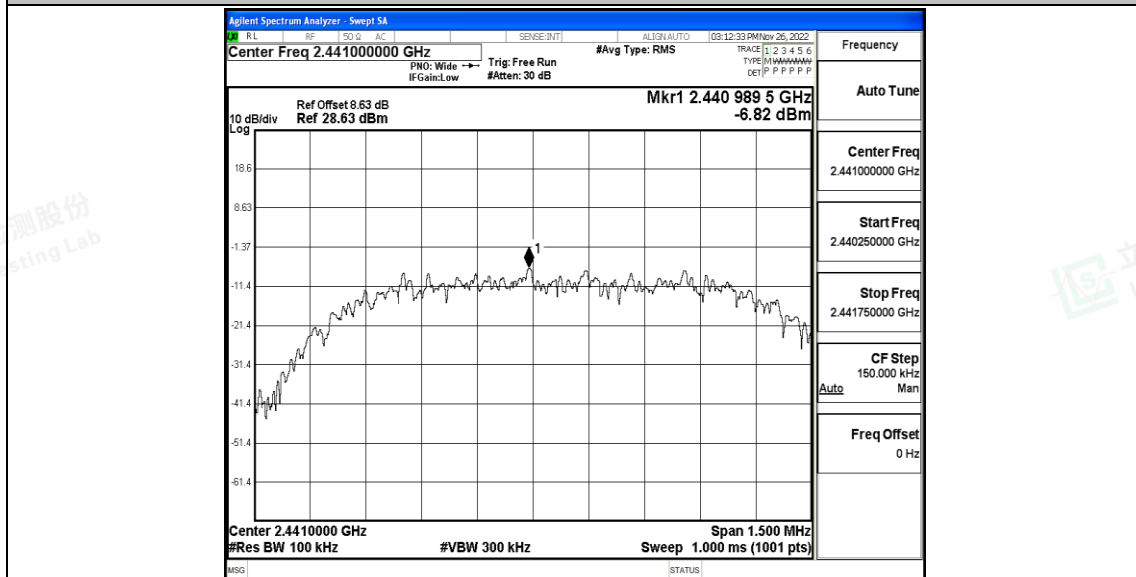
3DH5_Ant1_2402_0~Reference





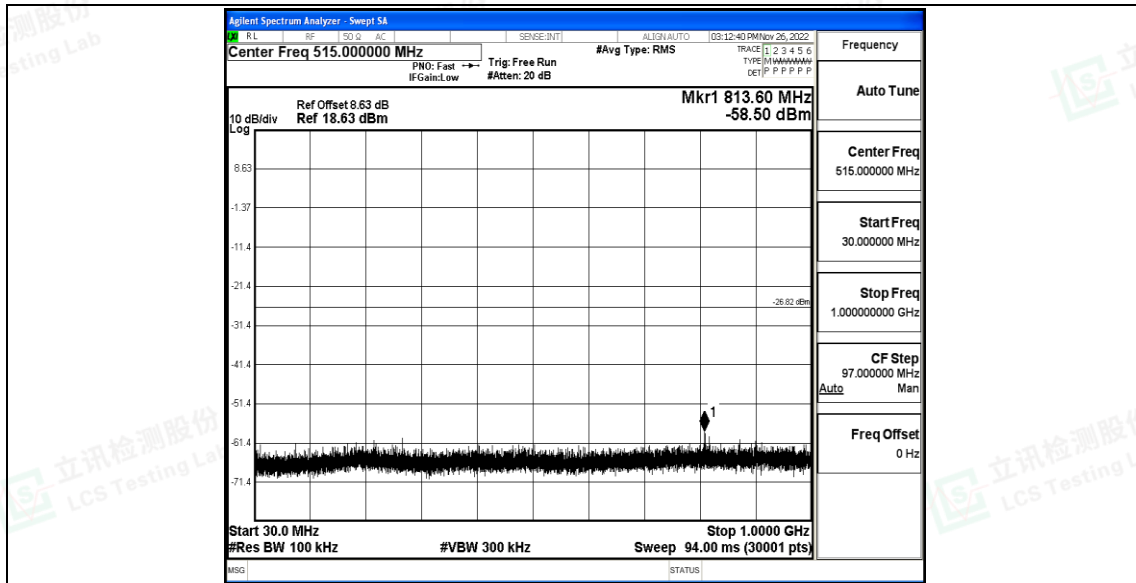


3DH5_Ant1_2441_0~Reference

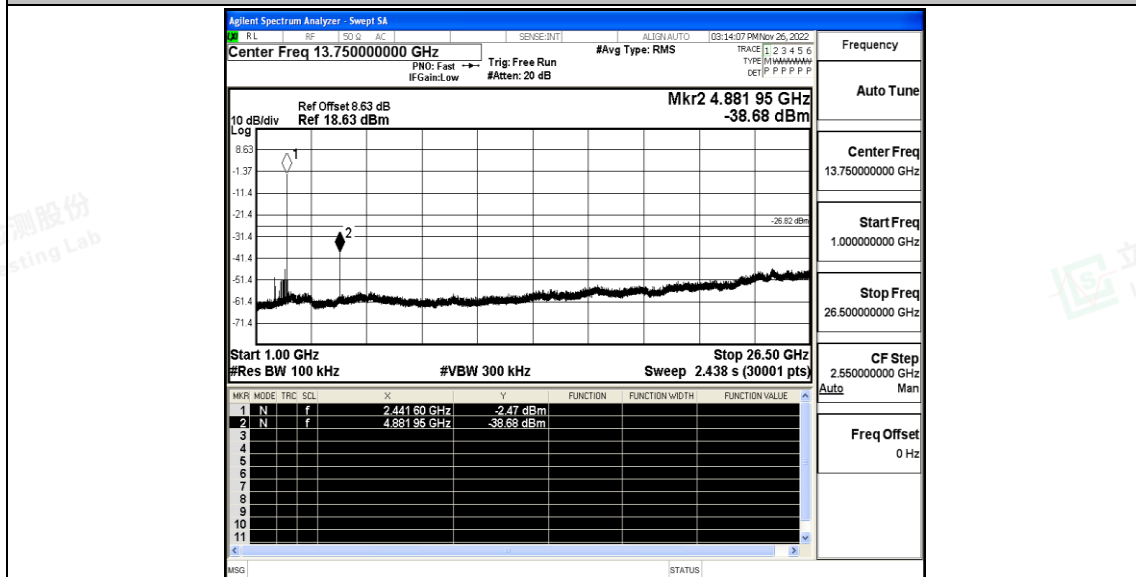


3DH5_Ant1_2441_30~1000



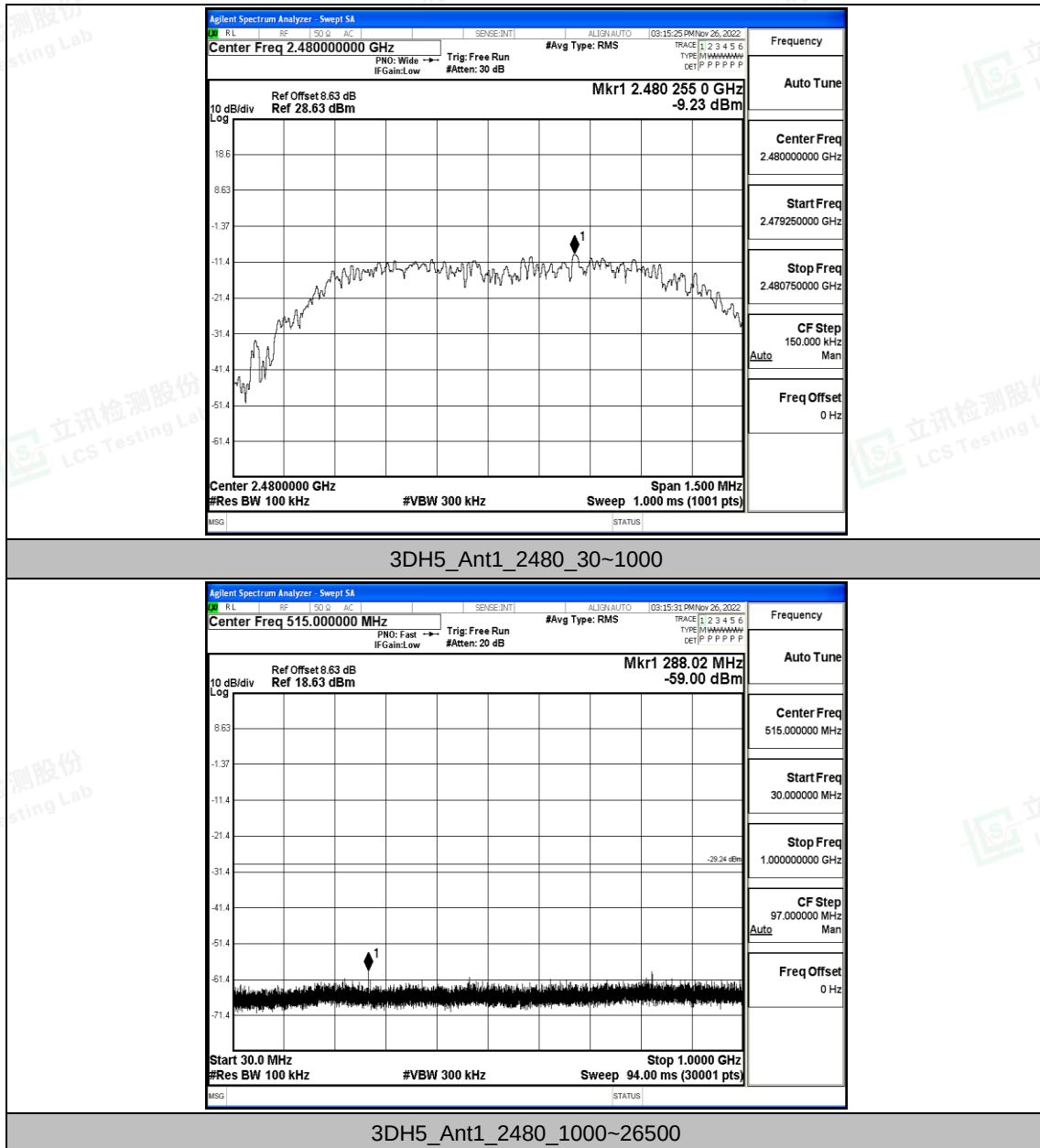


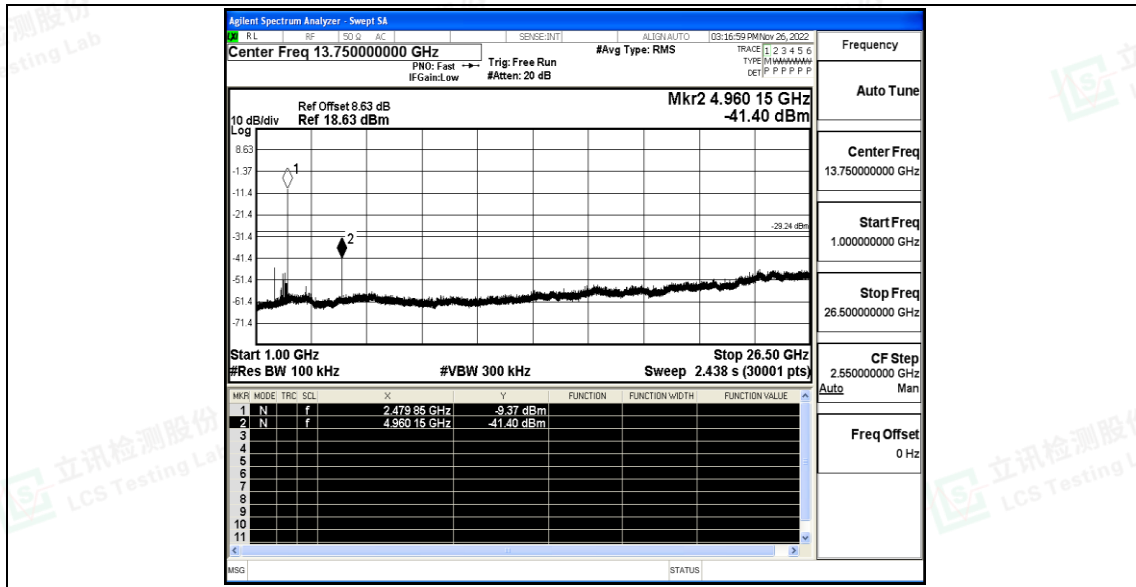
3DH5_Ant1_2441_1000~26500



3DH5_Ant1_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	Ant1	Low	2402	AV	2310.000	-56.42	≤-41.20	42.19	≤54	PASS
				AV	2354.075	-45.64	≤-41.20	52.97	≤54	PASS
				AV	2390.000	-53.22	≤-41.20	45.39	≤54	PASS
				Peak	2310.000	-52.09	≤-21.20	46.52	≤74	PASS
				Peak	2378.225	-42.29	≤-21.20	56.32	≤74	PASS
				Peak	2390.000	-49.36	≤-21.20	49.25	≤74	PASS
		High	2480	AV	2483.500	-54.71	≤-41.20	43.90	≤54	PASS
				AV	2485.760	-51.96	≤-41.20	46.65	≤54	PASS
				AV	2500.000	-55.6	≤-41.20	43.01	≤54	PASS
				Peak	2483.500	-51.64	≤-21.20	46.97	≤74	PASS
				Peak	2487.760	-46.42	≤-21.20	52.19	≤74	PASS
				Peak	2500.000	-49.92	≤-21.20	48.69	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-42.64	≤-21.20	55.97	≤74	PASS
				Peak	2321.840	-39.36	≤-21.20	59.25	≤74	PASS
				Peak	2390.000	-43.27	≤-21.20	55.34	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-48.03	≤-21.20	50.58	≤74	PASS
				Peak	2500.000	-42.91	≤-21.20	55.70	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-56.47	≤-41.20	42.14	≤54	PASS
				AV	2354.180	-46.77	≤-41.20	51.84	≤54	PASS
				AV	2390.000	-53.47	≤-41.20	45.14	≤54	PASS
				Peak	2310.000	-50.33	≤-21.20	48.28	≤74	PASS
				Peak	2353.655	-42.35	≤-21.20	56.26	≤74	PASS
				Peak	2390.000	-47.72	≤-21.20	50.89	≤74	PASS
		High	2480	AV	2483.500	-54.76	≤-41.20	43.85	≤54	PASS
				AV	2489.040	-53.69	≤-41.20	44.92	≤54	PASS
				AV	2500.000	-55.59	≤-41.20	43.02	≤54	PASS
				Peak	2483.500	-50.76	≤-21.20	47.85	≤74	PASS
				Peak	2495.680	-45.73	≤-21.20	52.88	≤74	PASS
				Peak	2500.000	-50.11	≤-21.20	48.50	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-41.3	≤-21.20	57.31	≤74	PASS
				Peak	2314.280	-40.51	≤-21.20	58.10	≤74	PASS
				Peak	2390.000	-45.1	≤-21.20	53.51	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-46.49	≤-21.20	52.12	≤74	PASS
				Peak	2499.040	-43.82	≤-21.20	54.79	≤74	PASS
				Peak	2500.000	-46.28	≤-21.20	52.33	≤74	PASS



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3DH5	Ant1	Low	2402	AV	2310.000	-56.5	≤ -41.20	42.11	≤ 54	PASS
				AV	2354.180	-45.75	≤ -41.20	52.86	≤ 54	PASS
				AV	2390.000	-52.64	≤ -41.20	45.97	≤ 54	PASS
				Peak	2310.000	-50.35	≤ -21.20	48.26	≤ 74	PASS
				Peak	2353.655	-42.33	≤ -21.20	56.28	≤ 74	PASS
				Peak	2390.000	-47.33	≤ -21.20	51.28	≤ 74	PASS
		High	2480	AV	2483.500	-54.64	≤ -41.20	43.97	≤ 54	PASS
				AV	2489.280	-54.49	≤ -41.20	44.12	≤ 54	PASS
				AV	2500.000	-55.62	≤ -41.20	42.99	≤ 54	PASS
				Peak	2483.500	-51.87	≤ -21.20	46.74	≤ 74	PASS
				Peak	2490.400	-45.38	≤ -21.20	53.23	≤ 74	PASS
				Peak	2500.000	-50.27	≤ -21.20	48.34	≤ 74	PASS
		Low	Hop_2402	Peak	2310.000	-43.36	≤ -21.20	55.25	≤ 74	PASS
				Peak	2328.665	-39.8	≤ -21.20	58.81	≤ 74	PASS
				Peak	2390.000	-44.75	≤ -21.20	53.86	≤ 74	PASS
		High	Hop_2480	Peak	2483.500	-47.13	≤ -21.20	51.48	≤ 74	PASS
				Peak	2488.640	-45.1	≤ -21.20	53.51	≤ 74	PASS
				Peak	2500.000	-46.47	≤ -21.20	52.14	≤ 74	PASS

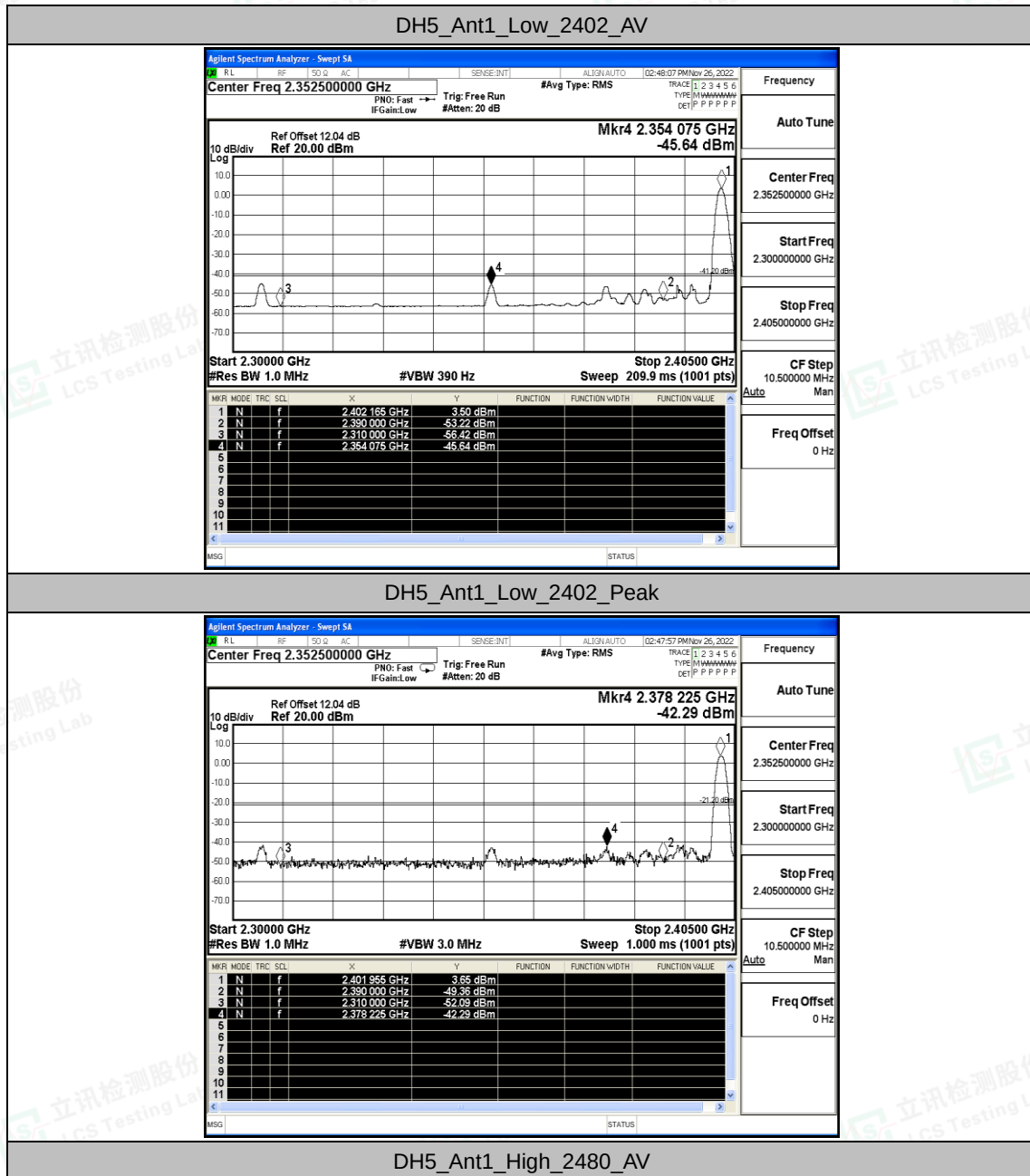
Note:

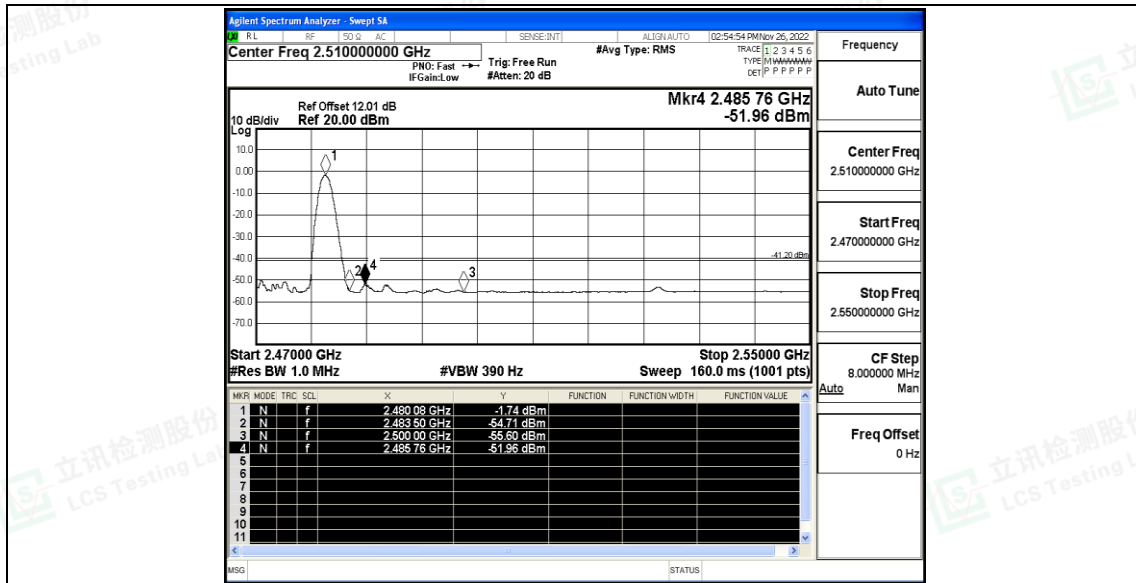
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



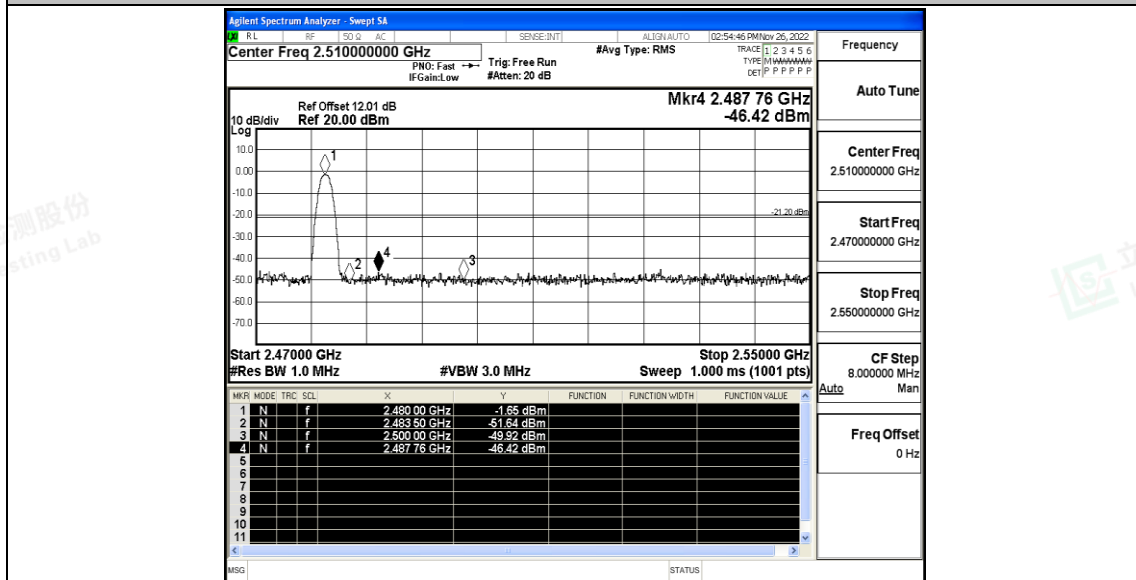


Test Graphs



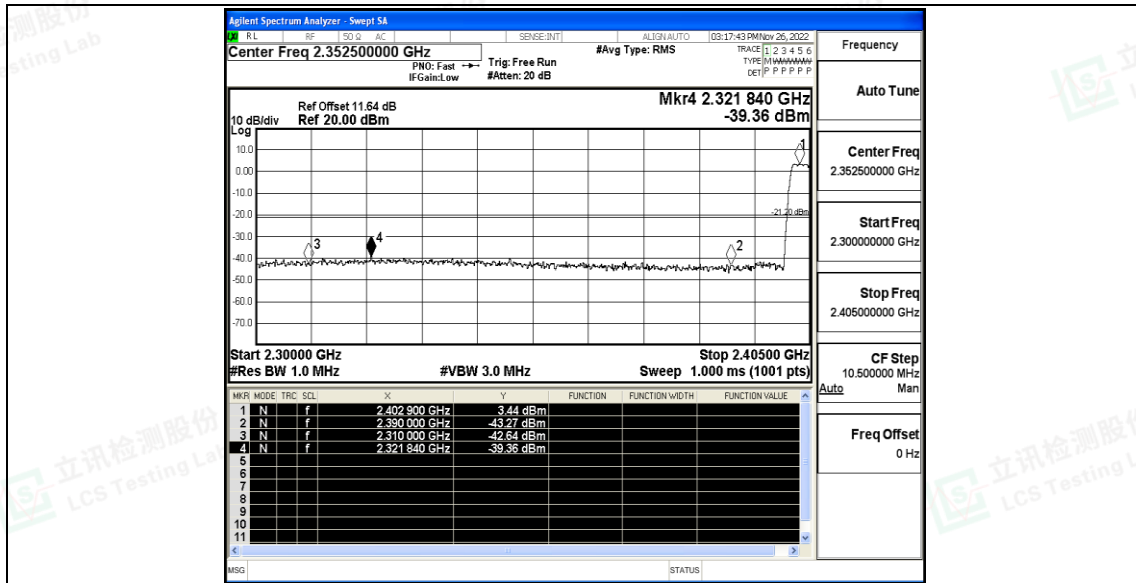


DH5_Ant1_High_2480_Peak

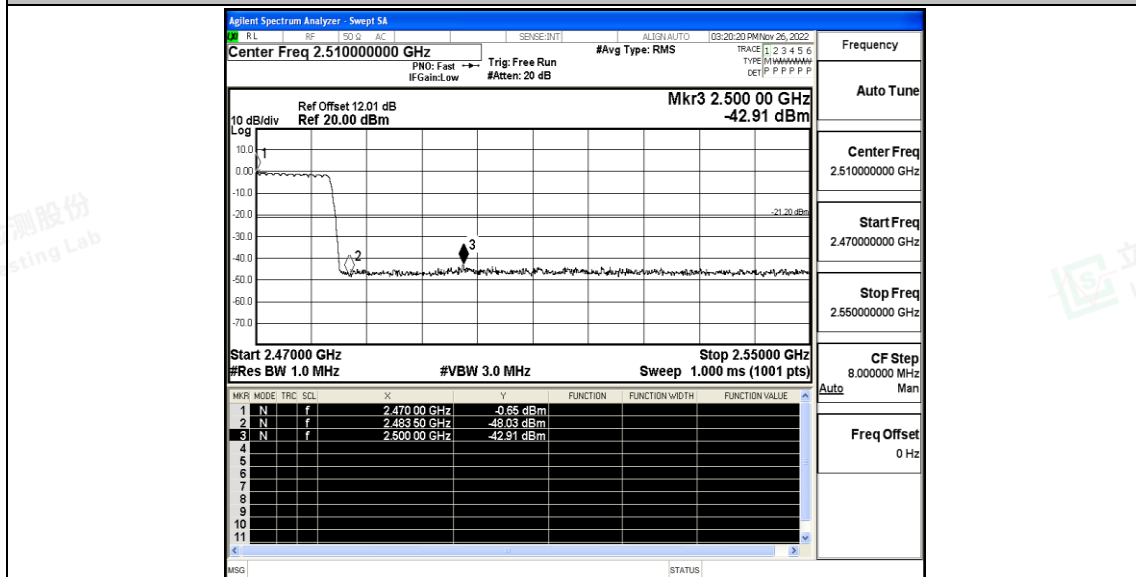


DH5_Ant1_Low_Hop_2402_Peak



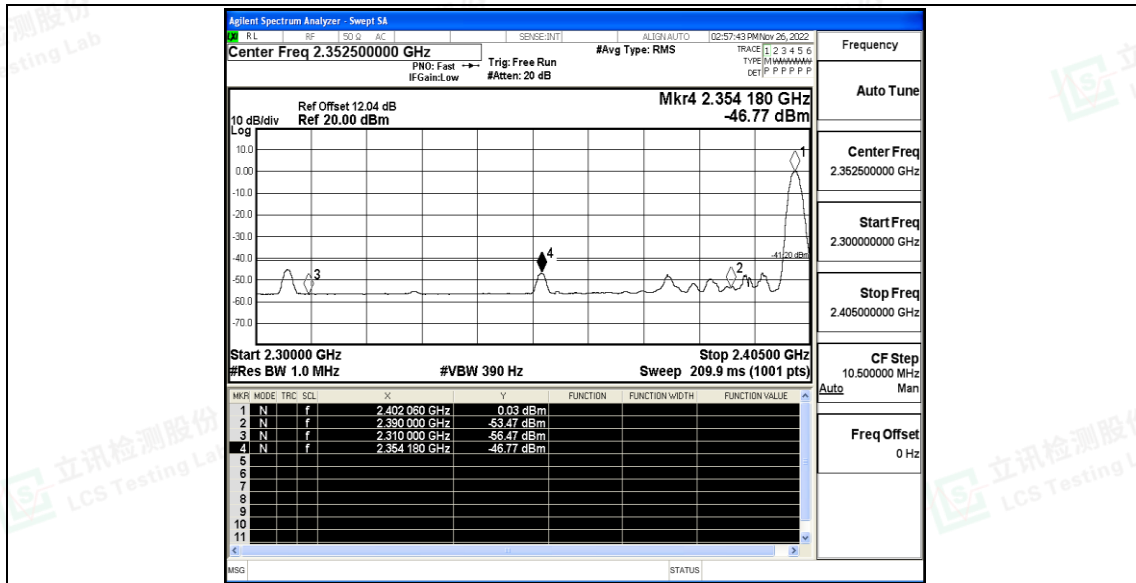


DH5_Ant1_High_Hop_2480_Peak

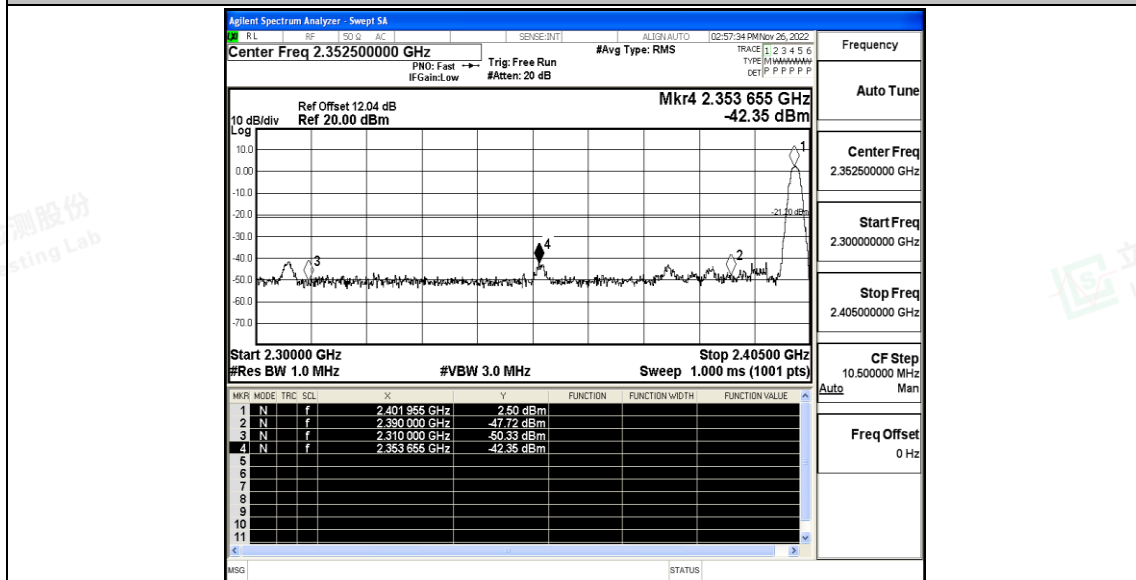


2DH5_Ant1_Low_2402_AV



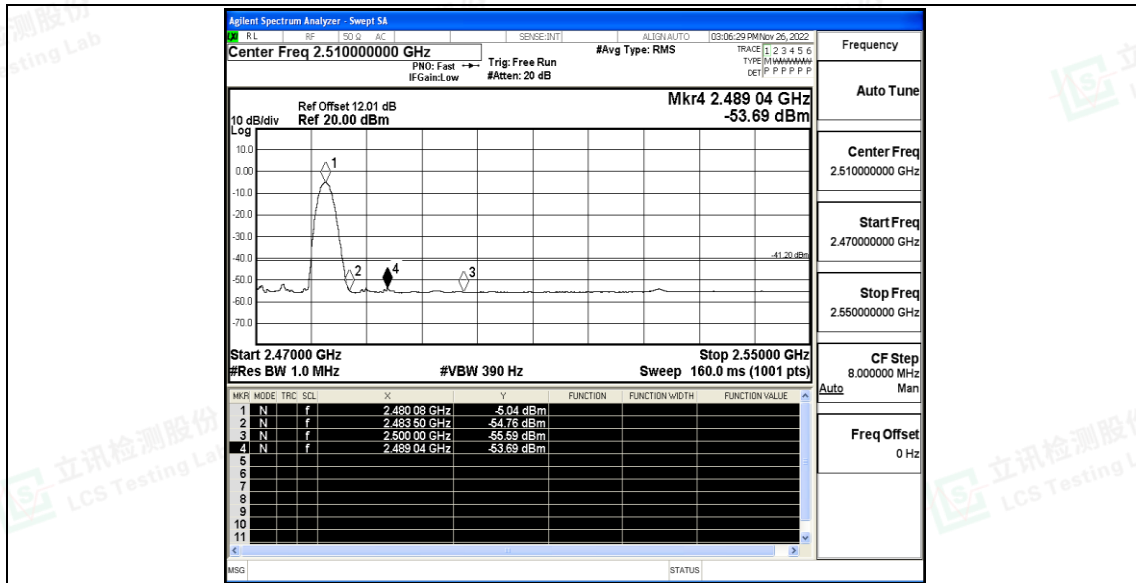


2DH5_Ant1_Low_2402_Peak

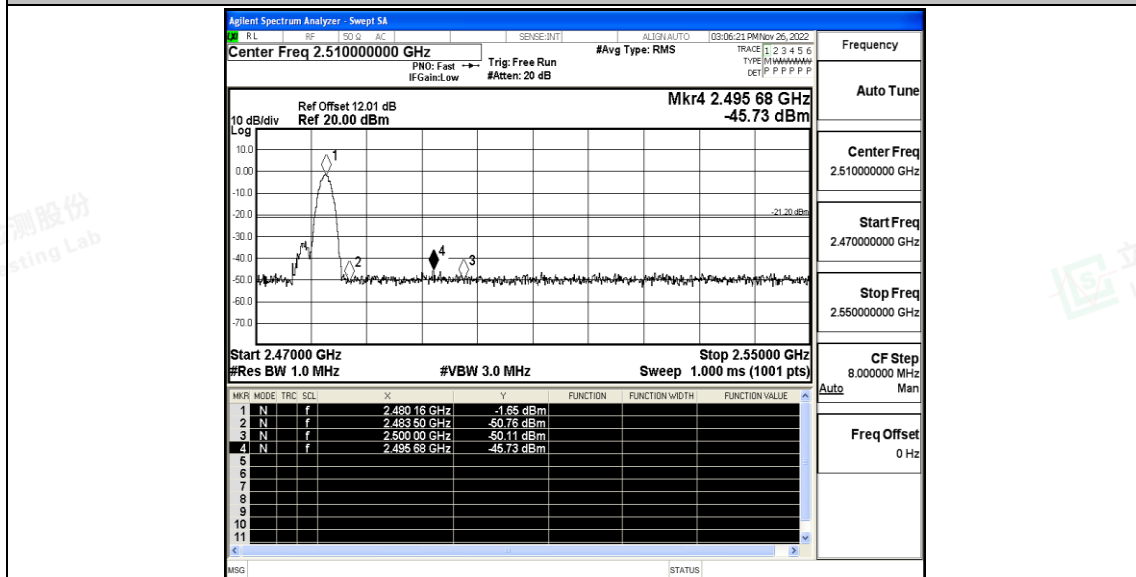


2DH5_Ant1_High_2480_AV



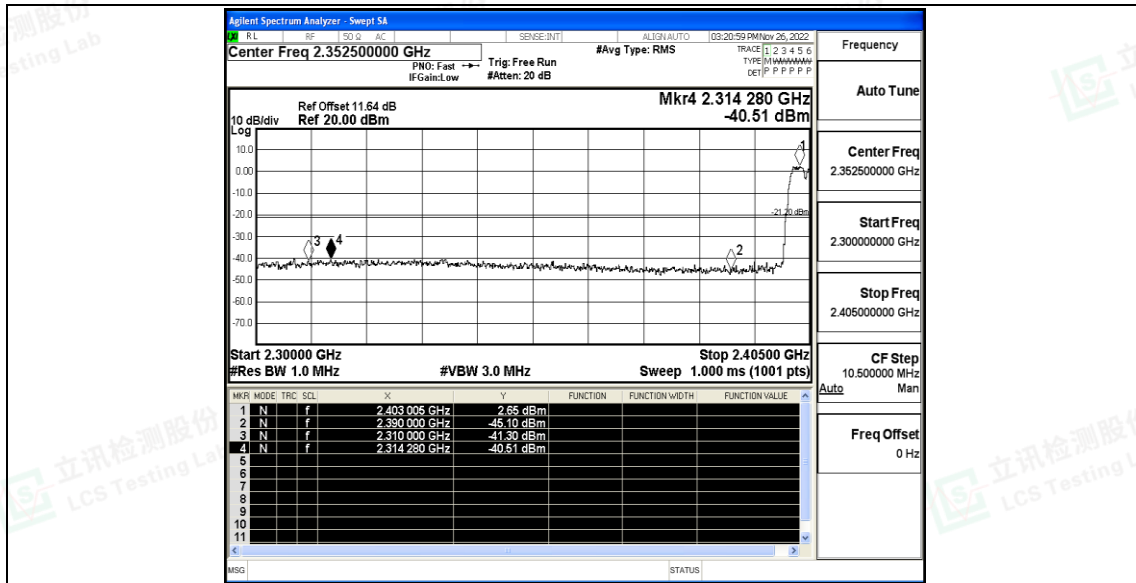


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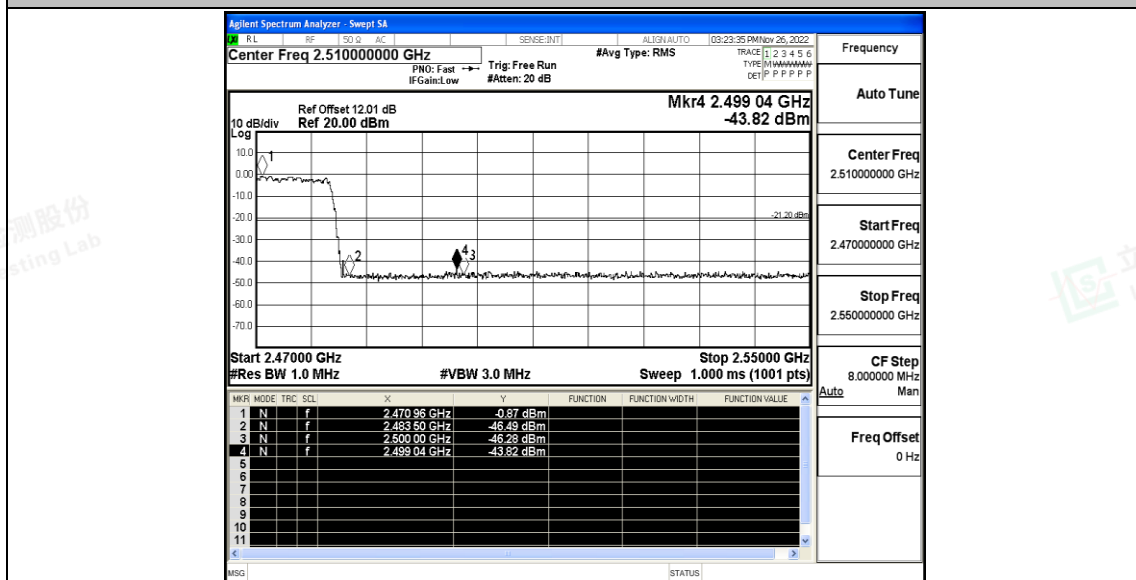


2DH5_Ant1_Low_Hop_2402_Peak



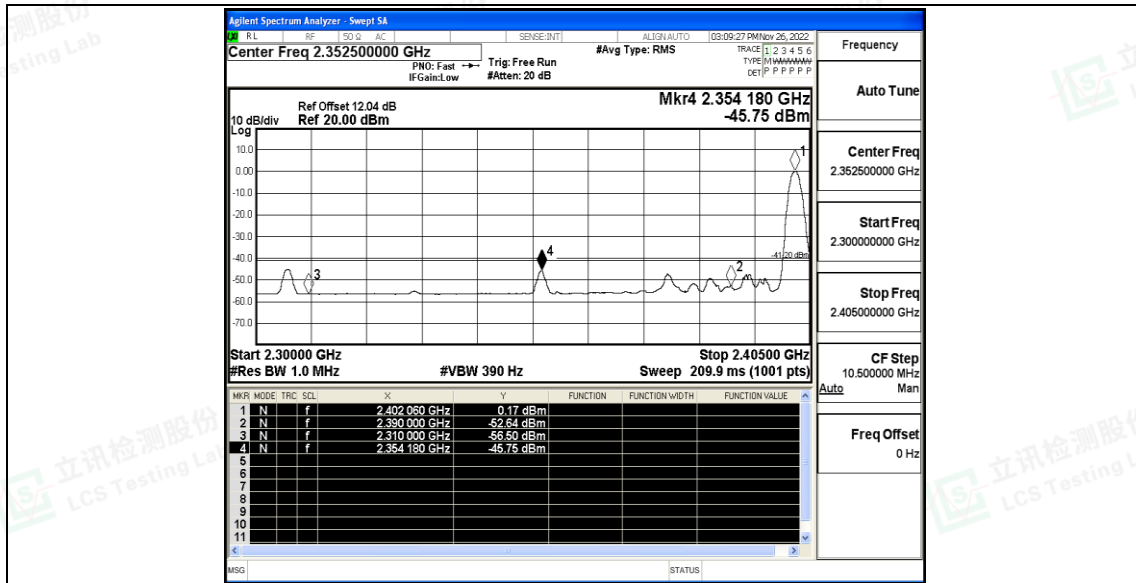


2DH5_Ant1_High_Hop_2480_Peak

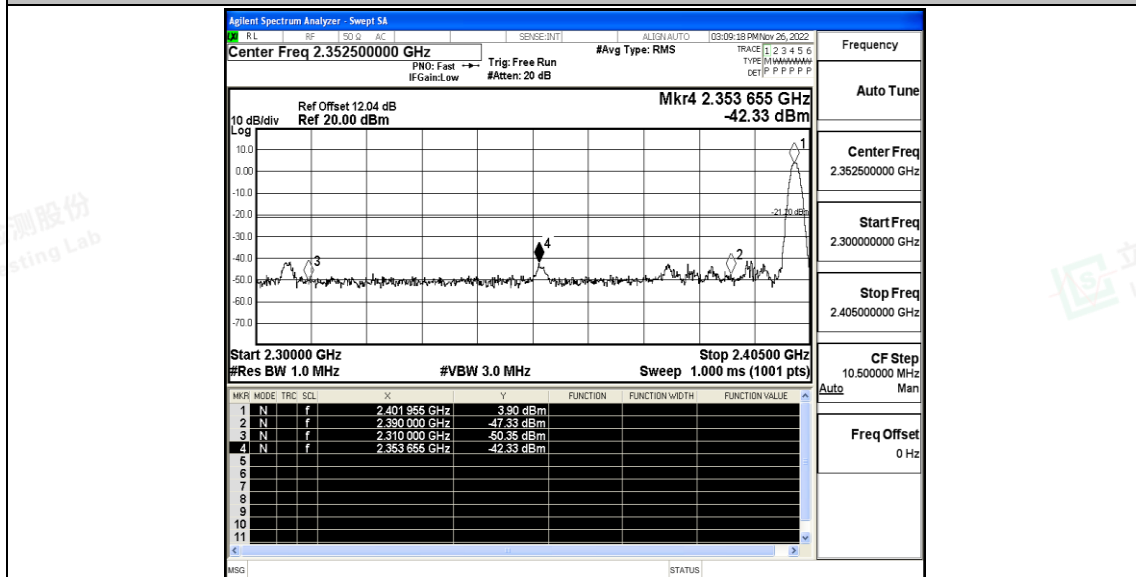


3DH5_Ant1_Low_2402_AV





3DH5_Ant1_Low_2402_Peak



3DH5_Ant1_High_2480_AV

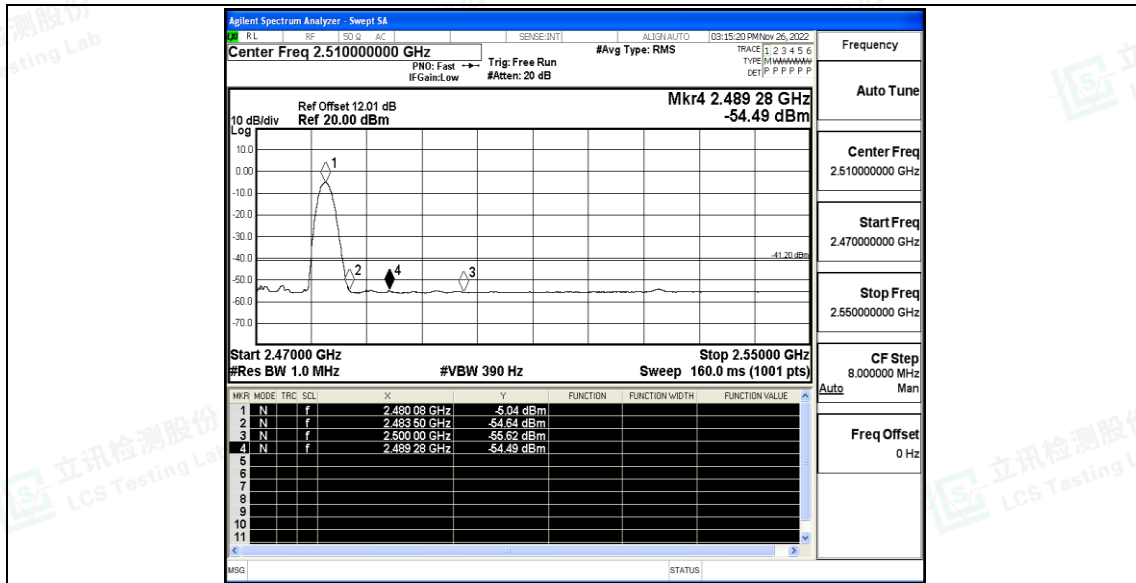


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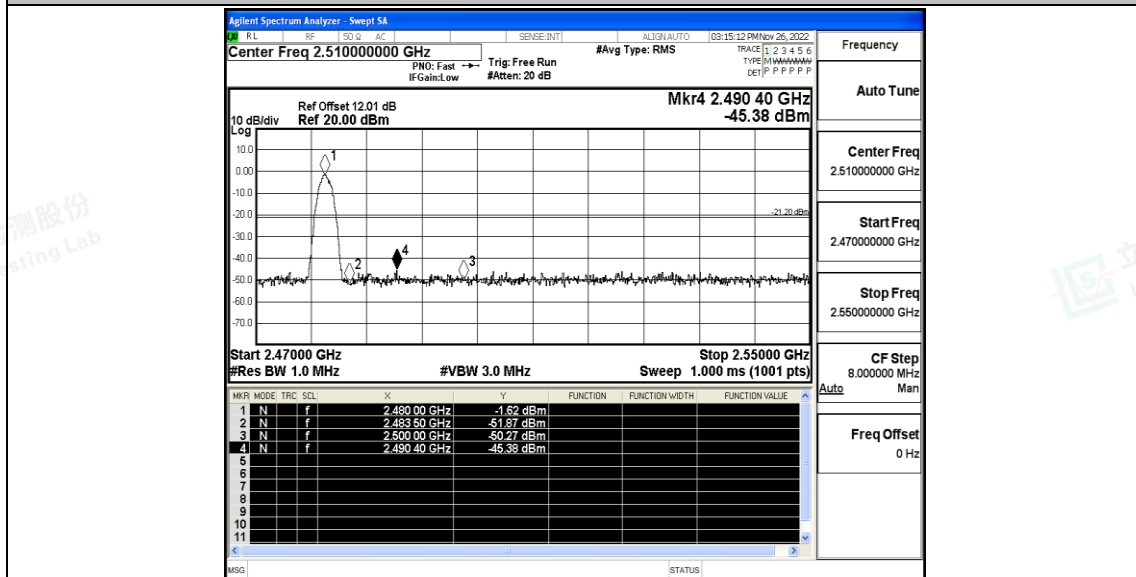
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