



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Laptop

Test Model: HPPLP10

Environmental Conditions

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



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Scan code to check authenticity



A.1 -20dB Bandwidth

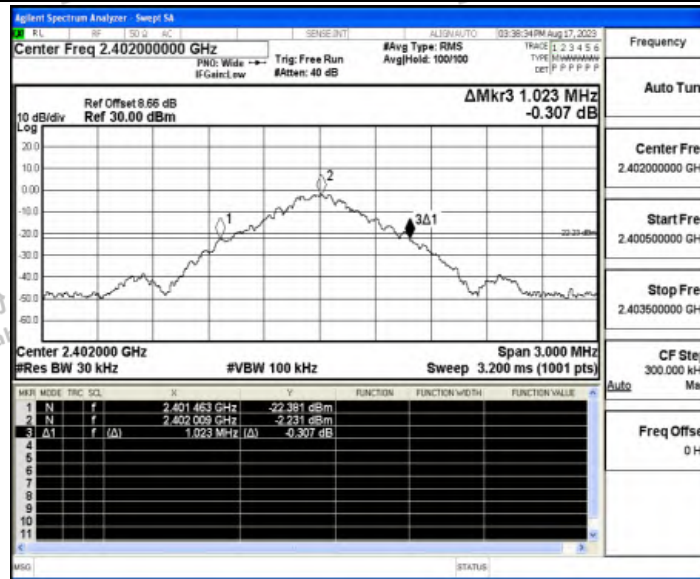
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant0	2402	1.023	2401.463	2402.486	---
		2441	0.945	2440.532	2441.477	---
		2480	0.960	2479.526	2480.486	---
2DH5	Ant0	2402	1.530	2401.229	2402.759	---
		2441	1.590	2440.220	2441.810	---
		2480	1.524	2479.226	2480.750	---
3DH5	Ant0	2402	1.548	2401.226	2402.774	---
		2441	1.494	2440.265	2441.759	---
		2480	1.572	2479.208	2480.780	---



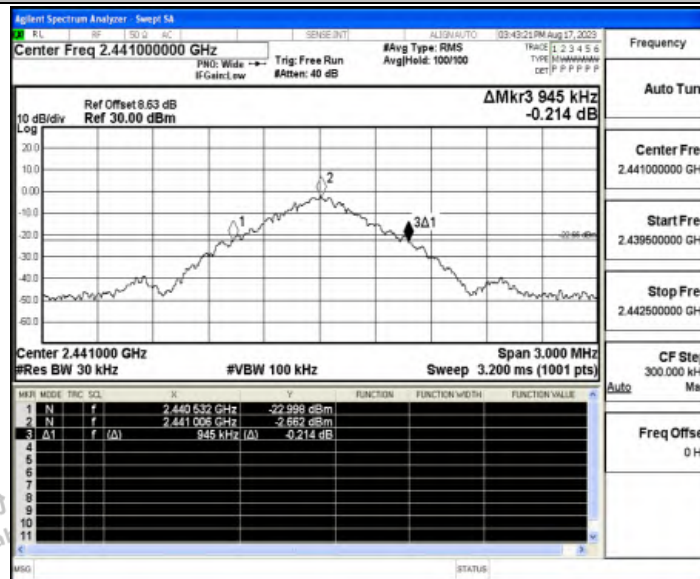


Test Graphs

DH5_Ant0_2402

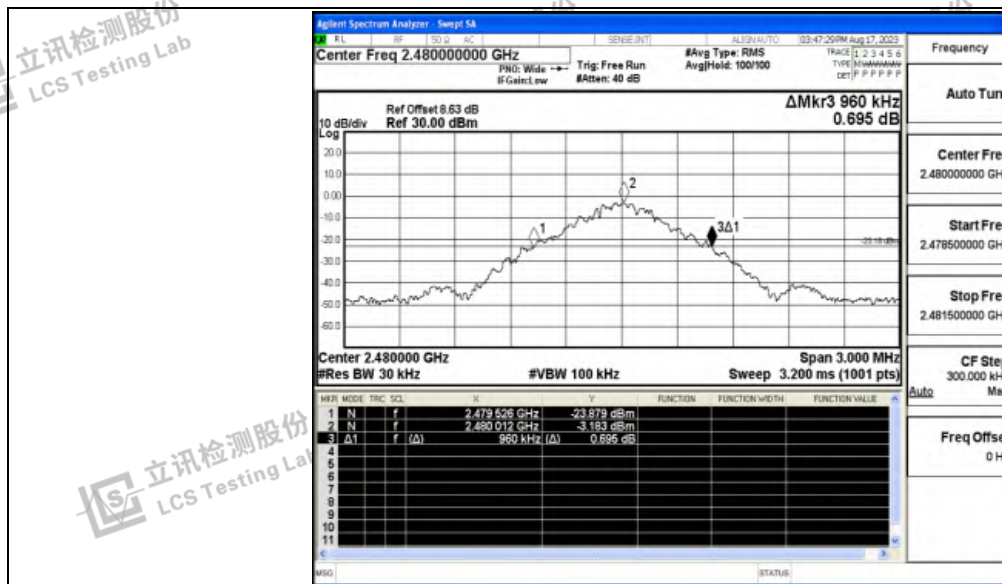


DH5_Ant0_2441

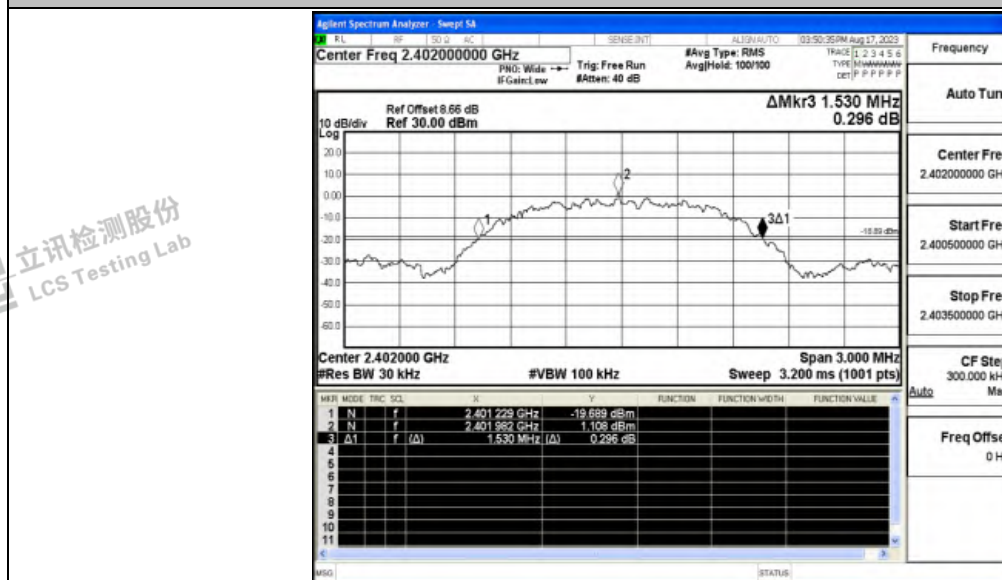


DH5_Ant0_2480



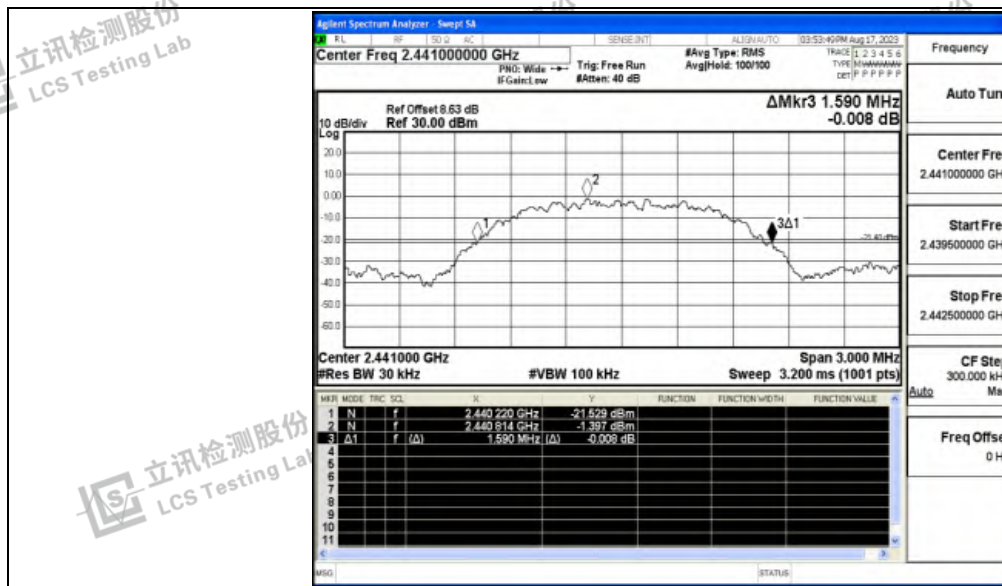


2DH5_Ant0_2402

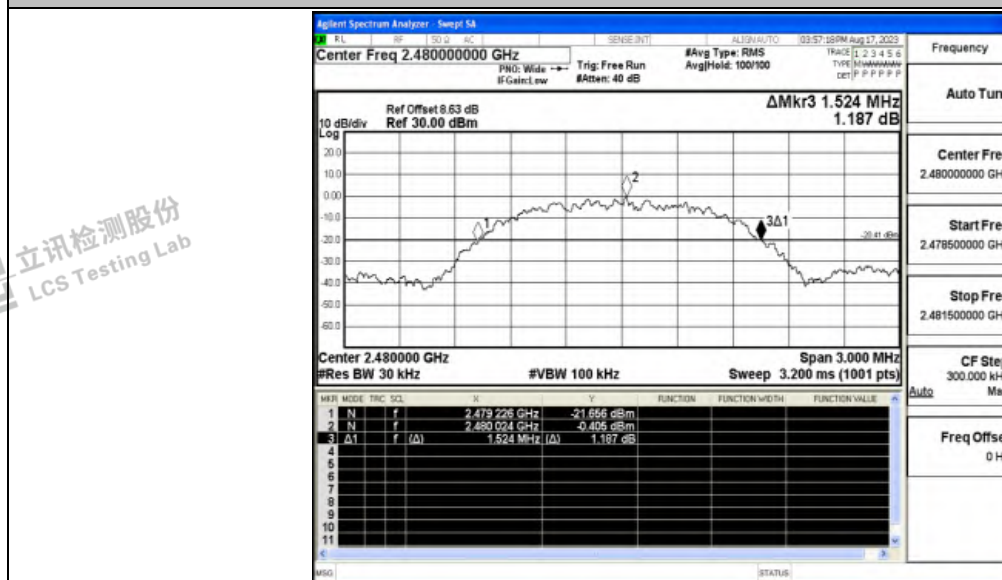


2DH5_Ant0_2441



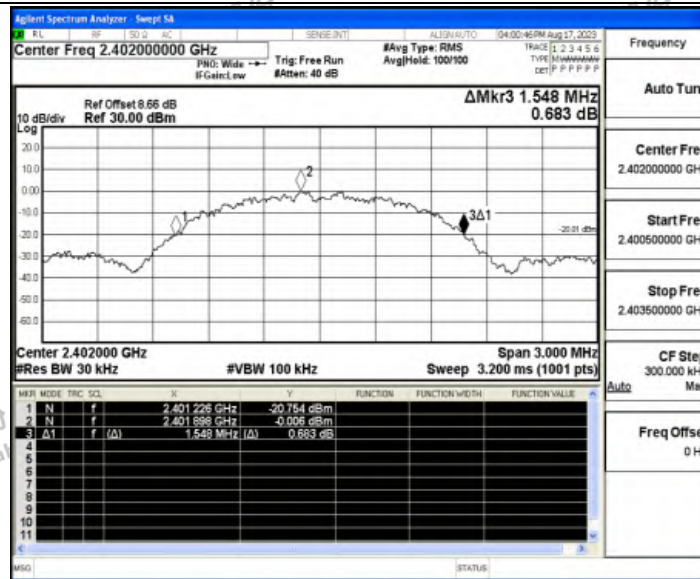


2DH5_Ant0_2480

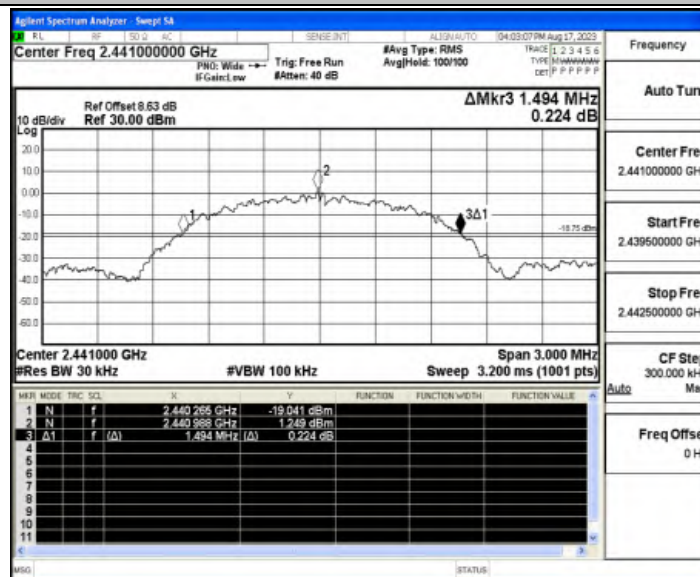


3DH5_Ant0_2402



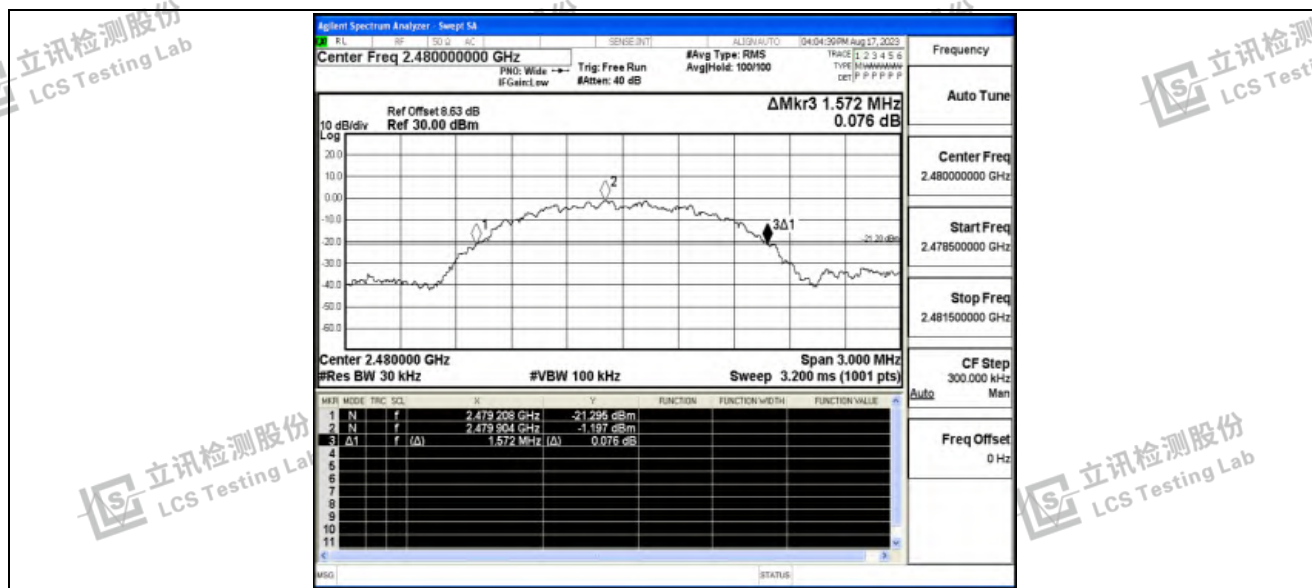


3DH5_Ant0_2441



3DH5_Ant0_2480







Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant0	2402	0.88286	2401.5539	2402.4368	---	---
		2441	0.88209	2440.5573	2441.4394	---	---
		2480	0.88129	2479.5563	2480.4376	---	---
2DH5	Ant0	2402	1.3855	2401.2973	2402.6828	---	---
		2441	1.3668	2440.3111	2441.6779	---	---
		2480	1.3677	2479.3088	2480.6765	---	---
3DH5	Ant0	2402	1.3715	2401.3089	2402.6804	---	---
		2441	1.3732	2440.3127	2441.6859	---	---
		2480	1.3741	2479.3091	2480.6832	---	---

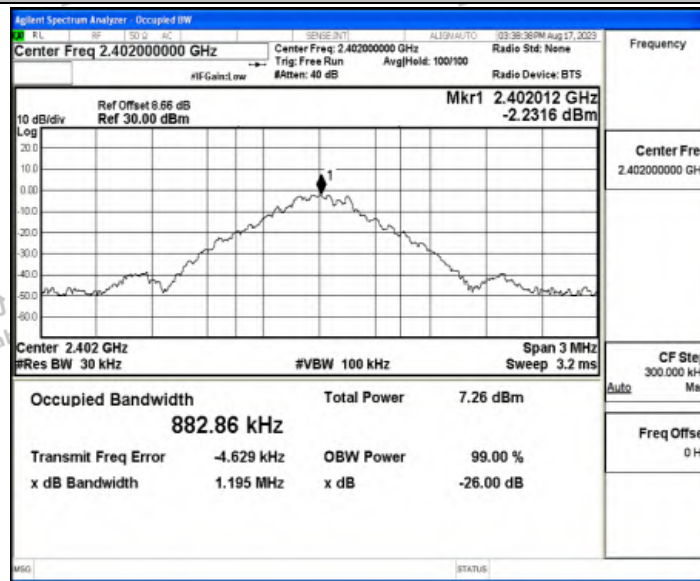


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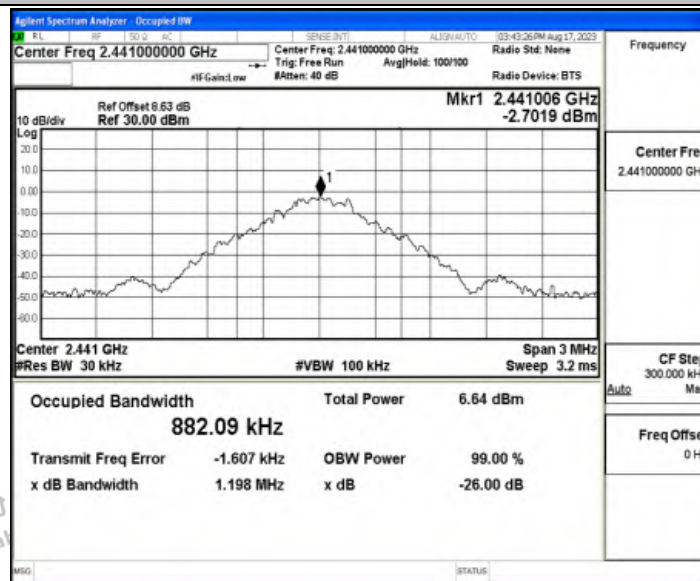


Test Graphs

DH5_Ant0_2402

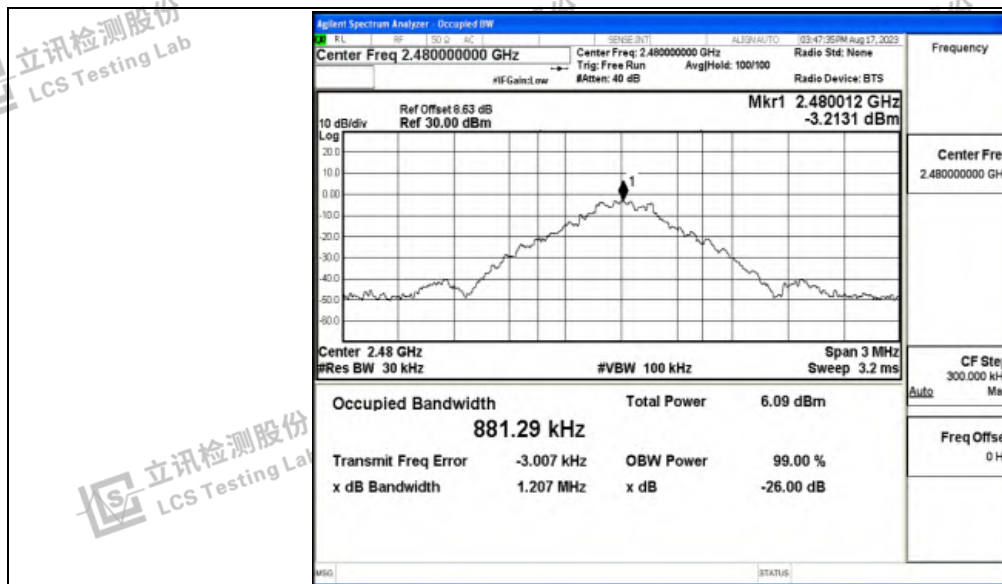


DH5_Ant0_2441

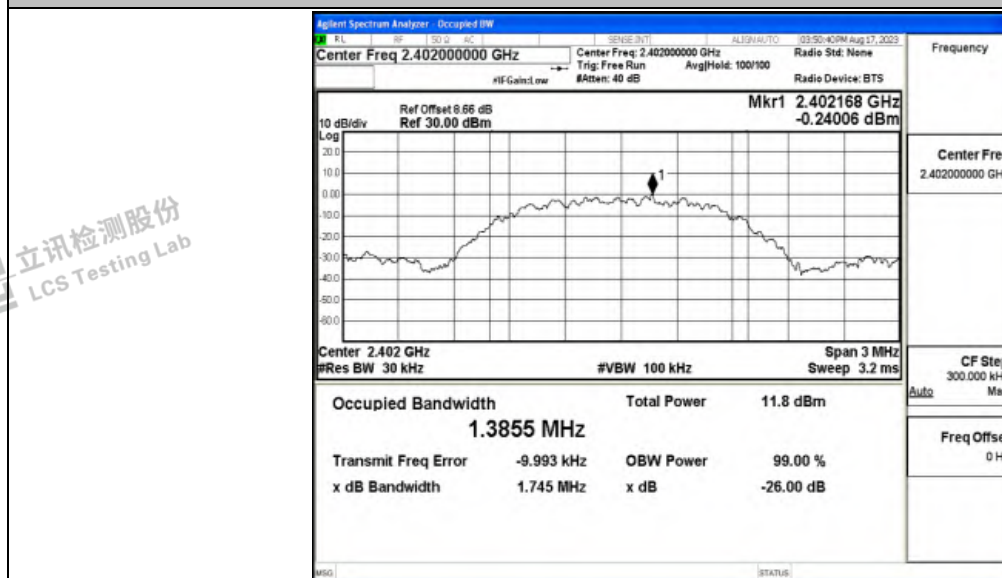


DH5_Ant0_2480



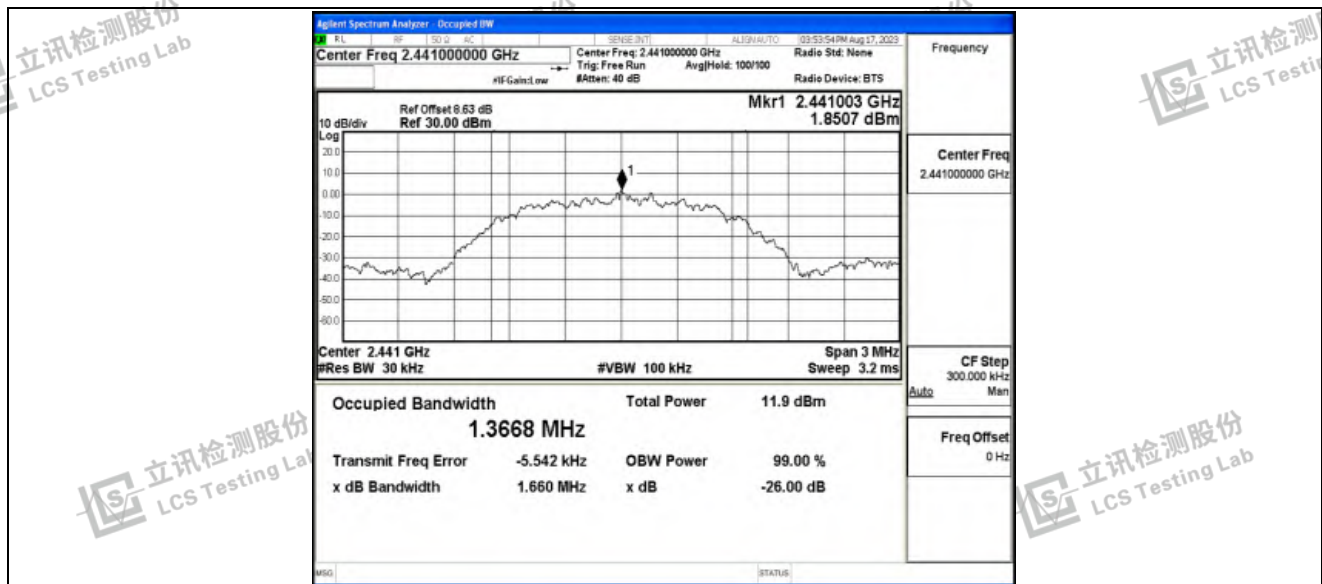


2DH5_Ant0_2402

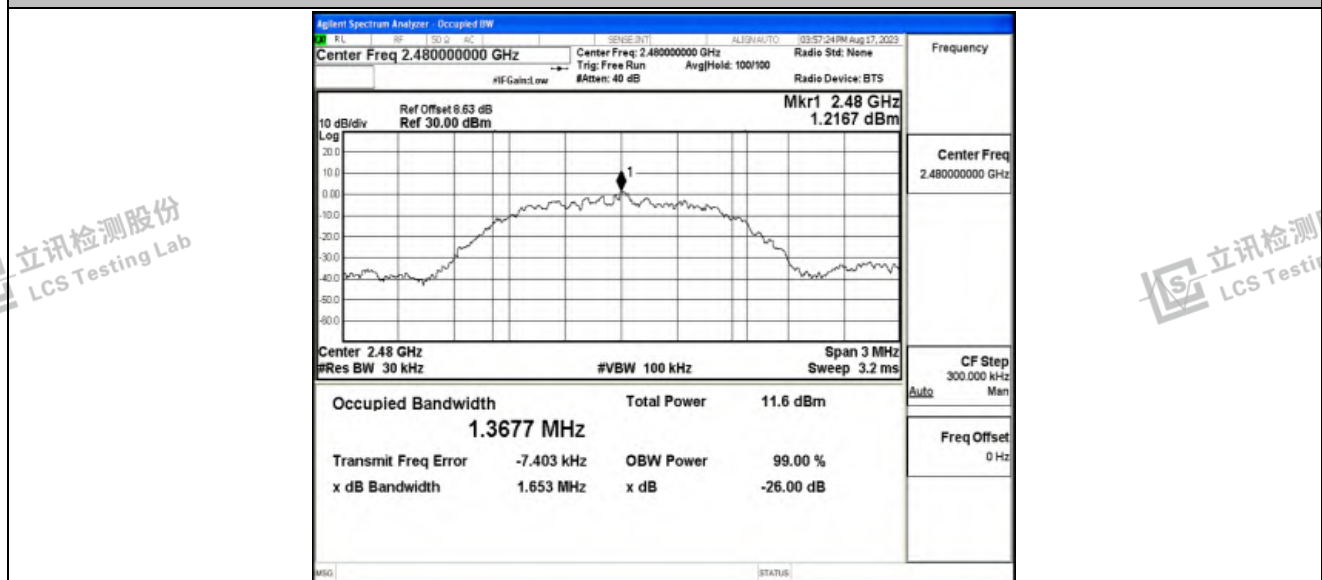


2DH5_Ant0_2441



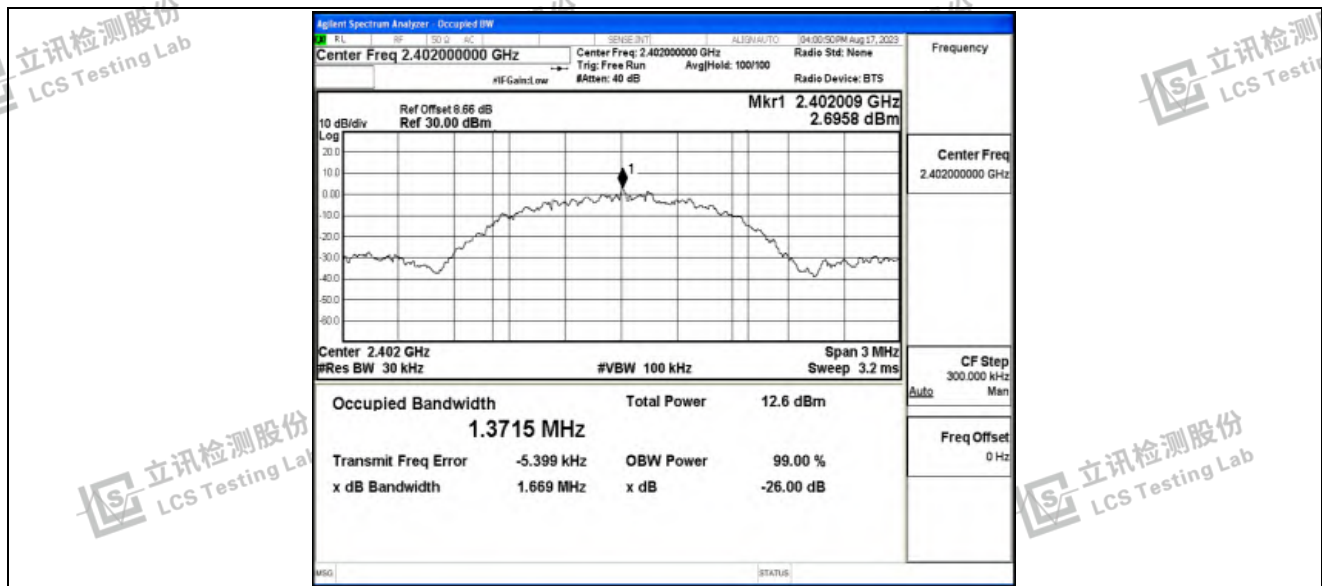


2DH5_Ant0_2480

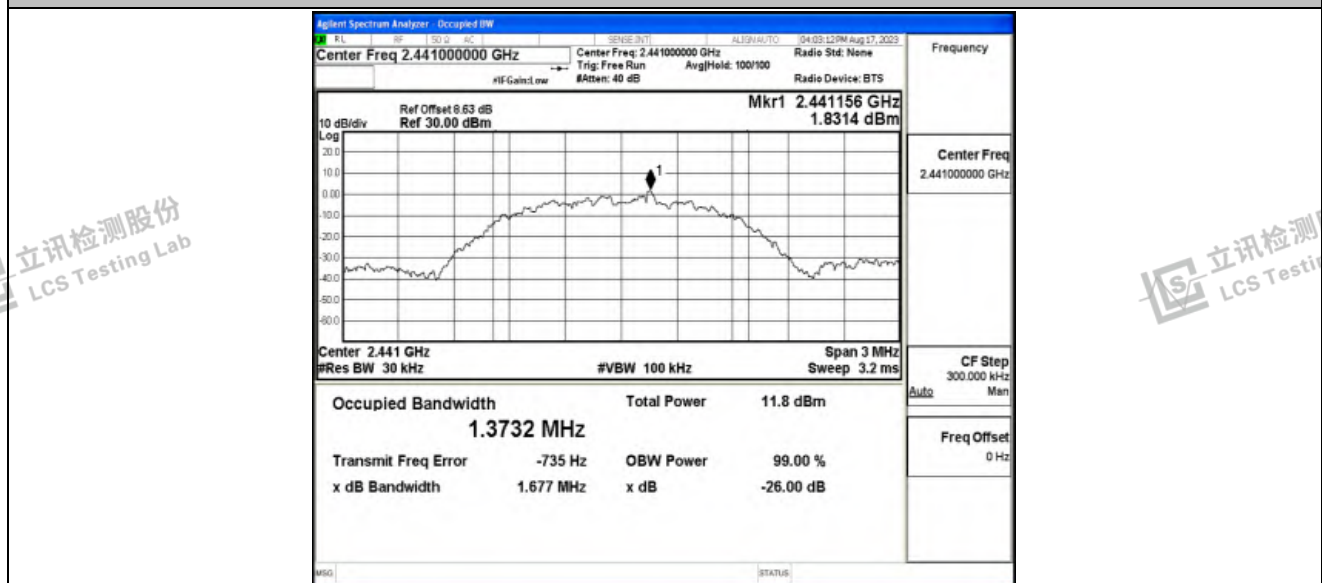


3DH5_Ant0_2402





3DH5_Ant0_2441



3DH5_Ant0_2480







A.2 Maximum Conducted Output Power

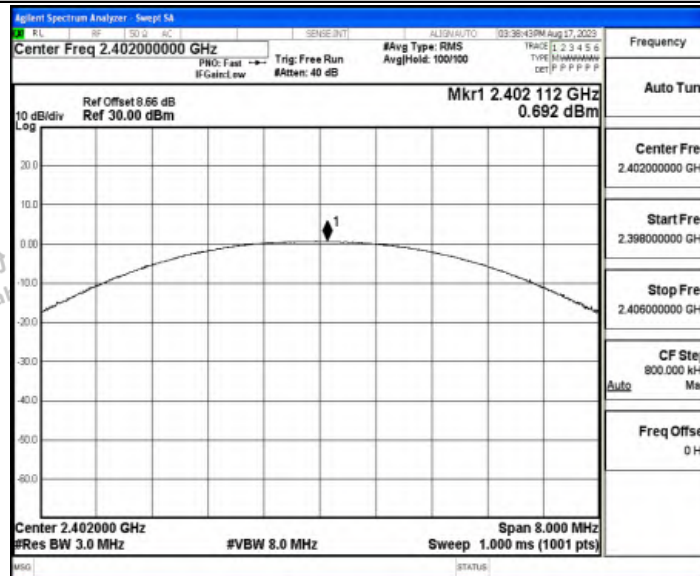
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant0	2402	0.69	≤20.97	PASS
		2441	0.13	≤20.97	PASS
		2480	-0.37	≤20.97	PASS
2DH5	Ant0	2402	6.96	≤20.97	PASS
		2441	6.74	≤20.97	PASS
		2480	6.52	≤20.97	PASS
3DH5	Ant0	2402	7.18	≤20.97	PASS
		2441	6.95	≤20.97	PASS
		2480	6.72	≤20.97	PASS



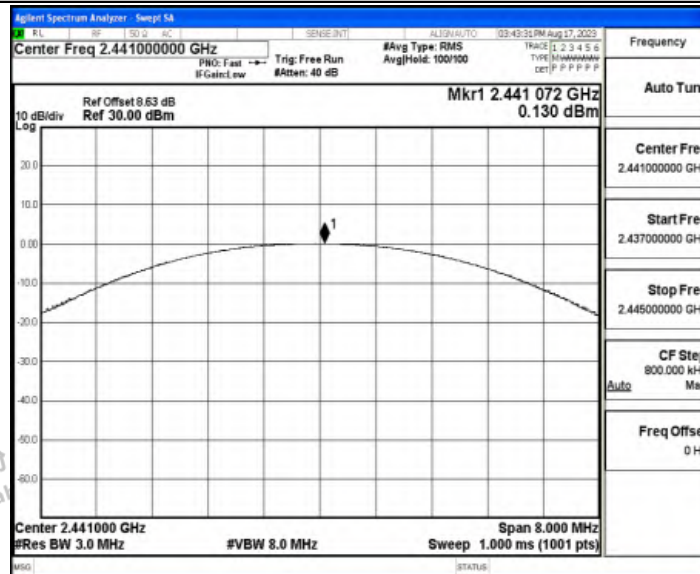


Test Graphs

DH5_Ant0_2402

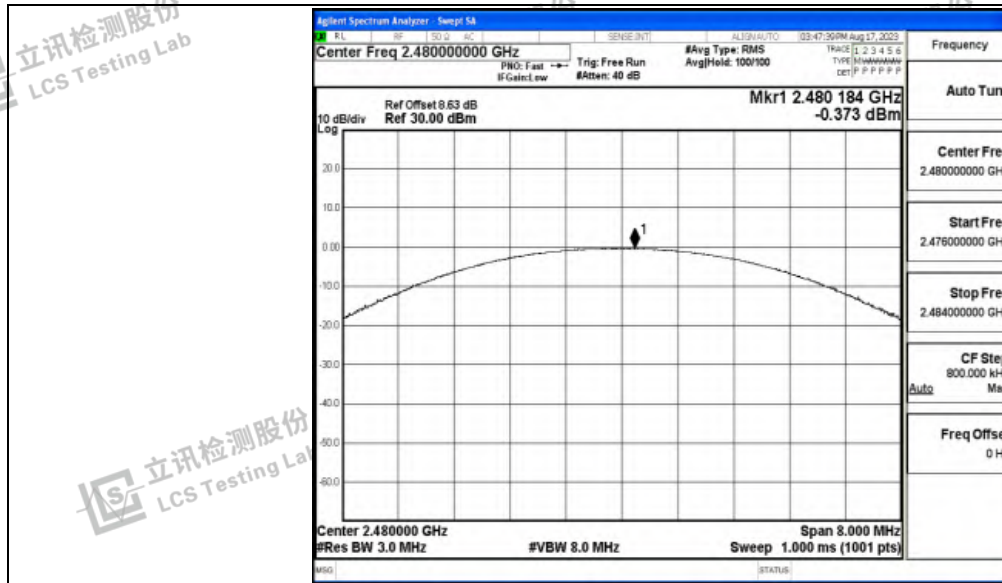


DH5_Ant0_2441

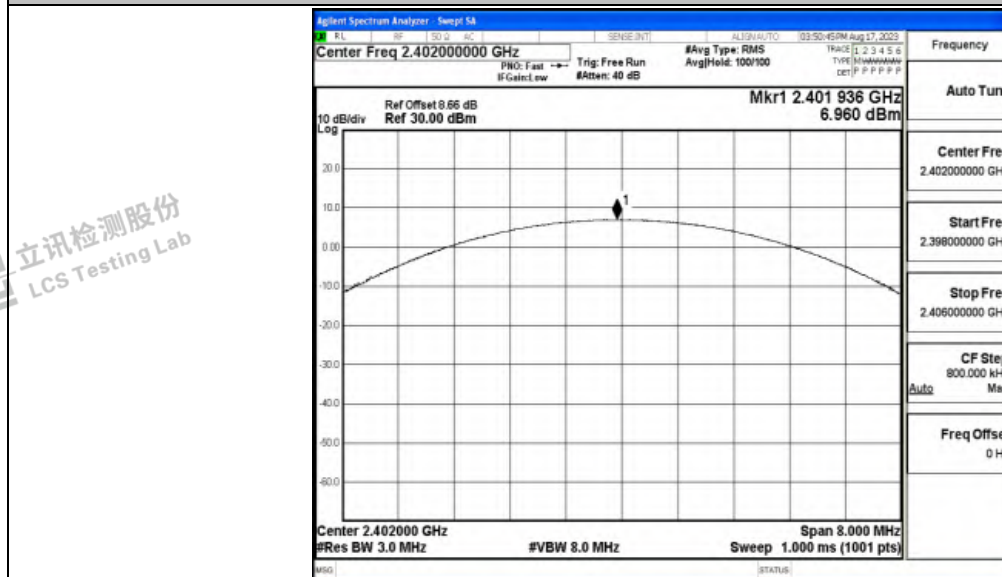


DH5_Ant0_2480



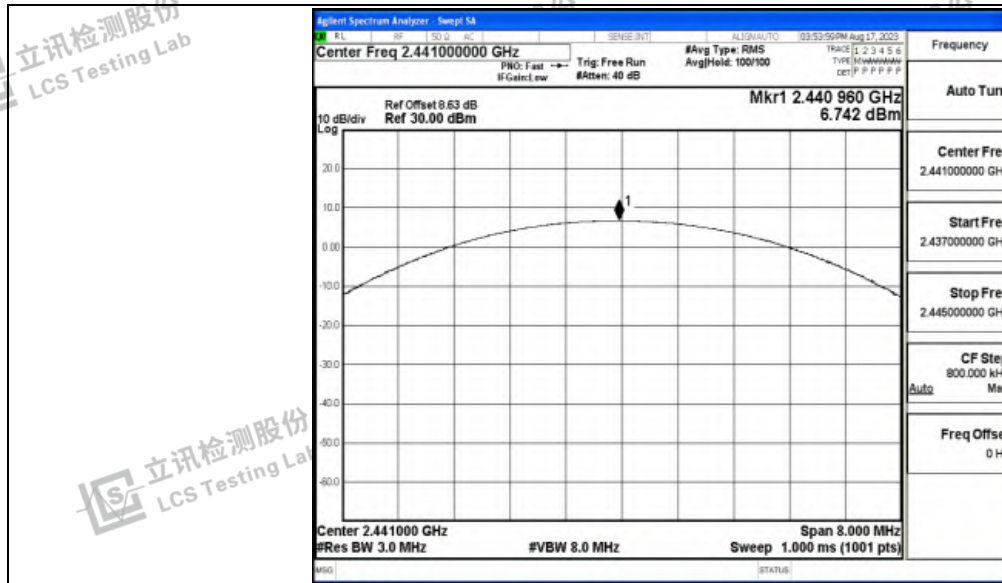


2DH5_Ant0_2402

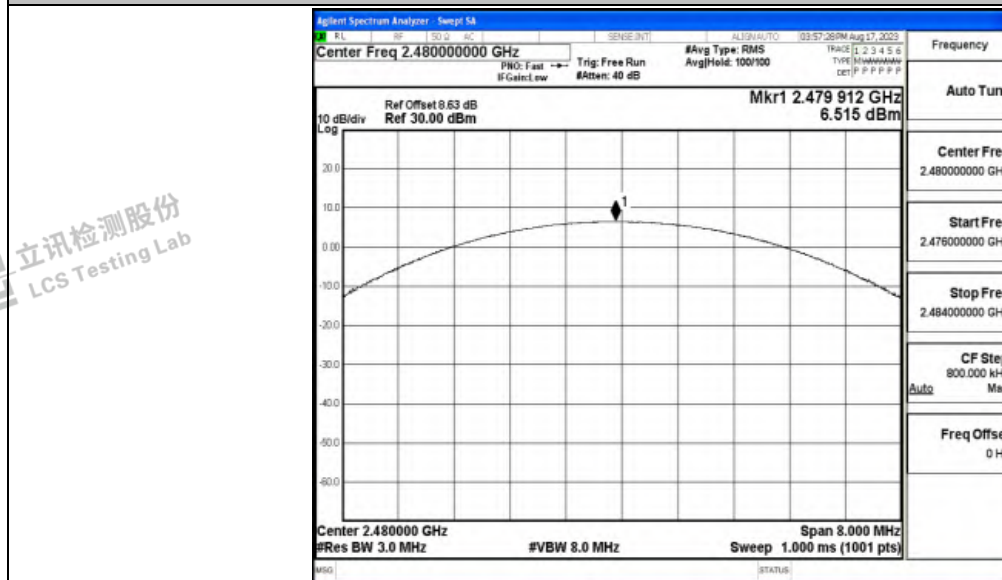


2DH5_Ant0_2441



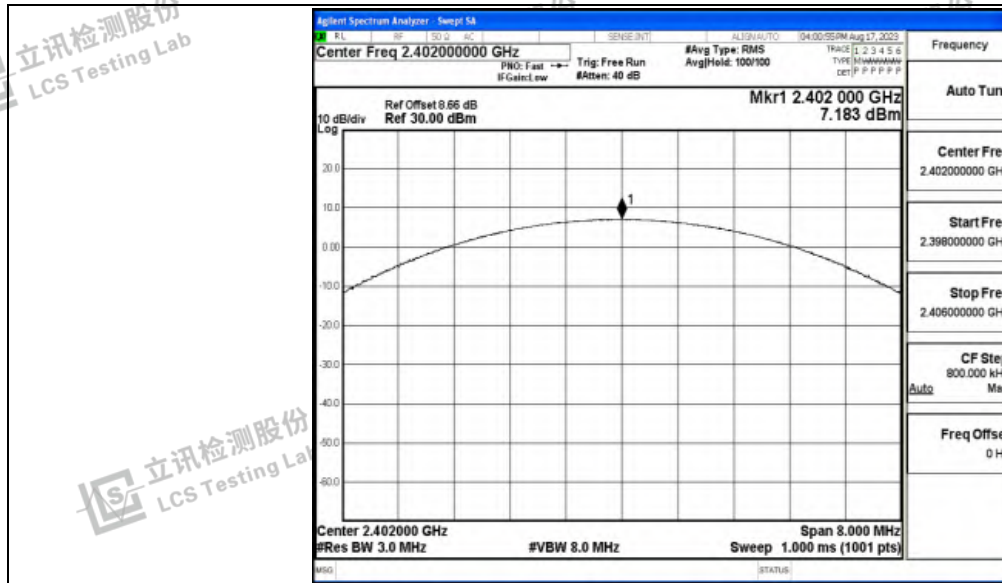


2DH5_Ant0_2480

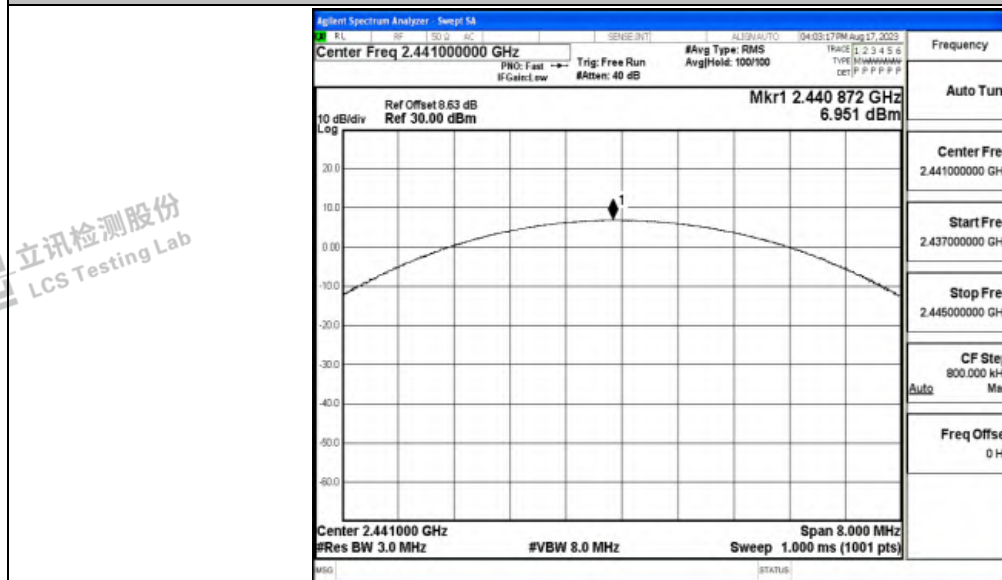


3DH5_Ant0_2402



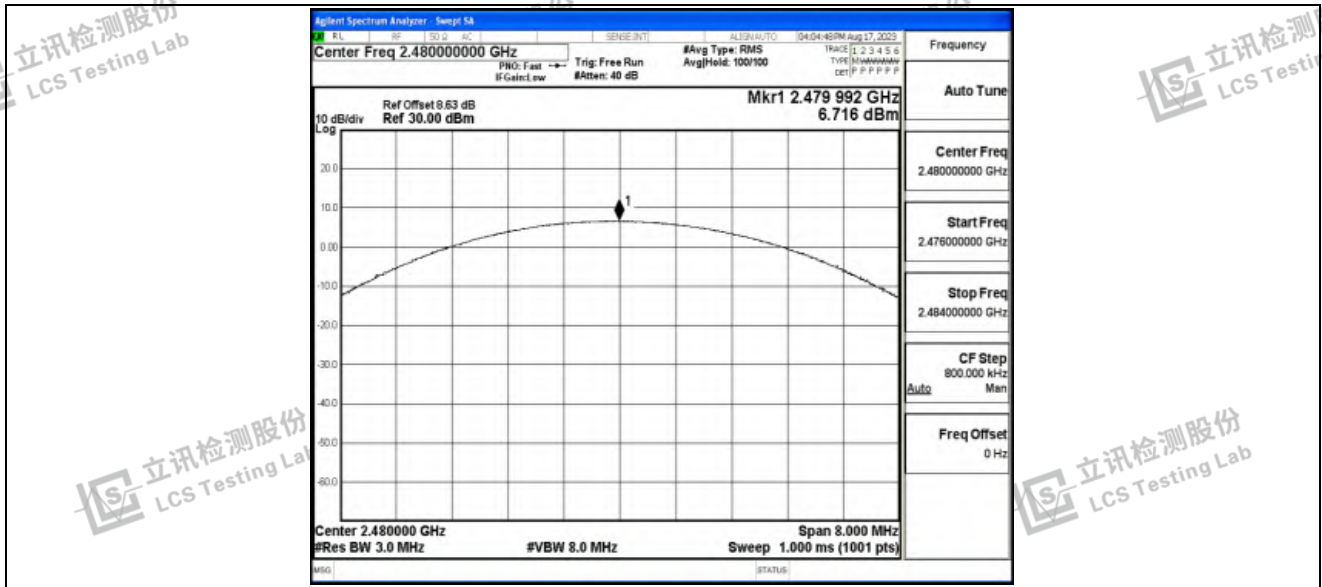


3DH5_Ant0_2441



3DH5_Ant0_2480







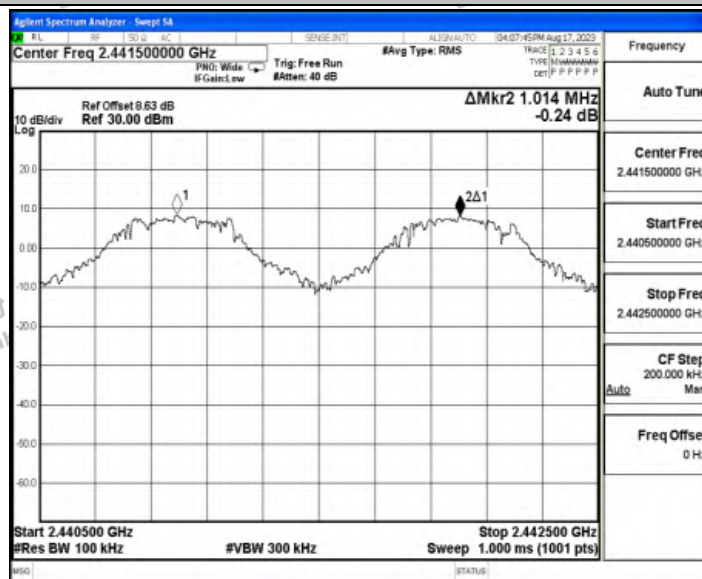
A.3 Carrier Frequencies Separation

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant0	Hop	1.014	≥ 0.682	PASS
2DH5	Ant0	Hop	1.07	≥ 1.060	PASS
3DH5	Ant0	Hop	1.17	≥ 1.048	PASS

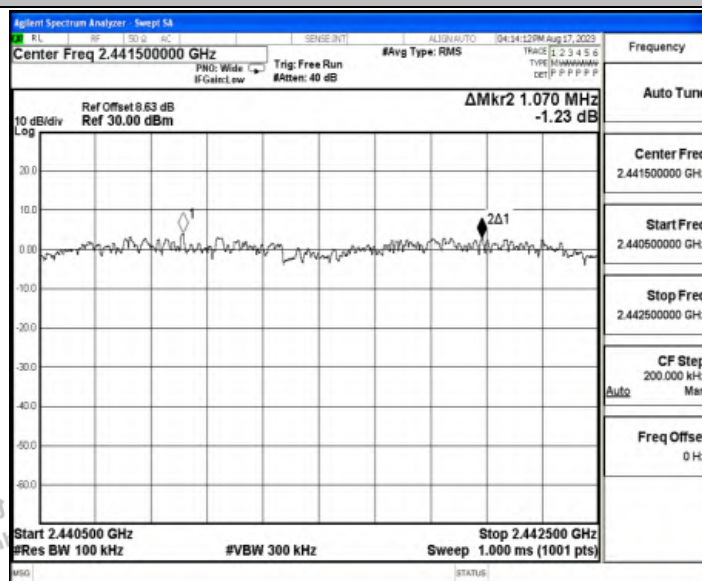


Test Graphs

DH5	Ant0	Hop
0	0	0
0	1	0
0	2	0
0	3	0
0	4	0
0	5	0
0	6	0
0	7	0
0	8	0
0	9	0
0	10	0
0	11	0
0	12	0
0	13	0
0	14	0
0	15	0
0	16	0
0	17	0
0	18	0
0	19	0
0	20	0
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0	123	0
0	124	0
0	125	0
0	126	0
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0	128	0
0	129	0
0	130	0
0	131	0
0	132	0
0	133	0
0	134	0
0	135	0
0	136	0
0	137	0
0	138	

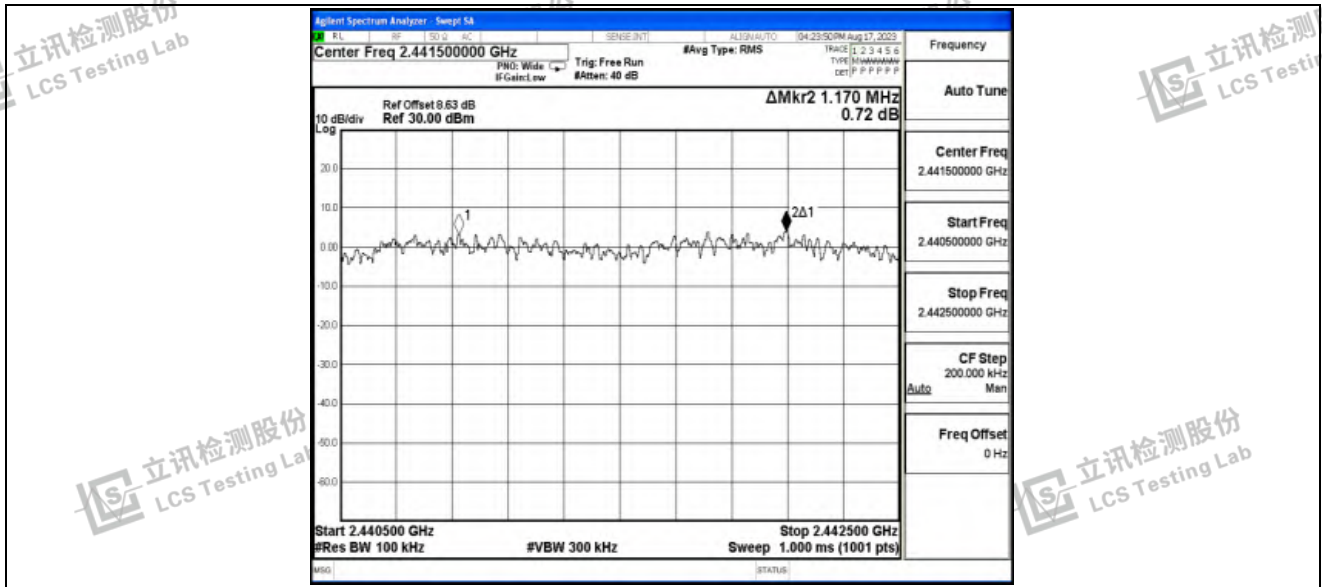


2DH5 Ant0 Hop



3DH5 Ant0 Hop







A.4 Dwell Time

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant0	Hop	2.883	106.67	0.308	≤0.4	PASS
2DH5	Ant0	Hop	2.888	106.67	0.308	≤0.4	PASS
3DH5	Ant0	Hop	2.889	106.67	0.308	≤0.4	PASS

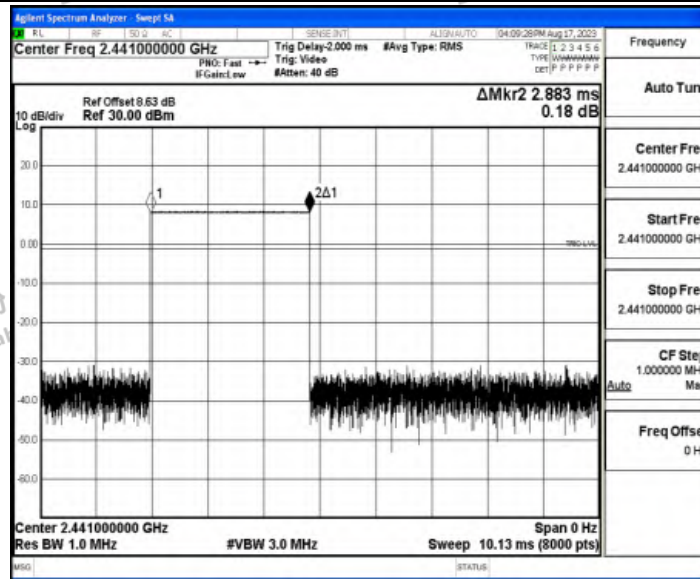


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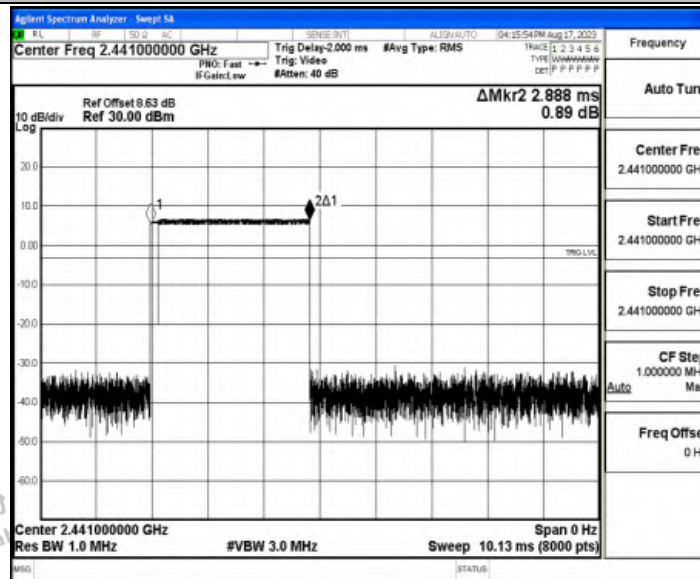


Test Graphs

DH5_Ant0_Hop

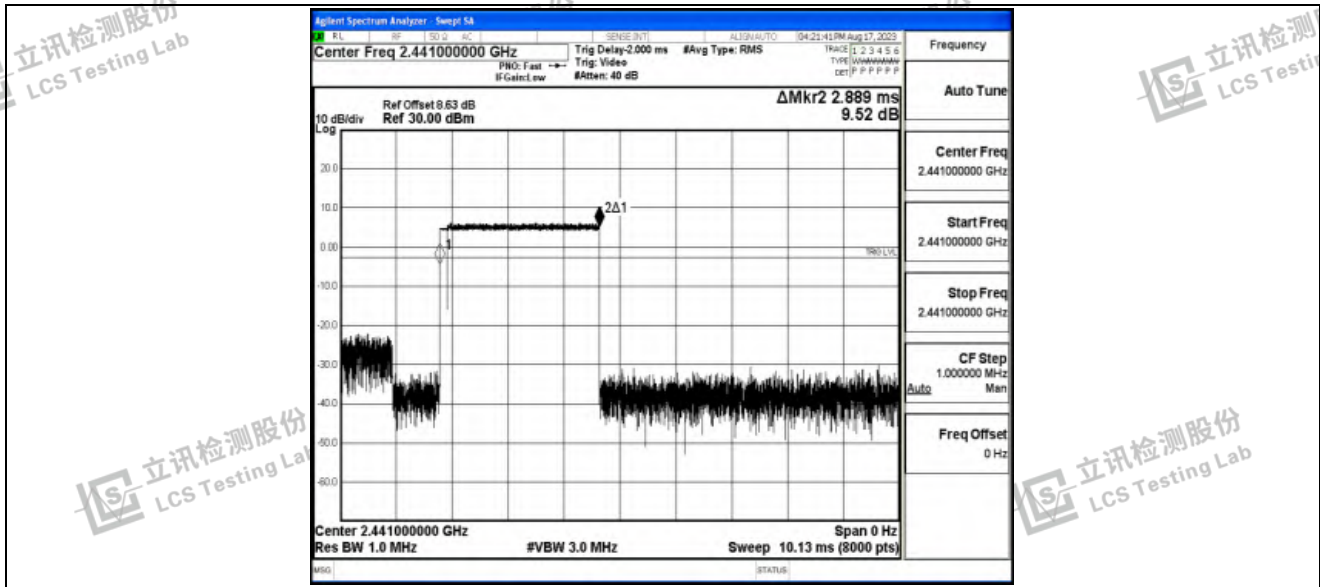


2DH5_Ant0_Hop



3DH5_Ant0_Hop







A.5 Number of Hopping Channel

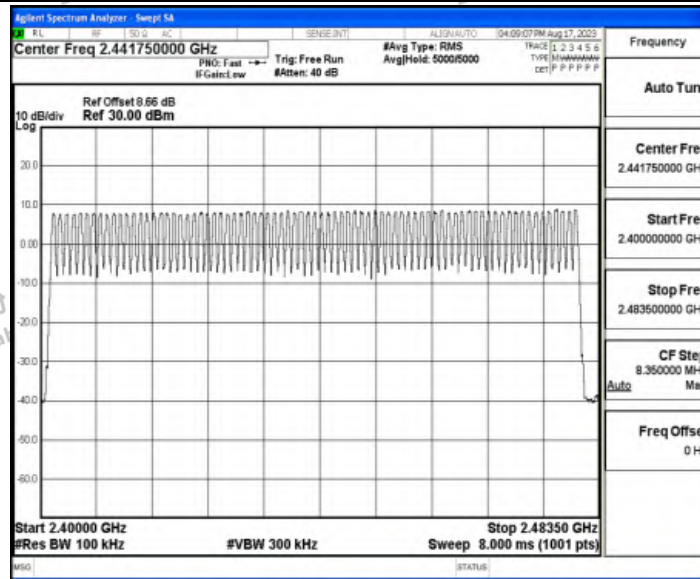
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant0	Hop	79	≥15	PASS
2DH5	Ant0	Hop	79	≥15	PASS
3DH5	Ant0	Hop	79	≥15	PASS



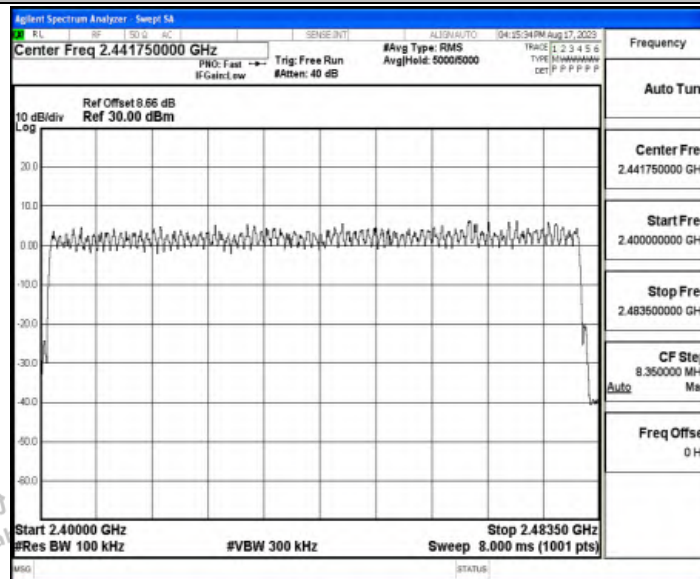


Test Graphs

DH5_Ant0_Hop

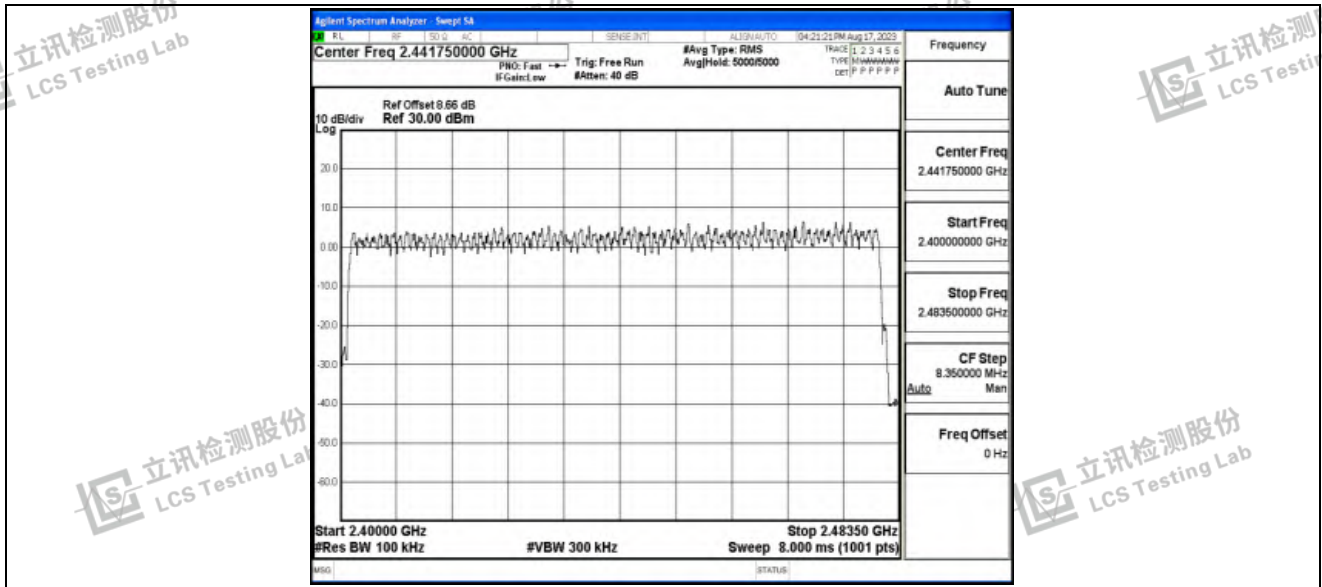


2DH5_Ant0_Hop



3DH5_Ant0_Hop







A.6 Band Edge

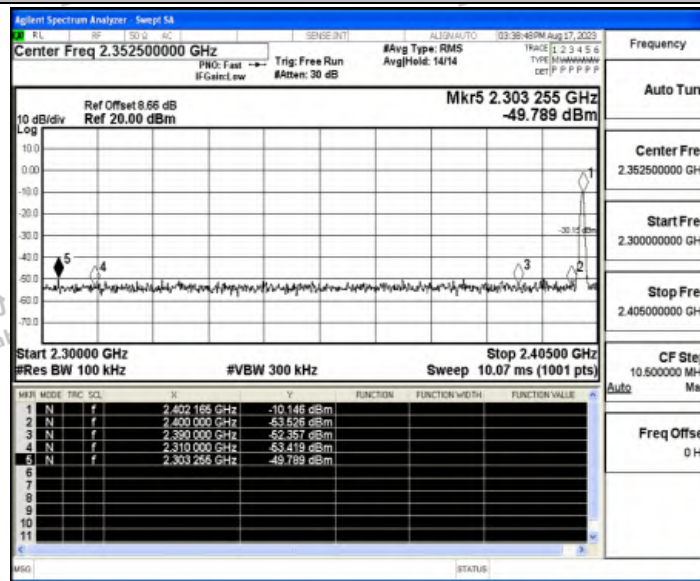
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant0	Low	2402	-10.15	-49.79	≤ -30.15	PASS
		High	2480	-2.03	-42.91	≤ -22.03	PASS
		Low	Hop_2402	7.05	-46.75	≤ -12.95	PASS
		High	Hop_2480	8.58	-46.11	≤ -11.42	PASS
2DH5	Ant0	Low	2402	2.69	-44.5	≤ -17.31	PASS
		High	2480	2.40	-49.85	≤ -17.6	PASS
		Low	Hop_2402	1.68	-48.14	≤ -18.32	PASS
		High	Hop_2480	4.20	-47.92	≤ -15.8	PASS
3DH5	Ant0	Low	2402	3.38	-45.49	≤ -16.62	PASS
		High	2480	2.31	-49.35	≤ -17.69	PASS
		Low	Hop_2402	2.56	-48.25	≤ -17.44	PASS
		High	Hop_2480	6.53	-47.15	≤ -13.47	PASS



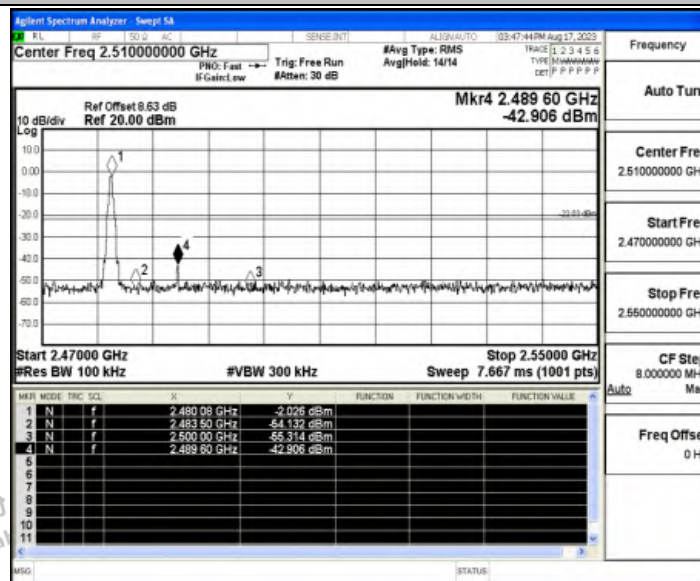


Test Graphs

DH5_Ant0_Low_2402

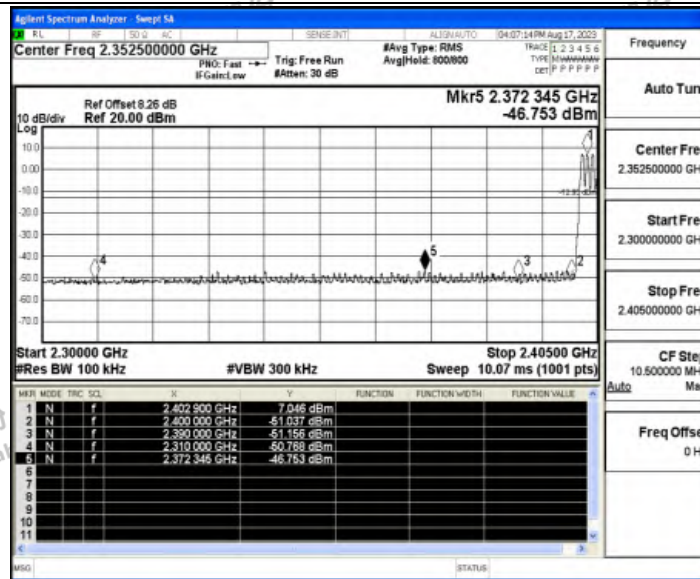


DH5_Ant0_High_2480

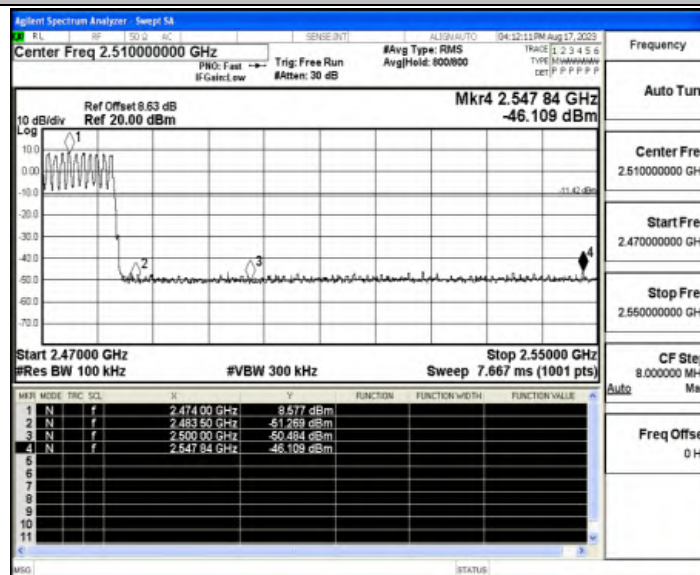


DH5_Ant0_Low_Hop_2402



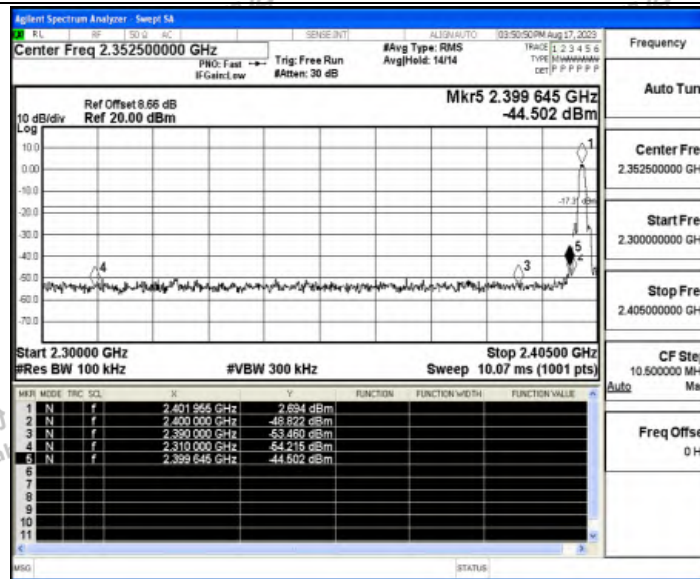


DH5_Ant0_High_Hop_2480

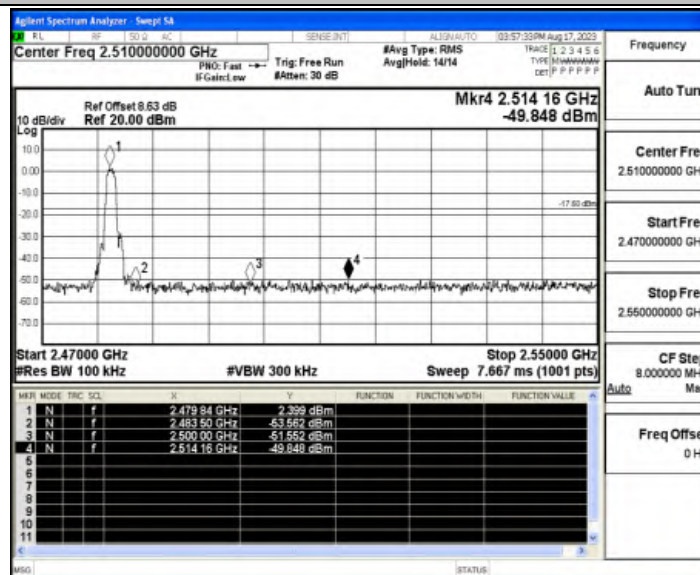


2DH5_Ant0_Low_2402



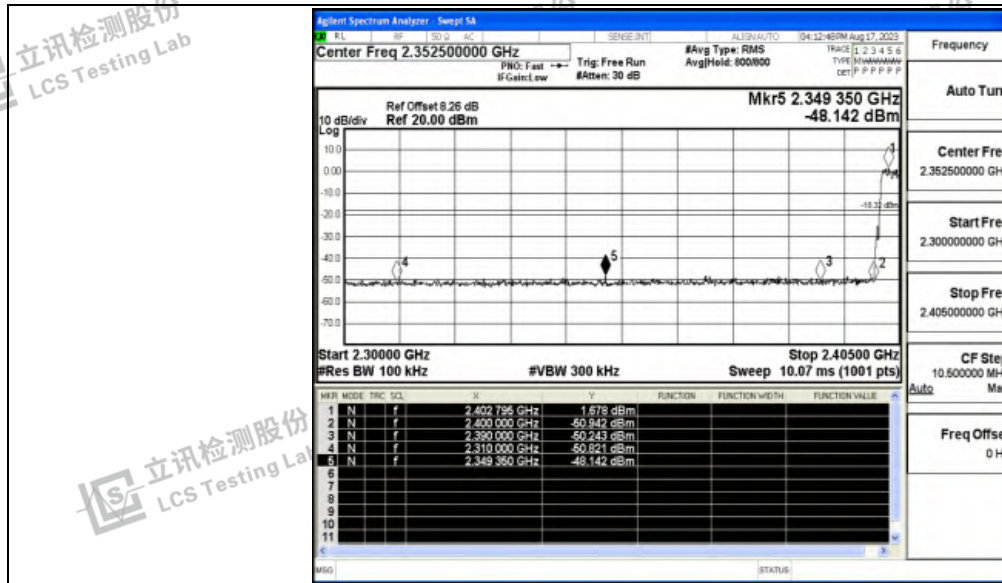


2DH5_Ant0_High_2480

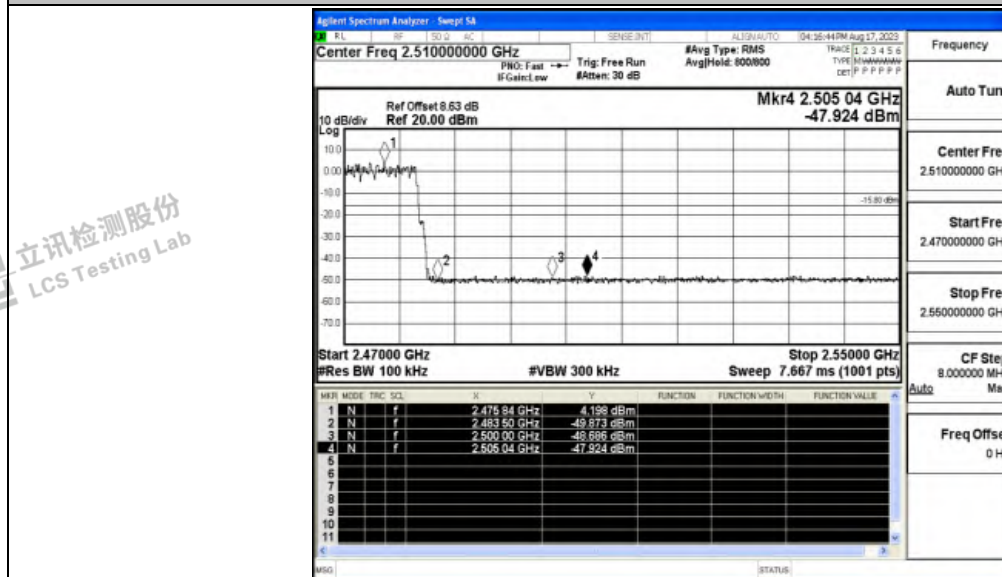


2DH5_Ant0_Low_Hop_2402



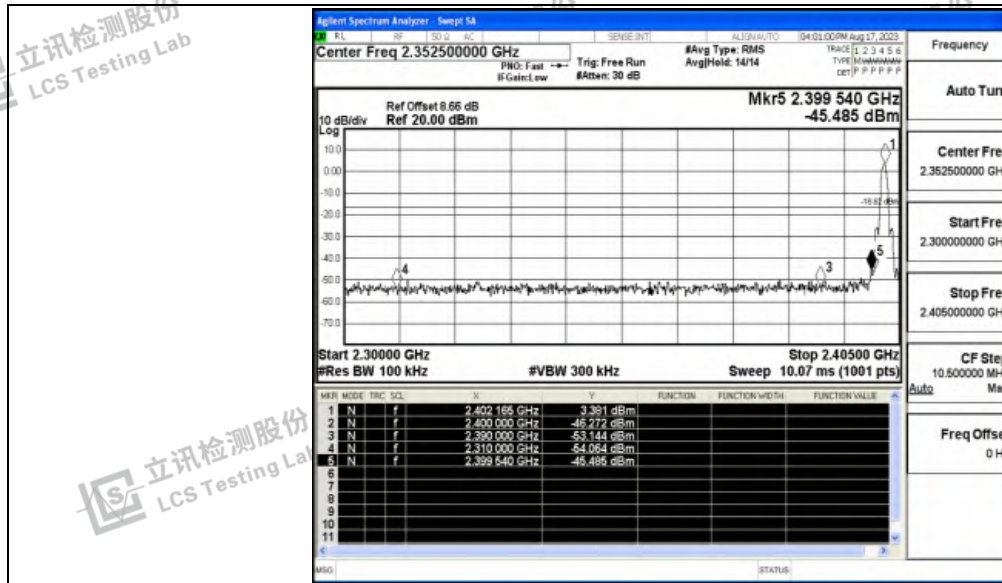


2DH5_Ant0_High_Hop_2480

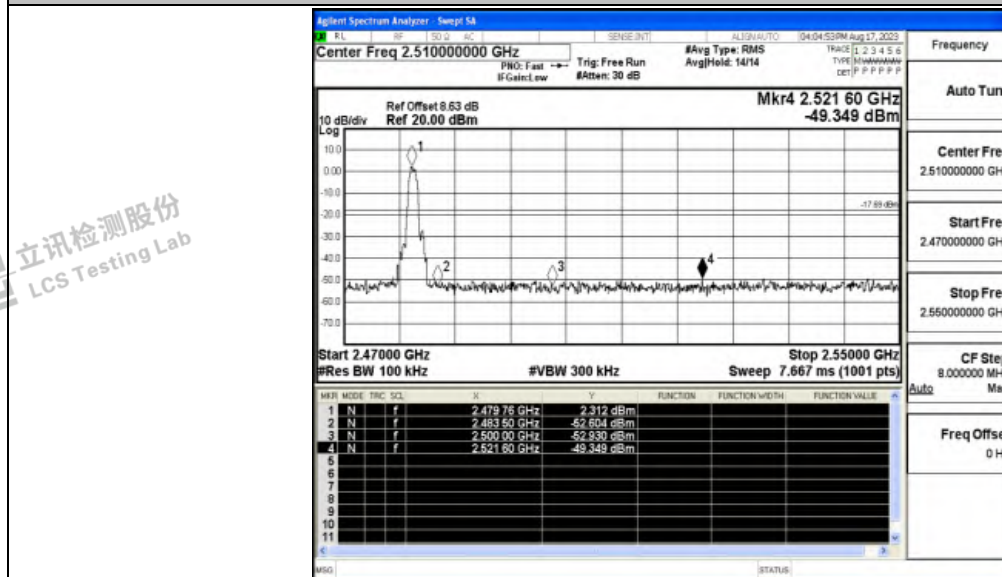


3DH5_Ant0_Low_2402



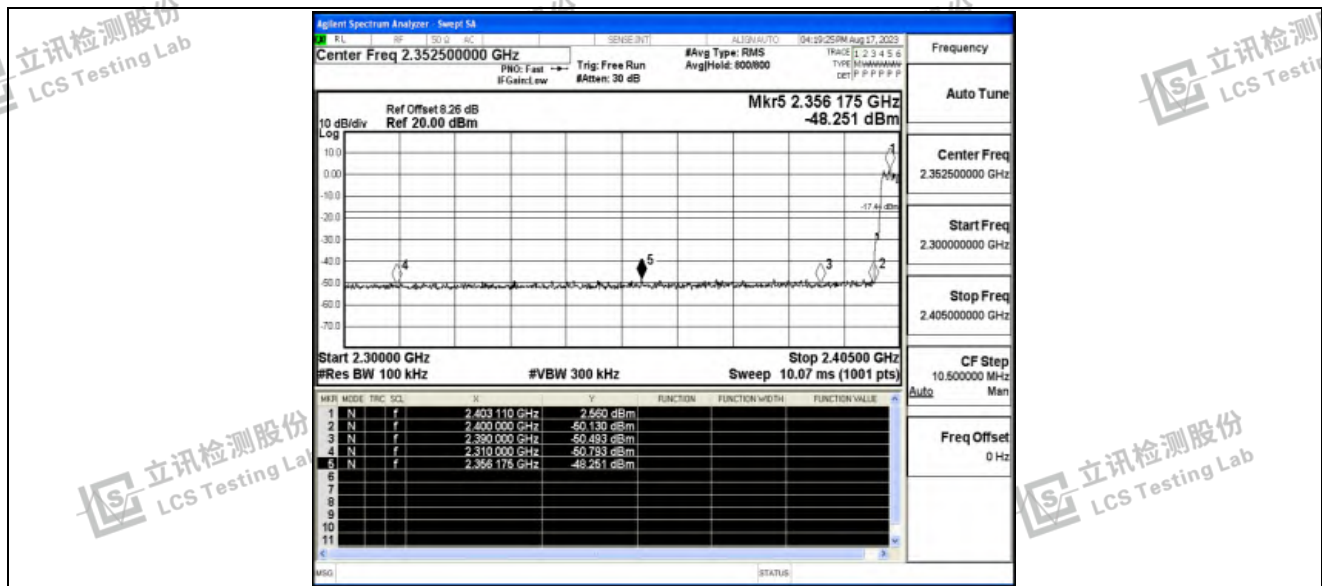


3DH5_Ant0_High_2480

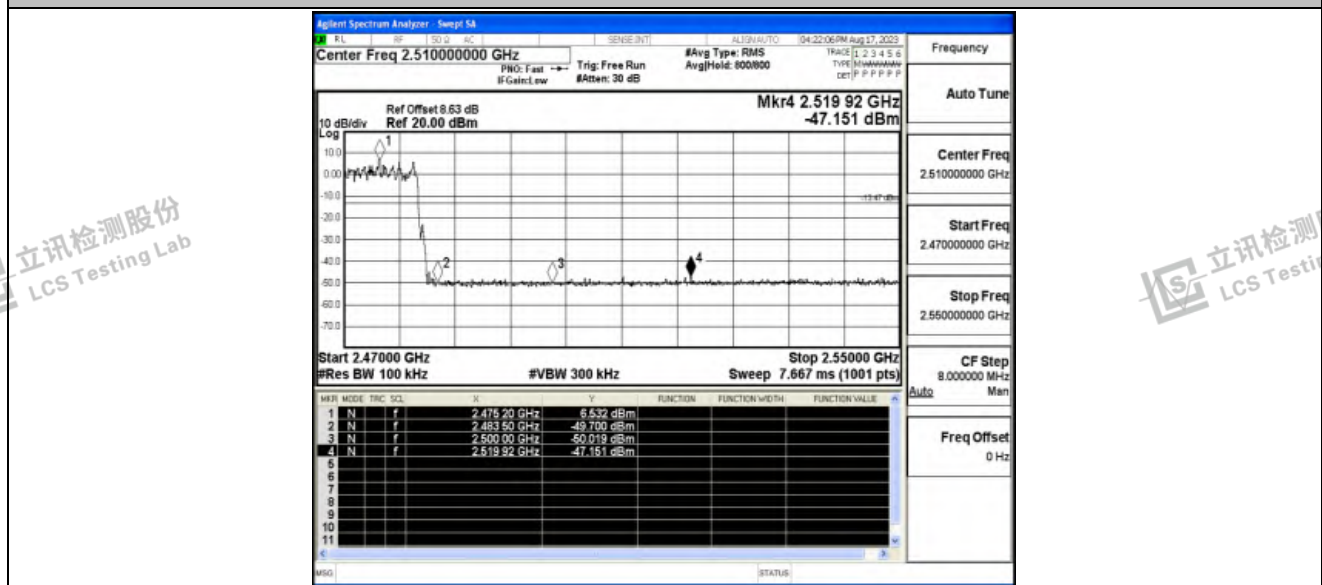


3DH5_Ant0_Low_Hop_2402





3DH5_Ant0_High_Hop_2480





A.7 Conducted RF Spurious Emission

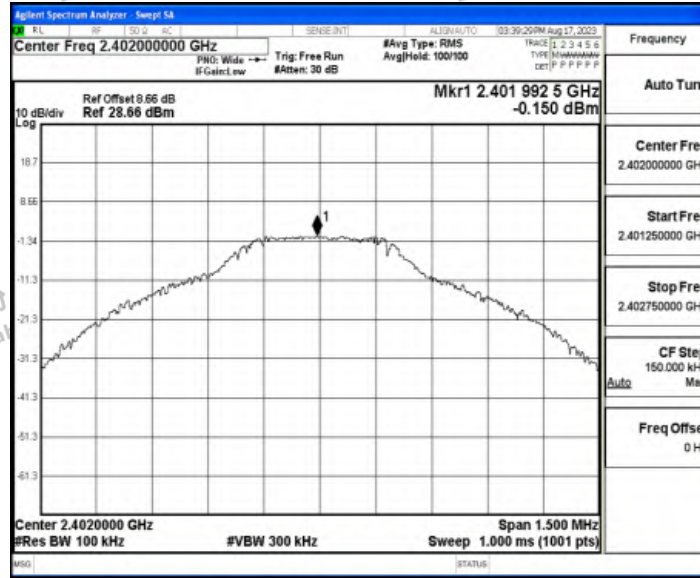
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant0	2402	Reference	-0.15	-0.15	---	PASS
			30~1000	-0.15	-61.25	≤ -20.15	PASS
			1000~26500	-0.15	-46.33	≤ -20.15	PASS
		2441	Reference	-0.59	-0.59	---	PASS
			30~1000	-0.59	-61.01	≤ -20.59	PASS
			1000~26500	-0.59	-46.07	≤ -20.59	PASS
		2480	Reference	-0.87	-0.87	---	PASS
			30~1000	-0.87	-61.21	≤ -20.87	PASS
			1000~26500	-0.87	-47.43	≤ -20.87	PASS
2DH5	Ant0	2402	Reference	5.08	5.08	---	PASS
			30~1000	5.08	-61.51	≤ -14.92	PASS
			1000~26500	5.08	-46.48	≤ -14.92	PASS
		2441	Reference	4.63	4.63	---	PASS
			30~1000	4.63	-61.79	≤ -15.37	PASS
			1000~26500	4.63	-46.66	≤ -15.37	PASS
		2480	Reference	2.66	2.66	---	PASS
			30~1000	2.66	-61.4	≤ -17.34	PASS
			1000~26500	2.66	-46.94	≤ -17.34	PASS
3DH5	Ant0	2402	Reference	5.10	5.10	---	PASS
			30~1000	5.10	-61.39	≤ -14.9	PASS
			1000~26500	5.10	-46.4	≤ -14.9	PASS
		2441	Reference	4.66	4.66	---	PASS
			30~1000	4.66	-61.16	≤ -15.34	PASS
			1000~26500	4.66	-46.67	≤ -15.34	PASS
		2480	Reference	2.47	2.47	---	PASS
			30~1000	2.47	-61.85	≤ -17.53	PASS
			1000~26500	2.47	-47.07	≤ -17.53	PASS



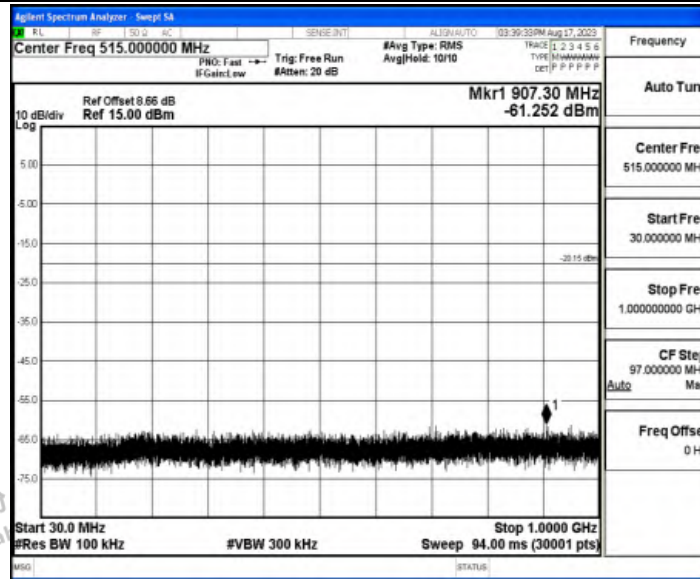


Test Graphs

DH5_Ant0_2402_0~Reference

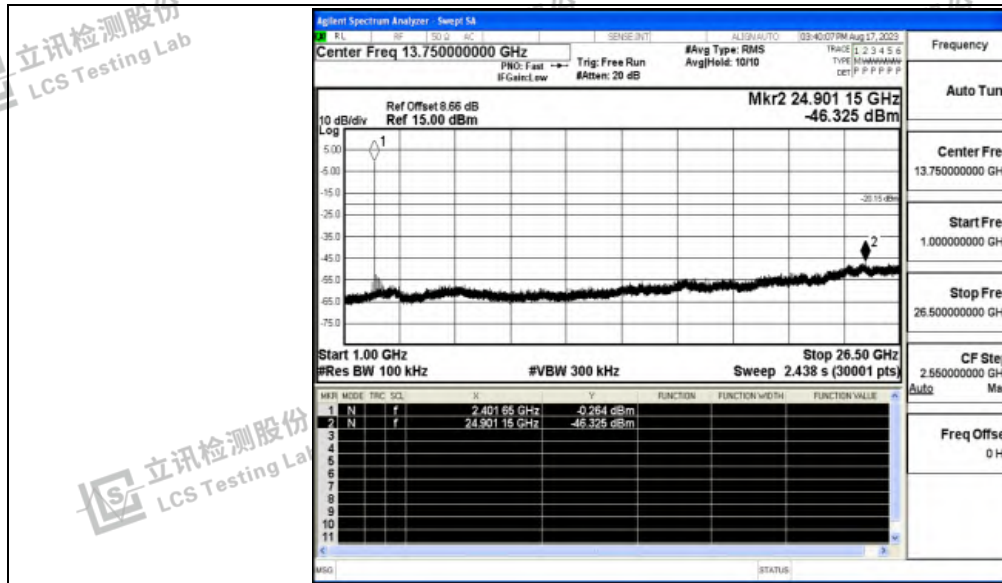


DH5_Ant0_2402_30~1000

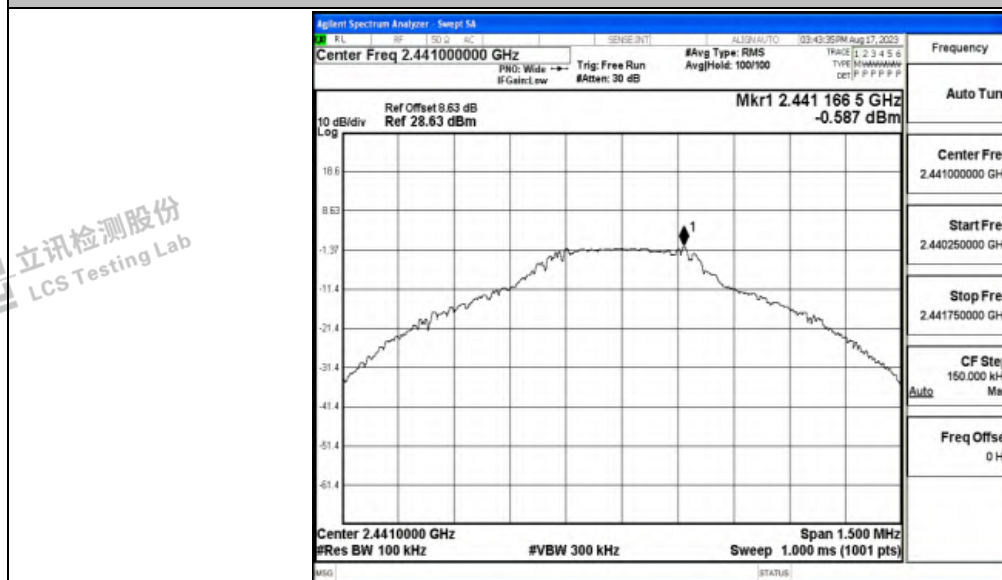


DH5_Ant0_2402_1000~26500



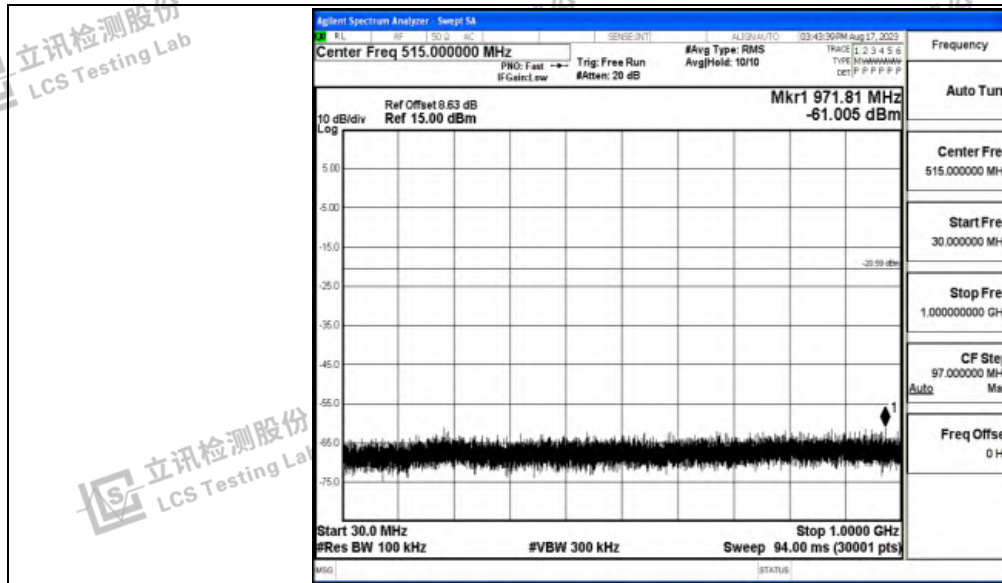


DH5_Ant0_2441_0-Reference

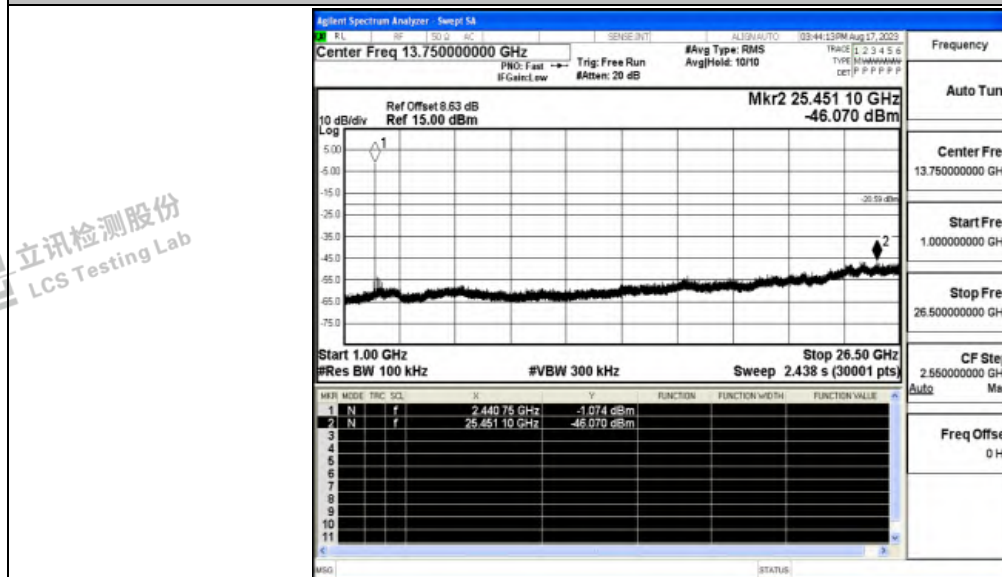


DH5_Ant0_2441_30~1000



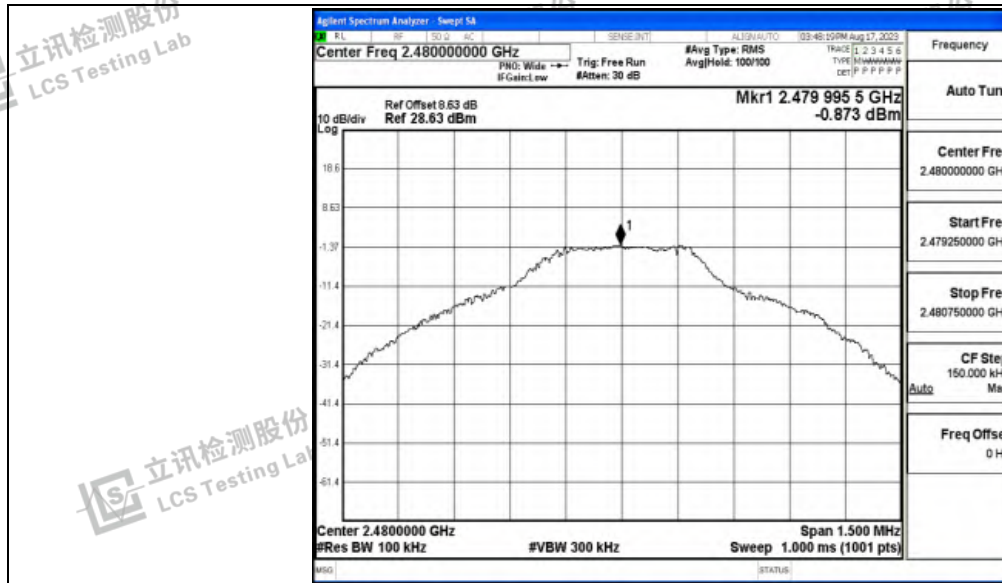


DH5_Ant0_2441_1000~26500

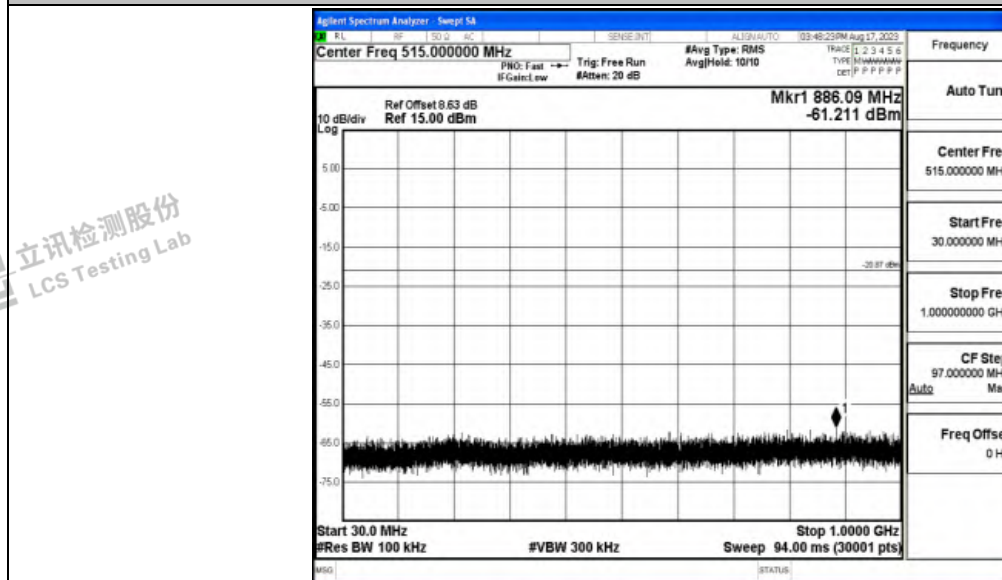


DH5_Ant0_2480_0-Reference



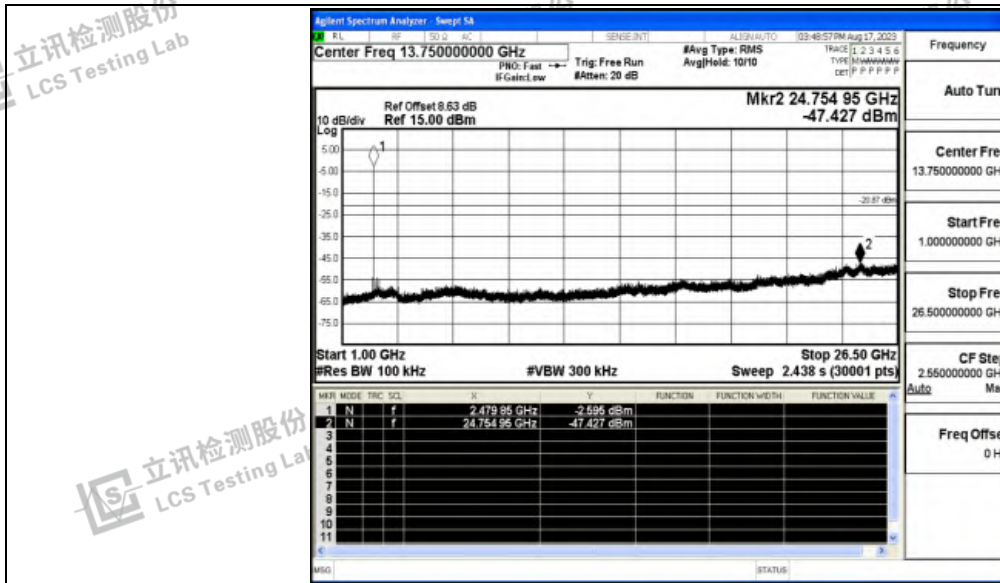


DH5_Ant0_2480_30~1000

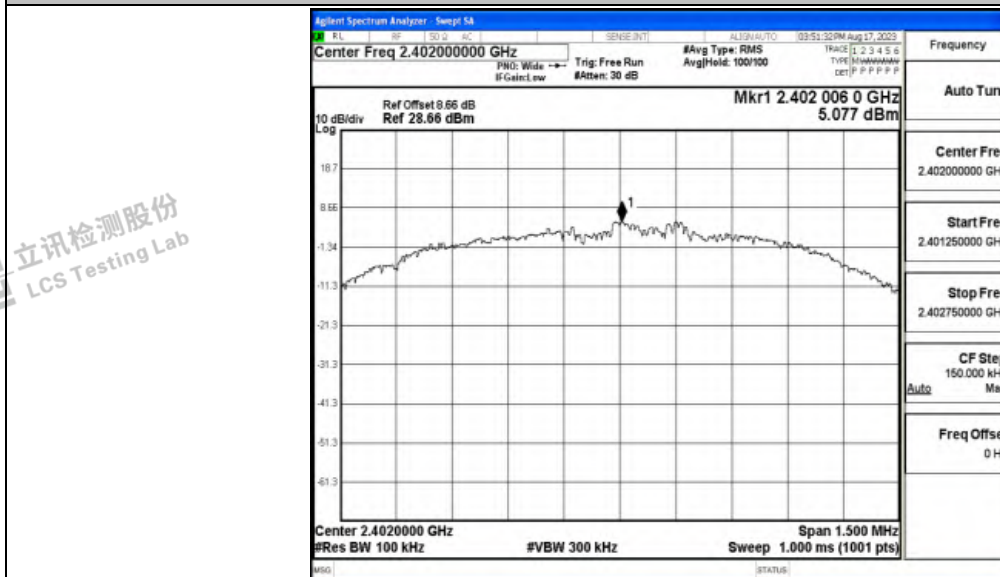


DH5_Ant0_2480_1000~26500



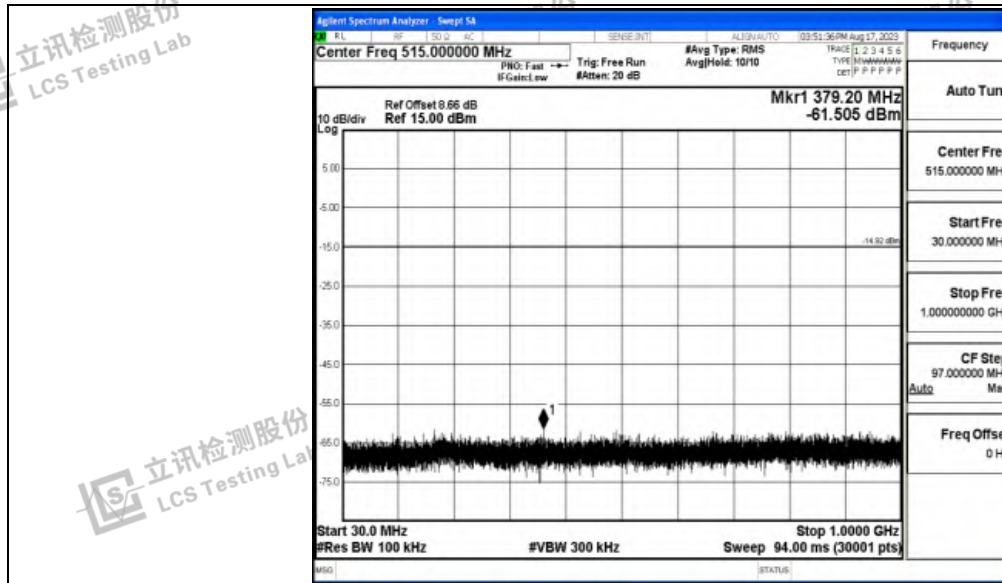


2DH5_Ant0_2402_0~Reference

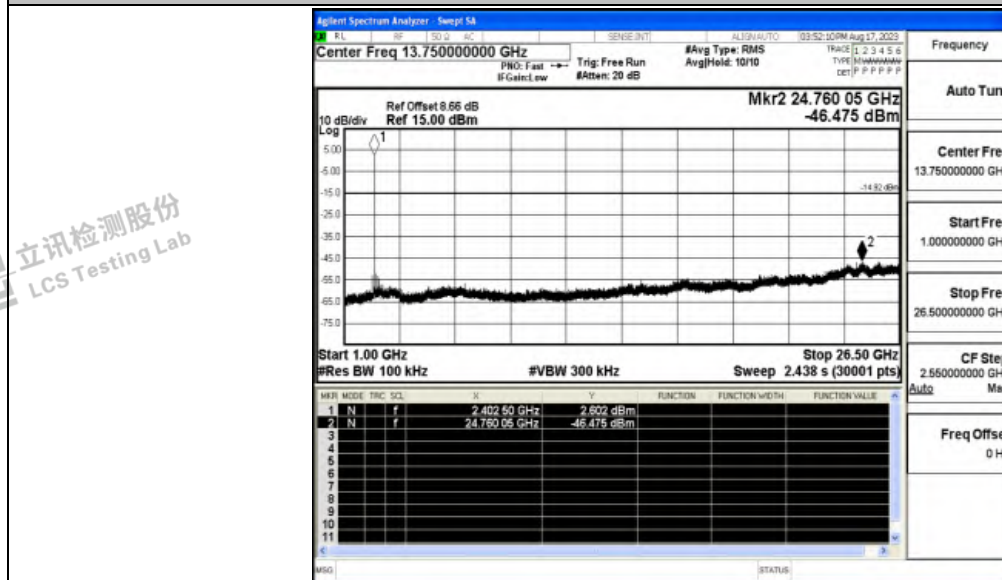


2DH5_Ant0_2402_30~1000



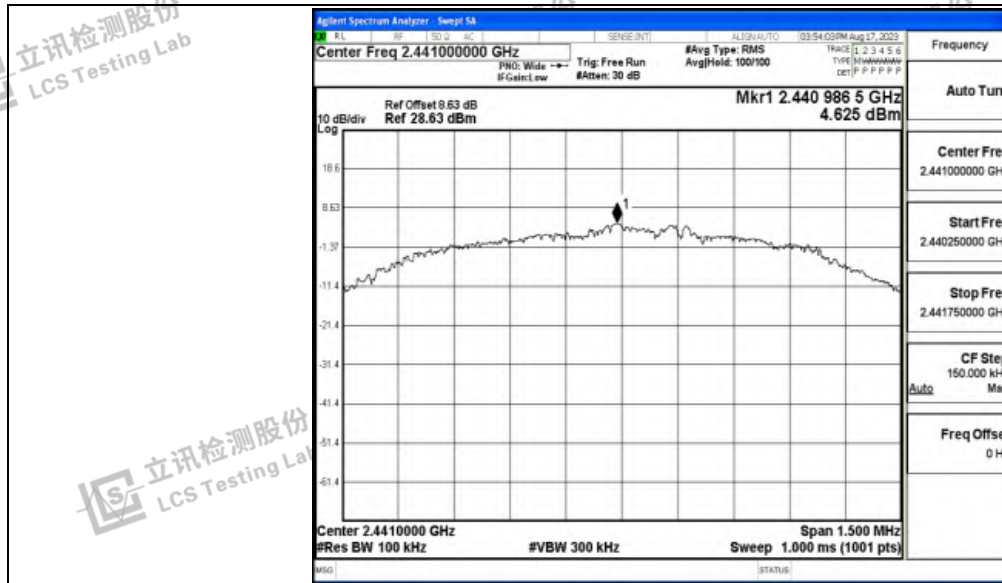


2DH5_Ant0_2402_1000~26500

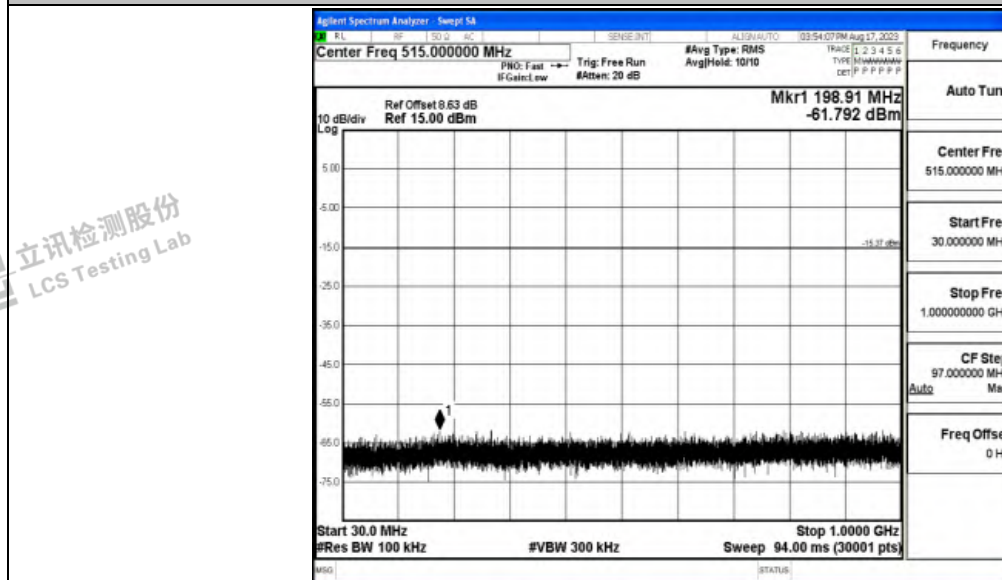


2DH5_Ant0_2441_0~Reference



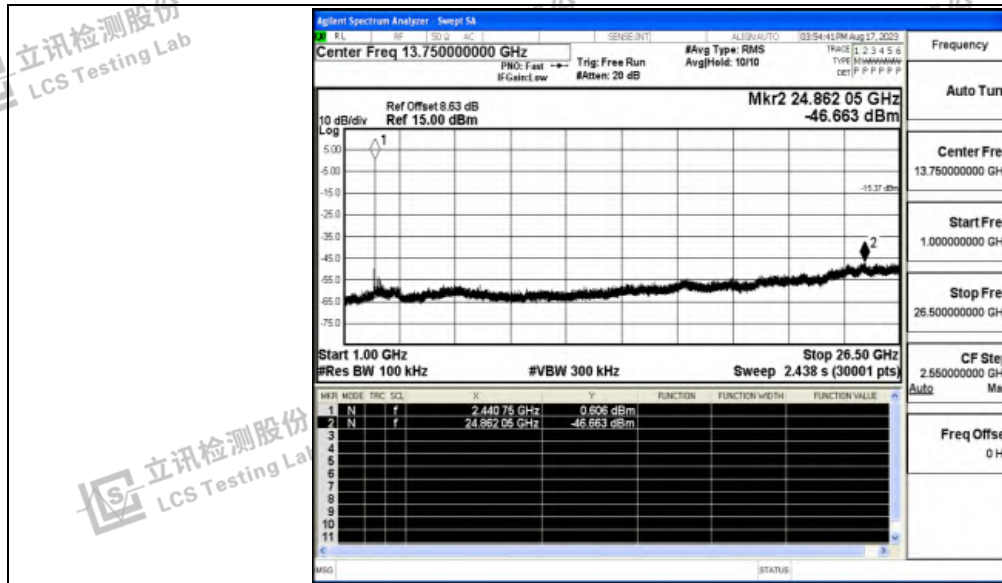


2DH5_Ant0_2441_30~1000

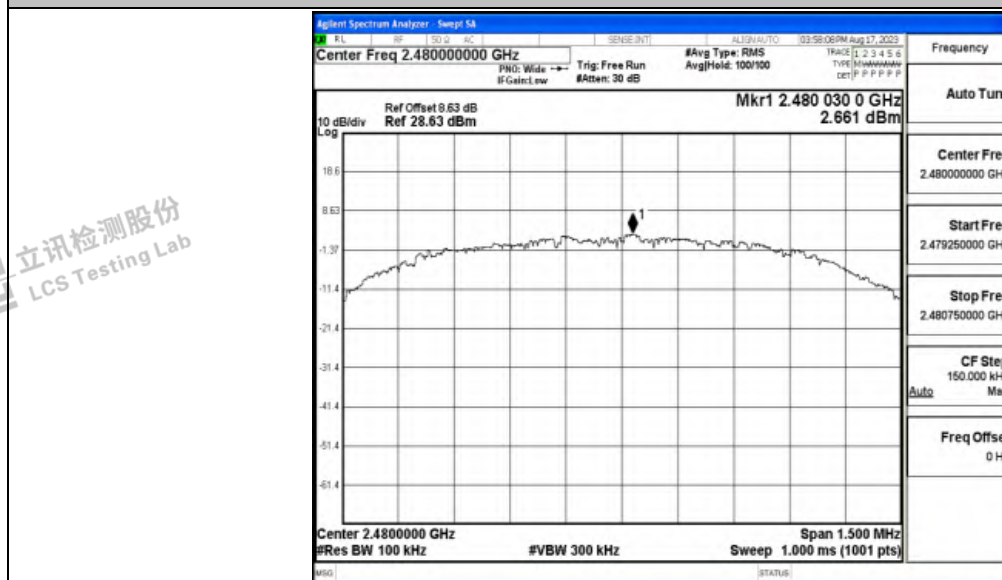


2DH5_Ant0_2441_1000~26500



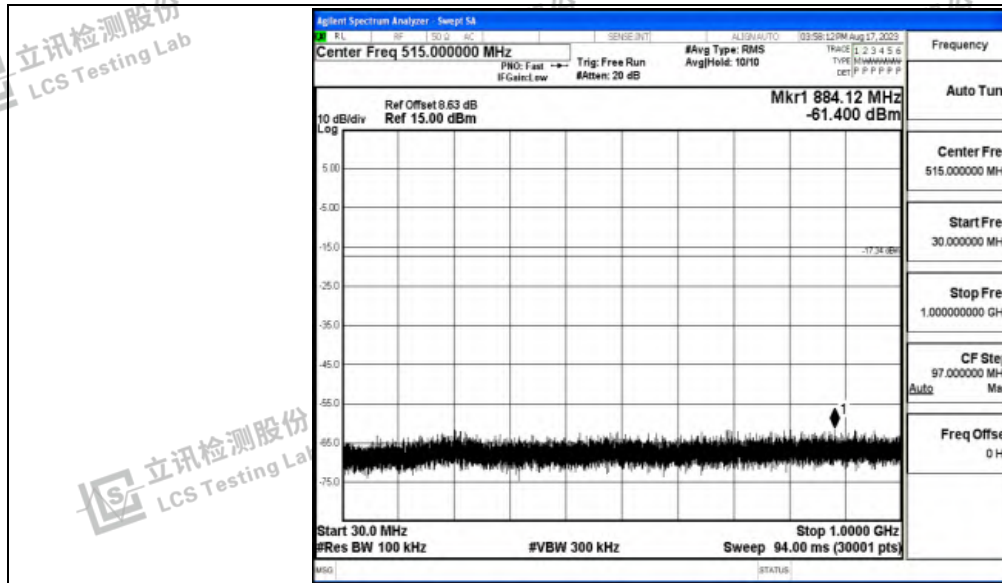


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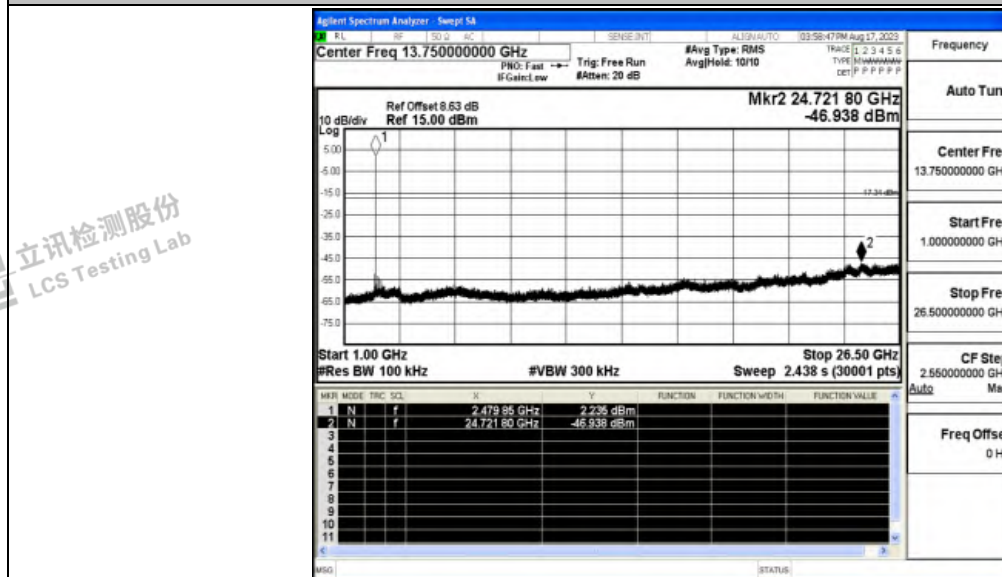


2DH5_Ant0_2480_30~1000



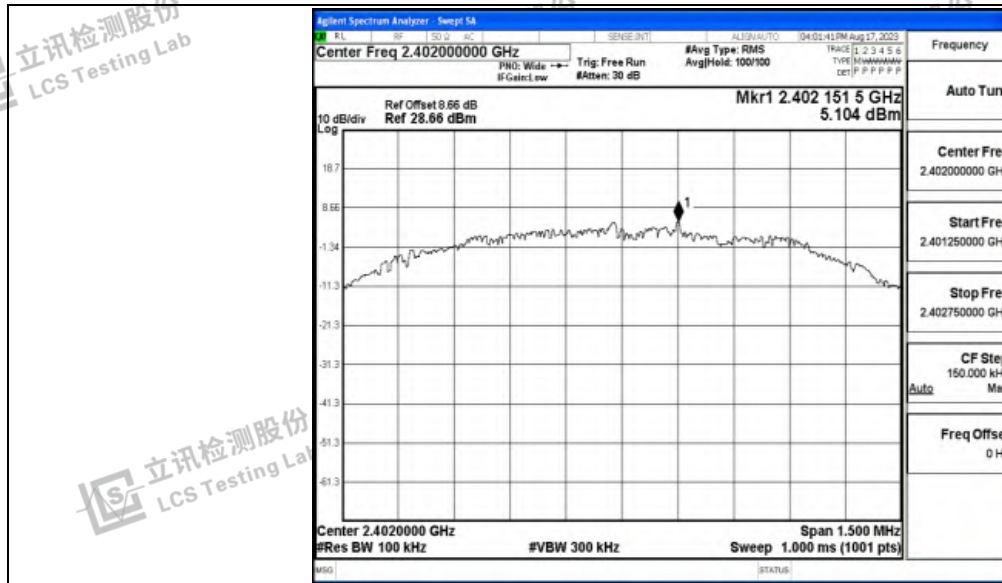


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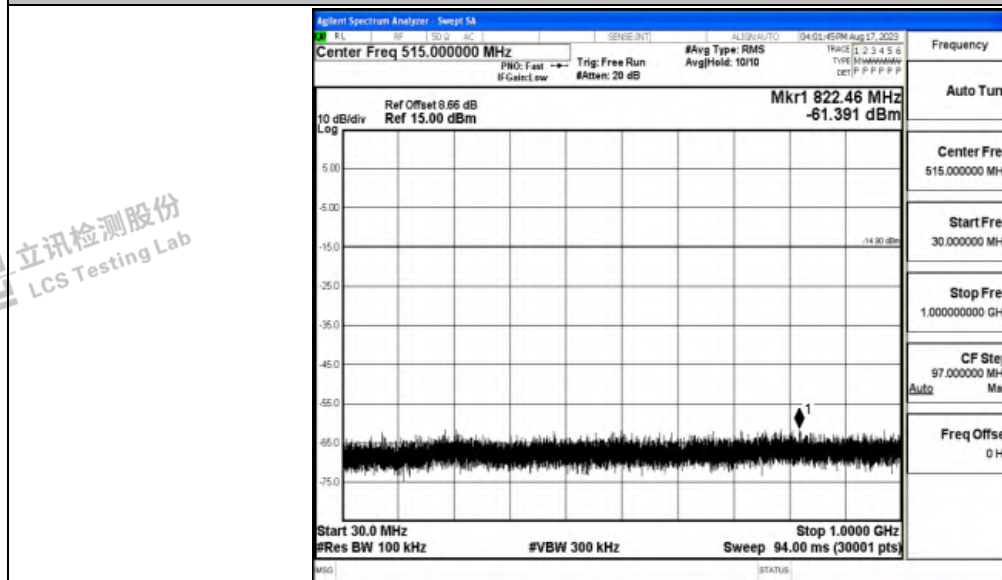


3DH5_Ant0_2402_0~Reference



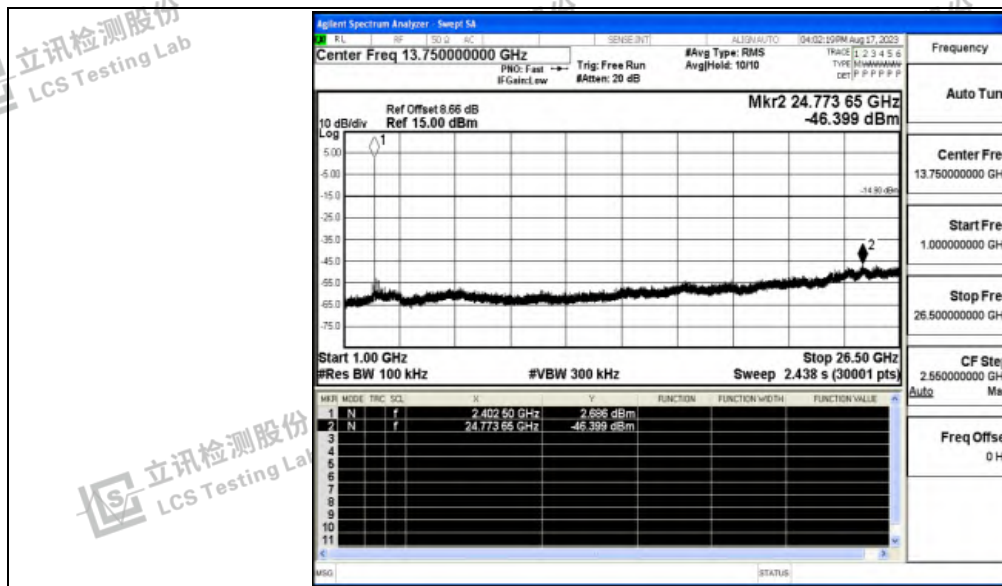


3DH5_Ant0_2402_30~1000

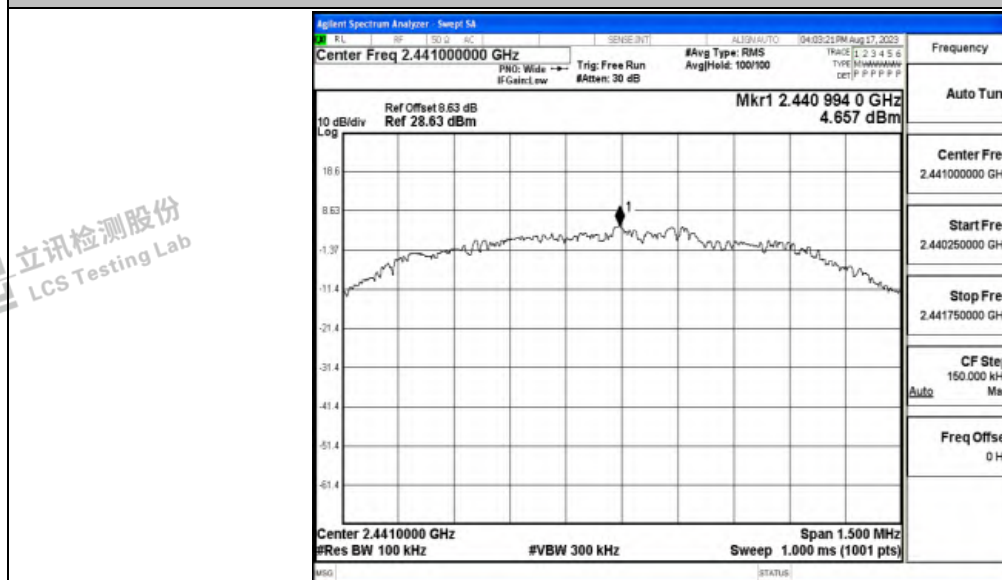


3DH5_Ant0_2402_1000~26500



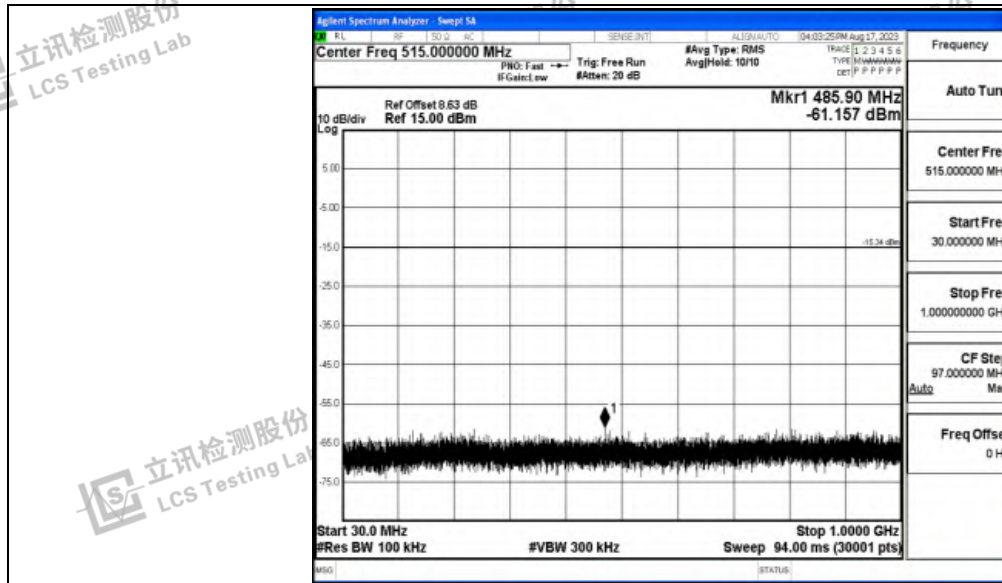


3DH5_Ant0_2441_0~Reference

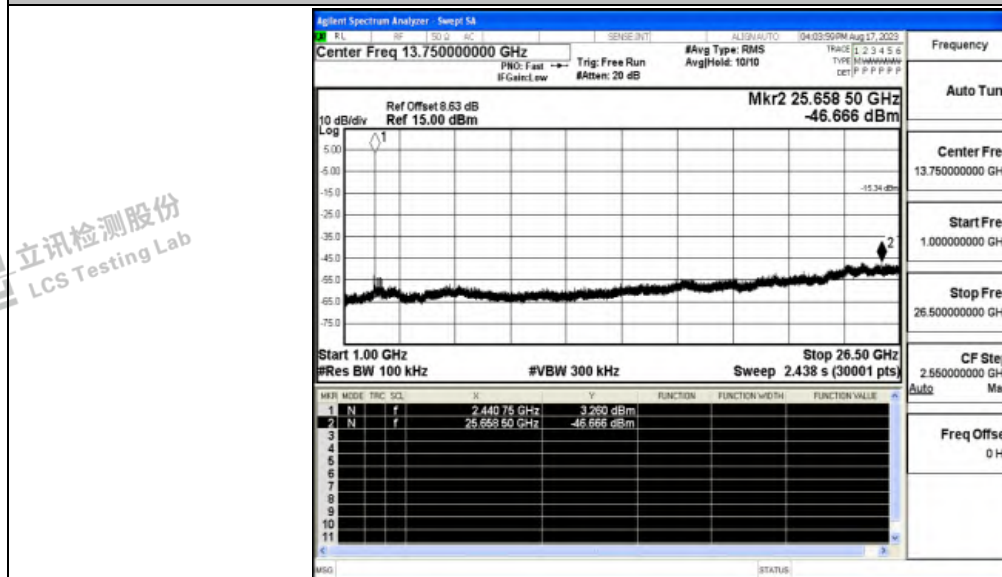


3DH5_Ant0_2441_30~1000



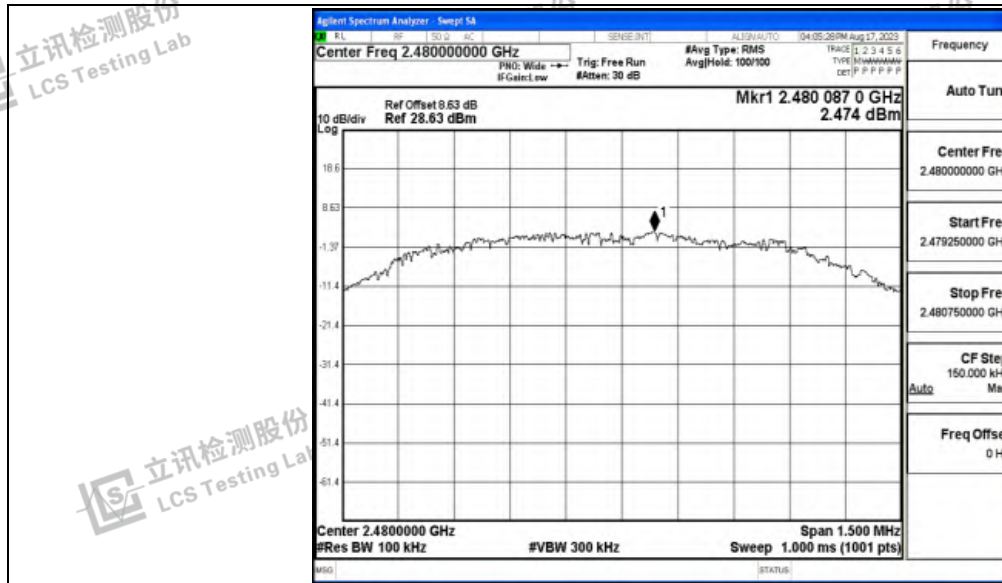


3DH5_Ant0_2441_1000~26500

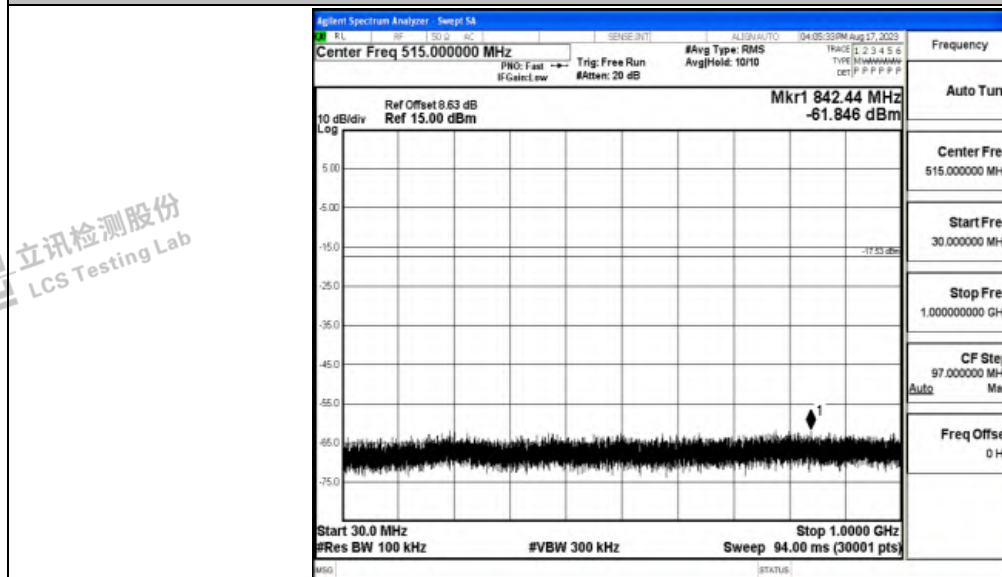


3DH5_Ant0_2480_0~Reference



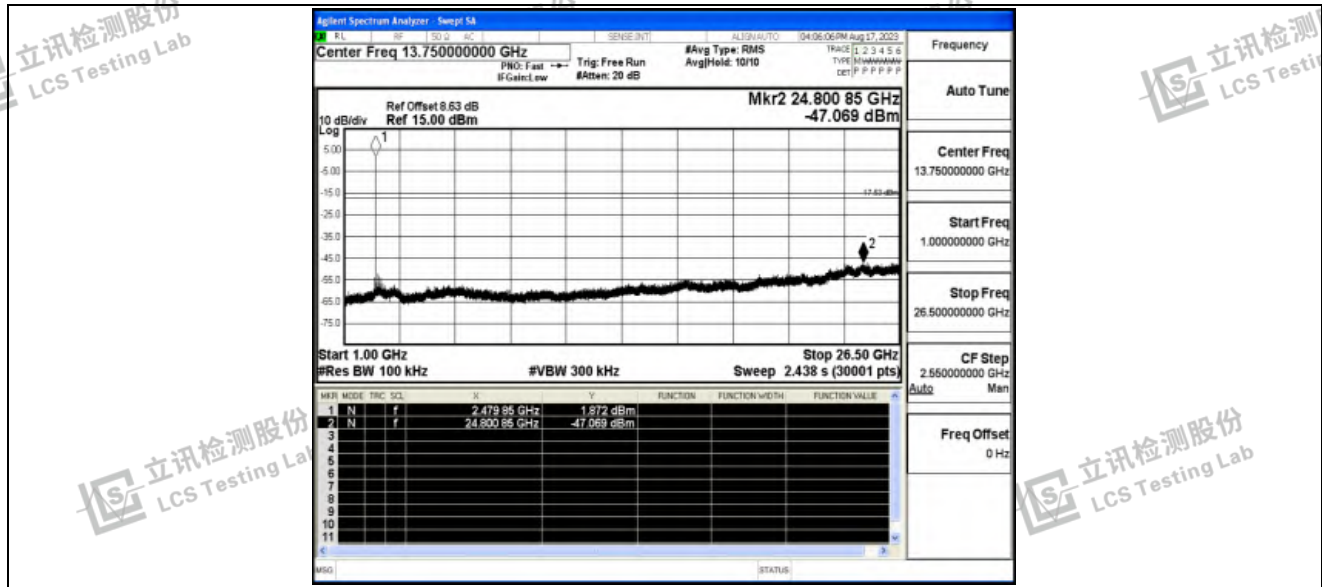


3DH5_Ant0_2480_30~1000



3DH5_Ant0_2480_1000~26500







A.8 Restrict Band

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	-48.22	≤-41.20	46.98	≤54	PASS
				AV	2325.305	-47.08	≤-41.20	48.12	≤54	PASS
				AV	2390.000	-47.89	≤-41.20	47.31	≤54	PASS
				Peak	2310.000	-41.77	≤-21.20	53.43	≤74	PASS
				Peak	2350.085	-38.18	≤-21.20	57.02	≤74	PASS
				Peak	2390.000	-41.14	≤-21.20	54.06	≤74	PASS
		High	2480	AV	2483.500	-47.28	≤-41.20	47.92	≤54	PASS
				AV	2489.760	-47.06	≤-41.20	48.14	≤54	PASS
				AV	2500.000	-47.23	≤-41.20	47.97	≤54	PASS
				Peak	2483.500	-43.35	≤-21.20	51.85	≤74	PASS
				Peak	2497.120	-38.72	≤-21.20	56.48	≤74	PASS
				Peak	2500.000	-42.13	≤-21.20	53.07	≤74	PASS
2DH5	Ant0	Low	2402	AV	2310.000	-48.22	≤-41.20	46.98	≤54	PASS
				AV	2325.095	-46.15	≤-41.20	49.05	≤54	PASS
				AV	2390.000	-47.46	≤-41.20	47.74	≤54	PASS
				Peak	2310.000	-42.04	≤-21.20	53.16	≤74	PASS
				Peak	2324.570	-37.07	≤-21.20	58.13	≤74	PASS
				Peak	2390.000	-40.71	≤-21.20	54.49	≤74	PASS
		High	2480	AV	2483.500	-45.21	≤-41.20	49.99	≤54	PASS
				AV	2483.520	-45.21	≤-41.20	49.99	≤54	PASS
				AV	2500.000	-47.01	≤-41.20	48.19	≤54	PASS
				Peak	2483.500	-41.85	≤-21.20	53.35	≤74	PASS
				Peak	2488.880	-37.68	≤-21.20	57.52	≤74	PASS
				Peak	2500.000	-42.26	≤-21.20	52.94	≤74	PASS
3DH5	Ant0	Low	2402	AV	2310.000	-48.13	≤-41.20	47.07	≤54	PASS
				AV	2325.200	-46.09	≤-41.20	49.11	≤54	PASS
				AV	2390.000	-47.5	≤-41.20	47.70	≤54	PASS
				Peak	2310.000	-42.18	≤-21.20	53.02	≤74	PASS
				Peak	2387.465	-37.65	≤-21.20	57.55	≤74	PASS
				Peak	2390.000	-43.11	≤-21.20	52.09	≤74	PASS
		High	2480	AV	2483.500	-45.13	≤-41.20	50.07	≤54	PASS
				AV	2483.520	-45.13	≤-41.20	50.07	≤54	PASS
				AV	2500.000	-47.05	≤-41.20	48.15	≤54	PASS
				Peak	2483.500	-43.14	≤-21.20	52.06	≤74	PASS
				Peak	2485.920	-37.05	≤-21.20	58.15	≤74	PASS
				Peak	2500.000	-44.04	≤-21.20	51.16	≤74	PASS



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			Peak	2489.680	-35.78	≤ -21.20	59.42	≤ 74	PASS
			Peak	2500.000	-39.83	≤ -21.20	55.37	≤ 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.

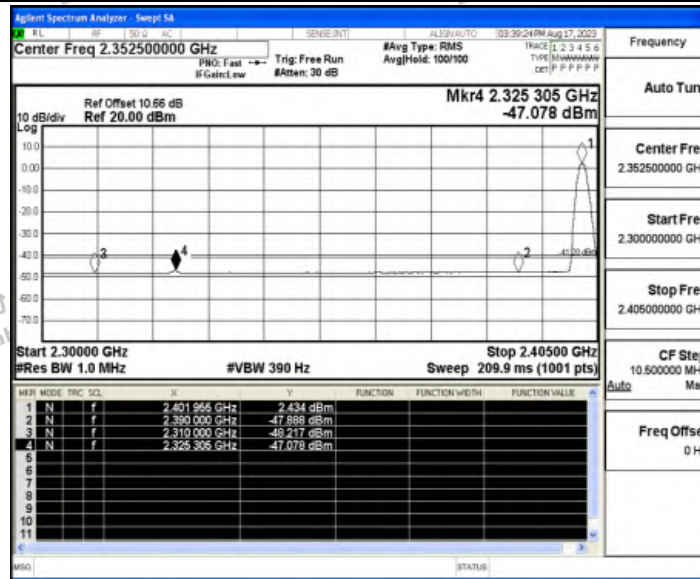


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Scan code to check authenticity

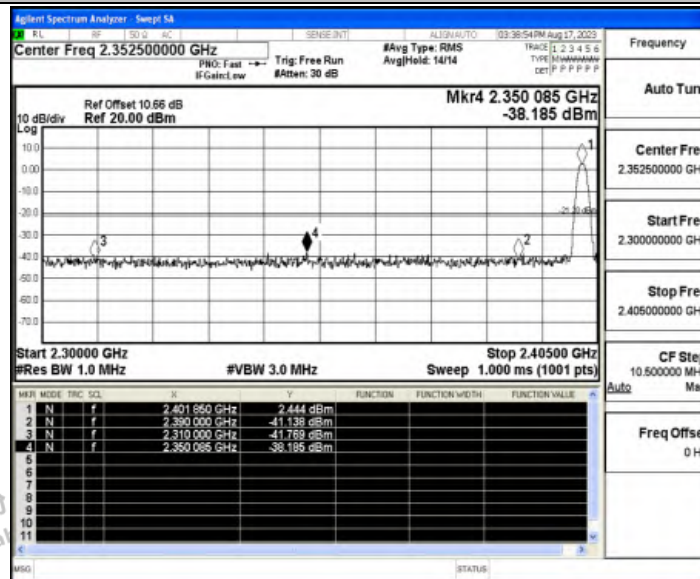


Test Graphs

DH5_Ant0_Low_2402_AV

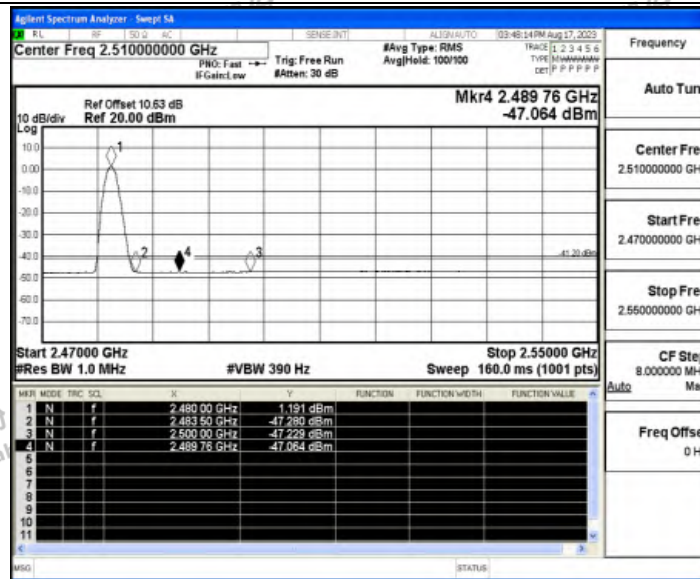


DH5_Ant0_Low_2402_Peak

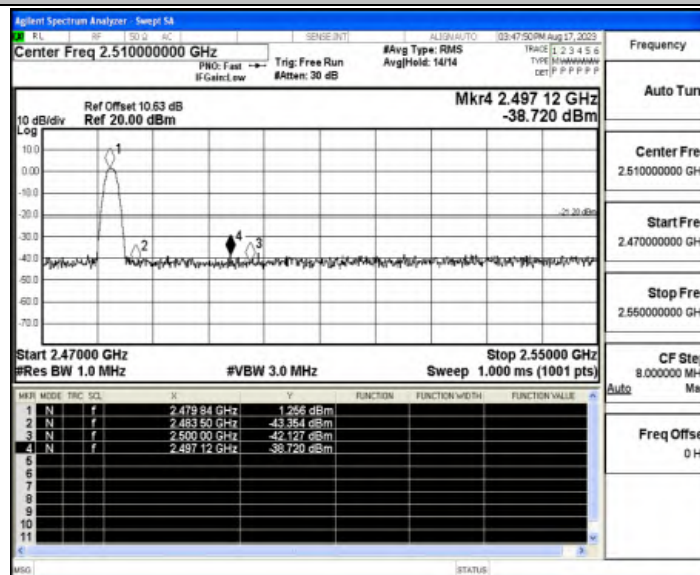


DH5_Ant0_High_2480_AV



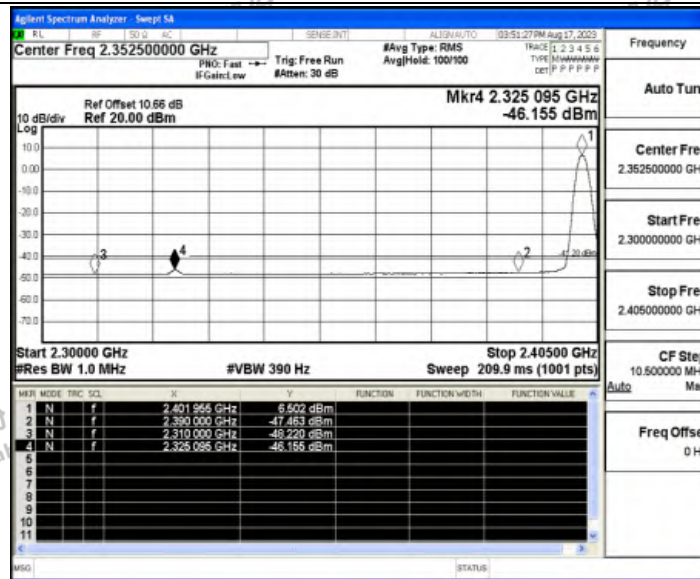


DH5_Ant0_High_2480_Peak

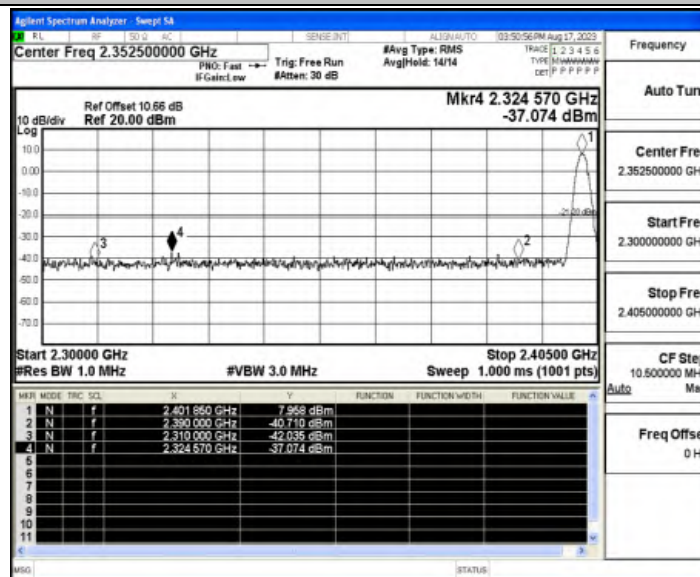


2DH5_Ant0_Low_2402_AV



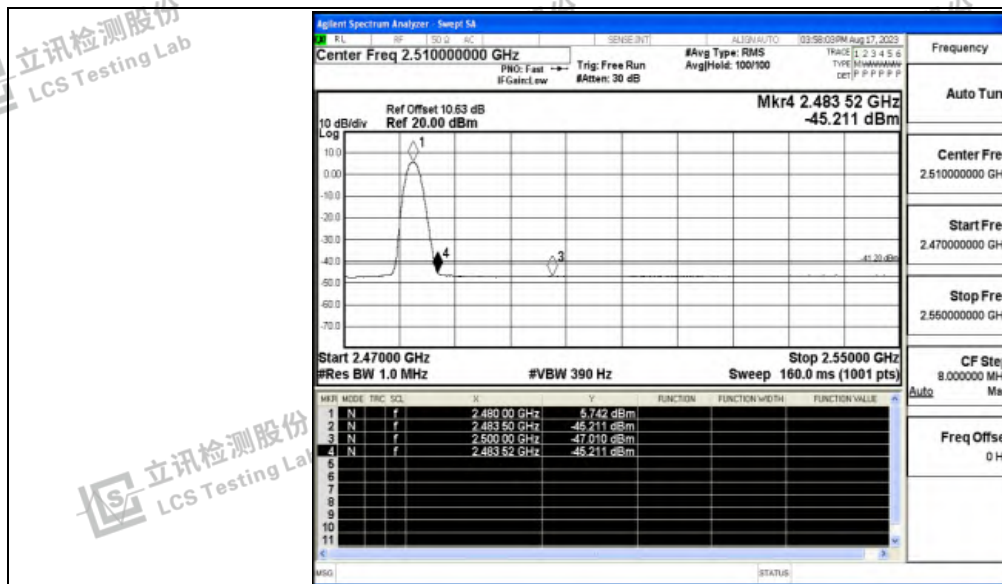


2DH5_Ant0_Low_2402_Peak

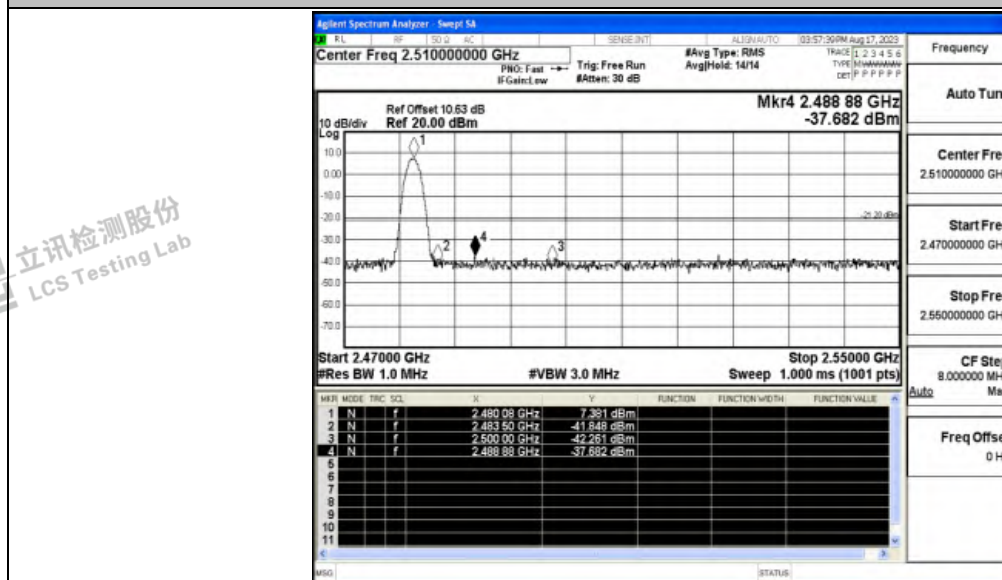


2DH5_Ant0_High_2480_AV



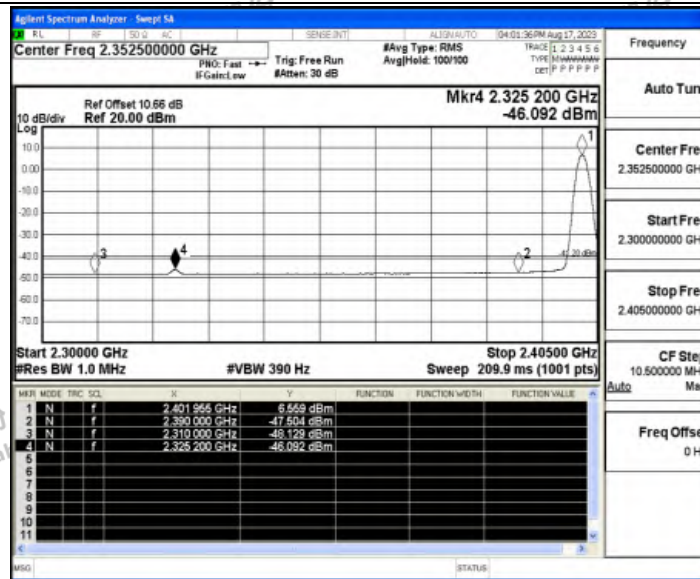


2DH5_Ant0_High_2480_Peak

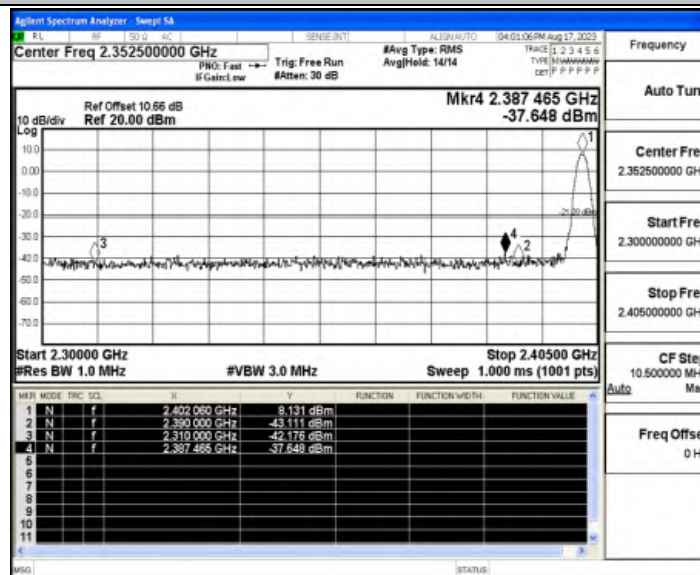


3DH5_Ant0_Low_2402_AV



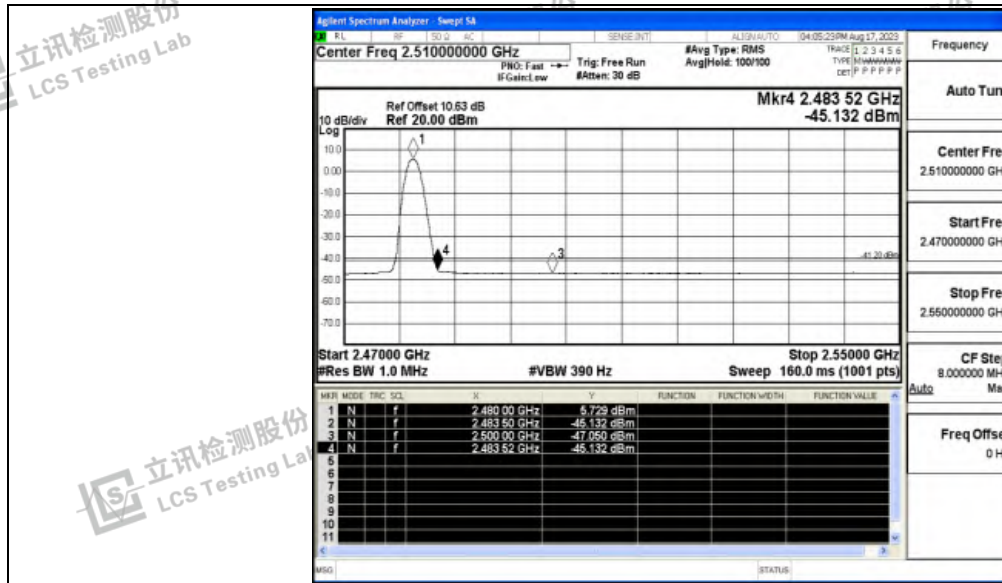


3DH5_Ant0_Low_2402_Peak



3DH5_Ant0_High_2480_AV





3DH5_Ant0_High_2480_Peak

