



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Smart switch

Test Model: Shelly PRO 3

Environmental Conditions

Temperature:	23.8 °C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	<i>monkey.Li</i> Monkey Li
Supervised by:	<i>LiHuan</i> Li Huan





A.1 20dB Emission Bandwidth

Test Result

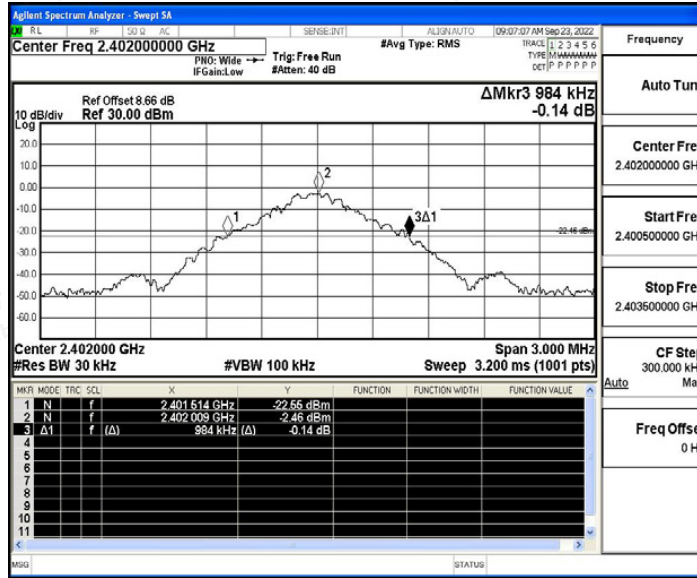
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	0.984	2401.514	2402.498	---
		2441	0.999	2440.469	2441.468	---
		2480	0.981	2479.502	2480.483	---
2DH5	Ant1	2402	1.314	2401.337	2402.651	---
		2441	1.287	2440.358	2441.645	---
		2480	1.299	2479.352	2480.651	---
3DH5	Ant1	2402	1.344	2401.322	2402.666	---
		2441	1.314	2440.337	2441.651	---
		2480	1.272	2479.346	2480.618	---



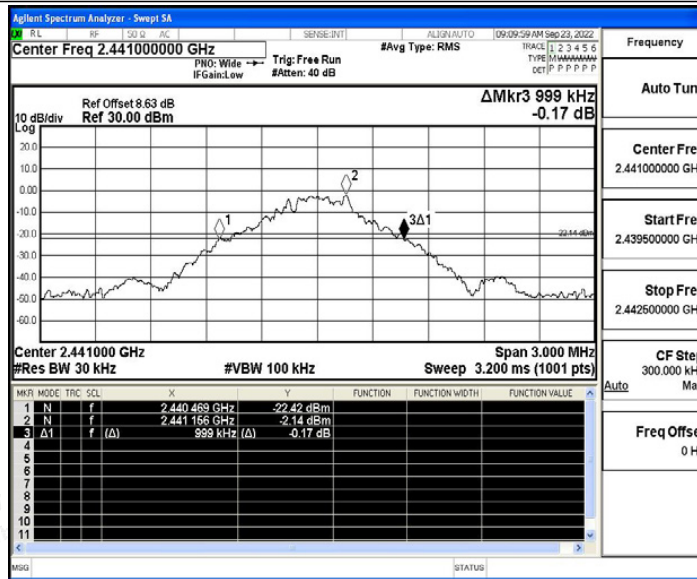


Test Graphs

DH5_Ant1_2402

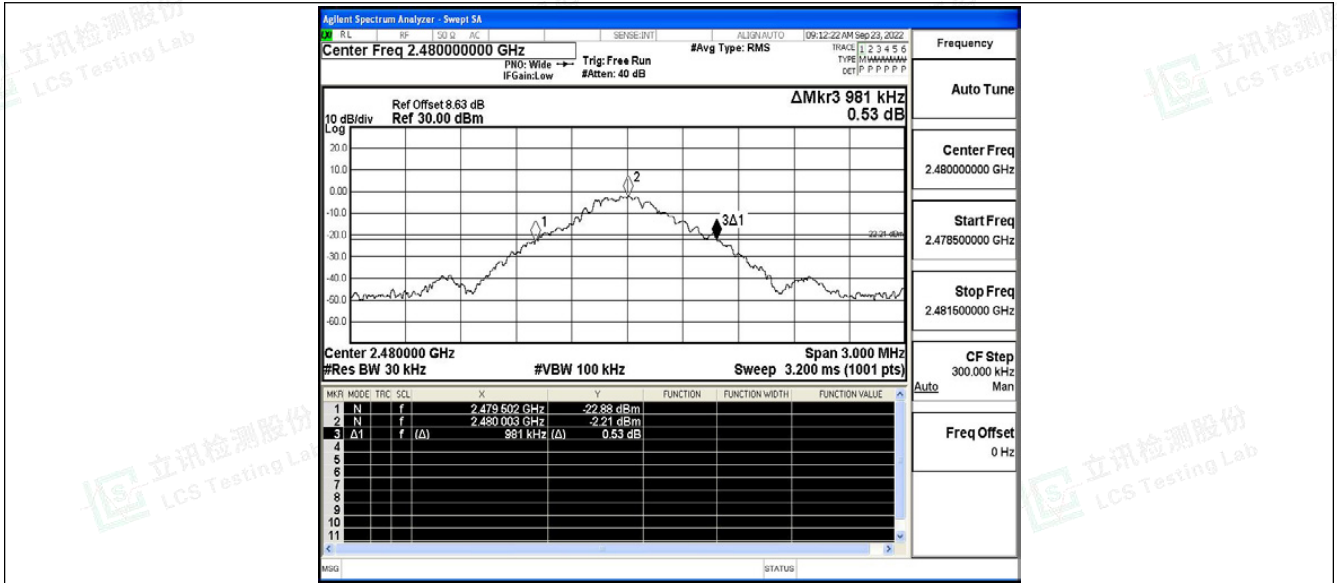


DH5_Ant1_2441

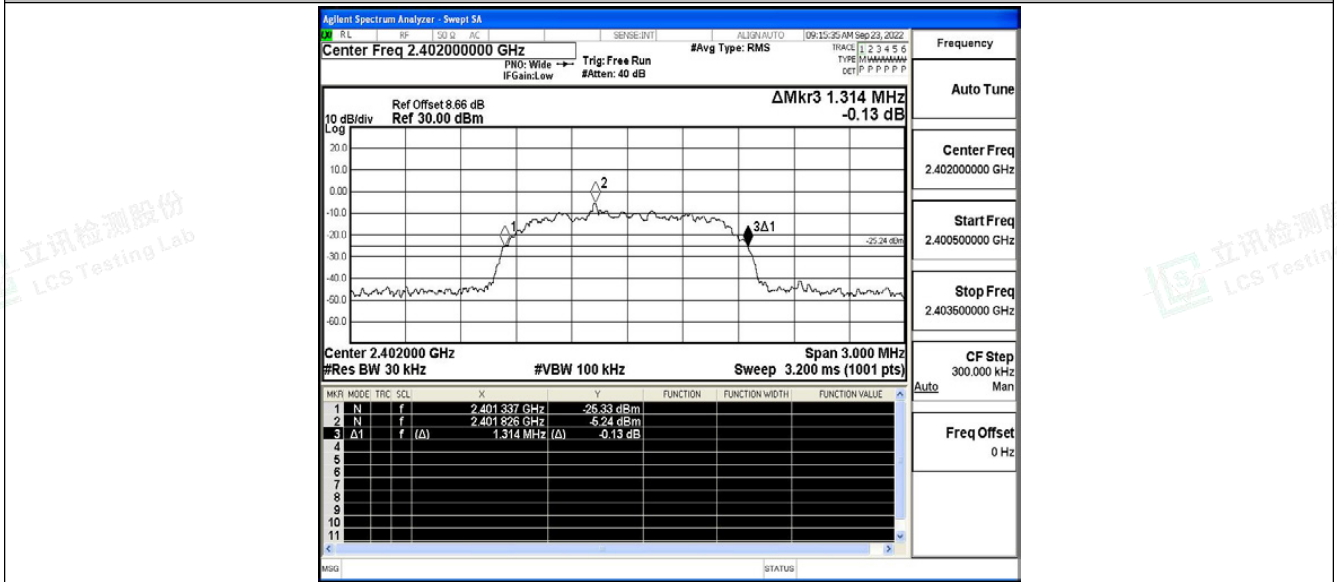


DH5_Ant1_2480



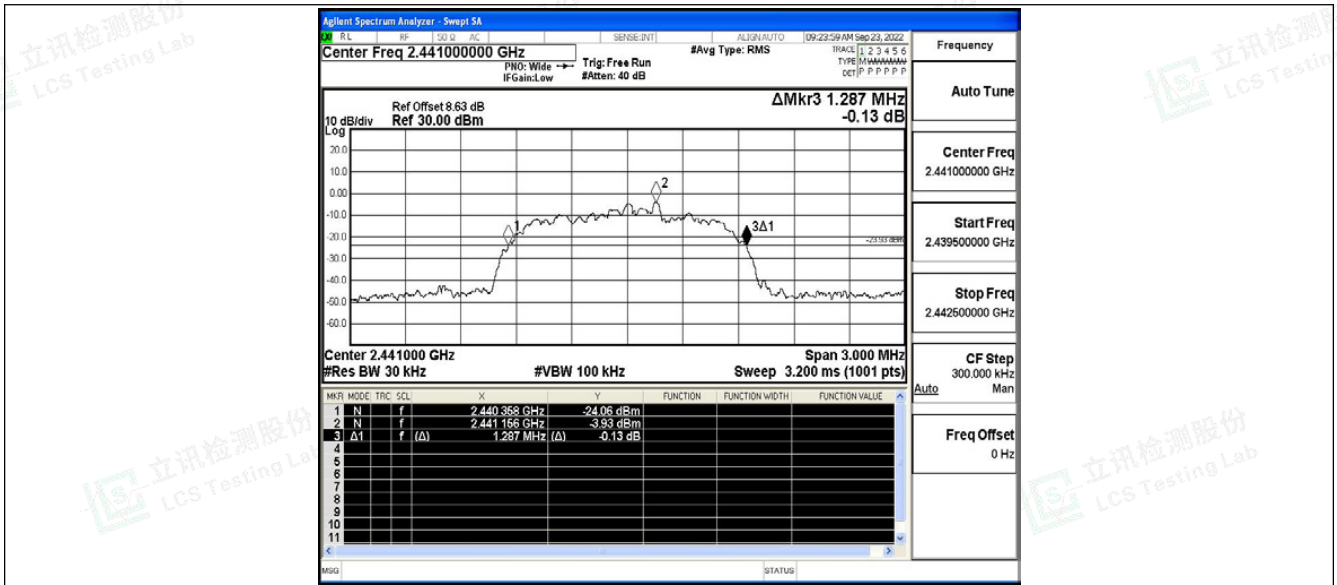


2DH5_Ant1_2402

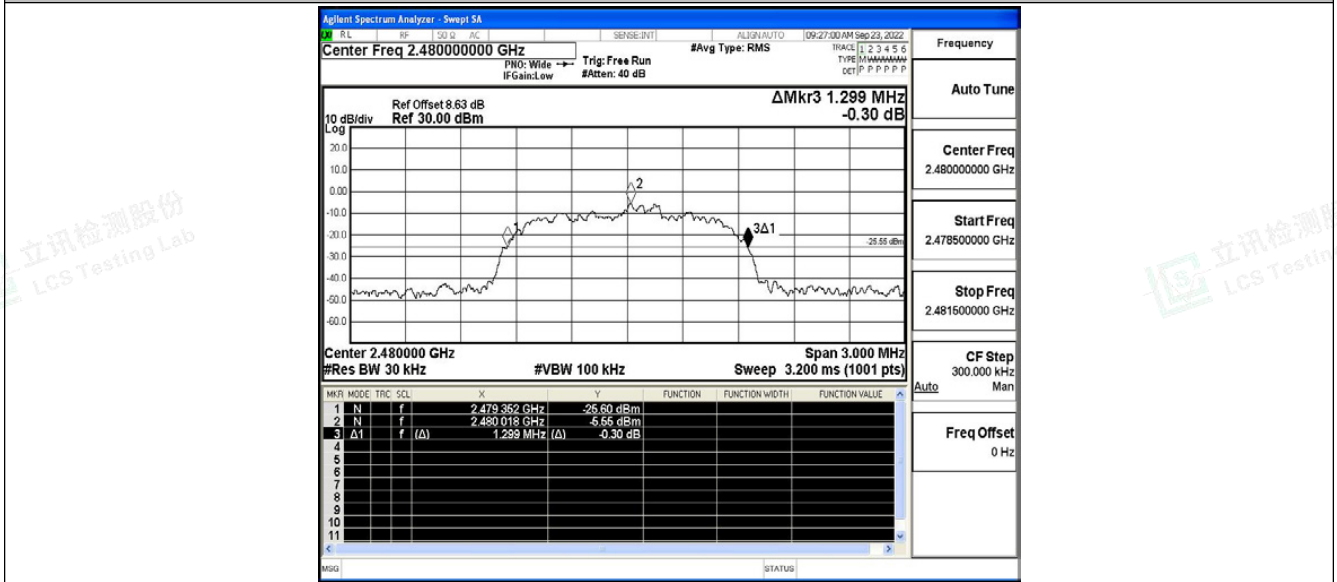


2DH5_Ant1_2441



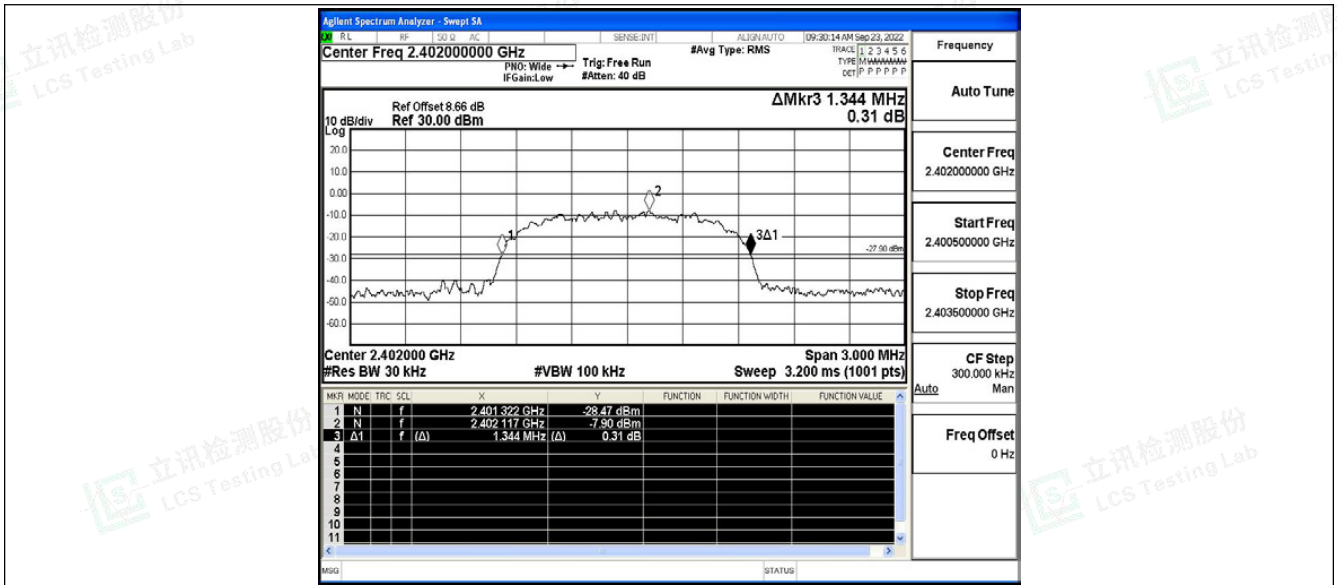


2DH5_Ant1_2480

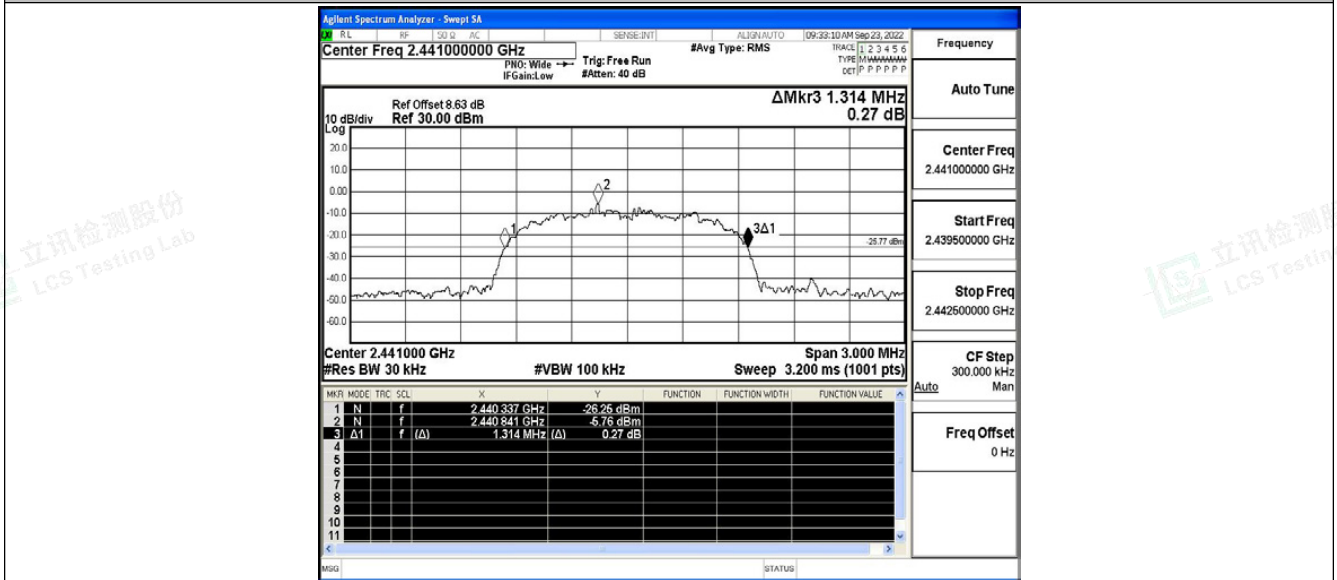


3DH5_Ant1_2402



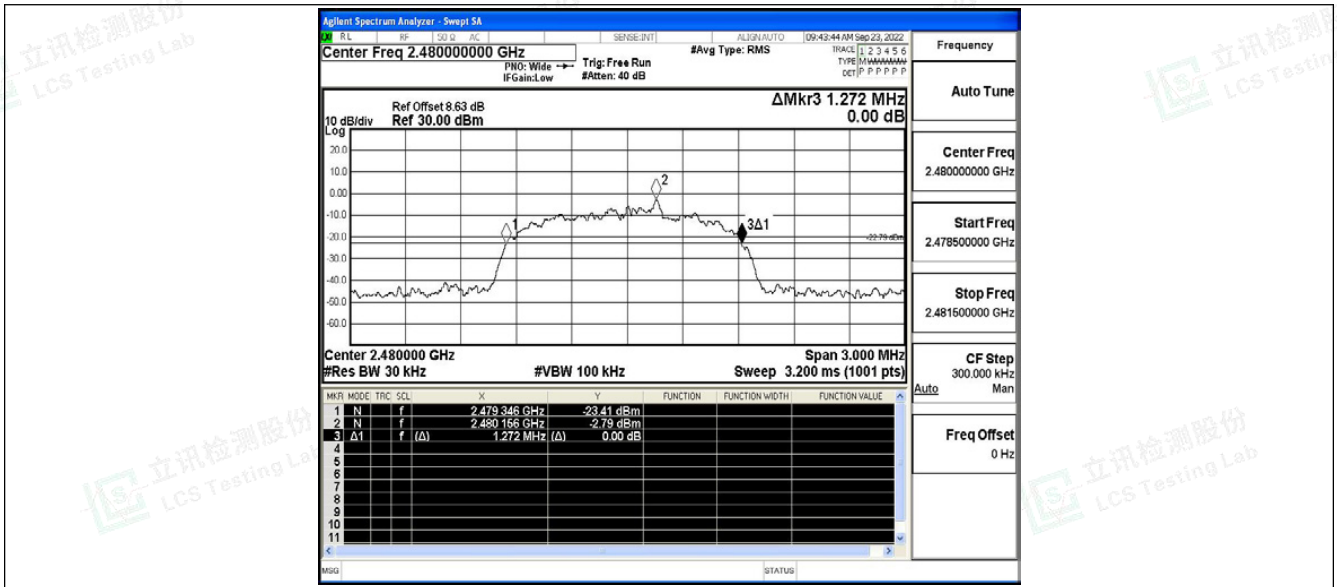


3DH5_Ant1_2441



3DH5_Ant1_2480







A.2 Maximum conducted output power

Test Result

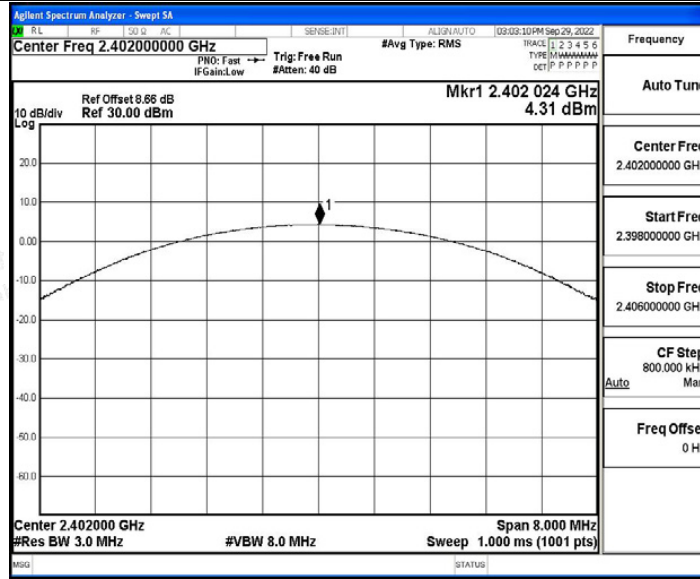
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	4.31	≤20.97	PASS
		2441	4.09	≤20.97	PASS
		2480	4.69	≤20.97	PASS
2DH5	Ant1	2402	3.19	≤20.97	PASS
		2441	3.2	≤20.97	PASS
		2480	3.71	≤20.97	PASS
3DH5	Ant1	2402	3.31	≤20.97	PASS
		2441	3.29	≤20.97	PASS
		2480	3.76	≤20.97	PASS



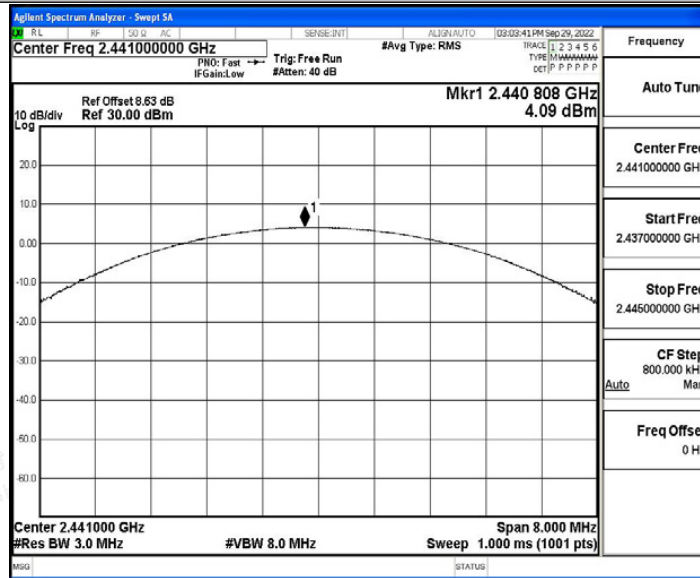


Test Graphs

DH5_Ant1_2402

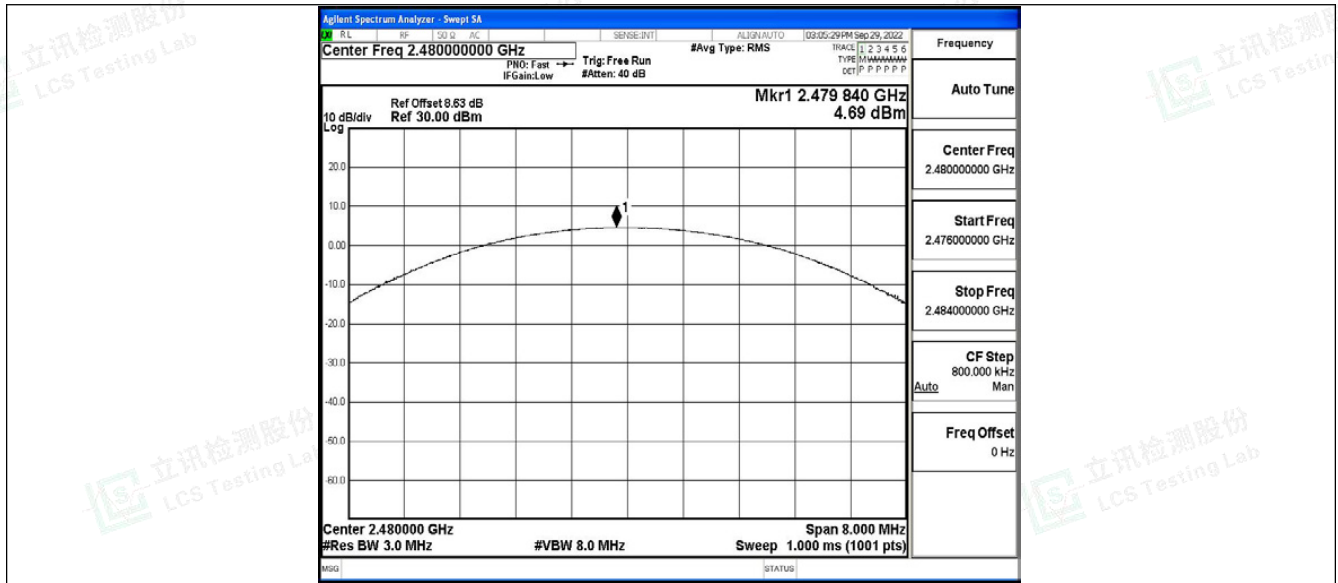


DH5_Ant1_2441

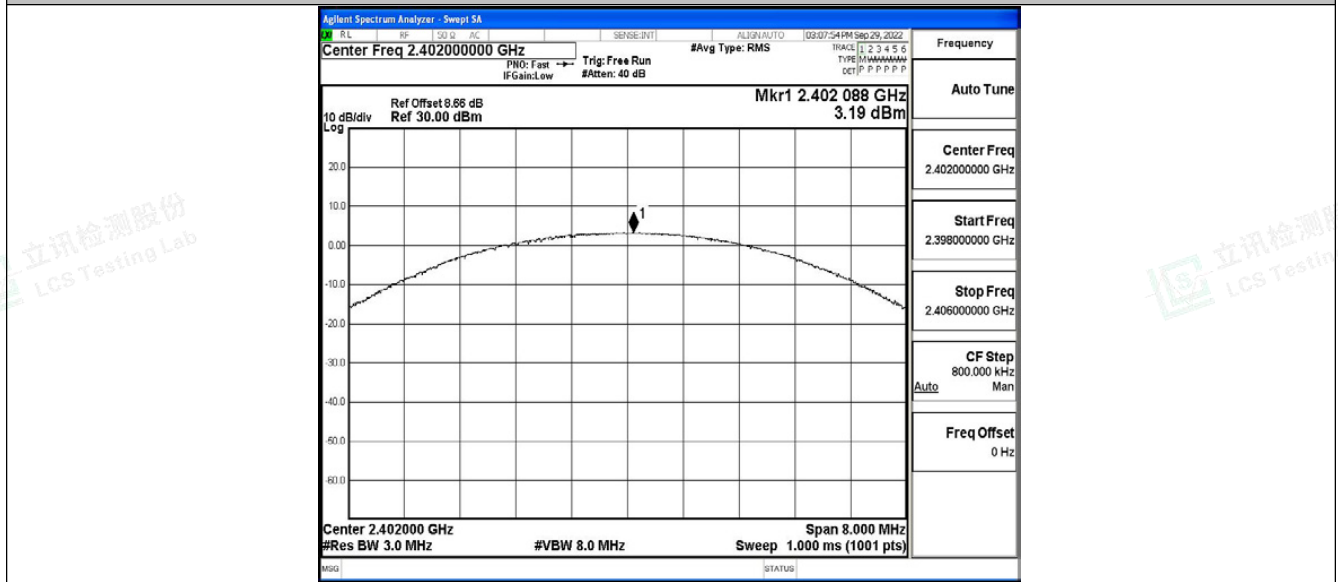


DH5_Ant1_2480



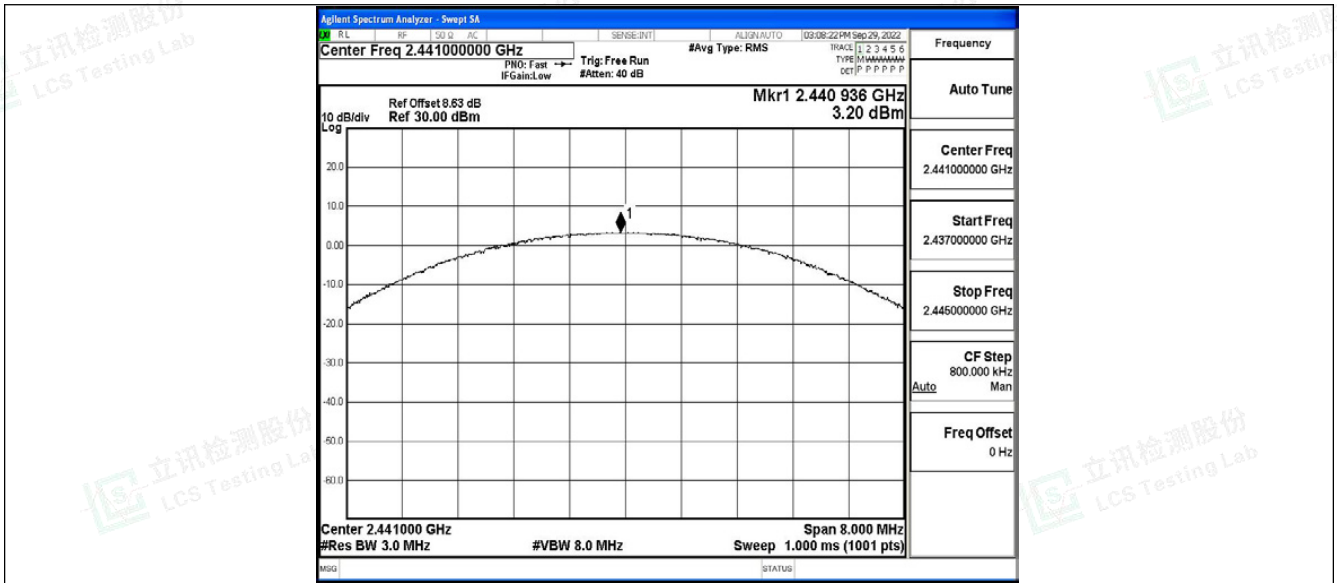


2DH5_Ant1_2402

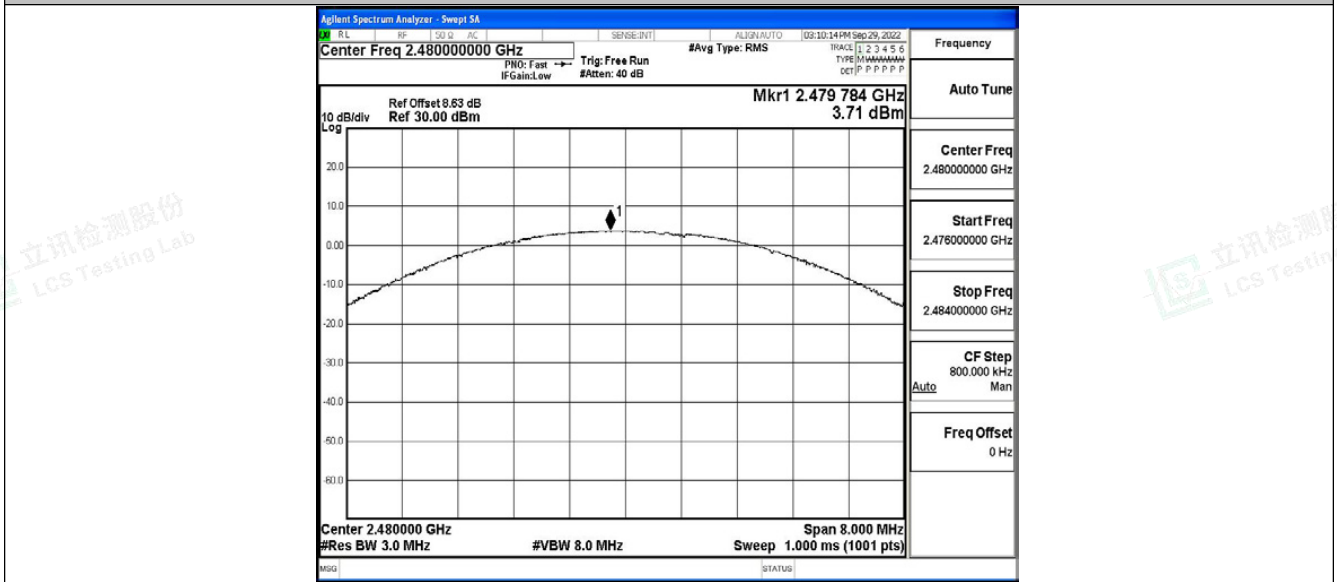


2DH5_Ant1_2441



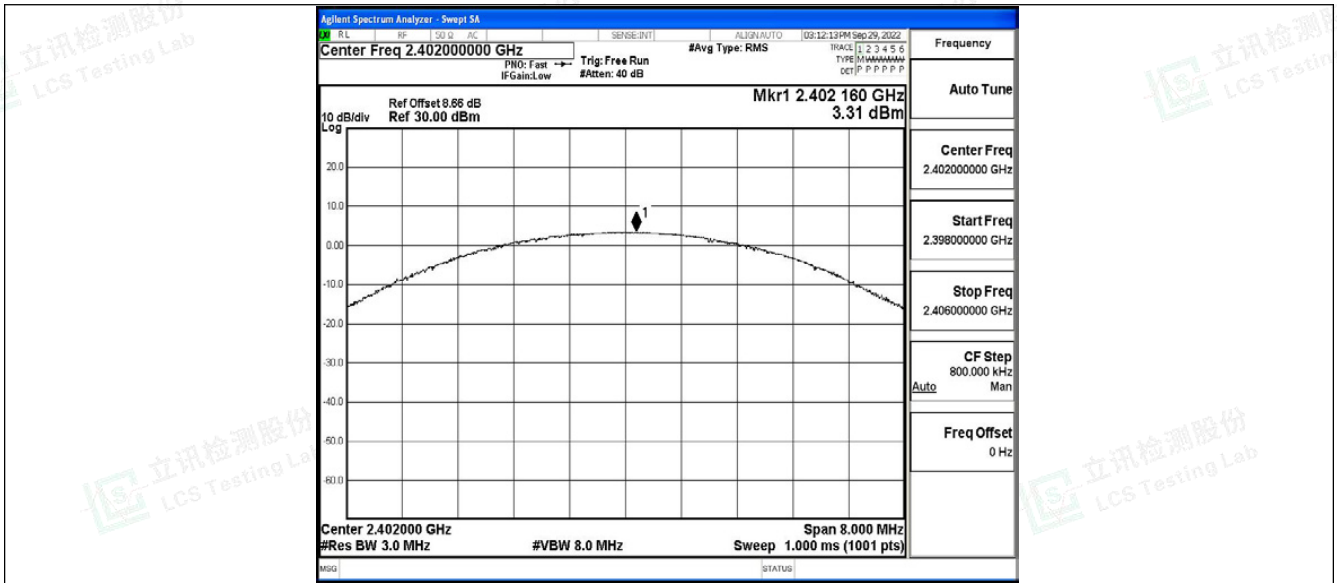


2DH5_Ant1_2480

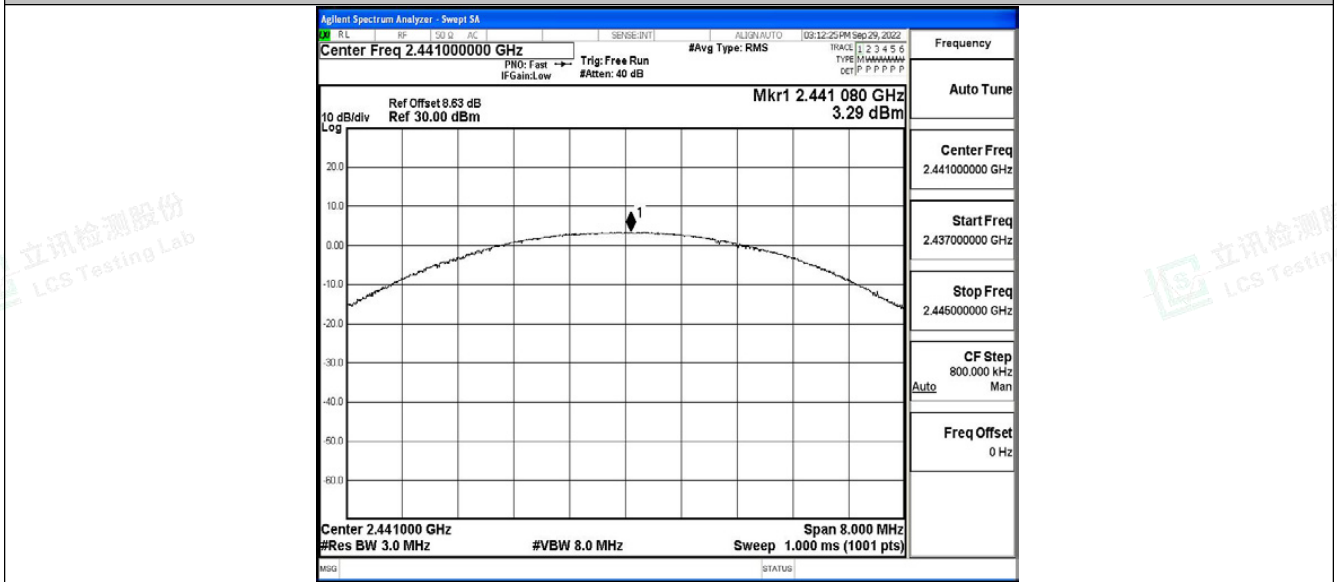


3DH5_Ant1_2402



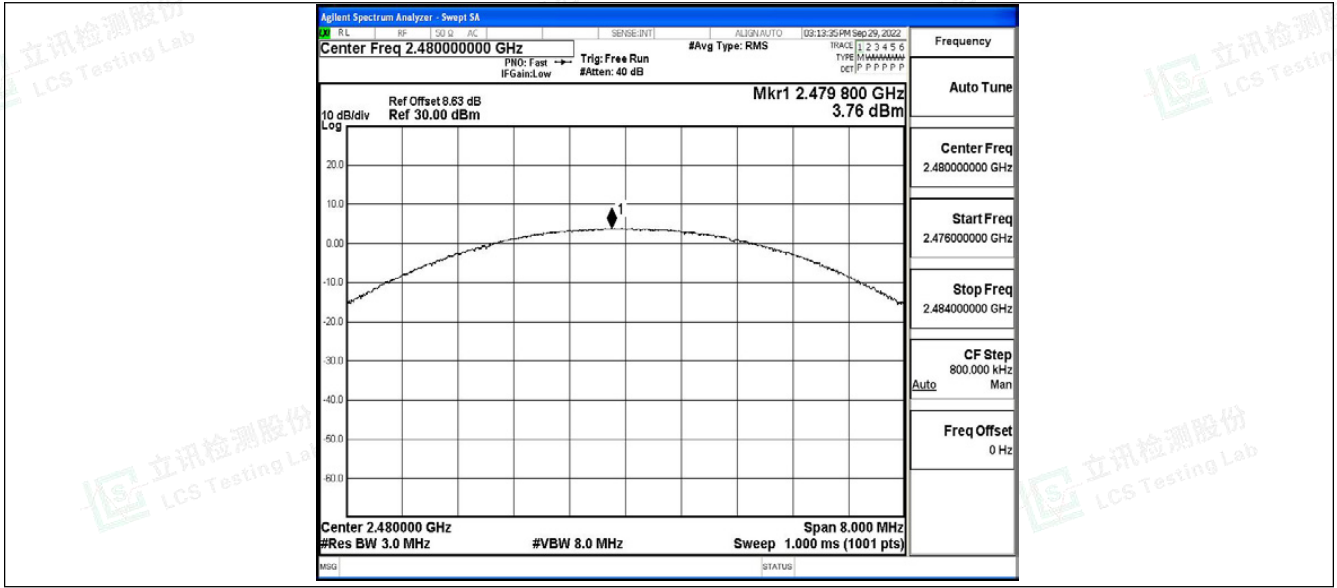


3DH5_Ant1_2441



3DH5_Ant1_2480







A.3 Carrier frequency separation

Test Result

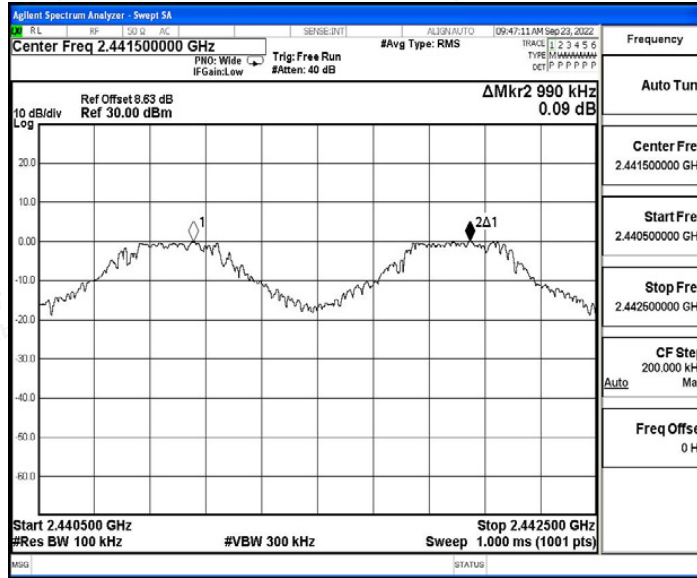
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.99	≥0.666	PASS
2DH5	Ant1	Hop	1.212	≥0.876	PASS
3DH5	Ant1	Hop	1.302	≥0.896	PASS



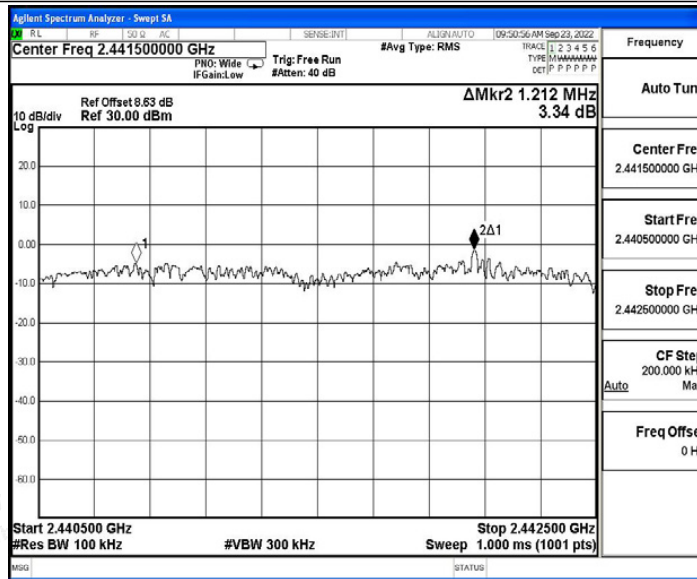


Test Graphs

DH5_Ant1_Hop

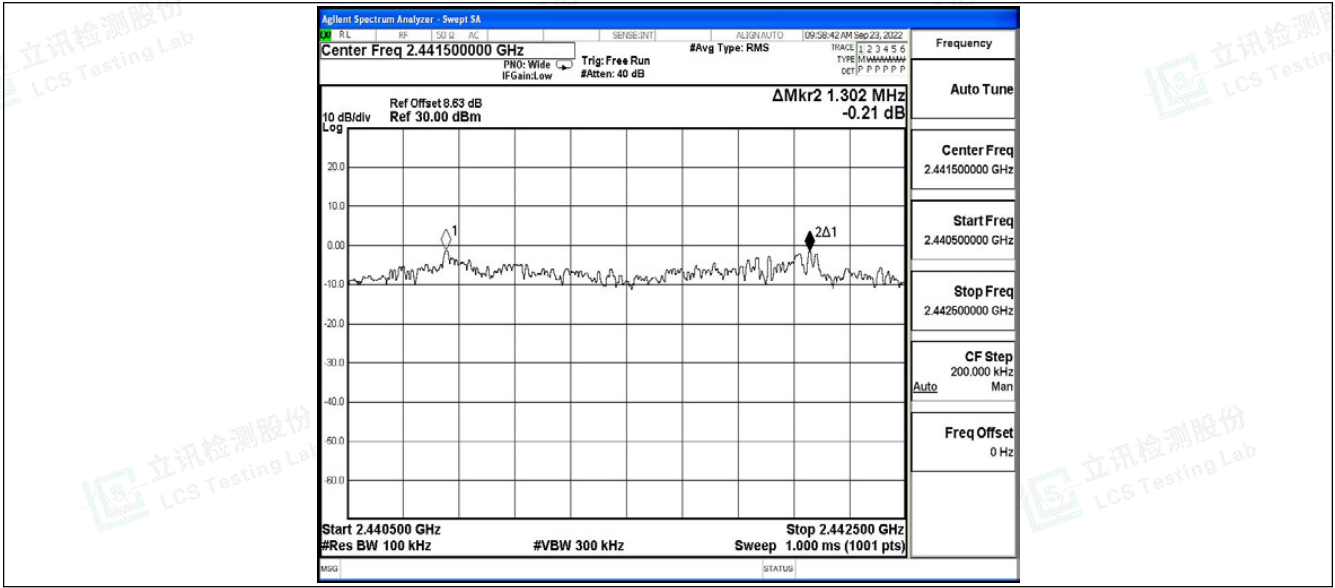


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.4 Time of occupancy

Test Result

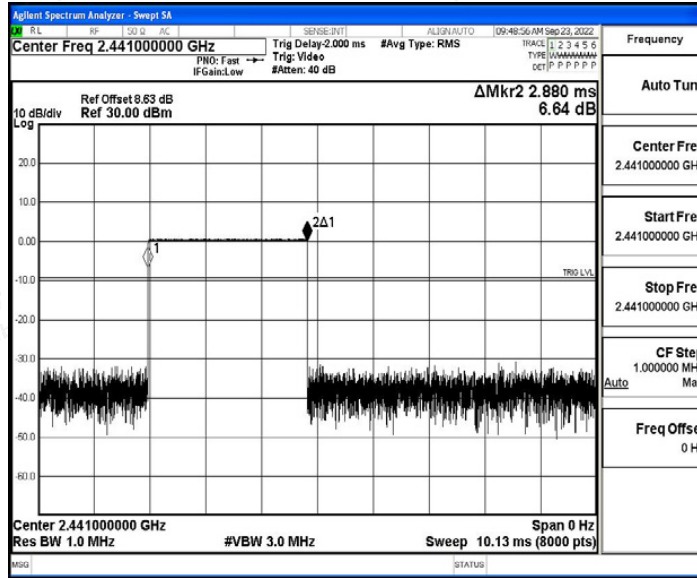
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.88	106.67	0.307	≤0.4	PASS
3DH5	Ant1	Hop	2.89	106.67	0.308	≤0.4	PASS



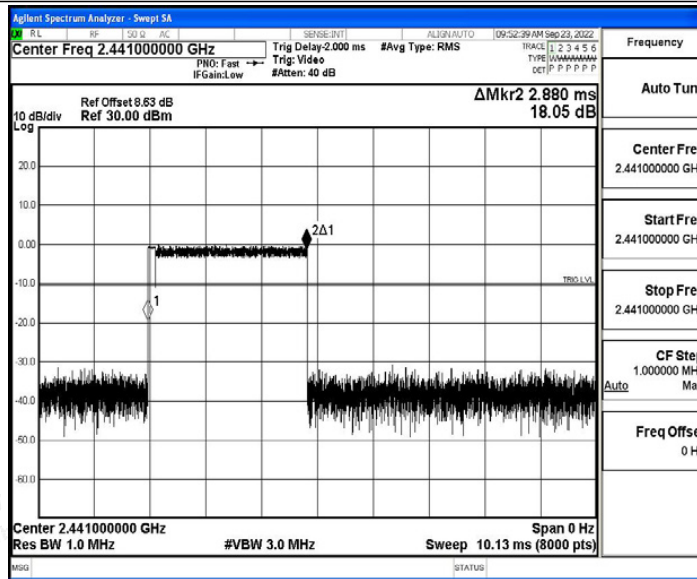


Test Graphs

DH5_Ant1_Hop

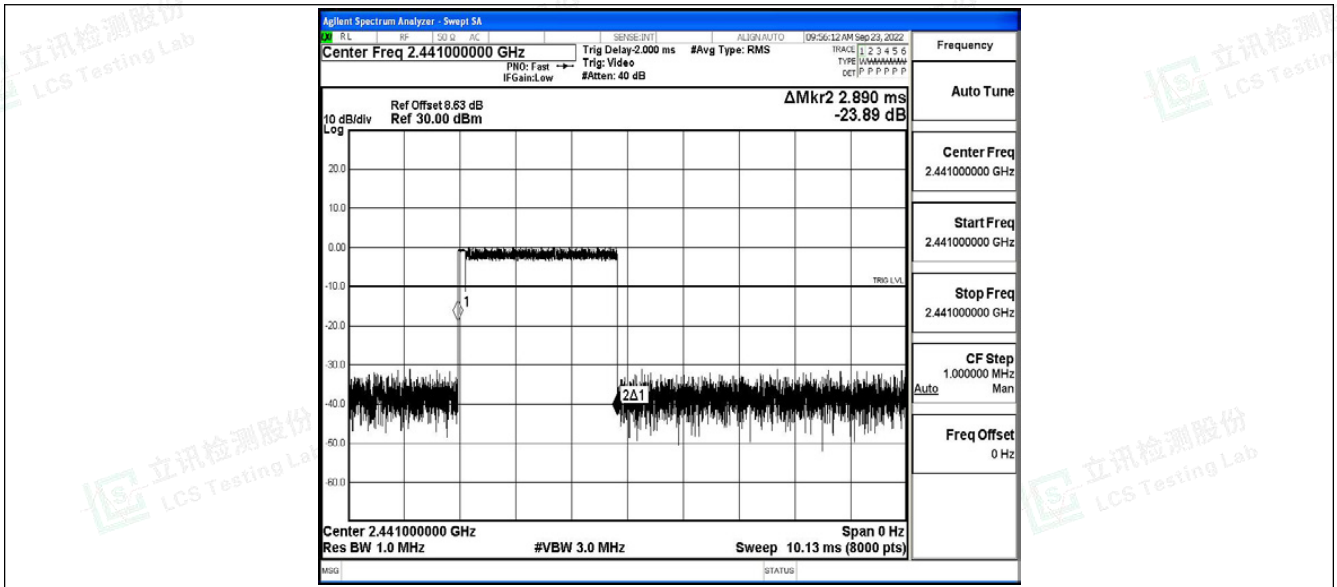


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.5 Number of hopping channels

Test Result

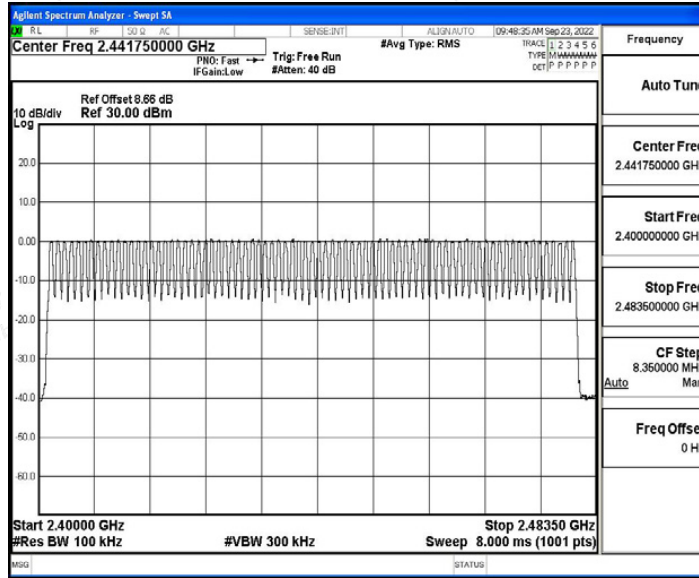
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS



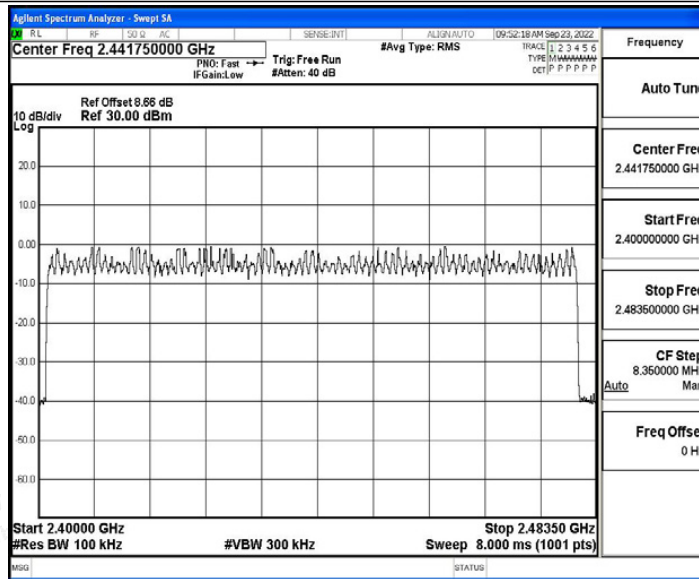


Test Graphs

DH5_Ant1_Hop

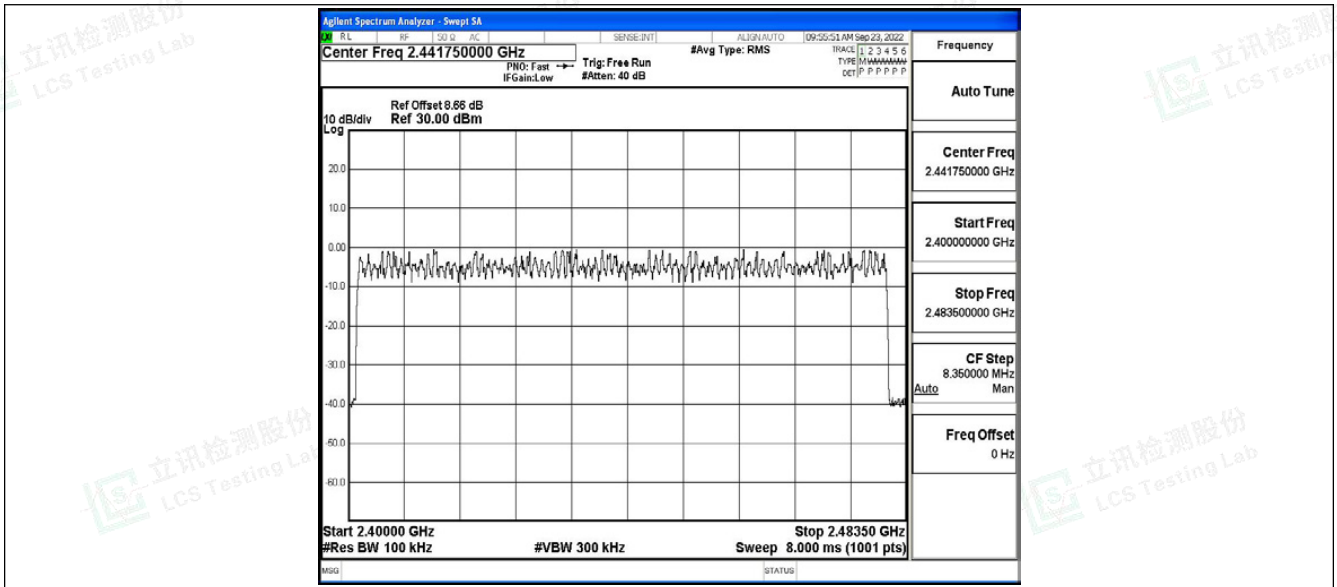


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.6 Band edge measurements

Test Result

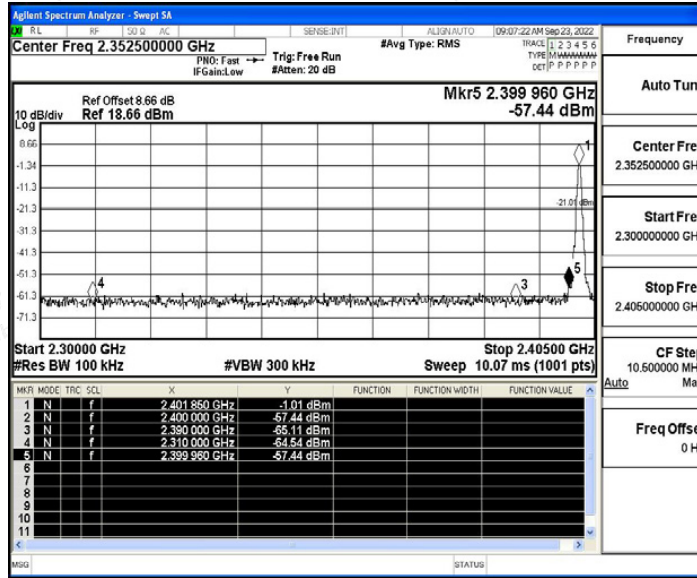
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.01	-57.44	≤-21.01	PASS
		High	2480	-0.02	-58.43	≤-20.02	PASS
		Low	Hop_2402	-0.19	-59.27	≤-20.19	PASS
		High	Hop_2480	-0.01	-58.12	≤-20.01	PASS
2DH5	Ant1	Low	2402	-4.80	-59.19	≤-24.8	PASS
		High	2480	-2.95	-58.56	≤-22.95	PASS
		Low	Hop_2402	-1.12	-59.24	≤-21.12	PASS
		High	Hop_2480	-0.74	-57.86	≤-20.74	PASS
3DH5	Ant1	Low	2402	-4.86	-58.18	≤-24.86	PASS
		High	2480	-1.52	-58.37	≤-21.52	PASS
		Low	Hop_2402	-2.98	-58.98	≤-22.98	PASS
		High	Hop_2480	-1.64	-57.66	≤-21.64	PASS



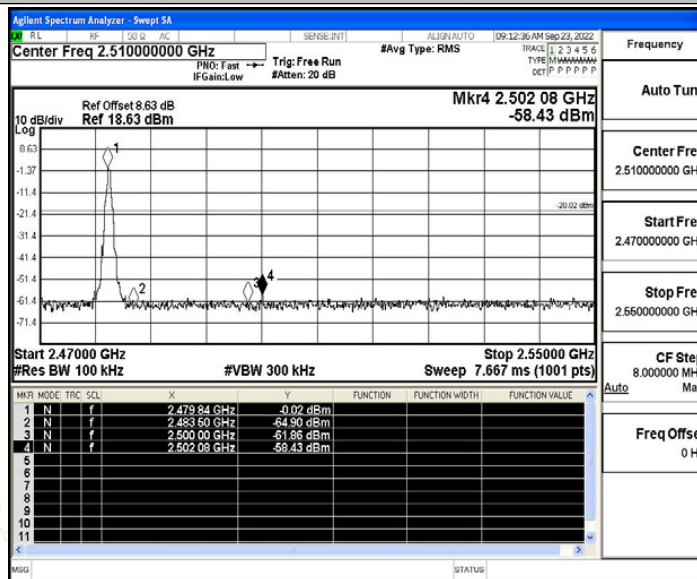


Test Graphs

DH5_Ant1_Low_2402

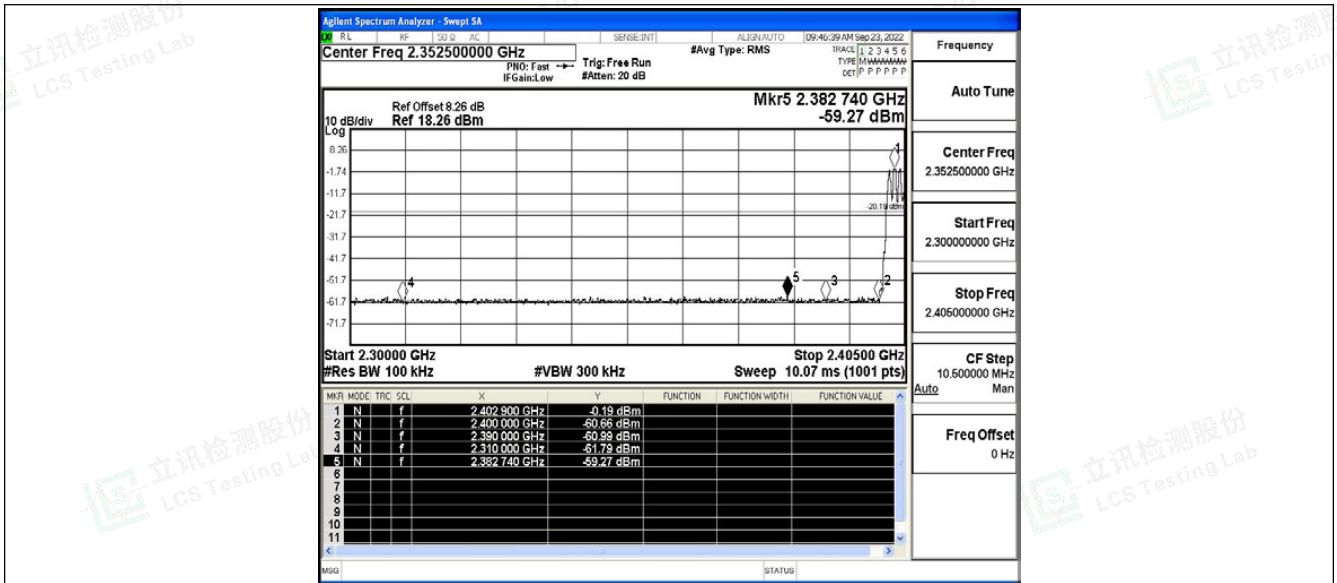


DH5_Ant1_High_2480

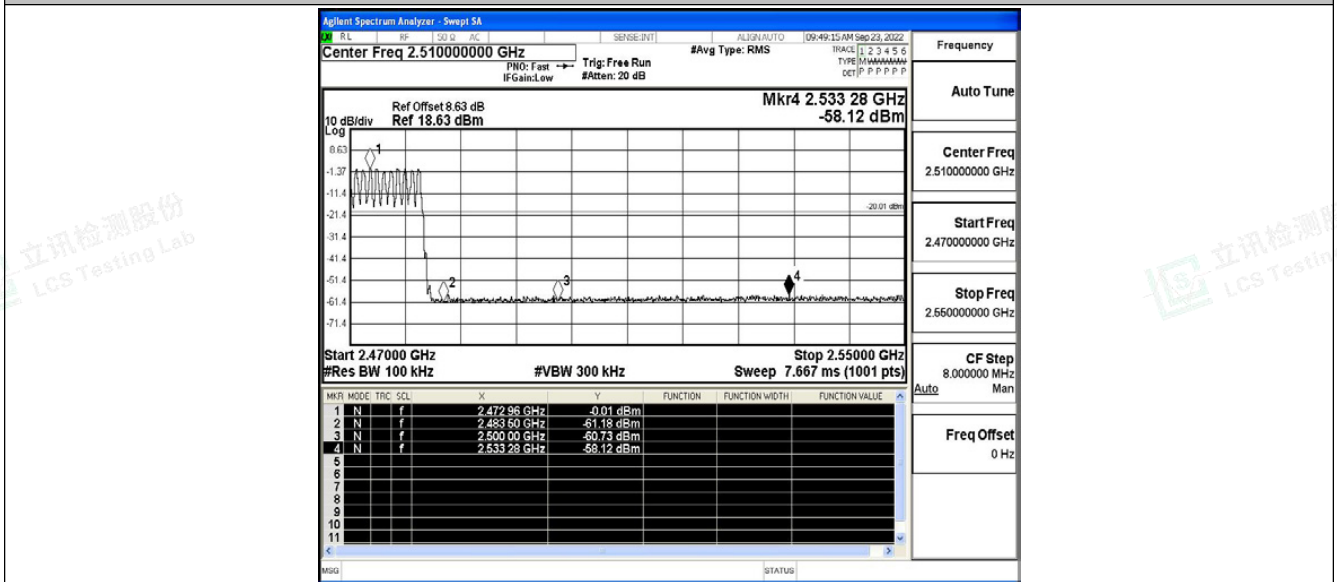


DH5_Ant1_Low_Hop_2402



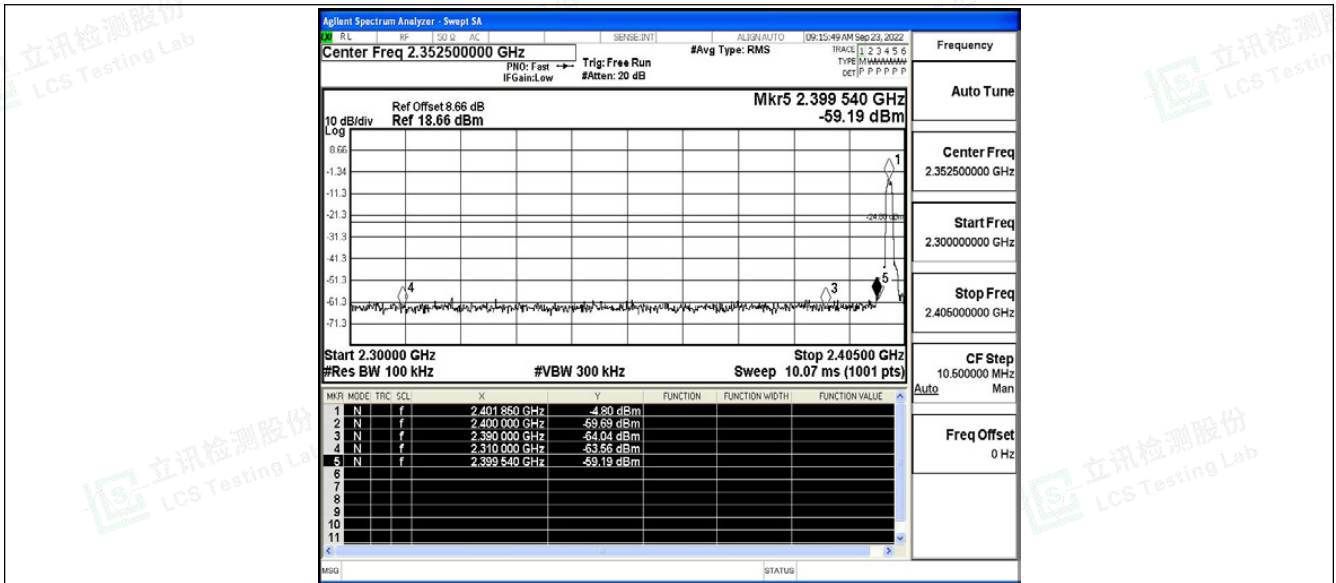


DH5_Ant1_High_Hop_2480

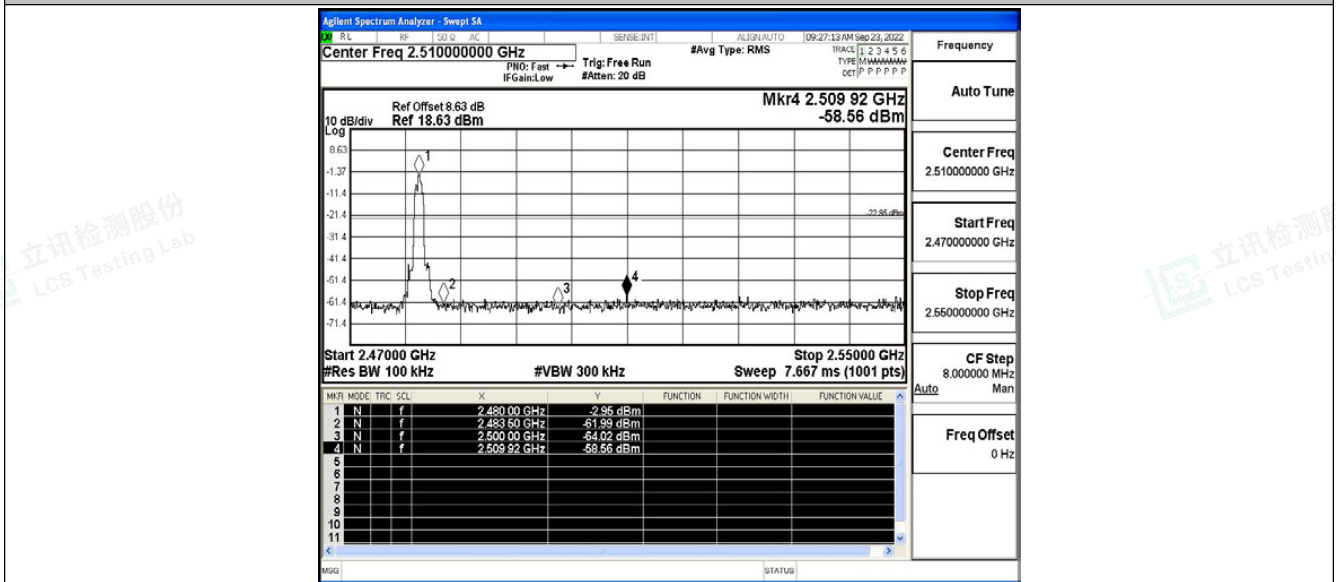


2DH5_Ant1_Low_2402



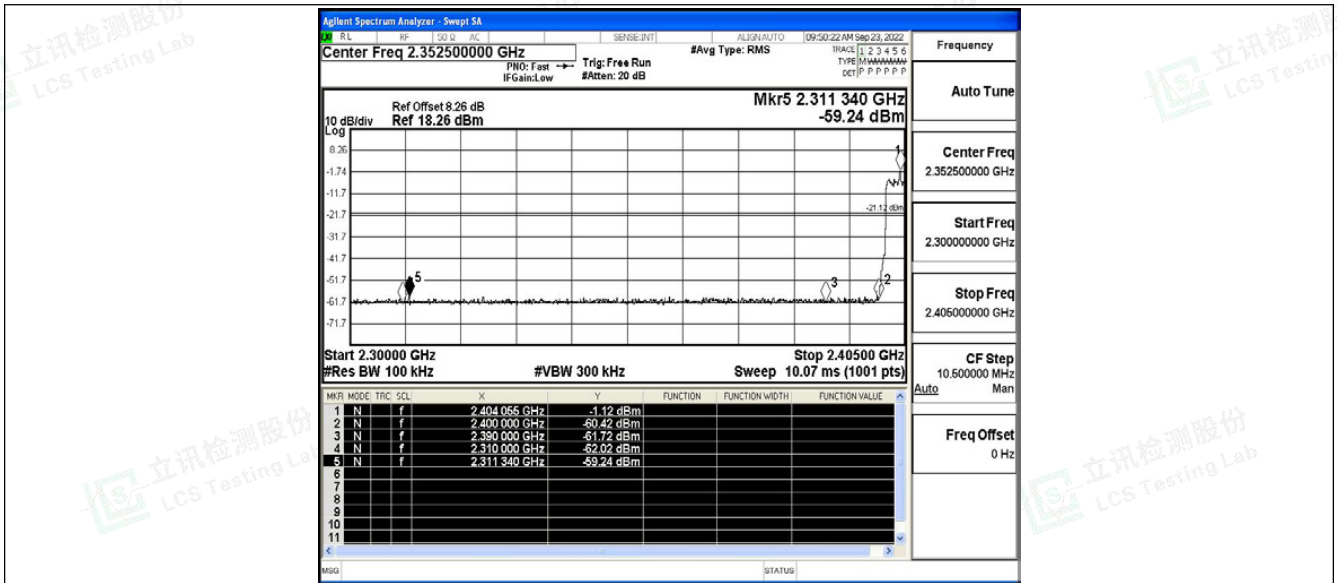


2DH5_Ant1_High_2480

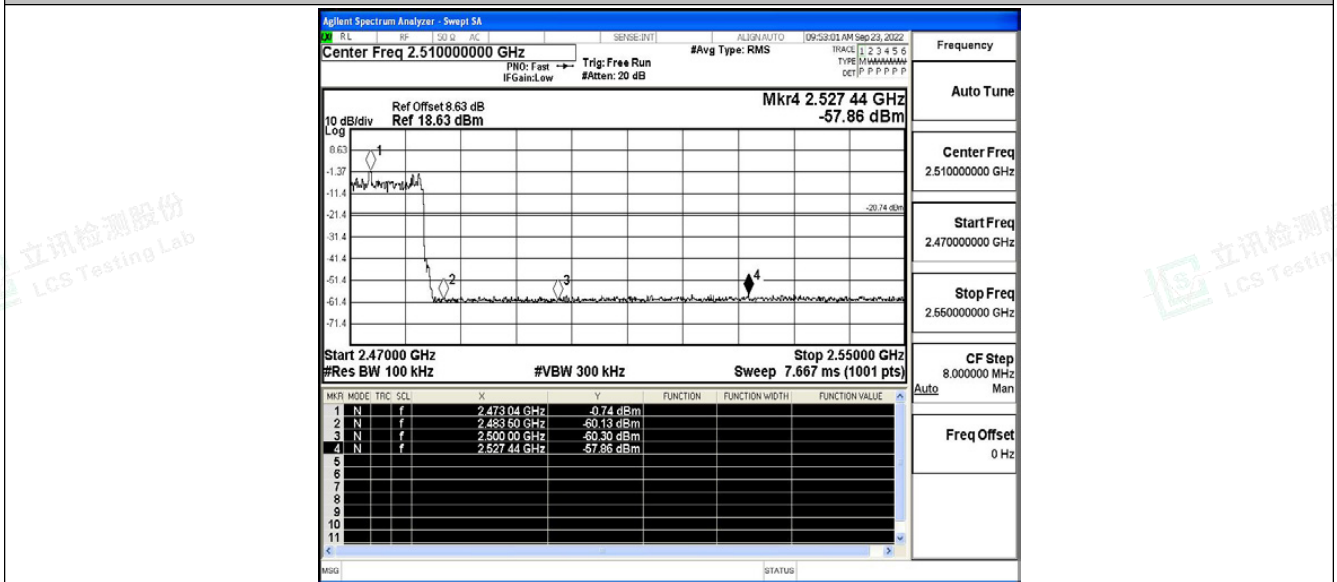


2DH5_Ant1_Low_Hop_2402





2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

