



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Dobuds ONE

Test Model: DTW-E10

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	<i>kayHu</i> Kay Hu
Supervised by:	<i>LiHuan</i> Li Huan





A.1 20dB Emission Bandwidth

Test Result

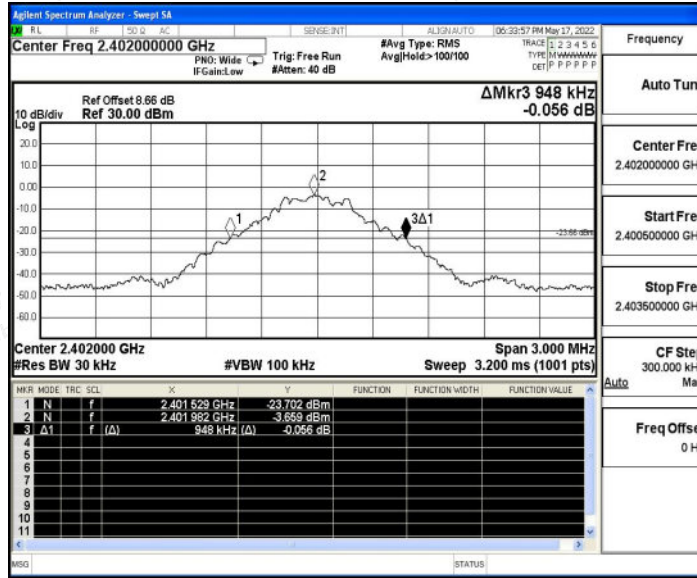
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.948	2401.529	2402.477	---	---
		2441	0.957	2440.526	2441.483	---	---
		2480	0.948	2479.526	2480.474	---	---
2DH5	Ant1	2402	1.335	2401.319	2402.654	---	---
		2441	1.335	2440.319	2441.654	---	---
		2480	1.329	2479.322	2480.651	---	---



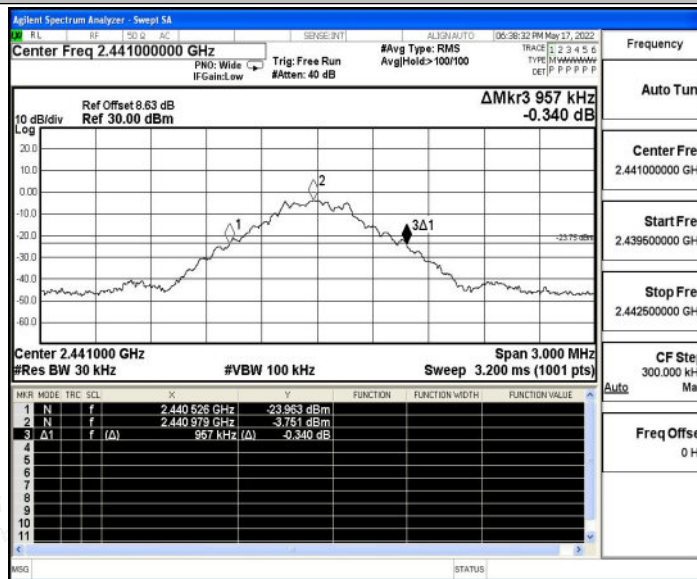


Test Graphs

DH5_Ant1_2402

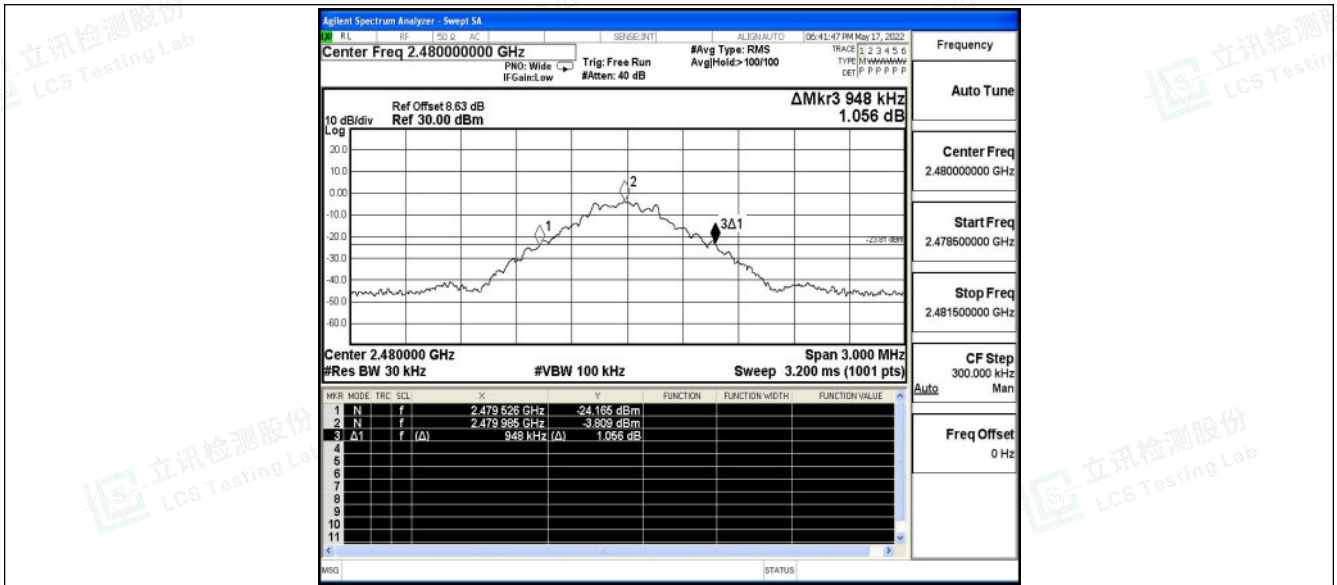


DH5_Ant1_2441

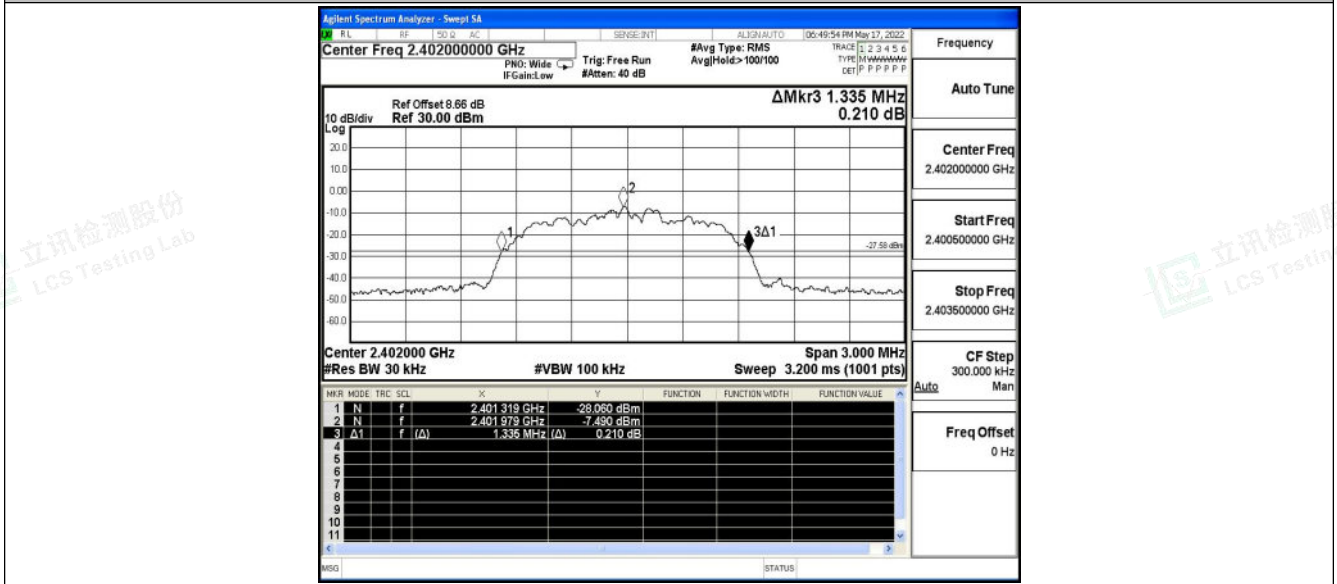


DH5_Ant1_2480



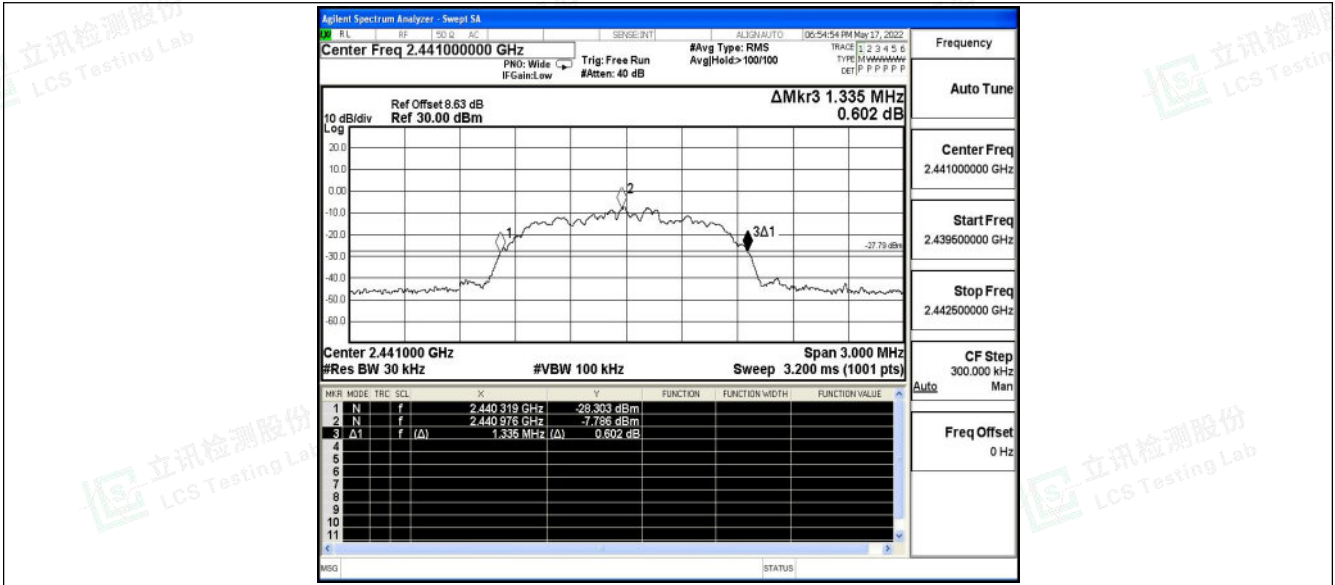


2DHS_Ant1_2402

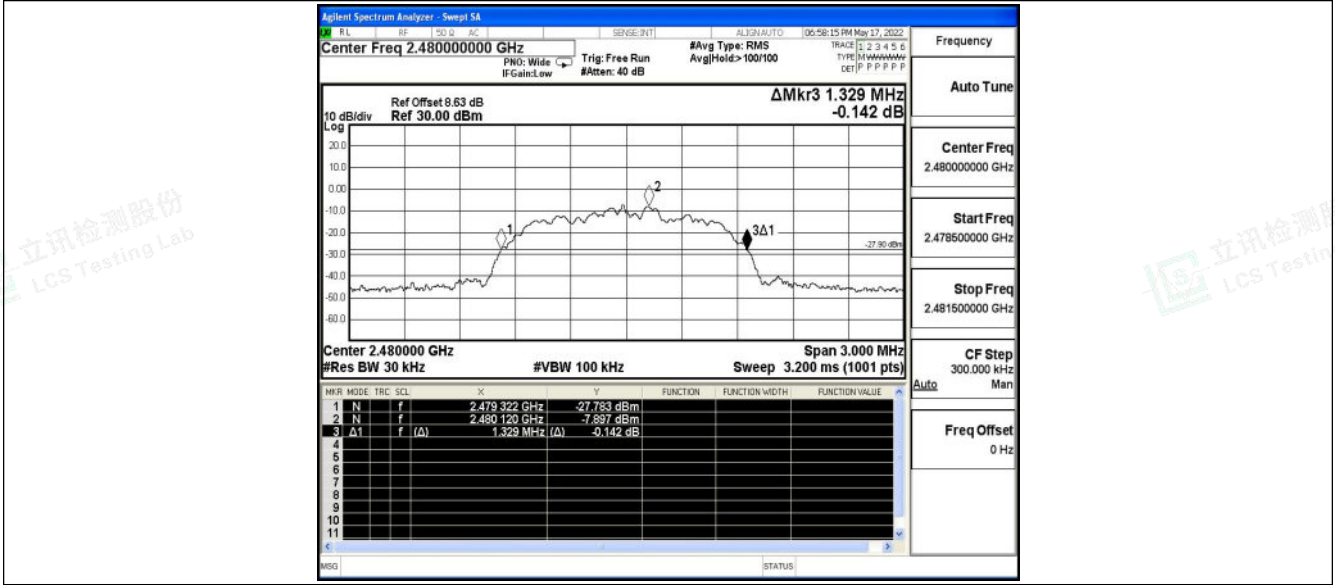


2DHS_Ant1_2441





2DH5_Ant1_2480





A.2 Occupied Channel Bandwidth

Test Result

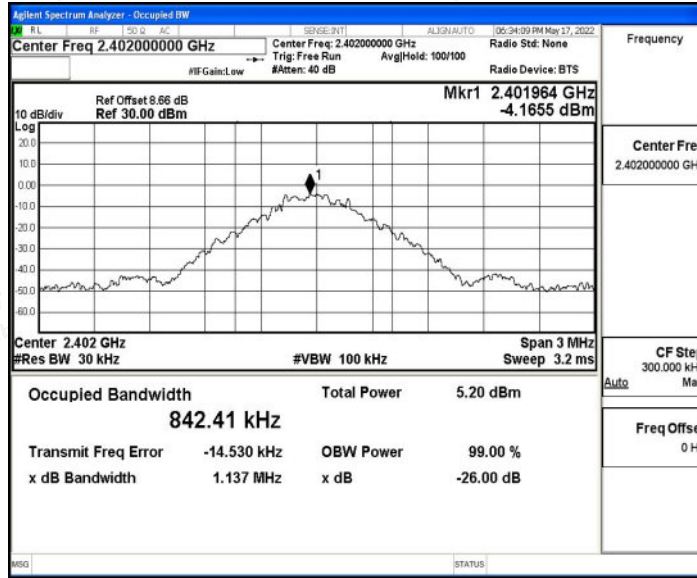
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.84241	2401.564	2402.407	---	---
		2441	0.85474	2440.565	2441.420	---	---
		2480	0.86518	2479.556	2480.422	---	---
2DH5	Ant1	2402	1.1951	2401.392	2402.587	---	---
		2441	1.1915	2440.394	2441.586	---	---
		2480	1.1848	2479.398	2480.582	---	---



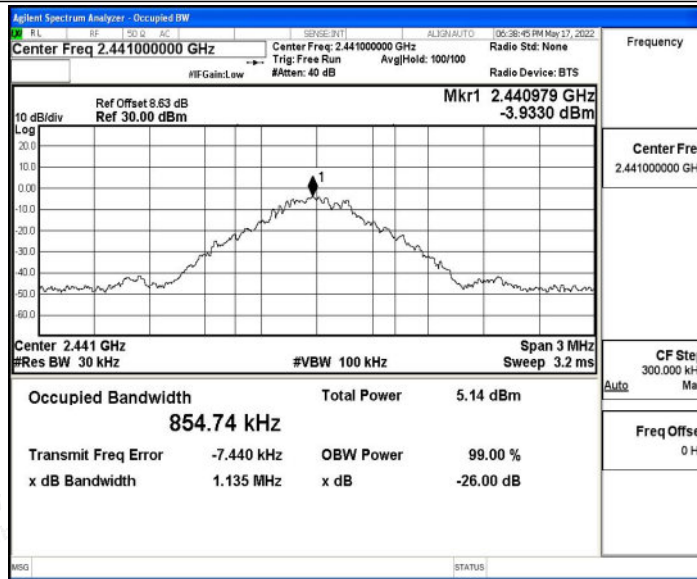


Test Graphs

DH5_Ant1_2402

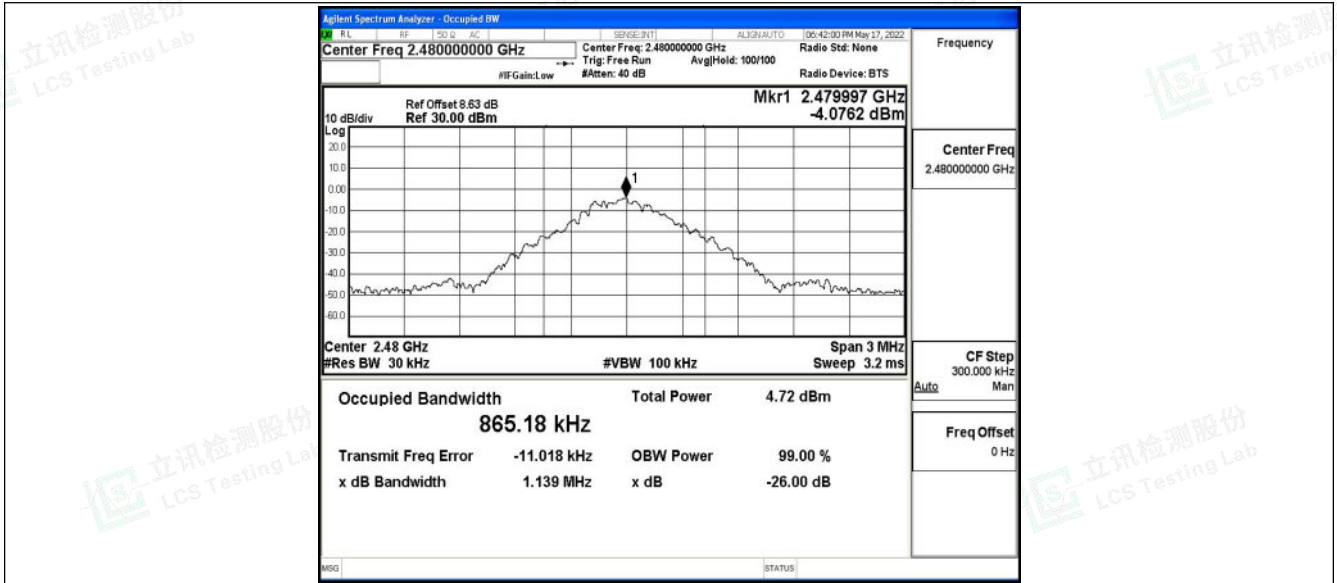


DH5_Ant1_2441

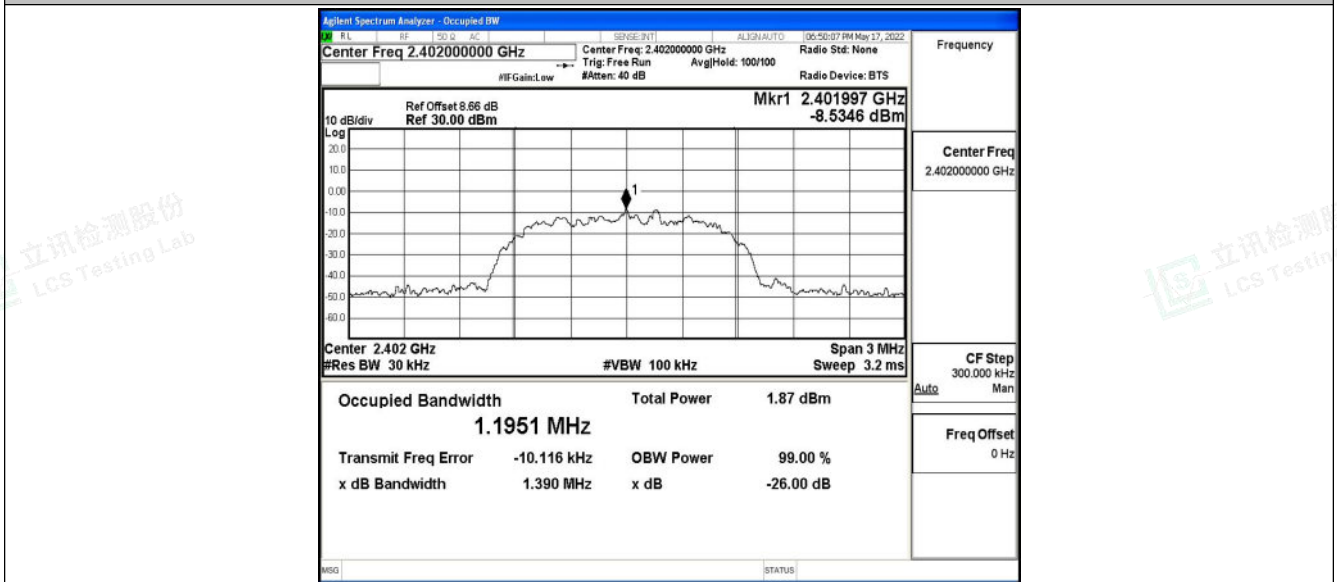


DH5_Ant1_2480



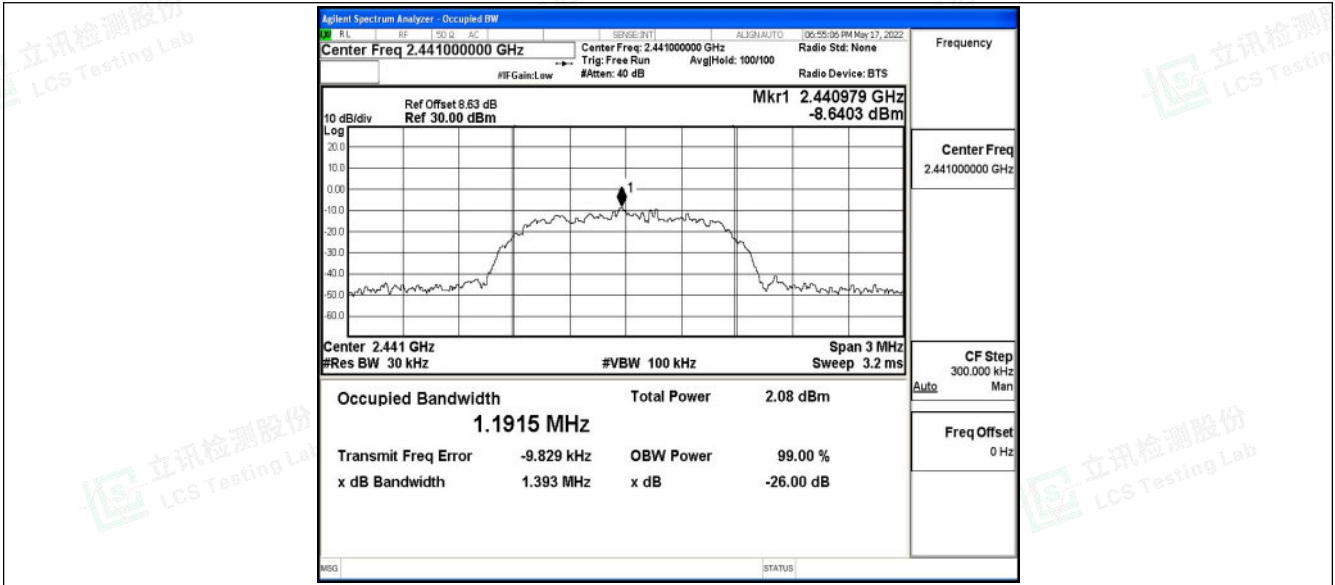


2DH5_Ant1_2402

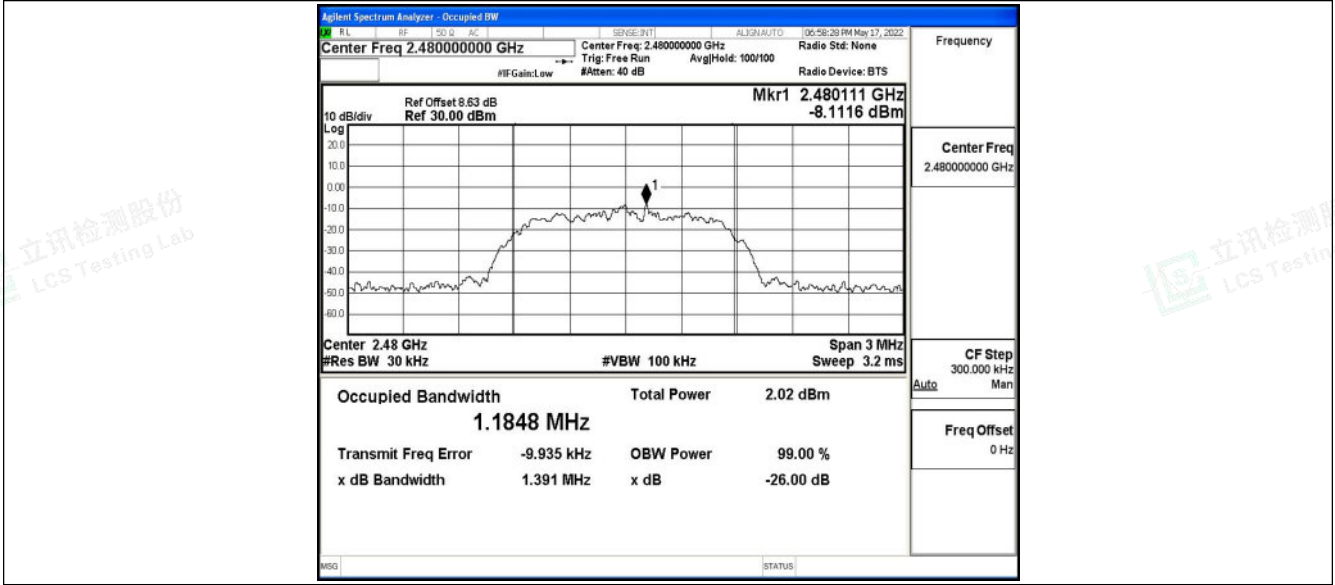


2DH5_Ant1_2441





2DH5_Ant1_2480





A.3 Maximum peak conducted output power

Test Result

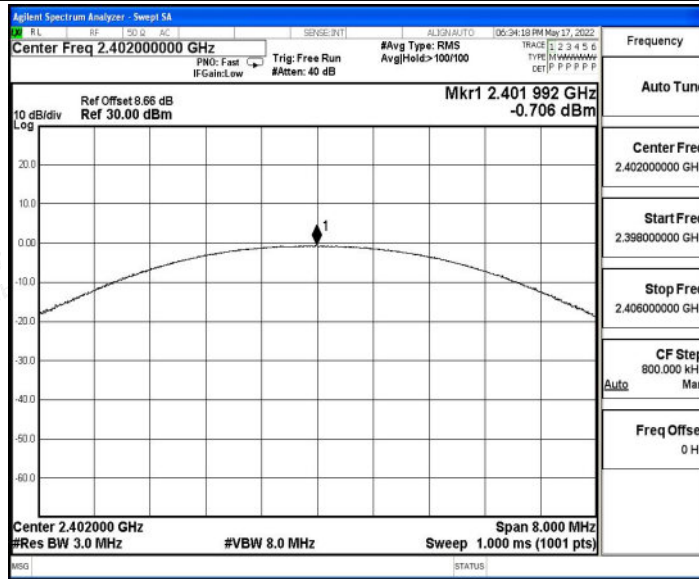
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-0.71	≤20.97	PASS
		2441	-0.31	≤20.97	PASS
		2480	-0.75	≤20.97	PASS
2DH5	Ant1	2402	-1.44	≤20.97	PASS
		2441	-1.45	≤20.97	PASS
		2480	-1.61	≤20.97	PASS



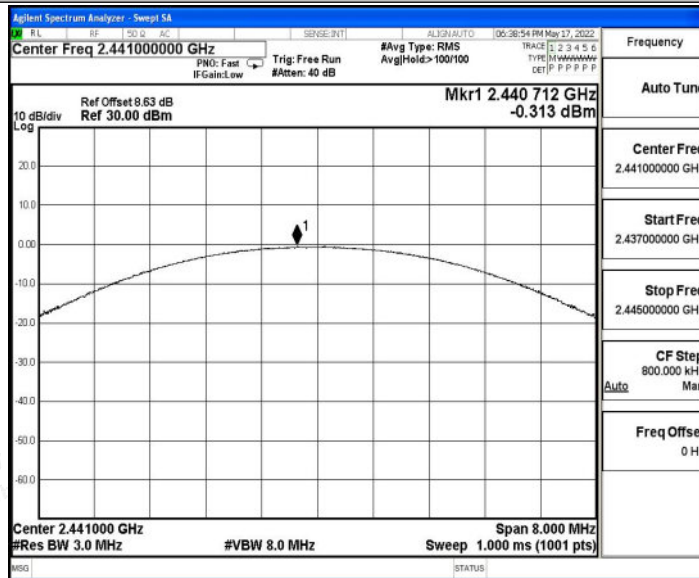


Test Graphs

DH5_Ant1_2402

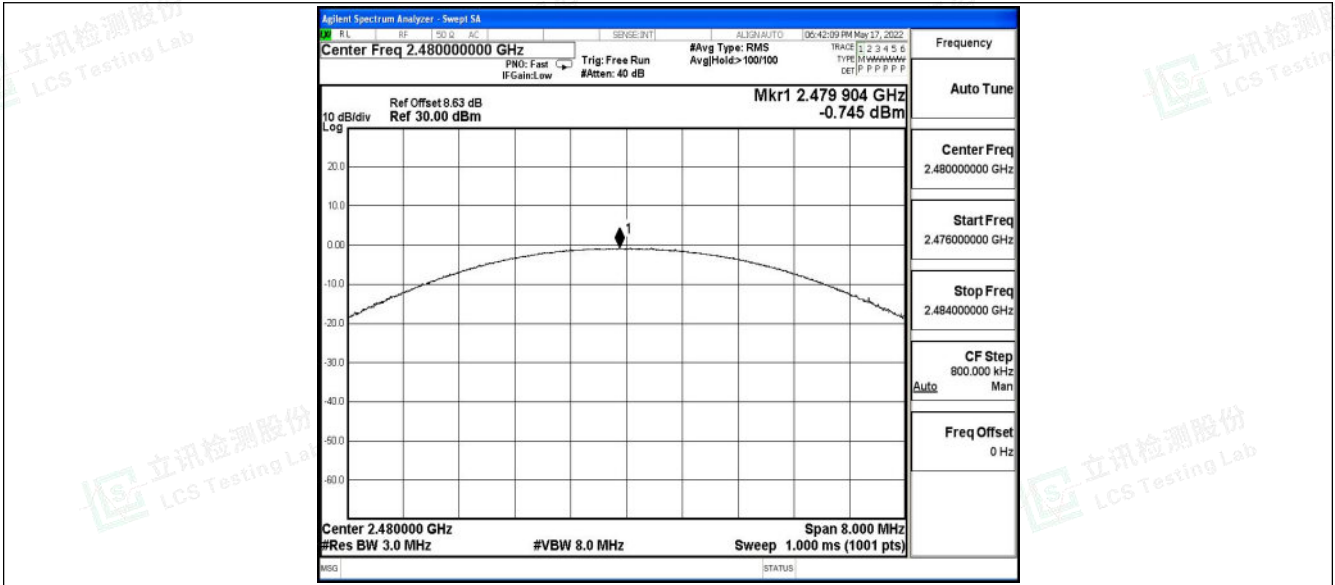


DH5_Ant1_2441

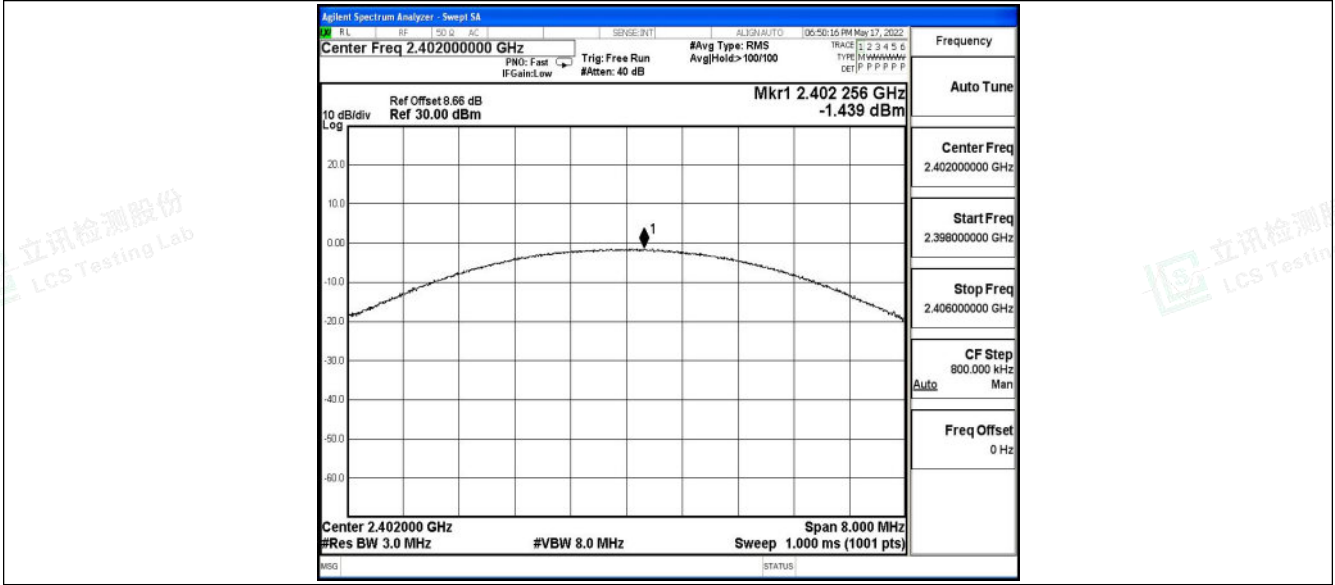


DH5_Ant1_2480



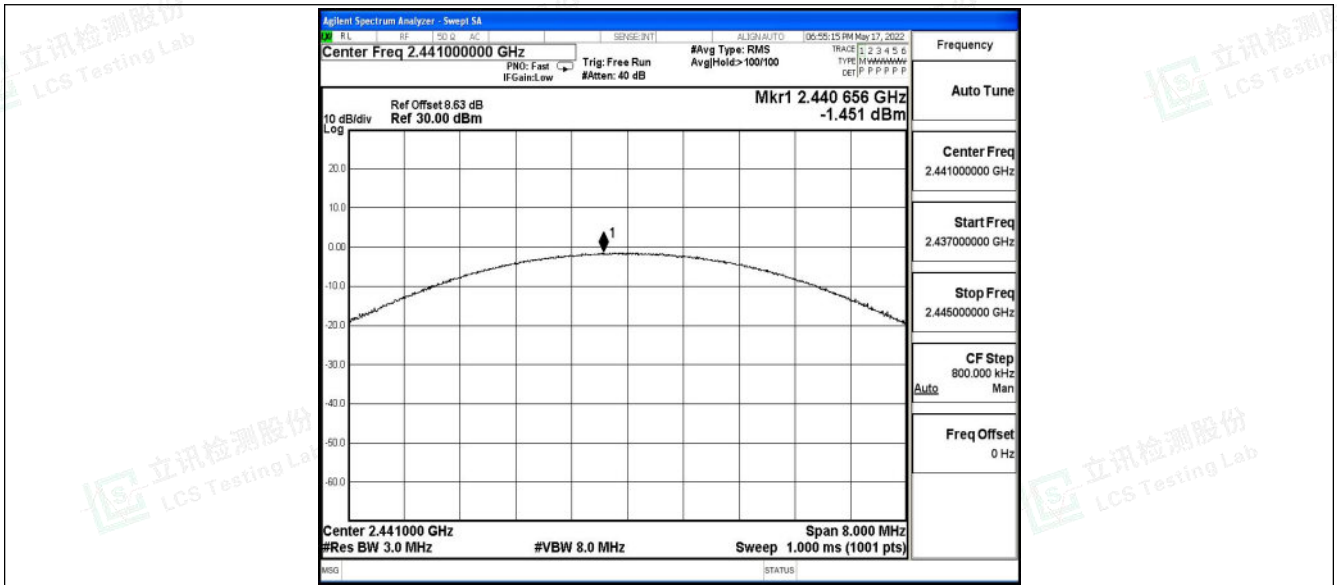


2DH5_Ant1_2402

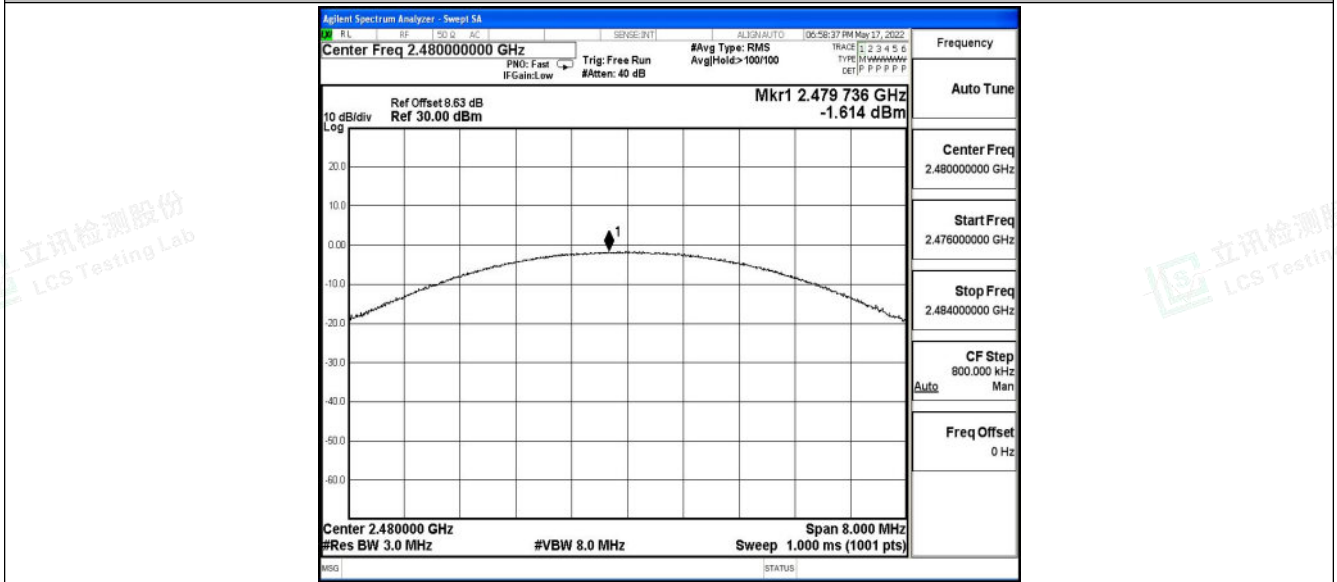


2DH5_Ant1_2441





2DH5_Ant1_2480





A.4 Carrier frequency separation

Test Result

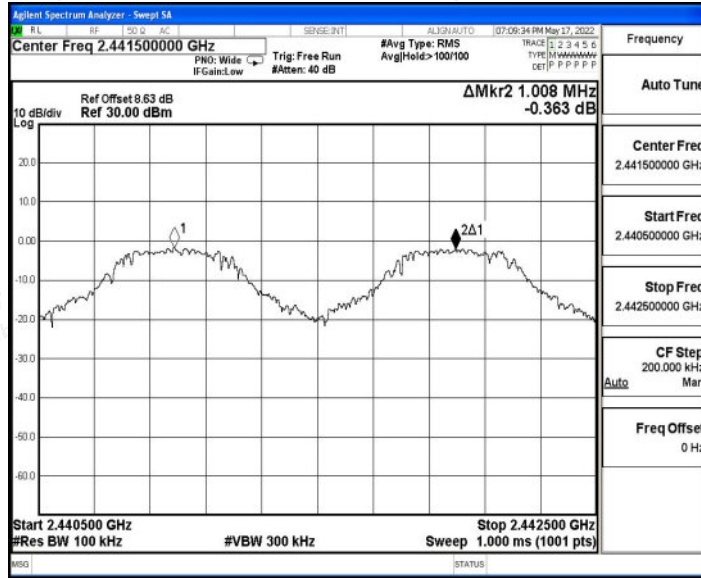
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.008	≥0.957	PASS
2DH5	Ant1	Hop	1.032	≥0.890	PASS



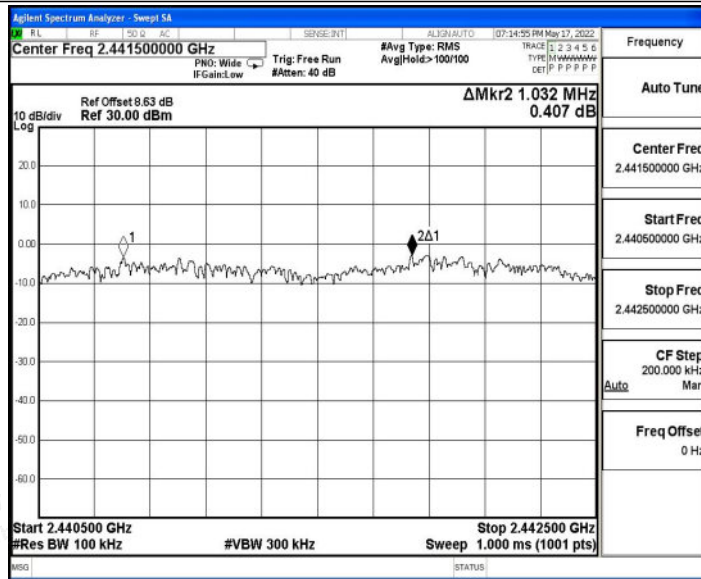


Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop





A.5 Time of occupancy

Test Result

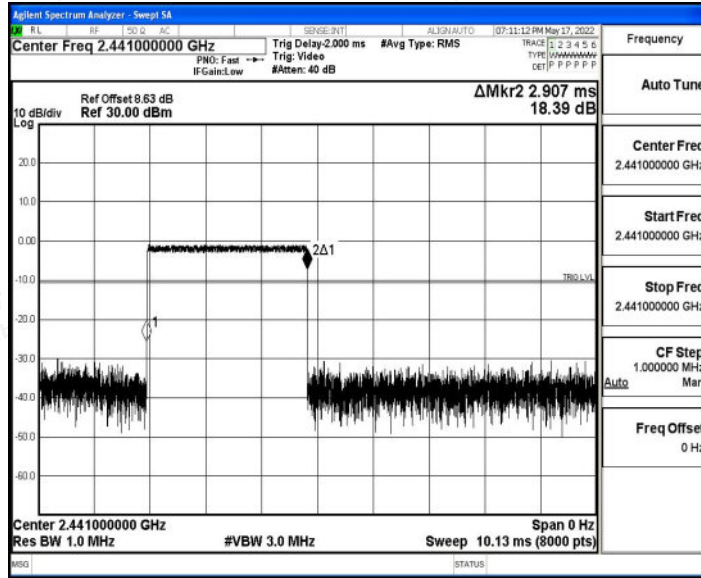
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.91	106.67	0.31	≤0.4	PASS
2DH5	Ant1	Hop	2.91	106.67	0.31	≤0.4	PASS



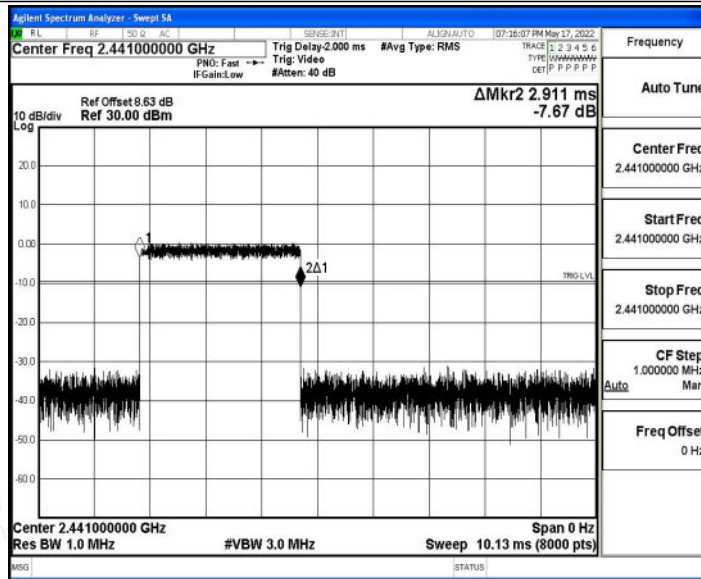


Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop





A.6 Number of hopping channels

Test Result

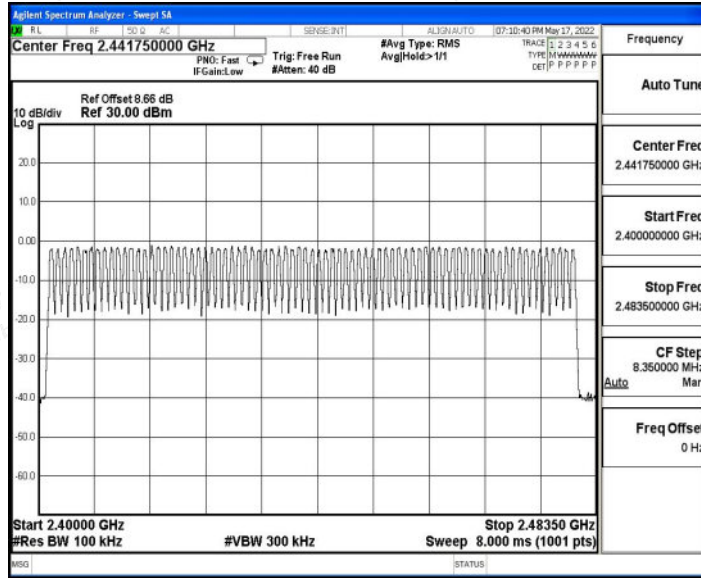
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS



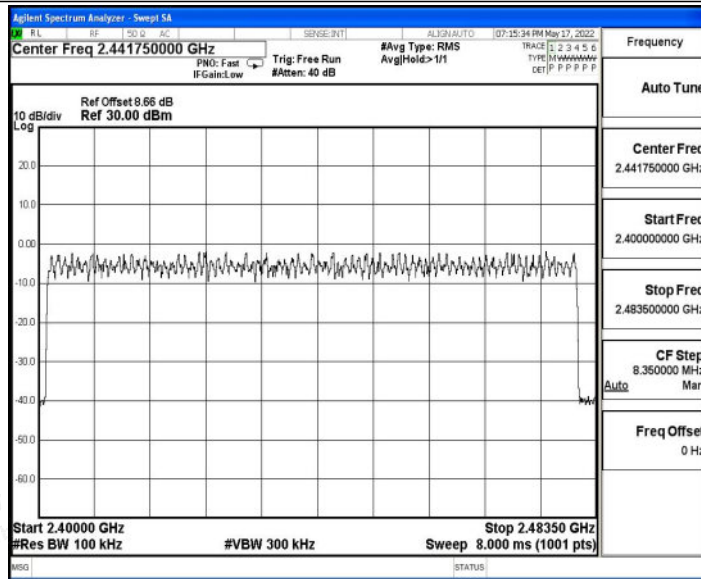


Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop





A.7 Band edge measurements

Test Result

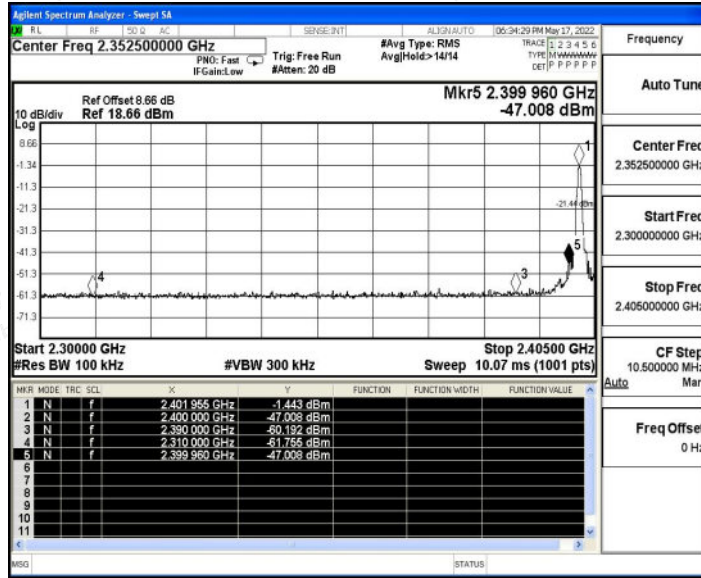
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.44	-47.01	≤-21.44	PASS
		High	2480	-1.86	-55.34	≤-21.86	PASS
			Hop_2480	-1.98	-56.49	≤-21.98	PASS
2DH5	Ant1	Low	2402	-4.96	-50.25	≤-24.96	PASS
		High	2480	-4.59	-56.34	≤-24.59	PASS
		Low	Hop_2402	-2.65	-58.87	≤-22.65	PASS
		High	Hop_2480	-3.13	-57.55	≤-23.13	PASS



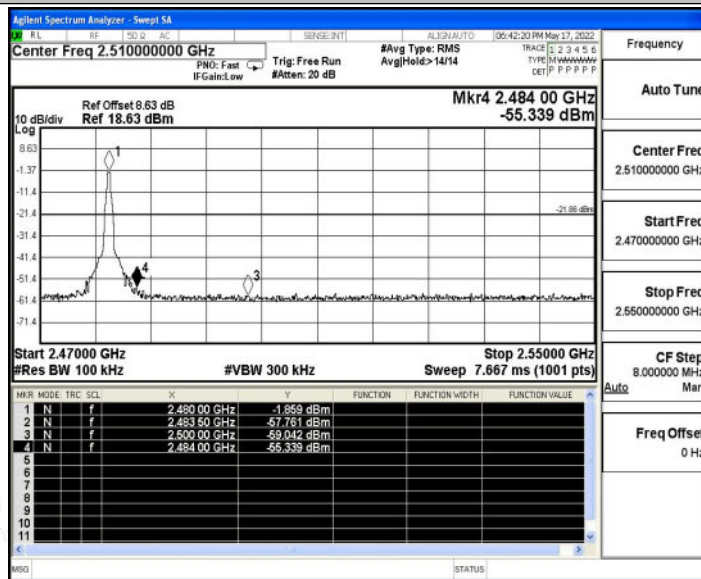


Test Graphs

DH5_Ant1_Low_2402



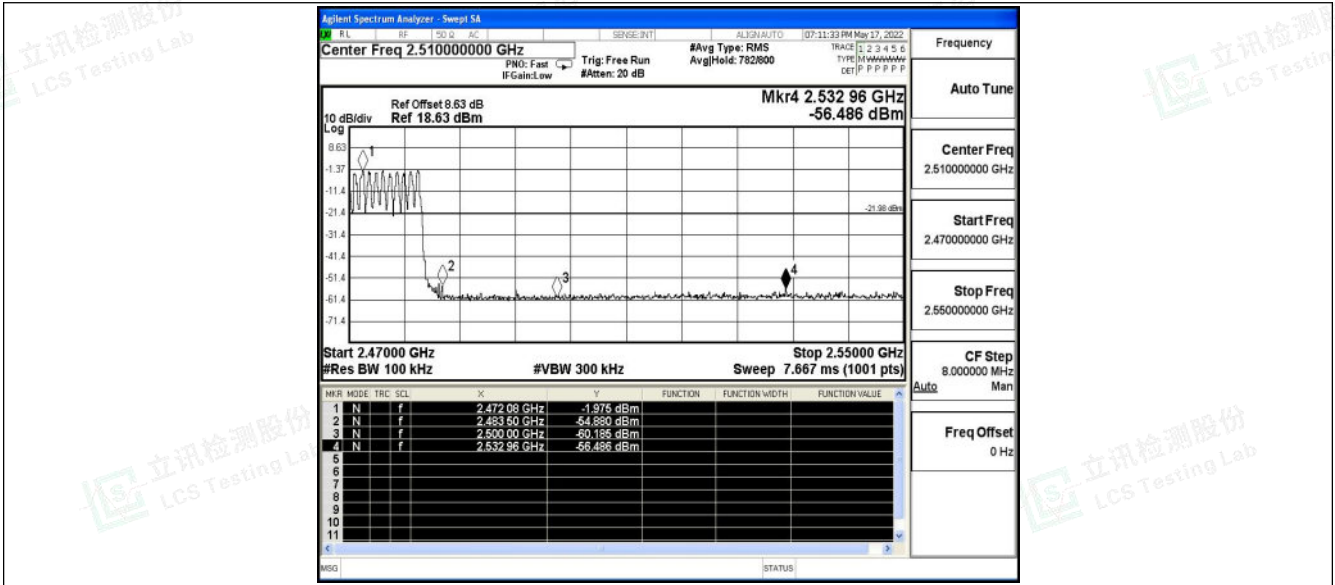
DH5_Ant1_High_2480



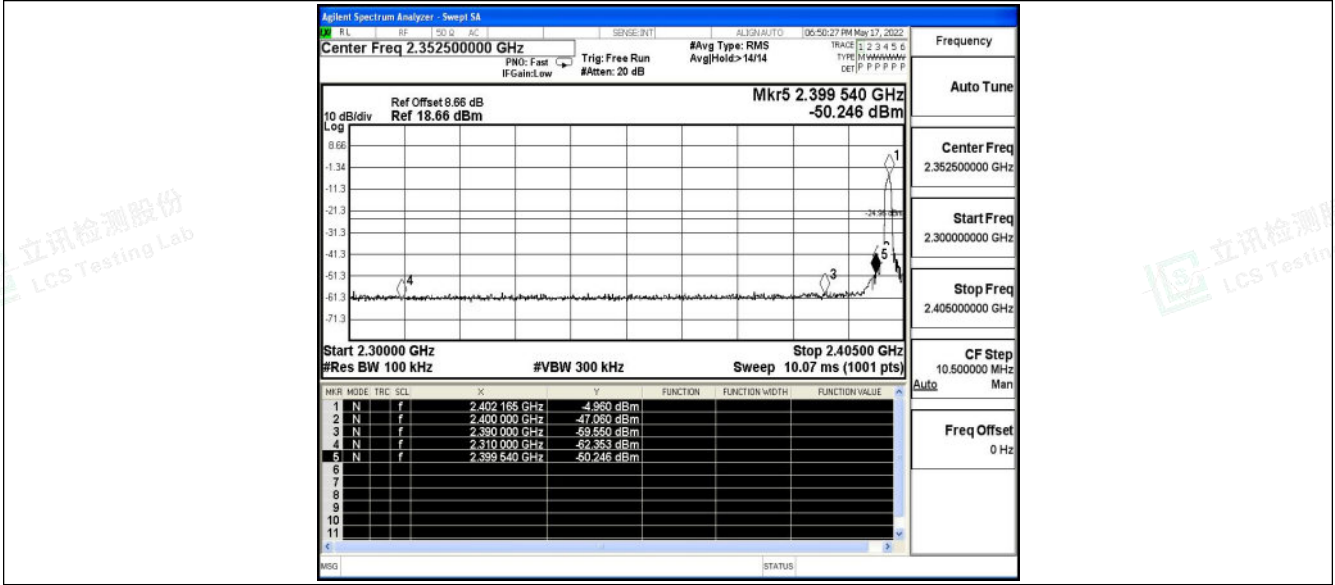
DH5_Ant1_High_Hop_2480



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 Scan code to check authenticity

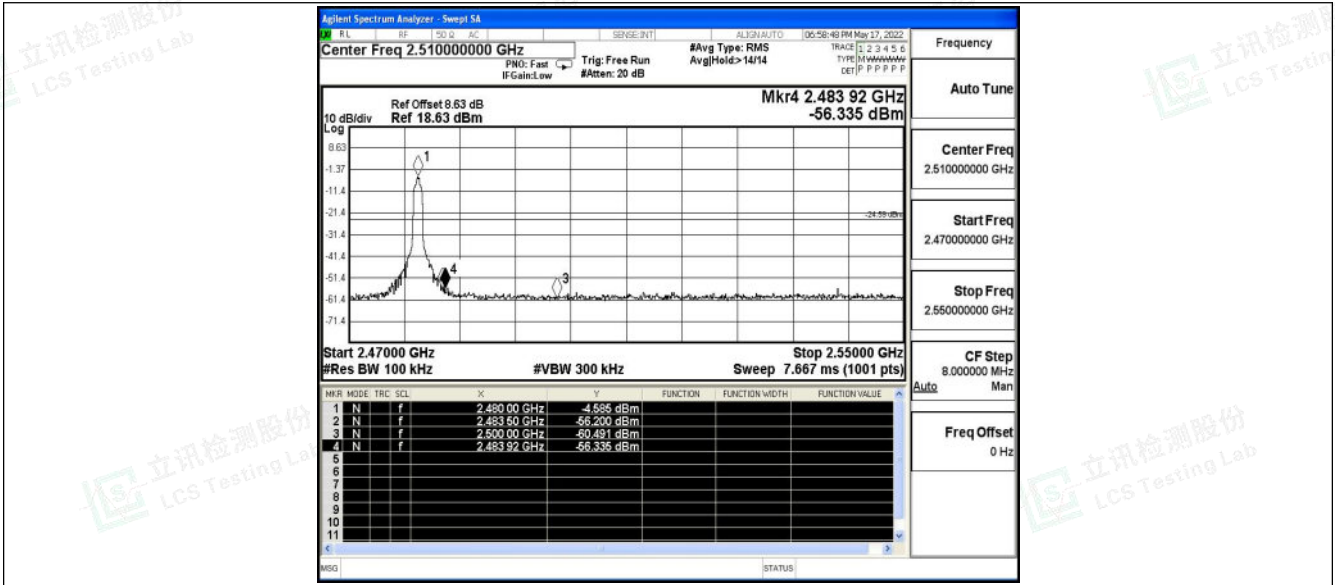


2DH5_Ant1_Low_2402

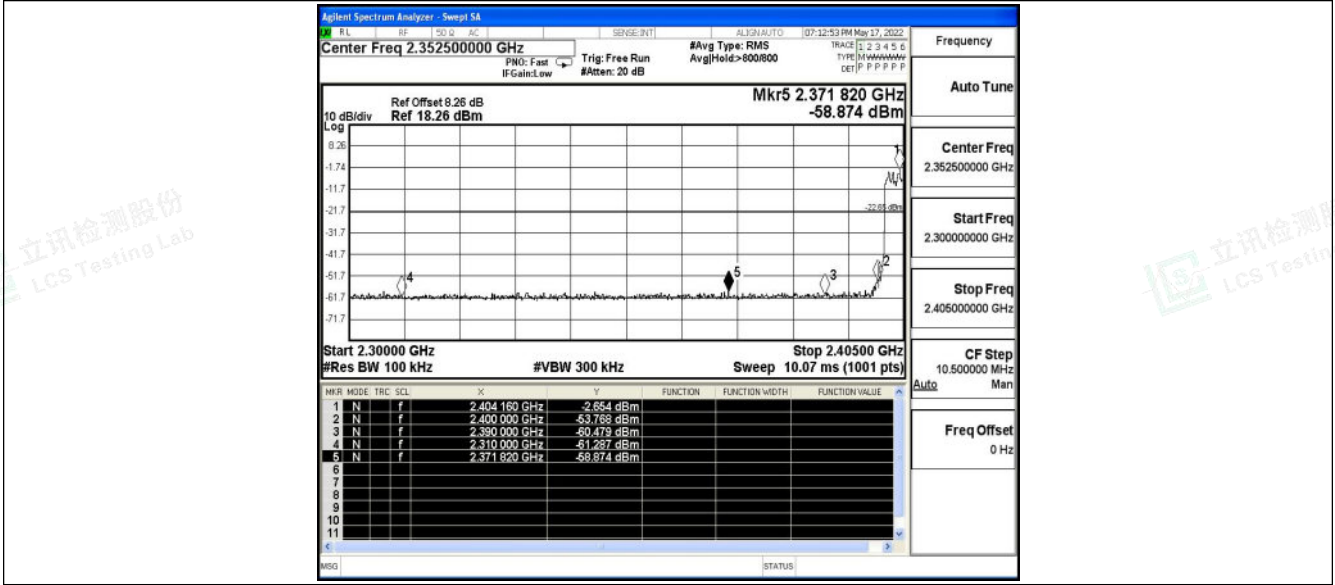


2DH5_Ant1_High_2480



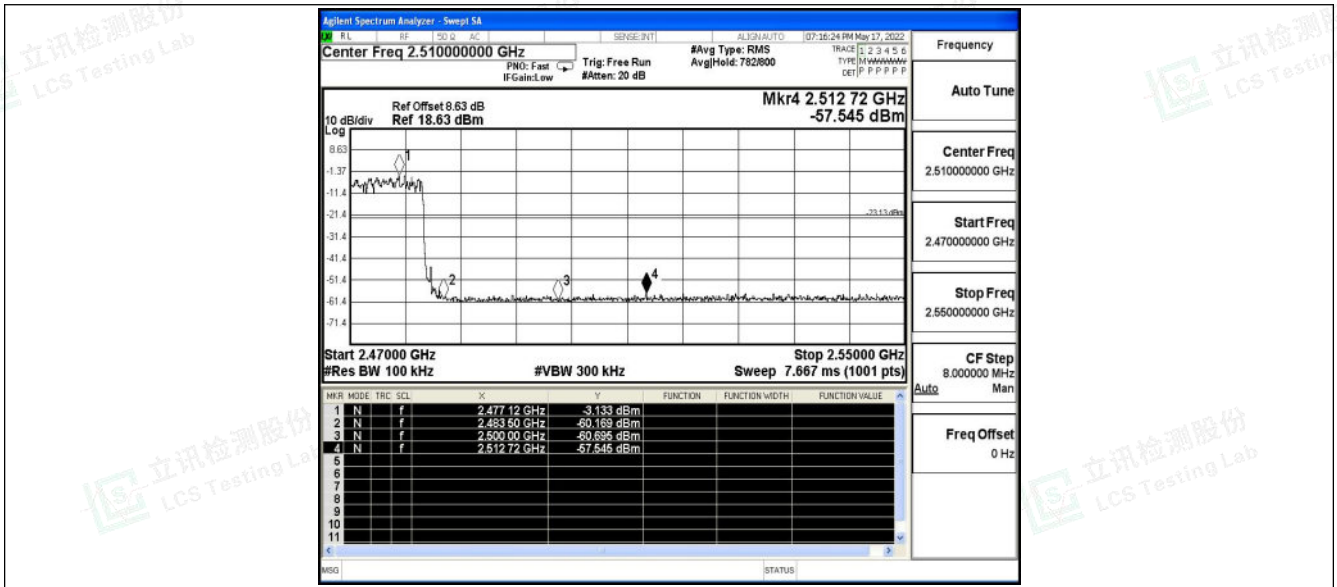


2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480







A.8 Conducted Spurious Emission

Test Result

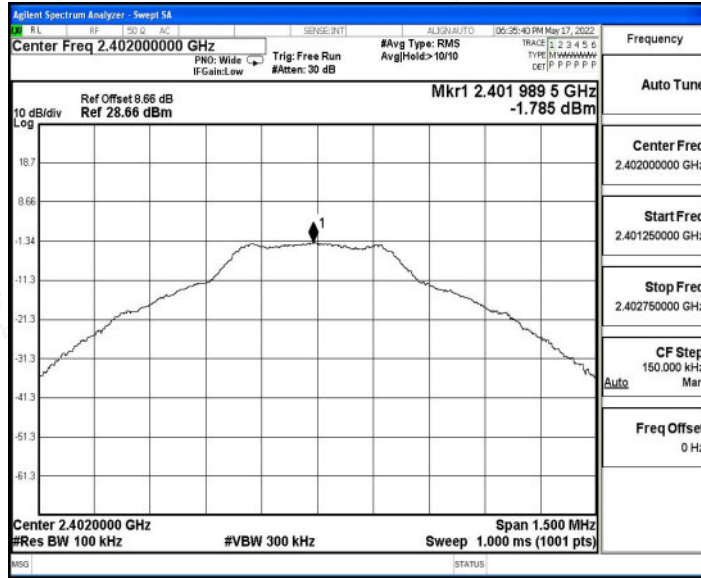
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-1.79	-1.79	---	PASS
			30~1000	-1.79	-60.76	≤-21.79	PASS
			1000~26500	-1.79	-40.54	≤-21.79	PASS
		2441	Reference	-1.71	-1.71	---	PASS
			30~1000	-1.71	-55.12	≤-21.71	PASS
			1000~26500	-1.71	-39.8	≤-21.71	PASS
		2480	Reference	-2.01	-2.01	---	PASS
			30~1000	-2.01	-55.36	≤-22.01	PASS
			1000~26500	-2.01	-39.46	≤-22.01	PASS
2DH5	Ant1	2402	Reference	-5.13	-5.13	---	PASS
			30~1000	-5.13	-47.48	≤-25.13	PASS
			1000~26500	-5.13	-44.95	≤-25.13	PASS
		2441	Reference	-5.06	-5.06	---	PASS
			30~1000	-5.06	-55.19	≤-25.06	PASS
			1000~26500	-5.06	-44.74	≤-25.06	PASS
		2480	Reference	-5.25	-5.25	---	PASS
			30~1000	-5.25	-56.02	≤-25.25	PASS
			1000~26500	-5.25	-45.36	≤-25.25	PASS



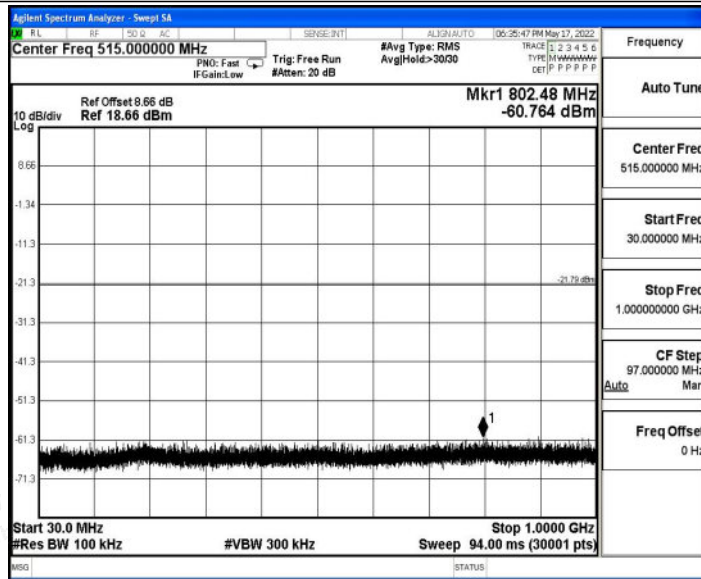


Test Graphs

DH5_Ant1_2402_0~Reference

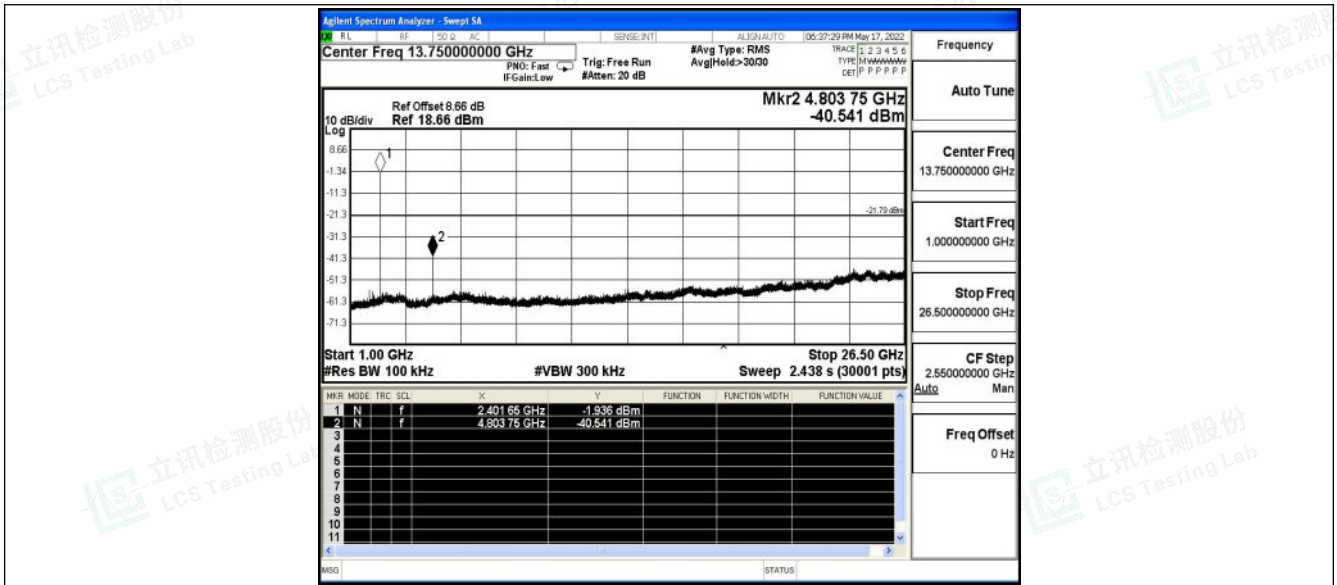


DH5_Ant1_2402_30~1000

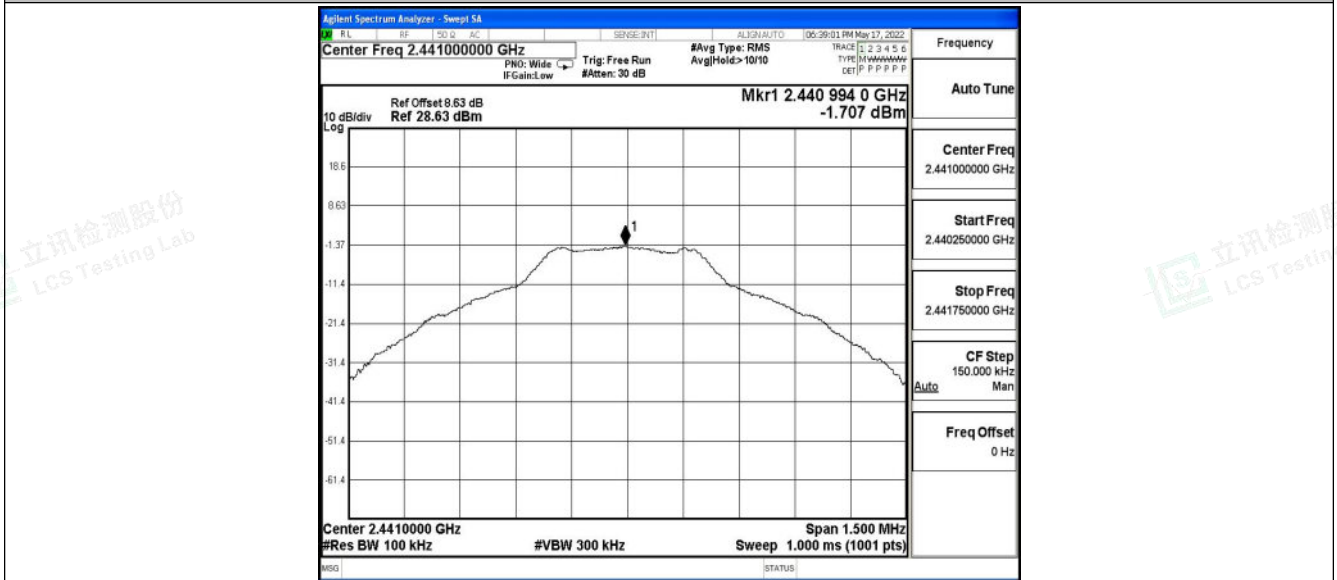


DH5_Ant1_2402_1000~26500



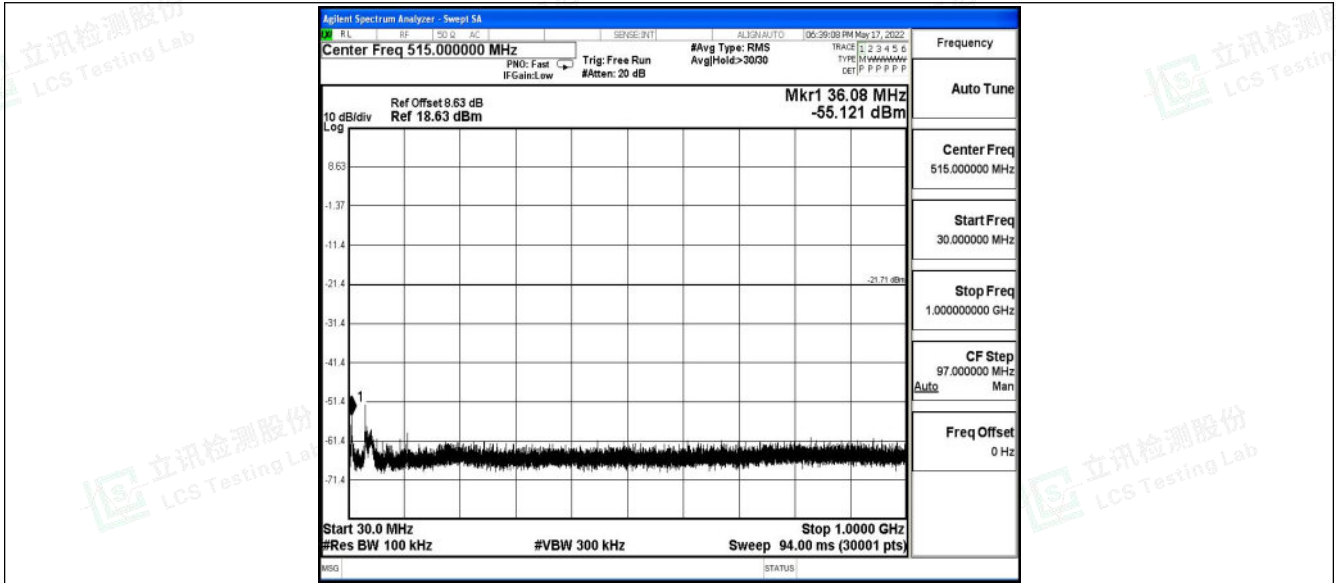


DH5_Ant1_2441_0~Reference

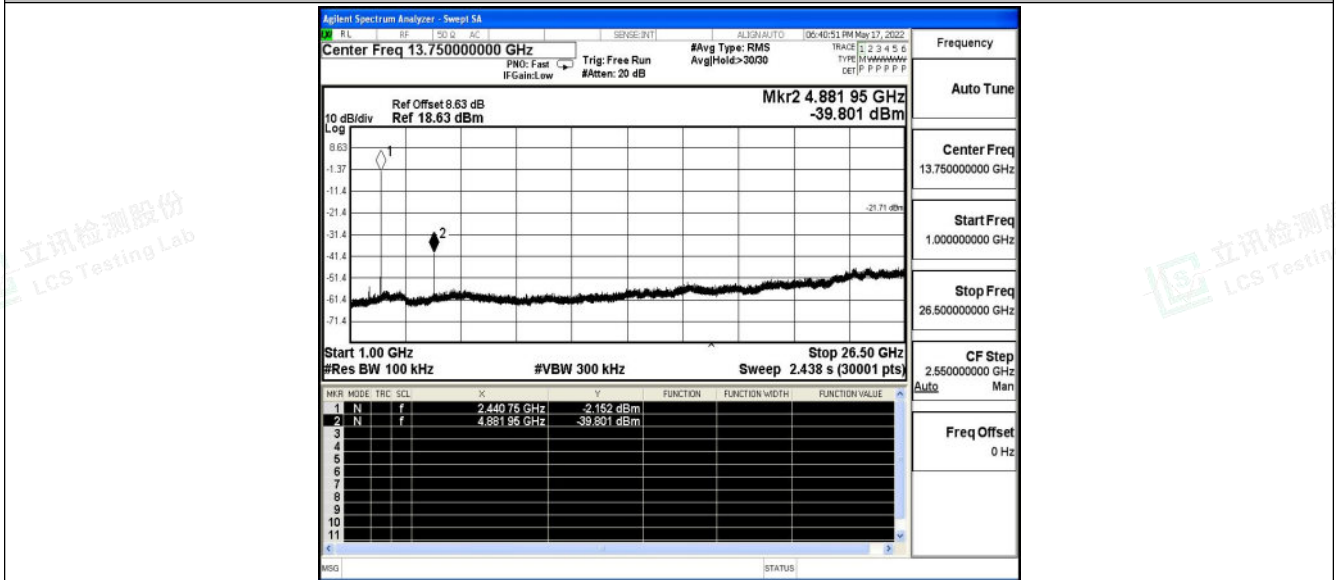


DH5_Ant1_2441_30~1000



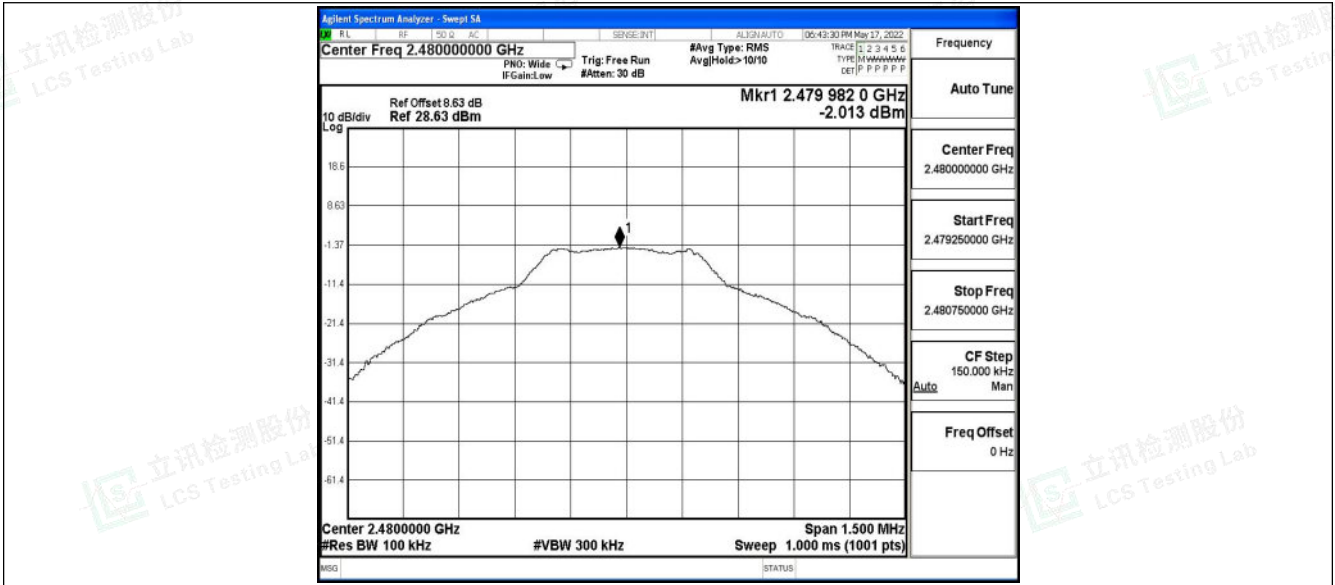


DH5_Ant1_2441_1000~26500

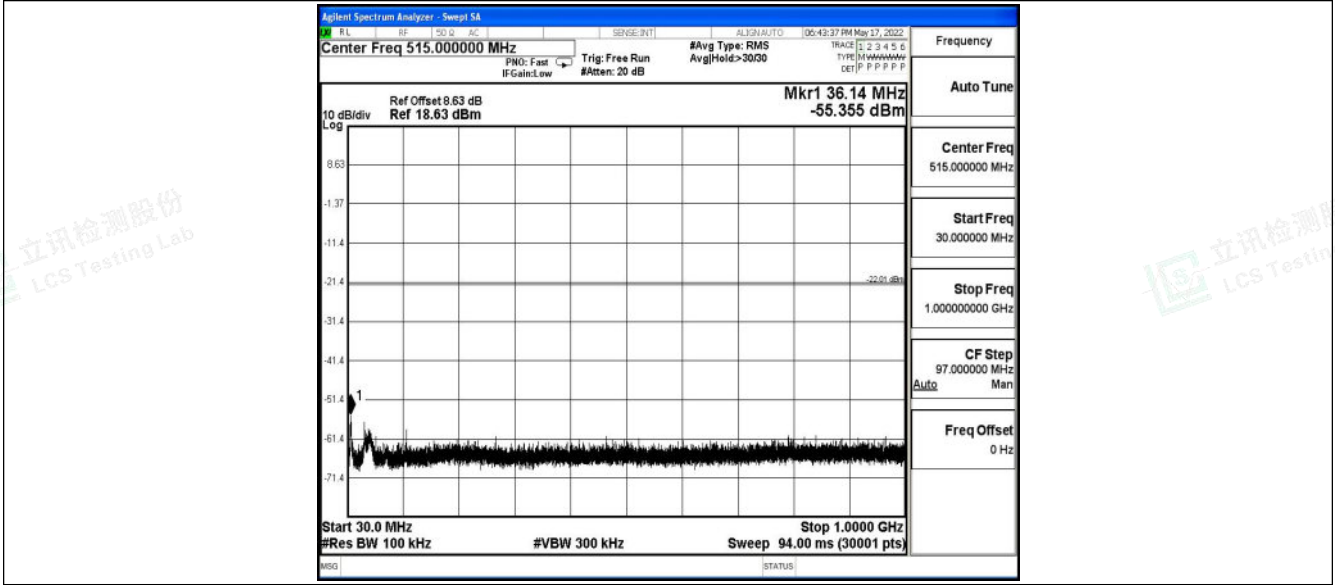


DH5_Ant1_2480_0~Reference



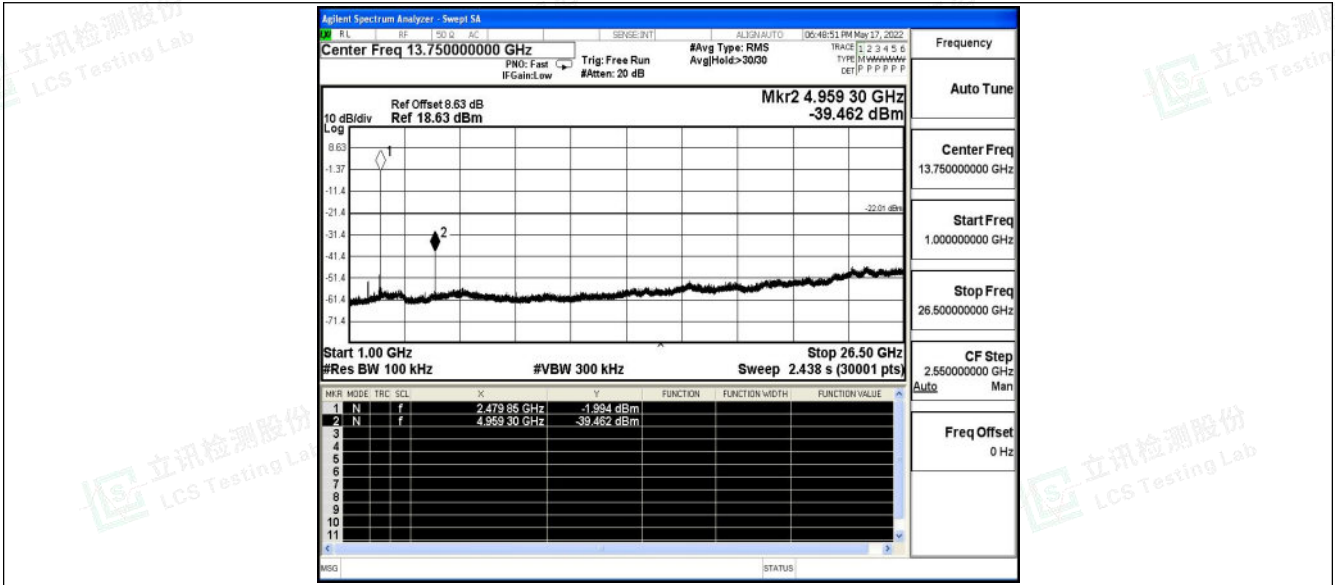


DH5_Ant1_2480_30~1000

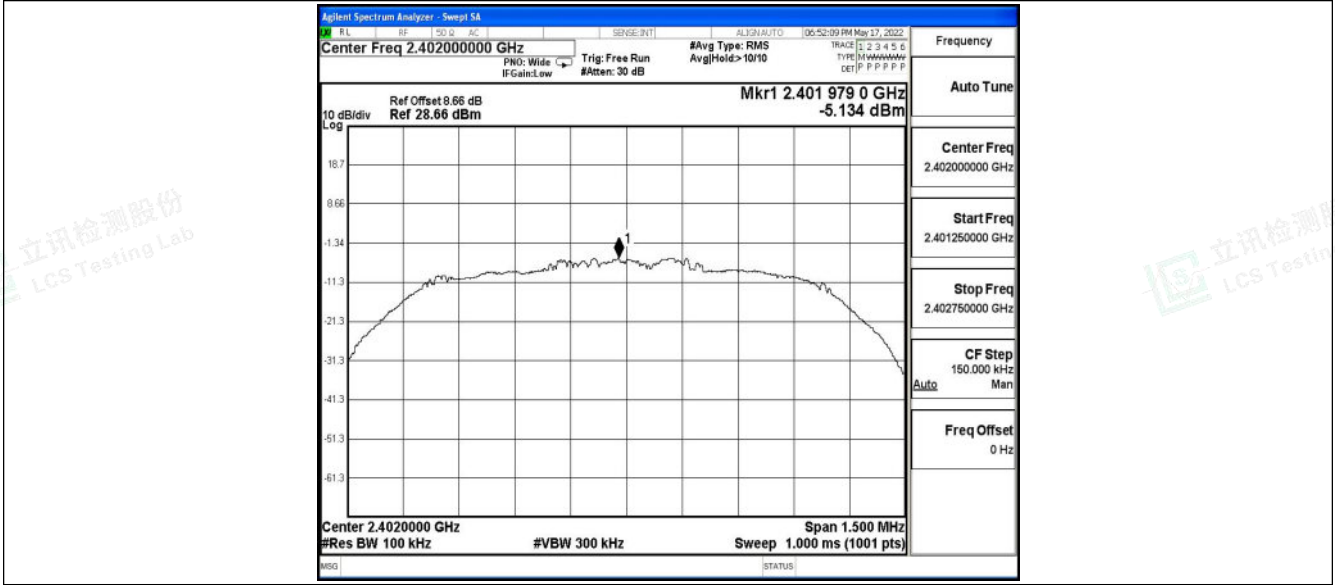


DH5_Ant1_2480_1000~26500



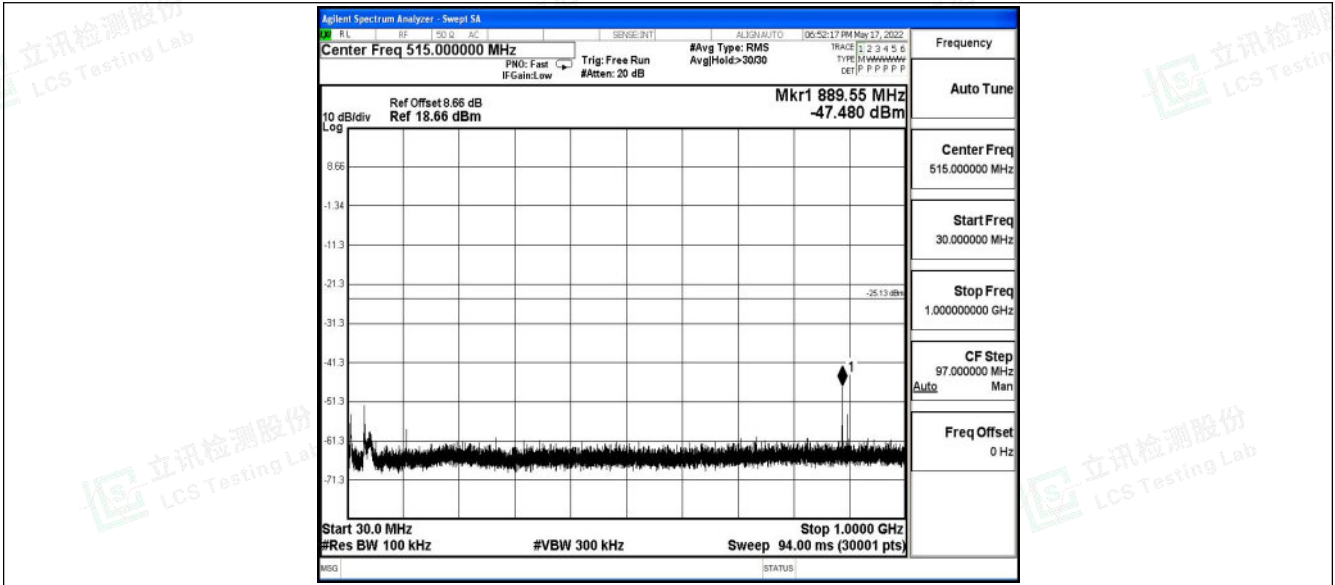


2DH5_Ant1_2402_0~Reference

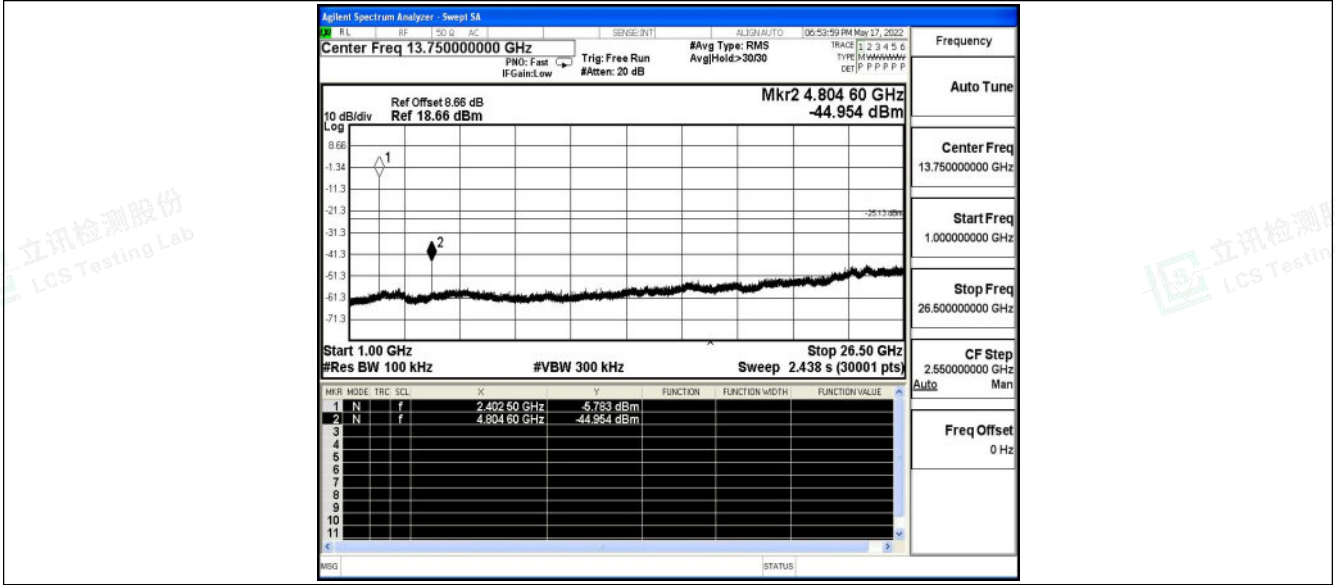


2DH5_Ant1_2402_30~1000



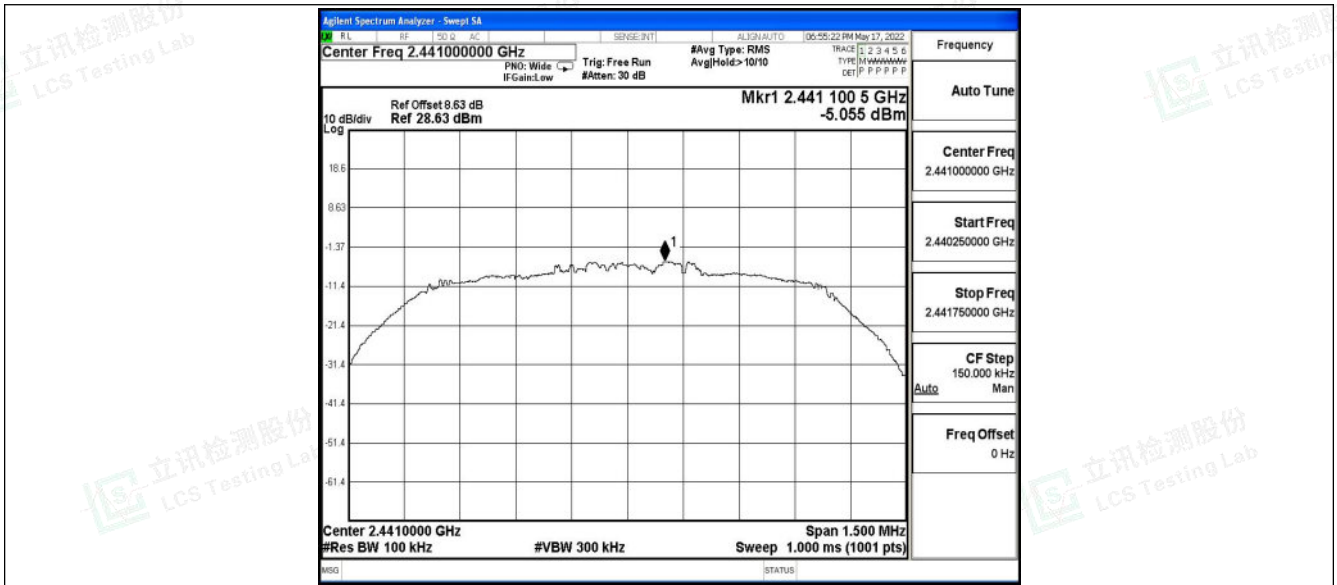


2DH5_Ant1_2402_1000~26500

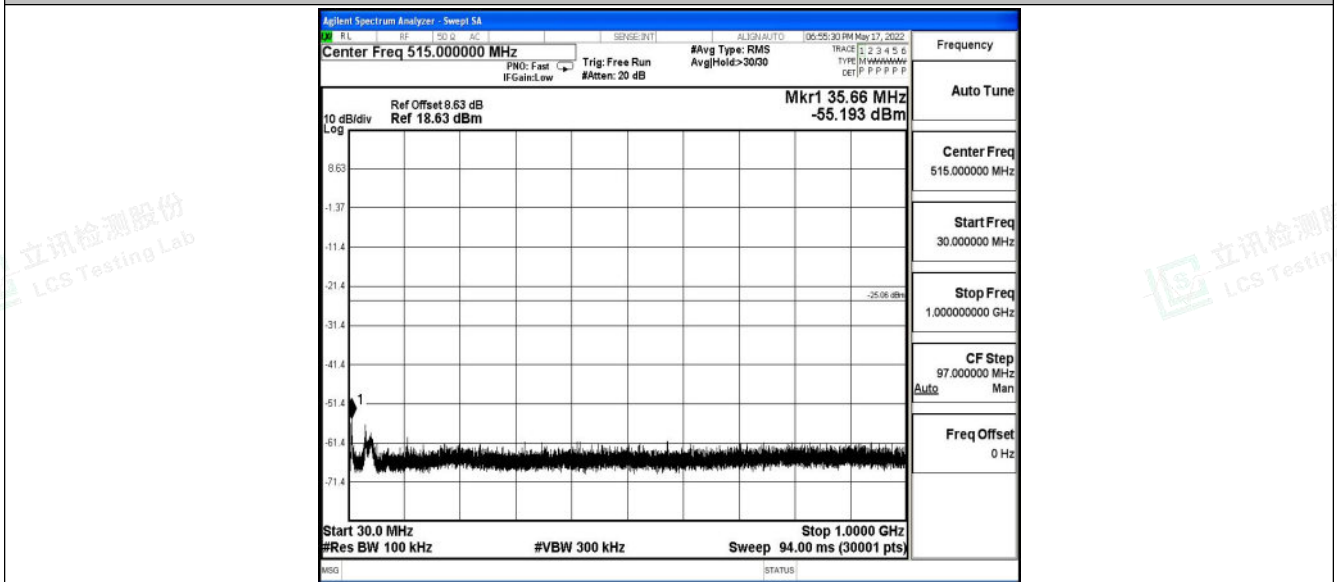


2DH5_Ant1_2441_0~Reference



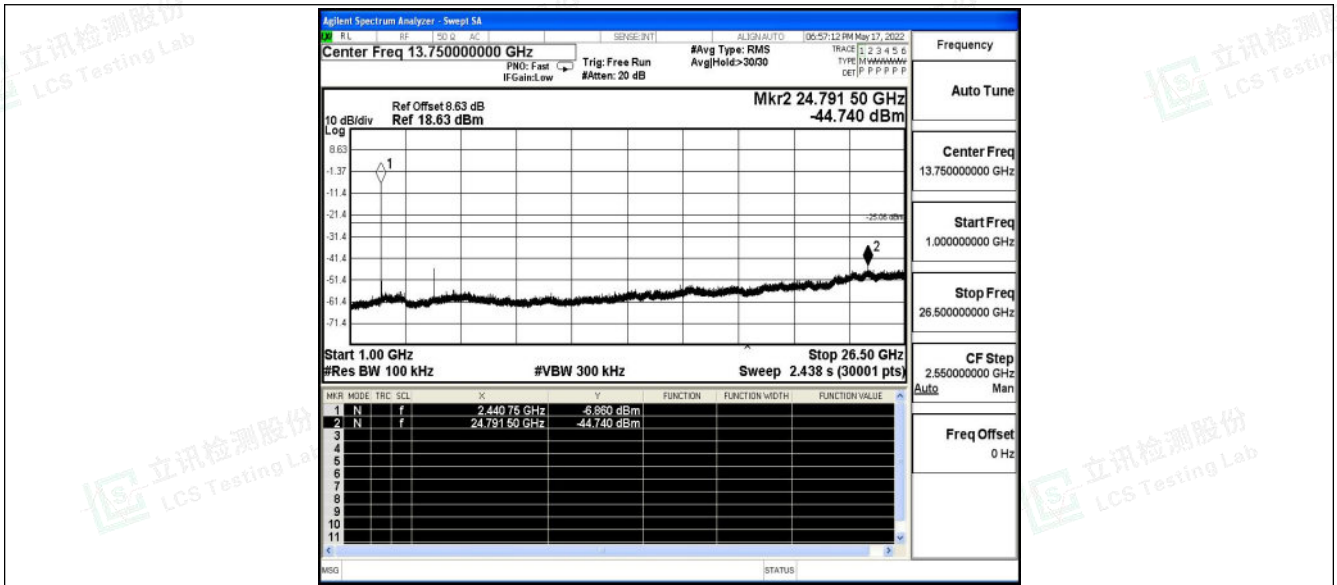


2DH5_Ant1_2441_30~1000

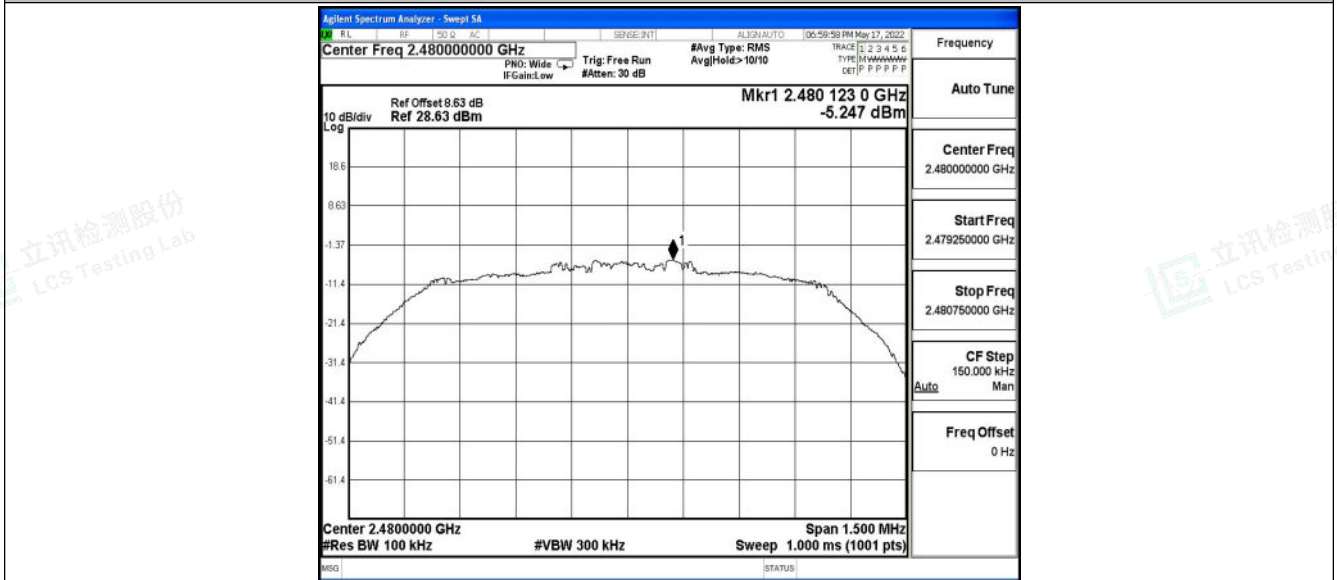


2DH5_Ant1_2441_1000~26500



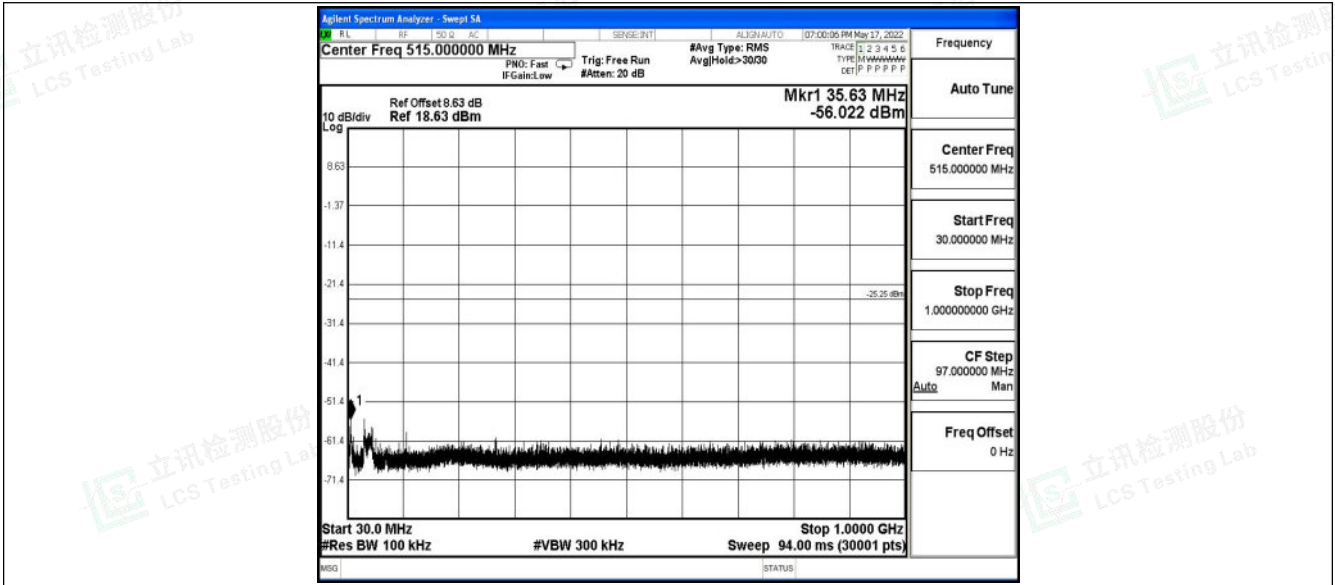


2DH5_Ant1_2480_0~Reference

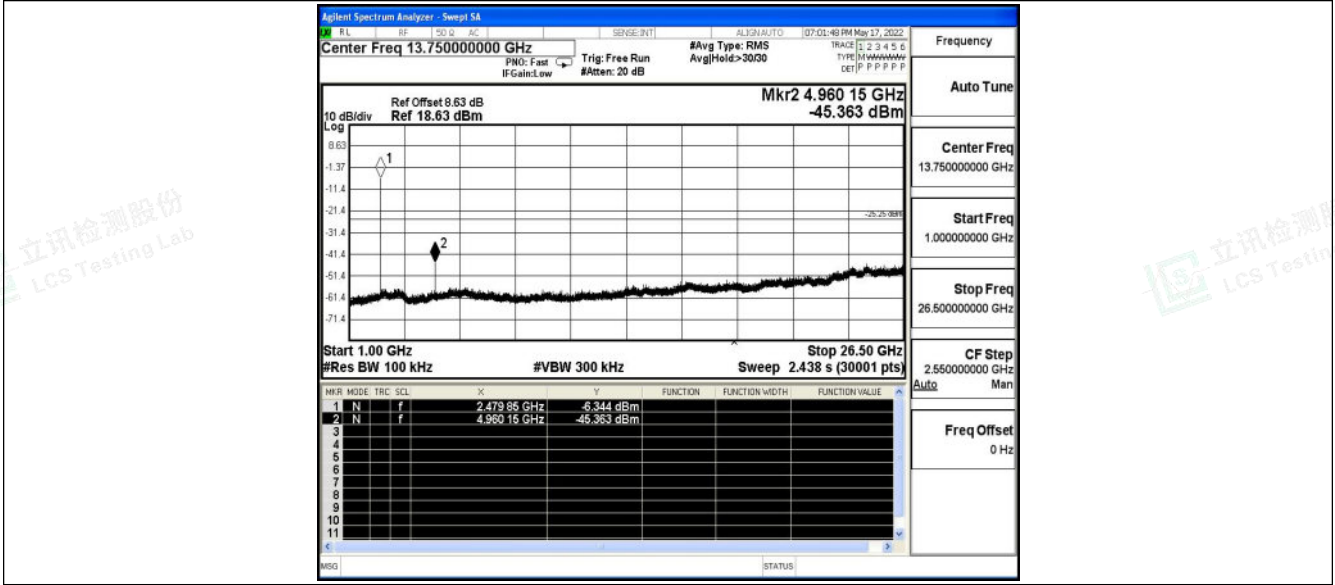


2DH5_Ant1_2480_30~1000





2DH5_Ant1_2480_1000~26500





A.9 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	-58.24	≤-41.20	36.96	≤54	PASS	
				AV	2386.415	-56.94	≤-41.20	38.26	≤54	PASS	
				AV	2390.000	-57.34	≤-41.20	37.86	≤54	PASS	
				Peak	2310.000	-48.99	≤-21.20	46.21	≤74	PASS	
				Peak	2387.465	-46.45	≤-21.20	48.75	≤74	PASS	
				Peak	2390.000	-47.15	≤-21.20	48.05	≤74	PASS	
		High	2480	AV	2483.500	-53.73	≤-41.20	41.47	≤54	PASS	
				AV	2483.520	-53.73	≤-41.20	41.47	≤54	PASS	
				AV	2500.000	-57.21	≤-41.20	37.99	≤54	PASS	
				Peak	2483.500	-32.98	≤-21.20	62.22	≤74	PASS	
				Peak	2483.520	-32.98	≤-21.20	62.22	≤74	PASS	
				Peak	2500.000	-47.83	≤-21.20	47.37	≤74	PASS	
				Hop_24 80	Peak	2483.500	-45.61	≤-21.20	49.59	≤74	PASS
					Peak	2484.720	-39.79	≤-21.20	55.41	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-58.09	≤-41.20	37.11	≤54	PASS	
				AV	2387.150	-56.9	≤-41.20	38.30	≤54	PASS	
				AV	2390.000	-57.11	≤-41.20	38.09	≤54	PASS	
				Peak	2310.000	-49.05	≤-21.20	46.15	≤74	PASS	
				Peak	2376.335	-45.98	≤-21.20	49.22	≤74	PASS	
				Peak	2390.000	-47.91	≤-21.20	47.29	≤74	PASS	
		High	2480	AV	2483.500	-53.84	≤-41.20	41.36	≤54	PASS	
				AV	2483.520	-53.83	≤-41.20	41.37	≤54	PASS	
				AV	2500.000	-57.16	≤-41.20	38.04	≤54	PASS	
				Peak	2483.500	-33.06	≤-21.20	62.14	≤74	PASS	
				Peak	2483.520	-33.06	≤-21.20	62.14	≤74	PASS	
				Peak	2500.000	-47.96	≤-21.20	47.24	≤74	PASS	
		Low	Hop_24 02	Peak	2310.000	-49.16	≤-21.20	46.04	≤74	PASS	
				Peak	2361.950	-46.33	≤-21.20	48.87	≤74	PASS	
				Peak	2390.000	-49	≤-21.20	46.20	≤74	PASS	
		High	Hop_24 80	Peak	2483.500	-43.27	≤-21.20	51.93	≤74	PASS	
				Peak	2483.920	-41.02	≤-21.20	54.18	≤74	PASS	
				Peak	2500.000	-47.24	≤-21.20	47.96	≤74	PASS	

Note:



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 Scan code to check authenticity



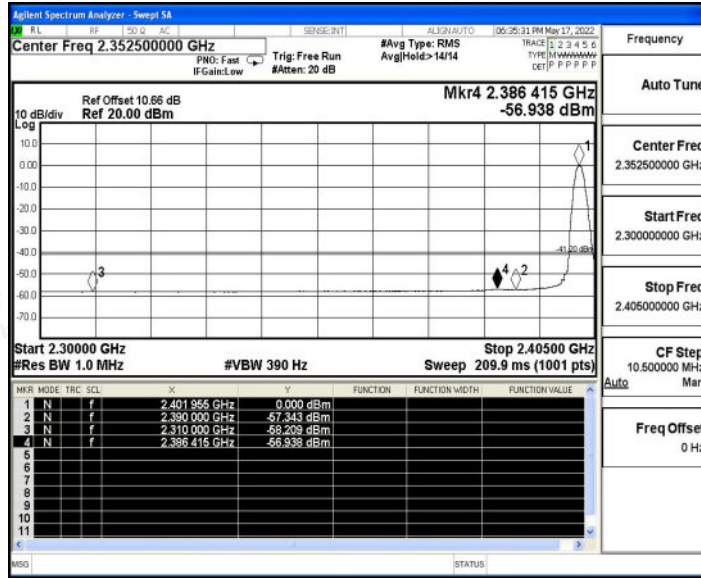
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



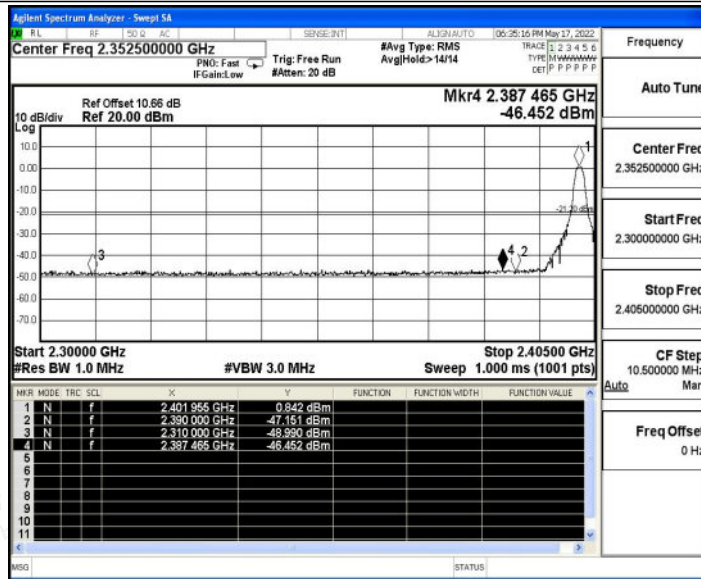


Test Graphs

DH5_Ant1_Low_2402_AV

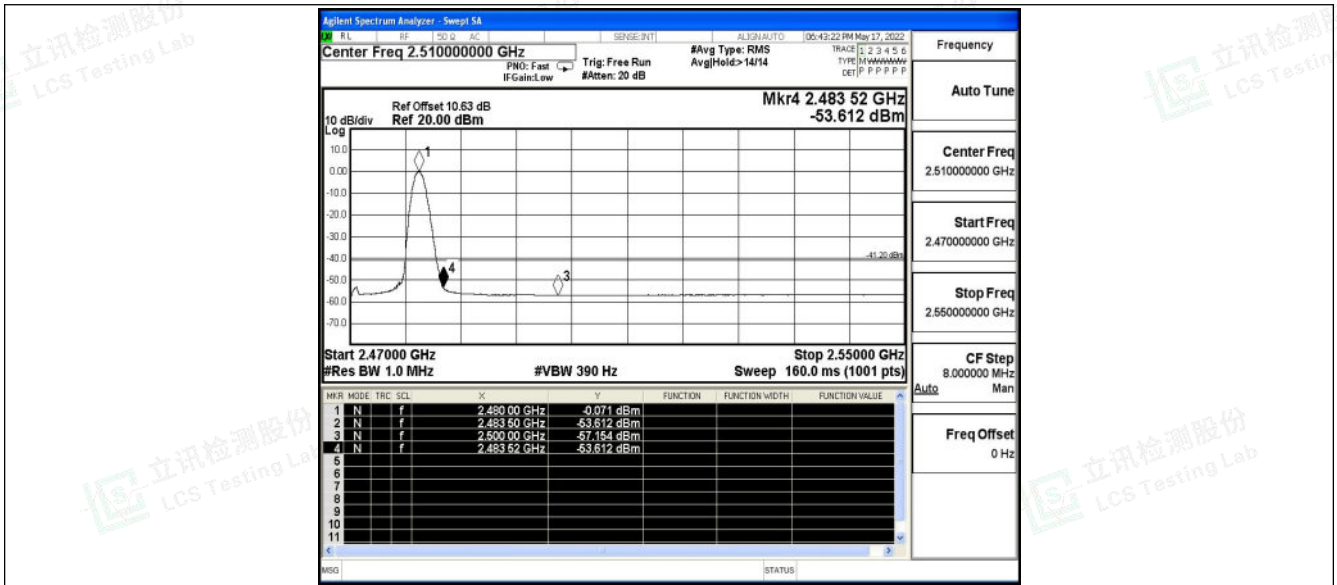


DH5_Ant1_Low_2402_Peak

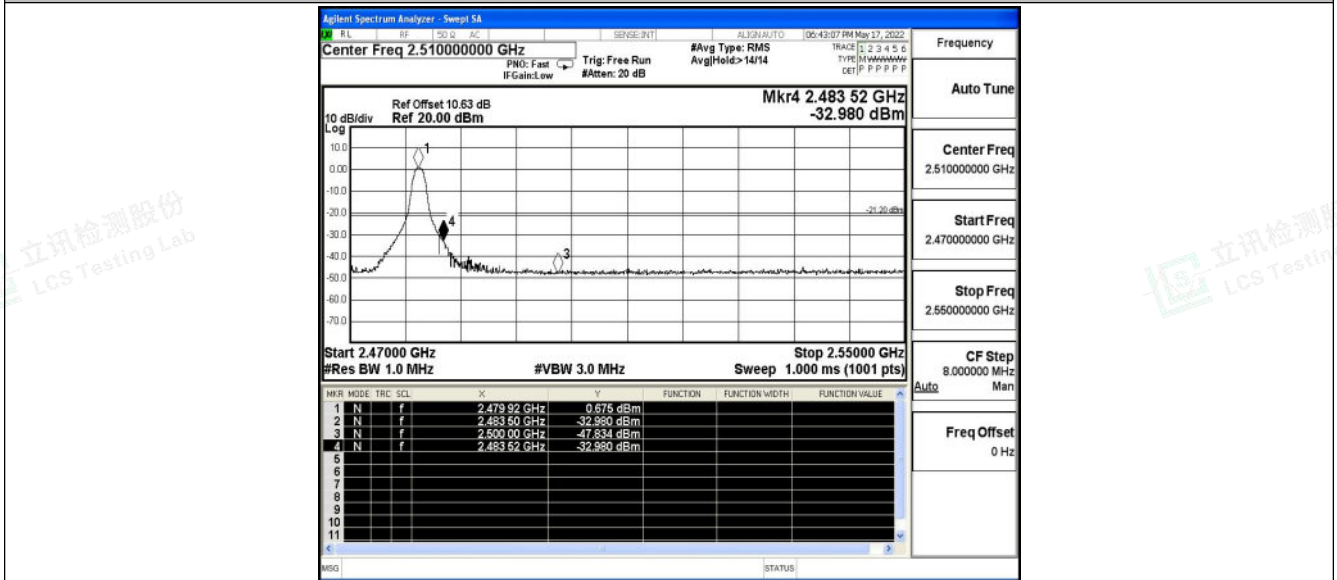


DH5_Ant1_High_2480_AV



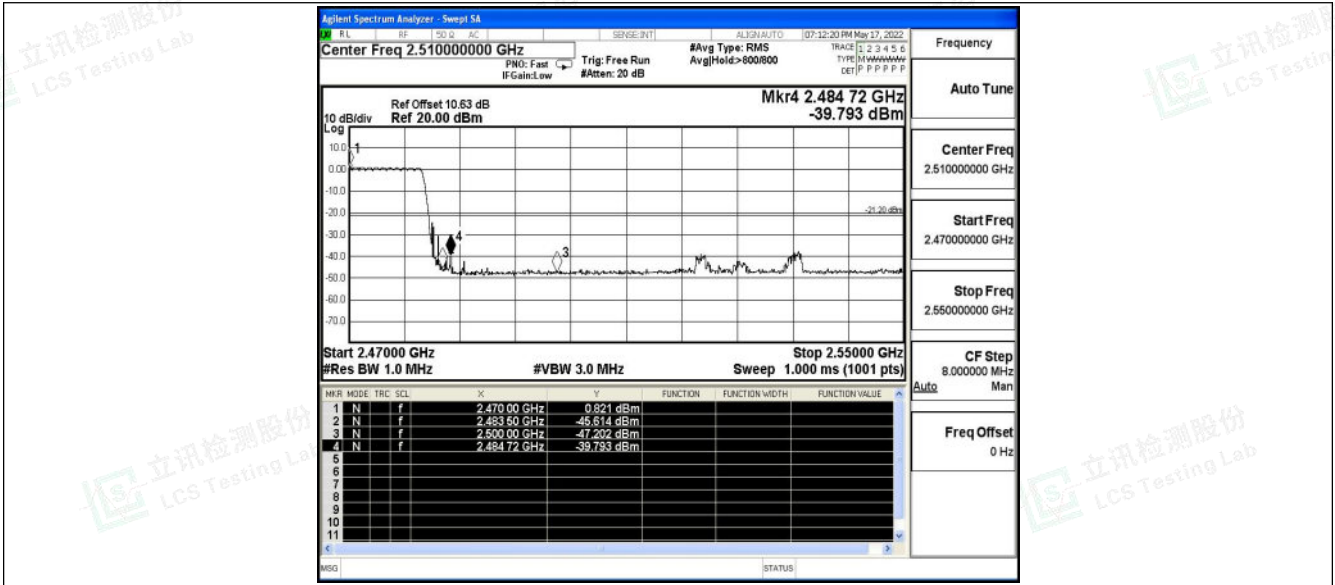


DH5_Ant1_High_2480_Peak

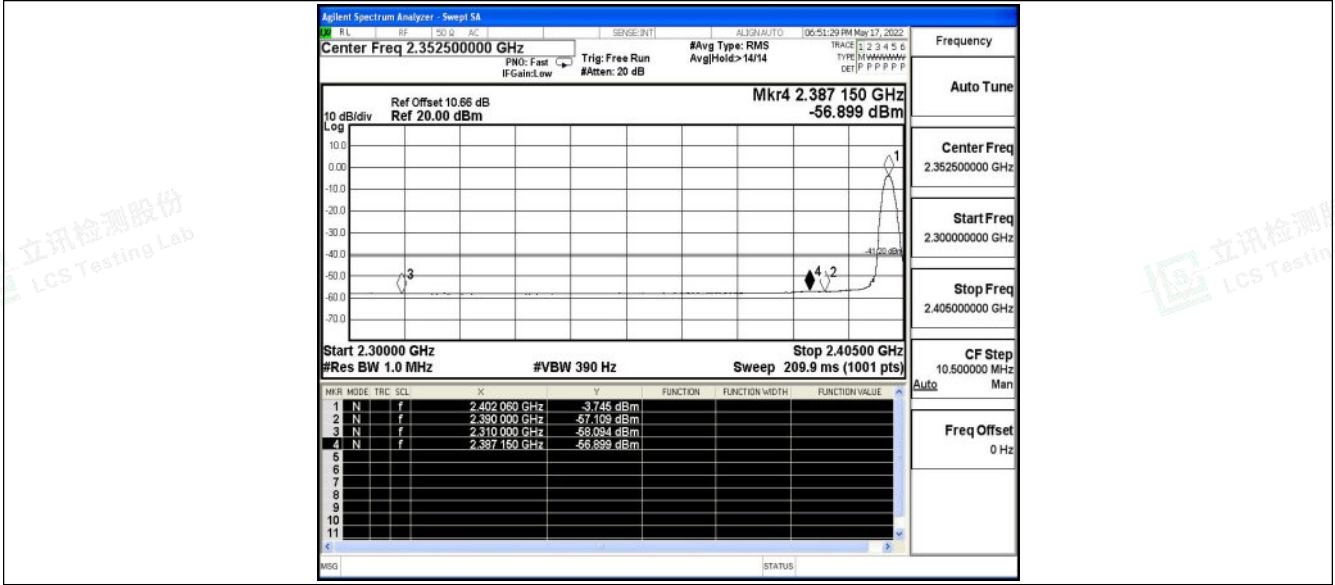


DH5_Ant1_High_Hop_2480_Peak



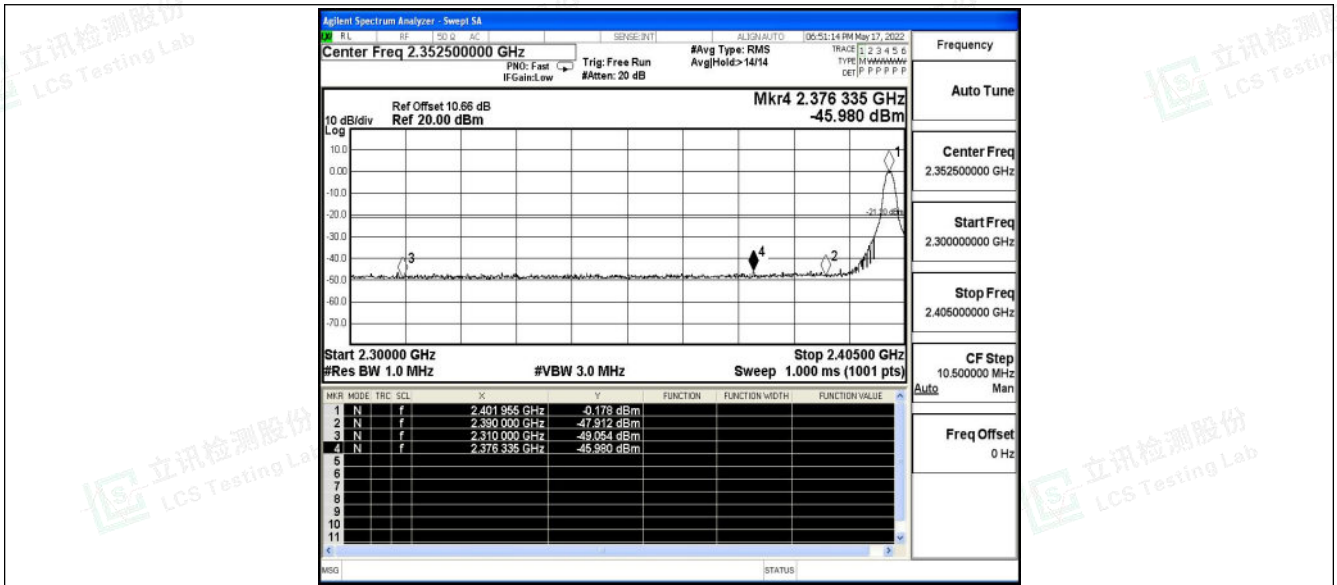


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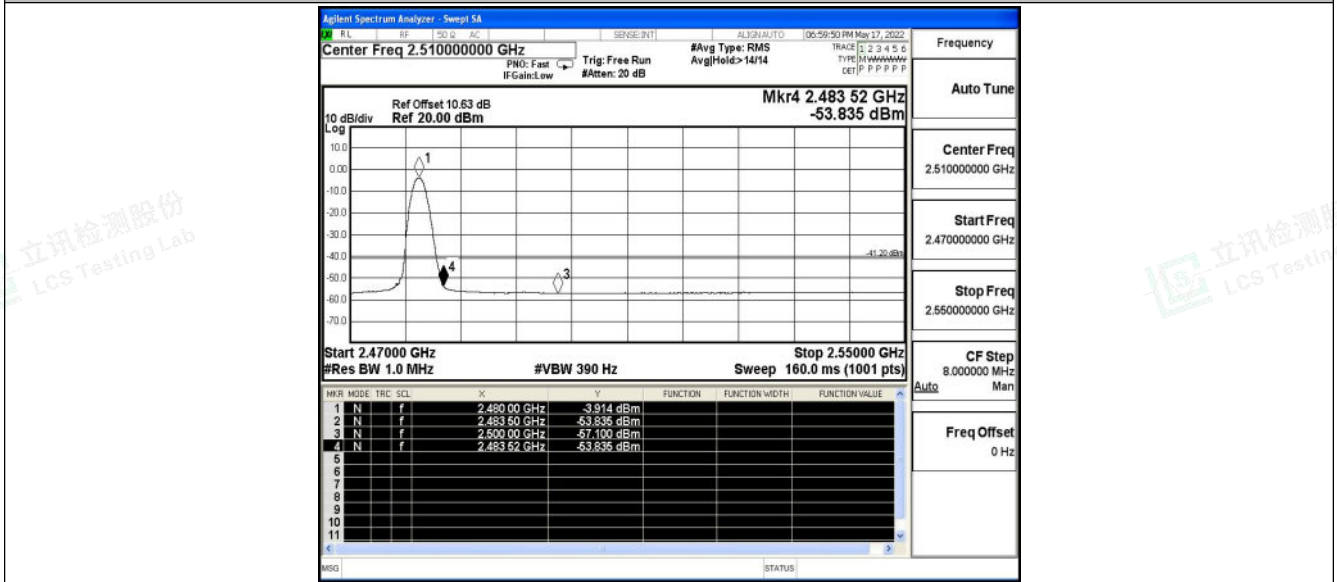


2DH5_Ant1_Low_2402_Peak



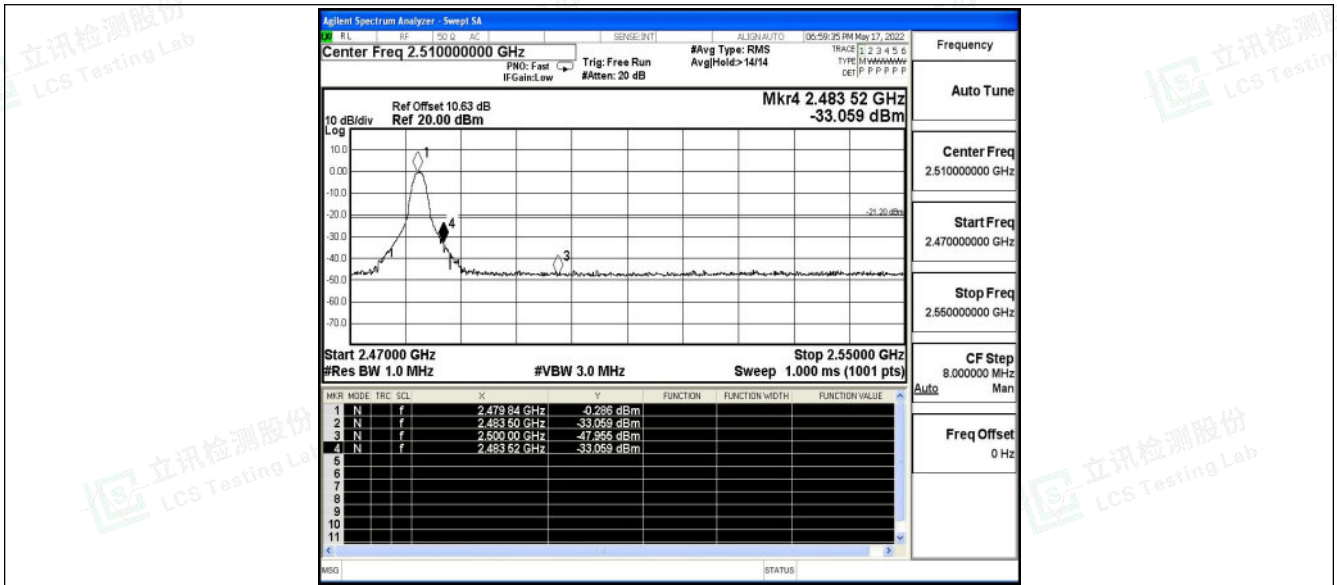


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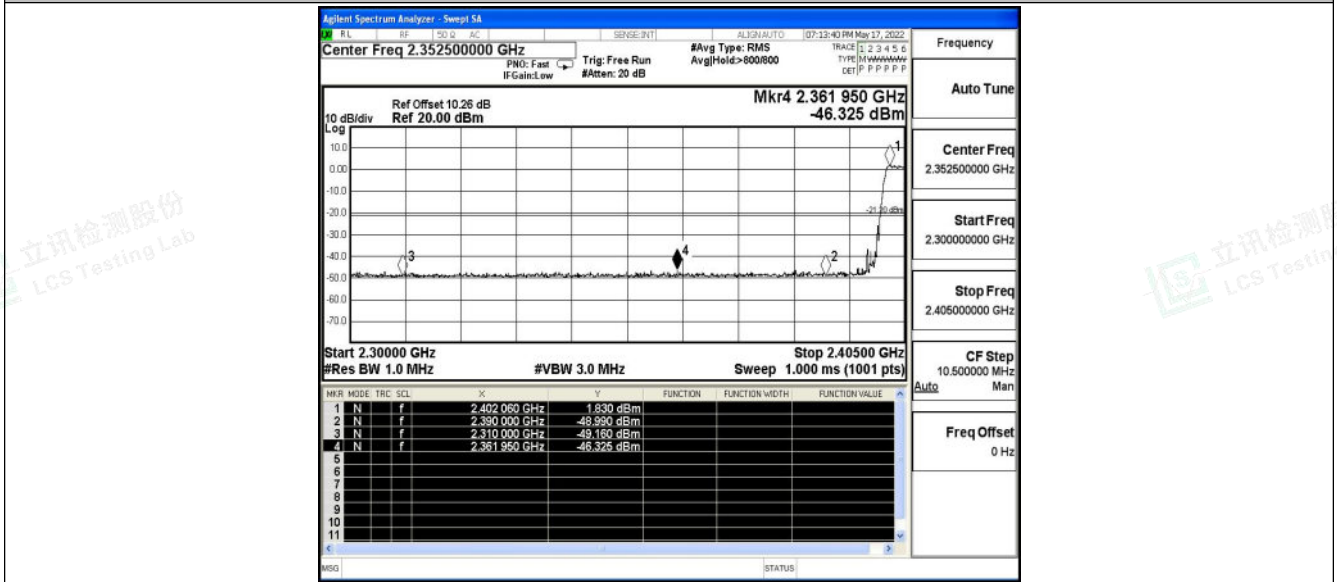


2DH5_Ant1_High_2480_Peak





2DH5_Ant1_Low_Hop_2402_Peak



2DH5_Ant1_High_Hop_2480_Peak



