



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Bluetooth Speaker

Test Model: EPS01

Environmental Conditions

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



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A.1 20dB Emission Bandwidth

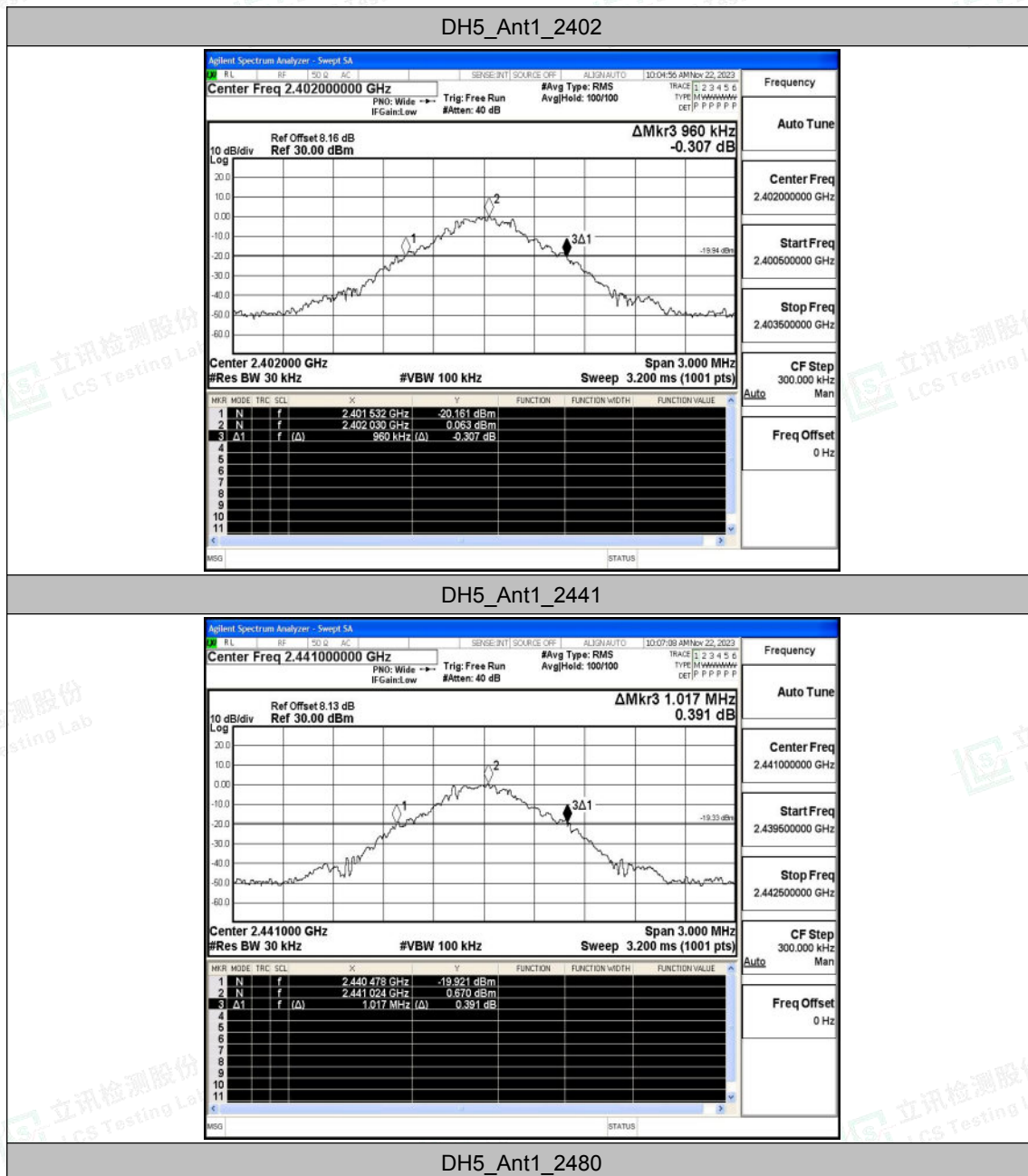
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	0.960	2401.532	2402.492	---
		2441	1.017	2440.478	2441.495	---
		2480	0.939	2479.538	2480.477	---
2DH5	Ant1	2402	1.290	2401.361	2402.651	---
		2441	1.293	2440.358	2441.651	---
		2480	1.287	2479.361	2480.648	---





Test Graphs

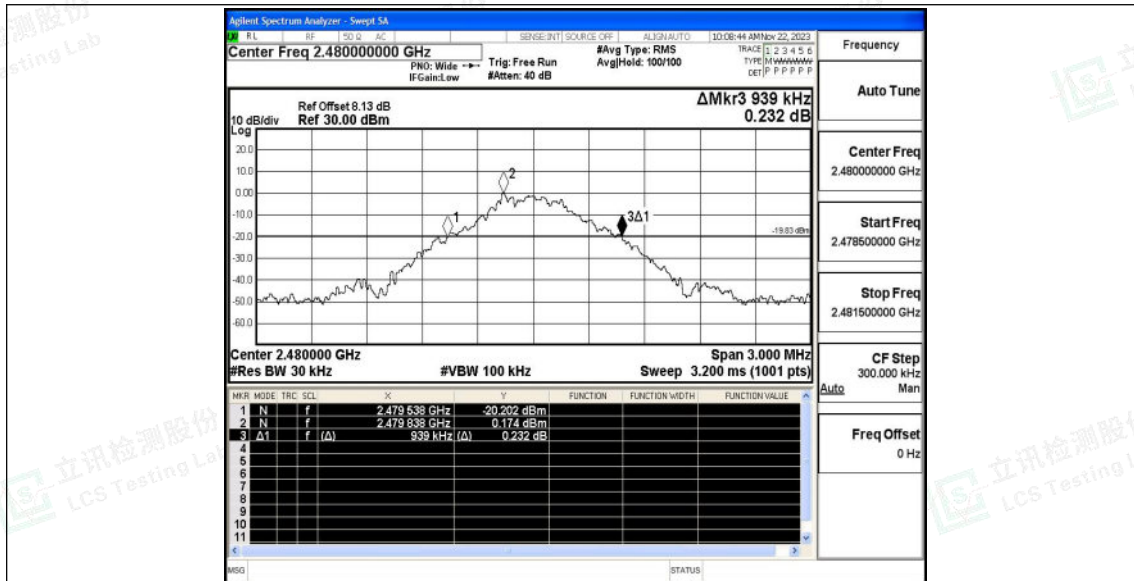


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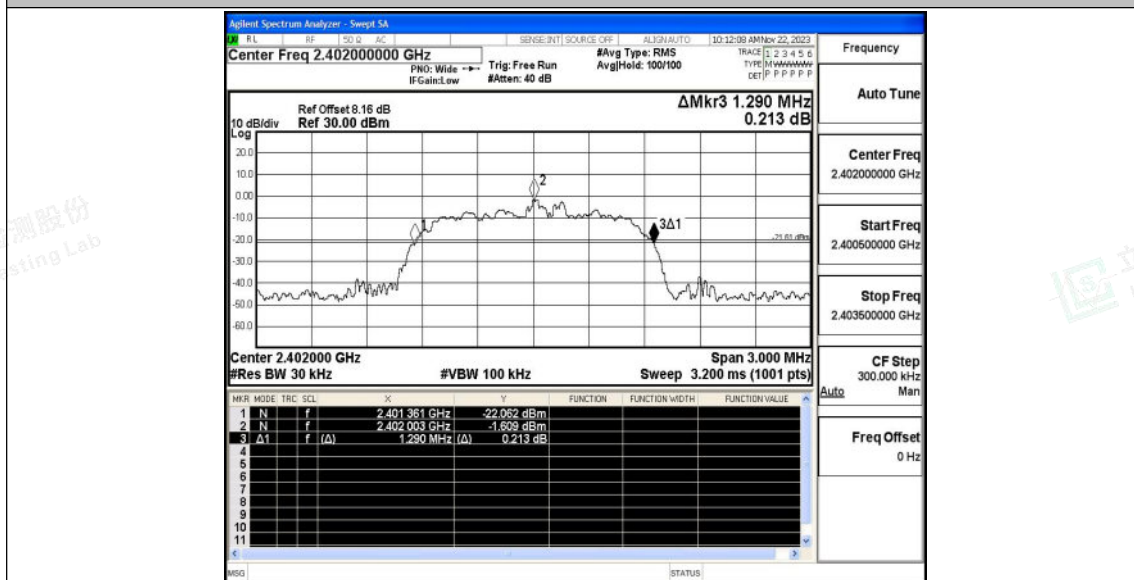
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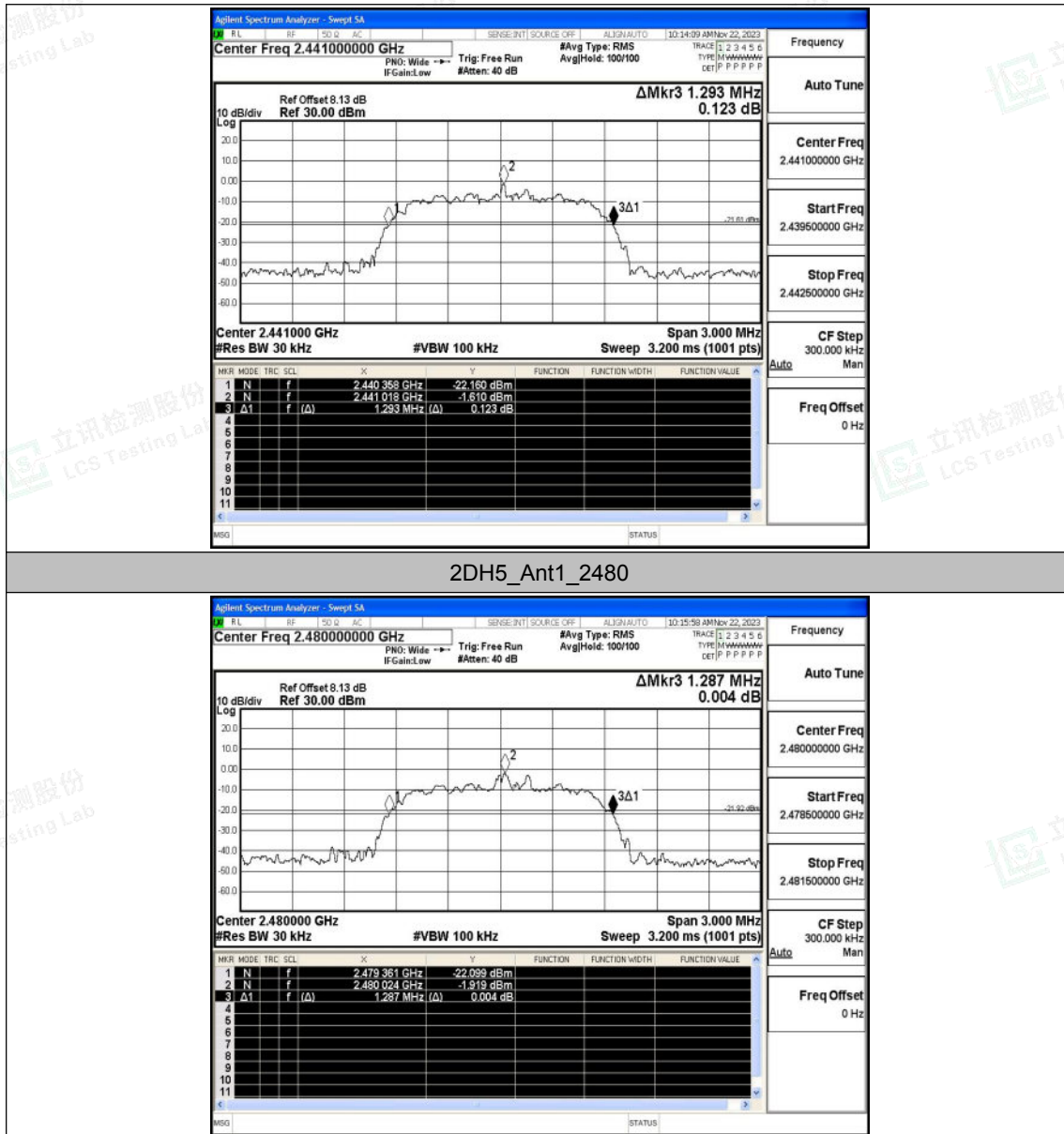


2DH5_Ant1_2402



2DH5_Ant1_2441







A.2 Maximum peak conducted output power

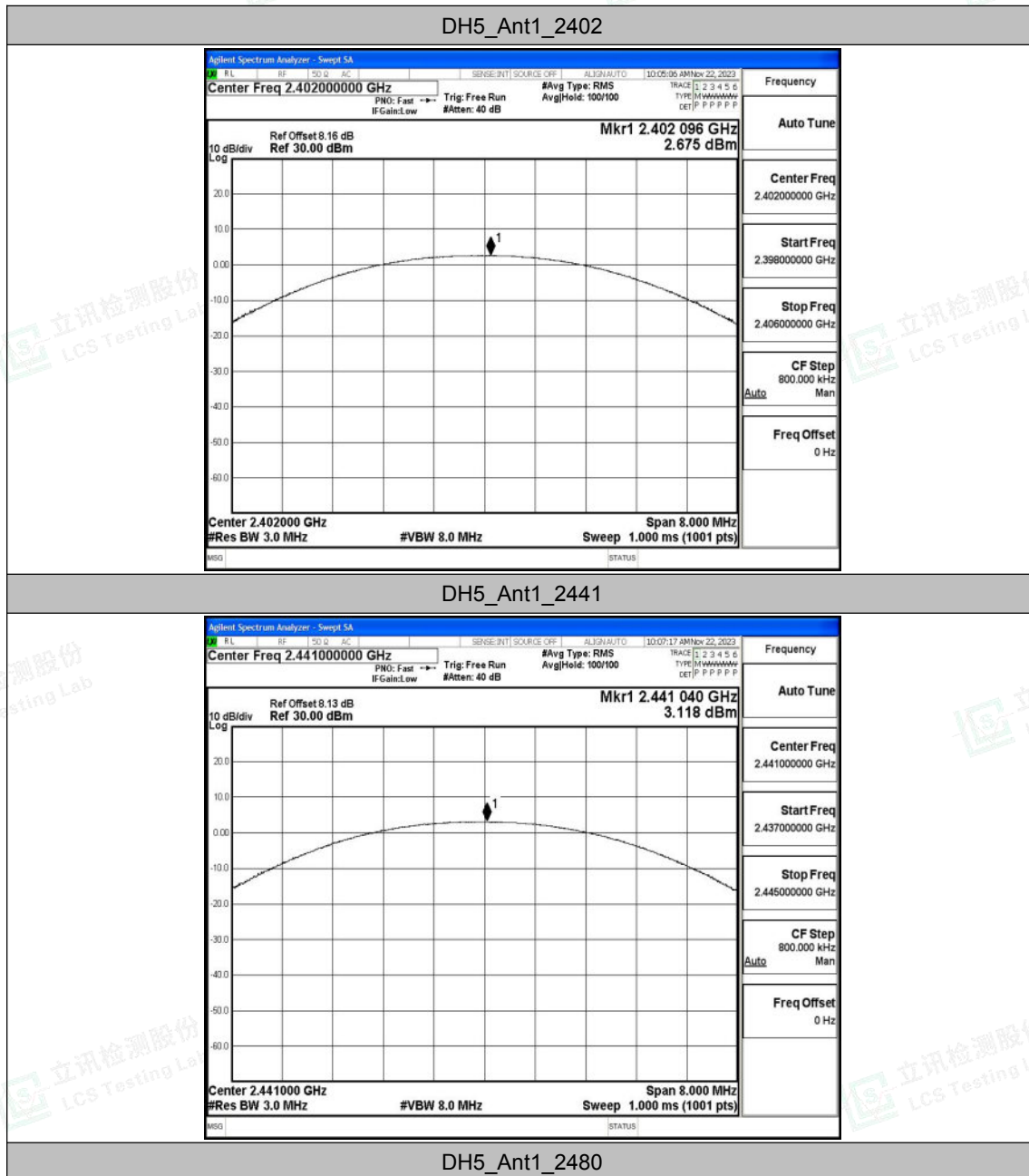
Test Result

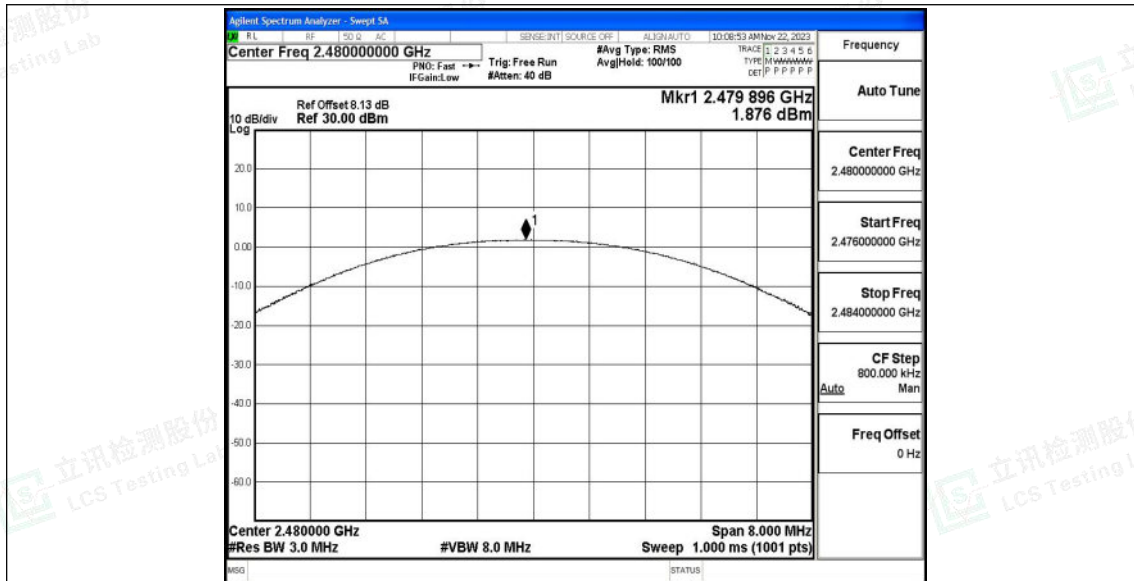
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	2.68	≤ 20.97	PASS
		2441	3.12	≤ 20.97	PASS
		2480	1.88	≤ 20.97	PASS
2DH5	Ant1	2402	2.87	≤ 20.97	PASS
		2441	3.04	≤ 20.97	PASS
		2480	2.13	≤ 20.97	PASS



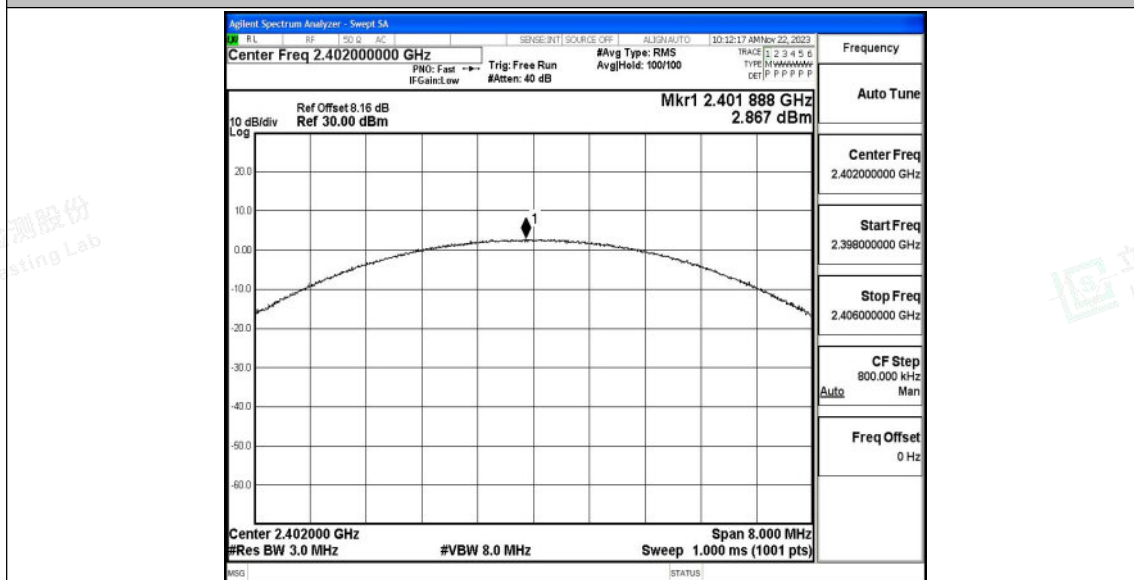


Test Graphs



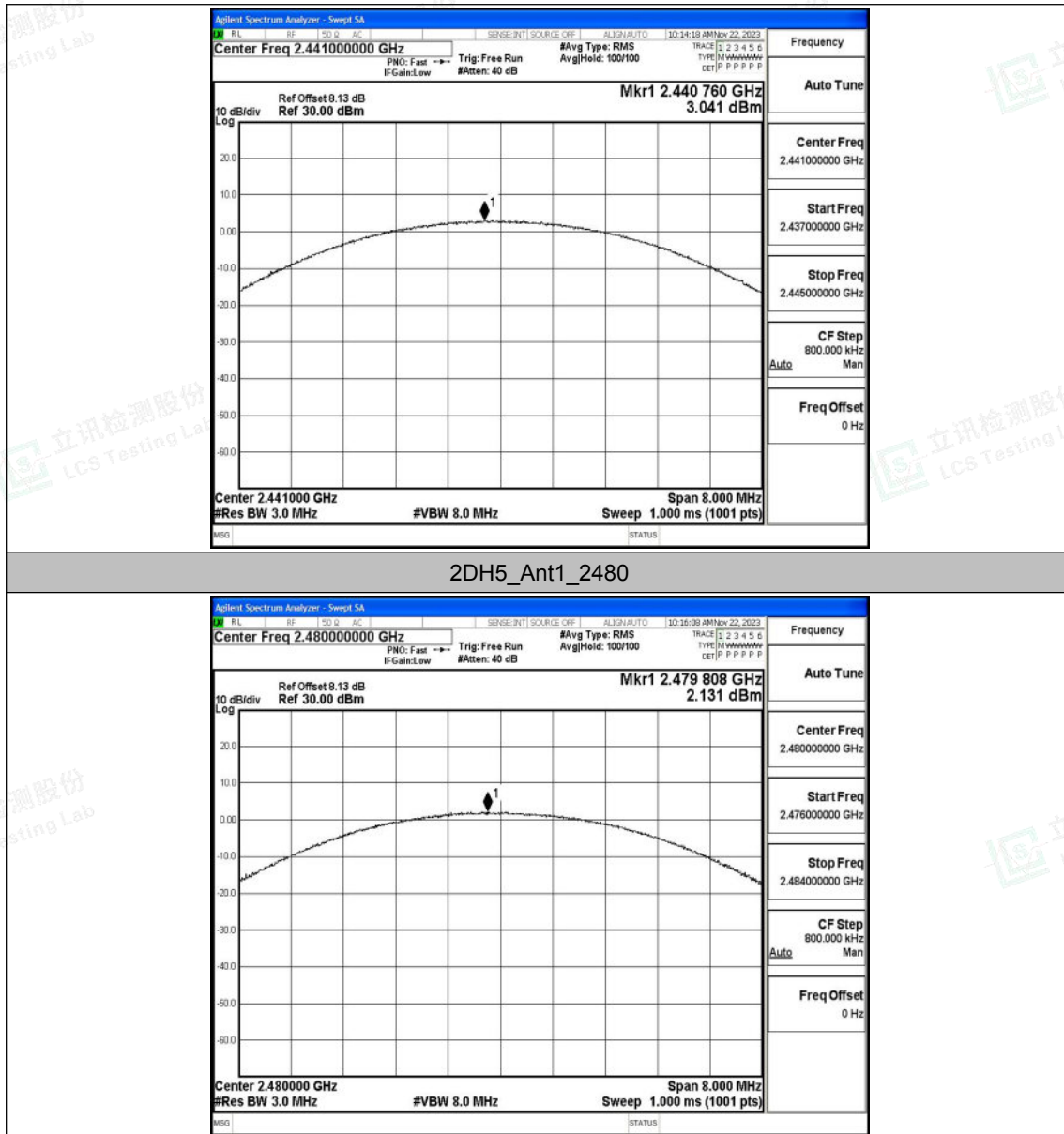


2DH5_Ant1_2402



2DH5_Ant1_2441







A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.84	≥ 0.678	PASS
2DH5	Ant1	Hop	0.896	≥ 0.862	PASS





Test Graphs





A.4 Time of occupancy

Test Result

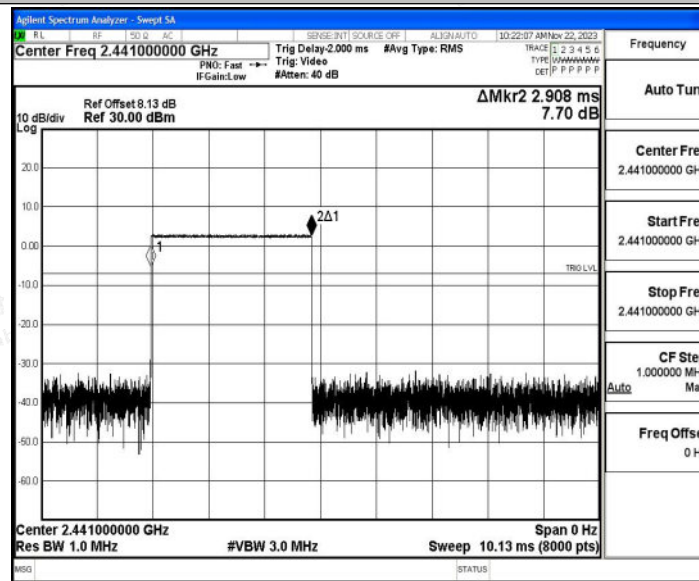
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.908	106.67	0.31	≤0.4	PASS
2DH5	Ant1	Hop	2.897	106.67	0.309	≤0.4	PASS



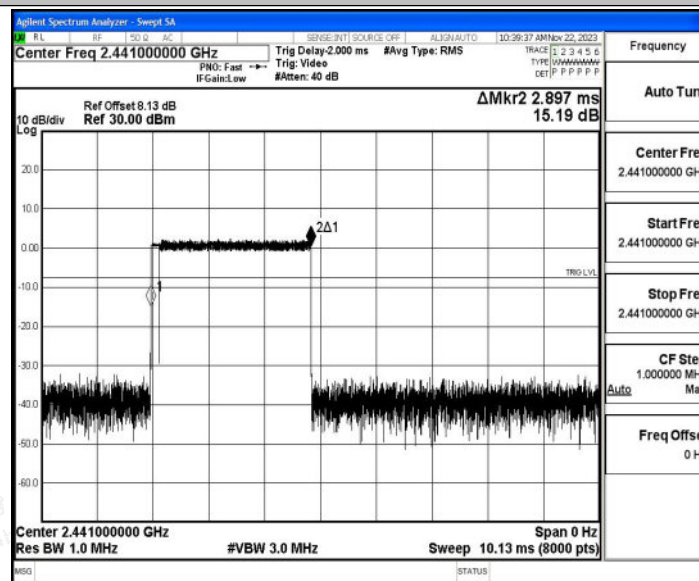


Test Graphs

DH5_Ant1_Hop



2DH5_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





Test Graphs





A.6 Band edge measurements

Test Result

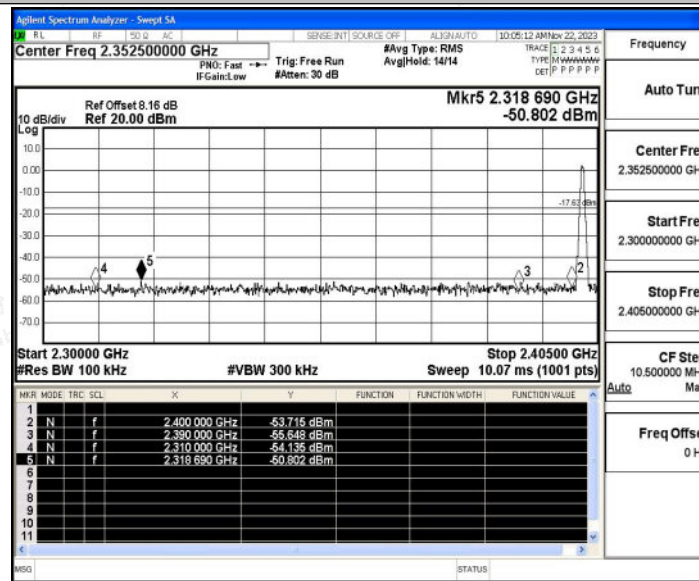
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.37	-50.8	≤ -17.63	PASS
		High	2480	2.54	-50.9	≤ -17.46	PASS
		Low	Hop_2402	1.92	-49.74	≤ -18.08	PASS
		High	Hop_2480	1.25	-48.7	≤ -18.75	PASS
2DH5	Ant1	Low	2402	1.00	-50.94	≤ -19	PASS
		High	2480	1.22	-50.76	≤ -18.78	PASS
		Low	Hop_2402	0.09	-50.44	≤ -19.91	PASS
		High	Hop_2480	-1.40	-49.46	≤ -21.4	PASS



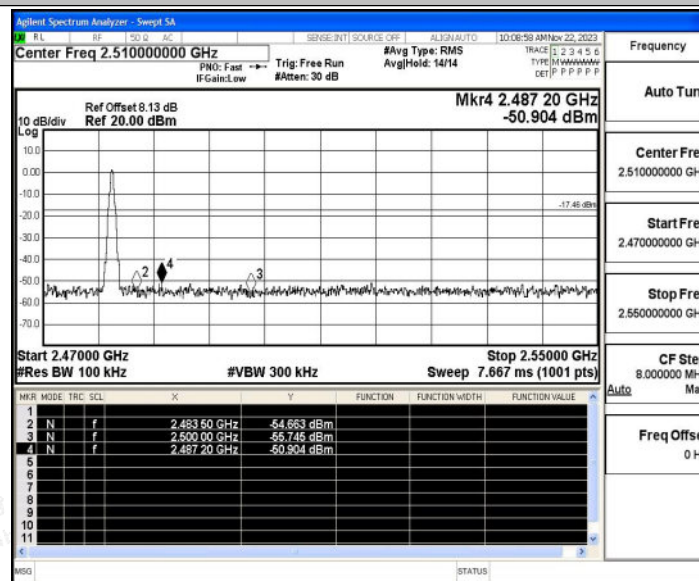


Test Graphs

DH5_Ant1_Low_2402

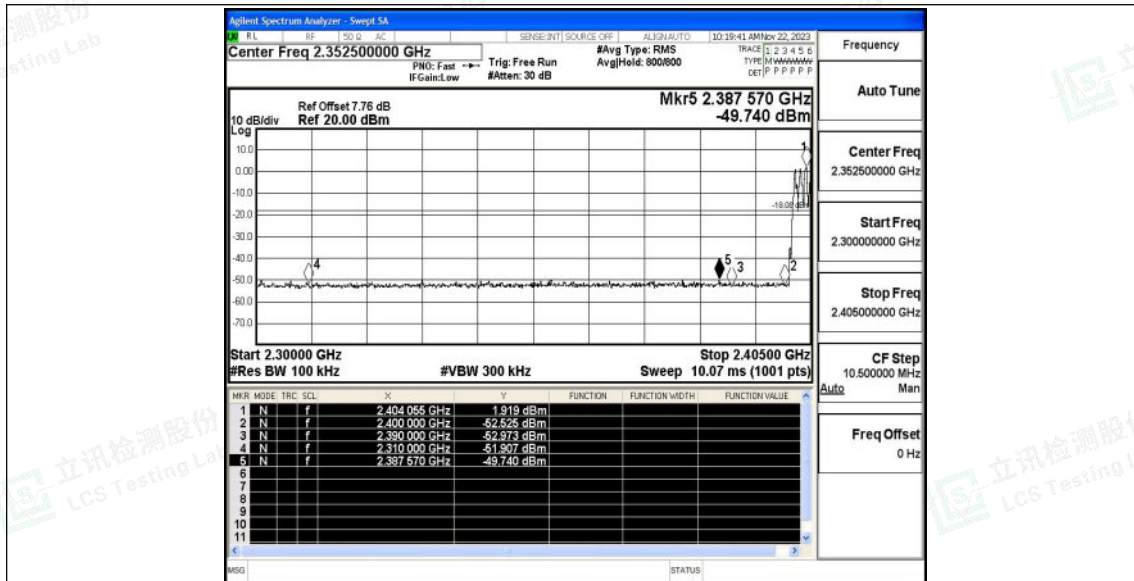


DH5_Ant1_High_2480

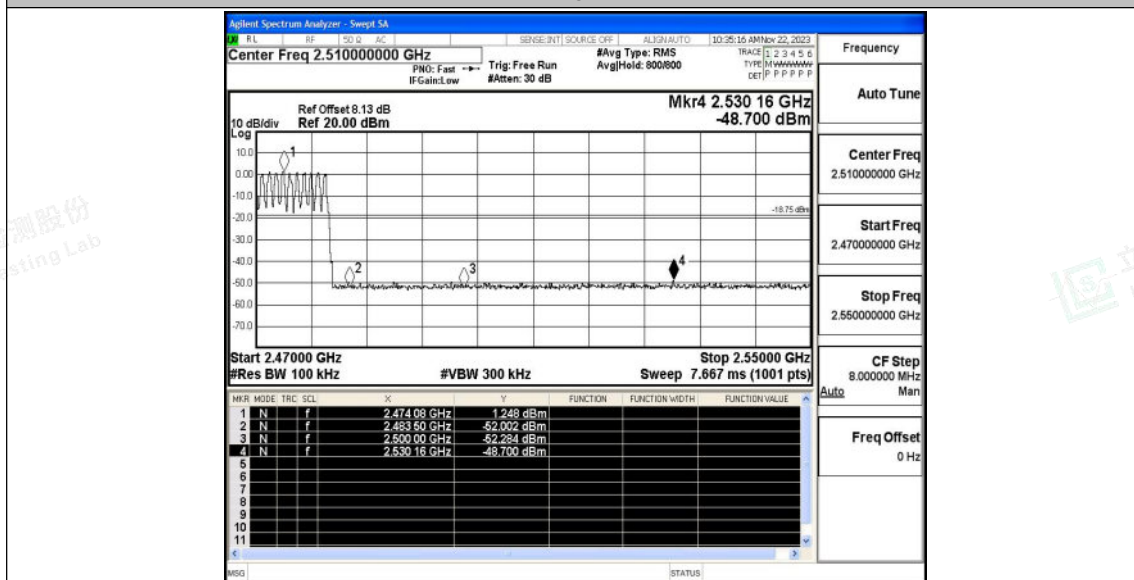


DH5_Ant1_Low_Hop_2402





DH5_Ant1_High_Hop_2480



2DH5_Ant1_Low_2402

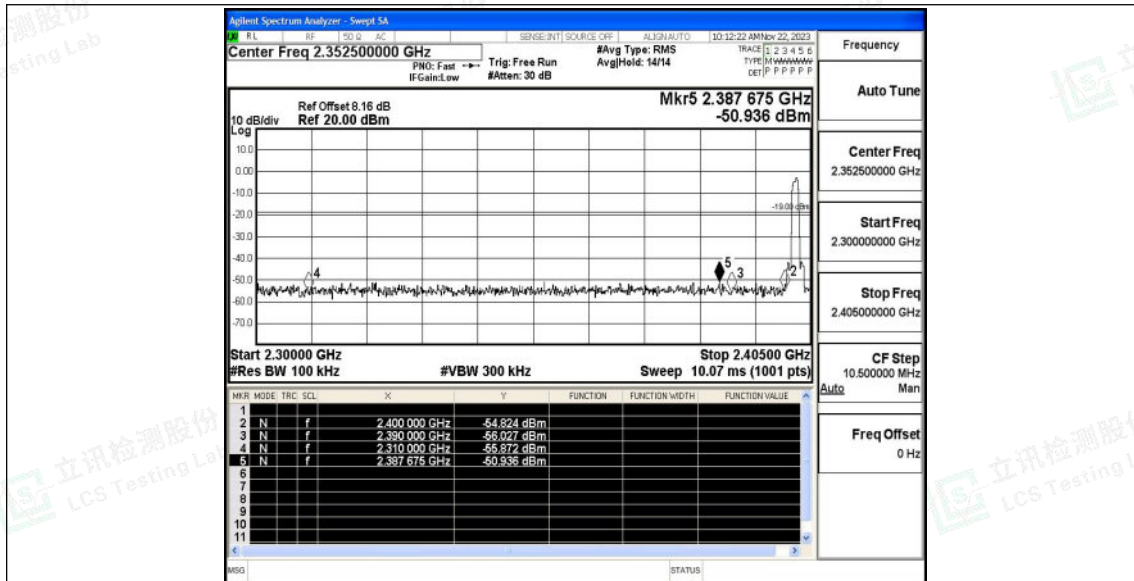


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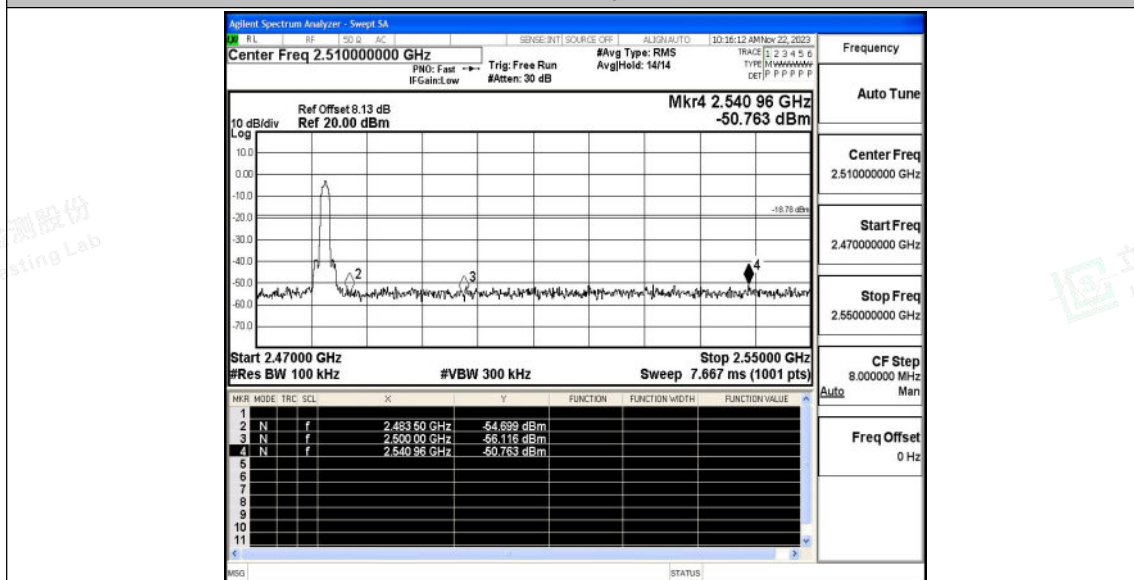
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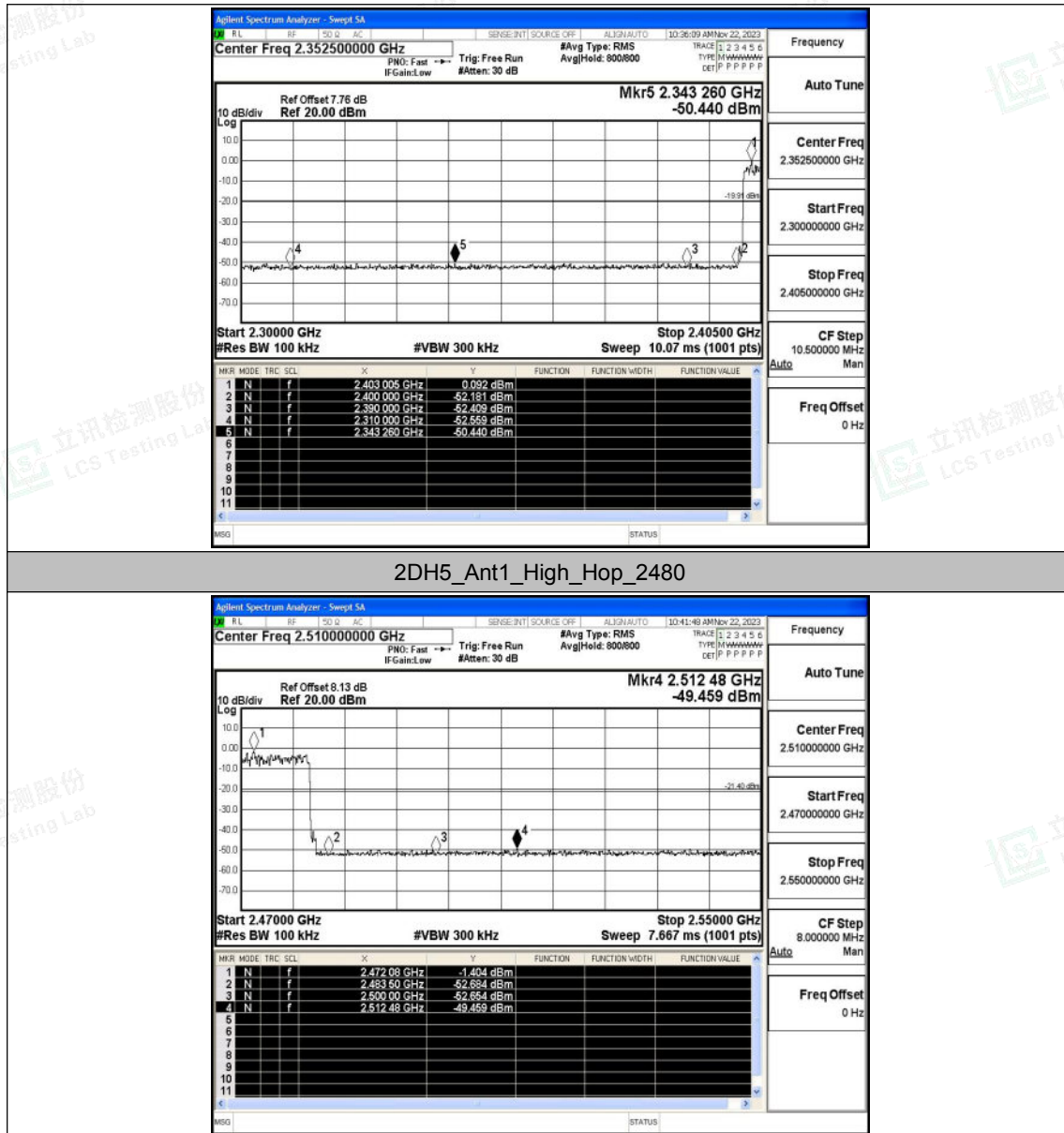


2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402







A.7 Conducted Spurious Emission

Test Result

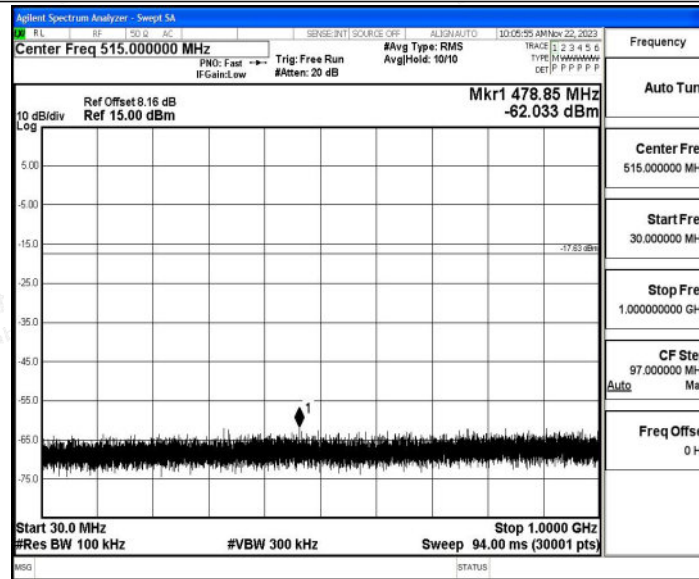
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~1000	2.37	-62.03	≤-17.63	PASS
			1000~26500	2.37	-48.97	≤-17.63	PASS
		2441	30~1000	1.89	-61.63	≤-18.11	PASS
			1000~26500	1.89	-49.54	≤-18.11	PASS
		2480	30~1000	2.54	-61.67	≤-17.46	PASS
			1000~26500	2.54	-48.88	≤-17.46	PASS
2DH5	Ant1	2402	30~1000	1.00	-61.62	≤-19	PASS
			1000~26500	1.00	-49.06	≤-19	PASS
		2441	30~1000	1.34	-61.15	≤-18.66	PASS
			1000~26500	1.34	-49.21	≤-18.66	PASS
		2480	30~1000	1.22	-61.75	≤-18.78	PASS
			1000~26500	1.22	-48.67	≤-18.78	PASS



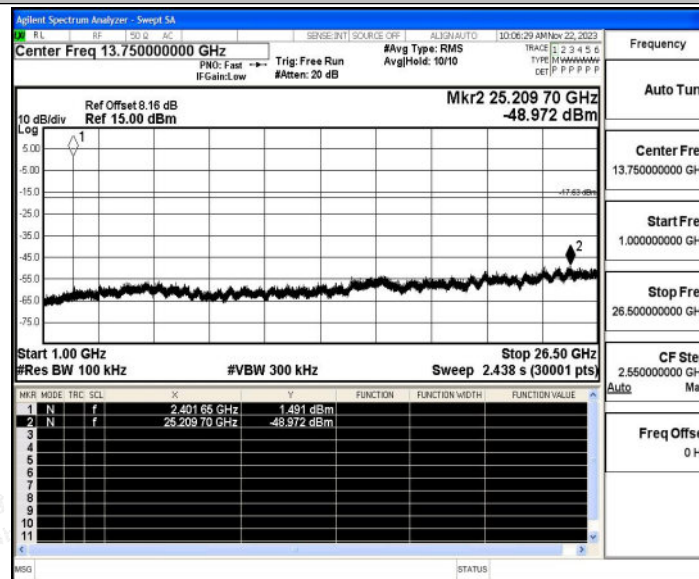


Test Graphs

DH5_Ant1_2402_30~1000

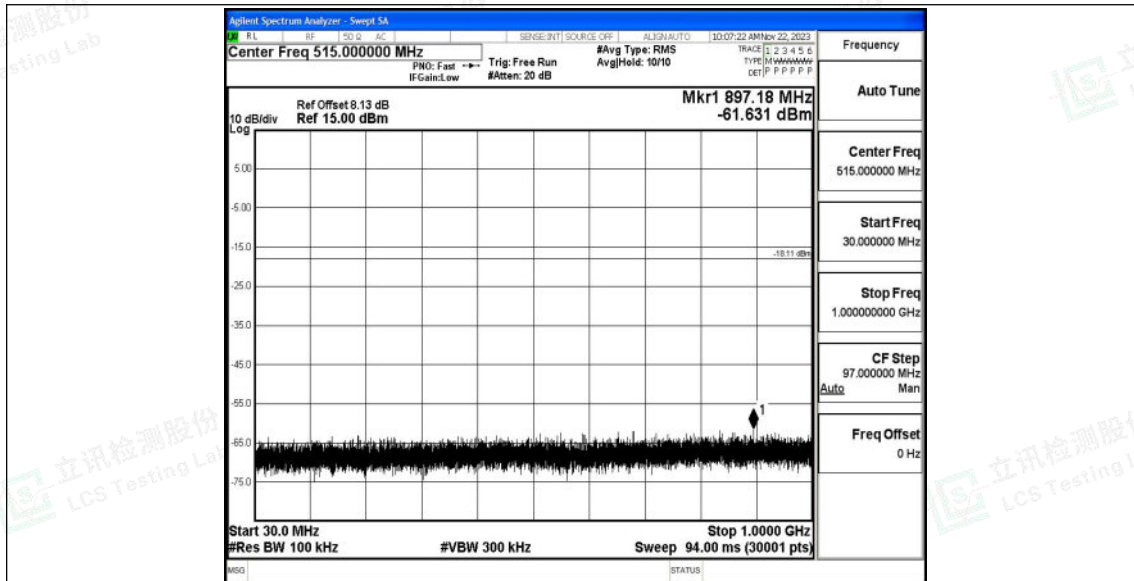


DH5_Ant1_2402_1000~26500

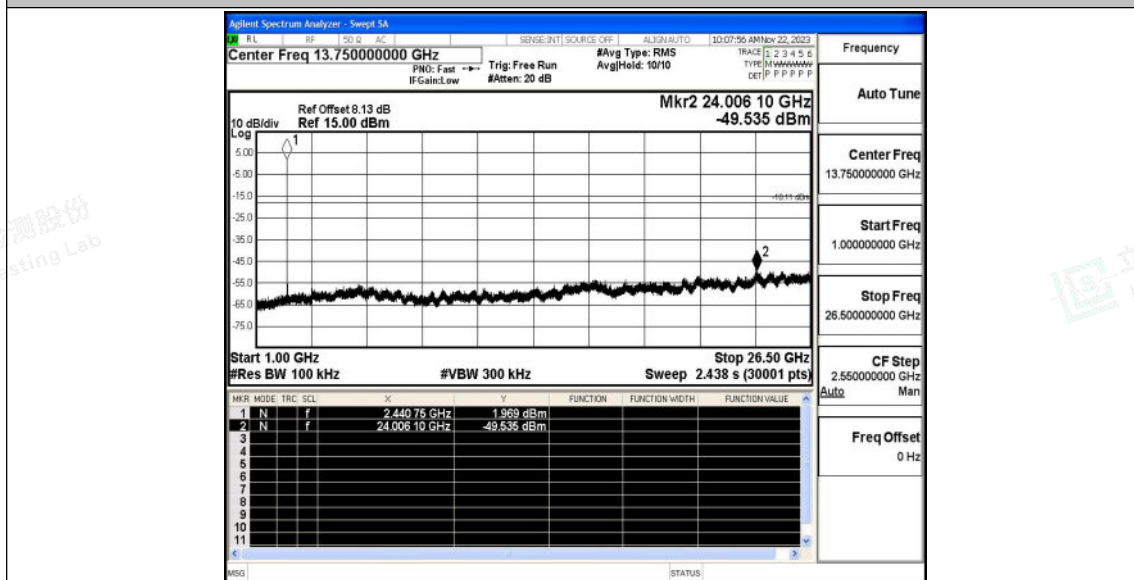


DH5_Ant1_2441_30~1000



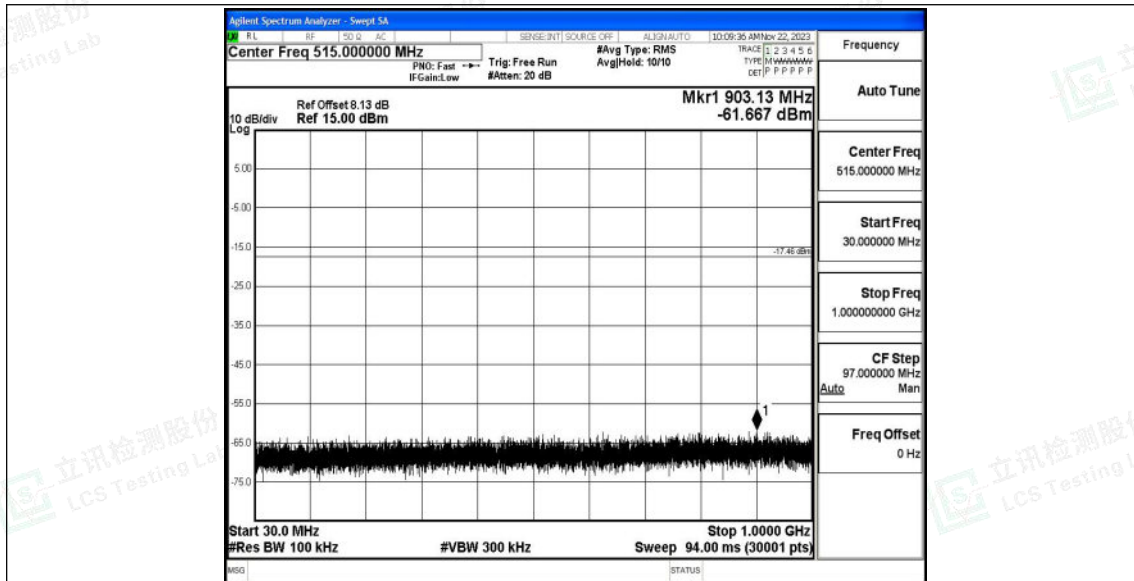


DH5_Ant1_2441_1000~26500

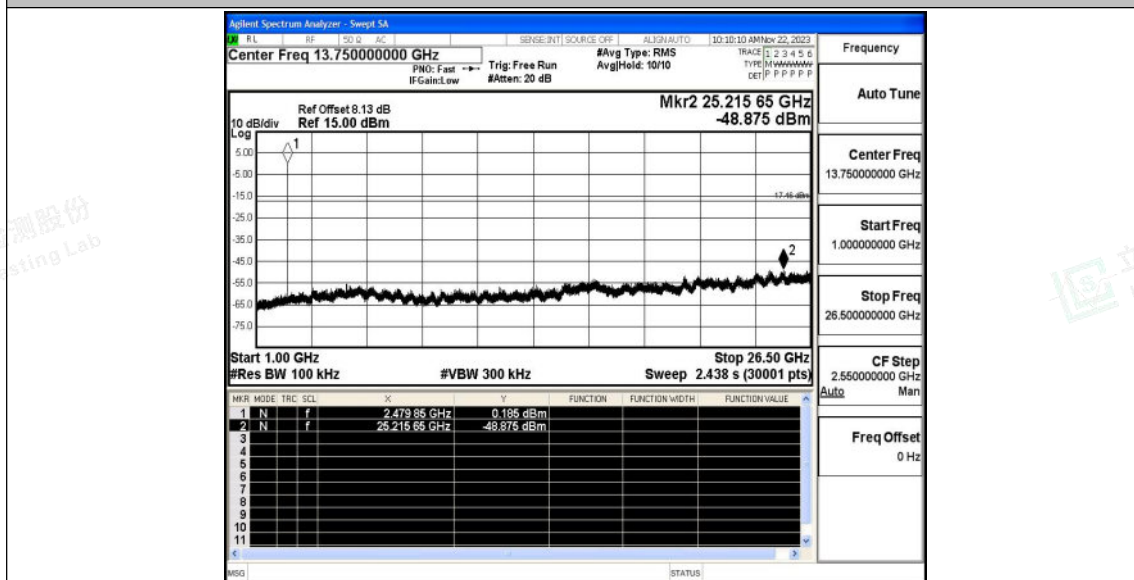


DH5_Ant1_2480_30~1000



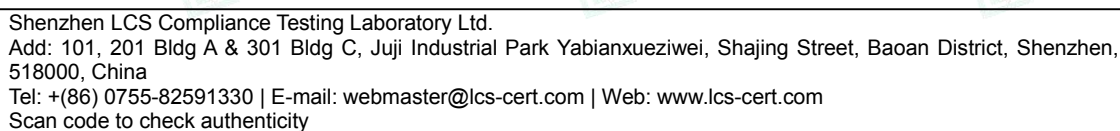
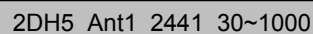
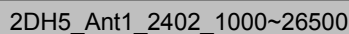
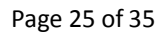


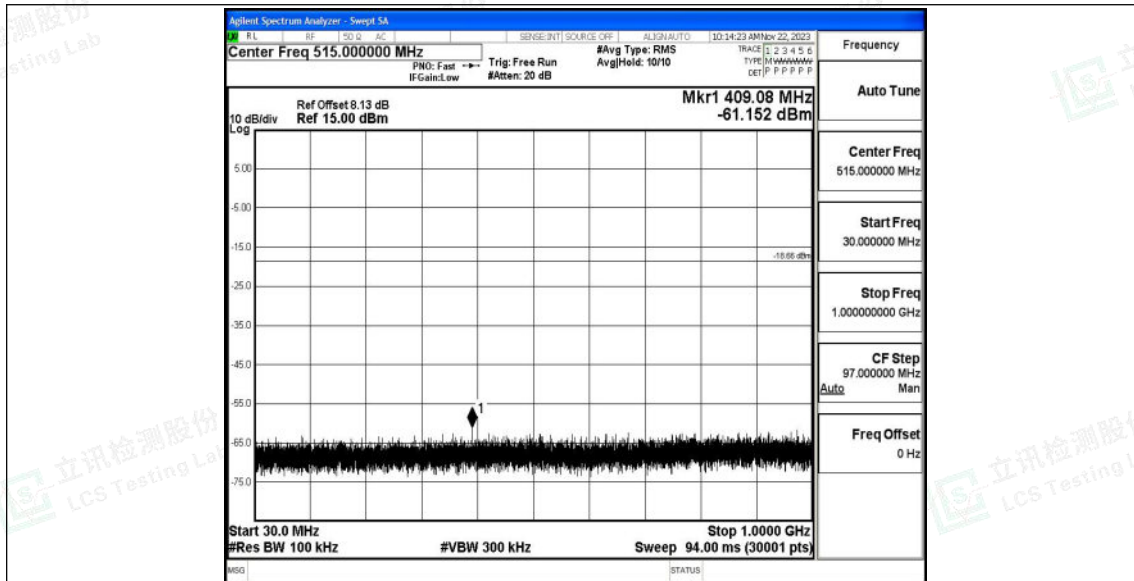
DH5_Ant1_2480_1000~26500



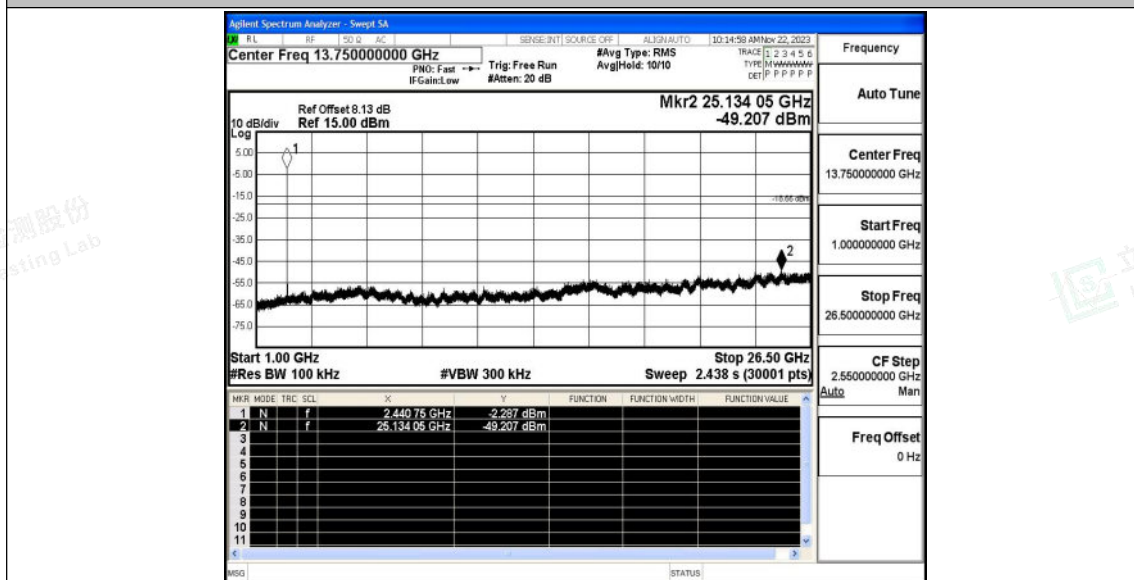
2DH5_Ant1_2402_30~1000





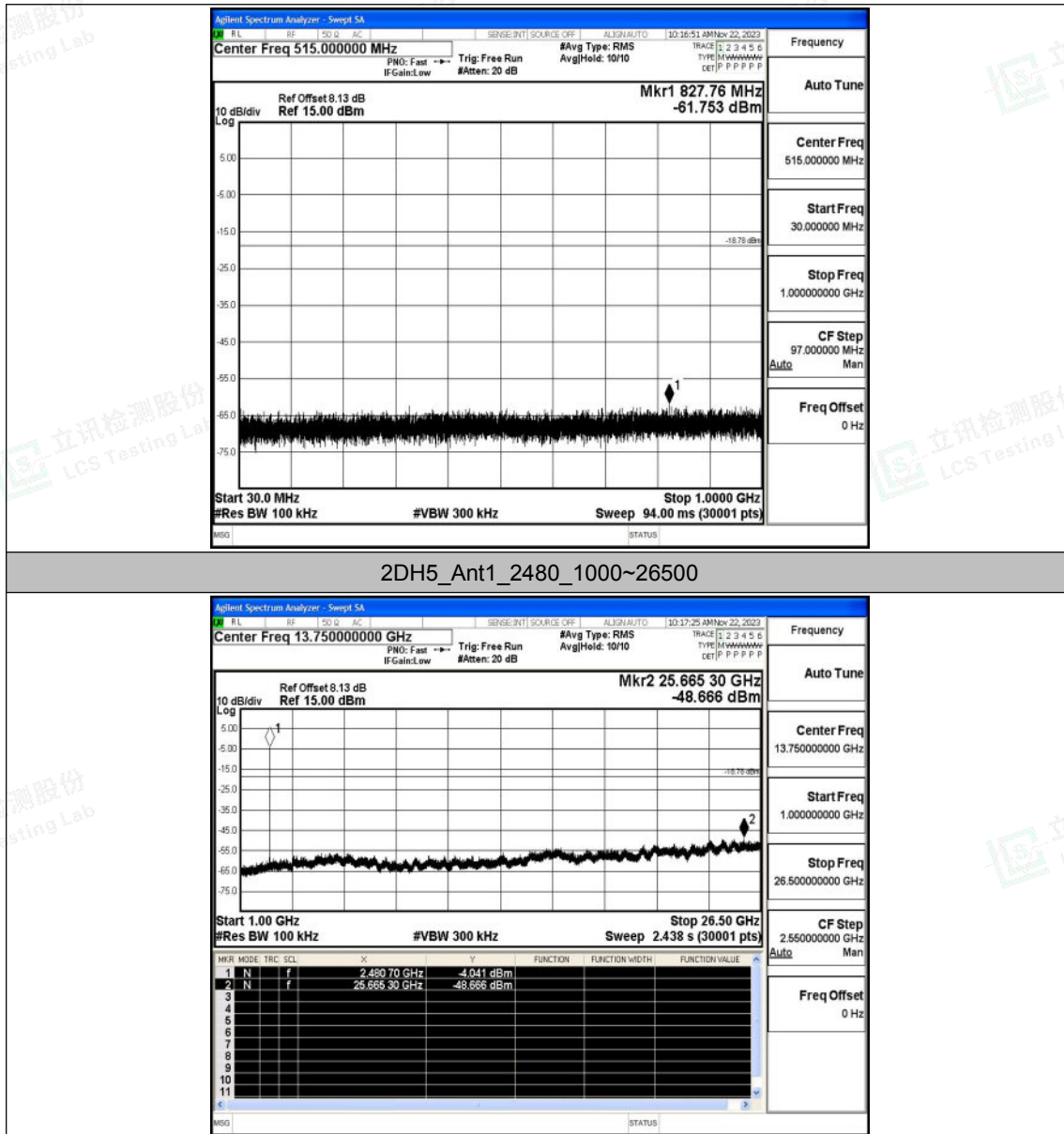


2DH5_Ant1_2441_1000~26500



2DH5_Ant1_2480_30~1000







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	-49	≤-41.20	46.20	≤54	PASS
				AV	2380.430	-48.58	≤-41.20	46.62	≤54	PASS
				AV	2390.000	-48.63	≤-41.20	46.57	≤54	PASS
				Peak	2310.000	-42.74	≤-21.20	52.46	≤74	PASS
				Peak	2367.935	-39.2	≤-21.20	56.00	≤74	PASS
				Peak	2390.000	-41.71	≤-21.20	53.49	≤74	PASS
		High	2480	AV	2483.500	-48.27	≤-41.20	46.93	≤54	PASS
				AV	2483.520	-48.27	≤-41.20	46.93	≤54	PASS
				AV	2500.000	-48.62	≤-41.20	46.58	≤54	PASS
				Peak	2483.500	-43.91	≤-21.20	51.29	≤74	PASS
				Peak	2490.960	-39.05	≤-21.20	56.15	≤74	PASS
				Peak	2500.000	-39.66	≤-21.20	55.54	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-42.17	≤-21.20	53.03	≤74	PASS
				Peak	2356.070	-38.57	≤-21.20	56.63	≤74	PASS
				Peak	2390.000	-39.51	≤-21.20	55.69	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-40.5	≤-21.20	54.70	≤74	PASS
				Peak	2488.240	-37	≤-21.20	58.20	≤74	PASS
				Peak	2500.000	-40.37	≤-21.20	54.83	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.06	≤-41.20	46.14	≤54	PASS
				AV	2386.205	-48.58	≤-41.20	46.62	≤54	PASS
				AV	2390.000	-48.71	≤-41.20	46.49	≤54	PASS
				Peak	2310.000	-43.97	≤-21.20	51.23	≤74	PASS
				Peak	2352.500	-39.76	≤-21.20	55.44	≤74	PASS
				Peak	2390.000	-44.19	≤-21.20	51.01	≤74	PASS
		High	2480	AV	2483.500	-48.16	≤-41.20	47.04	≤54	PASS
				AV	2483.520	-48.16	≤-41.20	47.04	≤54	PASS
				AV	2500.000	-48.53	≤-41.20	46.67	≤54	PASS
				Peak	2483.500	-44.47	≤-21.20	50.73	≤74	PASS
				Peak	2494.880	-38.06	≤-21.20	57.14	≤74	PASS
				Peak	2500.000	-44.37	≤-21.20	50.83	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-40.85	≤-21.20	54.35	≤74	PASS
				Peak	2374.550	-38.74	≤-21.20	56.46	≤74	PASS
				Peak	2390.000	-41.38	≤-21.20	53.82	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-40.12	≤-21.20	55.08	≤74	PASS
				Peak	2496.800	-38.41	≤-21.20	56.79	≤74	PASS



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				Peak	2500.000	-40.2	≤-21.20	55.00	≤74	PASS
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Note:

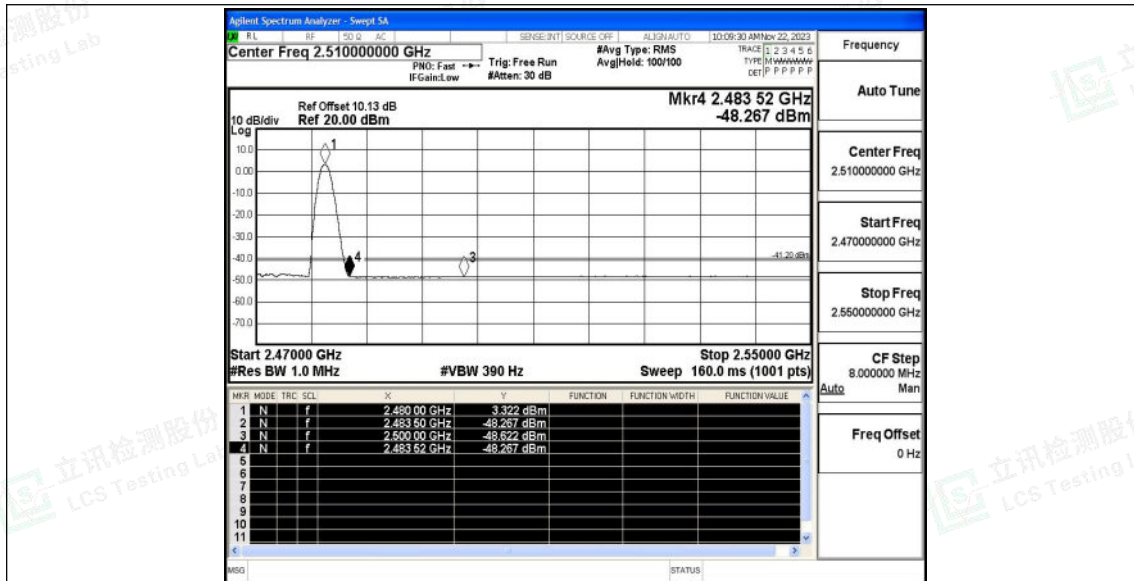
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



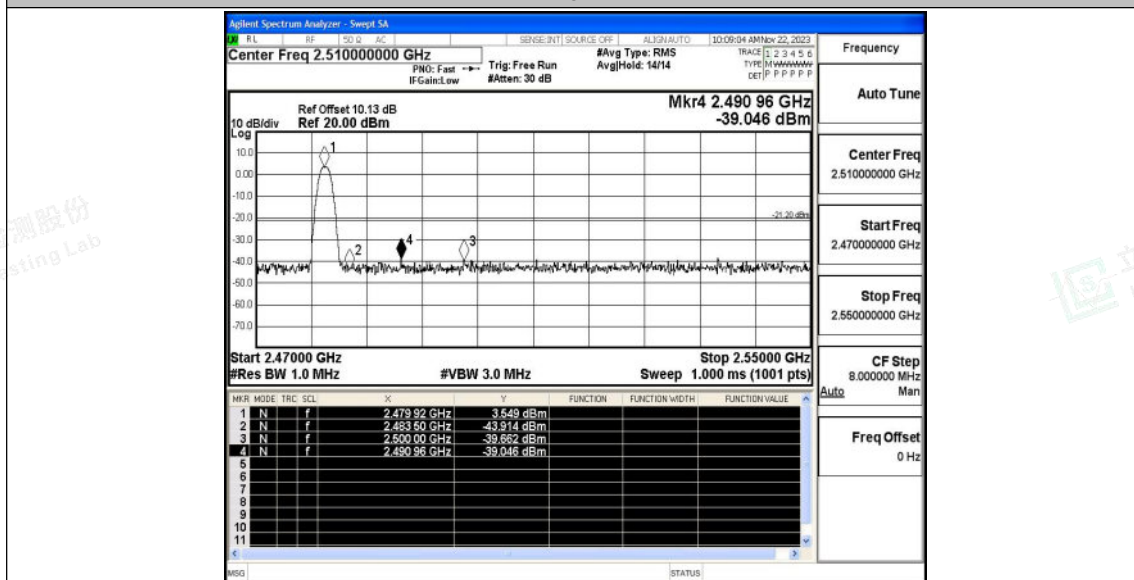


Test Graphs





DH5_Ant1_High_2480_Peak



DH5_Ant1_Low_Hop_2402_Peak

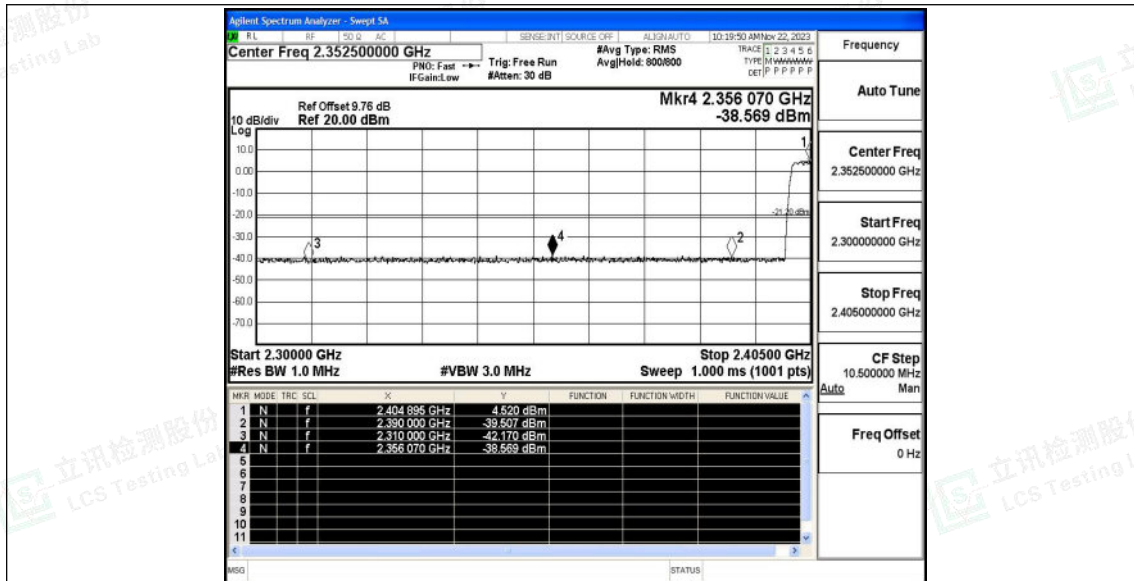


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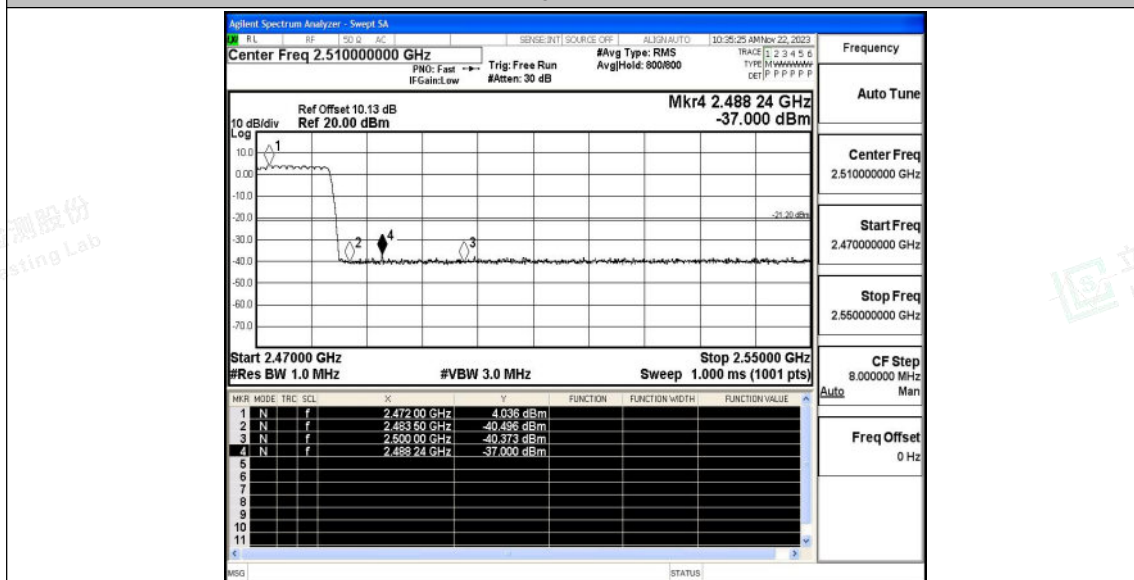
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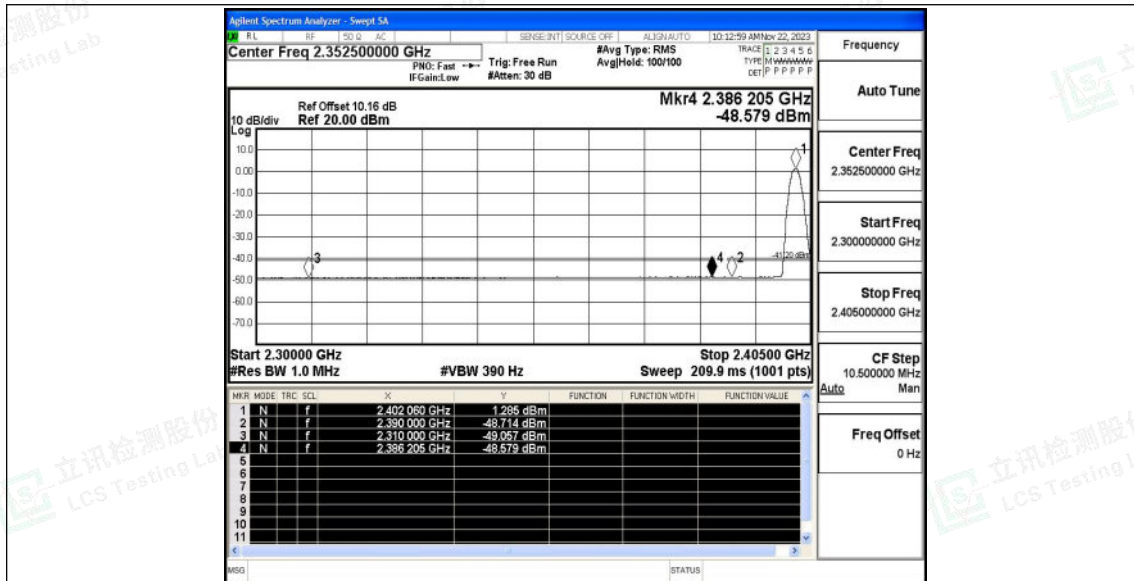


DH5_Ant1_High_Hop_2480_Peak

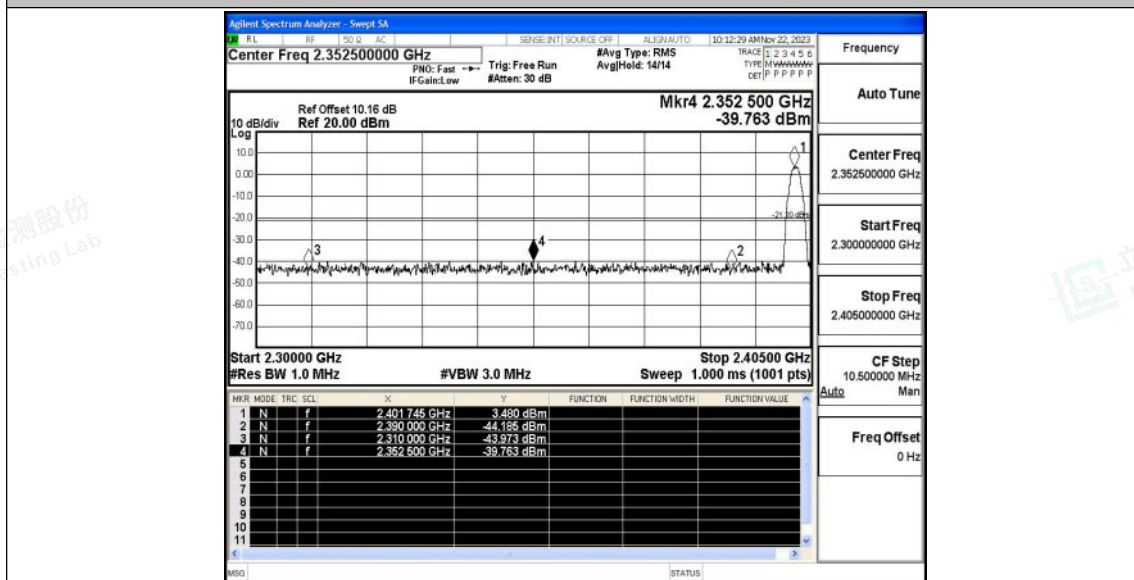


2DH5_Ant1_Low_2402_AV



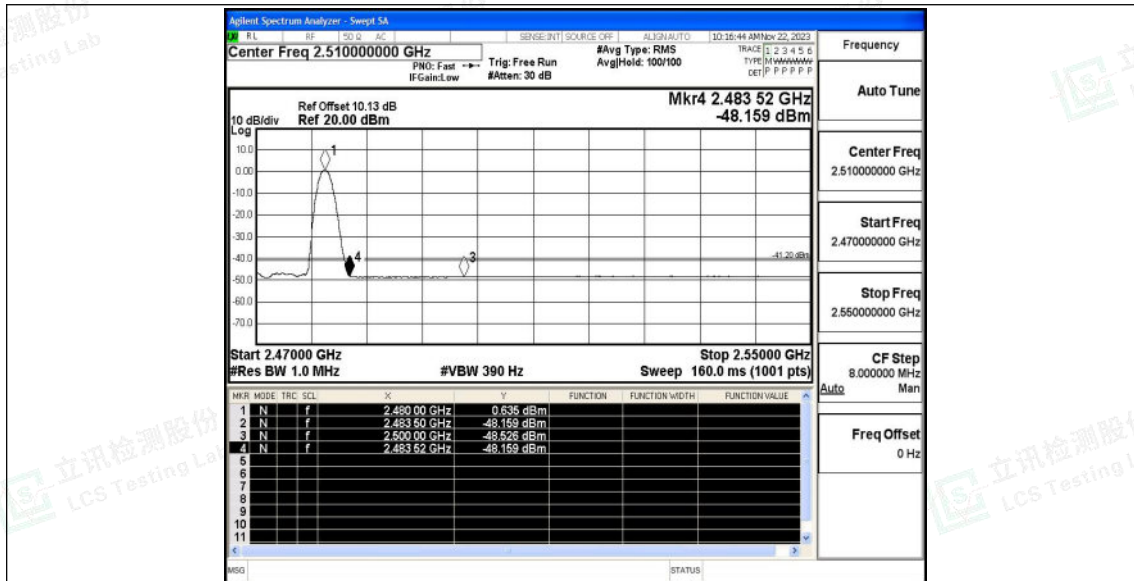


2DH5_Ant1_Low_2402_Peak

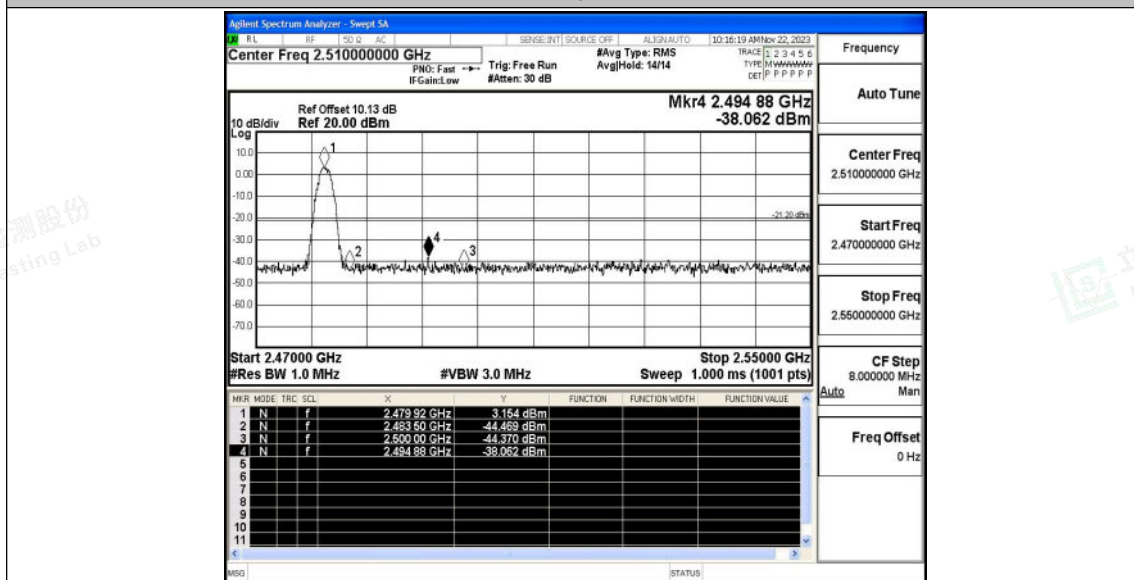


2DH5_Ant1_High_2480_AV





2DH5_Ant1_High_2480_Peak



2DH5_Ant1_Low_Hop_2402_Peak



