



## Appendix B

### RF Test Data for BT LE (Conducted Measurement)

**Product Name: Smartphone**

**Test Model: CG65**

#### Environmental Conditions

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





## B.1 DTS Bandwidth

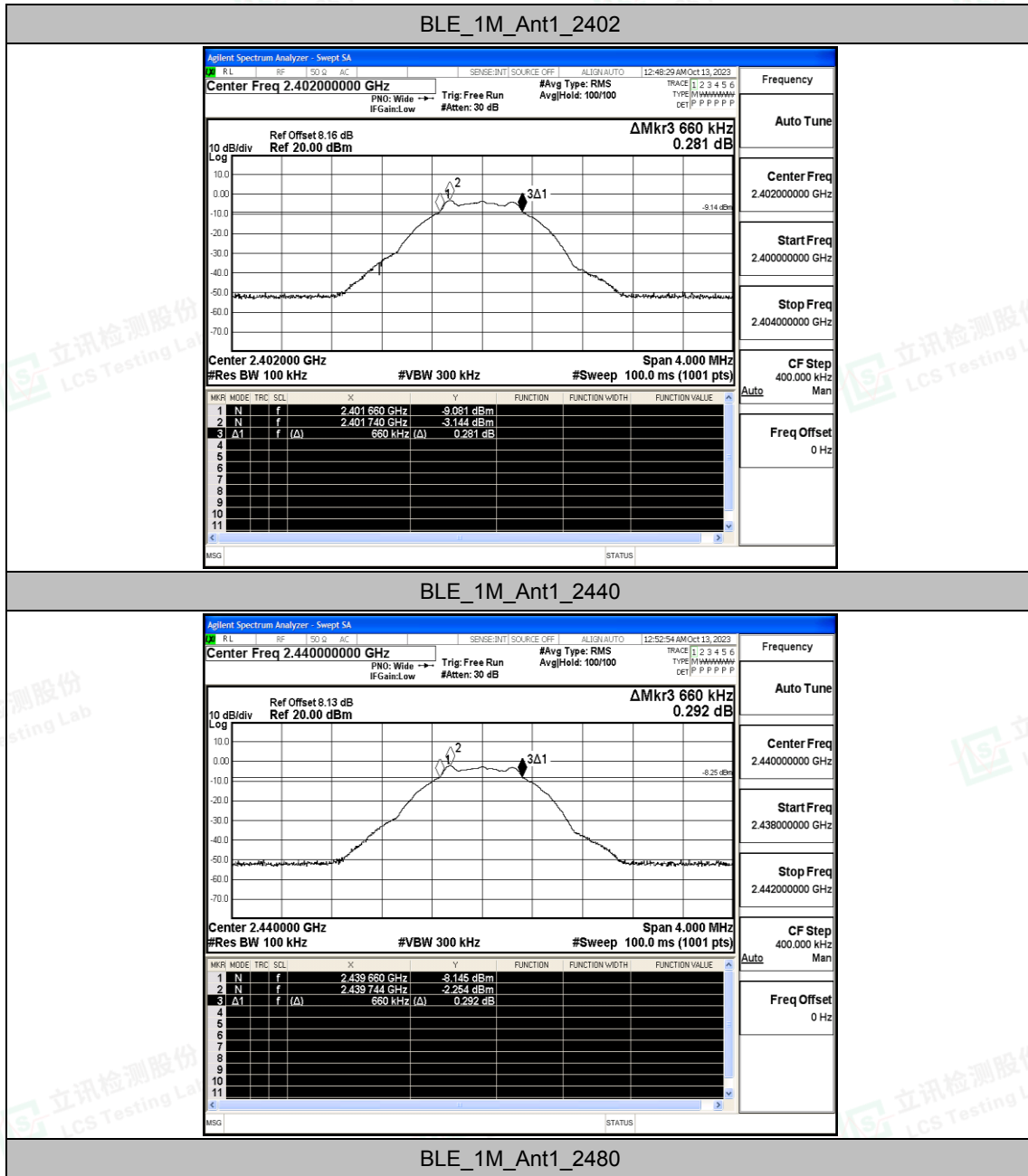
### Test Result

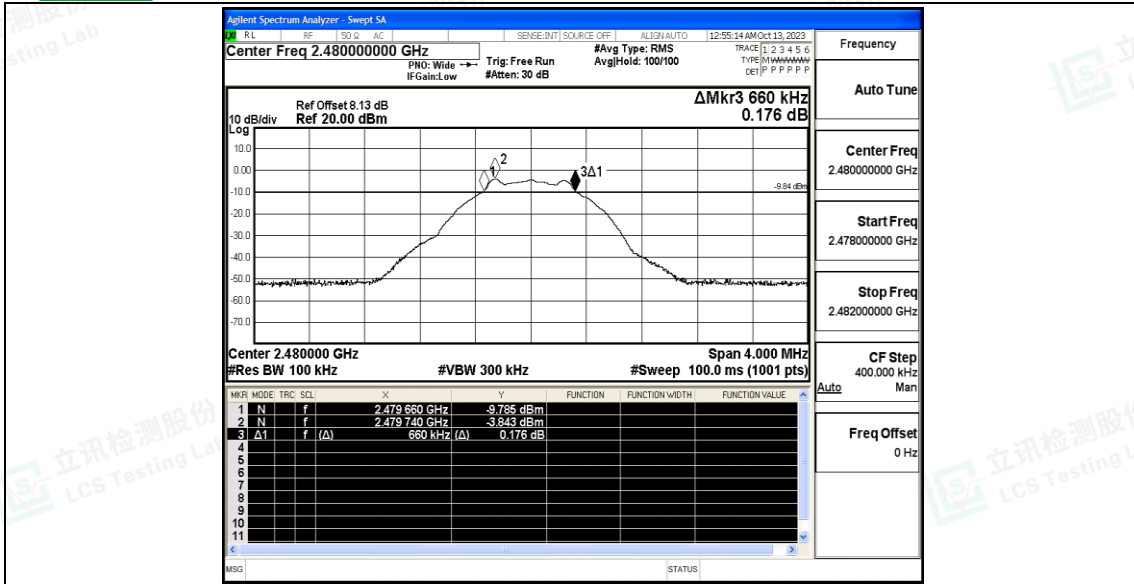
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.660	2402.320	0.5	PASS
		2440	0.660	2439.660	2440.320	0.5	PASS
		2480	0.660	2479.660	2480.320	0.5	PASS
BLE_2M	Ant1	2402	1.156	2401.404	2402.560	0.5	PASS
		2440	1.156	2439.404	2440.560	0.5	PASS
		2480	1.156	2479.404	2480.560	0.5	PASS



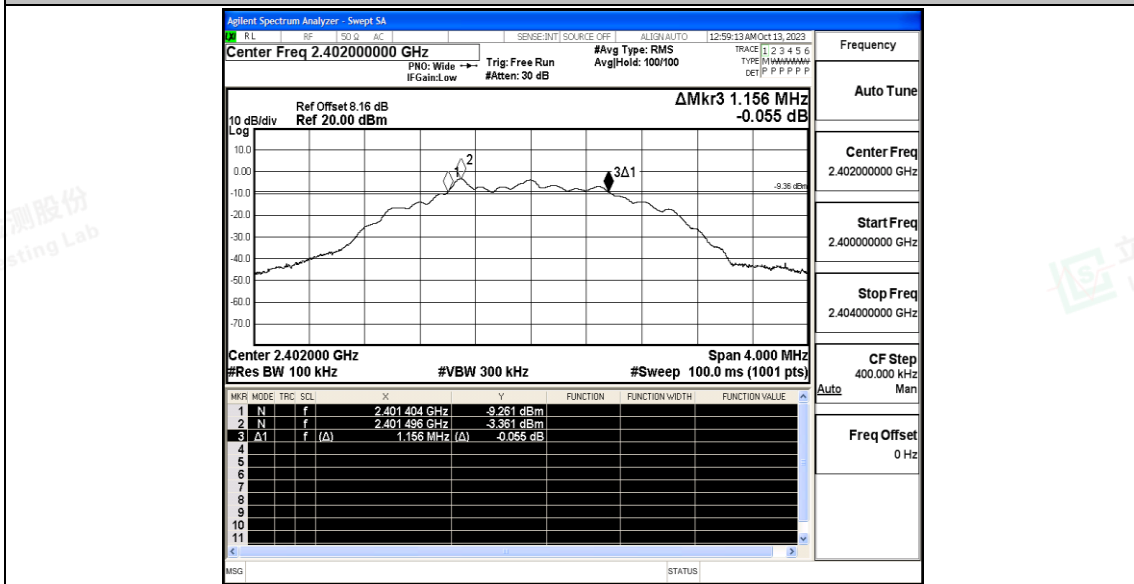


Test Graphs



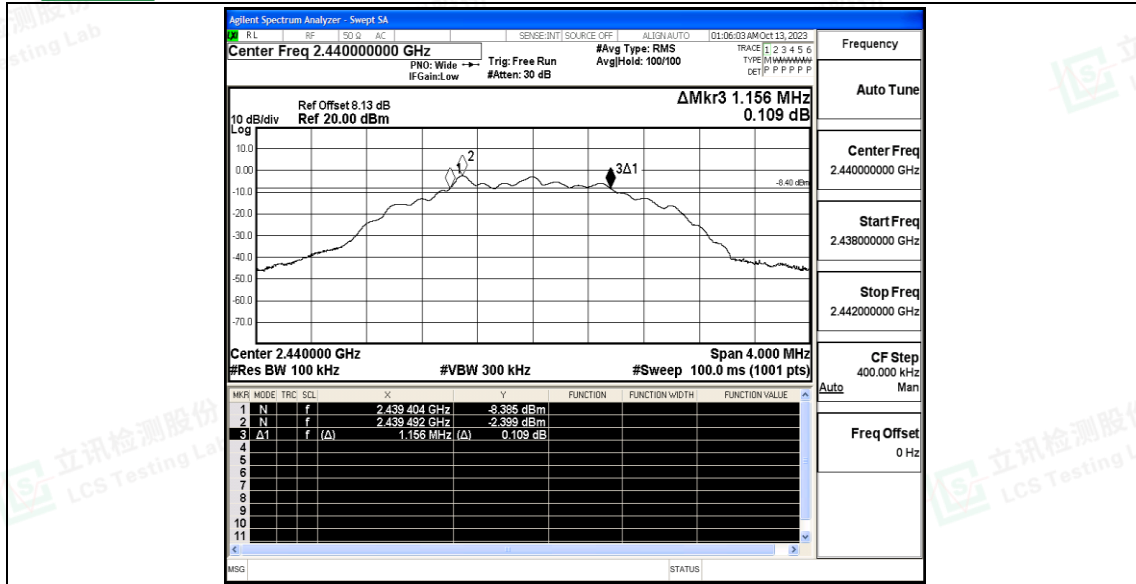


BLE\_2M\_Ant1\_2402

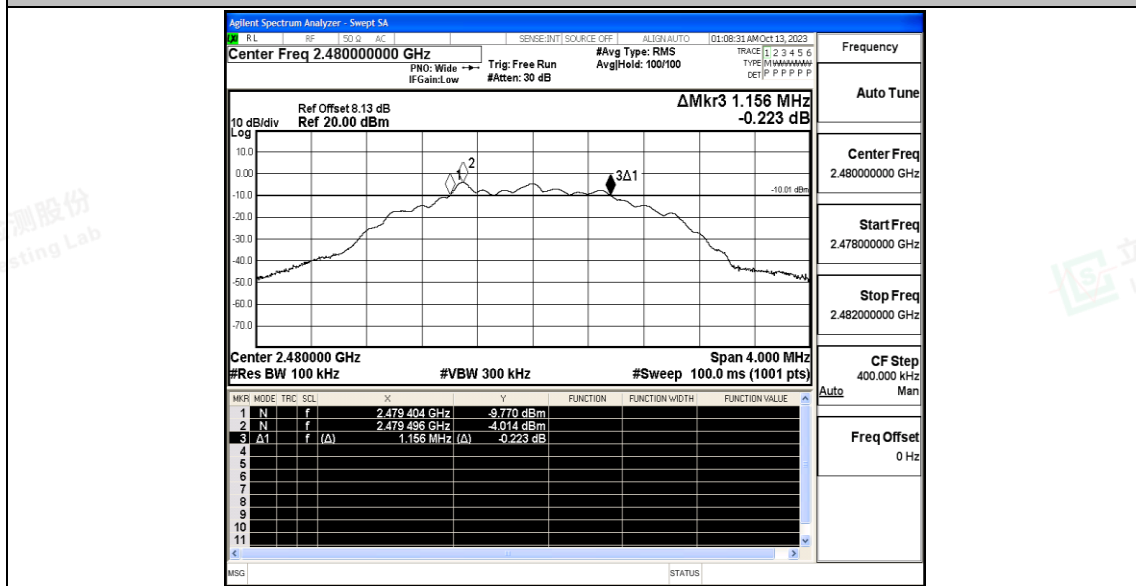


BLE\_2M\_Ant1\_2440





BLE\_2M\_Ant1\_2480





## B.2 Maximum conducted output power

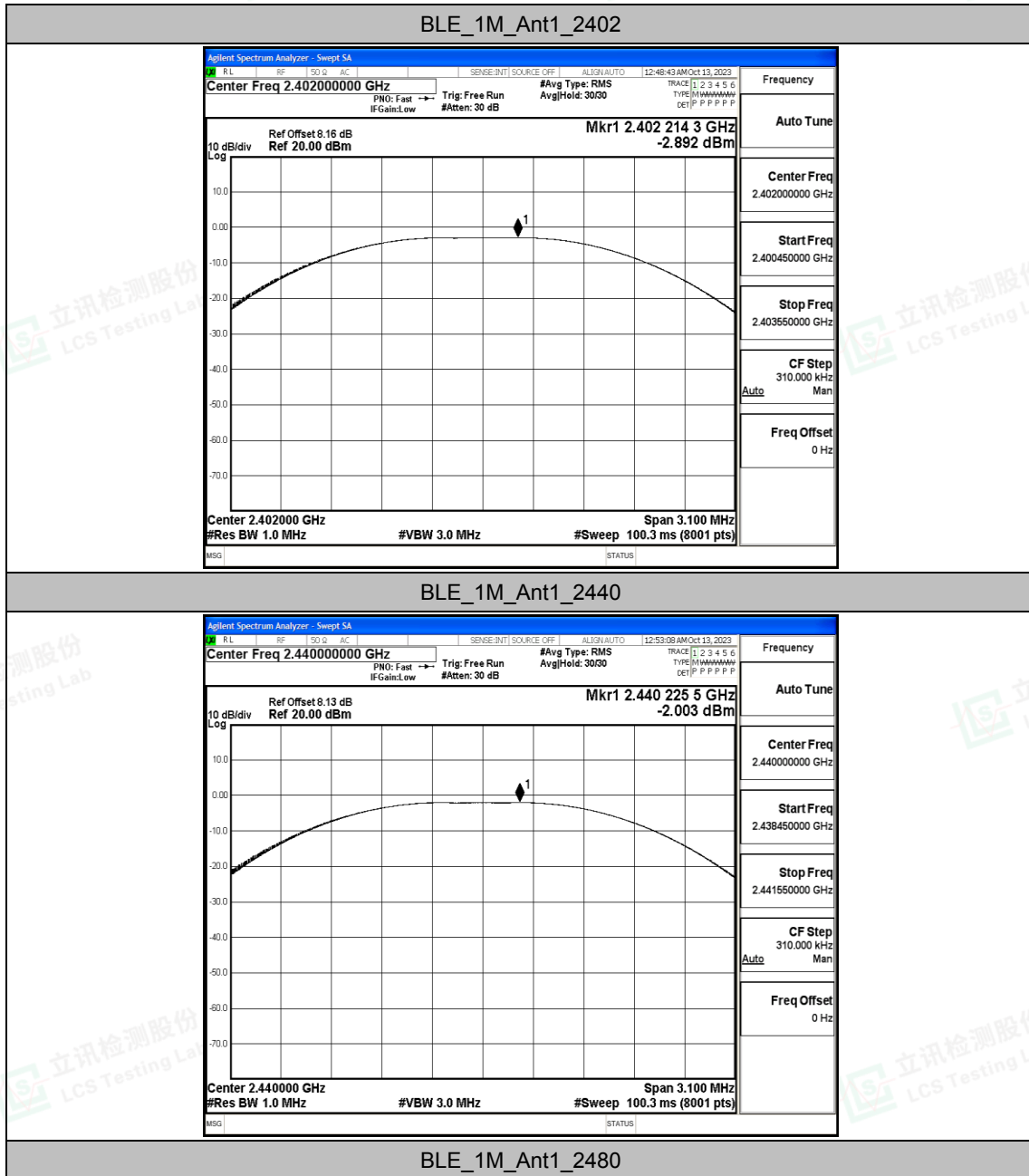
### Test Result

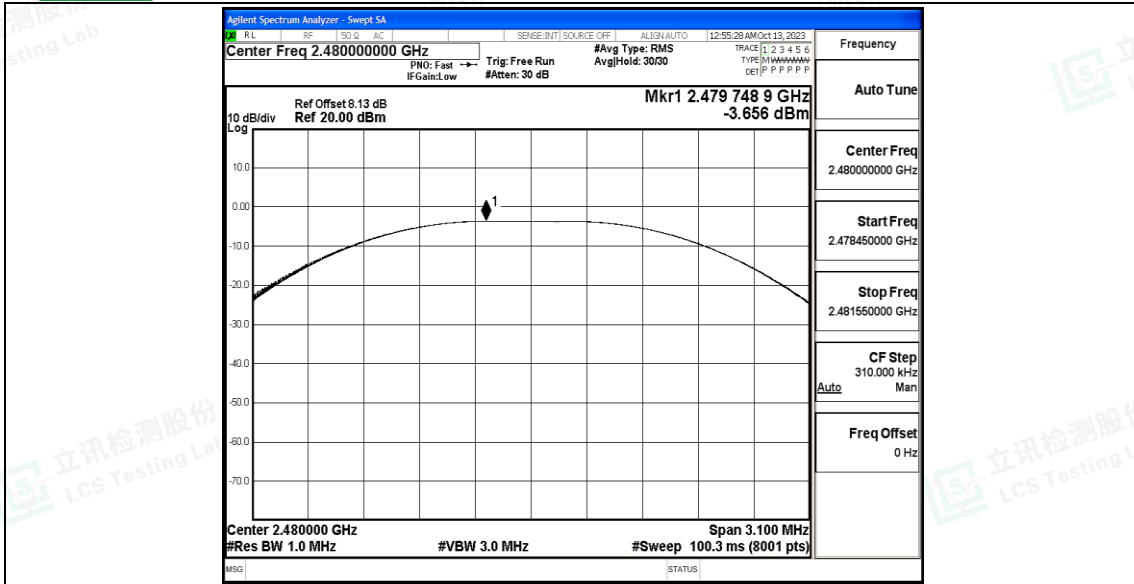
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-2.89	≤30	PASS
		2440	-2.00	≤30	PASS
		2480	-3.66	≤30	PASS
BLE_2M	Ant1	2402	-2.79	≤30	PASS
		2440	-1.84	≤30	PASS
		2480	-3.49	≤30	PASS



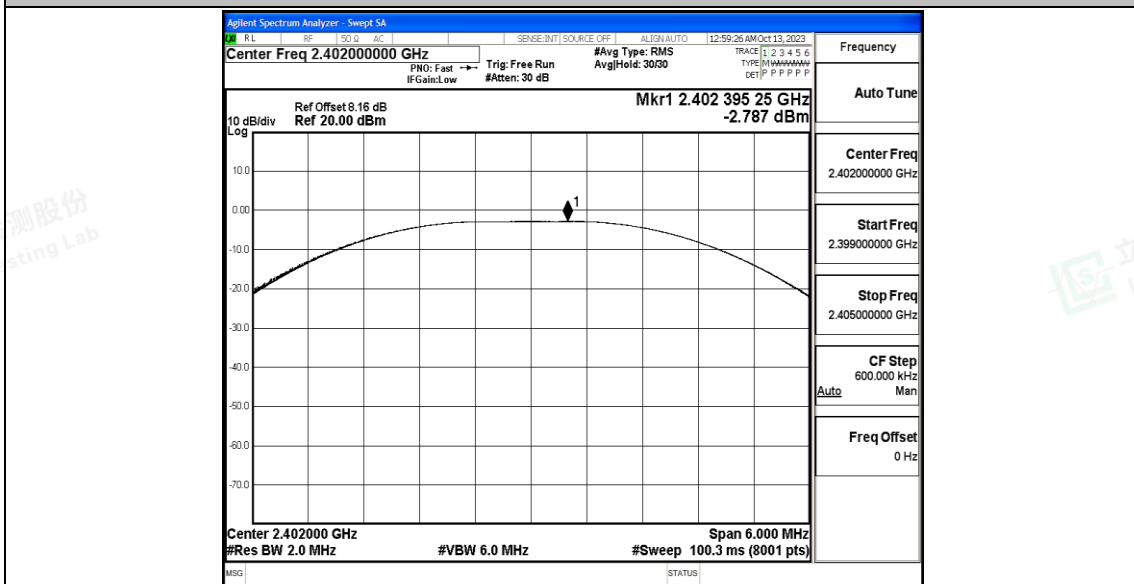


### Test Graphs





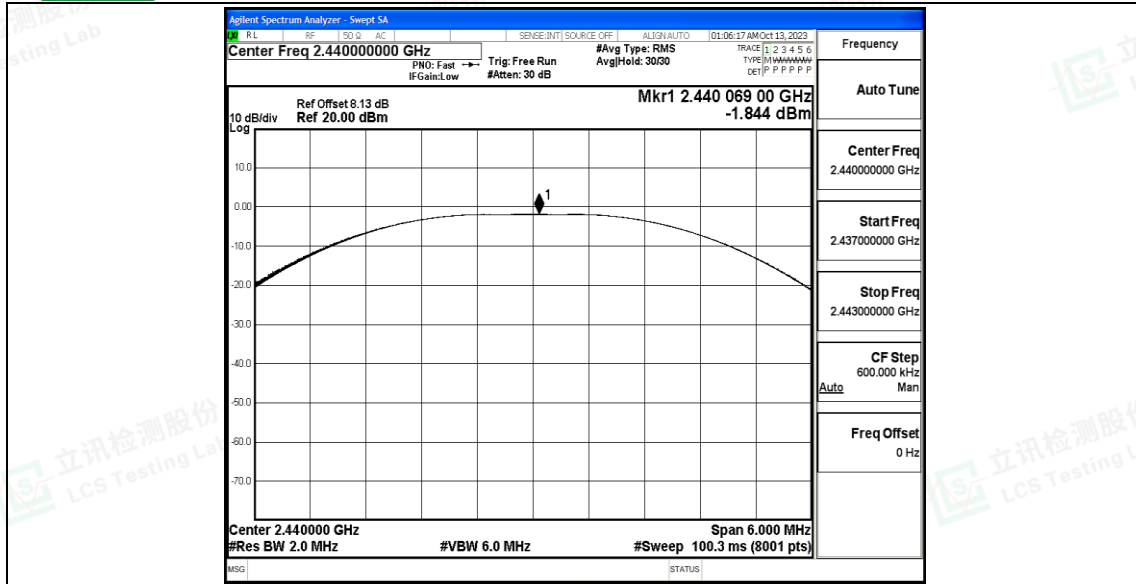
BLE\_2M\_Ant1\_2402



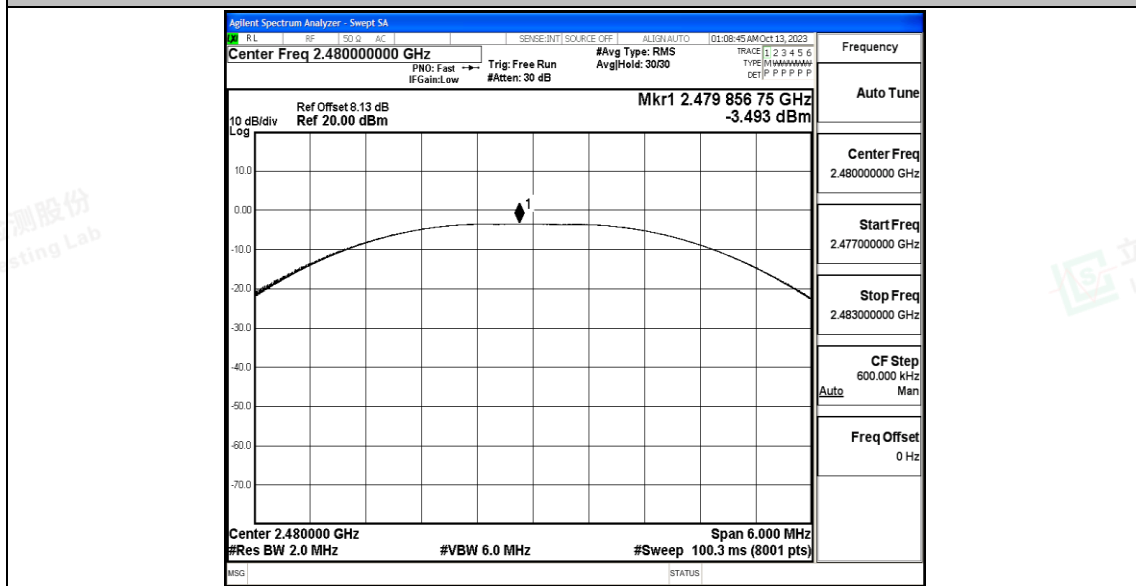
BLE\_2M\_Ant1\_2440







BLE\_2M\_Ant1\_2480





### B.3 Maximum power spectral density

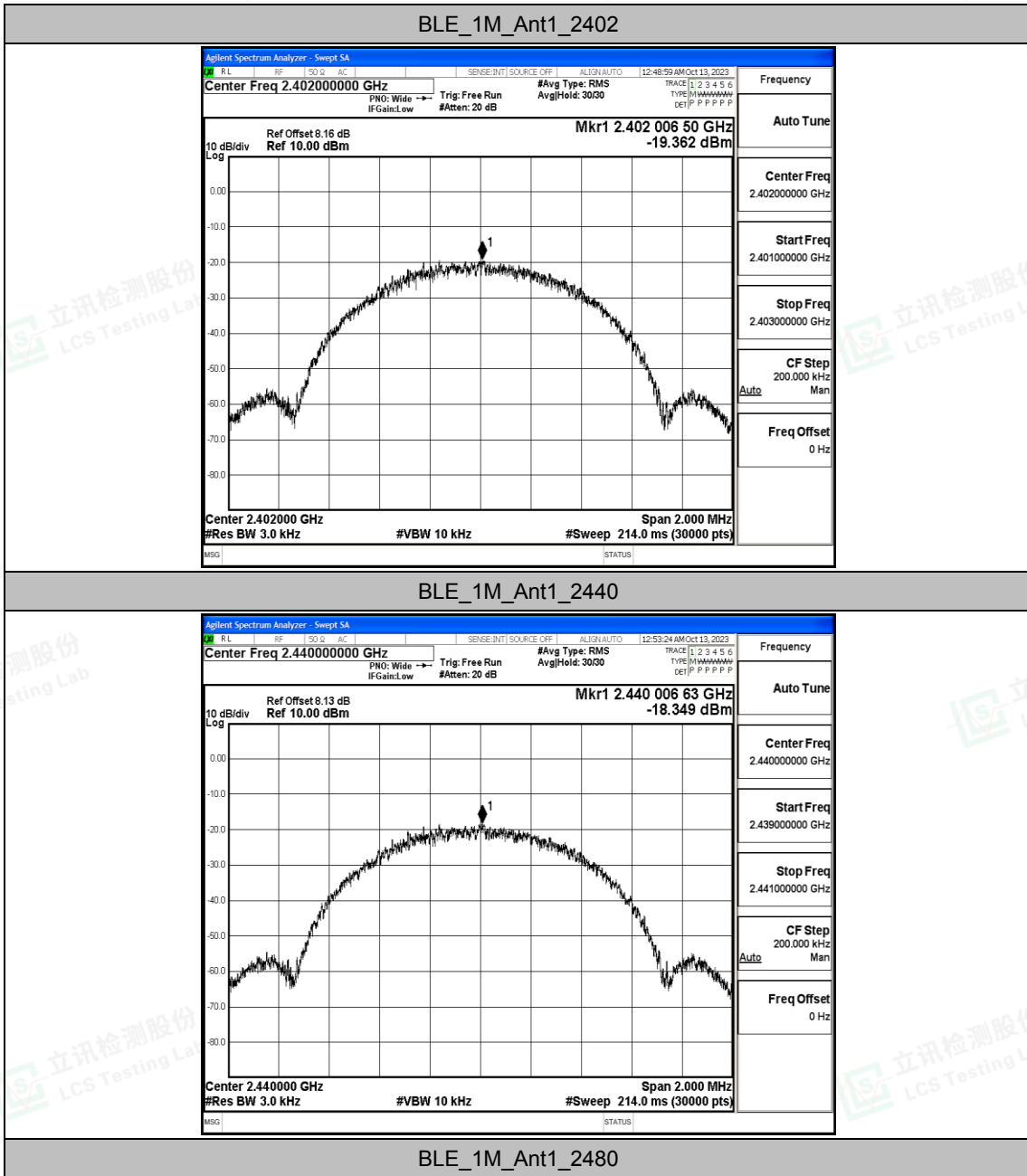
#### Test Result

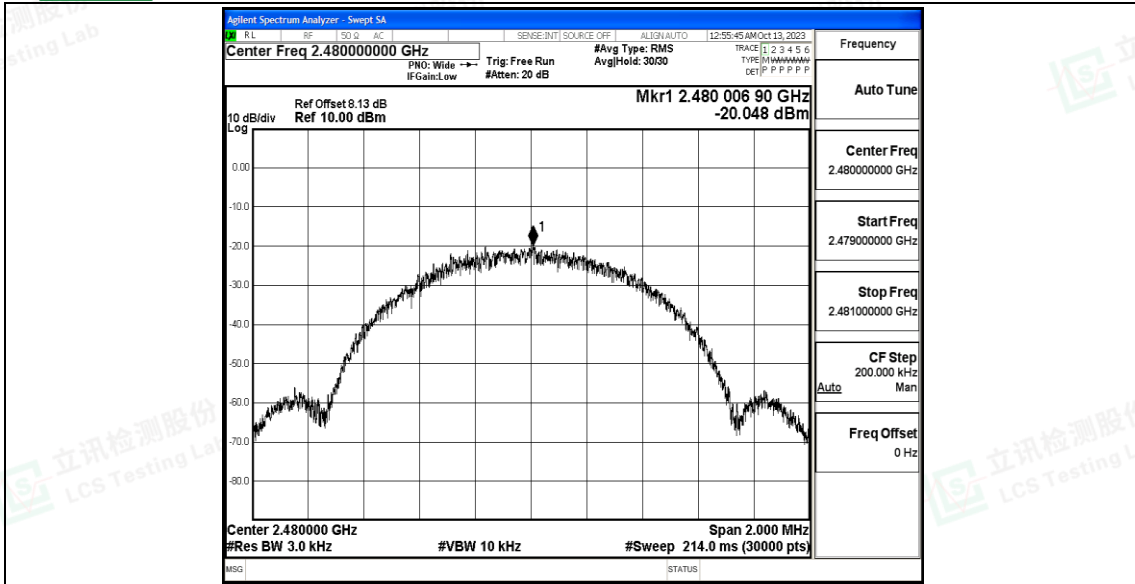
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.36	≤8.00	PASS
		2440	-18.35	≤8.00	PASS
		2480	-20.05	≤8.00	PASS
BLE_2M	Ant1	2402	-22.58	≤8.00	PASS
		2440	-21.68	≤8.00	PASS
		2480	-23.43	≤8.00	PASS



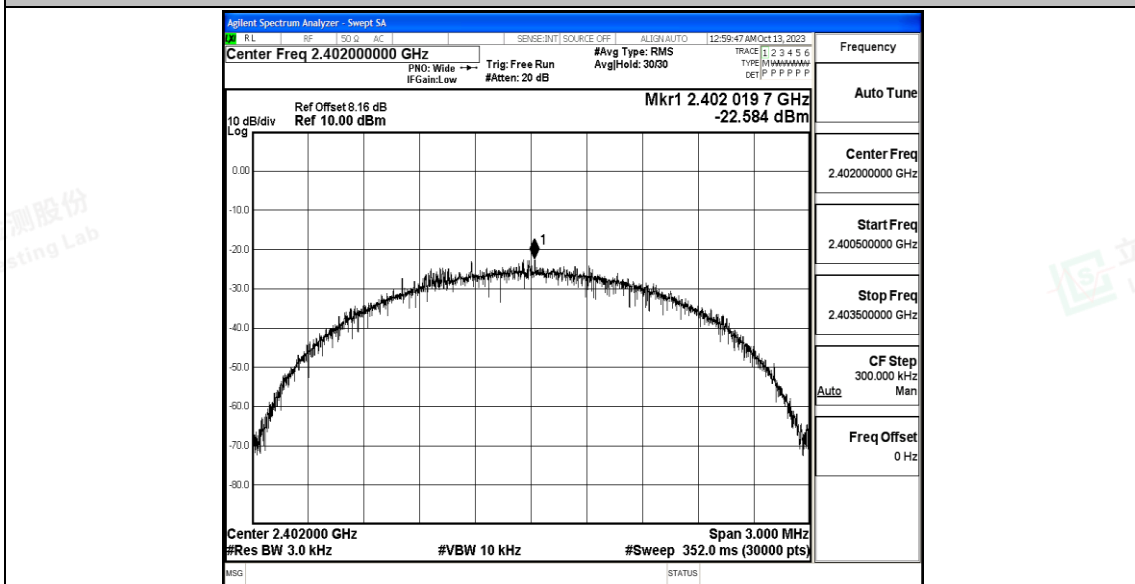


### Test Graphs



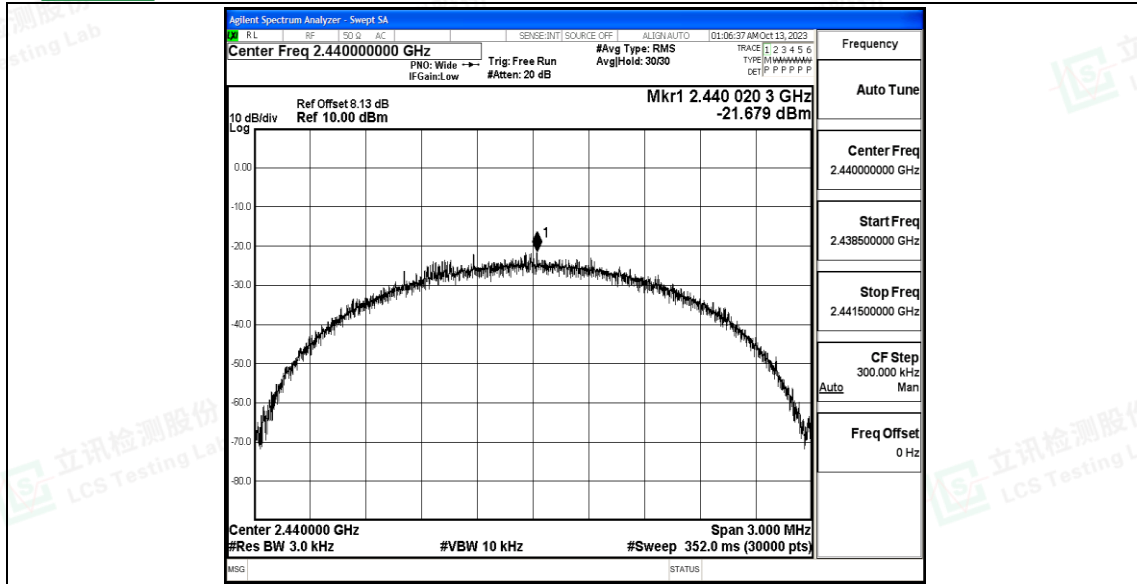


BLE\_2M\_Ant1\_2402

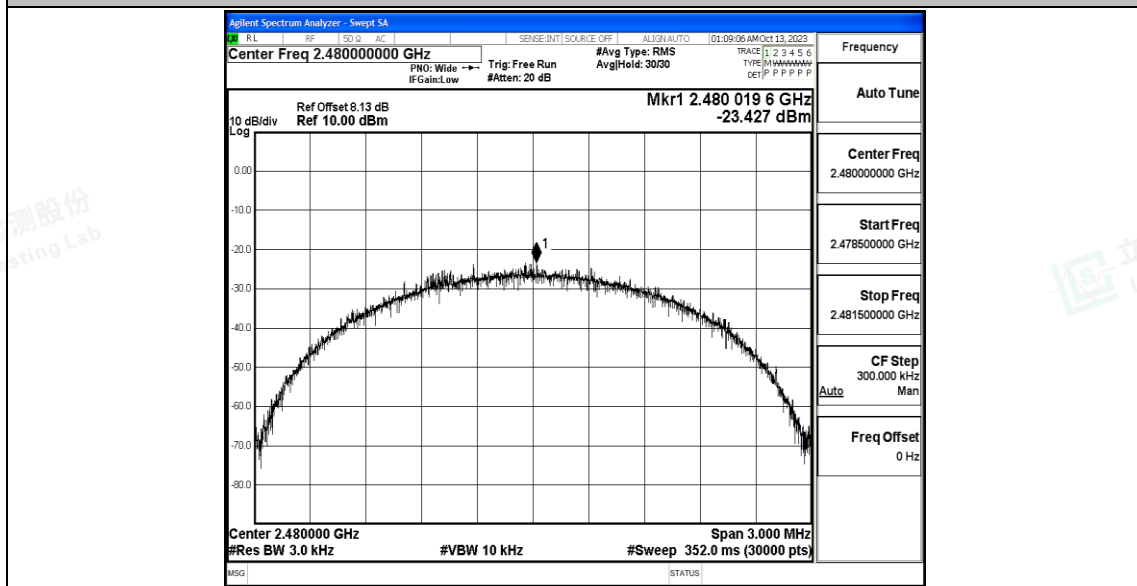


BLE\_2M\_Ant1\_2440





BLE\_2M\_Ant1\_2480





## B.4 Band edge measurements

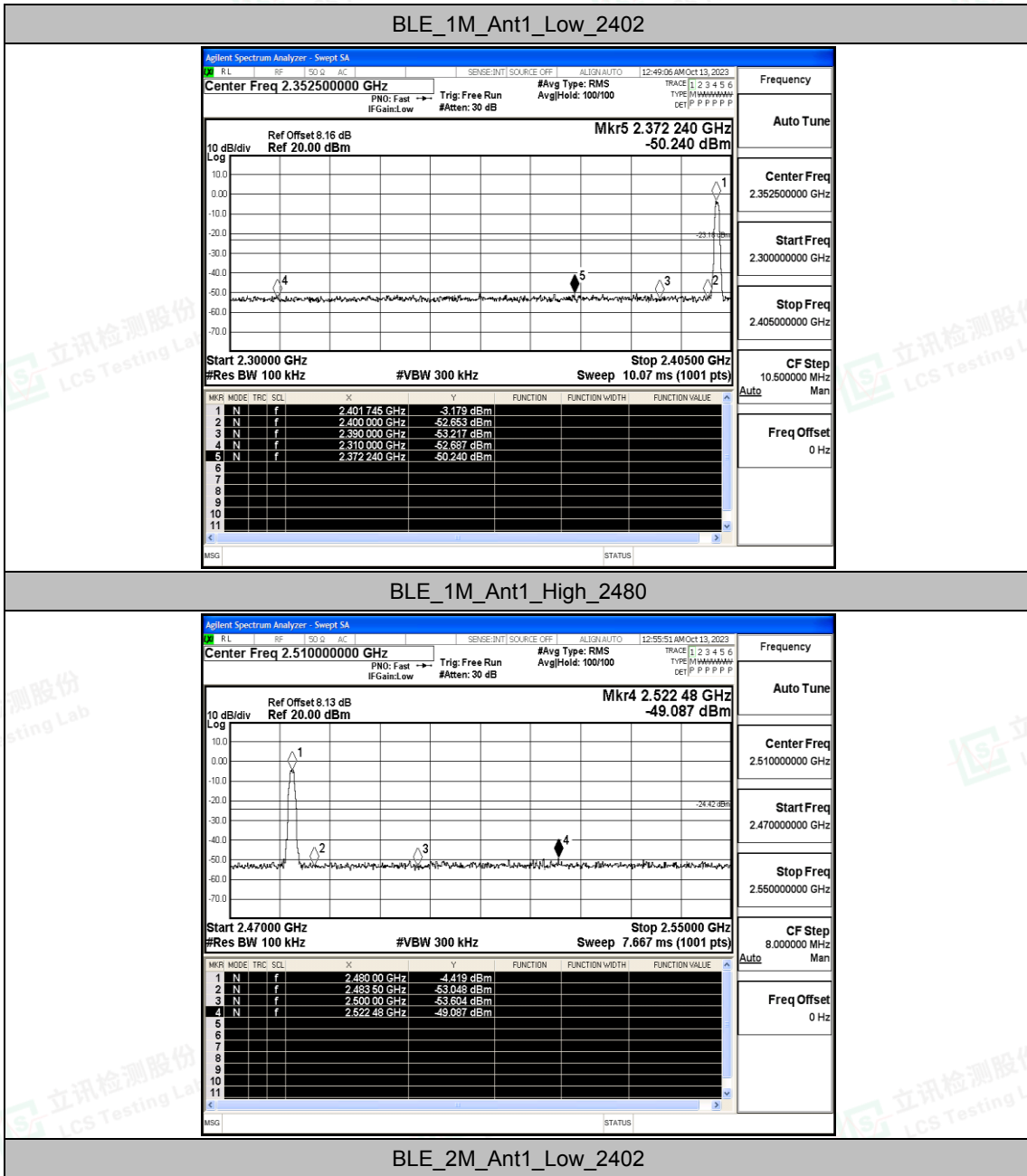
### Test Result

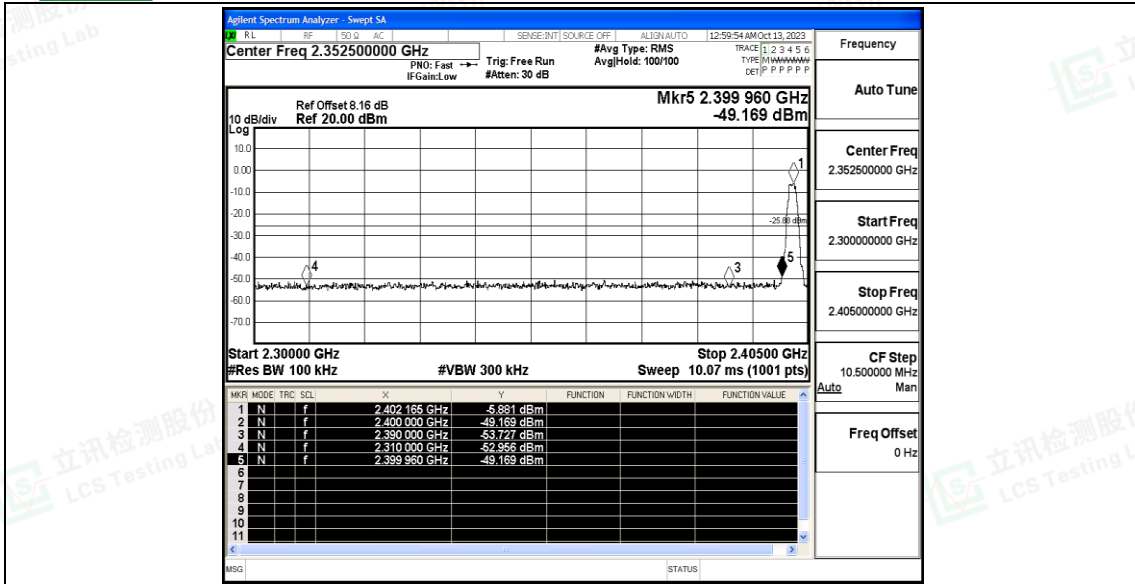
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.18	-50.24	≤-23.18	PASS
		High	2480	-4.42	-49.09	≤-24.42	PASS
BLE_2M	Ant1	Low	2402	-5.88	-49.17	≤-25.88	PASS
		High	2480	-4.67	-49.14	≤-24.67	PASS



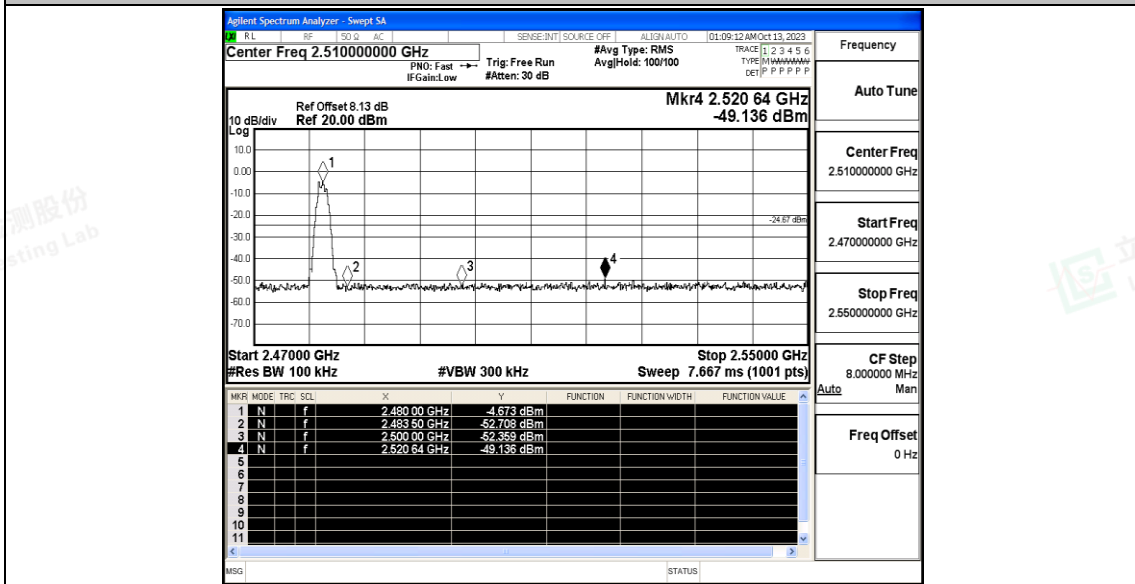


Test Graphs





BLE\_2M\_Ant1\_High\_2480







## B.5 Conducted Spurious Emission

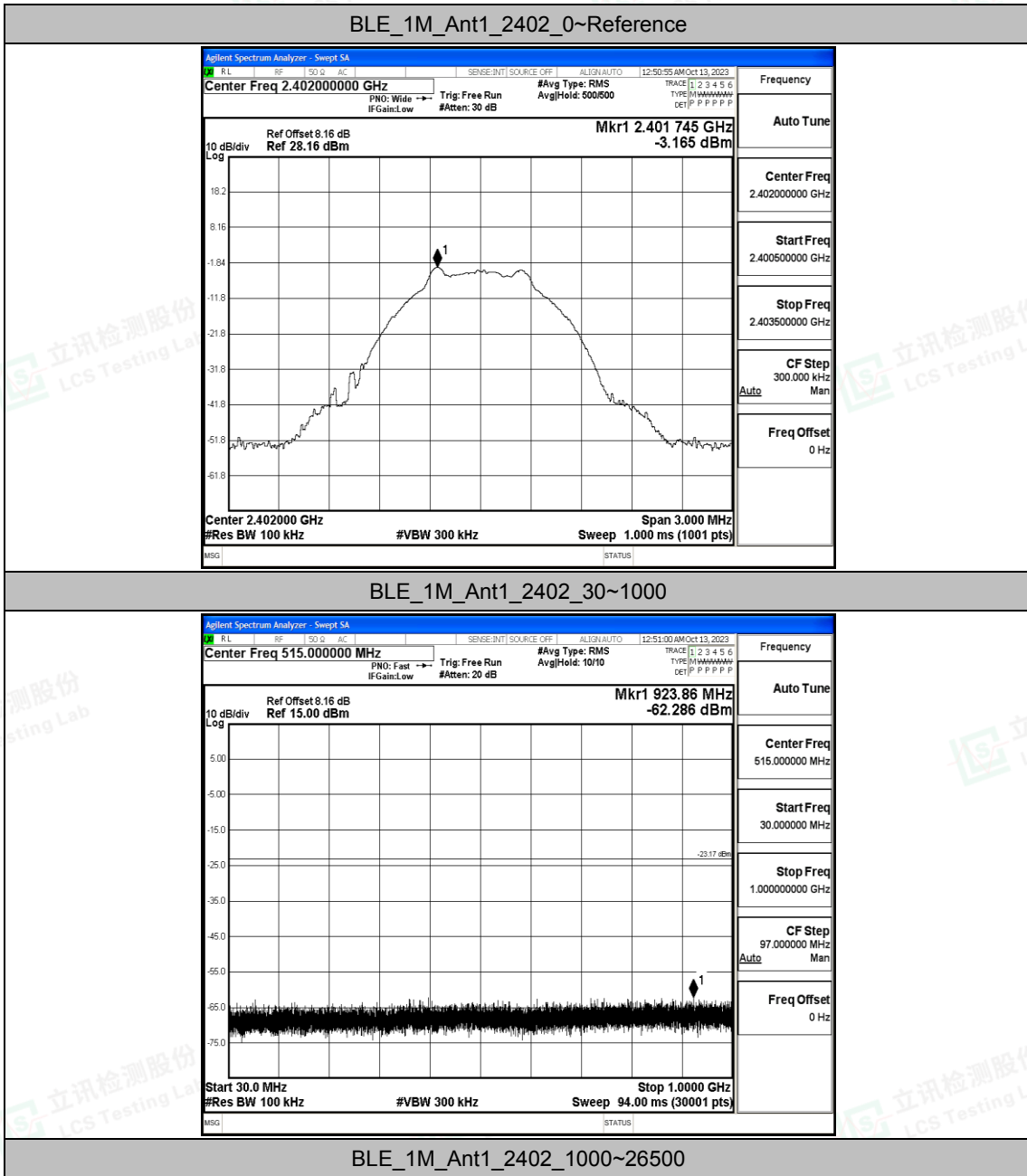
### Test Result

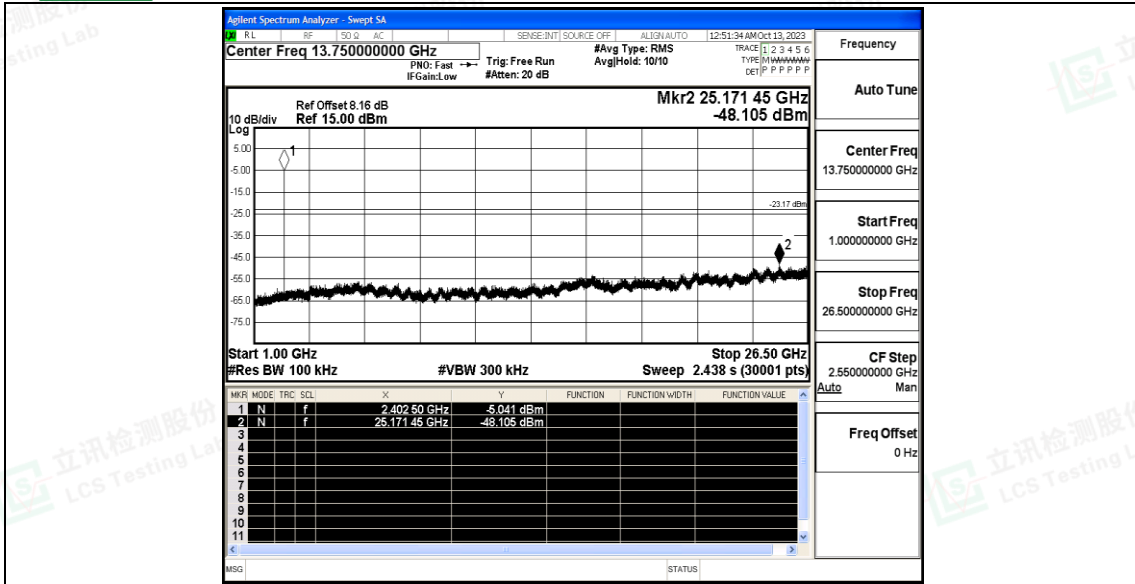
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-3.17	-3.17	---	PASS
			30~1000	-3.17	-62.29	≤-23.17	PASS
			1000~26500	-3.17	-48.11	≤-23.17	PASS
		2440	Reference	-2.26	-2.26	---	PASS
			30~1000	-2.26	-61.88	≤-22.26	PASS
			1000~26500	-2.26	-49.13	≤-22.26	PASS
		2480	Reference	-3.87	-3.87	---	PASS
			30~1000	-3.87	-61.65	≤-23.87	PASS
			1000~26500	-3.87	-48.09	≤-23.87	PASS
BLE_2M	Ant1	2402	Reference	-3.37	-3.37	---	PASS
			30~1000	-3.37	-61.75	≤-23.37	PASS
			1000~26500	-3.37	-49.02	≤-23.37	PASS
		2440	Reference	-2.49	-2.49	---	PASS
			30~1000	-2.49	-61.75	≤-22.49	PASS
			1000~26500	-2.49	-49.13	≤-22.49	PASS
		2480	Reference	-4.59	-4.59	---	PASS
			30~1000	-4.59	-61.86	≤-24.59	PASS
			1000~26500	-4.59	-48.63	≤-24.59	PASS



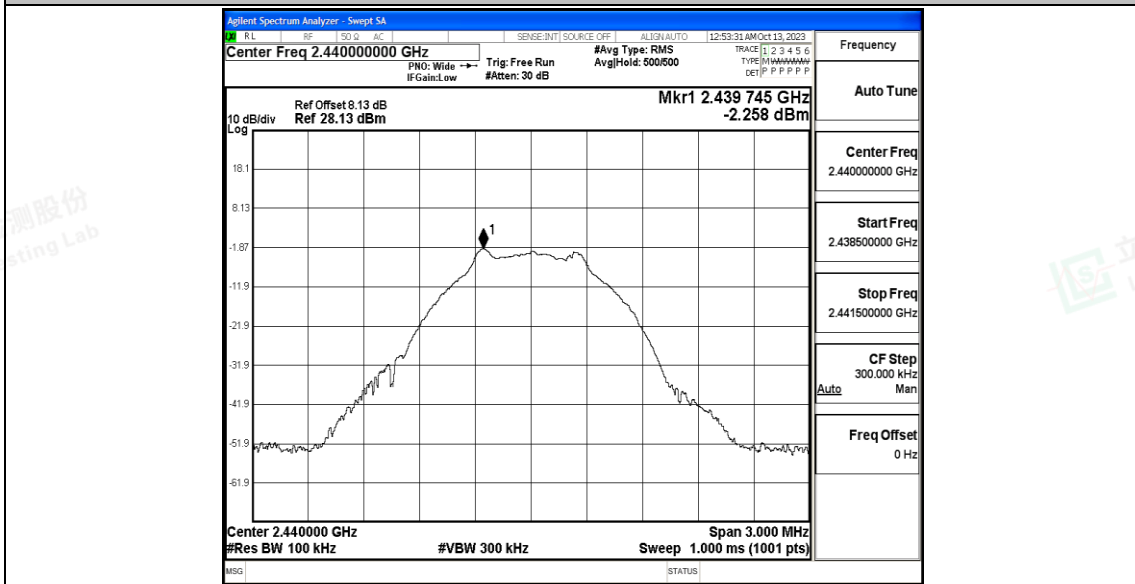


Test Graphs



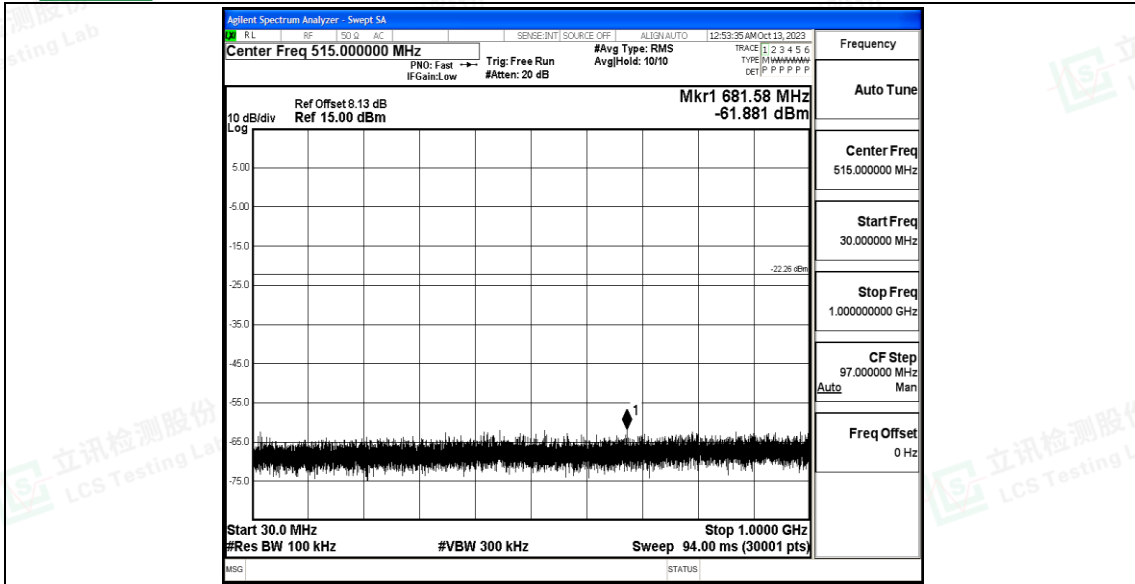


BLE\_1M\_Ant1\_2440\_0~Reference

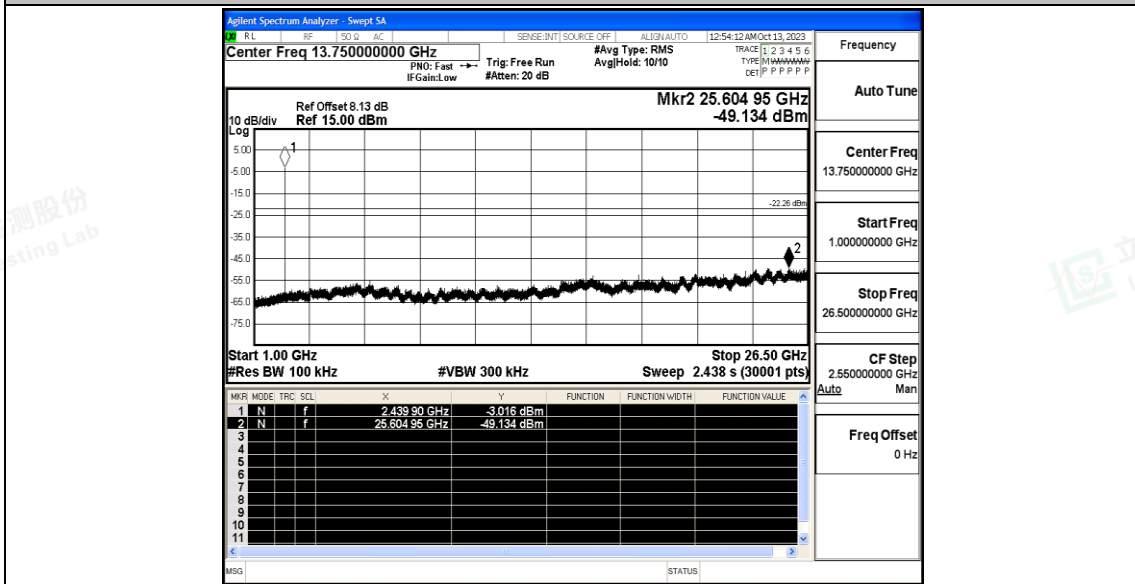


BLE\_1M\_Ant1\_2440\_30~1000



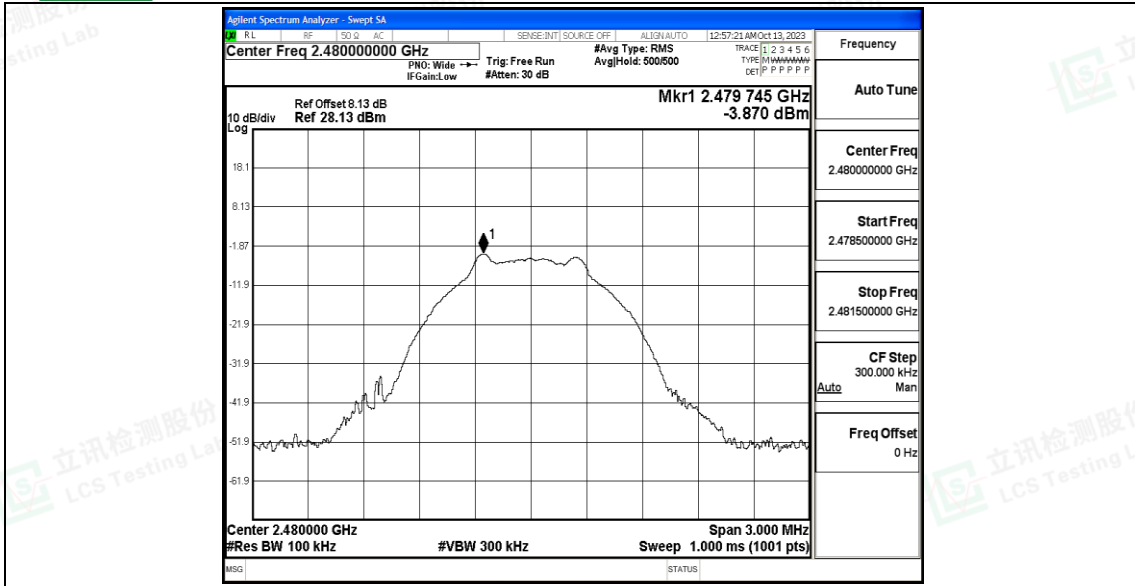


BLE\_1M\_Ant1\_2440\_1000~26500

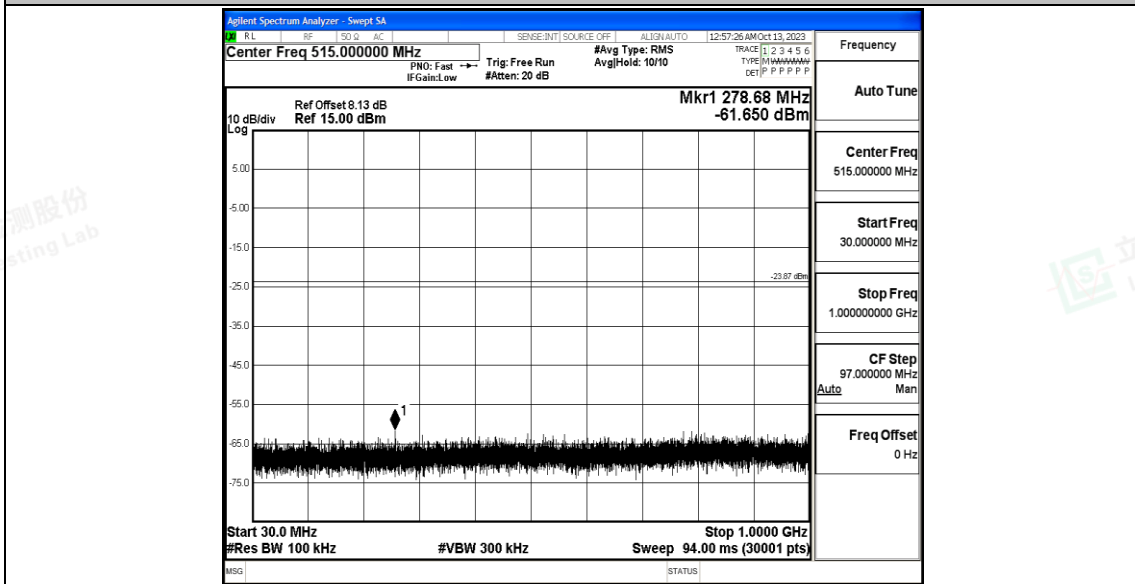


BLE\_1M\_Ant1\_2480\_0~Reference



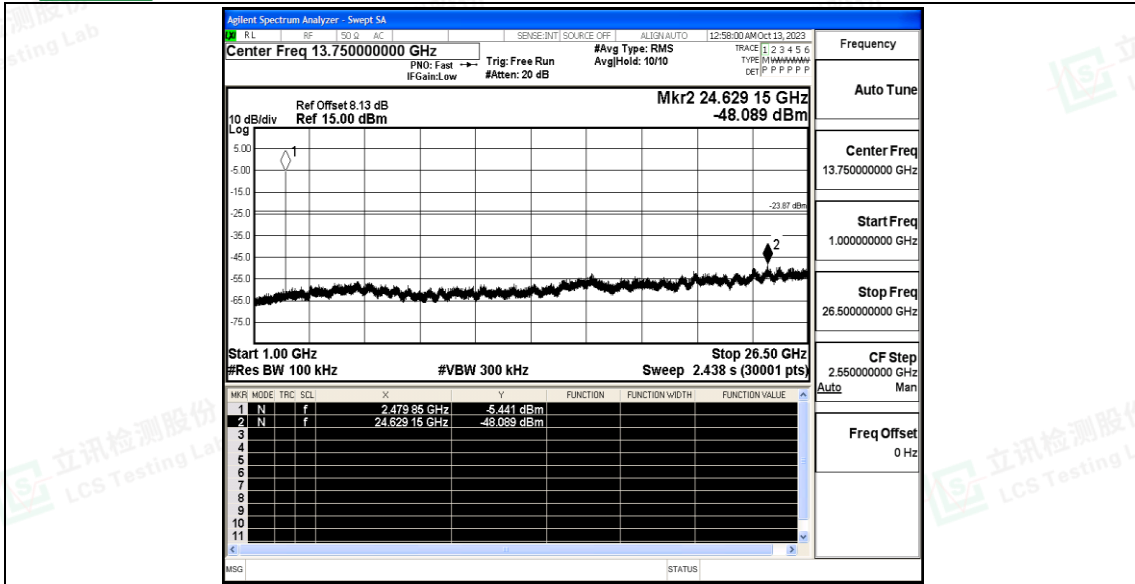


BLE\_1M\_Ant1\_2480\_30~1000

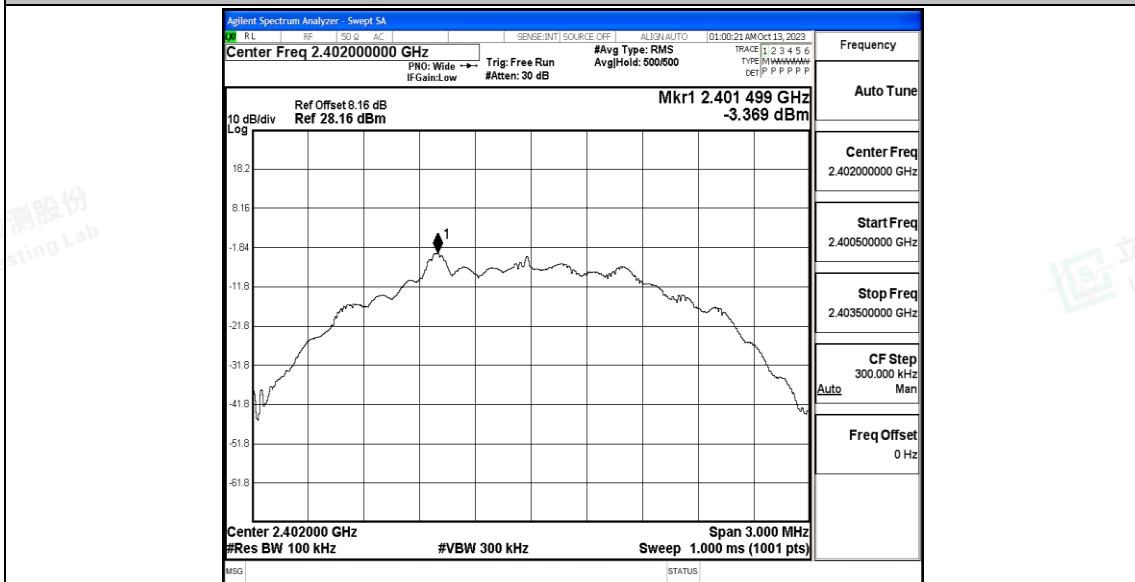


BLE\_1M\_Ant1\_2480\_1000~26500



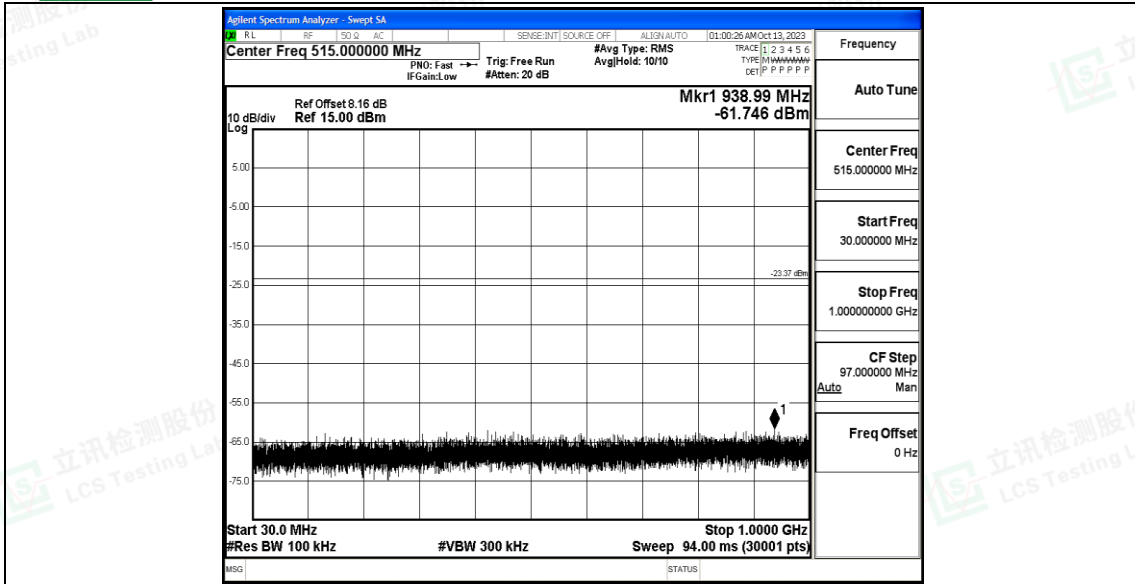


BLE\_2M\_Ant1\_2402\_0~Reference

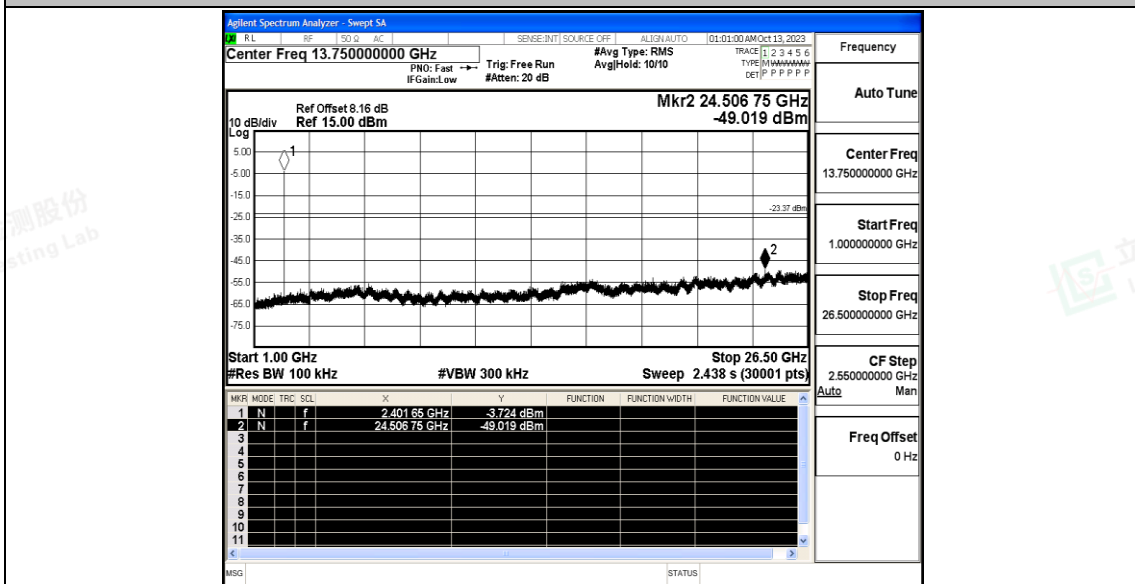


BLE\_2M\_Ant1\_2402\_30~1000



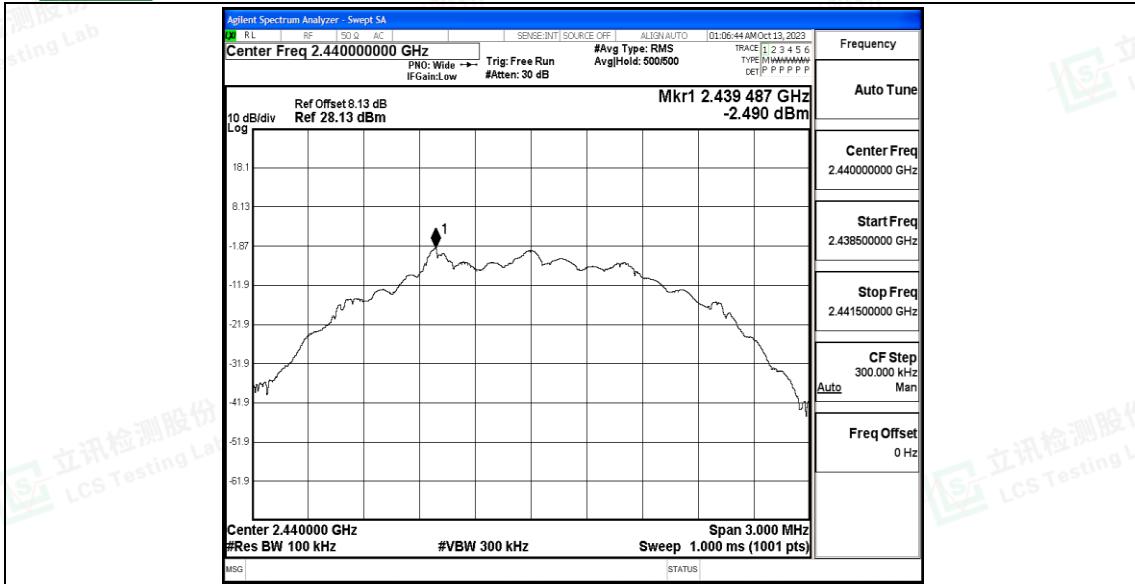


BLE\_2M\_Ant1\_2402\_1000~26500

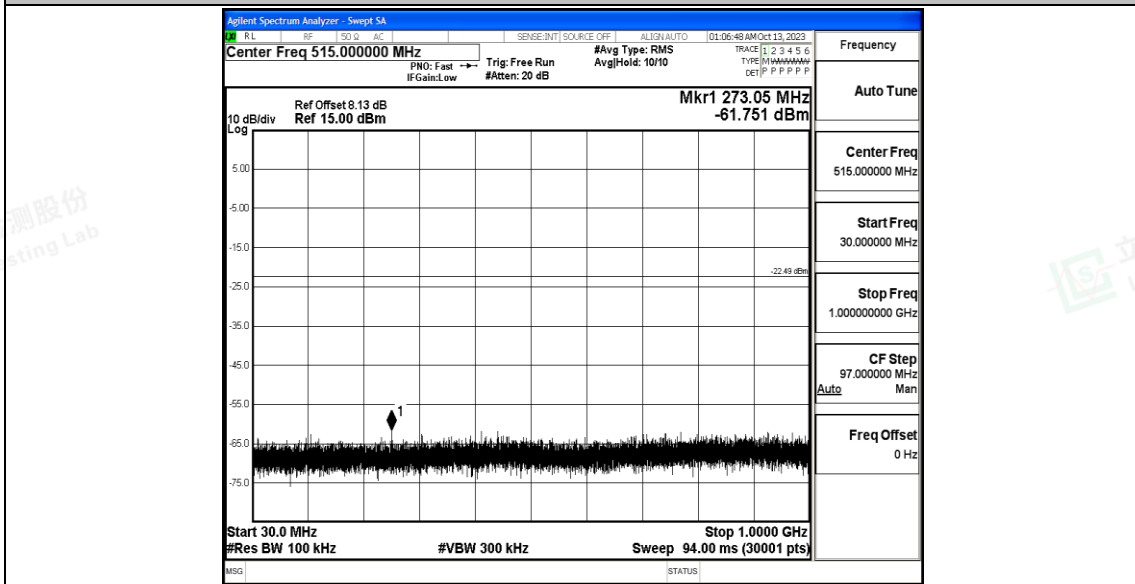


BLE\_2M\_Ant1\_2440\_0~Reference





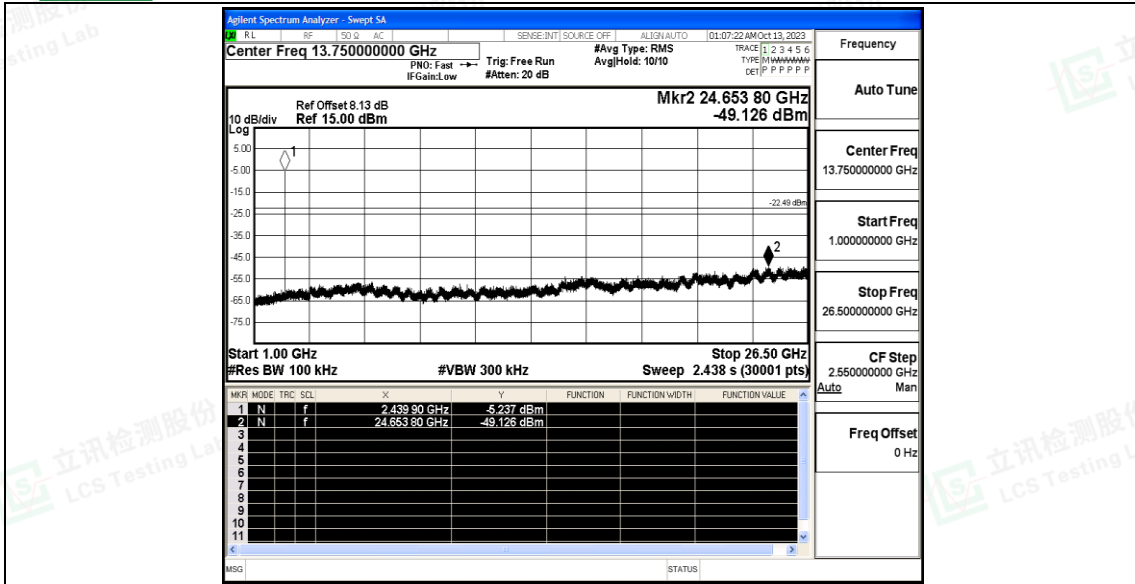
BLE\_2M\_Ant1\_2440\_30~1000



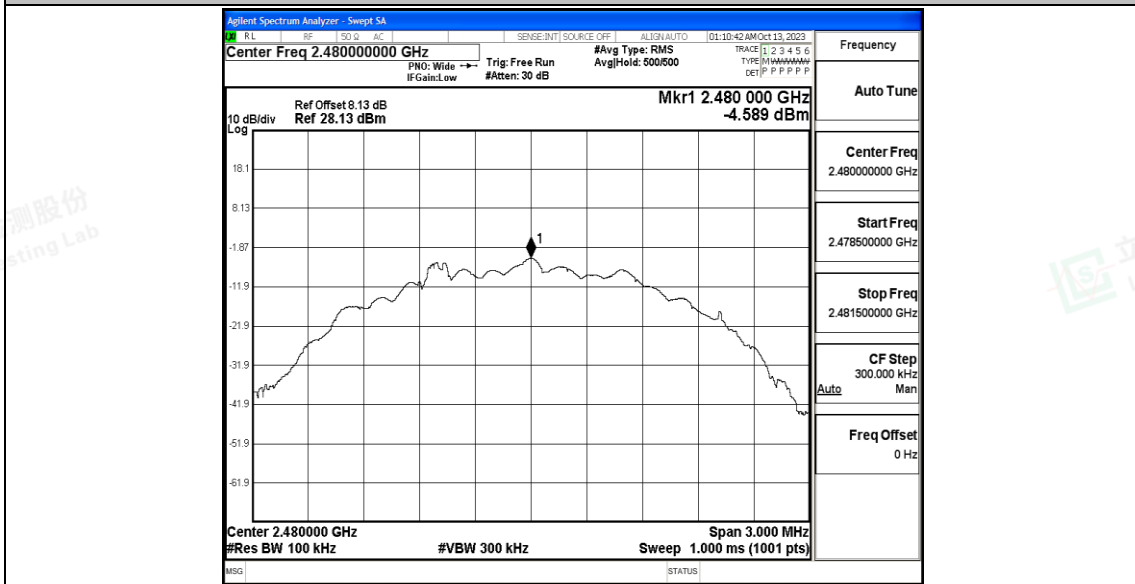
BLE\_2M\_Ant1\_2440\_1000~26500





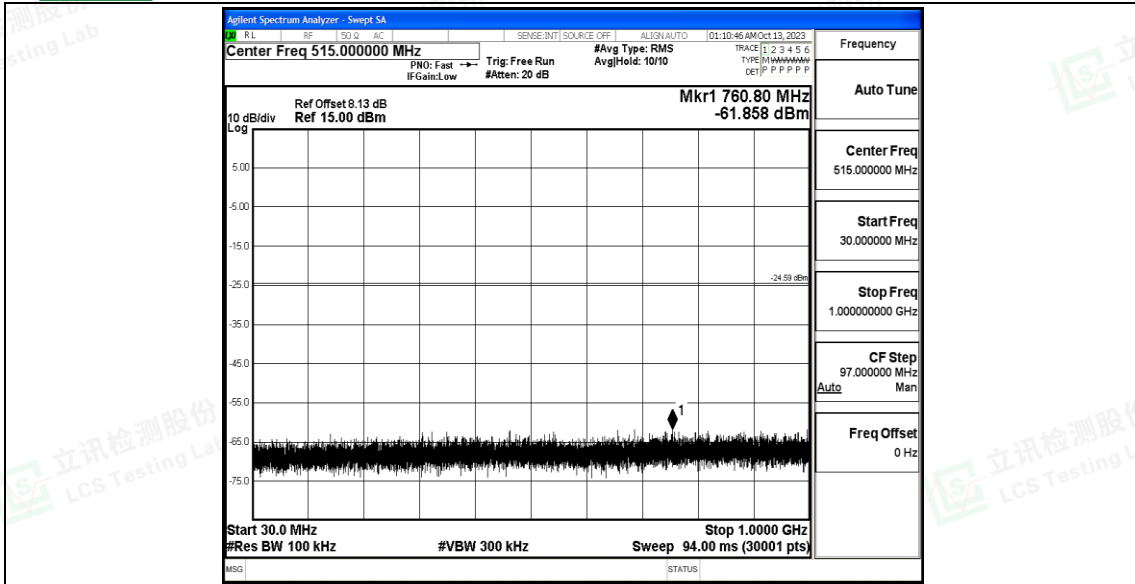


BLE\_2M\_Ant1\_2480\_0~Reference

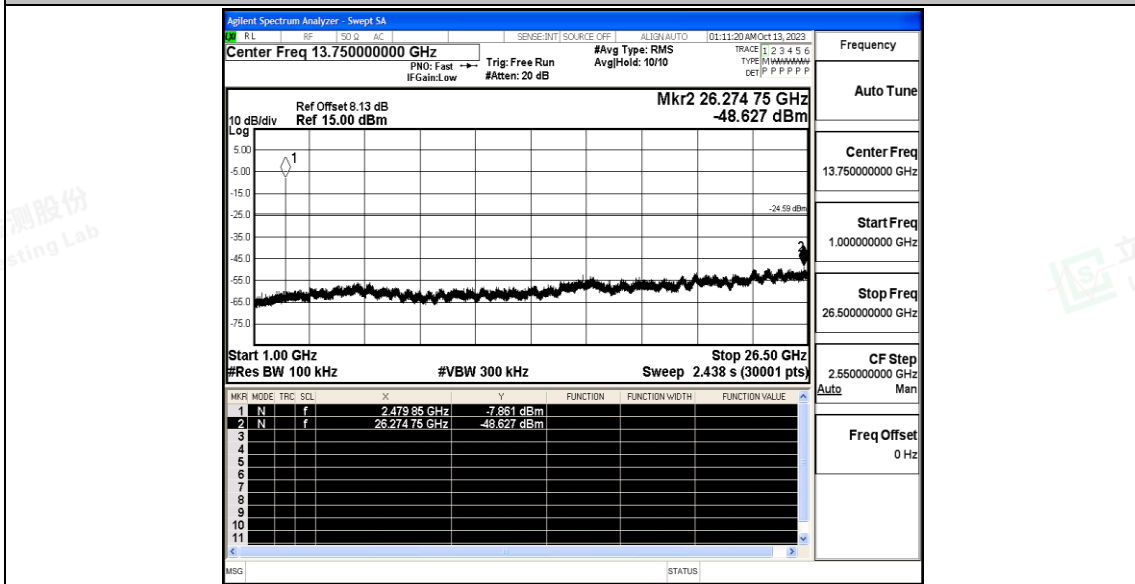


BLE\_2M\_Ant1\_2480\_30~1000





BLE\_2M\_Ant1\_2480\_1000~26500





### B.6 Duty Cycle

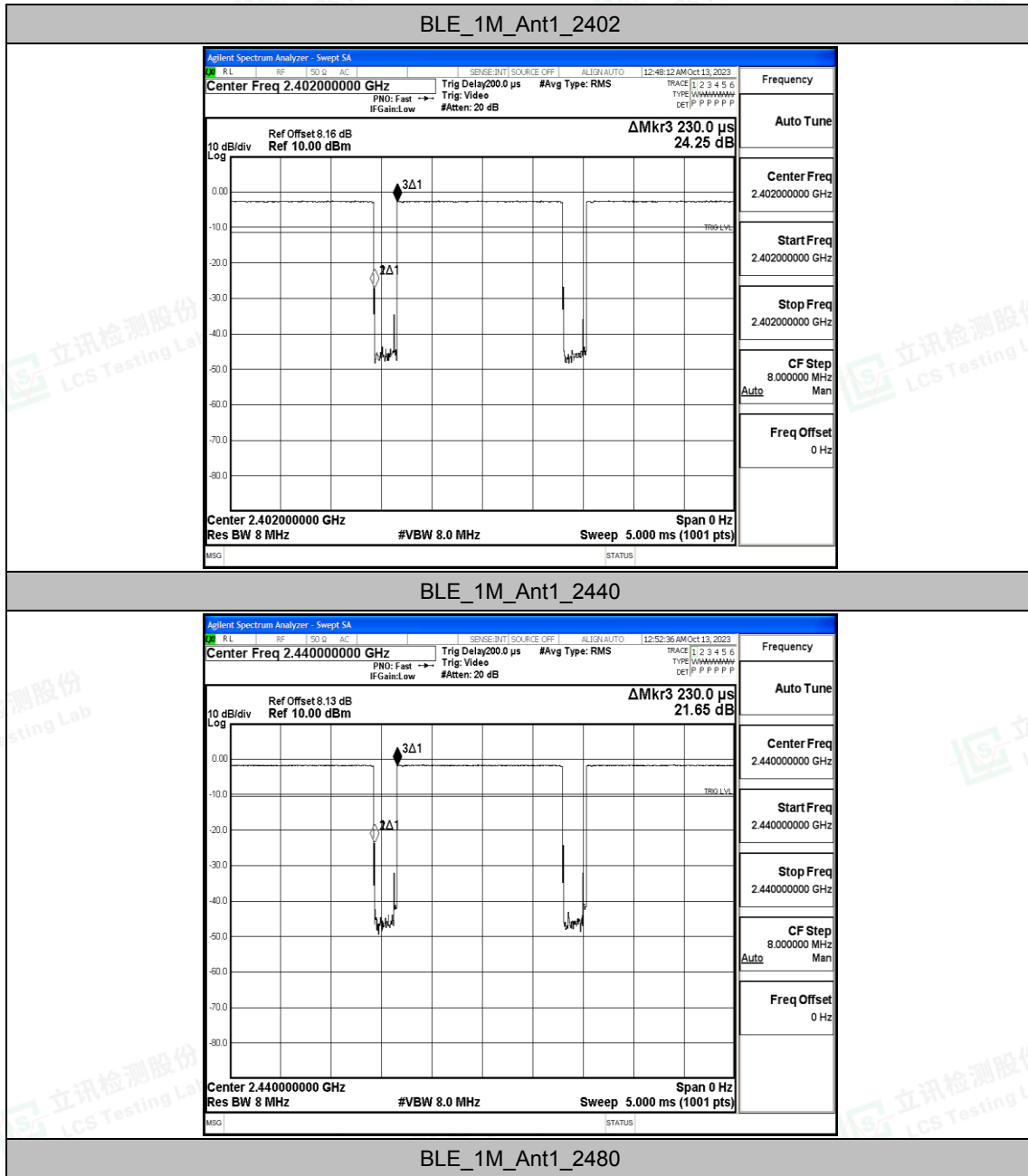
#### Test Result

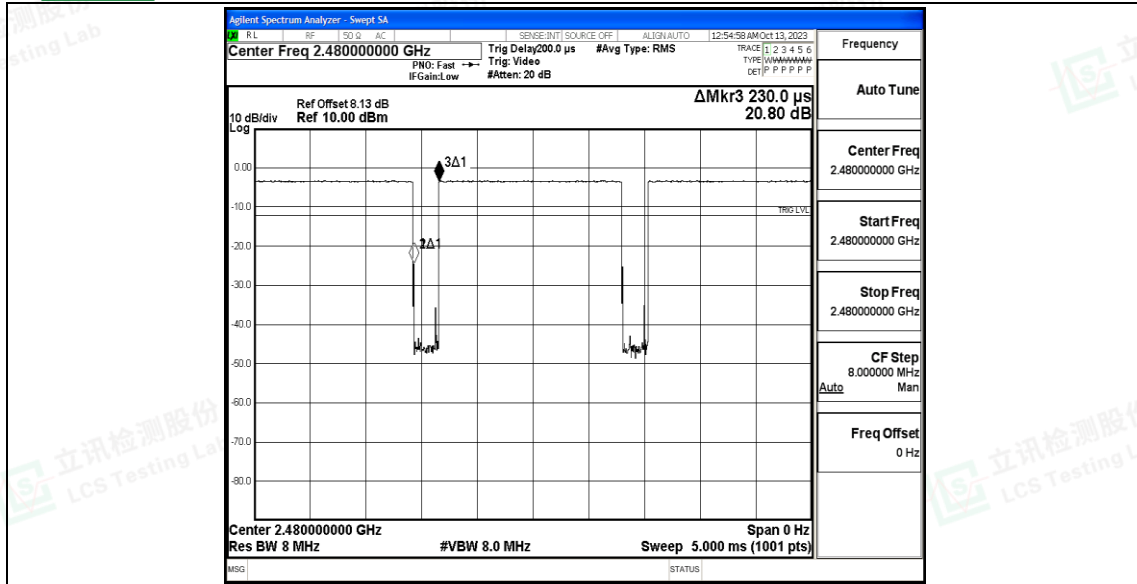
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE_1M	Ant1	2402	0.00	0.23	0.0000	100	正无穷大	正无穷大	---	---
		2440	0.00	0.23	0.0000	100	正无穷大	正无穷大	---	---
		2480	0.00	0.23	0.0000	100	正无穷大	正无穷大	---	---
BLE_2M	Ant1	2402	0.82	1.25	0.6560	65.60	1.83	1.22	---	---
		2440	0.00	0.41	0.0000	100	正无穷大	正无穷大	---	---
		2480	0.00	0.41	0.0000	100	正无穷大	正无穷大	---	---



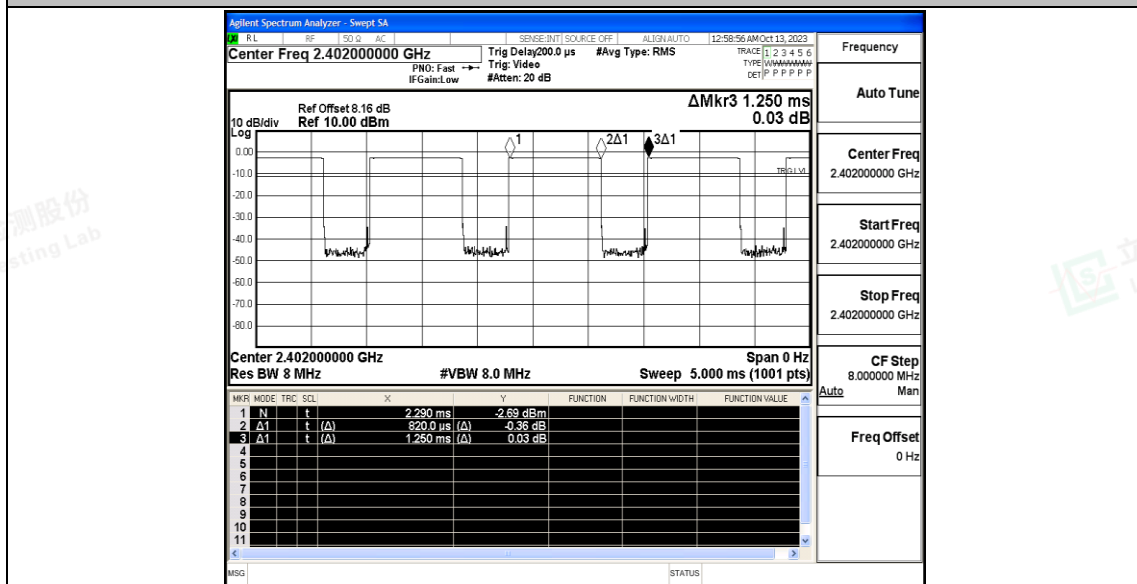


### Test Graphs



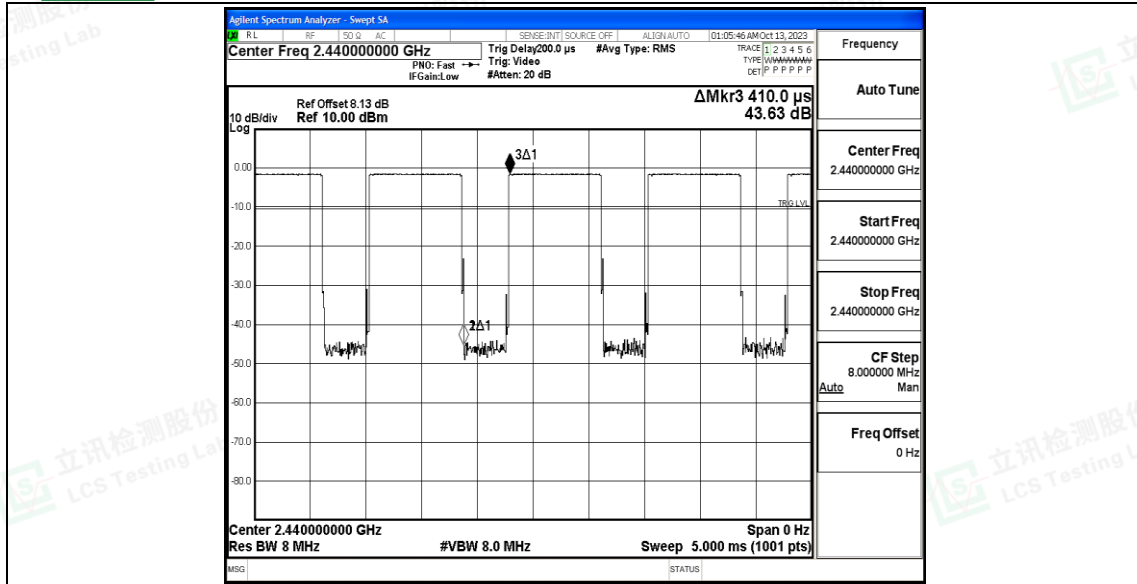


BLE\_2M\_Ant1\_2402

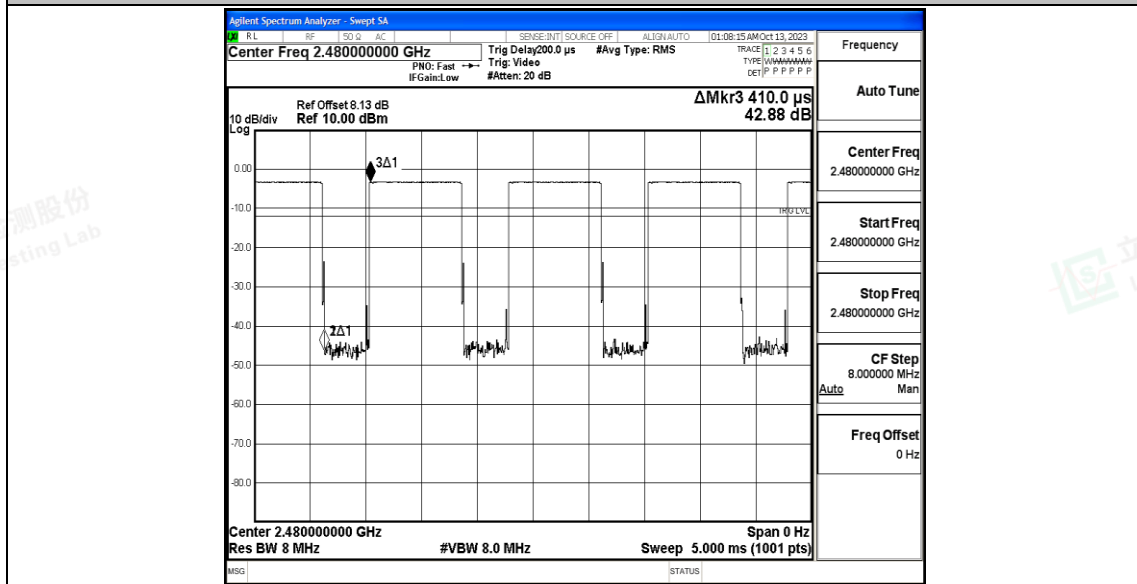


BLE\_2M\_Ant1\_2440





BLE\_2M\_Ant1\_2480





## B.7 Emissions in Restricted Bands

### Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.47	≤-41.20	45.73	≤54	PASS
				AV	2388.725	-49.11	≤-41.20	46.09	≤54	PASS
				AV	2390.000	-49.16	≤-41.20	46.04	≤54	PASS
				Peak	2310.000	-43.25	≤-21.20	51.95	≤74	PASS
				Peak	2376.860	-39.92	≤-21.20	55.28	≤74	PASS
				Peak	2390.000	-43.5	≤-21.20	51.70	≤74	PASS
		High	2480	AV	2483.500	-48.86	≤-41.20	46.34	≤54	PASS
				AV	2483.520	-48.86	≤-41.20	46.34	≤54	PASS
				AV	2500.000	-48.96	≤-41.20	46.24	≤54	PASS
				Peak	2483.500	-44.08	≤-21.20	51.12	≤74	PASS
				Peak	2489.120	-39.8	≤-21.20	55.40	≤74	PASS
				Peak	2500.000	-45.24	≤-21.20	49.96	≤74	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-48.69	≤-41.20	46.51	≤54	PASS
				AV	2368.670	-48.12	≤-41.20	47.08	≤54	PASS
				AV	2390.000	-48.38	≤-41.20	46.82	≤54	PASS
				Peak	2310.000	-42.96	≤-21.20	52.24	≤74	PASS
				Peak	2328.560	-38.24	≤-21.20	56.96	≤74	PASS
				Peak	2390.000	-40.75	≤-21.20	54.45	≤74	PASS
		High	2480	AV	2483.500	-48.44	≤-41.20	46.76	≤54	PASS
				AV	2483.520	-48.44	≤-41.20	46.76	≤54	PASS
				AV	2500.000	-48.93	≤-41.20	46.27	≤54	PASS
				Peak	2483.500	-44.09	≤-21.20	51.11	≤74	PASS
				Peak	2485.440	-36.37	≤-21.20	58.83	≤74	PASS
				Peak	2500.000	-43.41	≤-21.20	51.79	≤74	PASS

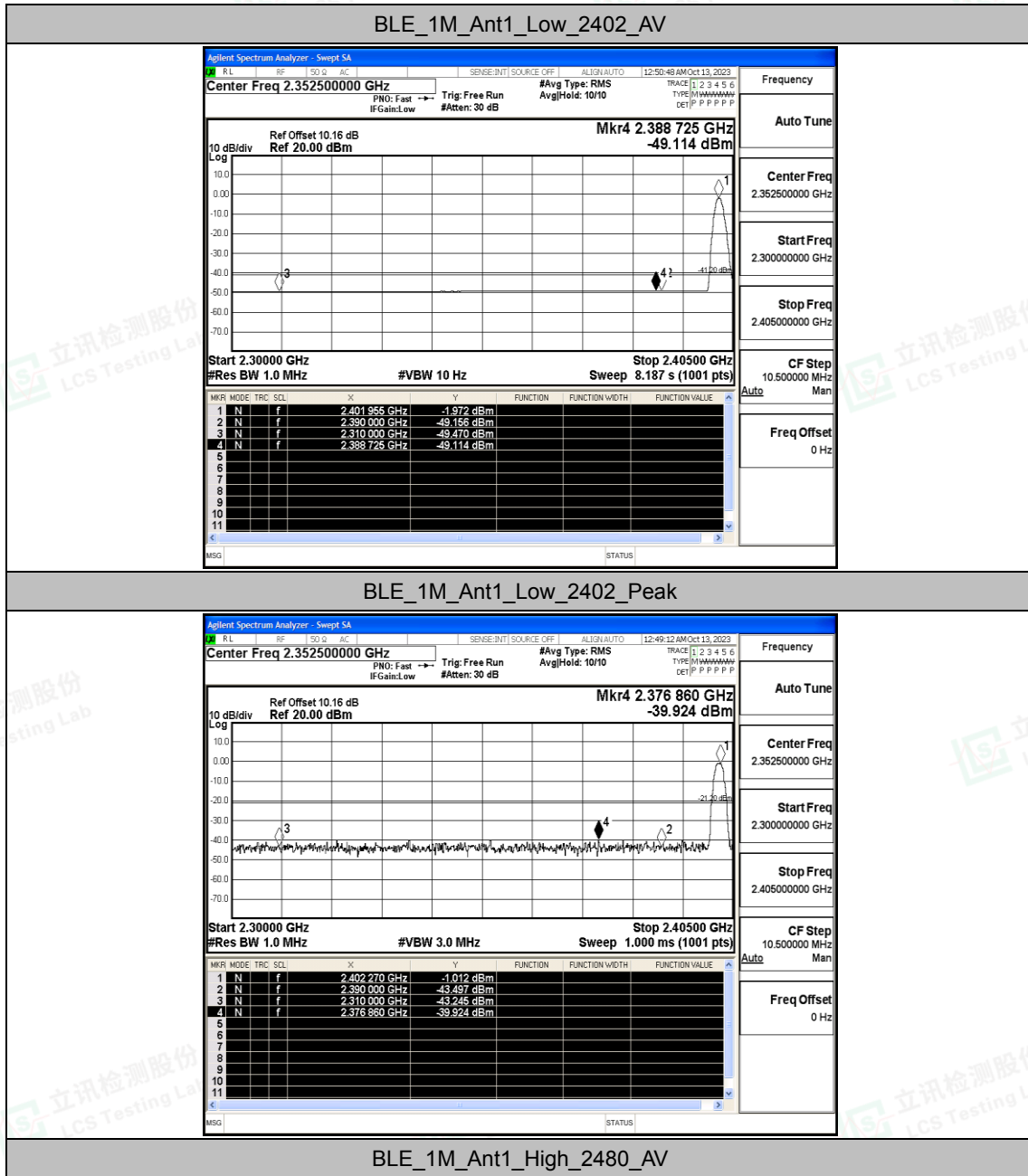
#### Note:

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.

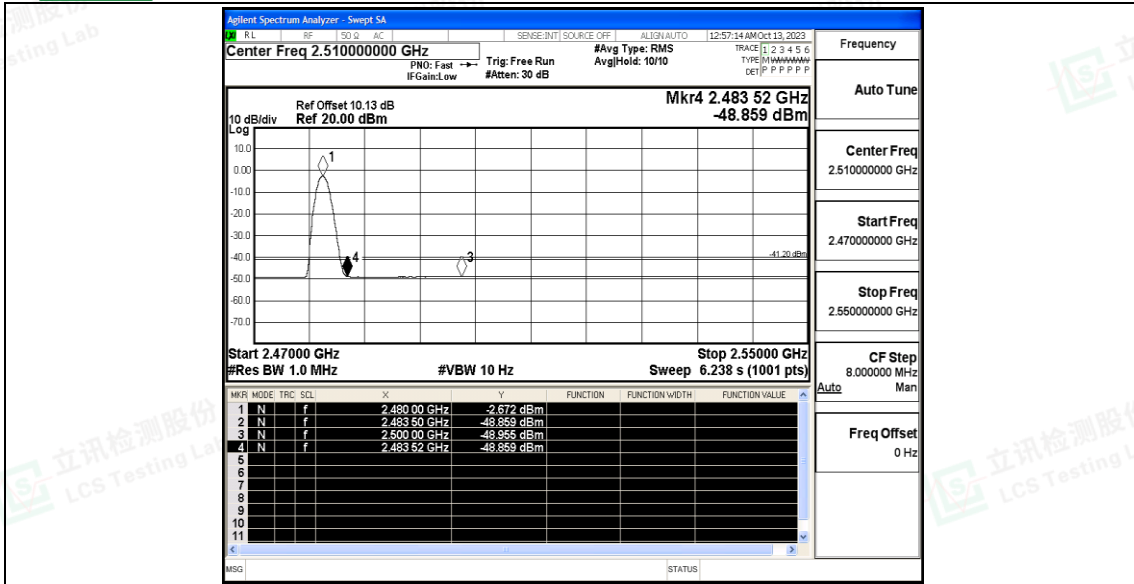




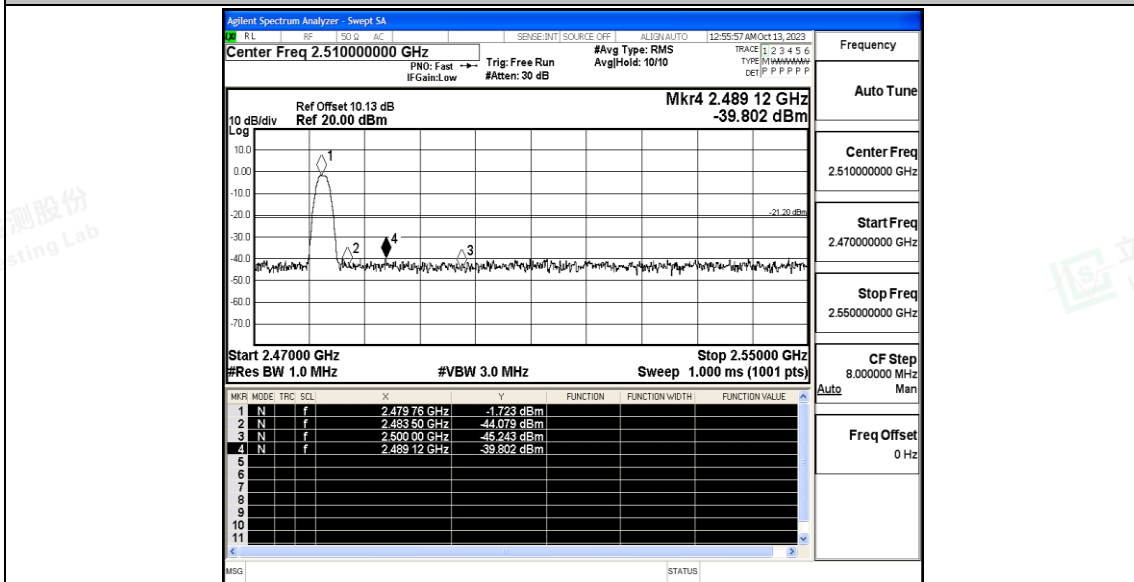
### Test Graphs





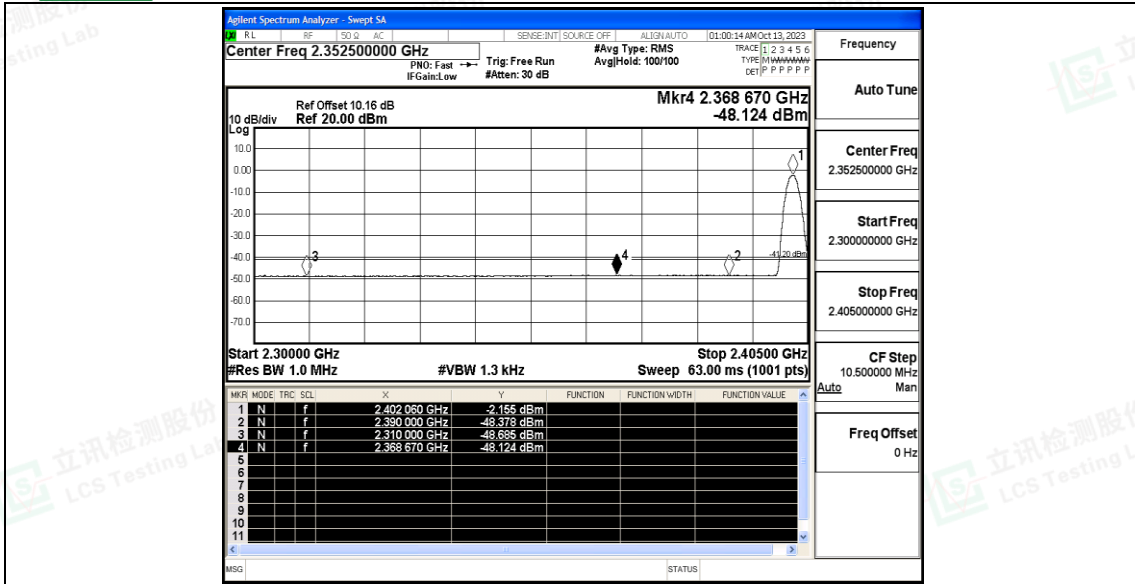


BLE\_1M\_Ant1\_High\_2480\_Peak

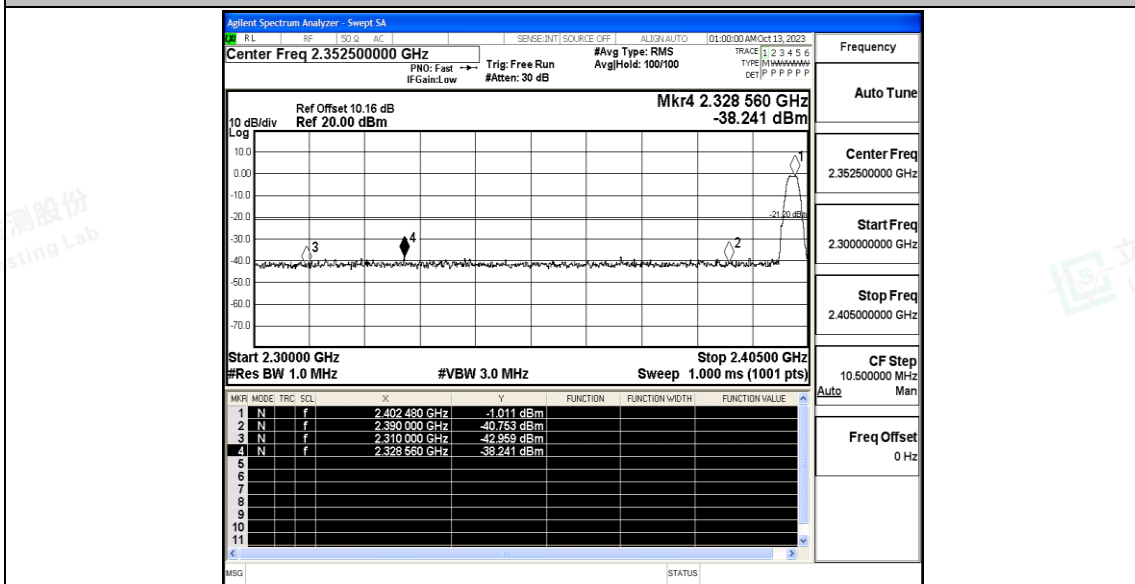


BLE\_2M\_Ant1\_Low\_2402\_AV



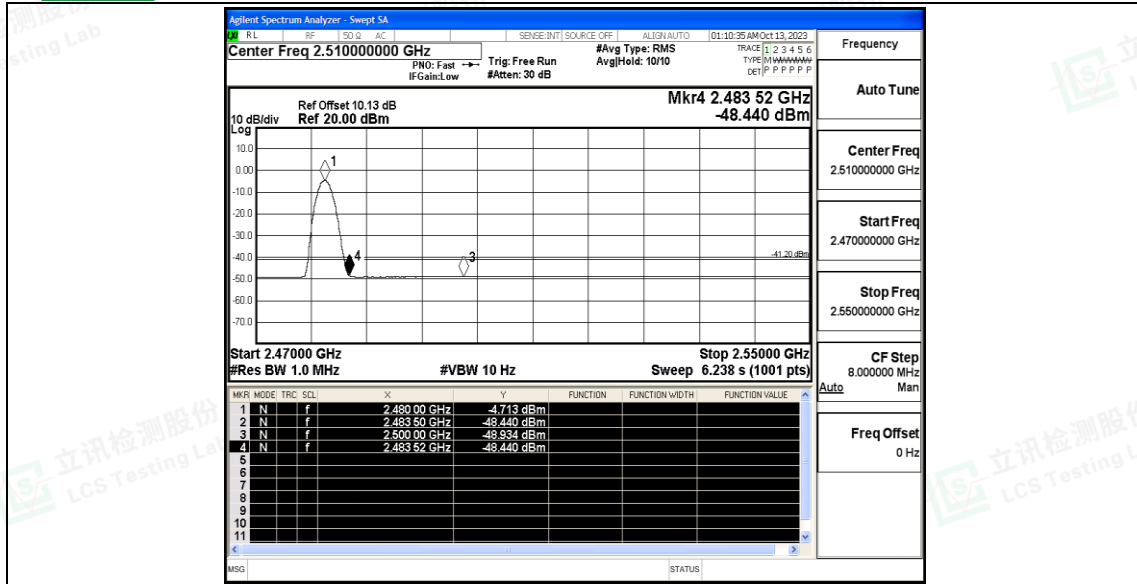


BLE\_2M\_Ant1\_Low\_2402\_Peak



BLE\_2M\_Ant1\_High\_2480\_AV





BLE\_2M\_Ant1\_High\_2480\_Peak

