



## Appendix A

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

Product Name: Pet feeder

Test Model: CH-IAF003

#### Environmental Conditions

Temperature:	23.1° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Eason Zhou
Supervised by:	Nick Peng





## A.1 DTS Bandwidth

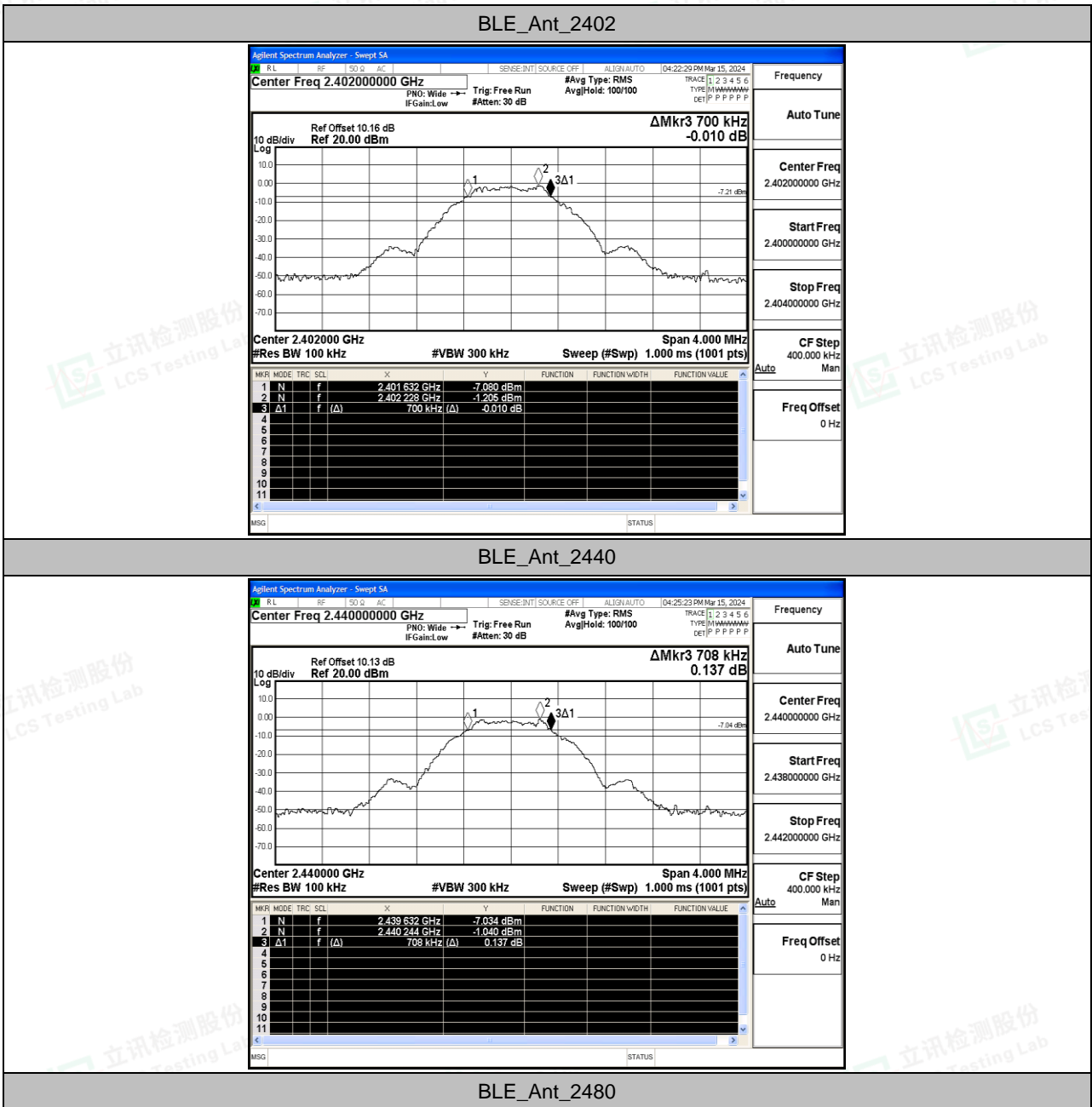
### Test Result

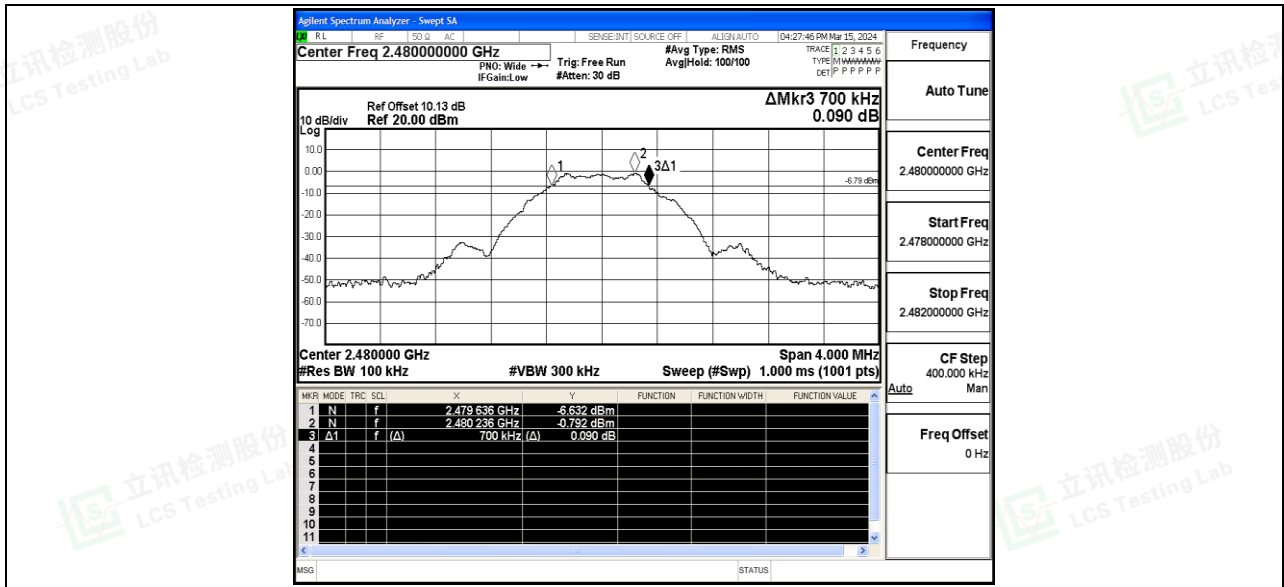
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant	2402	0.700	2401.632	2402.332	0.5	PASS
		2440	0.708	2439.632	2440.340	0.5	PASS
		2480	0.700	2479.636	2480.336	0.5	PASS





### Test Graphs







## A.2 Maximum conducted output power

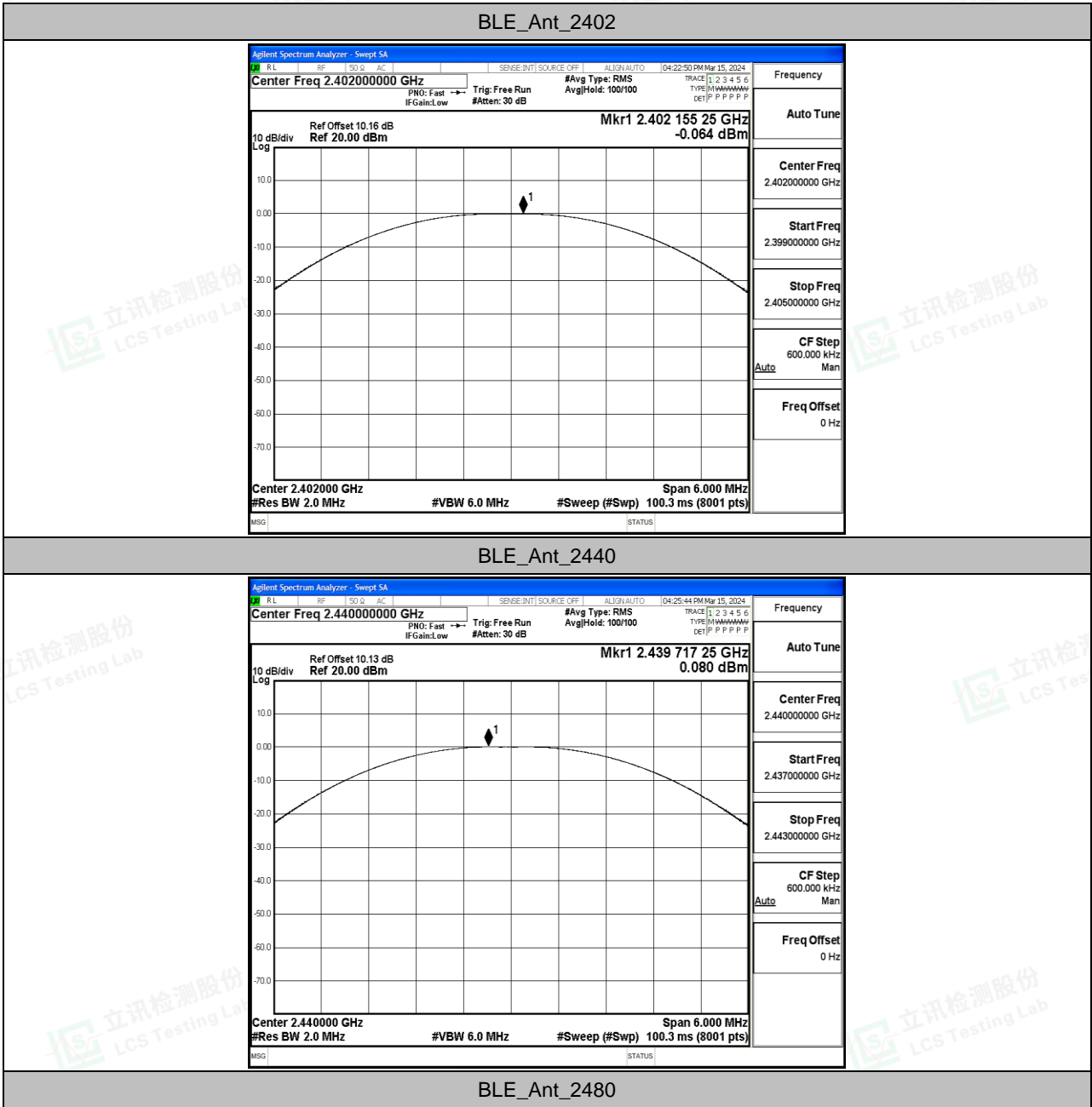
### Test Result

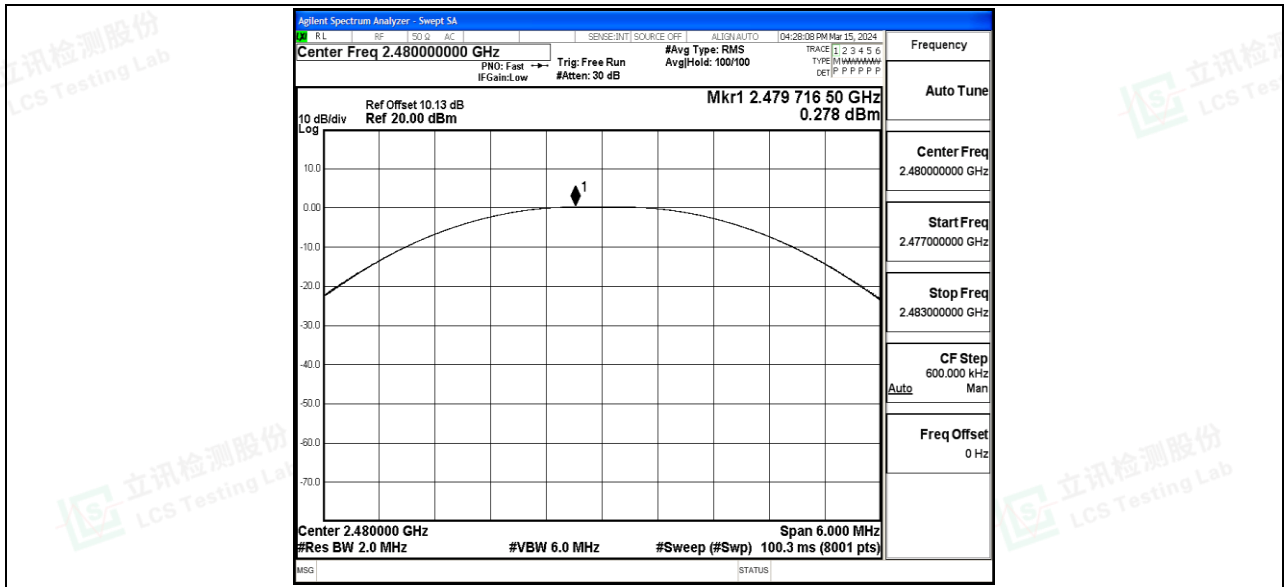
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	-0.06	≤30	PASS
		2440	0.08	≤30	PASS
		2480	0.28	≤30	PASS





### Test Graphs







### A.3 Maximum power spectral density

#### Test Result

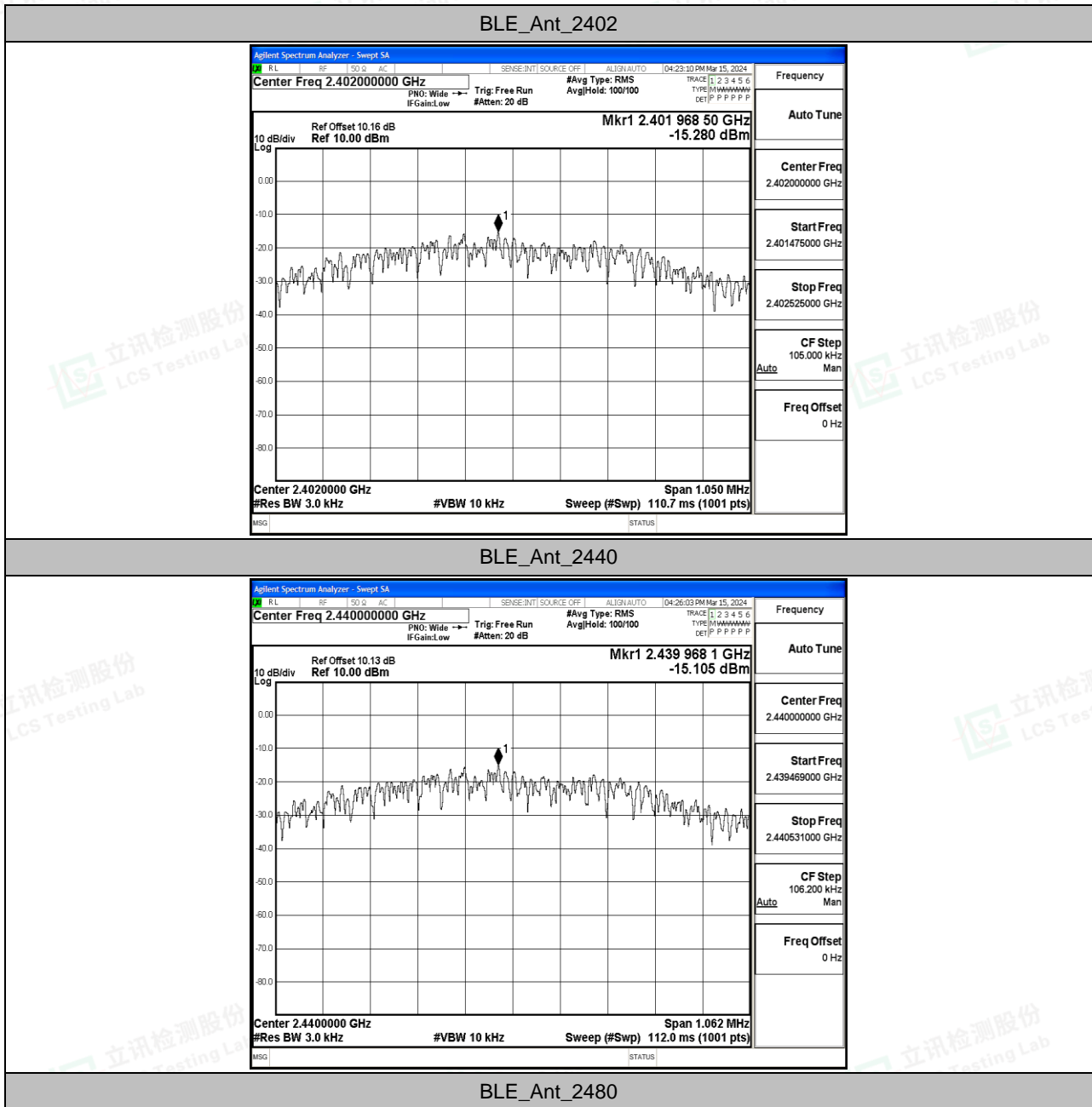
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant	2402	-15.28	≤8.00	PASS
		2440	-15.11	≤8.00	PASS
		2480	-14.93	≤8.00	PASS

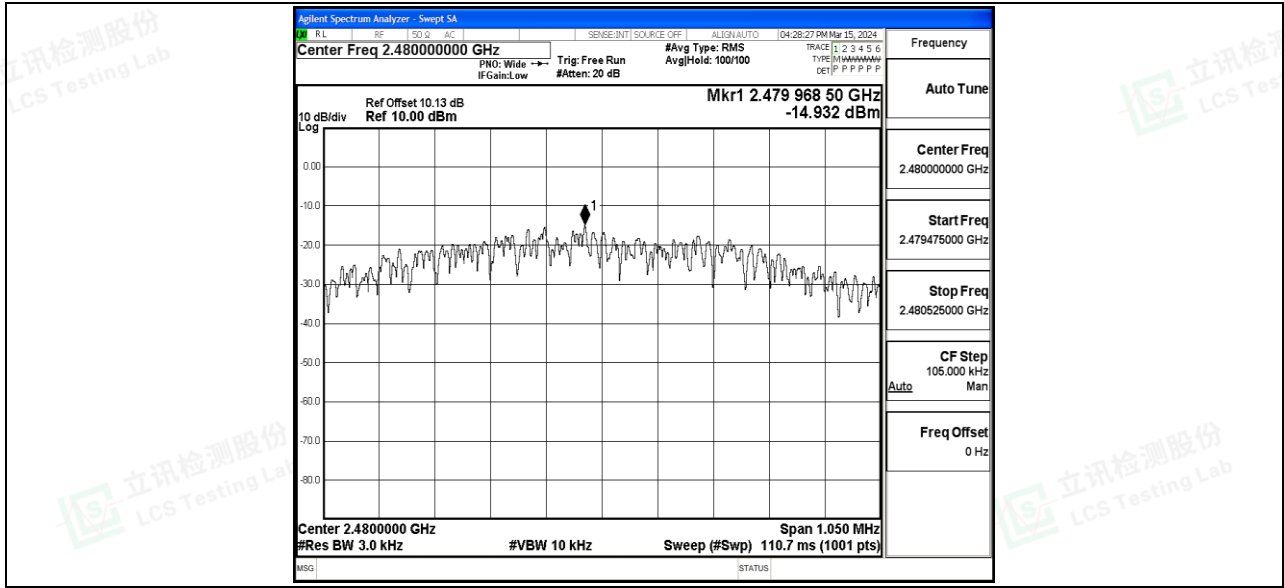






### Test Graphs







## A.4 Band edge measurements

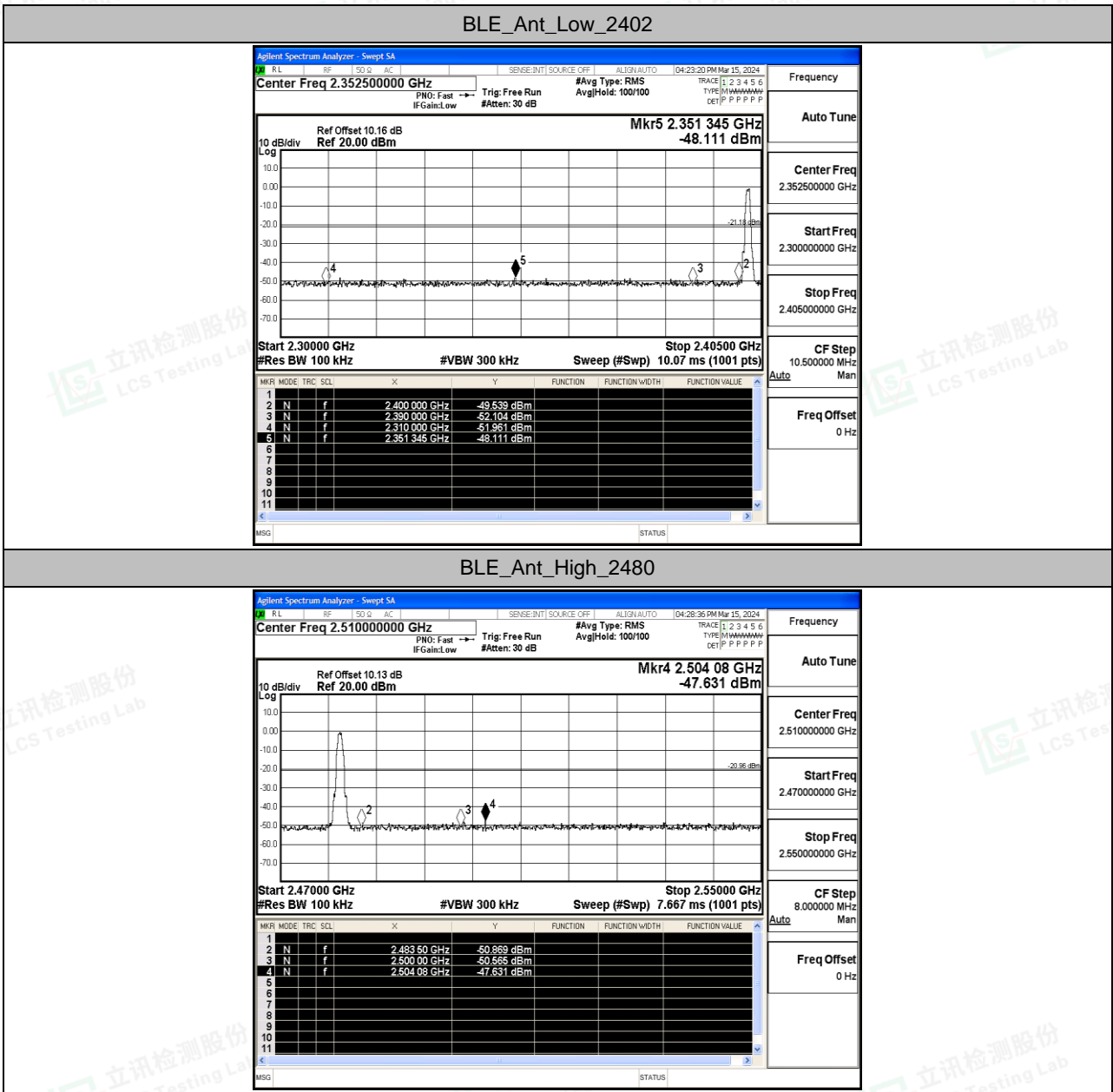
### Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	Low	2402	-1.18	-48.11	≤-21.18	PASS
		High	2480	-0.96	-47.63	≤-20.96	PASS





### Test Graphs





## A.5 Conducted Spurious Emission

### Test Result

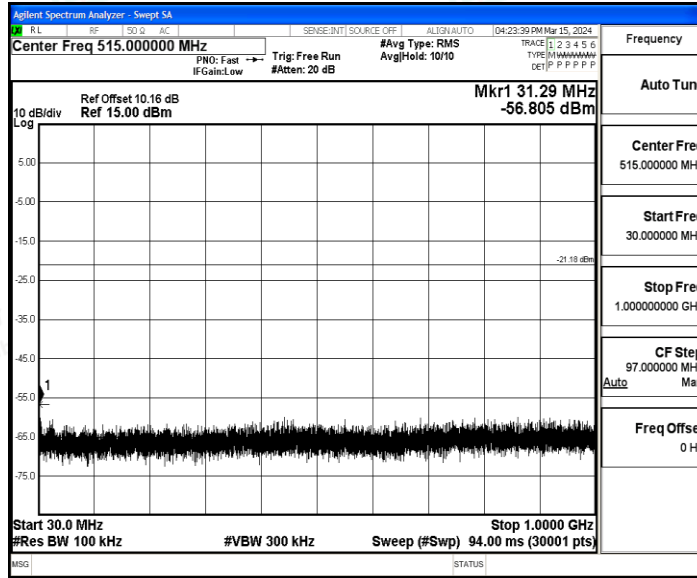
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant	2402	30~1000	-1.18	-56.81	≤-21.18	PASS
			1000~26500	-1.18	-46.18	≤-21.18	PASS
		2440	30~1000	-1.07	-59.82	≤-21.07	PASS
			1000~26500	-1.07	-47.06	≤-21.07	PASS
		2480	30~1000	-0.96	-53.3	≤-20.96	PASS
			1000~26500	-0.96	-47.37	≤-20.96	PASS



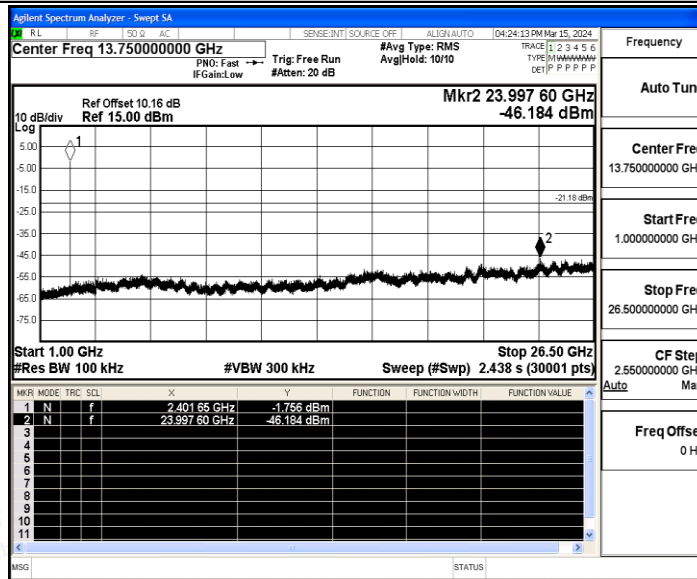


### Test Graphs

BLE\_Ant\_2402\_30~1000

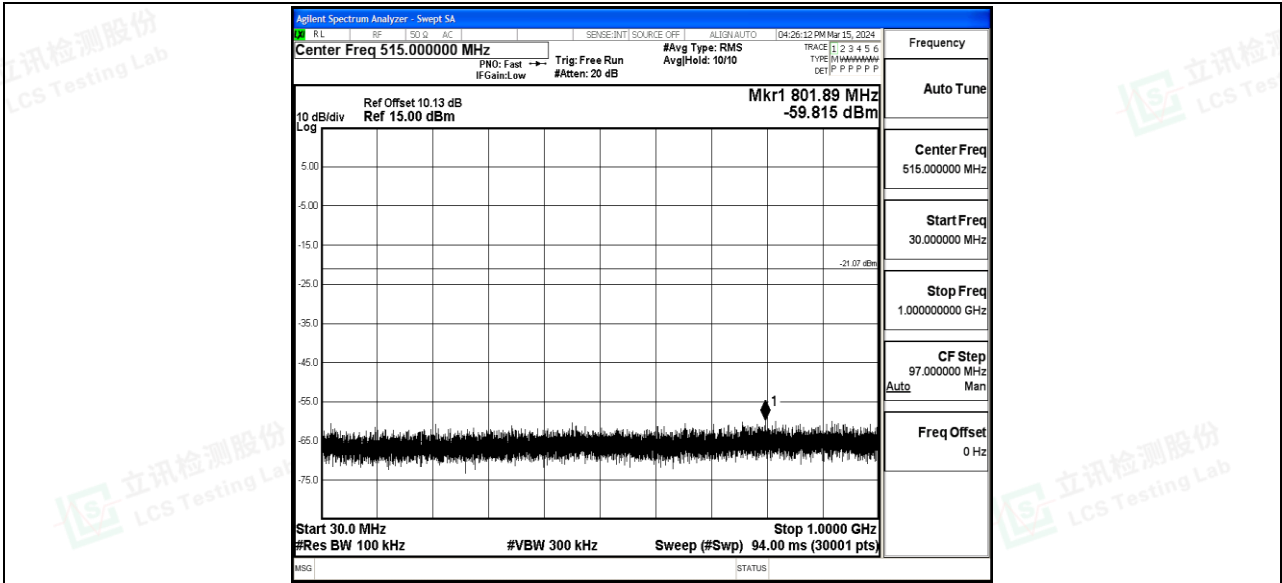


BLE\_Ant\_2402\_1000~26500

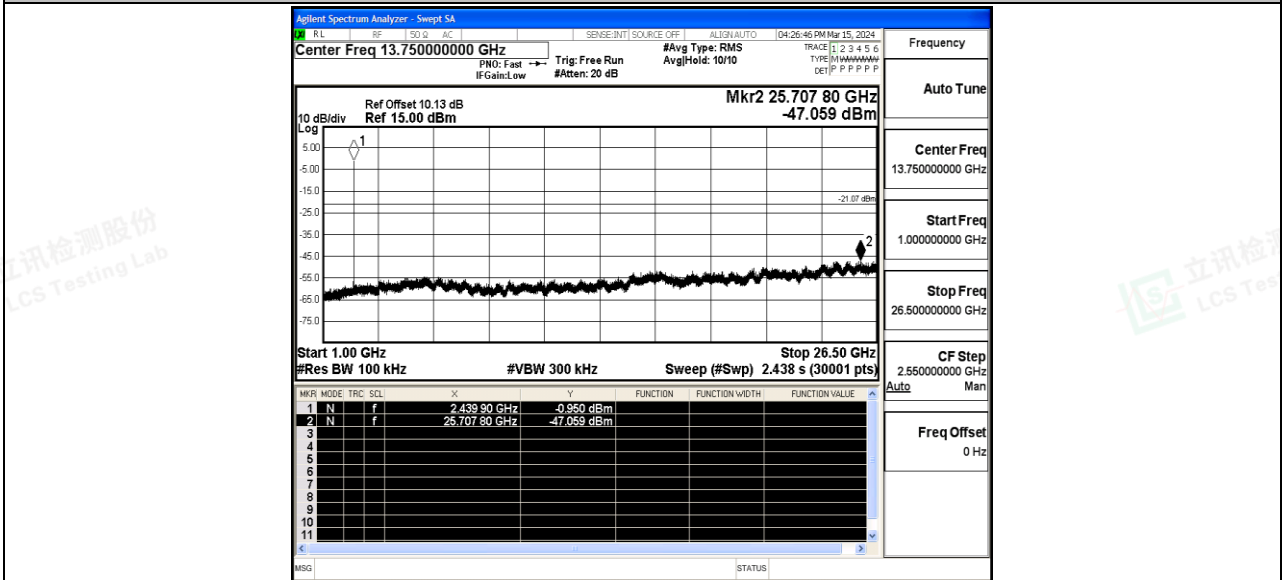


BLE\_Ant\_2440\_30~1000



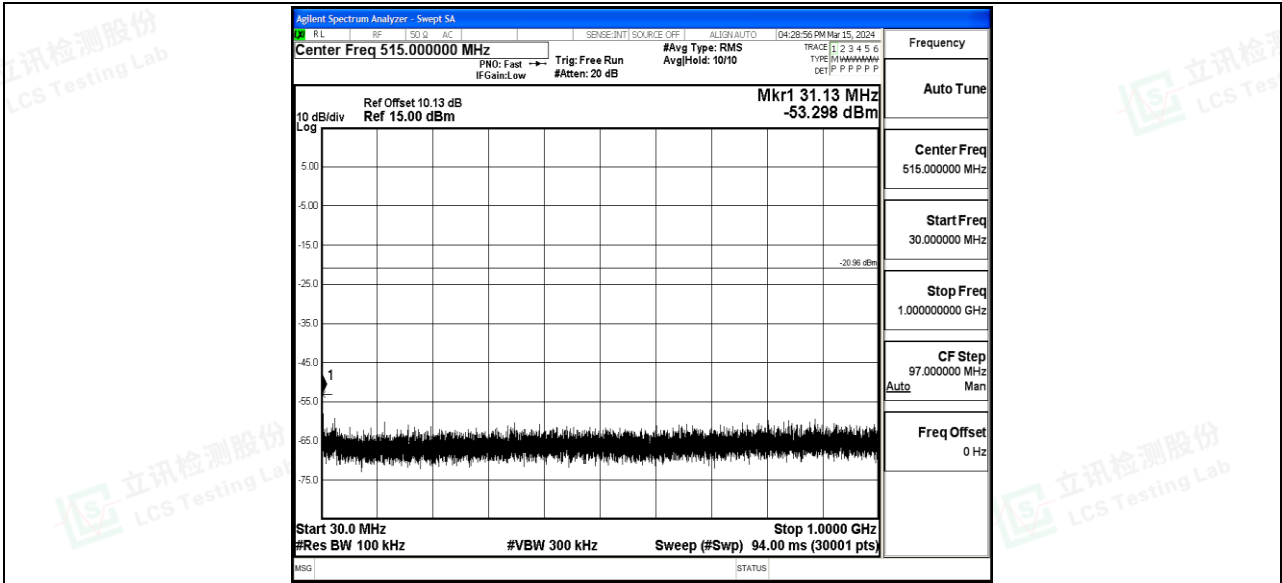


BLE\_Ant\_2440\_1000~26500

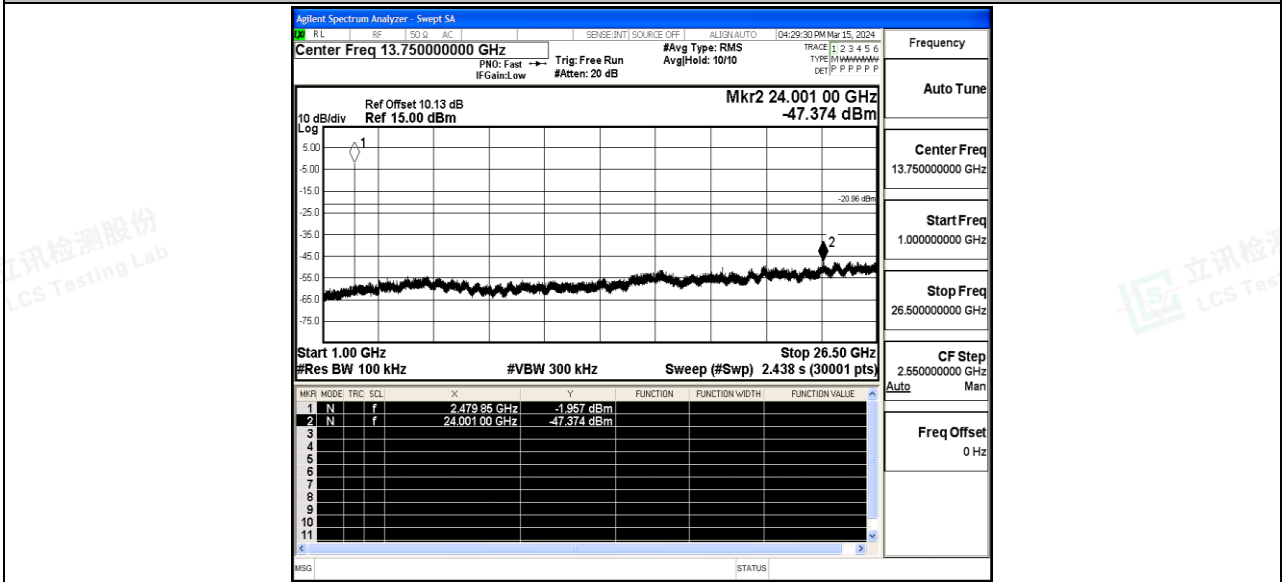


BLE\_Ant\_2480\_30~1000





BLE\_Ant\_2480\_1000~26500







## Reference level measurement

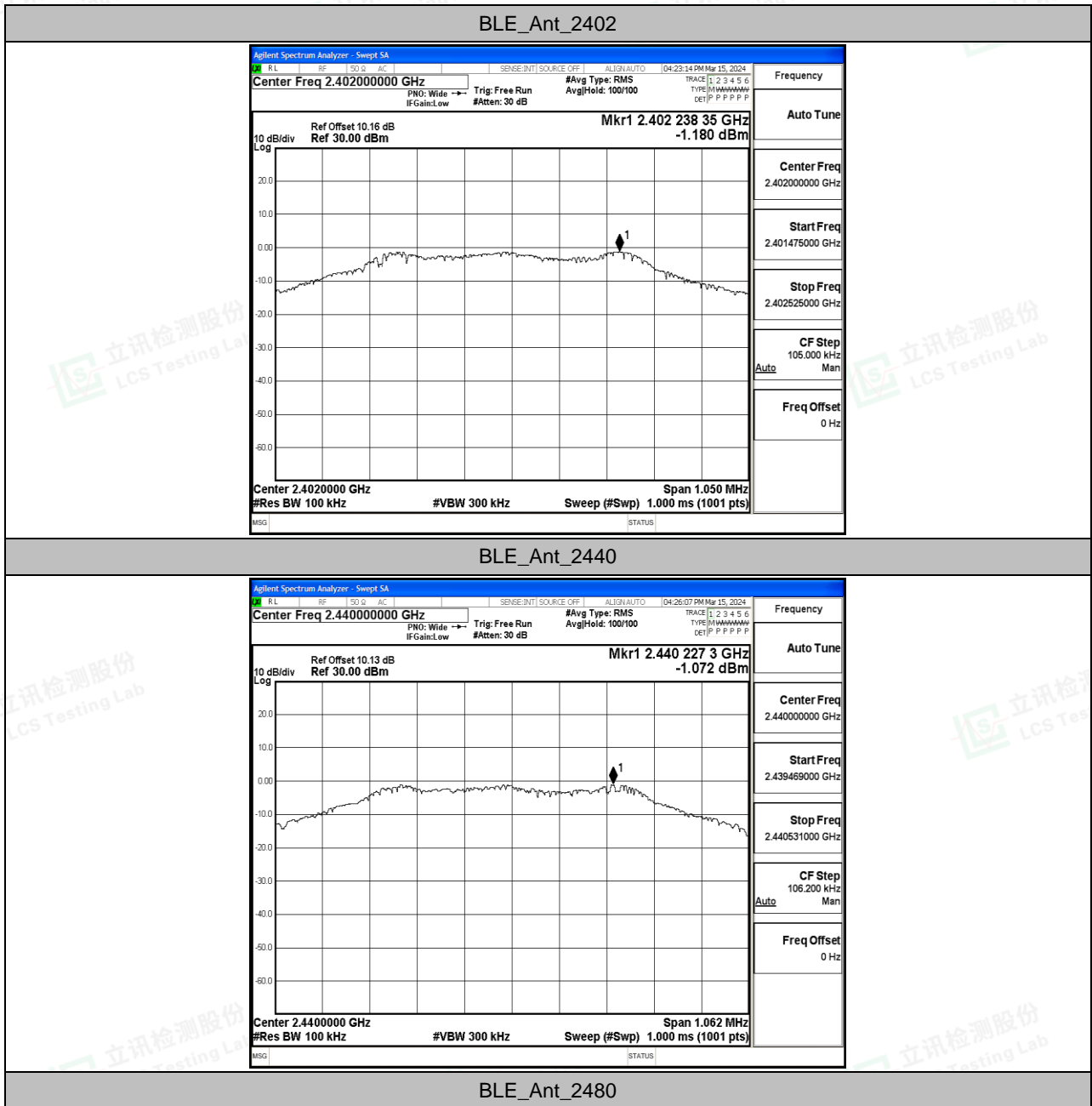
### Test Result

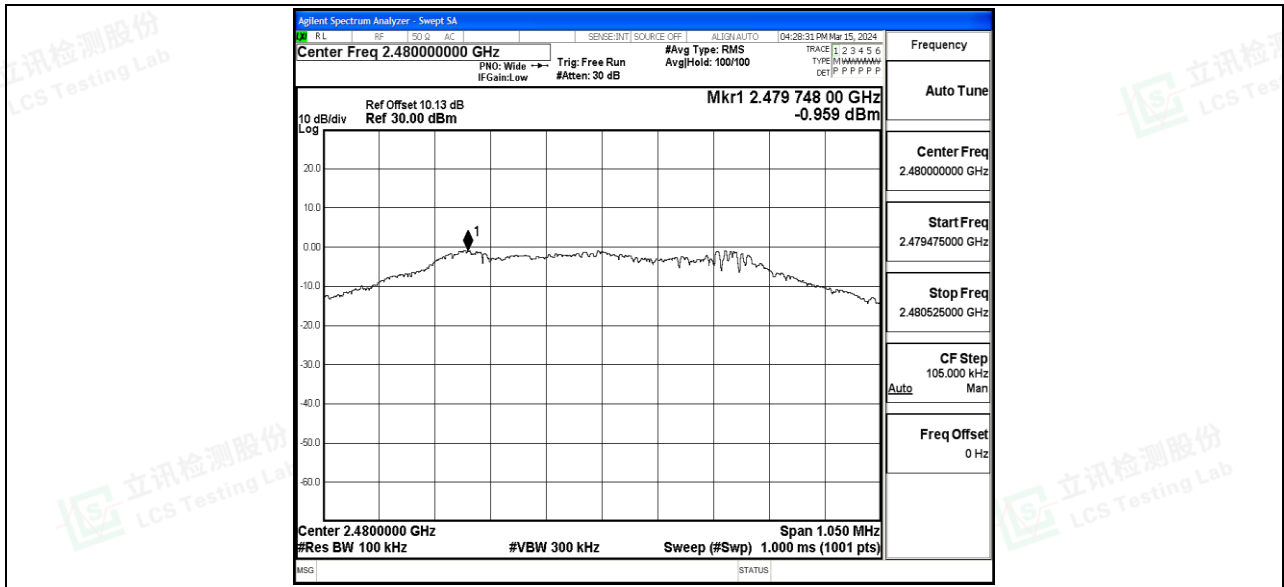
TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE	Ant	2402	2402.24	-1.18
		2440	2440.23	-1.07
		2480	2479.75	-0.96





### Test Graphs







## A.7 Duty Cycle

### Test Result

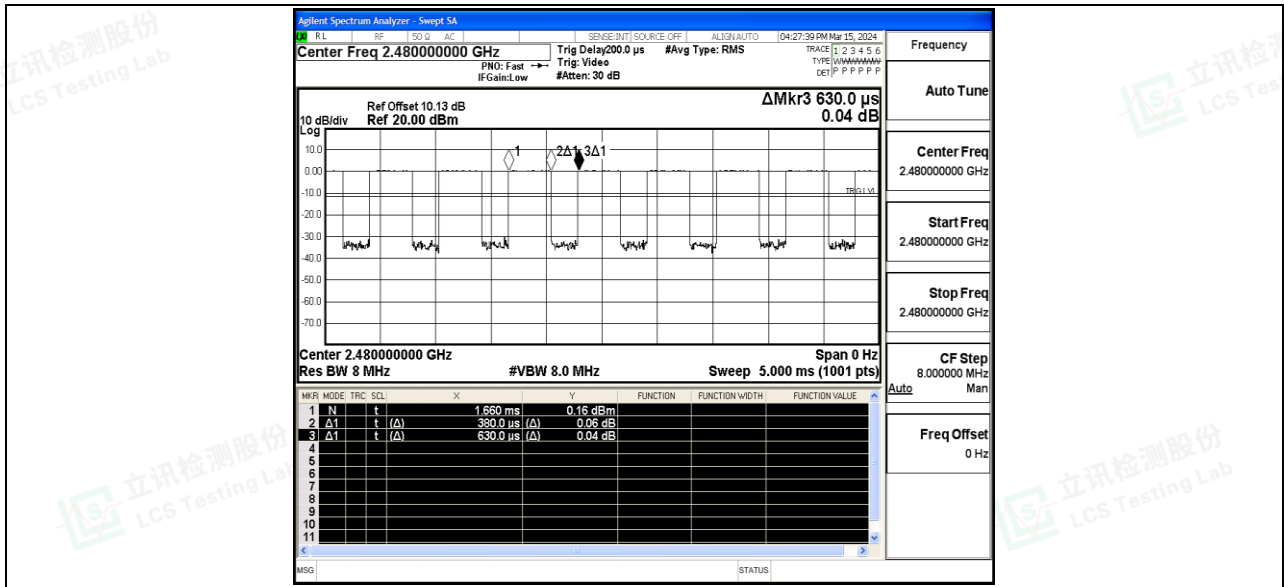
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T Factor[dB]
BLE	Ant	2402	0.38	0.63	60.32	2.20	2.63
		2440	0.38	0.63	60.32	2.20	2.63
		2480	0.38	0.63	60.32	2.20	2.63





### Test Graphs







## A.8 Emissions in Restricted Bands

### Test Result

Test Mode	Antenna	Channel Name	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE	Ant	Low	2402	AV	2310.000	-45.66	≤-41.20	49.54	≤54	PASS
				AV	2379.275	-44.76	≤-41.20	50.44	≤54	PASS
				AV	2390.000	-45.69	≤-41.20	49.51	≤54	PASS
				Peak	2310.000	-39.55	≤-21.20	55.65	≤74	PASS
				Peak	2329.715	-37.02	≤-21.20	58.18	≤74	PASS
				Peak	2390.000	-38.96	≤-21.20	56.24	≤74	PASS
		High	2480	AV	2483.500	-45.36	≤-41.20	49.84	≤54	PASS
				AV	2498.400	-44.59	≤-41.20	50.61	≤54	PASS
				AV	2500.000	-45.25	≤-41.20	49.95	≤54	PASS
				Peak	2483.500	-38.09	≤-21.20	57.11	≤74	PASS
				Peak	2491.440	-37.07	≤-21.20	58.13	≤74	PASS
				Peak	2500.000	-40.32	≤-21.20	54.88	≤74	PASS

Note:

- The Antenna Gain is compensated in the graph. The Correction Factor is compensated in the graph.
- 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.

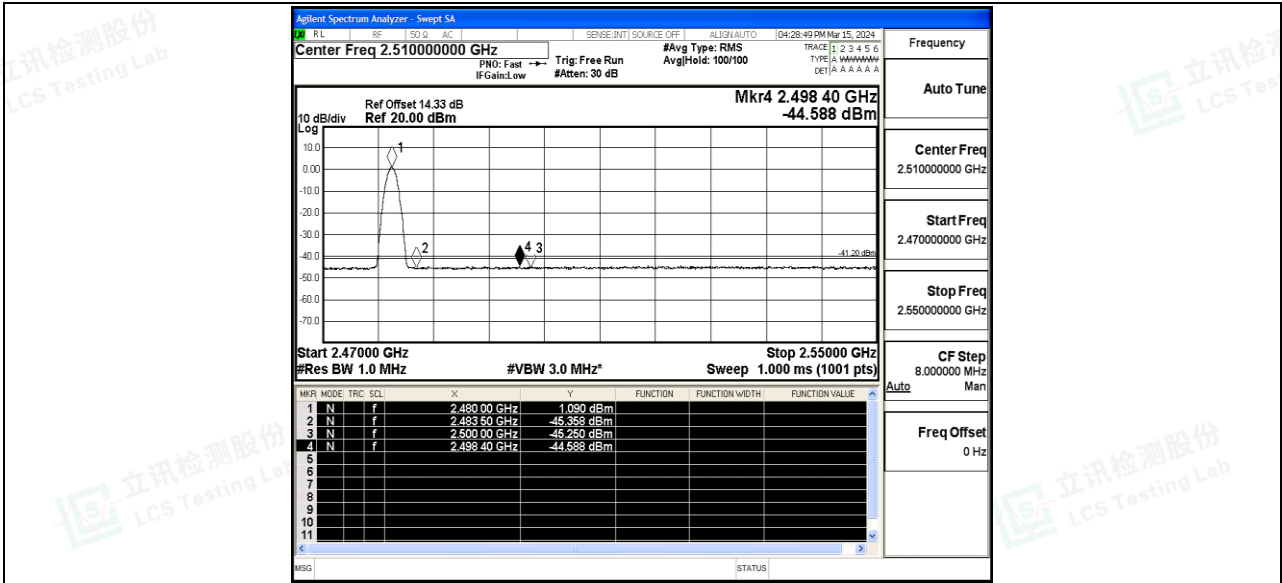




### Test Graphs







BLE\_Ant\_High\_2480\_Peak

