



## Appendix A

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

Product Name: 6.5 INCH WI-FI PIR MOTION SENSOR CLOSET LIGHT

Test Model: LSF610SMWH

#### Environmental Conditions

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





## A.1 DTS Bandwidth

### Test Result

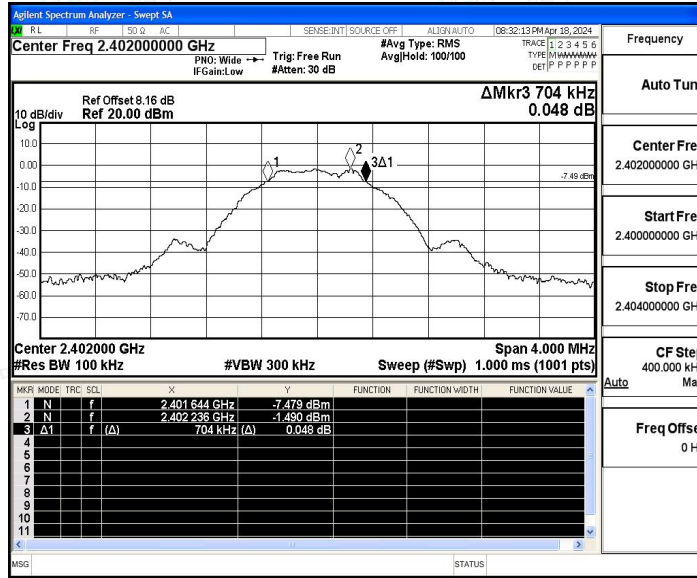
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.704	2401.644	2402.348	0.5	PASS
		2440	0.700	2439.636	2440.336	0.5	PASS
		2480	0.688	2479.640	2480.328	0.5	PASS



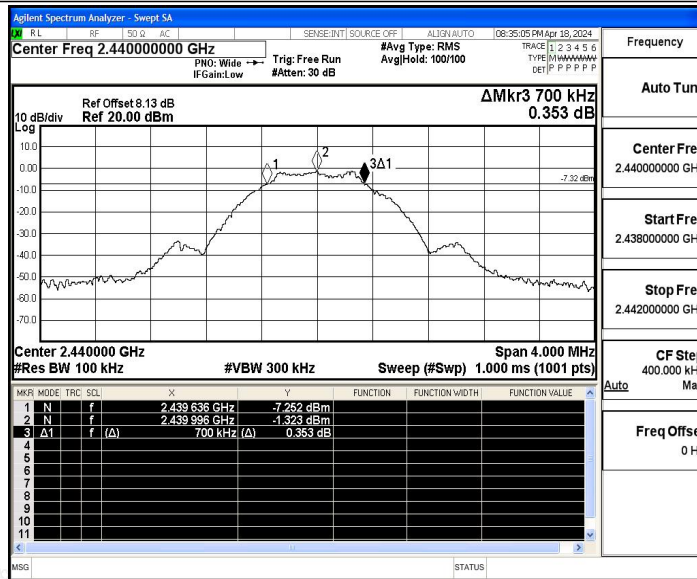


### Test Graphs

BLE\_1M\_Ant1\_2402

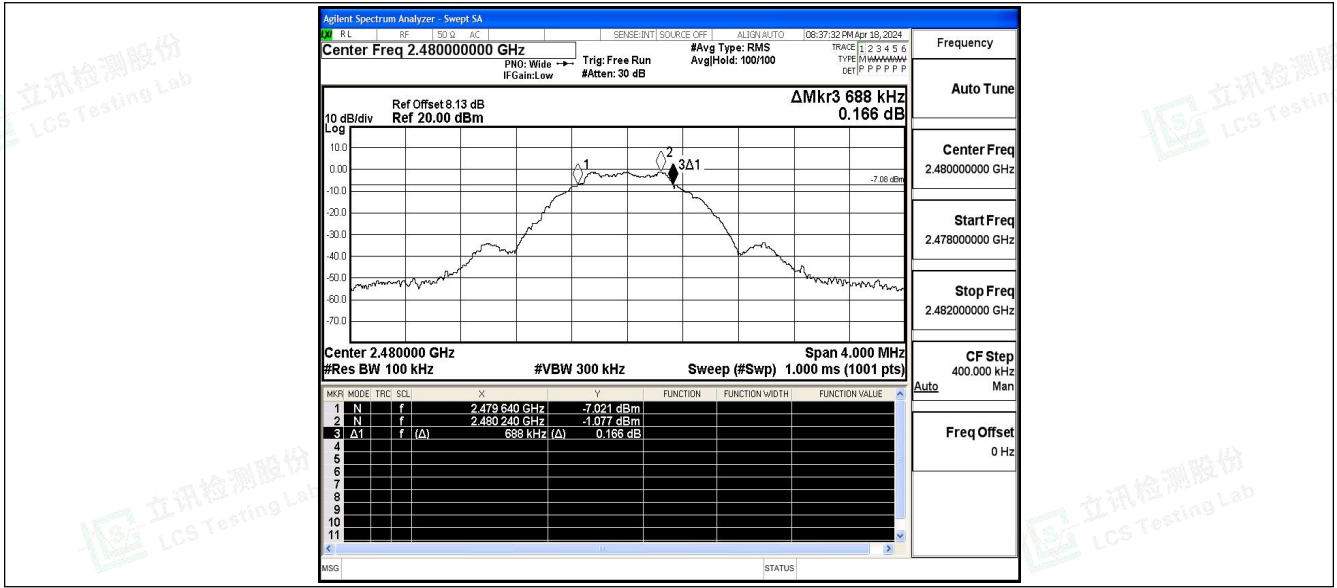


BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480







## A.2 Maximum conducted output power

### Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.30	≤30	PASS
		2440	-0.16	≤30	PASS
		2480	0.01	≤30	PASS

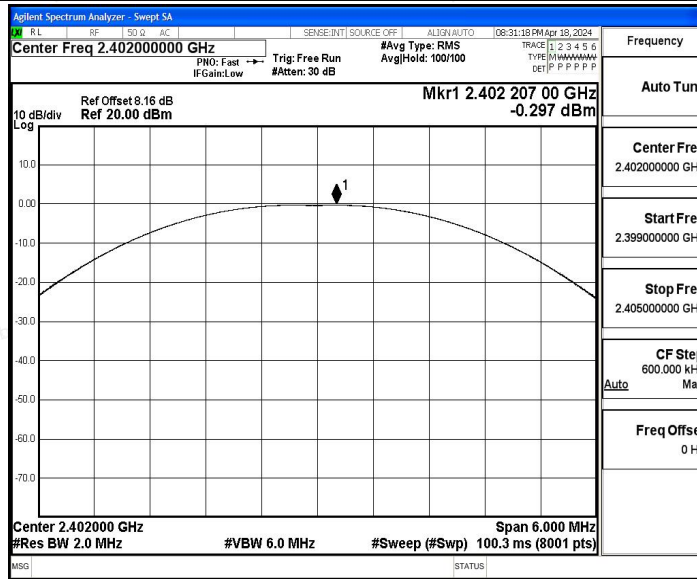


Shenzhen LCS Compliance Testing Laboratory Ltd.  
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China  
Tel: +(86) 0755-82591330 | E-mail: [webmaster@lcs-cert.com](mailto:webmaster@lcs-cert.com) | Web: [www.lcs-cert.com](http://www.lcs-cert.com)  
Scan code to check authenticity

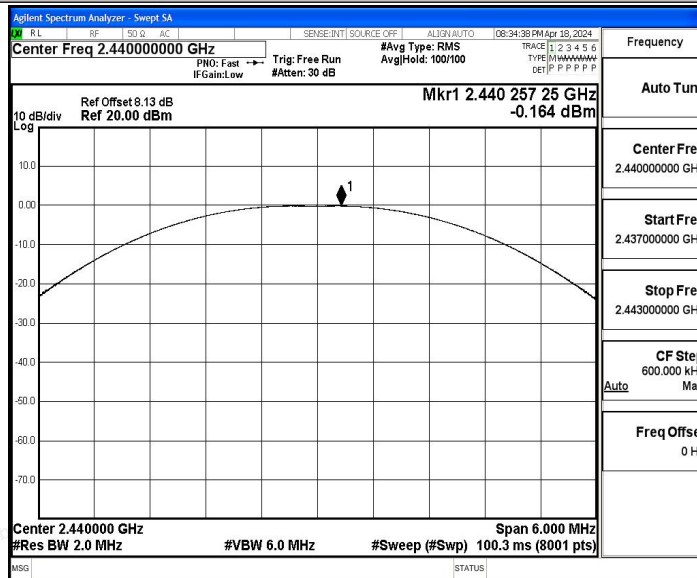


### Test Graphs

BLE\_1M\_Ant1\_2402

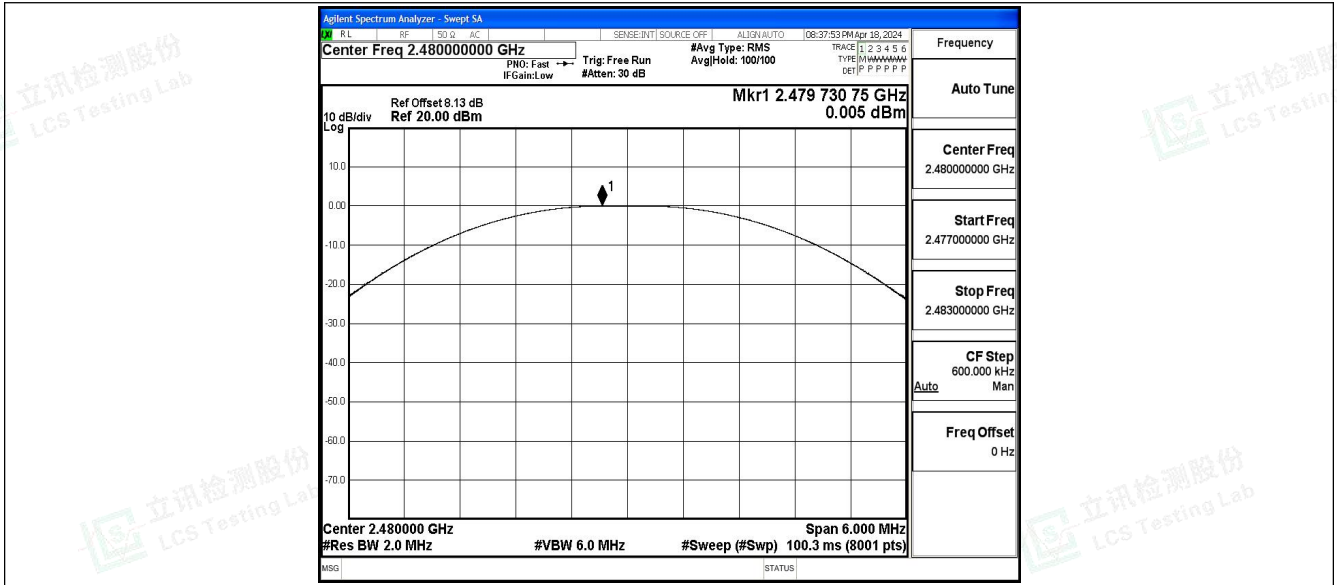


BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480







### A.3 Maximum power spectral density

#### Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.44	≤8.00	PASS
		2440	-15.32	≤8.00	PASS
		2480	-15.18	≤8.00	PASS



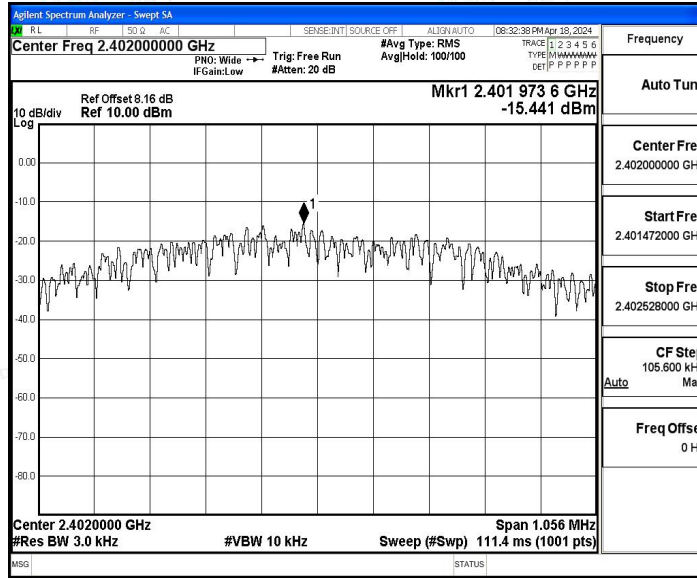
Shenzhen LCS Compliance Testing Laboratory Ltd.  
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China  
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Scan code to check authenticity



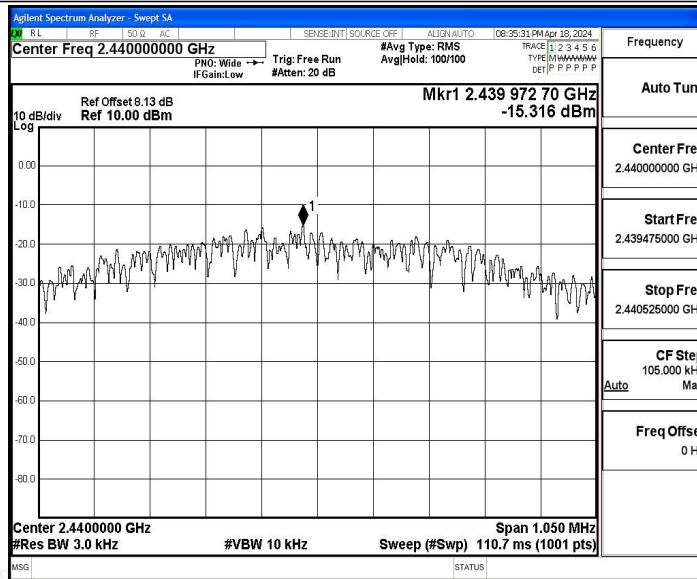


### Test Graphs

BLE\_1M\_Ant1\_2402

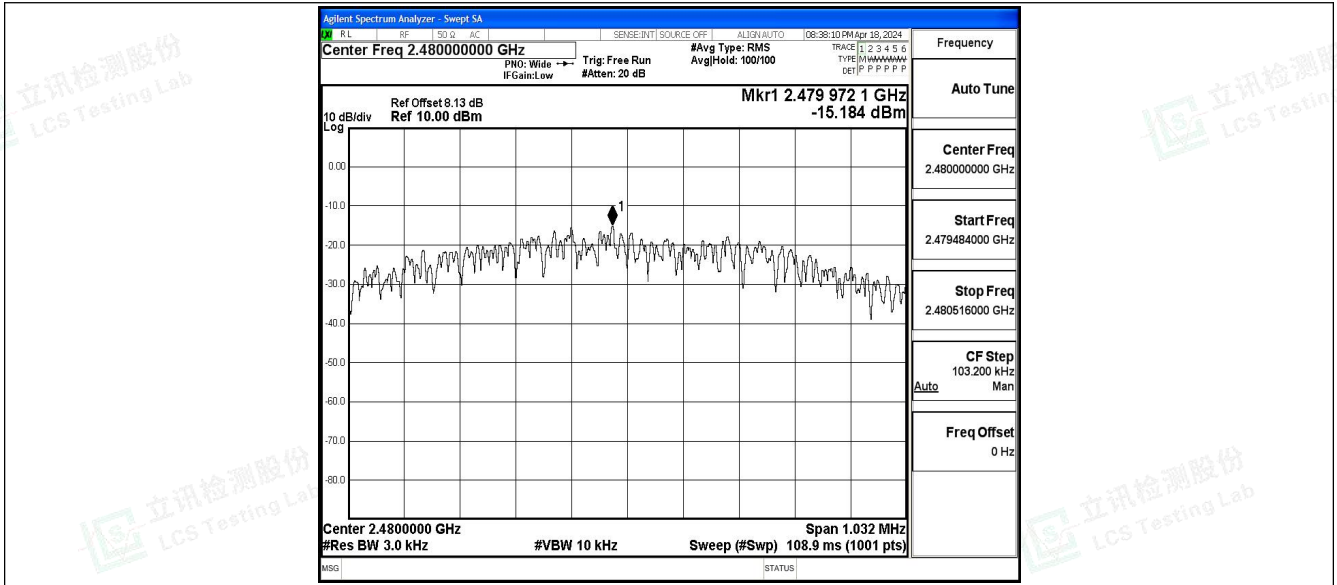


BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480







### A.4 Band edge measurements

#### Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.40	-50.08	≤-21.4	PASS
		High	2480	-1.11	-49.97	≤-21.11	PASS

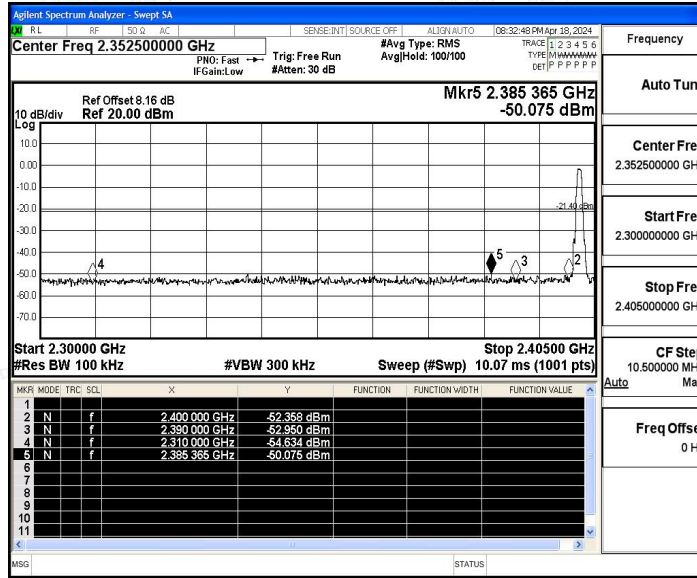


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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com  
Scan code to check authenticity

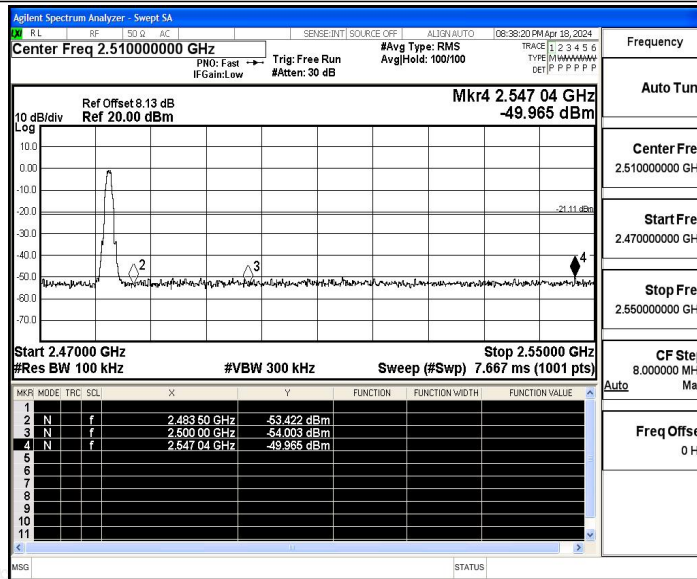


### Test Graphs

#### BLE\_1M\_Ant1\_Low\_2402



#### BLE\_1M\_Ant1\_High\_2480





### A.5 Conducted Spurious Emission

#### Test Result

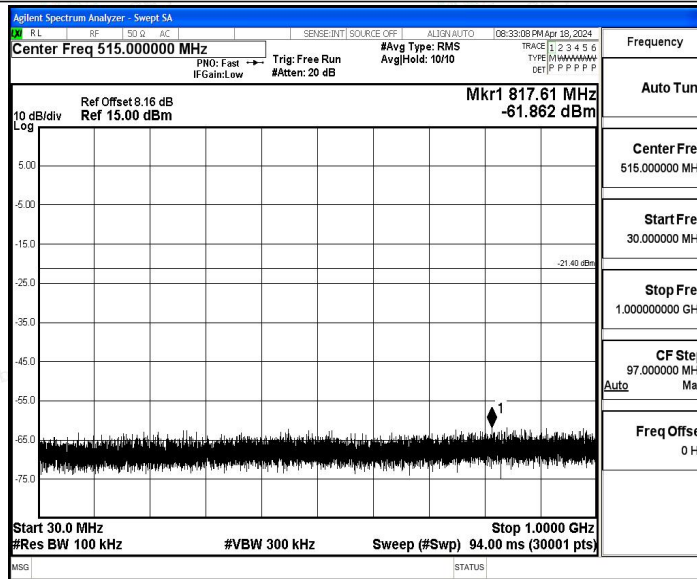
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	30~1000	-1.40	-61.86	≤-21.4	PASS
			1000~26500	-1.40	-48.56	≤-21.4	PASS
		2440	30~1000	-1.26	-60.98	≤-21.26	PASS
			1000~26500	-1.26	-49.31	≤-21.26	PASS
		2480	30~1000	-1.11	-61.27	≤-21.11	PASS
			1000~26500	-1.11	-48.99	≤-21.11	PASS



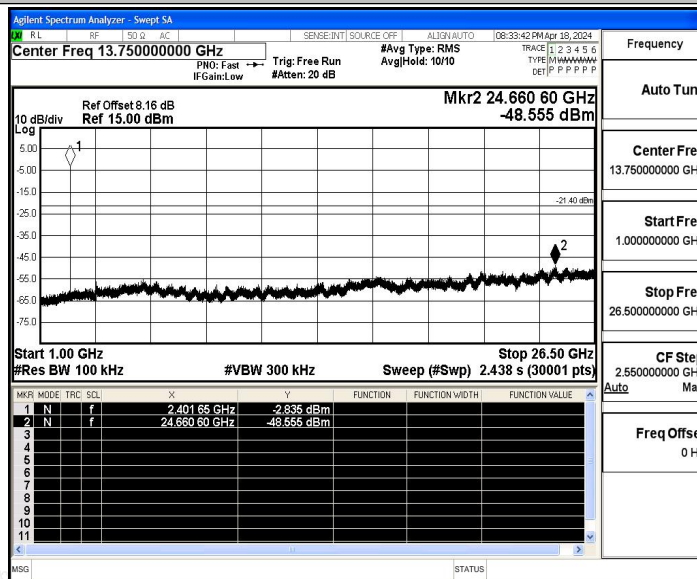


### Test Graphs

BLE\_1M\_Ant1\_2402\_30~1000

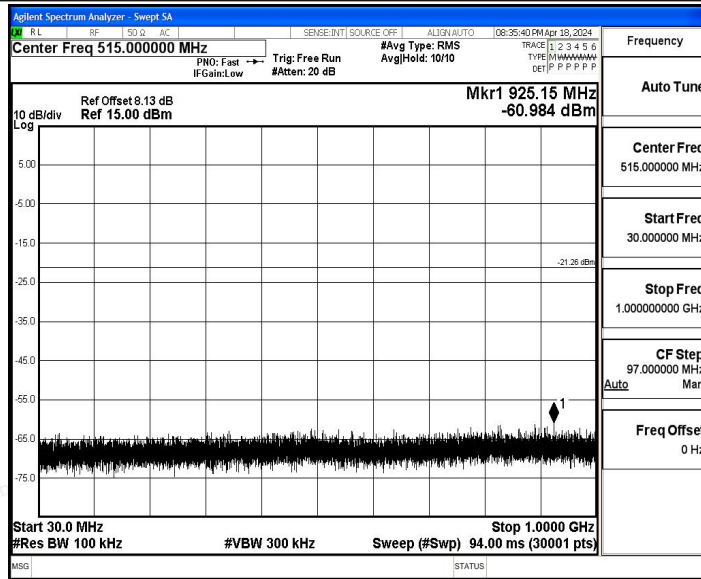


BLE\_1M\_Ant1\_2402\_1000~26500

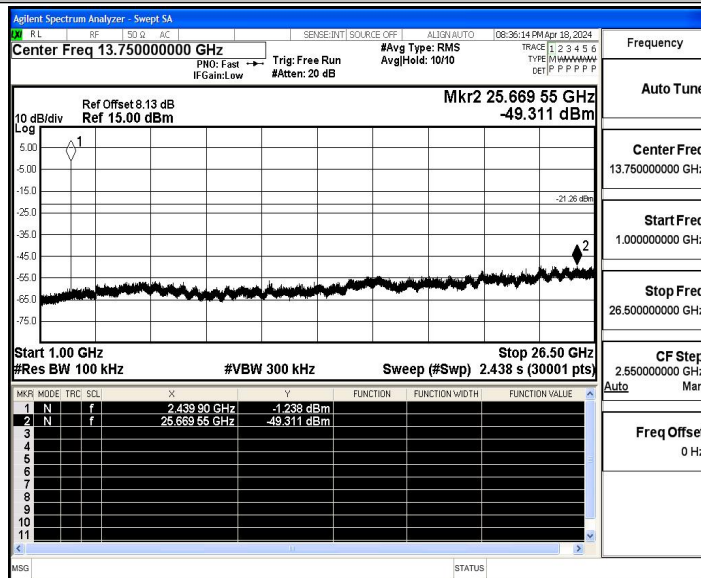


BLE\_1M\_Ant1\_2440\_30~1000





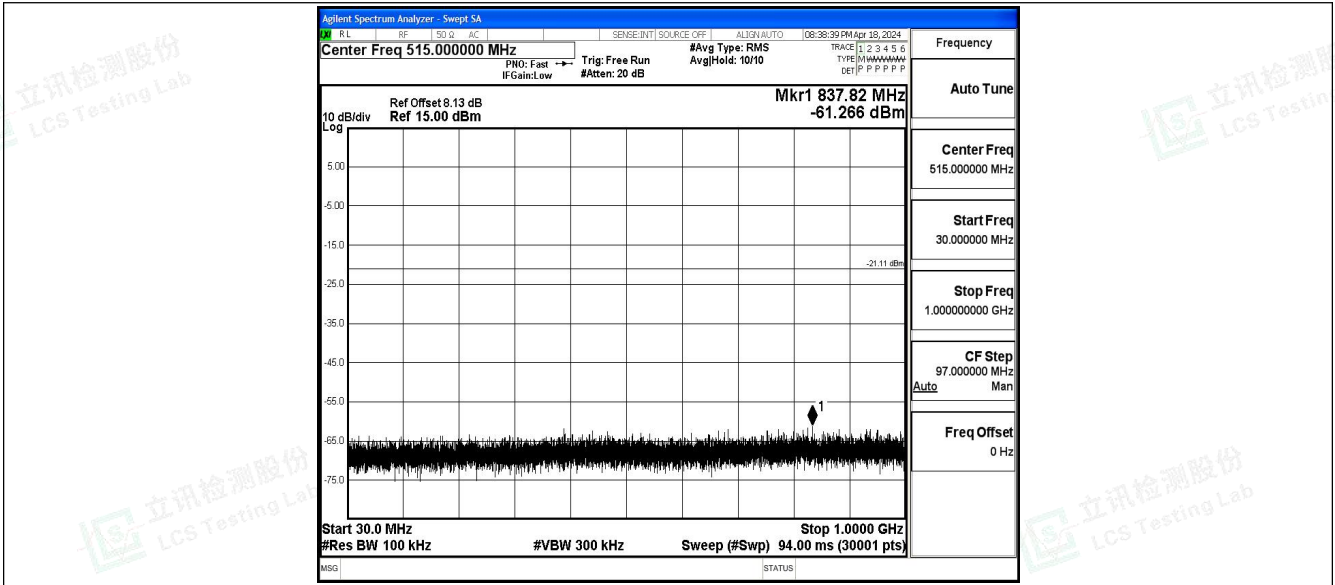
BLE\_1M\_Ant1\_2440\_1000~26500



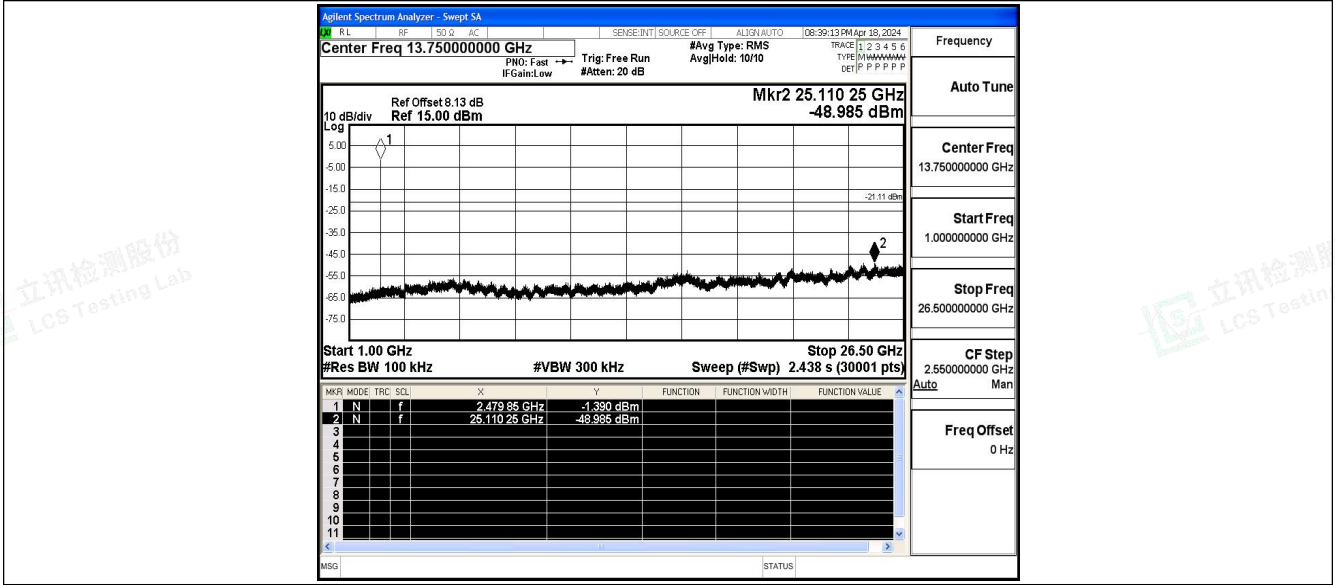
BLE\_1M\_Ant1\_2480\_30~1000







BLE\_1M\_Ant1\_2480\_1000~26500







### Reference level measurement

#### Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE_1M	Ant1	2402	2402.24	-1.40
		2440	2440.24	-1.26
		2480	2480.24	-1.11

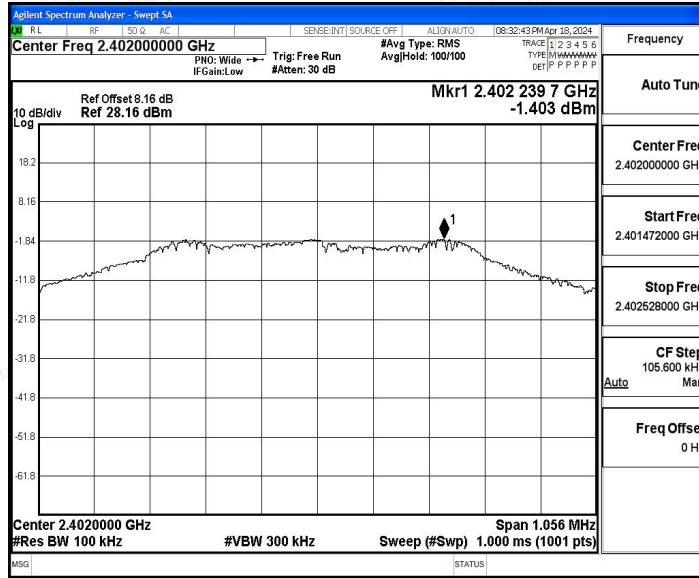


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Scan code to check authenticity

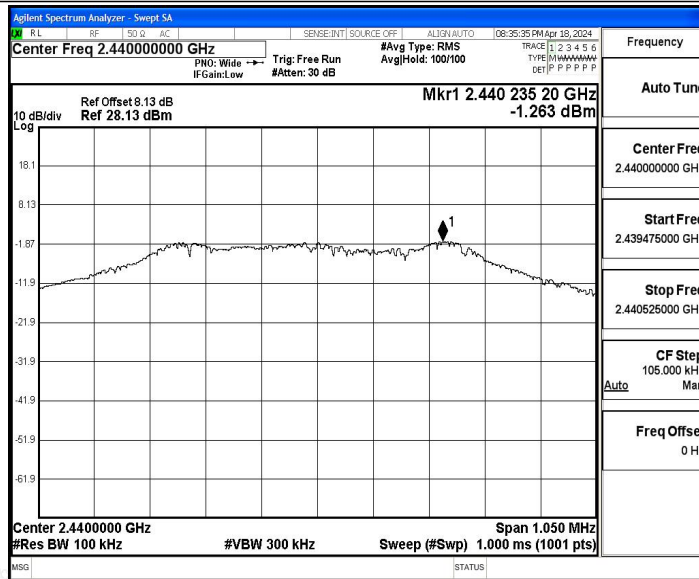


### Test Graphs

BLE\_1M\_Ant1\_2402

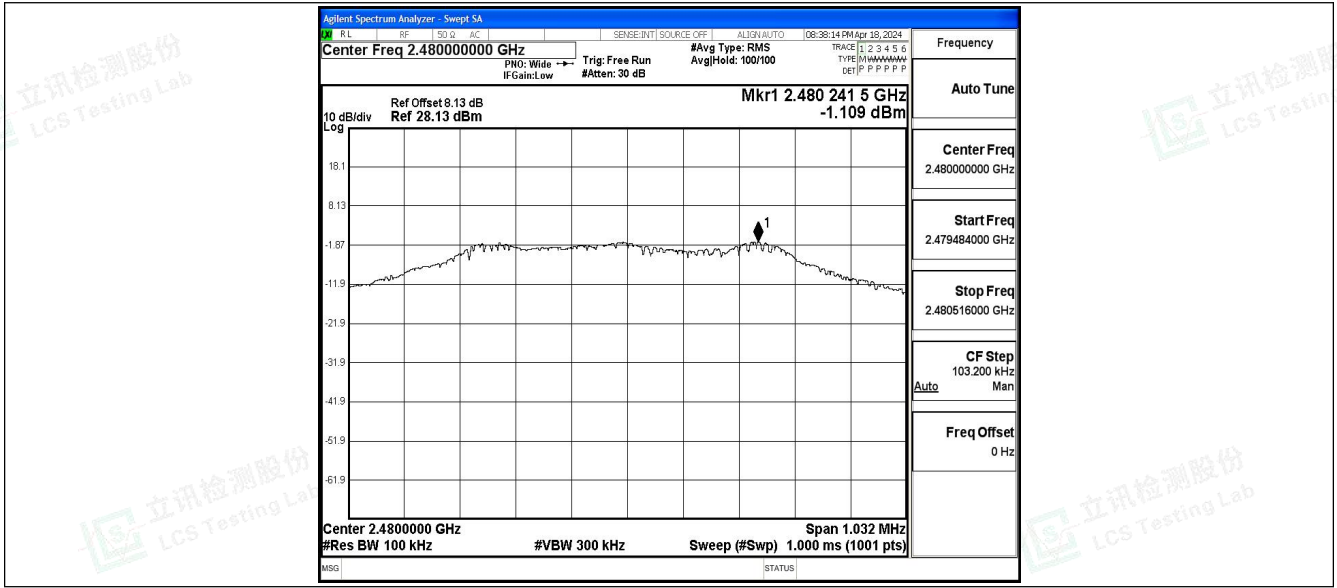


BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480







### A.6 Duty Cycle

#### Test Result

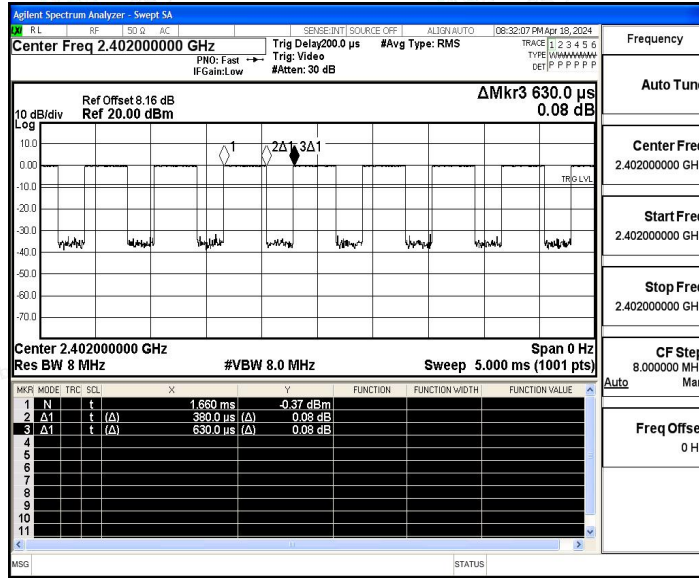
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T (kHz)
BLE_1M	Ant1	2402	0.38	0.63	60.32	2.20	2.63
		2440	0.38	0.63	60.32	2.20	2.63
		2480	0.38	0.63	60.32	2.20	2.63



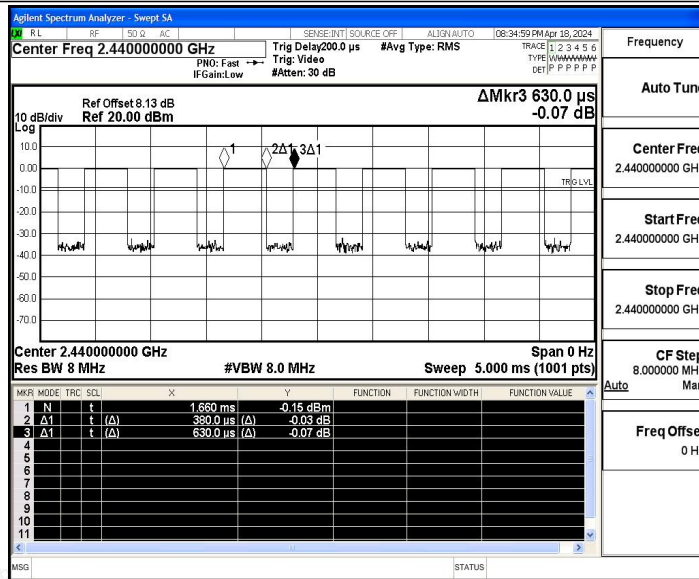


### Test Graphs

BLE\_1M\_Ant1\_2402

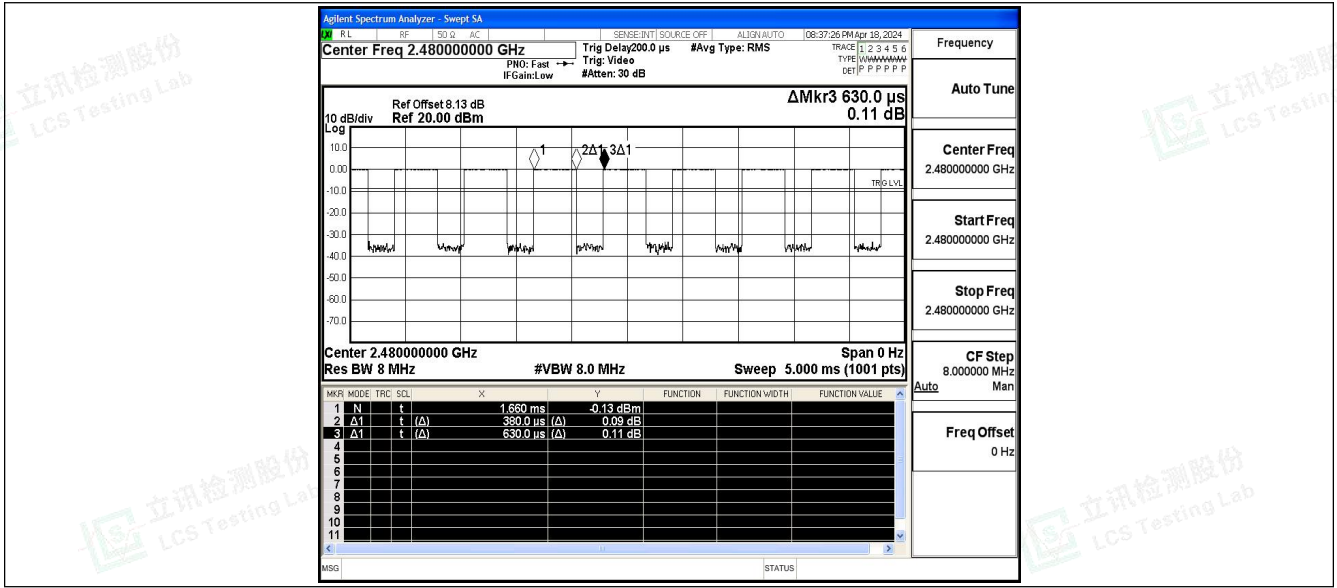


BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480







### A.7 Emissions in Restricted Bands

#### Test Result

TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-47.89	≤-41.20	47.31	≤54	PASS
				AV	2363.315	-46.41	≤-41.20	48.79	≤54	PASS
				AV	2390.000	-47.44	≤-41.20	47.76	≤54	PASS
				Peak	2310.000	-42.01	≤-21.20	53.19	≤74	PASS
				Peak	2347.775	-38.57	≤-21.20	56.63	≤74	PASS
				Peak	2390.000	-43	≤-21.20	52.20	≤74	PASS
		High	2480	AV	2483.500	-47	≤-41.20	48.20	≤54	PASS
				AV	2486.000	-46.6	≤-41.20	48.60	≤54	PASS
				AV	2500.000	-46.81	≤-41.20	48.39	≤54	PASS
				Peak	2483.500	-39.85	≤-21.20	55.35	≤74	PASS
				Peak	2492.480	-38.73	≤-21.20	56.47	≤74	PASS
				Peak	2500.000	-42.26	≤-21.20	52.94	≤74	PASS

Note:

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

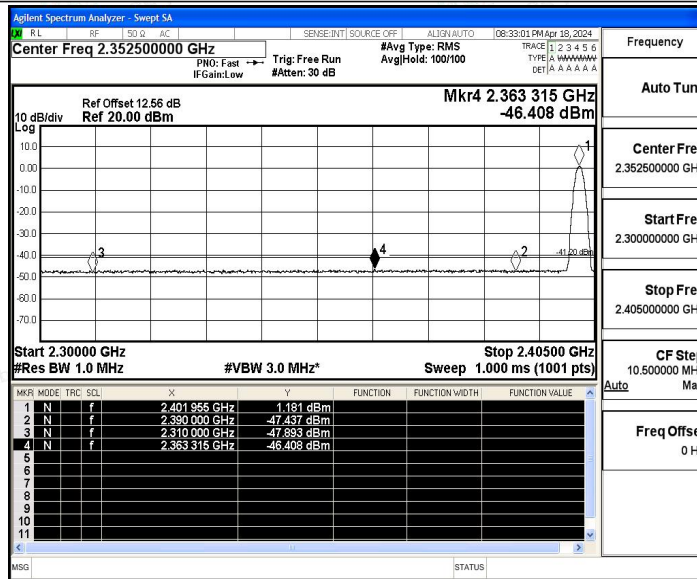




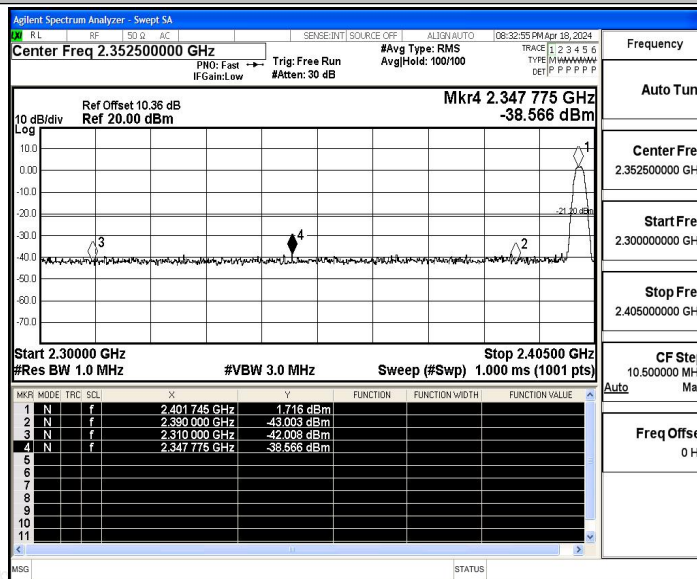


### Test Graphs

#### BLE\_1M\_Ant1\_Low\_2402\_AV



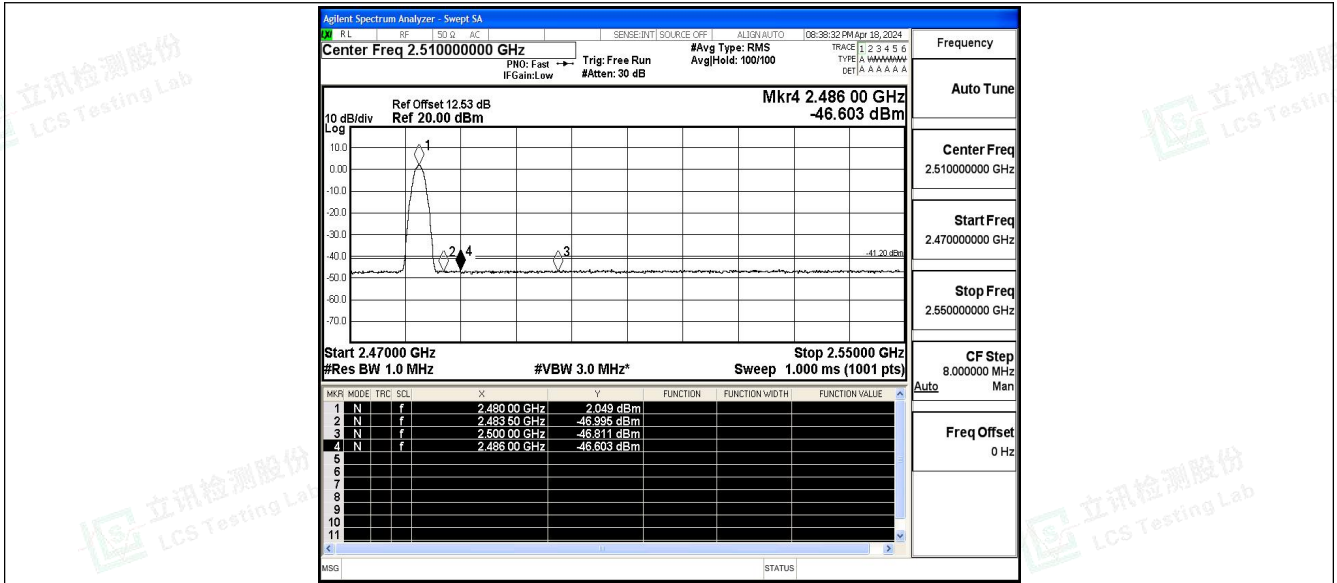
#### BLE\_1M\_Ant1\_Low\_2402\_Peak



#### BLE\_1M\_Ant1\_High\_2480\_AV







BLE\_1M\_Ant1\_High\_2480\_Peak

