



## Appendix A

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

Product Name: LED strip

Test Model: AC107

#### Environmental Conditions

Temperature:	23.5°C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	<i>N.M. Zhu</i>
Supervised by:	<i>Libu</i>





## A.1 DTS Bandwidth

### Test Result

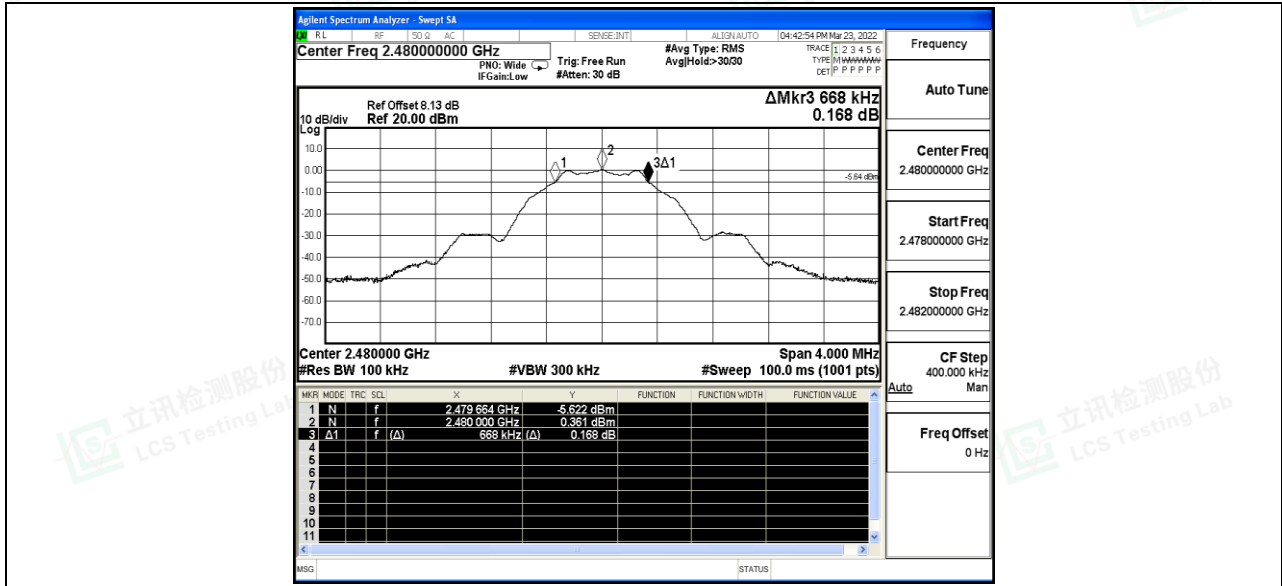
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.668	2401.668	2402.336	0.5	PASS
		2440	0.672	2439.664	2440.336	0.5	PASS
		2480	0.668	2479.664	2480.332	0.5	PASS





### Test Graphs





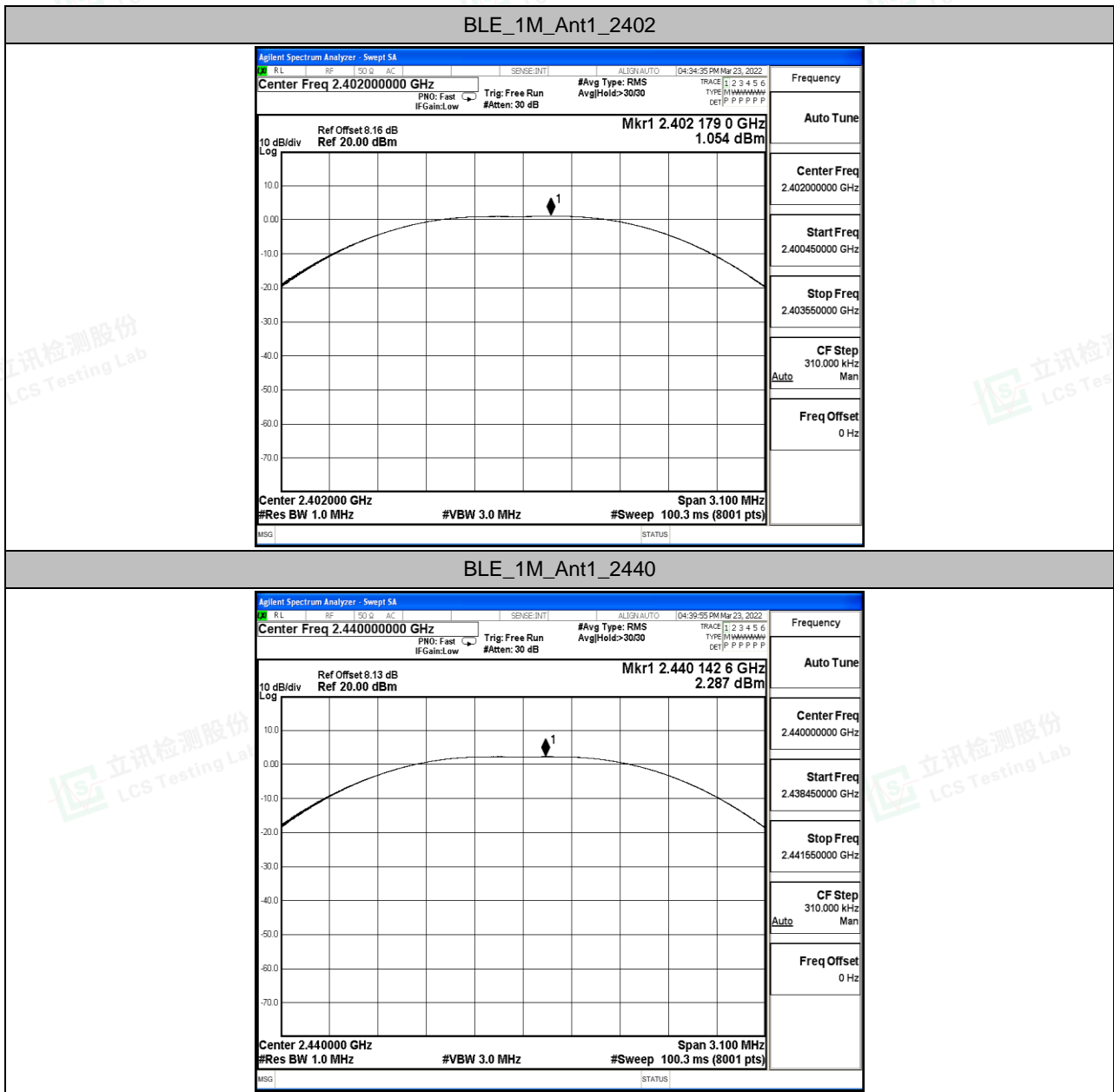


### A.2 Maximum conducted output power

#### Test Result

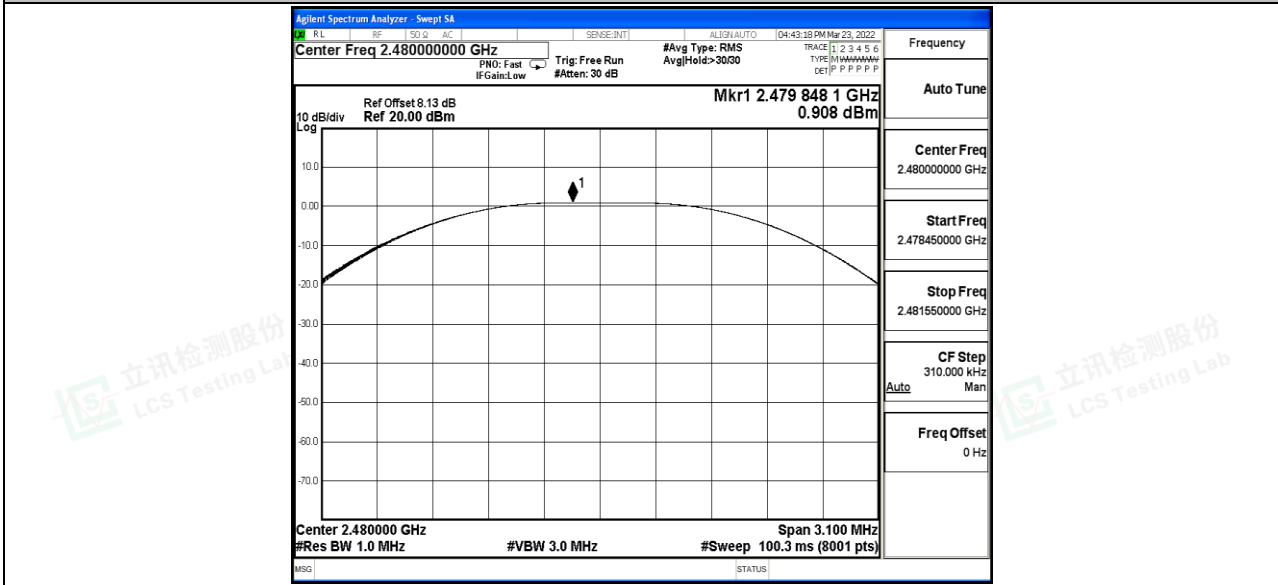
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.05	≤30	PASS
		2440	2.29	≤30	PASS
		2480	0.91	≤30	PASS

#### Test Graphs





BLE\_1M\_Ant1\_2480



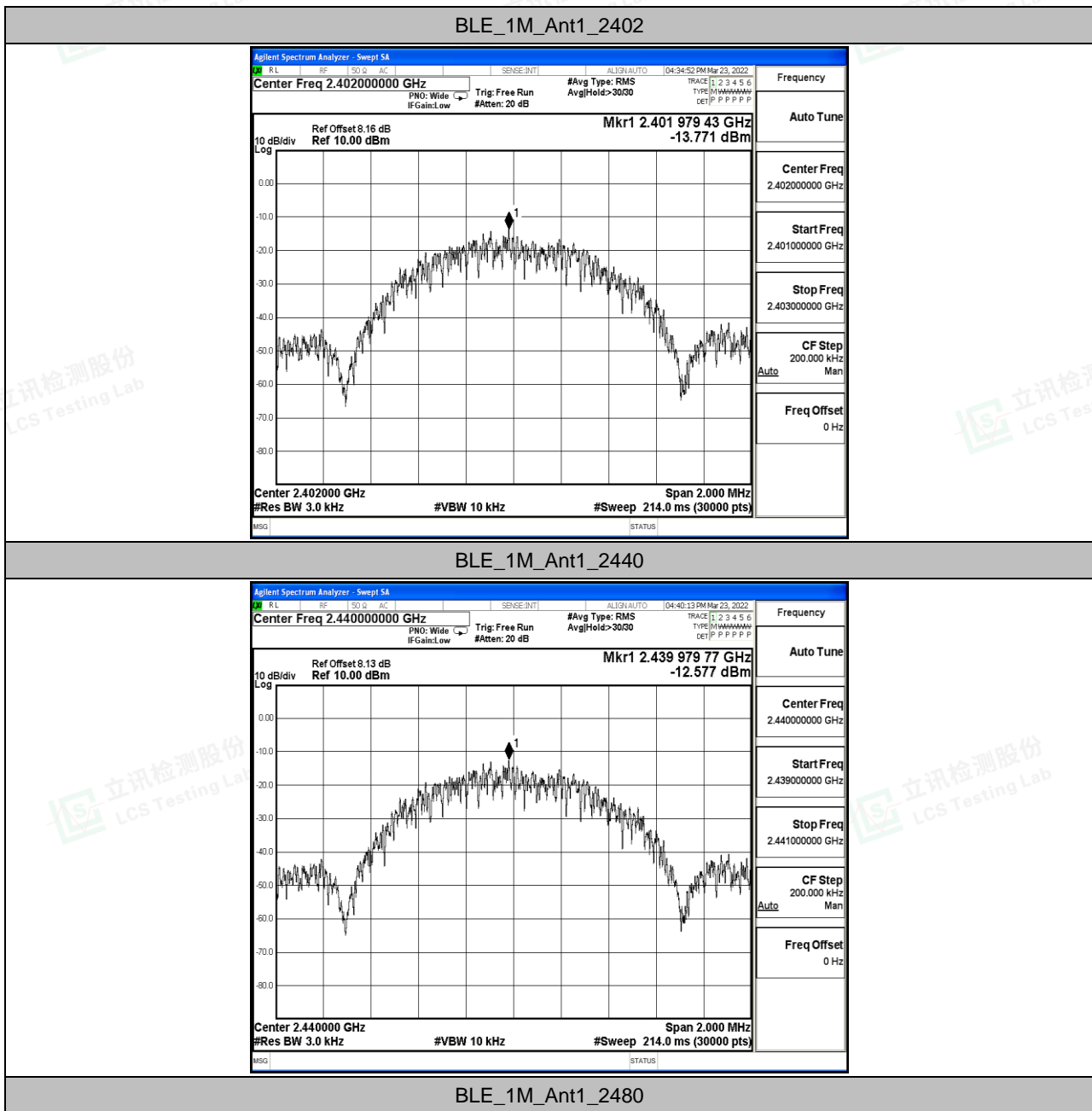


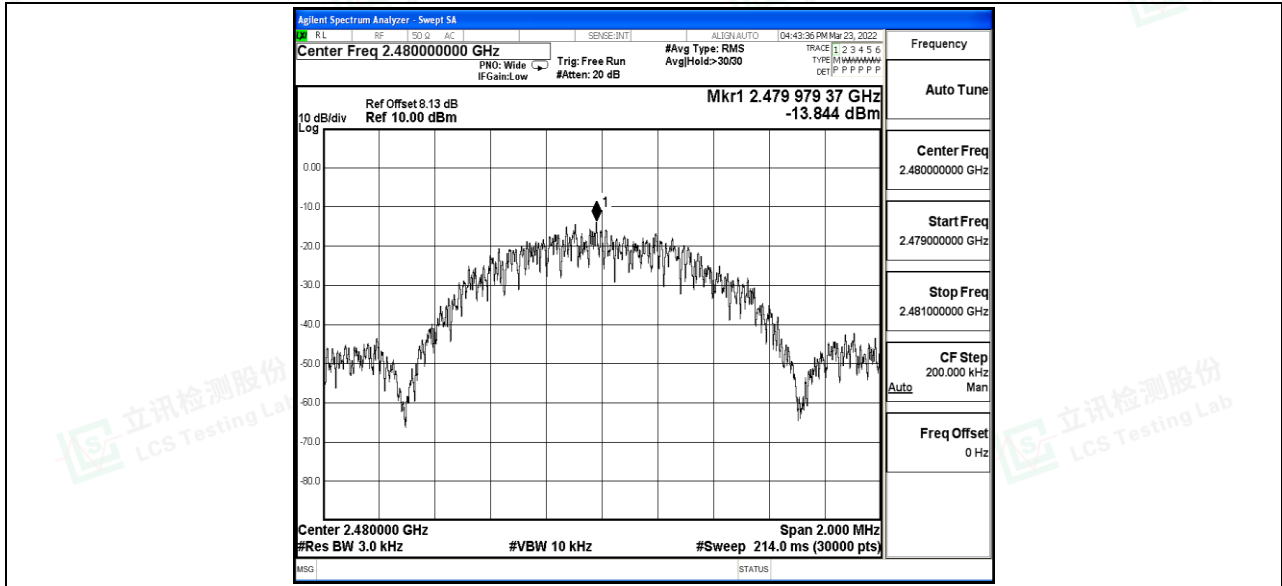
### A.3 Maximum power spectral density

#### Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.77	≤8.00	PASS
		2440	-12.58	≤8.00	PASS
		2480	-13.84	≤8.00	PASS

#### Test Graphs







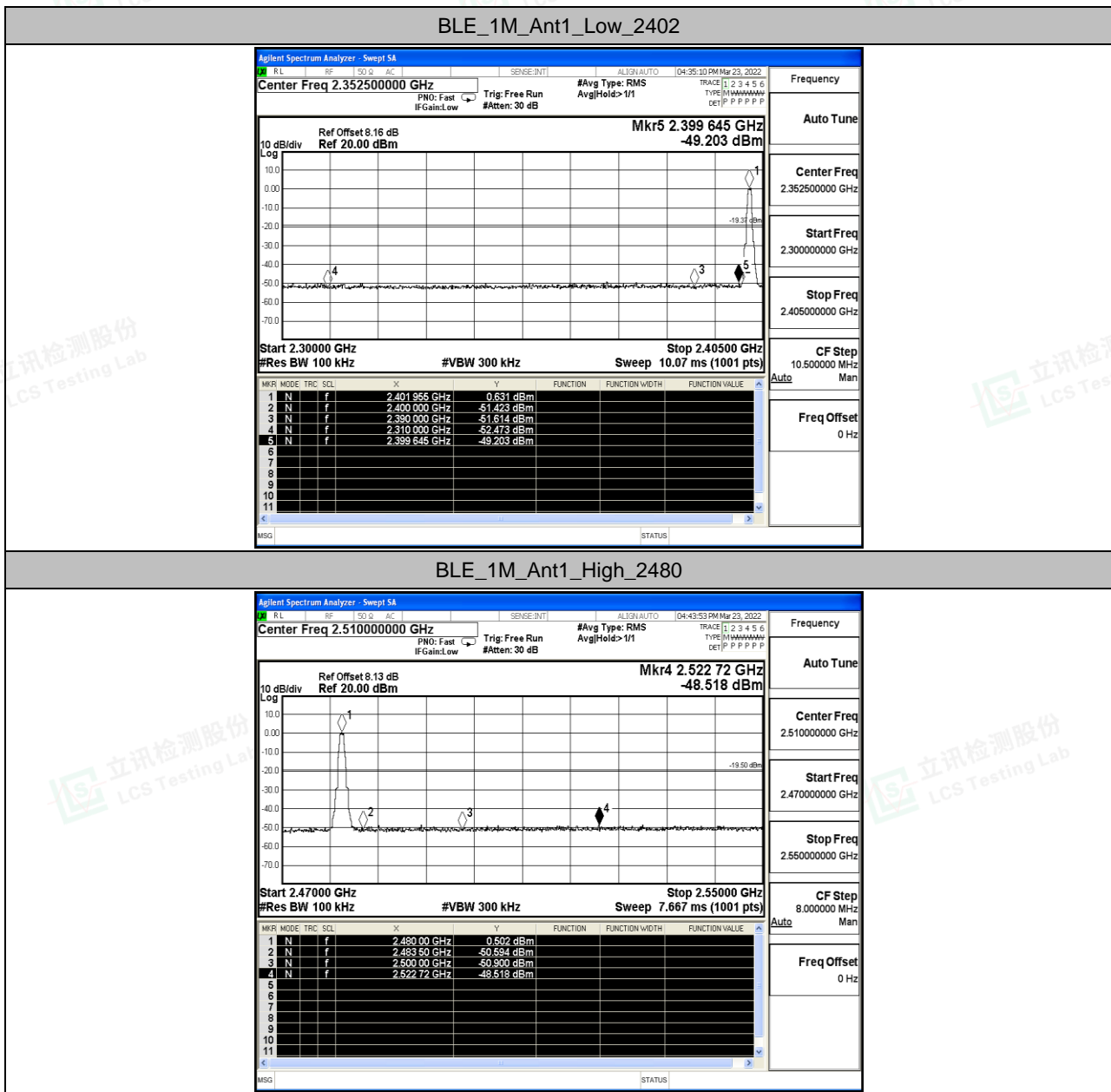


### A.4 Band edge measurements

#### Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.63	-49.2	≤-19.37	PASS
		High	2480	0.50	-48.52	≤-19.5	PASS

#### Test Graphs





### A.5 Conducted Spurious Emission

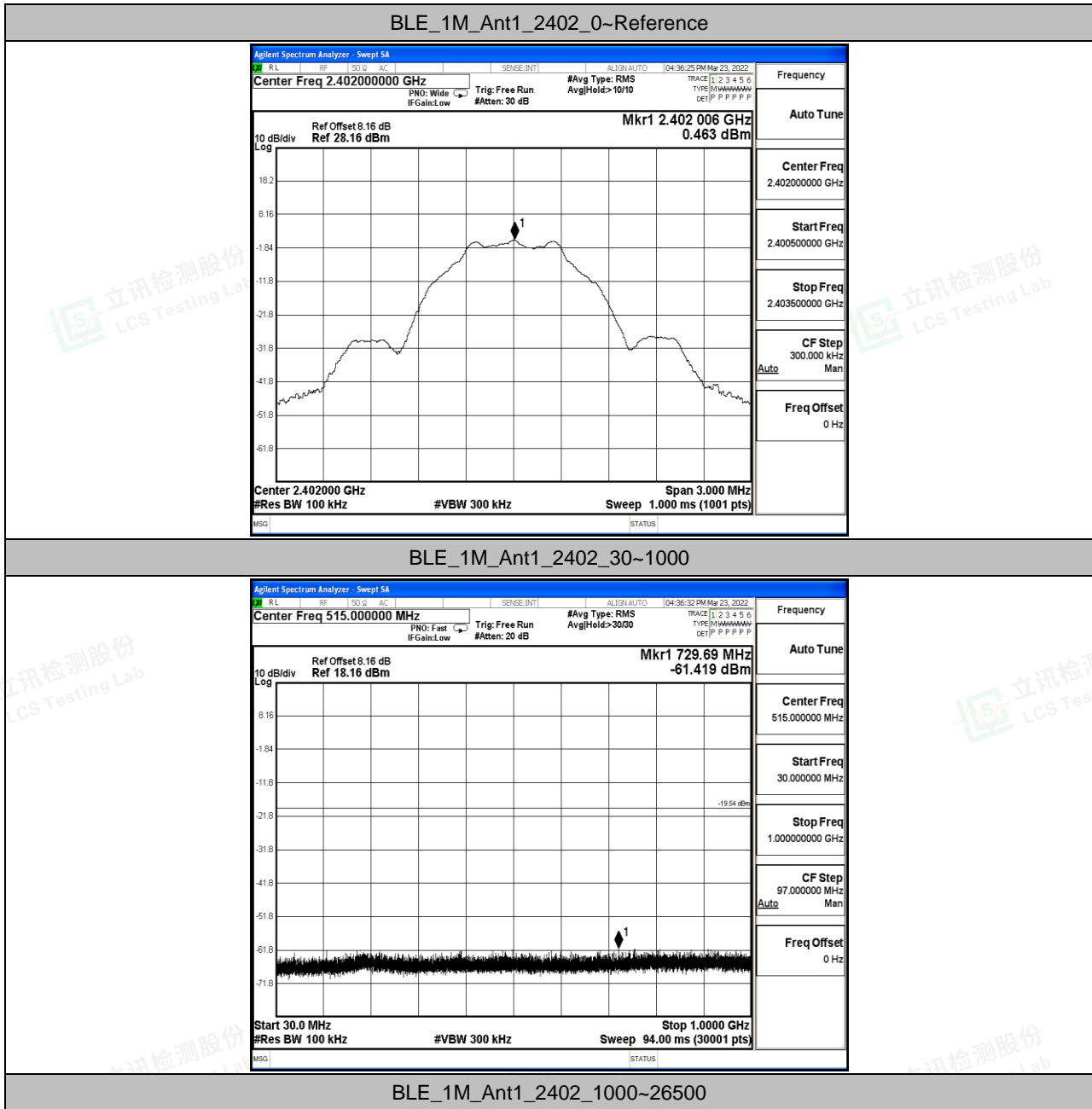
#### Test Result

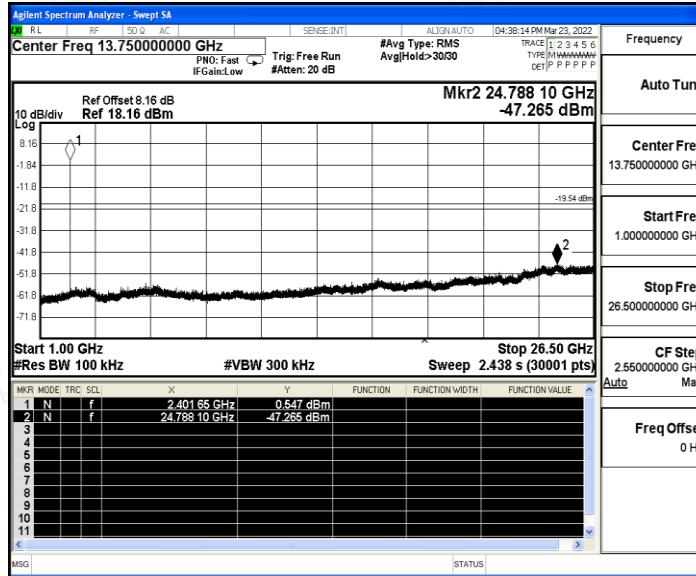
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.46	0.46	---	PASS
			30~1000	0.46	-61.42	≤-19.54	PASS
			1000~26500	0.46	-47.27	≤-19.54	PASS
		2440	Reference	1.76	1.76	---	PASS
			30~1000	1.76	-60.82	≤-18.24	PASS
			1000~26500	1.76	-46.95	≤-18.24	PASS
		2480	Reference	0.38	0.38	---	PASS
			30~1000	0.38	-61.22	≤-19.62	PASS
			1000~26500	0.38	-47.88	≤-19.62	PASS



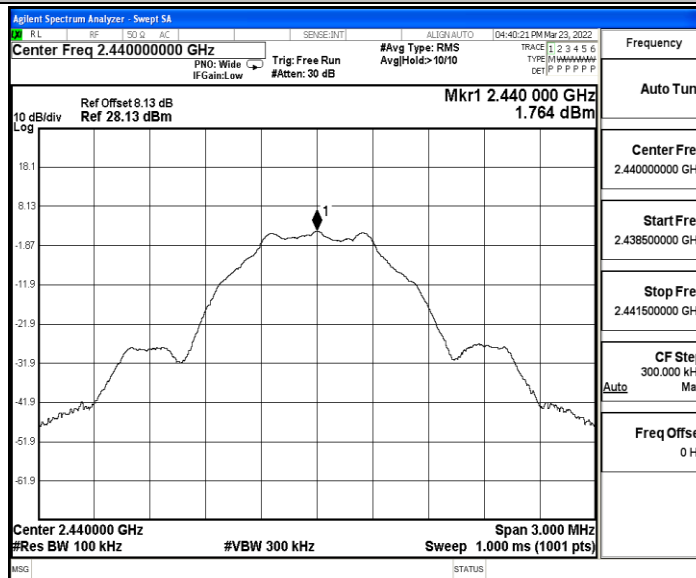


### Test Graphs



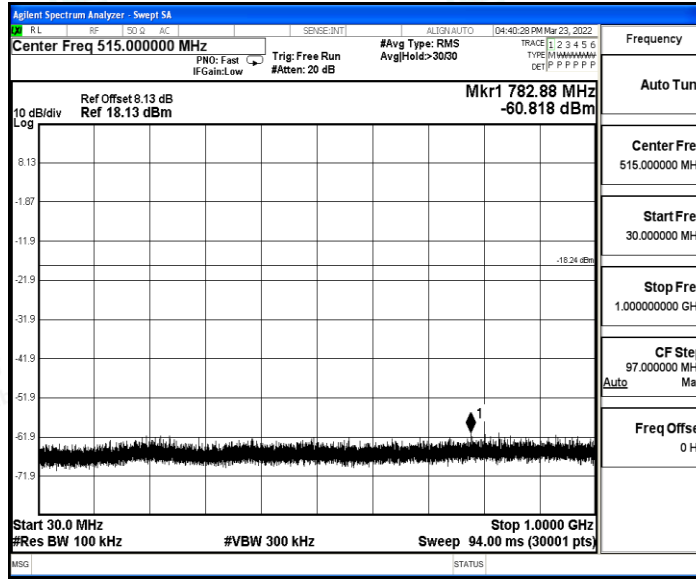


BLE\_1M\_Ant1\_2440\_0-Reference

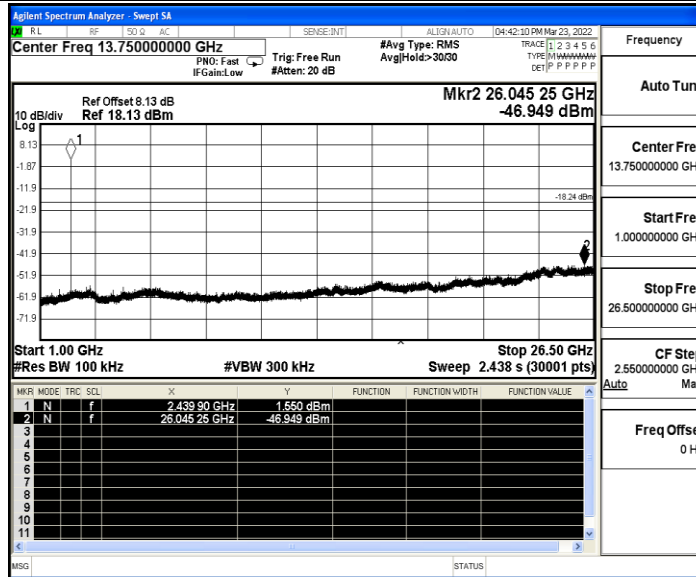


BLE\_1M\_Ant1\_2440\_30~1000



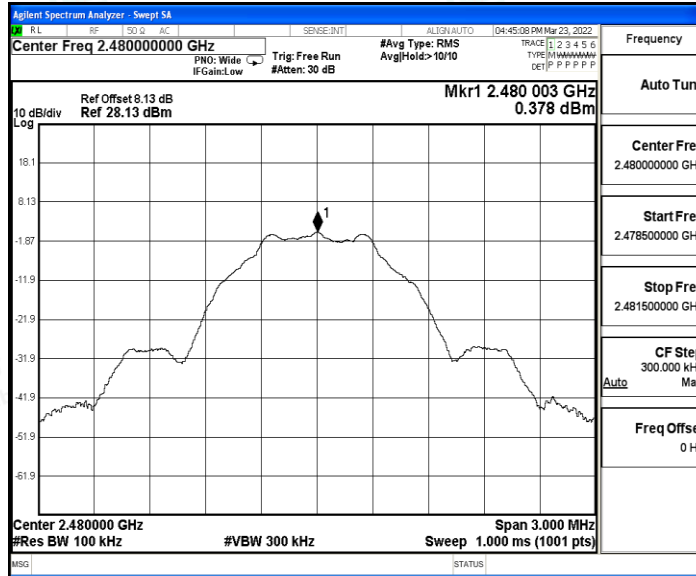


BLE\_1M\_Ant1\_2440\_1000~26500

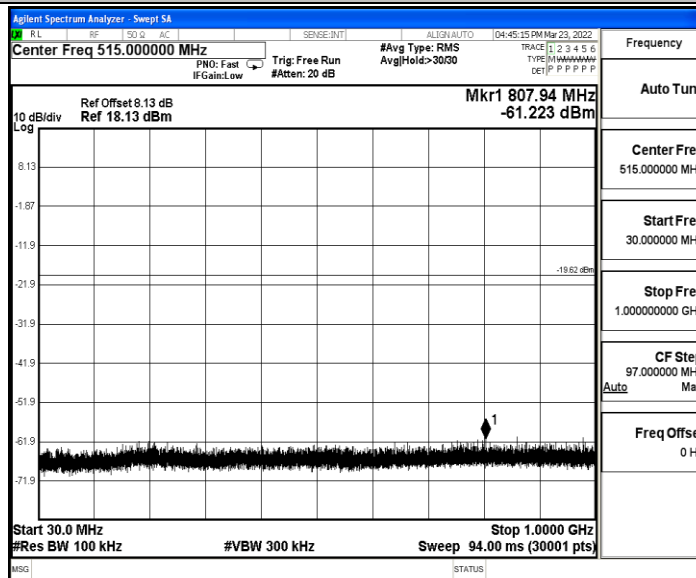


BLE\_1M\_Ant1\_2480\_0~Reference



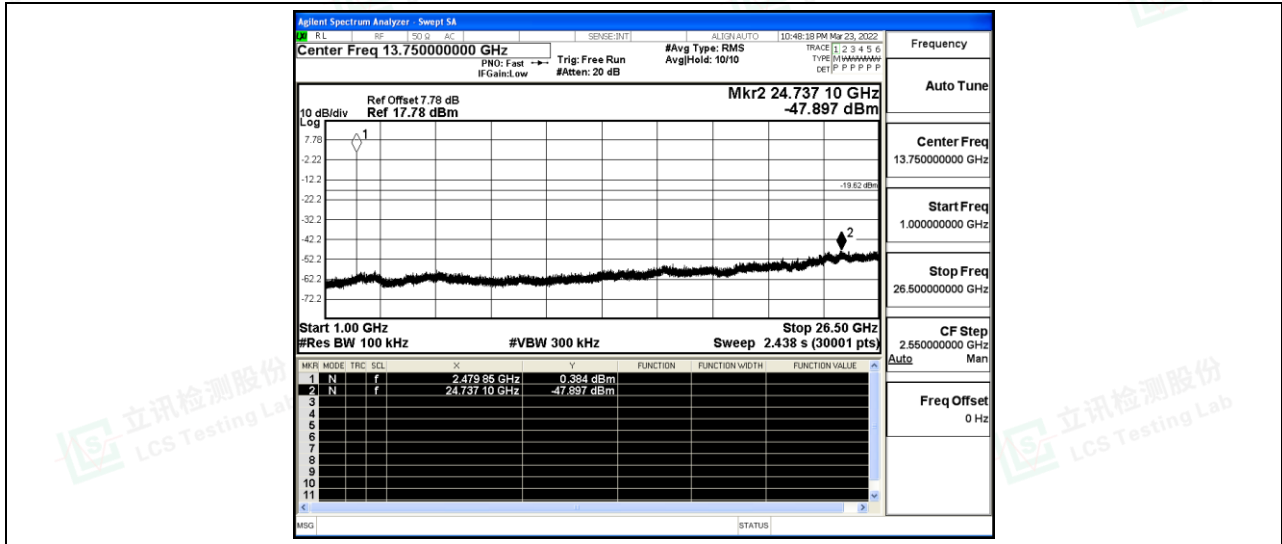


BLE\_1M\_Ant1\_2480\_30~1000



BLE\_1M\_Ant1\_2480\_1000~26500





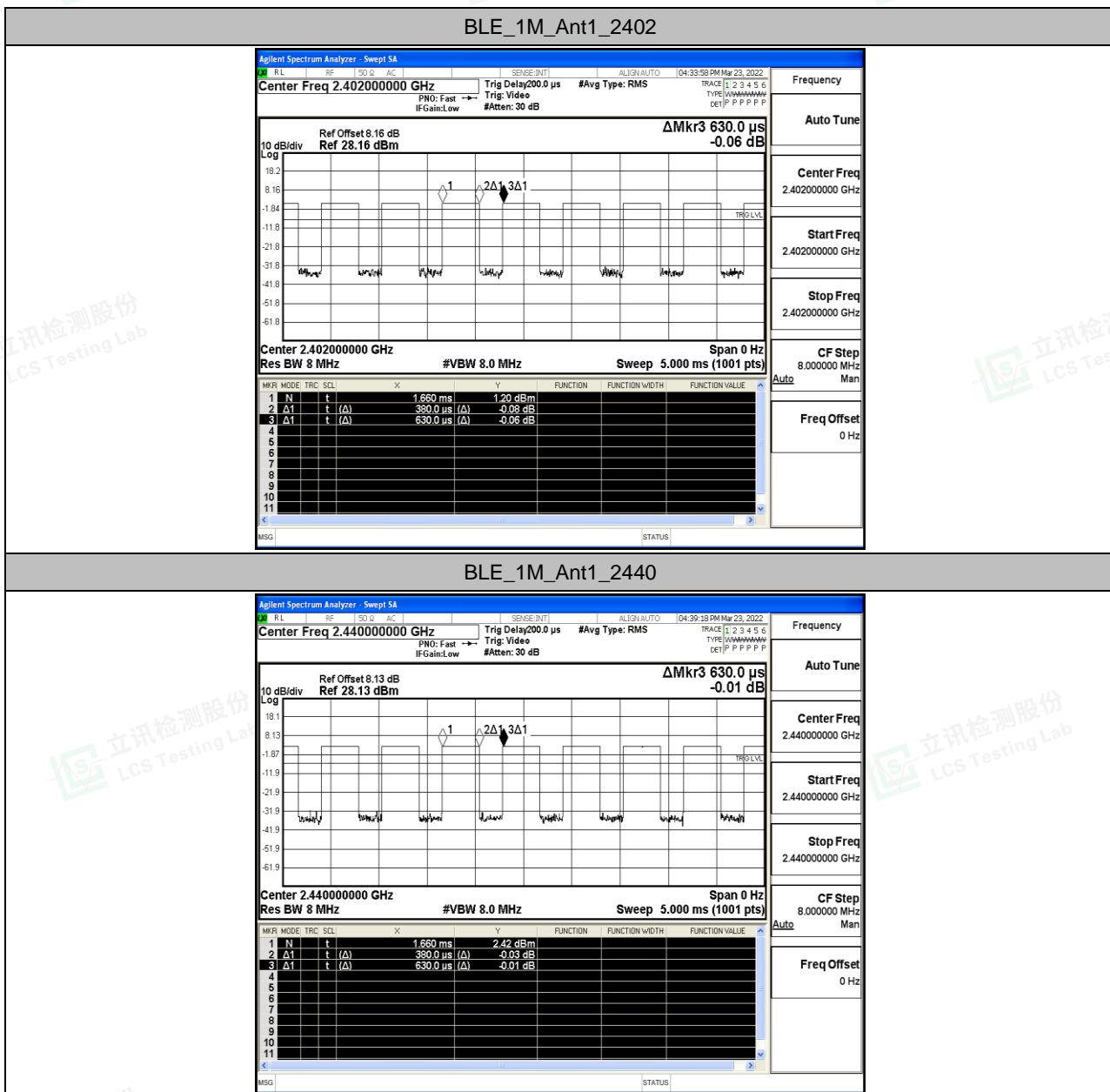


### A.6 Duty Cycle

#### Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	1/T [kHz]	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.63	0.6032	60.32	2.63	---	---
		2440	0.38	0.63	0.6032	60.32	2.63	---	---
		2480	0.38	0.63	0.6032	60.32	2.63	---	---

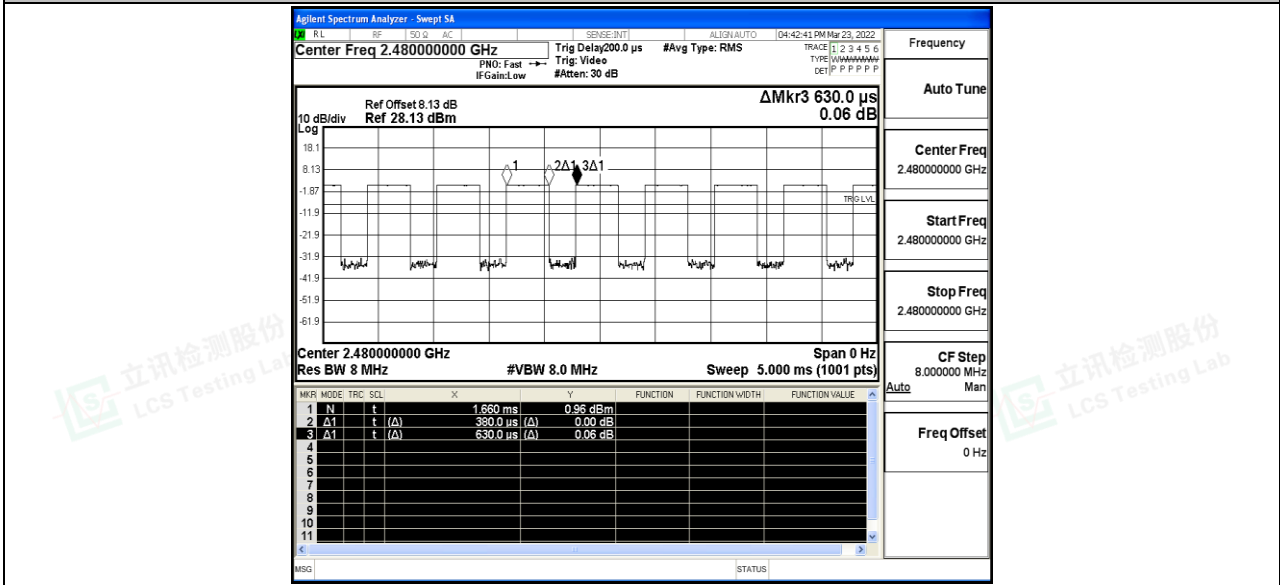
#### Test Graphs







BLE\_1M\_Ant1\_2480





## A.7 Emissions in Restricted Bands

### Test Result

TestMode	Antenna	Channel Name	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.23	≤-41.20	46.97	≤54	PASS
				AV	2386.520	-47.25	≤-41.20	47.95	≤54	PASS
				AV	2390.000	-47.81	≤-41.20	47.39	≤54	PASS
				Peak	2310.000	-40.05	≤-21.20	55.15	≤74	PASS
				Peak	2345.990	-37.43	≤-21.20	57.77	≤74	PASS
				Peak	2390.000	-38.5	≤-21.20	56.70	≤74	PASS
		High	2480	AV	2483.500	-46.7	≤-41.20	48.50	≤54	PASS
				AV	2497.920	-46.7	≤-41.20	48.50	≤54	PASS
				AV	2500.000	-47.1	≤-41.20	48.10	≤54	PASS
				Peak	2483.500	-38.4	≤-21.20	56.80	≤74	PASS
				Peak	2488.400	-36.97	≤-21.20	58.23	≤74	PASS
				Peak	2500.000	-38.44	≤-21.20	56.76	≤74	PASS

#### Note:

- The Antenna Gain 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.



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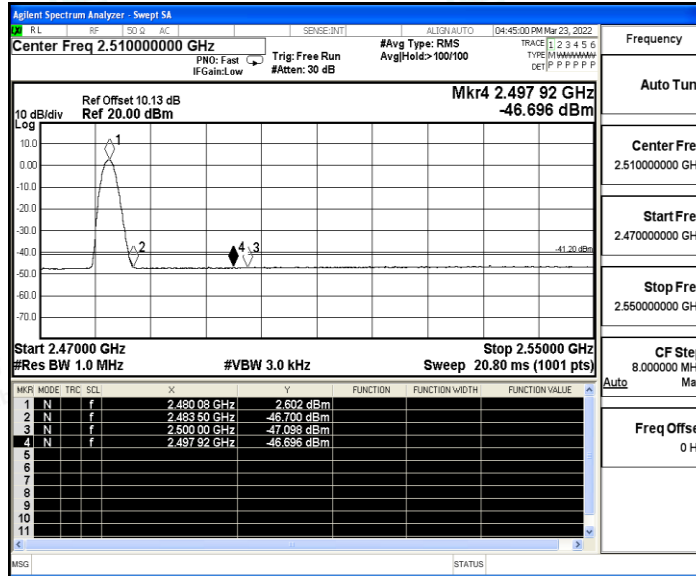
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Scan code to check authenticity



### Test Graphs





BLE\_1M\_Ant1\_High\_2480\_Peak

