

# RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
<b>Product Name:</b>	Network Media Players
<b>Test Model:</b>	HK0202
<b>Sample ID:</b>	20211203-11-2#
Environmental Conditions	
<b>Temperature:</b>	23.8°C
<b>Relative Humidity:</b>	48%
<b>Test Voltage:</b>	DC 5V
<b>Test Engineer:</b>	Huang jian ping
Note: For a more detailed features description, please refer to the report TB-RF185428	

## Contents

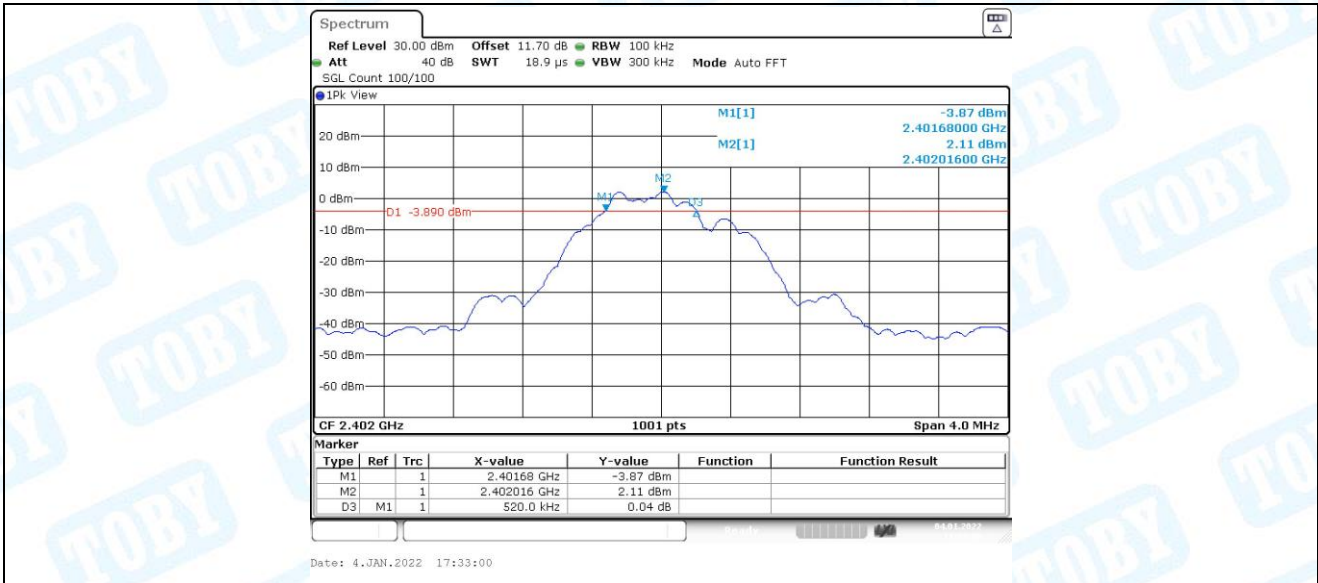
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## 1. DTS Bandwidth

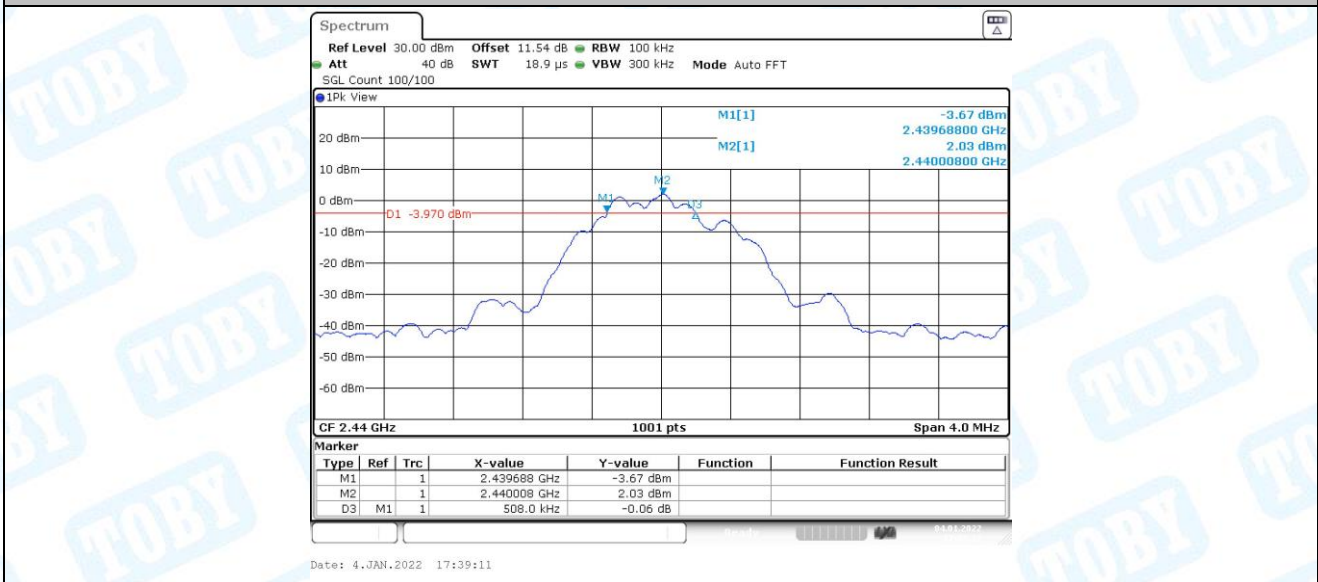
### 1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.52	2401.68	2402.20	0.5	PASS
		2440	0.51	2439.69	2440.20	0.5	PASS
		2480	0.52	2479.68	2480.20	0.5	PASS

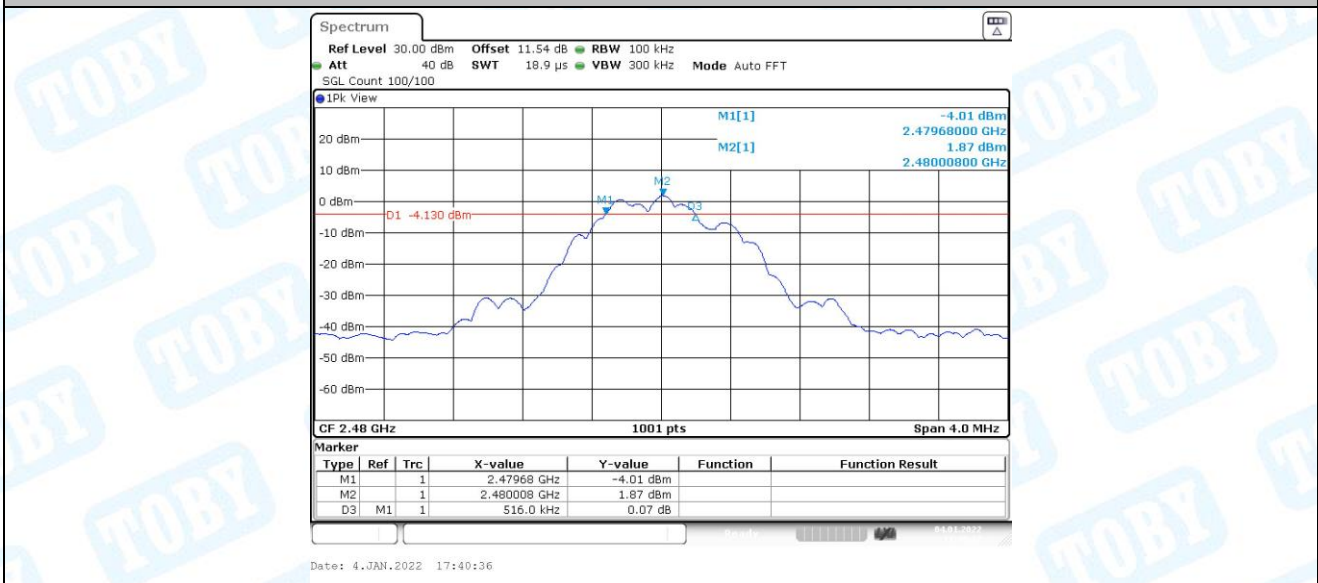
## 1.2. Test Graphs



BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



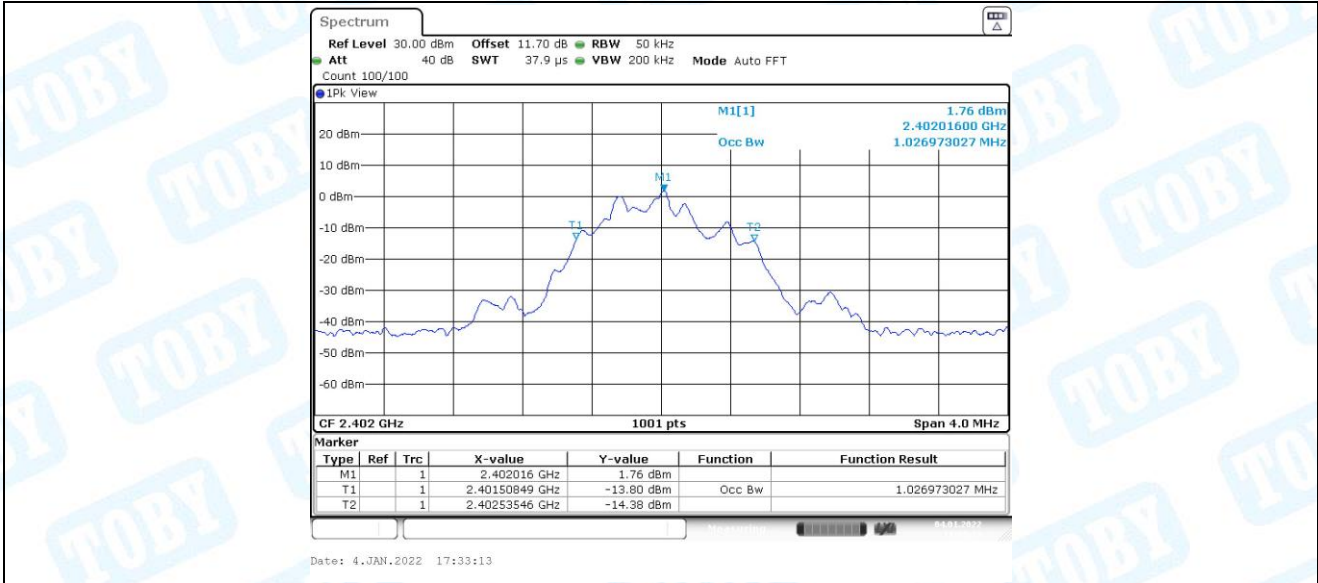
BLE\_1M\_Ant1\_2480

## 2. Occupied Channel Bandwidth

### 2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.027	2401.508	2402.535	---	PASS
		2440	1.031	2439.504	2440.535	---	PASS
		2480	1.031	2479.504	2480.535	---	PASS

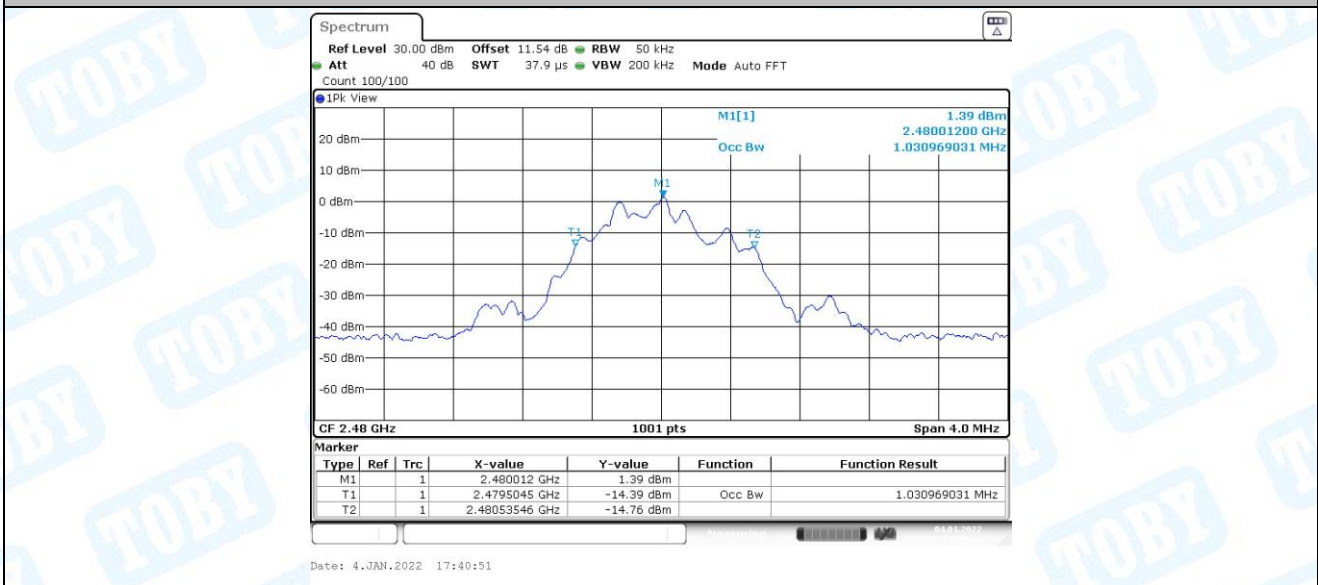
## 2.2. Test Graphs



BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



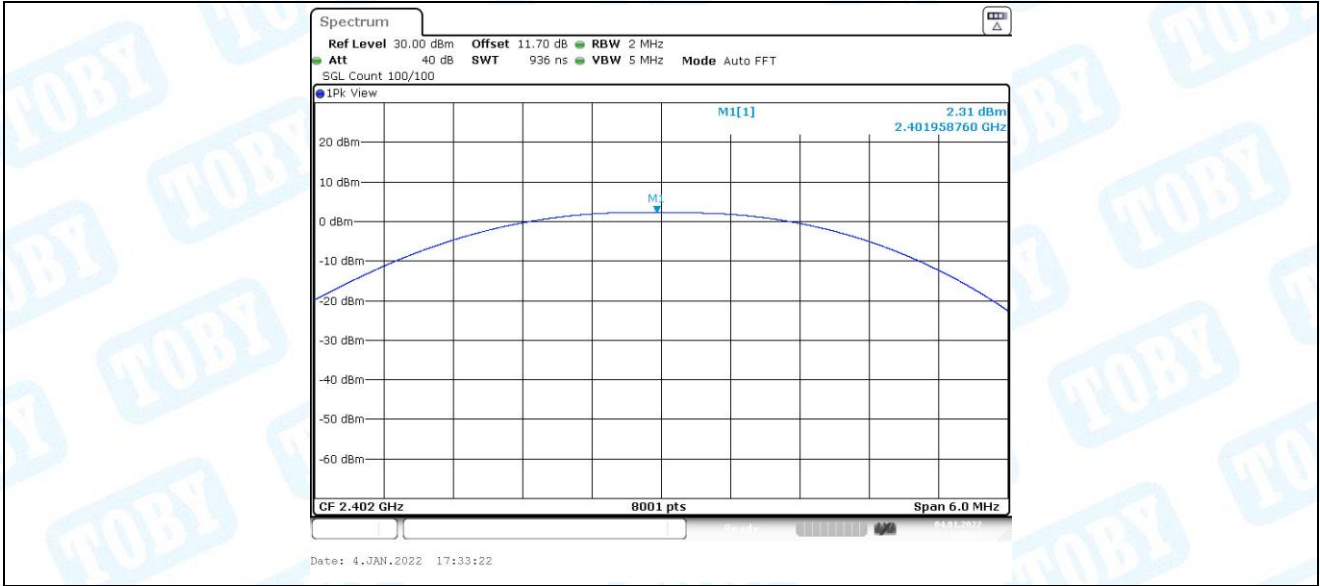
BLE\_1M\_Ant1\_2480

### 3. Maximum conducted output power

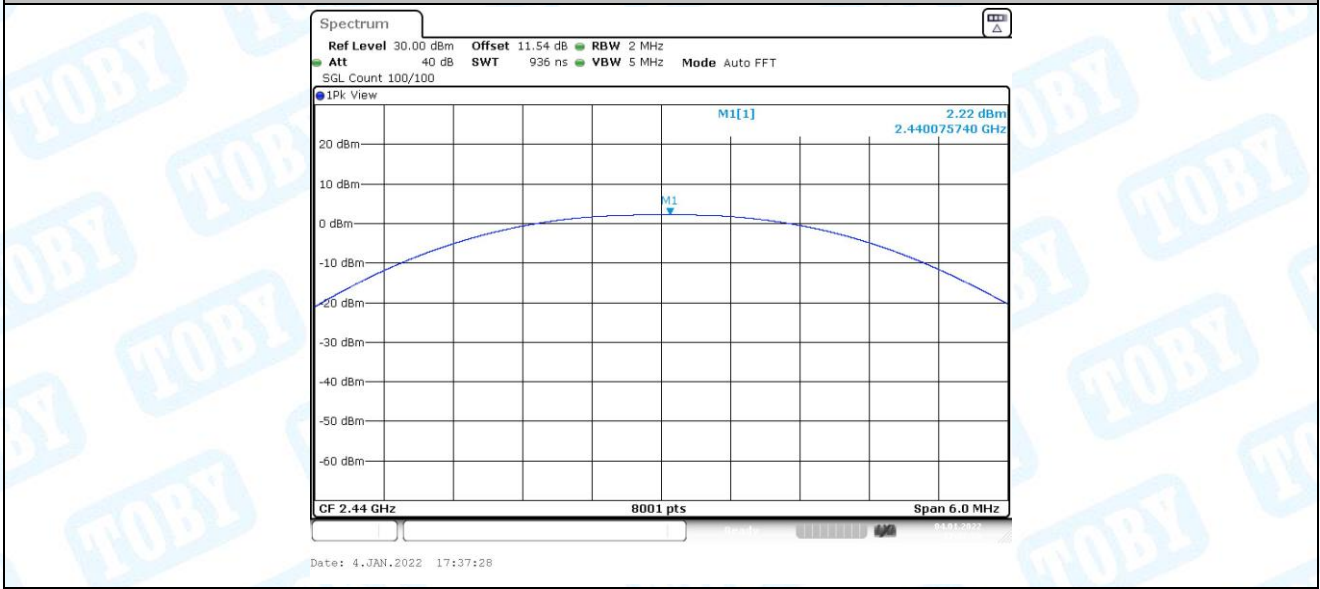
#### 3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	2.31	≤30	PASS
		2440	2.22	≤30	PASS
		2480	2.02	≤30	PASS

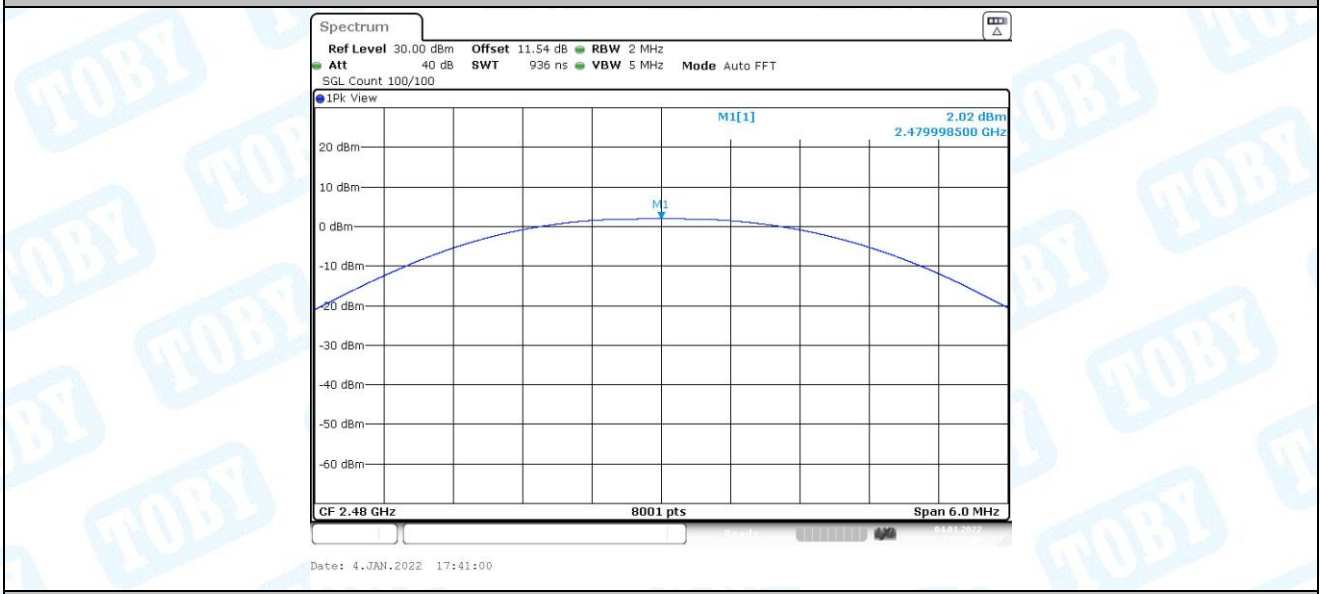
### 3.2. Test Graphs



BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480

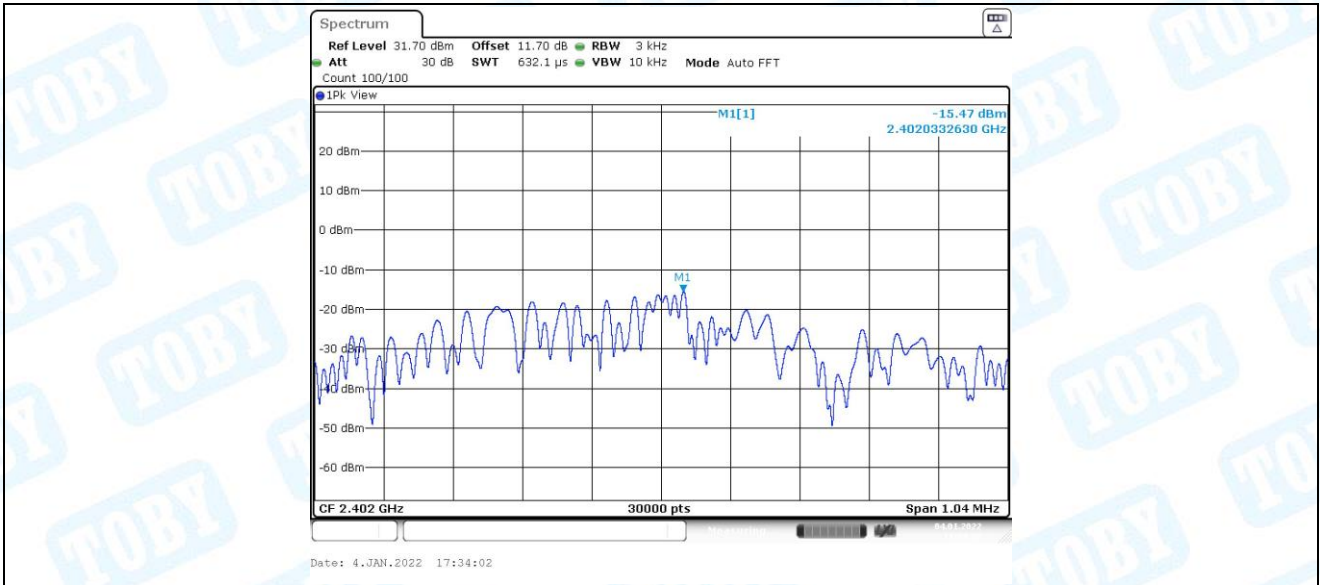


## 4. Maximum power spectral density

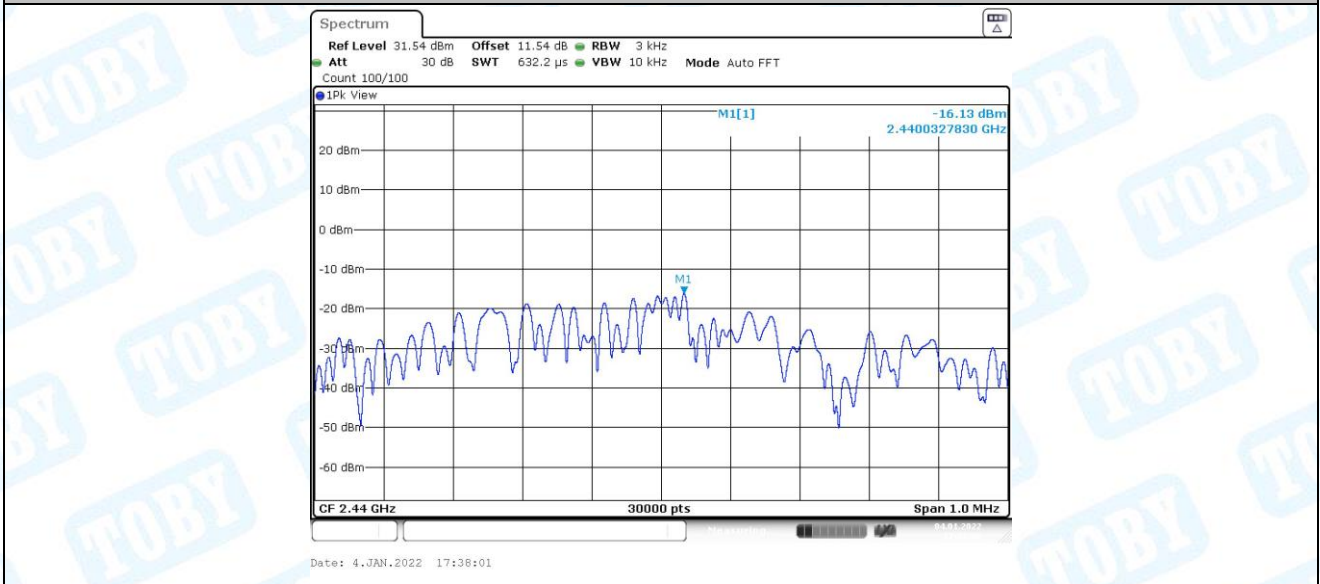
### 4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.47	≤8	PASS
		2440	-16.13	≤8	PASS
		2480	-16.49	≤8	PASS

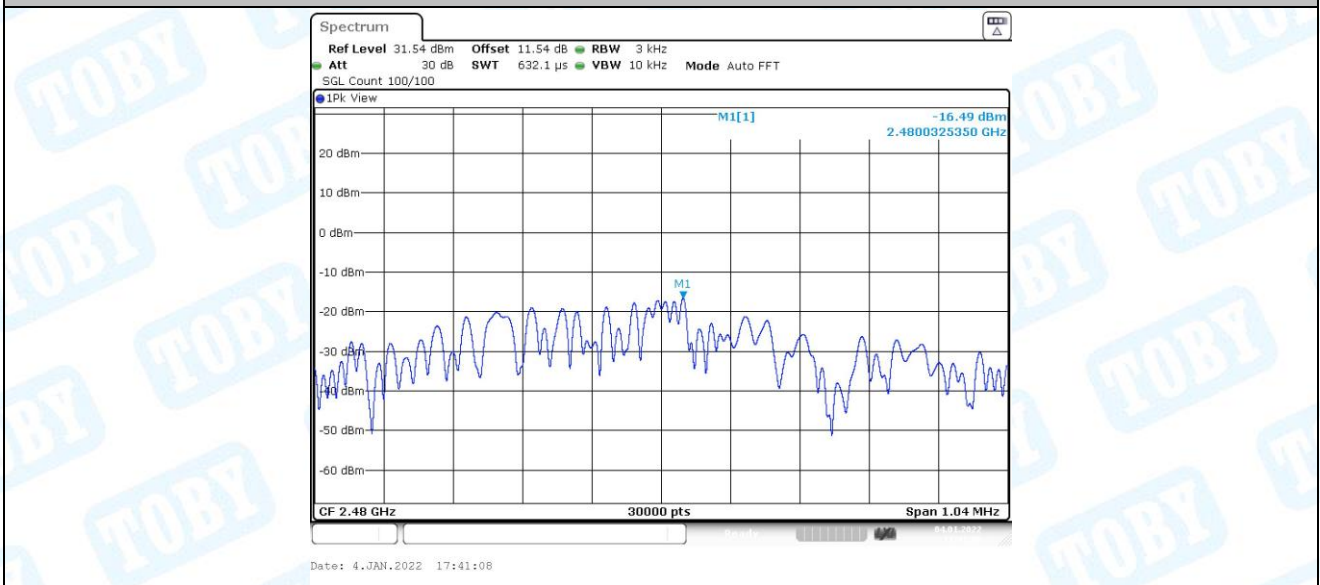
## 4.2. Test Graphs



BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



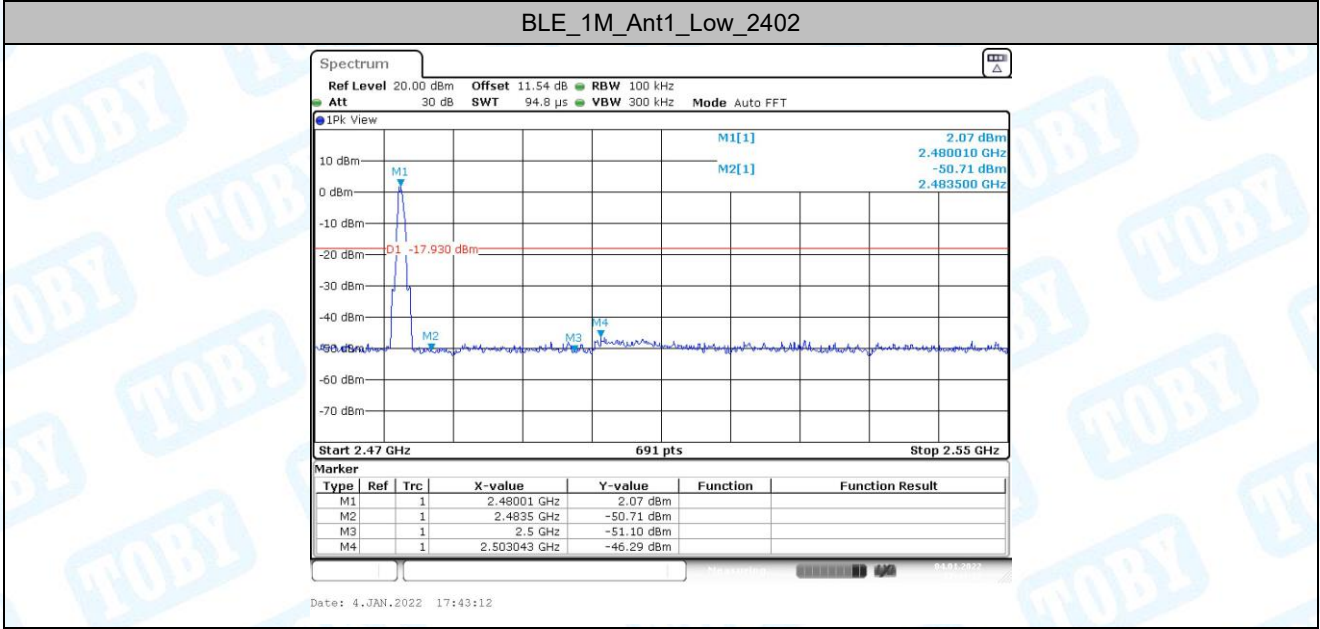
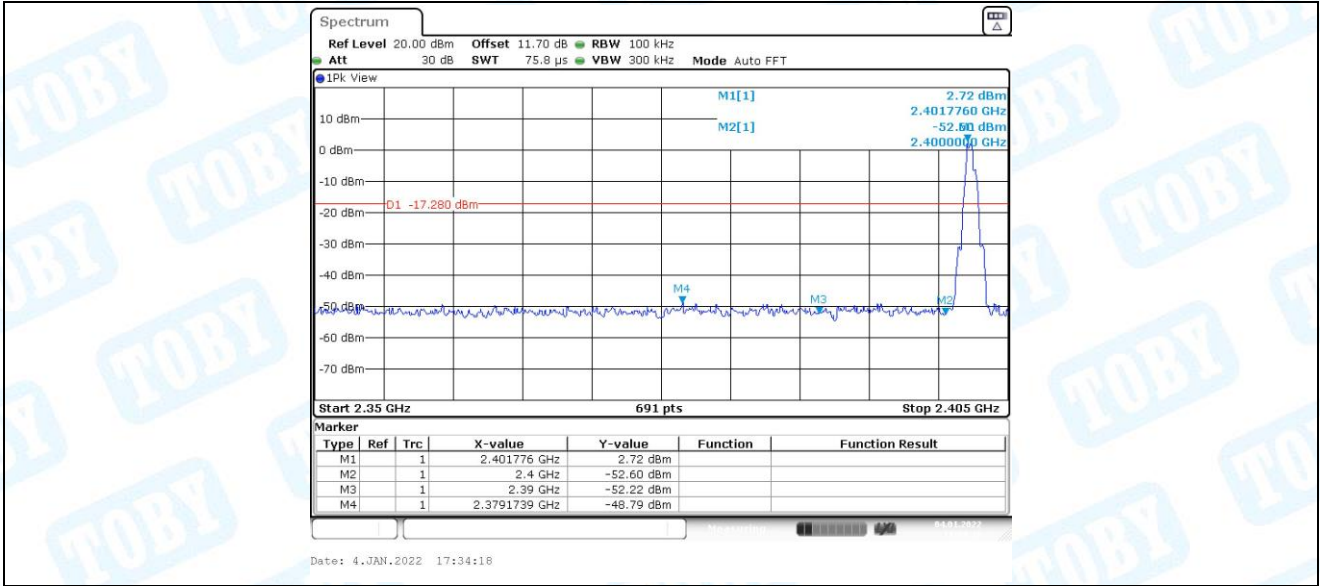
BLE\_1M\_Ant1\_2480

## 5. Band edge measurements

### 5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.72	-48.79	≤-17.28	PASS
		High	2480	2.07	-46.29	≤-17.93	PASS

**5.2. Test Graphs**



## 6. Conducted Spurious Emission

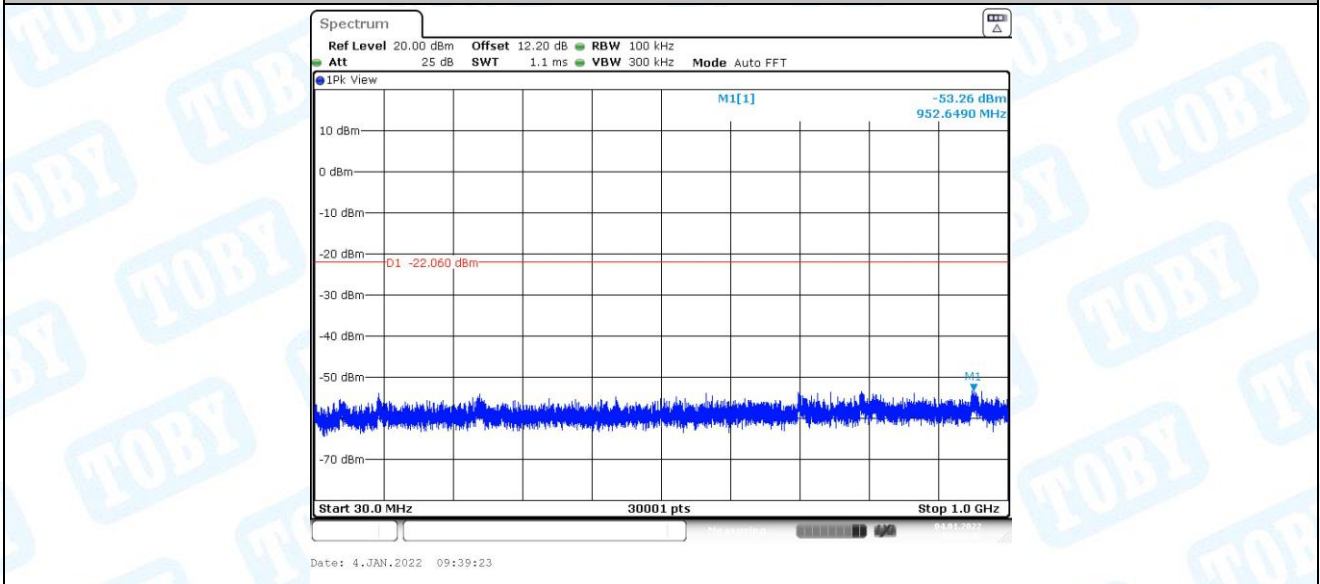
### 6.1. Test Result

Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-2.06	-2.06	---	PASS
			30~1000	-2.06	-53.26	≤-22.06	PASS
			1000~26500	-2.06	-46.35	≤-22.06	PASS
		2440	Reference	-2.38	-2.38	---	PASS
			30~1000	-2.38	-51.89	≤-22.38	PASS
			1000~26500	-2.38	-47.12	≤-22.38	PASS
		2480	Reference	-2.33	-2.33	---	PASS
			30~1000	-2.33	-52.54	≤-22.33	PASS
			1000~26500	-2.33	-46.41	≤-22.33	PASS

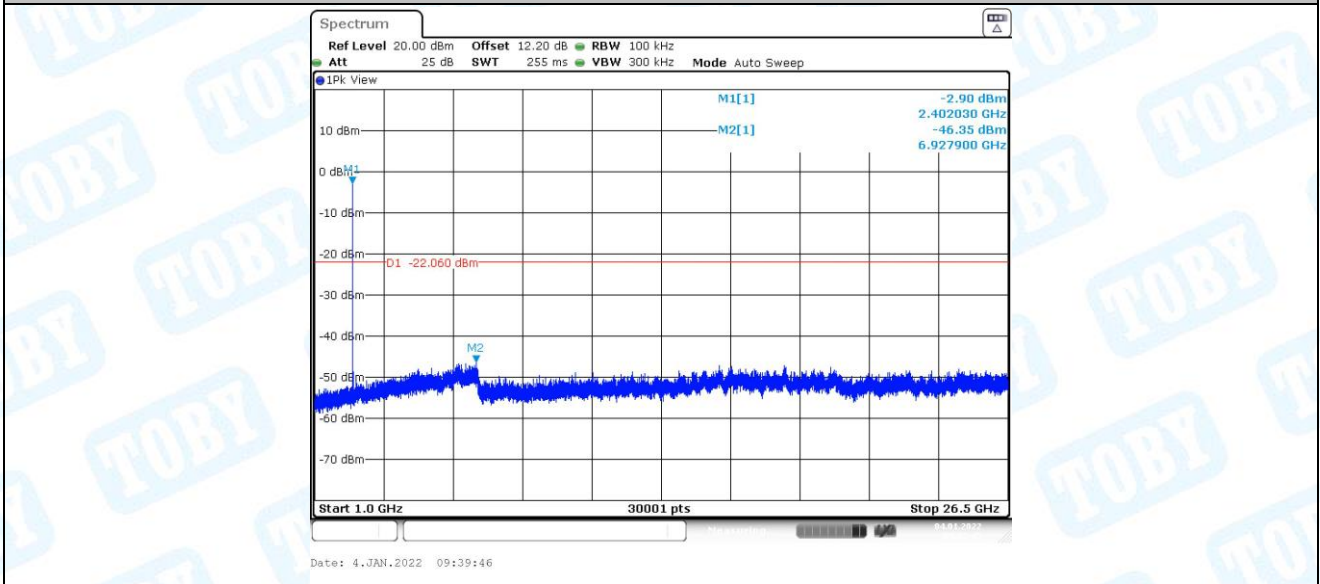
## 6.2. Test Graphs



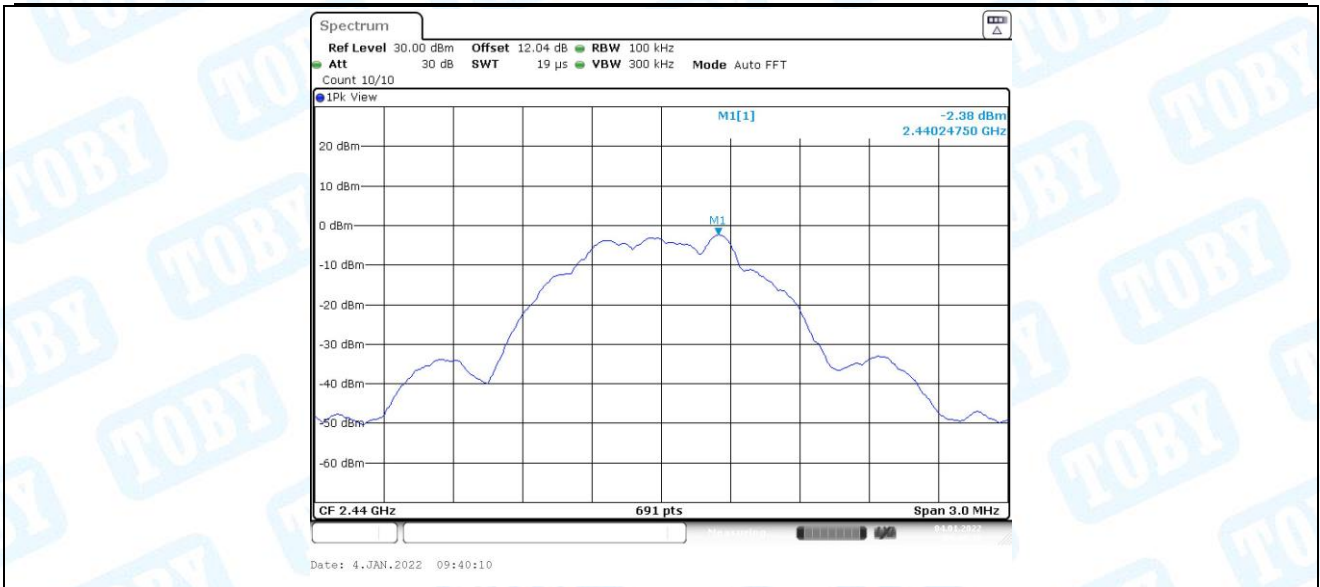
BLE\_1M\_Ant1\_2402\_0~Reference



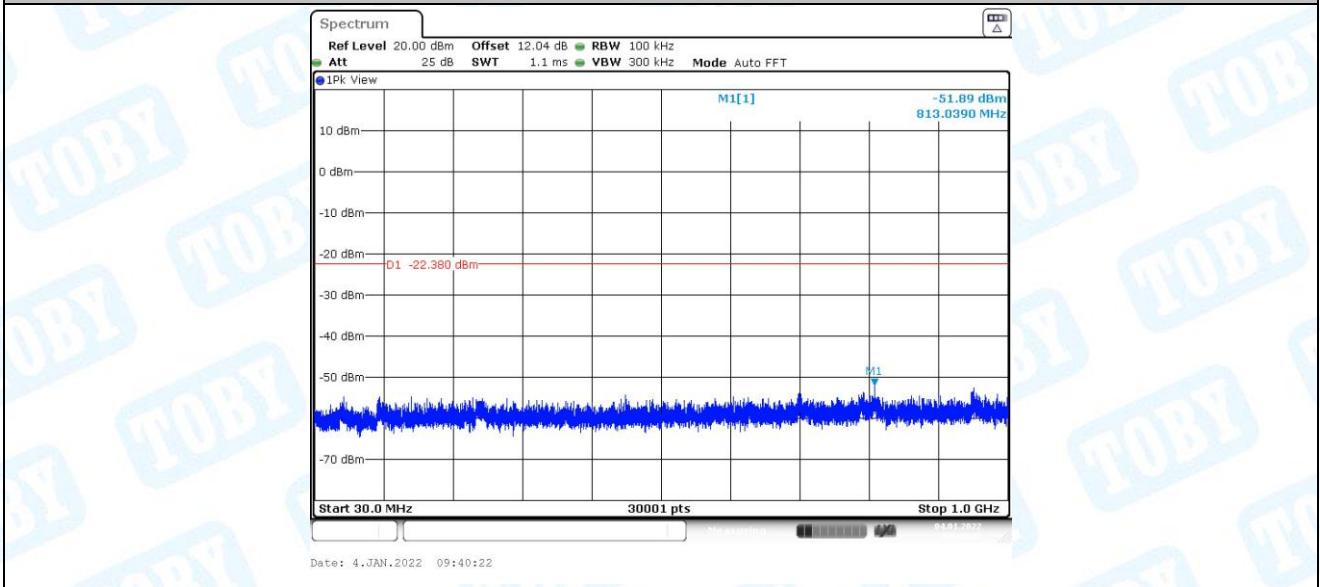
BLE\_1M\_Ant1\_2402\_30~1000



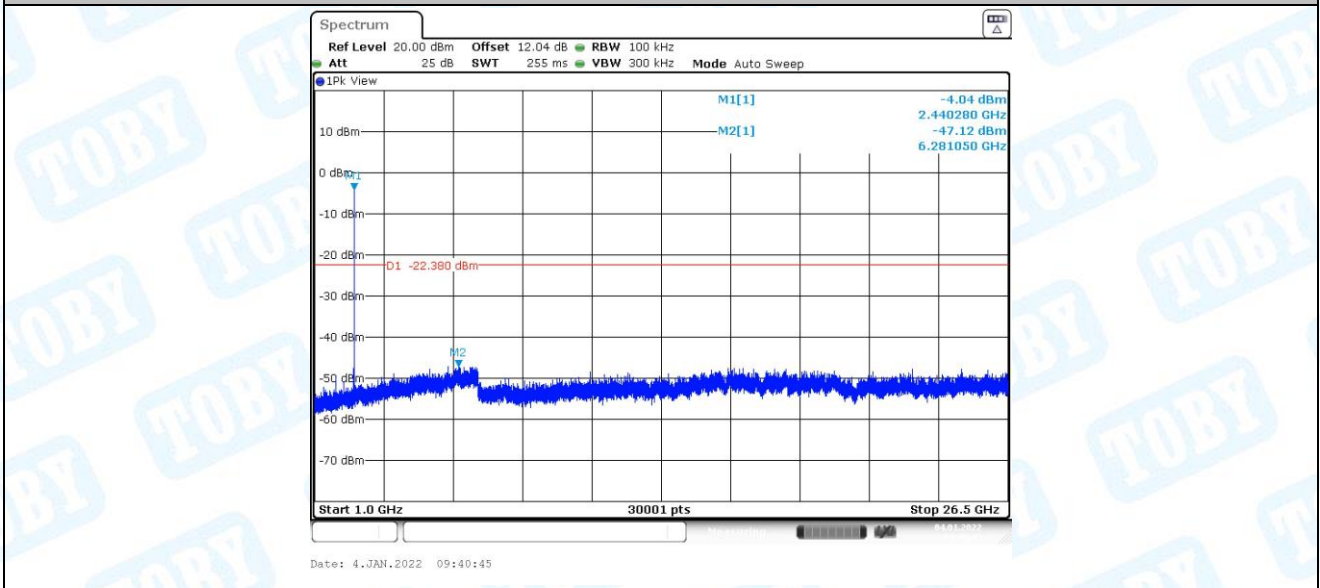
BLE\_1M\_Ant1\_2402\_1000~26500



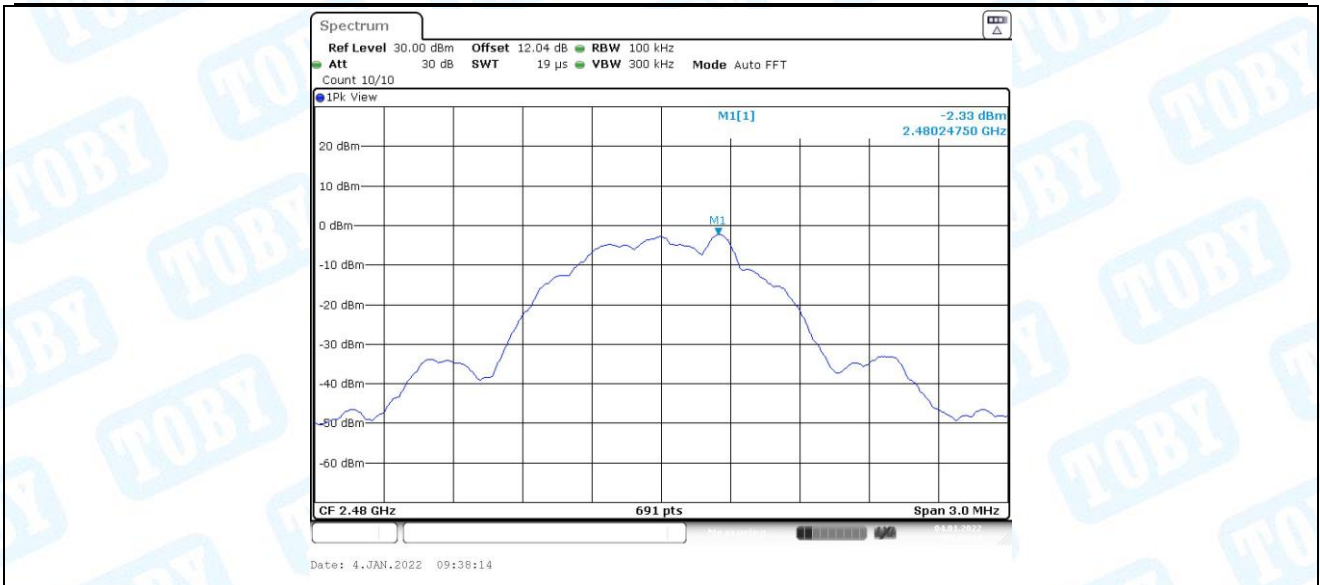
BLE\_1M\_Ant1\_2440\_0~Reference



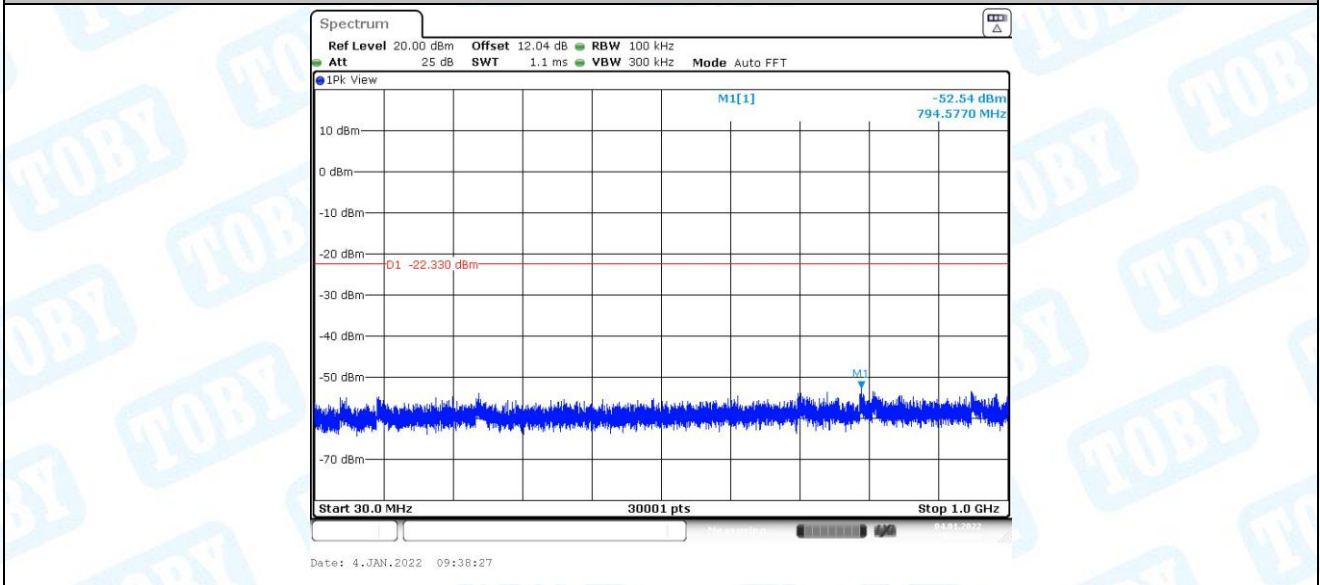
BLE\_1M\_Ant1\_2440\_30~1000



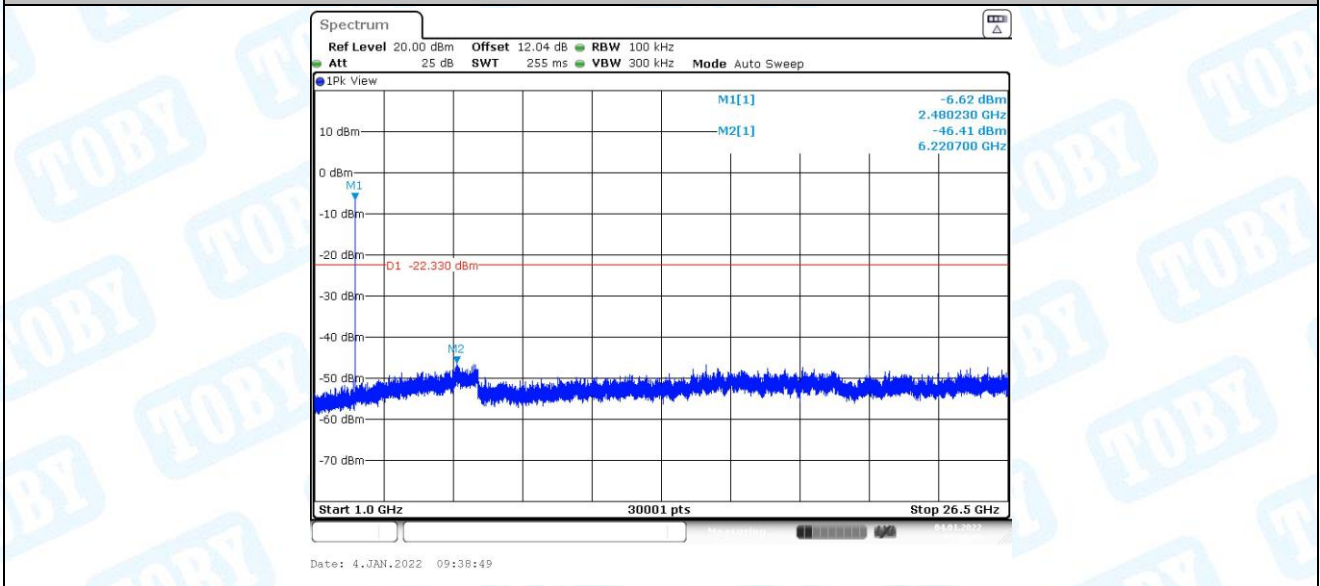
BLE\_1M\_Ant1\_2440\_1000~26500



### BLE\_1M\_Ant1\_2480\_0~Reference



### BLE\_1M\_Ant1\_2480\_1000~26500



### BLE\_1M\_Ant1\_2480\_1000~26500

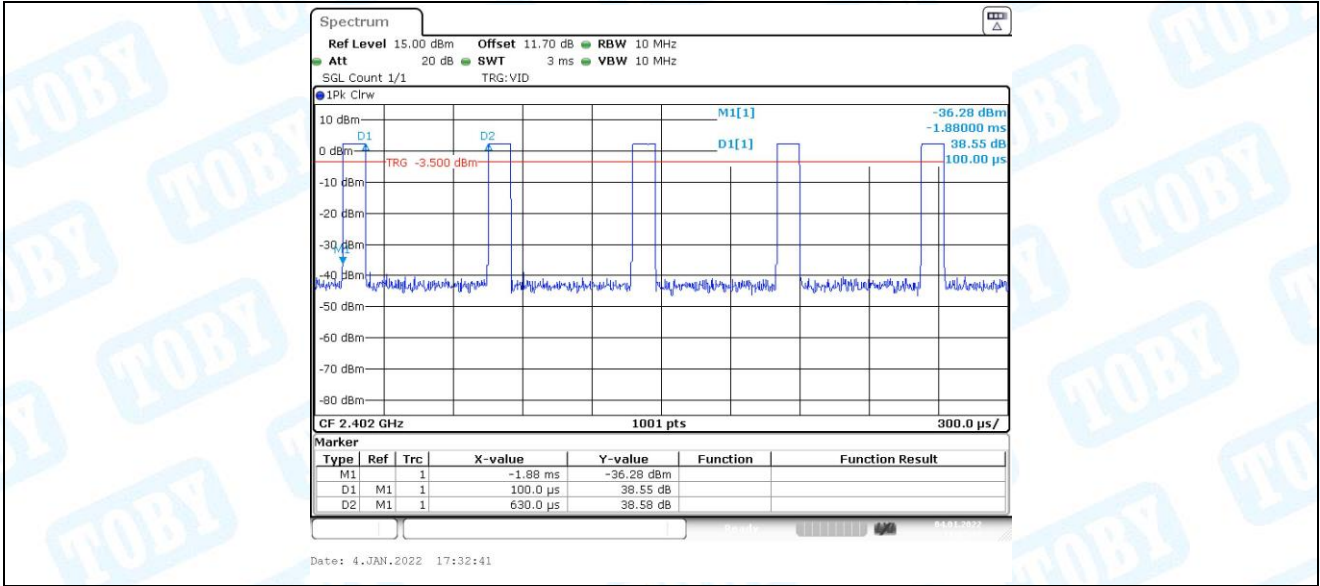


## 7. Duty Cycle

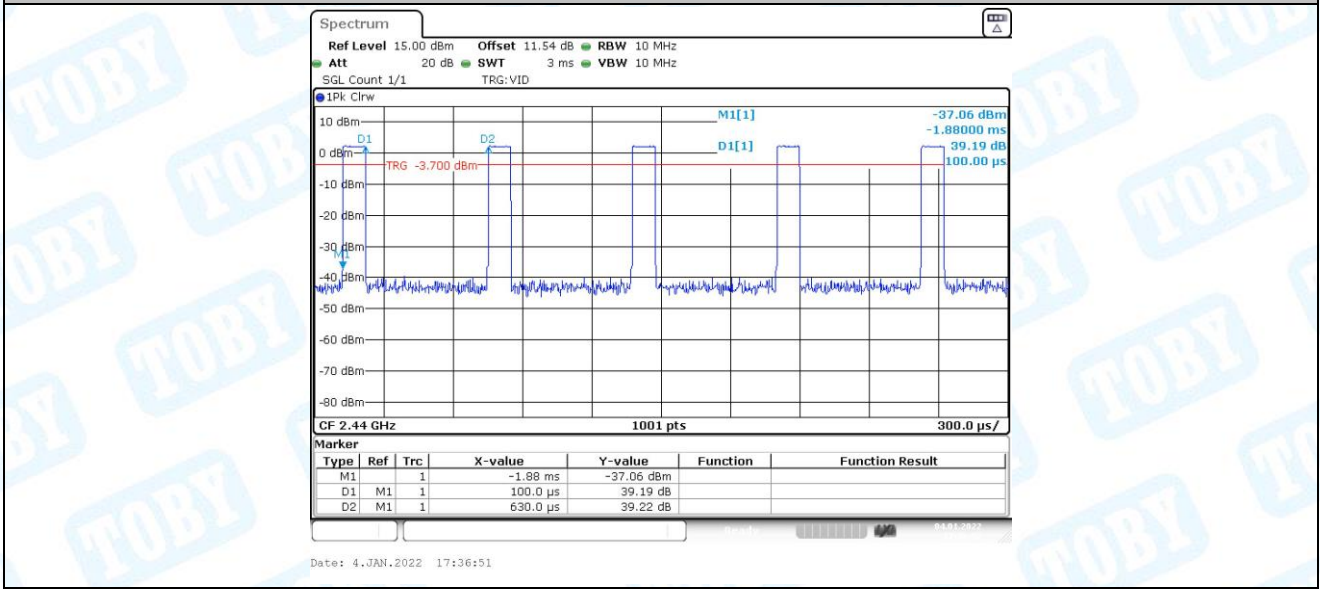
### 7.1. Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [KHz]	Limit	Verdict
BLE_1M	Ant1	2402	0.10	0.63	15.87	10	---	PASS
		2440	0.10	0.63	15.87	10	---	PASS
		2480	0.10	0.63	15.87	10	---	PASS

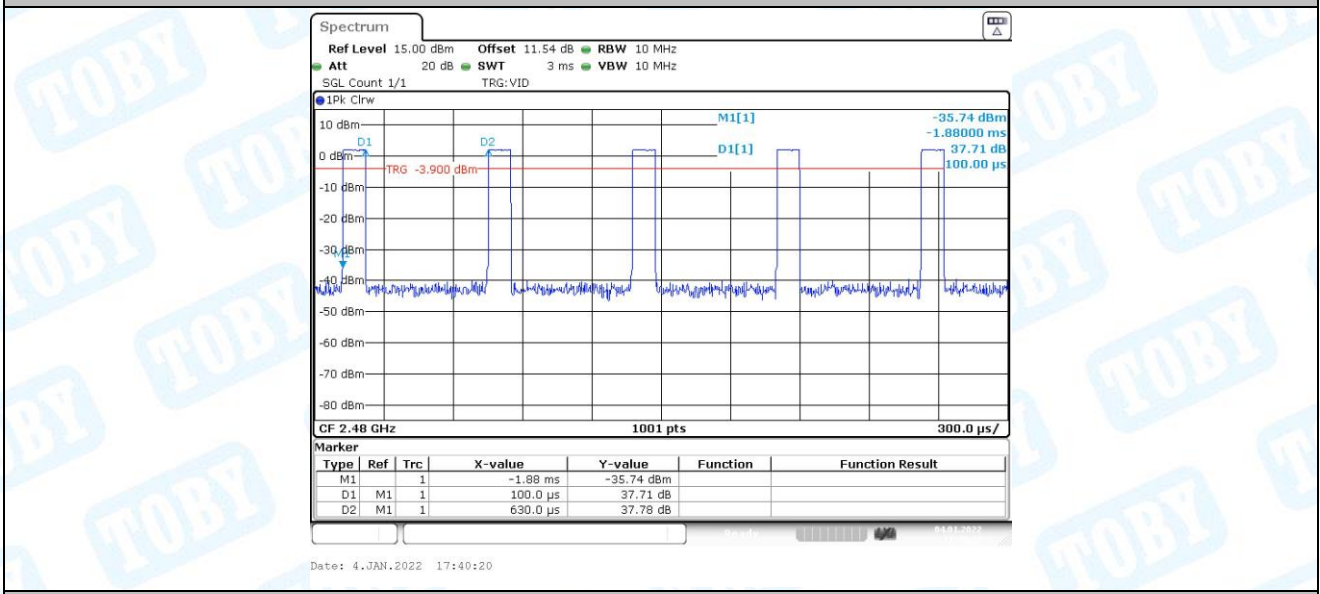
## 7.2. Test Graphs



BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480

## 8. Emissions in Restricted Bands

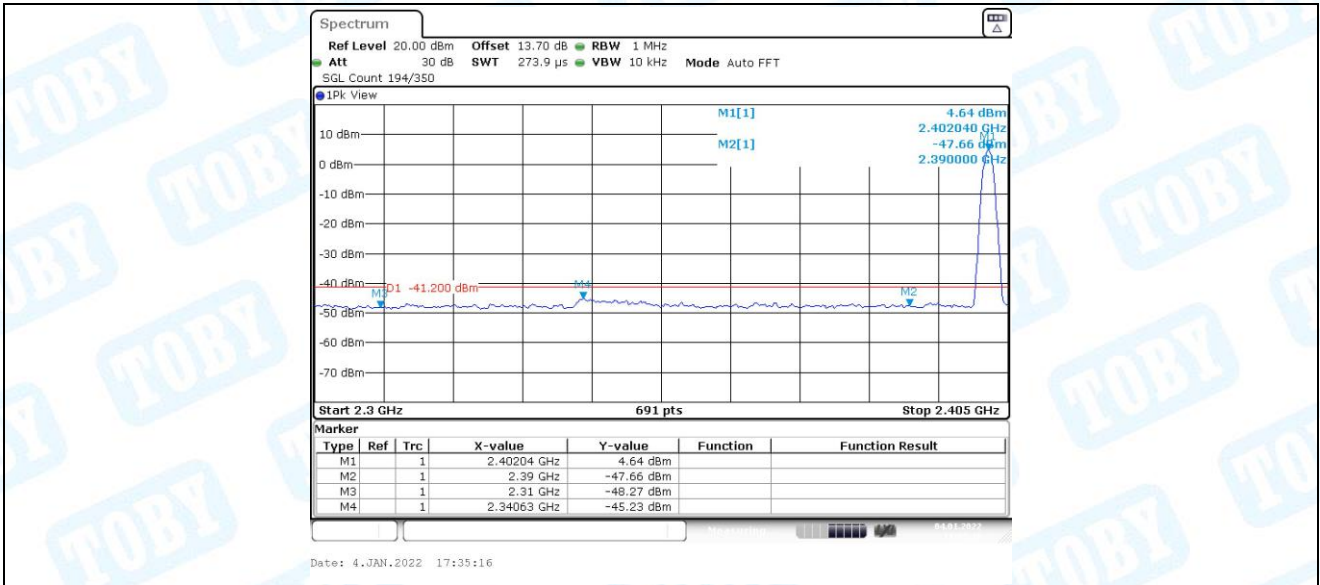
### 8.1. Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.27	≤-41.20	PASS
				AV	2340.630	-45.23	≤-41.20	PASS
				AV	2390.000	-47.66	≤-41.20	PASS
				Peak	2310.000	-41.12	≤-21.20	PASS
				Peak	2364.217	-37.02	≤-21.20	PASS
				Peak	2390.000	-39.42	≤-21.20	PASS
		High	2480	AV	2483.500	-47.59	≤-41.20	PASS
				AV	2486.812	-45.84	≤-41.20	PASS
				AV	2500.000	-47.12	≤-41.20	PASS
				Peak	2483.500	-40.77	≤-21.20	PASS
				Peak	2484.493	-37.62	≤-21.20	PASS
				Peak	2500.000	-37.96	≤-21.20	PASS

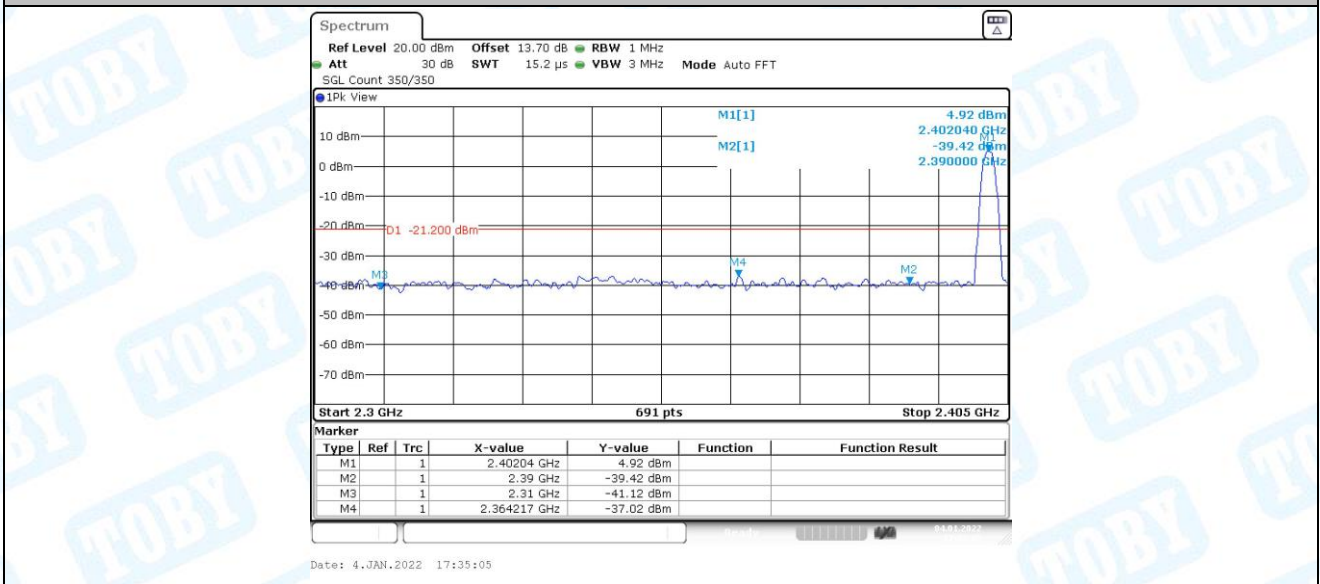
Note:

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.

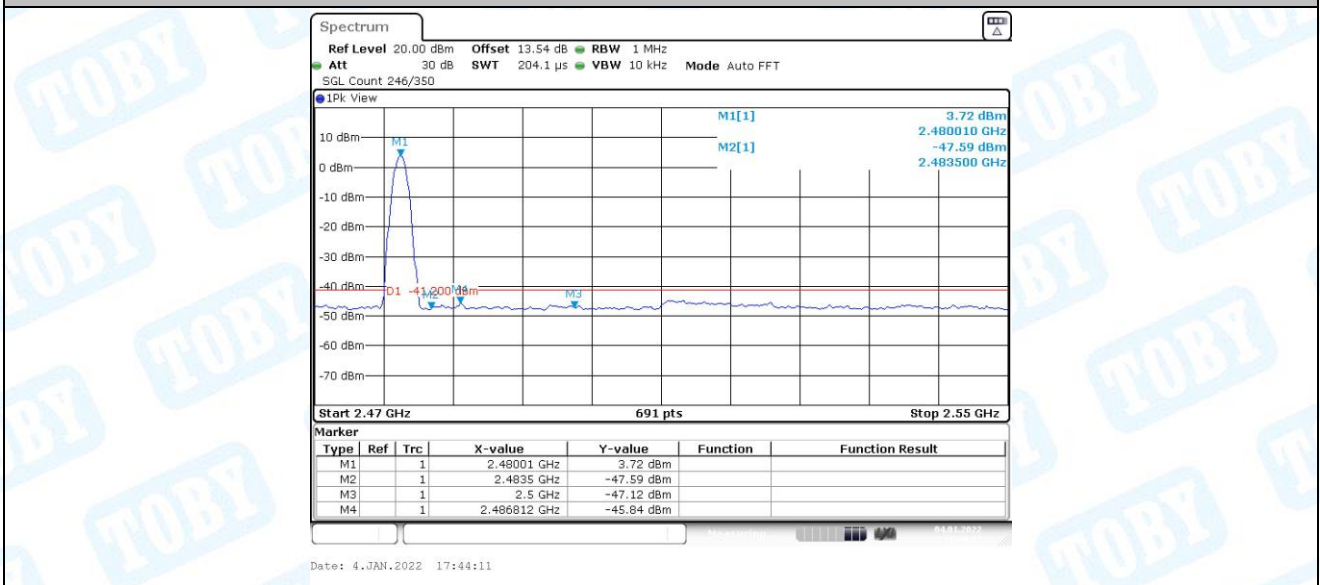
## 8.2. Test Graphs



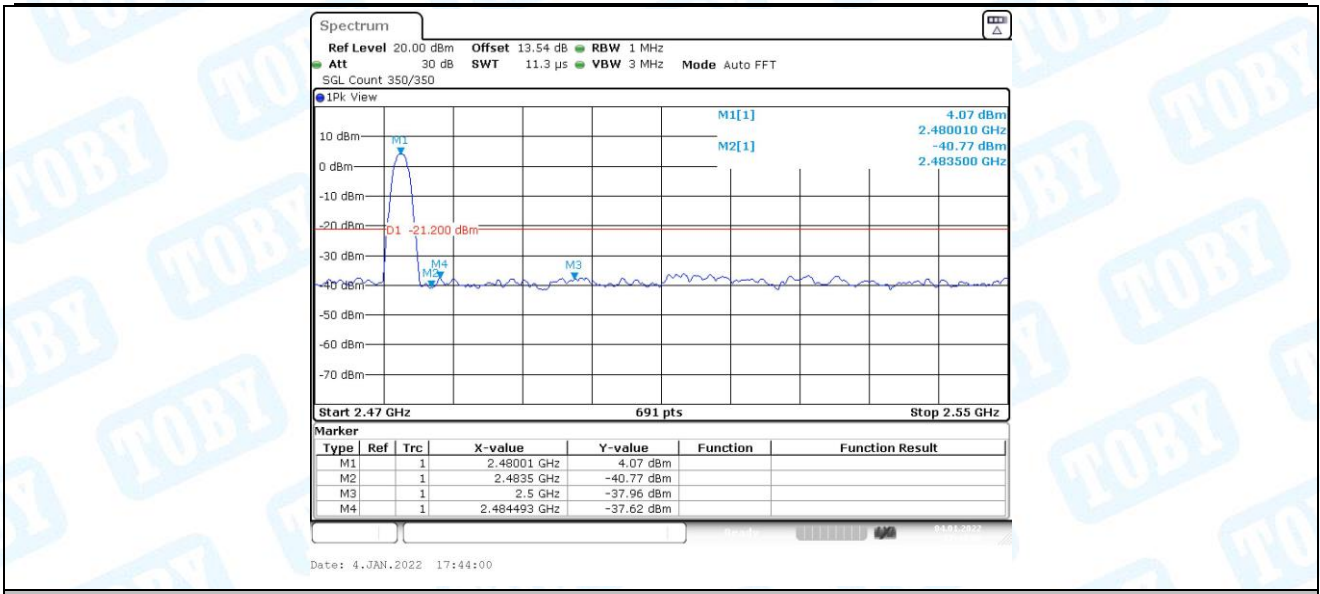
BLE\_1M\_Ant1\_Low\_2402\_AV



BLE\_1M\_Ant1\_Low\_2402\_Peak



BLE\_1M\_Ant1\_High\_2480\_AV



BLE\_1M\_Ant1\_High\_2480\_Peak

-----End of the report-----