

# RF Test Data for 2.4G (Conducted Measurements)

General Description of EUT	
<b>Product Name:</b>	Wireless Microphone
<b>Test Model:</b>	Forevala W60
<b>Sample ID:</b>	202206-0303-2-2#
Environmental Conditions	
<b>Temperature:</b>	22°C
<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	DC 3.7V
<b>Test Engineer:</b>	Huangjianping
Note: For a more detailed features description, please refer to the report TBR-C-202206-0303-2.	

## Contents

1. DTS Bandwidth.....	3
1.1. Test Result.....	3
1.2. Test Graphs .....	4
2. Occupied Channel Bandwidth.....	5
2.1. Test Result.....	5
2.2. Test Graphs .....	6
3. Maximum conducted output power.....	7
3.1. Test Result.....	7
3.2. Test Graphs .....	8
4. Maximum power spectral density .....	9
4.1. Test Result.....	9
4.2. Test Graphs .....	10
5. Band edge measurements .....	11
5.1. Test Result.....	11
5.2. Test Graphs .....	12
6. Conducted Spurious Emission.....	13
6.1. Test Result.....	13
6.2. Test Graphs .....	14
7. Duty Cycle .....	17
7.1. Test Result.....	17
7.2. Test Graphs .....	18
8. Emissions in Restricted Bands.....	19
8.1. Test Result.....	19
8.2. Test Graphs .....	20

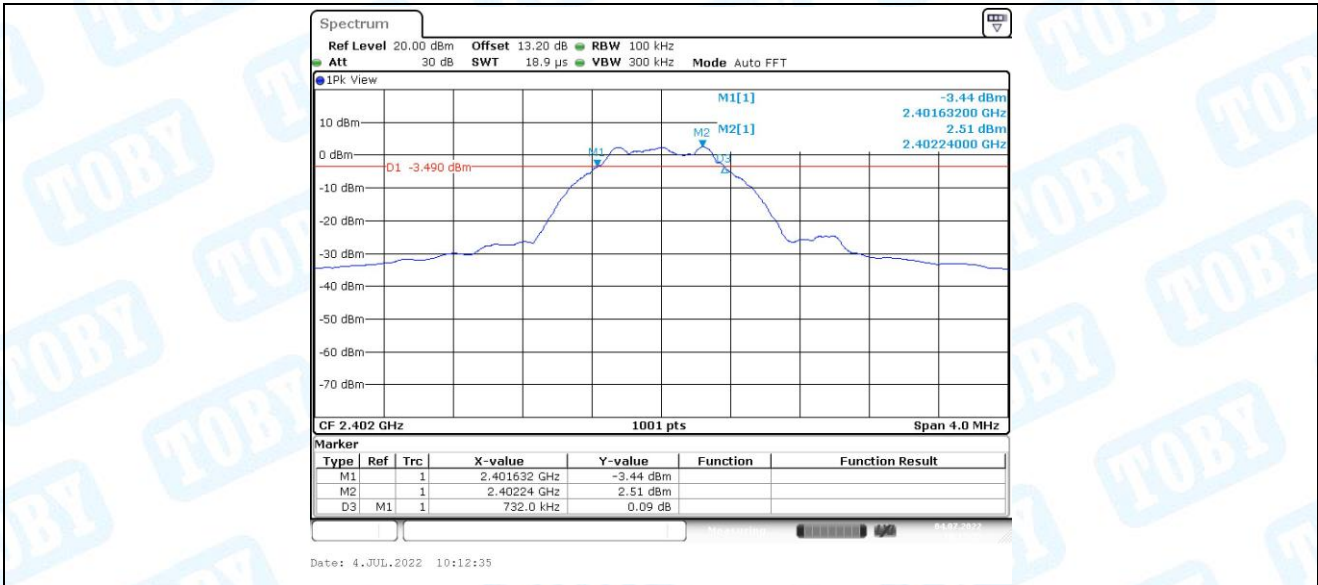


## 1. DTS Bandwidth

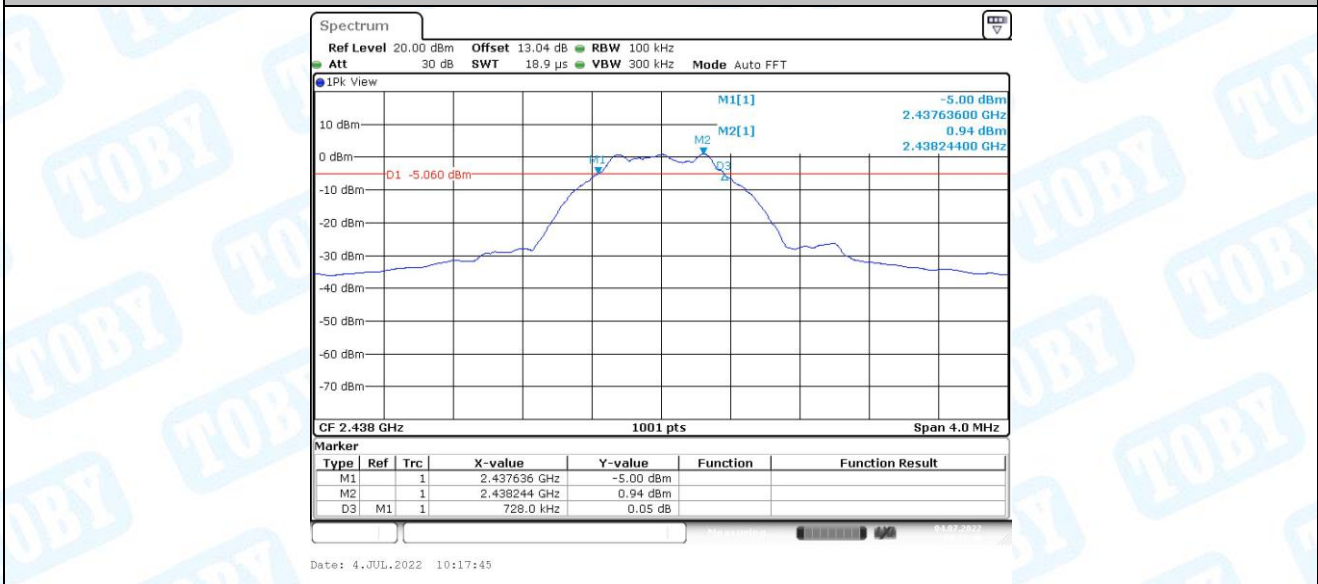
### 1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
2.4G	Ant1	2402	0.73	2401.63	2402.36	0.5	PASS
		2438	0.73	2437.64	2438.36	0.5	PASS
		2480	0.74	2479.62	2480.36	0.5	PASS

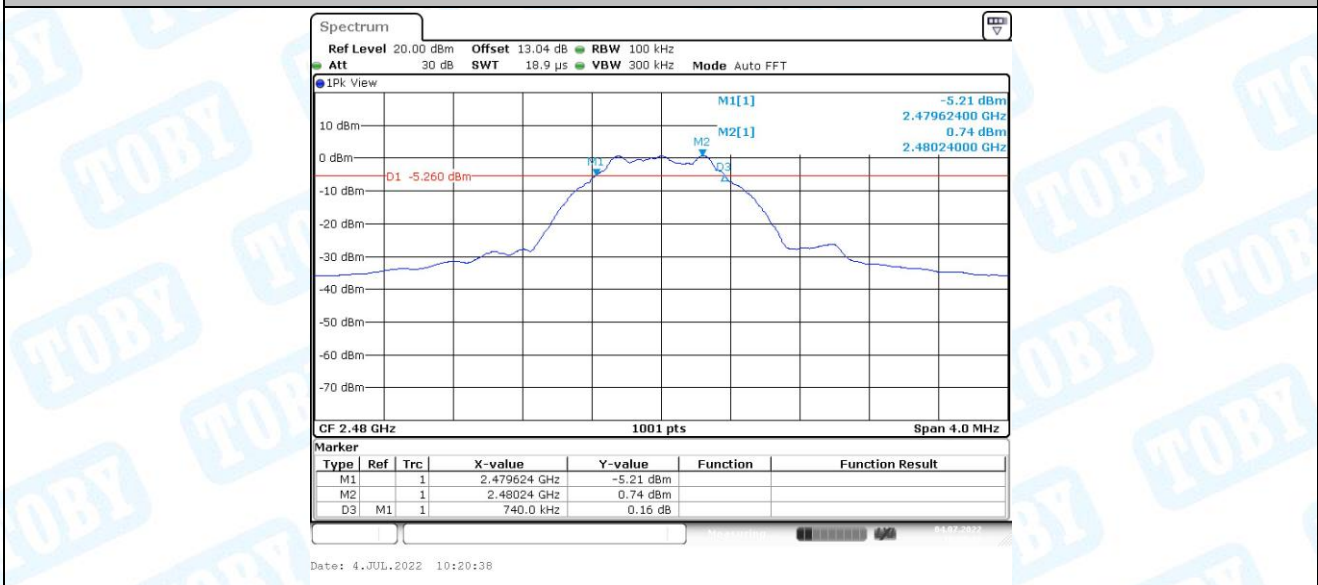
## 1.2. Test Graphs



2.4G\_Ant1\_2402



2.4G\_Ant1\_2438



2.4G\_Ant1\_2480

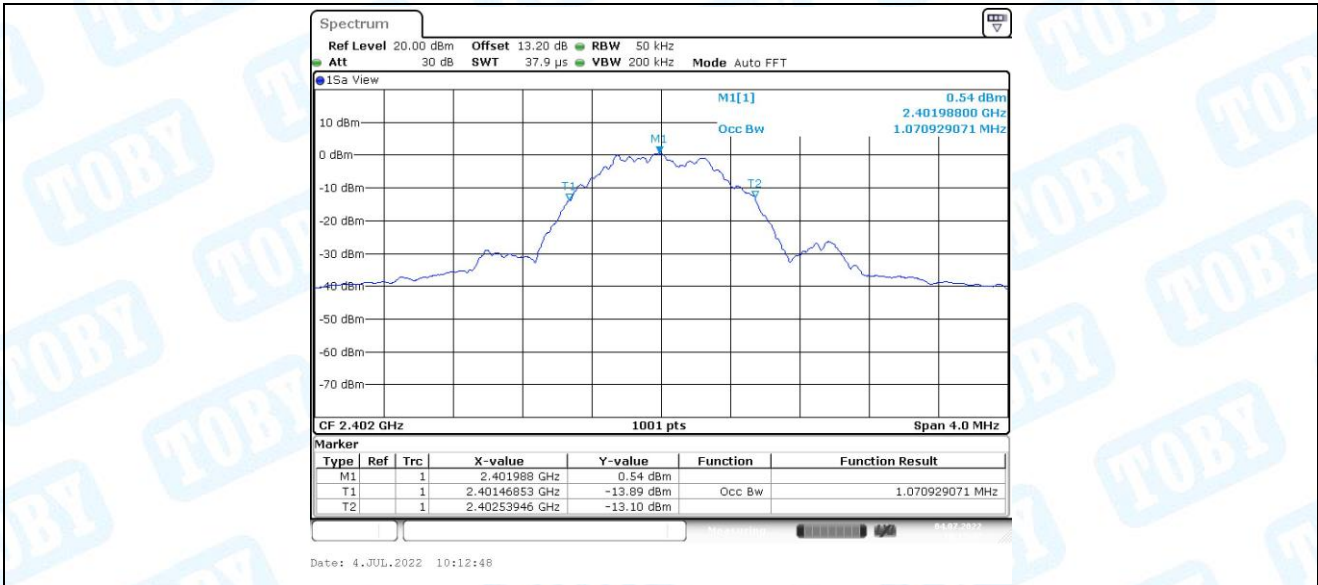


## 2. Occupied Channel Bandwidth

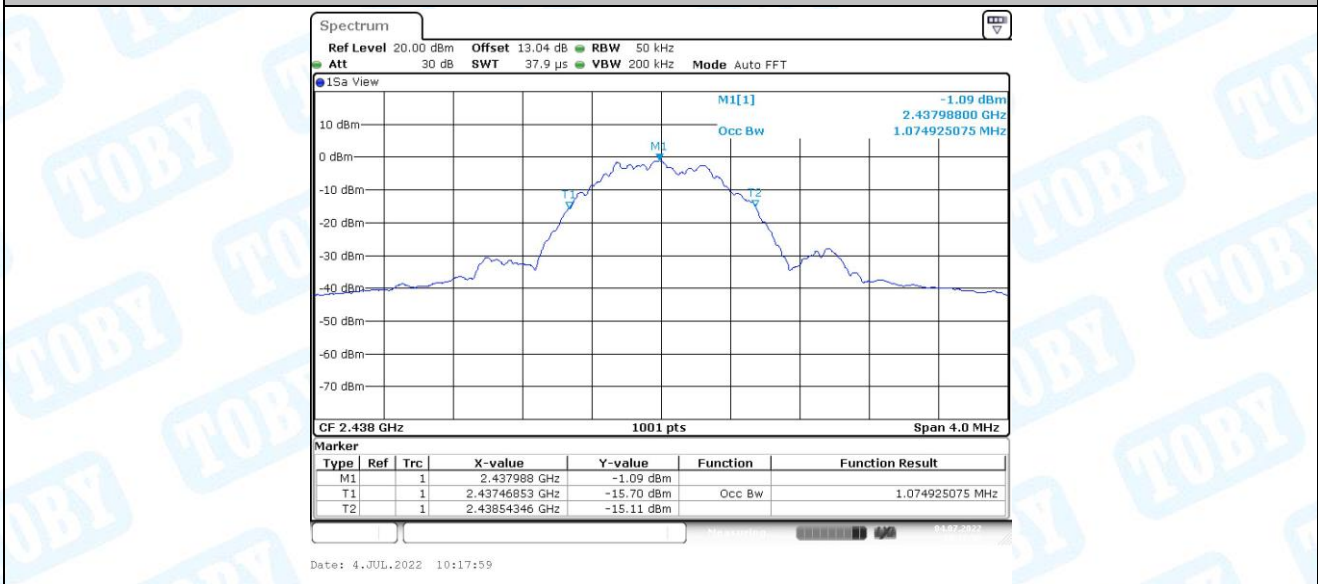
### 2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
2.4G	Ant1	2402	1.071	2401.469	2402.539	---	---
		2438	1.075	2437.469	2438.543	---	---
		2480	1.083	2479.461	2480.543	---	---

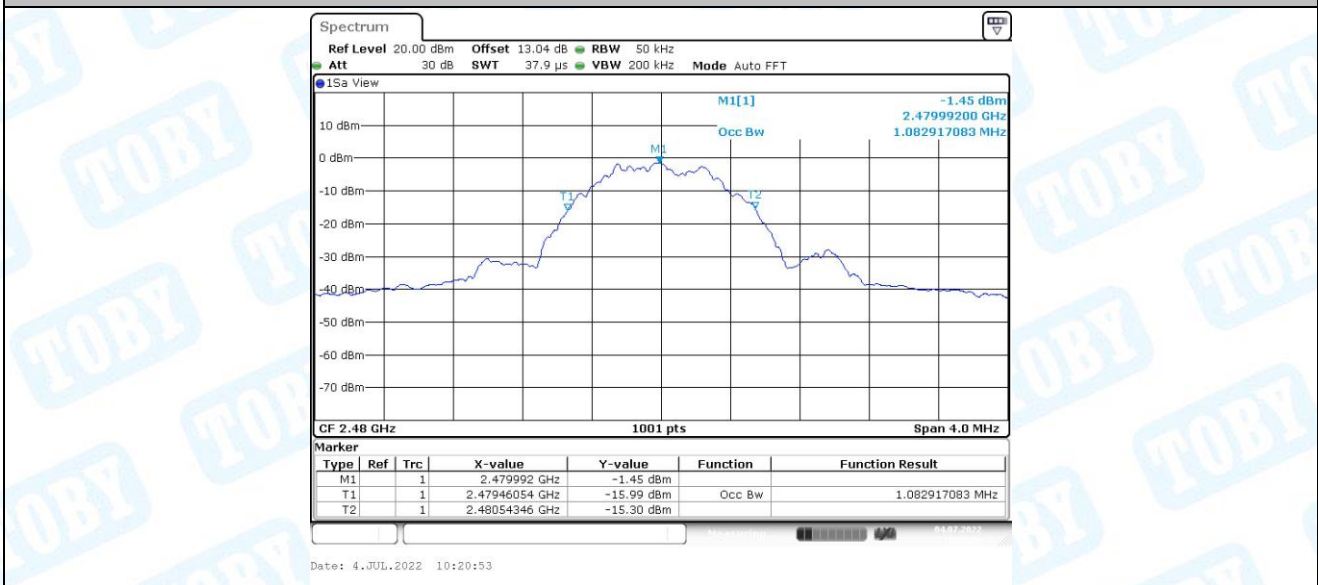
## 2.2. Test Graphs



2.4G\_Ant1\_2402



2.4G\_Ant1\_2438



2.4G\_Ant1\_2480

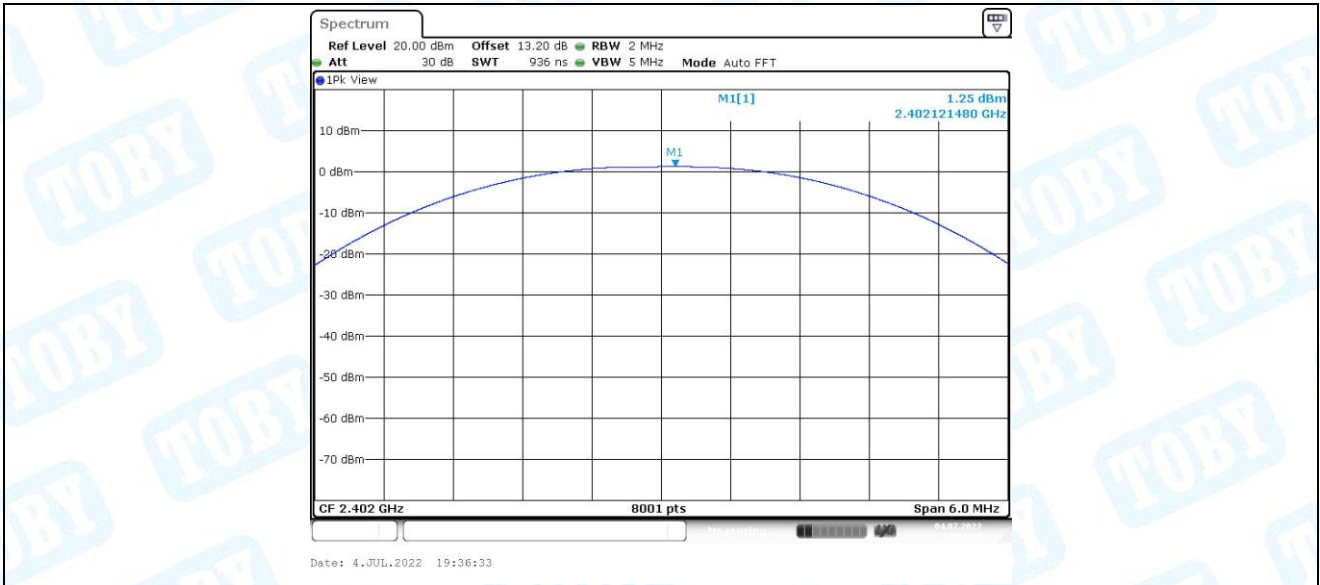


### 3. Maximum conducted output power

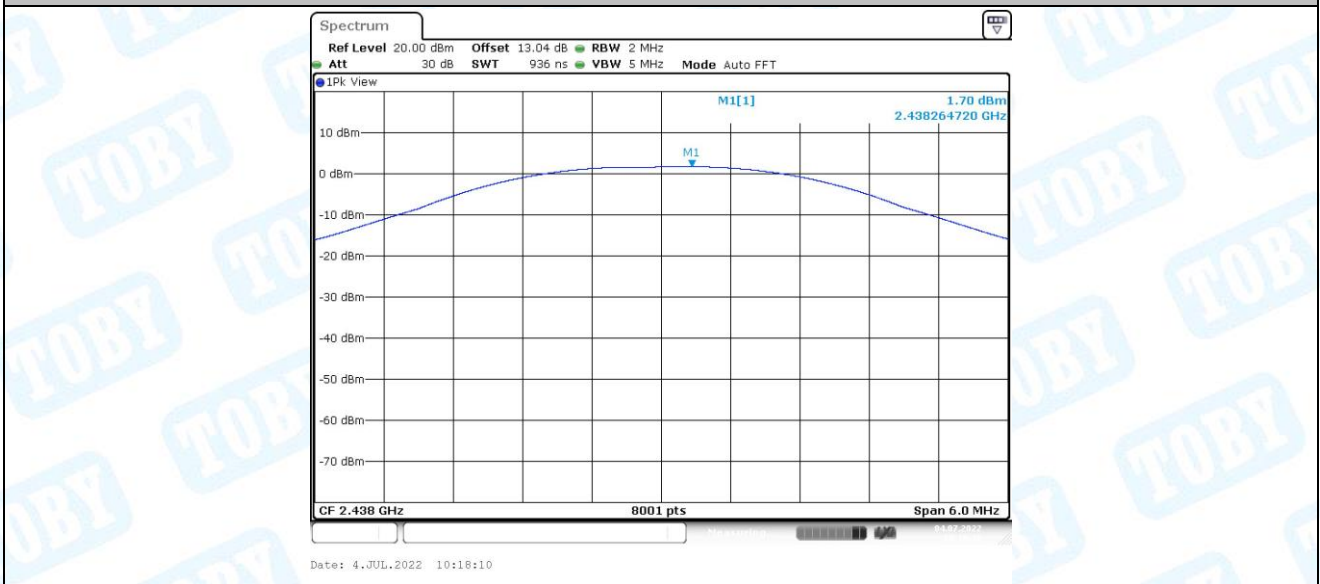
#### 3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
2.4G	Ant1	2402	1.25	≤30	PASS
		2438	1.7	≤30	PASS
		2480	1.46	≤30	PASS

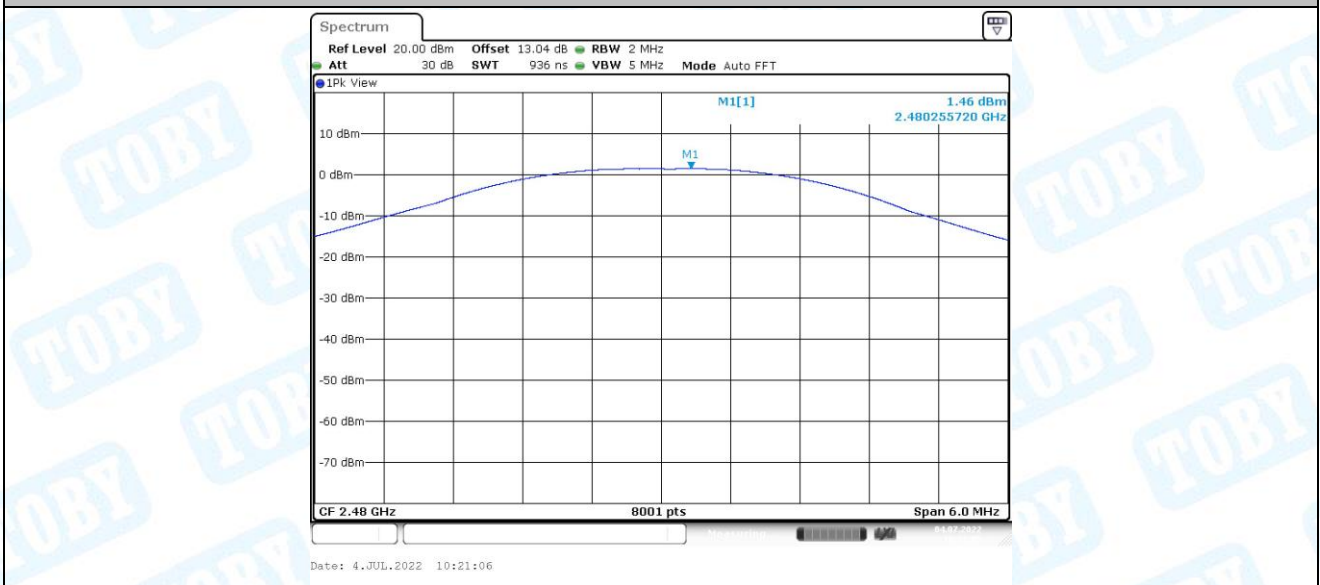
### 3.2. Test Graphs



2.4G\_Ant1\_2402



2.4G\_Ant1\_2438



2.4G\_Ant1\_2480

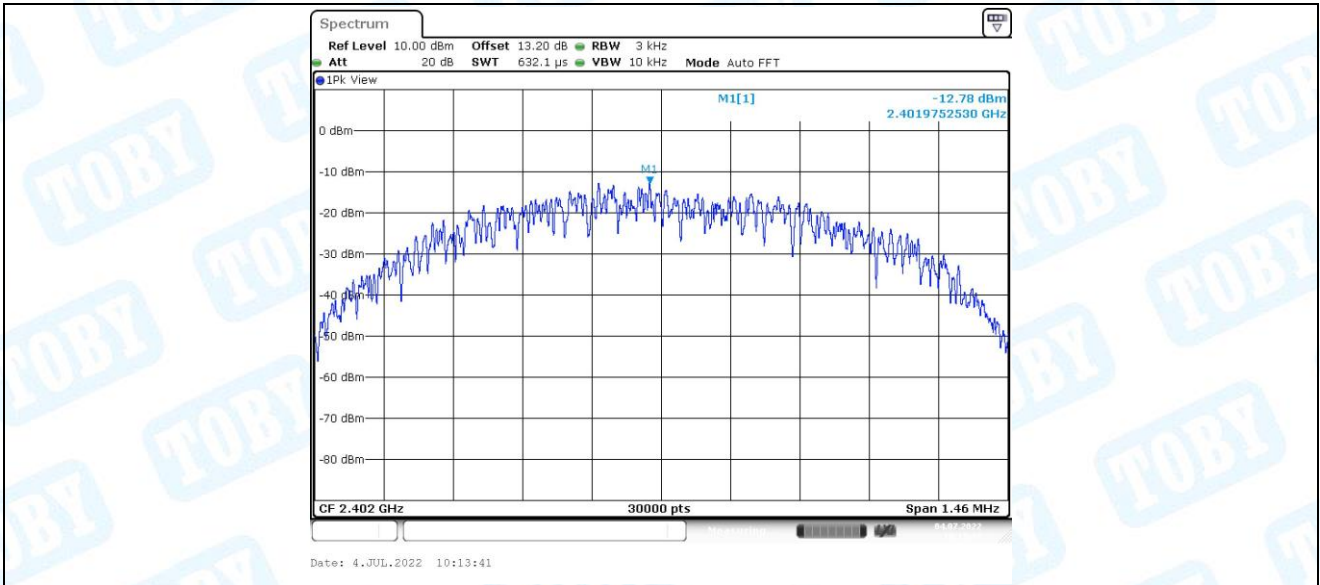


## 4. Maximum power spectral density

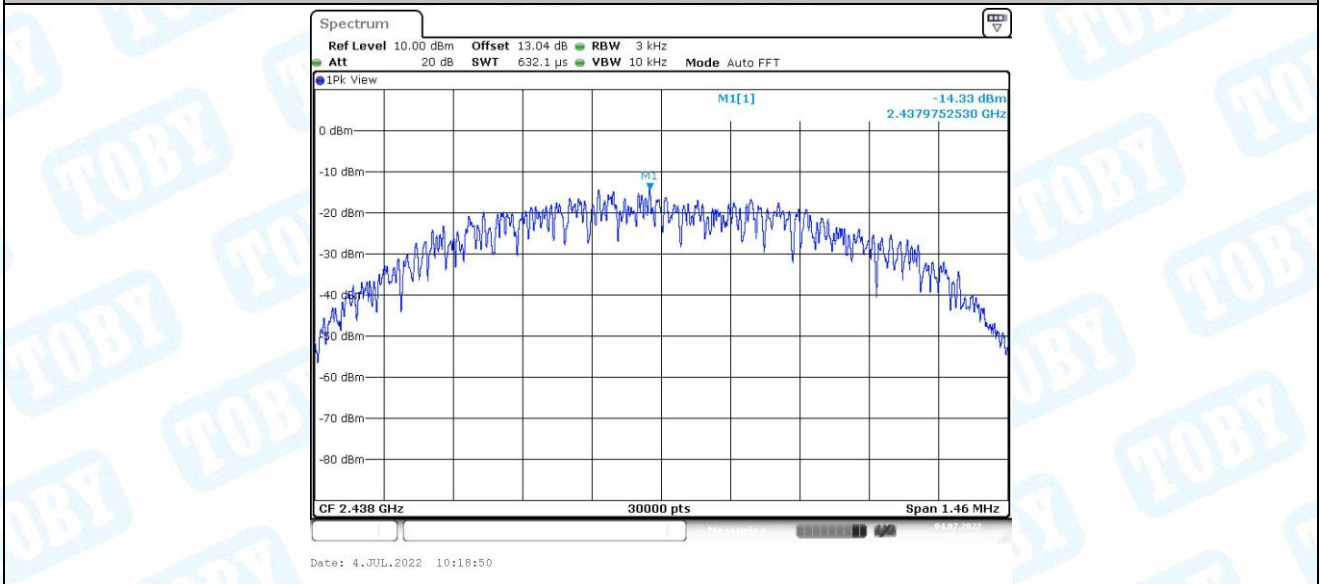
### 4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
2.4G	Ant1	2402	-12.78	≤8.00	PASS
		2438	-14.33	≤8.00	PASS
		2480	-14.66	≤8.00	PASS

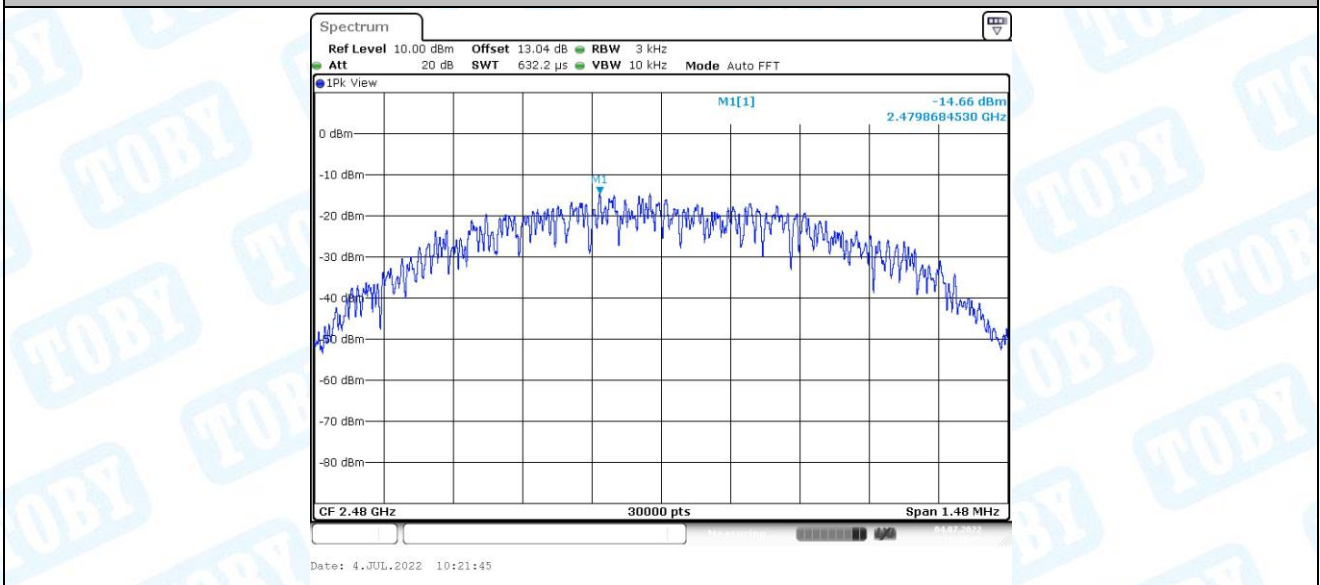
### 4.2. Test Graphs



2.4G\_Ant1\_2402



2.4G\_Ant1\_2438



2.4G\_Ant1\_2480

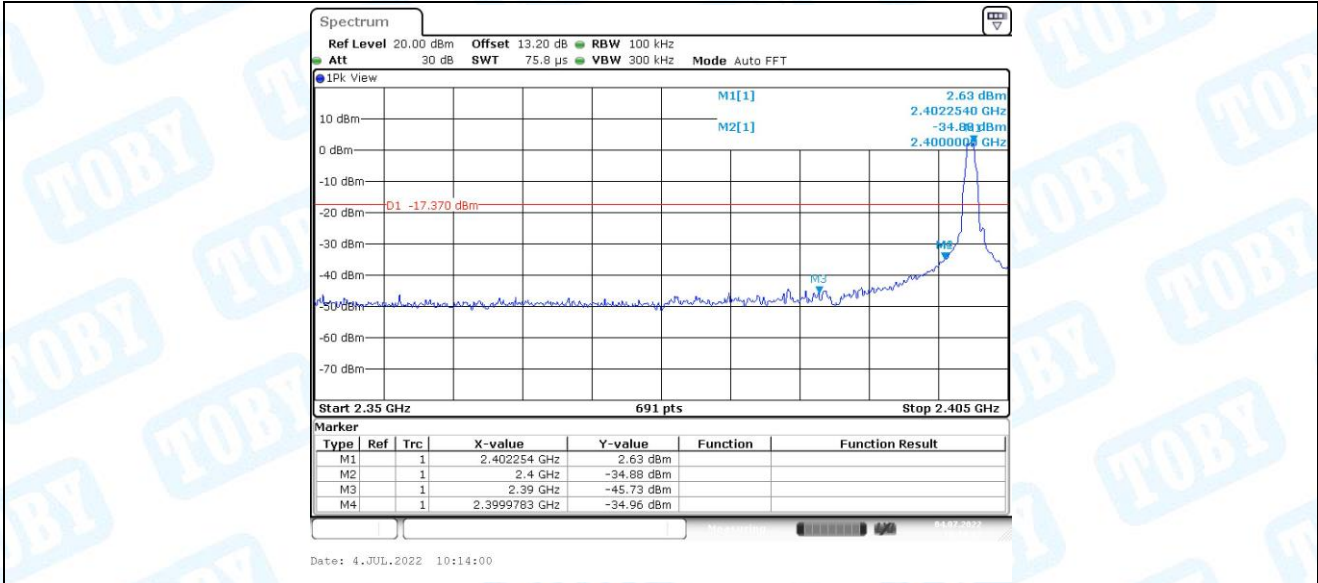


## 5. Band edge measurements

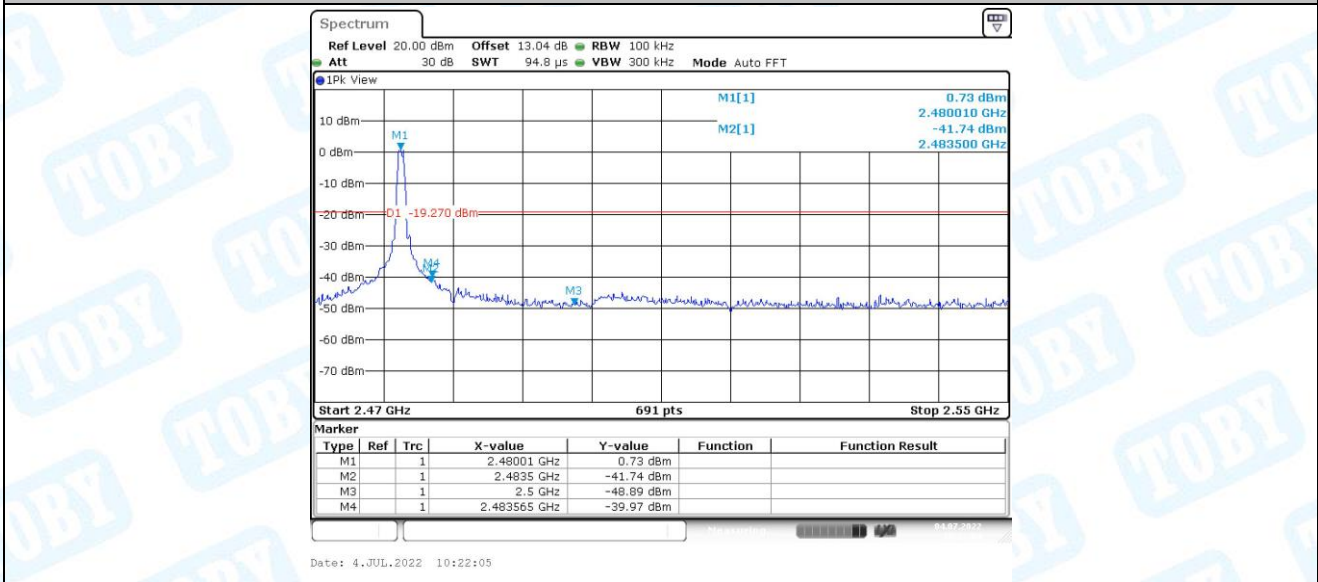
### 5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
2.4G	Ant1	Low	2402	2.63	-34.96	$\leq -17.37$	PASS
		High	2480	0.73	-39.97	$\leq -19.27$	PASS

## 5.2. Test Graphs



2.4G\_Ant1\_Low\_2402



2.4G\_Ant1\_High\_2480



## 6. Conducted Spurious Emission

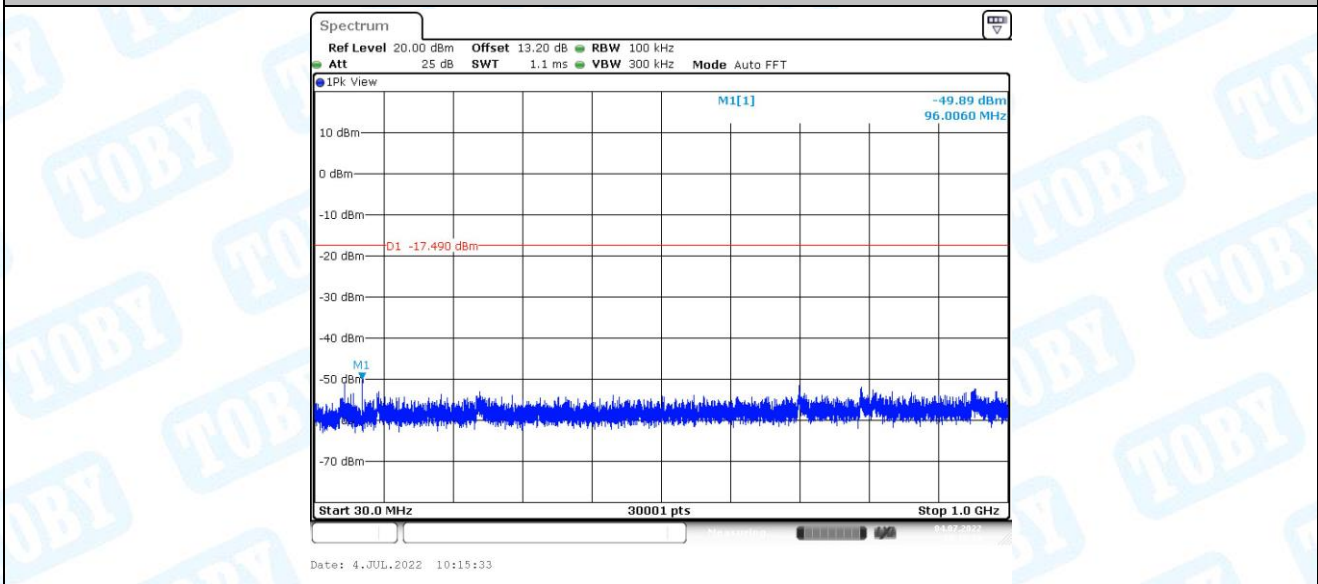
### 6.1. Test Result

Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
2.4G	Ant1	2402	Reference	2.51	2.51	---	PASS
			30~1000	2.51	-49.89	≤-17.49	PASS
			1000~26500	2.51	-26.94	≤-17.49	PASS
		2438	Reference	0.94	0.94	---	PASS
			30~1000	0.94	-49.9	≤-19.06	PASS
			1000~26500	0.94	-26.47	≤-19.06	PASS
		2480	Reference	0.75	0.75	---	PASS
			30~1000	0.75	-50.25	≤-19.25	PASS
			1000~26500	0.75	-26.65	≤-19.25	PASS

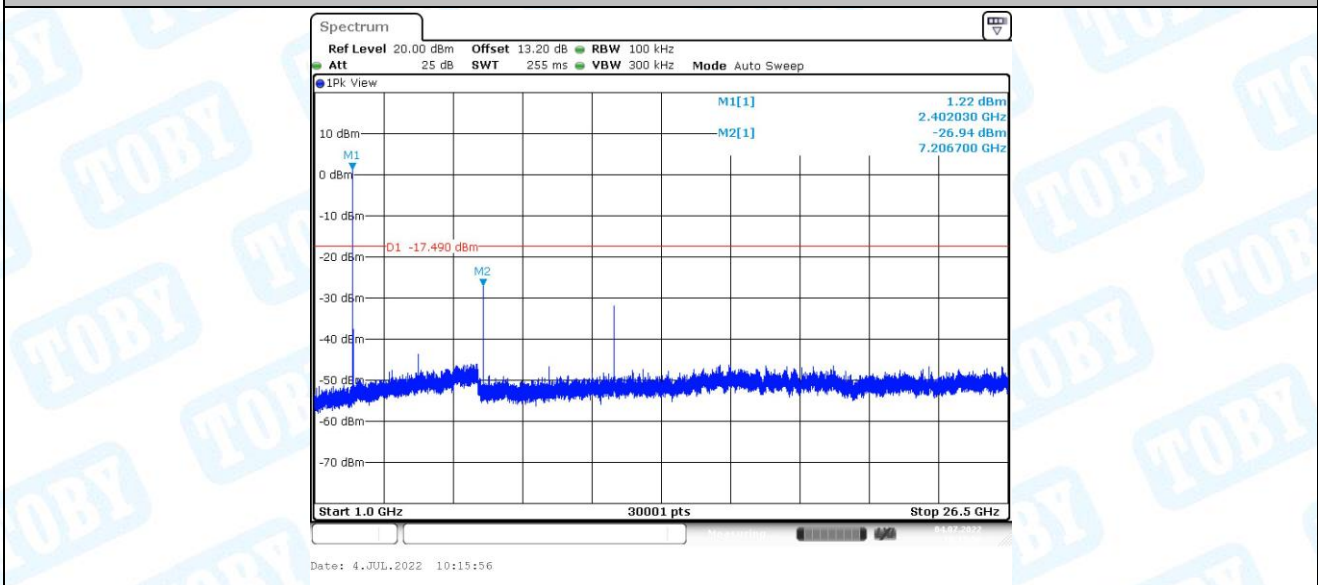
## 6.2. Test Graphs



2.4G\_Ant1\_2402\_0~Reference



2.4G\_Ant1\_2402\_30~1000

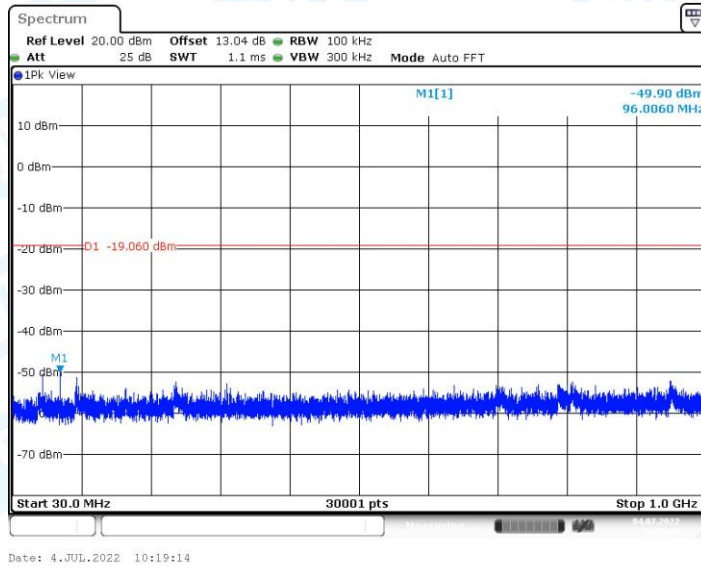


2.4G\_Ant1\_2402\_1000~26500

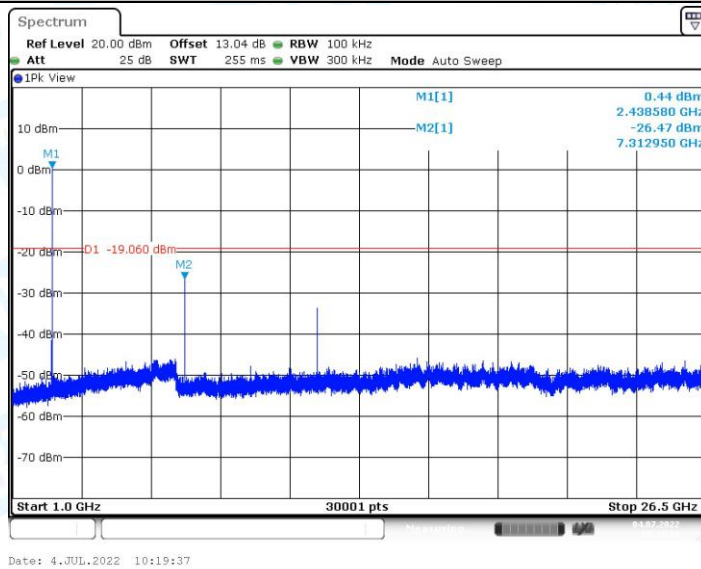




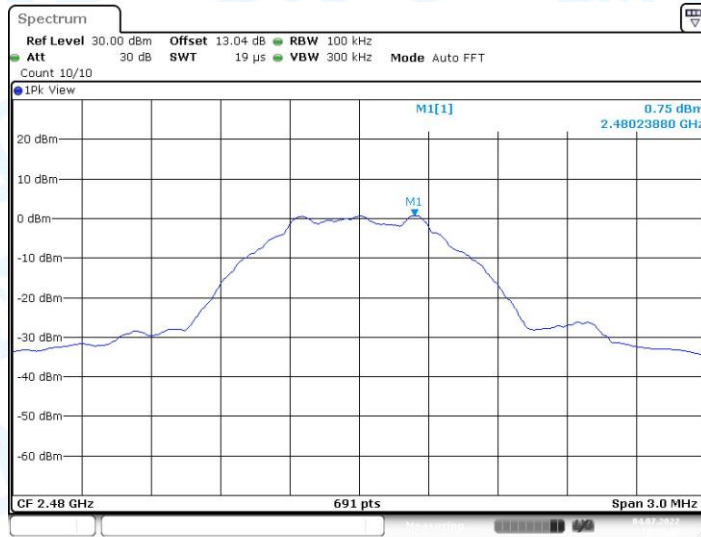
2.4G\_Ant1\_2438\_0~Reference



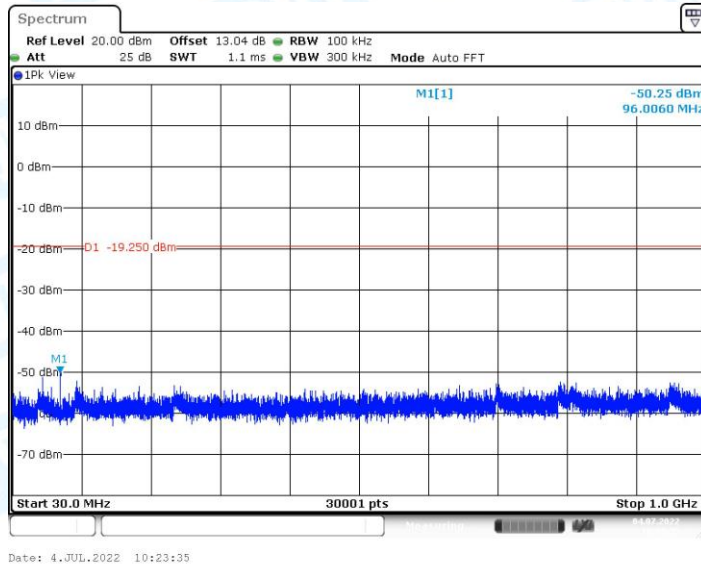
2.4G\_Ant1\_2438\_30~1000



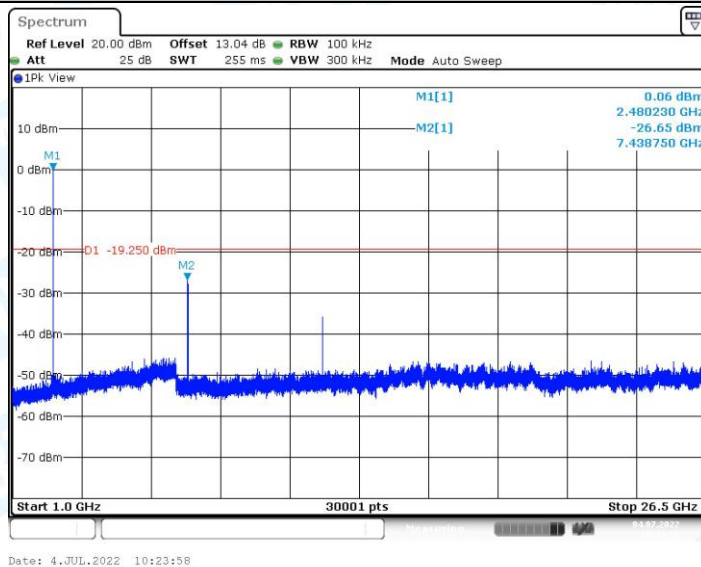
2.4G\_Ant1\_2438\_1000~26500



2.4G\_Ant1\_2480\_0~Reference



2.4G\_Ant1\_2480\_30~1000



2.4G\_Ant1\_2480\_1000~26500

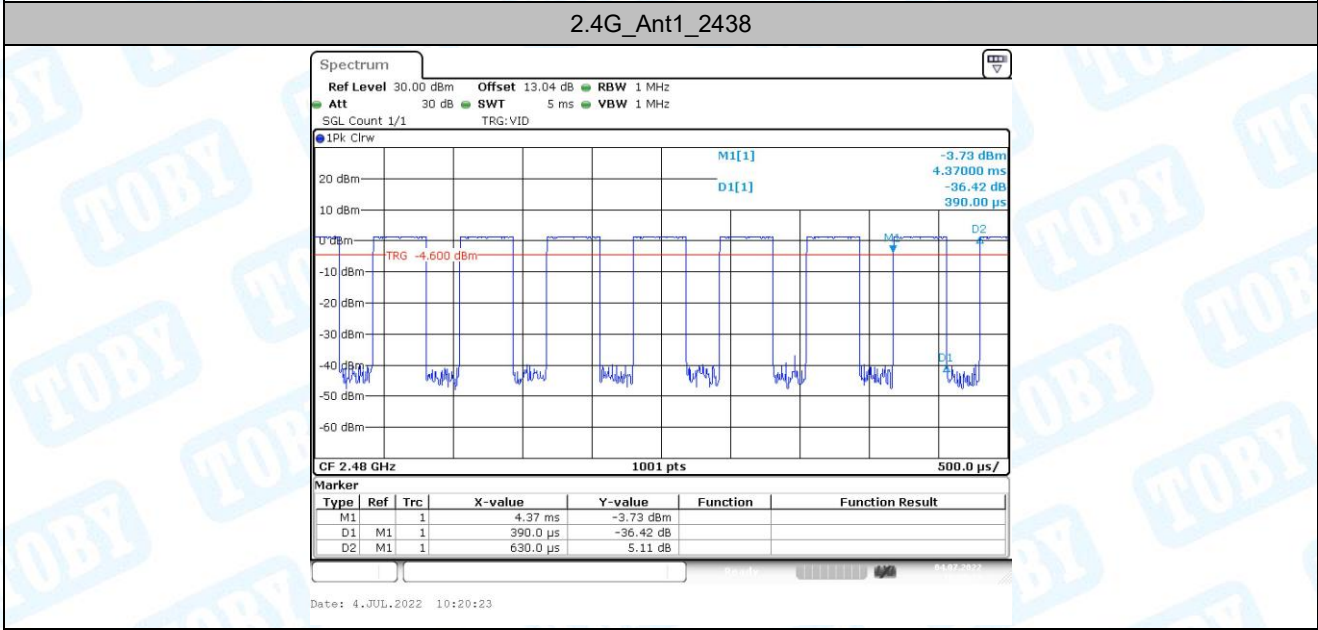
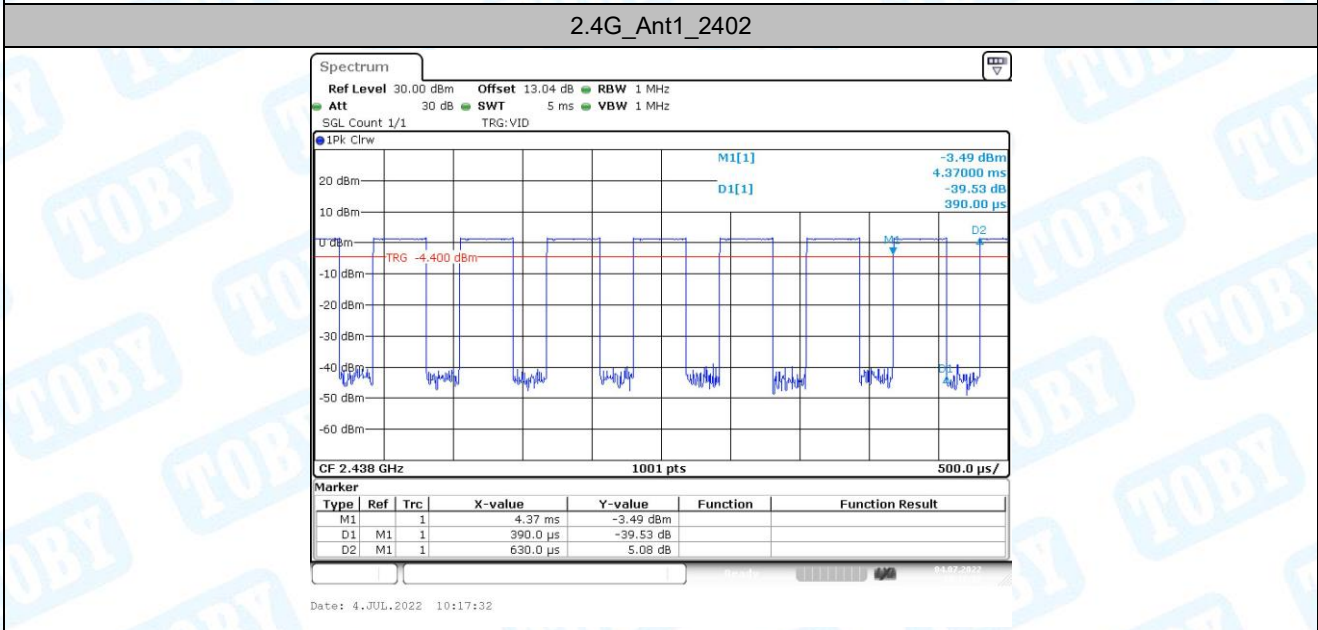
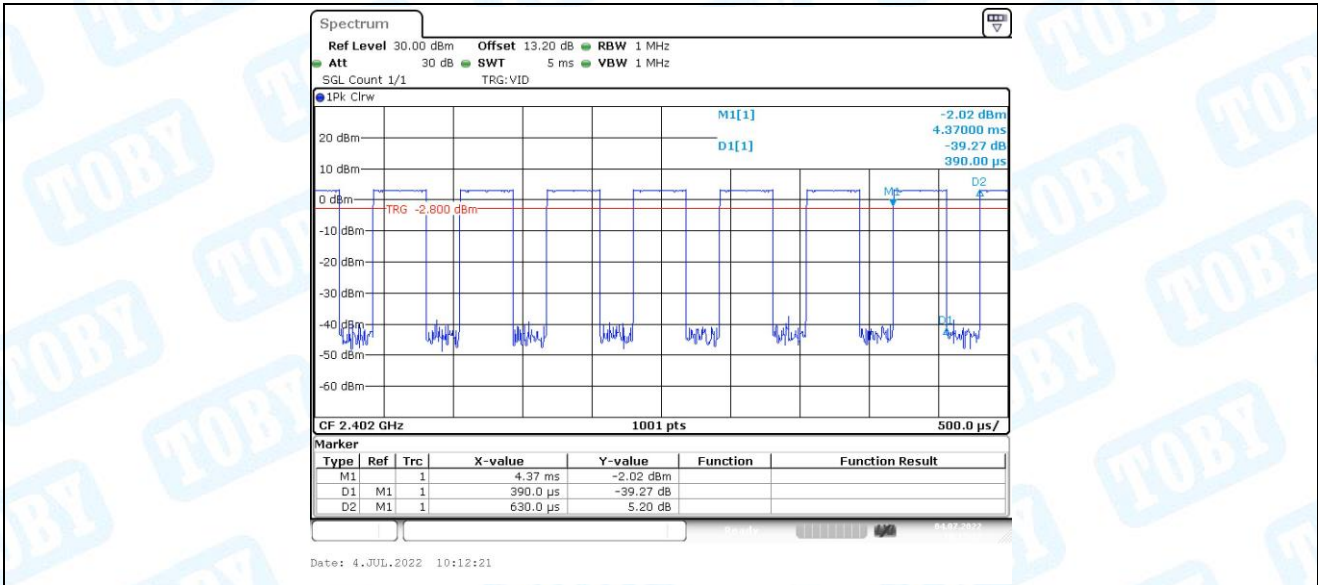


## 7. Duty Cycle

### 7.1. Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
2.4G	Ant1	2402	0.39	0.63	61.90	---	---
		2438	0.39	0.63	61.90	---	---
		2480	0.39	0.63	61.90	---	---

## 7.2. Test Graphs





## 8. Emissions in Restricted Bands

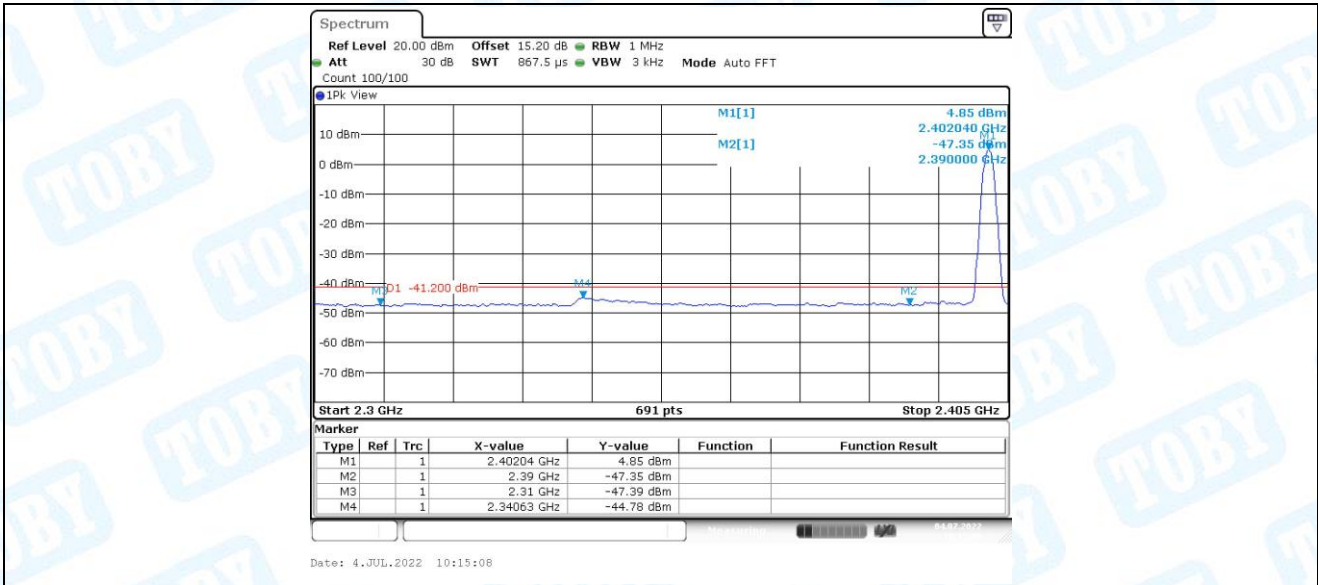
### 8.1. Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
2.4G	Ant1	Low	2402	AV	2310.000	-47.39	≤-41.20	PASS
				AV	2340.630	-44.78	≤-41.20	PASS
				AV	2390.000	-47.35	≤-41.20	PASS
				Peak	2310.000	-37.55	≤-21.20	PASS
				Peak	2389.935	-28.74	≤-21.20	PASS
				Peak	2390.000	-28.63	≤-21.20	PASS
		High	2480	AV	2483.500	-46.81	≤-41.20	PASS
				AV	2497.594	-46.11	≤-41.20	PASS
				AV	2500.000	-46.57	≤-41.20	PASS
				Peak	2483.500	-23.76	≤-21.20	PASS
				Peak	2483.797	-21.9	≤-21.20	PASS
				Peak	2500.000	-35.27	≤-21.20	PASS

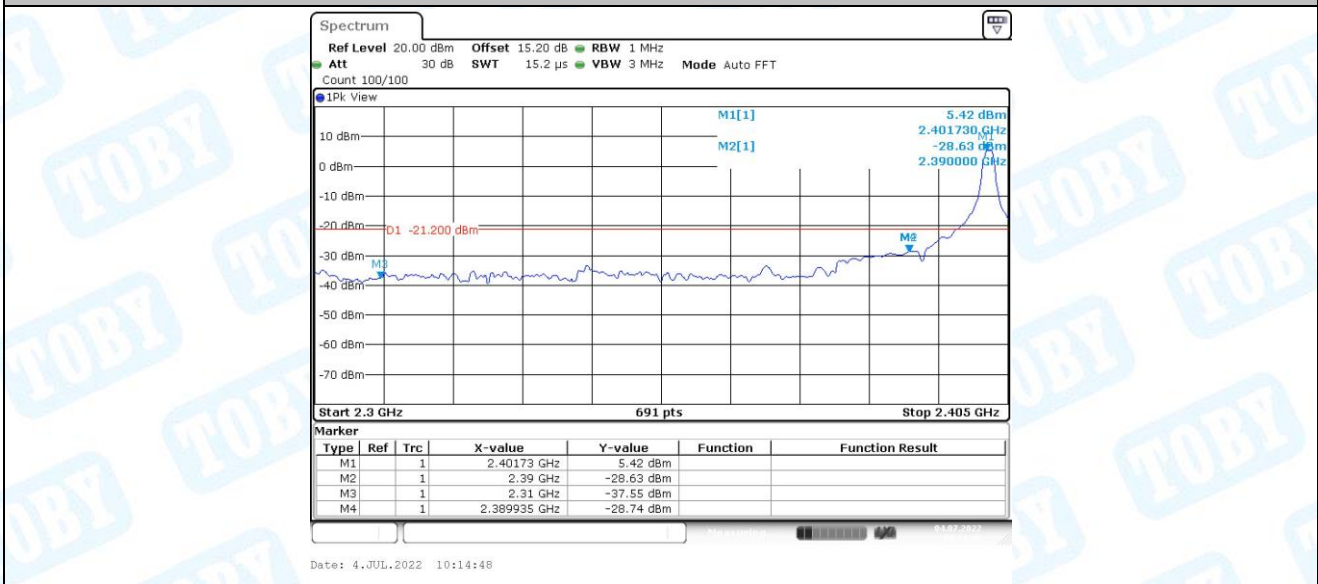
Note:

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.

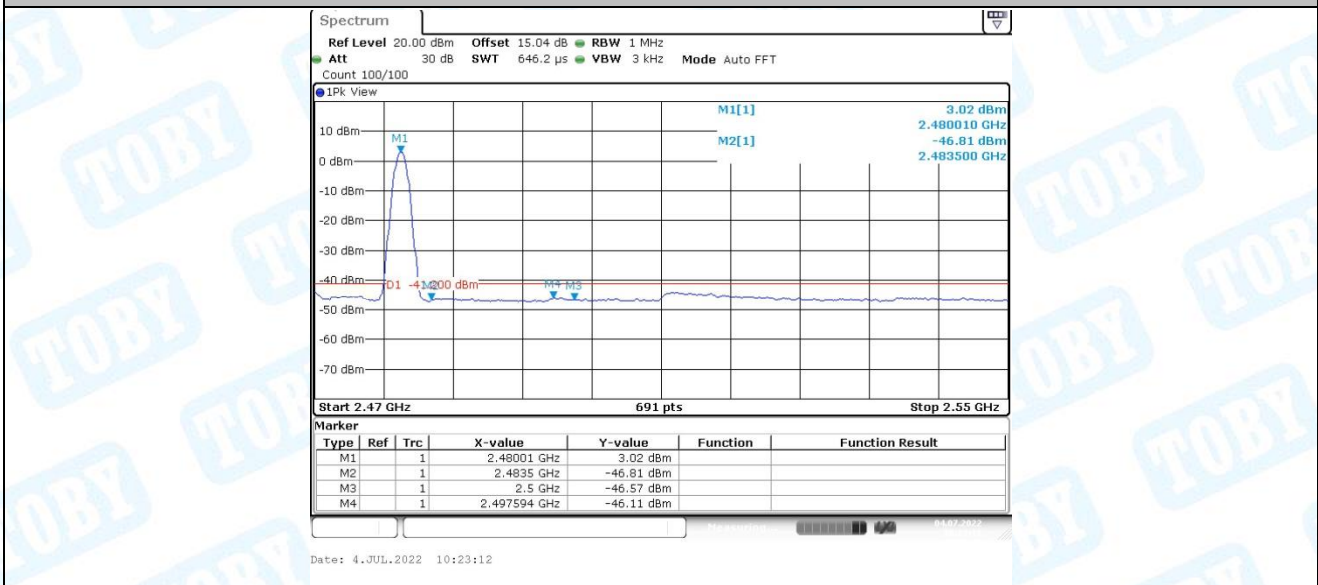
## 8.2. Test Graphs



2.4G\_Ant1\_Low\_2402\_AV

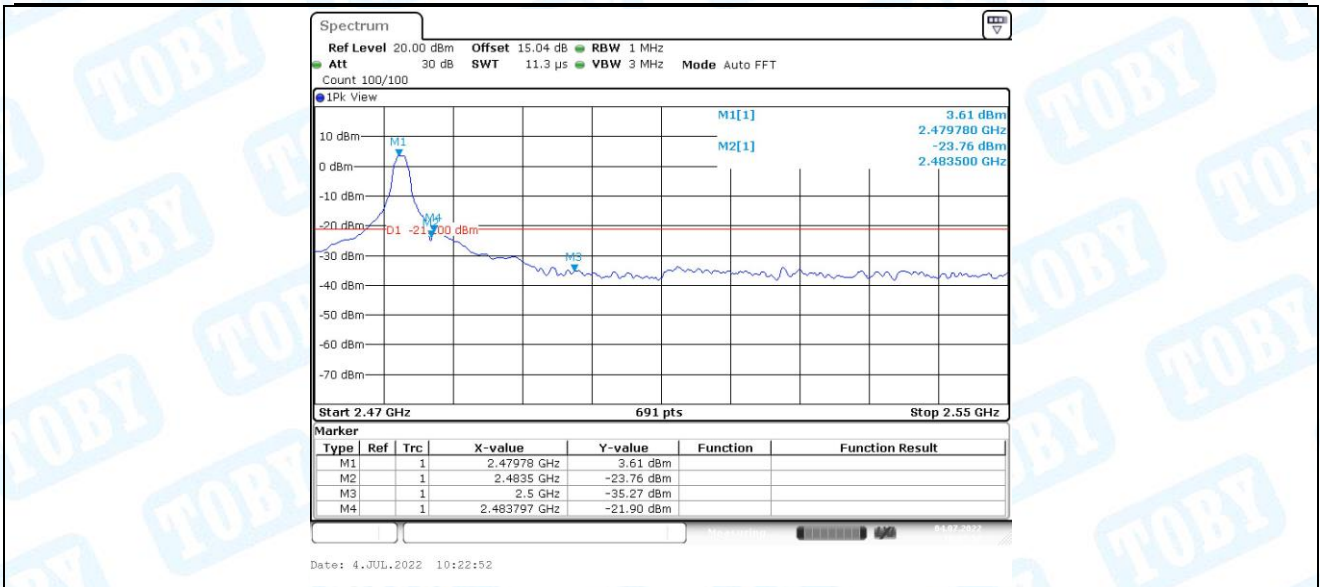


2.4G\_Ant1\_Low\_2402\_Peak



2.4G\_Ant1\_High\_2480\_AV





2.4G\_Ant1\_High\_2480\_Peak

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