

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	Osprey Electronics
Test Model:	Hotspot G1
Sample ID:	RW-C-202204-0089-2-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 5V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202204-0089-1.	

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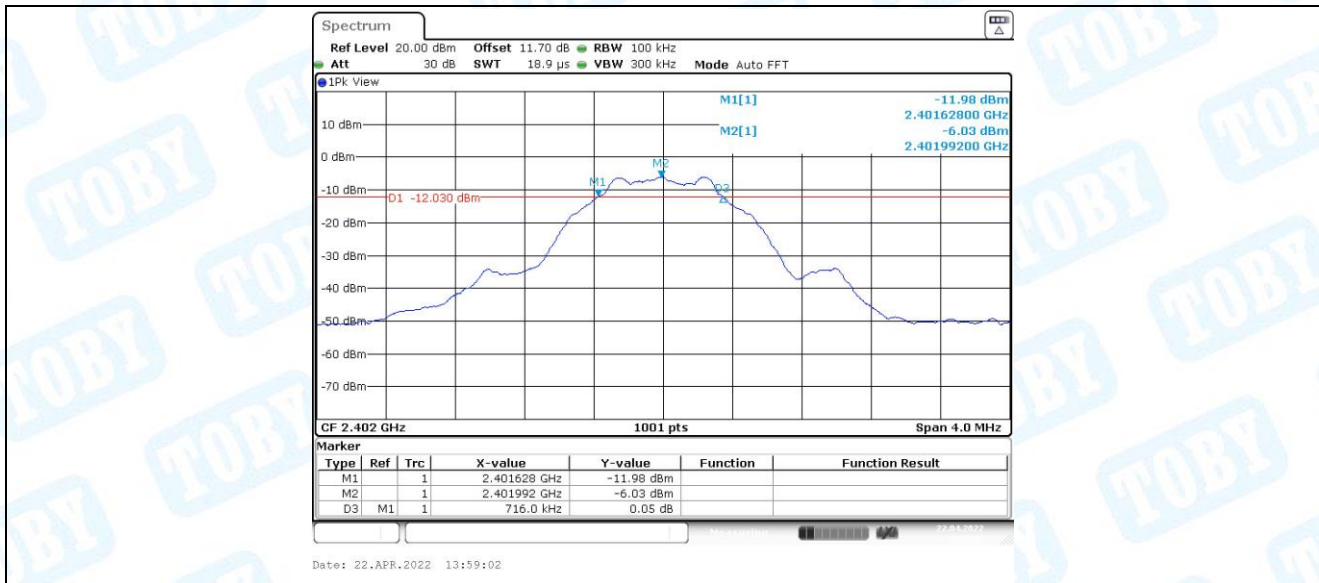
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1. DTS Bandwidth

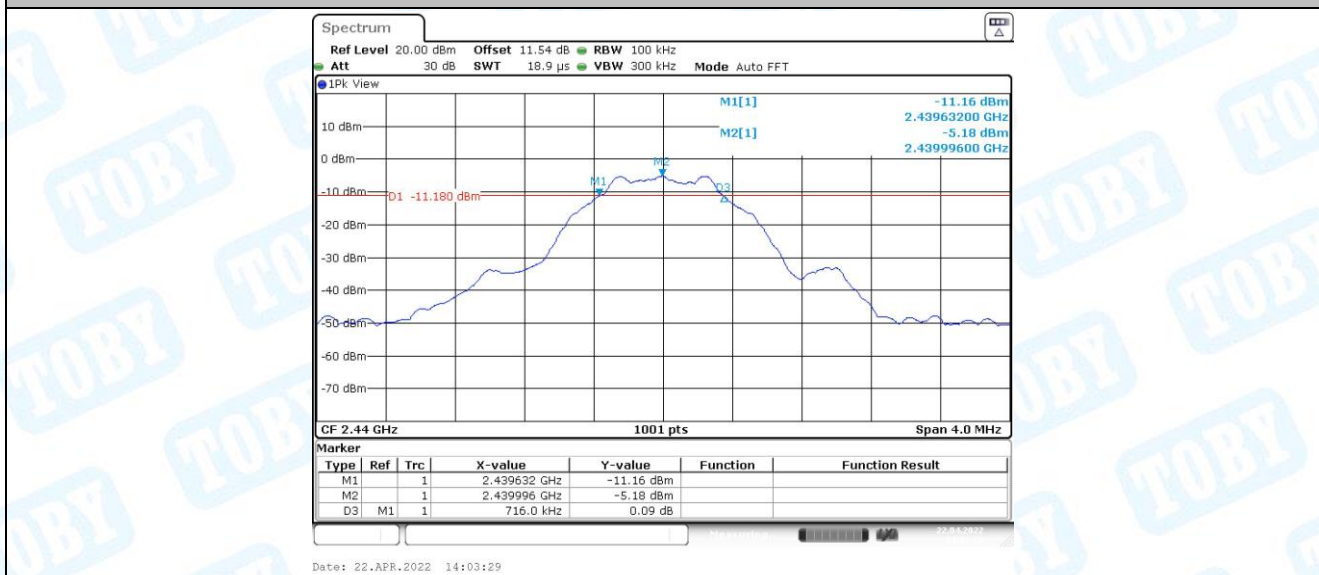
1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.72	2401.63	2402.34	0.5	PASS
		2440	0.72	2439.63	2440.35	0.5	PASS
		2480	0.71	2479.64	2480.35	0.5	PASS

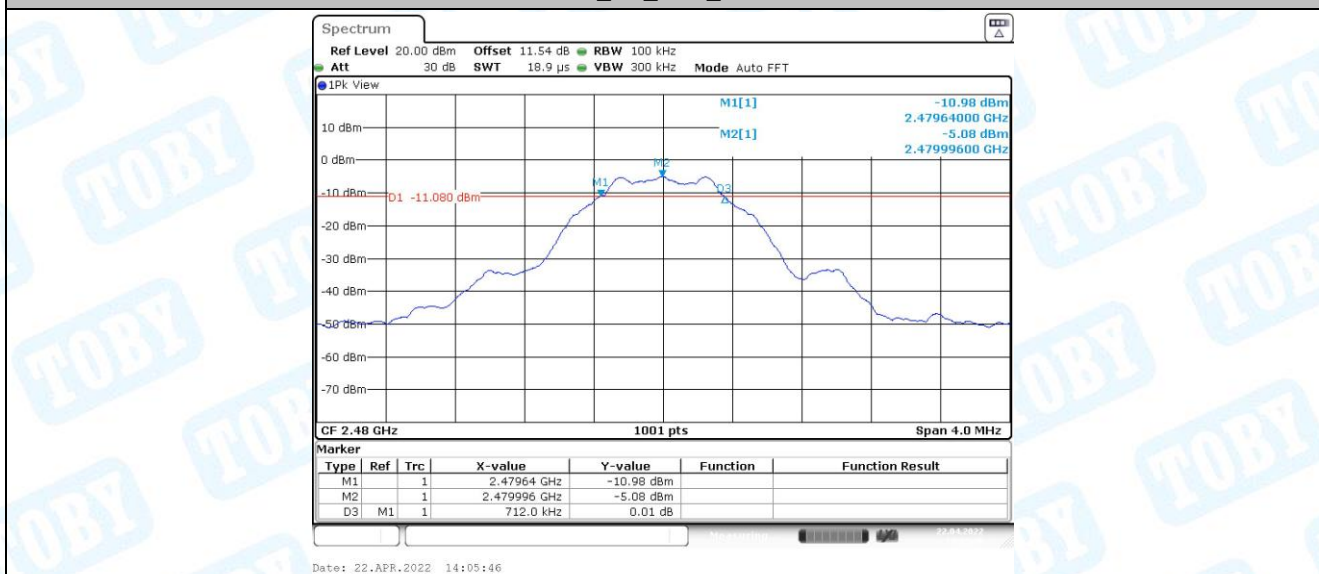
1.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



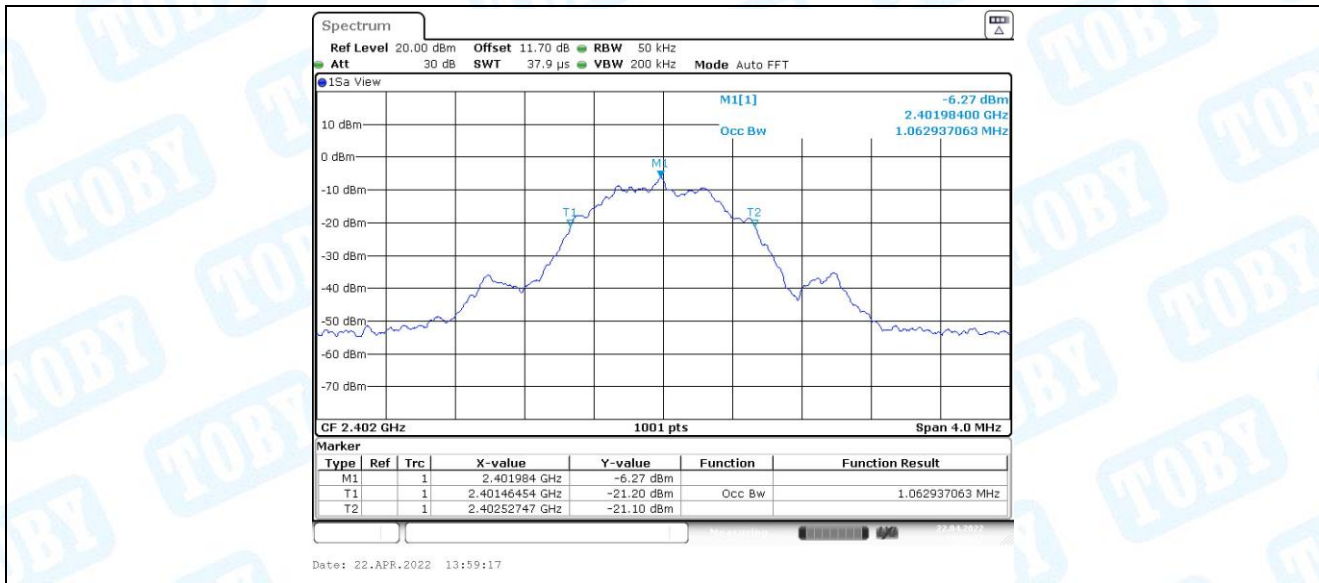
BLE_1M_Ant1_2480

2. Occupied Channel Bandwidth

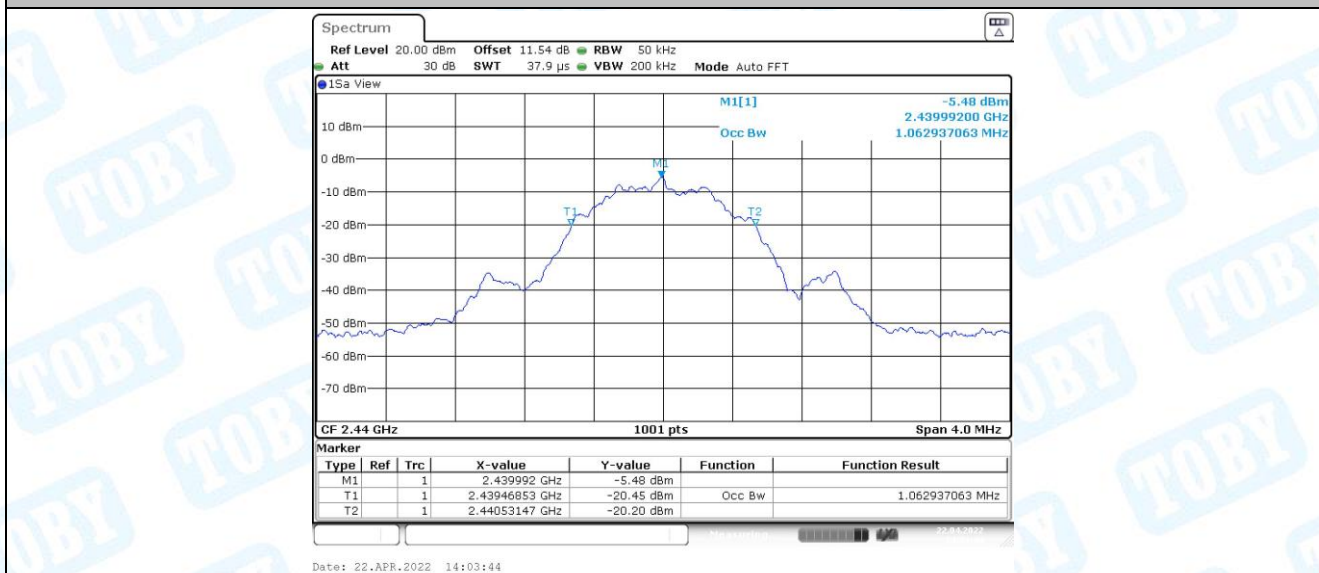
2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.063	2401.465	2402.527	---	---
		2440	1.063	2439.469	2440.531	---	---
		2480	1.067	2479.473	2480.539	---	---

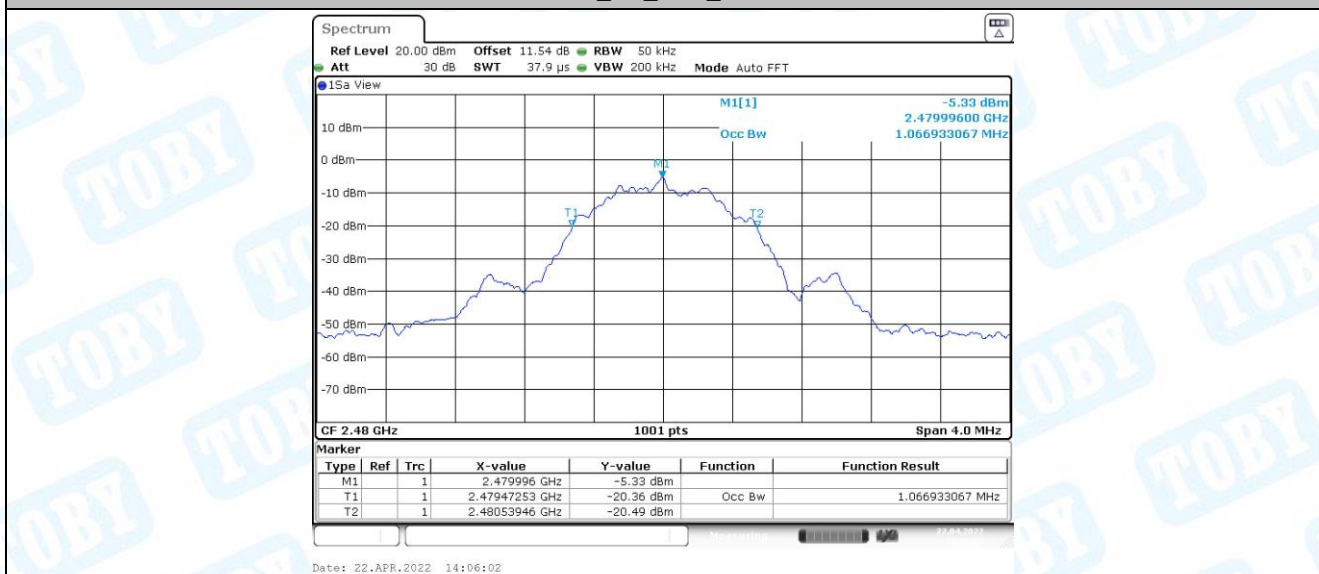
2.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



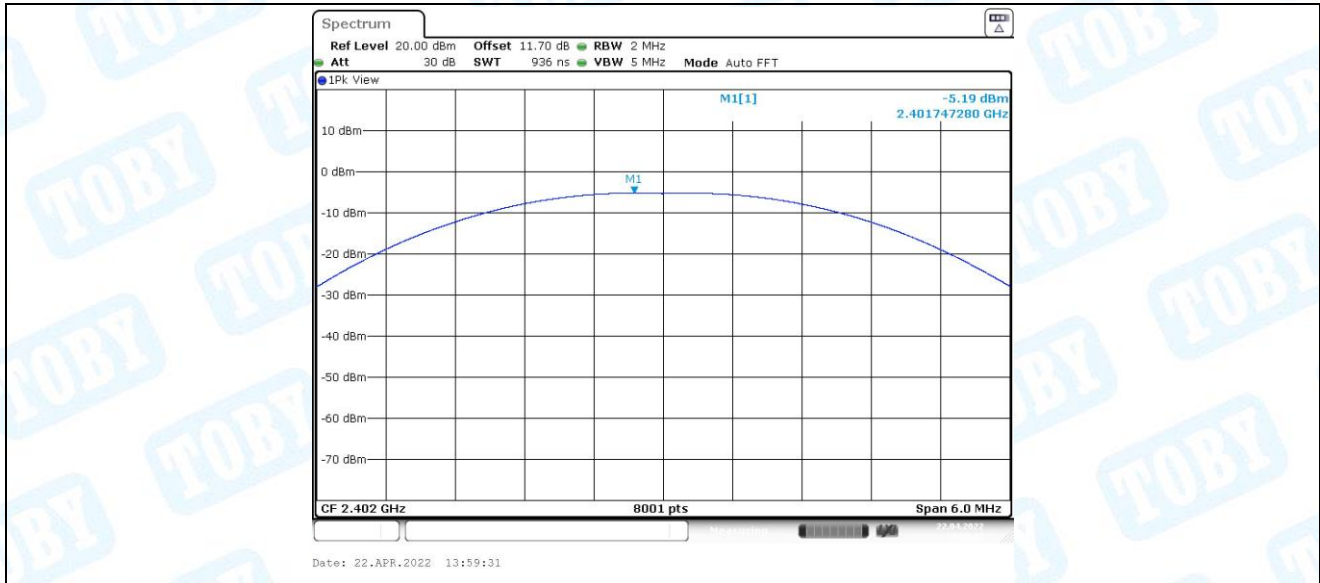
BLE_1M_Ant1_2480

3. Maximum conducted output power

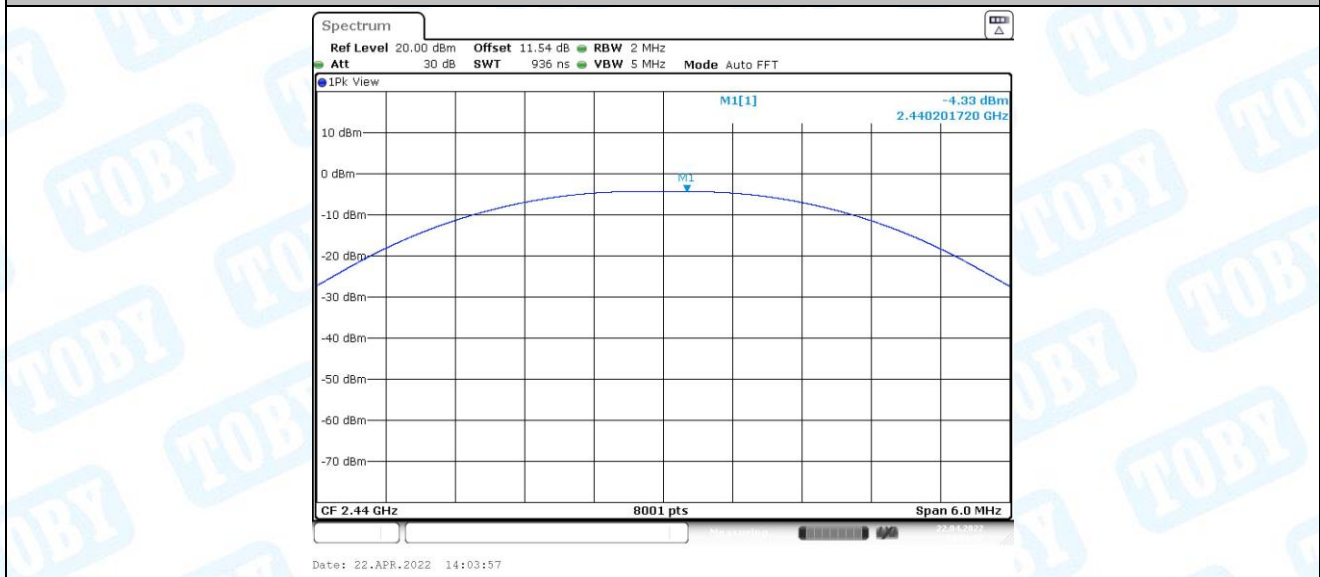
3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-5.19	≤30	PASS
		2440	-4.33	≤30	PASS
		2480	-4.28	≤30	PASS

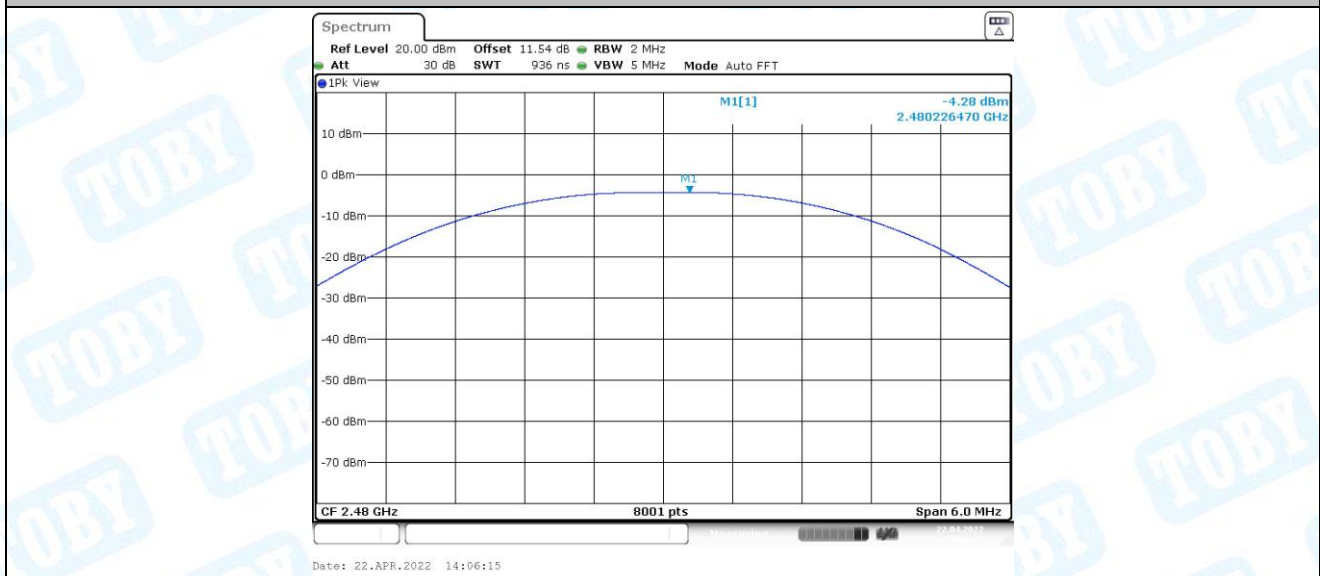
3.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



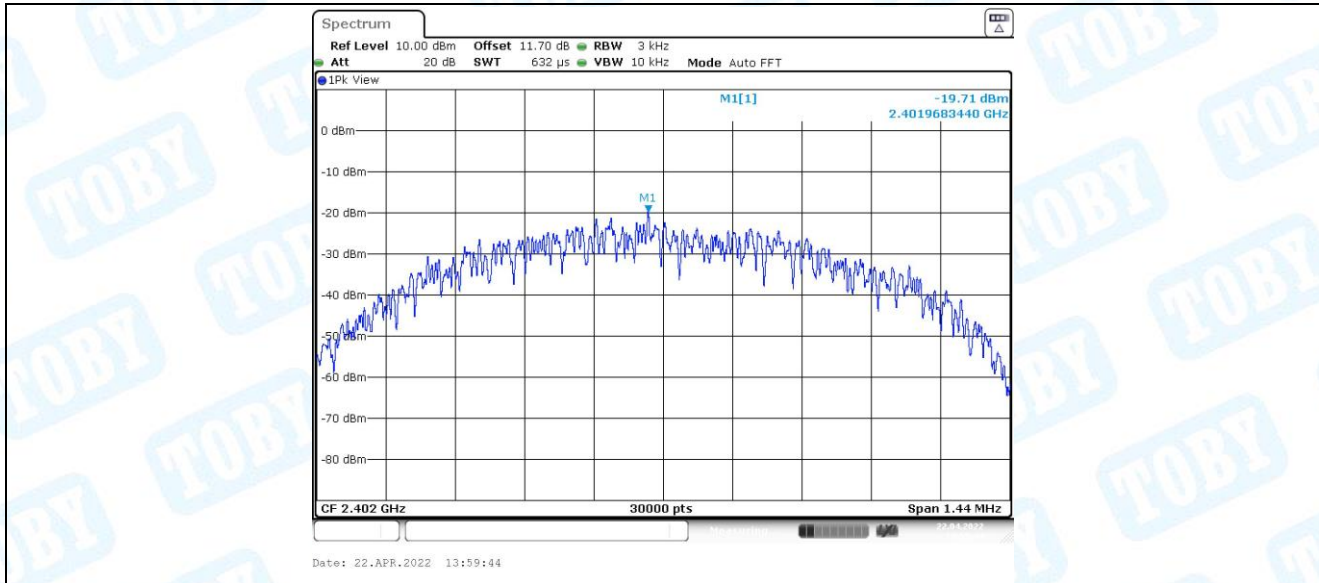
BLE_1M_Ant1_2480

4. Maximum power spectral density

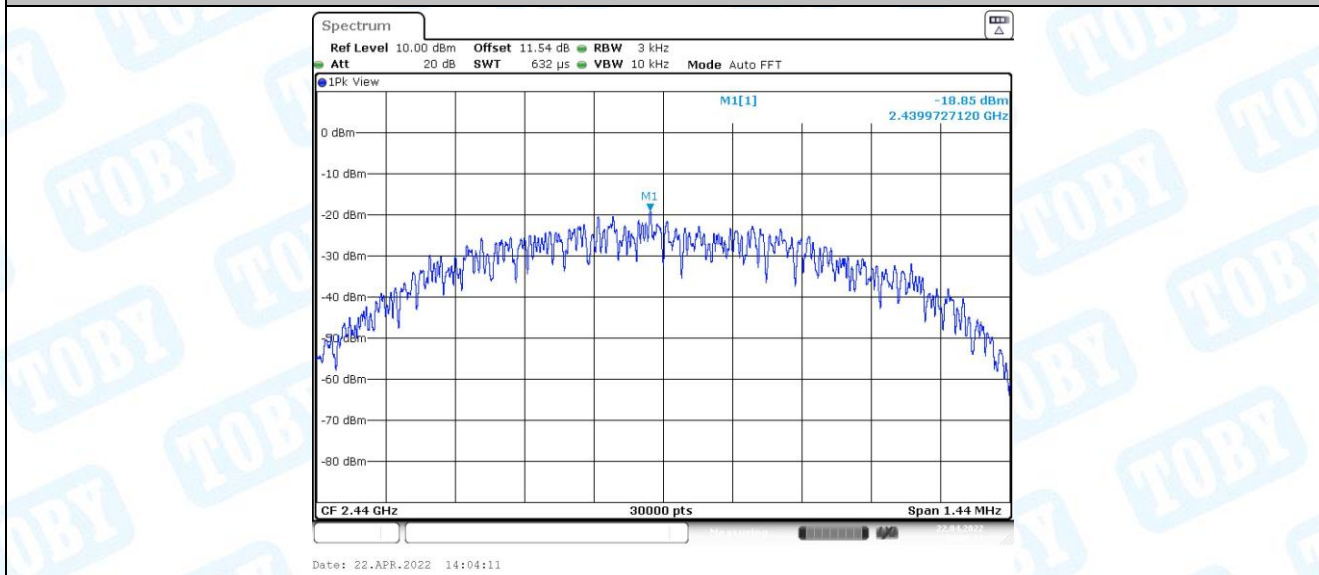
4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.71	≤8.00	PASS
		2440	-18.85	≤8.00	PASS
		2480	-18.69	≤8.00	PASS

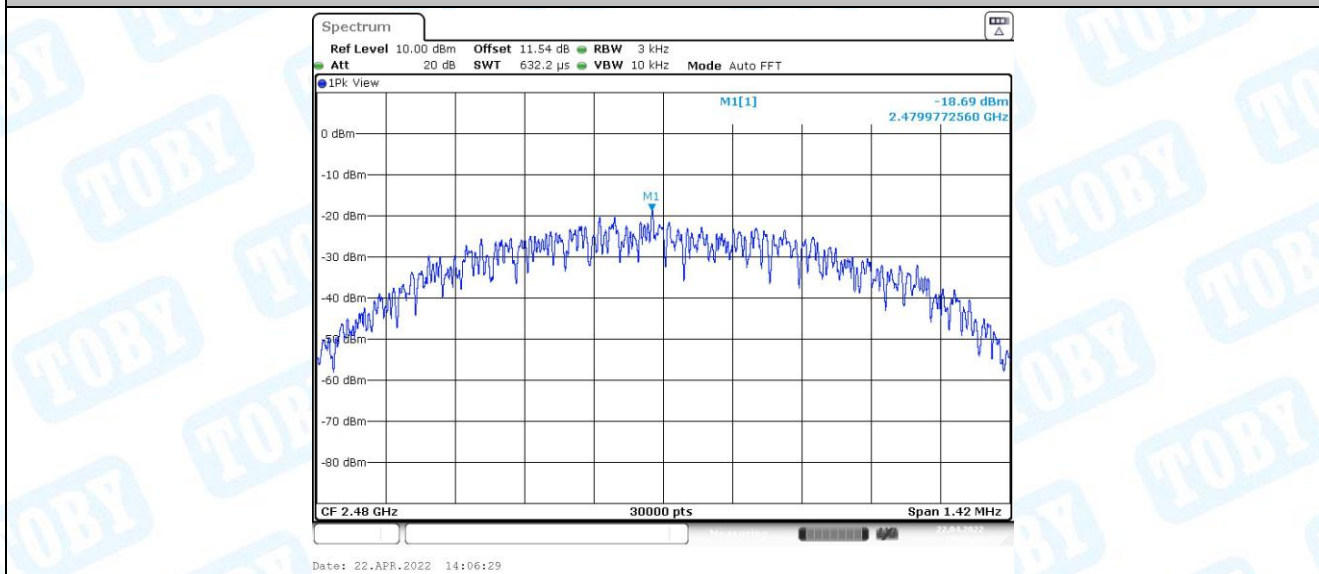
4.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



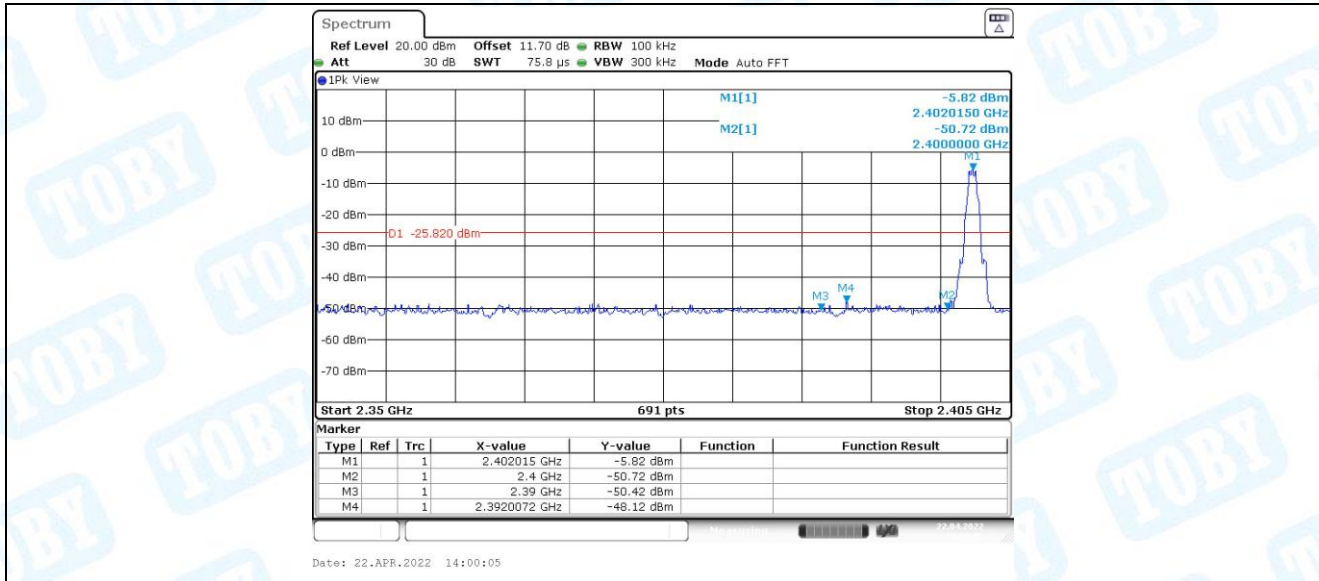
BLE_1M_Ant1_2480

5. Band edge measurements

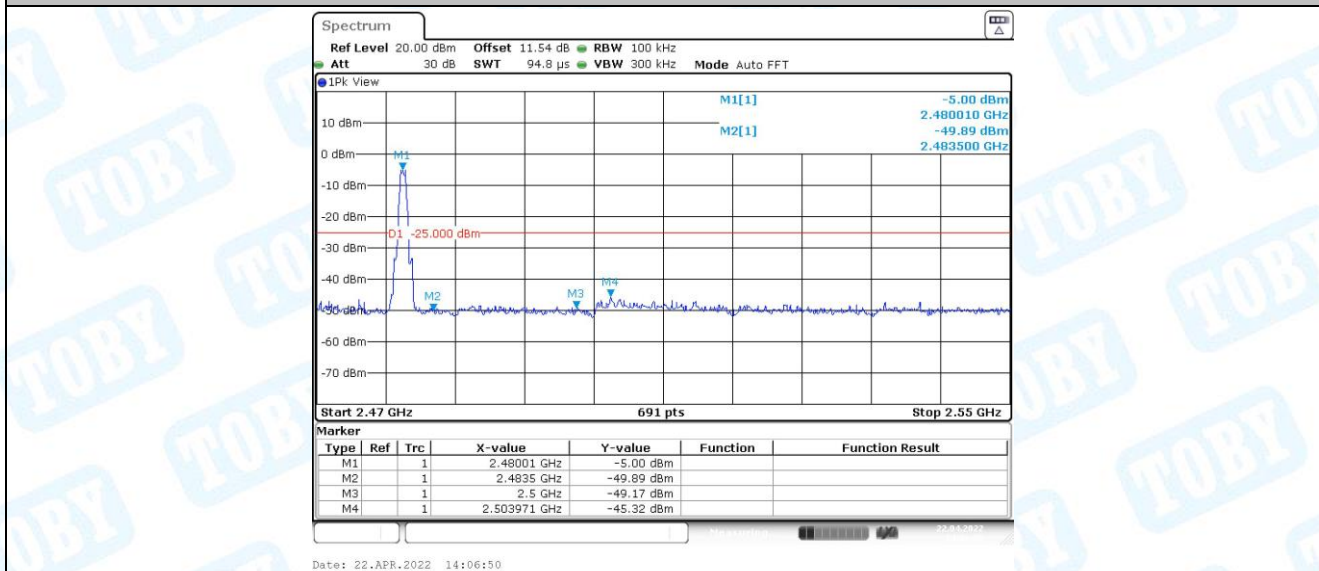
5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-5.82	-48.12	≤-25.82	PASS
		High	2480	-5.00	-45.32	≤-25	PASS

5.2. Test Graphs



BLE_1M_Ant1_Low_2402



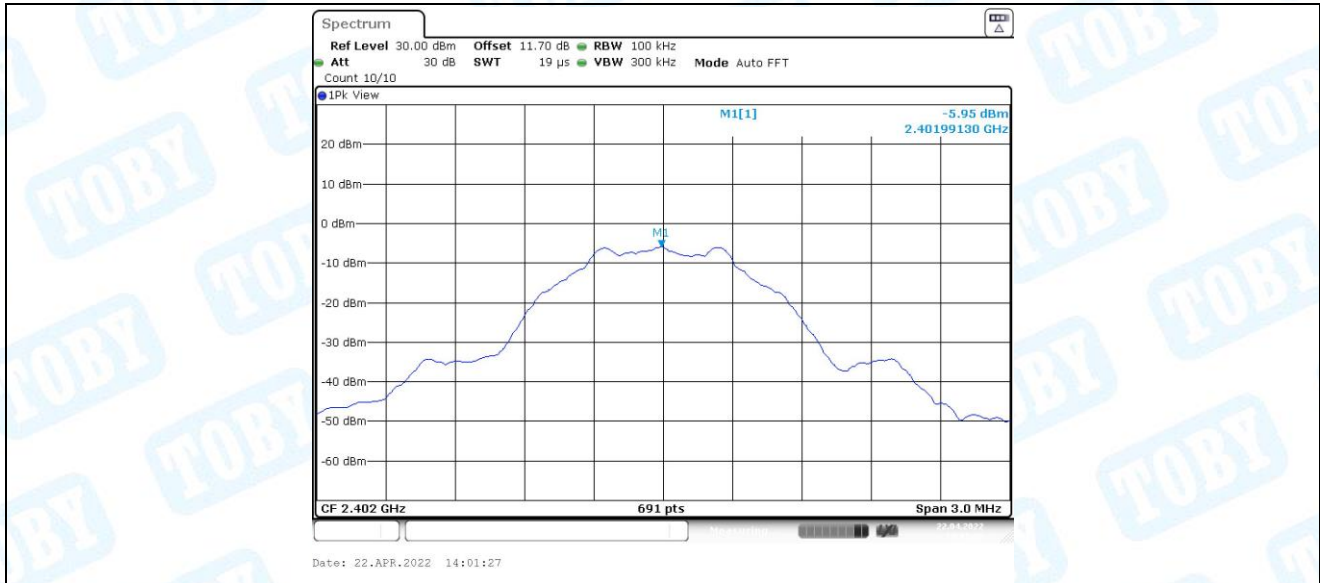
BLE_1M_Ant1_High_2480

6. Conducted Spurious Emission

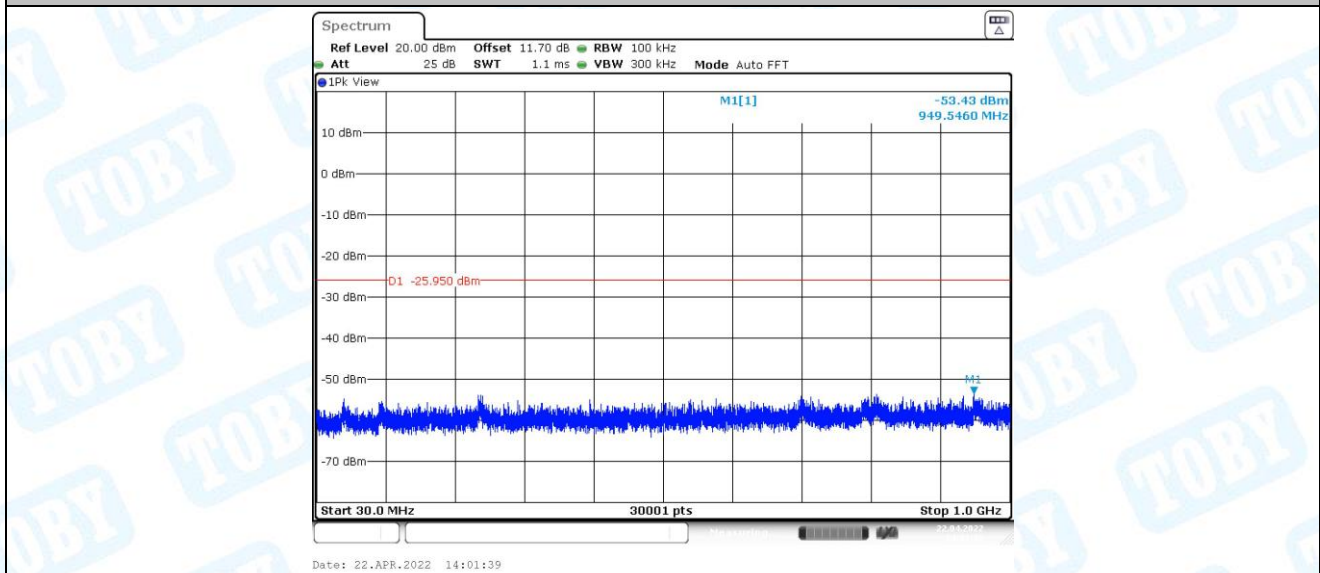
6.1. Test Result

Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-5.95	-5.95	---	PASS
			30~1000	-5.95	-53.43	≤-25.95	PASS
			1000~26500	-5.95	-47.03	≤-25.95	PASS
		2440	Reference	-5.18	-5.18	---	PASS
			30~1000	-5.18	-53.38	≤-25.18	PASS
			1000~26500	-5.18	-45.94	≤-25.18	PASS
		2480	Reference	-5.07	-5.07	---	PASS
			30~1000	-5.07	-52.92	≤-25.07	PASS
			1000~26500	-5.07	-47.16	≤-25.07	PASS

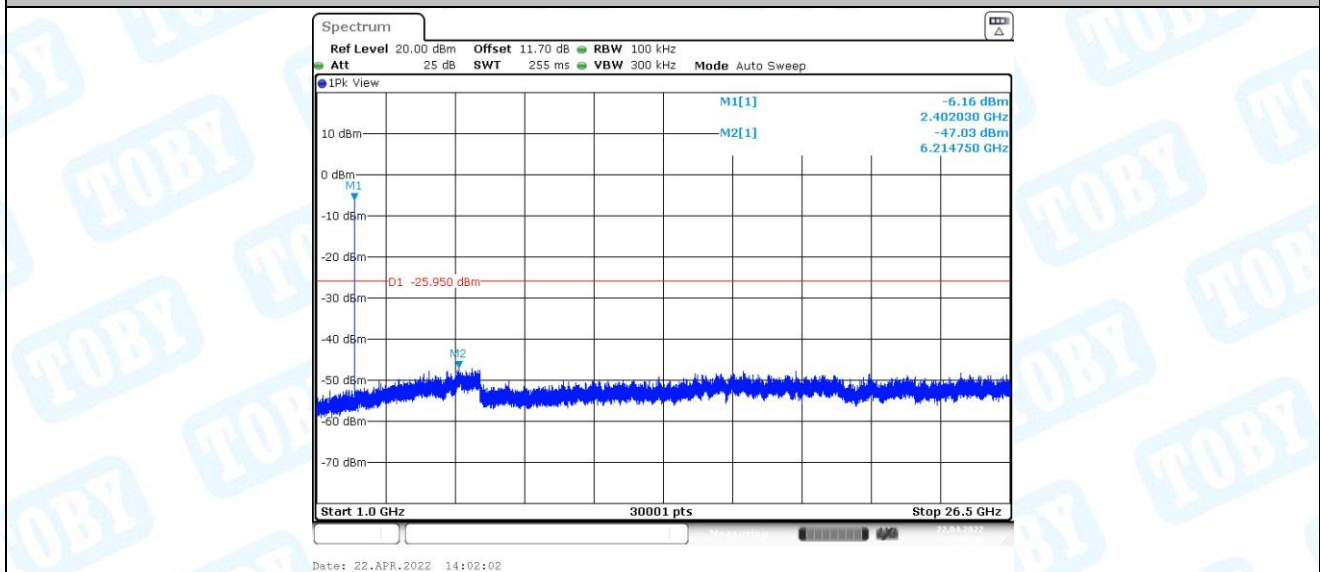
6.2. Test Graphs



BLE_1M_Ant1_2402_0~Reference



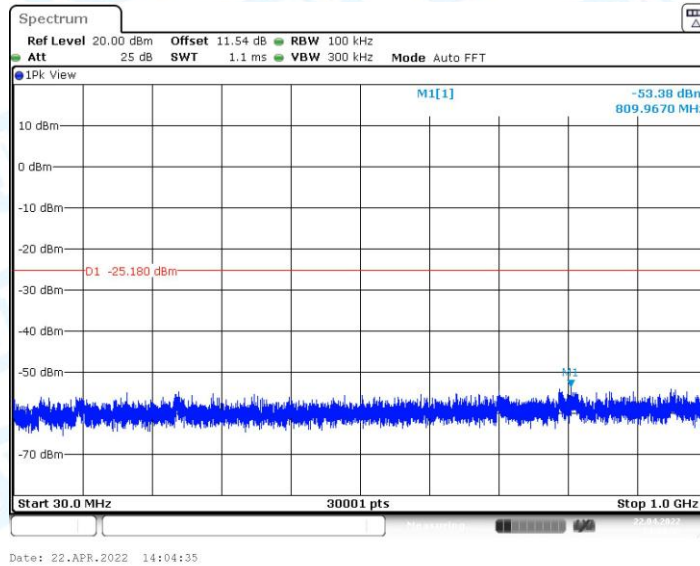
BLE_1M_Ant1_2402_30~1000



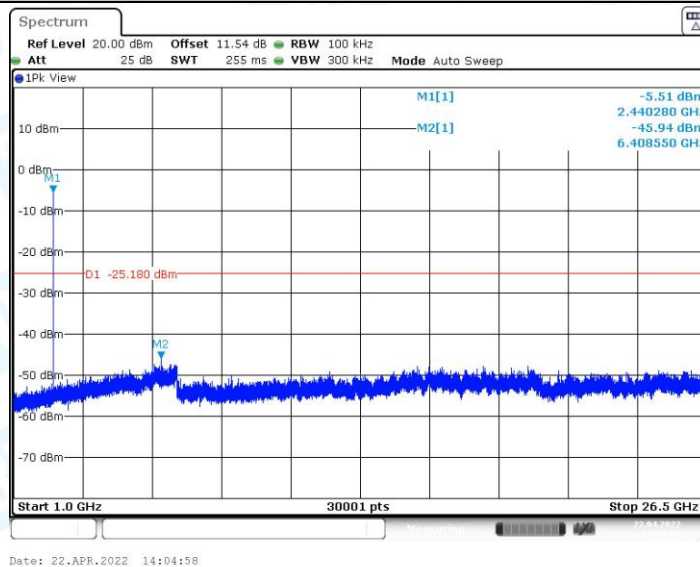
BLE_1M_Ant1_2402_1000~26500



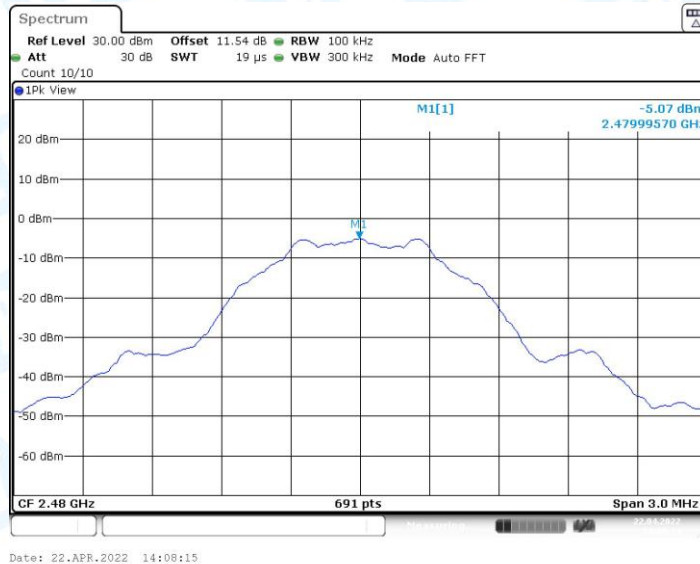
BLE_1M_Ant1_2440_0~Reference



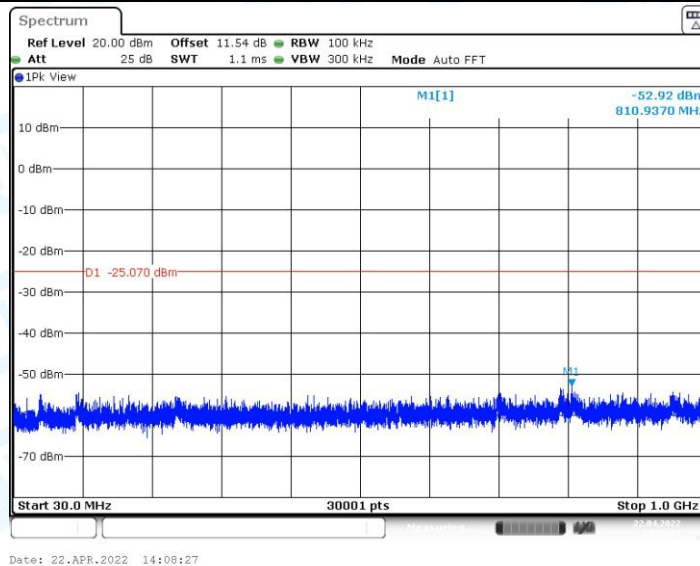
BLE_1M_Ant1_2440_30~1000



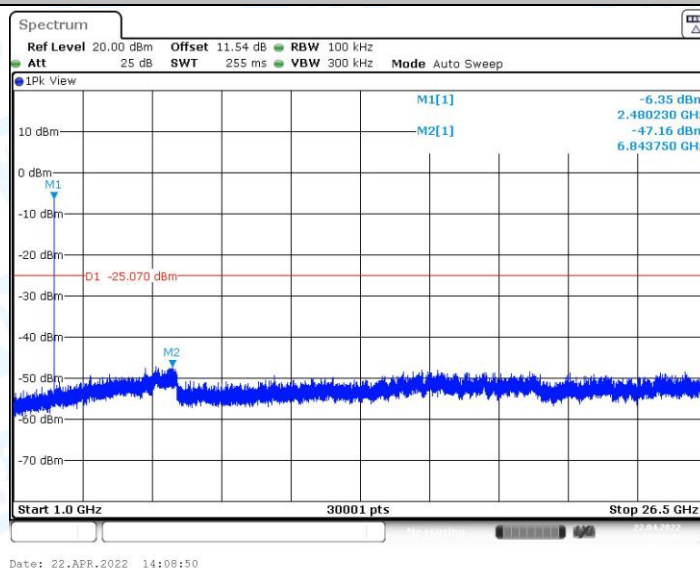
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



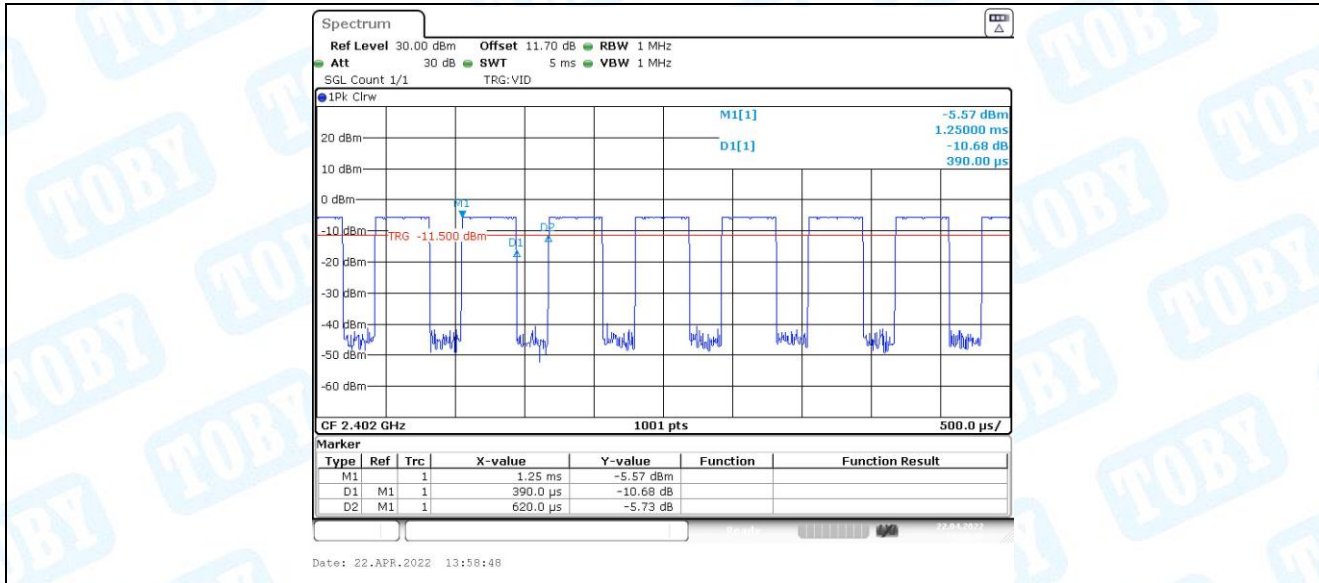
BLE_1M_Ant1_2480_1000~26500

7. Duty Cycle

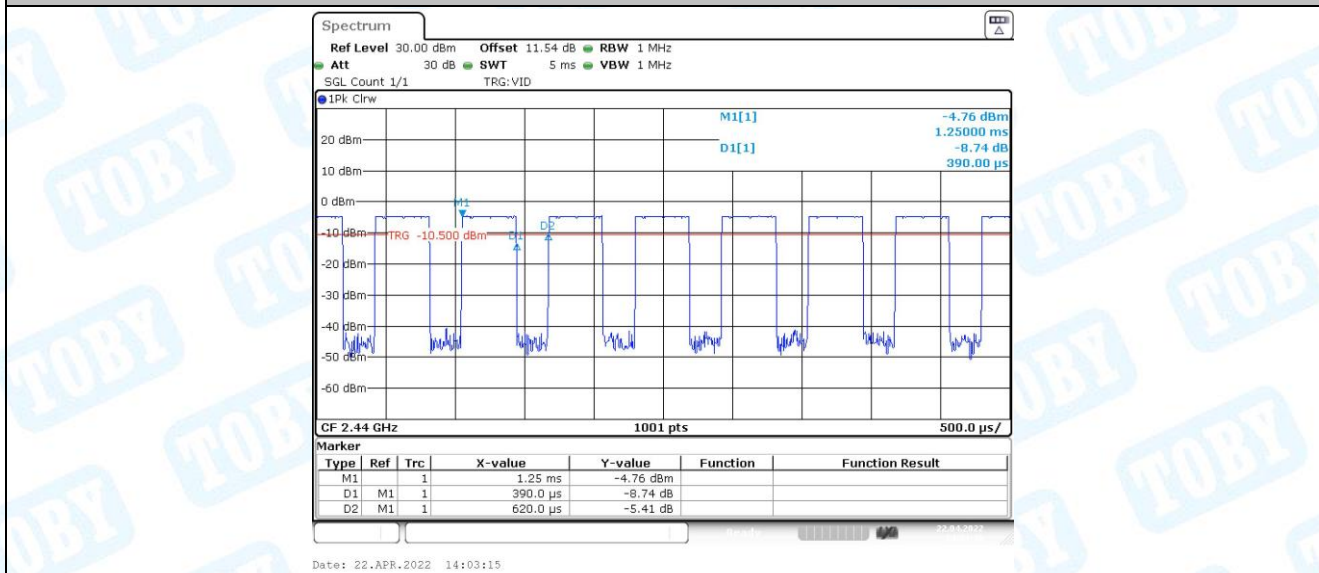
7.1. Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [kHz]	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.62	62.90	2.56	---	---
		2440	0.39	0.62	62.90	2.56	---	---
		2480	0.39	0.62	62.90	2.56	---	---

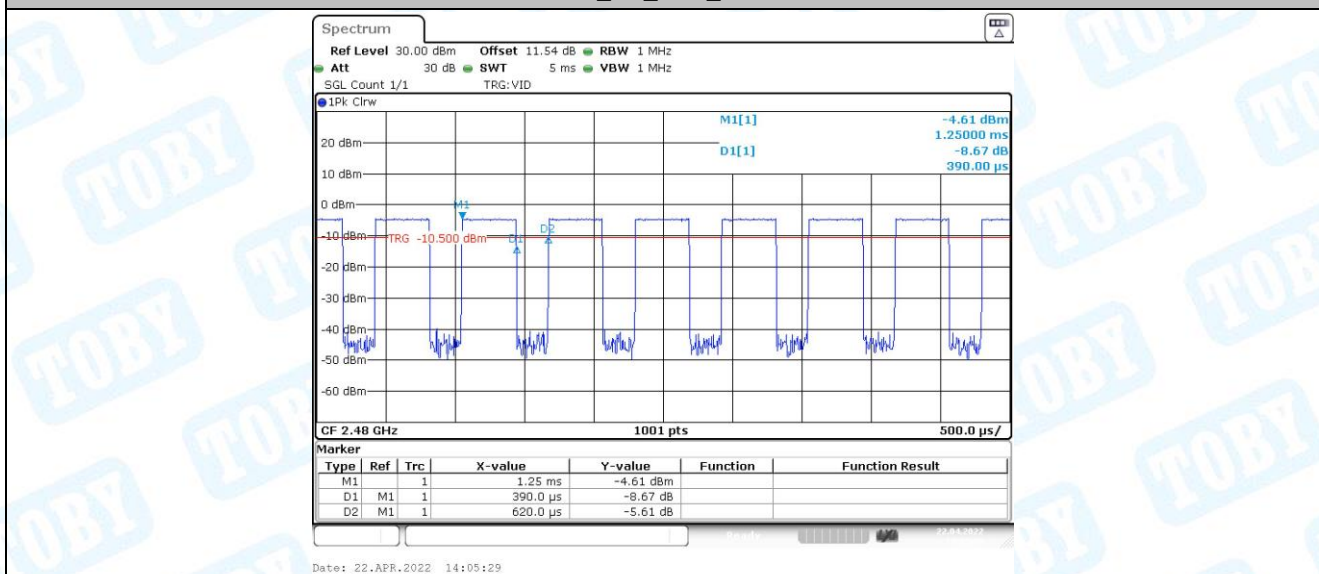
7.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

8. Emissions in Restricted Bands

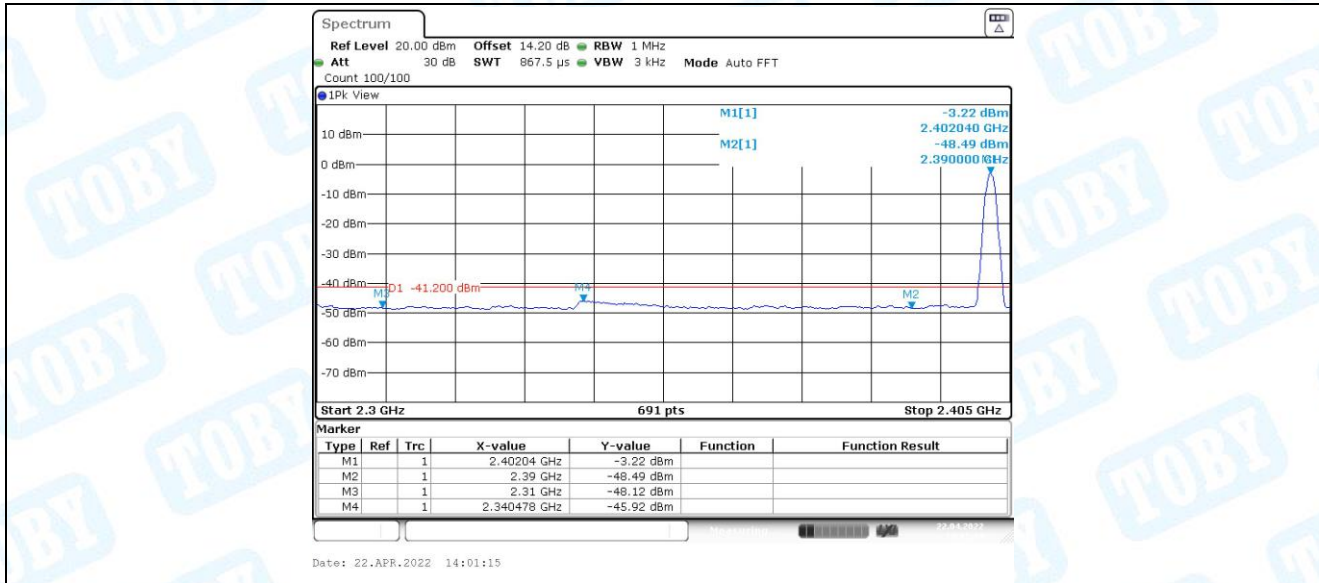
8.1. Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.12	≤-41.20	PASS
				AV	2340.478	-45.92	≤-41.20	PASS
				AV	2390.000	-48.49	≤-41.20	PASS
				Peak	2310.000	-38.63	≤-21.20	PASS
				Peak	2341.391	-35.4	≤-21.20	PASS
				Peak	2390.000	-38.08	≤-21.20	PASS
		High	2480	AV	2483.500	-47.92	≤-41.20	PASS
				AV	2498.406	-47.04	≤-41.20	PASS
				AV	2500.000	-47.56	≤-41.20	PASS
				Peak	2483.500	-39.84	≤-21.20	PASS
				Peak	2499.217	-36.55	≤-21.20	PASS
				Peak	2500.000	-38.05	≤-21.20	PASS

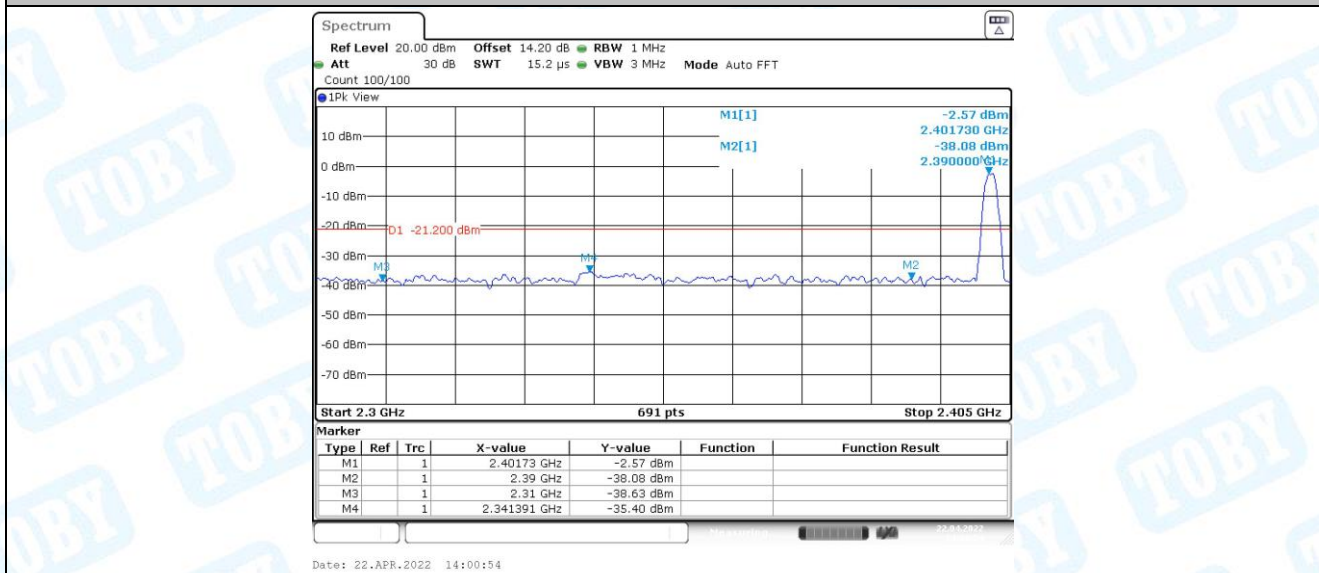
Note:

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.

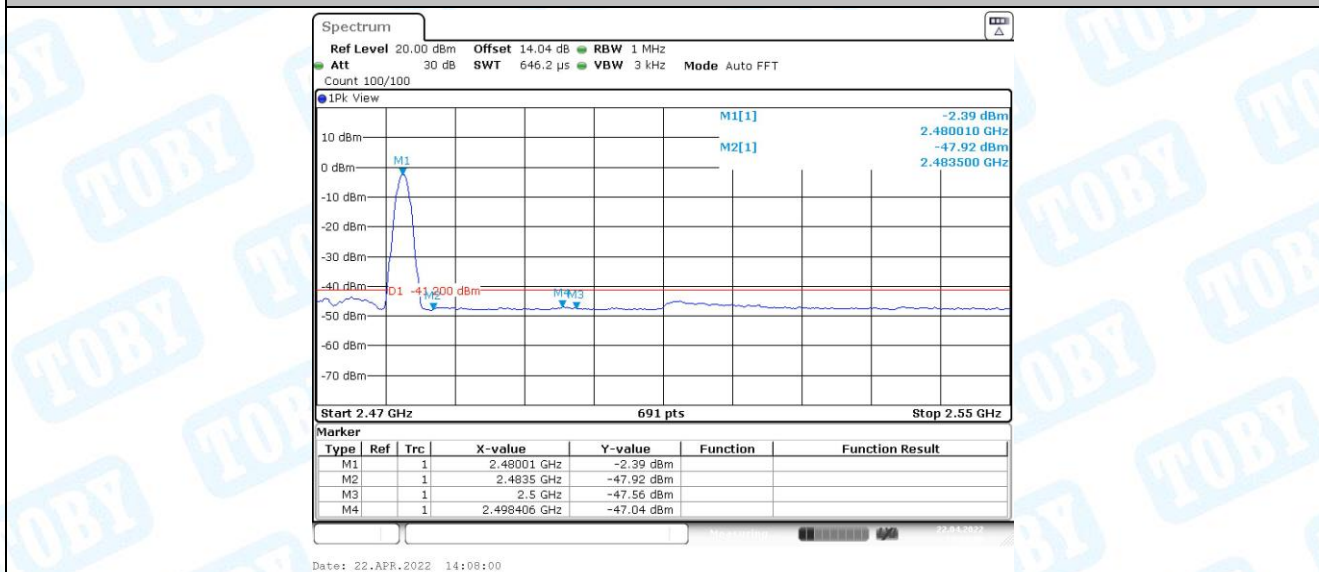
8.2.Test Graphs



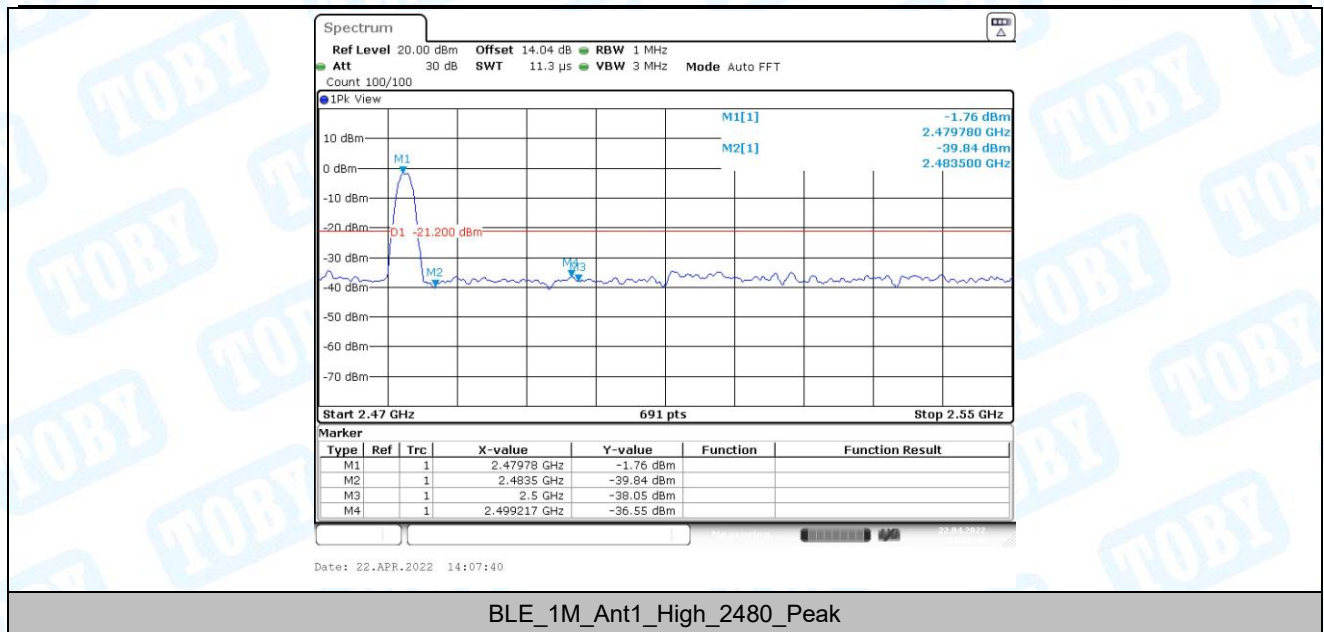
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



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