

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	Nooie Pet Feeder
Test Model:	NPF01
Sample ID:	RW-C-202203-0202-7-2#
Environmental Conditions	
Temperature:	23.8°C
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-202203-0202-9	

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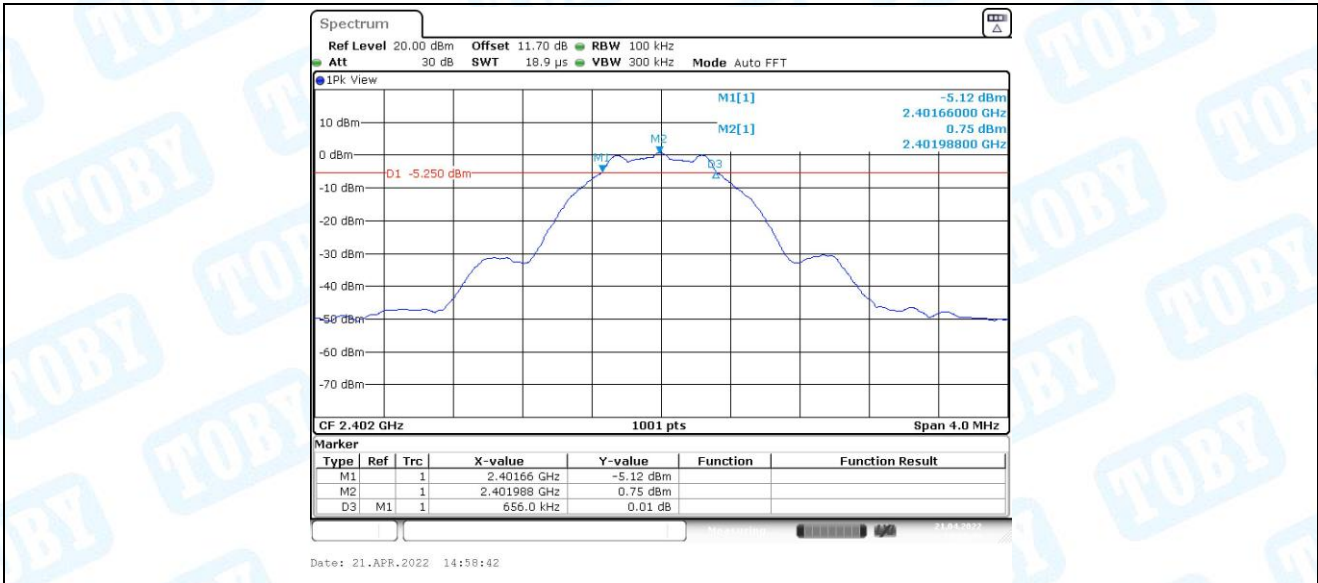
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1. DTS Bandwidth

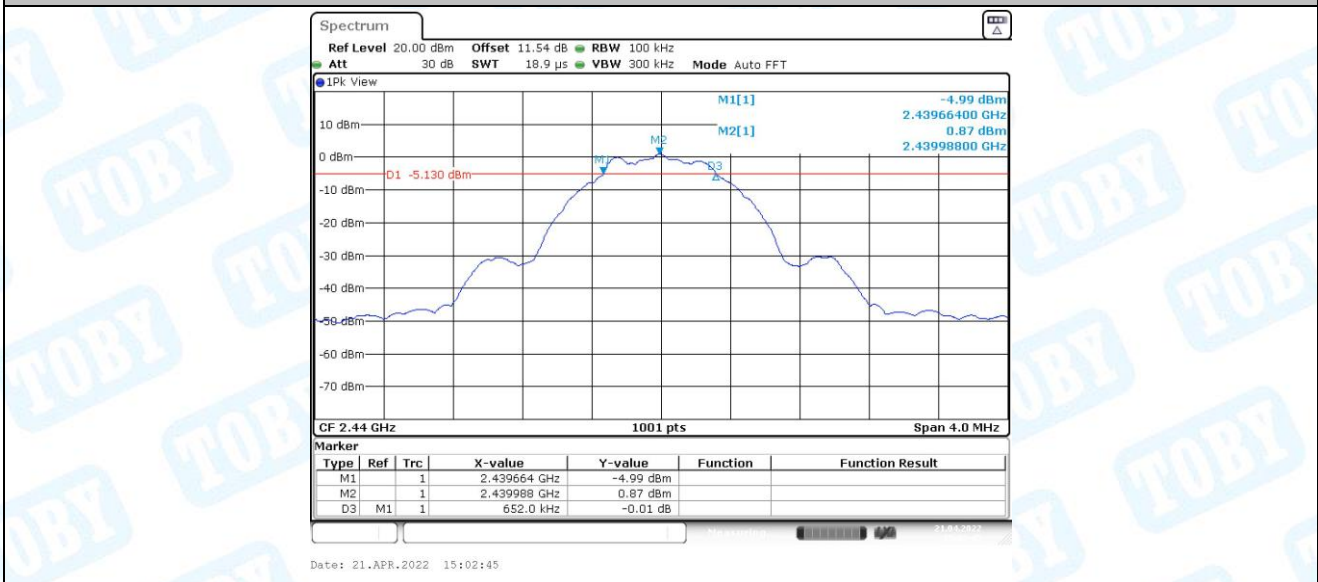
1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.66	2401.66	2402.32	0.5	PASS
		2440	0.65	2439.66	2440.32	0.5	PASS
		2480	0.65	2479.66	2480.32	0.5	PASS

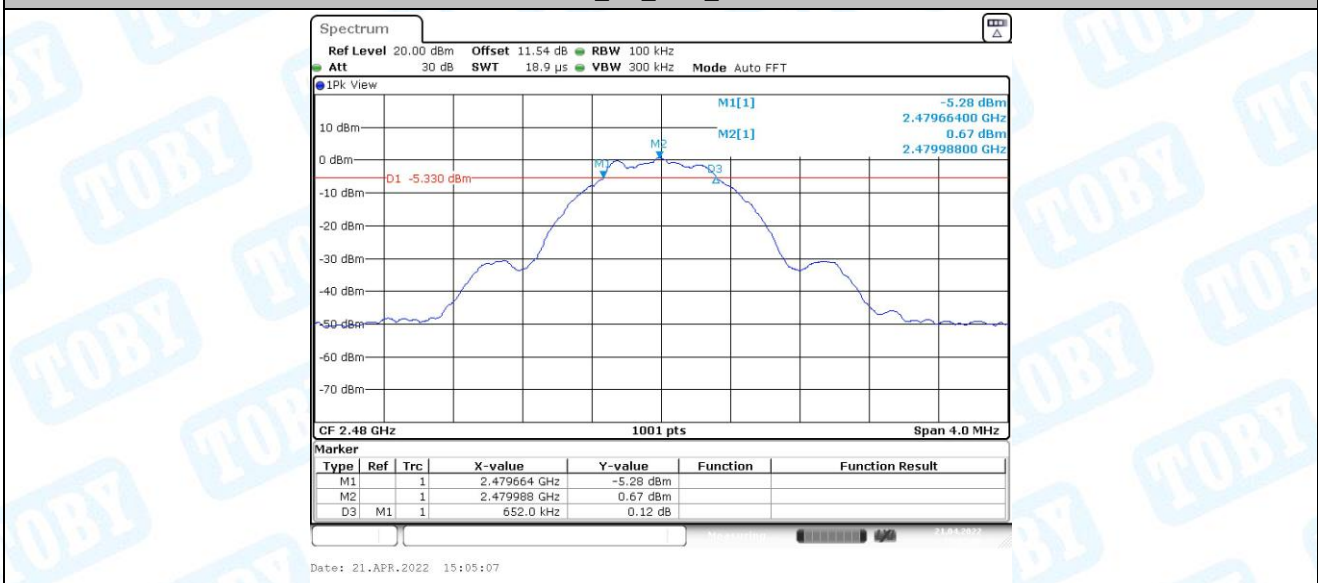
1.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



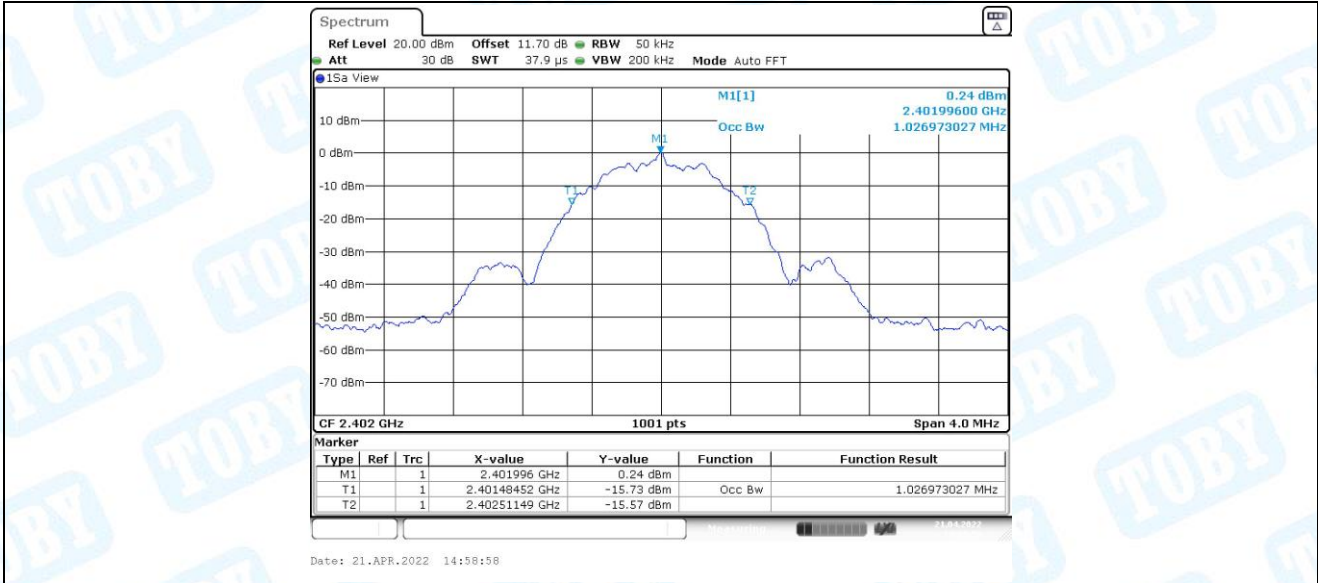
BLE_1M_Ant1_2480

2. Occupied Channel Bandwidth

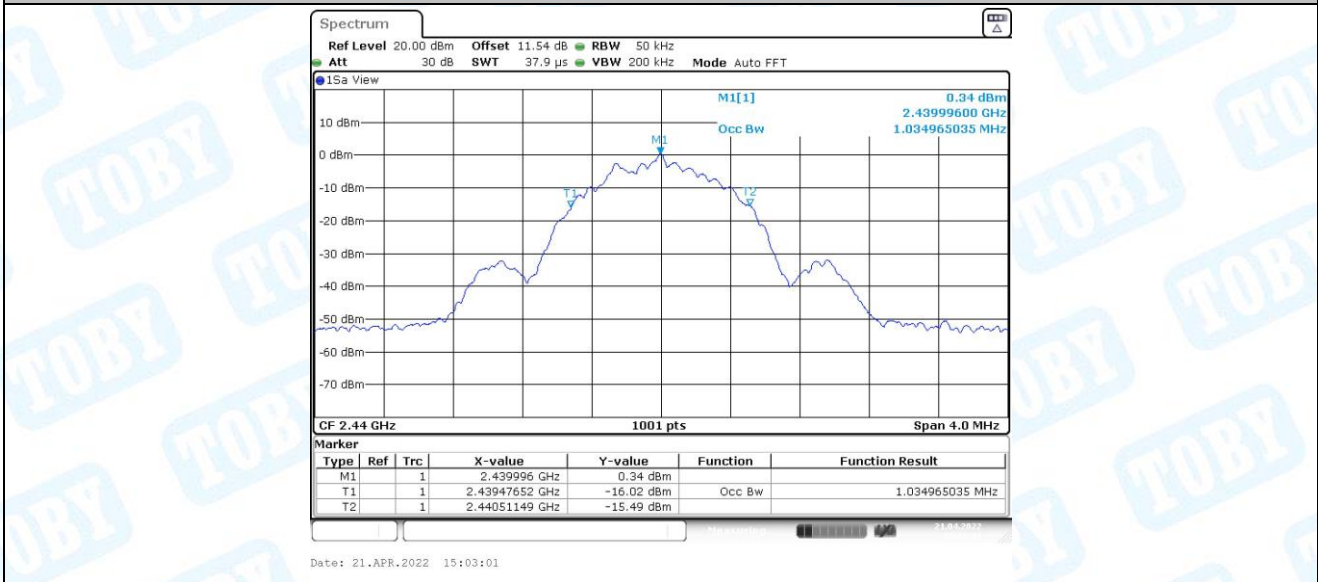
2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.027	2401.485	2402.511	---	---
		2440	1.035	2439.477	2440.511	---	---
		2480	1.035	2479.477	2480.511	---	---

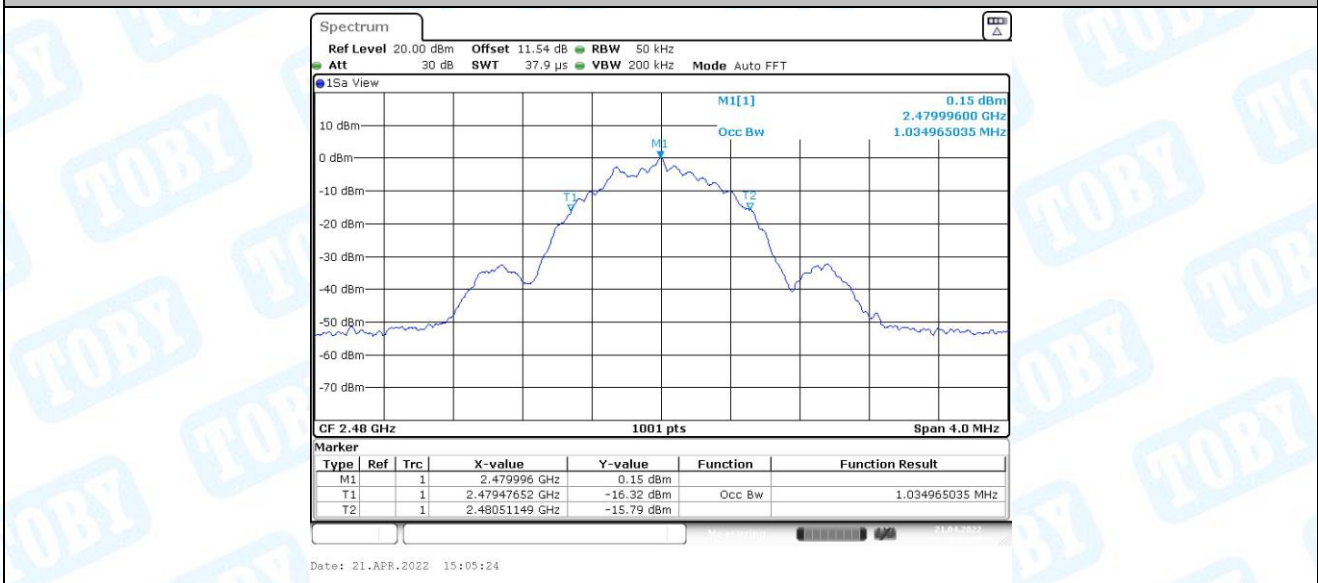
2.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



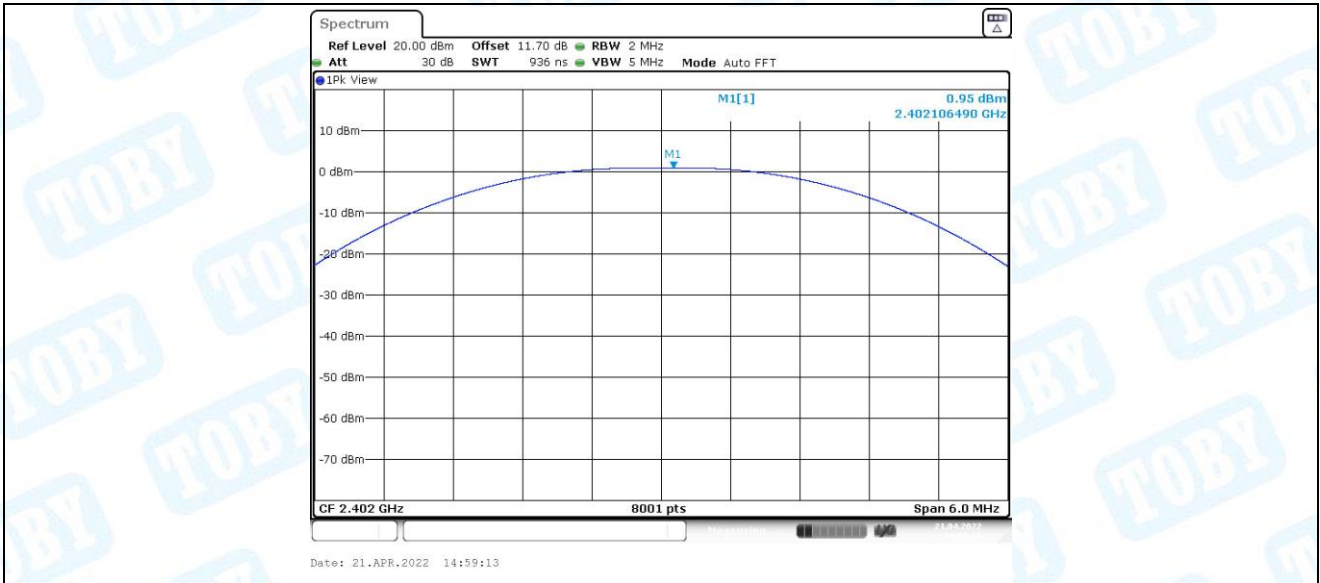
BLE_1M_Ant1_2480

3. Maximum conducted output power

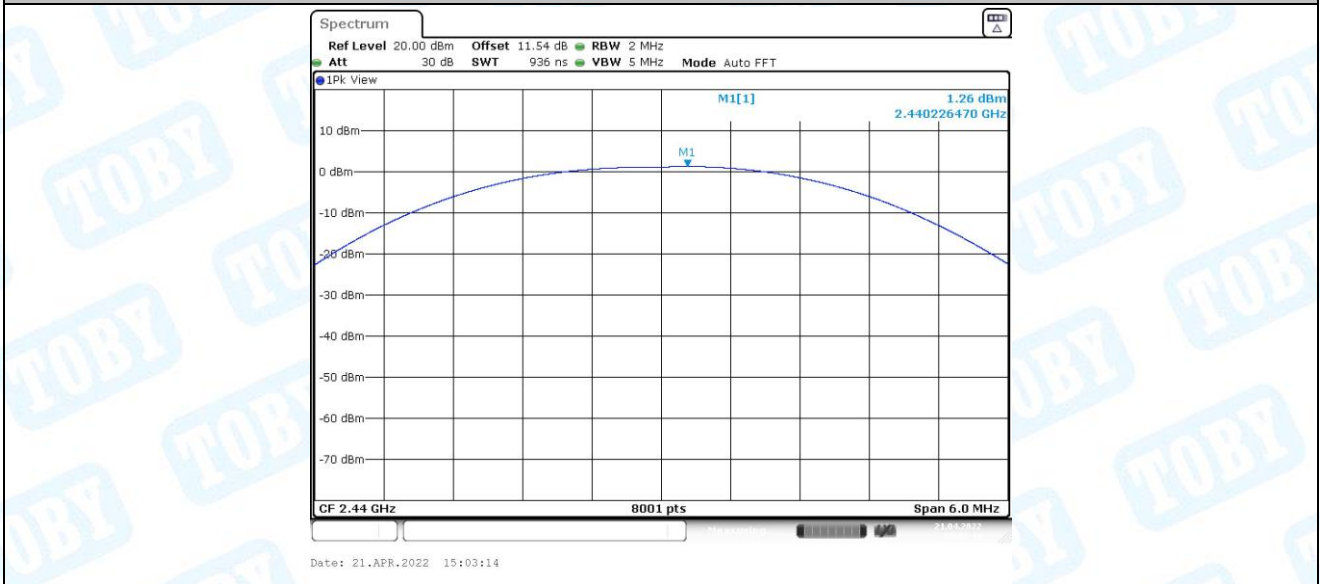
3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.95	≤30	PASS
		2440	1.26	≤30	PASS
		2480	0.84	≤30	PASS

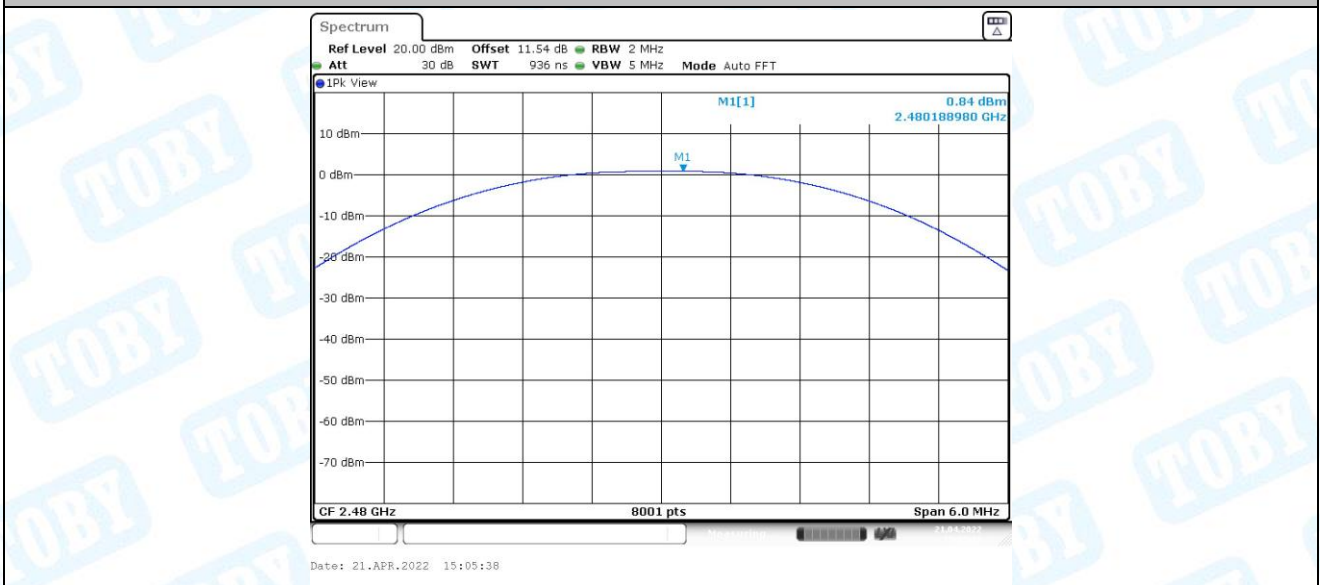
3.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



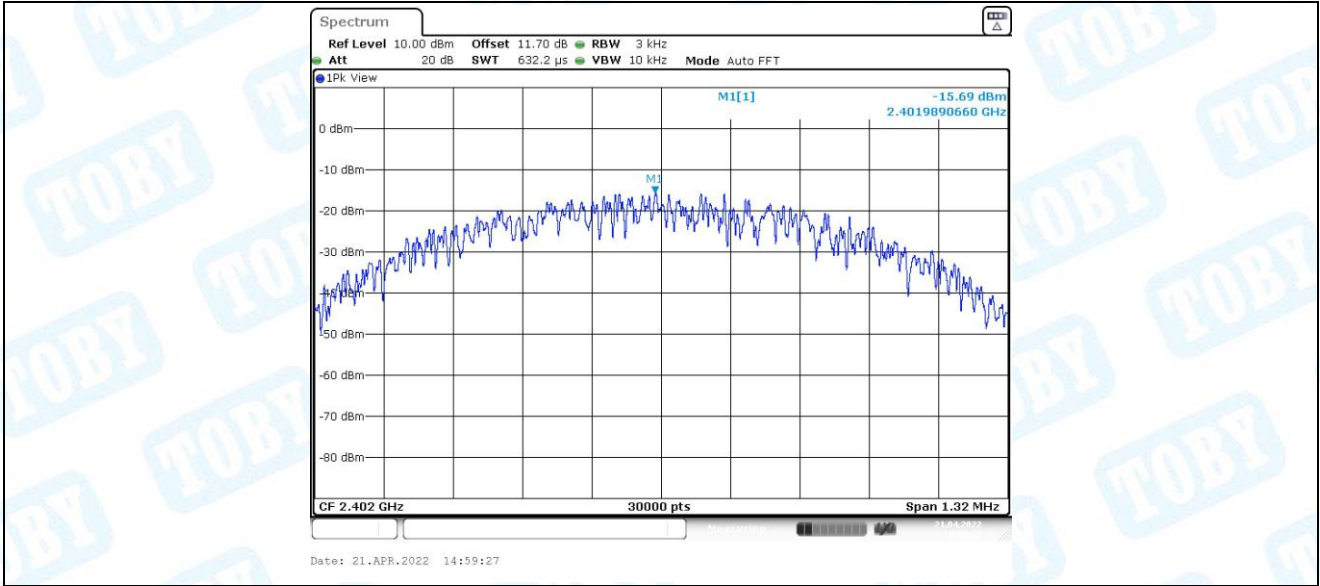
BLE_1M_Ant1_2480

4. Maximum power spectral density

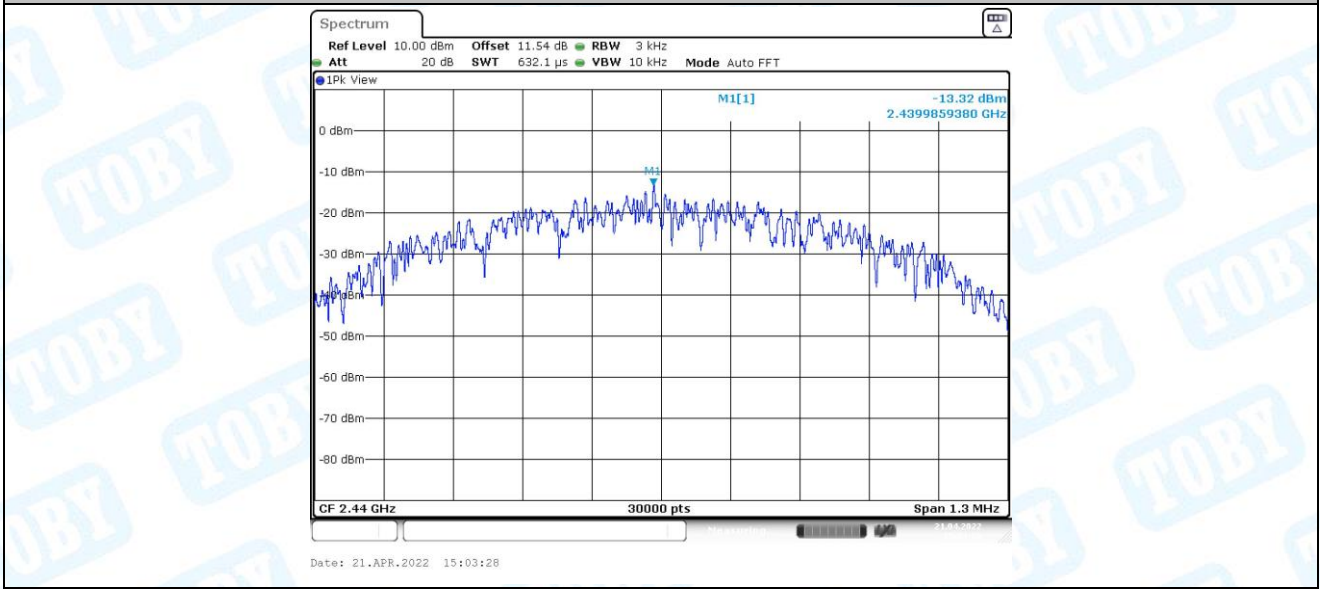
4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.69	≤8.00	PASS
		2440	-13.32	≤8.00	PASS
		2480	-13.25	≤8.00	PASS

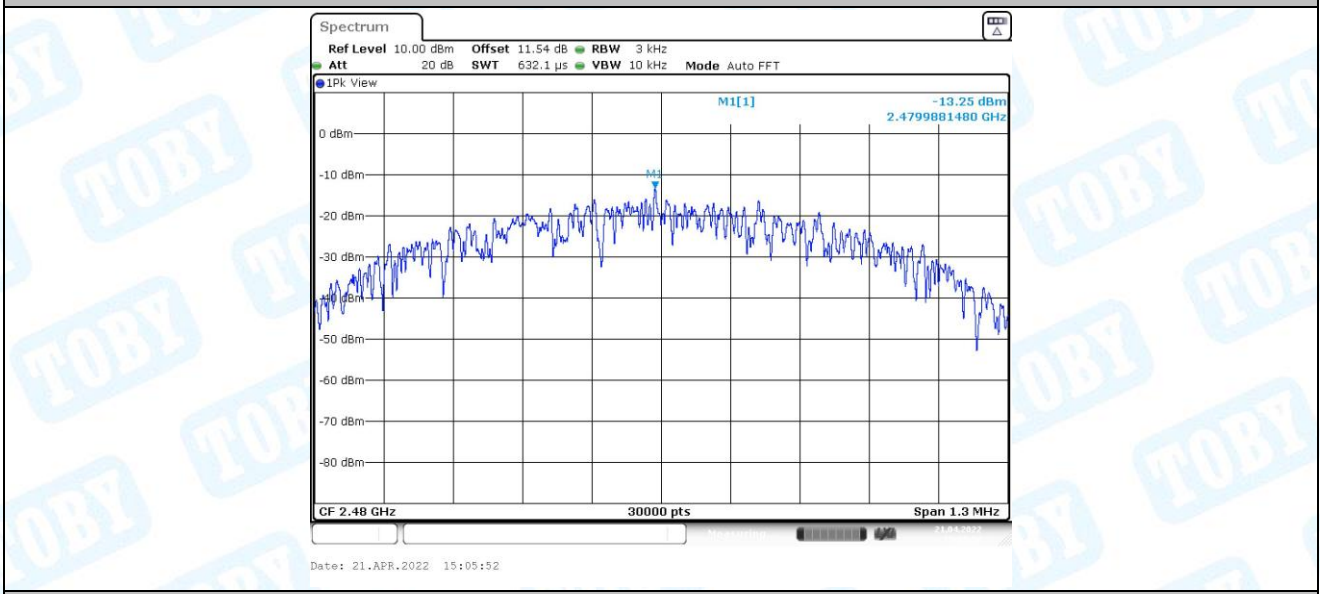
4.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



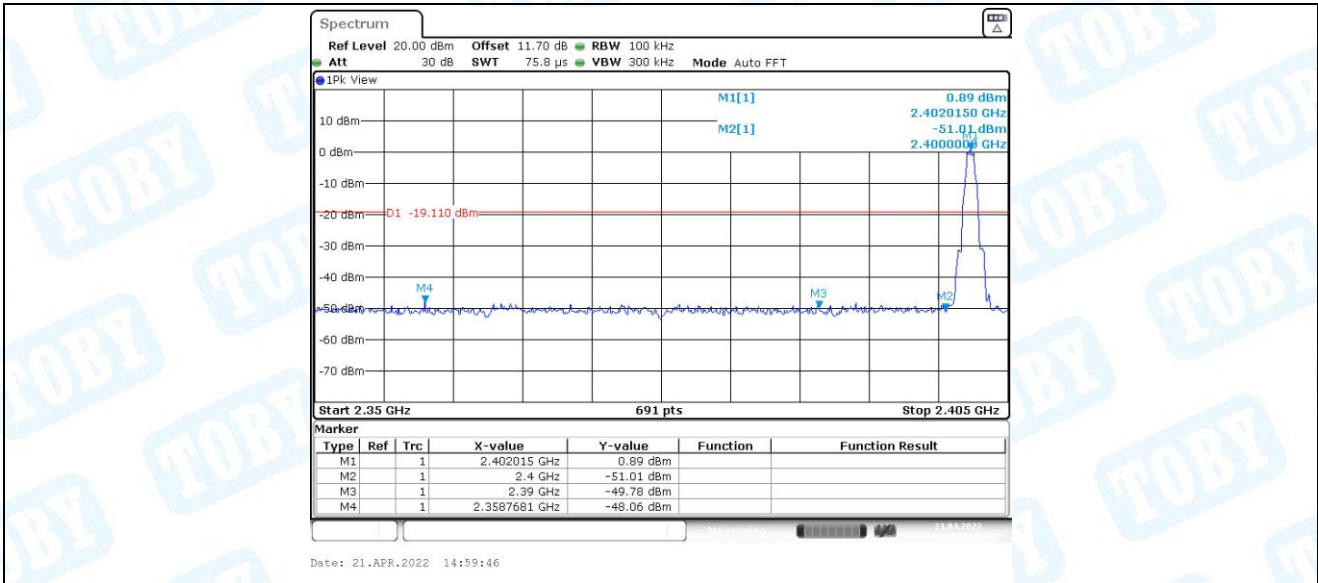
BLE_1M_Ant1_2480

5. Band edge measurements

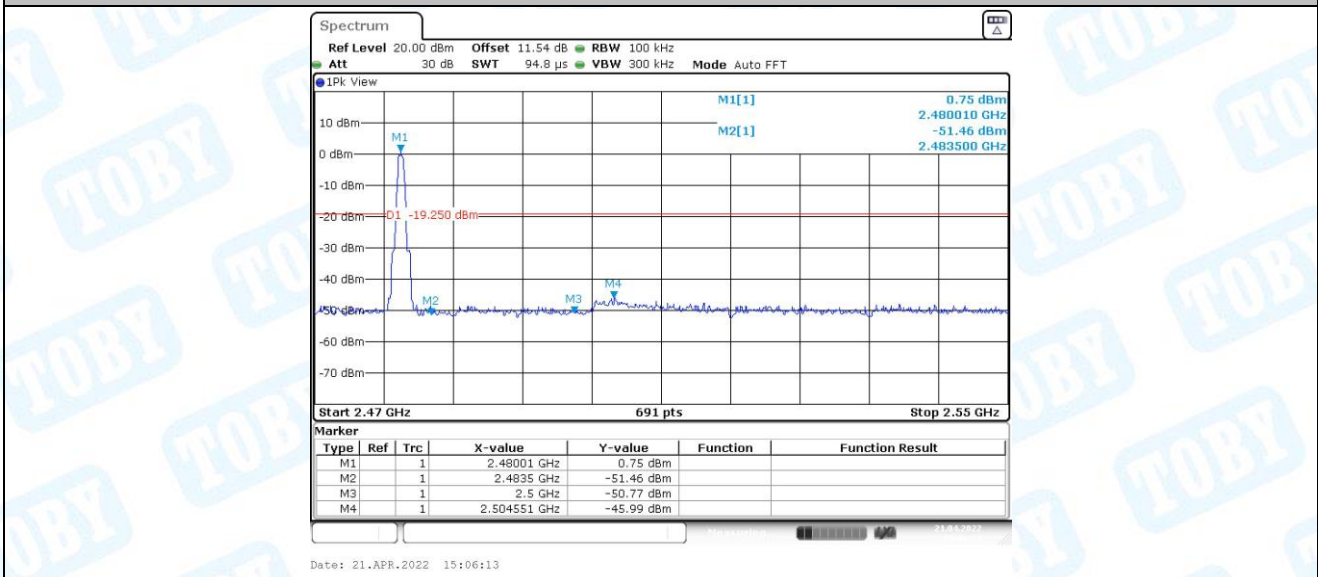
5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.89	-48.06	≤-19.11	PASS
		High	2480	0.75	-45.99	≤-19.25	PASS

5.2. Test Graphs



BLE_1M_Ant1_Low_2402



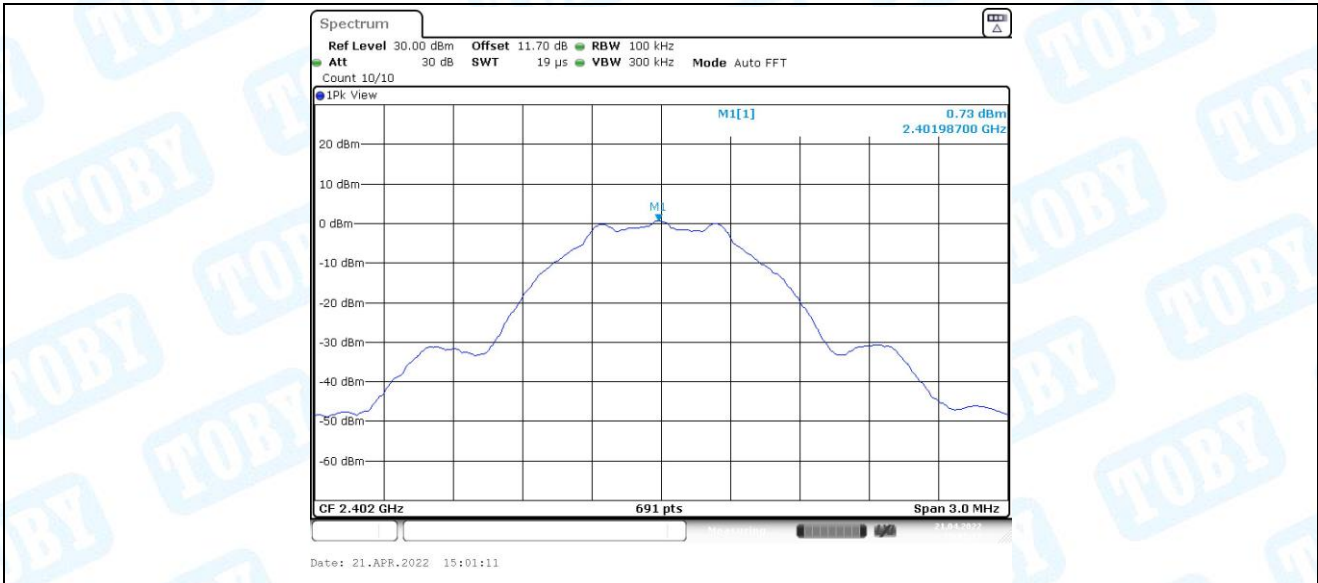
BLE_1M_Ant1_High_2480

6. Conducted Spurious Emission

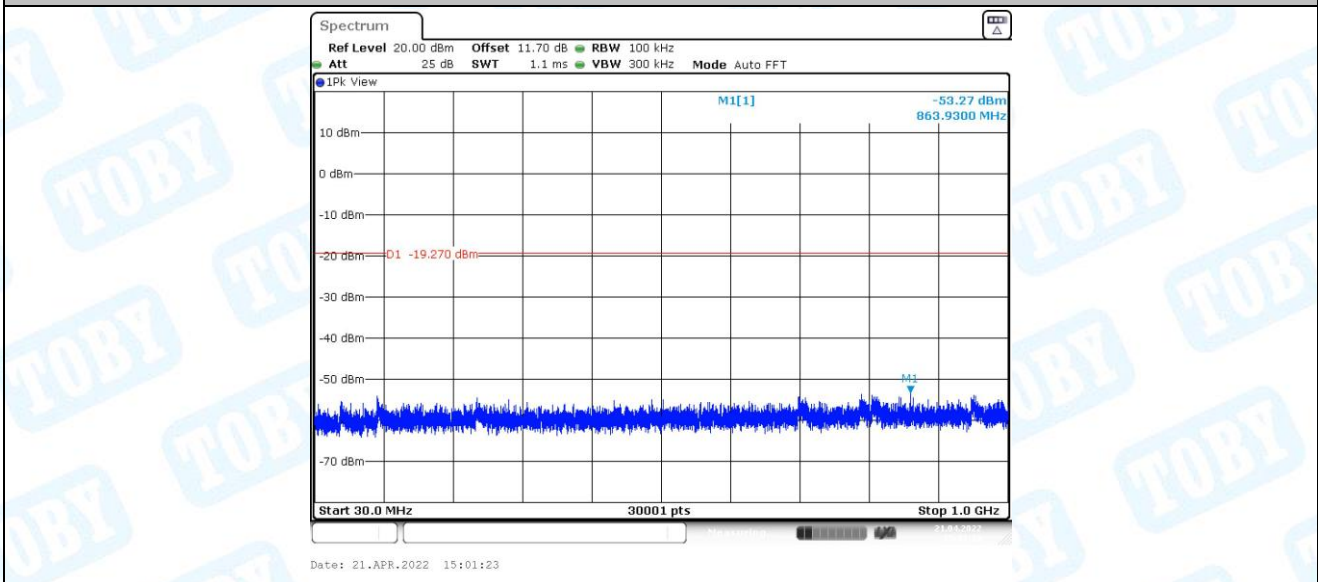
6.1. Test Result

Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.73	0.73	---	PASS
			30~1000	0.73	-53.27	≤-19.27	PASS
			1000~26500	0.73	-46.33	≤-19.27	PASS
		2440	Reference	0.86	0.86	---	PASS
			30~1000	0.86	-52.92	≤-19.14	PASS
			1000~26500	0.86	-46.37	≤-19.14	PASS
		2480	Reference	0.68	0.68	---	PASS
			30~1000	0.68	-52.35	≤-19.32	PASS
			1000~26500	0.68	-47.53	≤-19.32	PASS

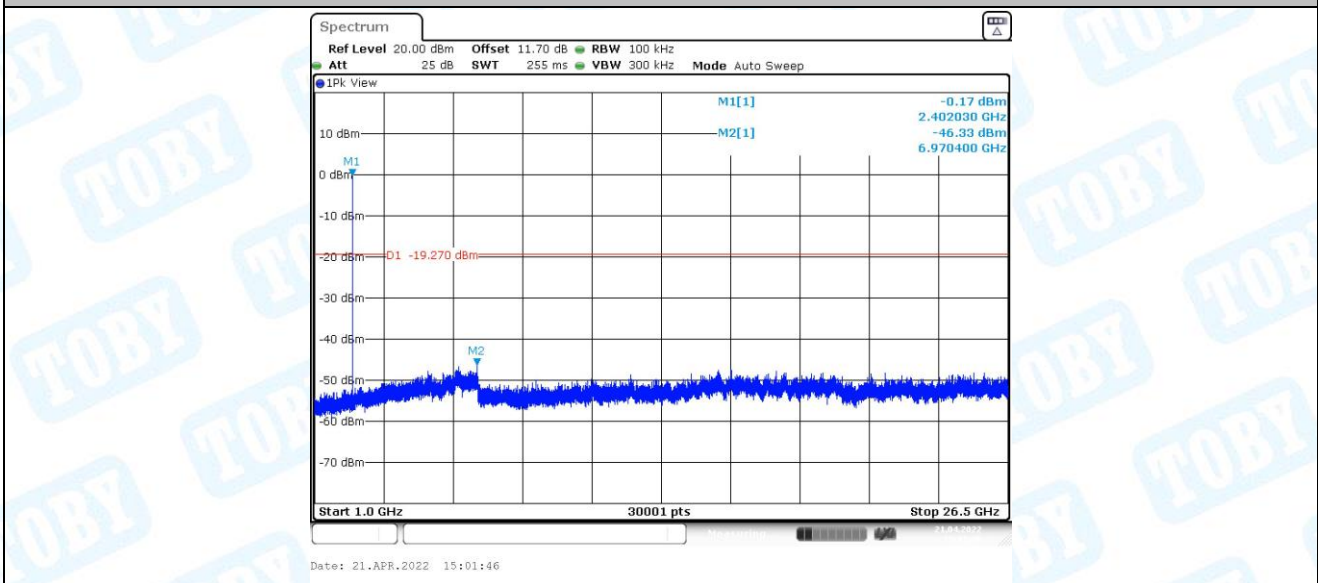
6.2. Test Graphs



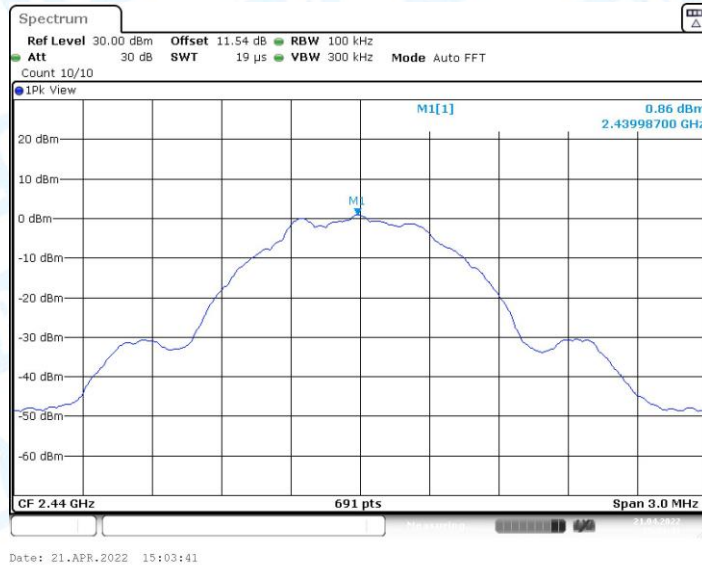
BLE_1M_Ant1_2402_0~Reference



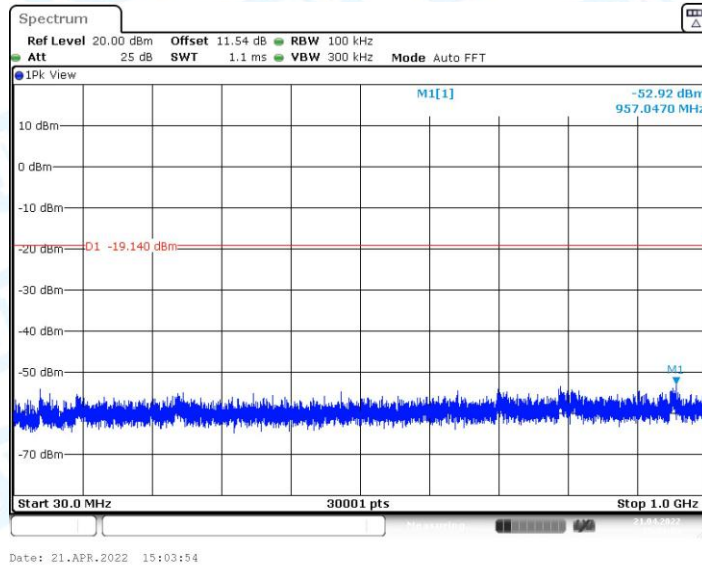
BLE_1M_Ant1_2402_30~1000



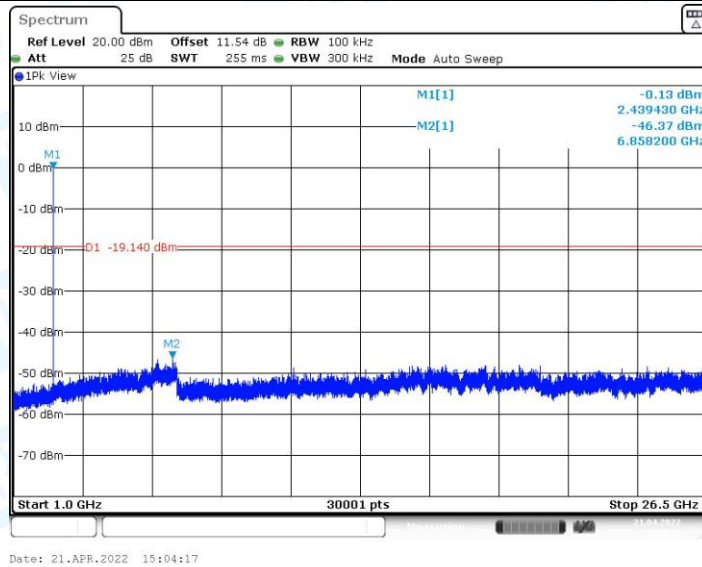
BLE_1M_Ant1_2402_1000~26500



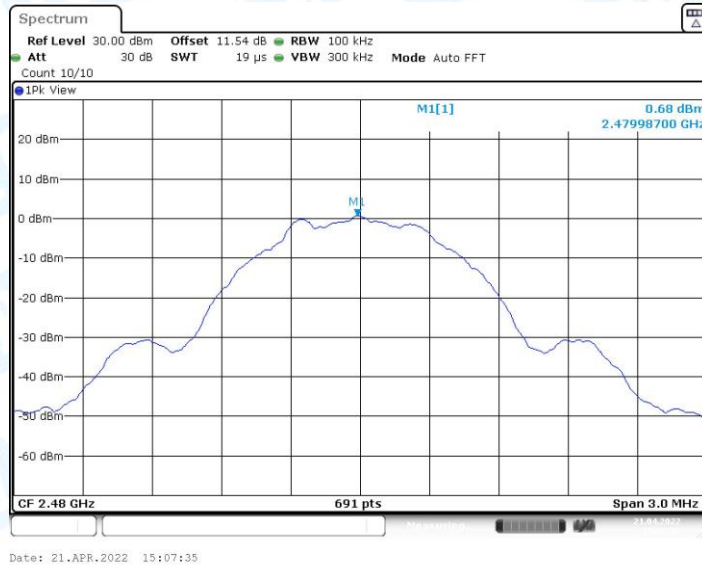
BLE_1M_Ant1_2440_0~Reference



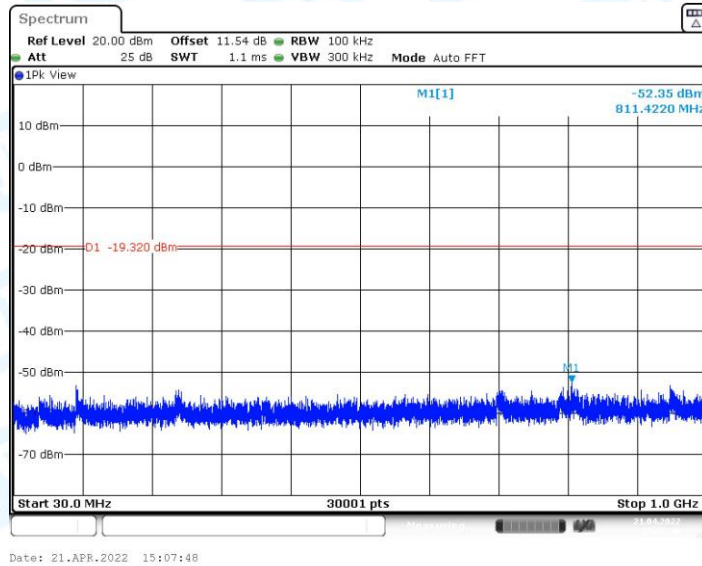
BLE_1M_Ant1_2440_30~1000



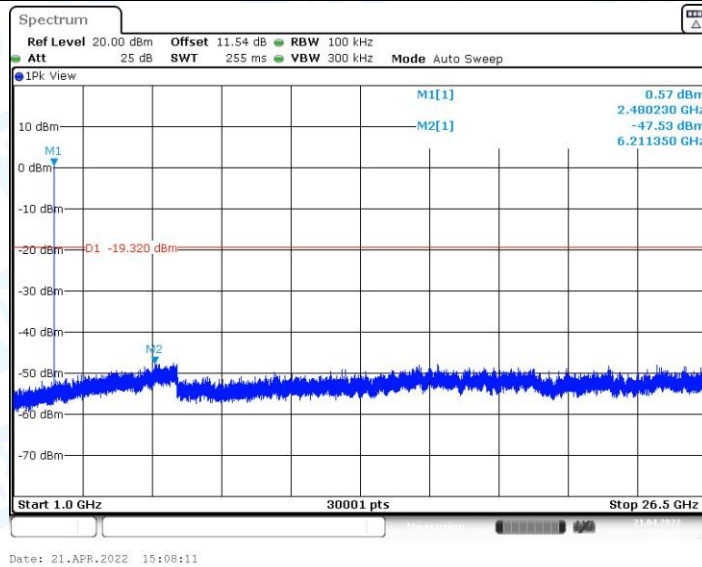
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



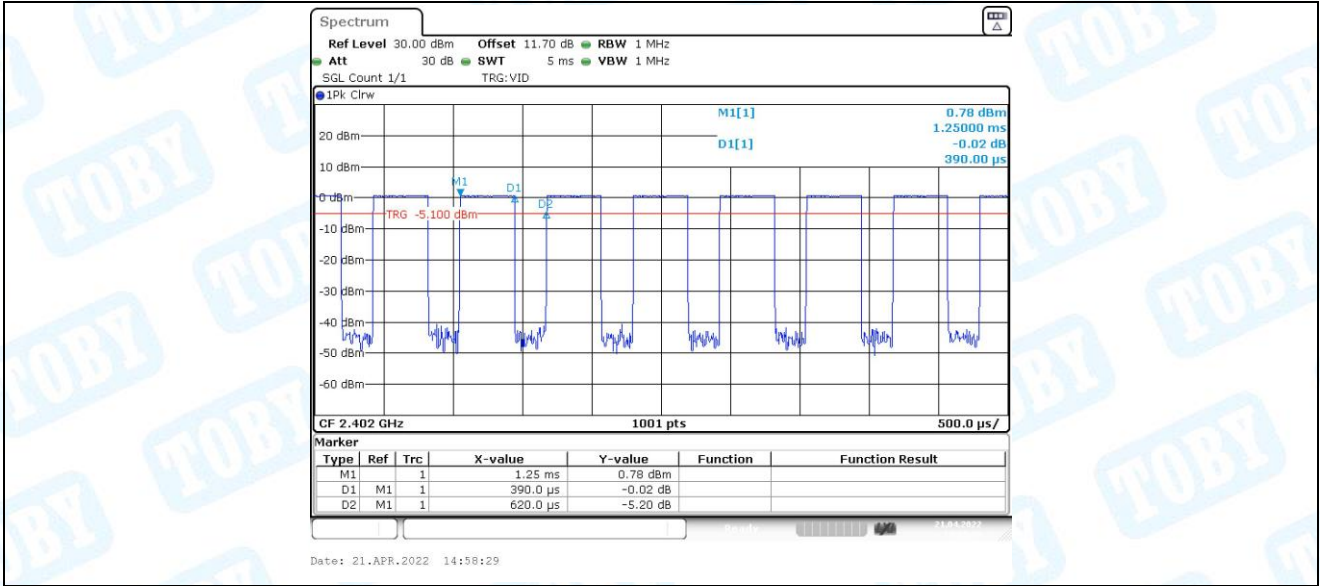
BLE_1M_Ant1_2480_1000~26500

7. Duty Cycle

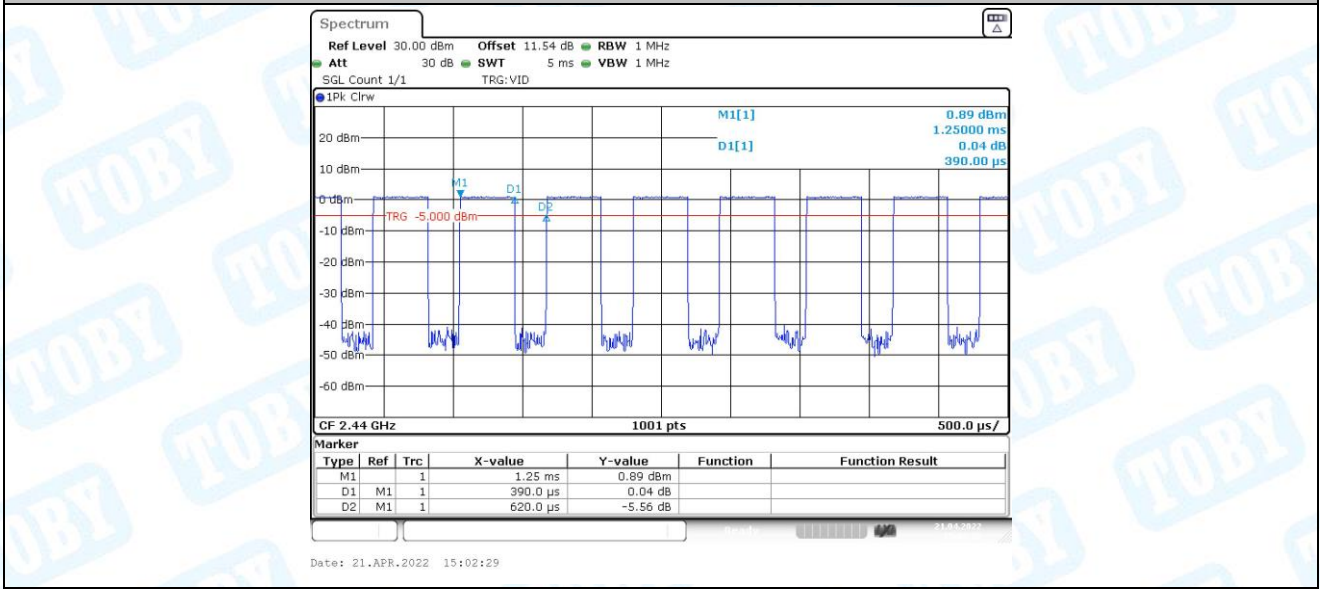
7.1. Test Result

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	---	---

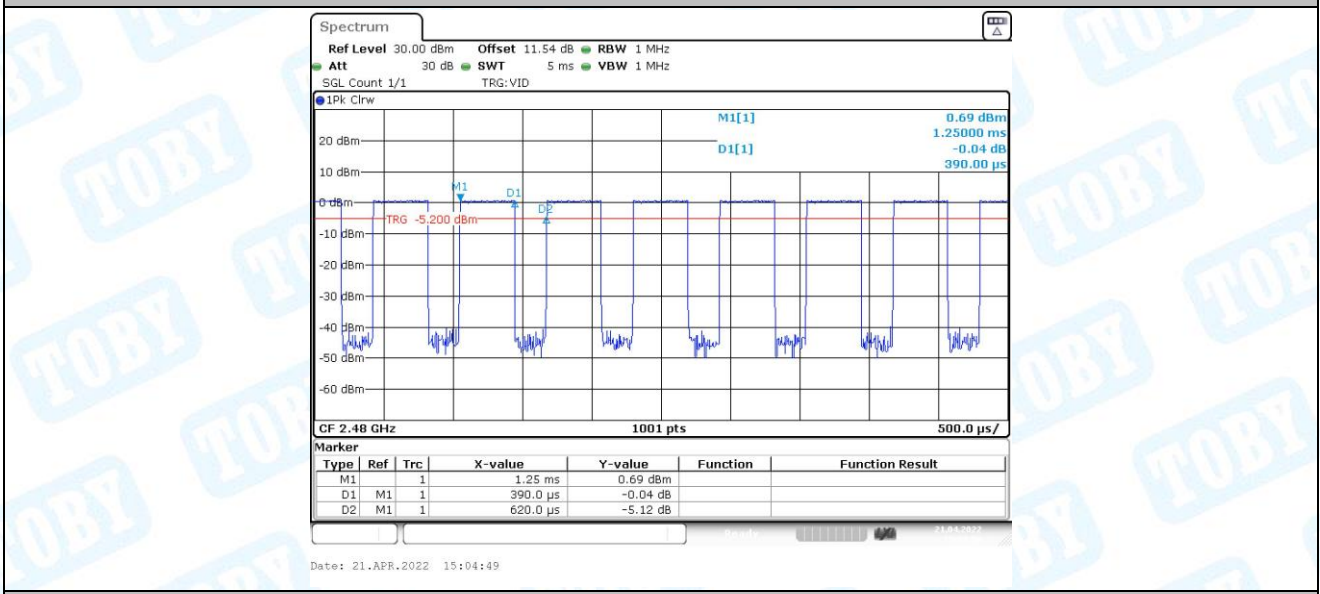
7.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

8. Emissions in Restricted Bands

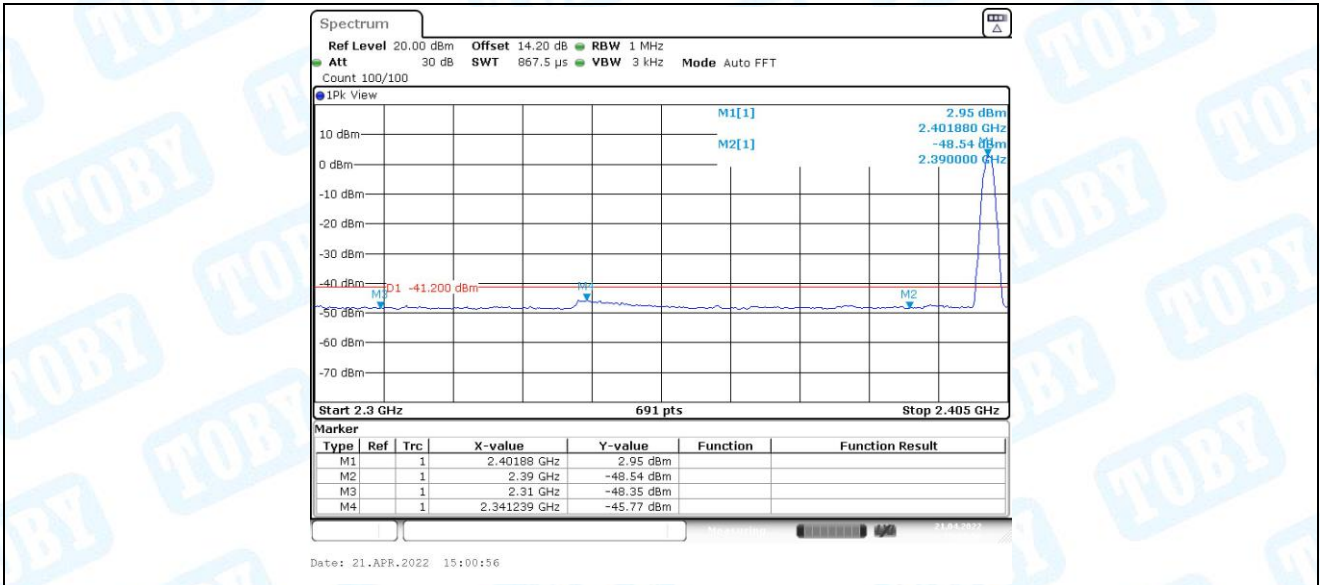
8.1. Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.35	≤-41.20	PASS
				AV	2341.239	-45.77	≤-41.20	PASS
				AV	2390.000	-48.54	≤-41.20	PASS
				Peak	2310.000	-38.05	≤-21.20	PASS
				Peak	2343.826	-35.13	≤-21.20	PASS
				Peak	2390.000	-38.45	≤-21.20	PASS
		High	2480	AV	2483.500	-47.74	≤-41.20	PASS
				AV	2484.841	-47.13	≤-41.20	PASS
				AV	2500.000	-47.74	≤-41.20	PASS
				Peak	2483.500	-39.66	≤-21.20	PASS
				Peak	2495.391	-36.72	≤-21.20	PASS
				Peak	2500.000	-37.55	≤-21.20	PASS

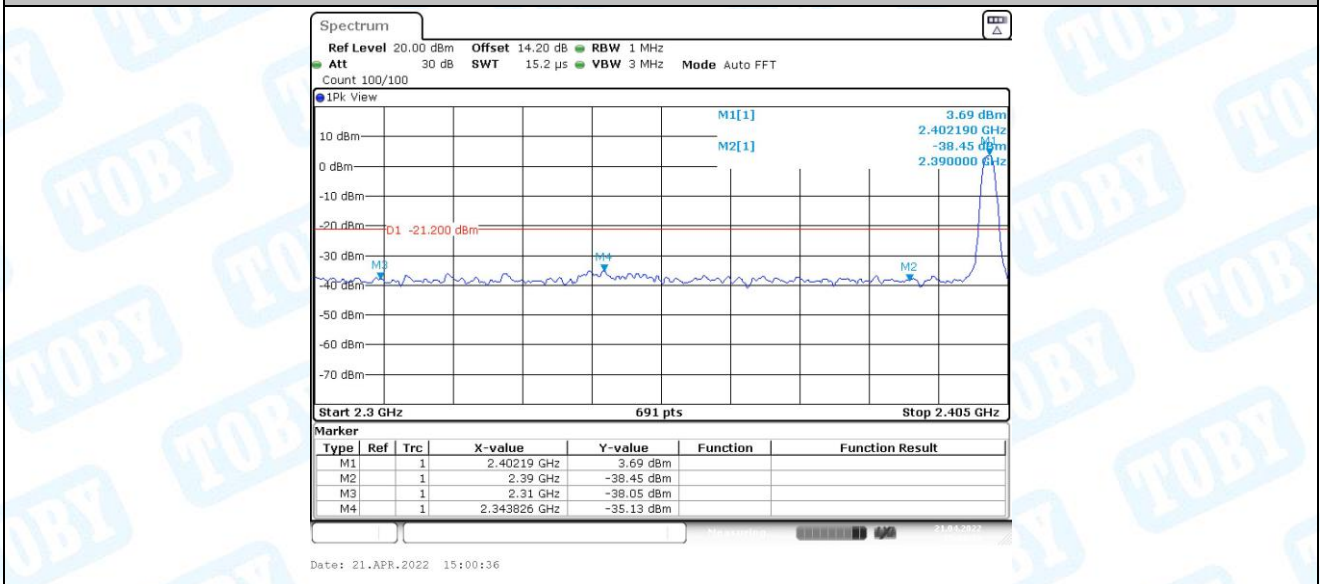
Note:

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.

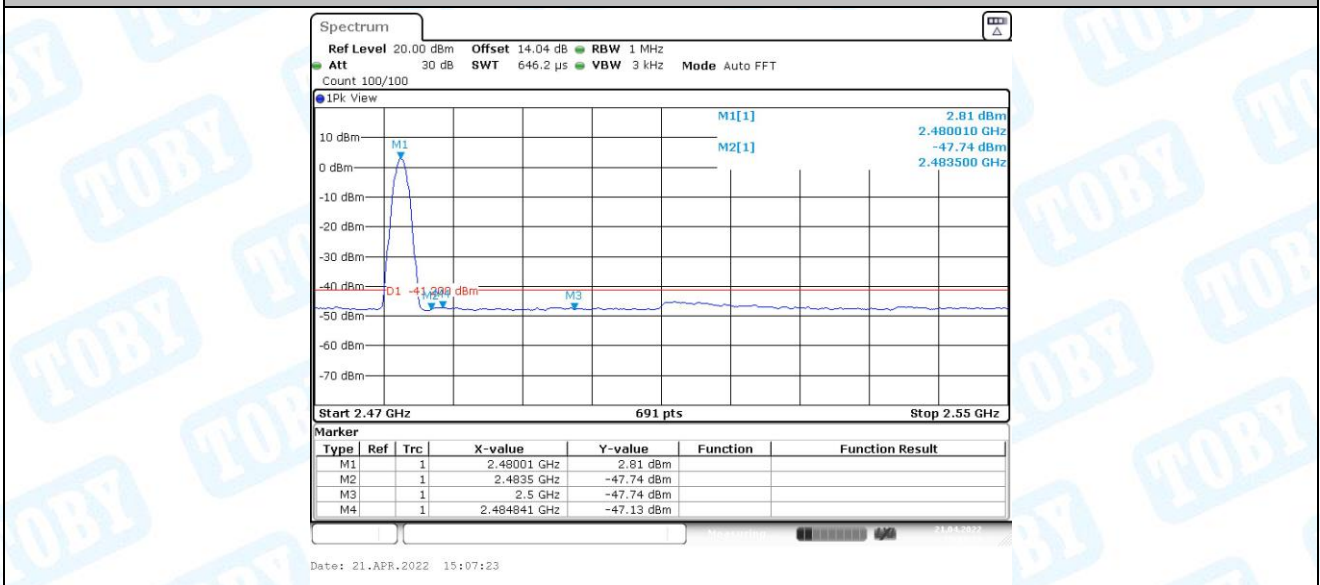
8.2. Test Graphs



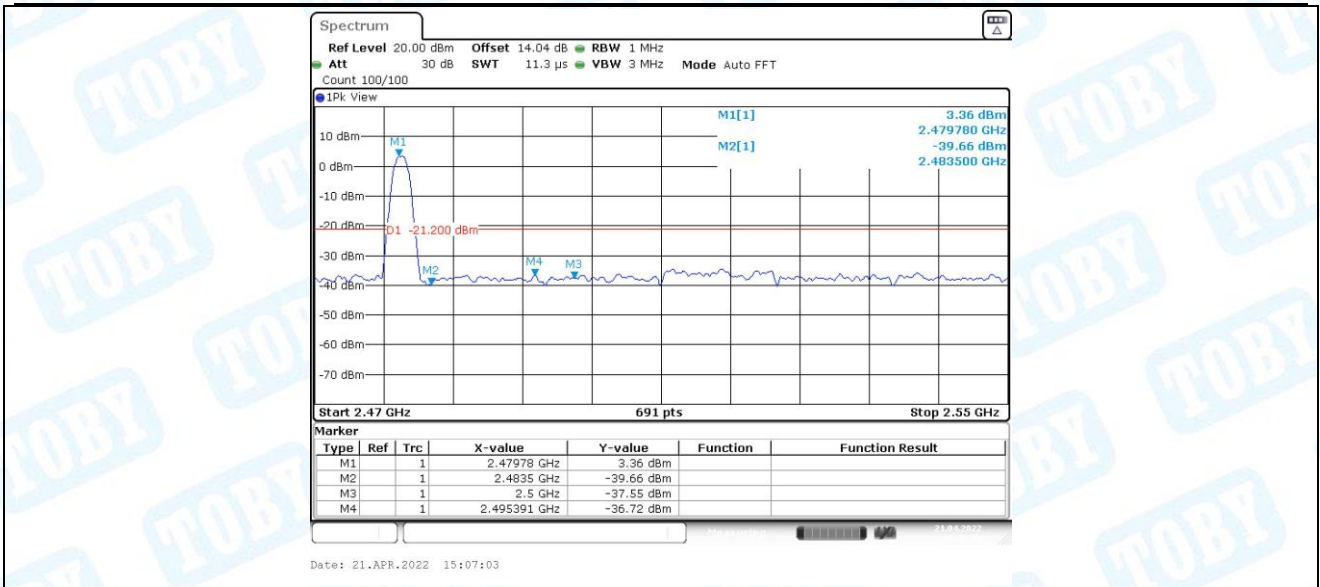
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

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