

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	Motorized Slider
Test Model/HVIN:	MS-10
Sample ID:	202201-0027-01-02
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	AC 120V
Test Engineer:	Huangjianping
Note: For a more detailed features description, please refer to the report TBR-C-202201-0027-1	

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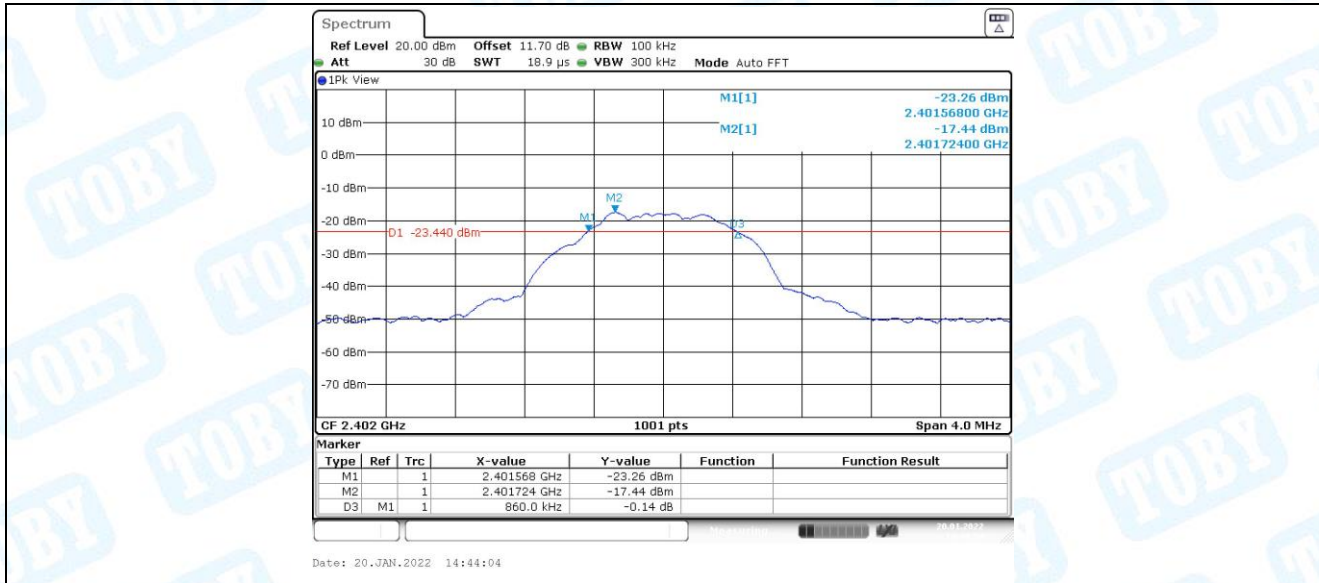
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1. DTS Bandwidth

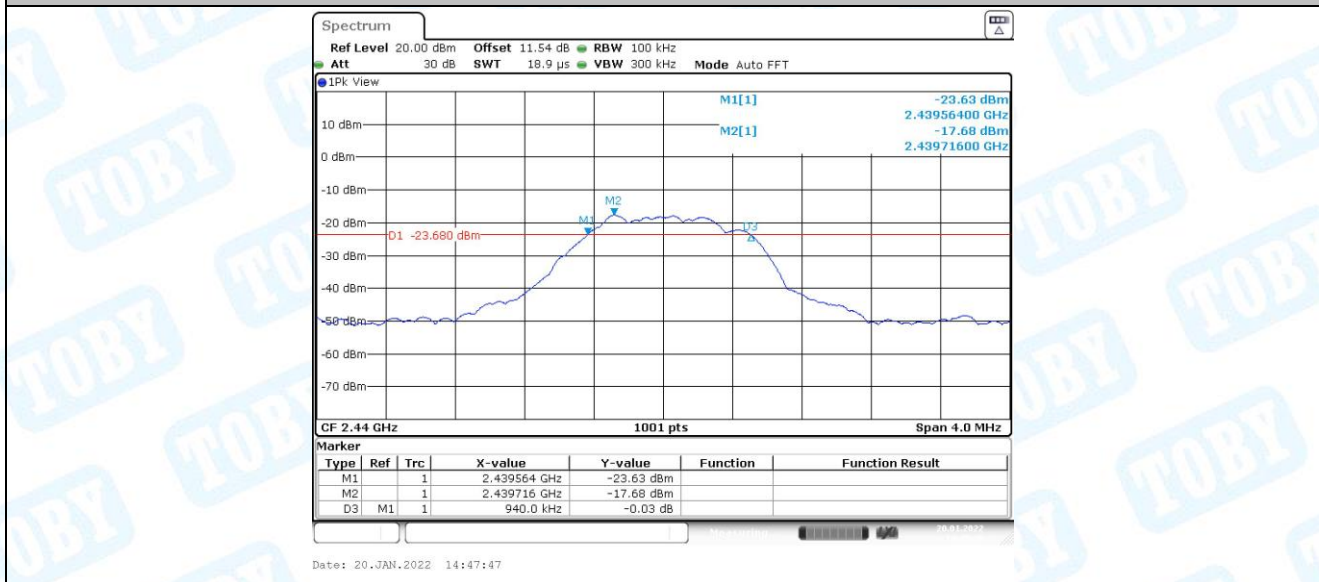
1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.86	2401.57	2402.43	0.5	PASS
		2440	0.94	2439.56	2440.50	0.5	PASS
		2480	0.91	2479.56	2480.47	0.5	PASS

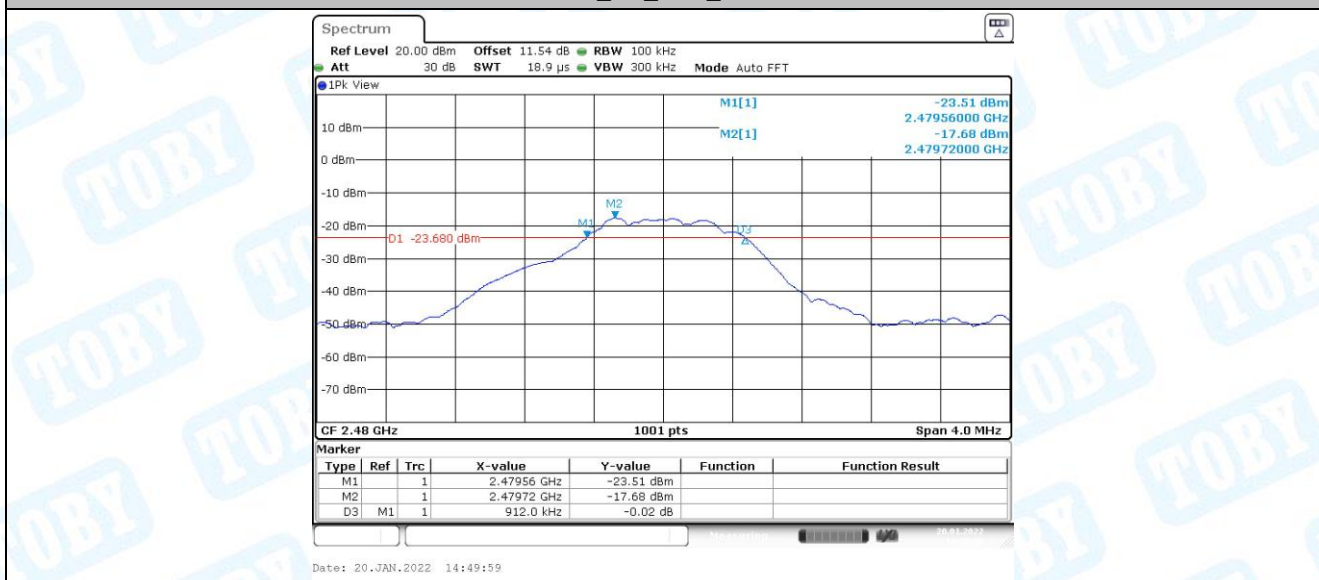
1.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



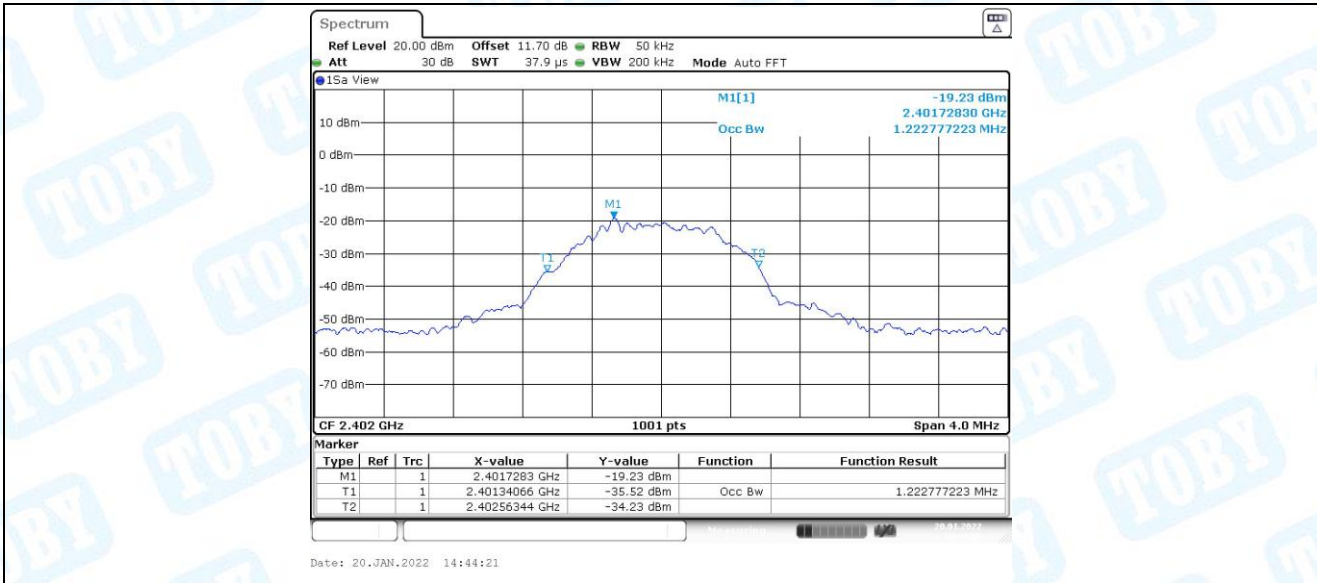
BLE_1M_Ant1_2480

2. Occupied Channel Bandwidth

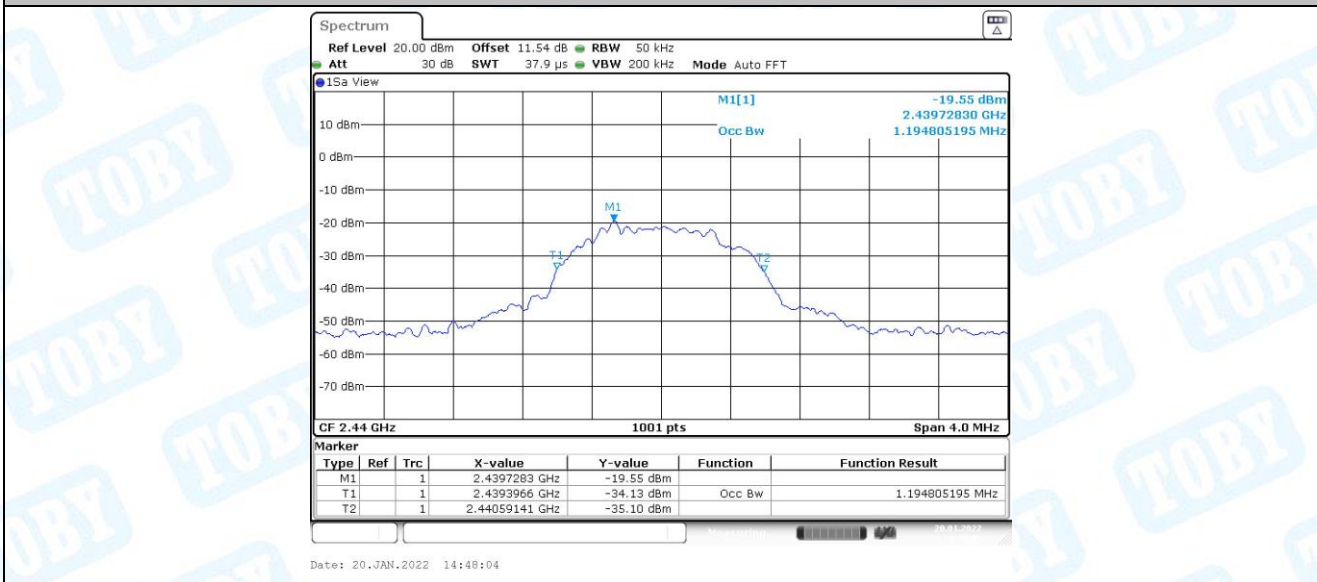
2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.223	2401.341	2402.563	---	---
		2440	1.195	2439.397	2440.591	---	---
		2480	1.399	2479.197	2480.595	---	---

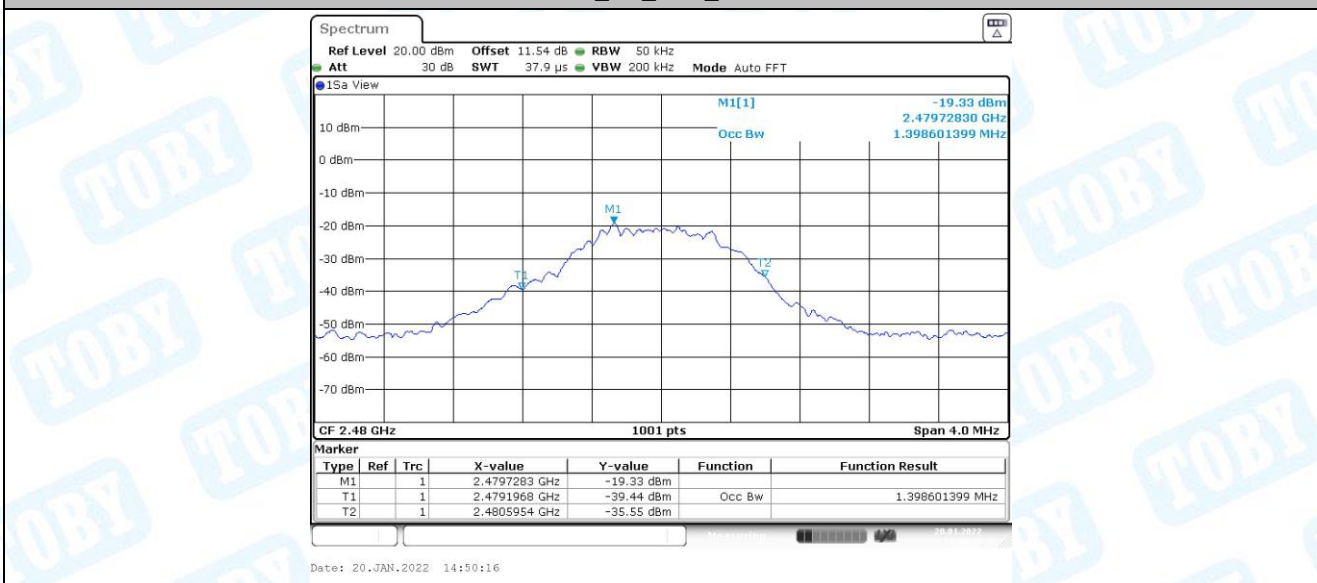
2.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



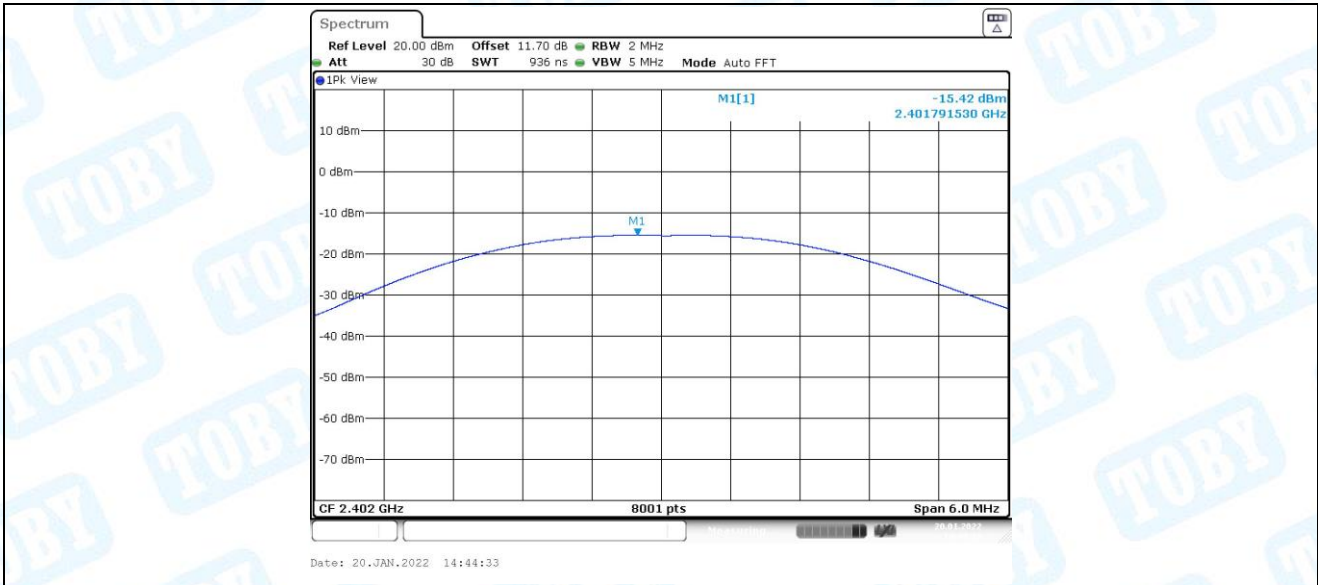
BLE_1M_Ant1_2480

3. Maximum conducted output power

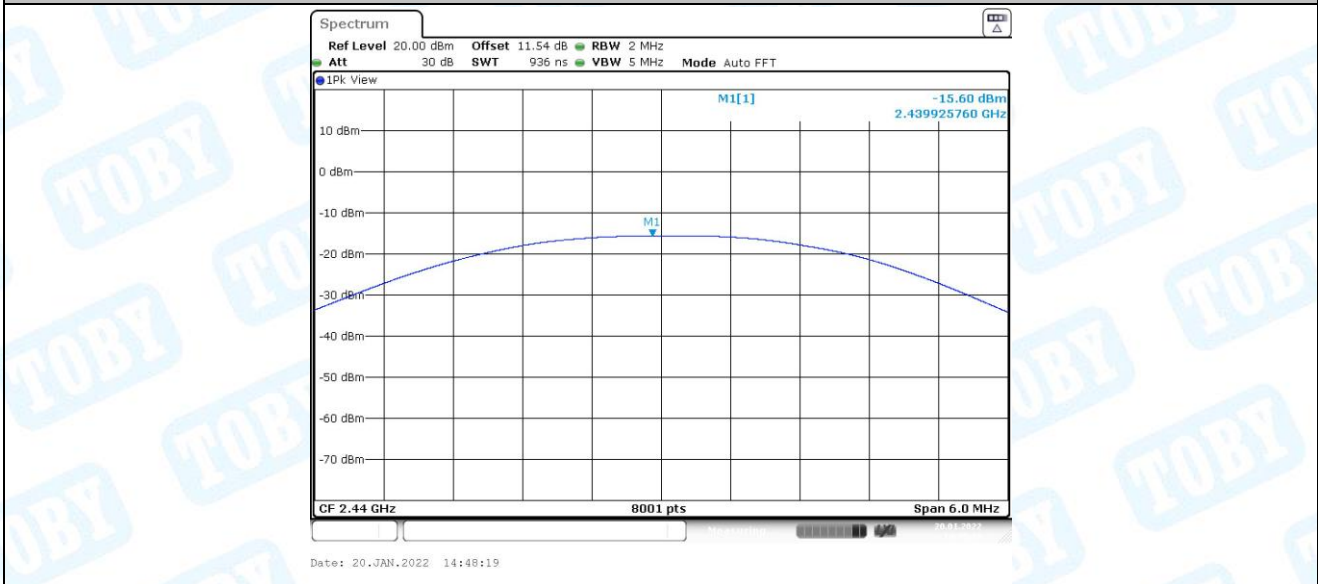
3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-15.42	≤30	PASS
		2440	-15.6	≤30	PASS
		2480	-15.54	≤30	PASS

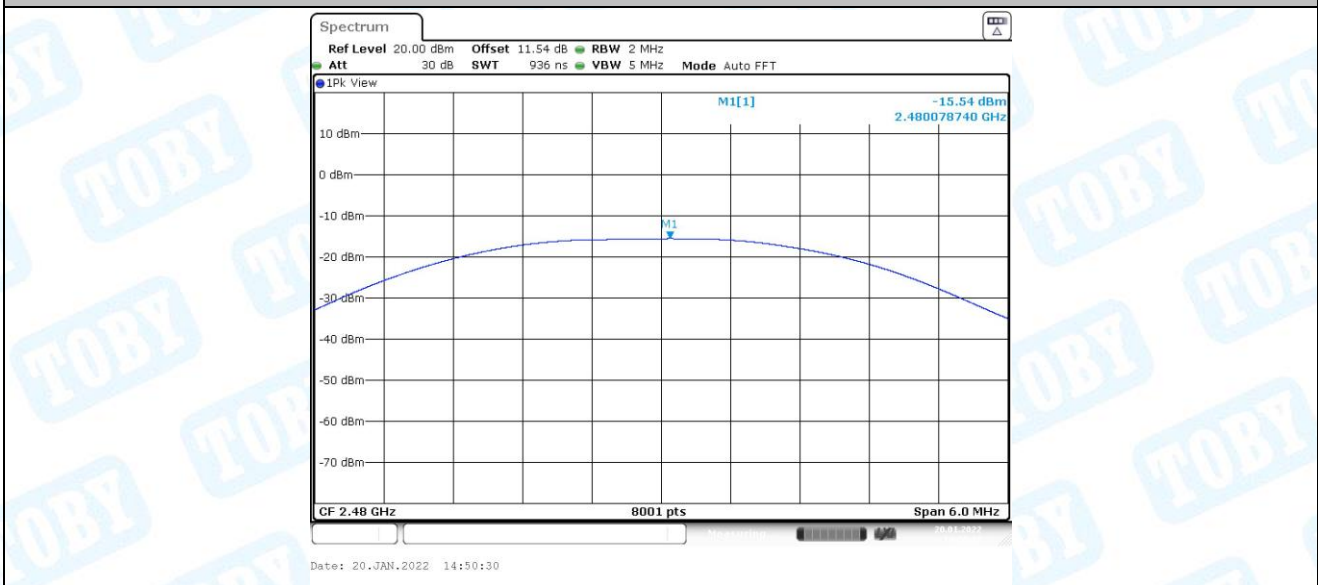
3.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



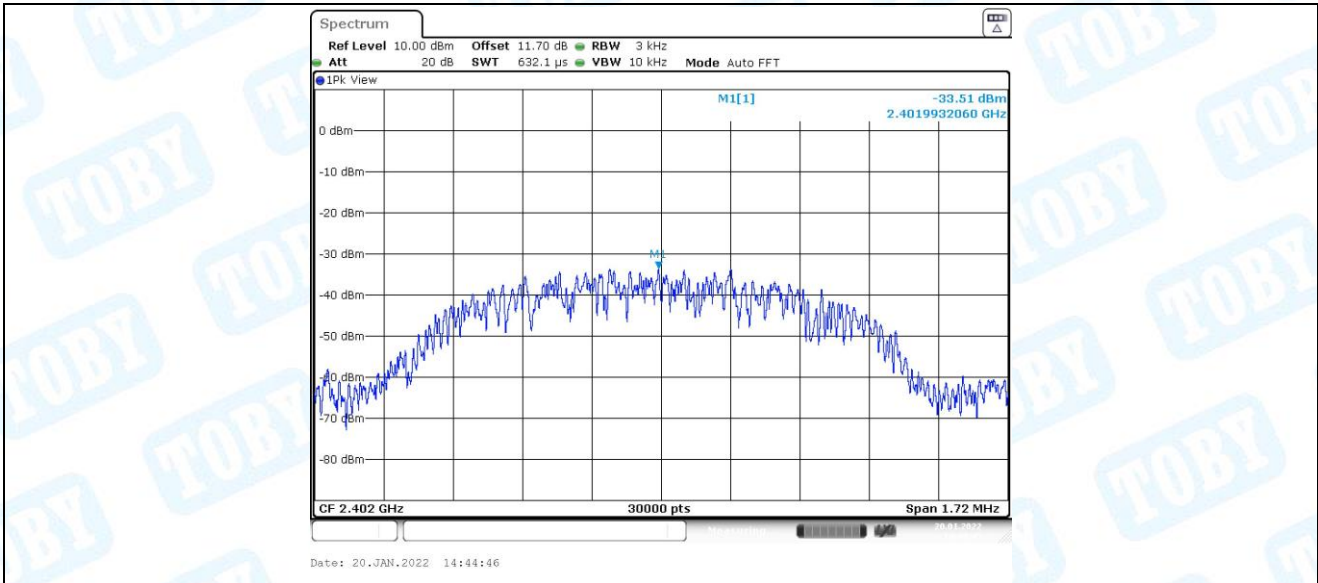
BLE_1M_Ant1_2480

4. Maximum power spectral density

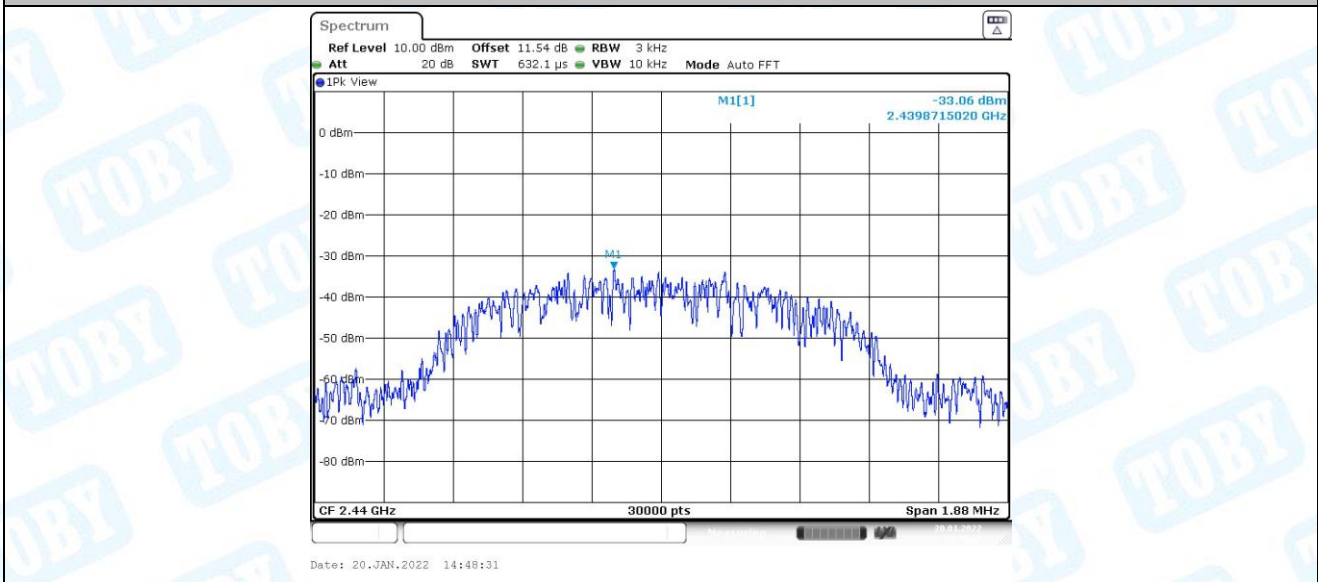
4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-33.51	≤8.00	PASS
		2440	-33.06	≤8.00	PASS
		2480	-33.39	≤8.00	PASS

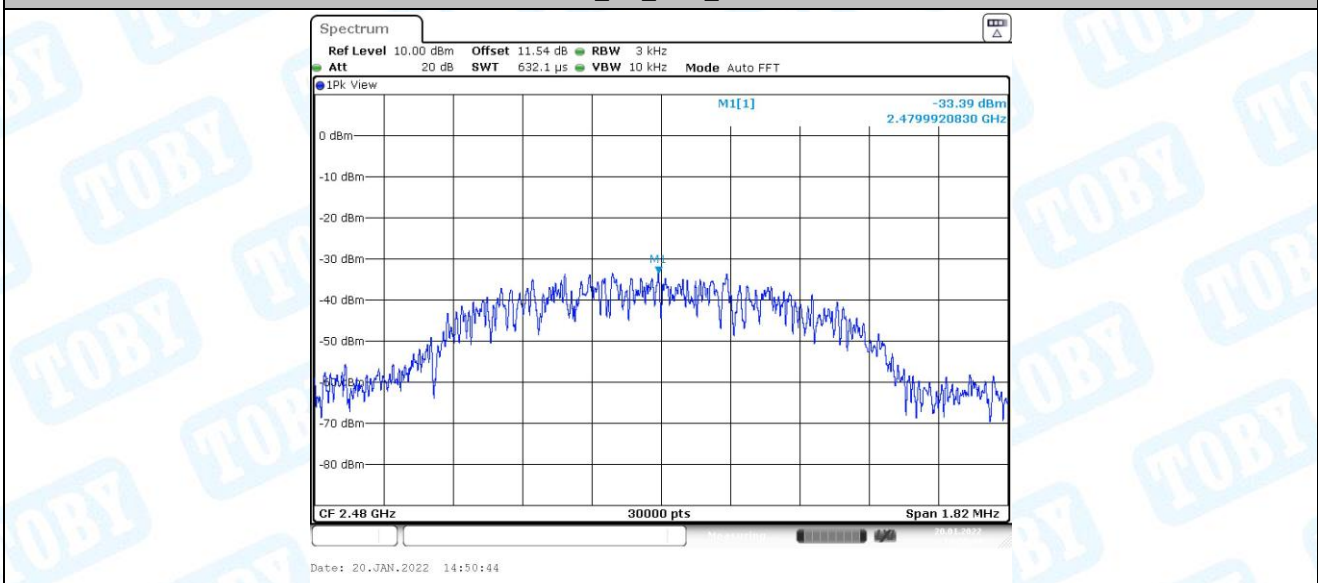
4.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



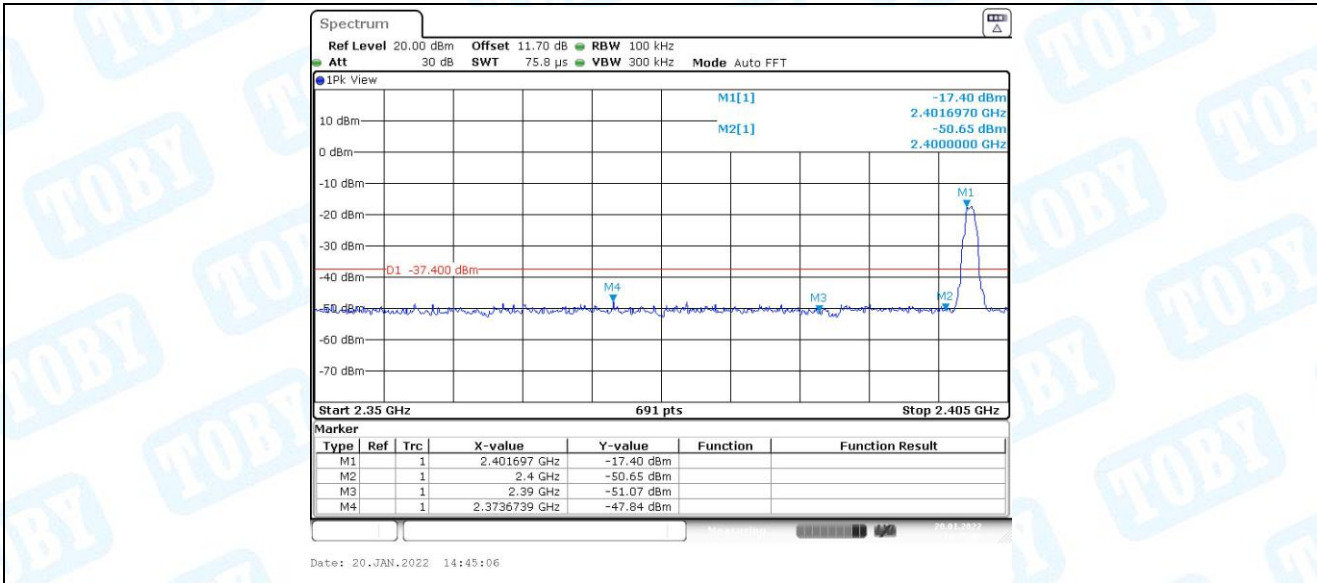
BLE_1M_Ant1_2480

5. Band edge measurements

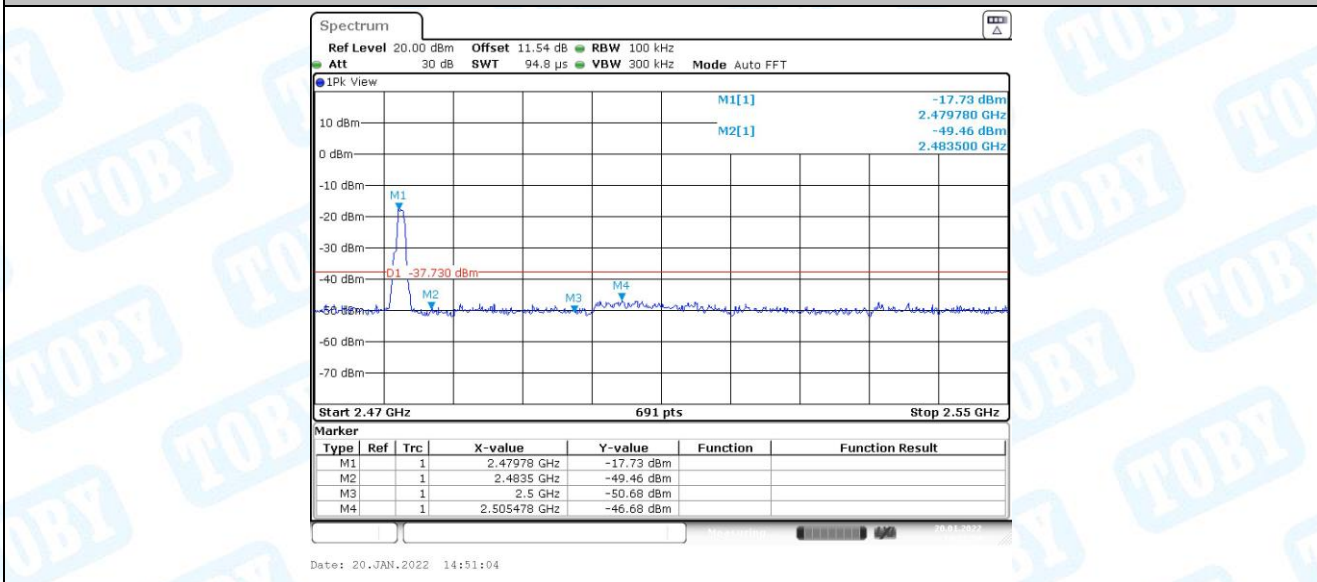
5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-17.40	-47.84	≤-37.4	PASS
		High	2480	-17.73	-46.68	≤-37.73	PASS

5.2. Test Graphs



BLE_1M_Ant1_Low_2402



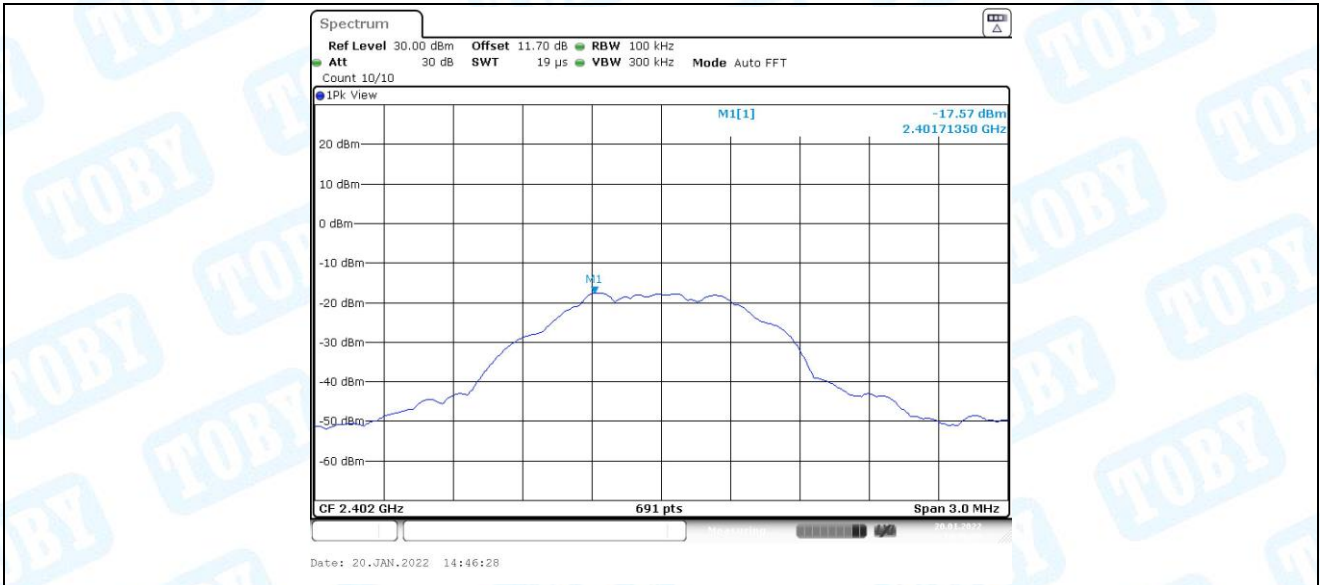
BLE_1M_Ant1_High_2480

6. Conducted Spurious Emission

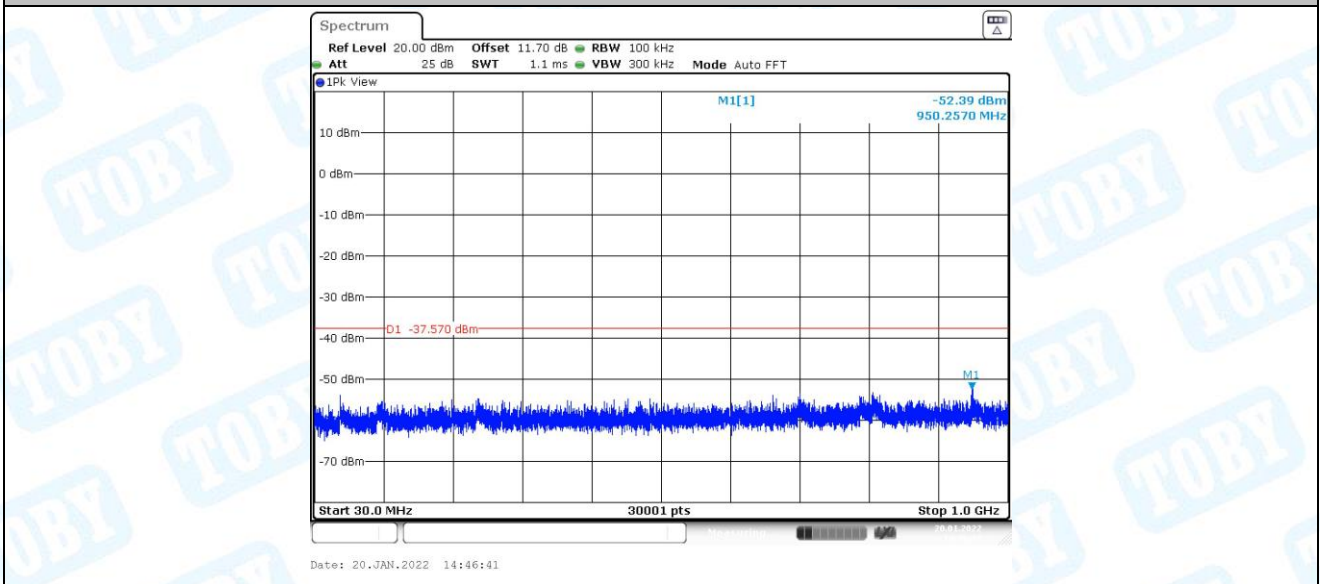
6.1. Test Result

Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-17.57	-17.57	---	PASS
			30~1000	-17.57	-52.39	≤-37.57	PASS
			1000~26500	-17.57	-46.87	≤-37.57	PASS
		2440	Reference	-17.81	-17.81	---	PASS
			30~1000	-17.81	-52.85	≤-37.81	PASS
			1000~26500	-17.81	-47.43	≤-37.81	PASS
		2480	Reference	-17.50	-17.50	---	PASS
			30~1000	-17.50	-52.34	≤-37.5	PASS
			1000~26500	-17.50	-46.99	≤-37.5	PASS

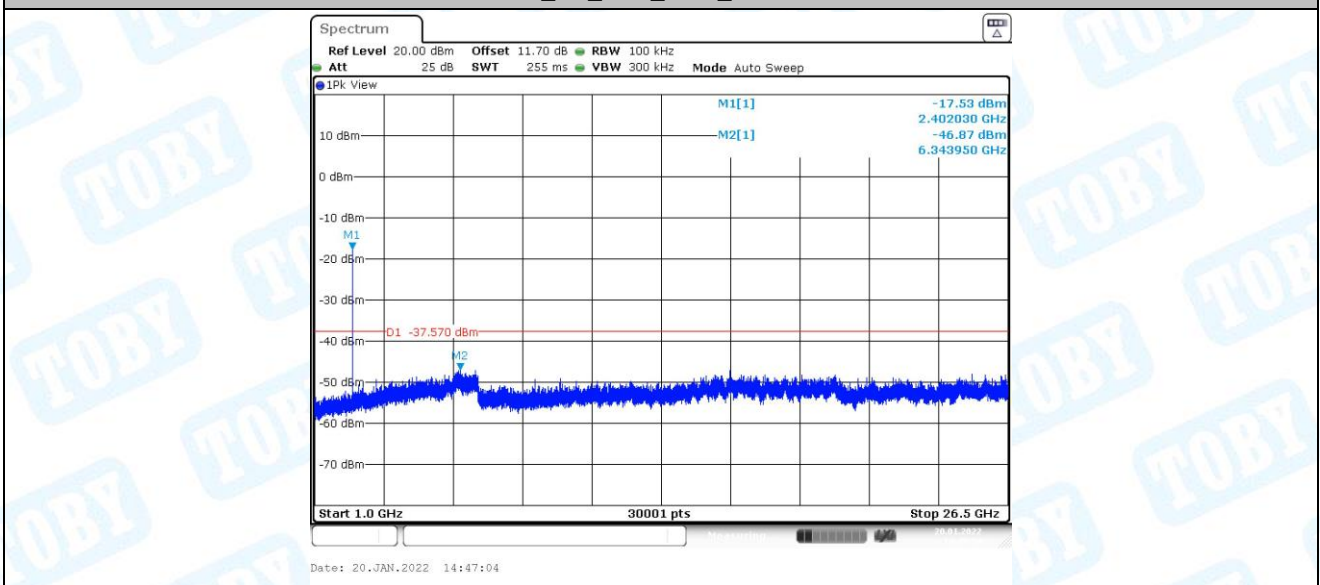
6.2. Test Graphs



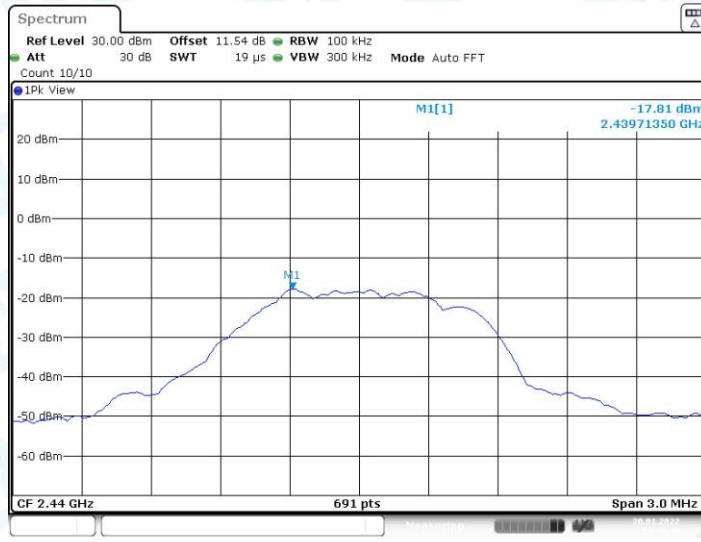
BLE_1M_Ant1_2402_0~Reference



BLE_1M_Ant1_2402_30~1000

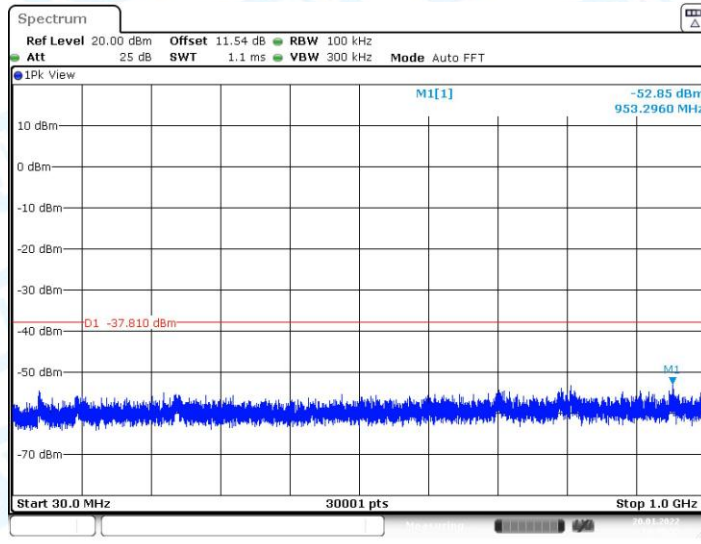


BLE_1M_Ant1_2402_1000~26500



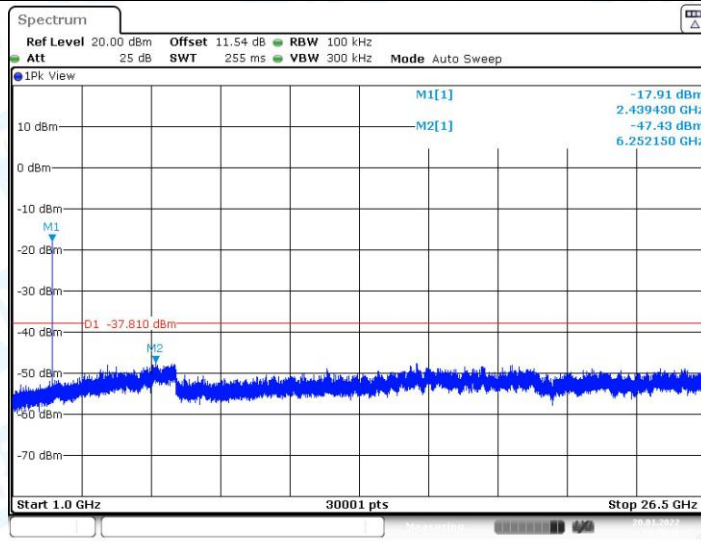
Date: 20.JAN.2022 14:48:42

BLE_1M_Ant1_2440_0~Reference



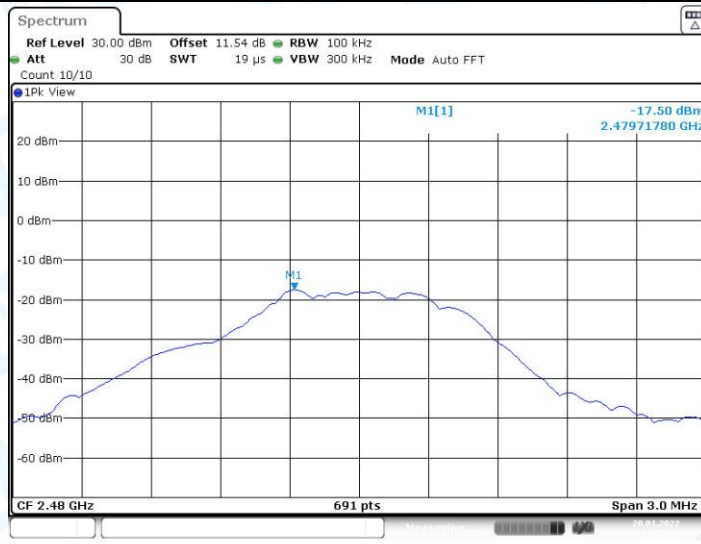
Date: 20.JAN.2022 14:48:55

BLE_1M_Ant1_2440_30~1000

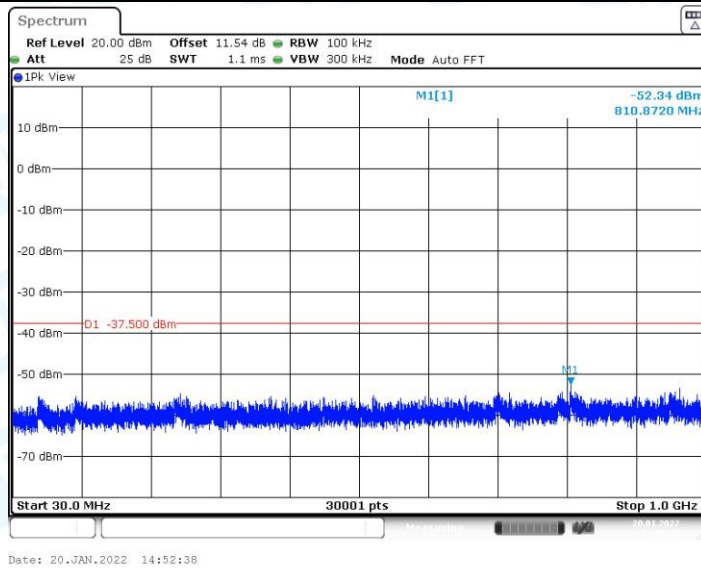


Date: 20.JAN.2022 14:49:18

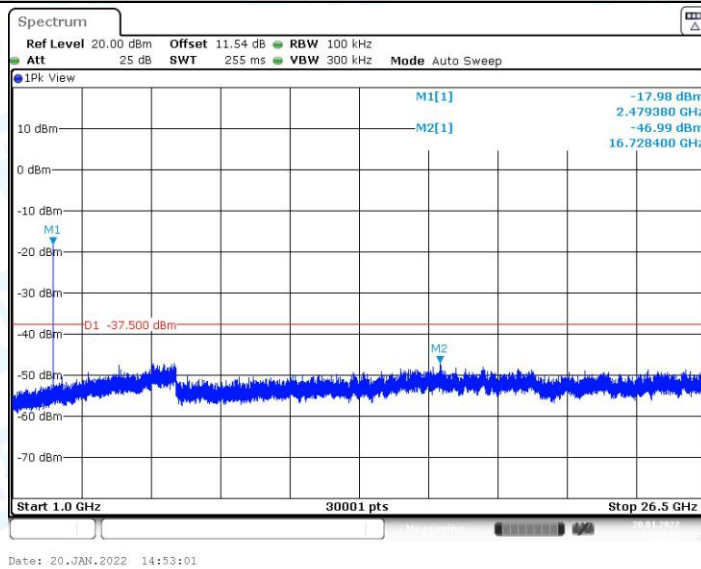
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



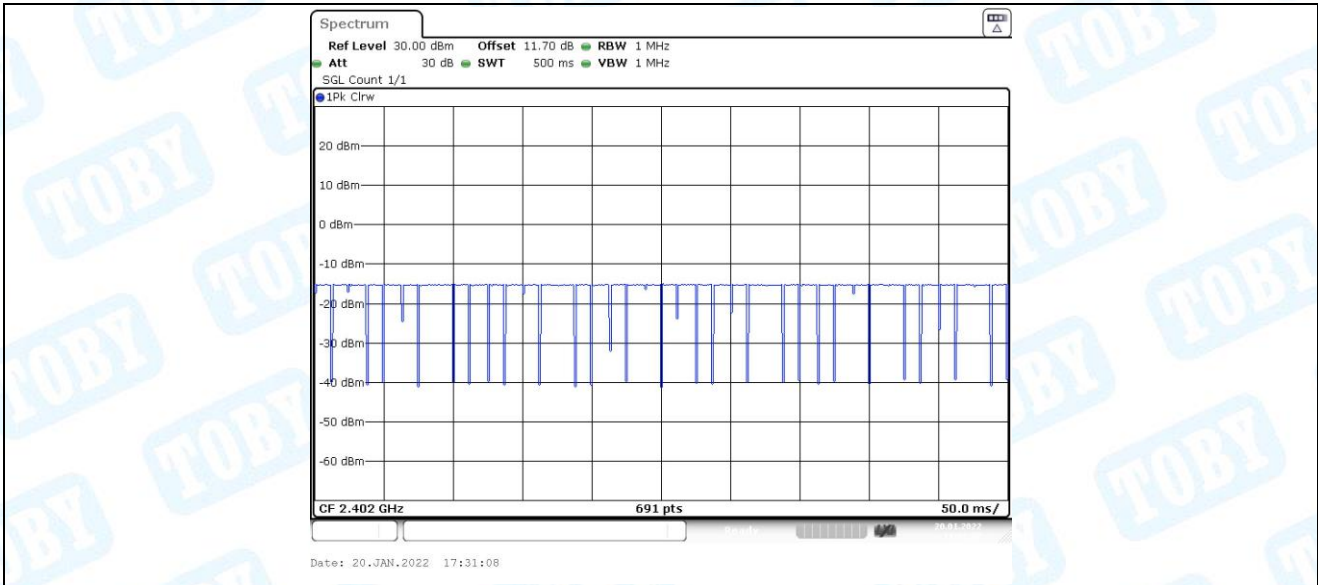
BLE_1M_Ant1_2480_1000~26500

7. Duty Cycle

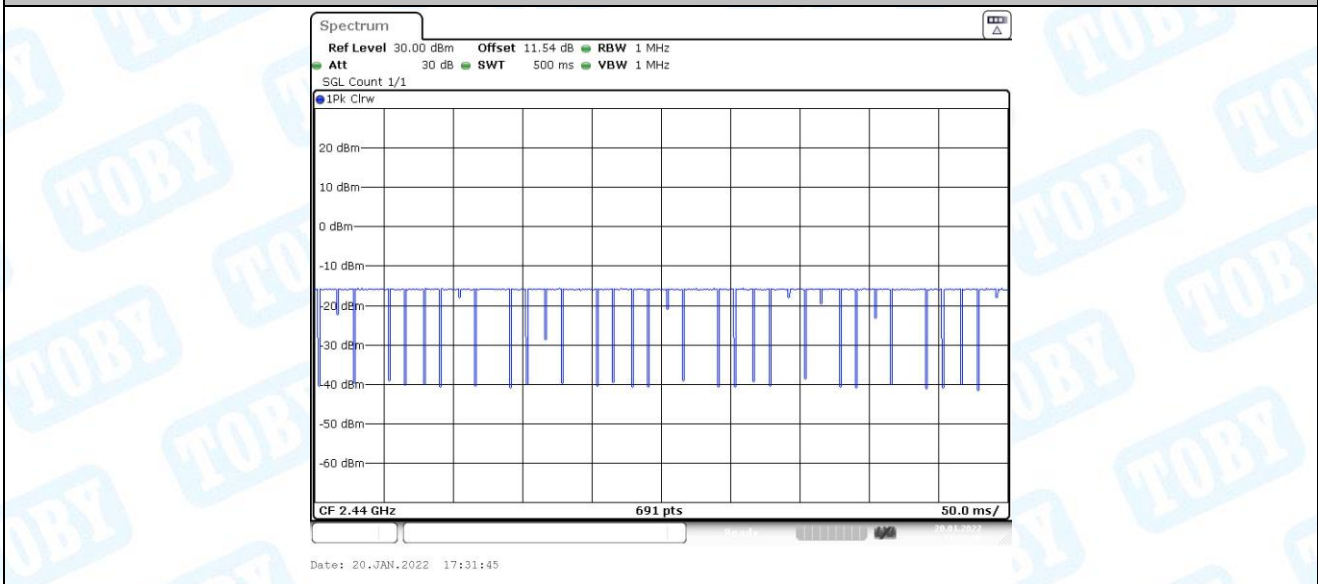
7.1. Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
BLE_1M	Ant1	2402	0.00	0.00	100	---	---
		2440	0.00	0.00	100	---	---
		2480	0.00	0.00	100	---	---

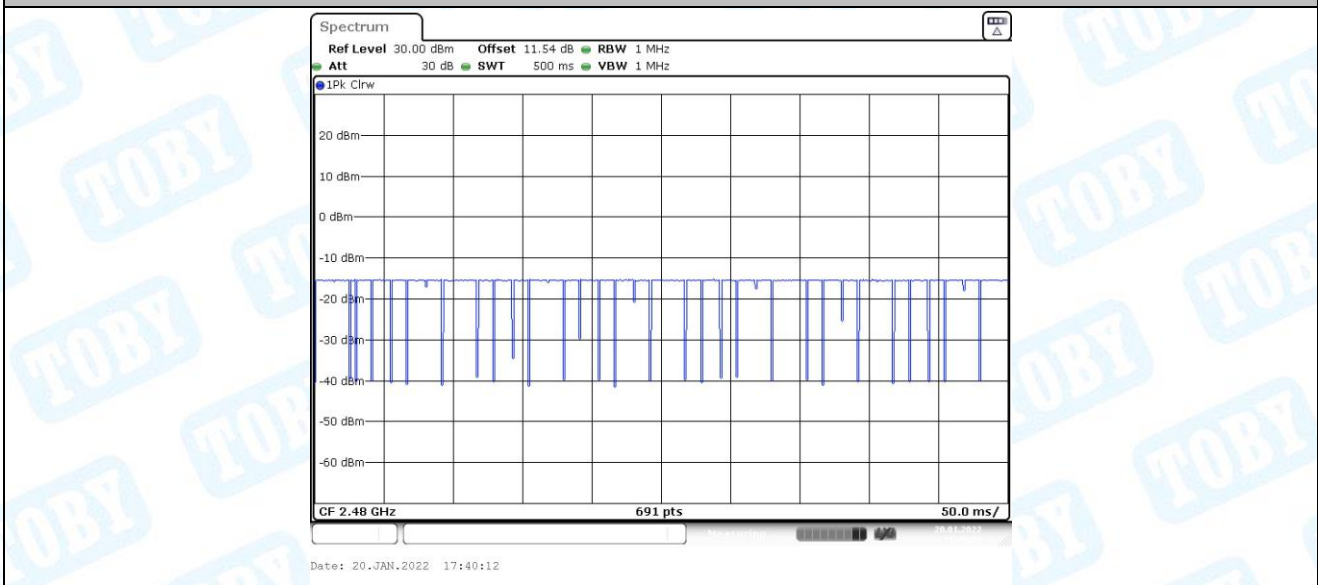
7.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

8. Emissions in Restricted Bands

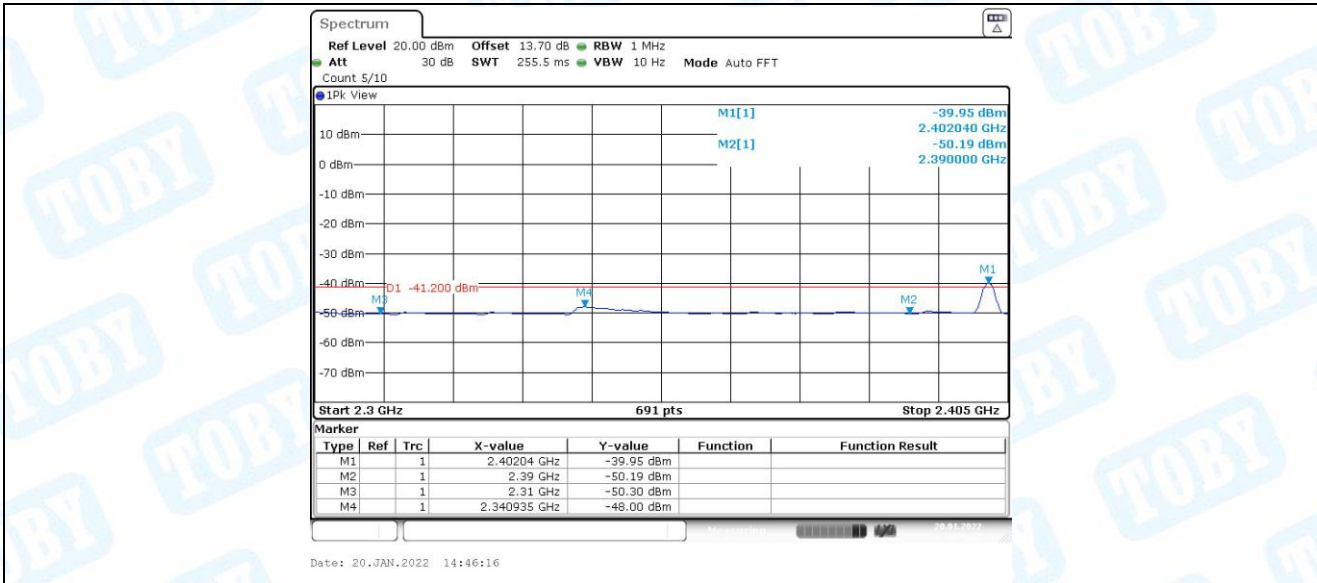
8.1. Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-50.3	≤-41.20	PASS
				AV	2340.935	-48	≤-41.20	PASS
				AV	2390.000	-50.19	≤-41.20	PASS
				Peak	2310.000	-39.09	≤-21.20	PASS
				Peak	2342.304	-35.78	≤-21.20	PASS
				Peak	2390.000	-39.24	≤-21.20	PASS
		High	2480	AV	2483.500	-49.42	≤-41.20	PASS
				AV	2497.246	-49.19	≤-41.20	PASS
				AV	2500.000	-49.47	≤-41.20	PASS
				Peak	2483.500	-40.43	≤-21.20	PASS
				Peak	2484.493	-36.48	≤-21.20	PASS
				Peak	2500.000	-37.96	≤-21.20	PASS

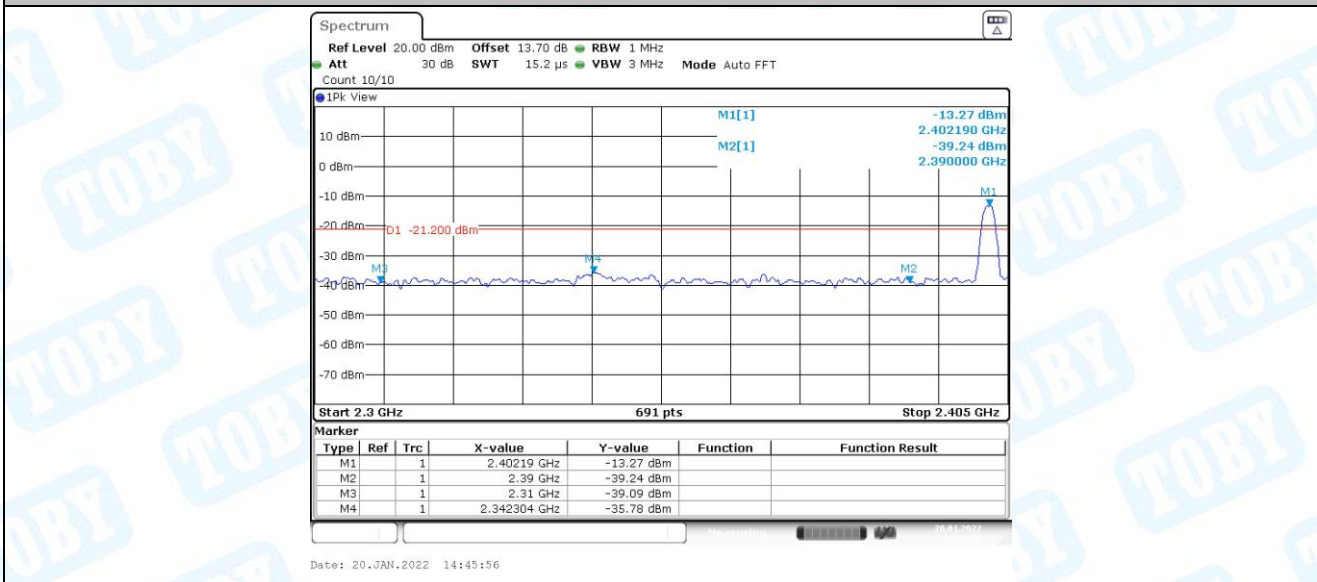
Note:

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.

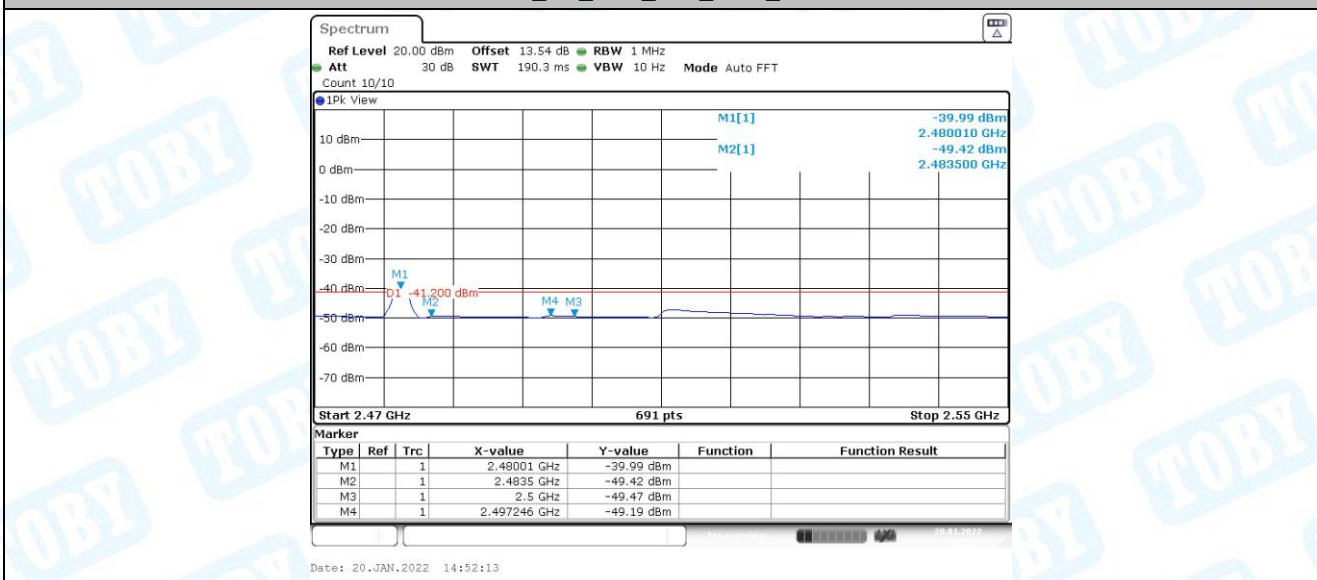
8.2. Test Graphs



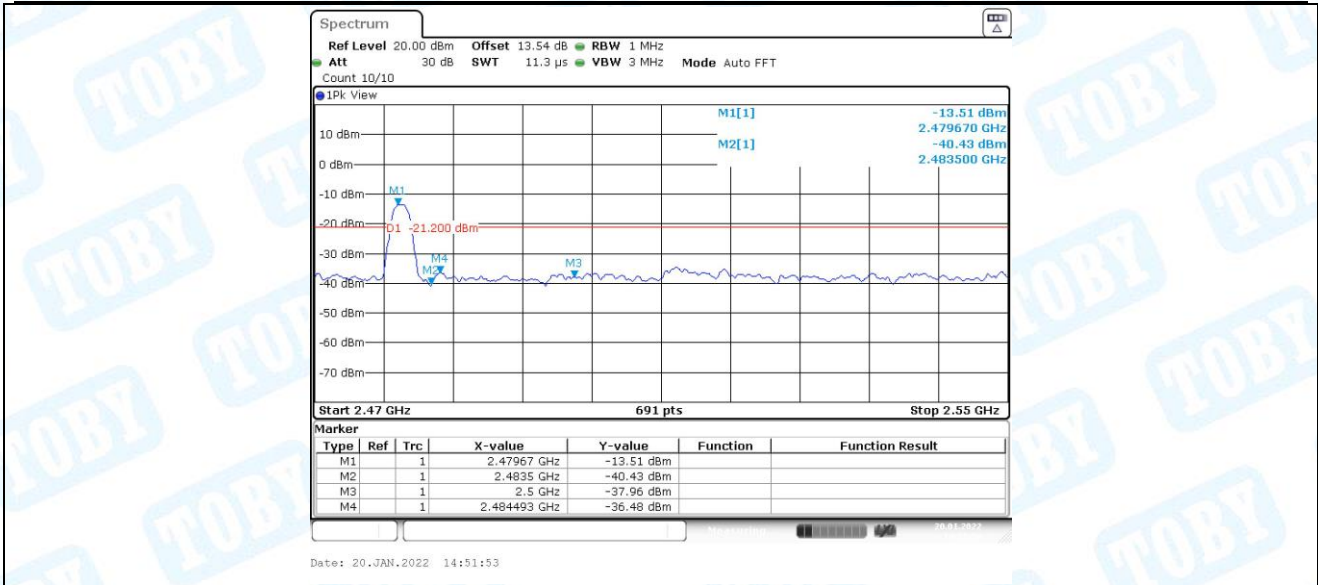
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

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