

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	AC Wireless Network Card
Test Model:	CF-813B
Sample ID:	20211223-01_03-02#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 5V
Test Engineer:	Huangjianping
Note: For a more detailed features description, please refer to the report TB-FCC186039	

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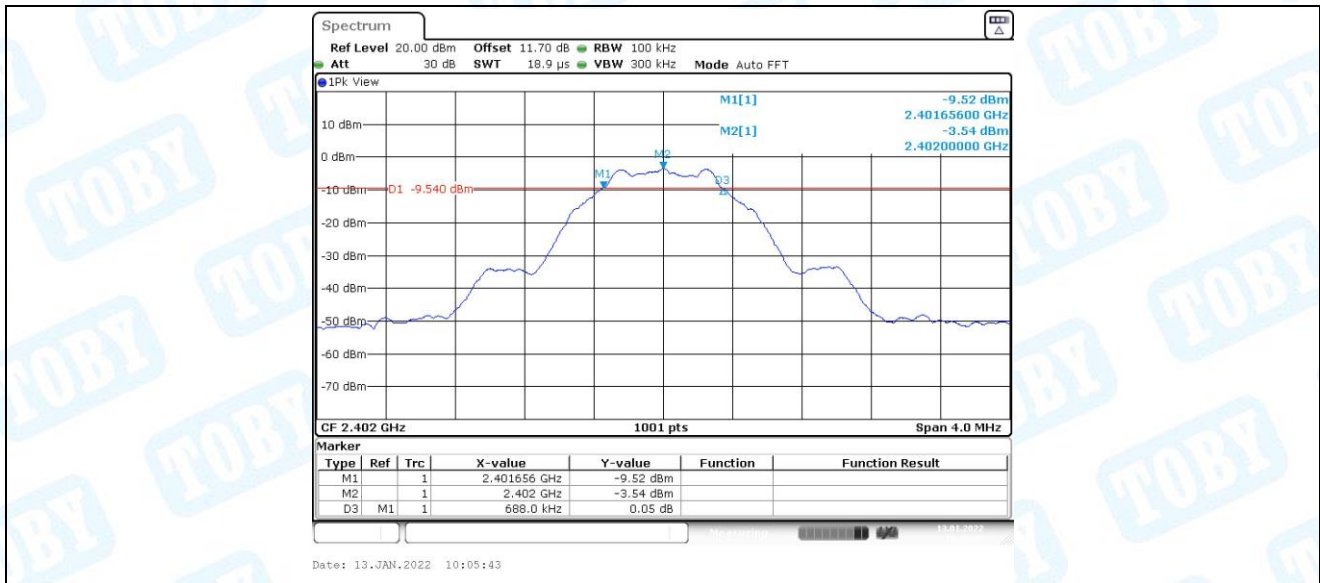
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1. DTS Bandwidth

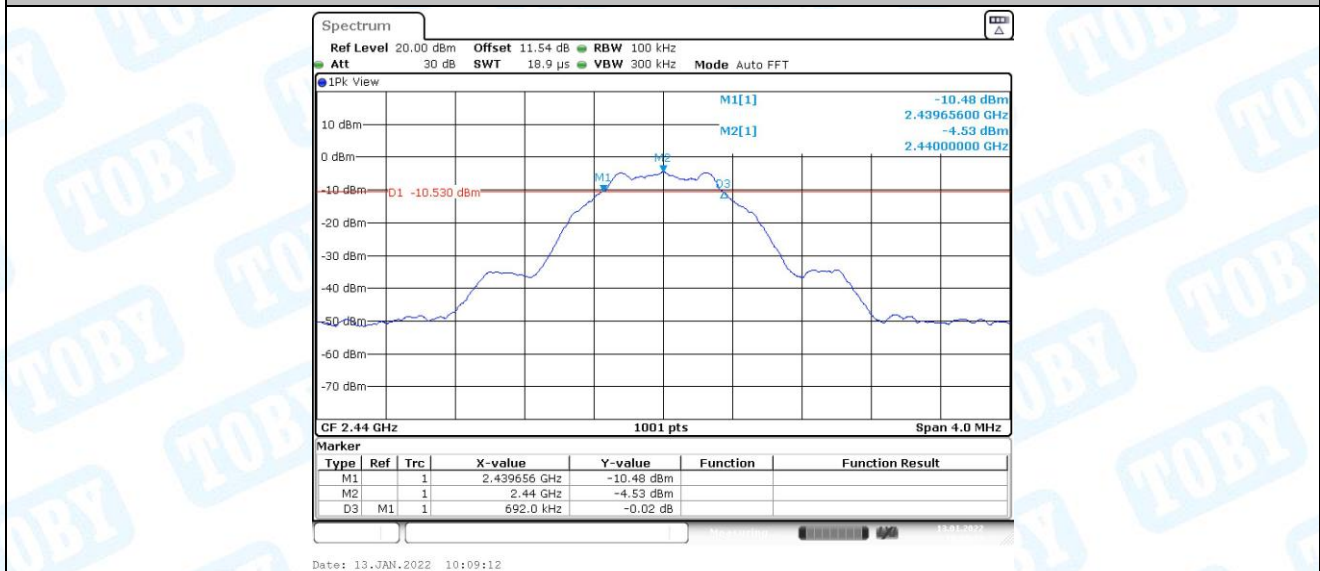
1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.69	2401.66	2402.34	0.5	PASS
		2440	0.69	2439.66	2440.35	0.5	PASS
		2480	0.69	2479.66	2480.35	0.5	PASS

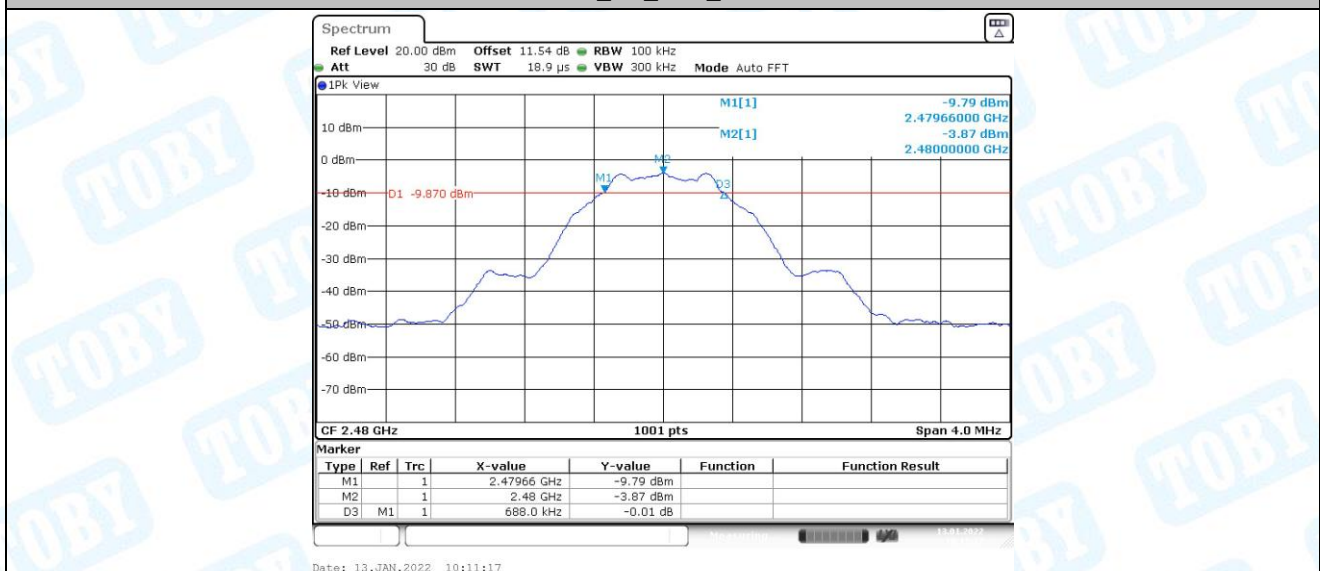
1.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



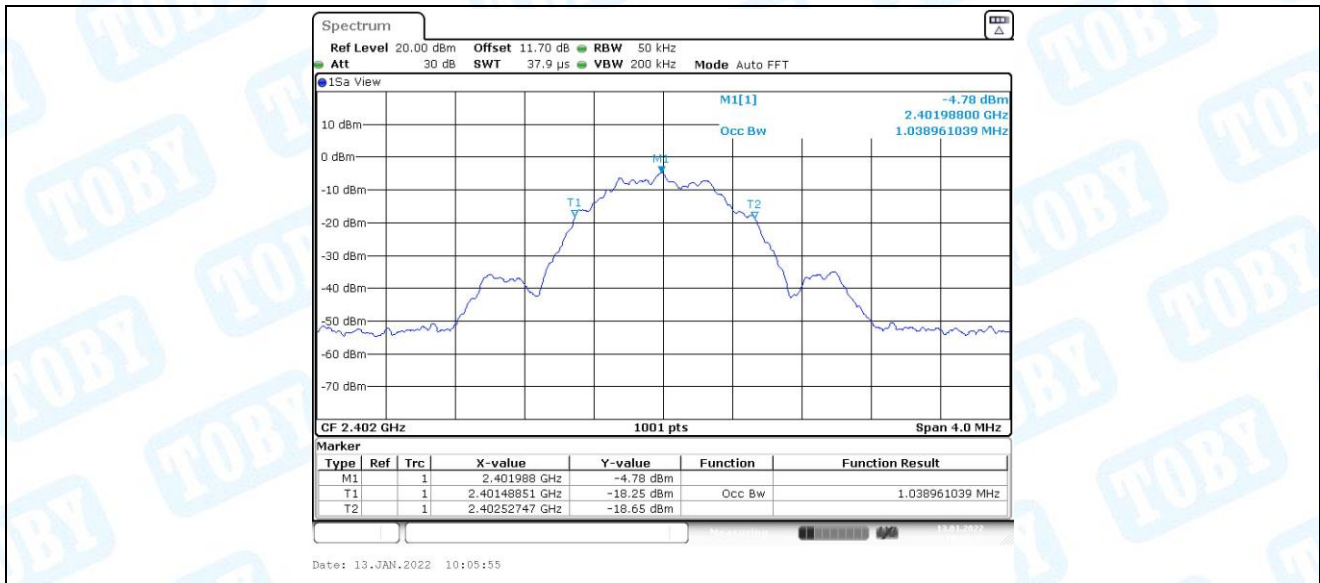
BLE_1M_Ant1_2480

2. Occupied Channel Bandwidth

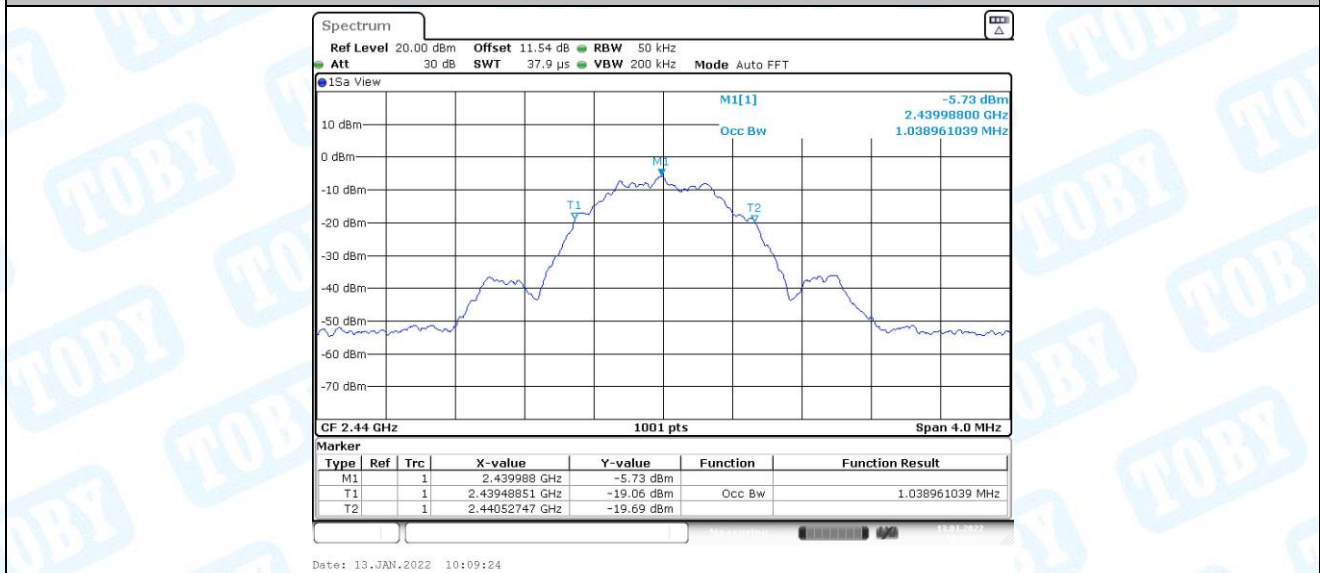
2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.039	2401.489	2402.527	---	---
		2440	1.039	2439.489	2440.527	---	---
		2480	1.039	2479.489	2480.527	---	---

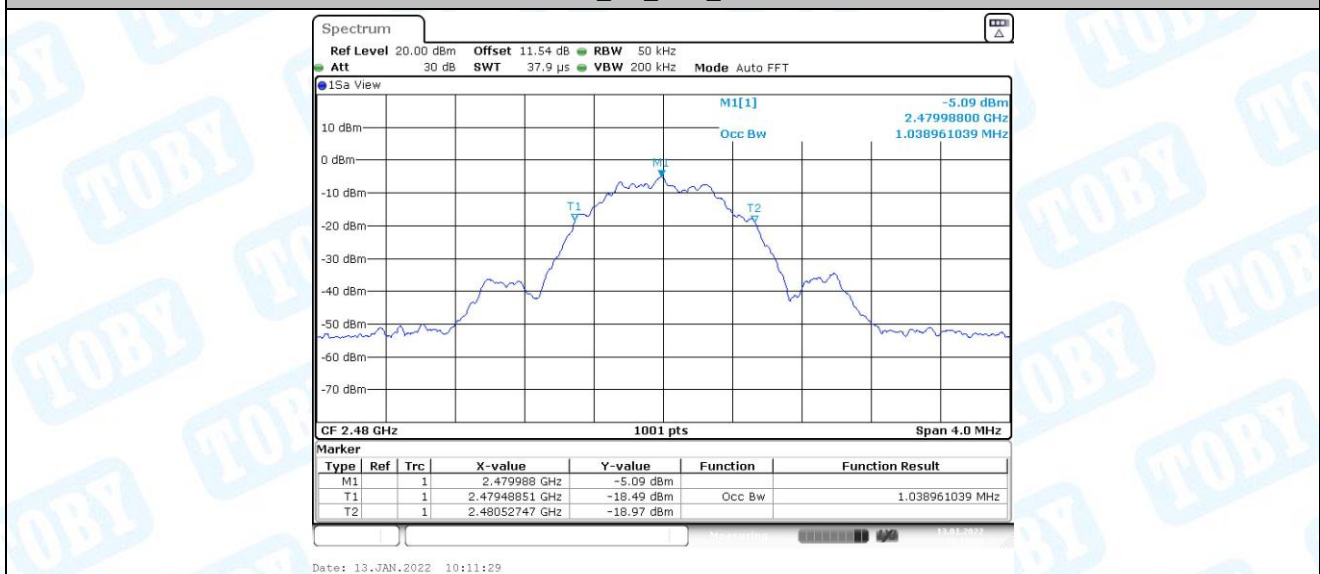
2.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



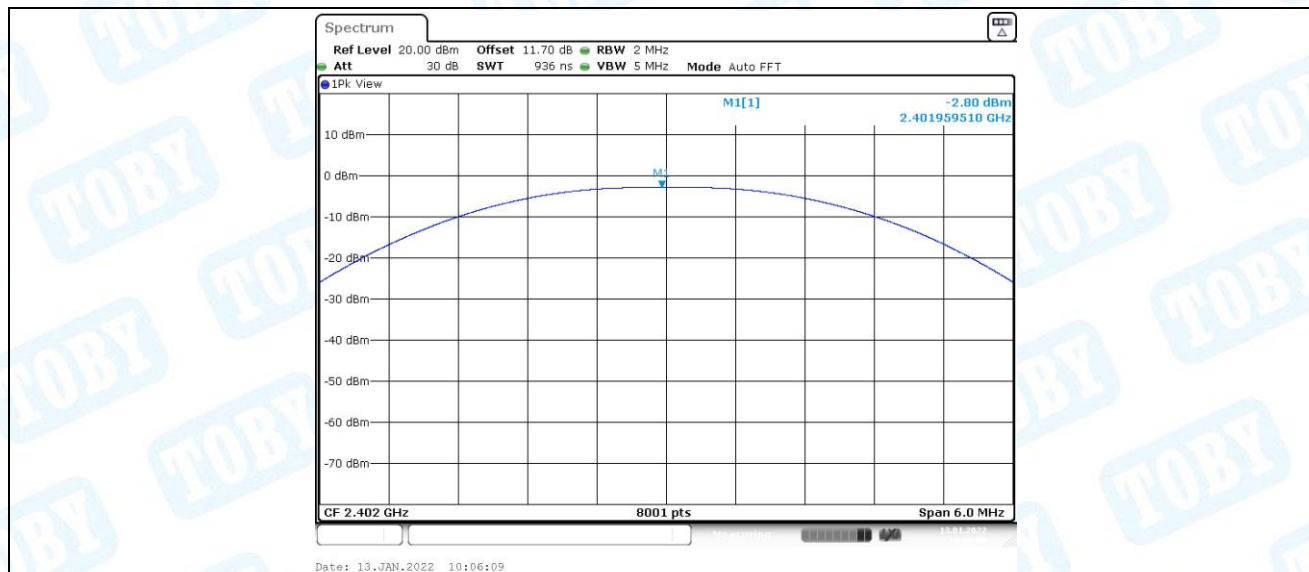
BLE_1M_Ant1_2480

3. Maximum conducted output power

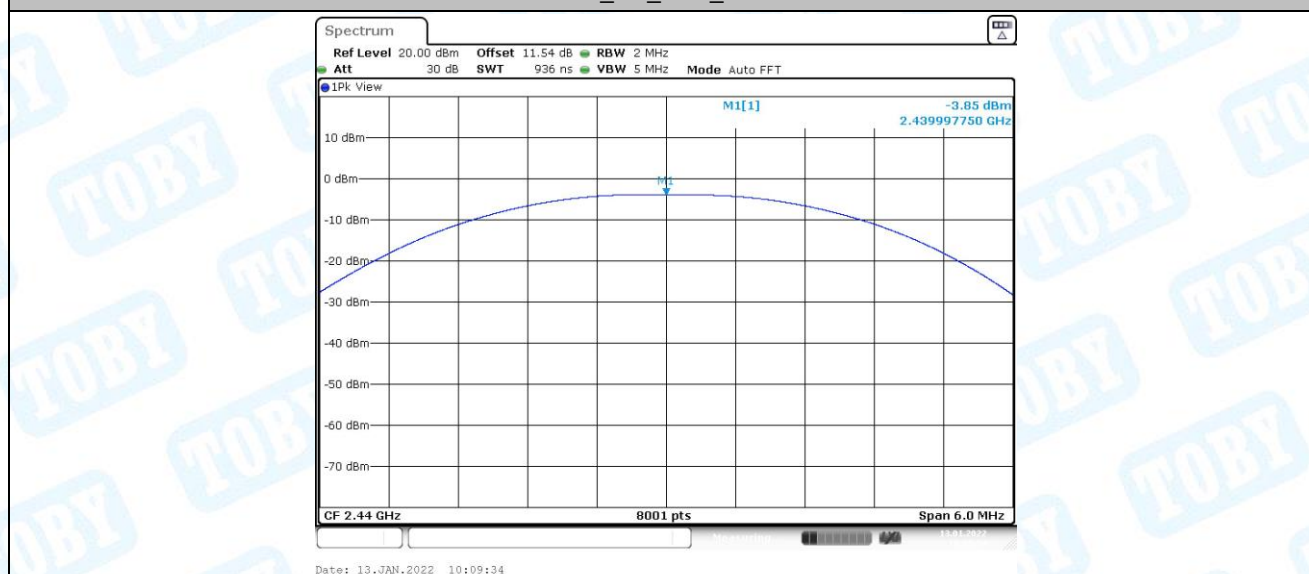
3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-2.8	≤30	PASS
		2440	-3.85	≤30	PASS
		2480	-3.14	≤30	PASS

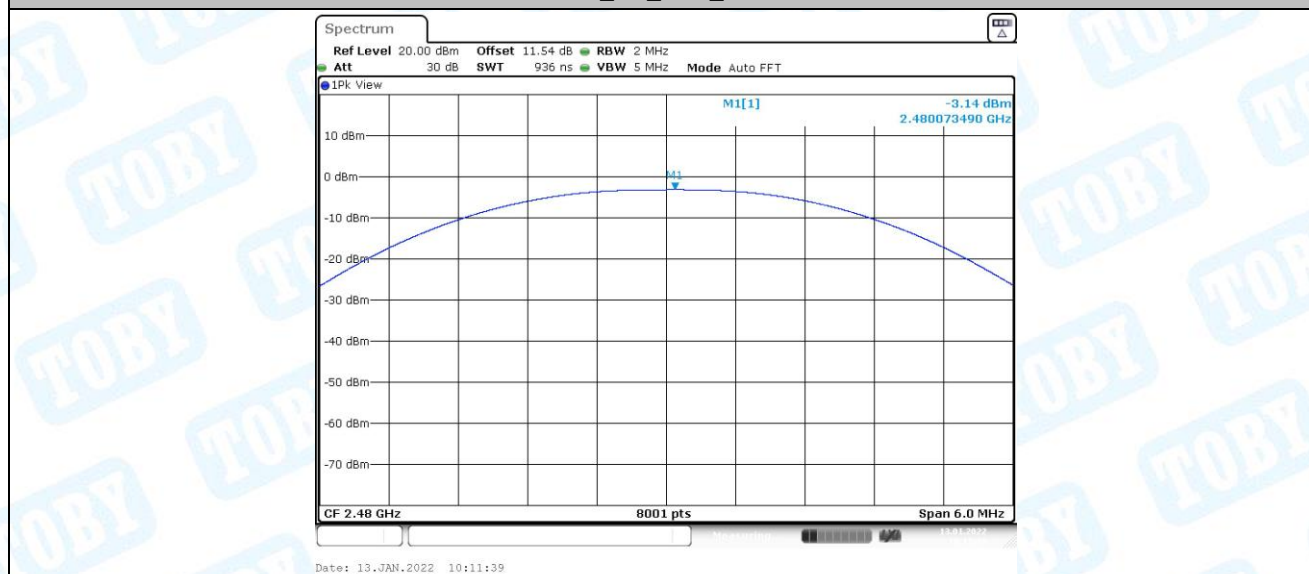
3.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



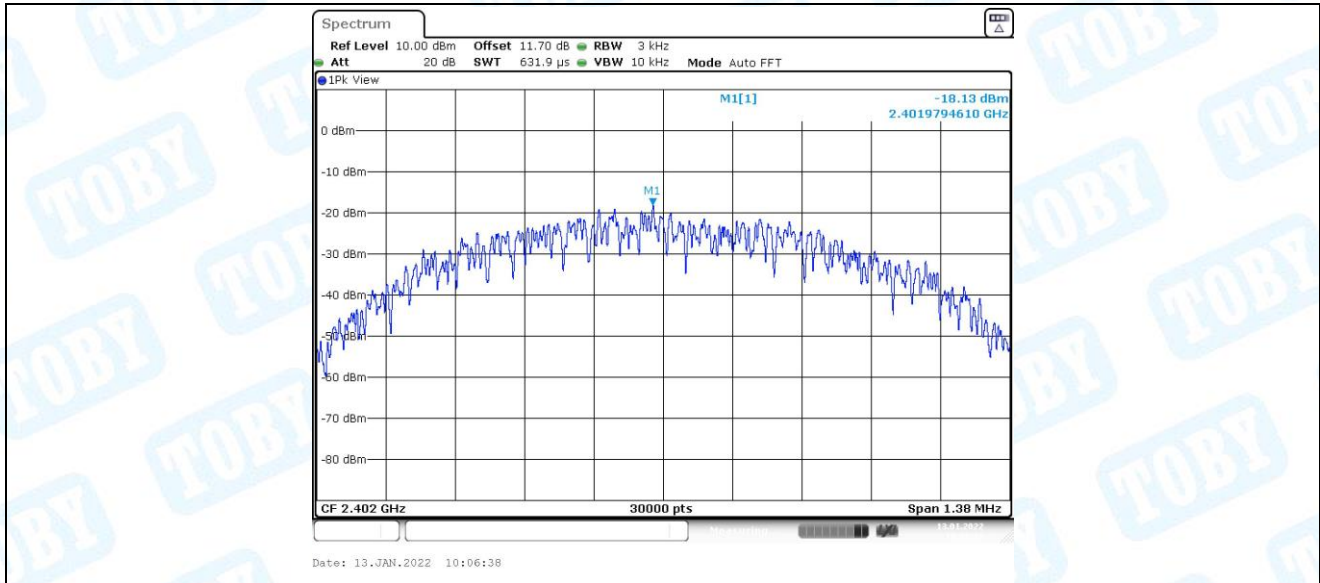
BLE_1M_Ant1_2480

4. Maximum power spectral density

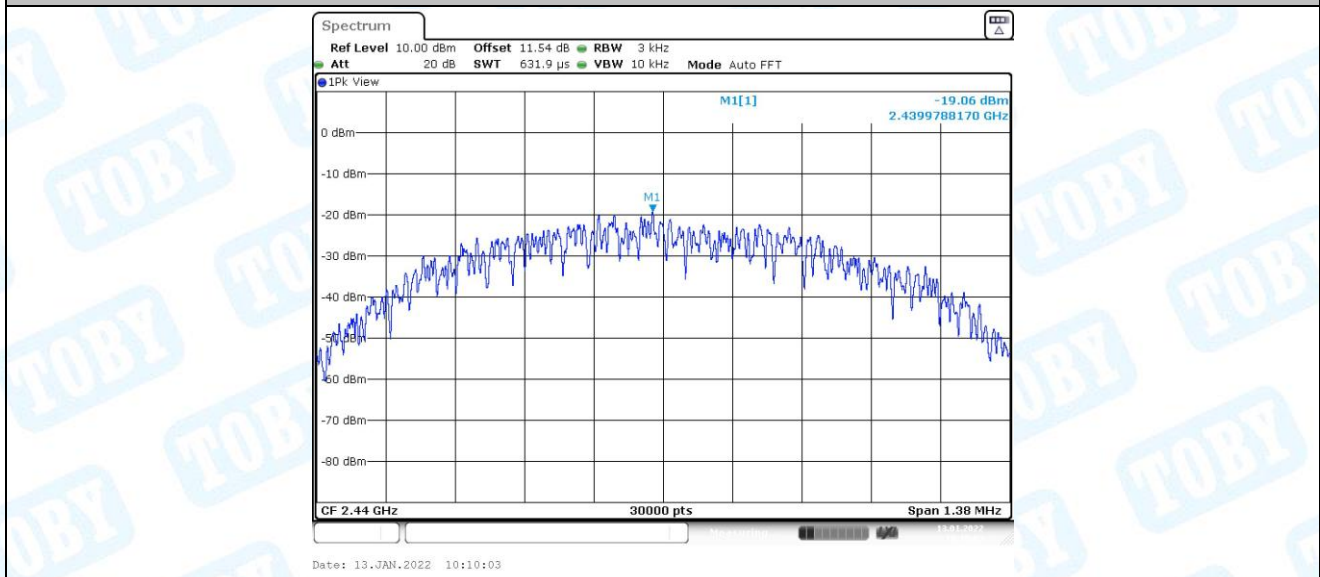
4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.13	≤8.00	PASS
		2440	-19.06	≤8.00	PASS
		2480	-18.41	≤8.00	PASS

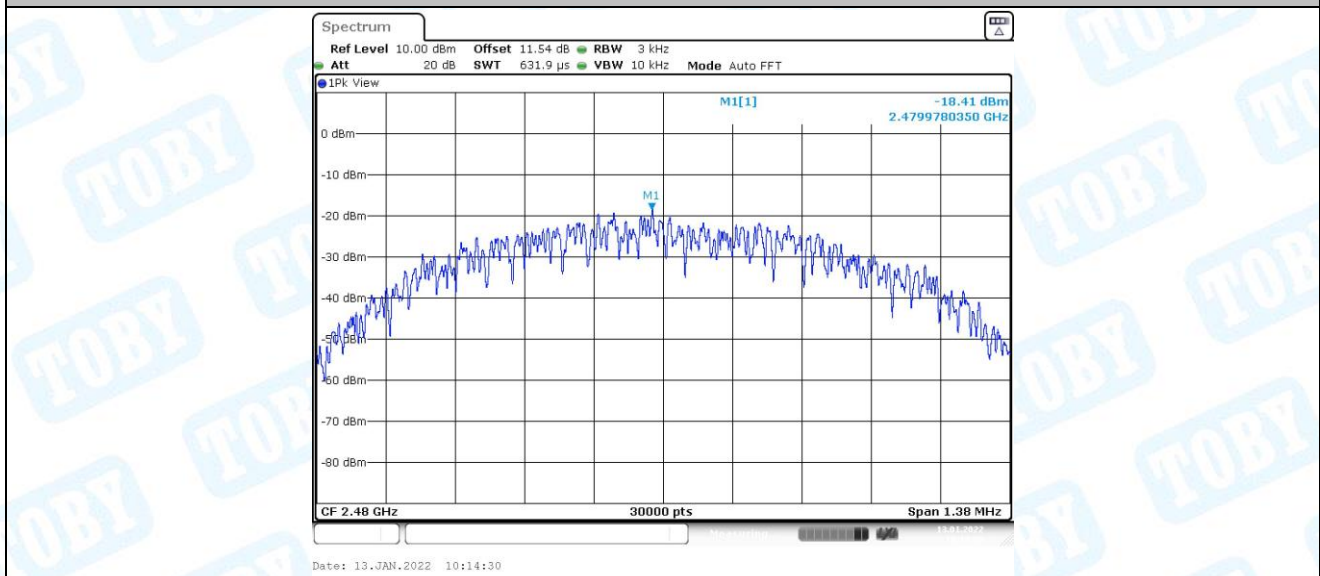
4.2. Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



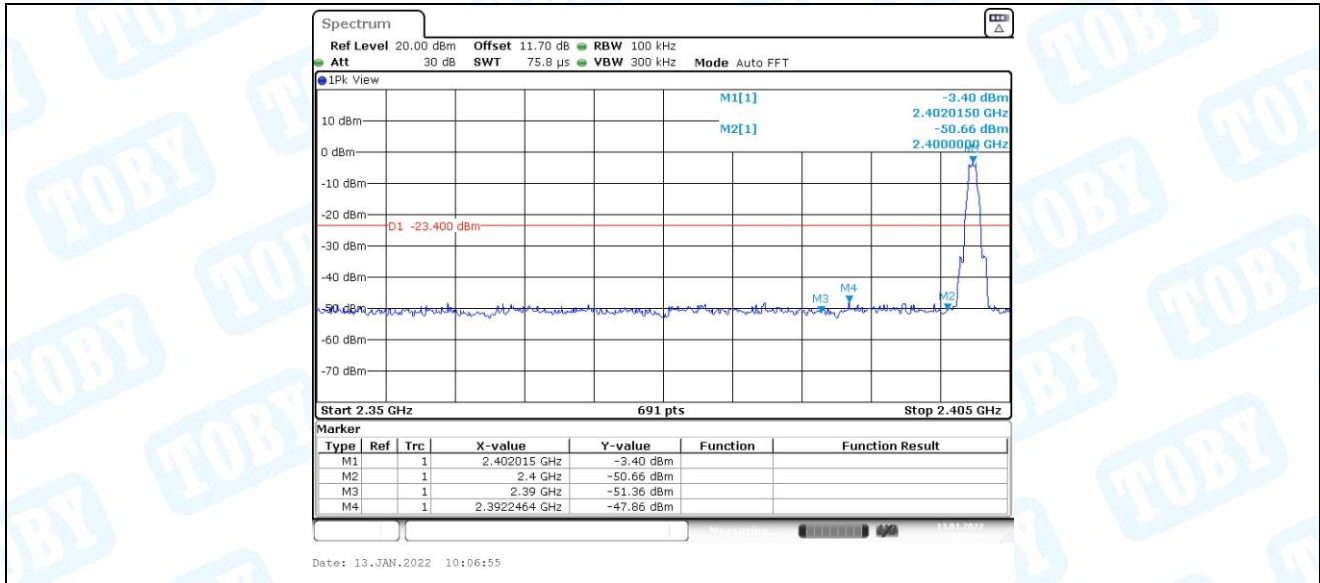
BLE_1M_Ant1_2480

5. Band edge measurements

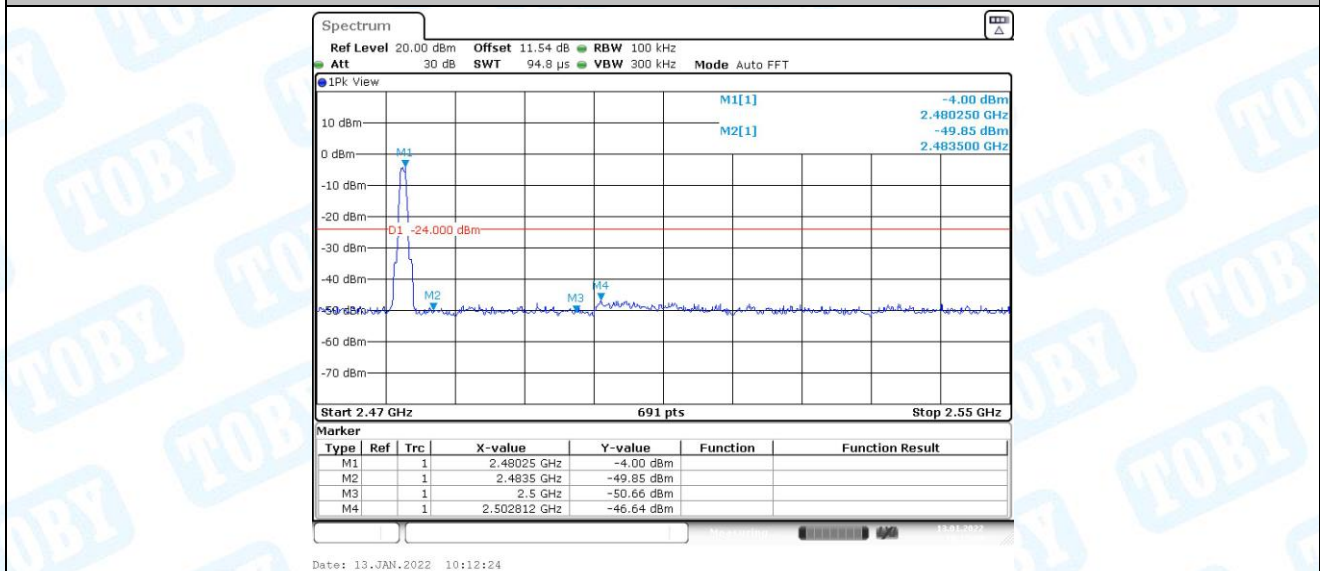
5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.40	-47.86	≤ -23.4	PASS
		High	2480	-4.00	-46.64	≤ -24	PASS

5.2.Test Graphs



BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480

6. Conducted Spurious Emission

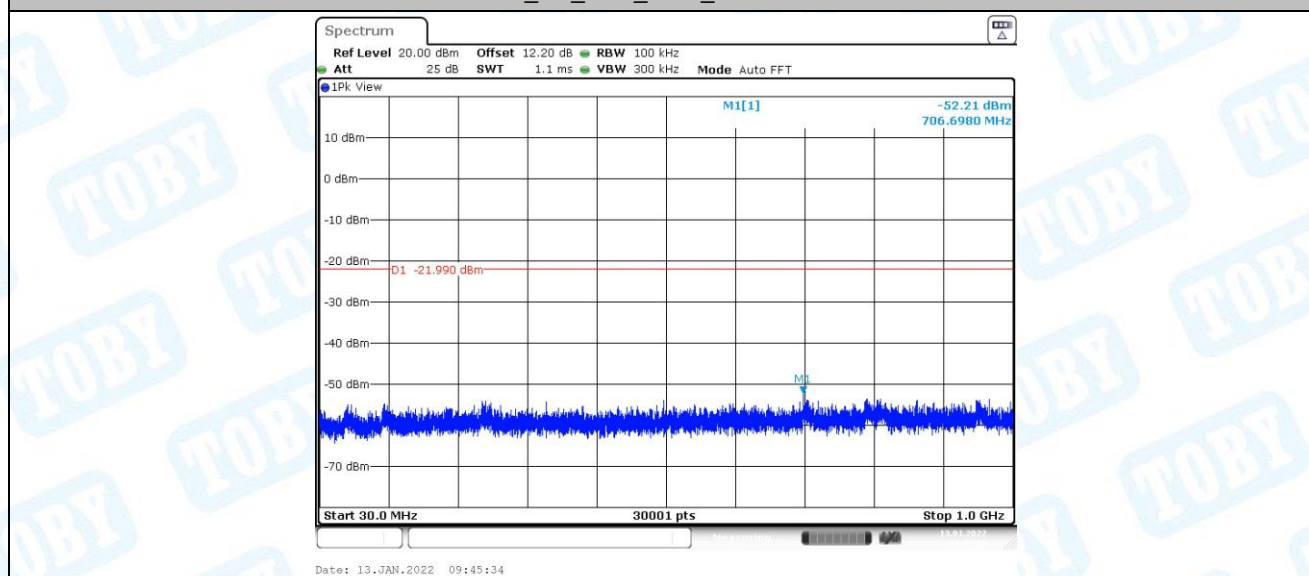
6.1. Test Result

Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.99	-1.99	---	PASS
			30~1000	-1.99	-52.21	≤-21.99	PASS
			1000~26500	-1.99	-45.89	≤-21.99	PASS
		2440	Reference	-2.14	-2.14	---	PASS
			30~1000	-2.14	-52.69	≤-22.14	PASS
			1000~26500	-2.14	-46.23	≤-22.14	PASS
		2480	Reference	-2.38	-2.38	---	PASS
			30~1000	-2.38	-53.47	≤-22.38	PASS
			1000~26500	-2.38	-46.3	≤-22.38	PASS

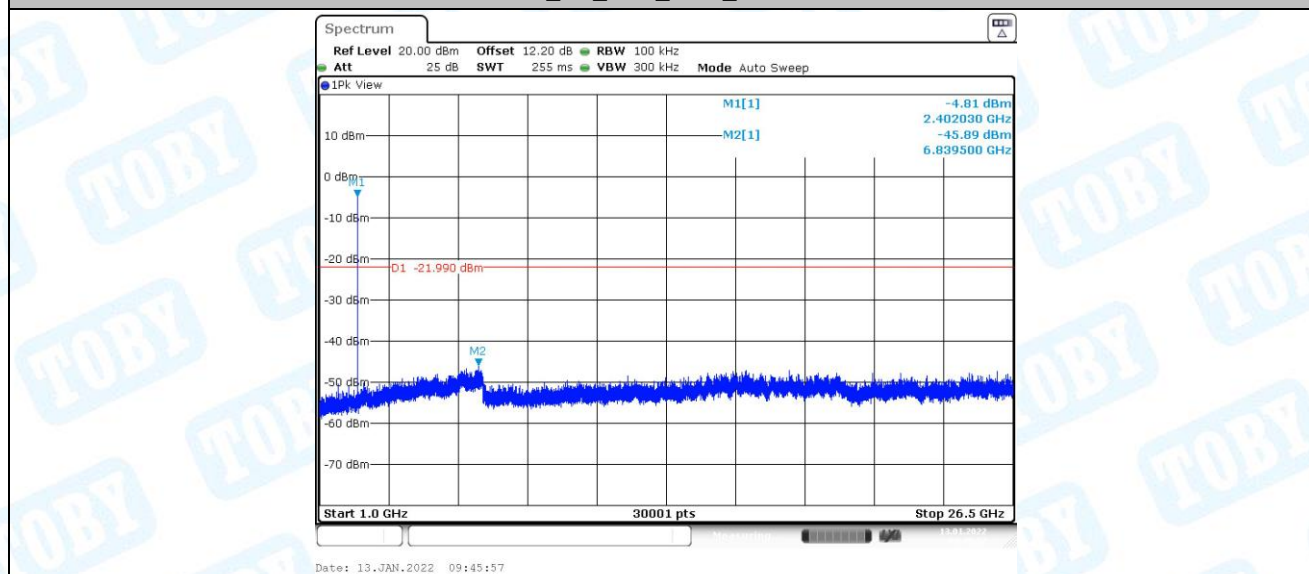
6.2. Test Graphs



BLE_1M_Ant1_2402_0~Reference



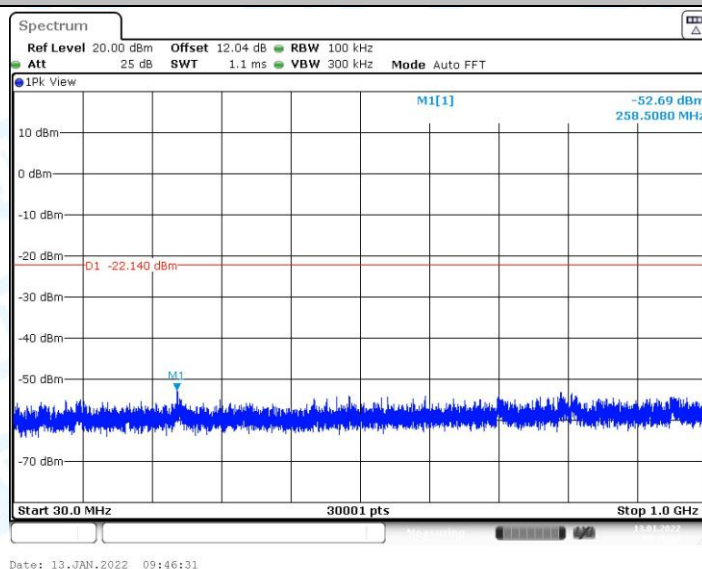
BLE_1M_Ant1_2402_30~1000



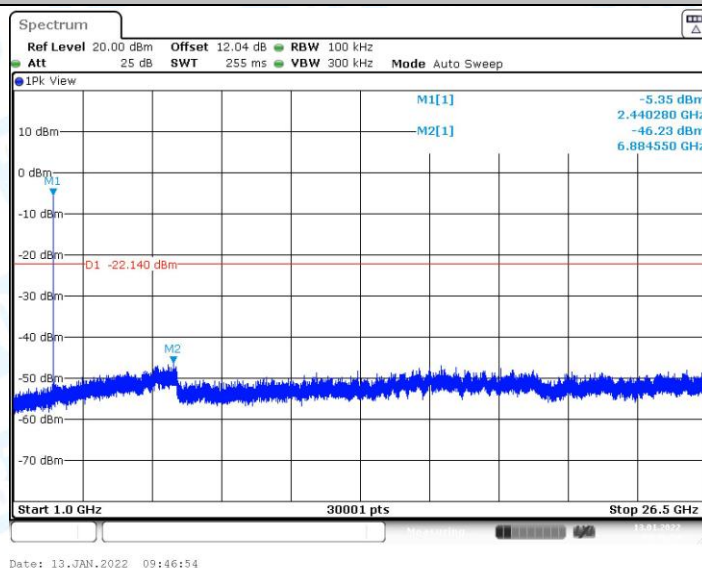
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference



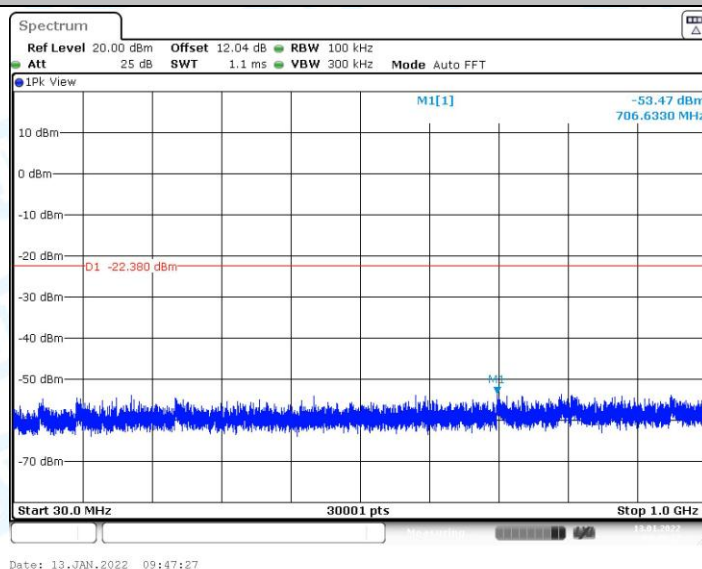
BLE_1M_Ant1_2440_30~1000



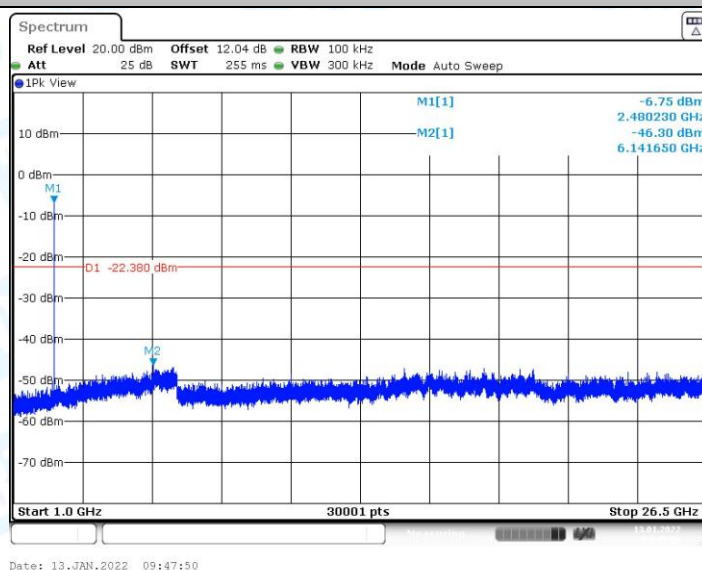
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



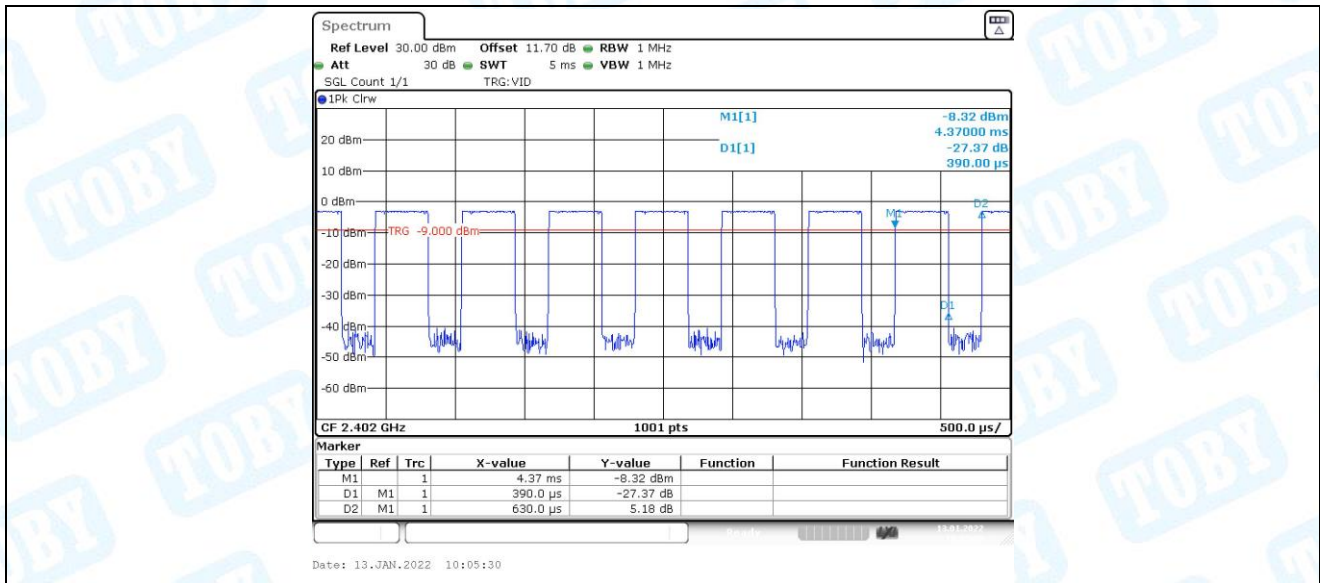
BLE_1M_Ant1_2480_1000~26500

7. Duty Cycle

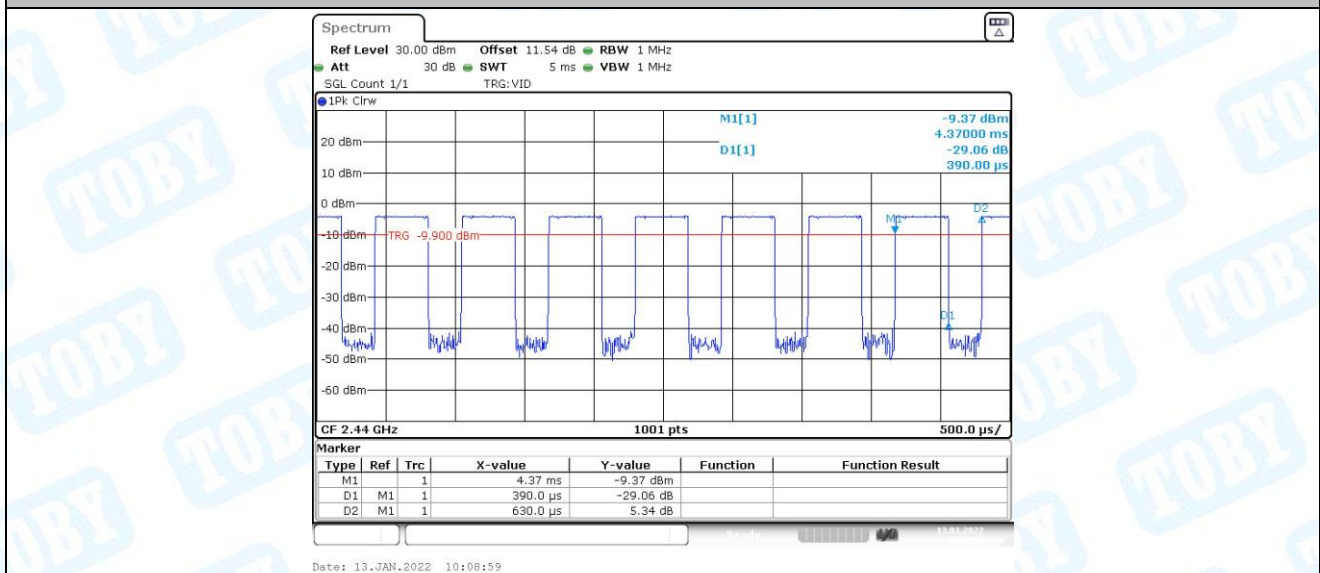
7.1. Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [KHz]	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.63	61.90	2.56	---	PASS
		2440	0.39	0.63	61.90	2.56	---	PASS
		2480	0.39	0.63	61.90	2.56	---	PASS
Note:1/T=1/ Transmission Duration								

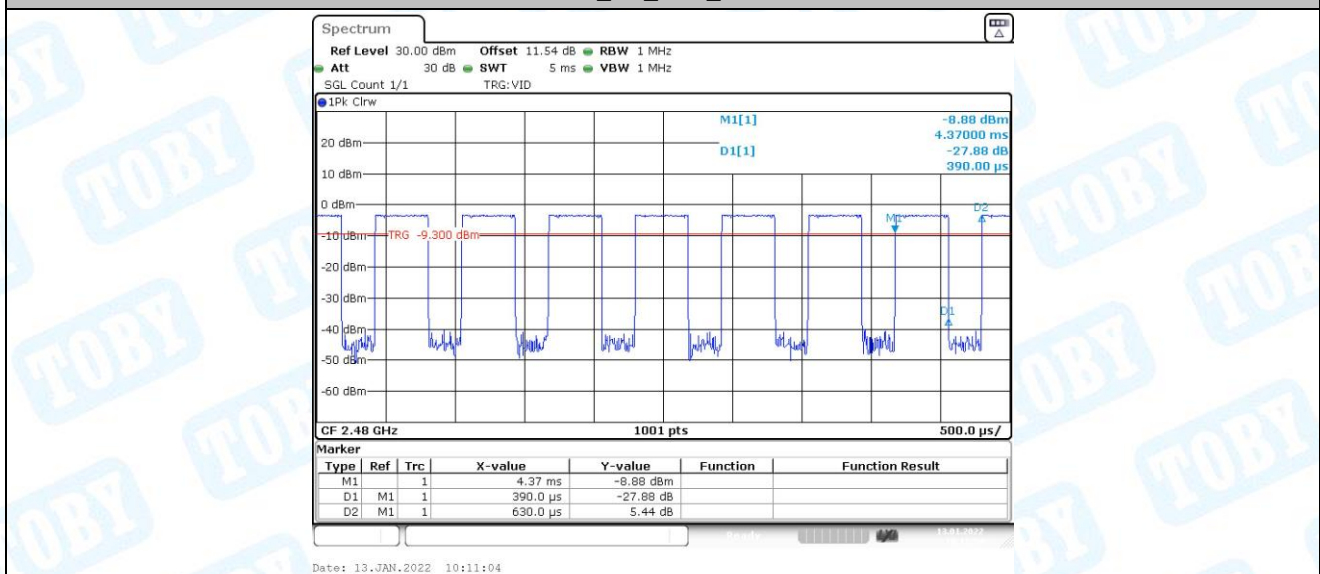
7.2.Test Graphs



BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

8. Emissions in Restricted Bands

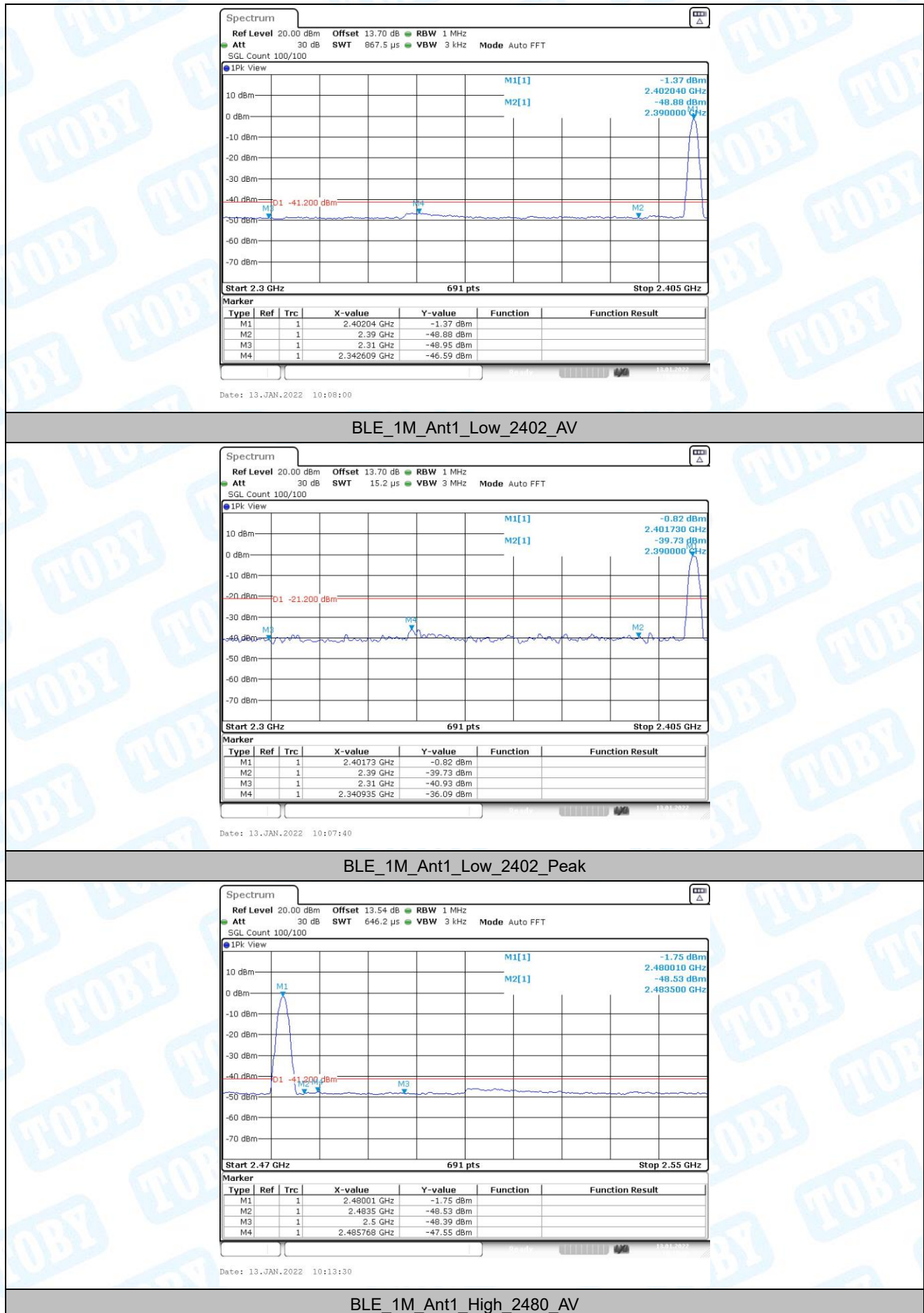
8.1. Test Result

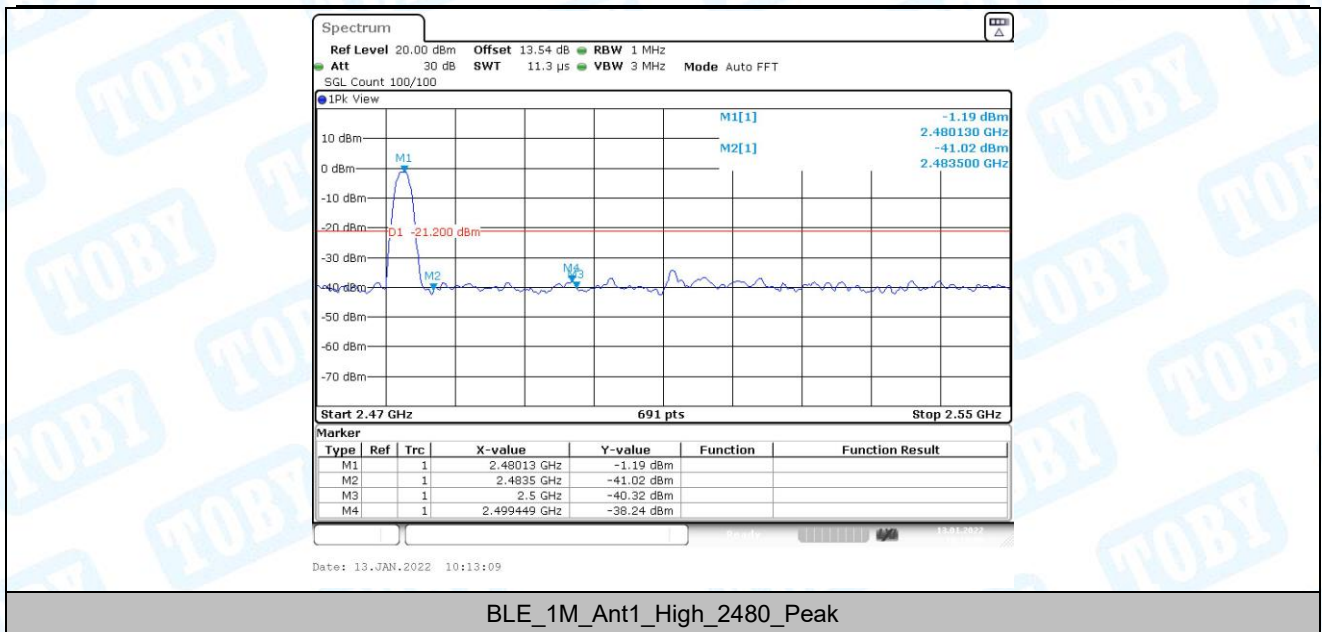
Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.95	≤-41.20	PASS
				AV	2342.609	-46.59	≤-41.20	PASS
				AV	2390.000	-48.88	≤-41.20	PASS
				Peak	2310.000	-40.93	≤-21.20	PASS
				Peak	2340.935	-36.09	≤-21.20	PASS
				Peak	2390.000	-39.73	≤-21.20	PASS
		High	2480	AV	2483.500	-48.53	≤-41.20	PASS
				AV	2485.768	-47.55	≤-41.20	PASS
				AV	2500.000	-48.39	≤-41.20	PASS
				Peak	2483.500	-41.02	≤-21.20	PASS
				Peak	2499.449	-38.24	≤-21.20	PASS
				Peak	2500.000	-40.32	≤-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





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