

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	7" Tablet
Test Model:	100135924
Sample ID:	202311-0360-3-2#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 3.85V
Test Engineer:	Yan zhen ming
Note: For a more detailed features description, please refer to the report TBR-C-202311-0360-3 The report only show the worst case data.	

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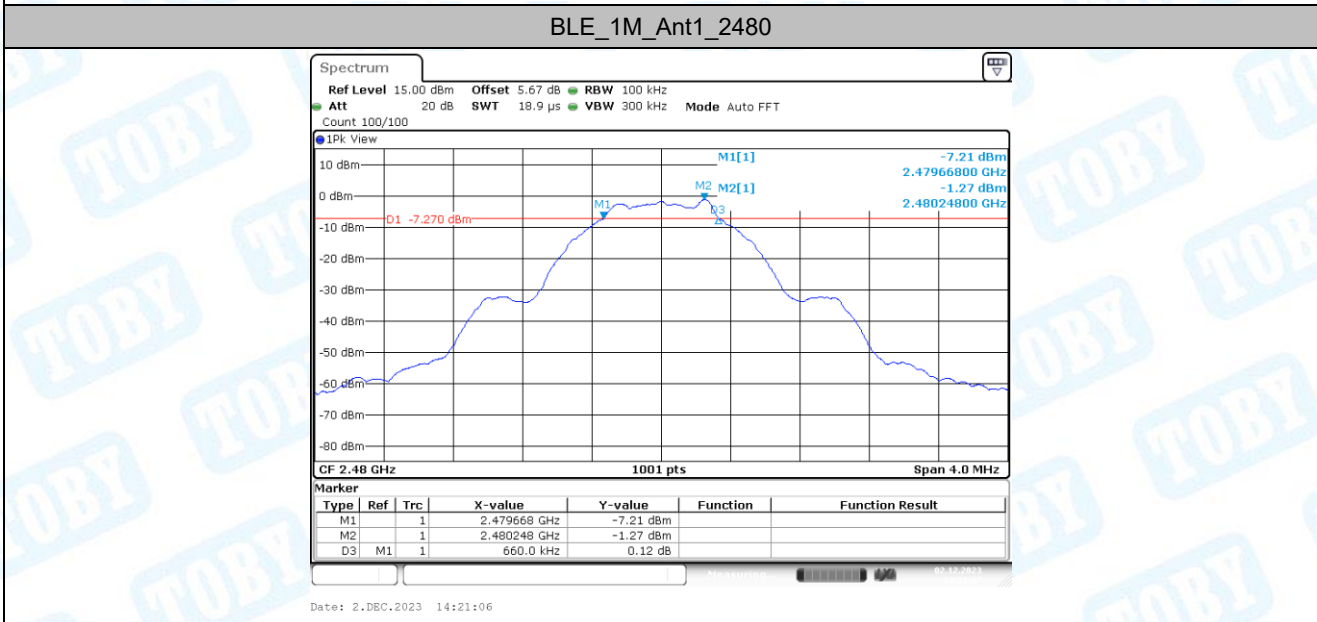
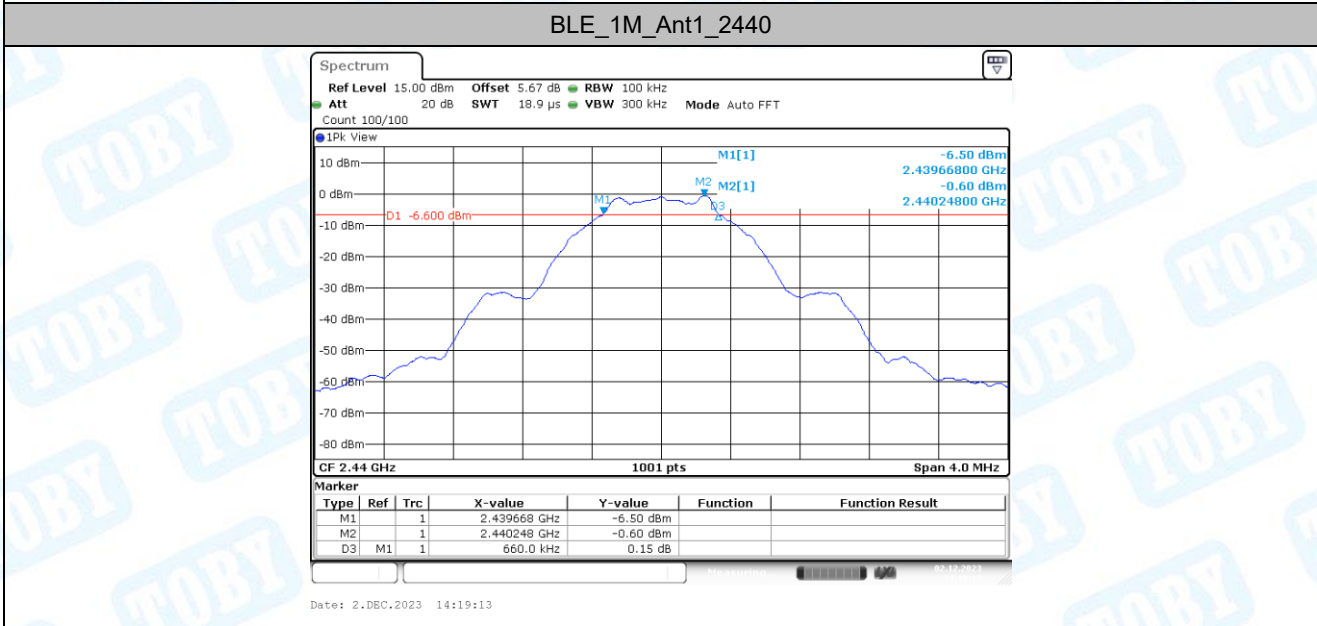
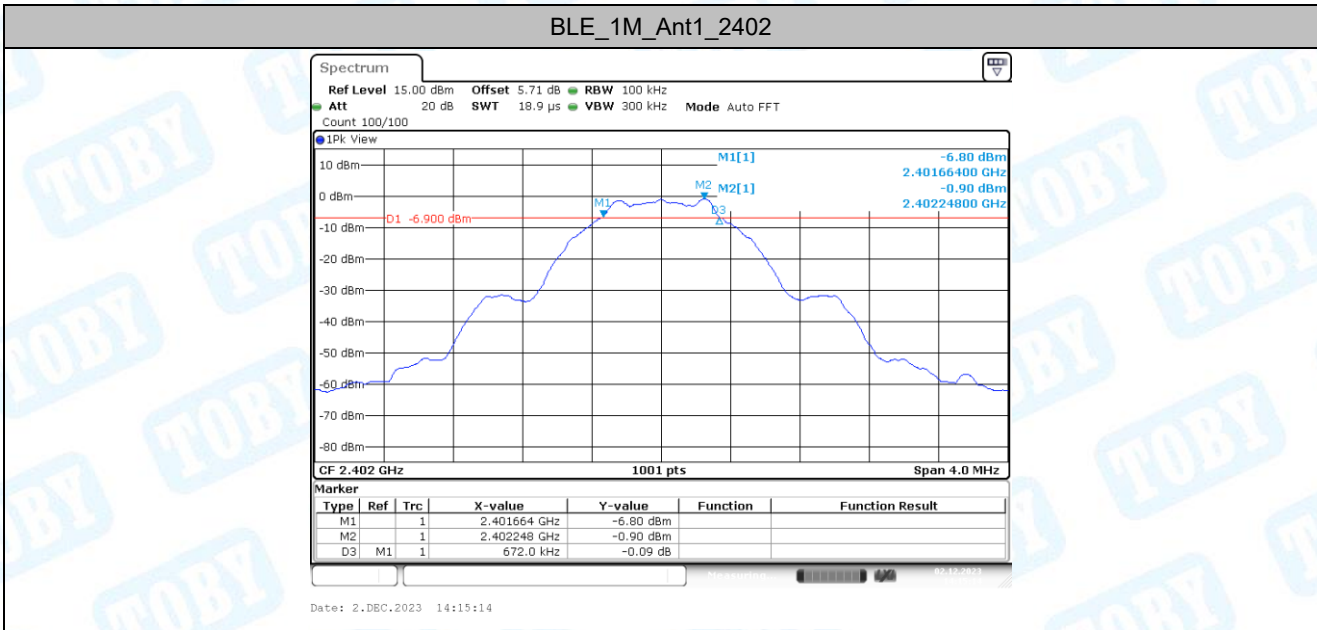
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1. DTS Bandwidth

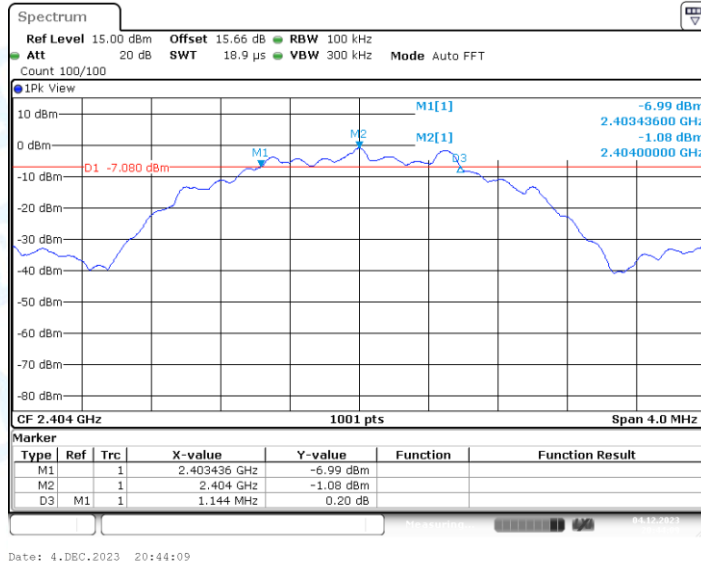
1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.67	2401.66	2402.34	0.5	PASS
		2440	0.66	2439.67	2440.33	0.5	PASS
		2480	0.66	2479.67	2480.33	0.5	PASS
BLE_2M	Ant1	2404	1.14	2403.44	2404.58	0.5	PASS
		2440	1.15	2439.43	2440.58	0.5	PASS
		2478	1.15	2477.43	2478.58	0.5	PASS

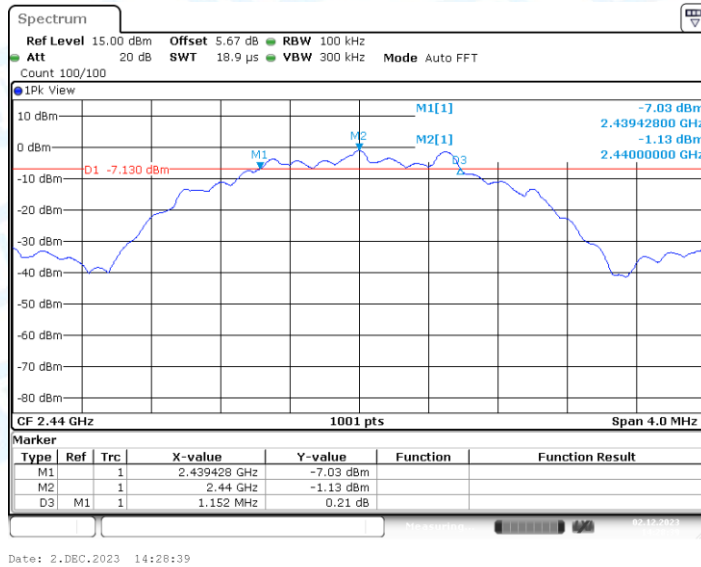
1.2. Test Graphs



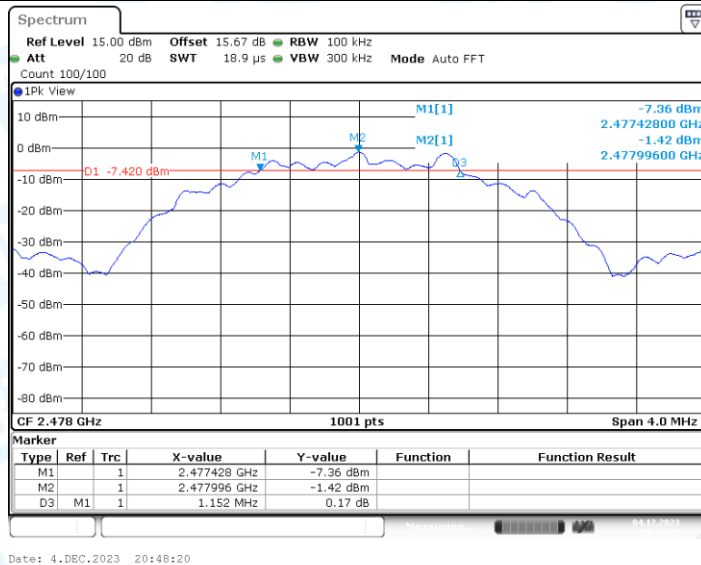
BLE_2M_Ant1_2404



BLE_2M_Ant1_2440



BLE_2M_Ant1_2478

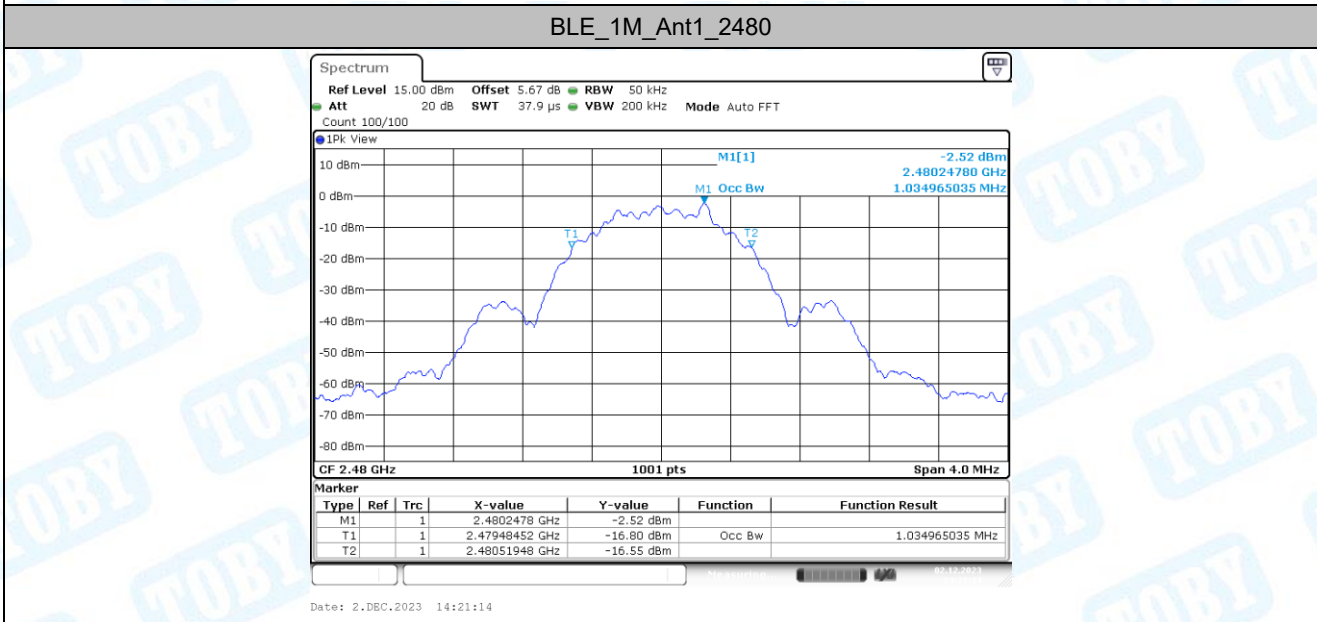
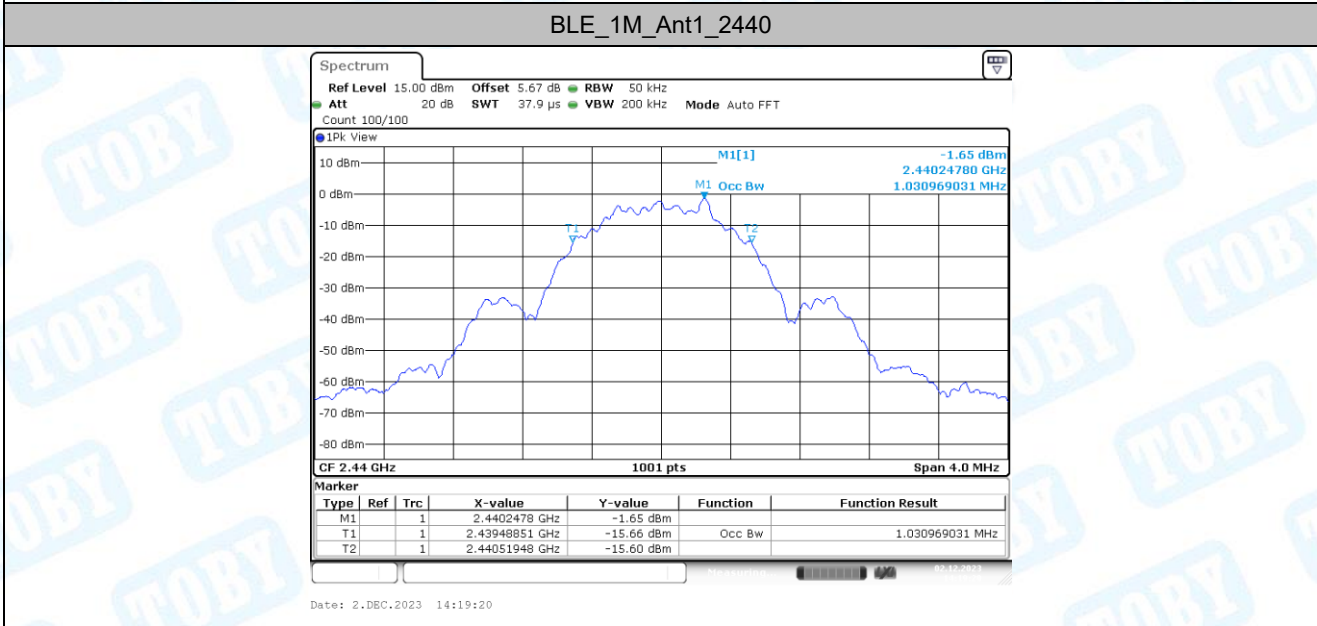


2. Occupied Channel Bandwidth

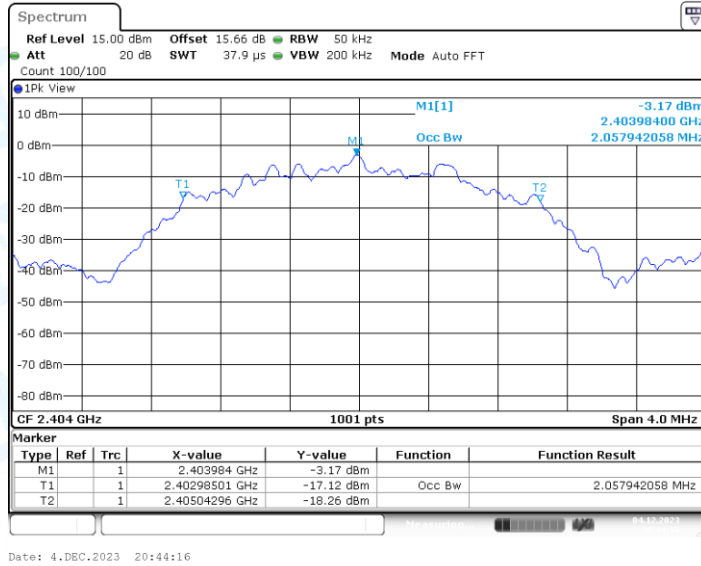
2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.031	2401.4885	2402.5195	---	---
		2440	1.031	2439.4885	2440.5195	---	---
		2480	1.035	2479.4845	2480.5195	---	---
BLE_2M	Ant1	2404	2.058	2402.9850	2405.0430	---	---
		2440	2.058	2438.9810	2441.0390	---	---
		2478	2.062	2476.9810	2479.0430	---	---

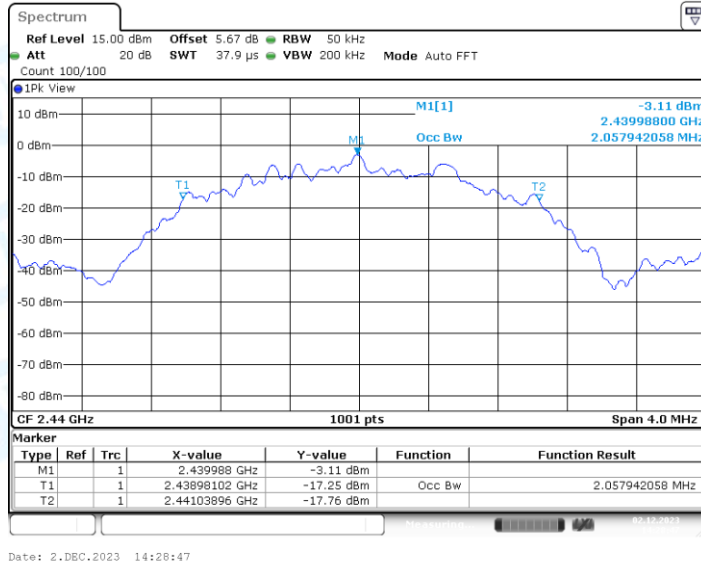
2.2. Test Graphs



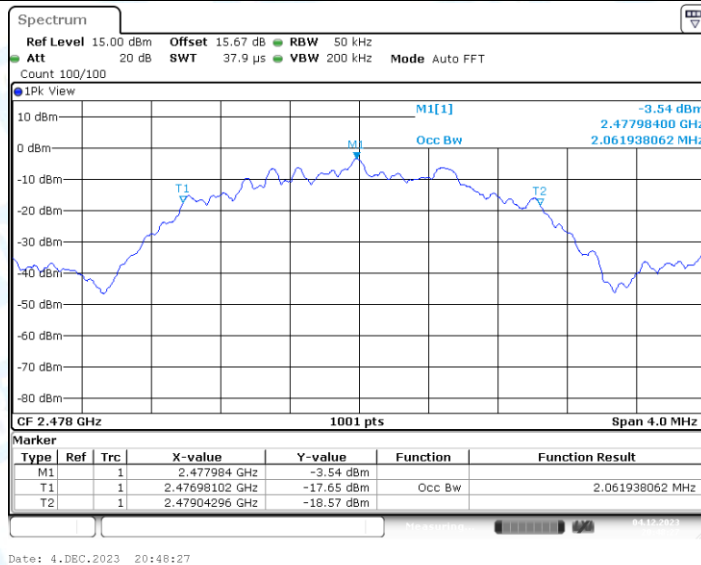
BLE_2M_Ant1_2404



BLE_2M_Ant1_2440



BLE_2M_Ant1_2478

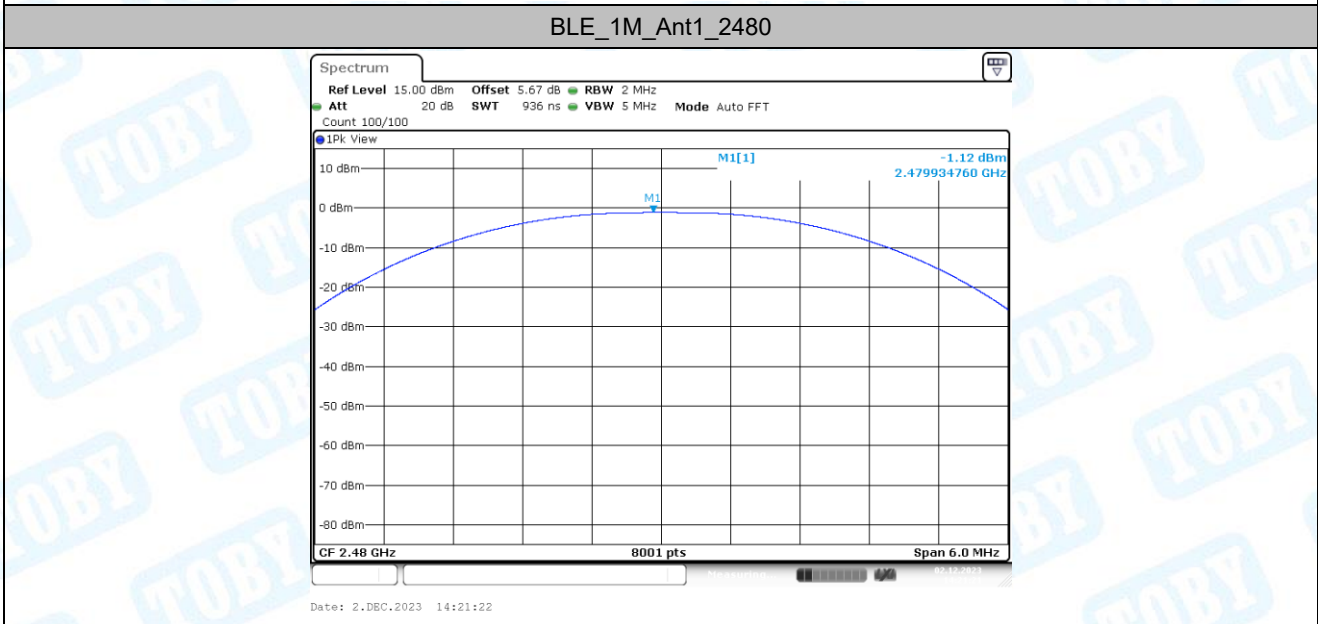
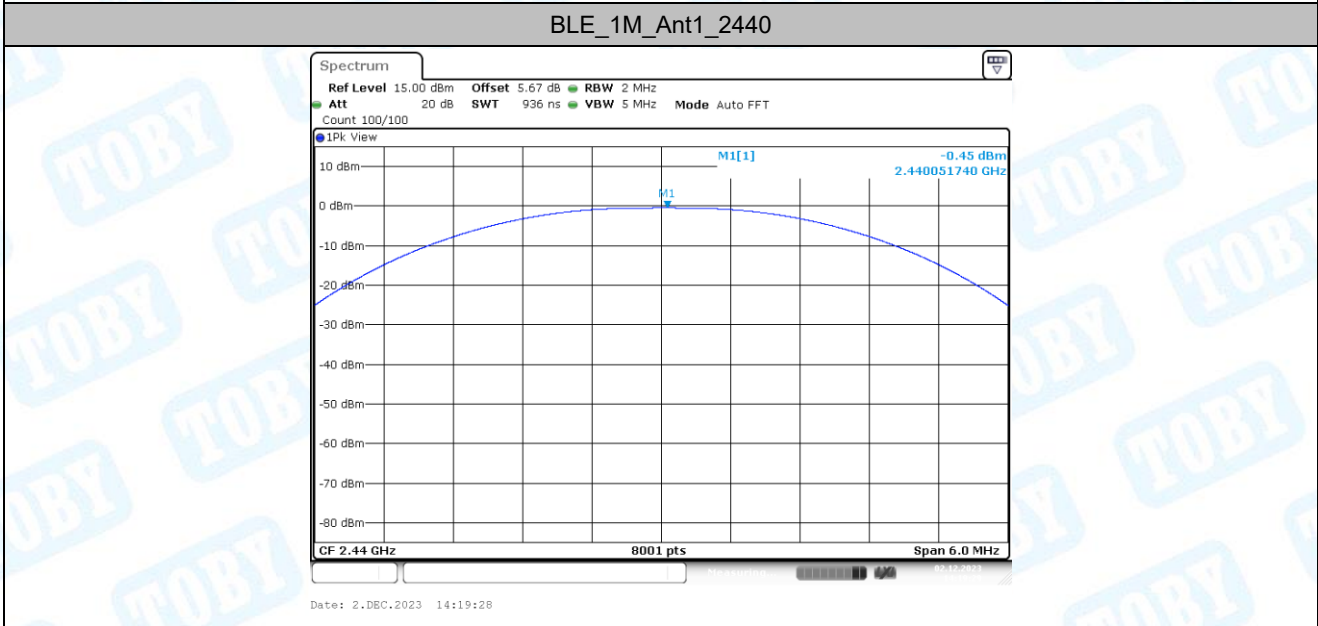
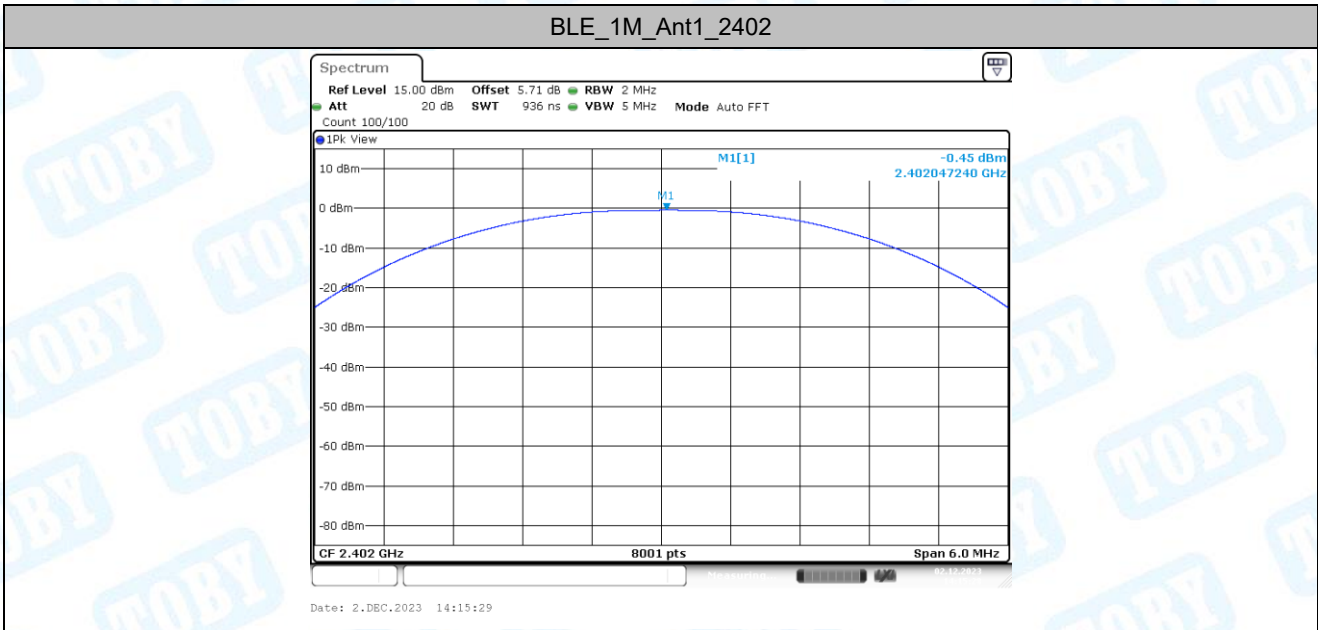


3. Maximum conducted output power

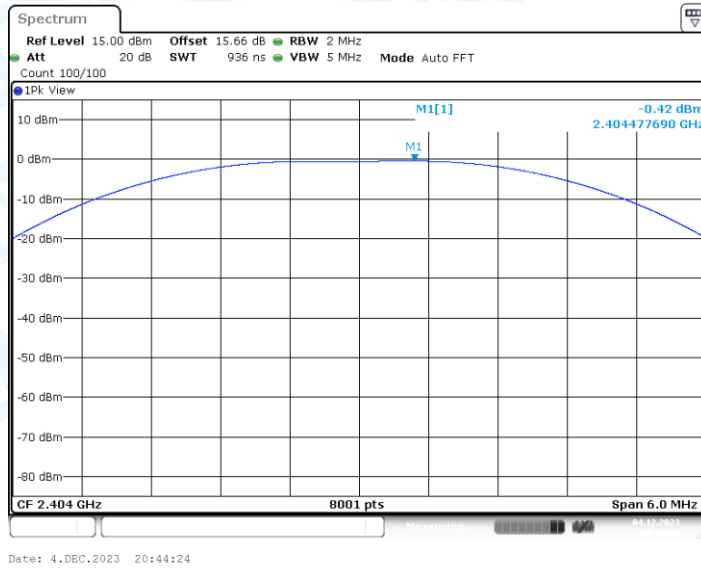
3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.45	≤30	PASS
		2440	-0.45	≤30	PASS
		2480	-1.12	≤30	PASS
BLE_2M	Ant1	2404	-0.42	≤30	PASS
		2440	-0.52	≤30	PASS
		2478	-0.83	≤30	PASS

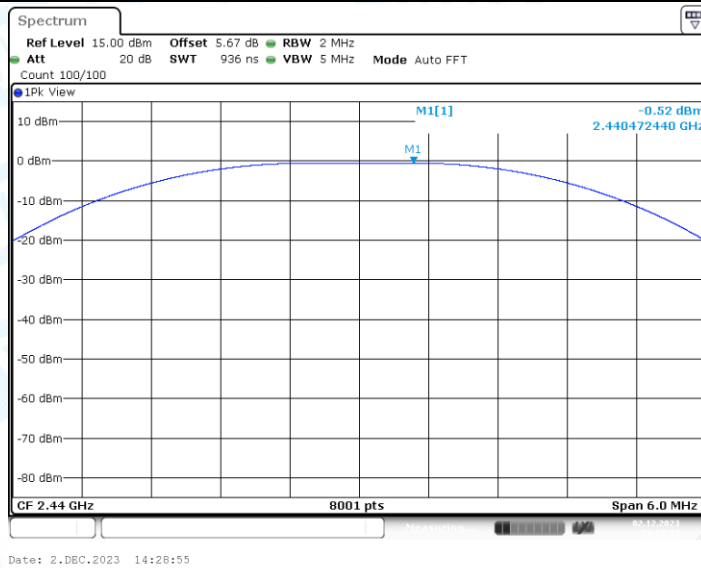
3.2. Test Graphs



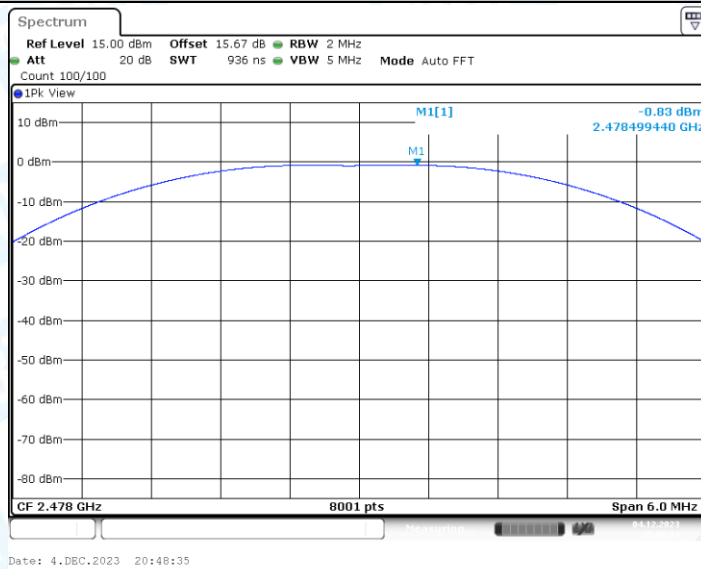
BLE_2M_Ant1_2404



BLE_2M_Ant1_2440



BLE_2M_Ant1_2478

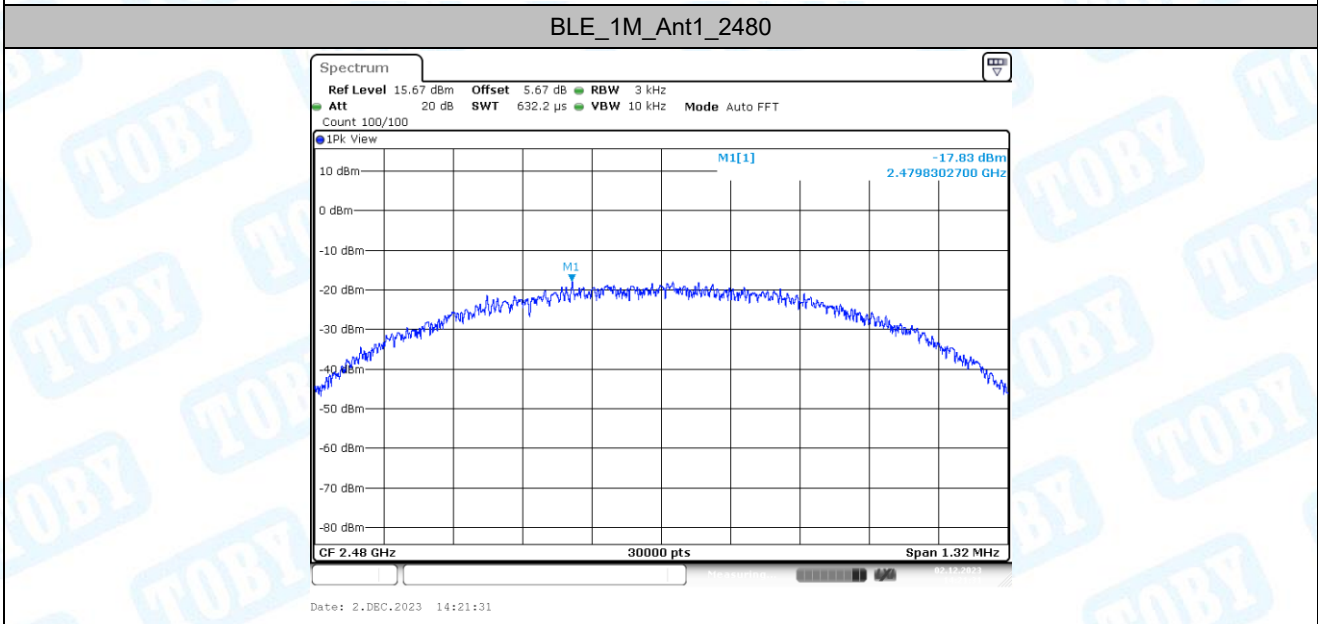
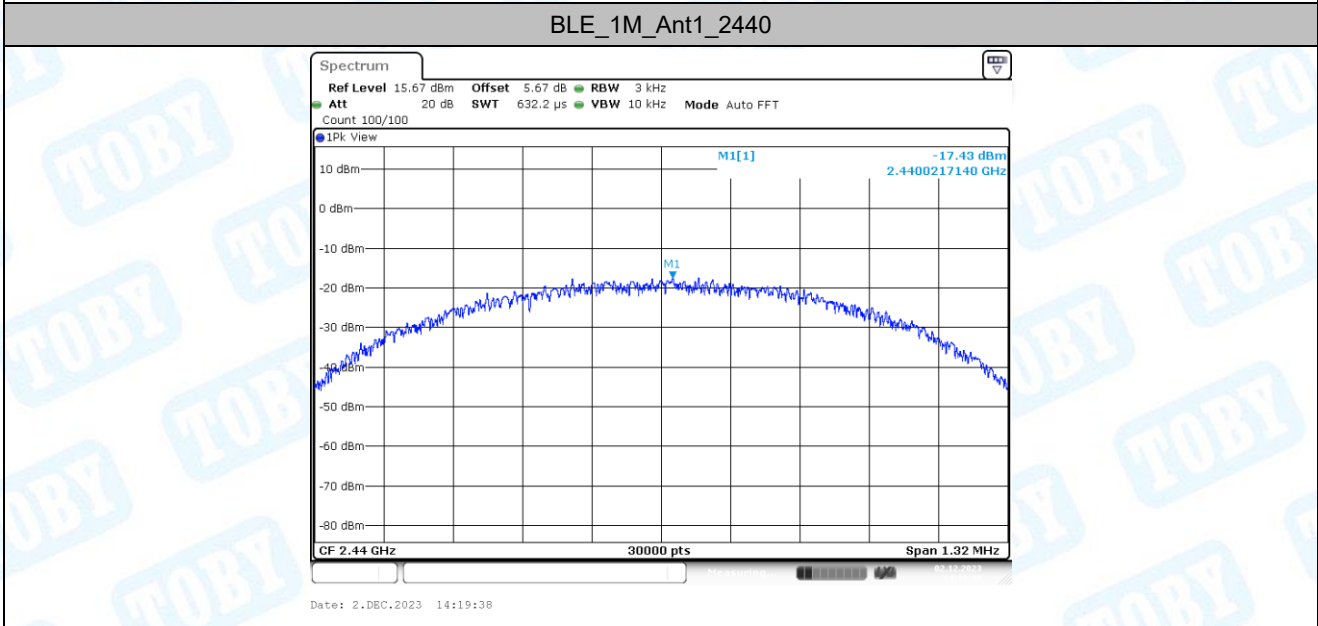
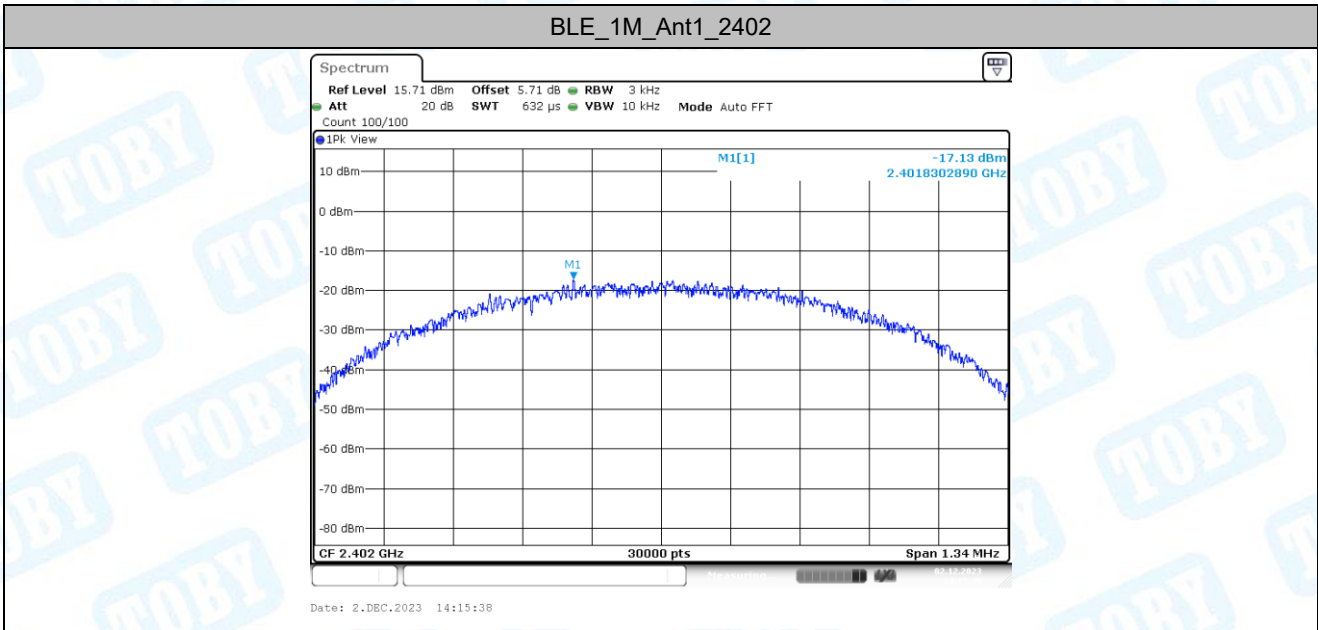


4. Maximum power spectral density

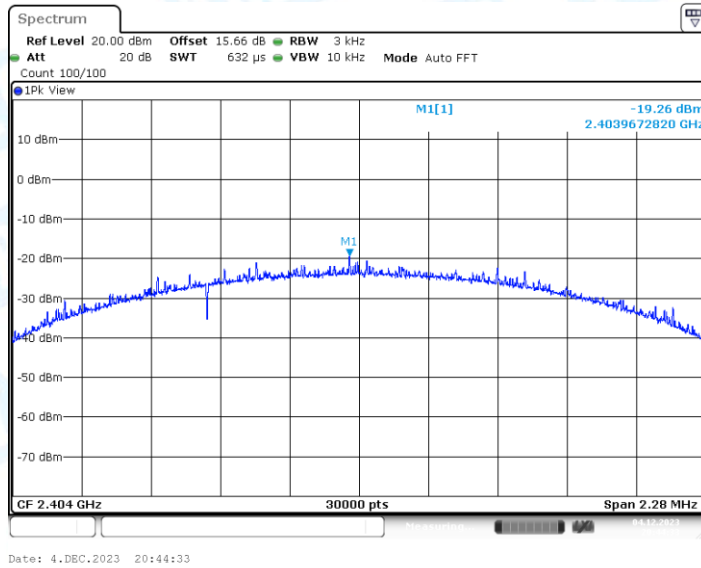
4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-17.13	≤8.00	PASS
		2440	-17.43	≤8.00	PASS
		2480	-17.83	≤8.00	PASS
BLE_2M	Ant1	2404	-19.26	≤8.00	PASS
		2440	-19.27	≤8.00	PASS
		2478	-19.63	≤8.00	PASS

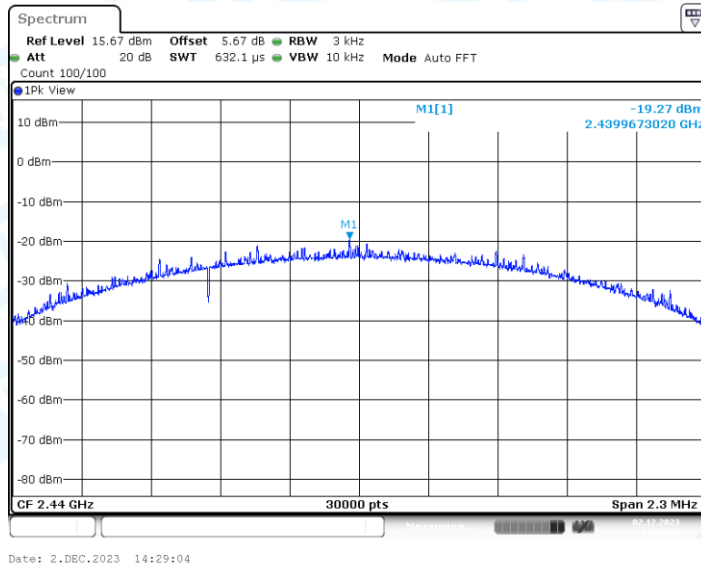
4.2. Test Graphs



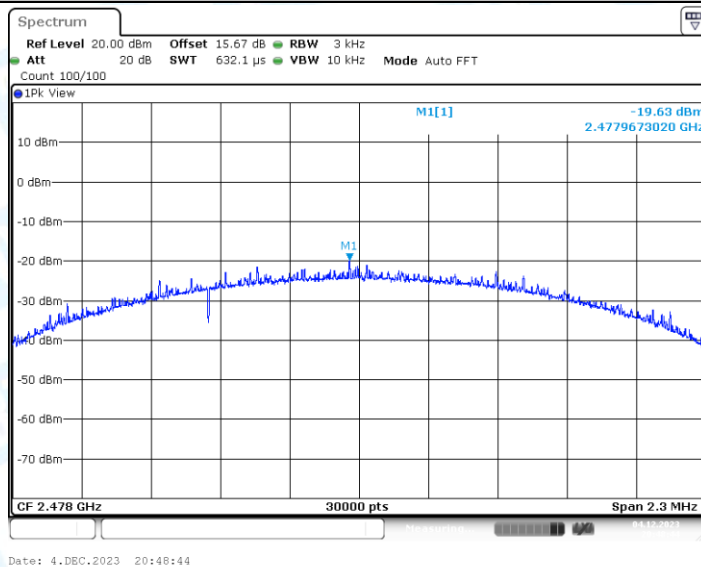
BLE_2M_Ant1_2404



BLE_2M_Ant1_2440



BLE_2M_Ant1_2478

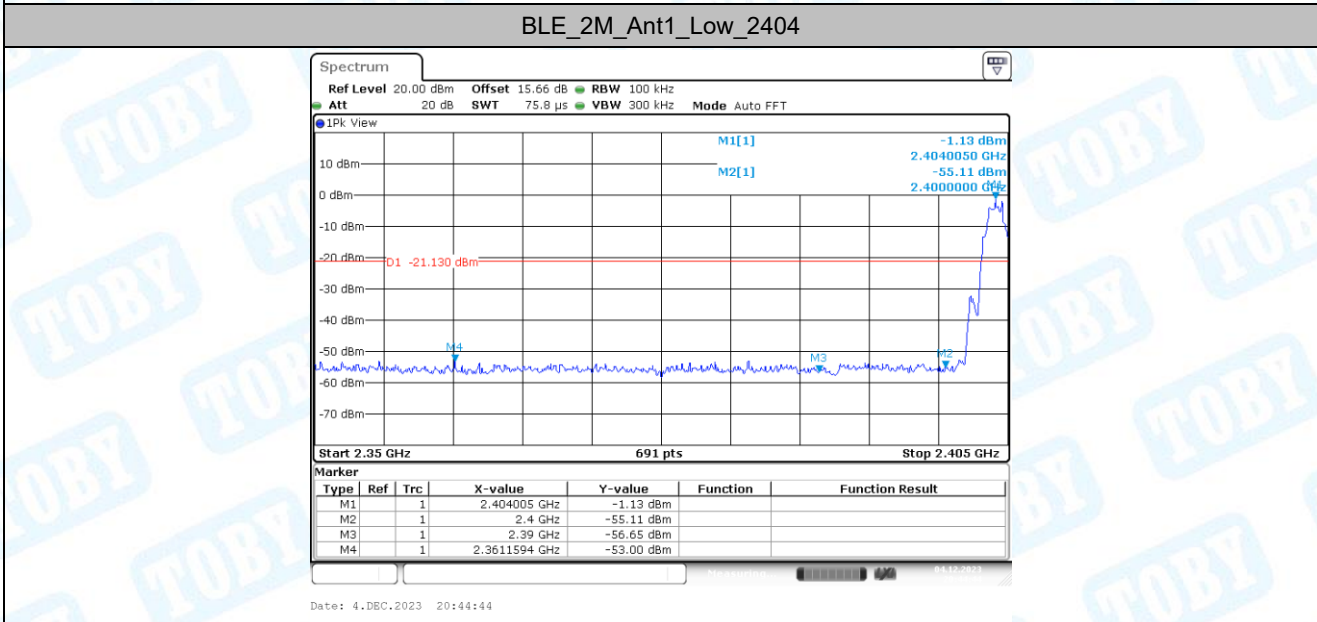
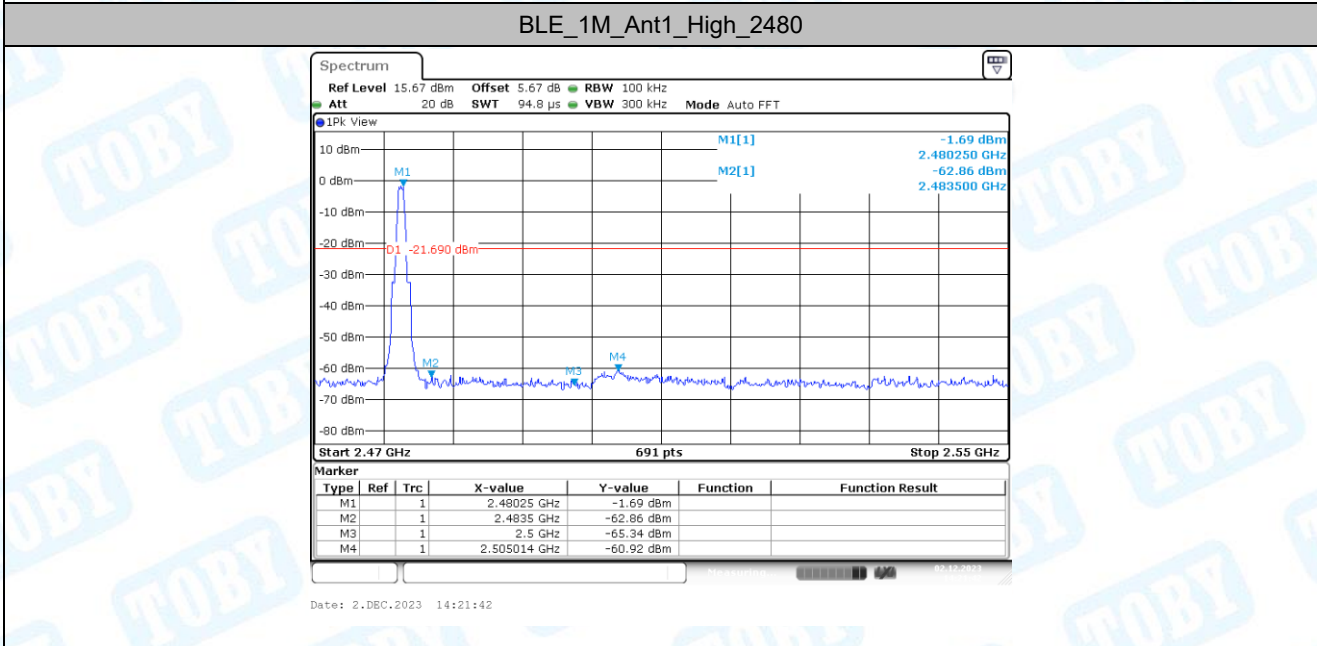
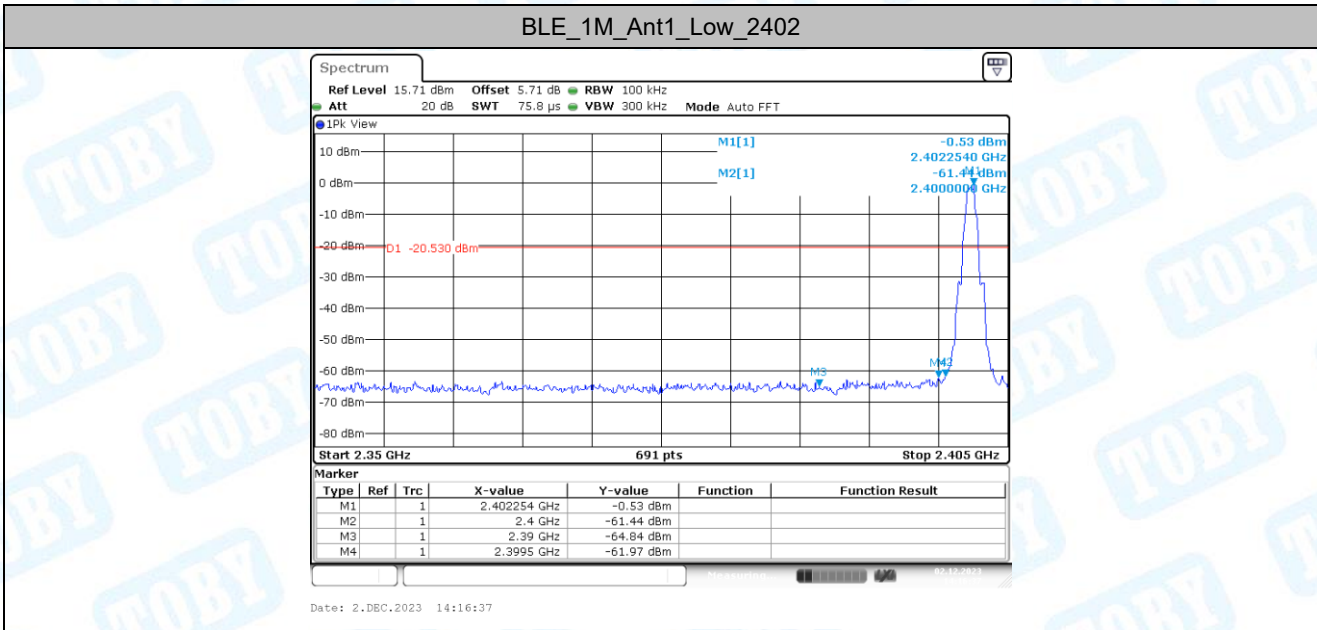


5. Band edge measurements

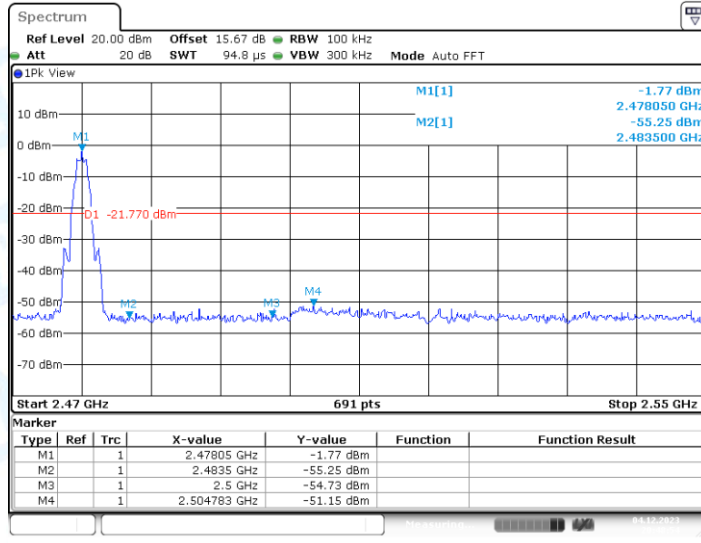
5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.53	-61.97	≤-20.53	PASS
		High	2480	-1.69	-60.92	≤-21.69	PASS
BLE_2M	Ant1	Low	2404	-1.13	-53	≤-21.13	PASS
		High	2478	-1.77	-51.15	≤-21.77	PASS

5.2. Test Graphs



BLE_2M_Ant1_High_2478



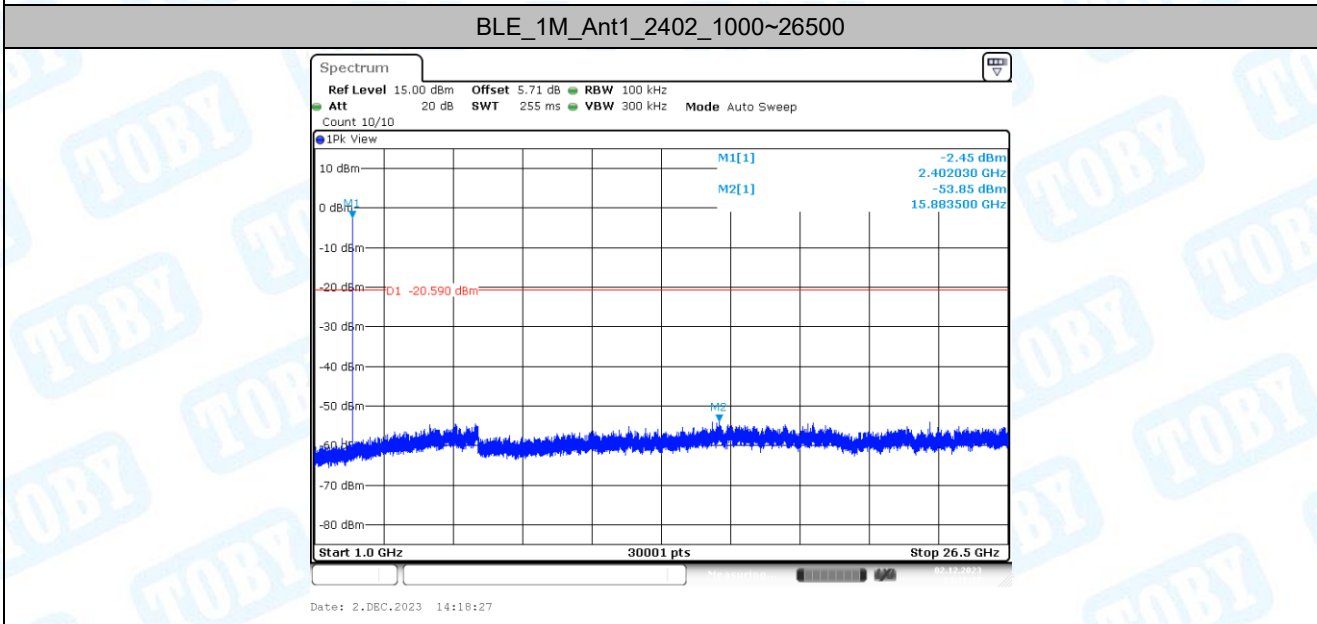
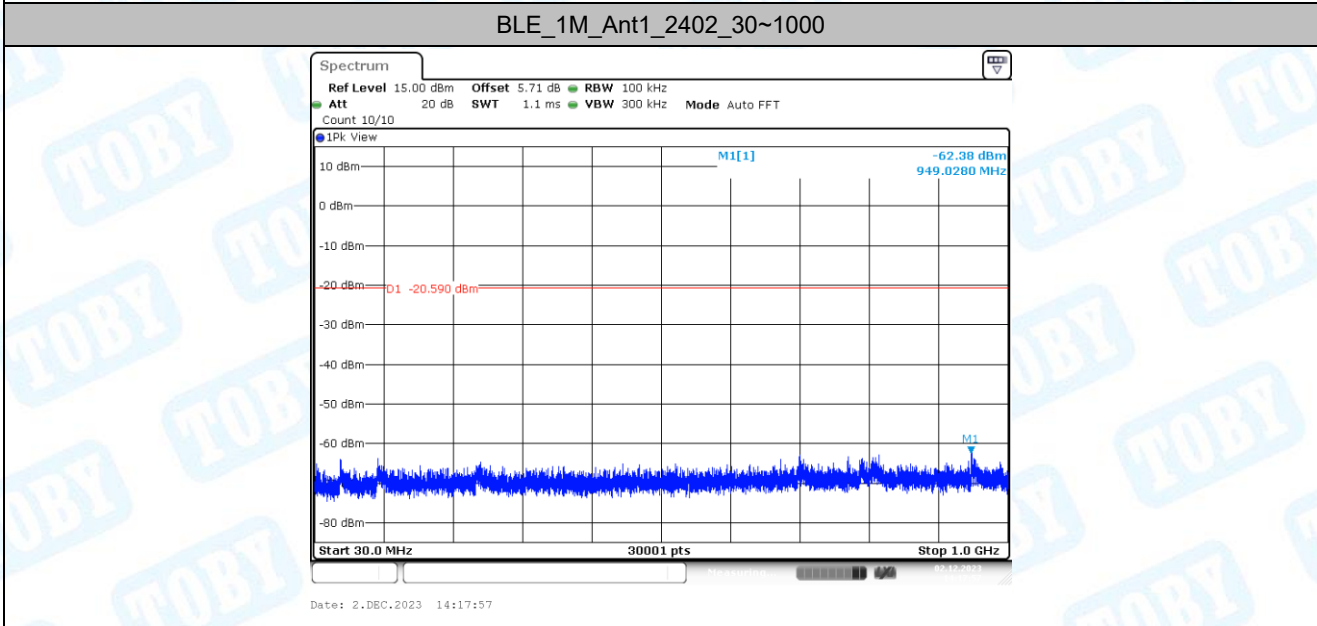
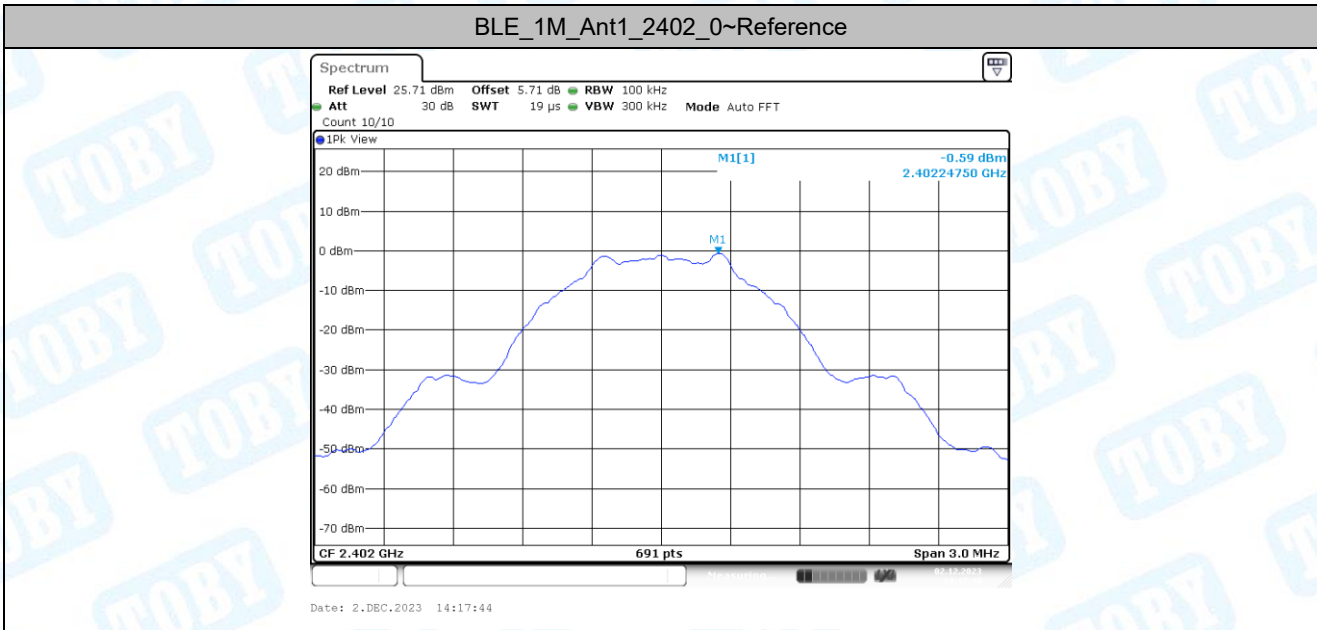
Date: 4. DEC. 2023 20:48:54

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	-0.59	-0.59	---	PASS
			30~1000	-0.59	-62.38	≤-20.59	PASS
			1000~26500	-0.59	-53.85	≤-20.59	PASS
		2440	Reference	-0.60	-0.60	---	PASS
			30~1000	-0.60	-62.8	≤-20.6	PASS
			1000~26500	-0.60	-53.17	≤-20.6	PASS
		2480	Reference	-1.27	-1.27	---	PASS
			30~1000	-1.27	-63.32	≤-21.27	PASS
			1000~26500	-1.27	-53.81	≤-21.27	PASS
BLE_2M	Ant1	2404	Reference	-1.07	-1.07	---	PASS
			30~1000	-1.07	-53.12	≤-21.07	PASS
			1000~26500	-1.07	-44.26	≤-21.07	PASS
		2440	Reference	-1.09	-1.09	---	PASS
			30~1000	-1.09	-63.7	≤-21.09	PASS
			1000~26500	-1.09	-53.82	≤-21.09	PASS
		2478	Reference	-1.48	-1.48	---	PASS
			30~1000	-1.48	-53.06	≤-21.48	PASS
			1000~26500	-1.48	-43.05	≤-21.48	PASS

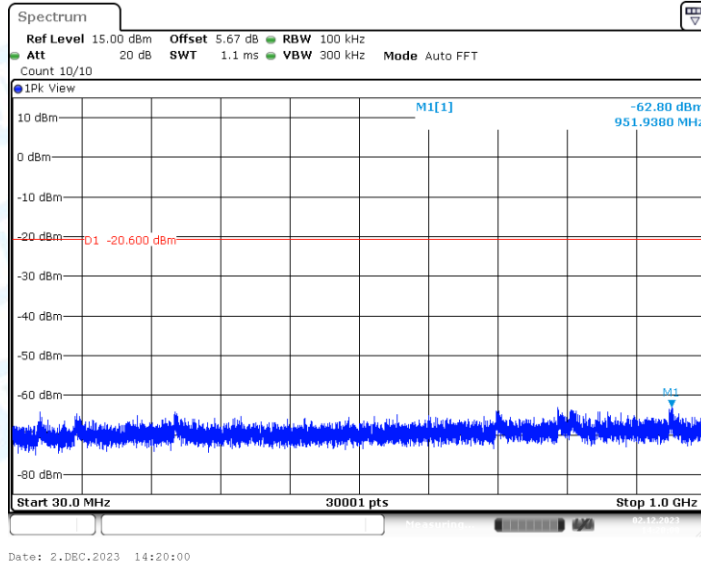
6.2. Test Graphs



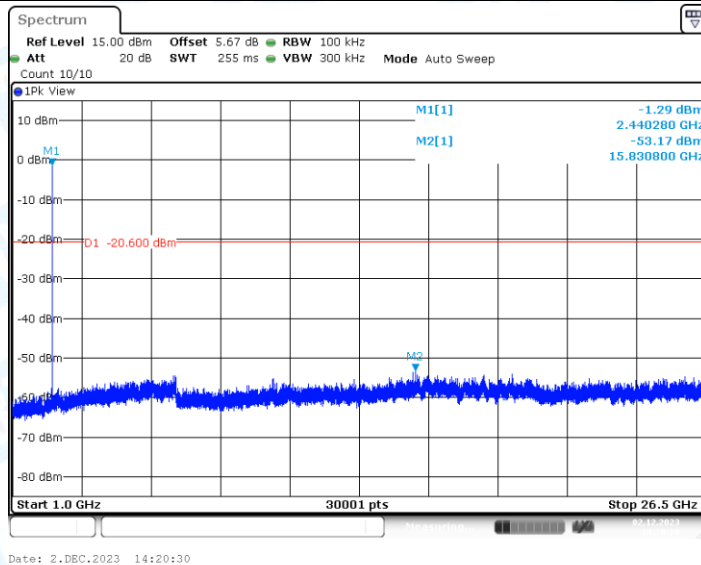
BLE_1M_Ant1_2440_0~Reference



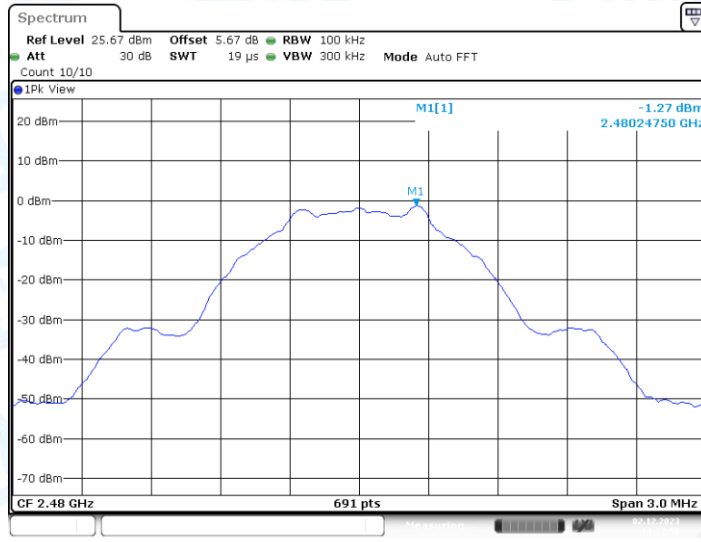
BLE_1M_Ant1_2440_30~1000



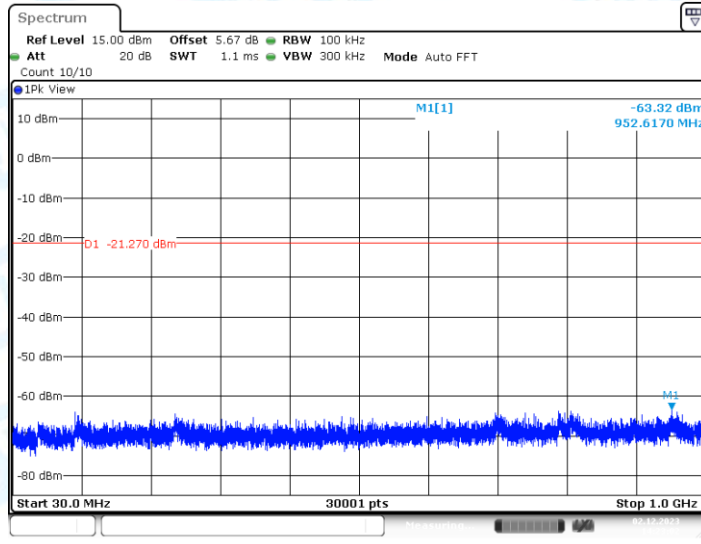
BLE_1M_Ant1_2440_1000~26500



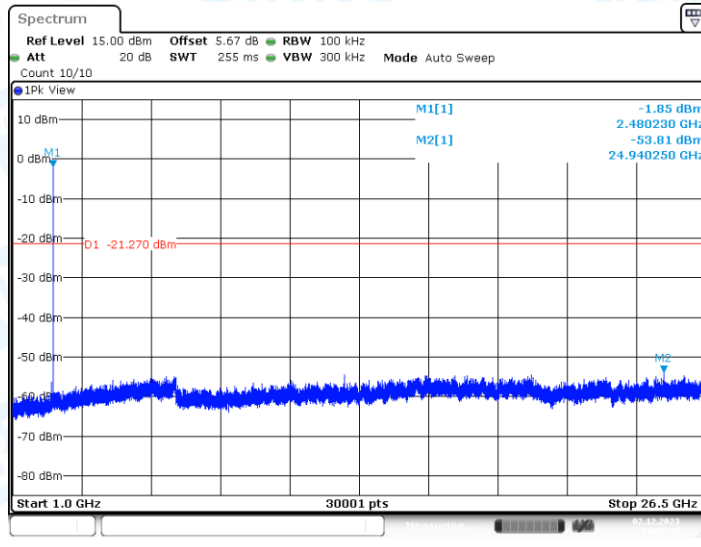
BLE_1M_Ant1_2480_0~Reference



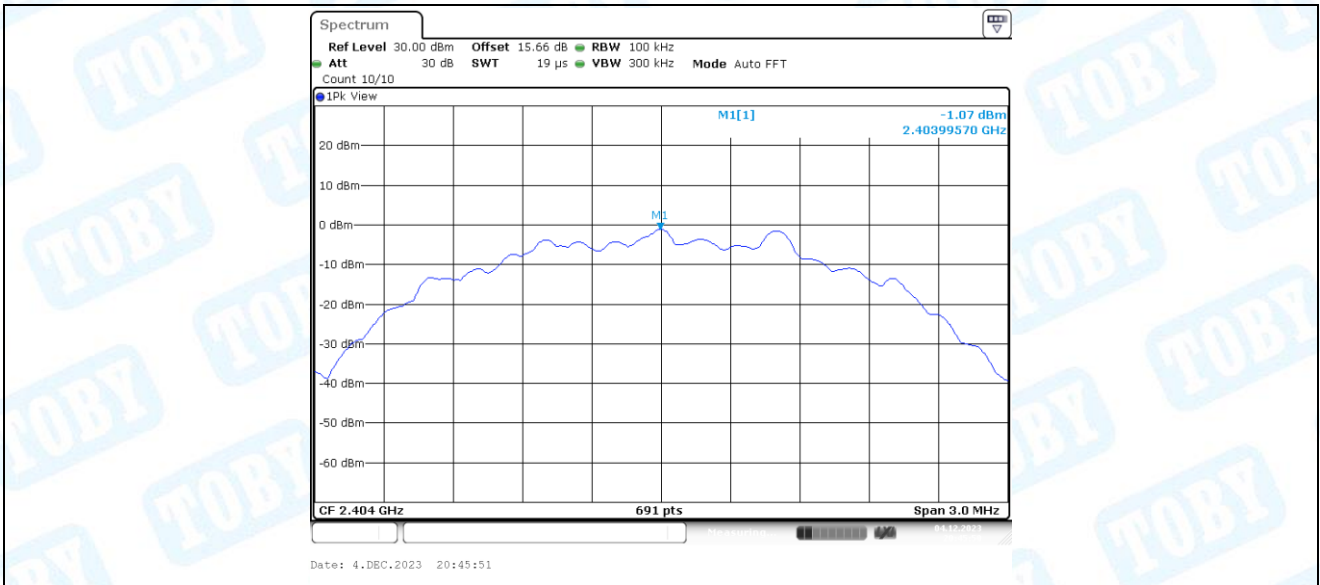
BLE_1M_Ant1_2480_30~1000



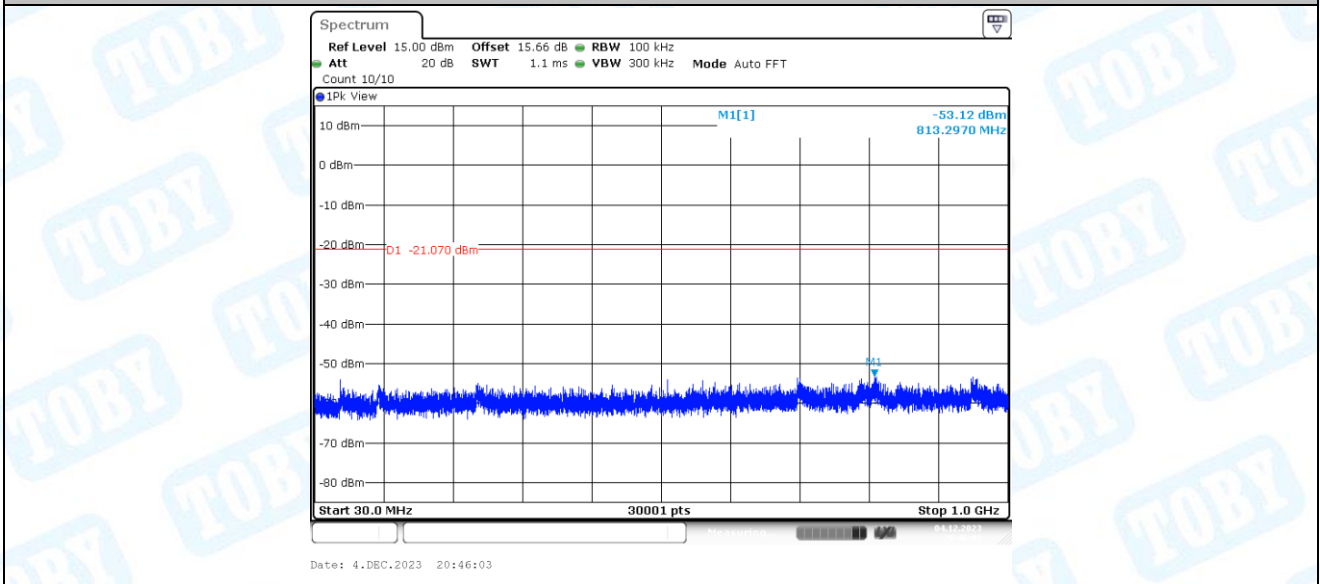
BLE_1M_Ant1_2480_1000~26500



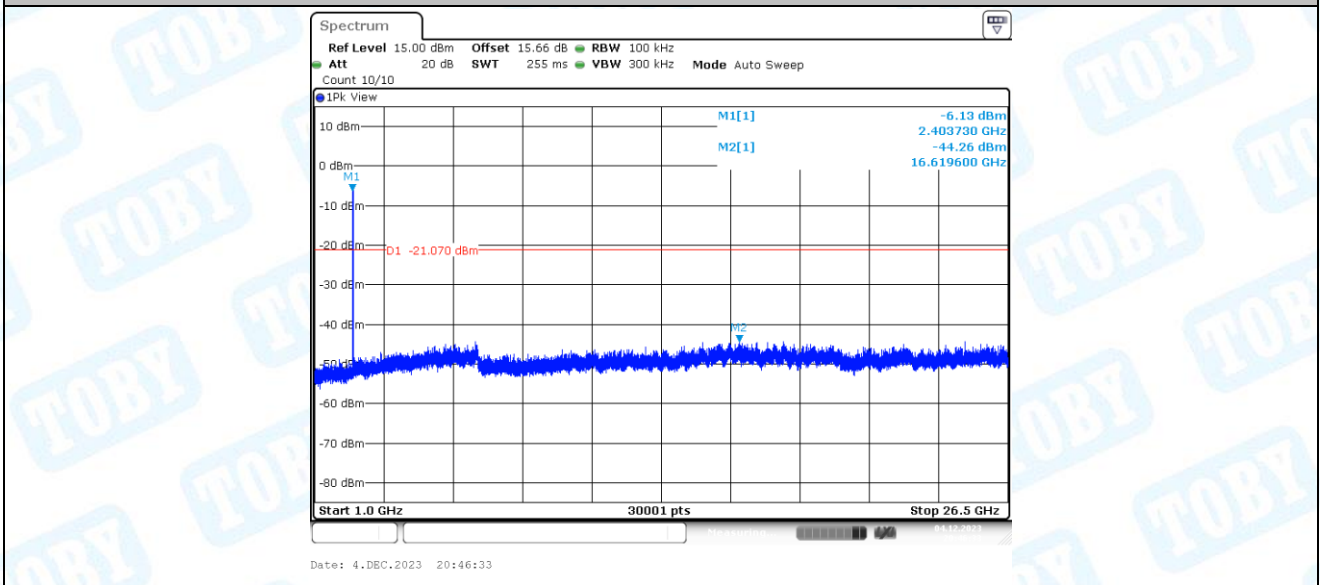
BLE_2M_Ant1_2404_0~Reference



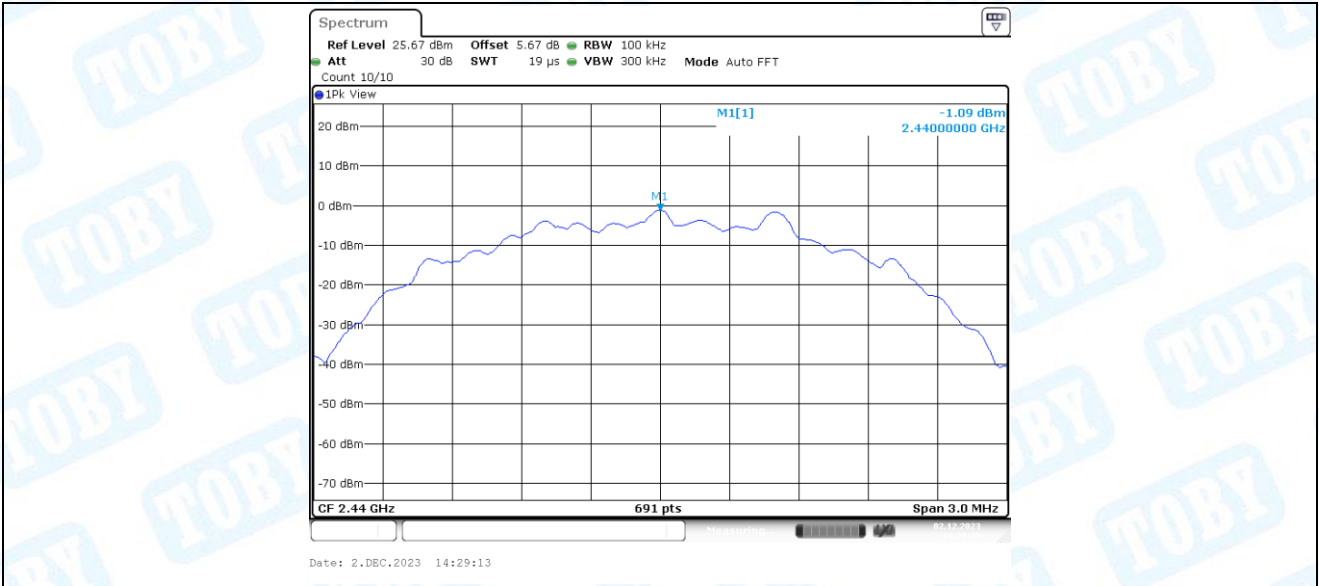
BLE_2M_Ant1_2404_30~1000



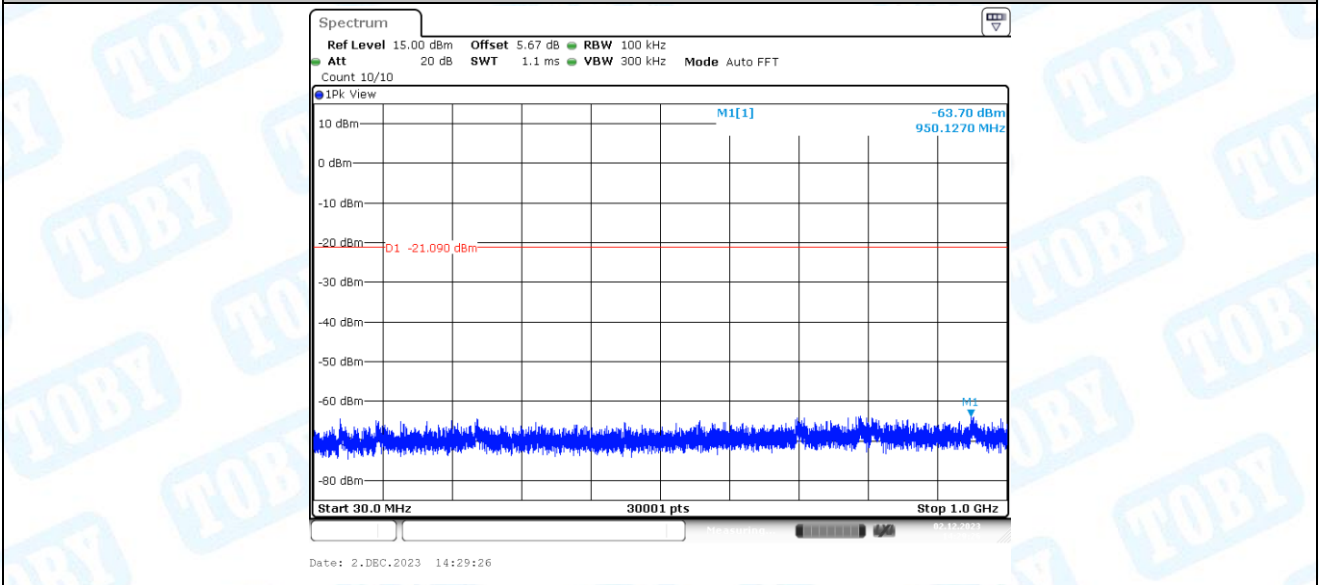
BLE_2M_Ant1_2404_1000~26500



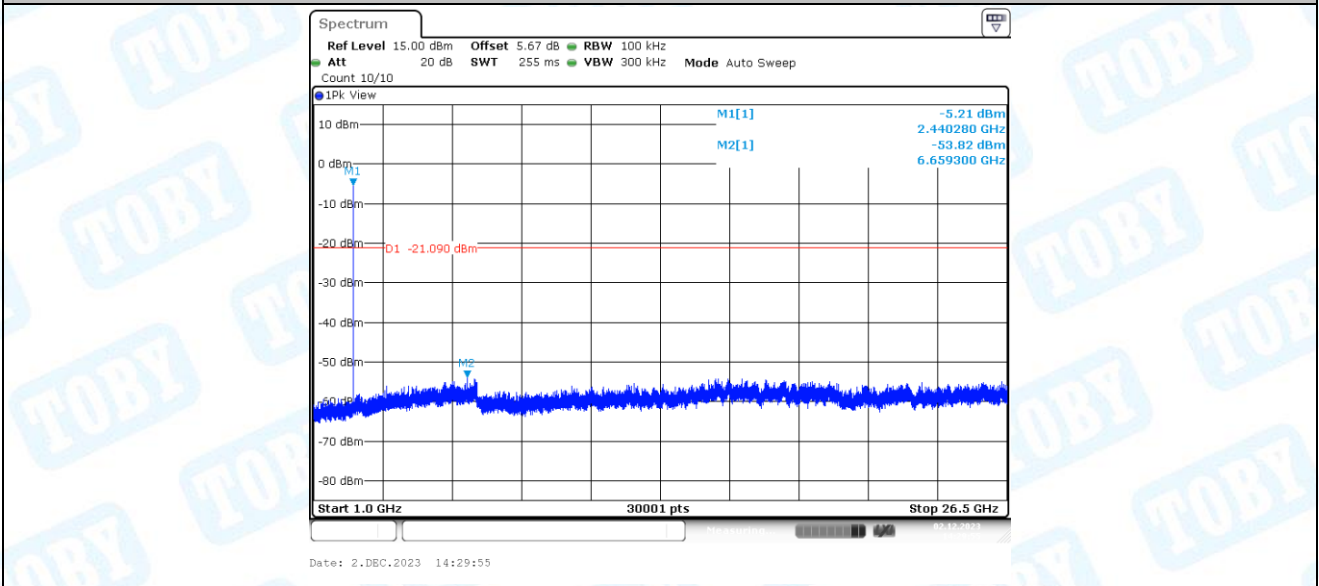
BLE_2M_Ant1_2440_0~Reference



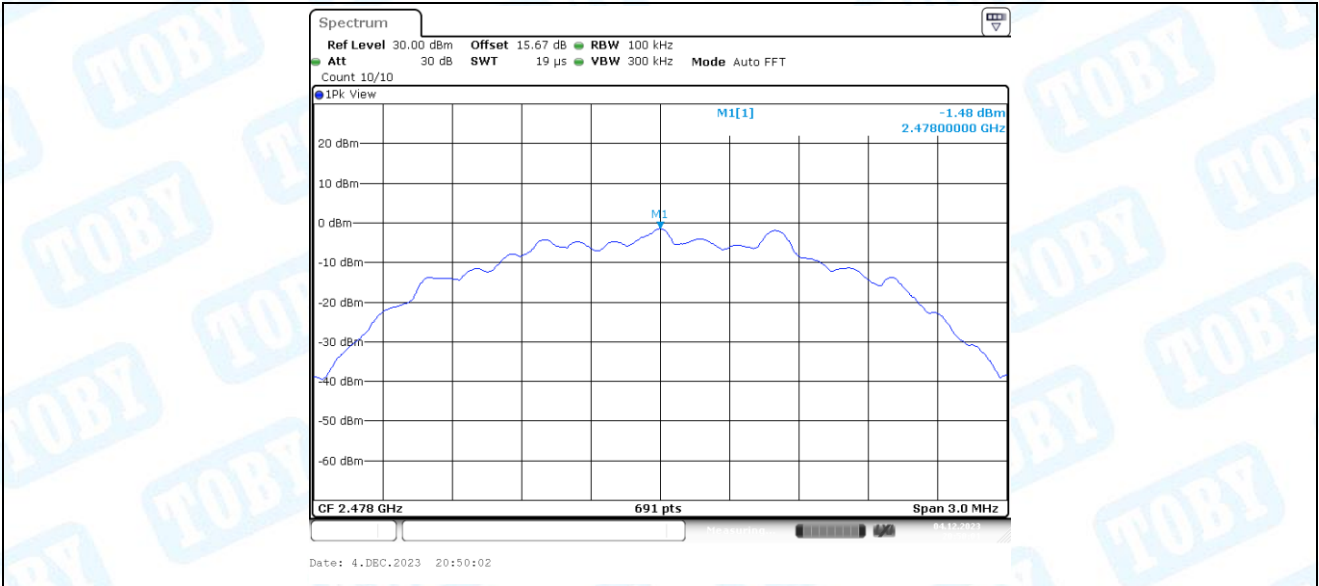
BLE_2M_Ant1_2440_30~1000



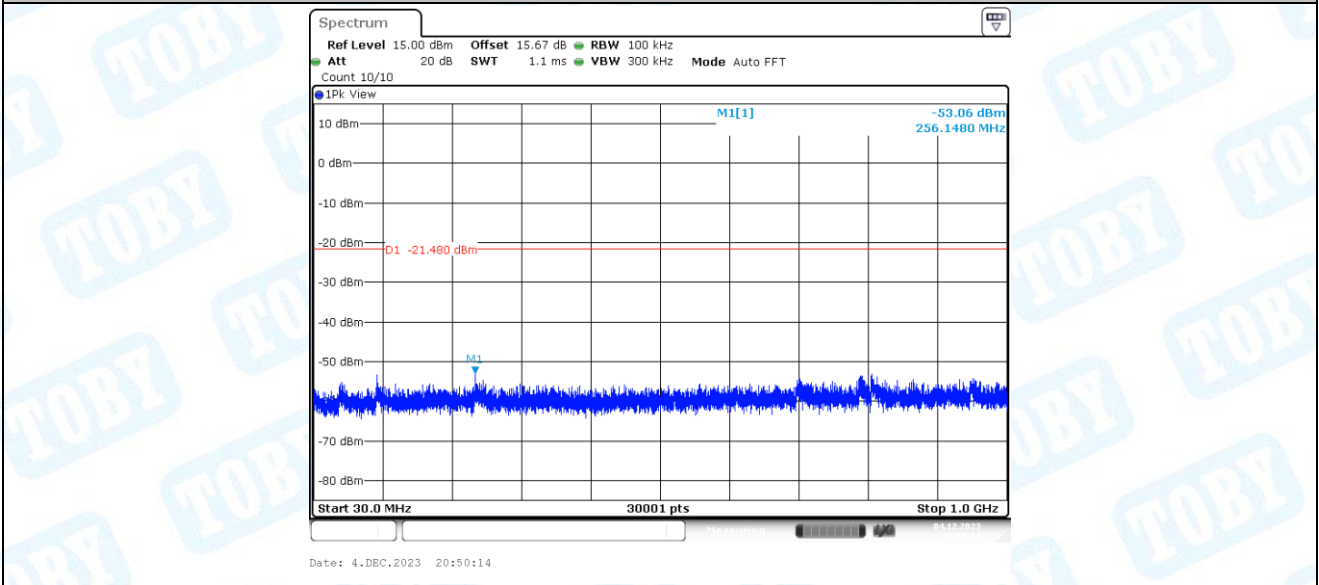
BLE_2M_Ant1_2440_1000~26500



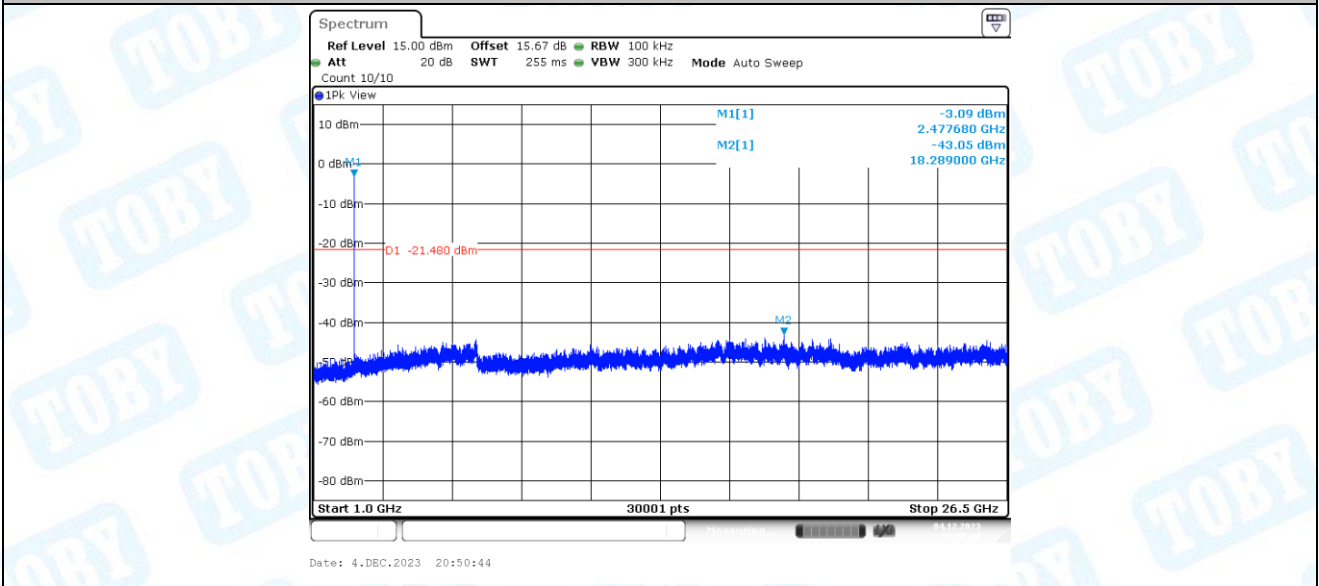
BLE_2M_Ant1_2478_0~Reference



BLE_2M_Ant1_2478_30~1000



BLE_2M_Ant1_2478_1000~26500



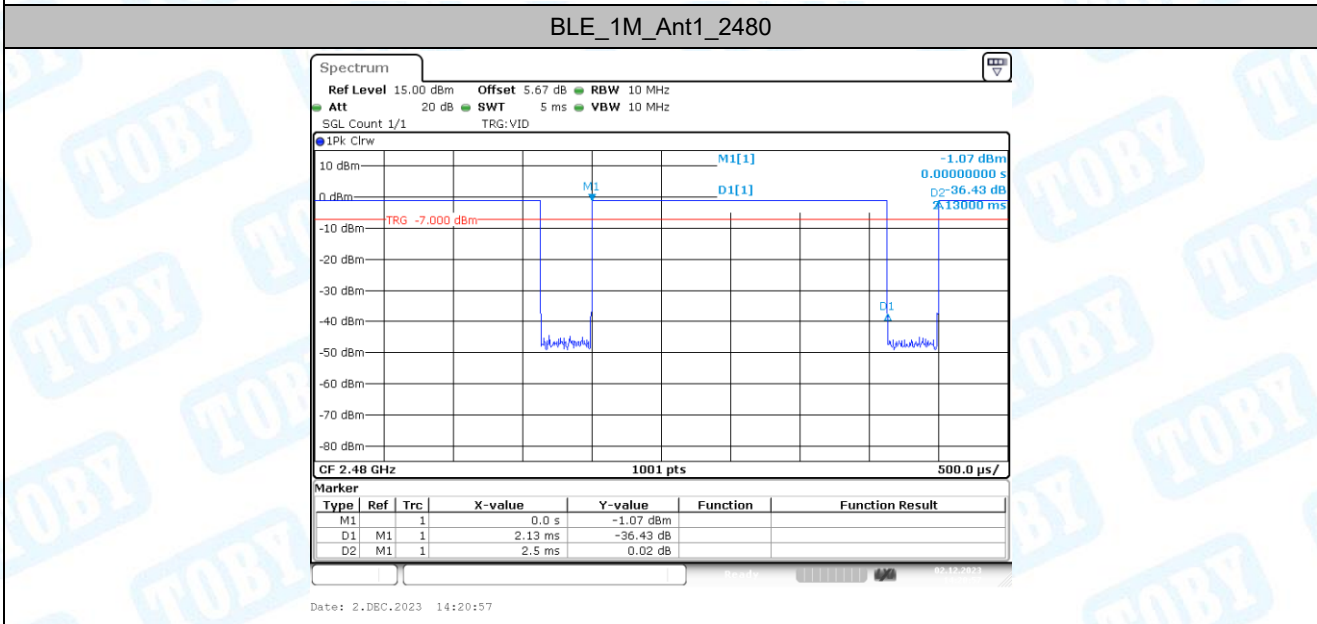
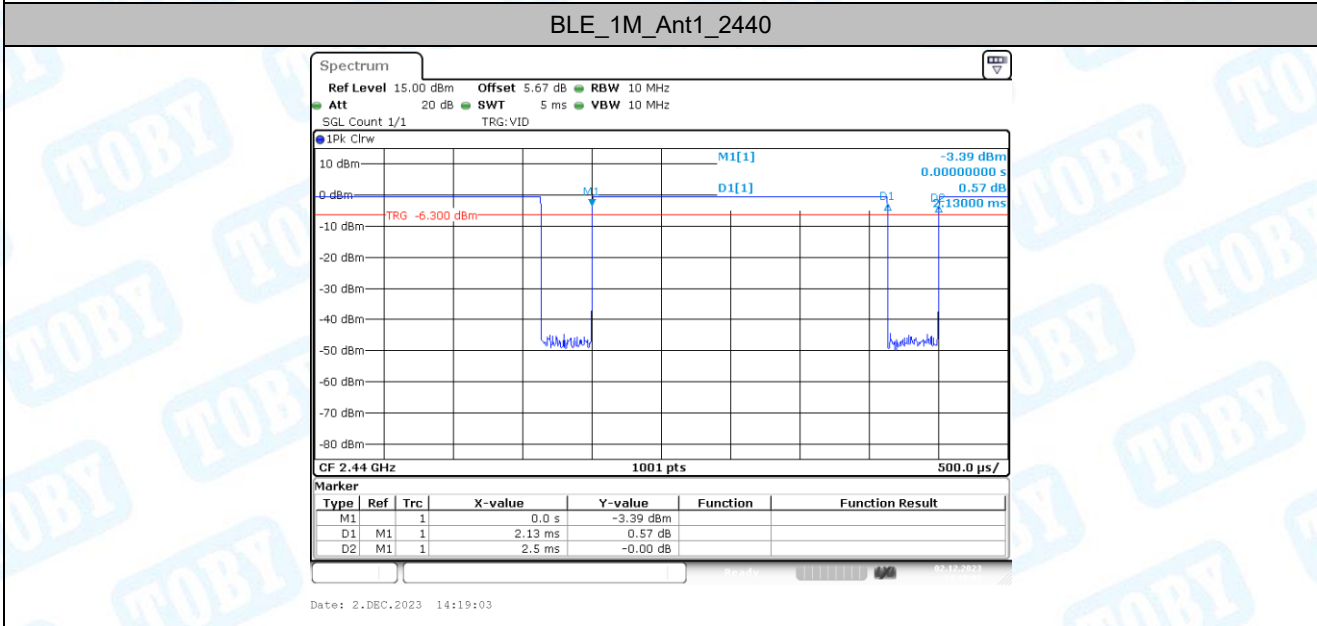
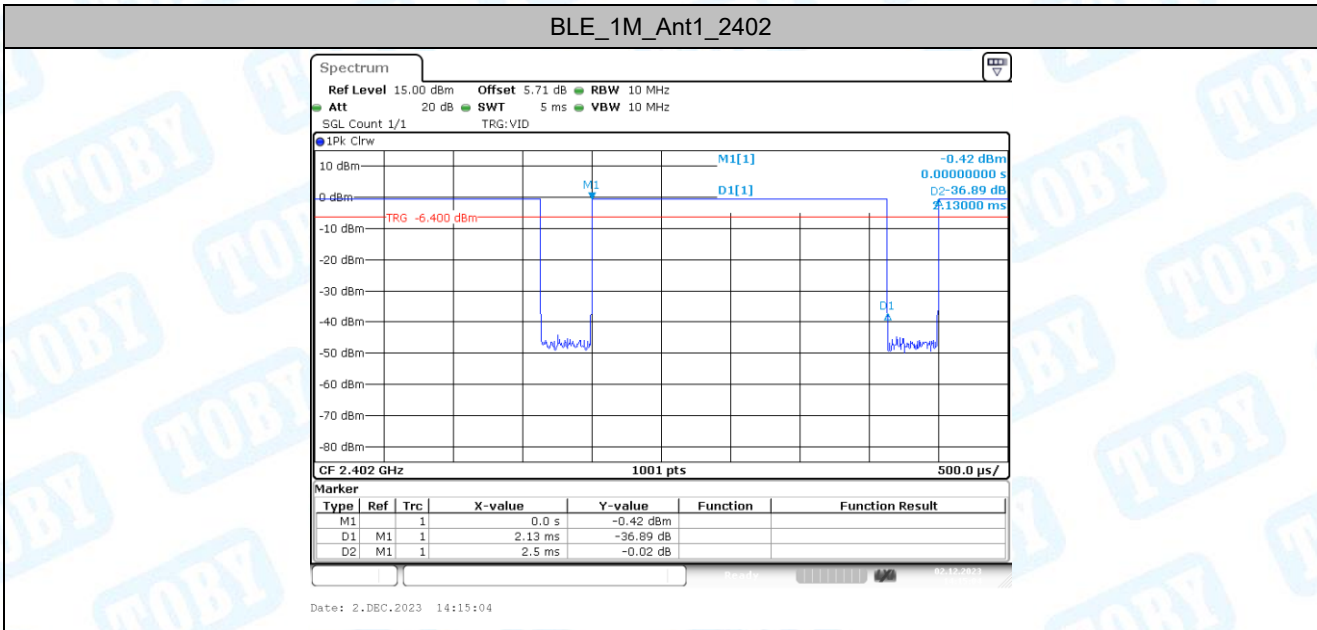
7. Duty Cycle

7.1. Test Result

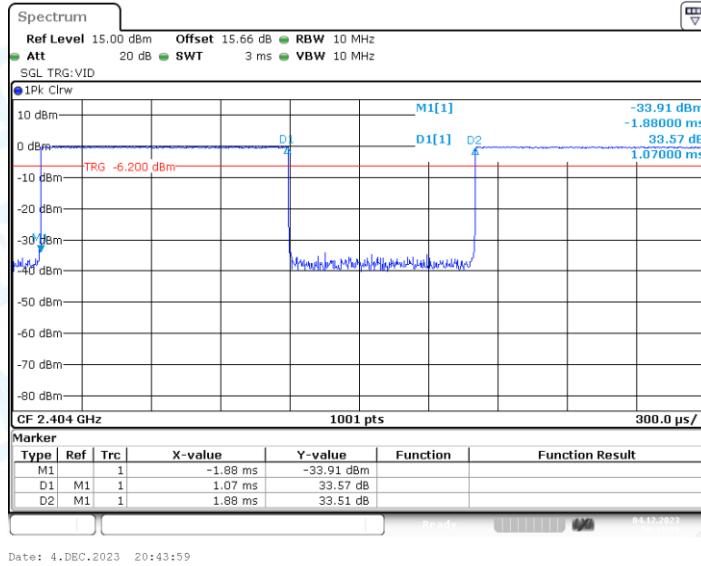
Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [KHz]	Limit	Verdict
BLE_1M	Ant1	2402	2.13	2.50	85.20	0.47	---	---
		2440	2.13	2.50	85.20	0.47	---	---
		2480	2.13	2.50	85.20	0.47	---	---
BLE_2M	Ant1	2404	1.07	1.88	56.91	0.93	---	---
		2440	1.07	1.88	56.91	0.93	---	---
		2478	1.07	1.88	56.91	0.93	---	---

Note: 1/T=1/ Transmission Duration

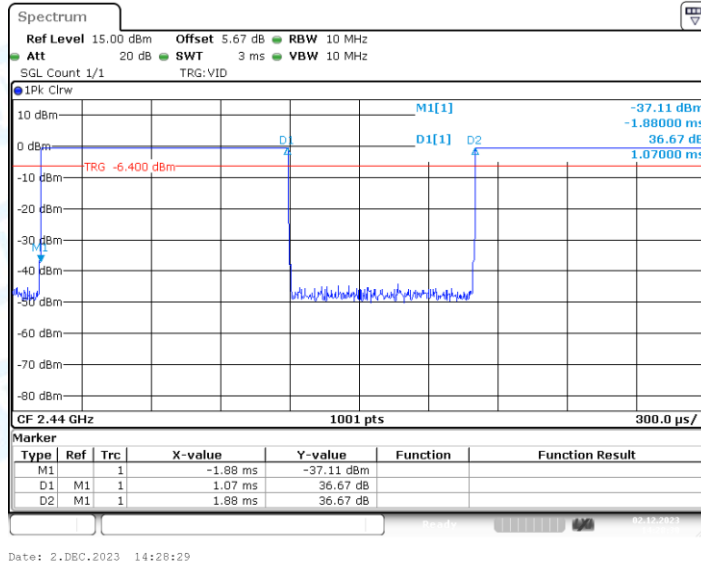
7.2. Test Graphs



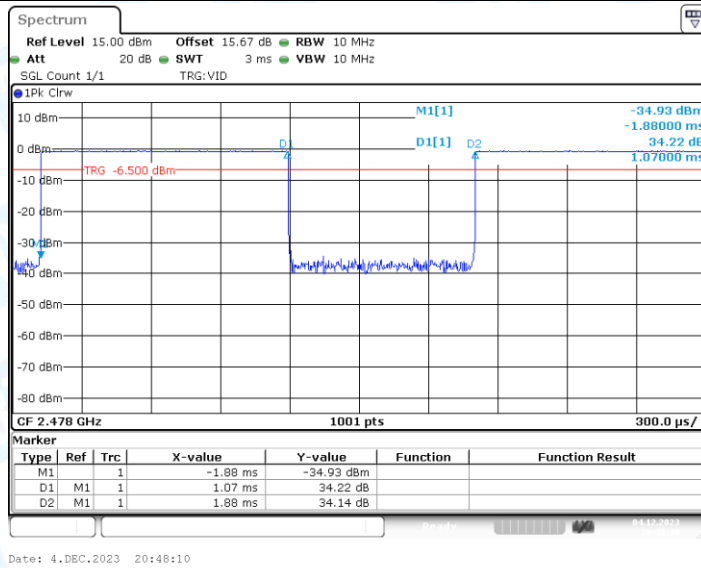
BLE_2M_Ant1_2404



BLE_2M_Ant1_2440



BLE_2M_Ant1_2478



8. Emissions in Restricted Bands

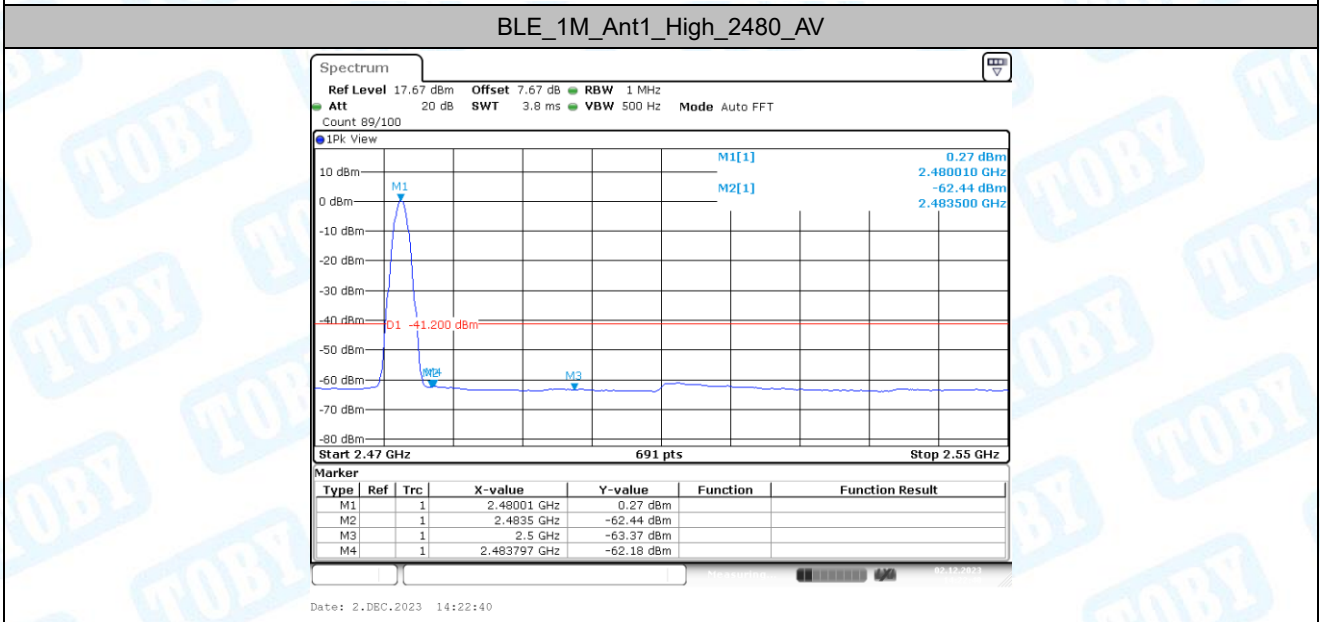
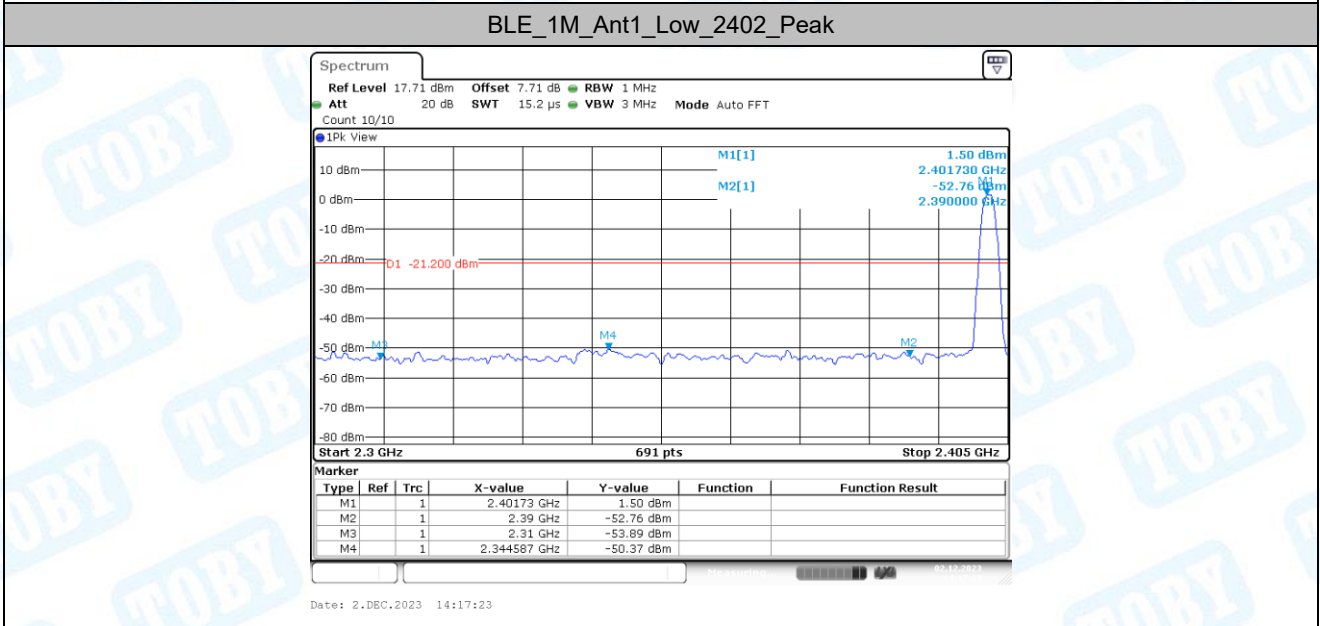
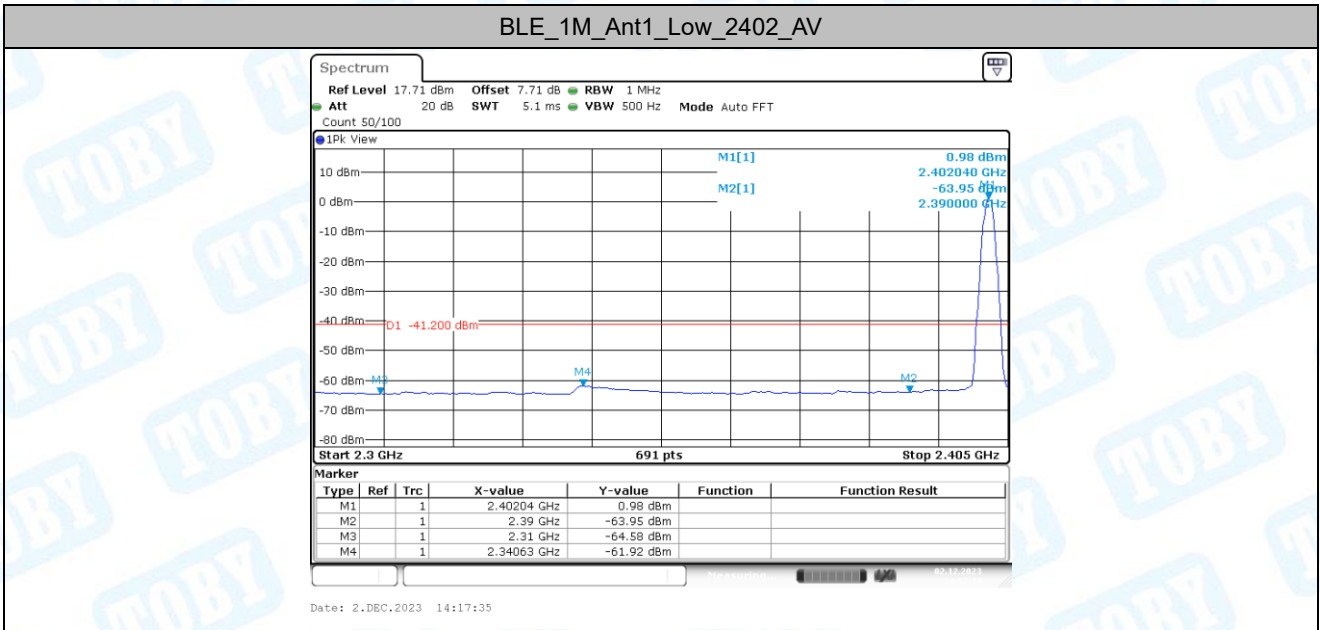
8.1. Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-64.58	≤-41.20	PASS
				AV	2340.630	-61.92	≤-41.20	PASS
				AV	2390.000	-63.95	≤-41.20	PASS
				Peak	2310.000	-53.89	≤-21.20	PASS
				Peak	2344.587	-50.37	≤-21.20	PASS
				Peak	2390.000	-52.76	≤-21.20	PASS
		High	2480	AV	2483.500	-62.44	≤-41.20	PASS
				AV	2483.797	-62.18	≤-41.20	PASS
				AV	2500.000	-63.37	≤-41.20	PASS
				Peak	2483.500	-52.62	≤-21.20	PASS
				Peak	2486.812	-50.86	≤-21.20	PASS
				Peak	2500.000	-52.03	≤-21.20	PASS
BLE_2M	Ant1	Low	2404	AV	2310.000	-54.46	≤-41.20	PASS
				AV	2341.087	-51.78	≤-41.20	PASS
				AV	2390.000	-54.1	≤-41.20	PASS
				Peak	2310.000	-44.54	≤-21.20	PASS
				Peak	2342.457	-40.17	≤-21.20	PASS
				Peak	2390.000	-42.79	≤-21.20	PASS
		High	2478	AV	2483.500	-53.26	≤-41.20	PASS
				AV	2484.377	-52.85	≤-41.20	PASS
				AV	2500.000	-53.23	≤-41.20	PASS
				Peak	2483.500	-43.22	≤-21.20	PASS
				Peak	2485.188	-40.97	≤-21.20	PASS
				Peak	2500.000	-43.37	≤-21.20	PASS

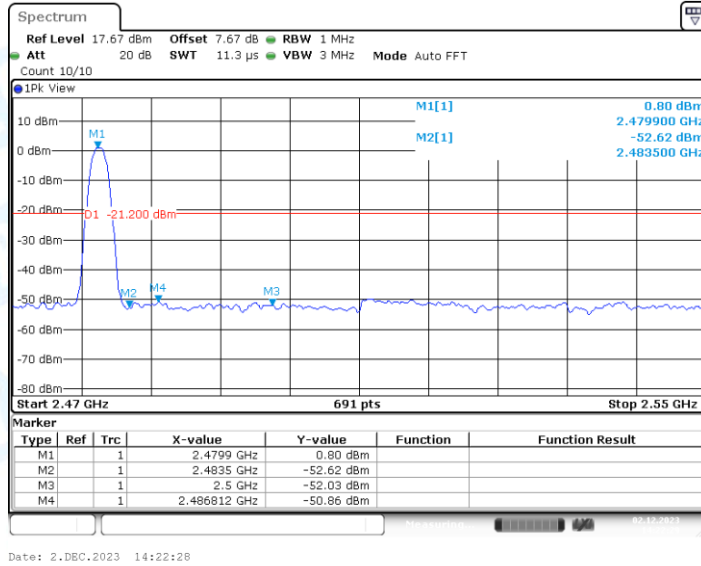
Note:

- The Antenna Gain is compensated in the graph.
- 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.

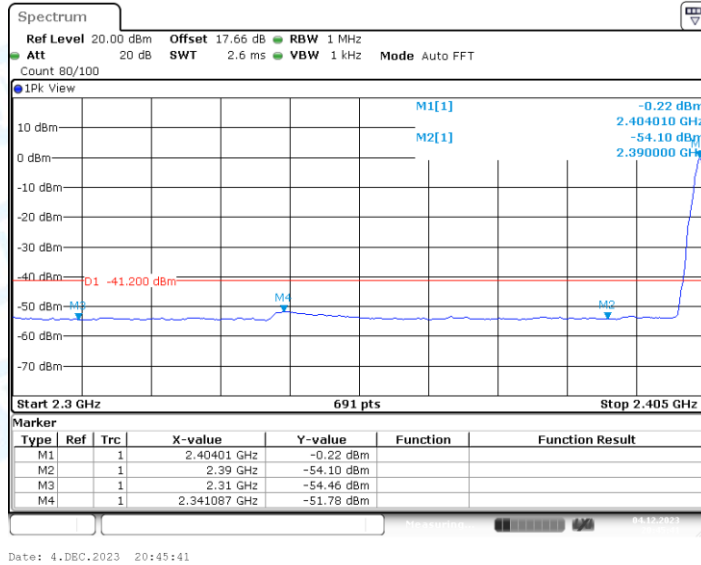
8.2. Test Graphs



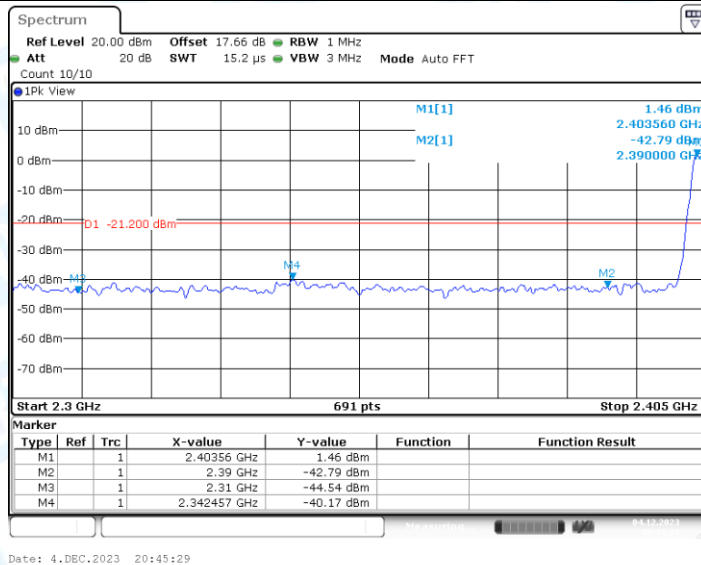
BLE_1M_Ant1_High_2480_Peak



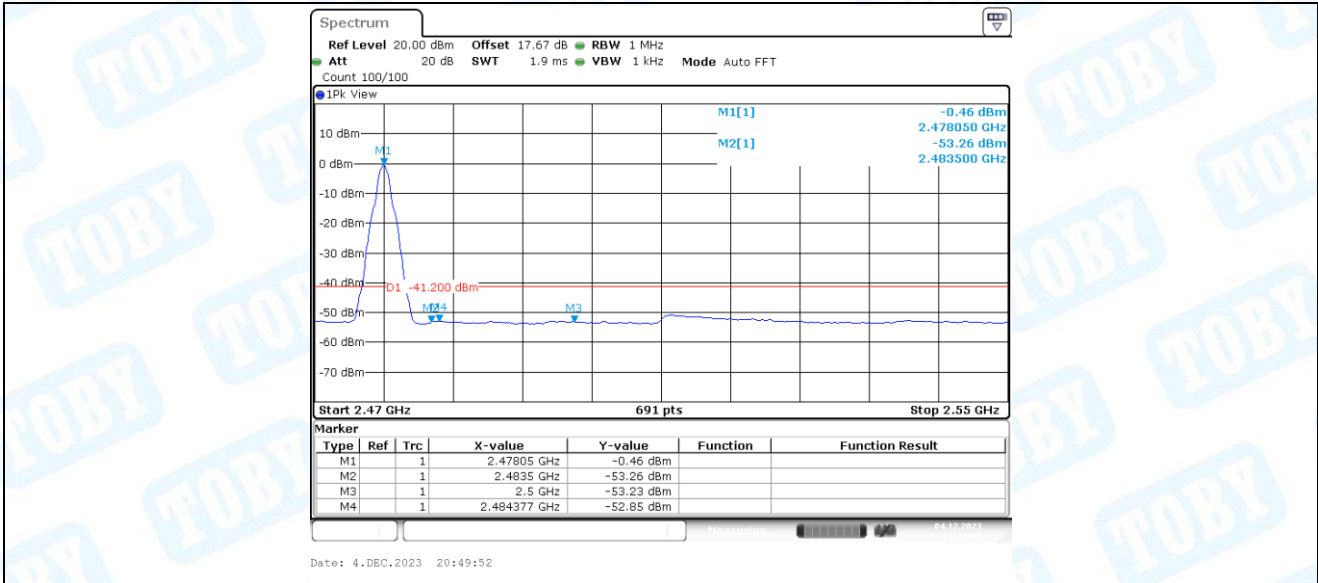
BLE_2M_Ant1_Low_2404_AV



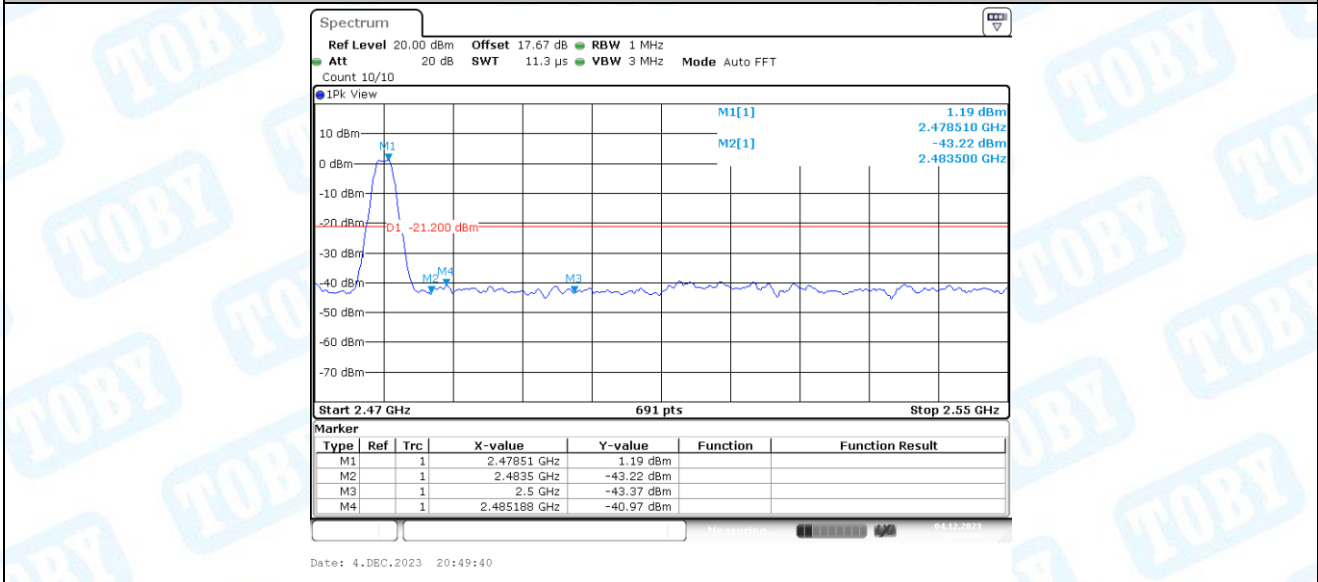
BLE_2M_Ant1_Low_2404_Peak



BLE_2M_Ant1_High_2478_AV



BLE_2M_Ant1_High_2478_Peak



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