

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	tablet computer
Test Model:	AYANEO AIR
Sample ID:	RW-C-202205-0297-6-2#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 11.55V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202205-0297-171	

Contents

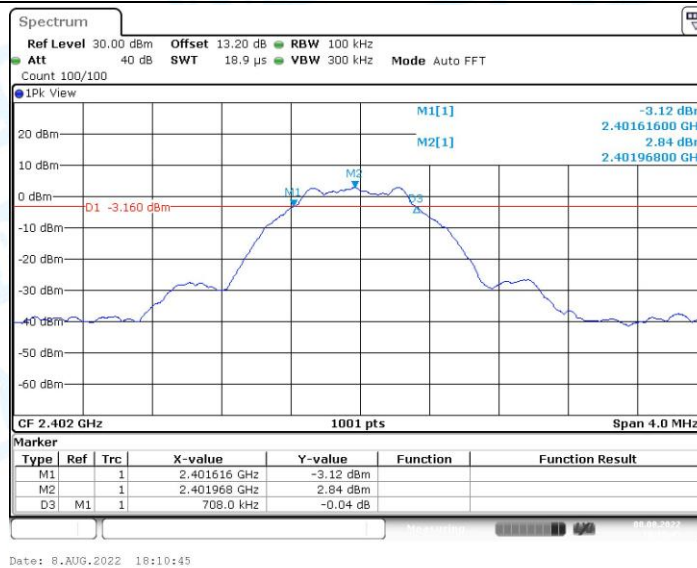
1. DTS Bandwidth.....	3
1.1. Test Result.....	3
1.2. Test Graphs	4
2. Occupied Channel Bandwidth.....	6
2.1. Test Result.....	6
2.2. Test Graphs	7
3. Maximum conducted output power.....	9
3.1. Test Result.....	9
3.2. Test Graphs	10
4. Maximum power spectral density	12
4.1. Test Result.....	12
4.2. Test Graphs	13
5. Band edge measurements	15
5.1. Test Result.....	15
5.2. Test Graphs	16
6. Conducted Spurious Emission.....	18
6.1. Test Result.....	18
6.2. Test Graphs	19
7. Duty Cycle	25
7.1. Test Result.....	25
7.2. Test Graphs	26
8. Emissions in Restricted Bands.....	28
8.1. Test Result.....	28
8.2. Test Graphs	29

1. DTS Bandwidth

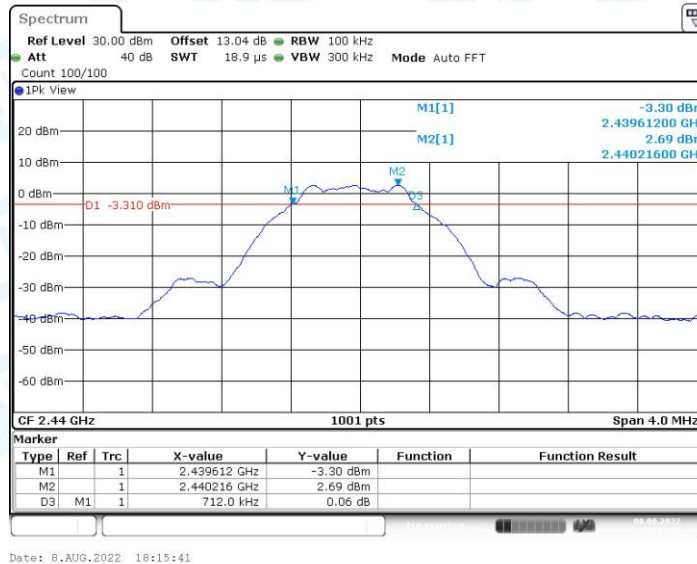
1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.71	2401.62	2402.32	0.5	PASS
		2440	0.71	2439.61	2440.32	0.5	PASS
		2480	0.71	2479.62	2480.32	0.5	PASS
BLE_2M	Ant1	2402	1.17	2401.38	2402.56	0.5	PASS
		2440	1.14	2439.41	2440.56	0.5	PASS
		2480	1.17	2479.38	2480.56	0.5	PASS

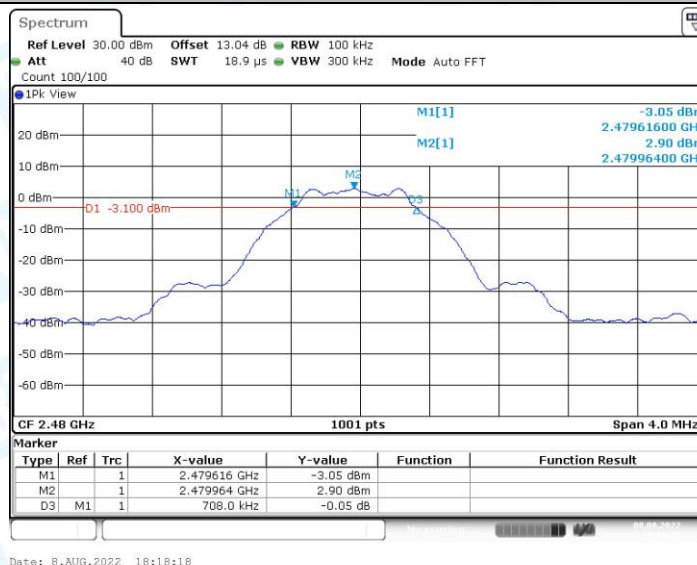
1.2. Test Graphs



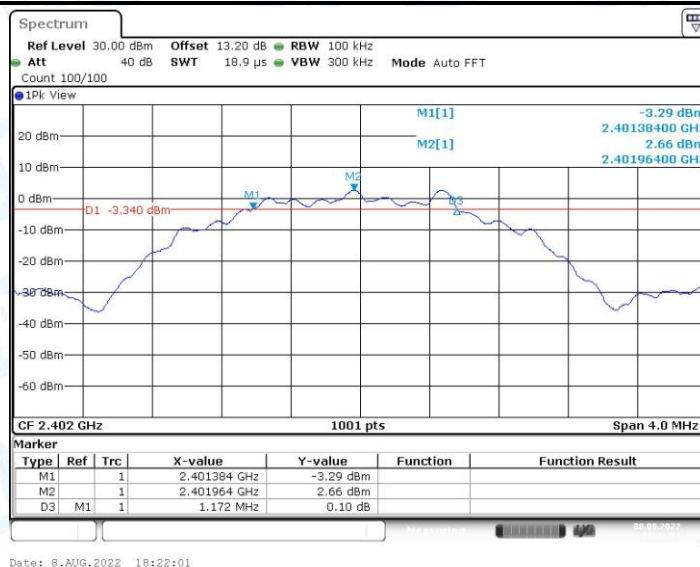
BLE_1M_Ant1_2402



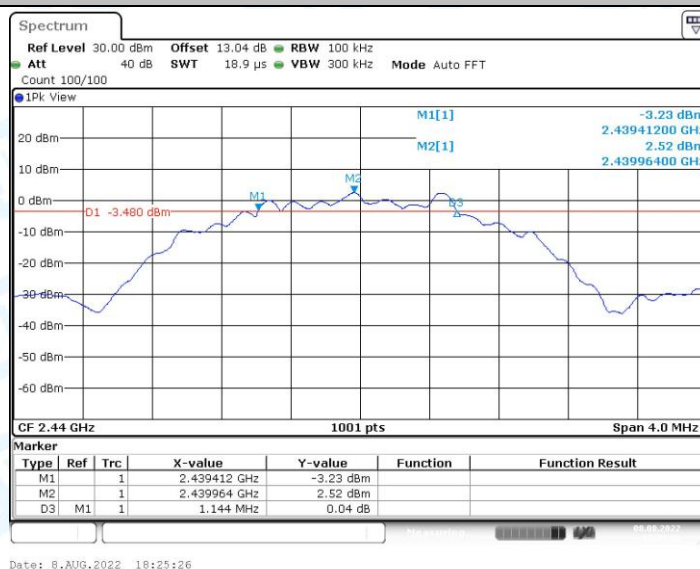
BLE_1M_Ant1_2440



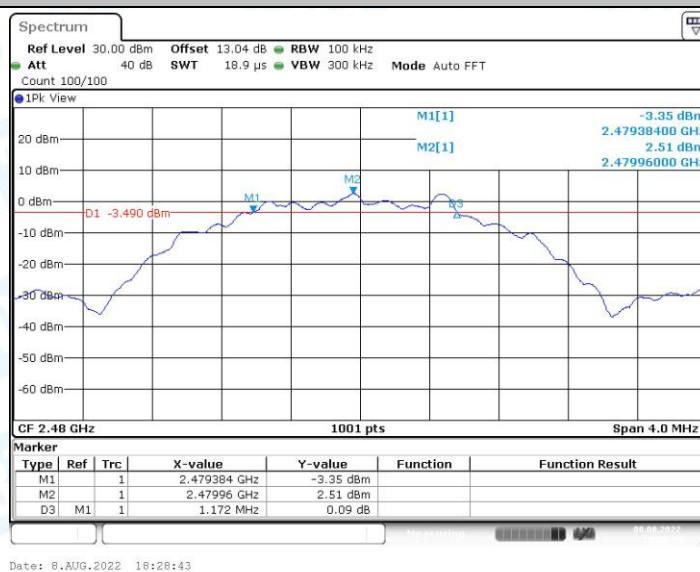
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



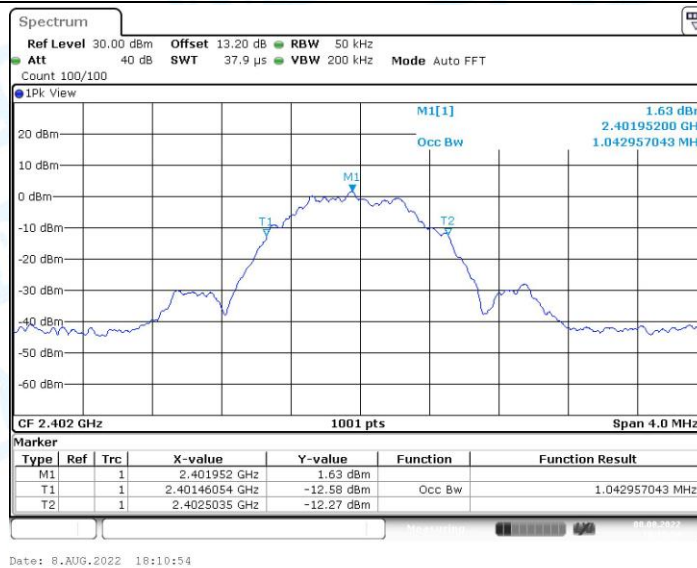
BLE_2M_Ant1_2480

2. Occupied Channel Bandwidth

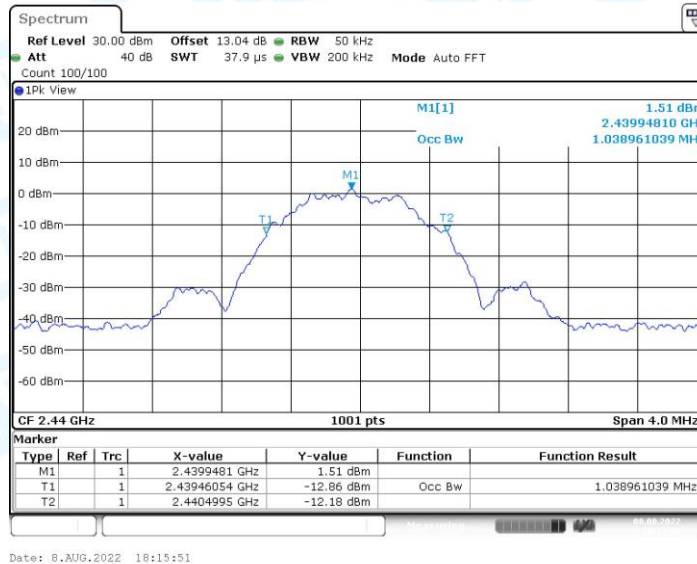
2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.043	2401.461	2402.503	---	---
		2440	1.039	2439.461	2440.500	---	---
		2480	1.039	2479.461	2480.500	---	---
BLE_2M	Ant1	2402	2.066	2400.957	2403.023	---	---
		2440	2.058	2438.961	2441.019	---	---
		2480	2.062	2478.957	2481.019	---	---

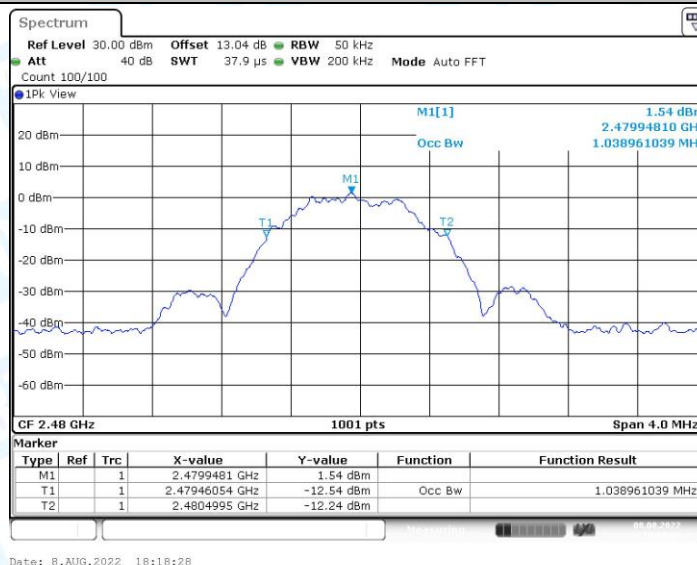
2.2. Test Graphs



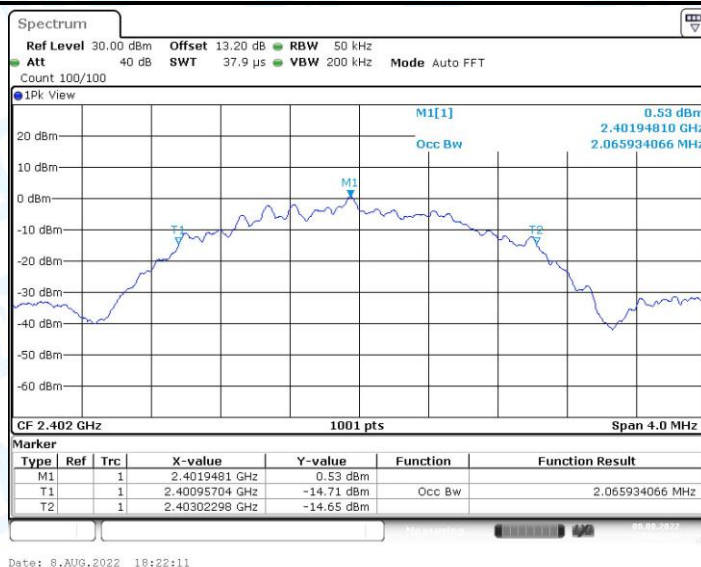
BLE_1M_Ant1_2402



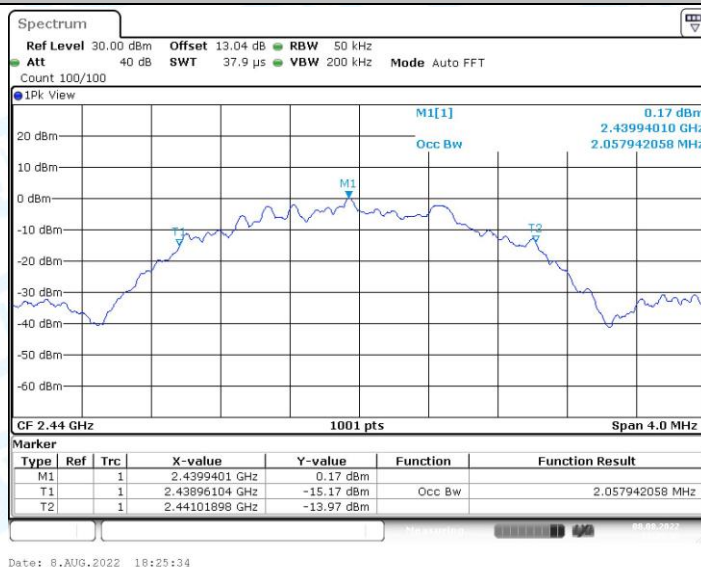
BLE_1M_Ant1_2440



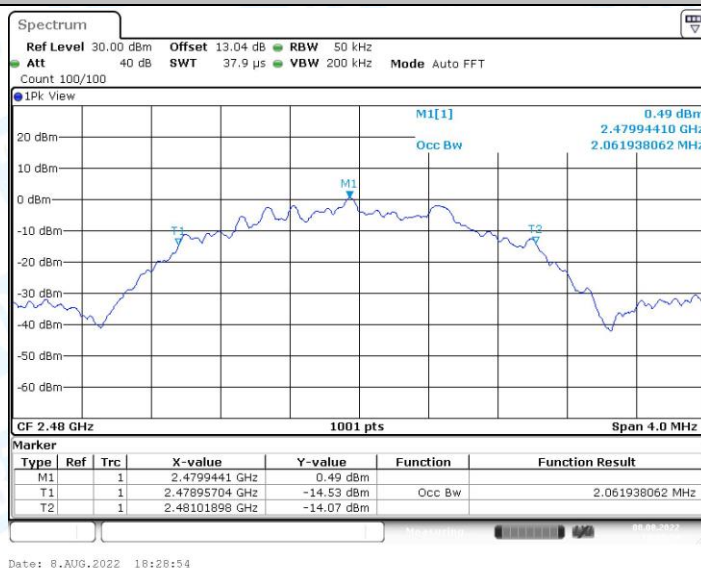
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



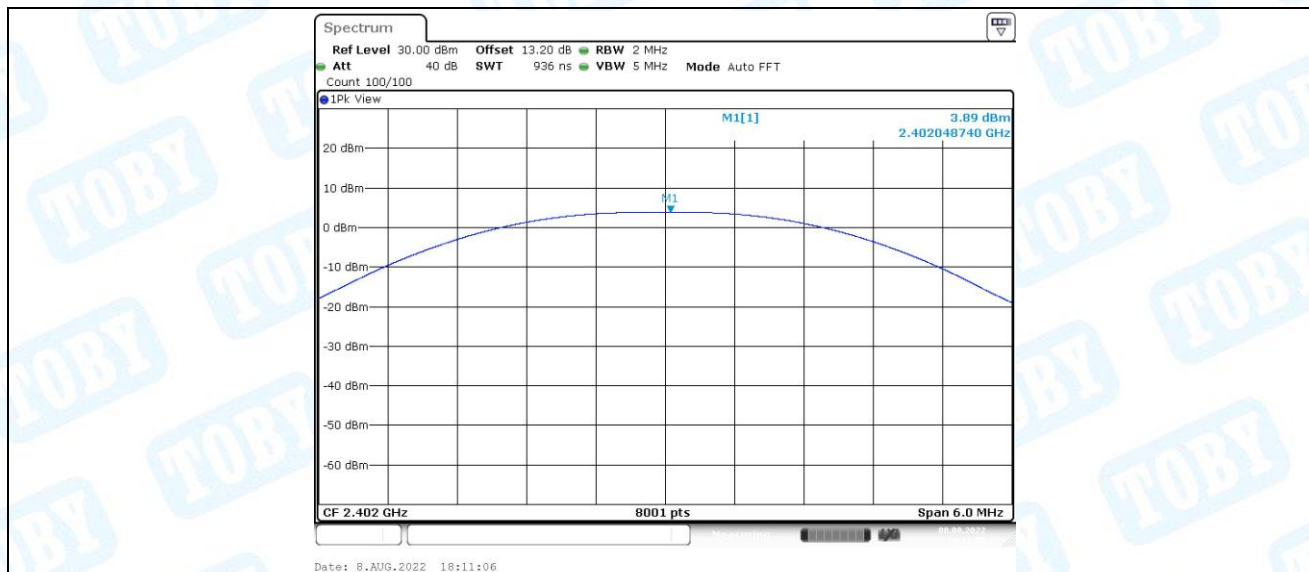
BLE_2M_Ant1_2480

3. Maximum conducted output power

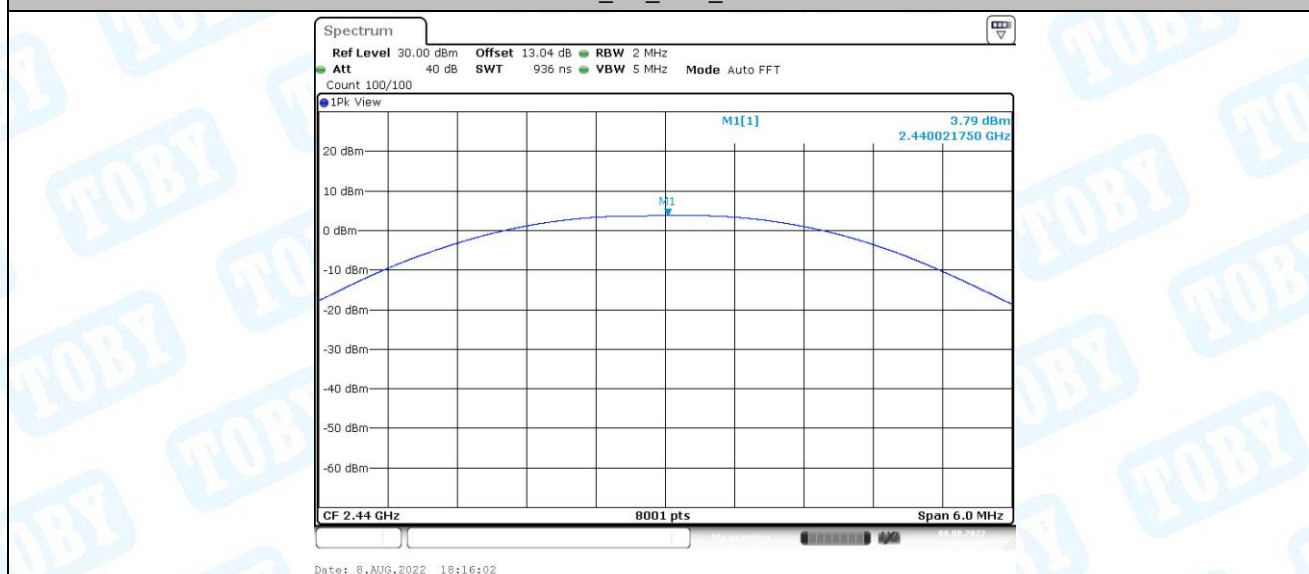
3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.89	≤30	PASS
		2440	3.79	≤30	PASS
		2480	3.85	≤30	PASS
BLE_2M	Ant1	2402	3.72	≤30	PASS
		2440	3.67	≤30	PASS
		2480	3.73	≤30	PASS

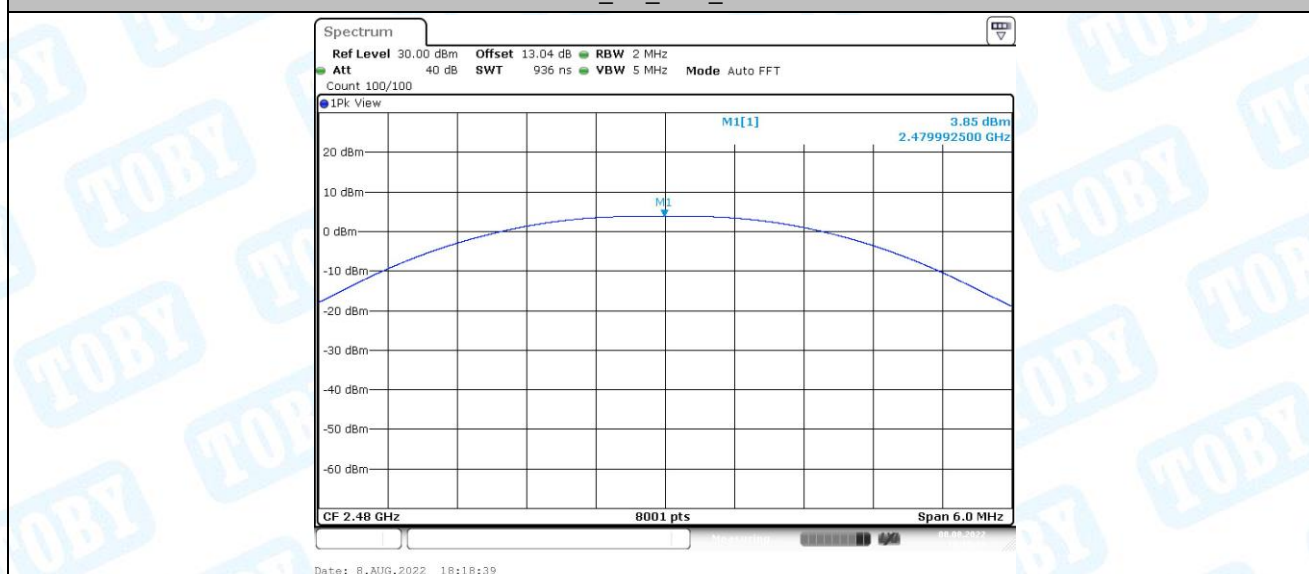
3.2. Test Graphs



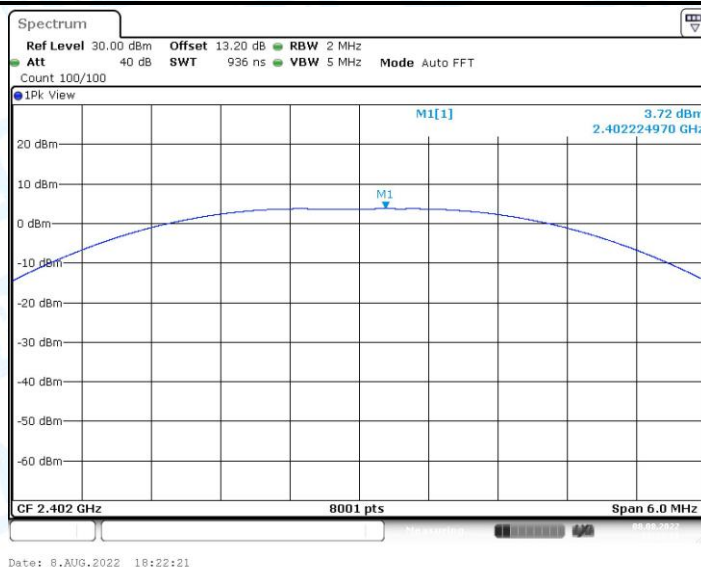
BLE_1M_Ant1_2402



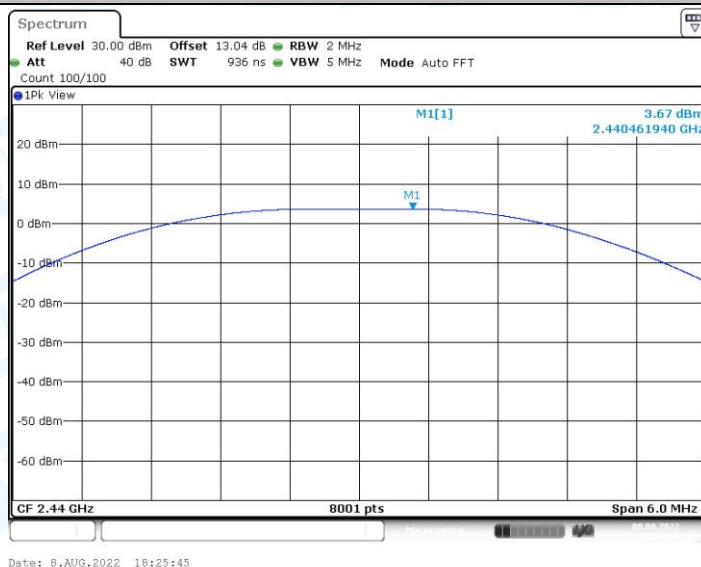
BLE_1M_Ant1_2440



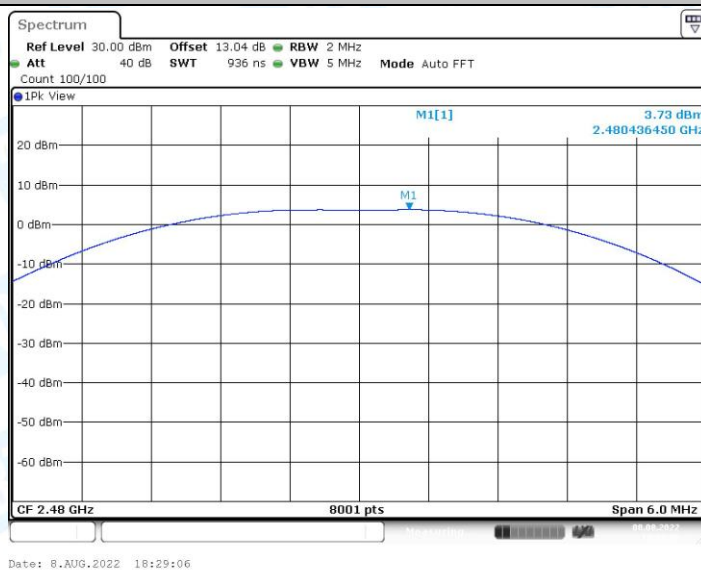
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



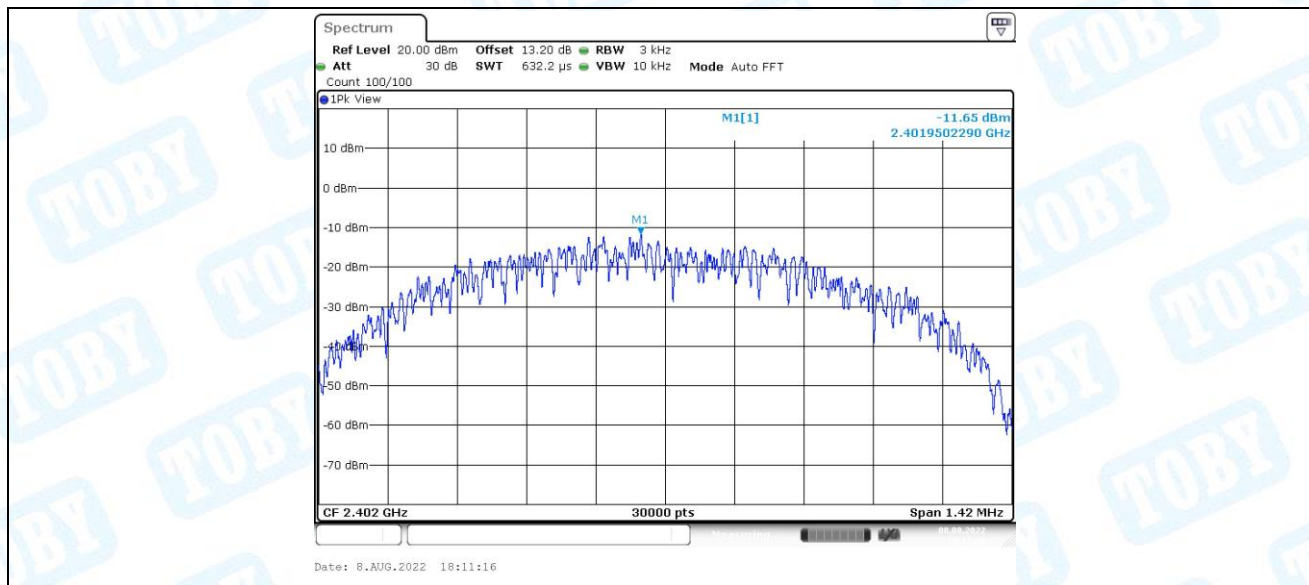
BLE_2M_Ant1_2480

4. Maximum power spectral density

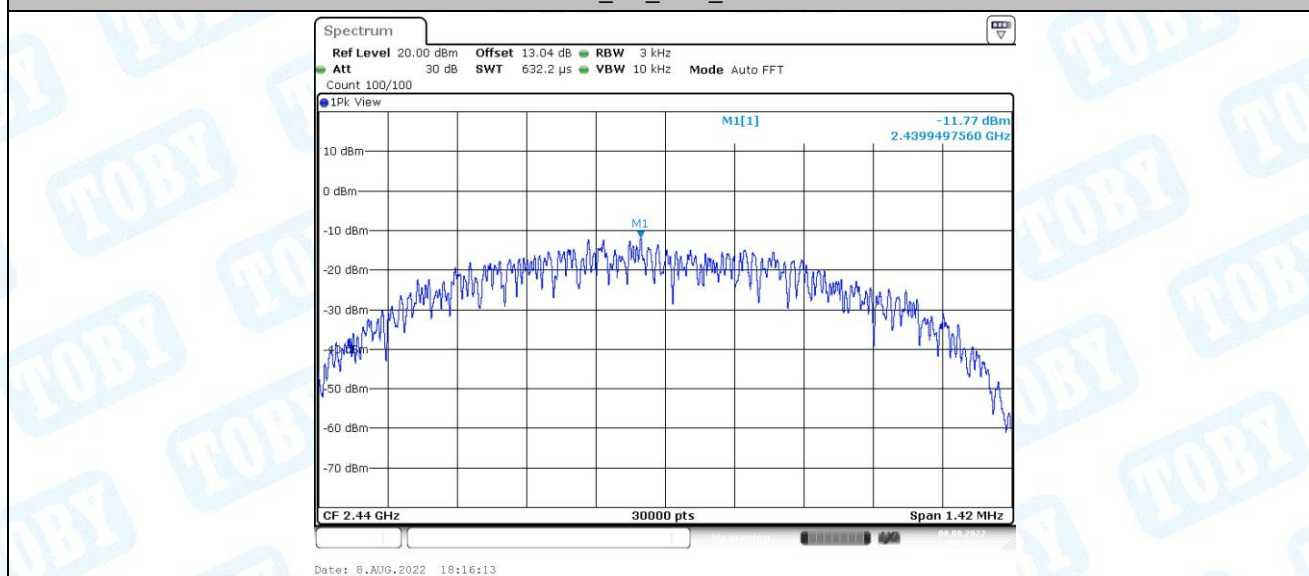
4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-11.65	≤8.00	PASS
		2440	-11.77	≤8.00	PASS
		2480	-11.68	≤8.00	PASS
BLE_2M	Ant1	2402	-15.34	≤8.00	PASS
		2440	-15.34	≤8.00	PASS
		2480	-15.42	≤8.00	PASS

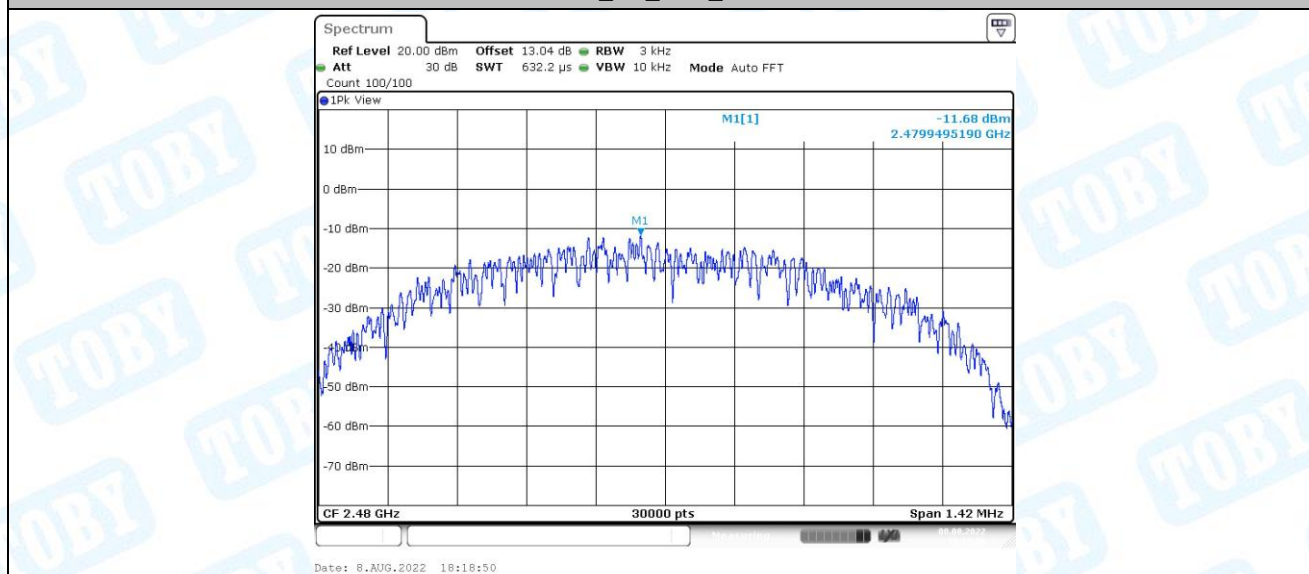
4.2. Test Graphs



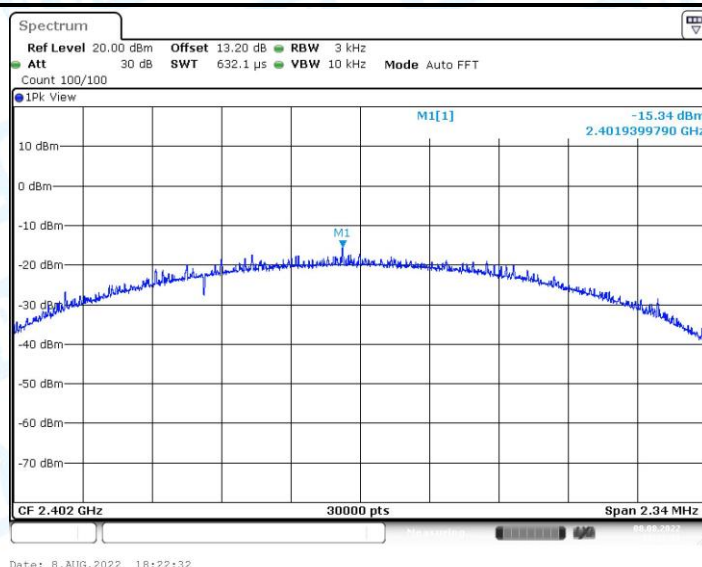
BLE_1M_Ant1_2402



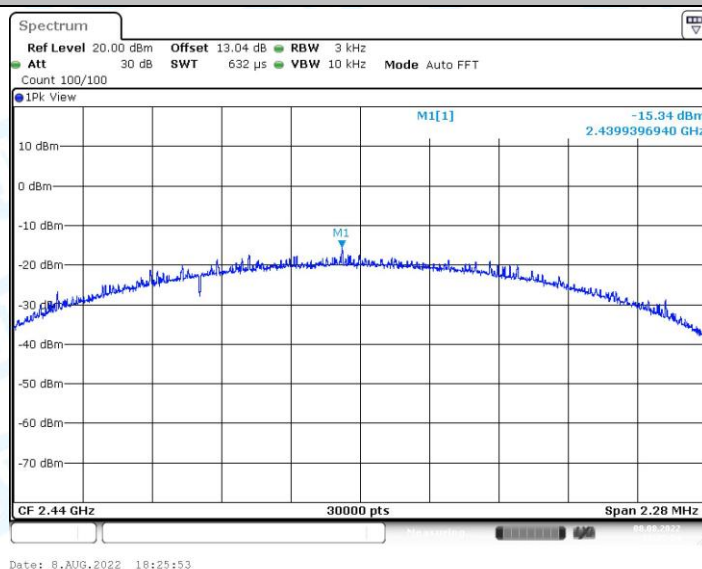
BLE_1M_Ant1_2440



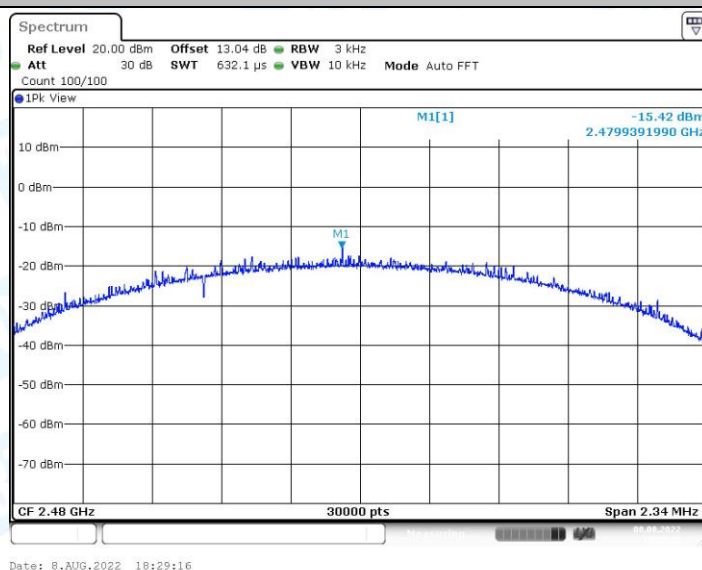
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



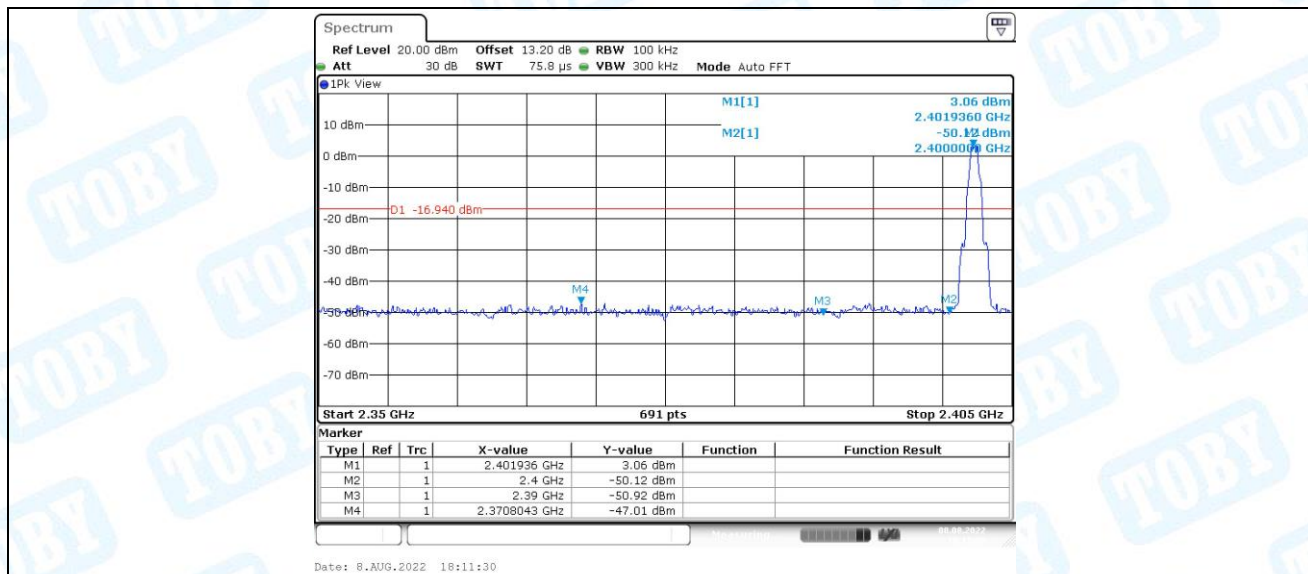
BLE_2M_Ant1_2480

5. Band edge measurements

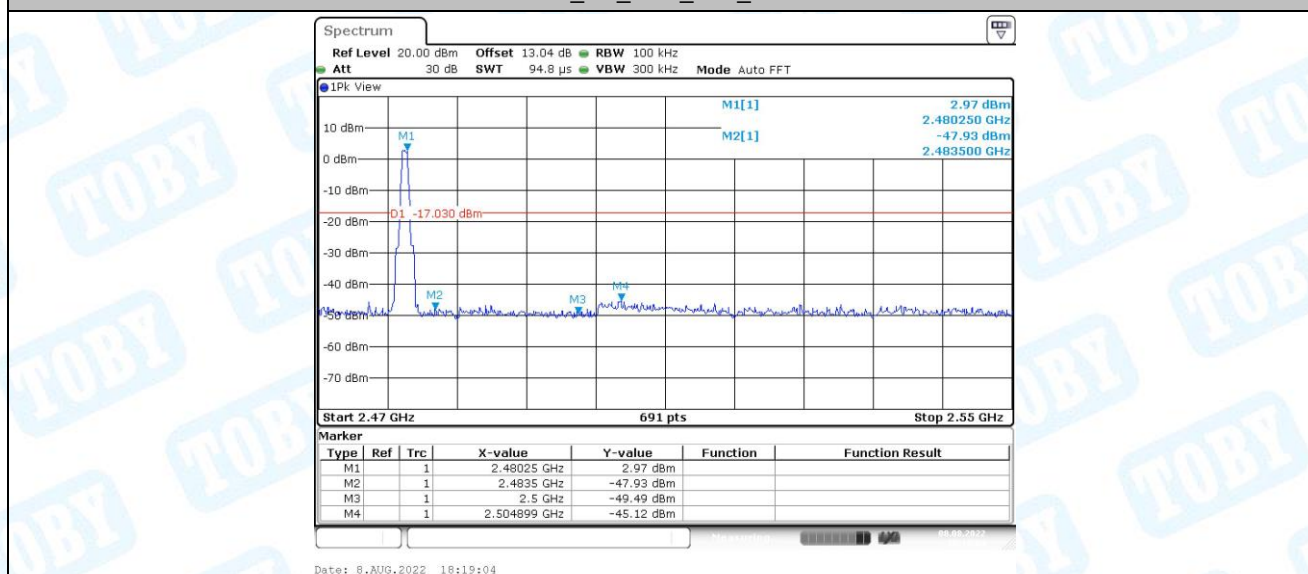
5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	3.06	-47.01	≤ -16.94	PASS
		High	2480	2.97	-45.12	≤ -17.03	PASS
BLE_2M	Ant1	Low	2402	2.72	-29.26	≤ -17.28	PASS
		High	2480	1.33	-45.35	≤ -18.67	PASS

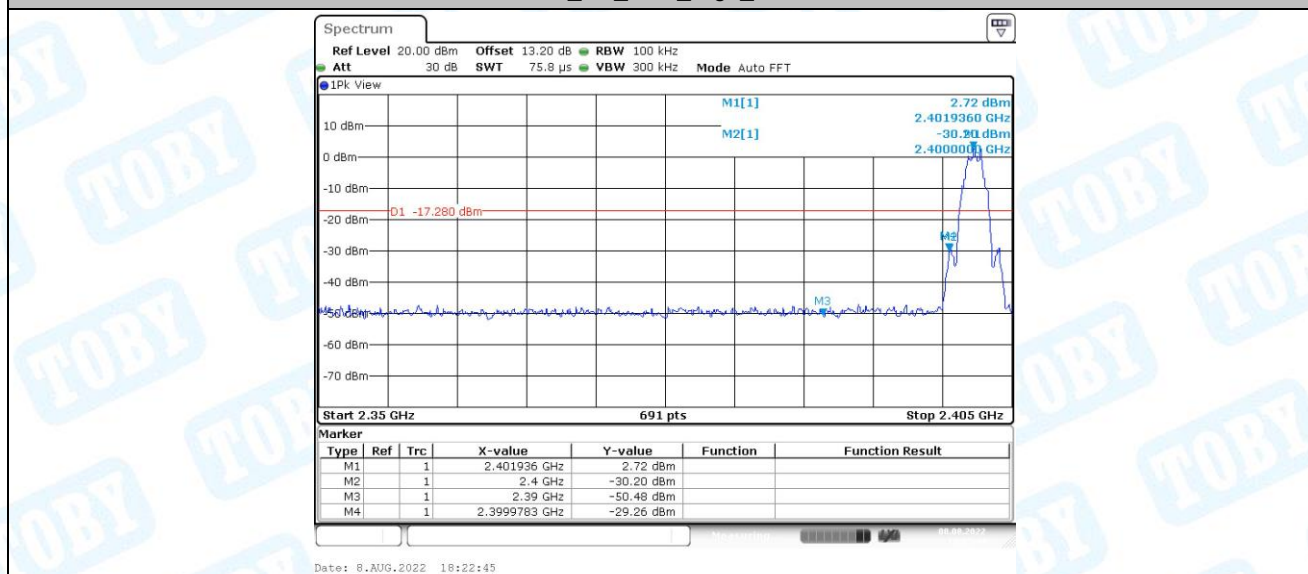
5.2. Test Graphs



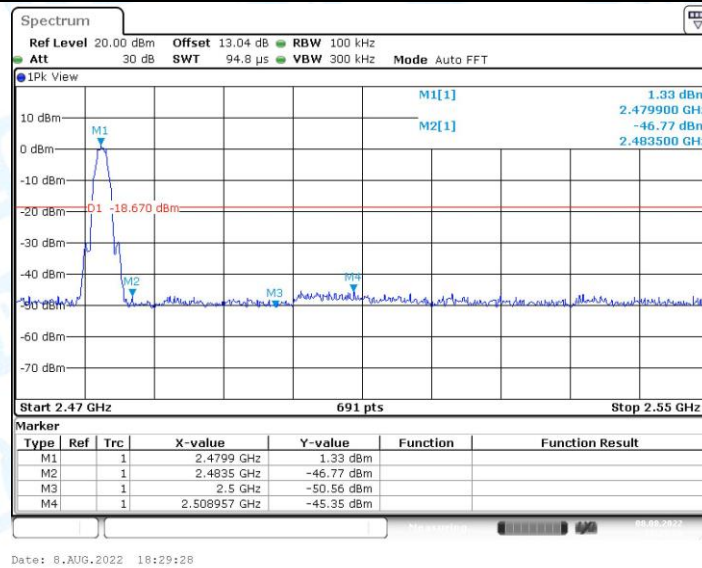
BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



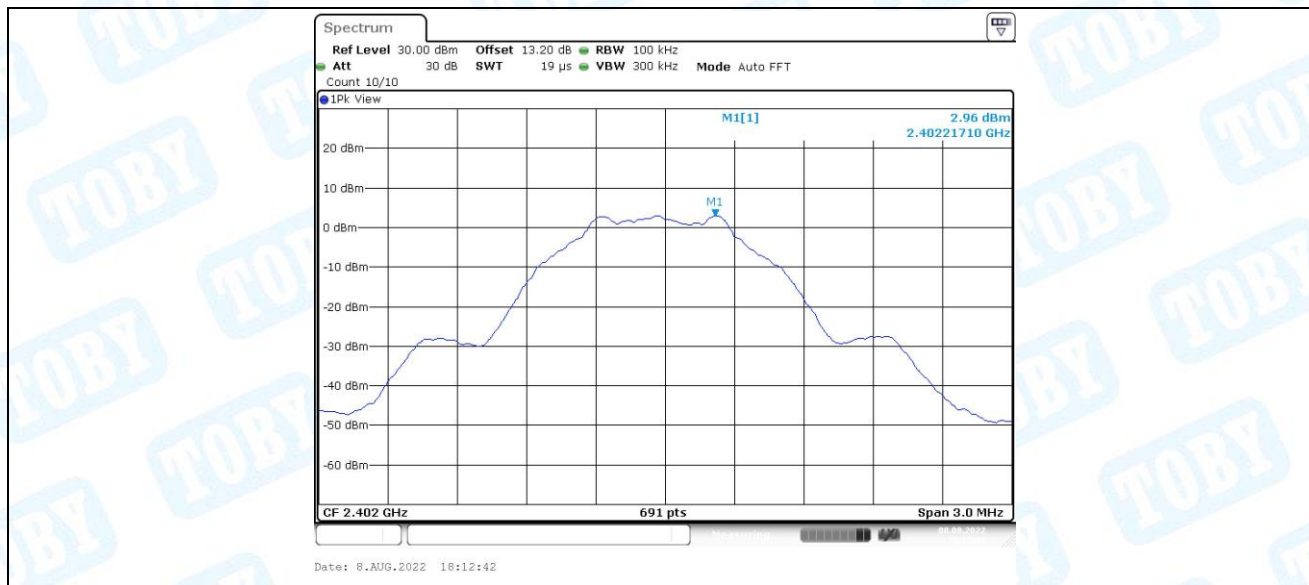
BLE_2M_Ant1_High_2480

6. Conducted Spurious Emission

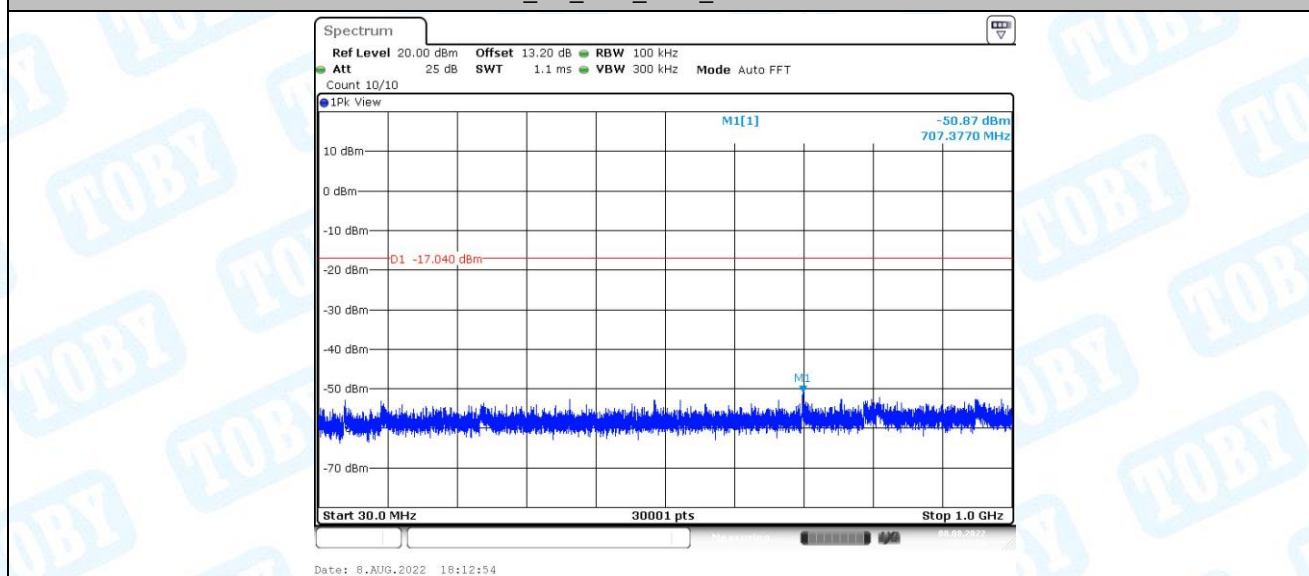
6.1. Test Result

Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.96	2.96	---	PASS
			30~1000	2.96	-50.87	≤-17.04	PASS
			1000~26500	2.96	-45.09	≤-17.04	PASS
		2440	Reference	2.81	2.81	---	PASS
			30~1000	2.81	-51.74	≤-17.19	PASS
			1000~26500	2.81	-44.71	≤-17.19	PASS
		2480	Reference	2.91	2.91	---	PASS
			30~1000	2.91	-51.49	≤-17.09	PASS
			1000~26500	2.91	-45.6	≤-17.09	PASS
BLE_2M	Ant1	2402	Reference	2.78	2.78	---	PASS
			30~1000	2.78	-51.38	≤-17.22	PASS
			1000~26500	2.78	-44.69	≤-17.22	PASS
		2440	Reference	2.62	2.62	---	PASS
			30~1000	2.62	-52.04	≤-17.38	PASS
			1000~26500	2.62	-45.23	≤-17.38	PASS
		2480	Reference	2.65	2.65	---	PASS
			30~1000	2.65	-52.18	≤-17.35	PASS
			1000~26500	2.65	-46.32	≤-17.35	PASS

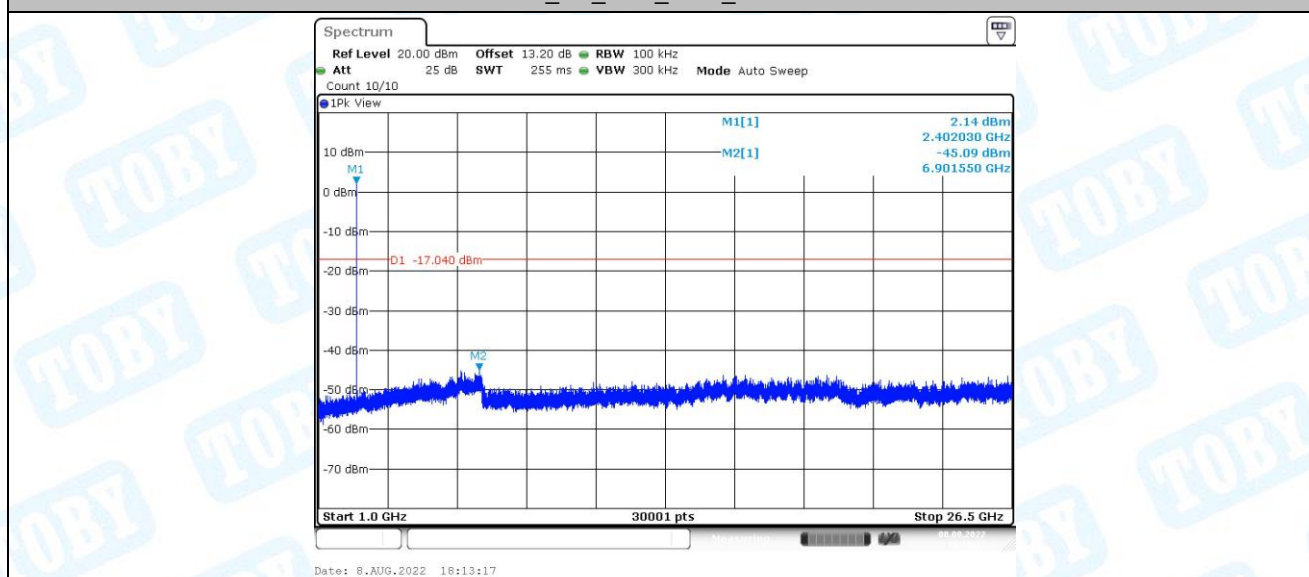
6.2. Test Graphs



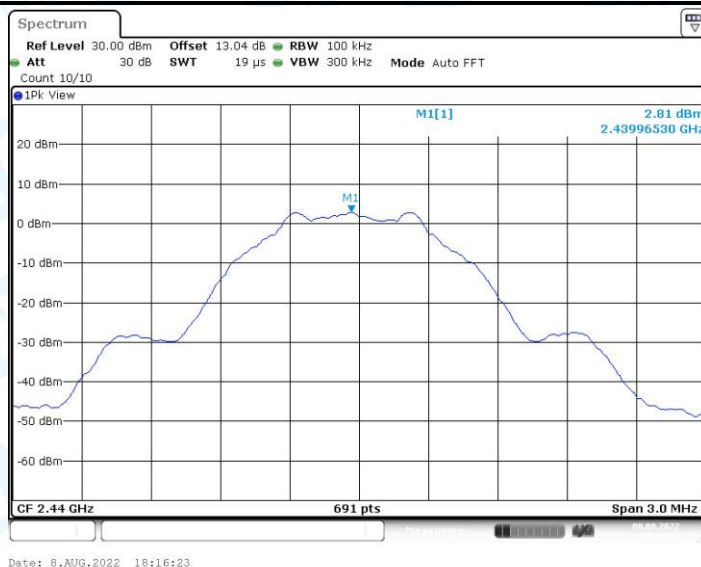
BLE_1M_Ant1_2402_0~Reference



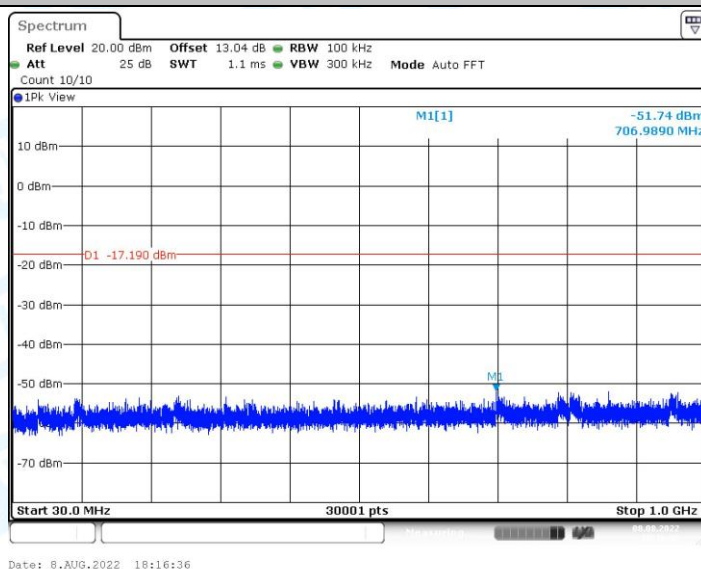
BLE_1M_Ant1_2402_30~1000



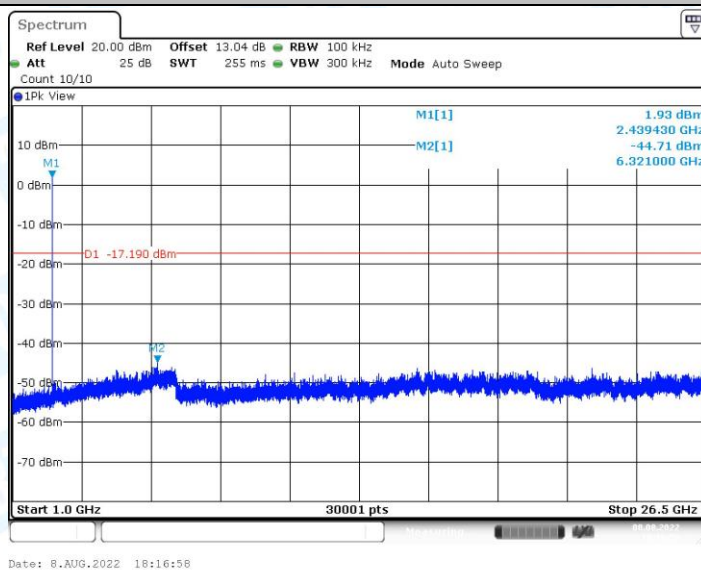
BLE_1M_Ant1_2402_1000~26500



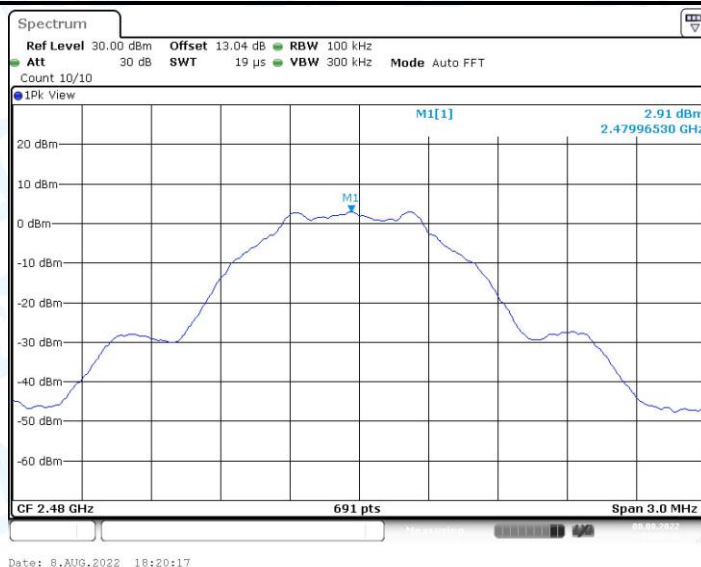
BLE_1M_Ant1_2440_0~Reference



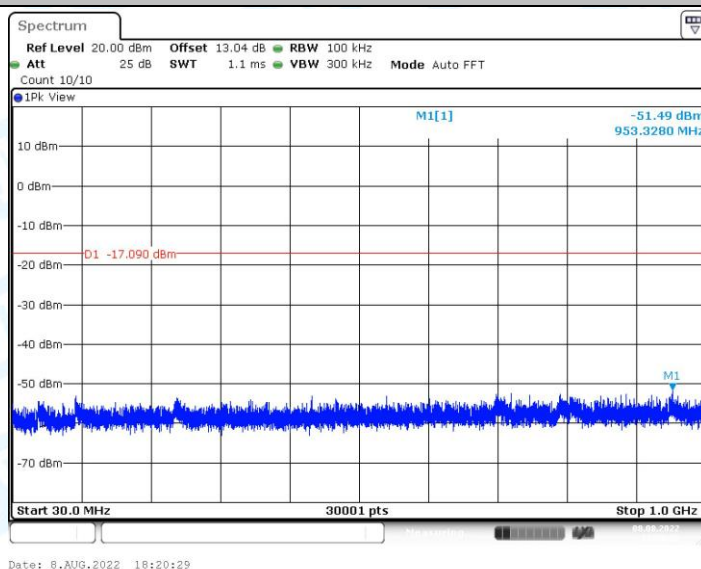
BLE_1M_Ant1_2440_30~1000



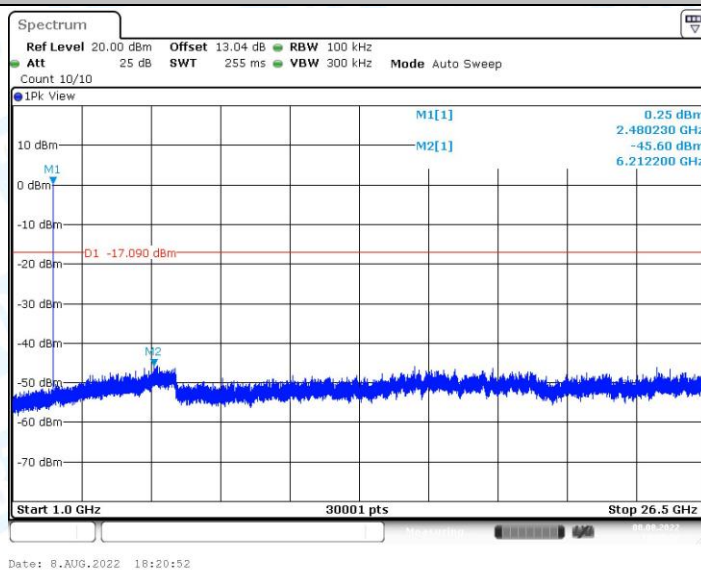
BLE_1M_Ant1_2440_1000~26500



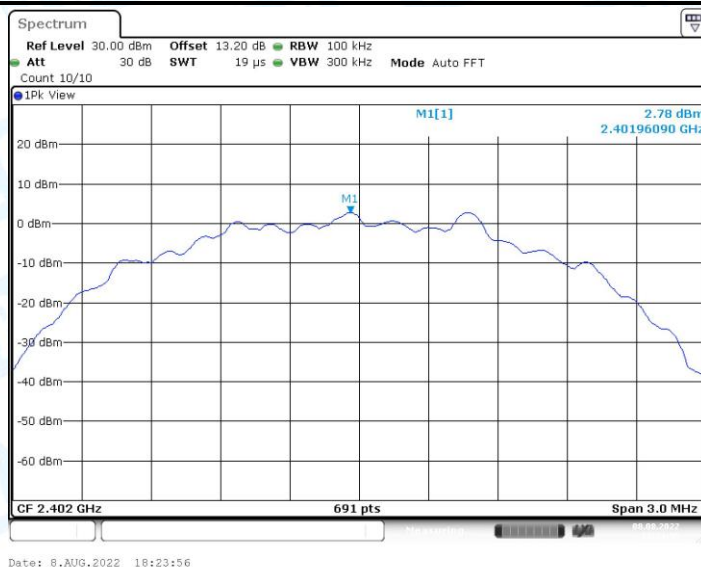
BLE_1M_Ant1_2480_0~Reference



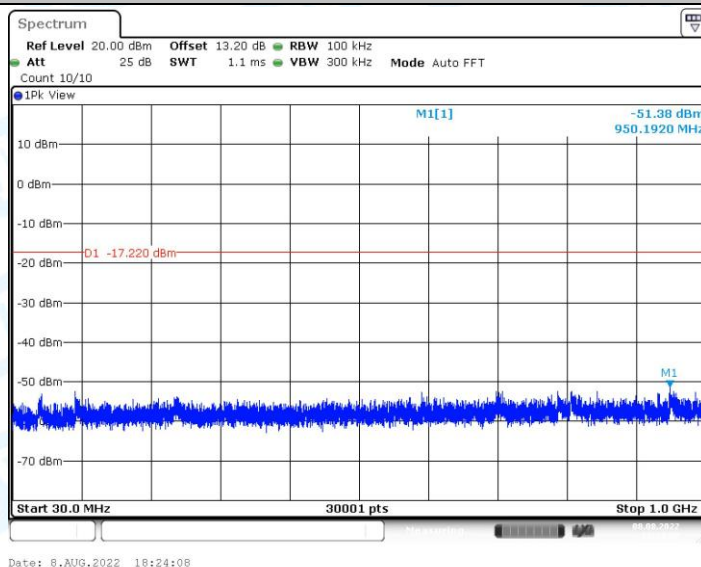
BLE_1M_Ant1_2480_30~1000



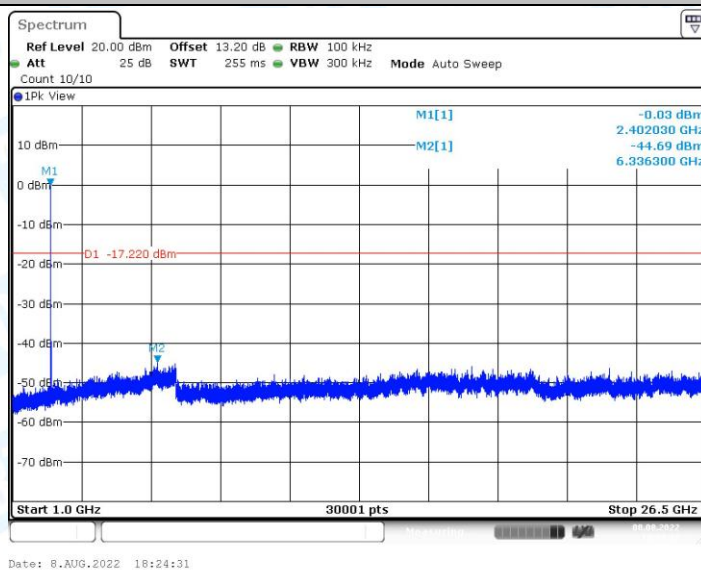
BLE_1M_Ant1_2480_1000~26500



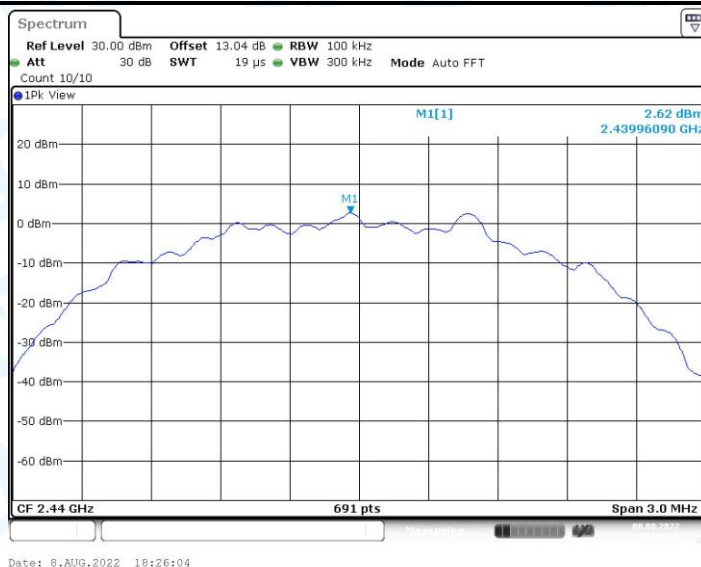
BLE_2M_Ant1_2402_0~Reference



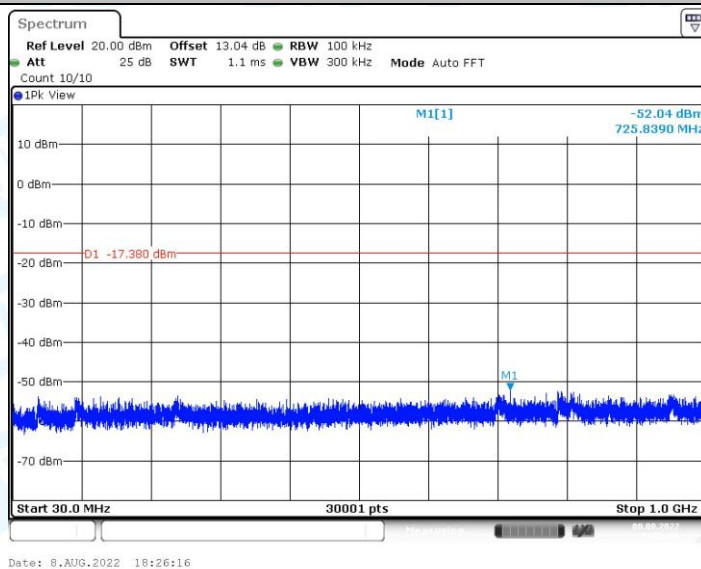
BLE_2M_Ant1_2402_30~1000



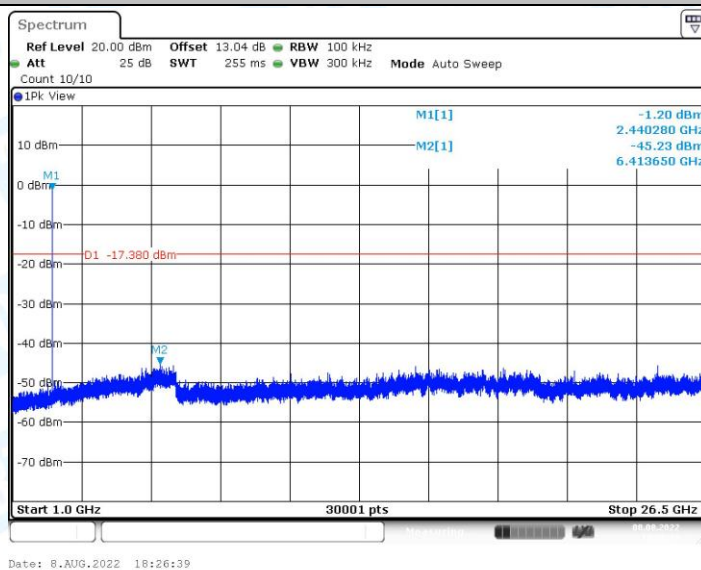
BLE_2M_Ant1_2402_1000~26500



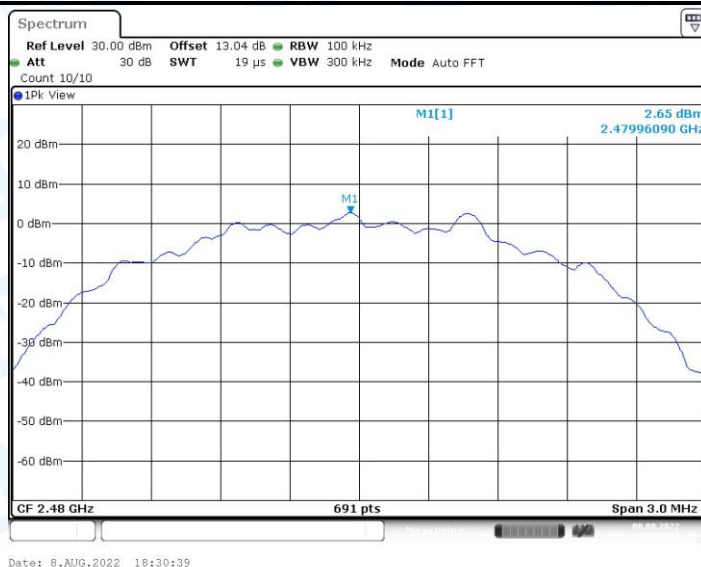
BLE_2M_Ant1_2440_0~Reference



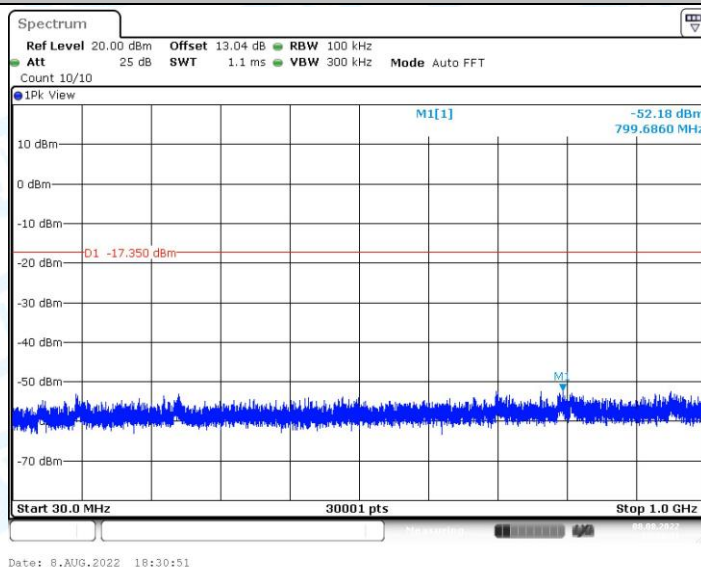
BLE_2M_Ant1_2440_30~1000



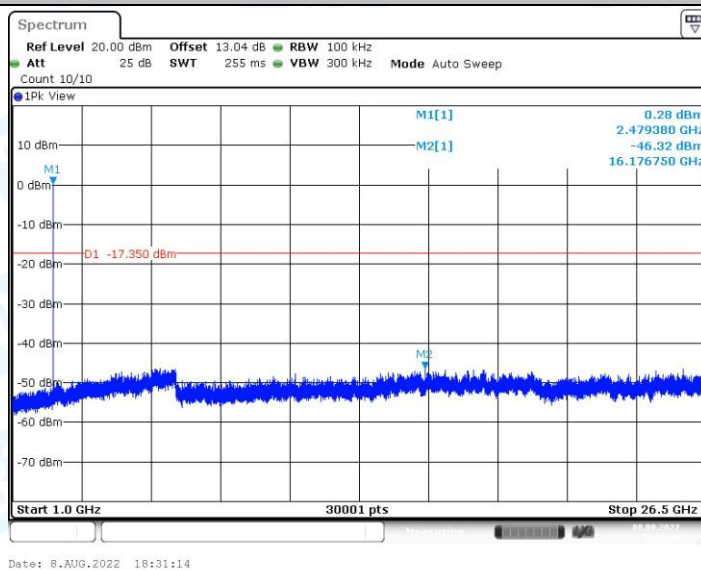
BLE_2M_Ant1_2440_1000~26500



BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



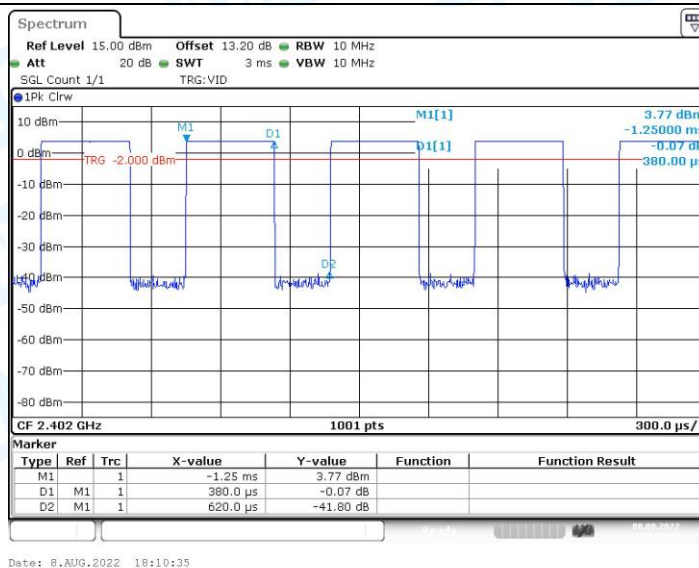
BLE_2M_Ant1_2480_1000~26500

7. Duty Cycle

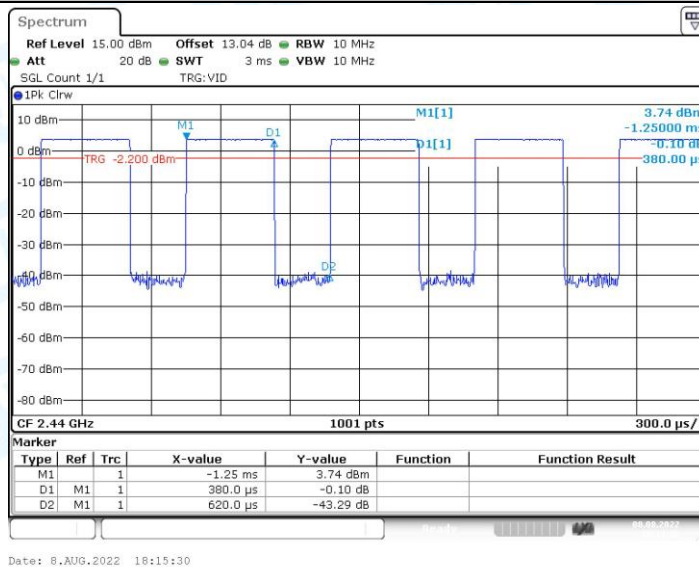
7.1. Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [kHz]	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.62	61.29	2.632	---	---
		2440	0.38	0.62	61.29	2.632	---	---
		2480	0.38	0.62	61.29	2.632	---	---
BLE_2M	Ant1	2402	1.07	1.88	56.91	0.935	---	---
		2440	1.07	1.88	56.91	0.935	---	---
		2480	1.07	1.88	56.91	0.935	---	---

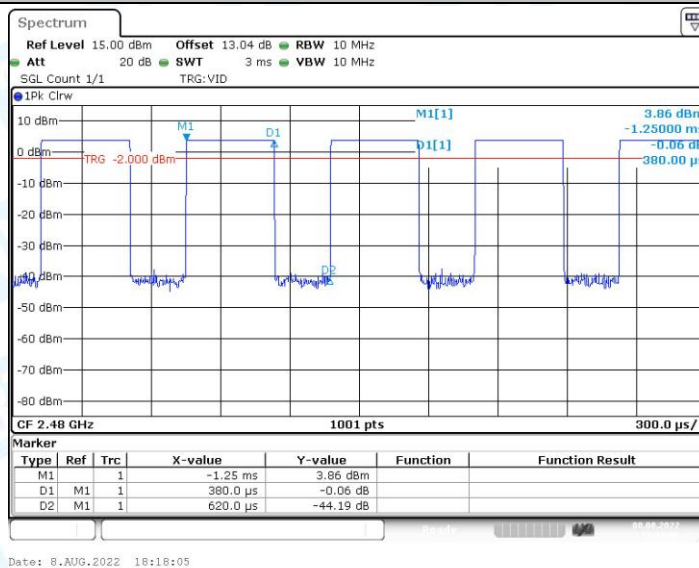
7.2. Test Graphs



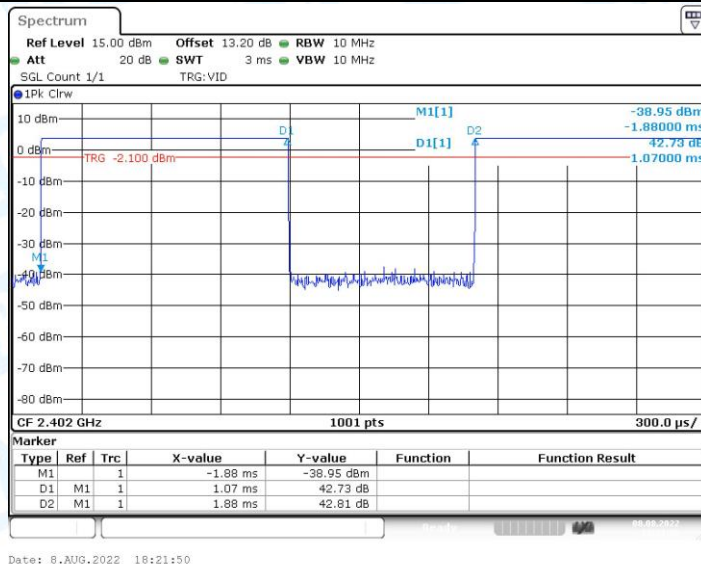
BLE_1M_Ant1_2402



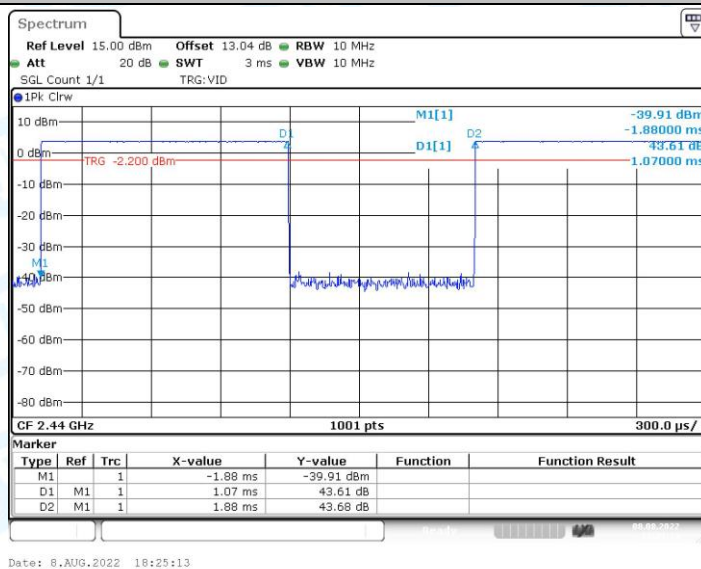
BLE_1M_Ant1_2440



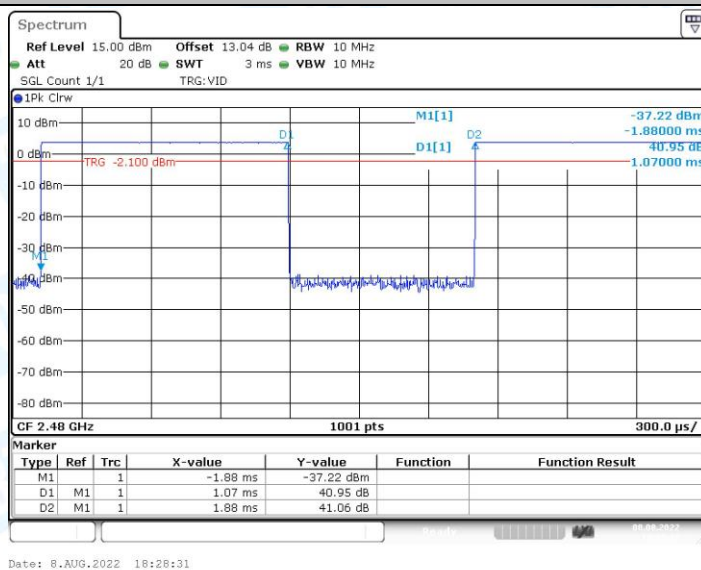
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

8. Emissions in Restricted Bands

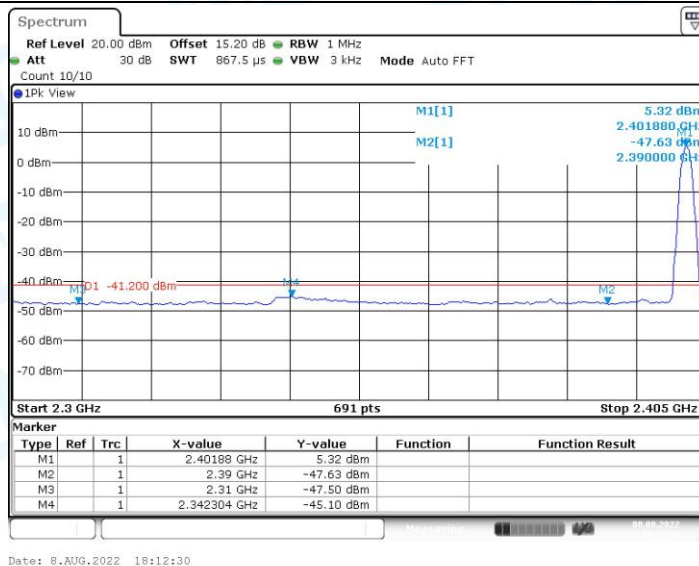
8.1. Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-47.5	≤-41.20	PASS
				AV	2342.304	-45.1	≤-41.20	PASS
				AV	2390.000	-47.63	≤-41.20	PASS
				Peak	2310.000	-38.23	≤-21.20	PASS
				Peak	2346.870	-34.38	≤-21.20	PASS
				Peak	2390.000	-36.35	≤-21.20	PASS
		High	2480	AV	2483.500	-46.75	≤-41.20	PASS
				AV	2497.478	-45.98	≤-41.20	PASS
				AV	2500.000	-46.43	≤-41.20	PASS
				Peak	2483.500	-38.46	≤-21.20	PASS
				Peak	2490.638	-35.28	≤-21.20	PASS
				Peak	2500.000	-37.1	≤-21.20	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-48.09	≤-41.20	PASS
				AV	2341.391	-45.67	≤-41.20	PASS
				AV	2390.000	-48.16	≤-41.20	PASS
				Peak	2310.000	-36.38	≤-21.20	PASS
				Peak	2321.913	-33.87	≤-21.20	PASS
				Peak	2390.000	-37.31	≤-21.20	PASS
		High	2480	AV	2483.500	-47.18	≤-41.20	PASS
				AV	2497.362	-46.92	≤-41.20	PASS
				AV	2500.000	-47.25	≤-41.20	PASS
				Peak	2483.500	-37.4	≤-21.20	PASS
				Peak	2499.217	-35.57	≤-21.20	PASS
				Peak	2500.000	-36.28	≤-21.20	PASS

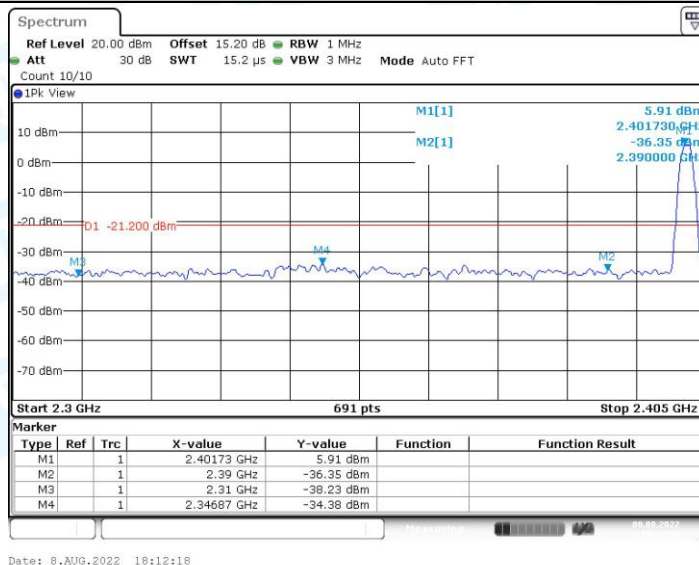
Note:

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.

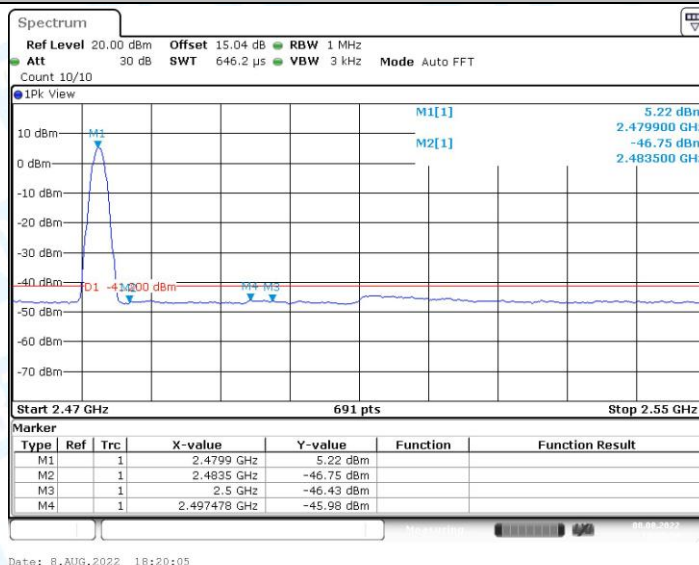
8.2. Test Graphs



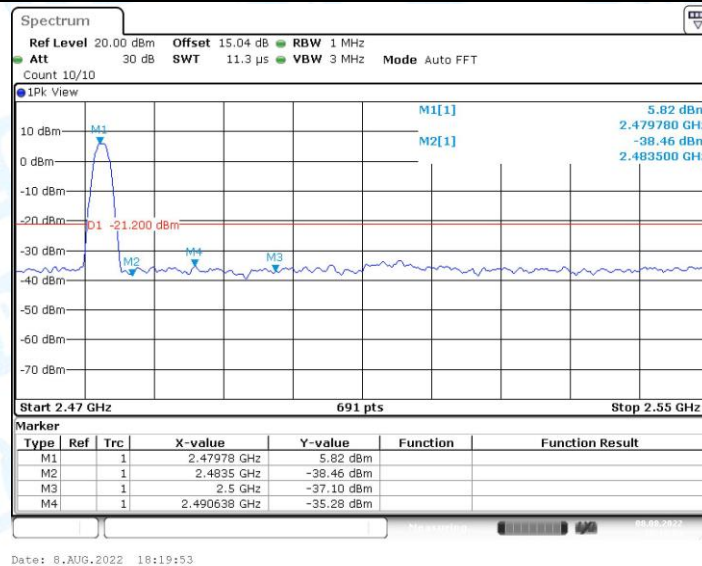
BLE_1M_Ant1_Low_2402_AV



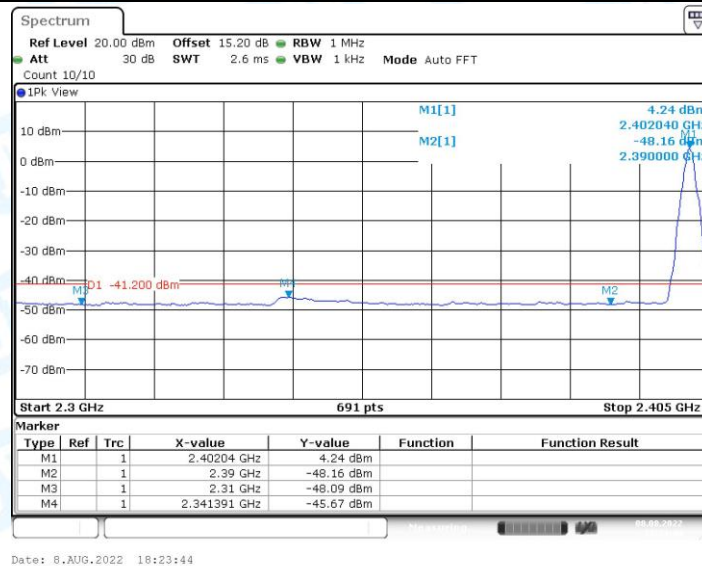
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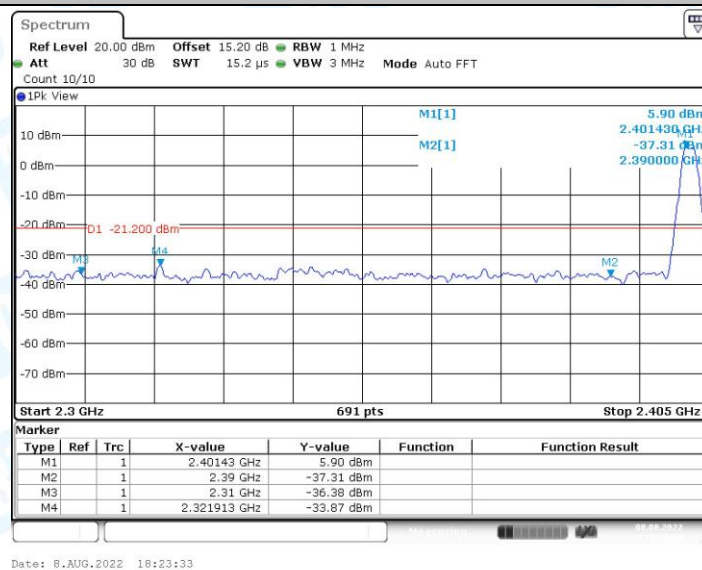
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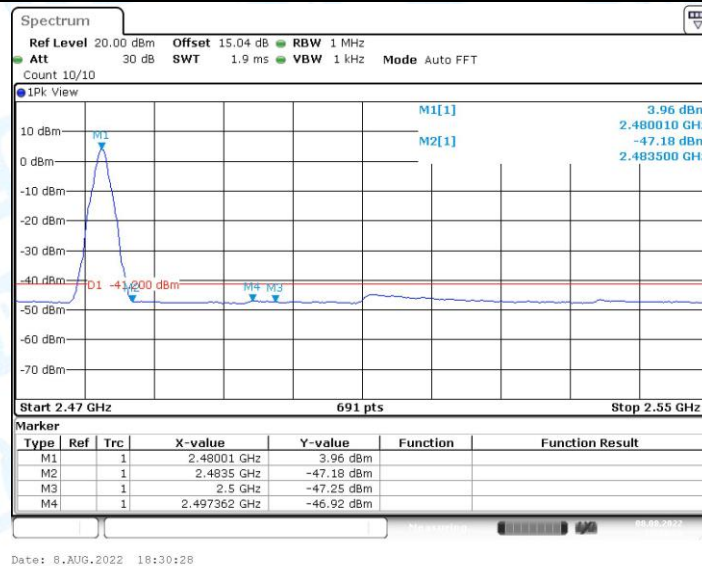
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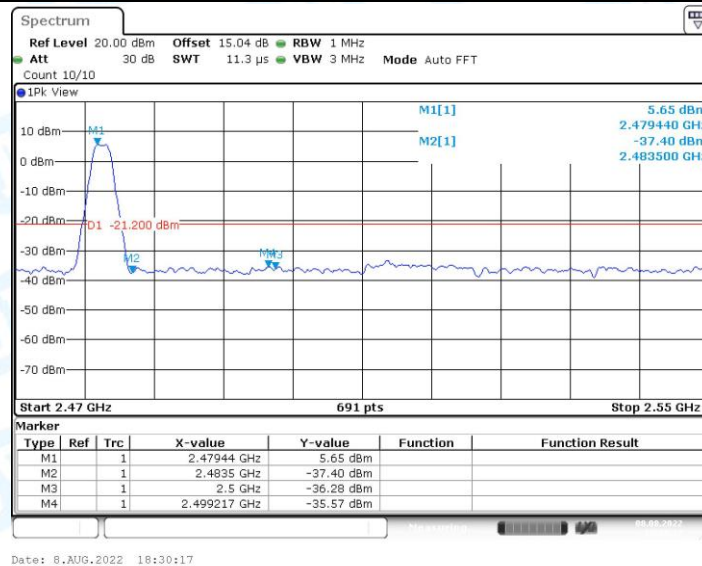
BLE_2M_Ant1_Low_2402_AV



BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak

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