

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℃
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	

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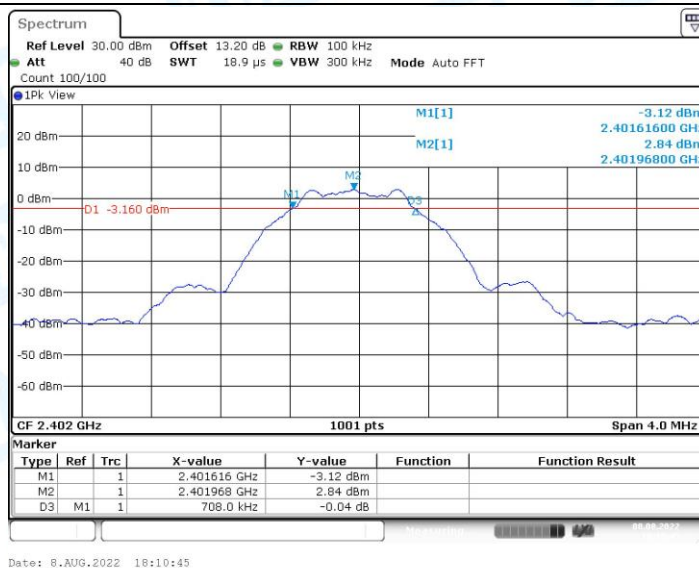
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1. DTS Bandwidth

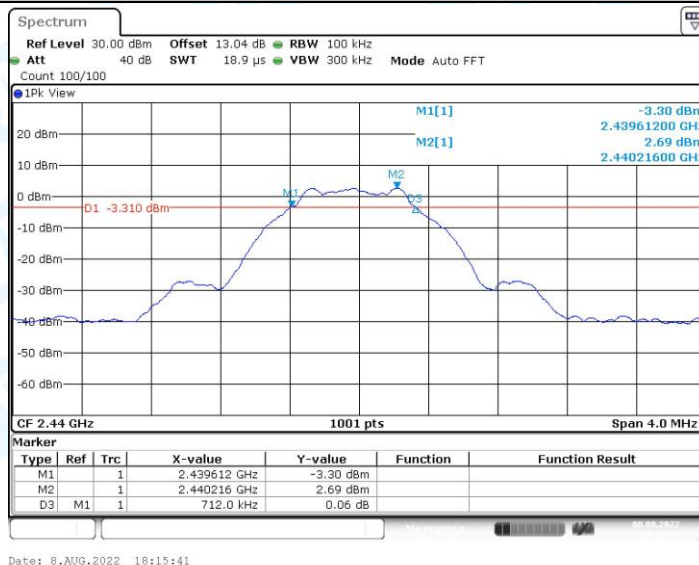
1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.71	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

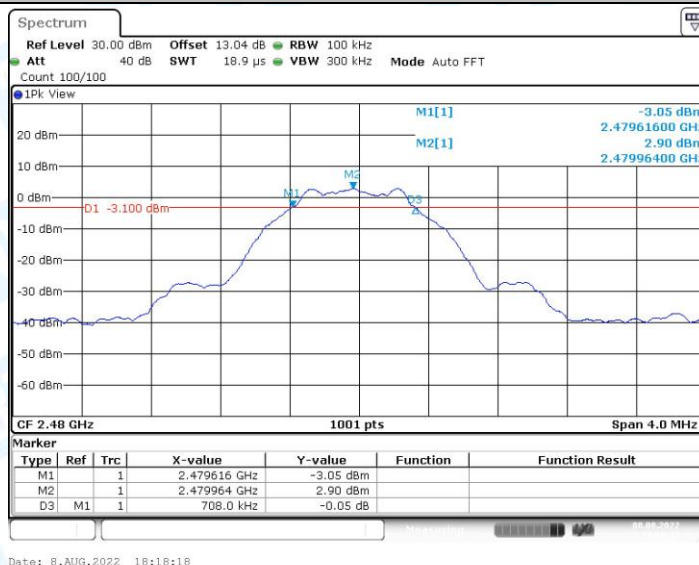
1.2. Test Graphs



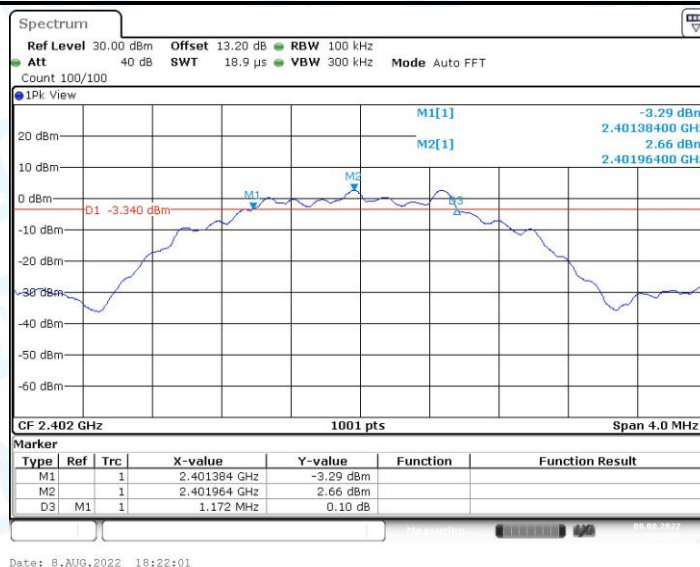
BLE_1M_Ant1_2402



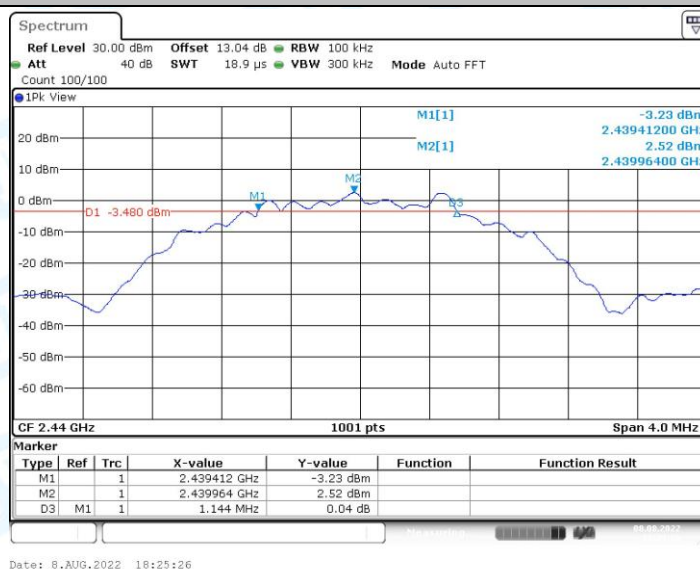
BLE_1M_Ant1_2440



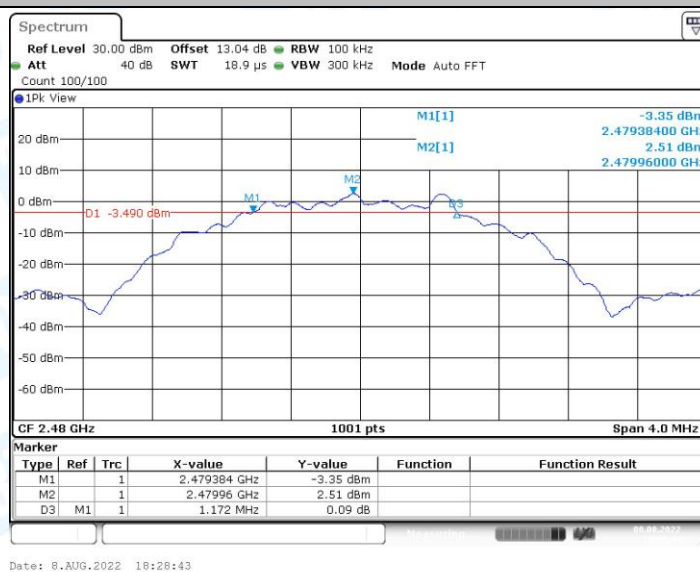
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



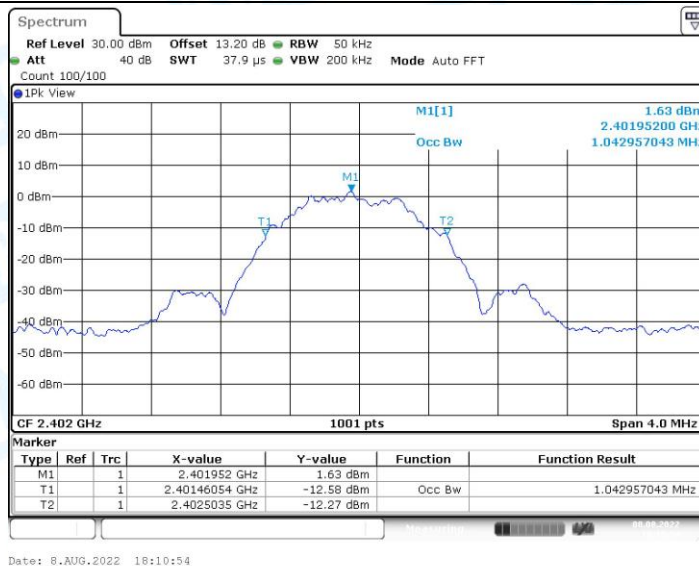
BLE_2M_Ant1_2480

2. Occupied Channel Bandwidth

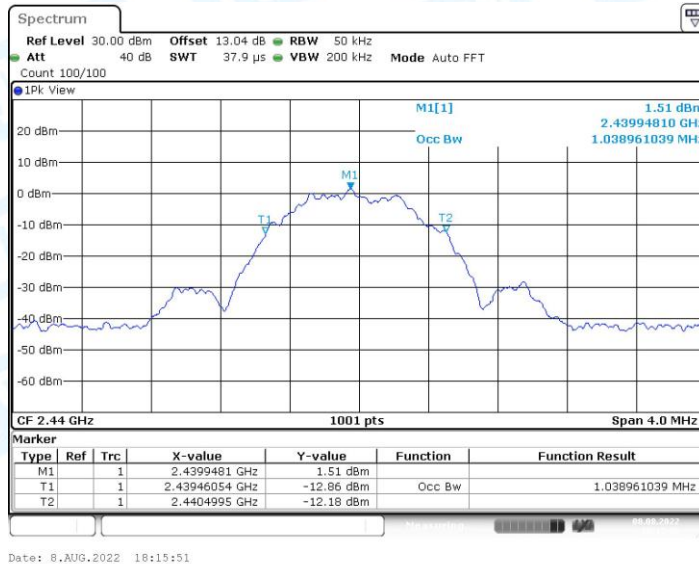
2.1. Test Result

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	---	---

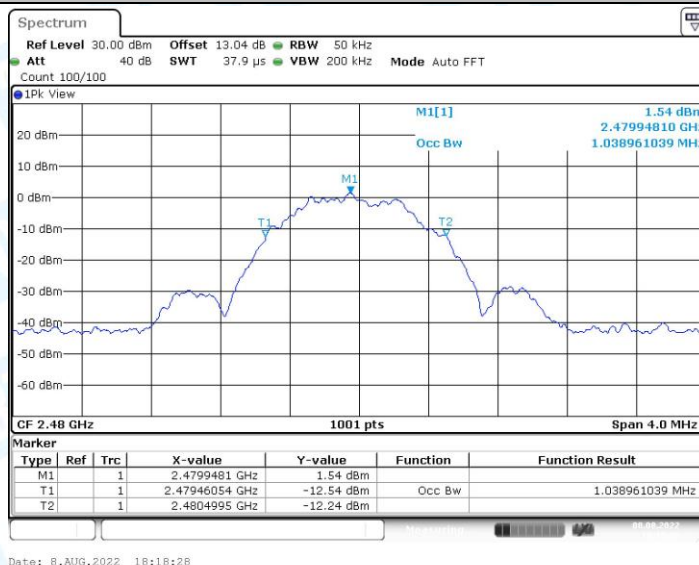
2.2. Test Graphs



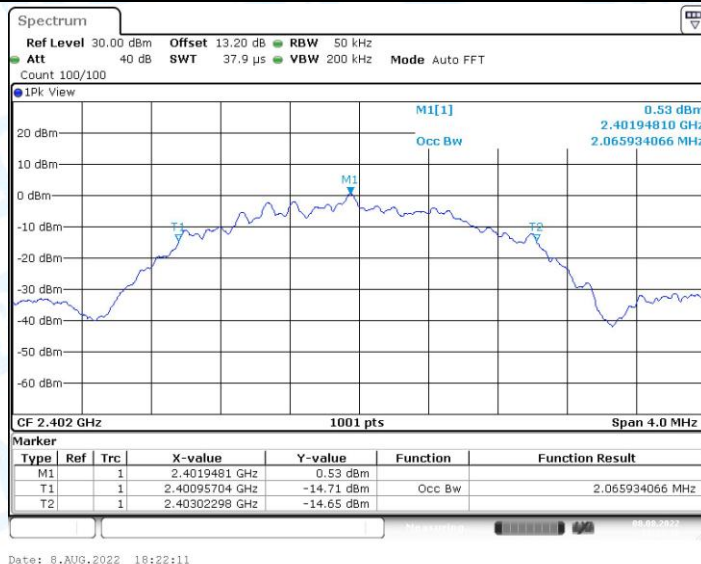
BLE_1M_Ant1_2402



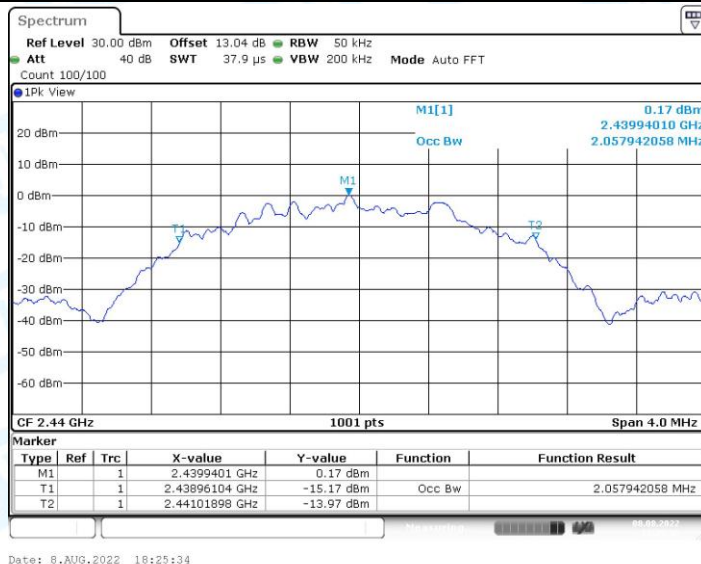
BLE_1M_Ant1_2440



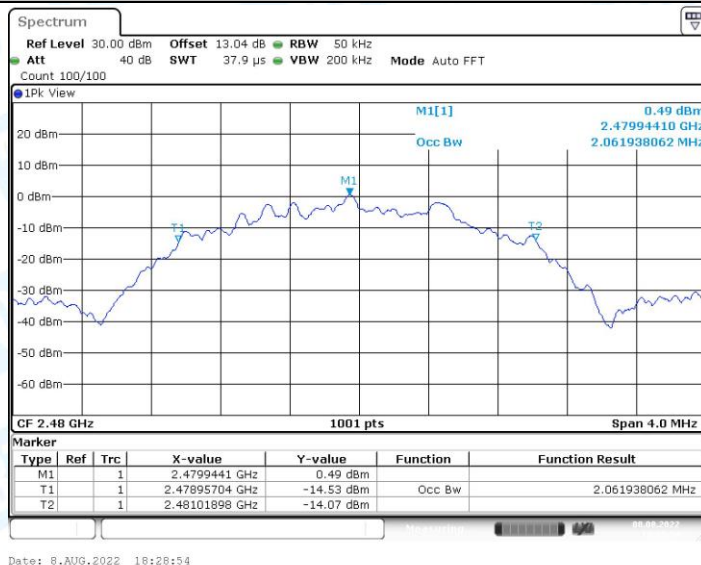
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



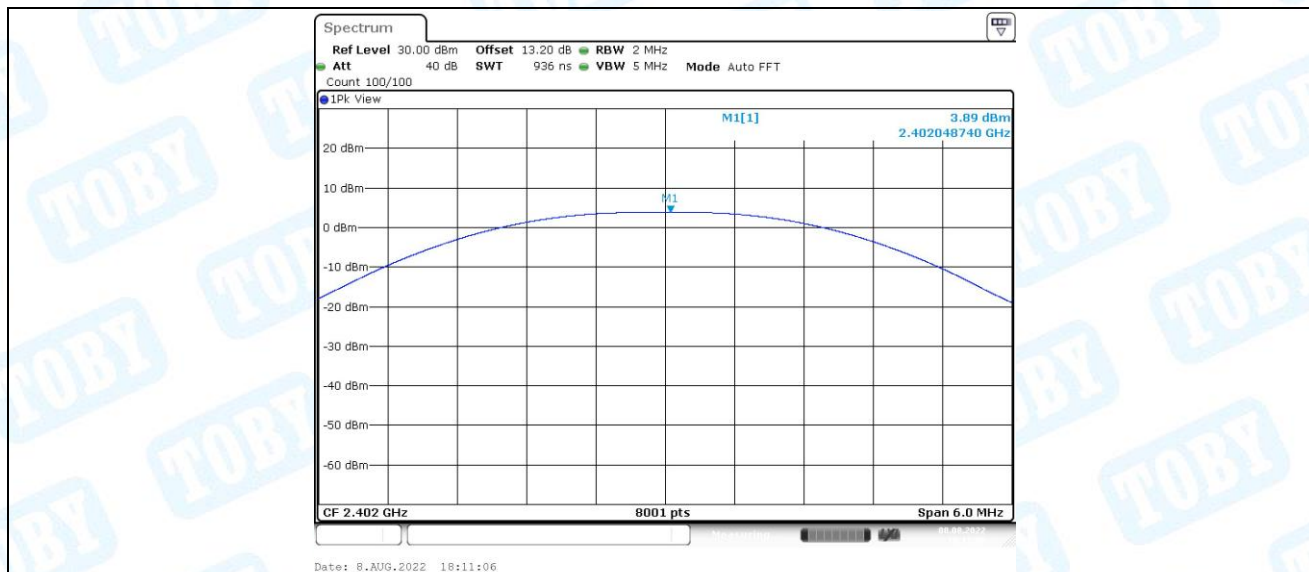
BLE_2M_Ant1_2480

3. Maximum conducted output power

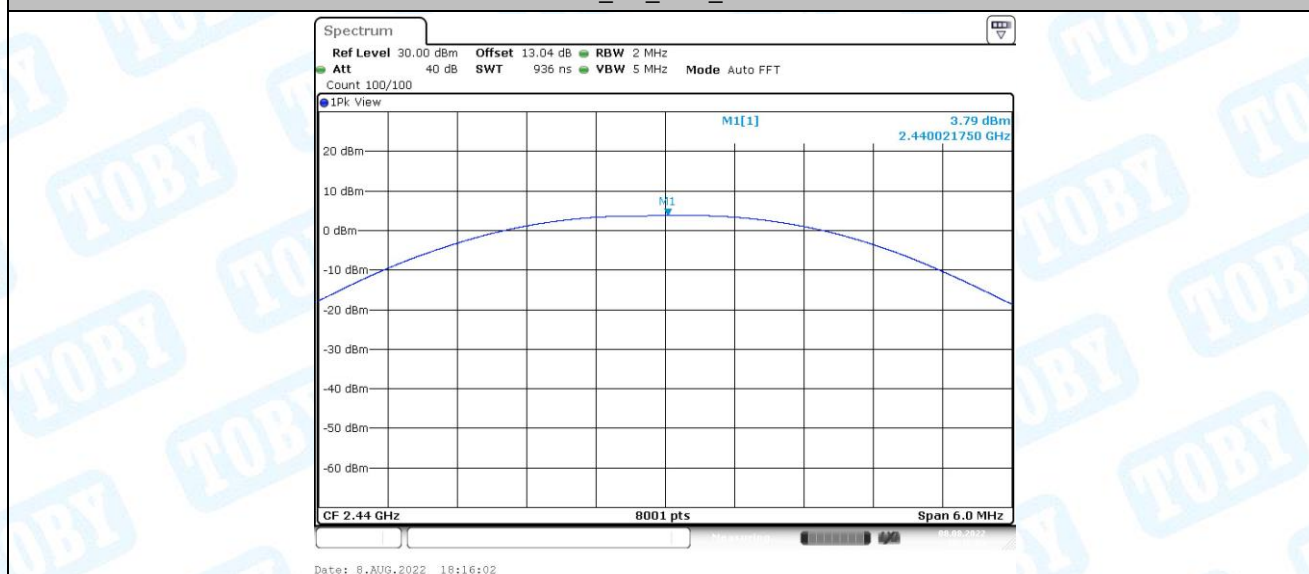
3.1. Test Result

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

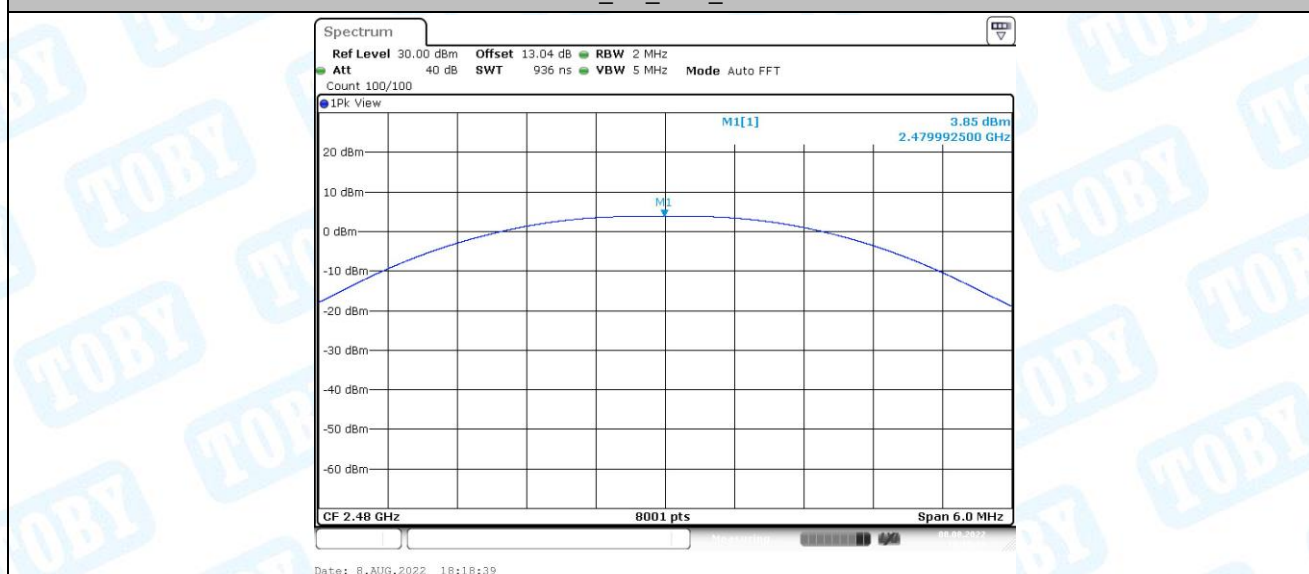
3.2. Test Graphs



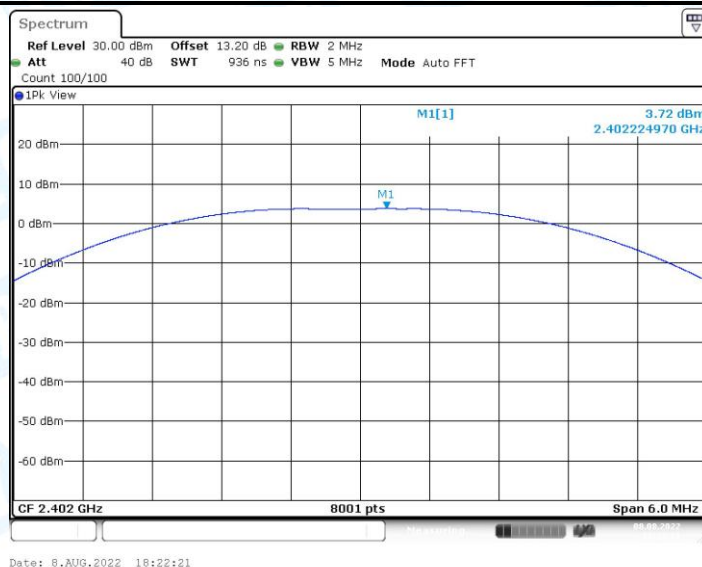
BLE_1M_Ant1_2402



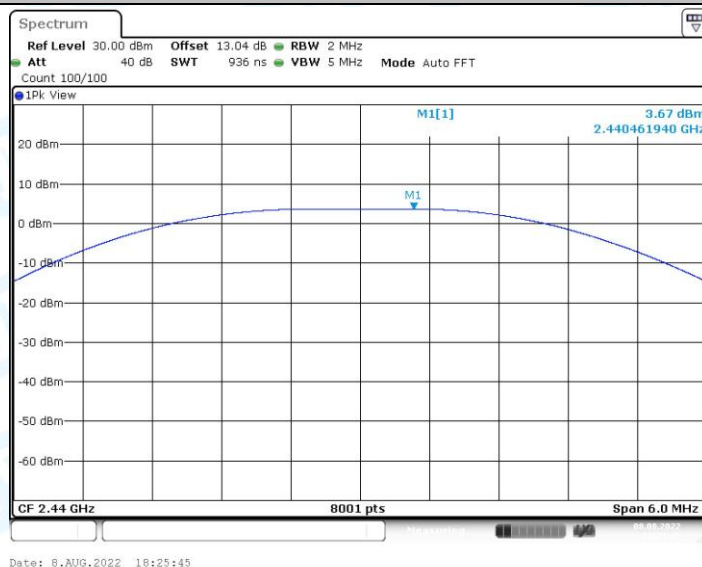
BLE_1M_Ant1_2440



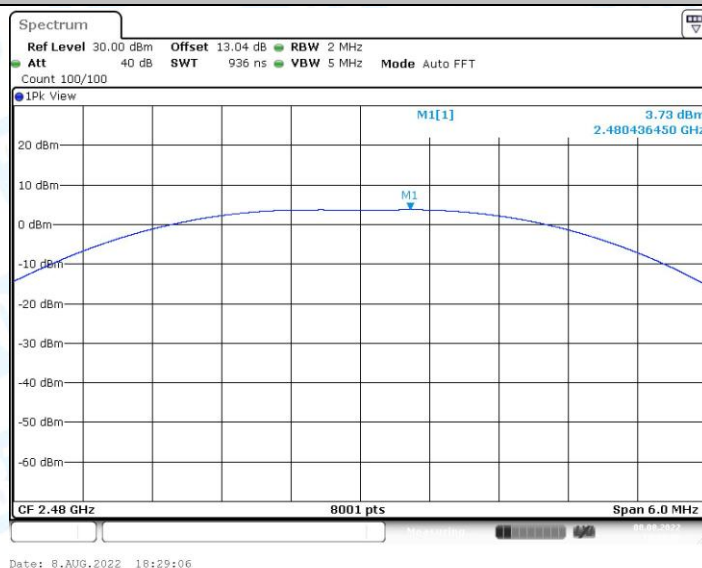
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



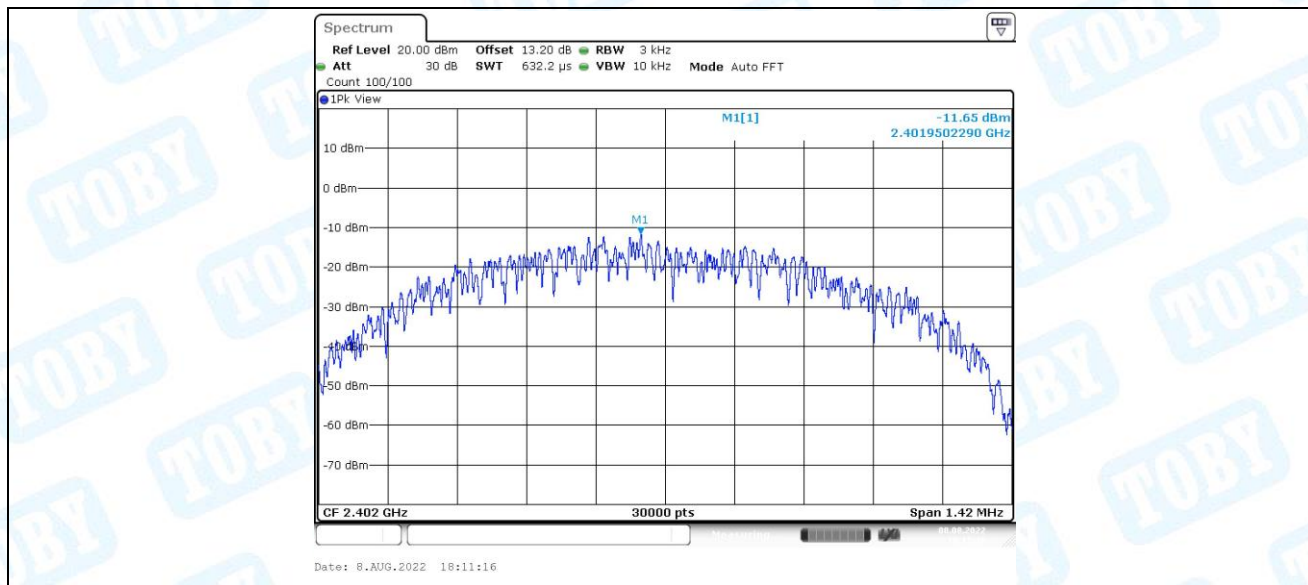
BLE_2M_Ant1_2480

4. Maximum power spectral density

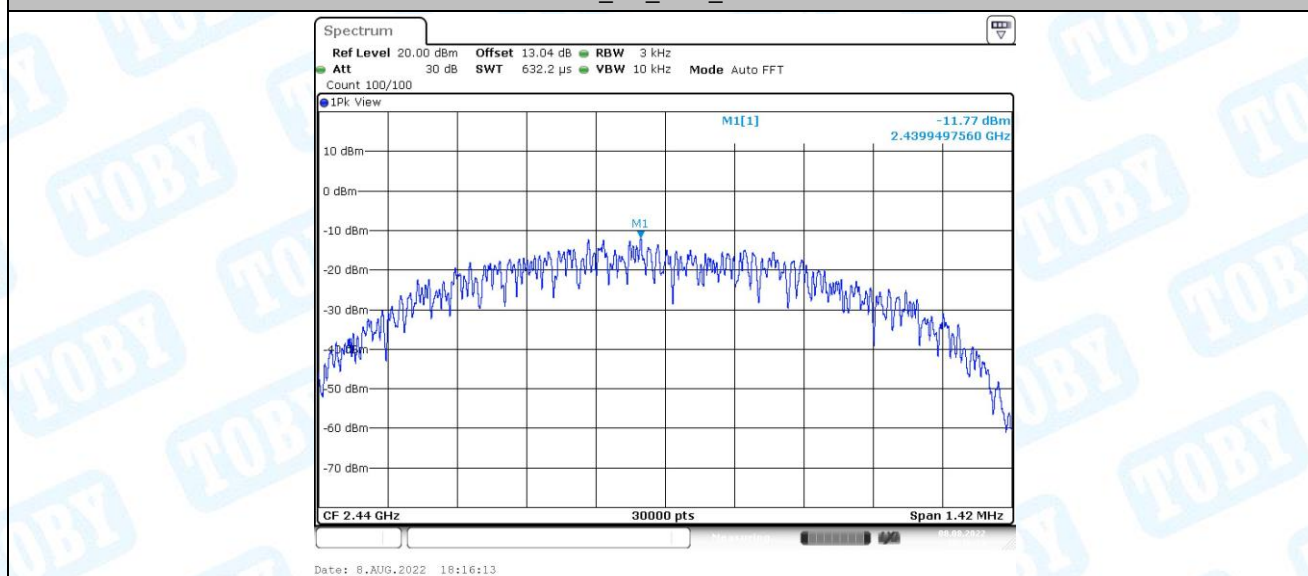
4.1. Test Result

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

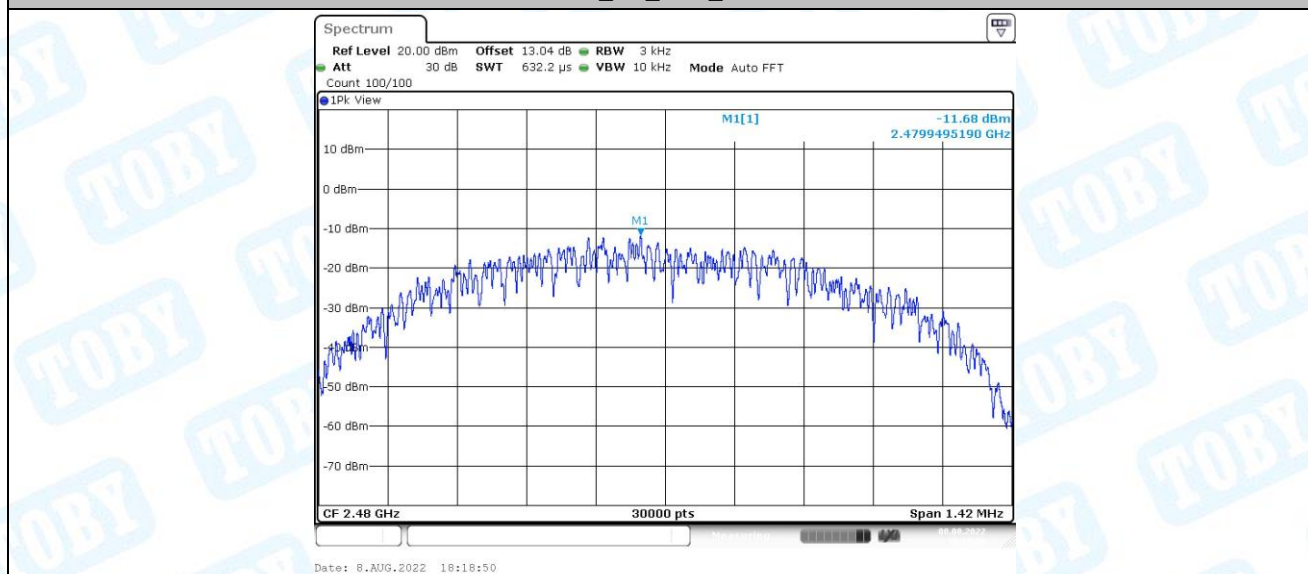
4.2. Test Graphs



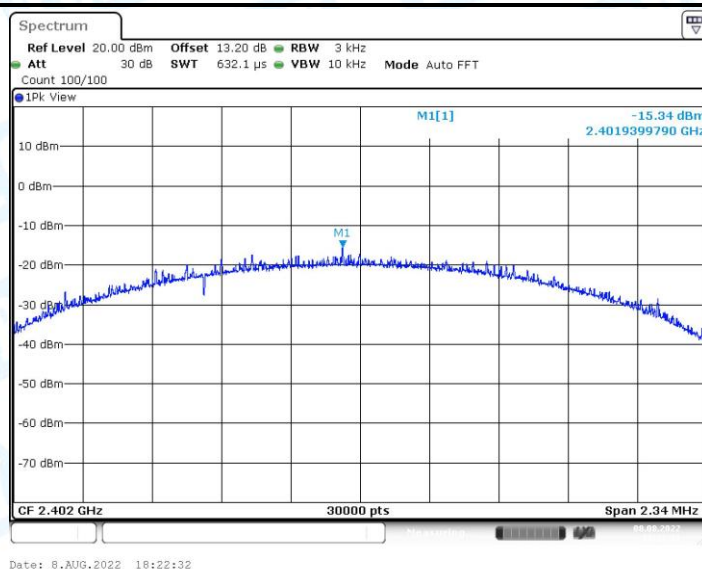
BLE_1M_Ant1_2402



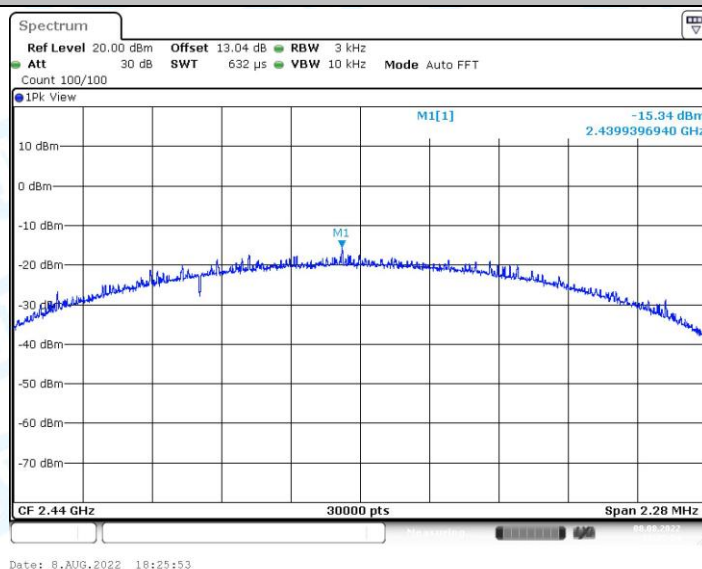
BLE_1M_Ant1_2440



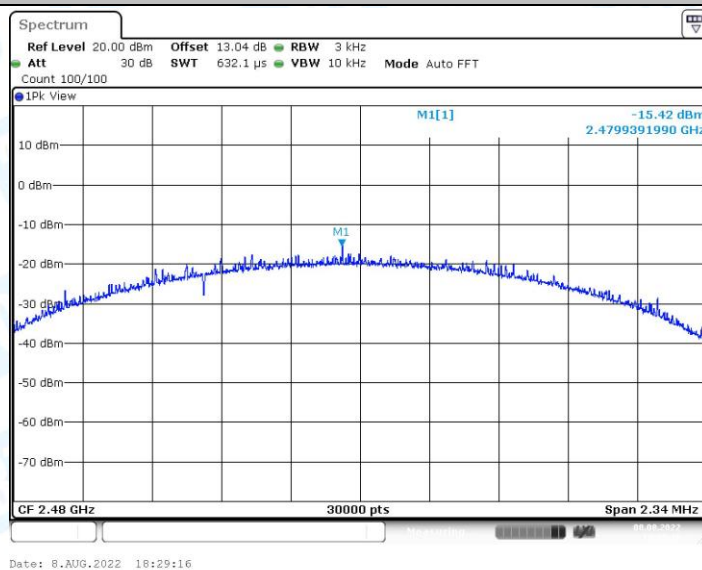
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



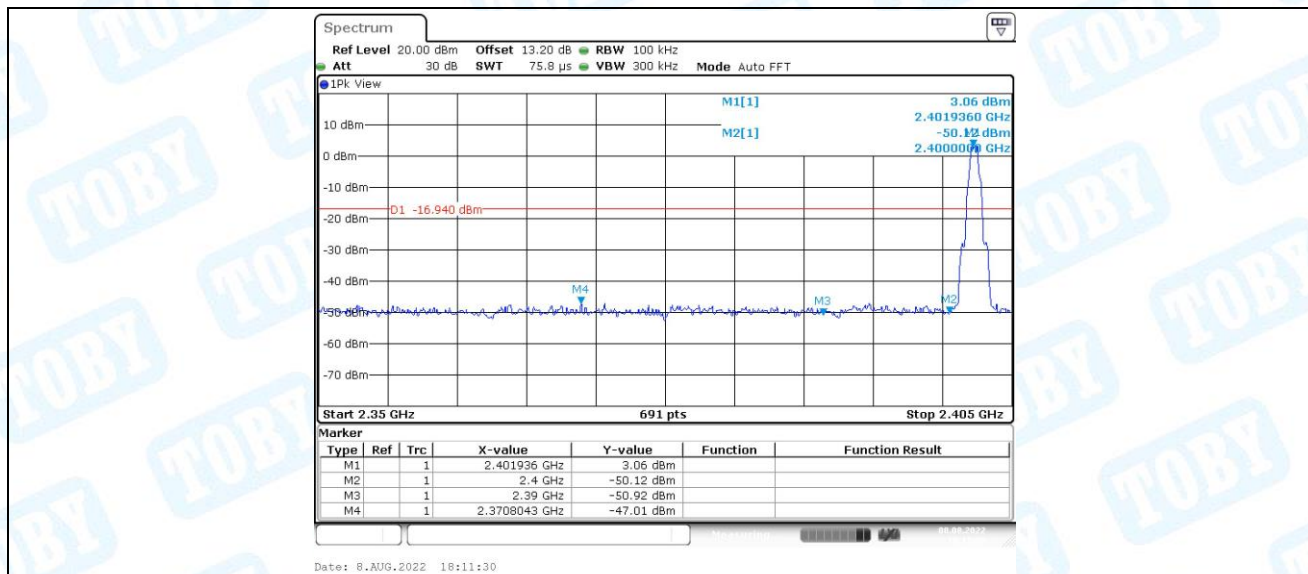
BLE_2M_Ant1_2480

5. Band edge measurements

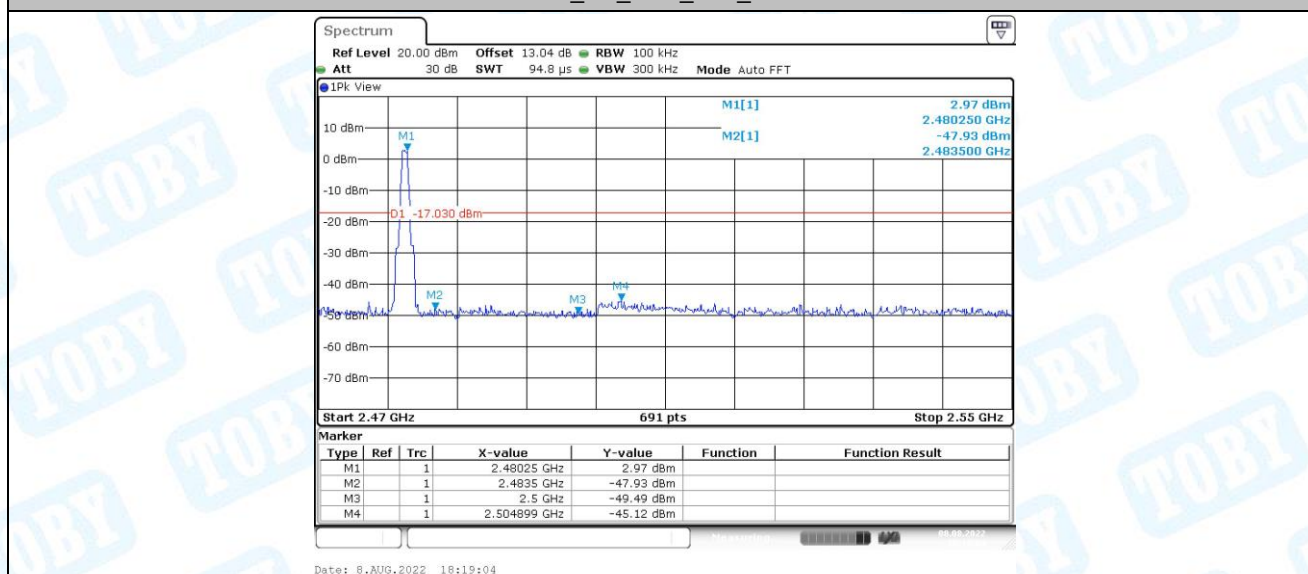
5.1. Test Result

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

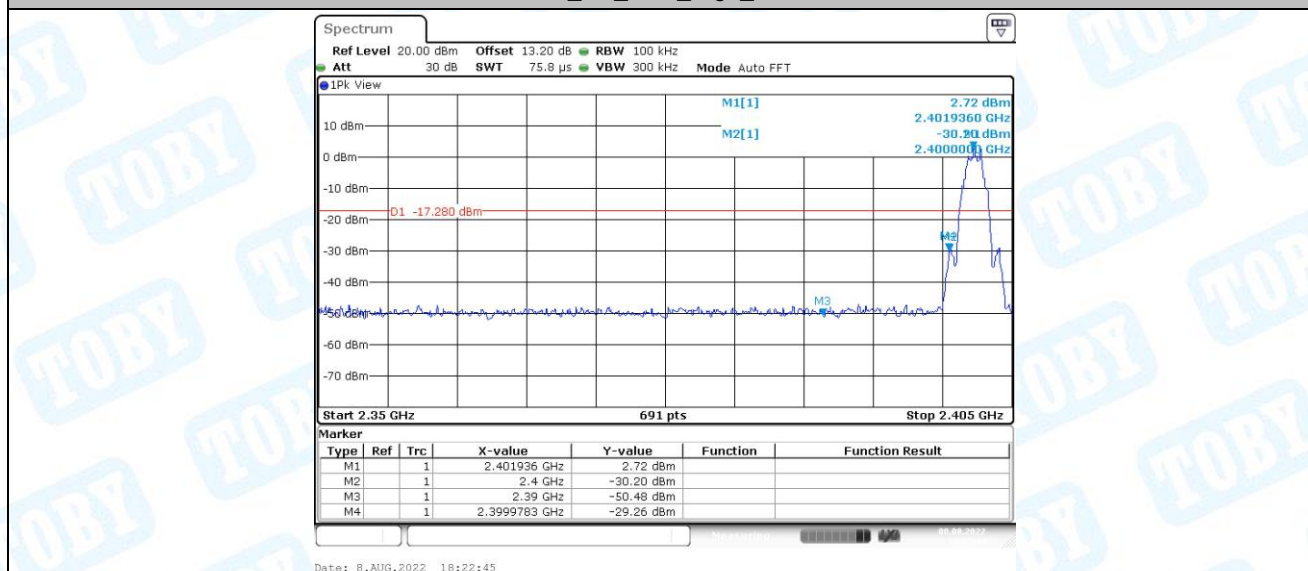
5.2. Test Graphs



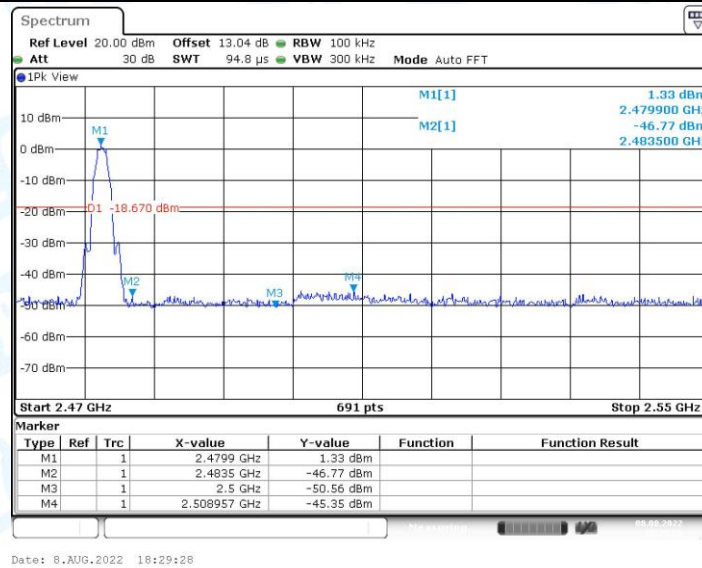
BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480

6. Conducted Spurious Emission

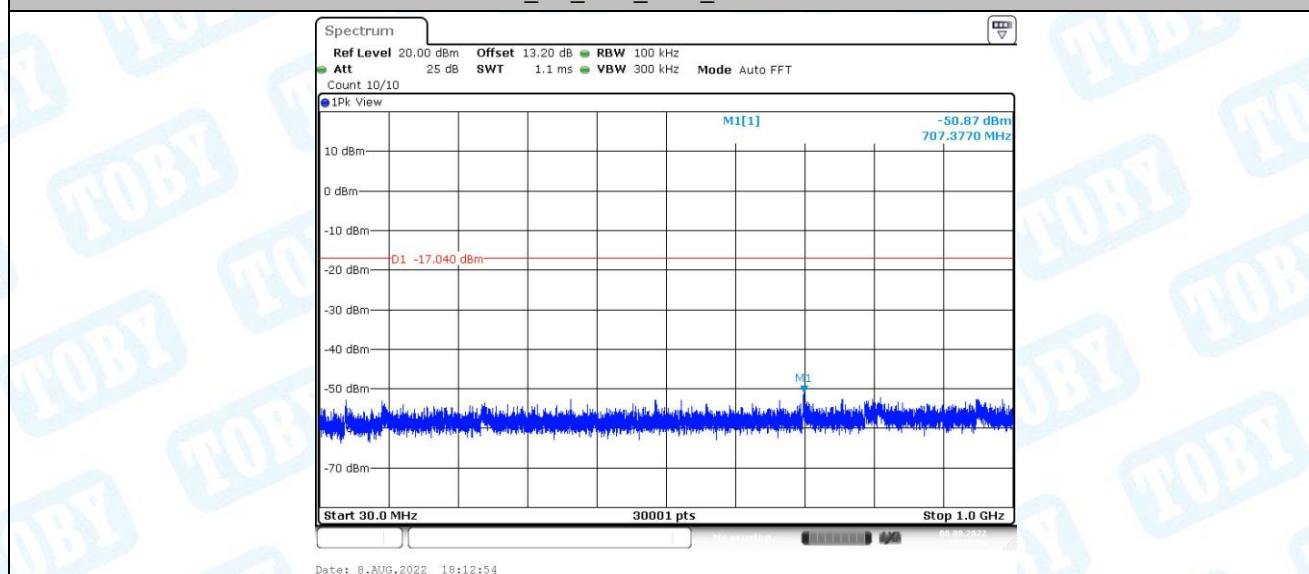
6.1. Test Result

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

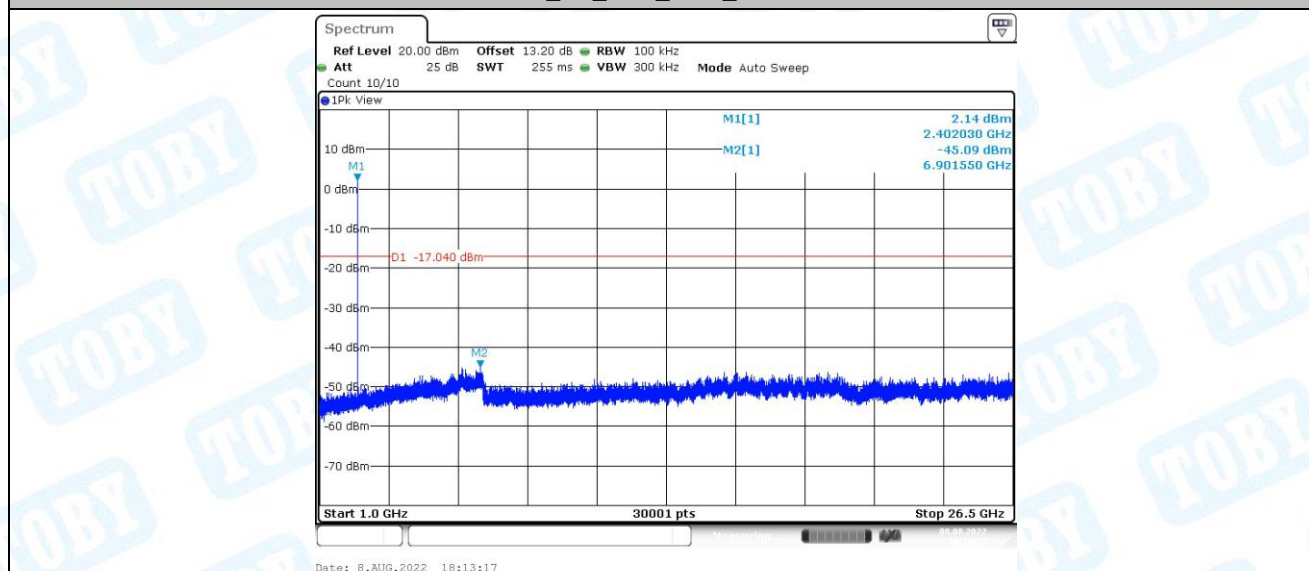
6.2. Test Graphs



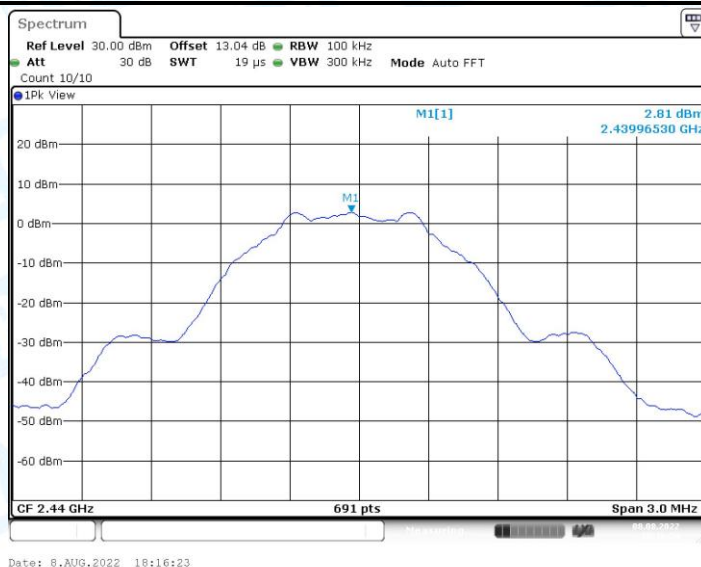
BLE_1M_Ant1_2402_0~Reference



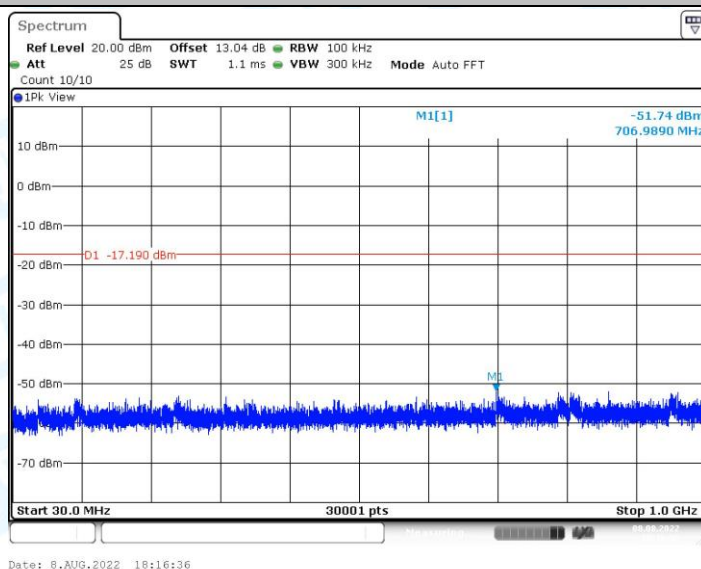
BLE_1M_Ant1_2402_30~1000



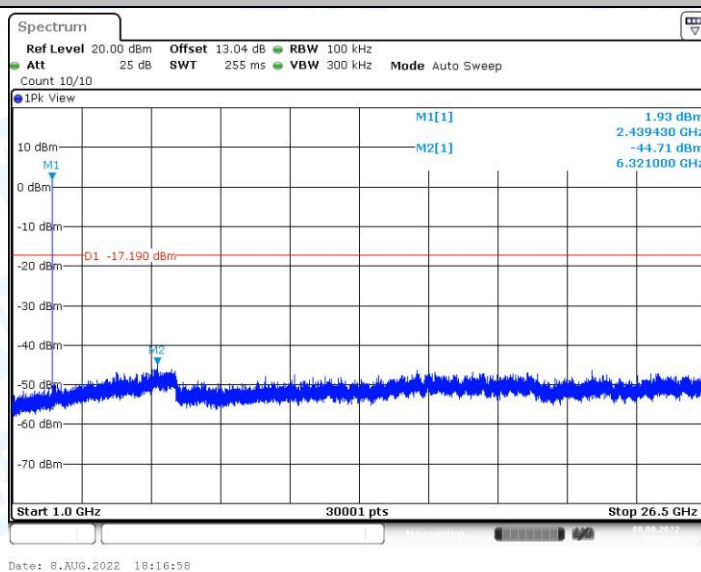
BLE_1M_Ant1_2402_1000~26500



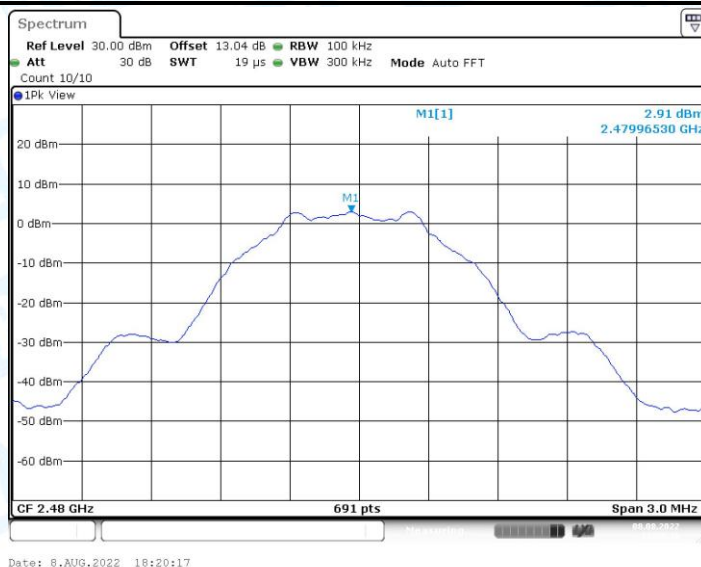
BLE_1M_Ant1_2440_0~Reference



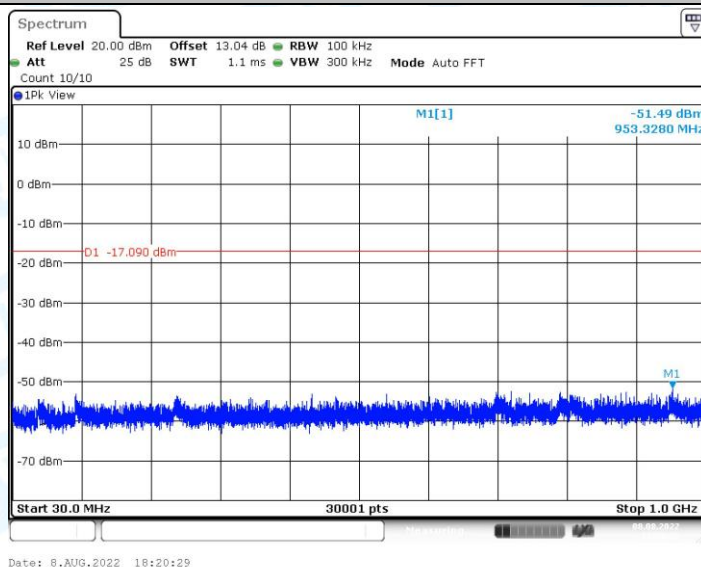
BLE_1M_Ant1_2440_30~1000



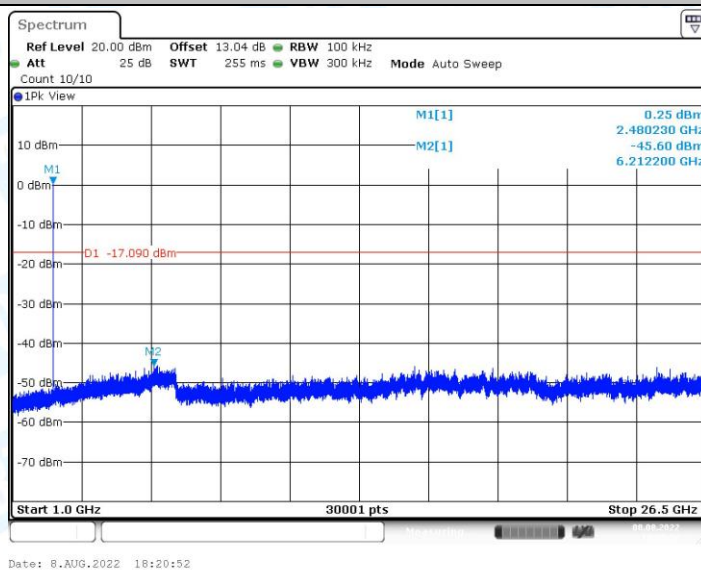
BLE_1M_Ant1_2440_1000~26500



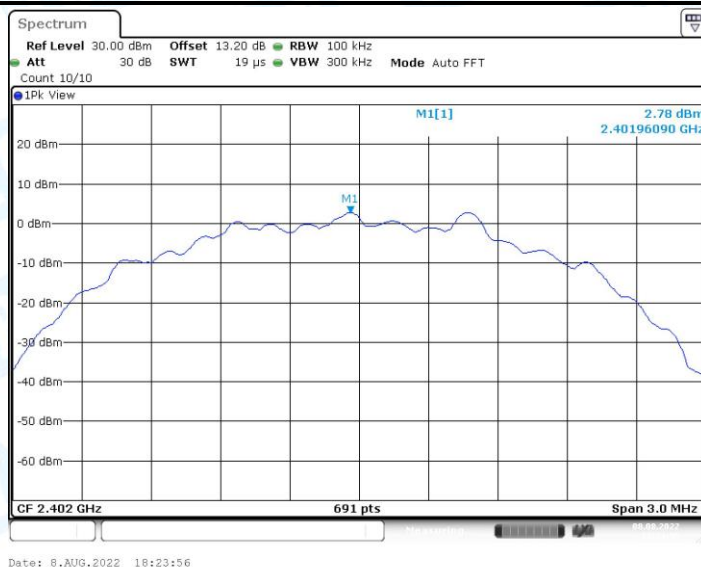
BLE_1M_Ant1_2480_0~Reference



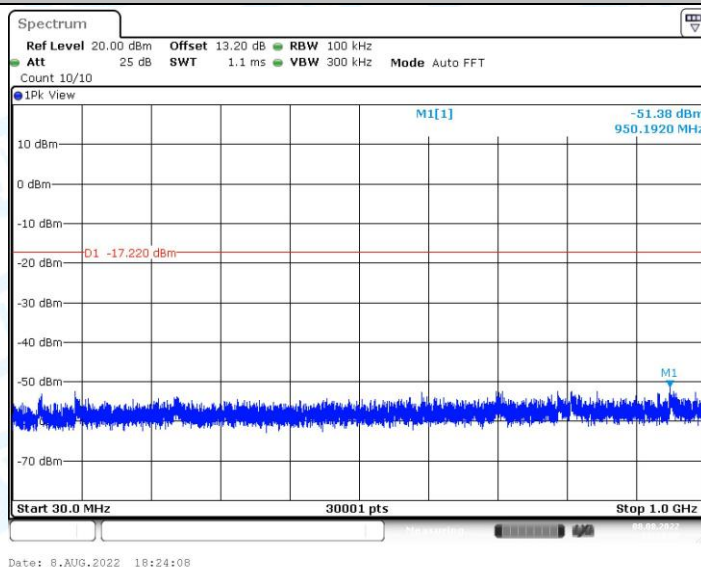
BLE_1M_Ant1_2480_30~1000



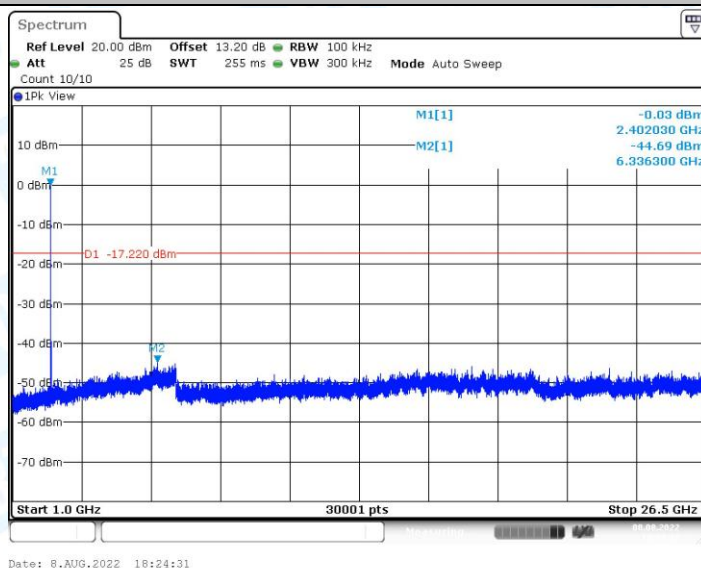
BLE_1M_Ant1_2480_1000~26500



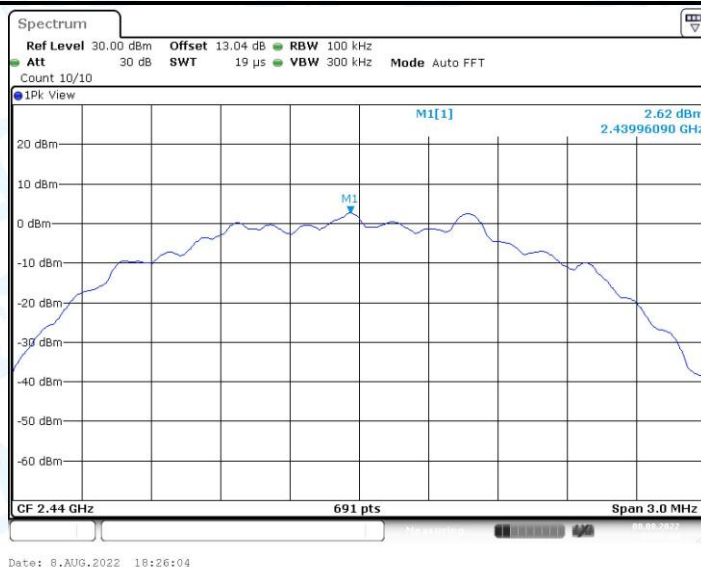
BLE_2M_Ant1_2402_0~Reference



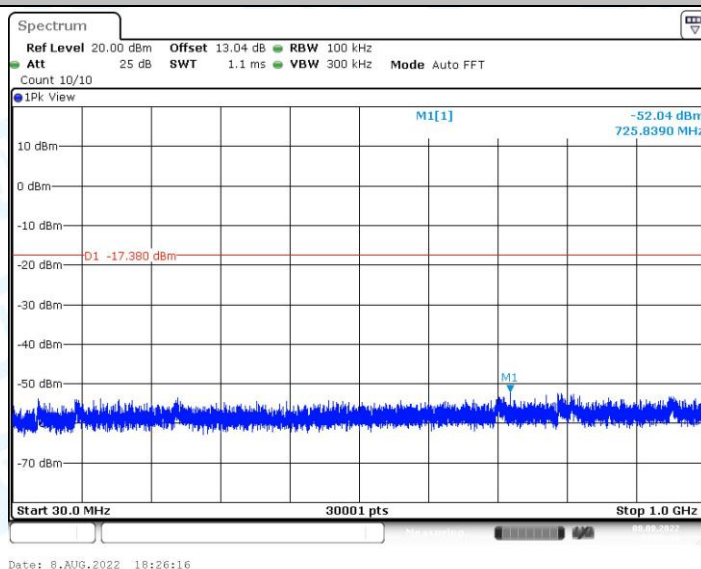
BLE_2M_Ant1_2402_30~1000



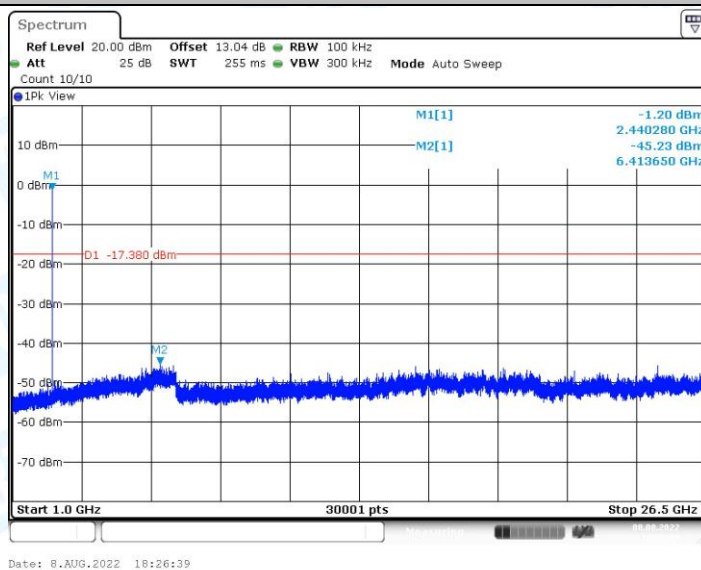
BLE_2M_Ant1_2402_1000~26500



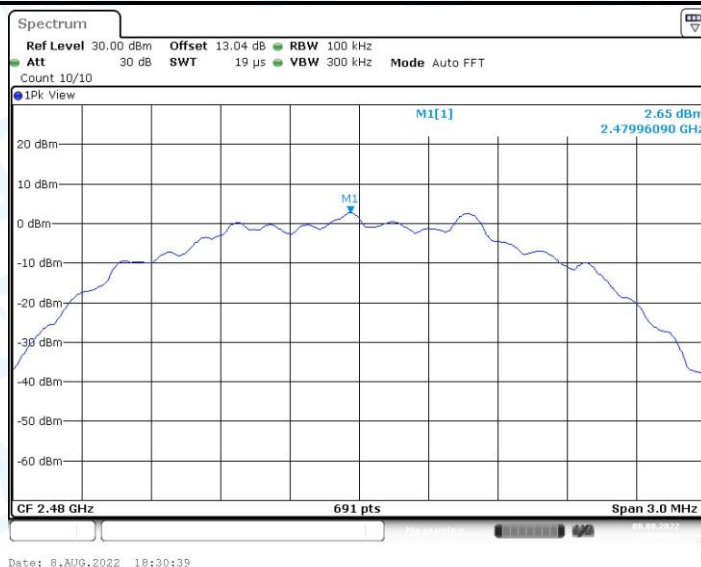
BLE_2M_Ant1_2440_0~Reference



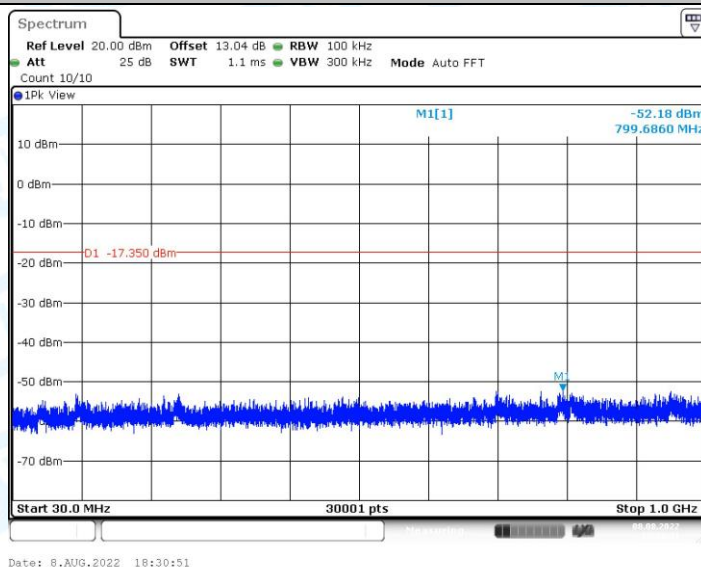
BLE_2M_Ant1_2440_30~1000



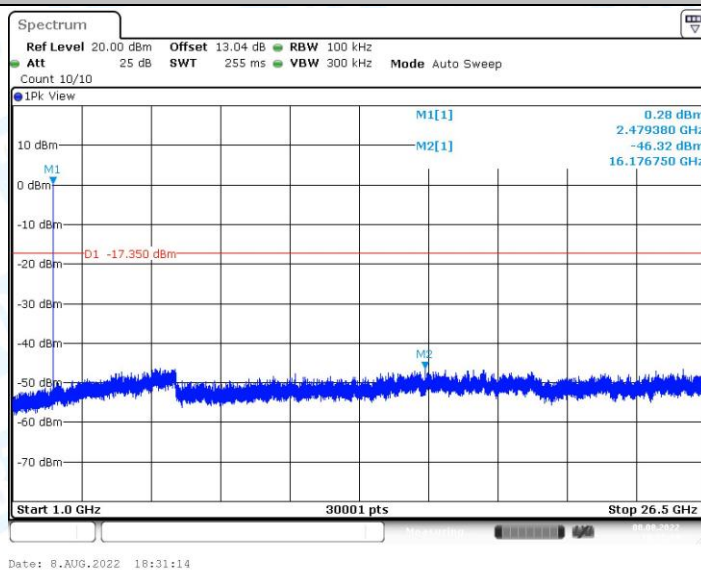
BLE_2M_Ant1_2440_1000~26500



BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



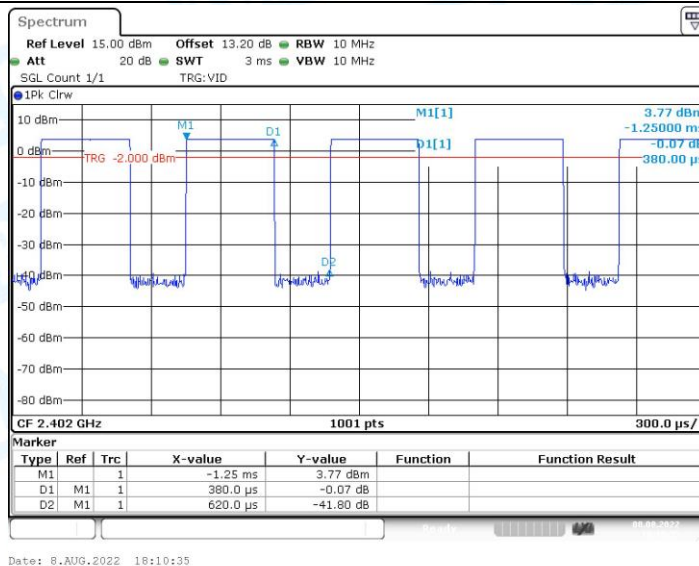
BLE_2M_Ant1_2480_1000~26500

7. Duty Cycle

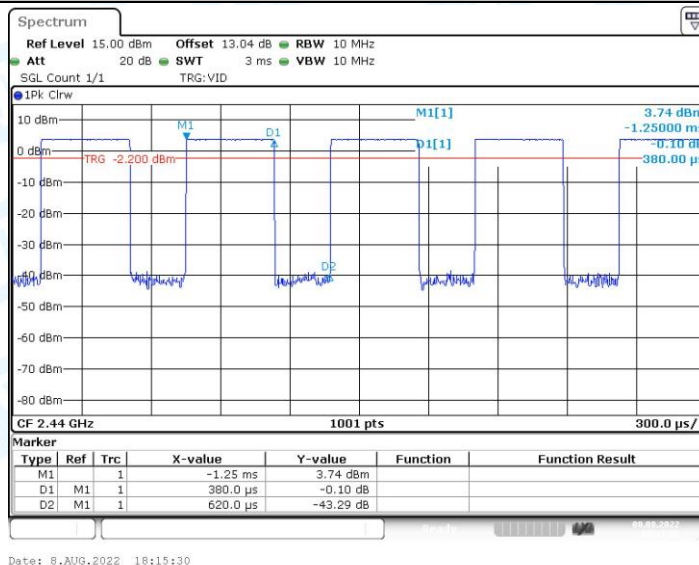
7.1. Test Result

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	---	---

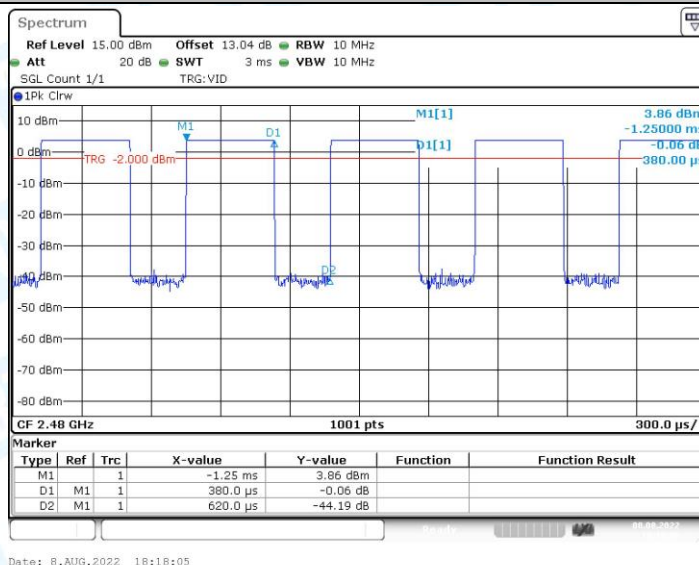
7.2. Test Graphs



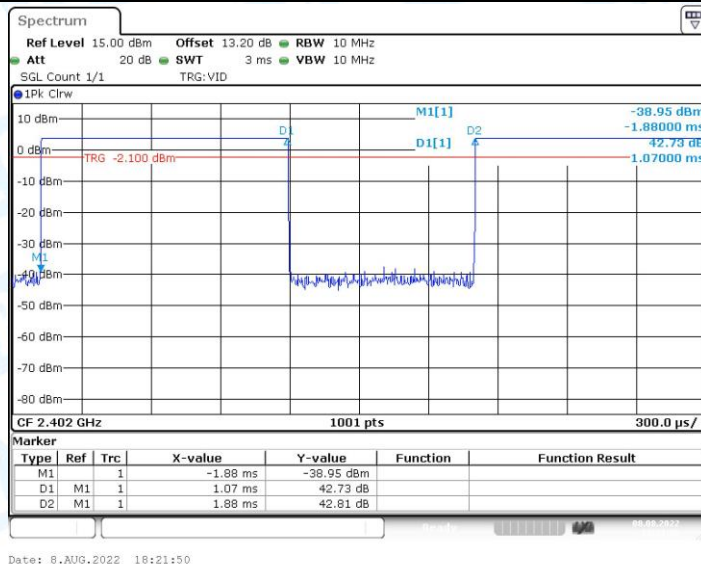
BLE_1M_Ant1_2402



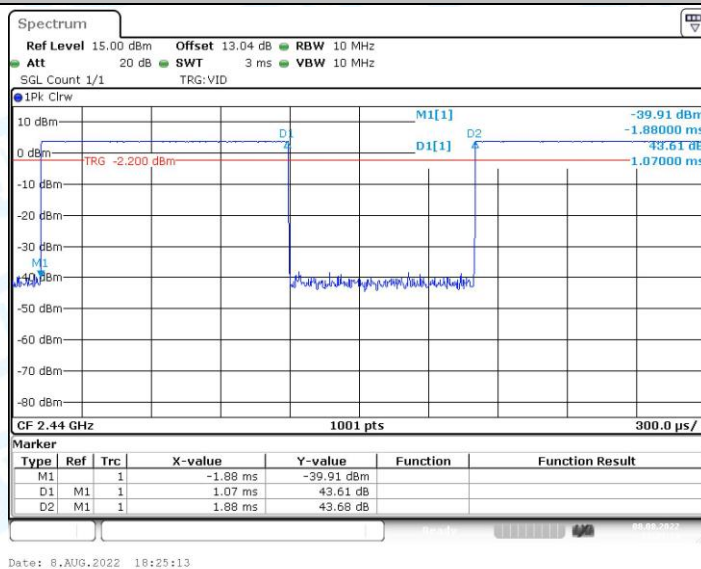
BLE_1M_Ant1_2440



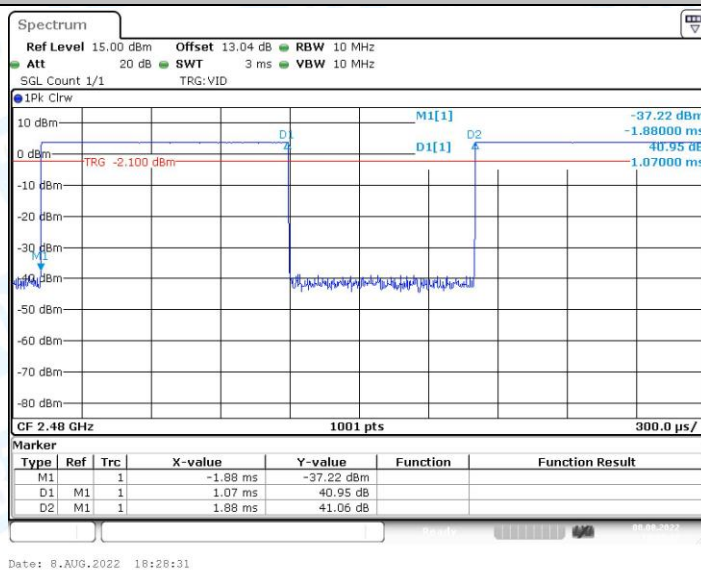
BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

8. Emissions in Restricted Bands

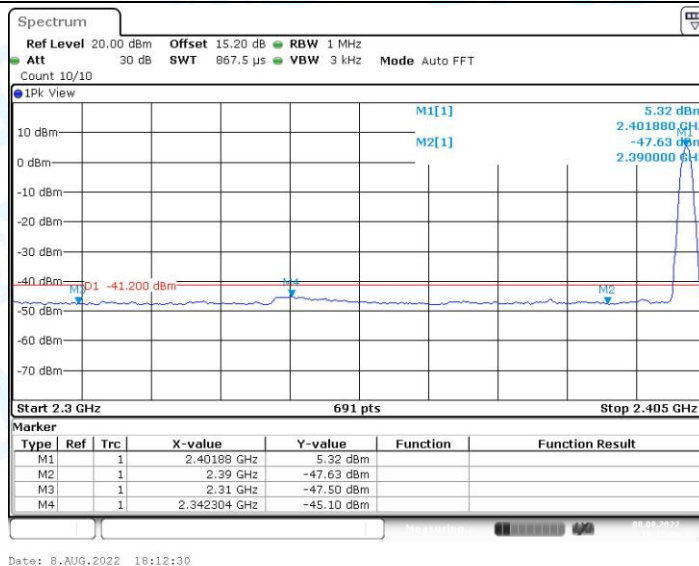
8.1. Test Result

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

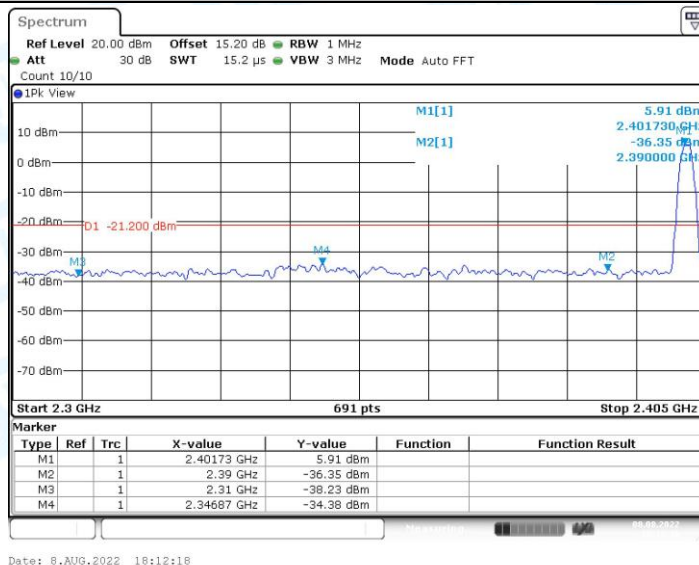
Note:

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.

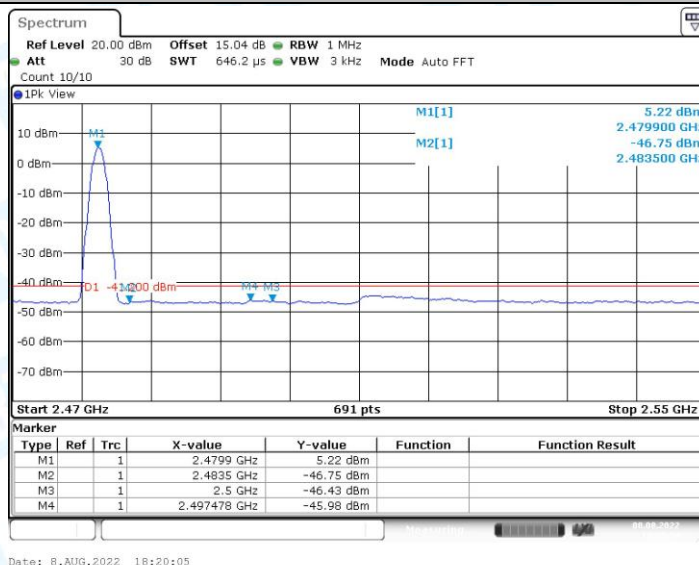
8.2. Test Graphs



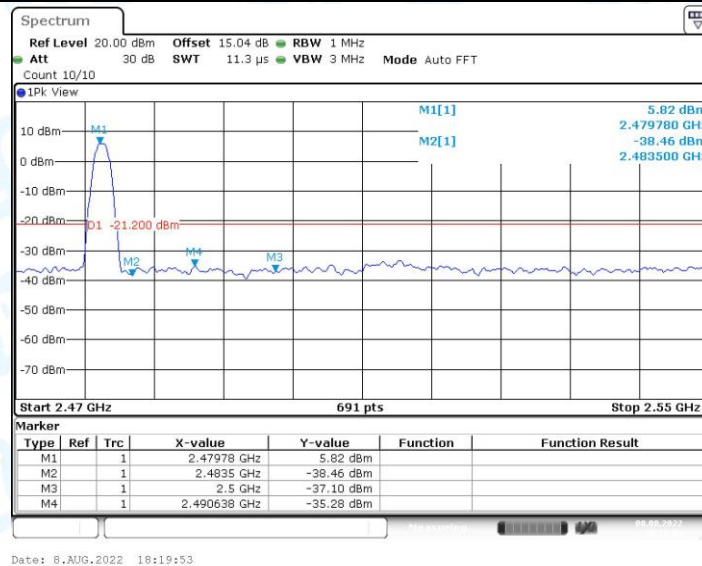
BLE_1M_Ant1_Low_2402_AV



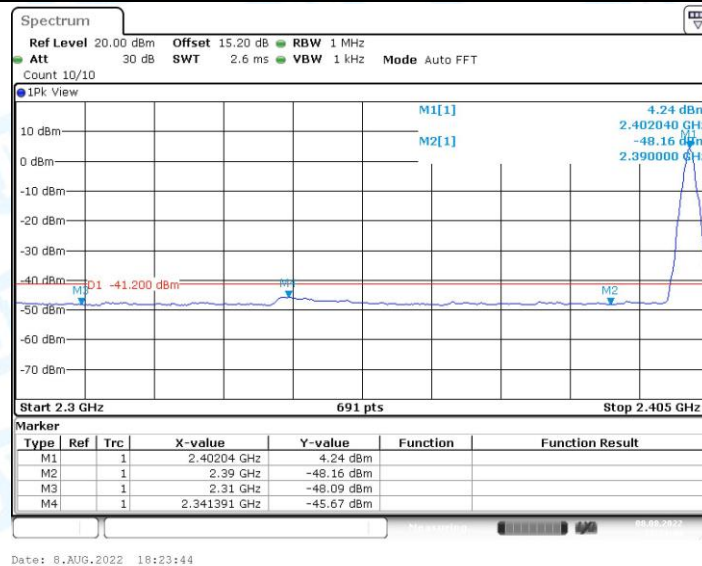
BLE_1M_Ant1_Low_2402_Peak



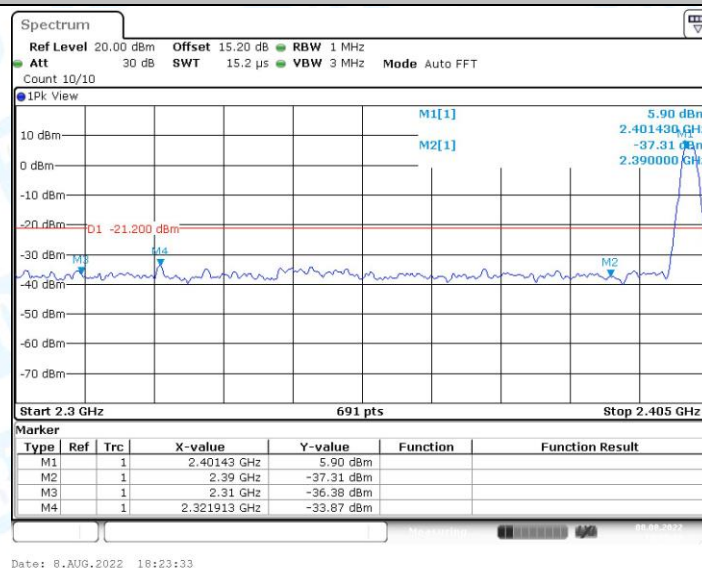
BLE_1M_Ant1_High_2480_AV



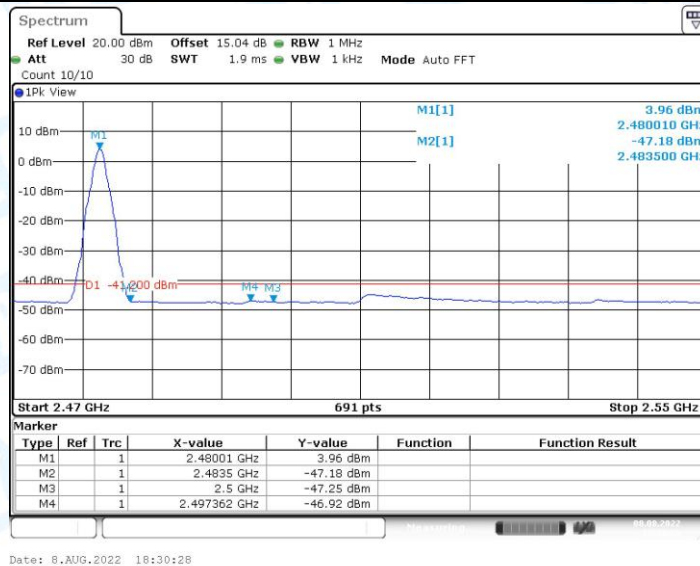
BLE_1M_Ant1_High_2480_Peak



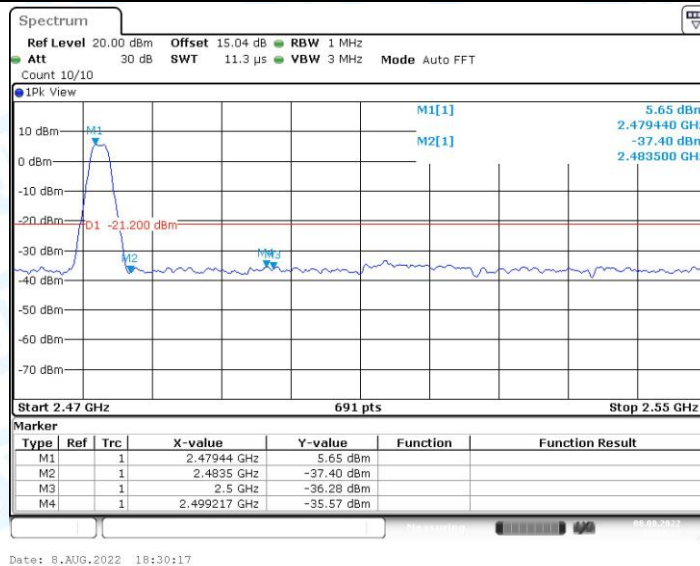
BLE_2M_Ant1_Low_2402_AV



BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak

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