

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	COB LED Video Light
Test Model:	RC350D
Sample ID:	202209-0099-1-02
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 5V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202209-0099-16	

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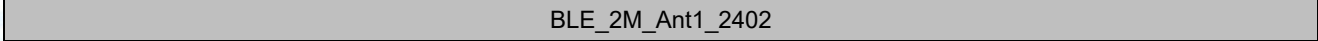
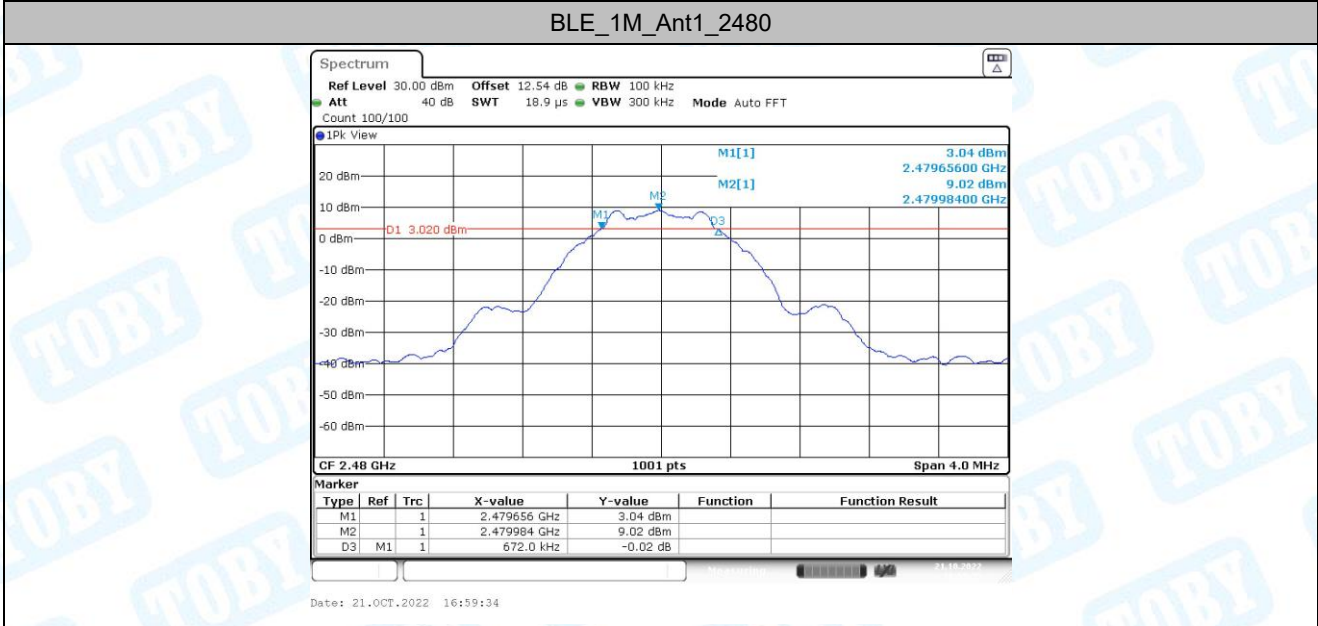
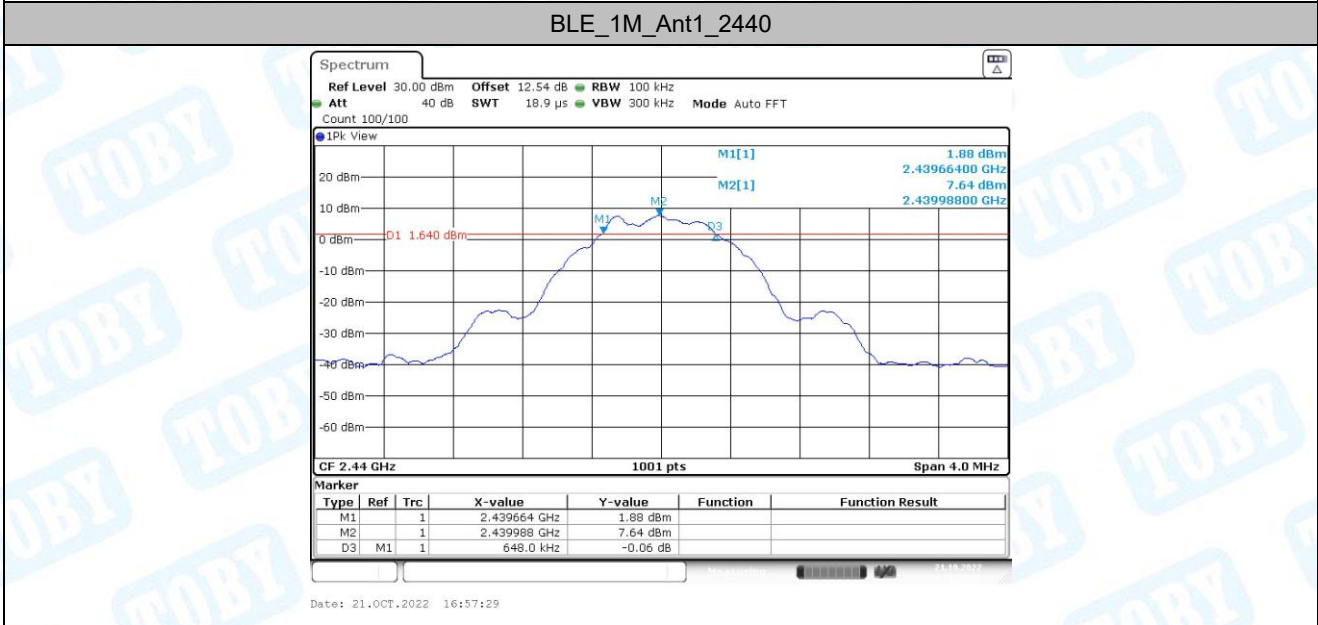
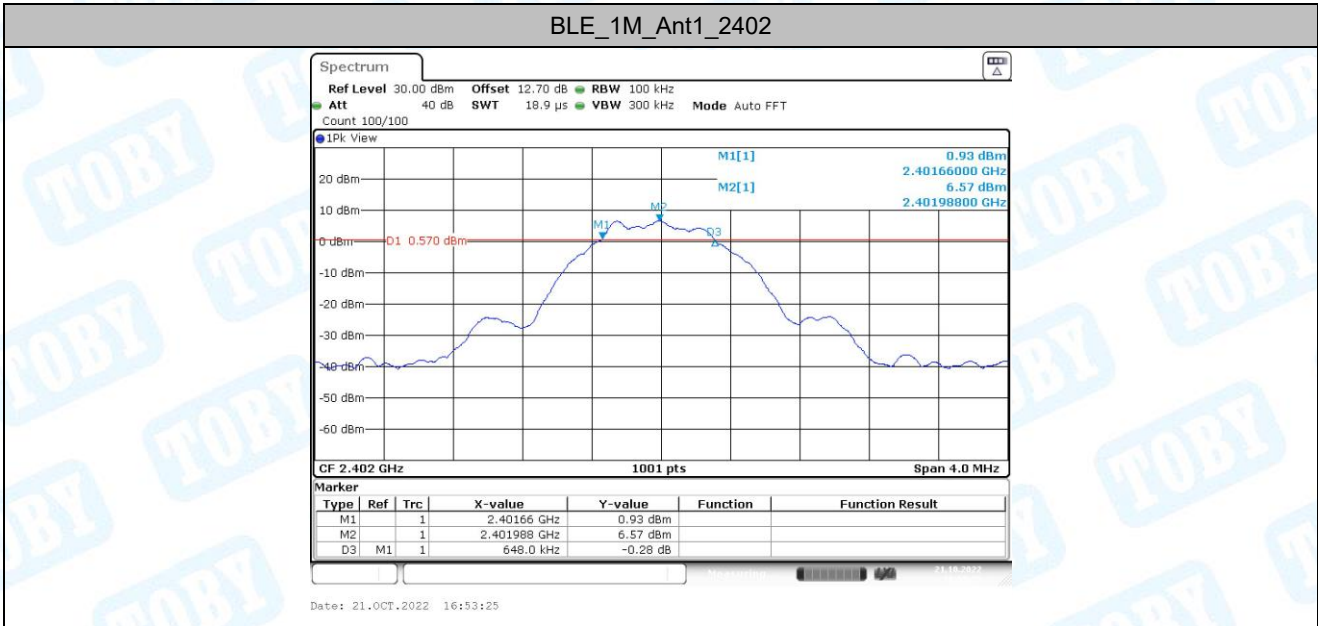
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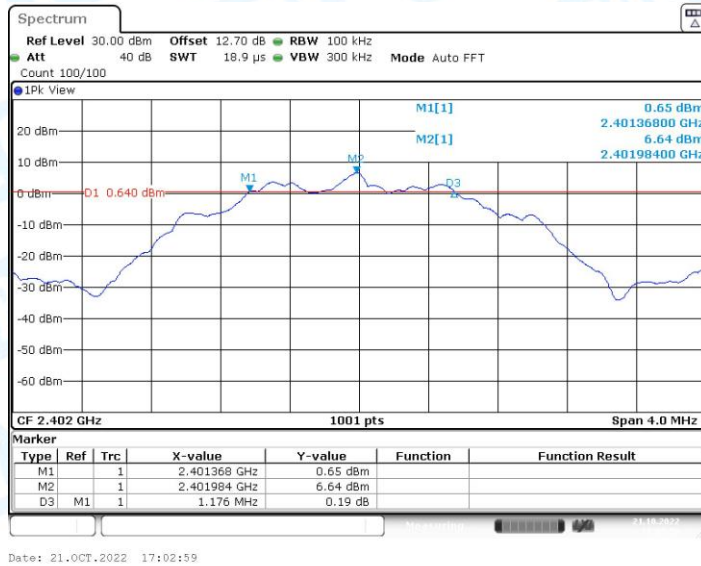
1. DTS Bandwidth

1.1. Test Result

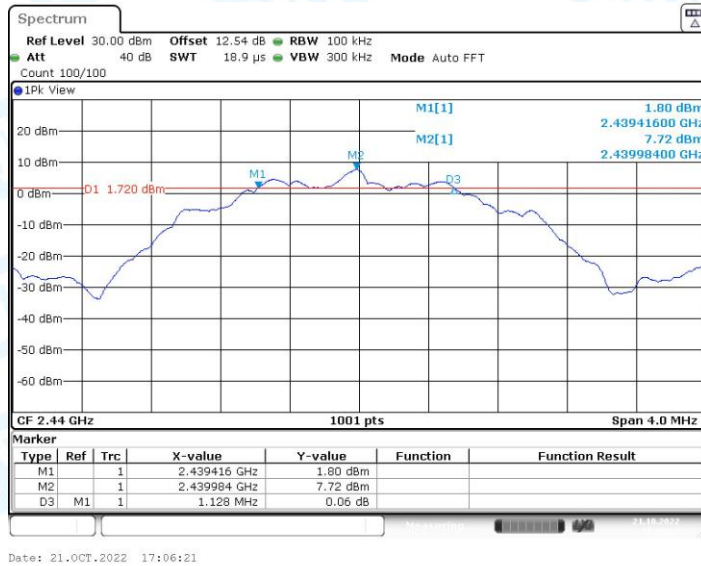
Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.65	2401.66	2402.31	0.5	PASS
		2440	0.65	2439.66	2440.31	0.5	PASS
		2480	0.67	2479.66	2480.33	0.5	PASS
BLE_2M	Ant1	2402	1.18	2401.37	2402.54	0.5	PASS
		2440	1.13	2439.42	2440.54	0.5	PASS
		2480	0.96	2479.42	2480.38	0.5	PASS

1.2. Test Graphs

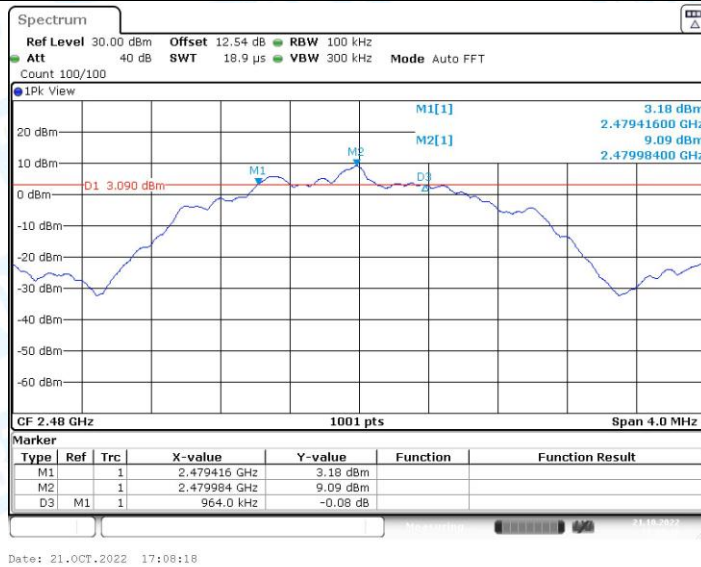




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

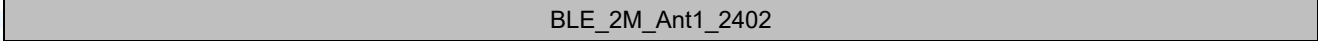
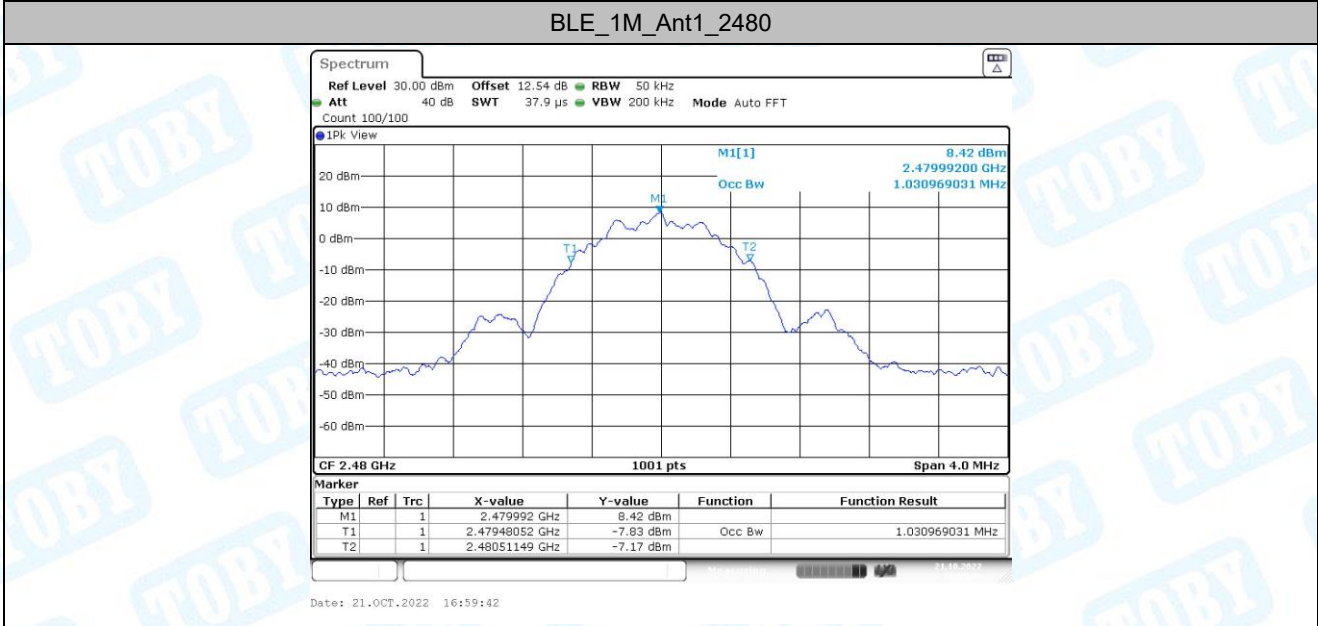
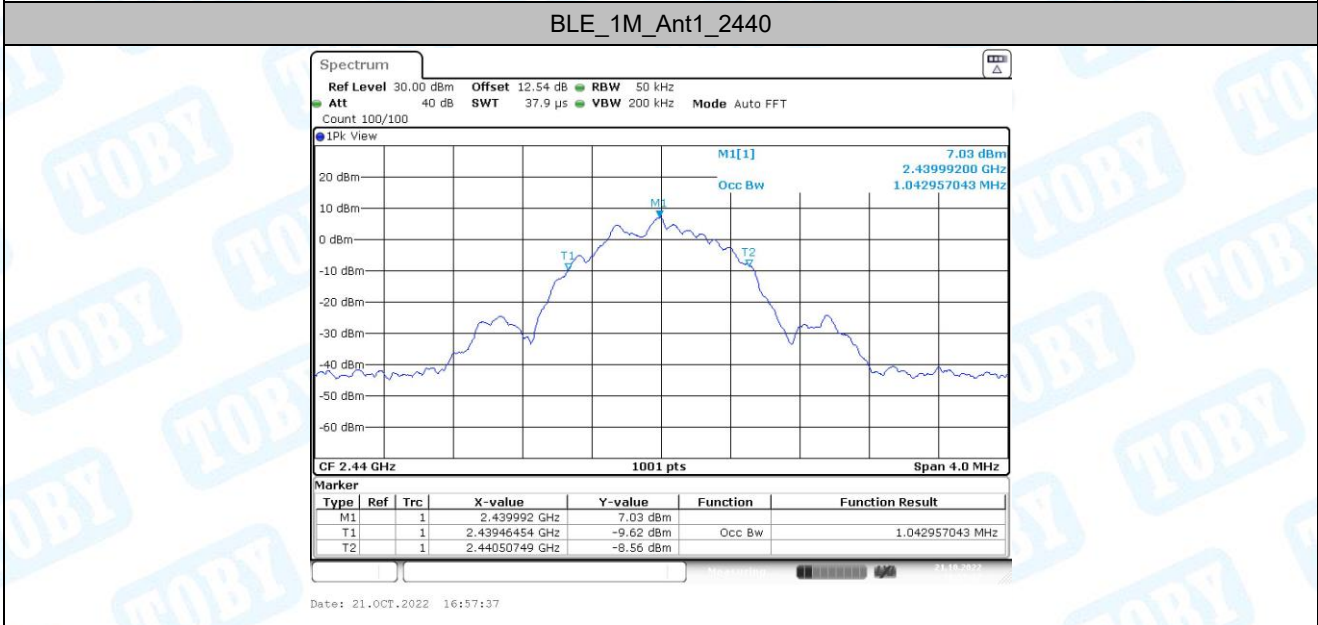
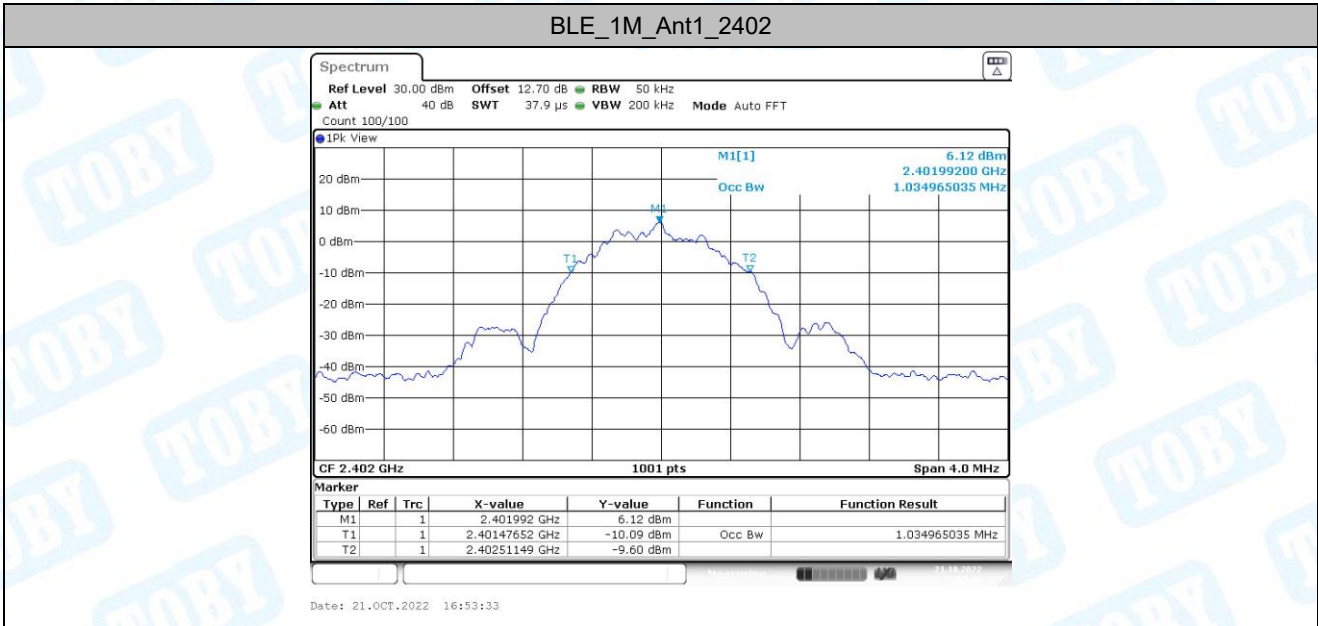


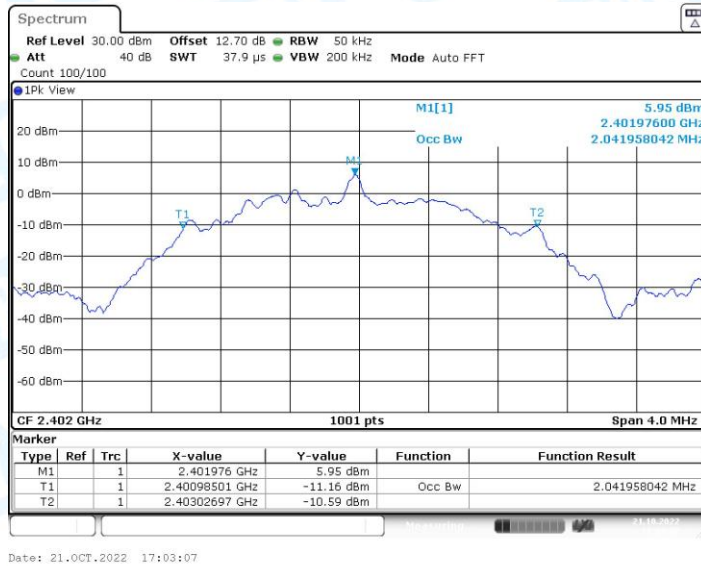
2. Occupied Channel Bandwidth

2.1. Test Result

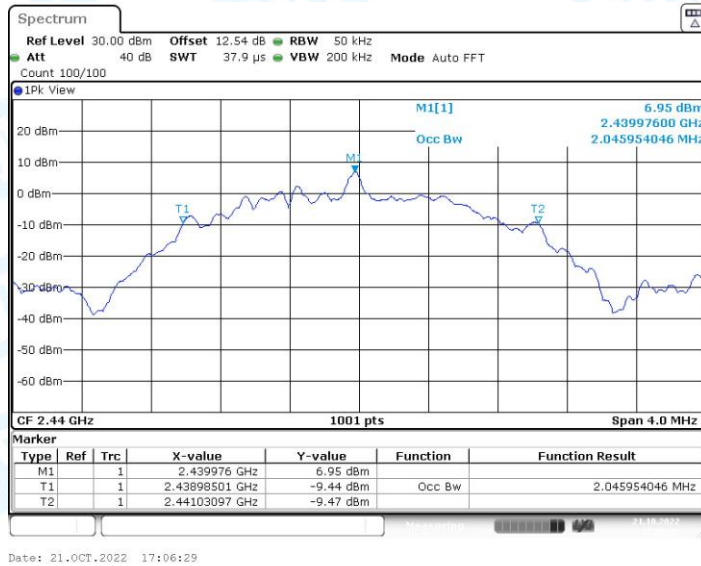
Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.035	2401.4765	2402.5115	---	---
		2440	1.043	2439.4645	2440.5075	---	---
		2480	1.031	2479.4805	2480.5115	---	---
BLE_2M	Ant1	2402	2.042	2400.9850	2403.0270	---	---
		2440	2.046	2438.9850	2441.0310	---	---
		2480	2.062	2478.9770	2481.0390	---	---

2.2. Test Graphs

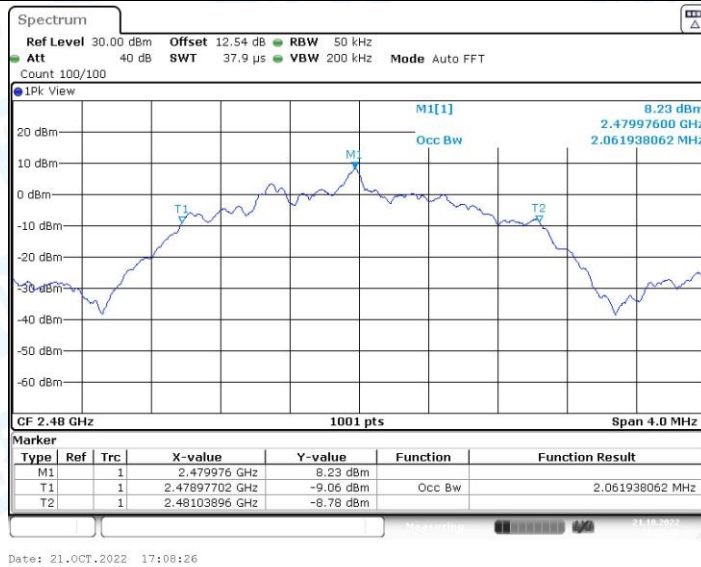




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

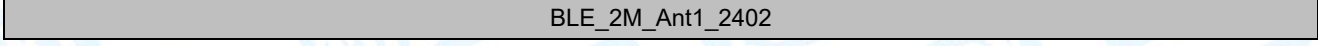
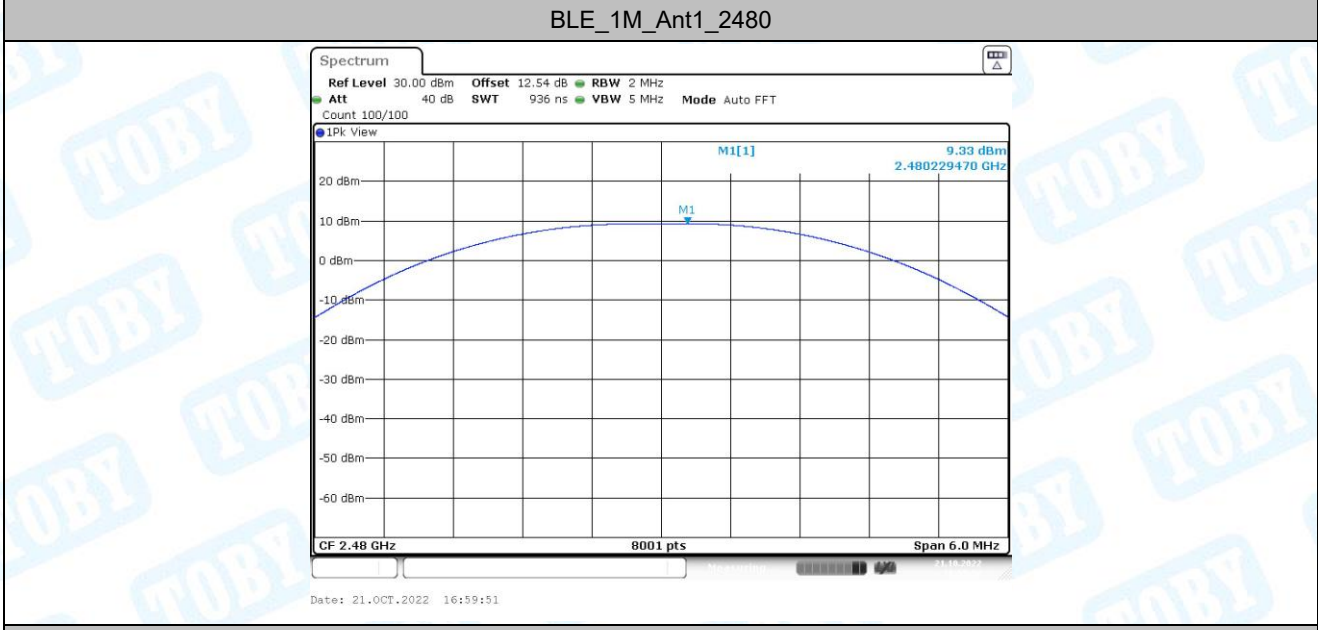
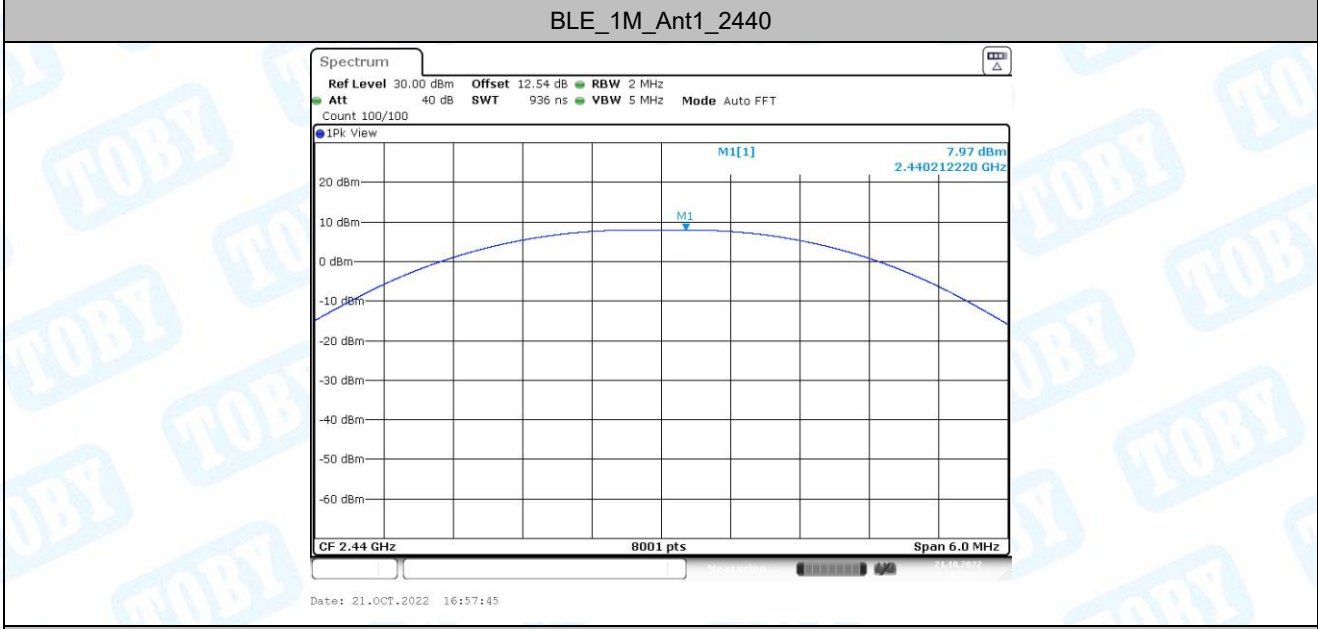


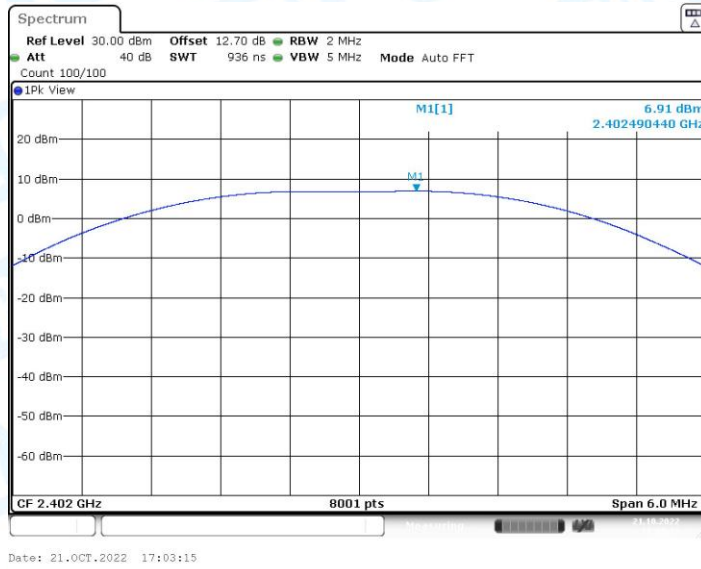
3. Maximum conducted output power

3.1. Test Result

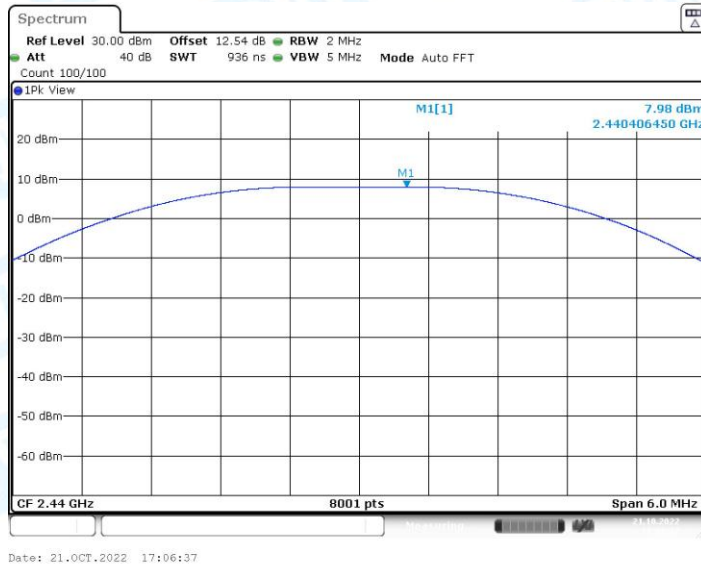
Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	6.93	≤30	PASS
		2440	7.97	≤30	PASS
		2480	9.33	≤30	PASS
BLE_2M	Ant1	2402	6.91	≤30	PASS
		2440	7.98	≤30	PASS
		2480	9.31	≤30	PASS

3.2. Test Graphs

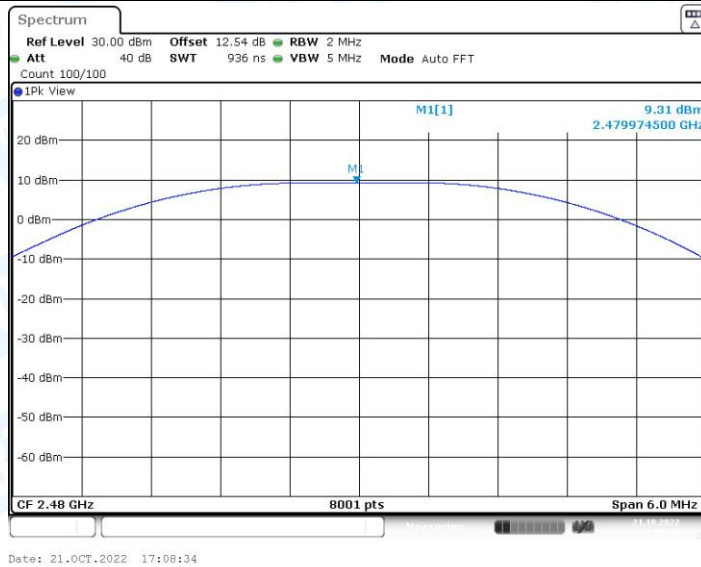




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

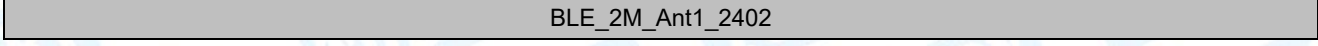
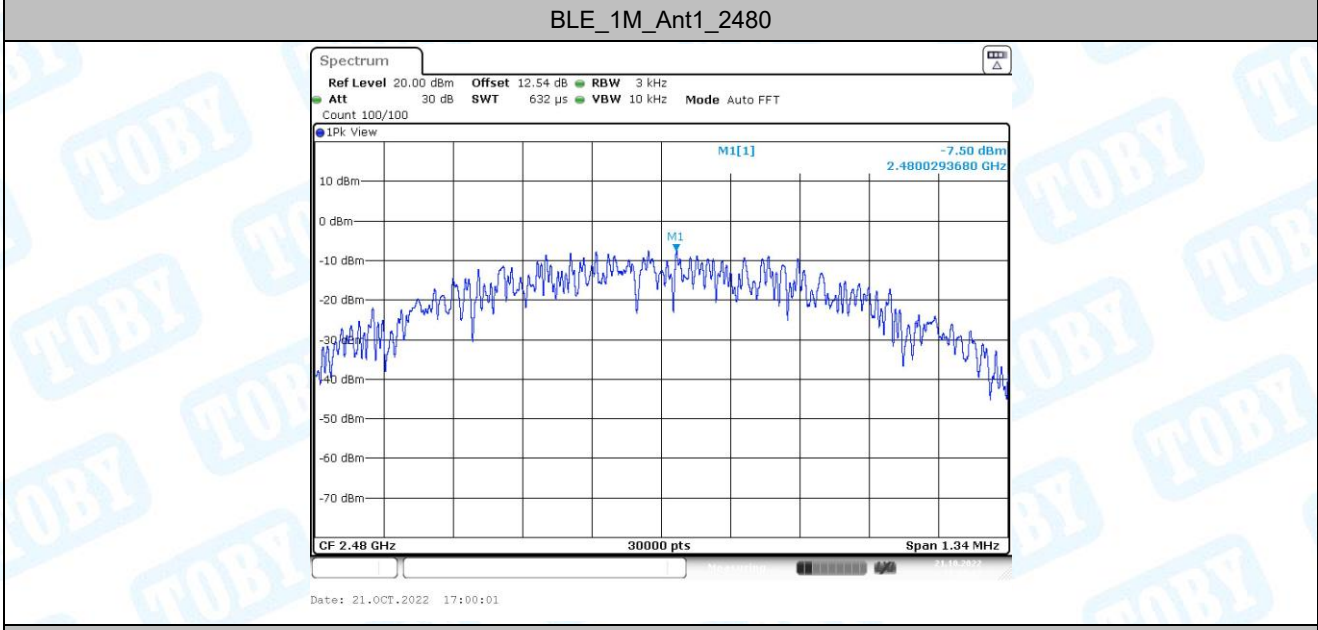
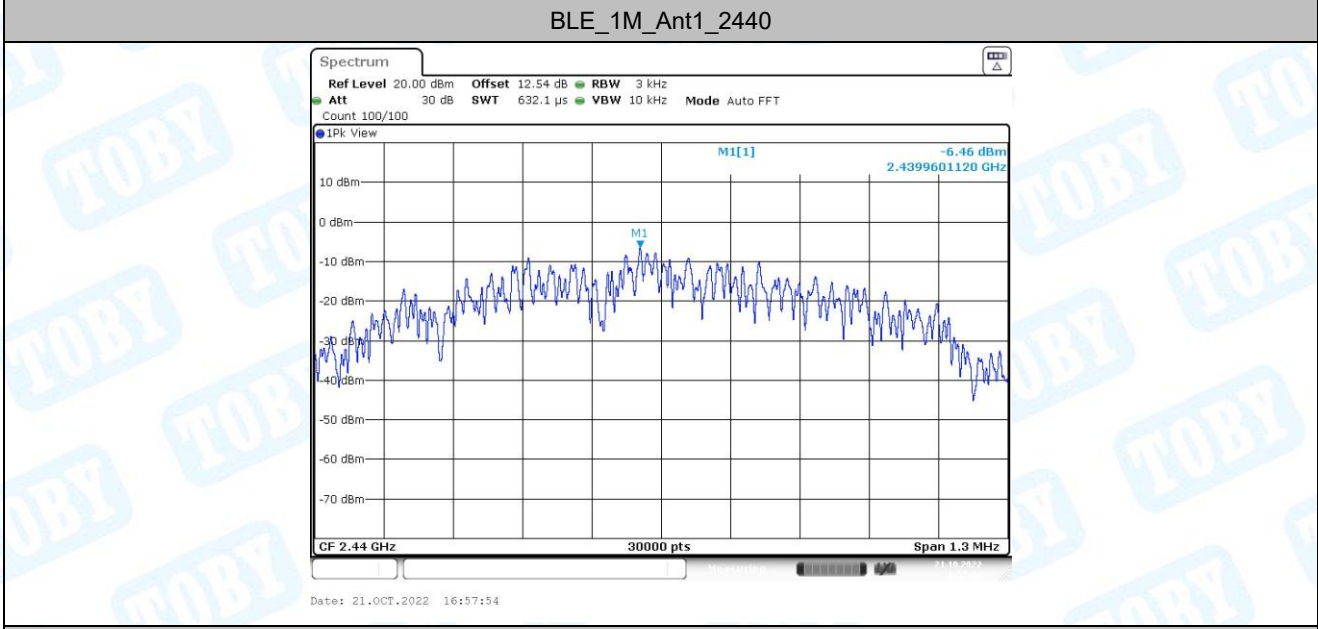
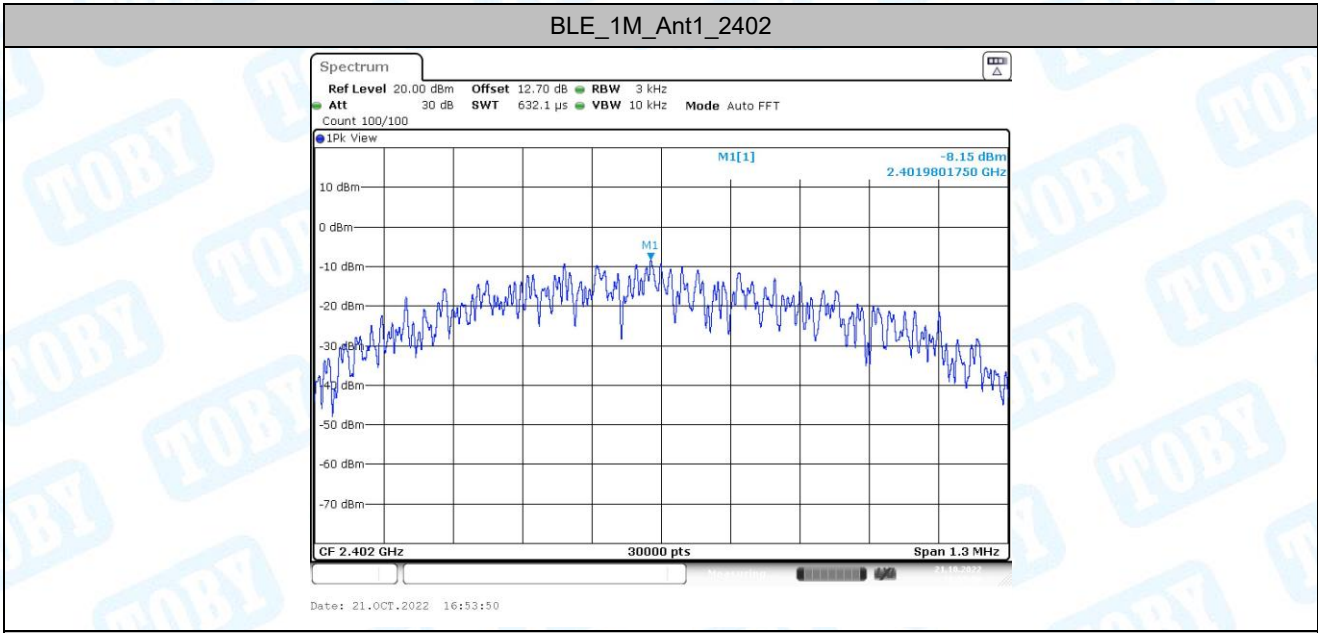


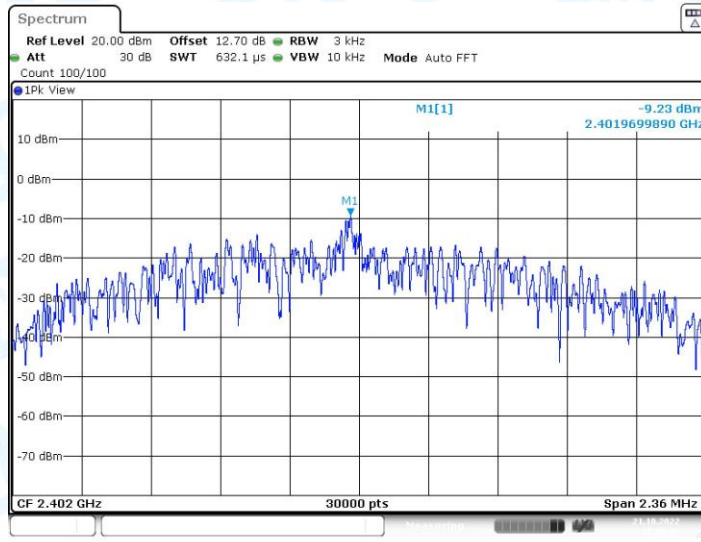
4. Maximum power spectral density

4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.15	≤8.00	PASS
		2440	-6.46	≤8.00	PASS
		2480	-7.5	≤8.00	PASS
BLE_2M	Ant1	2402	-9.23	≤8.00	PASS
		2440	-8.63	≤8.00	PASS
		2480	-6.2	≤8.00	PASS

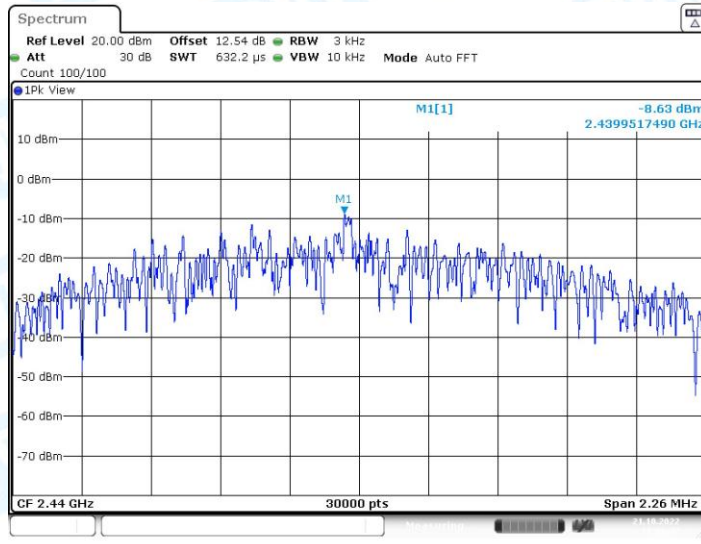
4.2. Test Graphs





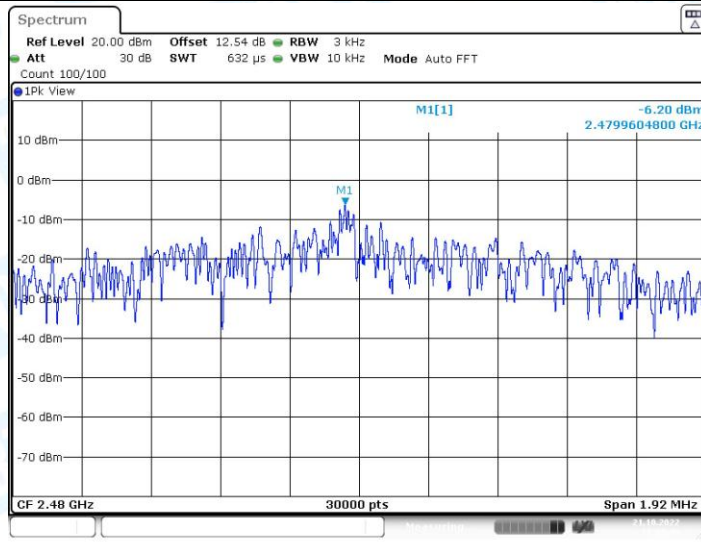
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BLE_2M_Ant1_2440



Date: 21.OCT.2022 17:06:46

BLE_2M_Ant1_2480



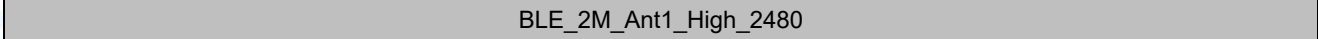
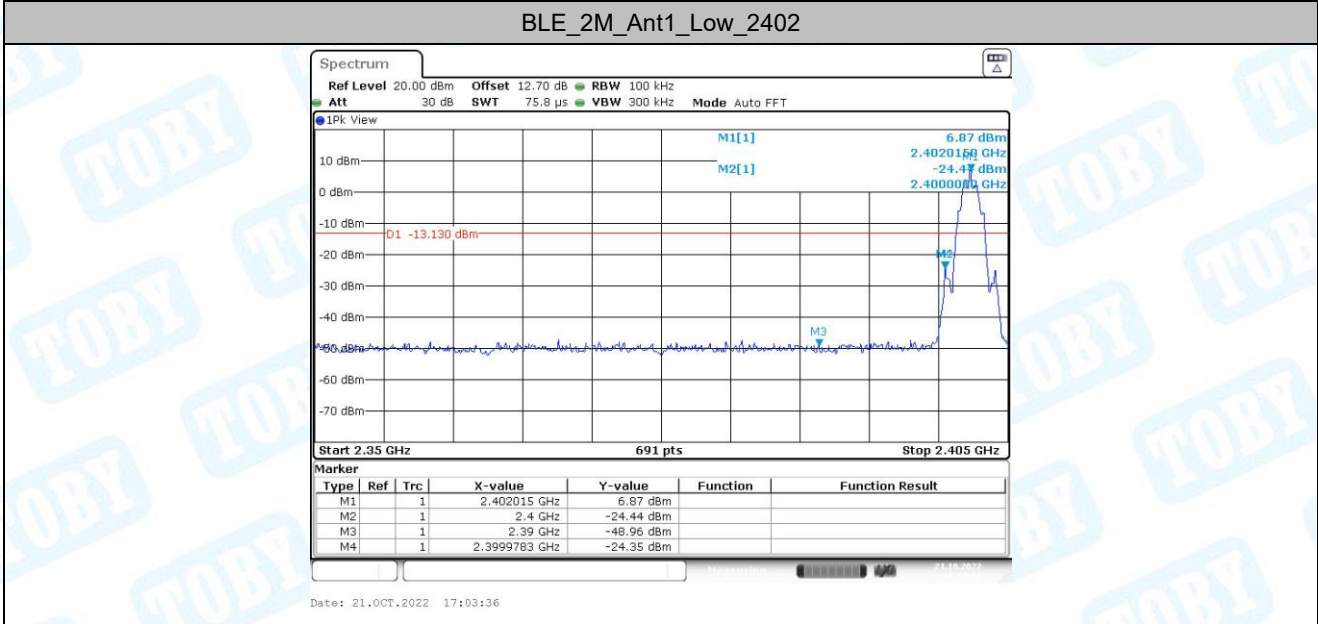
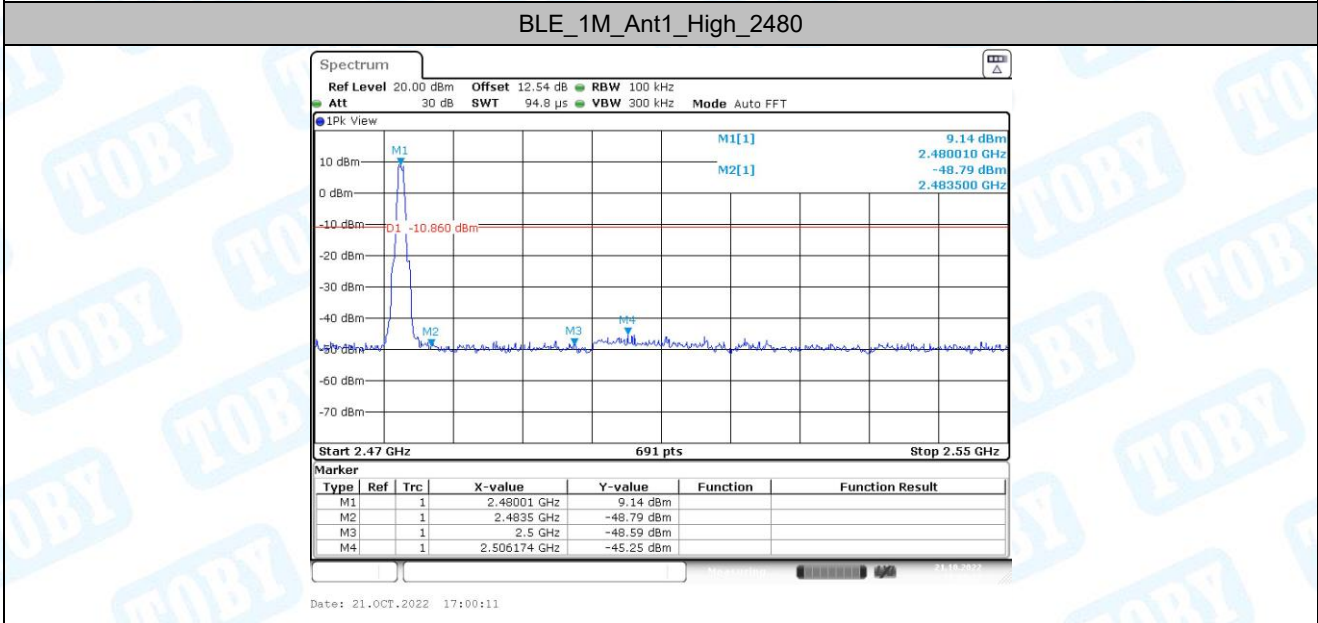
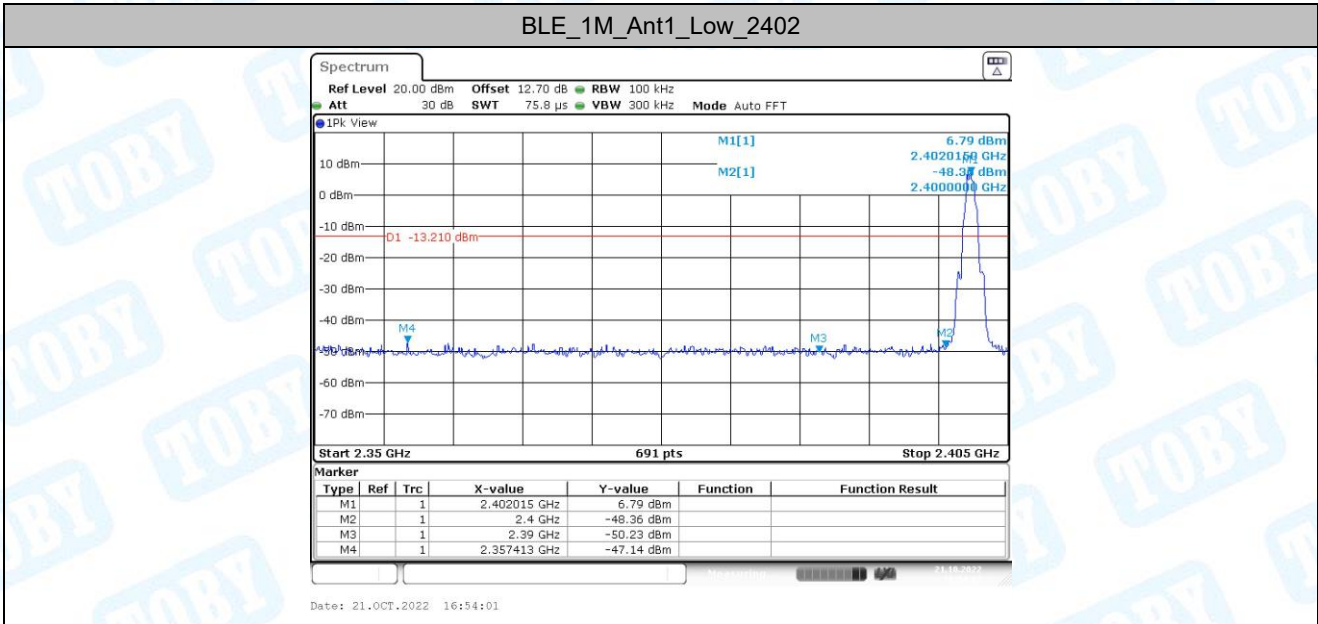
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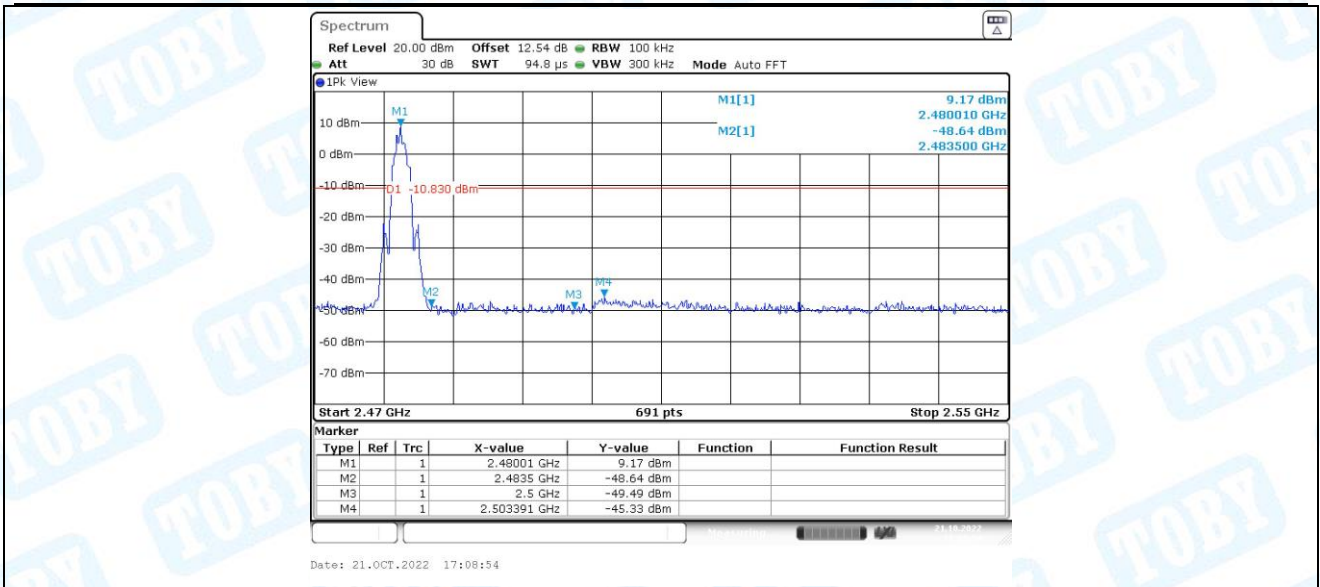
5. Band edge measurements

5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	6.79	-47.14	≤-13.21	PASS
		High	2480	9.14	-45.25	≤-10.86	PASS
BLE_2M	Ant1	Low	2402	6.87	-24.35	≤-13.13	PASS
		High	2480	9.17	-45.33	≤-10.83	PASS

5.2. Test Graphs



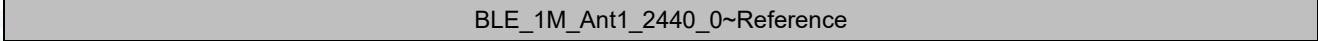
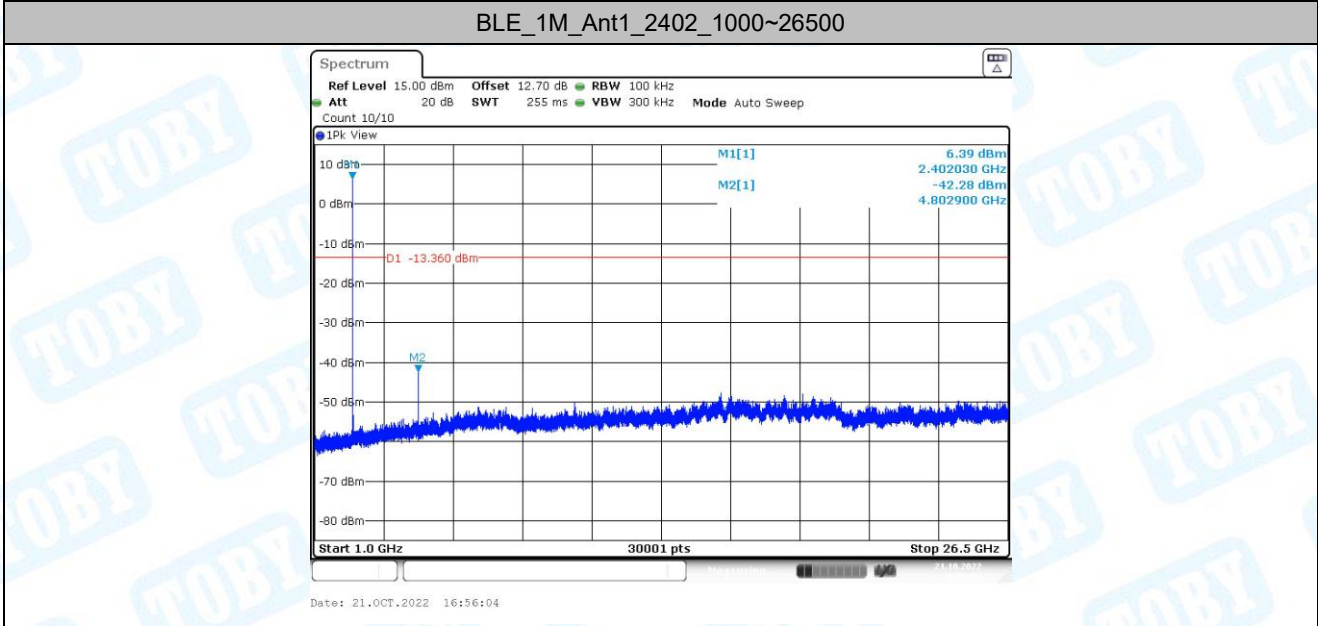
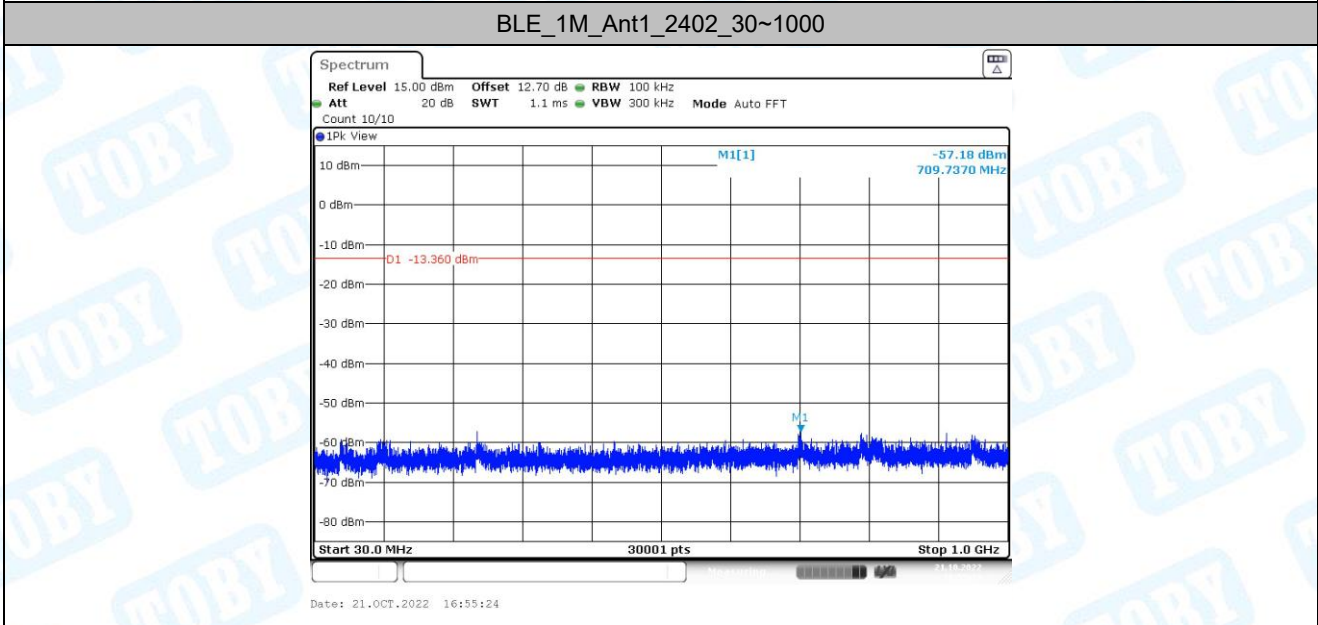
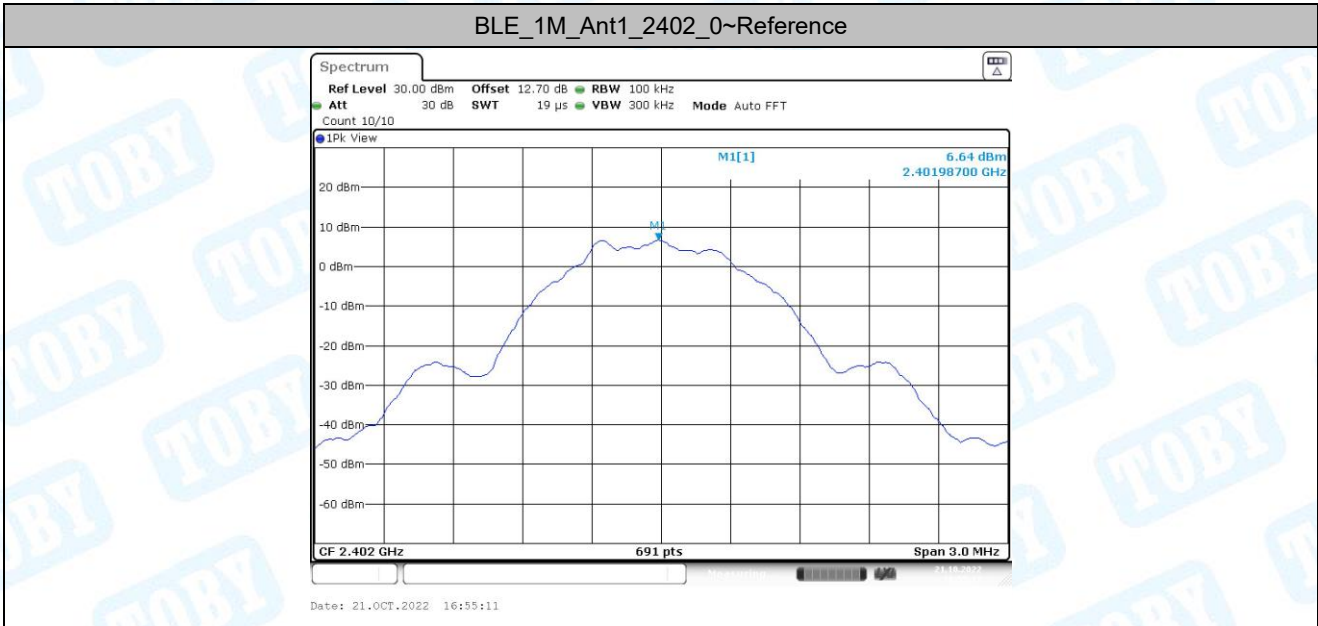


6. Conducted Spurious Emission

6.1. Test Result

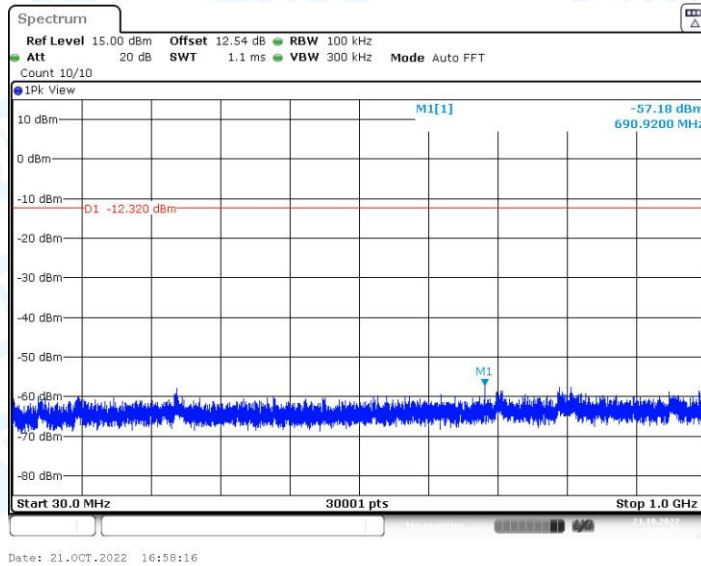
Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	6.64	6.64	---	PASS
			30~1000	6.64	-57.18	≤-13.36	PASS
			1000~26500	6.64	-42.28	≤-13.36	PASS
		2440	Reference	7.68	7.68	---	PASS
			30~1000	7.68	-57.18	≤-12.32	PASS
			1000~26500	7.68	-42.02	≤-12.32	PASS
		2480	Reference	9.03	9.03	---	PASS
			30~1000	9.03	-58.13	≤-10.97	PASS
			1000~26500	9.03	-41.28	≤-10.97	PASS
BLE_2M	Ant1	2402	Reference	6.71	6.71	---	PASS
			30~1000	6.71	-57.95	≤-13.29	PASS
			1000~26500	6.71	-43.16	≤-13.29	PASS
		2440	Reference	7.76	7.76	---	PASS
			30~1000	7.76	-57.82	≤-12.24	PASS
			1000~26500	7.76	-43.51	≤-12.24	PASS
		2480	Reference	9.12	9.12	---	PASS
			30~1000	9.12	-57.3	≤-10.88	PASS
			1000~26500	9.12	-42.82	≤-10.88	PASS

6.2. Test Graphs

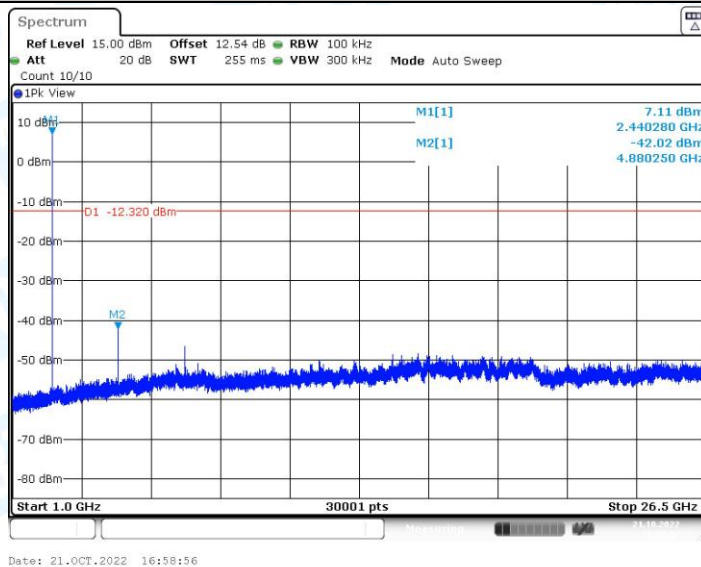




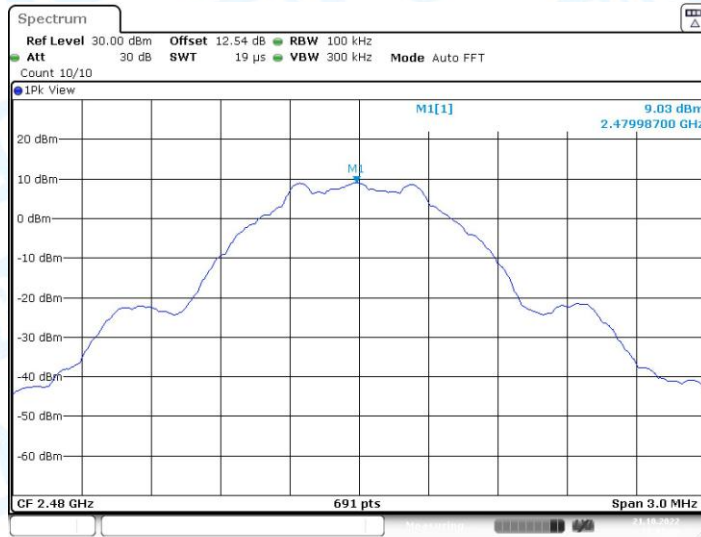
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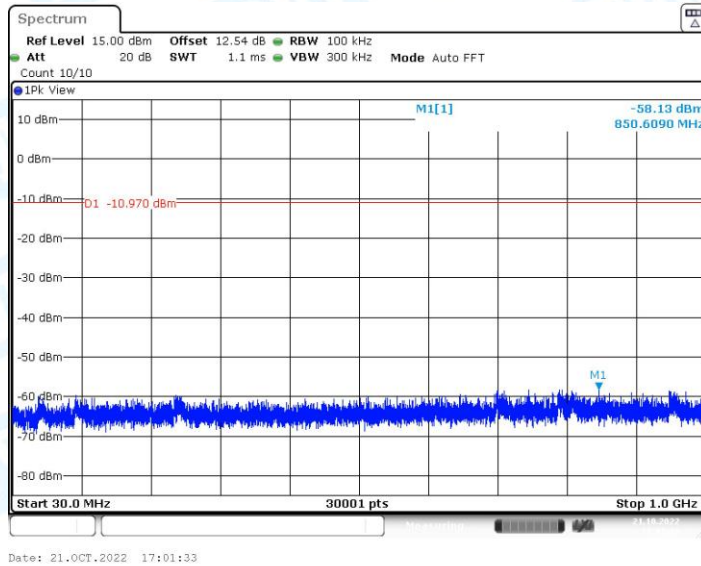
BLE_1M_Ant1_2440_1000~26500



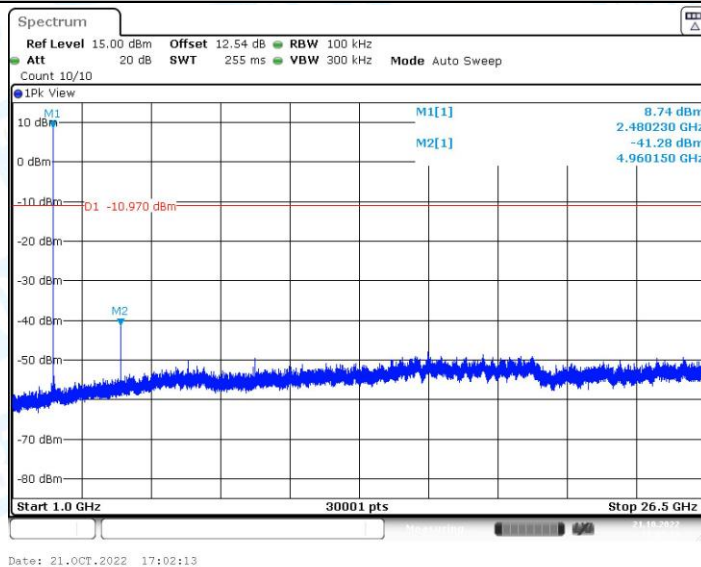
BLE_1M_Ant1_2480_0~Reference



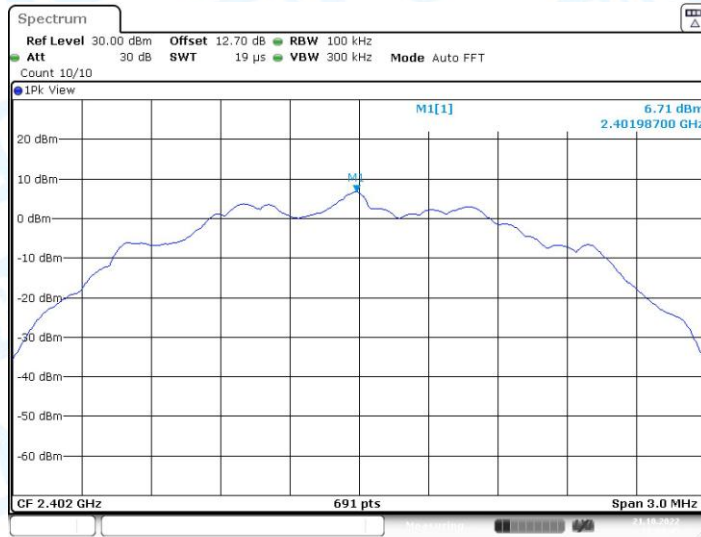
BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

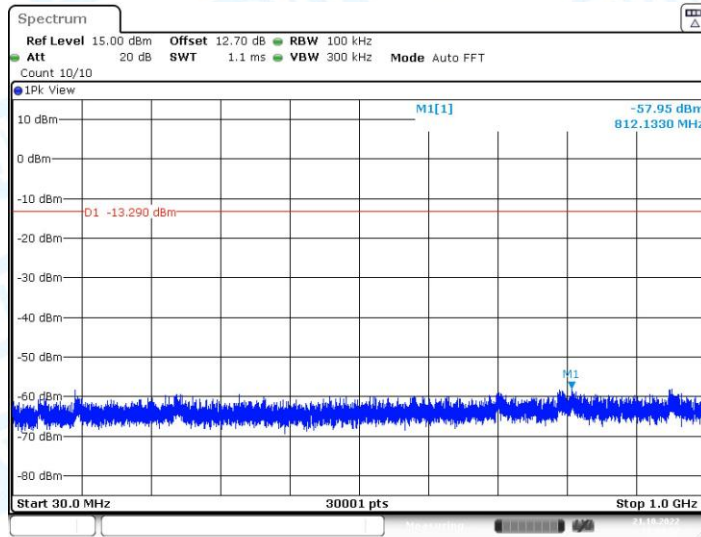


BLE_2M_Ant1_2402_0~Reference



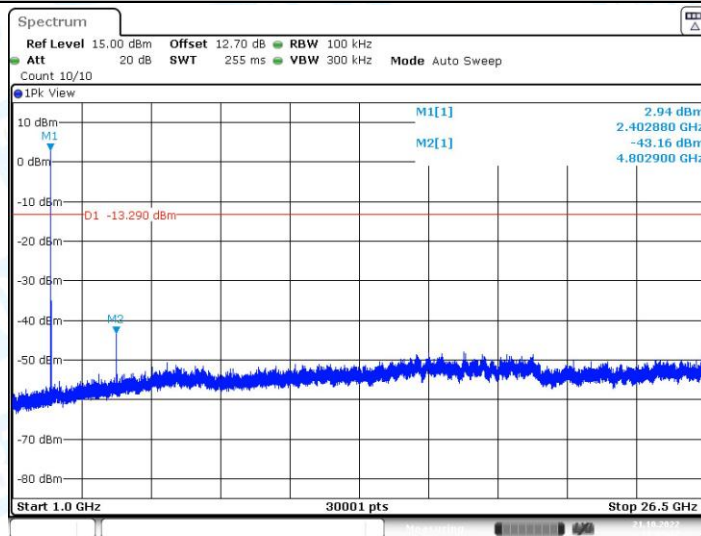
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BLE_2M_Ant1_2402_30~1000



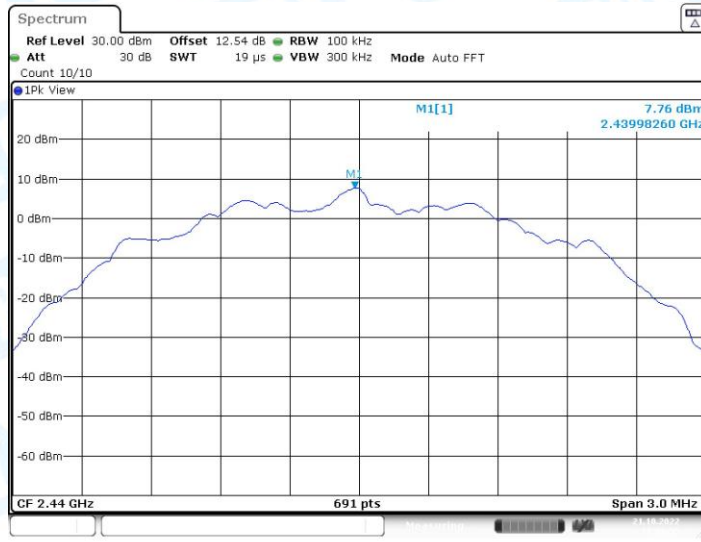
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BLE_2M_Ant1_2402_1000~26500



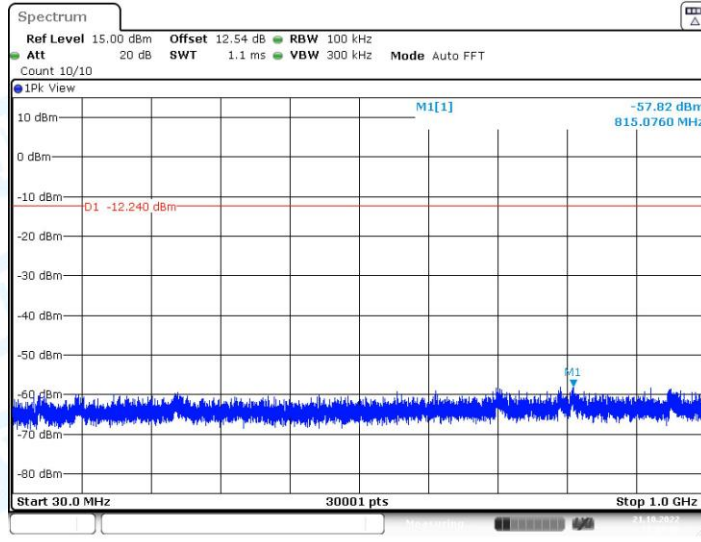
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BLE_2M_Ant1_2440_0~Reference



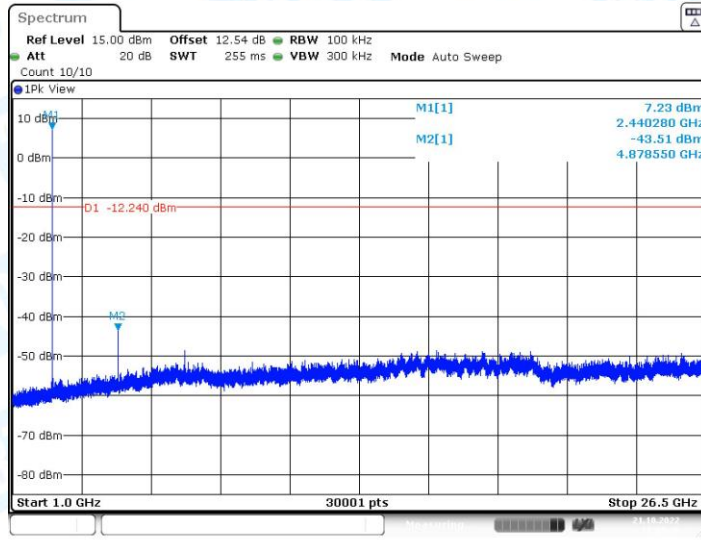
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BLE_2M_Ant1_2440_30~1000



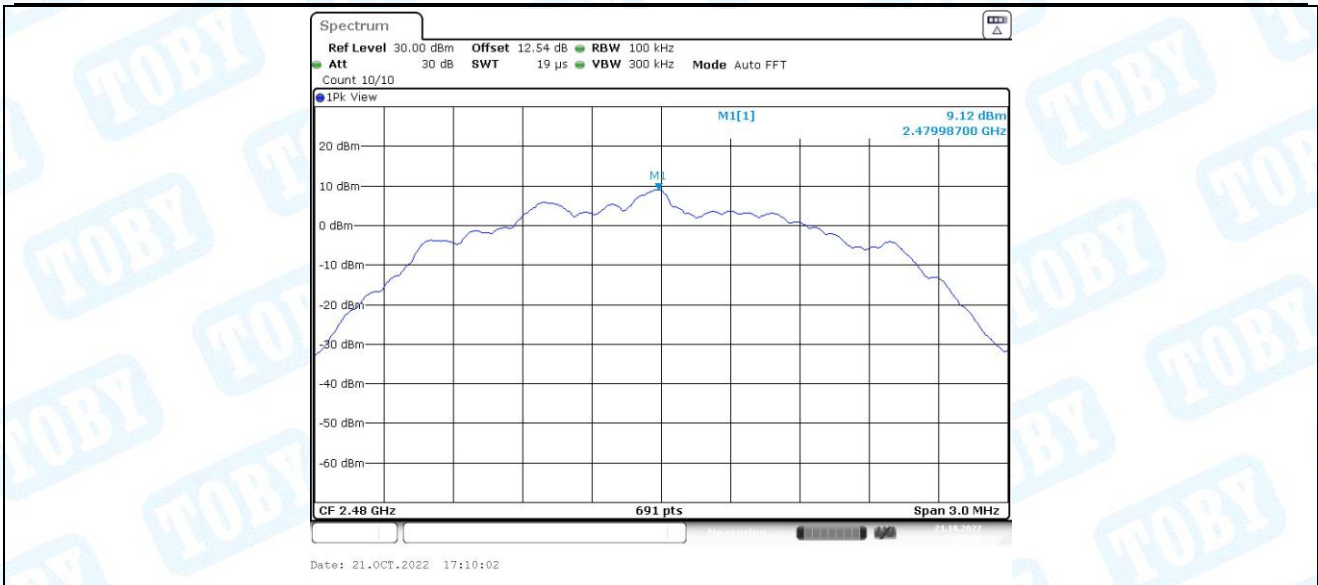
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BLE_2M_Ant1_2440_1000~26500

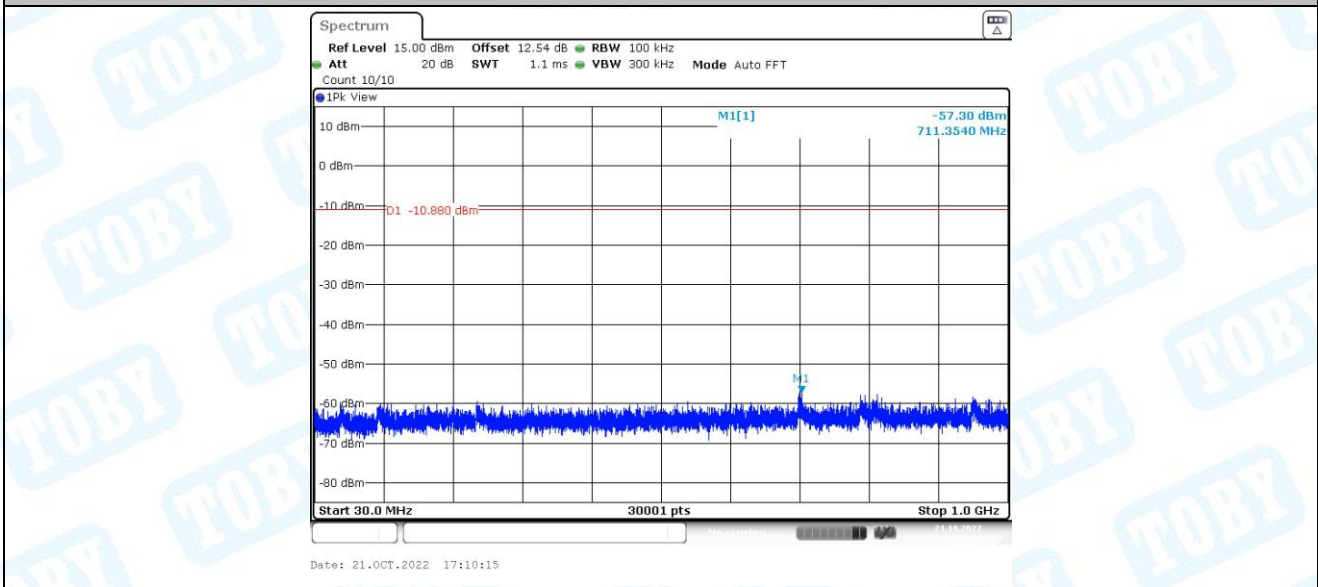


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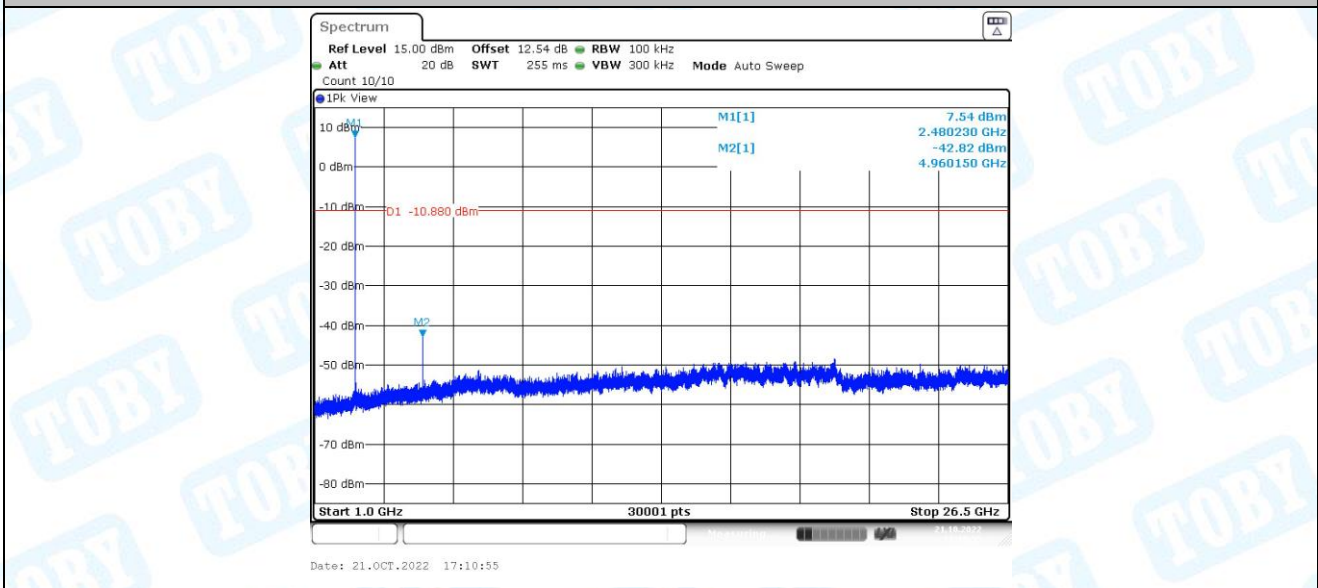
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500

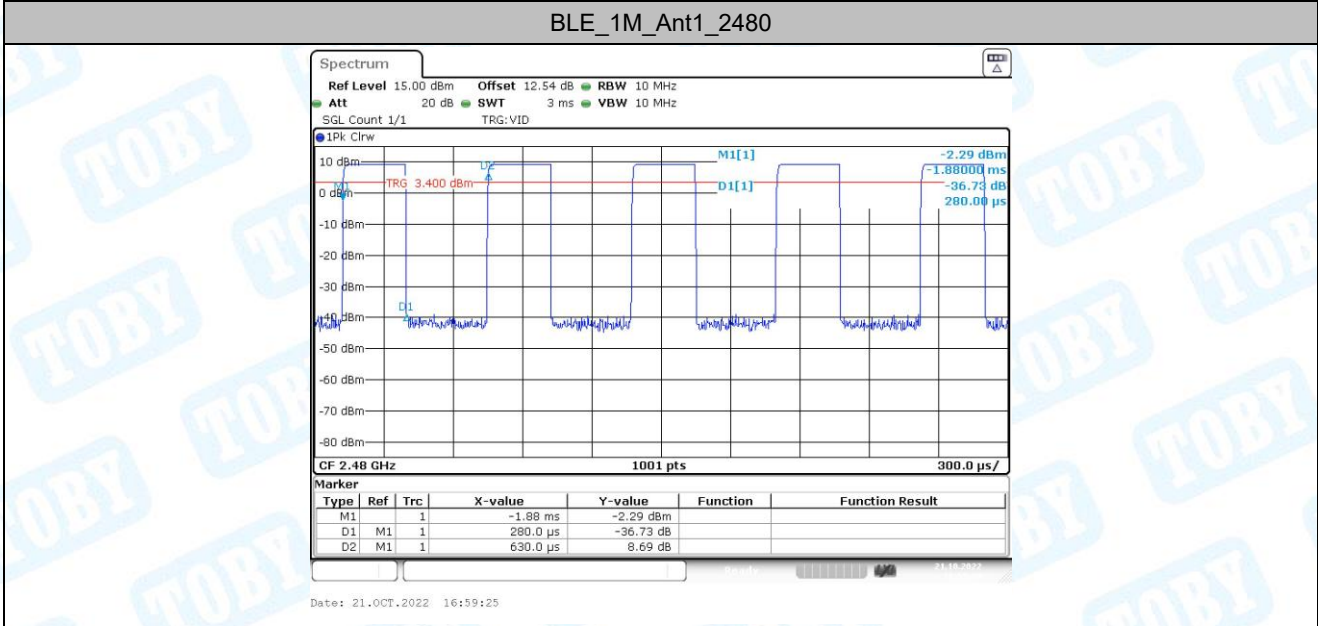
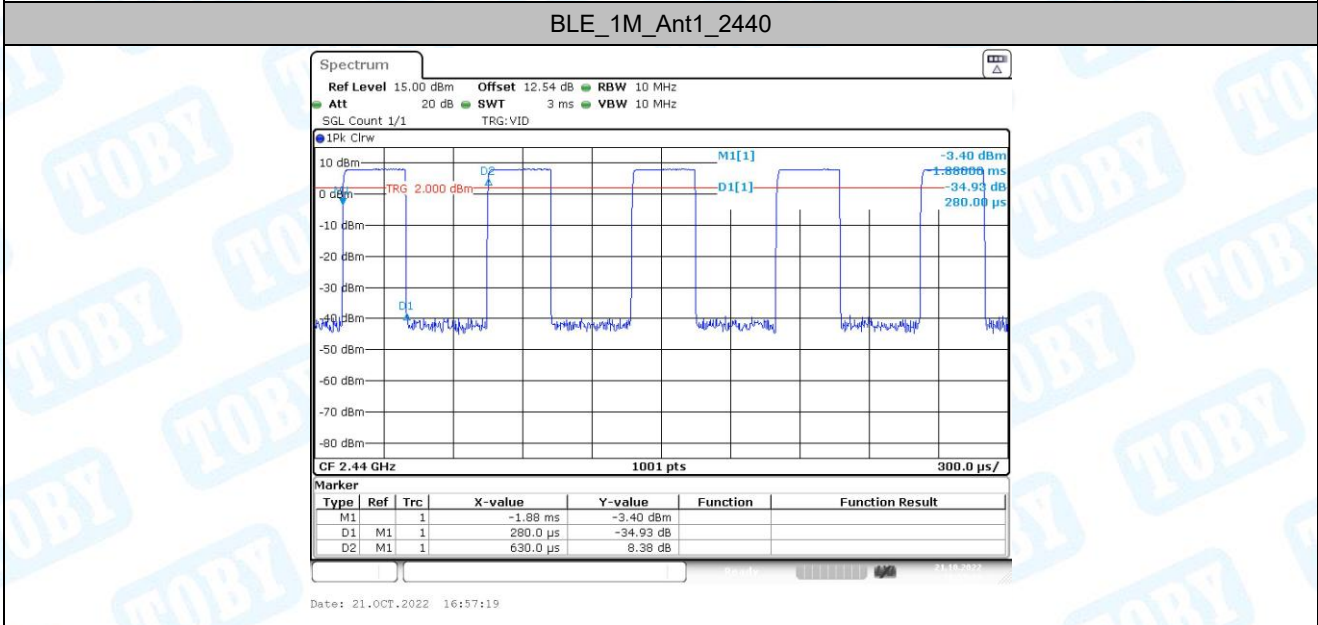
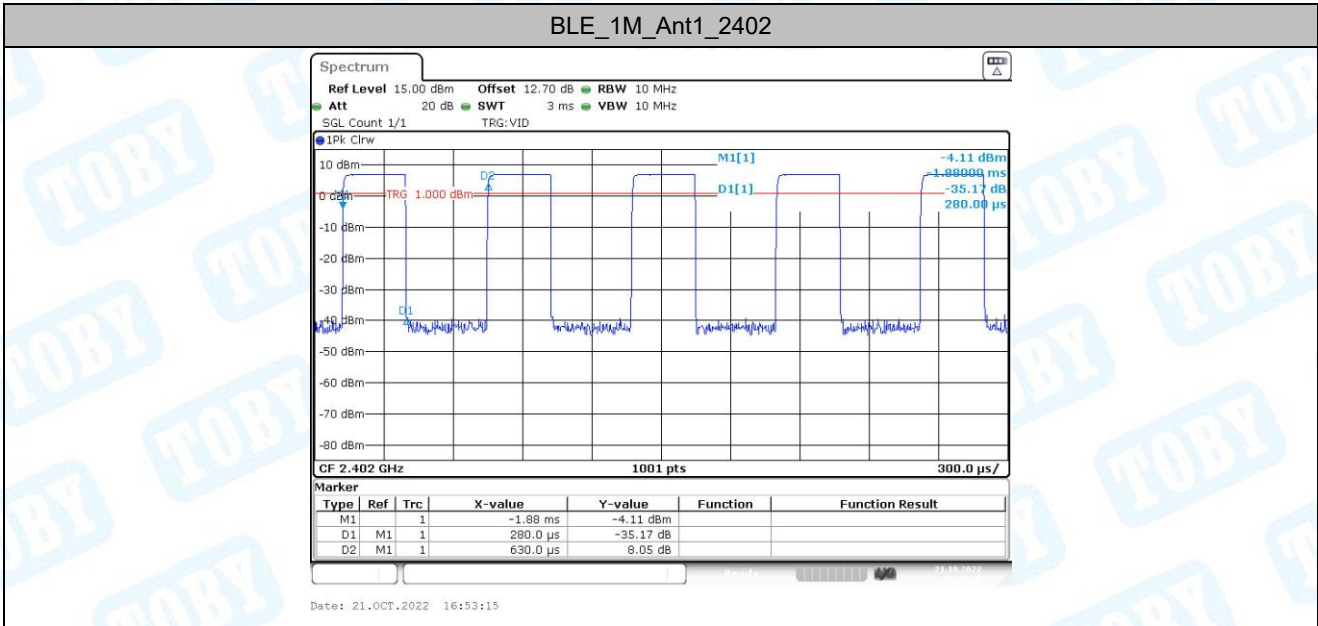


7. Duty Cycle

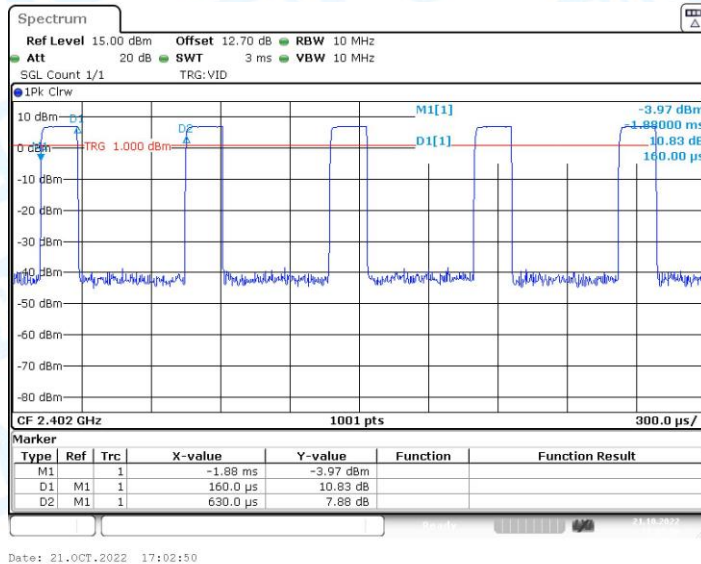
7.1. Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
BLE_1M	Ant1	2402	0.28	0.63	44.44	---	---
		2440	0.28	0.63	44.44	---	---
		2480	0.28	0.63	44.44	---	---
BLE_2M	Ant1	2402	0.16	0.63	25.40	---	---
		2440	0.16	0.63	25.40	---	---
		2480	0.16	0.62	25.81	---	---

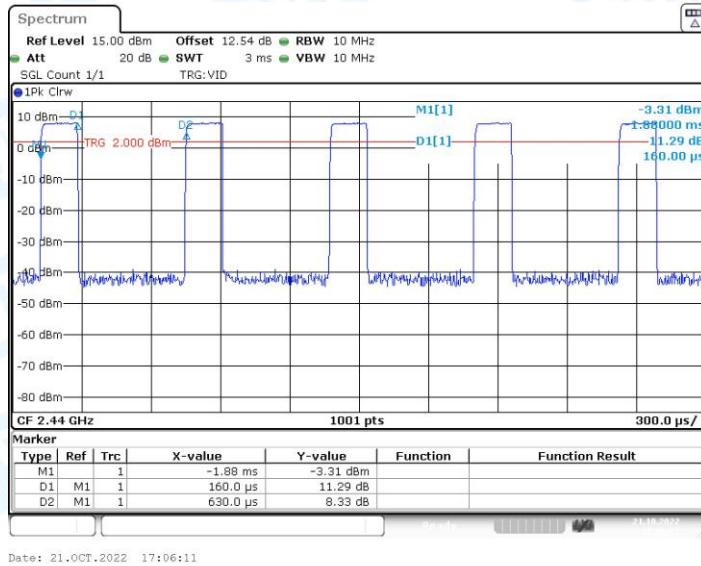
7.2. Test Graphs



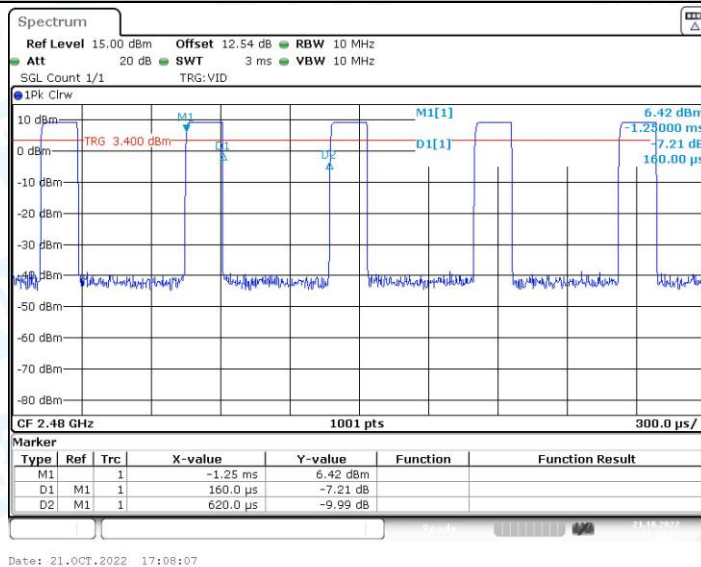
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



8. Emissions in Restricted Bands

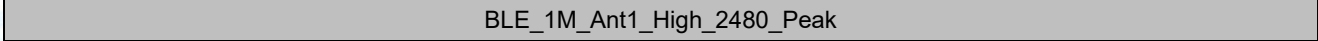
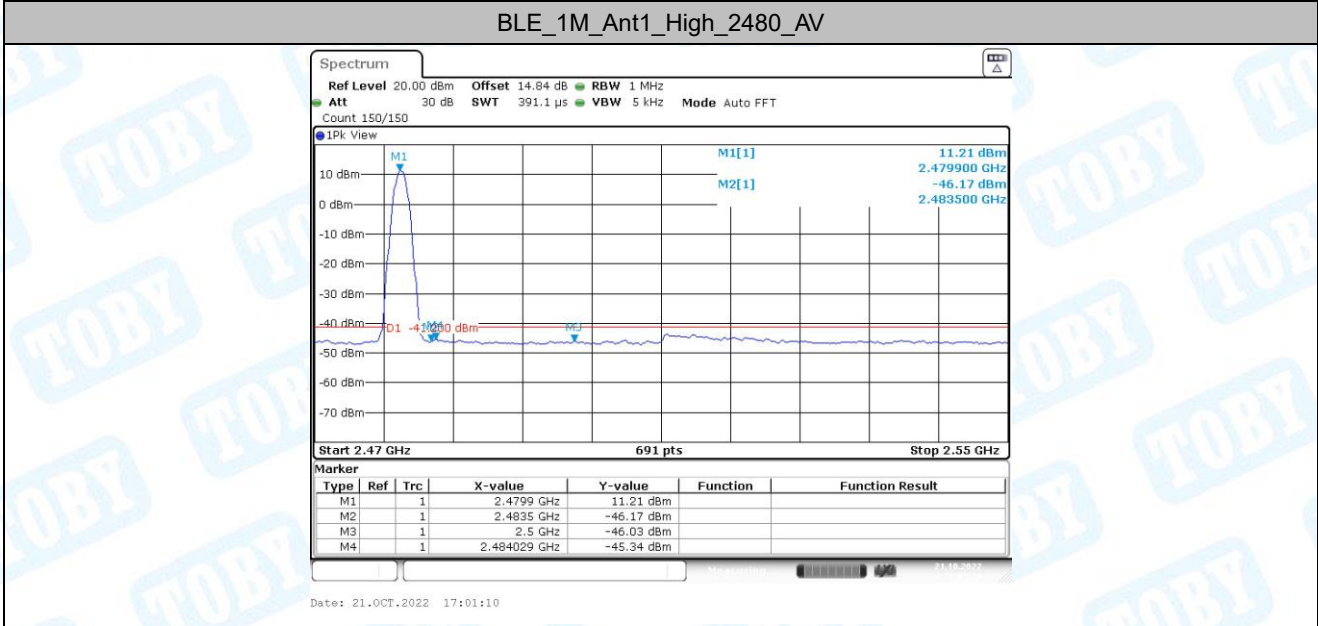
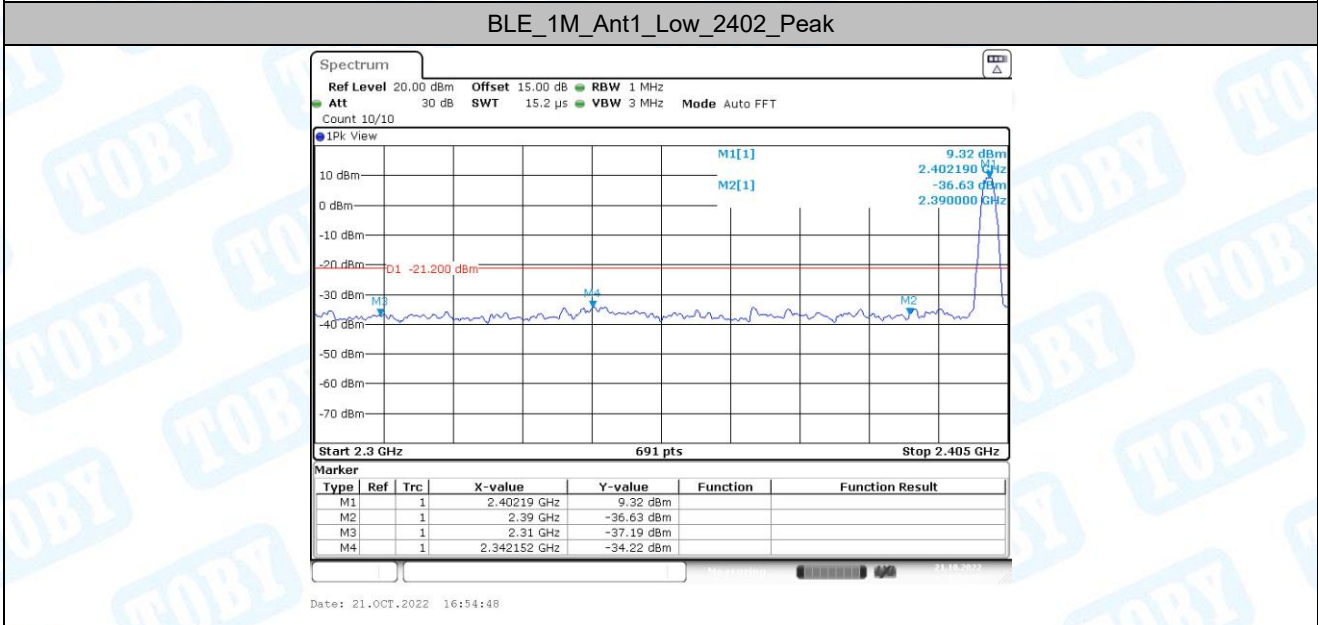
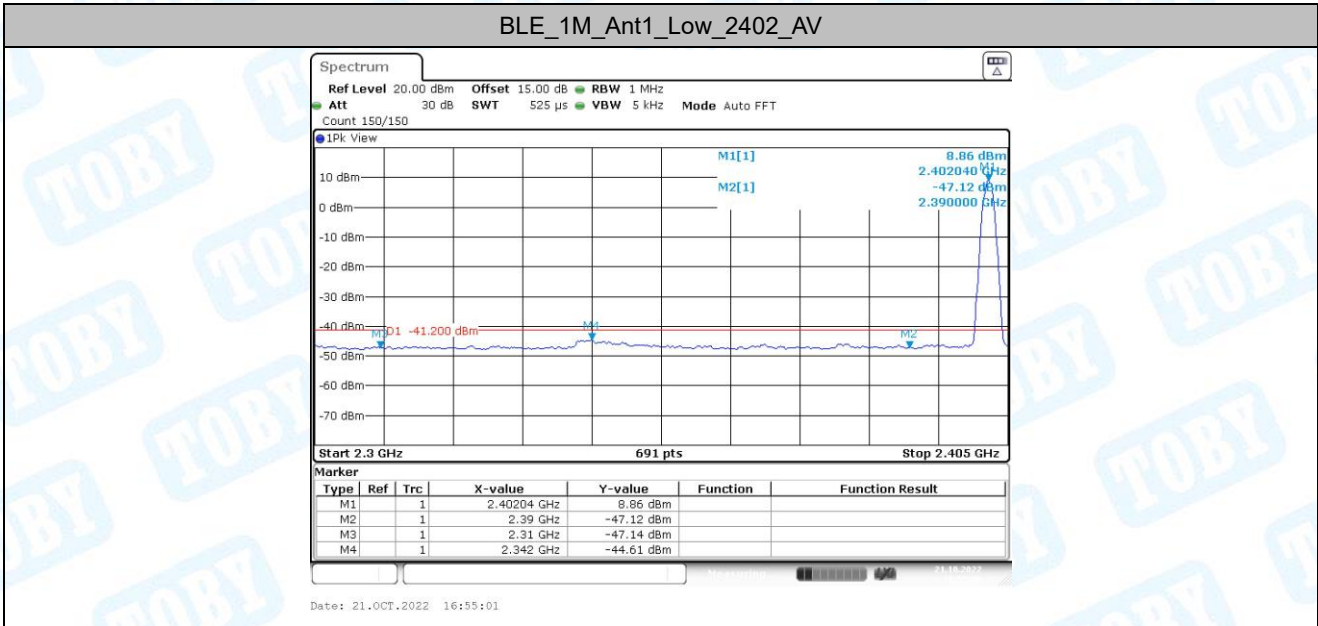
8.1. Test Result

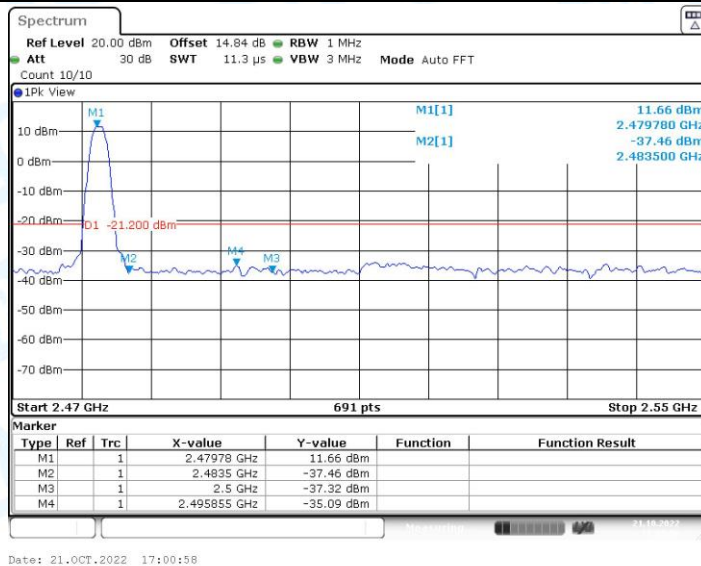
Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-47.14	≤-41.20	PASS
				AV	2342.000	-44.61	≤-41.20	PASS
				AV	2390.000	-47.12	≤-41.20	PASS
				Peak	2310.000	-37.19	≤-21.20	PASS
				Peak	2342.152	-34.22	≤-21.20	PASS
				Peak	2390.000	-36.63	≤-21.20	PASS
		High	2480	AV	2483.500	-46.17	≤-41.20	PASS
				AV	2484.029	-45.34	≤-41.20	PASS
				AV	2500.000	-46.03	≤-41.20	PASS
				Peak	2483.500	-37.46	≤-21.20	PASS
				Peak	2495.855	-35.09	≤-21.20	PASS
				Peak	2500.000	-37.32	≤-21.20	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-46.54	≤-41.20	PASS
				AV	2341.696	-44.36	≤-41.20	PASS
				AV	2390.000	-46.93	≤-41.20	PASS
				Peak	2310.000	-37.26	≤-21.20	PASS
				Peak	2341.543	-33.78	≤-21.20	PASS
				Peak	2390.000	-36.97	≤-21.20	PASS
		High	2480	AV	2483.500	-44.5	≤-41.20	PASS
				AV	2497.478	-44.19	≤-41.20	PASS
				AV	2500.000	-45.79	≤-41.20	PASS
				Peak	2483.500	-33.57	≤-21.20	PASS
				Peak	2483.797	-31.68	≤-21.20	PASS
				Peak	2500.000	-36.12	≤-21.20	PASS

Note:

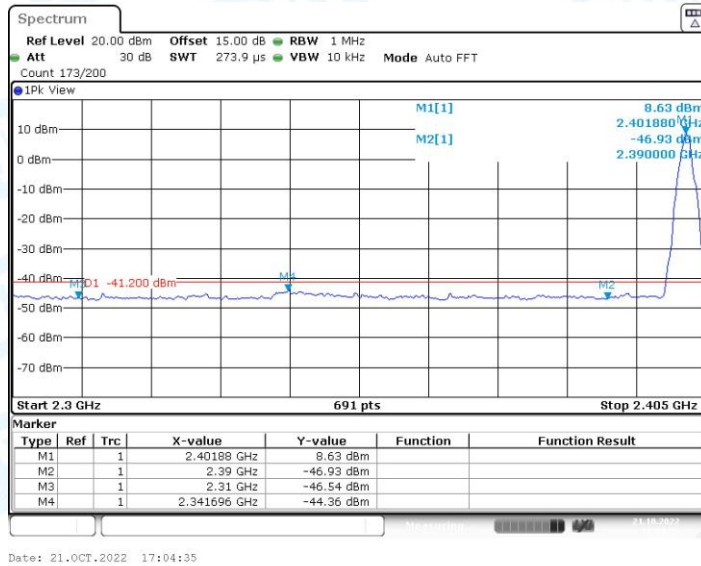
- The Antenna Gain is compensated in the graph.
- The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

8.2. Test Graphs

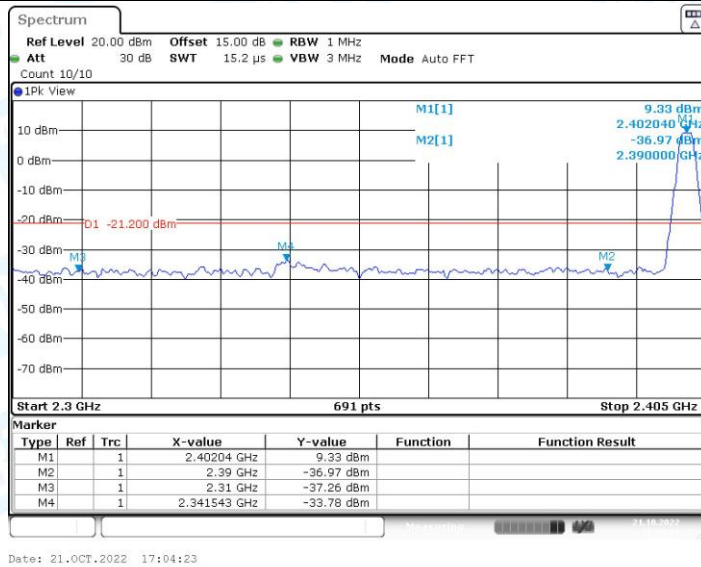




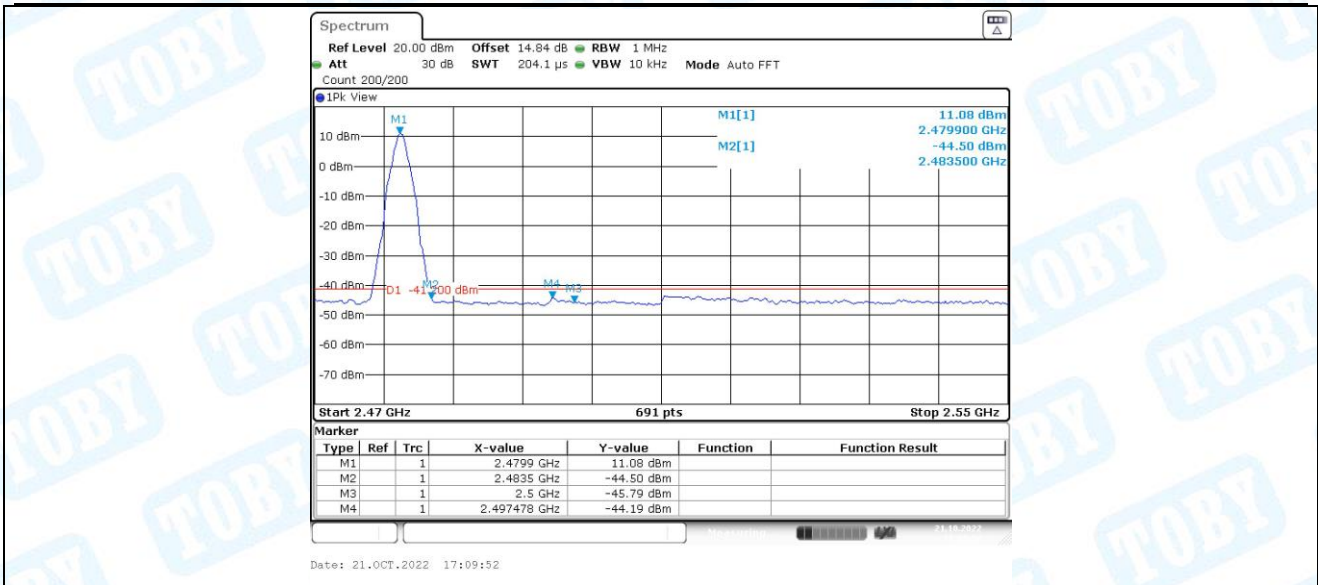
BLE_2M_Ant1_Low_2402_AV



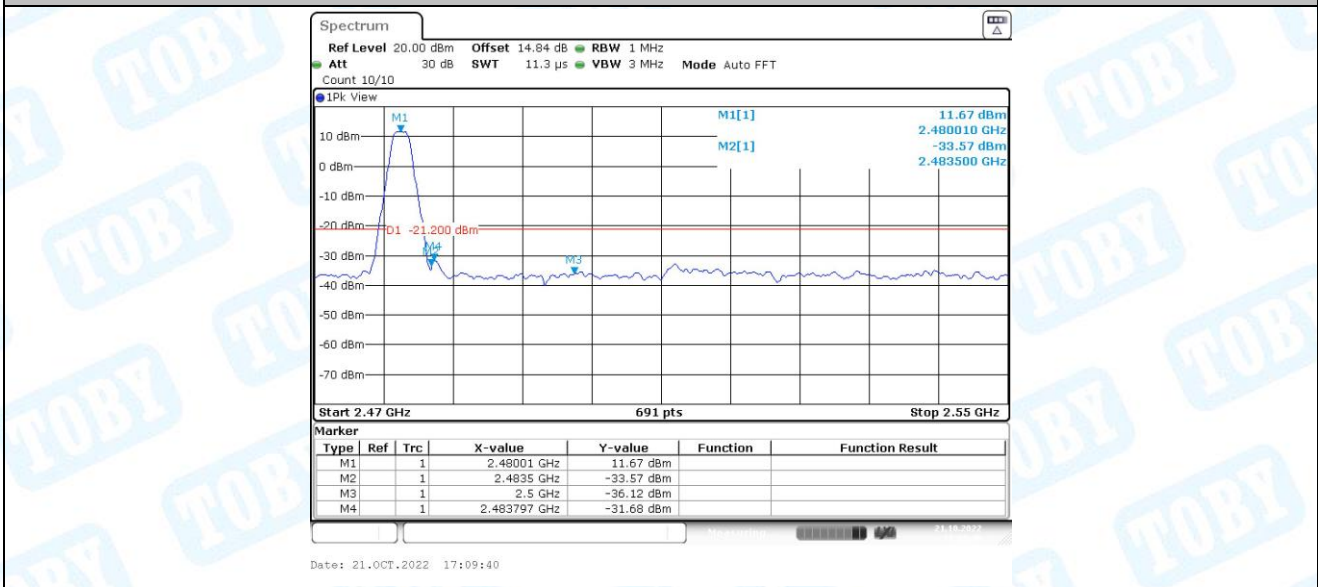
BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak



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