

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	Portable Gaming Computer(Tablet computer)
Test Model:	AYANEO FLIP
Sample ID:	HC-C-202312-0316-01-01-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 11.55V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202312-0316-161	

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1. DTS Bandwidth

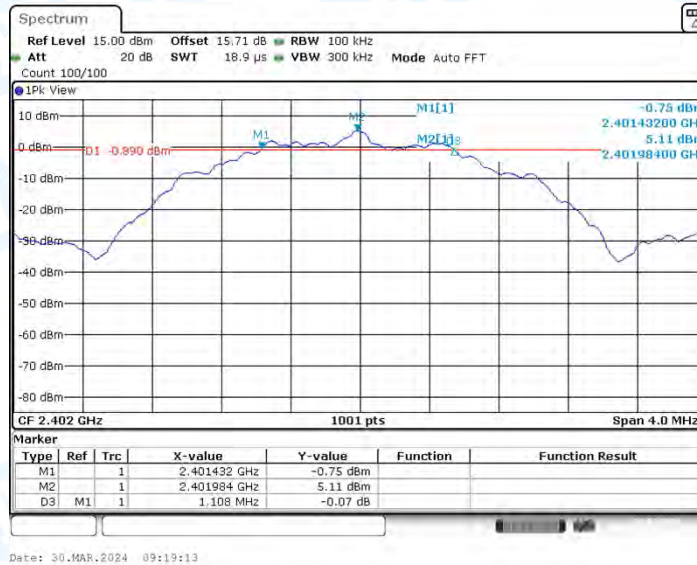
1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.66	2401.65	2402.32	0.5	PASS
		2440	0.67	2439.64	2440.31	0.5	PASS
		2480	0.68	2479.64	2480.32	0.5	PASS
BLE_2M	Ant1	2402	1.11	2401.43	2402.54	0.5	PASS
		2440	1.10	2439.43	2440.53	0.5	PASS
		2480	1.12	2479.42	2480.54	0.5	PASS

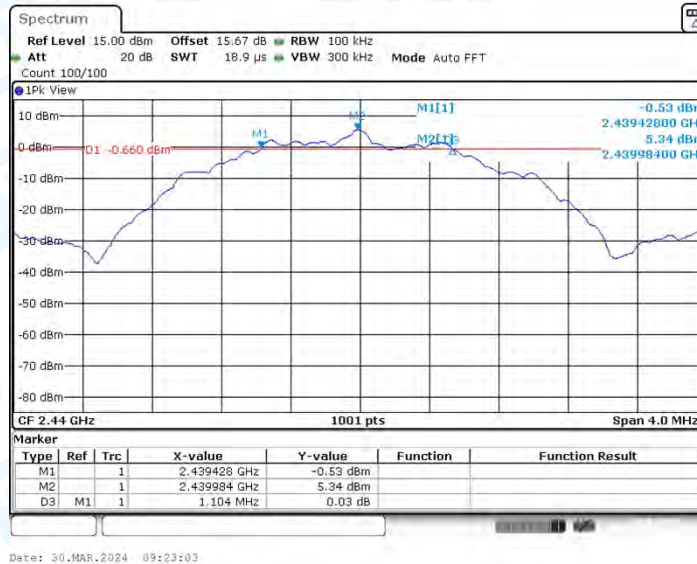
1.2. Test Graphs



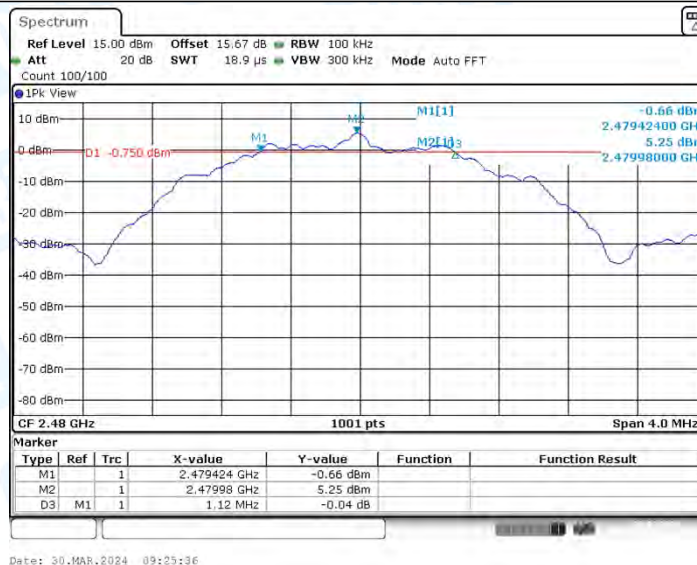
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

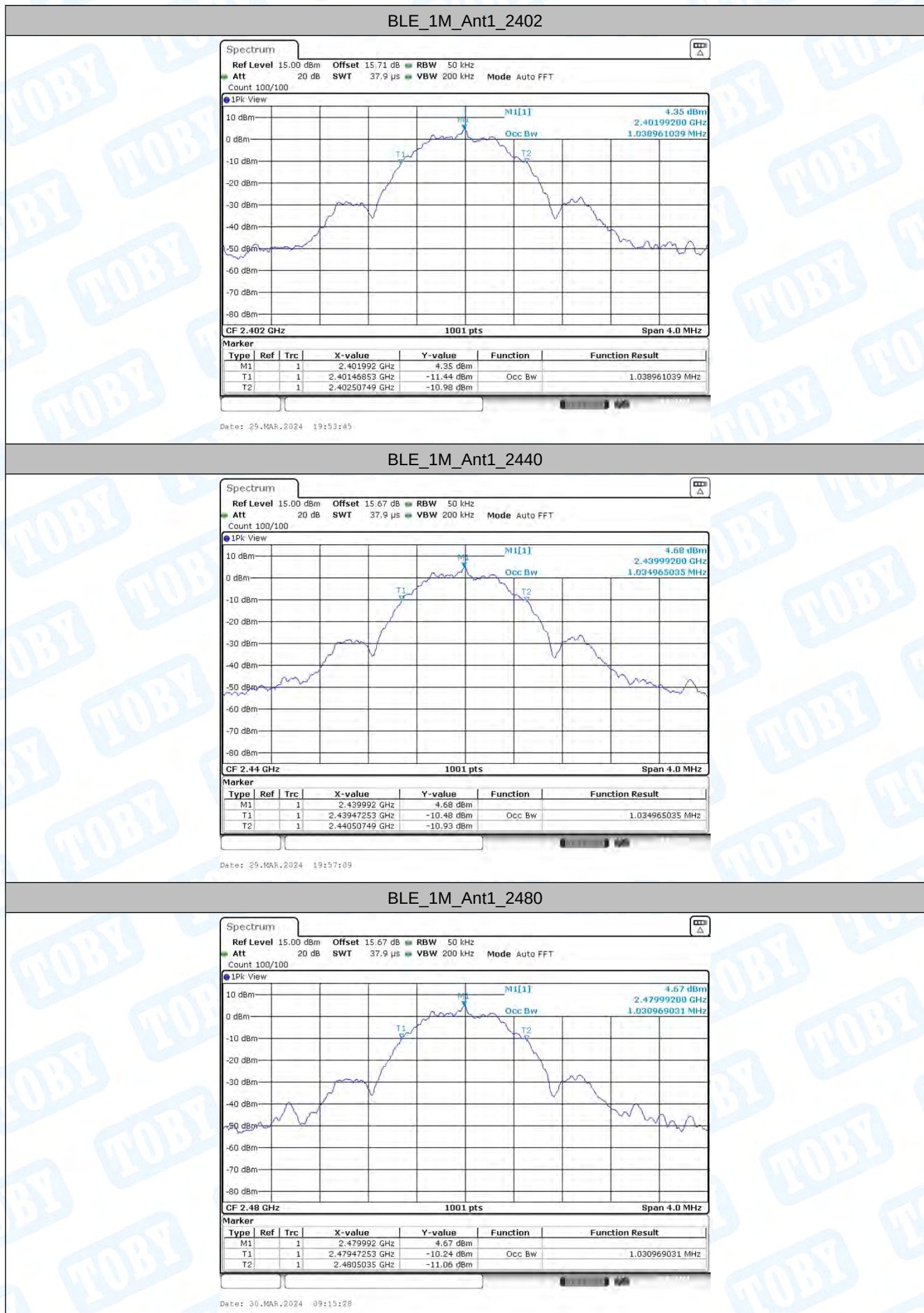


2. Occupied Channel Bandwidth

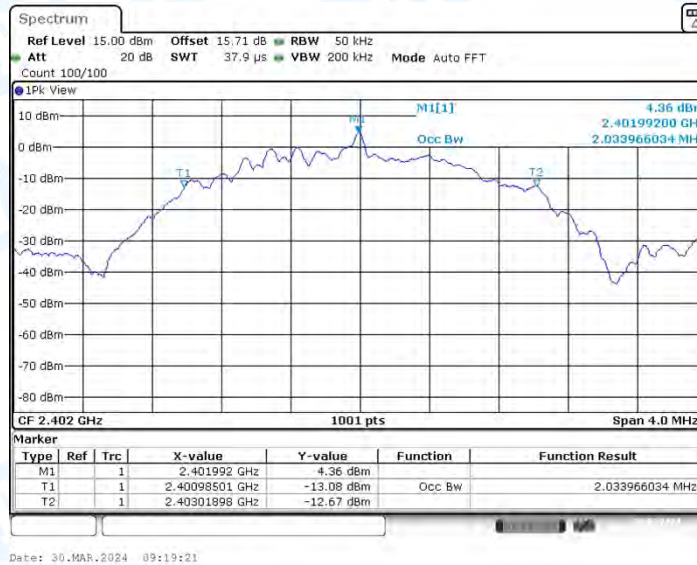
2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.039	2401.4685	2402.5075	---	---
		2440	1.035	2439.4725	2440.5075	---	---
		2480	1.031	2479.4725	2480.5035	---	---
BLE_2M	Ant1	2402	2.034	2400.9850	2403.0190	---	---
		2440	2.042	2438.9810	2441.0230	---	---
		2480	2.038	2478.9810	2481.0190	---	---

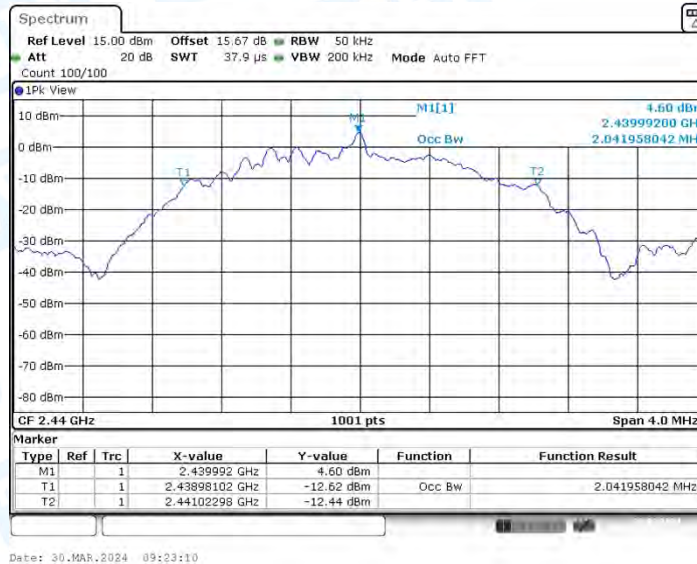
2.2. Test Graphs



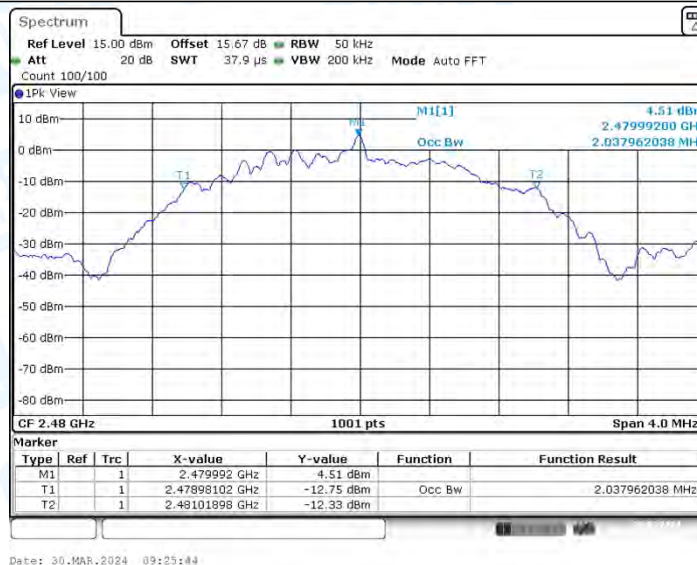
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

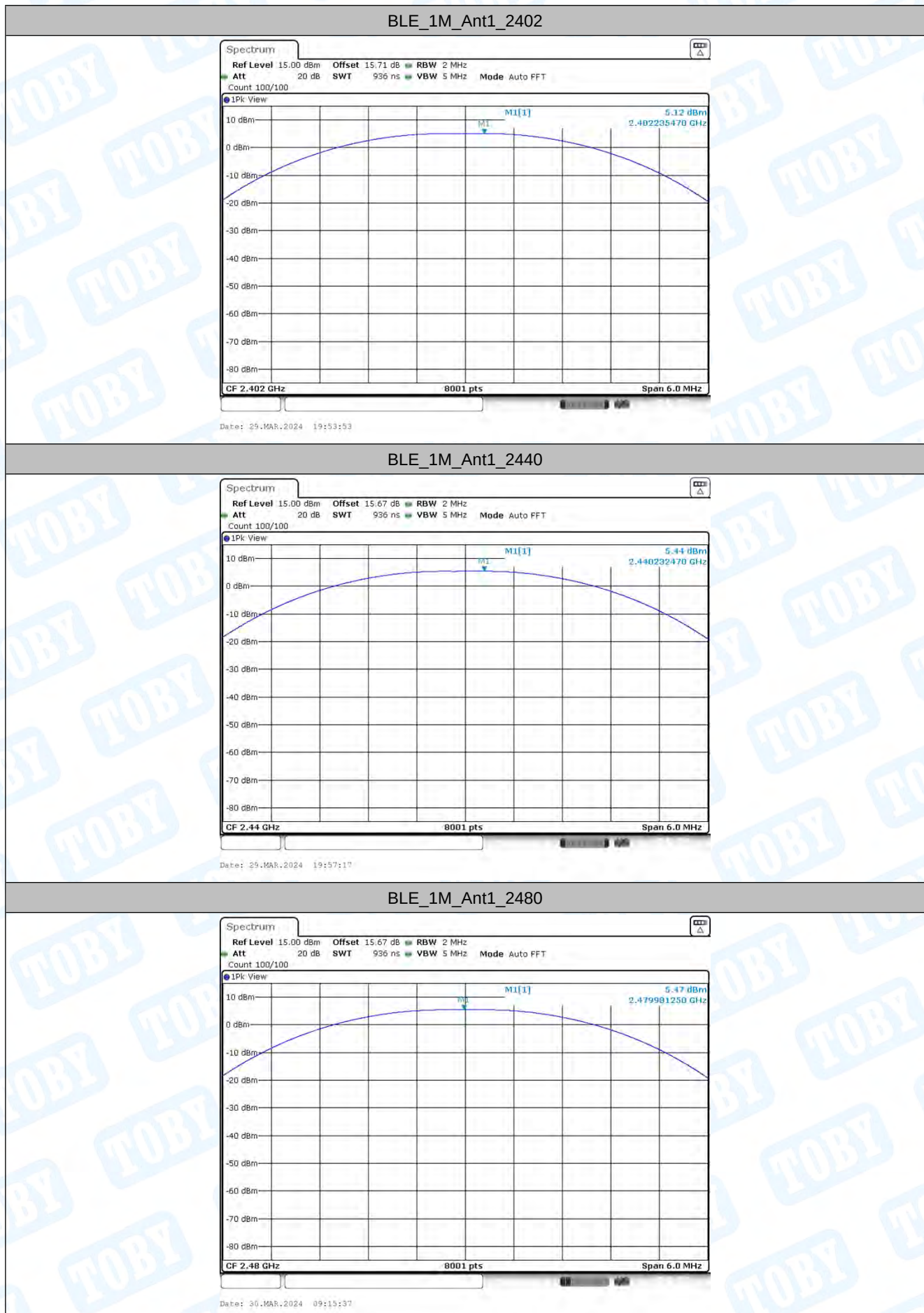


3. Maximum conducted output power

3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5.12	≤30	PASS
		2440	5.44	≤30	PASS
		2480	5.47	≤30	PASS
BLE_2M	Ant1	2402	5.20	≤30	PASS
		2440	5.45	≤30	PASS
		2480	5.38	≤30	PASS

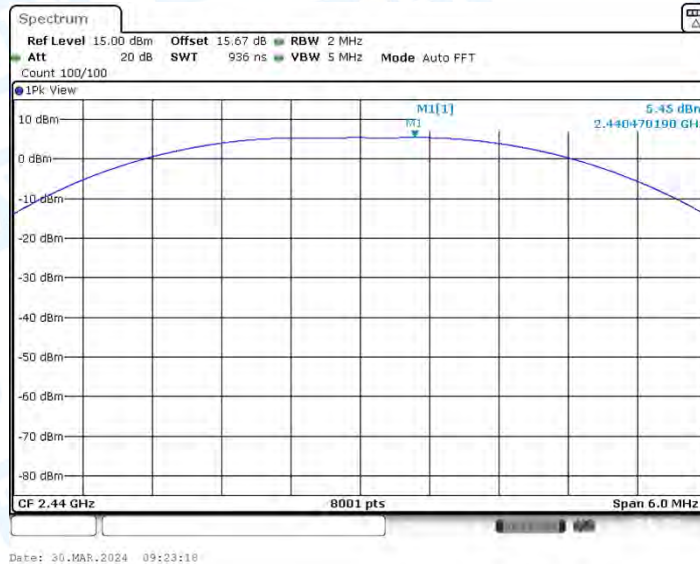
3.2.Test Graphs



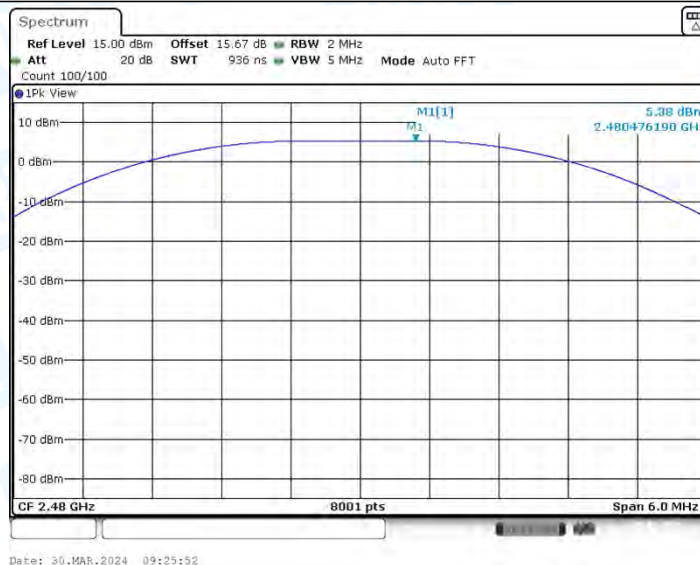
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

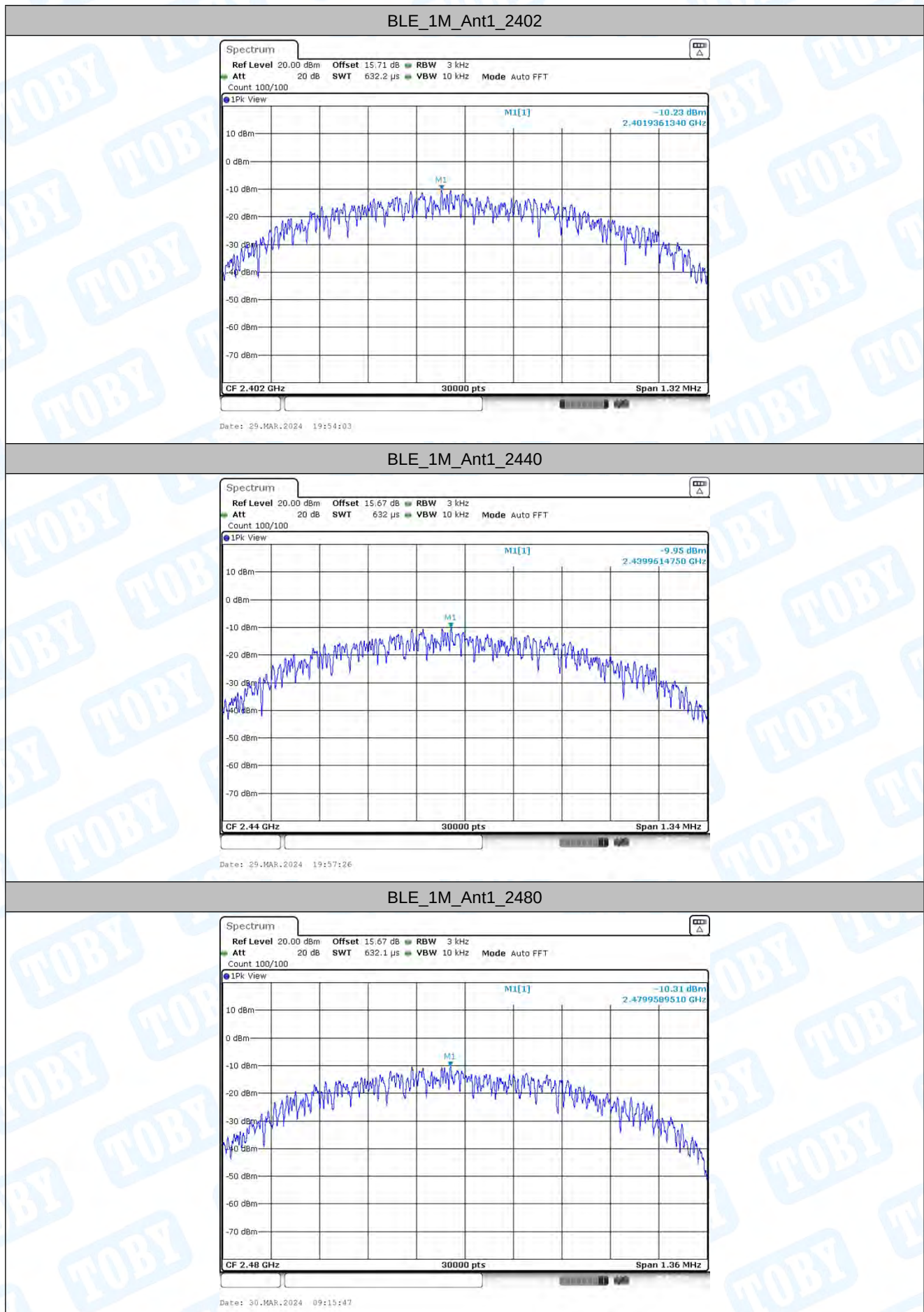


4. Maximum power spectral density

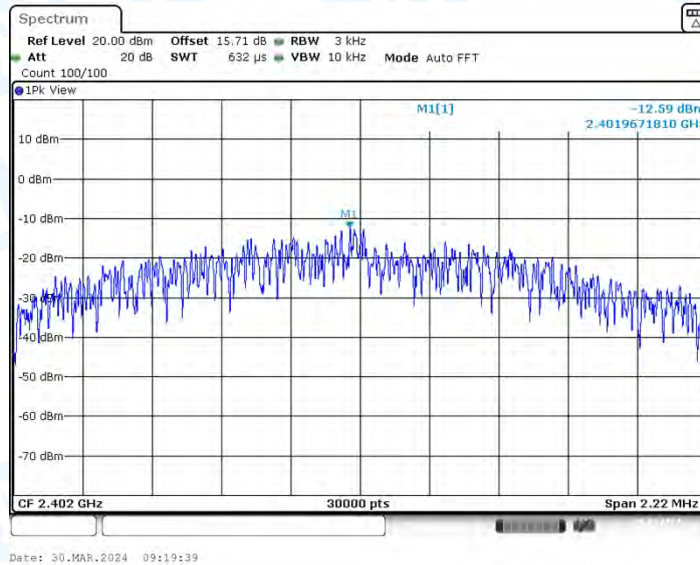
4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-10.23	≤8.00	PASS
		2440	-9.95	≤8.00	PASS
		2480	-10.31	≤8.00	PASS
BLE_2M	Ant1	2402	-12.59	≤8.00	PASS
		2440	-12.60	≤8.00	PASS
		2480	-12.29	≤8.00	PASS

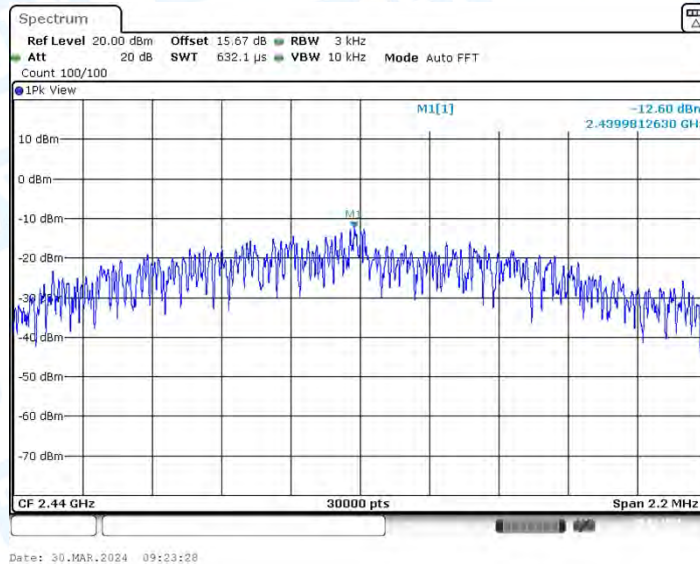
4.2. Test Graphs



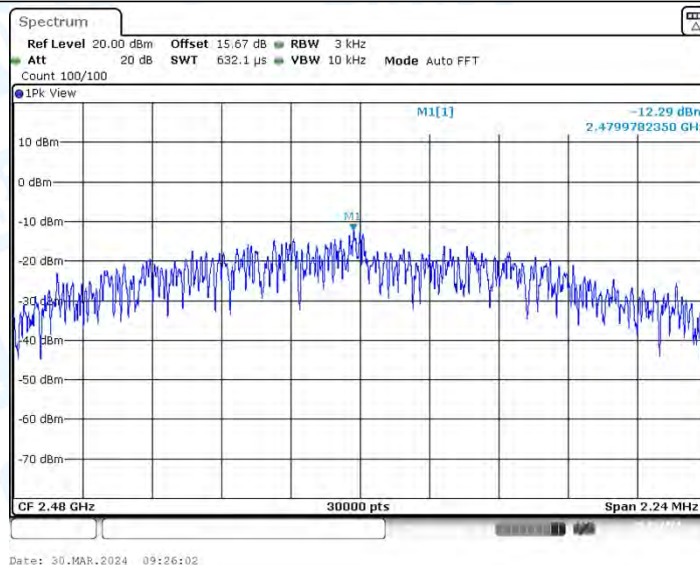
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

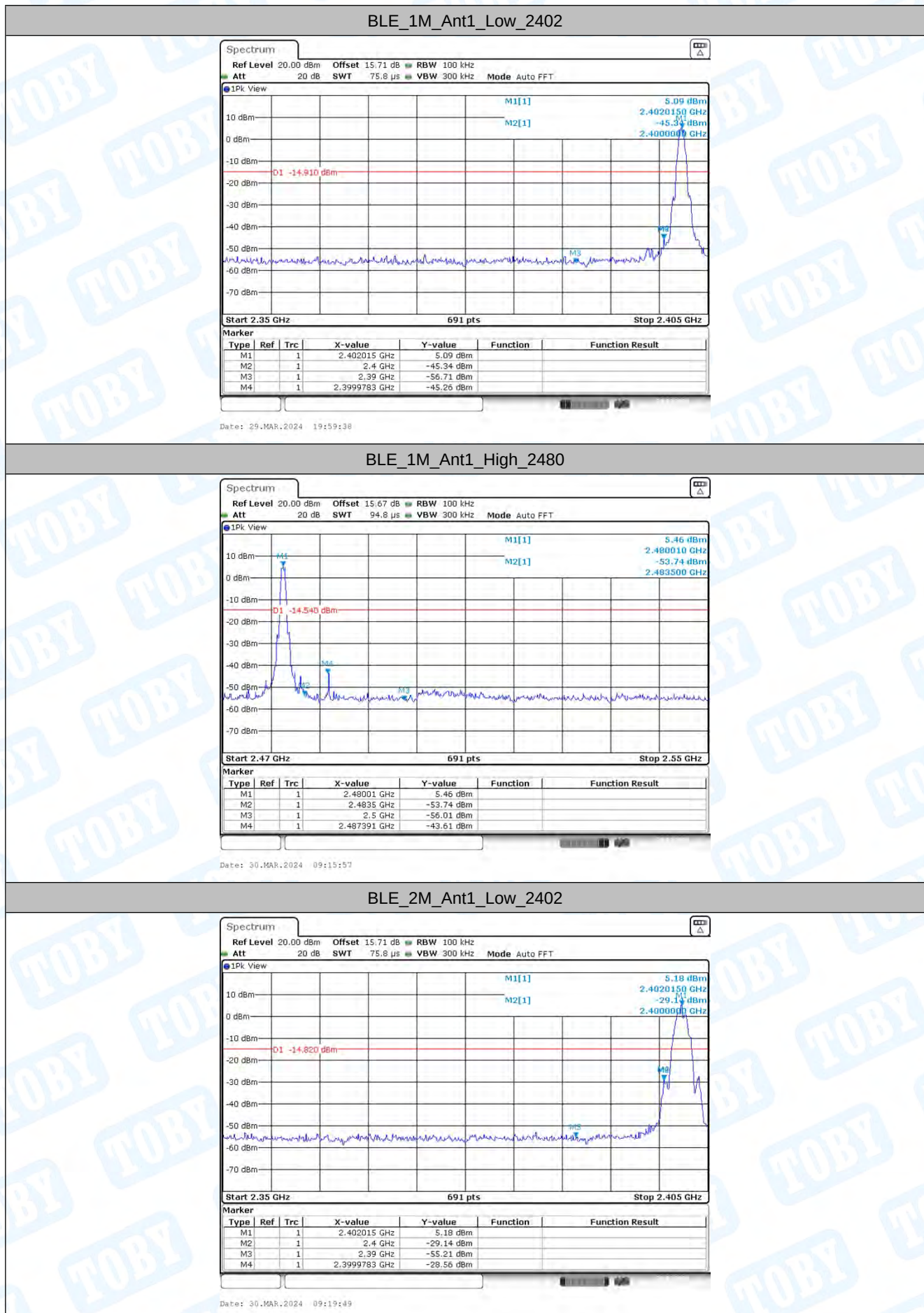


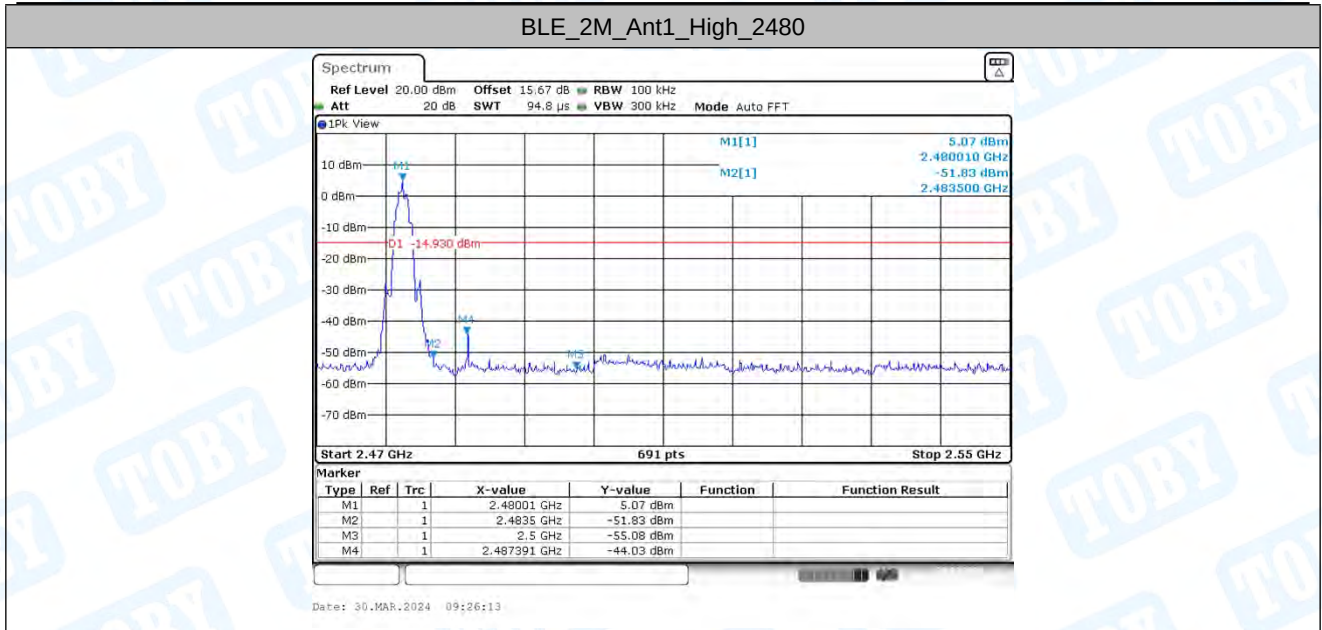
5. Band edge measurements

5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	5.09	-45.26	≤-14.91	PASS
		High	2480	5.46	-43.61	≤-14.54	PASS
BLE_2M	Ant1	Low	2402	5.18	-28.56	≤-14.82	PASS
		High	2480	5.07	-44.03	≤-14.93	PASS

5.2. Test Graphs



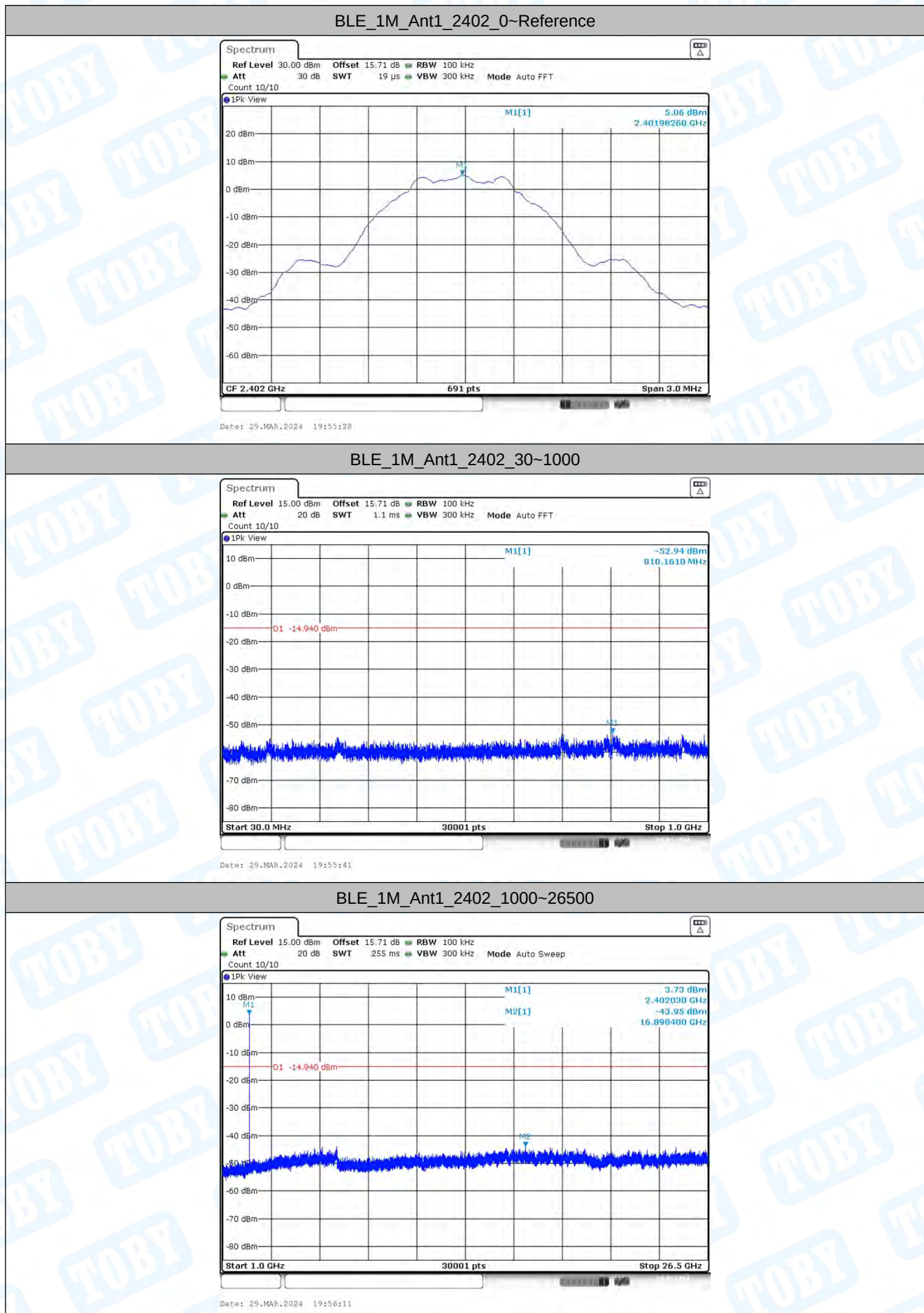


6. Conducted Spurious Emission

6.1. Test Result

Test Mode	Antenna	Channel	Freq. Range [MHz]	Ref. Level [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	5.06	5.06	---	PASS
			30~1000	5.06	-52.94	≤ -14.94	PASS
			1000~26500	5.06	-43.95	≤ -14.94	PASS
		2440	Reference	5.36	5.36	---	PASS
			30~1000	5.36	-52.35	≤ -14.64	PASS
			1000~26500	5.36	-43.59	≤ -14.64	PASS
		2480	Reference	5.36	5.36	---	PASS
			30~1000	5.36	-52.97	≤ -14.64	PASS
			1000~26500	5.36	-44.15	≤ -14.64	PASS
BLE_2M	Ant1	2402	Reference	5.07	5.07	---	PASS
			30~1000	5.07	-52.5	≤ -14.93	PASS
			1000~26500	5.07	-42.9	≤ -14.93	PASS
		2440	Reference	5.34	5.34	---	PASS
			30~1000	5.34	-53.12	≤ -14.66	PASS
			1000~26500	5.34	-43.69	≤ -14.66	PASS
		2480	Reference	5.22	5.22	---	PASS
			30~1000	5.22	-52.59	≤ -14.78	PASS
			1000~26500	5.22	-43.82	≤ -14.78	PASS

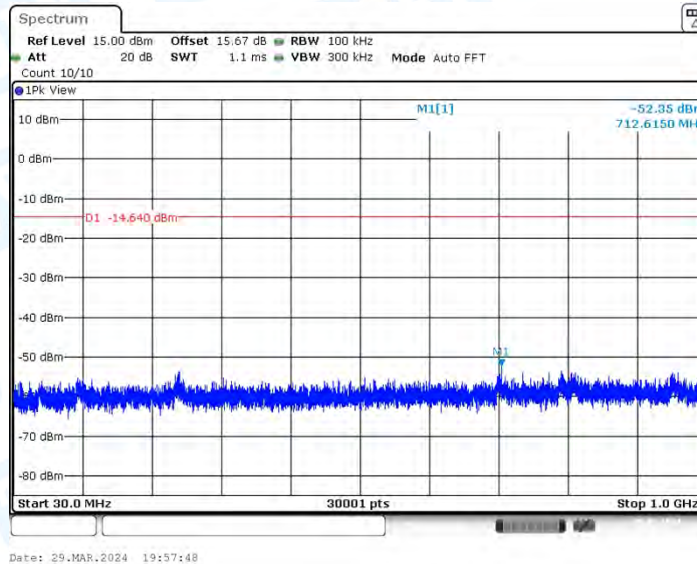
6.2. Test Graphs



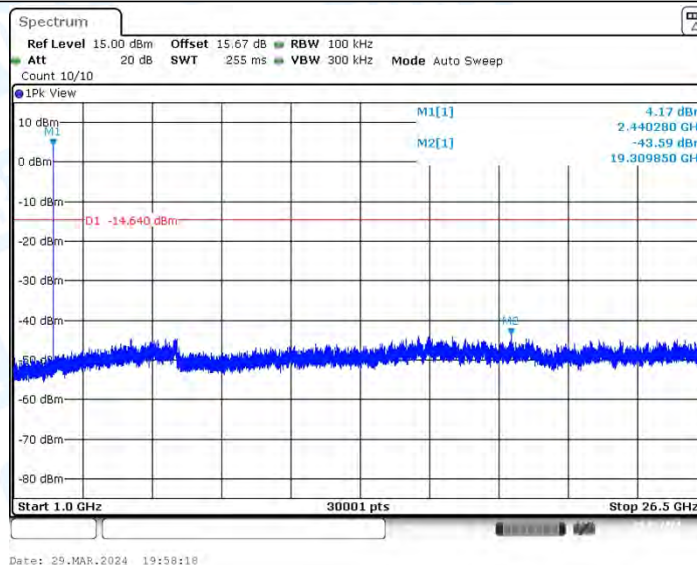
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



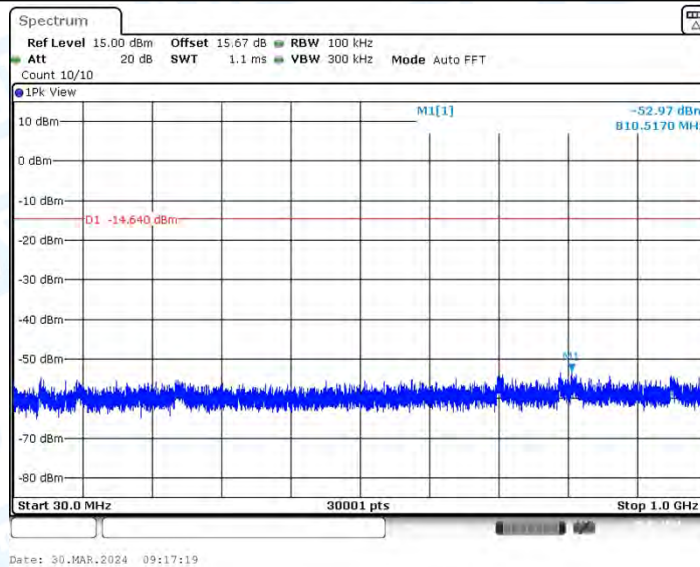
BLE_1M_Ant1_2440_1000~26500



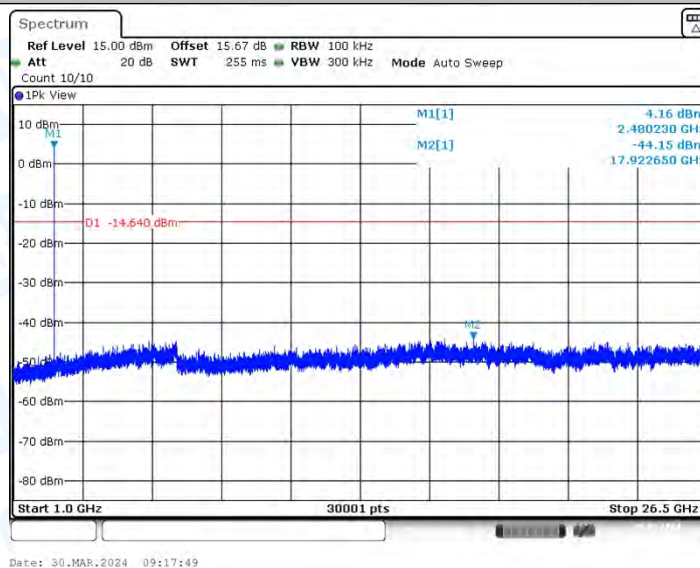
BLE_1M_Ant1_2480_0~Reference



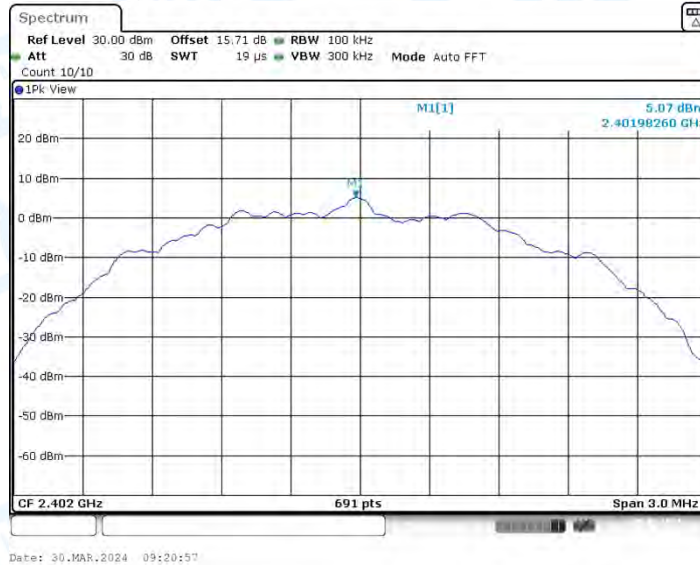
BLE_1M_Ant1_2480_30~1000



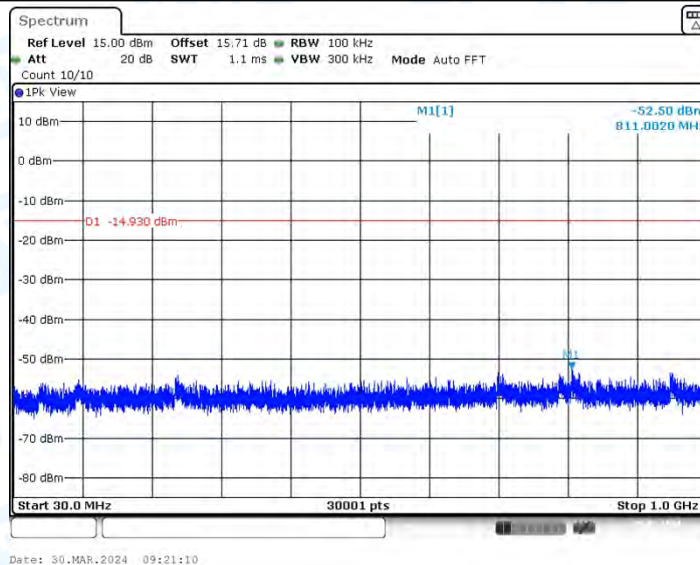
BLE_1M_Ant1_2480_1000~26500



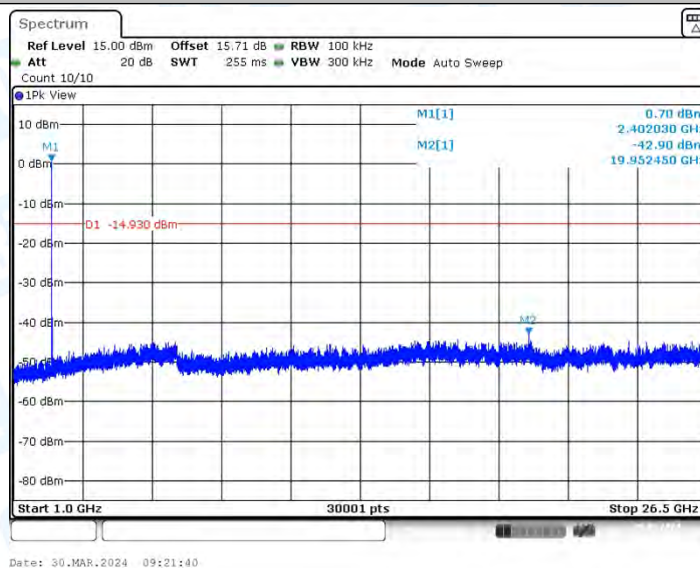
BLE_2M_Ant1_2402_0~Reference



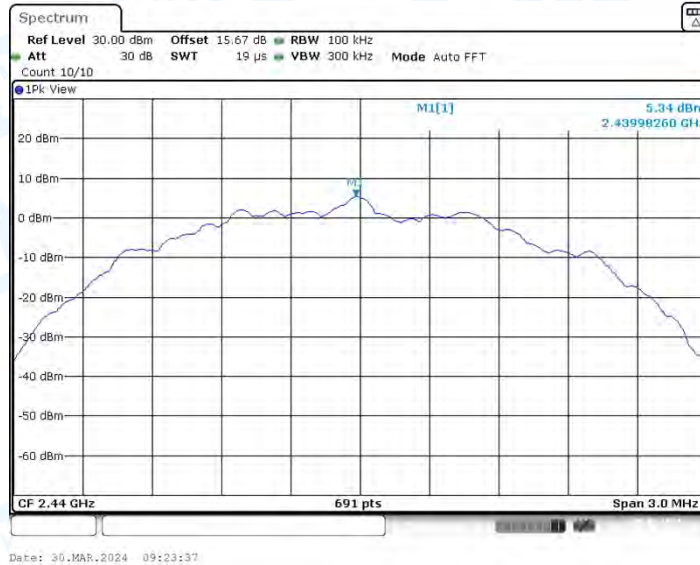
BLE_2M_Ant1_2402_30~1000



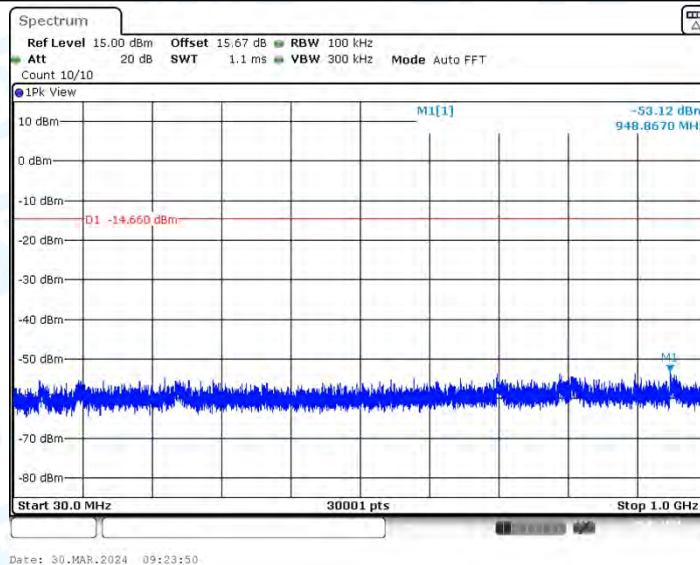
BLE_2M_Ant1_2402_1000~26500



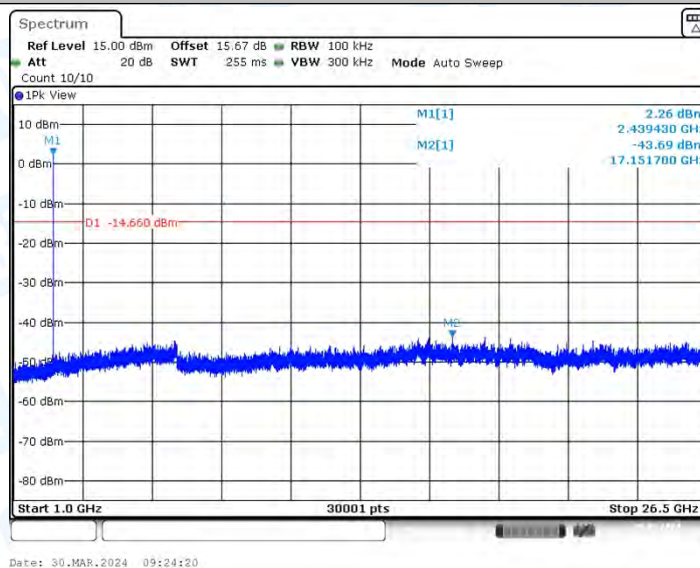
BLE_2M_Ant1_2440_0~Reference



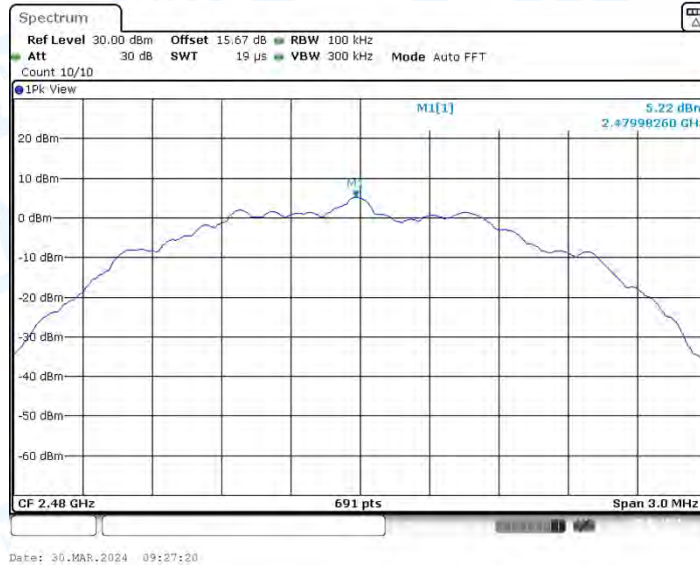
BLE_2M_Ant1_2440_30~1000



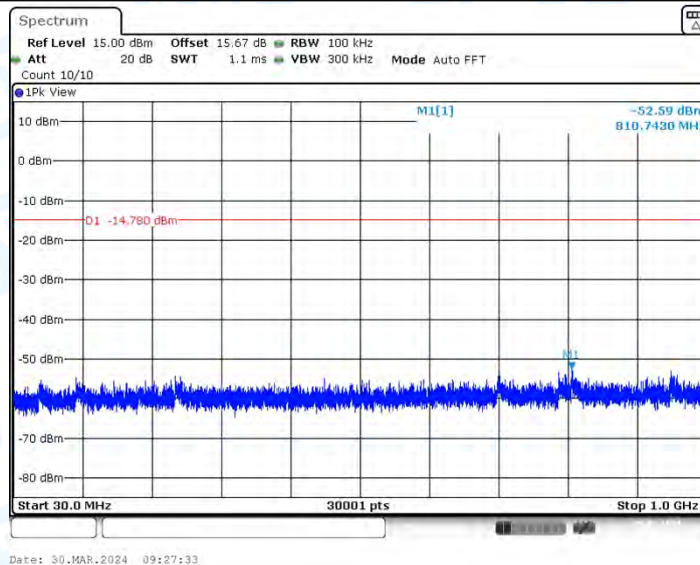
BLE_2M_Ant1_2440_1000~26500



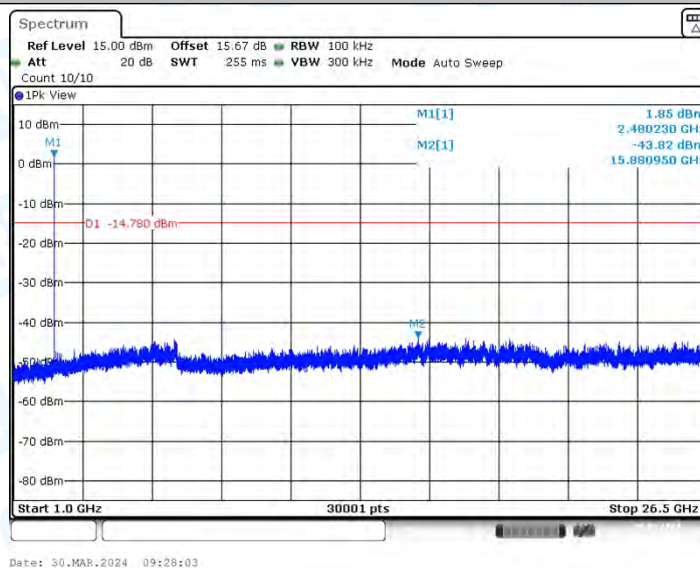
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



7. Duty Cycle

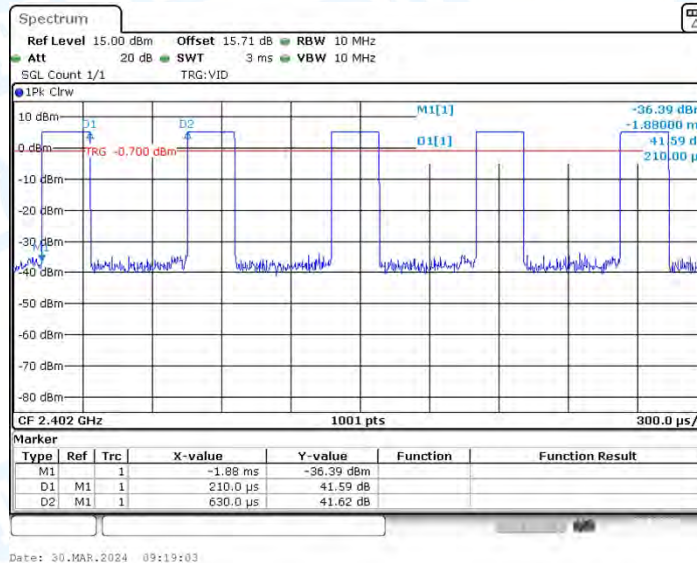
7.1. Test Result

Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [kHz]	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.62	62.90	2.564103	---	---
		2440	0.39	0.62	62.90	2.564103	---	---
		2480	0.39	0.62	62.90	2.564103	---	---
BLE_2M	Ant1	2402	0.21	0.63	33.33	4.761905	---	---
		2440	0.21	0.63	33.33	4.761905	---	---
		2480	0.21	0.63	33.33	4.761905	---	---

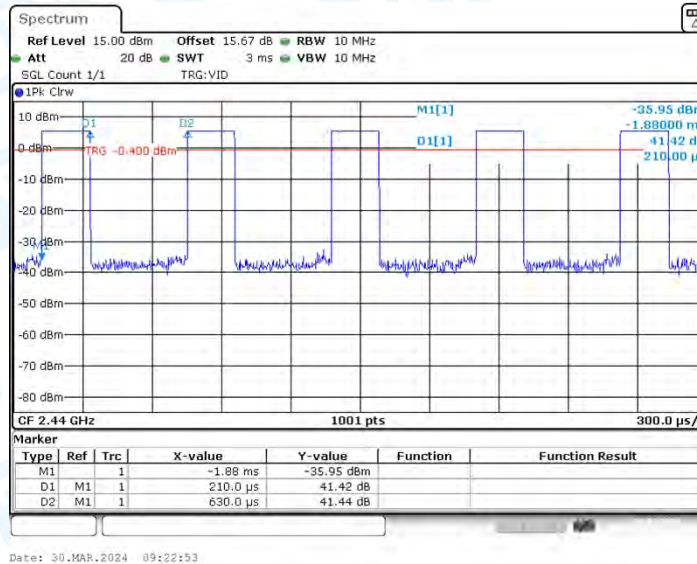
7.2. Test Graphs



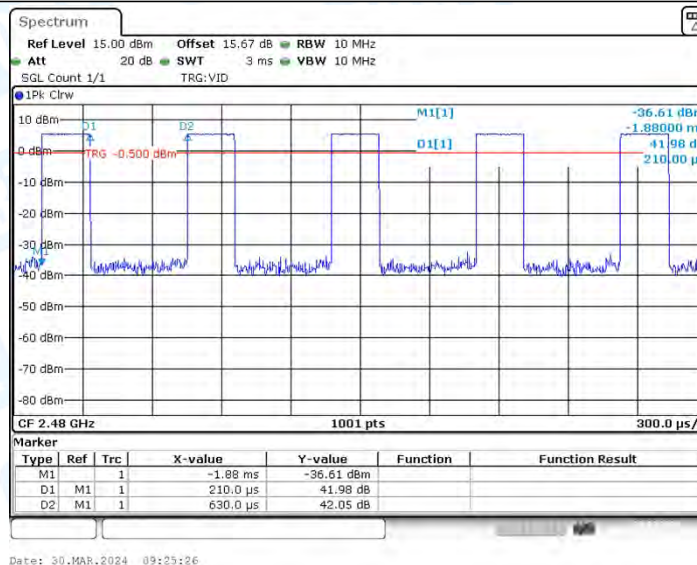
BLE_2M_Ant1_2402



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	-53.54	≤-41.20	PASS
				AV	2342.000	-50.03	≤-41.20	PASS
				AV	2390.000	-53.71	≤-41.20	PASS
				Peak	2310.000	-44.3	≤-21.20	PASS
				Peak	2341.696	-38.18	≤-21.20	PASS
				Peak	2390.000	-41.77	≤-21.20	PASS
		High	2480	AV	2483.500	-51.25	≤-41.20	PASS
				AV	2484.841	-51.29	≤-41.20	PASS
				AV	2500.000	-52.68	≤-41.20	PASS
				Peak	2483.500	-40.81	≤-21.20	PASS
				Peak	2487.391	-39.52	≤-21.20	PASS
				Peak	2500.000	-42.06	≤-21.20	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-53.12	≤-41.20	PASS
				AV	2341.848	-50.22	≤-41.20	PASS
				AV	2390.000	-53.67	≤-41.20	PASS
				Peak	2310.000	-42.63	≤-21.20	PASS
				Peak	2366.500	-39.86	≤-21.20	PASS
				Peak	2390.000	-43.29	≤-21.20	PASS
		High	2480	AV	2483.500	-48.79	≤-41.20	PASS
				AV	2483.565	-49.19	≤-41.20	PASS
				AV	2500.000	-52.36	≤-41.20	PASS
				Peak	2483.500	-38.53	≤-21.20	PASS
				Peak	2483.565	-38.65	≤-21.20	PASS
				Peak	2500.000	-43.35	≤-21.20	PASS

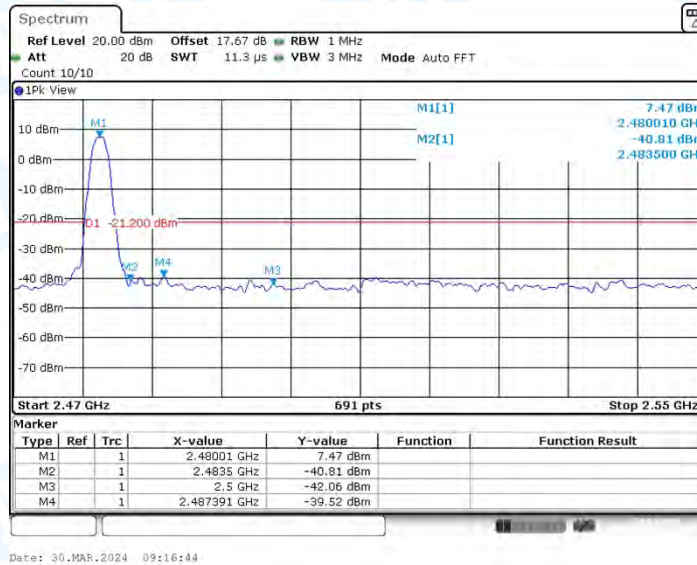
Note:

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.

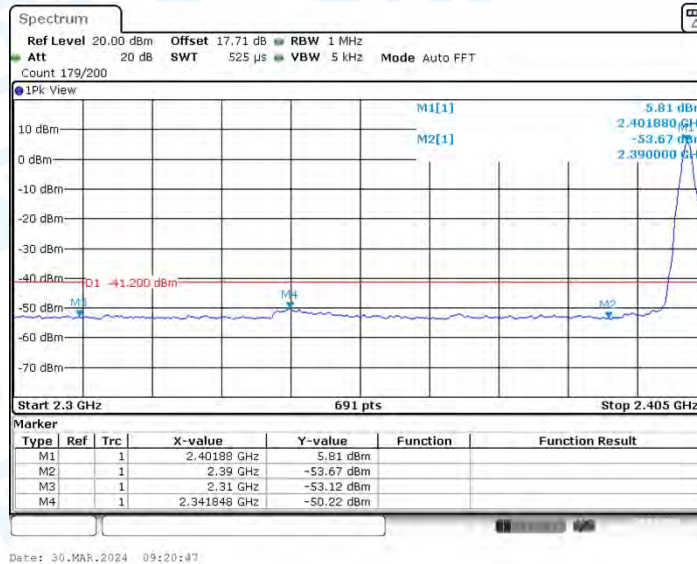
8.2. Test Graphs



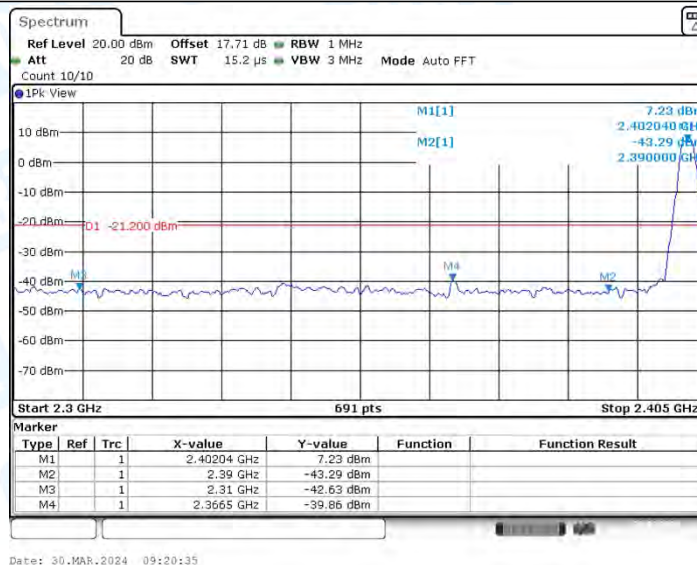
BLE_1M_Ant1_High_2480_Peak



BLE_2M_Ant1_Low_2402_AV



BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



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