

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	tablet computer
Test Model:	AYANEO 2
Sample ID:	RW-C-202211-0017-4-2#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 11.55V
Test Engineer:	Zhou Hai Ting
Note: For a more detailed features description, please refer to the report TBR-C-202211-0017-41	

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1. DTS Bandwidth

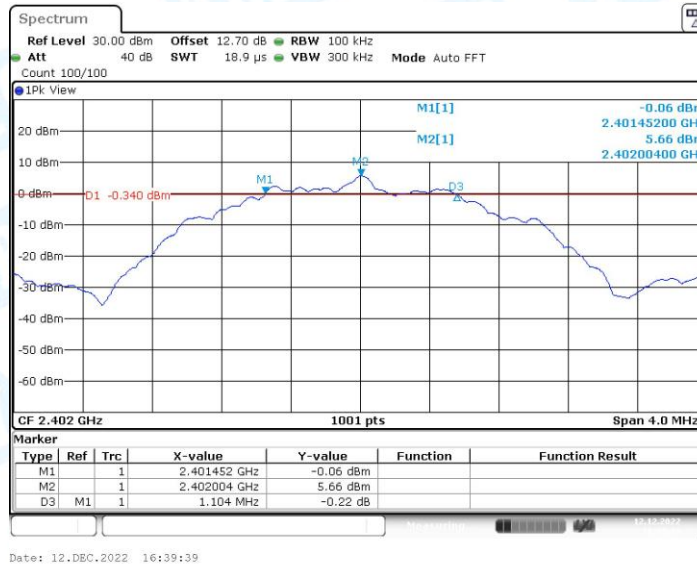
1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.67	2401.67	2402.34	0.5	PASS
		2440	0.68	2439.67	2440.35	0.5	PASS
		2480	0.68	2479.66	2480.34	0.5	PASS
BLE_2M	Ant1	2402	1.10	2401.45	2402.56	0.5	PASS
		2440	1.11	2439.45	2440.56	0.5	PASS
		2480	1.12	2479.44	2480.57	0.5	PASS

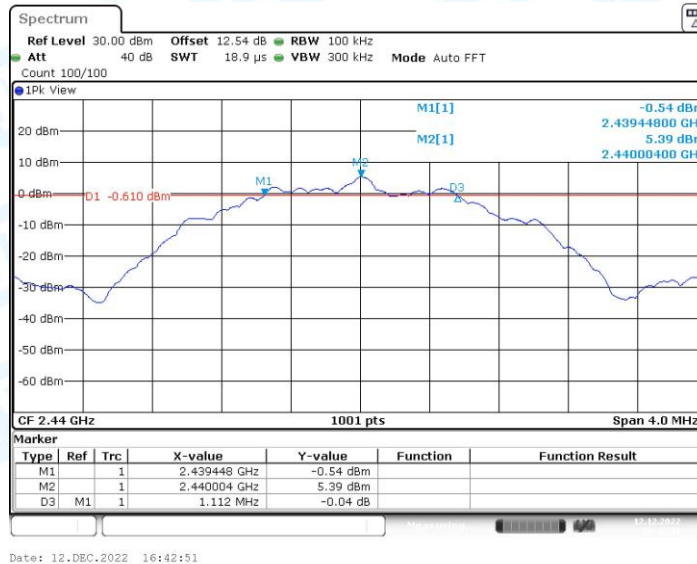
1.2. Test Graphs



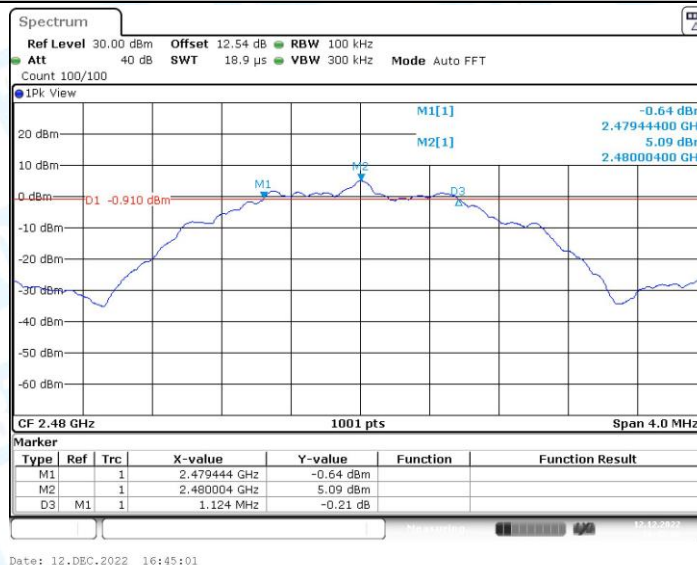
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

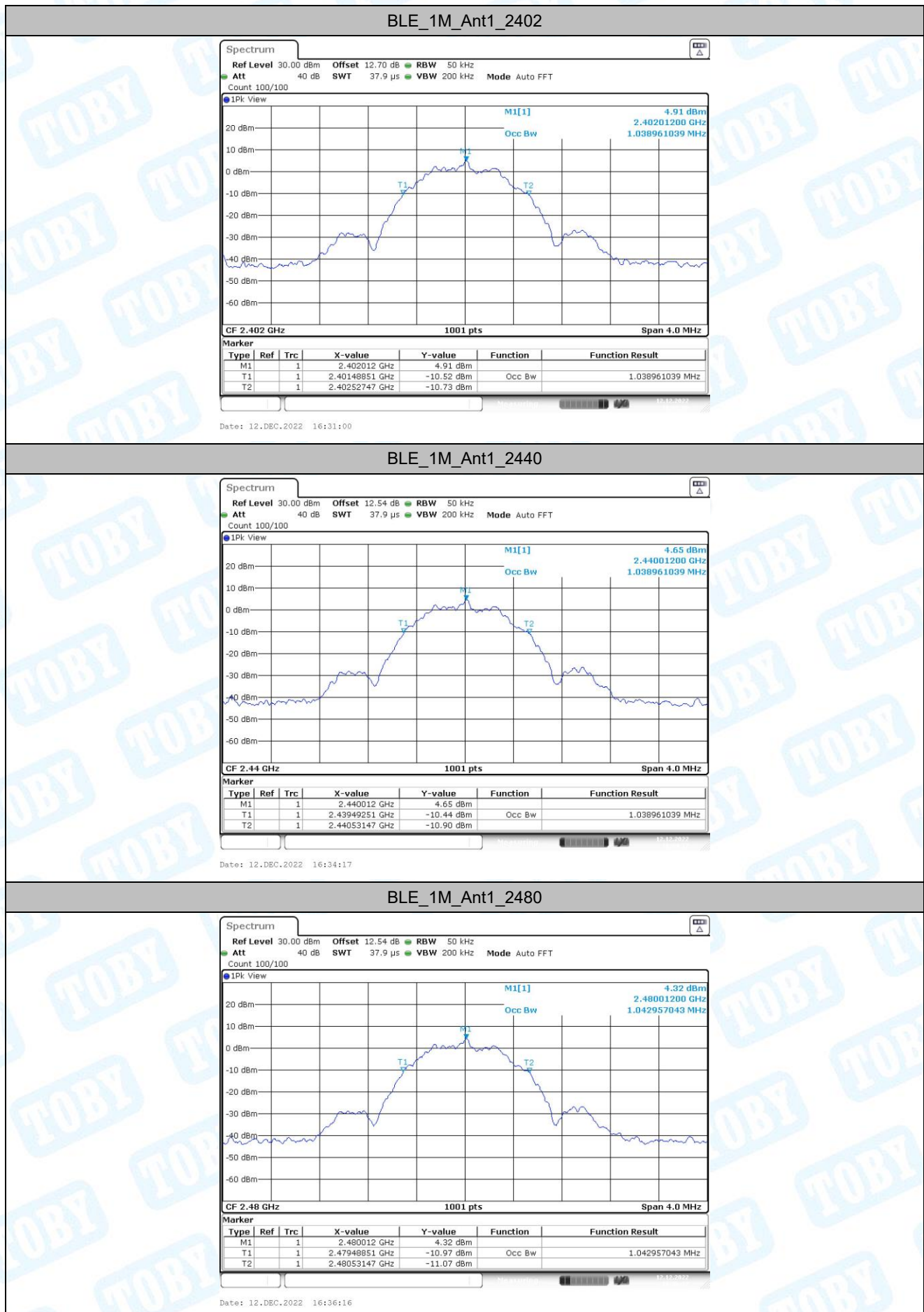


2. Occupied Channel Bandwidth

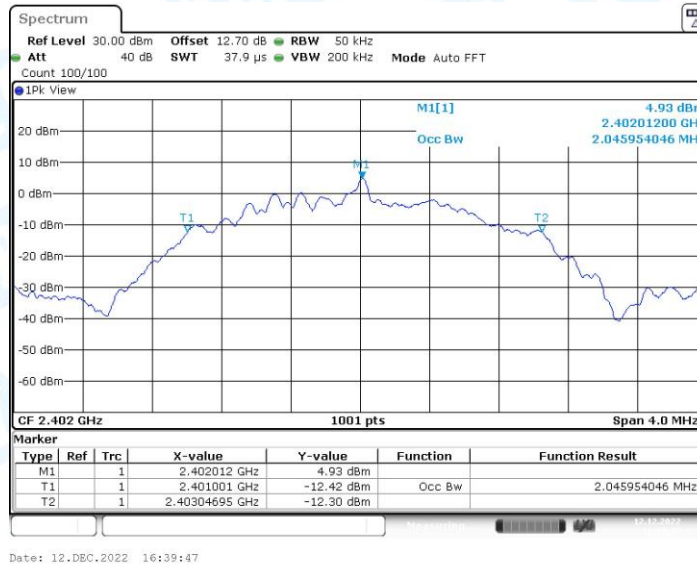
2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.039	2401.4885	2402.5275	---	---
		2440	1.039	2439.4925	2440.5315	---	---
		2480	1.043	2479.4885	2480.5315	---	---
BLE_2M	Ant1	2402	2.046	2401.0010	2403.0470	---	---
		2440	2.046	2439.0010	2441.0470	---	---
		2480	2.05	2478.9970	2481.0470	---	---

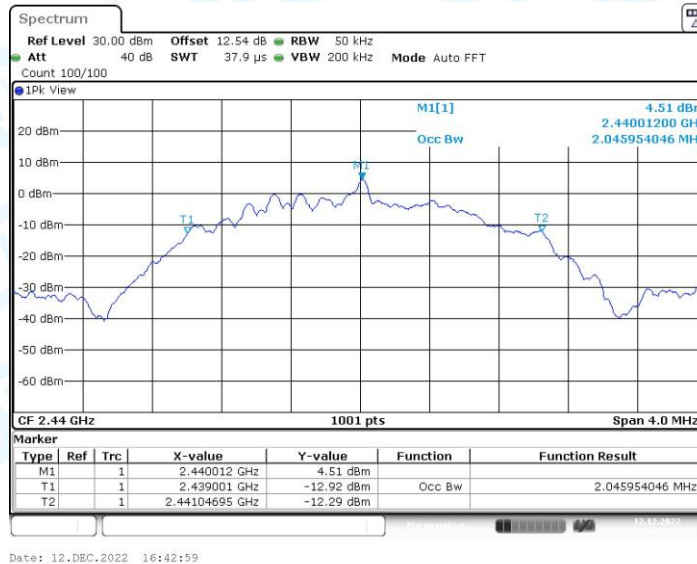
2.2. Test Graphs



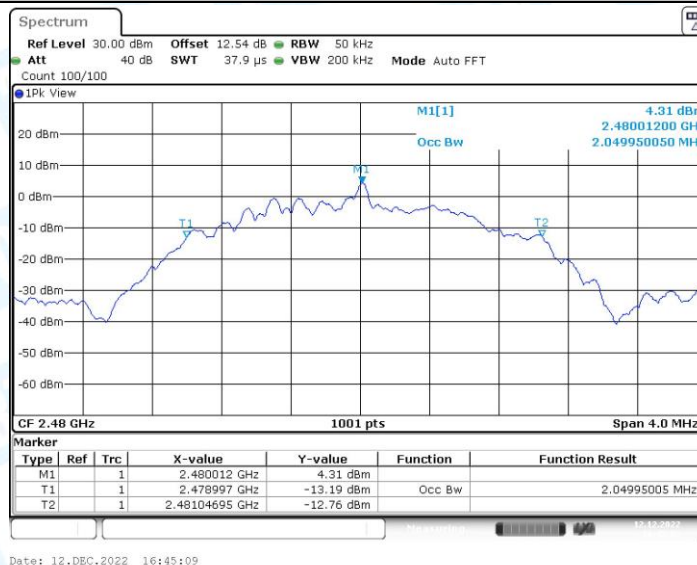
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

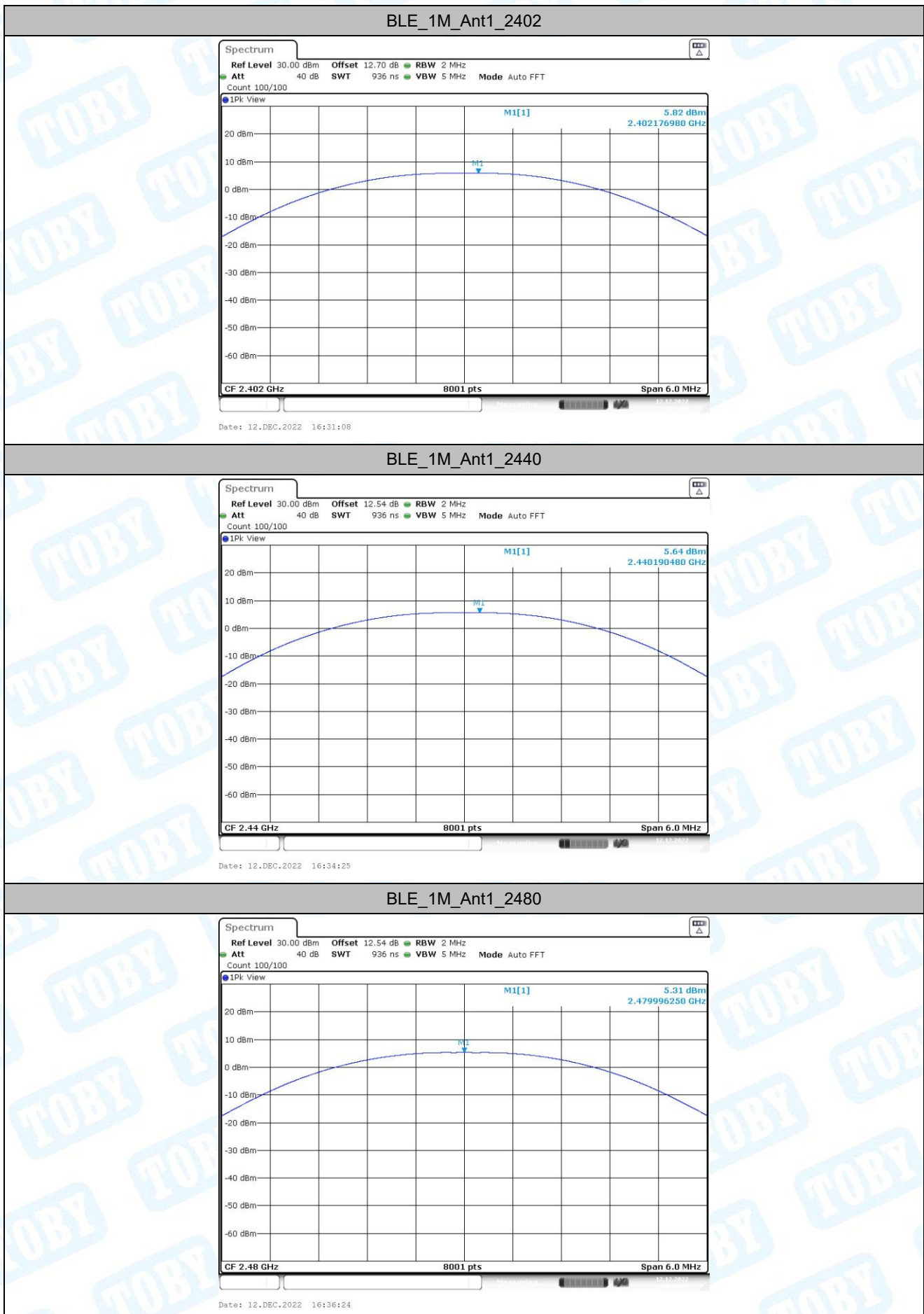


3. Maximum conducted output power

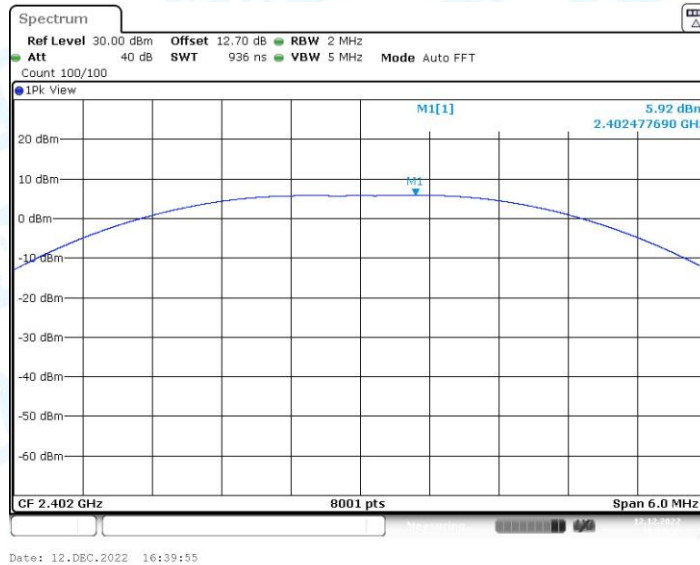
3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5.82	≤30	PASS
		2440	5.64	≤30	PASS
		2480	5.31	≤30	PASS
BLE_2M	Ant1	2402	5.92	≤30	PASS
		2440	5.58	≤30	PASS
		2480	5.31	≤30	PASS

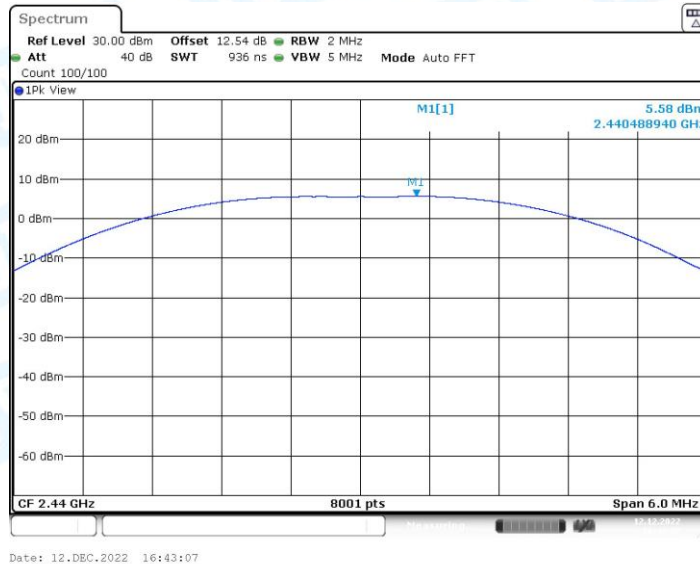
3.2. Test Graphs



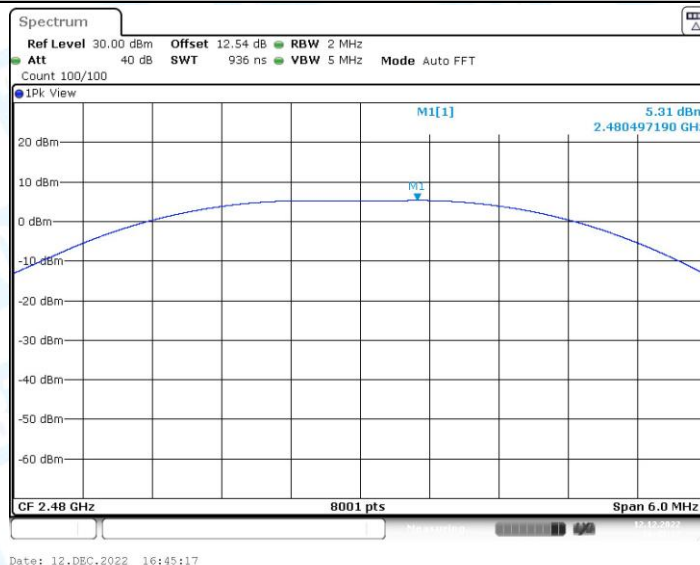
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

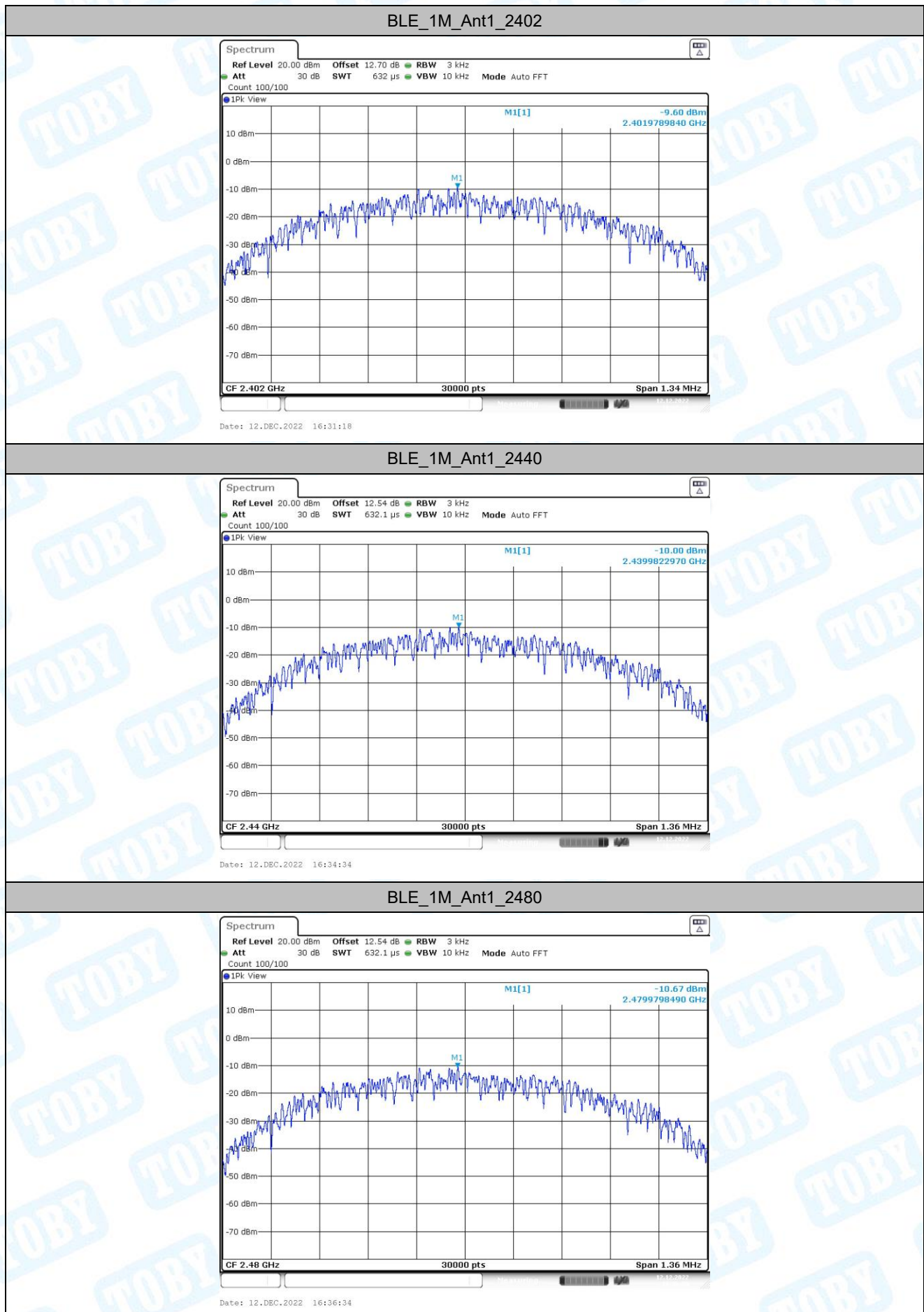


4. Maximum power spectral density

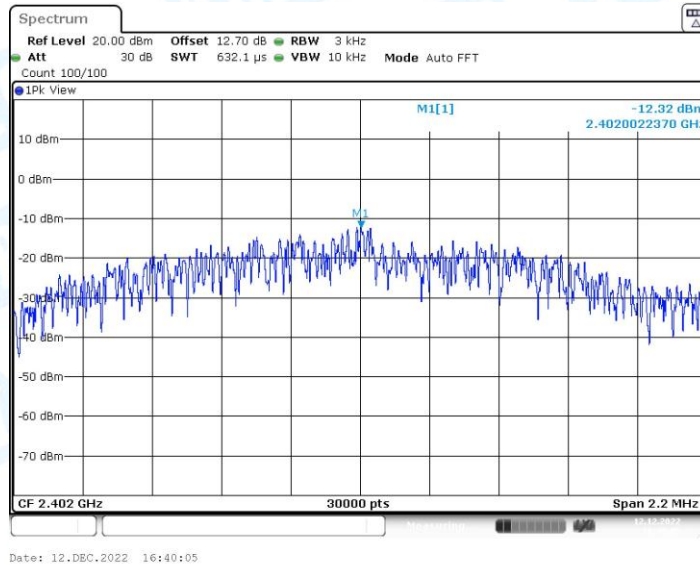
4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.6	≤8.00	PASS
		2440	-10	≤8.00	PASS
		2480	-10.67	≤8.00	PASS
BLE_2M	Ant1	2402	-12.32	≤8.00	PASS
		2440	-12.28	≤8.00	PASS
		2480	-12.59	≤8.00	PASS

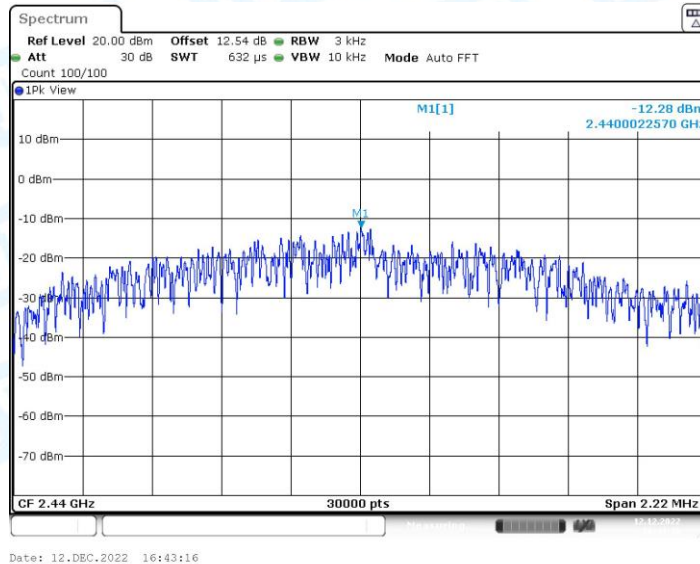
4.2. Test Graphs



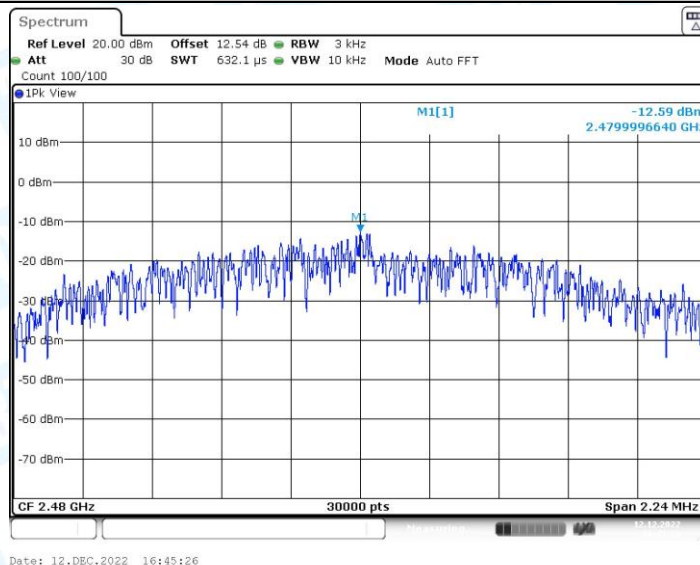
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

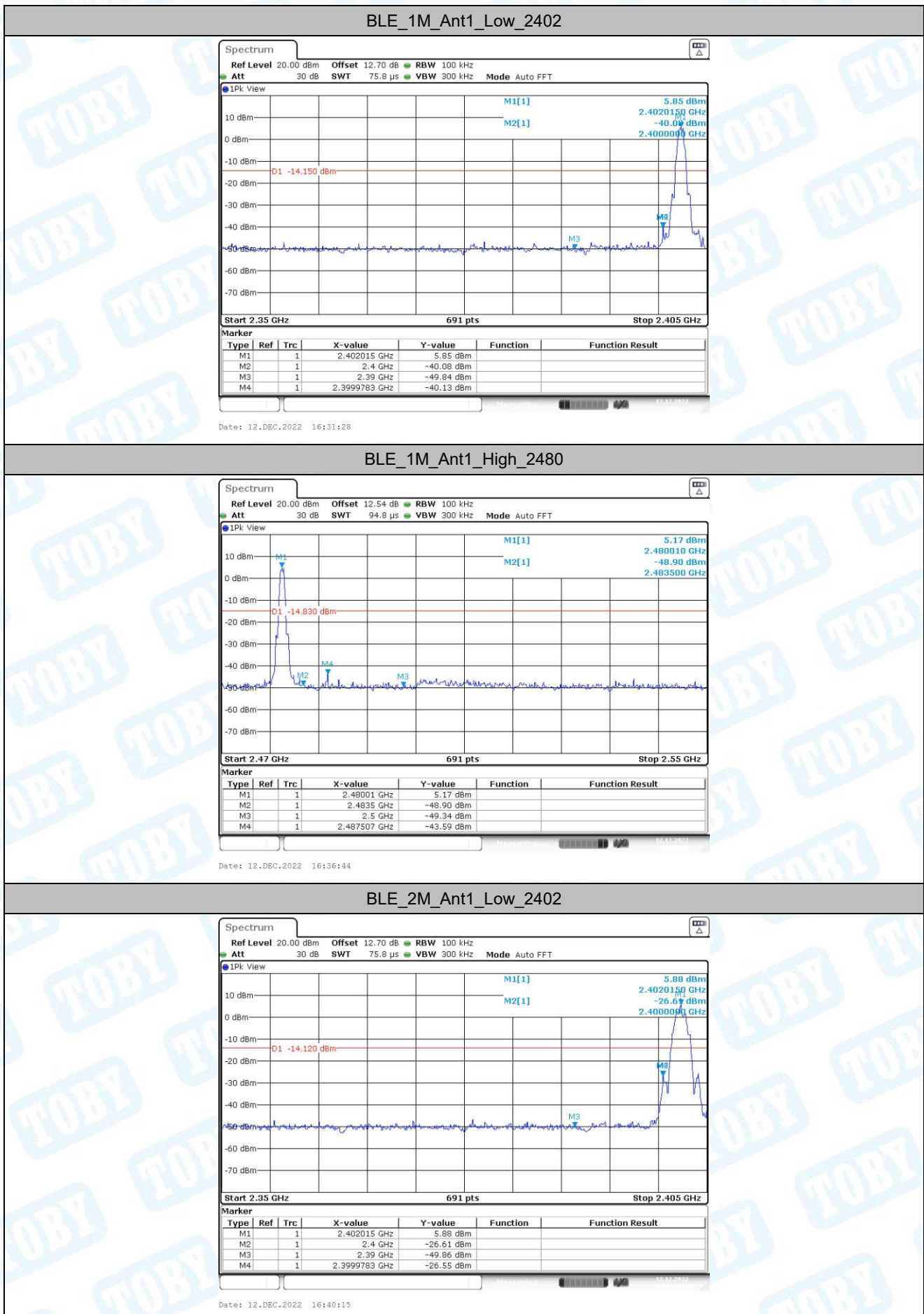


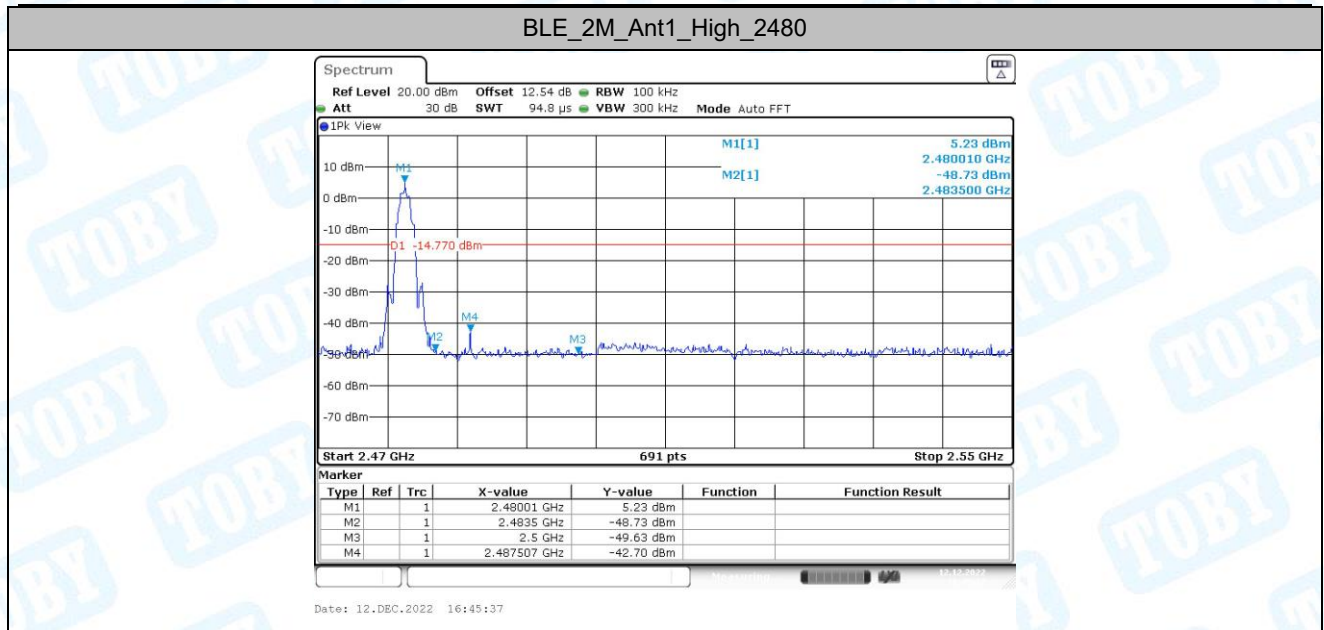
5. Band edge measurements

5.1. Test Result

Test Mode	Antenna	ChName	Channel	Ref.Level[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	5.85	-40.13	≤ -14.15	PASS
		High	2480	5.17	-43.59	≤ -14.83	PASS
BLE_2M	Ant1	Low	2402	5.88	-26.55	≤ -14.12	PASS
		High	2480	5.23	-42.7	≤ -14.77	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	5.67	5.67	---	PASS
			30~1000	5.67	-57.78	≤-14.33	PASS
			1000~26500	5.67	-48.29	≤-14.33	PASS
		2440	Reference	5.42	5.42	---	PASS
			30~1000	5.42	-57.52	≤-14.58	PASS
			1000~26500	5.42	-49.24	≤-14.58	PASS
		2480	Reference	5.14	5.14	---	PASS
			30~1000	5.14	-56.95	≤-14.86	PASS
			1000~26500	5.14	-48.59	≤-14.86	PASS
BLE_2M	Ant1	2402	Reference	5.72	5.72	---	PASS
			30~1000	5.72	-57.91	≤-14.28	PASS
			1000~26500	5.72	-48.46	≤-14.28	PASS
		2440	Reference	5.43	5.43	---	PASS
			30~1000	5.43	-57.84	≤-14.57	PASS
			1000~26500	5.43	-48.35	≤-14.57	PASS
		2480	Reference	5.15	5.15	---	PASS
			30~1000	5.15	-57.42	≤-14.85	PASS
			1000~26500	5.15	-47.82	≤-14.85	PASS

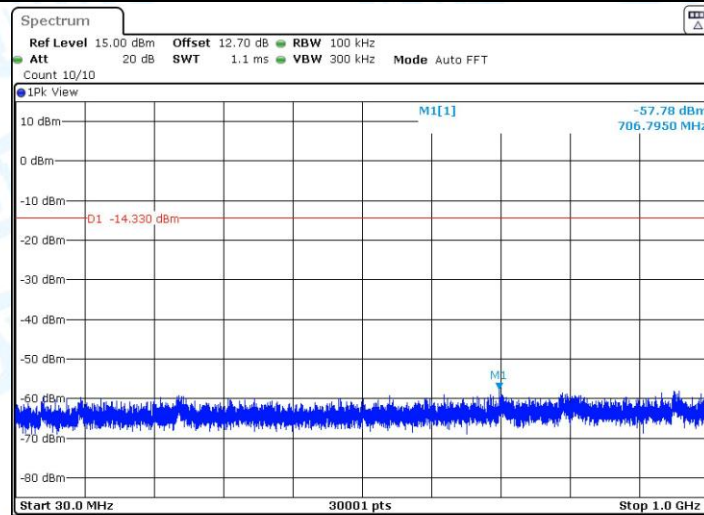
6.2. Test Graphs

BLE_1M_Ant1_2402_0~Reference



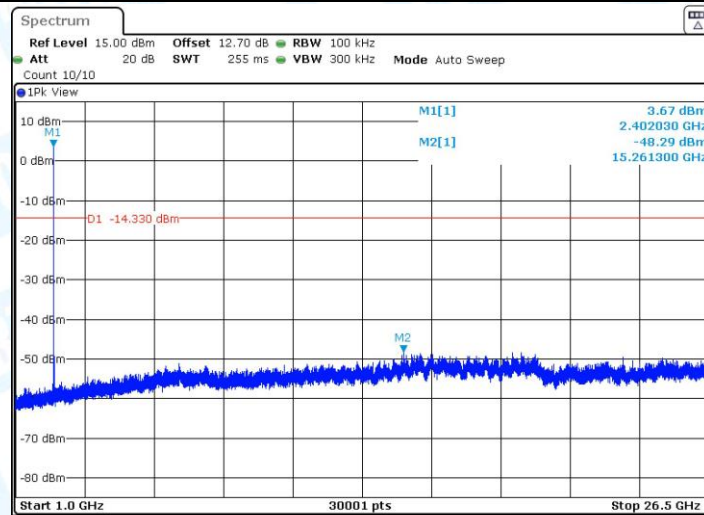
Date: 12.DEC.2022 16:32:37

BLE_1M_Ant1_2402_30~1000



Date: 12.DEC.2022 16:32:50

BLE_1M_Ant1_2402_1000~26500

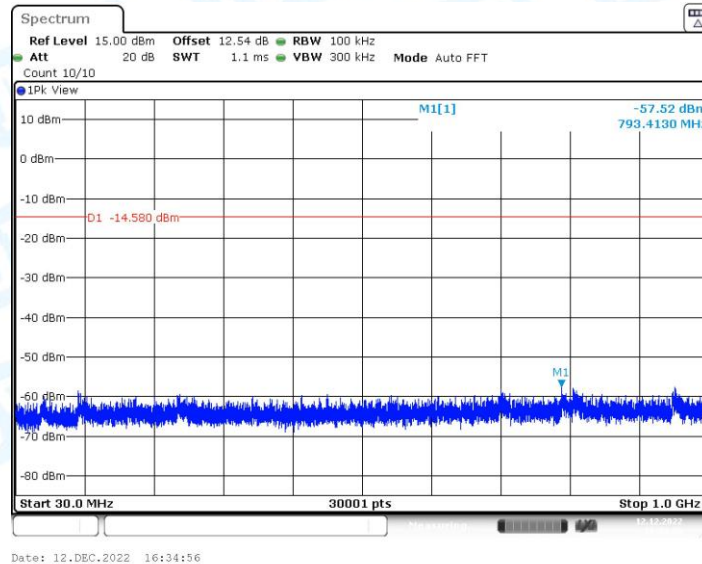


Date: 12.DEC.2022 16:33:30

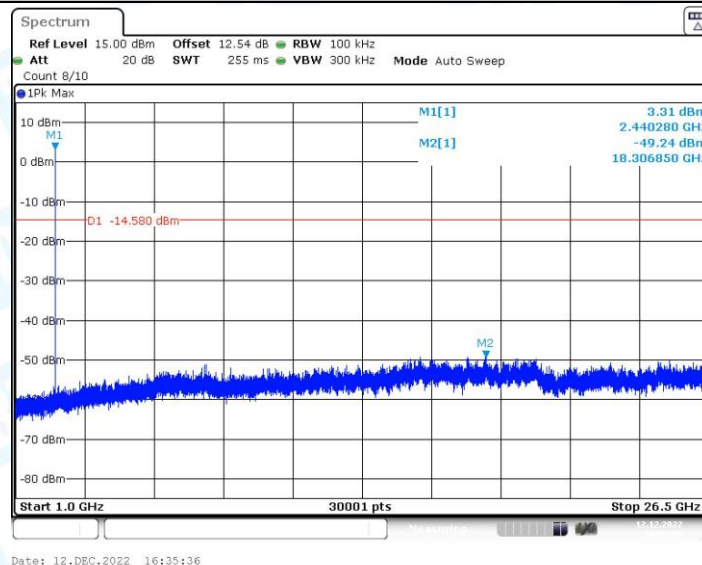
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



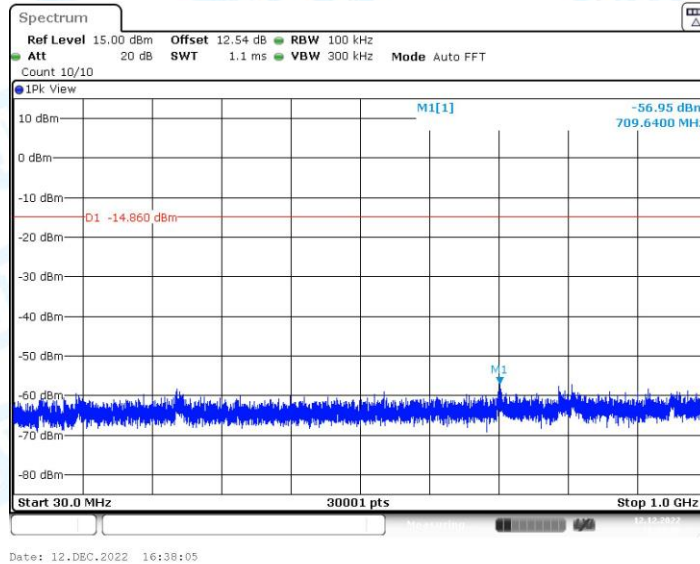
BLE_1M_Ant1_2440_1000~26500



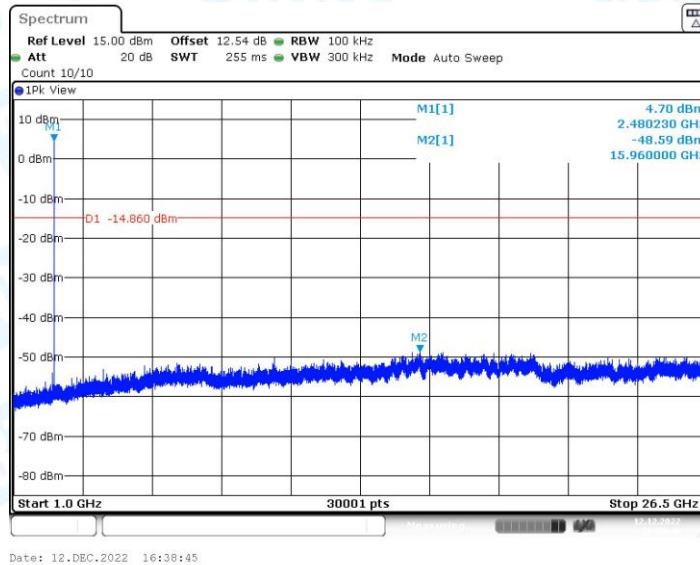
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



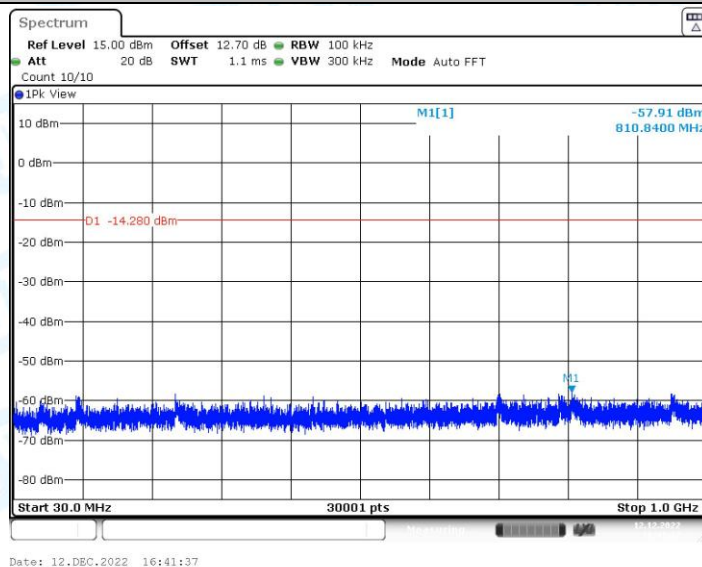
BLE_1M_Ant1_2480_1000~26500



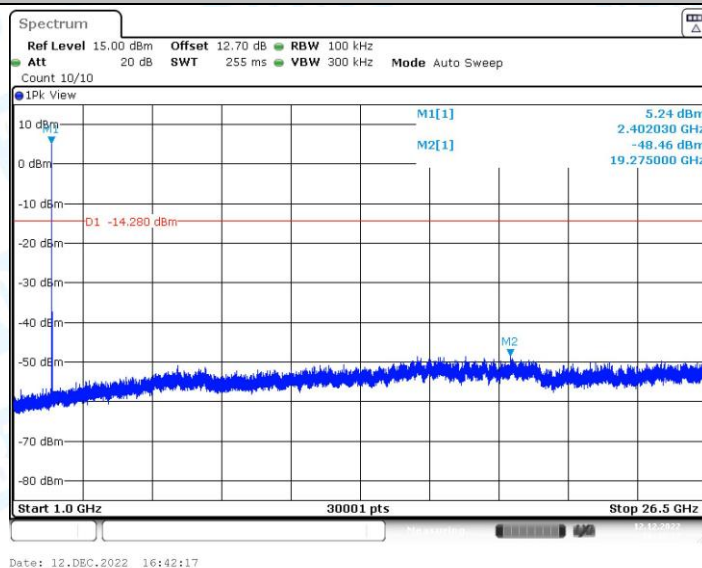
BLE_2M_Ant1_2402_0~Reference



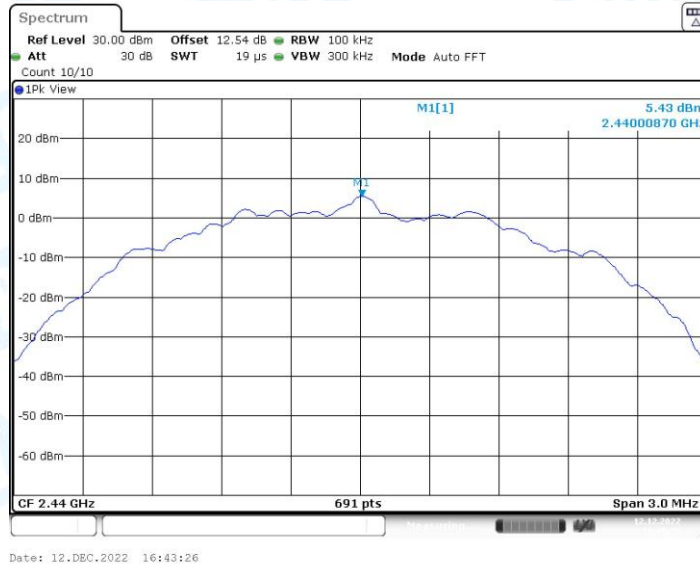
BLE_2M_Ant1_2402_30~1000



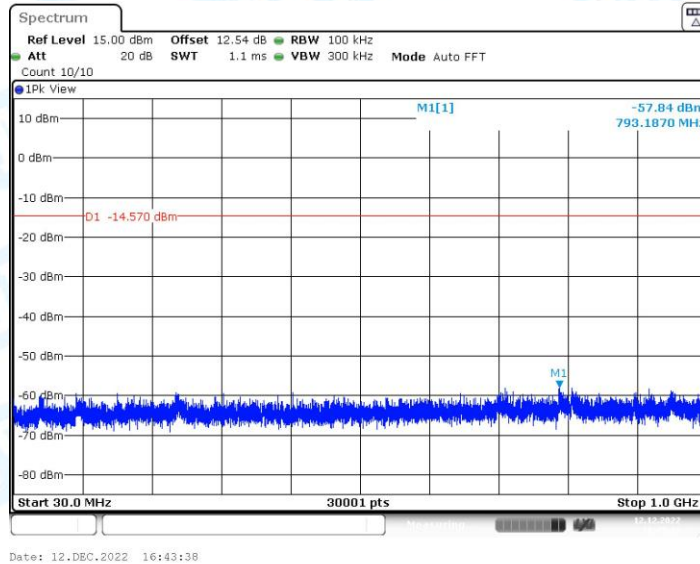
BLE_2M_Ant1_2402_1000~26500



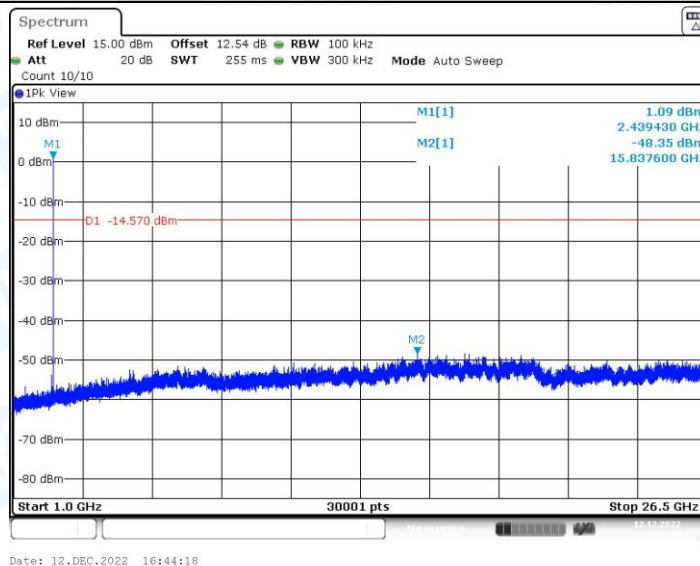
BLE_2M_Ant1_2440_0~Reference



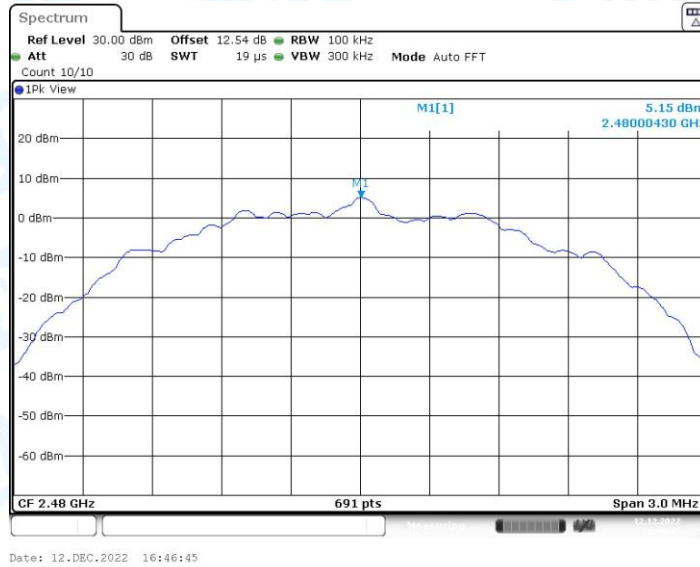
BLE_2M_Ant1_2440_30~1000



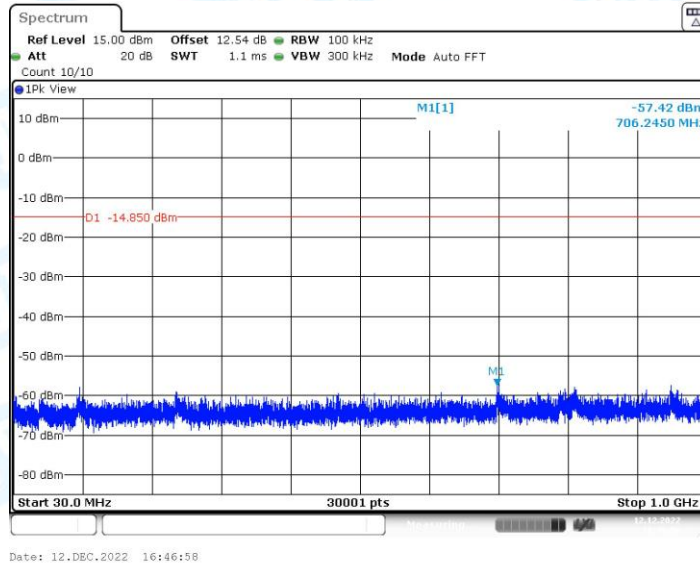
BLE_2M_Ant1_2440_1000~26500



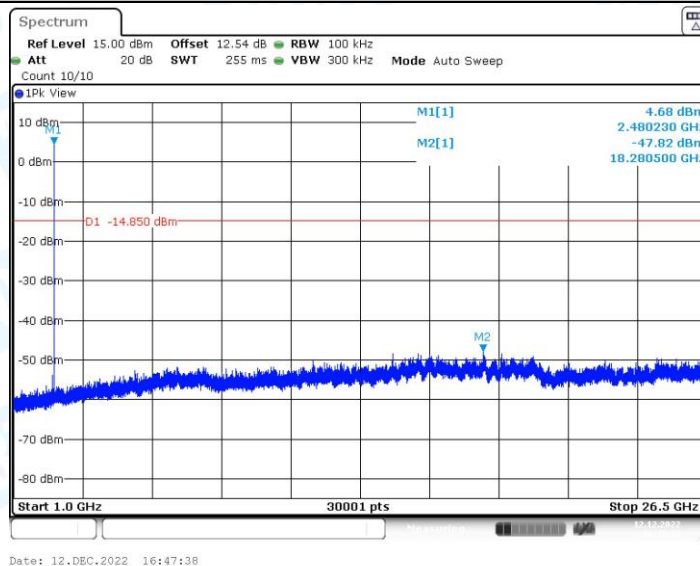
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



7. Duty Cycle

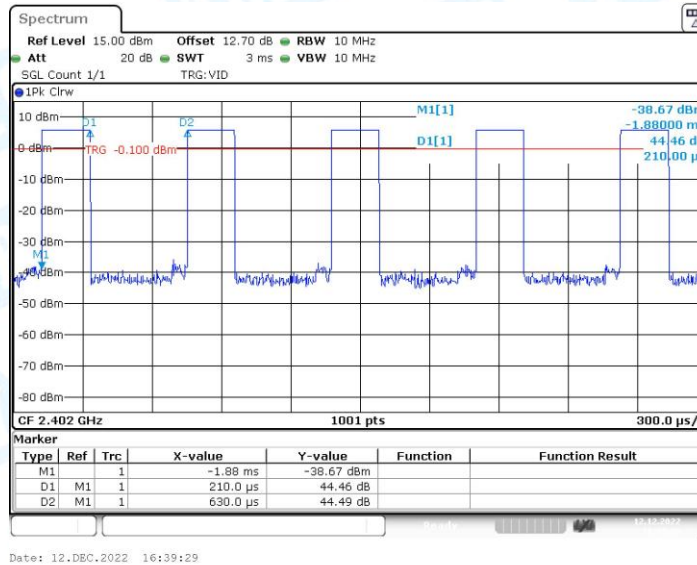
7.1. Test Result

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	2.564	---	---
		2440	0.39	0.62	62.90	2.564	---	---
		2480	0.39	0.62	62.90	2.564	---	---
BLE_2M	Ant1	2402	0.21	0.63	33.33	4.762	---	---
		2440	0.21	0.63	33.33	4.762	---	---
		2480	0.21	0.63	33.33	4.762	---	---

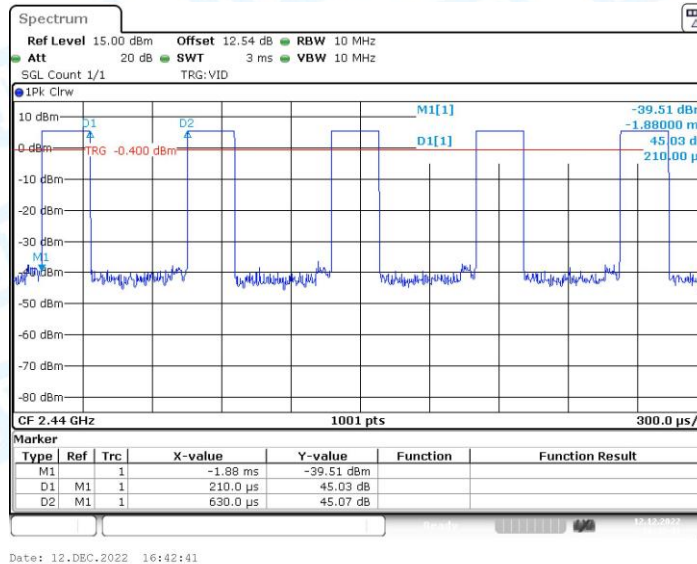
7.2. Test Graphs



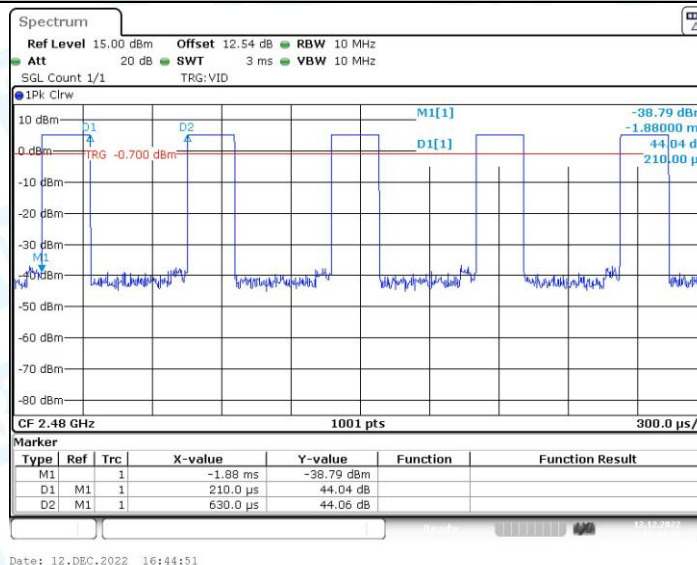
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



8. Emissions in Restricted Bands

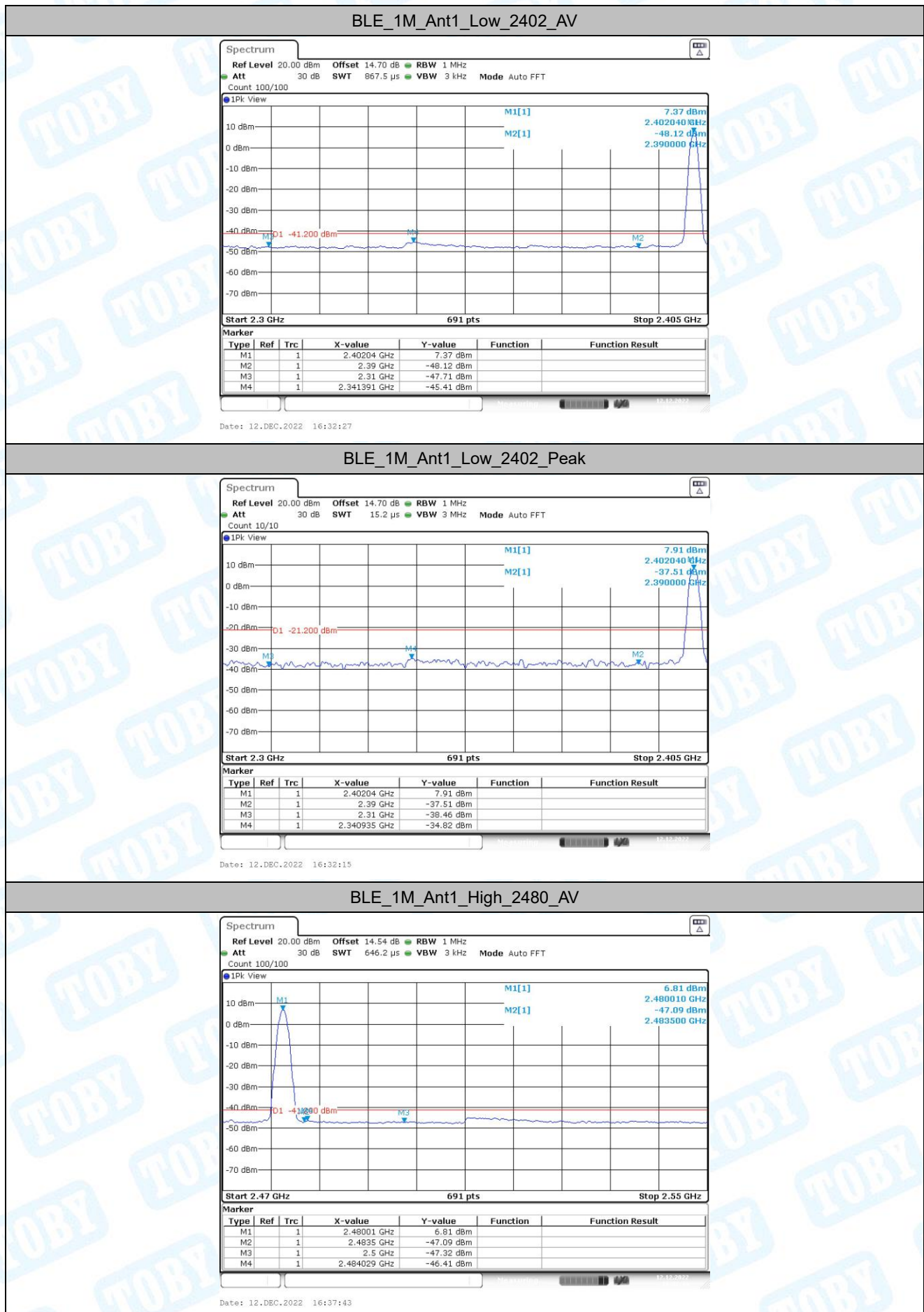
8.1. Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-47.71	≤-41.20	PASS
				AV	2341.391	-45.41	≤-41.20	PASS
				AV	2390.000	-48.12	≤-41.20	PASS
				Peak	2310.000	-38.46	≤-21.20	PASS
				Peak	2340.935	-34.82	≤-21.20	PASS
				Peak	2390.000	-37.51	≤-21.20	PASS
		High	2480	AV	2483.500	-47.09	≤-41.20	PASS
				AV	2484.029	-46.41	≤-41.20	PASS
				AV	2500.000	-47.32	≤-41.20	PASS
				Peak	2483.500	-37.31	≤-21.20	PASS
				Peak	2483.913	-35.47	≤-21.20	PASS
				Peak	2500.000	-37.49	≤-21.20	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-47.54	≤-41.20	PASS
				AV	2340.022	-44.29	≤-41.20	PASS
				AV	2390.000	-47.4	≤-41.20	PASS
				Peak	2310.000	-38.26	≤-21.20	PASS
				Peak	2341.239	-34.19	≤-21.20	PASS
				Peak	2390.000	-38.62	≤-21.20	PASS
		High	2480	AV	2483.500	-46.15	≤-41.20	PASS
				AV	2487.159	-46.08	≤-41.20	PASS
				AV	2500.000	-46.39	≤-41.20	PASS
				Peak	2483.500	-37.14	≤-21.20	PASS
				Peak	2486.232	-35.69	≤-21.20	PASS
				Peak	2500.000	-36.71	≤-21.20	PASS

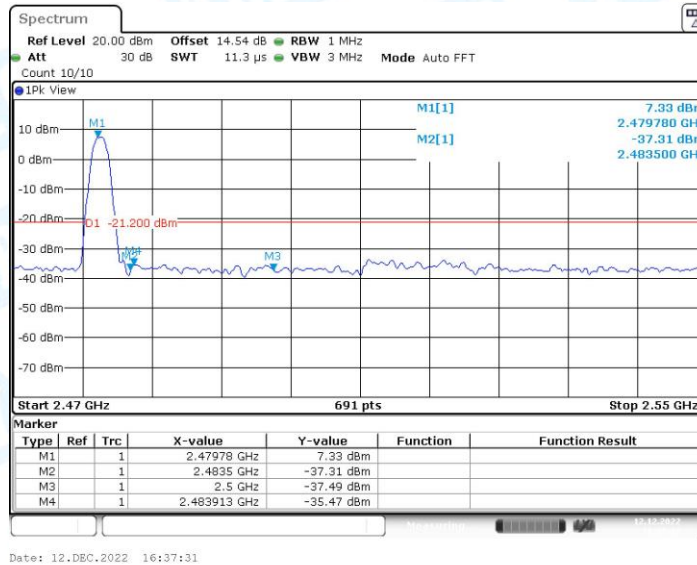
Note:

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.

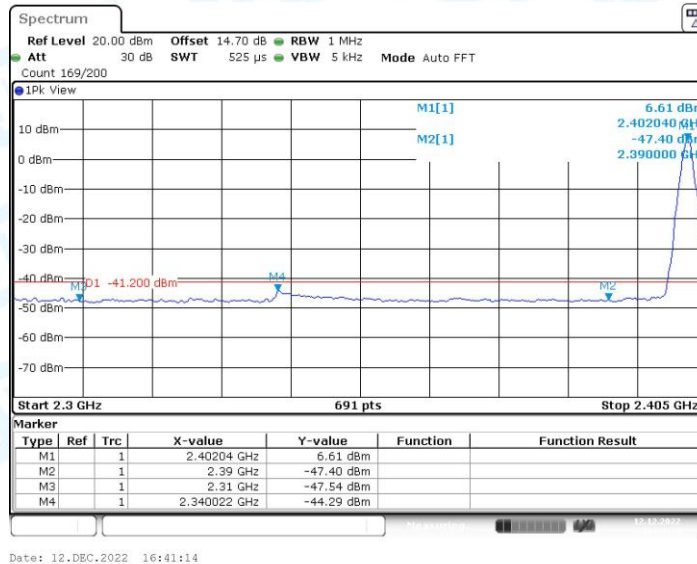
8.2. Test Graphs



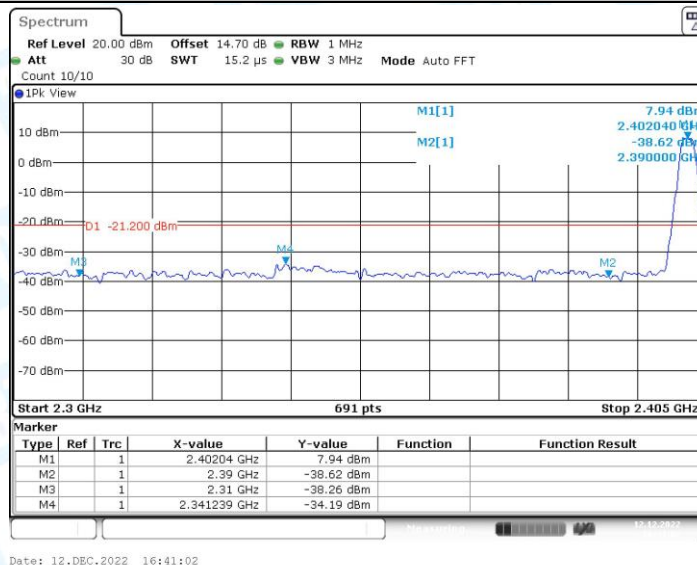
BLE_1M_Ant1_High_2480_Peak



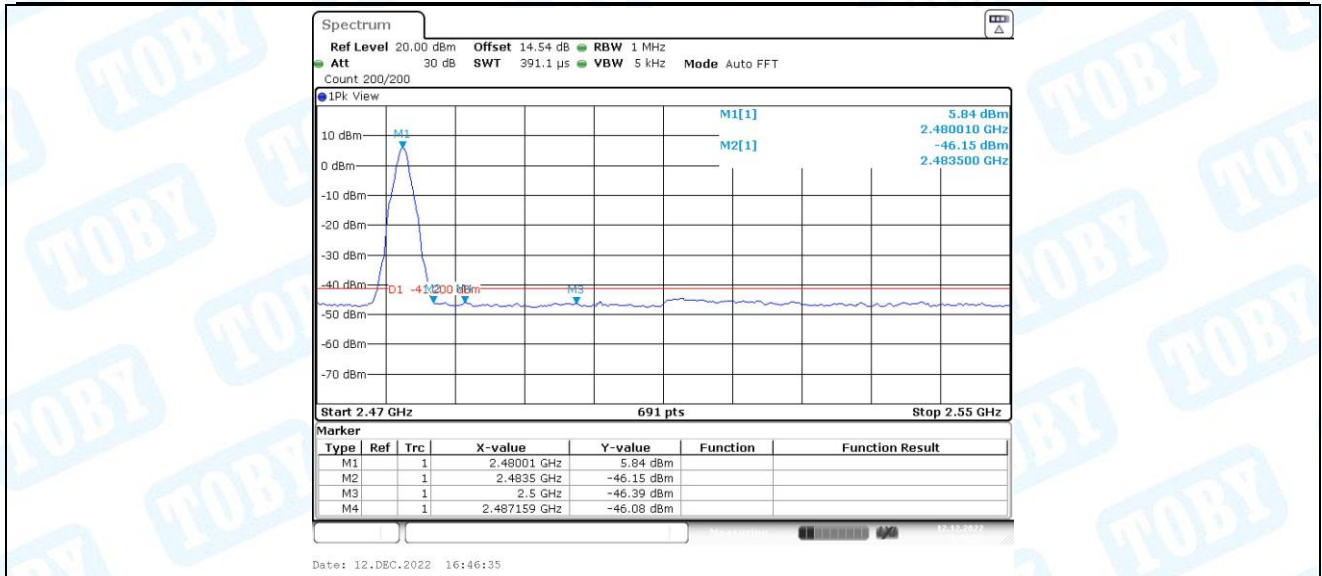
BLE_2M_Ant1_Low_2402_AV



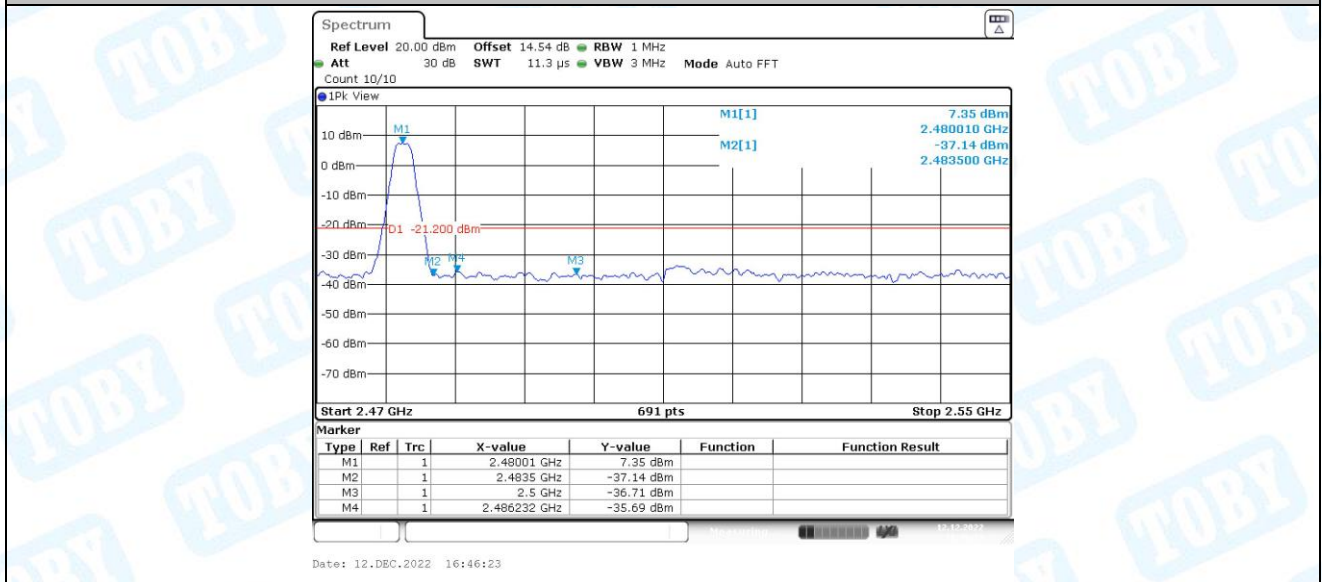
BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak



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