

RF Test Data for BLE (Conducted Measurements)

General Description of EUT	
EUT Name:	Ebook Reader
Model:	B6
Sample ID:	HC-C-202506-0031-01-01-2#
Test Standard:	FCC Part 15.247
Environmental Conditions	
Ambient Temperature:	25°C
Ambient Humidity:	45%RH
Test Power Supply:	DC 3.85V
Test Engineer:	Rick. chen
Note: For a more detailed features description, please refer to the report TBR-C-202506-0031-171	

Contents

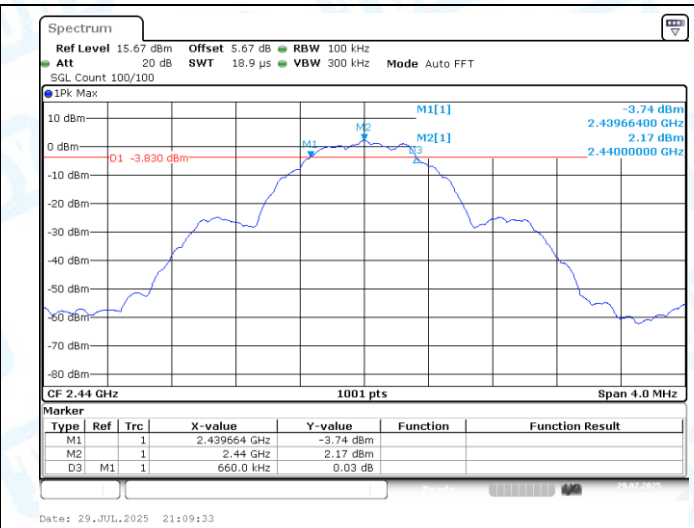
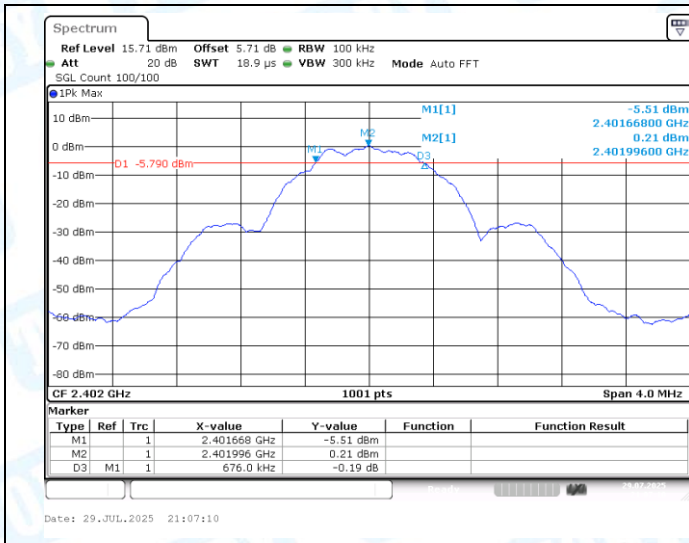
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1: DTS Bandwidth

1.1 Test Result

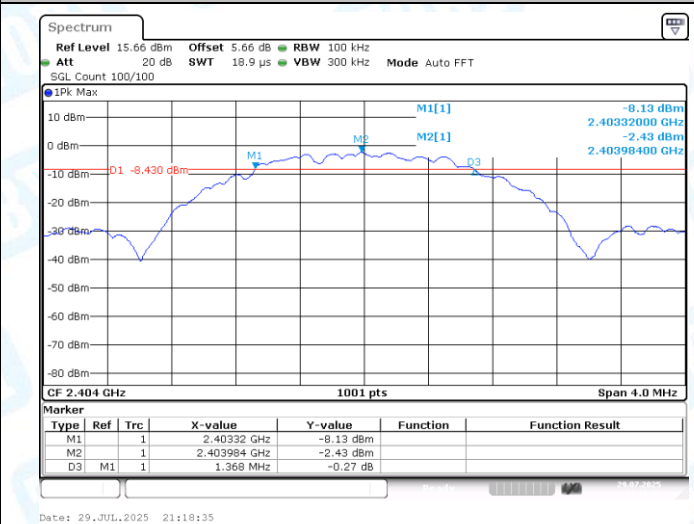
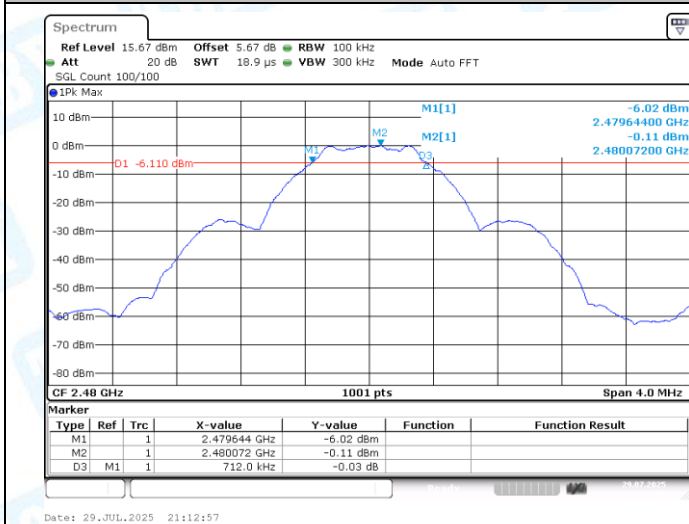
Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.68	2401.67	2402.34	0.5	PASS
BLE_1M	Ant1	2440	0.66	2439.66	2440.32	0.5	PASS
BLE_1M	Ant1	2480	0.71	2479.64	2480.36	0.5	PASS
BLE_2M	Ant1	2404	1.37	2403.32	2404.69	0.5	PASS
BLE_2M	Ant1	2440	1.12	2439.46	2440.58	0.5	PASS
BLE_2M	Ant1	2478	1.30	2477.32	2478.61	0.5	PASS

1.2 Test Graphs



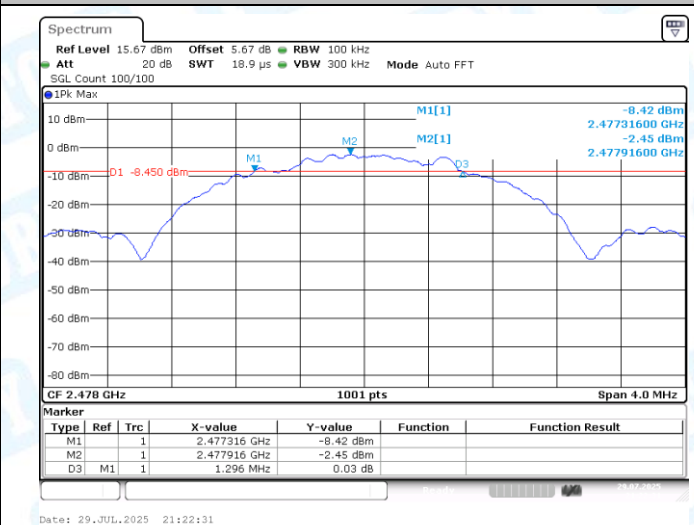
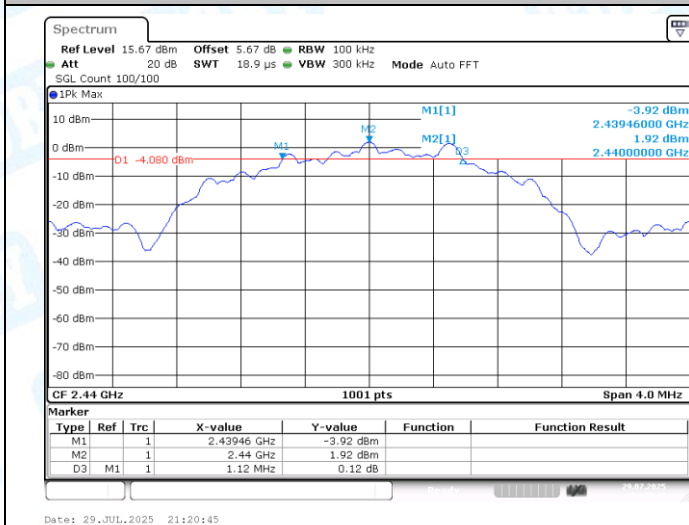
BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2440-PASS



BLE_1M-Ant1-2480-PASS

BLE_2M-Ant1-2404-PASS



BLE_2M-Ant1-2440-PASS

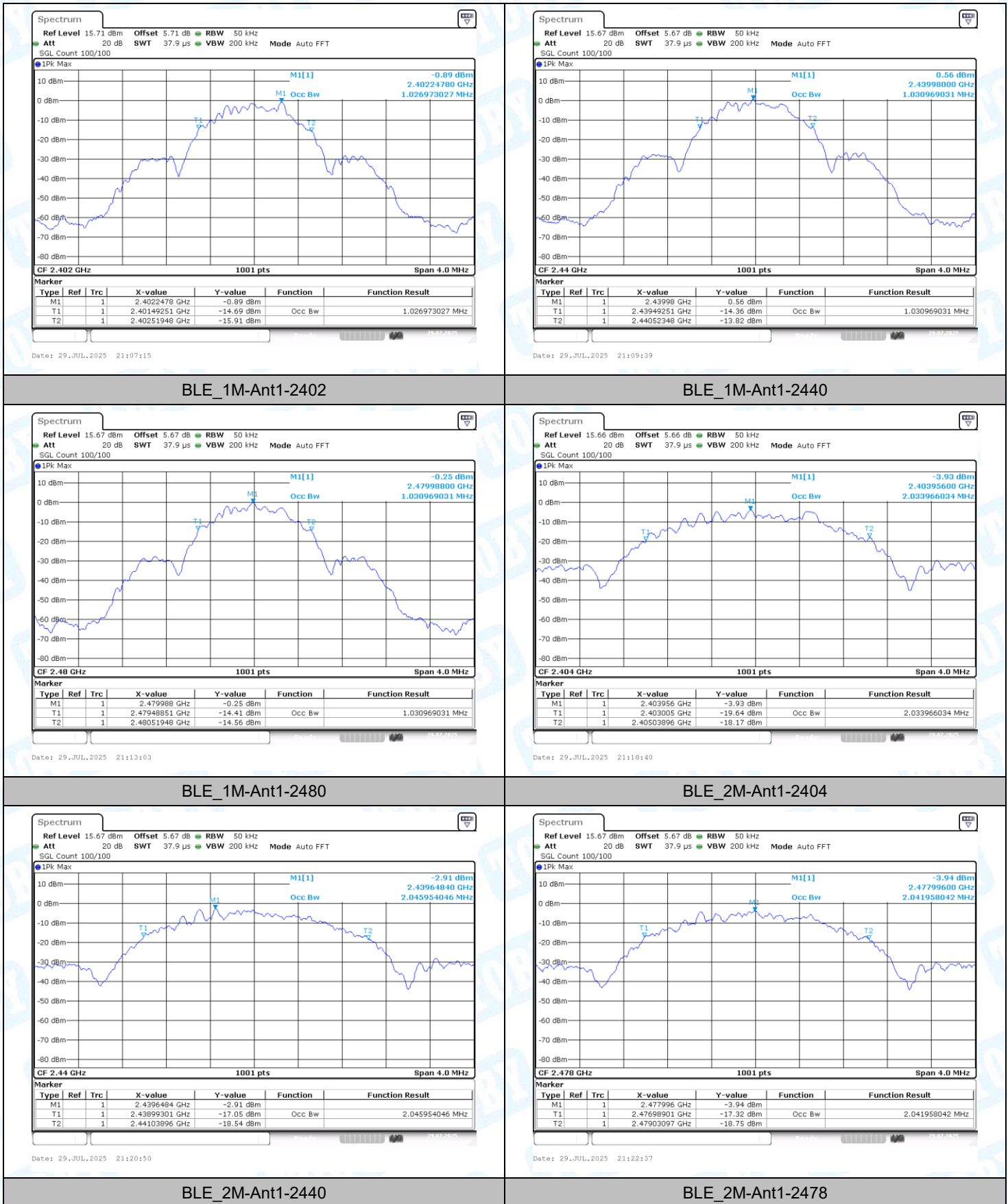
BLE_2M-Ant1-2478-PASS

2: Occupied Channel Bandwidth

2.1 Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0270	2401.4925	2402.5195	---	---
BLE_1M	Ant1	2440	1.0310	2439.4925	2440.5235	---	---
BLE_1M	Ant1	2480	1.0310	2479.4885	2480.5195	---	---
BLE_2M	Ant1	2404	2.0340	2403.0050	2405.0390	---	---
BLE_2M	Ant1	2440	2.0460	2438.9930	2441.0390	---	---
BLE_2M	Ant1	2478	2.0420	2476.9890	2479.0310	---	---

2.2 Test Graphs

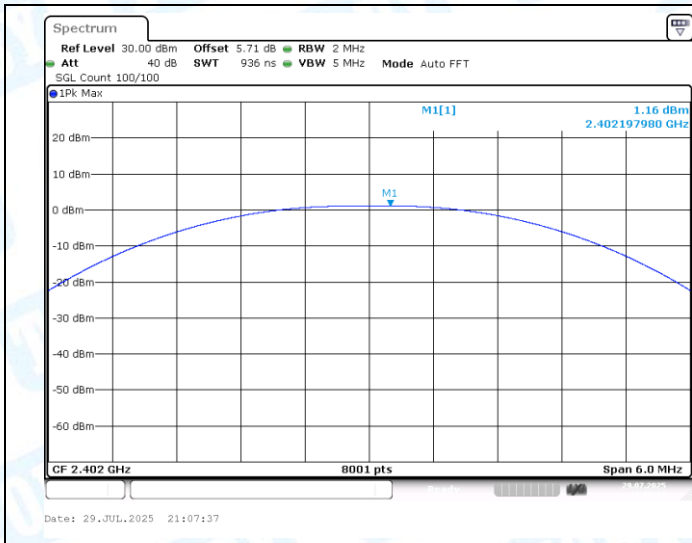


3: Maximum conducted output power

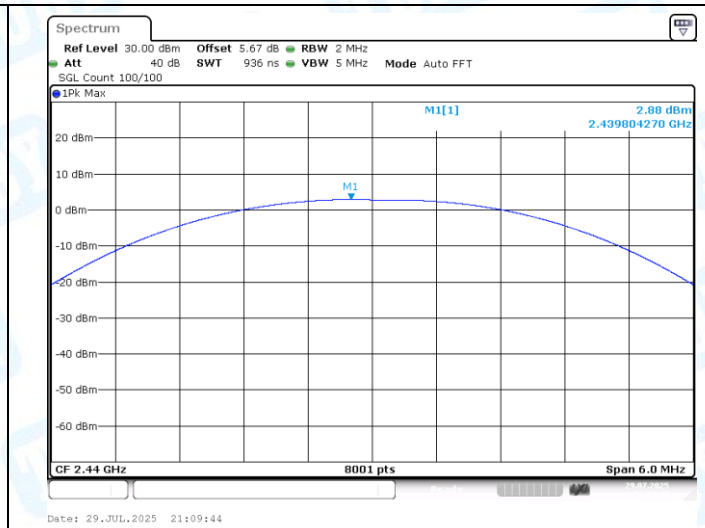
3.1 Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.16	≤30	PASS
BLE_1M	Ant1	2440	2.88	≤30	PASS
BLE_1M	Ant1	2480	1.62	≤30	PASS
BLE_2M	Ant1	2404	1.02	≤30	PASS
BLE_2M	Ant1	2440	2.64	≤30	PASS
BLE_2M	Ant1	2478	1.55	≤30	PASS

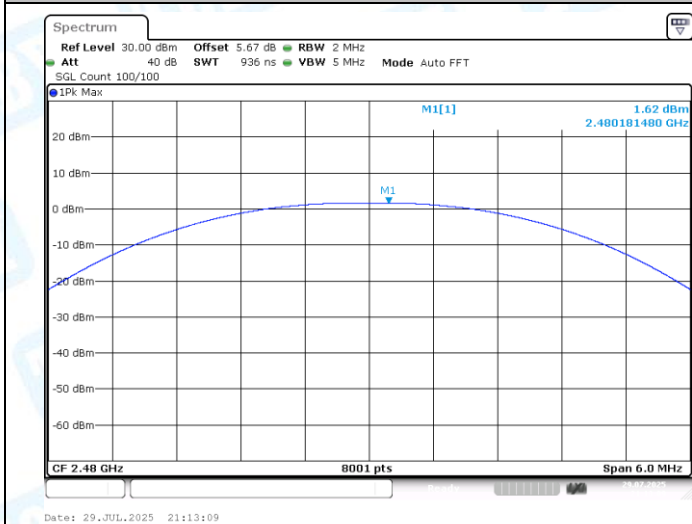
3.2 Test Graphs Peak



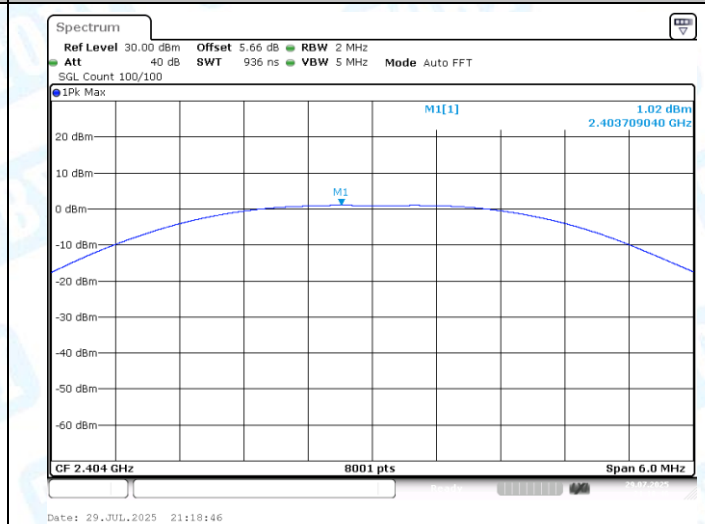
BLE_1M-Ant1-2402-PASS



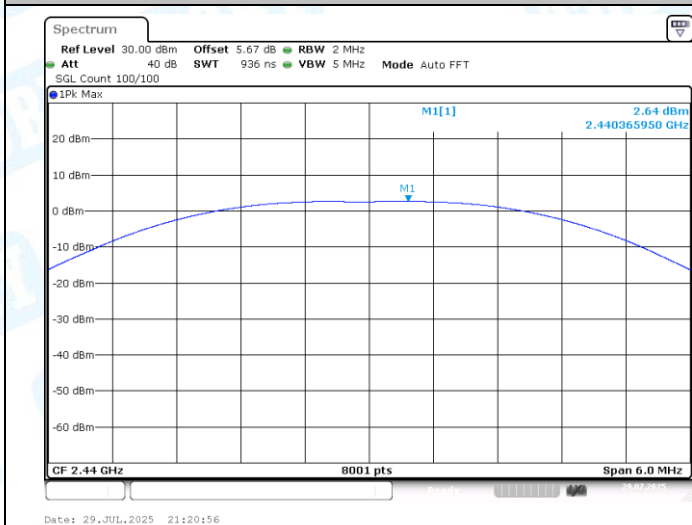
BLE_1M-Ant1-2440-PASS



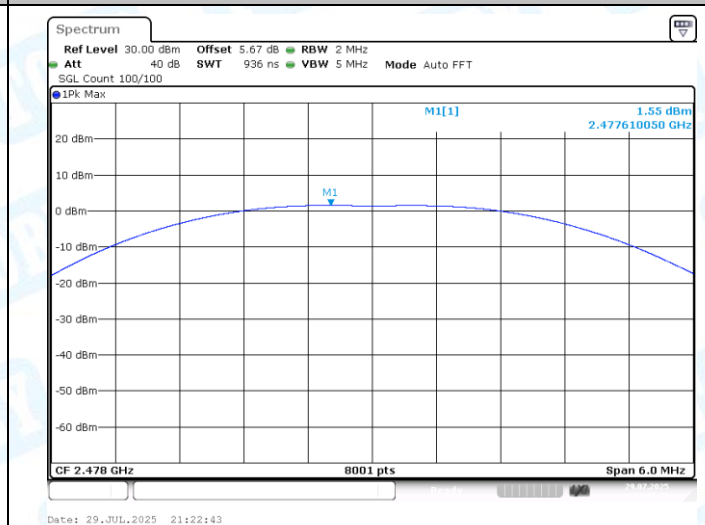
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2404-PASS



BLE_2M-Ant1-2440-PASS



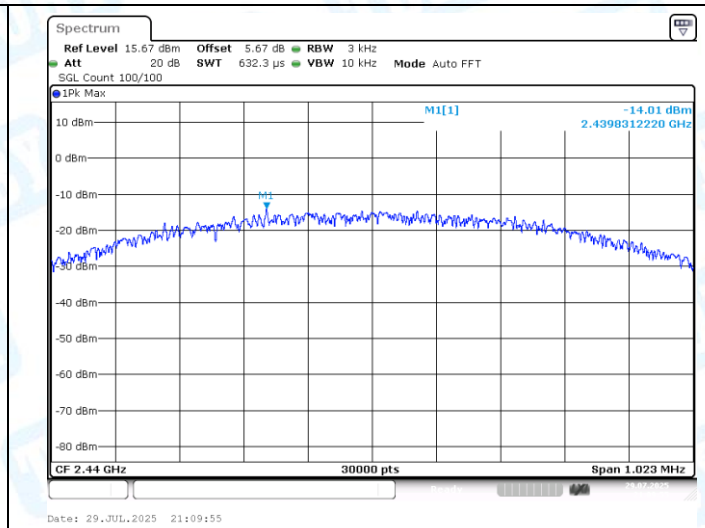
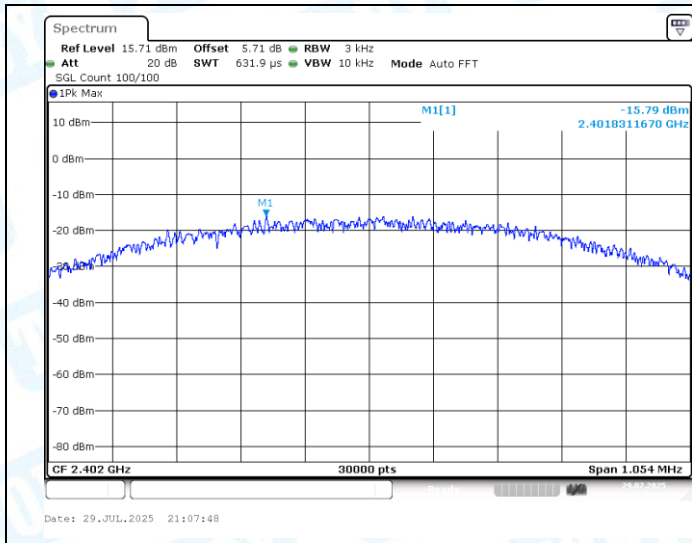
BLE_2M-Ant1-2478-PASS

4: Maximum power spectral density

4.1 Test Result

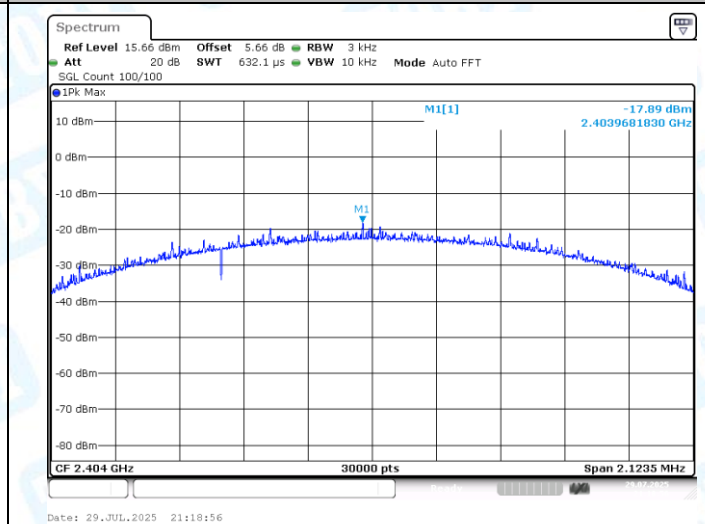
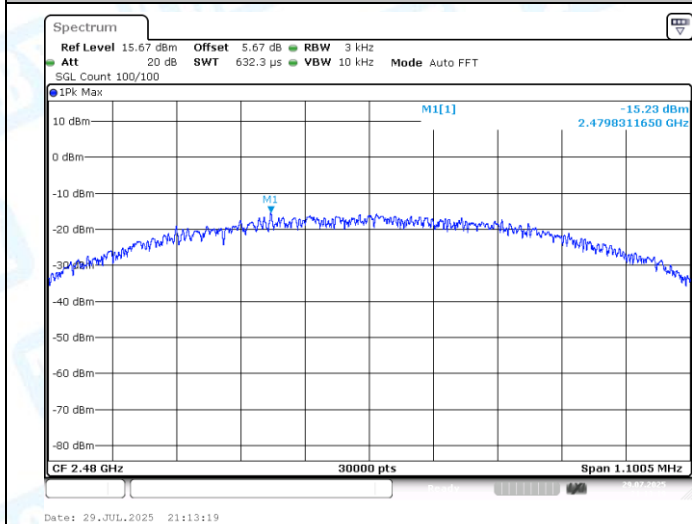
Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.79	≤8.00	PASS
BLE_1M	Ant1	2440	-14.01	≤8.00	PASS
BLE_1M	Ant1	2480	-15.23	≤8.00	PASS
BLE_2M	Ant1	2404	-17.89	≤8.00	PASS
BLE_2M	Ant1	2440	-16.60	≤8.00	PASS
BLE_2M	Ant1	2478	-17.18	≤8.00	PASS

4.2 Test Graphs



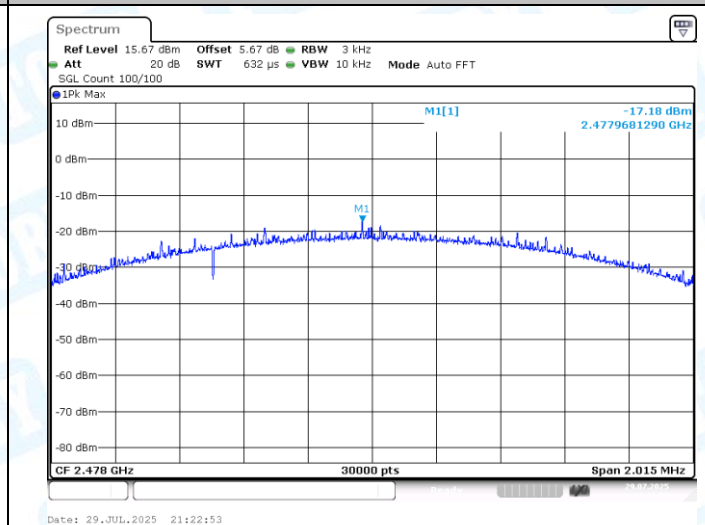
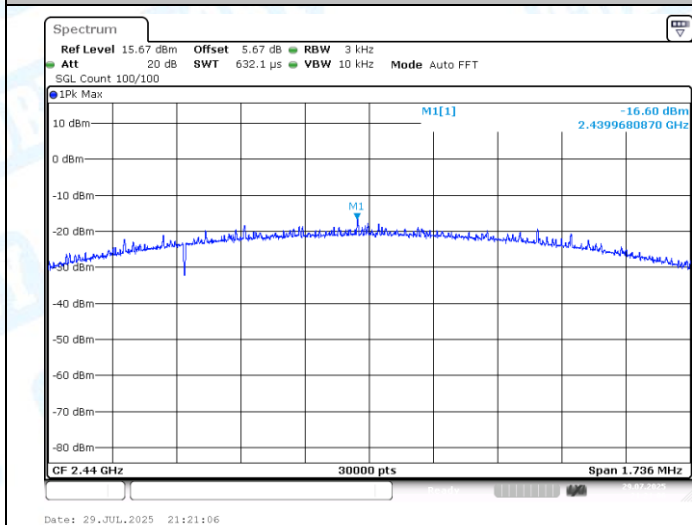
BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2440-PASS



BLE_1M-Ant1-2480-PASS

BLE_2M-Ant1-2404-PASS



BLE_2M-Ant1-2440-PASS

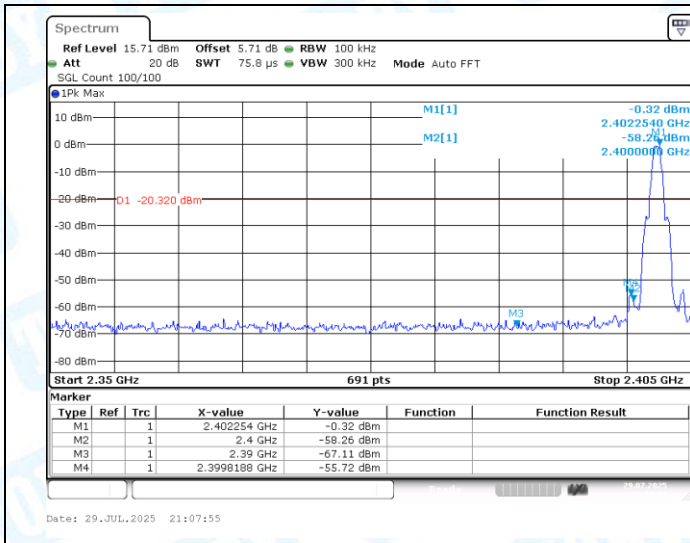
BLE_2M-Ant1-2478-PASS

5: Band edge measurements

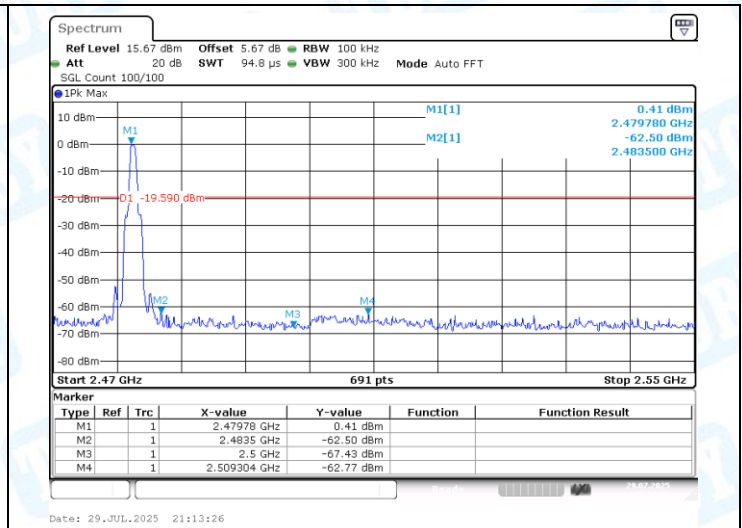
5.1 Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.32	-55.72	≤-20.32	PASS
BLE_1M	Ant1	High	2480	0.41	-62.77	≤-19.59	PASS
BLE_2M	Ant1	Low	2404	-2.35	-58.52	≤-22.35	PASS
BLE_2M	Ant1	High	2478	0.98	-62.73	≤-19.02	PASS

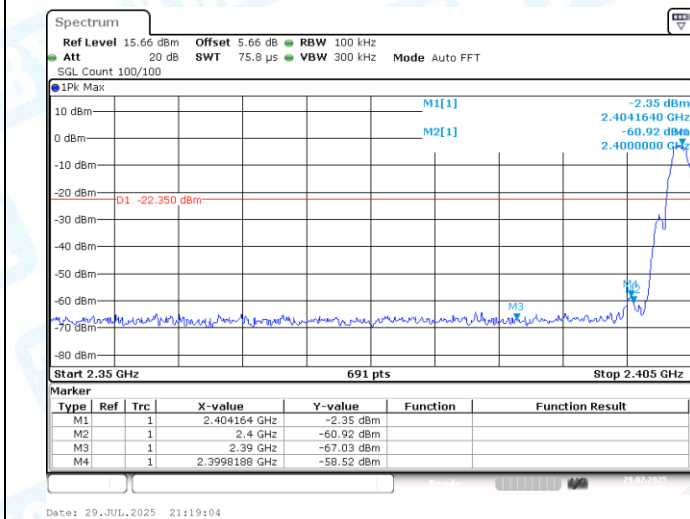
5.2 Test Graphs



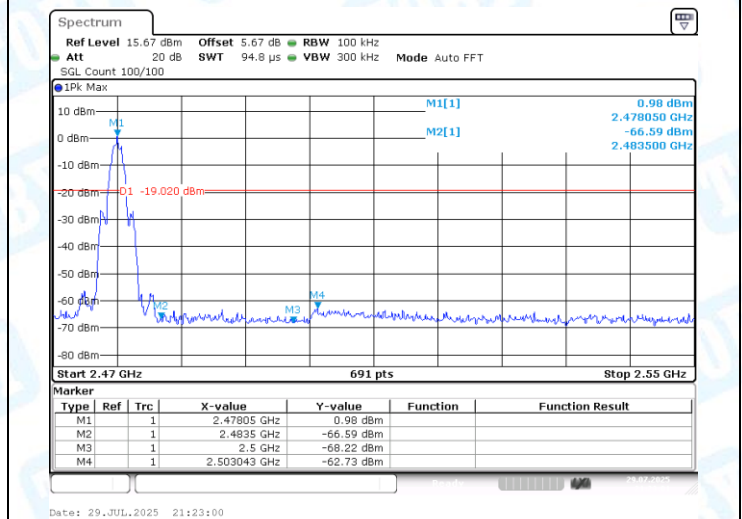
BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2404-PASS



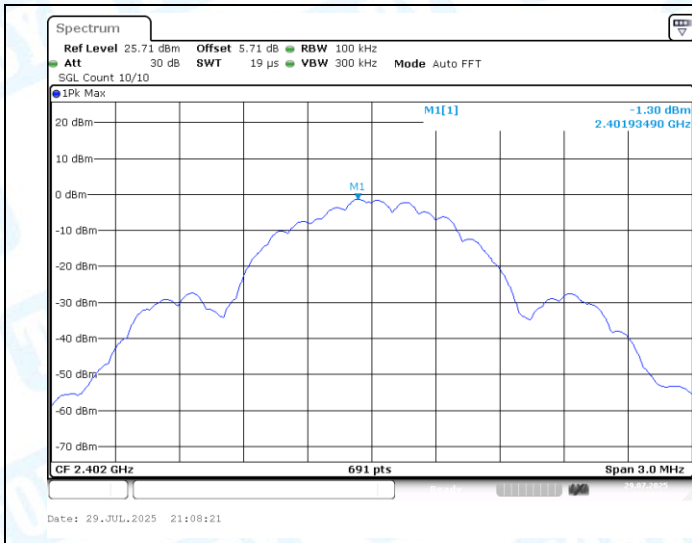
BLE_2M-Ant1-2478-PASS

6: Conducted Spurious Emission

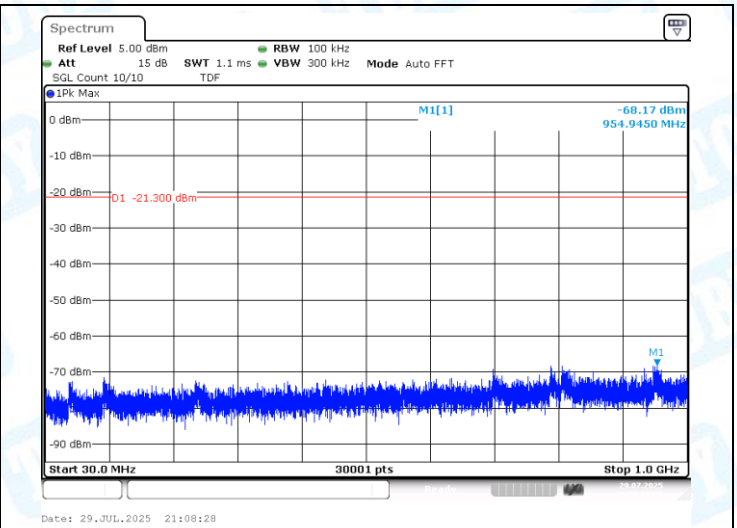
6.1 Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-1.30	-1.30	---	PASS
BLE_1M	Ant1	2402	30~1000	-1.30	-68.17	≤-21.3	PASS
BLE_1M	Ant1	2402	1000~26500	-1.30	-46.45	≤-21.3	PASS
BLE_1M	Ant1	2440	0~Reference	2.39	2.39	---	PASS
BLE_1M	Ant1	2440	30~1000	2.39	-67.52	≤-17.61	PASS
BLE_1M	Ant1	2440	1000~26500	2.39	-47.25	≤-17.61	PASS
BLE_1M	Ant1	2480	0~Reference	-0.06	-0.06	---	PASS
BLE_1M	Ant1	2480	30~1000	-0.06	-68.59	≤-20.06	PASS
BLE_1M	Ant1	2480	1000~26500	-0.06	-46.97	≤-20.06	PASS
BLE_2M	Ant1	2404	0~Reference	-0.15	-0.15	---	PASS
BLE_2M	Ant1	2404	30~1000	-0.15	-68.71	≤-20.15	PASS
BLE_2M	Ant1	2404	1000~26500	-0.15	-46.93	≤-20.15	PASS
BLE_2M	Ant1	2440	0~Reference	-2.18	-2.18	---	PASS
BLE_2M	Ant1	2440	30~1000	-2.18	-68.25	≤-22.18	PASS
BLE_2M	Ant1	2440	1000~26500	-2.18	-47.33	≤-22.18	PASS
BLE_2M	Ant1	2478	0~Reference	-2.79	-2.79	---	PASS
BLE_2M	Ant1	2478	30~1000	-2.79	-67.74	≤-22.79	PASS
BLE_2M	Ant1	2478	1000~26500	-2.79	-47.01	≤-22.79	PASS

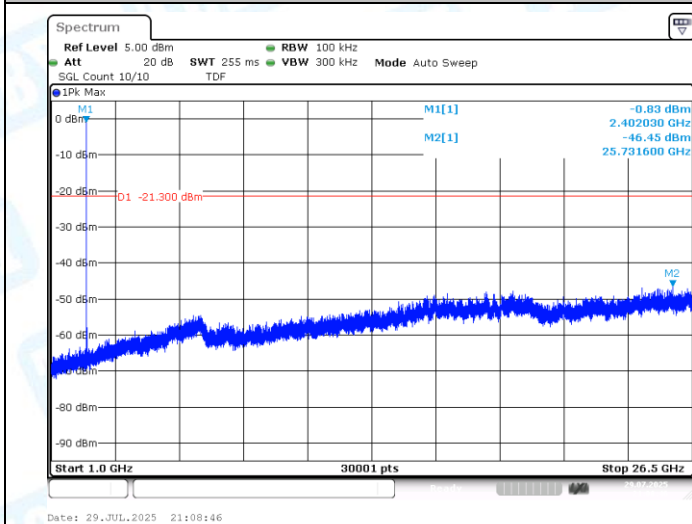
6.2 Test Graphs



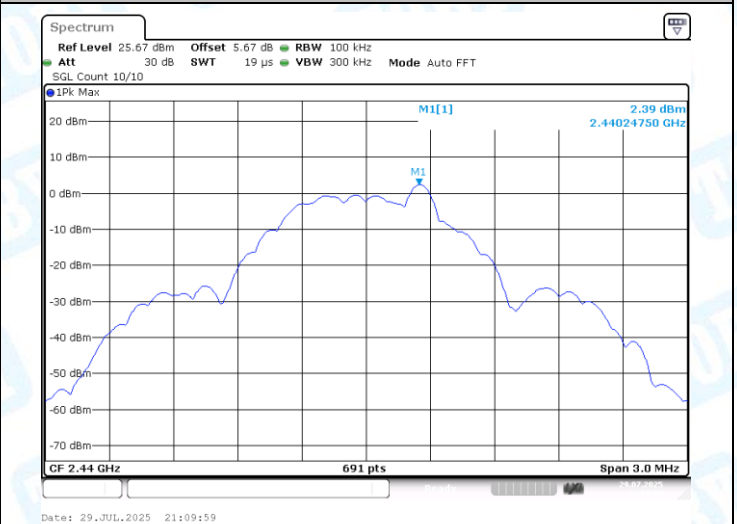
BLE_1M-Ant1-2402-0~Reference-PASS



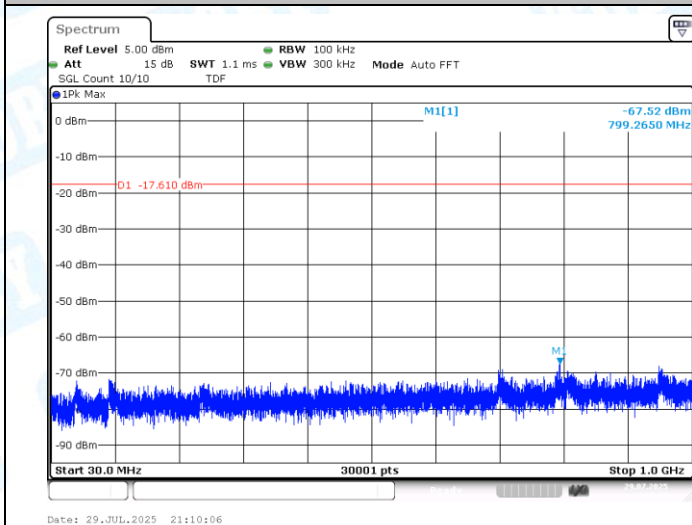
BLE_1M-Ant1-2402-30~1000-PASS



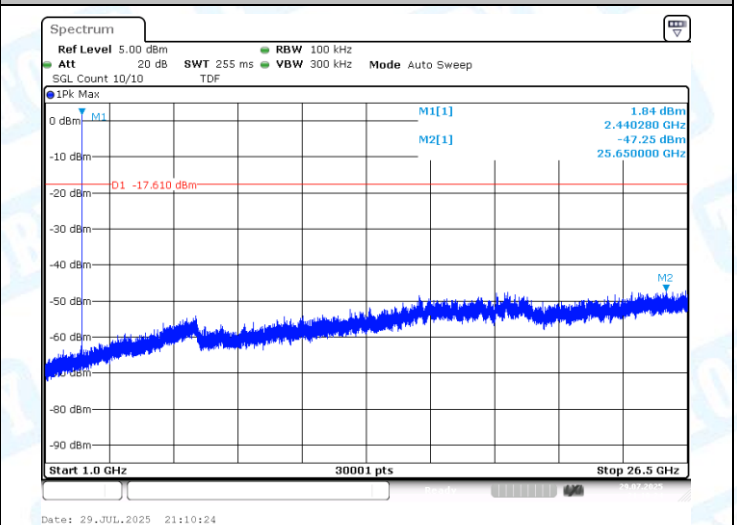
BLE_1M-Ant1-2402-1000~26500-PASS



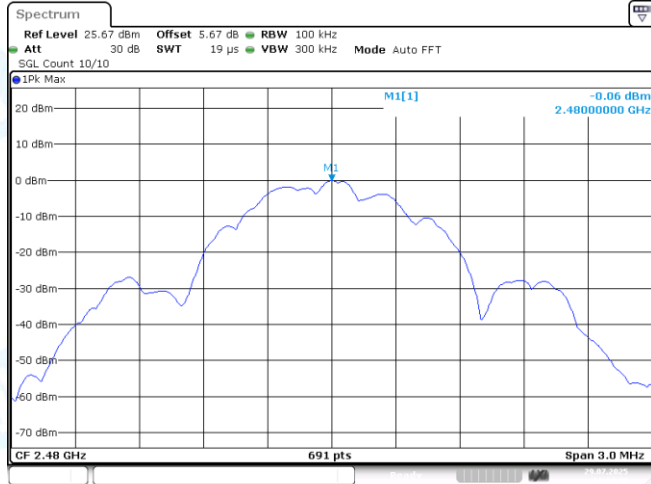
BLE_1M-Ant1-2440-0~Reference-PASS



BLE_1M-Ant1-2440-30~1000-PASS

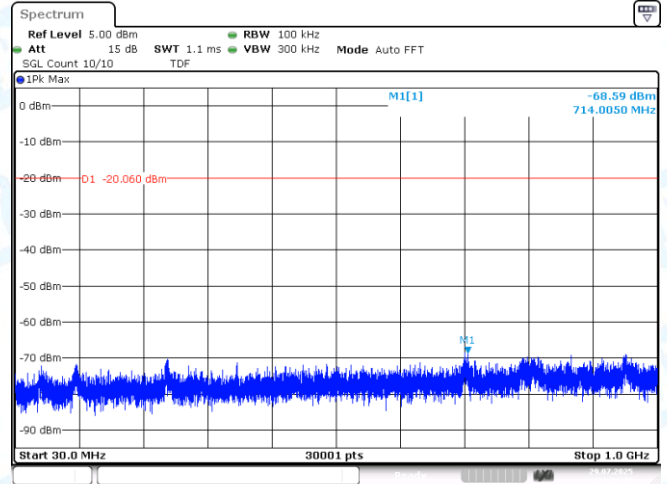


BLE_1M-Ant1-2440-1000~26500-PASS



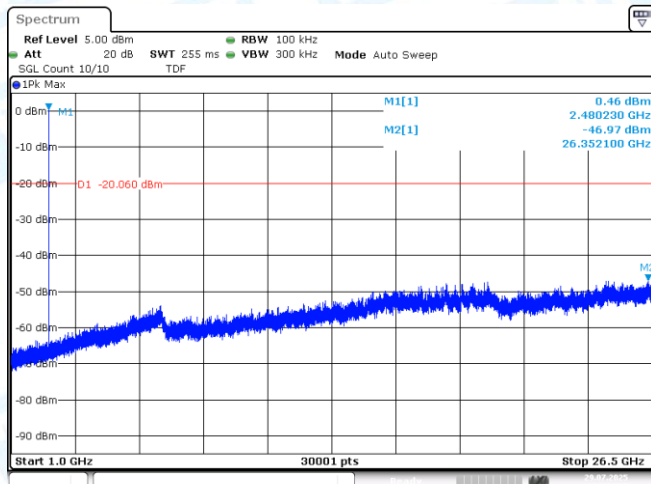
Date: 29.JUL.2025 21:14:00

BLE_1M-Ant1-2480-0~Reference-PASS



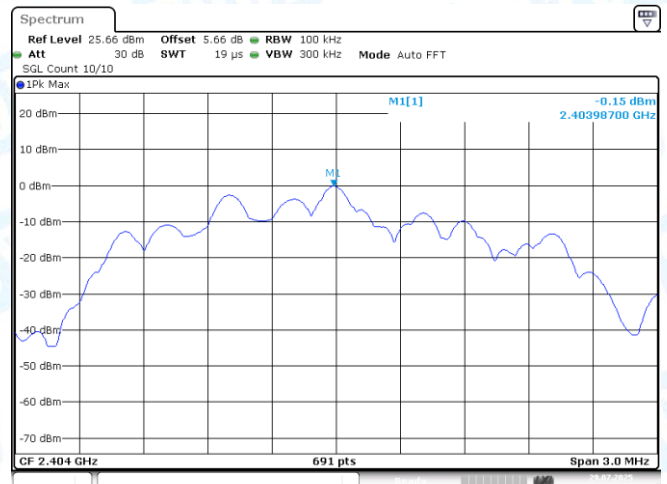
Date: 29.JUL.2025 21:14:07

BLE_1M-Ant1-2480-30~1000-PASS



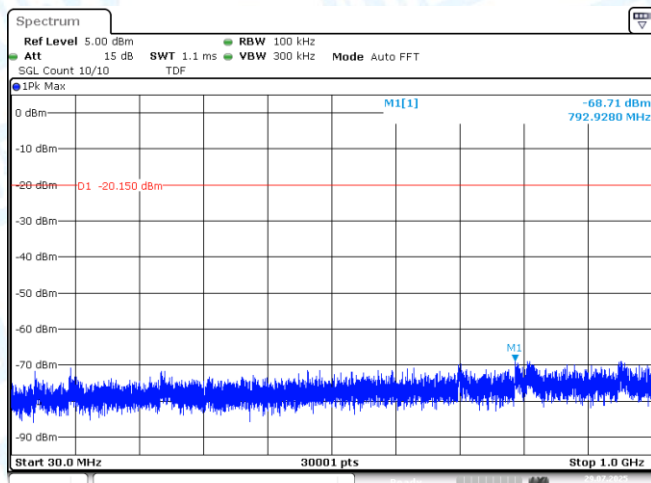
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BLE_1M-Ant1-2480-1000~26500-PASS



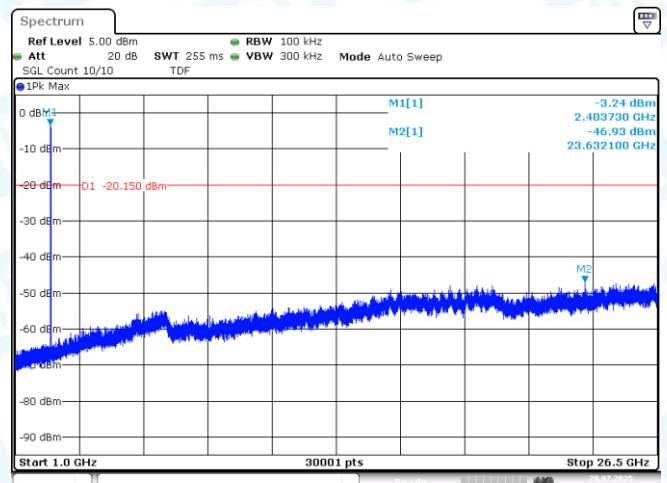
Date: 29.JUL.2025 21:19:29

BLE_2M-Ant1-2404-0~Reference-PASS



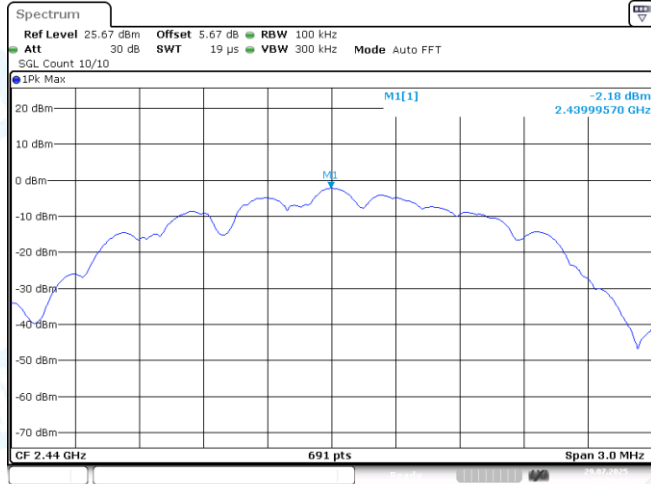
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BLE_2M-Ant1-2404-30~1000-PASS



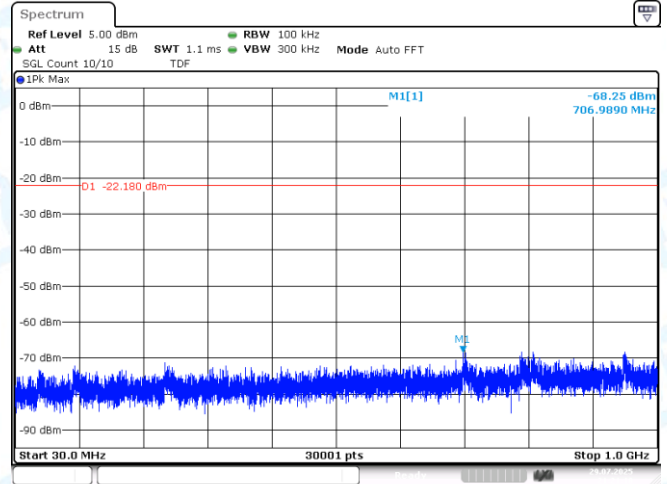
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BLE_2M-Ant1-2404-1000~26500-PASS



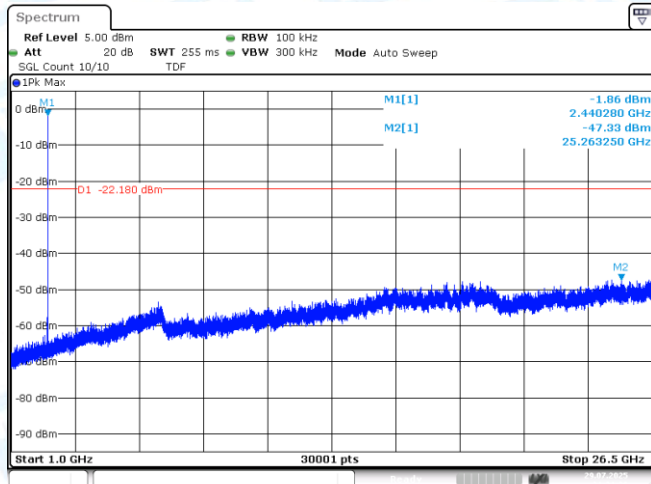
Date: 29.JUL.2025 21:21:10

BLE_2M-Ant1-2440-0~Reference-PASS



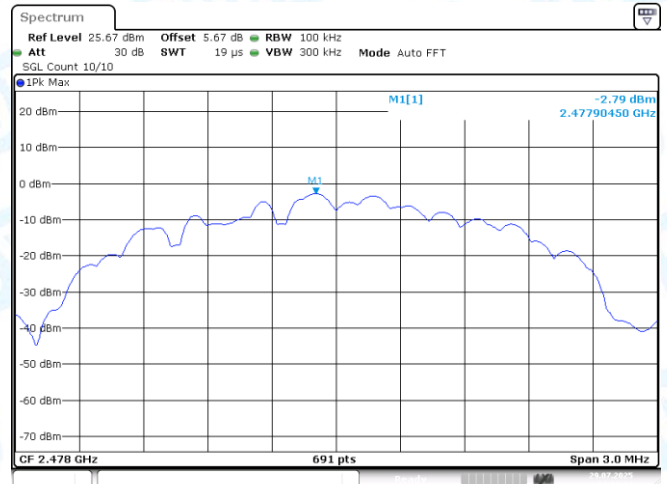
Date: 29.JUL.2025 21:21:18

BLE_2M-Ant1-2440-30~1000-PASS



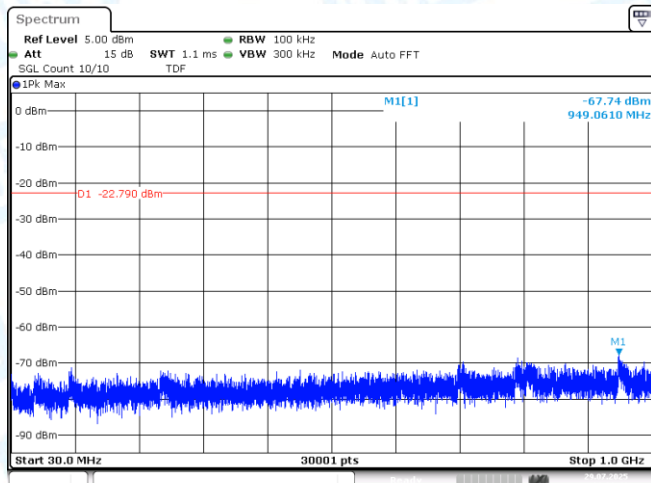
Date: 29.JUL.2025 21:21:36

BLE_2M-Ant1-2440-1000~26500-PASS



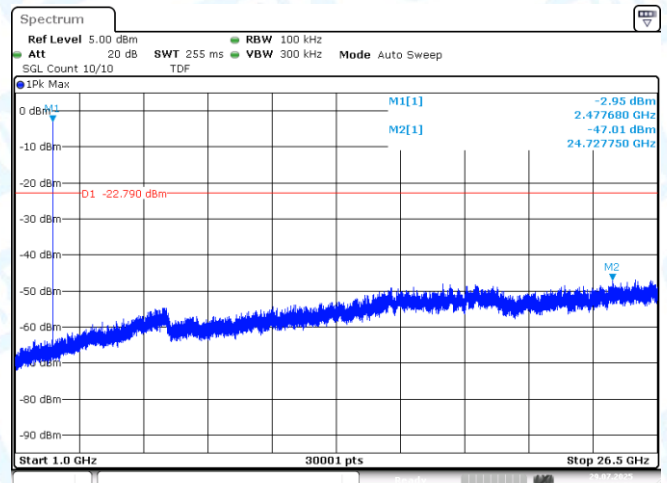
Date: 29.JUL.2025 21:23:34

BLE_2M-Ant1-2478-0~Reference-PASS



Date: 29.JUL.2025 21:23:41

BLE_2M-Ant1-2478-30~1000-PASS



Date: 29.JUL.2025 21:23:59

BLE_2M-Ant1-2478-1000~26500-PASS

7: Duty Cycle

7.1 Test Result

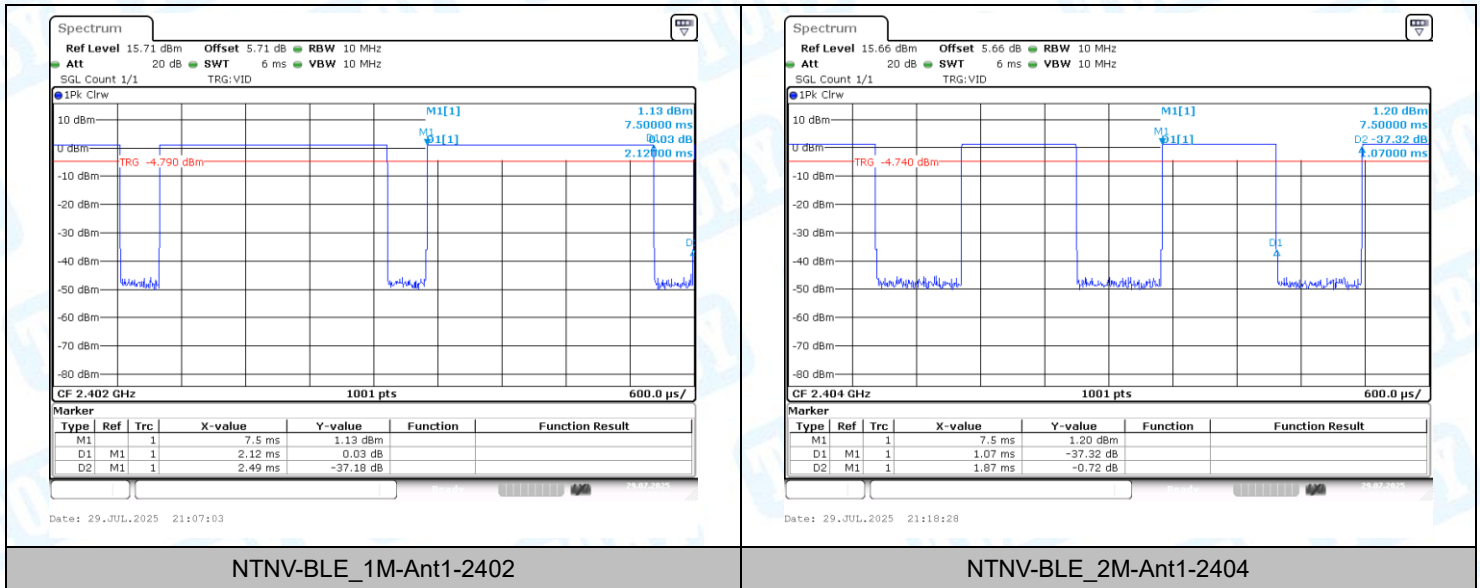
TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factory	1/T [kHz]
BLE_1M	Ant1	2402	2.12	2.49	85.14	0.70	0.47
BLE_2M	Ant1	2404	1.07	1.87	57.22	2.42	0.93

Note: 1, Duty Cycle= Transmission Duration/ Transmission Period

2, DC Factory=10*Log₁₀(1/Duty Cycle)

3, 1/T=1/ Transmission Duration

7.2 Test Graphs



8: Emissions in Restricted Bands

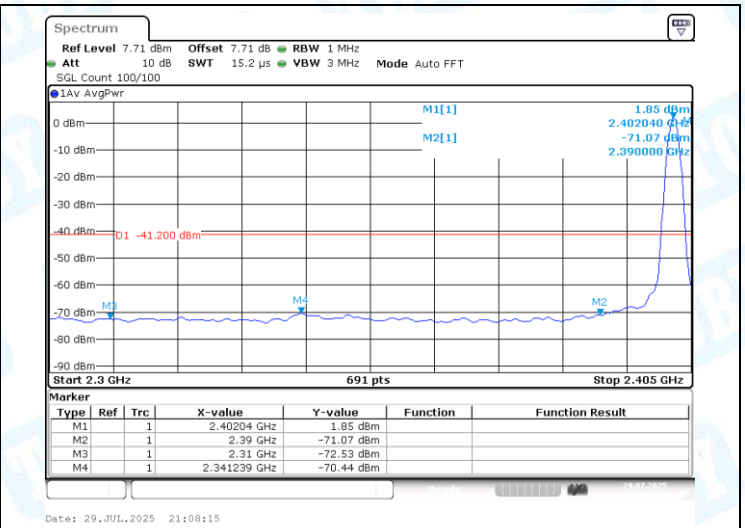
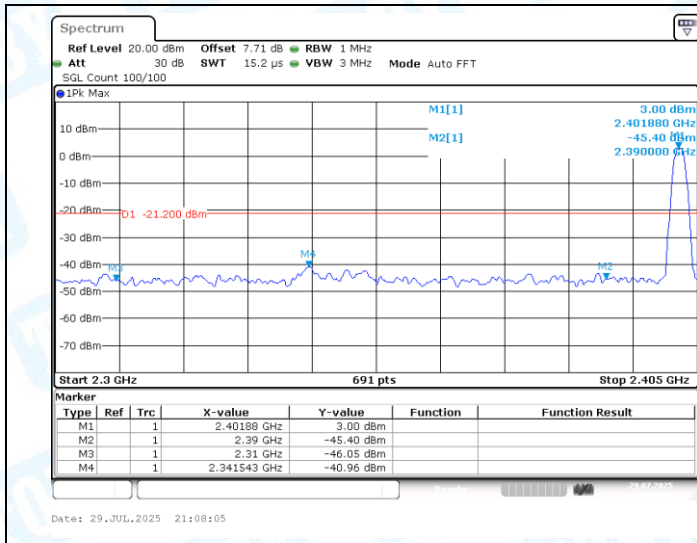
8.1 Test Result

Test Mode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	Peak	2390.000	-45.4	≤-21.20	49.80	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-46.05	≤-21.20	49.15	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2341.543	-40.96	≤-21.20	54.24	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-71.07	≤-41.20	24.13	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-72.53	≤-41.20	22.67	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2341.239	-70.44	≤-41.20	24.76	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-48.1	≤-21.20	47.10	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-46.65	≤-21.20	48.55	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2487.159	-40.87	≤-21.20	54.33	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-63.6	≤-41.20	31.60	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-72.48	≤-41.20	22.72	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2483.565	-63.61	≤-41.20	31.59	≤54	PASS
BLE_2M	Ant1	Low	2404	Peak	2390.000	-44.18	≤-21.20	51.02	≤74	PASS
BLE_2M	Ant1	Low	2404	Peak	2310.000	-45.18	≤-21.20	50.02	≤74	PASS
BLE_2M	Ant1	Low	2404	Peak	2343.522	-41.7	≤-21.20	53.50	≤74	PASS
BLE_2M	Ant1	Low	2404	AV	2390.000	-71.15	≤-41.20	24.05	≤54	PASS
BLE_2M	Ant1	Low	2404	AV	2310.000	-72.6	≤-41.20	22.60	≤54	PASS
BLE_2M	Ant1	Low	2404	AV	2340.174	-69.74	≤-41.20	25.46	≤54	PASS
BLE_2M	Ant1	High	2478	Peak	2483.500	-46.01	≤-21.20	49.19	≤74	PASS
BLE_2M	Ant1	High	2478	Peak	2500.000	-46.24	≤-21.20	48.96	≤74	PASS
BLE_2M	Ant1	High	2478	Peak	2497.362	-44.2	≤-21.20	51.00	≤74	PASS
BLE_2M	Ant1	High	2478	AV	2483.500	-67.61	≤-41.20	27.59	≤54	PASS
BLE_2M	Ant1	High	2478	AV	2500.000	-71.72	≤-41.20	23.48	≤54	PASS
BLE_2M	Ant1	High	2478	AV	2483.797	-67.64	≤-41.20	27.56	≤54	PASS

Note:

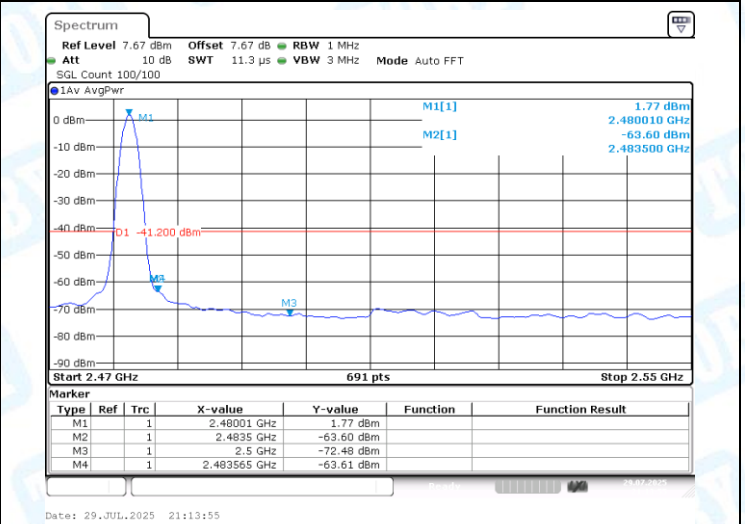
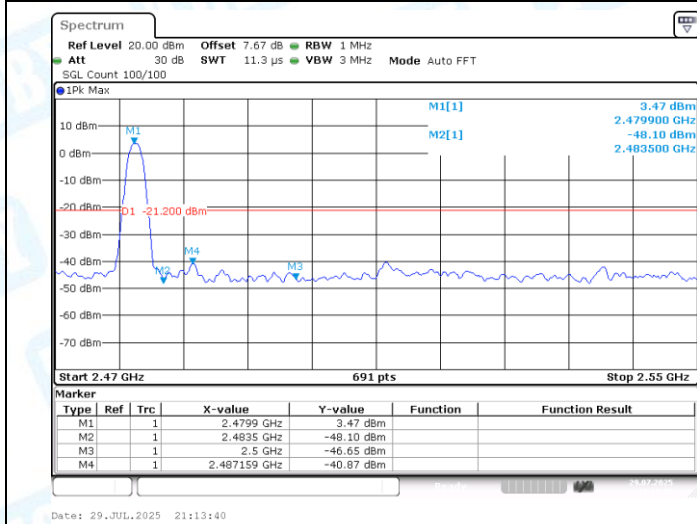
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

8.2 Test Graphs



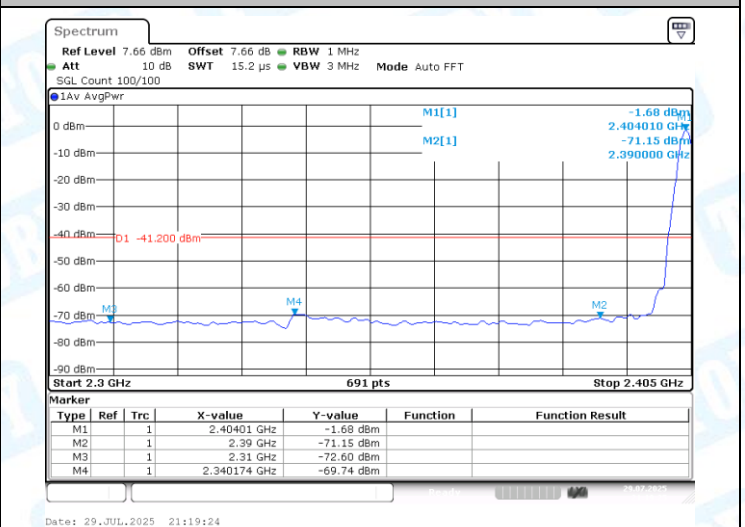
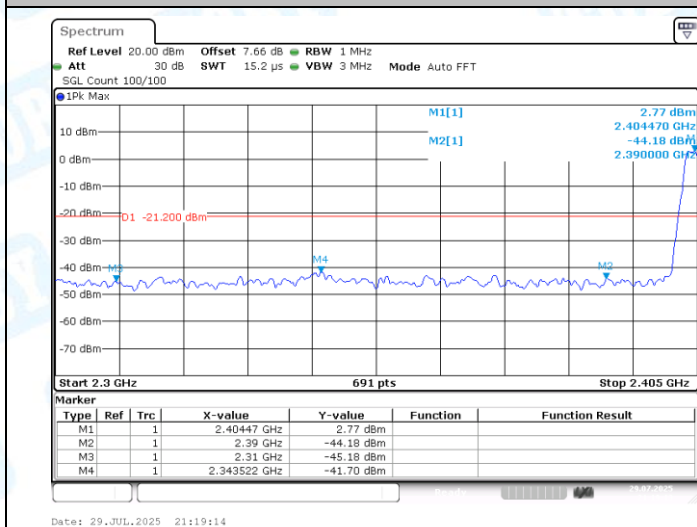
BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2402-PASS



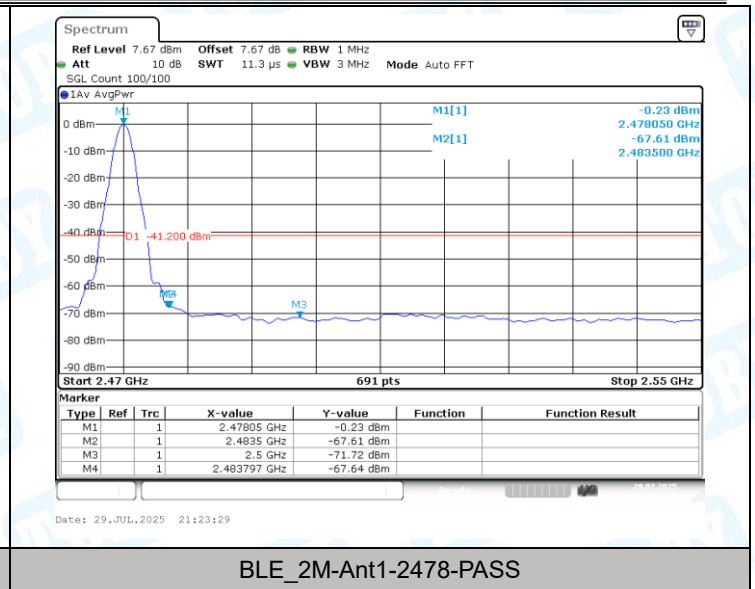
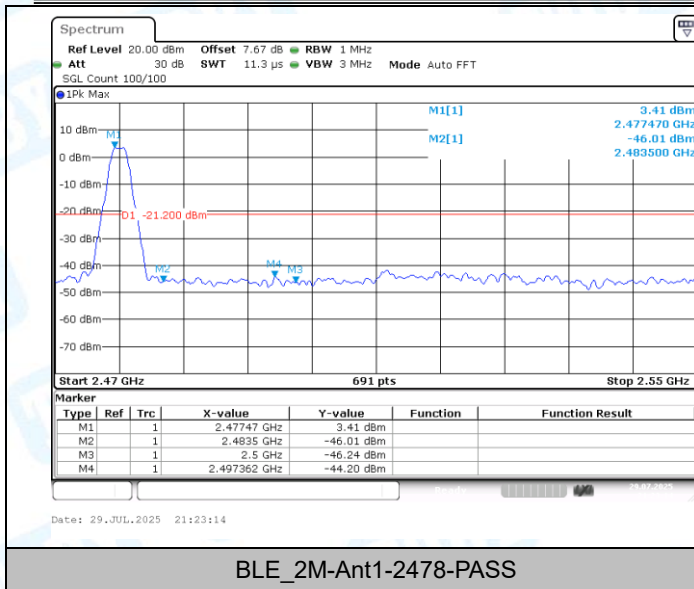
BLE_1M-Ant1-2480-PASS

BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2404-PASS

BLE_2M-Ant1-2404-PASS



-----END OF THE REPORT-----