

RF Test Data for BLE (Conducted Measurements)

General Description of EUT	
EUT Name:	Portable Gaming Computer(Tablet computer)
Model:	AYANEO Pocket ACE
Sample ID:	HC-C-202412-0243-01-01-2#
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-202412-0243-121	

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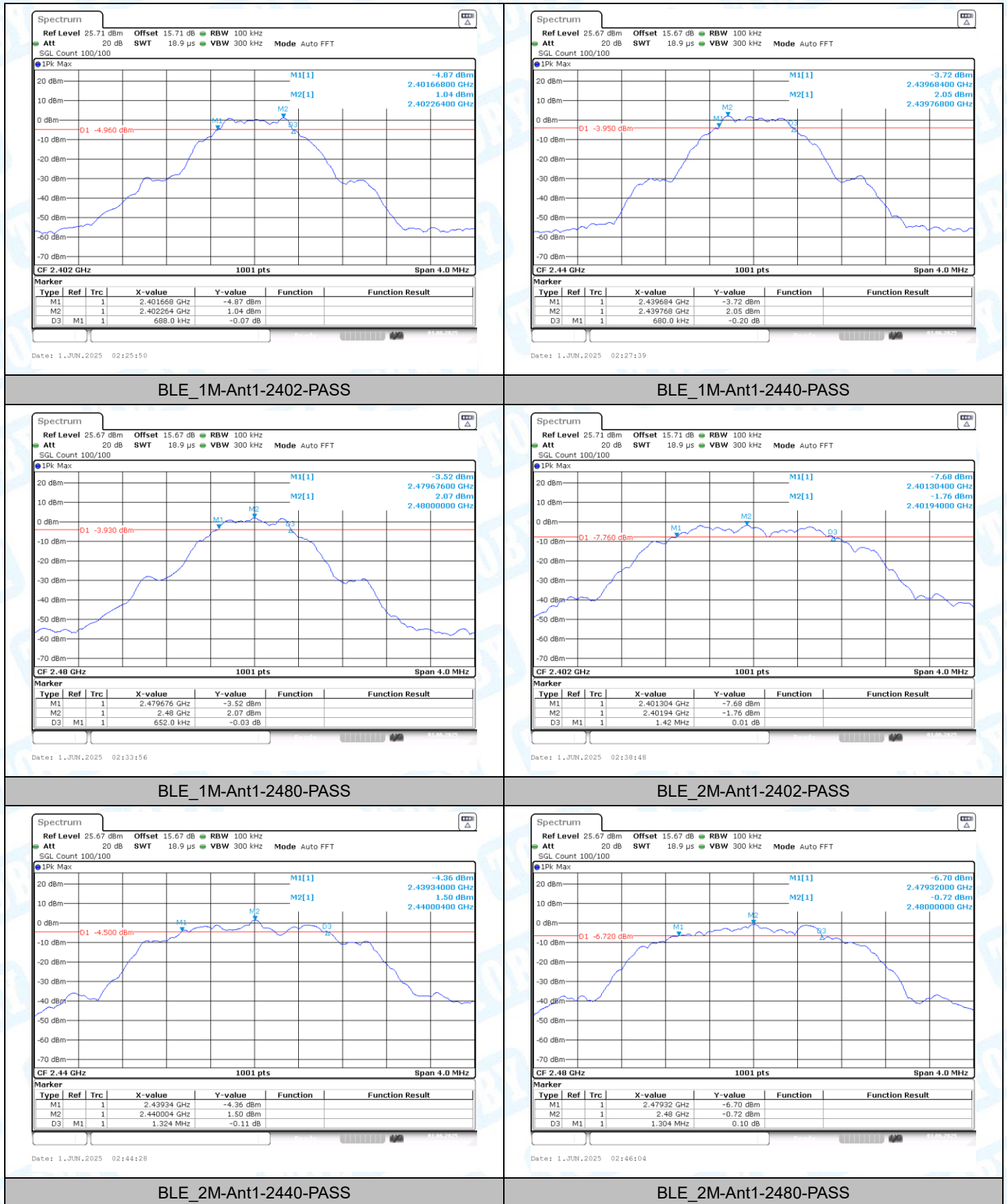
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1: DTS Bandwidth

1.1 Test Result

Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.69	2401.67	2402.36	0.5	PASS
BLE_1M	Ant1	2440	0.68	2439.68	2440.36	0.5	PASS
BLE_1M	Ant1	2480	0.65	2479.68	2480.33	0.5	PASS
BLE_2M	Ant1	2402	1.42	2401.30	2402.72	0.5	PASS
BLE_2M	Ant1	2440	1.32	2439.34	2440.66	0.5	PASS
BLE_2M	Ant1	2480	1.30	2479.32	2480.62	0.5	PASS

1.2 Test Graphs

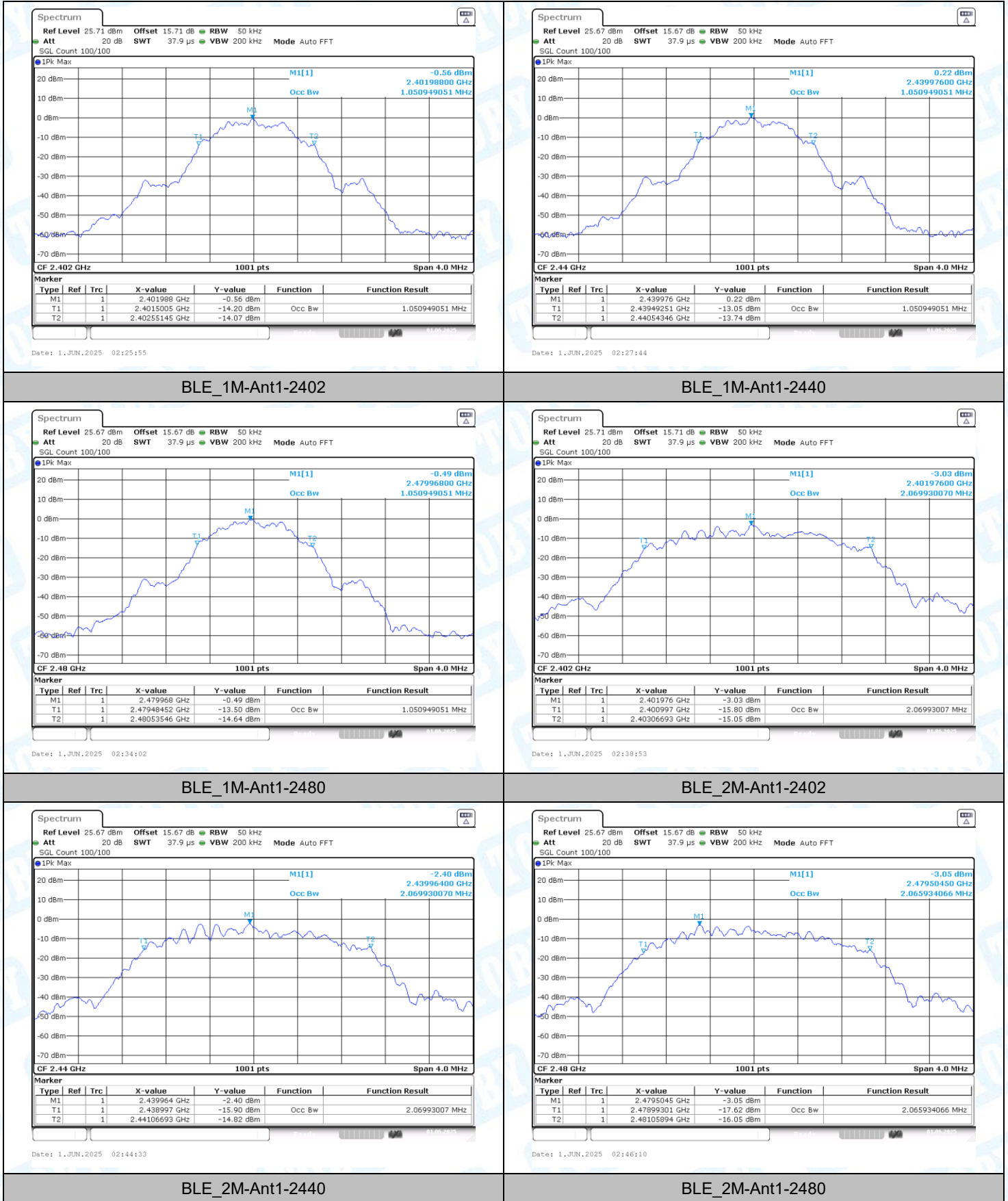


2: Occupied Channel Bandwidth

2.1 Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0509	2401.5005	2402.5514	---	---
BLE_1M	Ant1	2440	1.0509	2439.4925	2440.5435	---	---
BLE_1M	Ant1	2480	1.0509	2479.4845	2480.5355	---	---
BLE_2M	Ant1	2402	2.0699	2400.9970	2403.0669	---	---
BLE_2M	Ant1	2440	2.0699	2438.9970	2441.0669	---	---
BLE_2M	Ant1	2480	2.0659	2478.9930	2481.0589	---	---

2.2 Test Graphs

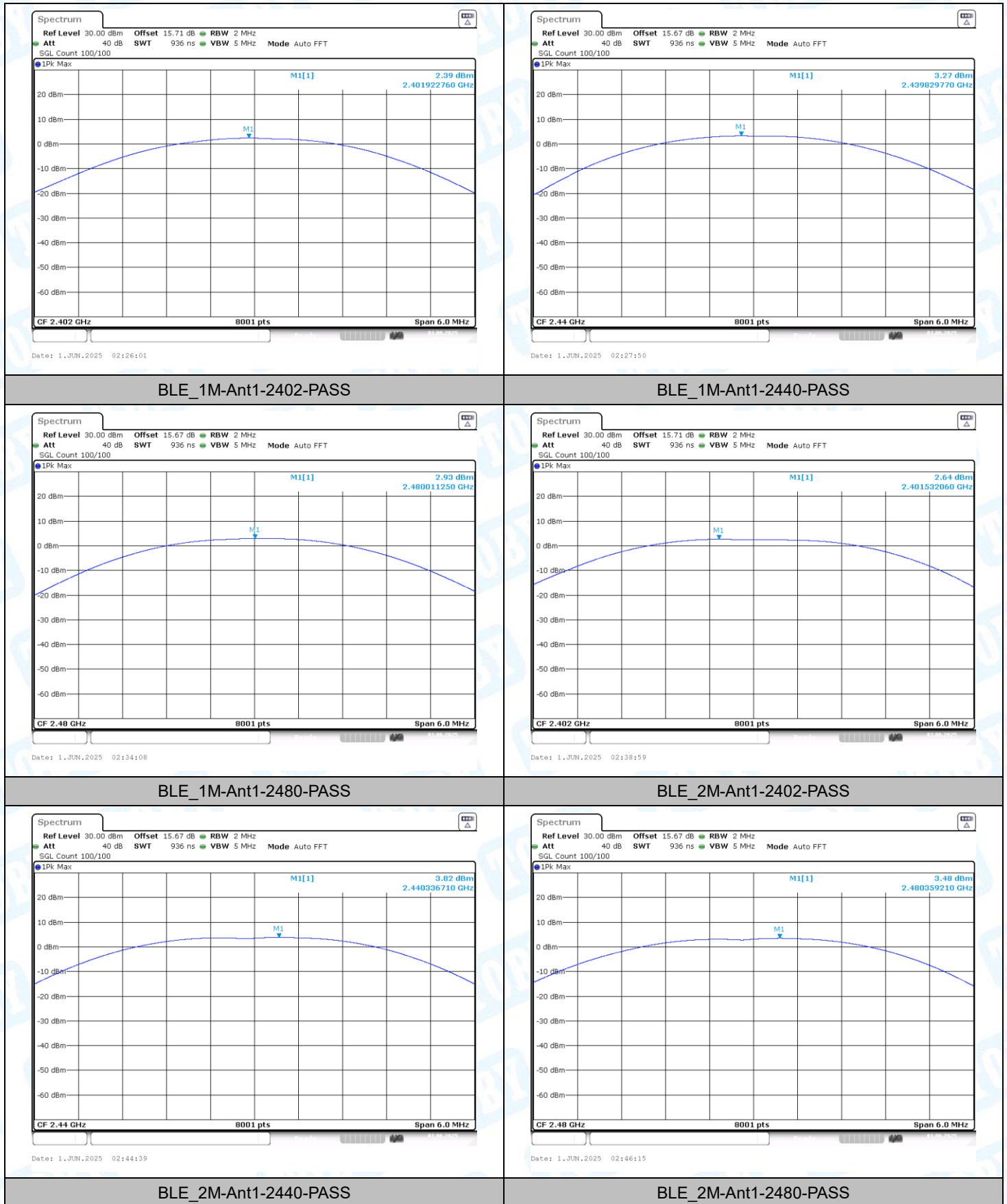


3: Maximum conducted output power

3.1 Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	2.39	≤30	PASS
BLE_1M	Ant1	2440	3.27	≤30	PASS
BLE_1M	Ant1	2480	2.93	≤30	PASS
BLE_2M	Ant1	2402	2.64	≤30	PASS
BLE_2M	Ant1	2440	3.82	≤30	PASS
BLE_2M	Ant1	2480	3.48	≤30	PASS

3.2 Test Graphs Peak

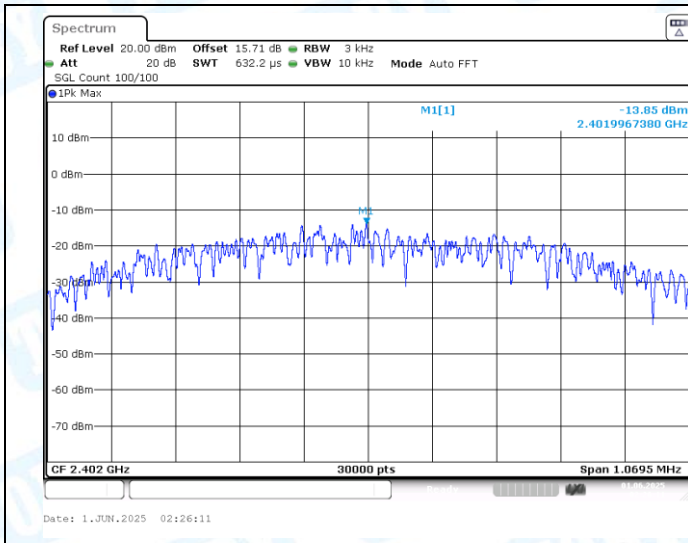


4: Maximum power spectral density

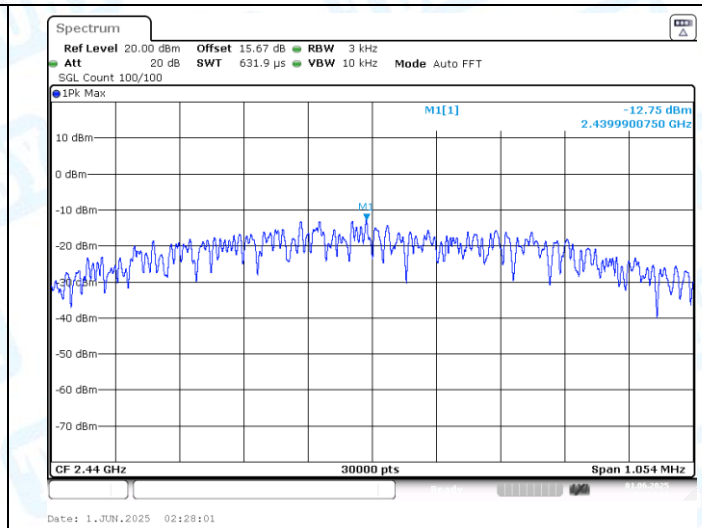
4.1 Test Result

Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.85	≤8.00	PASS
BLE_1M	Ant1	2440	-12.75	≤8.00	PASS
BLE_1M	Ant1	2480	-13.12	≤8.00	PASS
BLE_2M	Ant1	2402	-16.68	≤8.00	PASS
BLE_2M	Ant1	2440	-15.64	≤8.00	PASS
BLE_2M	Ant1	2480	-15.84	≤8.00	PASS

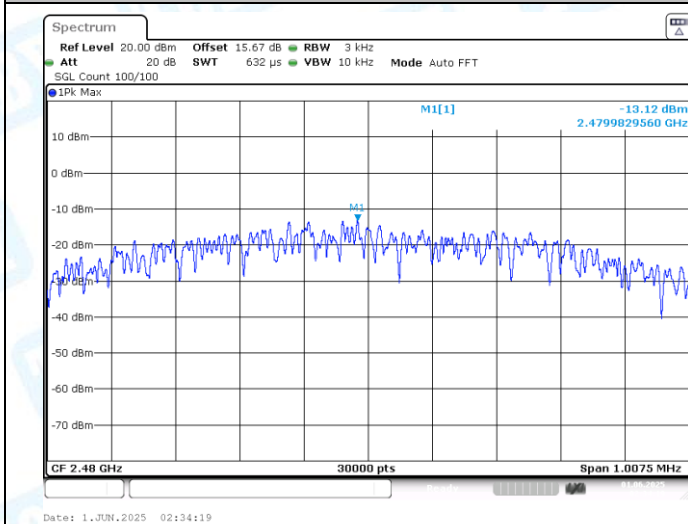
4.2 Test Graphs



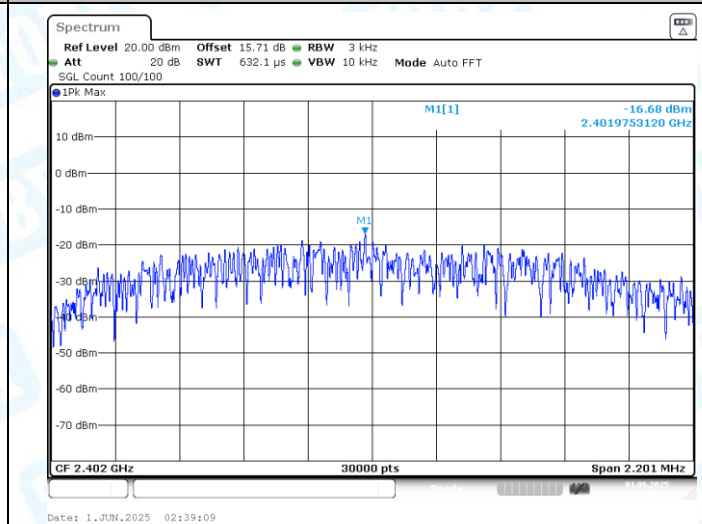
BLE_1M-Ant1-2402-PASS



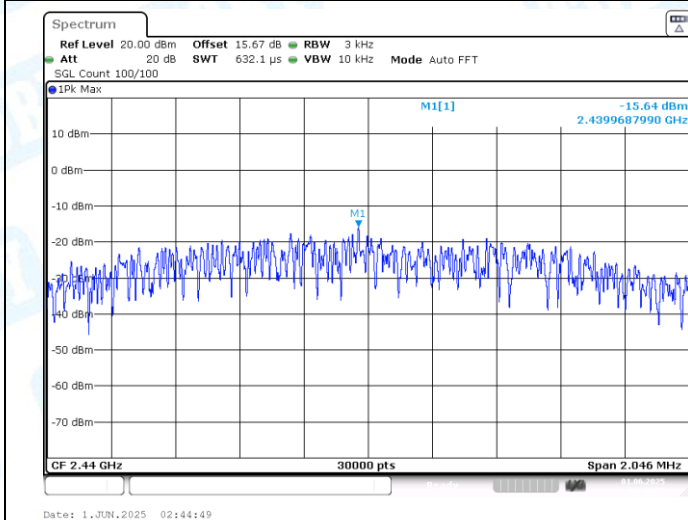
BLE_1M-Ant1-2440-PASS



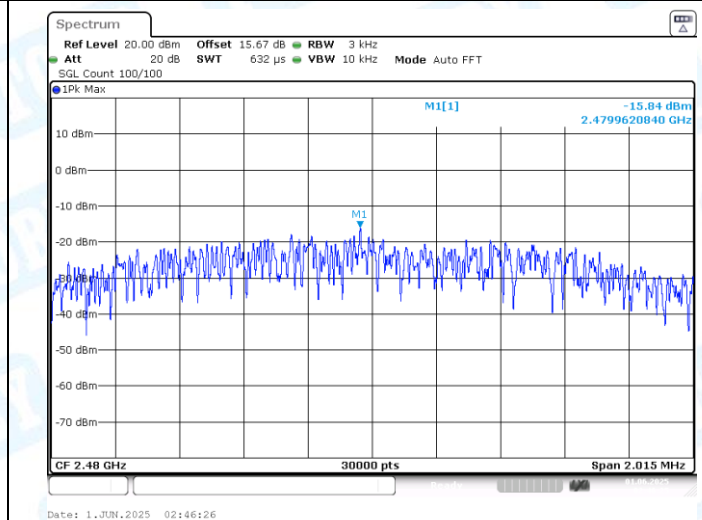
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



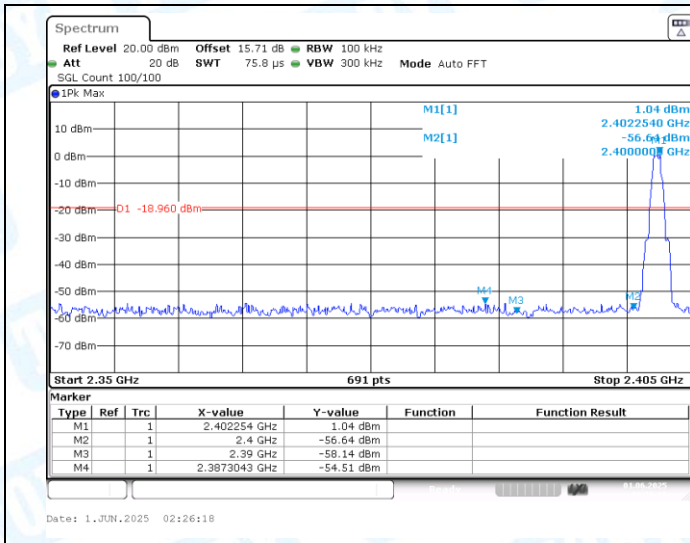
BLE_2M-Ant1-2480-PASS

5: Band edge measurements

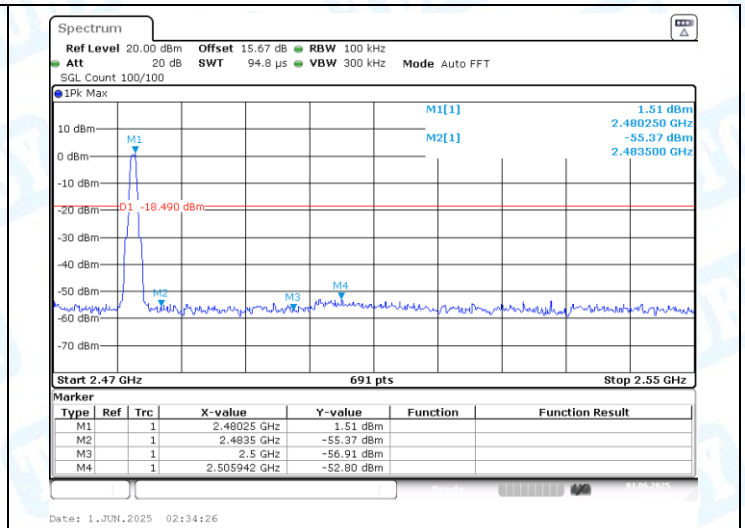
5.1 Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.04	-54.51	≤-18.96	PASS
BLE_1M	Ant1	High	2480	1.51	-52.8	≤-18.49	PASS
BLE_2M	Ant1	Low	2402	-1.42	-48.65	≤-21.42	PASS
BLE_2M	Ant1	High	2480	-0.33	-52.76	≤-20.33	PASS

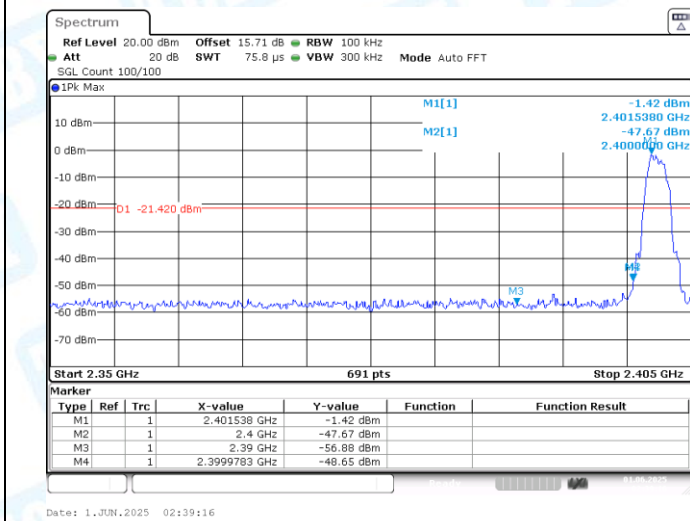
5.2 Test Graphs



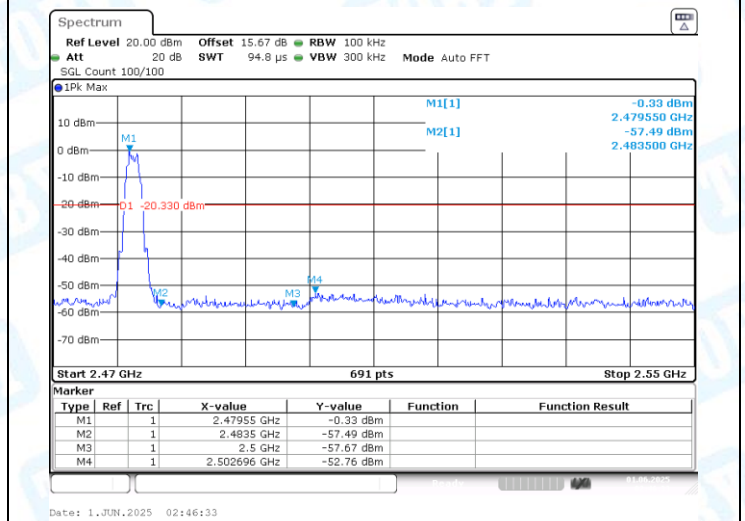
BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2480-PASS

6: Conducted Spurious Emission

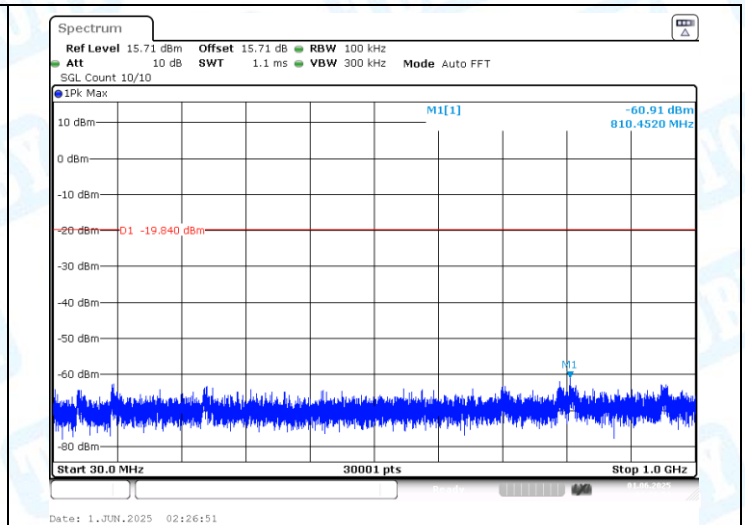
6.1 Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	0.16	0.16	---	PASS
BLE_1M	Ant1	2402	30~1000	0.16	-60.91	≤-19.84	PASS
BLE_1M	Ant1	2402	1000~26500	0.16	-46.06	≤-19.84	PASS
BLE_1M	Ant1	2440	0~Reference	-0.43	-0.43	---	PASS
BLE_1M	Ant1	2440	30~1000	-0.43	-60.91	≤-20.43	PASS
BLE_1M	Ant1	2440	1000~26500	-0.43	-48.09	≤-20.43	PASS
BLE_1M	Ant1	2480	0~Reference	1.83	1.83	---	PASS
BLE_1M	Ant1	2480	30~1000	1.83	-61.61	≤-18.17	PASS
BLE_1M	Ant1	2480	1000~26500	1.83	-51.47	≤-18.17	PASS
BLE_2M	Ant1	2402	0~Reference	-5.45	-5.45	---	PASS
BLE_2M	Ant1	2402	30~1000	-5.45	-62.09	≤-25.45	PASS
BLE_2M	Ant1	2402	1000~26500	-5.45	-46.01	≤-25.45	PASS
BLE_2M	Ant1	2440	0~Reference	-1.62	-1.62	---	PASS
BLE_2M	Ant1	2440	30~1000	-1.62	-60.85	≤-21.62	PASS
BLE_2M	Ant1	2440	1000~26500	-1.62	-48.75	≤-21.62	PASS
BLE_2M	Ant1	2480	0~Reference	-2.38	-2.38	---	PASS
BLE_2M	Ant1	2480	30~1000	-2.38	-61.54	≤-22.38	PASS
BLE_2M	Ant1	2480	1000~26500	-2.38	-50.12	≤-22.38	PASS

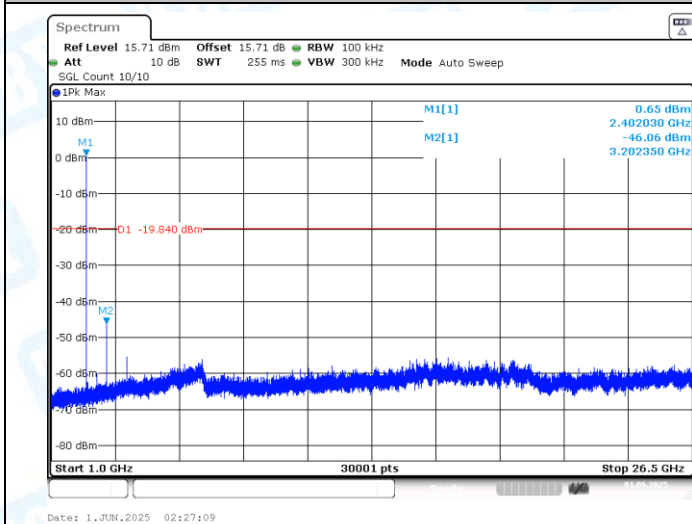
6.2 Test Graphs



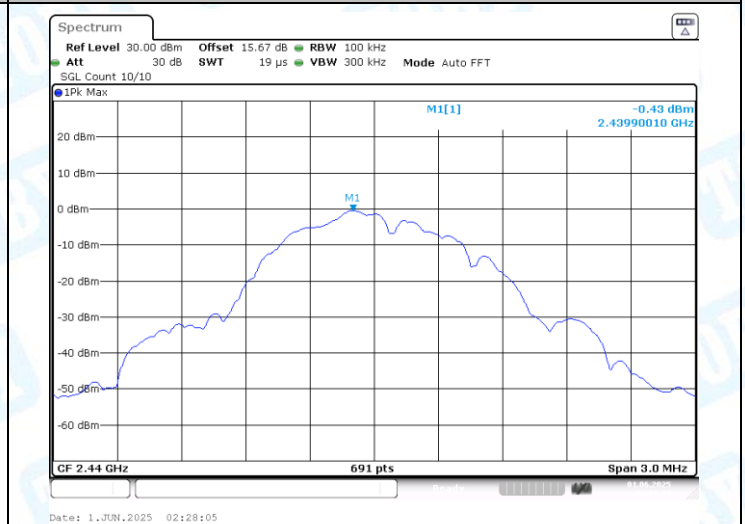
BLE_1M-Ant1-2402-0~Reference-PASS



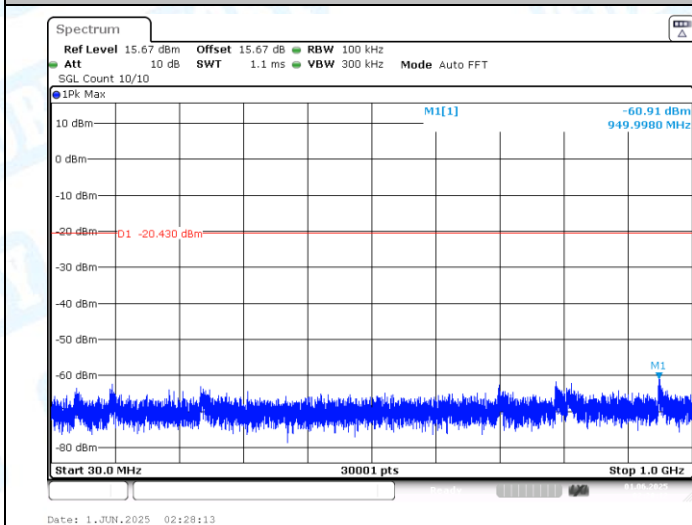
BLE_1M-Ant1-2402-30~1000-PASS



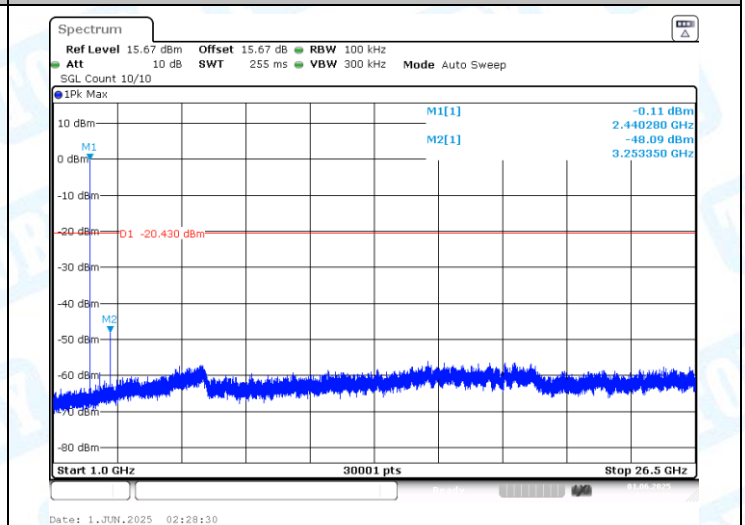
BLE_1M-Ant1-2402-1000~26500-PASS



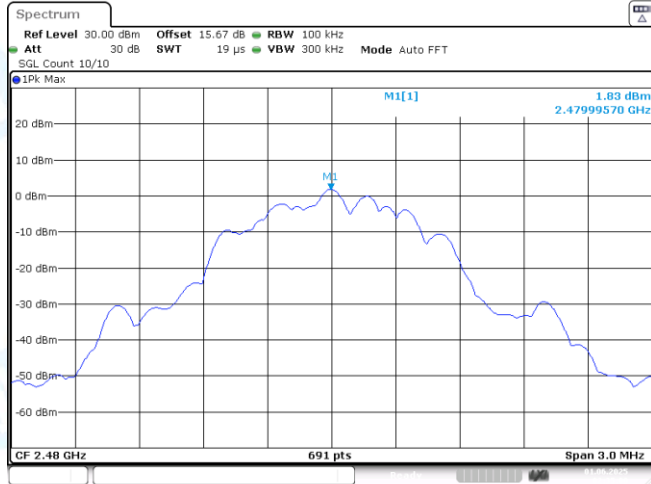
BLE_1M-Ant1-2440-0~Reference-PASS



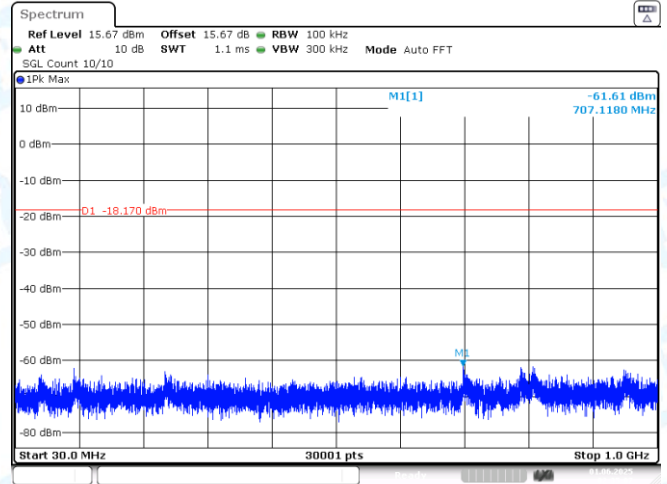
BLE_1M-Ant1-2440-30~1000-PASS



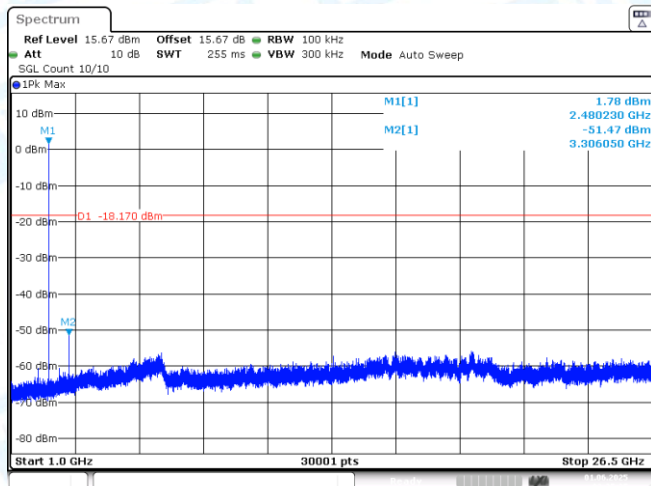
BLE_1M-Ant1-2440-1000~26500-PASS



BLE_1M-Ant1-2480-0~Reference-PASS



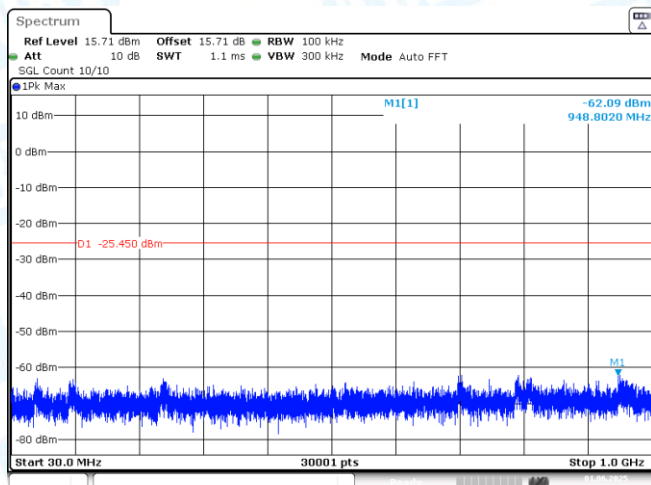
BLE_1M-Ant1-2480-30~1000-PASS



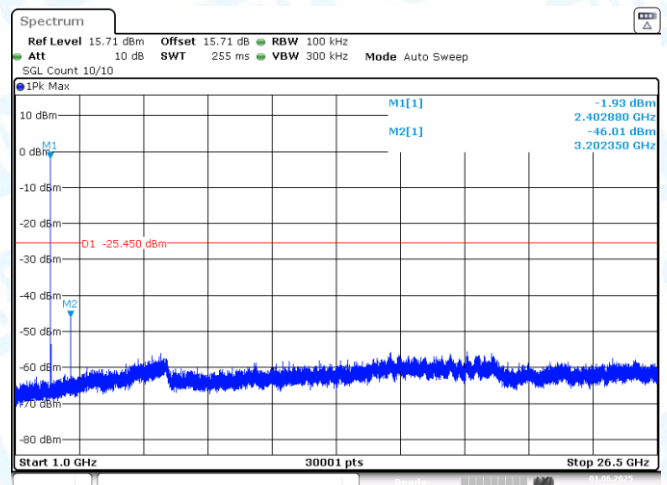
BLE_1M-Ant1-2480-1000~26500-PASS



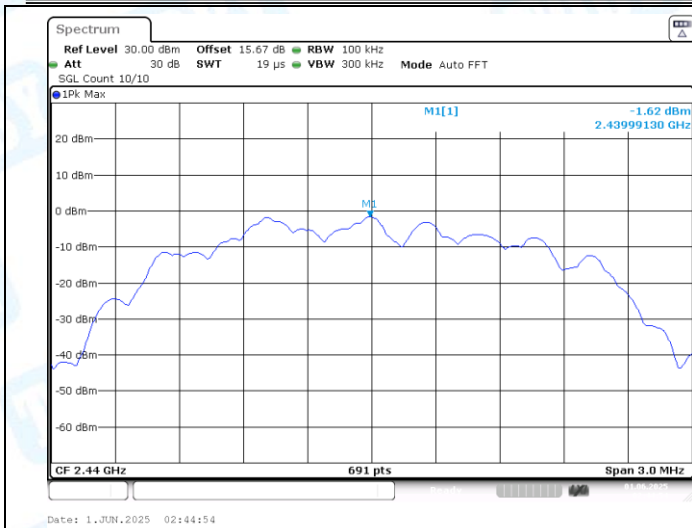
BLE_2M-Ant1-2402-0~Reference-PASS



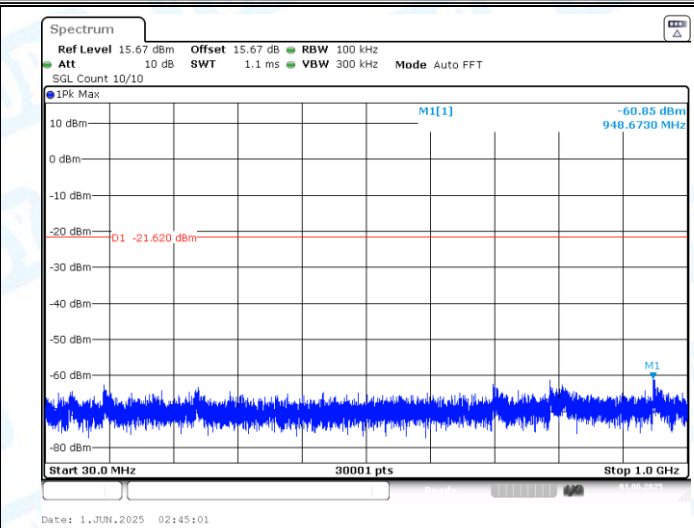
BLE_2M-Ant1-2402-30~1000-PASS



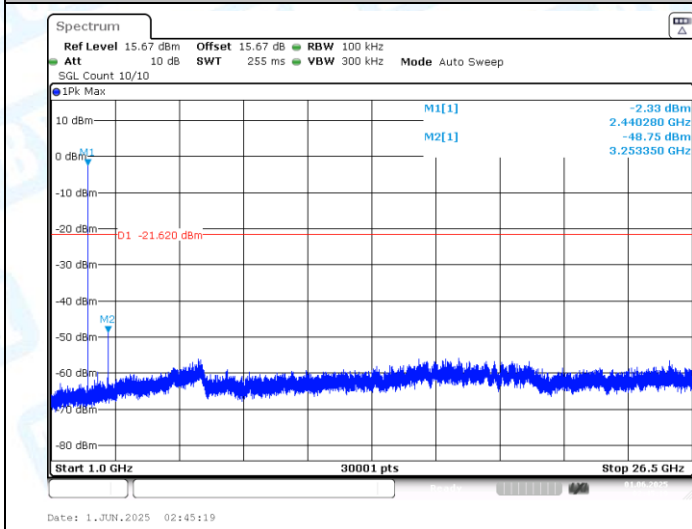
BLE_2M-Ant1-2402-1000~26500-PASS



BLE_2M-Ant1-2440-0~Reference-PASS



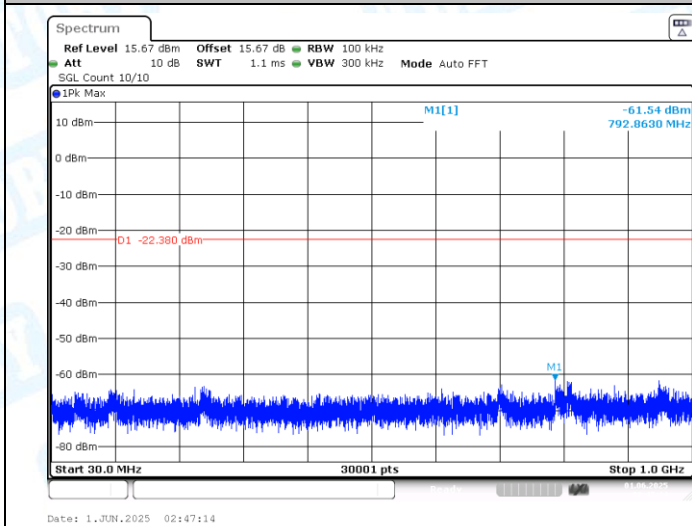
BLE_2M-Ant1-2440-30~1000-PASS



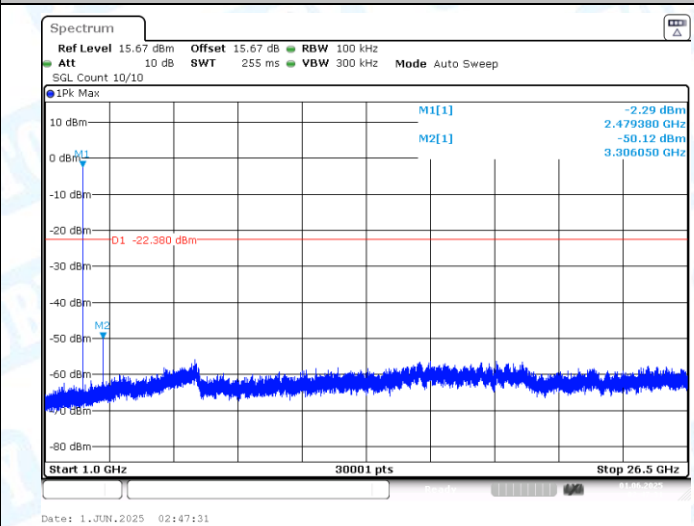
BLE_2M-Ant1-2440-1000~26500-PASS



BLE_2M-Ant1-2480-0~Reference-PASS



BLE_2M-Ant1-2480-30~1000-PASS



BLE_2M-Ant1-2480-1000~26500-PASS

7: Duty Cycle

7.1 Test Result

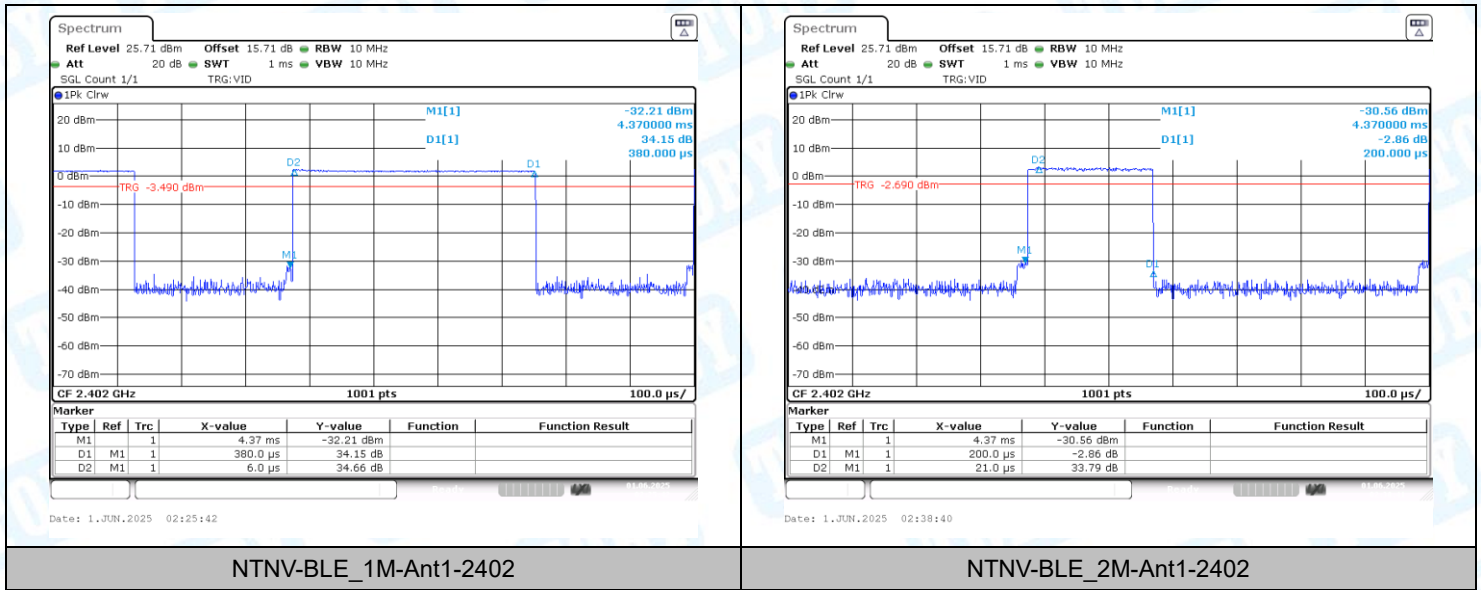
TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factory	1/T [kHz]
BLE_1M	Ant1	2402	0.38	0.63	60.32	2.20	2.63
BLE_2M	Ant1	2402	0.20	0.63	31.75	4.98	5.00

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

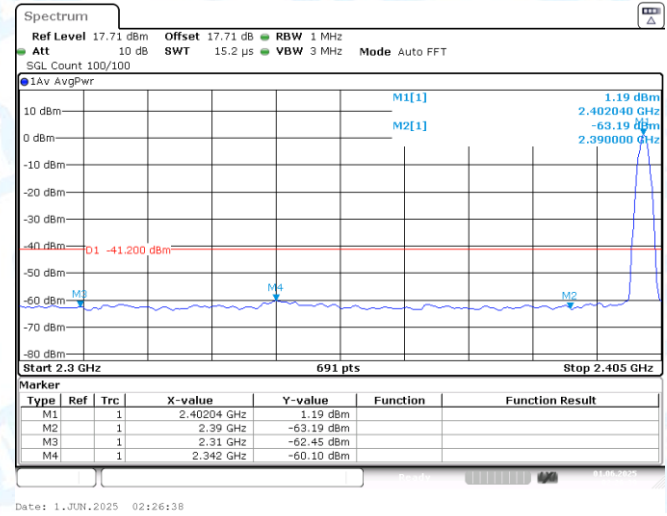
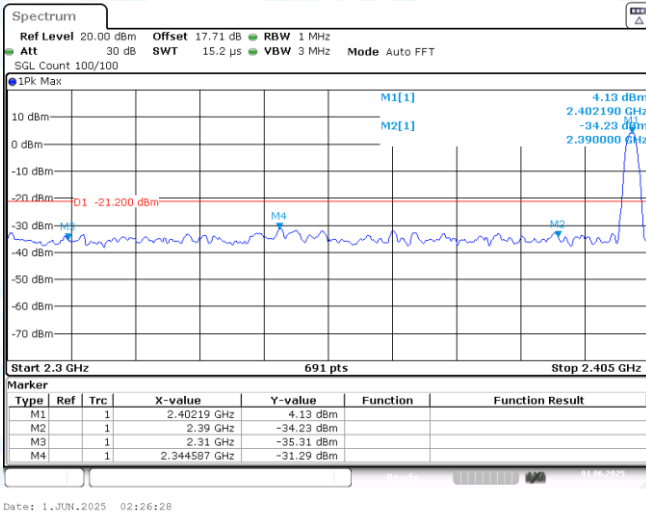
8.1 Test Result

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	-34.23	≤-21.20	60.97	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-35.31	≤-21.20	59.89	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2344.587	-31.29	≤-21.20	63.91	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-63.19	≤-41.20	32.01	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-62.45	≤-41.20	32.75	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2342.000	-60.1	≤-41.20	35.10	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-36.74	≤-21.20	58.46	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-37.18	≤-21.20	58.02	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2499.217	-32.63	≤-21.20	62.57	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-60.28	≤-41.20	34.92	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-61.9	≤-41.20	33.30	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2483.797	-60.07	≤-41.20	35.13	≤54	PASS
BLE_2M	Ant1	Low	2402	Peak	2390.000	-35.51	≤-21.20	59.69	≤74	PASS
BLE_2M	Ant1	Low	2402	Peak	2310.000	-36.16	≤-21.20	59.04	≤74	PASS
BLE_2M	Ant1	Low	2402	Peak	2340.022	-30.85	≤-21.20	64.35	≤74	PASS
BLE_2M	Ant1	Low	2402	AV	2390.000	-62.72	≤-41.20	32.48	≤54	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-62.82	≤-41.20	32.38	≤54	PASS
BLE_2M	Ant1	Low	2402	AV	2340.022	-60.07	≤-41.20	35.13	≤54	PASS
BLE_2M	Ant1	High	2480	Peak	2483.500	-36.8	≤-21.20	58.40	≤74	PASS
BLE_2M	Ant1	High	2480	Peak	2500.000	-34.29	≤-21.20	60.91	≤74	PASS
BLE_2M	Ant1	High	2480	Peak	2493.536	-33.12	≤-21.20	62.08	≤74	PASS
BLE_2M	Ant1	High	2480	AV	2483.500	-59.91	≤-41.20	35.29	≤54	PASS
BLE_2M	Ant1	High	2480	AV	2500.000	-62.86	≤-41.20	32.34	≤54	PASS
BLE_2M	Ant1	High	2480	AV	2483.565	-60.08	≤-41.20	35.12	≤54	PASS

Note:

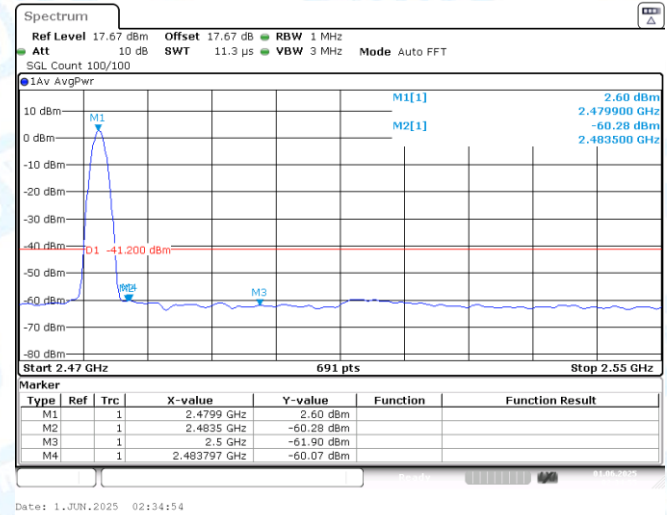
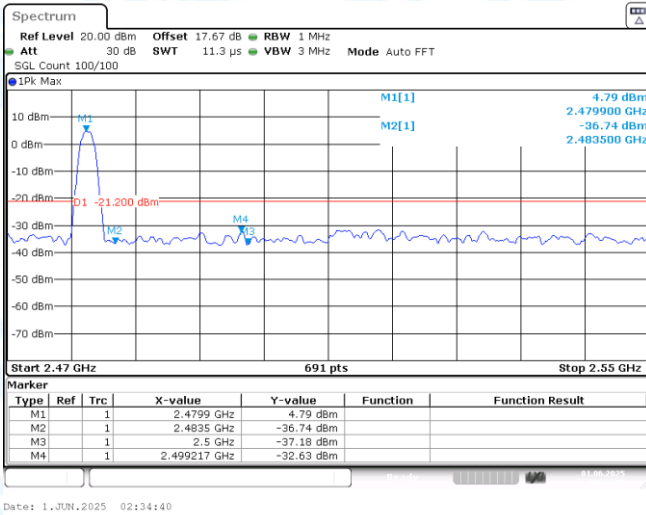
- The Antenna Gain is compensated in the graph.
- The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

8.2 Test Graphs



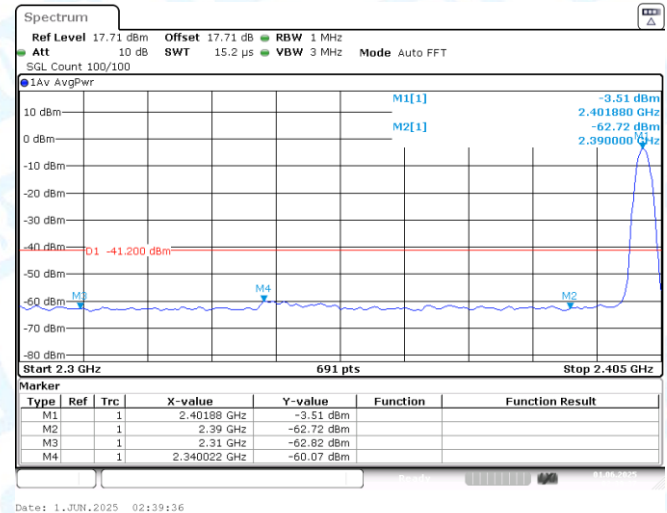
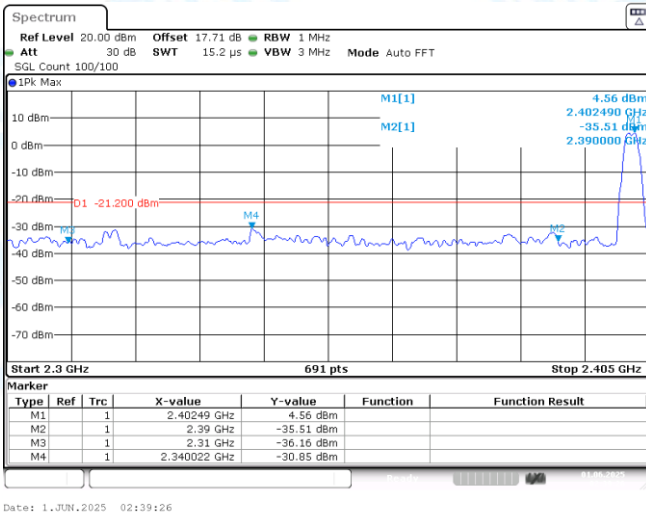
BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2402-PASS



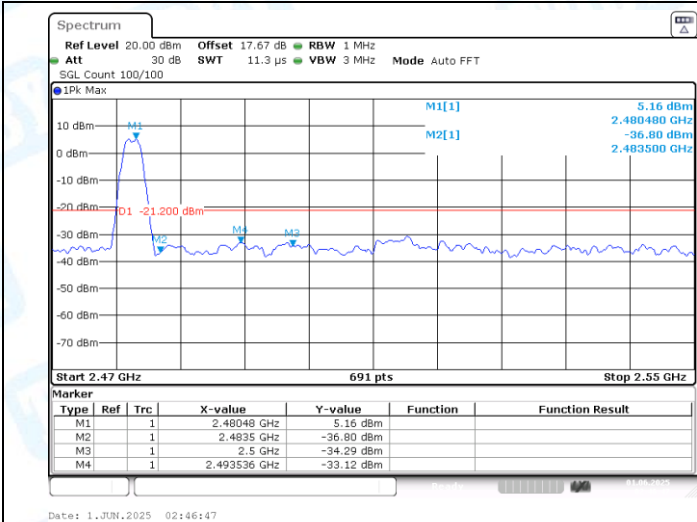
BLE_1M-Ant1-2480-PASS

BLE_1M-Ant1-2480-PASS

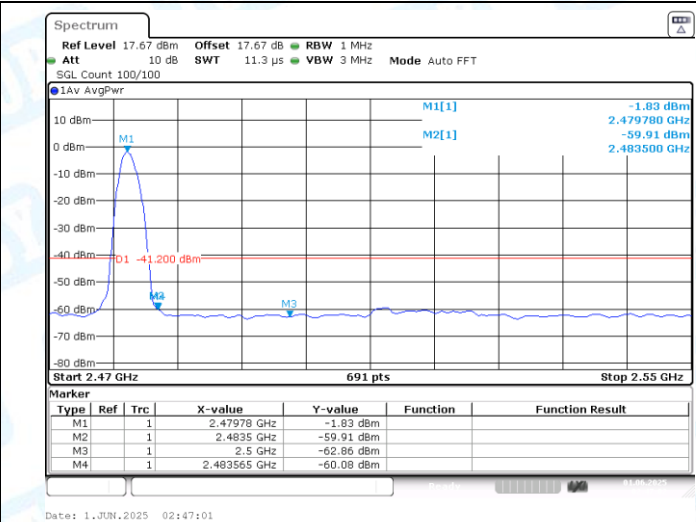


BLE_2M-Ant1-2402-PASS

BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2480-PASS



BLE_2M-Ant1-2480-PASS

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