

RF Test Data for BLE (Conducted Measurements)

General Description of EUT	
EUT Name:	Portable Gaming Computer(Tablet computer)
Model:	AYANEO Pocket Micro
Sample ID:	HC-C-202407-0066-01-01-2#
Test Standard:	FCC Part 15.247
Environmental Conditions	
Ambient Temperature:	24.3℃
Ambient Humidity:	55%RH
Test Power Supply:	DC 3.85V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202407-0066-61	

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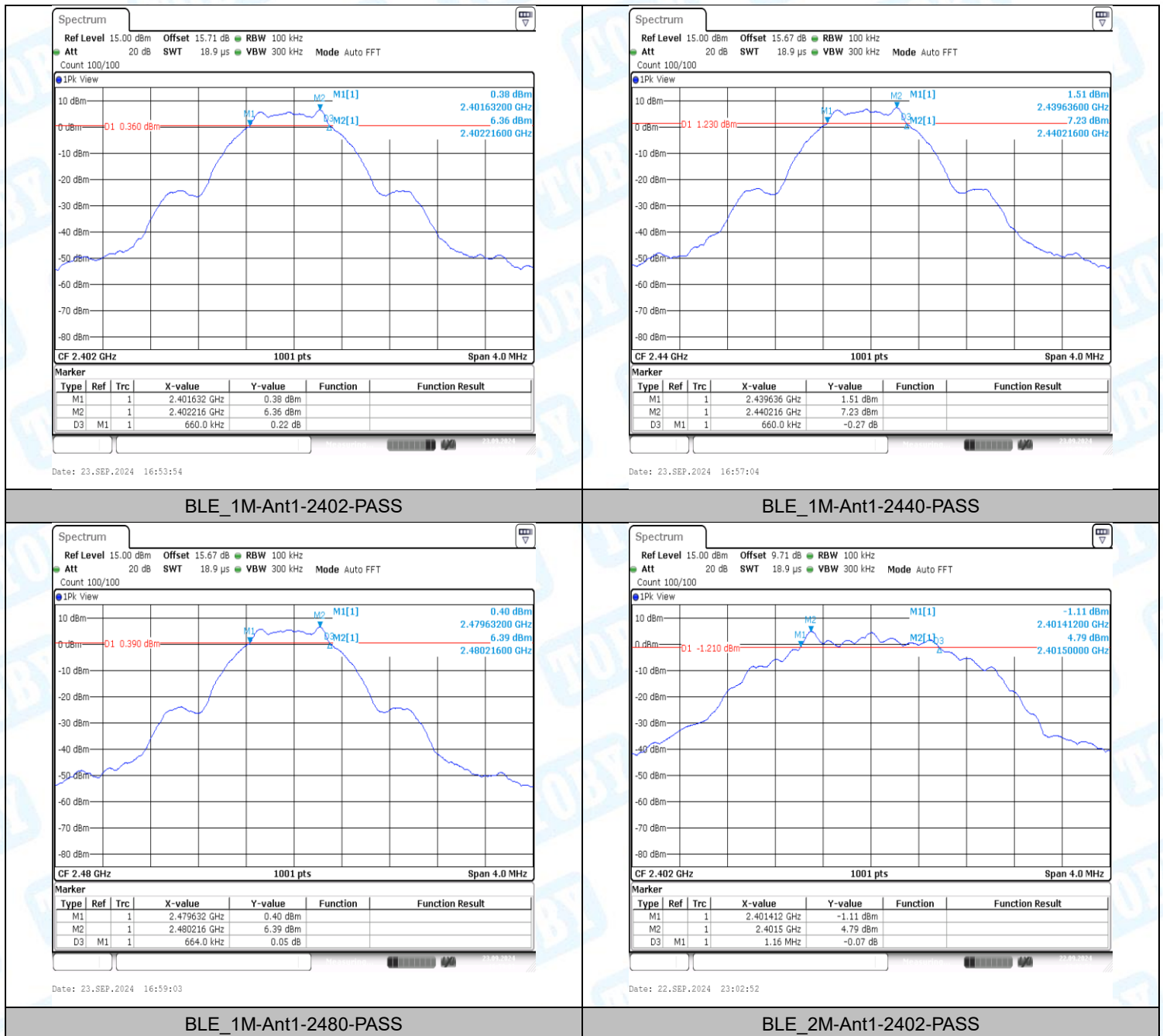
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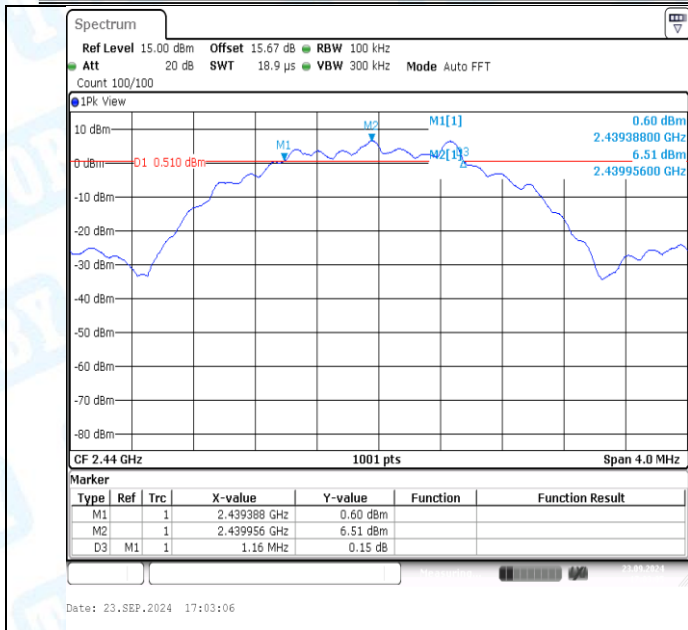
1: DTS Bandwidth

1.1 Test Result

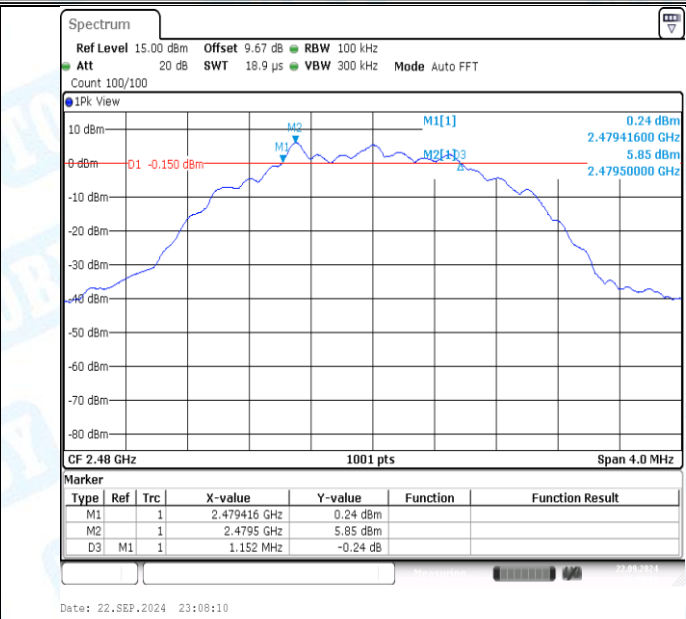
Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.66	2401.63	2402.29	0.5	PASS
BLE_1M	Ant1	2440	0.66	2439.64	2440.30	0.5	PASS
BLE_1M	Ant1	2480	0.66	2479.63	2480.30	0.5	PASS
BLE_2M	Ant1	2402	1.16	2401.41	2402.57	0.5	PASS
BLE_2M	Ant1	2440	1.16	2439.39	2440.55	0.5	PASS
BLE_2M	Ant1	2480	1.15	2479.42	2480.57	0.5	PASS

1.2 Test Graphs





BLE_2M-Ant1-2440-PASS



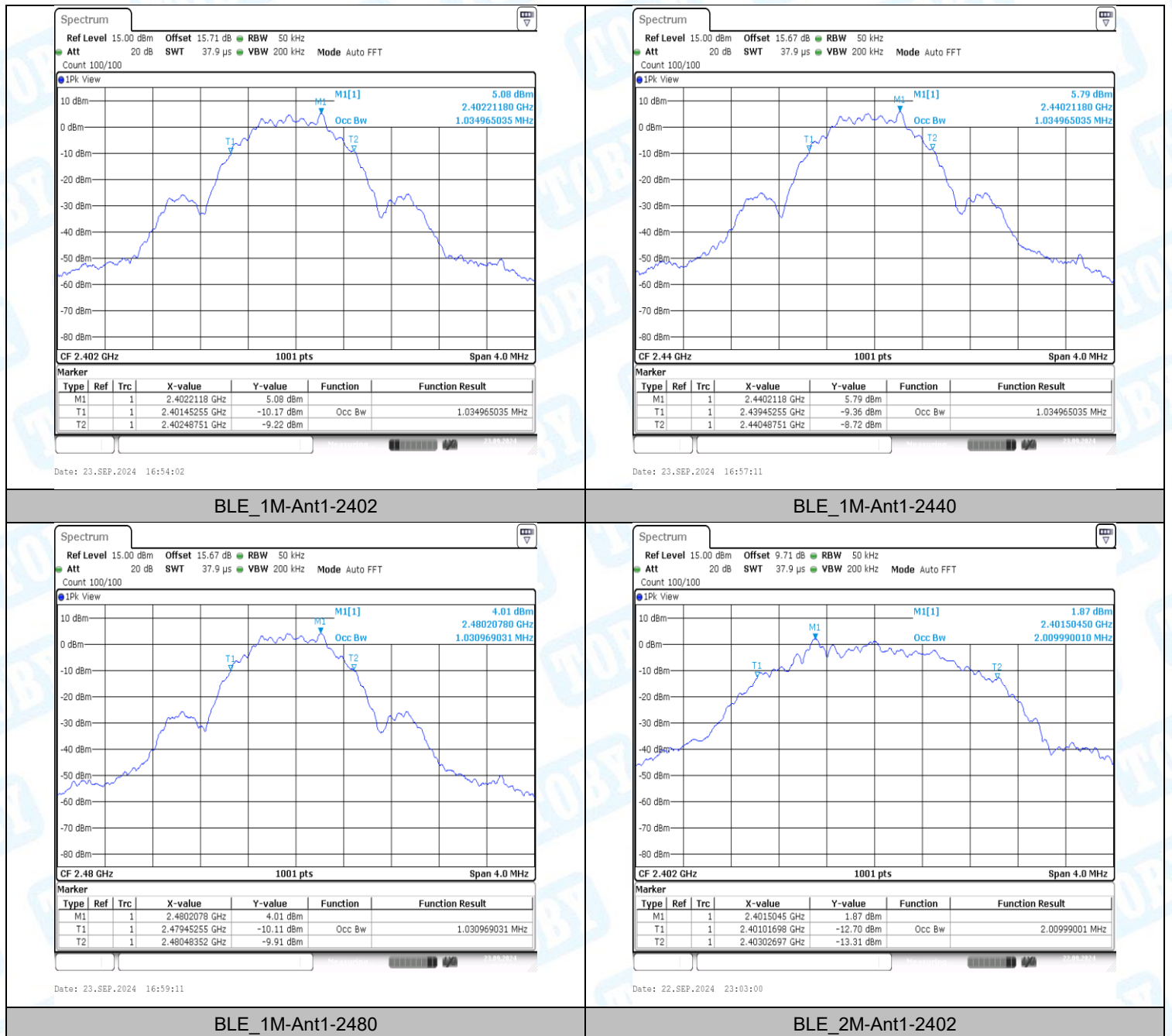
BLE_2M-Ant1-2480-PASS

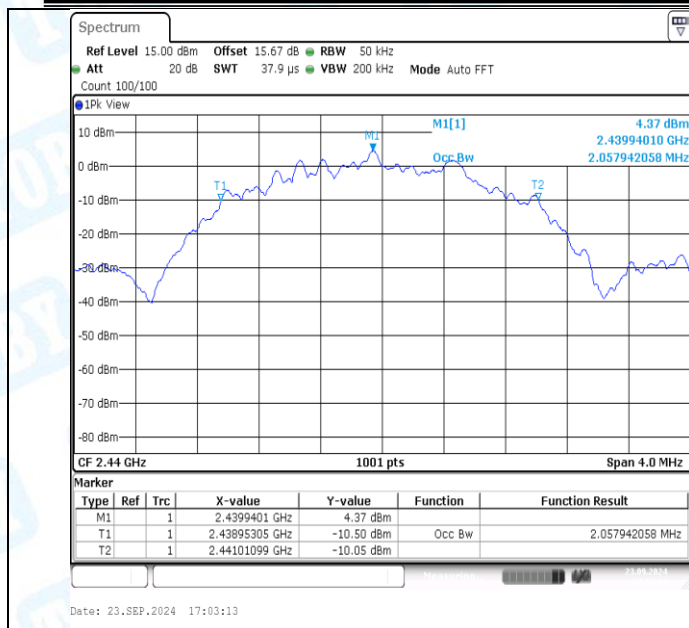
2: Occupied Channel Bandwidth

2.1 Test Result

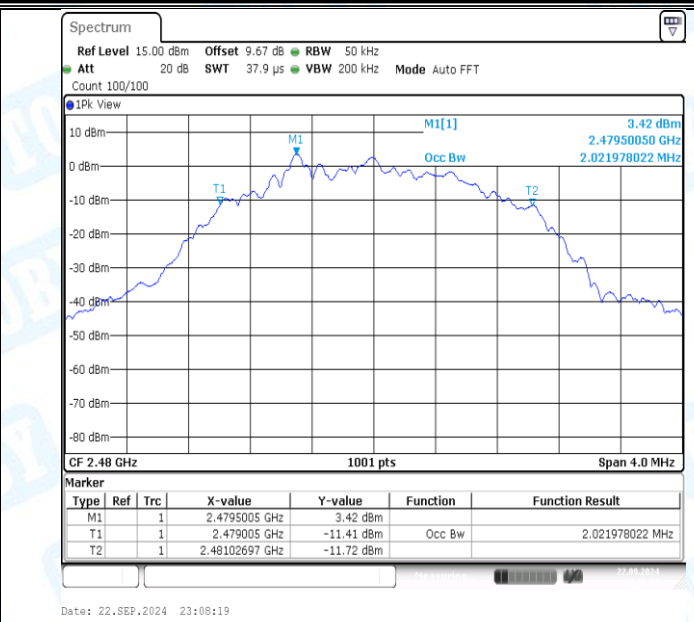
Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.035	2401.4525	2402.4875	---	---
BLE_1M	Ant1	2440	1.035	2439.4525	2440.4875	---	---
BLE_1M	Ant1	2480	1.031	2479.4525	2480.4835	---	---
BLE_2M	Ant1	2402	2.01	2401.0170	2403.0270	---	---
BLE_2M	Ant1	2440	2.058	2438.9530	2441.0110	---	---
BLE_2M	Ant1	2480	2.022	2479.0050	2481.0270	---	---

2.2 Test Graphs





BLE_2M-Ant1-2440



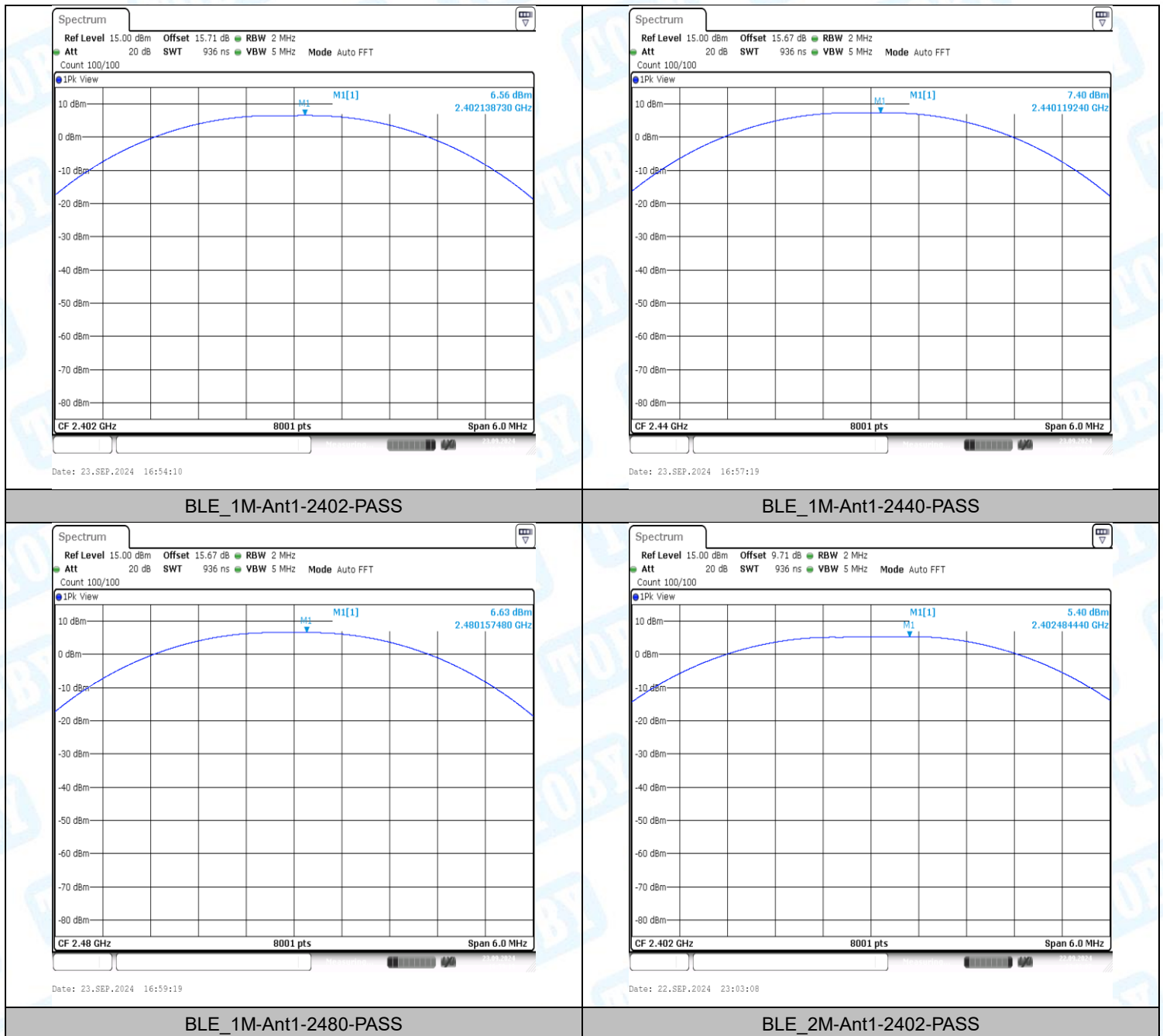
BLE_2M-Ant1-2480

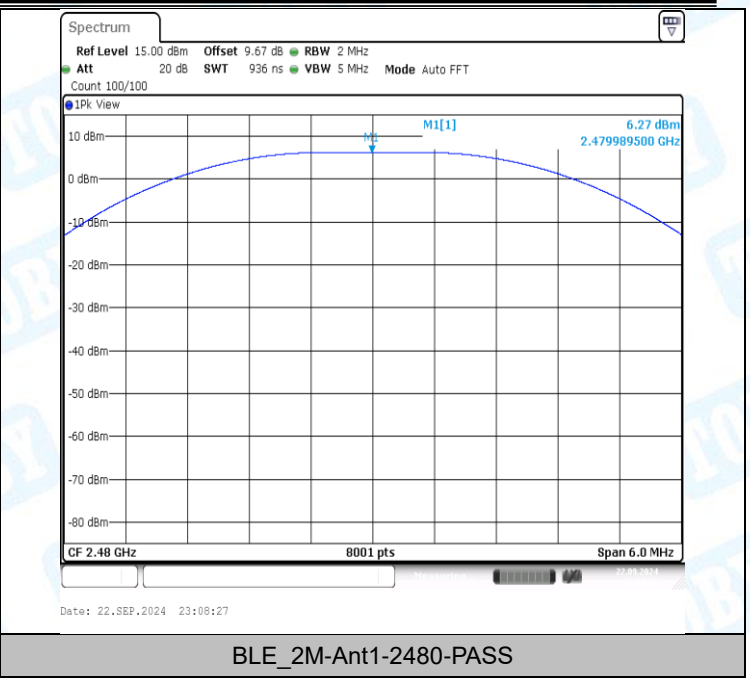
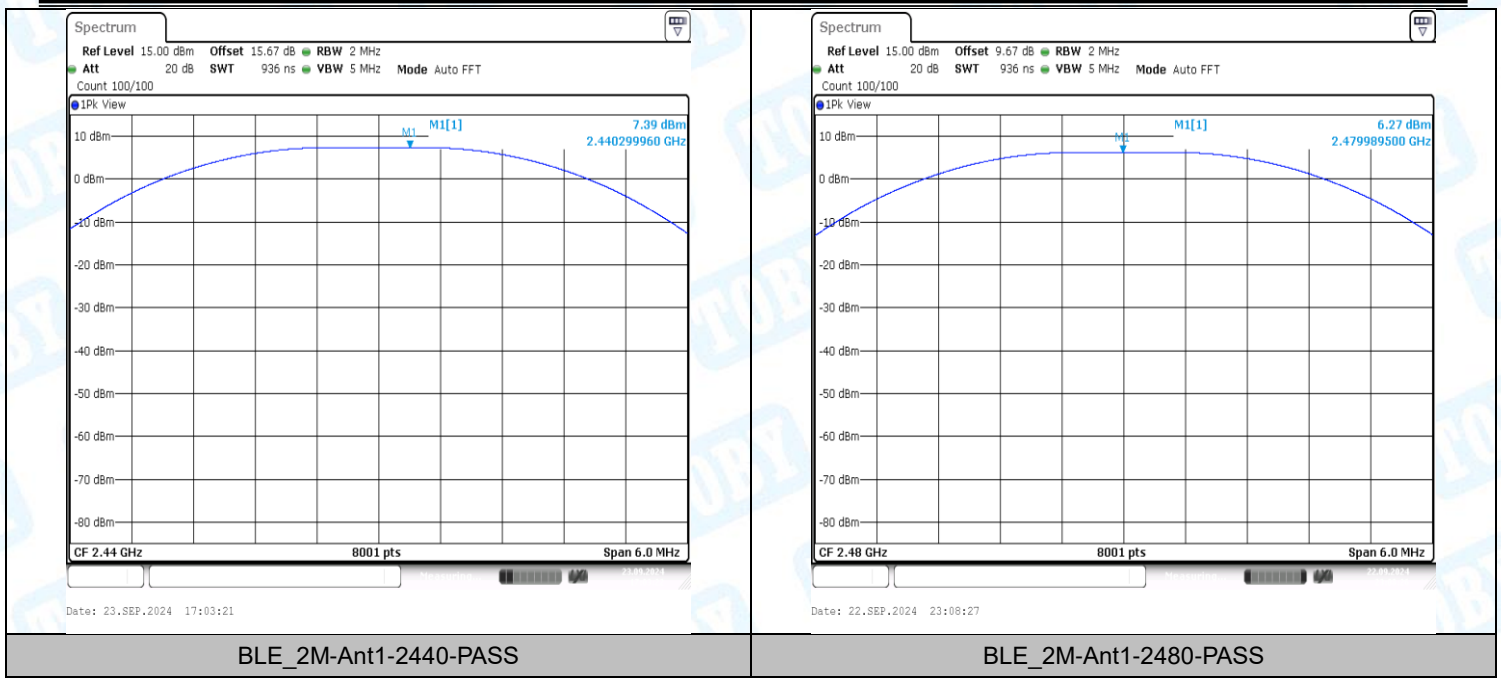
3: Maximum conducted output power

3.1 Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	6.56	≤30	PASS
BLE_1M	Ant1	2440	7.40	≤30	PASS
BLE_1M	Ant1	2480	6.63	≤30	PASS
BLE_2M	Ant1	2402	5.40	≤30	PASS
BLE_2M	Ant1	2440	7.39	≤30	PASS
BLE_2M	Ant1	2480	6.27	≤30	PASS

3.2 Test Graphs Peak



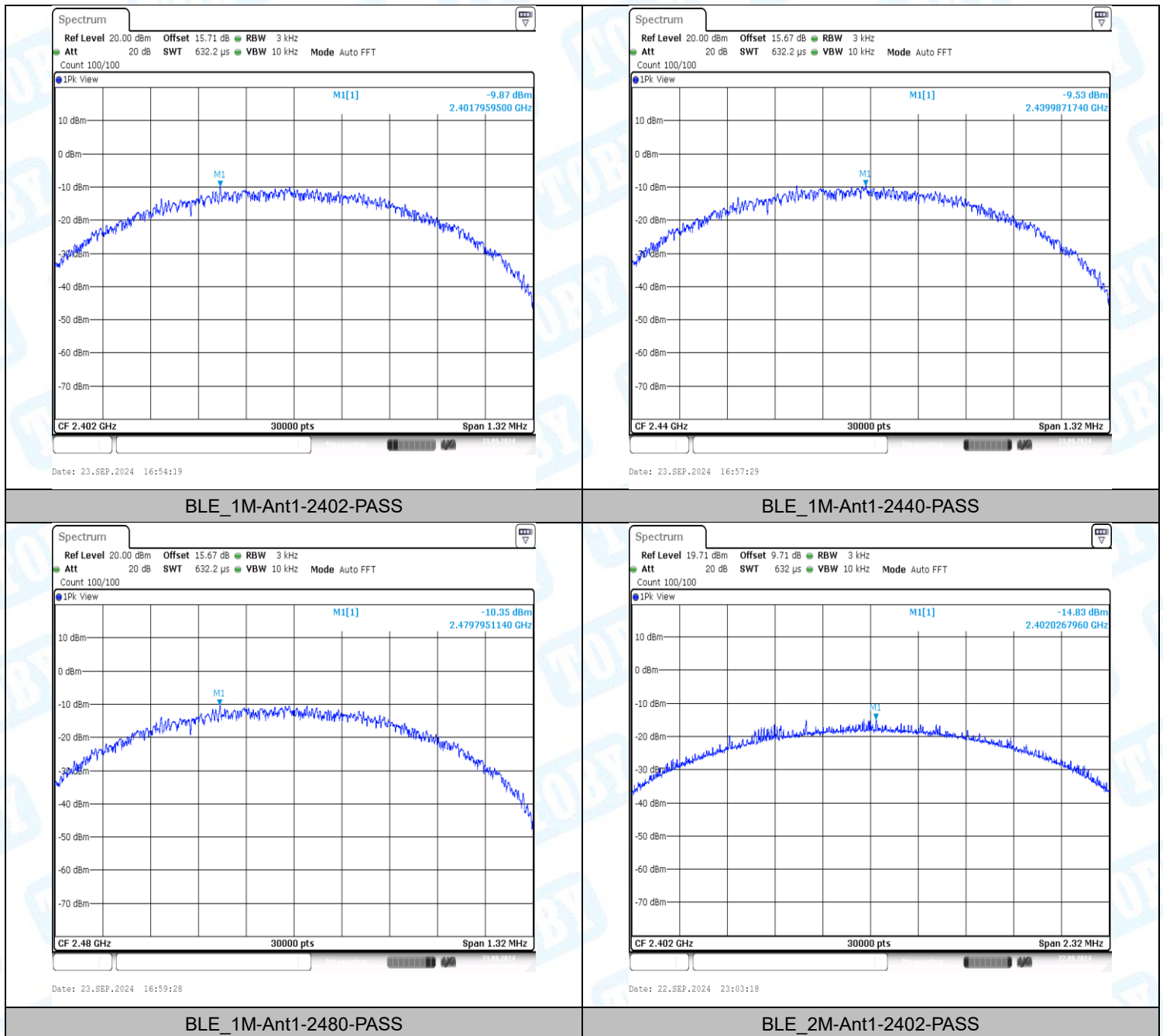


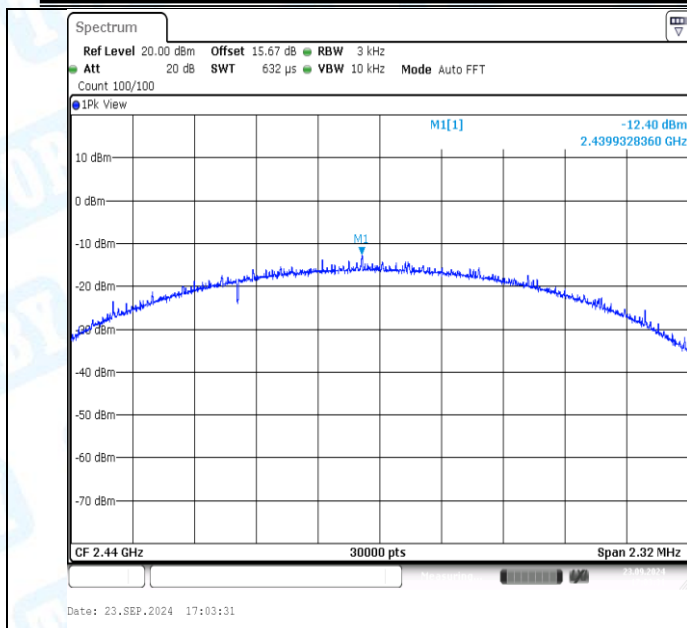
4: Maximum power spectral density

4.1 Test Result

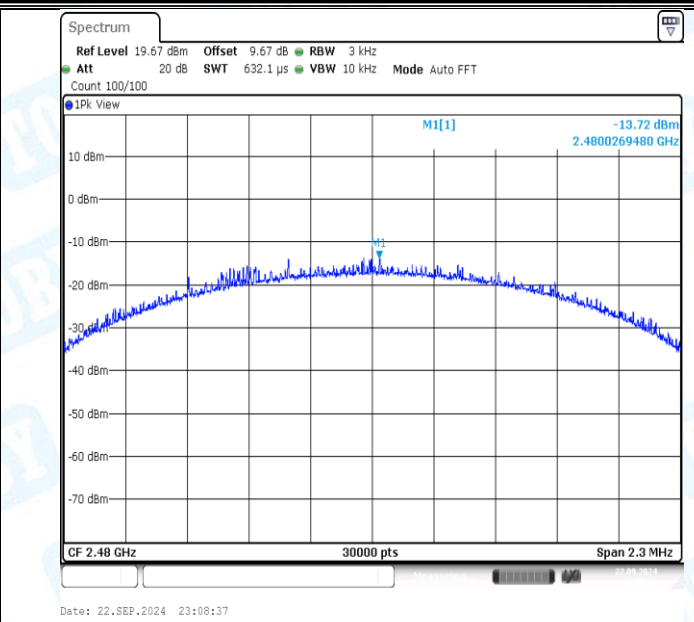
Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.87	≤8.00	PASS
BLE_1M	Ant1	2440	-9.53	≤8.00	PASS
BLE_1M	Ant1	2480	-10.35	≤8.00	PASS
BLE_2M	Ant1	2402	-14.83	≤8.00	PASS
BLE_2M	Ant1	2440	-12.40	≤8.00	PASS
BLE_2M	Ant1	2480	-13.72	≤8.00	PASS

4.2 Test Graphs





BLE_2M-Ant1-2440-PASS



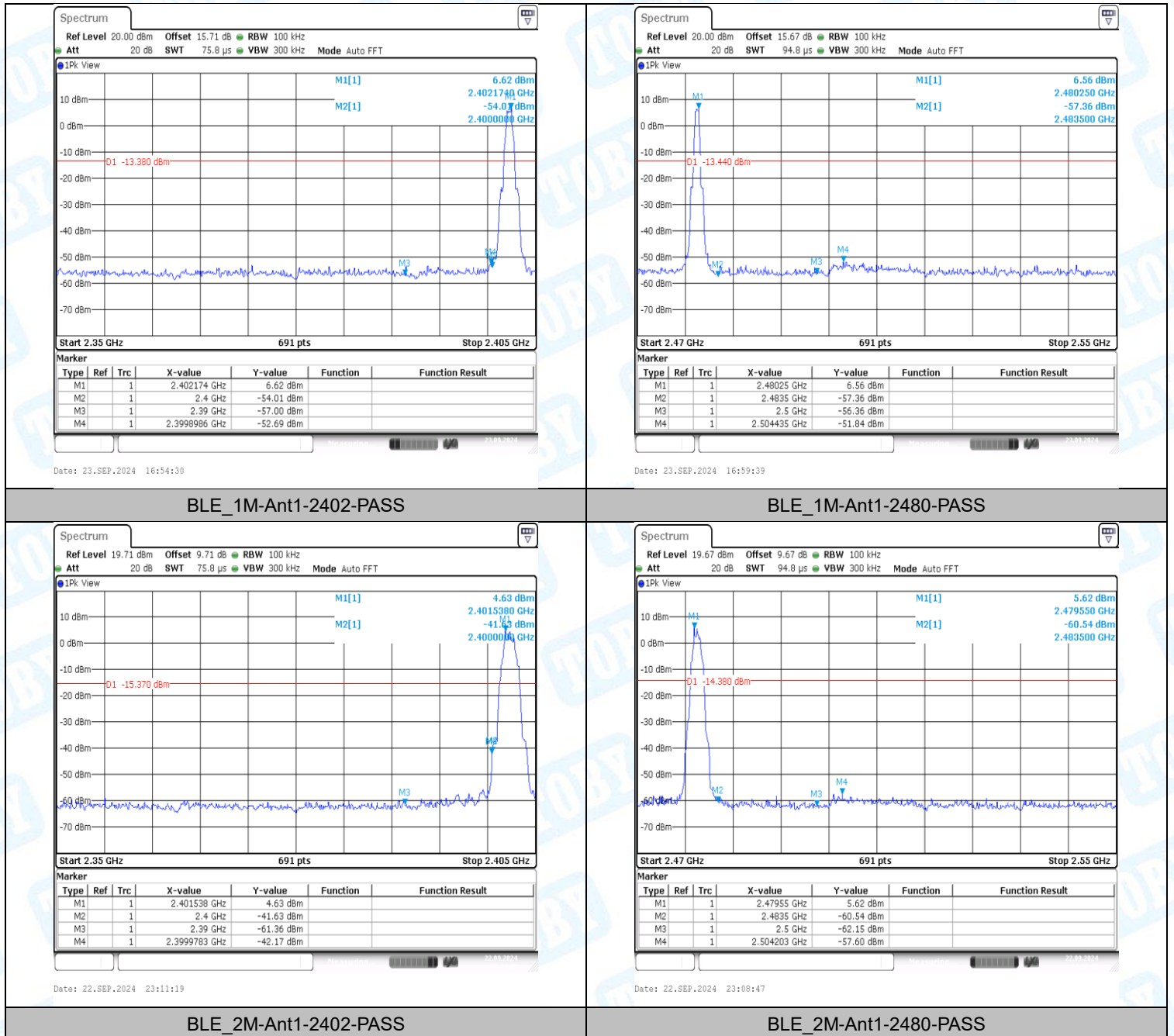
BLE_2M-Ant1-2480-PASS

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	6.62	-52.69	≤-13.38	PASS
BLE_1M	Ant1	High	2480	6.56	-51.84	≤-13.44	PASS
BLE_2M	Ant1	Low	2402	4.63	-42.17	≤-15.37	PASS
BLE_2M	Ant1	High	2480	5.62	-57.6	≤-14.38	PASS

5.2 Test Graphs

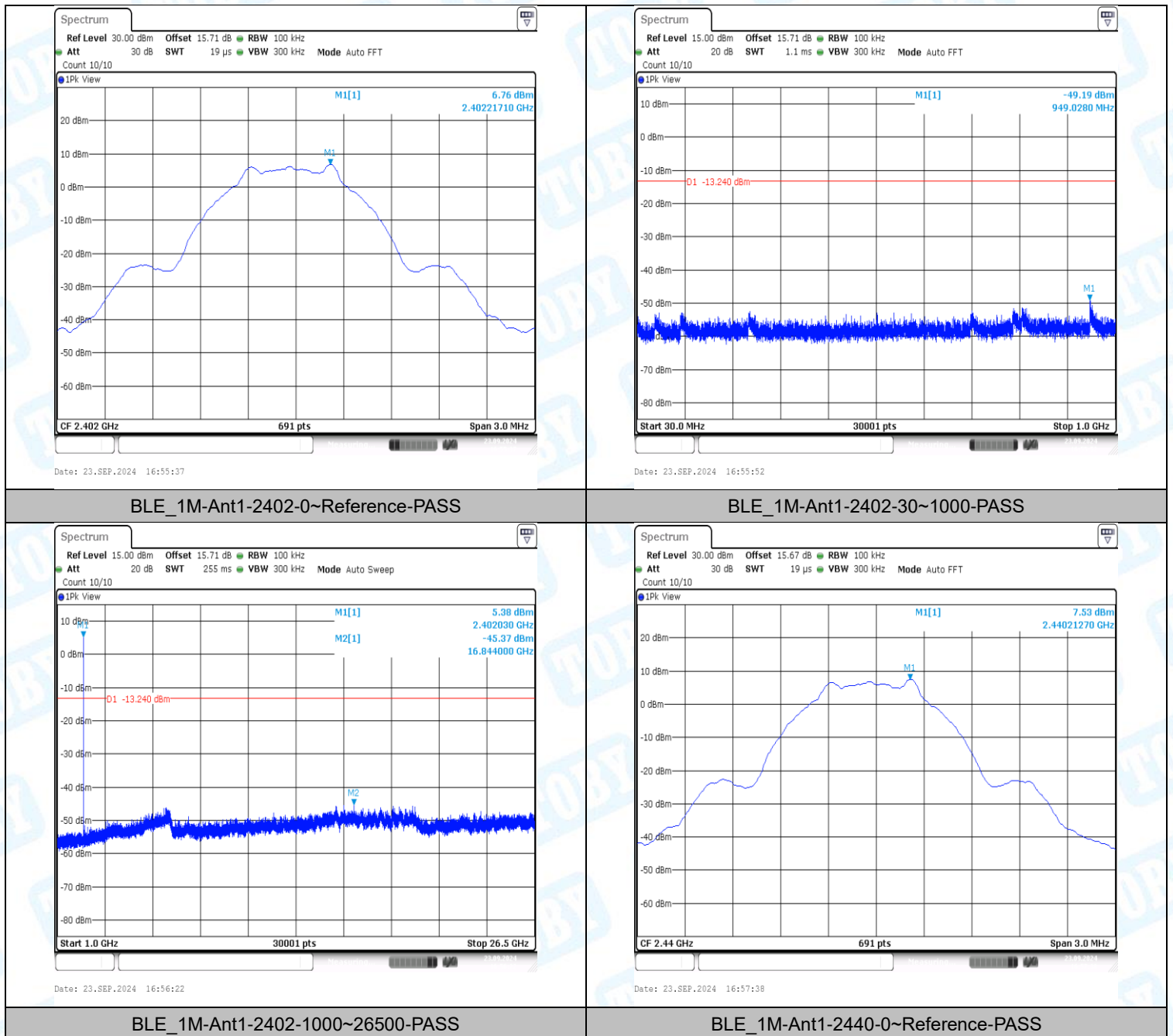


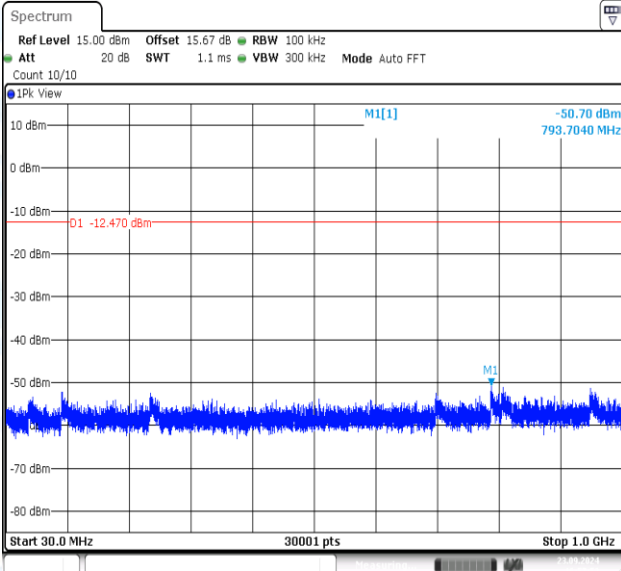
6: Conducted Spurious Emission

6.1 Test Result

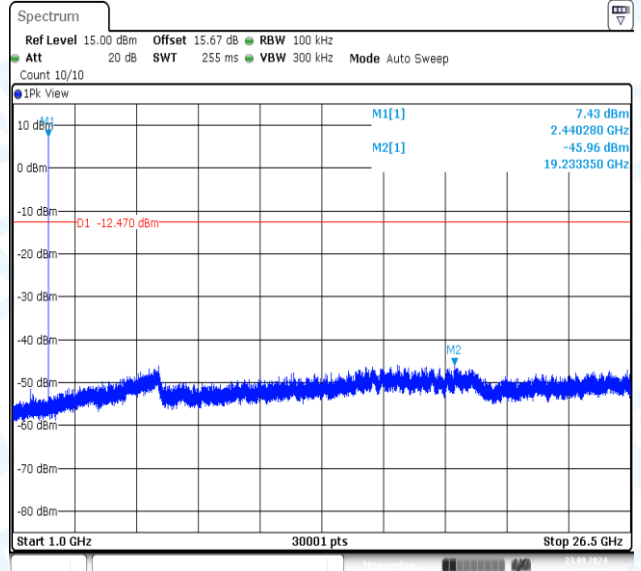
Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	6.76	6.76	---	PASS
BLE_1M	Ant1	2402	30~1000	6.76	-49.19	≤-13.24	PASS
BLE_1M	Ant1	2402	1000~26500	6.76	-45.37	≤-13.24	PASS
BLE_1M	Ant1	2440	0~Reference	7.53	7.53	---	PASS
BLE_1M	Ant1	2440	30~1000	7.53	-50.7	≤-12.47	PASS
BLE_1M	Ant1	2440	1000~26500	7.53	-45.96	≤-12.47	PASS
BLE_1M	Ant1	2480	0~Reference	6.78	6.78	---	PASS
BLE_1M	Ant1	2480	30~1000	6.78	-50.59	≤-13.22	PASS
BLE_1M	Ant1	2480	1000~26500	6.78	-45.77	≤-13.22	PASS
BLE_2M	Ant1	2402	0~Reference	4.83	4.83	---	PASS
BLE_2M	Ant1	2402	30~1000	4.83	-57.24	≤-15.17	PASS
BLE_2M	Ant1	2402	1000~26500	4.83	-50.98	≤-15.17	PASS
BLE_2M	Ant1	2440	0~Reference	6.80	6.80	---	PASS
BLE_2M	Ant1	2440	30~1000	6.80	-51.13	≤-13.2	PASS
BLE_2M	Ant1	2440	1000~26500	6.80	-44.95	≤-13.2	PASS
BLE_2M	Ant1	2480	0~Reference	5.84	5.84	---	PASS
BLE_2M	Ant1	2480	30~1000	5.84	-57.02	≤-14.16	PASS
BLE_2M	Ant1	2480	1000~26500	5.84	-50.99	≤-14.16	PASS

6.2 Test Graphs





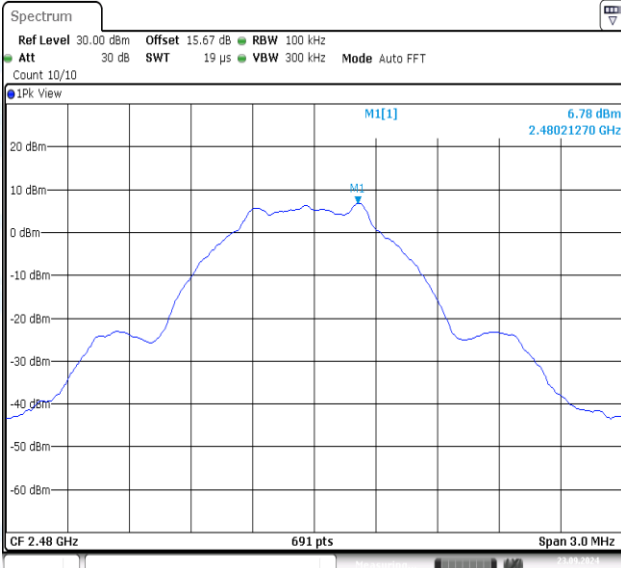
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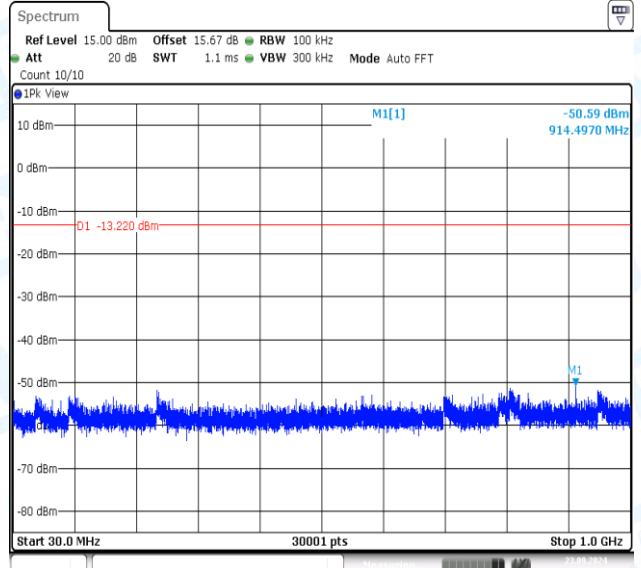
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BLE_1M-Ant1-2440-30~1000-PASS

BLE_1M-Ant1-2440-1000~26500-PASS



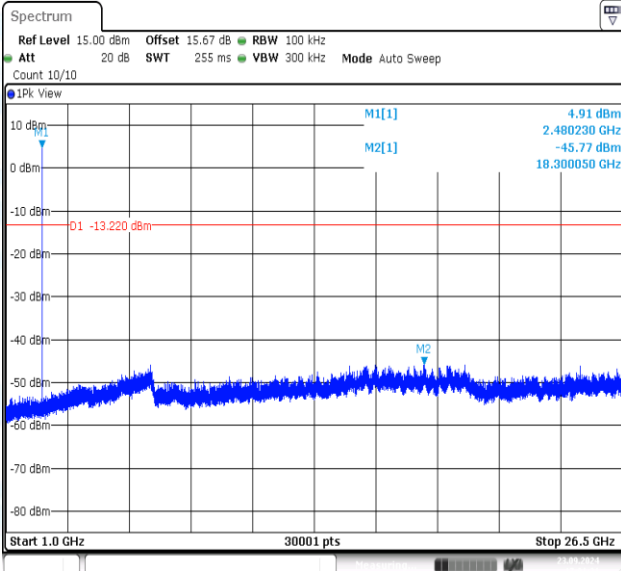
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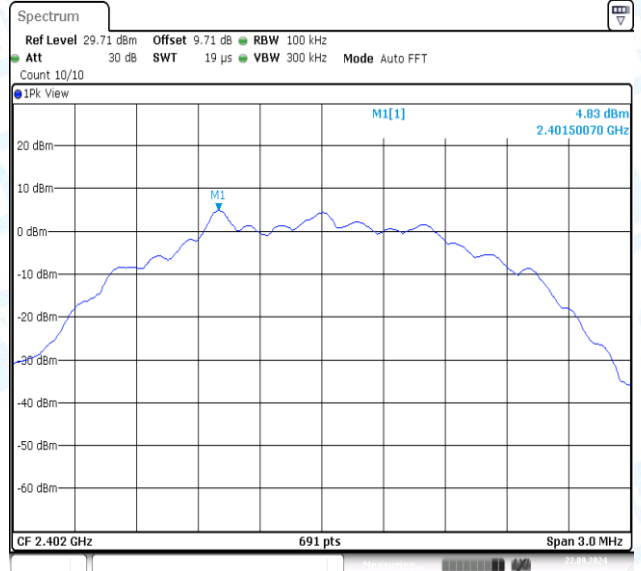
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BLE_1M-Ant1-2480-0~Reference-PASS

BLE_1M-Ant1-2480-30~1000-PASS

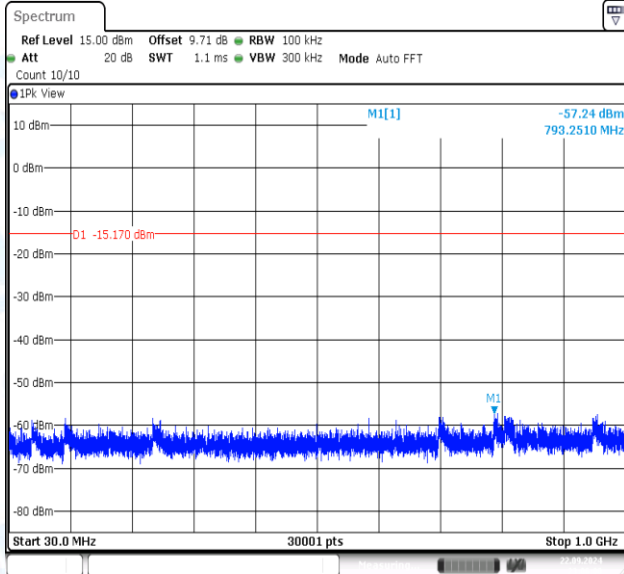


Date: 23.SEP.2024 17:01:31

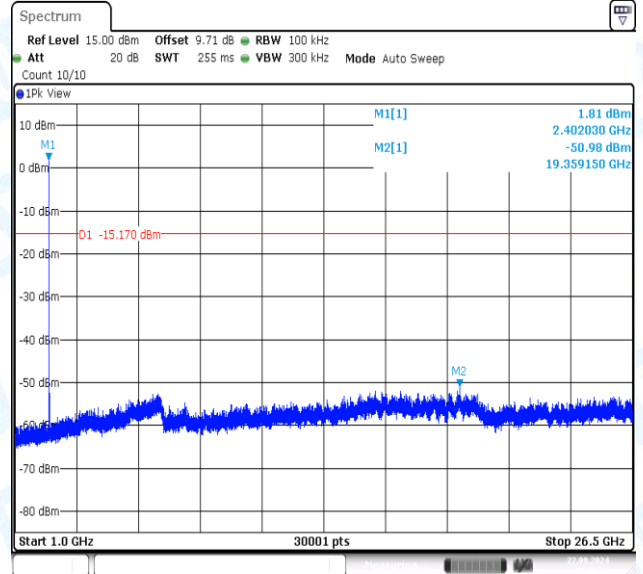


Date: 22.SEP.2024 23:05:45

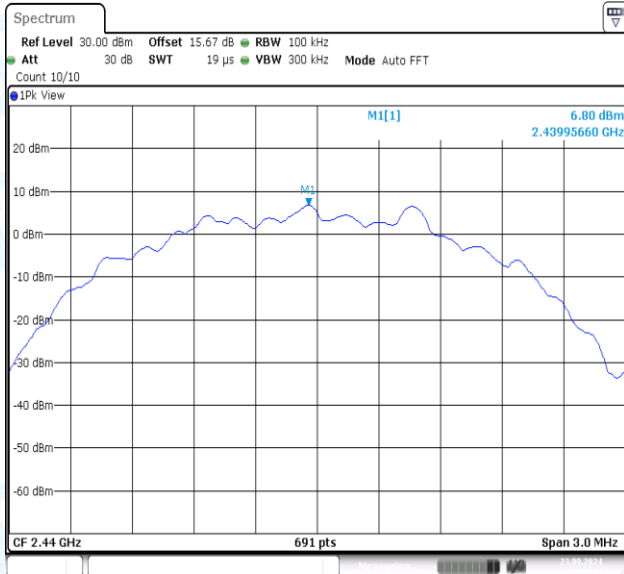
BLE_1M-Ant1-2480-1000~26500-PASS



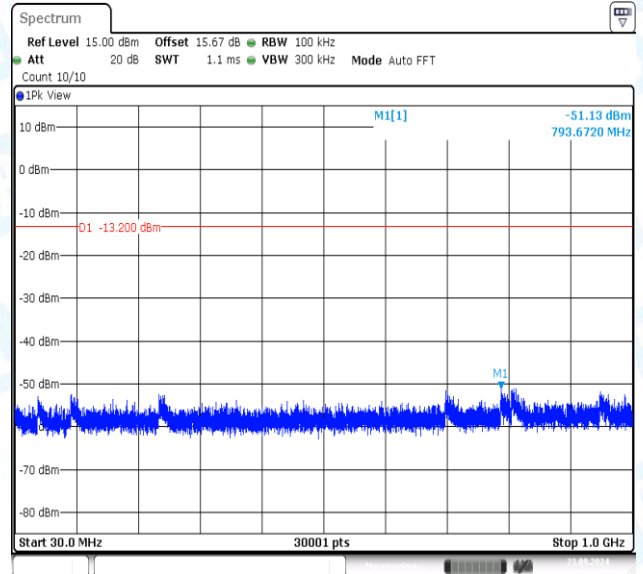
BLE_2M-Ant1-2402-0~Reference-PASS



BLE_2M-Ant1-2402-30~1000-PASS

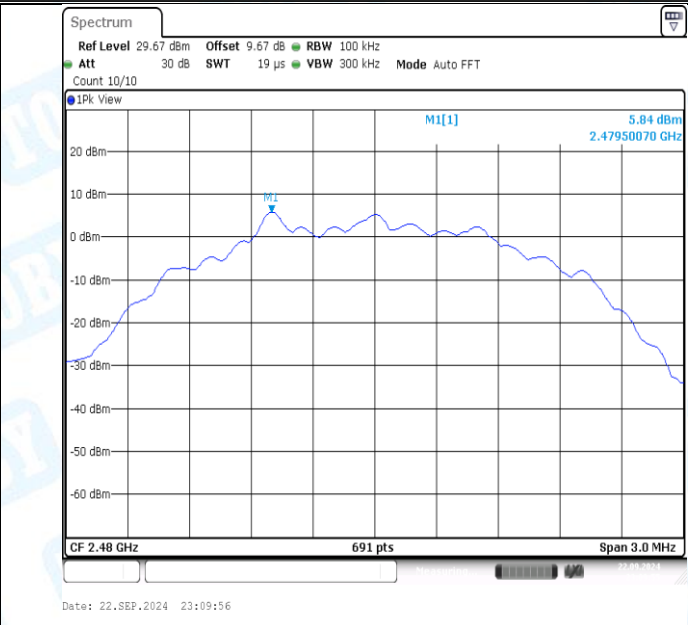
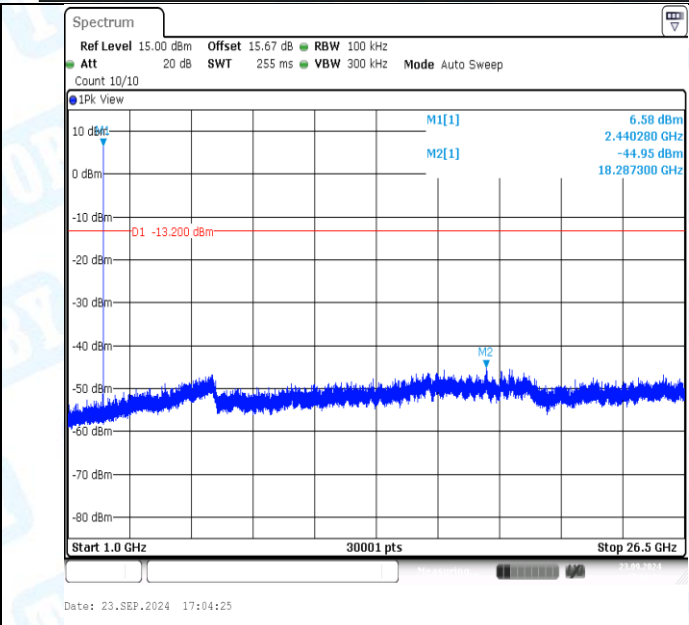


BLE_2M-Ant1-2402-1000~26500-PASS



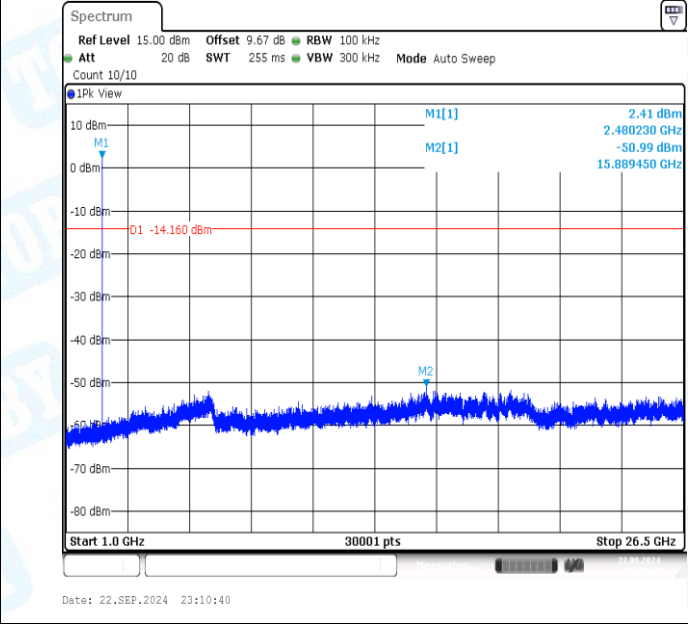
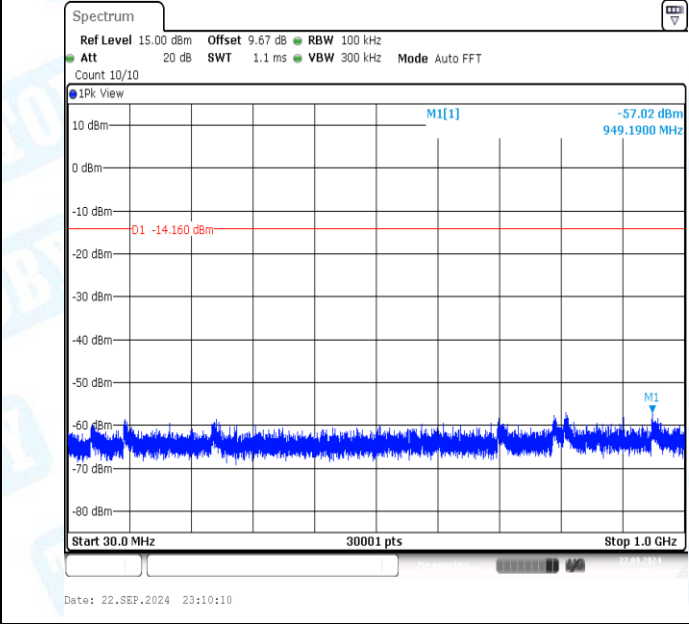
BLE_2M-Ant1-2440-0~Reference-PASS

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

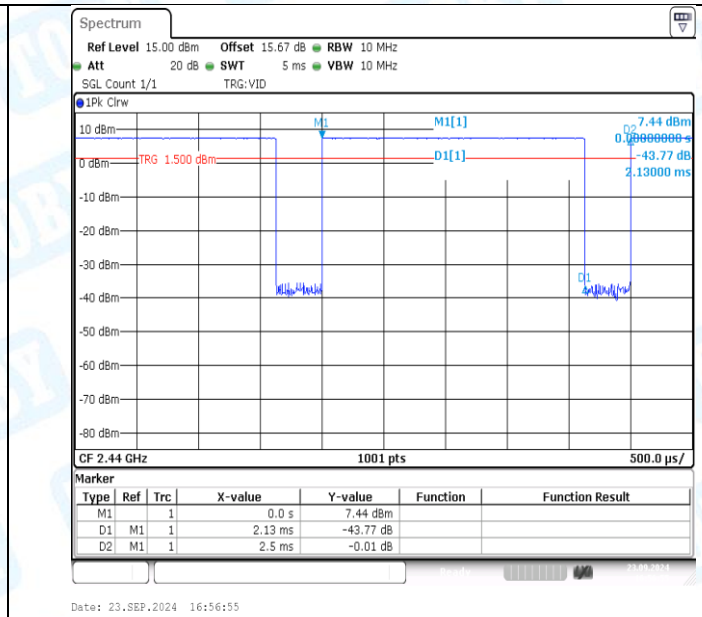
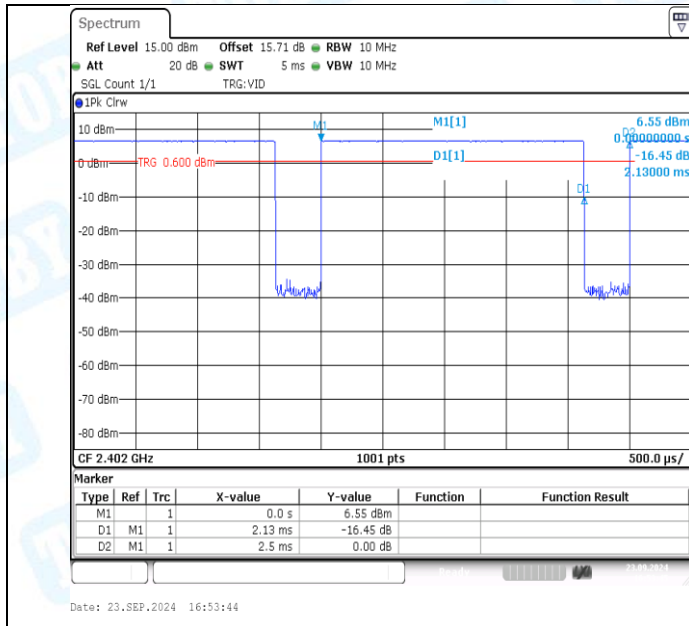
TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factory	1/T [kHz]
BLE_1M	Ant1	2402	2.13	2.50	85.20	0.70	0.47
BLE_1M	Ant1	2440	2.13	2.50	85.20	0.70	0.47
BLE_1M	Ant1	2480	2.13	2.50	85.20	0.70	0.47
BLE_2M	Ant1	2402	0.83	1.25	66.40	1.78	1.20
BLE_2M	Ant1	2440	1.07	1.88	56.91	2.45	0.93
BLE_2M	Ant1	2480	0.83	1.25	66.40	1.78	1.20

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

2, DC Factory=10*Log₁₀(1/Duty Cycle)

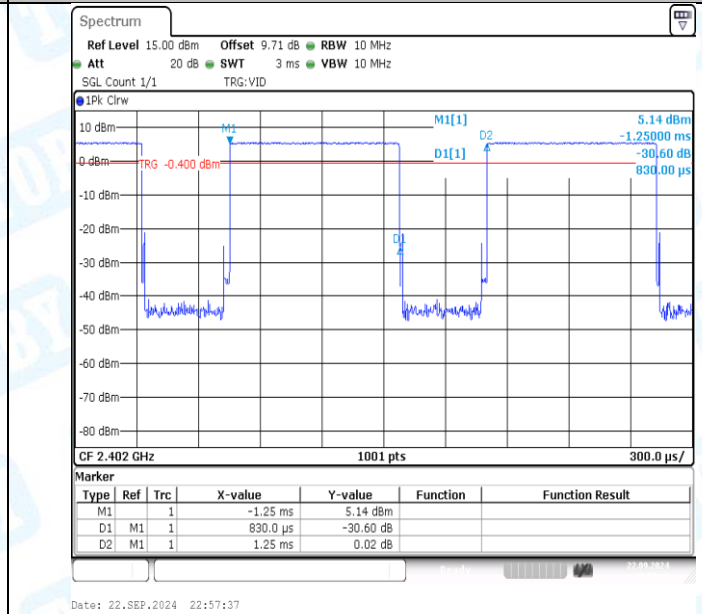
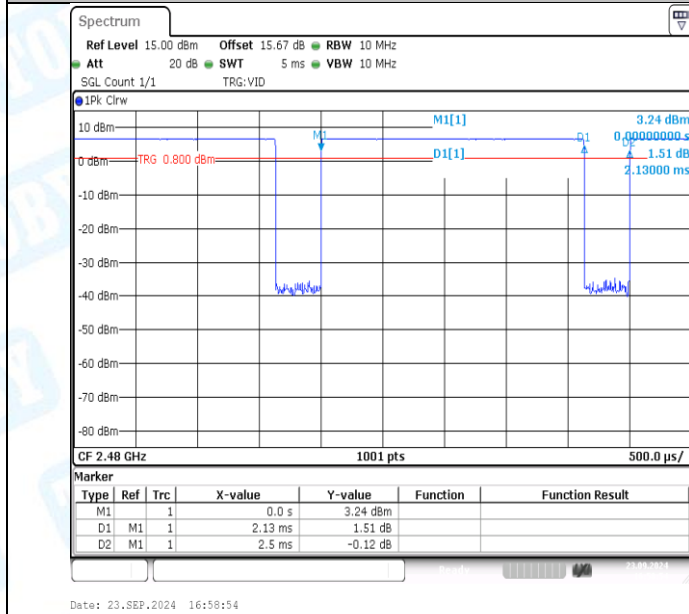
3, 1/T=1/ Transmission Duration

7.2 Test Graphs



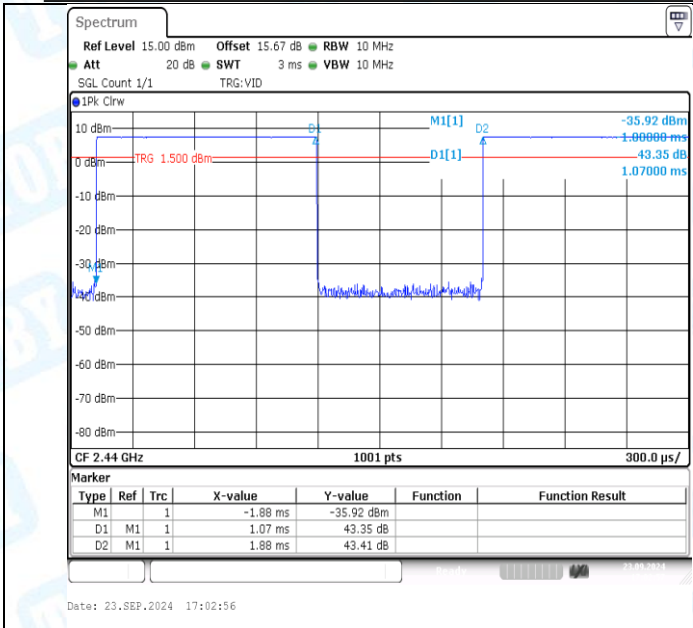
NTNV-BLE_1M-Ant1-2402

NTNV-BLE_1M-Ant1-2440

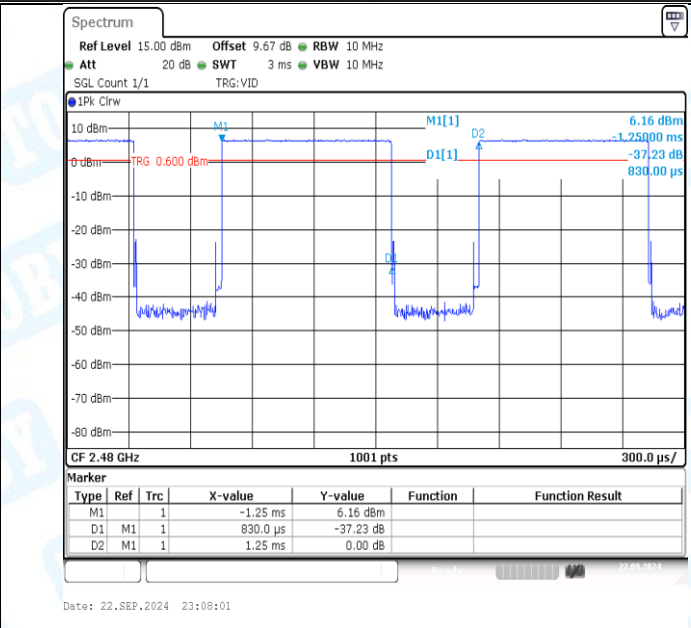


NTNV-BLE_1M-Ant1-2480

NTNV-BLE_2M-Ant1-2402



NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2480

8: Emissions in Restricted Bands

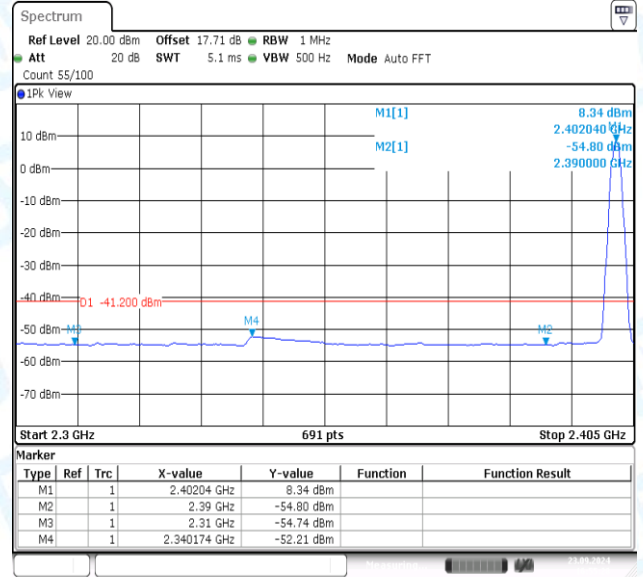
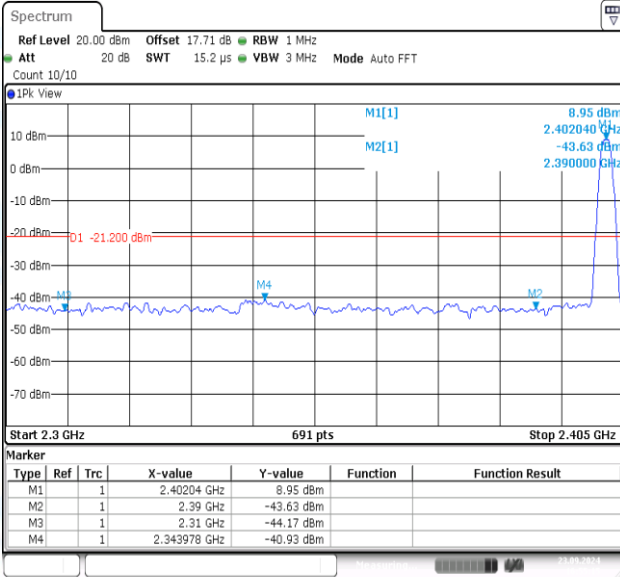
8.1 Test Result

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	-43.63	≤-21.20	51.57	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-44.17	≤-21.20	51.03	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2343.978	-40.93	≤-21.20	54.27	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-54.8	≤-41.20	40.40	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-54.74	≤-41.20	40.46	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2340.174	-52.21	≤-41.20	42.99	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-44.97	≤-21.20	50.23	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-42.55	≤-21.20	52.65	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2495.855	-42.04	≤-21.20	53.16	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-54	≤-41.20	41.20	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-54.6	≤-41.20	40.60	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2484.377	-53.87	≤-41.20	41.33	≤54	PASS
BLE_2M	Ant1	Low	2402	Peak	2390.000	-50.44	≤-21.20	44.76	≤74	PASS
BLE_2M	Ant1	Low	2402	Peak	2310.000	-49.84	≤-21.20	45.36	≤74	PASS
BLE_2M	Ant1	Low	2402	Peak	2343.217	-46.91	≤-21.20	48.29	≤74	PASS
BLE_2M	Ant1	Low	2402	AV	2390.000	-60.52	≤-41.20	34.68	≤54	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-60.19	≤-41.20	35.01	≤54	PASS
BLE_2M	Ant1	Low	2402	AV	2340.174	-57.52	≤-41.20	37.68	≤54	PASS
BLE_2M	Ant1	High	2480	Peak	2483.500	-43.67	≤-21.20	51.53	≤74	PASS
BLE_2M	Ant1	High	2480	Peak	2500.000	-50.33	≤-21.20	44.87	≤74	PASS
BLE_2M	Ant1	High	2480	Peak	2484.493	-46.1	≤-21.20	49.10	≤74	PASS
BLE_2M	Ant1	High	2480	AV	2483.500	-57.47	≤-41.20	37.73	≤54	PASS
BLE_2M	Ant1	High	2480	AV	2500.000	-60.03	≤-41.20	35.17	≤54	PASS
BLE_2M	Ant1	High	2480	AV	2483.797	-57.62	≤-41.20	37.58	≤54	PASS

Note:

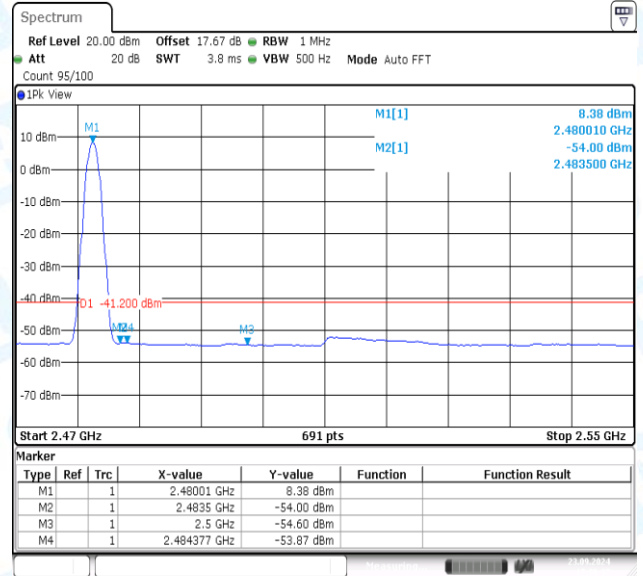
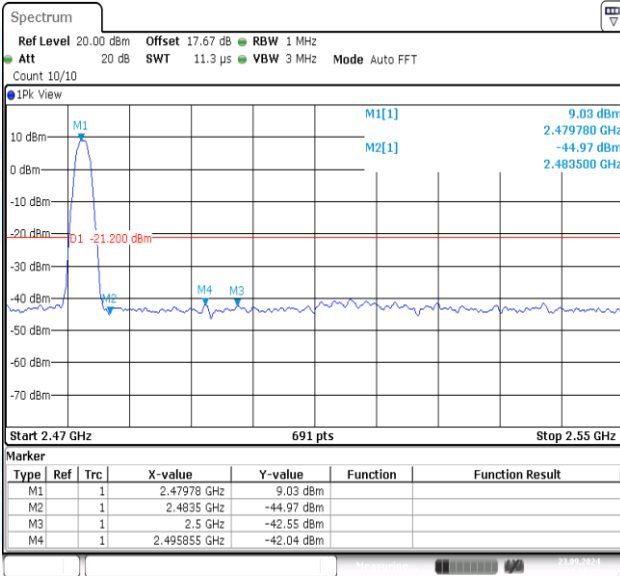
- The Antenna Gain is compensated in the graph.
- The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

8.2 Test Graphs



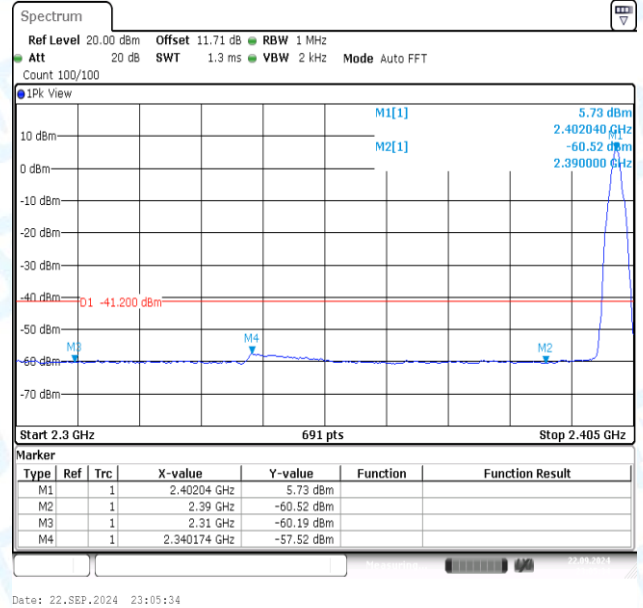
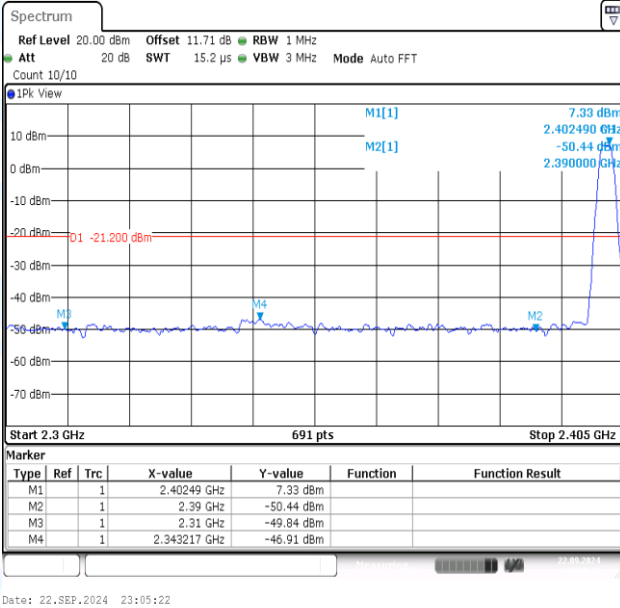
BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2402-PASS



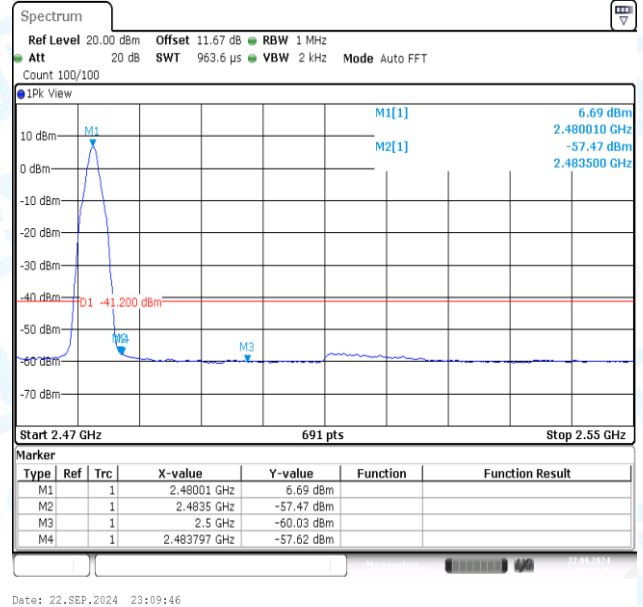
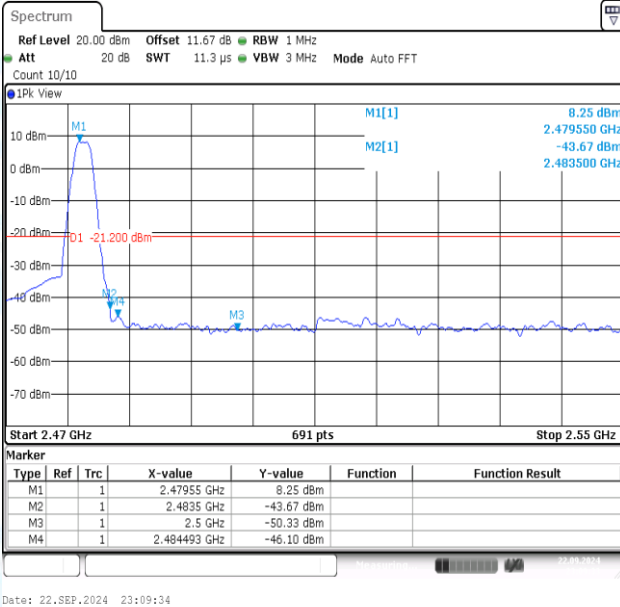
BLE_1M-Ant1-2480-PASS

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-----