

RF Test Data for BLE (Conducted Measurements)

General Description of EUT	
EUT Name:	Tablet
Model:	C30
Sample ID:	HC-C-202412-0060-03-01-2#
Environmental Conditions	
Ambient Temperature:	24.5℃
Ambient Humidity:	47%RH
Test Power Supply:	DC 3.8V
Test Engineer:	ZKN.ZHOU
Note: For a more detailed features description, please refer to the report TBR-C-202412-0060-61	

Contents

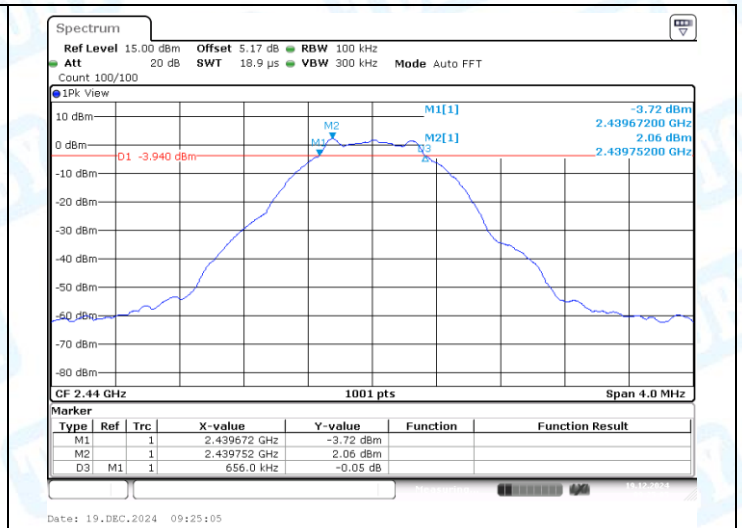
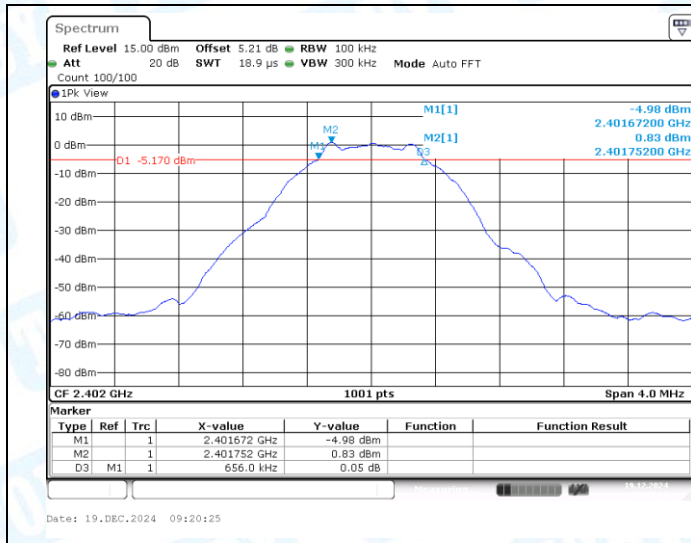
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1: DTS Bandwidth

1.1 Test Result

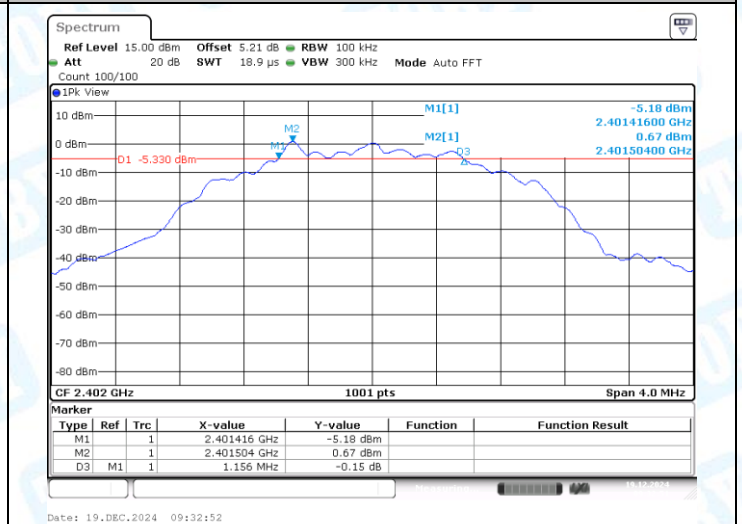
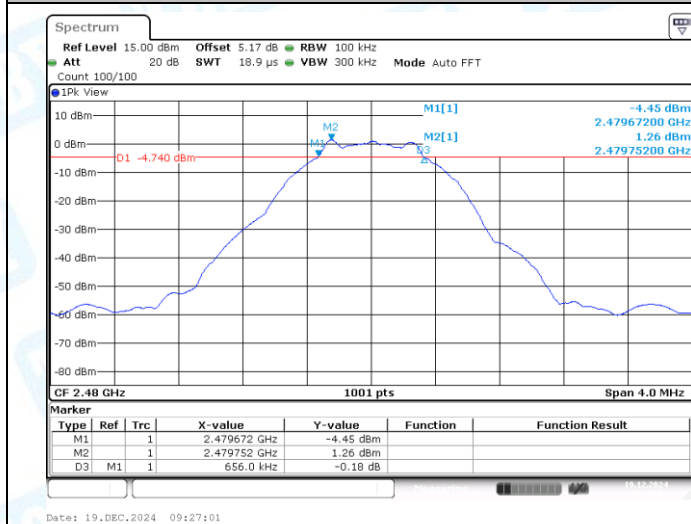
Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.66	2401.67	2402.33	0.5	PASS
BLE_1M	Ant1	2440	0.66	2439.67	2440.33	0.5	PASS
BLE_1M	Ant1	2480	0.66	2479.67	2480.33	0.5	PASS
BLE_2M	Ant1	2402	1.16	2401.42	2402.57	0.5	PASS
BLE_2M	Ant1	2440	1.15	2439.42	2440.57	0.5	PASS
BLE_2M	Ant1	2480	1.15	2479.42	2480.57	0.5	PASS

1.2 Test Graphs



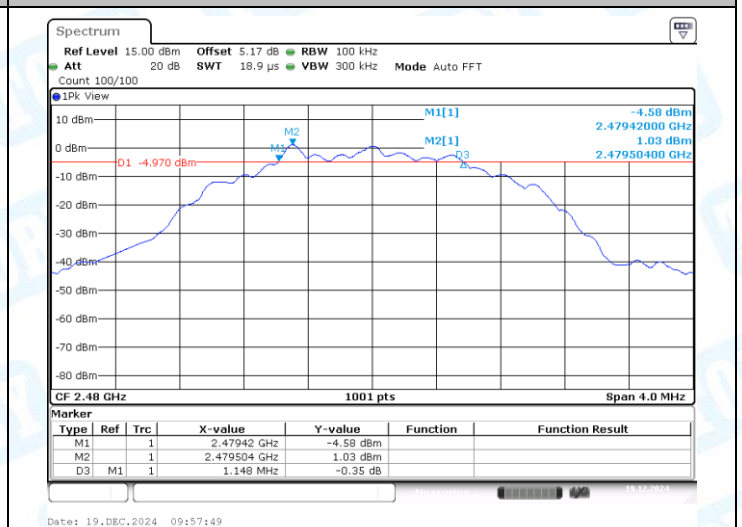
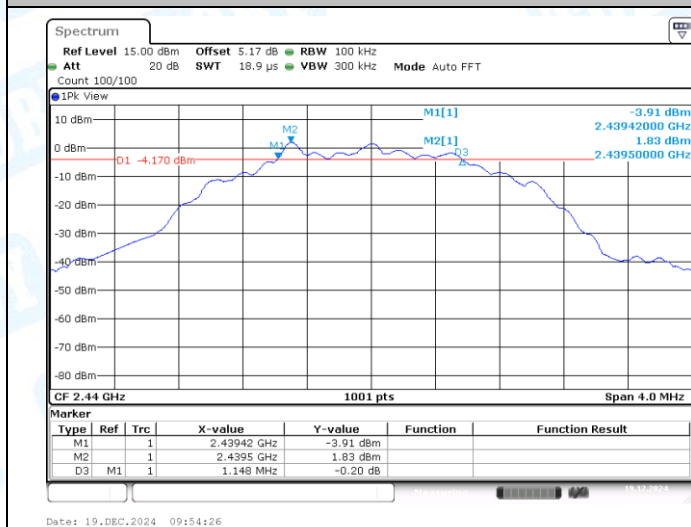
BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2440-PASS



BLE_1M-Ant1-2480-PASS

BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS

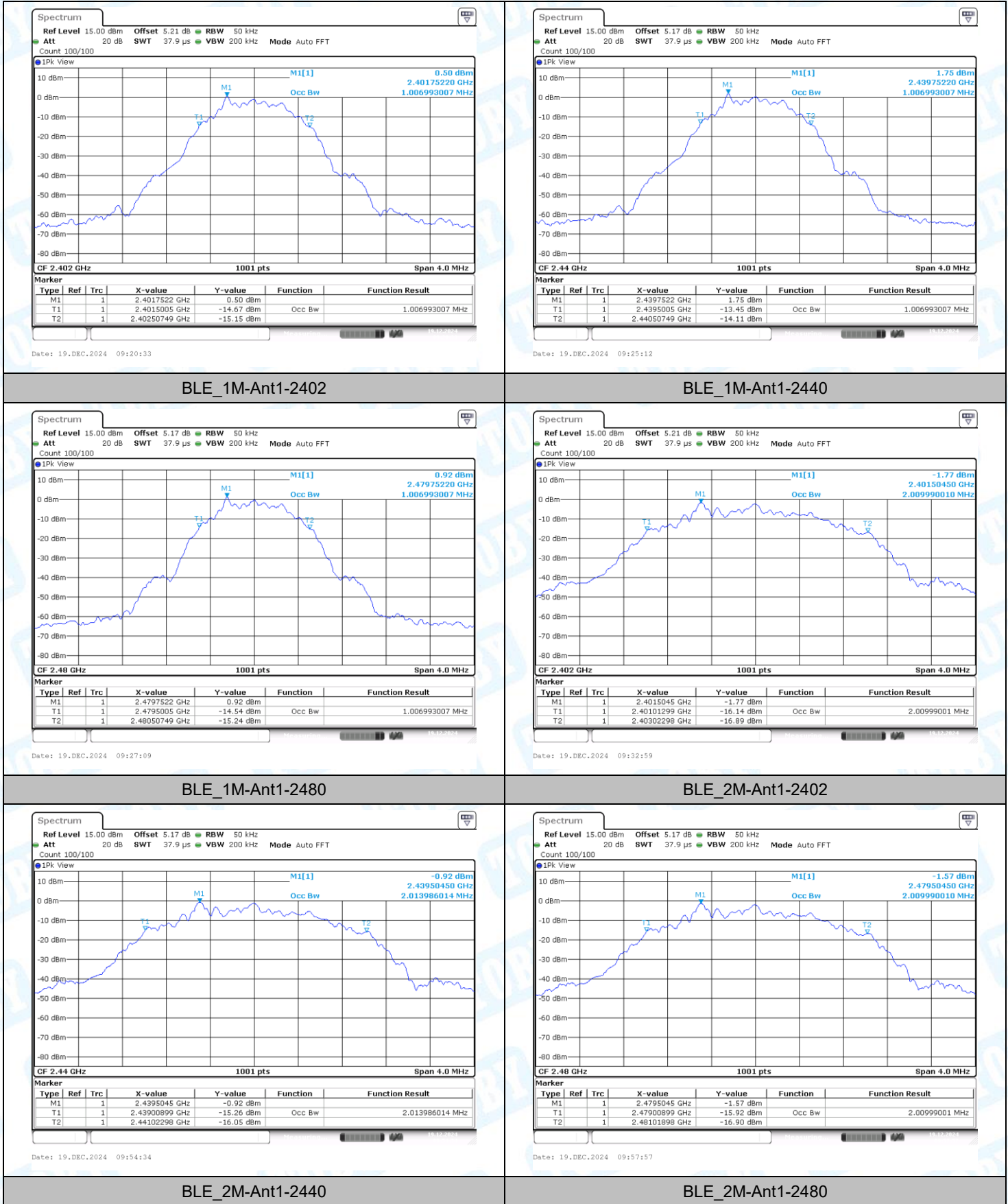
BLE_2M-Ant1-2480-PASS

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	1.007	2401.5005	2402.5075	---	---
BLE_1M	Ant1	2440	1.007	2439.5005	2440.5075	---	---
BLE_1M	Ant1	2480	1.007	2479.5005	2480.5075	---	---
BLE_2M	Ant1	2402	2.01	2401.0130	2403.0230	---	---
BLE_2M	Ant1	2440	2.014	2439.0090	2441.0230	---	---
BLE_2M	Ant1	2480	2.01	2479.0090	2481.0190	---	---

2.2 Test Graphs

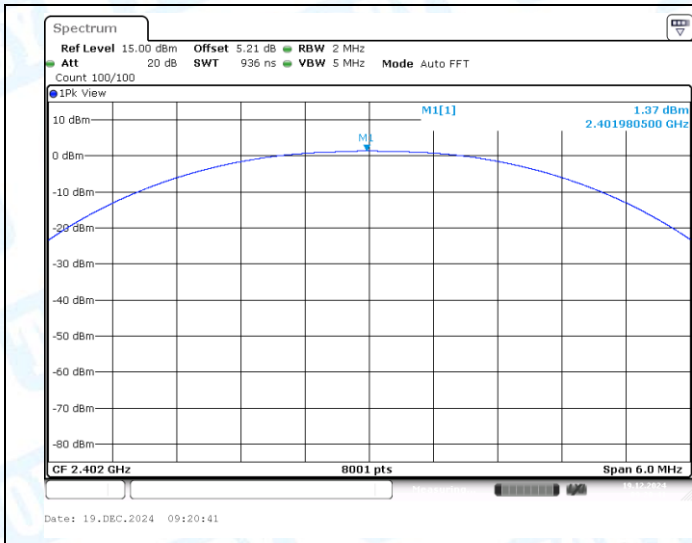


3: Maximum conducted peak output power

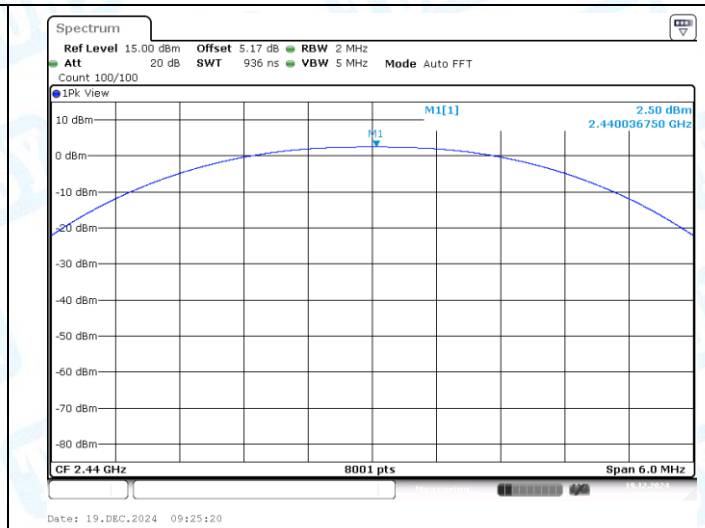
3.1 Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.37	≤30	PASS
BLE_1M	Ant1	2440	2.50	≤30	PASS
BLE_1M	Ant1	2480	1.70	≤30	PASS
BLE_2M	Ant1	2402	1.22	≤30	PASS
BLE_2M	Ant1	2440	2.29	≤30	PASS
BLE_2M	Ant1	2480	1.46	≤30	PASS

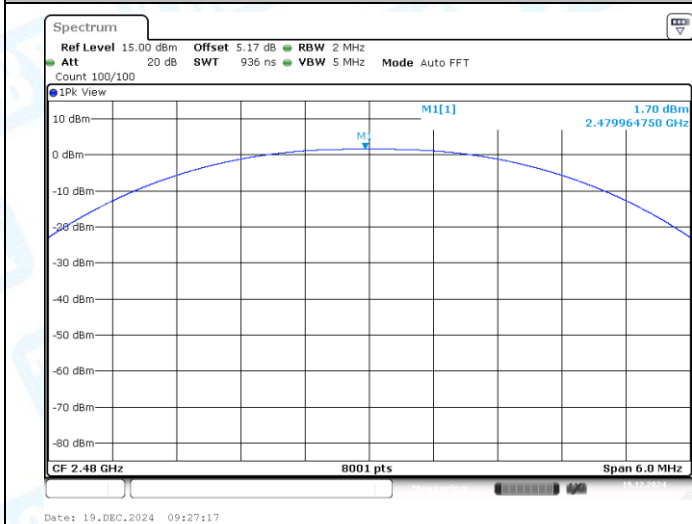
3.2 Test Graphs Peak



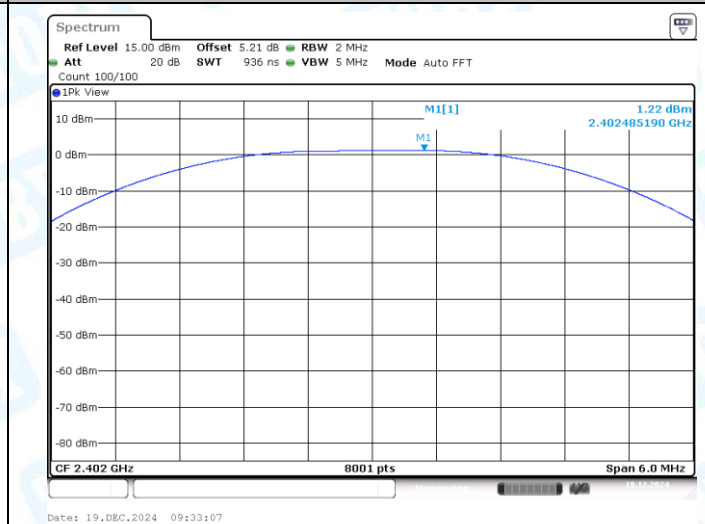
BLE_1M-Ant1-2402-PASS



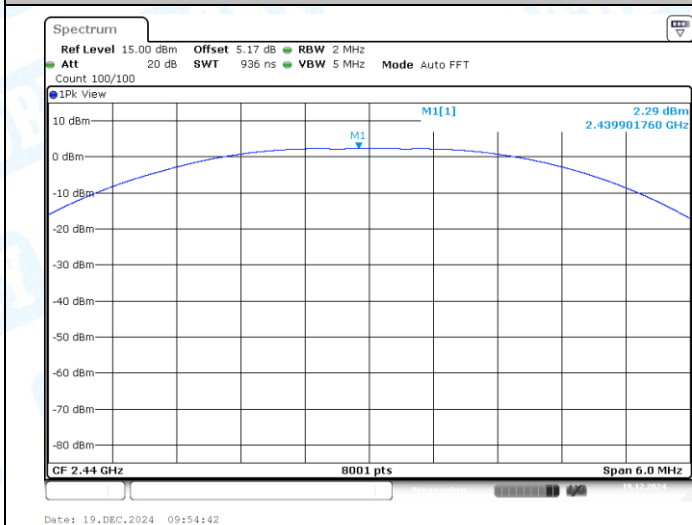
BLE_1M-Ant1-2440-PASS



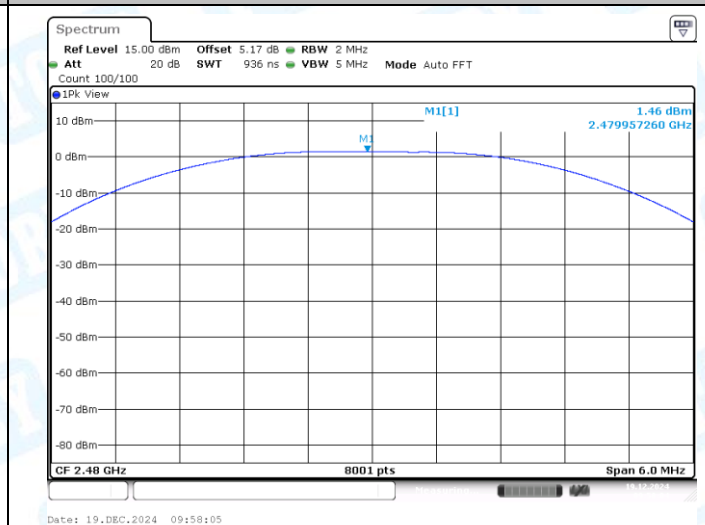
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



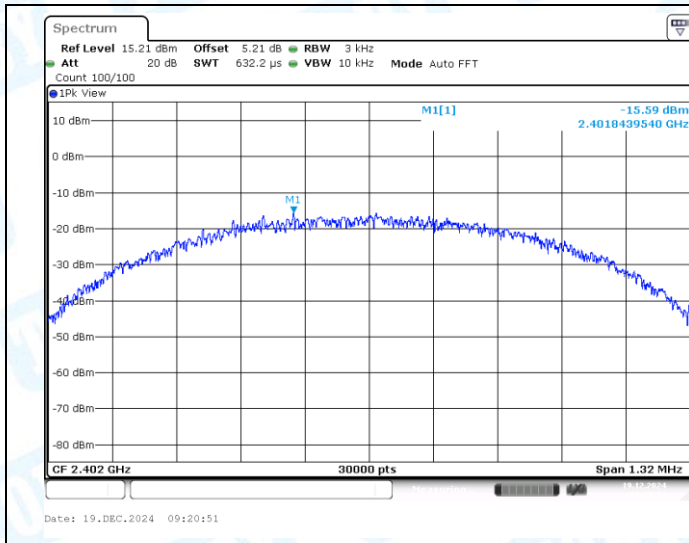
BLE_2M-Ant1-2480-PASS

4: Maximum power spectral density

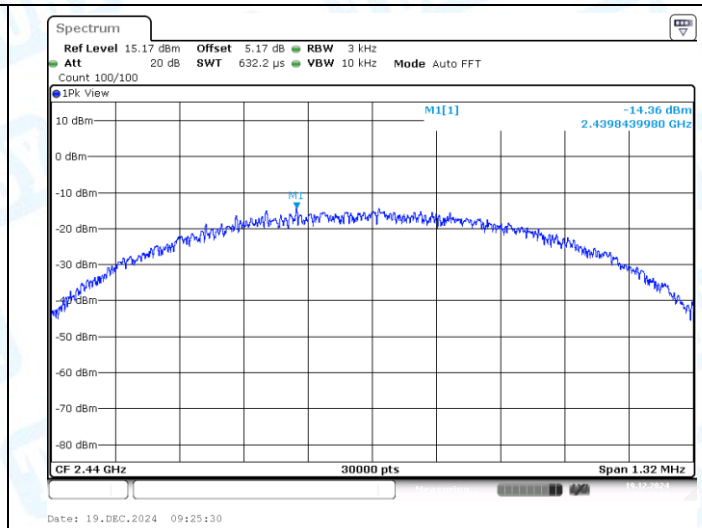
4.1 Test Result

Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.59	≤8.00	PASS
BLE_1M	Ant1	2440	-14.36	≤8.00	PASS
BLE_1M	Ant1	2480	-15.18	≤8.00	PASS
BLE_2M	Ant1	2402	-18.82	≤8.00	PASS
BLE_2M	Ant1	2440	-17.61	≤8.00	PASS
BLE_2M	Ant1	2480	-18.57	≤8.00	PASS

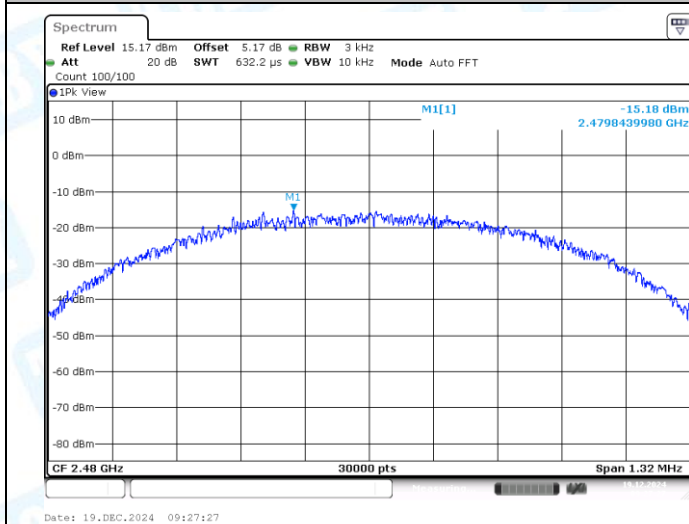
4.2 Test Graphs



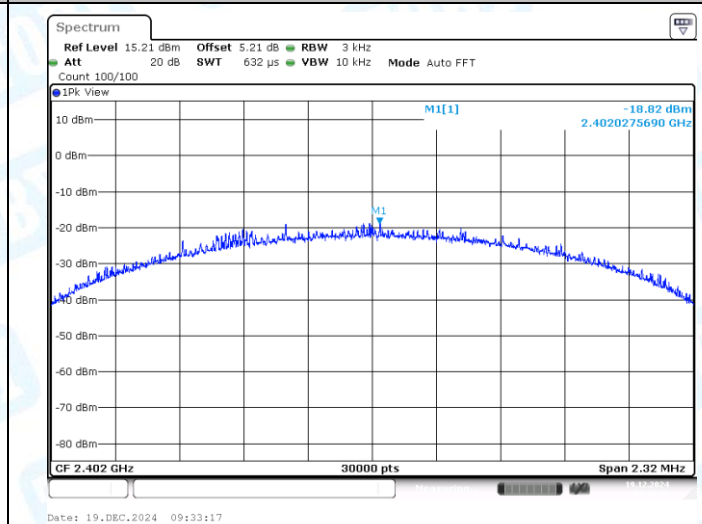
BLE_1M-Ant1-2402-PASS



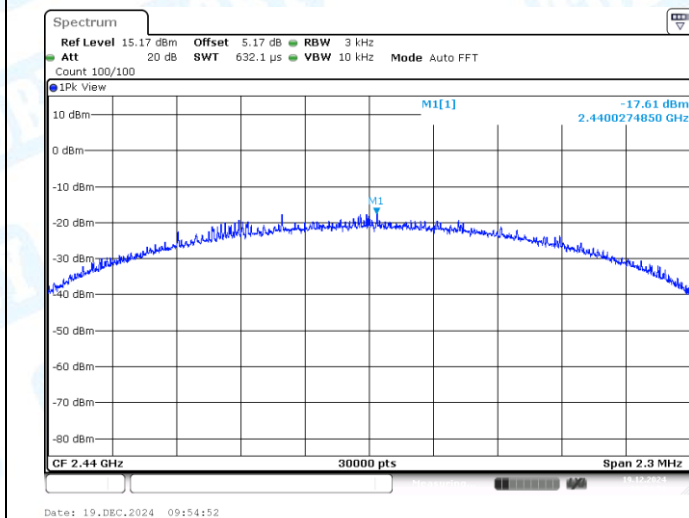
BLE_1M-Ant1-2440-PASS



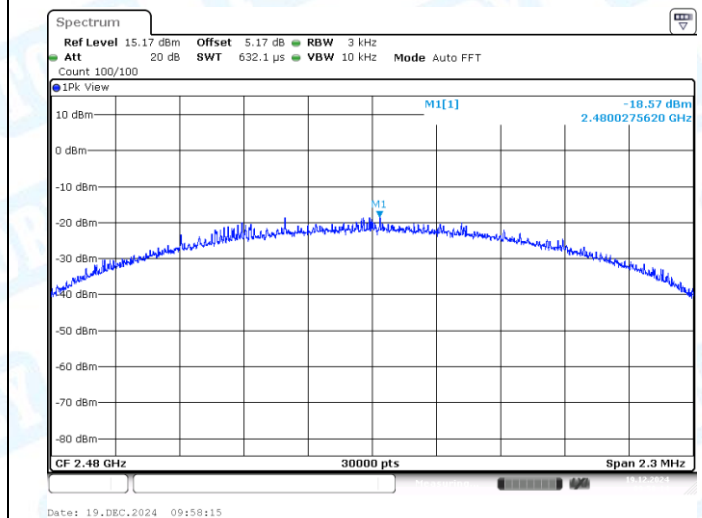
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



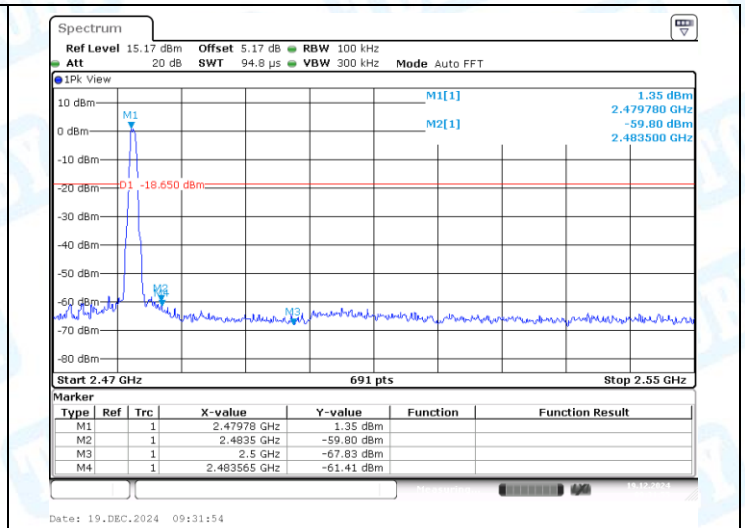
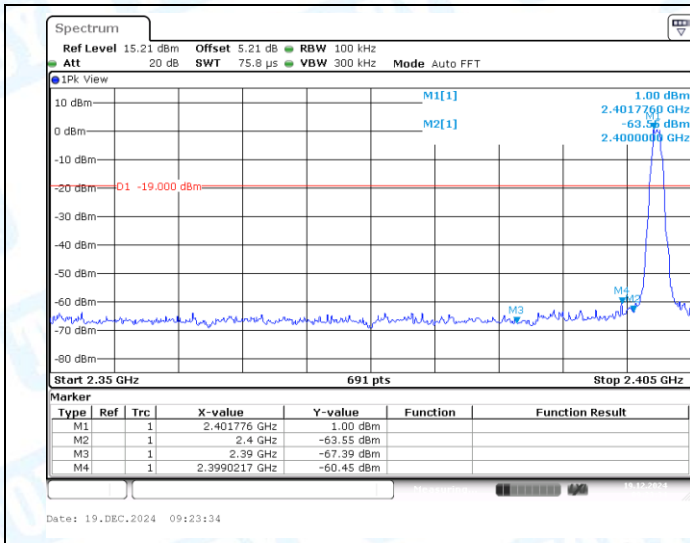
BLE_2M-Ant1-2480-PASS

5: Band edge measurements

5.1 Test Result

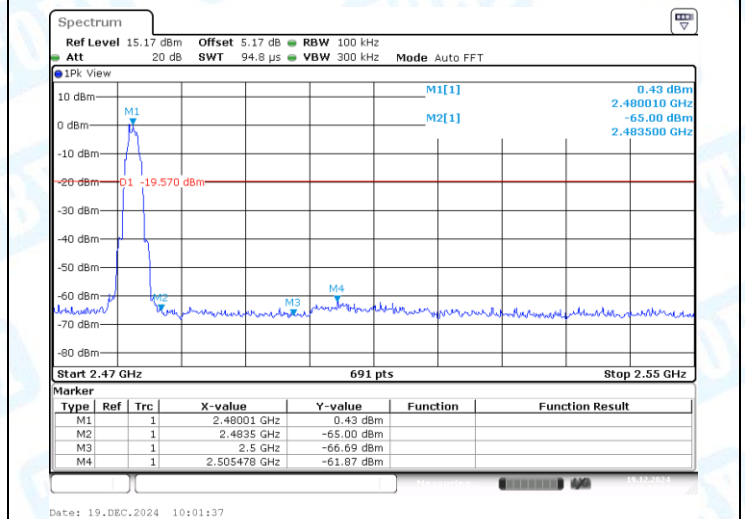
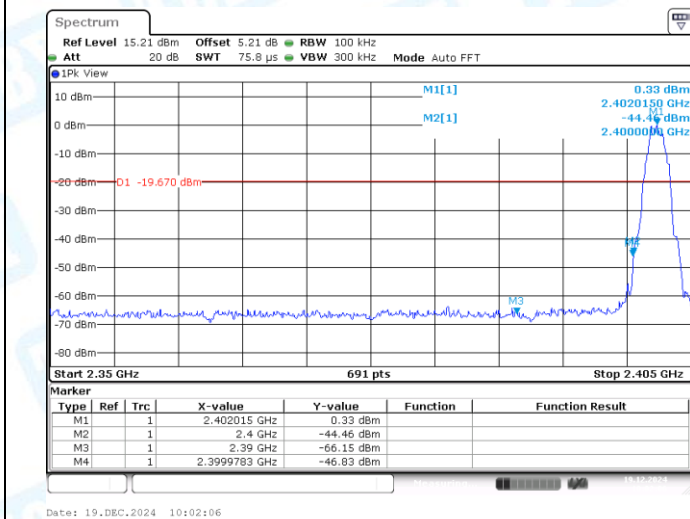
Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.00	-60.45	≤-19	PASS
BLE_1M	Ant1	High	2480	1.35	-61.41	≤-18.65	PASS
BLE_2M	Ant1	Low	2402	0.33	-46.83	≤-19.67	PASS
BLE_2M	Ant1	High	2480	0.43	-61.87	≤-19.57	PASS

5.2 Test Graphs



BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS

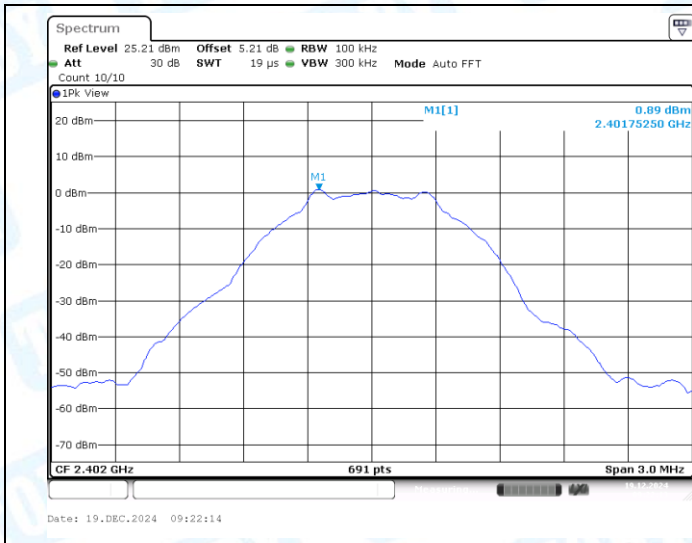
BLE_2M-Ant1-2480-PASS

6: Conducted Spurious Emission

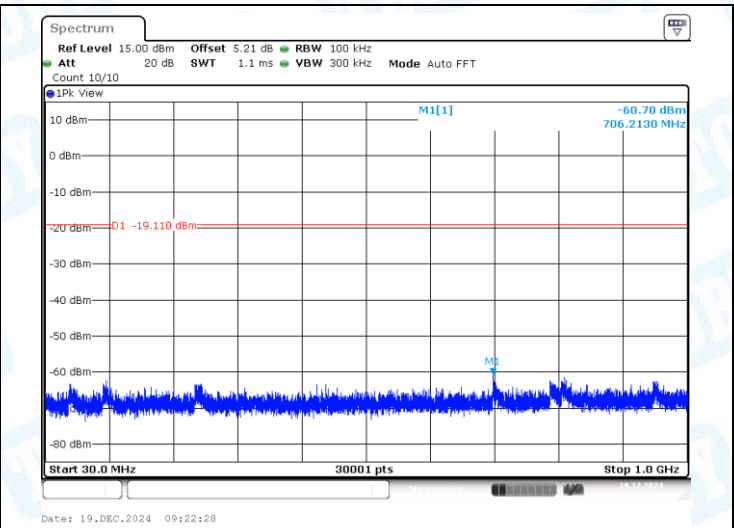
6.1 Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	0.89	0.89	---	PASS
BLE_1M	Ant1	2402	30~1000	0.89	-60.7	≤-19.11	PASS
BLE_1M	Ant1	2402	1000~26500	0.89	-55.94	≤-19.11	PASS
BLE_1M	Ant1	2440	0~Reference	2.08	2.08	---	PASS
BLE_1M	Ant1	2440	30~1000	2.08	-61.06	≤-17.92	PASS
BLE_1M	Ant1	2440	1000~26500	2.08	-55.86	≤-17.92	PASS
BLE_1M	Ant1	2480	0~Reference	1.25	1.25	---	PASS
BLE_1M	Ant1	2480	30~1000	1.25	-61.57	≤-18.75	PASS
BLE_1M	Ant1	2480	1000~26500	1.25	-55.32	≤-18.75	PASS
BLE_2M	Ant1	2402	0~Reference	0.71	0.71	---	PASS
BLE_2M	Ant1	2402	30~1000	0.71	-61.03	≤-19.29	PASS
BLE_2M	Ant1	2402	1000~26500	0.71	-55.77	≤-19.29	PASS
BLE_2M	Ant1	2440	0~Reference	1.83	1.83	---	PASS
BLE_2M	Ant1	2440	30~1000	1.83	-61.01	≤-18.17	PASS
BLE_2M	Ant1	2440	1000~26500	1.83	-54.56	≤-18.17	PASS
BLE_2M	Ant1	2480	0~Reference	0.98	0.98	---	PASS
BLE_2M	Ant1	2480	30~1000	0.98	-61.52	≤-19.02	PASS
BLE_2M	Ant1	2480	1000~26500	0.98	-55.21	≤-19.02	PASS

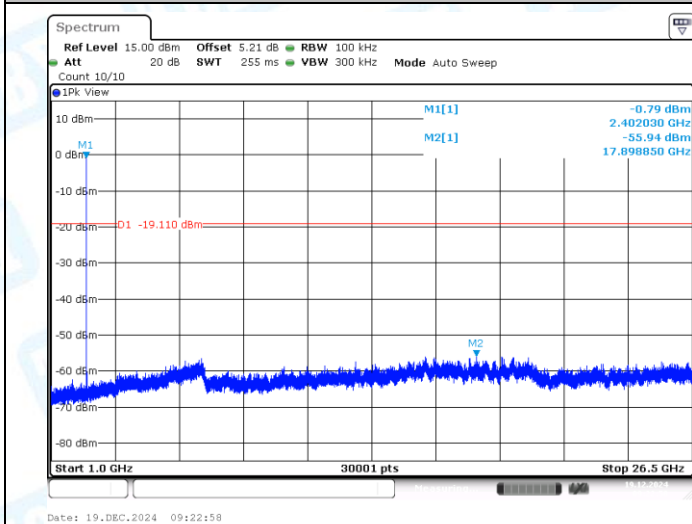
6.2 Test Graphs



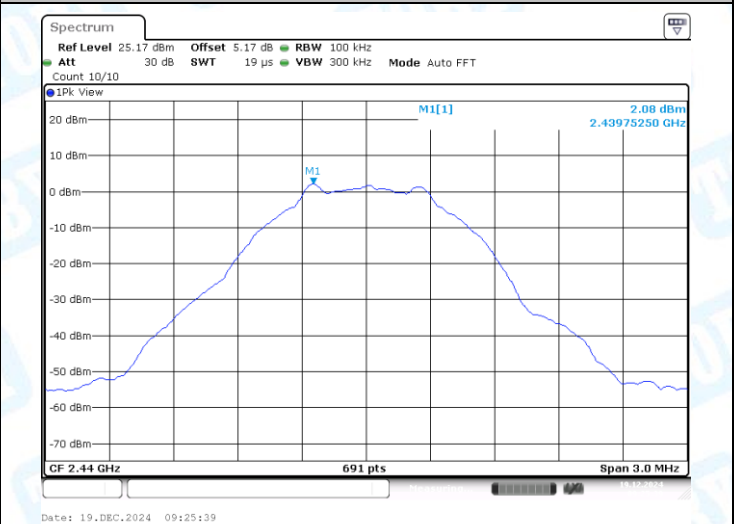
BLE_1M-Ant1-2402-0~Reference-PASS



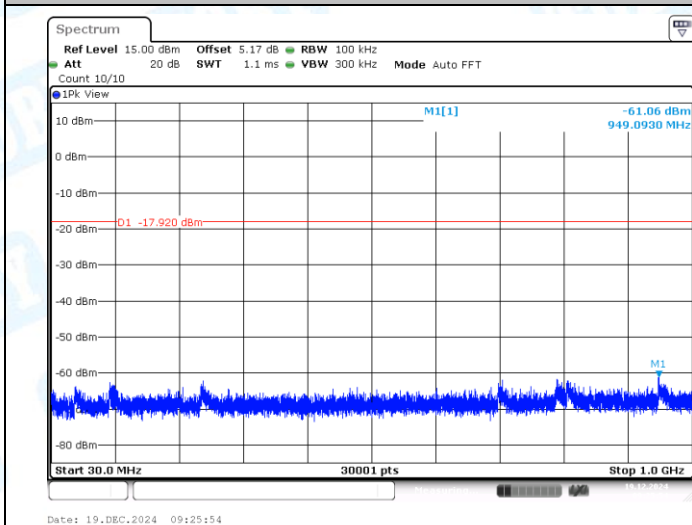
BLE_1M-Ant1-2402-30~1000-PASS



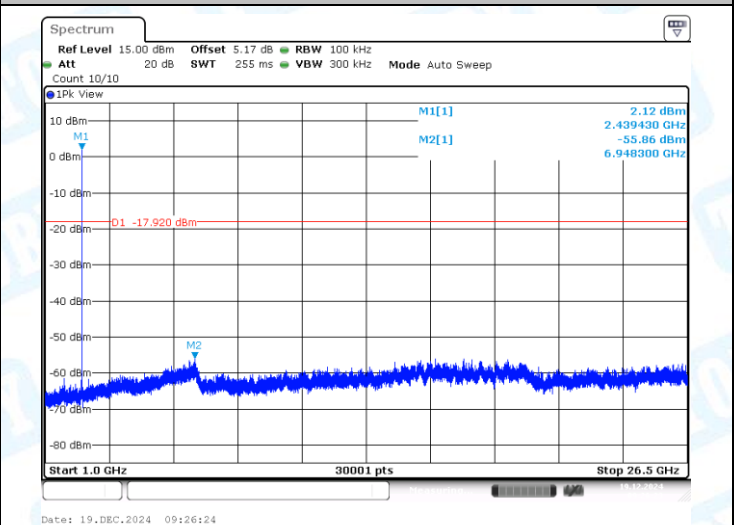
BLE_1M-Ant1-2402-1000~26500-PASS



BLE_1M-Ant1-2440-0~Reference-PASS



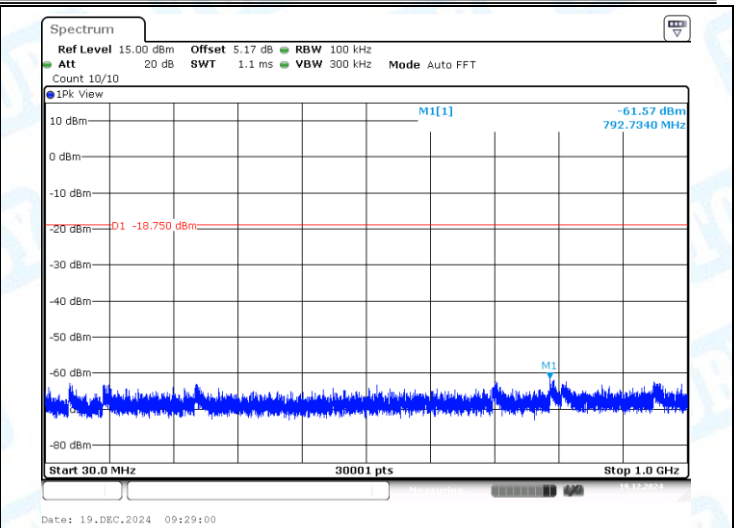
BLE_1M-Ant1-2440-30~1000-PASS



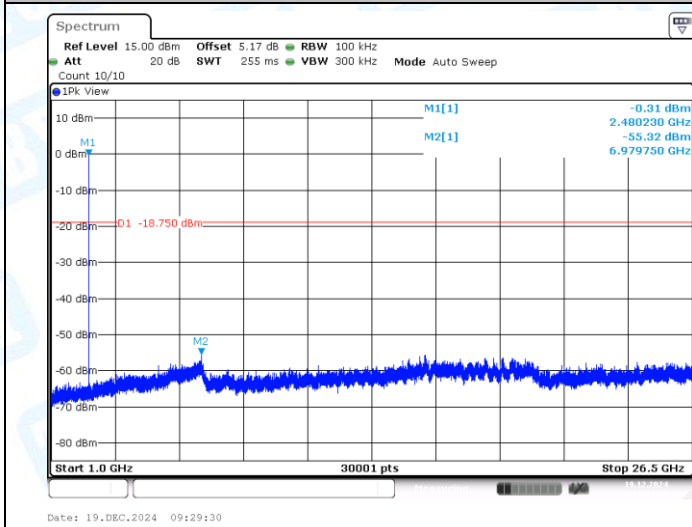
BLE_1M-Ant1-2440-1000~26500-PASS



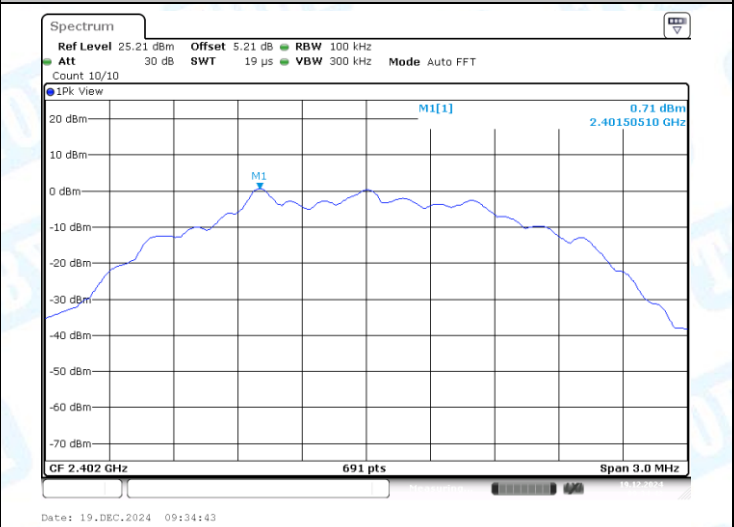
BLE_1M-Ant1-2480-0~Reference-PASS



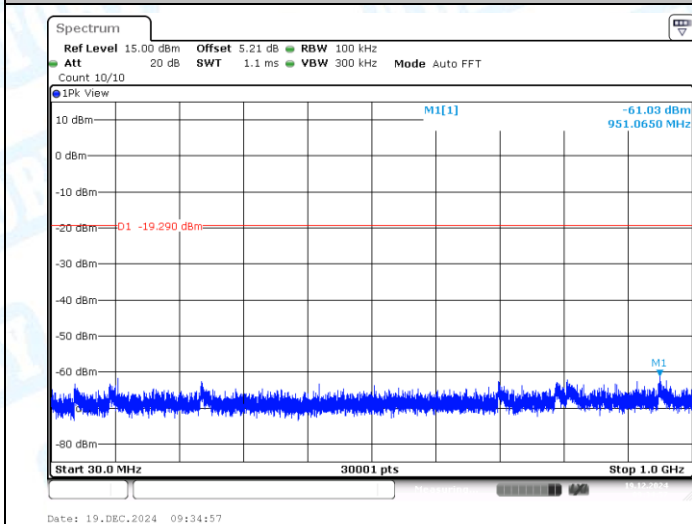
BLE_1M-Ant1-2480-30~1000-PASS



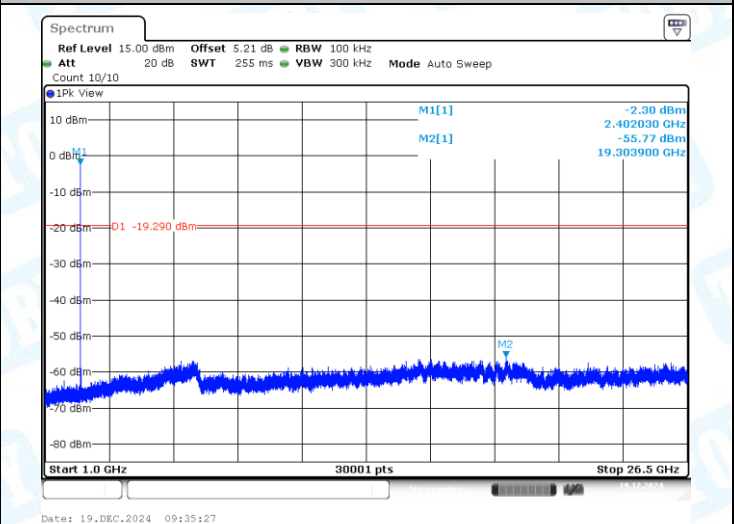
BLE_1M-Ant1-2480-1000~26500-PASS



BLE_2M-Ant1-2402-0~Reference-PASS



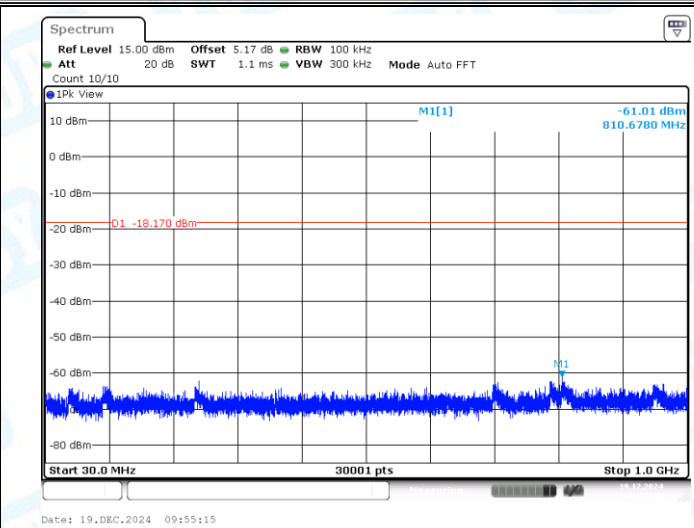
BLE_2M-Ant1-2402-30~1000-PASS



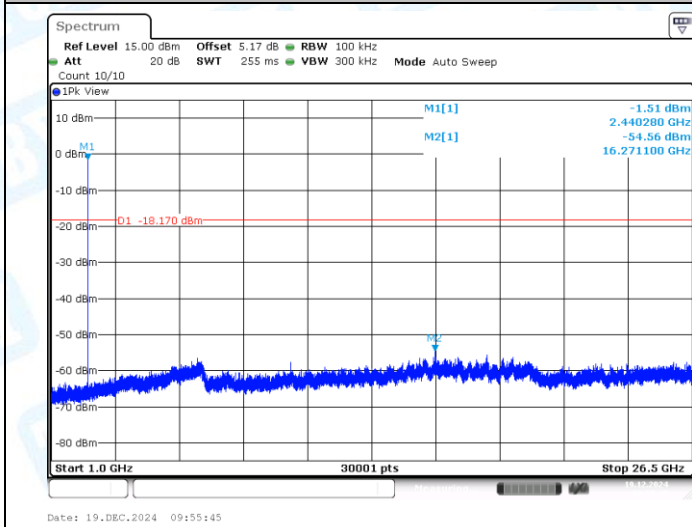
BLE_2M-Ant1-2402-1000~26500-PASS



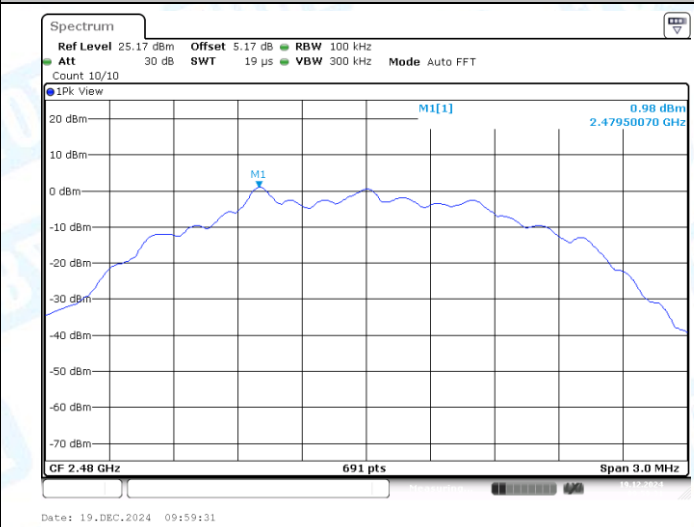
BLE_2M-Ant1-2440-0~Reference-PASS



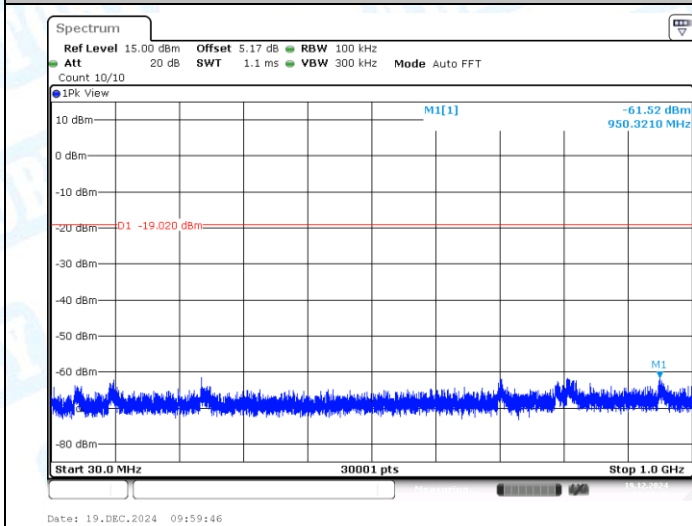
BLE_2M-Ant1-2440-30~1000-PASS



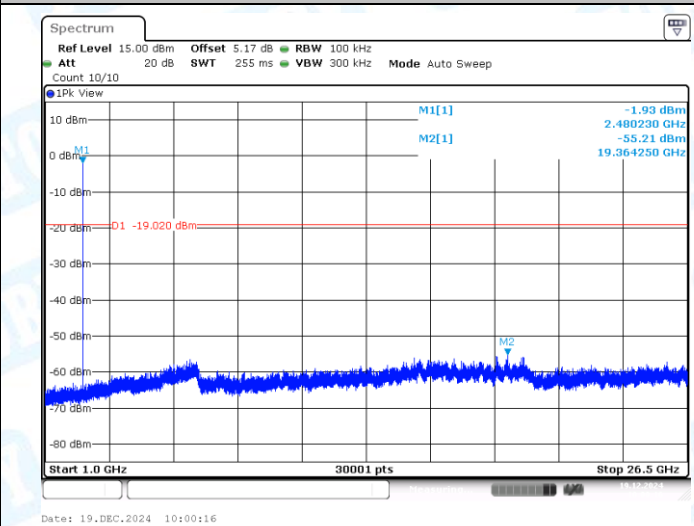
BLE_2M-Ant1-2440-1000~26500-PASS



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

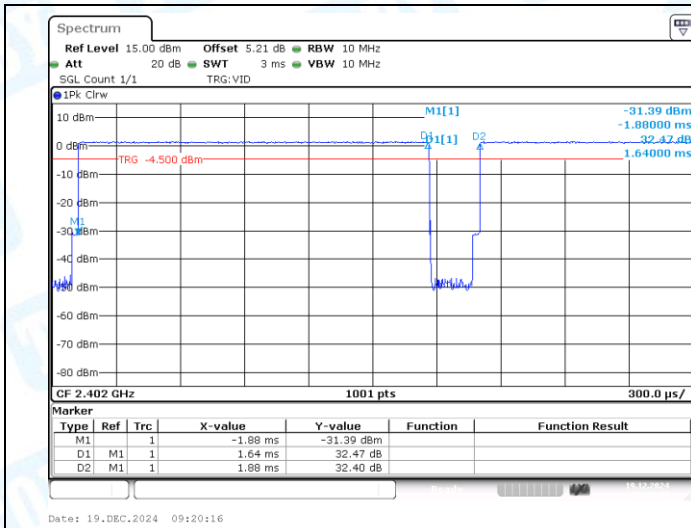
TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factory	1/T [kHz]
BLE_1M	Ant1	2402	1.64	1.88	87.23	0.59	0.61
BLE_1M	Ant1	2440	1.64	1.88	87.23	0.59	0.61
BLE_1M	Ant1	2480	1.64	1.88	87.23	0.59	0.61
BLE_2M	Ant1	2402	0.83	1.25	66.40	1.78	1.20
BLE_2M	Ant1	2440	0.83	1.25	66.40	1.78	1.20
BLE_2M	Ant1	2480	0.83	1.25	66.40	1.78	1.20

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

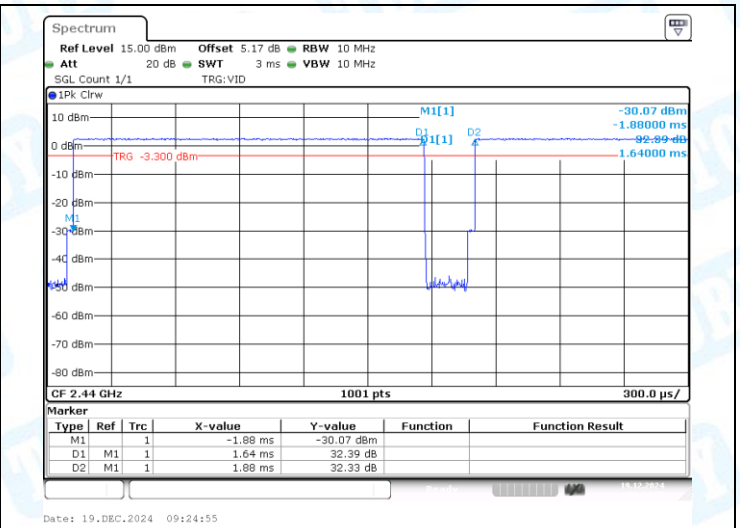
2, DC Factory=10*Log₁₀(1/Duty Cycle)

3, 1/T=1/ Transmission Duration

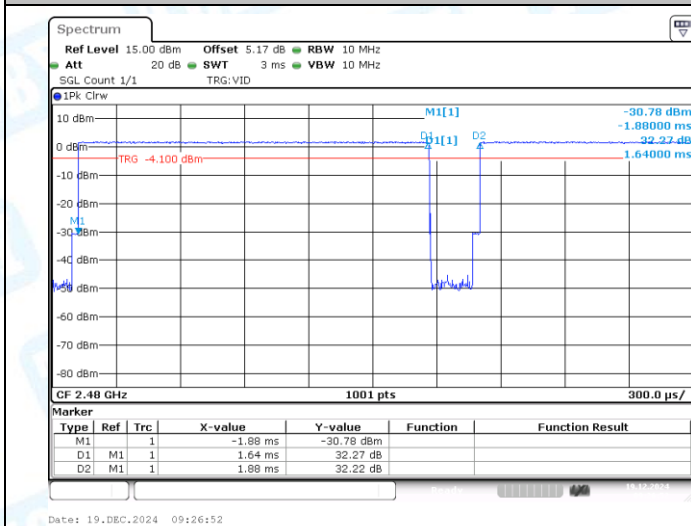
7.2 Test Graphs



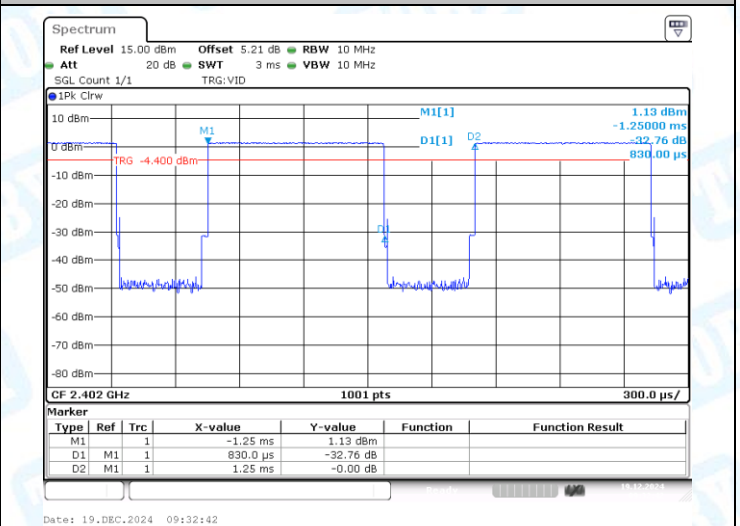
NTNV-BLE_1M-Ant1-2402



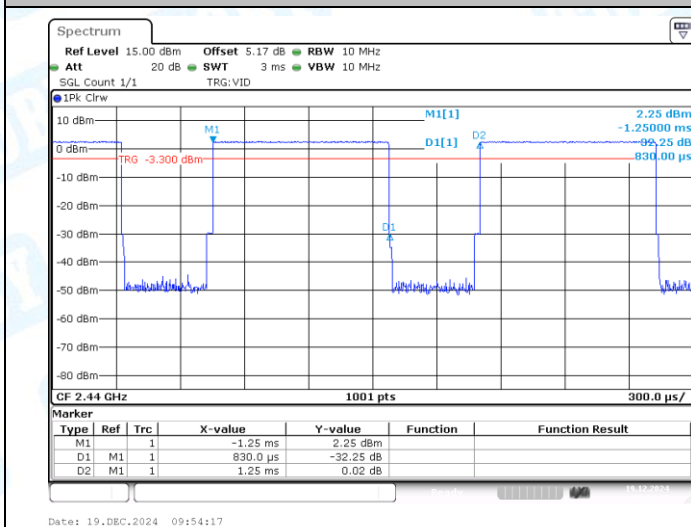
NTNV-BLE_1M-Ant1-2440



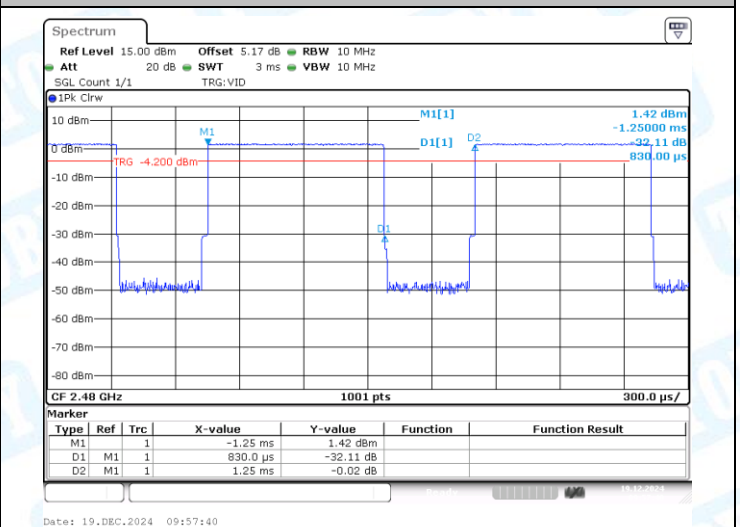
NTNV-BLE_1M-Ant1-2480



NTNV-BLE_2M-Ant1-2402



NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2480

8: Emissions in Restricted Bands

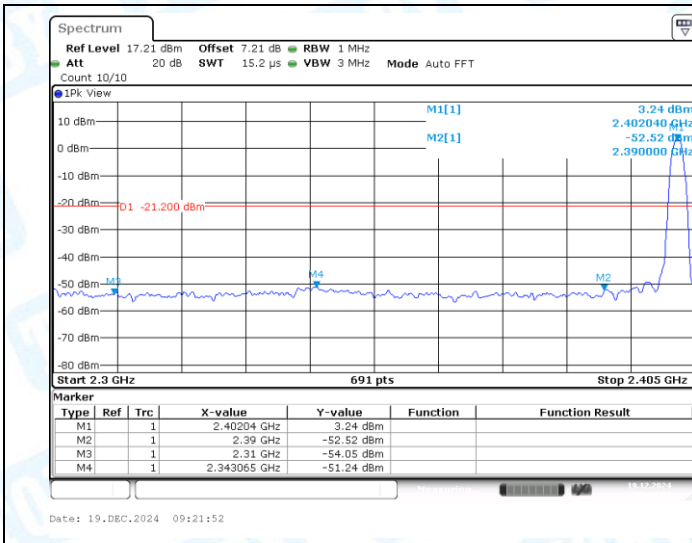
8.1 Test Result

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	-52.52	≤-21.20	42.68	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-54.05	≤-21.20	41.15	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2343.065	-51.24	≤-21.20	43.96	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-64.73	≤-41.20	30.47	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-64.8	≤-41.20	30.40	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2341.239	-62.53	≤-41.20	32.67	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-43.29	≤-21.20	51.91	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-54.4	≤-21.20	40.80	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2483.913	-40.74	≤-21.20	54.46	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-62.96	≤-41.20	32.24	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-64.54	≤-41.20	30.66	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2483.797	-62.95	≤-41.20	32.25	≤54	PASS
BLE_2M	Ant1	Low	2402	Peak	2390.000	-53.61	≤-21.20	41.59	≤74	PASS
BLE_2M	Ant1	Low	2402	Peak	2310.000	-53.04	≤-21.20	42.16	≤74	PASS
BLE_2M	Ant1	Low	2402	Peak	2342.457	-50.01	≤-21.20	45.19	≤74	PASS
BLE_2M	Ant1	Low	2402	AV	2390.000	-64.18	≤-41.20	31.02	≤54	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-64.76	≤-41.20	30.44	≤54	PASS
BLE_2M	Ant1	Low	2402	AV	2341.391	-62.02	≤-41.20	33.18	≤54	PASS
BLE_2M	Ant1	High	2480	Peak	2483.500	-53.93	≤-21.20	41.27	≤74	PASS
BLE_2M	Ant1	High	2480	Peak	2500.000	-53.54	≤-21.20	41.66	≤74	PASS
BLE_2M	Ant1	High	2480	Peak	2483.913	-51.47	≤-21.20	43.73	≤74	PASS
BLE_2M	Ant1	High	2480	AV	2483.500	-62.42	≤-41.20	32.78	≤54	PASS
BLE_2M	Ant1	High	2480	AV	2500.000	-64.2	≤-41.20	31.00	≤54	PASS
BLE_2M	Ant1	High	2480	AV	2483.797	-62.21	≤-41.20	32.99	≤54	PASS

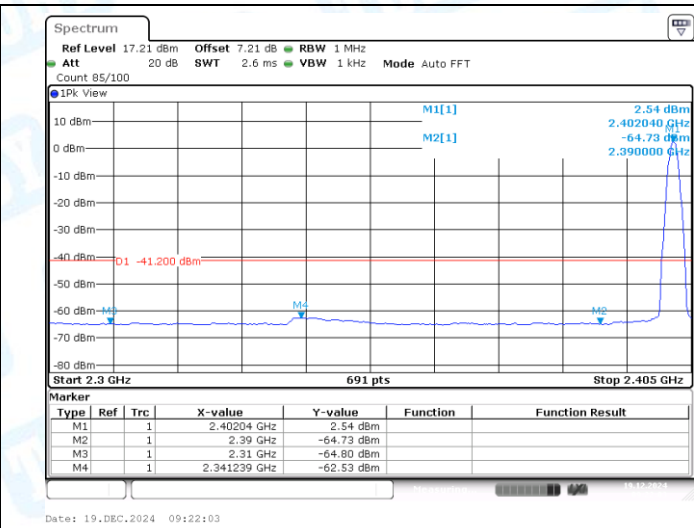
Note:

- 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.

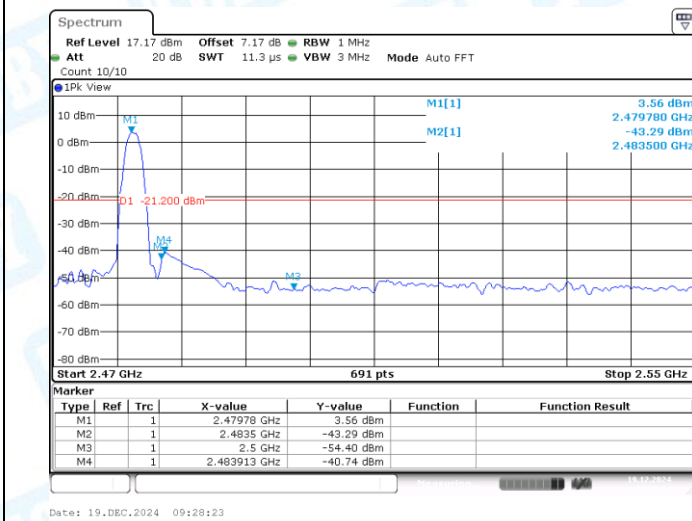
8.2 Test Graphs



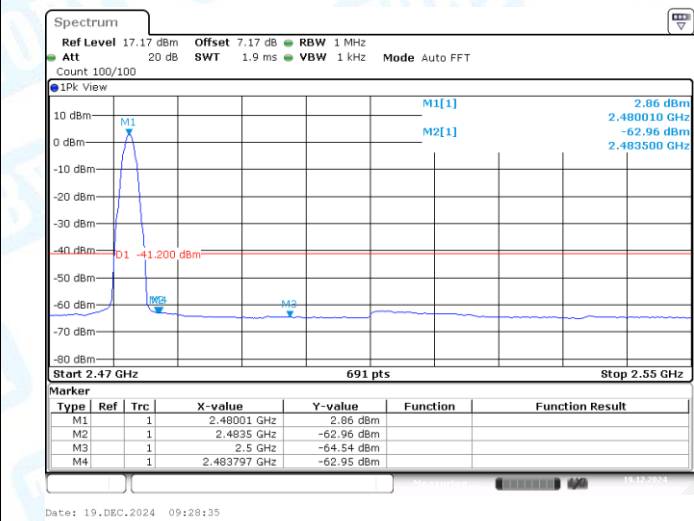
BLE_1M-Ant1-2402-PASS



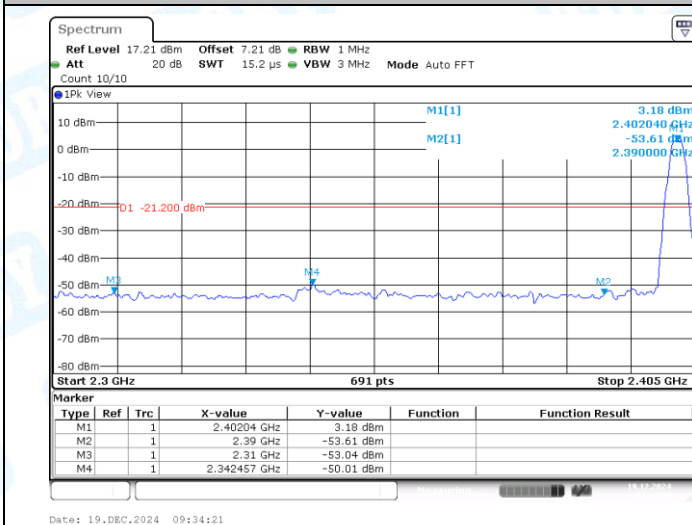
BLE_1M-Ant1-2402-PASS



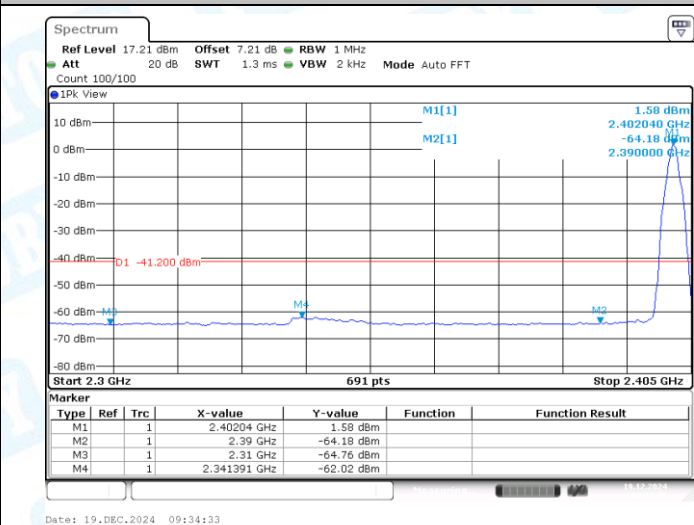
BLE_1M-Ant1-2480-PASS



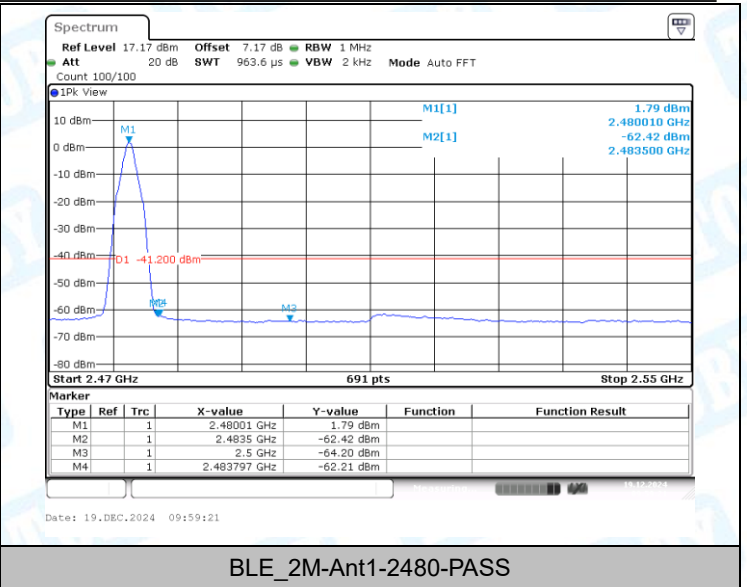
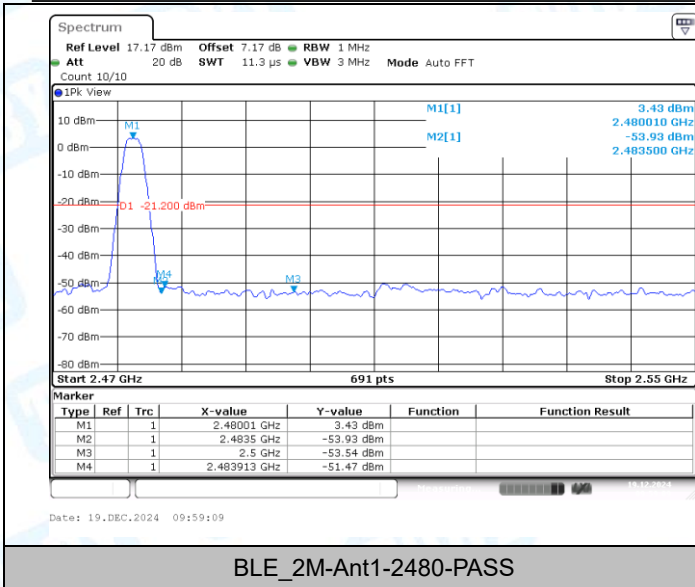
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2402-PASS



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