

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
EUT Name:	STREAMING MEDIA PLAYER
Model:	MAG555
Sample ID:	HC-C-202406-0129-01-01
Test Standard:	FCC Part 15.247
Environmental Conditions	
Ambient Temperature:	23.9℃
Ambient Humidity:	47%RH
Test Power Supply:	DC 12V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202406-0129-12	

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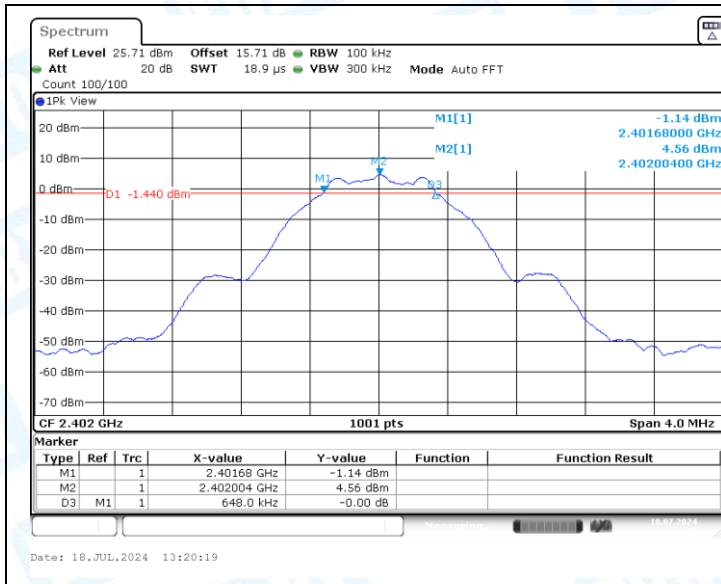
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Appendix 1: DTS Bandwidth

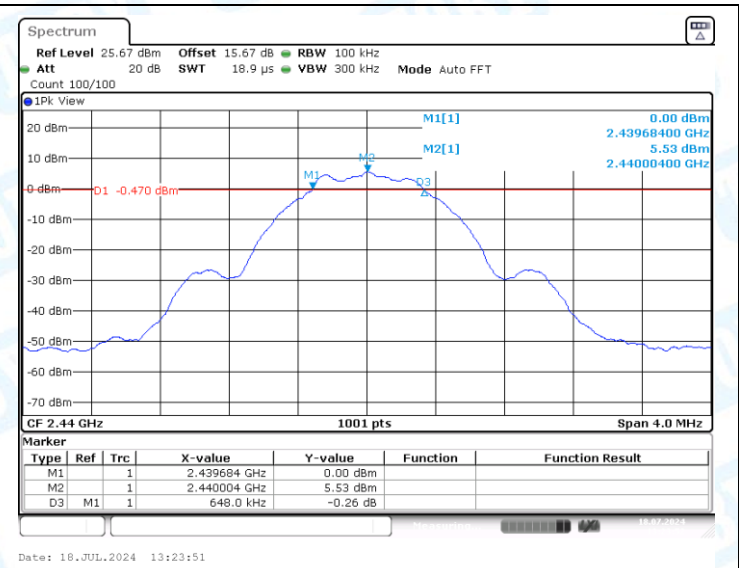
1.1 Test Result

Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.65	2401.68	2402.33	0.5	PASS
BLE_1M	Ant1	2440	0.65	2439.68	2440.33	0.5	PASS
BLE_1M	Ant1	2480	0.65	2479.68	2480.32	0.5	PASS
BLE_2M	Ant1	2402	1.11	2401.45	2402.56	0.5	PASS
BLE_2M	Ant1	2440	0.95	2439.45	2440.40	0.5	PASS
BLE_2M	Ant1	2480	1.11	2479.46	2480.57	0.5	PASS

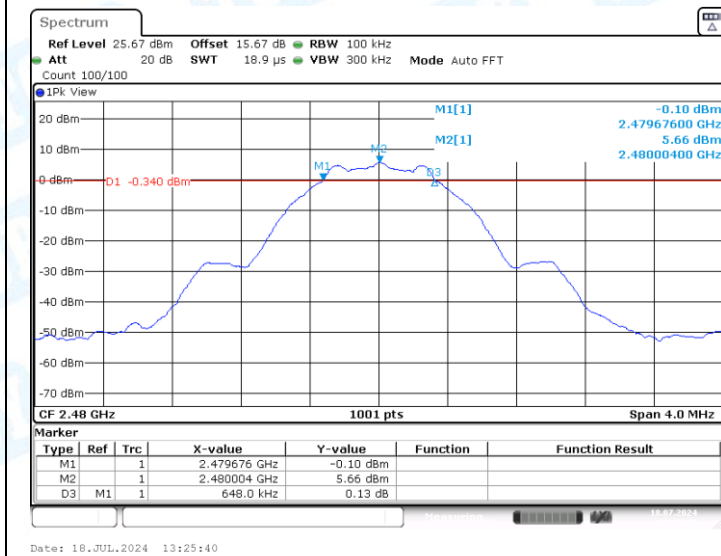
1.2 Test Graphs



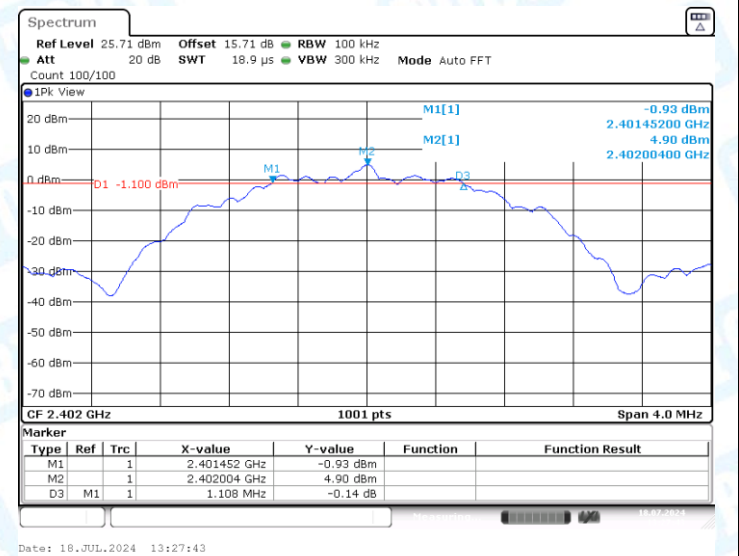
BLE_1M-Ant1-2402-PASS



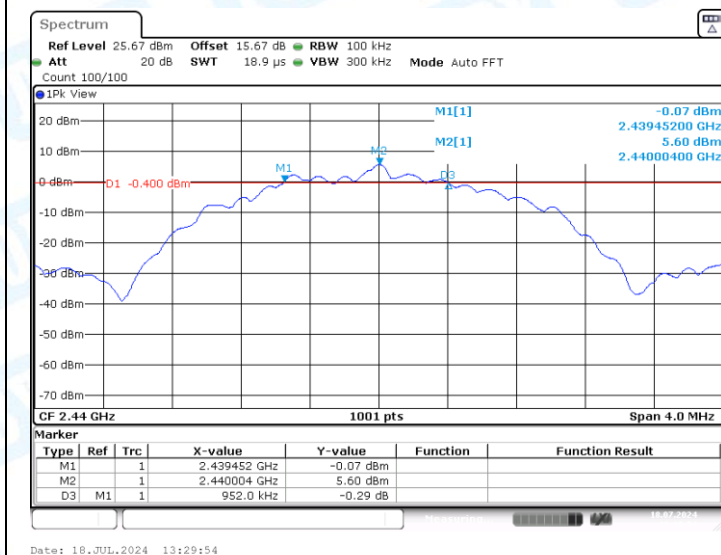
BLE_1M-Ant1-2440-PASS



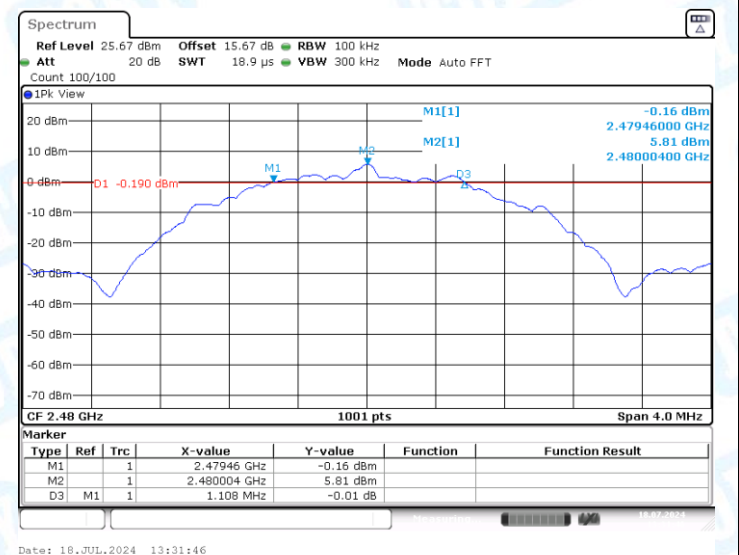
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



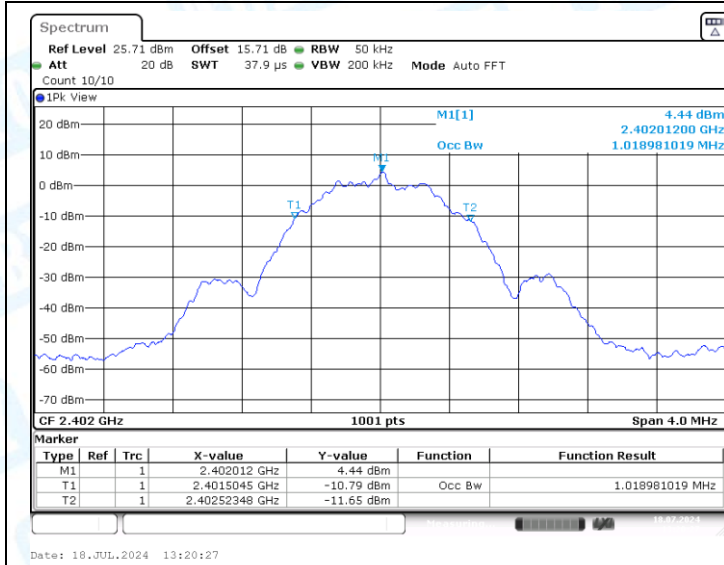
BLE_2M-Ant1-2480-PASS

Appendix 2: Occupied Channel Bandwidth

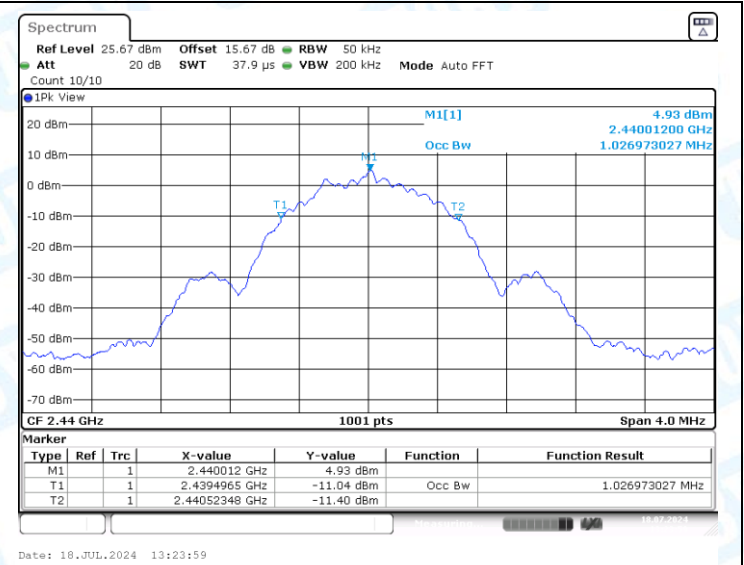
2.1 Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.019	2401.5045	2402.5235	---	---
BLE_1M	Ant1	2440	1.027	2439.4965	2440.5235	---	---
BLE_1M	Ant1	2480	1.019	2479.5005	2480.5195	---	---
BLE_2M	Ant1	2402	2.038	2401.0050	2403.0430	---	---
BLE_2M	Ant1	2440	2.046	2438.9970	2441.0430	---	---
BLE_2M	Ant1	2480	2.038	2479.0050	2481.0430	---	---

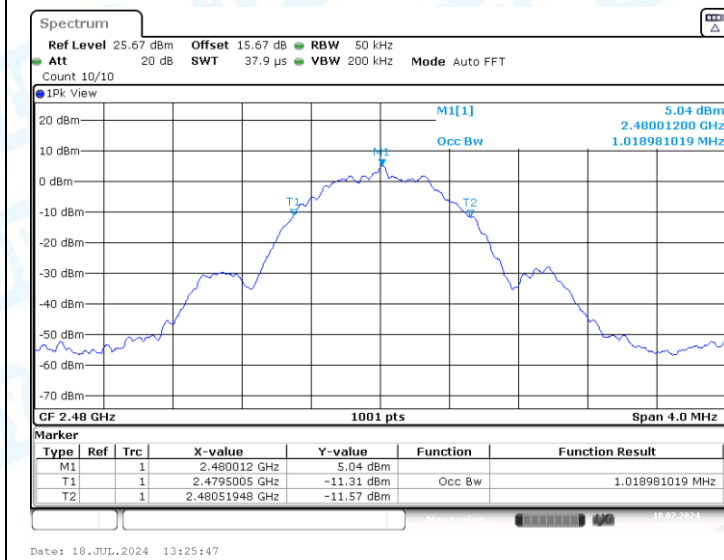
2.2 Test Graphs



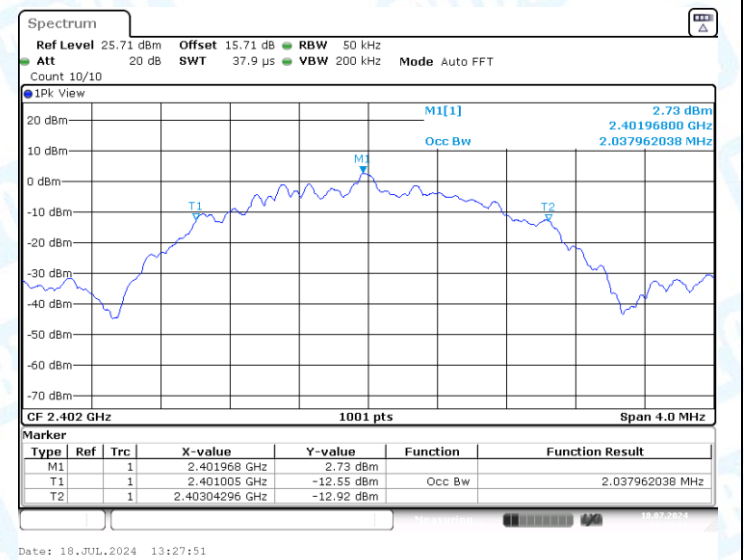
BLE_1M-Ant1-2402



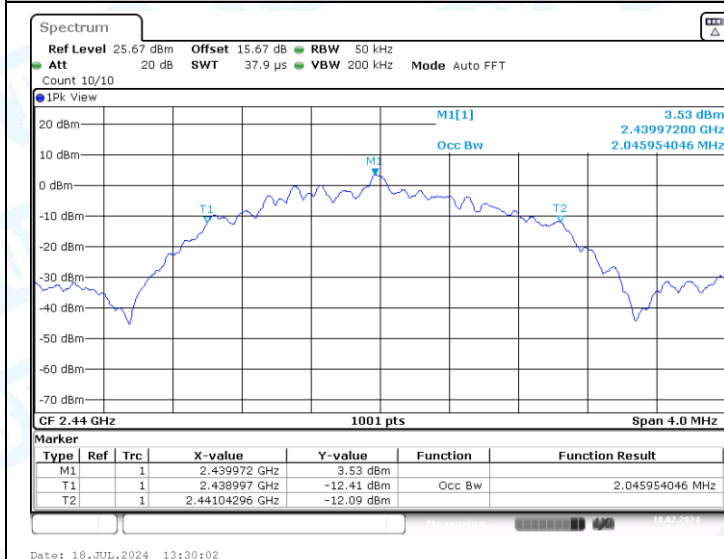
BLE_1M-Ant1-2440



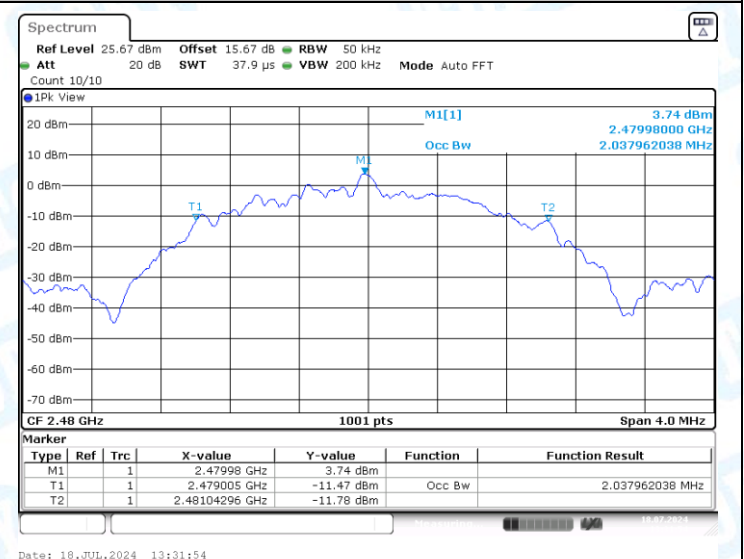
BLE_1M-Ant1-2480



BLE_2M-Ant1-2402



BLE_2M-Ant1-2440



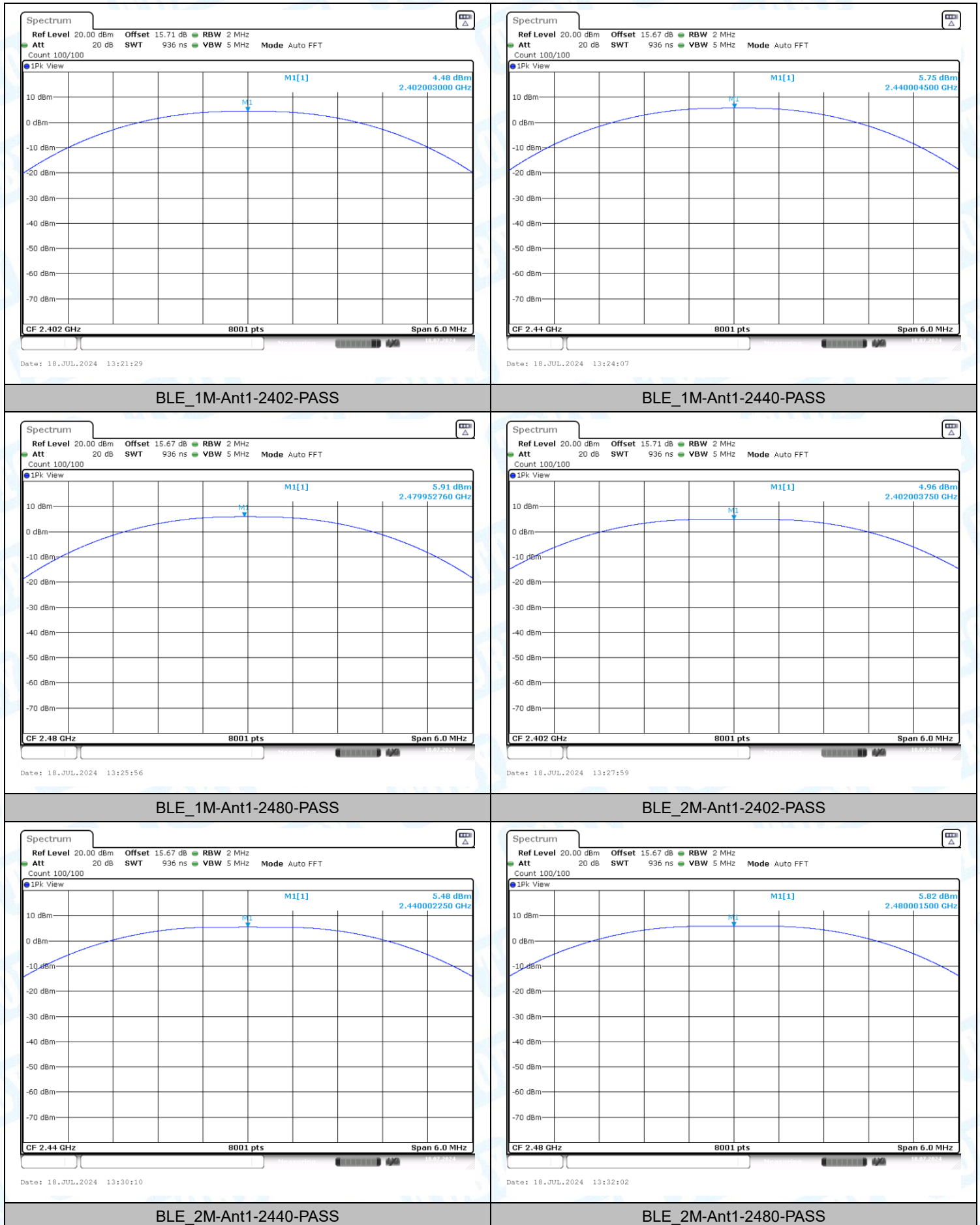
BLE_2M-Ant1-2480

Appendix 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	4.48	≤30	PASS
BLE_1M	Ant1	2440	5.75	≤30	PASS
BLE_1M	Ant1	2480	5.91	≤30	PASS
BLE_2M	Ant1	2402	4.96	≤30	PASS
BLE_2M	Ant1	2440	5.48	≤30	PASS
BLE_2M	Ant1	2480	5.82	≤30	PASS

3.2 Test Graphs Peak

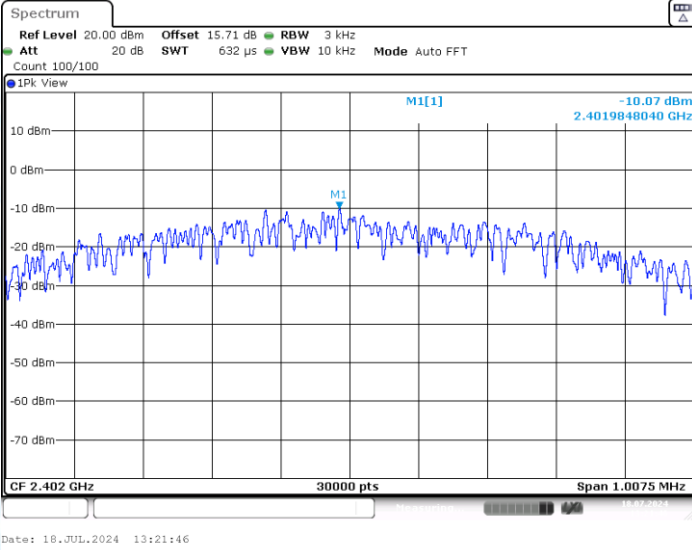


Appendix 4: Maximum power spectral density

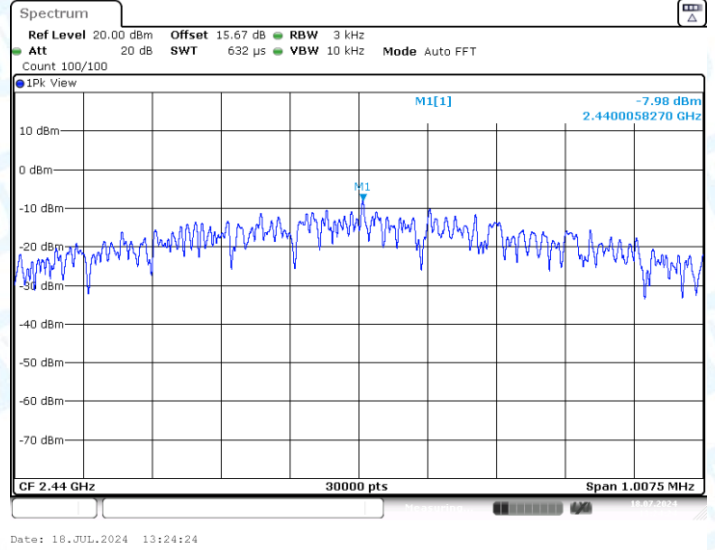
4.1 Test Result

Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-10.07	≤8.00	PASS
BLE_1M	Ant1	2440	-7.98	≤8.00	PASS
BLE_1M	Ant1	2480	-10.12	≤8.00	PASS
BLE_2M	Ant1	2402	-12.36	≤8.00	PASS
BLE_2M	Ant1	2440	-12.48	≤8.00	PASS
BLE_2M	Ant1	2480	-12.55	≤8.00	PASS

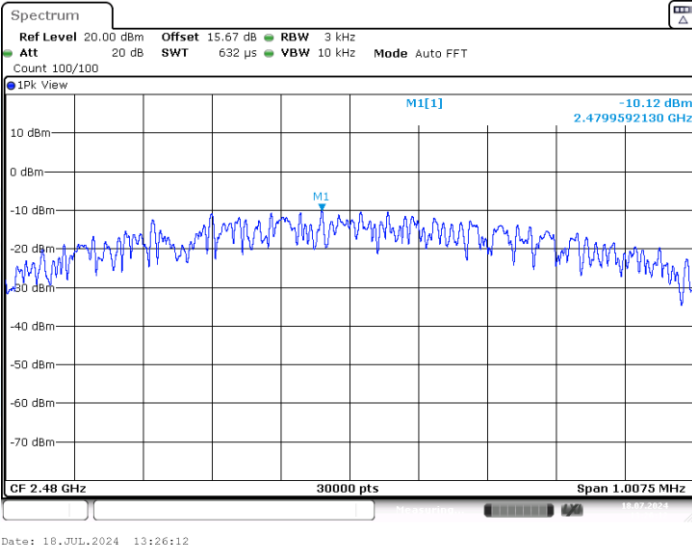
4.2 Test Graphs



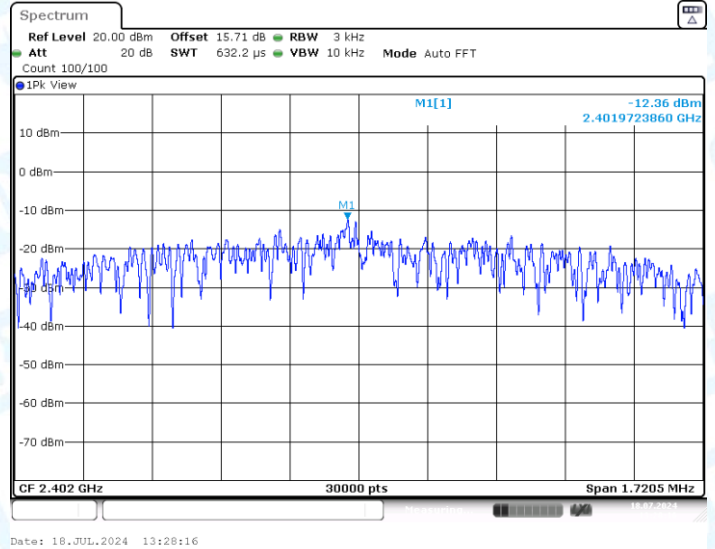
BLE_1M-Ant1-2402-PASS



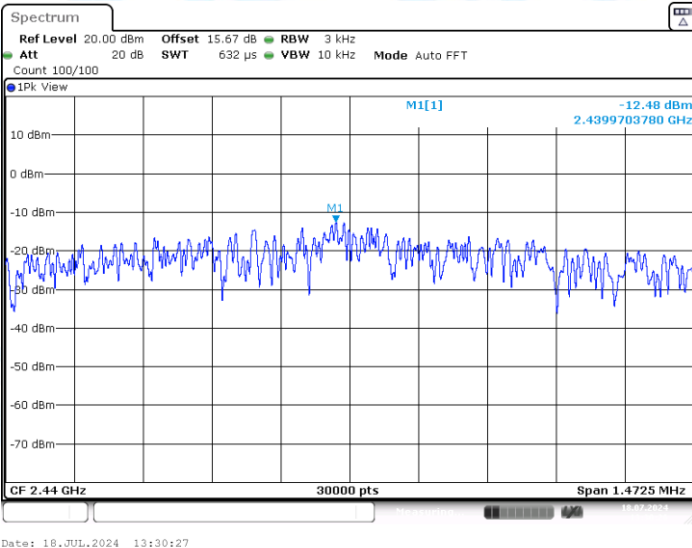
BLE_1M-Ant1-2440-PASS



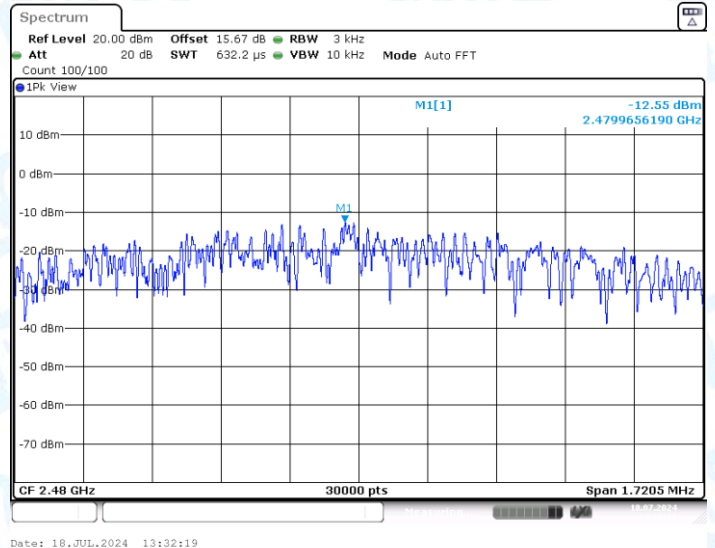
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



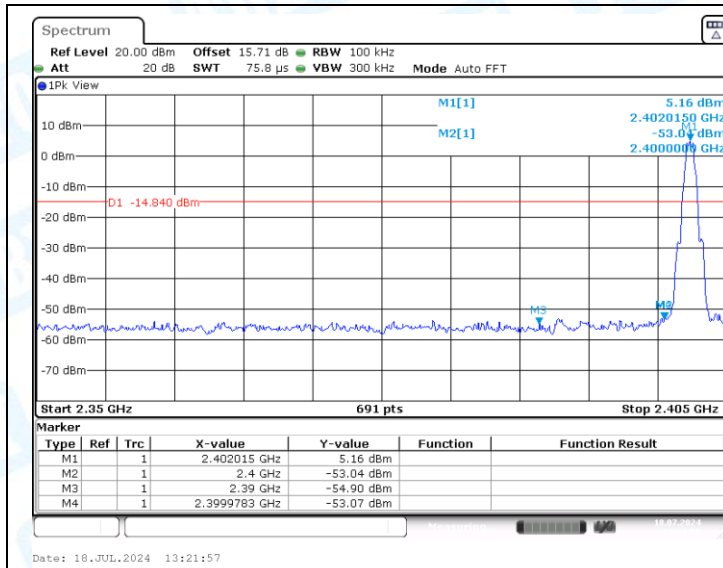
BLE_2M-Ant1-2480-PASS

Appendix 5: Band edge measurements

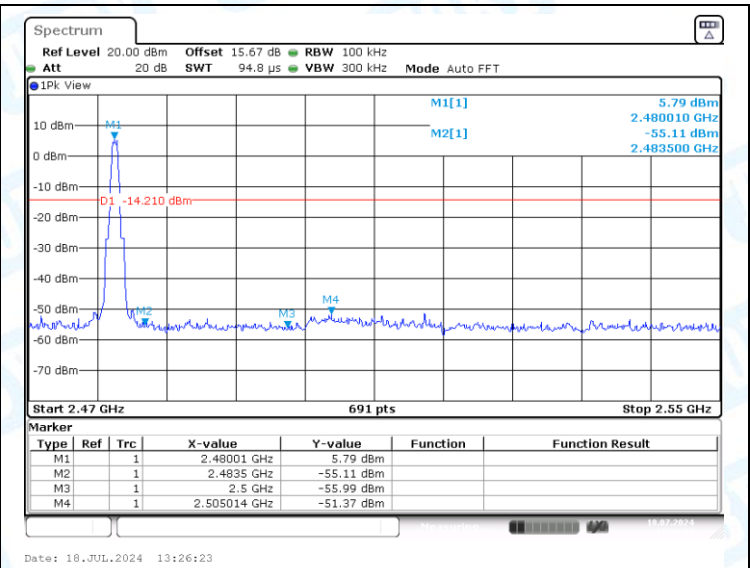
5.1 Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	5.16	-53.07	≤-14.84	PASS
BLE_1M	Ant1	High	2480	5.79	-51.37	≤-14.21	PASS
BLE_2M	Ant1	Low	2402	5.11	-28.66	≤-14.89	PASS
BLE_2M	Ant1	High	2480	5.60	-51.26	≤-14.4	PASS

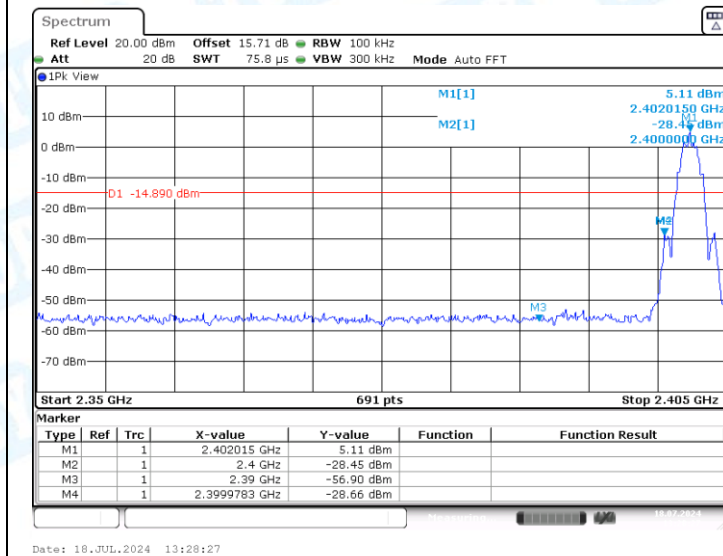
5.2 Test Graphs



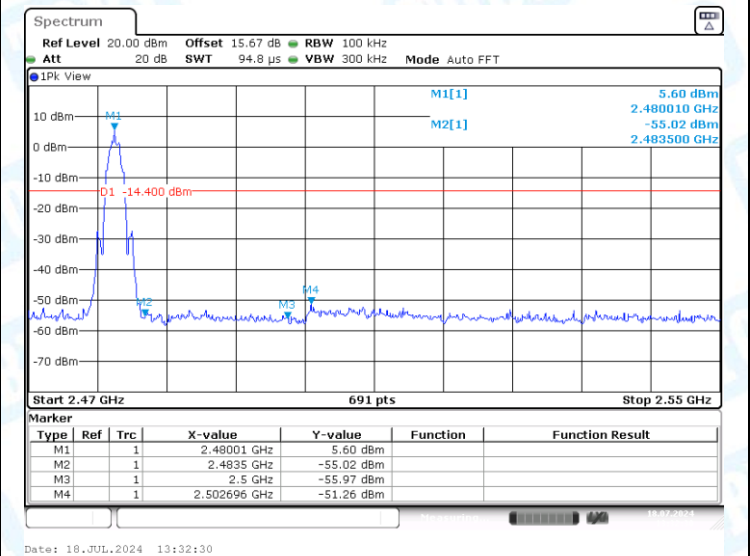
BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



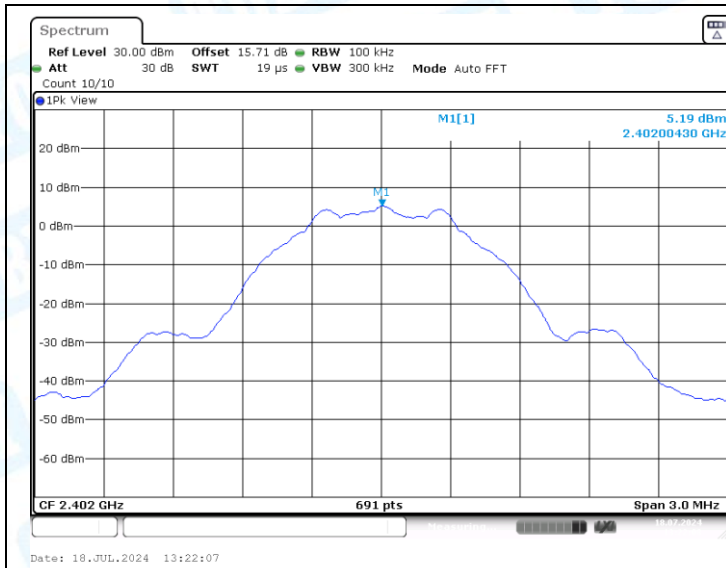
BLE_2M-Ant1-2480-PASS

Appendix 6: Conducted Spurious Emission

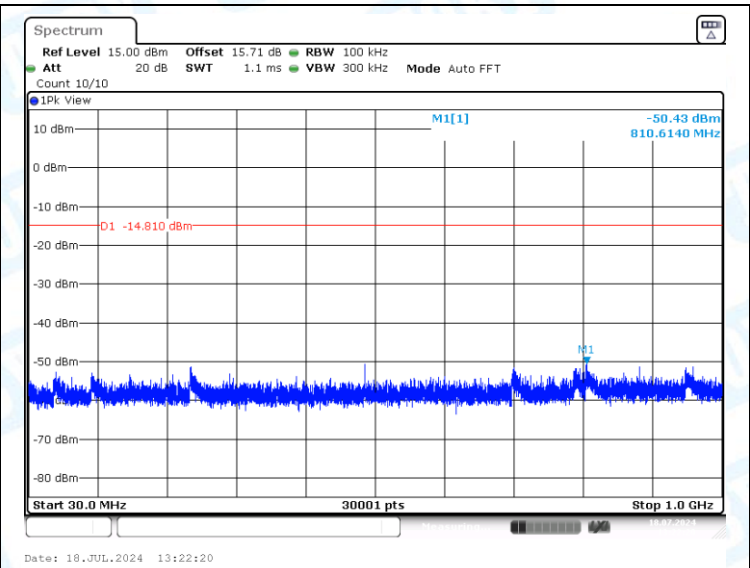
6.1 Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	5.19	5.19	---	PASS
BLE_1M	Ant1	2402	30~1000	5.19	-50.43	≤-14.81	PASS
BLE_1M	Ant1	2402	1000~26500	5.19	-45.49	≤-14.81	PASS
BLE_1M	Ant1	2440	0~Reference	5.67	5.67	---	PASS
BLE_1M	Ant1	2440	30~1000	5.67	-49.87	≤-14.33	PASS
BLE_1M	Ant1	2440	1000~26500	5.67	-46.06	≤-14.33	PASS
BLE_1M	Ant1	2480	0~Reference	5.79	5.79	---	PASS
BLE_1M	Ant1	2480	30~1000	5.79	-50.38	≤-14.21	PASS
BLE_1M	Ant1	2480	1000~26500	5.79	-45.41	≤-14.21	PASS
BLE_2M	Ant1	2402	0~Reference	5.02	5.02	---	PASS
BLE_2M	Ant1	2402	30~1000	5.02	-49.68	≤-14.98	PASS
BLE_2M	Ant1	2402	1000~26500	5.02	-45.42	≤-14.98	PASS
BLE_2M	Ant1	2440	0~Reference	5.63	5.63	---	PASS
BLE_2M	Ant1	2440	30~1000	5.63	-51.02	≤-14.37	PASS
BLE_2M	Ant1	2440	1000~26500	5.63	-45.18	≤-14.37	PASS
BLE_2M	Ant1	2480	0~Reference	5.64	5.64	---	PASS
BLE_2M	Ant1	2480	30~1000	5.64	-50.42	≤-14.36	PASS
BLE_2M	Ant1	2480	1000~26500	5.64	-45.55	≤-14.36	PASS

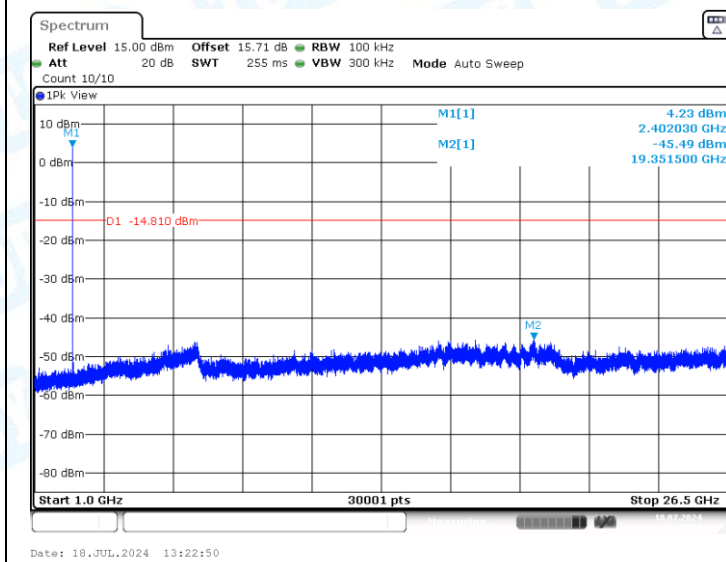
6.2 Test Graphs



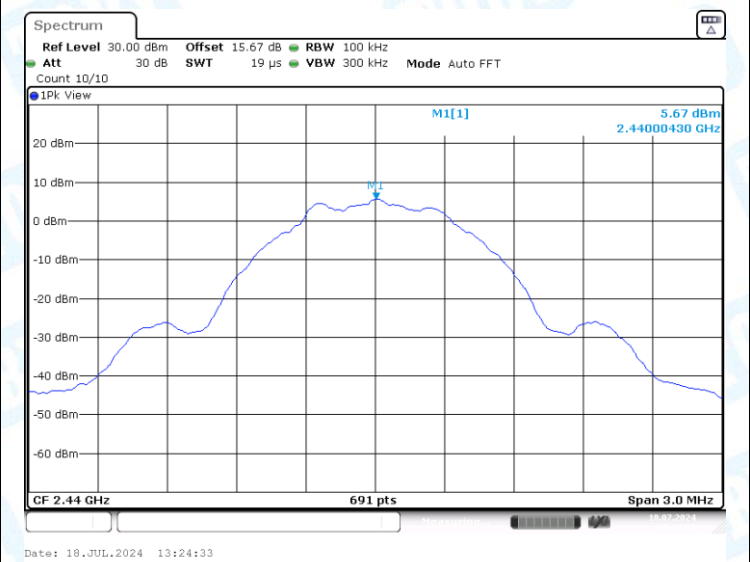
BLE_1M-Ant1-2402-0~Reference-PASS



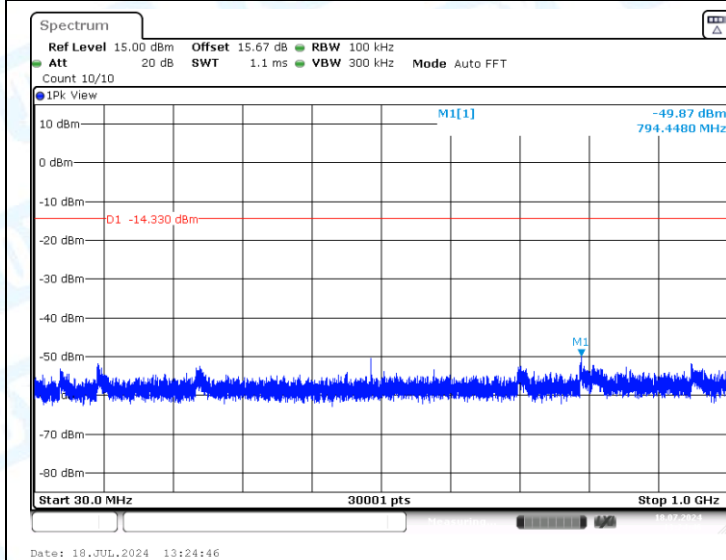
BLE_1M-Ant1-2402-30~1000-PASS



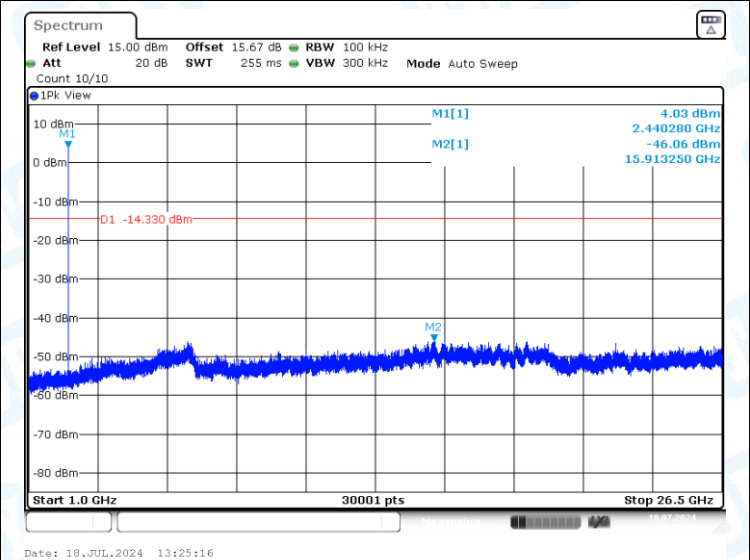
BLE_1M-Ant1-2402-1000~26500-PASS



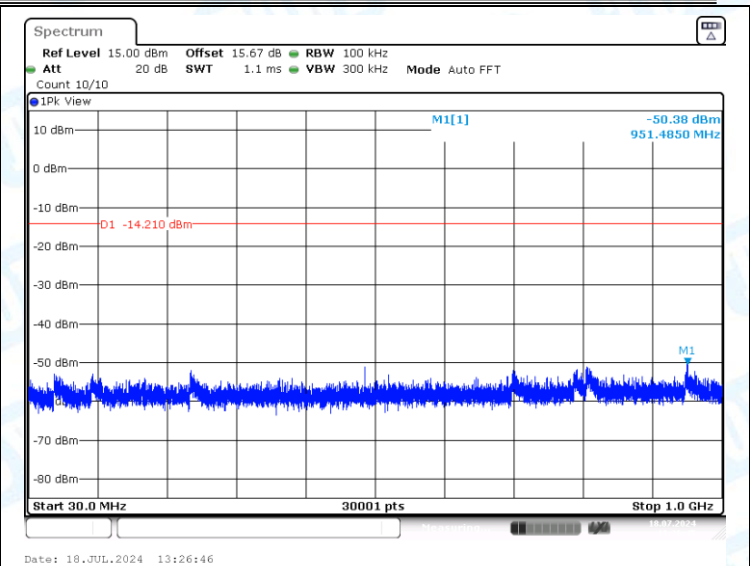
BLE_1M-Ant1-2440-0~Reference-PASS



BLE_1M-Ant1-2440-30~1000-PASS

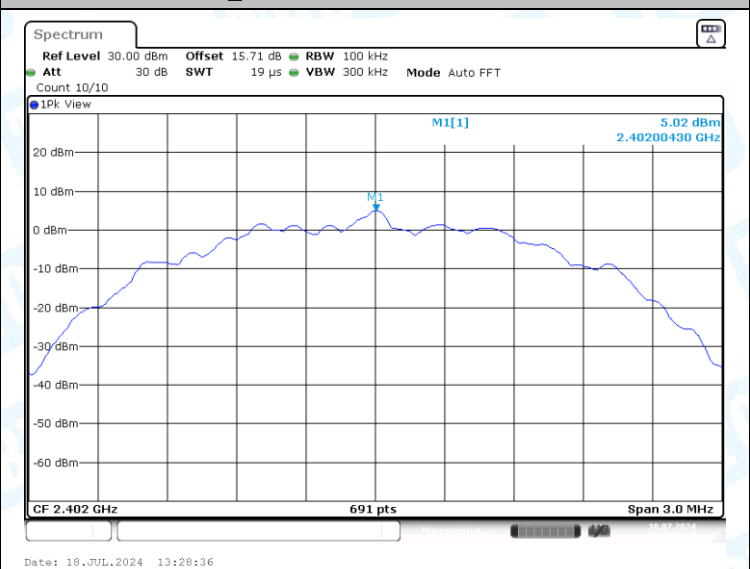
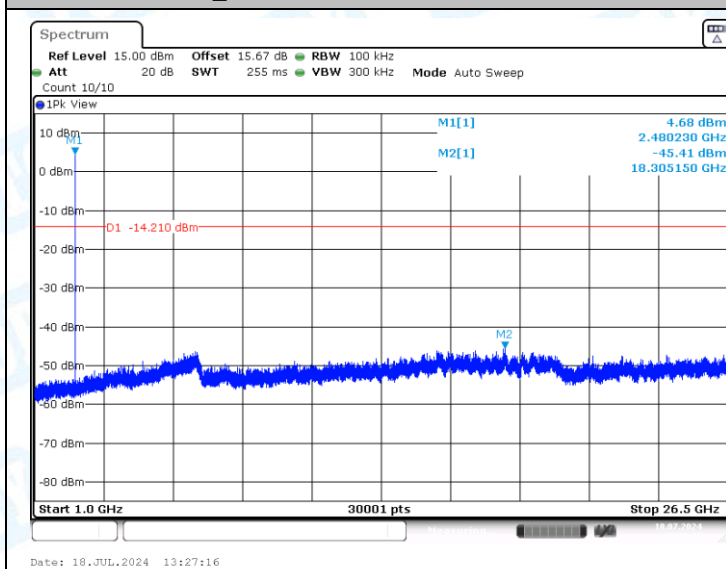


BLE_1M-Ant1-2440-1000~26500-PASS



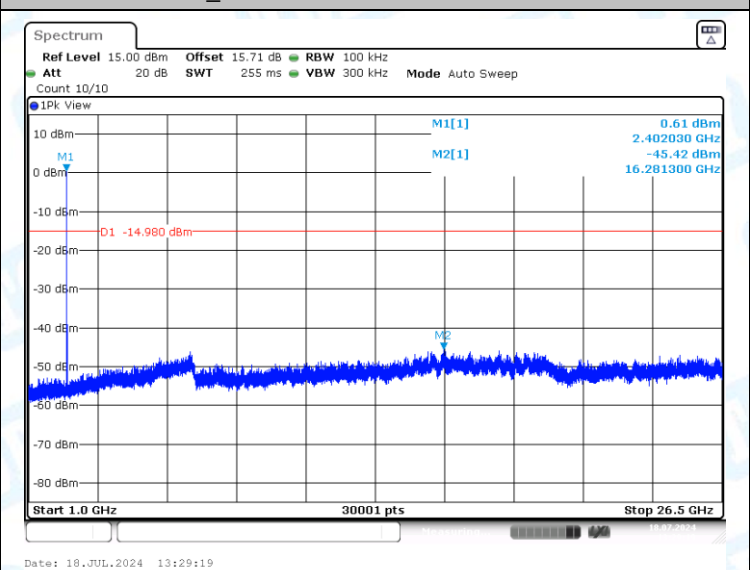
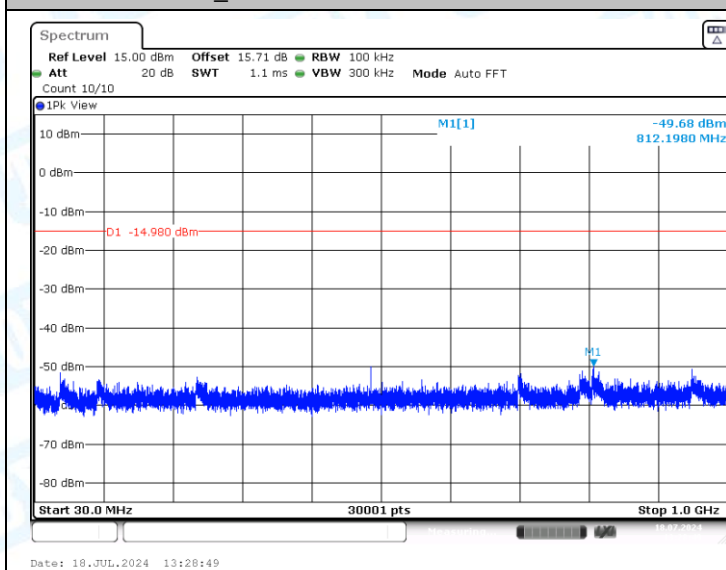
BLE_1M-Ant1-2480-0~Reference-PASS

BLE_1M-Ant1-2480-30~1000-PASS



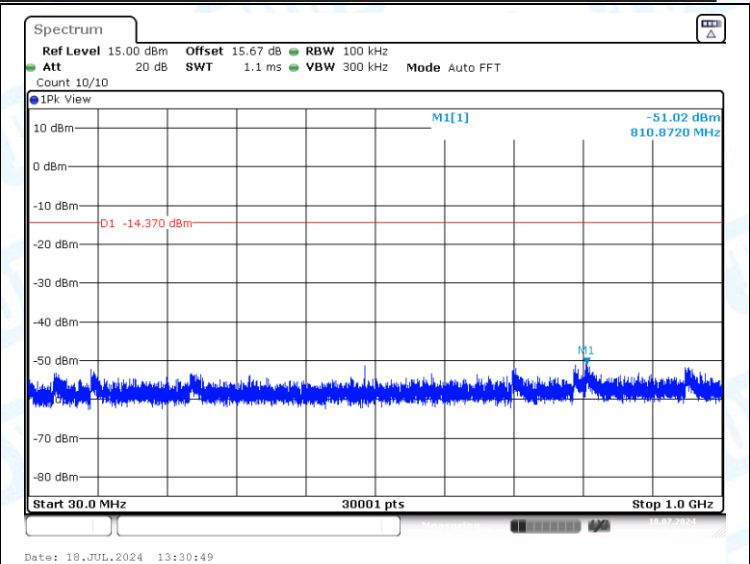
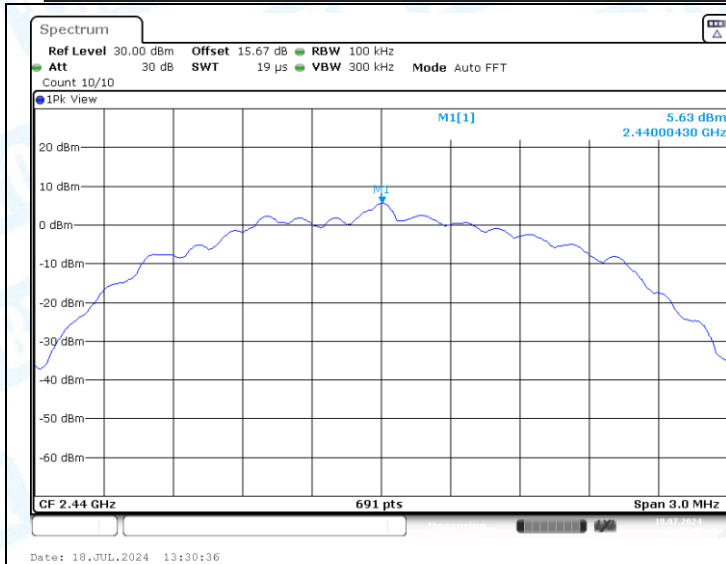
BLE_1M-Ant1-2480-1000~26500-PASS

BLE_2M-Ant1-2402-0~Reference-PASS



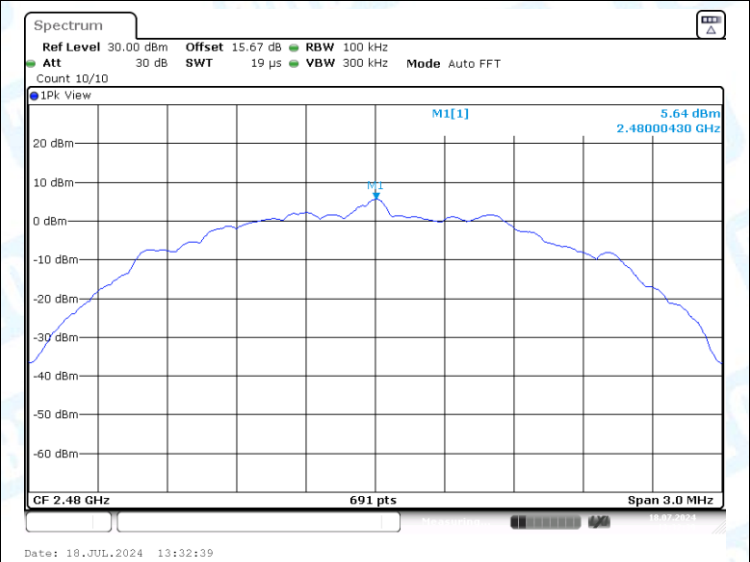
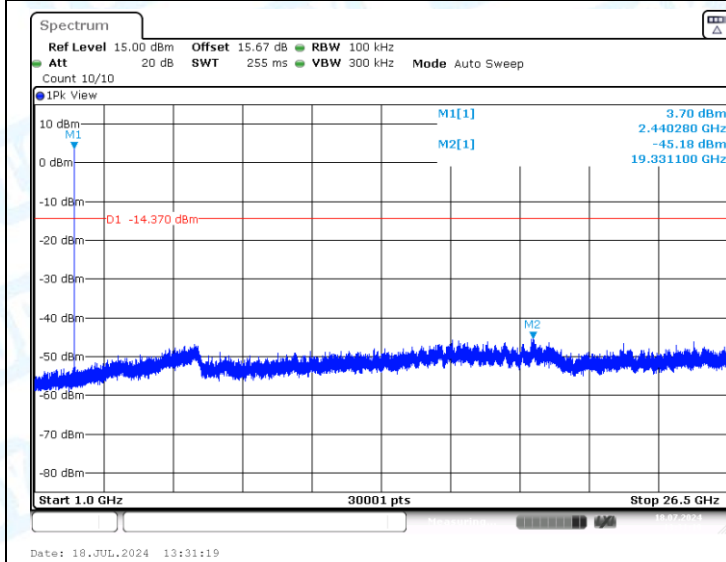
BLE_2M-Ant1-2402-30~1000-PASS

BLE_2M-Ant1-2402-1000~26500-PASS



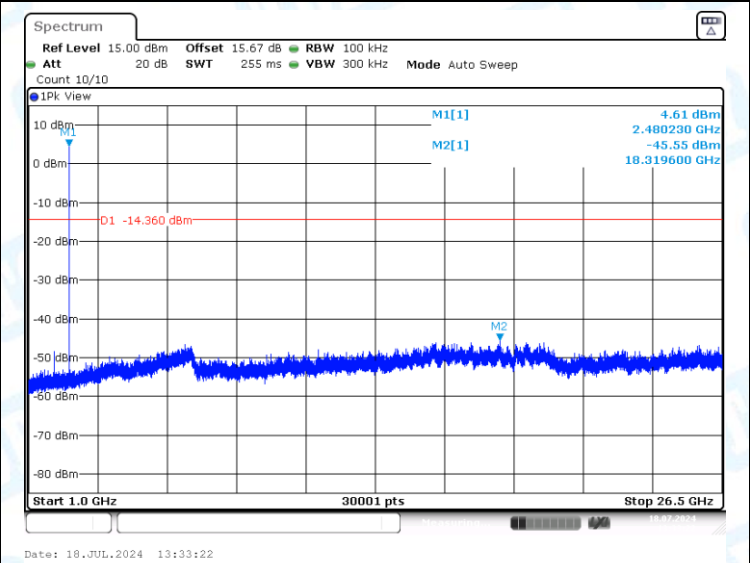
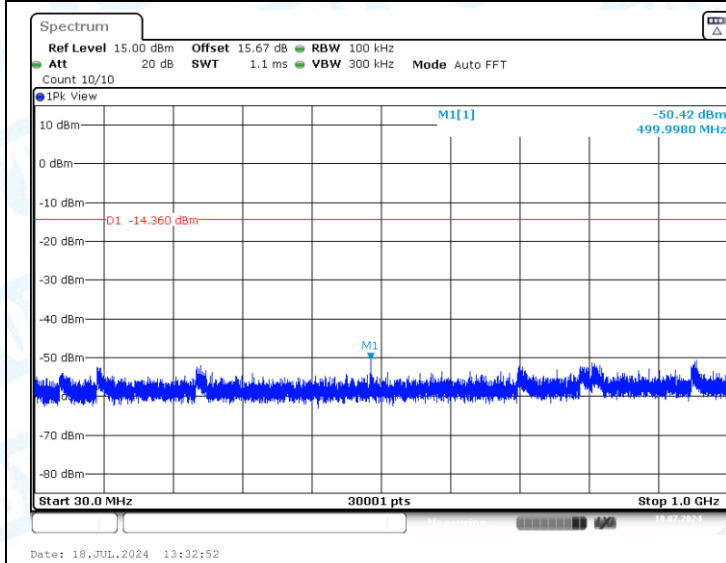
BLE_2M-Ant1-2440-0~Reference-PASS

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

Appendix 7: Duty Cycle

7.1 Test Result

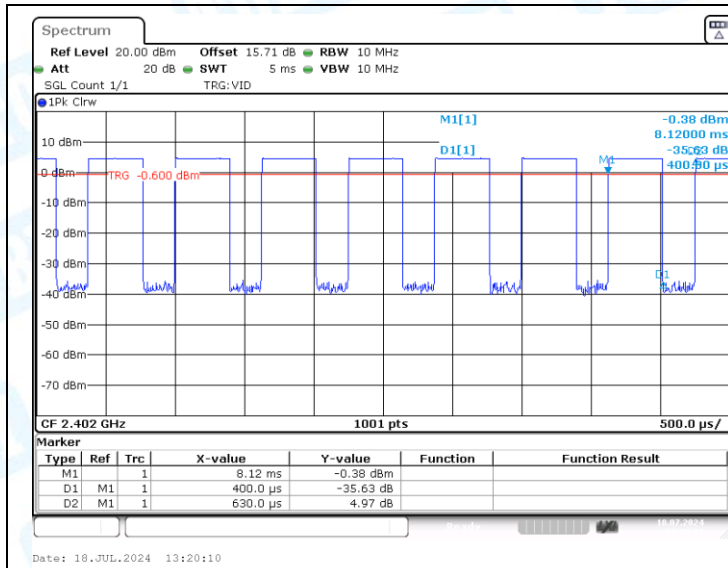
TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factory	1/T [kHz]
BLE_1M	Ant1	2402	0.40	0.63	63.49	1.97	2.50
BLE_1M	Ant1	2440	0.40	0.63	63.49	1.97	2.50
BLE_1M	Ant1	2480	0.40	0.63	63.49	1.97	2.50
BLE_2M	Ant1	2402	0.21	0.63	33.33	4.77	4.76
BLE_2M	Ant1	2440	0.21	0.63	33.33	4.77	4.76
BLE_2M	Ant1	2480	0.21	0.63	33.33	4.77	4.76

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

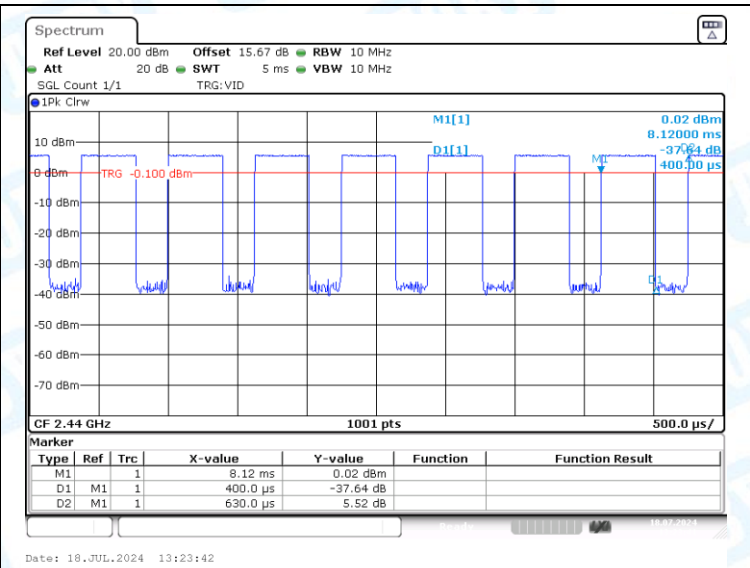
2, DC Factory=10*Log10(1/Duty Cycle)

3, 1/T=1/ Transmission Duration

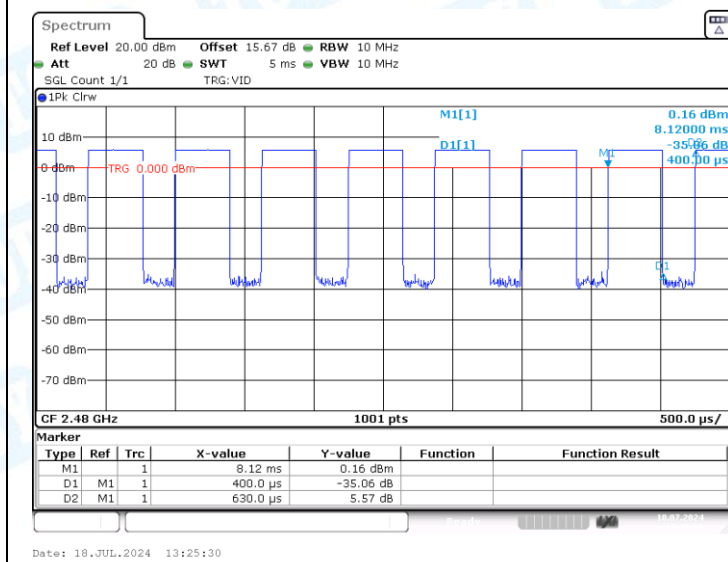
7.2 Test Graphs



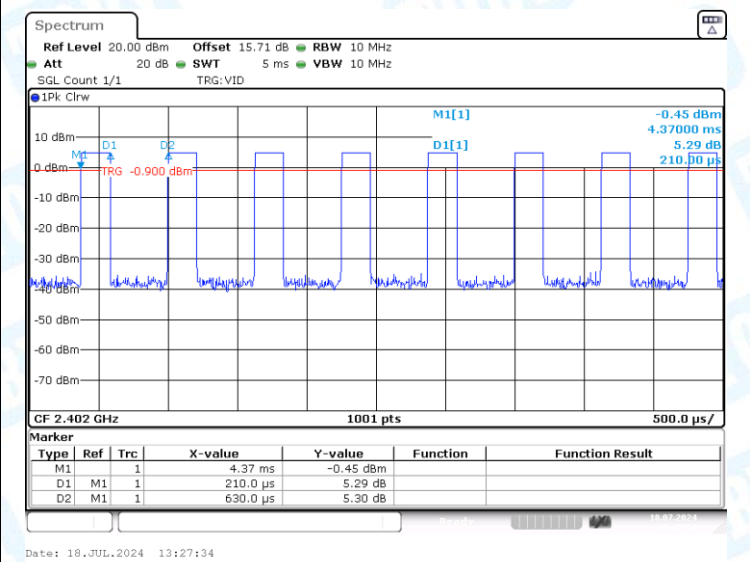
NTNV-BLE_1M-Ant1-2402



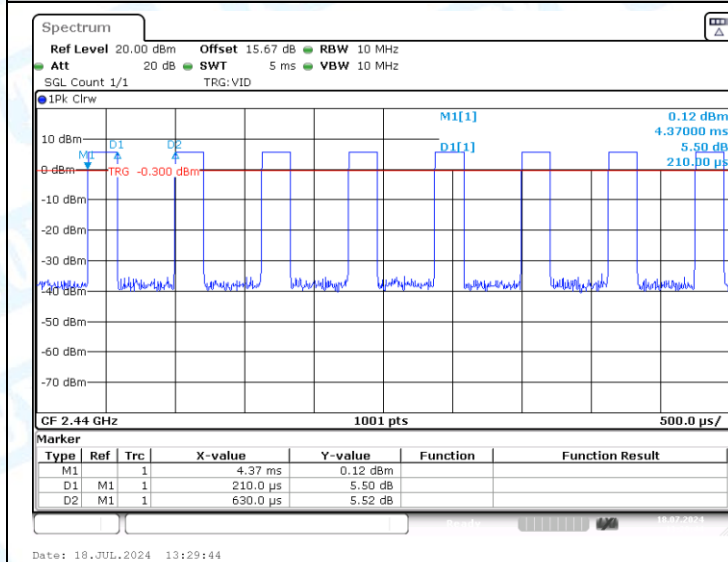
NTNV-BLE_1M-Ant1-2440



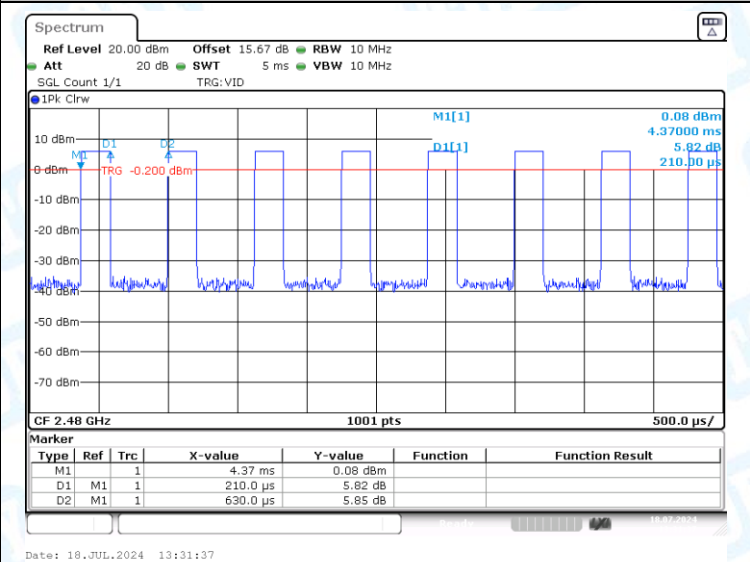
NTNV-BLE_1M-Ant1-2480



NTNV-BLE_2M-Ant1-2402



NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2480

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