

Appendix Test Data for BLE (Conducted Measurement)

Product Name: Surveillance camera

Trade Mark: /

Test Model: KA01

FCC ID: 2BKUT-KA01

Environmental Conditions

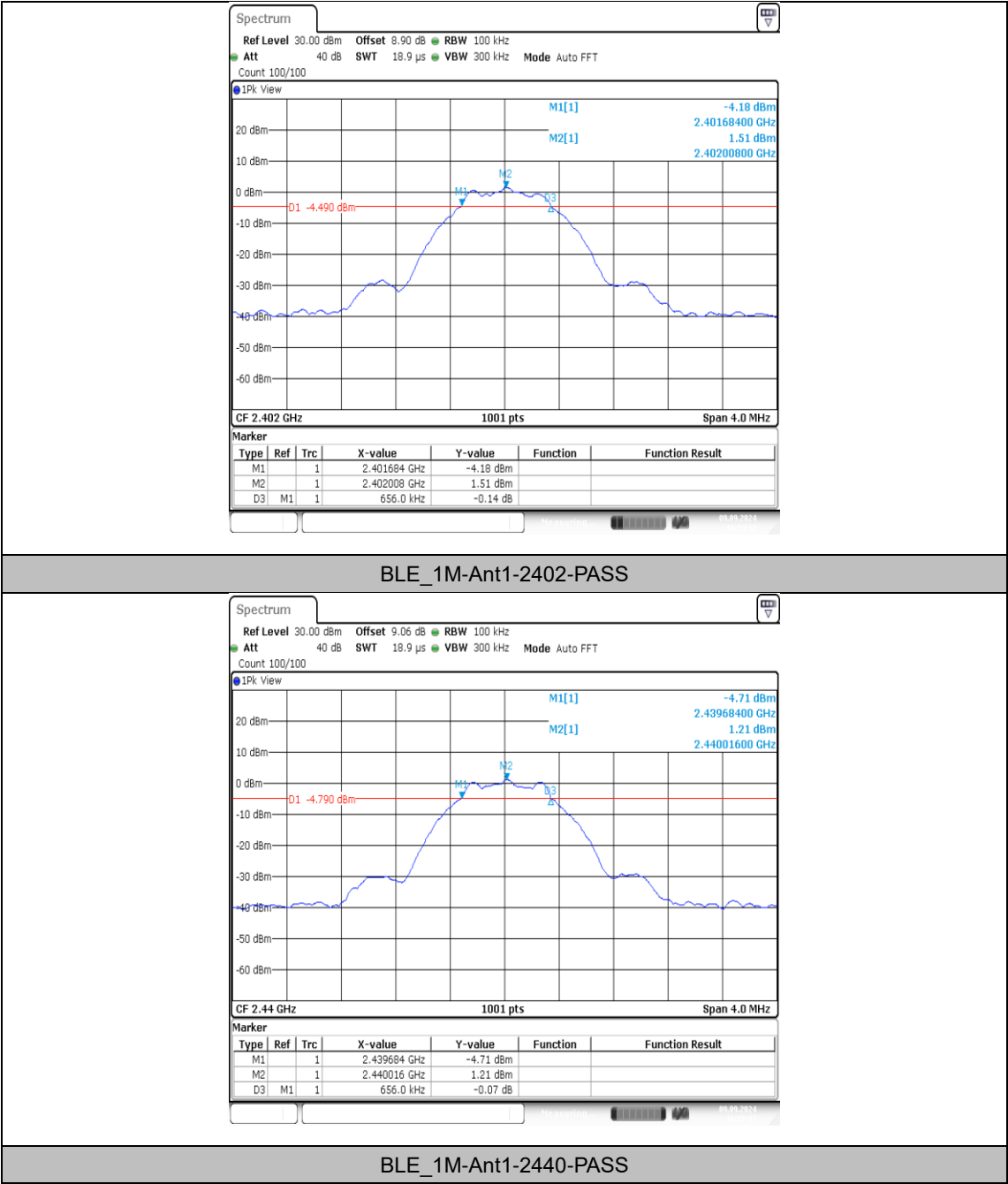
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

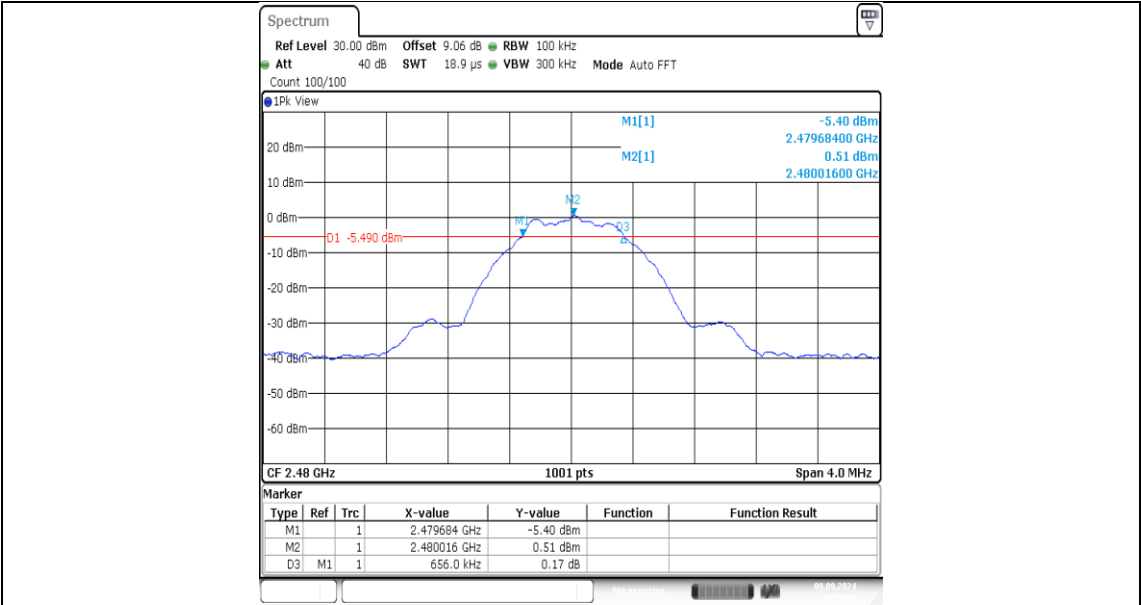
Appendix A: DTS Bandwidth

Test Result

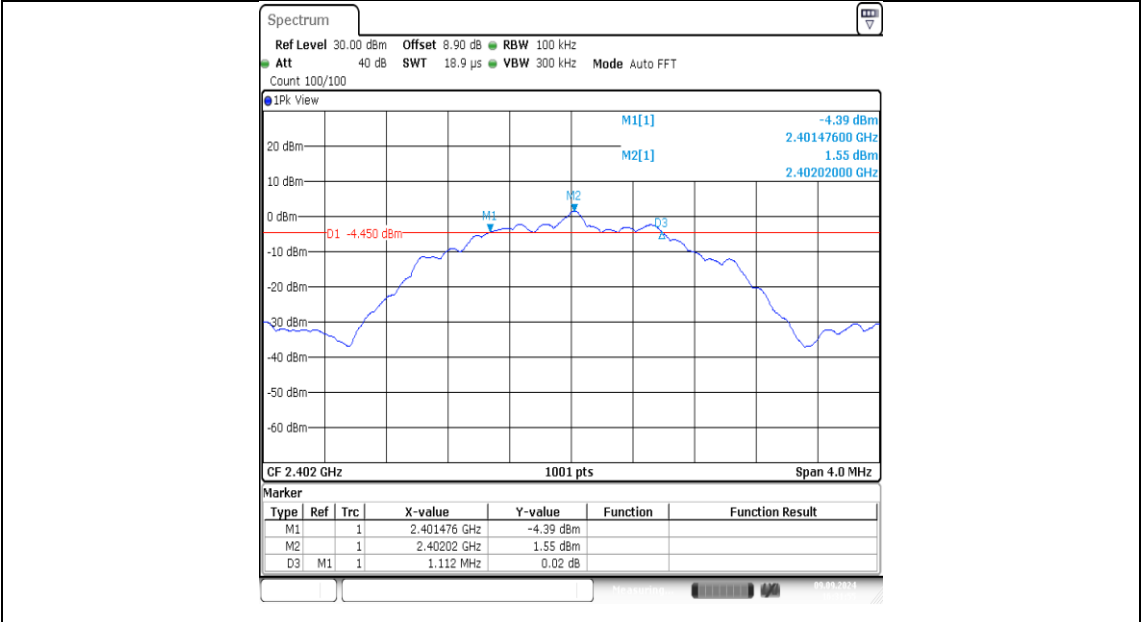
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.66	2401.68	2402.34	0.5	PASS
BLE_1M	Ant1	2440	0.66	2439.68	2440.34	0.5	PASS
BLE_1M	Ant1	2480	0.66	2479.68	2480.34	0.5	PASS
BLE_2M	Ant1	2402	1.11	2401.48	2402.59	0.5	PASS
BLE_2M	Ant1	2440	1.11	2439.47	2440.58	0.5	PASS
BLE_2M	Ant1	2480	1.10	2479.47	2480.57	0.5	PASS

Test Graphs

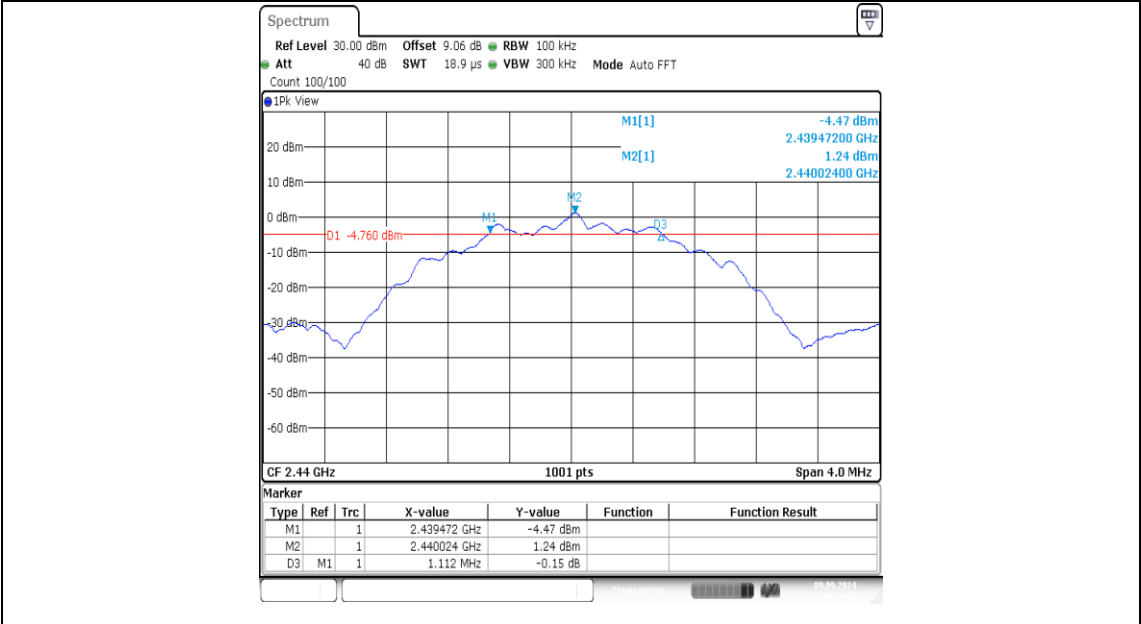




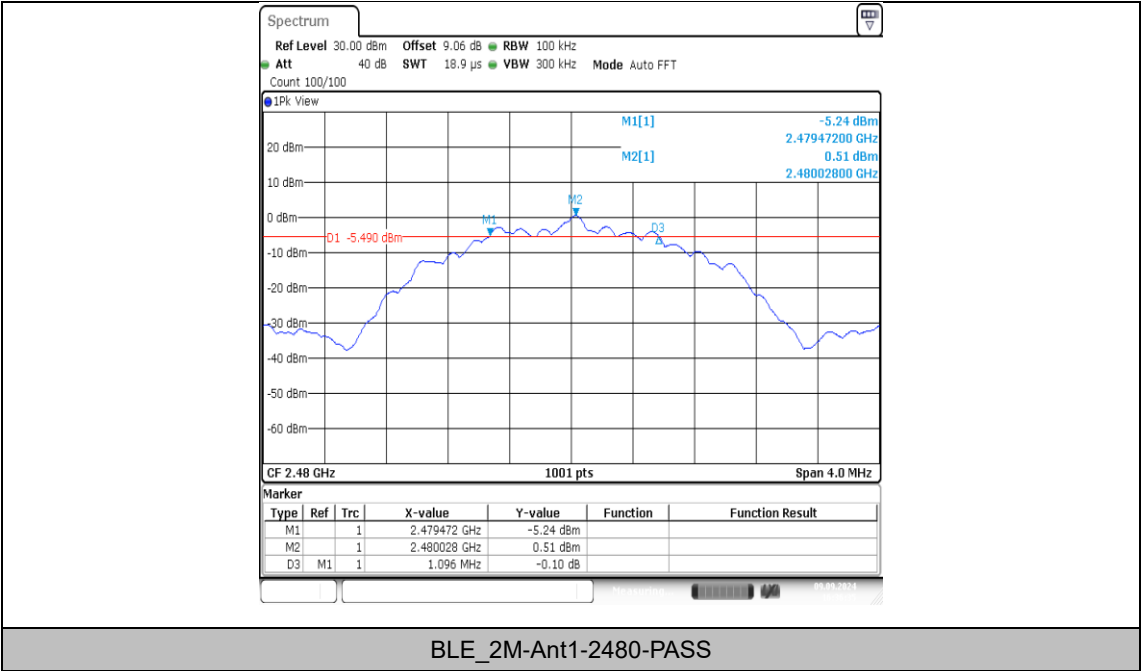
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS

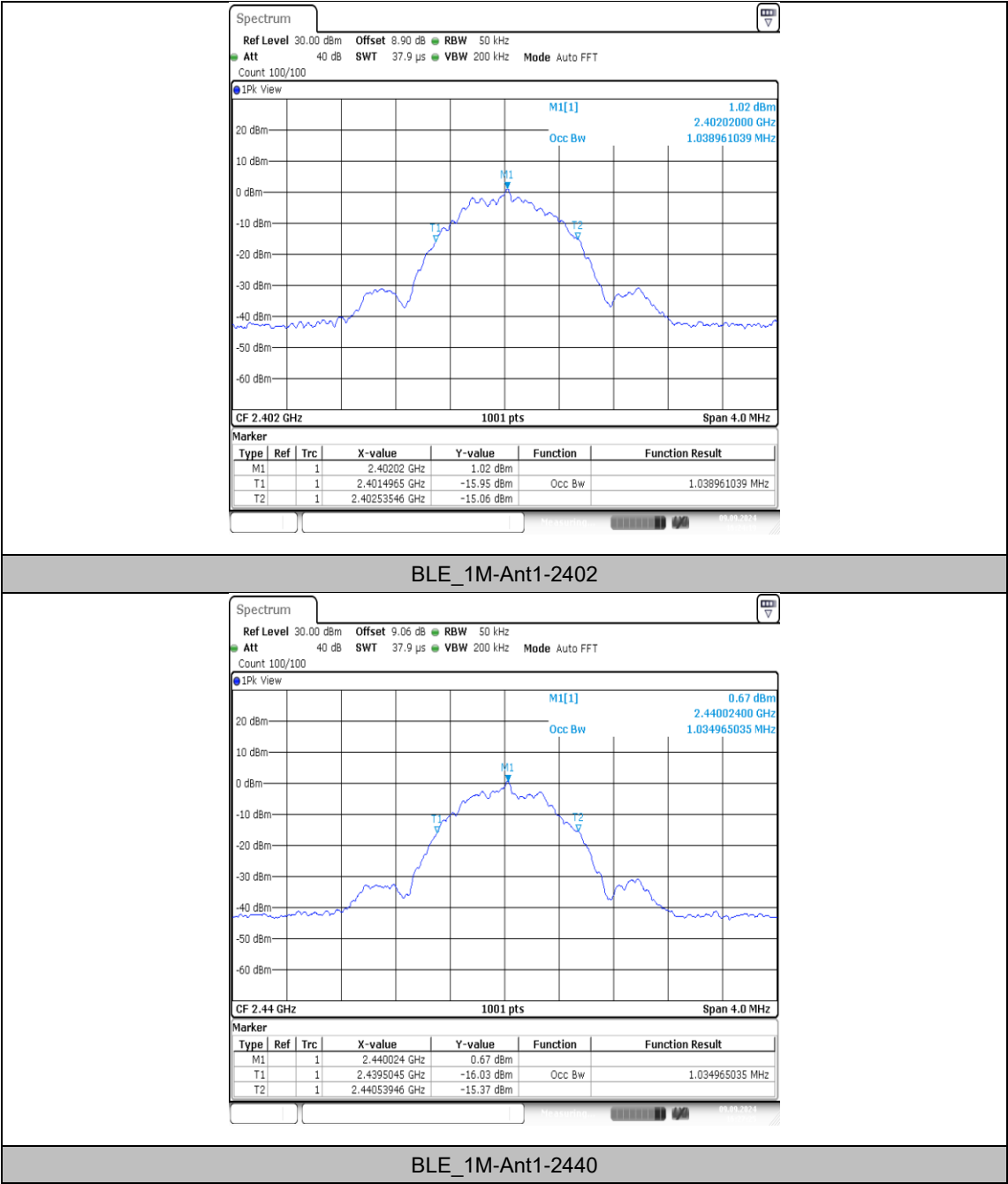


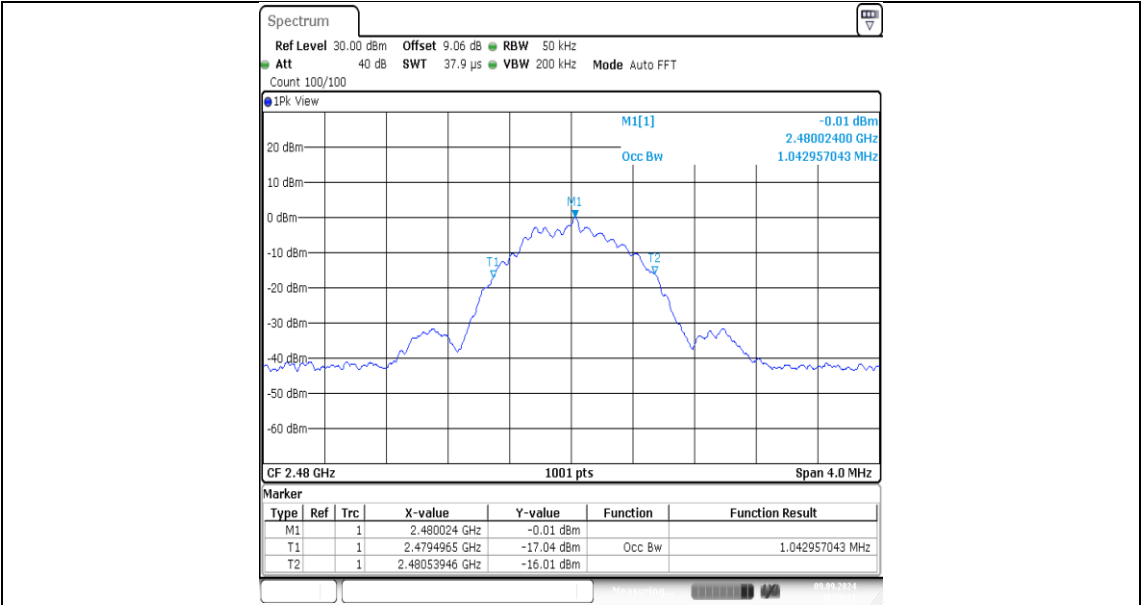
Appendix B: Occupied Channel Bandwidth

Test Result

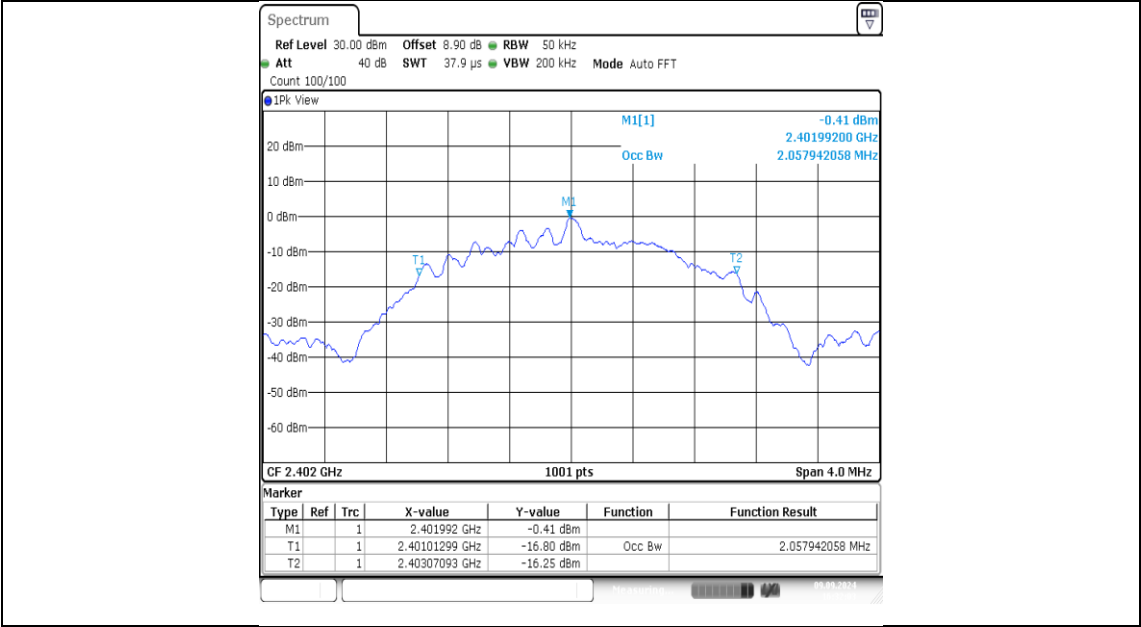
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.039	2401.4965	2402.5355	---	---
BLE_1M	Ant1	2440	1.035	2439.5045	2440.5395	---	---
BLE_1M	Ant1	2480	1.043	2479.4965	2480.5395	---	---
BLE_2M	Ant1	2402	2.058	2401.0130	2403.0709	---	---
BLE_2M	Ant1	2440	2.062	2439.0090	2441.0709	---	---
BLE_2M	Ant1	2480	2.054	2479.0130	2481.0669	---	---

Test Graphs

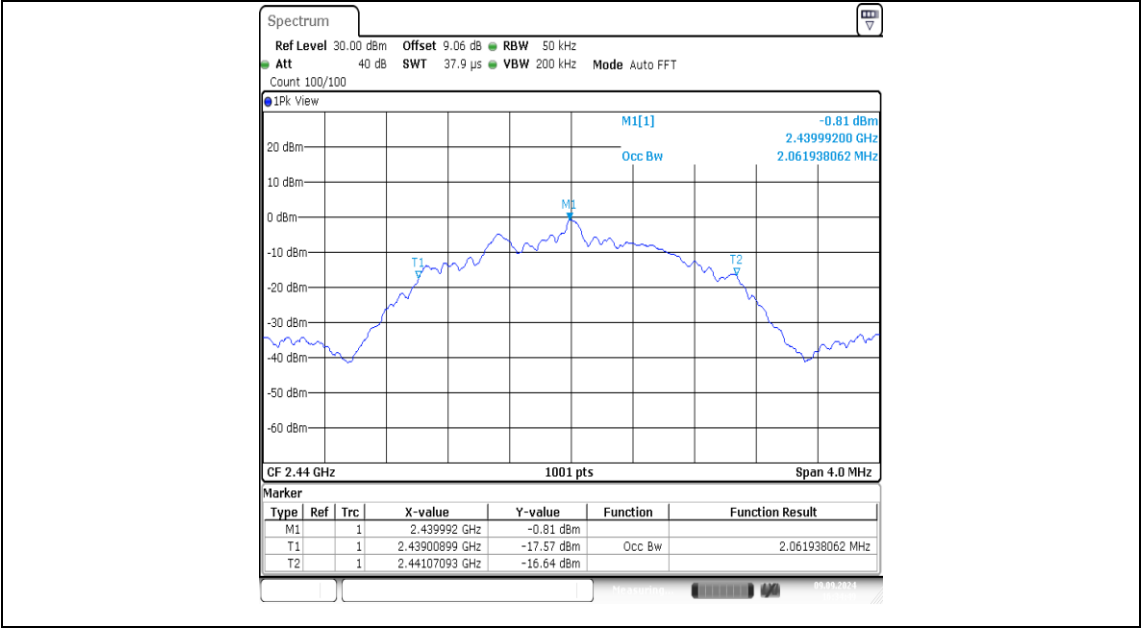




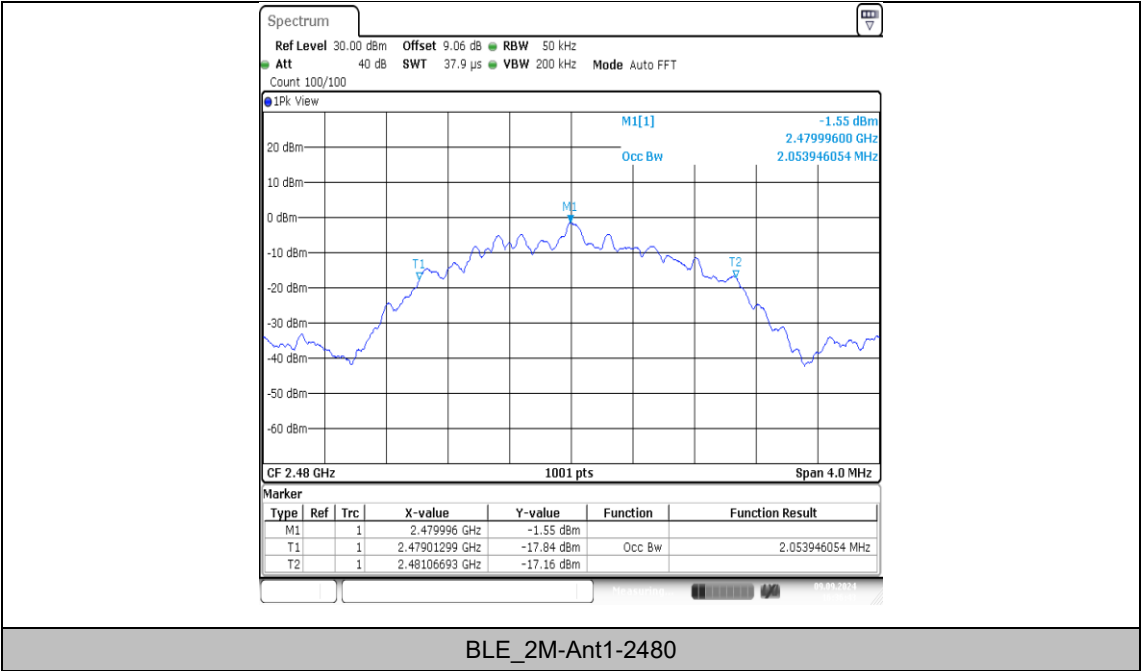
BLE_1M-Ant1-2480



BLE_2M-Ant1-2402



BLE_2M-Ant1-2440

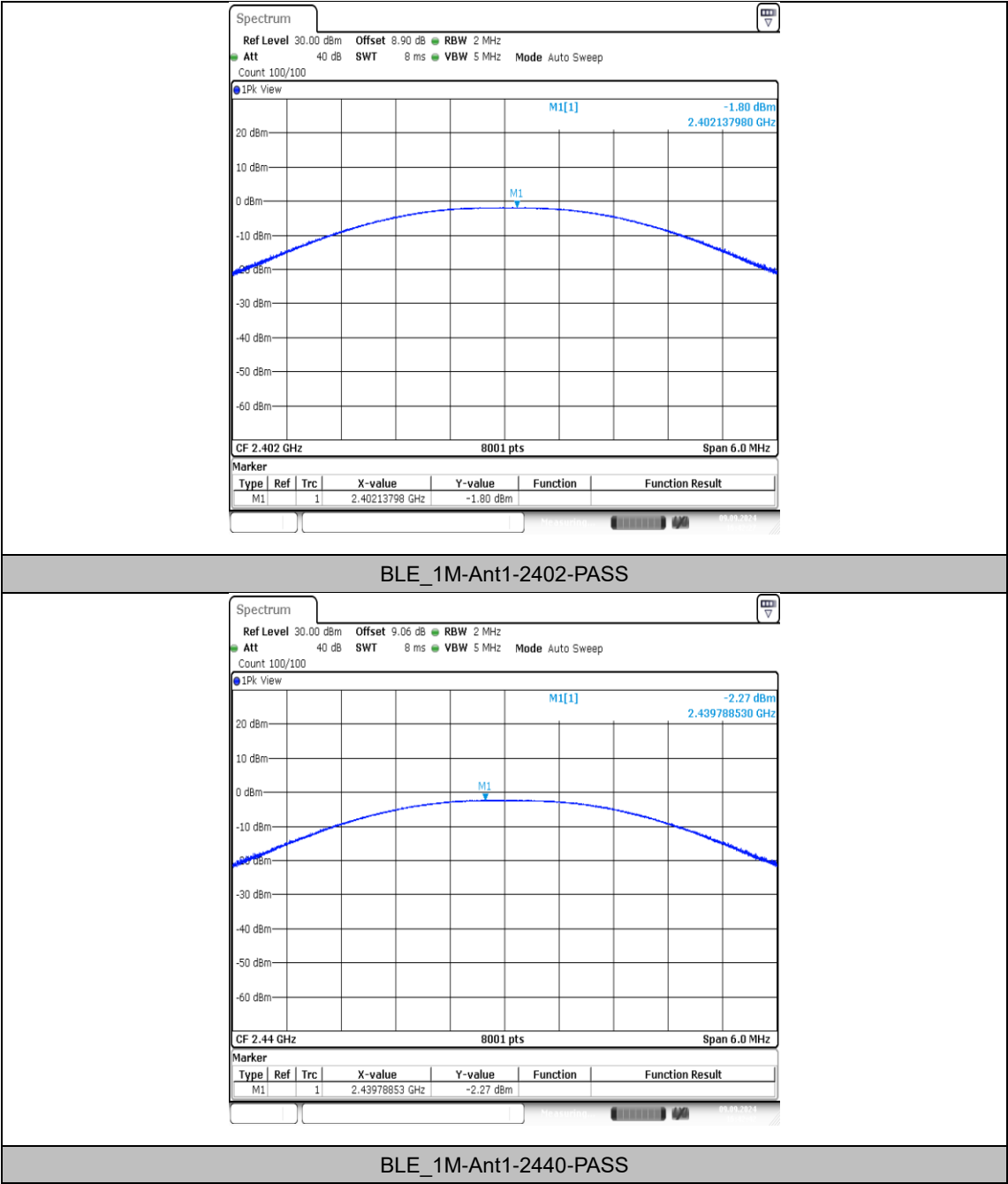


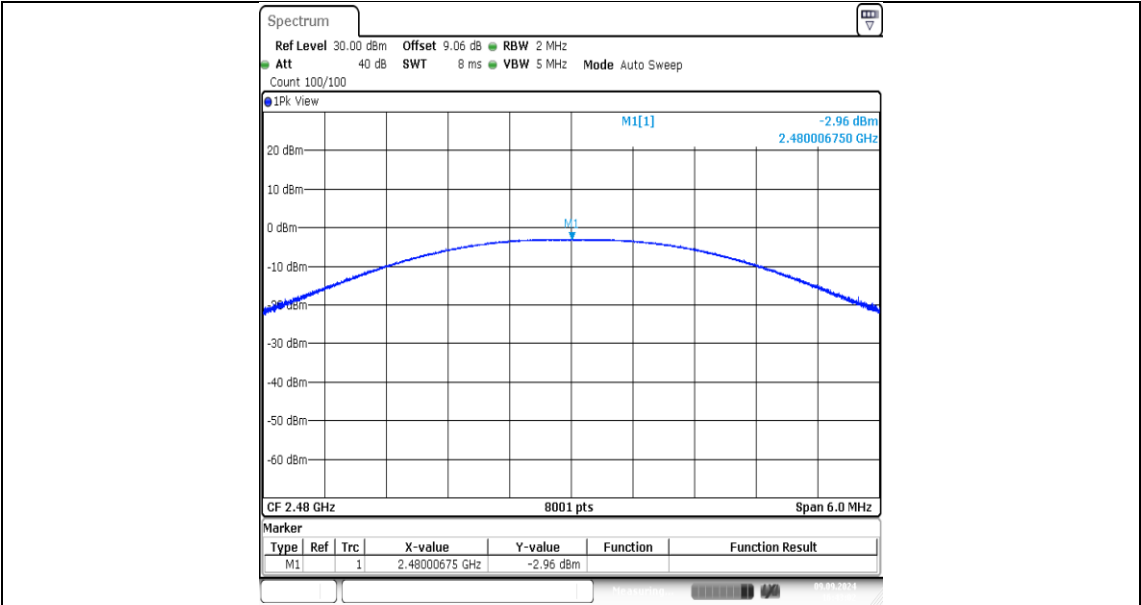
Appendix C: Maximum peak conducted output power

Test Result Peak

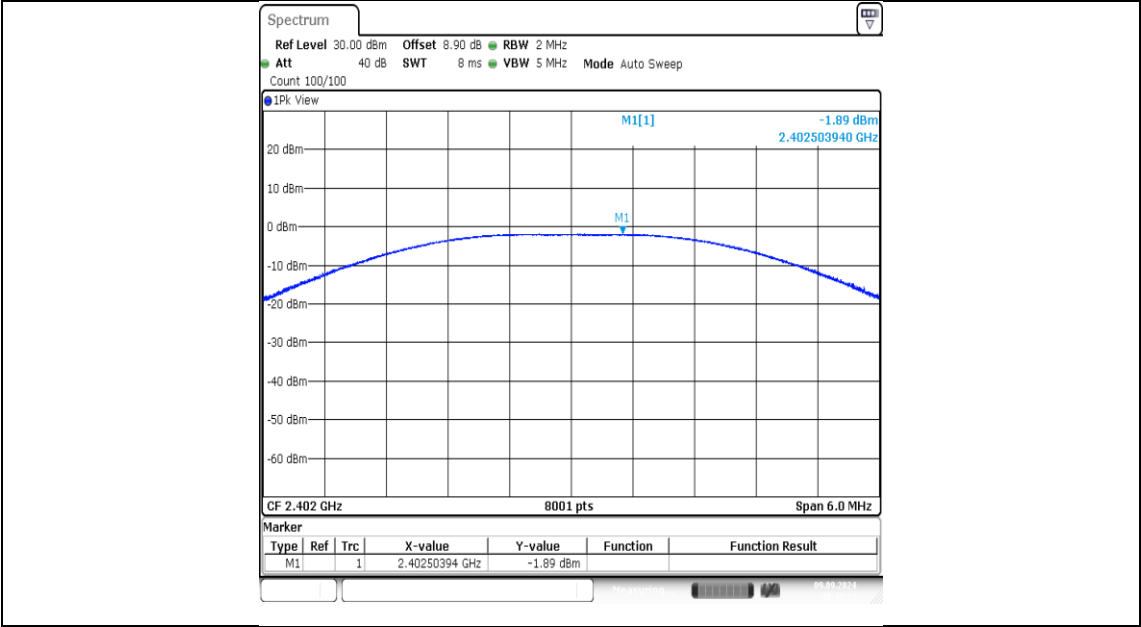
TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.80	≤30	PASS
BLE_1M	Ant1	2440	-2.27	≤30	PASS
BLE_1M	Ant1	2480	-2.96	≤30	PASS
BLE_2M	Ant1	2402	-1.89	≤30	PASS
BLE_2M	Ant1	2440	-2.14	≤30	PASS
BLE_2M	Ant1	2480	-2.81	≤30	PASS

Test Graphs Peak

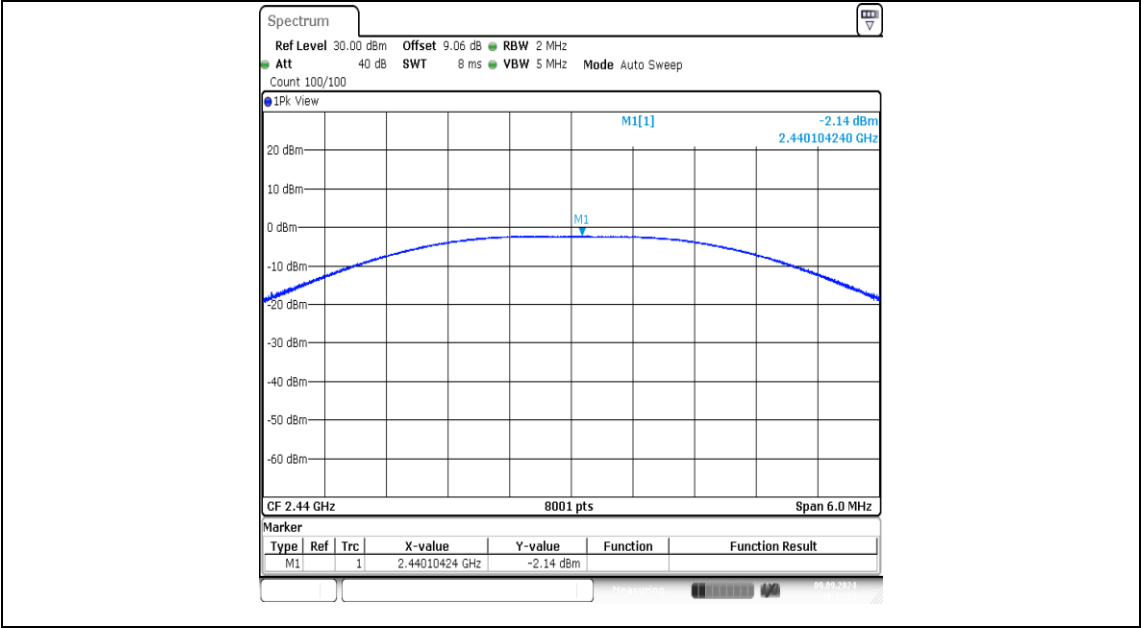




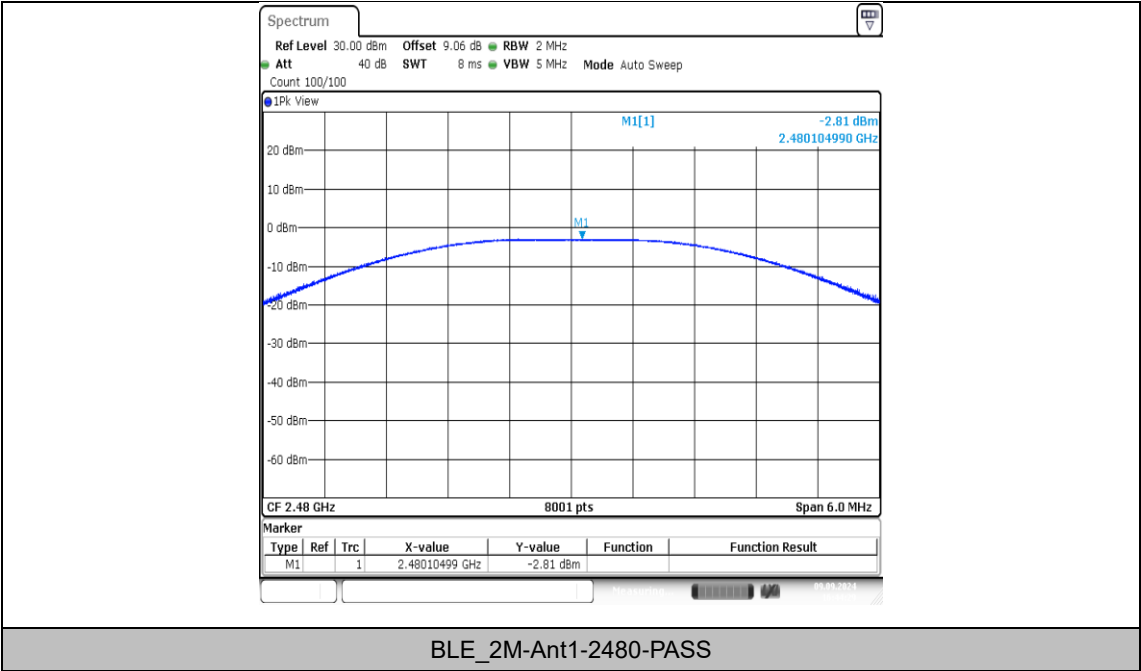
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS

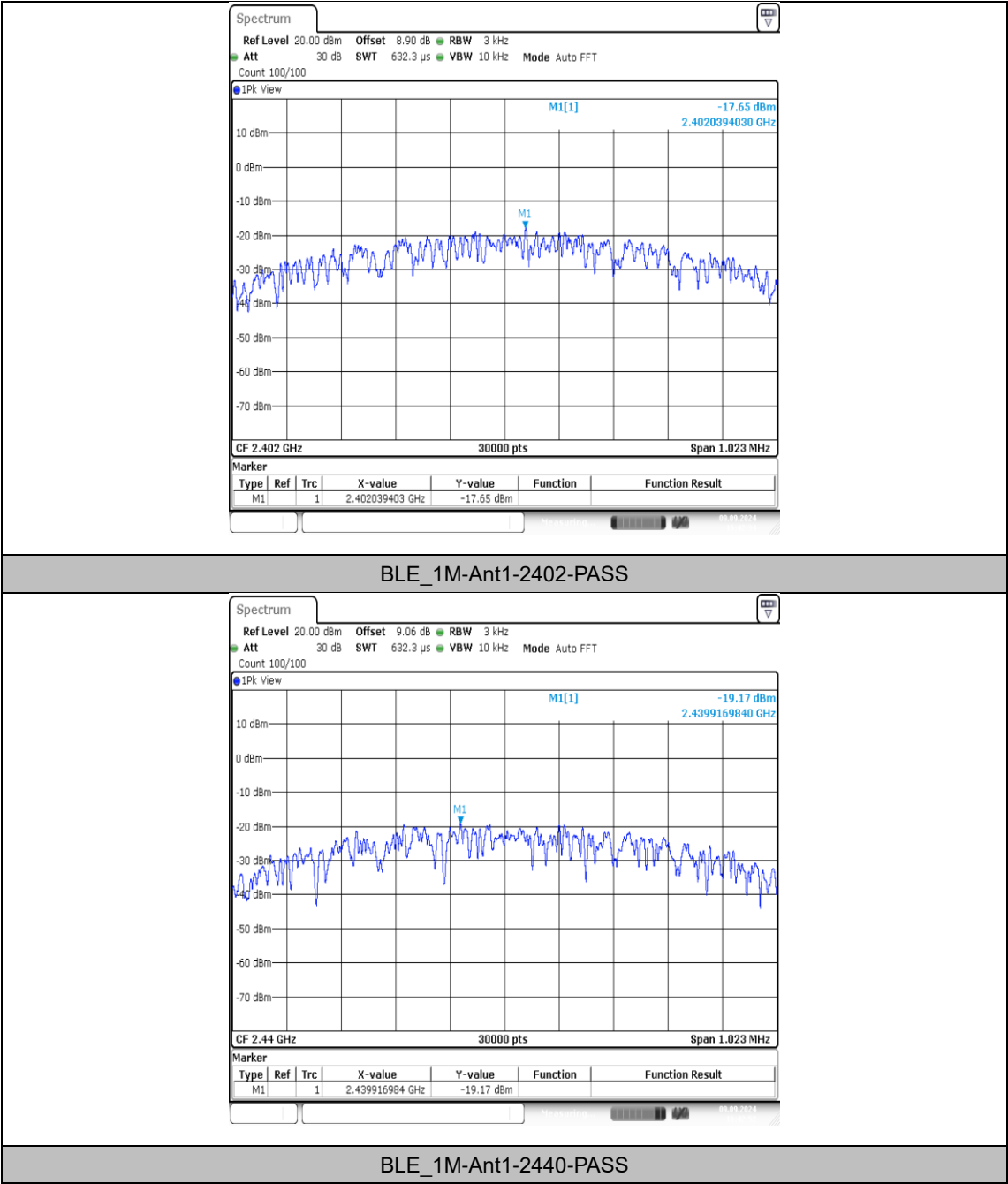


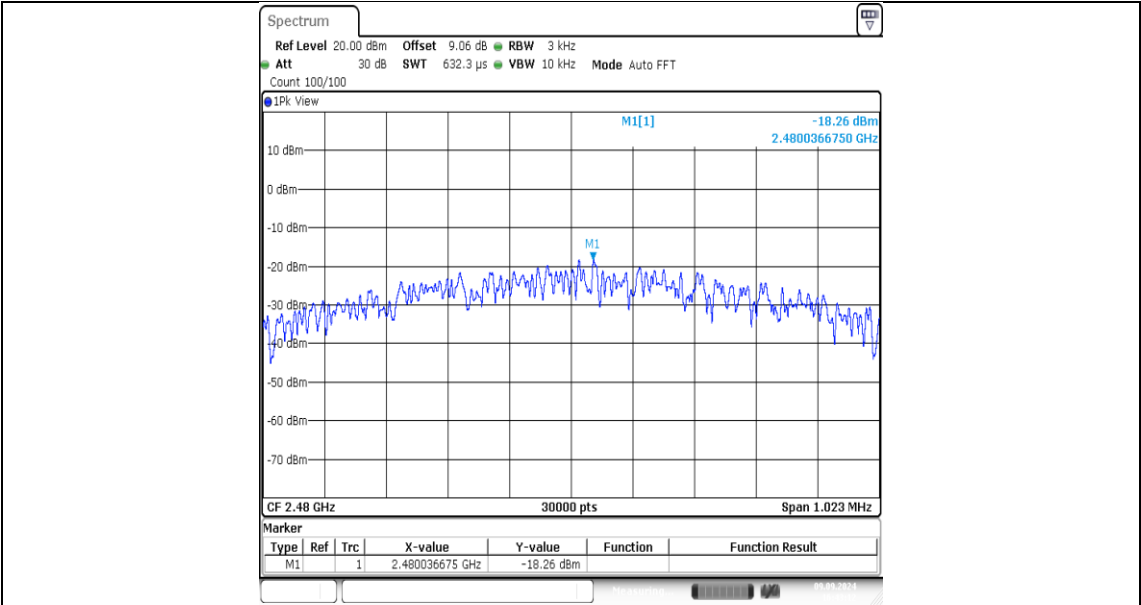
Appendix D: Maximum peak power spectral density

Test Result

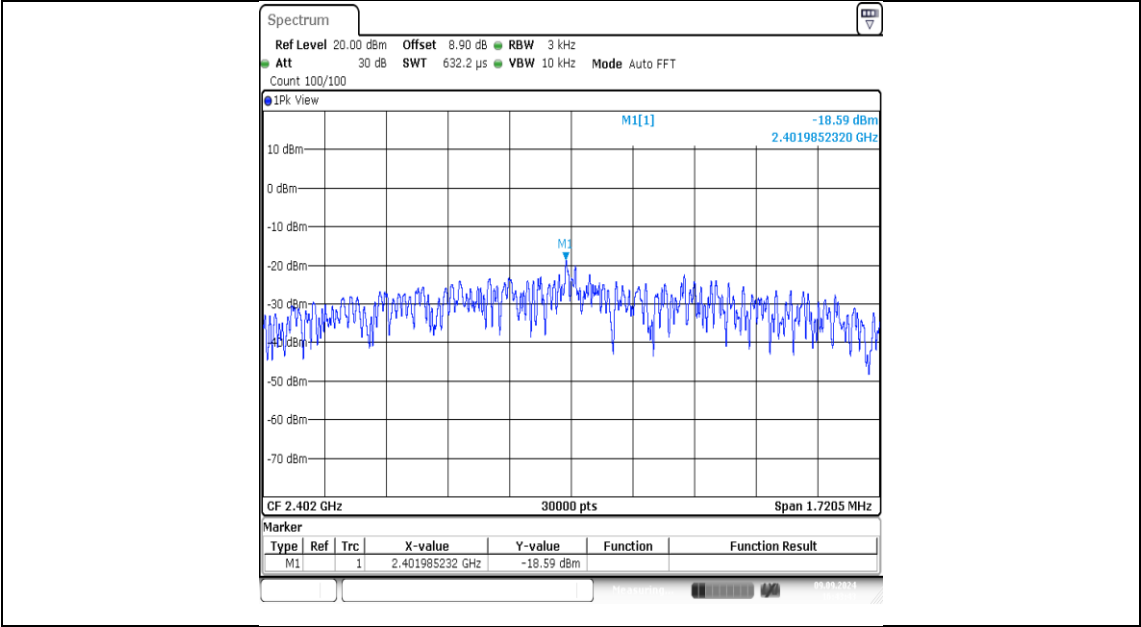
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-17.65	≤8.00	PASS
BLE_1M	Ant1	2440	-19.17	≤8.00	PASS
BLE_1M	Ant1	2480	-18.26	≤8.00	PASS
BLE_2M	Ant1	2402	-18.59	≤8.00	PASS
BLE_2M	Ant1	2440	-20.97	≤8.00	PASS
BLE_2M	Ant1	2480	-21.33	≤8.00	PASS

Test Graphs

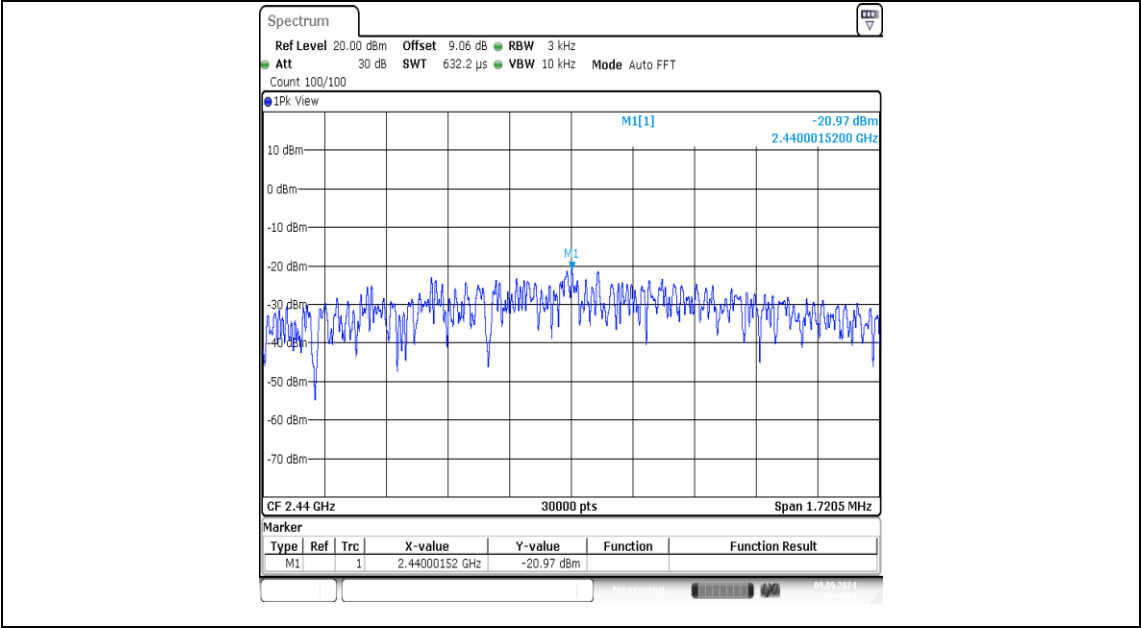




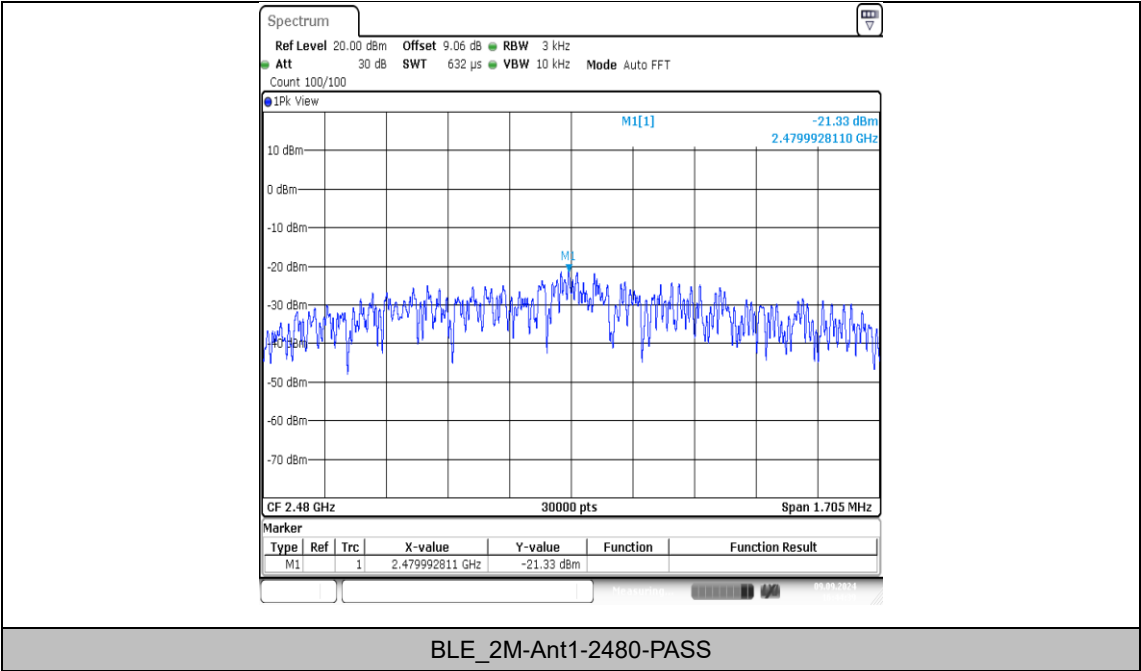
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS

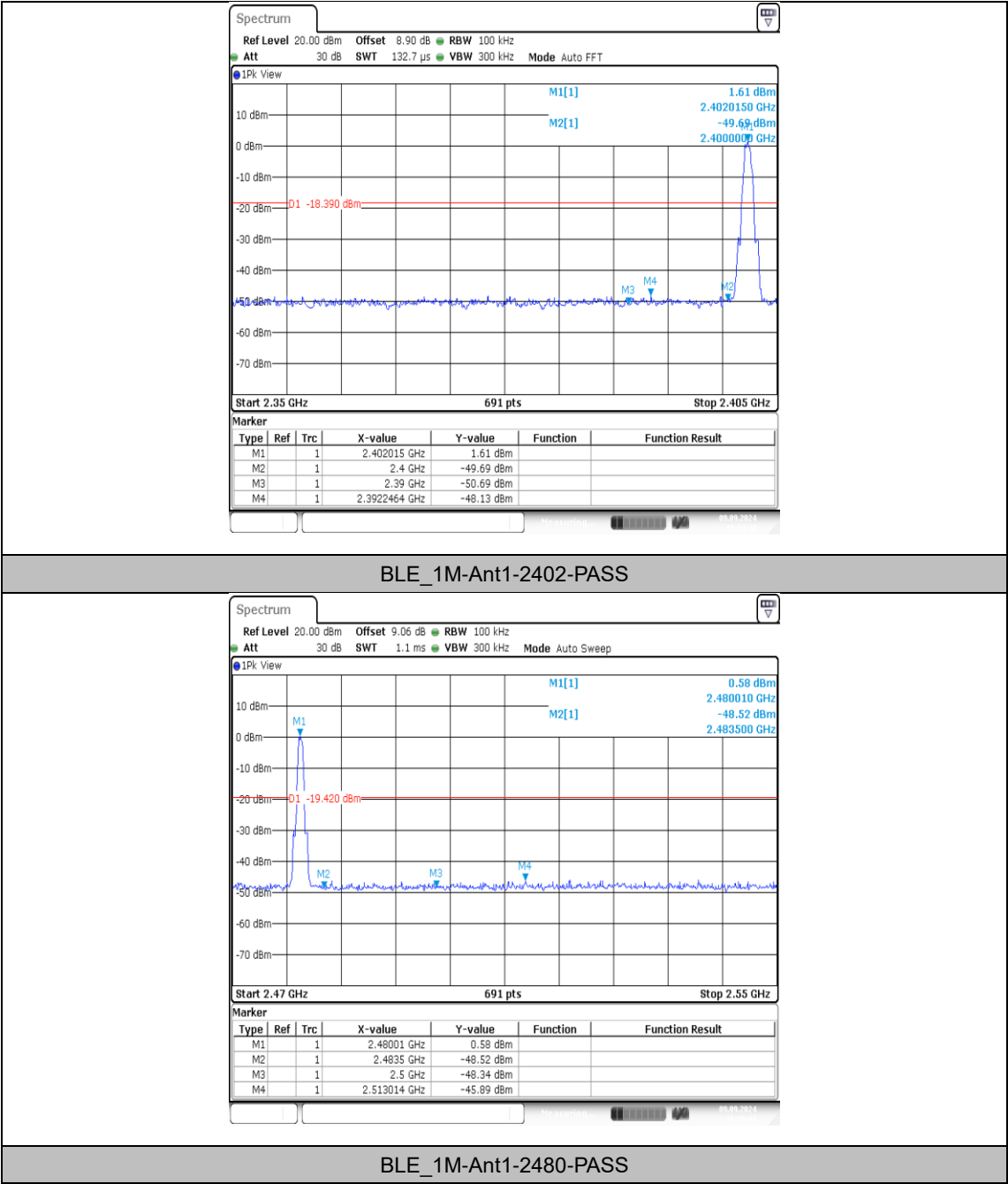


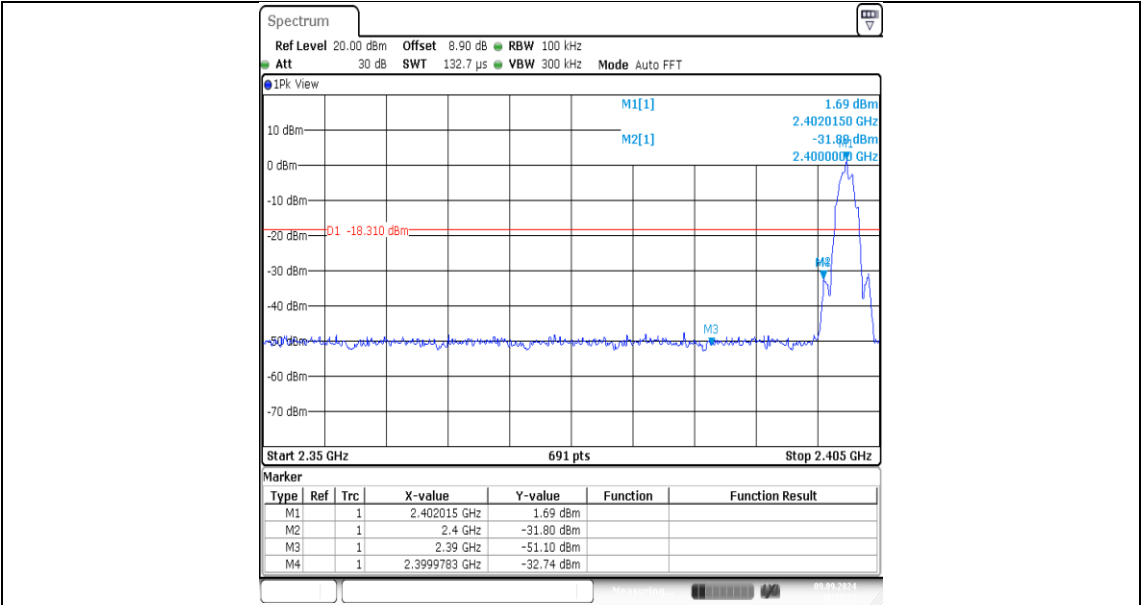
Appendix E: Band edge measurements

Test Result

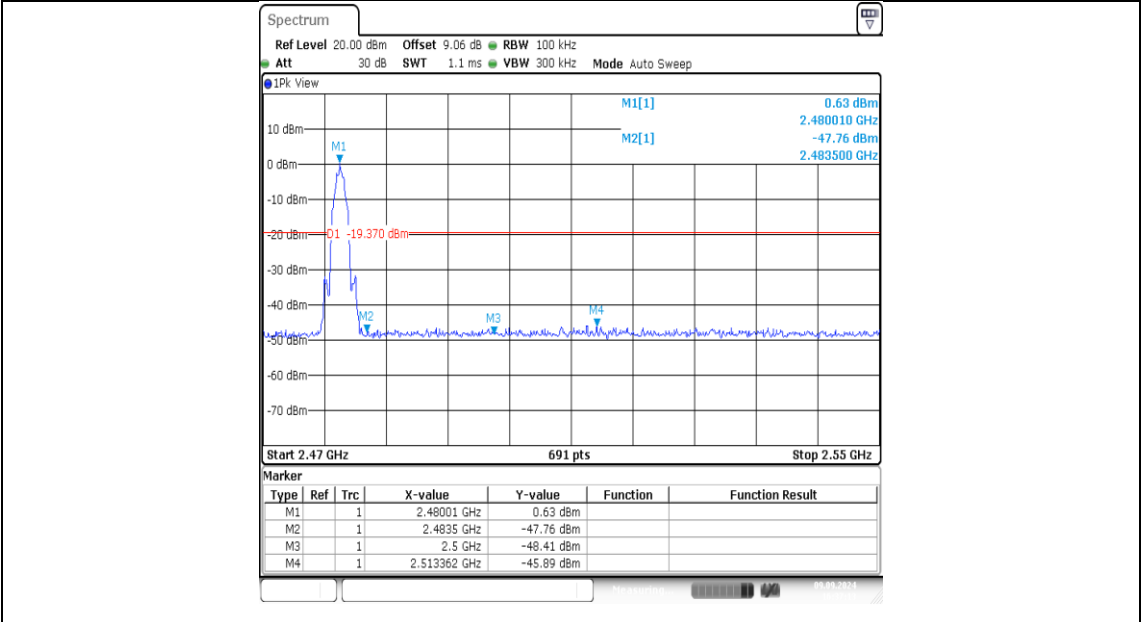
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.61	-48.13	≤-18.39	PASS
BLE_1M	Ant1	High	2480	0.58	-45.89	≤-19.42	PASS
BLE_2M	Ant1	Low	2402	1.69	-32.74	≤-18.31	PASS
BLE_2M	Ant1	High	2480	0.63	-45.89	≤-19.37	PASS

Test Graphs





BLE_2M-Ant1-2402-PASS



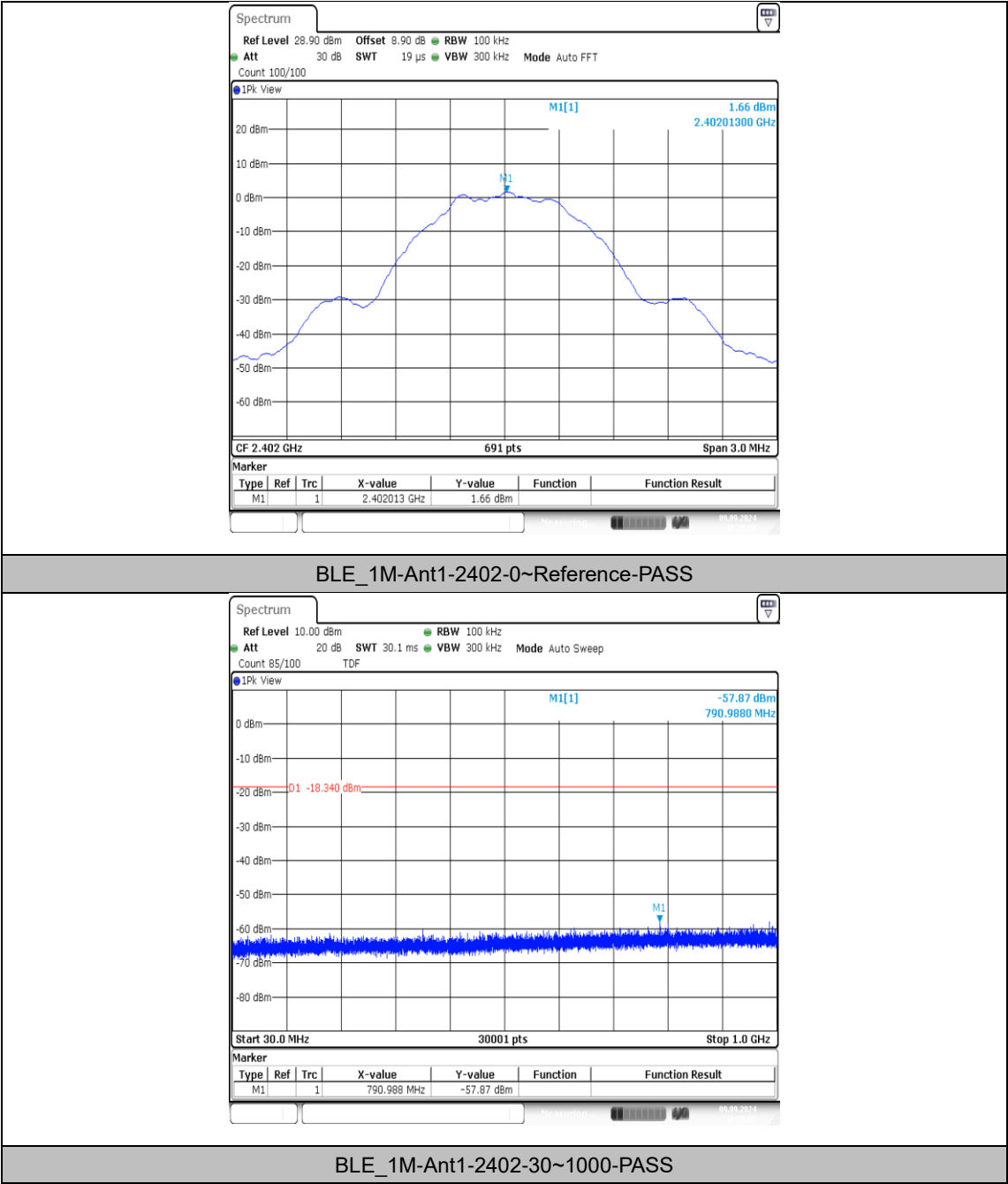
BLE_2M-Ant1-2480-PASS

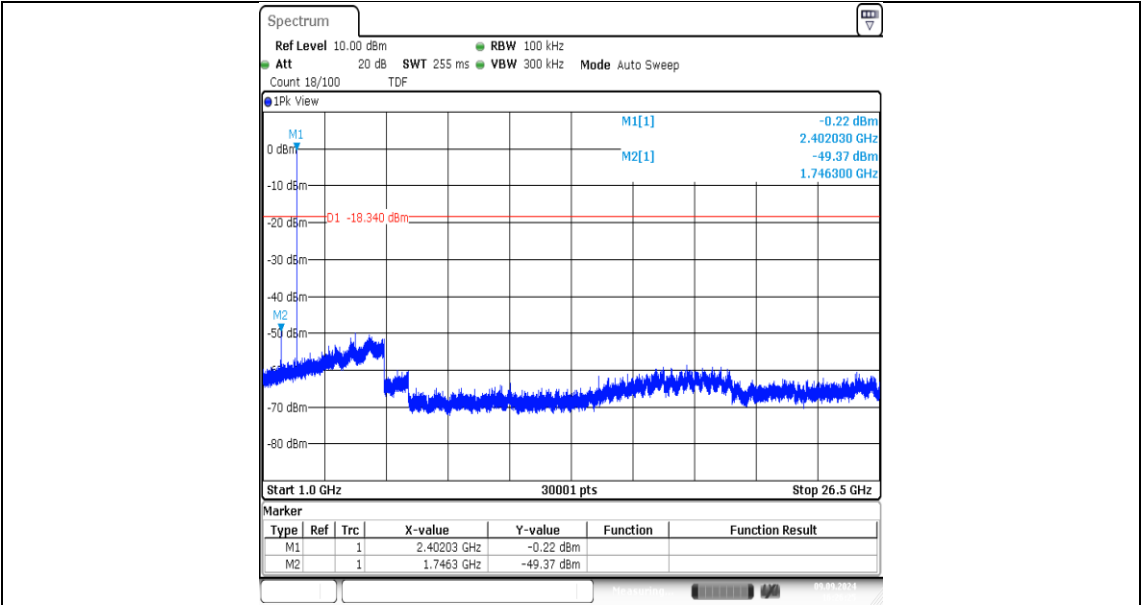
Appendix F: Conducted Spurious Emission

Test Result

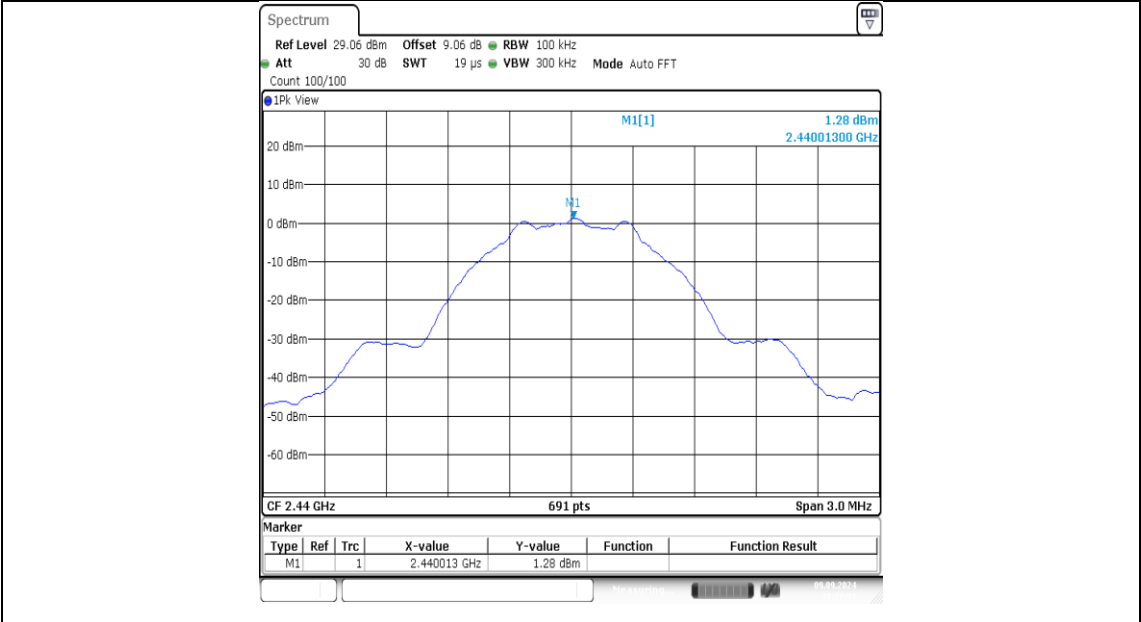
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	1.66	1.66	---	PASS
BLE_1M	Ant1	2402	30~1000	1.66	-57.87	≤-18.34	PASS
BLE_1M	Ant1	2402	1000~26500	1.66	-49.37	≤-18.34	PASS
BLE_1M	Ant1	2440	0~Reference	1.28	1.28	---	PASS
BLE_1M	Ant1	2440	30~1000	1.28	-58.74	≤-18.72	PASS
BLE_1M	Ant1	2440	1000~26500	1.28	-50.32	≤-18.72	PASS
BLE_1M	Ant1	2480	0~Reference	0.59	0.59	---	PASS
BLE_1M	Ant1	2480	30~1000	0.59	-59.16	≤-19.41	PASS
BLE_1M	Ant1	2480	1000~26500	0.59	-50.88	≤-19.41	PASS
BLE_2M	Ant1	2402	0~Reference	1.73	1.73	---	PASS
BLE_2M	Ant1	2402	30~1000	1.73	-58.97	≤-18.27	PASS
BLE_2M	Ant1	2402	1000~26500	1.73	-51.01	≤-18.27	PASS
BLE_2M	Ant1	2440	0~Reference	1.33	1.33	---	PASS
BLE_2M	Ant1	2440	30~1000	1.33	-58.57	≤-18.67	PASS
BLE_2M	Ant1	2440	1000~26500	1.33	-49.98	≤-18.67	PASS
BLE_2M	Ant1	2480	0~Reference	0.63	0.63	---	PASS
BLE_2M	Ant1	2480	30~1000	0.63	-58.74	≤-19.37	PASS
BLE_2M	Ant1	2480	1000~26500	0.63	-41.68	≤-19.37	PASS

Test Graphs

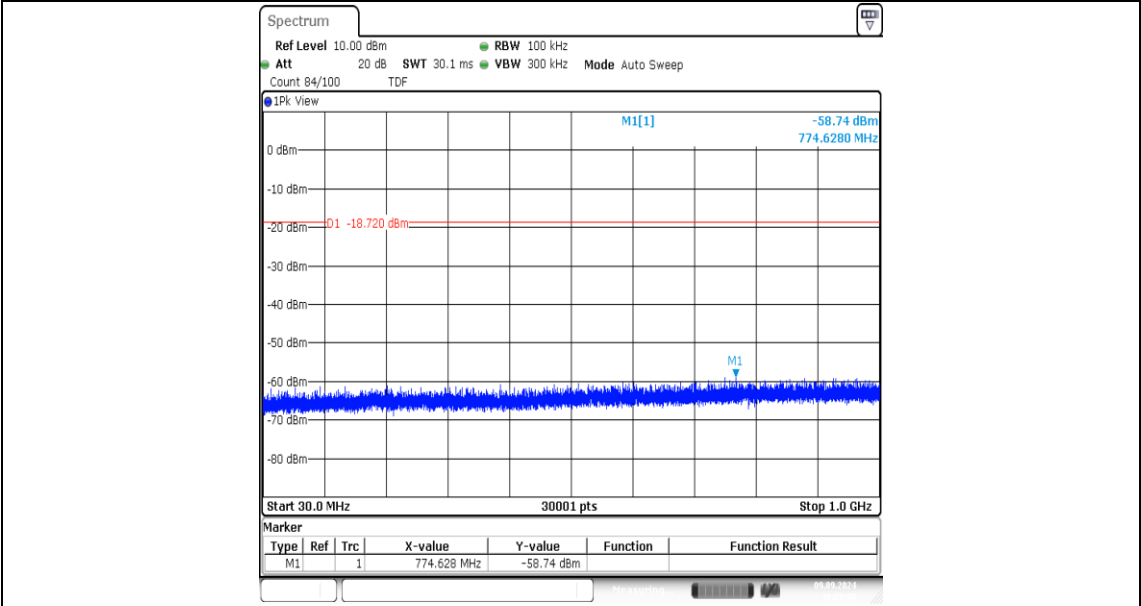




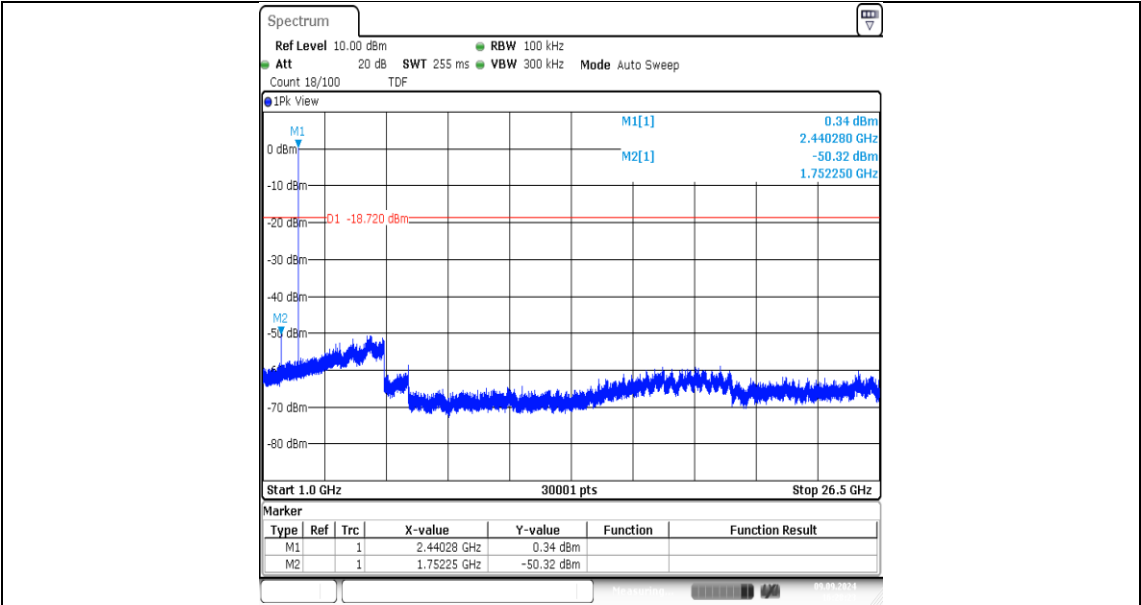
BLE_1M-Ant1-2402-1000~26500-PASS



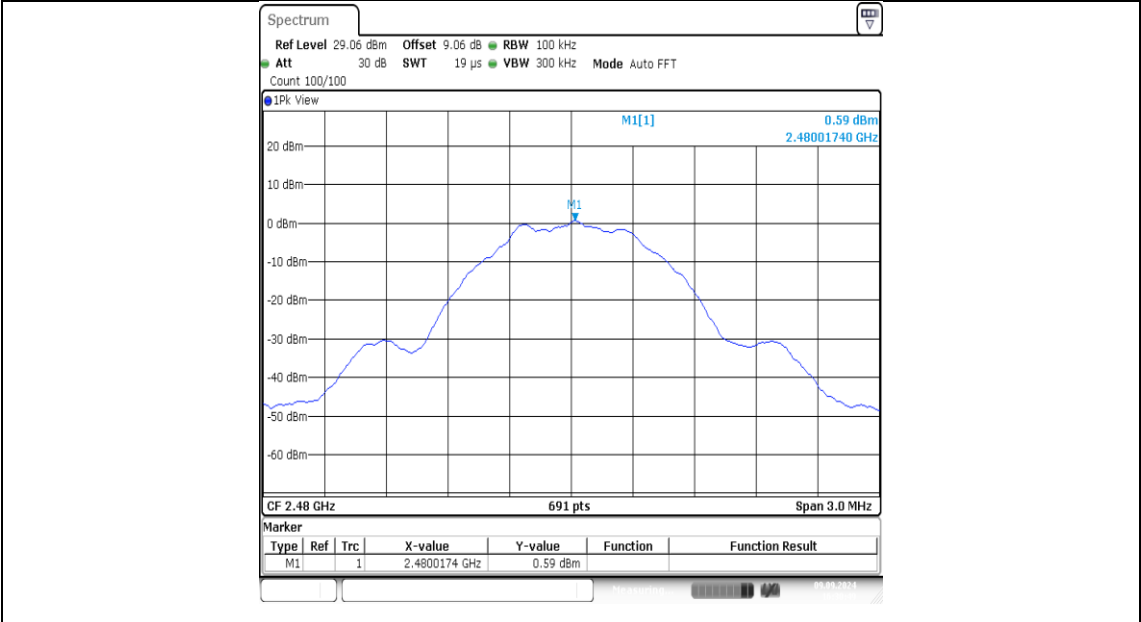
BLE_1M-Ant1-2440-0~Reference-PASS



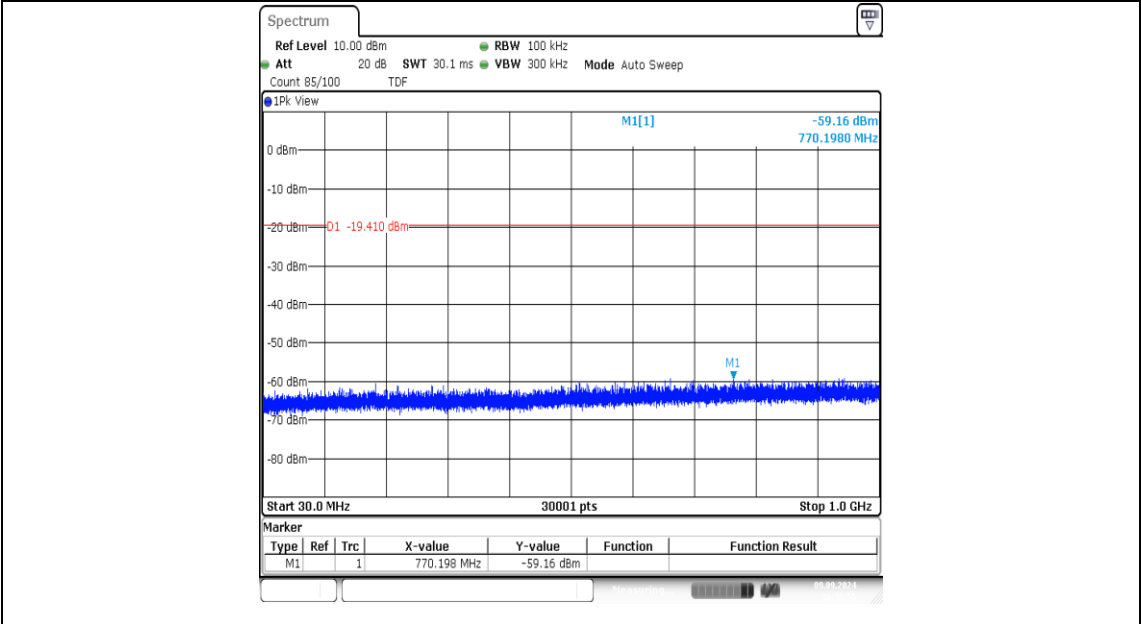
BLE_1M-Ant1-2440-30~1000-PASS



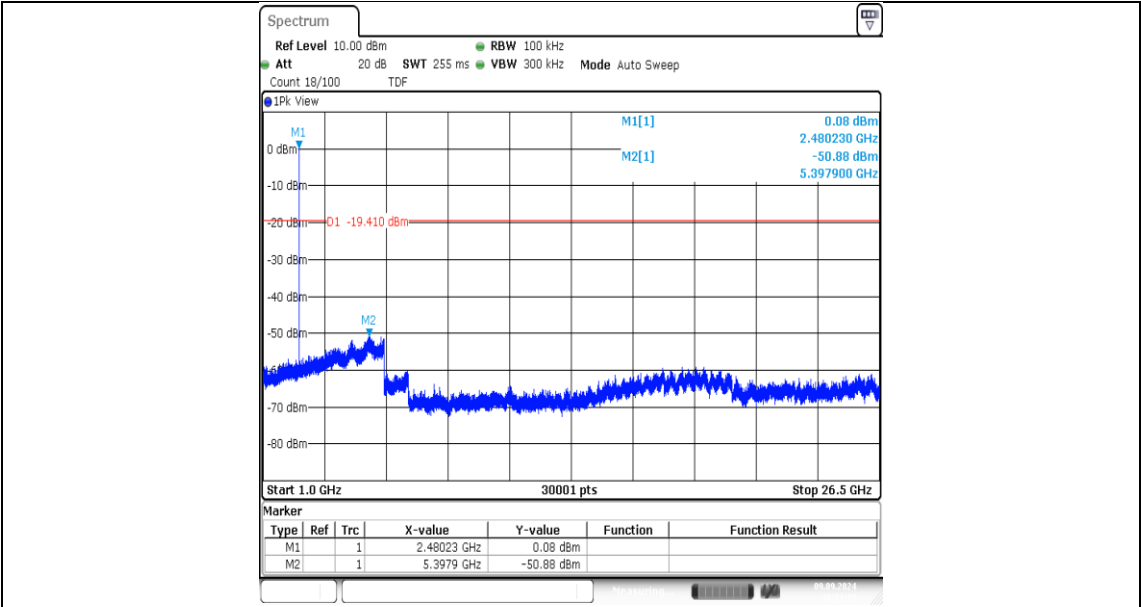
BLE_1M-Ant1-2440-1000~26500-PASS



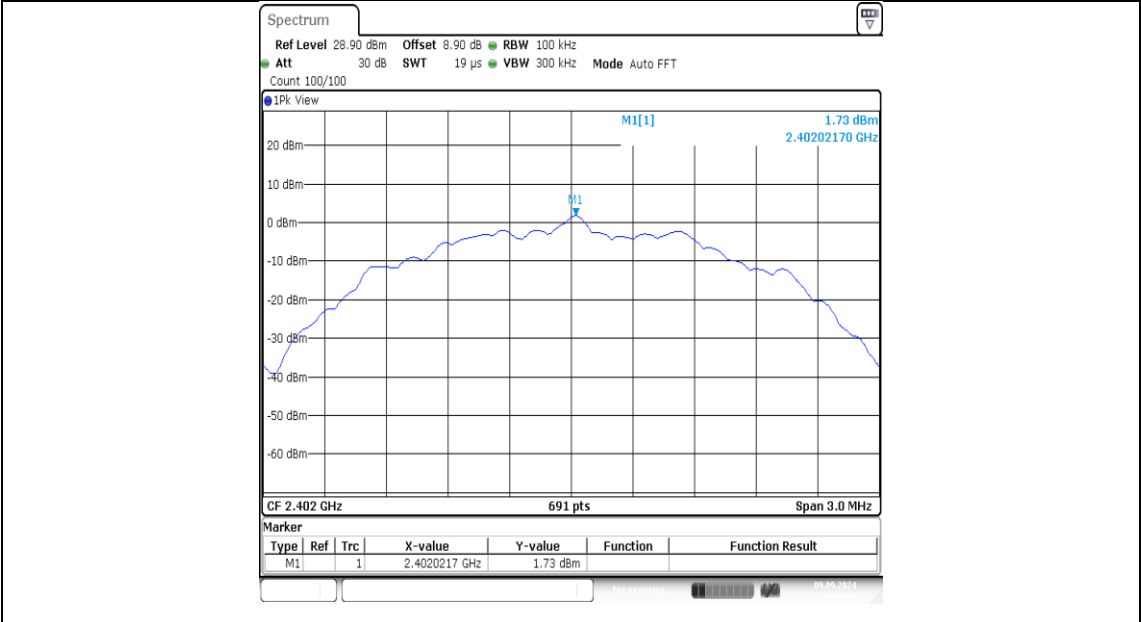
BLE_1M-Ant1-2480-0~Reference-PASS



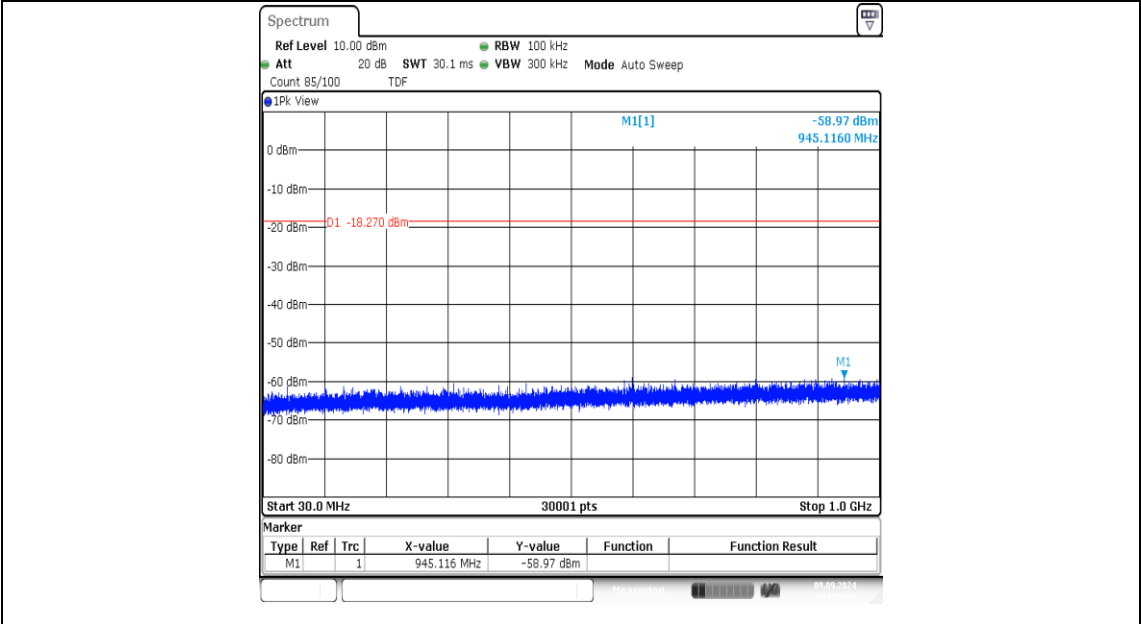
BLE_1M-Ant1-2480-30~1000-PASS



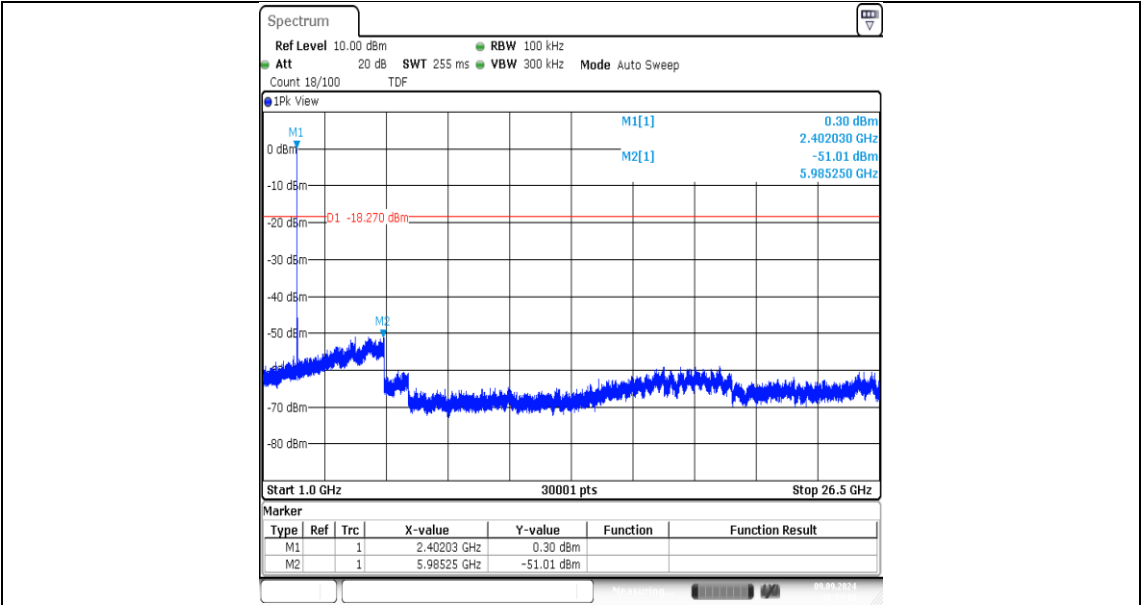
BLE_1M-Ant1-2480-1000~26500-PASS



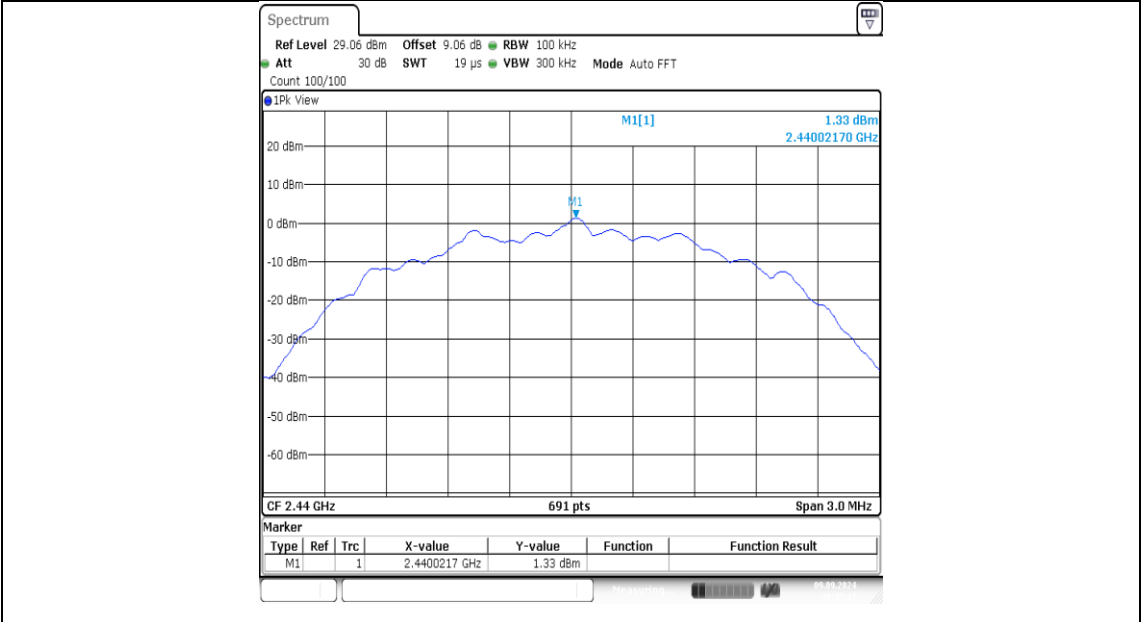
BLE_2M-Ant1-2402-0~Reference-PASS



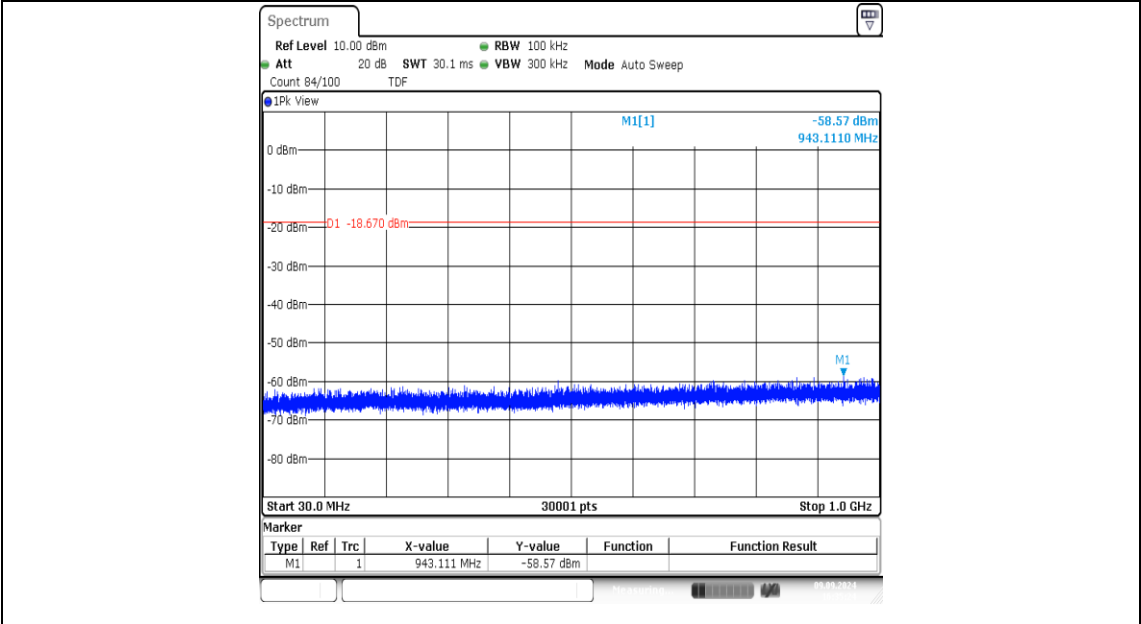
BLE_2M-Ant1-2402-30~1000-PASS



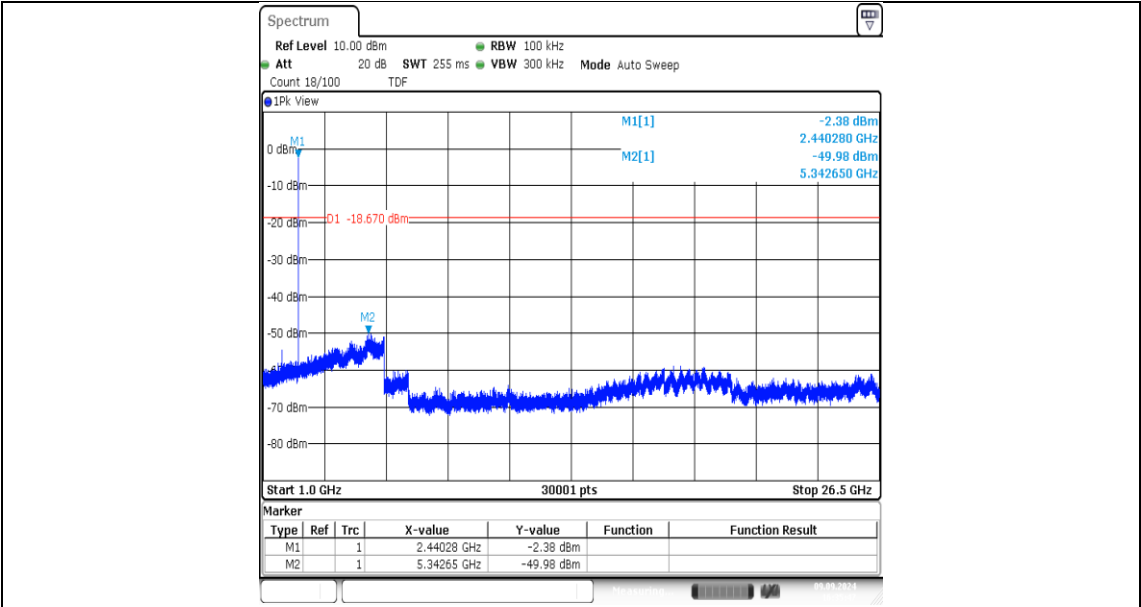
BLE_2M-Ant1-2402-1000~26500-PASS



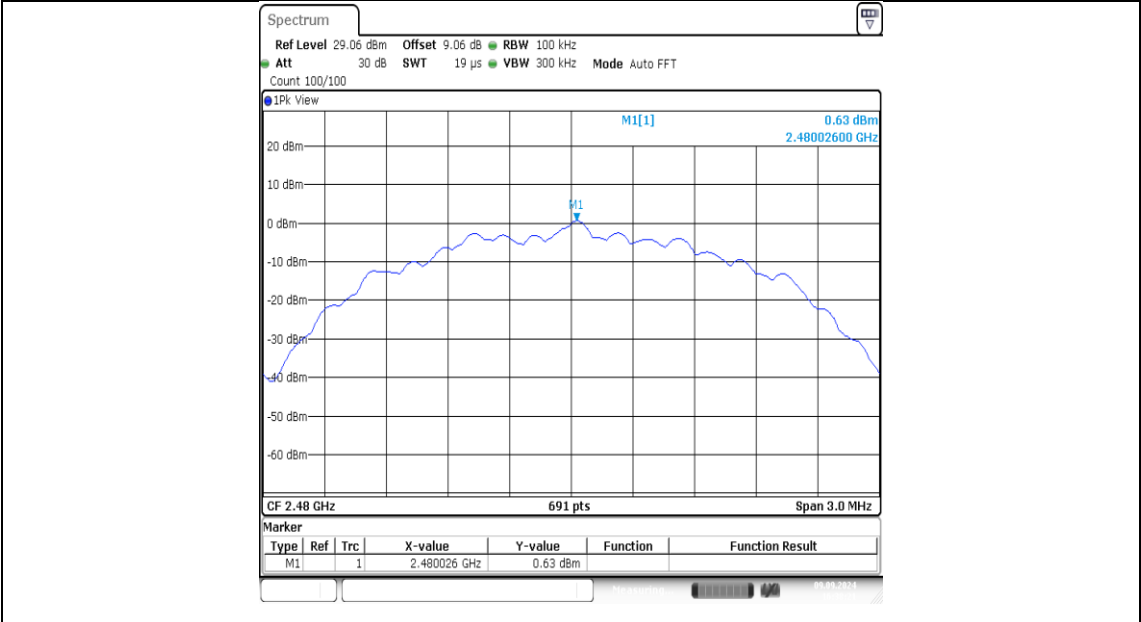
BLE_2M-Ant1-2440-0~Reference-PASS



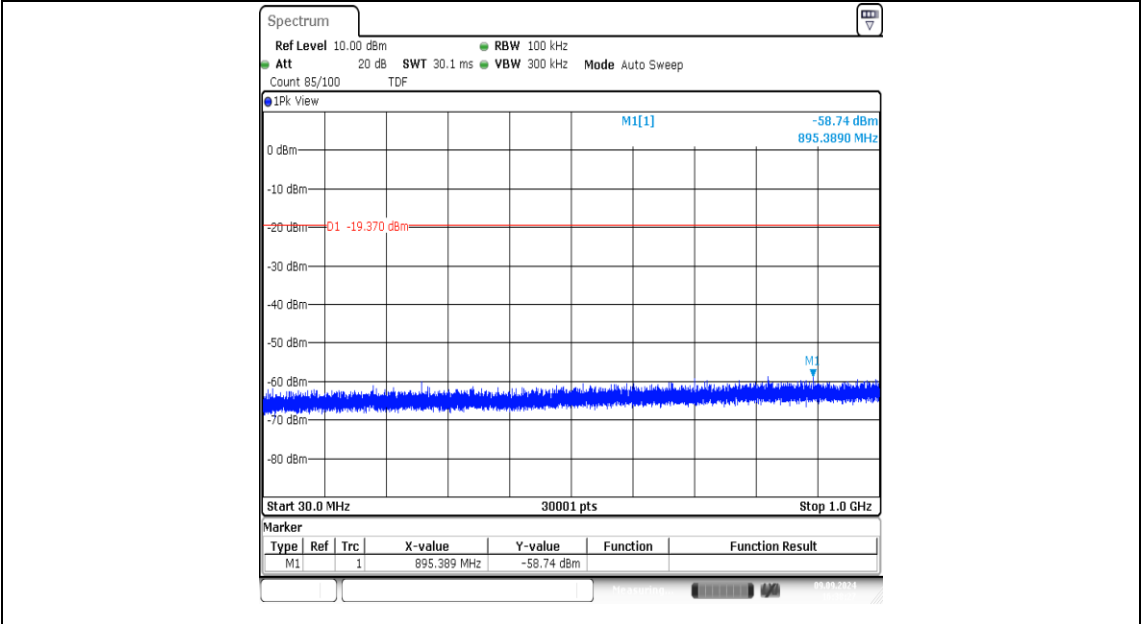
BLE_2M-Ant1-2440-30~1000-PASS



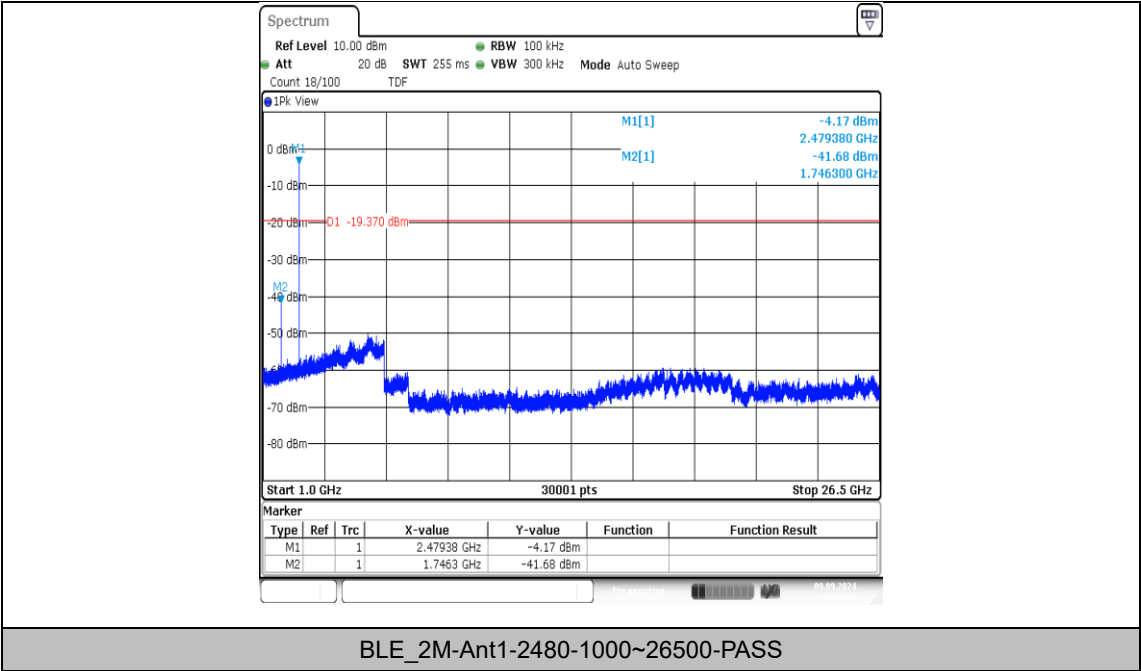
BLE_2M-Ant1-2440-1000~26500-PASS



BLE_2M-Ant1-2480-0~Reference-PASS



BLE_2M-Ant1-2480-30~1000-PASS

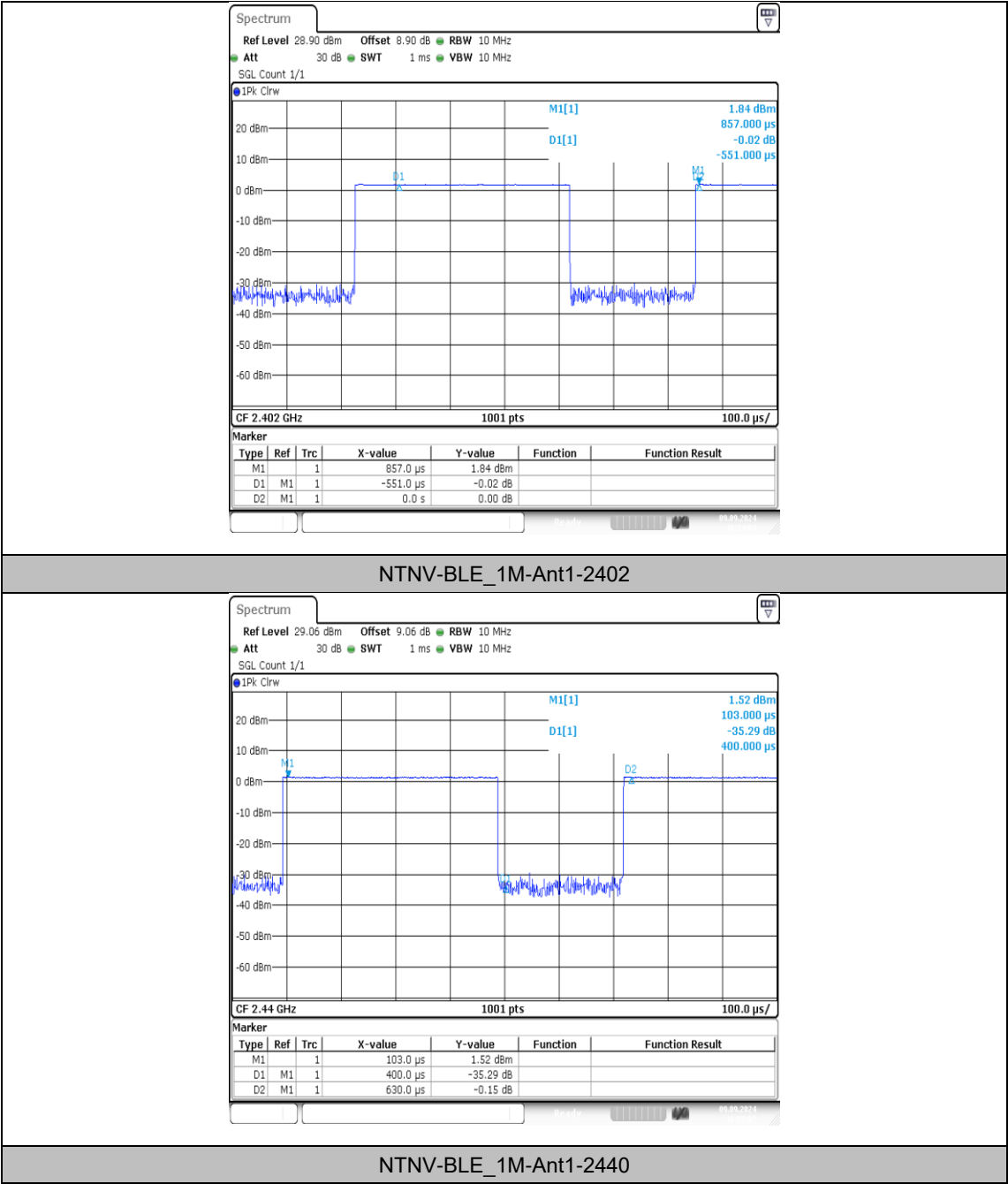


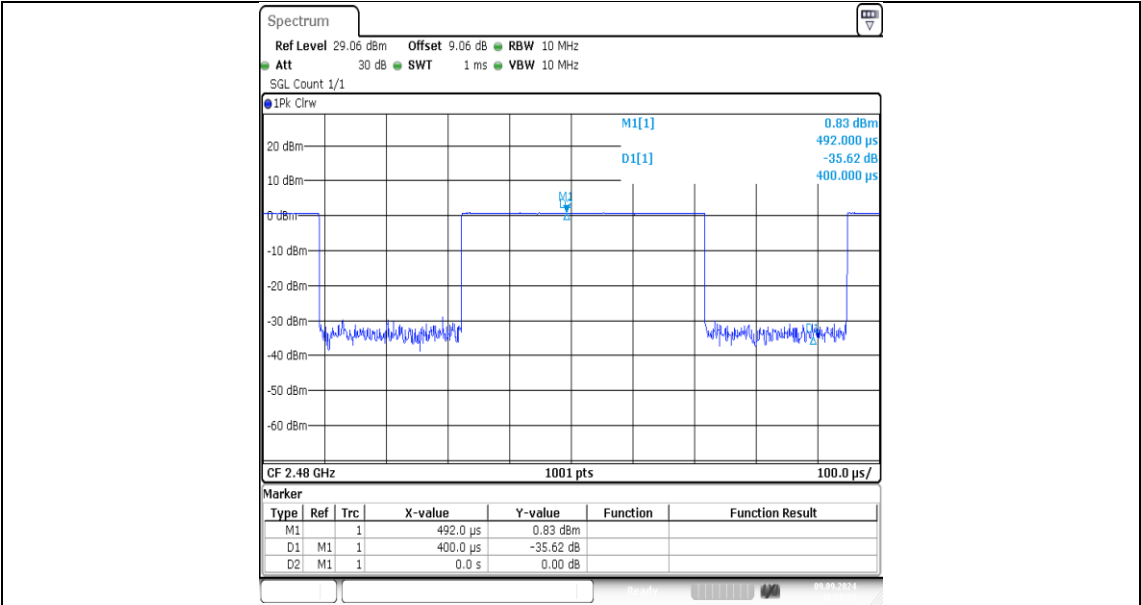
Appendix G: Duty Cycle

Test Result

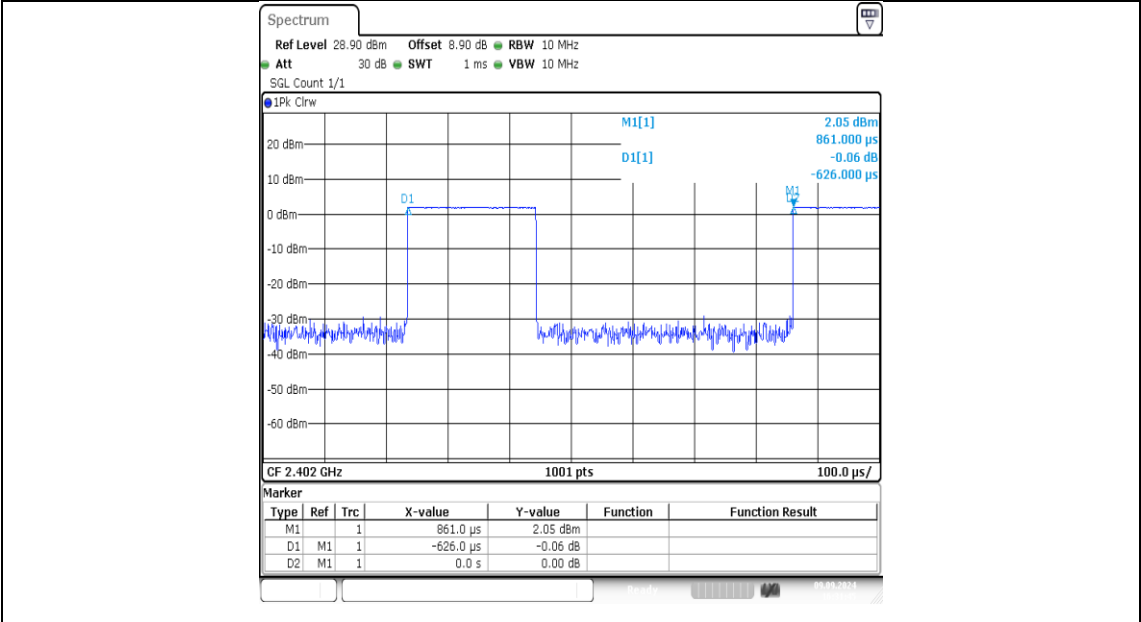
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.40	0.63	63.49	1.97
BLE_1M	Ant1	2440	0.40	0.63	63.49	1.97
BLE_1M	Ant1	2480	0.40	0.63	63.49	1.97
BLE_2M	Ant1	2402	0.21	0.63	33.33	4.77
BLE_2M	Ant1	2440	0.21	0.63	33.33	4.77
BLE_2M	Ant1	2480	0.21	0.63	33.33	4.77

Test Graphs

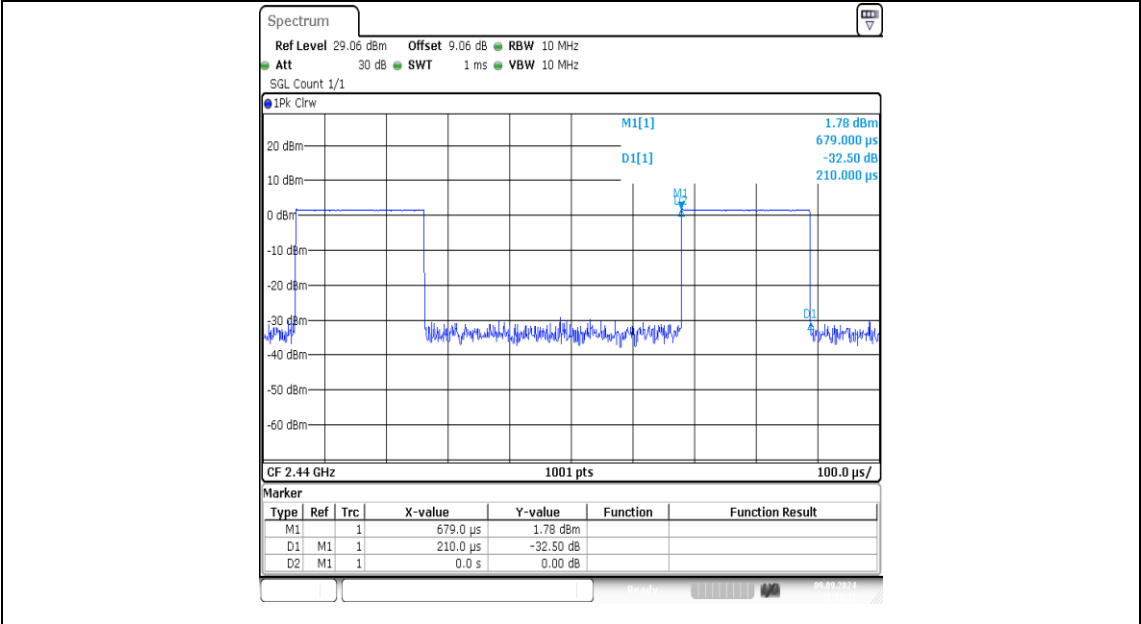




NTNV-BLE_1M-Ant1-2480



NTNV-BLE_2M-Ant1-2402



NTNV-BLE_2M-Ant1-2440

