

Appendix: Bluetooth LE

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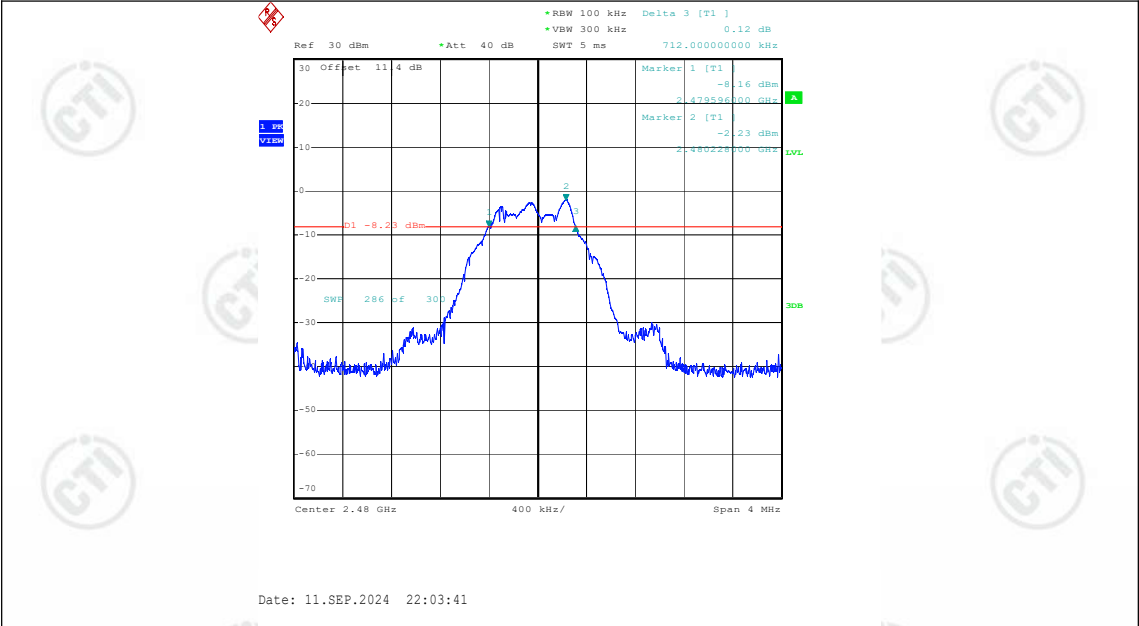
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Appendix A: DTS Bandwidth

Test Result

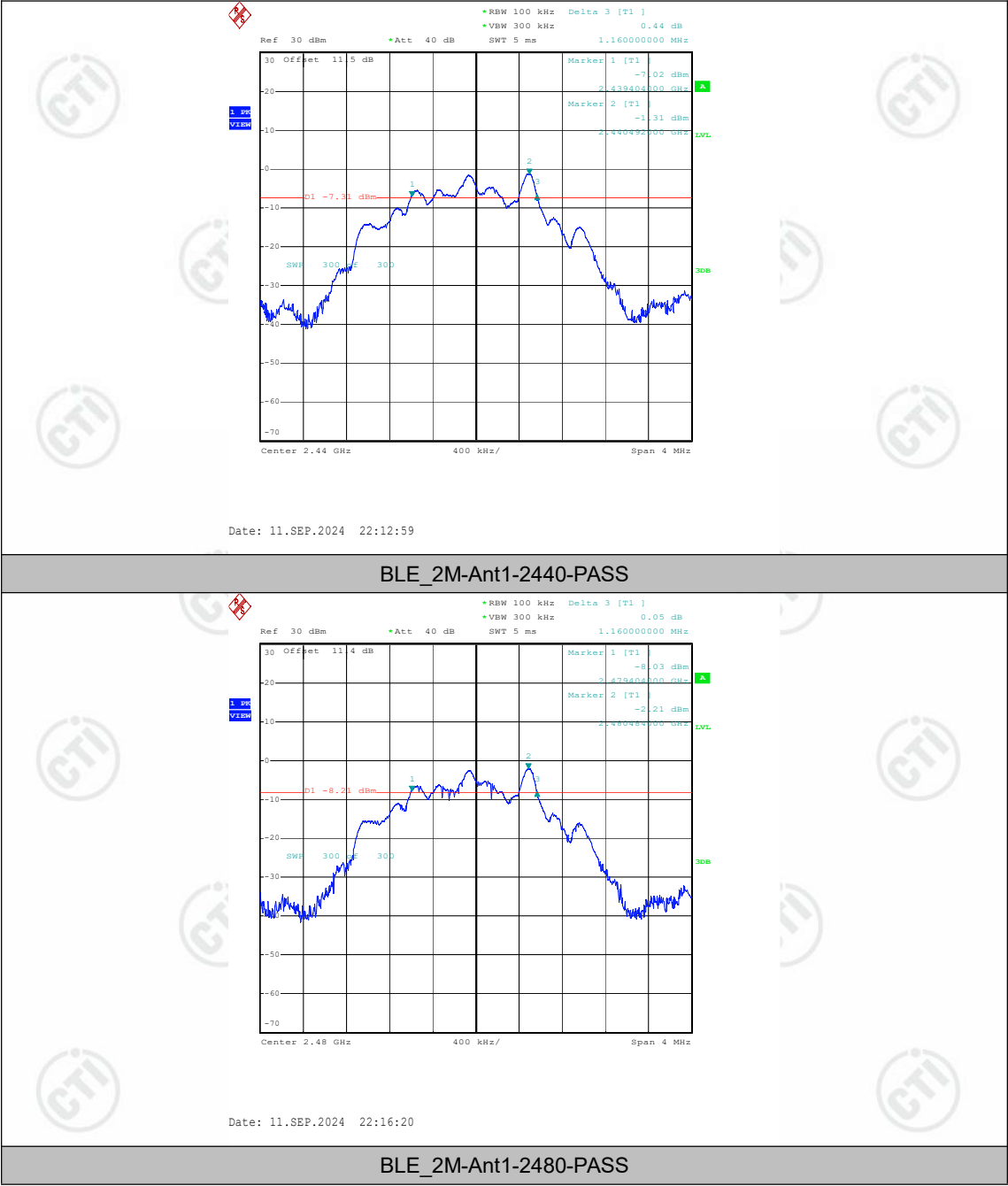
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.70	2401.61	2402.31	0.5	PASS
BLE_1M	Ant1	2440	0.69	2439.61	2440.30	0.5	PASS
BLE_1M	Ant1	2480	0.71	2479.60	2480.31	0.5	PASS
BLE_2M	Ant1	2402	1.16	2401.40	2402.57	0.5	PASS
BLE_2M	Ant1	2440	1.16	2439.40	2440.56	0.5	PASS
BLE_2M	Ant1	2480	1.16	2479.40	2480.56	0.5	PASS



BLE_1M-Ant1-2480-PASS

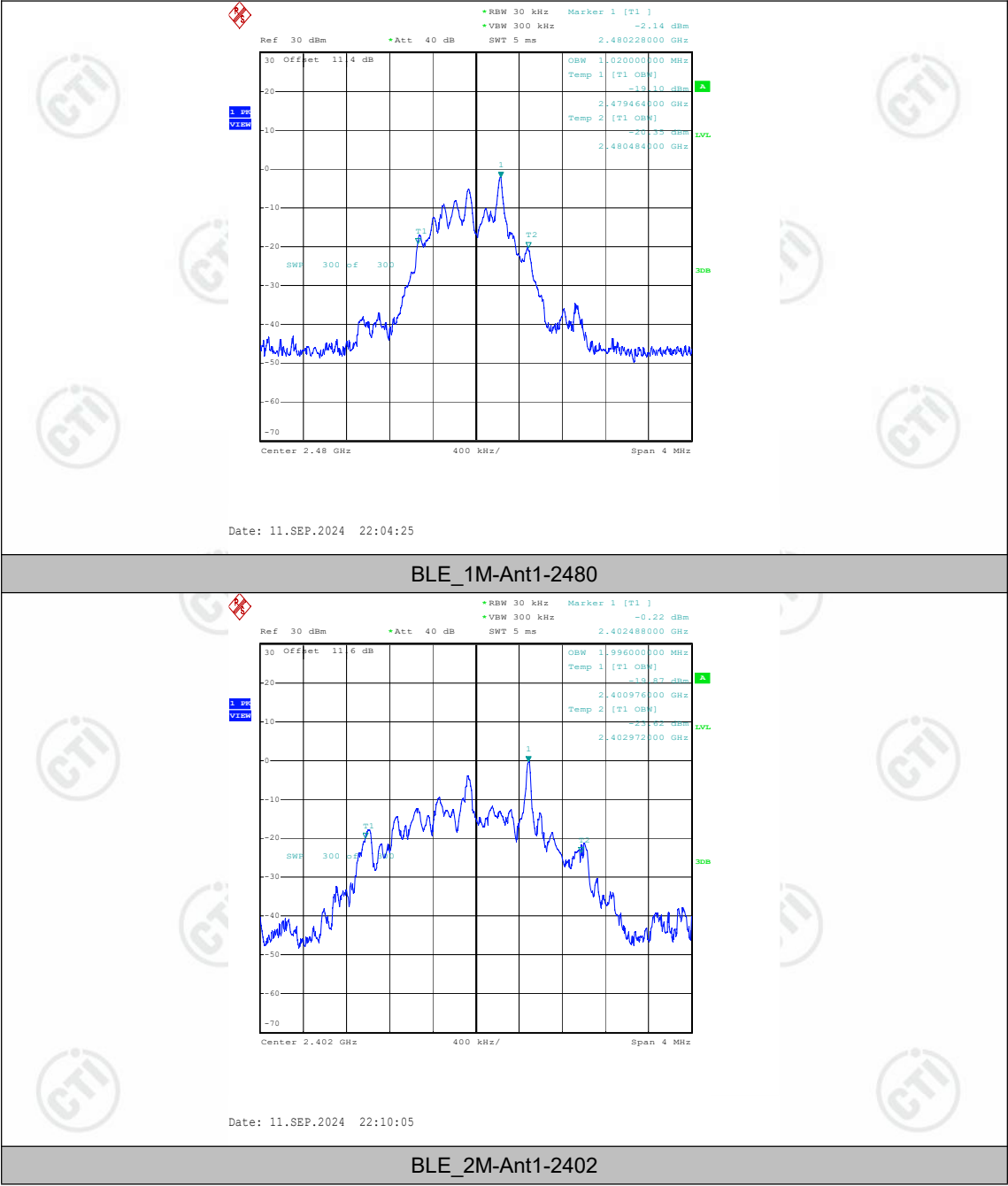


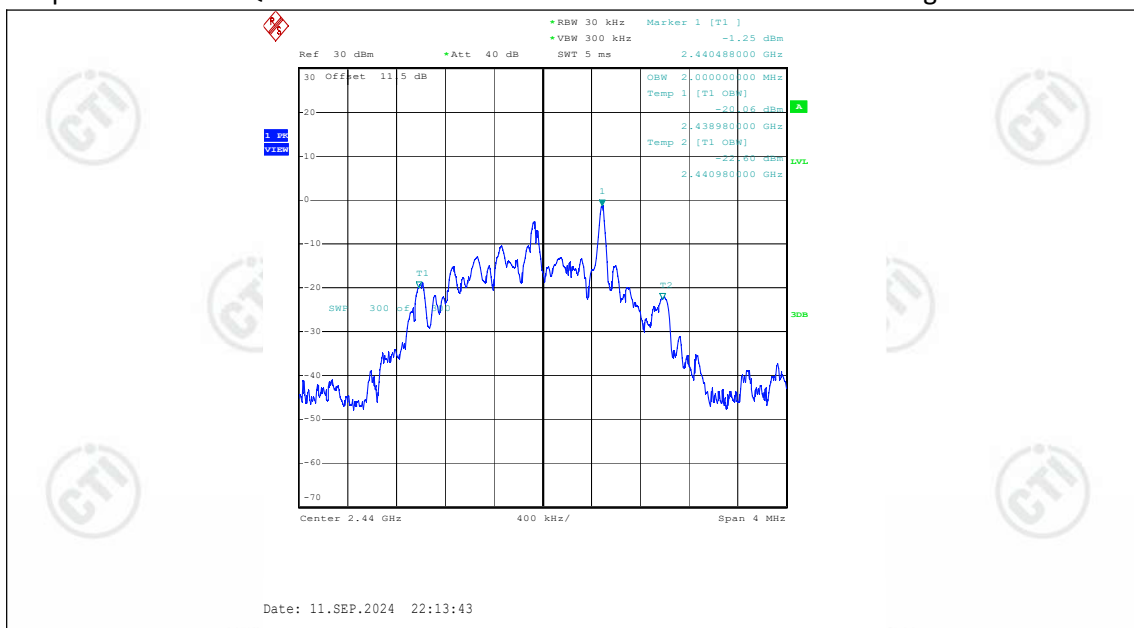
BLE_2M-Ant1-2402-PASS



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	2401.472	2402.472	---	---
BLE_1M	Ant1	2440	1.016	2439.464	2440.480	---	---
BLE_1M	Ant1	2480	1.02	2479.464	2480.484	---	---
BLE_2M	Ant1	2402	1.996	2400.976	2402.972	---	---
BLE_2M	Ant1	2440	2	2438.980	2440.980	---	---
BLE_2M	Ant1	2480	1.996	2478.980	2480.976	---	---





BLE 2M-Ant1-2440

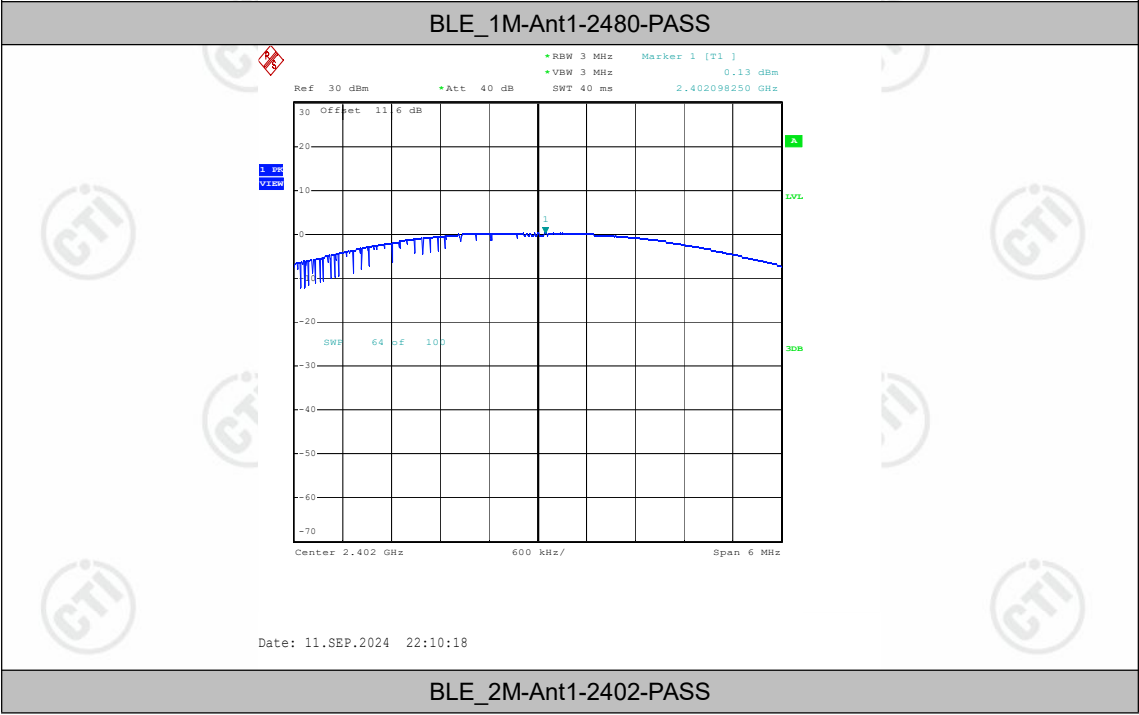
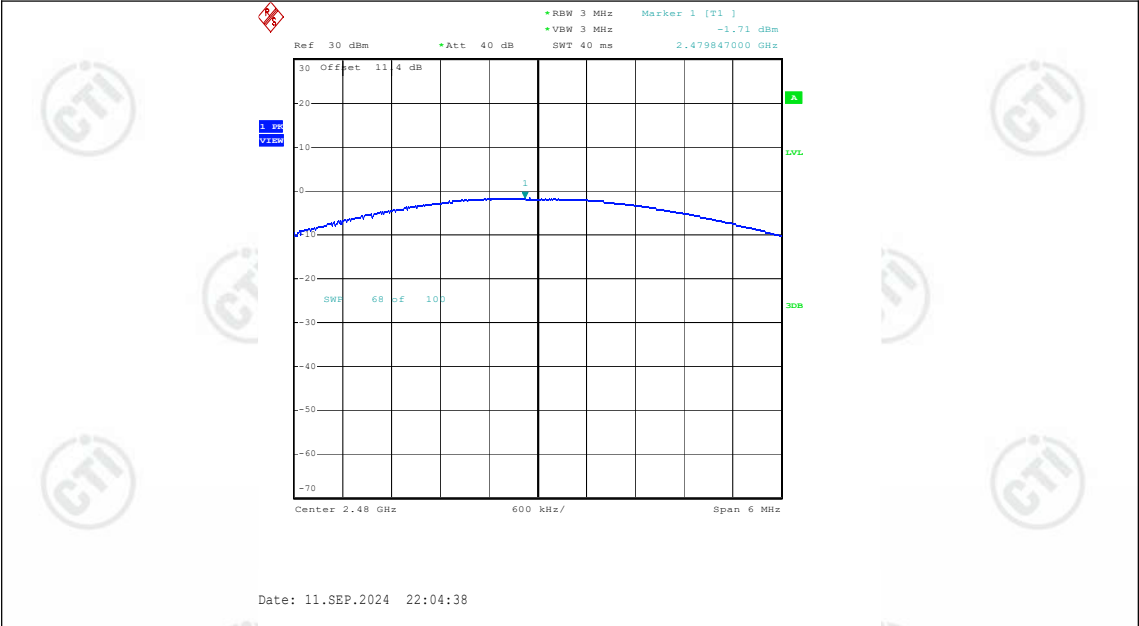


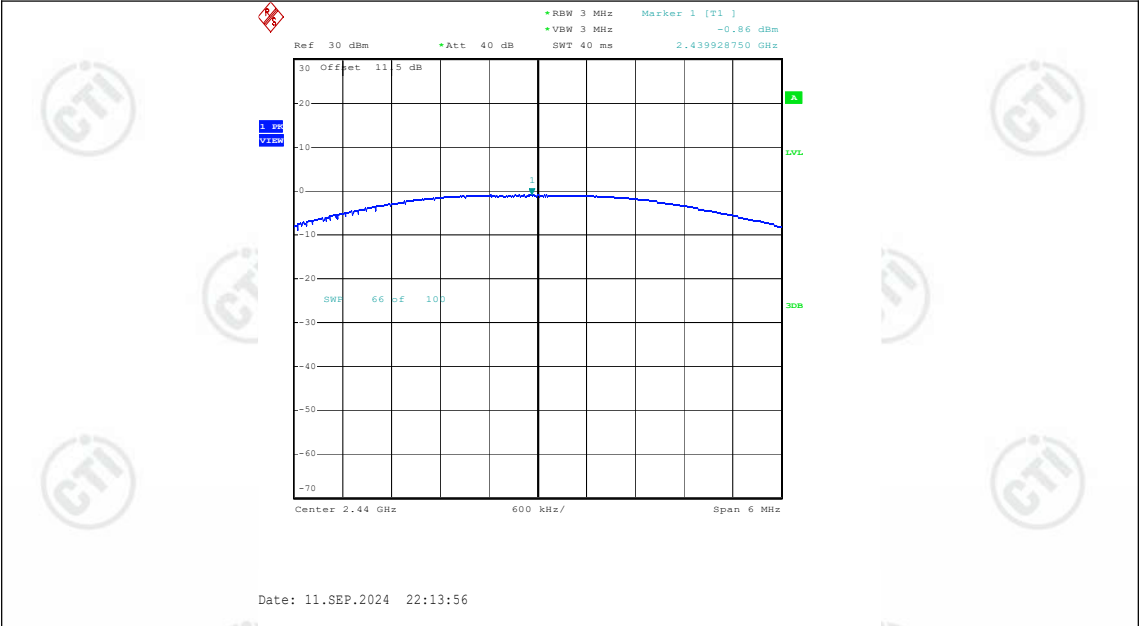
BLE 2M-Ant1-2480

Appendix C: Maximum conducted output power

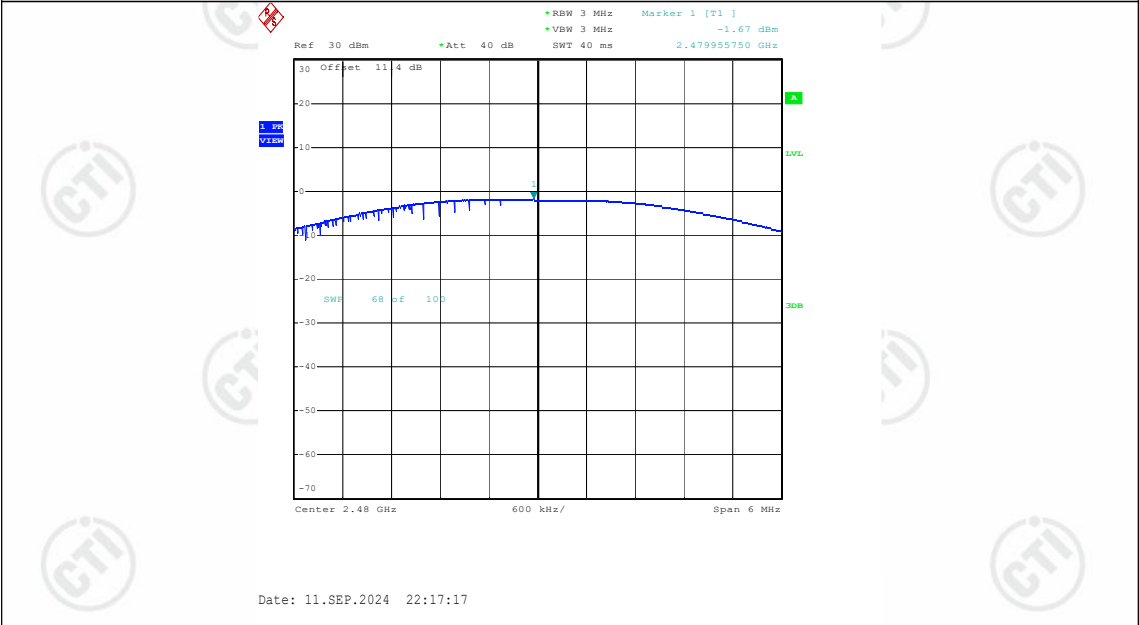
Test Result

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.19	≤30	PASS
BLE_1M	Ant1	2440	-0.89	≤30	PASS
BLE_1M	Ant1	2480	-1.71	≤30	PASS
BLE_2M	Ant1	2402	0.13	≤30	PASS
BLE_2M	Ant1	2440	-0.86	≤30	PASS
BLE_2M	Ant1	2480	-1.67	≤30	PASS





BLE_2M-Ant1-2440-PASS

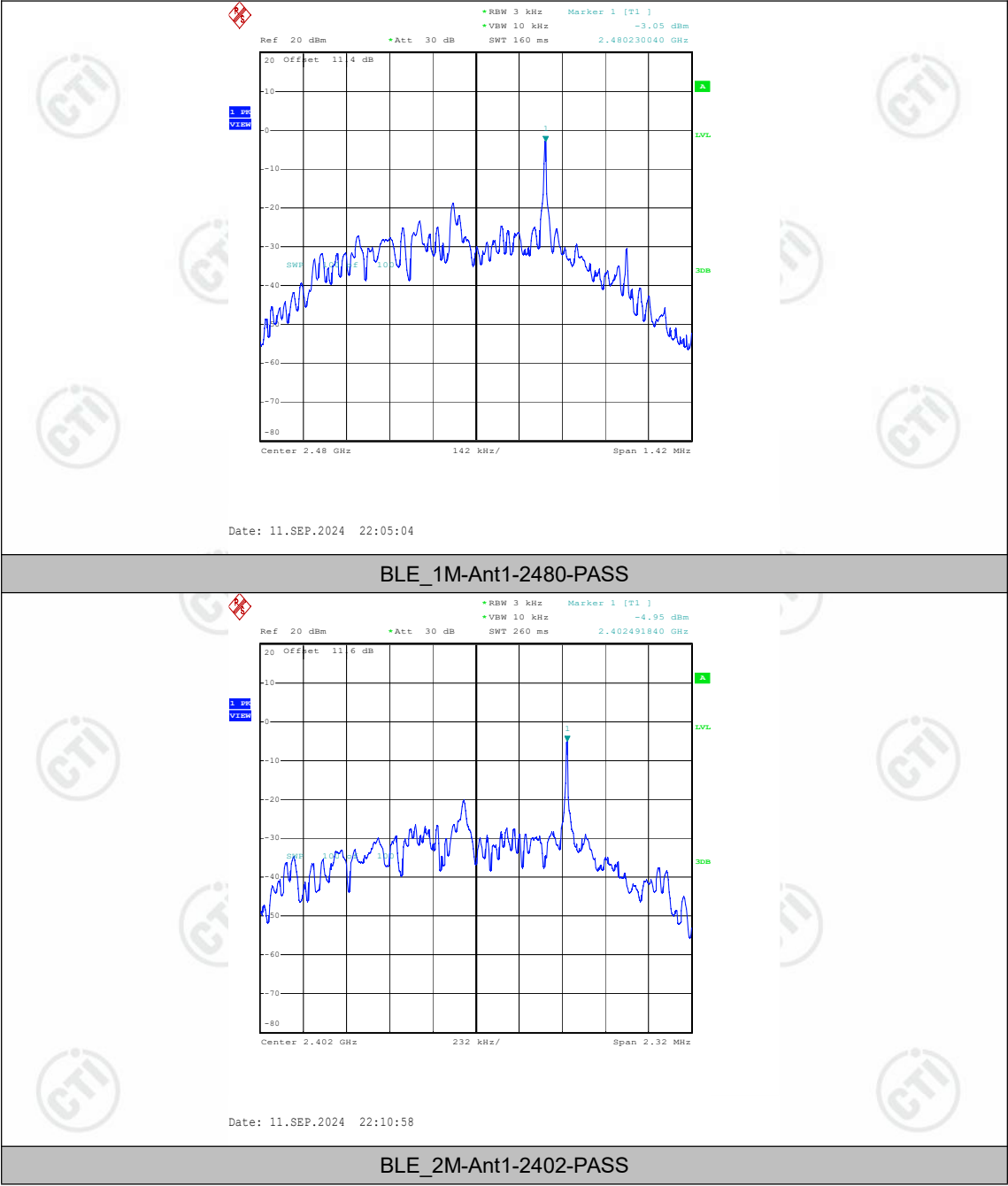


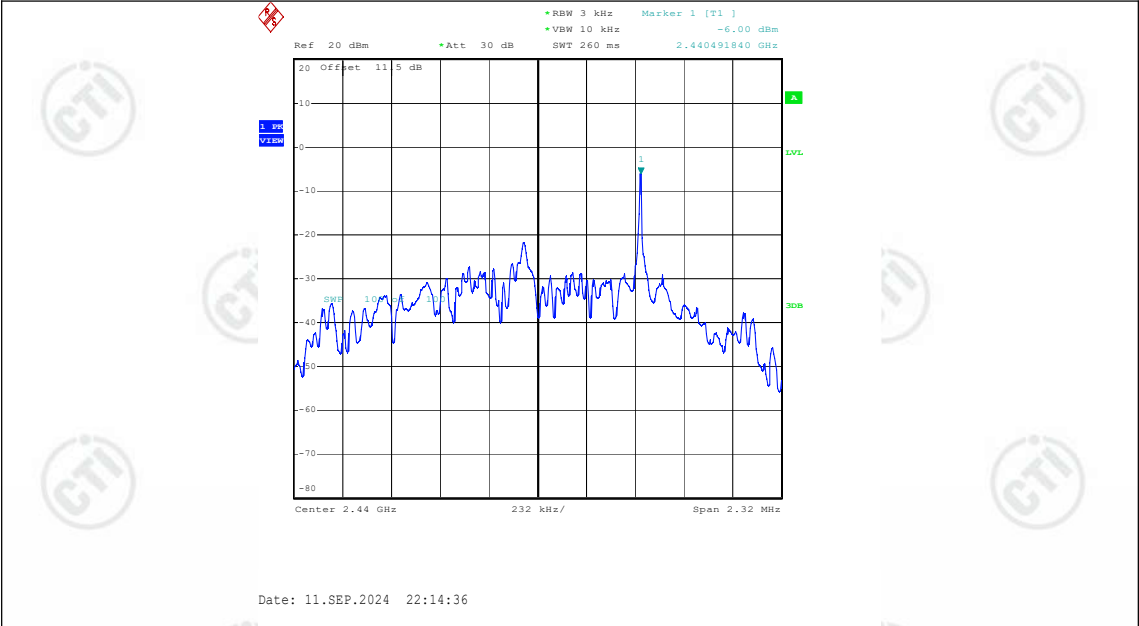
BLE_2M-Ant1-2480-PASS

Appendix D: Maximum power spectral density

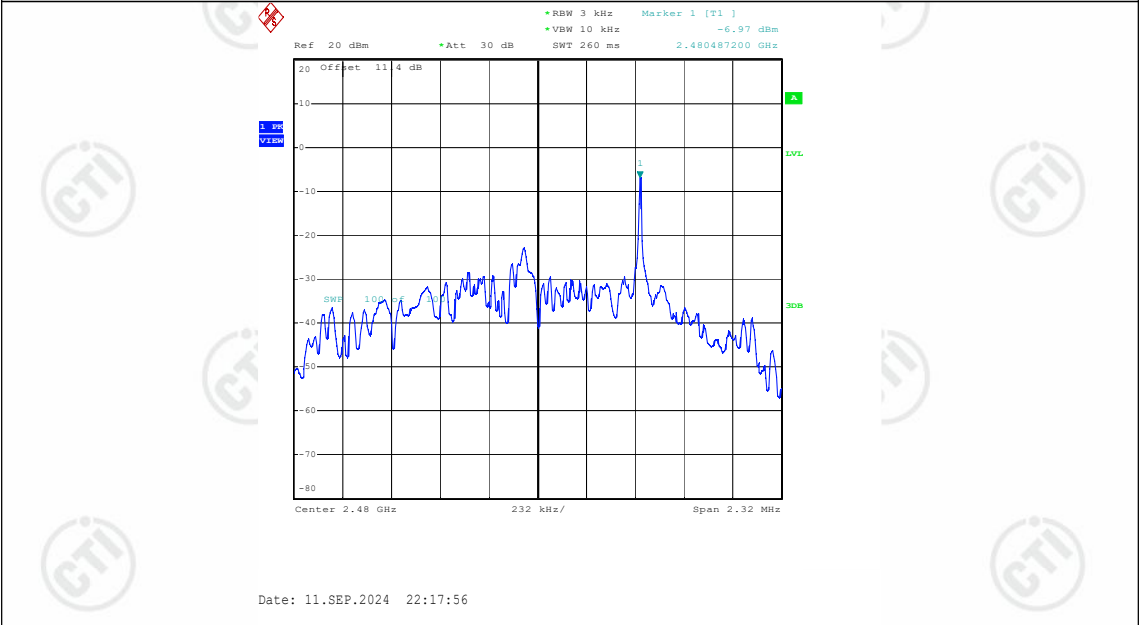
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-1.01	≤8.00	PASS
BLE_1M	Ant1	2440	-2.07	≤8.00	PASS
BLE_1M	Ant1	2480	-3.05	≤8.00	PASS
BLE_2M	Ant1	2402	-4.95	≤8.00	PASS
BLE_2M	Ant1	2440	-6.00	≤8.00	PASS
BLE_2M	Ant1	2480	-6.97	≤8.00	PASS





BLE_2M-Ant1-2440-PASS

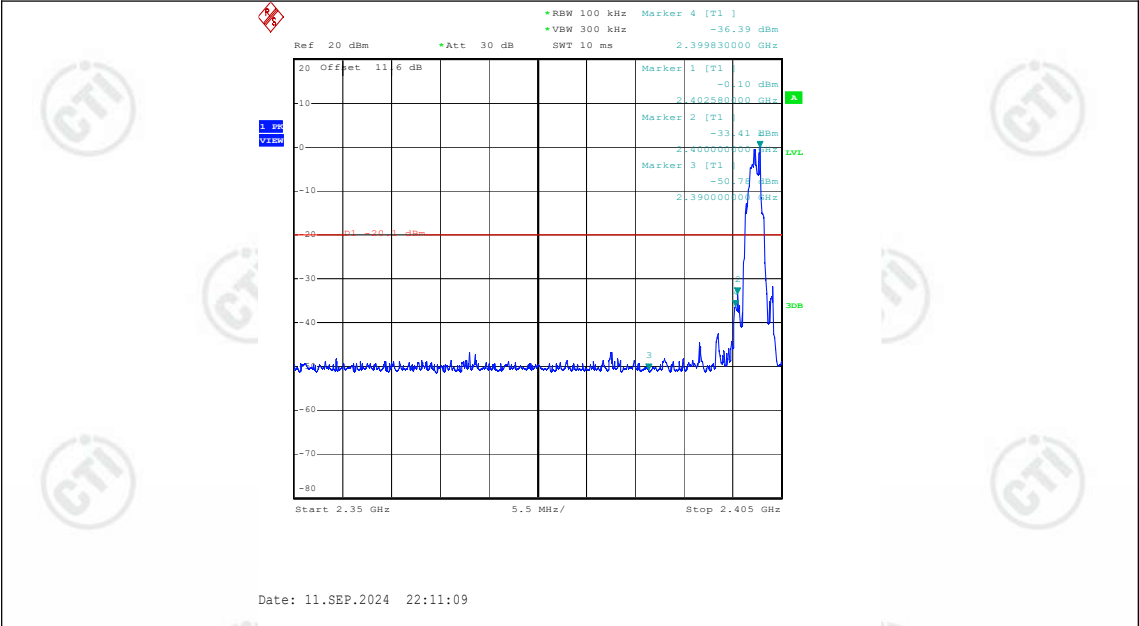


BLE_2M-Ant1-2480-PASS

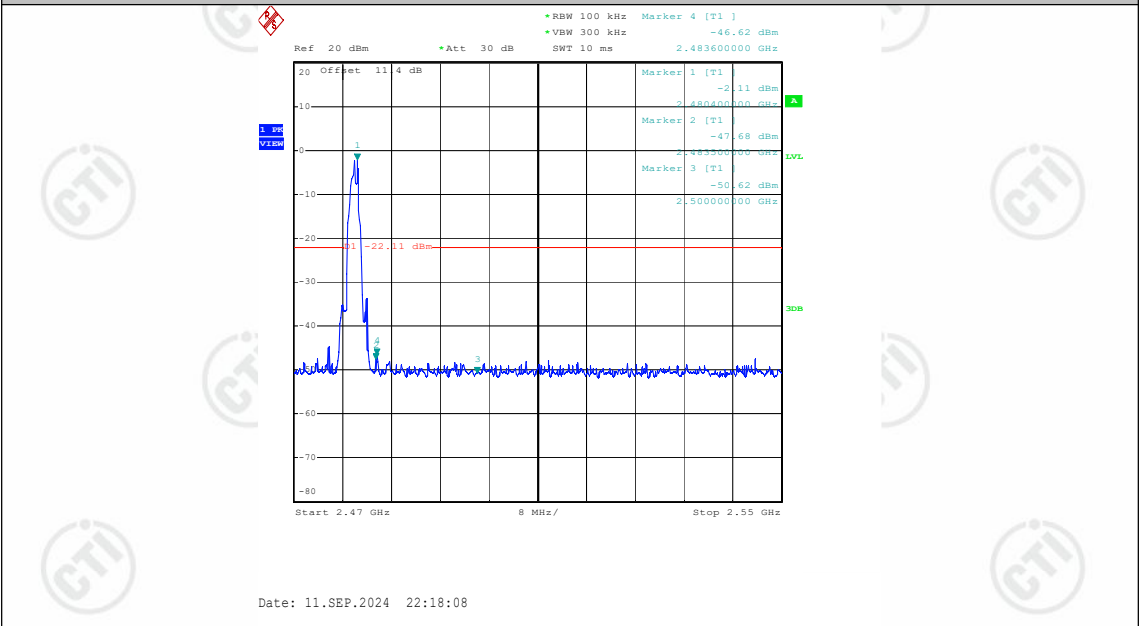
Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.10	-37.34	≤-20.1	PASS
BLE_1M	Ant1	High	2480	-2.09	-45.48	≤-22.09	PASS
BLE_2M	Ant1	Low	2402	-0.10	-36.39	≤-20.1	PASS
BLE_2M	Ant1	High	2480	-2.11	-46.62	≤-22.11	PASS



BLE_2M-Ant1-2402-PASS

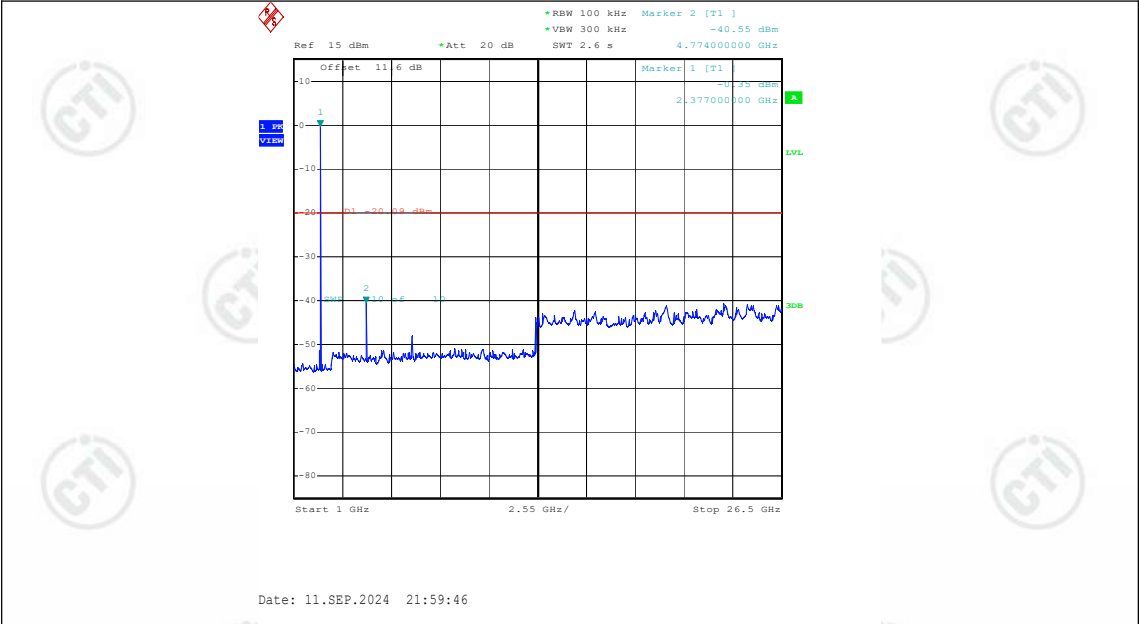


BLE_2M-Ant1-2480-PASS

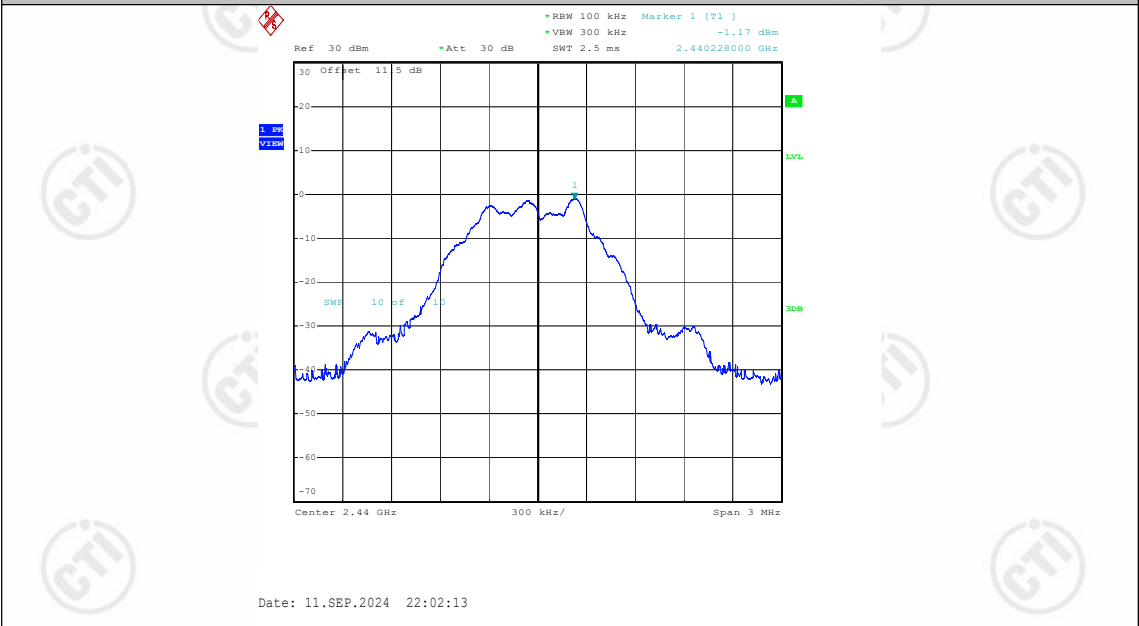
Appendix F: Conducted Spurious Emission

Test Result

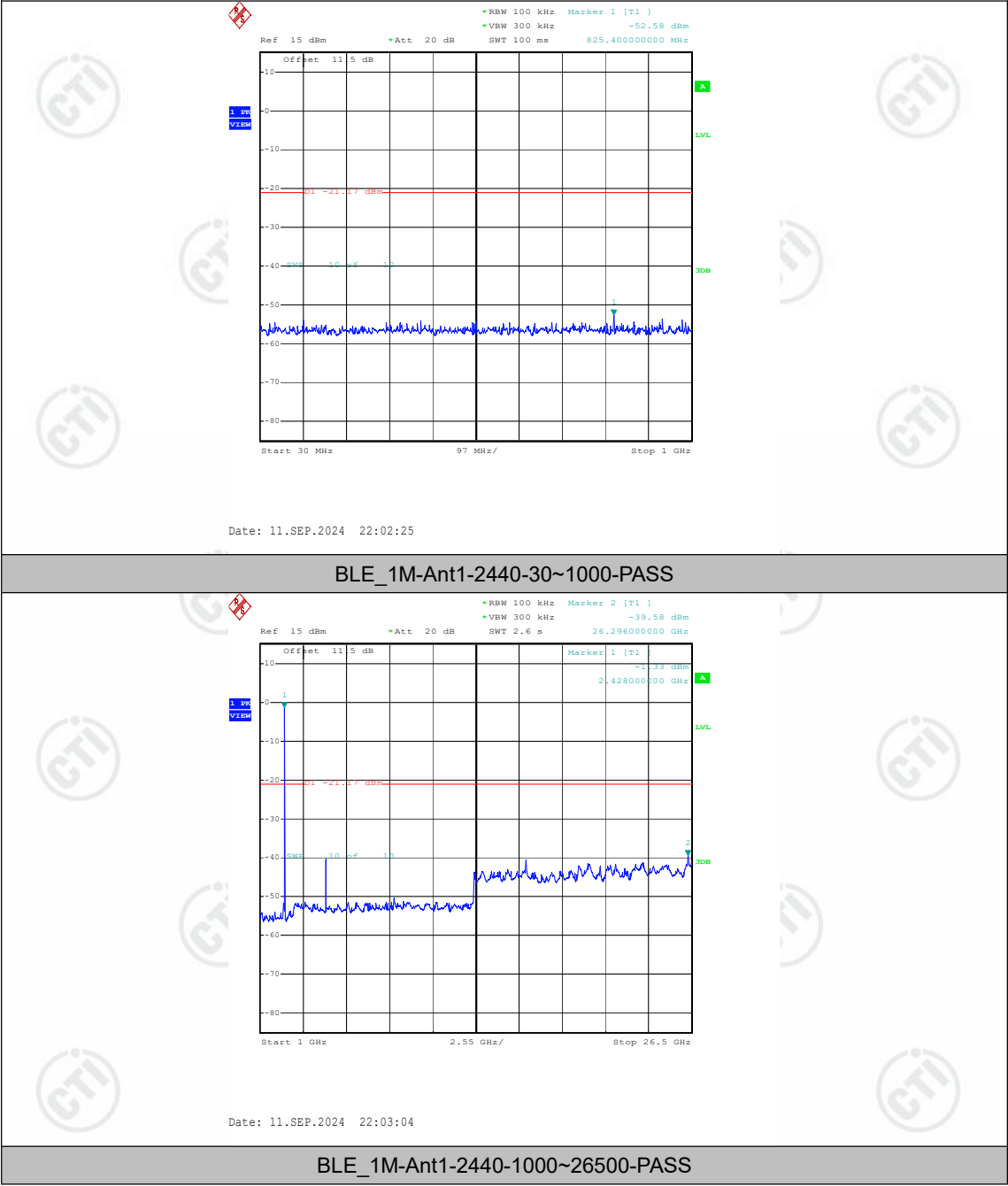
TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-0.09	-0.09	---	PASS
BLE_1M	Ant1	2402	30~1000	-0.09	-53.93	≤-20.09	PASS
BLE_1M	Ant1	2402	1000~26500	-0.09	-40.55	≤-20.09	PASS
BLE_1M	Ant1	2440	0~Reference	-1.17	-1.17	---	PASS
BLE_1M	Ant1	2440	30~1000	-1.17	-52.58	≤-21.17	PASS
BLE_1M	Ant1	2440	1000~26500	-1.17	-39.58	≤-21.17	PASS
BLE_1M	Ant1	2480	0~Reference	-2.12	-2.12	---	PASS
BLE_1M	Ant1	2480	30~1000	-2.12	-54.14	≤-22.12	PASS
BLE_1M	Ant1	2480	1000~26500	-2.12	-40.38	≤-22.12	PASS
BLE_2M	Ant1	2402	0~Reference	-0.10	-0.10	---	PASS
BLE_2M	Ant1	2402	30~1000	-0.10	-53.63	≤-20.1	PASS
BLE_2M	Ant1	2402	1000~26500	-0.10	-40.67	≤-20.1	PASS
BLE_2M	Ant1	2440	0~Reference	-1.14	-1.14	---	PASS
BLE_2M	Ant1	2440	30~1000	-1.14	-53.31	≤-21.14	PASS
BLE_2M	Ant1	2440	1000~26500	-1.14	-40.77	≤-21.14	PASS
BLE_2M	Ant1	2480	0~Reference	-2.11	-2.11	---	PASS
BLE_2M	Ant1	2480	30~1000	-2.11	-53.04	≤-22.11	PASS
BLE_2M	Ant1	2480	1000~26500	-2.11	-40.88	≤-22.11	PASS

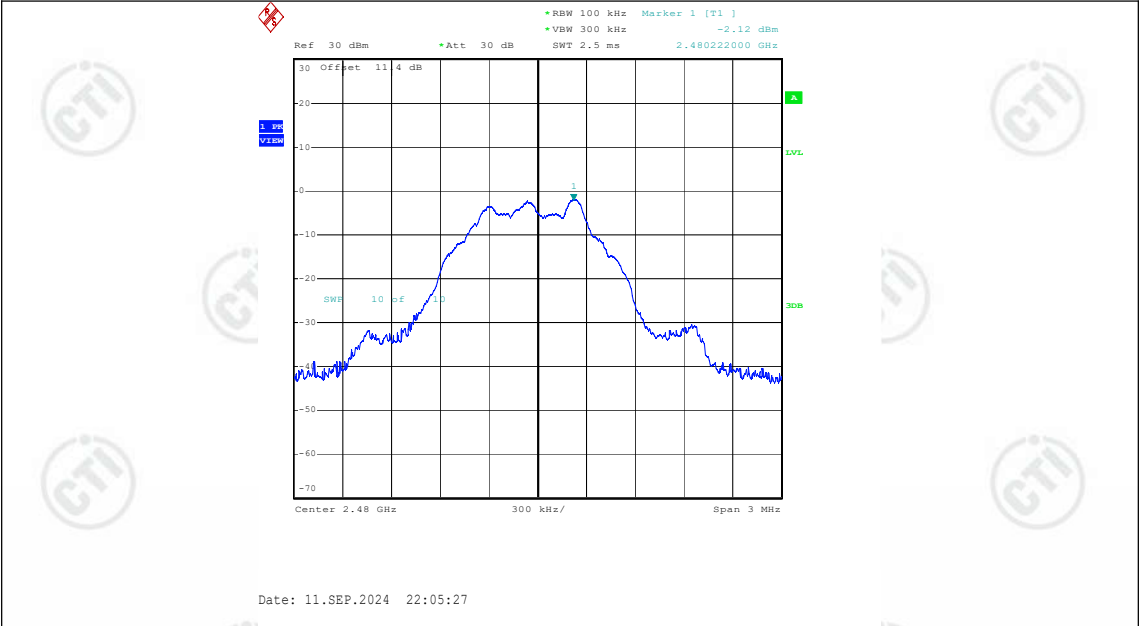


BLE_1M-Ant1-2402-1000~26500-PASS

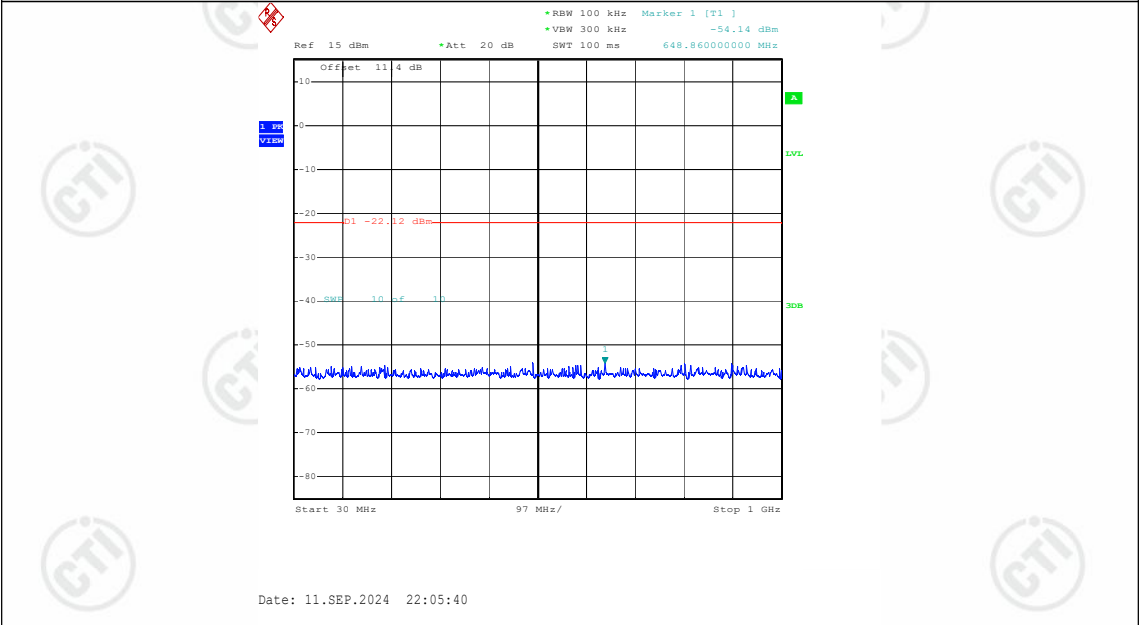


BLE_1M-Ant1-2440-0~Reference-PASS

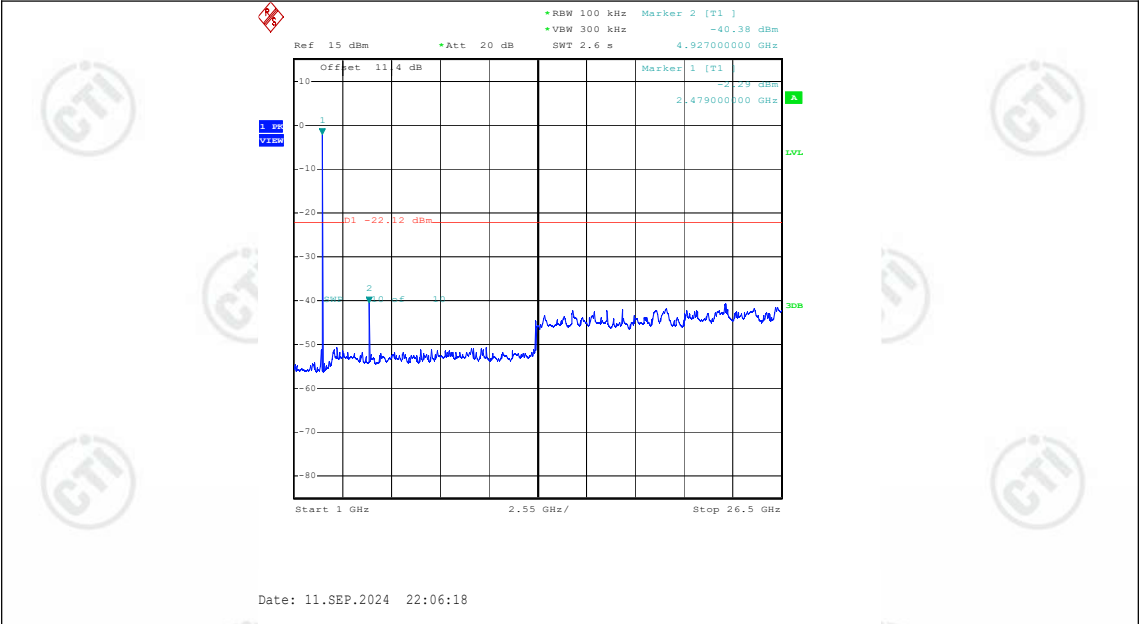




BLE_1M-Ant1-2480-0~Reference-PASS



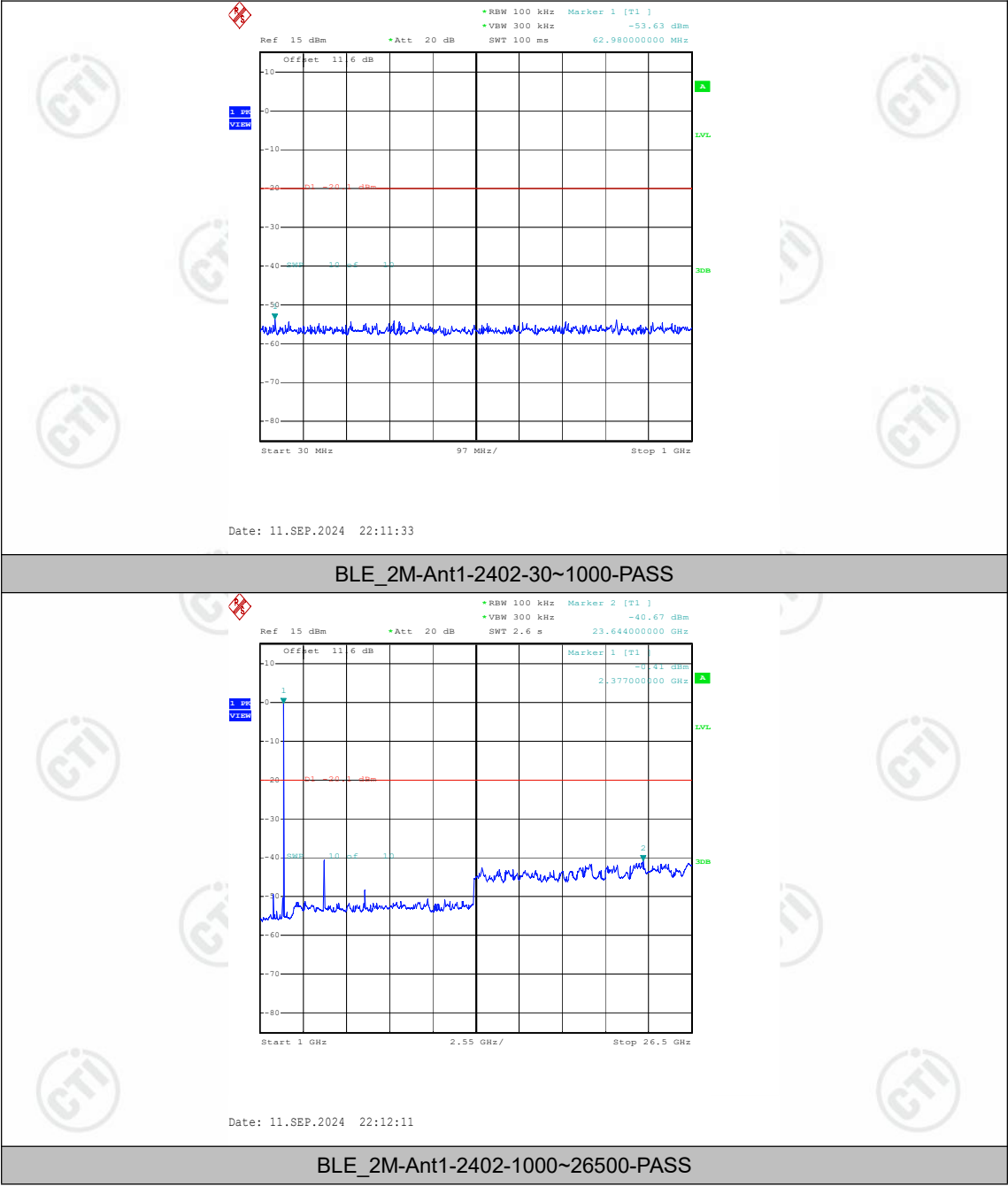
BLE_1M-Ant1-2480-30~1000-PASS



BLE_1M-Ant1-2480-1000~26500-PASS

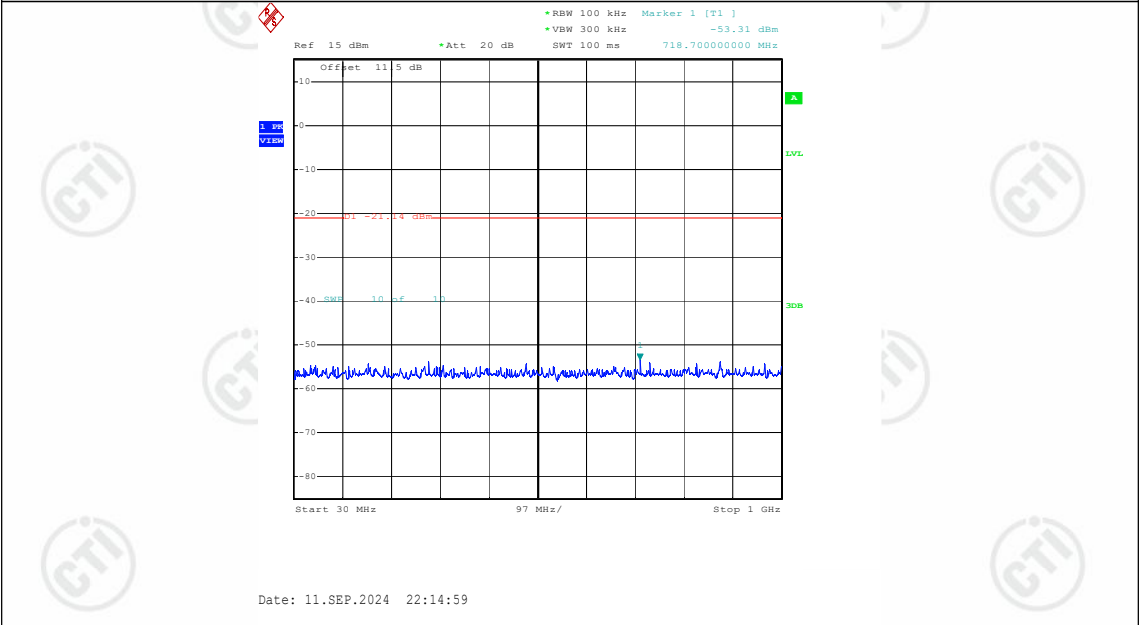


BLE_2M-Ant1-2402-0~Reference-PASS

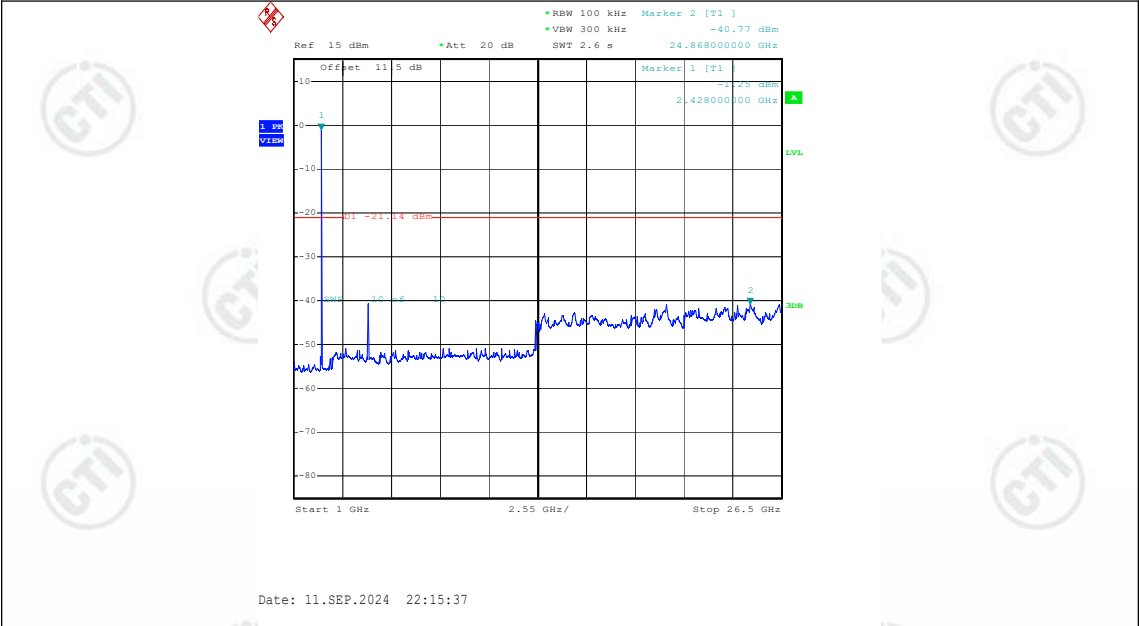




BLE_2M-Ant1-2440-0~Reference-PASS



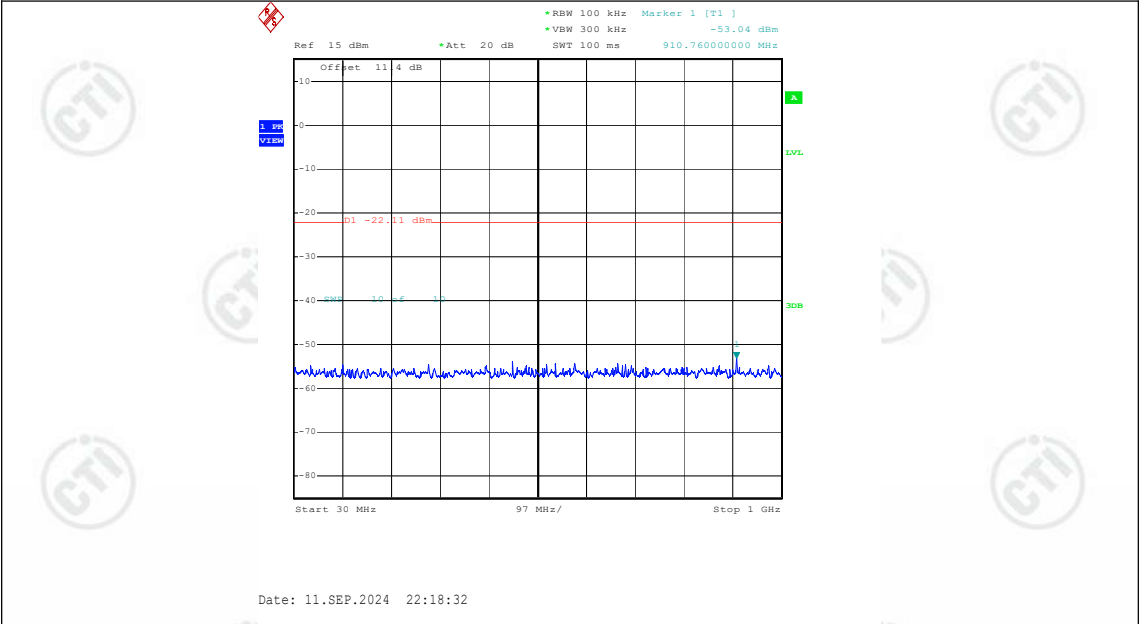
BLE_2M-Ant1-2440-30~1000-PASS



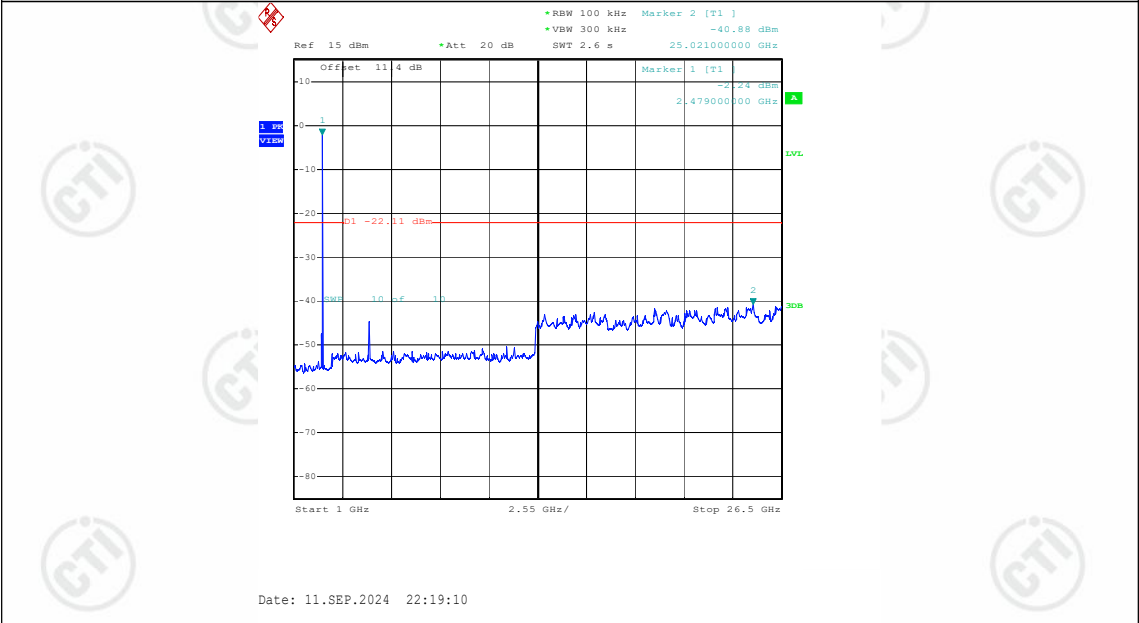
BLE_2M-Ant1-2440-1000~26500-PASS



BLE_2M-Ant1-2480-0~Reference-PASS



BLE_2M-Ant1-2480-30~1000-PASS



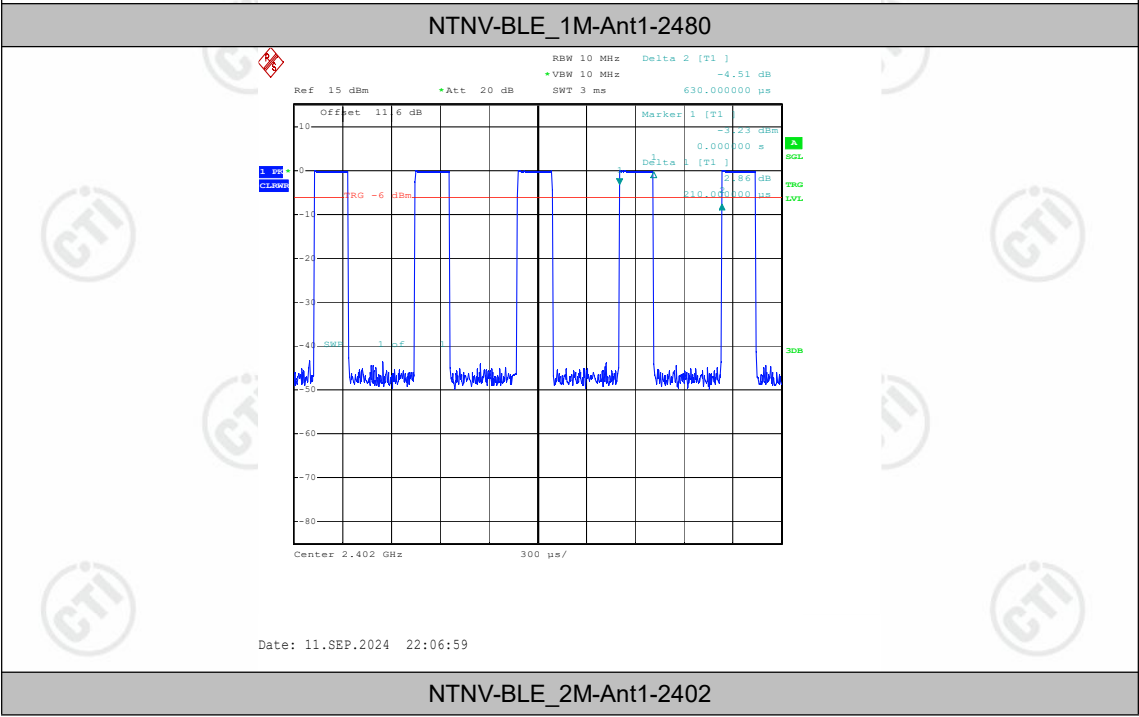
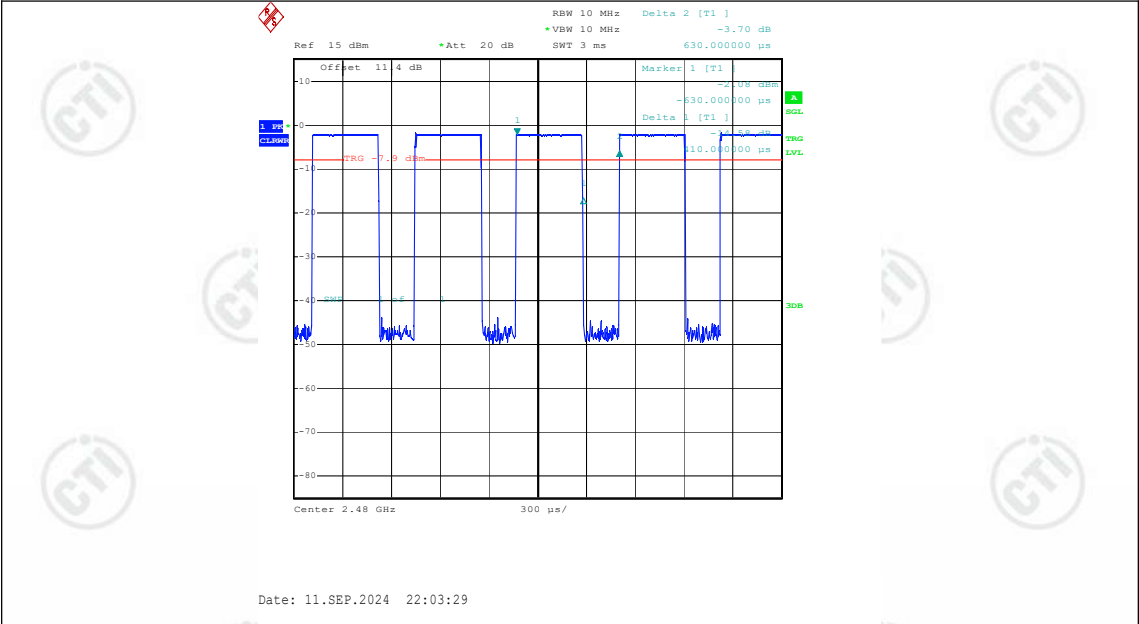
BLE_2M-Ant1-2480-1000~26500-PASS

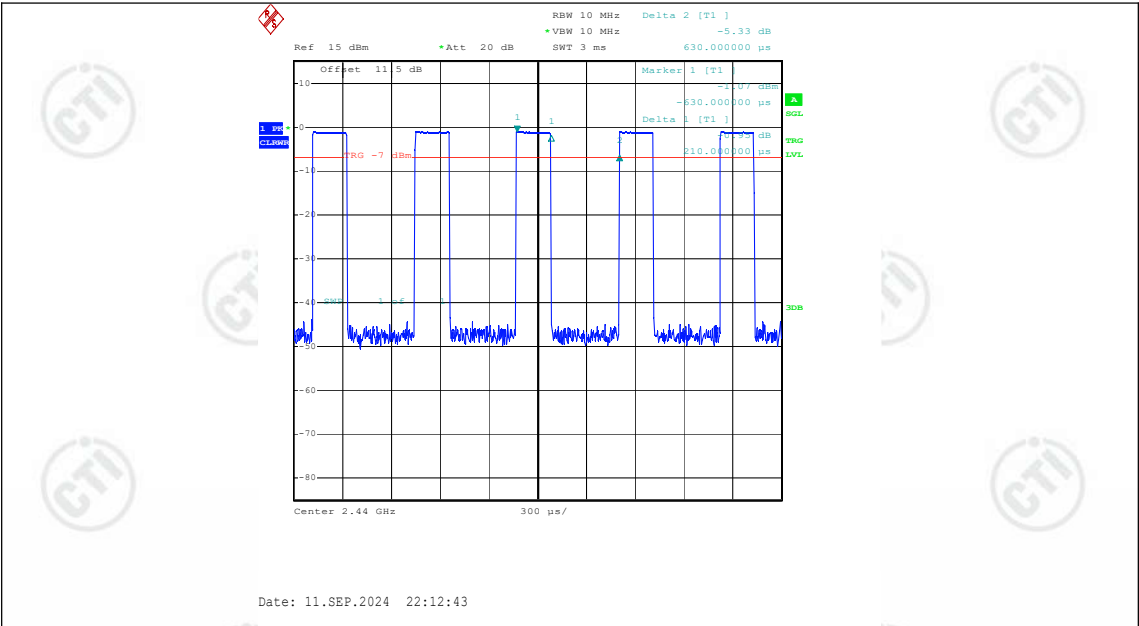
Appendix G: Duty Cycle

Test Result

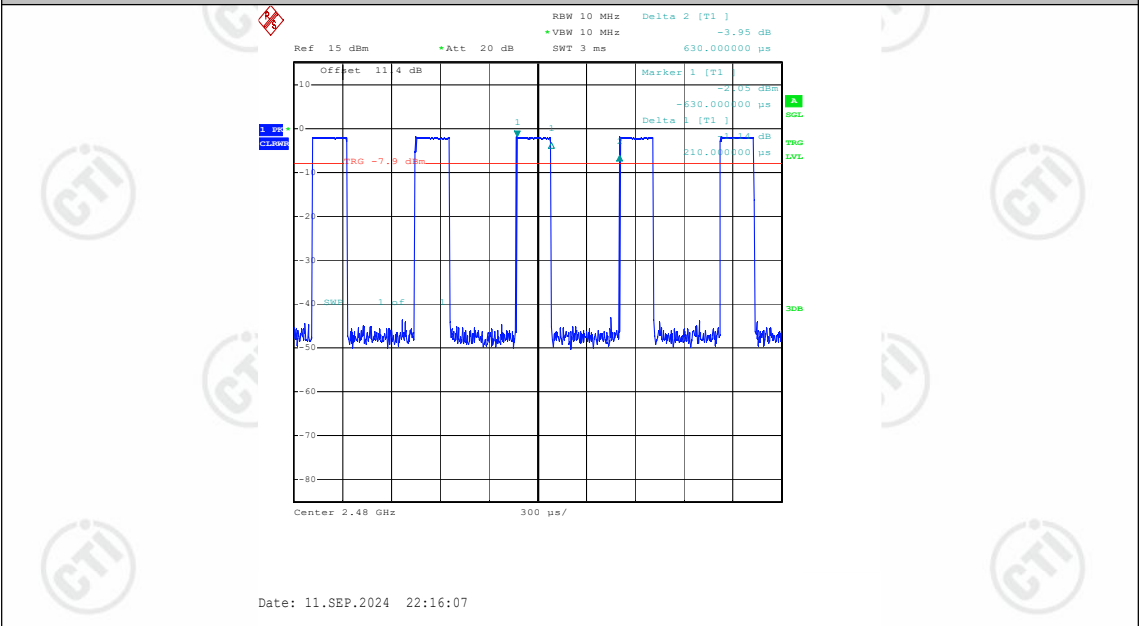
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.41	0.63	65.08	1.87
BLE_1M	Ant1	2440	0.41	0.63	65.08	1.87
BLE_1M	Ant1	2480	0.41	0.63	65.08	1.87
BLE_2M	Ant1	2402	0.21	0.63	33.33	4.77
BLE_2M	Ant1	2440	0.21	0.63	33.33	4.77
BLE_2M	Ant1	2480	0.21	0.63	33.33	4.77

Note:Duty Cycle Factor[dB]=-10*Ig(Duty Cycle);





NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2480

END OF REPORT