

Appendix: Bluetooth LE

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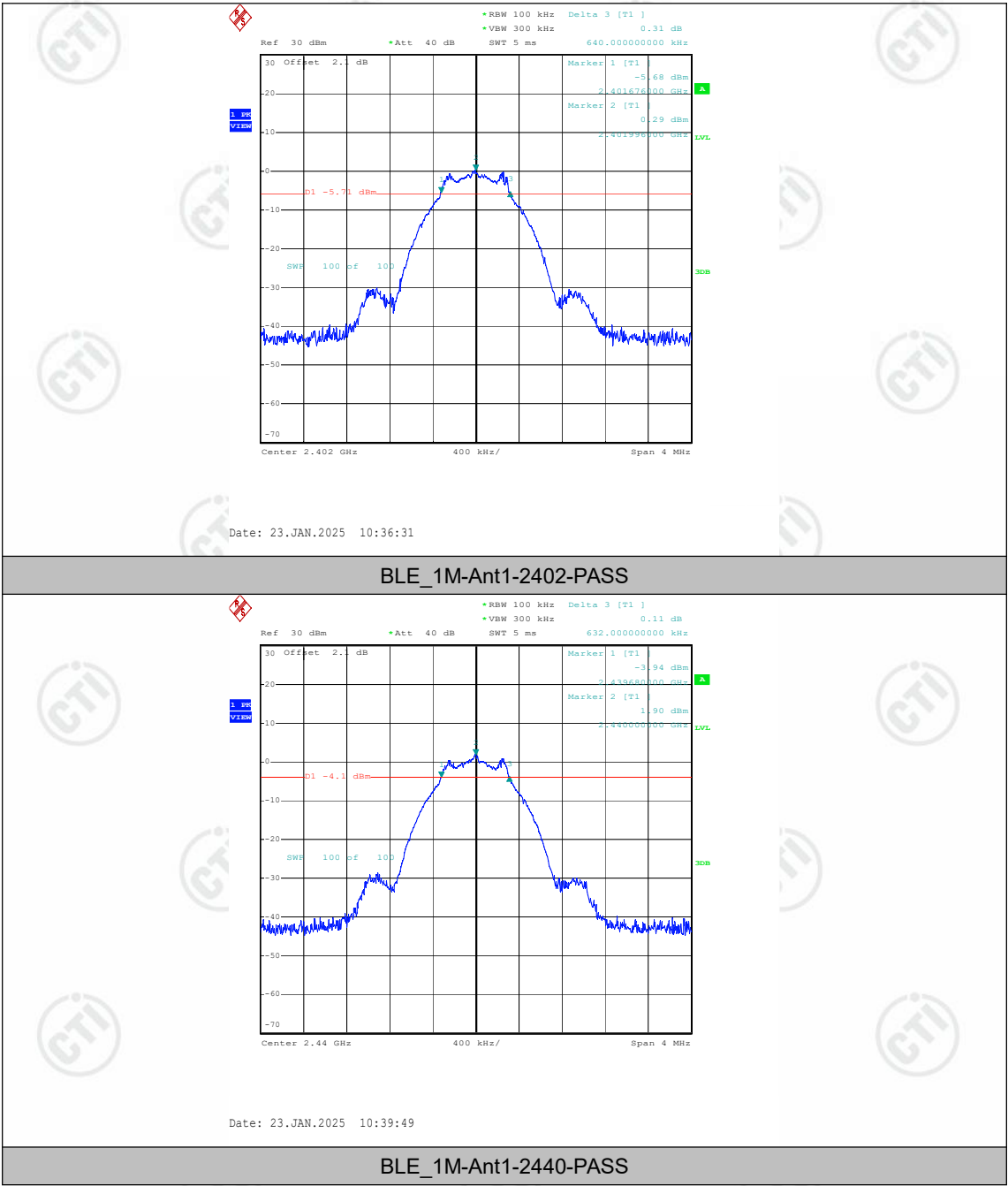
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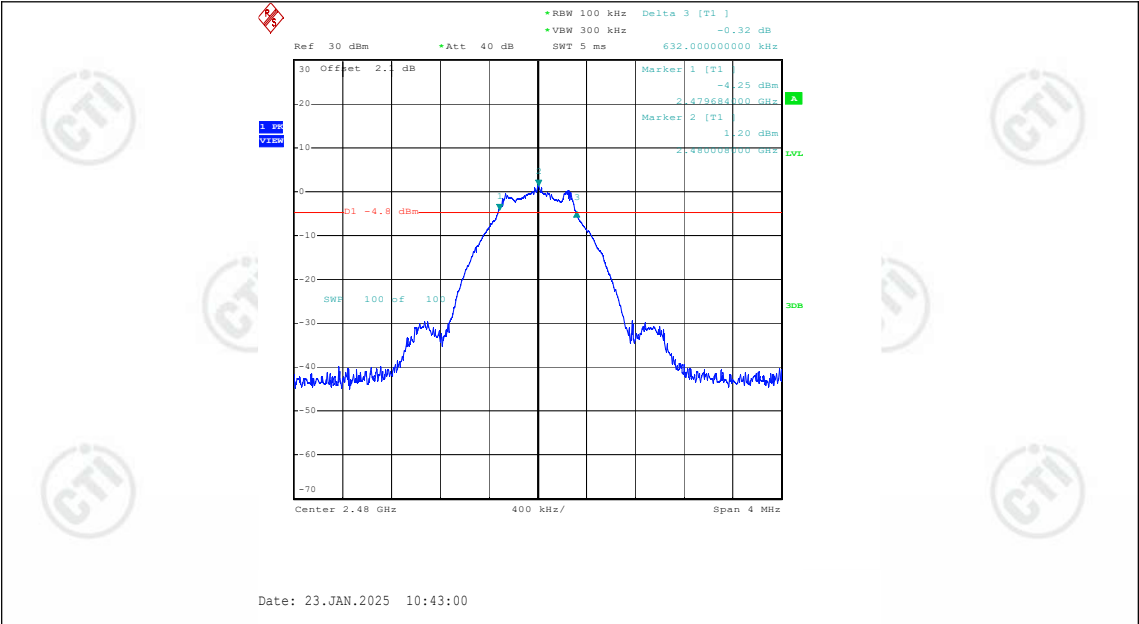
Appendix A: DTS Bandwidth

Test Result

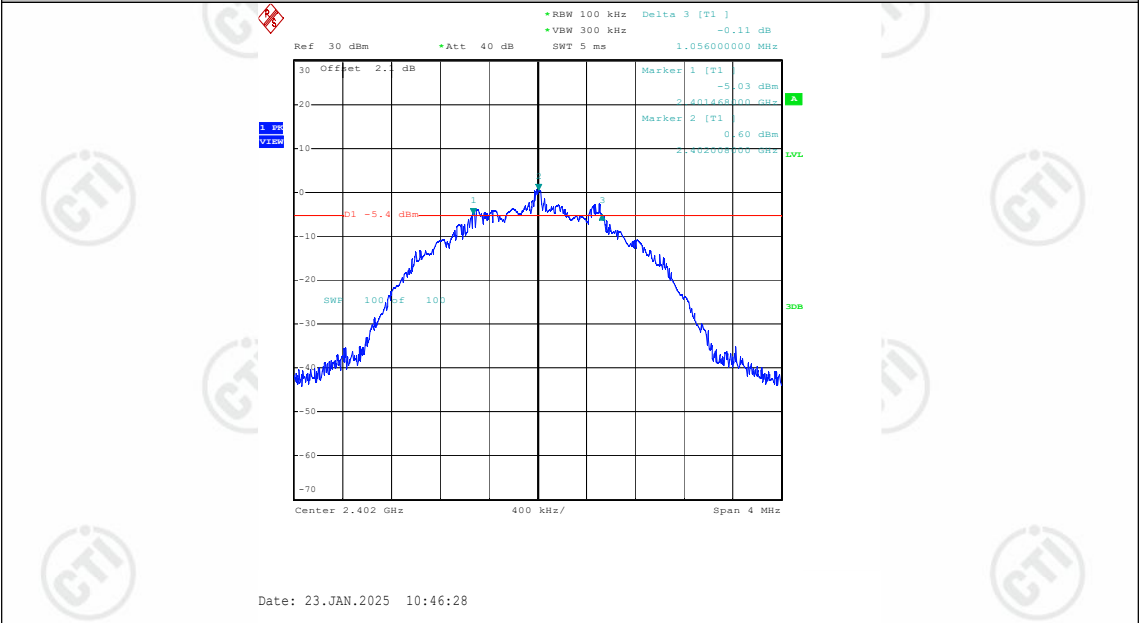
Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.64	2401.68	2402.32	0.5	PASS
BLE_1M	Ant1	2440	0.63	2439.68	2440.31	0.5	PASS
BLE_1M	Ant1	2480	0.63	2479.68	2480.32	0.5	PASS
BLE_2M	Ant1	2402	1.06	2401.47	2402.52	0.5	PASS
BLE_2M	Ant1	2440	1.10	2439.46	2440.56	0.5	PASS
BLE_2M	Ant1	2480	1.08	2479.46	2480.54	0.5	PASS

Test Graphs

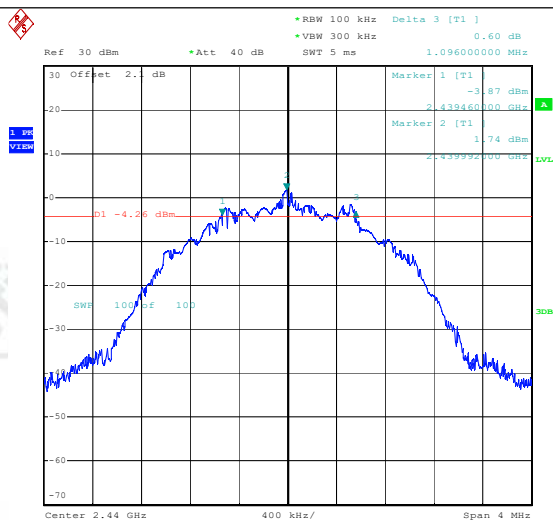




BLE_1M-Ant1-2480-PASS

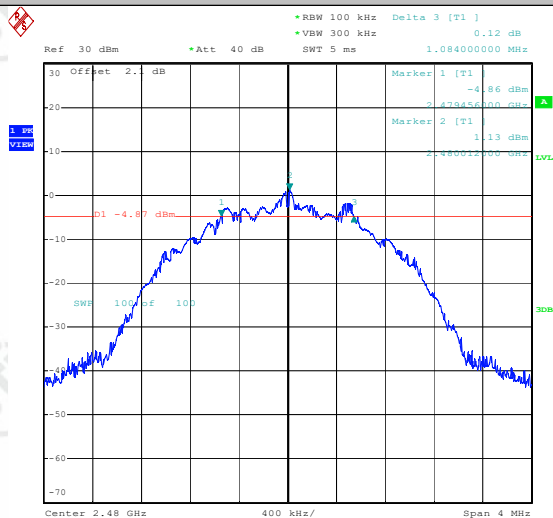


BLE_2M-Ant1-2402-PASS



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BLE 2M-Ant1-2440-PASS



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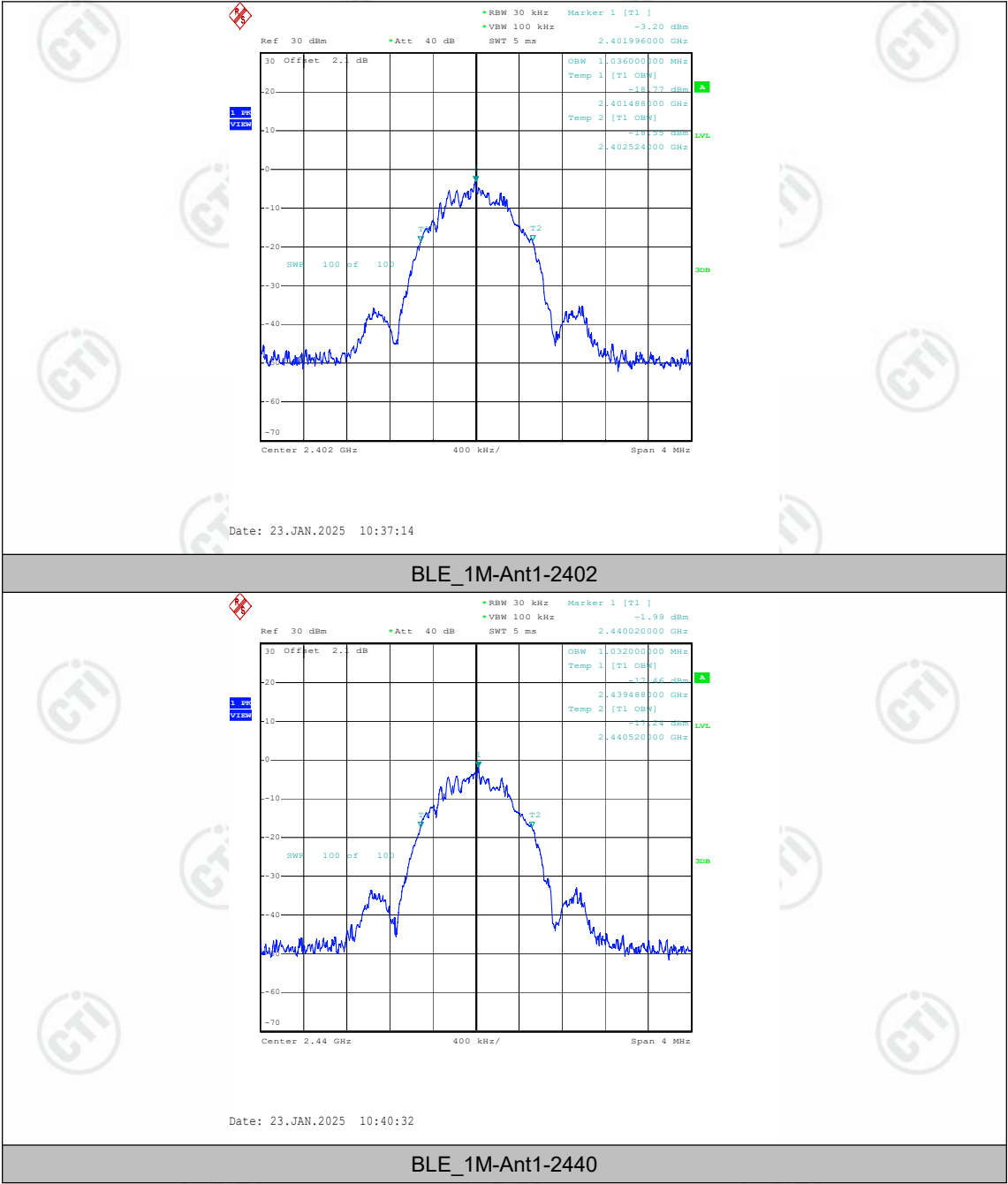
BLE_2M-Ant1-2480-PASS

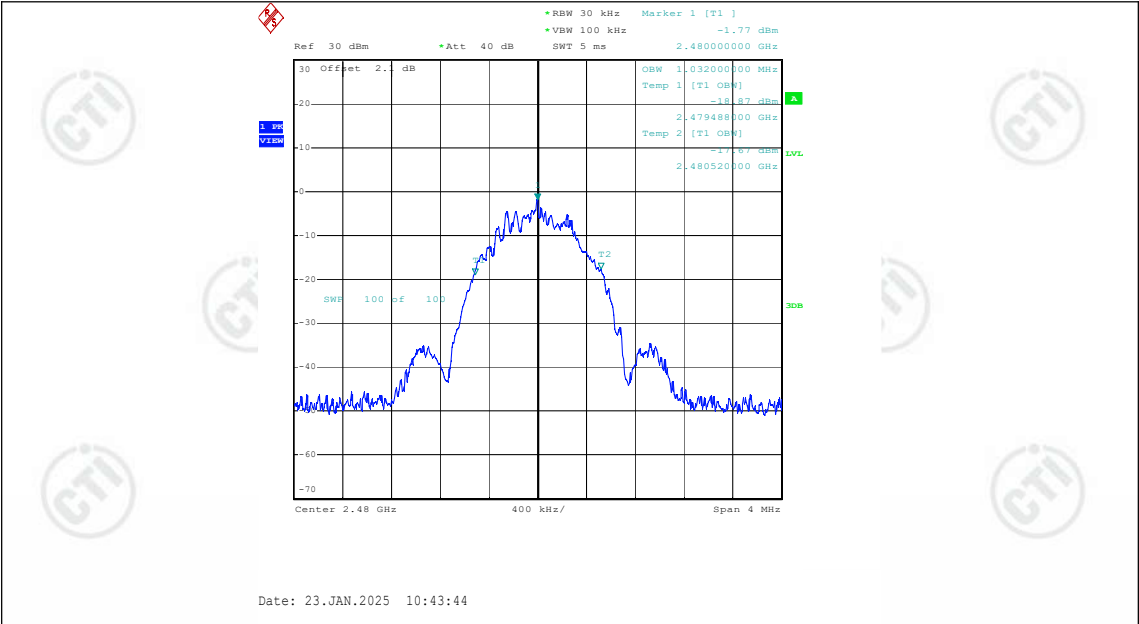
Appendix B: Occupied Channel Bandwidth

Test Result

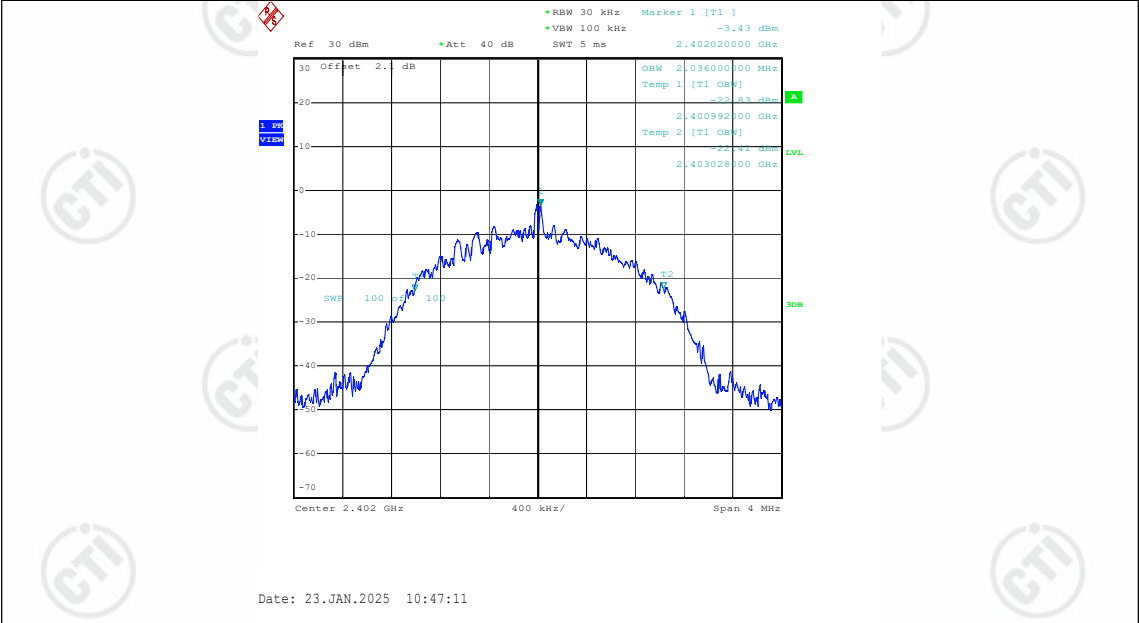
TestMode	Antenna	Frequency [MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.036	2401.488	2402.524	---	---
BLE_1M	Ant1	2440	1.032	2439.488	2440.520	---	---
BLE_1M	Ant1	2480	1.032	2479.488	2480.520	---	---
BLE_2M	Ant1	2402	2.036	2400.992	2403.028	---	---
BLE_2M	Ant1	2440	2.032	2438.996	2441.028	---	---
BLE_2M	Ant1	2480	2.032	2478.996	2481.028	---	---

Test Graphs

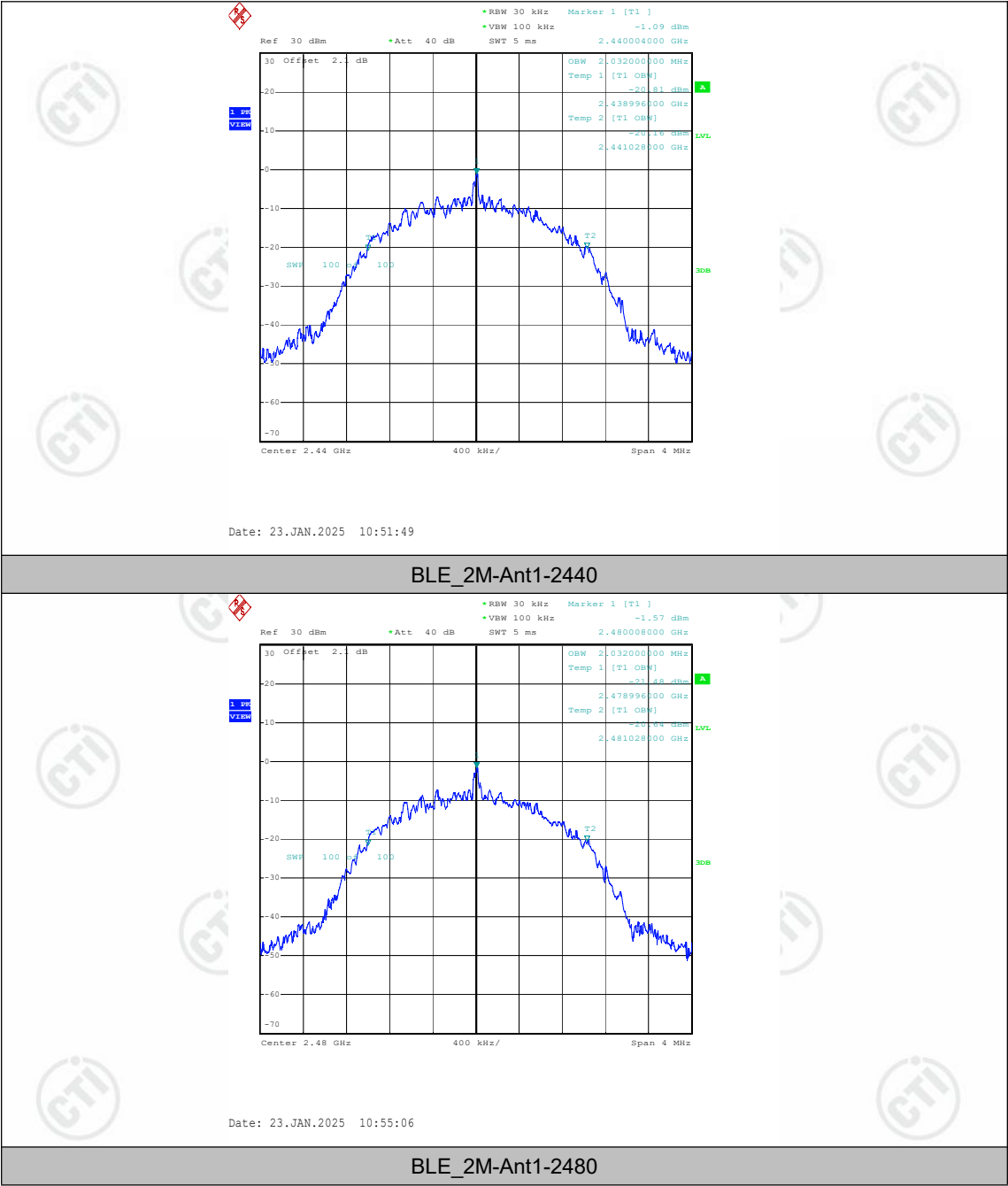




BLE_1M-Ant1-2480



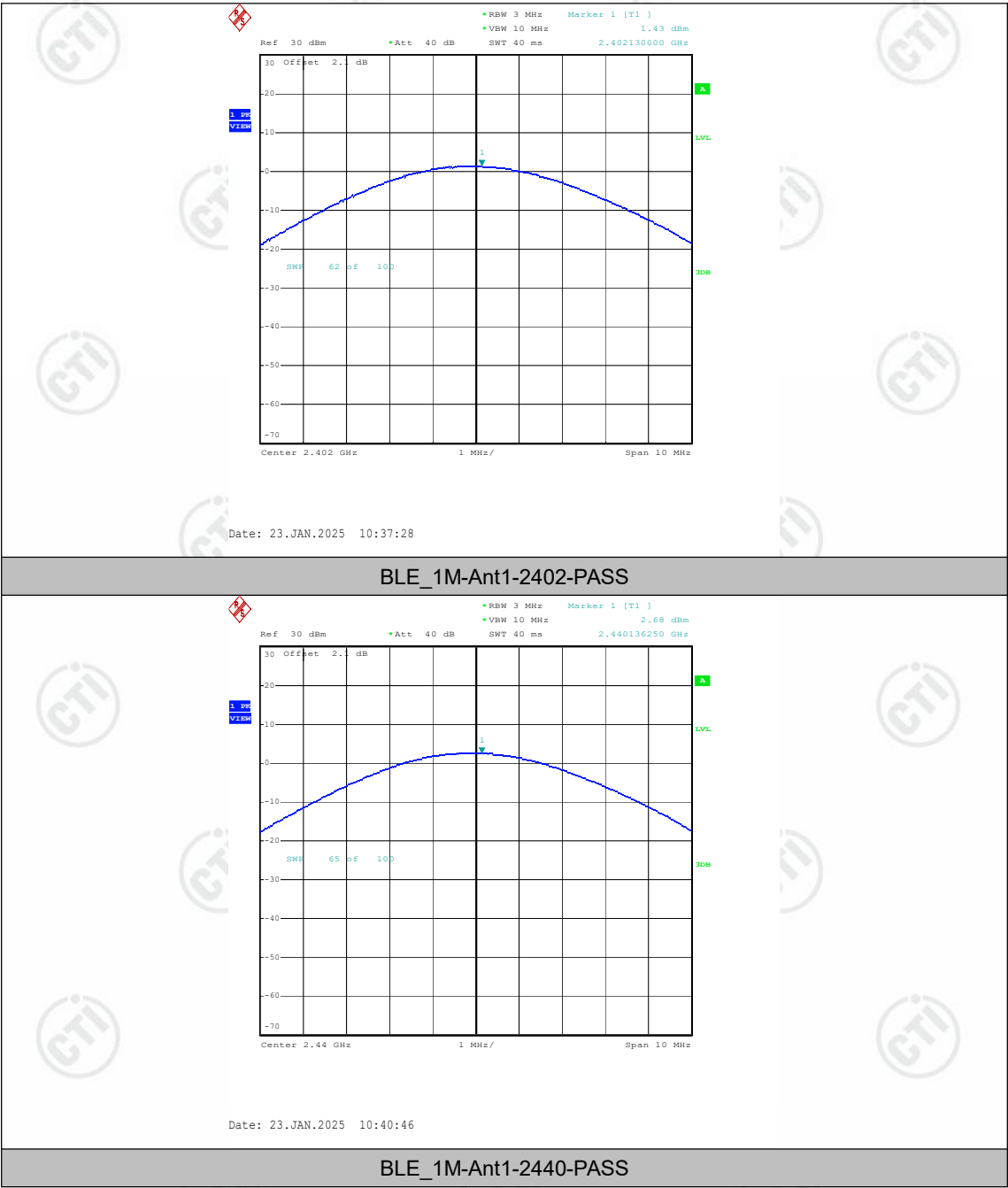
BLE_2M-Ant1-2402

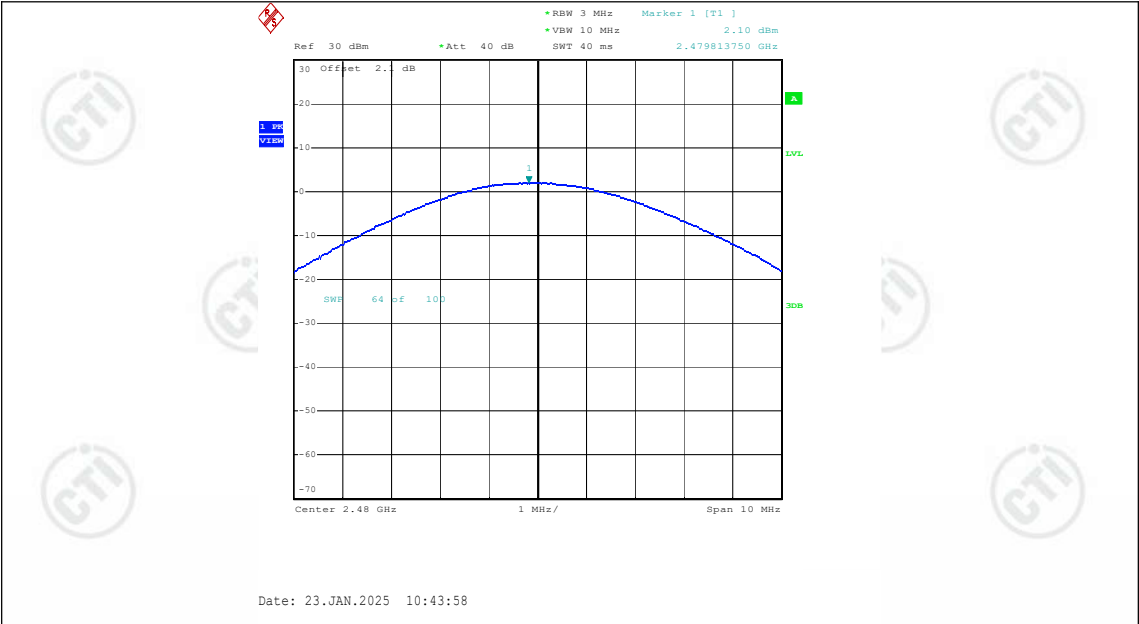


Appendix C: Maximum conducted output power**Test Result Peak**

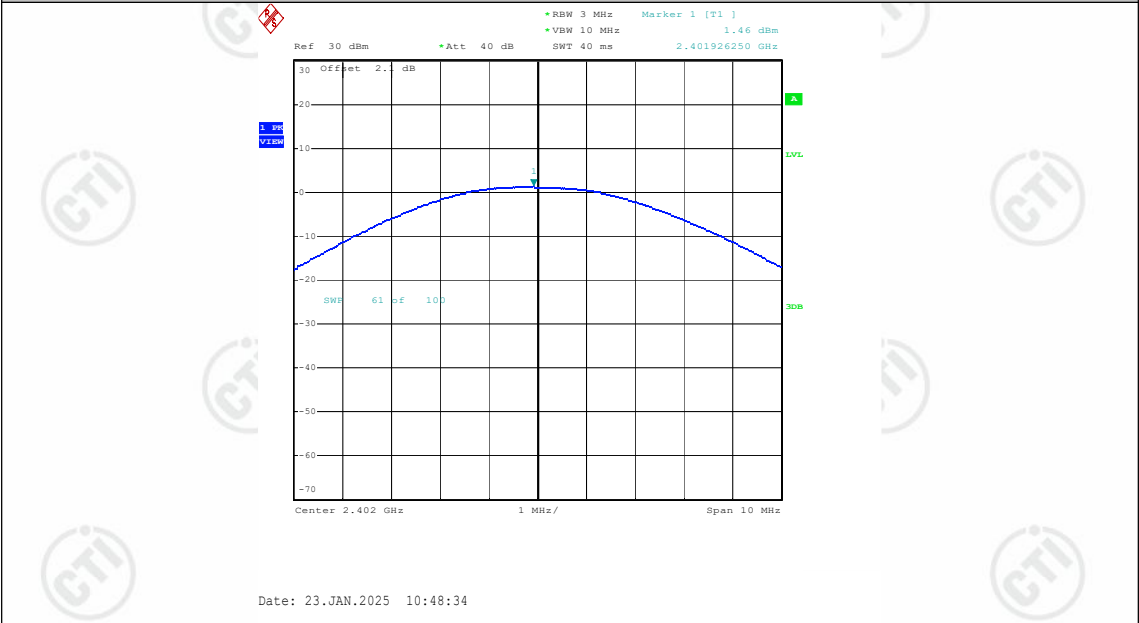
TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.43	≤30	PASS
BLE_1M	Ant1	2440	2.68	≤30	PASS
BLE_1M	Ant1	2480	2.10	≤30	PASS
BLE_2M	Ant1	2402	1.46	≤30	PASS
BLE_2M	Ant1	2440	2.78	≤30	PASS
BLE_2M	Ant1	2480	2.29	≤30	PASS

Test Graphs Peak

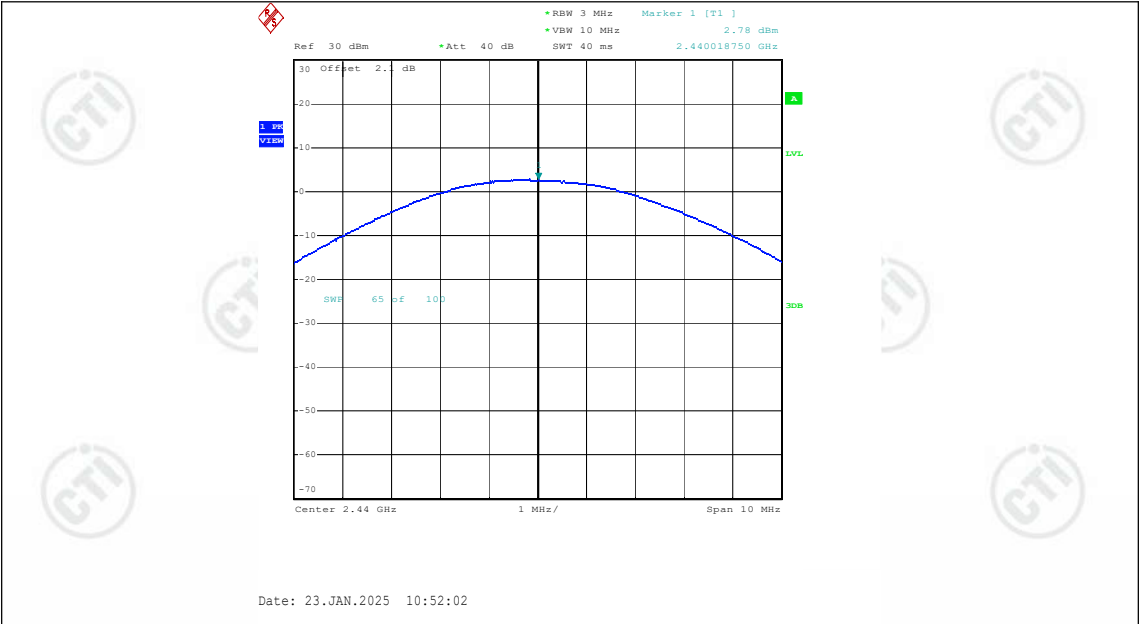




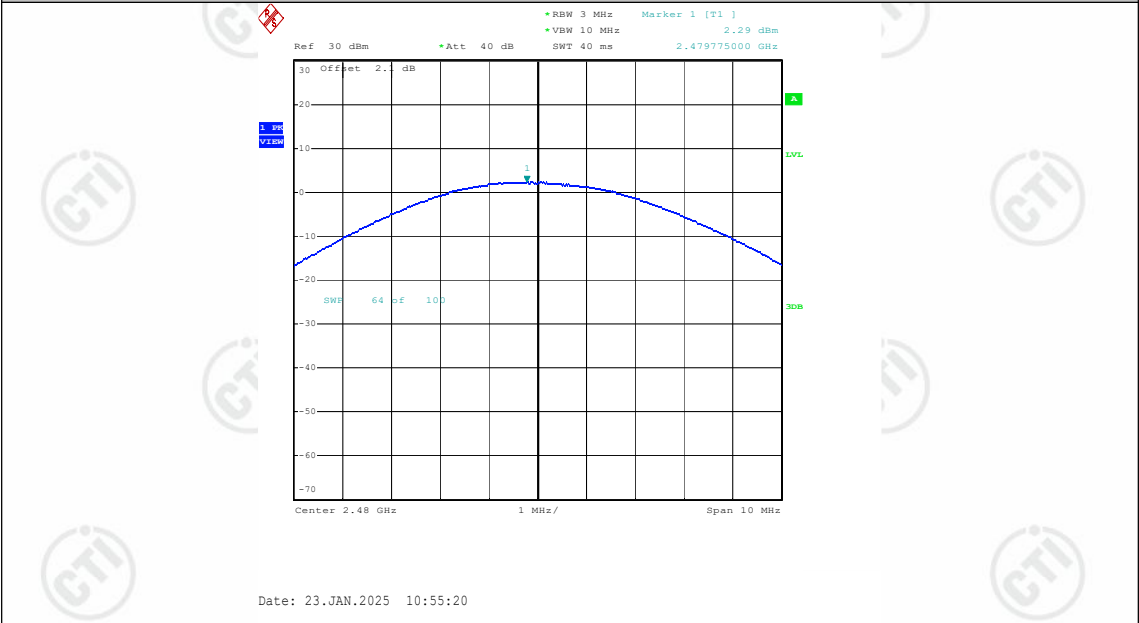
BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS

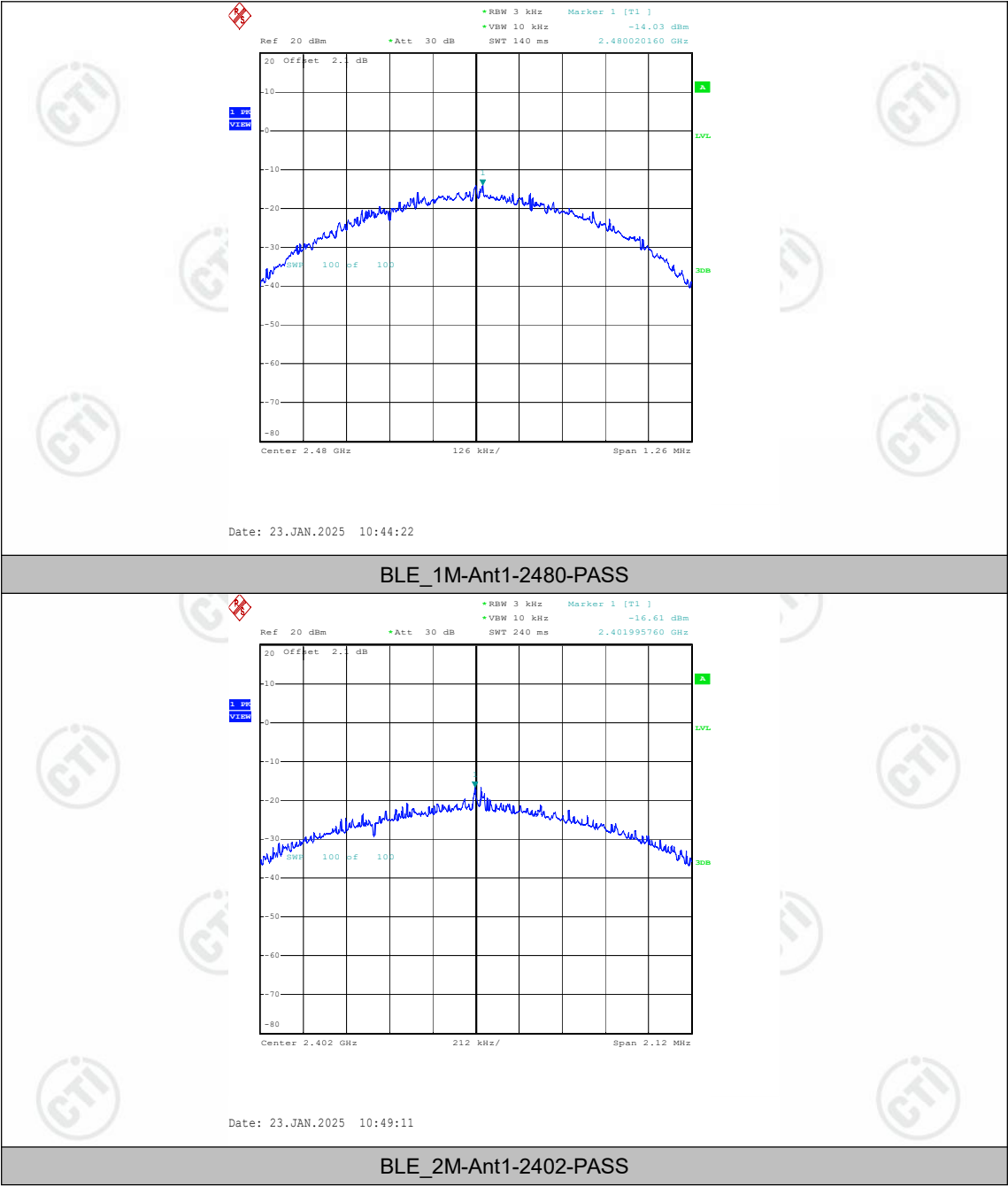


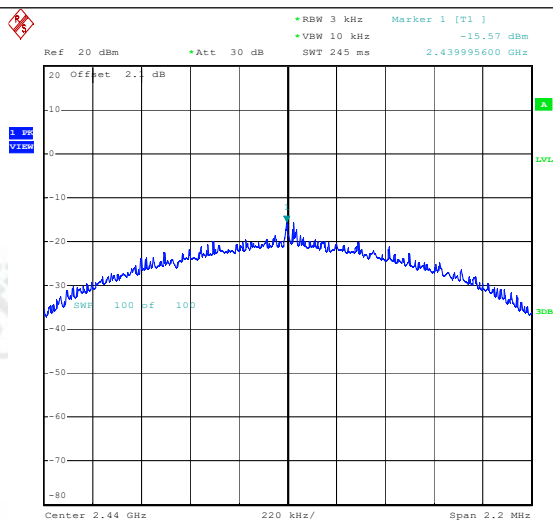
BLE_2M-Ant1-2480-PASS

Appendix D: Maximum power spectral density

Test Result

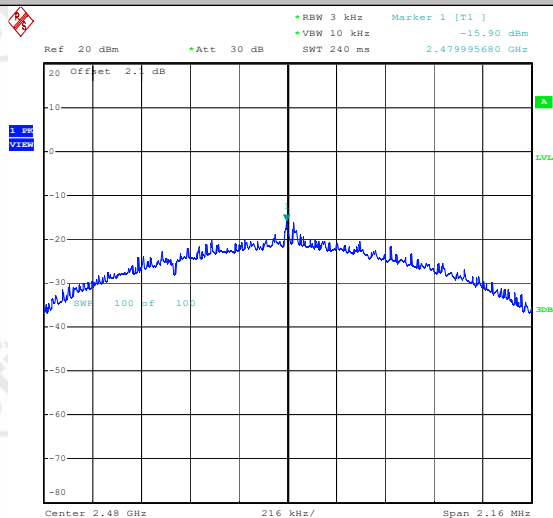
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.50	≤8.00	PASS
BLE_1M	Ant1	2440	-13.54	≤8.00	PASS
BLE_1M	Ant1	2480	-14.03	≤8.00	PASS
BLE_2M	Ant1	2402	-16.61	≤8.00	PASS
BLE_2M	Ant1	2440	-15.57	≤8.00	PASS
BLE_2M	Ant1	2480	-15.90	≤8.00	PASS





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BLE 2M-Ant1-2440-PASS



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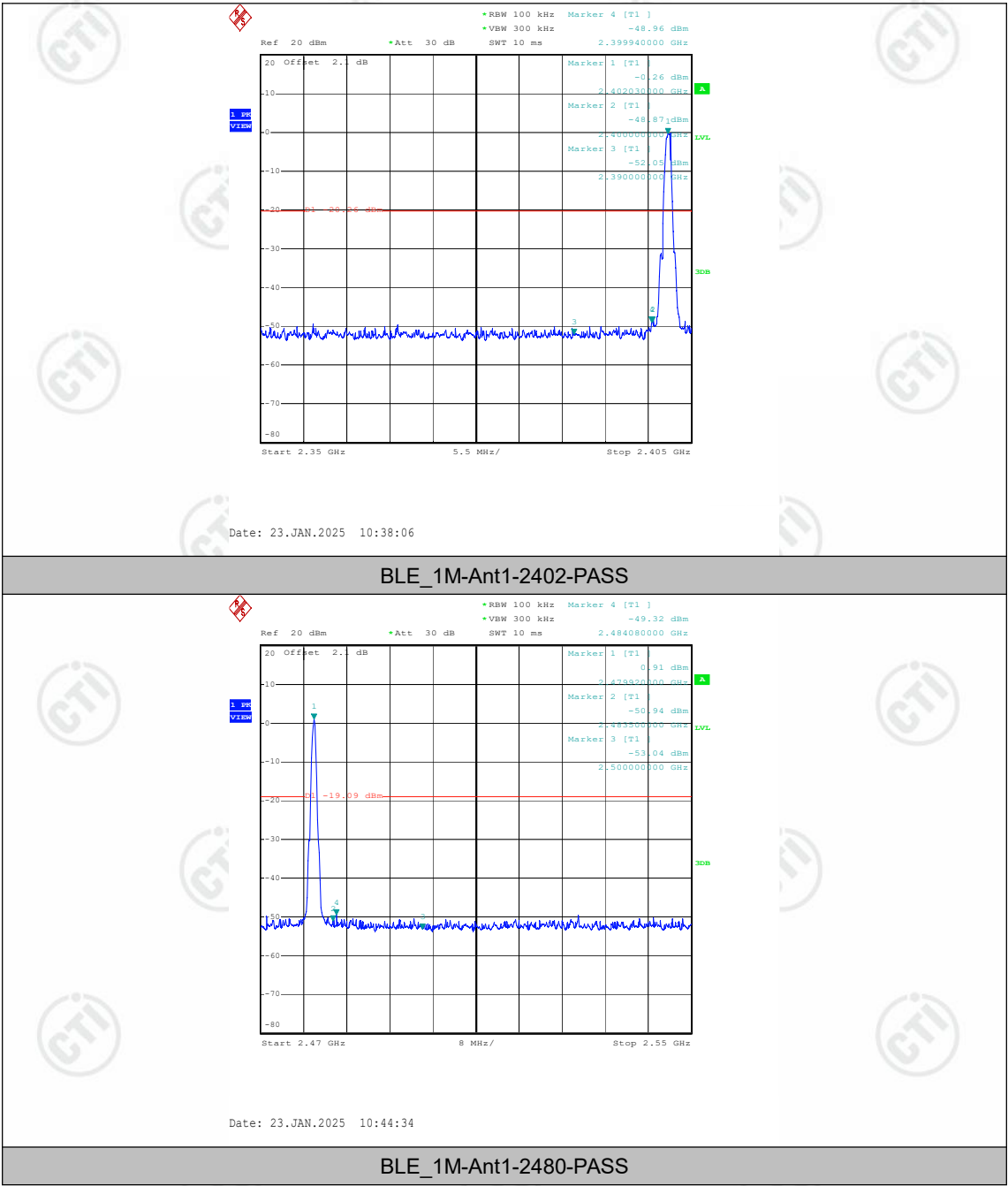
BLE_2M-Ant1-2480-PASS

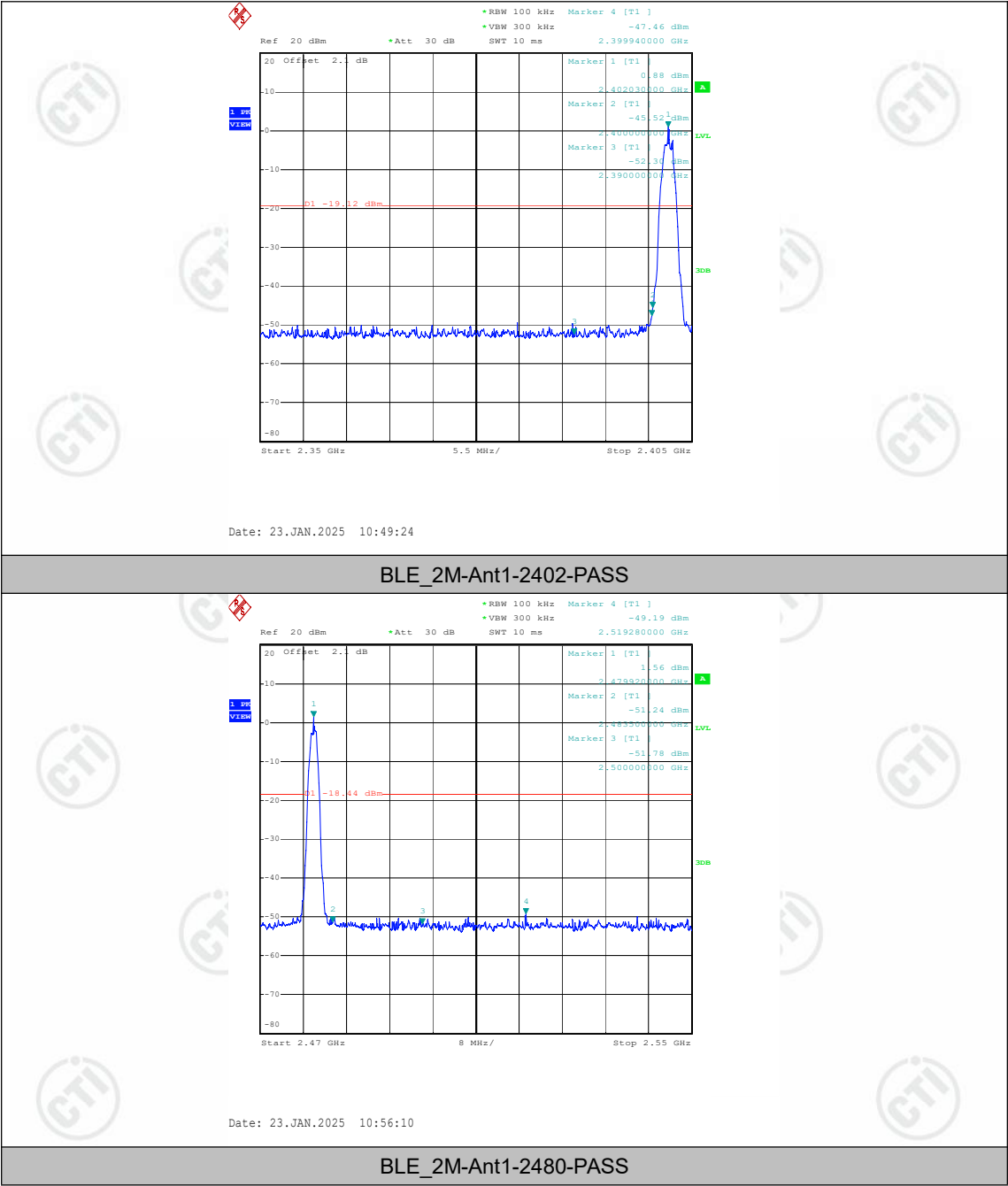
Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.26	-48.96	≤-20.26	PASS
BLE_1M	Ant1	High	2480	0.91	-49.32	≤-19.09	PASS
BLE_2M	Ant1	Low	2402	0.88	-47.46	≤-19.12	PASS
BLE_2M	Ant1	High	2480	1.56	-49.19	≤-18.44	PASS

Test Graphs



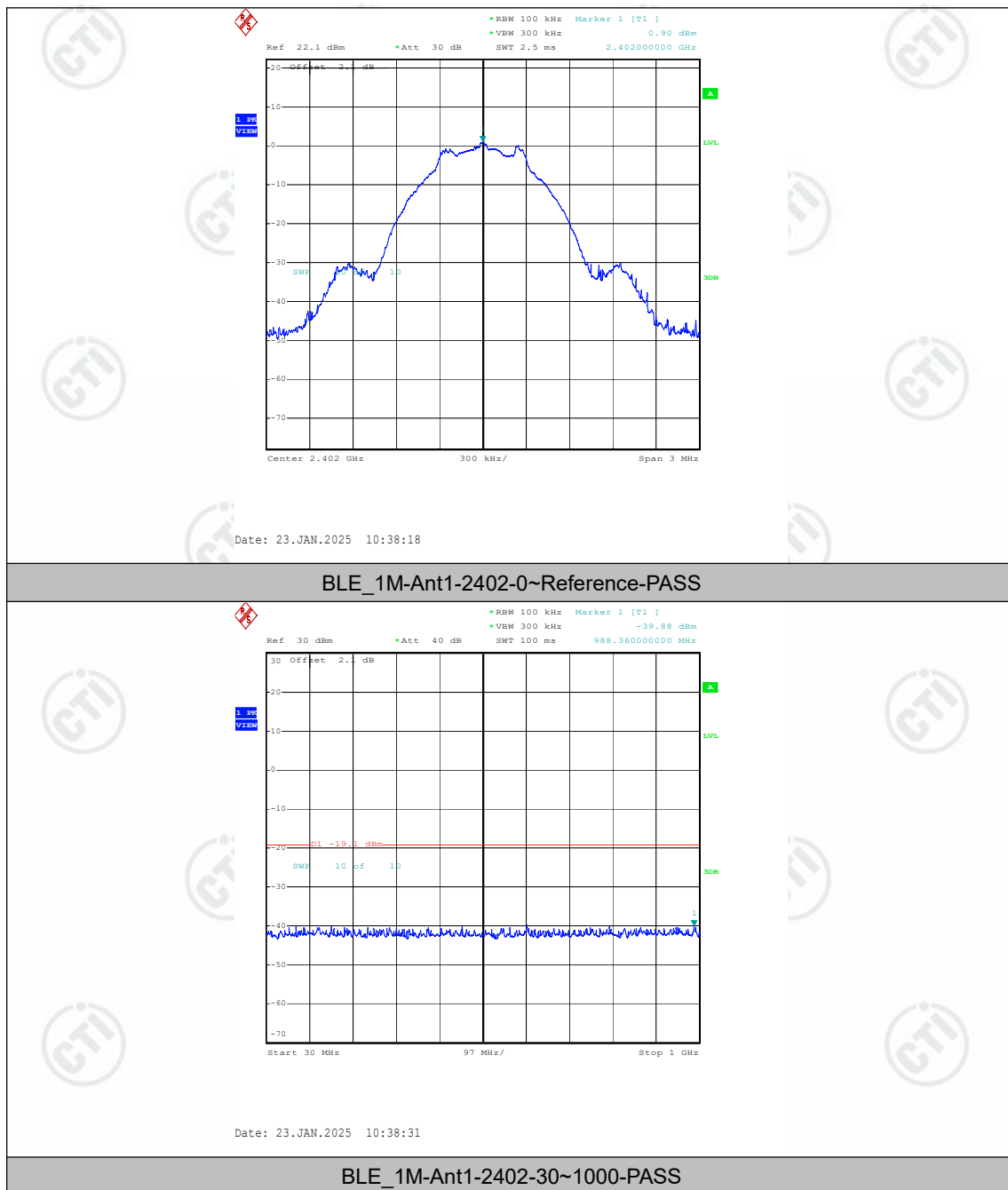


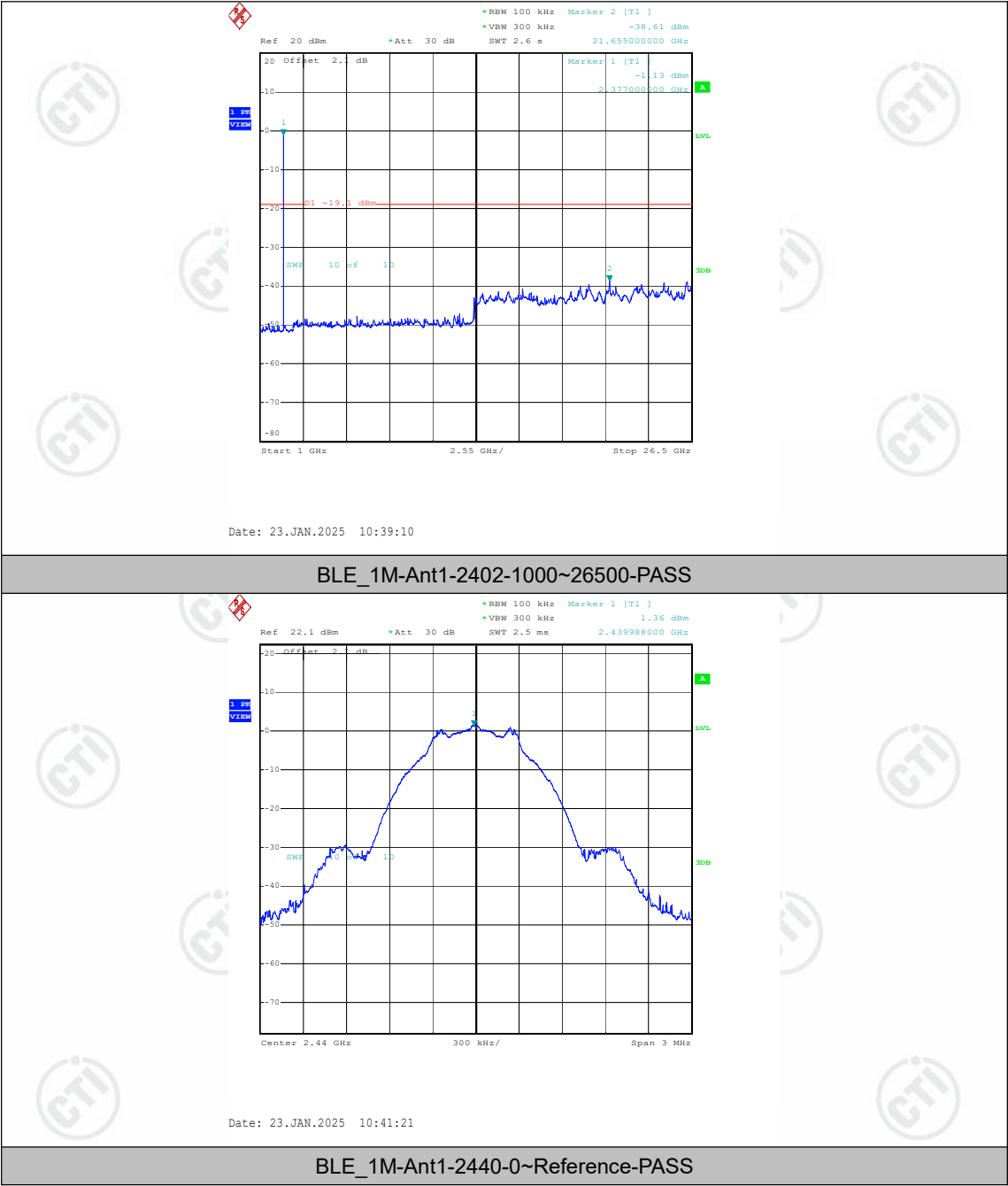
Appendix F: Conducted Spurious Emission

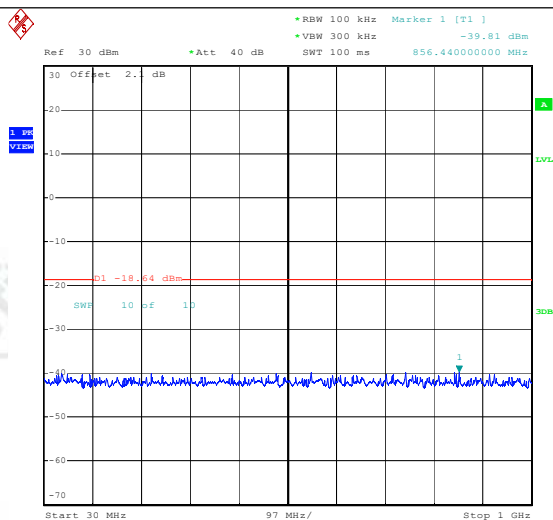
Test Result

TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	0.90	0.90	---	PASS
BLE_1M	Ant1	2402	30~1000	0.90	-39.88	≤-19.1	PASS
BLE_1M	Ant1	2402	1000~26500	0.90	-38.61	≤-19.1	PASS
BLE_1M	Ant1	2440	0~Reference	1.36	1.36	---	PASS
BLE_1M	Ant1	2440	30~1000	1.36	-39.81	≤-18.64	PASS
BLE_1M	Ant1	2440	1000~26500	1.36	-39.44	≤-18.64	PASS
BLE_1M	Ant1	2480	0~Reference	1.35	1.35	---	PASS
BLE_1M	Ant1	2480	30~1000	1.35	-39.43	≤-18.65	PASS
BLE_1M	Ant1	2480	1000~26500	1.35	-38.7	≤-18.65	PASS
BLE_2M	Ant1	2402	0~Reference	0.88	0.88	---	PASS
BLE_2M	Ant1	2402	30~1000	0.88	-39.73	≤-19.12	PASS
BLE_2M	Ant1	2402	1000~26500	0.88	-39.45	≤-19.12	PASS
BLE_2M	Ant1	2440	0~Reference	1.70	1.70	---	PASS
BLE_2M	Ant1	2440	30~1000	1.70	-40	≤-18.3	PASS
BLE_2M	Ant1	2440	1000~26500	1.70	-39.39	≤-18.3	PASS
BLE_2M	Ant1	2480	0~Reference	1.23	1.23	---	PASS
BLE_2M	Ant1	2480	30~1000	1.23	-38.96	≤-18.77	PASS
BLE_2M	Ant1	2480	1000~26500	1.23	-39.44	≤-18.77	PASS

Test Graphs

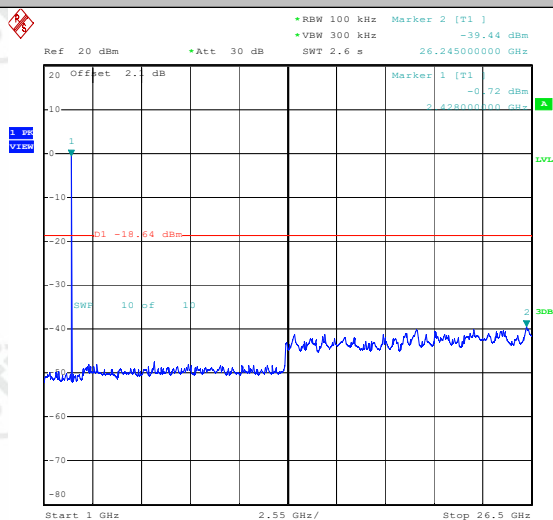






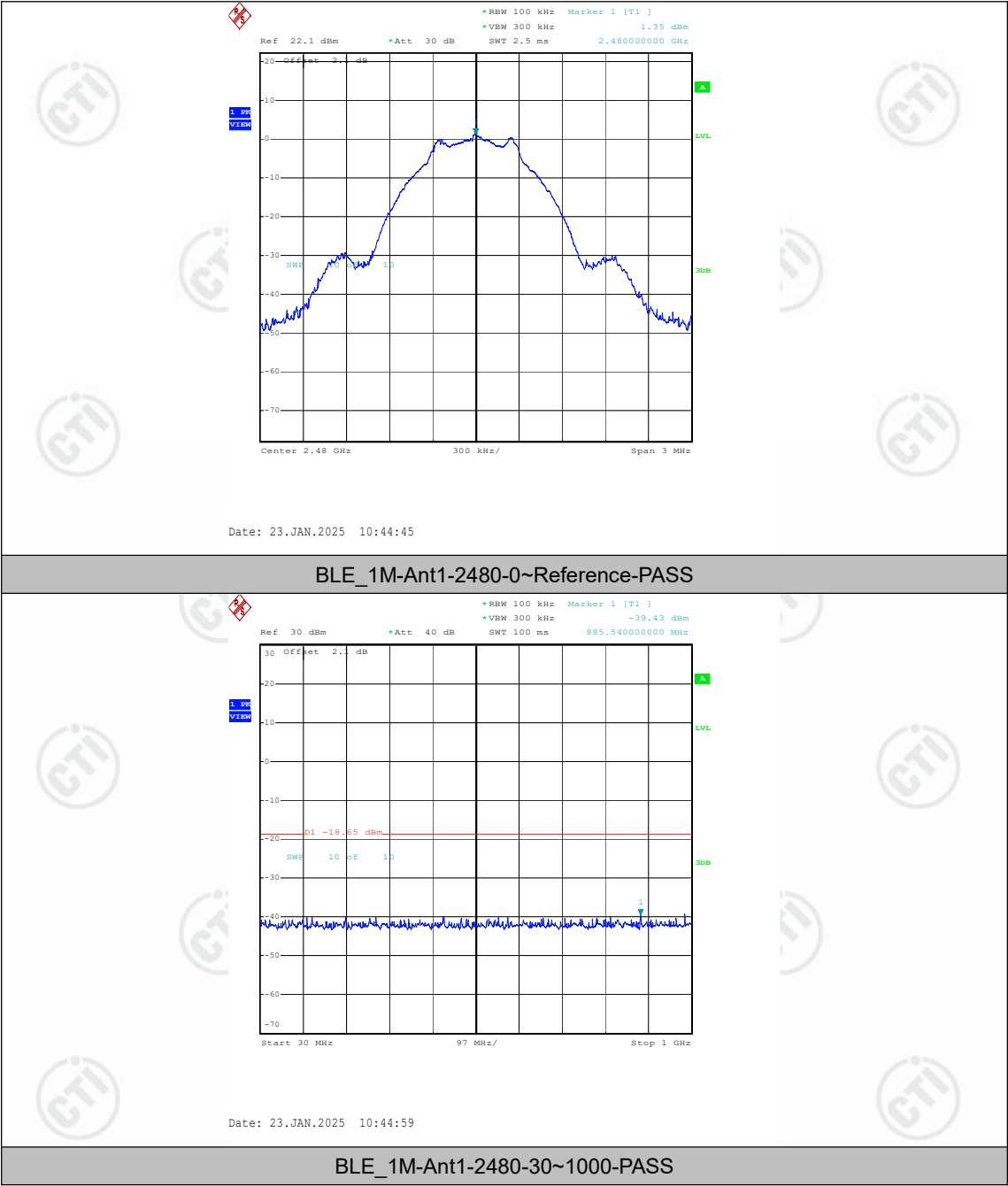
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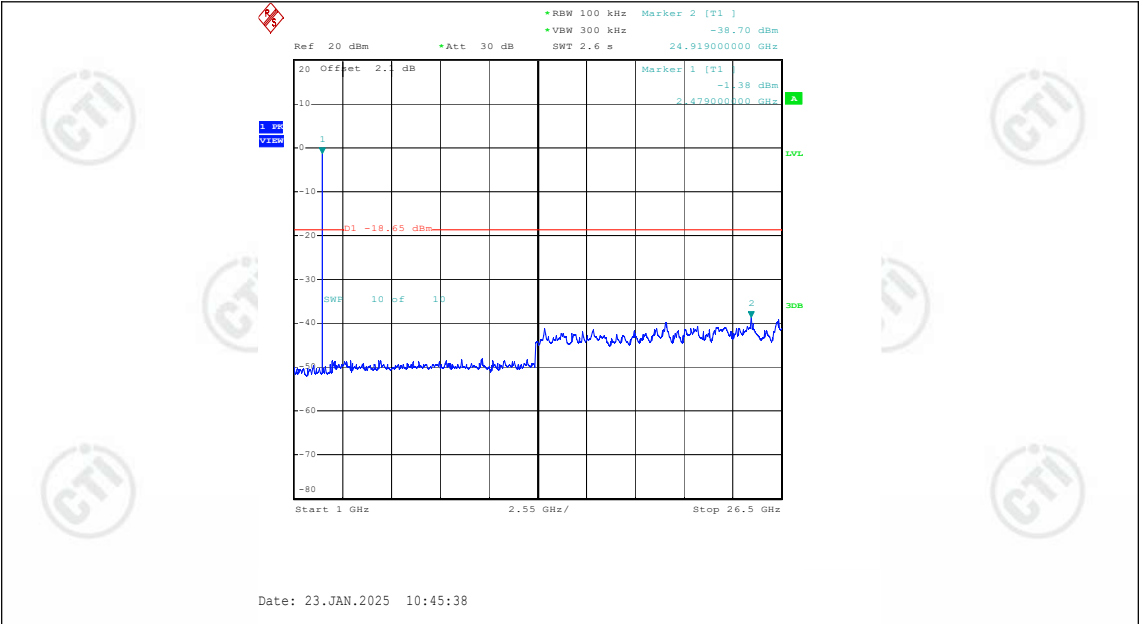
BLE_1M-Ant1-2440-30~1000-PASS



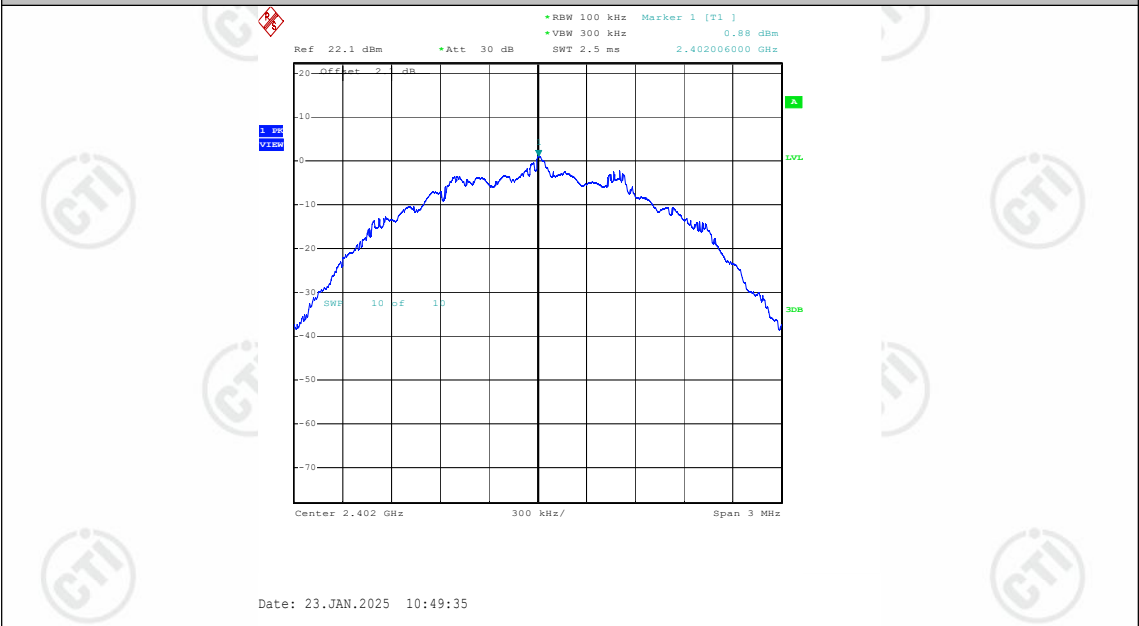
Date: 23.JAN.2025 10:42:13

BLE_1M-Ant1-2440-1000~26500-PASS

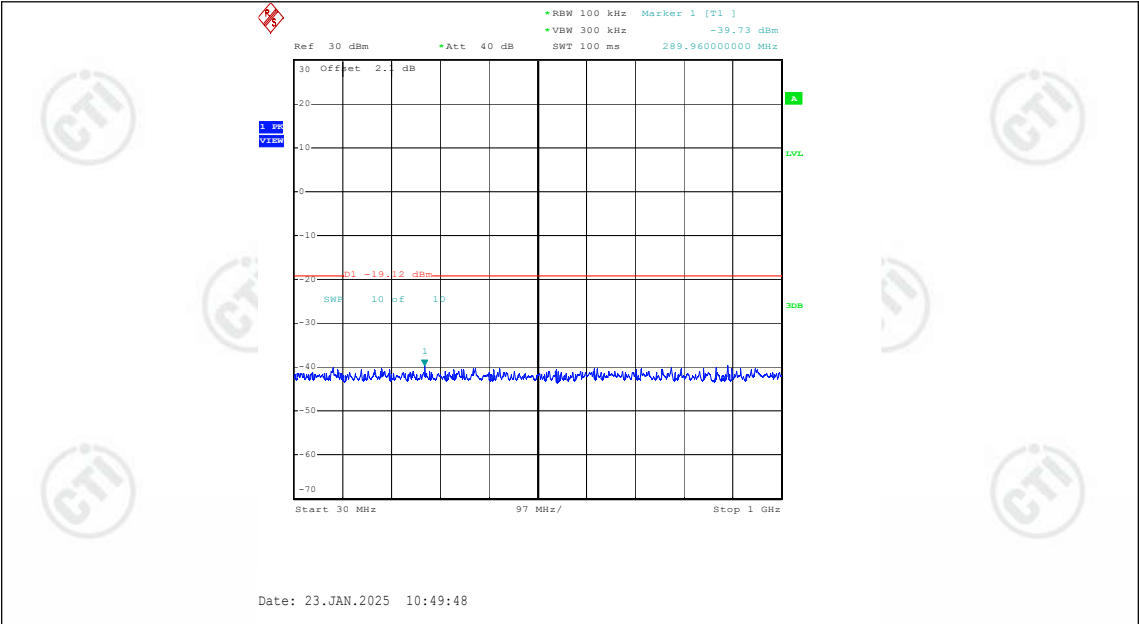




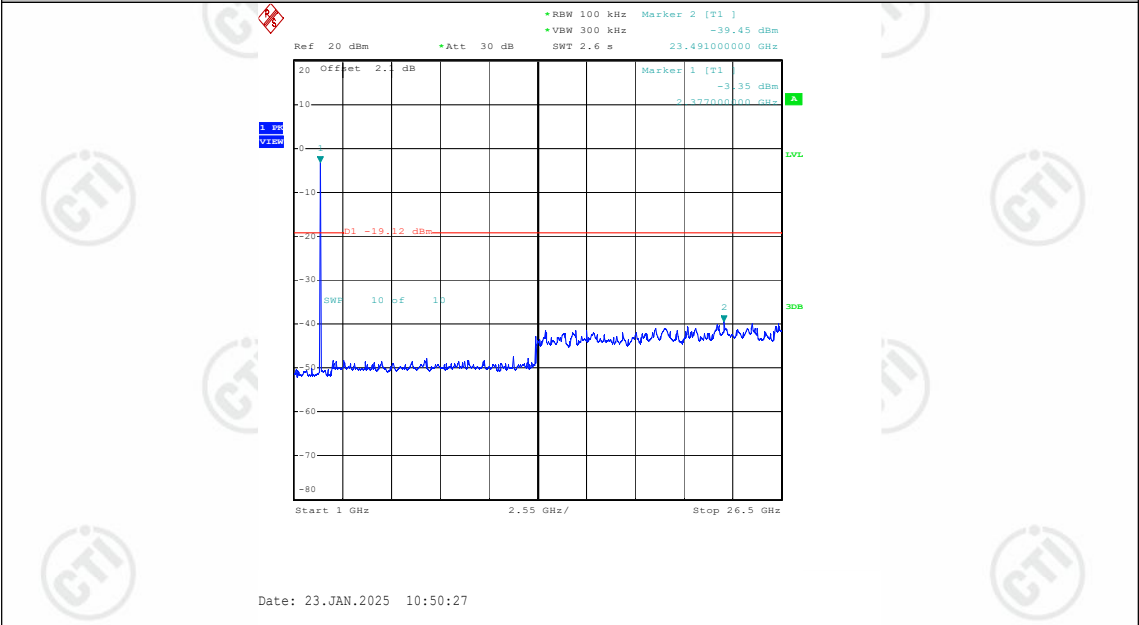
BLE_1M-Ant1-2480-1000~26500-PASS



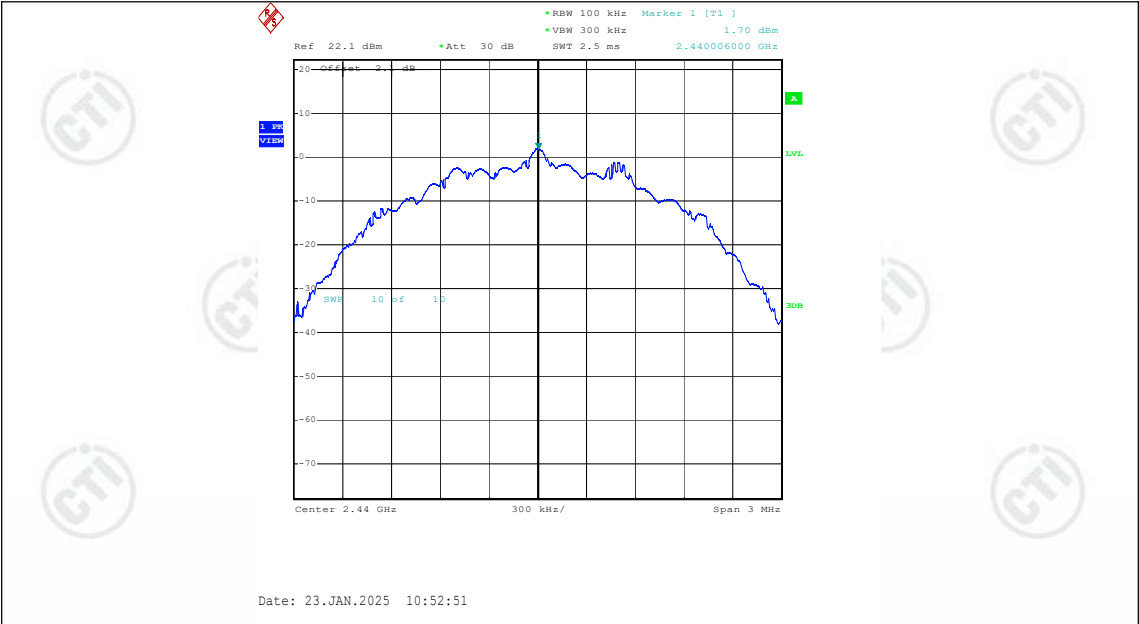
BLE_2M-Ant1-2402-0~Reference-PASS



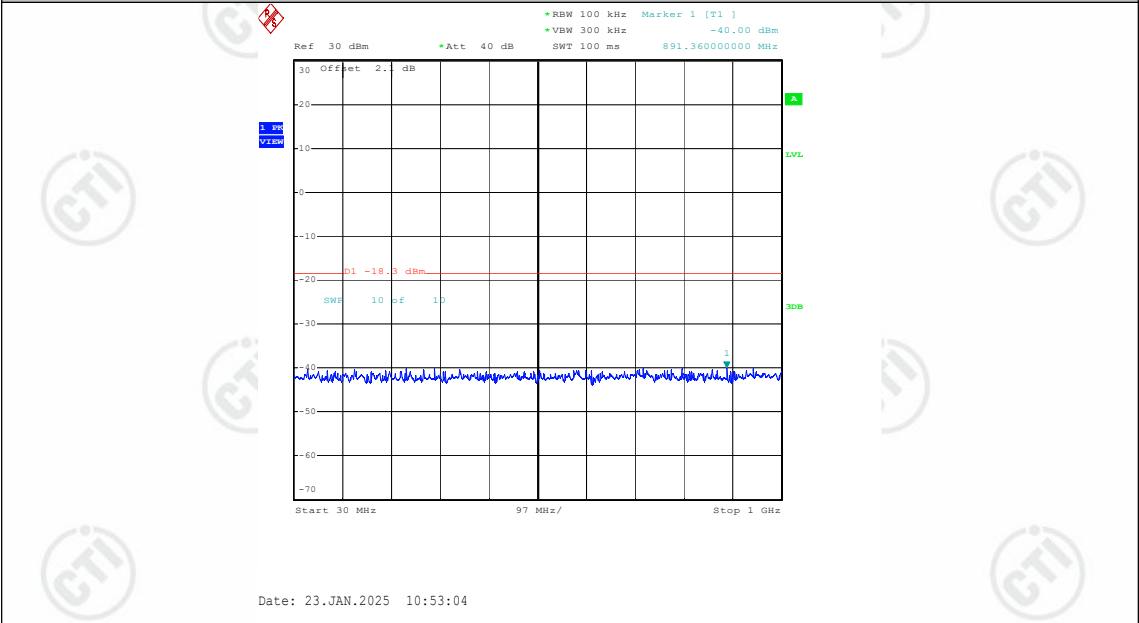
BLE_2M-Ant1-2402-30~1000-PASS



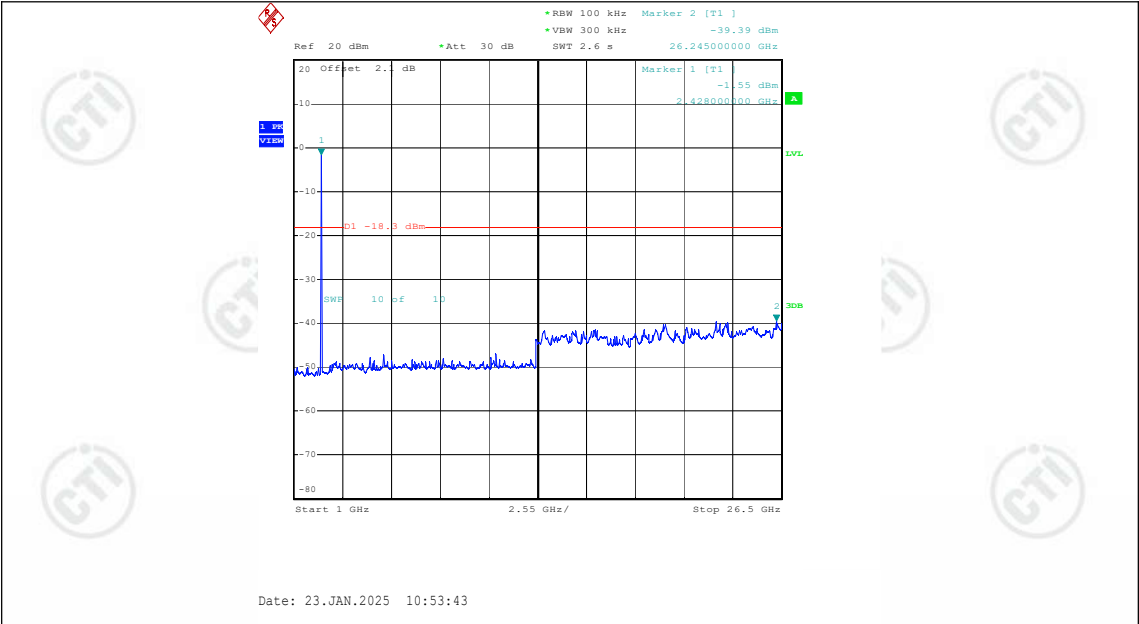
BLE_2M-Ant1-2402-1000~26500-PASS



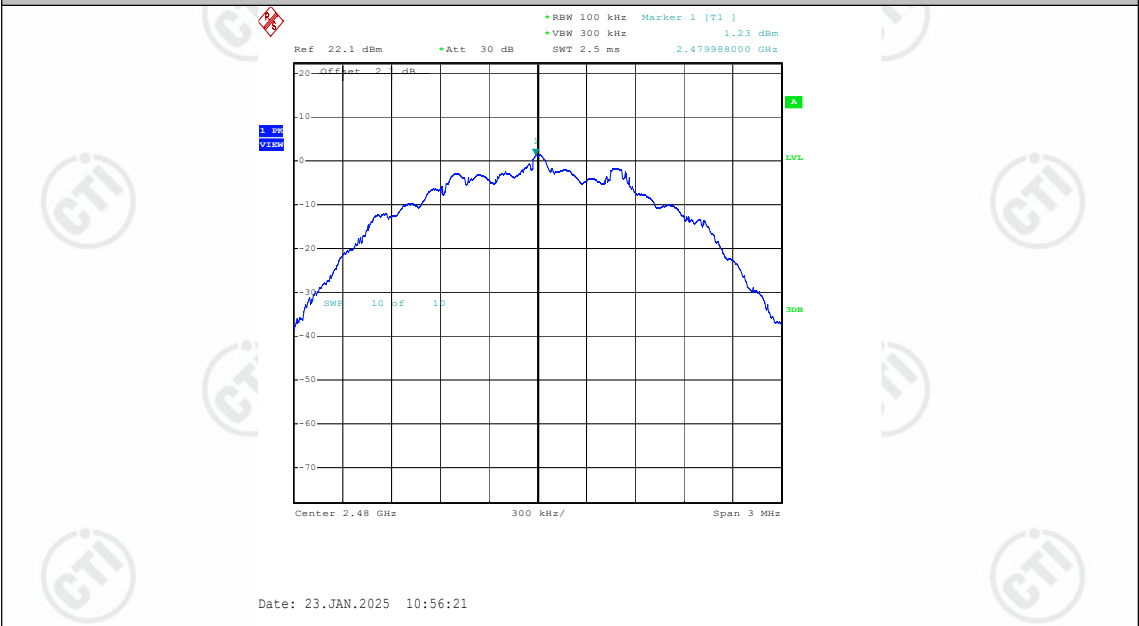
BLE_2M-Ant1-2440-0~Reference-PASS



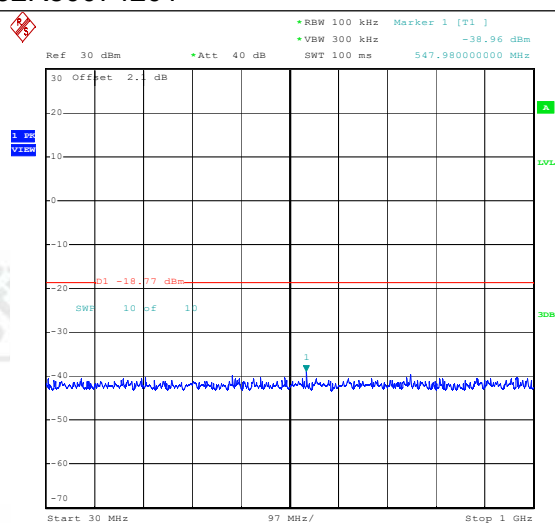
BLE_2M-Ant1-2440-30~1000-PASS



BLE_2M-Ant1-2440-1000~26500-PASS

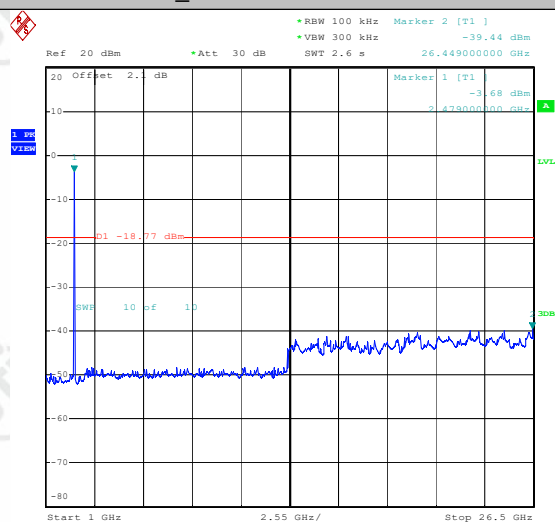


BLE_2M-Ant1-2480-0~Reference-PASS



Date: 23.JAN.2025 10:56:34

BLE 2M-Ant1-2480-30~1000-PASS



Date: 23.JAN.2025 10:57:13

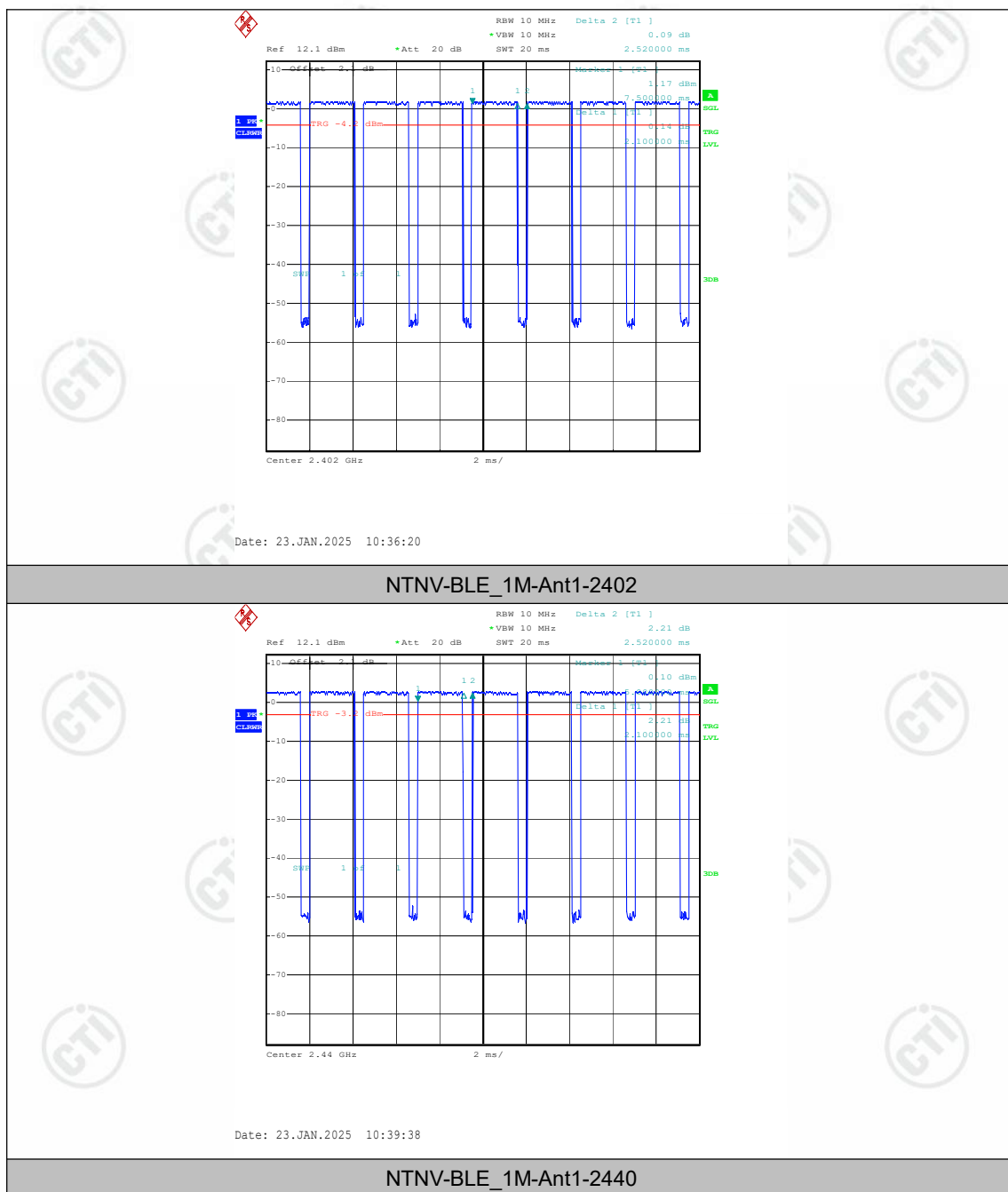
BLE_2M-Ant1-2480-1000~26500-PASS

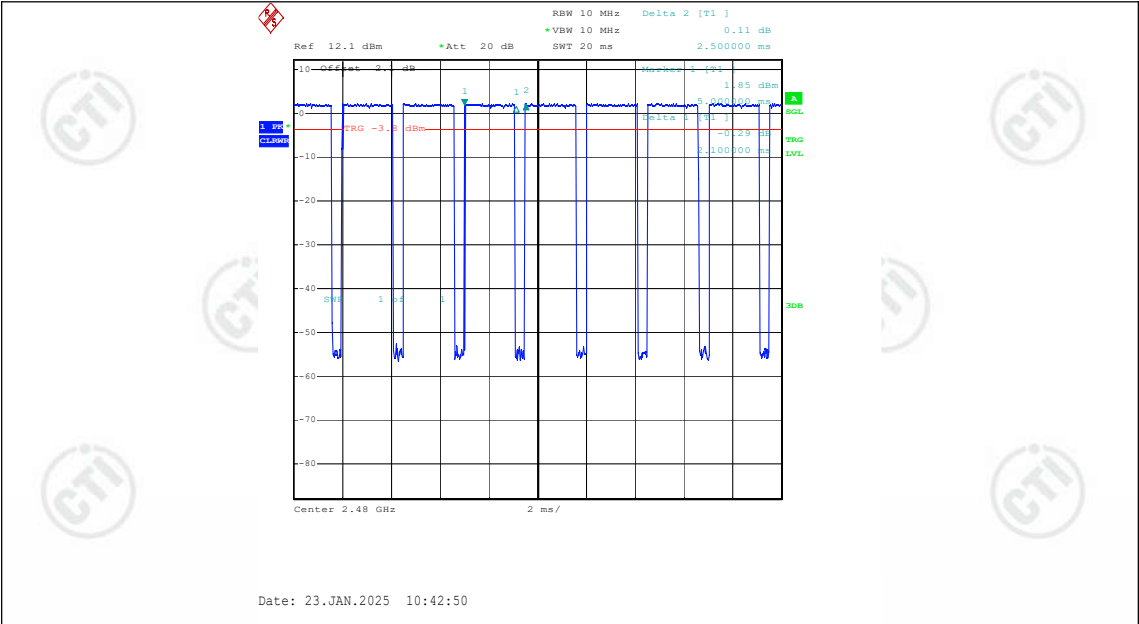
Appendix G: Duty Cycle

Test Result

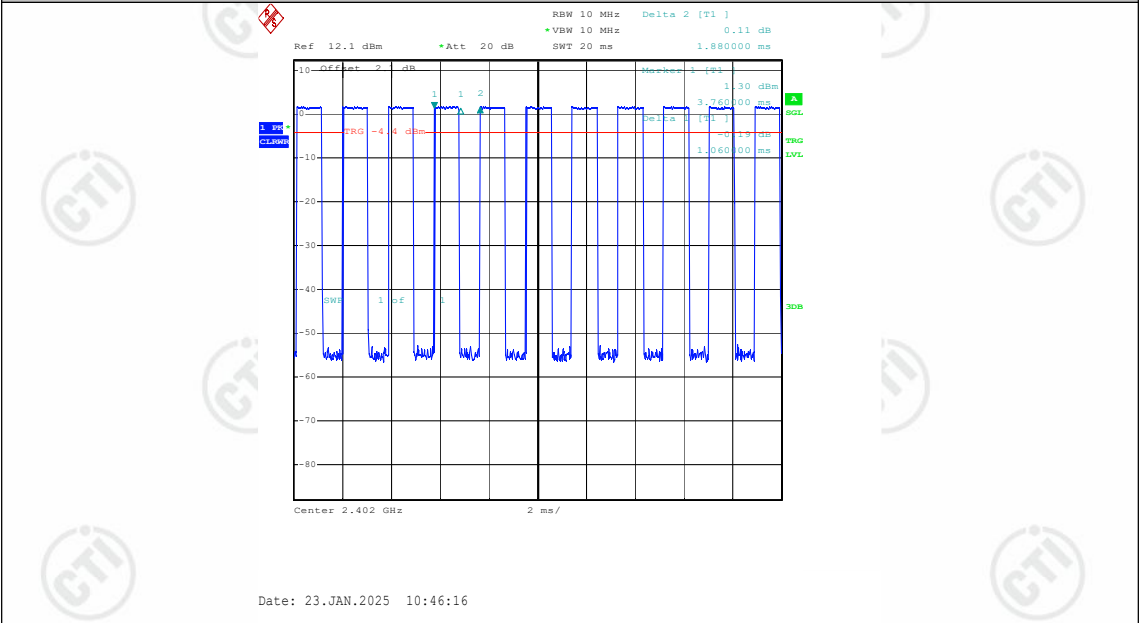
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	2.10	2.52	83.33	0.79
BLE_1M	Ant1	2440	2.10	2.52	83.33	0.79
BLE_1M	Ant1	2480	2.10	2.50	84.00	0.76
BLE_2M	Ant1	2402	1.06	1.88	56.38	2.49
BLE_2M	Ant1	2440	1.06	1.88	56.38	2.49
BLE_2M	Ant1	2480	1.06	1.88	56.38	2.49

Test Graphs

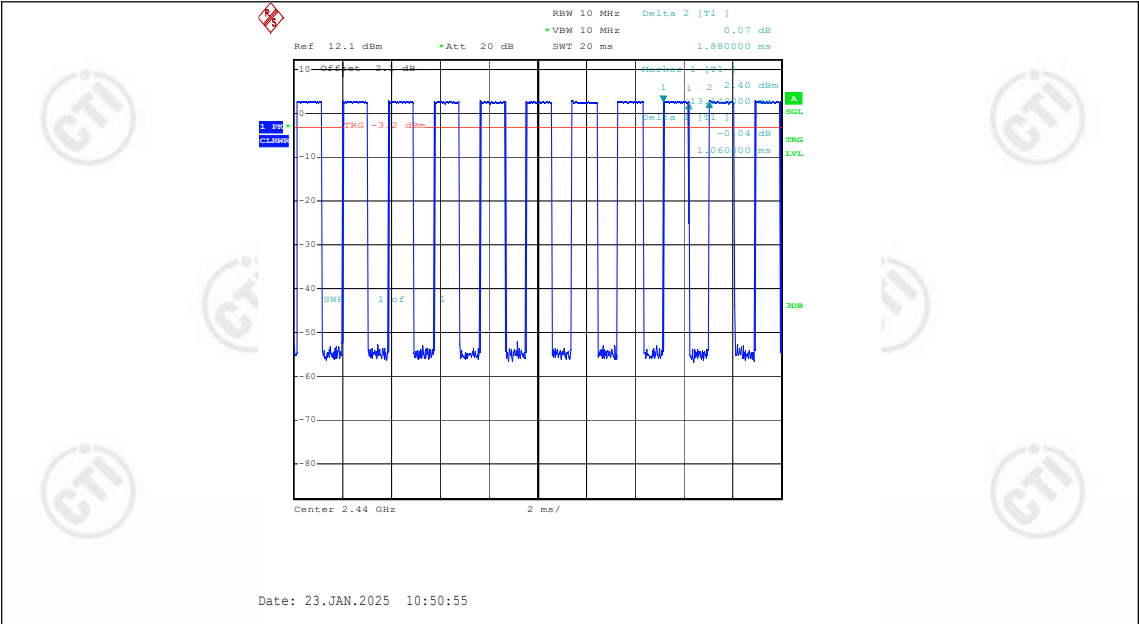




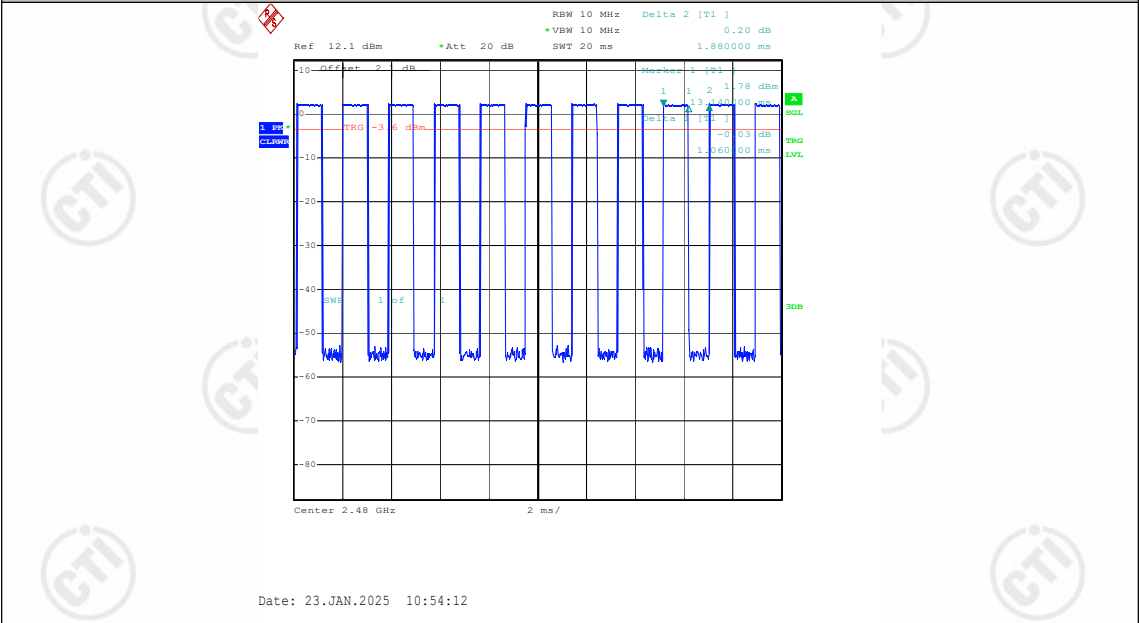
NTNV-BLE_1M-Ant1-2480



NTNV-BLE_2M-Ant1-2402



NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2480

END OF REPORT