

Appendix: Bluetooth LE

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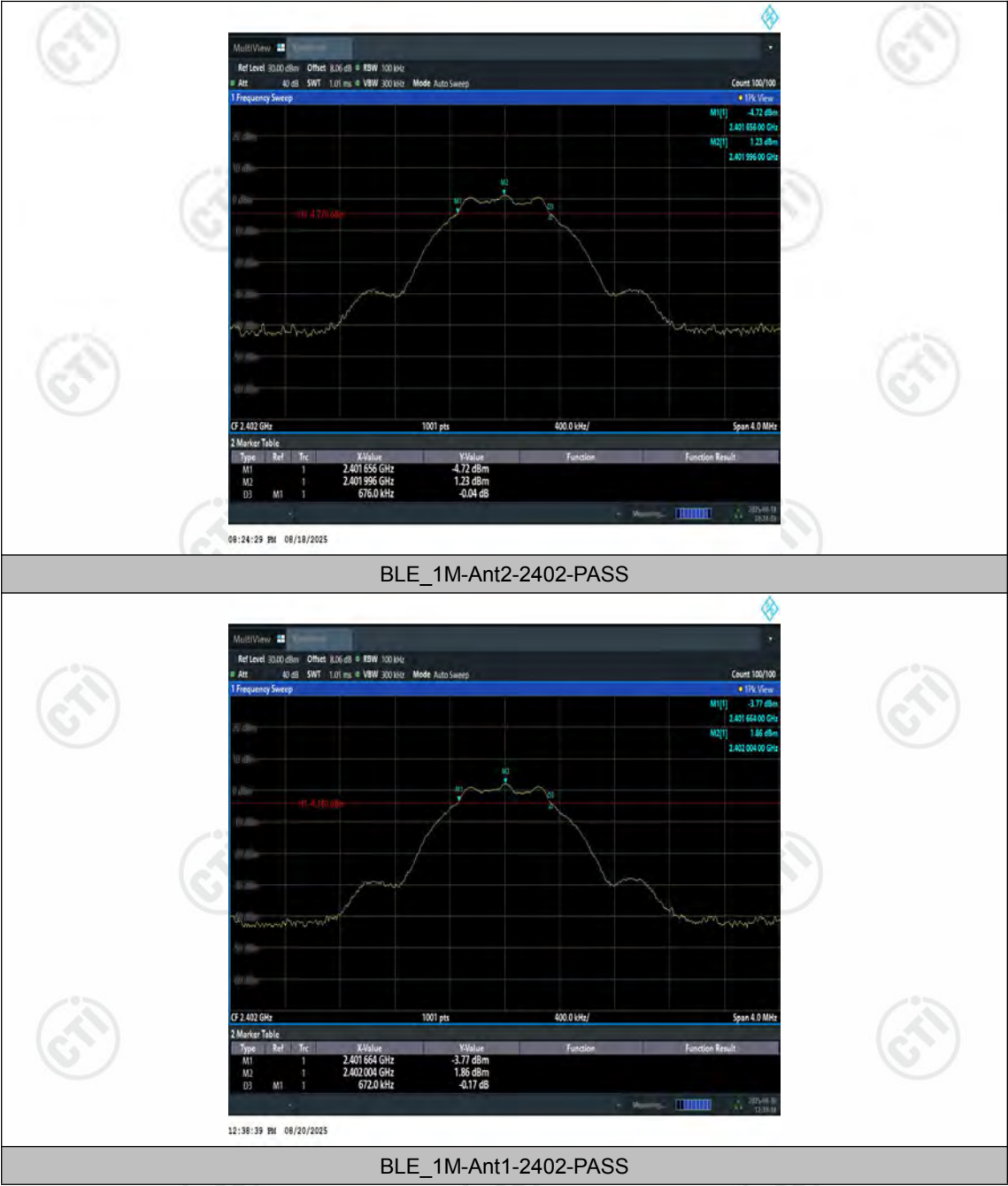
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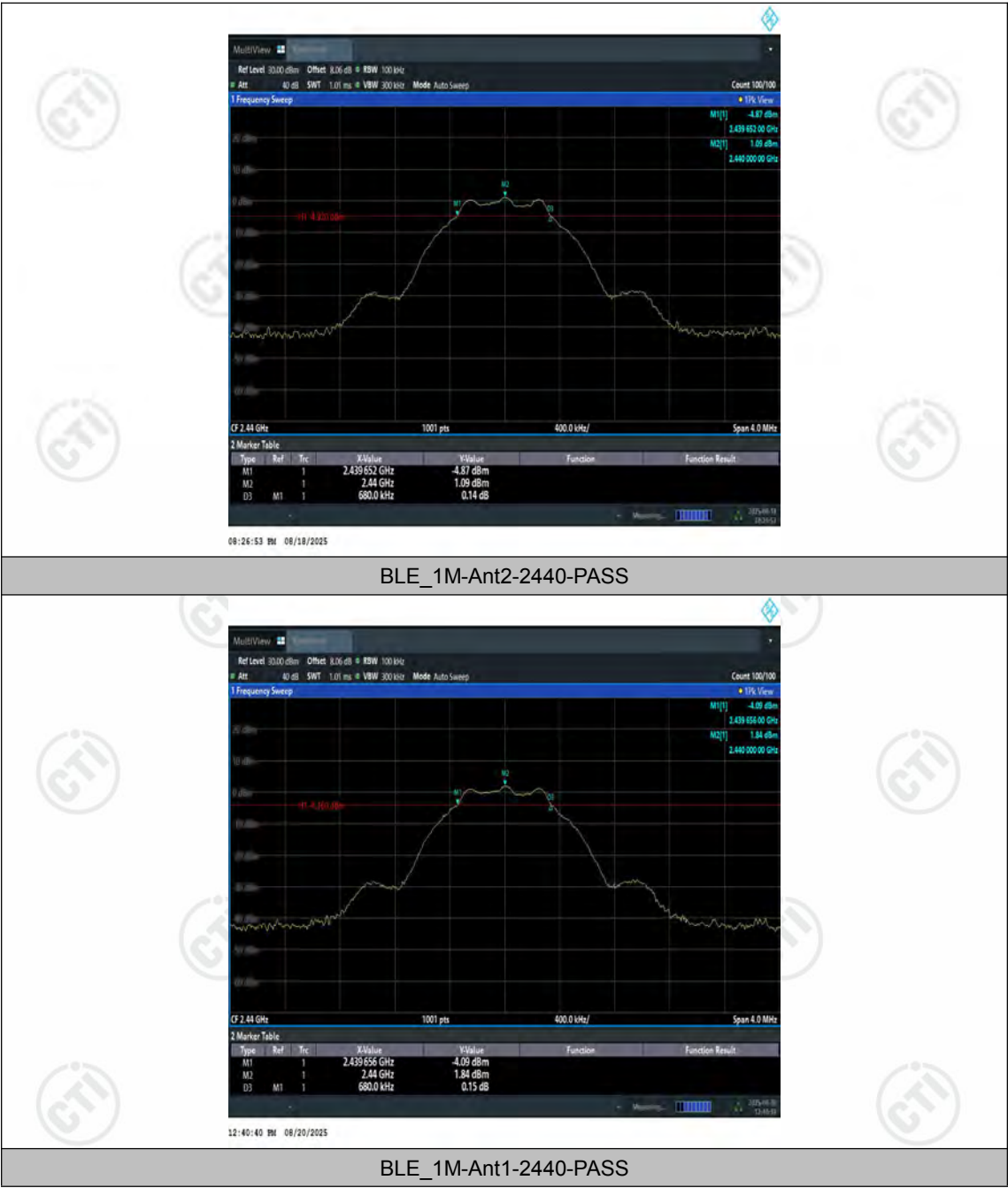
Appendix A: DTS Bandwidth

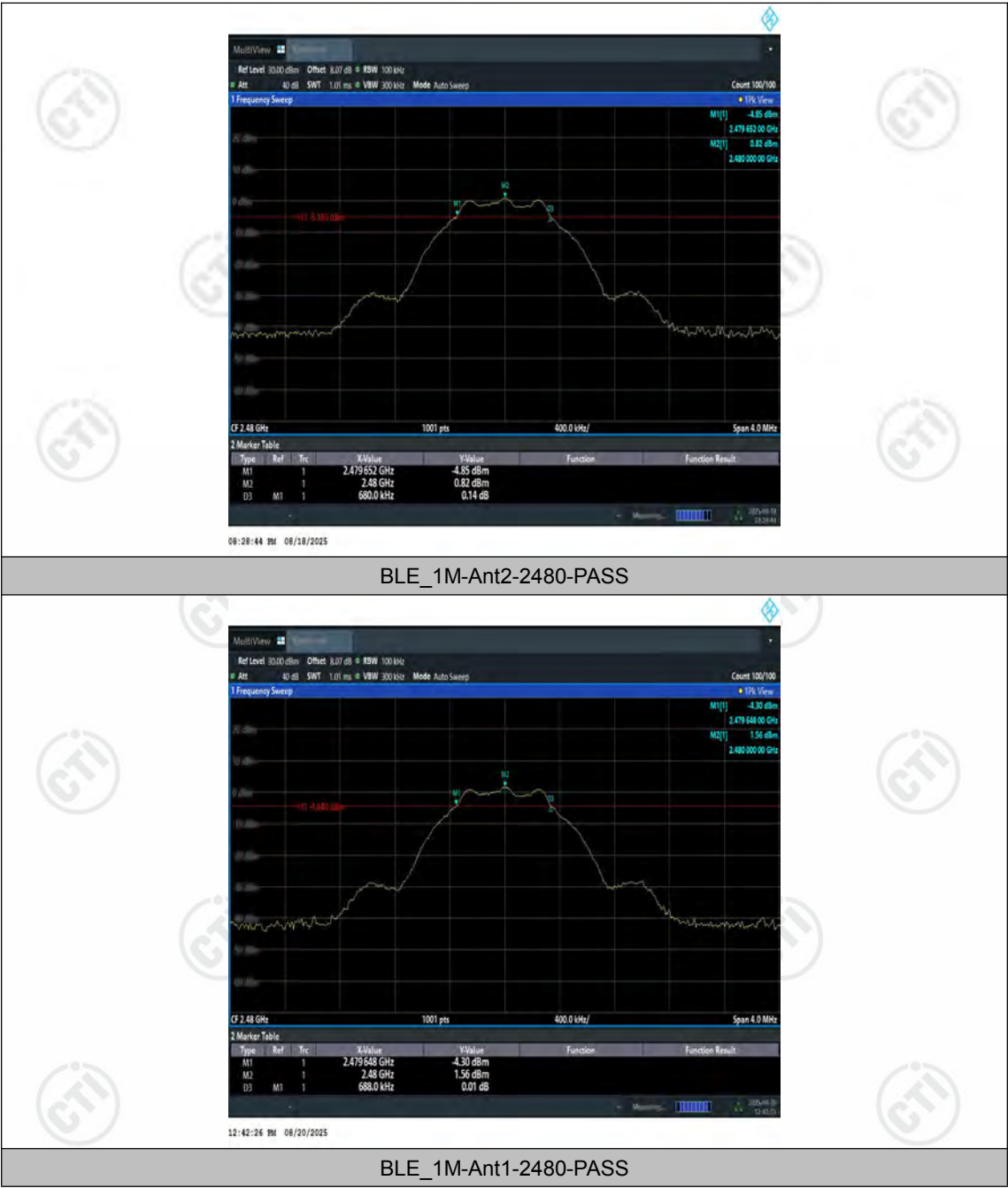
Test Result

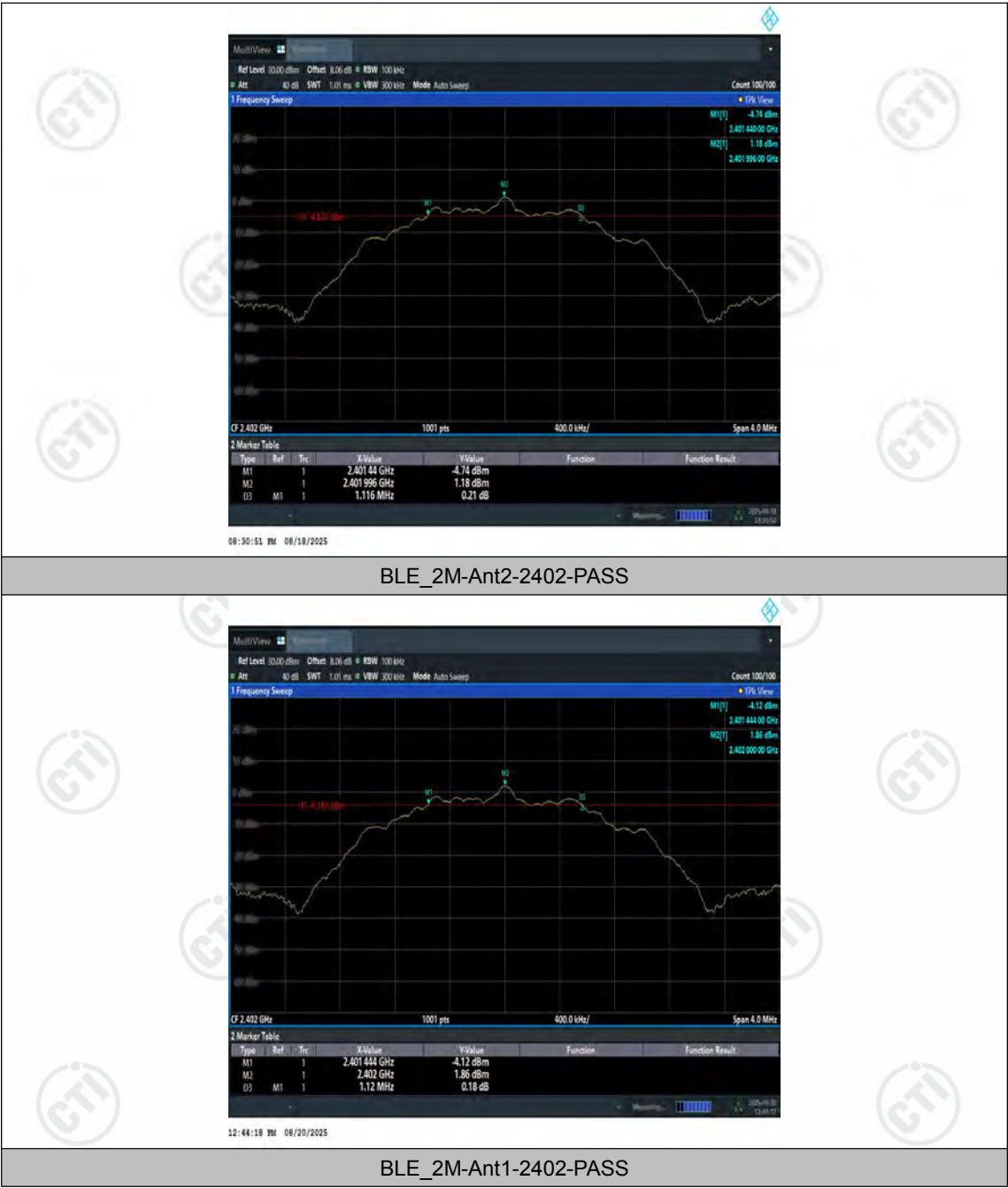
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant2	2402	0.68	2401.66	2402.33	0.5	PASS
BLE_1M	Ant1	2402	0.67	2401.66	2402.34	0.5	PASS
BLE_1M	Ant2	2440	0.68	2439.65	2440.33	0.5	PASS
BLE_1M	Ant1	2440	0.68	2439.66	2440.34	0.5	PASS
BLE_1M	Ant2	2480	0.68	2479.65	2480.33	0.5	PASS
BLE_1M	Ant1	2480	0.69	2479.65	2480.34	0.5	PASS
BLE_2M	Ant2	2402	1.12	2401.44	2402.56	0.5	PASS
BLE_2M	Ant1	2402	1.12	2401.44	2402.56	0.5	PASS
BLE_2M	Ant2	2440	1.13	2439.44	2440.56	0.5	PASS
BLE_2M	Ant1	2440	1.12	2439.44	2440.56	0.5	PASS
BLE_2M	Ant2	2480	1.14	2479.43	2480.57	0.5	PASS
BLE_2M	Ant1	2480	1.14	2479.42	2480.57	0.5	PASS

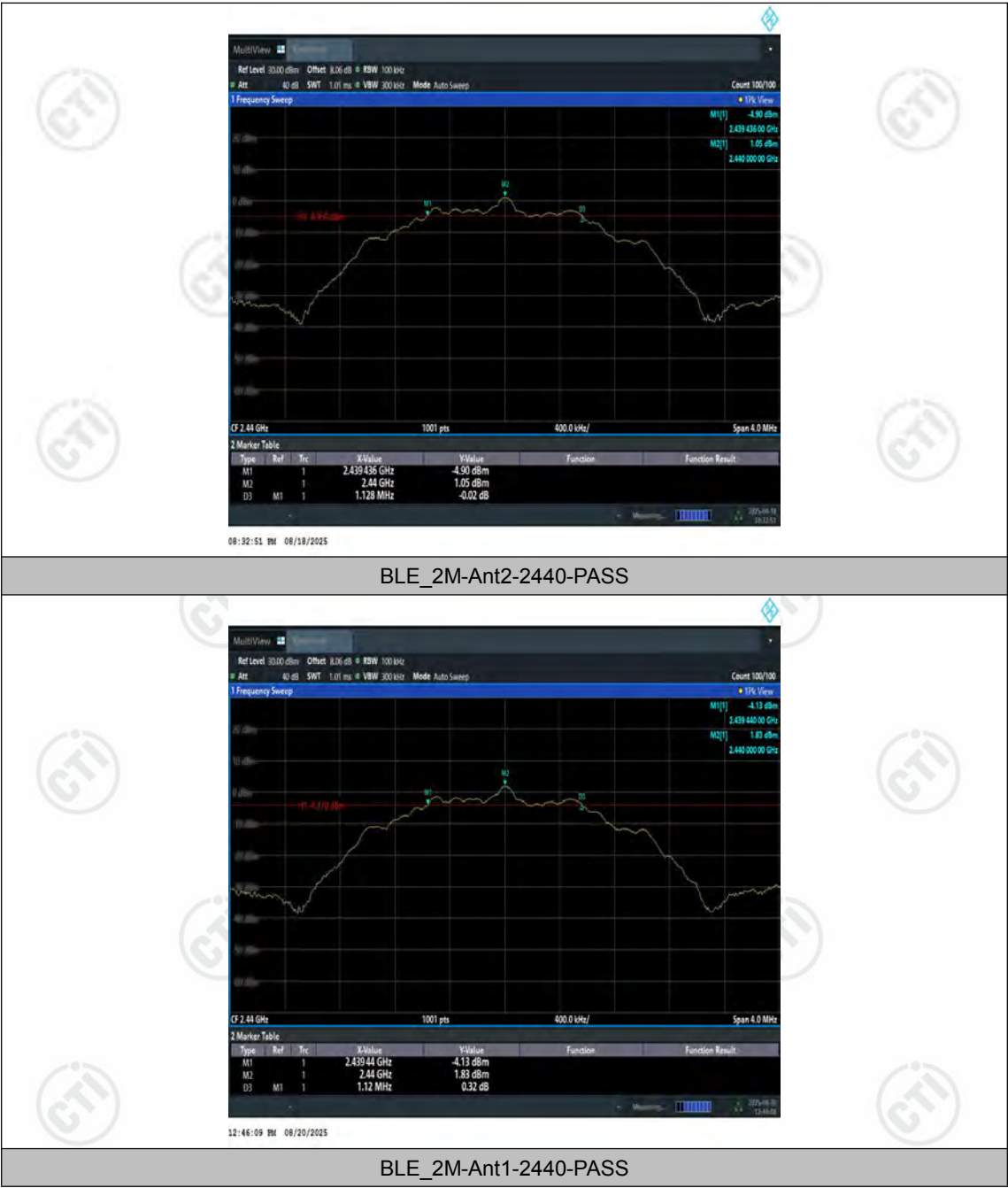
Test Graphs

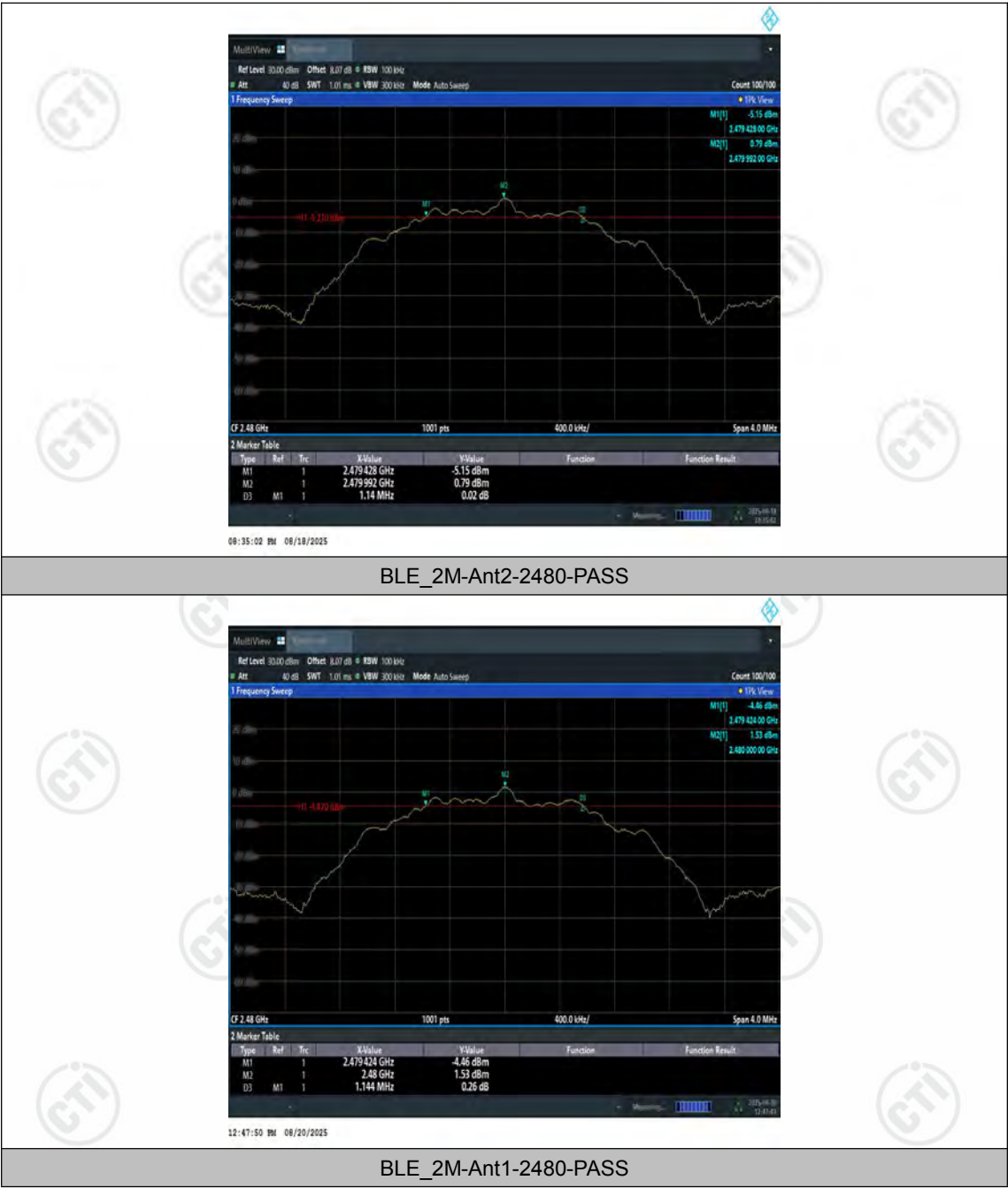












Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
BLE_1M	Ant2	2402	1.0486	2401.4776	2402.5262	---	---
BLE_1M	Ant1	2402	1.0480	2401.4822	2402.5302	---	---
BLE_1M	Ant2	2440	1.0462	2439.4807	2440.5270	---	---
BLE_1M	Ant1	2440	1.0442	2439.4845	2440.5287	---	---
BLE_1M	Ant2	2480	1.0430	2479.4795	2480.5225	---	---
BLE_1M	Ant1	2480	1.0442	2479.4807	2480.5249	---	---
BLE_2M	Ant2	2402	2.0507	2400.9900	2403.0407	---	---
BLE_2M	Ant1	2402	2.0498	2400.9916	2403.0414	---	---
BLE_2M	Ant2	2440	2.0516	2438.9897	2441.0412	---	---
BLE_2M	Ant1	2440	2.0501	2438.9925	2441.0426	---	---
BLE_2M	Ant2	2480	2.0482	2478.9886	2481.0368	---	---
BLE_2M	Ant1	2480	2.0492	2478.9902	2481.0394	---	---

Test Graphs











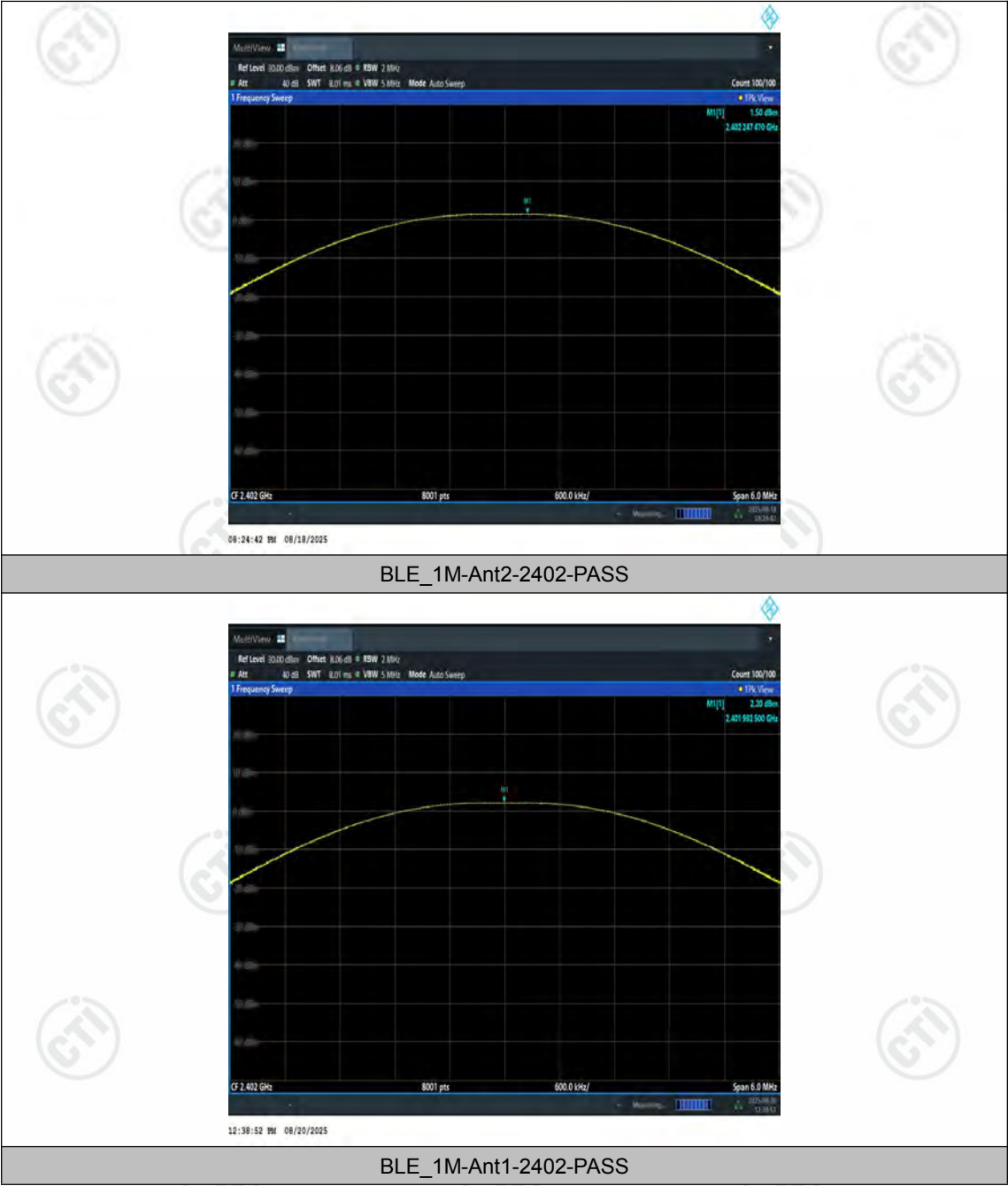


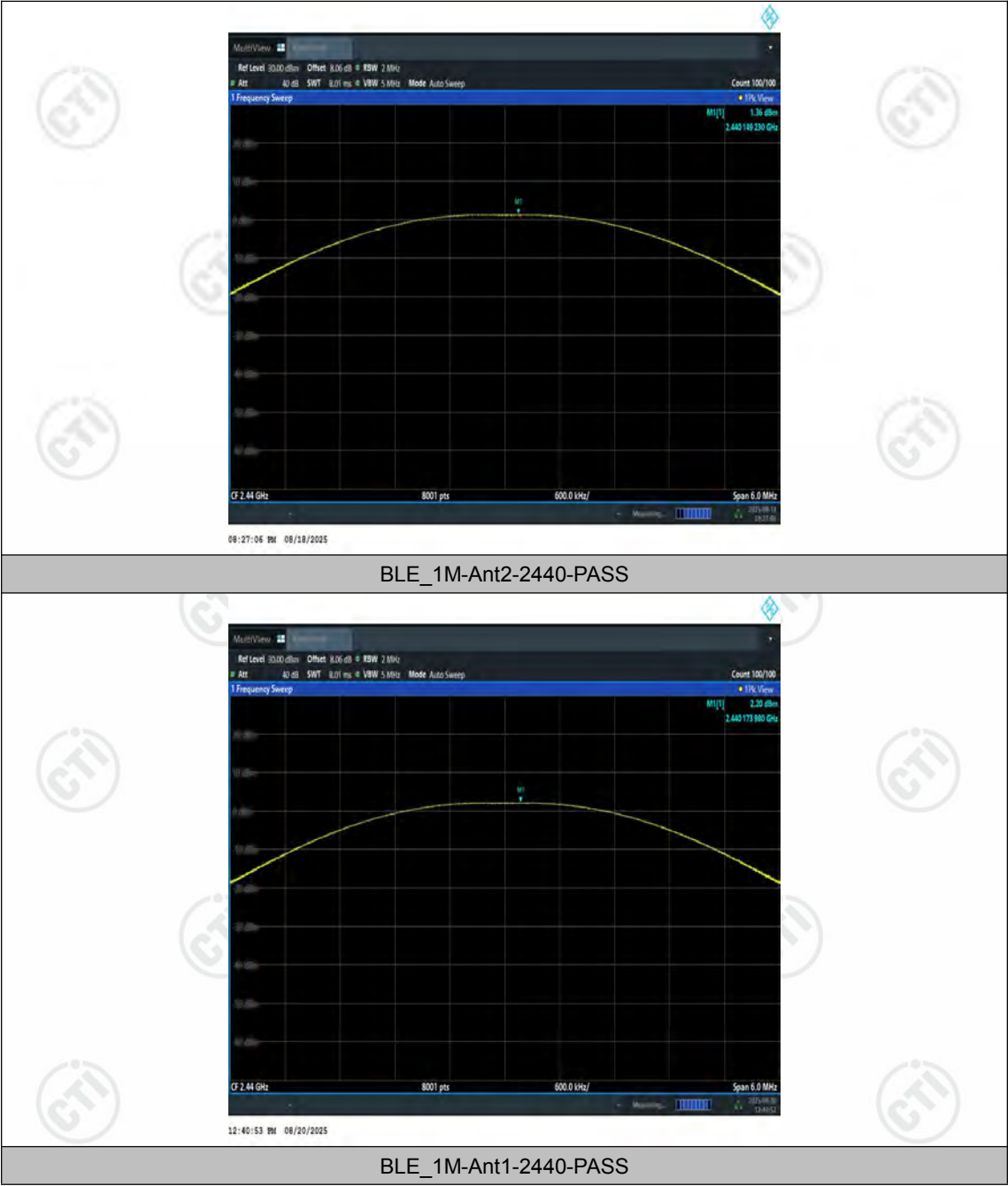
Appendix C: Maximum conducted output power

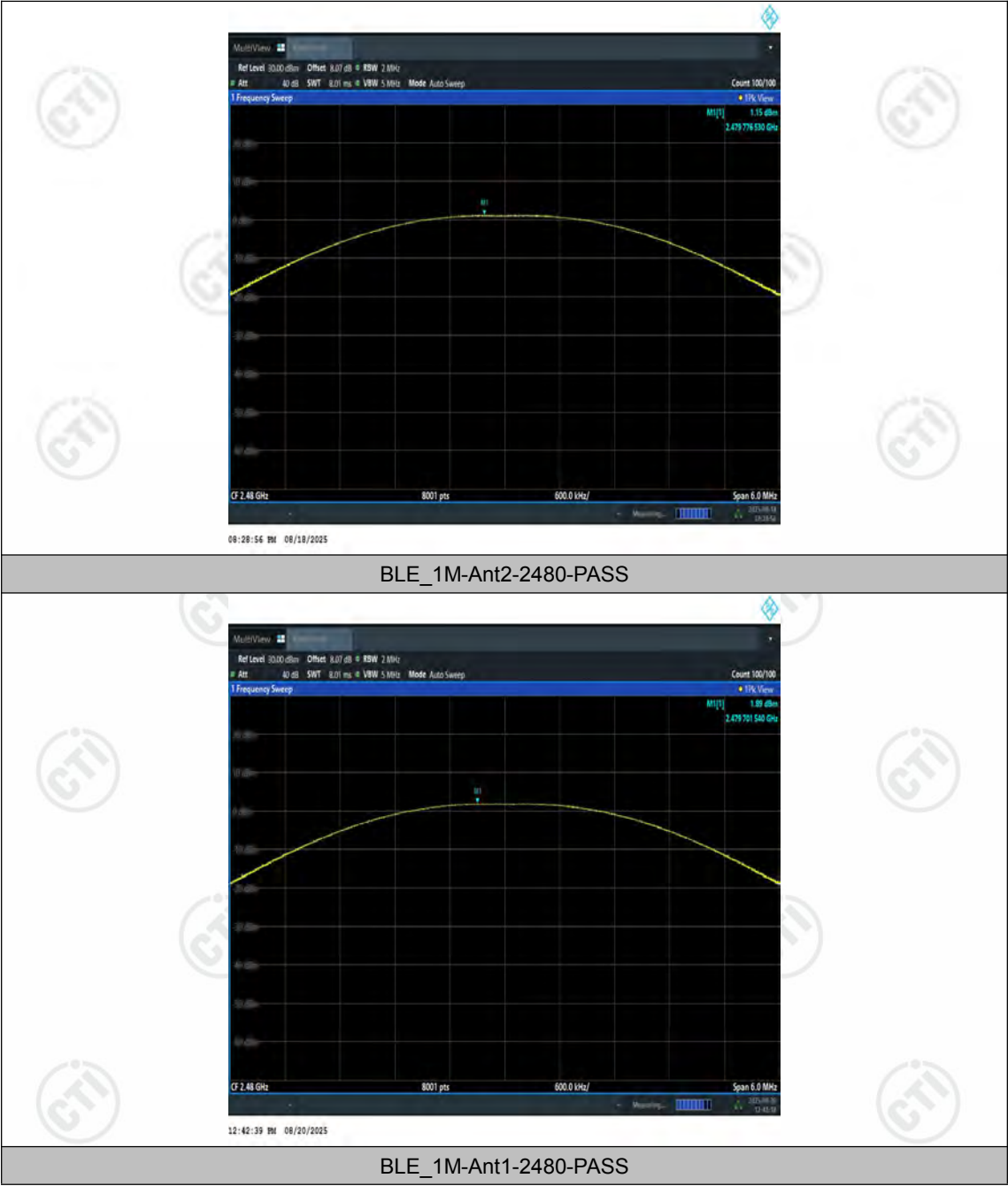
Test Result Peak

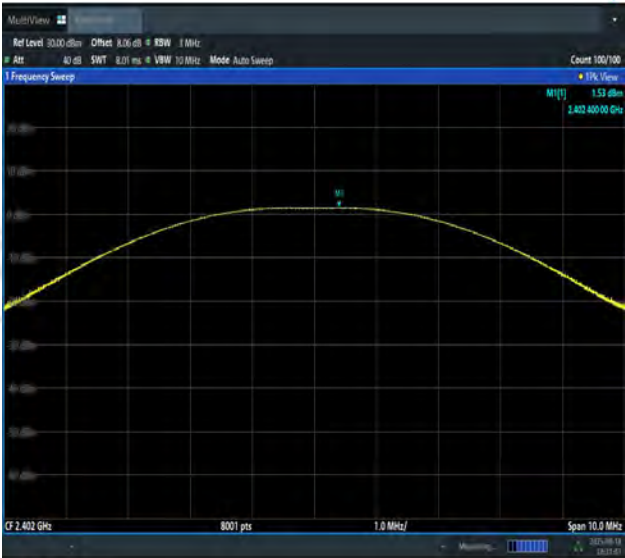
TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant2	2402	1.50	≤30	3.60	≤36	PASS
BLE_1M	Ant1	2402	2.20	≤30	4.30	≤36	PASS
BLE_1M	Ant2	2440	1.36	≤30	3.46	≤36	PASS
BLE_1M	Ant1	2440	2.20	≤30	4.30	≤36	PASS
BLE_1M	Ant2	2480	1.15	≤30	3.25	≤36	PASS
BLE_1M	Ant1	2480	1.89	≤30	3.99	≤36	PASS
BLE_2M	Ant2	2402	1.53	≤30	3.63	≤36	PASS
BLE_2M	Ant1	2402	2.25	≤30	4.35	≤36	PASS
BLE_2M	Ant2	2440	1.40	≤30	3.50	≤36	PASS
BLE_2M	Ant1	2440	2.16	≤30	4.26	≤36	PASS
BLE_2M	Ant2	2480	1.17	≤30	3.27	≤36	PASS
BLE_2M	Ant1	2480	1.91	≤30	4.01	≤36	PASS

Test Graphs Peak





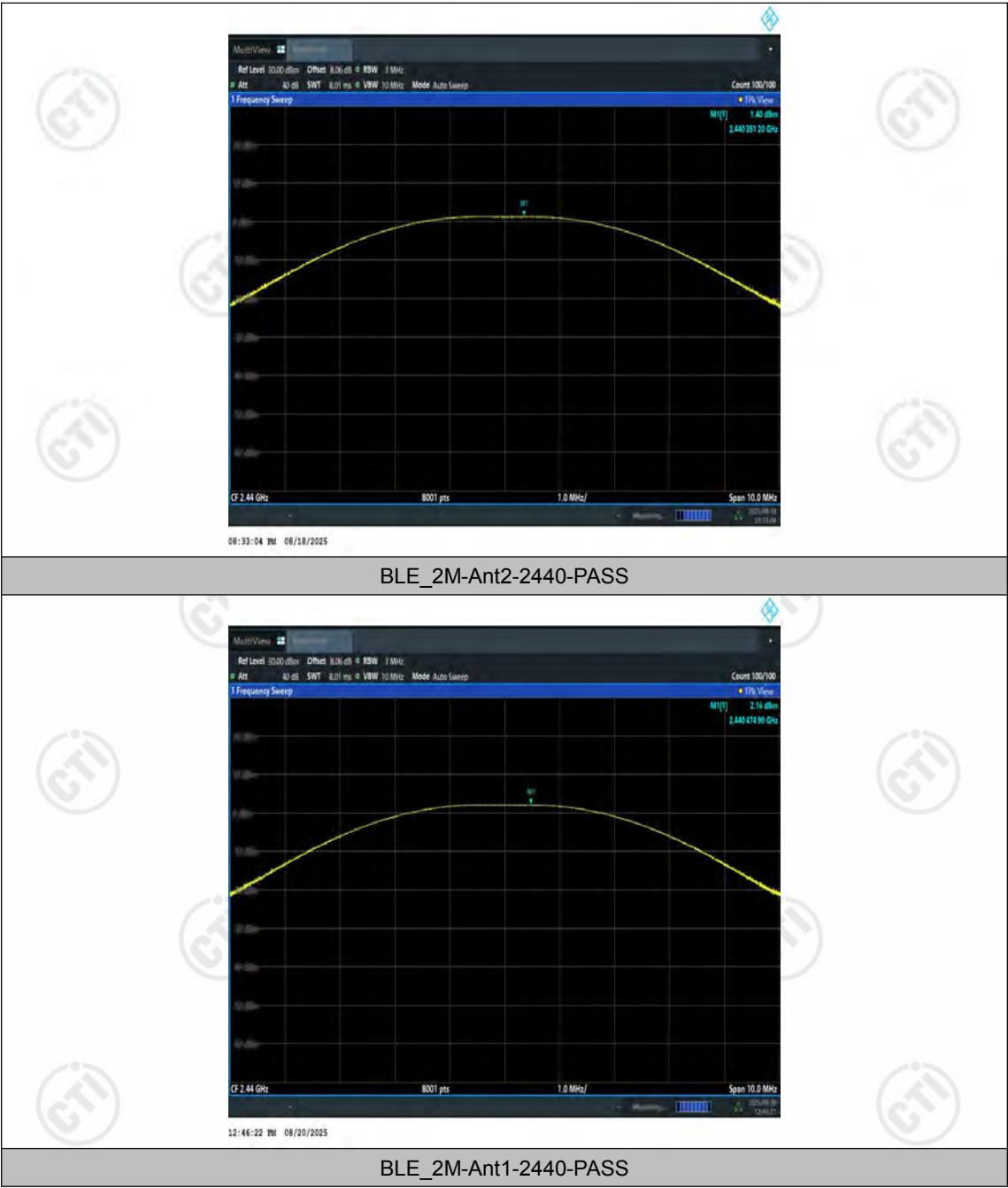


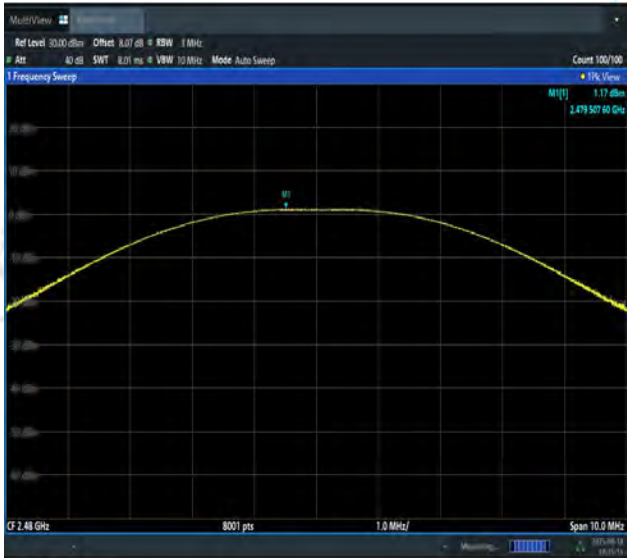


BLE_2M-Ant2-2402-PASS

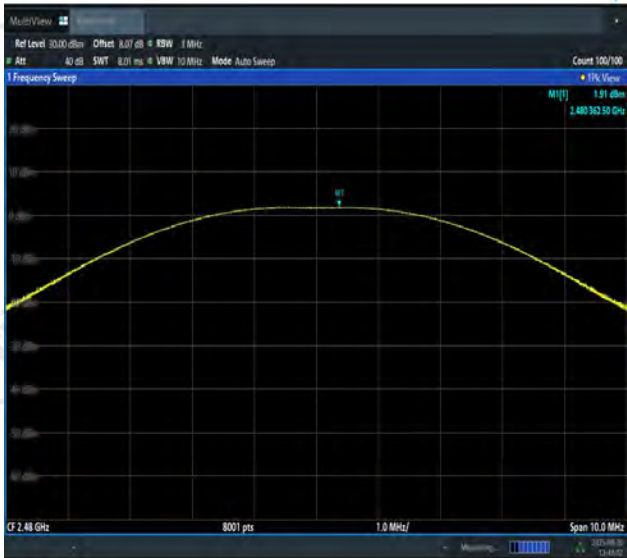


BLE_2M-Ant1-2402-PASS





BLE_2M-Ant2-2480-PASS



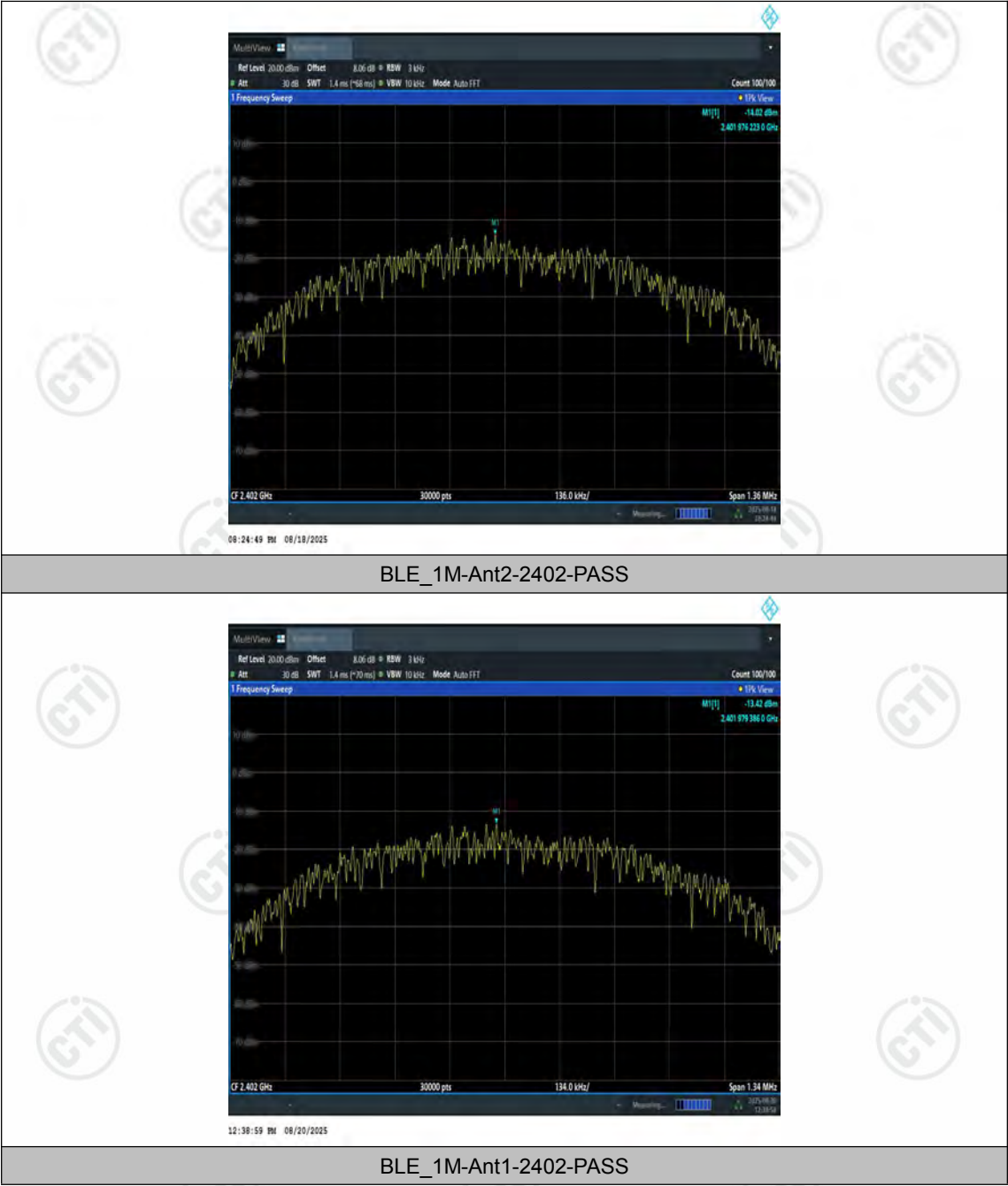
BLE_2M-Ant1-2480-PASS

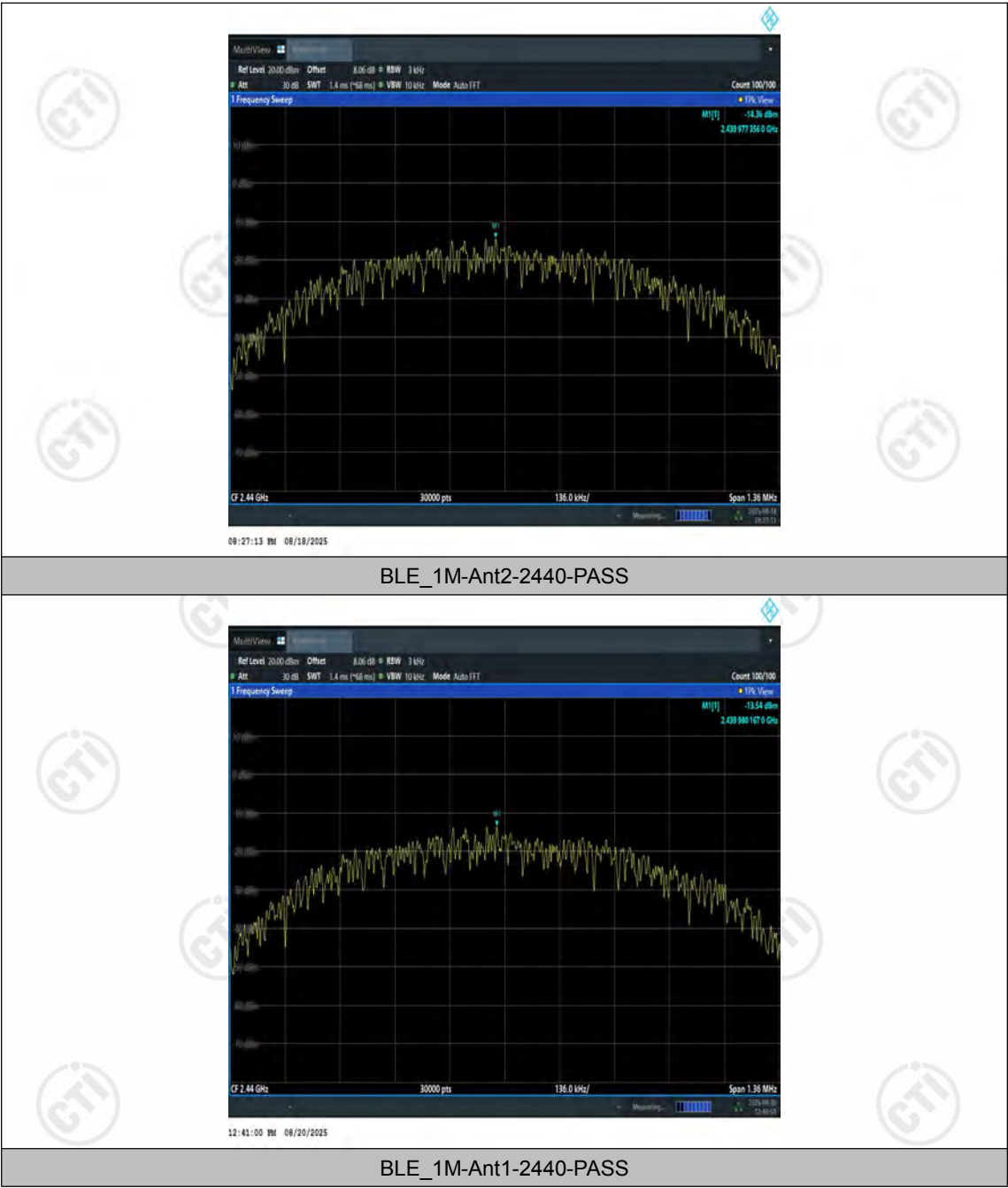
Appendix D: Maximum power spectral density

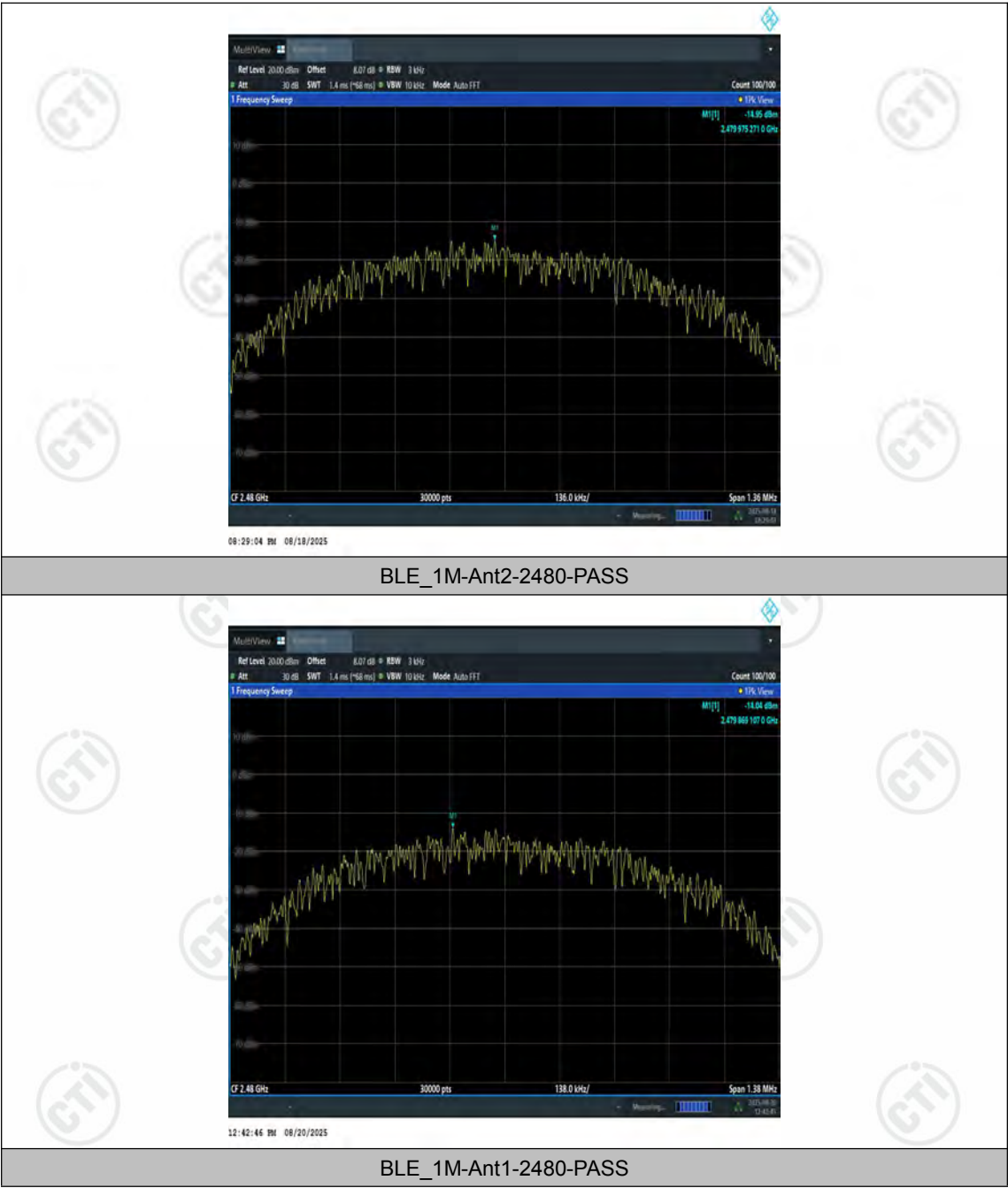
Test Result

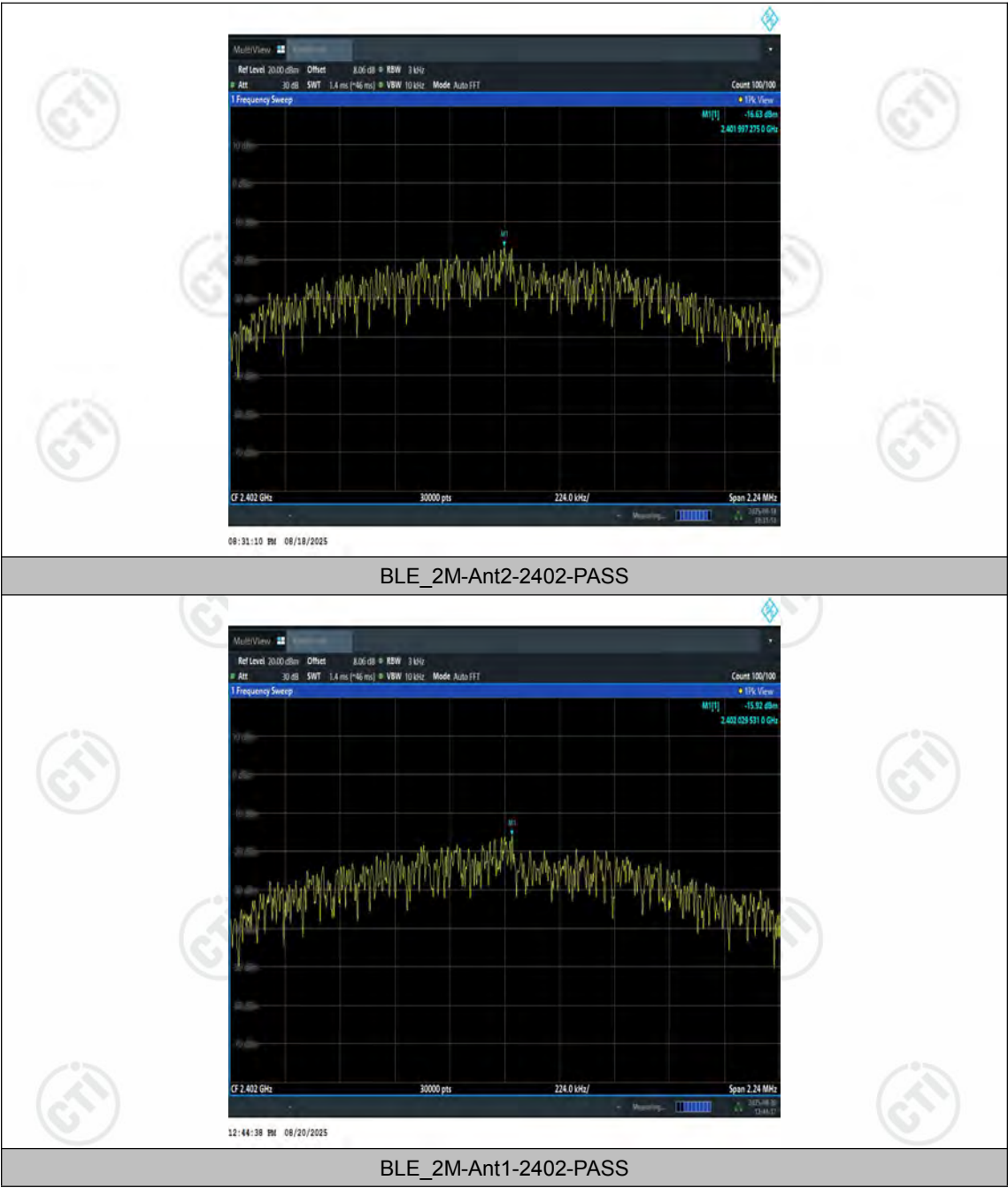
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant2	2402	-14.02	≤8.00	PASS
BLE_1M	Ant1	2402	-13.42	≤8.00	PASS
BLE_1M	Ant2	2440	-14.36	≤8.00	PASS
BLE_1M	Ant1	2440	-13.54	≤8.00	PASS
BLE_1M	Ant2	2480	-14.95	≤8.00	PASS
BLE_1M	Ant1	2480	-14.04	≤8.00	PASS
BLE_2M	Ant2	2402	-16.63	≤8.00	PASS
BLE_2M	Ant1	2402	-15.92	≤8.00	PASS
BLE_2M	Ant2	2440	-16.65	≤8.00	PASS
BLE_2M	Ant1	2440	-16.09	≤8.00	PASS
BLE_2M	Ant2	2480	-17.01	≤8.00	PASS
BLE_2M	Ant1	2480	-16.23	≤8.00	PASS

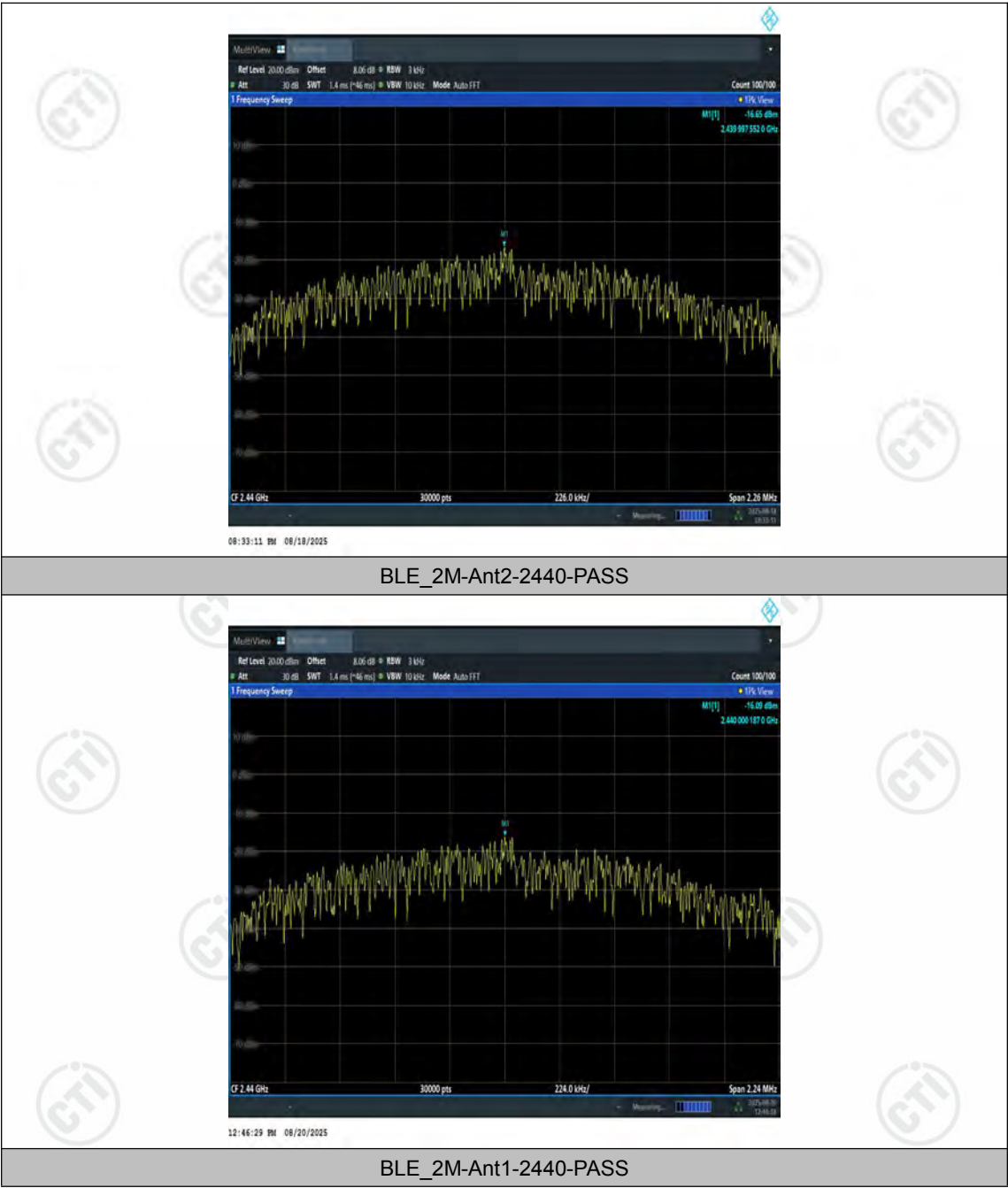
Test Graphs

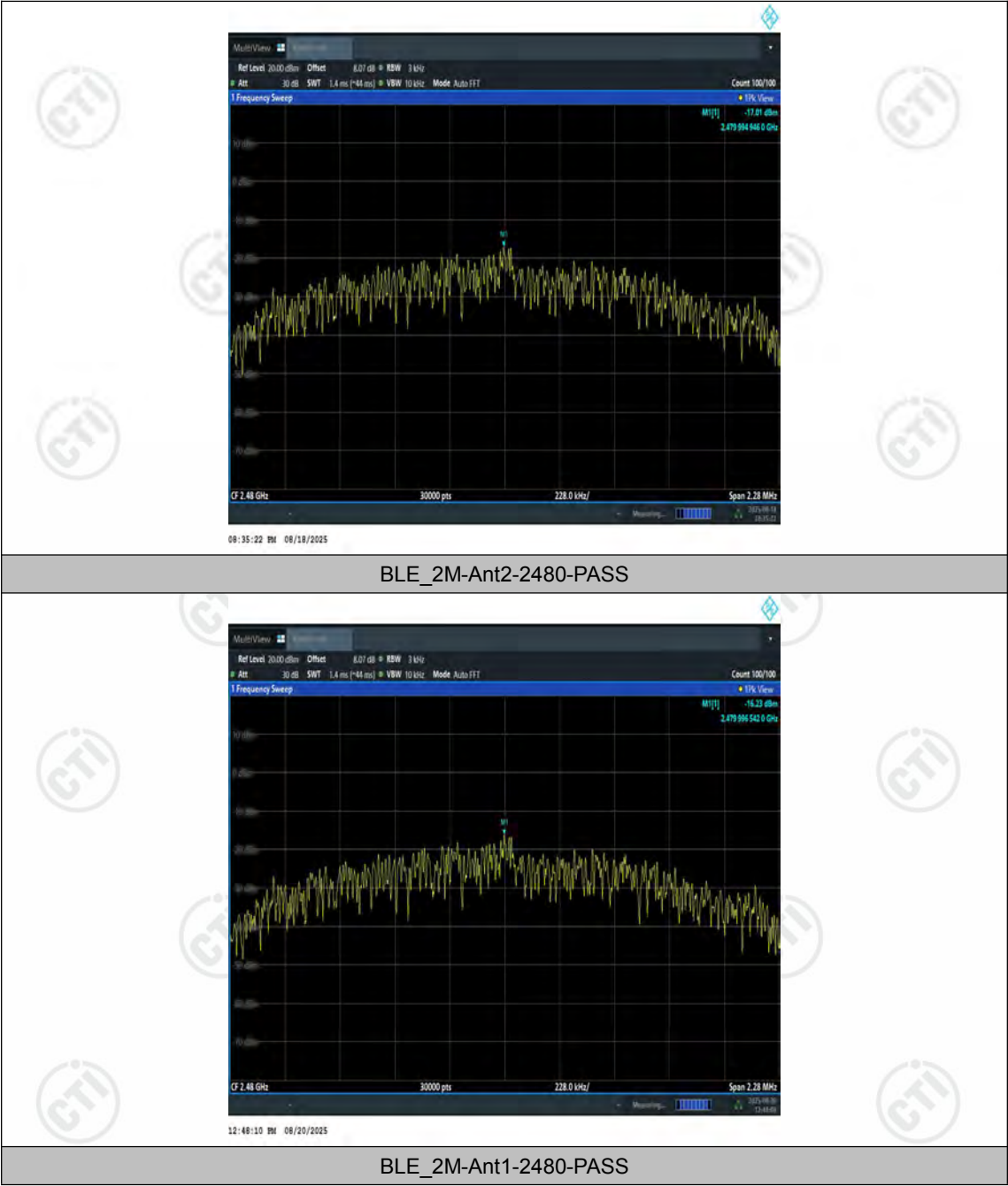










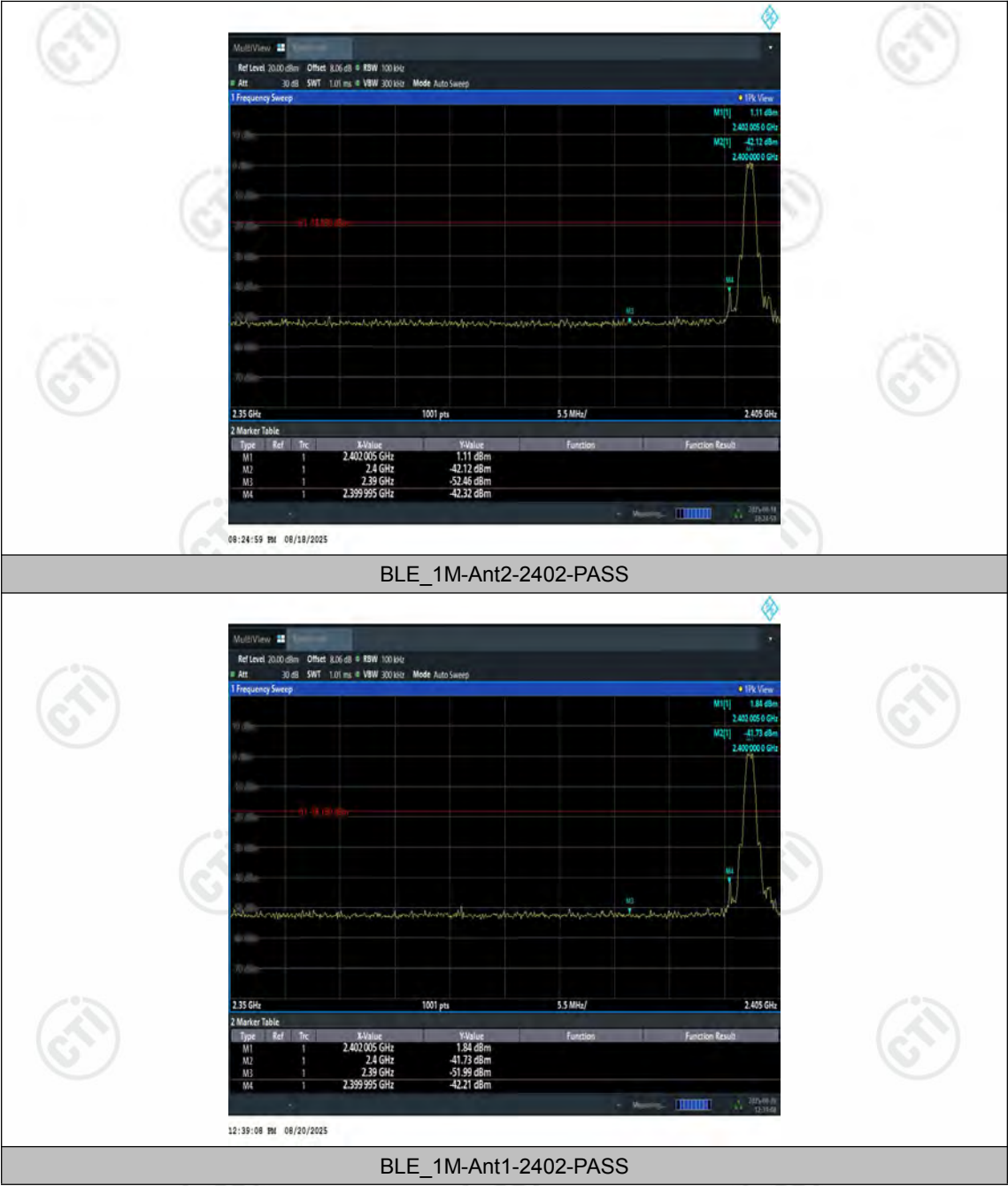


Appendix F: Band edge measurements

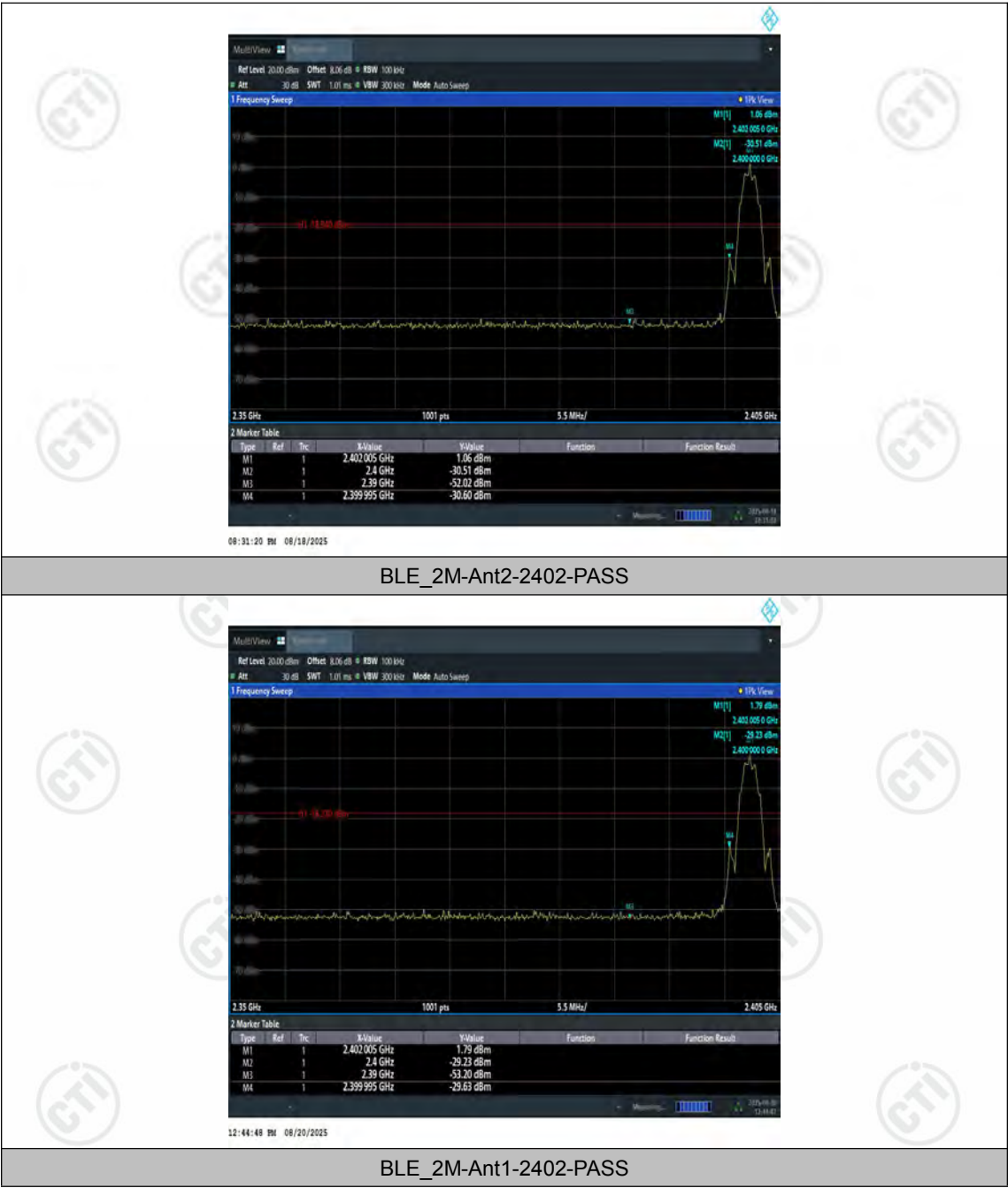
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant2	Low	2402	1.11	-42.32	≤-18.89	PASS
BLE_1M	Ant1	Low	2402	1.84	-42.21	≤-18.16	PASS
BLE_1M	Ant2	High	2480	0.62	-43.39	≤-19.38	PASS
BLE_1M	Ant1	High	2480	1.35	-43.94	≤-18.65	PASS
BLE_2M	Ant2	Low	2402	1.06	-30.6	≤-18.94	PASS
BLE_2M	Ant1	Low	2402	1.79	-29.63	≤-18.21	PASS
BLE_2M	Ant2	High	2480	0.73	-44.64	≤-19.27	PASS
BLE_2M	Ant1	High	2480	1.33	-44.27	≤-18.67	PASS

Test Graphs







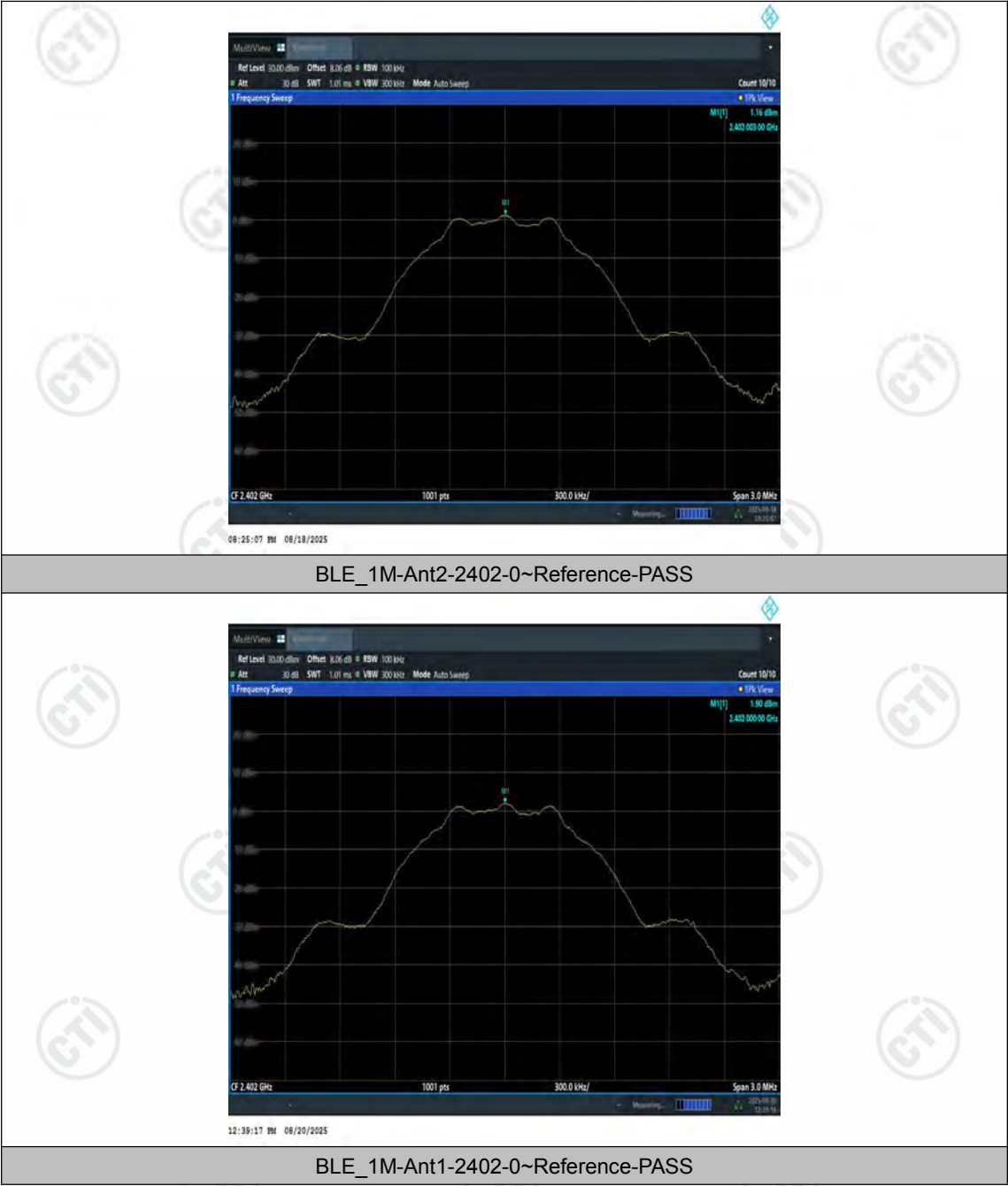


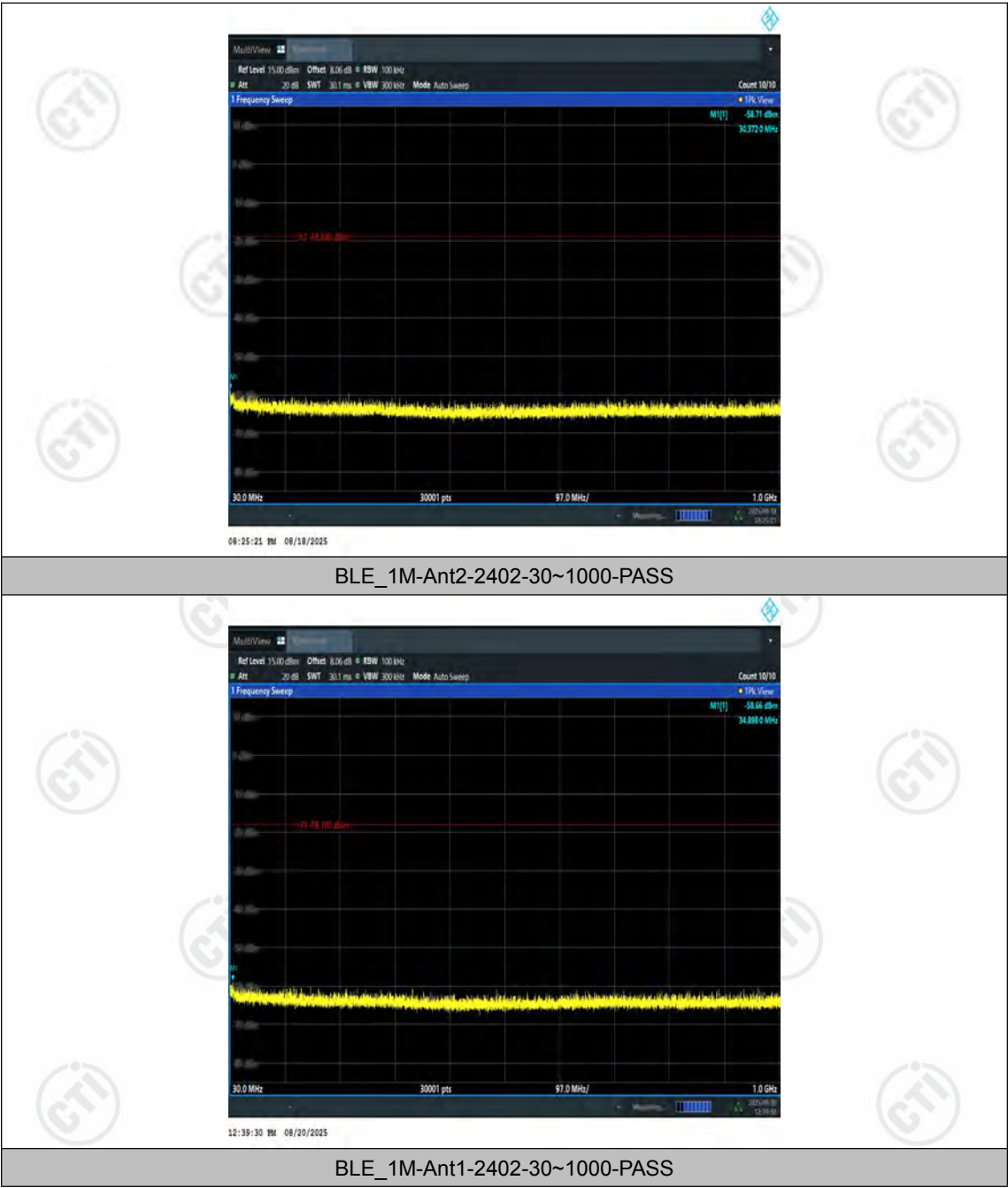
Appendix G: Conducted Spurious Emission

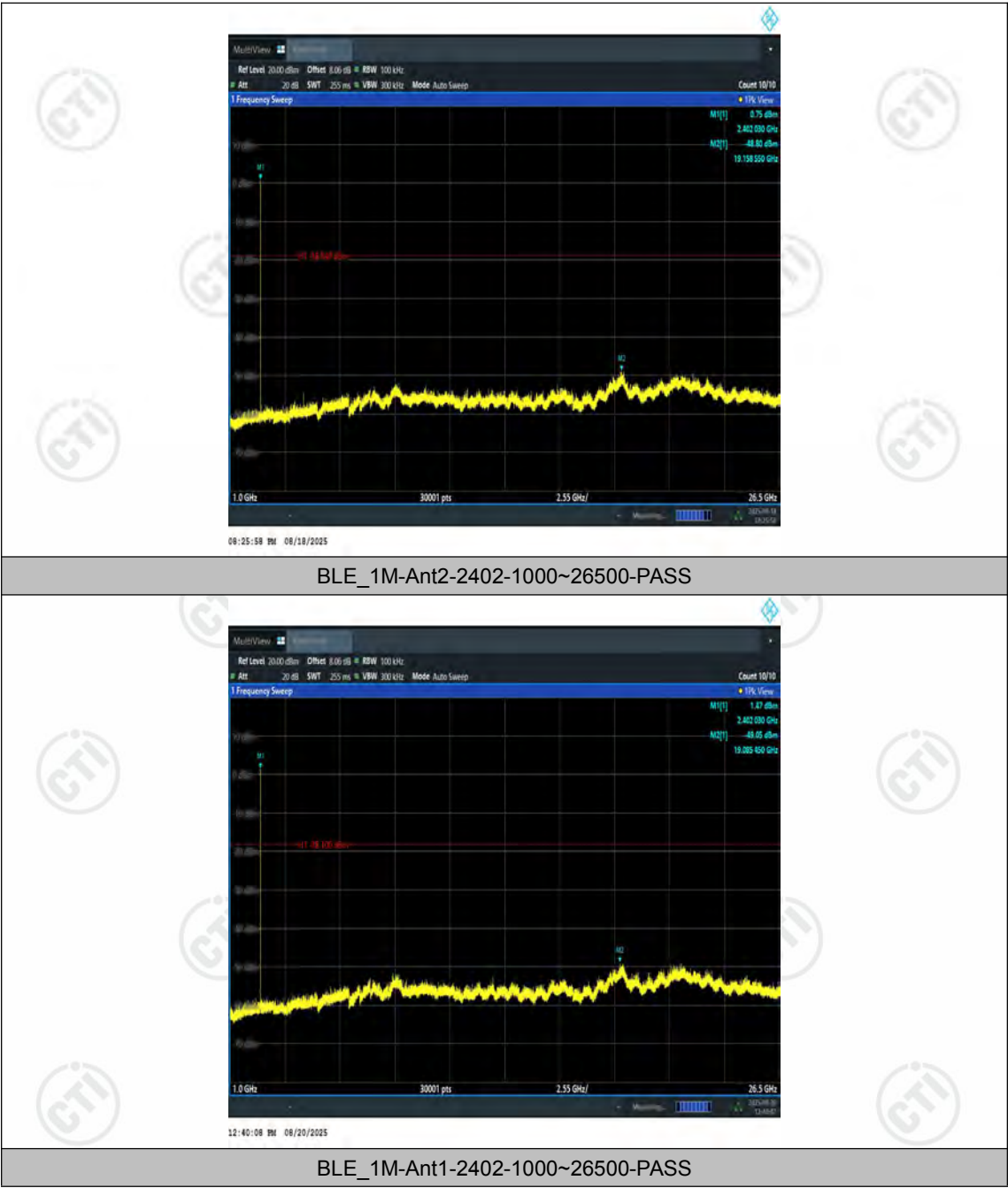
Test Result

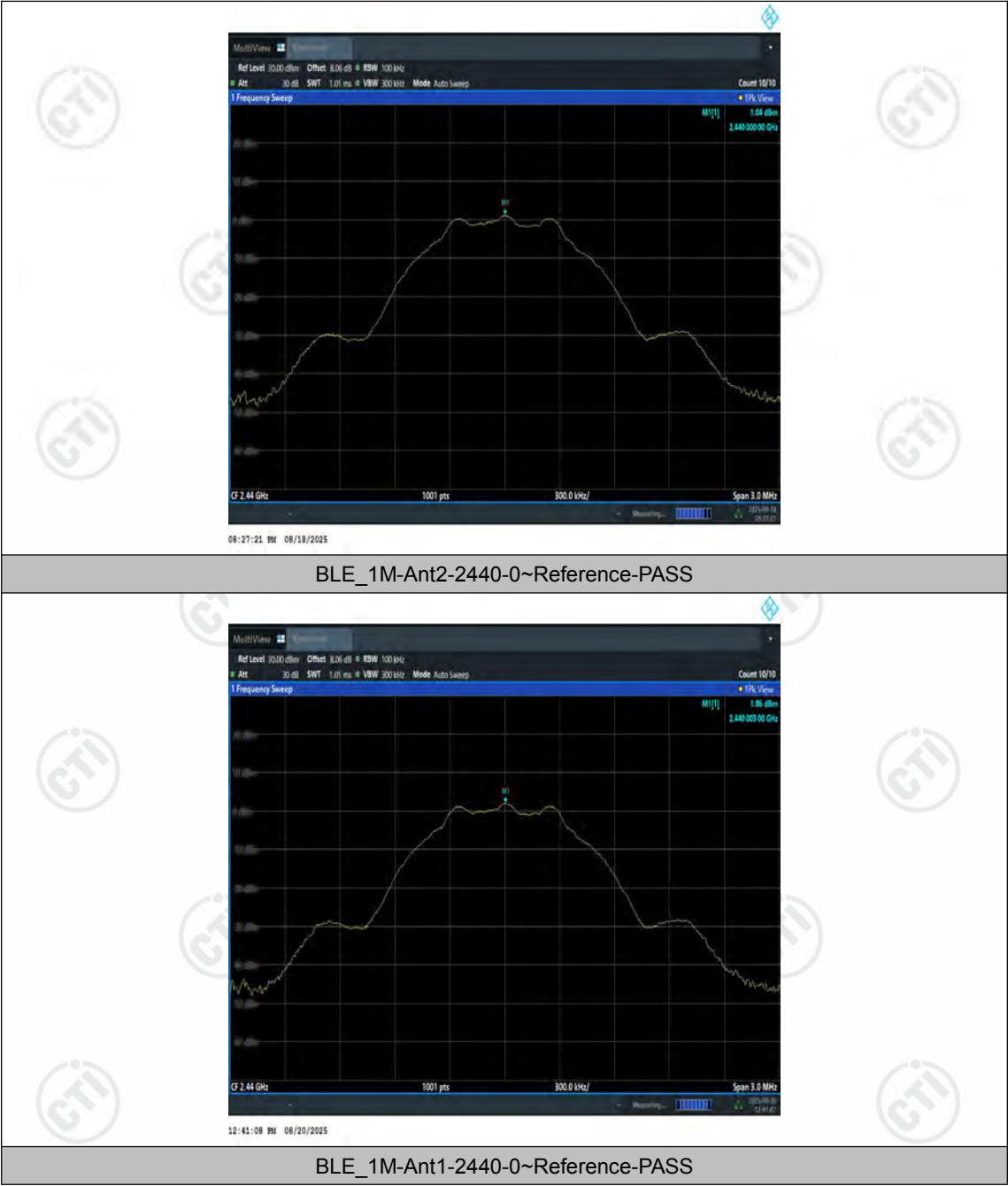
TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant2	2402	0~Reference	1.16	1.16	---	PASS
BLE_1M	Ant1	2402	0~Reference	1.90	1.90	---	PASS
BLE_1M	Ant2	2402	30~1000	1.16	-58.71	≤-18.84	PASS
BLE_1M	Ant1	2402	30~1000	1.90	-58.66	≤-18.1	PASS
BLE_1M	Ant2	2402	1000~26500	1.16	-48.8	≤-18.84	PASS
BLE_1M	Ant1	2402	1000~26500	1.90	-49.05	≤-18.1	PASS
BLE_1M	Ant2	2440	0~Reference	1.04	1.04	---	PASS
BLE_1M	Ant1	2440	0~Reference	1.86	1.86	---	PASS
BLE_1M	Ant2	2440	30~1000	1.04	-58.97	≤-18.96	PASS
BLE_1M	Ant1	2440	30~1000	1.86	-58.25	≤-18.14	PASS
BLE_1M	Ant2	2440	1000~26500	1.04	-49.18	≤-18.96	PASS
BLE_1M	Ant1	2440	1000~26500	1.86	-49.06	≤-18.14	PASS
BLE_1M	Ant2	2480	0~Reference	0.76	0.76	---	PASS
BLE_1M	Ant1	2480	0~Reference	1.52	1.52	---	PASS
BLE_1M	Ant2	2480	30~1000	0.76	-58.05	≤-19.24	PASS
BLE_1M	Ant1	2480	30~1000	1.52	-58.62	≤-18.48	PASS
BLE_1M	Ant2	2480	1000~26500	0.76	-49.21	≤-19.24	PASS
BLE_1M	Ant1	2480	1000~26500	1.52	-48.82	≤-18.48	PASS
BLE_2M	Ant2	2402	0~Reference	1.12	1.12	---	PASS
BLE_2M	Ant1	2402	0~Reference	1.84	1.84	---	PASS
BLE_2M	Ant2	2402	30~1000	1.12	-57.55	≤-18.88	PASS
BLE_2M	Ant1	2402	30~1000	1.84	-58.82	≤-18.16	PASS
BLE_2M	Ant2	2402	1000~26500	1.12	-49.07	≤-18.88	PASS
BLE_2M	Ant1	2402	1000~26500	1.84	-49.58	≤-18.16	PASS
BLE_2M	Ant2	2440	0~Reference	1.02	1.02	---	PASS
BLE_2M	Ant1	2440	0~Reference	1.81	1.81	---	PASS
BLE_2M	Ant2	2440	30~1000	1.02	-59.29	≤-18.98	PASS
BLE_2M	Ant1	2440	30~1000	1.81	-59.06	≤-18.19	PASS
BLE_2M	Ant2	2440	1000~26500	1.02	-48.72	≤-18.98	PASS
BLE_2M	Ant1	2440	1000~26500	1.81	-49.09	≤-18.19	PASS
BLE_2M	Ant2	2480	0~Reference	0.87	0.87	---	PASS
BLE_2M	Ant1	2480	0~Reference	1.48	1.48	---	PASS
BLE_2M	Ant2	2480	30~1000	0.87	-58.42	≤-19.13	PASS
BLE_2M	Ant1	2480	30~1000	1.48	-59.18	≤-18.52	PASS
BLE_2M	Ant2	2480	1000~26500	0.87	-48.87	≤-19.13	PASS
BLE_2M	Ant1	2480	1000~26500	1.48	-49.32	≤-18.52	PASS

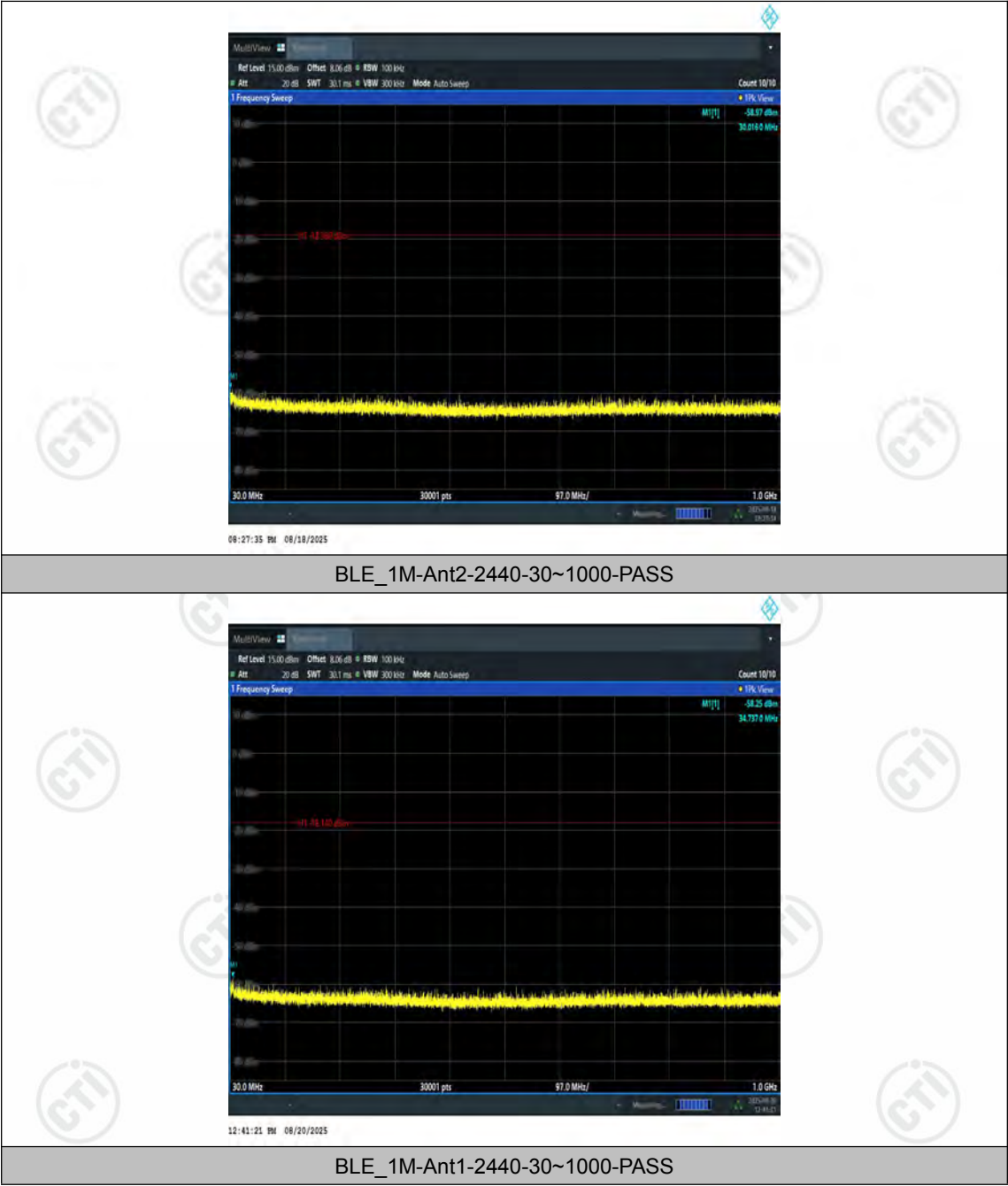
Test Graphs

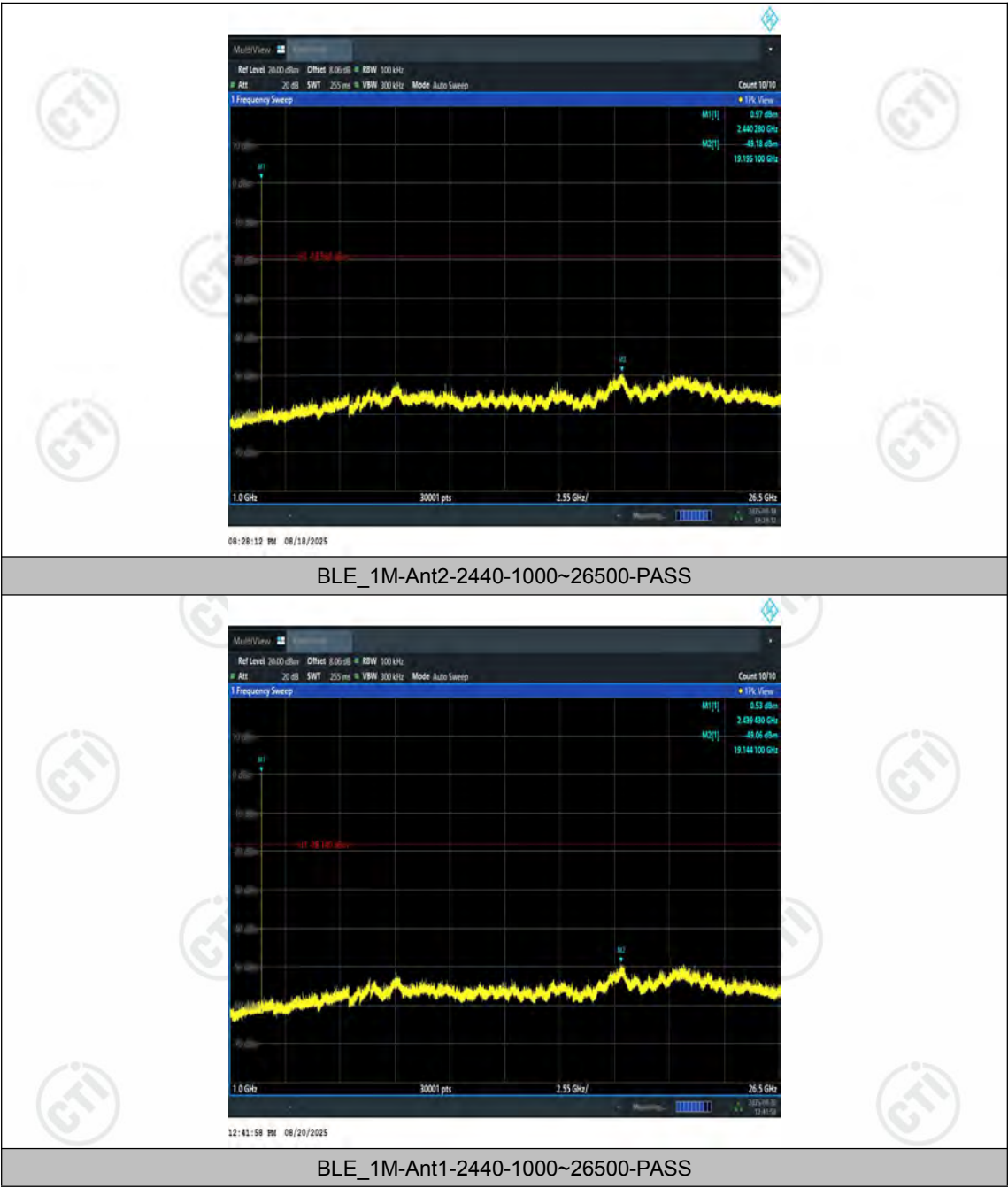


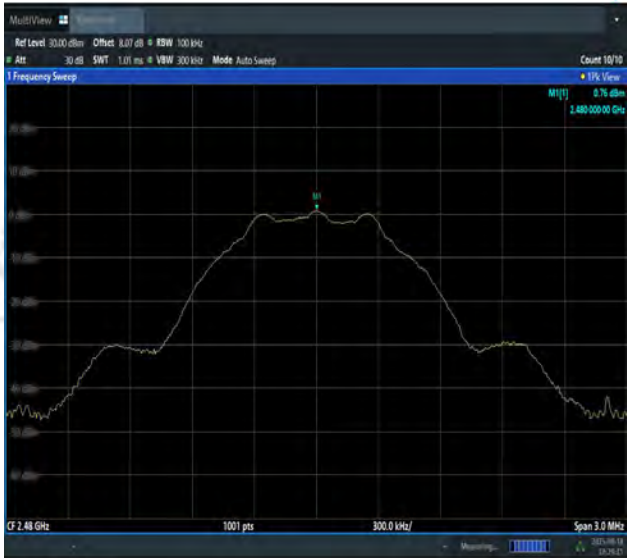




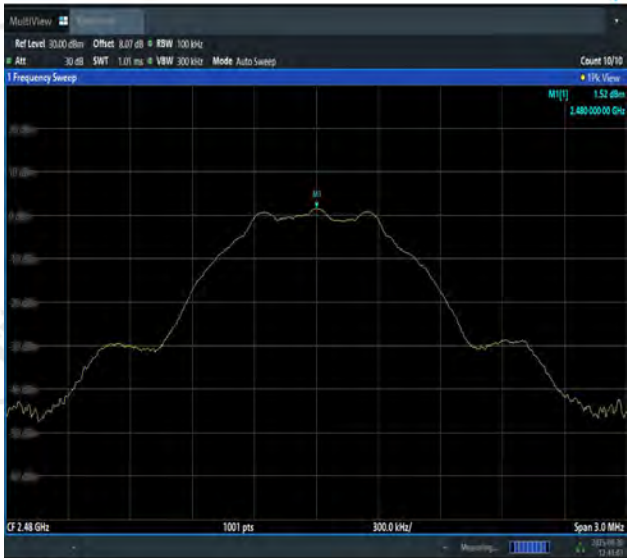




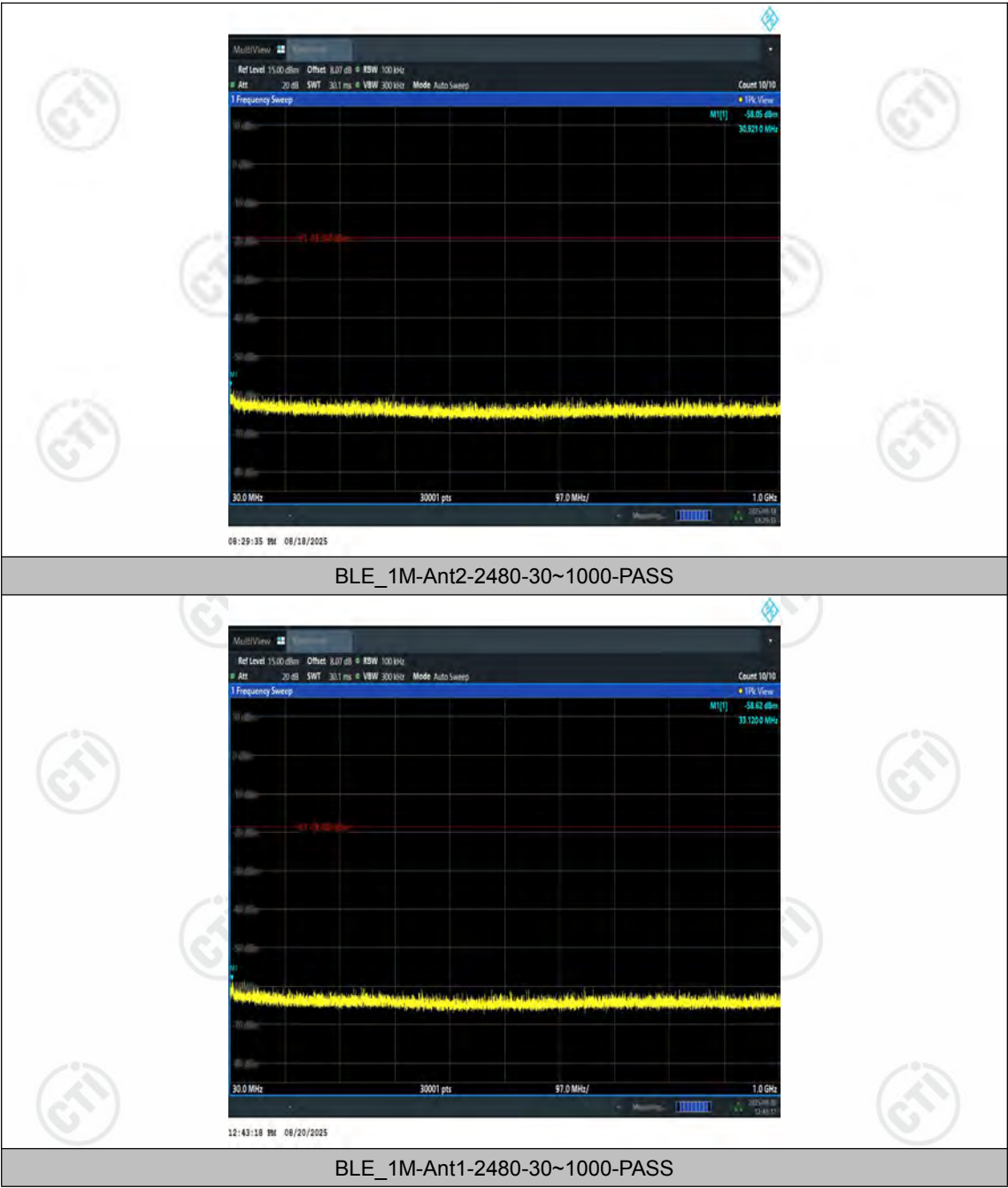


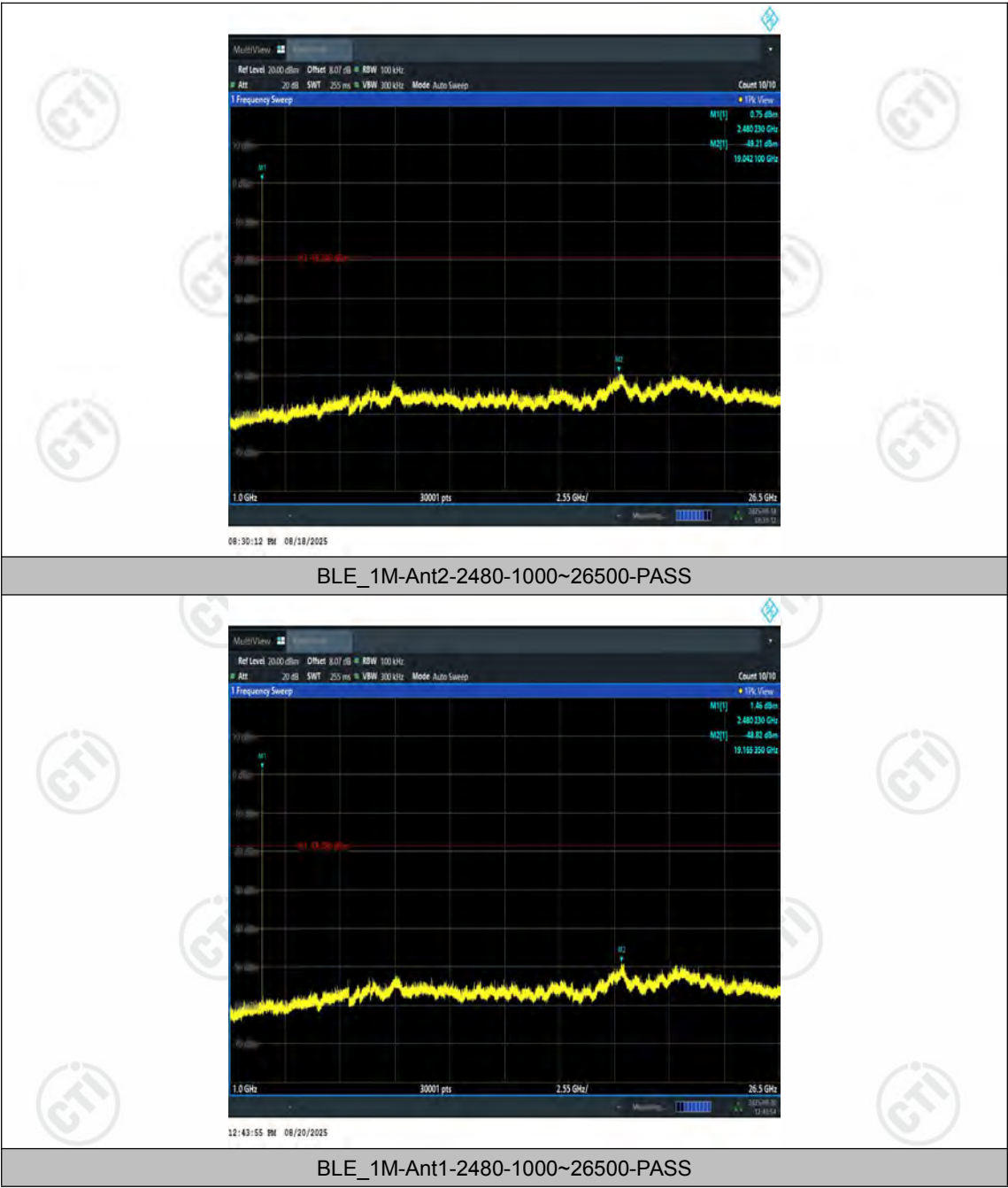


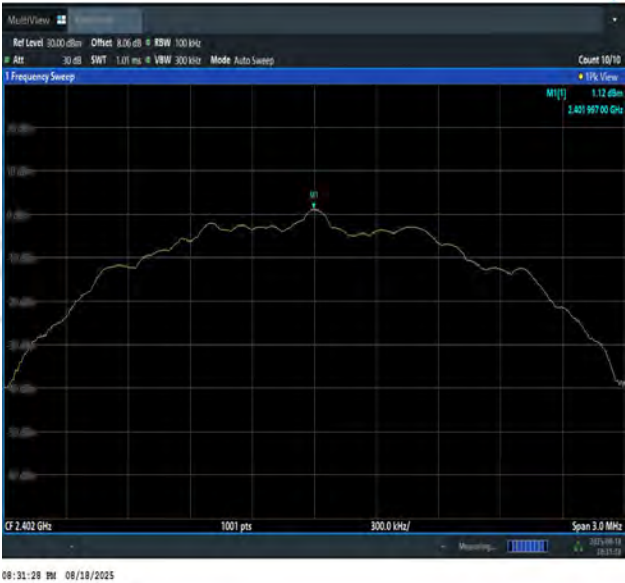
BLE_1M-Ant2-2480-0~Reference-PASS



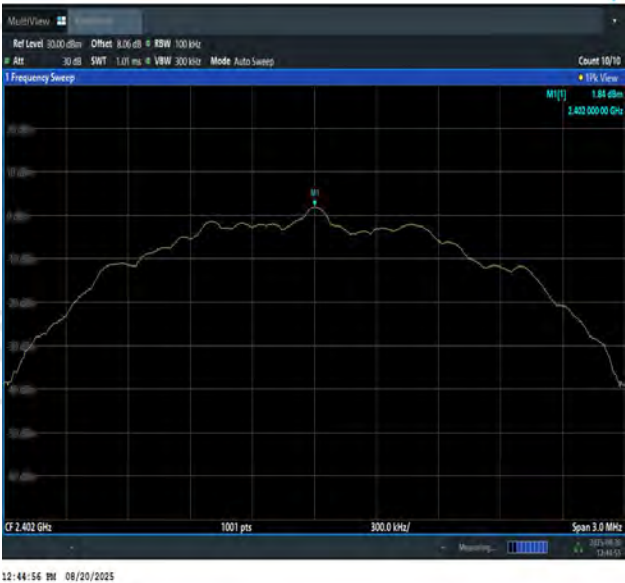
BLE_1M-Ant1-2480-0~Reference-PASS





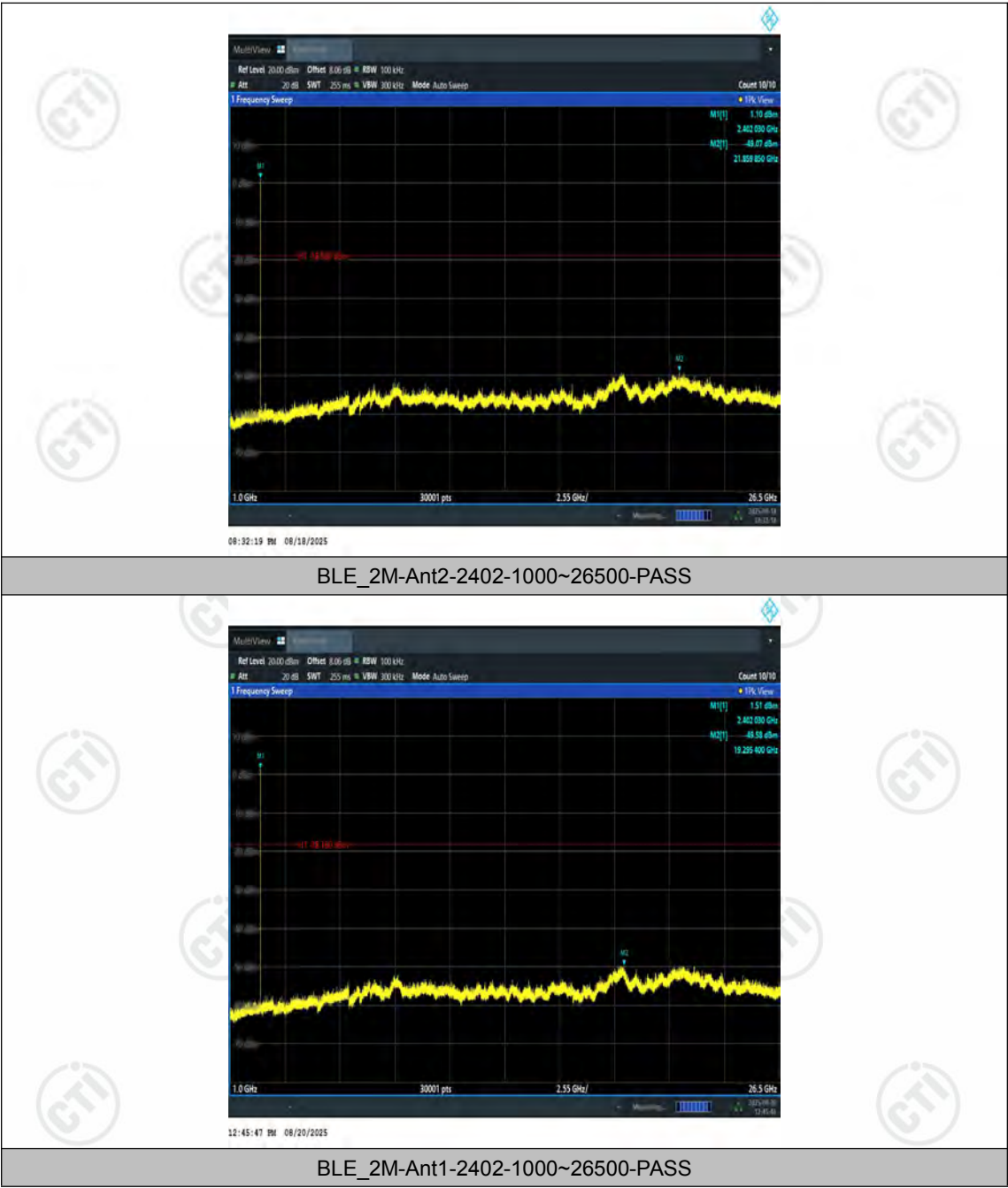


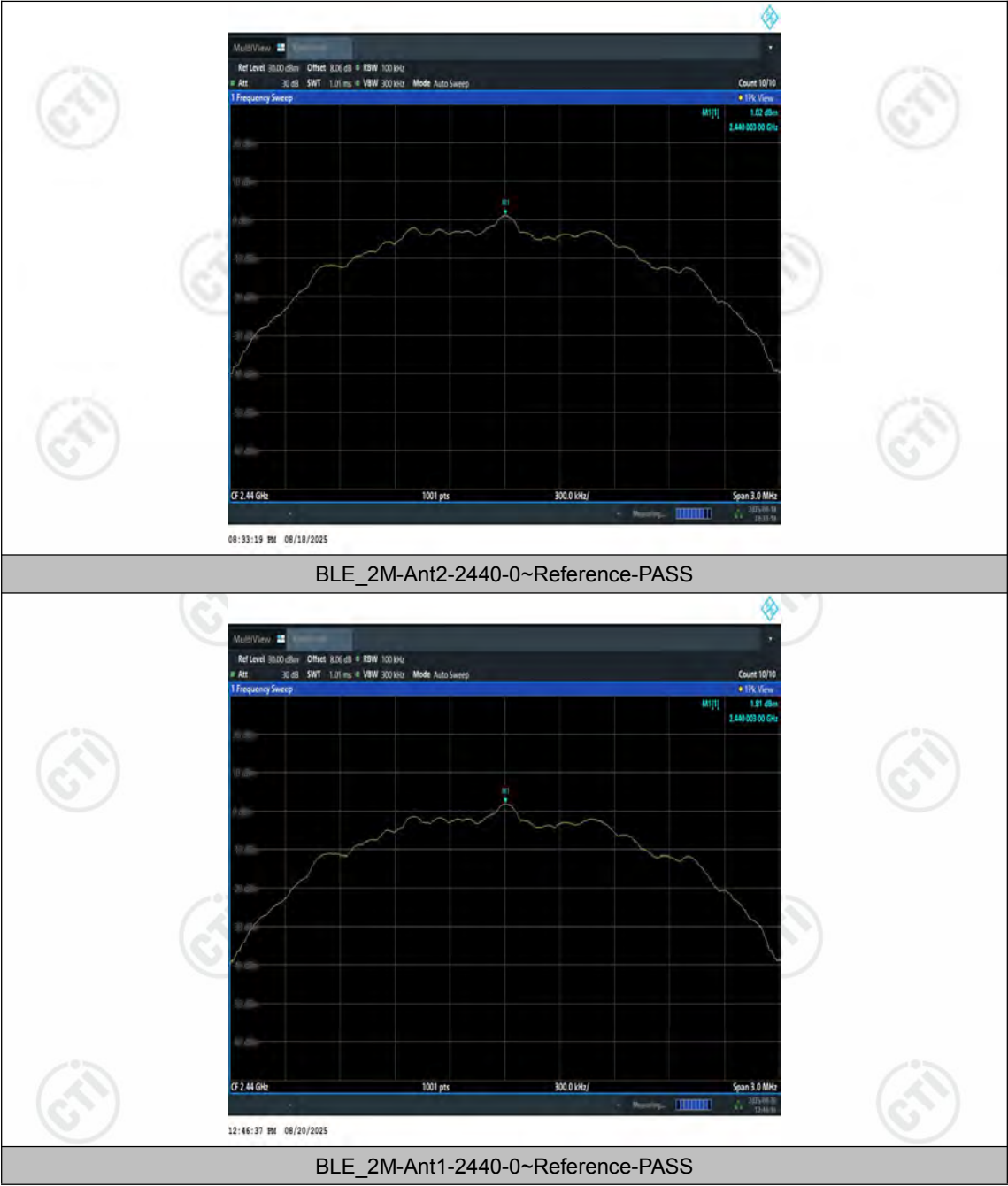
BLE_2M-Ant2-2402-0~Reference-PASS

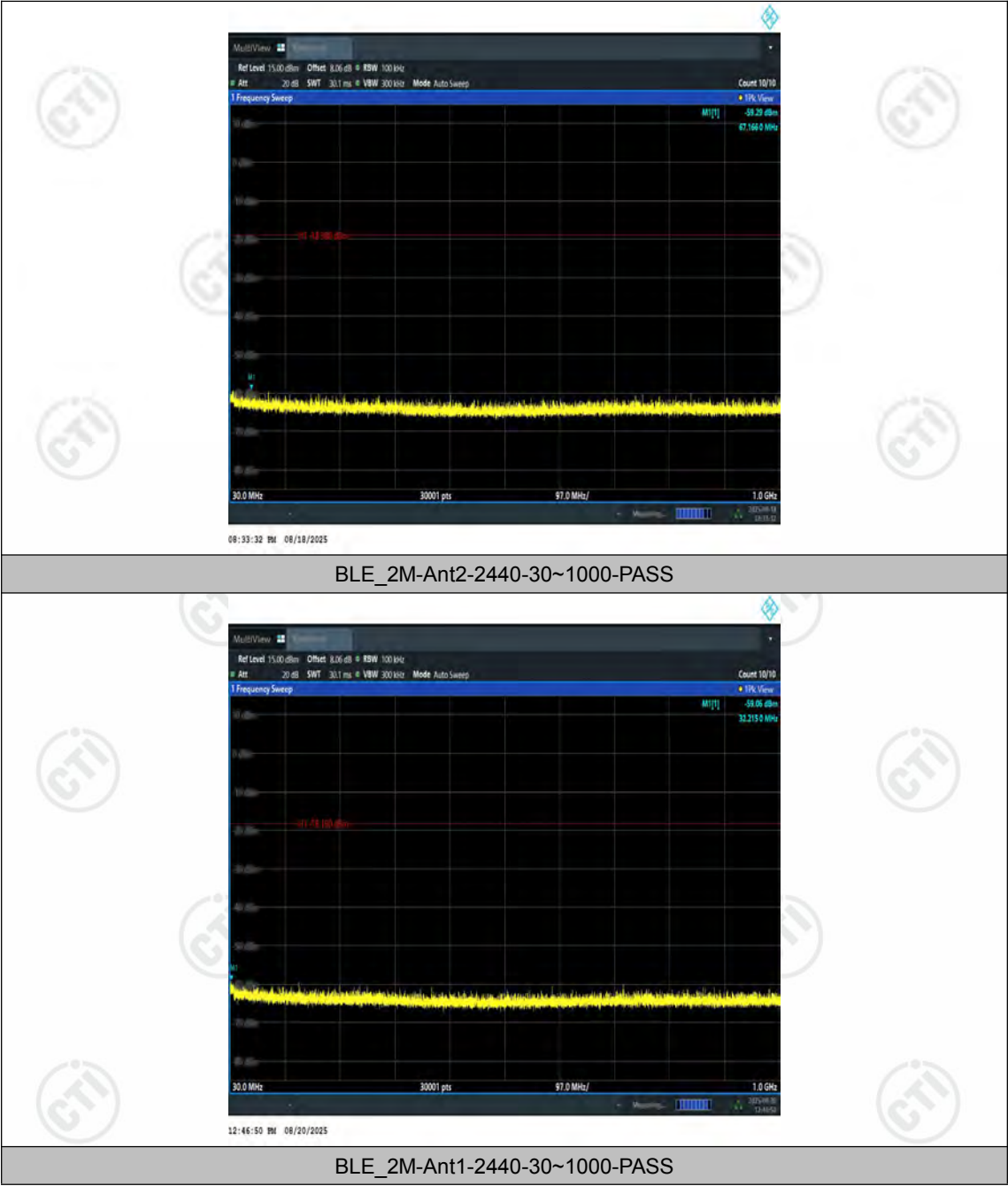


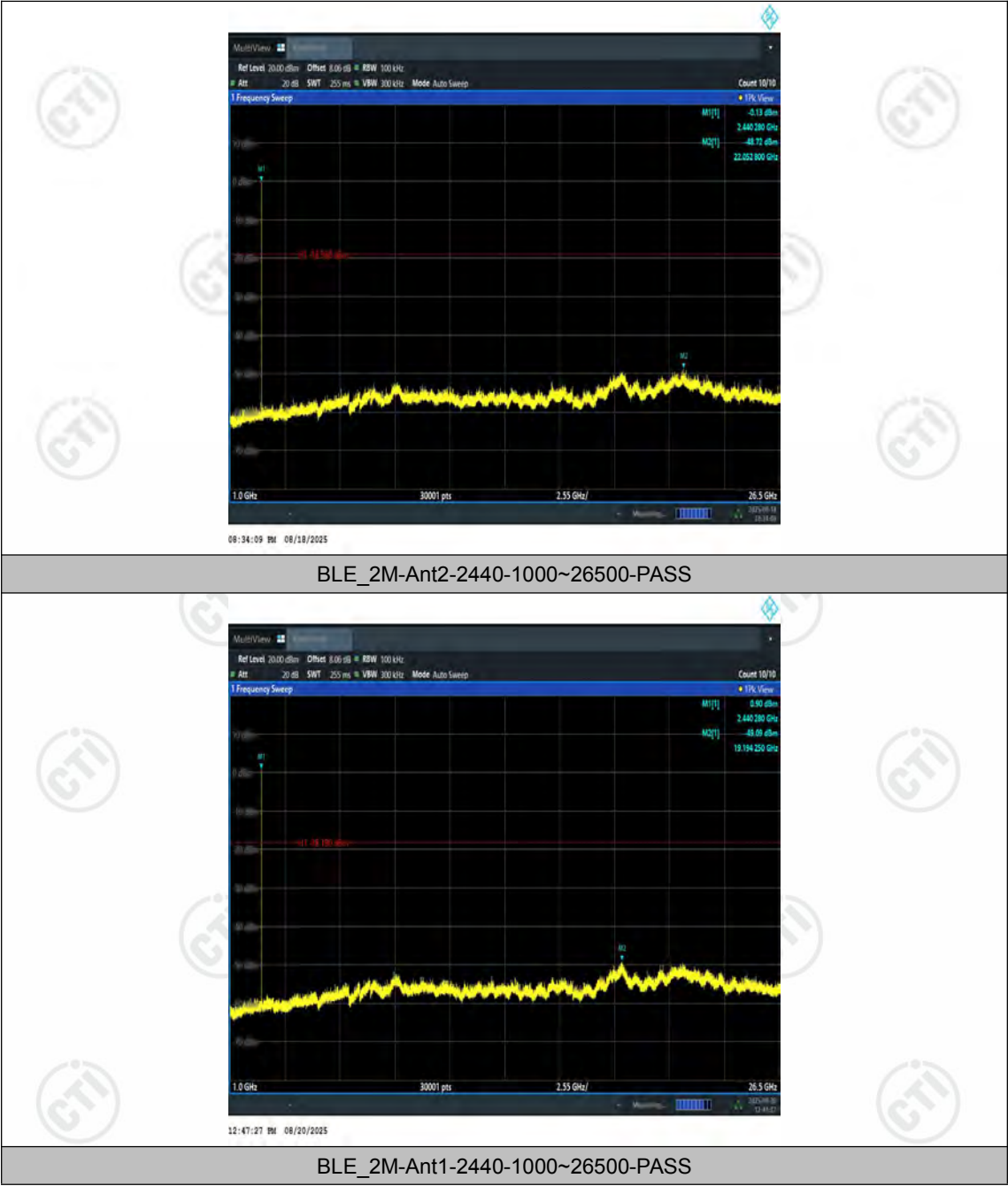
BLE_2M-Ant1-2402-0~Reference-PASS

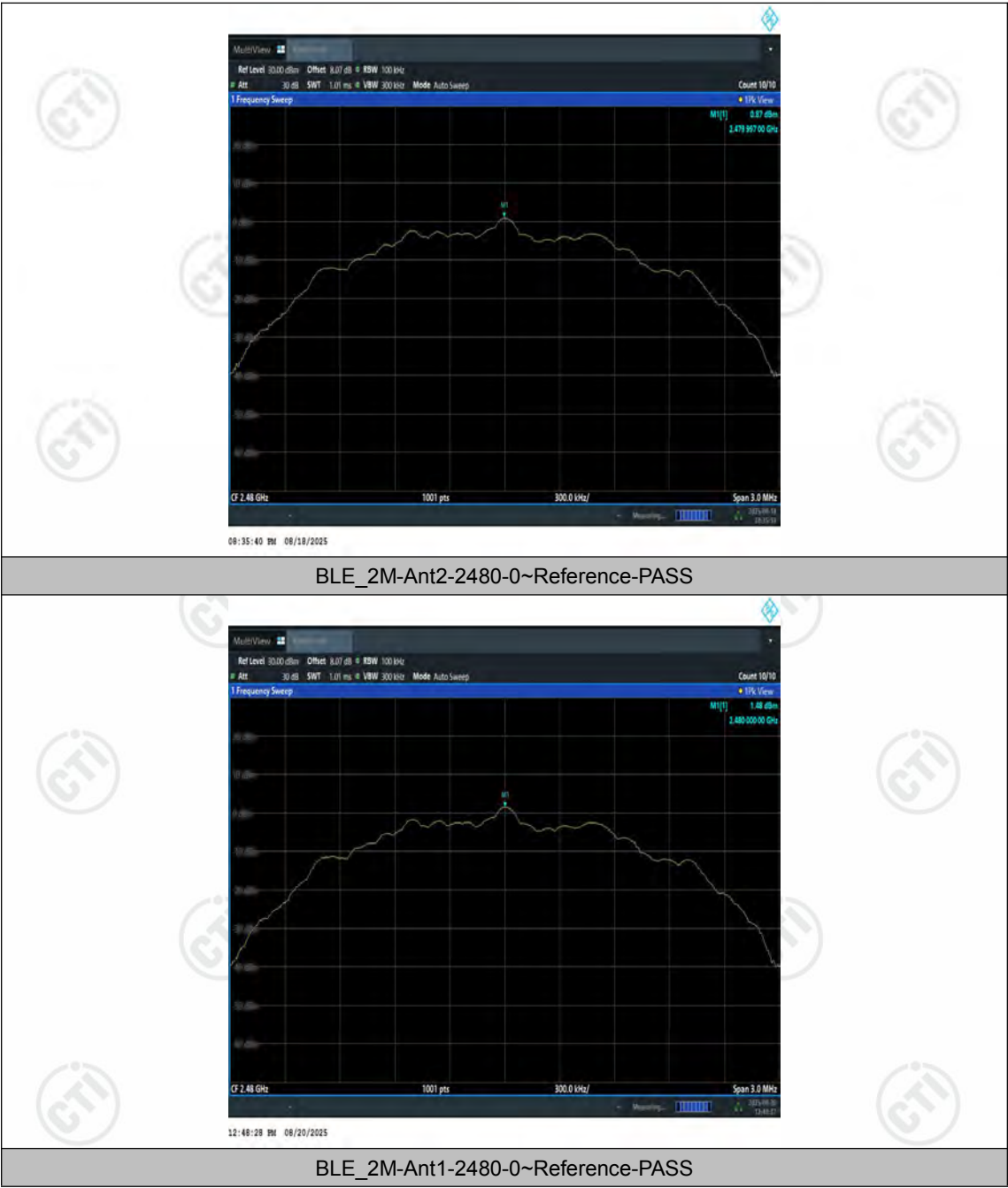


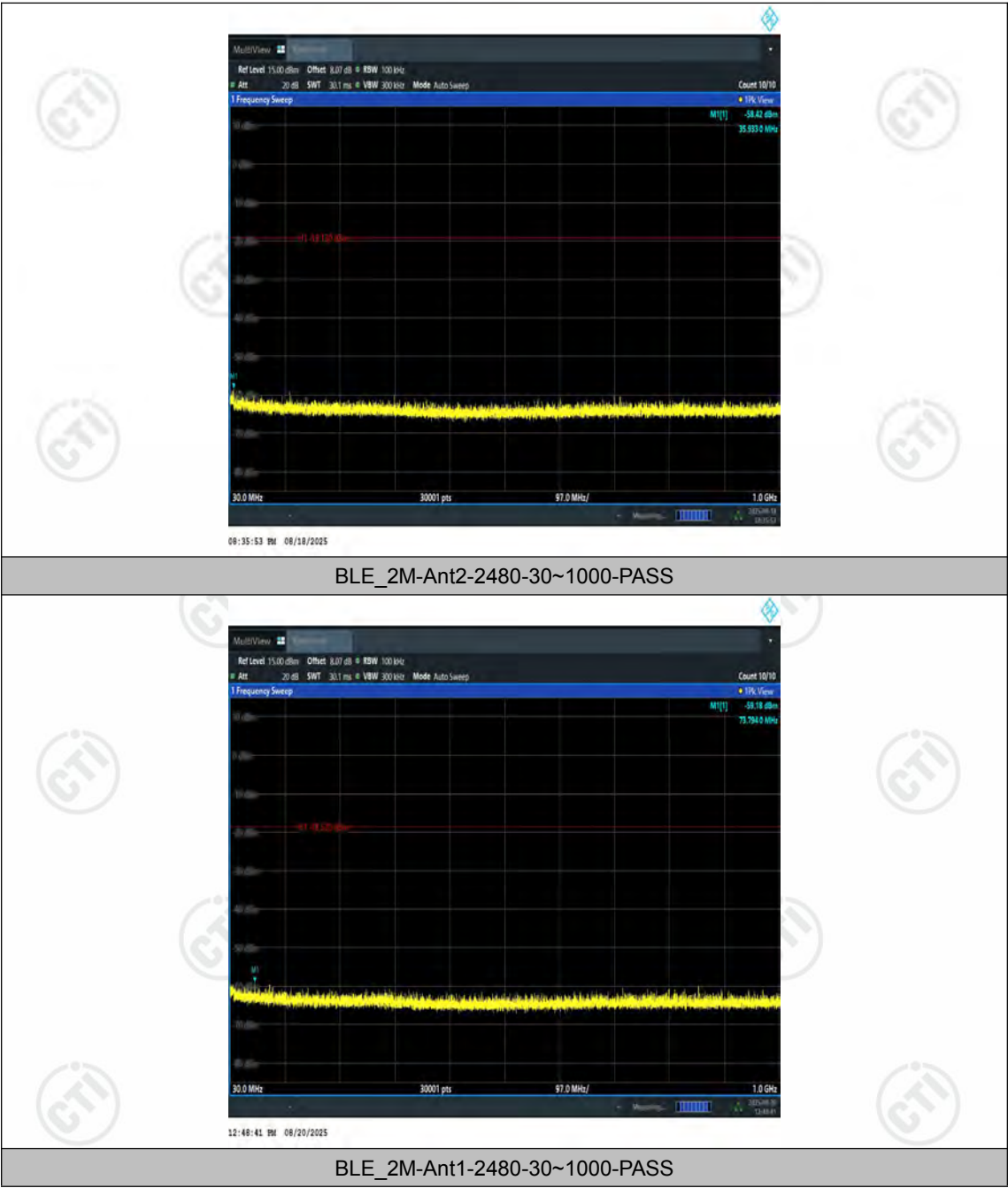


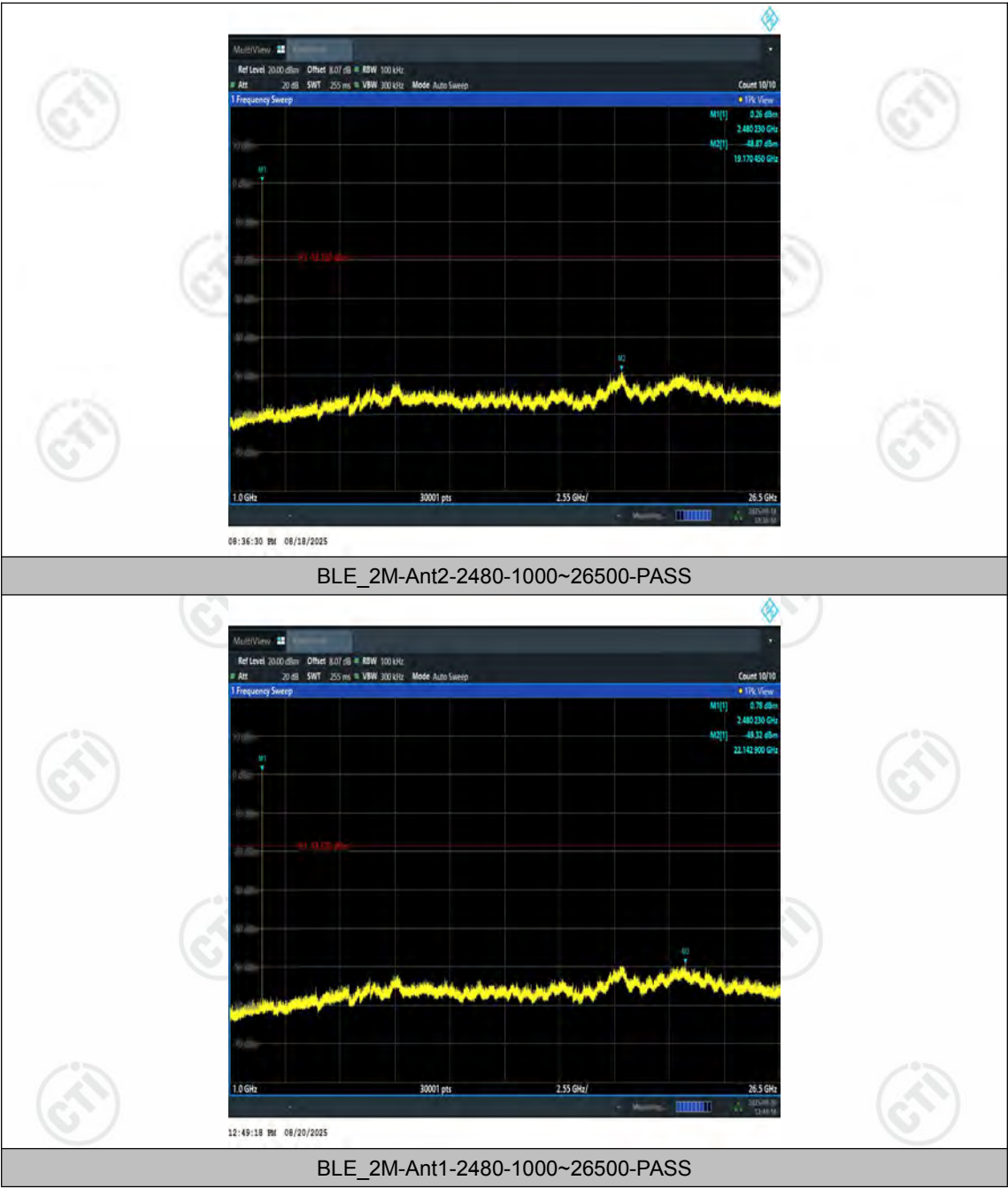












Appendix H: Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant2	2402	0.39	0.63	61.90	2.08
BLE_1M	Ant1	2402	0.39	0.63	61.90	2.08
BLE_1M	Ant2	2440	0.39	0.63	61.90	2.08
BLE_1M	Ant1	2440	0.39	0.63	61.90	2.08
BLE_1M	Ant2	2480	0.39	0.63	61.90	2.08
BLE_1M	Ant1	2480	0.39	0.63	61.90	2.08
BLE_2M	Ant2	2402	0.20	0.62	32.26	4.91
BLE_2M	Ant1	2402	0.20	0.62	32.26	4.91
BLE_2M	Ant2	2440	0.20	0.62	32.26	4.91
BLE_2M	Ant1	2440	0.20	0.62	32.26	4.91
BLE_2M	Ant2	2480	0.20	0.62	32.26	4.91
BLE_2M	Ant1	2480	0.20	0.62	32.26	4.91

Test Graphs













*** End of Report ***