

References

- [1] P.B. Johns and R.L. Beurle, "Numerical modeling of 2-dimensional scattering problems using a transmission line matrix," *Proceedings of IEE*, vol. 118, no. 9, Sept. 1971, PP. 1203-1208.
- [2] W.J.R. Hofer, "The transmission line matrix (TLM) method", Chap 8 of *Numerical Techniques for microwave and millimeter-wave passive structures*, edited by T. Itoh, John Wiley and sons, 1989.
- [3] W.J.R. Hofer, "The transmission line matrix method- Theory and applications," *IEEE Trans. Microwaves Theory Tech.*, vol. 33, Oct. 1985, PP. 882-893.
- [4] C. Christopoulos, *The Transmission-Line Modeling Method TLM*. IEEE PRESS. 1995.
- [5] S. Akhtarzad and P.B Johns, "Solution of Maxwell's equations in three space dimensions and time by the TLM method of numerical analysis," *Proceedings of IEE*, vol. 122, Dec. 1975, PP. 1349-1352.
- [6] P.B. Johns, "A symmetrical condensed node for the TLM method," *IEEE Trans. Microwaves Theory Tech.*, vol. 35, no. 4, April 1987, PP. 370-377.
- [7] R. A. Scaramuzza and A.J. Lowery, "Hybrid symmetrical condensed node for TLM method," *Electronics Lett.*, vol. 26, no. 23, Nov. 1990, PP. 1947-1949.
- [8] P. Berini and K. Wu, "A pair of hybrid symmetrical condensed node," *IEEE Microwave and guided wave letters*, vol. 4, no. 7, July 1994, PP. 244-246.
- [9] V. Trenkic, C. Christopoulos and T.M. Benson, "New symmetrical super condensed node for TLM method," *Electronics lett.*, vol. 30, no. 4, Feb. 1994, PP. 329-330.

- [10] V. Trenkic, C. Christopoulos and T.M. Benson, "Generally graded mesh using the symmetrical super condensed node," *Electronics lett.*, vol. 30, no. 10, May 1994, PP. 795-797.
- [11] H. Jins and R. Vahldieck, "The frequency domain transmission line matrix- a new concept," *IEEE Trans. Microwaves Theory Tech.*, vol. 40, no. 12, Dec.1992, PP. 2207-2218.
- [12] D.P. Johns, A.J. Wlodarczyk, A. Mallik and C. christopoulos, "New TLM Technique for steady state field solutions in three dimensions," *Electronic Lett.*, vol. 28, no. 18, 1992, PP. 1692-1694.
- [13] D.P. Johns and C. Christopoulos, "A new frequency domain TLM method for the numerical solution of steady state electromagnetic problems," *IEE Proceedings Sci. Meas. Technol.* vol. 141, no. 4, July 1994, PP. 310-316.
- [14] V. Trenkic, C. Christopoulos and T.M. Benson, "Simple and elegant formulation of scattering in TLM nodes," *Electronics lett.*, vol. 29, no. 18, Sept. 1993, PP 1651-1652
- [15] Z. Chen, "Modeling of absorbing boundary conditions with TLM," *First International Workshop on TLM*, Aug. 1994, PP. 63 - 72.
- [16] W. J. Hofer, "The discrete time domain green's function or Johns' matrix- a new powerful concept in transmission line modeling (TLM)," *Int. Journal of Numerical Modeling: Electronic Networks, Devices and Fields*, vol. 2, Dec.1989, PP. 215-225.
- [17] E. G. Costache and W. J. Hofer, " TLM modeling of dispersive wide-band absorbing boundaries with time domain diakoptics for S-parameter extraction," *IEEE Trans. Microwave Theory Tech.*, vol. 38, no. 4, April 1990, PP. 379- 385.
- [18] J. P. Berenger, "A perfectly matched layer for the absorption of electromagnetic waves," *Journal of Comp. Phys.*, vol. 114, no. 2, Oct., 1994, PP. 185 - 200.
- [19] Z. Wu and J. Fang, "Numerical implementation and performance of perfectly matched layer boundary condition for waveguide structure," *IEEE Trans. Microwave Theory Tech.*, vol. 43, no. 12, Dec., 1995, PP. 2676- 2683.
- [20] A. Oppenheim and R. W. Schafer, *Discrete-Time Signal Processing*. PRENTICE HALL, 1989.
- [21] J.S. Nielsen and W.J. R. Hofer, "Generalized dispersion analysis and spurious modes of 2-D and 3-D TLM formulations," *IEEE Trans. Microwaves Theory Tech.*, vol. 11, no. 8 Aug. 1993, PP. 2207-2218.

[22] J.S Nielson W.J.Hoefer, "A complete dispersion analysis of the condensed node TLM mesh," *IEEE Trans. Magnetics.*, vol. 27, no. 5, Sept. 1991, PP. 3982-3985.

[23] J. A. Morente, Gonzalo Gimenez, J. A. Porti and M. Khalladi, "Dispersion analysis for a TLM mesh of symmetrical condensed nodes with stubs," *IEEE Trans. Microwaves Theory Tech.*, vol. 43, no. 2, Feb. 1995, PP. 452- 456.

[24] M. Celuch-Marcysiak and W.K. Gwarek, "On the effect of bilateral dispersion in inhomogeneous symmetrical condensed node modeling," *IEEE Trans. Microwaves Theory Tech.*, vol. 42, no. 6, June 1994, PP. 1069-1073.

[25] V. Trenkic, C. Christopoulos and T. M. Benson, "Development of a general symmetrical condensed node for the TLM method," *IEEE Trans. Microwaves Theory Tech.*, vol. 44, no. 12, Dec. 1996, PP. 2129-2135.

[26] R. L. Higdon "Numerical absorbing boundary condition for the wave equation ", *Math. Computation*, vol. 49, no. 179, July 1987, PP. 65-91.

[27] C. Eswarappa and W. J. R. Hoefer, " One-way equation absorbing boundary conditions for 3-D TLM analysis of planner and quasi planner structures," *IEEE Trans. Microwaves Theory Tech.*,vol. 42, no. 9, Sept. 1994, PP. 1669-1677.

[28] Z. Chen, M. M. Ney and W. J. R. Hoefer, "Absorbing and connecting boundary conditions for the TLM method," *IEEE Trans. Microwaves Theory Tech.*,vol. 41, no. 11, Nov. 1993, PP. 2016-2024.

[29] R. S. Elliot, *An Introduction to guided waves and microwaves circuits*. PRENTICE HALL, 1993.