

## Dispersion of TLM Condensed Nodes in Media with Arbitrary Electromagnetic Properties

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V. Trenkic, C. Christopoulos and T.M. Benson. "Dispersion of TLM Condensed Nodes in Media with Arbitrary Electromagnetic Properties." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 373-376.

New analytical closed forms of the dispersion relation for TLM condensed nodes modelling general materials (stubbed symmetrical condensed node, symmetrical super-condensed node) are presented and validated by numerical results. The range of dispersion errors and bilateral behavior are fully explored and practical guidance is offered to users.

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