Abstracts

A comprehensive millimeter-wave calibration development and verification approach

W.M. Okamura, M.M. DuFault and A.K. Sharma. "A comprehensive millimeter-wave calibration development and verification approach." 2000 MTT-S International Microwave Symposium Digest 00.3 (2000 Vol. III [MWSYM]): 1477-1480.

A comprehensive millimeter-wave calibration development and verification approach for on-wafer SOLT (Short-Open-Load-Through) standards is presented. Multiline TRL calibration procedures as well as EM simulations are used to develop initial SOLT calibration models which include the effects due to dispersion, metallization thickness, and distributed load. The models are then verified with offset open and load structures which cover all regions of the Smith chart in a frequency band. Theoretical and experimental verification of offset structures in K, Q, and V bands demonstrate good accuracy and repeatability of measurements.

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