Abstracts

Asymmetric coupled CMOS lines-an experimental study

U. Arz, D.F. William, D.K. Walker and H. Grabinski. "Asymmetric coupled CMOS lines-an experimental study." 2000 Transactions on Microwave Theory and Techniques 48.12 (Dec. 2000 [T-MTT] (Special Issue on 2000 International Microwave Symposium)): 2409-2414.

This paper investigates the properties of asymmetric coupled lines built in a 0.25 /spl mu/m CMOS technology over the frequency range of 50 MHz to 26.5 GHz. We show that the frequency-dependent line parameters extracted from calibrated four-port scattering-parameter measurements agree well with numerical predictions. We also demonstrate by measurement and calculation that the two fundamental modes of the coupled-line system share significant cross power. To our knowledge, this is the first complete experimental characterization of asymmetric coupled lines on silicon ever reported.

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