Abstracts

A synthesis-oriented approach to design microwave multidevice amplifiers with a prefixed stability margin

F. Centurelli, G. Scotti, P. Tommasino and A. Trifiletti. "A synthesis-oriented approach to design microwave multidevice amplifiers with a prefixed stability margin." 2000 Microwave and Guided Wave Letters 10.3 (Mar. 2000 [MGWL]): 102-104.

A design methodology that allows forcing a prefixed stability margin on microwave and millimeter-wave multidevice amplifiers during the synthesis procedure performed by CAD tools is proposed. To the best of our knowledge, for the first time expressions equivalent to stability margins have been determined to guide CAD optimizers to design circuits stable under parameter variations. Stability margins discussed in this paper allow inclusion of stability requirements among yield specifications in a rigorous way. A case study of a 4-FET distributed amplifier design is presented where stability under parameter variations has been achieved by using the proposed methodology.

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