Abstracts

Modeling of monolithic RF spiral transmission-line balun

Y.J. Yoon, Y. Lu, R.C. Frye and P.R. Smith. "Modeling of monolithic RF spiral transmission-line balun." 2001 Transactions on Microwave Theory and Techniques 49.2 (Feb. 2001 [T-MTT]): 393-395.

This paper presents models for monolithic RF spiral transmission-line baluns. The balun consists of a pair of spiral transformers fabricated on high-resistivity silicon. The lumped-element equivalent models are developed. The second-order or higher order models are synthesized from the first-order lumped model. All lumped parameters for the models are extracted from the real physical structures. Simulated behaviors from the second-order models are in good agreement with the measured results within 10% difference.

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