

# Abstracts

## A novel 3-dB coupler for MMIC using air-gap stacked microstrip lines

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*Gi-Hyon Ryu, Dae-Hyun Kim, Jae-Hak Lee and Kwang-Seok Seo. "A novel 3-dB coupler for MMIC using air-gap stacked microstrip lines." 2000 Microwave and Guided Wave Letters 10.1 (Jan. 2000 [MGWL]): 1-3.*

A simple broadside-coupled line structure for MMIC is proposed which uses air-gap stacked microstrip lines and does not require any dielectric process. The analysis and optimization of the coupled line structure were performed by using an electromagnetic simulator. The fabricated 3-dB coupler shows broad-band characteristics (23-45 GHz) with the coupling loss of 3.33/spl plusmn/0.46 dB and the transmission loss of 3.73/spl plusmn/0.43 dB.

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