

# Abstracts

## Multilayer MMIC Branch-Line Hybrid Using Thin Dielectric Layers

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*S. Banba, T. Hasegawa and H. Ogawa. "Multilayer MMIC Branch-Line Hybrid Using Thin Dielectric Layers." 1991 Microwave and Guided Wave Letters 1.11 (Nov. 1991 [MGWL]): 346-347.*

A miniature MMIC branch-line hybrid circuit utilizing a multilayer structure composed of thin-film transmission lines is proposed. The branch-line hybrid circuit is designed for a center frequency of 20 GHz and fabricated in a 0.49 mm x 0.53 mm area. A coupling loss of 5.5 dB  $\pm$  0.5 dB over a 3 GHz bandwidth is achieved.

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