

Abstracts

Optimised Synthesis of Microstrip Branch-Line Couplers Taking Dispersion, Attenuation Loss and T-Junction Into Account

A. Angelucci and R. Burocco. "Optimised Synthesis of Microstrip Branch-Line Couplers Taking Dispersion, Attenuation Loss and T-Junction Into Account." 1988 MTT-S International Microwave Symposium Digest 88.2 (1988 Vol. II [MWSYM]): 543-546.

Directional couplers are fundamental components for MIC's up to millimeter-wave range. The paper presents an optimised synthesis technique of the microstrip branch-line type, that takes microstrip dispersion, conductor loss and T-junction discontinuity effects into account. The good agreement between measured and computed S parameters of two experimental 3-branch couplers proves the complete model reliability up to 20 GHz. Finally a brief analysis of sensitivity versus geometrical dimensions of the coupler is made.

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