Abstracts

Planar Electrically Symmetric n-Way Hybrid Power Dividers/Combiners

A.A.M. Saleh. "Planar Electrically Symmetric n-Way Hybrid Power Dividers/Combiners." 1980 Transactions on Microwave Theory and Techniques 28.6 (Jun. 1980 [T-MTT]): 555-563.

The match and isolation properties of two types of planar electrically symmetric n-way hybrid power dividers/combiners, which were recently introduced in the literature, are studied. These hybrids, which resemble the Wilkinson hybrid, are named the "radial" hybrid, and the "fork" hybrid because of their geometry. Optimum values of their isolation resistances are given to maximize the match and isolation at band center. The power dissipation requirement in the isolation resistors is also discussed. It is shown that the use of two stages of quarter-wave lines and isolation resistors, rather than only one stage as was originally proposed, improves the match and isolation considerably as well as reduces the power dissipation requirements.

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