Abstracts

Broad-banding technique for in-phase hybrid ring equal power divider

Ban-Leong Ooi, W. Palei and M.S. Leong. "Broad-banding technique for in-phase hybrid ring equal power divider." 2002 Transactions on Microwave Theory and Techniques 50.7 (Jul. 2002 [T-MTT]): 1790-1794.

A broad-banding technique for in-phase equal power divider is described. Detailed comparisons between the proposed variants of power dividers and the conventional in-phase power divider are also performed. Based on the 15-dB input and output return losses criteria, it is noted that a maximum impedance bandwidth of 44.3% for an amplitude error of /spl plusmn/0.9 dB and a phase error of /spl plusmn/1.8/spl deg/ can be achieved, for the first time, for divider with length more than 3/spl lambda//2 ring impedance transformer. A systematic design technique that relaxes some of the conventional constraint in in-phase hybrid ring equal power divider design, is also described.

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