Abstracts

Meander-Line and Hybrid Meander-Line Transformers (Feb. 1973 [T-MTT])

E.G. Cristal. "Meander-Line and Hybrid Meander-Line Transformers (Feb. 1973 [T-MTT])." 1973 Transactions on Microwave Theory and Techniques 21.2 (Feb. 1973 [T-MTT]): 69-76.

The application of meander lines to impedance transformers is described. Meander-line transformers have less bandwidth than stepped-impedance transformers for a given passband VSWR, but can have greatly superior shape factors in stripline and microwave-integrated-circuit (MIC) realizations. Hybrid meander-line transformers allow circuit designers greatly increased flexibility in choosing transformer shape factors, while allowing (basically) the same electrical performance as with either stepped-impedance or meander-line transformers. Experimental confirmations of a trial three-turn meander-line transformer and a fourth-order hybrid meander-line transformer are presented. A comprehensive design table of nearly equal-ripple meander-line transformers of from two to six turns, incorporating a wide range of bandwidths and impedance transformations has been deposited with the ASIS National Auxiliary Publications Service.

❑ Return to main document.