

Predistortion Techniques for Multicoupled Resonator Filters (Short Papers)

A.E. Williams, W.G. Bush and R.R. Bonetti. "Predistortion Techniques for Multicoupled Resonator Filters (Short Papers)." 1985 Transactions on Microwave Theory and Techniques 33.5 (May 1985 [T-MTT]): 402-407.

This paper presents predistorted, lossy design techniques as applied to general, multicoupled, resonator networks. The analytical procedure predistorts the poles of the transfer function to recover the lossless passband flatness at the expense of insertion loss. Experimental results on 4- and 6-pole elliptic-function filters confirm the validity of the theory. These techniques should lead to significant system efficiencies in applications such as satellite transponder input multiplexer.

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