

Abstracts

On Two-Idler Parametric Amplifiers (Correspondence)

A.R. Kerr. "On Two-Idler Parametric Amplifiers (Correspondence)." 1969 *Transactions on Microwave Theory and Techniques* 17.1 (Jan. 1969 [T-MTT]): 39-40.

The bandwidth characteristics of two-idler parametric amplifiers are investigated, and an approximate equivalent circuit derived. It is shown that under certain conditions the input impedance Z_{in} is nearly constant and independent of pump amplitude over a relatively wide bandwidth. Computer analysis of particular one- and two-idler amplifiers has yielded comparable bandwidths and noise figures for a single-idler amplifier with a compensating resonator at its input, and a two-idler amplifier. Measured results are given for an experimental two-idler amplifier.

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