

Abstracts

A Comparison of One- and Two-Idler Parametric Amplifiers (Correspondence)

A.R. Kerr. "A Comparison of One- and Two-Idler Parametric Amplifiers (Correspondence)."
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The performance of a two-idler parametric amplifier is compared with that of a single-idler amplifier with a broad-banding resonator at its input. Both circuits contain the same varactor and are pumped at the same frequency. For most of the cases considered the two-idler amplifier gives a somewhat narrower bandwidth, slightly higher noise temperature, but lower sensitivity to variation of $m/\text{sub } 1/$ (the pump modulation rate) than the single-idler amplifier. The comparison is made over a range of pump and varactor cutoff frequencies

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