

Abstracts

Parametric Amplifier Noise Analysis

D.G. Vice. "Parametric Amplifier Noise Analysis." 1965 *Transactions on Microwave Theory and Techniques* 13.2 (Mar. 1965 [T-MTT]): 162-167.

The effect of a different value of series resistance associated with the varactor in its imbedding at each of the important frequencies present in a one-port parametric amplifier is analyzed. The modified equations for effective noise temperature, amplifier gain and pump power required thus obtained are compared to experimental values measured on a 4.8 Gc/s parametric amplifier. Finally a simple and precise method for adjusting the amplifier to get close correlation between the measured varactor parameters using Kurokawa's method at signal idler, and pump frequencies and the overall amplifier performance is presented.

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