

Abstracts

Minimum Noise Figure of Paramps with Frequency Dependent Apparent R_s (Correspondence)

K. Inal and C. Toker. "Minimum Noise Figure of Paramps with Frequency Dependent Apparent R_s (Correspondence)." 1971 Transactions on Microwave Theory and Techniques 19.3 (Mar. 1971 [T-MTT]): 333-334.

The effect of inverse-squared frequency dependence of the apparent resistance of varactor diodes is discussed in the optimization of the noise figure of negative resistance and up-converter parametric amplifiers. Optimum idler frequency for a given signal frequency for minimum noise figure is calculated. It is also shown that about twofold improvement in the noise figure is obtained if the proper idler frequency is used for negative resistance amplifiers. It is also shown that the value of the optimum loading changes for upconverter amplifiers.

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