

Abstracts

Practical Design and Performance of Nearly Optimum Wideband Degenerate Parametric Amplifiers (1961 [MWSYM])

M. Gilden and G.L. Matthaei. "Practical Design and Performance of Nearly Optimum Wideband Degenerate Parametric Amplifiers (1961 [MWSYM])." 1961 PGMTT National Symposium Digest 61.1 (1961 [MWSYM]): 13-14.

The design and performance of degenerate parametric amplifiers is described as that in which large bandwidth is achieved through the use of multiple-resonators as suggested by Seidel and Herrmann. However, instead of setting frequency derivatives of the gain function equal to zero, filter-theory design procedures as developed by Matthaei were used. These design procedures have been verified by the authors with a single-diode degenerate amplifier operated with a directional coupler and in this paper the work has been extended to include the cases of balanced amplifiers and cascaded balanced amplifiers with contiguous pass bands.

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