

Abstracts

A New Method for Designing Wide-Band Parametric Amplifiers

B.T. Henoch. "A New Method for Designing Wide-Band Parametric Amplifiers." 1963 Transactions on Microwave Theory and Techniques 11.1 (Jan. 1963 [T-MTT]): 62-72.

A practical method of designing wide-band parametric amplifiers operated with a circulator is described. For amplifiers with an initially series-tuned varactor, it is possible to find simple relations between Butterworth and Chebyshev responses of lowpass filters and desired gain responses of maximally flat or equalripple type. These relations are shown to hold for most practical varactors. For amplifiers with an initially series-tuned varactor, simple expressions for the limiting gain bandwidth product are given. It is also shown how filters should be chosen to give stable amplifiers.

 [Return to main document.](#)