

Abstracts

Novel alternative design methods based upon combined amplification, matching and filtering approaches in MMIC technology (2000 Vol. I [MWSYM])

J. Tissier, W. Mouzannar, L. Billonnet, B. Jarry and P. Guillon. "Novel alternative design methods based upon combined amplification, matching and filtering approaches in MMIC technology (2000 Vol. I [MWSYM])." 2000 MTT-S International Microwave Symposium Digest 00.1 (2000 Vol. I [MWSYM]): 409-412.

Two bandpass active filters using novel alternative design methods based upon combined and simultaneous amplification matching and filtering approaches have been successfully implemented. The originality of these two methods resides in their flexibility compared to the classical input and output matching lumped elements networks design method. With the first methodology based upon the combination of amplification/matching and of filtering approaches, a 5% measured relative bandwidth at 32.825 GHz has been achieved. The second approach, based upon the combination of two-step matching/filtering and of amplification is demonstrated with the design of a filter with 11% measured relative bandwidth at 14.04 GHz.

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