Abstracts

Low noise and frequency tunable microwave active recursive filters using power summation principles

A. Cenac, H. Ezzedine, L. Billonnet, B. Jarry and P. Guillon. "Low noise and frequency tunable microwave active recursive filters using power summation principles." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 1227-1230 vol.3.

In this paper, a noise analysis is performed for frequency tunable active recursive filters using a noise wave formalism approach. The translation of low frequency recursive concepts is done by the use of power dividers/combiners at microwave frequencies. We then derive the characteristics of the amplifier/phase shifter employed within the filter to obtain the optimum noise factor of the structure. A MMIC chip is realized. Layout and measurements of the chip are presented.

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