Design and Evaluation of a New Fully-Integrated MOSFET-C Filter for VLSI

ABSTRACT

The different techniques available for MOSFET-C integrated filter implementation are reviewed and compared from different point of view and the most promising approach is identified. A new low-pass filter is emerged to be converted from active-RC prototype to MOSFET-C version, using the BALANCED-AMPLIFIER technique.

The suggested circuit does not obey previous topological restriction but relays on internal non-linear cancellation to achieve input-output linearity. The linear performance of the filter is evaluated analytically and Computer-Simulated using the simulation program, PSPICE.