Thesis Title	Linear cureent-mode lossy integrator for integrated current mode wave-active filters
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Abstract

A linear current-mode lossy integrator well suited for the implementation of emerging current mode wave-active filters (CMWA) is proposed. The circuit using bipolar transistor can operate at high frequency with low supply requirement 2.5 volts. The circuit with fully differential structure is normally preferable for better power supply rejection with improving the dynamic range. Furthermore, the common mode feedforward technique is added to the circuit for the completely common mode rejection. The response and cutoff frequency of the circuit can be simply tuned by using the DC bias current. The simulation results of the filters using the proposed integrator indicate the potential of the circuit for implementation of high frequency integrated continuous-time filters.