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Digitally programmable floating impedance multiplier using DVCC

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Abstract:

A novel digitally programmable floating impedance multiplier is presented. It is realized using differential voltage current conveyor and a digital control module. Digitally programmable floating impedance multipliers can provide digital control to floating impedance functions such as, resistor, capacitor, and inductor without quantizing the signal. The technique used is simple, versatile as well as compatible for microminiaturization in contemporary IC technologies. The simulation results on digitally programmable floating impedance multiplier verify the theory.

Keywords:

Differential voltage; current conveyors; multiplier.