

First Order Filter Based Current-Mode Sinusoidal Oscillators Using Current Differencing Transconductance Amplifiers (CDTAs)

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Abstract : This article presents new current-mode oscillator circuits using CDTAs which is designed from block diagram. The proposed circuits consist of two CDTAs and two grounded capacitors. The condition of oscillation and the frequency of oscillation can be adjusted by electronic method. The circuits have high output impedance and use only grounded capacitors without any external resistor which is very appropriate to future development into an integrated circuit. The results of PSPICE simulation program are corresponding to the theoretical analysis.

Keywords : current-mode, quadrature oscillator, block diagram, CDTA

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