

CMOS Highly Linear Fully Differential Current Conveyor

Alzaher, HA

IEE-INST ELEC ENG, ELECTRONICS LETTERS; pp: 214-216; Vol: 40

King Fahd University of Petroleum & Minerals

<http://www.kfupm.edu.sa>

Summary

Design of a CMOS robust low-distortion fully differential second-generation current conveyor (CCII) is presented. The proposed circuit is essential to extend the use of the CCII-based circuits to high-performance VLSI applications. The design avoids using current mirror(s) in the signal path in order to minimise the distortion caused by mismatched mirroring transistors. The proposed circuit is implemented in a standard 0.5 μm CMOS technology and its different characteristics are measured. Statistical measurement results show that the proposed fully differential CCII exhibits total harmonic distortion (THD) of -78.9 dB associated with less than 0.1 dB variation.

References:

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For pre-prints please write to: alzaherh@kfupm.edu.sa