5 Hz Cut-Off Frequency Low Power Current Mode Low Pass Filter

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 124
Number 11

Year of Publication: 2015

Authors:
Rahul Kumar Upadhyay, D.K. Raghuvanshi, Jaykant Dangi

10.5120/ijca2015905638
{bibtex}2015905638.bib{/bibtex}

Abstract

A current mode low pass filter is presented, using current mirror active element. In proposed scheme time constant is increased by increasing capacitance & resistance. Capacitance is increased by capacitance multiplier. Resistance is increased by very low trans-conductance which is achieved through linear compression of input signal. To preserve gain of the system, expansion is done at the output level. To increase current gain and output impedance cascode stage is used at the output branch. All the results are simulated using ANALOG DESIGN ENVIRONMENT OF THE CADENCE SOFTWARE at 180nm CMOS technology.

References

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Index Terms

Computer Science Circuits and Systems

Keywords

Gain, BW, power, THD, input referred noise.