

A Fully Integrated Highly Linear Low Pass Filter With Current Mode Building Blocks

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Abstract

This paper presents an approach to OTA-C filter design that is suitable for developing fully integrated, highly linear filters, intended for modern low voltage applications. The filter architecture is based on transconductance amplifiers, implemented with strictly positive second generation current conveyors. The combination of current conveyors with passive resistors leads to remarkable performances in terms of linearity, current consumption and operating frequency. The differential OTA allows the migration from symmetrical supply voltages towards single supply operation.