

Abstract

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A Current-Conveyor Based Buffer for High-Bandwidth and Low Input Impedance Outdoor WOC Applications

This work presents a method for solving an outdoor WOC receiving problem. A current conveyor based buffer is designed and simulated under wide range of operating conditions. Effects on bandwidth and input impedance are simulated and compared with previously designed architectures resulting in a better performance. Parameters that affect the design are investigated including photodiode internal capacitance, control feedback resistance, resistive and capacitive loads, temperature, input and output noise levels. OrCAD 10.5 used as a simulation tool in the paper.