

Abstract

Moustafa Hussein Aly

A CCII -Amplifier for High-Gain and High Bandwidth Outdoor WOC Applications

This work presents a method for solving an outdoor wireless communications (WOC) receiving problem. A class II current conveyor (CCII) is designed and simulated under a wide range of operating conditions. Effects on bandwidth and input impedance are simulated and compared with previously designed architectures resulting in a better amplification performance. The design affecting parameters are investigated including: photodiode internal capacitance, control feedback resistance, resistive and capacitive loads, temperature, input and output noise levels. OrCAD 10.5 is used as a simulation tool.