Recommended RGC type transimpedance amplifier

In this paper, we have explored various topologies of transimpedance amplifiers (TIAs) and their implications on performance parameters such as bandwidth, gain, and noise.

Abstract: This paper presents a dual feedback transimpedance amplifier (TIA) with a modified regulated-cascode (RGC) topology that employs a negative resistance-capacitance (NRC) network to enhance ...

A novel RGC structure with cascode-feedback is proposed to increase feedback gain, thereby extending bandwidth and reducing noise. Design strategy ...

A structure that is a modified version of a regulated cas-code (RGC) TIA. An immittance converter is inco porated to reduce power consumption while increasing transimpedance gain. Measured 3-dB ...

This very small input impedance in large part isolates the photo-diode capacitance from bandwidth determination and therefore, unlike common gate or common source TIAs, the dominant pole of an ...

This paper presents a novel Trans-Impedance Amplifier (TIA) based on Regulated-Cascode (RGC) structure. A modified MOS-based Immittance Converter (MIC) is used to achieve ...

Finite bandwidth amplifier modifies the transimpedance transfer function to a second-order low-pass function

In this paper, a new low-power transimpedance amplifier (TIA) based on a modified Regulated Cascode (RGC) circuit structure followed by a closed-loop post-amplifier is proposed for 10 Gb/s applications.

Hoi-Jun Yoo, Member, IEEE Abstract--A transimpedance amplifier (TIA) has been realized in a 0.6- m digital CMOS technology for Gigabit Ethernet applications. The amplifier exploi. s the regulated ...

A novel RGC structure with cascode-feedback is proposed to increase feedback gain, thereby extending bandwidth and reducing noise. Design strategy of the proposed RGC TIA in a low ...

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