

RG8G31223

2 × 128Gbaud Linear TIA

Description

The RG8G31223 is a dual-channel 128Gbaud linear Trans-Impedance Amplifier (TIA) for 800G and beyond Integrated Coherent Receivers (ICRs).

The RG8G31223 integrates two TIA signal paths for I and Q channels. The high-performance, low power, and compact design of the RG8G31223 also enables optical sub-assembly such as u-ICR and IC-TROSA used for small form factor integrated optical module.

Applications

- 800G and beyond coherent systems with 128Gbaud higher-order QAM modulation format
- Optical sub-assembly of u-ICR and IC-TROSA for small form factor optical modules

Features

- Dual-channel integrated 128Gbaud linear TIA with analog control interface
- 50 to 2.5kΩ typical differential linear trans-impedance gain
- > 30dB dynamic range
- > 80+GHz adjustable SDD21 3dB bandwidth
- Automatic and manual gain control, output voltage control, peak detection, and shutdown functionalities
- Low THD, low crosstalk, and low power consumption
- Output amplitude clipping to prevent peak-to-peak differential swing above 1200mVppd

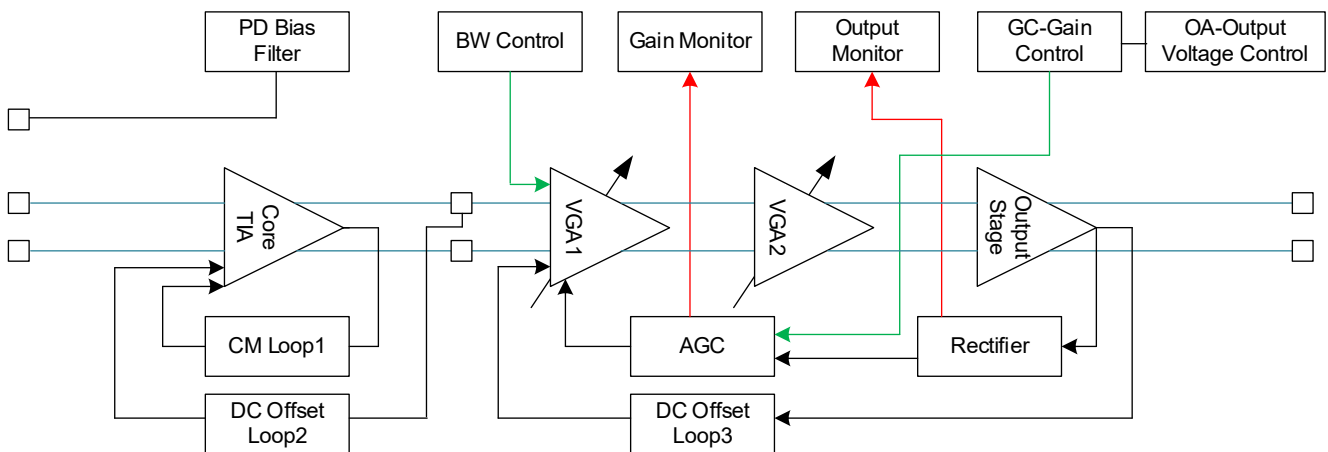


Figure 1. Block Diagram

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