# RENESAS

## GX32223

2 x 32Gbps Linear TIA

The GX32223 is a dual-channel 32Gbps linear Trans-Impedance Amplifier (TIA) for 100G/200G Integrated Coherent Receivers (ICRs).

The GX32223 integrates two TIA signal paths for I and Q channels. The high-performance, low power, and compact design of the GX32223 also enables a small-form factor integrated optical module such as CFP2 and CFP4.

## Applications

- 100G/200G coherent systems with 32Gbps
  DP-QPSK/16QAM modulation format
- Integrated optical modules for CFP/CFP2/CFP4 form factors

### Features

- Dual-channel integrated 32Gbps linear TIA with analog control interface
- Differential linear gain: 150–5,000Ω, and > 30dB dynamic range
- > 25GHz adjustable 3dB-bandwidth
- Automatic and manual gain control, output voltage control, peak detection and shutdown functionalities
- Low THD, cross talk, and power consumption for covering 16QAM receiver

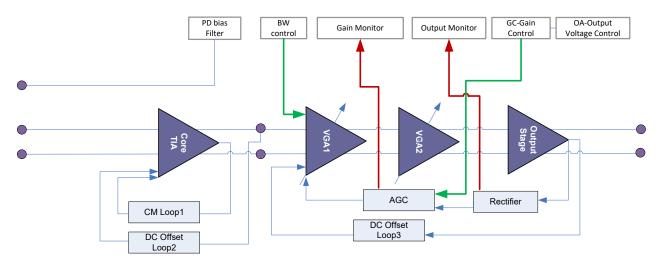


Figure 1. Block Diagram

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