

## Description

The GX32222 is a dual 32Gb/s linear Trans-Impedance Amplifier (TIA) for 100G/200G Integrate Coherent Receivers (ICRs).

The GX32222 integrates two TIA signal paths for I and Q channels. The high-performance, low power, and compact design of the GX32222 also enables small form factor integrated optical module such as CFP2 and CFP4.

## Applications

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

## Features

- Data rate: 28Gbaud/s to 32Gbaud/s with bandwidth adjustability
- Differential gain: 6,500Ω typ.
- Bandwidth: 25GHz min.
- Low power consumption of 180mA max.
- Linear gain over 30dB of dynamic range
- Internal AGC
- Output voltage control
- Peak detection
- Shutdown mode

## Ordering Information

Part	Temp Range	Pin-Package
GX32222-DNT	-5°C to +95°C	Die 1.562mm x 1.387mm

For price, delivery schedules, and to place orders, please contact IDT: [www.IDT.com/go/sales](http://www.IDT.com/go/sales)

## Device Diagram

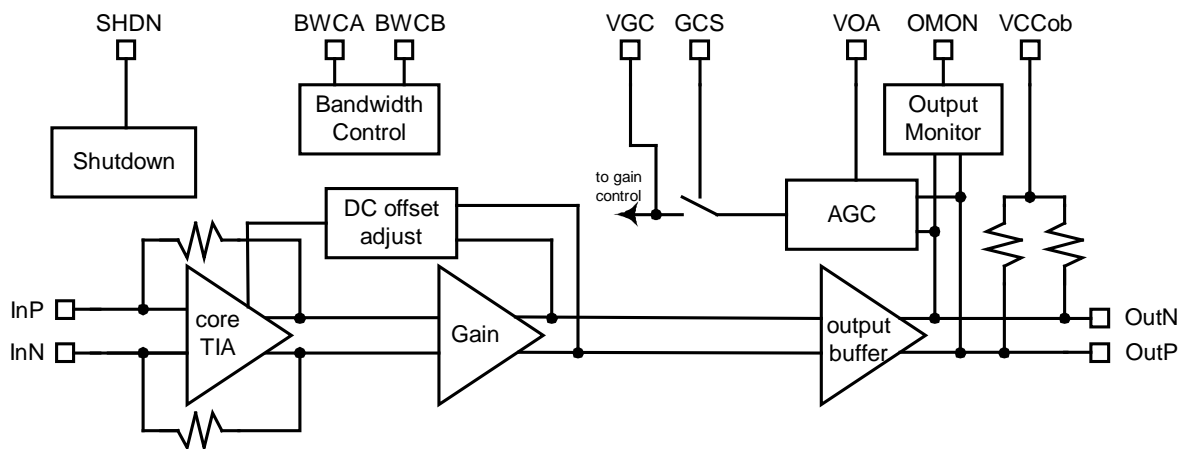


Figure 1: Device diagram (single channel)



Corporate Headquarters  
6024 Silver Creek Valley Road  
San Jose, CA 95138  
[www.IDT.com](http://www.IDT.com)

Sales  
1-800-345-7015 or  
408-284-8200  
Fax: 408-284-2775  
[www.IDT.com/go/sales](http://www.IDT.com/go/sales)

Tech Support  
[www.IDT.com/go/support](http://www.IDT.com/go/support)

DISCLAIMER Integrated Device Technology, Inc. (IDT) and its affiliated companies (herein referred to as "IDT") reserve the right to modify the products and/or specifications described herein at any time, without notice, at IDT's sole discretion. Performance specifications and operating parameters of the described products are determined in an independent state and are not guaranteed to perform the same way when installed in customer products. The information contained herein is provided without representation or warranty of any kind, whether express or implied, including, but not limited to, the suitability of IDT's products for any particular purpose, an implied warranty of merchantability, or non-infringement of the intellectual property rights of others. This document is presented only as a guide and does not convey any license under intellectual property rights of IDT or any third parties.

IDT's products are not intended for use in applications involving extreme environmental conditions or in life support systems or similar devices where the failure or malfunction of an IDT product can be reasonably expected to significantly affect the health or safety of users. Anyone using an IDT product in such a manner does so at their own risk, absent an express, written agreement by IDT.

Integrated Device Technology, IDT and the IDT logo are trademarks or registered trademarks of IDT and its subsidiaries in the United States and other countries. Other trademarks used herein are the property of IDT or their respective third party owners. For datasheet type definitions and a glossary of common terms, visit [www.idt.com/go/glossary](http://www.idt.com/go/glossary). All contents of this document are copyright of Integrated Device Technology, Inc. All rights reserved.