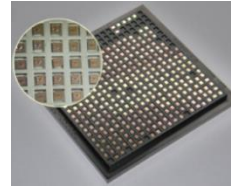


## Applications

- 100G DP-QPSK (Dual Polarization QPSK)
- TIA with AGC for long-haul or metro optical receiver modules
- Coherent systems with a baud rate up to 128 Gb/s
- 100 Gb/s Linear Driver: DP-QPSK



## Product Features

- Dual channel fully differential transimpedance amplifier
- Excellent linearity and low total harmonic distortion
- Able to handle large DC input currents
- Adjustable bandwidth and amplitude frequency response
- Large dynamic range
- Manual gain control or AGC modes of operation
- Adjustable output voltage range in AGC mode
- Multiple amplifier stages to achieve high gain
- Output shutdown function
- Input and output signal level detection
- Compliant with OIF micro-intradyme coherent receiver IA

## General Description

The TGA4872 is a dual channel fully differential state of the art TIA with integrated AGC designed for coherent DP-QPSK receivers with baud rates up to 128Gbps. It features a very low total harmonic distortion which is not only crucial for DP-QPSK, but also enables higher-level QAM applications.

In addition, the TGA4872 has compensating circuits that allow it to handle large DC input currents as well as large offsets between these currents. This is important for colorless applications.

The TGA4872 is manufactured in a reliable high-speed SiGe process that combines excellent performance together with cost-effectiveness.

## Ordering Information

Part No.	ECCN	Description
TGA4872	EAR99	32 Gb/s Dual Linear Transimpedance Amplifier with AGC