## Product Brief

### 32 Gbaud Dual-Channel, High Gain, Linear Transimpedance/Variable-Gain Amplifier

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<th>Part No.</th>
<th>IN3252TA</th>
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**Product Type**  
Transimpedance Amplifiers

**Market Segments**  
Long Haul/Metro

**Applications**  
100G/200G Coherent Receivers  
Class 20 ICR

### Features

- Supports baud rates up to 32 Gbaud  
- Dual-channel monolithic TIA/VGA  
- 500 µm channel pitch  
- Wide differential electrical gain  
- High electrical bandwidth  
- Adjustable output amplitude  
- Automatic or manual gain control  
- Peak detector output  
- Output control  
- Low power consumption  
- Available in die form

### Description

The IN3252TA is a dual-channel, high gain, differential linear transimpedance/variable-gain amplifier (TIA/VGA) for 100G and 200G coherent detection receivers for long haul and metro networks.

The IN3252TA offers two gain control modes: manual and automatic. In manual mode, the gain is controlled via an external control pin. In automatic (AGC) mode, the gain is automatically adjusted to deliver a constant output voltage.

The IN3252TA includes an adjustable bandwidth feature that allows the user to optimize receiver frequency response for different photodiode and ADC/DSP combinations.

The IN3252TA has input DC current offset cancellation to accommodate a wide range of local oscillator power levels and support reconfigurable, colorless applications.

The IN3252TA operates from a +3.3 V power supply and is available in die form.