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

**Part No.**
IN3252TA

**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.