

64 Gbaud Dual-Channel, Differential Input, Linear Transimpedance/Variable-Gain Amplifier

Part No.

IN6451TA

Product Type

Transimpedance Amplifiers

Market Segments

Long Haul/Metro

Applications400G/600G Coherent Receivers
Class 40 ICR**Features**

- Supports baud rates up to 64 Gbaud
- Dual-channel monolithic TIA/VGA
- 625 μm channel pitch
- Wide differential electrical gain
- High electrical bandwidth
- Low electrical peaking
- Adjustable output amplitude in AGC mode
- Automatic or manual gain control
- Output peak detectors
- Analog control interface
- Low power consumption
- Available in die form

Description

The IN6451TA is a dual-channel, differential linear transimpedance/variable-gain amplifier (TIA/ VGA) for 400G and 600G coherent detection receivers for long haul and metro networks.

The IN6451TA offers two gain control modes: manual gain control and automatic gain control. In manual mode, the gain is controlled via an external control pin. In automatic mode, the gain is automatically adjusted to deliver a constant output voltage.

The IN6451TA provides linear amplification for a very wide input optical power range.

The IN6451TA delivers high bandwidth and low peaking for optimum receiver frequency response for different photodiode and ADC/DSP combinations.

The IN6451TA has an output peak detector monitoring function.

The IN6451TA operates from a single +3.3 V power supply and is available in die form with a 625 μm channel pitch.