

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

Part No.

IN6452TA

Product Type

Transimpedance Amplifiers

Market Segments

Long Haul/Metro

Applications

400G/600G Coherent Receivers Class 40 ICR

Features

- Supports baud rates up to 64 Gbaud
- · Dual-channel monolithic TIA/VGA
- 500 µm channel pitch
- Wide transimpedance gain range
- · High electrical bandwidth
- · 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 IN6452TA 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 IN6452TA 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 IN6452TA provides linear amplification for a very wide input optical power range.

The IN6452TA includes an adjustable peaking feature that allows the user to optimize receiver frequency response for different photodiode and ADC/DSP combinations.

The IN6452TA has an output peak detector monitoring function.

The IN6452TA operates from a single +3.3 V power supply and is available in die form.



To deliver the data infrastructure technology that connects the world, we're building solutions on the most powerful foundation: our partnerships with our customers. Trusted by the world's leading technology companies for 25 years, we move, store, process and secure the world's data with semiconductor solutions designed for our customers' current needs and future ambitions. Through a process of deep collaboration and transparency, we're ultimately changing the way tomorrow's enterprise, cloud, automotive, and carrier architectures transform—for the better.