

# 56 Gbaud Quad-Channel, Single-Ended Input, Linear Transimpedance/Variable-Gain Amplifier

**Part No.**

IN5665TA

**Product Type**

Transimpedance Amplifiers

**Market Segments**

Inside Data Centers

**Applications**

400G/800G Optical Receivers

**Features**

- Supports baud rates up to 56 Gbaud
- Quad-channel monolithic TIA/VGA
- 750  $\mu\text{m}$  input channel pitch
- Wide differential electrical gain
- High electrical bandwidth
- Adjustable output amplitude in AGC mode
- Low noise
- Low power consumption
- I2C serial interface supported
- Available in die form

**Description**

The IN5665TA is a quad-channel, single-ended input, linear transimpedance/ variable-gain amplifier (TIA/ VGA) for 400G and 800G optical receivers.

The IN5665TA operates in automatic gain mode. It can adjust its single-ended input transimpedance and delivers an output voltage in AGC mode.

The IN5665TA supports a very wide input optical power range. It has extremely low input referred noise current density and provides linear amplification.

The IN5665TA provides an RSSI function to monitor and report average optical input power.

The IN5665TA operates from a single +3.3 V power supply and is available in die form.