

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

## Part No.

CB5670TA  
CB5670MTA

## Product Type

Transimpedance Amplifiers

## Market Segments

Inside Data Center

## Applications

- 400GbE/800GbE SMF DSP Transceiver
- 400GbE/800GbE TRO Transceiver
- 400GbE/800GbE LPO Transceiver

## Features

- Supports baud rates up to 56 Gbaud
- Quad-channel monolithic TIA/VGA
- Wide differential electrical gain range
- High optical bandwidth
- Adjustable AGC output amplitude
- Low noise
- Low power consumption
- Loss of Signal detection
- On-die temperature sensor
- Input channel pitch: 750  $\mu\text{m}$
- Available in two die forms: wirebond (TA) and P/N polarity inverted wirebond (MTA)

## Description

The CB5670TA/CB5670MTA is a quad-channel, single-ended input linear transimpedance/variable-gain amplifier (TIA/VGA) for 400 GbE-DR4 and FR4, or 800GbE-DR8, or 2xFR4 optical receivers.

The CB5670TA/CB5670MTA operates in automatic gain control (AGC) mode, automatically adjusting transimpedance to deliver an output swing set by the customer.

The CB5670TA/CB5670MTA supports a very wide input optical power range with optimized noise performance at the BER floor. The CB5670TA/CB5670MTA has high optical bandwidth, and it provides an RSSI function to monitor and report average optical input power.

The CB5670TA/CB5670MTA operates from a single +3.3V power supply with a die size of 3.223 mm x 1.220 mm.