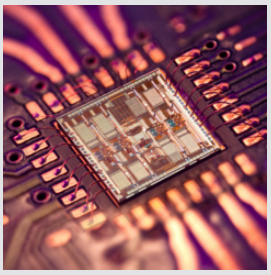
BROADCOM®

Product Brief

AFSI-R94C4LA

112-Gb/s QUAD PAM-4 Linear TIA IC



Key Features

- Four-channel linear TIA for 56 Gbaud/s, operable over 112 Gb/s with 56 Gsymbol/s.
- Input overload capability of at least 2.8 mA.
- Power consumption: 230 mW/Ch Max.
- Channel pitch (pin) of 750 µm.
- Max transimpedance gain: ~ 5 Kohm.
- Bandwidth: ~ 28 GHz typ.
- THD < 3%.
- Low input referred noise: < 12 pA/√Hz.
- Channel control: activation, output amplitude, DC-cancellation.
- Receive signal strength indicator (RSSI) function.
- ADC read-back: supply voltages, temperature, RxLIP.
- TWS communication ports with 400 KHz max speed.

Overview

The AFSI-R94C4LA is a 4-channel linear TIA (transimpedance amplifier) IC that is designed for 56-Gbaud (112-Gb/s) PAM4 (Pulse Amplitude Modulation) transceiver applications. This IC has pin pads that are intended to be wire-bonded.

This Rx IC amplifies four single-ended electrical signals received from the photodiode array. An RSSI (receive signal strength indicator) output pad can be used to monitor received signal strength at the PIN detector.

Applications

- Data-center inter- and intra-optical connections
- Higher-order modulation applications
- Low-power and high-performance small form factor optical modules
- OSFP, CFPx

Ordering Information

Product Code	Description
AFSI-R94C4LA	56-Gbaud QUAD PAM-4 linear TIA IC, with 750-µm PD pitch, for LR

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For more product information: broadcom.com

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