

RG8G32423

32Gbaud Quad-Channel Linear TIA

The RG8G32423 is 32Gbaud low power quad-channel linear trans-impedance amplifier (TIA) that is designed for 100Gbps DP-QPSK coherent pluggable module applications.

The RG8G32423 has integrated quad lanes of TIAs for XI, XQ, YI, and YQ channels, as well as SPI circuitry for DC controls on a single die. The TIA electrical characteristics, functions, and physical dimensions are designed for small-form factor integrated optical sub-assembly modules.

The RG8G32423 is delivered as die formed with solder bumps for the flip-chip assembly.

Features

- Differential linear gain: 250 to 6,000Ω
- 24GHz 3dB-bandwidth for covering 33Gbaud operation
- 0.5W (max.) power consumption
- Low noise < 18pA/√Hz and THD < 3% for 450mVppd output
- Automatic and manual gain control mode, output amplitude programming, output signal monitoring, gain monitoring, RSSI, loss of signal monitoring, and shutdown functionalities
- SPI digital interface integration
- Covering industrial temperature operation
- Die with solder bumps for flip-chip assembly

Applications

- 100Gbps DP-QPSK coherent pluggable module applications

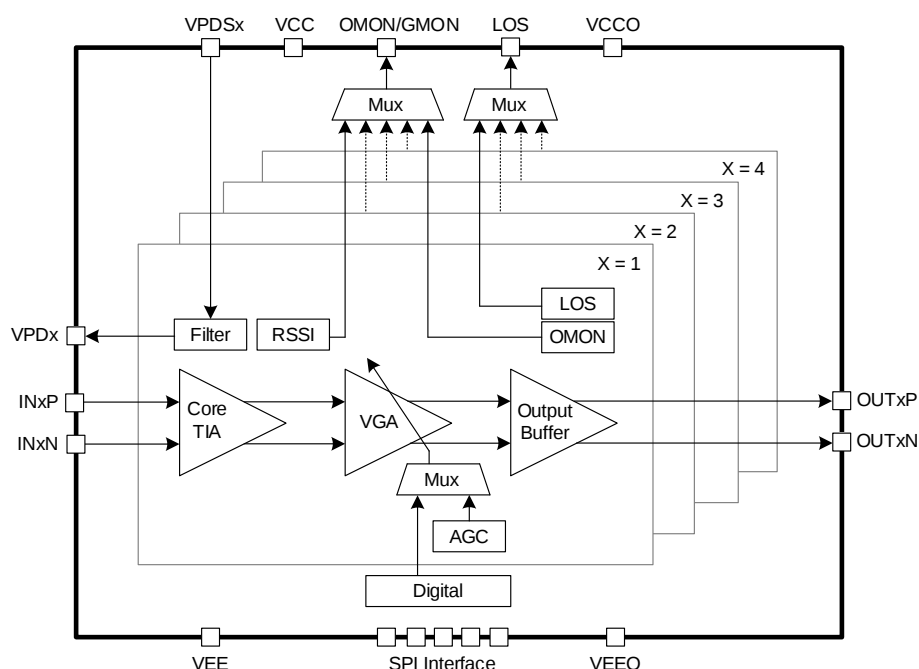


Figure 1. Block Diagram

Ordering Information

Part Number	Package Description	Temperature Range
RG8G32423BGGWT	Die, 1.503 × 2.555 × 0.375 mm	-40°C to +105°C

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