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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## **PI3EQX12902A**

8Gbps 1 Port/2 Channels PCle3/SATA3 Combo ReDriver with Linear Equalization

#### Description

PI3EQX12902A is a low power, high performance 8Gbps 2 channels PCle3/SATA3 linear ReDriver.

The device provides programmable equalization, linear swing and flat gain to optimize performance over a variety of physical mediums by reducing Inter-Symbol Interference. PI3EQX12902A supports two  $100\Omega$  Differential CML data I/O's between the Protocol ASIC to a switch fabric, over cable, or to extend the signals across other distant data pathways on the user's platform.

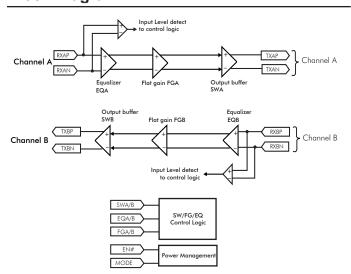
The integrated equalization circuitry provides flexibility with signal integrity of the signal before and after the ReDriver.

Each channel operates fully independently. The channels' input signal level determines whether the output is active.

The PI3EQX12902A is a flexible, multi-protocol linear ReDriver designed to support new processor chipsets with dual protocol I/O pins, supporting PCIe3 8Gbps, SATA3 6Gbps speeds and connectors such as mSATA/M.2/SATAe/U.2 that can provide control signals.

The PI3EQX12902A is also an excellent choice for single lane applications requiring low power and small package such as docking station connectivity.

#### **Block Diagram**



#### **Features**

- → 8Gbps serial link with linear equalizer
- → Two 8Gbps differential signal pairs
- → Support PCIe3/SATA3 protocols
- → Transparent to link training, OOB, Idle
- → Pin Adjustable Receiver Equalization
- → Pin Adjustable output linear swing
- → Pin Adjustable Flat Gain
- → 100Ω Differential CML I/O's
- → Auto receiver detection for adaptive power management
- → Auto "low power" mode for adaptive power management
- → Single Supply Voltage: 3.3V ± 0.3V
- → Industrial Temperature range: -40°C to 85°C
- → Packaging: (Pb-free & Green)
  - ♦ 30-pin, TQFN 2.5x4.5 mm (ZL30)

#### **Applications**

- → Notebook PC
- → Server motherboards
- → Rack server
- → JBOD storage
- → Blade server

### **Application Diagram**

