

# PI3EQX12902B

12.5Gbps 1 Port/2 Channels PCIe3/ 10GbE/SAS3/SATA3 Combo ReDriver with Linear Equalization

## Description

The PI3EQX12902B is a low power, high performance 12.5Gbps 2 channels PCIe3/10GbE/SAS3/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.

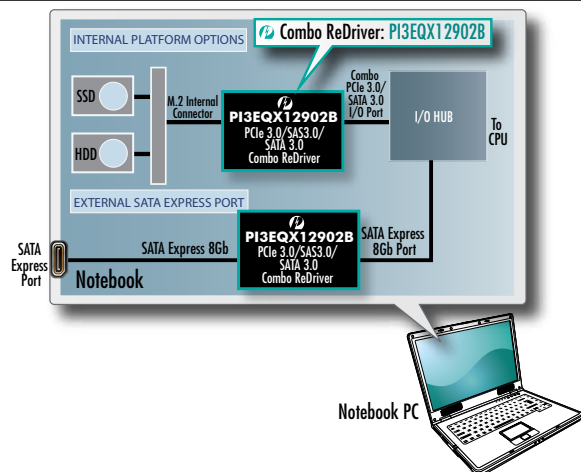
PI3EQX12902B supports two 100Ω Differential CML data I/O's between the Protocol ASIC to a switch fabric, over cable, or to extend the signals across other distant data pathways on the user's platform. The integrated equalization circuitry provides flexibility with signal integrity of the signal before and after the ReDriver. Each channel operates fully independently. The channels' input signal level determines whether the output is active.

The PI3EQX12902B is a flexible, multi-protocol linear ReDriver designed to support new processor chipsets with dual protocol I/O pins, supporting PCIe3 8Gbps/10GbE KR/SAS3 12Gbps/SATA3 6Gbps speeds and connectors such as mSATA/M.2/ SATAe that can provide control signals. The PI3EQX12902B is also an excellent choice for single lane applications requiring low power and small package such as docking station connectivity.

## Applications

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

## Application Diagram



## Features

- 12.5Gbps serial link with linear equalizer.
- Two 12.5Gbps differential signal pairs
- Support SAS3/SATA3/10GbE KR and PCIe3 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: -40oC to 85oC
- Packaging: (Pb-free & Green)
- 30-pin, TQFN 2.5x4.5 mm (ZL30)

## Application Diagram

