

## PI2EQX8804A

### 8.0Gbps 4-Lane PCIe® 3.0 ReDriver™ with Equalization & Emphasis

Pericom Semiconductor's PI2EQX8804A is a low power PCIe® 3.0 (8Gbps) ReDriver™. The device provides programmable equalization, pre-emphasis, and output voltage swing control via configuration pins to optimize over a variety of physical mediums by reducing Inter-symbol interference (ISI). The PI2EQX8804A also provides advanced features such as bidirectional loop back functionality for easy debug, a selectable signal detector threshold, and I2C/SMBus programmability just to name a few.

The integrated equalization circuitry provides flexibility with signal integrity of the PCIe signal before the ReDriver, whereas the integrated pre-emphasis circuitry provides flexibility with signal integrity of the signal after the ReDriver. In addition to providing signal reconditioning, Pericom's PI2EQX8804A also provides power management Stand-by mode operated by a Power Down pin.

The PI2EQX8804A is a cost effective way to extend PCIe® 3.0 compliant channels and provide needed BER margin.

#### Features

- 8 differential channels, support x4 lane PCIe® 1.0/2.0/3.0 application
- Fully compatible with PCIe® 3.0 compliant channels
- Selectable adjustment of receiver equalization, output swing and pre-emphasis
- Selectable input termination between 50Ω to VDD and Hi-Z
- Selectable output termination between 50Ω to VDD and 2KΩ to VDD
- Control on Standby and output enable
- Dual programmability between I²C/SMBus and Pin Configurability (Pin Strap) via select pin
- 3-bit selectable address bits for I²C
- Support I²C and SMBus format
- 2-bit threshold adjustment for signal detector
- Single supply: 1.5V
- Packaging (Pb-free & Green): 100-contact LPGA (NJ)

#### Block Diagram



