

PI2EQX8864A

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

Pericom Semiconductor's PI2EQX8864A is a low power PCIe® 3.0 (8Gbps) ReDriver™. The device provides programmable equalization, pre-emphasis, preshoot, and output voltage swing control via configuration pins to optimize over a variety of physical mediums by reducing Inter-symbol interference (ISI). The PI2EQX8864A also provides advanced features such as bidirectional loop back functionality for easy debug, a selectable signal detector threshold, and full I2C/SMBus programmability just to name a few.

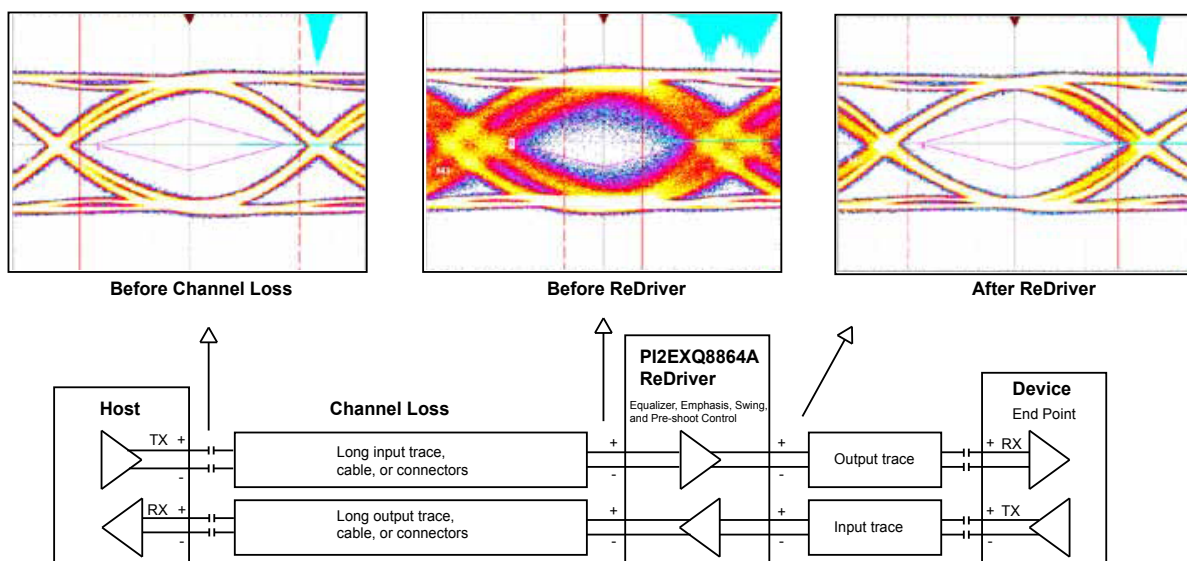
The integrated equalization circuitry provides flexibility with signal integrity of the PCIe signal before the ReDriver, whereas the integrated pre-emphasis circuitry provides flexibility with signal integrity of the signal after the ReDriver. In addition to providing signal reconditioning, Pericom's PI-2EQX8864A also provides power management Stand-by mode operated by a Power Down pin.

The PI2EQX8864A is ideal for enabling longer PCIe 3.0 PCB traces or cables with multiple connectors, riser card, and end point cards in server, storage, networking, and embedded platforms.

Features

- 8 differential channels, support x4 lane PCIe® 1.0/2.0/3.0 application
- Fully Compatible with PCIe® 3.0 compliant channels
- Optimized for I2C/SMBus programming
- Selectable adjustment of receiver equalization, output swing, transmit pre-emphasis and transmit preshoot.
- 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 via select pin
- 3-bit selectable address bits for I2C
- Support I2C and SMBus format
- 1-bit threshold adjustment for signal detector
- Single supply: 1.5V
- Packaging (Pb-free & Green): 72-contact TQFN (ZL)

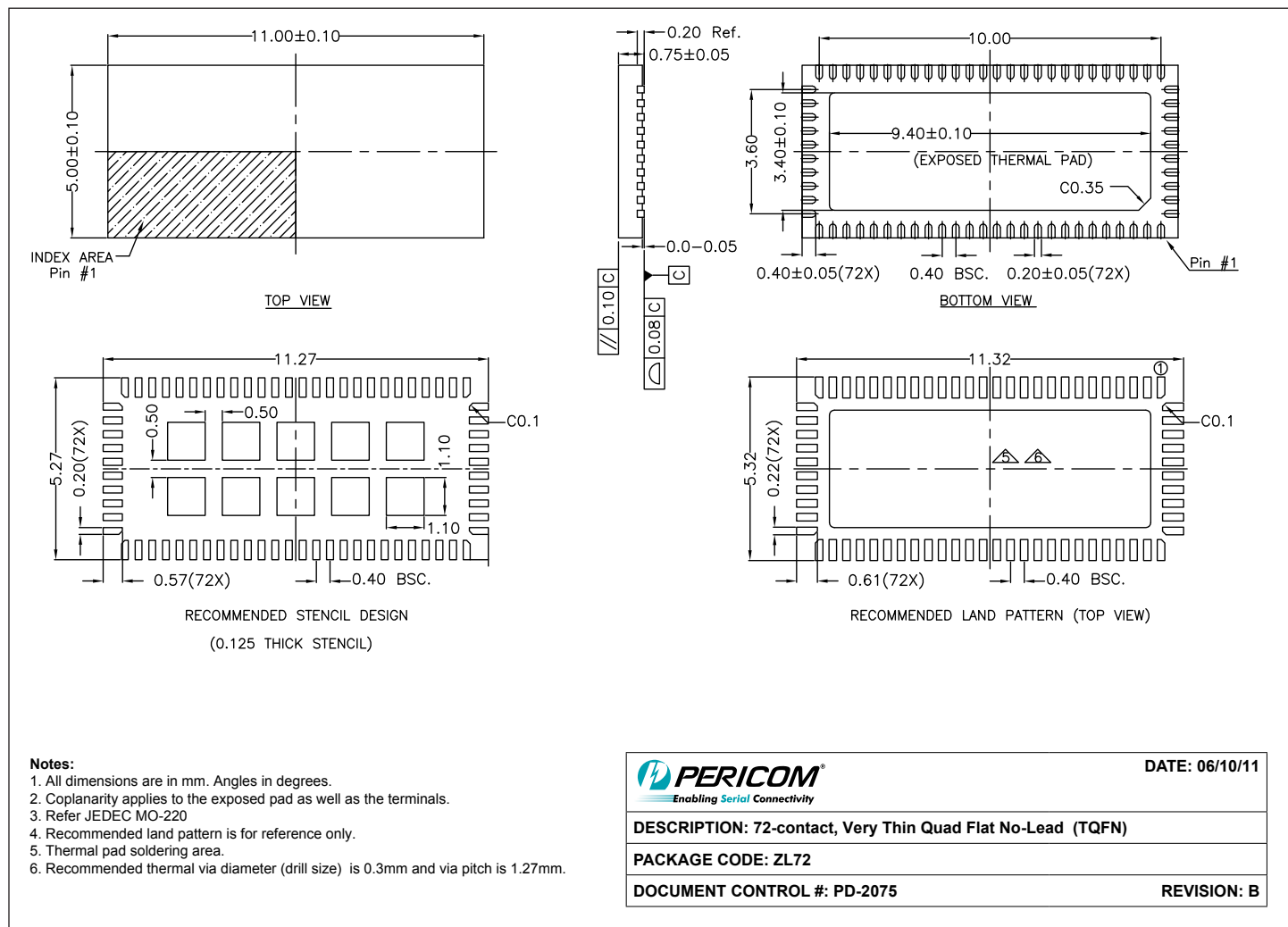
Block Diagram



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Packaging Mechanical: 72-Contact TQFN (ZL)



Ordering Information

Ordering Number	Package Code	Package Description
PI2EQX8864AZLE	ZL	Pb-free and Green 72-Contact TQFN

- Thermal characteristics can be found on the company web site at www.Pericom.com/Packaging/
- E = Pb-free and Green
- X suffix = Tape/Reel