

# PI2EQX8804A

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

Pericom Semiconductor's PI2EQX8804A is a low power PCle® 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.

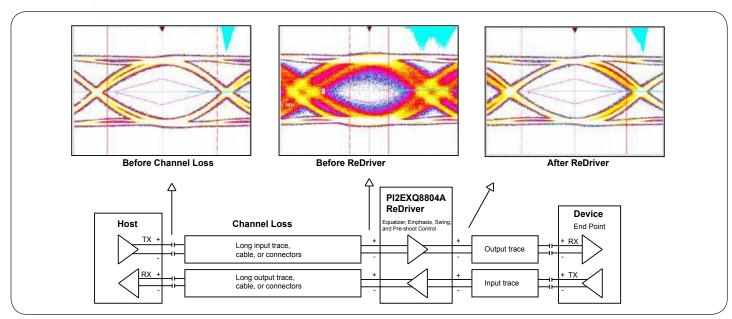
The integrated equalization circuitry provides flexibility with signal integrity of the PCle signal before the ReDriver, whereas the integrated pre-emphasis circuitry provides flexibility with signal integrity of the signal after the ReDriver. In addition to providing signal reconditioning, Pericom's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

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

#### **Features**

- 8 differential channels, support x4 lane PCle® 1.0/2.0/3.0 application
- Fully compatible with PCle® 3.0 compliant channels
- Selectable adjustment of receiver equalization, output swing and pre-emphasis
- $\bullet$  Selectable input termination between  $50\Omega$  to VDD and Hi-Z
- Selectable output termination between  $50\Omega$  to VDD and  $2\mathrm{K}\Omega$  to VDD
- Control on Standby and output enable
- Dual programmability between I<sup>2</sup>C/SMBus and Pin Configurability (Pin Strap) via select pin
- 3-bit selectable address bits for I<sup>2</sup>C
- Support I<sup>2</sup>C and SMBus format
- 2-bit threshold adjustment for signal detector
- Single supply: 1.5V
- Packaging (Pb-free & Green): 100-contact LBGA (NJ)

### **Block Diagram**

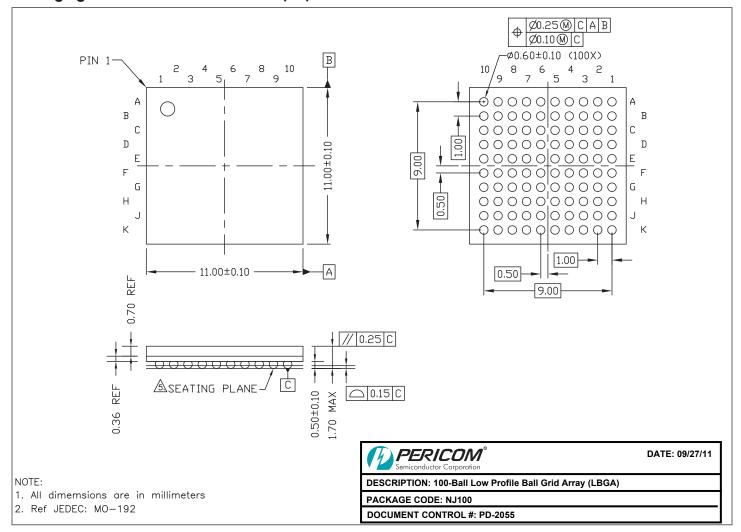




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#### Packaging Mechanical: 100-Ball LBGA (NJ)



#### **Ordering Information**

Ordering Number	Package Code	Package Description
PI2EQX8804ANJE	N	Pb-free and Green 100-Contact LBGA

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