# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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!



## Contact us

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### PI2EQX6804-A 6.5Gbps, 4-lane, SAS2.0/SATA3.0/XAUI ReDriver™ with Equalization & Emphasis

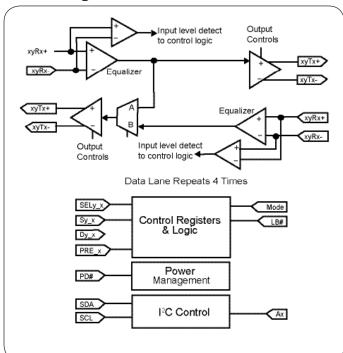
Pericom Semiconductor's PI2EQX6804-A is a low power, SAS2, SATA, XAUI signal ReDriver<sup>™</sup>. The device provides programmable equalization, amplification, and emphasis by using 8 select bits, to optimize performance over a variety of physical mediums by reducing Inter-symbol interference.

PI2EQX6804-A supports eight  $100\Omega$  Differential CML data I/O's between the Protocol ASIC to a switch fabric, across a backplane, or extends 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 the ReDriver, whereas the integrated emphasis circuitry provides flexibility with signal integrity of the signal after the ReDriver.

In addition to providing signal re-conditioning, Pericom's PI2EQX6804-A also provides power management stand-by mode operated by a power-down pin.

#### **Block Diagram**



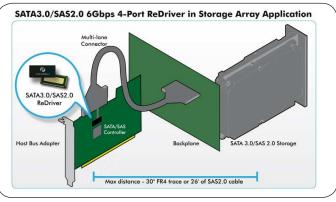
#### Features

- Up to 6.5Gbps SAS2/SATA/XAUI ReDriver<sup>™</sup>
- Supporting 8 differential channels or 4 ports
- Pin strapped and I<sup>2</sup>C configuration controls (3.3V Tolerant)
- Adjustable receiver equalization
- Adjustable transmitter amplitude and emphasis
- 50Ω input/output termination
- Mux/Demux feature
- Channel loop-back
- OOB fully supported
- Single supply voltage,  $1.2V \pm 0.05V$
- Power down modes
- Packaging (Pb-free & Green):
  - 100-contact LFBGA

#### **Applications:**

Server U Workstation Data Storage

#### Figure1



#### Figure1

Redrivers with emphasis and equalization signal conditioning technology ensure the integrity of high-frequency SAS2.0/SATA3.0 signals by opening closed signal eyes to recover data and meet strict compliance testing requirements. Increased signal margin also supports longer drive lenghts over even low-quality cables