PI2EQX6804-A

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

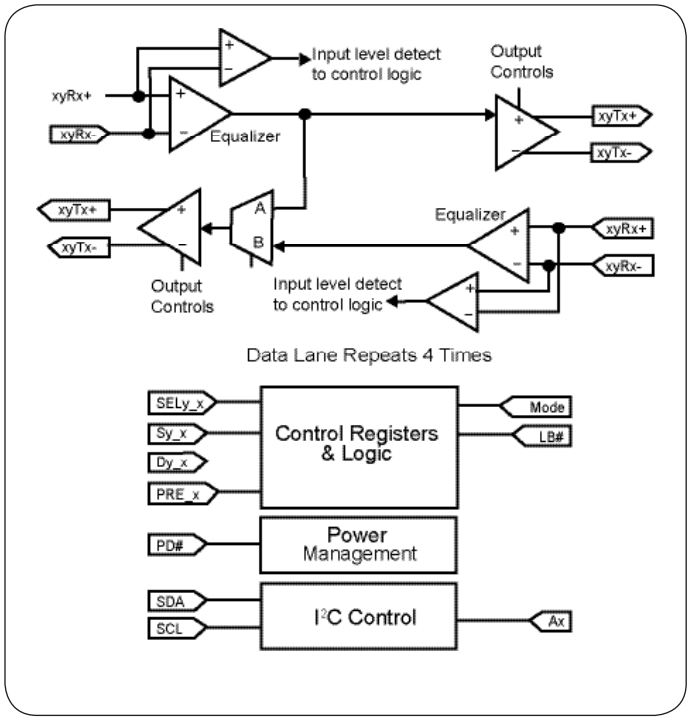
Pericom Semiconductor's PI2EQX6804-A is a low power, SAS2, SATA, XAUI signal ReDriver™. The device provides programmable equalization, amplification, and emphasis by using 8 select bits, to optimize performance over a variety of physical mediums by reducing Inter-symbol interference.

PI2EQX6804-A supports eight 100Ω 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™
- Supporting 8 differential channels or 4 ports
- Pin strapped and I²C 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 ± 0.05V
- Power down modes
- Packaging (Pb-free & Green):
  - 100-contact LFBGA

Applications:

❑ Server ❑ Workstation ❑ Data Storage

Figure1

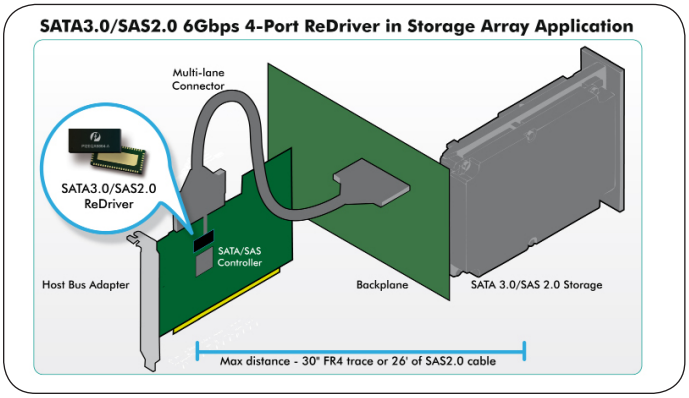


Figure1

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

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PI74LPT16244CAE PI74LPT16244CAEX PI2EQX6812ZHE PI2EQX4951SLZDEX PI2EQX8864AZLEX PI2EQX3232AZDE PI2EQX8864AZLE PI3EQX5701ZDEX PI2EQX5804DNJEX PI2EQX6874ZFE PI2EQX3201BZFE PI3EQX8984ZLE PI3EQX8908ZFE PI3EQX8984ZLEX PI3EQX8908ZFEX PI74LPT16244AAE PI74LPT16244AEX PI74LPT16244AAEX PI74VCX16244AEX PI74VCX16244AE PI74LPT16244AE PI2EQX8804ANJE PI2EQX8804ANJEX PI2EQX6811ZDEX PI2EQX6741SLZDEX PI2EQX5804CNJEX PI2EQX5964ZFE PI90LV017AWE PI90LV027AWE PI74LPT244LEX PI74FCT244ATQEX PI74FCT2541ATQEX PI74FCT541ATQEX PI74FCT541ATSEX PI74LPT244CQEX PI74FCT541ATQE PI90LVR3810AEX PI74FCT244CTSEX PI74LPT244AQEX PI74LCX16244AEX PI74FCT2541TQE PI74FCT2244ATSE PI74LPT244AHEX PI74FCT2244ATQEX PI74FCT244TQEX PI74FCT541CTLE PI74FCT244DTQEX PI74LPT244QEX PI74FCT3244LEX PI74LPT244ASEX PI74FCT244CTQEX PI74LPT244LE PI74LCX16244VEX PI74LCX16244VE PI74LPT244AQE PI74LPT244AHE PI74FCT2541ATQE PI74ALVTC16244AEX PI74FCT244TLEX PI74FCT2244ATQE PI2EQX3201BLZFEX PI2EQX3201BLZFE PI90LV031AWE PI2EQX5804CNJE PI90LV047ALE Pi2EQX5804DNJE PI2EQX4951SLZDE PI2EQX3421ZHE PI2EQX3421ZHEX PI2EQX862XUAEX PI2EQX6804NJE PI2EQX8814AFNJEX PI74LVTCH16244AE PI2EQX8814ANJE PI3EQXDP8121ZBEX PI2EQX8814AFNJE PI2EQX3231BLZHE PI74VCX16240AE PI2EQX3231BLZHEX PI2EQX3202ANBEX PI3EQXDP8121ZBE PI2EQX8814ANJEX