

PI2EQX4951SL

1-port, SATA2 i/m ReDriver™ with Analog/Digital Configuration

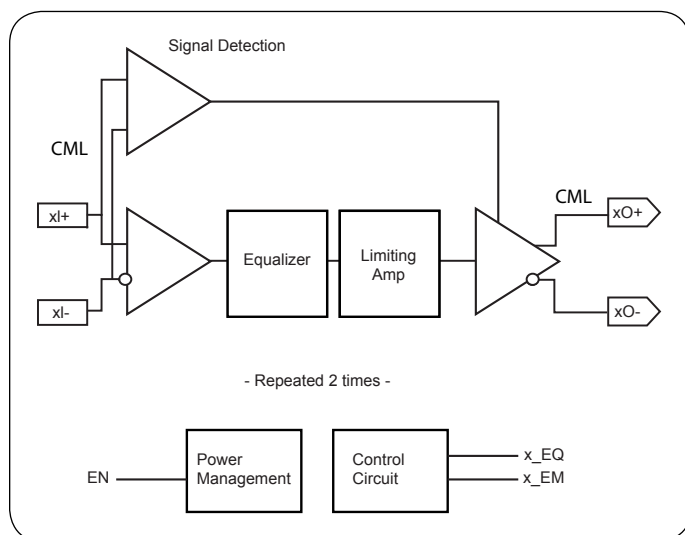
Pericom Semiconductor's PI2EQX4951SL is a low power, signal ReDriver. The device provides programmable equalization, to optimize performance over a variety of physical mediums by reducing Inter-Symbol Interference. PI2EQX4951SL supports two 100-Ohm Differential CML data I/O's between the Protocol ASIC to a switch fabric, across a backplane, or to extend 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.

A low-level input signal detection and output squelch function is provided for each channel. Each channel operates fully independently. When the channels are enabled (EN=1) and operating, that channels input signal level (on xl +/-) determines whether the output is active. If the input signal level of the channel falls below the active threshold level (Vth-) then the outputs are driven to the common mode voltage.

In addition to signal conditioning, when EN = 0, the device enters a low power standby mode.

Block Diagram



Features

- SATA2 i/m; external SATA2
- Two 3.0Gbps differential signal pairs
- Independent Digital Output Emphasis Control
- 100-Ohm Differential CML I/O's
- Input signal level detect and squelch for each channel
- OOB Support
- Enhanced Mode Features:
 - Adjustable Receiver Equalization
 - Independent Analog Output Emphasis Control
- High impedance I/O termination in stand-by mode
- Low Power Operation: 150mW typ.
- Auto-Slumber Mode: 30mW
- Power down Stand-by Mode: 0.04mW
- Supply Voltage: 1.4V to 1.9V
- Packaging: 20-TQFN (4x4mm)

Application of PI2EQX4951SL in NB PC application

