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

PI3EQX6741ST
3.3V, 1-port, SATA3 ReDriver™ with Adjustable Equalization/Pre-Emphasis

Pericom's PI3EQX6741ST is a low power, signal SATA3 6Gbps ReDriver™. The device provides programmable equalization and output emphasis, to optimize performance over a variety of physical mediums by reducing Inter-Symbol Interference. PI3EQX6741ST supports two 100Ω 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.
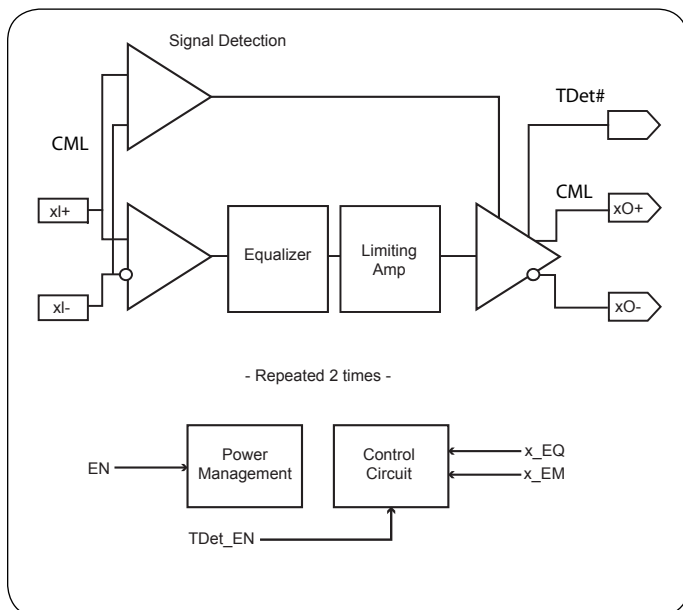
The integrated equalization circuitry provides flexibility with signal integrity of the signal before the ReDriver.

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.

Termination Detect indication (TDet_A# or TDET_B#) provides indication when the load is connected ie HDD or Host. This can be used as control to go into power saving mode by either the host or HDD.

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

Block Diagram

Features

- Supports SATA3.
- Two 6Gbps differential signal pairs
- 100Ω Differential CML I/O's
- Input signal level detect and squelch for each channel
- OOB Support
- Automatic HDD Rate detection for output swing/emphasis setting
- Termination detect indication
  - □ Power saving mode control to Host or HDD
- Adjustable Receiver Equalization
- Selectable Output Pre-emphasis and Swing Control
- High impedance I/O termination in standby mode
- Low Power Operation: 254mW typical
- Auto-Slumber Mode: 36mW typical
- HDD unplugged: 3.6mW
- Power down Stand-by Mode: 0.7mW max
- Supply Voltage: 3.3V ±10%
- Packaging: 20-TQFN (4x4mm)

Application of PI3EQX6741ST in NB PC application