Product: **3.3V, 8-Differential Channel Dual-LVDS Switch**

Part Number: **PI3LVD812**

Description

Pericom's PI3LVD812 is an 8-differential channel LVDS mux/demux used to switch between multiple LVDS sources or end points. With new notebook architecture allowing users the ability to upgrade their graphics power, notebook designers need an effective way to switch between the upgraded graphics path. Pericom's LVDS switch allows users to switch between two graphics processors in a single notebook, driving the internal panel. PI3LVD812 can support 18-bit panels.

Even with the high bandwidth of ~1.0GHz, the signal integrity will remain strong across the long FR4 trace through the notebook. In addition to high signal performance, the video signals are also protected against high ESD with integrated diodes to V_{DD} and GND that will support up to 12kV of ESD HBM protection.

Features

- Designed specifically to switch dual-LVDS signals
- Full switch for 6-differential LVDS data signals and 2 differential LVDS clock signals
- V_{DD} = 3.3V +/-10%
- ESD tolerance on video I/O pins is up to 12kV HBM
- -3dB BW of 1.0GHz (typ)
- Low Xtalk, (-55dB typ)
- Low and Flat ON-STATE resistance (R_{ON} = 3ohm, R_{ON} (Flat) = 0.5ohm, typ)
- Low input/output capacitance (C_{ON} = 6.2pF, typ)
- Packaging (Pb-free and Green):
  - 80-pin dual row QFN (5mm x 11mm)

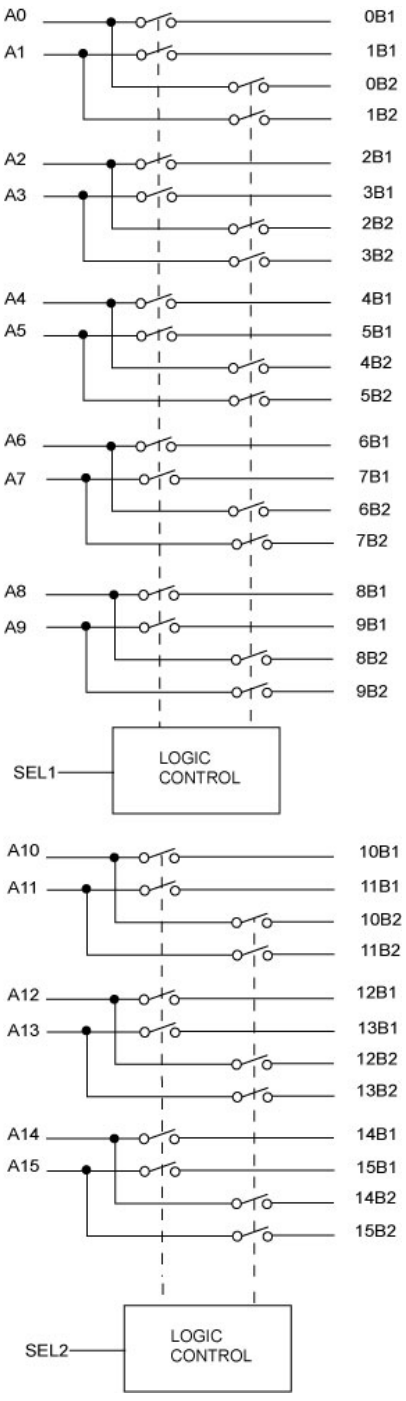
Application

- Routes physical layer signals for high bandwidth

Truth Table

SELx	Ay
L	$_{Y}B_{1}$
H	$_{Y}B_{2}$

Note: 1. If x=1, then y=0-9; if x=2, then y=10-15



PI3LVD812 Block Diagram