3.3V, PCI Express® 3.0 2-Lane, (4-Channel), Differential Mux/Demux with Bypass

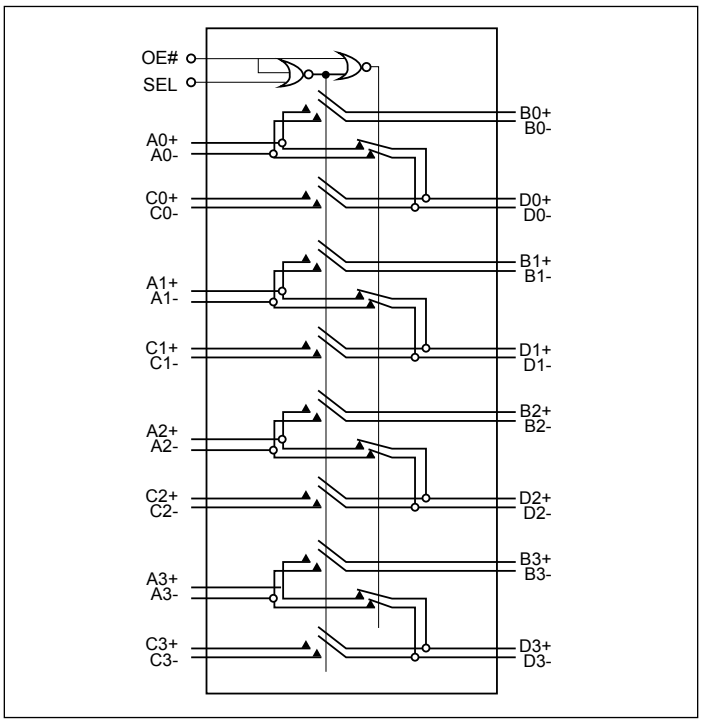
Features

- 8 Differential Channel SPST switch with Mux/DeMux option
- PCIe® 3.0 performance
- Bi-directional operation
- Low Bit-to-Bit Skew: 10ps (between ± signals)
- Low Crosstalk: -50dB @ 4.0GHz (8Gbps)
- Low Off Isolation: -21dB @4GHz
- Low Insertion Loss: -1.8dB @ 4.0GHz (8Gbps)
- Return Loss: -15dB @4GHz
- V_{DD} Operating Range: 3.3V ±10%
- ESD Tolerance: 2kV HBM
- Packaging (Pb-free & Green): 42-contact, TQFN (ZH42)

Truth Table

Function	SEL	OE#
Ax = Bx Cx = Dx	L	0
Ax = Dx B = C = Hi-Z	H	0
Ax, Bx, Cx, Dx = Hi-Z (disconnected)	x	1

Block Diagram



Description

Pericom semiconductor's PI3PCIE3422 is an 8 to 4 channel differential multiplexer/demultiplexer featuring 8-channel pass-through. It supports two full PCIe® lanes at 8.0Gbps PCIe® 3.0 performance.

With the select control input low Port A connects to Port B, and Port C connects to port D for an 8-channel differential pass-though. When the select control input is high Port A connects to Port D, and Port B and Port C are in a high-impedance state. The mux/demux function is between Port A and Ports B or D as determined by the select input control.