



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!



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## PI3DBS12412A

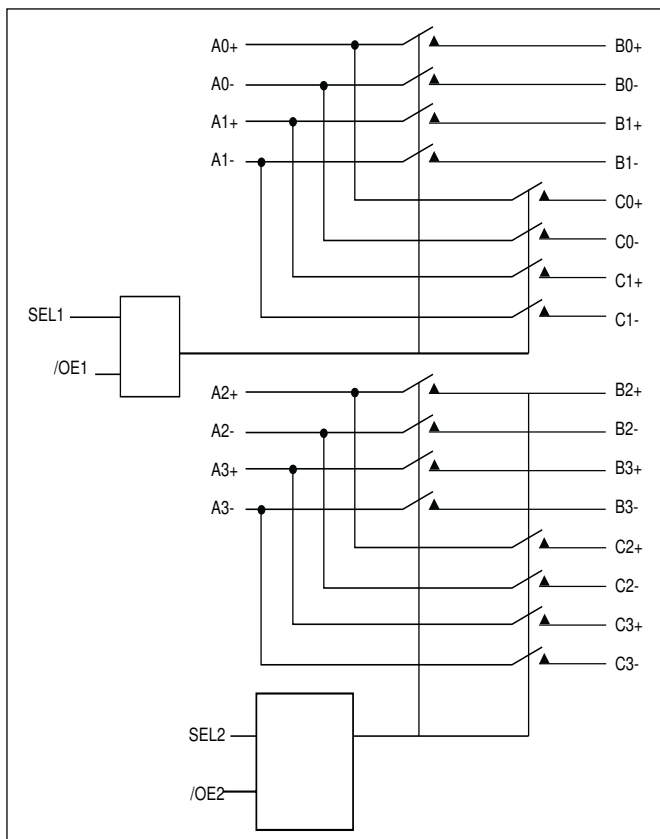
### 3.3V, 10-12Gbps 2-Lane 2:1 Mux/De-Mux Switch

Pericom Semiconductor's PI3DBS12412A is an 8 to 4 differential channel multiplexer/demultiplexer switch. This solution can switch multiple signal types up to data rate of 12Gbps. Using a unique design technique, Pericom has been able to minimize the impedance of the switch such that the attenuation observed through the switch is minimal. The unique design technique also offers a layout targeted for Thunderbolt & SAS 3.0 signals, which minimizes the channel to channel skew as well as channel to channel crosstalk as required by high speed signals.

#### Application

Routing high speed differential signals such as Thunderbolt, 10 Gigabit Ethernet, PCI-Express 3.0, SAS 3.0, and USB 3.1.

#### Block Diagram



#### Features

- 4 Differential Channel, 2:1 Mux/DeMux
- Up to 12Gbps data rate for SAS 3.0 Application
- Compatible with Thunderbolt signaling, 10.3125Gbps
- 10Gbps Ethernet, USB 3.1
- Bi-directional operation
- 3dB Bandwidth: 11.3 GHz
- Low Bit-to-Bit Skew, 1ps typ
- Low channel-to-channel skew, 7ps typ
- Low insertion loss:
  - 1.4dB@5 GHz, -1.5dB@6 GHz
- Return loss:
  - 19.3dB@5 GHz, -17.3dB@6 GHz
- Low Crosstalk: -30.5dB@6 GHz
- Low Off Isolation: -17.1dB@6 GHz
- Low power consumption -400µA typ
- Supply Voltage 3.3V
- Industrial Temperature Range: -40°C to 85°C
- ESD – 2KV Human Body Model (HBM)
- Packaging (Pb-free & Green):
  - 42-contact, TQFN (ZH42), 3.5x9mm
  - 40-contact, TQFN (ZL40), 3x6mm