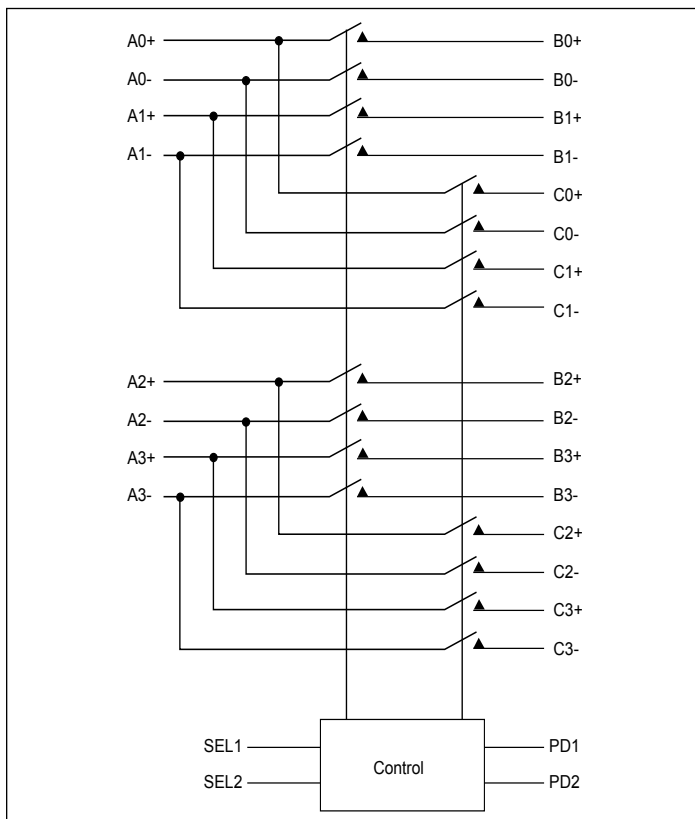# PI3DBS16412

3.3V, 1-20Gbps 2-Lane 2:1 Mux/De-Mux Switch

Features

➔ 4 Differential Channel, 2:1 Mux/DeMux

➔ Up to 20 Gbps for applications including USB3.0, USB3.1, 10GE, Thunderbolt 3, and SAS3.0

➔ Bi-directional operation

➔ 3dB bandwith: 13 GHz

➔ Low Bit-to-Bit Skew, 3ps typ

➔ Low channel-to-channel skew, 10ps typ

➔ Low insertion loss: -1.3dB@5 GHz, -1.3dB@8 GHz , -2dB@10 GHz

➔ Return loss: -21dB@5 GHz, -13dB@8 GHz, -9dB@10 GHz

➔ Low power consumption - 300µA typ

➔ Supply Voltage 3.3V

➔ Industrial Temperature Range: -40oC to 85oC

➔ Packaging (Pb-free & Green):

   – 42-contact, TQFN (ZH42), 3.5x9mm

   – 40-contact, TQFN (ZLC40), 3x6mm

Description

The PI3DBS16412 is an 8 to 4 differential channel multiplexer/de-multiplexer switch. This solution can switch multiple signal types up to data rate of 20Gbps. 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 USB3.0, USB3.1, 10GE, Thunderbolt 3, and SAS3.0 signals, which minimizes the channel to channel skew as well as channel to channel crosstalk as required by high speed signals.

Applications

➔ Routing high speed differential signals such as USB3.1 Gen 2, SAS3, PCIe4, TB3

Block Diagram

Ordering Information

Part Number	Package	Description
PI3DBS16412ZHEX	ZH	42-Contact, Very Thin Quad Flat No-Lead (TQFN)
PI3DBS16412ZLCEX	ZLC	40-Pin, 3x6mm (TQFN)

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.

2. See http://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free. Thermal characteristics can be found on the company web site at www.diodes.com/design/support/packaging/

3. E = Pb-free and Green

4. X suffix = Tape/Reel

单击下面可查看定价，库存，交付和生命周期等信息

>>Diodes Incorporated(达迩科技（美台）)