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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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PI3USB31532

3.3V, USB Type-C™ USB3.1 Gen2/DP1.4 6:4 Crossbar Switch

Description

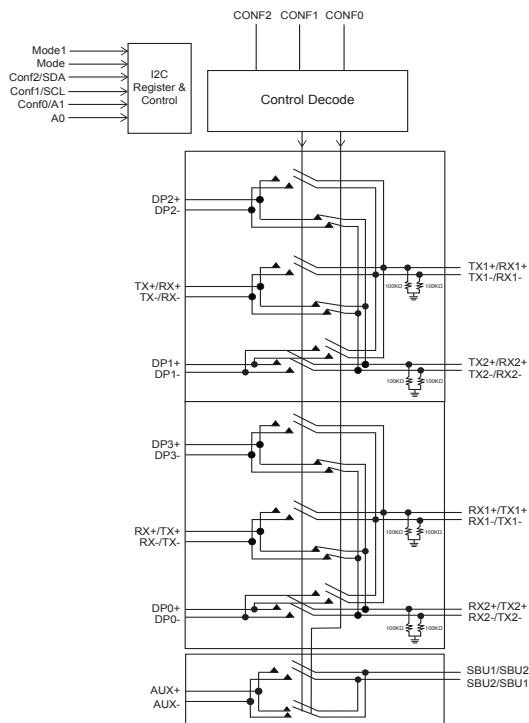
The PI3USB31532 is a 6:4 differential channel bi-directional Crossbar switch solution for switching USB3.1 Gen1/Gen2 and/or DP1.2/DP1.4 signals through USB3.0 Type-C™ connector. It multiplexes either 1 lane of USB3.1 Gen1/Gen2, 1 lane of USB3.1 Gen1/Gen2 and 2 channels of DP1.2/1.4 or 4 channels of DP1.2/DP1.4 to the USB Type-C™ connector.

In addition, AUX+/- channels are also multiplexed to the Type-C connector. PI3USB31532 offers excellent signal integrity for high-speed signals and low power dissipation. Insertion loss is -1.7dB and return loss is -15dB at 10Gb/s speed of USB3.1.

Applications

- Routing USB3.1 Gen1/Gen2 SuperSpeed and DP1.2/DP1.4 signals through the USB Type-C™ Connector.
- Applications include Ultrabook, 2 in 1 Notebook, Tablet, Mobile Workstation, All In One PC, Monitor, Docking Station, Phone

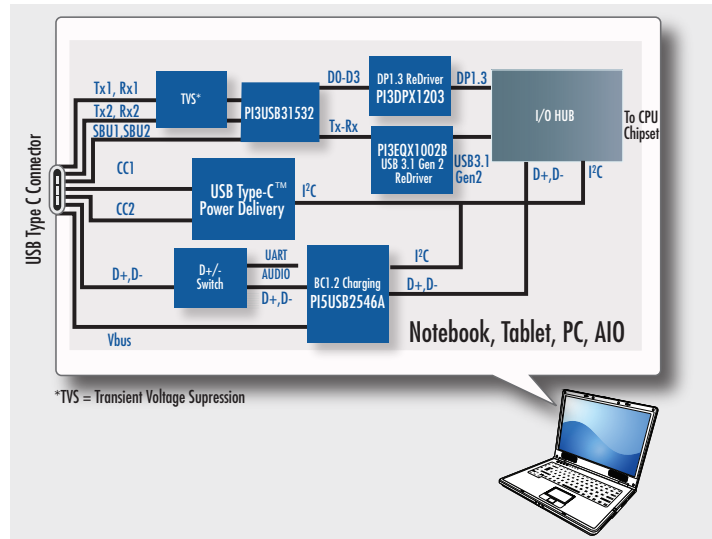
Block Diagram



Features

- 6 Differential Channel to 2/4 Differential Channel Crossbar switch
- USB 3.1 Gen2 10Gb/s Super Speed and DP 1.4 8Gb/s switching to USB Type-C™ connector
- Supports either pin control or I²C control to configure the mux
- Low insertion loss: -1.7dB @ 10Gb/s
- Return loss: -15dB @ 10Gb/s
- CrossTalk: -38dB @ 10Gb/s
- Off Isolation: -22dB @ 10Gb/s
- -3dB Bandwidth : 8.3GHz
- Multiplexes one of the following to USB Type-C connector:
 - USB3.1 Gen1/Gen2 signal only
 - One lane of USB3.1 Gen1/Gen2 signal and 2 channels of DP1.2/DP1.4 or 4 channels of DP1.2/DP1.4 signal.
- With DP1.2/DP1.4 operating, AUX+ and AUX- are muxed to SBU pins. Max swing on SBU pins are from -0.35V to 3.95V
- 3.0V to 3.6V Power Supply.
- Industrial Temperature Range: -40°C to 85°C
- Packaging (Pb-free & Green):
 - – 40- contact, TQFN(3 x6mm)

Application Diagram



*TVS = Transient Voltage Supression

