A product Line of
Diodes Incorporated

PERICOM®

PI3USB31534
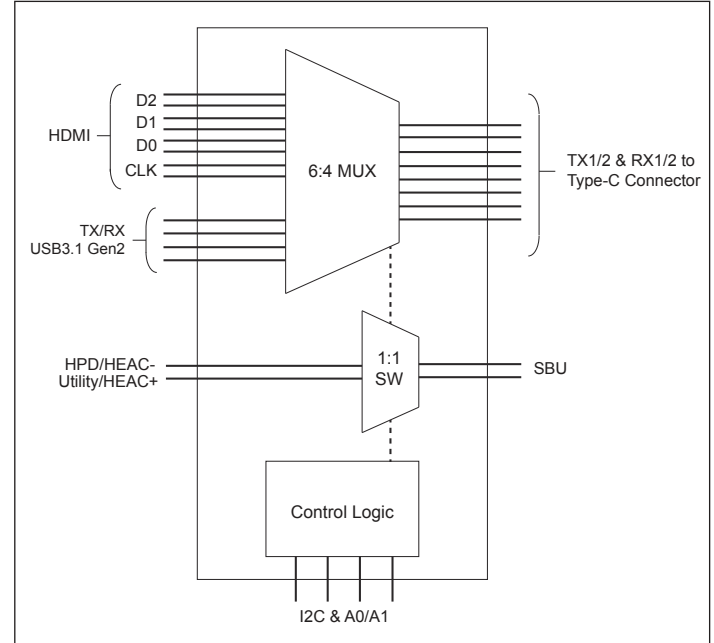
3.3V, Type-C™ USB3.1 Gen2/HDMI1.4-on-Type-C 6:4 Crossbar Switch

Features

➜ Six Differential Channel to 2/4 Differential Channel Crossbar Switch

➜ USB 3.1 Gen2 10Gb/s Super Speed and HDMI 2.0 Switching to USB Type-C Connector

➜ Supports I²C Control to Configure the Mux

➜ Low Insertion Loss: -2.2dB @ 10Gb/s

➜ Return Loss: -15dB @ 10Gb/s

➜ Crosstalk: -38dB @ 10Gb/s

➜ Off Isolation: -22dB @ 10Gb/s

➜ -3dB Bandwidth : 7GHz

➜ Multiplexes One of the Following to USB Type-C Connector:

  ▫ USB3.1 Gen1/Gen2 Signal Only
  ▫ Three HDMI Data Channels, One HDMI Clock Channel
  ▫ With HDMI Operating, HEAC/HPD are Muxed to SBU pins; Max Swing on SBU pins are from -0.3V to 5.5V

➜ 3.0V to 3.6V Power Supply.

➜ Industrial Temperature Range: -40°C to 85°C

➜ Packaging (Pb-free & Green):

  – 34- contact, UQFN (2.5mm × 4.5mm)

➜ **Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)**

➜ **Halogen and Antimony Free. "Green" Device (Note 3)**

Application

➜ Routing USB3.1 Gen1/Gen2 SuperSpeed and HDMI on Type-C 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, Digital Camera

Block Diagram

Ordering Information

Ordering Numbers	Packaging Code	Package Description
PI3USB31534ZTFEX	ZTF	34-contact, Ultra-Thin Quad Flat No-Lead (UQFN)

Notes:

1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant.

2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.

3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

4. Thermal characteristics can be found on the company web site at www.diodes.com/design/support/packaging/

5. E = Pb-free and Green

6. X suffix = Tape/Reel