

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

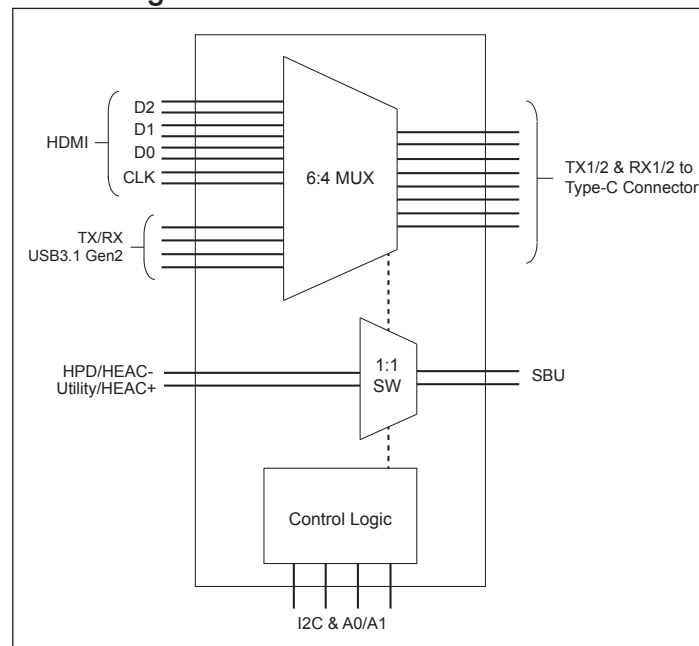
Features

- 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