

PI3EQX2064

USB 3.2 Gen 2x2 ReDriver

Description

The DIODES PI3EQX2064 is a low-power, high-performance, USB 3.2 Gen 2x2 linear ReDriver™ designed specifically for the USB 3.2 protocol.

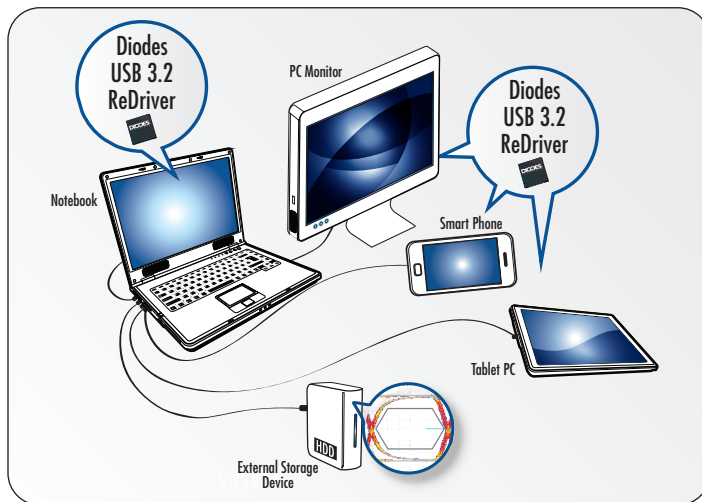
The device provides programmable equalization and flat gain to optimize performance over a variety of physical mediums by reducing intersymbol interference. PI3EQX2064 supports two 100Ω differential CML data I/Os between the Protocol ASIC to a switch fabric, over cable, or to extend the signals across other distant data pathways on the user's platform.

The integrated equalization circuitry provides flexibility with signal integrity of the signal before the ReDriver. Each channel operates fully independently. The channels' input signal level determines whether the output is active.

The PI3EQX2064 also includes an automatic receiver detect function. The receiver detection loop is active again if the corresponding channel's signal detector is idle for longer than 7.3ms. The channel then moves to unplug mode if load is not detected, or it returns to low-power mode (slumber mode) due to inactivity.

Features

- 5Gbps & 10Gbps Serial Link with Linear Equalizer
- USB 3.2 Gen 2 and Gen 1 Compatible
- USB 3.2 Gen 2x2 Compatible
- Four 10Gbps Differential Signal Pairs
- Pin Adjustable Receiver Equalization
- Pin Adjustable Flat Gain
- 100Ω Differential CML I/Os
- Automatic Receiver Detect
- Auto Slumber Mode for Adaptive Power Management
- Single Supply Voltage: 3.3V
- Patented Technology
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)
- For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](#) or your local Diodes representative.
<https://www.diodes.com/quality/product-definitions/>
- Packaging (Pb-free & Green available):
 - 32-pin, 2.1mm × 4.3mm, UQFN (ZTFA)



Ordering Information

Part Number	Package Code	Description
PI3EQX2064ZTFAEX	ZTFA	32-Pin, U-QFN2143-32

Notes:

- E = Pb-free and Green
- X suffix = Tape/Reel

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.