

# PI3EQX2004

## 4-lane USB3.2 Gen 2x2 10Gbps ReDriver

### Features

- 10Gbps serial link with linear equalizer
- USB3.2 Gen 2x2
- Four 10Gbps differential signal pairs
- Independently controlled EQ/Flat Gain/Swing signal outputs
- 100Ω Differential CML I/O's
- Automatic Receiver Detect
- Slave I2C support only I2C speed up to 1MHz
- Single Supply Voltage: 3.3V
- 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-Q100/101/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](mailto:contact@diodes.com) or your local Diodes representative.  
<https://www.diodes.com/quality/product-definitions/>
- Packaging:
  - 42-pin, TQFN 3.5 x 9mm (ZH)

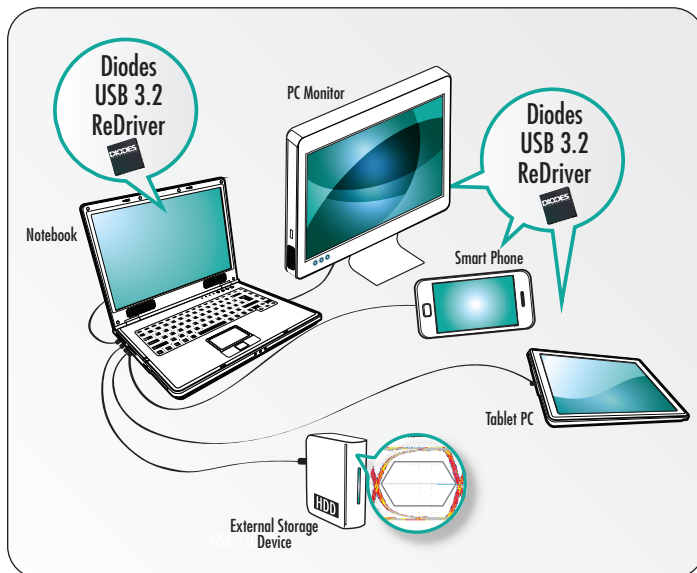
### Description

The PI3EQX2004 is a high performance 10Gbps 4-lane 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 Inter-Symbol Interference. PI3EQX2004 supports two 100Ω Differential CML data I/O's 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.

### Application Example



### Ordering Information

Part Number	Package	Description
PI3EQX2004ZHEX	ZH	42-contact, Very Thin Quad Flat No-Lead (TQFN)

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