

PI2EQX16924

16Gbps 2-Lanes/4-Channel ReDriver with Linear Equalization

Features

- 2.5 to 16 Gbps Serial Link with Linear Equalizer
- Compliant with PCIe® 4.0 and backwards compatible with PCIe 1.0, 2.0 and 3.0.
- Supports Four Differential Channels
- Independent Channel Configuration of Receiver Equalization, and Flat Gain
- I²C Slave Support with up to 1MHz
- 3-bit Selectable Address bit for I2C
- Supply Voltage: 1.8V±5%
- Industrial Temperature Range: -40°C to 85°C
- 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):
 - 32-contact, 2.85 x 4.5mm X2QFN (XUA)

Description

The DIODES™ PI2EQX16924 is a multi-data rate, four differential channel ReDriver™. The device provides programmable linear equalization, and flat gain, by I²C Control, to optimize performance over a variety of physical mediums by reducing intersymbol interference.

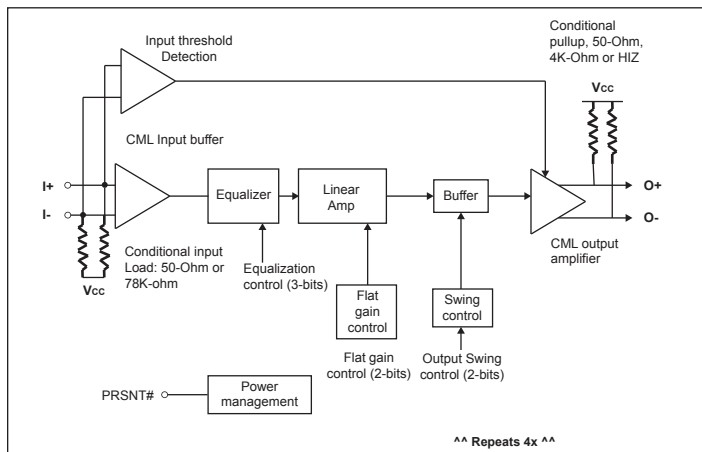
The PI2EQX16924 supports four 100Ω differential CML data I/Os and extends the signals across other distant data pathways on the user's platform.

The integrated equalization circuitry provides flexibility with signal integrity of the signal before the ReDriver, whereas the integrated linear amplifier/buffer circuitry provides flexibility with signal integrity of the signal after the ReDriver.

Application(s)

- Networking
- Enterprise
- Server
- Storage

Block Diagram



Ordering Information

Part Number	Package	Description
PI2EQX16924XUAEX	XUA	32-pin, 2.85 x 4.5mm (X2QFN)

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.

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