



New Product Announcement

PI2EQX16924

Two-Lane PCIe 4.0 Linear ReDriver Features Low-Power Operation for Mobile and PC Applications

The DIODES™ PI2EQX16924 is a 1.8V low-power linear ReDriver™, compliant with PCIe® 4.0 and backwards compatible with PCIe 1.0/2.0 and 3.0.

The device has four differential channels providing programmable linear equalization and flat gain. The equalization is controlled by I2C controls and optimizes performance over a variety of physical media by reducing inter-symbol interference.

The PI2EQX16924 is used to extend PCB trace lengths while minimizing power consumption with minimal latency. Operating from a supply voltage of 1.8V, the device operates over an industrial temperature range of -40 to +85°C.

The PI2EQX16924 is available in the tiny X2QFN-32L (XUA) package, occupying only 2.85 x 4.5mm on the PCB.

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The DIODES™ Advantage

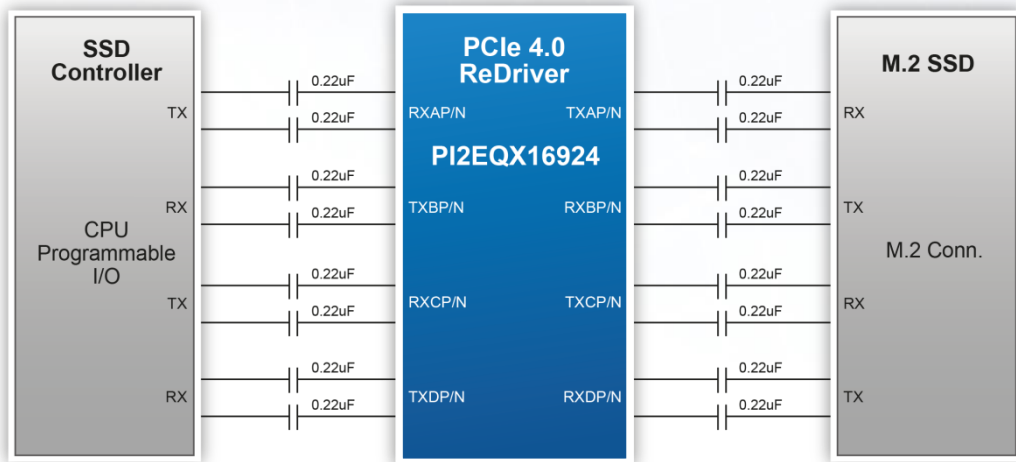
High-performance linear ReDriver in an ultra-small package size improves signal integrity of high-speed (up to 16Gbps) PCIe data paths.

- **2.5 to 16Gbps, Two-Lane (Four-Channel) Linear Equalizer**
Supports PCIe 4.0 and backward compatibility for PCIe 3.0/2.0/1.0.
- **Low-Power Consumption in All Four Modes**
Active mode: 288mW
Low-power mode: 27mW
Unplugged mode: 1.26mW
Standby mode: 0.045mW
- **Programmable Linear Equalization, Output Swing, and Flat Gain**
Extends PCB trace lengths, reduces signal latency, and minimizes cost and power
- **Supports Automatic Receiver Detection with a "Low Power" Mode for Adaptive Power Management**
Device goes into low power mode when signal is not active
- **Ultra-Small X2-QFN-32L (XUA) Package, (2.85 x 4.5mm)**
Supports high-density channel routing

Applications

- Laptop PCs
- All-In-One PCs
- Desktop PCs
- IPCs
- Storage devices
- Embedded systems

Typical Application



PCIe 4.0 ReDriver Portfolio

Part Number	Description	Package
PI2EQX16924	PCIe 4.0, 1.8V, I2C, two Lanes (four channel) ReDriver	X2QFN-32L
PI3EQX16904GL	PCIe 4.0, 3.3V, I2C/Pin, four differential channel ReDriver	TQFN-42L
PI3EQX16908GL	PCIe 4.0, 3.3V, I2C, eight differential channel ReDriver	TQFN-72L

Ordering Information

Orderable Part Number	Package Code	Package	Moisture Sensitivity	Quantity Per Reel	Carrier
PI2EQX16924XUAEX	XUA	32-contact X2QFN (2.85mm x 4.5mm)	MSL-1	3500	13" Tape and reel