



## USB 3.2 Gen 2x2, 20Gbps, Linear ReDriver Boosts Signal Quality of Super-Speed USB Type-C Interfaces

The DIODES™ PI3EQX2024 is a low-power, 20Gbps, USB Type-C®, linear ReDriver™ that is compliant with USB 3.2 Gen 2x2 and supports backwards compatibility with USB 3.2 Gen 2 and Gen 1.

The device is the industry's first available USB 3.2 Gen 2x2 ReDriver to support modern standby mode and is included in the Intel® Modern Standby Platform Component List (PCL).

Its adjustable linear equalization, output swing, and flat gain optimizes performance over a variety of physical media by reducing intersymbol interference.

Diodes Incorporated's (Diodes) intelligent, patented ReDriver technology enables longer PCB trace lengths while minimizing cost and power consumption.

The PI3EQX2024 is available in an ultra-small and thin UQFN2545-34 package type, occupying only 2.5mm x 4.5mm and reducing PCB size and total bill of materials (BOM) cost.

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### The DIODES™ Advantage

**Industry-first USB 3.2 Gen 2x2 ReDriver supports modern standby mode for highest speed USB-C data signals.**

- **USB 3.2 Gen 2x2, Single-Port, Linear ReDriver**  
Supports 20Gbps data rates in USB Type-C ports
- **Supports Modern Standby Mode**  
Enables system designers to meet latest requirements
- **Ultra-Small and Thin UQFN2545-34 Package**  
Reduces PCB size and cost
- **Individual Channel Adjustment of Linear Equalization, Output Swing, and DC Flat Gain**  
Compensates signal losses of PCB trace lengths, which reduces intersymbol interference

### Applications

USB 3.2 and USB-C ports in:

- Laptop/Desktop PCs
- Tablet PCs
- TVs
- Workstations
- Servers

### Typical Application



### USB 3.2 Gen 2x2, USB Type-C, 20Gbps ReDriver Portfolio

Product	Protocols	Differential Signal Pairs	Channel Data Rate	Lanes/ Ports	Programming Interface	Modern Standby	Package
<a href="#">PI3EQX2024</a>	USB 3.2 Gen 2x2	4	10Gbps	One 2x2 Port	Pin Mode	Yes	UQFN2545-34
<a href="#">PI3EQX2004</a>	USB 3.2 Gen 2x2	4	10Gbps	One 2x2 Port	I2C	-	TQFN9035-42

### Ordering Information

Orderable Part Number	Packaging Code	Package	Moisture Sensitivity	Carrier	Quantity
<a href="#">PI3EQX2024ZTFEX</a>	ZTF	UQFN2545-34	MSL-1	13" Tape & Reel	3500
<a href="#">PI3EQX2004ZHFX</a>	ZH	TQFN9035-42	MSL-1	13" Tape & Reel	3500