



New Product Announcement

PI3EQX2034

USB 3.2 Gen 2x2 ReDriver, with Integrated CC Detector, Boosts USB-C Signal Quality without Extra PD Controller

The PI3EQX2034 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 2x1.

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

The device meets USB Type-C specification 2.0, detecting the USB-C cable orientation and supporting SOURCE-mode (DFP) and dual-role-mode (DRP) ports. It also provides VCONN function to power active cables and other accessories through VCONN pin with overcurrent protection and overvoltage protection.

The PI3EQX2034 is available in the TQFN3590-52L (3.5mm x 9mm) package type, and enables longer PCB trace lengths while minimizing cost and power consumption.

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The DIODES Advantage

This USB 3.2 Gen 2x2 ReDriver, with integrated CC detector, provides a cost-effective solution for USB-C ports.

- **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
- **Individual Channel Adjustment of Linear Equalization, Output Swing Linearity, and DC Flat Gain**
Compensates signal losses of PCB trace lengths, which reduces inter-symbol interference
- **USB Type-C Spec. 2.0 Conformance with Integrated CC Detector Supporting DFP and DRP Modes and VCONN**
Provides a simple solution for powering active cables and other accessories
- **Ultra-Small and Thin QFN3590-52L Package**
Reduces PCB area and cost without extra PD controller

Applications

USB 3.2 and USB-C ports in:

- Desktop PCs
- Laptop PCs
- All-in-one PCs
- TVs/monitors



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	CC Plug-In Detector	Package
PI3EQX2034	USB 3.2 Gen 2x2	4	10Gbps	One 2x2 Port	Pin Strap	Yes	TQFN3590-52
PI3EQX2024	USB 3.2 Gen 2x2	4	10Gbps	One 2x2 Port	Pin Strap	No	UQFN2545-34

Ordering Information

Orderable Part Number	Compliance (Only Automotive Supports PPAP)	Package	Moisture Sensitivity	Packing	
				Quantity	Carrier
PI3EQX2034ZLEX	Standard	TQFN3590-52 (ZL52)	MSL-1	3,500	13" Tape & Reel