



Analog and Discrete
Power Solutions

Automotive-Compliant Retimer from Diodes Incorporated Meets the Rigorous Demands for High-Speed USB and DisplayPort Connectivity in Vehicles

Plano, Texas – October 23, 2025 – Diodes Incorporated (Nasdaq: DIOD) today announces the automotive-compliant* [PI2DPT1021Q](#), a new bit-level retimer designed to meet the rigorous demands of the automotive market. This device supports both DisplayPort™ (DP) 1.4 and USB 3.2 standards for USB Type-C® applications, such as infotainment and clusters, rear seat entertainment, smart cockpits, and active cables.

The PI2DPT1021Q is a 10Gbps retimer capable of handling the high-speed data transmission required by modern in-car systems. A key advantage of this device is its ability to maintain high-speed signal integrity by providing receiver adaptive equalization, which compensates for channel losses up to -23dB at 5GHz. It also features jitter cleaning capabilities and an adaptive continuous time linear equalizer (CTLE), along with selectable adjustment of a 3-tap transmitter.

The retimer offers flexible 4:4 channel operation, supporting system-on-chip (SOC) devices with an integrated USB/DP crossbar switch. Its configuration is programmable via an I²C interface, allowing selection of different modes including: four-lane DP 1.4 (HBR3), two-lane DP 1.4 (HBR3) and one-lane USB 3.2 Gen2, and one- or two-lane USB 3.2 Gen2.

With a bi-directional design, the PI2DPT1021Q provides flexibility for signal flow selection, which is particularly useful in active cable applications. It features very low latency (<1ns) from signal input-to-output, ensuring good interoperability between various USB and DP devices.

Power management is a key feature, with auto power-saving modes for both USB and DP. The device complies with USB power management states for active mode (U0) and power-saving modes (U1, U2, U3). For DisplayPort, it maintains D3 power-saving mode with a built-in AUX listener. It operates from a single 1.8V power supply.

Packaged in the very small X1-QFN2845-32 (2.85mm x 4.5mm, 0.4mm pitch), the [PI2DPT1021Q](#) optimizes PCB area, making it suitable for compact designs. The device operates across a wide temperature range of -40°C to +105°C. It is available at \$1.65 in 5,000-piece quantities.

A standard compliance version, [PI2DPT1021](#), is also available and suitable for industrial and commercial applications.

About Diodes Incorporated

Diodes Incorporated (Nasdaq: DIOD), a Standard and Poor's SmallCap 600 and Russell 3000 Index company, delivers high-quality semiconductor products to the world's leading companies in the automotive, industrial, computing, consumer electronics, and communications markets. We leverage our expanded product portfolio of analog and discrete power solutions combined with leading-edge packaging technology to meet customers' needs. Our broad range of application-specific products and solutions-focused sales, coupled with global operations including engineering, testing, manufacturing, and customer service, enable us to be a premier provider for high-volume, high-growth markets. For more information, visit www.diodes.com.

**Automotive-compliant—qualified to AEC-Q100 Grade 1, manufactured in facilities certified to IATF 16949, supporting PPAP documents.*

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