



Product news

HDMI 2.1 Active Switch from Diodes Incorporated is Optimized for Signal Integrity, Power, and Cost

Plano, Texas – April 28, 2020 – Diodes Incorporated (Nasdaq: DIOD) today announced the [PI3HDX12221](#), an HDMI™ 2.1 active switch with linear [ReDriver™](#) that enables manufacturers of TVs, PCs, gaming consoles, and set-top boxes to adopt the latest 12Gbps HDMI standard. The device supports dual inputs with a signal cleaning function that enables extending channel lengths. Optimizing function integration into a single package reduces system BOM and power consumption, particularly when compared to an equivalent discrete solution.

The PI3HDX12221 is the first HDMI 2.1 active switch with a non-blocking linear ReDriver. This non-blocking design delivers longer channel extension by transparently conveying differential signals from the source to the receiver, facilitating the channel link training by host and end device.

Features such as automatic input signal detection help reduce system power by shifting into low power mode when no signal is available. The 4-channel differential design operates from a single 3.3V supply at data rates up to 12Gbps, and a maximum equalizer gain of +11dB for HDMI 2.1 at 6GHz, and +7dB for HDMI 2.0 at 3GHz.

Designing with the [PI3HDX12221](#) is simplified due to the use of pin-strapping to configure equalization gains, flat gains and output swing linearity. Using combinational logic control results in fewer control signals and, therefore, fewer pins, leading to a compact design. The PI3HDX12221 is available in a 40-pin TQFN package measuring 3mm x 6mm, making it suitable for use in very small end applications.

The [PI3HDX12221](#) is available now, priced at \$2.50 each in 3000 piece quantities.

HDMI™ and High-Definition Multimedia Interface™ are trademarks or registered trademarks of HDMI Licensing, LLC in the United States and/or other countries.

ReDriver™ is a trademark of Diodes Incorporated.

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 consumer electronics, computing, communications, industrial, and automotive markets. We leverage our expanded product portfolio of discrete, analog, and mixed-signal products and leading-edge packaging technology to meet customers' needs. Our broad range of application-specific solutions and solutions-focused sales, coupled with worldwide operations of 25 sites, including engineering, testing, manufacturing, and customer service, enables us to be a premier provider for high-volume, high-growth markets. For more information visit www.Diodes.com.

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