

HDMI 4-Channel, Linear ReDriver Extends High-Speed Signal Integrity

The PI3HDX12211 is the latest HDMI, linear ReDriver from Diodes Incorporated supporting the HDMI 2.1 standard for data rate up to 12Gbps per channel.

PI3HDX12211 has four differential channel configurations. The device provides programmable CLTE equalization, flat gain, and output swing linearity controls for channel-loss compensation and removes ISI jitter for channel extension.

The design is transparent to channel link training and performs ultra-low signal latency to achieve sound signal integrity performance and system compatibility.



The Diodes Advantage

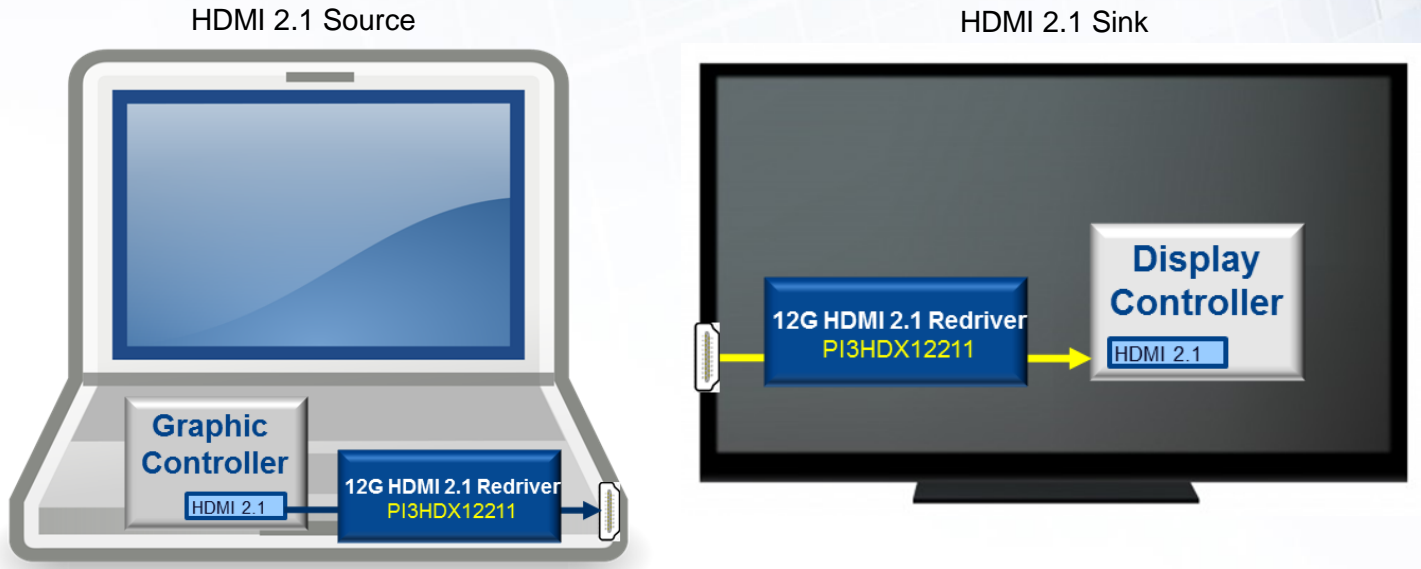
- Supports Latest HDMI 2.1 Standard**
 Supports 8K DTV video resolution and refresh rate with aggregated, 4-channel data rate up to 48Gbps (12Gbps per channel)
- High-Speed Signal Integrity Settings**
 Supports receiver side CLTE, output-side flat gain, and output-swing settings
- Programmable and Flexible Controls**
 I²C or pin-strapping control options
- Back-Current Protection (I_{OFF})**
 On HDMI output pins and I²C pins
- Transparent and Ultra-Low Latency Linear ReDriver Channels**
 Performs sound signal integrity and compatibility for system design

Applications

- Laptop, Desktop, and AIO PCs
- Digital TV and Projectors
- Virtual Reality (VR) Devices
- Docking Stations
- PC Peripherals
- HDMI Video Switches



Typical Application Circuit



Product Portfolio

Part Number	Operating Voltage	Channels	Data Rate (Gbps)	Lanes/ Ports	Output Swing Max (mV)	Programming Interface(s)	Operation Temperature	Packages
PI3HDX12211	3.3V	4	12	4	1200	I ² C or Pin Strap	-40°C ~ +85°C	42-Pin TQFN

Ordering Information

Ordering Number	Package Code	Package Description
PI3HDX12211ZHEX	ZH	42-pin, Thin Fine Pitch Quad Flat No-Lead (TQFN) (3.5mm x 9mm x 0.75mm)

For More Information

<https://www.diodes.com/part/PI3HDX12211>