



New Product Announcement

PI3HDX1212

12Gbps, HDMI™ 2.1, 1-to-2 Port Duplicator with Non-Blocking Linear ReDriver™ Supports Multiple Display Units

The PI3HDX1212 is an active single-port to two-port signal duplicator with a non-blocking linear ReDriver.

The maximum HDM data rate of 12Gbps supports 8K@60Hz resolution or 4K@120Hz, required for 8K or 4K HDTV, PC graphic products, and other peripheral devices.

The PI3HDX1212 fans out the same differential signals to multiple display units, such as PCs, LED monitors, projectors, and TVs.

Depending on its MS pin, the PI3HDX1212 provides controllable equalization, flat gain, and output swing linearity that can be manipulated through pin strapping or I2C control.

The continuous time linear equalizers (CTLE) are implemented at the inputs of the ReDriver to reduce the ISI jitter and compensate channel loss. The PI3HDX1212 ensures the transmittal of high-bandwidth video streams from video sources to the end-display units.

With a supply voltage of 3.3V, the device operates within the -40°C to +70°C temperature range.

The PI3HDX1212 is available in the small-footprint W-QFN3060-40 (3mm x 6mm, 0.4mm pitch) (ZLD40) package.

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The DIODES Advantage

This non-blocking linear ReDriver for HDMI 2.1 is a 1-to-2 active signal duplicator that improves signal integrity of high-speed (up to 12Gbps) data paths.

- **Up to 12Gbps, 4-Input to 8-Output Differential Channels**
Supports HDMI 2.1 as a 1:2 port signal duplicator
- **Selectable Quad-Level Equalizer Gain, Flat Gain, and Output Swing Linearity Controlled by Pin Strap or I2C**
Extends PCB trace lengths while reducing signal latency
- **Non-Blocking Linear ReDriver**
Improves interoperability by passing through all input signals
- **1:2 Port Active Signal Duplicator**
Duplicates the display by fanning out the same signals to multiple display units

Applications

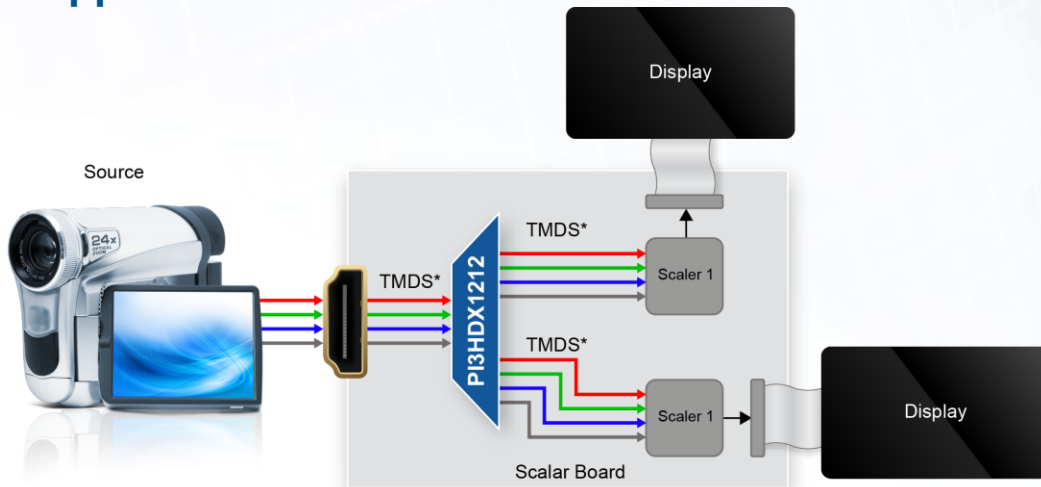
- Display peripheral boxes
- Digital signage displays
- Multi-screen splicing
- Projectors



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Typical Application



* Transition Minimized Differential Signaling

Active HDMI Port Splitter/Duplicator Portfolio

Part Number	Protocol	Description	Ports		Max. Data Rate	Power Supply	Package
			In	Out	Gbps	V	
PI3HDX1212	HDMI 2.1	1:2 Duplicator	1	2	12	3.3	W-QFN3060-40 (TQFN-40)
PI3HDX612	HDMI 2.0	1:2 Duplicator	1	2	6	3.3	W-QFN3060-40 (TQFN-40)
PI3HDX414	HDMI 1.4	1:4 Splitter	1	4	3.4	3.3	L-QFP100100-80EP (LQFP-80)

Ordering Information

Orderable Part Number	Compliance (Only Automotive Supports PPAP)	Package Code	Package	Moisture Sensitivity	Packing	
					Quantity	Carrier
PI3HDX1212ZLDEX	Standard	ZLD40	W-QFN3060-40 (TQFN-40)	MSL-1	3,500	13" Tape & Reel