

PI3WVR12412

Wide Voltage Range DisplayPort™ & HDMI Video Switch

Pericom Semiconductor's PI3WVR12412 is a multi-standard video switch with wide voltage range capability. It supports DisplayPort™ 1.2, HDMI 1.4, and emerging and proprietary standards.

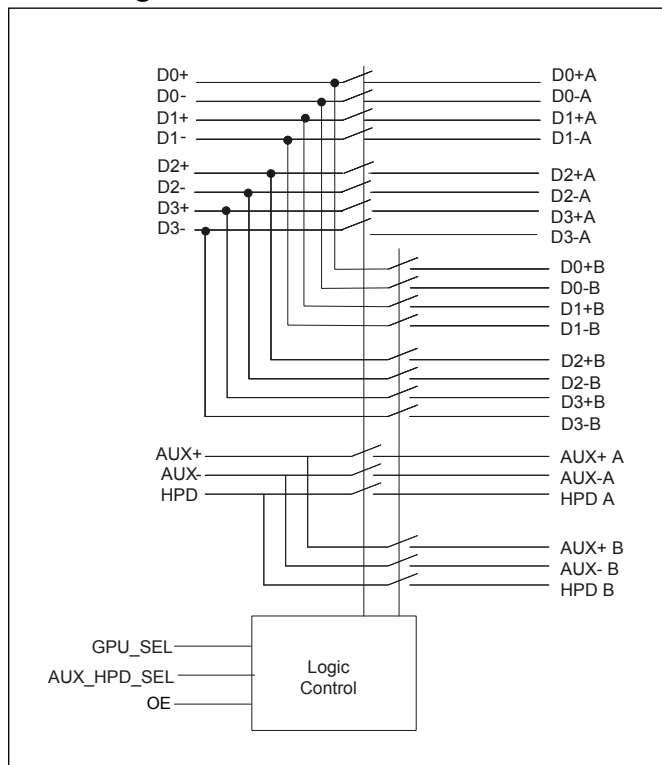
The PI3WVR12412 can pass high-speed signals up to 1.2 V peak-to-peak differential with a common-mode voltage from 0 to 3.4V. The wide voltage range allows DC-coupled multi-standard operation. Eliminating AC coupling capacitors saves board space and improves signal integrity for dense PCB designs.

In addition to four high-speed lanes, PI3WVR12412 also switches AUX and HPD signals.

Application

Routing of DisplayPort and HDMI signals with low signal attenuation between source and sink.

Block Diagram



Features

- ➔ 4-lane, 1:2 mux/demux that will support RBR, HBR1, or HBR2
- ➔ 1-channel 1:2 mux/demux for HPD signal
- ➔ Differential switch matrix for DP AUX
- ➔ Supports 720 Mbps high-speed DP AUX
- ➔ -1.6 dB Insertion Loss for Dx channels @ 2.7 GHz
- ➔ -3 dB Bandwidth for Dx channels: 4.6 GHz
- ➔ Return loss for Dx channels @ 2.7GHz: -16 dB
- ➔ Low Crosstalk for high speed channels: -28 dB@5.4 Gbps
- ➔ Low Off Isolation for high speed channels: -22dB@5.4 Gbps
- ➔ Low channel-to-channel skew, 35ps max
- ➔ Low Bit-to-Bit Skew, 5ps typ (between '+' and '-' bits)
- ➔ V_{DD} Operating Range: 3.3V +/-10%
- ➔ ESD Tolerance: 2kV HBM
- ➔ Packaging (Pb-free & Green): 42 TQFN (ZHE)

Application

