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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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PI3WVR13612

DisplayPort 1.3/1.4, HDMI 2.0 Video Switch

Description

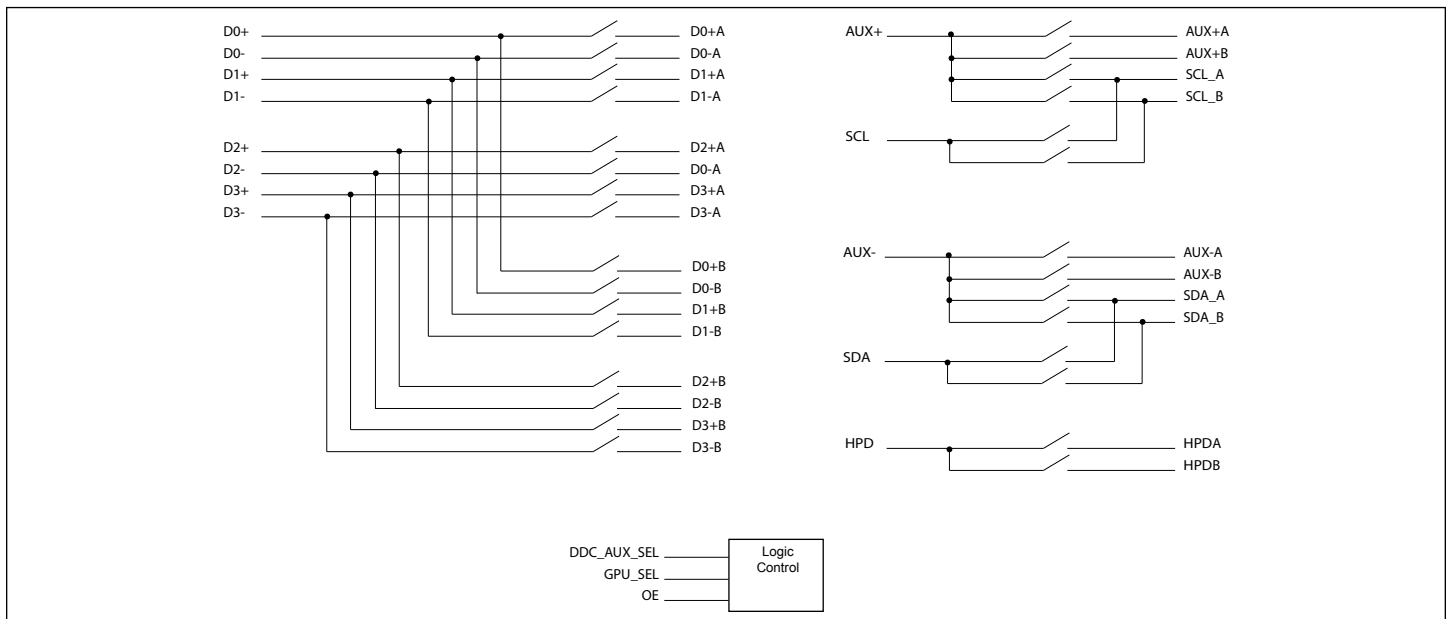
The PI3WVR13612 is a multi-standard video switch with wide voltage range capability. It supports DisplayPort 1.3/1.4, HDMI 2.0, and emerging and proprietary standards. In addition to four high-speed lanes, PI3WVR13612 also switches AUX, DDC, and HPD signals.

PI3WVR13612 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.

Applications

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

Block Diagram



Features

- DisplayPort 1.3/1.4, HDMI 2.0 Electrical standard compatible
- 4-lane, 1:2 and 2:1 switches that support RBR, HBR1, HBR2 and HBR3
- Data rate: 8.1 Gbps for high-speed channels
- 1-channel 1:2 and 2:1 switches for HPD signal
- Differential switch matrix for DP AUX and HDMI DDC
- Supports 720 Mbps high-speed DP AUX
- -1.6 dB Insertion Loss for high-speed channels @ 4.05 GHz
- -3 dB Bandwidth for high-speed channels: 7 GHz
- Return loss for high-speed channels @ 4.05 GHz: -11 dB
- Low Crosstalk for high-speed channels: -35 dB@ 4.05 GHz
- Low Off Isolation for high-speed channels: -20dB@ 4.05 GHz
- Low channel-to-channel skew, 35ps max
- Low Bit-to-Bit Skew, 5ps typ (between '+' and '-' bits)
- VDD Operating Range: 3.3V +/-10%
- ESD Tolerance: 1.5kV HBM
- Packaging (Pb-free & Green): -52-pin TQFN (ZL)

Ordering Information

Part Number	Package	Description
PI3WVR13612ZLEX	ZL	52-Pin, 3.5 x 9.0 mm (TQFN)

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <http://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free. Thermal characteristics can be found on the company web site at www.diodes.com/design/support/packaging/
3. E = Pb-free and Green
4. X suffix = Tape/Reel