Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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.

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PI3HDX414

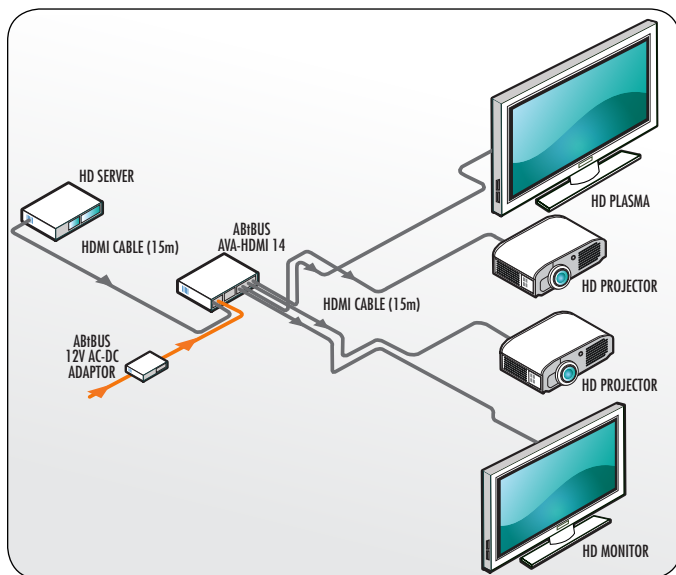## HDMI 1.4b 1x4 Splitter for 3.4 Gbps Data Rate with Equalization & Pre-emphasis

Pericom Semiconductor's PI3HDX414, active-drive switch solution is targeted for high-resolution video networks that are based on HDMI/DVI standards, and TMDS signal processing.

The PI3HDX414 is an active single TMDS channel to four TMDS channel Splitter and DeMux with Hi-Z outputs.

The device drives differential signals to four video display units. It provides controllable output swing levels that can be controlled through pin control or I²C control, depending on the mode select pin. This solution also provides a unique advanced pre-emphasis technique to increase rise and fall times.

The maximum HDMI/DVI data rate of 3.4Gbps provides a 1920x1080 @60Hz resolution or 4K @30Hz required for 4K HDTV and PC graphics products. For PC graphics application, the device sits at the driver's side to switch between multiple display units, such as PC LCD monitor, projector, TV, etc.

PI3HDX414 ensures transmitting high bandwidth video streams from PC graphics source to end display units. It will also provide enhanced robust ESD/EOS protection, which is required by many consumer video networks today.

Application Example

Features

➔ Support up to 3.4Gbps TMDS Serial Link Compliant with HDMI 1.4b requirement

➔ HDMI1.4b 1-to-4 Active Splitter and Demux up to 340 MHz TMDS Clock Frequency

➔ AC and DC Coupled Differential Signaling Input

➔ Configurable TMDS Output Signal Conditioning Setting for Port Selection, Pre-emphasis, Voltage Swing, Slew Rate Controls

➔ Support Squelch Mode with Built-in Clock detector

➔ Highly Configurable 8-step Receiver Equalization Setting from 2.5 dB to 20 dB

➔ Support Receiver Squelch mode with clock channel detector for low power mode

➔ HPD Signal Detection for active output ports detection and management

➔ Control Status Register controlled by Pin-strapping or I²C mode programming

➔ ESD protection on I/O pins to connector: 8KV contact and 2KV HBM

➔ 3.3V Single Power Supply

➔ Packaging (Pb-free & Green):
  ◦ 80-contact LQFP (FCE80)

Block Diagram