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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.

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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## SWITCHING SOLUTIONS

## P13HDX511D

## Low Power DP Dual-mode Level Shifter/HDMI1.4b ReDriver (2.5x4.5mm size)

PI3HDX511D is a small size DisplayPort dual mode Level Shifter and HDMII. 4 b redriver packaged into $2.5 \times 4.5 \mathrm{~mm}$ size QFN with 48-bpp Deep Color support.
This small QFN package with low power consumption is suitable to solve the ultra mobile devices, extremely tight design space limitations. PI3HDX511D has small stand-by current consumption less than 1 mA to extend battery hours. In addition of small package advantage, it also support smart power states managements. Automatic squelch function can disable outputs signals when no input signal presents with Hot plug detection.
Also ESD/EOS 8 kV protection meets many set makers requirement.

## Application

$\rightarrow$ Ultra Mobile devices
$\rightarrow$ Notebook computers

## Block Diagram



## Features

$\rightarrow$ Low power small package size HDMI 1.4 b compliant redriver with DisplayPort dual mode level shifter suitable for ultra-mobile application
$\rightarrow$ Operation up to 3.4 Gbps per lane (340MHz pixel clock)
$\rightarrow 4 \mathrm{~K}$ Ultra HD, 3D Video formats (1080p, 1080i, 720 p), 48-bit per pixel Deep Color support
$\rightarrow$ Low standby current <1mA with DDC passive switch mode
$\rightarrow$ Flexible 6 steps equalization control steps: $2.5,5,7.5 \mathrm{~dB}$
$\rightarrow$ Pre-emphasis control 3 steps: $0,1.5,2.5 \mathrm{~dB}$
$\rightarrow$ Automatic output squelch and HPD function for power saving states management at no input signal condition
$\rightarrow$ Convert low-swing DC or AC coupled differential input
$\rightarrow$ Integrated DDC level shifter
$\rightarrow 3.3 \mathrm{~V}$ single power supply
$\rightarrow$ Integrated ESD protection on $1 / \mathrm{O}$ pins, 8 kV contact and 8 kV HBM
$\rightarrow 30$-pin QFN(ZL30) $2.5 \times 4.5 \mathrm{~mm}$ package
Application Diagram


