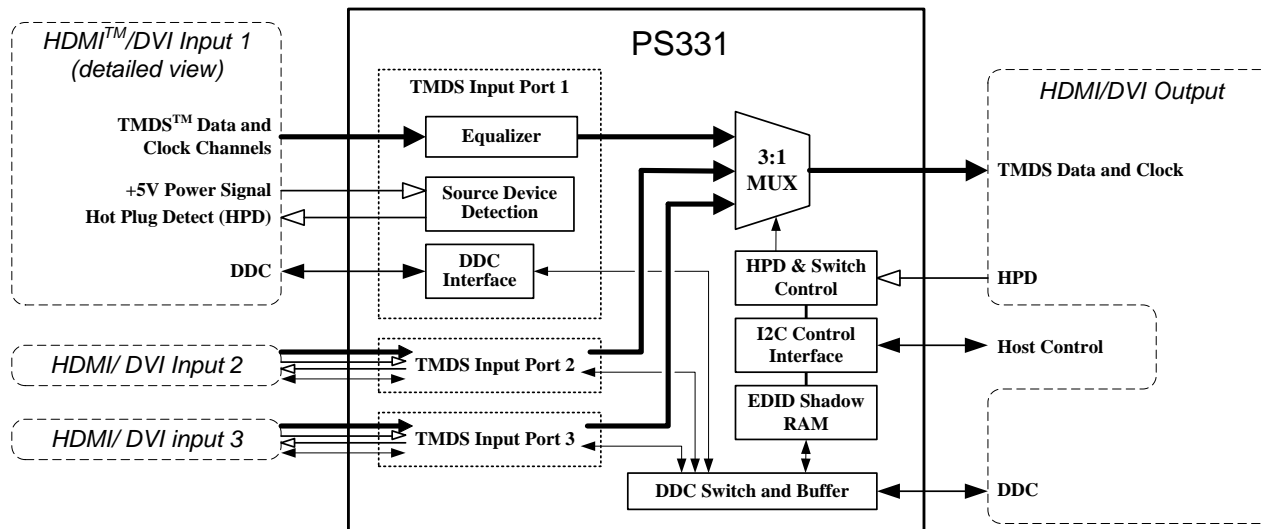




# PS331 HDMI™/DVI Switch

## Product Brief

# PS331



## KEY FEATURES

- Ideally suited for HDMI™ and DVI receiver or repeater applications
- Enables three selectable HDMI/DVI inputs for one HDMI/DVI receiver
- HDMI 1.4a compliant with data rates up to 2.25Gbps
- Deep Color supported; color depths of 8, 10 and 12 bits per pixel
- Integrated EDID shadow RAM
- Source detection provides flexible system management
- Integrated equalizer for each HDMI/DVI input port provides up to 17dB of cable loss compensation
- Integrated 50ohm active receiver termination
- Accepts AC and DC coupled HDMI/DVI transmitters
- Integrated DDC channel multiplexer includes active buffering and 5V tolerance
- Single 3.3V Power Supply
- 64-pin QFN (9x9mm) or TQFP Package (7x7mm body)
- 0°C to 70°C Operating Temperature Range
- ESD: Human Body Mode to 8kV

## GENERAL DESCRIPTION

The PS331 is an integrated 3-to-1 HDMI/DVI switch designed for HDMI/DVI receiver or repeater applications. It integrates all system functions including the EDID shadow RAM, the DDC switch and Source device detection. The PS331 supports HDMI 1.4a applications with Deep Color up to 12 bits per component, supporting a TMDS clock rate up to 225MHz (data rate 2.25Gbps), and it supports the HDMI 1.4a compliance spec.

Each of the three HDMI/DVI input ports connect directly to an HDMI/DVI input receptacle without the need for additional components, including ESD protection. 5V tolerance is supported on the DDC and HPC interfaces. Input port selection, device control, and EDID shadow RAM loading is performed by the host through the PS331 I2C Control Interface.

## APPLICATIONS

- Digital TVs
- A/V Receivers
- HDMI/DVI Switch Boxes
- Digital DVR or Set-Top Boxes
- PC Monitors

Rev. 1

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**Parade Technologies, Inc.**  
2890 Zanker Road, Suite 102, San Jose, CA 95134, U.S.A.  
TEL: 408-329-5540 FAX: 408-329-5541  
<http://www.paradetech.com>  
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