

# PS8336 DisplayPort<sup>™</sup> 1.2 Dual-mode Source Demultiplexer with DisplayPort and TMDS Outputs

Product Brief PS8336

#### **KEY FEATURES**

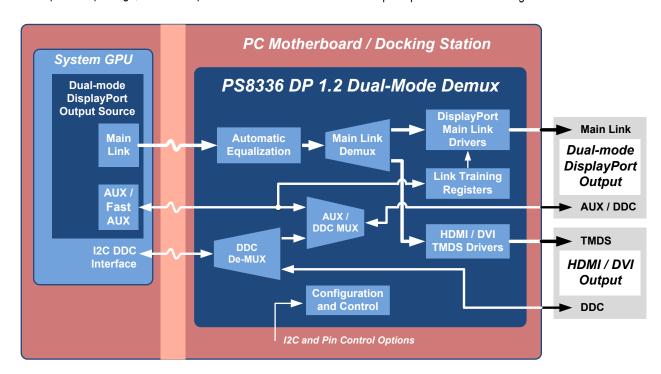
- Supports Dual-mode DisplayPort™ (DP) De-multiplexing to a Dual-mode DisplayPort and a TMDS™ output
- Full HDMI or DVI interface support from the TMDS output
- Compliant to the VESA DisplayPort 1.2 Standard
  - Supports up to 5.4-Gpbs link rate (HBR2)
  - Supports AUX and Fast AUX modes
- Compliant to HDMI 1.4a specification
  - Supports up to 3.0-Gbps TMDS output
- DisplayPort repeater / redriver included for DisplayPort output
- Automatic receiver equalization compensates for signal loss
- Automatic power management and output selection settings
- ESD performance 8kV Human Body Model (HBM)
- Supply Voltage options
  - PS8336A: Dual supplies, 1.5V & 3.3V
  - PS8336B: Single 3.3V Supply
- 7x7mm 56-pin QFN package, 0 to 85°C operation

#### **APPLICATIONS**

- PC Desktop and Notebook Motherboards
- Notebook Docking Stations
- Graphics Cards

### **GENERAL DESCRIPTION**

The PS8336A/PS8336B is a de-multiplexer that accepts a Dual-mode DisplayPort input, and outputs either Dual-mode DisplayPort, or HDMI/DVI from a TMDS output. An internal level-shifter is used to produce the HDMI/DVI output from the Dual-mode DisplayPort input. The Dual-mode DisplayPort output also supports a level shifter-based DisplayPort-to-HDMI/DVI Dual-mode video adapter (dongle). The PS8336 can be configured to use the output hot-plug detect pins to perform automatic mode switching and device power management. An automatic output squelch function disables the output when no input signal is present. The DisplayPort signal path includes a receiver input equalizer and link training similar to the PS8330.



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Rev. 2 Mar 2011

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