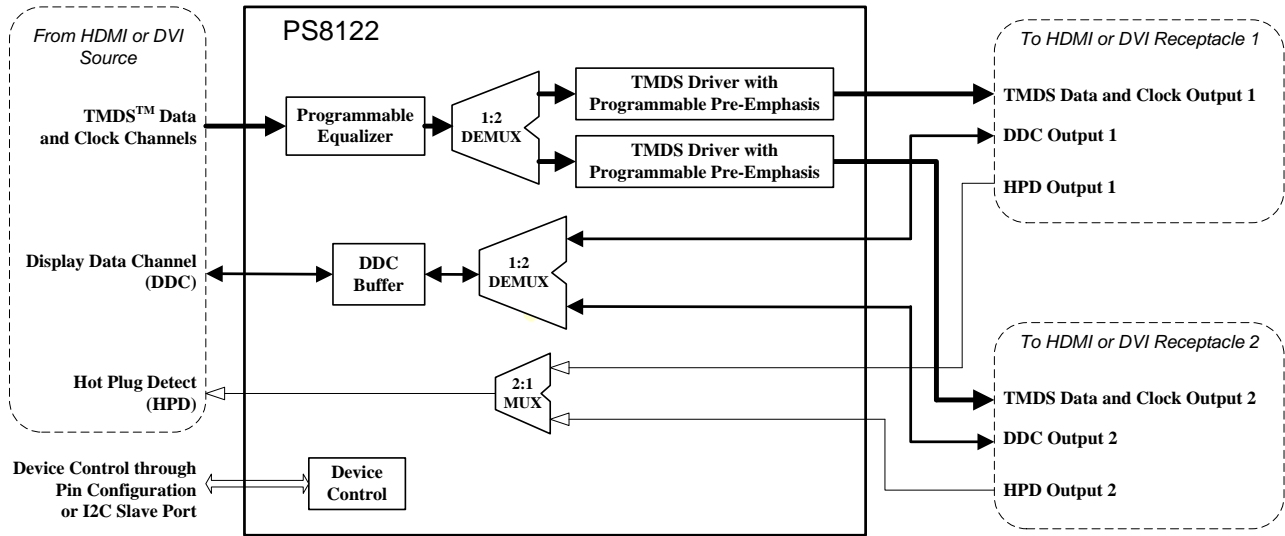




PS8122 HDMI™/DVI Demultiplexer

Product Brief

PS8122



KEY FEATURES

- Demuxes one HDMI™ or DVI input into two selectable HDMI or DVI outputs
- Input can be AC or DC coupled
- Compliant to HDMI 1.4a specification with a data rate up to 2.25Gbp
- Programmable receiver equalization adjustment to compensate for PCB and/or connector losses of the input signal
- Programmable output pre-emphasis to compensate for loss in the output signal path
- Integrated 50Ω input termination
- Low Intra-pair and Inter-pair skew
- Built-in, bi-directional DDC active buffer with 5V tolerance
- Pin configurable, or I2C control option for increased flexibility and configuration
- Single 3.3 V Power Supply
- 48-pin 7x7mm2 QFN RoHS Package
- 0°C to 70°C Operating Temperature Range
- ESD: Human Body Mode at 8kV

GENERAL DESCRIPTION

The PS8122 is a fully integrated 1-to-2 HDMI/DVI Demultiplexer that simplifies system level design and reduces implementation cost for applications requiring dual selectable outputs from a single HDMI/DVI input. Device operation can be adjusted through pin configuration as required for the application. Increased flexibility is possible through the optional I2C device control input when the device is used within a system that includes a host CPU. To allow optimization of TMDS signal quality, the PS8122 includes a programmable input equalizer and programmable pre-emphasis in the output buffers. The PS8122 operates from a single 3.3V power supply and includes 5V tolerant DDC connections.

The input can accept DC or AC coupled TMDS signals and includes integrated 50Ω input termination. An internal bandgap reference is provided to ensure precise output amplitude control and input termination resistance. Termination can be made to VCC (for DC coupling, which is normal for HDMI and DVI operation) or GND (for AC coupled inputs).

APPLICATIONS

- PC Motherboard / Graphics Card
- Notebook PC Docking Station
- DVD player or set-tip box
- 1-to-2 HDMI or DVI switch box

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