

# PS161 DisplayPort<sup>™</sup> to HDMI/DVI Converter

Provides a DisplayPort Input on an HDMI/DVI Receiver

### **Product Brief**

# PS161



#### FEATURES

- Complete DisplayPort<sup>™</sup> receiver, and complete HDMI/DVI transmitter
  - Accepts DisplayPort video + audio, outputs HDMI video + audio
  - Full HDCP 1.3 content protection support
- Includes on-chip microprocessor with SPI ROM interface
  - SPI ROM used for DisplayPort input EDID and device firmware
- 1.2V Core Power Supply & 3.3V I/O Power Supply
- Internal crystal oscillator
- ESD: HBM 8kV at connector pins and 5kV for all other pins
- 64-pin TQFP RoHS package

## DisplayPort Receiver Capability

Supports 1, 2, and 4 lanes, at both 1.62 Gbps and 2.7 Gbps data rates Built-in automatic receiver equalization

Video input formats: RGB up to 12 bpc, YCbCr4:4:4 -4:2:2 up to 12 bpc Supports reduced blanking or reduced refresh rate timing modes

Audio input formats: 8-ch LPCM, compressed audio and HBR 24-bit audio sample size, up to 192 kHz sample rate

Support DisplayPort Spread Spectrum Clocking

#### HDMI Transmitter Capability

HDMI 1.3a transmitter, up to 2.5Gbps supporting 1080p with 10/12-bit deep color Video output formats: RGB up to 12 bpc, YCbCr4:4:4 -4:2:2 up to 12 bpc Audio output formats: 8-ch LPCM, compressed audio and HBR

24-bit audio sample size, up to 192 kHz sample rate

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#### APPLICATIONS

- Enables the provision of a DisplayPort input on existing HDMI or DVI receiver platforms:
  - DTV
  - Projector
  - LCD Monitor
  - A/V Receiver

Typical Application in a DTV Receiver



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