LT9611 --- Product Brief

2-Port MIPI to HDMI1.4 Converter

Features

Dual-Port MIPI® DSI/CSI Receiver

- Compliant with D-PHY1.2 ,DSI1.2/CSI-2 1.00 and DCS 1.02.00
- 1~2 Configurable Port
- 1 Clock Lane and 1~4 Configurable Data Lanes
- 80Mb/s~2Gb/s per Data Lane
- Data Port ,Data Lane and Polarity Swapping
- Internal Rterm Calibration with Less than 5% Error
- Programmable Equalization
- Burst Mode and Non-Burst Mode Supported
- Dual Port Odd-Even Mode and Left-Right Mode Supported
- Support up to 24-bit RGB and YUV Data Format

HDMI1.4 Transmitter

- Compliant with HDMI1.4 and HDCP1.4
- Resolution Up to 4K 30Hz
- Programmable output swing and pre-emphasis
- Fully hardware controlled or optional software controlled HDCP operations
- Integrated CEC controller
- Integrated EDID shadow RAM and embedded EDID
- 5V tolerance DDC/HPD I/Os
- Both AC-coupling and DC-coupling Supported

Miscellaneous

- 1.8V and 3.3V Power Supply
- Support 100KHz and 400KHz I2C Slave
- Support MIPI DCS Config
- Support up to 8-CH SPDIF/I2S Audio Input
- Embedded EEPROM for firmware HDCP keys optionally
- Temperature Range: -40 ~ +85
- 64-pin QFN 7.5*7.5 package

Description

The LT9611 MIPI® DSI/CSI to HDMI1.4 bridge features a dual-port MIPI® D-PHY receiver front-end configuration with 4 data lanes per port operating at 2Gbps per data lane and a maximum input bandwidth of 16Gbps.

The bridge provides a HDMI data output with optional S/PDIF or 8-channel I2S serial audio input. Its high fidelity 8-channel I2S can transmit stereo up to a 192kHz sampling rate. The S/PDIF can carry stereo LPCM audio or compressed audio, including Dolby® Digital and DTS®.

The LT9611 is fabricated in advanced CMOS process and implemented in a small outline 7.5mm x 7.5mm QFN64

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