

# LT9611 --- Product Brief

## 2-Port MIPI to HDMI1.4 Converter

### 1. Features

- **Dual-Port MIPI® DSI/CSI Receiver**
  - Compliant with D-PHY1.2 ,DSI1.3/CSI-2 1.00
  - 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
  - Integrated CEC controller(no command parsing)
  - 5V tolerance DDC/HPD I/Os
- **Miscellaneous**
  - 1.8V and 3.3V Power Supply
  - Support 100KHz and 400KHz I2C Slave
  - Support up to 8-CH I2S/SPDIF Audio Input
  - Temperature Range: -40°C ~ +85°C

- 64-pin QFN 7.5\*7.5 package

### 2. General 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 SPDIF or 8-channel I2S serial audio input. Its high fidelity 8-channel I2S can transmit audio up to a 192 kHz sampling rate. The SPDIF 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 7.5mmx7.5mm QFN64 package. This package is RoHS compliant and specified to operate from -40°C to +85°C.

### 3. Applications

- Mobile systems
- Cellular handsets
- Digital video cameras
- Digital still cameras
- Personal media players
- Gaming
- Camera systems

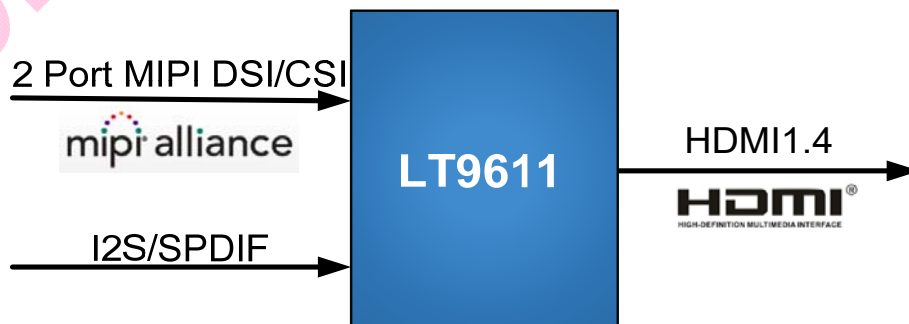


Figure 3.1 LT9611 Typical Application Diagram

## 4. Ordering Information

**Table 4.1. Ordering Information**

Part Number	Product Version	Product Status	Operating Temperature Range	Package	Packing Method
LT9611	U2	NRND	-40°C to +85°C	QFN64 (7.5*7.5)	Tray
LT9611	U3	MP	-40°C to +85°C	QFN64 (7.5*7.5)	Tray

NRND: Not Recommended for New Designs.  
 MP: Mass Production.

**Table 4.2 Product Version Information**

Product Version	Information	Note
U2	U2 is not recommended when the MIPI source has no EOTP packet.	
U3	U3 is recommended when the MIPI source has no EOTP packet.	

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