

# LT6911 --- Product Brief

## HDMI1.4 to Quad-port MIPI DSI/CSI with Audio

### Features

#### ● HDMI1.4 Receiver

- Compliant with the HDMI 1.4 specification with TMDS data rates up to 3.4Gbps per channel
- Support HDCP 1.4
- Adaptive receiver Equalization for PCB, cable and connector losses

#### ● Single/Dual-Port/Quad-Port MIPI® DSI/CSI

##### Transmitter

- Compliant with DCS1.02, D-PHY1.2& DSI1.02 & CSI-2 1.0
- 1 Clock Lane, and 1~4 Configurable Data Lanes per port
- 1/2/4 configurable port
- 80Mb/s~1.5Gb/s per Data Lane
- Data Lane and Polarity Swapping
- Maximum 64Pixels overlap for each half
- Burst Mode and Command Mode Supported
- Support RGB666, Loosely RGB666, RGB888, RGB565, 16-bit YCbCr4:2:2, 20-bit YCbCr4:2:2, 24-bit YCbCr 4:2:2, 12-bit YCbCr4:2:0 Video Format
- Video stream copy mode for each single/dual-port
- Side-by-side 3D support

- Port swap

#### ● Miscellaneous

- 3.3V/1.2V Supply Power
- Internal CSC support conversions between YCbCr 4:4:4 and RGB, and between YCbCr 4:2:2 and YCbCr 4:4:4
- Support SPDIF and 8-channel IIS audio output
- Support 100KHz and 400KHz I2C slave
- Power from phone or adapter mode selection
- Integrated Microprocessor
- Embedded EDID shadow.
- Temperature Range: -40°C ~ +85°C
- ESD 4kV HBM

### Description

The LT6911 is a high performance HDMI1.4 to MIPI®DSI/CSI chip for VR/Smart phone/Display application.

For MIPI®DSI/CSI output, LT6911 features configurable single-port or dual-port or quad-port MIPI®DSI/CSI with 1 high-speed clock lane and 1~4 high-speed data lanes operating at maximum 1.5Gb/s/lane, which can support a total bandwidth of up to 24Gbps. LT6911 supports Burst mode DSI video data transferring, also support flexible video data mapping path.

## Applications

- Mobile system
- Display
- VR

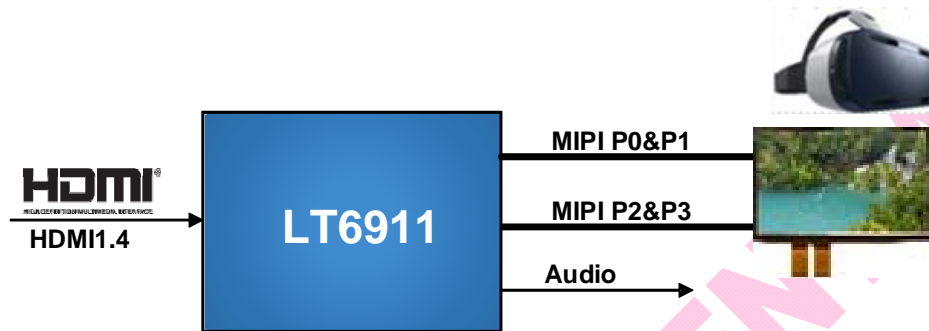


Figure1. Application Diagram

## Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT6911	-40°C to+85°C	QFN128 (14*14)	Tray

**Copyright © 2016-2017 Lontium Semiconductor Corporation, All rights reserved.**

### **Lontium Semiconductor Proprietary & Confidential**

This document and the information it contains belong to Lontium Semiconductor. Any review, use, dissemination, distribution or copying of this document or its information outside the scope of a signed agreement with Lontium is strictly prohibited.

LONTIUM DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THOSE OF NONINFRINGEMENT, MERCHANTABILITY, TITLE AND FITNESS FOR A PARTICULAR PURPOSE. CUSTOMERS EXPRESSLY ASSUME THEIR OWN RISK IN RELYING ON THIS DOCUMENT.

LONTIUM PRODUCTS ARE NOT DESIGNED OR INTENDED FOR USE IN LIFE SUPPORT APPLIANCES, DEVICES OR SYSTEMS WHERE A MALFUNCTION OF A LONTIUM DEVICE COULD RESULT IN A PERSONAL INJURY OR LOSS OF LIFE.

Lontium assumes no responsibility for any errors in this document, and makes no commitment to update the information contained herein. Lontium reserves the right to change or discontinue this document and the products it describes at any time, without notice. Other than as set forth in a separate, signed, written agreement, Lontium grants the user of this document no right, title or interest in the document, the information it contains or the intellectual property in embodies.

### **Trademarks**

Lontium™ and ClearEdge™ is a registered trademark of Lontium Semiconductor. All Other brand names, product names, trademarks, and registered trademarks contained herein are the property of their respective owners.

**Visit our corporate web page at: [www.lontiumsemi.com](http://www.lontiumsemi.com)**

**Technical support: [support@lontium.com](mailto:support@lontium.com)**

**Sales: [sales@lontium.com](mailto:sales@lontium.com)**