

# LT2911R-D --- Product Brief

## MIPI/TTL/2-Port LVDS to MIPI/TTL/2-Port LVDS Converter with Frame Rate Conversion and Rotation

### Features

- **Dual-Port LVDS Transmitter**
  - Compatible with VESA and JEIDA standard
  - 1~2 Configurable Port
  - Up to 1080P 60Hz
  - Data Port ,Data Lane and Polarity Swapping
  - Programmable Pre-emphasis
  - Support output SSC(30KHz±5%)
- **MIPI Transmitter**
  - Compliant with DCS1.02, D-PHY1.2 ,DSI1.2 and CSI-2 1.00
  - 1 Clock Lane and 1~4 Configurable Data Lanes
  - Two Port Simultaneous Display Supported
  - Up to 1.8Gb/s per Data Lane
  - Resolution Up to 1080P 60Hz
  - Data Lane and Polarity Swapping
  - Both Non-Burst and Burst Video Mode Supported
  - Support RGB666, Loosely RGB666, RGB888, RGB565, 16-bit YCbCr4:2:2, 24-bit YCbCr 4:2:2 Video Format
- **TTL Output**
  - Support 24-bit RGB and BT656/BT1120
  - Both DDR and SDR supported
  - Support both 1.8V and 3.3V Voltage Output
  - Resolution up to 1080P 60Hz
- **Dual-Port LVDS Receiver**
  - Compatible with VESA and JEIDA standard
  - 1~2 Configurable Port
  - Up to 1080P 60Hz
  - Data Port ,Data Lane and Polarity Swapping
  - Internal Rterm Calibration with Less than 5% Error
- Programmable Equalization
- Support input Dessc(30KHz±5%)
- **TTL Input**
  - Support 24-bit RGB and BT656/BT1120
  - Both DDR and SDR supported
  - Support both 1.8V and 3.3V Input Voltage
  - Resolution up to 1080P 60Hz
- **Single-Port MIPI Receiver**
  - Compliant with DCS1.02, D-PHY1.2 ,DSI1.2 and CSI-2 1.00
  - 1 Clock Lane and 1~4 Configurable Data Lanes
  - Two Port Input switchable
  - Up to 1.8Gb/s per Data Lane
  - Resolution Up to 1080P 60Hz
  - Data Lane and Polarity Swapping
  - Both Non-Burst and Burst Video Mode Supported
  - Support RGB666, Loosely RGB666, RGB888, RGB565, 16-bit YCbCr4:2:2, 24-bit YCbCr 4:2:2 Video Format
- **DDR3 Controller**
  - Compliant with DDR3 JESD79-3F
  - Band Width up to 1866Mbps
  - Support X16 SDRAM Organization
  - Programmable CAS Latency
  - BL8 Supported Only
  - Programmable Output Driver Impedance
  - SR Supported
  - Byte and Lane Swappable
- **Miscellaneous**
  - 1.5V, 1.8V and 3.3V Power Supply
  - 90/270 Degree Video Rotation
  - X2 or /2 Frame Rate Conversion
  - Alternative Input and Output configuration for LVDS/TTL/MIPI

- Support 100KHz and 400KHz I2C Slave
- External 25MHz Crystal Reference Clock
- Temperature Range: -40°C ~ +85°C
- Embedded DDR3 DRAM, Packaged in QFN76 9mm x 9mm

or camera.

The LT2911R-D is fabricated in advanced CMOS process and implemented in 9mm x 9mm QFN76 package. This package is RoHS compliant and specified to operate from -40°C to +85°C.

## Description

The Lontium LT2911R-D is a high performance convertor which interconvertible between MIPI DSI/CSI-2/Dual-Port LVDS and TTL except for LVDS to MIPI. The LT2911R-D deserializes input MIPI/LVDS/TTL video data, decodes packets, rotates video, changes frame rate and converts the formatted video data stream to MIPI/LVDS/TTL transmitter output between AP and mobile display panel

## Applications

- Mobile systems
- Cellular handsets
- Digital video cameras
- Digital still cameras
- Tablet PC, Notebook PC
- Car Display and Camera System

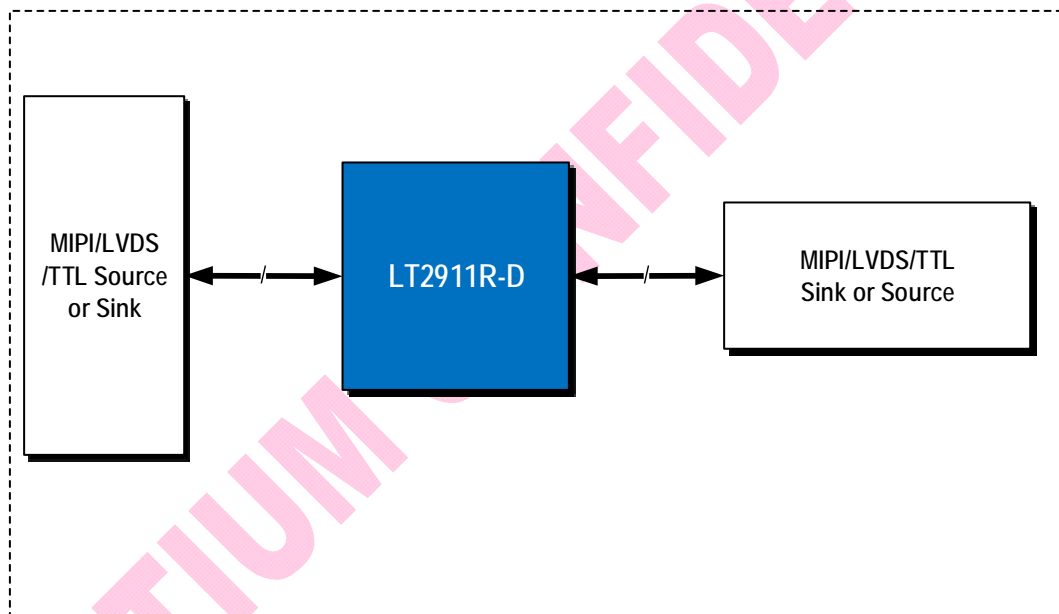


Figure 1. LT2911R-D Typical Application Diagram

## Ordering Information

Table 1. Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT2911R-D	-40°C to +85°C	QFN76 (9*9)	

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