LT2911R --- Product Brief

Dual-Port LVDS/TTL to MIPI Converter with Rotation

Features

- **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 Transmitter**
  - Compliant with DCS1.02, D-PHY1.2 ,DSI1.2 and CSI-2 1.00
  - 1 Clock Lane and 1~4 Configurable Data Lanes
  - 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
  - BandWidth up to 1600Mbps
  - Support X16 SDRAM Organization
  - Programmable CAS Latency
  - BL8 Supported Only
  - Programmable Output Driver Impedance
  - SR and ASR Supported
- **Miscellaneous**
  - 1.5V, 1.8V and 3.3V Power Supply
  - 90/270 Degree Video Rotation
  - X2 or /2 Frame Rate Conversion
  - External DDR3 SDRAM
  - Support 100KHz and 400KHz I2C Slave
  - External 25MHz Crystal Reference Clock
  - Temperature Range: -40°C ~ +85°C
  - Packaged in QFN128 14mm x 14mm and BGA144 7mm x 7mm

Description

The Lontium LT2911R is a high performance Dual-Port LVDS/TTL to MIPIDSI/CSI-2 bridge chip with Video Rotation between AP and mobile display panel or camera .

LT2911R can be configured as single-port or dual-port with optional De-SSC function. The bridge deserializes input LVDS data, decodes packets , ratates video, changes frame rate and converts the formatted video data stream to MIPIDSI/CSI-2 transmitter output.

For MIPI DSI/CSI-2 output, LT2911R features a single port MIPI DSI or CSI-2 transmitter with 1 high-speed clock lane and 1~4 configurable high-speed data lanes operating at maximum 1.8Gb/s/lane, which can support a total bandwidth of up to 7.2Gb/s. LT2911R supports both Non-Burst and Burst DSI/CSI data transferring, as well as Command Mode through Lane-0.

The LT2911R is fabricated in advanced CMOS process and implemented in 14mm x 14mm QFN128 and 7mm x 7mm BGA 144 package. This package is RoHS compliant and specified to operate from -40°C to +85°C.

Applications

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

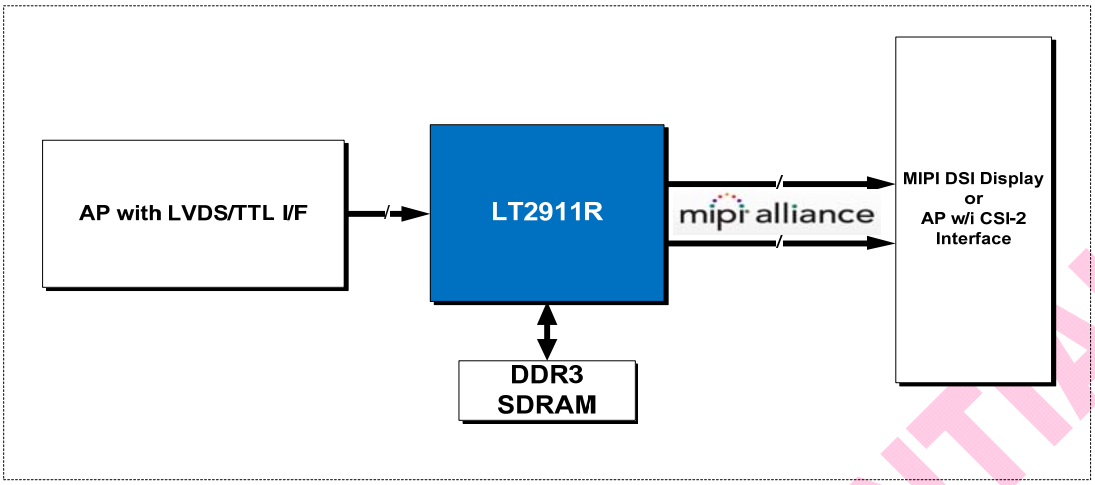

Figure 1. LT2911R Typical Application Diagram

Ordering Information

Table 1. Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT2911R	-40°C to +85°C	QFN128 (14*14)	
		BGA144(7*7)	

Visit our corporate web page at: www.lontiumsemi.com
Technical support: support@lontium.com
Sales: sales@lontium.com