

# LT9211R --- Product Brief

## MIPI to Dual-Port LVDS/TTL Converter with 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%)
- **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
- **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
  - 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
- 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 LT9211R is a high performance MIPI DSI/CSI-2 to Dual-Port LVDS/TTL bridge chip with Video Rotation between AP and mobile display panel or camera .

LT9211R features a single port MIPI DSI and CSI,as well as Burst and Non-Burst Mode input. The bridge deserializes input MIPI data, decodes packets , ratates video, changes frame rate and converts the formatted video data stream to LVDS or TTL output.

For LVDS output, LT2911R can be configed as a single port or dual port with SSC ouput.

For TTL ouput, LT9211R support up to 24 bit RGB and BT656/BT1120.

The LT9211R 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

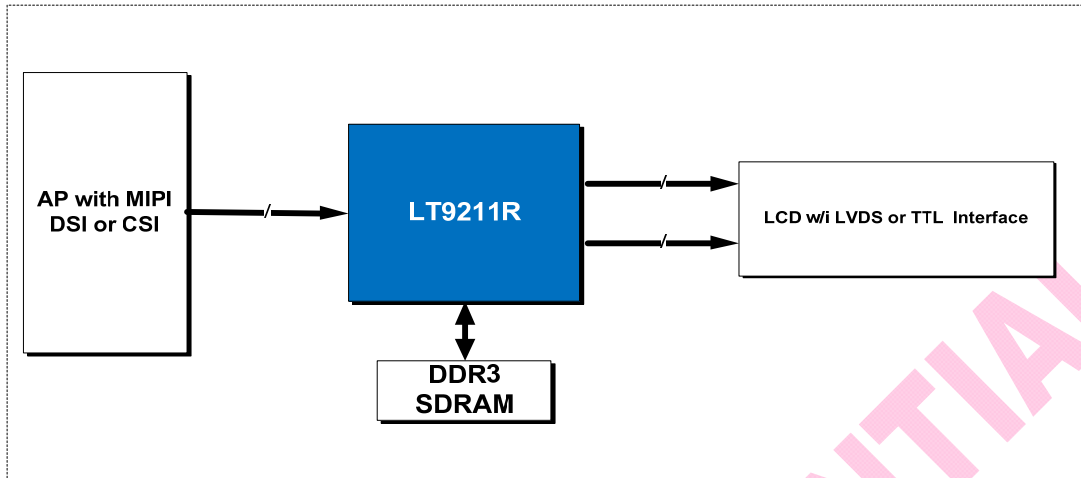


Figure 1. LT9211R Typical Application Diagram

## Ordering Information

Table 1. Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT9211R	-40°C to +85°C	QFN128 (14*14) BGA144(7*7)	

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