

# LT9211 --- Product Brief

## MIPI/TTL/2-Port LVDS to MIPI/TTL/2-Port LVDS Converter

### 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 $\pm$ 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 $\pm$ 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

#### ● Miscellaneous

- 1.8V and 3.3V Power Supply
- Alternative Input and Output configuration for LVDS/TTL/MIPI
- MIPI/LVDS muxer and splitter supported
- MIPI-LVDS Levelshifter for FPGA
- Support 100KHz and 400KHz I2C Slave
- External 25MHz Crystal Reference Clock
- Temperature Range: -40°C ~ +85°C
- Packaged in QFN64 7.5mm x 7.5mm

### Description

The Lontium LT9211 is a high performance convertor which interconvertible between MIPI DSI/CSI-2/Dual-Port LVDS and TTL except for TTL to TTL. The LT9211 deserializes input MIPI/LVDS/TTL video data, decodes packets, and converts the formatted video data stream to MIPI/LVDS/TTL transmitter output between AP and mobile display panel or camera.

The LT9211 can be used as 2-Port MIPI/LVDS Repeater which support maximum 14dB input equalization and Splitter.

The LT9211 is fabricated in advanced CMOS process and implemented in 7.5x7.5mm QFN64 package. This

programmable pre-emphasis to improve performance.

The LT9211 can also be used as MIPI/LVDS Muxer and 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

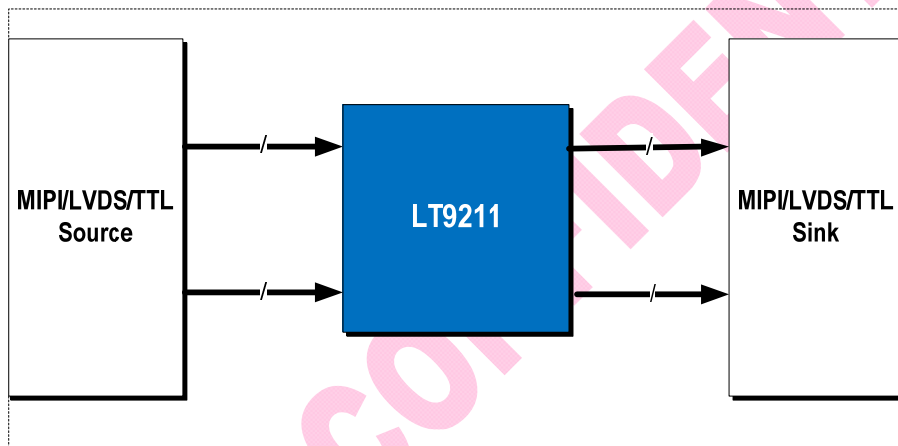


Figure 1. LT9211 Typical Application Diagram

## Ordering Information

Table 1. Ordering Information

| Part Number | Operating Temperature Range | Package         | Packing Method |
|-------------|-----------------------------|-----------------|----------------|
| LT9211      | -40°C to +85°C              | QFN64 (7.5*7.5) |                |

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