

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
- Two Port Simultaneous Display Supported
- Up to 1080P 60Hz
- Support DE Mode
- 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 2560x1440 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 sampling supported
- Support both 1.8V and 3.3V Voltage Output
- Resolution up to 2560x1440 60Hz

● Dual-Port LVDS Receiver

- Compatible with VESA and JEIDA standard
- 1~2 Configurable Port
- Up to 1080P 60Hz
- Support DE Mode

- 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 sampling supported
- Support SYNC Mode and DE Mode
- Support both 1.8V and 3.3V Input Voltage
- Resolution up to 2560x1440 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 2560x1440 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 200ppm Crystal Reference Clock is Preferred
- 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 24bit TTL to 24bit TTL with both SYNC and DE. 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 programmable pre-emphasis to improve performance.

The LT9211 can also be used as MIPI/LVDS Muxer and Splitter. For MIPI Repeater, Muxer and Splitter, we do not support CSI RAW format.

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

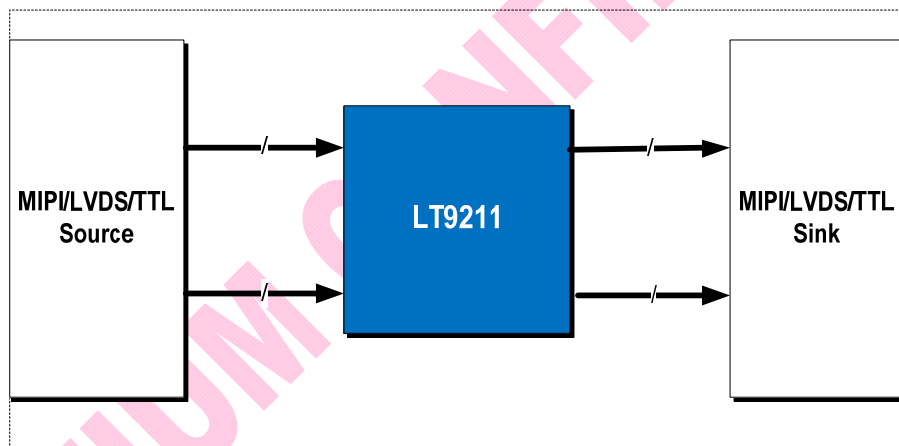


Figure 1. LT9211 Typical Application Diagram

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)	Tray

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