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±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

- **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℃ ~ +85℃
  - 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
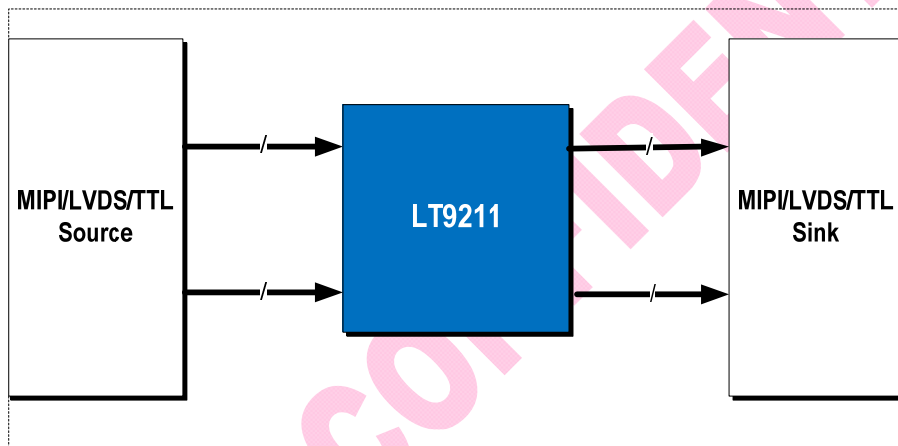
Figure 1. LT9211 Typical Application Diagram

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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