

LT7911 --- Product Brief

Type-C/DP/eDP to Quad-port MIPI DSI/CSI with Audio

Features

● Type-C

- Compliant with VESA DisplayPort Alt Mode on USB Type-C Standard version 1.0
- Compliant with USB Power Delivery Rev. 2.0
- Compatible with USB Type-C V1.1
- Built-in CC controller for plug and orientation detection
- Dual-port CC for charger and normal communication

● DP/eDP Receiver

- Compliant with DisplayPort Specification 1.2 for 1.62Gbps, 2.7Gbps, 5.4Gbps
- Compliant with DisplayPort Specification version 1.2 and Embedded DisplayPort (eDP) Specification version 1.4
- Support DisplayPort 1, 2, 4 lanes
- Support HDCP 1.3
- Support eDP Authentication: Alternative Scramble Seed Reset and Alternative Framing
- Fast and full Link Training for embedded DisplayPort system
- Adaptive DisplayPort Receiver Equalization for PCB, cable and connector losses
- Support AUX and IIC for firmware updating

● Single/Dual-Port/Quad-Port MIPI® DSI/CSI

Transmitter

- Compliant with DCS1.02, D-PHY1.2 & DSI1.02 at Data 0/3 and parity swapping
 - Maximum 64 pixels overlap for each half
 - Both non-burst and burst video mode supported

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- Support RGB666, Loosely RGB666, RGB888, RGB565, 16-bit YCbCr4:2:2, 20-bit YCbCr4:2:2, 24-bit YCbCr4:2:2, 12-bit YCbCr4:2:0 Video Format
- Video stream copy mode for each single/dual-port
- Side-by-side 3D support
- Port swap

● Miscellaneous

- 3.3V/1.2V Supply Power
- Internal CSC support conversions between YCbCr 4:4:4 and RGB, and between YCbCr 4:2:2 and YCbCr 4:4:4
- Support SPDIF and 8-channel IIS audio output
- Support 100KHz and 400KHz I2C slave
- Power from phone or adapter mode selection
- Integrated Microprocessor
- Embedded EDID shadow.
- Temperature Range: -40°C ~ +85°C
- ESD 4kV HBM

Description

The LT7911 is a high performance Type-C/DP1.2 to MIPI® DSI/CSI chip for VR/Smart phone/Display application.

For DP1.2 input, LT7911 can be configured as 1, 2, 4 lane, also support lane swap function. Adaptive equalization makes it suitable for long cable application and the maximum bandwidth is up to 21.6Gbps

For MIPI® DSI/CSI output, LT7911 features configurable single-port or dual-port or quad-port MIPI® DSI/CSI with 1 high-speed clock lane and 1~4 high-speed data lanes operating at maximum 1.5Gb/s/lane, which can support a total bandwidth of up to 24Gbps. LT7911 supports Burst mode DSI video data transferring, also support flexible video data mapping path.

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