

# LT7911B --- Product Brief

## Type-C/DP1.2 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.

#### ● DP1.2 Receiver

- Compliant with DisplayPort Specification 1.2 for 1.62Gbps, 2.7Gbps, 5.4Gbps
- Support DisplayPort 1, 2, 4 lanes
- Support HDCP 1.3
- 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 & CSI-2 1.0
- 1 Clock Lane, and 1~4 Configurable Data Lanes per port
- 1/2/4 configurable port
- 80Mb/s~1.5Gb/s per Data Lane
- Data Lane and Polarity Swapping
- Maximum 64 Pixels overlap for each half
- Burst Mode and Command Mode Supported
- Support RGB666, Loosely RGB666, RGB888, RGB565, 16-bit YCbCr4:2:2, 20-bit YCbCr4:2:2, 24-bit YCbCr 4:2:2, 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 LT7911B is a high performance Type-C/DP1.2 to MIPI® DSI/CSI chip for VR/Smart phone/Display application.

For DP1.2 input, LT7911B 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, LT7911B 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. LT7911B supports Burst mode DSI video data transferring, also support flexible video data mapping path.

## Applications

- Mobile system
- VR

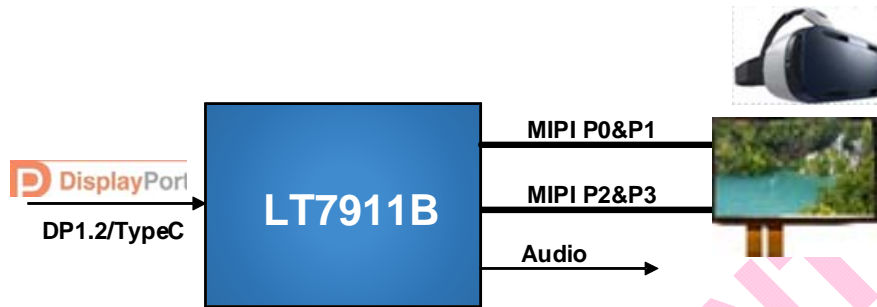


Figure 1. Application Diagram

## Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT7911B	-40°C to+85°C	BGA144 (7*7)	Tray

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