

LT7911UX --- Product Brief

Type-C/DP to Quad-port MIPI with Audio

Features

● USB Type-C

- Compliant with VESA DisplayPort Alt Mode on USB Type-C standard V1.0
- Compliant with USB Power Delivery specification R3.0, V1.0
- Compliant with USB Type-C Cable and Connector specification R1.3
- Built-in dual CC controllers for charger and normal communication
- 3 data roles supported: DFP, UFP and DRP
- 2 power roles supported: source and sink

● DP1.4 Receiver

- Compliant with the DP1.4 specification with data rates up to 8.1Gbps per channel
- Support HDCP 1.3/2.2/2.3
- Support HDR
- Support FEC
- Support 8k@30Hz, 8k@60Hz with DSC

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

- Compliant with D-PHY1.2 & DSI 1.3 & CSI-2 1.3, C-PHY1.0 & DSI-2 1.0 & CSI-2 2.0
- 1/2/4 configurable port
- D-PHY: 1~4 Configurable Data Lanes per port
- C-PHY: 1~3 Configurable Data Lanes per port
- D-PHY: 2.5Gb/s per data lane
- C-PHY: 5.7Gb/s per data lane
- Data lane and polarity swapping
- Support video overlap
- Support RGB/YUV4:2:2/YUV4:4:4/YUV 4:2:0 8/10bit Video Format
- Side-by-side 3D support
- Support CSI D-option 8 Lane output
- Port swap

● Miscellaneous

- 3.3V/1.1V Supply Power
- VESA DSC v1.2a (v1.1 compatible)
- Zoom scaling up and down
- Support FRC
- Support Rotation(Max 1080P)
- CSC: RGB <-> YUV444 <-> YUV422<-> YUV420
- Support SPDIF and 8-channel IIS audio output
- Support 100KHz and 400KHz I2C slave
- Power from phone or adapter mode selection
- Integrated Microprocessor
- Temperature Range: -40°C ~ +85°C
- ESD 4kV HBM
- Embedded LPDDR3/4 DRAM, Packaged in BGA169 8mm x 8mm

Description

The LT7911UX is a high performance Type-C/DP1.4 to MIPI chip for VR/Display application.

For DP1.4 input, LT7911UX 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 32.4Gbps.

For MIPI output, LT7911UX 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 2.5Gb/s/lane with D-PHY, which can support a total bandwidth of up to 40Gbps. Or support 5.7Gb/s/lane with C-PHY, which can support a total bandwidth of up to 68.4Gbps.

LT7911UX is fabricated in advanced CMOS process and implemented in 8mmx8mm BGA169 package. This package is RoHS compliant and specified to operate from -40°C to +85°C.

Applications

- Mobile system
- Display
- VR



Figure1. Application Diagram

Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT7911UX	-40°C to+85°C	BGA169 (8*8)	Tray

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