LT6911GX --- Product Brief

HDMI2.1 to Quad-port MIPI DSI/CSI with Audio

Features

HDMI2.1 Receiver

- Compliant with the HDMI 2.1 specification
- Support FRL mode with 3, 6 or 8Gbps Data Rate
- Support HDCP 1.4/2.2/2.3
- Support HDR
- Support FEC
- Support SCDC
- 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
- Video stream copy mode for each single/dual-port
- 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
- Integrated Microprocessor
- Embedded EDID shadow
- Temperature Range: -40°C ~ +85°C
- ESD 4kV HBM
- Embedded LPDDR3/4 DRAM

Description

The LT6911GX is a high performance HDMI2.1 to MIPI®DSI/CSI chip for VR/Display application.

HDCP RX as the upstream of HDCP repeater, can cooperate with HDCP TX of other chips to realize the repeater function.

For MIPI output, LT6911GX 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.

LT6911GX internally integrates an 8-bit OCM and SPI flash memory (stacked die) to run program. Online software upgrade is also supported for LT6911GX.

LT6911GX is fabricated in advanced CMOS process and implemented in 9mmx9mm BGA169 package. This package is RoHS compliant and specified to operate from -40°C to +85°C.

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