

LT6911UX --- Product Brief

HDMI2.0 to Quad-Port MIPI DSI/CSI with Audio

Features

z HDMI2.0 Receiver

- f* Compliant with HDMI2.0b, HDMI1.4 and DV11.0
- f* Compliant with HDCP2.2 and HDCP1.4
- f* Data rate up to 6Gbps
- f* Adaptive receiver equalization
- f* AC-couple capable
- f* Support channel swap(arbitrarily) and polarity inversion(independent)
- f* Support 4k@60Hz
- f* Supported 3D formats: frame packing(progressive), side-by-side(half/full), top-and-bottom, line alternative
- f* Supported video formats:
 - CSC/DSC disabled: 24/30/36-bit RGB, 16/20/24-bit YCbCr4:2:2, 8-bit YCbCr4:2:0
 - CSC disabled, DSC enabled: 24-bit RGB, 16/20/24-bit YCbCr4:2:2, 8-bit YCbCr4:2:0
 - CSC enabled, DSC disabled: 24-bit RGB/YCbCr4:4:4, 16/20/24-bit YCbCr4:2:2
 - CSC/DSC enabled: 24-bit RGB/YCbCr4:4:4, 16/20/24-bit YCbCr4:2:2
- f* HDR support
- f* Support TMDS descrambling for EMI/RFI reduction
- f* Support SCDC
- f* 5V tolerance DDC/HPD I/Os
- f* Integrated EDID shadow

z Single/Dual/Quad-Port MIPI DSI/CSI Transmitter

- f* Compliant with DCS1.1, D-PHY1.2 & DSI1.3 & CSI-2 1.3
- f* Integrated DSC1.2 encoder
- f* 1/2/4 configurable ports
- f* 1 clock lane and 1/2/3/4 configurable data lanes per port
- f* 80Mbps~2Gbps per data lane

- f* Programmable transmitter swing and pre-emphasis
- f* Support lane swap(arbitrarily) and polarity inversion(independent)

- f* 3D support: two ports simultaneously transmitting L and R frames or odd-L/even-R alternative pixels

- f* DSI support both burst mode and non-burst mode

- f* DSI support video formats:

CSC/DSC disabled: Packed 16/18/24/30/36-bit RGB, Loosely Packed 18-bit RGB, Packed 16/24-bit YCbCr4:2:2, Loosely Packed 20-bit YCbCr4:2:2, Packed 12-bit YCbCr4:2:0

CSC disabled, DSC enabled: Packed 24-bit RGB, Packed 16-bit YCbCr4:2:2, Packed 12-bit YCbCr4:2:0
 CSC enabled, DSC disabled: Packed 16/18/24-bit RGB, Loosely Packed 18-bit RGB, Packed 16-bit YCbCr4:2:2

CSC/DSC enabled: Packed 24-bit RGB, Packed 16-bit YCbCr4:2:2

- f* CSI support video formats:

CSC/DSC disabled: RGB565/666/888, YUV422 8/10-bit, Legacy YUV420 8-bit

CSC disabled, DSC enabled: RGB888, YUV422 8-bit, Legacy YUV420 8-bit

CSC enabled, DSC disabled: RGB565/666/888, YUV422 8-bit

CSC/DSC enabled: RGB888, YUV422 8-bit

- f* CSI support interlaced mode

- f* Maximum 64 pixels overlap for each half

- f* Video stream copy mode for each port

z Digital Audio Output

- f* I2S interface supporting 8-channel audio, with sample rates of 32~192 kHz and sample sizes of 16~24 bits

- f* SPDIF interface supporting PCM, Dolby Digital, DTS digital audio at up to 192kHz frame rate

- f* IEC60958 or IEC61937 compatible

LONTIUM CONFETTI

LONTIUM CON

Copyright © 2018 Lontium Semiconductor Corporation, All rights reserved.

Lontium Semiconductor Proprietary & Confidential

This document and the information it contains belong to Lontium Semiconductor. Any review, use, dissemination, distribution or copying of this document or its information outside the scope of a signed agreement with Lontium is strictly prohibited.

LONTIUM DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THOSE OF NONINFRINGEMENT, MERCHANTABILITY, TITLE AND FITNESS FOR A PARTICULAR PURPOSE. CUSTOMERS EXPRESSLY ASSUME THEIR OWN RISK IN RELYING ON THIS DOCUMENT.

LONTIUM CONFIDENTIAL