



LT9611UX --- Product Brief

Dual-Port MIPI DSI/CSI to HDMI2.0 with MIPI Input Switch and Audio

Features

Single/Dual-Port MIPI DSI/CSI Receiver

Compliant with D-PHY1.2 & DSI1.3 & CSI-2 1.3
Integrated DSC1.2 decoder
4 physical ports grouped into 2 dual-port receivers, only one receiver activated at a time (2-to-1 switching internally)
1/2 configurable ports per dual-port receiver
1 clock lane and 1/2/3/4 configurable data lanes per port
80Mbps~2Gbps per data lane
Skew calibration
Programmable receiver equalizer
Support data lane swap(arbitrarily) and polarity inversion(independent)
3D support: two ports simultaneously receiving L and R frames or odd-L/even-R alternative pixels
DSI support both burst mode and non-burst mode
DSI support video formats:
DSC/CSC 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
DSC disabled, CSC enabled: 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
DSC enabled, CSC disabled: Packed 24-bit RGB, Packed 16-bit YCbCr4:2:2, Packed 12-bit YCbCr4:2:0
DSC/CSC enabled: Packed 24-bit RGB, Packed 16-bit YCbCr4:2:2
CSI support video formats:

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

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

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

DSC/CSC enabled: RGB888, YUV422 8-bit

Digital Audio Input

I2S interface supporting 8-channel audio, with sample rates of 32~192 kHz and sample sizes of 16~24 bits
SPDIF interface supporting PCM, Dolby Digital, DTS digital audio at up to 192kHz frame rate
IEC60958 or IEC61937 compatible

HDMI2.0 Transmitter

Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
Compliant with HDCP2.2 and HDCP1.4
Data rate up to 6Gbps
On-die back termination
Programmable transmitter swing and pre-emphasis
AC-couple capable
Support channel swap(arbitrarily) and polarity inversion(independent)
Support 4k@60Hz
Supported 3D formats: side-by-side(full)
Supported video formats:
DSC/CSC disabled: 24/30/36-bit RGB, 16/20/24-bit YCbCr4:2:2, 8-bit YCbCr4:2:0
DSC disabled, CSC enabled: 24-bit RGB/YCbCr4:4:4, 16-bit YCbCr4:2:2
DSC enabled, CSC disabled: 24-bit RGB, 16-bit YCbCr4:2:2, 8-bit YCbCr4:2:0
DSC/CSC enabled: 24-bit RGB/YCbCr4:4:4, 16-bit YCbCr4:2:2

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