LT9611UX --- Product Brief

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

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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 16/18/24/30/36.8(th bud*RGB,d)]TJ- 11.8382 -1.7267 TD -.0341 Tc .0002 Tw [Loose Packed 6/2d

    abld, /CSCenuabldd: sd

    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, 8-bit YCbCr4:2:0

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

  - CSI support video formats:

    DSC/CSC disa

    8/10-bit, Legac

    DSC disabled,

    YUV422 8/10-

    DSC enabled,

    Legacy YUV42

    DSC/CSC ena
- 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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