LT6911UX --- Product Brief

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

Features

- HDMI2.0 Receiver
  - Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
  - Compliant with HDCP2.2 and HDCP1.4
  - Data rate up to 6Gbps
  - Adaptive receiver equalization
  - AC-couple capable
  - Support channel swap(arbitrarily) and polarity inversion(independent)
  - Support 4k@60Hz
  - Supported 3D formats: frame packing(progressive), side-by-side(half/full), top-and-bottom, line alternative
  - 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
  - HDR support
  - Support TMDS descrambling for EMI/RFI reduction
  - Support SCDC
  - 5V tolerance DDC/HPD I/Os
  - Integrated EDID shadow
- Single/Dual/Quad-Port MIPI DSI/CSI Transmitter
  - Compliant with DCS1.1, D-PHY1.2 & DSI1.3 & CSI-2 1.3
  - Integrated DSC1.2 encoder
  - 1/2/4 configurable ports
  - 1 clock lane and 1/2/3/4 configurable data lanes per port
  - 80Mbps~2Gbps per data lane
  - Programmable transmitter swing and pre-emphasis
  - Support lane swap(arbitrarily) and polarity inversion(independent)
  - 3D support: two ports simultaneously transmitting L and R frames or odd-L/even-R alternative pixels
  - DSI support both burst mode and non-burst mode
  - 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
  - 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
  - CSI support interlaced mode
  - Maximum 64 pixels overlap for each half
  - Video stream copy mode for each port
- Digital Audio Output
  - 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