



LT6911UXB --- 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



● **Miscellaneous**

- CSC: RGB <-> YUV444 <-> YUV422
- Integrated CEC Controller
- External oscillator
- Integrated microprocessor
- Embedded SPI flash for firmware and HDCP keys
- GPIOs for system controls
- Integrated 100/400kHz I2C slave
- Firmware update through SPI or I2C interface
- Power supply: 3.3V for I/O and 1.2V for core
- ESD 4kV HBM
- Temperature Range: -40 ~ +85
- Package: BGA144(7mm*7mm)
- Pin compatible with LT6911B

Description

The LT6911UXB is a high performance HDMI2.0 to MIPI

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