

LT8711UX --- Product Brief

Type-C/DP1.2 to HDMI2.0 Converter with USB3.0 Switch

Features

z USB Type-C

- f Compliant with VESA DisplayPort Alt Mode on USB Type-C Standard V1.0
- f Compliant with USB Power Delivery Specification R2.0, V1.0
- f Compatible with USB Type-C Cable and Connector Specification R1.2
- f Built-in CC controller for plug and orientation detection
- f Dual CC ports for charger and normal communication
- f Flexible USB Type-C switching for USB3.0 5Gbps and DisplayPort Alt Mode up to 5.4Gbps
- f Compliant with HDMI 1.4b Alt Mode on USB Type-C Specification V1.0

z DP1.2 Receiver

- f Compliant with VESA DP1.2
- f Support 1.62/2.7/5.4Gbps
- f Support 1/2/4 lanes
- f Support SSC
- f 1Mbps AUX channel
- f Compliant with HDCP1.3
- f Adaptive receiver equalization for PCB, cable and connector losses
- f Support lane swap(arbitrarily) and polarity inversion(independent)
- f Receiver PHY is HDMI signal compatible

z HDMI2.0 Transmitter

- f Compliant with HDMI2.0, HDMI1.4 and DVI1.0
- f Compliant with HDCP2.2 HDCP1.4
- f Data rate up to 6Gbps
- f Support UHD 4k@60Hz(RGB and YCbCr 4:4:4)
- f Support TMDS scrambling for EMI/RFI reduction
- f Support SCDC(Status and Control Data Channel)
- f Support CEC

- f AC-couple capable

- f Support channel swap(arbitrarily) and polarity inversion(independent)

- f Programmable transmitter swing and pre-emphasis

- f Downstream receiver sensing

- f 5V tolerance DDC/HPD I/Os

z Digital Audio Outputs

- f I2S and SPDIF interface(SPDIF shared with SD0)

- f 8-channel LPCM or compressed audio

- f Sample rate up to 192kHz

z Miscellaneous

- f DP receiver to HDMI transmitter bypass to support HDMI Alt Mode

- f Internal or external oscillator

- f Integrated microprocessor

- f Embedded SPI flash for firmware and HDCP keys

- f GPIOs for VBUS/VCONN/AUX and other system control

- f Integrated 100/400kHz I2C slave

- f Firmware update through SPI, AUX or I2C interface

- f Low power consumption

- f Optional automatic power down

- f Power supply: 3.3V for I/O and 1.2V for core

- f ESD 4kV HBM

- f Temperature Range: -40°C ~ +85°C

- f 88-pin QFN 10*10 package

Description

The LT8711UX is a high performance Type-C/DP1.2 to HDMI2.0 converter, designed to connect a USB Type-C source or a DP1.2 source to an HDMI2.0 sink.

The LT8711UX integrates a DP1.2 compliant receiver, and an HDMI2.0 compliant transmitter. Also, two CC controllers are included for CC communication to implement DP Alt Mode and power delivery function, one

LONTIUM CONFIDENTIAL



LAMPUM

