LT8711UX --- Product Brief

Features

- USB Type-C
  - Compliant with VESA DisplayPort Alt Mode on USB Type-C Standard V1.0
  - Compliant with USB Power Delivery Specification R2.0, V1.0
  - Compatible with USB Type-C Cable and Connector Specification R1.2
  - Built-in CC controller for plug and orientation detection
  - Dual CC ports for charger and normal communication
  - Flexible USB Type-C switching for USB3.0 5Gbps and DisplayPort Alt Mode up to 5.4Gbps
  - Compliant with HDMI 1.4b Alt Mode on USB Type-C Specification V1.0
- DP1.2 Receiver
  - Compliant with VESA DP1.2
  - Support 1.62/2.7/5.4Gbps
  - Support 1/2/4 lanes
  - Support SSC
  - 1Mbps AUX channel
  - Compliant with HDCP1.3
  - Adaptive receiver equalization for PCB, cable and connector losses
  - Support lane swap(arbitrarily) and polarity inversion(independent)
  - Receiver PHY is HDMI signal compatible
- HDMI2.0 Transmitter
  - Compliant with HDMI2.0, HDMI1.4 and DVI1.0
  - Compliant with HDCP2.2 HDCP1.4
  - Data rate up to 6Gbps
  - Support UHD 4k@60Hz(RGB and YCbCr 4:4:4)
  - Support TMDS scrambling for EMI/RFI reduction
  - Support SCDC(Status and Control Data Channel)
  - Support CEC
  - AC-couple capable
  - Support channel swap(arbitrarily) and polarity inversion(independent)
  - Programmable transmitter swing and pre-emphasis
  - Downstream receiver sensing
  - 5V tolerance DDC/HPD I/Os
- Digital Audio Outputs
  - I2S and SPDIF interface(SPDIF shared with SD0)
  - 8-channel LPCM or compressed audio
  - Sample rate up to 192kHz
- Miscellaneous
  - DP receiver to HDMI transmitter bypass to support HDMI Alt Mode
  - Internal or external oscillator
  - Integrated microprocessor
  - Embedded SPI flash for firmware and HDCP keys
  - GPIOs for VBUS/VCONN/AUX and other system control
  - Integrated 100/400kHz I2C slave
  - Firmware update through SPI, AUX or I2C interface
  - Low power consumption
  - Optional automatic power down
  - Power supply: 3.3V for I/O and 1.2V for core
  - ESD 4kV HBM
  - Temperature Range: -40 ~ +85
  - 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