LT8711H --- Product Brief

Type-C/DP1.2 to HDMI1.3 Converter

1. 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
  - Compliant with USB Type-C Cable and Connector specification R1.2
  - Built-in dual CC controllers for charger and normal communication
  - 3 data roles supported: DFP, UFP and DRP
  - 2 power roles supported: source and sink
- **DP1.2 Receiver**
  - Compliant with VESA DP1.2 and Embedded DisplayPort (eDP) v1.4
  - No HDCP decryption
  - 1/2 configurable data lanes
  - 1.62/2.7/5.4Gbps per data lane
  - Support SSC
  - 1Mbps AUX channel
  - Adaptive or programmable receiver equalization
  - Support lane swap(arbitrarily) and polarity inversion(independent)
  - Support eDP Authentication: Alternative Scramble Seed Reset
- **HDMI1.3 Transmitter**
  - Compliant with HDMI1.3 and DVI1.0
  - Data rate up to 3.4Gbps
  - Support 1080p@60Hz
  - Programmable transmitter swing and pre-emphasis
  - Downstream receiver sensing
  - 5V tolerance DDC/HPD I/Os
- **Miscellaneous**
  - External oscillator
  - Integrated microprocessor
  - Embedded SPI flash for firmware
  - GPIOs for VBUS/VCONN/AUX and other system controls
  - Integrated 100kHz I2C slave
  - Firmware update through I2C interface
  - Power supply: 3.3V for I/O and 1.2V for core
  - ESD 1kV HBM
  - Temperature range: -40°C ~ +85°C
  - Package：6mmx6mm QFN48

2. General Description

The LT8711H is a high performance Type-C/DP1.2 to HDMI1.3 converter, designed to connect a USB Type-C source or a DP1.2 source to an HDMI1.3 sink.

The LT8711H integrates a DP1.2 compliant receiver, and an HDMI1.3 compliant transmitter. Also, two CC controllers are included for CC communication to implement DP Alt Mode and power delivery function, one for upstream Type-C port and another for downstream port.

The device is capable of automatic operation which is enabled by an integrated microprocessor that uses an embedded SPI flash for firmware storage. System control is also available through the use of a dedicated configuration I2C slave interface.

LT8711H also support EDID buffer, DP/eDP input detection and determine to enter into power saving mode automatically. When the receiver of LT8711H locks the input signal, the MCU can read the recovered timing parameters by the MSA registers. The DPCD registers are accessible via system I2C when debugging the full link training.

3. Applications

- Docking Station
- Dongle

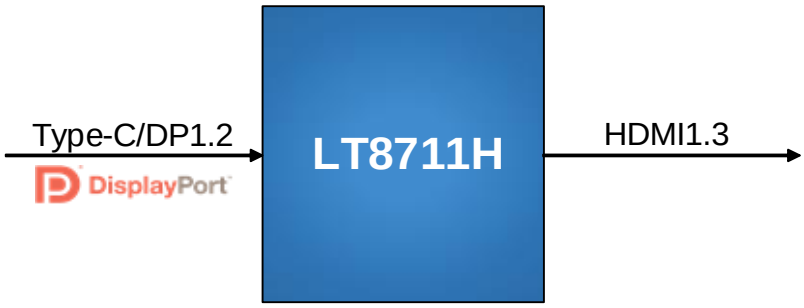

Figure 3.1 Application Diagram

4. Ordering Information

Table 4.1 Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method	MPQ
LT8711H	-40℃ to+85℃	QFN48 (6*6)	Tray	4900pcs

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