LT8711UXD --- Product Brief

2-Lane Type-C/DP to HDMI2.0 Converter with PD3.0

1. Features

- **USB Type-C**
  - Compliant with VESA DisplayPort alt mode on USB Type-C standard 1.0
  - Compliant with USB power delivery specification 3.0
  - Compliant with USB Type-C cable and connector specification 1.3
  - Built-in dual CC controllers for charger and normal communication
  - Data roles supported: DFP, UFP and DRP
  - Power roles supported: source and sink
- **DP1.4 Receiver**
  - Compliant with DisplayPort specification 1.4 for 1.62Gbps, 2.7Gbps, 5.4Gbps, 8.1Gbps
  - Compliant Embedded DisplayPort specification version 1.4
  - Support DisplayPort 1/2 lanes
  - Support SSC
  - Support HDCP 1.3/2.2/2.3
  - Support HDCP repeater
  - Support 8K@30Hz
  - Support HDR10 and HDR12
  - Support FEC
  - Support Adaptive-sync
  - Support ASSR for eDP
- **HDMI2.0 Transmitter**
  - Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
  - Data rate up to 6Gbps
  - Support HDCP 1.4/2.2/2.3
  - Support HDCP repeater
  - Support 8K@30Hz
  - Support HDR10 and HDR12
  - Support CEC
  - Programmable transmitter swing and pre-emphasis
- **Miscellaneous**
  - CSC: RGB <-> YUV444 <-> YUV422<-> YUV420
  - Integrated 100/400KHz I2C slave
  - External oscillator 27MHz, +/-100ppm
  - Integrated microprocessor
  - Embedded SDRAM
  - Embedded SPI flash for firmware and HDCP keys
  - Firmware update through SPI/I2C/BB interface
  - Power supply: 3.3V for I/O and 1.2V for core

2. General Description

The LT8711UXD is a high performance two lane Type-C/DP1.4 to HDMI2.0 converter, designed to connect a USB Type-C source or a DP1.4 source to an HDMI2.0 sink. The LT8711UXD integrates a DP1.4 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 for upstream Type-C port and another for downstream port.

The DP receiver supports maximum 8.1Gbps data rate per lane, and incorporates HDCP 1.3/2.2/2.3 content protection scheme with embedded key for secure transmission of digital audio-video content.

The HDMI interface includes 4 TMDS clock/data pairs, DDC, and HPD signal. The HDMI transmitter is capable of supporting up to 6Gpbs data rate, quite adequate for handling video resolutions up to UHD 4k 60Hz formats. The HDMI transmitter incorporates HDCP engines which support both HDCP1.4/2.2/2.3. With the inclusion of HDCP, the LT8711UXD allows secure transmission of protected content. Embedded key is available that provides the highest level of HDCP key security.

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.

3. Applications

- Docking station
- Dongle

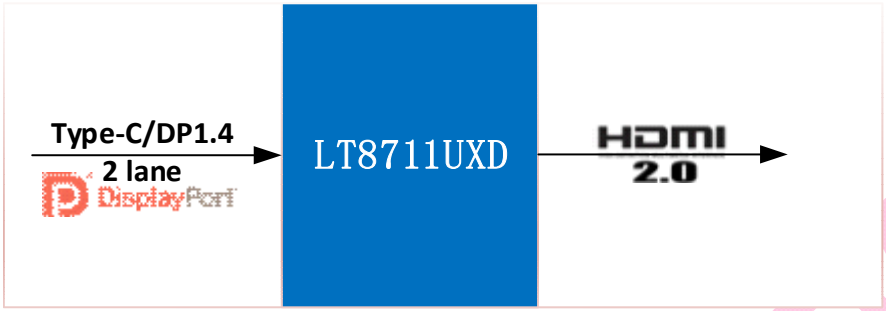

Figure 3.1 Application Diagram

4. Ordering Information

Table 4.1 Ordering Information

Product Name	Part Number	Product Status	Package	Bonding Wire	Grade	Operating Temperature Range	Stack Die Option	Packing Method	MPQ
LT8711UXD	LT8711UXD _U1Q10CED	Preview	QFN48 (6*6)Saw	Cu	Consumer	TBD	D	TBD	TBD

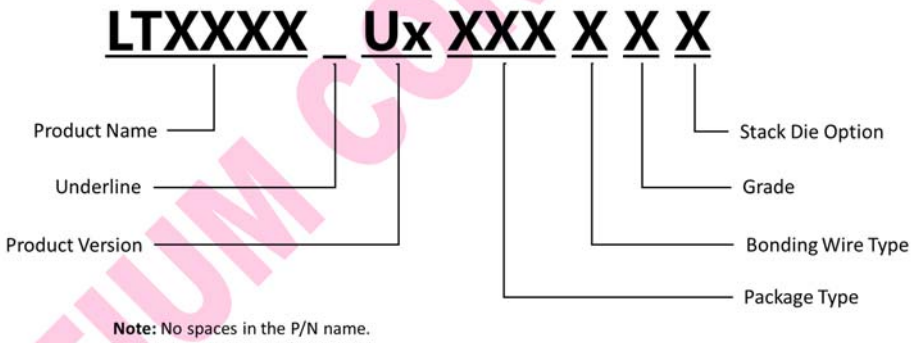

Figure 4.1 Part Number Naming Rules

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Technical support: support@lontium.com
Sales: sales@lontium.com