

LT6711

- Support DDC and CEC
- Support Hot-Plug Detect
- Support Status and Control Data Channel (SCDC)
- Support Data Lane Swap and Polarity Swap
- Build-in Pattern Generation

- **DP1.2 Transmitter**

- Compliant to VESA DP1.2 Standard
- Support Four Lanes with 1.62Gbps (RBR), 2.70Gbps (HBR) or 5.4Gbps (HBR2) Data Rate
- Support Resolution up to 4Kx2K@60Hz
- Data Lane and Polarity Swapping
- Support HDCP1.3 Encryption
- Support 8/10/12-bit Deep Color
- Support Hot-Plug Detect
- Optional SSC 0.5% Down-Spreading Output
- Configurable and Power-on-Calibrated Output Signal for Optimized EMI

Miscellaneous

- Support OSD display with 8K Pro Programmable Color Matrix and Attribute Table
- Support Backlight Control & MCCC over AUX for eDP
- Support ASSR for eDP
- 1.2V/1.8V/3.3V Supply Power
- External 27MHz Crystal Reference Clock
- Temperature Range: -40°C to 105°C
- Full-Featured USB Type-C
 - Compatible with USB3.1 Gen1, USB Type-C R1.2
- QFN64
- Power Consumption: 1W
- Alt Mode: USB V1.0 and USB PD R3.0

2. General Description

LT6711 is a deeply-optimized HDMI re-driver IC that enhances TMDS signal quality by performing cable or board trace loss compensation. LT6711 can be configured to work under HDMI 1.4b with up to 3.4Gbps data rate or HDMI 2.0 standard with a maximum 6Gb/s data rate to allow for the highest resolutions of 4Kx2K 60Hz or 1080P with higher refresh rates.

The input receiver of LT6711 features a multi-level programmable linear equalizer that can support maximum 25dB loss compensation due to Inter-Symbol Interference (ISI). The output transmitter re-drives the received signal with multi-level programmable output swing and up to 6dB de-emphasis.

The Build-in DDC interception function, co-working with an accurate frequency detect on clock channel is also included to automatically setup re-driver parameters.

LT6711 internally integrates an 8-bit OCM and SPI flash memory (stacked die) to run program. Online software upgrade is also supported for LT6711.

LT6711 is fabricated in advanced CMOS process and implemented in a small outline 5mmx5mm BGA81 (LT6711B) and 7.5mmx7.5mm QFN64 (LT6711A) package. This package is RoHS compliant and specified to operate from -40°C to +85°C.

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