

LT6711GX --- Product Brief

HDMI2.1 to DP1.4 with Type-C

Features

HDMI2.1 Receiver

- Compliant with the HDMI 2.1 specification
- Support FRL mode with 3, 6 or 8Gbps Data Rate
- Support HDCP 1.4/2.2/2.3
- Support HDR
- Support FEC
- Support DDC, SCDC and CEC
- Support 8k@30Hz, 8k@60Hz with DSC

DP1.4 Transmitter

- Compliant to VESA DP1.4 Standard
- Support Four Lanes with 1.62, 2.7, 5.4 or 8.1Gbps Data Rate
- Data Lane and Polarity Swapping
- Support HDCP 1.3/2.2/2.3
- Support HDR
- Support FEC
- Support 8k@30Hz, 8k@60Hz with DSC
- Support Backlight Control & MCCS over AUX for eDP
- Support ASSR for eDP
- Support 8 Lane eDP
- Build-in Pattern Generation

USB Type-C

- Compliant with VESA DisplayPort Alt Mode on USB Type-C standard V1.0b
- DP Alt Mode only support pin assignment C E
- Compliant with USB Power Delivery specification R3.0, V1.0
- Compliant with USB Type-C specification R1.3
- Built-in CC controller for charger and normal communication
- CC controller supported: DFP and DRP

Support FR Swap

Miscellaneous

- External oscillator
- Integrated microprocessor
- Embedded SPI flash for firmware
- GPIOs for VBUS/VCONN/AUX and other system controls
- Integrated 100/400kHz I2C slave
- Low power consumption
- Power supply: 3.3V for I/O and 1.1V for core
- Package 10mmx10mm QFN88

Description

The Lontium LT6711GX is HDMI2.1 to DP1.4 converter with internal Type C Alternate Mode switch and PD controller.

For HDMI input, it consists of 4 data lanes, support 3, 6 or 8Gbps link speeds. It allow for the highest resolutions of 8K@60Hz with DSC or 8K@30Hz.

For DP1.4 output, it consists of 4 data lanes, support 1.62, 2.7, 5.4 or 8.1Gbps link speeds. The build in optional SSC function reduces EMI effect.

In order to be adaptable to the latest USB Type C system, LT6711GX integrates a high performance bi directional Super Speed controlled by CC logic and PD management unit to relieve mobile system design complexity and BOM cost.

The LT6711GX is fabricated in advanced CMOS process and implemented in 10mmx10mm QFN88 package. This package is RoHS compliant and specified to operate from 40°C to +85°C.

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