LT86101UXE --- Product Brief

Features

- HDMI 1.4/2.0 specifications compliant
- Support 3D video formats and 4Kx2K extended resolution formats up to 6.0Gbps data rate
- Supports 8/10/12bit deep color
- Supports 4K2K video up to 60Hz frame rate
- Supports all video format which is compliant with HDMI2.0/1.4 specification
- Adaptive equalization and de-emphasis to compensate long cable losses
- ODTs and calibration
- Unlimited cascading for more output ports or signal repeating
- Jitter cleaning PLL for better performance
- DC/AC coupled signal input/output
- No external crystal is needed
- Packaged in QFN64 7.5mm x 7.5mm

Description

The Lontium LT86101UXE HDMI2.0/DVI Repeater features a high speed repeater compliant with HDMI2.0/1.4 specification, max 6Gbps high speed data rate, adaptive equalization RX input and pre-emphasized TX output to support long cable application, no XTAL on board to save BOM cost, internal TX lane swap for flexible PCB routing .

LT86101UXE HDMI2.0/DVI Repeater automatically detect the cable loss, and adaptively optimize the equalization setting. The CDR cleans the input data jitter, make it suitable for long cable and cascade application. It support RX termination resistor calibration to further improve signal integrity. Also, several devices can be cascaded to extend cable reach without degrading signal fidelity. The transmitter supports configurable transmit de-emphasis so that the output can be optimized for driving additional lengths of cables or FR4 traces.

This package is QFN64 7.5mmx7.5mm. It operates from í40°C to +85°C.

Applications

- Multiple display/TV support
- DVI/HDMI cable-extender modules
- Cable assemblies
- TMDS cable equalizer

Figure 1. Application Diagram