

LT86101X --- Product Brief

HDMI1.4/2.0 Re-driver and DP++ to HDMI Level Shifter

1. Features

- Compliant to HDMI1.4b /2.0 Standard for Both Input and Output
- Support Dual-mode DisplayPort Standard for Input
- Support up to 6Gb/s Data Rates
- Integrate DDC Interception
- Programmable Input Equalization
- Programmable Output Swing and De-emphasis
- Support AC Coupled Interface Only
- Internal MCU and Flash for Online Firmware Upgrade
- Support External I2C Debug
- 1.8V/3.3V Power Supply
- Packaged in 5mmx5mm QFN40

2. General Description

LT86101X is a deeply-optimized HDMI re-driver and DP++ to HDMI level shifter IC that enhances TMDS signal quality by performing cable or board trace loss compensation. LT86101X can be configured to work under HDMI1.4b with

up to 3.4Gb/s data rate or HDMI2.0 standard with maximum 6Gb/s data rate to allow for the highest resolutions of 4Kx2K 60Hz or 1080P with higher refresh rates.

The input receiver of LT86101X implements a multi-level programmable linear equalizer that can support maximum 20dB 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.

LT86101X is fabricated in advanced CMOS process and implemented in a small outline 5mmx5mm QFN40 package. This package is RoHS compliant and specified to operate from -40°C to +85°C.

3. Applications

- Digital TV and Blu-ray DVD Player
- Digital Projector and LCD Display
- PC, Notebook and All-in-Ones Computer
- Home Entertainment System
- HDMI Cable Extender



Figure 3.1 LT86101X Typical Application Diagram

4. Ordering Information

Table 4.1 Ordering Information

Part Number	Product Version	Product Status	Operating Temperature Range	Package	Packing Method	MPQ
LT86101X	U1	MP	-40°C to +85°C	QFN40 (5*5)	Tray	4900pcs

MP: Mass Production.

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