

LT86101UX --- Product Brief

HDMI/DVI Repeater

Features

- z Compatible with HDMI 1.4, supports 3.4Gbps data rate
- z Supports 3D video formats and 4Kx2K extended resolution formats
- z Adaptive receive equalization up to 40dB to compensate for long/cheap cable losses
- z ODTs and calibration for better signal integrity
- z Separate ODT supply for AC-coupled applications
- z Configurable transmit de-emphasis up to -9dB to pre-compensate signal distortion
- z Integrated back-termination to improve output signal quality
- z 5V-tolerant DDC buffer
- z Extends cable length as follows: (RX-side + TX-side)
 - f Up to (55m + 20m) over 26 AWG STP HDMI cable @ 1.65Gbps
 - f Up to (35m + 20m) over 26 AWG STP HDMI cable @ 2.25Gbps
 - f Up to (25m + 15m) over 28 AWG STP HDMI cable @ 1.65Gbps
 - f Up to (15m + 10m) over 28 AWG STP HDMI cable @

- 2.25Gbps
- z Cascadable for further cable reach
- z Dual control modes for flexible applications
- z Link activity detection to enable squelch option
- z Power dissipation of 0.75W typical
- z ESD rating: HBM at ±6kV
- z 7mm x 7mm 48-pin QFN lead-free package

Description

LT86101UX is Lontium's 4th generation HDMI/DVI repeater based on ClearEdge • Technology, compliant with the HDMI 1.4 (High Definition Multimedia Interface) specification. It is a 10.2Gbps (3 x 3.4Gbps) high performance re-clocking device that supports 3 TMDS data channels and a single clock channel.

Applications

- z TMDS cable equalizer
- z HD televisions and displays
- z DVI/HDMI cable-extender modules
- z Cable assemblies



Figure 1. Application Diagram

Ordering Information

Part Number	Operating Temperature Range
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