LT87101 --- Product Brief

DP1.2 Re-driver

1. Features

Compliant to VESA DP1.2 Standard
Support up to 2.7Gb/s Data Rates
Integrate AUX Interception
Programmable Input Equalization
Programmable Output Swing and De-emphasis
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

LT87101 is a deeply-optimized DP1.2 re-driver IC that enhances DP signal quality by performing cable or board trace loss compensation. The device complies with VESA DisplayPort Standard 1.2 and supports a 1-, 2- or 4-lane main link interface signaling RBR 1.62Gb/s and HBR 2.7Gb/s per lane.

The input receiver of LT87101 implements a multi-level programmable linear equalizer, supporting up to 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 5.1dB pre-emphasis. A build-in AUX interception block monitors AUX channel and automatically adjust equalizing and signaling levels in response to DP Link Training Commands.

LT87101 internally integrates an 8-bit OCM and flash memory (stacked die) to configure and run program. Online software upgrade is also supported for LT87101.

The LT87101 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

PC, Notebook, All-in-Ones Computer and Docking
Graphic Cards and Monitors
Home Entertainment and DP Cable Extender

4. Ordering Information

Table 4.1.1 Ordering Information

Part No.	Operating Temp. Range	Package	Packing
LT87101	-40 to +85	QFN40 (5*5)	Tray

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