

# LT8511EX --- Product Brief

## HDMI /DP to VGA/PbPr Converter

### Features

- On-chip HDMI and dual-mode DP receiver with Equalizer, supports 4Kx2K, 1920x1200 and 1080p 8/10/12bit deep color, up to 3.4GHz data ratio.
- On chip receiver core which is compliant with HDMI1.4 specification.
- On chip HDCP engine which is compliant with HDCP1.4 spec.
- HDCP key stored in MCU for BOM cost reduction.
- Supports analog video output (VGA or YPbPr) up to 4Kx2K, 1920x1200, and 1080p with three on chip DAC.
- On-chip audio decoder which supports 2-channel IIS and SPDIF audio outputs.
- Support audio soft mute.
- On chip YCC422 to YCC444 conversion.
- On chip YCC to RGB and RGB to YCC conversion in ITU-R BT.601 and 709 color space.
- Support separate sync output and SOG/SOY.
- Flexible interrupt registers with interrupt pin.
- Link on and Valid DE detection.
- Offered in 64-pin QFN package, and operates over -40°C to +85°C temperature range.

### Description

LT8511EX is a low cost high performance single port HDMI and dual-mode Displayport receiver which is compliant with HDMI 1.4. The RX can receive 4Kx2K(1080p 8/10/12bit deep color, up to 3.4GHz data ratio) input. Besides it supports analog video-output(VGA or YPbPr) up to 4Kx2K, 1920x1200, and 1080p with three high resolution DACs. The chip integrates dual-mode receiver front end with equalizer, HDMI core and HDCP engine in a single chip.

## Applications

- Mobile Phone
- Tablet/Pad
- Ultra book
- Home Game Console
- PC/Graphic Card

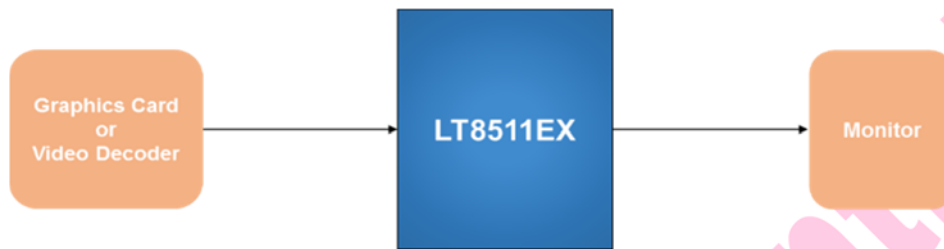


Figure 1. Application Diagram

## Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT8511EX	-40° C to +85° C	QFN64 (9*9)	Tape and Reel

**Copyright © 2014、 2017 Lontium Semiconductor Corporation, All rights reserved.**

### **Lontium Semiconductor Proprietary & Confidential**

This document and the information it contains belong to Lontium Semiconductor. Any review, use, dissemination, distribution or copying of this document or its information outside the scope of a signed agreement with Lontium is strictly prohibited.

LONTIUM DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THOSE OF NONINFRINGEMENT, MERCHANTABILITY, TITLE AND FITNESS FOR A PARTICULAR PURPOSE. CUSTOMERS EXPRESSLY ASSUME THEIR OWN RISK IN RELYING ON THIS DOCUMENT.

LONTIUM PRODUCTS ARE NOT DESIGNED OR INTENDED FOR USE IN LIFE SUPPORT APPLIANCES, DEVICES OR SYSTEMS WHERE A MALFUNCTION OF A LONTIUM DEVICE COULD RESULT IN A PERSONAL INJURY OR LOSS OF LIFE.

Lontium assumes no responsibility for any errors in this document, and makes no commitment to update the information contained herein. Lontium reserves the right to change or discontinue this document and the products it describes at any time, without notice. Other than as set forth in a separate, signed, written agreement, Lontium grants the user of this document no right, title or interest in the document, the information it contains or the intellectual property in embodies.

### **Trademarks**

Lontium™ and ClearEdge™ is a registered trademark of Lontium Semiconductor. All Other brand names, product names, trademarks, and registered trademarks contained herein are the property of their respective owners.

**Visit our corporate web page at: [www.lontiumsemi.com](http://www.lontiumsemi.com)**

**Technical support: [support@lontium.com](mailto:support@lontium.com)**

**Sales: [sales@lontium.com](mailto:sales@lontium.com)**