

# LT8619C --- Product Brief

## HDMI to TTL/LVDS Converter

### 1. Features

#### ● HDMI/Dual-mode DP Input Interface

- Compliance with DVI V1.0 and HDMI V1.4
- Support up to 1.65Gbps for DVI
- Support up to 3.4Gbps for HDMI
- Support resolution up to 4Kx2K@30Hz for HDMI
- Support 8/10/12 bit per component (bpc)
- Support HDCP1.4 decryption
- Support On-chip EDID
- Receiver side equalization up to 25 dB

#### ● LVDS Output Interface

- Compatible with VESA and JEIDA standard
- 1~2 configurable port
- Support port swap
- Support maximum data rate 1.05Gbps/lane
- Resolution up to 4Kx2K@30Hz
- Supports 6-bit, 8-bit output

#### ● TTL Output Interface

- Support up to 24-bit RGB or BT656/BT1120 output
- Support both SDR and DDR output
- Support up to 150MHz DDR or 300MHz SDR clock output
- Support both 1.8V and 3.3V output voltage level

#### ● Video and Audio Processing

- Programmable color space conversion (YUV422/YUV444/RGB)
- Advanced dithering logic for 6-bit color depth output
- Optional SPDIF output and 8-channel I2S output

#### ● Miscellaneous

- Support 100KHz I2C slave
- External 25MHz Crystal
- Temperature Range: -40°C to +85°C
- Packaged in QFN76 9mm x 9mm

### 2. General Description

The Lontium's LT8619C is a high performance HDMI/Dual-mode DP receiver chip, compliant with the HDMI 1.4 specification. The TTL output can support RGB, BT656, BT1120 and the output resolution can support up to 4Kx2K@30Hz.

For easy implement of a multi-media system, LT8619C supports 8-channel high quality I2S audio or SPDIF audio output.

### 3. Applications

- Car Entertainment
- Pico Projector
- Smart Projector

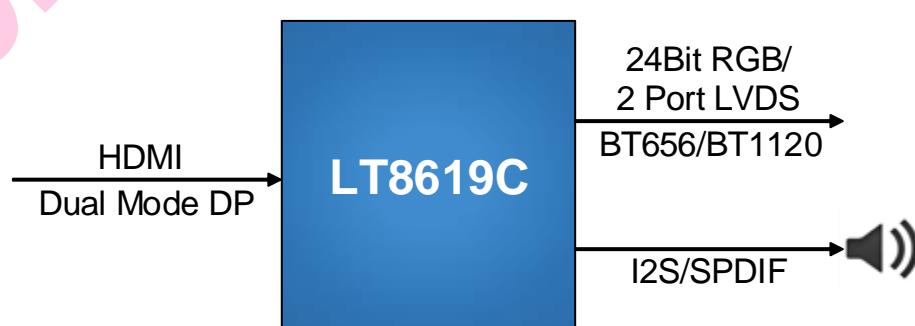


Figure 3.1 Application Diagram

## 4. Ordering Information

Table 4.1 Ordering Information

Part Number	Product Status	Operating Temperature Range	Package	Packing Method	MPQ
LT8619C	MP	-40°C to +85°C	QFN76(9*9)	Tray	2600pcs
LT8619C-AU	MP	-40°C to +85°C	QFN76(9*9)	Tray	2600pcs

**Note:** The suffix -AU denotes that it is an automotive grade device which is qualified by AEC-Q100 grade 3 testing.

LONTIUM CONFIDENTIAL



LT8619C ADVANCE INFORMATION – CONFIDENTIAL AND PROPRIETARY

Copyright © 2016-2024 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 RISH 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™ 龙迅™ 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)