

# LT8918 --- Product Brief

## MIPI DSI/CSI-2 Transmitter

### Features

- **TTL Input**
  - Support 24-bit RGB and BT656/BT1120 Input
  - Support both SDR and DDR Data Sampling
  - Programmable Rising/Falling Edge Clock Input
  - Support up to 74.25MHz DDR or 148.5MHz SDR Clock Input
  - Support both 1.8V and 3.3V Input Voltage Level
- **Single-Port MIPI DSI Transmitter**
  - Compliant with DCS1.02, D-PHY1.1 & DSI1.02
  - 1 Clock Lane and 1~4 Configurable Data Lanes
  - 80Mb/s~1.5Gb/s per Data Lane
  - Resolution Up to 1080P 60Hz
  - Data Lane and Polarity Swapping
  - Both Non-Burst and Burst Video Mode Supported
  - Command Mode through Lane-0 Supported
  - Support RGB666, Loosely RGB666, RGB888, RGB565, 16-bit YCbCr4:2:2, 24-bit YCbCr 4:2:2 Video Format
- **Single-Port MIPI CSI-2 Transmitter**
  - Compliant with D-PHY1.1 & CSI-2 1.0
  - 1 Clock Lane and 1~4 Configurable Data Lanes
  - 80Mb/s~1.5Gb/s per Data Lane
  - Resolution Up to 1080P 60Hz
  - Data Lane and Polarity Swapping
  - Support RGB565, RGB666, RGB888, 8-bit YUV422 Video Format
- **Miscellaneous**
  - 1.8V Single Supply Power
  - Support 100KHz and 400KHz I2C slave
  - External 25MHz Crystal Reference Clock
  - Temperature Range: -40°C to +85°C

- Packaged in QFN64 7.5mm x 7.5mm and BGA81 5mm x 5mm

### Description

The Lontium LT8918 is a high performance MIPI DSI/CSI-2 transmitter for mobile display panel or camera application.

The TTL input of LT8918 supports both 24-bit RGB and BT656/1120 video format under either SDR or DDR sampling. The maximum input pixel clock frequency is SDR 148.5MHz or DDR 74.25MHz for 1080P@60Hz high-end mobile display or video capture application.

For MIPI DSI/CSI-2 output, LT8918 features a single port MIPI DSI or CSI-2 transmitter with 1 high-speed clock lane and 1~4 configurable high-speed data lanes operating at maximum 1.5Gb/s/lane, which can support a total bandwidth of up to 6Gb/s. LT8918 supports both Non-Burst and Burst DSI video data transferring, as well as Command Mode through Lane-0.

The LT8918 is fabricated in advanced CMOS process and implemented in a small outline 7.5mmx7.5mm QFN64 package. This package is RoHS compliant and specified to operate from -40°C to +85°C.

### Applications

- Mobile systems
- Cellular handsets
- Digital video cameras
- Digital still cameras
- Tablet PC, Notebook PC
- Car Display and Camera System

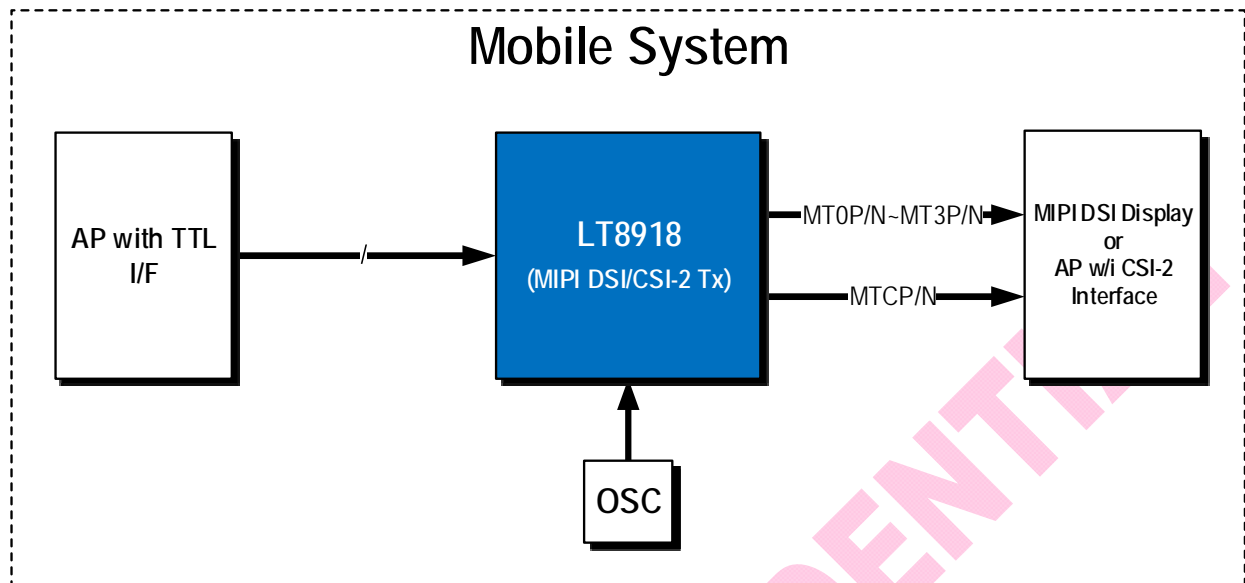


Figure 1. Typical Application and System Diagram

## Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT8918	-40° C to +85° C	QFN64 (7.5*7.5)/BGA81 (5*5)	Tray

**Copyright © 2016-2017 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™ 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)**