LT8918L --- Product Brief

Dual-Port LVDS to MIPI DSI/CSI-2 Bridge

Features

- **Single/Dual-Port LVDS Receiver**
  - Compatible with VESA and JEIDA standard
  - 1~2 configurable port
  - 1 clock lane and 1~5 data lanes per port
  - Data lane and polarity swapping
  - Support Maximum Data Rate 1.2Gb/s/lane
  - Resolution up to 1080P 60Hz for dual-port mode
  - Input color depth supports 6-bit, 8-bit and10-bit
  - Support input De-SSC (30kHz +/- 5%)
- **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
  - Support SPI 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 LT8918L is a high performance Dual-Port LVDS to MIPIDSI/CSI-2 bridge chip between AP and mobile display panel or camera.

LT8918L can be configured as single-port or dual-port with optional De-SSC function. The bridge deserializes input LVDS data, decodes packets and converts the formatted video data stream to MIPIDSI/CSI-2 transmitter output.

For MIPI DSI/CSI-2 output, LT8918L 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. LT8918L supports both Non-Burst and Burst DSI video data transferring, as well as Command Mode through Lane-0.

The LT8918L is fabricated in advanced CMOS process and implemented in a small outline 7.5mm x 7.5mm 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

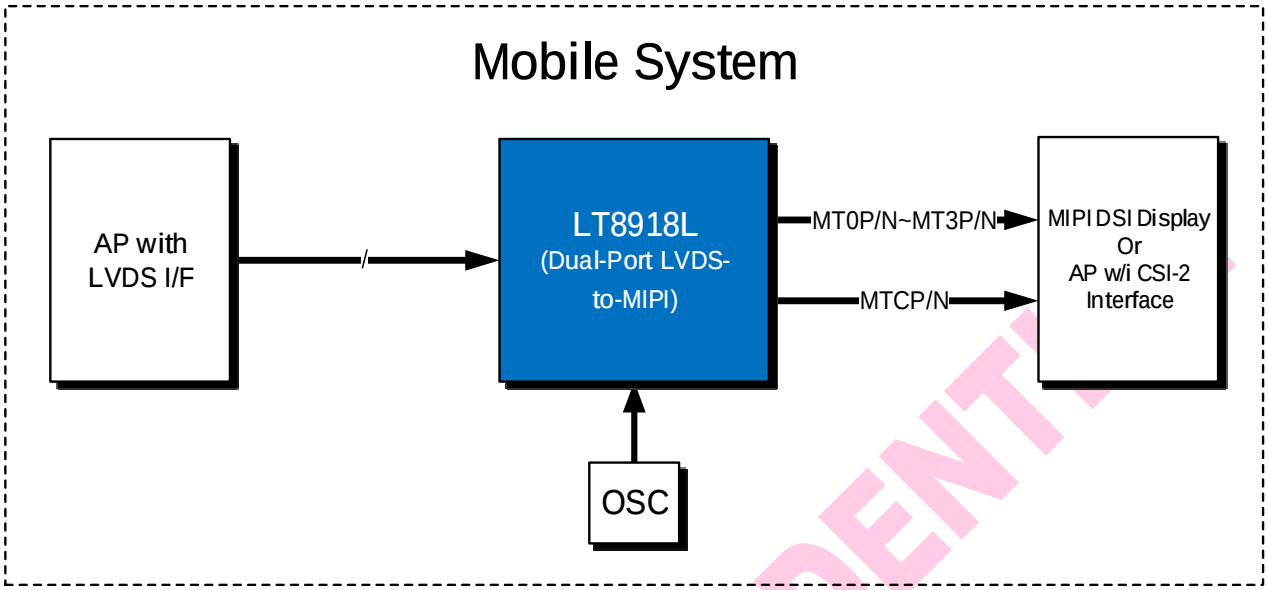

Figure 1. Typical Application and System Diagram

Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT8918L	-40° C to +85° C	QFN64 (7.5*7.5)/BGA81 (5*5)	Tray

Visit our corporate web page at: www.lontiumsemi.com
Technical support: support@lontium.com
Sales: sales@lontium.com