

# LT8912 --- Product Brief

## Single-Channel MIPI® DSI Bridge to LVDS/HDMI/MHL

### Features

- **One-Channel MIPI® DSI Receiver**
  - Compliant with D-PHY1.1 and DSI1.02
  - 1 clock lane and 1~4 configurable data lanes
  - 80Mb/s~1.5Gb/s per data lane
  - Data lane swappable and polarity swappable
  - Internal Rterm calibration w/i less than 5% error
  - 2-bit programmable equalization
  - Only Non-Burst Mode supported
- **One-Channel LVDS Transmitter**
  - 1 clock lane and 4 data lanes
  - Maximum 1.0Gb/s per data lane
  - Reduced output swing for low EMI
- **HDMI/MHL Transmitter**
  - Compliant with HDMI1.4 and MHL2.0 standard
  - Up to 60Hz 1080p 8-bit HDMI output
  - Up to 60Hz 720p 8-bit MHL output
  - 7-bit automatic or manual output swing calibration
  - 3-bit programmable de-emphasis
  - Support Hot-Plug Detect
  - No DDC and HDCP support for LT8912
- **Miscellaneous**
  - Support scaler function for MIPI to LVDS bridge
  - Single 1.8V supply power
  - Temperature range: -40°C ~ +85°C
  - Packaged in both 12x12mm LQFP80 and 7.5mm x 7.5mm QFN64

### Description

The Lontium LT8912 MIPI® DSI to LVDS and HDMI/MHL bridge features a single-channel MIPI® D-PHY receiver front-end configuration with 4 data lanes per channel operating at 1.5Gbps per data lane and a maximum input bandwidth of 6Gbps.

The LT8912 is fabricated in advanced CMOS process and implemented in both 12mm x 12mm LQFP at 0.5mm pitch package and 7.5mm x 7.5mm QFN at 0.4mm pitch package. These packages are RoHS compliant and specified to operate from -40°C to +85°C.

## Application

Mobile systems	Digital still cameras
Cellular Handsets	Personal Media players
Digital video cameras	Gaming

## Block Diagram

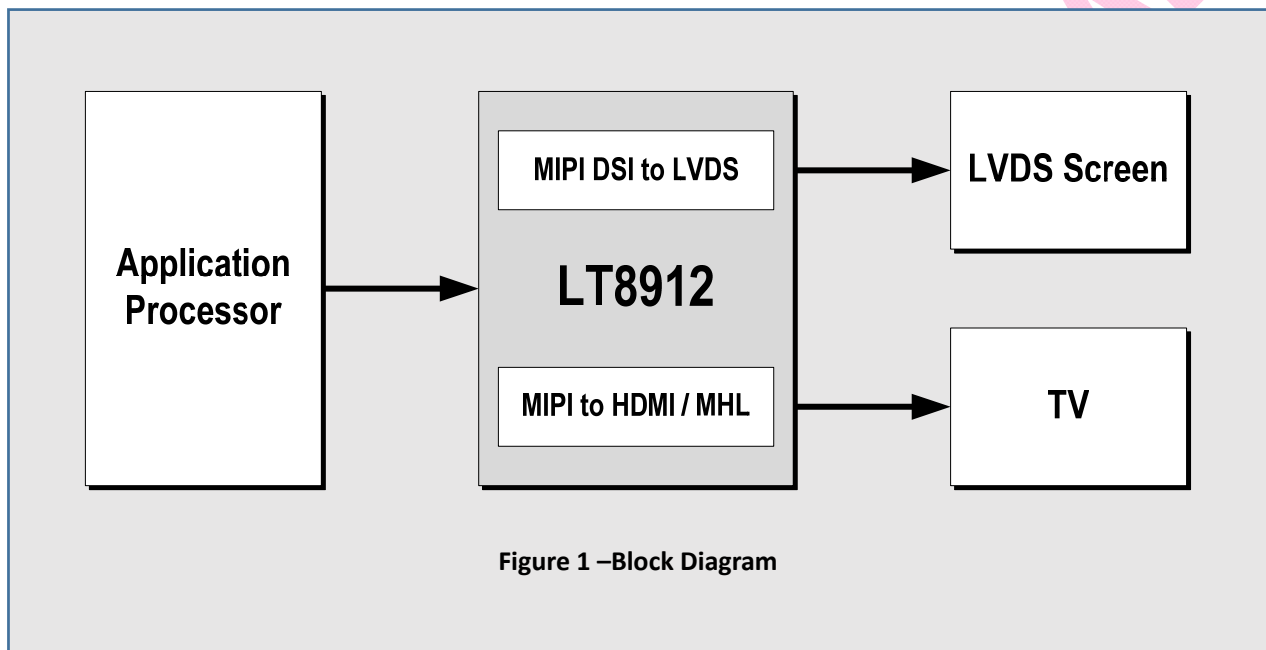


Figure 1 –Block Diagram

## Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT8912	-40° C to +85° C	12mm x 12mm LQFP80	Tape and Reel

Part Number	Operating Temperature Range	Package	Packing Method
LT8912B	-40° C to +85° C	7.5mm x 7.5mm QFN64	Tape and Reel

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

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