

# LT9721 --- Product Brief

## HDMI to eDP

### 1. Features

#### ● HDMI1.4 Receiver

- Support maximum 3.4Gbps input data rate
- Support 3D Video Data Stream as specified in HDMI1.4
- Support DDC Slave for EDID
- Support Resolution up to 4Kx2K@30Hz for RGB
- Support Hot-Plug Detect
- No HEAC and CEC Support

#### ● eDP1.4 Transmitter

- Compliant to VESA eDP1.4 Standard
- Support 4 Lanes with 1.62Gbps (RBR), 2.7Gbps (HBR) Data Rate
- Support 18/24-bit RGB
- Support Hot-Plug Detect
- Support Backlight Control for Screen Application
- Optional SSC 0.5% Down-Spreading Output
- Configurable Output Swing Internal Rterm Calibration with Less than 5% Error

#### ● Miscellaneous

- 1.8V/3.3V Dual Supply Power
- External 25MHz Crystal Reference Clock
- Temperature Range: -40°C to +85°C
- Packaged in 7.5mm x 7.5mm QFN64

### 2. General Description

The Lontium LT9721 is HDMI to eDP converter.

LT9721 features a HDMI1.4 receiver with 1 clock lane and 3 data lanes operating at maximum 3.4Gbps per data lane and a maximum input bandwidth of 10.2Gbps, allowing resolution up to 4Kx2K@30Hz for RGB format. The converter also integrates a DDC controller. The converter decodes the input 18/24-bit RGB packets and converts the formatted video data stream to a 4-lane eDP1.4 compliant output, supporting RBR(1.62Gbps) and HBR(2.7Gbps) link speeds. The build-in optional SSC function reduces EMI effect on EMI-concerned system application.

The LT9721 is fabricated in advanced CMOS process and implemented in 7.5mm x 7.5mm QFN64 package. This package is RoHS compliant and specified to operate from -40°C to +85°C.

### 3. Applications

- Notebook
- Advertising machine
- Cash register



Figure 3.1 Application Diagram

## 4. Ordering Information

Table 4.1 Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method	MPQ
LT9721	-40°C to +85°C	QFN64 (7.5*7.5)	Tray	2600pcs

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