

LT8522EX --- Product Brief

Matrix Switch

1. Features

- Direct interface to DVI 1.0 and HDMI V1.4 transmitter
- Support Dual-Mode DP on the same pins with HDMI
- Support resolution up to 4kx2k
- Multiple pixel formats: RGB 6/8/10/12 bit per component (bpc); YCbCr 422/444 8/10/12 bpc
- Compliance with DVI up to 1.65Gbps and HDMI V1.4 up to 3.4Gbps
- HDCP decryption and encryption
- On-chip VGA HDMI EDID shadows
- High input sensitivity, with differential input level down to 150mV
- Receiver side equalization up to 12dB
- Auto Loss of Signal detection
- High jitter tolerance up to 0.7UI
- External IIC slave configuration interface
- Master I2C interface for DDC connection simplifies board layout and lowers cost

- Embedded audio PCM and SPDIF TX and RX.
- Extensive power management for power savings
- Supports analogue video output up to UXGA and 1080p on chip DAC

2. General Description

The LT8522EX is Lontium's matrix switch chip that supports both two inputs (VGA and HDMI) and two outputs (VGA and HDMI) based on ClearEdge™ Technology.

The HDMI input interface is compliant with the HDMI 1.4 specification. It can also support Dual-Mode DP with HDMI interface. For backward compatibility, this matrix switch also includes two high performance analog interfaces (VGA input and VGA output). It has two high quality digital audio interfaces (audio input and audio output) that support 8-channel audio.

The LT8522EX is offered in a 100-pin TQFP package, with operating temperature range of -40°C to +85°C.

3. Applications

- Matrix Switch Box
- VGA to HDMI converter
- HDMI to VGA converter
- Etc.

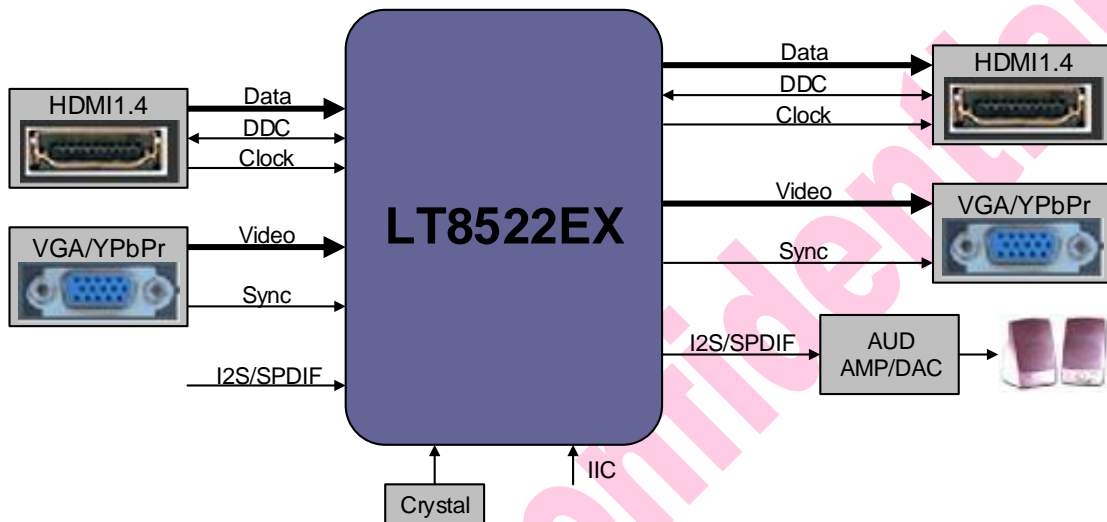


Figure 3.1 Application Diagram

4. Ordering Information

Table 4.1 Ordering Information

| Part Number | Operating Temperature Range | Package | Packing Method |
|-------------|-----------------------------|-----------------|----------------|
| LT8522EX | -40° C to +85° C | TQFP100 (14*14) | Tray |

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