

LT8522EX --- Product Brief

Matrix Switch

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

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.

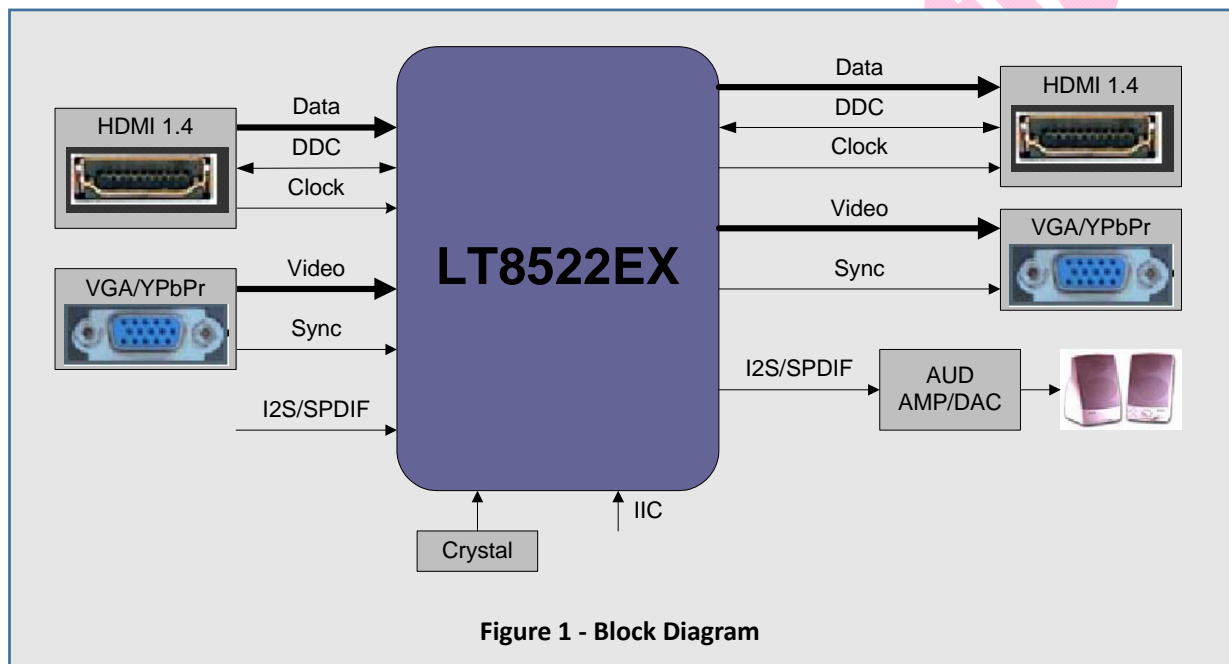
The HDMI input interface is compliant with the HDMI 1.4 (High Definition Multimedia Interface) specification. It can also support Dual-Mode DP with HDMI interface. For backward compatibility, this matrix switch also includes two high performance analog interfaces (VGA input and VGA output). It has two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

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

Application

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

Block Diagram



Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT8522EX	-40° C to +85° C	LQFP100	Tape and Reel

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 it embodies.

Trademarks

Lontium™ and ClearedEdge™ 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

Technical support: support@lontium.com

Sales: sales@lontium.com