

Analog Multiplexer and Digital-to-Analog Converter Chip

Description

The EM9038 enables the display of video (digital YCbCr) or graphics (analog RGB), making it ideal for applications requiring switching between two sources of data, such as MPEG video and VGA graphics.

Features include three high-speed 8-bit videoDACs, a high speed YCbCr to RGB color space converter, an analog multiplexer, three analog video output buffers, a digital output buffer for S/PDIF, a 27 MHz oscillator with integrated VCXO for fine tuning, and a fully programmable PLL.

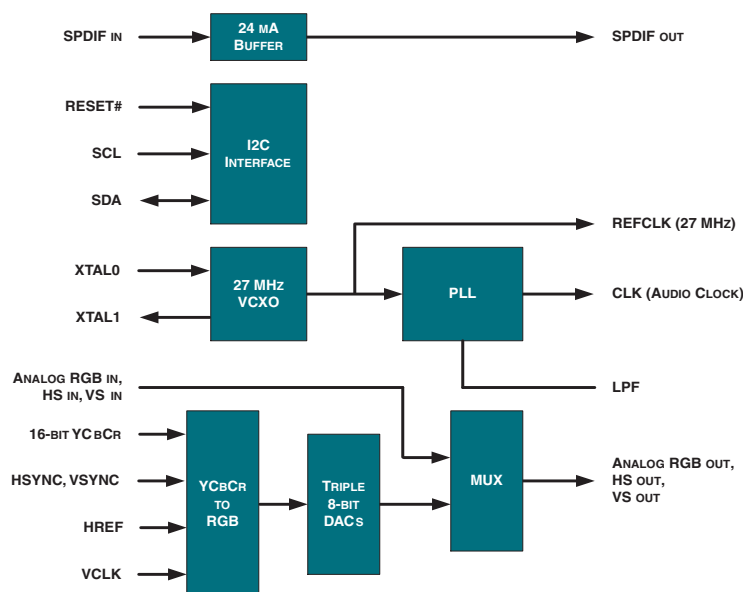
A 16-bit digital video input port supports 4:2:2 YCbCr video at up to 80 MHz. An internal color space converter translates the YCbCr video data to RGB before driving the three 8-bit videoDACs.

A high-bandwidth VGA pass-through mode allows support for high-resolution graphics modes without visible degradation.

Features

- CCIR 601 4:2:2 16-bit YCbCr Input Format Support (up to 80 MHz)
- YCbCr to RGB Color Space Conversion
- Integrated Triple 8-bit VideoDACs with Buffers Support 16.8M Colors
- High-Bandwidth Analog RGB VGA Pass-through
- Internal 27 MHz Oscillator with Fine Frequency Tuning
- Internal Programmable Audio Clock Generation
- I2C Interface to Access Internal Registers
- +5V Power Supply, 64 -pin PQFP

Block Diagram



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