

Product Brief

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SDA 9402

Powerful Scanrate Converter Including
Multistandard Color Decoder

Potential Application

The SDA 9402 is a new component of the Infineon MEGAVISION® IC set for building low cost TV sets

- 100/120 Hz interlaced TV sets

Data Acquisition

- 7 x CVBS inputs or 3 x CVBS and 2 x Y and 2 x C inputs, respectively
- 3 CVBS outputs (even with Y/C input)
- 2 x RGB+FBL inputs or 2 x YUV inputs respectively
- Two 9-Bit A/D converters for sampling of Y/C or CVBS
- Four 8-Bit A/D converters for sampling of RGB and FBL
- Digital Multistandard Color Decoder for PAL/NTSC/SECAM with automatic standard detection
- Mixing or 1f_H RGB signals ('SCART') with CVBS channel

Noise Reduction

- Motion-adaptive and temporal noise reduction
- Flexible programming of the temporal noise reduction characteristics
- Automatic measurement of the noise level

Embedded DRAM Core for Field Memory, 4:2:2 Format

Flexible Clock and Synchronization Concept

- Display Raster locked to incoming signal or free-running

Scan Rate Conversion

- Simple 100/120 Hz interlaced scan conversion (e.g. AABB, AAAA)

Flexible Compression and Expansion of the Input Signal

- Horizontal compression and expansion for 4:3 and 16:9 tubes
- panorama effect with five zones
- support of split-screen applications (PiP/TXT processor necessary)

High Performance Display Processing

- Peaking, Chrominance Transient Improvement (CTI)
- Flexible Output Sync Controller
- Three 9-Bit D/A converters (two-fold oversampling)

Signal Manipulations

- Insertion of colored background
- Vertical and/or horizontal windowing with four different speed factors
- Still field

Pin compatible to other devices of the scan rate converter single-chip-family

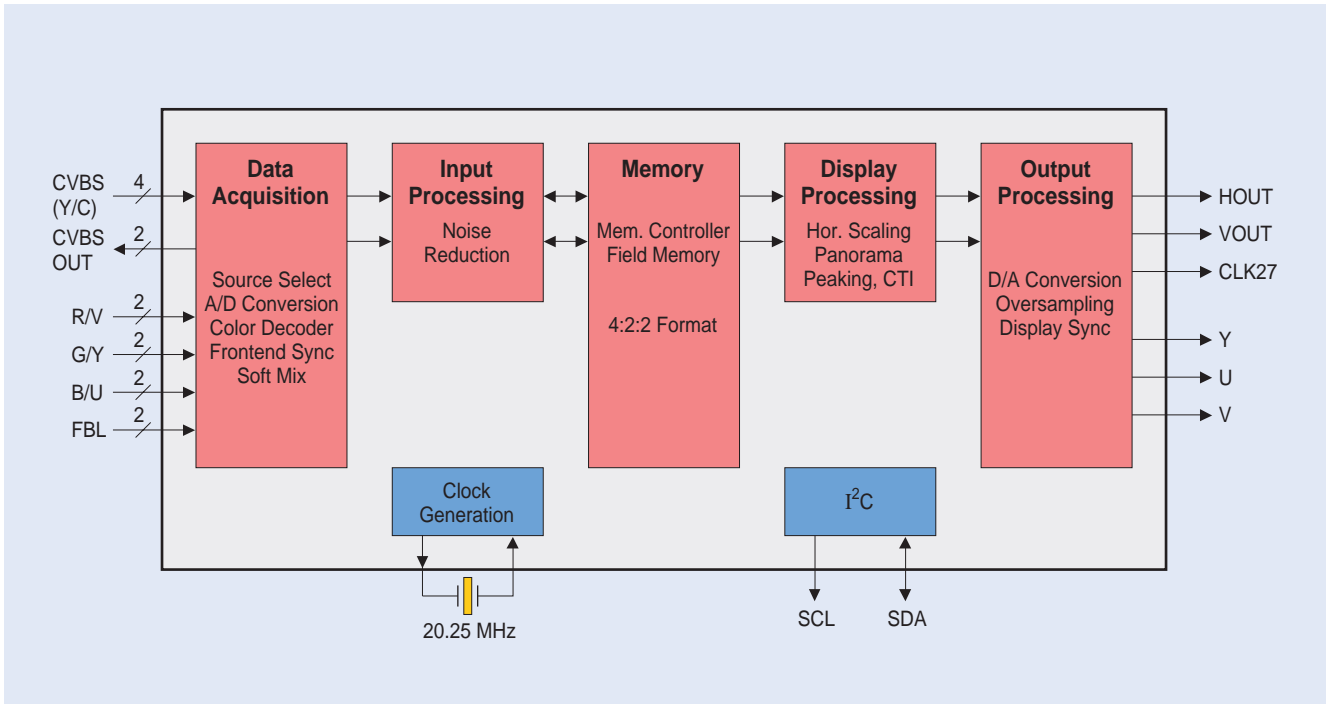
Technical Data

- I²C-Bus control (400 kHz)
- P-MQFP-80 package
- 3.3 V and 1.8 V (± 5%) supply voltages
- 0.18 μm eDRAM CMOS technology
- 4:2:2 processing



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The SDA 9402 is a Single Core IC for 100 Hz Conversion



The SDA 9402 contains all necessary functional blocks on a single chip:

- A/D converters, D/A converters, clock generation, input switch
- Multistandard color decoder (PAL / NTSC / SECAM)
- 50 / 60 Hz RGB input with fast-blank
- Horizontal scaler
- Noise reduction
- Memory controller and embedded memory
- Display processing

Availability

The SDA 9402 and a complete documentation will be available in Q1 2000. Mass production is scheduled for Q3 2000.

A dedicated engineering support team is there to assist you. Also an application board is available. Please contact your local Infineon office for further details.

How to reach us:
<http://www.infineon.com>

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Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office in Germany or our Infineon Technologies Representatives worldwide (see address list).

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SDA 9402 Application Overview

