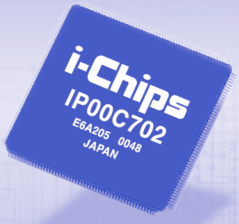


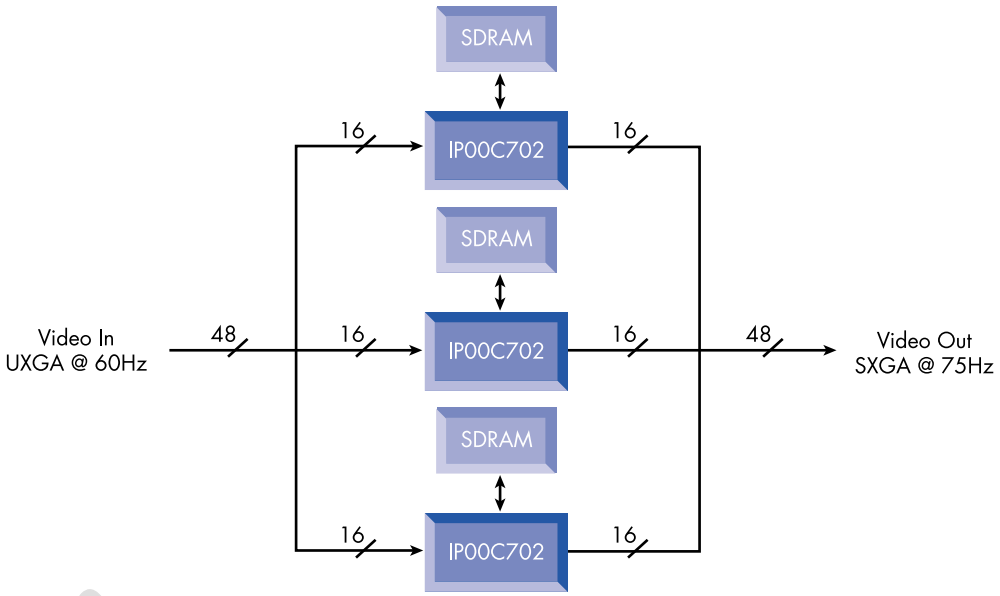
IP00C702 (SCREEN2)

Image Scaling Device

General Description

The IP00C702 (SCREEN2) is a high-speed device for real-time image scaling and frame rate conversion up to SXGA resolution. The IP00C702 supports all the critical functions required in any display control logic: image scaling, frame rate conversion and de-interlacing. Ideally suited for high-speed resolution conversion applications, the IP00C702 uses a programmable pixel interpolation algorithm for producing images of the highest quality.

The IP00C702 can be used in a wide variety of applications, thanks to its very flexible architecture that supports both standard and custom image formats. With independent clock and synchronization signals for the input and output ports, the IP00C702 can perform image scaling even when the input and output images have different frame rates.

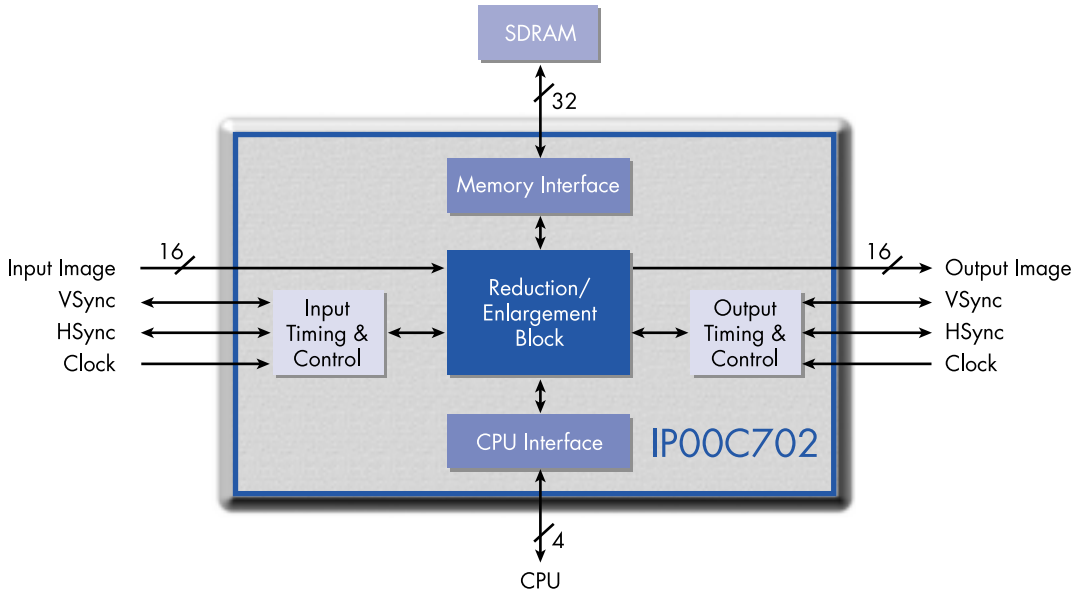


Applications

- Flat-Panel Displays
- Projection Systems
- Video Walls
- Plasma Displays
- Scan Converters

Support Tools

- IP00C702 Data Sheet and Application Notes
- EVB702AD Evaluation Board
- Example register settings for typical operating modes
- Technical Support by highly qualified engineers



IP00C702 Features

Input Image Formats

- 16-bit (2 pixels/clock) at 170 Mpixels/sec.
- 8-bit (1 pixel/clock) at 85 Mpixels/sec.
- Interlaced or non-interlaced
- External or internal synchronization (HSync, VSync)

Output Image Formats

- 16-bit (2 pixels/clock) at 140 Mpixels/sec.
- 8-bit (1 pixel/clock) at 70 Mpixels/sec.
- External or internal synchronization modes (HSync, VSync)

Scaling

- Independent horizontal and vertical scaling ratios
- Interpolation algorithm based on the 4 adjacent pixels
- Programmable interpolation coefficients

Image Memory

- SDRAM or SGRAM external frame memory
- 32-bit wide memory bus
- 128 Mbytes of addressable image memory
- Direct access to image memory from the CPU

Frame Rate Conversion

- Asynchronous operation of the input and output ports
- Frame synchronization function to avoid frame tearing

Other Features

- 4-color OSD support

CPU Interface

- 4-wire serial bus

Power Supply Voltage

- 3.3V single source

Package

- PQFP-144 pins (0.5 mm pitch)

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